

TABLE OF CONTENTS

Introduction to SYSTIMAX® Solutions	3
Introduction to the SYSTIMAX Solutions™ Catalog	4
Copper Solutions	7
Reference Material	8
Copper Conductor Sizes	8
Pair Colors	8
ISO Pin-Pair Assignment	9
T568 Outlet Specifications	10
Patch Cord Order Process	11
GigaSPEED® X10D Solution (Exceeding Category 6A)	13
Channel Performance	14, 26
Cables	15, 27
Patch Panels	18, 29
Outlets	22, 30
Cords	24, 31
GigaSPEED® XL Solution (Exceeding Category 6)	32
Channel Performance	33
Cables	34
Patch Panels	38
Outlets	42
Cords	43
PowerSUM Solution (Exceeding Category 5/5e)	46
Channel Performance	47
Cables	48, 56
Patch Panels	51, 59
Outlets	54
Cords	55, 60
InstaPATCH CU	61
VisiPatch® System	63
VisiPatch 360 System	63
VisiPatch System	68
Additional Copper Connectivity	73
Ruggedized	73
Multimedia	75
Category 3	79
110 Hardware	83
110 Tools	90
Adapters	91
Protection Products	94
Coaxial Cable	100
Video	100
Security	105
Fiber Solutions	108
Reference Material	109
Cable and Fiber Color Identification	109
Cable Sizing and Specification	109
Cable Constructions	110
Cable Order Process	116
LazrSPEED® Cables and Cords – 50 micron Laser Optimized Multimode	118
Performance	120

Table of
Contents



Introduction



Copper



Fiber



Intelligent
Infrastructure



Faceplates &
Zone Boxes



Enclosures



Glossary



Index



TABLE OF CONTENTS

Introduction to SYSTIMAX® Solutions	3
Introduction to the SYSTIMAX Solutions™ Catalog	4
Copper Solutions	7
Reference Material	8
Copper Conductor Sizes	8
Pair Colors	8
ISO Pin-Pair Assignment	9
T568 Outlet Specifications	10
Patch Cord Order Process	11
GigaSPEED® X10D Solution (Exceeding Category 6A)	13
Channel Performance	14, 26
Cables	15, 27
Patch Panels	18, 29
Outlets	22, 30
Cords	24, 31
GigaSPEED® XL Solution (Exceeding Category 6)	32
Channel Performance	33
Cables	34
Patch Panels	38
Outlets	42
Cords	43
PowerSUM Solution (Exceeding Category 5/5e)	46
Channel Performance	47
Cables	48, 56
Patch Panels	51, 59
Outlets	54
Cords	55, 60
InstaPATCH CU	61
VisiPatch® System	63
VisiPatch 360 System	63
VisiPatch System	68
Additional Copper Connectivity	73
Ruggedized	73
Multimedia	75
Category 3	79
110 Hardware	83
110 Tools	90
Adapters	91
Protection Products	94
Coaxial Cable	100
Video	100
Security	105
Fiber Solutions	108
Reference Material	109
Cable and Fiber Color Identification	109
Cable Sizing and Specification	109
Cable Constructions	110
Cable Order Process	116
LazrSPEED® Cables and Cords – 50 micron Laser Optimized Multimode	118
Performance	120

Table of
Contents



Introduction



Copper



Fiber



Intelligent
Infrastructure



Faceplates &
Zone Boxes



Enclosures



Glossary



Index



SYSTIMAX® Solutions

CommScope Enterprise Solutions, a division of CommScope, Inc., offers a complete portfolio of network infrastructure solutions that help customers, regardless of size, industry or IT budget to make the most of their installed technology.

The SYSTIMAX® product line offers voice, data, video and converged solutions ranging from mission-critical, high-bandwidth and emerging applications to applications that demand unrelenting reliability and quality for everyday needs.

Backed by CommScope Labs and a 20-year extended warranty, the Enterprise solutions are delivered through CommScope's global network of industry-leading BusinessPartners and distributors that ensure consistent, high-level service and support worldwide.

In addition to helping customers, CommScope is focused on environmental stewardship – one of the company's longtime fundamental values. CommScope's solutions can help customers to minimize energy consumption and long-term waste throughout the network as part of a larger concern for the impact of enterprise technology on the environment. Manufacturing products that last more than 20 years, offering integrated solutions that run on one network, and providing unparalleled vision and control to more efficiently manage existing resources—are all ways that CommScope's solutions contribute to a positive impact on the environment.

The SYSTIMAX Product Line

The SYSTIMAX product line is a leader in the industry for performance and reliability with innovative solutions designed to address the highest priority and most critical global enterprise infrastructure needs. The SYSTIMAX portfolio of fiber, copper and network infrastructure management offerings include the industry-leading SYSTIMAX GigaSPEED® X10D Solution and the intelligence-based SYSTIMAX iPatch® Solution. CommScope's SYSTIMAX products also offer specialized solutions to address the unique needs of intelligent building infrastructure and data center environments. We believe the success of the SYSTIMAX product portfolio has made it the most widely-used and recognized structured cabling brand in the world.

Global Support and Delivery

CommScope's solid global footprint and extensive network of BusinessPartners ensures its customers receive a consistent level of services and support worldwide – providing access to CommScope's extensive product portfolio virtually anywhere at anytime. Another critical aspect of performance is installation and implementation. CommScope's BusinessPartners are among the industry's best network infrastructure implementation solution providers that adhere to the same high standards of expertise, performance, quality and reliability for which CommScope's solutions are known.

From our manufacturing process to the structure of our BusinessPartner Program to our warranty and the employees themselves, CommScope is focused on quality, reliability and performance that benefit our customers.

CommScope, Inc., with headquarters in Hickory, N.C., is a world leader in the design and manufacture of cable and connectivity solutions for communication networks' "last mile," which is the distribution access and final link to the customer.

For more information please visit www.commscope.com.

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Introduction to the SYSTIMAX Solutions Catalog

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Faceplates &
Zone Boxes

Enclosures

Glossary

Index

A premises connectivity system, or distribution system, allows telephones, printers, personal computers (PCs) and other communications devices to communicate with each other. It does this by connecting them together through a combination of cables, adapters, connectors and other equipment such as wireless access points.

A structured connectivity solution is a cohesive way of organizing a connectivity system. The basic rules governing a structured connectivity solution are:

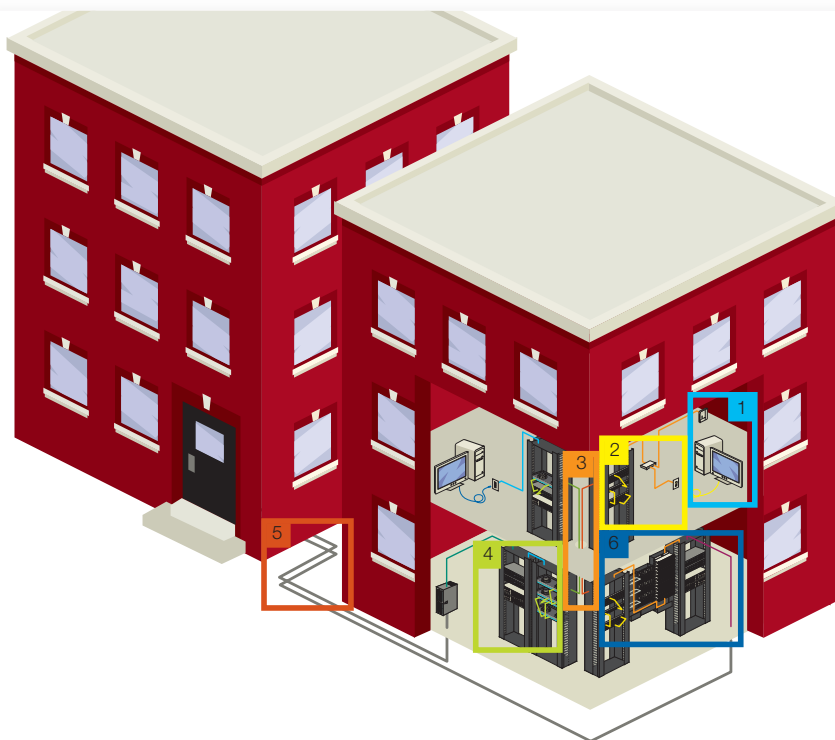
- It uses standardized media and layout for both backbone and horizontal cabling.
- It uses standard connection interfaces for the physical connection of equipment.
- It supports equipment and applications of many vendors — not just a single vendor. The cabling system is independent of the vendor's equipment, and thus, is more flexible. This is known as "Open Architecture."
- It has a consistent and uniform design. It follows a system plan and basic design principles.
- It is designed and installed as a total system. Cabling is not just installed on an as-needed basis.

SYSTIMAX Subsystems

The complete structured connectivity solution can be divided into six discrete subsystems. Each subsystem provides modularity and flexibility; changes and rearrangements usually take place in just two of the subsystems. Configurations for different types of connectivity, for new applications, or for new standards may also involve just a few subsystems.

The following six subsystems, when linked together, provide a complete, integrated connectivity system:

- Work Area Subsystem
- Horizontal Subsystem
- Backbone (Riser) Subsystem
- Equipment Subsystem
- Campus Backbone Subsystem
- Administration Subsystem



- 1 Work area
- 2 Horizontal
- 3 Backbone (Riser)
- 4 Equipment
- 5 Campus backbone
- 6 Administration

Work Area Subsystem

The connection between the Information Outlet (IO) and the station equipment (such as PCs, telephones, printers and video monitors) in the work area is the Work Area Subsystem. It consists of cords, adapters, and other transmission electronics, such as wireless access points, that permit the station equipment to connect to the horizontal media via the IO.

In SYSTIMAX Building Automation Systems, this subsystem is called the Coverage Area Subsystem, and equipment typically includes smoke-, fire-, and temperature-sensing devices.

Horizontal Subsystem

The Horizontal Subsystem covers the distance from the Work Area to the Telecom Closet (TC). It includes the IO and the transmission media used to extend the outlet to the TC. Each floor of a building is served by its own Horizontal Subsystem.

SYSTIMAX supports the use of twisted pair copper cable and/or multimode optical fiber and 8.3 micron single-mode optical fiber in the Horizontal Subsystem. The horizontal wiring is terminated on an IO in the Work Area and on cross-connect or interconnect hardware in the TC. The horizontal wiring shall be a star topology with each Work Area IO connected to a TC.

When twisted pair copper is used, SYSTIMAX requires that individual 4-pair cables be run and terminated at each IO placed in the Work Area. The maximum length of the horizontal cable run is 295 feet (90 meters).

Backbone (Riser) Subsystem

The Backbone (Riser) Subsystem is the portion of the SYSTIMAX that provides the main (or feeder) cable routes in a building. It usually supplies the multiple circuit facilities between two locations, especially where common system equipment is located at a central point. The Backbone (Riser) Subsystem consists of larger pair count copper cables and optical fiber cabling along with the associated hardware used to bring this cable to other locations. For communications within a building, the Backbone (Riser) Subsystem connects TCs to equipment areas. These areas may be a single main equipment room or multiple equipment locations within the building.

Equipment Subsystem

The Equipment Subsystem consists of shared, common communications equipment and the transmission media required to terminate this equipment on connecting hardware.

The Equipment Subsystem is made up of the cable, connectors and associated support hardware in an equipment room. These are used to extend the common equipment circuits to the main cross-connect wall field for connection to the SYSTIMAX network infrastructure solution.

Campus Backbone Subsystem

The Campus Subsystem extends the cabling in one building to communication devices and equipment in other buildings on the premises. It is the portion of the distribution system that includes the transmission media and support hardware required to provide an inter-building communication facility. It consists of copper cable, optical fiber cable, and electrical protection devices that are used to prevent surges on the cable from entering buildings.

Fiber optic cable is often used as the Campus Backbone medium because it is immune to Electromagnetic Interference and Radio Frequency Interference (EMI and RFI) and can extend the distance over which signals can travel between buildings. Typically, the Campus Backbone Subsystem connects buildings in the equipment rooms.

Administration Subsystem

The Administration Subsystem consists of the cross-connects and interconnects that are made to join two subsystems together or to assign common equipment circuits to sub-systems that exist in the TC and equipment areas. Cross-connects and interconnects allow easy administration of common equipment circuits for routing and rerouting to various parts of a building or a campus.

Cross-connects are made with hook-up wire or patch cords. A hook-up wire is a short length of single wire, whereas a patch cord contains several wires and has connectors at both ends. Patch cords provide an easy way to rearrange circuits without the need for the special tools required to install jumper wires. Interconnects accomplish the same purpose as cross-connects but use plug ended wires, jacks and adapters instead of jumper wires or patch cords.

It is recommended that the Administration System use the color coding for circuit labels and the circuit identification parameters outlined in TIA/EIA 606.

This catalog contains all the components to fulfill the requirements of each of the subsystems.

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

SYSTIMAX Structured Connectivity Solutions

- Table of Contents
- Introduction**
- Copper
- Fiber
- Intelligent Infrastructure
- Faceplates & Zone Boxes
- Enclosures
- Glossary
- Index



LazrSPEED/OptiSPEED/TeraSPEED

- 1 Outdoor and indoor/outdoor cables
- 2 Fiber optic LIUs/489 FIU
- 3 Indoor and indoor/outdoor cables
- 4 Equipment frame and cable management solution
- 5 InstaPATCH Plus connectivity solutions
- 6 Plenum, Riser and LSZH indoor cables
- 7 G2 fiber connectivity solution
- 8 Faceplates and multimedia outlet
- 9 Patch/work area cord

fiber

copper

GigaSPEED X10D/GigaSPEED XL/PowerSUM

- | | |
|--|---|
| 1 Protection products | 6 1100/UMP/PATCHMAX patch panels |
| 2 Equipment frame and cable management | 7 Zone boxes |
| 3 VisiPatch System | 8 Outlets and faceplates |
| 4 110 System | 9 Patch/work area cord and media adapters |
| 5 iPatch System | |

Reference Material	8
Copper Conductor Sizes	8
Pair Colors	8
ISO Pin-Pair Assignment	9
T568 Outlet Specifications	10
Patch Cord Order Process	11
GigaSPEED® X10D Solution (Exceeding Category 6A)	13
Channel Performance	14, 26
Cables	15, 27
Patch Panels	18, 29
Outlets	22, 30
Cords	24, 31
GigaSPEED® XL Solution (Exceeding Category 6)	32
Channel Performance	33
Cables	34
Patch Panels	38
Outlets	42
Cords	43
PowerSUM Solution (Exceeding Category 5/5e)	46
Channel Performance	47
Cables	48, 56
Patch Panels	51, 59
Outlets	54
Cords	55, 60
InstaPATCH CU	61
VisiPatch® System	63
VisiPatch 360 System	63
VisiPatch System	68
Additional Copper Connectivity	73
Ruggedized	73
Multimedia	75
Category 3	79
110 Hardware	83
110 Tools	90
Adapters	91
Protection Products	94
Coaxial Cable	100
Video	100
Security	105



Copper Solutions Reference

U/UTP Cable

Copper Conductor Sizes

Gauge	Diameter	DCR	Diameter	DCR
19	0.0359 in	8.05 Ohms/1,000 ft	0.912 mm	26.4 Ohms/km
22	0.0253 in	16.2 Ohms/1,000 ft	0.643 mm	53.2 Ohms/km
23	0.0226 in	20.3 Ohms/1,000 ft	0.574 mm	66.6 Ohms/km
24	0.0201 in	25.7 Ohms/1,000 ft	0.511 mm	84.2 Ohms/km
26	0.0159 in	41.0 Ohms/1,000 ft	0.404 mm	13.5 Ohms/km

Pair Colors

The 4-pair U/UTP cable, pair color combinations are as follows:

Pair Number	1010 Cable Pair Colors		2010 Cable Pair Colors		61, 71, 81, 91 Series Cable Pair Colors	
	(T)ip	(R)ing	(T)ip	(R)ing	(T)ip	(R)ing
1	W-BL	BL-W	W-BL	BL	W	BL
2	W-O	O-W	W-O	O	W	O
3	W-G	G-W	W-G	G	W	G
4	W-BR	BR-W	W-BR	BR	W	BR

The 25-pair U/UTP cable, pair color combinations are as follows:

Pair Number	Colors	Pair Number	Colors	Pair Number	Colors	Pair Number	Colors	Pair Number	Colors
1	BL/W	6	BL/R	11	BL/BK	16	BL/Y	21	BL/V
2	O/W	7	O/R	12	O/BK	17	O/Y	22	O/V
3	G/W	8	G/R	13	G/BK	18	G/Y	23	G/V
4	BR/W	9	BR/R	14	BR/BK	19	BR/Y	24	BR/V
5	S/W	10	S/R	15	S/BK	20	S/Y	25	S/V

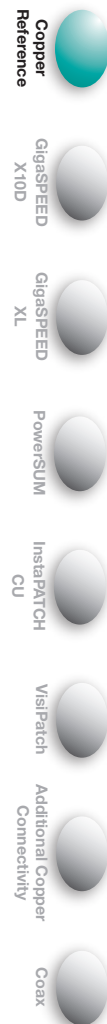
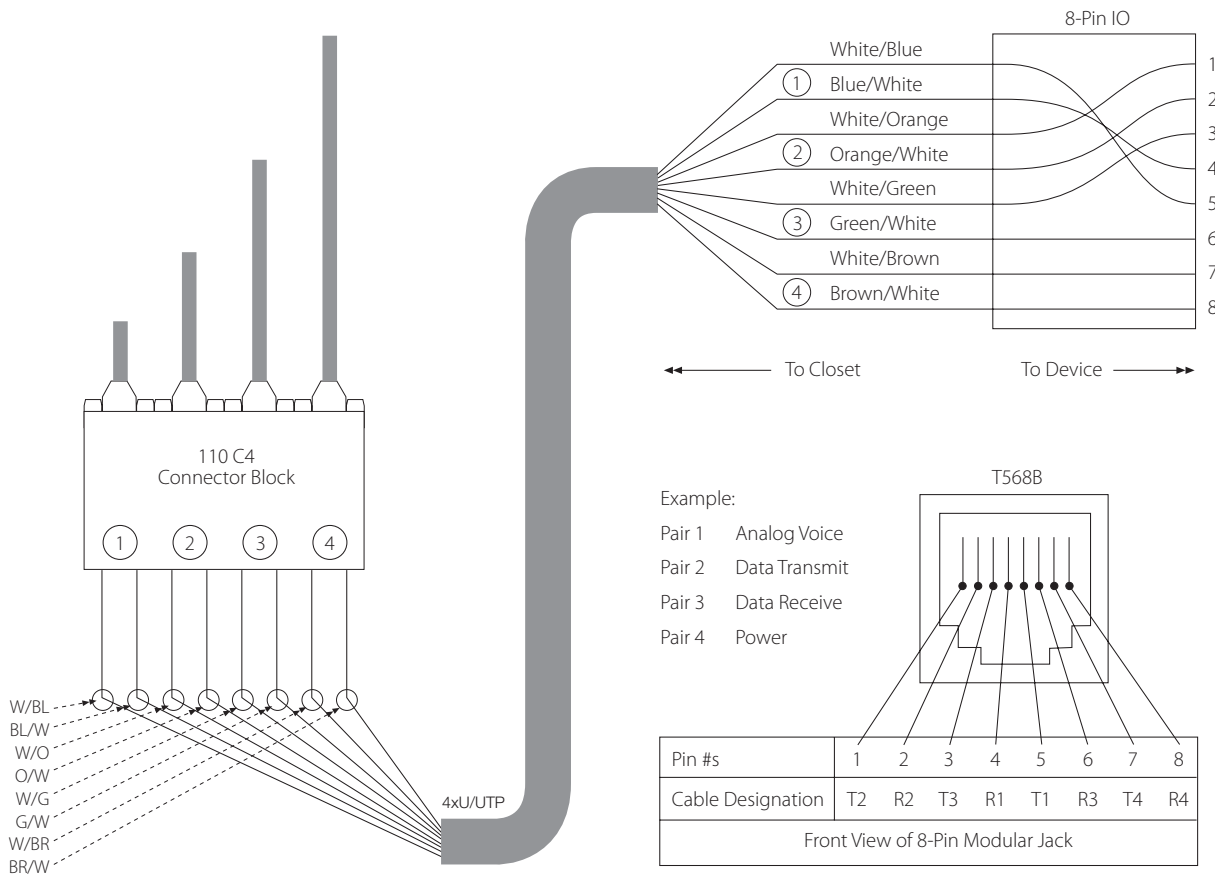
Color Codes:

Black	- BK
Blue	- BL
Brown	- BR
Green	- G
Orange	- O
Red	- R
Slate	- S
Violet	- V
White	- W
Yellow	- Y

Information Outlet

ISO (International Standards Organization) Pin-Pair Assignment

To permit circuit administration at the cross-connections, signals for different services may appear on specified wire pairs. The 8-pin IO is wired internally to make this happen. The 8-pin jack connects particular pins on the station side (the work area wiring) to particular twisted-wire pairs of the building distribution cable (the horizontal wiring).





Copper
Reference



GigaSPEED
X10D



GigaSPEED
XL



PowerSUM



InstaPATCH
CU



VisiPatch



Additional Copper
Connectivity

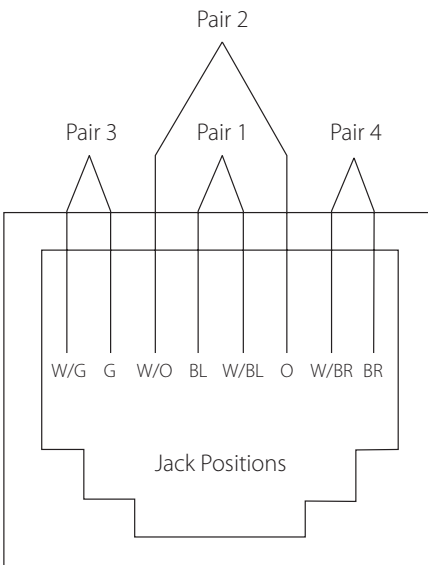


Coax

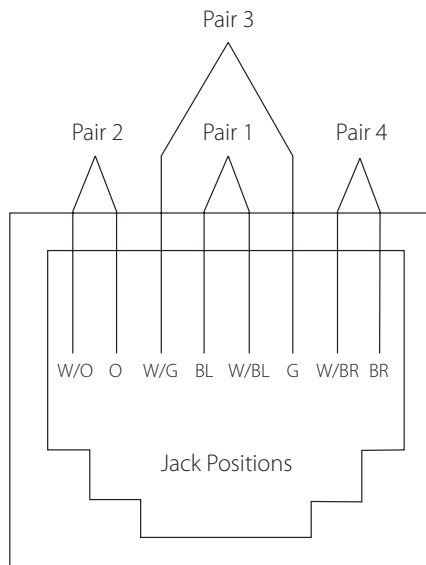
T568 Outlet Specifications

In the TIA/EIA 568B standard, there are two configurations for termination of the 4-pair cable. They are designated T568A and T568B. The T568A wiring has pair 2 (orange) terminated on pins 3 & 6 and pair 3 (green) terminated on pins 1 & 2. The T568B wiring just reverses the termination of the orange and green pairs. Although T568A and T568B wiring is supported for system registration, SYSTIMAX recommends use of the T568B wiring.

T568A PIN-PAIR ASSIGNMENTS



T568B PIN-PAIR ASSIGNMENTS



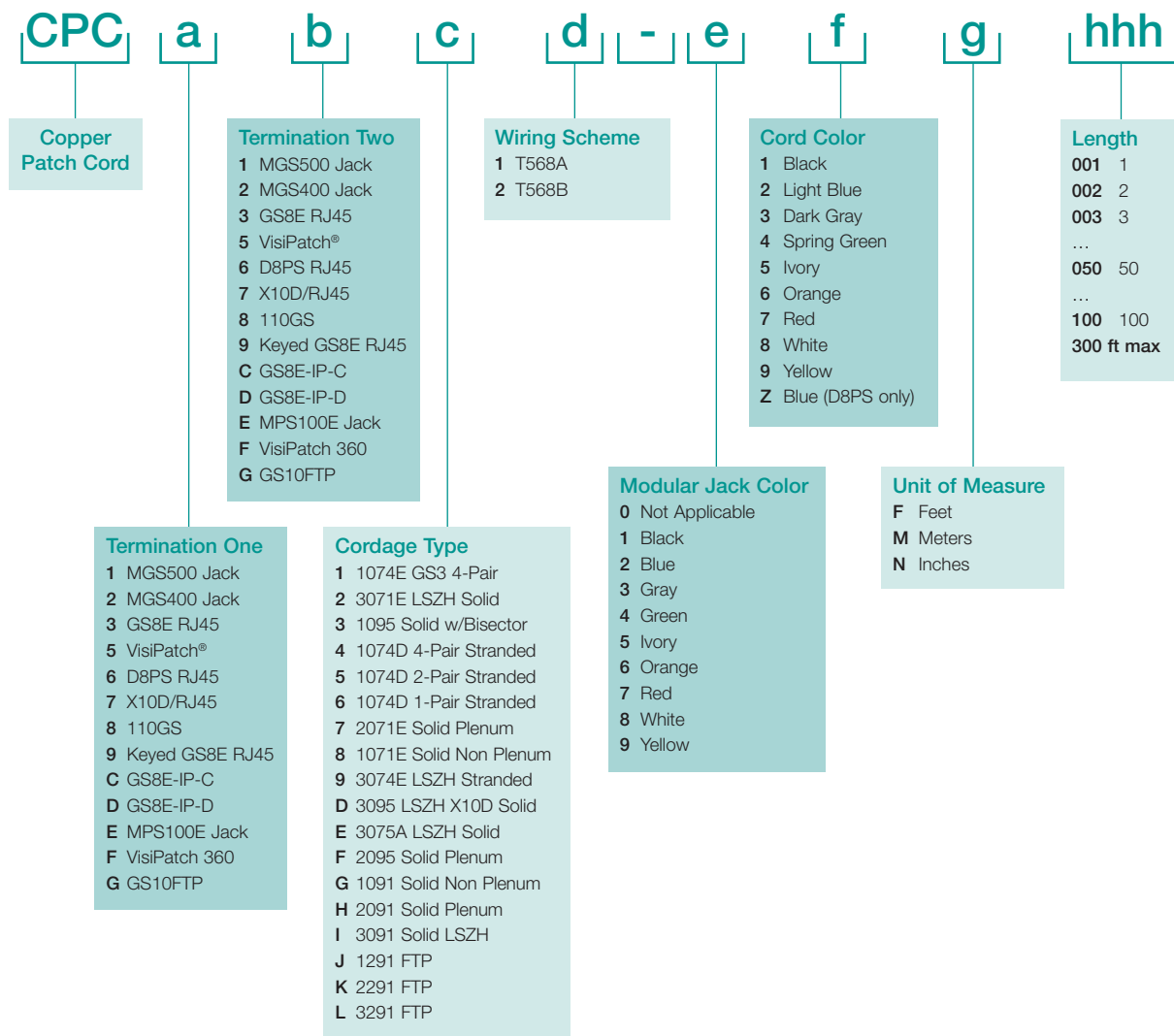
The SYSTIMAX M-Series Modules are available with T568A and T568B universal color designations.

Copper Patch Cord Product Identifier

Patch Cords

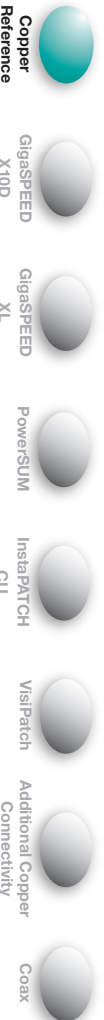
Cord Order Process

The **Copper Patch Cord Product Identifier** provides for a flexible ordering system. The various patch cords are orderable with a 14-character feature configuration coding system. It allows for many different combinations of plug ends, cordage types, colors and lengths. However, as this product guide is global, regional portfolios differ. To confirm your region's offering, please contact your account representative or BusinessPartner.



Example:

The CPC code for a GigaSPEED XL RJ45 to RJ45, Stranded PVC, 568B wired, red, 7-foot patch cord is: CPC3312-07F007





Copper
Reference



GigaSPEED
X10D



GigaSPEED
XL



PowerSUM



InstaPATCH
CU



VisiPatch

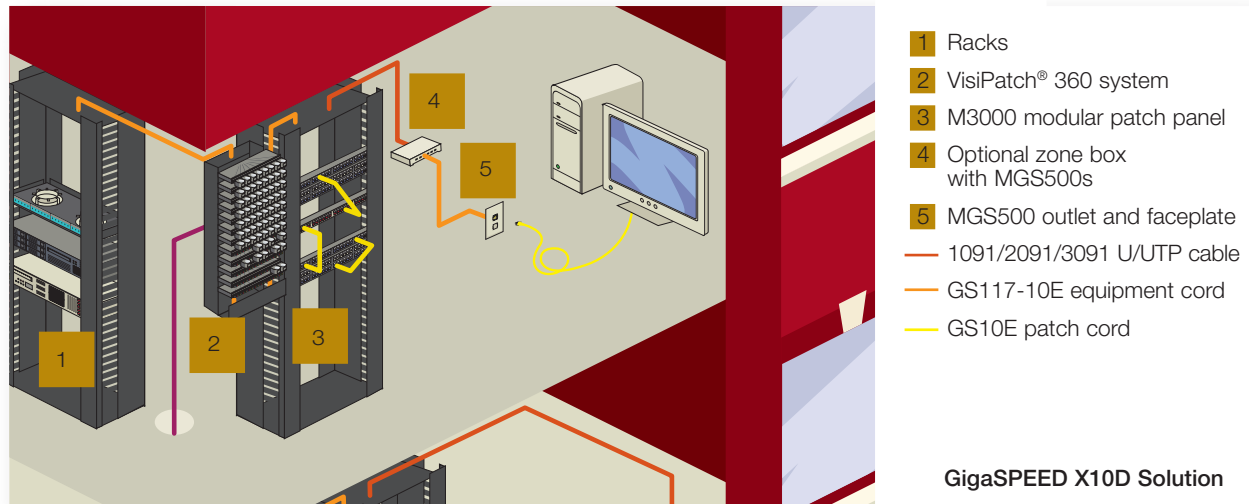


Additional Copper
Connectivity



Coax

GigaSPEED® X10D Solution Exceeding Category 6A



Features and Benefits:

- Performance guaranteed to meet or exceed Category 6A/Class E_A Channel Specifications to 500 MHz
- Performance guaranteed up to 4 connections, up to 100 meters, in a 6-around-1 cable bundle configuration
- Channel optimized using Modal Decomposition Modeling
- Supports IEEE 802.3 10GBASE-T, 1000BASE-T, TIA-854-A 1000BASE-TX, ATM Forum CB1G plus other legacy LANs and applications (Video, BAS)
- Backward compatible with existing SYSTIMAX cable and connecting hardware

The GigaSPEED X10D Solution fully complies with the IEEE 802.3an link segment specifications for 10GBASE-T, in addition to the TIA/EIA and ISO/IEC Category 6A/Class E_A requirements.

The GigaSPEED X10D Solution will support up to 100 meter channel configuration with at least 4 connections and meet PSANEXT, PSAELFEXT and Insertion Loss specifications extrapolated to 500 MHz per IEEE 802.3an. The Alien Crosstalk performance of the GigaSPEED X10D Solution, which is crucial to successful 10 Gbps transmission, is guaranteed for the complete channel (not just cable) across the entire swept frequency (1-500 MHz) and tested in a stringent 6-around-1 configuration that is representative of worst-case installation conditions.

The GigaSPEED X10D components are fully backward compatible in terms of channel performance and installation techniques to existing SYSTIMAX U/UTP solutions. The new and innovative cable design coupled with new connectors follow similar termination procedures as previous generations.

The GigaSPEED X10D Solution is backed by the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when installed and registered by an authorized BusinessPartner.

GigaSPEED X10D products include:

- 4-Pair 1091/2091/3091 U/UTP Cables
- 4-Pair 1291/2291/3291 F/UTP Cables
- 1100GS5 Patch Panels
- PATCHMAX® GS5 Patch Panels
- M3000 Modular Patch Panels
- M2000 Modular Patch Panels
- MGS500 Information Outlets
- GS10E Patch and Workstation Cords
- VisiPatch 360 System



GigaSPEED® X10D U/UTP Specifications

SYSTIMAX GigaSPEED X10D Category 6A Guaranteed Channel Performance

Guaranteed Performance Specifications for 4-Connection GigaSPEED X10D U/UTP Channels¹

Electrical Parameter	Guaranteed Channel Margins to Amendment 1 to ISO/IEC 11801:2002 Class E _A (1 – 500 MHz)
Insertion Loss	3 %
NEXT	1 dB
PSNEXT	2.5 dB
ACR-F	6 dB
PSACR-F	8 dB
Return Loss, PSANEXT, PSANEXTavg, PSAACR-F, PSAACR-Favg	≥ 0 dB

¹ Insertion Loss margin is calculated based on 12m of 95 series cordage and 88m of 91A series cable plus connections. If the total cord length in a 100m channel has to be greater than 12m, please refer to GigaSPEED X10D Design and Installation Guidelines for the instruction on how to scale cable and cord length properly.

Guaranteed Channel Performance Specifications for

4-Connection GigaSPEED X10D U/UTP Systems

Frequency (MHz)	Insertion Loss (dB)	PS ANEXT (dB)	Avg. PS ANEXT (dB)	PS AACR-F (dB)	Avg. PS AACR-F (dB)	NEXT (dB)	ACR-N (dB)	PSNEXT (dB)	PSACR-N (dB)	ACR-F (dB)	PSACR-F (dB)	Return Loss (dB)	Delay (ns)	Delay Skew (ns)
1.0	3.9	67.0	69.25	67.0	71.0	71.0	68.8	69.5	67.3	69.3	68.3	22.0	580	40
4.0	4.0	67.0	69.25	65.0	69.0	69.0	65.0	68.0	64.0	57.2	56.2	22.0	562	40
8.0	5.6	67.0	69.25	58.9	62.9	64.2	58.6	63.1	57.5	51.2	50.2	22.0	557	40
10.0	6.3	67.0	69.25	57.0	61.0	62.6	56.3	61.5	55.2	49.3	48.3	22.0	555	40
16.0	7.9	67.0	69.25	52.9	56.9	59.2	51.3	58.1	50.2	45.2	44.2	18.9	553	40
20.0	8.9	67.0	69.25	51.0	55.0	57.6	48.7	56.5	47.6	43.2	42.2	19.0	552	40
25.0	9.9	66.0	68.25	49.0	53.0	56.0	46.1	54.8	44.9	41.3	40.3	19.1	551	40
31.3	11.1	65.1	67.35	47.1	51.1	54.4	43.3	53.2	42.1	39.3	38.3	19.2	550	40
62.5	15.9	62.0	64.25	41.1	45.1	49.4	33.5	48.1	32.2	33.3	32.3	17.0	549	40
100.0	20.3	60.0	62.25	37.0	41.0	45.9	25.6	44.6	24.3	29.3	28.3	15.0	548	40
200.0	29.2	55.5	57.75	31.0	35.0	40.8	11.6	39.4	10.2	23.2	22.2	12.0	547	40
250.0	32.9	54.0	56.25	29.0	33.0	39.1	6.2	37.7	4.8	21.3	20.3	11.0	546	40
300.0	36.2	52.8	55.05	27.5	31.5	32.7	-3.5	31.3	-5.3	20.0	19.0	7.2	546	40
400.0	42.3	51.0	53.25	25.0	29.0	30.6	-11.7	29.1	-13.2	17.5	16.5	6.0	546	40
500.0	47.8	49.5	51.75	23.0	27.0	28.9	-18.9	27.3	-20.5	15.5	14.5	6.0	546	40

Guaranteed Channel Performance Margin for registered SYSTIMAX installations performed by a SYSTIMAX BusinessPartner in accordance with the GigaSPEED X10D Design and Installation guidelines.

Note: The table provides reference values only. All parameters comply with the governing equations given above over the entire frequency range.

All values and equations apply to worst-case channels utilizing four-pair 91A series cables with full cross-connects, consolidation points and work area outlets (4 connections in a channel) for the length up to 100 meters.

Non Plenum 1091, GigaSPEED® X10D Cable

The GigaSPEED X10D Solution includes a new type of 4-pair cable, the 91 series. The GigaSPEED X10D Solution is designed to give channel performance exceeding Category 6A channel specifications, and in addition has substantially improved Alien Crosstalk performance.

The cable design has been dramatically enhanced using the CommScope Labs Cable Twist Accuracy Technology. The 91 series cables incorporate a round smooth shape that speeds the handling and termination process and minimizes variation in Alien Crosstalk performance. The cables have been designed to withstand an aggressive 6-around-1 channel test that CommScope Labs believes to be the most challenging test configuration representative of real life installations including large cable bundles. This is a Powersum computation of the Alien Crosstalk noise from 24-pairs of 6 channels surrounding a single 4-pair channel. The 91 series cables have been specified out to 550 MHz to support high bandwidth applications operating at 10 Gbps.

1091 004ASL 4/23 R1000

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- 4-pair construction with finned inner jacket surface and bisector center member provides the extra margin of performance required for high bandwidth applications
- Can support network line speeds up to at least 10 Gbps
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D channel

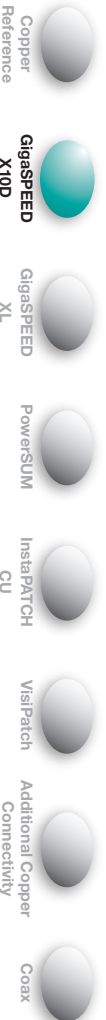
Physical Specifications:

Weight: 40.6 lbs/1,000 ft (18.4 kg)
Nominal Jacket Thickness: 0.06 in (1.52 mm)
Nominal Outside Diameter: 0.31 in (7.87 mm)
Maximum Pulling Tension: 25 lbs (11.3 kg)
Installation Temperature: 32°F to 140°F (0°C to 60°C)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 65%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 6.0 nF/100 m
Minimum Dielectric Strength: 1500 VAC or 2500 VDC
UL and cUL: CMR, CMG
Voltage Safety Rating: 300 Volts per NEC 800.179

Product Number	Pair Count	Color	Length	Package	Material ID
1091 004ABK 4/23 R1000	4	Black	1,000 ft (305 m)	Reel	760069658
1091 004ABL 4/23 R1000	4	Blue	1,000 ft (305 m)	Reel	760021683
1091 004ABL 4/23 R3000	4	Blue	3,000 ft (914 m)	Reel	760027144
1091 004ALB 4/23 R1000	4	Light Blue	1,000 ft (305 m)	Reel	760074096
1091 004AGR 4/23 R1000	4	Green	1,000 ft (305 m)	Reel	760047597
1091 004AOR 4/23 R1000	4	Orange	1,000 ft (305 m)	Reel	760021733
1091 004AOR 4/23 R3000	4	Orange	3,000 ft (914 m)	Reel	760027185
1091 004ARD 4/23 R1000	4	Red	1,000 ft (305 m)	Reel	760047589
1091 004ASL 4/23 R1000	4	Slate	1,000 ft (305 m)	Reel	760021709
1091 004ASL 4/23 R3000	4	Slate	3,000 ft (914 m)	Reel	760027151
1091 004AWH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	760021717
1091 004AWH 4/23 R3000	4	White	3,000 ft (914 m)	Reel	760027169
1091 004AYL 4/23 R1000	4	Yellow	1,000 ft (305 m)	Reel	760021725
1091 004AYL 4/23 R3000	4	Yellow	3,000 ft (914 m)	Reel	760027177
1091 004AGR 4/23 R3000	4	Green	3,000 ft (915 m)	Reel	760092742



Plenum 2091, GigaSPEED® X10D Cable

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

The GigaSPEED X10D Solution includes a new type of 4-pair cable, the 91 Series. The GigaSPEED X10D Solution is designed to give channel performance exceeding Category 6A channel specifications, and in addition has substantially improved Alien Crosstalk performance.

The cable design has been dramatically enhanced using the CommScope Labs Cable Twist Accuracy Technology. The 91 series cables incorporate a round smooth shape that speeds the handling and termination process. The cables have been designed to withstand an aggressive 6-around-1 channel test that CommScope Labs believes to be the most challenging test configuration. This is a Powersum computation of the Alien Crosstalk noise from 24-pairs of 6 channels surrounding a single 4-pair channel. The 91 series cables have been specified out to 550 MHz to support high bandwidth applications operating at 10 Gbps.

2091 004ABL 4/23 R3000

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- 4-pair construction with finned inner jacket surface and bisector center member provides the extra margin of performance required for high bandwidth applications
- Can support network line speeds up to at least 10 Gbps
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D channel

Physical Specifications:

Weight: 48.2 lbs/1,000 ft (21.9 kg)
Nominal Jacket Thickness: 0.05 in (1.27 mm)
Nominal Outside Diameter: 0.31 in (7.87 mm)
Maximum Pulling Tension: 25 lbs (11.3 kg)
Installation Temperature: 32°F to 140°F (0°C to 60°C)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 66%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Maximum Mutual Capacitance at 1 kHz: 6.0 nF/100 m
Minimum Dielectric Strength: 1500 VAC or 2500 VDC
Voltage Safety Rating: 300 Volts per NEC 800.179
UL and cUL: CMP

Product Number	Pair Count	Color	Length	Package	Material ID
2091 004ABL 4/23 R1000	4	Blue	1,000 ft (305 m)	Reel	760024190
2091 004ABL 4/23 R3000	4	Blue	3,000 ft (915 m)	Reel	760071100
2091 004AGR 4/23 R1000	4	Green	1,000 ft (305 m)	Reel	760047571
2091 004AOR 4/23 R1000	4	Orange	1,000 ft (305 m)	Reel	760024232
2091 004APR 4/23 R1000	4	Purple	1,000 ft (305 m)	Reel	760055483
2091 004ARD 4/23 R1000	4	Red	1,000 ft (305 m)	Reel	760042788
2091 004ASL 4/23 R1000	4	Slate	1,000 ft (305 m)	Reel	760024208
2091 004ASL 4/23 R3000	4	Slate	3,000 ft (915 m)	Reel	760071092
2091 004AWH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	760024216
2091 004AWH 4/23 R3000	4	White	3,000 ft (915 m)	Reel	760071316
2091 004AYL 4/23 R1000	4	Yellow	1,000 ft (305 m)	Reel	760024224
2091 004AYL 4/23 R3000	4	Yellow	3,000 ft (914 m)	Reel	760058032

LSZH 3091, GigaSPEED® X10D Cable

The GigaSPEED X10D Solution includes a new type of 4-pair cable, the 91 series. The GigaSPEED X10D Solution is designed to give channel performance exceeding Category 6A channel specifications, and in addition has substantially improved Alien Crosstalk performance.

The cable design has been dramatically enhanced using the CommScope Labs Cable Twist Accuracy Technology. The 91 series cables incorporate a round smooth shape that speeds the handling and termination process. The cables have been designed to withstand an aggressive 6-around-1 channel test that CommScope Labs believes to be the most challenging test configuration. This is a Powersum computation of the Alien Crosstalk noise from 24-pairs of 6 channels surrounding a single 4-pair channel. The 91 series cables have been specified out to 550 MHz to support high bandwidth applications operating at 10 Gbps.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- 4-pair construction with finned inner jacket surface and bisector center member provides the extra margin of performance required for high bandwidth applications
- Can support network line speeds up to at least 10 Gbps
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D channel

Physical Specifications:

Weight: 40.7 lbs/1,000 ft (18.5 kg)
Nominal Jacket Thickness: 0.06 in (1.52 mm)
Nominal Outside Diameter: 0.31 in (7.87 mm)
Maximum Pulling Tension: 25 lbs (11.3 kg)
Installation Temperature: 32°F to 140°F (0°C to 60°C)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 65%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Maximum Mutual Capacitance at 1 kHz: 6.0 nF/100 m
Minimum Dielectric Strength: 1500 VAC or 2500 VDC
Voltage Safety Rating: 300 Volts per NEC 800.179
Standards: IEC 60332 Part 3

Product Number	Pair Count	Color	Length	Package	Material ID
3091 004ABL 4/23 R1000	4	Blue	1,000 ft (305 m)	Reel	760023242
3091 004ABL 4/23 R3000	4	Blue	3,000 ft (914 m)	Reel	760023275
3091 004ASL 4/23 R1000	4	Slate	1,000 ft (305 m)	Reel	760069856
3091 004AWH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	760023226
3091 004AWH 4/23 R3000	4	White	3,000 ft (914 m)	Reel	760023234



GigaSPEED® X10D 1100GS5 Modular Patch Panel

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

The GigaSPEED X10D 1100GS5 panel is the latest innovation to the existing family of 1100 modular patch panels. The 1100GS5 panel is fully tuned to provide optimal throughput performance when installed as part of the GigaSPEED X10D channel.

The 1100GS5 panel features a new termination manager and redesigned rear housing. The termination manager and new rear housing provide for easier, faster, more reliable terminations, and reduced variability in the placement and termination of cables to the panel.

After the cable jacket is trimmed, the cable pairs are placed in the termination manager. The termination manager functions as an orientation guide and holder for each cable pair. The termination manager with each cable pair in the correct orientation (either 568B or 568A) is attached to the rear housing between the IDCs. Each cable pair is now aligned to the correct IDC slots, and the conductors are now placed in the slots. After all 24 cables with termination managers are in place and the conductors are in the correct IDC slot, the conductors are terminated and trimmed with the impact tool and 110 blade. An entire row of 24 cables can be placed sequentially; then, all cable conductors are punched-down sequentially, thus allowing traditional cable termination in high performance panels.

Features and Benefits:

- Certified component of an integrated GigaSPEED X10D 10G solution
- New termination manager and redesigned IDC housing allow traditional cable termination to high performance panel
- Available in 24- and 48-port configurations featuring universal A/B labeling
- 110 connector terminations on rear of panel allow quick and easy installation of 22 to 24 AWG cable
- Can support network line speeds in excess of 10 Gbps
- Each panel comes ready to install, including front and rear labels
- Backward compatible with Category 6, 5e, 5, and 3 cords and cables; however, optimal performance is achieved when used with GigaSPEED X10D GS10E cords
- Qualifies for a 20-Year Extended Product Warranty and Applications Assurance when included in a registered SYSTIMAX GigaSPEED X10D channel

Physical Specifications:

Height: 24-Ports: 1.74 in (4.38 cm)

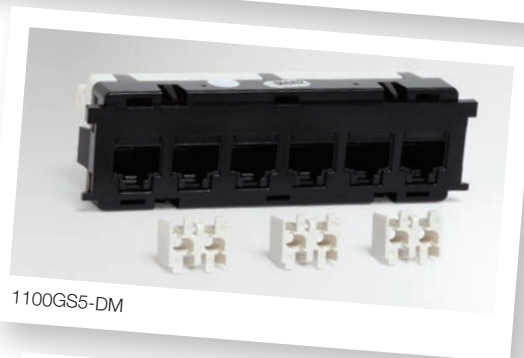
48-Ports: 3.50 in (8.83 cm)

Width: 19 in (48.3 cm)

Depth: 1.60 in (4.06 cm)



1100GS5-24



1100GS5-DM



1100GS5-48

Product Number	Detailed Description	Modules/Ports	Material ID
1100GS5-24	1100GS5 24-Port Panel	24 Ports	760051151
1100GS5-48	1100GS5 48-Port Panel	48 Ports	760051169
1100GS5-24	1100GS5 24-Port Panel (Angled)	24 Ports	760051177
1100GS5-48	1100GS5 48-Port Panel (Angled)	48 Ports	760051185
1100GS5-DM	1100GS5-DM Distribution Module Kit	6 Ports	760051193
1100GS5-TM	1100GS5-TM Termination Manager Kit	24 Ports	760051201
1100GS5-24 (empty)	24 port-flat-empty	24 Ports	760092775
1100GS5-48 (empty)	48 port-flat-empty	48 Ports	760092817
1100GS5-24 (empty)	24 port-angled-empty	24 Ports	760092825
1100GS5-48 (empty)	48 port-angled-empty	48 Ports	760092833

GigaSPEED® X10D PATCHMAX® GS5 Modular Patch Panel

The SYSTIMAX GigaSPEED X10D PATCHMAX GS5

panel is a 19-inch rack mountable patch panel,

designed to accept 4 or 8 six-port GS3 or GS5

Distribution Modules (DM), which can be rotated

forward, allowing front-access to the 110 type IDC

terminals for easy cable termination. Built-in horizontal patch cord management

brackets provide support for patch cords as well as a holder for the DM modules during installation. This modular approach

offers total flexibility in selecting the required copper and fiber adapters. In addition, it provides for fiber and SYSTIMAX

GigaSPEED X10D and XL copper solutions since both fiber and copper modules can fit into the same panel kit.

The PATCHMAX GS5 Distribution Modules feature an innovative termination manager and redesigned rear housing. The

termination manager and new rear housing provide for easier, faster, more reliable terminations, and reduced variability in the

placement and termination of cables to the panel.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- UL listed (CM)
- Individual six-port distribution modules can be removed, snapped onto the front cord management rings and pivoted forward for easy front access to the rear 110 type IDC termination field making installation easy
- Designed for simplified administration with built-in cord and cable retainer rings, color-coded labels and icons
- New termination manager and redesigned IDC housing allow traditional cable termination to high performance panel
- Available in 24- and 48-port configurations featuring universal A/B labeling
- Can support network line speeds in excess of 10 Gbps
- Qualifies for a 20-year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D channel

Physical Specifications:

Dimensions:

PM-GS5-24:

19.0 x 3.53 x 8.13 in (48.26 x 8.90 x 20.50 cm) -

2 Rack Unit Universal A/B labeling

PM-GS5-48:

19.0 x 5.29 x 8.13 in (48.26 x 13.34 x 20.50 cm) -

3 Rack Unit Universal A/B labeling

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Nominal Solid Conductor Diameter: 0.025 to 0.020 in (0.64 to 0.51 mm) (22 to 24 AWG)

Nominal Stranded Conductor Diameter: 0.025 to 0.020 in (0.64 to 0.51 mm) (22 to 24 AWG)

Insulation Size: 0.042 in (1.08 mm) (22 to 24 AWG) Maximum DOD

Insulation Types: All plastic insulates including: PVC, irradiated PVC, Polyethylene, Polypropylene, PTF Polyurethane, Nylon and FEP

Insulation Types: 750 minimum insertions of an FCC 8-Position Telecommunications Plug

Materials: Front Panel: Black powder painted steel

Plastic: High-impact, flame retardant, UL-rated 94V-0 thermoplastic

Electrical Specifications:

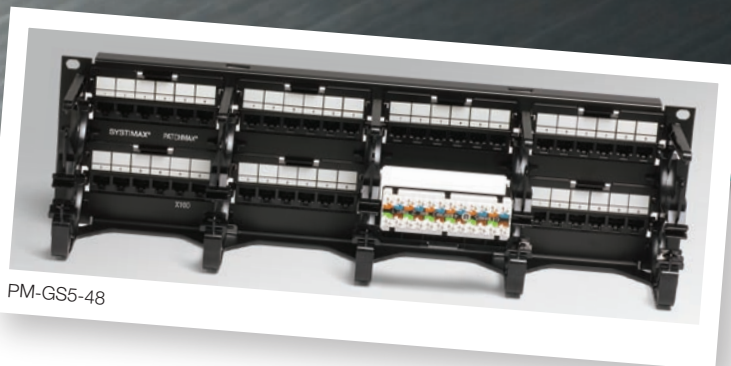
Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed

PM-GS5-48



Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

Product Number	Detailed Description	Material ID
PM-GS5-24	24 Port Patch Panel	760060913
PM-GS5-48	48 Port Patch Panel	760060921
PM-GS5-2U	2U Blank Panel Kit	760060939
PM-GS5-3U	3U Blank Panel Kit	760060947
PM-GS5-DM	Distribution Module	760060954

GigaSPEED® X10D M3000 Modular Patch Panel

M3000-24



Bezel Kit

The SYSTIMAX GigaSPEED X10D M3000 Modular Patch Panels are patch panels for M-series outlets that can be configured for copper, fiber, or both. The M3000 is a 24-port panel and can mount in a 19-inch (483 mm) rack with universal hole spacing.

The M3000 panel incorporates rear cable management for consistent cable routing and management.

The M3000 includes a label sheet and clear label holders. A label area is provided to the left of each port. Port designations can be printed on the label sheet, and individual port labels are trimmed from the label sheet and placed in the label area and secured by the clear label holder. If adhesive labeling is desired, adhesive labels can be applied to the label holder.

Physical Specifications:

Height: 1.75 in (44.1mm)

Width: 19 in (483 mm)

Depth: 3.7 in (93.9 mm)

Product Number	Detailed Description	No. Of Ports	Material ID
M3000-24	1U 24-Port Panel	24	760065391
Bezel Kit	8-Port Bezel Kit	8	760065417
M3000	Custom Label Kit		760060392

GigaSPEED® X10D M2100 Modular Patch Panel

M2100 2U 48 Port Panel



CommScope®, through its SYSTIMAX brand, introduces the GigaSPEED X10D M2100 Modular Patch Panel. The panel is a 48 port 2U modular panel with horizontal front cord managers, eliminating the need for separate cord management. The M2100 includes 8 plastic cable organizers, each holding six 4-pair cables. The M2100 also includes M2000 labels and label holders providing labelling and identification for each port. The panel supports copper M-series outlets as well as fiber.

Product Number	Detailed Description	Material ID
M2100 2U 48 Port Panel	M2100 Modular Patch Panel	760077842

GigaSPEED® X10D M2000 Modular Patch Panel

The M2000 Modular Patch Panel is a panel designed for M-series outlets that can be configured for copper, fiber, or both and is available in 24-port (M2000-1U) and 48-port (M2000-2U) versions. Both the M2000-1U and M2000-2U panels mount in a 19-inch (483 mm) rack with universal hole spacing.

The M2000-1U and M2000-2U include a label sheet and clear label holders. A label area is provided to the left of each port. Port designations can be printed on the label sheet and individual port labels are trimmed from the label sheet and placed in the label area and secured by the clear label holder. If adhesive labeling is desired, adhesive labels can be applied to the label holder.

The M2000-1U and M2000-2U Panels now include M2000 Cable Organizers. The M2000 Cable Organizer is a molded plastic design that is snapped into each 6-port bezel. The 24 port 1U panel includes 4 cable organizers and the 48 port 2U panel includes 8 cable organizers. The 6 4-pair cables from each bezel are routed and positioned to the cable organizer. Cable ties are included to secure the cables.

M2000 Cable Organizers are not included with the M2000 1U and 2U Angled Panels. The M2000 Angled Panels include a cable management bar.

Also available and sold separately are M2000 1U Patch Cord Managers and M2000 2U Patch Cord Managers. These patch cord managers are metal rings that mount to the front of the panel. 5 patch cord managers are used for each 24 port 1U panel. The M2000 1U Patch Cord Manager Kit, 760069278, is a package of 5 patch cord managers.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- Electrical performance guaranteed to meet or exceed TIA/EIA 568B.2-1 Category 6 and ISO/IEC Category 6/Class E specifications when used with MGS400 connectors
- Available in 24-port and 48-port configurations
- Labeling and identification for each port
- Supports copper and fiber connectors

Physical Specifications:

Height: 24 Port: 1.75 in (44.1mm)
48 Port: 3.5 in (88.9 mm)

Width: 19 in (48.3 cm)

Depth: 1.2 in (30.48 mm)

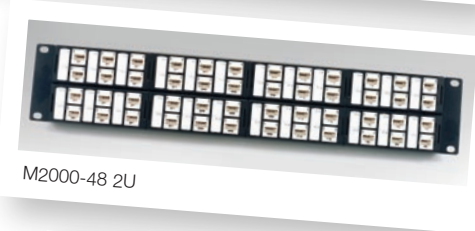
Product Number	No. Of Ports	Material ID
M2000-24 1U	24	760049932
M2000-48 2U	48	760049940
M2000A-24 1U (Angled)	24	760049957
M2000A-48 2U (Angled)	48	760049965
M2000 Cable Mgt Bar		760054627
MGS Cover with Strain Relief, 1000/Kit		760056408
M2000 Custom Label Kit		760060392
M2000 1U Cord Manager Kit		760069278
M2000 2U Cord Manager Kit		760073486
Angled Panel Cover		760091504
M2000A 1U Blank Panel Frame		860414911
M2000A 2U Blank Panel Frame		860414903
M2000A 1U Blank Panel (Angled)		760091512
M2000A 2U Blank Panel (Angled)		760091520



M2000-24 1U Front



M2000-24 1U Back



M2000-48 2U



M2000 1U Cord Manager Kit

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

MGS500 Series GigaSPEED® X10D Information Outlet



MGS500-318

The MGS500 information outlet, the latest result of many years continuous product development at CommScope Labs, features patented crosstalk cancellation and compensation techniques. The MGS500 connectivity, consistent at the panels and outlet, exhibit huge improvements in high frequency crosstalk enabled via new PWB (Printed Wiring Board) materials and compensation technology. In addition, large improvements in connector Alien Crosstalk mitigation have been achieved through new materials and PWB compensation enhancements. This connector design excellence has been made possible by the CommScope Labs Connector Field Pattern Modeling technology, coupled with the system level MDM tool enabling high frequency cross coupling effects to be eliminated.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- Snaps into standard SYSTIMAX M-Series faceplates, surface-mount boxes, consolidation point boxes, M3000 and M2000 Modular Panels, UMP 36-port Modular Panel and FlexiMAX panels. Can also be mounted either at 90 degrees (straight) or 45 degrees (angled) in any SYSTIMAX faceplate
- Universal design and label supports both T568A and T568B wiring
- IDC connector terminations on rear of base allow quick and easy installation of 22 to 24 AWG cable
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D channel

Physical Specifications:

Dimensions: HxWxD: 0.8 in x 0.8 in x 1.2 in (2.0 cm x 2.0 cm x 3.1 cm)
Universal A/B labeling

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Contact Material & Plating: Copper alloy, 100 micro-inch (2.54 microns) bright solder over 100 micro-inch (2.54 microns) nickel underplate. Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in
(0.40 mm to 0.64 mm) (26 to 22 AWG)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in
(0.51 mm to 0.64 mm) (24 to 22 AWG)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17 mm)

Insulation Types: All plastic insulates, including: PVC, irradiated PVC, Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon and FEP

Outlet Wires: Copper alloy, 50 micro-inch (1.27 microns) hard gold plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

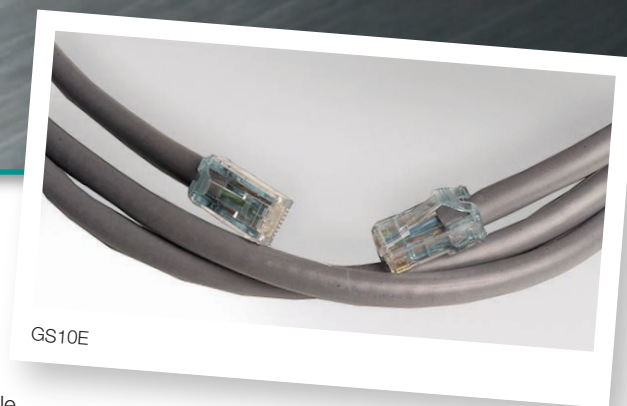
Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed

Product Number	Color	Material ID
MGS500-003	Black	760023556
MGS500-318	Blue	760023648
MGS500-112	Orange	760023564
MGS500-226	Green	760023598
MGS500-123	Yellow	760023572
MGS500-361	Violet	760023655
MGS500-270	Gray	760023622
MGS500-215	Cream	760023580
MGS500-262	White	760023614
MGS500-246	Ivory	760023606
MGS500-317	Red	760023630
MGS500-BLK-003	Black	760042002
MGS500-BLK-246	Ivory	760042010
MGS500-BLK-262	White	760042028
MGS500-BLK-318	Blue	760042036



GS10E GigaSPEED® X10D Modular Patch Cord



GS10E

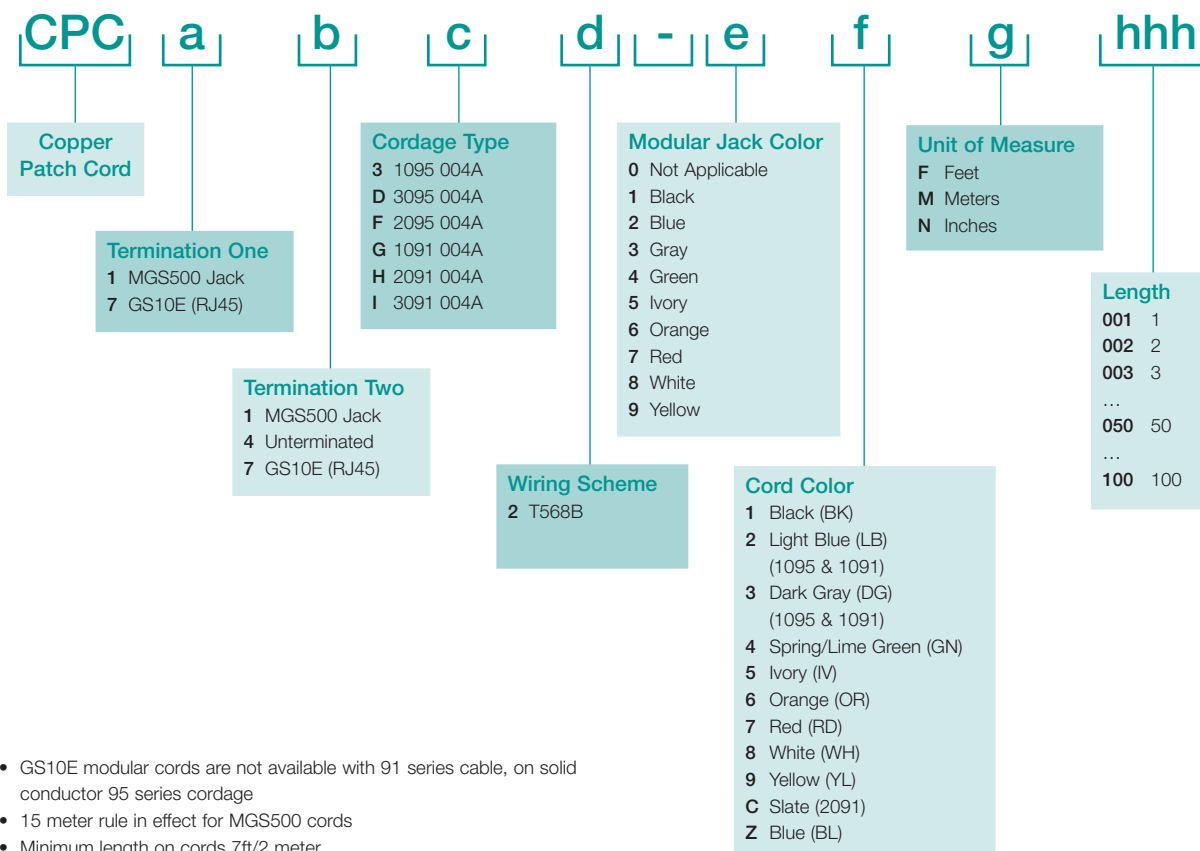
The high performance GS10E modular patch cord family has a patent-pending plug design featuring a distinctive aqua sled and anti-snag latch for easy and rapid field identification. The GS10E plug exhibits a dramatic reduction in variation of performance via the innovative plug design.

Double ended GS10E and single ended GS117-10E are available. The GS117-10E will support both equipment cord and consolidation point applications.

Patch cords are orderable using a 14-character feature configuration coding scheme which replaces the familiar 9-character Material ID. This allows maximum flexibility for ordering many different combinations of plug ends, cordage types, colors and lengths.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 1180:2001 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D U/UTP Channel in registered SYSTIMAX installations
- Can support network line speeds up to at least 10 Gbps
- Certified component of an integrated GigaSPEED X10D Solution
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D channel



- GS10E modular cords are not available with 91 series cable, on solid conductor 95 series cordage
- 15 meter rule in effect for MGS500 cords
- Minimum length on cords 7ft/2 meter
- GS10E solid plenum available in white and blue (8, Z) only

Physical Specifications:

Contact Material: Phosphor Bronze

Contact Plating: Gold 50 micro-inch (1.27 microns), nickel 100 micro-inch (2.54 microns)

Insertion Life: 750 minimum

Plug Material: Polycarbonate UL-rated 94 V-O

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Electrical Specifications:

UL and cUL: CM (cordage)

Product Number	Description	Color Options	Length Options	CPC Code
GS10E	GS10E to GS10E solid non-plenum cordage (1095)	1,2,3,4,5,6,7,8,9,Z	7-100ft, 2-30m	CPC7732
GS117-10E	GS10E to Unterminated solid non-plenum cordage (1095)	1,2,3,4,5,6,7,8,9,Z	7-100ft, 2-30m	CPC7432
GS10E-P	GS10E to GS10E solid plenum cordage (2095)	8,Z	7-100ft, 2-30m	CPC77F2
GS117-10EP	GS10E to Unterminated solid plenum cordage (2095)	8,Z	7-100ft, 2-30m	CPC74F2
GS10E-L	GS10E to GS10E solid LSZH cordage (3095)	8	7-100ft, 2-30m	CPC77D2
GS117-10EL	GS10E to Unterminated solid LSZH cordage (3095)	8	7-100ft, 2-30m	CPC74D2
Dual MGS500 NP	MGS500 to MGS500 solid non-plenum cable (1091E)	6,7,8,9,C,Z	50-300ft, 15-90m	CPC11G2
Dual MGS500 P	MGS500 to MGS500 solid plenum cable (2091E)	6,7,8,9,C,Z	50-300ft, 15-90m	CPC11H2
Dual MGS500 LSZH	MGS500 to MGS500 solid LSZH cable (3091E)	8,Z	50-300ft, 15-90m	CPC11I2
GS10MGSN	GS10E to MGS500 solid non-plenum cordage (1095)	1,2,3,4,5,6,7,8,9,Z	7-100ft, 2-30m	CPC7132
GS10MGSP	GS10E to MGS500 solid plenum cordage (2095)	8,Z	7-100ft, 2-30m	CPC71F2
GS10MGSL	GS10E to MGS500 solid LSZH cordage (3095)	8	7-100ft, 2-30m	CPC71D2
GS10EN	GS10E to GS10E 10/100 BASE-T 2 x 3 & 1 x 4 Crossover solid non-plenum cordage (1095)	1,2,3,4,5,6,7,8,9,Z	7-100ft, 2-30m	CPC7733
GS10ENV	GS10E to GS10E IEEE 802.3ab 1000BASE-T MDI-X solid non-plenum cordage (1095)	1,2,3,4,5,6,7,8,9,Z	7-100ft, 2-30m	CPC7735



GigaSPEED® X10D F/UTP Specifications

SYSTIMAX GigaSPEED X10D F/UTP Channel Performance

The SYSTIMAX GigaSPEED X10D F/UTP cabling system is designed specifically to meet and exceed the emerging ISO/IEC Class E_A cabling specification. A major breakthrough of the SYSTIMAX GigaSPEED X10D F/UTP Solution over other legacy F/UTP solutions is vastly improved performance across the complete frequency spectrum from 1 to 500 MHz.

By utilizing the unique design tools available to CommScope Labs, the technologies implemented in the SYSTIMAX GigaSPEED X10D F/UTP Solution are capable of incorporating the F/UTP technology while maintaining pair balance without degrading the internal channel transmission performance. Superior Crosstalk performance, improved Insertion Loss performance and guaranteed channel performance up to 500 MHz are the key enhancements that set the SYSTIMAX GigaSPEED X10D F/UTP Solution apart from other F/UTP solutions on the market today.

SYSTIMAX GigaSPEED X10D F/UTP Performance Specifications

Channel Performance Specifications for the GigaSPEED X10D F/UTP Solutions

Freq (MHz)	Insertion Loss (dB)	PS ANEXT (dB)	Avg. PS ANEXT (dB)	PS AACR-F (dB)	Avg. PS AACR-F (dB)	NEXT (dB)	ACR (dB)	PS NEXT (dB)	PS ACR (dB)	ACR-F (dB)	PS ACR-F (dB)	Return Loss (dB)
1	4.0	67.0	69.25	67.0	71.0	65.0	61.0	62.0	58.0	63.3	60.3	19.0
4	4.2	67.0	69.25	65.0	69.0	63.0	58.9	60.5	56.4	51.2	48.2	19.0
8	5.8	67.0	69.25	58.9	62.9	58.2	52.5	55.6	49.9	45.2	42.2	19.0
10	6.5	67.0	69.25	57.0	61.0	56.6	50.2	54.0	47.6	43.3	40.3	19.0
16	8.2	67.0	69.25	52.9	56.9	53.2	45.1	50.6	42.5	39.2	36.2	18.0
20	9.2	67.0	69.25	51.0	55.0	51.6	42.5	49.0	39.9	37.2	34.2	17.5
25	10.2	66.0	68.25	49.0	53.0	50.0	39.8	47.3	37.1	35.3	32.3	17.0
31.2	11.5	65.1	67.35	47.1	51.1	48.4	37.0	45.7	34.3	33.4	30.4	16.5
62.5	16.4	62.0	64.25	41.1	45.1	43.4	27.1	40.6	24.3	27.3	24.3	14.0
100	20.9	60.0	62.25	37.0	41.0	39.9	19.1	37.1	16.3	23.3	20.3	12.0
200	30.1	55.5	57.75	31.0	35.0	34.8	4.8	31.9	1.9	17.2	14.2	9.0
250	33.9	54.0	56.25	29.0	33.0	33.1	-0.7	30.2	-3.6	15.3	12.3	8.0
300	37.4	52.8	55.05	27.5	31.5	31.7	-5.6	28.8	-8.5	13.7	10.7	7.2
400	43.7	51.0	53.25	25.0	29.0	29.6	-14.0	26.6	-17.0	11.2	8.2	6.0
500	49.3	49.5	51.75	23.0	27.0	27.9	-21.4	24.8	-24.5	9.3	6.3	6.0

Note: values at specific frequencies for information only.
Performance shall be met on a swept frequency basis as per the above listed formulae.

The SYSTIMAX GigaSPEED X10D F/UTP Solution offers guaranteed channel performance to the above specifications for registered SYSTIMAX Network Infrastructure Solutions installations. Please contact your CommScope representative for a GigaSPEED X10D F/UTP Solution Guide and GigaSPEED X10D F/UTP Design and Installation Guidelines.

* IL and PSANEXT requirement of the proposed TIA-568-B.2-AD10 for the category 6A ScTP cabling are different from the ISO Class E_A requirements. PSANEXT is 2dB more stringent while IL is relaxed to Category 6 level across the entire frequency band. Note that IL is a critical parameter generic to all applications while PSANEXT is specific to IEEE 10GBASE-T. The GigaSPEED X10D F/UTP solution incorporates the best of these proposed standards. The GigaSPEED X10D F/UTP channel meets or exceeds all ISO Class E_A requirements as well as TIA Cat-6A PSANEXT requirement.

91 Series GigaSPEED® X10D F/UTP Cable

The SYSTIMAX GigaSPEED X10D 91 Series F/UTP Cable exhibits excellent crosstalk performance, enabled via patented high-technology pair isolator (improves pair separation and also cable flexibility) and an optimized twist and strand scheme, dramatically enhancing high-frequency performance using the CommScope Labs Cable Twist Accuracy Technology.

The GigaSPEED X10D 91 Series F/UTP Cables have been optimized with the GigaSPEED X10D F/UTP connectors and cords to minimize internal channel crosstalk, and also crosstalk between channels in close proximity. The 91 Series Cables incorporate a round smooth shape that speeds the handling and termination process. The cables have been designed to optimize the balance of the F/UTP solution. The 91 Series F/UTP Cables have been specified out to 500 MHz to support high bandwidth applications operating at 10 Gbps.



Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11801:2002 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- 4-pair construction with aluminum foil tape and isolator center member provides extra margin of performance required for high-bandwidth applications
- 1291 Non-Plenum cable is UL listed as CMR and C(UL)CMG. This cable is constructed with a single jacket
- 2291 Plenum cable* is UL listed as CMP. This cable is constructed with a single jacket
- 3291 LSZH cable meets the requirements of IEC 60332-3. This cable is constructed with a single jacket
- UL® Listed - 1291 Riser rated CMR and C(UL) CMG
- IEC Certified - 3291 LSZH rated IEC 60332-3
- Can support network line speeds up to at least 10 Gbps
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D F/UTP channel

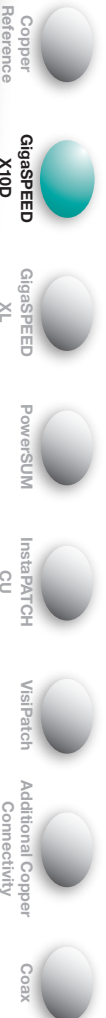
*call for availability

Physical Specifications:

	1291	2291	3291
Nominal Jacket OD:	0.296 in (7.5 mm)	0.290 in (7.4 mm)	0.296 in (7.5 mm)
Nominal Jacket Thickness:	0.020 in (0.51 mm)	0.016 in (0.41 mm)	0.020 in (0.51 mm)
Maximum Pulling Tension:	25 lbs (11.3 kg)	25 lbs (11.3 kg)	25 lbs (11.3 kg)
Nominal Cable Weight:	35 lbs/1,000 ft (18.3 kg)	42 lbs/1,000 ft (17.4 kg)	35 lbs/1,000 ft (18.3 kg)
Installation Temperature:	32°F to 140°F (0°C to 60°C)	32°F to 140°F (0°C to 60°C)	32°F to 140°F (0°C to 60°C)
Operating Temperature:	-4°F to 140°F (-20°C to 60°C)	-4°F to 140°F (-20°C to 60°C)	-4°F to 140°F (-20°C to 60°C)
Gauge:	23 AWG	23 AWG	23 AWG

Electrical Specifications:

Characteristic	Limit / 100 m		
NVP:	69%	72%	69%
Conductor Resistance:	8.0 Ohms/100m	8.0 Ohms/100m	8.0 Ohms/100m
Resistance Unbalance:	3%	3%	3%
Mutual Capacitance:	5.6 nF	5.6 nF	5.6 nF
Dielectric Strength:	1500 VAC or 2500 VDC	1500 VAC or 2500 VDC	1500 VAC or 2500 VDC
Voltage Safety Rating:	300 Volts per NEC 800.179	300 Volts per NEC 800.179	300 Volts per NEC 800.179
UL and CUL:	CMR, CMG	CMP	
IEC Verified:			IEC 60332-3-22, IEC 61034, IEC 60754-2





Product Number	Detailed Description	Color	Material ID
1291 004BBL 4/23 R1000	Non-Plenum PVC Cable	Blue	760081364
1291 004BGR 4/23 R1000	Non-Plenum PVC Cable	Green	760081372
1291 004BOR 4/23 R1000	Non-Plenum PVC Cable	Orange	760081380
1291 004BSL 4/23 R1000	Non-Plenum PVC Cable	Slate	760081398
1291 004BWH 4/23 R1000	Non-Plenum PVC Cable	White	760081406
2291 004ABL 4/23 R1000	Plenum Cable	Blue	760069112
2291 004ASL 4/23 R1000	Plenum Cable	Slate	760069120
2291 004AWH 4/23 R1000	Plenum Cable	White	760069104
3291 004BBL 4/23 R1000	LSZH Cable	Blue	760081315
3291 004BWH 4/23 R1000	LSZH Cable	White	760081323
1291 004ABL 4/23 R1000	Non-Plenum PVC Cable	Blue	760060764
1291 004ABL 4/23 R4400	Non-Plenum PVC Cable	Blue	760068635
1291 004AGR 4/23 R1000	Non-Plenum PVC Cable	Green	760060780
1291 004AGR 4/23 R4400	Non-Plenum PVC Cable	Green	760068650
1291 004AOR 4/23 R1000	Non-Plenum PVC Cable	Orange	760060756
1291 004AOR 4/23 R4400	Non-Plenum PVC Cable	Orange	760068627
1291 004ASL 4/23 R1000	Non-Plenum PVC Cable	Slate	760060772
1291 004ASL 4/23 R4400	Non-Plenum PVC Cable	Slate	760068643
1291 004AWH 4/23 R1000	Non-Plenum PVC Cable	White	760060749
1291 004AWH 4/23 R4400	Non-Plenum PVC Cable	White	760068619

GigaSPEED® X10D M3200 Modular F/UTP Patch Panel



The SYSTIMAX GigaSPEED X10D M3200 Modular Patch Panel is a patch panel for M-Series F/UTP outlets that can be configured for copper, fiber, or both and is available in a 24-port version. The M3200 panel mounts in a 19-inch (483 mm) rack with universal hole spacing.

The M3200 panel incorporates rear cable management for consistent cable routing and grounding studs for reliable grounding of the cable shield. The M3200 includes a label sheet and clear label holders. A label area is provided to the left of each port. Port designations can be printed on the label sheet, and individual port labels are trimmed from the label sheet and placed in the label area and secured by the clear label holder. If adhesive labeling is desired, adhesive labels can be applied to the label holder.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11801:2002 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- Available in 24-port configuration
- Labeling and identification for each port
- Supports copper and fiber connectors
- Qualifies for the SYSTIMAX 20-Year Extended Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D F/UTP channel

Physical Specifications:

Height: 24-Ports: 1.75 in (4.45 cm)
Width: 19 in (48.20 cm)
Depth: 4.16 in (10.60 cm)

Product Number	Detailed Description	Material ID
M3200	M3200 Modular Patch Panel	760058578
M3200 Custom Label Kit	8.5 x 11, 6 rows of 12 labels, supports 6U of labeling	760060392



MFP520 GigaSPEED® X10D F/UTP Information Outlet



MFP520

The SYSTIMAX GigaSPEED X10D MFP520 information outlet is the latest result of many years of continuous product development at CommScope Labs. The MFP520 features patent-pending crosstalk cancellation and compensation techniques. A unique opaque aqua-colored inner tab identifies the unparalleled compensation technology.

The MFP520 information outlet, used throughout the GigaSPEED X10D F/UTP channel, exhibits extended frequency crosstalk suppression enabled via innovative Printed Wiring Board (PWB) compensation technologies. The MFP520 incorporates a metallized body and capsule, plus an innovative grounding connection to ensure consistent bonding performance.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11801:2002 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- Snaps into most SYSTIMAX M-Series faceplates, surface-mount boxes, consolidation point boxes and SYSTIMAX M3200 panels
- Universal design and label supports both T568A and T568B wiring
- IDC connector terminations on rear of base allow quick and easy installation of 22 to 24 AWG cables
- Optional Plastic Icons (M61A) and Dust Covers (M20A) available in several colors
- Optimal performance is achieved when using the GigaSPEED X10D G10FP patch cords
- UL® listed
- Can support network line speeds up to at least 10 Gbps
- Certified component of an integrated GigaSPEED X10D F/UTP Solution
- Qualifies for the SYSTIMAX 20-Year Extended Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D F/UTP channel

Physical Specifications:

Width: 0.80 in (20 mm)
Length: 1.61 in (41 mm)
Depth: 0.82 in (21 mm)
Plastic: High-impact, flame retardant, UL-rated 94V-0 thermoplastic
Jack Wires: Copper alloy, 1.27 µm lubricated gold plating over 2.54 µm nickel underplate
Connectors: Copper alloy, 2.54 µm bright solder over 2.54 µm nickel underplate
Insertion Life: >750 insertions of an FCC 8 position telecommunications plug
Min. Contact Force: 100 g using FCC approved modular plug
Min. Plug Retention Force: 133 N
Operating Temperature Range: 14° F to 140° F (-10° C to 60° C)

Electrical Specifications:

Min. Insulation Resistance: 500 MΩ
Min. Dielectric Withstand Voltage: 1000 V DC or AC peak (contact to contact @ 60Hz)
Min. Dielectric Withstand Voltage: 1500 V DC or AC peak
Max. Contact Resistance: 100 mΩ
Max. Contact Resistance Variation: ≤ 20 mΩ
Current Rating @ 20° C: 1.5 A

Product Number	Detailed Description	Material ID
MFP520	F/UTP Information Outlet	760077032

G10FP GigaSPEED® X10D F/UTP Modular Patch Cord

SYSTIMAX Solutions has developed the new SYSTIMAX GigaSPEED X10D G10FP patch cord to support the GigaSPEED X10D F/UTP channel. Along with GigaSPEED X10D F/UTP cable and patching hardware, CommScope Labs has characterized the performance of these cords in thousands of different channel configurations using the Modal Decomposition Modeling (MDM) tool.



The high performance G10FP modular patch cord family has a patent-pending plug design featuring a distinctive metallized body and anti-slag latch for easy and rapid field identification. The G10FP plug exhibits a dramatic reduction in variation of performance via the innovative plug design. A compact crimp ring ensures secure and reliable contact between cable shield and plug, also allowing a low profile to rear of the plug housing.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11801:2002 Class E_A, and ANSI/TIA 568B.2-10 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- UL® listed (CM)
- Can support network line speeds up to at least 10 Gbps
- Certified component of an integrated GigaSPEED X10D F/UTP Solution
- Qualifies for the SYSTIMAX 20-Year Extended Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D F/UTP channel

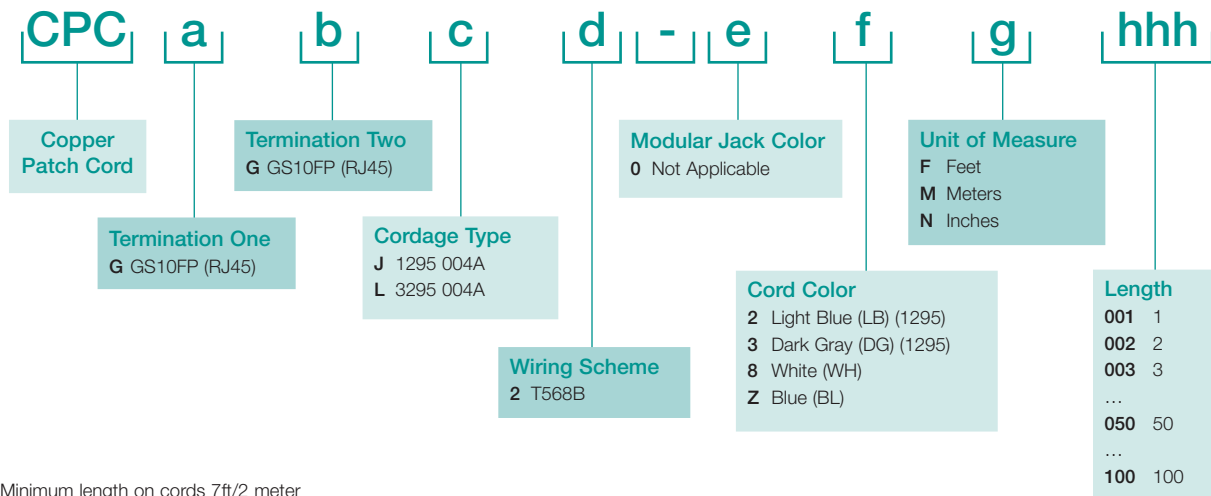
Physical Specifications:

Operating Temperature Range: 14° F to 140° F (-10° C to 60° C)

Contact Stability: 20 mΩ max. change

Insertion Life: 750 insertions

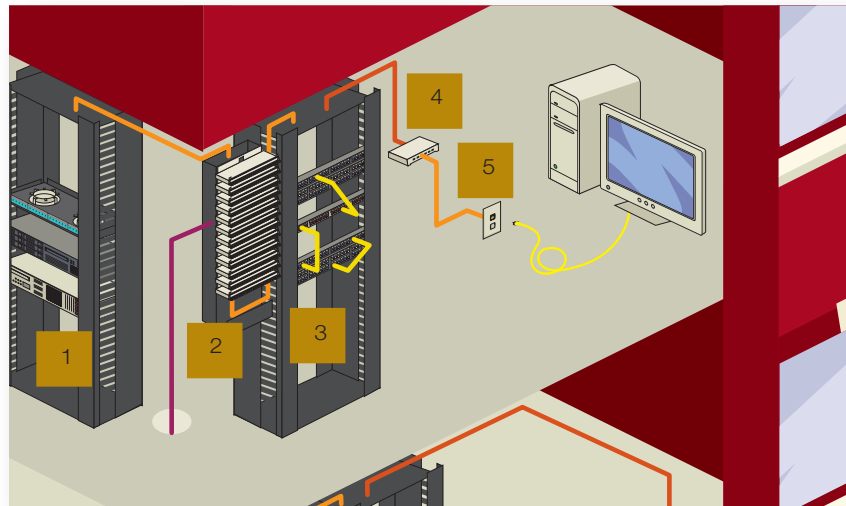
Contact Plating: 1.27 µm Gold over 2.540 µm Nickel



- Minimum length on cords 7ft/2 meter

Product Number	Detailed Description	Packaging	Color	Material ID
G10FP	PVC Cord	1/Pkg	Dark Gray, Light Blue	CPCGGJ2
G10FP-L	LSZH Cord	1/Pkg	White	CPCGGL2

GigaSPEED® XL Solution Exceeding Category 6



- 1 Racks
- 2 VisiPatch System
- 3 1100GS3 PATCHMAX GS3/iPatch modular patch panels
- 4 Optional zone box with MGS400s
- 5 MGS400 outlet and faceplate
- 1071/2071/3071 U/UTP cable
- 117GS8E equipment cord
- GS8E patch cord

GigaSPEED XL 7 Solution

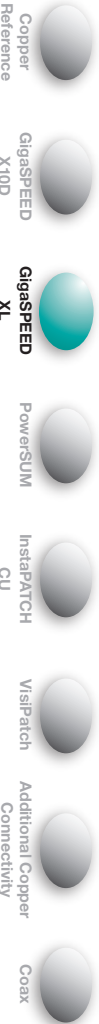
Features and Benefits:

- Performance guaranteed to meet or exceed Category 6/Class E Channel Specifications to 250 MHz
- Performance guaranteed up to 6 connections in any length channel configuration up to 100 meters
- Channel optimized using Modal Decomposition Modeling
- Supports IEEE 802.3 1000BASE-T, TIA-854-A 1000BASE-TX, ATM Forum CB1G plus other legacy LANs and applications (Video, BAS)
- Backward compatible with existing SYSTIMAX cable and connecting hardware

SYSTIMAX channels comprised of GigaSPEED XL passive products are capable of delivering potentially in excess of 1.2 Gbps to the workstation in accordance with application standards and are eligible for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance.

GigaSPEED XL products include:

- 4-Pair 1071/2071/3071 U/UTP Cables
- PATCHMAX GS3 and 1100GS3 Modular Patch Panels
- MGS400 Telecommunications Outlets
- GS8E Patch and Workstation Cords
- VisiPatch 360 System
- VisiPatch System
- 110VP, 117VP and 119VP Patch Cords



GigaSPEED® XL7 Specifications

SYSTIMAX GigaSPEED XL7 Category 6 Guaranteed Channel Performance

Guaranteed Performance Specifications for GigaSPEED XL7 Solution

Electrical Parameter (1 - 250 MHz)	Guaranteed Channel Margins to Category 6/Class E TIA 568B.2-1 and ISO 11801 Edition 2.0
Insertion Loss	5.0 %
NEXT	6.0 dB
PSNEXT	7.5 dB
ELFEXT	6.0 dB
PSELFEXT	8.0 dB
Return Loss	4.0 dB

Frequency (MHz)	Insertion Loss (dB)	NEXT (dB)	ACR (dB)	PSNEXT (dB)	PSACR (dB)	ELFEXT (dB)	PSELFEXT (dB)	Return Loss (dB)	Delay (ns)	Delay Skew (ns)
1.0	2.0	71.0	69.0	69.5	67.5	69.3	68.3	23.0	580	30
4.0	3.8	69.0	65.2	68.0	64.2	57.2	56.2	23.0	562	30
8.0	5.4	64.2	58.8	63.1	57.7	51.2	50.2	23.0	557	30
10.0	6.0	62.6	56.6	61.5	55.5	49.3	48.3	23.0	555	30
16.0	7.6	59.2	51.6	58.1	50.4	45.2	44.2	22.0	553	30
20.0	8.6	57.6	49.1	56.5	47.9	43.2	42.2	21.5	552	30
25.0	9.6	56.0	46.4	54.8	45.2	41.3	40.3	21.0	551	30
31.25	10.8	54.4	43.6	53.2	42.4	39.4	38.4	20.5	550	30
62.5	15.6	49.4	33.7	48.1	32.4	33.3	32.3	18.0	549	30
100.0	20.2	45.9	25.7	44.6	24.3	29.3	28.3	16.0	548	30
200.0	30.0	40.8	10.8	39.4	9.4	23.2	22.2	13.0	547	30
250.0	34.1	39.1	5.0	37.7	3.5	21.3	20.3	12.0	546	30

Note: The table provides reference values only. All parameters comply with the governing equations over the entire frequency range. All values and equations apply to worst-case channels utilizing 4-pair 71E series cables with full cross-connects, consolidation points and work area outlets (4 connections in a channel) for any channel lengths up to 100 meters.

Non Plenum Category 6, 1071E GigaSPEED® XL Cable

The 1071E 4-Pair GigaSPEED XL cable meets or exceeds Category 6/Class E attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 6. The 71E GigaSPEED XL cables feature a patent-pending thin and easy-to-remove bisector tape that delivers the performance benefits of more traditional fluted center members without the associated stiffness and size.

Physical Specifications:

Weight: 25.6 lbs/1,000 ft (38.2 kg/km)
Nominal Jacket Thickness: 0.022 in (0.56 mm)
Nominal Outside Diameter: 0.232 in (5.89 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG



1071 004ESL 4/23 R1000

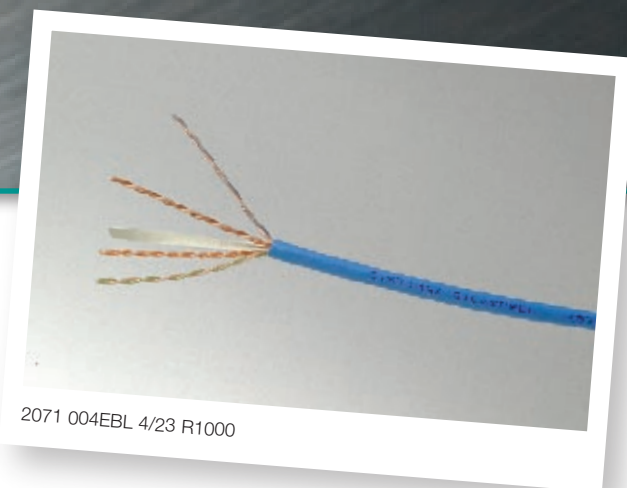
Electrical Specifications:

NVP (fastest pair @ 10 MHz): 69%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.2-1 Category 6
 ISO/IEC 11801: 2002 (Edition 2) Class E
 CENELEC EN50173: 2002 (Edition 2) Category 6
UL and cUL: CMR

Product Number	Pair Count	Color	Length	Package	Material ID
1071 004EBK 4/23 W1000	4	Black	1,000 ft (305 m)	We Tote Box	700212129
1071 004EBL 4/23 R1000	4	Blue	1,000 ft (305 m)	Reel	760004697
1071 004EBL 4/23 W1000	4	Blue	1,000 ft (305 m)	We Tote Box	760004689
1071 004EBL 4/23 R3000	4	Blue	3,000 ft (914 m)	Reel	760080671
1071 004EGR 4/23 W1000	4	Green	1,000 ft (305 m)	We-Tote Box	760039610
1071 004EGR 4/23 R3000	4	Green	3,000 ft (914 m)	Reel	760081307
1071 004ELB 4/23 R1000	4	Light Blue	1,000 ft (305 m)	Reel	700211956
1071 004ELB 4/23 R3000	4	Light Blue	3,000 ft (914 m)	Reel	760040105
1071 004ELB 4/23 W1000	4	Light Blue	1,000 ft (305 m)	We Tote Box	700211964
1071 004ELL 4/23 R1000	4	Lilac	1,000 ft (305 m)	Reel	700212087
1071 004ELL 4/23 W1000	4	Lilac	1,000 ft (305 m)	We Tote Box	700212095
1071 004EOR 4/23 R1000	4	Orange	1,000 ft (305 m)	Reel	700212111
1071 004EOR 4/23 W1000	4	Orange	1,000 ft (305 m)	We Tote Box	700212103
1071 004EPK 4/23 W1000	4	Pink	1,000 ft (305 m)	We Tote Box	760011858
1071 004EPR R1000	4	Purple	1,000 ft (305 m)	Reel	760093286
1071 004EPR 4/23 W1000	4	Purple	1,000 ft (305 m)	We Tote Box	760039644
1071 004ERD 4/23 R1000	4	Red	1,000 ft (305 m)	Reel	700212012
1071 004ERD 4/23 W1000	4	Red	1,000 ft (305 m)	We Tote Box	700212020
1071 004ESL 4/23 R1000	4	Slate	1,000 ft (305 m)	Reel	700211923
1071 004ESL 4/23 R3000	4	Slate	3,000 ft (914 m)	Reel	760040097
1071 004ESL 4/23 W1000	4	Slate	1,000 ft (305 m)	We Tote Box	700211931
1071 004EGN 4/23 R1000	4	Spring Green	1,000 ft (305 m)	Reel	700212053
1071 004EGN 4/23 W1000	4	Spring Green	1,000 ft (305 m)	We Tote Box	700212061
1071 004EWH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	700214208
1071 004EWH 4/23 R3000	4	White	3,000 ft (914 m)	Reel	760040089
1071 004EWH 4/23 W1000	4	White	1,000 ft (305 m)	We Tote Box	700212046
1071 004EYL 4/23 R1000	4	Yellow	1,000 ft (305 m)	Reel	700211980
1071 004EYL 4/23 W1000	4	Yellow	1,000 ft (305 m)	We Tote Box	700211998



Plenum Category 6, 2071E GigaSPEED® XL Cable



The 2071E 4-pair GigaSPEED XL cable meets or exceeds Category 6/Class E attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 6. The 71E GigaSPEED XL cables feature a patent-pending thin and easy-to-remove bisector tape that delivers the performance benefits of more traditional fluted center members without the associated stiffness and size.

The 2071E 4-pair cable is composed of bare solid copper conductors insulated with Fluorinated-Ethylene-Propylene (FEP). The core of twisted pairs is jacketed with a low smoke PVC. It conforms to the low flame, low smoke requirements of the NEC.

Physical Specifications:

Weight: 29.1 lbs/1,000 ft (13.2 kg/304.8 m)
Nominal Jacket Thickness: 0.020 in (0.51 mm)
Nominal Outside Diameter: 0.224 in (5.69 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 71%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.2-1 Category 6
 ISO/IEC 11801: 2002 (Edition 2) Class E
 CENELEC EN50173: 2002 (Edition 2) Category 6
UL and cUL: CMP

Product Number	Pair Count	Color	Length	Package	Material ID
2071 004EBK 4/23 W1000	4	Black	1,000 ft (305 m)	We Tote Box	700210230
2071 004EBK 4/23 R1000	4	Black	1,000 ft (305 m)	Reel	700210222
2071 004EBL 4/23 R1000	4	Blue	1,000 ft (305 m)	Reel	700210081
2071 004EBL 4/23 R3000	4	Blue	3,000 ft (915 m)	Reel	700210099
2071 004EBL 4/23 W1000	4	Blue	1,000 ft (305 m)	We Tote Box	700208093
2071 004ELL 4/23 R1000	4	Lilac	1,000 ft (305 m)	Reel	700210206
2071 004ELL 4/23 R3000	4	Lilac	3,000 ft (915 m)	Reel	760021212
2071 004ELL 4/23 W1000	4	Lilac	1,000 ft (305 m)	We Tote Box	700210214
2071 004EOR 4/23 R1000	4	Orange	1,000 ft (305 m)	Reel	700210008
2071 004EOR 4/23 R3000	4	Orange	3,000 ft (915 m)	Reel	760070367
2071 004EOR 4/23 W1000	4	Orange	1,000 ft (305 m)	We Tote Box	700210024
2071 004EPK 4/23 R1000	4	Pink	1,000 ft (305 m)	Reel	760038554
2071 004EPK 4/23 W1000	4	Pink	1,000 ft (305 m)	We Tote Box	760011841
2071 004EPR 4/23 R1000	4	Purple	1,000 ft (305 m)	Reel	760055830
2071 004ERD 4/23 R1000	4	Red	1,000 ft (305 m)	Reel	700210248
2071 004ERD 4/23 R3000	4	Red	3,000 ft (915 m)	Reel	760043158
2071 004ERD 4/23 W1000	4	Red	1,000 ft (305 m)	We Tote Box	700210263
2071 004ESL 4/23 R1000	4	Slate	1,000 ft (305 m)	Reel	700210198
2071 004ESL 4/23 R3000	4	Slate	3,000 ft (915 m)	Reel	760005652
2071 004ESL 4/23 W1000	4	Slate	1,000 ft (305 m)	We Tote Box	700214372
2071 004EGN 4/23 R1000	4	Spring Green	1,000 ft (305 m)	Reel	700210156
2071 004EGN 4/24 R3000	4	Spring Green	3,000 ft (915 m)	Reel	760021204
2071 004EGN 4/23 W1000	4	Spring Green	1,000 ft (305 m)	We Tote Box	700210164
2071 004EWH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	700210032
2071 004EWH 4/23 R3000	4	White	3,000 ft (915 m)	Reel	700210057
2071 004EWH 4/23 W1000	4	White	1,000 ft (305 m)	We-Tote Box	700208101
2071 004EYL 4/23 R1000	4	Yellow	1,000 ft (305 m)	Reel	700210131

Product Number	Pair Count	Color	Length	Package	Material ID
2071 004EYL 4/23 R3000	4	Yellow	3,000 ft (914 m)	Reel	760047555
2071 004EYL 4/23 W1000	4	Yellow	1,000 ft (305 m)	We Tote Box	700210123

Low Smoke Zero Halogen, Category 6, 3071E GigaSPEED® XL Cable

The 3071E 4-pair GigaSPEED XL cable meets or exceeds Category 6/Class E attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 6. The 71E GigaSPEED XL cables feature a patent-pending thin and easy-to-remove bisector tape that delivers the performance benefits of more traditional fluted center members without the associated stiffness and size.

3071E cable is composed of solid copper conductors insulated with non-halogen high-density polyethylene and jacketed with a low smoke zero halogen compound.

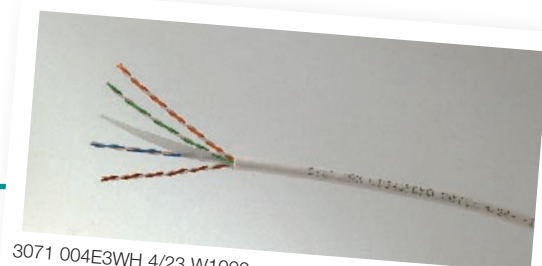
Physical Specifications:

Weight: 25.0 lbs/1,000 ft (37.3 kg/km)
Nominal Jacket Thickness: 0.020 in (0.51 mm)
Nominal Outside Diameter: 0.231 in (5.87 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 69%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.2-1 Category 6
ISO/IEC 11801: 2002 (Edition 2) Class E
CENELEC EN50173: 2002 (Edition 2) Category 6
IEC 754 part 2, Non-halogen based on pH and conductivity measurements
IEC 1034 part 2, Smoke emission
"E" version cables are tested to IEC 332 part 1 for Flammability and Fire Retardant
"Retardant "E3" version of cables are tested to IEC 332 part 3 for Flammability and Fire Retardant
NES 713: Toxicity index

Product Number	Pair Count	Color	Length	Package	Material ID
3071 004E3BL 4/23 R3000	4	Blue	3,000 ft (914 m)	Reel	760070466
3071 004E3WH 4/23 W1000	4	White	1,000 ft (305 m)	We-Tote Box	760011544
3071 004EBK 4/23 R1000	4	Black	1,000 ft (305 m)	Reel	700216369
3071 004EBL 4/23 R1000	4	Blue	1,000 ft (305 m)	Reel	700216484
3071 004EBL 4/23 R3000	4	Blue	3,000 ft (914 m)	Reel	760081265
3071 004ESL 4/23 R1000	4	Slate	1,000 ft (305 m)	Reel	700216419
3071 004EWH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	700216443
3071 004EWH 4/23 R3000	4	White	3,000 ft (914 m)	Reel	760081281
3071 004ERD 4/23 R3000	4	Red	3,000 ft (914 m)	Reel	760081273
3071 004EWH 4/23 W1000	4	White	1,000 ft (305 m)	We-Tote Box	700216450
3071 004EBL 4/23 W1000	4	Blue	1,000 ft (305 m)	We-Tote Box	700216492
3071 004E3BL 4/23 RVAR	4	Blue	Variable Length	Reel	860312784
3071 004ERD 4/23 R4400	4	Red	4,400 ft (1,341 m)	Reel	760060095
3071 004ESL 4/23 W1000	4	Slate	1,000 ft (305 m)	We-Tote Box	760095554
3071 004EWH 4/23 R4400	4	White	4,400 ft (1,341 m)	Reel	700216476
3071 004E3WH 4/23 R1000	4	White	1,000 ft (305 m)	Reel	760006346
3071 004E3WH 4/23 R4400	4	White	4,400 ft (1,341 m)	Reel	760006353



Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

Plenum Category 6, GigaSPEED® 4070 Limited Combustible Cable

The SYSTIMAX GigaSPEED 4070 limited combustible cable meets the TIA/EIA Category 6 and UL-444 (CMP) standards. Jacketed and insulated with an FEP fluoropolymer resin, the cable also meets the UL requirement FHC 25/50 (limited combustible cable). The superior combination of fire safety and electrical performance makes 4070 an ideal candidate for applications requiring high speed, high bandwidth and high margin of fire safety. The limited combustible cables are also resistant to performance changes due to aging or environmental conditions, totally recyclable, chemical resistant and heavy metal free.

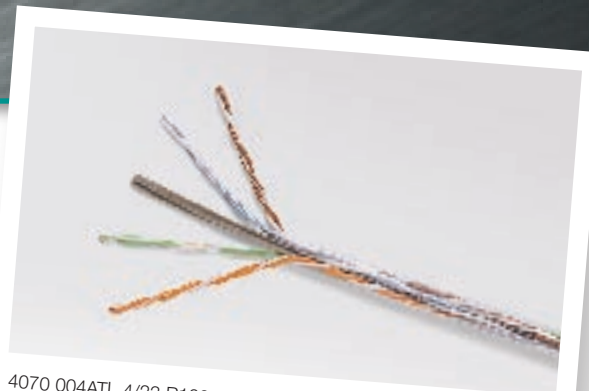
See protection product section for Category 6 protector units.

Physical Specifications:

Weight: 25.9 lbs/1,000 ft (38.6 kg/km)
Nominal Jacket Thickness: 0.010 in (0.25 mm)
Nominal Outside Diameter: 0.198 in (5.03 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 71%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.2-1 Category 6
 ISO/IEC 11801: 2002 (Edition 2) Class E
 CENELEC EN50173: 2002 (Edition 2) Category 6
UL and cUL: CMP, FHC 25/50



4070 004ATL 4/23 R1000

Product Number	Pair Count	Color	Length	Package	Material ID
4070 004ATL 4/23 R1000	4	Translucent	1,000 ft (305 m)	Reel	700201361

Category 6, Outdoor 1571 Cable

The SYSTIMAX Category 6, Outdoor 1571 cable consists of polyethylene, insulated conductors, tightly twisted into four pairs. The pairs are stranded around a polyolefin fluted center member, filled with a flooding compound and jacketed with a black polyethylene jacket. The 1571 cable is fully compliant with Category 6 requirements of TIA/EIA 568B.2-1 and ISO/IEC 11801.

Physical Specifications:

Weight: 27.3 lbs/1,000 ft (40.6 kg/km)
Nominal Jacket Thickness: 0.020 in (0.51 mm)
Nominal Outside Diameter: 0.250 in (6.35 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -40°F to 140°F (-40°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 62%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: Category 6
 TIA/EIA 568B.2-1
 ISO/IEC 11801



1571 004ABK 4/23 R1000

Product Number	Pair Count	Color	Length	Package	Material ID
1571 004ABK 4/23 R1000	4	Black	1,000 ft (305 m)	Reel	760008888
1571 004ABK 4/23 R3000	4	Black	3,000 ft (915m)	Reel	760090043

1100GS3 GigaSPEED® XL Modular Patch Panel

The 1100GS3 Modular Patch Panel is a 19-inch rack or wall mountable 8-pin modular jack panel that accommodates repeated line moves, additions and rearrangements. Installation is easy using proven 110 IDC gas tight terminations in the back with easy-to-read labeling guides. Designed by CommScope Labs as part of the fully tuned and integrated GigaSPEED XL cabling solutions, the 1100GS3 provides an industry standard panel footprint but with many performance and feature extras.

The SYSTIMAX 1100GS3 panel is angled to allow the cable to flow to each side of the rack. This enables the patch cords to be routed directly into vertical cable managers. It also allows the labeling scheme and port identification to be visible at all times.

The 1100GS3 Distribution Modules feature an innovative termination manager and redesigned rear housing. The termination manager and new rear housing provide for easier, faster, more reliable terminations, and reduced variability in the placement and termination of cables to the panel.

Features and Benefits:

- Electrical performance guaranteed to meet or exceed TIA/EIA 568B.2-1 Category 6 and ISO/IEC Category 6/Class E specifications
- Vertical and horizontal cord organizers available to improve patch cord management
- Available in 24- and 48-port configurations featuring universal A/B labeling
- 110 connector terminations on rear of panel allow quick and easy installation of 22 to 24 AWG cable
- Attractive black powder covered high-strength steel panel comes equipped with a removable rear mounted

Physical Specifications:

Height: 24-Ports: 1.74 in (4.38 cm)

48-Ports: 3.50 in (8.83 cm)

Width: 19 in (48.26 cm)

Depth: 1.60 in (4.06 cm)

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Contact Material & Plating: Material: Copper alloy. Plating: Gold flash over 50 micro-inch (1.3 micron) nickel underplate. Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in (0.40 mm to 0.64 mm) (26 to 22 AWG)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in (0.51 mm to 0.64 mm) (24 to 22 AWG)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17 mm)

1100GS3-24

1100GS3-48 Back

1100GS3-24-Angled

cable management bar

- Can support network line speeds in excess of 1 Gbps
- Each panel comes ready to install, including front and rear labels
- Backward compatible with Category 5e, 5 and 3 cords and cables, however optimal performance is achieved when used with GigaSPEED GS8E patch cords
- Certified component of an integrated GigaSPEED XL Solution
- Qualifies for a 20-Year Extended Product Warranty and Applications Assurance when included in a registered SYSTIMAX GigaSPEED channel

Insulation Types: All plastic insulates, including: PVC, irradiated PVC, Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon, and FEP

Outlet Wires: Copper alloy, 50 micro-inch (1.27 microns) hard gold plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

Insulation resistance: 500 MΩ minimum

Current rating: 1.5 A at 68°F (20°C)

TIA/EIA Category: 6

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL listed

Product Number	Detailed Description	Number of Ports	Material ID
1100GS3-24 w/Termination Mgt	24 Port 1100 GS3 Panel with Term. Mgr.	24xRJ45	760062372
1100GS3-48 w/Termination Mgt	48 Port 1100 GS3 Panel with Term. Mgr.	48xRJ45	760062380
1100GS3-24-Angled w/Termination Mgt	24 Port 1100A GS3 Panel w/Term. Mgr.	24xRJ45	760066563
1100GS3-48-Angled w/Termination Mgt	48 Port 1100A GS3 Panel w/Term. Mgr.	48xRJ45	760066571
1100GS3-DM	1100 GS3-DM MODULE	6xRJ45	760065771
6-Port PM/1100 Icon Label Holder Kit	6-port Pm/1100 Icon Label Holder Kit	4/Kit	760001404
1100PM Panel Label kit	1100PM Panel Label Kit	5/Kit (32 labels/sheet)	760072116
1100GS3 Blank Insert	1100GS3 Blank Insert	N/A	760018069

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity
CU

Coax

1100GS3 GigaSPEED® XL Modular Patch Panel (cont.)

Product Number	Detailed Description	Number of Ports	Material ID
1100GS3-24 (empty)	24 port-flat-empty	24 Ports	760001776
1100GS3-48 (empty)	48 port-flat-empty	48 Ports	760001784
1100AGS3-24 (empty)	24 port-angled-empty	24 Ports	760072082
1100AGS3-48 (empty)	48 port-angled-empty	48 Ports	760092809

Multimedia Distribution Hardware

Multimedia panel product lines are made up of basic panel kits and various copper and fiber modules with LC, SC, ST adapters. The 1100GS3 panel kits have two configurations. The 1U kit supports four modules, and the 2U kit supports eight modules. There are six adapters in both SC and ST modules and 12 adapters in the LC module.



This modular approach offers total flexibility in selecting the required fiber adapters. In addition, it provides for fiber and GigaSPEED XL copper solutions since both fiber and GigaSPEED XL modules can fit into the same panel kit. This feature also supports existing GigaSPEED XL installations by providing the option of a cost effective upgrade from copper to fiber solutions by simply replacing the copper modules with the fiber modules in conjunction with the cable changes.

The 1100GS3 Multimedia panel kits can be mounted in 19-inch racks for enterprise applications. Panel kits will include cable retainers and fasteners, labels, mounting screws and installation instructions.

Multimedia Panel

Product Number	Detailed Description	Modules/Ports	Material ID
1100GS3-1U	1100GS3-1U Panel Kit	4 Modules	760001776
1100GS3-2U	1100GS3-2U Panel Kit	8 Modules	760001784
1100A-GS3-1U	1100A-GS3-1U Panel Kit - Angled	4 Modules	760072082
1100GS5-24 (empty)	24 port-flat-empty	24 Ports	760092775
1100GS5-48 (empty)	48 port-flat-empty	48 Ports	760092817
1100AGS5-24 (empty)	24 port-angled-empty	24 Ports	760092825
1100AGS5-48 (empty)	48 port-angled-empty	48 Ports	760092833
1100AGS3-24 (empty)	48 port-angled-empty	48 Ports	760092809

Multimedia Modules

Product Number	Detailed Description	Modules/Ports	Material ID
1100-DM-GS3-RJ45	1100GS3 Copper Module	6 RJ45	760065771
1100-DM-GS3-LS-SC/SC	1100GS3 LazrSPEED SC Module	6 SC	760001792
1100-DM-GS3-LS-ST/ST	1100GS3 LazrSPEED ST Module	6 ST	760001800
1100-DM-GS3-LS-LC/LC	1100GS3 LazrSPEED LC Module	12 LC	760001818
1100-DM-GS3-MM-SC/SC	1100GS3 OptiSPEED SC Module	6 SC	760001826
1100-DM-GS3-MM-ST/ST	1100GS3 OptiSPEED ST Module	6 ST	760001834
1100-DM-GS3-MM-LC/LC	1100GS3 OptiSPEED LC Module	12 LC	760001842
1100-DM-GS3-SM-SC/SC	1100GS3 TeraSPEED SC Module	6 SC	760001859
1100-DM-GS3-SM-ST/ST	1100GS3 TeraSPEED ST Module	6 ST	760001867
1100-DM-GS3-SM-LC/LC	1100GS3 TeraSPEED LC Module	12 LC	760001875
	Blank Module		760018069

PATCHMAX® GS3 GigaSPEED® XL Distribution Hardware

The PATCHMAX GS3 panel system helps unleash the power of an integrated GigaSPEED XL copper and fiberoptic LazrSPEED/TeraSPEED/OptiSPEED cabling solution while maintaining all of the innovative features that have made PATCHMAX unique in the industry. Its unique modularity and patch cord management system continue to provide unmatched flexibility to MIS managers with the ability to mix and match copper and fiber media in the same panel.

The 19-inch rack mountable patch panel is designed to accept 4 or 8 six-port Distribution Modules (DM) which can be rotated forward, allowing front access to the 110 type IDC terminals for easy cable termination. Built-in horizontal patch cord management brackets provide support for patch cords as well as a holder for the DM modules during installation.

This modular approach offers total flexibility in selecting the required copper and fiber adapters. In addition it provides for fiber and GigaSPEED XL copper solutions since both fiber and GigaSPEED XL modules can fit into the same panel kit. This feature also supports existing GigaSPEED XL installations by providing the option of a cost effective upgrade from copper to fiber solutions by simply replacing the copper modules with the fiber modules in conjunction with the cable changes.

The PATCHMAX GS3 Distribution Modules feature an innovative termination manager and redesigned rear housing. The termination manager and new rear housing provide for easier, faster, more reliable terminations, and reduced variability in the placement and termination of cables to the panel.

Physical Specifications:

Height: 4 Module Panel: 3.53 in (8.9 cm)
8 Module Panel: 5.29 in (13.34 cm)

Width: 4 Module Panel: 19 in (48.3 cm)
8 Module Panel: 19 in (48.3 cm)

Depth: 4 Module Panel: 8.13 in (20.5 cm)
8 Module Panel: 8.13 in (20.5 cm)

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Contact Material & Plating: Copper alloy, 100 micro-inch (2.54 microns) bright solder over 100 micro-inch (2.54 microns) nickel under plate.
Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in
(0.40 mm to 0.64 mm) (26 to 22 AWG)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in
(0.51 mm to 0.64 mm) (24 to 22 AWG)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17mm)

Insulation Types: All plastic insulates, including: PVC, irradiated PVC, Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon and FEP

Outlet Wires: Copper alloy, 50 micro-inch (1.27 microns) hard gold plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

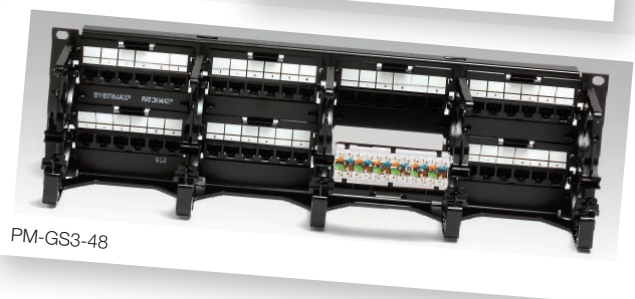
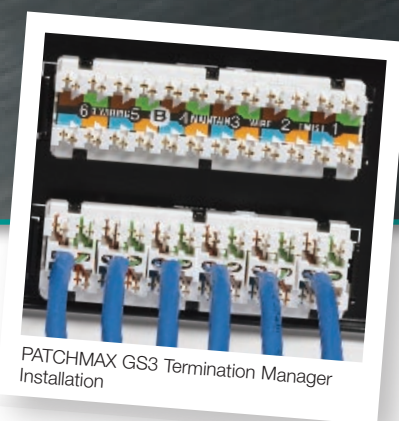
Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

TIA/EIA Category: 6

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed



Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

Product Number	Detailed Description	Modules/Ports	Material ID
PM-DM-GS3-MM-LC/LC	PATCHMAX GS3-OptiSPEED LC Module	12 LC	760001735
PM-DM-GS3-SM-SC/SC	PATCHMAX GS3-TeraSPEED SC Module	6 SC	760001743
PM-DM-GS3-SM-ST/ST	PATCHMAX GS3-TeraSPEED ST Module	6 ST	760001750
PM-DM-GS3-SM-LC/LC	PATCHMAX GS3-TeraSPEED LC Module	12 LC	760001768
PM-GS3-24	PATCHMAX GS3 Patch Panel w/ Termination Manager - 24-Port	4 Modules	760062356
PM-GS3-48	PATCHMAX GS3 Patch Panel w/ Termination Manager - 48-Port	8 Modules	760062364
PM-GS3-DM	PATCHMAX GS3 Distribution Module	6 Modules	760065763



Copper
Reference



GigaSPEED
X10D



GigaSPEED
XL



PowerSUM



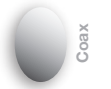
InstaPATCH
CU



VisiPatch



Additional Copper
Connectivity



Coax

Product Number	Detailed Description	Modules/Ports	Material
PM-GS3-2U	PATCHMAX GS3-2U Panel Kit (Modules not included)	4 Modules	760001669
PM-GS3-3U	PATCHMAX GS3-3U Panel Kit (Modules not included)	8 Modules	760001677
PM-DM-GS3-LS-SC/SC	PATCHMAX GS3-LazrSPEED SC Module	6 SC	760001685
PM-DM-GS3-LS-ST/ST	PATCHMAX GS3-LazrSPEED ST Module	6 ST	760001693
PM-DM-GS3-LS-LC/LC	PATCHMAX GS3-LazrSPEED LC Module	12 LC	760001701
PM-DM-GS3-MM-ST/ST	PATCHMAX GS3-OptiSPEED ST Module	6 ST	760001727
PM-DM-GS3-MM-SC/SC	PATCHMAX GS3-OptiSPEED SC Module	6 SC	760001719

MGS400 Series GigaSPEED® XL Information Outlet

The MGS400 Information Outlet features proprietary crosstalk cancellation techniques for superior Near End Crosstalk (NEXT and PSNEXT) performance that provides unmatched throughput performance when installed as part of a complete GigaSPEED XL channel. The solution is guaranteed to exceed the Category 6/Class E channel specifications for ISO/IEC and TIA, even under the worst case channel configuration.

Features and Benefits:

- Snaps into any M-Series modular faceplate, frame or surface-mount box
- Can be mounted either at 90 degrees (straight) or 45 degrees (angled)
- Angled feature eliminates the need for special faceplates
- Multicolored identification labels assure fast, accurate installation
- Low-profile wire cap protects against contamination and secures connections
- The MGS400 outlet uses either T568A or T568B wiring
- The cap kit contains 25 natural colored cable ties and 25 clear colored MGS covers with strain relief.

Physical Specifications:

Dimensions: HxWxD: 0.8 in x 0.8 in x 1.2 in (2.0 cm x 2.0 cm x 3.1 cm)
Universal A/B labeling

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

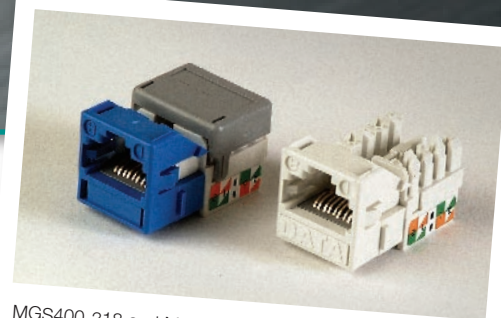
Contact Material & Plating: Copper alloy, 100 micro-inch (2.54 microns) bright solder over 100 micro-inch (2.54 microns) nickel underplate.
Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in
(0.40 mm to 0.64 mm) (26 to 22 AWG)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in
(0.51 mm to 0.64 mm) (24 to 22 AWG)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17 mm)

Insulation Type: All plastic insulates, including: Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon and FEP



MGS400-318 and MGS400-262



Kit: Cap with Strain Relief for MGS Outlet

Outlet Wires: Copper alloy,
50 micro-inch (1.27 microns) hard gold
plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

TIA/EIA Category: 6

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed

Product Number	Color	Qty/Pkg	Material ID
MGS400-003	Black	1	700206667
MGS400-112	Orange	1	700206683
MGS400-123	Yellow	1	700206691
MGS400-226	Green	1	700206709
MGS400-262	White	1	700206725
MGS400-317	Red	1	700206741
MGS400-318	Blue	1	700206758
MGS400-361	Violet	1	700206675
MGS400-215	Misty Cream	1	760070326
MGS400-246	Ivory	1	700206717
MGS400-270	Gray	1	700206733
MGS400-317-K (Keyed)	Red	1	760006361
MGS400-318	Blue	100	760041996
MGS400-003	Black	100	760041962
MGS400-262	White	100	760041988
MGS400-246	Ivory	100	760041970
MGS400BH-BULK-112	Orange	100	760077156
Handheld Terminating Device	Black	25	760034215
Kit: Cap with Strain Relief for MGS Outlet	Clear	25	760056069

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

GS8E GigaSPEED® XL Modular Patch Cord



GS8E

The GS8E Modular Patch Cord family of high bandwidth cords form parts of the GigaSPEED XL cabling solution. Electrical performance exceeds TIA/EIA and ISO/IEC Category 6/Class E specifications and is fully backward compatible with Category 5e and 5 connectors.

The GS8H Low Smoke Zero Halogen (LSZH) is a stranded GigaSPEED XL Solution cord.

The GS8L is a 3071 Low Smoke Zero Halogen solid conductor cable which is terminated with the new GS 8-pin connectorized plugs.

The GS8E solid conductor cords consist of solid conductor cable, factory terminated with a GS8E plug(s).

Patented plug design, improved 24 gauge cordage and a unique manufacturing process assure excellent electrical performance and low variability. Improved anti-snap feature provides maximum protection from snagging during moves and rearrangements.

Patch cords are orderable using a 14-character feature configuration coding scheme which replaces the familiar 9-character Material ID. This allows maximum flexibility for ordering many different combinations of plug ends, cordage types, colors and lengths.

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Physical Specifications:

Contact Material: Phosphor Bronze

Contact Plating: Gold 50 micro-inch (1.27 microns)
Nickel 100 micro-inch (2.54 microns)

Insertion Life: 750 minimum

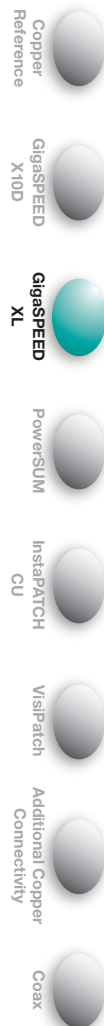
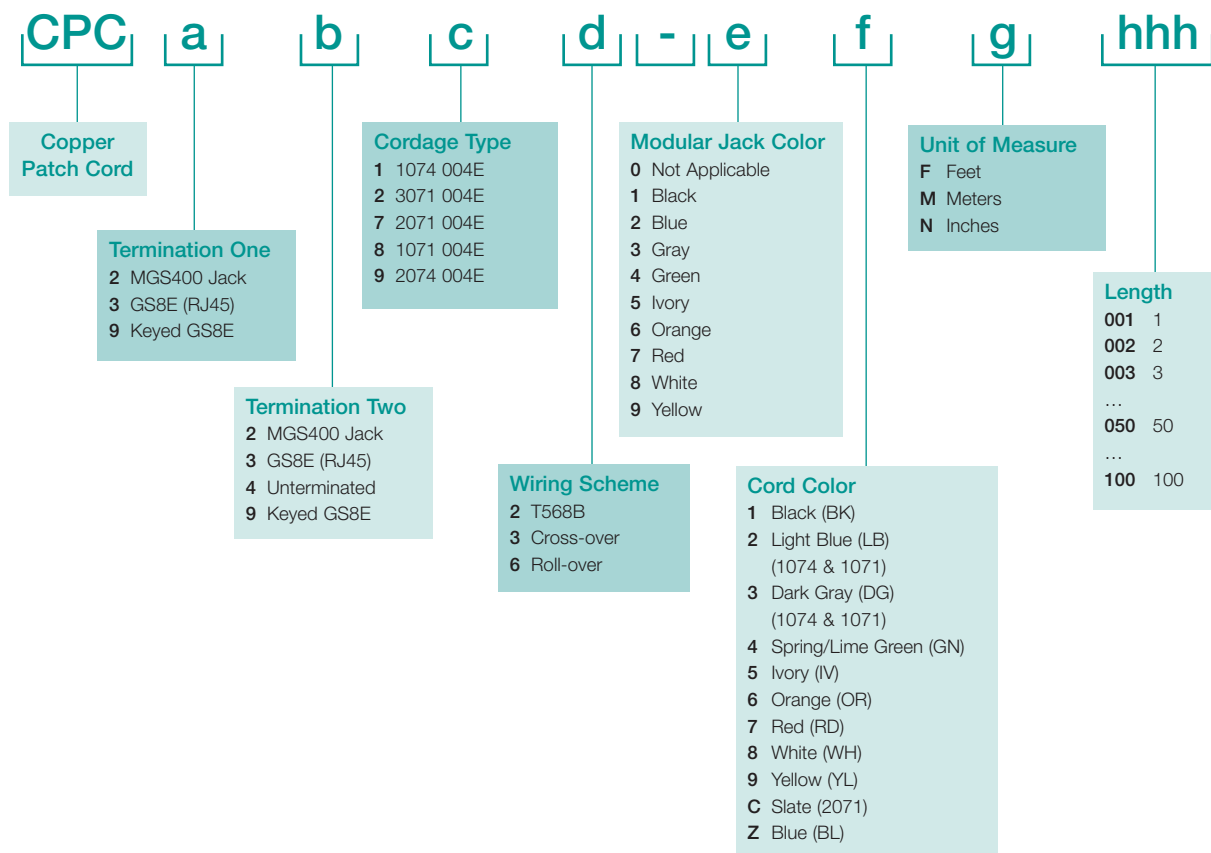
Plug Material: Polycarbonate UL-rated 94 V-O

Electrical Specifications:

TIA/EIA: Category 6

UL and cUL: CM (cordage)

Product Number	Description	Color Options	CPC Code
MGS-MGS SN	Dual MGS 400 solid non-plenum cable	1,2,3,4,5,6,7,8,9,C,Z	CPC2282
MGS-MGS SP	Dual MGS 400 solid plenum cable	1,4,6,7,8,9,C,Z	CPC2272
MGS-MGS SL	Dual MGS 400 solid LSZH cable	8	CPC2222
GS8MGS-SN	GS8E to MGS400 solid non-plenum cable	1,2,3,4,5,6,7,8,9,C,Z	CPC3282
GS8MGS-SP	GS8E to MGS400 solid plenum cable	1,4,6,7,8,9,B,C,Z	CPC3272
GS8MGS-SL	GS8E to MGS400 solid LSZH cable	8	CPC3222
GS8E	Double ended GS8E stranded cordage	1,2,3,4,5,6,7,8,9,Z	CPC3312
GS117E	Single ended GS8E stranded cordage	1,2,3,4,5,6,7,8,9,Z	CPC3412
GS8E-SPD	Double ended GS8E solid plenum cable	1,4,6,7,8,9,C,Z	CPC3372
GS8E-SP	Single ended GS8E solid plenum cable	1,4,6,7,8,9,C,Z	CPC3472
GS8E-SND	Double ended GS8E solid non-plenum cable	1,2,3,4,5,6,7,8,9,C,Z	CPC3382
GS8E-SN	Single ended GS8E solid non-plenum cable	1,2,3,4,5,6,7,8,9,C,Z	CPC3482
GS8L-SLD	Double ended GS8E solid LSZH cable	8	CPC3322
GS8H	Double ended GS8E stranded LSZH cable	8	CPC3392
GS8EN	Double ended GS8E (Cross-over) stranded cordage	1,2,3,4,5,6,7,8,9,Z	CPC3313
GS8E-K	Double ended keyed GS8E stranded cordage	1,2,3,4,5,6,7,8,9,Z	CPC9912
GS8E-R	Double ended GS8E Rollover stranded cordage	1,2,3,4,5,6,7,8,9,Z	CPC3316





Copper
Reference



GigaSPEED
X10D



GigaSPEED
XL



PowerSUM



InstaPATCH
CU



VisiPatch

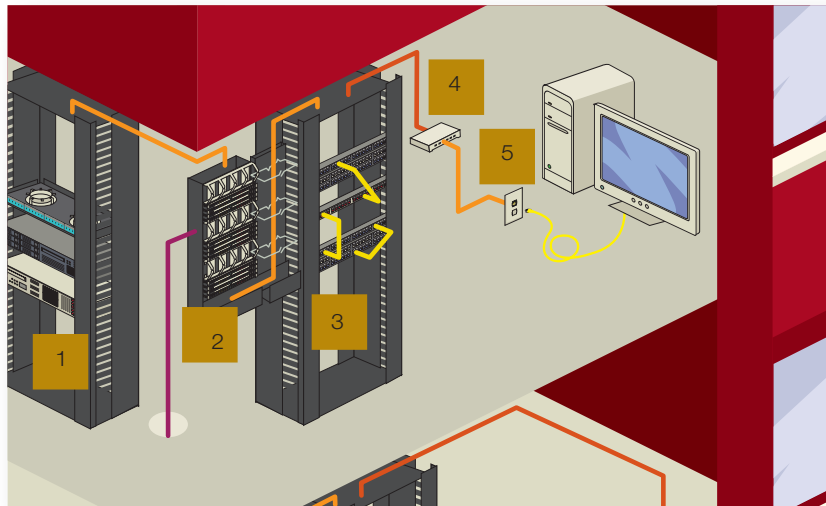


Additional Copper
Connectivity



Coax

PowerSUM Solution Exceeding Category 5/5e



- 1 Racks
- 2 110 system
- 3 1100PS PATCHMAX PS modular patch panels
- 4 Optional zone box with MPS100E
- 5 MPS100E outlet and faceplate
- 1061/2061/3061/4061 U/UTP cable
- 117PS equipment cord
- D8PS patch cord

PowerSUM Solution

Features and Benefits:

- Performance Extended to 155.5 MHz for Channels
- Performance certified to exceed the Category 5e specifications for enhanced channels
- Supports IEEE 802.3 1000BASE-T plus other legacy LANs and applications

PowerSUM channel performance specifications exceed not only the TIA 568B.2 and ISO 11801 Edition 2 for Category 5e/ Class D cabling systems but are also capable of providing stable and continual performance up to and beyond 100 MHz.

SYSTIMAX channels that are comprised exclusively of PowerSUM passive products end-to-end are capable of delivering 1.0 Gbps to the workstation in accordance with application standards and are eligible for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance.

PowerSUM products include:

- 4-pair 1061, 2061, 3061 U/UTP Cables
- 110 VisiPatch System and 110 Connector System
- PATCHMAX and 1100 PowerSum Category 5e Modular Patch Panels
- MPS100E Information Outlets
- D8PS Patch and Workstation Cords
- 110, 117, 119 Patch Cords

PowerSUM Specifications

SYSTIMAX PowerSUM Category 5e Guaranteed Channel Performance

Guaranteed Performance Specifications for 4-connection SYSTIMAX PowerSUM Channels¹

Test Parameter	Guaranteed Margins Values
Attenuation	5%
Pair-Pair NEXT	3 dB
PSNEXT	5.5 dB
Pair-Pair ELFEXT	4.5 dB
PSELFEXT	5.5 dB
Return Loss	1 dB
Delay	580~546.9ns ²
Delay Skew	30ns

1 All guarantees described in this document are subject to the terms and conditions of the SYSTIMAX Extended Product Warranty and Applications Assurance Program

2 Phase Delay is frequency dependent

PowerSUM Guaranteed Channel Performance Specifications

Frequency (MHz)	Atten (dB)	pr-pr NEXT (dB)	ACR (dB)	PSNEXT (dB)	PSACR (dB)	pr-pr ELFEXT (dB)	PSELFEXT (dB)	Return Loss (dB)	Phase Delay (ns)	Delay Skew (ns)
1.0	2.1	66.3	64.2	66.1	64.0	61.8	59.8	18.0	580	30
4.0	4.2	56.6	52.4	56.2	52.0	49.8	47.8	18.0	562	30
8.0	6.0	51.6	45.6	51.2	45.2	43.8	41.8	18.0	557	30
10.0	6.7	50.0	43.3	49.6	42.9	41.8	39.8	18.0	555	30
16.0	8.6	46.6	38.0	46.2	37.6	37.8	35.8	18.0	553	30
20.0	9.6	45.0	35.4	44.6	35.0	35.8	33.8	18.0	552	30
25.0	10.4	43.4	33.0	42.9	32.5	33.9	31.9	17.0	551	30
31.3	12.2	41.7	29.5	41.2	29.0	31.9	29.9	16.0	550	30
62.5	17.6	36.6	19.0	36.1	18.5	25.9	23.9	13.1	549	30
100.0	22.8	33.1	10.3	32.6	9.8	21.9	19.9	11.0	548	30
125.0	25.8	31.5	5.7	30.9	5.1	19.9	17.9	10.1	547	30
155.5	29.1	29.8	0.7	29.2	0.1	18.0	16.0	9.1	547	30

The table provides reference values only. All parameters comply with the governing equations given below over the entire frequency range. All values and equations apply to worst-case channels utilizing four-pair 61C+ or 61B series cables with full cross-connects, consolidation points and work area outlets (4 connections in a channel) for the length up to 100 meters.



Category 5e, PowerSUM Cable

Non Plenum 1061

The 1061 4-pair cable meets or exceeds Category 5e/Class D attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173, and TIA/EIA 568B.1. Further, these cables are UL verified as Category 5e.

The 4-pair 1061C cable is composed of 24 AWG solid copper conductors, insulated with high-density polyolefin. The insulated conductors are twisted into pairs and jacketed with our specially formulated material. 1061C cable is CM rated.

The 4-pair 1061B cable is CMR rated and also UL approved. The 4-pair 1061B cable is composed of 24 AWG solid copper conductors with high-density polyolefin insulation and jacketed with low-smoke polyvinyl chloride (PVC).

Physical Specifications:

Weight: 20.8 lbs/1,000 ft (9.43 kg/304.8 m)
Nominal Jacket Thickness: 0.021 in (0.53 mm)
Nominal Outside Diameter: 0.200 in (5.08 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 24 AWG

Electrical Specifications:

NVP (fastest pair @10 MHz): 70%
Maximum DC Resistance: 9.38 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Maximum Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e
 ISO/IEC 11801: 2002 (Edition 2) Class D
 CENELEC EN50173: 2002 (Edition 2) Category 5e
UL and cUL: CMR (for 1061B)
 CM (for 1061C)



UL CMR Rated

Product Number	Pair Count	Color	Length	Package	Material ID
1061 004BBL 4/24 R1000	4	Blue	1,000 ft (305 m)	Reel	107323636
1061 004BBL 4/24 W1000	4	Blue	1,000 ft (305 m)	We Tote Box	107251696
1061 004BOR 4/24 W1000	4	Orange	1,000 ft (305 m)	We Tote Box	108173840
1061 004BRD 4/24 W1000	4	Red	1,000 ft (305 m)	We Tote Box	700022643
1061 004BSL 4/24 W1000	4	Slate	1,000 ft (305 m)	We Tote Box	107091936
1061 004BWH 4/24 W1000	4	White	1,000 ft (305 m)	We Tote Box	107819575

UL CM Rated

Product Number	Pair Count	Color	Length	Package	Material ID
1061 004CBK 4/24 W1000	4	Black	1,000 ft (305 m)	We Tote Box	107509051
1061 004CBL 4/24 R1000	4	Blue	1,000 ft (305 m)	Reel	760004705
1061 004CBL 4/24 W1000	4	Blue	1,000 ft (305 m)	We Tote Box	760004671
1061 004CGN 4/24 R1000	4	Spring Green	1,000 ft (305 m)	Reel	107244048
1061 004CGN 4/24 W1000	4	Spring Green	1,000 ft (305 m)	We Tote Box	107244030
1061 004CIV 4/24 R1000	4	Ivory	1,000 ft (305 m)	Reel	107076192
1061 004CIV 4/24 W1000	4	Ivory	1,000 ft (305 m)	We Tote Box	106871817
1061 004CLB 4/24 R1000	4	Light Blue	1,000 ft (305 m)	Reel	107057853
1061 004CLB 4/24 W1000	4	Light Blue	1,000 ft (305 m)	We Tote Box	106871809
1061 004CLL 4/24 W1000	4	Lilac	1,000 ft (305 m)	We Tote Box	107244022
1061 004COR 4/24 R1000	4	Orange	1,000 ft (305 m)	Reel	107193435
1061 004COR 4/24 W1000	4	Orange	1,000 ft (305 m)	We Tote Box	700156177
1061 004CRD 4/24 R1000	4	Red	1,000 ft (305 m)	Reel	107244055
1061 004CRD 4/24 W1000	4	Red	1,000 ft (305 m)	We Tote Box	106926363

Category 5e, PowerSUM Cable continued

Product Number	Pair Count	Color	Length	Package	Material ID
1061 004CSL 4/24 R1000	4	Slate	1,000 ft (305 m)	Reel	106836943
1061 004CSL 4/24 W1000	4	Slate	1,000 ft (305 m)	We Tote Box	106836950
1061 004CWH 4/24 R1000	4	White	1,000 ft (305 m)	Reel	107849283
1061 004CWH 4/24 W1000	4	White	1,000 ft (305 m)	We Tote Box	107147787
1061 004CYL 4/24 R1000	4	Yellow	1,000 ft (305 m)	Reel	106999071
1061 004CYL 4/24 W1000	4	Yellow	1,000 ft (305 m)	We Tote Box	107001687

Plenum 2061

The 2061 Plenum 4-pair cable meets or exceeds Category 5e/Class D attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 5e and meet the UL-444 (CMP) requirements. The 2061 cable is composed of 24 AWG solid copper conductors insulated with fluorinated ethylene propylene (FEP) and polyethylene (PE) and jacketed with low-smoke polyvinyl chloride (PVC).

Physical Specifications:

Weight: 20.0 lbs/1,000 ft (29.8 kg/km)

Nominal Jacket Thickness: 0.019 in (0.48 mm)

Nominal Outside Diameter: 0.180 in (4.57 mm)

Maximum Pulling Tension: 25 lbs (11.34 kg)

Operating Temperature: -4°F to 140°F (-20°C to 60°C)

Gauge: 24 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 73%

Maximum DC Resistance: 9.38 Ohms/100 m

Maximum DC Resistance Unbalance: 3%

Maximum Mutual Capacitance at 1 kHz: 5.6 nF/100 m

Standards: ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e
ISO/IEC 11801: 2002 (Edition 2) Class D

CENELEC EN 50173: 2002 (Edition 2) Category 5e

UL and cUL: CMP

Product Number	Pair Count	Color	Length	Package	Material ID
2061 004FBK 4/24 W1000	4	Black	1,000 ft (305 m)	We Tote Box	760051615
2061 004FBL 4/24 R1000	4	Blue	1,000 ft (305 m)	Reel	760049585
2061 004FBL 4/24 R3000	4	Blue	3,000 ft (915 m)	Reel	760049643
2061 004FBL 4/24 W1000	4	Blue	1,000 ft (305 m)	We Tote Box	760041913
2061 004FGN 4/24 R1000	4	Spring Green	1,000 ft (305 m)	Reel	760049635
2061 004FGN 4/24 R3000	4	Spring Green	3,000 ft (915 m)	Reel	760049692
2061 004FGN 4/24 W1000	4	Spring Green	1,000 ft (305 m)	We Tote Box	760049700
2061 004FLL 4/24 W1000	4	Lilac	1,000 ft (305 m)	We Tote Box	760051631
2061 004FOR 4/24 R1000	4	Orange	1,000 ft (305 m)	Reel	760049627
2061 004FOR 4/24 R3000	4	Orange	3,000 ft (915 m)	Reel	760049684
2061 004FOR 4/24 W1000	4	Orange	1,000 ft (305 m)	We Tote Box	760041954
2061 004FPK 4/24 W1000	4	Pink	1,000 ft (305 m)	We Tote Box	760066068
2061 004FPR 4/24 R1000	4	Purple	1,000 ft (305 m)	Reel	760058735
2061 004FPR 4/24 R3000	4	Purple	3,000 ft (915m)	Reel	760073114
2061 004FRD 4/24 W1000	4	Red	1,000 ft (305 m)	We Tote Box	760051623
2061 004FSL 4/24 R1000	4	Slate	1,000 ft (305 m)	Reel	760049601
2061 004FSL 4/24 R3000	4	Slate	3,000 ft (915 m)	Reel	760049668
2061 004FSL 4/24 W1000	4	Slate	1,000 ft (305 m)	We Tote Box	760041939
2061 004FWH 4/24 R1000	4	White	1,000 ft (305 m)	Reel	760049593
2061 004FWH 4/24 R3000	4	White	3,000 ft (915 m)	Reel	760049650
2061 004FWH 4/24 W1000	4	White	1,000 ft (305 m)	We Tote Box	760041921
2061 004FYL 4/24 R1000	4	Yellow	1,000 ft (305 m)	Reel	760049619
2061 004FYL 4/24 R3000	4	Yellow	3,000 ft (915 m)	Reel	760049676
2061 004FYL 4/24 W1000	4	Yellow	1,000 ft (305 m)	We Tote Box	760041947

Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

Low Smoke Zero Halogen (LSZH) 3061

The 3061A LSZH 4-pair cable meets or exceeds Category 5e/Class D attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 5e. The 3061A LSZH cable is composed of 0.511 mm (24 AWG) bare solid copper conductors insulated with high density polyolefin. The insulated conductors are tightly twisted into pairs and jacketed with the low smoke non-halogen compound.

Physical Specifications:

Weight: 20.0 lbs/1,000 ft (29.8 kg/km)
Nominal Jacket Thickness: 0.021 in (0.53 mm)
Nominal Outside Diameter: 0.195 in (4.95 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 24 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 70%
Maximum DC Resistance: 9.38 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Maximum Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e
 ISO/IEC 11801: 2002 (Edition 2) Class D
 CENELEC EN50173: 2002 (Edition 2) Category 5e
 IEC 754 part 2, Non-halogen based on pH and conductivity measurements
 IEC 1034 part 2, Smoke emission
 IEC 332 part 3, Flammability and flame retardant
 NES 713: Toxicity index

Product Number	Pair Count	Color	Length	Package	Material ID
3061 004AWH 4/24 R1000	4	White	1,000 ft (305 m)	Reel	107573537
3061 004ABL 4/24 R3000	4	Blue	3,000 ft (914 m)	Reel	760081232
3061 004ARD 4/24 R3000	4	Red	3,000 ft (914 m)	Reel	760081240
3061 004AWH 4/24 R3000	4	White	3,000 ft (914 m)	Reel	760081257
3061 004AWH 4/24 W1000	4	White	1,000 ft (305 m)	We-Tote Box	107573545

Limited Combustible 4061

The 4061 cable is UL verified. The 4061 limited combustible cable meets the TIA/EIA Category 5e and UL-444 (CMP) standards. Jacketed and insulated with an FEP fluoropolymer resin, the cable also meets the UL requirement FHC 25/50 (limited combustible cable). Superior fire safety makes 4061 an ideal candidate for applications requiring high margin of fire safety. The limited combustible cables are also resistant to performance changes due to aging or environmental conditions, totally recyclable, chemical resistant and heavy metal free.

Physical Specifications:

Weight: 20.2 lbs/1,000 ft (30.1 kg/km)
Nominal Jacket Thickness: 0.009 in (0.23 mm)
Nominal Outside Diameter: 0.180 in (4.57 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 23 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 71%
Maximum DC Resistance: 7.61 Ohms/100 m
Maximum DC Resistance Unbalance: 3%
Mutual Capacitance at 1 kHz: 5.6 nF/100 m
Standards: ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e
 ISO/IEC 11801: 2002 (Edition 2) Class D
 CENELEC EN50173: 2002 (Edition 2) Category 5e
UL and cUL: CMP, FHC 25/50

Product Number	Pair Count	Color	Length	Package	Material ID
4061 004ATL 4/24 R1000	4	Translucent	1,000 ft (305 m)	Reel	108671272

1100 Category 5e PowerSUM Modular Patch Panel

The 1100PSCAT5E Modular Jack Panel is a 19-inch rack mountable RJ45 jack panel available in straight or angled designs. The 1100PSCAT5E accommodates repeated line moves, additions and rearrangements. The IDC connection on the rear of the panel houses the printed wiring board that provides continuous connection to the 8-pin modular jacks on the front. The result is a hard-working panel that allows an IDC gas-tight termination of equipment on 110 connectors. The panel is available with 24 or 48 RJ45 ports. The 1100PSCAT5E Panel kit includes new icon labels with plastic holders that you can mount on the front of the panel for easy port identification.

The minimum insertion life is 750 cycles, which allows for hundreds of moves and additions. Label strips for both the front and back of the panel allow for easy identification of circuits.

Features and Benefits

- Supports IEEE 802.3 1000BASE-T plus other legacy LANs and applications
- PowerSUM channel performance specifications exceed not only the TIA 568B.2 and ISO 11801 Edition 2 for Category 5e/Class D cabling systems, but are also capable of providing stable and continual performance up to and beyond 100 MHz
- Available in 24 and 48 port versions
- Capable of handling T568A or T568B wiring

Physical Specifications:

Height: 24-Port: 1.75 in (4.38 cm)
48-Port: 3.50 in (8.83 cm)

Width: 19.0 in (48.3 cm)

Depth: 1.60 in (4.96 cm)

Wire Termination Type:

Insulation displacement (ID), gas tight

Wire Size:

Conductor Type: Solid or stranded (7 strands)

Size: 26/24/22 AWG (0.40/0.51/0.64 mm)

Insulation Type: All plastic insulates, including: PVC, irradiated PVC, Nylon, Polyethylene, Polypropylene, PTFE, Polyurethane, Teflon®

Mechanical Data:

Plug Insertion Life: 750 minimum

Wire Insertion Force: 24 AWG=13-28 lbs (58-125 N)

Wire Retention: 24 AWG-typical pull out force

X-axis=10.6 lbs (47.3 N)

Y-axis=10.6 lbs (47.3 N)

Z-axis=2.4 lbs (10.7 N)

Environmental Conditions:

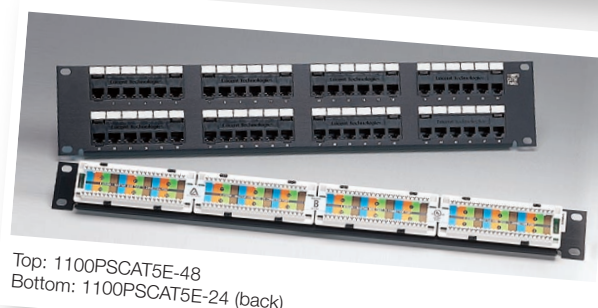
Temperature Range:

Storage: -40°F to 158°F (-40°C to 70°C)

Operational: 14°F to 140°F (-10°C to 60°C)

Relative Humidity: (operational) maximum, non-condensing 93%

1100PSCAT5E-24-Angled



Top: 1100PSCAT5E-48
Bottom: 1100PSCAT5E-24 (back)

- Vertical and Horizontal cable organizers improve patch cord management (order separately, 1100C and 1100D)
- 110 Connections in rear allow for easy and quick installation of 22 to 24 gauge
- Cables routed and tied directly to the panel eliminating the rear cable management bar
- Supports 1Gb network line speeds
- Cat 5 and Cat 3 backward compatible
- PowerSUM 20 year warranty

Materials:

Plastic Components: Polycarbonate, self-extinguishing

Flammability Rating: UL-rated 94 V-O

Oxygen Index: 28.5% minimum

Contact Material: Phosphor Bronze

Description:

Insertion Life: 750 cycles

Plug/Jack Contact Force: 100g min. (3.5 oz.)

Plug Retention Force: 133 N min.

Operating Temperature Range: -10°C to 60°C degrees

Storage Temperature Range: -40°C to 70°C degrees

Humidity: 5 to 95% (noncondensing)

Height: 24-Ports: 4.38 cm (1U)

48-Ports: 8.83 cm (2U)

Width: 48.26 cm (19 inch)

Electrical Specifications:

Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

EIA/TIA Category: 5e

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed

Product Number	Wiring	Number of Ports	Material ID
1100PSCAT5E-24	T568A, T568B	24	108208919
1100PSCAT5E-48	T568A, T568B	48	108208935
1100PSCAT5E-24-Angled	T568A, T568B	24	760056580
1100PSCAT5E-48-Angled	T568A, T568B	48	760056598
1100PS ICON Label - White			760001412
1100PS ICON Label - Blue			760001420

PATCHMAX® PowerSUM Distribution Hardware



Top: PM2150PSE-48
Bottom: PM2150PSE-24

PATCHMAX Distribution Hardware is a copper and fiber modular connecting hardware system. PATCHMAX components can be purchased individually or as a complete kit. It is designed to be mounted on EIA 310 Standard 19 inch (48.3 cm) rack/frame or 1100C type wall mount brackets.

The Category 5e copper kit PM2150 PowerSUM includes a 24-(48) port panel, 4 (8) DM21xx modules, a cable fastener kit, 1 (2) front retainers, 5 (10) rear retainers, 16 white/blue labels, straps, tape and installation instructions for the 24- and 48- port kits, respectively.

The P2040 and P2080 are individual, empty panels that hold 4 and 8 snap-in distribution modules, respectively. The P2040 or P2080 panels allow fiber and copper to be terminated in the same panel. A slack storage tray in the rear of the module maintains the correct buffered fiber bend radius.

Physical Specifications:

Height: 24-Port: 3.53 in (8.9 cm)

48-Port: 7.06 in (17.8 cm)

Width: 24-Port: 19 in (48.3 cm)

48-Port: 19 in (48.3 cm)

Depth: 24-Port: 8.13 in (20.5 cm)

48-Port: 8.13 in (20.5 cm)

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Contact Material & Plating: Copper alloy, 100 micro-inch (2.54 microns)

bright solder over 100 micro-inch (2.54 microns) nickel underplate.

Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in

(0.40 mm to 0.64 mm) (26 to 22 AWG)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in

(0.51 mm to 0.64 mm) (24 to 22 AWG)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17 mm)

Insulation Types: All plastic insulates, including: PVC, irradiated PVC,

Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon, and FEP

Outlet Wires: Copper alloy, 50 micro-inch (1.27 microns) hard gold plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

TIA/EIA Category: 5e

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface.

UL and cUL Listed

PATCHMAX PowerSUM Panels

Product Number	Detailed Description	Material ID
PM2150PSE-24	PowerSUM Patch Panel, 24-Port	108320029
PM2150PSE-48	PowerSUM Patch Panel, 48-Port	108320045
P2040	Panel for 4 Distribution Modules	107428591
P2080	Panel for 8 Distribution Modules	107428609

Note: For M-Series Modular Patching, refer to the M2000 Modular Patch Panel.

PATCHMAX PowerSUM Modules *continued*

PATCHMAX PowerSUM Modules

Product Number	Detailed Description	Material ID
DM2150PSE	PowerSUM Distribution Module, 6-Port	108320011
DM2302 SC/SC	OptiSPEED Multimode SC Module, 6 Connection	108116484
DM2302 SC/ST	OptiSPEED Multimode SC Front Module, 6 Connection	108116500
DM2302 ST/ST	OptiSPEED Multimode ST Module, 6 Connection	108116526
DM2302 ST/SC	OptiSPEED Multimode ST Front Module, 6 Connection	108116542
DM2302 LC/LC	OptiSPEED Multimode LC Module, 12 Connection	108267634
DM2303 SC/SC	TeraSPEED Single-mode SC Module, 6 Connection	108116492
DM2303 SC/ST	TeraSPEED Single-mode SC Front Module, 6 Connection	108116518
DM2303 ST/ST	TeraSPEED Single-mode ST Module, 6 Connection	108116534
DM2303 ST/SC	TeraSPEED Single-mode ST Front Module, 6 Connection	108116559
DM2303 LC/LC	TeraSPEED Single-mode LC Module, 12 Connection	108267642
DM2304 LC/LC	LazrSPEED Multimode LC Module, 12 Connection	108662131
PM2302 SC/ST-24	OptiSPEED Multimode SC Front 24 Connection Panel	108118043
PM2302 ST/ST-24	OptiSPEED Multimode ST 24 Connection Panel	108118068
PM2302 ST/SC-24	OptiSPEED Multimode ST Front 24 Connection Panel	108008084
PM2302 SC/SC-48	OptiSPEED Multimode SC 48 Connection Panel	108118100
PM2302 SC/ST-48	OptiSPEED Multimode SC Front 48 Connection Panel	108118126
PM2302 ST/ST-48	OptiSPEED Multimode ST 48 Connection Panel	108118142
PM2302 ST/SC-48	OptiSPEED Multimode ST Front 48 Connection Panel	108118167
PM2302 LC/LC-48	OptiSPEED Multimode LC 48 Connection Panel	108267659
PM2302 LC/LC-96	OptiSPEED Multimode LC 96 Connection Panel	108267675
PM2303 SC/SC-24	OptiSPEED Single-mode SC 24 Connection Panel	108118035
PM2303 SC/ST-24	OptiSPEED Single-mode SC Front 24 Connection Panel	108118050
PM2303 ST/ST-24	OptiSPEED Single-mode ST 24 Connection Panel	108118076
PM2303 ST/SC-24	OptiSPEED Single-mode ST Front 24 Connection Panel	108118092
PM2303 SC/SC-48	OptiSPEED Single-mode SC 48 Connection Panel	108118118
PM2303 SC/ST-48	OptiSPEED Single-mode SC Front 48 Connection Panel	108118134
PM2303 ST/ST-48	OptiSPEED Single-mode ST 48 Connection Panel	108118159
PM2303 ST/SC-48	OptiSPEED Single-mode ST Front 48 Connection Panel	108118175
PM2303 LC/LC-48	OptiSPEED Single-mode LC 48 Connection Panel	108267667
PM2303 LC/LC-96	OptiSPEED Single-mode LC 96 Connection Panel	108267683
DM2304 SC/SC	LazrSPEED Multimode SC module, 6 Connection	108662156
DM2304 ST/ST	LazrSPEED Multimode ST module, 6 Connection	108662164
PM2304 SC/SC-24	LazrSPEED Multimode SC 24 Connection Panel, 2U Height	108662065
PM2304 ST/ST-24	LazrSPEED Multimode ST 24 Connection Panel, 2U Height	108662107
PM2304 SC/SC-48	LazrSPEED Multimode SC 48 Connection Panel, 4U Height	108662081
PM2304 ST/ST-48	LazrSPEED Multimode ST 48 Connection Panel, 4U Height	108662123
PM2304 LC/LC-48	LazrSPEED Multimode LC 48 Connection Panel, 2U Height	108662024
PM2304 LC/LC-96	LazrSPEED Multimode LC 96 Connection Panel, 4U Height	108662040



Copper
ReferenceGigaSPEED
X10DGigaSPEED
XL

PowerSUM

PATCHMAX PowerSUM Accessories

Product Number	Detailed Description	Material ID
L2300-BL	Icons (4 strips, 6 icons per strip), blue	107536773
L2300-YL	Icons (4 strips, 6 icons per strip), yellow	107536799
L2300-RD	Icons (4 strips, 6 icons per strip), red	107536815
L2300-PL	Icons (4 strips, 6 icons per strip), purple	107536849
R2100	Front Cord Retainer (Kit of 5)	108036690
R2200	Rear Cable Retainer	107638934
R2300	Velcro Fastener Kit	107670952
BP2100	Blank Plate	108028457
L2200-WH	Labels for Circuit Distribution Module	107656977

MPS100E Modular PowerSUM Information Outlets

The MPS100E Modular Information Outlets are 8-position/8-conductor high-density modular information jacks designed for high speed networking applications using data transmission rates.

Features and Benefits:

- Snaps into any M-Series modular faceplate, frame or surface-mount box
- Can be mounted either at 90 degrees (straight) or 45 degrees (angled)
- Angled feature eliminates the need for special faceplates
- Multicolored identification labels assure fast, accurate installation
- Low-profile wire cap protects against contamination and secures connections
- Pair splitters and wider channel for enhanced conductor placement and termination
- The MPS100E outlet uses either the T568A or T568B wiring
- The MPS100E outlet is Category 5e compliant



Physical Specifications:

Dimensions: HxWxD: 0.8 in x 0.8 in x 1.2 in (2.0 cm x 2.0 cm x 3.1 cm)
Universal A/B labeling

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Contact Material & Plating: Copper alloy, 100 micro-inch (2.54 microns) bright solder over 100 micro-inch (2.54 microns) nickel underplate.
Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in
(0.40 mm to 0.64 mm) (26 to 22 AWG)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in
(0.51 mm to 0.64 mm) (24 to 22 AWG)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17 mm)

Insulation Type: All plastics insulates, including:

Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon and FEP

Outlet Wires: Copper alloy, 50 micro-inch (1.27 microns) hard gold plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

TIA/EIA Category: 5e

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

Product Number	Wiring	Color	Qty/Pkg	Material ID
MPS100E-003	T568A, T568B	Black	1	108232695
MPS100E-112	T568A, T568B	Orange	1	108232703
MPS100E-123	T568A, T568B	Yellow	1	108232711
MPS100E-226	T568A, T568B	Green	1	108232729
MPS100E-246	T568A, T568B	Electrical Ivory	1	108232737
MPS100E-262	T568A, T568B	Electrical White	1	108232745
MPS100E-270	T568A, T568B	Electrical Gray	1	108232752
MPS100E-317	T568A, T568B	Red	1	108232760
MPS100E-318	T568A, T568B	Blue	1	108232778
MPS100E-361	T568A, T568B	Violet	1	108337726
MPS100E-215	T568B	Misty Cream	1	108480484
Cap PowerSUM Strain Relief	N/A	Transparent	100	760061333
Cap PowerSUM Strain Relief	N/A	Transparent	1000	760061341



D8PS PowerSUM Modular Patch Cord

The D8PS Modular Patch Cord meets or exceeds Attenuation and NEXT Category 5 and Category 5e specifications for patch cords as specified in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Available in a variety of colors and lengths, the D8PS cords are ideal for high activity environments that require reliable data transmission.



Patch cords are orderable using a 14-character feature configuration coding scheme which replaces the familiar 9-character Material ID. This allows maximum flexibility for ordering many different combinations of plug ends, cordage types, colors and lengths.

Physical Specifications:

Contact Material: Phosphor bronze

Contact Plating: Gold 50 micro-inch (1.27 microns)
Nickel 100 micro-inch (2.54 microns)

Insertion Life: 750 minimum

Plug Material: Polycarbonate UL-rated 94 V-O

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Electrical Specifications:

TIA/EIA Category: 5e

UL and cUL: CM (cordage)

Copper
Reference

Gigaset
X10D

Gigaset
XL

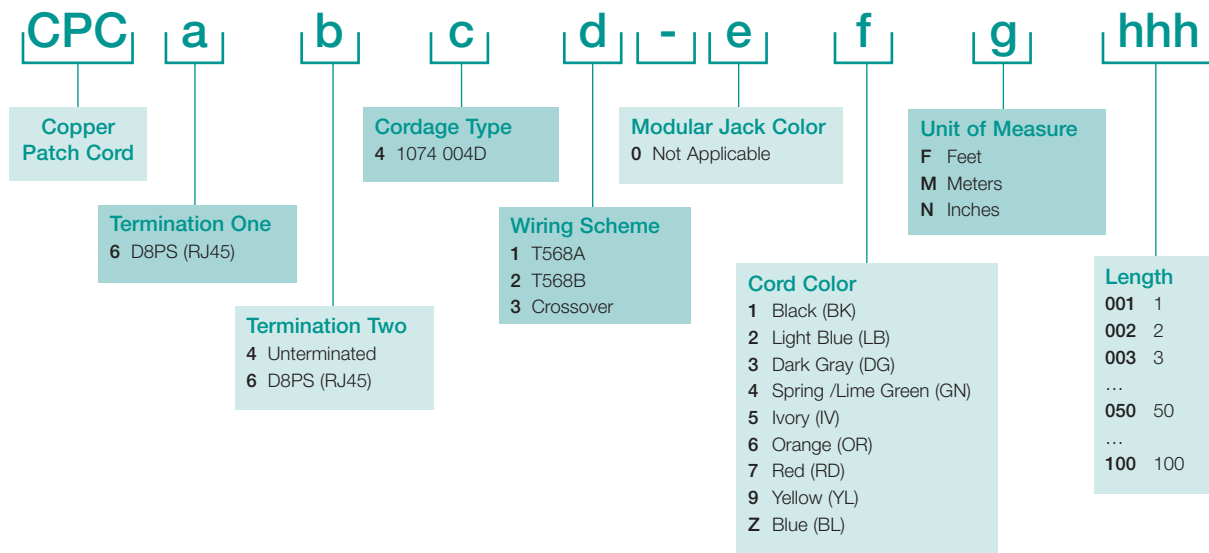
PowerSUM

Instapatch
CU

Visipatch

Additional Copper
Connectivity

Coax



Product Number	Description	Color Options	CPC Code
D8PS	Power Sum Double Ended Stranded Cordage	1,2,3,4,5,6,7,9	CPC6642
D8PS-SE	Power Sum Single Ended Stranded Cordage	1,2,3,4,5,6,7,9	CPC6442
D8PS-A Wired	Power Sum Double Ended Stranded Cordage- A wiring	1,2,3,4,5,6,7,9	CPC6641
D8PS Crossover	Power Sum Double Ended Stranded Cordage - Cross-over	1,2,3,4,5,6,7,9	CPC6643

25-Pair Category 5e U/UTP, 61 Series Cable

Non Plenum 1061

The 25-pair 1061 cable is composed of 24 AWG bare solid copper conductors insulated with high density polyolefin. The insulated conductors are tightly twisted into pairs, stranded into mini-units and jacketed with a SYSTIMAX specially formulated PVC jacket. User-friendly standard 25-pair PIC color coding minimizes confusion when terminating on SYSTIMAX distribution hardware and Category 5/5e, 25-pair, telco-type, 525 connectors.

Physical Specifications:

Weight: 113 lbs/1,000 ft (51.26 kg/304.8 m)
Nominal Jacket Thickness: 0.027 in (0.69 mm)
Nominal Outside Diameter: 0.53 in (13.3 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Outside Diameter: 0.520 in (13.2 mm)
Gauge: 24 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 69%
Maximum DC Resistance: 9.38 Ohms/100 m
Maximum DC Resistance Unbalance: 5%
Maximum Mutual Capacitance at 1 kHz: 14 nF/100 m
Standards: TIA/EIA 568A Category 5e
UL and cUL: CMR



Product Number	Pair Count	Color	Length	Package	Material ID
1061 025FSL 25/24 R1000	25	Slate	1,000 ft (305 m)	Reel	760026518
1061 025FSL 25/24 R4000	25	Slate	4,000 ft (1219 m)	Reel	760026526
1061 004CSL 4/24 R4000*	4	Slate	4,000 ft (1219 m)	Reel	760089102

25-Pair Category 5e U/UTP, 61 Series Cable continued

Product Number	Pair Count	Color	Length	Package	Material ID
1061 025FSL 25/24 R4000	25	Slate	4,000 ft (1219 m)	Reel	760026526
1071 004ESL 4/23 R4000*	4	Slate	4,000 ft (1219 m)	Reel	760077750
1071 004EWH 4/23 R4000	4	White	4,000 ft (1219 m)	Reel	760077768
3061 004ABL 4/24 R4000*	4	Blue	4,000 ft (1219 m)	Reel	760077776
3061 004ARD 4/24 R4000*	4	Red	4,000 ft (1219 m)	Reel	760077784
3061 004AWH 4/24 R4000*	4	White	4,000 ft (1219 m)	Reel	760077792
3061 025BWH 25/24 R4000	25	White	4,000 ft (1219 m)	Reel	760081216
3071 004E3WH 4/23 R4000*	4	White	4,000 ft (1219 m)	Reel	760089086
3071 004EBL 4/23 R4000*	4	Blue	4,000 ft (1219 m)	Reel	760077800
3071 004ERD 4/23 R4000*	4	Red	4,000 ft (1219 m)	Reel	760077818
3071 004EWH 4/23 R4000*	4	White	4,000 ft (1219 m)	Reel	760077826

* Available in EMEA only

Plenum 2061

The 25-pair 2061A cable is UL verified Category 5 and UL listed type CMP for use in air return handling spaces. The cable has a user-friendly standard 25-pair PIC color coding scheme, which minimizes confusion when terminating on SYSTIMAX distribution hardware and the Category 5, 25-pair telco-type 525 Connector. The cable conductors are insulated with Fluorinated-Ethylene-Propylene (FEP), twisted into pairs, stranded into mini-units and jacketed with Plenum rated material.

Physical Specifications:

Weight: 104 lbs/1,000 ft (47.2 kg/304.8 m)

Nominal Jacket Thickness: 0.012 in (0.31 mm)

Nominal Outside Diameter: 0.46 in (11.7 mm)

Maximum Pulling Tension: 25 lbs (11.34 kg)

Operating Temperature: -4°F to 140°F (-20°C to 60°C)

Gauge: 24 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 75%

Maximum DC Resistance: 9.38 Ohms/100 m

Maximum DC Resistance Unbalance: 5%

Maximum Mutual Capacitance at 1 kHz: 4.6 nF/100 m

Standards: TIA/EIA 568A Category 5

UL and cUL: CMP

Product Number	Pair Count	Color	Length	Package	Material ID
2061 025BWH 25/24 R1000	25	White	1,000 ft (305 m)	Reel	760081349
2061 025BWH 25/24 R4000	25	White	4,000 ft (1,219 m)	Reel	760081356





Low Smoke Zero Halogen 3061

The PowerSUM 3061 025B cable construction exceeds the requirements specified in ANSI/TIA/EIA 568B.2 for Category 5e and ISO/IEC 11801 for Class D cabling. Performance is UL® Verified to these requirements. The cable design is constructed with 25 pairs of 24 AWG solid copper conductors. The pairs are arranged in seven groups, with three isolated from their adjacent groups by inclusion of a thin isolator tape. This tape can be separated from the cable construction without the use of any cutting tools, by simply tearing the tape away.

The PowerSUM 3061 025B cable design is also directly compatible with our 525 series connectors, when preconnectorized solutions are utilized. The absence of internal tubes or rigid separating elements makes the cable a natural match for these connectors.

Physical Specifications:

Weight: 115 lbs/1,000 ft (171 kg/km)
Nominal Jacket Thickness: 0.030 in (0.76 mm)
Nominal Outside Diameter: 0.500 in (12.70 mm)
Maximum Pulling Tension: 25 lbs (11.34 kg)
Operating Temperature: -4°F to 140°F (-20°C to 60°C)
Gauge: 24 AWG

Electrical Specifications:

NVP (fastest pair @ 10 MHz): 75%
Maximum DC Resistance: 9.38 Ohms/100 m
Maximum DC Resistance Unbalance: 5%
Maximum Mutual Capacitance at 1 kHz: 4.6 nF/100 m
Standards: TIA/EIA 568A Category 5
IEC 754 part 2, Non-halogen based on pH and conductivity measurements
IEC 1034 part 2, Smoke emission
IEC 332 part 3, Flammability and flame retardant
NES 713: Toxicity index

Product Number	Pair Count	Color	Length	Package	Material ID
3061 025BWH 25/24 R1000	25	White	1,000 ft (305 m)	Reel	760081208
3061 025BWH 25/24 R4000	25	White	4,000 ft (1219 m)	Reel	760081216

2500 and 2512 Modular Patch Panel

The 2500 Category 5, PowerSUM Modular Patch Panel provides 8-pin modular patch on the front of the panel and female, 50-pin connections (patch) on the back.

The 2512 Category 5, PowerSUM Modular Patch Panel provides two pairs to each 8-pin modular patch. Pair one is terminated on pins 1 and 2, and pair two is terminated on pins 3 and 6. Therefore, one 50-pin connector serves 12 jacks.

The 2512CAT5PS is wired to the IEEE 802.3, Ethernet 100BASE-TX and 100BASE-T2 standard.

Physical Specifications:

Height: 24-Port: 1.75 in (4.38 cm)

48-Port: 3.50 in (8.83 cm)

Width: 19.0 in (48.26 cm)

Depth: 1.60 in (4.06 cm)

Wire Termination Type: Insulation displacement (ID), gas tight

Wire Size:

Conductor Type: Solid or stranded (7 strands)

Size: 26/24/22 AWG (0.40/0.51/0.64 mm)

Insulation Type: All plastic insulates, including: PVC, irradiated PVC, Nylon, Polyethylene, Polypropylene, PTFE, Polyurethane, Teflon®

Mechanical Data:

Plug Insertion Life: 750 minimum

Wire Insertion Force: 24 AWG=13-28 lbs (58-125 N)

Wire Retention: 24 AWG-typical pull out force

X-axis=10.6 lbs (47.3 N)

Y-axis=10.6 lbs (47.3 N)

Z-axis=2.4 lbs (10.7 N)

Environmental Conditions:

Temperature Range:

Storage: -40°F to 158°F (-40°C to 70°C)

Operational: 14°F to 140°F (-10°C to 60°C)

Relative Humidity: (operational) maximum, non-condensing 93%

Materials:

Plastic components: Polycarbonate, self-extinguishing

Flammability Rating: UL-rated 94 V-O

Oxygen Index: 28.5% minimum

Contact Material: Phosphor Bronze



Top: 2500CAT5PS2-48B
Bottom: 2500CAT5PS2-24B

Electrical Specifications:

Insulation Resistance: 500 MΩ minimum

Current Rating: 1.5 A at 68°F (20°C)

TIA/EIA Category: 5

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

UL and cUL Listed

Product Number	Wiring	Number of Ports	Material ID
2500CAT5PS2-24B	T568B	24	108236142
2500CAT5PS2-48B	T568B	48	108236159
2500CAT5PS2-24A	T568A	24	108236126
2500CAT5PS2-48A	T568A	48	108236134
2512CAT5PS2-48	100BASE-TX, 100BASE-T	48	108236167



25-Pair Category 5, Connectors and Cable Assemblies

The 525 Connectors are used to terminate 25-pair cables. The available configurations are: 90 degree, in-line, angled and jack.

- The 525 cables consist of Category 5, 25-pair cable, connectorized with either one or two 525 connectors. These plug ended cables are available in single-ended (SE) and double-ended (DE) configurations.
- The 525 connector is compatible with industry standard 25-pair connectors while also providing keyed Category 5 connections with equipment using this feature. In addition, their unique design using crosstalk reduction techniques providing a 6 dB margin assures Category 5 performance throughout systems that use multiple connectors.
- The 525 assemblies with an angled (110 degree) end were specifically designed for connection to electronics equipment requiring a 50-pin telco type connector. The 50-pin assembly is downward compatible and can be used to support 10BASET electronics or 100BASET or 155 Mbps ATM applications. The right and left versions of the angle-mount connectorized cable assembly allow for flexibility in routing the cords as they exit the equipment.
- The in-line (180 degree) end of the 50-pin cable assembly was specifically designed for connection to our 100BASET (50-pin Category 5) modular patch panel.
- The raw end of the cable assembly is designed for termination directly onto the back of a modular patch panel.
- For cable assemblies, refer to the SYSTIMAX online catalog or your local SYSTIMAX representative.

525-PA-003

Physical Specifications:

Contact Plating: Gold 30 micro-inch (0.76 microns)
Nickel 50 micro-inch (1.27 microns)

Contact Force: 100 grams minimum

Insertion Life: 200 minimum

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Electrical Specifications:

TIA/EIA Category: 5

Maximum DC Resistance: 0.30 Ohms/100 m

Product Number	Type	Qty/Pkg	Material ID
525-PA-003	90 Degree Plug	100	107487514
525-JA-003	90 Degree Jack	100	107487498
525-AP-003	Angled Plug	100	108036732
525-CP-003	In-line Plug	100	107958233
525-PWB-003	90 Degree Plug	1	108329426
525-PA-003	90 Degree Plug	1	107487506
525-JA-003	90 Degree Jack	1	107487480
525-AP-003	Angled Plug	1	108361916
525-CP-003	In-line Plug	1	108361908

InstaPATCH® Cu Pre-Terminated Copper Solutions

SYSTIMAX Pre-Terminated Data Center Solutions provide pre-connectorized copper cable harnesses for your data center infrastructure needs.

InstaPATCH Cu Pre-Terminated Copper Solutions feature a high-density, factory connectorized, factory tested, modular U/UTP connectivity systems that allow installers to simply and quickly connect network components together. InstaPATCH Cu Solutions are designed to support locations, such as data centers, that require high density, rapid deployment and high performance.

InstaPATCH Cu Pre-Terminated copper cable harnesses deliver hassle-free installation in a fraction of the time required by traditional implementations, ensuring that your network is up and running quickly. These solutions offer improved cable management and scalable capacity through their modular design. Pre-terminated harnesses provide price stability by minimizing the variable costs of termination, troubleshooting and rework. Engineered for rapid deployment, high performance and future-readiness, each of the SYSTIMAX pre-connectorized harnesses comes factory-tested and ready to install. InstaPATCH Cu Solutions are warranted by SYSTIMAX and backed by CommScope's industry-leading connectivity experience.

SwitchPack technology (SPT) supplies high-density switches with a U/UTP pre-built, quick-disconnect feature, allowing superior cable management and extending the switch to patch panels where cross connects can be made. SwitchPack Technology brings greater reliability and serviceability to your network.

Features and Benefits

- Speed – Installation up to eight times faster than traditional cabling.
- Flexibility – Multiple options for a variety of copper environments.
- Reliability – The SYSTIMAX InstaPATCH Cu Solution is backed by the SYSTIMAX Solutions 20-year Extended Product Warranty and Applications Assurance that we believe to be the best in the industry.
- Scalability – Plan for and install the exact number of ports you need now and add additional harnesses as needed in the future.
- Cost-control – Pricing stability by minimizing the variable cost of termination, troubleshooting and rework.
- Security – Reduces installation time required in a live data center environment.

Servers

For large-scale cookie-cutter server deployments, a server harness can provide a simple, clutter-free and quick installation. Ideal for data center deployment with CommScope Server Cabinets.

Switches

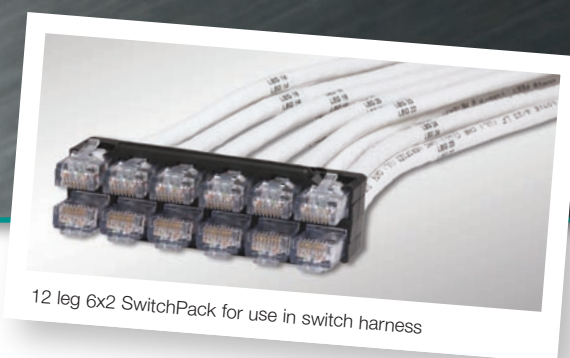
Switch harnesses are used in applications where you wish to connect network switch ports to network connectors to aid in cable management and to increase flexibility of cross connect fields. CommScope's SwitchPack connectivity makes these harnesses ideal for data centers and telecommunication rooms with high-density switch chassis.

Intra-Cabinet

Harnesses designed to connect electronic equipment within a single cabinet are designed to optimize cable management in this sensitive, active environment. Ideal for server-to-server and server-to-switch deployments.

Infrastructure

Harnesses designed to serve horizontal and vertical deployments typically feature modular connectors on each end. Ideal for small to large data centers, telecommunication rooms, zone wiring environments, and IBIS building applications.



12 leg 6x2 SwitchPack for use in switch harness



Four (4) 12 leg Switch Harness equipped with the 6x2 SwitchPacks

Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSUM

InstaPATCH
Cu

VisiPatch

Additional Copper
Connectivity

Coax



Harness Design

- 4-pair Category 5E/6A cables from 1 to 24 count
- Patch panel modules (1100 and PATCHMAX Series), outlets, modular plugs, SwitchPack or blunt endpoints
- Variety of bundling methodologies available including Expando, velcro, and cable tie options
- Left, right, or trident staggers are designed for optimum cable management
- Various breakout lengths from bundling exit
- Unique, customizable leg label identifiers

Testing

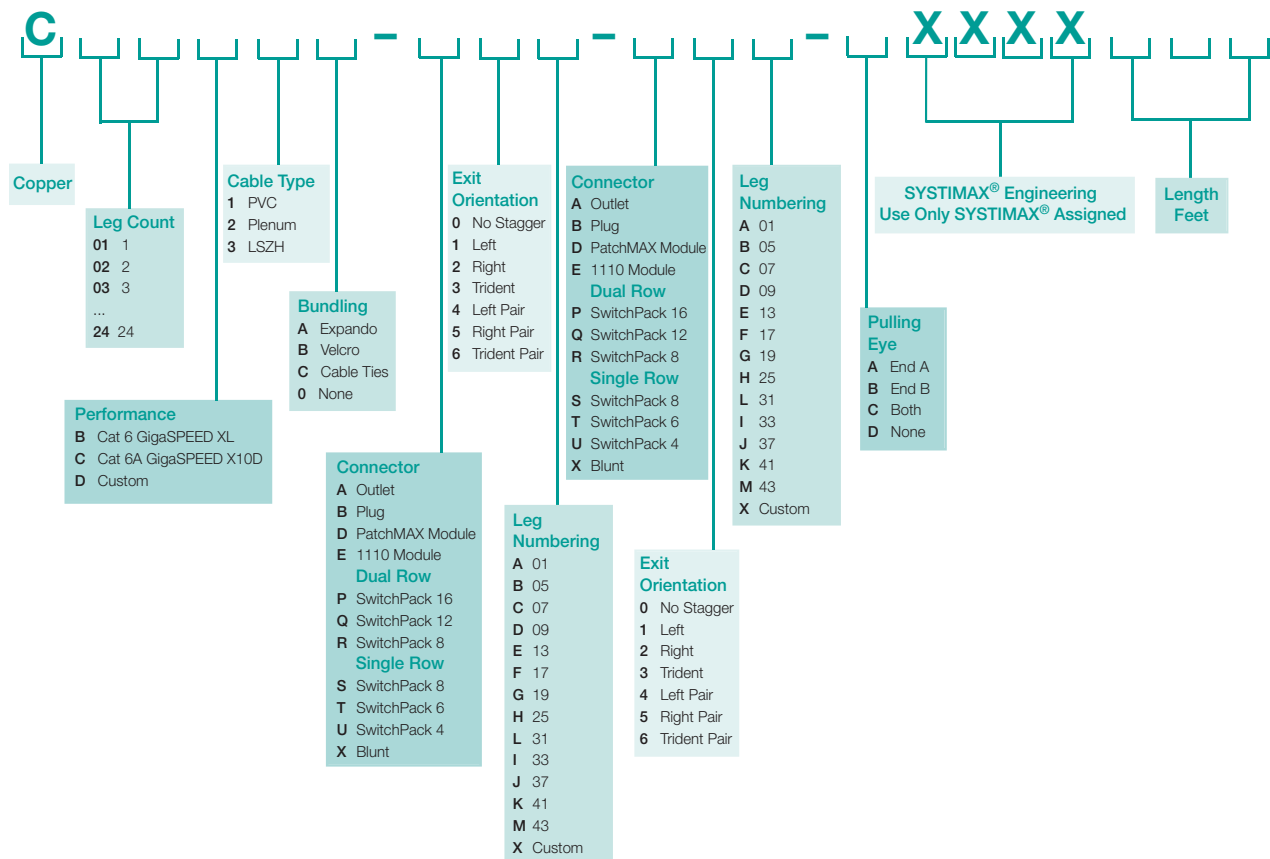
- 100% performance tested to SYSTIMAX standards
- Test reports available upon request

Performance

- SYSTIMAX GigaSPEED® XL Solution is guaranteed to meet or exceed Category 6/Class E Channel Specs to 250 MHz
- SYSTIMAX GigaSPEED® X10D Solution is guaranteed to meet or exceed Category 6A/Class EA Channel Specs to 500 MHz

Packaging

- Copper harnesses are coiled into boxes for pulling from the equipment to the patching field or the patching field to the equipment
- Package labeling identifies installation
- Pulling eyes available



VisiPatch® 360 System

The SYSTIMAX VisiPatch 360 System is a new generation of patching systems that seamlessly incorporates patching and integrated cable management to deliver an ergonomically designed and aesthetically pleasing solution that saves time, space and money.

The VisiPatch 360 System utilizes a unique reverse patching technology that allows the patch cord to be projected away from the user and into the patching field. This design improves cord management by reducing the “spaghetti” cord clutter associated with poorly installed RJ-45 systems and makes reading the labeling information easy, facilitating future moves, adds and changes.

Both port density and usable density are increased in the VisiPatch 360 System. Because of cable and patch cord congestion in traditional RJ-45 systems, the usable density is lower than the port density. The new VisiPatch 360 System, however, is designed to maximize usable density by minimizing cable and cord congestion.

The new VisiPatch 360 System is available for wall-mount as well as rack-mount and cabinet installations. Plus, its modular design means that it is available for small and large installation needs.

Features and Benefits:

- Best-in-class transmission performance
- Supports 10 Gbps and 1 Gbps Ethernet applications
- Compact ergonomic components
- Modular, scalable and flexible
- Increased port density and usable density
- Easy access to patch plug
- Snap-together components
- Unique reverse patching technology
- Clear and simple port labeling
- Sleek and elegant design
- Integrated horizontal and vertical cable and patch cord management

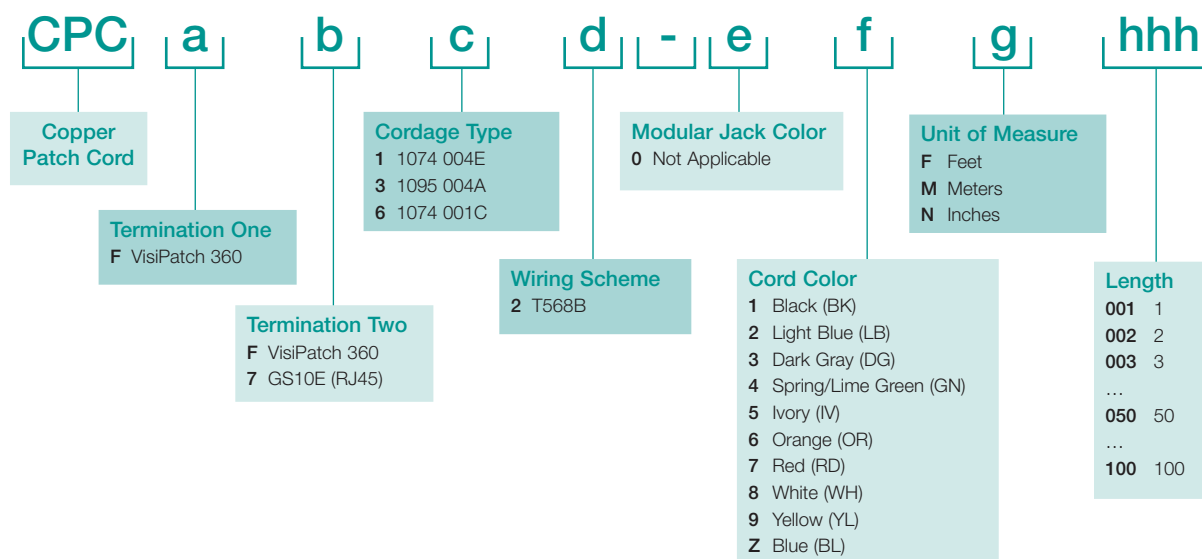
Physical Specifications:

Patch Panel Kits	Height	Width	Depth
4U (32 ports)	7.1 in (18.03 cm)	8.5 in (21.59 cm)	11.3 in (28.7 cm)
12U (96 ports)	21.2 in (53.84 cm)	8.5 in (21.59 cm)	11.3 in (28.7 cm)

Cable Manager Kits - Vertical	Height	Width
12U 21.0 in (53.34 cm)	10.0 in (25.40 cm)	11.8 in (29.97 cm)

Electrical Specifications:

Insulation Resistance:	>1000 MΩ min.
Current Rating:	2.0 A @ 20° C (68° F)
TIA/EIA:	Category 6A
Dielectric Withstand Voltage:	1,000 VAC RMS, 60 Hz minimum, contact-to-contact 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface 7 A for a minimum of 5 seconds Listed
Fault Current Test:	UL, cUL, CE, Austel:



VisiPatch 360 System

Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSUM

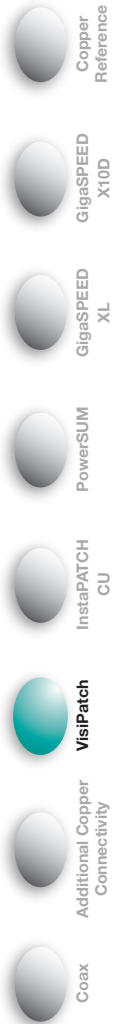
InstaPATCH
CU

VisiPatch

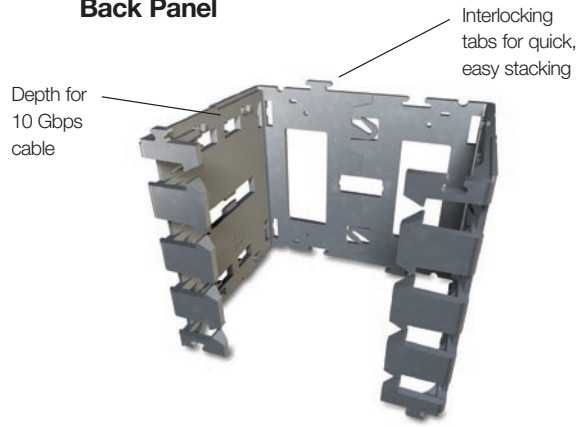
Additional Copper
Connectivity

Coax

VisiPatch® 360 System Overview



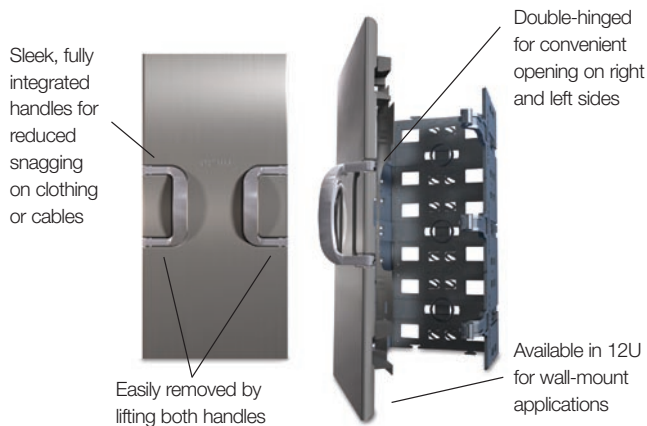
Back Panel



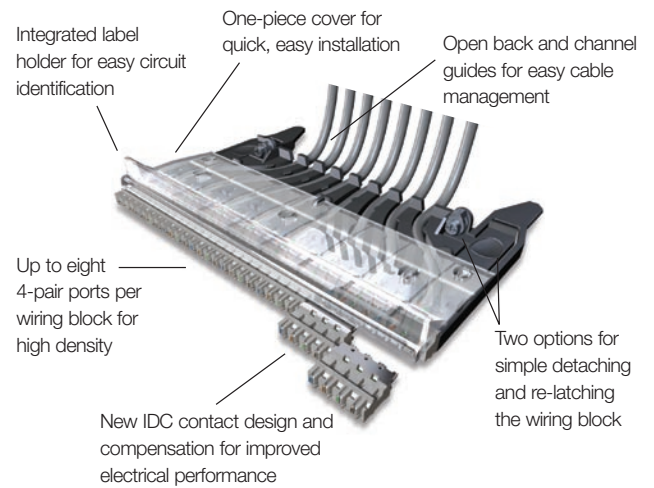
Patch Cord



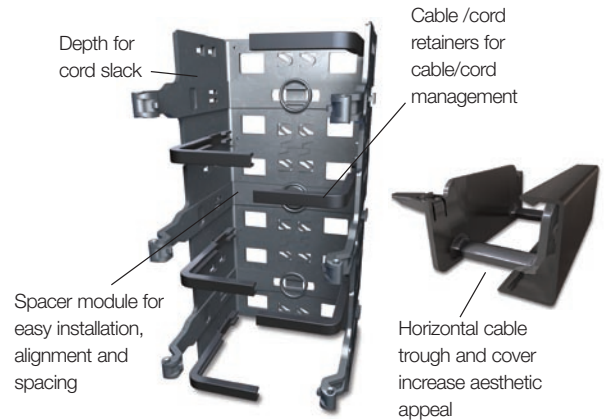
Vertical Trough Cover



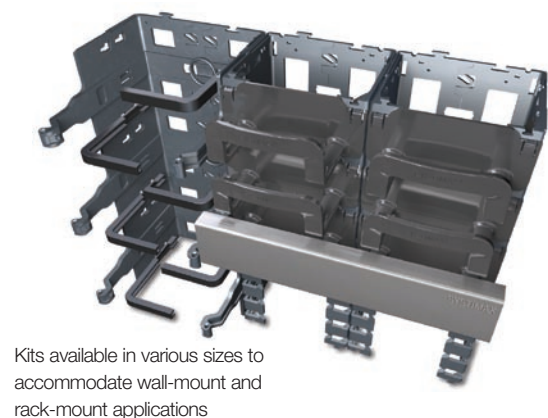
Wiring Block/Connecting Block



Vertical Cable Management



Horizontal Cable Management



Patch Panel Kits

Product Number	Detailed Description	Contents	Qty	Material ID
VP360-4U-32P	VisiPatch 360 4U (32 ports) Kit			760049445
		VisiPatch 360 Back Panel 4U	1	
		VisiPatch 360 Wiring Block	4	
		VisiPatch 360 Wiring Block Cover	4	
		VisiPatch 360 Connecting Block	32	
		VisiPatch Label Holder	4	
VP360-12U-96P	VisiPatch 360 12U (96 ports) Kit	White Label	12	
				760049452
		VisiPatch 360 Back Panel 12U	1	
		VisiPatch 360 Wiring Block	12	
		VisiPatch 360 Wiring Block Cover	12	
		VisiPatch 360 Connecting Block	96	
VP360-19PNL-KT	VisiPatch 360 19 inch 1U Kit	VisiPatch Label Holder	12	
		White Label	12	
				760074278
		VisiPatch 360 1U Panel	1	
		Wiring Block	2	
		Wiring Block Cover	2	
		VisiPatch 360 Connecting Block	16	
		VisiPatch Label Holder	2	
		Label Sheet	1	
		Screw, #12-24 x .50"	4	
		Instruction Sheet	1	

Cable Manager Kits - Vertical

Product Number	Detailed Description	Contents	Qty	Material ID
VP360-12U-10VTCM	VisiPatch 360 12U Vertical Trough Cable Mgr Kit e/w Door, 10" wide			760060285
		VisiPatch 360 12U VTCM Door, 10"	1	
		4U Spacer Module	3	
		4U Spacer Module Extender	3	
		Macro Cable/Cord Retainer	3	

Cable Manager Kits - Horizontal

Product Number	Detailed Description	Contents	Qty	Material ID
VP360-HCM-Kit-19Rack	VisiPatch 360 Horizontal Rack Mount Cable Mgr Kit, 19" wide			760068106
		Back Panel Base	2	
		Horizontal CM Trough	4	
		Horizontal Trough Cover, 19"	2	
VP360-HCM-Kit-19	VisiPatch 360 Horizontal Cable Mgr Kit, 19" wide			760060343
		4U Back Panel Base	1	
		Horizontal CM Trough	2	
		Horizontal Trough Cover, 19"	2	

Copper
Reference

Gigaset
X10D

Gigaset
XL

Powersum

Instapatch
CU

Visipatch

Additional Copper
Connectivity

Coax

Copper
ReferenceGigaSPEED
X10DGigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

Product Number	Detailed Description	Contents	Qty	Material ID
VP360-HCM-Kit-27	VisiPatch 360 Horizontal Cable Mgr Kit, 27" wide			760060301
		4U Back Panel Base	2	
		Horizontal CM Trough	4	
		Horizontal Trough Cover, 27"	2	
VP360-HCM-Kit-29	VisiPatch 360 Horizontal Cable Mgr Kit, 29" wide			760060863
		4U Back Panel Base	1	
		Horizontal CM Trough	2	
		Horizontal Trough Cover, 29"	2	
VP360-HCM-Kit-37	VisiPatch 360 Horizontal Cable Mgr Kit, 37" wide			760060871
		4U Back Panel Base	2	
		Horizontal CM Trough	4	
		Horizontal Trough Cover, 37"	2	

Accessories

Product Number	Detailed Description	Contents	Qty	Material ID
VP360-12U-Door-10	VisiPatch 360 12U Door, 10" wide			760060269
VP360-CB-10	VisiPatch 360 Connecting Block, 10/pk			760060277
		VisiPatch 360 Connecting Block	10	
VP360-4U-BPK	VisiPatch 360 4U Back Panel Kit			760060251
		VisiPatch 360 Back Panel 4U	2	
		Metal Clip	12	
VP360-SIDEPNL	VisiPatch 360 Side Panel Kit			760080630
		Side Panel	3	
		Instruction Sheet	1	
VP360-32PR-WB	VisiPatch 360 Wiring Block Kit			760074286
		Wiring Block	2	
		Index Strip	2	
		Wiring Block Cover	2	
		VisiPatch 360 Connecting Block	16	
		VP Label Holder	2	
		Label Sheet	1	
		Screw, #12-24 x 0.50"	4	
		Instruction Sheet	1	
VP-Voice-Kit	VP Voice Kit for 25 Pair Cable (C4)			760076943
		Wiring Block Assembly, Cool Gray	2	
		Designation Cover	2	
		C-4 Connecting Block Cool Gray	14	
		Label Holders	4	
		Label, Designation	1	
VP360-19PNL	VisiPatch 360 19" 1U Mounting Panel			760074294
		VisiPatch 360 1U Panel	1	
		Screw, #12-24 x 0.50"	4	
VP360-RMBKT	VisiPatch 360 19" Rack Mount Bracket			760060327
		19" Rack Mounting Bracket	1	
VP360-CBF-SK	VisiPatch 360 Cable Bundle Fastener Kit, Small			760060335
		Micro Cable/Cord Retainer	4	
VP-Label	VisiPatch 360 4pair cord label		5 (260 labels/sheet)	760072488

Product Number	Detailed Description	Qty	Material ID
110YG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Yellow	96	108528407
110WG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - White	96	108528415
110SG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Slate	96	108528423
110RG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Red	96	108528431
110PG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Purple	96	108528449
110GG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Green	96	108528456
110CG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Orange	96	108528597
110BG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Blue	96	108528464
110KG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Brown	96	108528472
VP360-25PR-WB	VisiPatch Voice Kit for 25 Pair Cable	1	760076943

Tool Kits

Product Number	Detailed Description	Contents	Qty	Material ID
VP360-788-HEAD	VisiPatch 360 4-pair Head for 788 Tool			760060350
		4-pair Block Punch Down Block	1	
VP360-914-BIT	VisiPatch 360 1-pair Tool Bit for D-914 Impact Tool			760060368
		1-pair Punch Down Bit	1	

VisiPatch® 360 Patch Cords

Patch Cords - GS5

Product Number	Detailed Description	CPC Code
VP360-VP360-4PC-X10D	VisiPatch 360 X10D Patch Cord, B-wired	CPCFF32
VP360-VP360-1PC	VisiPatch 360 1-pair Patch Cord, B-wired	CPCFF62
VP360-GS10E-4PC-X10D	VisiPatch 360 GS10E X10D Hybrid Patch Cord, B-wired	CPCF732
VP360-VP360-4PC-XL	VisiPatch 360 XL 4-Pair Patch Cord, B-Wired	CPCFF12
VP360-GS8E-4PC-XL	VisiPatch 360 GS8E XL Hybrid Patch Cord, B-Wired	CPCF312
VP360-VP360-Crossover-X10D	VisiPatch 360 X10D Crossover Patch Cord	CPCFF3D
VP360-VP360-Crossover-XL	VisiPatch 360 XL Crossover Patch Cord	CPCFF1D



Copper
Reference

GigasPEED
X10D

GigasPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

VisiPatch® System

The VisiPatch System uses IDC technology for optimum patch cord organization and management. The system provides GigaSPEED XL performance which is a clear advantage in data center applications. The unique “reverse direction” design provides a neat, cordless appearance that dramatically improves patch cord management and “avoids the clutter” that is inherent with other patch cord systems. The modular approach in the design maximizes the overall flexibility of the system. The system is lightweight, stackable and the components snap together for ease of installation.

Features and Benefits:

- Proven SYSTIMAX performance
- Supports GigaSPEED XL channels
- 4-pair Patch Cord certified GigaSPEED XL component
- Fast, easy installation with low operating costs
- Innovative reverse patch cord design
- Neat, cordless appearance
 - Seven 4-pair cables per row
 - Up to 252 4-pair cables per vertical
- Unique plastic construction
- Snap-together components
- 28-port (112-pair) and 84-port (336-pair) stackable field terminated kits
- Superior patch cord routing and management
- Higher usable density

Back Panel The back panel is the backbone of the VisiPatch System. This patented wall mounting hardware consists of two identical “L”-shaped halves that snap together to form a strong “U”-shaped panel. The lightweight panel can be easily mounted to support multiple mounting options. The back panel holds 4 or 12 wiring blocks to conform to any size installation.

Wiring Block The wiring block snaps into the back panel and accepts up to seven 4-pair cables (28 conductor pairs). It also accepts 25-pair count cables using 5-pair connecting blocks (25 conductor pairs). The wiring block entrance slot and grooves provide versatile cable management. This support feed system allows up to seven 4-pair cables for each wiring block.

Designation Strip/Cover Plate The cover plate snaps directly on to the wiring block and provides protection for the terminated cables. The two piece, clear plastic design provides easy access to the cables and enables visual verification of cable termination quality without moving any components. The pivoted plastic label holder also serves as a designation strip for circuit identification and facilitates the latching of the patch cord.

EIA Panel Assembly The VisiPatch 19 in EIA 1U Panel Mount solution is designed to support rack-mounted installations of the VisiPatch System. The 1U panel terminates up to 56 cable conductor pairs and provides flexibility to scale applications from small and up to large installations. Using the 1U panel in smaller applications such as in a telecommunications closet provides an economical solution for supporting a variety of circuit type applications such as IP, ISDN, Digital Voice, and Analog/Voice/Fax/Modem. Larger data center applications where more terminations are required provide a neat and flexible alternative to RJ45 patch panels.

The VisiPatch 19 in EIA 1U panel and the 56-pair wiring block assembly kits can be ordered separately or as a complete kit.

Physical Specifications:

Height: 110UB1-112FT: 7.2 in (19.05 cm)
110UB1-336FT: 21.6 in (54.86 cm)

Width: 8.5 in (21.59 cm)

Depth: 7.5 in (19.05 cm)

Pairs per row: 28

Pairs per back panel: 110UB1-112FT: 112
110UB1-336FT: 336

Patch cords per row: 7 (4-pair cords)



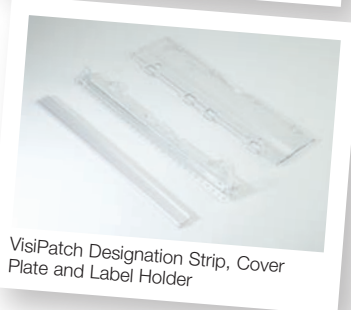
VisiPatch System



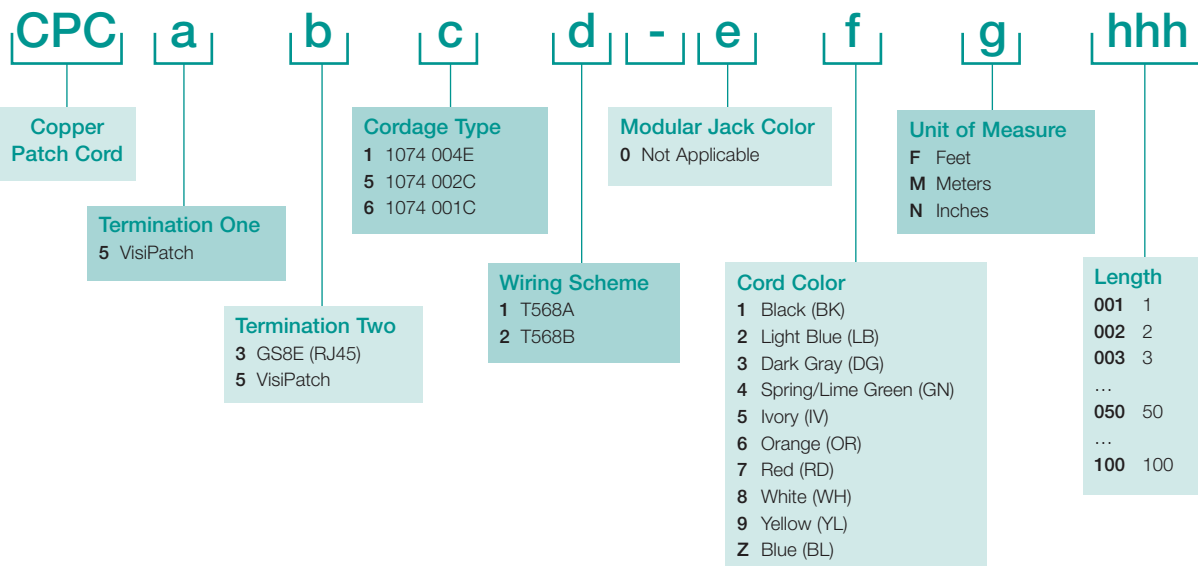
VisiPatch Back Panel



VisiPatch Wiring Block



VisiPatch Designation Strip, Cover Plate and Label Holder



Patch Panel Kits

Product Number	Detailed Description	Contents	Qty	Material ID
110UB1-112FT	VisiPatch System, 112-pair			108836792
		100PR Base, Back Panel Half	2	
		110UW-28, Wiring Block	4	
		110UC-28, Designation Cover	4	
		110C4W, Connecting Block	30	
		110UPHLDR, Label Holder	4	
		110WG3-2688L, White Label	12	
		Instruction Sheet	1	
110UB1-336FT	VisiPatch System, 336-pair			108561143
		300PR Base, Back Panel Half	2	
		110UW-28, Wiring Block	12	
		110UC-28, Designation Cover	12	
		110C4W, Connecting Block	84	
		110UPHLDR, Label Holder	12	
		110WG3-2688L, White Label	12	
		Instruction Sheet	1	
VP19PNLKT	VisiPatch 19 in EIA 1U Rack Mount Panel Kit			760047654

Cable Manager Kits

Product Number	Detailed Description	Material ID
110U19M	Rack Mount Bracket	108634429
110UHPT-Universal Trough	Universal Horizontal Trough	108836834
Trough Kit	Trough, U Channel to mount below VisiPatch components on wall	700012990



Accessories

	Product Number	Detailed Description	Material ID
Copper Reference	110U2R	Distribution Ring	108523937
	110UTC	Trough Cover	108593203
GigaSPEED X10D	110UHD-S8	Horizontal Duct	108637737
	110UP-WB	Wall Mount Bracket	108688946
	110UHS20	Installation Spacer	108637612
	110UGND	Ground Bar	108561135
GigaSPEED XL	110UHWSD	Spacer Duct	700032766
	110YG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Yellow	108528407
	110WG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - White	108528415
	110SG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Slate	108528423
PowerSUM	110RG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Red	108528431
	110PG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Purple	108528449
	110GG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Green	108528456
	110CG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Orange	108528597
InstaPATCH CU	110BG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Blue	108528464
	110KG3-2688L	VisiPatch/Visipatch 360 Wiring Block Label - Brown	108528472
	Mounting Bar	Bar, Mounting 19 in Rack for 110 Application	760031948
	110FDLH	Label Holder (1pk = 4 strips)	108738113
VisiPatch	110C4W	Connecting Block	108538612
	VP56PRWBLK	VisiPatch 56 Pair Wiring Block Kit	760047688
	VPPNLKIT-336	Kit includes 4 VisiPatch 336 L-beam Back Panels	760054833
	VPPNLKIT-112	Kit includes 4 VisiPatch 112 L-beam Back Panels	760054387
Additional Copper Connectivity	Trough Half Cover	VisiPatch Vertical Trough Half Cover	760054742
	M110 Bit	Extended M110 Bit for D-914 Tool	760064568
	VP19RKMT	VisiPatch 19 in EIA 1U Rack Mount Panel	760046490

VisiPatch® Patch Cords

The VisiPatch Patch Cords utilize a patented connector design that allows the cordage to be neatly routed back toward the VisiPatch panel rather than to project forward. The connector snaps on with an audible click and features an anti-snag device, which allows the cord to be easily removed from the panel. The 1-, 2-, and 4-pair patch cords provide complete flexibility for all circuit types to accommodate IP, ISDN, digital voice, analog/voice/fax/modem applications. The 2- and 4-pair cords support GigaSPEED XL performance for higher bandwidth data applications. The 1-pair cord supports voice, fax and modem applications. The 119 cords use the VisiPatch connector design terminated to a GigaSPEED connector.

The VisiPatch 1-pair Field Terminated Plug and Cordage Kits provide an alternative solution to pre-assembled fixed length patch cords for applications such as voice, fax, and modern systems and low speed data where performance is not the key driver. In these applications, there is a need for variable length patch cords, where customers are able to field terminate patch cords to suit the needs of their cross-connect layout. With the 1-pair Field Terminated kit, customers can customize the length of the patch cord and help eliminate clutter and slack that can build up in the vertical cable management areas.

The 1-pair Field Terminated Plug Kit provides piece parts to assemble up to 10 patch cords. Each kit contains detailed instructions to properly assemble the patch cords. The cordage kit contains 100 ft of 1074 series one-pair cordage. The patch cord kit is easy to assemble and no special tools are required. Minimal experience is required for termination and the average time to assemble one patch cord takes approximately 30 seconds. Refer to instruction sheet included in kit for detailed information.

The 1-pair Patch Plugs are designed to terminate 1074 cordage. Termination of other cordage may not be reliable.

Physical Specifications:

Contact Material: Phosphor Bronze

Contact Plating: Gold 2 to 5 micro-inch (0.051 to 0.128 microns)
Nickel 75 micro-inch (1.91 microns)

Insertion Life: 200 minimum

Plug Material: Polycarbonate Blend UL-rated 94 V-O

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Electrical Specifications:

TIA/EIA: Category 6

UL and cUL: CM (cordage)

Product Number	Detailed Description	CPC Code
110VPB-GS3-A	VisiPatch to VisiPatch GS3 4-Pair A Wired Cord	CPC5511
110VP2	VisiPatch to VisiPatch 1-Pair Cord	CPC5562
110VP4	VisiPatch to VisiPatch 2-Pair Cord	CPC5552
110VP8-GS3-B	VisiPatch to VisiPatch 4-Pair B Wired Cord	CPC5512
119VP8-GS3-B	VisiPatch to RJ45 4-Pair B Wired Cord	CPC5312
110P4UPGS	VisiPatch to DBPS (RJ45) 2-Pair B Wired Cord	CPC5652
119P4VPISON	VisiPatch to DBPS (RJ45) 2-Pair Cord	CPC5658
VP1PRFTRM	VisiPatch 1-Pair Field Term Cord Plug Kit	760047662
VP1PRCORD 100 ft	VisiPatch 1-Pair cordage 100 ft	760047993
VP2x3 and 1x4	VisiPatch 2x3 and 1x4 crossover	CPC5513

Product Number	Detailed Description	MID
VP1PRCORD-3ft-Bulk Pack	Bulk Pack 3ft 1-Pair VisiPatch Cords	760060129
VP1PRCORD-5ft-Bulk Pack	Bulk Pack 5ft 1-Pair VisiPatch Cords	760060194
VP1PRCORD-7ft-Bulk Pack	Bulk Pack 7ft 1-Pair VisiPatch Cords	760060202
VP1PRCORD-10ft-Bulk Pack	Bulk Pack 10ft 1-Pair VisiPatch Cords	760060210

110VP8-GS3-B



VisiPatch System

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax



Copper
Reference



GigaSPEED
X10D



GigaSPEED
XL



PowerSUM



InstaPATCH
CU



VisiPatch



Additional Copper
Connectivity



Coax

Product Number	Detailed Description	MID
VP1PRCORD-14ft-Bulk Pack	Bulk Pack 14ft 1-Pair VisiPatch Cords	760060228
VP1PRCORD-25ft-Bulk Pack	Bulk Pack 25ft 1-Pair VisiPatch Cords	760060236
VP4PRCORD-3ft-Bulk Pack	Bulk Pack 3ft 4-Pair VisiPatch Cords	760060137
VP4PRCORD-5ft-Bulk Pack	Bulk Pack 5ft 4-Pair VisiPatch Cords	760060145
VP4PRCORD-7ft-Bulk Pack	Bulk Pack 7ft 4-Pair VisiPatch Cords	760060152
VP4PRCORD-10ft-Bulk Pack	Bulk Pack 10ft 4-Pair VisiPatch Cords	760060160
VP4PRCORD-14ft-Bulk Pack	Bulk Pack 14ft 4-Pair VisiPatch Cords	760060178
VP4PRCORD-25ft-Bulk Pack	Bulk Pack 25ft 4-Pair VisiPatch Cords	760060186

Ruggedized Connectivity Solution for Harsh Environments

The SYSTIMAX Ruggedized Connectivity Solution is designed to support applications such as military telecommunications equipment, utility instrumentation panels, pharmaceutical laboratories and equipment, industrial ethernet sensors, and factory floor automation. The SYSTIMAX ruggedized product family includes a ruggedized connector housing for Category 5e and Category 6, the respective configurable patch cords, protective caps and faceplates.

The SYSTIMAX ruggedized connectors meet IP65 and IP67 environmental testing for use in industrial applications, where potential exposure to liquid and dust is expected. The connector consists of a jack assembly and a plug assembly that form an IP65 and IP67 rated seal. The jack assembly accepts a standard SYSTIMAX M-Series PowerSUM or GigaSPEED XL outlet and mounts in a corrosion resistant faceplate that can be mounted to a standard single or double wall outlet box. The plug assembly is pre-assembled to a SYSTIMAX GS8E patch cord. The plug assembly also provides an IP67 rated seal with the cord, as well as strain, flex and impact relief.

Features and Benefits:

- Audible, tactile and visual confirmation of engagement
- Avoids accidental disconnects
- Resistant to water and dust exposure and humidity
- Mechanical cable strain, flex and impact relief
- Robust keying of jack housing to faceplate

Physical Specifications:

Faceplate Width: 2.75 in (single gang) (7 cm)
4.56 in (double gang) (11.6 cm)

Faceplate Height: 4.5 in (11.4 cm)

Size of Opening to Accept Receptacle: approx 1.1 in (2.8 cm)

Plug Diameter: 1.15 in (2.9 cm)

Material: High impact plastic

Temperature: -13°F to 185°F (-25°C to 85°C)

Standards:

IP65 and IP67

UL and cUL Listed



Ruggedized Connectivity Solution



IR24SP



IR22SP



IR11SP



IR12SP



MIB-2 Port Industrial Box



MIR-RJ45

Copper
Reference

GigaSPEED
X10D

GigaSPEED
XL

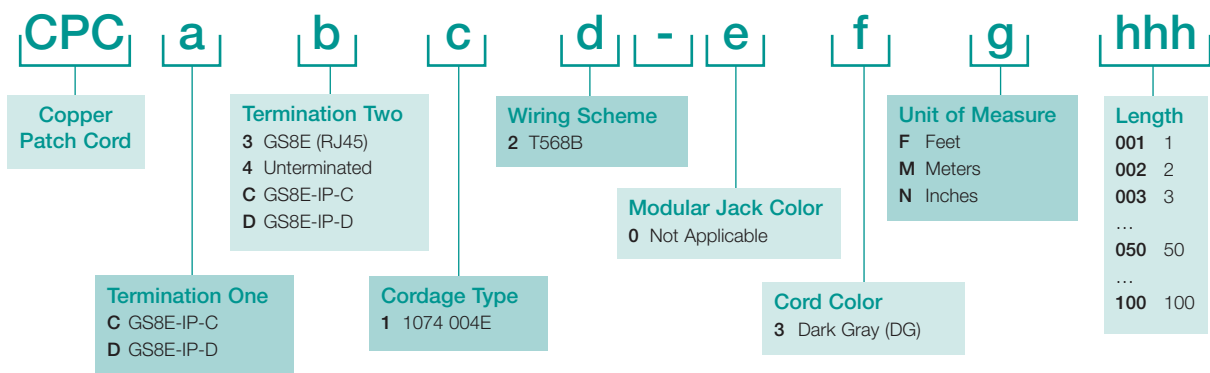
PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax



GS8E-IP-C = Coiled connector
GS8E-IP-D = Domed connector

Product Number	Detailed Description	Material ID
MIR-RJ45	M-Series Ruggedized Receptacle	760042960
MIB-2 Port Industrial Box	M-Series Industrial Box	760080820
MIR-CAP	Ruggedized Receptacle - Cap	760042978
IR11SP	Faceplate—Single Gang—1-Port—Stainless Plate	760042994
IR12SP	Faceplate—Single Gang—2-Port—Stainless Plate	760043000
IR22SP	Faceplate—Double Gang—2-Port—Stainless Plate	760043026
IR24SP	Faceplate—Double Gang—4-Port—Stainless Plate	760043018
GS8E-IP-C	GS8E-IP Ruggedized Plug to GS8E, Coiled Strain Relief	CPCC312
GS8E-IP-C	GS8E-IP Ruggedized Plug to Unterminated, Coiled Strain Relief	CPCC412
GS8E-IP-C	GS8E-IP Ruggedized Plug to Ruggedized Plug, Coiled Strain Relief	CPCC12
GS8E-IP-D	GS8E-IP Ruggedized Plug to GS8E, Domed Strain Relief	CPCD312
GS8E-IP-D	GS8E-IP Ruggedized Plug to Unterminated, Domed Strain Relief	CPCD412
GS8E-IP-D	GS8E-IP Ruggedized Plug to Ruggedized Plug, Domed Strain Relief	CPCDD12
GS8E-IP-C-D	GS8E-IP Ruggedized Plug (Coiled Strain Relief) to Ruggedized Plug, Domed Strain Relief	CPCCD12



CPCDD12



CPCCC12

Universal Modular Patch Panel

SYSTIMAX Universal Modular Patch Panel is a 19 inch rack mounted panel. It accepts up to 36 M-Series information outlets and other M-Series outlets for patching and interconnection in the telecommunications closet or equipment room.

UMP 36-Port Panel

This modular concept allows termination of outlets in the field; coupled with high density and the ability to integrate InstaPATCH pre-terminated fiber modules in the same footprint, it is an ideal data center solution. It consists of a rack mounted base unit, three slide-in modules with interchangeable front bezels cable management brackets and a flip-down removable front cover for close-out. The universal modular panel accepts PowerSUM and LazrSPEED apparatus.

The panel's 1U height maximizes office space. Color coding is possible by use of colored outlets.

Features and Benefits:

- Accommodates up to 36 M-Series information outlets for easy termination of 4-pair copper cables, in addition to coaxial outlets and S-Video and RCA adapters
- 1U design maximizes rack space
- Integrated cable management enables enhanced cable routing
- Modularity will support up to three multimedia modules
- Three methods of labeling are provided: on the inside of the front cover, on the rear of the base, and on the front of each of the bezels

Physical Specifications:

Height: 1.72 in (4.4 cm)
Width: 19 in (48.3 cm)
Depth: 4.17 in (10.6 cm)

Detailed Description	Material ID
UMP 36-Port Panel Kit (Panel, Brackets, Tie Wraps, Screws, Cover and three 12-Port Bezel Kits)	760026690
UMP Blank Panel Kit (Bezel Kits not included)	760026740
UMP 24-Port Panel without cover	760034710
UMP 36-Port Panel without cover	760034736
UMP Cover Kit	760035501
UMP 12-Port Bezel Kit	760026724
Label Kit for UMP 36-Port Panel	760036087
UMP Fiber Panel Kit (Three InstaPATCH Fiber Bezels, Panel – the cassette not included)	760026708

Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

M3600 36-Port Modular Patch Panel

- Copper Reference
- GigaSPEED X10D
- GigaSPEED XL
- PowerSUM
- InstaPATCH CU
- VisiPatch
- Additional Copper Connectivity
- Coax

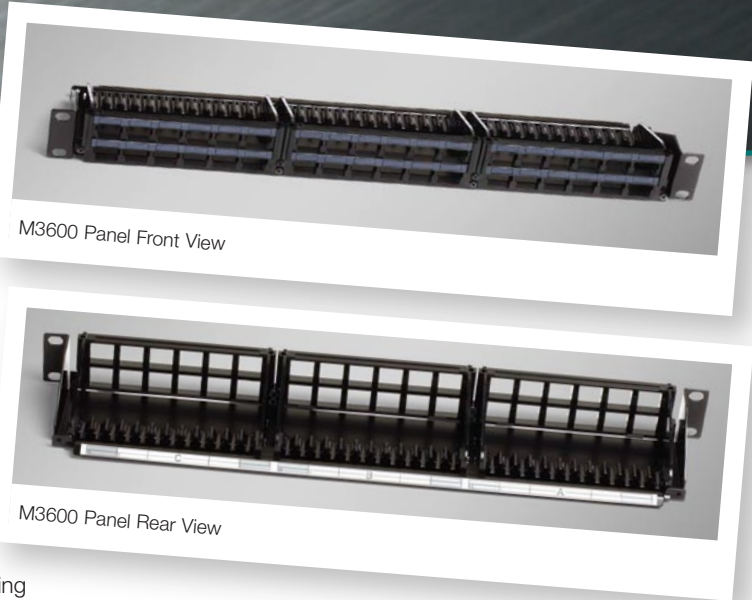
Primarily configured for copper applications, the M3600 allows for accessibility through the front or rear of the panel and its flexible design allows the installer to add outlet ports as needed. The M3600 provides 36 M-series ports in 1U space and with new and improved labeling removal of patch cords will not interfere with the labels. The M3600 modular panel accepts GigaSPEED® XL and PowerSUM apparatus.

Features and Benefits:

- Consists of a rack mounted base unit and three slide-in carriers with front bezels
- Bezel labels included for standard port numbering
- Dimensions: 19 inches (483 mm) wide by 1.72 inches (44 mm) high by 4.16 inches (106 mm) deep
- Mounts to 19-inch (483 mm) equipment rack with universal hole spacing
- Accepts up to 36 M-Series information outlets and other M-Series outlets for patching and interconnection in the telecommunications closet or equipment room
- Labels provided on rear of the base for module identification
- Supports GigaSPEED XL and PowerSUM installations

Physical Specifications:

Height: 1.72 in (4.4 cm)
Width: 19 in (48.3 cm)
Depth: 4.16 in (10.6 cm)



Detailed Description	Material ID
M3600 36-Port Modular Patch Panel	760082941
M3600 12-Port Bezel Kit	760083014
M3600 36-Port Label Kit	760083097

FlexiMAX Patch Panel

The SYSTIMAX FlexiMAX panel is an alternative modular panel that allows for patching and interconnection in the telecommunications closet or equipment room. The FlexiMAX 24-port panel can hold up to 24 MGS500, MGS400 or MPS100E modules (not included). The front appearance of the panel comprises two rows of square punchouts, which allow ease of installation and access to the modules.

Physical Specifications

Height: 1.73 in (4.4 cm)
Width: 19 in (48.3 cm)
Depth: 4.17 in (10.6 cm)

Residential Physical Specifications

Height: Standard 1U
Width: 10 in (25.4 cm)
Depth: 3.14 in (8.0 cm)

Detailed Description	Material ID
FlexiMAX Panel	108356312
FlexiMAX Residential Panel (10 inch)	760026799



FlexiMAX Panel

Category 3 50-Port High Density Voice Panel EMEA Applications

The SYSTIMAX Category 3 50-Port High Density Voice Patch Panel is designed to provide a cost effective and simple way to feed PBX or other simple voice circuits into a structured cabling system.

The High Density Voice Patch Panel provides 50 voice ports in a compact 1U high format. Each port is clearly identified front and rear and is capable of carrying up to three voice pairs. Functional earth facilities where required (e.g. Earth Loop Recall) can be simply catered to by commoning any single pair across the panel. Each panel is supplied with a fixing and earthing kit.

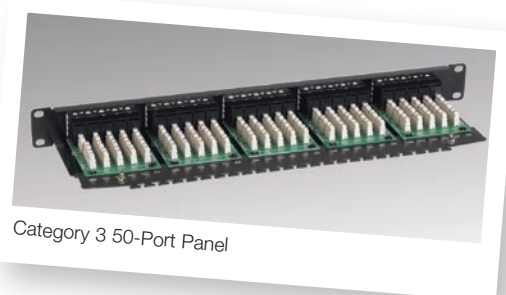
Features and Benefits:

- Standard 19" rackmount 1U high
- Black semi-gloss
- 110 type wire termination
- Quick fit cable tie fixing points
- RJ45 sockets are 8 position, 8 contact socket with gold plated contacts
- Standard 19" fixings and earthing kit accessories supplied
- Numbered individual ports

Physical Specifications:

Height: 1.75 in (4.45 cm)
Width: 19 in (48.2 cm)
Depth: 5.5 in (6.8 cm)

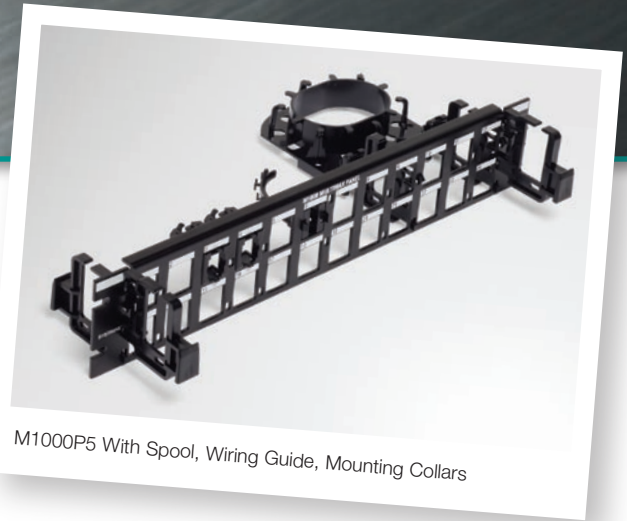
Detailed Description	Material ID
50 port high density voice panel	760060905



Category 3 50-Port Panel



M1000P5 MultiMAX Panel



M1000P5 With Spool, Wiring Guide, Mounting Collars

Designed for premises data and voice networks employing copper and/or fiber terminations, the M1000P5 MultiMAX Panel is an aluminum panel that provides for patching or interconnect in the telecommunications closet or equipment room. Mounting options for the 3.5 in (8.9 cm) high M1000P5 panel include a standard EIA 19 in (48.3 cm) rack or a hinged wall mount bracket. Packaged with the panel are mounting collars for up to 24 modular outlets or fiber connections and two wire guides for cord management. For copper terminations, the mounting clips provide a fixture for holding the M-series modular information outlets when terminating conductors and also provide strain relief for the cable when snapped into the panel. Mounting clips also accommodate the M81LC, M81ST and M81SC for fiber terminations.

In addition to the above and ordered separately are the M1000FSSK (Fiber Spool Storage Kit); the M1000FMK (Fiber Mounting Kit) for fiber terminations; and the M1000WG (Wire Guides) for cord management. The M1000FSSK mounts on the rear of the M1000P5, provides fiber storage and manages the slack in the fiber, while maintaining the necessary minimum bending radius.

Physical Specifications:

Height: 3.5 in (8.9 cm)
Width: 19 in (48.3 cm)
Depth: 7 in (17.8 cm)

Product Number	Detailed Description	Material ID
M1000P5	24-Port Panel w/ 25 Mounting Clips, 4 Screws and 2 Wire Guides	108006198
M1000FSSK	Fiber Storage Spool Kit w/ 6 Single-mode Fiber Guides and 3 Wire Guides	107535080
M1000FMK	Duplex SC Fiber Mounting Kit w/ 1 Collar Lock	107535072
M1000WG	Wire Guide	107382525
M1000PMC-B	Mounting Collars (pack of 25)	108006206

- Copper Reference
- GigaSPEED X10D
- GigaSPEED XL
- PowerSUM
- InstaPATCH CU
- VisiPatch
- Additional Copper Connectivity
- Coax

Category 3, U/UTP Cable

Category 3 cable is used in SYSTIMAX voice and low speed data applications. Consists of 24 AWG solid copper conductors insulated with color coded PVC. UL and cUL compliant.

Non Plenum 1010

Physical Specifications:

Weight: 4-Pair: 18.2 lbs/kf (27.2 kg/km)
 25-Pair: 95.8 lbs/kf (142.7 kg/km)
 50-Pair: 189.9 lbs/kf (283.0 kg/km)
 100-Pair: 361.8 lbs/kf (539.1 kg/km)

Outside Diameter: 4-Pair: 0.17 in (4.6 mm)
 25-Pair: 0.40 in (10.2 mm)
 50-Pair: 0.54 in (13.7 mm)
 100-Pair: 0.73 in (18.5 mm)

Gauge: 24 AWG

Product Number	Pair Count	Color	Length	Package	Material ID
1010 004ABE 4/24 W1000	4	Beige	1,000 ft (305 m)	We Tote Box	106300106
1010 004AGY 4/24 R1000	4	Gray	1,000 ft (305 m)	Reel	106062532
1010 004AGY 4/24 W1000	4	Gray	1,000 ft (305 m)	We Tote Box	106062524
1010 004ALB 4/24 W1000	4	Light Blue	1,000 ft (305 m)	We Tote Box	106300098
1010 004AWH 4/24 W1000	4	White	1,000 ft (305 m)	We Tote Box	108689134
1010 025AGY 25/24 R1000	25	Gray	1,000 ft (305 m)	Reel	106824329
1010 050AGY 50/24 R1000	50	Gray	1,000 ft (305 m)	Reel	106824378
1010 100AGY 100/24 R1000	100	Gray	1,000 ft (305 m)	Reel	106824469

Plenum 2010

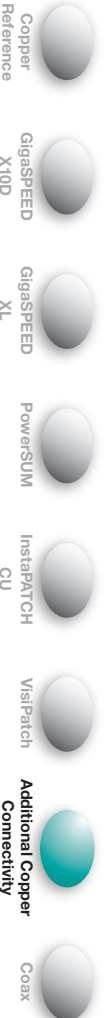
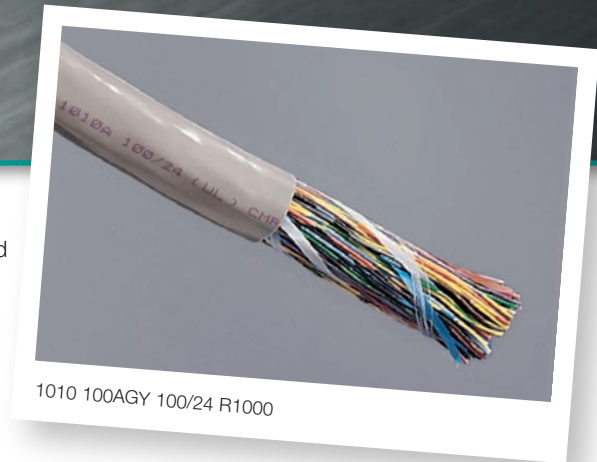
Physical Specifications:

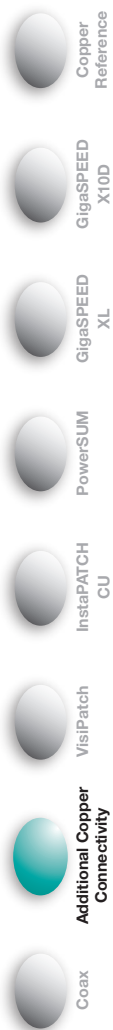
Weight: 4-Pair: 19.3 lbs/1,000 ft (28.8 kg/km)
 25-Pair: 95.8 lbs/1,000 ft (143 kg/km)
 50-Pair: 210 lbs/1,000 ft (313 kg/km)
 100-Pair: 399 lbs/1,000 ft (595 kg/km)

Outside Diameter: 4-Pair: 0.181 in (4.60 mm)
 25-Pair: 0.470 in (11.94 mm)
 50-Pair: 0.630 in (16.00 mm)
 100-Pair: 0.840 in (21.34 mm)

Gauge: 24 AWG

Product Number	Pair Count	Color	Length	Package	Material ID
2010 004BBL 4/24 R1000	4	Blue	1,000 ft (305 m)	Reel	107819146
2010 004BBL 4/24 W1000	4	Blue	1,000 ft (305 m)	We Tote Box	107078404
2010 004BGY 4/24 R1000	4	Gray	1,000 ft (305 m)	Reel	107256745
2010 004BGY 4/24 W1000	4	Gray	1,000 ft (305 m)	We Tote Box	107256737
2010 004BWH 4/24 R1000	4	White	1,000 ft (305 m)	Reel	107078396
2010 004BWH 4/24 W1000	4	White	1,000 ft (305 m)	We Tote Box	107078388





Product Number	Pair Count	Color	Length	Package	Material ID
2010 025BWH 25/24 R1000	25	White	1,000 ft (305 m)	Reel	107765992
2010 050BWH 50/24 R1000	50	White	1,000 ft (305 m)	Reel	107766040
2010 100BWH 100/24 R1000	100	White	1,000 ft (305 m)	Reel	107766057
2010 004BYL 4/24 R1000	4	Yellow	1,000 ft (305 m)	Reel	107256786
2010 004BYL 4/24 W1000	4	Yellow	1,000 ft (305 m)	We Tote Box	107078412
2010 025 BWH R5000	25	White	5,000 ft (1525 m)	Reel	760077537
2010 050 BWH R5000	50	White	5,000 ft (1525 m)	Reel	760077545
2010 100 BWH R5000	100	White	5,000 ft (1525 m)	Reel	760077552

Low Smoke Zero Halogen 3010

Physical Specifications:

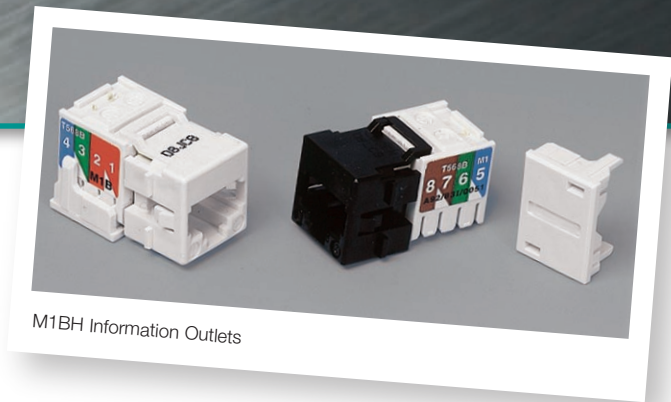
Weight: 25-Pair: 110 lbs/1,000 ft (164 kg/km)
100-Pair: 385 lbs/1,000 ft (574 kg/km)
Outside Diameter: 25-Pair: 0.469 in (11.91 mm)
100-Pair: 0.874 in (22.20 mm)

Gauge: 24 AWG

Product Number	Pair Count	Color	Length	Package	Material ID
3010 025BSL 25/24 RVAR	25	Slate	Variable	Reel	760010900
3010 100BSL 100/24 RVAR	100	Slate	Variable	Reel	760010918

M1 Category 3, Information Outlets

The M1BH Modular Telecommunications Outlets are designed for voice, low speed networks and Integrated Services Digital Network (ISDN) applications requiring an 8-position/8-conductor outlet. The M1BH outlets are designed to snap into any M-Series modular faceplate, frame or surface-mount box. A special lubrication process provides for a minimum of 750 plug insertions.



M1BH Information Outlets

The M1BH outlet uses the universal wiring labels which display both T568A and T568B wiring.

The M1AH modular telecommunications outlets are designed for voice and other applications requiring a 6-position/6-conductor USOC wired outlet. The M1AH outlets are designed to snap into any M-series modular faceplate, frame or surface-mount box.

Physical Specifications:

Dimensions: HxWxD: 0.8 in x 0.8 in x 1.2 in (2.0 cm x 2.0 cm x 3.1 cm)
Universal A/B labeling

Plastic Material: High-impact, flame retardant, thermoplastic

Flammability Rating: UL-rated 94 V-0

Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Humidity: 95% (non-condensing)

Contact Material & Plating: Copper alloy, 100 micro-inch (2.54 microns) bright solder over 100 micro-inch (2.54 microns) nickel underplate. Insulation displacement connectors accept solid or stranded wire

Nominal Solid Conductor Diameter: 0.016 in to 0.025 in
(0.40 mm to 0.64 mm)

Nominal Stranded Conductor Diameter: 0.020 in to 0.025 in
(0.51 mm to 0.64 mm)

Insulation Size: 0.030 in to 0.046 in (0.76 mm to 1.17 mm)

Insulation Type: All plastics insulates, including: Polyethylene, Polypropylene, PTFE, Polyurethane, Nylon and FEP

Outlet Wires: Copper alloy, 50 micro-inch (1.27 microns) hard gold plating over 100 micro-inch (2.54 microns) nickel underplate

Plug Retention Force: 30 lbs (133 N) minimum between modular plug and jack

Plug Insertion Life: 750 minimum insertions of an 8-position IEC 60603-7 compliant plug

Plug/Jack Contact Force: 100 grams minimum per contact using FCC approved plug

Electrical Specifications:

TIA/EIA Category: 3

Data Rate: Compatible with 10 Mbps Institute of Electrical and Electronics Engineers Inc. (IEEE) 802.3 10BASE-T applications. Compatible with 16 Mbps IEEE 802.5 token ring applications.

Insulation Resistance: 500 MΩ minimum

Dielectric Withstand Voltage: 1,000 VAC RMS, 60 Hz minimum, contact-to-contact and 1,500 VAC RMS, 60 Hz minimum to exposed conductive surface

Current Rating: 1.5 A at 68°F (20°C)

UL and cUL Listed

Product Number	Color	Qty/Pkg	Wiring	Material ID
M1BH-H-003	Electrical Black	1	T568A/T568B	107321697
M1BH-H-112	Electrical Orange	1	T568A/T568B	107346744
M1BH-H-123	Yellow	1	T568A/T568B	107321705
M1BH-H-226	Green	1	T568A/T568B	107321713
M1BH-H-246	Electrical Ivory	1	T568A/T568B	107321721
M1BH-H-262	Electrical White	1	T568A/T568B	107321739
M1BH-H-270	Electrical Gray	1	T568A/T568B	107321747
M1BH-H-317	Red	1	T568A/T568B	107321754
M1BH-H-318	Blue	1	T568A/T568B	107321762



Copper
ReferenceGigaSPEED
X10DGigaSPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

Miscellaneous Outlets*

Product Number	Color	Qty/Pkg	Wiring	Material ID
M1AH-003 Module	Black	1	6-Pin Jack	107322133
M1AH-112 Module	Orange	1	6-Pin Jack	107322141
M1AH-246 Module	Ivory	1	6-Pin Jack	107322158
M1AH-262 Module	White	1	6-Pin Jack	107322166
M1AH-270 Module	Gray	1	6-Pin Jack	107322174
M1BHU-246 Module	Ivory	1	USOC	107322224
M1BHU-262 Module	White	1	USOC	107322240
M1BHU-112 Module	Orange	1	USOC	107346801
Hand Held Terminating Device	Black	1	N/A	760034215
Single Outlet	Gray	1	8-Pos./8-Cond.	102906062
M11BHA-246 Connr Module	Ivory	25	8-Pos./8-Cond.	107391898

*The outlets listed in this product table are not covered by the SYSTIMAX 20-Year Extended Product Warranty and Application Assurance.

110 Wiring Blocks



110 Wiring Blocks

The 110 Wiring Block is used to terminate cable pairs and permits a neat, organized arrangement of cables behind the block.

It is a flame retardant molded plastic block with horizontal strips, each of which secures and organizes 25 cable pairs. The index strips are marked with five tip colors to help the installer locate pairs quickly.

The blocks accommodate 22 through 26 AWG conductors and can be mounted directly on wall surfaces without backboards.

There are two types of 110 Wiring Blocks: "A" wiring blocks and "D" wiring blocks. The 110A Wiring Block is equipped with legs to provide space behind the block; also, the space on the sides can be used as a vertical jumper trough. The 110D Wiring Block is built without legs and is used where depth is restrictive. These blocks are used in conjunction with the 110C Connecting Blocks, which are ordered separately.

The 110RA 12/38 Rivet Kits may be used to secure the 110 blocks without legs on to the 110 Patch Panel System backboards.

The 88A2 is a molded plastic clip-on part that attaches to the legs of the 110AW2 wiring block.

Physical Specifications:

Height: 25/50-Pair: 1.75 in (4.45 cm)
100-Pair: 3.59 in (9.12 cm)
300-Pair: 10.79 in (27.41 cm)

Width: "A" block, 10.72 in (27.23 cm); "D" block, 8.5 in (21.6 cm)

Depth: "A" block, 3.25 in (8.25 cm); "D" block, 1.4 in (3.6 cm)

Electrical Specifications:

UL and cUL Listed

110 Wiring Blocks (Without 110C Connecting Blocks)

Product Number	Pair Count	Block Type	Material ID
110AW2-100	100	A	107059891
110AW2-300	300	A	107059917
110DW1-25	25	D	107256653
110DW1-50	50	D	107256661
110DW2-100	100	D	107059909
110DW2-300	300	D	107059925

110 Field Terminated Blocks (With 110C Connecting Blocks)

Product Number	Pair Count	Wiring Block	Connecting Block	Material ID
110AA2-100FT	100	110AW2-100	110C-5	107058901
110AB2-100FT	100	110AW2-100	110C-4	107058919
110AC2-100FT	100	110AW2-100	110C-3	107058927
110AA2-300FT	300	110AW2-300	110C-5	107058935
110AB2-300FT	300	110AW2-300	110C-4	107058943
110AC2-300FT	300	110AW2-300	110C-3	107058950

Rivet Kits

Product Number	Quantity	Block Type	Material ID
110RA-12 KIT	12	A	107611626
110RA-38 KIT	38	A	107611634

Retainer

Product Number	Detailed Description	Material ID
88A2	Retainer (Retains cross-connect wires and clips onto 110AW2 blocks)	107267452

110C Connecting Blocks

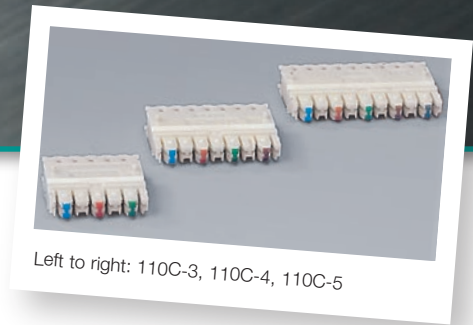
The 3-Pair (110C-3), 4-Pair (110C-4) and 5-Pair (110C-5) Connecting Blocks consist of a 1-piece, flame retardant, molded plastic housing containing solder-plated quick clips that cut through the insulation on 22 through 26 AWG conductors as they are seated onto the wiring block.

The front of the connecting block is color-coded, allowing rapid pair identification and termination. The connecting blocks seat on the 110 Wiring Block and provide an electrically gas tight connection between cable conductors terminated on the wiring block and Cross-connect Wire or 110 Patch Cords.

Physical Specifications:

Height: 0.25 in (0.64 cm)
Width: 3-Pair: 0.9 in (2.3 cm)
 4-Pair: 1.2 in (3.05 cm)
 5-Pair: 1.5 in (3.8 cm)
Depth: 0.93 in (2.36 cm)

Product Number	Detailed Description	Pair Count	Qty/Pkg	Material ID
110C-3	110C-3 CB 10/PKG	3	10	103801239
110C-4	110C-4 CB 10/PKG	4	10	103801247
110C-5	1105-5 CB 10/PKG	5	10	103801254
110C-3K	110C-3K CB 1000/PKG	3	1000	106698319
110C-4K	110C-4K CB 1000/PKG	4	1000	106698327
110C-5K	110C-5K CB 1000/PKG	5	1000	106698335
110C-4N	110C-4N CB 1000/PKG	4	1000	106699614
110D-2A	110D-2A CB 1000/PKG	2	1000	106775570
110D-2A	110D-2A CB 1000/PKG	2	1000	108571878
110D-4	110D-4 CB 1000/PKG	4	1000	104055850
110D-4N	110D-4N CB 1000/PKG	4	1000	106615990
110D-4P	110D-4P CB 1000/PKG	4	1000	107222747



Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

110 Labels and Holders

The 110 Label assembly consists of a clear label holder (188UT1-50) and colored label inserts (available in green, purple, yellow, blue, gray, brown, white and orange).

The insert labels contain vertical lines spaced on the basis of circuit size (3-, 4-, 5 pair). The transparent label holder snaps onto the wiring block to clearly identify wiring functions, provide circuit information and conceal and protect the cable conductor terminations. The labels will not interfere with placing, tracing or removing jumper wires.



188UT1-50

Product Number	Detailed Description	Color	Pair Count	Qty/Pkg	Material ID
188UT1-50	Label Holder	Transparent		6	103895504
110YB2-4500L	Label	Yellow	4	90	106657232
110YA2-4500L	Label	Yellow	5	90	106657158
110WB2-4500L	Label	White	4	90	106657216
110WA2-4500L	Label	White	5	90	106657133
110SA2-4500L	Label	Gray	5	90	106657166
110PB2-4500L	Label	Purple	4	90	106657190
110PA2-4500L	Label	Purple	5	90	106657117
110GB2-4500L	Label	Green	4	90	106657182
110GA2-4500L	Label	Green	5	90	106657109
110BB2-4500L	Label	Blue	4	90	106657174
110BA2-4500L	Label	Blue	5	90	106657091
188BB1-100	Designation Strips	Blue		2	102579810
188BG1-100	Designation Strips	Blue		1	103103701

110 Patch Panel System Terminal Blocks

The 110 Patch Panel System Terminal Blocks are used to terminate connectorized or raw-ended cable pairs.

Connecting blocks in 3-, 4-, or 5-pair sizes may be specified to match the pairs per circuit of the system in use. Transparent label holders allow you to insert circuit identification labels. Field terminated terminal blocks, which allow direct termination of building cables, are also available in 300- and 900-pair sizes.

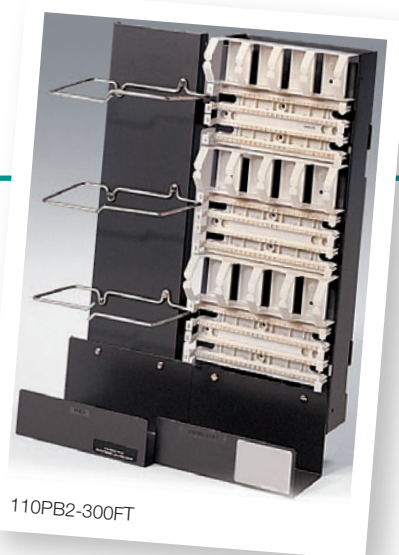
Physical Specifications: Electrical Specifications:

Height: See Product List Table

UL and cUL Listed

Width: 8.5 in (21.60 cm)

Depth: 8.05 in (20.45 cm)



110PB2-300FT

Product Number	Height	Termination	Pair	Pair Count	Material ID
110PA2-300FT	24.68 in (62.69 cm)	Field Terminated	5	300	107058802
110PB2-300FT	24.68 in (62.69 cm)	Field Terminated	4	300	107058810
110PC2-300FT	24.68 in (62.69 cm)	Field Terminated	3	300	107058828
110PA2-900FT	61.70 in (156.72 cm)	Field Terminated	5	900	107058851
110PB2-900FT	61.70 in (156.72 cm)	Field Terminated	4	900	107058869
110PC2-900FT	61.70 in (156.72 cm)	Field Terminated	3	900	107058877

110 Connector System Mounting Brackets

The 110 Mounting Brackets are used for mounting the 110 Connector System hardware on a 19 inch wide frame rack or a data cabinet. On the rear of the brackets are cable support rings to secure cable that is routed through openings in the mounting bracket to the wiring blocks. Cross-connect wire or patch cords are routed from the wiring blocks through the troughs to the side of the frame to facilitate wire management. These mounting brackets can be mounted one on top of the other to support pair requirements.

The 110RD2-100-19 Mounting Bracket is designed to mount two 110DW1-25 or 110DW1-50 Wiring Blocks and two 110B3 Troughs on an EIA 310C 19 inch wide frame.

The 110RD2-200-19 Mounting Bracket is designed to mount two 110DW2-100 Wiring Blocks and two 110B3 Troughs on an EIA 310C 19 inch wide frame.

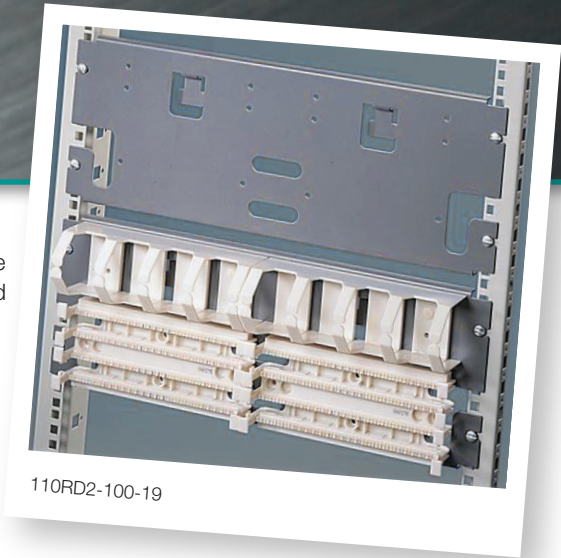
The 110RP2-600-19 Mounting Bracket has a set of three 1 inch bars that attach to the 19 inch frame to support two 110 pre-connectorized patch panels or patch panel and 188 Backboard and connector bracket.

Physical Specifications:

Height: 110RD2-100-19: 5.13 in (13.0 cm)
110RD2-200-19: 7 in (17.78 cm)
110RP2-600-19: 1 in (2.54 cm)

Width: 19 in (48.3 cm)

Product Number	Qty/Pkg	Material ID
110RD2-100-19	1	107535593
110RD2-200-19	1	107535585
110RP2-600-19	3	107098816
XLBET BRKT 110RD2-600-19		108340779



Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSum

Instapatch
CU

Visipatch

Additional Copper
Connectivity

Coax

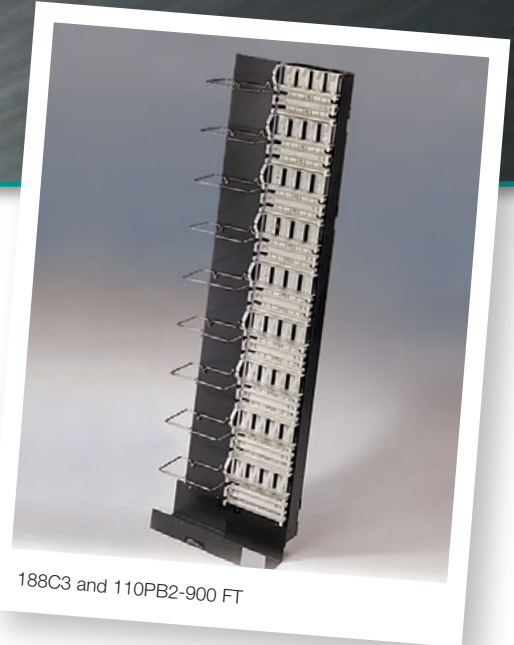
110 Patch Panel System Backboard

The 188C3 and 188D3 110 Patch Panel System Backboards are metal panels equipped with distributing rings that provide the vertical paths for running patch cords or jumpers between 110 Patch Panel System Terminal Blocks.

Physical Specifications:

Width: 8.5 in (21.60 cm)

Depth: 8 in (20 cm)



188C3 and 110PB2-900 FT

Product Number	Detailed Description	Height	Material ID
188C3	Used with 900-Pair Terminal Blocks	61.8 in (157 cm)	107151185
188D3	Used with 300-Pair Terminal Blocks	24.0 in (61 cm)	107151193

188B Backboard

The 188B1 or 188B2 Backboard is made of metal and has two closed, formed, plastic distribution rings. It is used with 110A Wiring Blocks to arrange jumper wires running between columns of wiring blocks. The backboard is placed between fields, where it serves as a horizontal trough for the wires and provides space to change the direction of jumpers. One backboard is used for each vertical column of 110A Wiring Blocks. The 188B2 Backboard is the same as the 188B1 Backboard except it has legs to allow space for routing the cable behind the backboard.

Physical Specifications:

Height: 188B1: 6.50 in (16.50 cm)

188B2: 6.50 in (16.50 cm)

Width: 188B1: 10.72 in (27.23 cm)

188B2: 10.75 in (27.31 cm)

Depth: 188B1: 3.50 in (8.90 cm)

188B2: 4.82 in (11.45 cm)



Top: 188B2, Bottom: 188B1

Product Number	Detailed Description	Material ID
188B1	Without Legs	102689569
188B2	With Legs	104405113

110 Jumper Troughs

The 110 Jumper Trough is a white, flame retardant, molded, plastic frame that accommodates patch cords or cross-connect wire. It is placed between each 100-pair wiring block and at the top of each column, where it serves as a horizontal trough for routing patch cords and cross-connect wire. The trough is available with legs (110A3 Trough) for use with the 110A Wiring Block or without legs (110B3 Trough) for use with the 110D Wiring Block or Patch Panel Terminal Block. The 110A2 Distribution Ring is used to route cross-connect wire or patch cords alongside the wiring blocks.

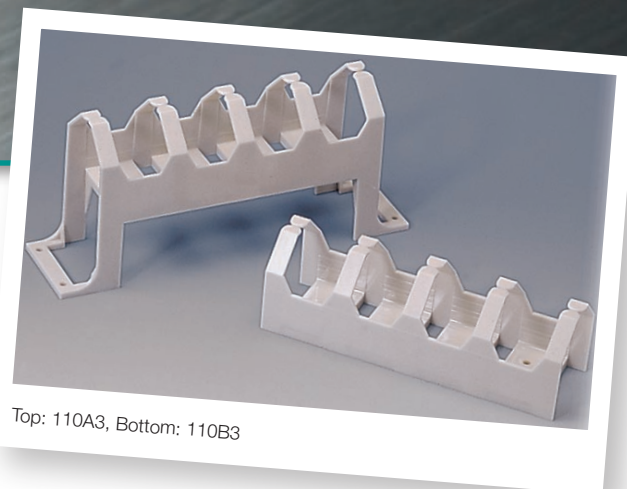
Physical Specifications:

Height: 2.64 in (6.7 cm)

Width: 110A3: 10.72 in (27.30 cm)
110B3: 8.44 in (21.60 cm)
110A2: 0.58 in (1.5 cm)

Depth: 110A3: 5.25 in (11.91 cm)
110B3: 3.50 in (6.83 cm)
110A2: 3.25 in (8.26 cm)

Product Number	Detailed Description	Material ID
110A3	With Legs	107831133
110B3	Without Legs	107831141
110A2	Distribution Ring	107214405

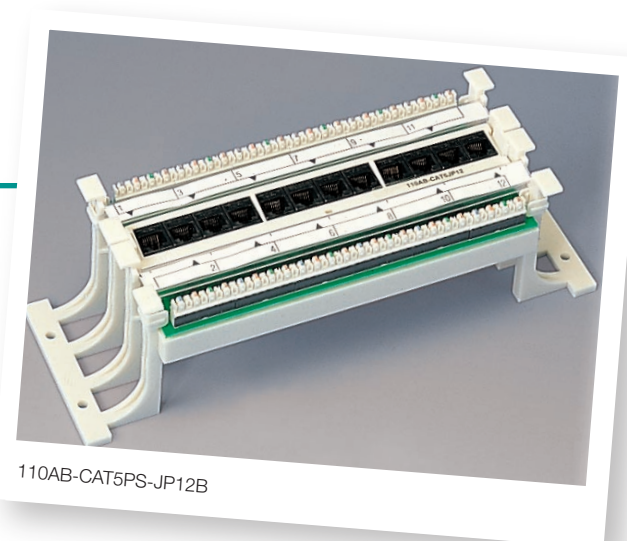


110 Jack Panel System

The 110 Jack Panel System consists of 8-pin modular jacks, mounted in a metallic holder and wired to a standard 110-Type Wiring Block.

The 110AB-CAT5 and 110PB-CAT5 Modular Jack Panels with T568A and T568B wiring are connecting hardware apparatus products used for the termination and inter-connection of voice and/or data circuits in premises wiring systems. These jack panels consist of a 110 insulation displacement connector (IDC) field and an 8-pin modular jack through the printed wiring board (PWB).

This product is TIA/EIA Category 5 compliant.



Product Number	Detailed Description	Wiring	Material ID
110AB-CAT5PS-JP12B	12 Modular Jacks on a 100-Pair Wiring Block (With Mounting Legs)	T568B	107920704
110AB-CAT5PS-JP12A	12 Modular Jacks on a 100-Pair Wiring Block	T568A	107920753
110BB-CAT5PS-JP12FTB	12 Modular Jacks on a 110DW2 100-Pair Wiring Block (Without Mounting Legs)	T568B	107920738
110AB-CAT5PS-JP36B	36 Modular Jacks on a 300-Pair Wiring Block (With Mounting Legs)	T568B	107920712
110AB-CAT5PS-JP36A	36 Modular Jacks on a 300-Pair Wiring Block	T568A	107920761
110PB-CAT5PS-JP108B	108 Modular Jacks on a 900-Pair Patch Panel Terminal Block	T568B	107920746



110 Patch Cords and Adapter Cords



110GS Patch Cord

The 110 cord family provides for the administration and interconnection of data and voice circuits. All cords are manufactured with 1074 cordage. The round cordage consists of 24 AWG tinned copper, stranded conductors insulated with high density polyethylene. The insulated conductors are tightly twisted into individual pairs and jacketed with flame retardant PVC.

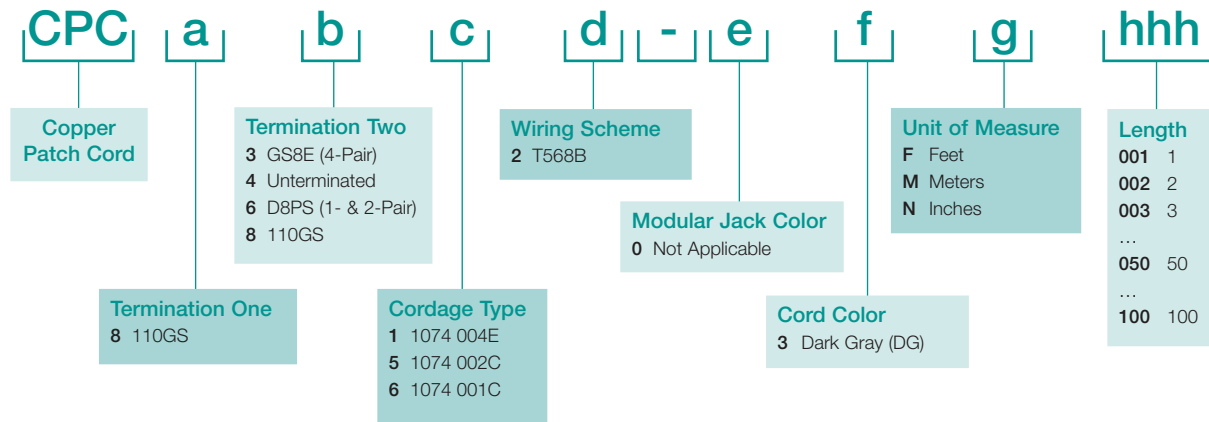
Patch cords are orderable using a 14-character feature configuration coding scheme which replaces the familiar 9-character Material ID. This allows maximum flexibility for ordering many different combinations of plug ends, cordage types, colors and lengths.

Physical Specifications:

Plastic Material: Polycarbonate Blend
Flammability Rating: UL-rated 94 V-O
Contact Material: Phosphor Bronze
Contact Plating: Gold 2 to 5 micro-inch (0.051 to 0.128 microns)
 Nickel 75 micro-inch (1.91 microns)
Plug Insertion Life: 200 minimum
Operating Temperature: 14°F to 140°F (-10°C to 60°C)

Electrical Specifications:

UL and cUL: CM (cordage)



Detailed Description	Pair Count	CPC Code
110GS to 110GS	2	CPC8852
110GS to 110GS	1	CPC8862
110GS to 110GS (Cat 6)	4	CPC8812
110GS / Unterminated (Cat 6)	4	CPC8412
110GS to RJ45	4	CPC8312

110 Tools

The 788H1 Impact Tool is used for insertion only, or to insert and trim up to five wires at a time on the wiring block and to seat the 110C Connecting Block. The handle is fitted with a rubber grip for better gripping and comfort. The 788M2 aluminum frame replacement head for the tool can be ordered separately.

The 788P Pressing Head Assembly is a plastic stuffer used with the 788H1 Tool Kit.

The 788 Kit and 788P Pressing Head Assembly provide a direct replacement for the 788M1 tool.

The 788 Kit is a kit of 2 blades and is a direct replacement for the 788 Tool Kit (106 981 848).

The 788K1 Wire Retention Tool is used as an aid in holding down cable conductors when removing 110-Type Connecting Blocks.

The Spudger is a small pencil-shaped plastic tool with a sharp, pointed L-shaped metal pick that is used to lift and remove small pieces of conductor insulation caught in the 110-Type Wiring Block or between the plastic teeth of the 110-type Connecting Block.



Left to right 788H1 Impact Tool, 788X1 Wire Retention Tool, 988M2 Replacement Head Assembly



KS-22035-L2

Product Number	Detailed Description	Material ID
788H1	Impact Tool	108062043
788M2	Replacement Head	107975864
788 Kit	Replacement Blades	407732585
788P	Pressing Head Assembly	407742741
KS-22035-L2	Spudger	405423260
VP360-788-HEAD	VisiPatch 360 4-pair Head for 788 Tool	760060350
VP360-914-BIT	914 Impact Tool	760060368



384A Video Adapter



384A

The 384A Video Adapter is a broadband Community Access Television (CATV) video device that performs common mode filtering, balancing and impedance matching to provide connectivity to SYSTIMAX. It permits connectivity between broadband CATV video distribution equipment.

The 384A is equipped with an F-type male connector plug on one end, and a 12 ft (3.7 m) section of 2-pair cordage with an RJ-45 on the other. The RJ-45 should be connected to the work area information outlet, or the modular RJ-45 jack panel in the telecommunications closet or equipment room. The F-type plug is used to connect to the broadband video distribution equipment.

Physical Specifications:

Length: Housing: 2.3 in (5.8 cm)
Cable: 12 ft (3.7 m)

Electrical Specifications:

Bandwidth: 55 MHz - 550 MHz

Input Impedance (Source): 75 Ohms Unbalanced

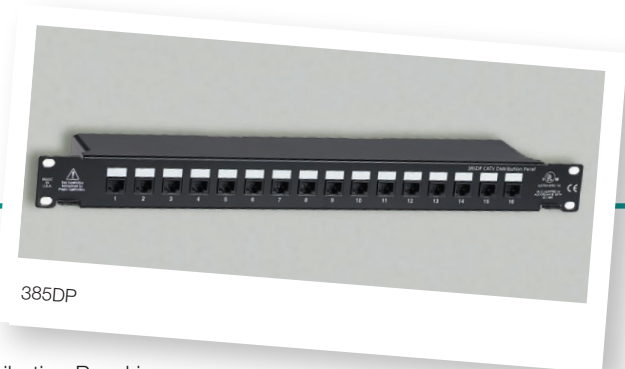
Output Impedance (Twisted Pair): 100 Ohms Balanced

Common Mode Rejection: >40 dB

Signal To Noise Ratio: >60 dB

Product Number	Detailed Description	Material ID
384A	Broadband Video Adapter	107213605

385DP CATV Distribution Panel



385DP

The 385DP Broadband CATV Distribution Panel allows analog broadband video distribution over enhanced PowerSUM and GigaSPEED Solutions.

The 19 inch wide rack mountable 385DP Broadband CATV Distribution Panel is a passive self-terminating 1 by 16 coax-to-U/UTP CATV distribution solution that provides connectivity over LAN cables.

The 385DP is equipped with an F-type coaxial input connector (female) and 16 8-pin output modular jacks (female). A single 385DP distributes CATV signals for up to 16 locations.

The 385DP is typically installed in a telecommunications closet or equipment room and transmits CATV signals in the horizontal subsystem to 384A adapters located in the work location.

Electrical Specifications:

Operation Distances: 60 meters - 77 channels for a minimum received signal level of 0 dBmV
100 meters - 28 channels for a minimum received signal level of 0 dBmV
100 meters - 50 channels for a minimum received signal level of -10 dBmV

Bandwidth: 5 MHz - 550 MHz

Emission: Tested to FCC Part 76 and CISPR PUB 22 Class B

Safety: UL, CSA and IEC 950

Product Number	Detailed Description	Material ID
385DP	Broadband CATV Distribution Panel	108120460

M81 Series Coaxial Adapter

The M81BNC-B is an M-Series Modular BNC Coupler (50 Ohm) Module designed for data applications. It can be mounted in any of the M-Series modular faceplates, surface mount boxes or mounting collars.

The M81C is an M-Series F-81 Coaxial Coupler (75 Ohms) Module designed for video applications. It can be mounted in any of the M-Series modular faceplates, surface mount boxes or mounting collars.

The M81C Connector Coupler has a long end inside the wall and a short end out into the room. In Contrast, the M81C-Plus has a long end both inside the wall and inside the room. This allows the use of a push on connector with the M81C-Plus versus a screw on connector with the M81C.

The M81 is an M-Series modular blank with rear snap-in and used to fill empty ports in M-Series modular faceplates, surface mount boxes or mounting collars.



Physical Specifications:

M81BNC-B:

Height: 0.69 in (17 mm)

Width: 0.73 in (18 mm)

Depth: 0.60 in (15 mm)

M81C:

Height: 0.69 in (17 mm)

Width: 0.73 in (18 mm)

Depth: 0.50 in (13 mm)

Product Number	Detailed Description	Material ID
M81BNC-B COUPLER	BNC Coupler	108009424
M81C-COUPLER	M81 Coaxial Coupler	108009432
M81C-COUPLER	M81 Coaxial Coupler-Almond	760075069
M81C-Plus Coupler	M81C-Plus Coaxial Coupler	760049221
M81-003 BLANK	Blank, Black	106837206
M81-246 BLANK	Blank, Ivory	106837222
M81-262 BLANK	Blank, White	106837230
M81-148 BLANK	Blank, Almond	760074237

Copper
Reference

GigasPEED
X10D

GigasPEED
XL

PowerSUM

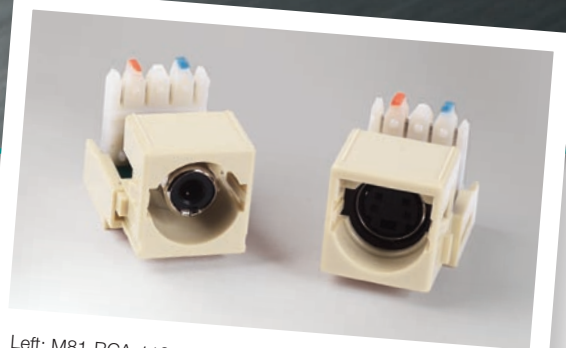
InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

Audio/Video Adapter



Left: M81-RCA-110-246-W, Right: M81-SVHS-110-246

The S-Video Outlet uses a 110 IDC (Insulation Displacement Contact) block to directly terminate to 4-pair building wiring. Each S-Video module connects to one U/UTP 4-pair cable. The S-Video Modular Outlets are compatible with M-Series modular faceplates, surface mount boxes, modular furniture faceplates and modular patch panels.

The S-Video or Super VHS (SVHS) Modular Outlets provide base band video connectivity to 24 AWG U/UTP SYSTIMAX wiring. Each S-Video outlet will connect to two pairs of the U/UTP cables. These outlets provide point-to-point transmission of analog baseband National Television System Committee (NTSC)/Phase-Alteration Line (PAL)/SECAM S-Video signals.

The RCA Outlets use a 110 IDC block to directly terminate the 4-pair building wiring. RCA outlets are used for connecting audio and video appliances to 24 AWG U/UTP SYSTIMAX wiring. Each RCA Outlet will connect to one pair of a U/UTP cable. The RCA modular adapters are compatible with M-Series modular faceplates, surface mount boxes, modular furniture faceplates and modular patch panels. They are offered with Red, White, Black or Yellow inserts. The RCA Outlet Module housings are offered in white, ivory, gray or black.

Electrical Specifications:

Attenuation DC 5.5. MHz: 1.5 dB max

Crosstalk: -60 dB at 5.5 MHz

Impedance S-Video and RCA Female Connector: 75 Ohms

U/UTP 110 Terminal Block: 110 Ohms

Typical Frequency Bandwidth: 4.2 MHz

Luminance Signal: (Y): 1 Vp-p (with 75 Ohms termination)

Chrominance Signal: (C): 0.29 Vp-p (with 75 Ohms termination)

Wire Type Standard U/UTP: Category 5, 5e or 6 #24 AWG 4-pair

Insulation Resistance: Minimum of 50 MΩ

Meet IEC Specifications: 933-5

Signal Strength: 1 Vp-p (with 75 Ohms termination)

Product Number	RCA Color	Outlet Color	Material ID
M81-SVHS-110-003	-	Black	760005256
M81-SVHS-110-246	-	Ivory	760005264
M81-SVHS-110-262	-	White	760005272
M81-SVHS-110-270	-	Gray	760005280
M81-RCA-110-003-W	White	Black	760005298
M81-RCA-110-246-W	White	Ivory	760005306
M81-RCA-110-262-W	White	White	760005314
M81-RCA-110-270-W	White	Gray	760005322
M81-RCA-110-003-Y	Yellow	Black	760005330
M81-RCA-110-246-Y	Yellow	Ivory	760005348
M81-RCA-110-262-Y	Yellow	White	760005355
M81-RCA-110-270-Y	Yellow	Gray	760005363
M81-RCA-110-003-R	Red	Black	760005371
M81-RCA-110-246-R	Red	Ivory	760005389
M81-RCA-110-262-R	Red	White	760005397
M81-RCA-110-270-R	Red	Gray	760005405
M81-RCA-110-003-B	Black	Black	760005413
M81-RCA-110-246-B	Black	Ivory	760005421
M81-RCA-110-262-B	Black	White	760005439
M81-RCA-110-270-B	Black	Gray	760005447
M81-RCA-PT	-	White	760005454
M81-RCA-PT	-	Yellow	760005462
M81-RCA-PT	-	Red	760005470
M81-RCA-PT	-	Black	760005488

Category 6 and 5e, OSP Protector Units

SYSTIMAX Category 6 Protector is designed to give protection for data circuits entering a building. This solid state device protects sensitive network equipment from damage caused by transient voltage surges by diverting them to the ground in 2-5 nanoseconds.

Protection is provided for 4-pair LAN applications with 16V clamping voltage or 4-pair analog voice applications with a 235V clamping voltage. Grounding requires a field installed solid copper wire, 10 AWG for Primary and 14 AWG for Isolated Loop. Used with high performance 4-pair Category 6 Outside Plant Cables as well as Category 6 U/UTP cables to create a 100% solid-state protection for fast and reliable response to surge events. It meets the electrical specifications of TIA/EIA 568B.2-1 for Category 6 channel performance.

Physical Specifications:

Height: 4.25 in (10.8 cm)
Depth: 1.42 in (3.61 cm)
Width: 4.25 in (10.8 cm)

Electrical Specifications:

Protector Type: 100% Solid State
Clamping Voltage: 16 and 235 VDC
Maximum Response Time: 2-5 nanoseconds
Grounding Requirements: 10 AWG for primary or 14 AWG for isolated Loop Applications
Grounding Connection: Integral shield grounding clip attaches to cable

Product Number	Clamping Voltage	Applications	Material ID
Cat 6 235V	235 Volt	Analog Voice	760031708
Cat 6 16V	16 Volt	Data	760028373
Cat 6 16V w/POE	16 Volt	POE	760033951
Cat 5e 16V	16 Volt	Data	108224874



Cat 6 16V w/POE

- Copper Reference
- Gigaset X10D
- Gigaset XL
- PowerSum
- Instapatch CU
- Visipatch
- Additional Copper Connectivity
- Coax

Multipair Protector Panel 190 Type



190A1-50

The 190 Type Multipair Protector Panel provides indoor station protection for exposed lines where the cross-connect field is separated from the protector panels at building entrance terminals. The protector panel consists of a metal housing containing mountings for 3B-, 3C-, 4B-, or 4C-Series Protector Units (sold separately). It also includes a 25 ft (7.62 m), 26 AWG stub cable that serves as a fusible link, a 24 AWG terminating cable and two connectors for external ground connections.

The internal wiring design prevents protector bypass. A cable pass-through feature allows for side-by-side and top-to-bottom installation.

Physical Specifications:

Height: 50-pair: 13 in (33.0 cm)
100-pair: 24 in (61.0 cm)

Width: 4 in (10.2 cm)

Depth: 2.75 in (6.99 cm)

Product Number	Pair Count	Material ID
190A1-50	50	102995073
190A1-100	100	102995099

Station Protector (110ANA Type) with 110 IDC for Both Input and Output



110ANA1-25

The 110ANA1 Multipair Protector Panel provides indoor station protection for small pair count applications using the 3B-, 3C-, 4B-, or 4C-Series Protector Units. The unique internal wiring design prevents protector bypass. Designed with 110-Type connecting blocks for input and output terminations, the 110ANA1 Multipair Protector Panel provides a modular, space efficient package with quiet front and simplified installation directly on the wall.

The individual protector modules should be ordered separately. The 110ANA1 multipair protector panel is UL listed.

Product Number	Detailed Description	Pair Count	Dimensions	Material ID
110ANA1-06	Station Protector, with 110 terminations, 5-pin protectors not included	6	4.1in (10.4 cm) W x 3.5 in (8.9 cm) H x 2.6in (6.6 cm) D	105736482
110ANA1-10	Station Protector, with 110 terminations, 5-pin protectors not included	10	3.9 in (9.9 cm) W x 4.5 in (11.4 cm) H x 2.6 in (6.6 cm) D	107408551
110ANA1-25	Station Protector, with 110 terminations, 5-pin protectors not included	25	3.9 in (9.9 cm) W x 10 in (25.4 cm) H x 2.6 in (6.6 cm) D	105736490

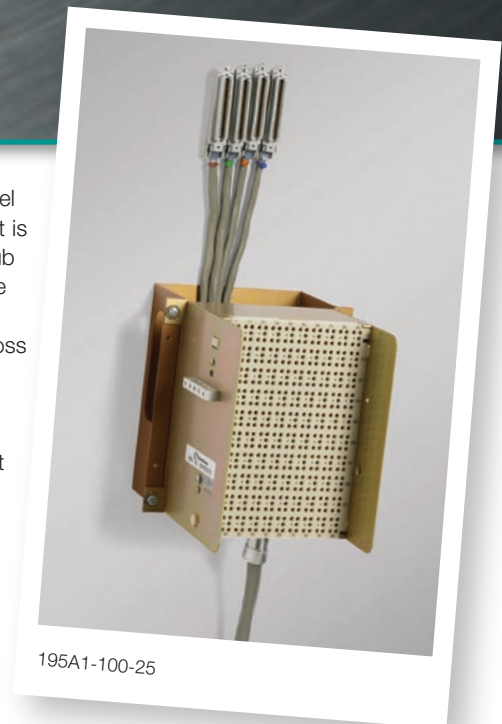
Building Entrance Terminal (195 Type)

The unit is equipped with a metal housing containing a 100-pair protector panel that accepts a wide range of interchangeable plug-in protector units. The input is either a 100 ft (30.48 m), a 25 ft (7.62 m) or 50 ft (15.24 m) long 26-gauge stub cable that serves as a fusible link. The output is a 1 ft (0.30 m) 24-gauge cable with either male or female RJ21 type connectors. The internal wiring design separates the input wires from the output wires, so in the event of a power cross and the input wire fuses open, they will not be connected to the output wires causing a bypass.

The 195A type has a wall mount bracket that acts as both a mounting bracket and a cable guide. The 195B type is a frame mounting version.

Features and Benefits:

- Very high density design saves space
- The protector panel terminals are gold plated for superior electrical connections
- Accepts a wide range of interchangeable plug-in protector units
- Two built-in 3-wire ground connectors facilitate termination of a No. 6 ground wire and strapping adjacent units together provides common positive grounding
- The units are available with both male and female output RJ21 connectors
- The input stub cables are 25 ft (7.62 m), 50 ft (15.24 m) or 100 ft (30.48 m) long



Product Number	Pair Count	Input	Output	Material ID
195A1-100-25	100	25 ft Stub Cable	1 ft Cable with Female RJ21 Connector	105404776
195A1-100-050	100	50 ft Stub Cable	1 ft Cable with Female RJ21 Connector	105564033
195A1-100-050M	100	50 ft Stub Cable	1 ft Cable with Male RJ21 Connector	105564041
195B1-100-25	100	25 ft Stub Cable	1 ft Cable with Female RJ21 Connector	105501050
195B1-100-050	100	50 ft Stub Cable	1 ft Cable with Female RJ21 Connector	105564066
195B1-100-100	100	100 ft Stub Cable	1 ft Cable with Female RJ21 Connector	105564082
195A1-100-100/050R	100	100 ft Stub Cable	50 ft Stub Cable (unshielded)	760069955

Copper
Reference

Gigaset
X10D

Gigaset
XL

PowerSUM

InstaPATCH
CU

VisiPATCH

Additional Copper
Connectivity

Coax

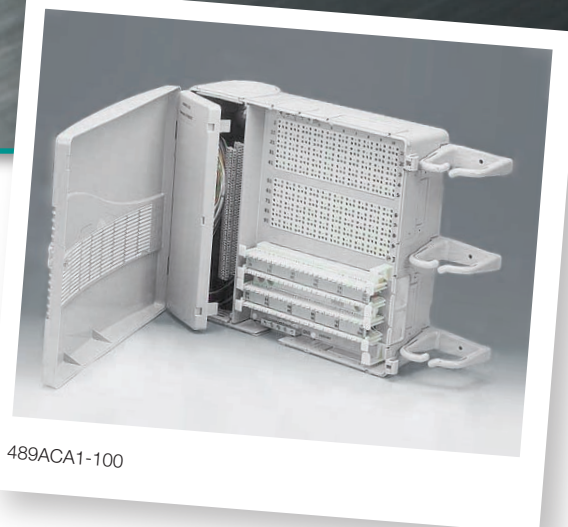
Building Entrance Terminal (489A Type)

Reliable electrical protection is essential for securing sensitive equipment at the building entrance terminal. The lightweight and high density 489A protector provides this protection. Designed for use wherever exposed outside plant (OSP) cables enter the building, the unit provides electrical protection between the cable and sensitive devices.

Features and Benefits:

- The 489 units are lightweight (30 percent lighter than comparable models) with an attractive appearance
- High density design saves wall space (all units, even 200-pair, are only 12 in high by 14 in wide)
- Reliable 110-type IDC output connector for fast, easy connections
- The protector panel terminals are gold plated for superior electrical connections
- Accepts a wide range of interchangeable plug-in protector units
- Hinged, lockable covers provide additional mechanical protection and security
- An optional security kit (108314360) allows a padlock to be mounted on the cover
- A generous splice chamber with removable grommets allows easy OSP cable entry and splicing
- The splice chamber walls are insulated for better fuse coordination
- A velcro strap is used for wire management
- The 489 units are stacked to minimize wall space and simplify installation
- Two built-in 3-wire ground connectors facilitate termination of a number 6 ground wire, and strapping adjacent units together provides common positive grounding
- Additional side exits and common wire guides facilitate dressing and tracing of customer wire
- The units are available in 25, 50 and 100 pair count
- Dimensions are 12 in (30.5 cm) high by 14 in (35.5 cm) wide by 5.5 in (14 cm) thick

489ACA1-100



Product Number	Pair Count	Input	Material ID
489ACA1-025	25	110 IDC	107894909
489ACA1-050	50	110 IDC	107894917
489ACA1-100	100	110 IDC	107894925
489ACC1-025	25	25 ft Stub Cable	107894941
489ACC1-050	50	25 ft Stub Cable	107894958
489ACC1-100	100	25 ft Stub Cable	107894966

Building Entrance Protectors

Building Entrance Protectors protect sensitive equipment and personnel from power surges, AC coupling, AC power cross and lightning strikes. Power surge can travel through buried or exposed OSP cable back to equipment within the premises. Plug in protectors (PIPs) in building entrance protectors (BEPs) act like a circuit breaker.

The 5-pin plug in protection units provide overvoltage protection with either a gas discharge tube or a solid state module.

Gas Discharge Tube

- Handles larger surges
- Possesses a higher holding current
- Used when high surge currents are common
- Used in extreme environments
- DSL friendly
- Used in low pair count applications

Solid State Module

- Tight breakdown voltage which provides a higher level of protection
- Longer life threshold (if surges are lower than rating)
- Fast response

Product Number	PIP Type	Breakdown	Over Current @ 25c	Circuit Application	Color	Material ID
3B1EW	GDT	265 – 465 V	N/A	Standard	Black	104410147
4B1EW	GDT w/ HC	265 – 465 V	<210 sec @ 0.54 A >3 hrs @ 0.35 A	Standard	Black	104401856
3C1S	BSS	220 – 300 V	N/A	Standard	Black	105514756
4C1S	BSS w/ HC	220 – 300 V	<210 sec @ 0.54 A >3 hrs @ 0.35 A	Standard	Black	104386545
4C3S-75	BSS w/ HC	60 – 90 V	<210 sec @ 0.54 A >3 hrs @ 0.35 A	Data Circuits	Red	105581086

Note: GDT – gas discharge tube
HC – heat coils
BSS – balanced solid state



4B1EW

Copper
Reference

GigasPEED
X10D

GigasPEED
XL

PowerSUM

InstaPATCH
CU

VisiPatch

Additional Copper
Connectivity

Coax

1100D Patch Cord Organizer and 1100C Wall Adapter



Copper Reference



GigaSPEED X10D



GigaSPEED XL



PowerSUM



InstaPATCH CU



VisiPatch



Additional Copper Connectivity



Coax

The 1100D Cord Organizers are used for routing patch cords in 19 inch frames and wall adapters. The 1100D2 is the interbay patch cord organizer which is used for bulk routing cords between bays. The 1100D1 is the intrabay patch cord organizer which provides horizontal and vertical pathways. The 1100D3 is used for routing cords on the front and cable on the rear.

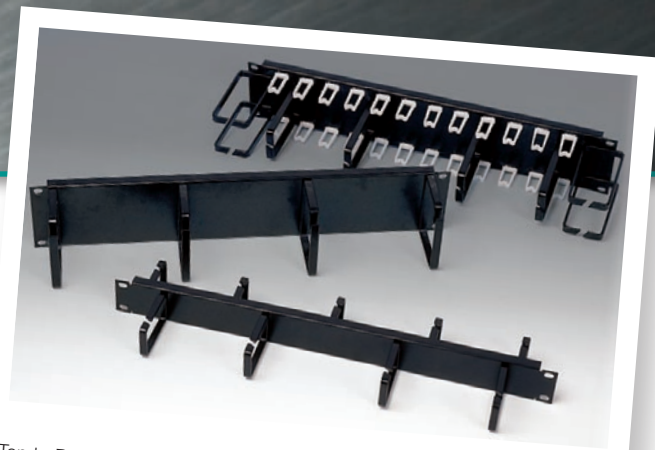
The 1100C wall adapters are used to mount panels on any flat surface. Hinges provide easy access to the rear of the panel without removing the unit. The adapters can be mounted so that it hinges from the right or left side. The snap-lock pin holds the panel in place once the unit is installed.

Physical Specifications:

Height: 3.5 in (8.89 cm) for 1100D1-35-19, 1100D2-35-19, 1100C1-35-19
1.725 in (4.38 cm) for 1100D3-35-19
7 in (17.78 cm) for 1100C1-70-19

Width: 19 in (48.3 cm)

Depth: 4.5 in (11.43 cm) for 1100D1-35-19
3.75 in (9.53 cm) for 1100D2-35-19
4.6 in (11.7 cm) for 1100D3-35-19
5 in (12.7 cm) for 1100C1-35-19, 1100C1-70-19



Top to Bottom: 1100D1-35-19 (2U), 1100D2-35-19 (2U), 1100D3-35-19 (1U)



1100C1-70-19

Product Number	Detailed Description	Material ID
1100C1-35-19	Wall Adapter	106830573
1100C1-70-19	Wall Adapter	106830581
1100D1-35-19	Intrabay Patch Cord Organizer	106830615
1100D2-35-19	Intrabay Patch Cord Organizer	106830623
1100D3-35-19	Interbay Patch Cord and Cable Organizer	107132664

Video

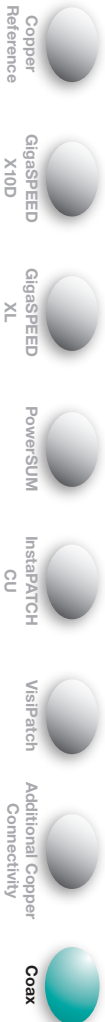
75Ω Coax Cable, Non-Plenum Series 59 (RG 59 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
5572  NEC CM CEC CMH 	20 AWG Solid CCS 48.2Ω/158Ω	Foam PE .144/3.66	Al foil and 67% Al braid 10.5Ω/34.5Ω	Flame- retardant PVC .035/.89	Black .242/6.1	16.0	52.5	82%	75Ω	1	0.58	1.90
										10	0.89	2.92
										50	1.81	5.94
										100	2.48	8.13
										200	3.43	11.25
										400	4.88	16.01
										700	6.56	21.52
										900	7.48	24.53
										1000	7.91	25.94
5540  NEC CM CEC CMH 	20 AWG Solid CCS 48.2Ω/158Ω	Foam PE .144/3.66	Quad shield Al foil, 53% Al braid, Al foil and 35% braid 6.2Ω/20.3Ω	Flame- retardant PVC .035/.89	Black .265/6.7	16.0	52.5	84%	75Ω	1	0.58	1.90
										10	0.89	2.92
										50	1.81	5.94
										100	2.48	8.13
										200	3.43	11.25
										400	4.88	16.01
										700	6.56	21.52
										900	7.48	24.53
										1000	7.91	25.94
5574 Burial  Outdoor/ Flooded 	20 AWG Solid CCS 48.2Ω/158Ω	Foam PE .144/3.66	Al foil and 67% Al braid 10.5Ω/34.5Ω	PE with Floodant .032/.81	Black .240/6.1	16.0	52.5	82%	75Ω	1	0.58	1.90
										10	0.89	2.92
										50	1.81	5.94
										100	2.48	8.13
										200	3.43	11.25
										400	4.88	16.01
										700	6.56	21.52
										900	7.48	24.53
										1000	7.91	25.94

75Ω Coax Cable, Plenum Series 59 (RG 59 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance pF/ft pF/m		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation MHz dB/100' dB/100m						
2020V Plenumax  NEC CMP CEC CMP 	20 AWG Solid CCS 48.2Ω/158Ω	Foam FEP .135/3.43	Al foil and 65% Al braid 10.3Ω/33.8Ω	PVDF(K) .015/.38	Cream .202/5.1	16.0	52.5	84%	75Ω	1	0.48	1.56				
				CommFlex(V) .015/.38	White .202/5.1					10	0.88	2.87				
										50	1.85	6.07				
										100	2.51	8.24				
										200	3.58	11.73				
										400	5.50	18.04				
										700	7.45	24.44				
										900	8.70	28.54				
										1000	9.31	30.55				

 = 1000 ft Reel



Video

75Ω Coax Cable, Non-Plenum Series 6 (RG 6 Type)

Catalog Number	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance pF/ft pF/m	Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
Safety Rating									MHz	dB/100'	dB/100m
Packaging Options											
5730	18 AWG Solid CCS 28.6Ω/93.8Ω	Foam PE .180/4.57	Al foil and 60% Al braid 9.7Ω/31.8Ω	Flame-retardant PVC 030/.76	Black White Grey Beige .272/6.9	16.2 53.1	82%	75Ω	1	0.37	1.21
									10	0.66	2.16
									50	1.41	4.62
									100	1.92	6.30
									200	2.64	8.66
									400	3.73	12.23
									700	5.05	16.56
									900	5.79	18.99
									1000	6.11	20.04
									1200	6.73	22.07
									1450	7.49	24.57
									1800	8.43	27.65
									2200	9.35	30.67
									2500	9.97	30.89
									3000	10.92	33.28
5781 Quad Shield	18 AWG Solid BC 6.5Ω/21.2Ω	Foam PE .180/4.57	Quad shield Al foil, 60% Al braid, Al foil, 40% Al braid 4.9Ω/16.1Ω	Flame-retardant PVC .033/.83	Black White .300/7.6	16.2 53.1	82%	75Ω	1	0.25	0.82
									10	0.66	2.16
									50	1.41	4.62
									100	1.92	6.30
									200	2.64	8.66
									400	3.73	12.23
									700	5.05	16.56
									900	5.79	18.99
									1000	6.11	20.04
									1200	6.73	22.07
									1450	7.49	24.57
									1800	8.43	27.65
									2200	9.35	30.67
5738 Burial	18 AWG Solid CCS 28.6Ω/93.8Ω	Foam PE .180/4.57	Al foil and 60% Al braid 9.7Ω/31.8Ω	PE with Floodant .030/.76	Black .272/6.9	16.2 53.1	82%	75Ω	1	0.37	1.21
									10	0.66	2.16
									50	1.41	4.62
									100	1.92	6.30
									200	2.64	8.66
									400	3.73	12.23
									700	5.05	16.56
									900	5.79	18.99
									1000	6.11	20.04
									1200	6.73	22.07
									1800	8.43	27.65
									2200	9.35	30.67

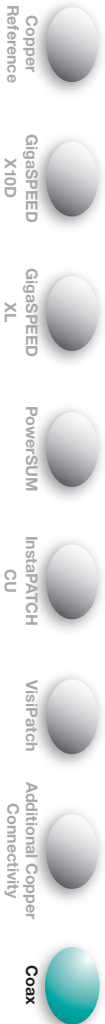
 = 1000 ft Reel

 = ComPak

Video

75Ω Coax Cable, Plenum Series 6 (RG 6 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
2275V Plenumax  NEC CMP CEC CMP 	18 AWG Solid CCS 28.6Ω/93.8Ω	Foam FEP .170/4.32	Al foil and 60% Al braid 9.0Ω/21.0Ω	PVDF(K) .016/.41 CommFlex(V) .015/.41	Cream .239/6.1 White .239/6.1	16.0	52.5	84%	75Ω	1	0.38	1.25
										10	0.70	2.30
										50	1.48	4.85
										100	2.01	6.59
										200	2.86	9.38
										400	4.23	13.87
										700	5.96	19.55
										900	6.96	22.83
										1000	7.45	24.44
										1450	9.34	30.64
										1800	10.69	35.06
										2200	11.54	37.85
										3000	13.07	42.87
2227V Plenumax  NEC CMP CEC CMP 	18 AWG Solid CCS 28.6Ω/93.8Ω	Foam FEP .170/4.32	Quad shield Al foil, 60% Al braid, Al foil and 40% Al braid 5.3Ω/17.4Ω	PVDF(K) .015/.41 CommFlex(V) .015/.41	Cream .260/6.6 White .260/6.6	16.0	52.5	84%	75Ω	1	0.38	1.25
										10	0.70	2.30
										50	1.48	4.85
										100	2.01	6.59
										200	2.86	9.38
										400	4.23	13.87
										700	5.96	19.55
										900	6.96	22.83
										1000	7.45	24.44
										1200	8.25	24.75
										1450	9.34	28.02
										1800	10.69	32.07
										2200	11.54	34.62
										3000	13.07	42.87
2279V Plenumax  NEC CMP CEC CMP 	18 AWG Solid BC 6.5Ω/21.2Ω	Foam FEP .170/4.32	Al foil and 95% TC braid 2.8Ω/9.3Ω	CommFlex(V) .015/.406	White .237/6.02	16.0	52.5	84%	75Ω	1	0.26	0.85
										3.6	0.47	1.54
										10	0.70	2.30
										71.5	1.65	5.41
										135	2.39	7.84
										270	3.40	11.15
										360	4.08	13.38
										720	6.05	19.84
										1000	7.45	24.44
										1200	7.77	25.49
										1450	8.61	28.24
										1800	9.73	31.91
										2500	11.70	38.38
										3000	13.07	42.87



 = 1000 ft Reel

Video

75Ω Coax Cable, Non-Plenum Series 11 (RG 11 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
5916  NEC CM CEC CMH 	14 AWG Solid CCS 11.0Ω/36.1Ω	Foam PE .280/7.11	Al foil and 60% Al braid 6.9Ω/22.6Ω	Flame- retardant PVC .045/1.1	Black .395/10.0	16.2	53.1	82%	75Ω	1	0.20	0.66
										10	0.45	1.48
										50	0.89	2.92
										100	1.21	3.97
										200	1.68	5.51
										400	2.37	7.77
										700	3.27	10.73
										900	3.77	12.37
										1000	3.95	12.96
										1200	4.46	13.59
										1450	5.08	15.48
										1800	5.58	17.01
										2200	6.29	19.17
										2500	6.79	22.27
										3000	7.58	42.87
5940  NEC CM CEC CMH 	14 AWG Solid CCS 11.0Ω/36.1Ω	Foam PE .280/7.11	Quad shield Al foil, 60% Al braid, Al foil and 40% Al braid 3.7Ω/12.1Ω	Flame- retardant PVC .035/.89	Black .405/10.3	16.0	52.5	84%	75Ω	1	0.17	0.56
										10	0.45	1.48
										50	0.89	2.92
										100	1.21	3.97
										200	1.68	5.51
										400	2.37	7.77
										700	3.27	10.73
										900	3.77	12.37
										1000	3.95	12.96
										1200	4.46	13.59
										1450	5.08	15.48
										1800	5.58	17.01
										2200	6.29	19.17
5917 Burial  	14 AWG Solid CCS 11.0Ω/36.1Ω	Foam PE .280/7.11	Al foil and 60% Al braid 6.9Ω/22.6Ω	PE with Floodant .045/1.1	Black .395/10.0	16.2	53.1	82%	75Ω	1	0.20	0.66
										10	0.45	1.48
										50	0.89	2.92
										100	1.21	3.97
										200	1.68	5.51
										400	2.37	7.77
										700	3.27	10.73
										900	3.77	12.37
										1000	3.95	12.96
										1200	4.46	13.59
										1450	5.08	15.48
										1800	5.58	17.01
										2200	6.29	19.17

 = 1000 ft Reel

Video

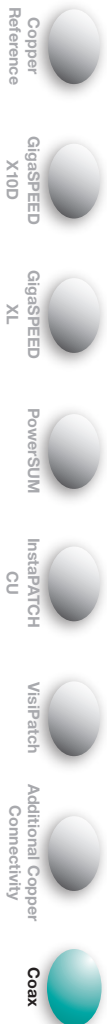
75Ω Coax Cable, Plenum Series 11 (RG 11 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
2285K Plenumax  NEC CMP CEC CMP 	14 AWG Solid CCS 11.0Ω/36.1Ω	Foam FEP .280/7.11	Al foil and 60% Al braid 6.9Ω/22.6Ω	Kynar (PVDF) .020/.51	Cream .351/8.9	16.0	52.5	84%	75Ω	1	0.15	0.49
										10	0.45	1.48
										50	0.90	2.95
										100	1.28	4.20
										200	1.85	6.07
										400	2.75	9.02
										700	3.92	12.86
										900	4.72	15.48
										1000	5.04	16.53
2287K Plenumax  NEC CMP CEC CMP 	14 AWG Solid CCS 11.0Ω/36.1Ω	Foam FEP .280/7.11	Quad shield Al foil, 60% Al braid Al foil and 40% Al braid 3.9Ω/12.8Ω	Kynar (PVDF) .020/.51	Cream .372/9.4	16.0	52.5	84%	75Ω	1	0.15	0.49
										10	0.45	1.48
										50	0.90	2.95
										100	1.28	4.20
										200	1.85	6.07
										400	2.75	9.02
										700	3.92	12.86
										900	4.72	15.48
										1000	5.04	16.53
										1450	6.67	21.87
										1800	7.71	25.28
										2200	8.50	27.88

75Ω Coax Cable, Plenum Hardline

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
2312K Plenum Trunk Plenumax  NEC CMP CEC CMP	.109/2.76 Solid CCA 1.3Ω/4.26Ω	Foam FEP .450/11.4	Al sheath .40Ω/1.3Ω	PVDF(K) .012/.31	Cream .524/13.3	16.0	52.5	86%	75Ω	1	0.07	0.23
										10	0.23	0.75
										50	0.56	1.84
										100	0.83	2.72
										200	1.25	4.10
										400	1.97	6.46
										700	2.92	9.58
										900	3.47	11.38
										1000	3.78	12.40

 = 1000 ft Reel



Security

75Ω Coax Cable, Non-Plenum Series 59 (RG 59 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
5553  NEC CM CEC CMH 	20 AWG Solid BC 10.5Ω/34.4Ω	Foam PE .144/3.66	93% BC Braid 3.9Ω/12.8Ω	Flame- retardant PVC .037/.94	Black, White Gray .242/6.1	16.7	54.8	82%	75Ω	1	0.30	0.98
										10	0.84	2.76
										100	2.71	8.89
										400	5.85	19.19
										700	8.42	27.62
										900	9.83	32.24
										1000	10.20	33.46
										1000	10.20	33.46
5554  NEC CM CEC CMH 	20 AWG Solid BC 10.5Ω/34.4Ω and 18 AWG Pair (7x26) BC	Foam PE .144/3.66	93% BC Braid 3.9Ω/12.8Ω	Flame- retardant PVC .037/.94	Black .242/6.1 by .484/12.3 wide	16.7	54.8	82%	75Ω	1	0.30	0.98
										10	0.84	2.76
										100	2.71	8.89
										400	5.85	19.19
										700	8.42	27.62
										900	9.83	32.24
										1000	10.20	33.46
5520 Burial  Outdoor 	20 AWG Solid BC 10.5Ω/34.4Ω	Foam PE .144/3.66	93% BC Braid 3.9Ω/12.8Ω	PE with floodant .037/.94	Black .242/6.1	16.7	54.8	82%	75Ω	1	0.30	0.98
										10	0.84	2.76
										100	2.71	8.89
										400	5.85	19.19
										700	8.42	27.62
										900	9.83	32.24
										1000	10.20	33.46

75Ω Coax Cable, Plenum Series 59 (RG 59 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
2037V Plenumax  NEC CMP CEC CMP 	20 AWG Solid BC 10.5Ω/34.4Ω	Foam FEP .135/3.43	93% BC Braid 3.6Ω/11.8Ω	CommFlex(V) .016/.41	White .193/4.9	16.0	52.5	84%	75Ω	1	0.30	0.98
										10	0.86	2.82
										50	1.91	6.26
										100	2.78	9.12
										200	4.06	13.32
										400	6.01	19.71
										700	8.47	27.78
										900	9.82	32.21
										1000	10.47	34.34
										2054V Plenumax  NEC CMP CEC CMP 	20 AWG Solid BC 10.5Ω/34.4Ω and 18 AWG pair (7x26) BC	Foam FEP .135/3.43
10	0.86	2.82										
50	1.91	6.26										
100	2.78	9.12										
200	4.06	13.32										
400	6.01	19.71										
700	8.47	27.78										
900	9.82	32.21										
1000	10.47	34.34										

 = 1000 ft Reel

 = ComPak

75Ω Coax Cable, Non-Plenum Series 6 (RG 6 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
5700  NEC CM CEC CMH 	18 AWG Solid BC 6.5Ω/21.2Ω	Foam PE .180/4.57	92% BC Braid 3.0Ω/9.9Ω	Flame- retardant PVC .033/.84	Black .272/6.9	16.2	53.2	82%	75Ω	1	0.19	0.62
										10	0.65	2.14
										100	2.16	7.09
										400	4.55	14.93
										700	6.23	20.43
										900	7.23	23.71
5654  NEC CM CEC CMG 	18 AWG Solid BC 6.5Ω/21.2Ω and 18 AWG pair (7x26 JBC)	Foam PE .180/4.57	92% BC Braid 3.0Ω/9.9Ω	Flame- retardant PVC .033/.84	Black .272/6.9 by .514/13.1 wide	16.2	53.2	82%	75Ω	1	0.19	0.62
										10	0.65	2.14
										100	2.16	7.09
										400	4.55	14.93
										700	6.23	20.43
										900	7.23	23.71
5720 Burial  Outdoor 	18 AWG Solid BC 6.5Ω/21.2Ω	Foam PE .180/4.57	92% BC Braid 3.0Ω/9.9Ω	PE with floodant .033/.84	Black .272/6.9	16.2	53.2	82%	75Ω	1	0.19	0.62
										10	0.65	2.14
										100	2.16	7.09
										400	4.55	14.93
										700	6.23	20.43
										900	7.23	23.71
										1000	7.75	25.42

75Ω Coax Cable, Plenum Series 6 (RG 6 Type)

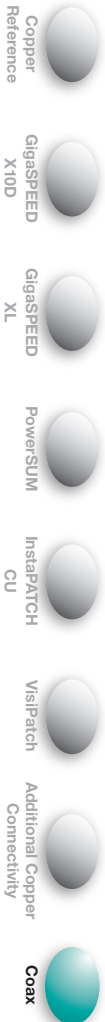
Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
2277V Plenumax  NEC CMP CEC CMP 	18 AWG Solid BC 6.5Ω/21.2Ω	Foam FEP .170/4.32	92% BC Braid 4.4Ω/14.4Ω	CommFlex(V) .016/.41 PVDF .018/.46	White .226/5.7	16.0	52.5	84%	75Ω	1	0.21	0.69
										10	0.65	2.13
										100	2.04	6.69
										400	4.46	14.63
										700	5.89	19.32
										900	7.47	24.50
										1000	8.02	26.31

75Ω Coax Cable, Plenum Series 11 (RG 11 Type)

Catalog Number Safety Rating Packaging Options	Conductor Size & Type Nom DCR kft / km	Dielectric Type Nom OD in / mm	Shields Type & Coverage Nom DCR kft / km	Jacket Type & Thickness in / mm	Cable Color & Dimensions in / mm.	Nominal Capacitance		Nom Vel. of Prop.	Nom Imp.	Typical Attenuation		
						pF/ft	pF/m			MHz	dB/100'	dB/100m
2286K  NEC CMP CEC CMP 	14 AWG Solid BC 2.9Ω/9.5Ω	Foam FEP .280/7.11	95% BC Braid 2.5Ω/8.2Ω	PVDF(K) .020/.51	Cream .347/8.7	16.0	52.5	82%	75Ω	1	0.09	0.27
										10	0.43	1.41
										100	1.48	4.85
										400	3.24	9.72
										700	4.67	14.01
										900	5.46	16.38
										1000	5.83	17.49

 = 1000 ft Reel

 = ComPak





Copper
Reference



GigaSPEED
X10D



GigaSPEED
XL



PowerSUM



InstaPATCH
CU



VisiPatch



Additional Copper
Connectivity



Coax

Reference Material	109
Cable and Fiber Color Identification	109
Cable Sizing and Specification	109
Cable Constructions.	110
Cable Order Process	116
LazrSPEED® Cables and Cords – 50 micron Laser Optimized Multimode	118
Performance.	120
TeraSPEED® Cables and Cords – Zero Water Peak Single-mode	121
Performance.	122
OptiSPEED® Cables and Cords – 62.5 micron Multimode	123
Performance.	124
Cable	125
Building Cable	125
Composite Building Cable	132
Interlocking Armored Cable	137
Composite Interlocking Armored Cable	144
Composite Indoor/Outdoor Loose Tube Interlocking Armored Cable	149
Indoor/Outdoor Tight Buffered Interlocking Armored Cable	150
Indoor/Outdoor Loose Tube Interlocking Armored Cable	152
Indoor/Outdoor Loose Tube Cable	153
Indoor/Outdoor Loose Tube All Dry Dielectric Cable.	156
Composite Indoor/Outdoor Loose Tube Cable	157
Heavy Duty Indoor/Outdoor Loose Tube Cable for Airport Applications	159
LSZH Indoor/Outdoor Cable	161
LSZH All-Dielectric Indoor/Outdoor Cable	164
Indoor/Outdoor Tight Buffered Cable	165
Composite Indoor/Outdoor Tight Buffered Cable	170
Outdoor Loose Tube All Dry Cable.	171
Composite Outdoor Loose Tube All Dry Cable.	175
Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes)	176
Composite Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes)	180
Outdoor Central Tube Cable.	182
Composite Outdoor Central Tube Cable.	185
Outdoor Loose Tube Figure 8 Messenger Cable	186
InstaPATCH® Plus System	188
InstaPATCH® Plus Low-Loss Solution.	200
G2 Fiber Connectivity	204
Shelves	204
Modular Cassettes	208
Adapter Panels.	210
Additional Fiber Connectivity	212
Fiber Connectors and Adapters	218
EZ-LC Connectors®	218
EZ-SC Connectors®	219
EZ-ST Connectors®	220
Qwik Connectors	221
Fiber Adapters	222
Fiber Tools and Consumables	224

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Fiber Optic Solutions Reference

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Fiber Optic Cable

Cable and Fiber Color Identification

Standard Jacket Color (according to fiber type):

Indoor:	50 micron (LazrSPEED)	AQ for Aqua	Outdoor and Indoor/Outdoor:	All fiber types are BK for Black
	62.5 micron (OptiSPEED)	OR for Orange or SL for Slate		
	Single-mode (TeraSPEED)	YL for Yellow		

Standard Color Coding:

1 - Blue	5 - Slate	9 - Yellow
2 - Orange	6 - White	10 - Violet
3 - Green	7 - Red	11 - Rose
4 - Brown	8 - Black	12 - Aqua

For indoor and indoor/outdoor, fibers are identified with standard color coding.

For 18 and 24 fiber single unit cables, fibers 13 through 24 repeat the sequence with tracer stripe (i.e. fiber 13 is blue with tracer stripe).

For central tube cables, fiber bundles and fibers are identified with standard color coding.

For stranded loose tube cables, buffer tubes and fibers are identified with standard color coding.

Cable Sizing and Specification

When sizing and selecting cable, the following rules of thumb are useful. Please note, they are only guidelines. Since each site has its own unique characteristics, a detailed data collection and design process is required.

- A growth factor of between 50% and 100% is often applied after sizing current needs
- Factors affecting backbone cable sizing include:
 - Campus layout
 - Campus size (number of buildings)
 - Level of automation (amount of computer connectivity)
 - Amount of point-to-point traffic vs. LAN traffic
 - Level of redundancy
- Cable type selection is based on environment and cost
- Use a mixture of single-mode and multimode fiber optic cables (recommended 30:70 split minimum, respectively)

Install both Multimode and Single-mode

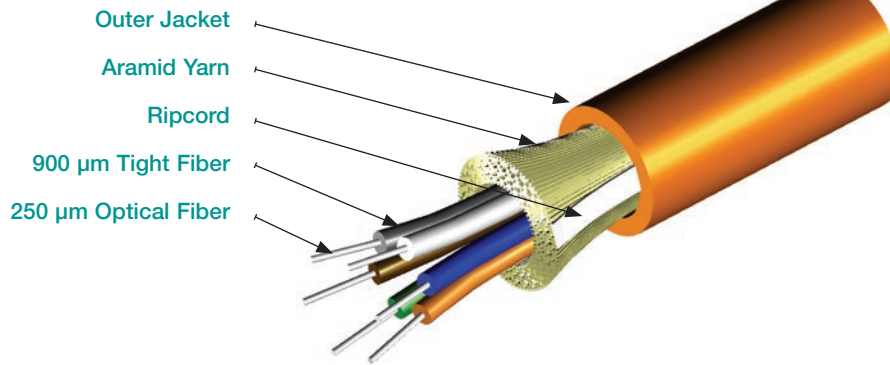
SYSTIMAX Solutions recommends deploying multimode and single-mode fiber in the backbone segments of both buildings and campuses in the industrial and office environment. This combination will most cost-effectively support present day applications as well as provide future proofing for tomorrow's higher speed LANs and broadband video. Of course these recommendations must be weighed against the application and planning horizons of each customer. The optimal ratio of single-mode to multimode depends on the predicted need to support applications that exceed the capability of multimode. SYSTIMAX Solutions generally recommends 30% single-mode to those customers forecasting gigabit applications in their future. If such applications are in the immediate or near future, then consider higher ratios.

Install Enough Fiber

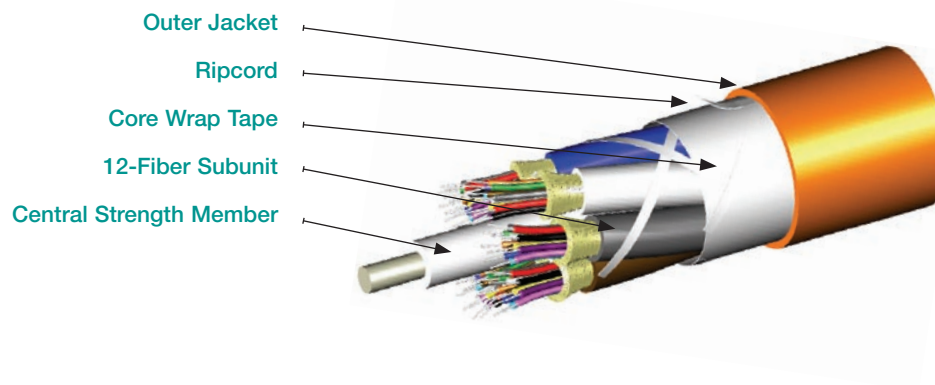
It is important to install enough fiber to support the present and future applications that will simultaneously share the cable segment. Take into account the type and number of fibers that each application requires and add in spare capacity for future proofing. Generally, LAN applications require two fibers, while video applications will require one or two fibers depending on whether they are unidirectional or bi-directional. (Video links that use bi-directional communications include those that return video, audio, camera control or data signals.) Add in at least 50% spare capacity and round the fiber-count upward to the next standard size.

Cable Constructions

Indoor Premise Building Cables (Single-Unit 52XX Series)



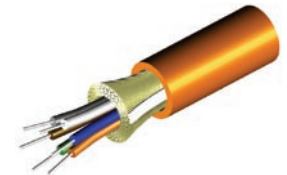
Indoor Premise Building Cables (Multi-Unit 53XX Series)



12-Fiber Subunit
Outer Diameter = 6.0 mm (0.24 in)



6-Fiber Subunit
Outer Diameter = 5.2 mm (0.20 in)



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

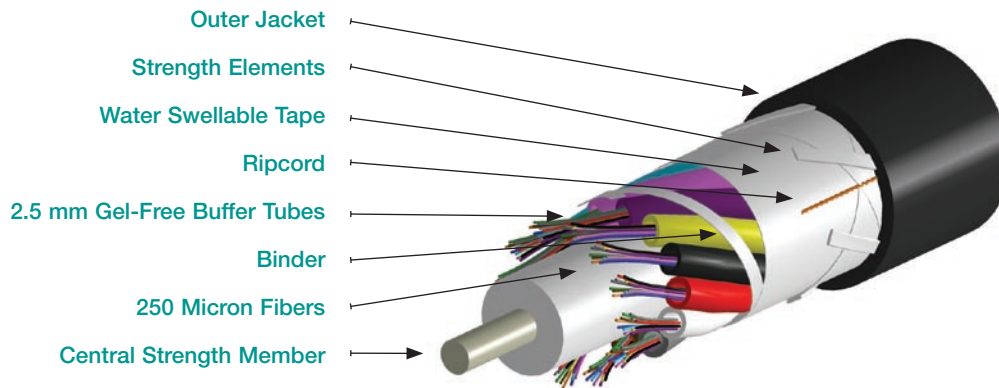
G2 Fiber Connectivity

Additional Fiber Connectivity

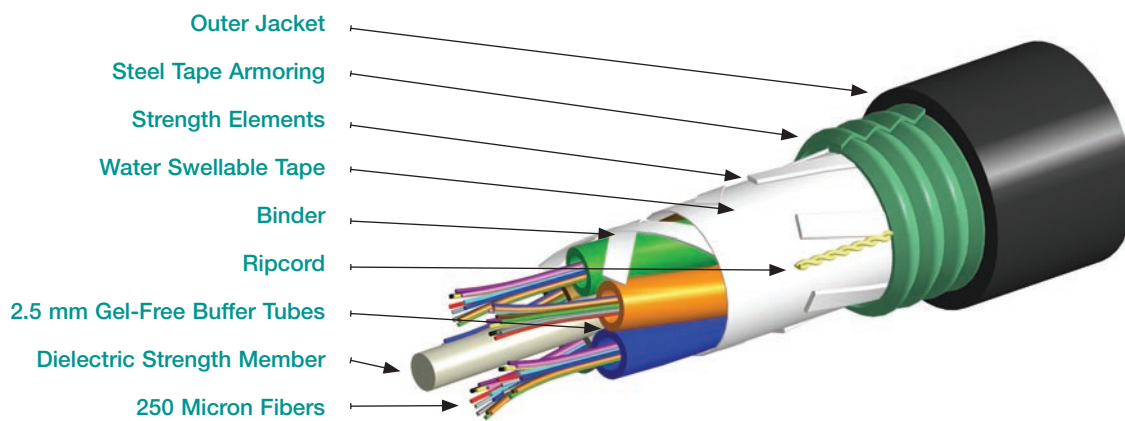
Tools & Consumables



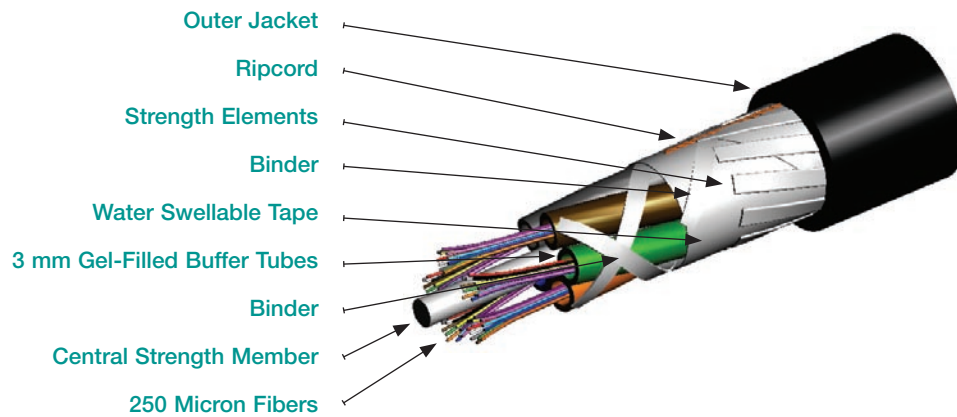
Outdoor Stranded Loose Tube Cables All Dry (Dielectric 5028 Series)



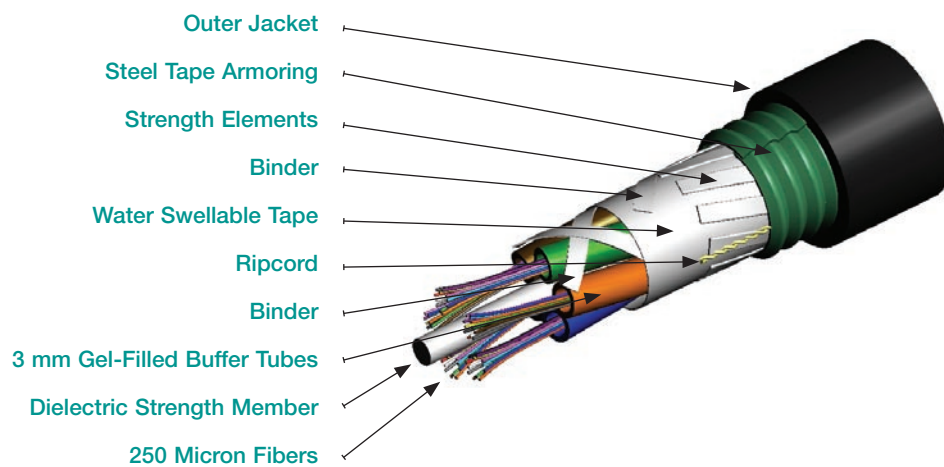
Outdoor Stranded Loose Tube Cables All Dry (Metallic 5027 Series)



Outdoor Stranded Loose Tube Cables (Dielectric 5024 Series)



Outdoor Stranded Loose Tube Cables (Metallic 5023 Series)



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables



Fiber Types &
Reference



Building



Interlocking
Armored



Indoor/Outdoor
Loose Tube



Indoor/Outdoor
Tight Buffered



Outdoor
Loose Tube



Outdoor
Central Tube



Figure 8



InstaPATCH
Plus



G2 Fiber
Connectivity

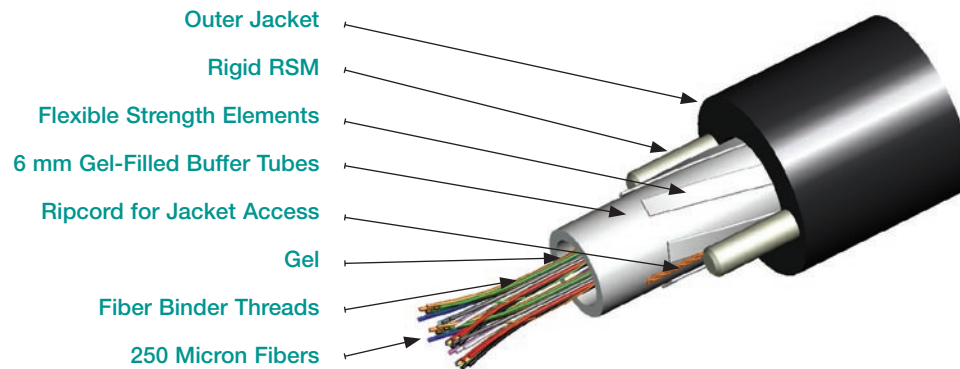


Additional Fiber
Connectivity

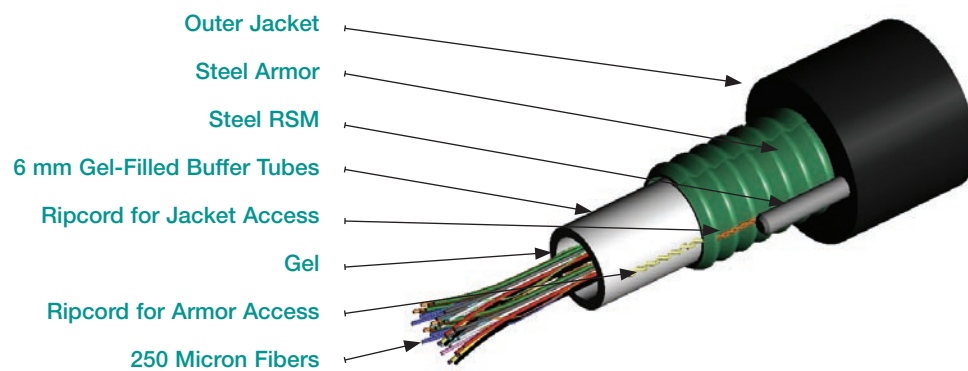


Tools &
Consumables

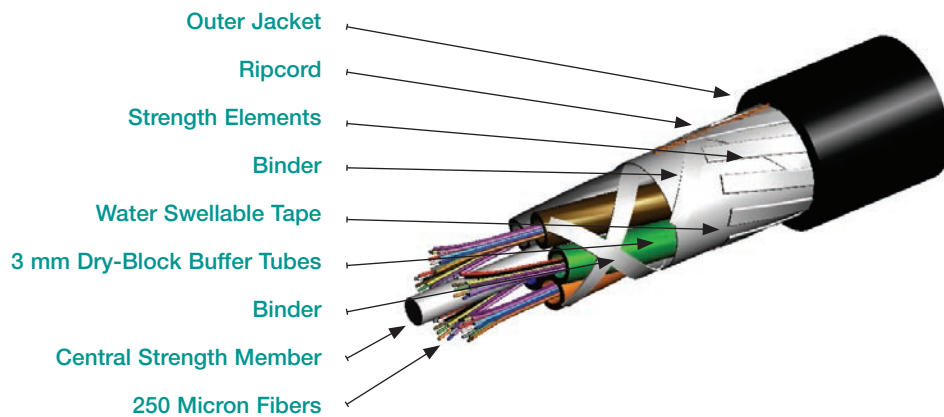
Outdoor Central Tube Cables (Dielectric 5022 Series)



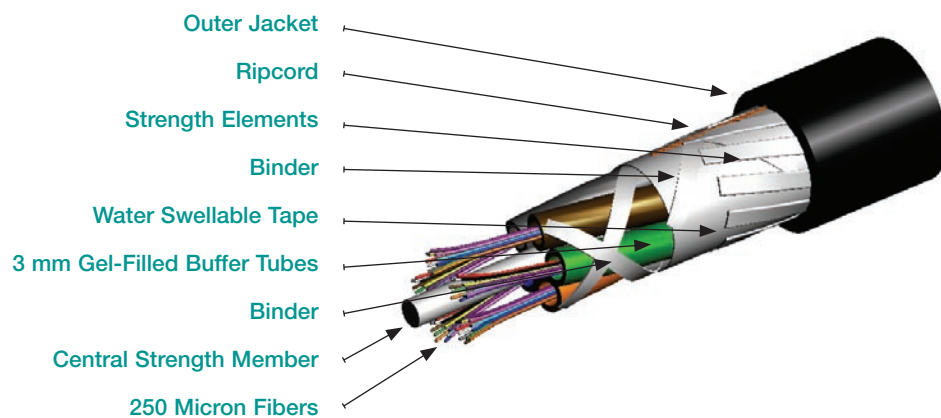
Outdoor Central Tube Cables (Metallic 5021 Series)



Indoor/Outdoor Stranded Loose Tube Cables (Plenum 5125 Series)



Indoor/Outdoor Stranded Loose Tube Cables (Riser 5124 Series)



Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity

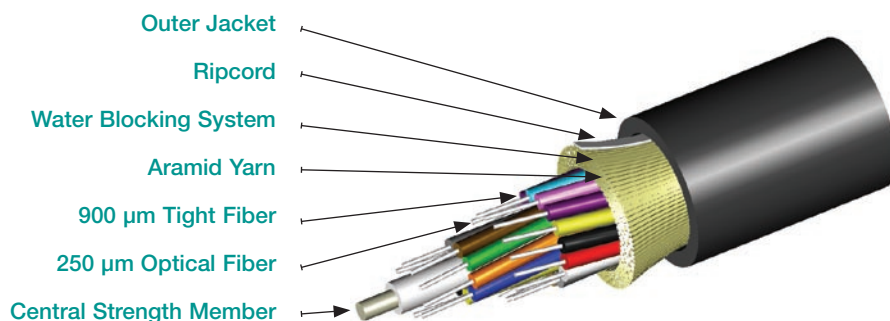


Tools & Consumables

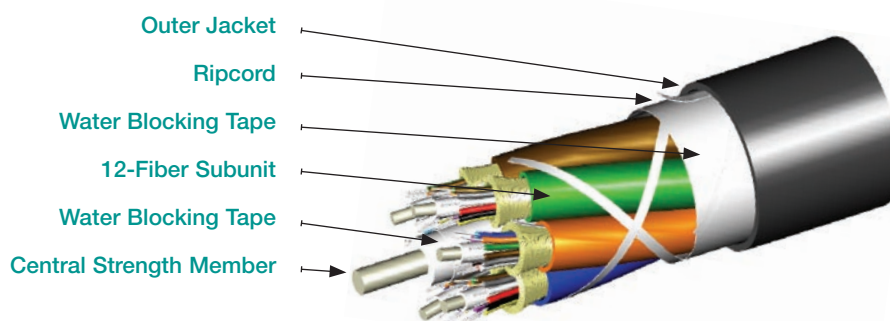




Indoor/Outdoor Tight Buffered Cables (Single Unit 5100, 5101, 5102 Series)



Indoor/Outdoor Tight Buffered Cables (Multi-Unit 5103, 5104, 5105 Series)



12-Fiber Subunit
Outer Diameter = 7.2 mm (0.28 in)



6-Fiber Subunit
Outer Diameter = 5.5 mm (0.22 in)



Cable Order Process

Single Unit and Multi-Unit Fiber Optic Cables

5
2
0
1

0
1
2
A

Z
R
A
Q

POSITION 1
5 Fiber Cable

POSITIONS 3 & 4
What Cable Construction Do You Need?
Premises Cables 52XX and 53XX
00 Riser (OFNR) Rated
01 Plenum (OFNP) Rated
02 Low Smoke (LSZH) Rated
Outside Plant Cables 50XX
21 Central Core, Metallic
22 Central Core, Dielectric
23 Loose Tube, Stranded, Metallic
24 Loose Tube, Stranded, Dielectric
26 Loose Tube, Stranded, Figure 8, Metallic
27 Loose Tube, Stranded, All-Dry, Metallic
28 Loose Tube, Stranded, All-Dry, Dielectric
34 Loose Tube, Stranded, Dielectric, 6 Fiber Tubes
Indoor/Outdoor Cables 51XX
00 Tight Buffered Riser (OFNR) <= 24 Fibers
01 Tight Buffered Plenum (OFNP) <= 24 Fibers
02 Tight Buffered LSOH <= 24 Fibers
03 Tight Buffered Riser (OFNR) > 24 Fibers
04 Tight Buffered Plenum (OFNP) > 24 Fibers
05 Tight Buffered LSZH > 24 Fibers
24 Loose Tube, Stranded, Riser, Dielectric
25 Loose Tube, Stranded, Plenum, Dielectric
29 Riser Heavy Duty SLT, Airport PVDF JKT

POSITION 2
What Cable Family Do You Need?
0 OSP
1 Indoor/Outdoor Cable (Single Unit 2-12 Fibers)
2 Premise Cable (Single Unit 18-24 Fibers)
3 Premise Cable (Multi-Unit 18+ Fibers)

POSITION 8
Cable version manufacturing information only

POSITIONS 5, 6 & 7
How Many Fibers Do You Need?*
 OSP - Central Core **2-96**
 OSP - Loose Tube **2-288**
 I/O Tight Buffered **2-144** (Plenum)
 I/O Loose Tube **2-288**
 Premise Cable **2-72**
 Cordage **1-2**
** Composites require additional information as indicated in the composite key.*

POSITION 9
What Type of Fiber Do You Need?*
Fiber Type
W TeraSPEED ZWP-SM
M OptiSPEED 62.5 µm
H LazrSPEED 150
Z LazrSPEED 300
X LazrSPEED 550
** Composites require additional information as indicated in the composite key.*

POSITIONS 11 & 12
What Color Will the Cable Jacket Be?
AQ Aqua (LazrSPEED)
YL Yellow (Single-mode)
OR Orange (Multimode)
SL Slate (Multimode)
BK Black (OSP & I/O)

POSITION 10
What Environmental Rating Do You Need?
P Plenum (OFNP)
R Riser (OFNR)
H Low Smoke Zero Halogen (LSZH)
X Not Rated (OSP)

POSITIONS 13 - 16 ARE OPTIONAL

POSITION 13
Type of Armor
A Aluminum

POSITION 14
Environmental Rating
R Riser
P Plenum
H LSZH

POSITIONS 15 & 16
Armored jacket color will match the base cable jacket color
AQ Aqua (LazrSPEED)
YL Yellow (Single-mode)
OR Orange (Multimode)
SL Slate (Multimode)
BK Black (Interior/Outdoor)

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

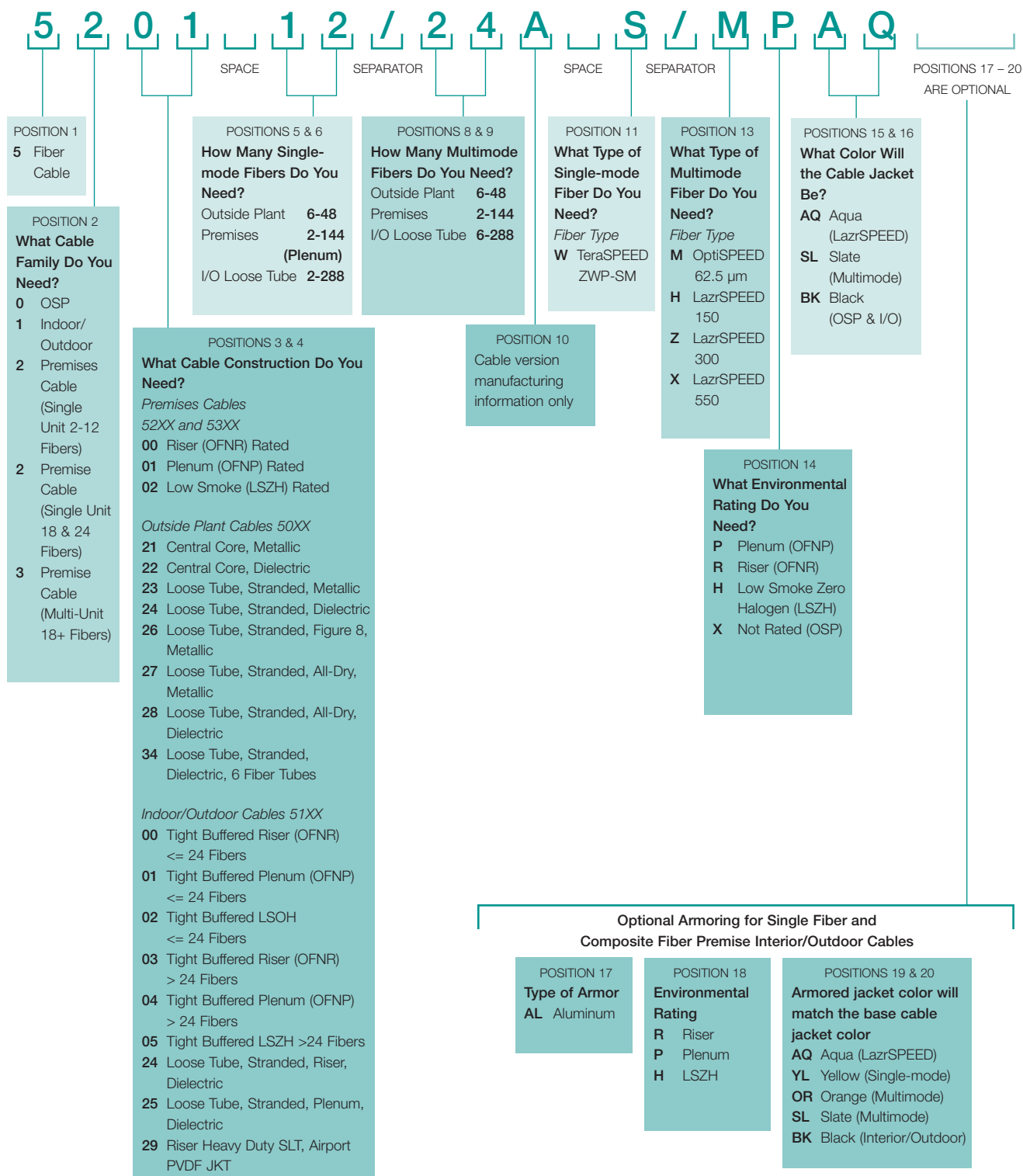
G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Cable Order Process

Composite Cables

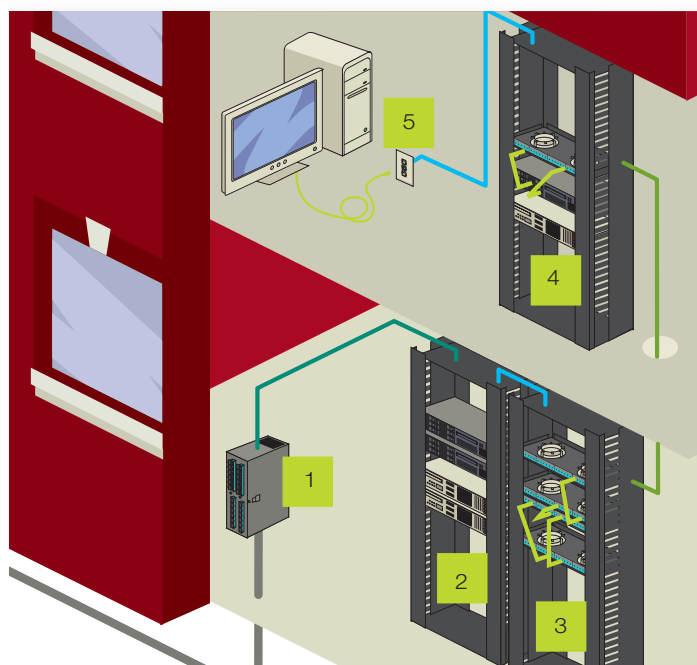


LazrSPEED® Solution

Laser Optimized Multimode

- 1 Fiber optic LIU
 - 2 Racks and cabinets
 - 3 Equipment room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
 - 4 Telecom room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
 - 5 Faceplate/multimedia information outlet
- LazrSPEED outside plant cable
 - LazrSPEED indoor/outdoor cable
 - LazrSPEED indoor cable
 - LazrSPEED patch cord
 - LazrSPEED riser cable

LazrSPEED Solution



LazrSPEED fiber is the perfect choice for new installations because it has been designed to support 10 Gbps up to 550 meter distances. This fully supports the vast majority of in-building distance requirements. The LazrSPEED Solution is flexible and supports all the current LANs from 10 Mbps to 1 Gbps. Gigabit ethernet is supported up to over 1 kilometer for 1000BASE-SX. A future upgrade to 10 Gbps can be easily accomplished by simply plugging in short wavelength (850 nm) 10 Gbps electronics in to the existing LazrSPEED channels up to 550 meters depending on LazrSPEED fiber type. The LazrSPEED Solution also enables dual speed 1 Gbps/10 Gbps ports, which allow less disruptive incremental upgrades of switches and servers. The LazrSPEED Solution supports very high speed data transmission by controlling differential mode delay (DMD) that results when light rays travelling along the various pathways (modes) arrive at the detector at different times. DMD can cause an optical signal to be detected as several different signals.

With the lowest multimode optical channel loss available and the breakthrough bandwidth performance, a LazrSPEED LC solution easily meets the gigabit ethernet standard and sets the pace for 10 Gbps support. This channel loss performance (0.17dB average loss for LC connections, 3.0 dB/km loss for cables at 850 nm) and bandwidth performance enable cost-effective 10 Gbps networks as well as increased network reliability for gigabit applications. It is available in three versions:

LazrSPEED 550

- Meets and exceeds the next generation multimode fiber (OM3) specifications in standards
- Over 4,700 MHz-km laser bandwidth at 850 nm
- Designed to support low complexity 10 Gbps serial transmission to 550 meters
- Supports all serial and CWDM options for 10 Gbps ethernet
- Support 1 Gbps ethernet up to 1.1 km
- Laser optimized
- Suitable for LANs from 10 Mbps to 10 Gbps

LazrSPEED 300

- Meets and exceeds the next generation multimode fiber (OM3) specifications in standards
- Over 2,000 MHz-km laser bandwidth at 850 nm
- Designed to support low complexity 10 Gbps serial transmission to 300 meters
- Supports all serial and CWDM options for 10 Gbps ethernet
- Support 1 Gbps ethernet up to 1 km
- Laser optimized
- Suitable for LANs from 10 Mbps to 10 Gbps

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables



Fiber Types &
Reference



Building



Interlocking
Armored



Indoor/Outdoor
Loose Tube



Indoor/Outdoor
Tight Buffered



Outdoor
Loose Tube



Outdoor
Central Tube



Figure 8



InstaPATCH
Plus



G2 Fiber
Connectivity



Additional Fiber
Connectivity



Tools &
Consumables

LazrSPEED 150

- Meets and exceeds the multimode fiber (OM2) specifications in standards
- Over 950 MHz-km laser bandwidth at 850 nm
- Designed to support low complexity 10 Gbps serial transmission to 150 meters
- Supports all serial and CWDM options for 10 Gbps ethernet
- Supports 1 Gbps ethernet up to 800 meters
- Laser optimized
- Suitable for LANs from 10 Mbps to 10 Gbps

LazrSPEED products include:

- Building Cable
- Indoor/Outdoor Cable
- Outside Plant Cable (where appropriate for the enterprise market)
- LC Connectors (SC or ST II+ Connectors available for limited applications and connections)
- Splice and Termination Shelves
- Multimedia Outlets and Boxes
- Connectorized Patch Cords

LazrSPEED® Specifications

LazrSPEED 550/300/150

Laser Optimized 50 Micron Multimode Fiber

Physical Characteristics

Core Diameter	50.0 ± 2.5 µm
Cladding Diameter	125.0 ± 1.0 µm
Core/Clad Offset	≤ 1.0 µm
Coating Diameter (Uncolored)	245 ± 10 µm
Coating Diameter (Colored)	254 ± 7 µm
Coating/Cladding Concentricity Error, max.	6 µm
Clad Non-Circularity	≤ 1%

Mechanical Characteristics

Proof Test	100 kpsi (0.69 Gpa)
Coating Strip Force	0.3 - 2.0 lbf (1.3 - 8.9 N)
Dynamic Fatigue Parameter (nd)	≥ 18
Macrobending, max. (100 turns @ 75 mm mandrel)	0.50 dB max. @ 850 nm and 1300 nm

Optical Characteristics, Wavelength Specific

	850 nm	1300 nm
Max. Attenuation, Loose Tube Cable	3.0 dB/km	1.0 dB/km
Max. Attenuation, Tight Buffer Cable	3.0 dB/km	1.0 dB/km
Bandwidth, OFL	550: 3,500 MHz-km	500 MHz-km
	300: 1,500 MHz-km	500 MHz-km
	150: 700 MHz-km	500 MHz-km
Bandwidth, Laser	550: 4,700 MHz-km	500 MHz-km
	300: 2,000 MHz-km	500 MHz-km
	150: 950 MHz-km	500 MHz-km
Differential Mode Delay	550: Exceeds TIA-492AAAC-A (IEC-60793-2-10ed2)	0.88 ps/m
	300: Exceeds TIA-492AAAC-A (IEC-60793-2-10ed2)	0.88 ps/m
	150: 0.70 ps/m	0.88 ps/m
1 Gbps Ethernet Distance	550: 1,100 m	600 m
	300: 1,000 m	600 m
	150: 800 m	600 m
10 Gbps Ethernet Distance	550: 550 m	
	300: 300 m	
	150: 150 m	

Optical Characteristics, General

Numerical Aperture	0.200 ± 0.015
Point Defects, Max.	0.15 dB
Zero Dispersion Wavelength	1295-1340 nm
Zero Dispersion Slope	0.105 ps/[km-nm-nm]
Backscatter Coefficient	-68.0/-75.7 dB @ 850/1300 nm
Index of Refraction	1.483/1.479 @ 850/1300 nm

Environmental Characteristics

Temperature Dependence -76°F to 185°F (-60°C to 85°C)	≤ 0.10 dB
Temperature Humidity Cycling 14°F to 185°F (-10°C to 85°C) up to 95% RH	≤ 0.10 dB
Water Immersion, 73.4°F (23°C)	≤ 0.10 dB
Heat Aging, 185°F (85°C)	≤ 0.10 dB

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

TeraSPEED® Solution

Zero Water Peak Single-mode

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

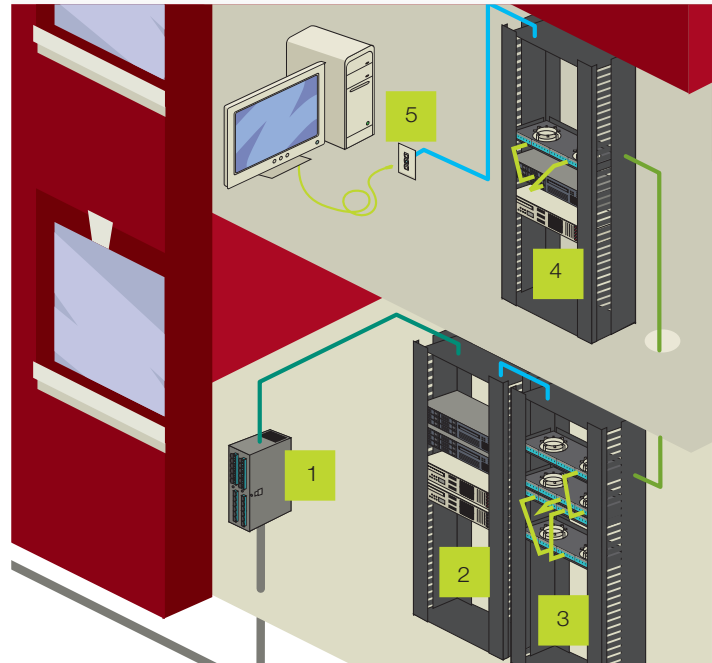
G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

- 1 Fiber optic LIU
 - 2 Racks and cabinets
 - 3 Equipment room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
 - 4 Telecom room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
 - 5 Faceplate/multimedia information outlet
- TeraSPEED outside plant cable
— TeraSPEED indoor/outdoor cable
— TeraSPEED indoor cable
— TeraSPEED patch cord
— TeraSPEED riser cable

TeraSPEED® Solution



SYSTIMAX TeraSPEED® Solution was developed to provide a fiber optic solution that is the Metro/Campus backbone for today's performance requirements. TeraSPEED® cables provide the widest possible usable wavelength spectrum by eliminating the high loss caused by water impurities in the 1,400 nm region. With this 'water peak' eliminated, the entire spectrum from 1,260 nm to 1,620 nm is available, allowing for future expansion of data rates and additional services by the use of cost-effective coarse wavelength division multi-plexing (CWDM).

In addition to LC connectors, TeraSPEED® Solution supports the duplex SC connector as well as the ST II+ connector. An extensive line of wall and rack mounted cabinets and telecommunication outlets for building entrance facilities, equipment rooms, telephone closets/floor distributors and work areas are available.

SYSTIMAX channels comprised exclusively of TeraSPEED® single-mode passive products, end-to-end, are capable of delivering in excess of 10 Gbps in accordance with application standards.

Features and Benefits:

- Zero water peak single-mode fiber
- G.652.C/D compliant
- Lowest loss fiber available at 1,383 nm E-band
- Supports legacy single-mode equipment and applications
- 60% more usable wavelengths
- Maximizes support for lowest cost CWDM technology and delivers lowest cost path to future single-mode applications
- Lowest loss small form factor connector available in the industry—LC Connector

TeraSPEED products include:

- Building Cable
- Indoor/Outdoor Cable
- Outside Plant Cable (where appropriate for the enterprise market)
- LC Connectors (SC or ST II+ connectors available for limited applications and connections)
- Splice and Termination Shelves
- Multimedia Outlets and Boxes
- Connectorized Patch Cords

TeraSPEED® Specifications

TeraSPEED Optical Fiber

Dispersion-Unshifted, Matched-Clad Single-mode Fiber

Physical Characteristics

Cladding Diameter	125.0 ± 0.7 µm
Core/Clad Offset	≤ 0.5 µm
Coating Diameter (Uncolored)	245 ± 10 µm
Coating Diameter (Colored)	254 ± 7 µm
Coating/Cladding Concentricity Error, Max.	12 µm
Clad Non-Circularity	≤ 1%

Mechanical Characteristics

Proof Test	100 kpsi (0.69 Gpa)
Coating Strip Force	0.3 - 2.0 lbf (1.3 - 8.9 N)
Fiber Curl	≥ 4 m
Dynamic Fatigue Parameter (nd)	≥ 18
Macrobending, Max. (100 turns)	0.05 dB (1,310/1,550 nm @ 50 mm) 0.05 dB (1,625 nm @ 60 mm)
Macrobending, Max. (1 turn @ 32 mm mandrel)	0.05 dB @ 1,550 nm

Optical Characteristics, Wavelength Specific

	1310 nm	1385 nm	1550 nm
Max. Attenuation, Loose Tube Cable	0.34 dB/km	0.31 dB/km	0.22 dB/km
Max. Attenuation, Tight Buffer Cable	0.70 dB/km	0.70 dB/km	0.70 dB/km
Mode Field Diameter	9.2 ± 0.3 µm	9.6 ± 0.6 µm	10.4 ± 0.5 µm
Group Refractive Index	1.467	1.468	1.468
Dispersion, Max.	3.5 ps/(nm-km) from 1,285 to 1,330 nm		18 ps/(nm-km)

Optical Characteristics, General

Point Defects, Max.	0.10 dB
Cut-off Wavelength	≤ 1260
Zero Dispersion Wavelength	1,302-1,322 nm
Zero Dispersion Slope, Max.	0.090 ps/[km-nm-nm]
Polarization Mode Dispersion	≤ 0.06 ps/sqrt (km)
Link Design Value	
Backscatter Coefficient	-79.6/-82.1 dB @ 1310/1550 nm
Index of Refraction	1.466/1.467 @ 1310/1550 nm

Environmental Characteristics

Temperature Dependence -76°F to 185°F (-60°C to 85°C)	≤ 0.05 dB
Temperature Humidity Cycling 14°F to 185°F (-10°C to 85°C) up to 95% RH	≤ 0.05 dB
Water Immersion, 73.4°F (23°C)	≤ 0.05 dB
Heat Aging, 185°F (85°C)	≤ 0.05 dB

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

OptiSPEED® Solution Multimode

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

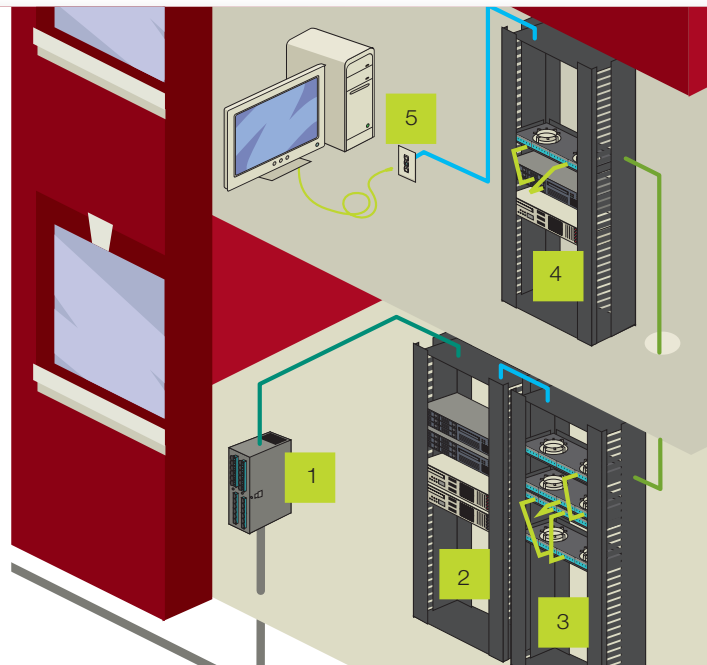
G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

- 1 Fiber optic LIU
 - 2 Racks and cabinets
 - 3 Equipment room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
 - 4 Telecom room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
 - 5 Faceplate/multimedia information outlet
- OptiSPEED outside plant cable
— OptiSPEED indoor/outdoor cable
— OptiSPEED indoor cable
— OptiSPEED patch cord
— OptiSPEED riser cable

OptiSPEED Solution



SYSTIMAX OptiSPEED Solution was developed to provide a fiber optic solution that is the backbone for today's performance requirements. 62.5 micron multimode fiber provides high speed links to support signal transmission up to the TIA standard of 300 meters within a building and up to 2,000 meters or 2 kilometers within a campus for many of today's legacy LANs.

The OptiSPEED channel, including the low loss LC connector, supports the 1000BASE-SX Gbps ethernet LAN, up to 300 meters with 6 LC connections. The OptiSPEED Solution supports up to 600 meter for 1000BASE-LX, Gbps ethernet LAN applications. In addition, the OptiSPEED Solution supports 10 Gbps ethernet using CWDM 1,300 nm lasers to 300 meters.

In addition to LC connectors, the OptiSPEED Solution supports the duplex SC connector as well as the ST II+ connector although over restricted applications and number of connections. The LC is a small form factor connector that allows two LC connectors to fit in the space of a traditional connector such as the SC or ST II+. An extensive line of wall and rack mounted cabinets and telecommunication outlets for building entrance facilities, equipment rooms, telephone closets/floor distributors and work areas are available.

SYSTIMAX channels comprised exclusively of OptiSPEED multimode passive products, end-to-end, are capable of delivering up to 10 Gbps in accordance with application standards.

Features and Benefits:

- Standard multimode fiber
- Lowest multimode fiber channel loss available, up to 50% less than other systems
- Lowest loss small form factor connector available in the industry—LC connector

OptiSPEED products include:

- Building Cable
- Indoor/Outdoor Cable
- Outside Plant Cable (where appropriate for the enterprise market)
- LC connectors (SC or ST II+ connectors available for limited applications and connections)
- Splice and Termination Shelves
- Multimedia Outlets and Boxes
- Connectorized Patch Cords

OptiSPEED® Specifications

OptiSPEED Optical Fiber

62.5 Micron, Multimode Fiber

Physical Characteristics

Core Diameter	62.5 ± 2.5 µm
Cladding Diameter	125.0 ± 1.0 µm
Core/Clad Offset	≤ 1.0 µm
Coating Diameter (Uncolored)	245 ± 10 µm
Coating Diameter (Colored)	254 ± 7 µm
Coating/Cladding Concentricity Error, Max.	6 µm
Clad Non-Circularity	≤ 1%

Mechanical Characteristics

Proof Test	100 kpsi (0.69 Gpa)
Coating Strip Force	0.3 - 2.0 lbf (1.3 - 8.9 N)
Dynamic Fatigue Parameter (nd)	≥ 18
Macrobending, Max. (100 turns @ 75 mm mandrel)	0.50 dB max. @ 850 nm and 1,300 nm

Optical Characteristics, Wavelength Specific

	850 nm	1,300 nm
Max. Attenuation, Loose Tube Cable	3.0 dB/km	1.0 dB/km
Max. Attenuation, Tight Buffer Cable	3.4 dB/km	1.0 dB/km
Bandwidth, OFL	220 MHz-km	500 MHz-km
Group Refractive Index	1.496	1.491
1 Gb Ethernet Distance	300 m	550 m

Optical Characteristics, General

Numerical Aperature	0.275 ± 0.015
Point Defects, Max.	0.15 dB
Zero Dispersion Wavelength	1,320-1,365 nm
Zero Dispersion Slope	0.11 ps/[km•nm²] from 1320-1348 nm
Backscatter Coefficient	-68.0/-75.7 dB @ 850/1300 nm
Index of Refraction	1.496/1.491 @ 850/1300 nm

Environmental Characteristics

Temperature Dependence -76°F to 185°F (-60°C to 85°C)	≤ 0.10 dB
Temperature Humidity Cycling 14°F to 185°F (-10°C to 85°C) up to 95% RH	≤ 0.20 dB
Water Immersion, 73.4°F (23°C)	≤ 0.20 dB
Heat Aging, 185°F (85°C)	≤ 0.20 dB

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



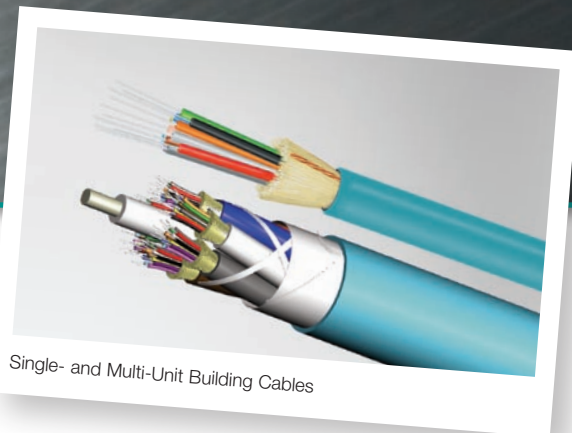
Additional Fiber Connectivity



Tools & Consumables



Building Cables



The LazrSPEED Building Cables consist of laser-optimized 50/125 μm optical fibers. All LazrSPEED fibers are Differential Mode Delay (DMD) tested. The CommScope Labs use a high-resolution DMD test bench that exceeds the FOTP-220 standards and is independently certified by UL.

The LazrSPEED building cable is constructed with tight buffer fibers, aramid-strength yarn, and is available in PVC, Plenum and Low Smoke Zero Halogen outer jacket. These cables are designed for point-to-point applications as well as mid-span access, and provide a high-level of protection for fiber installed in the building environment.

- The Plenum cable is (UL and cUL) TYPE OFNP
- The Riser cable is (UL and cUL) TYPE OFNR
- The LSZH cable is (UL and cUL) TYPE OFNR, OFNR-LS, IEC60332-3C, IEC 60754-2 and IEC61034-2 compliant

Environmental and Mechanical Specifications:

Operating Temperature: -4°F to 158°F (-20°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: 32°F to 158°F (0°C to 70°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Crush Resistance: Exceeds 57.3 lbf/in (10 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds 4.34 lbf-ft (5.8 N-m) (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 100 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Core size: 50 micron (Fibers are identified with standard color coding.)

LazrSPEED 550 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A XPAQ	2	Single Unit	0.15 in (3.9 mm)	8.8 lbs/kft (13.1 kg/km)	760057034
5201 006A XPAQ	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	760012138
5201 012A XPAQ	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	760006411
5201 024A XPAQ	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018697
5301 036A XPAQ	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	760024547
5301 048A XPAQ	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760024554
5301 072A XPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760024562
5301 096A XPAQ	96	Multi-unit	0.91 in (23.1 mm)	360.8 lbs/kft (537 kg/km)	760021691
5301 144A XPAQ	144	Multi-unit	0.97 in (24.8 mm)	357 lbs/kft (492 kg/km)	760024869

LazrSPEED 300 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A ZPAQ	2	Single Unit	0.15 in (3.9 mm)	8.8 lbs/kft (13.1 kg/km)	700009855
5201 004A ZPAQ	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	700009814
5201 006A ZPAQ	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	700009772
5201 008A ZPAQ	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760008508
5201 012A ZPAQ	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	700009731
5201 018A ZPAQ	18	Single Unit	0.31 in (7.9 mm)	40.9 lbs/kft (61 kg/km)	760042556
5201 024A ZPAQ	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018689
5301 036A ZPAQ	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	700009673
5301 048A ZPAQ	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	700211147
5301 072A ZPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	700211154
5301 096A ZPAQ	96	Multi-unit	0.91 in (23.1 mm)	360.8 lbs/kft (537 kg/km)	760010132
5301 144A ZPAQ	144	Multi-unit	0.97 in (24.8 mm)	357 lbs/kft (531 kg/km)	760018879

LazrSPEED 150 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A HPAQ	2	Single Unit	0.15 in (3.9 mm)	8.8 lbs/kft (13.1 kg/km)	700009871
5201 004A HPAQ	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	700009830
5201 006A HPAQ	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	700009798
5201 008A HPAQ	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760008698
5201 012A HPAQ	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	700009756
5201 024A HPAQ	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018671
5301 036A HPAQ	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	700205586
5301 048A HPAQ	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	700211105
5301 072A HPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	700211113
5301 096A HPAQ	96	Multi-unit	0.91 in (23.1 mm)	360.8 lbs/kft (537 kg/km)	760019620
5301 144A HPAQ	144	Multi-unit	0.97 in (24.8 mm)	357 lbs/kft (531 kg/km)	760024836

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Building Cables continued

Single-Unit Building Cable – TeraSPEED®

TeraSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A WPYL	2	Single Unit	0.15 in (3.9 mm)	8.8 lbs/kft (13.1 kg/km)	760004317
5201 004A WPYL	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	760004325
5201 006A WPYL	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	760004333
5201 008A WPYL	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760004341
5201 012A WPYL	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	760004358
5201 024A WPYL	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018630
5301 024A WPYL	24	Multi-unit	0.52 in (13.1 mm)	108 lbs/kft (161 kg/km)	760004366
5301 036A WPYL	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	760004374
5301 048A WPYL	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760004382
5301 072A WPYL	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760004390
5301 096A WPYL	96	Multi-unit	0.91 in (23.1 mm)	360.8 lbs/kft (537 kg/km)	760018051
5301 144A WPYL	144	Multi-unit	0.97 in (24.8 mm)	357 lbs/kft (531 kg/km)	760018895

Single-Unit Building Cable – OptiSPEED

OptiSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Color	Material ID
5201 002A MPPL	2	Single Unit	0.15 in (3.9 mm)	8.8 lbs/kft (13.1 kg/km)	Slate	700009657
5201 004A MPPL	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	Slate	700009582
5201 006A MPPL	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	Slate	700009517
5201 008A MPPL	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	Slate	700009442
5201 012A MPPL	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	Slate	700009392
5201 018A MPPL	18	Single Unit	0.31 in (7.9 mm)	40.9 lbs/kft (61 kg/km)	Slate	760018648
5201 024A MPPL	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	Slate	760018663
5301 036A MPPL	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	Slate	700009186
5301 048A MPPL	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	Slate	700009095
5301 072A MPPL	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	Slate	700009004
5301 144A MPPL	144	Multi-unit	0.97 in (24.8 mm)	357 lbs/kft (531 kg/km)	Slate	760032821
5201 002A MPOR	2	Single Unit	0.15 in (3.9 mm)	8.8 lbs/kft (13.1 kg/km)	Orange	700009665
5201 004A MPOR	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	Orange	700009590
5201 006A MPOR	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	Orange	700009525
5201 012A MPOR	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	Orange	700009400
5201 024A MPOR	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	Orange	760018655
5301 096A MPOR	96	Multi-unit	0.91 in (23.1 mm)	360.8 lb/kft (537 kg/km)	Orange	760048231
5201 004A MPWH	4	Single Unit	0.17 in (4.4 mm)	12.2 lb/kft (18 kg/km)	White	760053124

LazrSPEED 550 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 006A XRAQ	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	760012104
5200 012A XRAQ	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	760012112
5200 024A XRAQ	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	760018564
5300 036A XRAQ	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	760026831
5300 048A XRAQ	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	760026849
5300 072A XRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	760026856
5300 096A XRAQ	96	Multi-unit	0.93 in (23.7 mm)	337.2 lbs/kft (502 kg/km)	760026864
5300 144A XRAQ	144	Multi-unit	1.03 in (26.1 mm)	350.5 lbs/kft (522 kg/km)	760026872

LazrSPEED 300 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A ZRAQ	2	Single Unit	0.16 in (4.1 mm)	10.6 lbs/kft (15.8 kg/km)	700208127
5200 004A ZRAQ	4	Single Unit	0.19 in (4.8 mm)	15 lbs/kft (22.3 kg/km)	700208135
5200 006A ZRAQ	6	Single Unit	0.20 in (5.1 mm)	16 lbs/kft (23.8 kg/km)	700208143
5200 008A ZRAQ	8	Single Unit	0.22 in (5.5 mm)	17 lbs/kft (26 kg/km)	760008516
5200 012A ZRAQ	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	700208150
5200 024A ZRAQ	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	760018556
5300 036A ZRAQ	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	700208176
5300 048A ZRAQ	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	700208218
5300 072A ZRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	700208226
5300 096A ZRAQ	96	Multi-unit	0.93 in (23.7 mm)	337.2 lbs/kft (502 kg/km)	760047860
5300 144A ZRAQ	144	Multi-unit	1.03 in (26.1 mm)	350.5 lbs/kft (522 kg/km)	760018861

LazrSPEED 150 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A HRAQ	2	Single Unit	0.16 in (4.1 mm)	8.6 lbs/kft (12.9 kg/km)	700203052
5200 004A HRAQ	4	Single Unit	0.19 in (4.8 mm)	13.1 lbs/kft (19 kg/km)	700203060
5200 006A HRAQ	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	700203078
5200 008A HRAQ	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	760008706
5200 012A HRAQ	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	700203086
5200 024A HRAQ	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	760018549
5300 024A HRAQ	24	Multi-unit	0.56 in (14.1 mm)	106.7 lbs/kft (159 kg/km)	700203094
5300 036A HRAQ	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	700203102
5300 048A HRAQ	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	700203110
5300 072A HRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	700203128
5300 096A HRAQ	96	Multi-unit	0.93 in (23.7 mm)	337.2 lbs/kft (502 kg/km)	760026310
5300 144A HRAQ	144	Multi-unit	1.03 in (26.1 mm)	350.5 lbs/kft (522 kg/km)	760024810

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

TeraSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A WRYL	2	Single Unit	0.16 in (4.1 mm)	8.6 lbs/kft (12.9 kg/km)	760004408
5200 004A WRYL	4	Single Unit	0.19 in (4.8 mm)	13.1 lbs/kft (19 kg/km)	760004416
5200 006A WRYL	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	760004424
5200 008A WRYL	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	760004432
5200 012A WRYL	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	760004440
5200 024A WRYL	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	760018515
5300 036A WRYL	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	760004465
5300 048A WRYL	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	760004473
5300 072A WRYL	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	760004481
5300 096A WRYL	96	Multi-unit	0.93 in (23.7 mm)	337.2 lbs/kft (502 kg/km)	760026823
5300 144A WRYL	144	Multi-unit	1.03 in (26.1 mm)	350.5 lbs/kft (522 kg/km)	760018887

OptiSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Color	Material ID
5200 002A MROR	2	Single Unit	0.16 in (4.1 mm)	8.6 lbs/kft (12.9 kg/km)	Orange	700010184
5200 004A MROR	4	Single Unit	0.19 in (4.8 mm)	13.1 lbs/kft (19.4 kg/km)	Orange	700012172
5200 006A MROR	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	Orange	700010176
5200 008A MROR	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	Orange	700012180
5200 012A MROR	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	Orange	700010168
5200 002A MRSL	2	Single Unit	0.16 in (4.6 mm)	8.6 lbs/kft (12.9 kg/km)	Slate	700009640
5200 004A MRSL	4	Single Unit	0.19 in (4.8 mm)	13.1 lbs/kft (19.4 kg/km)	Slate	700009574
5200 006A MRSL	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	Slate	700009509
5200 008A MRSL	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	Slate	700009434
5200 012A MRSL	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	Slate	700009384
5200 018A MRSL	18	Single Unit	0.30 in (7.7 mm)	32.1 lbs/kft (48 kg/km)	Slate	760018523
5200 024A MRSL	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	Slate	760018531
5300 024A MRSL	24	Multi-unit	0.56 in (14.1 mm)	106.7 lbs/kft (159 kg/km)	Slate	700009269
5300 036A MRSL	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	Slate	700009178
5300 048A MRSL	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	Slate	700009087
5300 072A MRSL	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	Slate	700008998
5300 144A MRSL	144	Multi-unit	1.03 in (26.1 mm)	350.5 lbs/kft (522 kg/km)	Slate	760055046

LazrSPEED 550 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 006A XHAQ	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	760012153
5202 012A XHAQ	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	760012161
5202 024A XHAQ	24	Single Unit	0.34 in (8.6 mm)	44.4 lbs/kft (66 kg/km)	760019117

LazrSPEED 300 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 002A ZHAQ	2	Single Unit	0.15 in (3.9 mm)	7.82 lbs/kft (11.6 kg/km)	700009863
5202 004A ZHAQ	4	Single Unit	0.19 in (4.8 mm)	14.3 lbs/kft (21 kg/km)	700009822
5202 006A ZHAQ	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	700009780
5202 008A ZHAQ	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	760026336
5202 012A ZHAQ	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	700009749
5202 024A ZHAQ	24	Single Unit	0.34 in (8.6 mm)	44.4 lbs/kft (66 kg/km)	760019109
5302 036A ZHAQ	36	Multi-unit	0.59 in (14.9 mm)	118.5 lbs/kft (176 kg/km)	700009681
5302 048A ZHAQ	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	700211121
5302 072A ZHAQ	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	700211139

LazrSPEED 150 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 002A HHAQ	2	Single Unit	0.15 in (3.9 mm)	7.82 lbs/kft (11.6 kg/km)	700009889
5202 004A HHAQ	4	Single Unit	0.19 in (4.8 mm)	14.3 lbs/kft (21 kg/km)	700009848
5202 006A HHAQ	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	700009806
5202 012A HHAQ	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	700009764
5202 024A HHAQ	24	Single Unit	0.34 in (8.6 mm)	44.4 lbs/kft (66 kg/km)	760019097
5302 036A HHAQ	36	Multi-unit	0.59 in (14.9 mm)	118.5 lbs/kft (176 kg/km)	700229511
5302 048A HHAQ	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	700211089
5302 072A HHAQ	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	700211097

TeraSPEED LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 004A WHYL	4	Single Unit	0.19 in (4.8 mm)	14.3 lbs/kft (21 kg/km)	760055038
5202 006A WHYL	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	760004242
5202 008A WHYL	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	760004259
5202 012A WHYL	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	760004267
5202 024A WHYL	24	Single Unit	0.34 in (8.6 mm)	44.4 lbs/kft (66 kg/km)	760019075
5302 036A WHYL	36	Multi-unit	0.59 in (14.9 mm)	118.5 lbs/kft (176 kg/km)	760004283
5302 048A WHYL	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	760004291
5302 072A WHYL	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760004309

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

OptiSPEED LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Color	Material ID
5202 002A MHOR	2	Single Unit	0.15 in (3.9 mm)	7.82 lbs/kft (11.6 kg/km)	Orange	700008485
5202 004A MHOR	4	Single Unit	0.19 in (4.8 mm)	14.3 lbs/kft (21 kg/km)	Orange	700008477
5202 006A MHOR	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	Orange	700008469
5202 008A MHOR	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	Orange	700008451
5202 012A MHOR	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	Orange	700008444
5202 024A MHOR	24	Single Unit	0.34 in (8.6 mm)	44.4 lbs/kft (66 kg/km)	Orange	760019083
5302 036A MHOR	36	Multi-unit	0.59 in (14.9 mm)	118.5 lbs/kft (176 kg/km)	Orange	700009194
5302 048A MHOR	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	Orange	700009103
5302 072A MHOR	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	Orange	700009012

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Composite Building Cable

The SYSTIMAX TeraSPEED®/LazrSPEED Composite Fiber Optic cable provides the ultimate in future proofing. This combination of fibers provides the benefits of a Zero Water Peak Single-mode, and LazrSPEED 150 or 300 Laser Optimized Multimode Fiber (LOMMF), the leading 10 Gbps (OM3) fiber. The incorporation of both single-mode and multimode fibers under one jacket provides not only for seamless future migration should the need arise, but also for improved installation time and decreased installation expense. This composite cable is reinforced with aramid yarn for superior strength.

The SYSTIMAX TeraSPEED/OptiSPEED Composite Fiber Optic cable incorporates the TeraSPEED single-mode fiber with the OptiSPEED multimode fiber, all under one jacket. This provides a cost-effective alternative for those with modest bandwidth requirements today, while allowing a seamless migration to single-mode for future requirements.

This cable complies with the requirements of the National Electrical Code, Article 770-51; ANSI/TIA/EIA 568B.3, "Optical Fiber Cabling Components Standard" and Telcordia Generic Requirements for Premises Fiber Optic Cable (GR-409-CORE), Section 6. It is available with riser, plenum or low smoke zero halogen ratings.

- The Plenum cable is (UL and cUL) TYPE OFNP
- The Riser cable is (UL and cUL) TYPE OFNR
- The LSZH cable is (UL and cUL) TYPE OFNR, OFNR-LS, IEC60332-3C, IEC 60754-2 and IEC61034-2 compliant

Environmental and Mechanical Specifications:

Operating Temperature: -4°F to 158°F (-20°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: 32°F to 158°F (0°C to 70°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Crush Resistance: Exceeds 57.3 lbf/in (10 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds 4.34 lbf-ft (5.8 N-m) (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 100 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

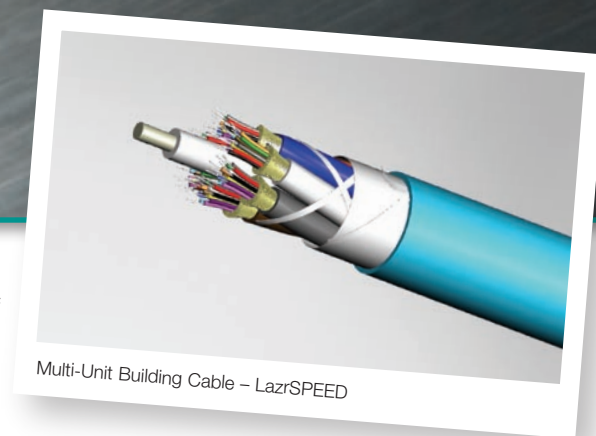
Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Fibers are identified with standard color coding. Single-mode fibers are placed in first subunits, followed by multimode fibers.

TeraSPEED/LazrSPEED 300 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 02/02A W/ZPAQ	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	760008078
5201 02/04A W/ZPAQ	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	760008086
5201 02/06A W/ZPAQ	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760008094
5201 04/04A W/ZPAQ	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760008102
5201 04/08A W/ZPAQ	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	760008110
5201 06/06A W/ZPAQ	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	760008128
5201 06/12A W/ZPAQ	18	Single Unit	0.31 in (7.9 mm)	40.9 lbs/kft (61 kg/km)	760018739
5201 06/18A W/ZPAQ	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018747
5201 12/12A W/ZPAQ	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018754
5301 06/12A W/ZPAQ	18	Multi-unit	0.45 in (11.5 mm)	96.1 lbs/kft (143 kg/km)	760008136
5301 06/18A W/ZPAQ	24	Multi-unit	0.52 in (13.1 mm)	108.1 lbs/kft (161 kg/km)	760008144
5301 12/12A W/ZPAQ	24	Multi-unit	0.52 in (13.1 mm)	108.1 lbs/kft (161 kg/km)	760008151
5301 12/24A W/ZPAQ	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	760008177
5301 12/36A W/ZPAQ	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760008193
5301 24/24A W/ZPAQ	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760008201
5301 12/48A W/ZPAQ	60	Multi-unit	0.68 in (17.2 mm)	190.0 lbs/kft (282 kg/km)	760008219



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Building Cables continued

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5301 24/48A W/ZPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760008227
5301 12/60A W/ZPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760008235
5301 36/36A W/ZPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760008243

TeraSPEED/LazrSPEED 150 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 06/12A W/HPAQ	18	Single Unit	0.31 in (7.9 mm)	40.9 lbs/kft (61 kg/km)	760019158
5301 06/12A W/HPAQ	18	Multi-unit	0.45 in (11.4 mm)	82.5 lbs/kft (123 kg/km)	760018770
5301 24/48A W/HPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760018788

TeraSPEED/LazrSPEED 550 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 06/06A W/XPAQ	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	760057117
5201 06/12A W/XPAQ	18	Single Unit	0.31 in (7.9 mm)	40.9 lbs/kft (61 kg/km)	760065896
5301 24/24A W/XPAQ	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760057109
5301 36/36A W/XPAQ	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760057091

TeraSPEED/LazrSPEED 300 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 02/02A W/ZRAQ	4	Single Unit	0.19 in (4.8 mm)	13.1 lbs/kft (19 kg/km)	760007898
5200 02/04A W/ZRAQ	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	760007906
5200 02/06A W/ZRAQ	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	760007914
5200 04/04A W/ZRAQ	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	760007922
5200 04/08A W/ZRAQ	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	760007930
5200 06/06A W/ZRAQ	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	760007948
5200 06/12A W/ZRAQ	18	Single Unit	0.30 in (7.7 mm)	32.1 lbs/kft (48 kg/km)	760018606
5200 06/18A W/ZRAQ	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	760018614
5200 12/12A W/ZRAQ	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	760018622
5300 06/12A W/ZRAQ	18	Multi-unit	0.48 in (12.3 mm)	99.8 lbs/kft (148 kg/km)	760007955
5300 06/18A W/ZRAQ	24	Multi-unit	0.56 in (14.1 mm)	106.7 lbs/kft (159 kg/km)	760007963
5300 12/12A W/ZRAQ	24	Multi-unit	0.56 in (14.1 mm)	106.7 lbs/kft (159 kg/km)	760007971
5300 12/24A W/XRAQ	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	760091538
5300 12/24A W/ZRAQ	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	760007997
5300 12/36A W/ZRAQ	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	760008011
5300 24/24A W/ZRAQ	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	760008029
5300 12/48A W/ZRAQ	60	Multi-unit	0.71 in (18.0 mm)	187.6 lbs/kft (279 kg/km)	760008037
5300 24/48A W/ZRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	760008045
5300 12/60A W/ZRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	760008052
5300 36/36A W/ZRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	760008060

TeraSPEED/LazrSPEED 150 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 06/06A W/HRAQ	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	760054981
5200 06/12A W/HRAQ	18	Single Unit	0.30 in (7.7 mm)	32.1 lbs/kft (48 kg/km)	760019166
5300 06/12A W/HRAQ	18	Multi-unit	0.48 in (12.3 mm)	99.8 lbs/kft (148 kg/km)	760018390
5300 12/24A W/HRAQ	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	760057307
5300 24/48A W/HRAQ	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	760018408

TeraSPEED/LazrSPEED 300 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 02/02A W/ZHAQ	4	Single Unit	0.19 in (4.8 mm)	14.3 lbs/kft (21 kg/km)	760009183
5202 02/04A W/ZHAQ	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	760009191
5202 02/06A W/ZHAQ	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	760009209
5202 04/04A W/ZHAQ	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	760009217
5202 04/08A W/ZHAQ	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	760009225
5202 06/06A W/ZHAQ	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	760009233
5302 06/12A W/ZHAQ	18	Multi-unit	0.51 in (12.9 mm)	92.2 lbs/kft (137 kg/km)	760009241
5302 06/18A W/ZHAQ	24	Multi-unit	0.56 in (12.4 mm)	116.6 lbs/kft (174 kg/km)	760009258
5302 12/12A W/ZHAQ	24	Multi-unit	0.56 in (12.4 mm)	116.6 lbs/kft (174 kg/km)	760009266
5302 12/24A W/ZHAQ	36	Multi-unit	0.59 in (14.9 mm)	118.5 lbs/kft (176 kg/km)	760009282
5302 12/36A W/ZHAQ	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	760009308
5302 24/24A W/ZHAQ	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	760009316
5302 12/48A W/ZHAQ	60	Multi-unit	0.73 in (18.5 mm)	196.6 lbs/kft (293 kg/km)	760009324
5302 24/48A W/ZHAQ	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760009332
5302 12/60A W/ZHAQ	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760009340
5302 36/36A W/ZHAQ	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760009357

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity



Tools & Consumables



Composite Building Cables continued

Multi-Unit Building Cable

TeraSPEED/OptiSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 02/02A W/MPSL	4	Single Unit	0.17 in (4.4 mm)	12.2 lbs/kft (18 kg/km)	760007716
5201 02/04A W/MPSL	6	Single Unit	0.19 in (4.8 mm)	15.1 lbs/kft (22 kg/km)	760007724
5201 02/06A W/MPSL	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760007732
5201 04/04A W/MPSL	8	Single Unit	0.20 in (5.1 mm)	16.8 lbs/kft (25 kg/km)	760007740
5201 04/08A W/MPSL	12	Single Unit	0.23 in (5.8 mm)	20.8 lbs/kft (31 kg/km)	760007757
5201 06/06A W/MPSL	12	Single Unit	0.22 in (5.7 mm)	20.8 lbs/kft (31 kg/km)	760007765
5201 06/12A W/MPSL	18	Single Unit	0.31 in (7.9 mm)	40.9 lbs/kft (61 kg/km)	760018705
5201 06/18A W/MPSL	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018713
5201 12/12A W/MPSL	24	Single Unit	0.33 in (8.5 mm)	47.3 lbs/kft (70 kg/km)	760018721
5301 06/12A W/MPSL	18	Multi-unit	0.45 in (11.5 mm)	96.1 lbs/kft (143 kg/km)	760007773
5301 06/18A W/MPSL	24	Multi-unit	0.52 in (13.1 mm)	108.1 lbs/kft (161 kg/km)	760007781
5301 12/12A W/MPSL	24	Multi-unit	0.52 in (13.1 mm)	108.1 lbs/kft (161 kg/km)	760007799
5301 12/24A W/MPSL	36	Multi-unit	0.54 in (13.7 mm)	128.4 lbs/kft (191 kg/km)	760007815
5301 12/36A W/MPSL	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760007831
5301 24/24A W/MPSL	48	Multi-unit	0.59 in (15.1 mm)	137.7 lbs/kft (205 kg/km)	760007849
5301 12/48A W/MPSL	60	Multi-unit	0.68 in (17.2 mm)	190.0 lbs/kft (282 kg/km)	760007856
5301 24/48A W/MPSL	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760007864
5301 12/60A W/MPSL	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760007872
5301 36/36A W/MPSL	72	Multi-unit	0.75 in (19.1 mm)	237.1 lbs/kft (353 kg/km)	760007880

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

TeraSPEED/OptiSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Color	Material ID
5200 02/02A W/MRSL	4	Single Unit	0.19 in (4.8 mm)	13.1 lbs/kft (19 kg/km)	Slate	760007534
5200 02/04A W/MRSL	6	Single Unit	0.20 in (5.1 mm)	15.2 lbs/kft (23 kg/km)	Slate	760007559
5200 02/06A W/MRSL	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	Slate	760007567
5200 04/04A W/MRSL	8	Single Unit	0.22 in (5.5 mm)	17.2 lbs/kft (26 kg/km)	Slate	760007575
5200 04/08A W/MRSL	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	Slate	760007583
5200 06/06A W/MRSL	12	Single Unit	0.24 in (6.0 mm)	21.7 lbs/kft (32 kg/km)	Slate	760007591
5200 06/12A W/MRSL	18	Single Unit	0.30 in (7.7 mm)	32.1 lbs/kft (48 kg/km)	Slate	760018572
5200 06/18A W/MRSL	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	Slate	760018580
5200 12/12A W/MRSL	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	Slate	760018598
5200 12/12A W/MROR	24	Single Unit	0.33 in (8.4 mm)	37.9 lbs/kft (56 kg/km)	Orange	760026393
5300 06/12A W/MRSL	18	Multi-unit	0.48 in (12.3 mm)	99.8 lbs/kft (148 kg/km)	Slate	760007609
5300 06/18A W/MRSL	24	Multi-unit	0.56 in (14.1 mm)	106.7 lbs/kft (159 kg/km)	Slate	760007617
5300 12/12A W/MRSL	24	Multi-unit	0.56 in (14.1 mm)	106.7 lbs/kft (159 kg/km)	Slate	760007625
5300 12/24A W/MRSL	36	Multi-unit	0.58 in (14.6 mm)	112.4 lbs/kft (167 kg/km)	Slate	760007641
5300 12/36A W/MRSL	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	Slate	760007666
5300 24/24A W/MRSL	48	Multi-unit	0.63 in (16.1 mm)	142.8 lbs/kft (212 kg/km)	Slate	760007674
5300 12/60A W/MRSL	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	Slate	760007682
5300 24/48A W/MRSL	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	Slate	760007690
5300 36/36A W/MRSL	72	Multi-unit	0.79 in (19.9 mm)	231.6 lbs/kft (345 kg/km)	Slate	760007708
5300 48/48A W/MRSL	96	Multi-unit	0.93 in (23.7 mm)	337.2 lbs/kft (502 kg/km)	Slate	760017616

TeraSPEED/OptiSPEED LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 02/02A W/MHOR	4	Single Unit	0.19 in (4.8 mm)	14.3 lbs/kft (21 kg/km)	760009001
5202 02/04A W/MHOR	6	Single Unit	0.20 in (5.2 mm)	16.4 lbs/kft (24 kg/km)	760009019
5202 02/06A W/MHOR	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	760009027
5202 04/04A W/MHOR	8	Single Unit	0.22 in (5.5 mm)	19.1 lbs/kft (28 kg/km)	760009035
5202 04/08A W/MHOR	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	760009043
5202 06/06A W/MHOR	12	Single Unit	0.24 in (6.1 mm)	23.0 lbs/kft (34 kg/km)	760009050
5302 06/12A W/MHOR	18	Multi-unit	0.51 in (12.9 mm)	92.2 lbs/kft (137 kg/km)	760009068
5302 06/18A W/MHOR	24	Multi-unit	0.56 in (12.4 mm)	116.6 lbs/kft (174 kg/km)	760009076
5302 12/12A W/MHOR	24	Multi-unit	0.56 in (12.4 mm)	116.6 lbs/kft (174 kg/km)	760009084
5302 12/24A W/MHOR	36	Multi-unit	0.59 in (14.9 mm)	118.5 lbs/kft (176 kg/km)	760009100
5302 12/36A W/MHOR	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	760009126
5302 24/24A W/MHOR	48	Multi-unit	0.65 in (16.4 mm)	150.3 lbs/kft (224 kg/km)	760009134
5302 12/48A W/MHOR	60	Multi-unit	0.73 in (18.5 mm)	196.6 lbs/kft (293 kg/km)	760009142
5302 24/48A W/MHOR	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760009159
5302 12/60A W/MHOR	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760009167
5302 36/36A W/MHOR	72	Multi-unit	0.79 in (20.2 mm)	242.2 lbs/kft (360 kg/km)	760009175

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

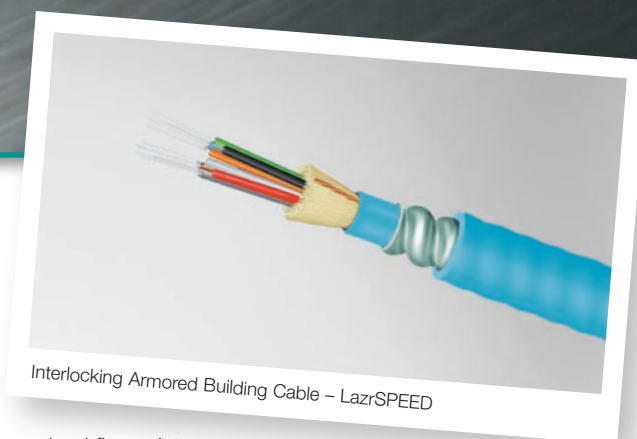
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Interlocking Armored Cables



SYSTIMAX Interlocking Armored Fiber Optic Cable provides superior protection and space savings. It provides installation protection from bending and excessive pull tension, significant time and labor reductions versus conduit or innerduct installations and increased installation and design flexibility.

SYSTIMAX Interlocking Armor can be used anywhere additional protection and security for the fiber cable are desired. Applications include building backbone, zone distribution, raised floor, data centers and storage area networks (SANs). Vertical markets include: industrial, manufacturing, airports, stadiums, military and any other vertical where increased protection and security for the fiber cable are desired. These include: financial, hospitals, educational facilities and many more.

The SYSTIMAX Interlocking Armor is applied spirally around any premise distribution cable, and is available in aluminum. The armored cable is then over-jacketed with a sheath. This sheath is color-coded to the fiber type contained within, and provides not only the ability to print the armor with all relevant information on the cable inside, but also allows for easier handling and pulling.

- The Plenum cable is (UL and cUL) TYPE OFCP
- The Riser cable is (UL and cUL) TYPE OFCR
- The LSZH cable is (UL and cUL) TYPE OFCR, OFC-LS, OFCR-LS, IEC60332-3C, IEC 60754-2 and IEC61034-2 compliant

Environmental and Mechanical Specifications:

Operating Temperature: -4°F to 158°F (-20°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: 32°F to 158°F (0°C to 70°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Crush Resistance: 486.8 lbf/in (85 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: 25.8 lbf-ft (35 N-m) (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Fibers are identified with standard color coding.

LazrSPEED 550 Interlocking Armored Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 006A XPAQ APAQ	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	760012138-APAQ
5201 012A XPAQ APAQ	12	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	760006411-APAQ
5201 024A XPAQ APAQ	24	Single Unit	0.66 in (16.6 mm)	206 lbs/kft (307 kg/km)	760018697-APAQ
5301 036A XPAQ APAQ	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	760024547-APAQ
5301 048A XPAQ APAQ	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	760024554-APAQ
5301 072A XPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760024562-APAQ
5301 096A XPAQ APAQ	96	Multi-unit	1.26 in (31.9 mm)	569 lbs/kft (847 kg/km)	760021691-APAQ
5301 144A XPAQ APAQ	144	Multi-unit	1.31 in (33.1 mm)	574 lbs/kft (854 kg/km)	760024869-APAQ

LazrSPEED 300 Interlocking Armored Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A ZPAQ APAQ	2	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	700009855-APAQ
5201 004A ZPAQ APAQ	4	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	700009814-APAQ
5201 006A ZPAQ APAQ	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	700009772-APAQ
5201 008A ZPAQ APAQ	8	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	760008508-APAQ
5201 012A ZPAQ APAQ	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	700009731-APAQ
5201 018A ZPAQ APAQ	18	Single Unit	0.66 in (16.6 mm)	153 lbs/kft (227 kg/km)	760042556-APAQ
5201 024A ZPAQ APAQ	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	760018689-APAQ
5301 024A ZPAQ APAQ	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	700009699-APAQ
5301 036A ZPAQ APAQ	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	700009673-APAQ
5301 048A ZPAQ APAQ	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	700211147-APAQ
5301 072A ZPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	700211154-APAQ
5301 096A ZPAQ APAQ	96	Multi-unit	1.26 in (31.9 mm)	569 lbs/kft (847 kg/km)	760010132-APAQ

LazrSPEED 150 Interlocking Armored Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A HPAQ APAQ	2	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	700009871-APAQ
5201 004A HPAQ APAQ	4	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	700009830-APAQ
5201 006A HPAQ APAQ	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	700009798-APAQ
5201 008A HPAQ APAQ	8	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	760008698-APAQ
5201 012A HPAQ APAQ	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	700009756-APAQ
5201 024A HPAQ APAQ	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	760018671-APAQ
5301 036A HPAQ APAQ	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	700205586-APAQ
5301 048A HPAQ APAQ	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	700211105-APAQ
5301 072A HPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	700211113-APAQ
5301 96A HPAQ APAQ	96	Multi-unit	1.26 in (31.9 mm)	569 lbs/kft (847 kg/km)	760019620-APAQ
5301 144A HPAQ APAQ	144	Multi-unit	1.31 in (33.1 mm)	574 lbs/kft (854 kg/km)	760024836-APAQ

LazrSPEED 550 Interlocking Armored Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A XRAQ ARAQ	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (126 kg/km)	760028753-ARAQ
5200 006A XRAQ ARAQ	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	760012104-ARAQ
5200 012A XRAQ ARAQ	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760012112-ARAQ
5200 024A XRAQ ARAQ	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018564-ARAQ
5300 036A XRAQ ARAQ	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	760026831-ARAQ
5300 048A XRAQ ARAQ	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	760026849-ARAQ
5300 072A XRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760026856-ARAQ
5300 096A XRAQ ARAQ	96	Multi-unit	1.26 in (31.9 mm)	528 lbs/kft (786 kg/km)	760026864-ARAQ
5300 144A XRAQ ARAQ	144	Multi-unit	1.36 in (34.4 mm)	558 lbs/kft (830 kg/km)	760026872-ARAQ

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity



Tools & Consumables



LazrSPEED 300 Interlocking Armored Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A ZRAQ ARAQ	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (126 kg/km)	700208127-ARAQ
5200 004A ZRAQ ARAQ	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	700208135-ARAQ
5200 006A ZRAQ ARAQ	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	700208143-ARAQ
5200 008A ZRAQ ARAQ	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760008516-ARAQ
5200 012A ZRAQ ARAQ	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	700208150-ARAQ
5200 024A ZRAQ ARAQ	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018556-ARAQ
5300 036A ZRAQ ARAQ	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	700208176-ARAQ
5300 048A ZRAQ ARAQ	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	700208218-ARAQ
5300 072A ZRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	700208226-ARAQ
5300 096A ZRAQ ARAQ	96	Multi-unit	1.26 in (31.9 mm)	528 lbs/kft (786 kg/km)	760047860-ARAQ
5300 144A ZRAQ ARAQ	144	Multi-unit	1.36 in (34.4 mm)	558 lbs/kft (830 kg/km)	760018861-ARAQ

LazrSPEED 150 Interlocking Armored Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A HRAQ ARAQ	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (126 kg/km)	700203052-ARAQ
5200 004A HRAQ ARAQ	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	700203060-ARAQ
5200 006A HRAQ ARAQ	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	700203078-ARAQ
5200 008A HRAQ ARAQ	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760008706-ARAQ
5200 012A HRAQ ARAQ	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	700203086-ARAQ
5200 024A HRAQ ARAQ	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018549-ARAQ
5300 036A HRAQ ARAQ	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	700203102-ARAQ
5300 048A HRAQ ARAQ	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	700203110-ARAQ
5300 072A HRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	700203128-ARAQ
5300 096A HRAQ ARAQ	96	Multi-unit	1.26 in (31.9 mm)	528 lbs/kft (786 kg/km)	760026310-ARAQ
5300 144A HRAQ ARAQ	144	Multi-unit	1.36 in (34.4 mm)	558 lbs/kft (830 kg/km)	760024810-ARAQ

LazrSPEED 550 Interlocking Armored LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 006A XHAQ AHAQ	6	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	760012153-AHAQ
5202 012A XHAQ AHAQ	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	760012161-AHAQ
5202 024A XHAQ AHAQ	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019117-AHAQ

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

LazrSPEED 300 Interlocking Armored LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 002A ZHAQ AHAQ	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (127 kg/km)	700009863-AHAQ
5202 004A ZHAQ AHAQ	4	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	700009822-AHAQ
5202 006A ZHAQ AHAQ	6	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	700009780-AHAQ
5202 008A ZHAQ AHAQ	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	760026336-AHAQ
5202 012A ZHAQ AHAQ	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	700009749-AHAQ
5202 024A ZHAQ AHAQ	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019109-AHAQ
5302 036A ZHAQ AHAQ	36	Multi-unit	0.91 in (23.0 mm)	275 lbs/kft (409 kg/km)	700009681-AHAQ
5302 048A ZHAQ AHAQ	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	700211121-AHAQ
5302 072A ZHAQ AHAQ	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	700211139-AHAQ

LazrSPEED 150 Interlocking Armored LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 002A HHAQ AHAQ	2	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	700009889-AHAQ
5202 004A HHAQ AHAQ	4	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (150 kg/km)	700009848-AHAQ
5202 006A HHAQ AHAQ	6	Single Unit	0.51 in (12.8 mm)	103 lbs/kft (153 kg/km)	700009806-AHAQ
5202 012A HHAQ AHAQ	12	Single Unit	0.51 in (12.8 mm)	109 lbs/kft (163 kg/km)	700009764-AHAQ
5202 024A HHAQ AHAQ	24	Single Unit	0.61 in (15.4 mm)	151 lbs/kft (224 kg/km)	760019091-AHAQ
5302 036A HHAQ AHAQ	36	Multi-unit	0.91 in (23.0 mm)	275 lbs/kft (409 kg/km)	700229511-AHAQ
5302 048A HHAQ AHAQ	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	700211089-AHAQ
5302 072A HHAQ AHAQ	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	700211097-AHAQ

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity



Tools & Consumables



Interlocking Armored Building Cable – TeraSPEED®

TeraSPEED Interlocking Armored, Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 002A WPYL APYL	2	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	760004317-APYL
5201 004A WPYL APYL	4	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	760004325-APYL
5201 006A WPYL APYL	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	760004333-APYL
5201 008A WPYL APYL	8	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	760004341-APYL
5201 012A WPYL APYL	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	760004358-APYL
5201 024A WPYL APYL	24	Single Unit	0.66 in (16.6 mm)	153 lbs/kft (227 kg/km)	760018630-APYL
5301 036A WPYL APYL	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	760004374-APYL
5301 048A WPYL APYL	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	760004382-APYL
5301 072A WPYL APYL	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760004390-APYL
5301 096A WPYL APYL	96	Multi-unit	1.26 in (31.9 mm)	569 lbs/kft (847 kg/km)	760018051-APYL
5301 144A WPYL APYL	144	Multi-unit	1.31 in (33.1 mm)	574 lbs/kft (854 kg/km)	760018895-APYL

TeraSPEED Interlocking Armored, Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 002A WRYL ARYL	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (126 kg/km)	760004408-ARYL
5200 004A WRYL ARYL	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	760004416-ARYL
5200 006A WRYL ARYL	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	760004424-ARYL
5200 008A WRYL ARYL	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760004432-ARYL
5200 012A WRYL ARYL	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760004440-ARYL
5200 024A WRYL ARYL	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018515-ARYL
5300 036A WRYL ARYL	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	760004465-ARYL
5300 048A WRYL ARYL	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	760004473-ARYL
5300 072A WRYL ARYL	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760004481-ARYL
5300 096A WRYL ARYL	96	Multi-unit	1.26 in (31.9 mm)	528 lbs/kft (786 kg/km)	760026823-ARYL
5300 144A WRYL ARYL	144	Multi-unit	1.36 in (34.4 mm)	558 lbs/kft (830 kg/km)	760018887-ARYL

TeraSPEED Interlocking Armored, LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 006A WHYL AHYL	6	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	760004242-AHYL
5202 008A WHYL AHYL	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	760004259-AHYL
5202 012A WHYL AHYL	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	760004267-AHYL
5202 024A WHYL AHYL	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019075-AHYL
5302 036A WHYL AHYL	36	Multi-unit	0.91 in (23.0 mm)	275 lbs/kft (409 kg/km)	760004283-AHYL
5302 048A WHYL AHYL	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	760004291-AHYL
5302 072A WHYL AHYL	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760004309-AHYL

Fiber Types &
Reference

Building

Interlocking
ArmoredIndoor/Outdoor
Loose TubeIndoor/Outdoor
Tight BufferedOutdoor
Loose TubeOutdoor
Central Tube

Figure 8

InstaPATCH
PlusG2 Fiber
ConnectivityAdditional Fiber
ConnectivityTools &
Consumables

Interlocking Armored Building Cable – OptiSPEED

OptiSPEED Interlocking Armored, Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Color	Material ID
5201 002A MPOR APOR	2	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	Orange	700009665-APOR
5201 002A MPSL APSL	2	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	Slate	700009657-APSL
5201 004A MPOR APOR	4	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	Orange	700009590-APOR
5201 004A MPSL APSL	4	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	Slate	700009582-APSL
5201 006A MPOR APOR	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	Orange	700009525-APOR
5201 006A MPSL APSL	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	Slate	700009517-APSL
5201 008A MPSL APSL	8	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	Slate	700009442-APSL
5201 012A MPSL APSL	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	Slate	700009392-APSL
5201 012A MPOR APOR	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	Orange	700009400-APOR
5201 018A MPSL APSL	18	Single Unit	0.66 in (16.6 mm)	153 lbs/kft (227 kg/km)	Slate	760018648-APSL
5201 024A MPOR APOR	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	Orange	760018655-APOR
5201 024A MPSL APSL	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	Slate	760078663-APSL
5301 018A MPSL APSL	18	Multi-unit	0.76 in (19.2 mm)	215 lbs/kft (320 kg/km)	Slate	700009319-APSL
5301 024A MPOR APOR	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	Orange	700009285-APOR
5301 024A MPSL APSL	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	Slate	700009277-APSL
5301 036A MPSL APSL	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	Slate	700009186-APSL
5301 048A MPSL APSL	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	Slate	700009095-APSL
5301 072A MPSL APSL	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	Slate	700009004-APSL
5301 072A MPOR APOR	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	Orange	760028050-APOR
5301 144A MPSL APSL	144	Multi-unit	1.31 in (33.1 mm)	574 lbs/kft (854 kg/km)	Slate	760032821-APSL

OptiSPEED Interlocking Armored, Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Color	Material ID
5200 002A MROR AROR	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (126 kg/km)	Orange	700010184-AROR
5200 002A MRSL ARSL	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (126 kg/km)	Slate	700009640-ARSL
5200 004A MROR AROR	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	Orange	700012172-AROR
5200 004A MRSL ARSL	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	Slate	700009574-ARSL
5200 006A MROR AROR	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	Orange	700010176-AROR
5200 006A MRSL ARSL	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	Slate	700009509-ARSL
5200 008A MROR AROR	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	Orange	700012180-AROR
5200 008A MRSL ARSL	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	Slate	700009434-ARSL
5200 012A MROR AROR	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	Orange	700010168-AROR
5200 012A MRSL ARSL	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	Slate	700009384-ARSL
5200 018A MRSL ARSL	18	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	Slate	760018523-ARSL
5200 024A MRSL ARSL	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	Slate	760018531-ARSL
5300 018A MRSL ARSL	18	Multi-unit	0.81 in (20.4 mm)	232 lbs/kft (345 kg/km)	Slate	760009301-ARSL
5300 024A MRSL ARSL	24	Multi-unit	0.91 in (23.0 mm)	258 lbs/kft (385 kg/km)	Slate	760009269-ARSL
5300 036A MRSL ARSL	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	Slate	700009178-ARSL
5300 048A MRSL ARSL	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	Slate	700009087-ARSL
5300 072A MRSL ARSL	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	Slate	700008998-ARSL
5300 096A MRSL ARSL	96	Multi-unit	1.26 in (31.9 mm)	528 lbs/kft (786 kg/km)	Slate	760026815-ARSL

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

OptiSPEED Interlocking Armored, LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 002A MHOR AHOR	2	Single Unit	0.51 in (12.8 mm)	85 lbs/kft (127 kg/km)	700008485-AHOR
5202 004A MHOR AHOR	4	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	700008477-AHOR
5202 006A MHOR AHOR	6	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	700008469-AHOR
5202 008A MHOR AHOR	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	700008451-AHOR
5202 012A MHOR AHOR	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	700008444-AHOR
5202 024A MHOR AHOR	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019083-AHOR
5302 036A MHOR AHOR	36	Multi-unit	0.91 in (23.0 mm)	275 lbs/kft (409 kg/km)	700009194-AHOR
5302 048A MHOR AHOR	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	700009103-AHOR
5302 072A MHOR AHOR	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	700009012-AHOR

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Composite Interlocking Armored Cables

SYSTIMAX Interlocking Armored Fiber Optic Cable provides superior protection and space savings. It provides installation protection from bending and excessive pull tension, significant time and labor reductions versus conduit or innerduct installations and increased installation and design flexibility.

SYSTIMAX Interlocking Armor can be used anywhere additional protection and security for the fiber cable are desired. Applications include building backbone, zone distribution, raised floor, data centers and storage area networks (SANs). Vertical markets include: industrial, manufacturing, airports, stadiums, military, and any other vertical where increased protection and security for the fiber cable are desired. These include: financial, hospitals, educational facilities and many more.

The SYSTIMAX Interlocking Armor is applied spirally around any premise distribution cable, and is available aluminum. The armored cable is then over jacketed with a sheath. This sheath is color-coded to the fiber type contained within, and provides not only the ability to print the armor with all relevant information on the cable inside, but also allows for easier handling and pulling.

- The Plenum cable is (UL and cUL) TYPE OFCP
- The Riser cable is (UL and cUL) TYPE OFCR
- The LSZH cable is (UL and cUL) TYPE OFCR, OFCR-LS, IEC60332-3C, IEC60754-2 and IEC61034-2 compliant

Environmental and Mechanical Specifications:

Operating Temperature: -4°F to 158°F (-20°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: 32°F to 158°F (0°C to 70°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Crush Resistance: 485 lbf/in (85 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: 25.8 lbf-ft (35 N-m) (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

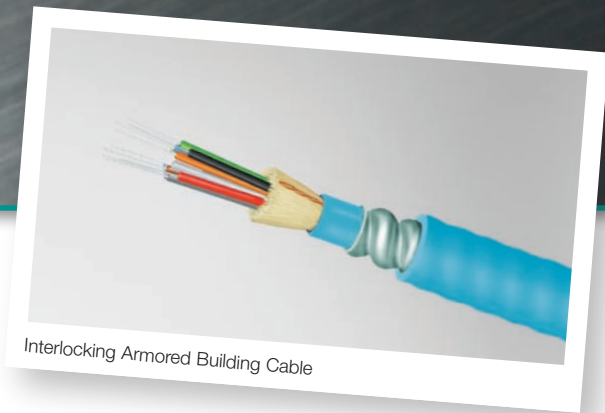
Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Fibers are identified with standard color coding. Single-mode fibers are placed in first subunits, followed by multimode fibers.

TeraSPEED/LazrSPEED 300 Interlocking Armored Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 06/12A W/ZPAQ APAQ	18	Single Unit	0.66 in (16.6 mm)	153 lbs/kft (227 kg/km)	760065896-APAQ
5201 02/02A W/ZPAQ APAQ	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	760008078-APAQ
5201 02/04A W/ZPAQ APAQ	6	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	760008086-APAQ
5201 02/06A W/ZPAQ APAQ	8	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	760008094-APAQ
5201 04/04A W/ZPAQ APAQ	8	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	760008102-APAQ
5201 04/08A W/ZPAQ APAQ	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	760008110-APAQ
5201 06/06A W/ZPAQ APAQ	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	760008128-APAQ
5201 06/12A W/ZPAQ APAQ	18	Single Unit	0.66 in (16.6 mm)	153 lbs/kft (227 kg/km)	760018739-APAQ
5201 06/18A W/ZPAQ APAQ	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	760018747-APAQ
5201 12/12A W/ZPAQ APAQ	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	760018754-APAQ
5301 06/12A W/ZPAQ APAQ	18	Multi-unit	0.66 in (16.6 mm)	153 lbs/kft (227 kg/km)	760008136-APAQ
5301 06/18A W/ZPAQ APAQ	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	760008144-APAQ
5301 12/12A W/ZPAQ APAQ	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	760008151-APAQ
5301 12/24A W/ZPAQ APAQ	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	760008177-APAQ
5301 12/36A W/ZPAQ APAQ	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	760008193-APAQ
5301 24/24A W/ZPAQ APAQ	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	760008201-APAQ
5301 12/48A W/ZPAQ APAQ	60	Multi-unit	1.01 in (25.5 mm)	352 lbs/kft (524 kg/km)	760008219-APAQ
5301 12/60A W/ZPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760008235-APAQ
5301 24/48A W/ZPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760008227-APAQ
5301 36/36A W/ZPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760008243-APAQ



Interlocking Armored Building Cable

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Interlocking Armored Cables continued

TeraSPEED/LazrSPEED 150 Interlocking Armored Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 06/12A W/HPAQ APAQ	18	Single Unit	0.66 in (16.6 mm)	200 lbs/kft (298 kg/km)	760019158-APAQ
5301 06/12A W/HPAQ APAQ	18	Multi-unit	0.76 in (19.2 mm)	215 lbs/kft (320 kg/km)	760018770-APAQ
5301 24/48A W/HPAQ APAQ	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (633 kg/km)	760018788-APAQ

TeraSPEED/LazrSPEED 300 Interlocking Armored Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 02/02A W/ZRAQ ARAQ	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	760007898-ARAQ
5200 02/04A W/ZRAQ ARAQ	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	760007906-ARAQ
5200 02/06A W/ZRAQ ARAQ	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760007914-ARAQ
5200 04/04A W/ZRAQ ARAQ	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760007922-ARAQ
5200 04/08A W/ZRAQ ARAQ	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760007930-ARAQ
5200 06/06A W/ZRAQ ARAQ	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760007948-ARAQ
5200 06/12A W/ZRAQ ARAQ	18	Single Unit	0.61 in (15.4 mm)	125 lbs/kft (187 kg/km)	760018606-ARAQ
5200 06/18A W/ZRAQ ARAQ	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018614-ARAQ
5200 12/12A W/ZRAQ ARAQ	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018622-ARAQ
5300 06/12A W/ZRAQ ARAQ	18	Multi-unit	0.81 in (20.4 mm)	232 lbs/kft (345 kg/km)	760007955-ARAQ
5300 06/18A W/ZRAQ ARAQ	24	Multi-unit	0.91 in (23.0 mm)	258 lbs/kft (385 kg/km)	760007963-ARAQ
5300 12/12A W/ZRAQ ARAQ	24	Multi-unit	0.91 in (23.0 mm)	258 lbs/kft (385 kg/km)	760007971-ARAQ
5300 12/24A W/XRAQ ARAQ	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	760091538-ARAQ
5300 12/24A W/ZRAQ ARAQ	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	760007997-ARAQ
5300 12/36A W/ZRAQ ARAQ	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	760008011-ARAQ
5300 24/24A W/ZRAQ ARAQ	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	760008029-ARAQ
5300 12/48A W/ZRAQ ARAQ	60	Multi-unit	1.06 in (26.8 mm)	345 lbs/kft (513 kg/km)	760008037-ARAQ
5300 12/60A W/ZRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760008052-ARAQ
5300 24/48A W/ZRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760008045-ARAQ
5300 36/36A W/ZRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760008060-ARAQ

TeraSPEED/LazrSPEED 150 Interlocking Armored Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5200 06/06A W/HRAQ ARAQ	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760054981-ARAQ
5200 06/12A W/HRAQ ARAQ	18	Single Unit	0.61 in (15.4 mm)	125 lbs/kft (187 kg/km)	760019166-ARAQ
5300 06/12A W/HRAQ ARAQ	18	Multi-unit	0.81 in (20.4 mm)	232 lbs/kft (345 kg/km)	760018390-ARAQ
5300 24/48A W/HRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760018408-ARAQ
5300 36/36A W/HRAQ ARAQ	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760081331-ARAQ

Composite Interlocking Armored Cables continued

TeraSPEED/LazrSPEED 300 Interlocking Armored LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 02/02A W/ZHAQ AHAQ	4	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	760009183-AHAQ
5202 02/04A W/ZHAQ AHAQ	6	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	760009191-AHAQ
5202 02/06A W/ZHAQ AHAQ	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	760009209-AHAQ
5202 04/04A W/ZHAQ AHAQ	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	760009217-AHAQ
5202 04/08A W/ZHAQ AHAQ	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	760009225-AHAQ
5202 06/06A W/ZHAQ AHAQ	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	760009233-AHAQ
5202 06/12A W/ZHAQ AHAQ	18	Single Unit	0.66 in (16.6 mm)	215 lbs/kft (319 kg/km)	760019174-AHAQ
5202 06/18A W/ZHAQ AHAQ	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019182-AHAQ
5202 12/12A W/ZHAQ AHAQ	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019190-AHAQ
5302 06/12A W/ZHAQ AHAQ	18	Multi-unit	0.86 in (21.7 mm)	239 lbs/kft (355 kg/km)	760009241-AHAQ
5302 06/18A W/ZHAQ AHAQ	24	Multi-unit	0.91 in (23.0 mm)	273 lbs/kft (406 kg/km)	760009258-AHAQ
5302 12/12A W/ZHAQ AHAQ	24	Multi-unit	0.91 in (23.0 mm)	273 lbs/kft (406 kg/km)	760009266-AHAQ
5302 12/24A W/ZHAQ AHAQ	36	Multi-unit	0.91 in (23.0 mm)	275 lbs/kft (409 kg/km)	760009282-AHAQ
5302 12/36A W/ZHAQ AHAQ	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	760009308-AHAQ
5302 24/24A W/ZHAQ AHAQ	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	760009316-AHAQ
5302 12/48A W/ZHAQ AHAQ	60	Multi-unit	1.06 in (26.8 mm)	359 lbs/kft (535 kg/km)	760009324-AHAQ
5302 12/60A W/ZHAQ AHAQ	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760009340-AHAQ
5302 24/48A W/ZHAQ AHAQ	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760009332-AHAQ
5302 36/36A W/ZHAQ AHAQ	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760009357-AHAQ

Fiber Types &
Reference



Building



Interlocking
Armored



Indoor/Outdoor
Loose Tube



Indoor/Outdoor
Tight Buffered



Outdoor
Loose Tube



Outdoor
Central Tube



Figure 8



InstaPATCH
Plus



G2 Fiber
Connectivity



Additional Fiber
Connectivity



Tools &
Consumables



Composite Interlocking Armored Cables continued

Interlocking Armored Building Cable

TeraSPEED/OptiSPEED Interlocking Armored Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5201 02/02A W/MPSL APSL	4	Single Unit	0.51 in (12.8 mm)	93 lbs/kft (138 kg/km)	760007716-APSL
5201 02/04A W/MPSL APSL	6	Single Unit	0.51 in (12.8 mm)	95 lbs/kft (142 kg/km)	760007724-APSL
5201 02/06A W/MPSL APSL	8	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	760007732-APSL
5201 04/04A W/MPSL APSL	8	Single Unit	0.51 in (12.8 mm)	97 lbs/kft (145 kg/km)	760007740-APSL
5201 04/08A W/MPSL APSL	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	760007757-APSL
5201 06/06A W/MPSL APSL	12	Single Unit	0.51 in (12.8 mm)	101 lbs/kft (151 kg/km)	760007765-APSL
5201 06/18A W/MPSL APSL	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	760018713-APSL
5201 12/12A W/MPSL APSL	24	Single Unit	0.66 in (16.6 mm)	159 lbs/kft (237 kg/km)	760018721-APSL
5301 06/12A W/MPSL APSL	18	Multi-unit	0.76 in (19.2 mm)	215 lbs/kft (320 kg/km)	760007773-APSL
5301 06/18A W/MPSL APSL	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	760007781-APSL
5301 12/12A W/MPSL APSL	24	Multi-unit	0.86 in (21.7 mm)	262 lbs/kft (389 kg/km)	760007799-APSL
5301 12/24A W/MPSL APSL	36	Multi-unit	0.86 in (21.7 mm)	282 lbs/kft (420 kg/km)	760007815-APSL
5301 12/36A W/MPSL APSL	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	760007831-APSL
5301 24/24A W/MPSL APSL	48	Multi-unit	0.91 in (23.0 mm)	302 lbs/kft (449 kg/km)	760007849-APSL
5301 12/48A W/MPSL APSL	60	Multi-unit	1.01 in (25.5 mm)	352 lbs/kft (524 kg/km)	760007856-APSL
5301 12/60A W/MPSL APSL	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760007872-APSL
5301 24/48A W/MPSL APSL	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760007864-APSL
5301 36/36A W/MPSL APSL	72	Multi-unit	1.11 in (28.1 mm)	418 lbs/kft (622 kg/km)	760007880-APSL

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

TeraSPEED/OptiSPEED Interlocking Armored Riser

Product Number	Pair Count	Construction Type	Outside Diameter	Weight	Material ID
5200 02/02A W/MRSL ARSL	4	Single Unit	0.51 in (12.8 mm)	89 lbs/kft (133 kg/km)	760007534-ARSL
5200 02/04A W/MRSL ARSL	6	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	760007559-ARSL
5200 02/06A W/MRSL ARSL	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760007567-ARSL
5200 04/04A W/MRSL ARSL	8	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (139 kg/km)	760007575-ARSL
5200 04/08A W/MRSL ARSL	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760007583-ARSL
5200 06/06A W/MRSL ARSL	12	Single Unit	0.51 in (12.8 mm)	98 lbs/kft (146 kg/km)	760007591-ARSL
5200 06/12A W/MRSL ARSL	18	Single Unit	0.66 in (16.6 mm)	135 lbs/kft (201 kg/km)	760018572-ARSL
5200 06/18A W/MRSL ARSL	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018580-ARSL
5200 12/12A W/MRSL ARSL	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760018598-ARSL
5200 12/12A W/MROR AROR	24	Single Unit	0.61 in (15.4 mm)	131 lbs/kft (195 kg/km)	760026393-AROR
5300 06/12A W/MRSL ARSL	18	Multi-unit	0.81 in (20.4 mm)	232 lbs/kft (345 kg/km)	760007609-ARSL
5300 06/18A W/MRSL ARSL	24	Multi-unit	0.91 in (23.0 mm)	106.7 lbs/kft (159 kg/km)	760007617-ARSL
5300 12/12A W/MRSL ARSL	24	Multi-unit	0.91 in (23.0 mm)	106.7 lbs/kft (159 kg/km)	760007625-ARSL
5300 12/24A W/MRSL ARSL	36	Multi-unit	0.91 in (23.0 mm)	264 lbs/kft (393 kg/km)	760007641-ARSL
5300 12/36A W/MRSL ARSL	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	760007666-ARSL
5300 24/24A W/MRSL ARSL	48	Multi-unit	0.96 in (24.3 mm)	283 lbs/kft (422 kg/km)	760007674-ARSL
5300 12/60A W/MRSL ARSL	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760007682-ARSL
5300 24/48A W/MRSL ARSL	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760007690-ARSL
5300 36/36A W/MRSL ARSL	72	Multi-unit	1.11 in (28.1 mm)	397 lbs/kft (591 kg/km)	760007708-ARSL
5300 48/48A W/MRSL ARSL	96	Multi-unit	1.26 in (31.9 mm)	528 lbs/kft (786 kg/km)	760017616-ARSL

TeraSPEED/OptiSPEED Interlocking Armored LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5202 02/02A W/MHOR AHOR	4	Single Unit	0.51 in (12.8 mm)	92 lbs/kft (136 kg/km)	760009001-AHOR
5202 02/04A W/MHOR AHOR	6	Single Unit	0.51 in (12.8 mm)	94 lbs/kft (140 kg/km)	760009019-AHOR
5202 02/06A W/MHOR AHOR	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	760009027-AHOR
5202 04/04A W/MHOR AHOR	8	Single Unit	0.51 in (12.8 mm)	96 lbs/kft (143 kg/km)	760009035-AHOR
5202 04/08A W/MHOR AHOR	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	760009043-AHOR
5202 06/06A W/MHOR AHOR	12	Single Unit	0.51 in (12.8 mm)	100 lbs/kft (149 kg/km)	760009050-AHOR
5202 06/12A W/MHOR AHOR	18	Single Unit	0.66 in (16.6 mm)	109 lbs/kft (163 kg/km)	760019125-AHOR
5202 06/18A W/MHOR AHOR	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019133-AHOR
5202 12/12A W/MHOR AHOR	24	Single Unit	0.61 in (15.4 mm)	142 lbs/kft (211 kg/km)	760019141-AHOR
5302 06/12A W/MHOR AHOR	18	Multi-unit	0.86 in (21.7 mm)	239 lbs/kft (355 kg/km)	760009068-AHOR
5302 06/18A W/MHOR AHOR	24	Multi-unit	0.91 in (23.0 mm)	273 lbs/kft (406 kg/km)	760009076-AHOR
5302 12/12A W/MHOR AHOR	24	Multi-unit	0.91 in (23.0 mm)	273 lbs/kft (406 kg/km)	760009084-AHOR
5302 12/24A W/MHOR AHOR	36	Multi-unit	0.91 in (23.0 mm)	275 lbs/kft (409 kg/km)	760009100-AHOR
5302 12/36A W/MHOR AHOR	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	760009126-AHOR
5302 24/24A W/MHOR AHOR	48	Multi-unit	0.96 in (24.3 mm)	296 lbs/kft (440 kg/km)	760009134-AHOR
5302 12/48A W/MHOR AHOR	60	Multi-unit	1.06 in (26.8 mm)	359 lbs/kft (535 kg/km)	760009142-AHOR
5302 12/60A W/MHOR AHOR	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760009167-AHOR
5302 24/48A W/MHOR AHOR	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760009159-AHOR
5302 36/36A W/MHOR AHOR	72	Multi-unit	1.11 in (28.1 mm)	414 lbs/kft (616 kg/km)	760009175-AHOR

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

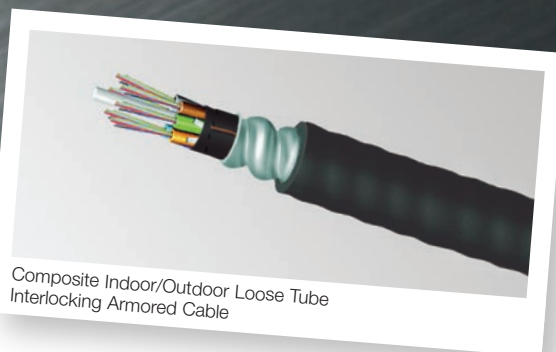
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Indoor/Outdoor Loose Tube Interlocking Armored Cable



Composite Indoor/Outdoor Loose Tube Interlocking Armored Cable

SYSTIMAX Interlocking Armored Fiber Optic Cable provides superior protection and space savings. It provides installation protection from bending and excessive pull tension, significant time and labor reductions versus conduit or interduct installations and increased installation and design flexibility.

SYSTIMAX Interlocking Armor can be used anywhere additional protection and security for the fiber cable is desired. Applications include building backbone, zone distribution, raised floor, data centers and storage area networks (SANs). Vertical markets include: industrial, manufacturing, airports, stadiums, military and any other vertical where increased protection and security for the fiber cable is desired such as financial, hospitals, educational facilities and many more.

The SYSTIMAX Interlocking Armor is applied spirally around any premise distribution cable, and is available in aluminum. The armored cable is then over jacketed with a sheath. This sheath is color-coded to the fiber type contained within and provides not only the ability to print the armor with all relevant information on the cable inside but also allows for easier handling and pulling.

- The Plenum cable is (UL and cUL) TYPE OFNP
- The Riser cable is (UL and cUL) TYPE OFNR
- The LSZH cable is (UL and cUL) TYPE OFNR, OFN-LS, IEC60332-3C and IEC61034-2 Compliant

Environmental and Mechanical Specifications:

Operating Temperature: -40° to 158° F (-40° to 70° C) (Test Method: FOTP - 3)

Installation Temperature: -22° to 140° F (-30° to 60° C)

Storage Temperature: -40°F to 167°F (-40° to 75°C)

Crush Resistance: 485 lbf/in (85 N/mm) (Test Method: FOTP - 41)

Impact Resistance: 25.8 lbf-ft (35 N-m) (Test Method: FOTP - 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP - 104)

Twist Bend: Exceeds (Test Method: FOTP - 85)

Physical Specifications:

Cable Jacket: UV Stabilized Black. Fibers are identified with standard color coding.

TeraSPEED/OptiSPEED Plenum

Product Number	Fiber Count	Fiber Type	Outside Diameter	Weight	Material ID
5125 48/48A W/MPBK APBK	96	SM/62.5 micron	0.86 in (21.7 mm)	288 lbs/kft (428 kg/km)	760073056-APBK

Indoor/Outdoor Tight Buffered Interlocking Armored Cable

SYSTIMAX Interlocking Armored Fiber-Optic Cable provides superior protection and space savings. It provides installation protection from bending and excessive pull tension, significant time and labor reductions versus conduit or innerduct installations and increased installation and design flexibility.

SYSTIMAX Interlocking Armor can be used anywhere additional protection and security for the fiber cable are desired. Applications include building backbone, zone distribution, raised floor, data centers and storage area networks (SANs). Vertical markets include: industrial, manufacturing, airports, stadiums, military and any other vertical where increased protection and security for the fiber cable are desired. These include: financial, hospitals, educational facilities and many more.

The SYSTIMAX Interlocking Armor is applied spirally around this tight buffered Indoor/Outdoor cable, and is available in aluminum. The armored cable is then over-jacketed with a sheath. This black sheath for UV protection provides not only the ability to print the armor with all relevant information on the cable inside, but also allows for easier handling and pulling.

- The Plenum cable is (UL and cUL) TYPE OFCP
- The Riser Cable is (UL and cUL) TYPE OFNR
- The LSZH cable is (UL and cUL) TYPE OFNR, OFN-LS, IEC603322-3C and IEC61034-2 compliant

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3)

Installation Temperature: -22°F to 158°F (-30°C to 70°C)

Storage Temperature: -40°F to 167°F (-40°C to 75°C)

Crush Resistance: Exceeds 485 lbf/in (85 N/mm) (Test Method: FOTP – 41)

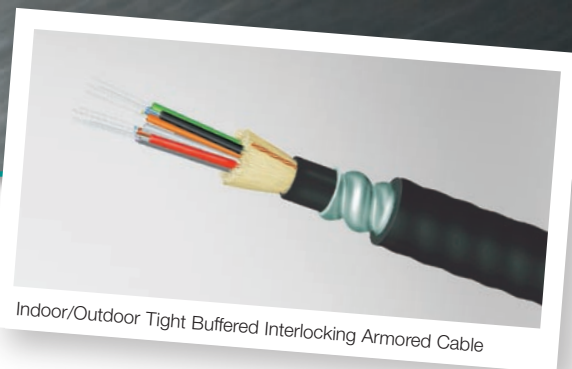
Impact Resistance: Exceeds 25.8 lb-ft (35 N-m) (Test Method: FOTP – 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104)

Twist Bend: Exceeds (Test Method: FOTP – 85)

Physical Specifications:

Fibers are identified with standard color coding.



Indoor/Outdoor Tight Buffered Interlocking Armored Cable

LazrSPEED 300 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 012A ZPBK APBK	12	Single Unit	0.56 in (14.1 mm)	130 lbs/kft (194 kg/km)	760037374-APBK
5101 024A ZPBK APBK	24	Single Unit	0.61 in (15.4 mm)	146 lbs/kft (218 kg/km)	760037390-APBK

LazrSPEED 150 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 012A HPBK APBK	12	Single Unit	0.56 in (14.1 mm)	130 lbs/kft (194 kg/km)	760037192-APBK
5101 024A HPBK APBK	24	Single Unit	0.61 in (15.4 mm)	146 lbs/kft (218 kg/km)	760037333-APBK

TeraSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 012A WPBK APBK	12	Single Unit	0.56 in (14.1 mm)	130 lbs/kft (194 kg/km)	760037192-APBK
5101 024A WPBK APBK	24	Single Unit	0.61 in (15.4 mm)	146 lbs/kft (218 kg/km)	760037218-APBK
5104 036A WPBK APBK	36	Multi-unit	1.01 in (25.5 mm)	343 lbs/kft (510 kg/km)	760036895-APBK
5104 048A WPBK APBK	48	Multi-unit	1.06 in (26.8 mm)	400 lbs/kft (595 kg/km)	760037903-APBK

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Indoor/Outdoor Tight Buffered Interlocking Armored Cable continued

OptiSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 012A MPBK APBK	12	Single Unit	0.56 in (14.1 mm)	130 lbs/kft (194 kg/km)	760037259-APBK

TeraSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5100 012A WRBK ARBK	12	Single Unit	0.56 in (14.1 mm)	120 lbs/kft (178 kg/km)	760004184-ARBK
5100 024A WRBK ARBK	24	Single Unit	0.61 in (15.4 mm)	143 lbs/kft (212 kg/km)	760070276-ARBK
5103 024A WRBK ARBK	24	Multi-unit	1.01 in (25.5 mm)	287 lbs/kft (427 kg/km)	760004192-ARBK
5103 048A WRBK ARBK	48	Multi-unit	1.11 in (28.1 mm)	369 lbs/kft (505 kg/km)	760090309-ARBK
5103 072A WRBK ARBK	72	Multi-unit	1.26 in (31.9 mm)	506 lbs/kft (754 kg/km)	760067595-ARBK

OptiSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5103 036A MRBK ARBK	36	Multi-unit	0.70 in (17.8 mm)	162.4 lbs/kft (241.6 kg/km)	700211295-ARBK

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Indoor/Outdoor Loose Tube Interlocking Armored Cable

SYSTIMAX Interlocking Armored Fiber-Optic Cable provides superior protection and space savings. It provides installation protection from bending and excessive pull tension, significant time and labor reductions versus conduit or innerduct installations and increased installation and design flexibility.

SYSTIMAX Interlocking Armor can be used anywhere additional protection and security for the fiber cable are desired. Applications include building backbone, zone distribution, raised floor, data centers and storage area networks (SANs). Vertical markets include: industrial, manufacturing, airports, stadiums, military and any other vertical where increased protection and security for the fiber cable are desired. These include: financial, hospitals, educational facilities and many more.

The SYSTIMAX Interlocking Armor is applied spirally around any Indoor/Outdoor loose tube cable, and is available in aluminum. The armored cable is then over-jacketed with a sheath. This black sheath for UV protection provides not only the ability to print the armor with all relevant information on the cable inside, but also allows for easier handling and pulling.

- The Plenum cable is (UL and cUL) TYPE OFCP
- The Riser cable is (UL and cUL) TYPE OFCR

Environmental and Mechanical Specifications

Operating Temperature: -40° to 158° F (-40° to 70° C) (Test Method: FOTP - 3)

Installation Temperature: -22° to 140° F (-30° to 60° C)

Storage Temperature: -40°F to 167°F (-40° to 75°C)

Crush Resistance: 485 lbf/in (85 N/mm) (Test Method: FOTP - 41)

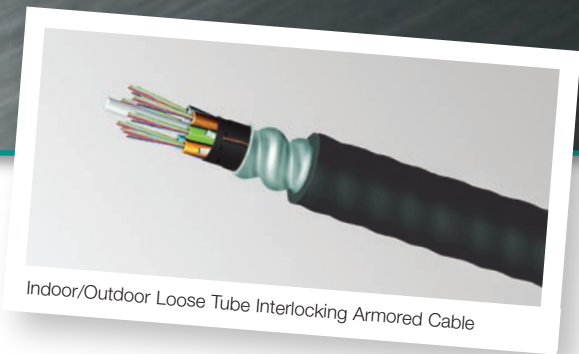
Impact Resistance: 25.8 lbf-ft (35 N-m) (Test Method: FOTP - 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP - 104)

Twist Bend: Exceeds (Test Method: FOTP - 85)

Physical Specifications

Cable Jacket: UV Stabilized Black. Fibers are identified with standard color coding.



Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



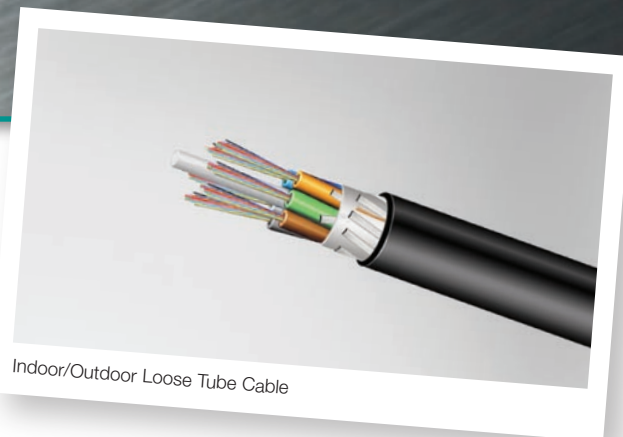
Additional Fiber Connectivity



Tools & Consumables



Indoor/Outdoor Loose Tube Cable



Indoor/Outdoor Loose Tube Cable

The Plenum-Rated and Riser-Rated Indoor/Outdoor Stranded Loose Tube Dielectric Cable allows for connectivity ease and superior mid-span accessibility. The cable is designed to endure the rigors of outdoor use, but can also be run directly in plenum airspace (plenum only) or riser to eliminate a splice point at the building entrance. This cable provides seamless migration from the campus to the premises by bypassing termination requirements at the building entrance, thereby reducing the total cost of ownership. Both Riser and Plenum constructions utilize 2.5mm gel-free tubes that eliminate the use of messy filling gel.

A fluoropolymer thermoplastic material (plenum) or PVC (riser) is used for the outer jacket and buffer tubes to provide excellent petrochemical resistance, flame propagation and smoke generation properties that exceed any similar cable design on the market today. These cables are designed for installation loads up to 600 lbs (2,700 N) and long term loads up to 180 lbs (800 N).

All cables meet the mechanical and environmental requirements of Telcordia GR-20-CORE Issue 2 Generic Requirements for Optical Fiber and Optical Fiber Cable and ANSI/ICEA S-87-640 Standard for Optical Fiber Outside Plant Communications Cable.

- The Plenum cable is (UL and cUL) TYPE OFNP
- The Riser cable is (UL and cUL) TYPE OFNR

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3)

Installation Temperature: -22° to 140°F (-30°C to 60°C)

Storage Temperature: -40° to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP – 41)

Impact Resistance: 4.34 lb/ft (5.88 N/mm) (Test Method: FOTP – 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104)

Twist Bend: Exceeds (Test Method: FOTP – 85)

Physical Specifications:

Cable Jacket: UV Stabilized Black

Buffer tubes and fibers are identified with standard color coding.

LazrSPEED 300 Plenum

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5125 006B ZPBK	6	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094870
5125 012B ZPBK	12	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094912
5125 024B ZPBK	24	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094953
5125 048B ZPBK	48	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094995
5125 072B ZPBK	72	0.40 in (10.1 mm)	69 lbs/kft (103 kg/km)	760095026
5125 096B ZPBK	96	0.46 in (11.7 mm)	93 lbs/kft (139 kg/km)	760095059
5125 144B ZPBK	144	0.60 in (15.3 mm)	166 lbs/kft (247 kg/km)	760095083

Indoor/Outdoor Loose Tube Cable

continued

LazrSPEED 150 Plenum

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5125 006B HPBK	6	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094862
5125 012B HPBK	12	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094904
5125 024B HPBK	24	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094946
5125 048B HPBK	48	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094987

TeraSPEED Plenum

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5125 006B WPBK	6	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094847
5125 012B WPBK	12	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094888
5125 024B WPBK	24	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094920
5125 048B WPBK	48	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094961
5125 072B WPBK	72	0.40 in (10.1 mm)	69 lbs/kft (103 kg/km)	760095000
5125 096B WPBK	96	0.46 in (11.7 mm)	93 lbs/kft (139 kg/km)	760095034
5125 144B WPBK	144	0.60 in (15.3 mm)	166 lbs/kft (247 kg/km)	760095067

OptiSPEED Plenum

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5125 006B MPBK	6	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094854
5125 012B MPBK	12	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094896
5125 024B MPBK	24	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094938
5125 048B MPBK	48	0.38 in (9.7 mm)	63 lbs/kft (94 kg/km)	760094979
5125 072B MPBK	72	0.40 in (10.1 mm)	69 lbs/kft (103 kg/km)	760095018
5125 096B MPBK	96	0.46 in (11.7 mm)	93 lbs/kft (139 kg/km)	760095042
5125 144B MPBK	144	0.60 in (15.3 mm)	166 lbs/kft (247 kg/km)	760095075

TeraSPEED Riser

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5124 006B WRBK	6	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086355
5124 012B WRBK	12	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086371
5124 024B WRBK	24	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086405
5124 048B WRBK	48	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086470
5124 072B WRBK	72	0.47 in (11.9 mm)	79 lbs/kft (118 kg/km)	760086538
5124 096B WRBK	96	0.53 in (13.5 mm)	79 lbs/kft (118 kg/km)	760086561
5124 144B WRBK	144	0.68 in (17.2 mm)	79 lbs/kft (118 kg/km)	760086652
5124 288B WRBK	288	0.79 in (20.2 mm)	79 lbs/kft (118 kg/km)	760086710

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity

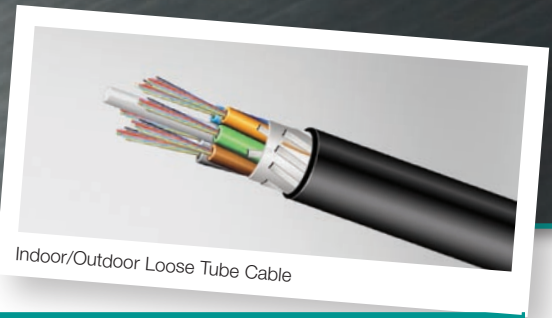


Tools & Consumables



Indoor/Outdoor Loose Tube Cable

continued



OptiSPEED Riser

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5124 006B MRBK	6	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086348
5124 012B MRBK	12	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086363
5124 024B MRBK	24	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086397
5124 048B MRBK	48	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086462
5124 072B MRBK	72	0.47 in (11.9 mm)	79 lbs/kft (118 kg/km)	760086520
5124 096B MRBK	96	0.53 in (13.5 mm)	79 lbs/kft (118 kg/km)	760086553
5124 144B MRBK	144	0.68 in (17.2 mm)	79 lbs/kft (118 kg/km)	760086645
5124 288B MRBK	288	0.79 in (20.2 mm)	79 lbs/kft (118 kg/km)	760086702

Fiber Types &
Reference

Building

Interlocking
Armored

**Indoor/Outdoor
Loose Tube**

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Indoor/Outdoor Loose Tube All Dry Dielectric Cable

SYSTIMAX® All Dry Indoor/Outdoor stranded loose tube cables deliver the same proven quality and performance offered in all SYSTIMAX cabling solutions. The all-dielectric cables are designed to endure the rigors of outdoor use, but can also be run directly into riser airspace to eliminate a splice point at the building entrance. The construction features the use of dry water blocking elements and reduced diameter buffer tubes (2.5 mm), yielding a lighter weight, smaller cable. The result is a fiber optic cable that is an ideal transmission medium for the inside and outside plant environment. These designs are available with any of the high performance SYSTIMAX fiber types, including TeraSPEED® Zero Water Peak single-mode fiber and the OptiSPEED® and LazrSPEED® multimode fibers. The standard jacket material is Polyvinyl Chloride (PVC) and the buffer tubes are Polypropylene (PP). Additionally, the fiber and buffer tubes are color coded for easy identification.

- All dry construction removes filling gels and flooding compounds from the cable
- Significantly reduces cable preparation time
- Eliminates the need for solvents and other consumables during cable preparation
- Improves cleanliness of work environment
- Provides full water blocking protection for Indoor/Outdoor plant applications
- Reduces cable weight
- Reduced diameter buffer tubes utilized in the cable constructions
- Reduces overall cable diameter, allowing better duct utilization
- Allows for tighter cable bend radius, loaded and unloaded
- Compatible with all SYSTIMAX apparatus
- Robust cable design
- Complies with applicable standards
- Provides very stable low temperature performance
- Withstands typical installation forces with good safety margin
- Reduces installation loads due to reduced weight and diameter
- Provides performance equivalent to gel-filled cable designs
- Improves network deployment speed for capturing revenues/starting services sooner

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP - 3)

Installation Temperature: -22° to 140°F (-30°C to 60°C)

Storage Temperature: -40° to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP - 41)

Impact Resistance: 4.34 lb-ft (5.88N-m) (Test Method: FOTP - 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP - 104)

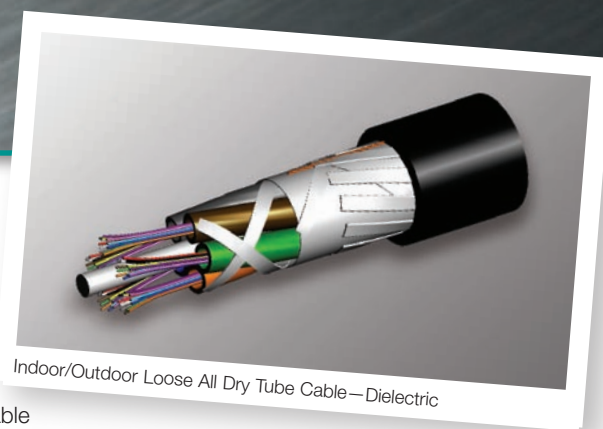
Twist Bend: Exceeds (Test Method: FOTP - 85)

Physical Specifications:

Core Size: 62.5 micron fibers are identified with standard color coding.

OptiSPEED Riser

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5124 006B MRBK	6	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086348
5124 012B MRBK	12	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086363
5124 024B MRBK	24	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086397
5124 048B MRBK	48	0.45 in (11.5 mm)	79 lbs/kft (118 kg/km)	760086462
5124 072B MRBK	72	0.47 in (11.9 mm)	85 lbs/kft (127 kg/km)	760086520
5124 096B MRBK	96	0.53 in (13.5 mm)	108 lbs/kft (161 kg/km)	760086553
5124 144B MRBK	144	0.68 in (17.2 mm)	175 lbs/kft (261 kg/km)	760086645
5124 288B MRBK	288	0.79 in (20.2 mm)	207 lbs/kft (309 kg/km)	760086702



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

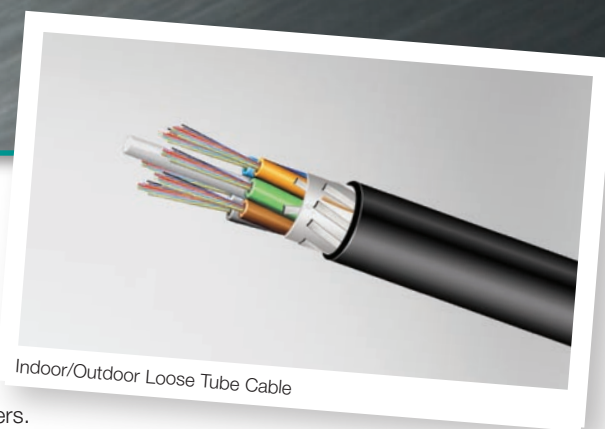
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Indoor/Outdoor Loose Tube Cable



Indoor/Outdoor Loose Tube Cable

The Plenum-Rated and Riser-Rated Indoor/Outdoor Stranded Loose Tube Dielectric Cable allows for connectivity ease and superior mid-span accessibility. The cable is designed to endure the rigors of outdoor use, but can also be run directly in plenum airspace (plenum) or riser to eliminate a splice point at the building entrance. The basic construction utilizes dry tube (plenum) or standard 3.0 mm gel-filled (5124 Series) or dry-block (5125 Series) (riser) buffer tubes which contain up to 12 optical fibers. Buffer tubes are stranded around a rigid fiberglass central strength member for protection against thermal expansion and contraction at operational temperature extremes.

A fluoropolymer thermoplastic material (plenum) or PVC (riser) is used for the outer jacket and buffer tubes to provide excellent petrochemical resistance, flame propagation, and smoke generation properties that exceed any similar cable design on the market today. These cables are designed for installation loads up to 600 lbs (2700 N) and long term loads up to 180 lbs (800 N).

All cables meet the mechanical and environmental requirements of Telcordia GR-20-CORE Issue 2 Generic Requirements for Optical Fiber and Optical Fiber Cable and ANSI/ICEA S-87-640 Standard for Optical Fiber Outside Plant Communications Cable.

- The Plenum cable is (UL and cUL) TYPE OFNP
- The Riser cable is (UL and cUL) TYPE OFNR

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3)

Installation Temperature: -22°F to 140°F (-30°C to 60°C)

Storage Temperature: -40°F to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP – 41)

Impact Resistance: Exceeds (Test Method: FOTP – 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104)

Twist Bend: Exceeds (Test Method: FOTP – 85)

Physical Specifications:

Cable Jacket: UV Stabilized Black

Buffer tubes and fibers are identified with standard color coding. Single-mode fibers are placed in first buffer tubes, followed by multimode fibers.

TeraSPEED/LazrSPEED 150 Plenum

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5125 06/06A W/HPBK	12	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760017020
5125 12/12A W/HPBK	24	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760017038
5125 12/24A W/HPBK	36	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760017046
5125 24/24A W/HPBK	48	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760017053
5125 24/48A W/HPBK	72	0.46 in (11.8 mm)	92 lbs/kft (137 kg/km)	760017061
5125 36/36A W/HPBK	72	0.46 in (11.8 mm)	92 lbs/kft (137 kg/km)	760017079

Composite Indoor/Outdoor Loose Tube Cable continued

TeraSPEED/LazrSPEED 300 Riser

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5124 06/06A W/ZRBK	12	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008433
5124 12/12A W/ZRBK	24	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008441
5124 12/24A W/ZRBK	36	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008458
5124 24/24A W/ZRBK	48	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008466
5124 36/36A W/ZRBK	72	0.53 in (13.6 mm)	112 lbs/kft (167 kg/km)	760008474
5124 48/48A W/ZXBK	96	0.62 in (15.7 mm)	149 lbs/kft (222 kg/km)	760008482

TeraSPEED/LazrSPEED 150 Riser

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5124 12/06A W/HRBK	18	0.49 in (12.6 mm)	99 lbs/kft (148 kg/km)	760026807

TeraSPEED/OptiSPEED Plenum

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5125 06/06A W/MPBK	12	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760016956
5125 12/12A W/MPBK	24	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760016964
5125 12/24A W/MPBK	36	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760016972
5125 24/24A W/MPBK	48	0.42 in (10.8 mm)	76 lbs/kft (114 kg/km)	760016980
5125 24/48A W/MPBK	72	0.46 in (11.8 mm)	92 lbs/kft (137 kg/km)	760016998
5125 36/36A W/MPBK	72	0.46 in (11.8 mm)	92 lbs/kft (137 kg/km)	760017004

TeraSPEED/OptiSPEED Riser

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5124 06/06A W/MRBK	12	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008375
5124 12/12A W/MRBK	24	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008383
5124 12/24A W/MRBK	36	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008391
5124 24/24A W/MRBK	48	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760008409
5124 36/24A W/MRBK	60	0.49 in (12.6 mm)	96 lbs/kft (143 kg/km)	760036897
5124 36/36A W/MRBK	72	0.53 in (13.6 mm)	112 lbs/kft (167 kg/km)	760008417
5124 48/24A W/MRBK	72	0.53 in (13.6 mm)	112 lbs/kft (222 kg/km)	760081158
5124 48/48A W/MRBK	96	0.62 in (15.7 mm)	149 lbs/kft (222 kg/km)	760008425
5124 72/72A W/MRBK	144	0.78 in (19.8 mm)	241 lbs/kft (359 kg/km)	760061317
5124 96/72A W/MRBK	168	0.80 in (20.5 mm)	222 lbs/kft (331 kg/km)	760033233
5124 144/144A W/MRBK	288	0.92 in (23.4 mm)	294 lbs/kft (438 kg/km)	760082461

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Heavy Duty Indoor/Outdoor Loose Tube Cable for Airport Applications



Heavy Duty Airport Cable

This cable has been designed to meet the standard environmental requirements of an outside plant cable, in addition to meeting requirements for solvent and/or oil resistance expected to be present at airports.

Features and Benefits:

- PVDF outer jacket for solvent resistance
- PVC inner jacket to maintain flame safety rating and provide great resistance to compression and impact damage
- Polypropylene buffer tubes for solvent resistance
- Gel-filled, stranded loose tube construction for added fiber protection
- Cable is suitable for direct burial, duct or aerial installation
- Cable is compatible with FAA-E-2761 requirement for OSP cables installed at airports
- Can be exposed to hydrocarbon fuels, potassium acetate, ethylene glycol and other solvents for extended periods of time

Environmental and Mechanical Specifications:

Operating Temperature: -40° to 158° F (-40° to 70° C) (Test Method: FOTP - 3)

Installation Temperature: -22° to 140° F (-30° to 60° C)

Storage Temperature: -40°F to 167°F (-40° to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP - 41)

Impact Resistance: 4.34 lbf-ft (5.88 N-m) (Test Method: FOTP - 25)

Flexing: Exceeds 25 cycles (Test Method: FOTP - 104)

Twist Bend: Exceeds (Test Method: FOTP - 85)

Physical Specifications:

Cable Jacket: Black PVDF with optional co-extruded color stripes. Buffer tubes and fibers are identified with standard color coding.

TeraSPEED

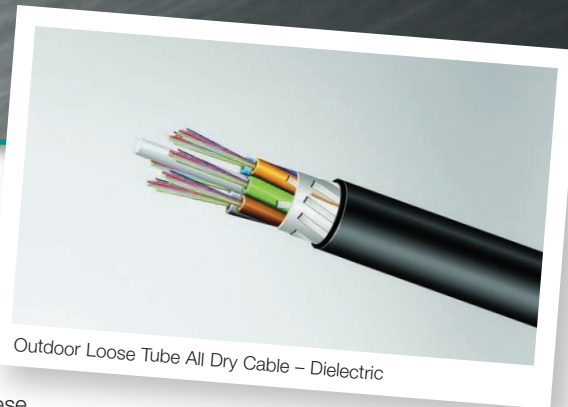
Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5129 006B WRBK	6	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086850
5129 012B WRBK	12	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086876
5129 024B WRBK	24	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086892
5129 036B WRBK	36	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086918
5129 048B WRBK	48	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086934
5129 072B WRBK	72	0.50 in (12.7 mm)	103 lbs/kft (153 kg/km)	760086959

OptiSPEED

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5129 006B MRBK	6	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086843
5129 012B MRBK	12	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086868
5129 024B MRBK	24	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086884
5129 036B MRBK	36	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086900
5129 048B MRBK	48	0.48 in (12.3 mm)	97 lbs/kft (144 kg/km)	760086926
5129 072B MRBK	72	0.50 in (12.7 mm)	103 lbs/kft (153 kg/km)	760086942

Outdoor Loose Tube All Dry Dielectric Cable

SYSTIMAX® All Dry Outside Plant Stranded Loose Tube Cables deliver the same proven quality and performance offered in all SYSTIMAX cabling solutions. The armored and all-dielectric designs are suitable for direct buried, aerial and conduit applications. The construction features the use of dry water blocking elements and reduced diameter buffer tubes, yielding a light weight, smaller cable. The result is a fiber optic cable that is an ideal transmission medium for the outside plant environment. These designs are available with any of the high performance SYSTIMAX fiber types, including TeraSPEED® Zero Water Peak single-mode fiber, and the LazrSPEED® and OptiSPEED® multimode fibers. The standard jacket material is Medium Density Polyethylene (MDPE), with an optional High Density Polyethylene (HDPE) jacket available. Additionally, the fiber and buffer tubes are color coded for easy identification.



Outdoor Loose Tube All Dry Cable – Dielectric

Features and Benefits:

All dry construction removes filling gels and flooding compounds from the cable

- Significantly reduces cable preparation time
- Eliminates the need for solvents and other consumables during cable preparation
- Improves cleanliness of work environment
- Provides full water blocking protection for outside plant applications
- Reduces cable weight

Reduced diameter buffer tubes utilized in the cable constructions

- Reduces overall cable diameter, allowing better duct utilization
- Allows for tighter cable bend radius, loaded and unloaded
- Compatible with all SYSTIMAX apparatus

Environmental and Mechanical Specifications:

Operating Temperature: -4° to 158° F (-20° to 70° C) (Test Method: FOTP - 3 IEC 60794-1-2-F1)

Installation Temperature: -32° to 158° F (0° to 70° C)

Storage Temperature: -40° to 158° F (-40° to 70° C)

Crush Resistance: 57.3 lbf/in (10 N/mm) (Test Method: FOTP - 41 IEC 60794-1-2-E3)

Impact Resistance: 4.34 lbf-ft (5.8 N-m) (Test Method: FOTP - 25 IEC 60794-1-2-E4)

Flexing: Exceeds 100 Cycles (Test Method: FOTP - 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP - 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP - 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Cable Jacket: UV Stabilized Black

Core Size: TeraSPEED - 8.3 micron (approx. or equal to 9 micron mode field diameter) OptiSPEED-62.5 micron

Buffer tubes and fibers are identified with standard color coding.

TeraSPEED/OptiSPEED

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5028 06/06A W/MXBK	12	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760081448
5028 48/48A W/MXBK	96	0.49 in (12.5 mm)	68 lbs/kft (102 kg/km)	760093021
5028 96/48A W/MXBK	144	0.63 in (16.1 mm)	112 lbs/kft (167 kg/km)	760065029

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

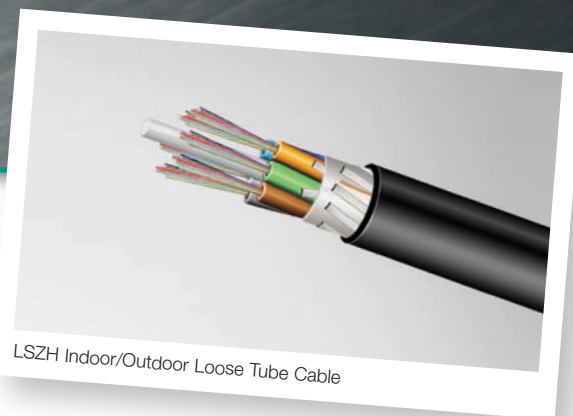
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

LSZH Indoor/Outdoor Loose Tube Cable



LSZH Indoor/Outdoor Loose Tube Cable

The SYSTIMAX Low-Smoke, Zero-Halogen (LSZH) Indoor/Outdoor Cable provides all the benefits of loose-tube indoor cables, along with the durability for use in outdoor environments in cable ducts.

The LSZH indoor/outdoor loose tube cable is used as a transition cable from outdoor to indoor applications. Since it can be used outdoors as well as indoors, transition splicing is eliminated at the building entrance.

Features and Benefits:

- Low smoke/zero-halogen cable suitable for use in indoor/outdoor applications
- Stranded loose tube cable contains gel-filled buffers each with up to twelve 250 micron optical fibers
- Buffer tubes are SZ stranded around the dielectric central member for strain-free operation and easier mid-span access
- Optical fibers and buffer tubes are color coded for easy identification
- Waterblocked cable core contains super-absorbent polymer yarns and tapes to prevent damage from water
- UV-resistant jacket for use outdoors
- Fiber counts from 4-144
- Available with single-mode and multimode fibers
- Meets flame ratings per IEC 60332-1, IEC 60332-3, and IEC 61034

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: 5°F to 140°F (-15°C to 60°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Crush Performance: Short-term/long term load 2000/500 N (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Bending Performance: Loaded/Unloaded 20x/10x diameter (Test Method: FOTP – 104 IEC 60794-1-2-E11)

Tensile Performance: Short-term/long term load 2700/800 N (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Cable Jacket: Black flame retardant polyethylene with optional co-extruded color stripes. Buffer tubes and fibers are identified with standard color coding.

OptiSPEED LSZH Dielectric (EMEA only)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5126 004A MHBK	4	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075093
5126 006A MHBK	6	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075101
5126 008A MHBK	8	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075119
5126 012A MHBK	12	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075127
5126 016A MHBK	16	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075135
5126 018A MHBK	18	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075143
5126 024A MHBK	24	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075150
5126 030A MHBK	30	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075168
5126 036A MHBK	36	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075176
5126 048A MHBK	48	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075184
5126 060A MHBK	60	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075192
5126 072A MHBK	72	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075200
5126 084A MHBK	84	0.45 in (11.5 mm)	97 lbs/kft (145 kg/km)	760075218
5126 096A MHBK	96	0.45 in (11.5 mm)	97 lbs/kft (145 kg/km)	760075226
5126 108A MHBK	108	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075234
5126 120A MHBK	120	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075242
5126 132A MHBK	132	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075259
5126 144A MHBK	144	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075267

LSZH Indoor/Outdoor Loose Tube Cable continued

TeraSPEED LSZH Dielectric (EMEA only)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5126 004A WHBK	4	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075275
5126 006A WHBK	6	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075283
5126 008A WHBK	8	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075291
5126 012A WHBK	12	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075309
5126 016A WHBK	16	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075317
5126 018A WHBK	18	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075325
5126 024A WHBK	24	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075333
5126 030A WHBK	30	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075341
5126 036A WHBK	36	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075358
5126 048A WHBK	48	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075366
5126 060A WHBK	60	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075374
5126 072A WHBK	72	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075382
5126 084A WHBK	84	0.45 in (11.5 mm)	97 lbs/kft (145 kg/km)	760075390
5126 096A WHBK	96	0.45 in (11.5 mm)	97 lbs/kft (145 kg/km)	760075408
5126 108A WHBK	108	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075416
5126 120A WHBK	120	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075424
5126 132A WHBK	132	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075432
5126 144A WHBK	144	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075440

LazrSPEED 300 LSZH Dielectric (EMEA only)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5126 004A ZHBK	4	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075457
5126 006A ZHBK	6	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075465
5126 008A ZHBK	8	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075473
5126 012A ZHBK	12	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075481
5126 016A ZHBK	16	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075499
5126 018A ZHBK	18	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075507
5126 024A ZHBK	24	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075515
5126 030A ZHBK	30	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075523
5126 036A ZHBK	36	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075531
5126 048A ZHBK	48	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075549
5126 060A ZHBK	60	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075556
5126 072A ZHBK	72	0.41 in (10.5 mm)	80 lbs/kft (120 kg/km)	760075564
5126 084A ZHBK	84	0.45 in (11.5 mm)	97 lbs/kft (145 kg/km)	760075572
5126 096A ZHBK	96	0.45 in (11.5 mm)	97 lbs/kft (145 kg/km)	760075580
5126 108A ZHBK	108	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075598
5126 120A ZHBK	120	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075506
5126 132A WHBK	132	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075614
5126 144A WHBK	144	0.58 in (14.8 mm)	151 lbs/kft (225 kg/km)	760075622

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

LSZH Indoor/Outdoor Loose Tube Cable continued

OptiSPEED LSZH Armored (EMEA only)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5128 008A MHBK	8	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075630
5128 012A MHBK	12	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075648
5128 016A MHBK	16	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075655
5128 024A MHBK	24	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075663
5128 036A MHBK	36	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075671
5128 048A MHBK	48	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075689
5128 060A MHBK	60	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075697
5128 072A MHBK	72	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075705
5128 096A MHBK	96	0.59 in (14.9 mm)	188 lbs/kft (280 kg/km)	760075713
5128 144A MHBK	144	0.72 in (18.2 mm)	262 lbs/kft (390 kg/km)	760075721

TeraSPEED LSZH Armored (EMEA only)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5128 008A WHBK	8	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075739
5128 012A WHBK	12	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075747
5128 016A WHBK	16	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075754
5128 024A WHBK	24	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075762
5128 036A WHBK	36	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075770
5128 048A WHBK	48	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075786
5128 060A WHBK	60	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075796
5128 072A WHBK	72	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075804
5128 096A WHBK	96	0.59 in (14.9 mm)	188 lbs/kft (280 kg/km)	760075812
5128 144A WHBK	144	0.72 in (18.2 mm)	262 lbs/kft (390 kg/km)	760075820

LazrSPEED 300 LSZH Armored (EMEA only)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5128 008A ZHBK	8	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075838
5128 012A ZHBK	12	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075846
5128 016A ZHBK	16	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075853
5128 024A ZHBK	24	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075861
5128 036A ZHBK	36	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075879
5128 048A ZHBK	48	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075887
5128 060A ZHBK	60	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075895
5128 072A ZHBK	72	0.55 in (14.0 mm)	158 lbs/kft (235 kg/km)	760075903
5128 096A ZHBK	96	0.59 in (14.9 mm)	188 lbs/kft (280 kg/km)	760075911
5128 144A ZHBK	144	0.72 in (18.2 mm)	262 lbs/kft (390 kg/km)	760075929

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

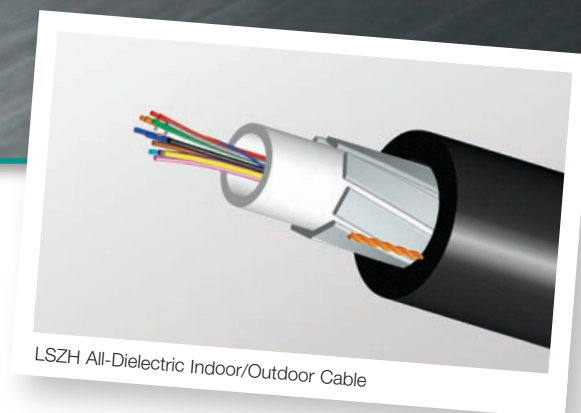
G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

LSZH All-Dielectric Indoor/Outdoor Cable

The SYSTIMAX® 5150-series LSZH All-Dielectric Indoor/Outdoor cables are designed to deliver the performance required for installation in indoor and outside plant environments. The central tube design, utilizing flexible radial strength elements, provides for an optimum solution for point-to-point connectivity where a small and flexible cable is desired. This cable is suitable for direct burial or aerial lashed applications in the outside plant environment. The cable can also be installed in indoor environments, bypassing the need for a cable transition of cable media at the building entrance.



Features and Benefits:

- Low smoke/zero halogen cable suitable for use in indoor/outdoor applications
- Central tube cable contains a single gel-filled buffer tube containing up to twenty four 250 micron optical fibers
- Flexible radial strength members eliminate preferred bend radius of traditional central tube cable constructions
- Provides full water blocking protection for outside plant applications
- UV-resistant jacket suitable for use outdoors
- Fiber counts from 2-24
- Available with single-mode and multimode fiber types
- Compatible with all SYSTIMAX G2 Fiber Connectivity
- Meets flame ratings per IEC 60332-1, IEC 60332-3 and IEC 61034

Environmental and Mechanical Specifications:

Operating Temperature: -4° to 140° F (-20° to 60° C) (Test Method: IEC 60794-1-2-F1)

Installation Temperature: -4° to 140° F (-20° to 60° C)

Storage Temperature: -40°F to 167°F (-40° to 75°C)

Crush Resistance: 125 lbf/in (22 N/mm) (Test Method: EN 187105-5.5.3, IEC 60794-1-2-E3)

Impact Resistance: 2.17 lbf-ft (2.94 N-m) (Test Method: EN 187105-7.5.2, IEC 60794-1-2-E4)

Repeated Bending Resistance: 35 cycles (Test Method: EN 187105-7.5.6, IEC 60794-1-2-E6)

Torsion Resistance: 5 cycles (Test Method: EN 187105-7.5.5, IEC 60794-1-2-E7)

Bend Resistance: 4 wraps @ 164mm (Test Method: EN 187105-7.5.1, IEC 60794-1-2-E11)

Environmental and Mechanical Specifications:

Cable Jacket: Black flame retardant polyethylene. Threads are identified with the standard color coding.

LazrSPEED LSZH All-Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5150 006A ZHBK	6	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083360
5150 012A ZHBK	12	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083378
5150 012A ZHBK	24	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083386

TeraSPEED LSZH All-Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5150 004A WHBK	4	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760090761
5150 006A WHBK	6	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083303
5150 012A WHBK	12	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083311
5150 024A WHBK	24	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083329

OptiSPEED LSZH All-Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5150 006A MHBK	6	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083337
5150 012A MHBK	12	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083345
5150 024A MHBK	24	0.32 in (8.2 mm)	51 lbs/kft (76 kg/km)	760083352

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

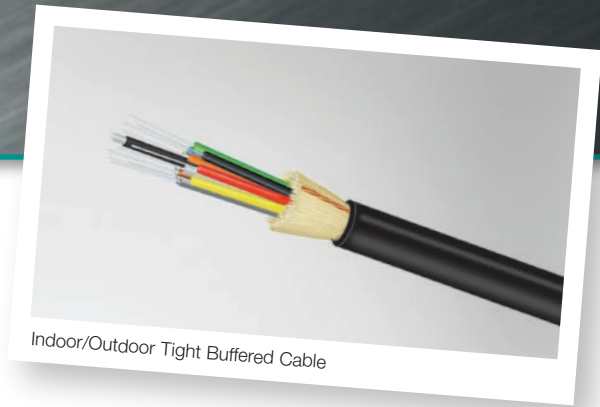
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Indoor/Outdoor Tight Buffered Cable



Indoor/Outdoor Tight Buffered Cable

The indoor/outdoor distribution cable provides network performance for the applications of today and tomorrow that can be used in non-traditional building entrance facilities.

Features and Benefits:

- 900 micron tight buffered construction allows for direct termination eliminating the need for furcation which minimizes installation expense
- Utilizes water blocking technology which makes the cable suitable for the outside plant environment, with gel-free cable access
- Black, UV stabilized jacket is resistant to chemical, moisture, abrasion and sunlight and does not require additional protection in most installations
- All-dielectric construction eliminates the need for bonding and grounding
- Tested and qualified to GR-409 with GR-20, environmental limits and; ICEA-696 and ICEA-640 environmental limits. Meets requirements for tight buffered constructions and suitable of installation in true OSP environmental conditions
- The Plenum cable is (UL and cUL) TYPE OFNP
- The Riser cable is (UL and cUL) TYPE OFNR
- The LSZH cable is (UL and cUL) TYPE OFNR, OFN-LS, IEC60332-3C, IEC60754-2 and IEC61034-2 compliant

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: -22°F to 158°F (0°C to 70°C)

Storage Temperature: -40°F to 167°F (-40°C to 70°C)

Crush Resistance: Exceeds 126 lbf/in (22 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds 4.34 lbf-ft (5.8 N-m) (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 100 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Fibers are identified with standard color coding.

LazrSPEED 550 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 002A XPBK	2	Single Unit	0.17 in (4.2 mm)	10.7 lbs/kft (16 kg/km)	760037408
5101 004A XPBK	4	Single Unit	0.19 in (4.8 mm)	15.3 lbs/kft (23 kg/km)	760037416
5101 006A XPBK	6	Single Unit	0.21 in (5.4 mm)	18.7 lbs/kft (28 kg/km)	760036426
5101 008A XPBK	8	Single Unit	0.23 in (5.8 mm)	25.0 lbs/kft (37 kg/km)	760037424
5101 012A XPBK	12	Single Unit	0.27 in (6.9 mm)	36.0 lbs/kft (54 kg/km)	760037432
5101 018A XPBK	18	Single Unit	0.28 in (7.1 mm)	32.2 lbs/kft (48 kg/km)	760037440
5101 024A XPBK	24	Single Unit	0.31 in (7.9 mm)	41.4 lbs/kft (62 kg/km)	760037457
5104 036A XPBK	36	Multi-unit	0.67 in (17.1 mm)	174 lbs/kft (259 kg/km)	760038133
5104 048A XPBK	48	Multi-unit	0.74 in (18.9 mm)	222 lbs/kft (330 kg/km)	760038141
5104 060A XPBK	60	Multi-unit	0.85 in (21.5 mm)	287 lbs/kft (427 kg/km)	760038158
5104 072A XPBK	72	Multi-unit	0.93 in (23.7 mm)	357 lbs/kft (532 kg/km)	760038166
5104 096A XPBK	96	Multi-unit	1.11 in (28.2 mm)	542 lbs/kft (806 kg/km)	760038174
5104 144A XPBK	144	Multi-unit	1.19 in (30.3 mm)	558 lbs/kft (831 kg/km)	760038182

Indoor/Outdoor Tight Buffered Cable

continued

LazrSPEED 300 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 002A ZPBK	2	Single Unit	0.17 in (4.2 mm)	10.7 lbs/kft (16 kg/km)	760037341
5101 004A ZPBK	4	Single Unit	0.19 in (4.8 mm)	15.3 lbs/kft (23 kg/km)	760037358
5101 006A ZPBK	6	Single Unit	0.21 in (5.4 mm)	18.7 lbs/kft (28 kg/km)	760036418
5101 008A ZPBK	8	Single Unit	0.23 in (5.8 mm)	25.0 lbs/kft (37 kg/km)	760037366
5101 012A ZPBK	12	Single Unit	0.27 in (6.9 mm)	36.0 lbs/kft (54 kg/km)	760037374
5101 018A ZPBK	18	Single Unit	0.28 in (7.1 mm)	32.2 lbs/kft (48 kg/km)	760037382
5101 024A ZPBK	24	Single Unit	0.31 in (7.9 mm)	41.1 lbs/kft (62 kg/km)	760037390
5104 036A ZPBK	36	Multi-unit	0.67 in (17.1 mm)	174 lbs/kft (259 kg/km)	760038075
5104 048A ZPBK	48	Multi-unit	0.74 in (18.9 mm)	222 lbs/kft (330 kg/km)	760038083
5104 060A ZPBK	60	Multi-unit	0.85 in (21.5 mm)	287 lbs/kft (427 kg/km)	760038091
5104 072A ZPBK	72	Multi-unit	0.93 in (23.7 mm)	357 lbs/kft (532 kg/km)	760038109
5104 096A ZPBK	96	Multi-unit	1.11 in (28.2 mm)	542 lbs/kft (806 kg/km)	760038117
5104 144A ZPBK	144	Multi-unit	1.19 in (30.3 mm)	558 lbs/kft (831 kg/km)	760038125

LazrSPEED 150 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 002A HPBK	2	Single Unit	0.17 in (4.2 mm)	10.7 lbs/kft (16 kg/km)	760037283
5101 004A HPBK	4	Single Unit	0.19 in (4.8 mm)	15.3 lbs/kft (23 kg/km)	760037291
5101 006A HPBK	6	Single Unit	0.21 in (5.4 mm)	18.7 lbs/kft (28 kg/km)	760036400
5101 008A HPBK	8	Single Unit	0.23 in (5.8 mm)	25.0 lbs/kft (37 kg/km)	760037309
5101 012A HPBK	12	Single Unit	0.27 in (6.9 mm)	36.0 lbs/kft (54 kg/km)	760037317
5101 018A HPBK	18	Single Unit	0.28 in (7.1 mm)	32.2 lbs/kft (48 kg/km)	760037325
5101 024A HPBK	24	Single Unit	0.31 in (7.9 mm)	41.4 lbs/kft (62 kg/km)	760037333
5104 036A HPBK	36	Multi-unit	0.67 in (17.1 mm)	174 lbs/kft (259 kg/km)	760038018
5104 048A HPBK	48	Multi-unit	0.74 in (18.9 mm)	222 lbs/kft (330 kg/km)	760038026
5104 060A HPBK	60	Multi-unit	0.85 in (21.5 mm)	287 lbs/kft (427 kg/km)	760038034
5104 072A HPBK	72	Multi-unit	0.93 in (23.7 mm)	357 lbs/kft (532 kg/km)	760038042
5104 096A HPBK	96	Multi-unit	1.11 in (28.2 mm)	542 lbs/kft (806 kg/km)	760038059
5104 144A HPBK	144	Multi-unit	1.19 in (30.3 mm)	558 lbs/kft (831 kg/km)	760038067

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Indoor/Outdoor Tight Buffered Cable

continued

TeraSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 002A WPBK	2	Single Unit	0.17 in (4.2 mm)	10.7 lbs/kft (16 kg/km)	760037168
5101 004A WPBK	4	Single Unit	0.19 in (4.8 mm)	15.3 lbs/kft (23 kg/km)	760037176
5101 006A WPBK	6	Single Unit	0.21 in (5.4 mm)	18.7 lbs/kft (28 kg/km)	760036384
5101 008A WPBK	8	Single Unit	0.23 in (5.8 mm)	25.0 lbs/kft (37 kg/km)	760037184
5101 012A WPBK	12	Single Unit	0.27 in (6.9 mm)	36.0 lbs/kft (54 kg/km)	760037192
5101 018A WPBK	18	Single Unit	0.28 in (7.1 mm)	32.2 lbs/kft (48 kg/km)	760037200
5101 024A WPBK	24	Single Unit	0.31 in (7.9 mm)	41.1 lbs/kft (62 kg/km)	760037218
5104 036A WPBK	36	Multi-unit	0.67 in (17.1 mm)	174 lbs/kft (259 kg/km)	760037895
5104 048A WPBK	48	Multi-unit	0.74 in (18.9 mm)	222 lbs/kft (330 kg/km)	760037903
5104 060A WPBK	60	Multi-unit	0.85 in (21.5 mm)	287 lbs/kft (427 kg/km)	760037911
5104 072A WPBK	72	Multi-unit	0.93 in (23.7 mm)	357 lbs/kft (532 kg/km)	760037929
5104 096A WPBK	96	Multi-unit	1.11 in (28.2 mm)	542 lbs/kft (806 kg/km)	760037937
5104 144A WPBK	144	Multi-unit	1.19 in (30.3 mm)	558 lbs/kft (831 kg/km)	760037945

OptiSPEED Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5101 002A MPBK	2	Single Unit	0.17 in (4.2 mm)	10.7 lbs/kft (16 kg/km)	760037226
5101 004A MPBK	4	Single Unit	0.19 in (4.8 mm)	15.3 lbs/kft (23 kg/km)	760037234
5101 006A MPBK	6	Single Unit	0.21 in (5.4 mm)	18.7 lbs/kft (28 kg/km)	760036392
5101 008A MPBK	8	Single Unit	0.23 in (5.8 mm)	25.0 lbs/kft (37 kg/km)	760037242
5101 012A MPBK	12	Single Unit	0.27 in (6.9 mm)	36.0 lbs/kft (54 kg/km)	760037259
5101 018A MPBK	18	Single Unit	0.28 in (7.1 mm)	32.2 lbs/kft (48 kg/km)	760037267
5101 024A MPBK	24	Single Unit	0.31 in (7.9 mm)	41.1 lbs/kft (62 kg/km)	760037275
5104 036A MPBK	36	Multi-unit	0.67 in (17.1 mm)	174 lbs/kft (259 kg/km)	760037952
5104 048A MPBK	48	Multi-unit	0.74 in (18.9 mm)	222 lbs/kft (330 kg/km)	760037960
5104 060A MPBK	60	Multi-unit	0.85 in (21.5 mm)	287 lbs/kft (427 kg/km)	760037978
5104 072A MPBK	72	Multi-unit	0.93 in (23.7 mm)	357 lbs/kft (532 kg/km)	760037986
5104 096A MPBK	96	Multi-unit	1.11 in (28.2 mm)	542 lbs/kft (806 kg/km)	760037994
5104 144A MPBK	144	Multi-unit	1.19 in (30.3 mm)	558 lbs/kft (831 kg/km)	760038000

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

LazrSPEED 550 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5100 006A XRBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760039974
5100 008A XRBK	8	Single Unit	0.25 in (6.3 mm)	24 lbs/kft (35 kg/km)	760039982
5100 012A XRBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	760006650
5100 024A XRBK	24	Single Unit	0.24 in (8.7 mm)	45.2 lbs/kft (55.0 kg/km)	760070300
5103 036A XRBK	36	Multi-unit	0.70 in (17.8 mm)	162.4 lbs/kft (241.6 kg/km)	760007484
5103 048A XRBK	48	Multi-unit	0.79 in (20.0 mm)	198 lbs/kft (295 kg/km)	760056978

LazrSPEED 300 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5100 004A ZRBK	4	Single Unit	0.20 in (5.1 mm)	14 lbs/kft (20 kg/km)	760046649
5100 006A ZRBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760039966
5100 012A ZRBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	700210982
5100 024A ZRBK	24	Single Unit	0.24 in (8.7 mm)	45.2 lbs/kft (55.0 kg/km)	760070292
5103 036A ZRBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	700211006
5103 048A ZRBK	48	Multi-unit	0.79 in (20.0 mm)	198 lbs/kft (295 kg/km)	760010371
5103 072A ZRBK	72	Multi-unit	0.95 in (24.1 mm)	320 lbs/kft (477 kg/km)	760019612

LazrSPEED 150 Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5100 004A HRBK	4	Single Unit	0.20 in (5.1 mm)	14 lbs/kft (20 kg/km)	760046623
5100 006A HRBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760046631
5100 012A HRBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	700211014
5100 024A HRBK	24	Single Unit	0.24 in (8.7 mm)	45.2 lbs/kft (55.0 kg/km)	760070284
5103 036A HRBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	700211030

TeraSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5100 006A WRBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760009753
5100 012A WRBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	760004184
5100 024A WRBK	24	Single Unit	0.34 in (8.7 mm)	45.2 lbs/kft (67.3 kg/km)	760070276
5103 036A WRBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	760004200
5103 048A WRBK	48	Multi-unit	0.80 in (20.2 mm)	206.6 lbs/kft (307.4 kg/km)	760090309
5103 072A WRBK	72	Multi-unit	0.95 in (24.1 mm)	320.5 lbs/kft (477 kg/km)	760067595

OptiSPEED Riser

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5100 004A MRBK	4	Single Unit	0.20 in (5.1 mm)	14 lbs/kft (20 kg/km)	760005165
5100 006A MRBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760054973
5100 012A MRBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	700211279
5100 024A MRBK	24	Single Unit	0.24 in (8.7 mm)	45.2 lbs/kft (55.0 kg/km)	760070318
5103 036A MRBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	700211295

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Indoor/Outdoor Tight Buffered Cable continued

LazrSPEED 550 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5102 012A XHBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	760007492
5102 024A XHBK	24	Single Unit	0.34 in (8.7 mm)	45.2 lbs/kft (67.3 kg/km)	760066837
5105 036A XHBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	760007518
5105 072A XHBK	72	Multi-unit	0.94 in (23.9 mm)	309 lbs/kft (460 kg/km)	760032441

LazrSPEED 300 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5102 004A ZHBK	4	Single Unit	0.20 in (5.1 mm)	14 lbs/kft (20 kg/km)	760012005
5102 006A ZHBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760015289
5102 008A ZHBK	8	Single Unit	0.25 in (6.3 mm)	24 lbs/kft (35 kg/km)	760031674
5102 012A ZHBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	700010119
5102 024A ZHBK	24	Single Unit	0.34 in (8.7 mm)	45.2 lbs/kft (67.3 kg/km)	760066829
5105 036A ZHBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	700205578
5105 048A ZHBK	48	Multi-unit	0.79 in (20.0 mm)	198 lbs/kft (295 kg/km)	760012013

LazrSPEED 150 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5102 004A HHBK	4	Single Unit	0.20 in (5.1 mm)	14 lbs/kft (20 kg/km)	760035782
5102 006A HHBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760035790
5102 012A HHBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	760002170
5102 024A HHBK	24	Single Unit	0.34 in (8.7 mm)	45.2 lbs/kft (67.3 kg/km)	760066811
5105 036A HHBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	760002196

TeraSPEED LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5102 004A WHBK	4	Single Unit	0.20 in (5.1 mm)	13.5 lbs/kft (20.1 kg/km)	760068718
5102 006A WHBK	6	Single Unit	0.22 in (5.5 mm)	18 lbs/kft (26 kg/km)	760011049
5102 012A WHBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	760004218
5102 024A WHBK	24	Single Unit	0.34 in (8.7 mm)	45.2 lbs/kft (67.3 kg/km)	760066795
5105 036A WHBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	760004234
5105 048A WHBK	48	Multi-unit	0.80 in (20.2 mm)	206.6 lbs/kft (307.4 kg/km)	760068726

OptiSPEED LSZH (EMEA only)

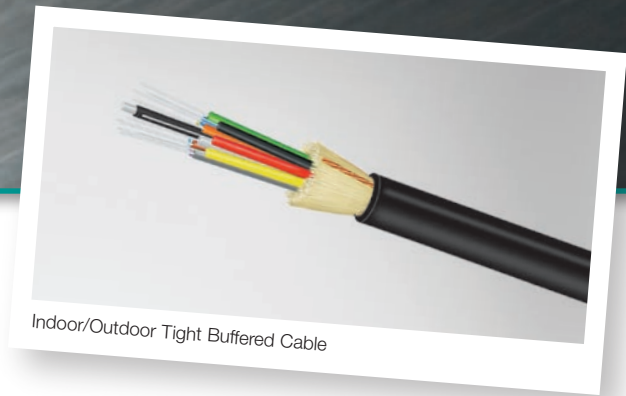
Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5102 012A MHBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	700010390
5102 024A MHBK	24	Single Unit	0.34 in (8.7 mm)	45.2 lbs/kft (67.3 kg/km)	760066803
5105 036A MHBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	700008519

Composite Indoor/Outdoor Tight Buffered Cable

Physical Specifications:

Cable Jacket: UV Stabilized Black

Buffer tubes and fibers are identified with standard color coding. Single-mode fibers are placed in first buffer tubes, followed by multimode fibers.



TeraSPEED/LazrSPEED 150 Plenum

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5104 12/24A W/HPBK	36	Multi-unit	0.67 in (16.9 mm)	174 lbs/kft (259 kg/km)	760055970

TeraSPEED/LazrSPEED 300 LSZH (EMEA only)

Product Number	Fiber Count	Construction Type	Outside Diameter	Weight	Material ID
5102 06/06A W/ZHBK	12	Single Unit	0.28 in (7.1 mm)	33 lbs/kft (49 kg/km)	760025411
5105 12/12A W/ZHBK	24	Multi-unit	0.67 in (16.9 mm)	133 lbs/kft (198 kg/km)	760025429
5105 18/18A W/ZHBK	36	Multi-unit	0.70 in (17.8 mm)	162 lbs/kft (242 kg/km)	760055442
5105 36/36A W/ZHBK	72	Multi-unit	0.94 in (23.5 mm)	309 lbs/kft (460 kg/km)	760055111

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



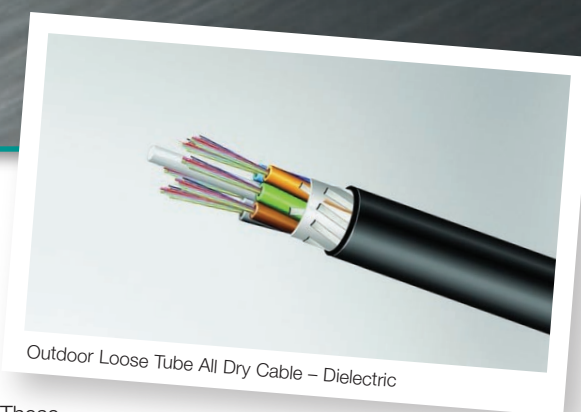
Additional Fiber Connectivity



Tools & Consumables



Outdoor Loose Tube All Dry Cable



Outdoor Loose Tube All Dry Cable – Dielectric

SYSTIMAX® all dry outside plant stranded loose tube cables deliver the same proven quality and performance offered in all SYSTIMAX cabling solutions. The armored and all-dielectric designs are suitable for direct buried, aerial and conduit applications. The construction features the use of dry water blocking elements and reduced diameter buffer tubes, yielding a lightweight, smaller cable. The result is a fiber optic cable that is an ideal transmission medium for the outside plant environment. These designs are available with any of the high performance SYSTIMAX fiber types, including TeraSPEED® Zero Water Peak single-mode fiber and the LazrSPEED® multimode fibers. The standard jacket material is Medium Density Polyethylene (MDPE), with an optional High Density Polyethylene (HDPE) jacket available. Additionally, the fiber and buffer tubes are color coded for easy identification.

Features and Benefits:

All dry construction removes filling gels and flooding compounds from the cable

- significantly reduces cable preparation time
- eliminates the need for solvents and other consumables during cable preparation
- improves cleanliness of work environment
- provides full water blocking protection for outside plant applications
- reduces cable weight

Reduced diameter buffer tubes utilized in the cable constructions

- reduces overall cable diameter, allowing better duct utilization
- allows for tighter cable bend radius, loaded and unloaded
- compatible with all SYSTIMAX apparatus

Environmental and Mechanical Specifications:

Operating Temperature: -4°F to 158°F (-20°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: 32°F to 158°F (0°C to 70°C)

Storage Temperature: -40°F to 158°F (-40°C to 70°C)

Crush Resistance: 57.3 lbf/in (10 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: 4.34 lbf-ft (5.8 N-m) (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 100 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Buffer tubes and fibers are identified with standard color coding.

RDUP Listed

LazrSPEED 550 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5028 002A XXBK	2	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054262
5028 006A XXBK	6	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054270
5028 012A XXBK	12	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054288
5028 024A XXBK	24	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054296
5028 036A XXBK	36	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054304
5028 048A XXBK	48	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054312
5028 060A XXBK	60	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054320
5028 072A XXBK	72	0.43 in (10.9 mm)	52 lbs/kft (77 kg/km)	760054338
5028 096A XXBK	96	0.49 in (12.5 mm)	68 lbs/kft (101 kg/km)	760054346

Outdoor Loose Tube All Dry Cable

continued

5028 144A XXBK	144	0.63 in (16.1 mm)	111 lbs/kft (166 kg/km)	760054353
5028 288A XXBK	288	0.73 in (18.5 mm)	127 lbs/kft (189 kg/km)	760054361

LazrSPEED 300 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5028 002A ZXBK	2	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054155
5028 006A ZXBK	6	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054163
5028 012A ZXBK	12	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054171
5028 024A ZXBK	24	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054189
5028 036A ZXBK	36	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054197
5028 048A ZXBK	48	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054205
5028 060A ZXBK	60	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054213
5028 072A ZXBK	72	0.43 in (10.9 mm)	52 lbs/kft (77 kg/km)	760054221
5028 096A ZXBK	96	0.49 in (12.5 mm)	68 lbs/kft (101 kg/km)	760054239
5028 144A ZXBK	144	0.63 in (16.1 mm)	111 lbs/kft (166 kg/km)	760054247
5028 288A ZXBK	288	0.73 in (18.5 mm)	127 lbs/kft (189 kg/km)	760054254

LazrSPEED 150 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5028 002A HXBK	2	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054049
5028 006A HXBK	6	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054056
5028 012A HXBK	12	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054064
5028 024A HXBK	24	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054072
5028 036A HXBK	36	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054080
5028 048A HXBK	48	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054098
5028 060A HXBK	60	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760054106
5028 072A HXBK	72	0.43 in (10.9 mm)	52 lbs/kft (77 kg/km)	760054114
5028 096A HXBK	96	0.49 in (12.5 mm)	68 lbs/kft (101 kg/km)	760054122
5028 144A HXBK	144	0.63 in (16.1 mm)	111 lbs/kft (166 kg/km)	760054130
5028 288A HXBK	288	0.73 in (18.5 mm)	127 lbs/kft (189 kg/km)	760054148

TeraSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5028 002A WXBK	2	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053827
5028 006A WXBK	6	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053835
5028 012A WXBK	12	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053843
5028 024A WXBK	24	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053850
5028 036A WXBK	36	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053868
5028 048A WXBK	48	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053876
5028 060A WXBK	60	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053884
5028 072A WXBK	72	0.43 in (10.9 mm)	52 lbs/kft (77 kg/km)	760053892
5028 096A WXBK	96	0.49 in (12.5 mm)	68 lbs/kft (101 kg/km)	760053900
5028 144A WXBK	144	0.63 in (16.1 mm)	111 lbs/kft (166 kg/km)	760053918
5028 192A WXBK	192	0.63 in (16.1 mm)	95 lbs/kft (141 kg/km)	760089516

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Outdoor Loose Tube All Dry Cable continued

Outdoor Loose Tube All Dry Cable – Dielectric

OptiSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5028 002A MXBK	2	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053934
5028 006A MXBK	6	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053942
5028 012A MXBK	12	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053959
5028 024A MXBK	24	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053967
5028 036A MXBK	36	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053975
5028 048A MXBK	48	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053983
5028 060A MXBK	60	0.41 in (10.5 mm)	48 lbs/kft (71 kg/km)	760053991
5028 072A MXBK	72	0.43 in (10.9 mm)	52 lbs/kft (77 kg/km)	760054007
5028 096A MXBK	96	0.49 in (12.5 mm)	68 lbs/kft (101 kg/km)	760054015
5028 144A MXBK	144	0.63 in (16.1 mm)	111 lbs/kft (166 kg/km)	760054023
5028 288A MXBK	288	0.73 in (18.5 mm)	127 lbs/kft (189 kg/km)	760054031

Outdoor Loose Tube All Dry Cable – Metallic

OptiSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 002A MXBK	2	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053371
5027 006A MXBK	6	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053389
5027 012A MXBK	12	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053397
5027 024A MXBK	24	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053405
5027 036A MXBK	36	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053413
5027 048A MXBK	48	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053421
5027 060A MXBK	60	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053439
5027 072A MXBK	72	0.49 in (12.4 mm)	91 lbs/kft (135 kg/km)	760053447
5027 096A MXBK	96	0.55 in (13.9 mm)	113 lbs/kft (168 kg/km)	760053454
5027 144A MXBK	144	0.69 in (17.6 mm)	166 lbs/kft (248 kg/km)	760053470
5027 288A MXBK	288	0.78 in (20.0 mm)	190 lbs/kft (284 kg/km)	760053488

LazrSPEED 550 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 002A XXBK	2	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053710
5027 006A XXBK	6	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053728
5027 012A XXBK	12	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053736
5027 024A XXBK	24	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053744
5027 036A XXBK	36	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053751
5027 048A XXBK	48	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053769
5027 060A XXBK	60	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053777
5027 072A XXBK	72	0.49 in (12.4 mm)	91 lbs/kft (135 kg/km)	760053785
5027 096A XXBK	96	0.55 in (13.9 mm)	113 lbs/kft (168 kg/km)	760053793
5027 144A XXBK	144	0.69 in (17.6 mm)	166 lbs/kft (248 kg/km)	760053801
5027 288A XXBK	288	0.78 in (20.0 mm)	190 lbs/kft (284 kg/km)	760053819

Outdoor Loose Tube All Dry Cable

continued

LazrSPEED 300 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 002A ZXBK	2	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053603
5027 006A ZXBK	6	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053611
5027 012A ZXBK	12	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053629
5027 024A ZXBK	24	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053637
5027 036A ZXBK	36	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053645
5027 048A ZXBK	48	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053652
5027 060A ZXBK	60	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053660
5027 072A ZXBK	72	0.49 in (12.4 mm)	91 lbs/kft (135 kg/km)	760053678
5027 096A ZXBK	96	0.55 in (13.9 mm)	113 lbs/kft (169 kg/km)	760053686
5027 144A ZXBK	144	0.69 in (17.6 mm)	166 lbs/kft (248 kg/km)	760053694
5027 288A ZXBK	288	0.78 in (20.0 mm)	190 lbs/kft (284 kg/km)	760053702

LazrSPEED 150 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 002A HXBK	2	0.47in (12.0 mm)	86 lbs/kft (128 kg/km)	760053496
5027 006A HXBK	6	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053504
5027 012A HXBK	12	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053512
5027 024A HXBK	24	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053520
5027 036A HXBK	36	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053538
5027 048A HXBK	48	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053546
5027 060A HXBK	60	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053553
5027 072A HXBK	72	0.49 in (12.4 mm)	91 lbs/kft (135 kg/km)	760053561
5027 096A HXBK	96	0.55 in (13.9 mm)	113 lbs/kft (168 kg/km)	760053579
5027 144A HXBK	144	0.69 in (17.6 mm)	166 lbs/kft (248 kg/km)	760053587
5027 288A HXBK	288	0.78 in (20.0 mm)	190 lbs/kft (284 kg/km)	760053595

TeraSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 002A WXBK	2	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053264
5027 006A WXBK	6	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053272
5027 012A WXBK	12	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053280
5027 024A WXBK	24	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053298
5027 036A WXBK	36	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760053306
5027 048A WXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760053314
5027 060A WXBK	60	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760053322
5027 072A WXBK	72	0.49 in (12.4 mm)	91 lbs/kft (135 kg/km)	760053330
5027 096A WXBK	96	0.55 in (13.9 mm)	113 lbs/kft (168 kg/km)	760053348
5027 144A WXBK	144	0.69 in (17.6 mm)	166 lbs/kft (248 kg/km)	760053355
5027 288A WXBK	288	0.78 in (20.0 mm)	190 lbs/kft (284 kg/km)	760053363

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

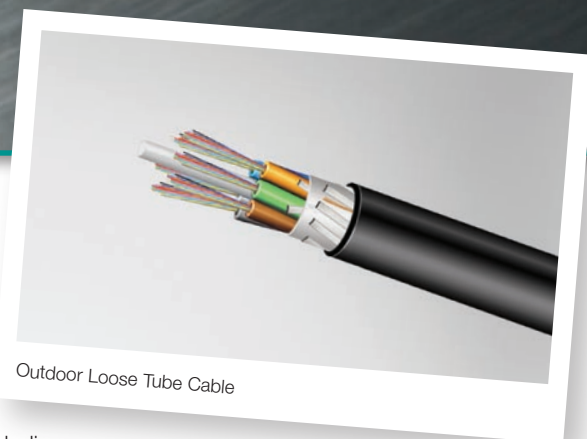
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Outdoor Loose Tube All Dry Cable



Outdoor Loose Tube Cable

SYSTIMAX® all dry outside plant stranded loose tube cables deliver the same proven quality and performance offered in all SYSTIMAX cabling solutions. The armored and all-dielectric designs are suitable for direct buried, aerial and conduit applications. The construction features the use of dry water blocking elements and reduced diameter buffer tubes, yielding a light weight, smaller cable. The result is a fiber optic cable that is an ideal transmission medium for the outside plant environment. These designs are available with any of the high performance SYSTIMAX fiber types, including TeraSPEED® Zero Water Peak single-mode fiber and the LazrSPEED® multimode fibers. The standard jacket material is Medium Density Polyethylene (MDPE), with an optional High Density Polyethylene (HDPE) jacket available. Additionally, the fiber and buffer tubes are color coded for easy identification.

Features and Benefits:

All dry construction removes filling gels and flooding compounds from the cable

- Significantly reduces cable preparation time
- Eliminates the need for solvents and other consumables during cable preparation
- Improves cleanliness of work environment
- Provides full water blocking protection for outside plant applications
- Reduces cable weight

Reduced diameter buffer tubes utilized in the cable constructions

- Reduces overall cable diameter, allowing better duct utilization
- Allows for tighter cable bend radius, loaded and unloaded
- Compatible with all SYSTIMAX apparatus

Robust cable design

- Complies with applicable standards
- Provides very stable low temperature performance
- Withstands typical installation forces with good safety margin
- Reduces installation loads due to reduced weight and diameter
- Provides performance equivalent to gel-filled cable designs
- Improves network deployment speed for capturing revenues/starting services sooner

Environmental and Mechanical Specifications:

Operating Temperature: -4° to 158° F (-20° to 70° C) (Test Method: FOTP - 3 IEC 60794-1-2-F1)

Installation Temperature: 32° to 158° F (0° to 70°C)

Storage Temperature: -40° to 158° F (-40° to 70° C)

Crush Resistance: 57.3 lbf/in (10 N/mm) (Test Method: FOTP - 41 IEC 60794-1-2-E3)

Impact Resistance: 4.34 lbf-ft (5.8 N-m) (Test Method: FOTP - 25 IEC 60794-1-2-E4)

Flexing: Exceeds 100 Cycles (Test Method: FOTP - 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP - 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP - 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications

Core Size: Buffer tubes and fibers are identified with standard color coding

TeraSPEED/LazrSPEED 300 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 36/12A W/XXBK	48	0.47 in (12.0 mm)	86 lbs/kft (128 kg/km)	760083212

TeraSPEED/LazrSPEED 550 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5027 36/36A W/XXBK	72	0.49 in (12.4 mm)	91 lbs/kft (135 kg/km)	760091066

Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes)

The Loose Tube Dielectric cable is constructed with industry standard 3 mm gel-filled, buffer tubes, stranded around a central strength member.

The Loose Tube Metallic cable is armored with a corrugated polymer coated steel tape, and constructed with industry standard 3 mm gel-filled, buffer tubes, stranded around a central strength member. The armor layer provides added crush protection and meets the Telcordia requirements for superior armored cable.

The buffer tubes are compatible with standard hardware, cable routing and fan-out kits. The cable core is water blocked with dry water blocking materials, making access and handling of individual tubes easier and craft-friendly. These cables are designed for point-to-point applications as well as mid-span access, and provide a high-level of protection for fiber installed in the outside plant environment.

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: -22°F to 140°F (-30°C to 60°C)

Storage Temperature: -40°F to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

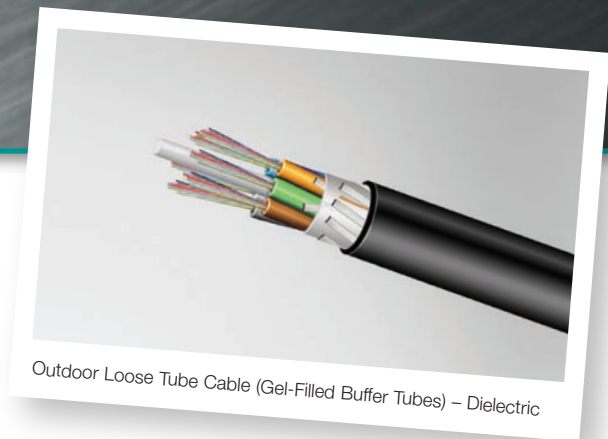
Physical Specifications:

Buffer tubes and fibers are identified with standard color coding.

RDUP Listed

LazrSPEED 550 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 004A XXBK	4	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007351
5024 006A XXBK	6	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007369
5024 012A XXBK	12	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007377
5024 018A XXBK	18	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007385
5024 024A XXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007393
5024 036A XXBK	36	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007401
5024 048A XXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760007419
5024 072A XXBK	72	0.49 in (12.6 mm)	74 lbs/kft (110 kg/km)	760007427
5024 096A XXBK	96	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760007435
5024 144A XXBK	144	0.74 in (18.8 mm)	160 lbs/kft (238 kg/km)	760007443
5024 288A XXBK	288	0.86 in (21.8 mm)	196 lbs/kft (282 kg/km)	760007450



Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) – Dielectric

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity



Tools & Consumables



Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) continued

LazrSPEED 300 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 004A ZXBK	4	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002782
5024 006A ZXBK	6	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002790
5024 012A ZXBK	12	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002808
5024 018A ZXBK	18	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002816
5024 024A ZXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002824
5024 036A ZXBK	36	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002832
5024 048A ZXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002840
5024 072A ZXBK	72	0.49 in (12.6 mm)	74 lbs/kft (110 kg/km)	760002857
5024 096A ZXBK	96	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760002865
5024 144A ZXBK	144	0.74 in (18.8 mm)	160 lbs/kft (238 kg/km)	760002873
5024 196A ZXBK	196	0.74 in (18.8 mm)	145 lbs/kft (216 kg/km)	760025494
5024 288A ZXBK	288	0.86 in (21.8 mm)	196 lbs/kft (282 kg/km)	760002881

TeraSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 004A WXBK	4	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002576
5024 006A WXBK	6	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002584
5024 012A WXBK	12	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002592
5024 018A WXBK	18	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002600
5024 024A WXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002618
5024 036A WXBK	36	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002626
5024 048A WXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002634
5024 072A WXBK	72	0.49 in (12.6 mm)	74 lbs/kft (110 kg/km)	760002642
5024 084A WXBK	84	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760055392
5024 096A WXBK	96	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760002659
5024 108A WXBK	108	0.66 in (16.7 mm)	127lbs/kft (189 kg/km)	760055400
5024 120A WXBK	120	0.66 in (16.7 mm)	127lbs/kft (189 kg/km)	760055418
5024 132A WXBK	132	0.74 in (18.8 mm)	160 lbs/kft (238 kg/km)	760055426
5024 144A WXBK	144	0.74 in (18.8 mm)	160 lbs/kft (238 kg/km)	760002667
5024 288A WXBK	288	0.86 in (21.8 mm)	196 lbs/kft (292 kg/km)	760002675

OptiSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 004A MXBK	4	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002683
5024 006A MXBK	6	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002691
5024 012A MXBK	12	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002709
5024 018A MXBK	18	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002717
5024 024A MXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002725
5024 036A MXBK	36	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002733
5024 048A MXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760002741
5024 072A MXBK	72	0.49 in (12.6 mm)	74 lbs/kft (110 kg/km)	760002758
5024 096A MXBK	96	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760002766
5024 288A MXBK	288	0.86 in (21.8 mm)	196 lbs/kft (292 kg/km)	760002774

Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) continued

Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) – Metallic

LazrSPEED 550 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 004A XXBK	4	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007245
5023 006A XXBK	6	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007252
5023 012A XXBK	12	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007260
5023 018A XXBK	18	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007278
5023 024A XXBK	24	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007286
5023 036A XXBK	36	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007294
5023 048A XXBK	48	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760007302
5023 072A XXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760007310
5023 096A XXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760007328
5023 144A XXBK	144	0.80 in (20.3 mm)	226 lbs/kft (337 kg/km)	760007336
5023 288A XXBK	288	0.91 in (23.3 mm)	272 lbs/kft (405 kg/km)	760007344

LazrSPEED 300 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 004A ZXBK	4	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002469
5023 006A ZXBK	6	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002477
5023 012A ZXBK	12	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002485
5023 018A ZXBK	18	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002493
5023 024A ZXBK	24	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002501
5023 036A ZXBK	36	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002519
5023 048A ZXBK	48	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002527
5023 072A ZXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760002535
5023 096A ZXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760002543
5023 144A ZXBK	144	0.80 in (20.3 mm)	226 lbs/kft (337 kg/km)	760002550
5023 288A ZXBK	288	0.91 in (23.3 mm)	272 lbs/kft (405 kg/km)	760002568

LazrSPEED 150 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 096A HXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760055103

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) continued

TeraSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 004A WXBK	4	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002253
5023 006A WXBK	6	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002261
5023 008A WXBK	8	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760055020
5023 012A WXBK	12	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002279
5023 016A WXBK	16	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760017939
5023 018A WXBK	18	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002287
5023 024A WXBK	24	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002295
5023 032A WXBK	32	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760017947
5023 036A WXBK	36	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002303
5023 048A WXBK	48	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002311
5023 072A WXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760002329
5023 096A WXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760002337
5023 128A WXBK	128	0.80 in (20.3 mm)	226 lbs/kft (337 kg/km)	760017954
5023 144A WXBK	144	0.80 in (20.3 mm)	226 lbs/kft (337 kg/km)	760002345
5023 288A WXBK	288	0.91 in (23.3 mm)	272 lbs/kft (405 kg/km)	760002352

OptiSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 004A MXBK	4	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002360
5023 006A MXBK	6	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002378
5023 012A MXBK	12	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002386
5023 018A MXBK	18	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002394
5023 024A MXBK	24	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002402
5023 036A MXBK	36	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002410
5023 048A MXBK	48	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760002428
5023 072A MXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760002436
5023 096A MXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760002444
5023 144A MXBK	144	0.80 in (20.3 mm)	226 lbs/kft (337 kg/km)	760000893
5023 288A MXBK	288	0.91 in (23.3 mm)	272 lbs/kft (405 kg/km)	760002451

Composite Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes)

The Dielectric Stranded Loose Tube Cable is constructed with industry standard 3 mm buffer tubes, stranded around a central strength member.

The Metallic Stranded Loose Tube Cable is armored with a corrugated, polymer coated steel tape and constructed with industry standard 3 mm buffer tubes, stranded around a central strength member. The armor layer provides added crush protection and meets the Telcordia requirements for superior armored cable.

The buffer tubes are compatible with standard hardware, cable routing and fan-out kits. The individual gel-filled tubes with water-blocking binders are placed between the central strength member and the tubes; then a water-blocking tape is formed around the core. These cables provide a high level of protection for fiber installed in the outside plant environment where mid-span access and cable management are required.

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: -22°F to 140°F (-30°C to 60°C)

Storage Temperature: -40°F to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

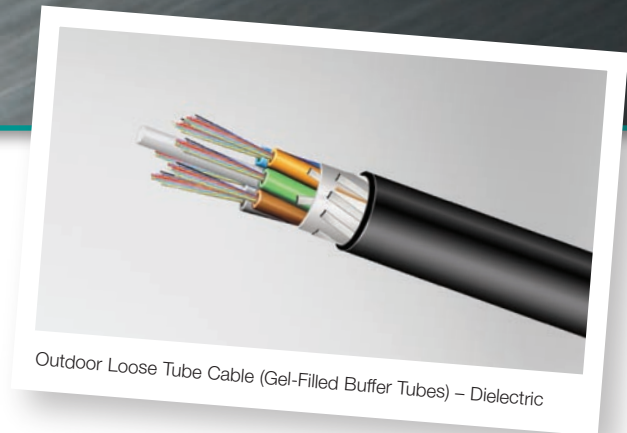
Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Cable Jacket: UV Stabilized Black

Fibers are identified with standard color coding. Single-mode fibers are placed in first buffer tubes, followed by multimode fibers.

RDUP Listed



Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) – Dielectric

TeraSPEED/LazrSPEED 550 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 12/12A W/XXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760036046
5024 24/24A W/XXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760042242

TeraSPEED/LazrSPEED 300 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 12/12A W/ZXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760008722
5024 48/48A W/ZXBK	96	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760035857
5024 48/72A W/ZXBK	120	0.66 in (16.7 mm)	127 lbs/kft (189 kg/km)	760035840

TeraSPEED/LazrSPEED 150 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 12/24A W/HXBK	36	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760055962

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Outdoor Loose Tube Cable (Gel-Filled Buffer Tubes) continued

TeraSPEED/OptiSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5024 12/12A W/MXBK	24	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760060970
5024 24/12A W/MXBK	36	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760039354
5024 24/24A W/MXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760047845
5024 36/12A W/MXBK	48	0.46 in (11.6 mm)	61 lbs/kft (91 kg/km)	760043513
5024 36/48A W/MXBK	84	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760008490
5024 72/24A W/MXBK	96	0.57 in (14.6 mm)	99 lbs/kft (148 kg/km)	760053132
5024 144/144A W/MXBK	288	0.86 in (21.8 mm)	196 lbs/kft (292 kg/km)	760046581

TeraSPEED/LazrSPEED 550 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 48/24A W/XXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760048710

TeraSPEED/LazrSPEED 300 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 12/24A W/ZXBK	36	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760035824
5023 24/24A W/ZXBK	48	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760032813
5023 48/24A W/ZXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760048702
5023 48/48A W/ZXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760035873
5023 72/24A W/ZXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760042457
5023 48/72A W/ZXBK	120	0.71 in (18.2 mm)	185 lbs/kft (276 kg/km)	760035865

TeraSPEED/LazrSPEED 150 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 48/24A W/HXBK	72	0.55 in (14.0 mm)	118 lbs/kft (176 kg/km)	760047787
5023 48/48A W/HXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760036020
5023 72/24A W/HXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760047761
5023 72/48A W/HXBK	120	0.71 in (18.2 mm)	185 lbs/kft (276 kg/km)	760047779

TeraSPEED/OptiSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5023 12/12A W/MXBK	24	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760043448
5023 24/24A W/MXBK	48	0.51 in (13.1 mm)	102 lbs/kft (152 kg/km)	760034637
5023 48/48A W/MXBK	96	0.63 in (16.1 mm)	151 lbs/kft (225 kg/km)	760038299

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

InstaPATCH
Plus

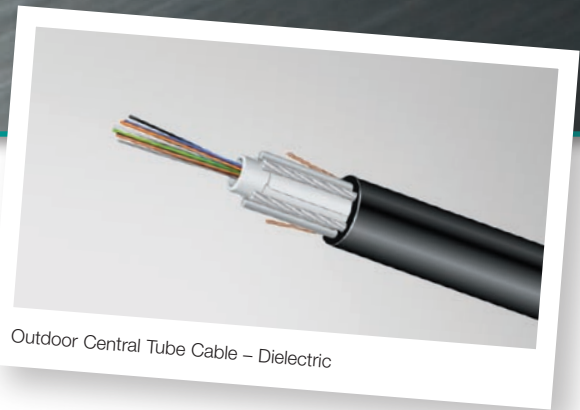
G2 Fiber
Connectivity

Additional Fiber
Connectivity

Tools &
Consumables

Outdoor Central Tube Cable

The Dielectric and Metallic Sheath Cable can be used in underground conduit, direct buried or aerial applications. The cable is designed for easy mid-sheath entry. The fibers are separated into binder groups inside a central tube gel-filled with water-blocking compound. The steel armor provides rodent and lightning protection. The sheath jacket material is medium-density polyethylene for maximum environmental protection and is petrochemical stable.



Outdoor Central Tube Cable – Dielectric

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: -22°F to 140°F (-30°C to 60°C)

Storage Temperature: -40°F to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

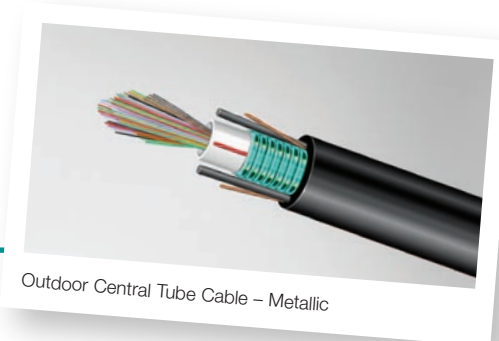
Buffer tubes and fibers are identified with standard color coding.

LazrSPEED 300 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5022 006A ZXBK	6	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700012347
5022 012A ZXBK	12	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700012354
5022 024A ZXBK	24	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700012362
5022 036A ZXBK	36	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700219116
5022 048A ZXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700012370
5022 096A ZXBK	96	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	700012388

LazrSPEED 150 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5022 016A HXBK	16	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760027771



Outdoor Central Tube Cable – Metallic

LazrSPEED 150 Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5021 006A HXBK	6	0.43 in (11 mm)	93 lbs/kft (138 kg/km)	760015800
5021 012A HXBK	12	0.43 in (11 mm)	93 lbs/kft (138 kg/km)	760017202
5021 024A HXBK	24	0.43 in (11 mm)	93 lbs/kft (138 kg/km)	760021758

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



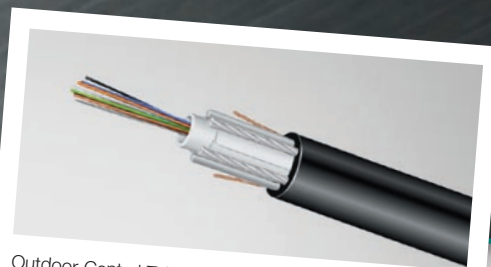
Additional Fiber Connectivity



Tools & Consumables



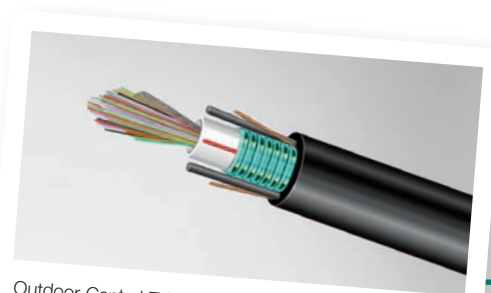
Outdoor Central Tube Cable continued



Outdoor Central Tube Cable – Dielectric

TeraSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5022 004A WXBK	4	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004002
5022 006A WXBK	6	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004010
5022 008A WXBK	8	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004028
5022 012A WXBK	12	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004036
5022 061A WXBK	16	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760027789
5022 024A WXBK	24	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004044
5022 036A WXBK	36	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004051
5022 048A WXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760004069
5022 072A WXBK	72	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	760004077
5022 096A WXBK	96	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	760004085



Outdoor Central Tube Cable – Metallic

TeraSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5021 004A WXBK	4	0.43 in (11.0 mm)	93 lbs/kft (138 kg/km)	760003913
5021 006A WXBK	6	0.43 in (11.0 mm)	93 lbs/kft (138 kg/km)	760003921
5021 008A WXBK	8	0.43 in (11.0 mm)	93 lbs/kft (138 kg/km)	760003939
5021 012A WXBK	12	0.43 in (11.0 mm)	93 lbs/kft (138 kg/km)	760003947
5021 024A WXBK	24	0.43 in (11.0 mm)	93 lbs/kft (138 kg/km)	760003954
5021 036A WXBK	36	0.51 in (13.0 mm)	121 lbs/kft (181 kg/km)	760003962
5021 048A WXBK	48	0.51 in (13.0 mm)	121 lbs/kft (181 kg/km)	760003970
5021 072A WXBK	72	0.59 in (15.0 mm)	152 lbs/kft (226 kg/km)	760003988
5021 096A WXBK	96	0.59 in (15.0 mm)	152 lbs/kft (226 kg/km)	760003996
5031 024A WXBK	24	0.43 in (11.0 mm)	93 lbs/kft (138 kg/km)	760058461

Fiber Types &
Reference

Building

Interlocking
Armored

Indoor/Outdoor
Loose Tube

Indoor/Outdoor
Tight Buffered

Outdoor
Loose Tube

Outdoor
Central Tube

Figure 8

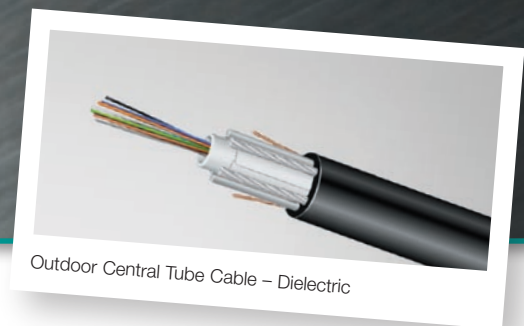
InstaPATCH
Plus

G2 Fiber
Connectivity

Additional Fiber
Connectivity

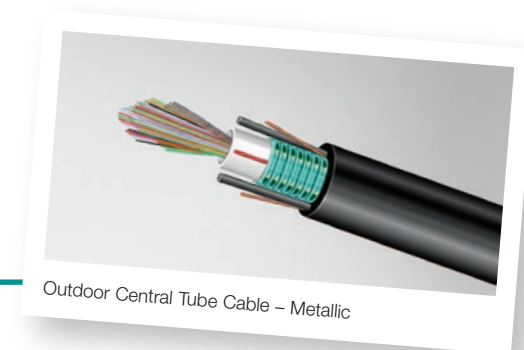
Tools &
Consumables

Outdoor Central Tube Cable continued



OptiSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5022 004A MXBK	4	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010739
5022 006A MXBK	6	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010721
5022 008A MXBK	8	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010713
5022 012A MXBK	12	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010705
5022 018A MXBK	18	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010697
5022 024A MXBK	24	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010689
5022 036A MXBK	36	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010671
5022 048A MXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	700010663
5022 060A MXBK	60	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	700010655
5022 072A MXBK	72	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	700010648
5022 096A MXBK	96	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	700010630



OptiSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5021 004A MXBK	4	0.43 in (11.0 mm)	92 lbs/kft (137 kg/m)	700010622
5021 006A MXBK	6	0.43 in (11.0 mm)	92 lbs/kft (137 kg/m)	700010614
5021 008A MXBK	8	0.43 in (11.0 mm)	92 lbs/kft (137 kg/m)	700010606
5021 012A MXBK	12	0.43 in (11.0 mm)	92 lbs/kft (137 kg/m)	700010598
5021 024A MXBK	24	0.43 in (11.0 mm)	92 lbs/kft (137 kg/m)	700010580
5021 036A MXBK	36	0.51 in (13.0 mm)	92 lbs/kft (137 kg/m)	700010572
5021 048A MXBK	48	0.51 in (13.0 mm)	120 lbs/kft (179 kg/m)	700010564
5021 072A MXBK	72	0.59 in (15.0 mm)	151 lbs/kft (225 kg/m)	700010556
5021 096A MXBK	96	0.59 in (15.0 mm)	151 lbs/kft (225 kg/m)	700010549

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

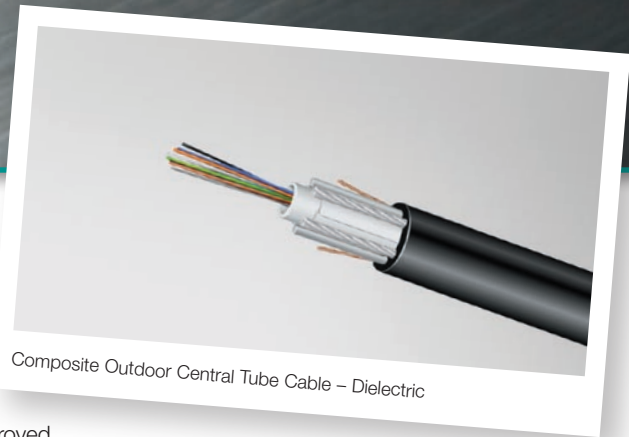
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Composite Outdoor Central Tube Cable



Composite Outdoor Central Tube Cable – Dielectric

The SYSTIMAX Composite Fiber Optic Outside Plant cable provides the ultimate in future proofing. This combination of fibers provides the benefits of a Zero Water Peak Single-mode, and LazrSPEED Laser Optimized Multimode Fiber (LOMMF), the leading 10 Gbps (OM3) fiber, as well as OptiSPEED 62.5 micron multimode. The incorporation of both single-mode and multimode fibers under one jacket provides not only for seamless future migration should the need arise, but also for improved installation time and decreased installation expense. This central core composite cable is reinforced with aramid yarn for superior strength.

SYSTIMAX central gel-filled core cables comply with the Telcordia Generic Requirements for Optical Fiber and Optical Fiber Cable (GR-20-CORE), Section 6. These products also satisfy the requirements of ICEA S-87-640-1999, "Optical Fiber Outside Plant Communications Cable."

Environmental and Mechanical Specifications:

Operating Temperature: -40°F to 158°F (-40°C to 70°C) (Test Method: FOTP – 3 IEC 60794-1-2-F1)

Installation Temperature: -22°F to 140°F (-30°C to 60°C)

Storage Temperature: -40°F to 167°F (-40°C to 75°C)

Crush Resistance: 250 lbf/in (44 N/mm) (Test Method: FOTP – 41 IEC 60794-1-2-E3)

Impact Resistance: Exceeds (Test Method: FOTP – 25 IEC 60794-1-2-E4)

Flexing: Exceeds 25 cycles (Test Method: FOTP – 104 IEC 60794-1-2-E6)

Twist Bend: Exceeds (Test Method: FOTP – 85) (Test Method: FOTP – 85 IEC 60794-1-2-E7)

Tensile: Exceeds (Test Methods: FOTP – 33, 38, IEC 60794-1-2-E1A, E1B)

Physical Specifications:

Cable Jacket: UV Stabilized Black

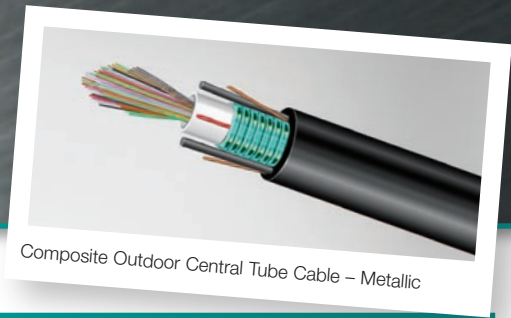
Fibers are identified with standard color coding. Single-mode fibers are placed in first fiber bundles, followed by multimode fibers.

TeraSPEED/LazrSPEED 300 Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5022 06/06A W/ZXBK	12	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008318
5022 06/12A W/ZXBK	18	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008326
5022 12/12A W/ZXBK	24	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008334
5022 12/24A W/ZXBK	36	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008342
5022 24/24A W/ZXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008359
5022 36/36A W/ZXBK	72	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	760036541
5022 48/48A W/ZXBK	96	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	760008367

TeraSPEED/OptiSPEED Dielectric

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5022 06/06A W/MXBK	12	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008250
5022 06/12A W/MXBK	18	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008268
5022 12/12A W/MXBK	24	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008276
5022 12/24A W/MXBK	36	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008284
5022 12/36A W/MXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760010140
5022 24/24A W/MXBK	48	0.47 in (12.1 mm)	86 lbs/kft (128 kg/km)	760008292
5022 24/72A W/MXBK	96	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	760047852
5022 48/48A W/MXBK	96	0.55 in (14.1 mm)	110 lbs/kft (164 kg/km)	760008300



TeraSPEED/OptiSPEED Metallic

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5021 12/24A W/MXBK	36	0.51 in (13.0 mm)	120 lbs/kft (179 kg/km)	760032854

- Fiber Types & Reference
- Building
- Interlocking Armored
- Indoor/Outdoor Loose Tube
- Indoor/Outdoor Tight Buffered
- Outdoor Loose Tube
- Outdoor Central Tube**
- Figure 8
- InstaPATCH Plus
- G2 Fiber Connectivity
- Additional Fiber Connectivity
- Tools & Consumables

Outdoor Loose Tube Figure 8 Messenger Cable

The self-supporting Figure 8 stranded loose tube cable is constructed with industry standard 3 mm gel-filled, buffer tubes, stranded around a central strength member. The armored version has the cable armored with a corrugated, polymer coated steel tape.

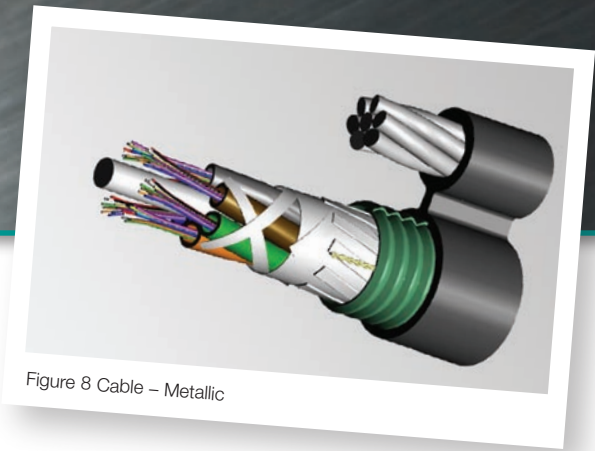
ARID-CORE® water blocking technology protects fibers from moisture and reduces termination effort.

Environmental and Mechanical Specifications

Operating Temperature: 40° to 158° F (-40° to 70° C) (Test Method: FOTP - 3)
Installation Temperature: -22° to 140° F (-30° to 60°C)
Storage Temperature: -40° to 167° F (-40° to 75° C)
Crush Resistance: 250 lbf/in (44N/mm) (Test Method: FOTP - 41)
Impact Resistance: Exceeds (Test Method: FOTP - 25)
Flexing: 25 Cycles (Test Method: FOTP - 104)
Twist Bend: Exceeds (Test Method: FOTP - 85)

Product Number	Fiber Count	Outside Diameter	Weight	Material ID
5026 048A WXBK	48	0.55 in (14.0 mm)	271 lbs/kft (404 kg/km)	760055434
5026 288A WXBK	288	0.91 in (23.3 mm)	424 lbs/kft (633 kg/km)	760083006

*Other fiber counts available. Contact Customer Service for details.



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

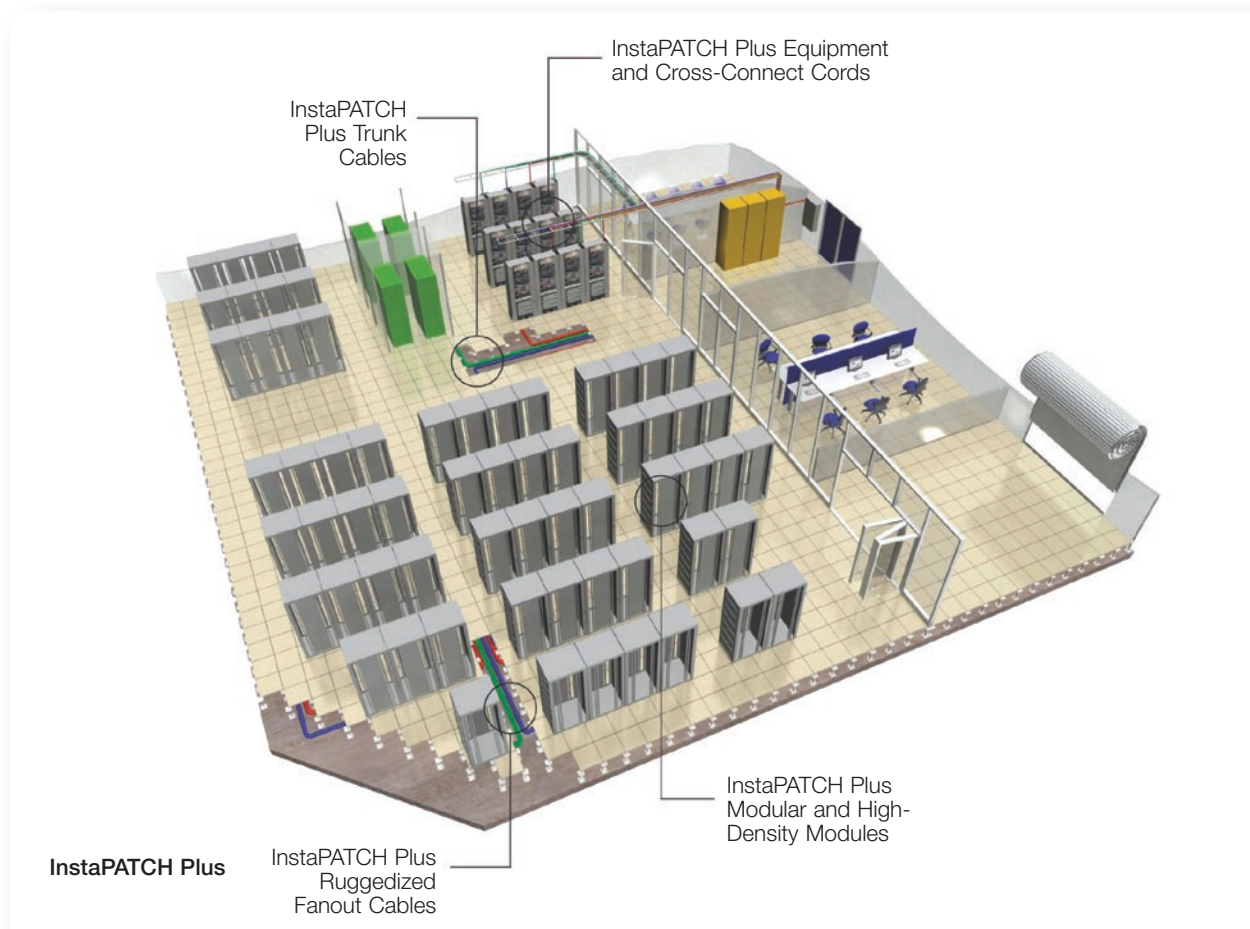
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

InstaPATCH® Plus Fiber System



The SYSTIMAX InstaPATCH Plus System features a high-density, factory terminated, factory tested, modular fiber connectivity solution that allows installers to simply and quickly connect system components together. This modular system approach enables 96 fibers to be ready for service in the time it takes to polish a single fiber connection with traditional systems.

Developed by CommScope Labs, the InstaPATCH Plus System is designed to support locations, such as data centers, that require high-density, rapid deployment and high performance. The InstaPATCH Plus System incorporates SYSTIMAX LazrSPEED multimode, OptiSPEED multimode and TeraSPEED single-mode fiber technologies to support today's most demanding applications, while allowing easy migration to the next generation technology.

The InstaPATCH Plus System includes pre-terminated hardware, pre-terminated backbone trunk cables, ruggedized MPO-single fiber fanout cables, array cords and standard fiber patch cords. The InstaPATCH Plus System utilizes one common module, one common rugged fanout, standard fiber patch cords, and retains the full benefits of easy installation and system administration, while maintaining a future upgrade path to parallel connectivity. Moreover, the InstaPATCH Plus System features an improved labeling system that is accurate and logical when positioned in four orientations, affording more flexibility in design, installation and application. Unlike other systems of its kind, the InstaPATCH Plus system requires no special polarity components.

Pre-terminated with MPO connectors and offered in customer-specified lengths, the InstaPATCH Plus trunk cables are offered in 12, 24, 48, 72, 96, and 144 fibers. Solutions supported are:

- LazrSPEED 550
- LazrSPEED 300
- LazrSPEED 150
- TeraSPEED
- OptiSPEED

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

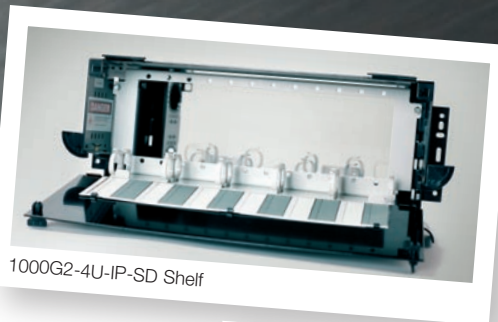
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

InstaPATCH® Plus Modular Shelves and DM2 Modules



1000G2-4U-IP-SD Shelf



600G2-1U-IP-IS Shelf



MP-1U Panel



DM2-24LC-LS Module

The InstaPATCH Modular Series includes unpopulated shelves and DM2 modules. The modular design allows fast moves and changes of the optical data network.

The options of the unpopulated shelf include a 1U panel as well as 1U, 2U and 4U shelves that fit into 19-inch racks and house pre-terminated DM2 modules. Twelve versions of pre-terminated modules are offered: LC, SC, ST and a double density LC, each available in LazrSPEED multimode (LS), OptiSPEED multimode (MM) or TeraSPEED single-mode (SM) options.

The InstaPATCH Plus DM2 module will fit in any combination in 1U panels, 1U shelves, 2U shelves and 4U shelves. In addition, MPO panels and blank panels, with the same footprint as the DM2 modules, are also available to support additional configurations.

Each DM2 module has a dual polarity labeling scheme to allow the use of a single module for each end of the InstaPATCH Plus channel.

Features and Benefits:

- 12-fiber MPO connector based modular design enables simple connections
- DM2 modules are constructed with LazrSPEED, OptiSPEED or TeraSPEED ZWP fibers to provide headroom for future system upgrades
- Factory-terminated and tested modules for instant field connections and guaranteed quality and performance
- Designed for administrative convenience—guaranteed transmit-to-receive connectivity
- No special or non-standard polarity components
- Supports easy reconfiguration for moves, adds and changes
- Easy upgrade path to parallel connectivity and associated applications, while preserving most of investment
- Automatic shutters for LC adapters

InstaPATCH MP-1U Panel and InstaPATCH G2 1U and 2U IP Shelves

The 1U panel and 1U shelves can house any combination of up to 3 InstaPATCH Plus DM2 modules to achieve up to 72 fiber terminations per unit, while the 2U shelf can house up to 6 DM2 modules and achieve up to 144 terminations per unit. In addition, 600G2-1U-IP-FX (fixed), 600G2-1U-IP-SD (sliding), 600G2-1U-IP-IS (internal sliding) and 600G2-2U-IP-SD (sliding) provide ample space for storing up to 2 meters of cable slack inside the shelf.

The MP-1U and G2 IP shelves are equipped with a front trough for patch cord management that provides ample room for labeling. The MP-1U panel comes with conversion brackets for mounting on a 19 inch, 23 inch or ETSI rack. The InstaPATCH MP-1U also includes a rear cable management bar, labels for network mapping, mounting hardware and installation instructions.

InstaPATCH G2 4U IP Shelves

The 4U shelf houses any combination up to 12 InstaPATCH Plus DM2 modules to achieve up to 288 fiber terminations per shelf. It can be mounted either on a 19 inch, 23 inch or ETSI rack. The 1000G2-4U-IP-FX (fixed) and 1000G2-4U-IP-SD (sliding) includes trunk cable storage clips, labels for network mapping, mounting hardware and installation instructions.

InstaPATCH Plus DM2-12LC-LS / MM-SM Module

This module features 6 pre-installed duplex LC adapters at the front routed to a pre-installed 12-fiber MPO adapter at the back. This high-density module features spring-loaded shutters for improved dust protection and occupational safety.

InstaPATCH Plus DM2-24LC-LS / MM-SM Module

This module features 12 pre-installed duplex LC adapters at the front routed to 2 pre-installed 12-fiber MPO adapters at the back. This high-density module features spring-loaded shutters for improved dust protection and occupational safety.

InstaPATCH Plus DM2-12SC-LS / MM-SM Module

This module features 6 pre-installed duplex SC adapters routed to a pre-installed 12-fiber MPO adapter at the back. Each duplex SC adapter includes two “easy-pull” protective dust caps.

InstaPATCH Plus DM2-12ST-LS / MM-SM Module

This module features 12 simplex ST adapters routed to a pre-installed 12-fiber MPO adapter at the back. Each ST adapter includes a protective dust cap.

InstaPATCH Plus DP-MPO Module Adapter Panel

The MPO adapter panel is available equipped with either 2, 6 or 8 MPO adapters. The panel allows for direct connections with MPO equipment for parallel applications or MPO fanout to traditional duplex transceivers.

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Physical Specifications:

	MP-1U Panel	DM2 Modules-LC, SC, ST
Height:	1.7 in (4.37 cm)	1.1 in (2.9 cm)
Width:	19.0 in (48.3 cm)	5.1 in (13.0 cm)
Depth:	9.7 in (24.6 cm)	5.0 in (12.8 cm)
Listing:	UL	UL

See G2 Shelf sections for specifications of shelves

Optical Performance:

Module Component	LazrSPEED Total Insertion Loss	Return Loss	TeraSPEED Total Insertion Loss	Return Loss
DM2-LC Modules	≤ .90 dB	≥ 20 dB	≤ 1.15 dB	≥ 55 dB
DM2-SC Modules	≤ 1.10 dB	≥ 20 dB	≤ 1.3 dB	≥ 55 dB
DM2-ST Modules	≤ 1.10 dB	≥ 20 dB	≤ 1.3 dB	≥ 55 dB

InstaPATCH Plus Modular Panels/Shelves

Detailed Description	Material ID
InstaPATCH MP-1U modular panel, supports 3 DM2 modules (not included)	760013458
600G2-1U-IP-IS 1U internal sliding shelf, supports 3 DM2 modules (not included)	760066084
600G2-1U-IP-SD 1U sliding shelf, supports 3 DM2 modules (not included)	760055467
600G2-1U-IP-FX 1U fixed shelf, supports 3 DM2 modules (not included)	760055475
600G2-2U-IP-SD 2U sliding shelf, supports 6 DM2 modules (not included)	760066332
1000G2-4U-IP-SD 4U sliding shelf, supports 12 DM2 modules (not included)	760026245
1000G2-4U-IP-FX 4U fixed shelf, supports 12 DM2 modules (not included)	760050872
Blank Panel for MP-1U and G2-IP Shelves, black, 6 pack	760016063

InstaPATCH Plus DM2 Modules and MPO Adapter Panels

Detailed Description	Material ID
InstaPATCH Plus DM2-24LC-LS module	760039685
InstaPATCH Plus DM2-24LC-LS module, 6 pack	760070003
InstaPATCH Plus DM2-24LC-MM module	760044818
InstaPATCH Plus DM2-24LC-SM module	760039701
InstaPATCH Plus DM2-24LC-SM module, 6 pack	760070011
InstaPATCH Plus DM2-12LC-LS module	760039727
InstaPATCH Plus DM2-12LC-LS module, 6 pack	760069989
InstaPATCH Plus DM2-12LC-MM module	760044826
InstaPATCH Plus DM2-12LC-SM module	760039743
InstaPATCH Plus DM2-12LC-SM module, 6 pack	760069997
InstaPATCH Plus DM2-12SC-LS module	760039768
InstaPATCH Plus DM2-12SC-MM module	760044834
InstaPATCH Plus DM2-12SC-SM module	760039784
InstaPATCH Plus DM2-12ST-LS module	760039800
InstaPATCH Plus DM2-12ST-MM module	760044842
InstaPATCH Plus DM2-12ST-SM module	760039826
InstaPATCH DP-8 MPO Adapter Panel, 8x MPO	760056077
InstaPATCH DP-6 MPO Adapter Panel, 6x MPO	760034280
InstaPATCH DP-2 MPO Adapter Panel, 2x MPO	760015412

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

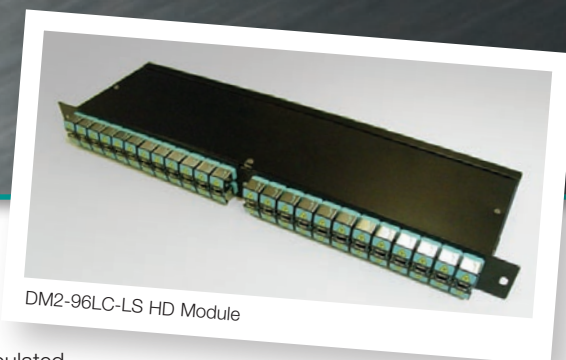
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

InstaPATCH® Plus High Density Modules



DM2-96LC-LS HD Module

For higher density applications, pre-terminated high density modules provide the easiest and fastest connectivity solution. Available in LazrSPEED, OptiSPEED and TeraSPEED Solutions, the InstaPATCH Plus high-density module series features pre-terminated, factory tested LC and SC modules. Each high-density module fits into a 1U unpopulated shelf (ordered separately), either fixed or sliding. The high-density modules feature 48 and 96 LC connections or 48 SC connections, up to twice that of standard shelves.

Features and Benefits:

- Provides the highest usable density on the market—96LC in 1U
- Shelves are constructed with LazrSPEED 300 fibers or TeraSPEED ZWP fibers to provide headroom for future system upgrades
- Factory-terminated and tested for instant field connections and guaranteed quality and performance
- Designed for administrative convenience—guaranteed transmit-to-receive connectivity
- Easy upgrade path to parallel connectivity and associated applications
- Improved patch cord management and system labeling capabilities
- Automatic shutters for LC adapters
- Mounting within the G2 series shelf provides slack storage for trunk cable and cable entry features for strain relief.

InstaPATCH Plus High-Density LC Modules

The high-density LC module features 48 pre-installed duplex LC adapters (96 fibers) at the front panel routed to 8 pre-installed 12-fiber MPO adapters at the rear of the module. The alternative high-density LC shelf includes 24 pre-installed duplex LC adapters at the front panel routed to 4 pre-installed 12-fiber MPO adapters at the rear of the module. Also featured are automatic shutters on the LC adapters for eye safety and to minimize dust contamination.

InstaPATCH Plus High-Density SC Module

The high-density SC module features 24 pre-installed duplex SC adapters (48 fibers) at the front panel, routed to 4 pre-installed 12-fiber MPO adapters at the rear of the module.

Detailed Description	Material ID
InstaPATCH Plus DM2-96LC-LS high-density module	760057646
InstaPATCH Plus DM2-96LC-MM high-density module	760057653
InstaPATCH Plus DM2-96LC-SM high-density module	760057661
InstaPATCH Plus DM2-48LC-LS high-density module	760057703
InstaPATCH Plus DM2-48LC-MM high-density module	760057711
InstaPATCH Plus DM2-48LC-SM high-density module	760057729
InstaPATCH Plus DM2-48SC-LS high-density module	760057679
InstaPATCH Plus DM2-48SC-MM high-density module	760057687
InstaPATCH Plus DM2-48SC-SM high-density module	760057695
600G2-1U-UP-FX unpopulated fixed shelf, supports one high-density module	760033928
600G2-1U-UP-SD unpopulated sliding shelf, supports one high-density module	760033936

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

InstaPATCH® Plus In-Line MPO Adapter Housing

The InstaPATCH Plus In-Line MPO Adapter Housing is designed to provide protection when mating an InstaPATCH Plus trunk cable to an InstaPATCH Plus extension cable or ruggedized fanout. The housing allows for MPO connectivity without using rackunits for adapter panels and protects 2 MPO connections. A Velcro strip for labels and mounting is included.



In-Line Adapter Housing MPO(f)-MPO(m)

Detailed Description	Material ID
In-Line Adapter Housing MPO(f)-MPO(m)	760074047

InstaPATCH® Plus Universal Mounting Bracket

The InstaPATCH Plus universal mounting bracket extends application flexibility of the InstaPATCH Plus modules and offers options for wall-mount, rack-mount, and cabinet-mount. The UMB bracket is individually packed with the mounting screws (included) and can mount either one or up to three modules or MPO panels into a 19" rack. Using optional #10 screws (not included), the bracket can be attached to a wall or ceiling in either horizontal or vertical orientation.

Detailed Description	Material ID
InstaPATCH UMBA-2 Mounting Bracket Kit	760072231

- Fiber Types & Reference
- Building
- Interlocking Armored
- Indoor/Outdoor Loose Tube
- Indoor/Outdoor Tight Buffered
- Outdoor Loose Tube
- Outdoor Central Tube
- Figure 8
- InstaPATCH Plus
- G2 Fiber Connectivity
- Additional Fiber Connectivity
- Tools & Consumables

InstaPATCH® Plus Pre-terminated Trunk Cables



The SYSTIMAX InstaPATCH Plus System features a high-density, factory-terminated, factory tested, modular fiber connectivity solution that allows installers to simply and quickly connect system components together.

Developed by CommScope Labs, the InstaPATCH Plus System is designed to support locations, such as data centers, that require high-density, rapid deployment and high performance. The InstaPATCH Plus System incorporates LazrSPEED multimode, OptiSPEED multimode and TeraSPEED single-mode fiber technologies to support today's most demanding applications, while allowing easy migration to next generation technology.

InstaPATCH Plus Trunk Cables

InstaPATCH Plus trunk cables are offered in LazrSPEED 550, LazrSPEED 300, LazrSPEED 150, OptiSPEED and TeraSPEED Solutions.

The InstaPATCH-IPD trunk cables are round, non-ribbon based, providing much more flexibility and ease of installation than traditional MPO terminated trunks. They are offered in 12, 24, 48, 72, 96 and 144 fibers. The cable is constructed with multiple subunits, each with 12 fibers, and is terminated on both ends with MPO 12-fiber connectors. There is no splicing within the cable, and each group of 12 fibers is protected by over-sheath. The lengths of the breakout over-sheaths are staggered for easy routing and handling. The maximum length of the breakout over-sheath is 33 inches from the transition point.

All IPD cables can be ordered with or without a pulling grip and with or without a cable gland.

Features and Benefits:

- Available in LazrSPEED 550, LazrSPEED 300, LazrSPEED 150, OptiSPEED and TeraSPEED Solutions
- 12 fiber MPO connector-based modular design enables simple connections
- Factory terminated and tested trunk cables for instant field connections and guaranteed quality and performance
- Designed for administrative convenience—guaranteed transmit-to-receive connectivity
- Supports easy reconfiguration for moves, adds and changes
- Easy upgrade path to parallel connectivity and associated applications, while preserving most of the initial investment

InstaPATCH Plus Trunk Extensions

The InstaPATCH Plus trunk extensions, offered in LazrSPEED 550, LazrSPEED 300, OptiSPEED and TeraSPEED Solutions, are used to connect hardware to trunk cables. The InstaPATCH Plus trunk extensions are constructed with a 12 fiber IPD cable and provide a female MPO connector on one end to attach to an InstaPATCH module or rugged fanout and a male MPO on the other end to attach to a trunk cable through a DM-2 MPO, DM-6 MPO or DM-8 MPO panel. The cords are custom built and can be ordered to specific lengths in feet or meters.

Cable Specifications:

Attenuation, max:					
	LazrSPEED 150	LazrSPEED 300	LazrSPEED 550	OptiSPEED	TeraSPEED
	3.0 dB/km @ 850 nm	3.0 dB/km @ 850 nm	3.0 dB/km @ 850 nm	3.0 dB/km @ 850 nm	0.5 dB/km @ 1310 nm
	1.0 dB/km @ 1300 nm	1.0 dB/km @ 1300 nm	1.0 dB/km @ 1300 nm	1.0 dB/km @ 1300 nm	0.5 dB/km @ 1385 nm
					0.5 dB/km @ 1550 nm
Minimum Bandwidth, MHz-km:					
	LazrSPEED 150	LazrSPEED 300	LazrSPEED 550	OptiSPEED	TeraSPEED
Overfilled:	700 Mhz-km @ 850 nm	1500 Mhz-km @ 850 nm	3500 Mhz-km @ 850 nm	200 Mhz-km @ 850 nm	N/A
	500 Mhz-km @ 1300 nm	500 Mhz-km @ 1300 nm	500 Mhz-km @ 1300 nm	500 Mhz-km @ 1300 nm	N/A
Laser:	950 Mhz-km @ 850 nm	2000 Mhz-km @ 850 nm	4700 Mhz-km @ 850 nm	N/A	N/A
	500 Mhz-km @ 1300 nm	500 Mhz-km @ 1300 nm	500 Mhz-km @ 1300 nm	N/A	N/A

Cable Dimension, mm, Cross-Section:

	Plenum	LSZH	Plenum and LSZH Armored
12 Fiber Single Unit	4.9	5.4	12.8
24 Fiber Multi-unit	3.9 x 6.9 (oval)	5.2 x 8.2	17.9
48 Fiber Multi-unit	9.1	9.2	17.9
72 Fiber Multi-unit	10.7	10.8	19.2
96 Fiber Multi-unit	12.3	12.5	20.4
144 Fiber Multi-unit	13.1	13.3	21.7

Cable Listing: OFNP (UL) OFN FT-6 (CSA) LSZH

Temperature Range: 32°F to 158°F (0°C to 70°C)

Tensile Rating: Distribution IPD - 670-2670 N (150-600 lbs)

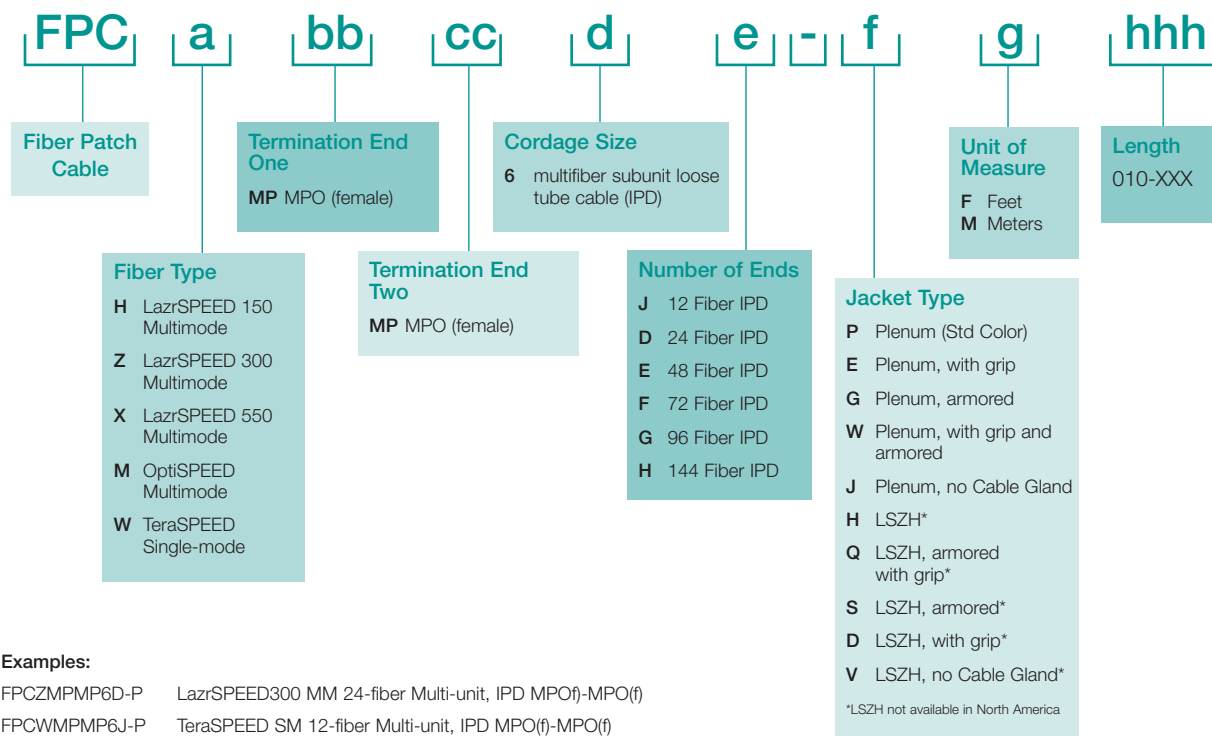
Minimum Bending Radius: 20X Cable OD During Installation
10X Cable OD After Installation

MPO Connector Type: Trunk - female/female
Trunk extension - female/male
Cross-connect - male/male

Total Termination Insertion Loss per Trunk Cable: ≤ 1.20 dB MM and ≤ 1.45 dB SM per trunk cable (two connections)

Return Loss: ≥ 20 dB 500 remate for MM
≥ 55 dB 500 remate for SM

InstaPATCH® Plus Pre-terminated Trunk Cables



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

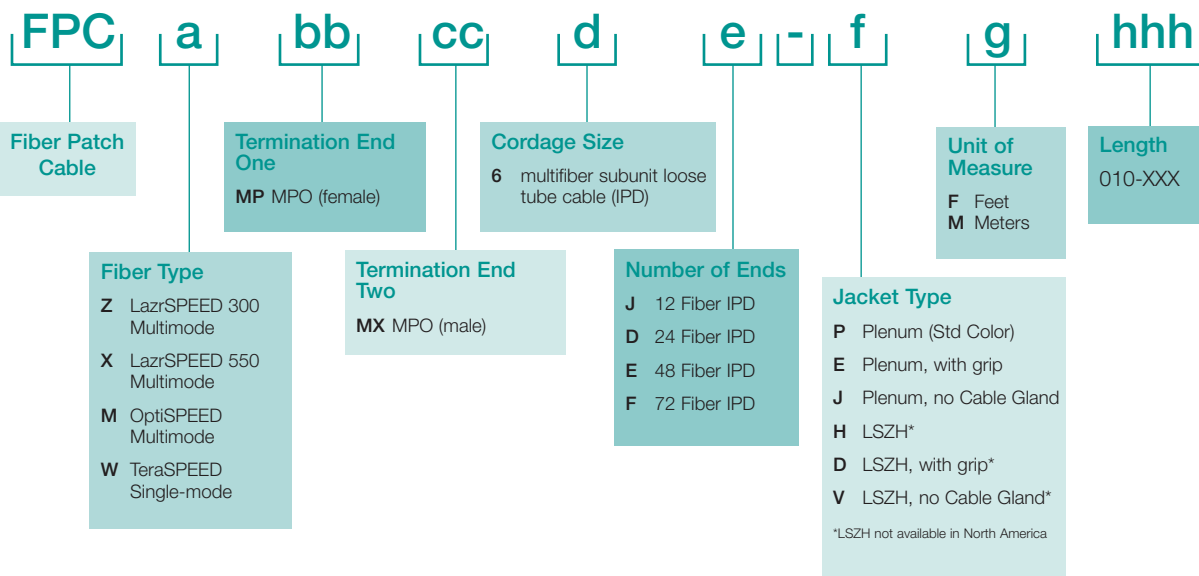
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

InstaPATCH® Plus Trunk Extensions



Reusable Pulling Grip Kit

Save costs with the reusable pulling grip kit from SYSTIMAX. This innovative reusable kit allows you to order non-armored trunk cables without pulling grips and order pulling grip kits separately. Since each grip can be reused up to 10 times, these kits reduce the total cost of the installation.

- Easy attachment and removal makes cable installation faster.
- Reusability reduces the total cost of the installation.
- Non-armored trunk cables ordered with pulling grip attached (Code "E" under "Jacket Type") will come with the reusable grip pre-attached.
- Not for use with armored trunk cables.
- Pulling grips include color coded labels for easy size recognition.



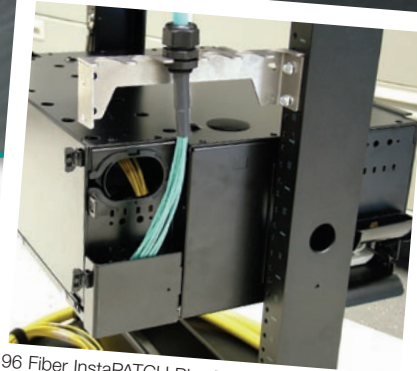
Detailed Description	Material ID
InstaPATCH Plus Pulling Grip Kit, 12 Fiber, black label	760060541
InstaPATCH Plus Pulling Grip Kit, 24 Fiber, gray label	760060558
InstaPATCH Plus Pulling Grip Kit, 48/72 Fiber, blue label	760060566
InstaPATCH Plus Pulling Grip Kit, 96/144 Fiber, green label	760060574

InstaPATCH® Plus Attachment Brackets

All InstaPATCH trunk cables include a cable strain relief fitting allowing the cable to be attached to brackets or to the shelf, providing improved strain relief. When attached by the cable strain relief fitting, the connectorized legs are protected from forces applied to the cable itself. This convenient mounting aids in properly routing the cable as it enters the shelf or rack. The fitting can attach to the ports at the rear of the G2 1U & 2U shelves, to brackets mounted on the rack, or to brackets mounted on the G2 4U shelf.

Features and Benefits

- Provides secure attachment of the cable to prevent excessive pulling on the fiber
- Strain relief prevents macrobending and microbending (i.e., loss)
- Adjustable breakout/transition point
- Secure cable management as part of the system, not an after-thought
- Brackets are unpainted stainless steel to allow grounding of the cable armor
- Integrated part of the pulling grip
- Traditional components adopted to a pre-terminated cabling solution
- Common functionality with armored cable assemblies
- Common hand tool installation, no risk to cordage



96 Fiber InstaPATCH Plus Trunk Cable shown with 1000G2-4U-FX Shelf and RMB-6-1/2 Rack Mounted Bracket



InstaPATCH Plus Trunk Cables attached to shelf mounted bracket

Product Number	Detailed Description	Material ID
SMB-4-3/4	Two shelf mounted brackets, four cables with 3/4" fittings (72, 96 and 144 fiber armored trunks)	760058644
SMB-8-1/2	Two shelf mounted brackets, eight cables with 3/8" and 1/2" fittings (12, 24, 48, 72, 96 and 144 fiber trunks / 12, 24 and 48 fiber armored trunks)	760058651
RMB-6-1/2	Rack mounted bracket, six cables with 1/2" fittings (48, 72, 96 and 144 fiber trunks / 12, 24 and 48 fiber armored trunks)	760058677
RMB-6-3/8	Rack mounted bracket, six cables with 3/8" fittings (12 and 24 fiber trunks)	760058685
RMB-5-3/4	Rack mounted bracket, five cables with 3/4" fittings (72, 96 and 144 fiber armored trunks)	760058701
BGND-12	Grounding kit for use with armored InstaPATCH Plus trunks. Grounding strap and attachments included.	760058693



InstaPATCH Plus Trunk Cables attached to shelf mounted bracket

Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity



Tools & Consumables



InstaPATCH® Plus Ruggedized Fanout Cables



LazrSPEED 300 12 Strand Fanout MPO(f)-LC
Plenum - FPCZMPLCYJ-P

The InstaPATCH Plus ruggedized fanout cables support direct connection to equipment from the patch panel. Terminated with MPO connectors on one end and clipped duplex connectors (LC, SC or ST) on the other end, the ruggedized fanout cable is designed for use with InstaPATCH Plus modular shelves, trunks and MPO panels.

The ruggedized fanouts are available in LazrSPEED 550, LazrSPEED 300, TeraSPEED and OptiSPEED Solutions, in 12, 24, 48 and 72 fiber counts. The fanout is built with InstaPATCH IPD (12 fiber subunit distribution cable) and furcated to individual fiber legs, terminated with individual connectors. Each fiber leg is protected with aramid yarn and 2.0 mm furcation tubing for rugged applications. Female (MP) fanouts are equipped with a cable gland, while the male (MX) fanouts come without a cable gland.

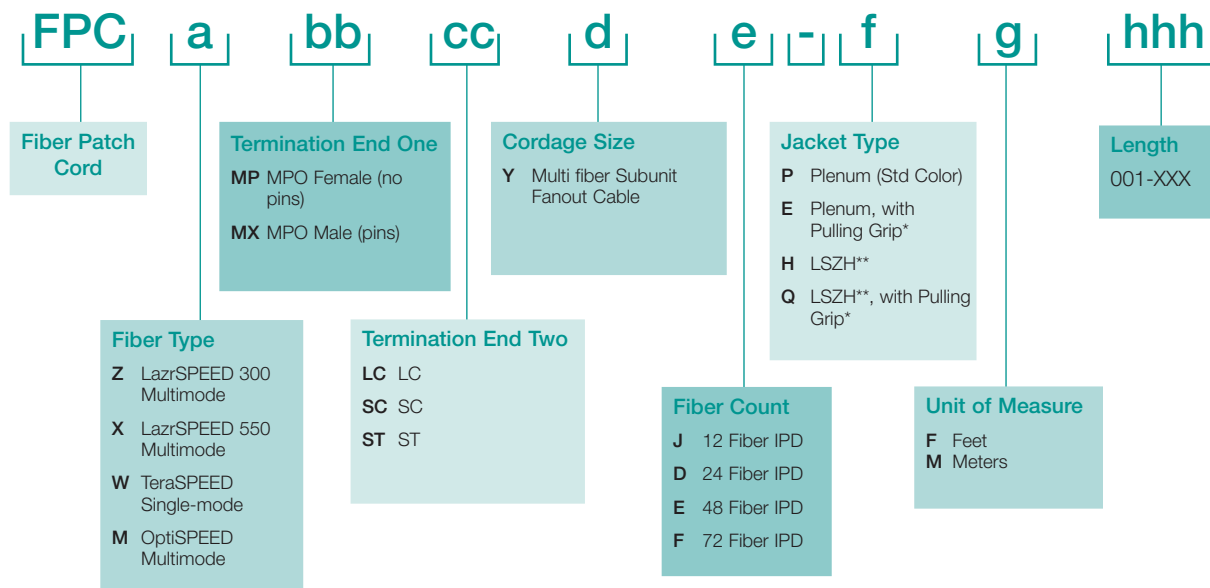
Designed for two distinct applications, the InstaPATCH Plus MPO Fanout Cables are available in two configurations:

- MP—without pins, for connections to equipment from a DM2 Module
- MX—with pins, for connections to equipment directly from a trunk cable

Features and Benefits:

- 12 fiber MPO connector based modular design enables simple connections
- Ruggedized fanouts are constructed with LazrSPEED 550, LazrSPEED 300, OptiSPEED or TeraSPEED ZWP fibers
- Provide ultra high-density patching to achieve maximum density of 288 individual fibers in 1U
- Factory-terminated and tested for instant field connections and guaranteed quality and performance
- Designed for administrative convenience—guaranteed transmit-to-receive connectivity
- No special or non-standard polarity components

InstaPATCH® Plus Ruggedized Fanout Configurator



* applies using the MPO Female (MP) connector only

** LSZH not available in North America

InstaPATCH® Plus Array Cords

The SYSTIMAX InstaPATCH Plus Array Cords are designed for use with InstaPATCH Plus trunk cables, modules and shelves. Array cords can be terminated with either MPO connectors on both ends or MPO connectors on one end and clipped duplex connectors (LC, SC, ST) on the other end. Different from ruggedized fanouts which include an outer sheath to protect the fiber on longer runs between racks, array cords utilize 3.0 mm 12 fiber IPD cordage that is protected with aramid yarn for durability and allowing maximum flexibility within a rack/cabinet.

Designed for two distinct applications, InstaPATCH Plus MPO Array Cords are available in two configurations:

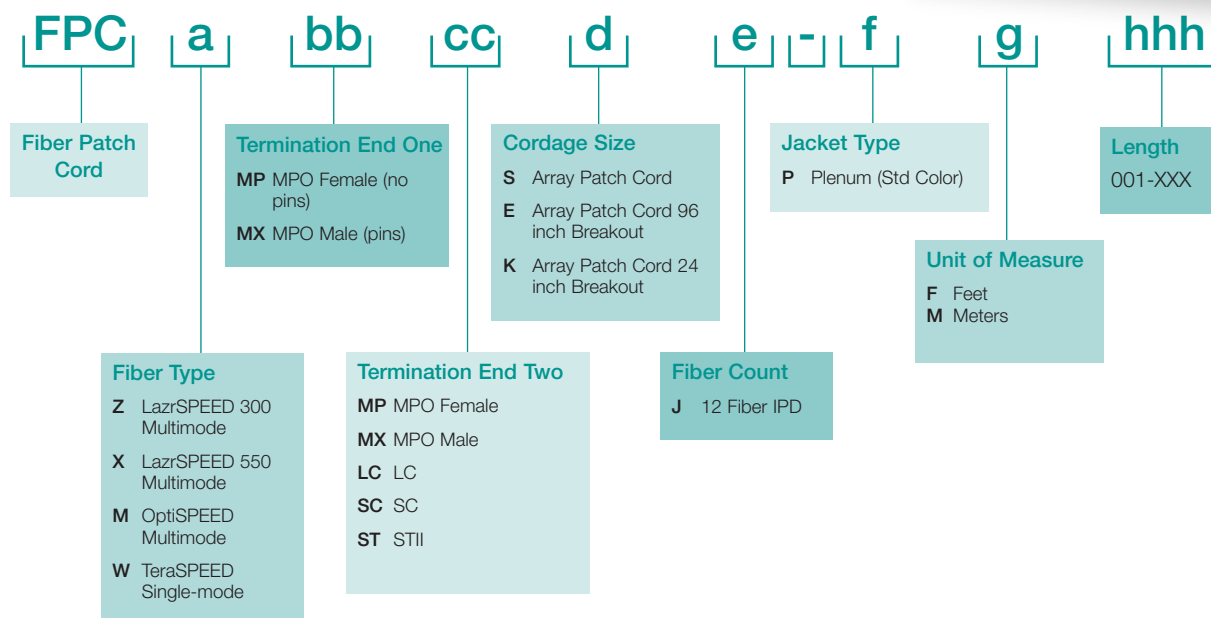
- MPO to MPO for trunk extension, cross-connect applications or patching into parallel transceivers or array equipment
- MPO to duplex connectors (LC, SC, ST) for directly connecting equipment to a trunk

Features and Benefits:

- 12 fiber MPO connector based modular design enables simple connections
- Array cords are constructed with LazrSPEED 550, LazrSPEED 300, TeraSPEED or OptiSPEED fibers
- Factory-terminated and tested for instant field connections and guaranteed quality and performance
- No special or non-standard polarity components
- Custom orderable lengths available in standard fanout lengths of 12, 24, 48 or 96 inches



InstaPATCH® Plus Array Cord Configurator



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Fiber Optic Patch Cords



The final fiber optic component of your connectivity solution, Fiber Optic Patch Cords support the connection of the backbone fiber cabling plant to the transceiver/optical electronics. Patch cords (a.k.a. jumpers) are also used to cross-connect segments of cabling infrastructure to another.

Made of rugged round construction in customer-specified lengths of 2-fiber cable, our patch cords are available in LazrSPEED, TeraSPEED, and OptiSPEED, in any combination of SC, LC and ST connectors.

Features and Benefits:

- Zipcord construction provides better mechanical performance with less risk of damage from crimping
- Rugged 1.6 mm or 3.0 mm cordage for durable and easily handled connections
- Outer jacket colored for easy identification

Physical Specifications:

1.6 mm and 3.0 mm Patch Cords

Outside Diameter (simplex):

1.6 mm: 1.6 mm

3.0 mm: 3.0 mm

Outside Diameter (zip cord):

1.6 mm: 1.6 mm x 3.3 mm

3.0 mm: 3.0 mm x 5.9 mm

Minimum Cable Retention Strength:

1.6 mm: 11.24 lbs (50 N)

3.0 mm: 11.24 lbs (50 N)

Minimum Bend Radius:

1.6 mm: Loaded: 2.0 in (5.1 cm)

Unloaded: 1.4 in (3.5 cm)

3.0 mm: Loaded: 2.3 in (5.8 cm)

Unloaded: 1.4 in (3.5 cm)

Maximum Cordage Tensile Load:

1.6 mm: Short Term: 70 lbs (311 N)

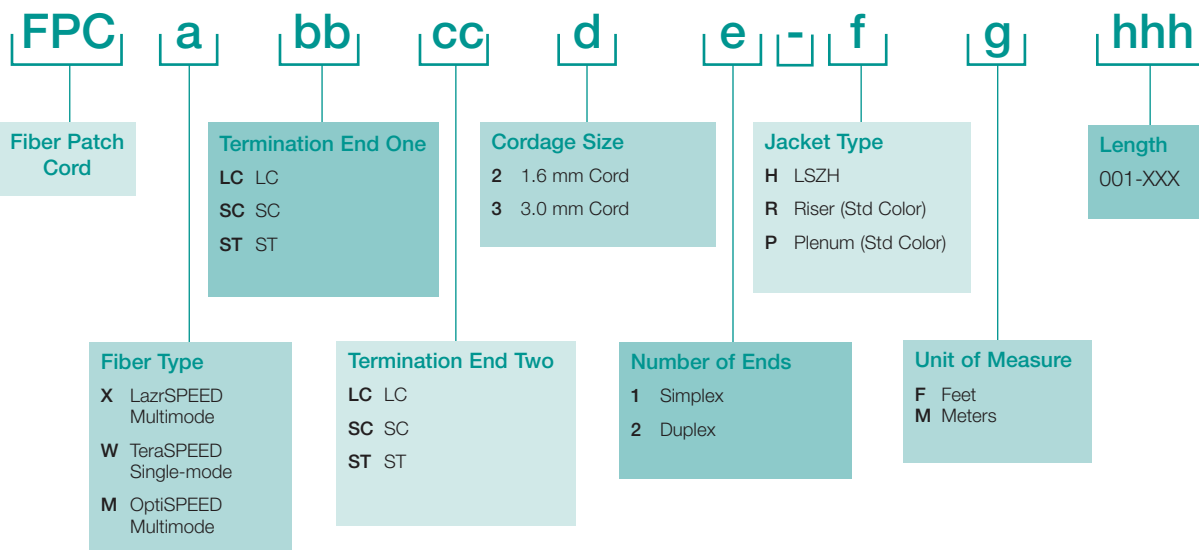
Long Term: 21 lbs (93 N)

3.0 mm: Short Term: 90 lbs (400 N)

Long Term: 27 lbs (120 N)



Patch Cord Configurator



InstaPATCH® Plus Low-Loss Solution

The SYSTIMAX® InstaPATCH® Plus Low-Loss System features a high-density, factory terminated, factory tested, modular fiber connectivity solution that allows installers to simply and quickly connect system components together. This modular system approach enables 96 fibers to be ready for service in the time it takes to make a single fiber connection with traditional systems.

Developed by CommScope Labs, InstaPATCH Plus Low-Loss is designed for significantly improved performance above and beyond standard pre-terminated solutions of its kind, and it meets the demands of high speed applications in the Data Center that require high density, rapid deployment and high performance. With extreme service reliability being a trademark of these installations, Data Centers must be addressed with high quality cabling solutions that allow for a mix of high density, high reliability and high performance, with flexible design guidelines, speed of installation, future-readiness and ease of use.

The InstaPATCH Plus Low-Loss System incorporates SYSTIMAX LazrSPEED® multimode and LC connector fiber technologies to support today's most demanding applications, while allowing easy migration to the next generation technology. To meet these requirements, the InstaPATCH Plus Low-Loss System includes pre-terminated modules, pre-terminated backbone trunk cables, pre-terminated trunk extension cables, ruggedized MPO-single fiber fanout cables and array cords. The system utilizes standard SYSTIMAX LazrSPEED fiber patch cords, reducing the complexity of the design.

The InstaPATCH Plus Low-Loss System utilizes one common module for polarity management, common fanouts, standard fiber patch cords and retains the full benefits of easy installation and system administration while maintaining a future upgrade path to parallel connectivity. No special polarity components are required. The InstaPATCH Plus Low-Loss System features an improved labeling system that is accurate and logical when positioned in four orientations, affording more flexibility in design, installation and application. The InstaPATCH Low-Loss Plus System is protected by the industry leading SYSTIMAX 20-year Extended Product Warranty and Application Assurance.

Features and Benefits:

- Supports LazrSPEED applications up to 550 meters
- All modules are based on LazrSPEED 300 providing headroom for future system upgrades
- Factory terminated and tested cable and apparatus for instant field connections with guaranteed quality and performance
- 12-fiber MPO connector based modular design enables simple connections
- Up to 96% savings in installation time for 96 LC connections
- Up to 50% savings in space due to the increased density
- Designed for administrative convenience—guaranteed transmit-to-receive connectivity
- No special polarity components—single module design, standard patch cords
- Easy upgrade path to parallel connectivity and associated applications
- Supports easy reconfiguration for moves, adds and changes
- Automatic shutter for LC adapters
- Developed by CommScope Labs and backed by the best-in-industry SYSTIMAX warranty
- Provides opportunities for lower total installed system cost (material plus labor)

Specifications:

Insertion Loss LazrSPEED Multimode Modules

LC 0.50 dB



Fiber Types & Reference



Building



Interlocking Armored



Indoor/Outdoor Loose Tube



Indoor/Outdoor Tight Buffered



Outdoor Loose Tube



Outdoor Central Tube



Figure 8



InstaPATCH Plus



G2 Fiber Connectivity



Additional Fiber Connectivity



Tools & Consumables



InstaPATCH® Plus

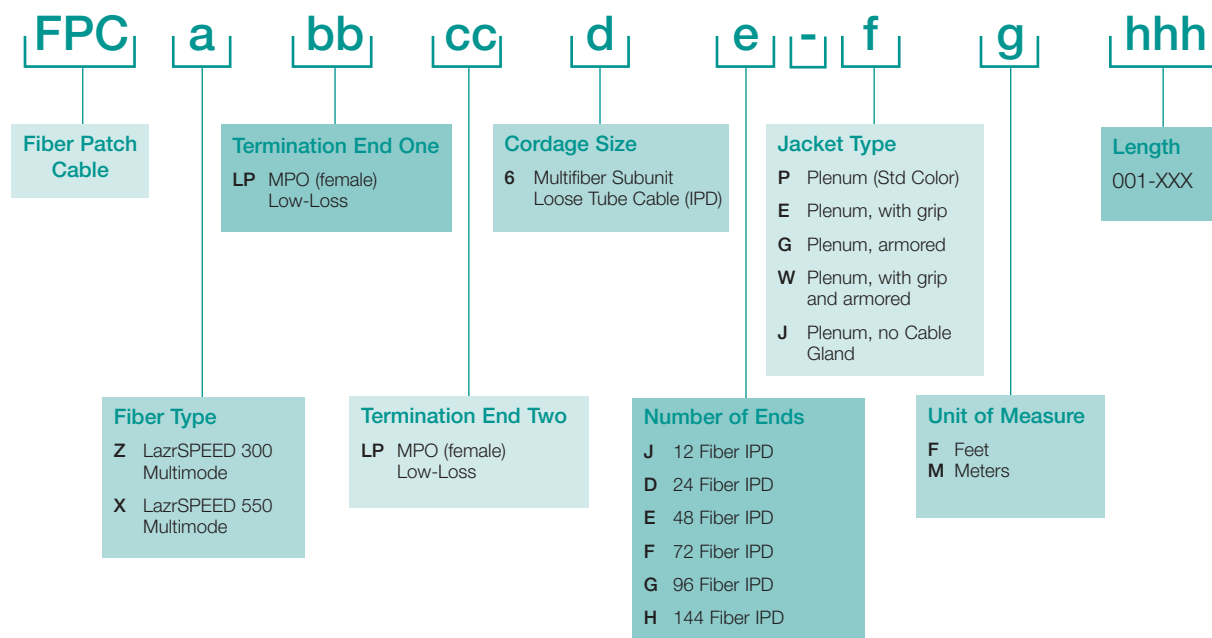
Low-Loss Solution continued

InstaPATCH Plus Low-Loss Modules/Panels

InstaPATCH MPO Modules utilize integrated LC dust covers. All connector keying faces outwards for easy access. Each DM2 module has a dual polarity labeling scheme to allow the use of a single module for each end of the channel.

Material ID	Description	Product Code
760089987	24, LC Low-Loss LazrSPEED Multimode Module	DM2-24LC-LS-LL
760090019	24, LC Low-Loss LazrSPEED Multimode Module, 6 pack	DM2-24LC-LS-LL-6PK
760089995	12, LC Low-Loss LazrSPEED Multimode Module	DM2-12LC-LS-LL
760090001	12, LC Low-Loss LazrSPEED Multimode Module, 6 pack	DM2-12LC-LS-LL-6PK
760056077	8 MPO Adapter Panel	DP-8MPO
760034280	6 MPO Adapter Panel	DP-6MPO
760015412	2 MPO Adapter Panel	DP-2MPO
760016063	Blank Panel for InstaPATCH Panels/Shelves	Blank Panel

InstaPATCH Plus Low-Loss Pre-Terminated Trunk Cables



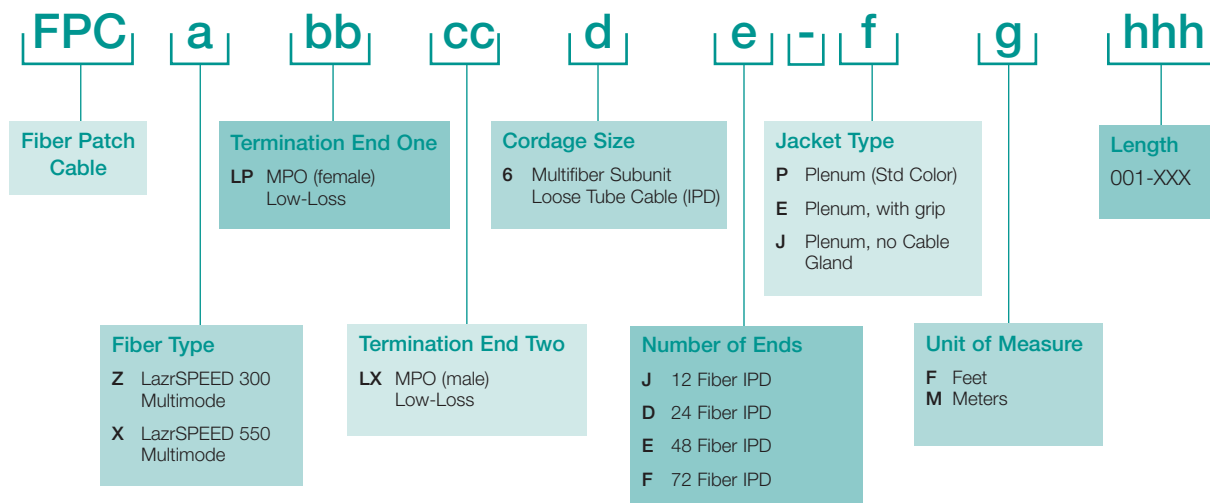
Example:

FPCZLPLP6D-P LazrSPEED 300 MM 24-fiber Multi-unit, IPD Low-Loss MPO(f)-MPO(f)

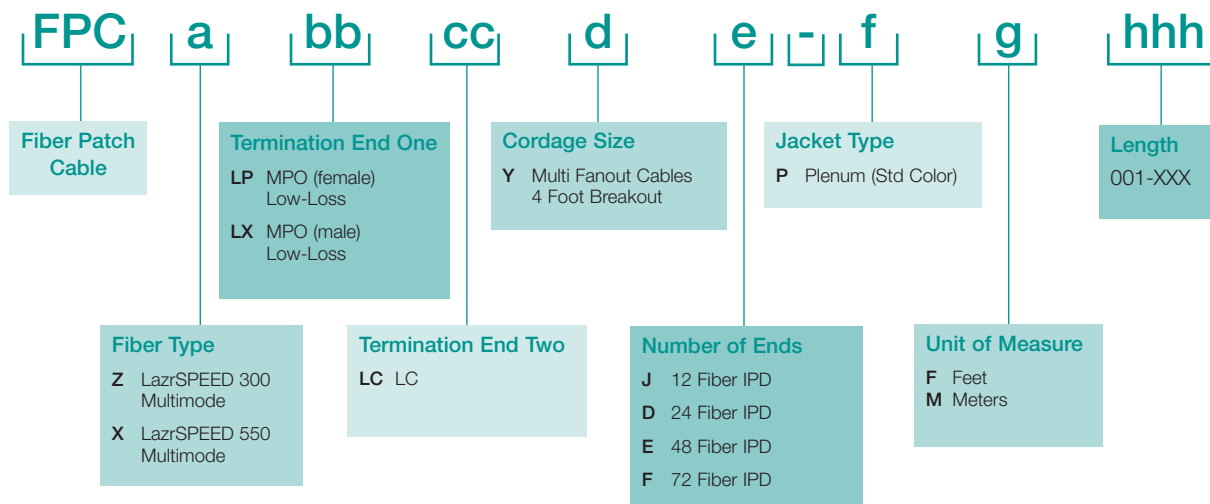
The InstaPATCH-IPD trunk cables feature a round cable construction which eliminates bend sensitivity allowing for easy routing and are offered in 12-, 24-, 48-, 72-, 96- and 144-fibers. The cables are constructed with multiple subunits, each with 12 fibers and is terminated on both ends with MPO connectors.

All IPD cables can be ordered with or without a pulling eye and with or without a cable gland.

InstaPATCH Plus Low-Loss Trunk Extensions



InstaPATCH Plus Low-Loss Ruggedized Fanout Cables



Example:

FPCZLXLCYE-P LazrSPEED 300 MM 48-fiber IPD MPO(m)-LC

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

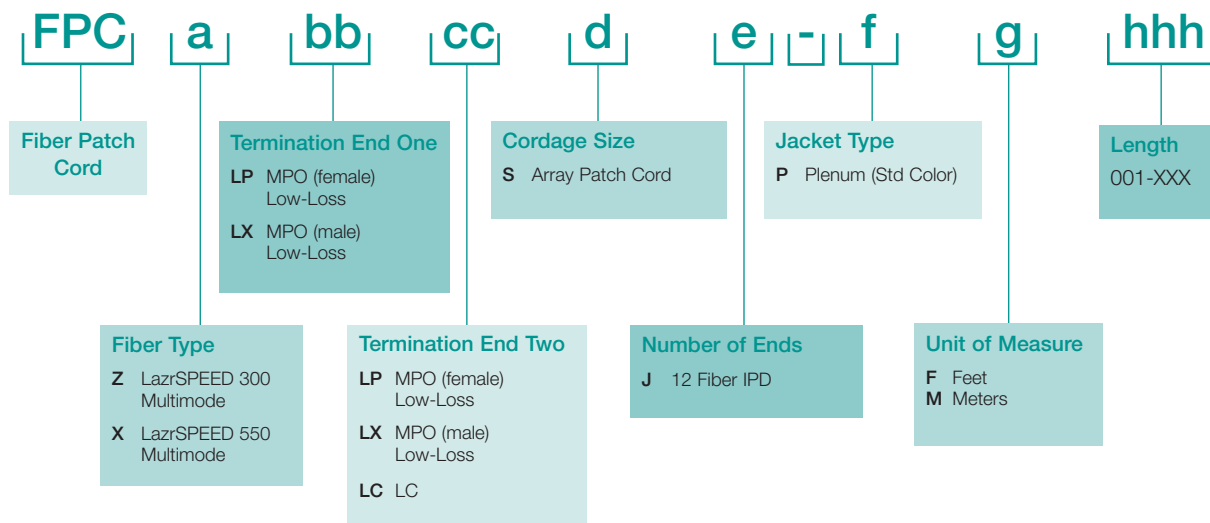
InstaPATCH Plus

G2 Fiber Connectivity

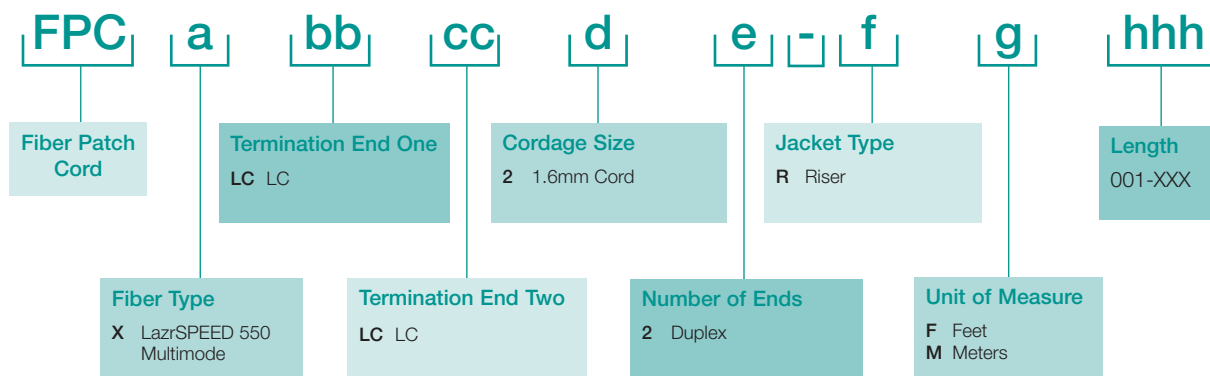
Additional Fiber Connectivity

Tools & Consumables

InstaPATCH Plus Low-Loss Array Cords



InstaPATCH Plus Low-Loss Fiber Patch Cords



For ordering information on Reusable Pulling Grip Kits and Universal Mounting Brackets, please see their respective sections within the current InstaPATCH Plus section.

G2 1U and 2U Shelves

The SYSTIMAX G2 1U and 2U shelves are part of a series of low-profile, high density fiber optic shelves that can be used for a combination of splicing and termination of fiber optic building cable or outside plant (OSP) cables. The G2 1U and 2U height fully enclosed shelves include integrated front cable management trough and features either a fixed tray or slide-out tray for easy access.

Completing the G2 1U and 2U shelf offer is the patented RoloSplice kit, which provides easy access and administration of two individual splice trays for either fusion or mechanical splices for the 1U shelf, and four splice trays for the 2U shelf. Each shelf accommodates up to two RoloSplice kits.

Features and Benefits:

- Hinged front doors for easy access
- Front cable management trough
- Top cover panel
- Cable gland fitting for cable diameter of 0.25 in to 0.50 in (6.35 mm to 12.70 mm)
- Blank labels for identifying fiber splices and terminations

Additional 1U and 2U shelf accessories include:

- Cable gland fitting kit for smaller diameter cable, cable diameter 0.08 in to 0.275 in (2.03 mm to 6.99 mm)
- Universal mounting bracket kit to adapt shelf for ETSI frames or 23 inch frames

Physical Specifications

Weight: 1U: 7.2 lbs (3.3 kg) – fixed
1U: 9.0 lbs (4.1 kg) – sliding
2U: 10.2 lbs (4.2 kg) – fixed
2U: 12.0 lbs (5.4 kg) – sliding

Height: 1U: 1.75 in (4.45 cm)
2U: 3.5 in (8.90 cm)

Width: (including mounting brackets) 19 in (48.26 cm)

Tray Depth: 10 in (25.4 cm)

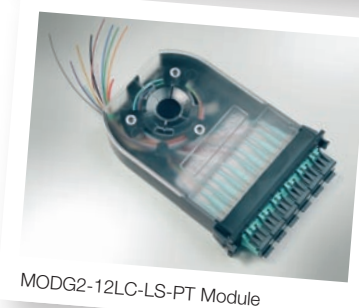
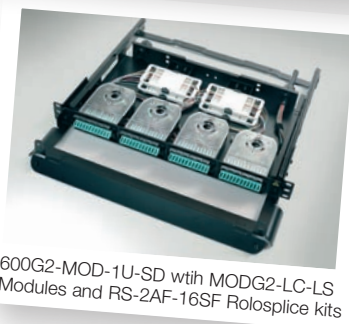
Shelf Depth: (including trough) 14 in (35.56 cm) – fixed
18 in (45.72 cm) – sliding

G2 1U and 2U shelves allow greater flexibility with three termination options:

- The G2 modular cassette shelf system features interchangeable G2 cassette modules, which are ordered separately. The 1U shelf accepts up to 4 and the 2U shelf accepts up to 8 G2 fiber cassettes. (For more information, see G2 Modular Cassette section.)
- The G2 panel system features snap in adapter plates or InstaPATCH Modules, which are ordered separately. The 1U shelf accepts 3 adapter panels or DM2 modules and the 2U accepts up to 6 adapter panels or DM2 modules. (For more information, see G2 Adapter Panel and InstaPATCH Module sections.)
- For the 1U faceplate shelf, a front faceplate of various configurations is available for order separately. (For more information, see G2 Front Faceplate section)

Modular Cassette Shelves

Product Number	Detailed Description	Material ID
600G2-1U-MOD-SD	G2 1U sliding modular cassette shelf, accepts 4 MODG2 cassettes	760028324
600G2-1U-MOD-FX	G2 1U fixed modular cassette shelf, accepts 4 MODG2 cassettes	760028332
600G2-2U-MOD-SD	G2 2U sliding modular cassette shelf, accepts 8 MODG2 cassettes	760032086
600G2-2U-MOD-FX	G2 2U fixed modular cassette shelf, accepts 8 MODG2 cassettes	760032094



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Adapter Panel Shelves

Product Number	Detailed Description	Material ID
600G2-1U-IP-IS	G2 1U internal sliding panel shelf, accepts 3 adapter panels	760066084
600G2-1U-IP-SD	G2 1U sliding panel shelf, accepts 3 adapter panels	760055467
600G2-1U-IP-FX	G2 1U fixed panel shelf, accepts 3 adapter panels	760055475
600G2-2U-IP-SD	G2 2U sliding panel shelf, accepts 6 adapter panels	760066332

*Adapter panel shelves do not include cable gland fittings

Front Faceplate Shelves

Product Number	Detailed Description	Material ID
600G2-1U-UP-SD	G2 1U sliding faceplate shelf, accepts 1 front faceplate	760033936
600G2-1U-UP-FX	G2 1U fixed faceplate shelf, accepts 1 front faceplate	760033928

Splice Kits

Product Number	Detailed Description	Material ID
RS-2AF-16SF	RoloSplice Kit E/W 2 Fusion Splice Trays, for 1U Shelf	760039867
RS-2AM-12SF	RoloSplice Kit E/W 2 Mechanical Splice Trays, for 1U Shelf	760039859
RS-4AF-16SF	RoloSplice Kit E/W 4 Fusion Splice Trays, for 2U Shelf	760031856
RS-4AM-12SF	RoloSplice Kit E/W 4 Mechanical Splice Trays, for 2U Shelf	760031849
RS-00	RoloSplice, accepts 4 splice trays (not included)	760027516
1AMF1-16LG	Fusion Splice Trays, 16 splices per tray, Pack of 10	700006257
1AM1-12LG	Mechanical Splice Trays, 12 splices per tray, Pack of 10	700006240
1AMF1-6LG	Mass Fusion Splice Tray, 6 splices per tray, Pack of 10	700006281

Accessories

Product Number	Detailed Description	Material ID
600-SRF	Small Diameter Cable Fitting, Cables of OD 0.07-.25"	760039875
600-23BRKT	Mounting Bracket for 23" Frame	760039883
RMB-6-1/2	Rack Mounted Bracket for Six 1/2" Cable Glands	760058677
RMB-6-3/8	Rack Mounted Bracket for Six 3/8" Cable Glands	760058685
RMB-5-3/4	Rack Mounted Bracket for Five 3/4" Cable Glands	760058701
600G2-Fiber Drum Kit	Kit, includes 2 Fiber Drums and Installation Hardware	760056549
600G2-1U-UP	Faceplate, G2 1U Shelf, Accepts 4 G2 Modular Cassettes	760060517
600G2 Cover	Metal Cover for 1U and 2U G2 Shelves	760055921
600G2-2U-6X-1P-Faceplate	InstaPATCH Faceplate	760066340



RS-4AF-16SF



600G2-2U-MOD-SD and accessories

G2 4U Shelves

The SYSTIMAX G2 4U shelf is part of a series of high capacity, high-density fiber optic shelves that can be used for a combination of splicing and termination of fiber optic building cable or outside plant (OSP) cables. If used for termination only, a modular cassette shelf can accommodate up to 144 fibers (LC). Up to 288 fibers (LC) can be accommodated utilizing panels instead. For SC and ST, a modular cassette shelf can accommodate 72 fibers while a panel shelf can terminate 144 fibers. The G2 4U shelf has a unique patented design that combines both splicing and termination in a sliding format, which in turn provides both rear and full front access (sliding shelf only).

This 4U combination shelf is 14 inches deep, featuring an additional 3 inches of depth for better incoming fiber management when used with 6-inch deep equipment mounting rails. It provides double density versus separate shelves for splicing and termination and improves slack fiber management. The white internal structure improves visibility for the installer and slides out completely, providing easy access to all terminations.

Completing the G2 4U shelf offer is the patented SpliceWallet, which provides easy access and administration of six individual splice trays. Each G2 4U shelf will accommodate two SpliceWallets.

Features and Benefits:

- Hinged front and rear doors
- Rear door equipped with knockouts for optional lock mechanism
- Universal shelf mounting brackets for 19 inch, 23 inch or ETSI frame mounting
- Cable entry protectors for incoming building fiber or OSP fiber
- Fiber jumper bend limiters
- Blank labels for identifying fiber splices and terminations
- Articulated splicing/termination panel that slides out and pivots for easy access (sliding shelf only)

Additional 4U shelf accessories include:

- Expanded cable protector kit
- Shelf mounted brackets for 1/2" and 3/4" cable gland fittings

Physical Specifications:

Weight: 12 lbs (5.4 kg)
Height: 7 in (17.8 cm)
Width: 17 in (43.2 cm)
Depth: 14 in (35.6 cm)
OSP Cable Capacity: 4

The G2 4U shelves allow greater flexibility, offering two termination options:

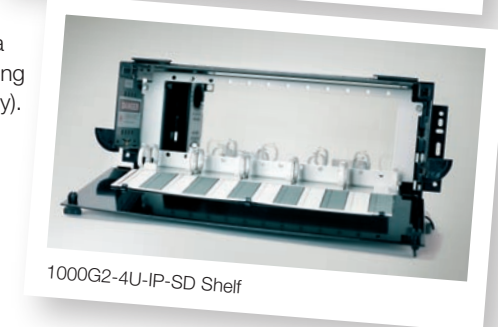
- The G2 modular cassette shelf system features interchangeable G2 cassette modules, which are ordered separately. The 4U shelf accepts up to 12 G2 modular cassettes. (For more information, see G2 Modular Cassette section.)
- The G2 panel system features snap in adapter plates or InstaPATCH Modules, which are ordered separately. The 4U shelf accepts up to 12 panels or DM2 Modules. (For more information, see G2 Adapter Panel and InstaPATCH Modules sections.)

Shelf System Capacity:

Application	Connection Type	G2 4U Modular Cassette System Capacity	G2 4U Panel System Capacity
Termination Only	LC	144	288
	SC	72	144
	ST	72	144
Termination + Fusion Splice	LC	144	192
	SC	72	144
	ST	72	144
Termination + Mechanical Splice	LC	144	192
	SC	72	144
	ST	72	144



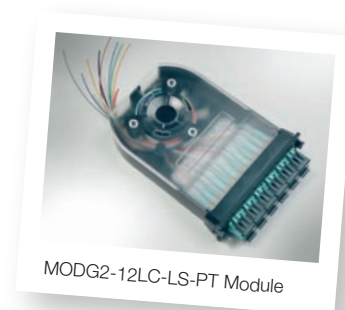
1000G2-4U-MOD-SD Shelf



1000G2-4U-IP-SD Shelf



1000-24LC-DPLX-LS Adapter Panel



MODG2-12LC-LS-PT Module

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Modular Cassette 4U Shelves

Product Number	Detailed Description	Material ID
1000G2-4U-MOD-SD	G2 4U sliding modular cassette shelf, accepts 12 MODG2 cassettes	760023200
1000G2-4U-MOD-FX	G2 4U fixed modular cassette shelf, accepts 12 MODG2 cassettes	760049353

Panel 4U Shelves

Product Number	Detailed Description	Material ID
1000G2-4U-IP-SD	G2 4U sliding panel shelf, accepts 12 adapter panels	760026245
1000G2-4U-IP-FX	G2 4U fixed panel shelf, accepts 12 adapter panels	760050872

Splice Kits – 4U Shelves

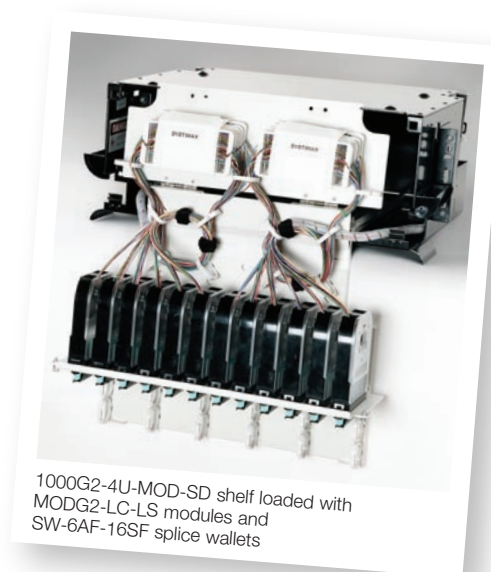
Product Number	Detailed Description	Material ID
SW-6AF-16SF	Fusion Splice Wallet Kit for up to 96 fibers, includes 6 splice tray - maximum 2 splice wallets per 1000G2 for up to 192 fibers	760031054
SW-6AM-12SF	Mechanical Splice Wallet Kit for up to 72 fibers - maximum 2 splice wallets per 1000G2 for up to 144 fibers	760031047
SW-00	SpliceWallet, accepts 6 splice trays	760027342
SW-03	SpliceWallet, accepts 3 splice trays	760057059
1AMF1-16LG	Fusion Splice Trays, holds 16 splices each, pack of 10	700006257
1AM1-12LG	Mechanical Splice Trays, holds 12 splices each, pack of 10	700006240
1AMF1-6LG	Mass Fusion Splice Trays, holds 6 splices each, pack of 10	700006281

Accessories – 4U Shelves

Product Number	Detailed Description	Material ID
1000G2-CPB	Cable Protector Kit for 4U G2 Shelf	760026674
1000G2-XCPB	Expanded Cable Protector Kit for 4U G2 Shelf	760058669
1000G2-SFDA	Smoked Front Door, 4U G2 Shelf	760060442
SMB-8-1/2	Shelf Mounted Bracket for Eight 1/2" Cable Glands	760058651
SMB-4-3/4	Shelf Mounted Bracket for Four 3/4" Cable Glands	760058664



SW-6AF-16SF Splice Wallet



1000G2-4U-MOD-SD shelf loaded with MODG2-LC-LS modules and SW-6AF-16SF splice wallets

G2 Modular Cassettes

G2 modular cassettes are used with the G2 1U, 2U and 4U modular shelf systems. The modular cassettes are fully interchangeable, and are available in LC, SC and ST for LazrSPEED, OptiSPEED and TeraSPEED Solutions. All G2 modular cassettes are pre-populated with fiber optic adapters and are offered with or without pre-assembled and factory-terminated pigtails.

Features and options of the un-terminated fiber modular cassettes include:

- LazrSPEED modular cassettes with twelve LC, six SC or six ST adapters
- OptiSPEED modular cassettes with twelve LC, six SC or six ST adapters
- TeraSPEED modular cassettes with twelve LC, six SC or six ST adapters

Features and options of the pre-terminated fiber modular cassettes include:

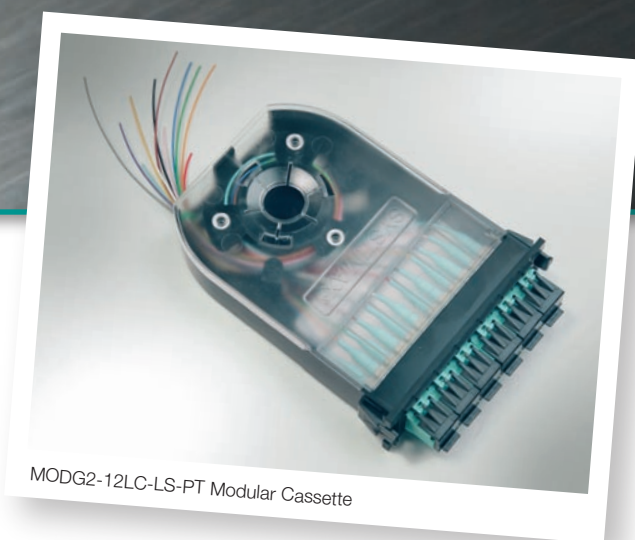
- LazrSPEED modular cassettes with twelve LC, six SC or six ST adapters, include 2-meters long pre-terminated LazrSPEED 550 pigtails
- OptiSPEED modular cassettes with twelve LC, six SC or six ST adapters, include 2-meters long pre-terminated pigtails
- TeraSPEED modular cassettes with twelve LC, six SC or six ST adapters, include 2-meters long pre-terminated pigtails
- One type of LC modular cassette is offered, containing 12 pigtails with colorized 0.9 mm tight-buffered cordages, following color sequence as defined by TIA standard
- Two types (type A and B) of SC or ST modular cassettes are offered and should be ordered in pairs; each modular cassette contains 6 pigtails with colorized 0.9 mm tight-buffered cordages
- Type A SC/ST modular cassettes include colorized pigtails in Blue, Orange, Green, Brown, Slate and White; Type B SC/ST modular cassettes include colorized pigtails in Red, Black, Yellow, Violet, Rose and Aqua

G2 optional modular panel include:

- Blank panel with the same footprint as the fiber G2 modular cassettes, and can be used in all SYSTIMAX G2 modular shelves
- Multimedia outlet bezel panel with the same footprint as the fiber G2 modular cassettes, which accepts up to four M-Series jacks for multimedia applications
- G2 Modular Bezels feature only the front adapter plate and are designed for direct termination applications with no splicing

Modular Cassettes with Pigtails

Product Number	Detailed Description	Material ID
MODG2-12LC-LS-PT	G2 Modular Cassette with 12LC LazrSPEED 550 Pigtails	760027748
MODG2-12LC-MM-PT	G2 Modular Cassette with 12LC OptiSPEED MM Pigtails	760031021
MODG2-12LC-SM-PT	G2 Modular Cassette with 12LC TeraSPEED Pigtails	760031039
MODG2-12LCA-SM-PT	G2 Modular Cassette with 12LCA TeraSPEED Pigtails	760065888
MODG2-6SC-LS-PT-A	G2 Modular Cassette with 6SC LazrSPEED 550 Pigtails, Type A	760032227
MODG2-6SC-LS-PT-B	G2 Modular Cassette with 6SC LazrSPEED 550 Pigtails, Type B	760034082
MODG2-6SC-MM-PT-A	G2 Modular Cassette with 6SC OptiSPEED MM Pigtails, Type A	760032243
MODG2-6SC-MM-PT-B	G2 Modular Cassette with 6SC OptiSPEED MM Pigtails, Type B	760034090
MODG2-6SC-SM-PT-A	G2 Modular Cassette with 6SC TeraSPEED Pigtails, Type A	760032268
MODG2-6SC-SM-PT-B	G2 Modular Cassette with 6SC TeraSPEED Pigtails, Type B	760034108
MODG2-6ST-LS-PT-A	G2 Modular Cassette with 6ST LazrSPEED 550 Pigtails, Type A	760032235
MODG2-6ST-LS-PT-B	G2 Modular Cassette with 6ST LazrSPEED 550 Pigtails, Type B	760034058
MODG2-6ST-MM-PT-A	G2 Modular Cassette with 6ST OptiSPEED MM Pigtails, Type A	760032250
MODG2-6ST-MM-PT-B	G2 Modular Cassette with 6ST OptiSPEED MM Pigtails, Type B	760034066
MODG2-6ST-SM-PT-A	G2 Modular Cassette with 6ST TeraSPEED Pigtails, Type A	760032276
MODG2-6ST-SM-PT-B	G2 Modular Cassette with 6ST TeraSPEED Pigtails, Type B	760034074



MODG2-12LC-LS-PT Modular Cassette

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Modular Cassettes and Bezels without Pigtails

Product Number	Detailed Description	Material ID
MODG2-12LC-LS	G2 Modular Cassette, E/W 12 LazrSPEED LC Adapters	760032136
MODG2-12LC-MM	G2 Modular Cassette, E/W 12 OptiSPEED MM LC Adapters	760032169
MODG2-12LC-SM	G2 Modular Cassette, E/W 12 TeraSPEED LC Adapters	760032193
MODG2-6SC-LS	G2 Modular Cassette, E/W 6 LazrSPEED SC Adapters	760032144
MODG2-6SC-MM	G2 Modular Cassette, E/W 6 OptiSPEED MM SC Adapters	760032177
MODG2-6SC-SM	G2 Modular Cassette, E/W 6 TeraSPEED SC Adapters	760032201
MODG2-6SC-SM-APC	G2 Modular Cassette E/W 6 TeraSPEED SM APC SC Adapters	760072322
MODG2-6ST-LS	G2 Modular Cassette, E/W 6 LazrSPEED ST Adapters	760032151
MODG2-6ST-MM	G2 Modular Cassette, E/W 6 OptiSPEED MM ST Adapters	760032185
MODG2-6ST-SM	G2 Module, E/W 6 TeraSPEED ST Adapters	760032219
MODG2-12LC-LS-BZ	G2 Modular Bezel, E/W 12 LazrSPEED LC Adapters	760037812
MODG2-12LC-SM-BZ	G2 Modular Bezel, E/W 12 TeraSPEED LC Adapters	760037838
MODG2-6SC-LS-BZ	G2 Modular Bezel, E/W 6 LazrSPEED SC Adapters	760037846
MODG2-6SC-SM-BZ	G2 Modular Bezel, E/W 6 TeraSPEED SC Adapters	760027755
MODG2-6ST-LS-BZ	G2 Modular Bezel, E/W 6 LazrSPEED ST Adapters	760037861
MODG2-6ST-BZ	G2 Modular Bezel, E/W 6 TeraSPEED ST Adapters	760037887
MODG2-Blank	G2 Blank Panel for G2 Modular Shelf, 4 pack	760032102
MODG2-MOB	G2 Multimedia Outlet Bezel for Modular Shelf, Accept 4x Outlets with M-Series Openings, Outlet not Included	760032110



Clockwise from top left: MODG2-6SC-LS, MODG2-12LC-MM, MODG2-12LC-LS, MODG2-12LC-SM



MODG2-MOB (adapters not included)

G2 Adapter Panels

Utilized in G2 1U, 2U and 4U panel shelves, the G2 adapter panels are offered in a variety of fiber counts. The adapter panels are offered either populated with adapters already installed or unpopulated, allowing individual snap in adapters. Adapters in the LC populated panels feature spring loaded shutters for improved dust prevention and occupational safety, while adapters in SC and ST populated panels include protective dust caps.

1000-24LC-DPLX-MM Adapter Panel

Populated G2 Adapter Panels

Product Number	Detailed Description	Material ID
1000-24LC-DPLX-LS	Adapter Panel, E/W 12x LazrSPEED Duplex LC Adapters (Aqua)	760028209
1000-24LC-DPLX-MM	Adapter Panel, E/W 12x MM Duplex LC Adapters (Beige)	760027441
1000-24LC-DPLX-SM	Adapter Panel, E/W 12x SM Duplex LC Adapters (Blue)	760027433
1000-12LC-DPLX-LS	Adapter Panel, E/W 6x LazrSPEED Duplex LC Adapters (Aqua)	760067173
1000-12LC-DPLX-MM	Adapter Panel, E/W 6x MM Duplex LC Adapters (Beige)	760067157
1000-12LC-DPLX-SM	Adapter Panel, E/W 6x SM Duplex LC Adapters (Blue)	760067165
1000-12SC-DPLX-LS	Adapter Panel, E/W 6x LS Duplex SC Adapters (Aqua)	760066076
1000-12SC-DPLX-MM	Adapter Panel, E/W 6x MM Duplex SC Adapters (Beige)	760021790
1000-12SC-DPLX-SM	Adapter Panel, E/W 6x SM Duplex SC Adapters (Blue)	760027714
1000-12ST-SPLX-MM	Adapter Panel, E/W 12x MM Simplex ST Adapters	760021832
1000-12ST-SPLX-SM	Adapter Panel, E/W 12x SM Simplex ST Adapters	760027722

Unpopulated G2 Adapter Panels

Product Number	Detailed Description	Material ID
1000-12LC-DPLX-00	Adapter Panel, Accepts 6x Duplex LC Adapters	700011414
1000-8LC-SPLX-00	Adapter Panel, Accepts 8x Simplex LC Adapters	760026369
1000-12SC-DPLX-00	Adapter Panel, Accepts 6x Duplex SC Adapters	760024372
1000-6SC-DPLX-00	Adapter Panel, Accepts 3x Duplex SC Adapters	700010952
1000-6SC-SPLX-00	Adapter Panel, Accepts 6x Simplex SC Adapters	700011398
1000-8SC-SPLX-00	Adapter Panel, Accepts 8x Simplex SC Adapters	700168966
1000-12ST-SPLX-00	Adapter Panel, Accepts 12x Simplex ST Adapters	760024380
1000-6ST-SPLX-00	Adapter Panel, Accepts 6x Simplex ST Adapters	700011406
1000-6ST-SPLX-00	Adapter Panel, Accepts 6x Simplex ST Adapters, 12 pack	700011109
1000-Blank-WH	Blank Panel, White, 6 pack	700162936



1000-12SC-DPLX-00 Adapter Panel



1000-12ST-SPLX-MM Adapter Panel



1000-12SC-DPLX-LS Adapter Panel

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

G2 Front Faceplates



Top: 600G2-48LC-DPLX-00, Bottom: 600G2-48SC-DPLX-00

Used in conjunction with 1U shelves (see G2 1U and 2U Shelf section, 600G2-1U-UP-SD [or FX]), front faceplates accept standard simplex or duplex fiber optic adapters, LC, SC and ST. High-density LC panels are also available which include pre-populated duplex LC adapters with spring-loaded shutters.

Product Number	Detailed Description	Material ID
600G2-96LC-DPLX-LS	600G2 Panel, w/96 Duplex LC Adapters, LazrSPEED	760055988
600G2-96LC-DPLX-MM	600G2 Panel, w/96 Duplex LC Adapters, OptiSPEED	760056044
600G2-96LC-DPLX-SM	600G2 Panel, w/96 Duplex LC Adapters, TeraSPEED	760056051
600G2-96LC-DPLX-SMAPC	600G2 Panel, w/96 Duplex LC APC Adapters, TeraSPEED	760069336
600G2-48LC-DPLX-00	600G2 Panel, Accepts 24 Duplex LC Adapters	760033845
600G2-24LC-SPLX-00	600G2 Panel, Accepts 24 Simplex LC Adapters	760033852
600G2-48SC-DPLX-00	600G2 Panel, Accepts 24 Duplex SC Adapters	760033860
600G2-24SC-DPLX-00	600G2 Panel, Accepts 12 Duplex SC Adapters	760033878
600G2-24SC-SPLX-00	600G2 Panel, Accepts 24 Simplex SC Adapters	760033886
600G2-12SC-SPLX-00	600G2 Panel, Accepts 12 Simplex SC Adapters	760033894
600G2-24ST-SPLX-00	600G2 Panel, Accepts 24 Simplex ST Adapters	760033902
600G2-12ST-SPLX-00	600G2 Panel, Accepts 12 Simplex ST Adapters	760033910

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Surface Mount Enclosure for Fiber Optic Applications

SYSTIMAX Solutions Surface Mount Enclosure is used for a combination of splicing and termination of fiber optic building cables, outside plant (OSP) cables or InstaPATCH Plus installations. The SME boxes are wall-mounted enclosures that are designed to accommodate terminations of up to 96 LC fibers or 48 SC or ST fibers. The enclosures can also be used as splice units to store 96 Single Fusion Splices, 72 Mechanical Splices with the addition of the appropriate splice holders.



Features and Benefits

- Two models are offered, one for four G2 adapter panels or InstaPATCH Plus modules and one for four G2 modular cassettes
- Security covers for BTW & Patch side
- Mount on wall at various orientations
- User access and behind the wall access are independently secured with separate pad locks (not included)
- Cable mounting with strain relief fitting
- Fiber cable protection on patch side
- RoloSplice kits available
- Cable Clamp compatible (not included)

Physical Specifications:

Depth: 3.7 in (9.4 cm)
Height: 11 in (27.9 cm)
Width: 13 in (33.0 cm)
Weight: 13 lbs (5.9 kg)
Cable Capacity: 8
Cable Access Port OD:
 Large cable fitting entry 1.050 in (2.667 cm)
 Small cable fitting entry 0.550 in (1.397 cm)

Panel System Capacity:

Connection Type	InstaPATCH Plus Module 1000 Series Panel System Capacity	G2 Cartridge System Capacity
LC	96	48
SC	48	24
ST	48	24

Product Number	Detailed Description	Material ID
SME-4-IP	Surface mount enclosure configured for four 1000 Series G2 adapter panels or InstaPATCH Plus modules	760060418
SME-4-G2	Surface mount enclosure configured for four G2 modular cassettes	760060426
RS-2AM-12SF	RoloSplice Kit E/W 2 Mechanical Splice Trays, for 1U Shelf	760039859
RS-2AF-16SF	RoloSplice Kit E/W 2 Fusion Splice Trays, for 1U Shelf	760039867
RS-4AM-12SF	RoloSplice Kit E/W 4 Mechanical Splice Trays, for 1U Shelf	760031849
RS-4AF-16SF	RoloSplice Kit E/W 4 Fusion Splice Trays, for 1U Shelf	760031856

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

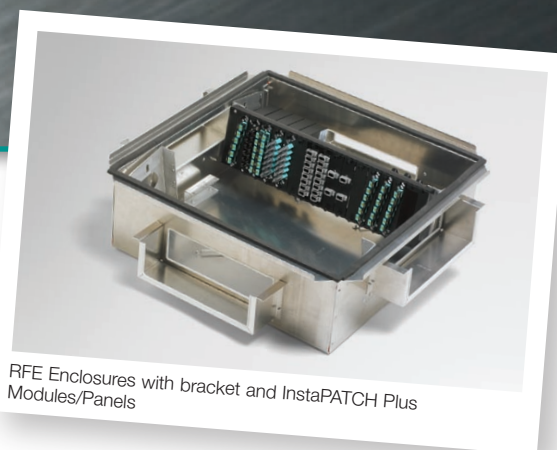
InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Raised Floor Enclosures (RFE)



RFE Enclosures with bracket and InstaPATCH Plus Modules/Panels

SYSTIMAX® Solutions Raised Floor Enclosures provide for termination and distribution of fiber and low voltage cables beneath a raised floor, such as in a data center or laboratory. These enclosures are designed for installation within the stringer grid of an existing raised floor, which uses common 24" tiles, in accordance with local codes and regulations.

SYSTIMAX Solutions Raised Floor Enclosures feature two pairs of brackets, which provide for 3 rack units (3U or 5.25 in) of space per pair. The brackets may be easily pivoted to facilitate equipment installation and cable dressing/routing and locked into position when completed.

Features and Benefits:

- Installation is invisible—Raised floor enclosure fits under a 2'x2' standard raised floor tile
- Each enclosure features dual pairs of pivoting, threaded equipment mounting brackets, providing for 3 RMU per pair (6 RMU total) of rack-mount space for fiber or copper apparatus
- Enclosures may be safely installed into an air-handling space. Cables entering the enclosure may be sealed with fire-stopping foam strips, which are included.
- RFE-WF-07B enclosure features cable tie points on the floor of the enclosure to provide for easy cable management
- Intumescent foam sealed for fire blocking
- Plenum rated
- Enables zone distribution
- Serves as an Equipment Distribution Point
- Accommodates SYSTIMAX InstaPATCH Plus MP-1U, GigaSPEED® X10D PATCHMAX, 1100 Series, M2000 and M3000 Panels
- The 15 panel bracket (MID 760060491) will accommodate 15 G2 adapter panels or InstaPATCHPlus modules

Product Number	Description	Material ID
RFE-WF-07A	24"W x 24"L x 7"D Wide Flange Raised Floor Enclosure	760060459
RFE-WF-07B	24"W x 24"L x 7"D Wide Flange Raised Floor Enclosure w/mount for management bracket	760060483
RFE-SF-07A	21.88"W x 21.88"L x 7"D Short Flange Raised Floor Enclosure	760060475
RFE-WF-12A	24"W x 24"L x 12"D Wide Flange Raised Floor Enclosure	760060467
RFE-PB-KIP	Floor Box Retrofit Bracket Kit	760041400
RFE-VB-Kit	Bracket for 15 modules, vertical mount	760060491

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Fiber Optic LIUs: 100A3, 200A, 200B, 100LS and 200LS

The Fiber Optic LIUs are modular enclosures that provide cross-connect and/or inter-connect, splicing and terminating capabilities for outside plant, building and riser cables.

The 100A3 LIU terminates a maximum of 24 fibers using LC connectors and 12 fibers using STII or SC connectors. With an optional splicing kit, it can accommodate up to 12 mechanical or 16 fusion splices. The 100A3 is made of an engineered white polycarbonate material and can accommodate two connector panels or one splice unit. The 100A3 LIU is both wall and frame mountable (with an optional frame mounting bracket) and feature five retainer rings arranged in a circular configuration to hold slack while not violating minimum bend radius requirements.

The 200A LIU has similar features as the 100A3 except that it is made of white aluminum and has two additional windows for connector panels. The 200A LIU terminates 48 fibers using LC connectors and 12 fibers using STII or SC connectors. With an optional splicing kit, it can accommodate up to 24 mechanical splices or 32 fusion splices.

The 200B LIU is used to terminate up to 48 fibers or splice 24 fibers. It is a National Electrical Manufacturers Association (NEMA) 4-rated cabinet. The 200B is a steel enclosure designed for industrial applications. The right side is designed to allow re-arrangement of jumpers or inter-connection to building cable. It comes with a removable outer door and an inner door for securing the network section. The 200B is both wall and frame mountable.

The 400A2 LIU directly terminates up to 96 fibers or accommodates 24 splices plus 48 terminations. The 400A may be ordered with or without key locks.

The wall mountable 100LS LIU is a black enclosure and can accommodate up to 24 fibers using LC connectors and up to 12 fibers using STII or SC connectors. With an optional splicing kit, it can accommodate up to 12 mechanical or 16 fusion splices. The 100LS holds two 10P panels.

The wall mountable 200LS LIU is a black enclosure and can accommodate up to 48 fibers using LC connectors and up to 24 fibers using STII or SC connectors. It can accommodate up to 12 mechanical or fusion splices using an optional splicing kit. The 200LS can accommodate up to 24 mechanical or 32 fusion splices with optional splicing kits, but the fiber termination capacity is decreased to 12 STII+ or SC connections, or 24 LC connections. The 200LS holds four 10P panels.

The LIU adapter panels are ordered separately.

The 742A mounting panel allows up to two 100 or 200 LIUs to be mounted in an inter-connection or cross-connect fashion. The panel may be mounted on either a 19 inch or a 23 inch (48.3 cm or 58.4 cm) frame.

The 1A1 adapter includes a 10 in (25.4 cm) conduit, a T-section, a 90-degree bend, two guides and two mounting screws. The adapter is used to guide and protect fibers running from a 12A-type clamp into two adjacent columns of LIUs. Each 100A3/200A LIU requires one 1A1 adapter. The 12A clamp must be ordered separately.

Physical Specifications:

Height: 100A3, 200A, 100LS, 200LS: 8.75 in (22.22 cm)
200B: 12.6 in (32.0 cm)
Width: 100A3, 200A, 100LS, 200LS: 7.5 in (19 cm)
200B: 17 in (43.18 cm)
Depth: 100A3, 100LS: 3 in (7.62 cm)
200A, 200LS: 4 in (10.16 cm)
200B: 5.25 in (13.34 cm)



100A3 LIU Enclosure



Left: 100LS LIU, Right: 200LS LIU

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

LIU Termination and Splice Configuration and Capacity:

LIU	No. of Terminations	No. of Splices	Additional Parts Needed
100A3	12 SC/ST (24 LC)	0	2 Panels with Adapters
100LS	12 SC/ST (24 LC)	16	2 Panels with Adapters and 1 Fusion Splice Kit
	0	32	2 Blank Panels and 1 Fusion Splice Kit + 1 Suppl. Kit
200A	24 SC/ST (48 LC)	0	4 Panels with Adapters
200LS	24 SC/ST (48 LC)	16	4 Panels with Adapters and 1 Fusion Splice Kit
200B	12 SC/ST (48 LC)	32	2 Panels with Adapters + 2 Blank Panels, and 1 Fusion Splice Kit + 1 Suppl. Kit
	0	48	4 Blank Panels, 2 Fusion Splice Kits + 1 Suppl. Kit

LIU Shelves

Product Number	Material ID
100A3 LIU	106896947
200A LIU	105535926
200B2 LIU	106939564
400A1 LIU w/o locks	106266901
400A2 LIU w/ locks	106414170
100LS LIU	108548868
200LS LIU	108548876
100A2 LIU E/W ST COUPLERS	106772668
100A2 LIU E/W ST MM COUPLERS	700179419
100/200 LIU - Cartridges	760060426
100/200 LIU - Adapters	760060434
100/200 LIU - Modules	760060418
110B2 LIU	107942203
SHLF-210B2 (LIU) CAB 10X	108030347
1A1 LIGHTGUIDE HOLDER	105034474
742A	105483218
1A1 Adapter	105034482
10 BB Blank Panel	760046730

LIU Panels

Product Number	Detailed Description	Material ID
1200-Blank-WH	Blank Panel (5U), Pack of 6	700209653
10PLC-LS	Panel includes 12 LC Adapters, LazrSPEED	108627266
10PLC-MM	Panel includes 12 LC Adapters, OptiSPEED	108491697
10PLC-SM	Panel includes 12 LC Adapters, Single-mode	700025984
10PSC-LS	Panel includes 6 SC Adapters, LazrSPEED	108627274
10PSC-MM	Panel includes 6 SC Adapters, OptiSPEED	108259458
10PSC-SM	Panel includes 6 SC Adapters, Single-mode	700011430
10PST-LS	Panel includes 6 ST Adapters, LazrSPEED	108627282
10PST-MM	Panel includes 6 ST Adapters, OptiSPEED	108259466
10PST-SM	Panel includes 6 ST Adapters, Single-mode	700011422
10LC1-DPLX	Panel for 6 Duplex LC Adapters	107783755
10SC1-DPLX	Panel for 3 Duplex SC Adapters	107025835
10A (ST)	Panel for 6 Simplex ST Adapters	104141858
10 Blank	Blank Panel for 100LIU/200LIU	105276570
10LC Connector Panel	100A3 and 200A LIU and holds 6 Simplex LC Adapters	108365701
10SC1 Panel	100A3 and 200A LIU and holds 6 Simplex SC Adapters	106371800
10FC/04	10 TYPE FC/04 Connector Panel	105310999
10 TYPE	F93AK8524, 10 Type Connector Panel	107005068

LIU Panels (cont.)

Product Number	Detailed Description	Material ID
10SC1 CONN PNL	F94AK8500, 10SC1 Connector Panel L E/W	107212490
LG 10B2/48/24	FANOUT AASY, LG 10B2/48/24	107939902
LGX Lock Set	LGX Lock Set	700011091
FDDI Panel	100A3 and 200A LIU Panel holds 3 MIC-to-ST C4010 Series Adapters	106021470

1A4 and 2A4 Vertical Fiber Optic Trough

The 1A4 and 2A4 Fiber Optic Troughs are vertical aluminum troughs used to arrange fiber patch cords vertically from one LIU to another in a multi-unit fiber cross-connect. The 1A4 trough is used with a 100A3 LIU. The 2A4 vertical trough is used with the 200A LIU. Two mounting screws are included.

Physical Specifications:

Height: 8.75 in (22.2 cm)

Width: 4.0 in (10.2 cm)

Product Number	Detailed Description	Material ID
1A4	For use with 100A3 LIU	104141866
2A4	For use with 200A LIU	106497753



1A6 and 2A6 Horizontal Fiber Optic Trough

The 1A6 and 2A6 Fiber Optic Troughs are horizontal aluminum troughs used to arrange patch cords so they run horizontally between Fiber Optic Interconnection Units (LIUs) or 1A4 or 2A4 Troughs. The 1A6 Fiber Optic Troughs may be used with 100A3 LIUs and 1A4 Fiber Optic Troughs. The 2A6 Fiber Optic Trough is used to connect vertical columns of 200A LIUs and 1A6 Jumper Troughs. The 2A6 Trough should be specified with single columns when protection and retention of cross-connect jumper cable slack is needed. Two mounting screws are included.

Physical Specifications:

Height: 1A6: 4.0 in (10.2 cm)

2A6: 5.0 in (12.7 cm)

Width: 11.5 in (29.2 cm)

Depth: 1A6: 4.0 in (10.2 cm)

2A6: 5.0 in (12.7 cm)

Product Number	Detailed Description	Material ID
1A6	For use with 100A3 LIU	104141874
2A6	For use with 200A LIU	106497761



Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

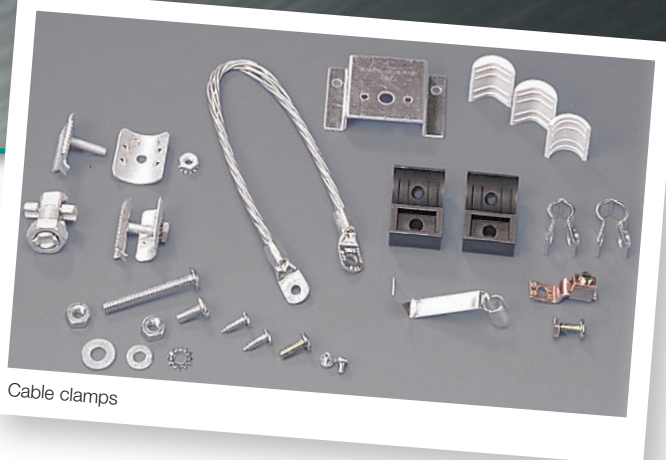
Additional Fiber Connectivity

Tools & Consumables

12A Grounding Clamp

The 12A1 Clamp is used to secure and ground one fiber optic metallic sheath cable. The clamp consists of a mounting bracket, two plastic half-clamps and suitable grounding hardware.

The 12A2 Clamp is similar to the 12A1 Clamp, but it does not include bonding and grounding hardware. The 12A2 Clamp is intended for use on non-metallic sheath fiber optic cables.



Cable clamps

Product Number	Detailed Description	Material ID
12A1 Clamp	Clamp for Metallic Sheath Cable	700025513
12A2 Clamp	Clamp for Dielectric Sheath Cable	700025653

D-181706 and D-181707 Mechanical and Fusion Splice Adapter Kits

The D-181706 and D-181707 Splice Adapter Kits adapt the 100, 200 and 400 LIUs for mechanical and fusion splicing, respectively. One D-Kit is required for the first 12 fibers, and one supplemental kit per unit is required for each additional set of 12 fibers.

D-181706 and D-181707 include Bracket Support with Screws (1), Drum Adapter (1), Splice Tray (1), PVC Tubing (1), Mechanical or Fusion Splice Organizer (1) and Instruction Sheet (1).

Supplemental Kits include Splice Tray (1), PVC Tubing (1) and Mechanical or Fusion Splice Organizer (1).



D-181706 Splice Adapter Kit

Product Number	Detailed Description	Material ID
D-181706	Mechanical Splice Kit	105289656
	Supplemental Mechanical Splice Kit	106726714
D-181707	Fusion Splice Kit	105289664
	Supplemental Fusion Splice Kit	106726706
LT1A-F/F	Fusion Splice Organizer Tray (Retains 32 Splices)	700025588
LT1A-M/M	Mechanical Splice Organizer Tray (Retains 24 Splices)	700217045
	Splice Tray Holder	700005069

EZ-LC Connectors®

The EZ-LC Connector® is a small form factor connector that is half the size of ST or SC connectors, yet has superior optical performance and reduced installation time. It uses the familiar insertion release mechanism similar to an RJ-45 plug and has a pull-proof design. The EZ-LC Connector allows engineers to design optical fiber infrastructures suited to the low loss needs of the High-Speed Data Networks. The EZ-LC Connector offers a complete connection solution with a product range designed for field termination onto 900 micron fiber, 1.6 mm fiber cordage, multimode and single-mode fiber.

The Pre-Radius LC connector is the recommended connector for all SYSTIMAX installations. The Pre-Radius LC connector provides for faster installation, uses less polishing papers than the flat end-face connector and yields superior end-face geometry.

The superior insertion loss performance offered by the LC connector makes it the ideal connector for gigabit applications including all proposed 10 gigabit Ethernet specifications for multimode and single-mode fiber. The 0.9 mm fiber connector is designed to allow for the simple and speedy termination of the connector onto 0.9 mm fiber. So, whether terminating a cable into a patch panel, connection box or outlet, the LC connector offers the best-in-class solution.

The D-182959 upgrade kit (700005853), used in conjunction with tool kits 1032B5 or 1032F1, provides the necessary tools to terminate LC connectors to 0.9 mm buffered fiber or 1.6 mm cordage. For termination to 0.9 mm buffered fiber only, the D-182905 upgrade kit (700005895) may be used with the 1032B5 or 1032F1 kits. The 1032H mini tool kit (700005838) may be used to terminate LC connectors to 0.9 mm buffered fiber using the EZ anaerobic adhesive method. Additionally, the appropriate consumable kits are required to complete terminations.

The Pre-Radiused LC and the flat end-face LC use two different consumable kits and instructions. Please refer to the Fiber Optic connector consumable kit section in the catalog for details or reference the instruction sheets for the appropriate connector from the SYSTIMAX Solutions Web Site Instructions Sheets.

Physical Specifications:

Length: 1.259 in (3.2 cm)

Tip: Ceramic

Optical Specifications:

Multimode: Average Loss: 0.1 dB Standard deviation 0.1 dB

Single-mode: Average Loss: 0.2 dB Standard deviation 0.1 dB

Insertion Loss Change: <0.3 dB Mating durability for 500 reconnect
<0.3 dB Temperature stability -40°F to 167°F (-40°C to 75°C)

Cable Retention: 2 lbs for buffered fiber, 10 lbs for 1.6 mm cordage



Pre-Radius Connectors

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
P1001A-Z-125R	BTW LC Connector, Pre-radiused, for 0.9 mm Buffered Fiber	MM	Beige	1	760034181
P1001A-Z-125R/100	BTW LC Connector, Pre-radiused, for 0.9 mm Buffered Fiber	MM	Beige	100	760031393
P1002A-Z-125R-1000	BTW LC Connector, Pre-radiused, for 0.9 mm Buffered Fiber	MM	Beige	1000	760065383
P1101A-Z-125R	BTW LC Connector for 0.9 mm Buffered Fiber, Pre-radiused	SM	Blue	1	760034199
P1101A-Z-125R/100	BTW LC Connector for 0.9 mm Buffered Fiber, Pre-radiused	SM	Blue	100	760031401
P1000A-Z-125R	LC Connector for 1.6 mm Cordage, Simplex, Pre-radiused	MM	Beige	1	760034140
P1100A-Z-125R	LC Connector for 1.6 mm Cordage, Simplex, Pre-radiused	SM	Blue	1	760034173
P1002A-Z-125R	LC Connector for 1.6 mm Cordage, Duplex, Pre-radiused	MM	Beige	1	760034157
P1002A-Z-125R/100	LC Connector for 1.6 mm Cordage, Duplex, Pre-radiused	MM	Blue	100	760034165
P1002A-Z-125R-1000	LC Connector for 1.6 mm Cordage, Duplex, Pre-radiused	MM	Beige	1000	760065409

Flat End-Face Connectors

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
P1001A-Z-125	BTW LC Connector for 0.9 mm Buffered Fiber	MM	Beige	1	700007008
P1101A-Z-125	BTW LC Connector for 0.9 mm Buffered Fiber	SM	Blue	1	700011372

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
P1000A-Z-125	LC Connector for 1.6 mm Cordage, Simplex	MM	Beige	1	700004260
P1000A-Z-125/100	LC Connector for 1.6 mm Cordage, Simplex	MM	Beige	100	760033191
P1002A-Z-125	LC Connector for 1.6 mm Cordage, Duplex	MM	Beige	1	700006992
P1002A-Z-125/100	LC Connector for 1.6 mm Cordage, Duplex	MM	Beige	100	700006307
LC Duplex Clip	LC Duplex Clip, Polarity Reversible	N/A	Blue	1000	760039669

EZ-SC Connectors®

The EZ-SC Connector® is a square body fiber optic connector, with great optical performance and fast installation time. It uses a push-pull design, which allows for quick and easy insertions into patch panels and adapters. The physical and optical performance of the EZ-SC allows engineers to design optical fiber infrastructures suited to the low loss needs of the High-Speed Data Networks.

The EZ-SC Connector offers a complete connection solution with a product range designed for field termination onto 900 micron fiber, 1.6 mm fiber cordage, 2.9 mm fiber cordage, multimode and single-mode fiber.

There are two series of SC connectors. Both have equivalent performance in general. While the SC-B series connector offers lower cost, the SC-A series connector can achieve improved performance when tuned in the field.

SC connector plugs can be mounted on fibers in the field using the 1032B5, 1032B6 or 1032F1 Tool Kit. When mounting to only 0.9 mm buffered fiber, the 1032H Tool Kit may be used.

Physical Specifications:

Length: A Series: 2.2 in (5.6 cm)

B Series: 2.05 in (5.2 cm) for 900 µm application

B Series: 2.2 in (5.6 cm) for 3 mm application

Operating Temperature: -40°F to 185°F (-40°C to 85°C)

Min. Axial Load: Cable: 29.92 lbs (13.6 kg)

Buffer: 1.98 lbs (0.9 kg)

Optical Specifications:

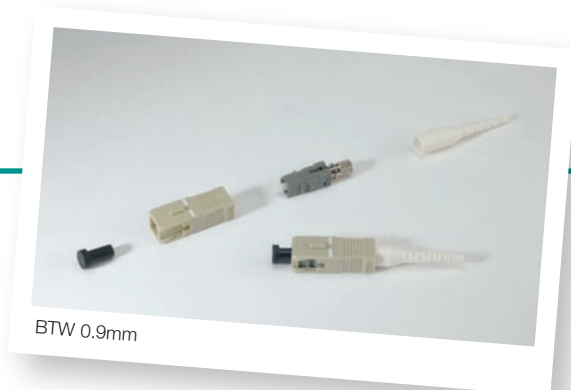
Average Loss: Multimode: 0.3 dB

Single-mode: 0.2 dB (tuned), 0.3 dB (untuned) for A-series SC connectors

Maximum Loss: MM and SM: 0.5 dB

Mating Durability: Insertion loss change for 200 reconnects: <0.3 dB (test per Telcordia GR326)

Temperature Stability (-40°C to 75 °C): ≤0.3 dB increase



SC-B Series Connectors

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
P6201B-Z-125	BTW SC-B Connector for 0.9 mm Buffered Fiber	MM	Beige	1	760007070
P6201B-Z-125-100	BTW SC-B Connector for 0.9 mm Buffered Fiber	MM	Beige	100	760007088
P6201B-Z-125-1000	BTW SC-B Connector for 0.9 mm Buffered Fiber	MM	Beige	1000	760019570
P6001B-Z-125	BTW SC-B Connector for 0.9 mm Buffered Fiber	SM	Blue	1	760007112
P6001B-Z-125-100	BTW SC-B Connector for 0.9 mm Buffered Fiber	SM	Blue	100	760019562
P6001B-Z-125-1000	SC-B Connector for 0.9 mm Buffered Cordage	SM	Blue	1000	760019588
P6200B-Z-125	SC-B Connector for 3.0 mm Cordage, Simplex	MM	Beige	1	760007047
P6200B-Z-125-100	SC-B Connector for 3.0 mm Cordage, Simplex	MM	Beige	100	760007054
P6200B-Z-125-1000	SC-B Connector for 3.0 mm Cordage, Simplex, Bulk	MM	Beige	1000	760007062
P6000B-Z-125	SC-B Connector for 3.0 mm Cordage, Simplex	SM	Blue	1	760007096
P6000B-Z-125-100	SC-B Connector for 3.0 mm Cordage, Simplex	SM	Blue	100	760019554
P6000B-Z-125-1000	SC-B Connector for 3.0 mm Cordage, Simplex, Bulk	SM	Blue	1000	760007104
P6202B-Z-125-100	SC-B Connector for 1.6 mm Cordage	MM	Beige	100	760033100

SC-A Series Connectors

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
P6201A-Z-125	BTW SC-A Connector for 0.9 mm Buffered Fiber	MM	Beige	1	700007024
P6201A-Z-125-100	BTW SC-A Connector for 0.9 mm Buffered Fiber	MM	Beige	100	700004278
P6001A-Z-125	BTW SC-A Connector for 0.9 mm Buffered Fiber	SM	Blue	1	700006976
P6200A-Z-125	SC-A Connector for 3.0 mm Cordage, Simplex	MM	Beige	1	700007040
P6200A-Z-125-100	SC-A Connector for 3.0 mm Cordage, Simplex	MM	Beige	100	700004286
P6200A-Z-125-1000	SC-A Connectors fo 3.0 mm Cordage	MM	Beige	1000	700005473
P6000A-Z-125	SC-A Connector for 3.0 mm Cordage, Simplex	SM	Blue	1	700006984
P6000A-Z-125-1000	SC-A Connector for 3.0 mm Cordage	SM	Blue	1000	700005481
2A2 Duplex Clip for SC	Duplex Clip for SC Connectors	MM/SM	Black	10	760005132
2A2X SC Duplex Clip	Duplex Clip for SC Connector, 100 Pack	MM/SM	Black	100	760033126

BTW—Behind the Wall

EZ-ST Connectors®

The EZ-ST Connector® is a convenient twist lock connector with a metal outer housing designed for applications where the added security of a twist lock connection is needed. The EZ-ST Connector offers solid performance, standard density and a complete connection solution with a product range designed for field termination onto 900 micron fiber, 1.6 mm fiber cordage, 2.9 mm fiber cordage, multimode and single-mode fiber.

STII Connector plugs can be mounted on fibers in the field using the 1032B5, 1032B6 or 1032F1 Tool Kits. The 1032H Tool Kit may be used when mounting connectors on 0.9 mm fiber.

Physical Specifications:

Length: 2.2 in (5.6 cm)

Temperature Stability -40°F to 185°F (-40°C to 85°C): <0.1 dB increase

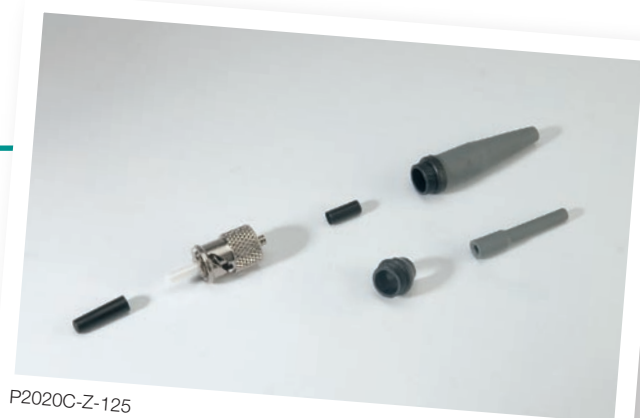
Loss Repeat (500 Reconnectors): <0.2 dB

Min. Axial Load: Cable: 35 lbs (15.9 kg)

Optical Specifications:

Multimode Average Loss: 0.3 dB

Single-mode Average Loss: 0.3 dB



P2020C-Z-125

STII Connector

Product Number	Detailed Description	Fiber Type	Cordage OD (mm)	Qty/Pkg	Material ID
P2020C-Z-125	STII Connector, Pre-radiused Zirconia Ferrule	MM	0.9/2.4/3.0	1	700004328
P2020C-Z-125-100	STII Connector, Pre-radiused Zirconia Ferrule	MM	0.9/2.4/3.0	100	700004310
P2020C-C-125	STII Connector, Flat Alumina Ferrule	MM	0.9/2.4/3.0	1	700004583
P2020C-C-125-100	STII Connector, Flat Alumina Ferrule	MM	0.9/2.4/3.0	100	700004336
P3020A-Z-125	STII Connector, Pre-radiused Zirconia Ferrule	SM	0.9/2.4/3.0	1	700011067

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Qwik-LC Connectors® Qwik-SC Connectors® Qwik-ST Connectors®

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

The SYSTIMAX Qwik connector line features no epoxy, no polish connectors, which utilize a mechanical crimp making fiber terminations faster and easier than typical epoxy terminations. Qwik Connectors offer a quick and repeatable termination solution for immediate connectivity on all 900 um fiber types.

Qwik LC and SC connectors are available in LazrSPEED (LS), OptiSPEED (MM) and TeraSPEED (SM) while the Qwik ST connectors are available in LazrSPEED (LS) and OptiSPEED (MM).

Applications:

- High Speed applications such as 10 Gigabit Ethernet
- Multimode and Single-mode
- Central Offices, Local Area Networks (LAN), computer backplane connections, computer peripheral interconnections

Features and Benefits:

- Performance exceeds ANSI/TIA/EIA-568-B standard
- Same overall size of standard epoxy/polish LC, SC and ST Connectors
- Complete tool kit with cleaning solution, wipes and scrap fiber container designed for Qwik set up and tear-down
- Comes packaged in 25 counter installer pack that is portable and convenient

Physical Specifications:

Length: LC, 1.25 in (3.18 cm), SC 2.05 in (5.2 cm), ST 2.2 in (5.6 cm)

Tip: Ceramic

Optical Specifications:

Average Loss MM & SM: LC 0.2 dB, SC 0.3 dB, ST 0.3 dB

Insertion Loss Change:

- LC: <0.2 dB Mating durability for 500 reconnect
<0.3 dB Temperature stability -14 F to 140 F (-10 C to 60 C)
- SC & ST: <0.3 dB Mating durability for 500 reconnect
<0.3 dB Temperature stability -14 F to 140 F (-10 C to 60 C)

Cable Retention: 2 lbs for buffered fiber

Qwik-LC, BTW, SM

Qwik-SC, BTW, SM

Product Number	Detailed Description	Boot Color	Qty/Pkg	Material ID
Qwik-LC, BTW, LS	LC Connector, MM LazrSPEED	Aqua	25	760070581
Qwik-LC, BTW, MM	LC Connector, MM OptiSPEED	Beige	25	760070599
Qwik-LC, BTW, SM	LC Connector, SM TeraSPEED	Blue	25	760070565
Qwik-SC, BTW, LS	SC Connector, MM LazrSPEED	Aqua	25	760070623
Qwik-SC, BTW, MM	SC Connector, MM OptiSPEED	Beige	25	760070631
Qwik-SC, BTW, SM	SC Connector, SM TeraSPEED	Blue	25	760070607
Qwik-ST, BTW, LS	ST Connector, MM LazrSPEED	Aqua	25	760070649
Qwik-ST, BTW, MM	ST Connector, MM OptiSPEED	Beige	25	760070656

Accessories

Detailed Description	Material ID
Qwik Master Termination Tool Kit LC/SC/ST	760070664
Cleaver, Fiber Optic	760070706
Qwik-LC Fiber Holder/Template	760070672
Qwik-SC Fiber Holder/Template	760070680
Qwik-ST Fiber Holder/Template	760070698

Fiber Optic Adapters

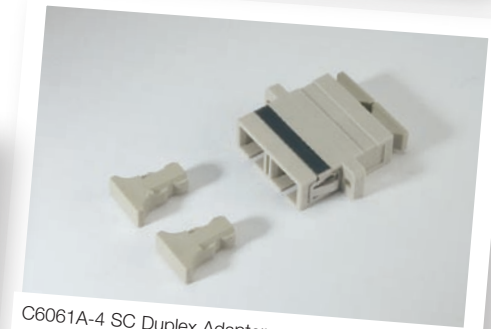
Fiber optic adapters are used in conjunction with the fiber optic panels to ensure proper alignment of the fibers when mating two connectors. The adapters are offered in multimode and single-mode and are color-coded for easy fiber identification. The adapters are generally offered as individually packed with dust cap included. For selected adapters, packages of 100 adapters are offered.



C2000A-2 ST Adapter



C1001B-2 LC Duplex Adapter



C6061A-4 SC Duplex Adapter

LC Adapters

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
C1001B-2-LS	LC Duplex Adapter, LazrSPEED	MM	Aqua	1	108622887
C1001B-1-LS	LC Simplex Adapter, LazrSPEED	MM	Aqua	1	760025338
C1001B-2	LC Duplex Adapter, OptiSPEED	MM	Beige	1	700002355
C1001B-1	LC Simplex Adapter, OptiSPEED	MM	Beige	1	700002173
C1101A-2	LC Duplex Adapter, TeraSPEED	SM	Blue	1	700002215
C1101A-1	LC Simplex Adapter, TeraSPEED	SM	Blue	1	700002132
C1201B-1	LC-APC Simplex Adapter, TeraSPEED	SM	Green	1	760036293
C1201B-2	LC-APC Duplex Adapter, TeraSPEED	SM	Green	1	760036301

SC Adapters

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
C6061A-4-LS	SC Duplex Adapter, LazrSPEED	MM	Aqua	1	108622895
C6061A-4	SC Duplex Adapter, OptiSPEED	MM	Beige	1	700004880
C6061A-4-100	SC Duplex Adapter, OptiSPEED	MM	Beige	100	700004872
C6001A-4	SC Simplex Adapter, OptiSPEED	MM	Beige	1	108223181
C6060A-4	SC Duplex Adapter, TeraSPEED	SM	Blue	1	700004815
C6000A-4	SC Simplex Adapter, TeraSPEED	SM	Blue	1	700004807
C6000A-5	SC Simplex Adapter, TeraSPEED, Flangeless	SM	Blue	1	700004799
C6800A-4	SC-APC Simplex Adapter, TeraSPEED	SM	Green	1	760036277
C6868A-4	SC-APC Duplex Adapter, TeraSPEED	SM	Green	1	760036285

ST Adapters

Product Number	Detailed Description	Fiber Type	Color	Qty/Pkg	Material ID
C2000A-2	ST Adapter with Hex Mounting Nut	MM	Silver	1	700004864
C2000A-2-100	ST Adapter with Hex Mounting Nut	MM	Silver	100	700004906
A2000	ST Adapter with Circular Mounting Nut	MM	Silver	1	700004914
C3000A-2	ST Adapter with Hex Mounting Nut	SM	Silver	1	700011133
A3000	ST Adapter with Circular Mounting Nut	SM	Silver	1	760000638
C6070A-4	SC Adapter, Hybrid ST-SC Duplex, Metal Sleeve	MM	Beige	1	700004898
C3000A-2-100	ST Adapter for Panel Mount with Hex Mounting Nut	SM	Silver	1	700011075

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

M81 Series Modular Fiber Optic Adapter with Mounting Module

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

The M81 M-Series Modular Coupling/Adapter modules are intended to be used as fiber optic outlets for FTTD applications.

The M81LS duplex adapters include an integrated fiber management spool that provide a duplex LC connection with fiber management. The adapters can be used in modular faceplates as shown in the picture. They are color-coded for ease of fiber type identification, and provide slack management to maintain proper bend radius behind the wall.

The M81ST-B adapter module comes packaged with an M81 type mounting module with a circular opening and an ST fiber optic Coupling/Adapter (A2000 multimode). The ST Coupling/Adapter is mounted on the module via a locking washer and nut. The assembly mates two STII fiber optic connectors.

The M81SC-B adapter module comes packaged with an M81 type mounting module with a rectangular opening and a simplex SC fiber optic Coupling/Adapter (C6000A-5). The SC Coupling/Adapter snaps into the rectangular opening of the M81 type mounting module. The assembly mates two simplex SC fiber optic connectors.

The M81ST-B and the M81SC-B contain four collars: black, ivory, white and gray. The M81LC-029 is clear.

The M81LC-029 adapter module comes packaged with an M81 type mounting module with a rectangular opening and an LC adapter. The LC Coupling/Adapter snaps into the rectangular opening of the M81 type mounting module. A minimum 1.5 inch diameter fiber bend radius behind the adapter is recommended.

The M81LCS-LS comes with a M81 type mounting module and a aqua duplex LC adapter with spring loaded shutters.

Once assembled, the coupling/adapter modules can be mounted in any of the M-Series faceplates, surface mount boxes, consolidation point boxes, M1000 MULTIMAX panels, frames or mounting collars.

Physical Specifications:

Height: M81ST-B, M81SC-B: 0.69 in (17 mm)
M81LC-029: 0.69 in (17 mm)
Width: M81ST-B, M81SC-B: 0.73 in (18 mm)
M81LC-029: 0.65 in (16 mm)
Depth: M81ST-B, M81SC-B: 0.39 in (9.6 mm)
M81LC-029: 0.3 in (7.4 mm)



Product Number	Detailed Description	Fiber Type	Color	Material ID
M81LS-MM Spool	LC Duplex Adapter w/ Fiber Spool	MM	Beige	108562174
M81LS-SM Spool	LC Duplex Adapter w/ Fiber Spool	SM	Blue	700007420
M81LS-LS Spool	LC Duplex Adapter w/ Fiber Spool	MM	Aqua	108623109
M81SC-B	SC Coupling/Adapter with Mounting Module	SM/MM	Blue	108009416
M81ST-B	ST Coupling/Adapter with Mounting Module	MM	Metal	108009408
M81LC-029	LC Adapter with Clear Collar	MM	Beige	107782641
M81LC-029-Collar	Clear Plastic Collar for LC, Pack of 25	MM	Clear	760010090
M81LCS-LS	Shuttered LC Adapter Kit	MM	Aqua	760031989

SYSTIMAX®
SOLUTIONS

Universal Polishing Kits

SYSTIMAX Solutions universal polishing kits make terminations of all SYSTIMAX fiber connectors easier and faster to install. This procedure allows contractors, distributors and end-users to only order one polishing kit for multimode connectors and one polishing kit for single-mode connectors. Universal polishing kits are utilized for SC, ST and pre-radius LC connectors. D-182977 polishing kit should be utilized for flat end-face LC connectors.

Features and Benefits:

- Multimode connectors only one polishing paper and 2 steps
- Single-mode connectors only two polishing papers and 3 steps
- Fewer polishing steps and strokes for the pre-radiused LC connector
- Reduces the number of papers to purchase and maintain
- Reduces confusion over which paper to use at which step
- Easier logistics for ordering and maintaining stock
- One multimode consumables kit for all three connector styles, (ST, SC, LC)
- One single-mode consumables kit for all three connector styles (ST, SC, LC)
- Quality terminations with excellent performance



KIT-C-UNIV-M-100



KIT-C-UNIV-S-100

Product Number	Detailed Description	Application	Qty/Pkg	Material ID
KIT-C-UNIV-M-100	Type H paper, sheets	MM ST & SC Connectors	25	760066720
	Texwipes, packs	MM Pre-Radius LC Connectors	2	
	Syringes, packs	For terminating 100 Connectors	1	
	Dispensing Tips, packs		1	
	Music Wire, vial		1	
	Instruction Sheets	ST, SC & LC	1 each	
KIT-C-UNIV-S-100	Type H paper, sheets	SM & MM ST & SC Connectors	25	760066738
	Type E paper, sheets	SM & MM Pre-Radius LC Connectors	25	
	Texwipes, packs	For terminating 100 Connectors	2	
	Syringes, packs		1	
	Dispensing Tips, packs		1	
	Music Wire, vial		1	
	Instruction Sheets	ST, SC & LC	1 each	
EZ Adhesives	Locite 7090 Solvent-less	Primer/Bonder/Retaining Compounds		760000810
	Primer/495 Super Bonder/			
	648 Retaining Compound			

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Flat Endface LC Connector Consumable Kit

The D-182977 Consumable Kit contains enough supplies to mount approximately 200 single-mode flat end-face LC connectors using the heat-cured epoxy method. This kit can also be used to terminate multimode flat end-face LC connectors (epoxy method).



D-182977 Consumable Kit

Product Number	Detailed Description		Material ID
D-182977	SM/MM Epoxy LC Consumable Kit		700005317

Detailed Description	Kit Quantity	Replacement Quantity	Material ID
Wipes	10	250	700006166
Music Wire	5	4	700008394
Syringes	75	10	700007982
Dispensing Tips	125	125	700011141
Epoxy	1	15	700006109
Clear Spacers	10		Unable to order individually
Foam Pad (white)	10		Unable to order individually
Type J Polishing Paper (purple)	20	20	700006661
Type F Polishing Paper	5	5	700006703
Type K Polishing Paper	5	5	700006687
Type L Polishing Paper	10	10	700006679
LC Adapter Brush	6	6	700008089

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Fiber Optic Inspection and Cleaning Kit



Cleanliness of fiber optic connections is critical to the performance of optical communication networks. The SYSTIMAX Fiber Optic Connector Cleaning and Inspection Kit is a complete inspection and cleaning solution that enables you to service SC, ST, LC and even MPO connectors.

Contamination as small as 0.001 mm can block the fiber core generating strong back reflections (Return Loss) and may affect attenuation (Insertion Loss). Mating a contaminated connector to a clean connector will result in poor performance and can permanently damage the connection. Contaminants on a connector end-face can come from many different sources, such as hand oils and salts from touching the end-face or airborne particles touching an exposed connector. Often dust caps do not provide protection from airborne dust contaminants.

Attempting to clean the connector with improper materials or procedures often leads to more debris and damage to the connector. Using the materials and procedures provided in this kit will ensure clean and safe optical connectivity.

Features and Benefits:

- Probe style microscope can inspect connectors in hand and through the bulkhead
- Includes all materials needed to clean and inspect ST, SC, LC connectors
- Capable of inspecting and cleaning MPOs with and without pins, either in hand or through the bulkhead
- Prevents debris and contamination from causing testing failures or permanently damaging your connectors
- Rugged aluminum carrying case included

Kit Contents - Consumable and Inspection Kits

- Westover probe microscope and display
- NTT-AT cleaning cassette for cleaning ST, SC, LC and MPO(f) connectors in hand
- Noyes 1.25 mm and 2.5 mm swabs for cleaning ST, SC, LC connectors through the bulkheads
- US Conec IBC cleaner for cleaning MPO(m) and MPO(f) connectors both in hand and through the bulkhead
- MicroCare Fiber Optic Cleaning Solution
- SYSTIMAX Cleaning Instructions

Kit Contents - Consumable Kit

- NTT-AT Optipop reel cleaner refill
- MPO/MTP internal bulkhead cleaner
- 1.25 mm swabs (Green label)
- 2.5 mm swabs (Blue label)
- Fiber optic cleaning solution
- Instruction Sheet

Product Number	Detailed Description	Material ID
KIT-Clean/Inspect	Fiber Optic Connector Clean/Inspect Kit	760053199
KIT-Cleaning	Fiber Optic Connector Cleaning and Consumables Kit	760053207

Fiber Tools

Miscellaneous Kits for Fiber Optic Connector Cable Assembly/Terminations

Detailed Description	Material ID
LC SM Tuning Tool	700008113
LC SM Tuning Wrench	700008121
TOOL-102A, STII Crimp Tool	700008253
TOOL-500B INSRTN MET BX0	700008188
TOOL-F-62161 Curing	700008246

Consumable Kit Components

Replacement kit components for the Consumable Kits

Detailed Description	Replacement Quantity	Material ID
Type A Polishing Paper	100	700006737
Type D Polishing Paper	100	700006711
Type E Polishing Paper	100	760062281
Type E Polishing Paper (White), 6x6	100	760066977
Buffer Tube Reel 900 micron 210 ft (64.1 m)	5	700008360
Wire Marker Book	1	700007966
Rosin Bag	5	700002405
Wipes	250	700006166
Music Wire	4	700008394
Syringes	10	700007982
Dispensing Tips	125	700011141
Type F Polishing Paper (Yellow Round)	10	700006703
Type J Polishing Paper (Purple)	20	700006661
Type G Polishing Paper (Green)	25	760006205
Type L Polishing Paper	10	700006679
Type K Polishing Paper	5	700006687
Type H Polishing Paper (Green), 6x6	100	760066969
B Sealant 3 oz		700010911
Bottled Adhesive	1	700002181
D-182985 SM EZ Consumable Kit	1	700005309
D-182984 MM EZ Consumable Kit	1	108340829
Epoxy Kit		700006109
Bottled 'EZ' Primer	1	700004146

Product Number	Detailed Description	Material ID
KIT-D182037	Consumable Kit for polishing SM Flat Alumina ST Ferrules	700006091
KIT-D182038	Consumable Kit for polishing MM Flat Alumina ST Ferrules	105501415
KIT-D-182709 Parts ST CO	Consumable Kit with Adhesive	106736937
KIT-D182847 Parts	250-pc. SC Consumable Kit	700005903
KIT-D183017 FBR Optic LC	Fiber Optic Tuning Kit	700005820
KIT-ST Extender Cap Part	Extender for terminating ST Connector onto 900um Fiber	700005978

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables

Breakout Kits

The Breakout Kit prepares loose tube fiber optic cable quickly and reliably when premises network installations require indoor field connectorization. Available in 6 fiber and 12 fiber units, the kit transitions optical fiber from 2.5 mm and 3.0 mm buffer tubes to 900 micron protective tubing. The Breakout Kit is simple to use since no epoxy or special tools are required.

Features and Benefits:

- 6 fiber and 12 fiber units available
- 24 inch, 900 micron tubing length
- Simple, snap-together housing
- Flexible, yet rugged, 900 micron tubing for easy routing and fiber protection
- Color-coded tubing for easy fiber identification
- Allows fast, reliable breakout of loose tube cable
- Simple to assemble, no epoxy or special tools needed
- Easy fiber identification
- ISO 9001-2008 and ISO 14001 certified manufacturer; TL 9000 registered quality management system



6 Fiber Breakout Kit

Detailed Description	Material ID
6 Fiber Breakout Kit	760018820
12 Fiber Breakout Kit	760018838

Unit Splitters

The Unit Splitter is a pitchfork-shaped apparatus used for gel-blocking and organizing fibers when prepping outside plant cable. It is the ideal device to split bundled fibers into separate groups for routing to locations for shelves and cabinets.



D-181683

Product Number	Detailed Description	Material ID
D-181781	6 to 1 Unit Splitter for Outdoor Cable Diameter of 0.41 inch	700011125
D-181683	8 to 1 Unit Splitter for Outdoor Cable Diameter of 0.41 inch	700006125
D-182806	6 to 1 Unit Splitter Fits 0.16 in (4.1 mm) and 0.20 in (5.1 mm) Core Tubes	700010960

D-181755 PVC Buffer Tubing Consumable Kit

The PVC Buffer Tubing Kit contains buffer tubing and cable end prep materials for direct termination of connectors on outside plant cable. This kit will buffer approximately 100 outside plant fibers. Order B sealant separately.



D-181755

Detailed Description	Kit Quantity	Replacement Quantity	Material ID
210 in (64 mm) Buffer Tube (900 micron)	1 Reel	5 Reels	700008360
Syringes	5	10	700007982
Wire Marker Book	1	1	700007966
Rosin Bag	1	5	700002405
0.166 in (4.2 mm) ID Clear PVC Tubing	24 in (61 cm)		Unable to order individually
0.234 in (6 mm) ID Clear PVC Tubing	12 in (30.5 cm)		Unable to order individually
0.294 in (7.5 mm) ID Clear PVC Tubing	12 in (30.5 cm)		Unable to order individually
0.095 in (2.4 mm) ID x 0.016 in (0.4 mm) Wall White PVC Tubing	25 ft (7.6 m)		Unable to order individually
0.187 in (4.8 mm) ID Heat Shrinkable Tubing	24 in (61 cm)		Unable to order individually
D-181683 Eight Unit Splitter (Re-orderable in Unit Splitter Family)	1		700006125
D-181781 Six Unit Splitter (Re-orderable in Unit Splitter Family)	1		700011125
Instruction Sheet	1		Unable to order individually

Product Number	Detailed Description	Material ID
D-181755	PVC Buffer Tubing Kit	700006117

D-183016 Splitter Kit

The Splitter Kit contains components and consumables for blocking the gel in central core tubing common in outside plant cable. It also contains components for buffering bare fibers with 900 micron tubing for termination onto fiber optic connectors. Order B sealant separately.

The D-183016 Splitter Kit contains the following components:

- Clear Tygon Tubing Qty 2
- Cable Ties Qty 10
- Syringes (3 cc) Qty 2
- Syringe Tips Qty 2
- White PVC Tubing (0.095 Diameter) 25 ft
- Splitter Kit with TALC Bag Qty 2
- D183016 Kit Installation Instructions Qty 1



D-183016

Product Number	Detailed Description	Material ID
D-183016	Splitter Kit	108459488

Fiber Types & Reference

Building

Interlocking Armored

Indoor/Outdoor Loose Tube

Indoor/Outdoor Tight Buffered

Outdoor Loose Tube

Outdoor Central Tube

Figure 8

InstaPATCH Plus

G2 Fiber Connectivity

Additional Fiber Connectivity

Tools & Consumables



**Tools &
Consumables**



Additional Fiber
Connectivity



G2 Fiber
Connectivity



InstaPATCH
Plus



Figure 8



Outdoor
Central Tube



Outdoor
Loose Tube



Indoor/Outdoor
Tight Buffered



Indoor/Outdoor
Loose Tube



Interlocking
Armored



Building



Fiber Types &
Reference

Intelligent Infrastructure Solutions	232
Overview	233
Intelligent Infrastructure Operations Software	234
Intelligent Infrastructure Control Systems	235
iPatch® Copper Panels	236
iPatch® Fiber Shelves	237
iPatch® Services	238
Services Overview	238
Configuration Service	238
Software Assurance	239
Hardware Warranty	240
SYSTIMAX InSite	240
iPatch® BusinessPartner Program	241
BusinessPartner Program Levels	241
Authorized iPatch Installer	241
Certified iPatch Solution BusinessPartner	241
Certified iPatch System Integrator	241

Table of
Contents

Introduction

Copper

Fiber

**Intelligent
Infrastructure**

Faceplates &
Zone Boxes

Enclosures

Glossary

Index

Intelligent Infrastructure Solutions

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Overview

Knowing how your physical infrastructure is connected is the key to controlling your network, reducing operating costs, improving efficiency and increasing reliability. Leveraging best in class SYSTIMAX® copper and fiber connectivity, the SYSTIMAX® iPatch® intelligent infrastructure operations solution is more than just hardware—it's a comprehensive, fully-supported solution that gives you the power you need to control your critical network infrastructure. Combining SYSTIMAX iPatch intelligent copper patch panels and fiber optic shelves with infrastructure operations software and control systems, SYSTIMAX brings you the real-time information you need about how your network is connected.

iPatch panels and shelves have integral sensors to determine connectivity changes—with no proprietary patch cord technology required. Control systems, such as the iPatch Rack Manager Plus, collect information from all of the iPatch panels and shelves in a data center or equipment closet, and relay connectivity changes to the infrastructure operations software, including the iPatch System Manager.

The SYSTIMAX infrastructure operations solution provides the network administrator greater vision and network efficiency; the cabling administrator complete management; and the cabling technician intelligence to optimize physical layer management, improve reliability, and reduce downtime. Electronic work orders eliminate tedious paper-based administration and improve productivity. Work is guided at each iPatch panel by electronic visual and audio prompts to minimize patching errors. Users are instantly alerted to critical changes or conditions that require immediate attention and resolution.

Intelligent Infrastructure Management Brings Order to Chaos

Data and voice connections live or die in crowded telecommunications rooms where a single misplaced patch cord can wreak havoc and increase downtime. The iPatch system provides one-touch patch cord tracing, with both visual and audio prompts to guide every connection. It continuously monitors, verifies and logs port connections to keep your system running smoothly and instantly alerts you to problems.

Features:

- Provides accurate, automated documentation of changes to the physical layer
- Discovers network devices and maps them to the physical layer
- Provisions services and provides guidance for deployment in data centers or office environments
- Notifies administrators in real-time of any connectivity or equipment issues and alerts users of unauthorized access or activity
- Provides an integration interface for third party software

Benefits:

- Enhances productivity through automation and process efficiency
- Reduces costs associated with capacity and asset management
- Real-time enhanced location information for physical layer and networked assets
- Offers complete visibility and control of your physical layer infrastructure
- Simplifies the audit and tracking process to more easily address infrastructure compliance requirements



Intelligent Infrastructure Operations Software

Intelligent Infrastructure Operations Software

SYSTIMAX infrastructure operations software is where the real intelligence resides in the solution. The base software provides all of the functionality required to document your structured cabling and patching systems for copper and fiber optic connections.

Advanced capabilities include the correlation of data from the physical layer infrastructure with that of your network and computing infrastructure – network switches, servers and other Internet Protocol (IP)-enabled endpoints.

Discovering this network equipment and mapping it onto the physical layer gives you a full, end-to-end view of your data center, campus or workplace network, letting you know not only what is on your network, but where it is physically located.

In addition, the software can be used to provide a wide variety of reports on information collected from the network, guide patching through electronic work orders, determine available capacity and provisions services onto those available resources, and send events to other systems. Access through an XML API can be licensed for specific applications, such as an enhanced location service for emergency response in VoIP networks or for OLE for Process Control (OPC) clients.

Both Microsoft® Windows® and web-based clients are supported for user access to the system.

Warranty Information:

- SYSTIMAX Infrastructure Operations Software is covered by an initial 90-day limited warranty against defects in materials and workmanship. In order to receive ongoing support, updates and upgrades, you must subscribe to our annually renewable Software Assurance Program. More information on this program can be found in the iPatch Services section of the catalog.

Product Number	Detailed Description	Material ID
iP-SYS-MGR-SW	iPatch System Manager Software	760056325
iP-SYS-MGR-ELS	iPatch System Manager Enhanced Location Service for Emergency Response	760083402
iP-SYS-MGR-OPC	iPatch System Manager OPC Integration	760083410

For the latest information on available software for managing your infrastructure, please visit www.commscope.com or contact your SYSTIMAX sales representative.



Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Intelligent Infrastructure Control Systems

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Control systems tie the iPatch intelligent panels to the infrastructure operations software. Each rack with iPatch intelligent panels is equipped with a control system, such as an iPatch Rack Manager Plus, which monitors the status of every port in every iPatch panel. Connectivity updates are sent to the infrastructure operations software, which contains a continuously updated database of connectivity information.

These control systems also provide technicians with a user interface. For tracing existing connections, the iPatch Rack Manager Plus displays end-to-end connectivity information, including not only the location of patch cords, but the devices connected on either end of the circuit. This is substantially more information than can be provided with traditional port or cord labels, and has the added benefit of being automatically updated based on changes in the patching field or at the endpoints of a circuit.

The Rack Manager Plus supports guided patching operations based on work orders generated by the infrastructure operations software. The Rack Manager Plus displays the ports to be connected or disconnected to execute a specific work order step, and provides visual and audible feedback on the progress of that step. The Rack Manager Plus illuminates LEDs on iPatch panels for the appropriate patching change.

For unguided operations, the Rack Manager Plus is used to allow the confirmation of changes made on iPatch panels. If unauthorized changes are made, the changes identified by the control system can be forwarded on by the infrastructure operations software to other network management systems to inform administrators of those unauthorized changes. In any case, identifying changes—authorized or not—keeps the connectivity database in the infrastructure operations software up to date at all times.

iPatch Rack Manager Plus Features and Benefits:

- Multi-line backlit liquid crystal display (LCD) for local output of status, tracing information, job instructions and other vital information
- Soft-key menu system with multiple language support
- LEDs to indicate trace in progress, outstanding alarms or patching jobs
- Includes a dedicated panel bus to interconnect and provide power to up to 40 iPatch Intelligent Copper Panels and Fiber Optic Shelves in a single rack or cabinet
- Firmware field-upgradeable from iPatch System Manager software

Warranty Information:

- The iPatch Rack Manager Plus and other intelligent infrastructure control systems are active components, and are covered by the Hardware Warranty for Active Components as described in the iPatch Services section of the catalog.



Rack Manager Plus Kit



Rack Manager Plus back



Rack Manager Plus display

Product Number	Detailed Description	Material ID
iP-RACK-MGR-PLUS	iPatch Rack Manager Plus	760024588

For the latest information on available control systems, including the iPatch Rack Manager Plus, please visit www.commscope.com or contact your SYSTIMAX sales representative.

iPatch® Copper Panels

Building on the industry-leading performance of SYSTIMAX 1100-series GigaSPEED XL and GigaSPEED X10D panels, iPatch 1100GS3 and 1100GS5 copper patch panels provide intelligence for managing the network infrastructure. The iPatch M4200i universal modular panel provides the ability to support any M-series copper information outlets for either foil twisted pair (F/UTP) or unshielded twisted pair (U/UTP) applications in a 24-port panel.

Features and Benefits:

- Available in 24- and 48-port configurations featuring universal A/B labeling
- One-button tracing function with one LED indicator per port
- Each panel comes ready to install, including front and rear labels
- 1100GS3 and 1100GS5 panels include termination control managers and a redesigned rear IDC housing to allow for easier, faster, more reliable terminations, and reduced variability in the placement and termination of cables to the panel

Warranty Information:

- The passive components in the panel qualify for the same SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance as the standard 1100-series copper panels when included in a certified SYSTIMAX GigaSPEED channel—the active components, including the patch panel tracing module, are covered by the iPatch Extended Hardware Warranty, as described in the iPatch Services section of the catalog.

iPatch 1100GS3 Features and Benefits:

- Can support network line speeds in excess of 1 Gbps
- Backwards-compatible with Category 5e, 5, and 3 cords and cables; however, optimal performance is achieved when used with GigaSPEED GS8E cords
- Certified component of an integrated GigaSPEED XL solution

iPatch 1100GS5 Features and Benefits:

- Can support network line speeds in excess of 10 Gbps
- Backwards-compatible with Category 6, 5e, 5, and 3 cords and cables; however, optimal performance is achieved when used with GigaSPEED GS10E cords
- Certified component of an integrated GigaSPEED X10D solution

iPatch M4200i Features and Benefits:

- Can support any copper M-series information outlet, including Category 3, PowerSUM, GigaSPEED XL and GigaSPEED X10D
- Supports unshielded twisted pair (U/UTP) and foil twisted pair (F/UTP) deployments
- Certified component of PowerSUM, GigaSPEED XL or GigaSPEED X10D channels based on the type of module installed
- Available either as a bare panel, or with 24 M-series GigaSPEED X10D F/UTP information outlets (MFP520)
- Other pre-packaged combinations may be available as well



48 Port GS3 – close up



iP-1100GS3-24



iP-1100GS5-48



24-Port GS3 Panel Kit



48-Port GS5 Panel Kit



24-Port M4200i Panel Kit

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Product Number	Detailed Description	Material ID
iP-1100GS3-24	iPatch 1100GS3 24-Port GigaSPEED XL Intelligent Patch Panel	760067694
iP-1100GS3-48	iPatch 1100GS3 48-Port GigaSPEED XL Intelligent Patch Panel	760067702
iP-1100GS5-24	iPatch 1100GS5 24-Port GigaSPEED X10D Intelligent Patch Panel	760051003
iP-1100GS5-48	iPatch 1100GS5 48-Port GigaSPEED X10D Intelligent Patch Panel	760051011
iP-M4200i-24	iPatch M4200i 24-Port Intelligent Universal Modular Panel without Modules	760073866
iP-M4200i-24MFP520	iPatch M4200i 24-Port Intelligent UMP with 24 GigaSPEED X10D F/UTP Outlets	760083295

For the latest information on available iPatch intelligent copper panels, please visit www.commscope.com or contact your SYSTIMAX sales representative.

iPatch® Fiber Shelves

iPatch Intelligent Fiber Shelves are based on the SYSTIMAX 600-series 1U fiber shelves, and come equipped with 12 duplex SC couplers (24 fibers) or 24 duplex LC couplers (48 fibers) that support the SYSTIMAX fiber portfolio—LazrSPEED, TeraSPEED and OptiSPEED applications. The iPatch Intelligent Fiber Shelves support both simplex and duplex patch connections. Models are available with fixed or sliding fiber trays, and pre-terminated versions are also available.

Features and Benefits:

- Hinged front door for easy access
- Front cable management trough
- Top cover panel
- Standard water-tight cable entry conduit connectors
- Blank labels for identifying fiber splices and terminations



iP-600B-24-LC

Product Number	Detailed Description	Material ID
iP-600A-12-SC-MMF	iPatch 600A 12-Port Duplex SC Multimode Intelligent Fiber Shelf w/Fixed Tray	760005595
iP-600B-12-SC-MMF	iPatch 600B 12-Port Duplex SC Multimode Intelligent Fiber Shelf w/Sliding Tray	760005629
iP-600A-12-SC-SMF	iPatch 600A 12-Port Duplex SC Single-mode Intelligent Fiber Shelf w/Fixed Tray	760010777
iP-600B-12-SC-SMF	iPatch 600B 12-Port Duplex SC Single-mode Intelligent Fiber Shelf w/Sliding Tray	760010785
iP-600A-12-CSC-SMF	iPatch 600A 12-Port Duplex Ceramic SC SM Intelligent Fiber Shelf w/Fixed Tray	760080887
iP-600B-12-CSC-SMF	iPatch 600B 12-Port Duplex Ceramic SC SM Intelligent Fiber Shelf w/Sliding Tray	760080895
iP-600A-24-LC	iPatch 600A 24-Port Duplex LC Intelligent Fiber Shelf w/Fixed Tray	760017848
iP-600B-24-LC	iPatch 600B 24-Port Duplex LC Intelligent Fiber Shelf w/Sliding Tray	760017855

Features and Benefits, Pre-Terminated Shelves:

- 12-fiber MPO connector-based modular design enables simple connections
- Factory-terminated and tested modules for instant field connections and guaranteed quality and performance
- Designed for administrative convenience—guaranteed transmit-to-receive connectivity
- No special or non-standard polarity components
- Supports easy reconfiguration for moves, adds and changes
- Easy upgrade path to parallel connectivity and associated applications, while preserving most of investment



iP-PTF-24-LC-LS

Warranty Information:

- The active components of the standard and pre-terminated iPatch Intelligent Fiber Optic Shelves, including the patch panel tracing module, are covered by the iPatch Extended Hardware Warranty as described in the iPatch Services section of the catalog.

Product Number	Detailed Description	Material ID
iP-PTF-12-SC-LS	iPatch Pre-Terminated 12-Port Duplex SC LazrSPEED Intelligent Fiber Shelf	760038513
iP-PTF-12-SC-TS	iPatch Pre-Terminated 12-Port Duplex SC TeraSPEED Intelligent Fiber Shelf	760038521
iP-PTF-24-LC-LS	iPatch Pre-Terminated 24-Port Duplex LC LazrSPEED Intelligent Fiber Shelf	760038539
iP-PTF-24-LC-TS	iPatch Pre-Terminated 24-Port Duplex LC TeraSPEED Intelligent Fiber Shelf	760038547
iP-PTF-12-SC-OS	iPatch Pre-Terminated 12-Port Duplex SC OptiSPEED Intelligent Fiber Shelf	760066183
iP-PTF-24-LC-OS	iPatch Pre-Terminated 24-Port Duplex LC OptiSPEED Intelligent Fiber Shelf	760066191

For the latest information on available iPatch standard and pre-terminated intelligent fiber shelves, please visit www.commscope.com or contact your SYSTIMAX sales representative.

iPatch® Services

Services Overview

iPatch Services allows customers to leverage SYSTIMAX Solutions' technology expertise and support to get more value out of their purchase, minimize impact to internal resources, and protect their investment.

- With our Configuration Service, your system installation will be certified and your database accurately provisioned
- With our Software Assurance Program, your infrastructure operations software will never be out of date
- With our Hardware Extended Warranty Program, you can rest assured if something breaks under warranty, it will be replaced

Configuration Service

Get More from Your Intelligent Infrastructure Investment

Let SYSTIMAX Solutions help you get your intelligent infrastructure management system up and running quickly and successfully to generate more value from your solution. With SYSTIMAX Solutions handling the initialization, you can start using your iPatch System right away rather than spending time setting it up. With the SYSTIMAX iPatch Configuration Service, you will benefit from the following:

- Experts that can quickly configure the iPatch hardware and software, saving you time and money and ensuring you are up and running with your mission-critical operations
- A knowledgeable team that can correctly set up your database and initialize the solution, eliminating frustrations and ensuring that you have a working system
- On the spot training and quick start instructions from a seasoned intelligent patching technician who can give you tips on how to get the most from your system

The Configuration Service includes all configuration, initialization, troubleshooting, and testing so you are guaranteed a fully validated and tested solution prior to production. With the service, you get the following:

- Certified Technician provided by SYSTIMAX Solutions
- Offsite support, including:
 - Kick-off meeting to gather detailed requirements and plan the project, including timelines and deliverables
 - Processing and consolidation of "As Built" and other drawings
 - Initial building of your customer database
 - Project management and project schedule

- Onsite support, including:
 - Hardware inspection and configuration of active components
 - iPatch System Manager Software installation
 - Completed building of the customer database
 - Testing and review
 - Troubleshooting if needed
 - iPatch Product Registration including hardware and software registration
 - Walk through orientation that includes tips and tricks for using the iPatch System
 - Welcome Package with reference materials for your new system
- Quality guarantee going into production

Software Assurance

More than Just Hardware

Infrastructure operations software, such as the iPatch System Manager, is at the core of our intelligent infrastructure solution. It is the bridge that connects you to the physical layer technology and provides you the ability to better monitor and control your physical infrastructure in ways you never imagined.

With the Software Assurance program, you can rest assured that your investment in the iPatch Solution from SYSTIMAX is up to date and available to support your business.

Protecting Your Investment

Our Software Assurance Program ensures you will get peak performance from your iPatch System Manager software by providing a full range of online services including version updates and upgrades.

Not only will you be eligible to receive our regular Service Packs, you will also receive any new versions of the product that are released during the term of your agreement. Your business can take advantage of new features and functionality as they become available. It's all a part of our easy-on-the-budget Software Assurance Program.

Included Features

- Online software assurance services
- Access to iPatch web support via InSite
- Access to FAQs and Knowledge Base
- Maintenance releases and service packs
- Version upgrades
- Access to user documentation and release notes
- Access to user forums
- Ability to submit software issues and questions

Your Software Assurance subscription comes with:

Product Upgrades and Service Packs

- Notification by letter when upgrades are available
- Convenient delivery options—download or CD
- Notification by e-mail when service packs and upgrades are available for download

Online Software Support

- Ask questions regarding software features and functionality
- Submit software support trouble tickets

E-Newsletters, User Documentation and Release Notes

- Distributed every quarter and with every release
- Up-to-date information on the latest product features and enhancements
- FAQs and tips to get the most out of your software

Knowledgebase

- A mini-training and troubleshooting Web-based system that provides answers to your technical questions
- Available for use 24 hours a day, 7 days a week

Online Account Information

- View product information
- Participate in user forums

Is Software Assurance Right for Your Business?

Software Assurance is a maintenance plan for businesses that want to keep their systems reliably running on the latest software without paying full price for upgrades. Every time we release a new version of your software, we automatically send it to you. All you have to do is keep your Software Assurance subscription current.

If you are a current SYSTIMAX iPatch customer and would like to purchase or get more information about Software Assurance, contact your local SYSTIMAX sales representative.

iPatch Extended Hardware Warranty

SYSTIMAX understands that network management is critical to your business operations. For this reason, we are extending our Standard iPatch Hardware Warranty from one to three years, and covering both parts and labor, provided your installation has been installed and certified by a SYSTIMAX Solutions iPatch Certified BusinessPartner.

Included Features

With our iPatch Extended Hardware Warranty Program, you can rest assured that your hardware will be replaced quickly in the event of a failure. With the SYSTIMAX iPatch Extended Hardware Warranty you get the following:

- We cover both the parts and the labor costs associated with the hardware replacement
- Access to SYSTIMAX iPatch Web Support via InSite for online hardware registration and Warranty Claim processing, and much more

Complement Your SYSTIMAX 20-Year Warranty

With SYSTIMAX, you have always been able to enjoy the peace of mind associated with a 20-year warranty on passive components. Now you can get that same peace of mind with a warranty that extends the guarantee on your iPatch System active hardware components from the industry standard of one year to three years.

SYSTIMAX InSite

Web-Based Technical Support Services

SYSTIMAX InSite, an intelligent web-based service center, sets a new standard for self service and remote technical support for our iPatch System. InSite provides real-time, personalized access to in-depth product information anytime you have a question. In addition, with InSite, you have the ability to download software updates and upgrades, review tracking of your maintenance assistance requests, ask SYSTIMAX Support staff questions, and get fast, accurate answers to commonly asked questions and troubleshooting recommendations.

SYSTIMAX InSite offers a unique approach to SYSTIMAX service and support with anytime, anywhere access to SYSTIMAX expertise and extensive self-help capabilities.

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Faceplates &
Zone Boxes

Enclosures

Glossary

Index

SYSTIMAX InSite Features and Functionality

Backed by CommScope Labs, the SYSTIMAX InSite service center features the following capabilities:

InSite Self Help

Real-time access to continuously updated technical documentation, notifications, user guides, software updates and Knowledge Byte answers to frequently asked questions:

- How-to instructions
- Trouble shooting guidelines
- Frequently asked questions

InSite Technician Assisted Service

Use email to ask a question, describe a problem, or request information and receive an email response. My InSite lets you view and track online the status of your assistance requests.

Benefits

The SYSTIMAX InSite enhances productivity by streamlining solution maintenance and configuration with convenient anytime, anywhere access to support services. You will receive fast responses and quick resolution of issues affecting your physical layer infrastructure. Self-service lets you access up-to-the-minute maintenance solutions, helping you maximize efficiencies. The SYSTIMAX InSite self-help capabilities, technician-assisted expertise, and powerful Knowledgebase of answers set InSite as the standard for technical support service.

Visit SYSTIMAX InSite online at <http://systemaxinsite.custhelp.com>.

iPatch® BusinessPartner Program

BusinessPartner Program Levels

Our BusinessPartners are selected based on criteria such as their technical ability, market experience, quality, customer service, commercial stability and target markets, so that CommScope customers receive the highest standards of operational support and technical expertise in the market.

Designed to provide the resources to help you deliver industry-leading products and services and high levels of customer satisfaction, there are three partner levels designed to meet the needs of your company.

Authorized iPatch Installer

- Is qualified to mount, interconnect and cable iPatch equipment

Certified iPatch Solution BusinessPartner

- Is qualified to install and configure a complete intelligent infrastructure management system and provide Configuration and Support Services

Certified iPatch System Integrator

- Is qualified to set up infrastructure operations software, such as iPatch System Manager, provide Configuration and Support Services, and facilitate software integration

To find an iPatch BusinessPartner near you, contact your local SYSTIMAX sales representative.

Faceplates 235
Zone Boxes 258
Couplers and Adapters 274

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

**Workstation
Platforms &
Accessories**

Enclosures

Glossary

Index

Flush Mounted Modular Faceplates

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

The CommScope Modular Faceplates are flush mounted multi-outlet faceplates designed for use with M-Series Modular Information Outlets.

The “LE” faceplates offer an aesthetically pleasing faceplate look with labeling features.

The “L” faceplates are flat faceplates that contain slots that cover the screws to house white labels and covers. Two labels and covers are included with the faceplate. The faceplate outlet openings are numbered on both sides for installation and maintenance identification. Optional M20AP Dust Covers/Blanks may be used to cover any unused outlets or outlet openings.



LE-Type Flush Mounted Modular Faceplates

The following models are available:

- The M10L and M10LE are single-outlet faceplates
- The M10LW is a single-outlet faceplate for use with wall-mounted telephones with a mounting distance of 3.280 inches
- The M12L and M12LE are duplex-outlet (two-hole) faceplates with side by side openings
- The M12AP is a duplex-outlet (two-hole) faceplate with vertically aligned openings
- The M13L and M13LE are triplex-outlet (three-hole) faceplates
- The M14L and M14LE are quadplex-outlet (four-hole) faceplates
- The M16L and M16LE are sixplex-outlet (six-hole) faceplates
- The M28L is a double gang eightplex-outlet (eight-hole) faceplate

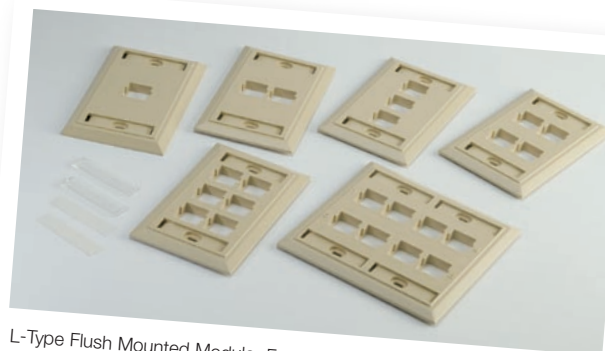
Physical Specifications:

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

LE-Type

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
M10LE-003	Simplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Black	108332982
M10LE-215	Simplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Cream	108332990
M10LE-246	Simplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Ivory	108333006
M10LE-262	Simplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	White	108333014
M12LE-003	Duplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Black	108333030
M12LE-148	Duplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Almond	760080812
M12LE-215	Duplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Cream	108333048
M12LE-246	Duplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Ivory	108333055
M12LE-262	Duplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	White	108333063
M12LE-270	Duplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Gray	108333071
M13LE-003	Triplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Black	108333089
M13LE-215	Triplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Cream	108333097
M13LE-246	Triplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Ivory	108333105
M13LE-262	Triplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	White	108333113

Product Number	Detailed Description	Dimensions	Color	Material ID
M13LE-270	Triplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Gray	108333121
M14LE-003	Quadplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Black	108333139
M14LE-215	Quadplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Cream	108333147
M14LE-246	Quadplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Ivory	108333154
M14LE-262	Quadplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	White	108333162
M14LE-270	Quadplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Gray	108333170
M16LE-003	Sixplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Black	108333188
M16LE-215	Sixplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Cream	108333196
M16LE-246	Sixplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Ivory	108333204
M16LE-262	Sixplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	White	108333212
M16LE-270	Sixplex	2.84 x 4.81 x 0.33 in (7.2 x 12.2 x 0.84 cm)	Gray	108333220



L-Type Flush Mounted Modular Faceplates

L-Type

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
M10L-003	Simplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Black	108258401
M10L-246	Simplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	108258419
M10L-262	Simplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	108258427
M10L-270	Simplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Gray	108258435
M10LW-246	Simplex (For wall mounting of telephones)	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	108258450
M10LW-262	Simplex (For wall mounting of telephones)	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	108258468
M10LW-148	Simplex (For wall mounting of telephones)	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Almond	760075044
M12L-003	Duplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Black	108168485
M12L-246	Duplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	108168477
M12L-262	Duplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	108168469
M12L-270	Duplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Gray	108168451
M13L-003	Triplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Black	108168527
M13L-246	Triplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	108168519
M13L-262	Triplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	108168501
M13L-270	Triplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Gray	108168493
M14L-003	Quadplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Black	108168568
M14L-246	Quadplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	108168550
M14L-262	Quadplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	108168543
M14L-270	Quadplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Gray	108168535

Table of
Contents

Introduction



Copper



Fiber

Intelligent
InfrastructureWorkstation
Platforms &
Accessories

Enclosures



Glossary



Index

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
M16L-003	Sixplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Black	108168600
M16L-246	Sixplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	108168592
M16L-262	Sixplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	108168584
M16L-270	Sixplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Gray	108168576
M28L-003	Eightplex (Double Gang)	4.61 x 4.81 x 0.29 in (11.7 x 12.2 x 0.7 cm)	Black	108685009
M28L-246	Eightplex (Double Gang)	4.61 x 4.81 x 0.29 in (11.7 x 12.2 x 0.7 cm)	Electrical Ivory	108685017
M28L-262	Eightplex (Double Gang)	4.61 x 4.81 x 0.29 in (11.7 x 12.2 x 0.7 cm)	Electrical White	108685025
M28L-270	Eightplex (Double Gang)	4.61 x 4.81 x 0.29 in (11.7 x 12.2 x 0.7 cm)	Electrical Gray	108685033
M12AP-246	Duplex (Vertical Alignment)	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical Ivory	107276172
M12AP-262	Duplex (Vertical Alignment)	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Electrical White	107276180
M12AB-246	Duplex	2.81 x 4.81 x 0.29 in (7.1 x 12.2 x 0.7 cm)	Ivory	107648586

L-Type and LE-Type Faceplate Labels and Label Covers

Labels are on 8-1/2 x 11 inch sheets of paper that are to be used with a printer. The labels are easy to punch out since the paper is perforated in the shape of the labels. The label covers are the clear label covers that go on the faceplate.

Product Number	Package	Min. Order Qty.	Material ID
L Covers	100 covers	1 box, 5 pkgs, 500 covers	108492927
LE Covers	100 covers	1 box, 5 pkgs, 500 covers	108492935
L Labels	10 sheets/1,000 labels	1 box, 50 pkgs, 500 sheets	108492943
LE Labels	10 sheets/300 labels	1 box, 50 pkgs, 500 sheets	108492950

Flush Mounted Flexible Faceplate

CommScope Flexible Faceplate is a front access modular structure. This faceplate is universal and accommodates all M-Series jacks for copper and fiber. It is made up of a main frame and various types of adapters that snap into it. The design includes separate components: a single gang frame M13FP, a double gang frame M26FP and various adapters: single, dual, blank, S-Video and 3-Port RCA. All come in four colors: black, white, ivory and gray.

RCA and S-Video (SVHS) Adapters for the flexible faceplate are front access adapters that will accommodate the flush mount S-Video Adapter and the 3-Port RCA Adapter. These adapters will easily snap into the flexible faceplate.

The RCA Adapter uses a 110 IDC (Insulation Displacement Contact) block to directly terminate the 4-pair building wiring. RCA outlets are used for connecting audio and video appliances to 24 AWG U/UTP CommScope wiring.

The S-Video Adapter uses a 110 IDC block to directly terminate to 4-pair building wiring. The S-Video or Super VHS (SVHS) Modular Adapter provides baseband video connectivity to 24 AWG U/UTP CommScope wiring. These outlets provide point-to-point transmission of analog baseband National Television System Committee (NTSC)/Phase-Alteration Line (PAL)/SECAM S-Video signals.

Physical Specifications:

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
M13FP-003	Flexible Faceplate - Single Gang Frame	4.81 x 2.84 x 0.64 in (12.2 x 7.2 x 1.6 cm)	Black	760010009
M13FP-246	Flexible Faceplate - Single Gang Frame	4.81 x 2.84 x 0.64 in (12.2 x 7.2 x 1.6 cm)	Ivory	760010017
M13FP-262	Flexible Faceplate - Single Gang Frame	4.81 x 2.84 x 0.64 in (12.2 x 7.2 x 1.6 cm)	White	760010025
M13FP-270	Flexible Faceplate - Single Gang Frame	4.81 x 2.84 x 0.64 in (12.2 x 7.2 x 1.6 cm)	Gray	760010033
M26FP-003	Flexible Faceplate - Double Gang Frame	4.81 x 4.61 x 0.67 in (12.2 x 11.7 x 1.7 cm)	Black	760008607
M26FP-246	Flexible Faceplate - Double Gang Frame	4.81 x 4.61 x 0.67 in (12.2 x 11.7 x 1.7 cm)	Ivory	760008615
M26FP-262	Flexible Faceplate - Double Gang Frame	4.81 x 4.61 x 0.67 in (12.2 x 11.7 x 1.7 cm)	White	760008623
M26FP-270	Flexible Faceplate - Double Gang Frame	4.81 x 4.61 x 0.67 in (12.2 x 11.7 x 1.7 cm)	Gray	760008631
M30FP-1RJ45-246	Single Port Adapter		Ivory	760009431
M30FP-1RJ45-262	Single Port Adapter		White	760009449
M30FP-1RJ45-270	Single Port Adapter		Gray	760009456
M30FP-2RJ45-003	Double Port Adapter		Black	760008649
M30FP-2RJ45-246	Double Port Adapter		Ivory	760008656
M30FP-2RJ45-262	Double Port Adapter		White	760008664
M30FP-2RJ45-270	Double Port Adapter		Gray	760008672
M30FP-BLANK-003	Blank Adapter		Black	760009464
M30FP-BLANK-246	Blank Adapter		Ivory	760009472
M30FP-BLANK-262	Blank Adapter		White	760009480
M30FP-BLANK-270	Blank Adapter		Gray	760009498
M30FP-SVHS-110	Flush Mount S-VHS Adapter		Black	760013094
M30FP-SVHS-110	Flush Mount S-VHS Adapter		Ivory	760013102
M30FP-SVHS-110	Flush Mount S-VHS Adapter		White	760013110
M30FP-SVHS-110	Flush Mount S-VHS Adapter		Gray	760013128



Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

Product Number	Detailed Description	Color	Material ID
M30FP-3RCA-110	3-Port RCA Adapter	Black	760017541
M30FP-3RCA-110	3-Port RCA Adapter	Ivory	760017558
M30FP-3RCA-110	3-Port RCA Adapter	White	760017566
M30FP-3RCA-110	3-Port RCA Adapter	Gray	760017574
M30FP-VGA-PT-262	M30FP VGA Adapter	White	760028720
M30FP-VGA-PT-270	M30FP VGA Adapter	Gray	760028738
M30FP-VGA-PT-003	M30FP VGA Adapter	Black	760028704
M30FP-VGA-PT-246	M30FP VGA Adapter	Ivory	760028712

Flush Mounted Metal Faceplates

These flush mounted metal faceplates in 2-, 3-, 4- and 6-port size are designed to be used with the M-Series modular outlets mounted at a 90 or 45 degree angle. When mounted at the 90 degree angle, the front of the outlet is flush with the front of the stainless steel faceplate.

These faceplates include an adapter riveted to the stainless steel that accepts the M-Series outlets. The dimensions are approximately 2.75 in (7.0 cm) wide by 4.5 in (11.3 cm) high by 0.3 in (0.7 cm) deep, fitting a NEMA box as small as 1.75 in (4.4 cm) wide by 4.125 in (10.5 cm) high by 1.75 in (4.4 cm) deep.



Individual packaging includes one faceplate and two combination head (Phillips/slot) mounting screws for installation in a standard NEMA electrical box.

Physical Specifications:

Height: 4.50 in (11.4 cm)

Width: 2.75 in (7.0 cm)

Depth: 0.16 in (0.4 cm)

Product Number	Detailed Description	Material ID
M11SP-L	Simplex	760072074
M12SP-L	Duplex	760072181
M13SP-L	Triplex	760072199
M14SP-L	Quadplex	760072207
M16SP-L	Sixplex	760072215
M12SP	Duplex	108615188
M13SP	Triplex	108615196
M14SP	Quadplex	108615204
M16SP	Sixplex	108615212
M10LW	Simplex for Wall Mounting of Telephones	760024463
63038	Outlet	104206701
M14SP	Quadplex Brass	760017988
M13SP	Triplex Statuary Bronze	760067686
M12BBrass	Duplex Brass	760060608
M13BBrass	Triplex Brass	760060616

Product Number	Detailed Description	Material ID
M14BBrass	Quadplex Brass	760060624
M12BBronze	Duplex Bronze	760060632
M13BBronze	Triplex Bronze	760060640
M14BBronze	Duplex Bronze	760060657
M10L-003	Brushed Statuary Bronze	760061325
1-Port BrshBrass-Single	Single Gang, 1-Port Brushed Brass	760061580
1-Port BrDkStatBrnz	Single Gang, 1-Port Brushed Dark Statuary Bronze	760062349
4-Port BrshBrass	Double Gang, 4-Port Brushed Brass	760061598
4-Port StStl	Double Gang, 4-Port Stainless Steel Faceplate	760067249
6-Port BrDarkStBrnz	Single Gang, 6-Port Brushed Dark Statuary Bronze	760062331
6-Port BrDarkStBrnz	Double Gang, 6-Port Brushed Dark Statuary Bronze	760062323

Flush Mounted Multimedia Faceplate

The M10MMFP faceplate provides the opportunity to deploy copper and fiber media to the workstation for new and existing installations. The product enables you to fasten a flush mount faceplate (i.e. M12L, M14L, M12LE, M14LE, etc.) to the front of the unit—for installation of up to 6 copper M-Series modules and provides alternatives for fiber connectors installed vertically at the base of the product. It may be configured with ST, SC or LC adapters in various densities.



Adapter plates are provided for use with the SC duplex, LC duplex or the high-density modular adapter strips available for ST, SC and LC connectors. The plates can be installed either right at the base (exposed) or recessed in unit, providing additional protection for the fibers. Additionally, the fiber adapter strips provide high-density capability for customer applications.

The M10MMFP incorporates fiber slack storage to manage fiber termination. The M10MMFP also features either rear (4) or side (2) entry ports for cabling, providing flexibility for either wall-mount or raceway installs.

The attractive cover snaps onto the base, providing protection for the fiber connections. The cover also provides labeling features such as a paper label for circuit identification and plastic icon strips (in 9 colors). In addition, the cover may be attached to the base with the screws, affording tamper resistance.

The M10MMFP Multimedia Faceplate includes: 1 multimedia unit (cover and base); 3 Fiber Adapter Plates- SC Adapter Plate, LC Adapter Plate and Plate for SC, ST or LC adapter strips; 1-1/4 in truss head screws; K35 by 12 mm pan head Phillips PT® screws; label; clear plastic label cover; installation instructions; plastic icon strips in 9 colors (gray, blue, yellow, orange, red, white, brown and purple).

Physical Specifications:

Height: 8.76 in (22.2 cm)

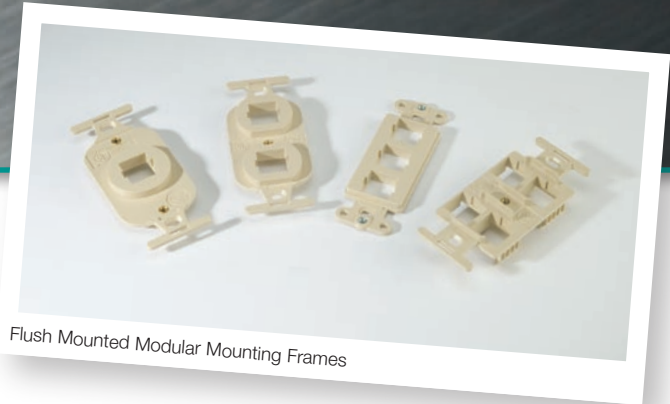
Width: 4.50 in (11.4 cm)

Depth: 1.14 in (2.9 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Color	Qty/Pkg	Material ID
M10MMFP-246	Multimedia	Ivory	1	108502303
M10MMFP-262	Multimedia	White	1	108502329
M10MMFP-270	Multimedia	Gray	1	108502337

Flush Mounted Modular Mounting Frames



Flush Mounted Modular Mounting Frames

The M105FR1, M106FR2, M108FR3 and M106FR4 Modular Mounting Frames are flush mounted multi-outlet modular mounting frames designed for use with the M-Type modular information outlets.

The M105FR1 is a single outlet modular mounting frame.
The M106FR2 is a duplex outlet modular mounting frame.
The M106FR4 is a quadplex outlet modular mounting frame.

The M108FR3 is a triplex modular mounting frame. A standard DeCora in style faceplate fits over the frame.

Physical Specifications:

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
M105FR1-246	Simplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical Ivory	106622160
M105FR1-262	Simplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical White	106622178
M105FR1-270	Simplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical Gray	106688401
M106FR2-003	Duplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Black	106628852
M106FR2-246	Duplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical Ivory	106622210
M106FR2-262	Duplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical White	106622251
M106FR2-270	Duplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical Gray	106688393
M108FR3-148	Triplex	3.93 x 1.40 x 0.29 in (10.0 x 3.6 x 0.7 cm)	Almond	760074229
M108FR3-003	Triplex	3.93 x 1.40 x 0.29 in (10.0 x 3.6 x 0.7 cm)	Black	108265430
M108FR3-246	Triplex	3.93 x 1.40 x 0.29 in (10.0 x 3.6 x 0.7 cm)	Electrical Ivory	108265448
M108FR3-262	Triplex	3.93 x 1.40 x 0.29 in (10.0 x 3.6 x 0.7 cm)	Electrical White	108265455
M108FR3-270	Triplex	3.93 x 1.40 x 0.29 in (10.0 x 3.6 x 0.7 cm)	Electrical Gray	108265463
M106FR4-003	Quadplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Black	106627763
M106FR4-246	Quadplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical Ivory	106622277
M106FR4-262	Quadplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical White	106622285
M106FR4-270	Quadplex	4.10 x 1.75 x 0.50 in (10.4 x 4.4 x 1.3 cm)	Electrical Gray	106688385

Modular Mounting Frame for Cable Cubby®

The CommScope 6 Port Adapter Plate for Extron Enclosure Applications allows the user to integrate any M-series style outlet into an Extron Cable Cubby® type enclosure. The metal adapter plate features a snap-in plastic bezel and four K-Lock nuts to secure the unit inside the enclosures.

Using the CommScope adapter plates in unison with the Extron Cable Cubby extends the choices of audio, video, and data connections to the user work space in an enclosed and very aesthetically pleasing manner. Typical environments that benefit from this combination of products would range from commercial office or educational facilities, as well as high-end residential and retail spaces. All products that utilize the M-series style outlet connection can usually be installed in the adapter plate.



MFR6-EXT-003

Product Number	Detailed Description	Material ID
MFR6-EXT-003	6 Port Adapter Plate for Extron Enclosure Applications	760077859

Tamper Resistant Faceplate

The CommScope Tamper Resistant Faceplate is designed to provide security to the connection points being made at the work space location. It also provides a degree of protection from intentional or inadvertent removal of the connection points at the faceplate. The tamper resistant faceplate can support most M-series type outlets and adapters, as well as many of the M30FP flexible series adapters.

Features and Benefits:

- Large labeling field for printed and hand-written labels
- Graphical and color-coded labeling features, providing a means for using icons for service identification or color-coding on the faceplate itself
- Faceplate does not recess the outlets/adapters into the wiring box space and leaves more room for the wiring behind the faceplate
- Eliminates the need to remove transparent covers to check the connection and see labels
- Two interchangeable covers are offered, allowing the capability of handling a large connector or a larger cable requiring more bend radius
- Integral label holders make it easy for users wanting to install a label visible from the outside of the protected faceplate cover



Product Number	Detailed Description	Color	Material ID
M13FP-TR-262	Faceplate Kit-Tamper Res. (Std.) (Single Gang)	White	760091231
M13FP-TR-246	Faceplate Kit-Tamper Res. (Std.) (Single Gang)	Ivory	760091249
M13FP-TR1-262	Faceplate Kit-Tamper Res. (Low Prof.) (Single Gang)	White	760091280
M13FP-TR1-246	Faceplate Kit-Tamper Res. (Low Prof.) (Single Gang)	Ivory	760091298
M13FP-TRC	Faceplate Cover-Tamper Res. (Std.) (Single Gang)	Clear	760091330
M13FP-TRC1	Faceplate Cover-Tamper Res. (Low Prof.) (Single Gang)	Clear	760091348

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

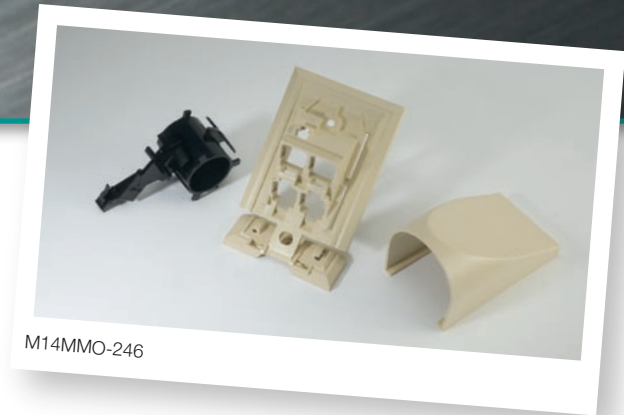
Workstation Platforms & Accessories

Enclosures

Glossary

Index

4-Port Flush Mount Outlet



M14MMO-246

The 4-Port Flush Mount Outlet is designed to mount on a wall surface and will fit any standard National Electrical Manufacturers Association (NEMA) electrical box. The flush mounted faceplate has 45 degree angular ports for fiber and copper connectors and has a protective angled hood. The hinged base of the faceplate allows changes and maintenance to occur without reinstalling the faceplate. The fiber organizer spool bend-radius provides control and storage for fiber slack.

The 4-Port Flush Mount Outlet can be used in the following environments:

- In an ALL COPPER environment, the 4-Port Flush Mount Outlet will support up to four M-Series connectors, four M81LC mounting modules, or up to two M-Series connectors or M81C mounting modules. When fiber is introduced into the application, the number of ports available for connectors is reduced by one
- In an ALL FIBER environment, the M14MMO will support two simplex ST or SC connectors, four M81LC connectors, or two duplex SC connectors
- In an integrated FIBER/COPPER environment, the 4-Port Flush Mount Outlet will support one M-Series copper connector and two simplex SC or ST connectors, or one M-Series copper connector and one duplex SC connector

Physical Specifications:

Height: 5.69 in (14.5 cm)

Width: 3.28 in (8.30 cm)

Depth: 1.29 in (3.3 cm) faceplate, 2.77 in (7.00 cm) hood and faceplate, 5.30 in (13.5 cm) hood/faceplate/spool

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Color	Material ID
M14MMO-003	Quadplex	Black	107655169
M14MMO-246	Quadplex	Electrical Ivory	107655177
M14MMO-262	Quadplex	Electrical White	107655185
M14MMO-270	Quadplex	Electrical Gray	107655193

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

4-Port Modular Furniture Faceplate

M4CA faceplate is designed for modular furniture applications requiring either fiber and/or copper connectivity. The M4CA has M-Series sockets with snap indentations orientated top and bottom to accommodate up to 4 M-Series jacks. The M4CA will also accommodate 4 fiber modular telecommunications outlets such as the LC couplings and jumpers for modular “furniture” within TIA standard cavity depth of 1.2 inch minimum. The LazrSPEED angle mount fiber jumper assembly may also be used with this faceplate.



Modular office furniture manufacturers have used a wide range of panel openings for their data and voice outlets. The M4CA will adjust to fit many of these. It may be mounted on any flat surface with a material thickness of 0.025 in to 0.125 in (0.63 mm to 3.18 mm). It may be easily installed in any rectangular opening size ranging from 1.7 in high by 2.792 in wide (4.32 cm x 7.09 cm) to 2.375 in high by 4.125 in wide (6.03 cm x 10.48 cm).

The surface finish is the same as that used on the LE series faceplates. Each M4CA kit includes frame, cover, latch bars (shipped attached to the frame) and a paper label that may be used for identification of each port, along with a protective clear plastic label cover.

Physical Specifications:

Height: 2.98 in (7.6 cm)

Width: 4.73 in (12.0 cm)

Depth: 0.50 in (1.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Color	Material ID
M4CA-003	Quadplex	Black	700189046
M4CA-262	Quadplex	White	700191588
M4CA-246	Quadplex	Ivory	700191570
M4CA-270	Quadplex	Gray	700191596

6-Port Modular Furniture Faceplate

The M26C Modular Furniture Sixplex Outlet Faceplate is a flush mounted faceplate designed to snap into modular furniture raceway covers. The M26C holds up to six M-Series or M-81 Series mounting modules. Both sides of the faceplate are numbered for easy installation and maintenance identification. The M20AP dust cover/blank can be used to protect unused outlets and cover unused faceplate openings. Fits modular furniture knock-out size 1.374 in (3.49 cm) high x 5.251 in (13.34 cm) wide.



Physical Specifications:

Height: M26C—1.9 in (4.8 cm)

Width: M26C—5.6 in (14.2 cm)

Depth: M26C—0.5 in (1.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Color	Material ID
M26C-246	Sixplex	Electrical Ivory	107167496

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Workstation
Platforms &
Accessories

Enclosures

Glossary

Index

3-Port Faceplate for SteelCase™ Furniture



The M13C and M13CLS Modular Furniture Triplex Outlet Faceplates are flush mounted triplex modular faceplates designed to fit modular furniture raceway covers for the following SteelCase furniture lines: (E)9000, Segment (with correct bezel), Answer, Montage, Avenir, Elective Elements and Context. The M13C holds up to three M-Series or fiber modular telecommunications outlets and has numbering on both sides of the faceplate for installation and maintenance identification. The M20AP dust cover/blank can be used to protect unused outlets and cover unused faceplate openings. The M13C Faceplate is used in an opening size of 1.38 in (35.1 mm) in height and 2.71 in (68.8 mm) in width (dimensions are +/- .01 in).

The M13CLS Faceplate is part of the LazrSPEED Solution and it holds M-Series modules that snap in horizontally and can also be angled. The M13CLS Faceplate is used in an opening size of 1.375 in +/- 0.025 in (34.93 mm +/- 0.64 mm) in height and 2.700 in +/- 0.050 in (68.58 mm +/- 1.27 mm) in width.

Physical Specifications:

Height: 1.84 in (4.7 cm)

Width: 3.13 in (7.9 cm)

Depth: 0.29 in (0.7 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Color	Material ID
M13C-003	Triplex	Black	106650864
M13C-246	Triplex	Electrical Ivory	106650880
M13C-262	Triplex	Electrical White	106650898
M13C-270	Triplex	Electrical Gray	106701154
M13CLS-246	Triplex	Ivory	108564675
M13CLS-262	Triplex	White	108564683
M13CLS-270	Triplex	Gray	108564691
M13CLS-003	Triplex	Black	108564709
M13CLS-215	Triplex	Misty Cream	108564725

3-Port Faceplate for Herman-Miller™ Action Furniture

The M13HM faceplate is designed to fit to the data communications opening in the Herman-Miller Action Office System series of modular furniture.

The M13HM has M-Series sockets with snap indentations to accommodate three M-Series jacks. Above the M-Series openings is space for a paper label insert with a clear plastic label holder (included).

Mounting clips are molded within the M13HM faceplate. No screws required for mounting and securing the faceplate to the opening.

1 Kit of Parts = 25 M13HM Faceplates with label inserts and label holders.
Minimum Order Quantity (MOQ) = 1 Kit of Parts

Physical Specifications:

Height: 2.13 in (5.5 cm)
Width: 3.5 in (8.8 cm)
Depth: 0.25 in (0.65 cm)

Product Number	Detailed Description	Color	Material ID
M13HM-003	Triplex Faceplate Kit of Parts	Black	760045039
M13HM-246	Triplex Faceplate Kit of Parts	Ivory	760045047
M13HM-262	Triplex Faceplate Kit of Parts	White	760045054
M13HM-270	Triplex Faceplate Kit of Parts	Gray	760045062



Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

4-Port Faceplate for Knoll™, SteelCase™ and Herman-Miller™

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

The M14 Modular Furniture Quadplex Outlet Faceplates hold up to four M-Series modular outlets or M81-Series Mounting Modules. Both sides of the faceplate are numbered for easy installation and maintenance identification.

The M14C Faceplate is a flush mounted modular faceplate designed to fit the Knoll, Inc. line of modular furniture raceway covers. Packaged with two color coordinated M20AP dust cover/ blanks to cover unused ports. The M14C Faceplate is used in an opening size of 1.609 inches in height and 3.358 inches in width (dimensions are +/- .01 inch).

The M14CE faceplate is designed to fit SteelCase modular furniture and is used in an opening size of 1.38 in (3.51 cm) in height and 2.71 in (6.88 cm) in width.

The M14CH Faceplate is a flush mounted modular faceplate designed to fit the Herman-Miller-Ethospace beltline modular furniture raceway covers. The M14CH Faceplate is used in an opening size of 1.750 inches in height and 2.832 inches in width (dimensions are +/- 0.005 in).

Physical Specifications:

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

M14C-003

M14CE-246

M14CH-246

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
M14C-003	Quadplex	2.11 x 4.07 x 0.53 in (5.4 x 10.3 x 1.3 cm)	Black	106650849
M14C-270	Quadplex	2.11 x 4.07 x 0.53 in (5.4 x 10.3 x 1.3 cm)	Gray	107167462
M14C-148	Quadplex	2.11 x 4.07 x 0.53 in (5.4 x 10.3 x 1.3 cm)	Almond	107167488
M14CE-003	Quadplex	2.16 x 4.07 x 1.27 in (5.5 x 10.3 x 3.2 cm)	Black	108216151
M14CE-246	Quadplex	2.16 x 4.07 x 1.27 in (5.5 x 10.3 x 3.2 cm)	Ivory	108216144
M14CE-262	Quadplex	2.16 x 4.07 x 1.27 in (5.5 x 10.3 x 3.2 cm)	White	108216128
M14CE-270	Quadplex	2.16 x 4.07 x 1.27 in (5.5 x 10.3 x 3.2 cm)	Gray	108216136
M14CH-003	Quadplex	2.0 x 3.13 x 0.38 in (5.1 x 7.9 x 1.0 cm)	Black	108406414
M14CH-246	Quadplex	2.0 x 3.13 x 0.38 in (5.1 x 7.9 x 1.0 cm)	Ivory	108406422
M14CH-262	Quadplex	2.0 x 3.13 x 0.38 in (5.1 x 7.9 x 1.0 cm)	White	108406430
M14CH-270	Quadplex	2.0 x 3.13 x 0.38 in (5.1 x 7.9 x 1.0 cm)	Gray	108406448
M14C-262	Quadplex	2.11 x 4.07 x 0.53 in (5.4 x 10.3 x 1.3 cm)	White	760071258
M14B-148	Quadplex		Almond	106602345

Rectangular Mounting Collar for M-Series Outlets

The M30MC Mounting Collar is designed to fit into a rectangular opening. The width of the opening will always be 0.763 inch (19.38 mm). However, the height of the opening is variable based on the thickness of the material into which the collar is pressed. The material thickness is restricted to the range, 0.025 inch to 0.125 inch (0.64 mm to 3.17 mm).

Physical Specifications:

Height: 1.00 in (2.5 cm)

Width: 1.03 in (2.6 cm)

Depth: 0.46 in (1.2 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Color	Material ID
M30MC-003	Black	106664154
M30MC-246	Electrical Ivory	106664139
M30MC-262	Electrical White	106664147
M30MC-270	Electrical Gray	106697089

M30MC-246

Circular Mounting Collar for M-Series Outlets

The M30CC Circular Collar is a plastic circular collar designed to support the M-Series modules. The M30CC can be used in furniture such as a desk or cabinet, on a flat wall panel, or on a flat metal panel. The supporting panel or wall structure must be between 0.04 in. and 0.13 in (0.1 cm and 0.32 cm) in thickness, inclusively.

The M30CC collar supports a single telecommunications outlet such as the M-Series and can also support the M81-Series mounting modules.

Physical Specifications:

Outside Diameter: 1.60 in (4.1 cm)

Depth: 0.50 in (1.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Color	Material ID
M30CC-246	Ivory	106986110

M30CC-246

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

Modular Faceplates and Clips Germany/Benelux Applications

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

The range of Benelux/German standard Information Outlets include the M18930 Surface Outlet, M18932 Flushmount Centerplate, M02714 Coverplate and M81 Dustcovers.

The M18930 Outlet is a surface-mounted duplex M-Series Modular Information Outlet designed for use with two M-Series high-density modules. The outlet openings have provision for label identification.

The M18932 Centerplate is a flush mounted Centerplate which is also designed to accept two M-Series HDM's. The M18932 mounts in a German/Benelux standard electrical box with centerplate mounting dimensions of 60 mm center to center and with a minimum depth of 32 mm. The outlet openings have provision for label identification.

The M02714 flush mount coverplate is used with the M18932 centerplate to provide a frame around the mounting screws of the centerplate.

The M81 are dust covers designed for use with the M18930 and M18932 faceplates. The M81 is used in empty jack openings which are not populated with high-density modules.

The CommScope® M12GER-F/UTP 2-port modular furniture German Faceplate can accommodate all Foil Twisted Pair (F/UTP) modules for CommScope networking solutions. Unshielded Twisted Pair (U/UTP) and fiber modules may be deployed as well. The M12GER-F/UTP provides a grounding solution for F/UTP and its angle feature can provide a solution that will not cause kinking with the size of today's larger cables when looped in an electrical box while using conduit. Dust shutters offer protection for avoiding leaf spring contamination.

The M12GER-F/UTP faceplate accepts two high-density modules and is designed specifically for the German market. The faceplate can be mounted into a German standard electrical box and it features a provision for labeling above the port openings.

The M18932-246 and the M18932-262 accommodate the GigaSPEED X10D MFP520 information outlets.



M18930



M12GER-F/UTP-262

Product Number	Detailed Description	Dimensions H x W x D	Mounting	Color	Material ID
M02714-246	M18932-246 Coverplate	8.0 x 8.0 x 0.55 cm	Flush	Ivory	106720212
M18930-246	Duplex	8.0 x 6.5 x 3.5 cm	Surface	Ivory	106720196
M18932-246	Duplex	5.0 x 5.0 x 0.73 cm	Flush	Ivory	106720204
M02714-262	M18932-262 Coverplate	8.0 x 8.0 x 0.55 cm	Flush	White	107052359
M18930-262	Duplex	8.0 x 6.5 x 3.5 cm	Surface	White	107052334
M18932-262	Duplex	5.0 x 5.0 x 0.55 cm	Flush	White	107052326
M12GER-F/UTP-262	Faceplate, German 2-port (F/UTP)	8.1 x 8.1 x 2.41 cm	Surface	White	760085993
M81-246	M81-246 BLANK	1.8 x 1.3 cm		Ivory	106837222
M81-262	M81-262 BLANK	1.8 x 1.3 cm		White	106837230

Modular Faceplates and Clips Scandinavian Applications

The MFUGA Scandinavian faceplate is a dual flush mount faceplate which mounts in a FUGA box (or equivalent) and accepts two high-density modules. It consists of the cover and baseplate.

The MFUGAS Scandinavian faceplate is a single flush mount faceplate which mounts in a FUGA box (or equivalent) and accepts one high-density module. It consists of the cover, baseplate and mounting plate.

The MTDL80 Universal faceplate is a dual semi-surface mounted faceplate which can be surface or flush mounted on a standard electrical box (60 mm mounting) and also mounted on any type of electrical trunking. It accepts two high-density modules. It comes complete (without HDMS) and ready to mount.

The M12D OPUS Faceplate is used in the OPUS, SENSIQ 66x66 and EPUS 66x66 switch and socket outlet system. It should be mounted together with mounting frames. It is suited for use in Denmark, East and North European markets.

The MCAN faceplate is a dual flush mount faceplate which mounts on a CAN/Clickline electrical box (or equivalent) and accepts two high-density modules. The MCAN Kit consists of a faceplate and an adapter frame for mounting in a standard IEC (c/c 60 mm) electric box. The MCAN Adapter Frame provides secure and tidy mounting for the MCAN Faceplate in a standard IEC wall box (c/c 60 mm). The MFUGA-262 and MCAN-DL-262 accommodate the GigaSPEED X10D MFP520 information outlets.



MFUGA

Product Number	Detailed Description	Dimensions H x W x D	Color	Material ID
MFUGA-262	Duplex	71 x 45 x 8.5 mm	White	106790140
MFUGAS-262	Simplex	45 x 45 x 8.5 mm	White	106969066
MCAN-DL-262	Duplex	85 x 85 x 8.8 mm	White	106790165
MTDL-8D-262	Duplex	80 x 80 x 36 mm	White	106790132
M12D-262 OPUS	Duplex	58 x 58 x 12 mm	White	107818320
MFYGA-290			Gray	106790157
M12D(42)				107822413

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

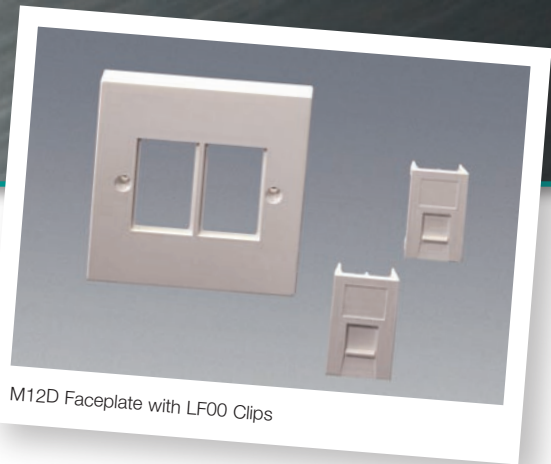
Workstation Platforms & Accessories

Enclosures

Glossary

Index

Modular Faceplates and Clips UK Applications



The range of UK Standard Information Outlets consists of the M12D and M14D Faceplates and the LF80 and LF00 Clips. The M12D is a flush mounted, duplex, 2-gang UK/Ireland standard faceplate designed to accept two LF80 or LF00 clips (or any combination of the two). The M14D is a flush mounted, quadplex, 4-gang UK/Ireland standard faceplate designed to accept four LF80 or LF00 clips (or any combination of the two). The standard package for each includes the faceplate plus two mounting screws for installation in a UK standard 35 mm (for Mark V) or 32 mm (for Mark VI) electrical box.

The LF80 Clips (Mark V and Mark VI) fit into the M12D and M14D and accept one high-density module. The Mark V is equipped with a spring-loaded shutter to protect the HDM from dust. It can be cabled through the faceplate and fits into minimum 35 mm depth boxes. There is a provision for port labeling. The Mark VI is angled and has a unique shutter design. It can be cabled through the faceplate and fits into minimum 32 mm depth boxes.

The LF00 Clip is a blank snap-in clip used in vacant slots of the M12D or M14D faceplate. The LF82 accommodates the GigaSPEED X10D MFP520 information outlets.

Physical Specifications:

Height: Faceplate: 8.50 cm
Clip: 3.8 cm

Width: Faceplate: M12D = 8.5 cm, M14D = 14.6 cm
Clip: 2.5 cm

Depth: Faceplate: 0.90 cm
Mark V and LF00 Clip: 1.4 cm
Mark VI Clip: 2.0 cm

Detailed Description	Dimensions	Color	Material ID
LF80	3.8 x 2.5cm	White	407900422
LF80	3.8 x 2.5cm	Black	407901933
LF80	3.8 x 2.5cm	Yellow	999901647
LF80	3.8 x 2.5cm	Blue	999901646
LF80	3.8 x 2.5cm	Green	999901645
LF80 Angled Shuttered	3.8 x 2.5cm	White	407901909
LF80 Unshuttered	3.8 x 2.5cm	White	999901305
LF82	2.25 x 4.5cm	Black	999910015
LF82	2.25 x 4.5cm	White	999910016
LF00 Blank	3.8 x 2.5cm	White	407900448
LF00 Blank	3.8 x 2.5cm	Black	406985390
Quad Outlet Faceplate (4 Gang)	8.6 x 14.6cm	White	407900463
Double Outlet Faceplate (2 Gang)	8.6 x 8.6cm	White	407900471
45mm Double Back Box (M14D)	8.6 x 14.6cm	White	999901705
45mm Back Box (M12D)	8.6 x 8.6cm	White	999901702
4 Gang Euro Style Faceplate	8.6 x 14.6cm	White	999910014
37mm Double Back Box (M14D)	8.6 x 14.6cm	White	999901704
37mm Back Box (M12D)	8.6 x 8.6cm	White	999901706
32mm Double Back Box (M12D)	8.6 x 14.6cm	White	999901701

Modular Faceplates and Clips Italian Applications

The LF82IT and LF83IT Clips each accept one high-density module and are designed specifically for the Italian market. The LF82IT Clip is black in color while the LF83IT is ivory. The LF82IT and LF83IT Clips fit in a standard Italian faceplate which can be mounted onto an Italian standard electrical box with a minimum depth of 32 mm. There is a provision for port labeling.

The Living faceplate accommodates the GigaSPEED X10D MFP520 information outlets.

Physical Specifications:

Height: 4.39 cm
Width: 2.48 cm
Depth: 2.50 cm

Detailed Descriptions	Color	Material ID
Living	Black	106961311
Magic	Ivory	106961329
Light	White	108086638
Living International	Black	108086646
Light Tech Adapter	Grey	999901820
MATIX Adapter	White	999901821

Single Port and Dual Port Faceplates French Applications

The French Single Port Faceplate accepts one high density module and the Dual Port accepts two high density module(s). The Single Port faceplate is equipped with a spring-loaded shutter to protect the HDM from dust. It is designed specifically for the French market and fits in the Legrand Mosaic faceplate. There is provision for port labeling.

The French Single and Dual Port Faceplates accommodate the GigaSPEED X10D MFP520 information outlets.

Physical Specifications:

Height: 4.5 cm
Width: 4.5 cm
Depth: 2.7 cm

Detailed Description	Dimensions	Color	Material ID
French Single Port Shuttered Faceplate*		White	760091090
French Dual Port Unshuttered Faceplate*		White	760091082
LF81	2.5 x 5.0cm	Black	999901670
LF81	2.5 x 5.0cm	White	999901648
LF81	2.5 x 5.0cm	Ivory	108230632
LF81 Module Blank	2.5 x 5.0cm	Black	999901822
LF81 Module Blank	2.5 x 5.0cm	White	999901805
LF81 Angled	2.5 x 5.0cm	Black	999910013
LF81 Angled	2.5 x 5.0cm	White	999901649

* 760060392 M2000 custom labels fit the provisions on all CommScope faceplates.



Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

Modular Faceplates

Swiss Applications



Novo Faceplate



FLF Faceplate

The range of Swiss standard Information Outlets includes the four port Novo and Standard White Flushmount Outlets which mounts into Swiss electrical boxes. The Outlets is designed for use with four M-Series high-density modules. They come complete, ready to mount with two caps. The White FLF modular furniture duplex outlet faceplate holds up to two M-Series modular outlets or M81-Series mounting modules.

Detailed Description	Color	Dimensions	Material ID
Swiss Standard Faceplate	White	8.6 x 8.6 x 1.0cm	760076984
Swiss FLF Faceplate	White	6.2 x 3.7 x 2.4cm	760076992
Swiss Novo Faceplate	White	8.7 x 8.7 x 1.0cm	760077008

Modular Faceplates and Clips

Asia Pacific Applications

The range of Asia Pacific Information Outlets consists of the M10CF, M12CF and M14CF Faceplates. All faceplates are flush mounted. The M12 and M14 are available in unshuttered and shuttered versions.



Flush Mounted Faceplates

Product Number	Detailed Description	Dimensions	Material ID
M12CF-262	2-Port Faceplate Shuttered	3.4 x 3.4 in	760003038
M14CF/S-262	4-Port Faceplate Shuttered	3.4 x 3.4 in	760026203
M10CF-262	Single Port Faceplate	3.4 x 3.4 in	760011593
M14CF-262	4-PORT Faceplate	3.4 x 3.4 in	760011916
M12CFNS-262	2-PORT Faceplate	3.4 x 3.4 in	760031518

Dust Covers for M-Series Faceplates and Outlets

The M20AP Covers are dual-purpose blank Dust Covers designed for use with the modular outlets and modular faceplate kits (except for the Shuttered clips and Benelux faceplates).

When the M20AP is used as a Dust Cover, it is inserted over the outlet opening and will protect the jack wires from dust. The M20AP can also be used with modular faceplates as a blank cover for empty jack openings which are not populated with modular outlets.

The M21A Dust Covers are for use with the M-Series modular outlets. The M21A installs over the Jack opening of the M-Series outlet, leaving the Icon area accessible.

The M20AP is packaged with 100 dust cover/blanks per box. The M21A is packaged 100 to a bag with 5 bags in a box.

Physical Specifications:

Height: 0.69 in (1.8 mm)

Width: 0.75 in (1.9 mm)

Depth: 0.20 in (0.05 mm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic



Product Number	Color	Material ID
M20AP-003	Black	107065583
M20AP-246	Electrical Ivory	107067860
M20AP-262	Electrical White	107067928
M20AP-270	Electrical Gray	107067951
M20AP-215	Cream	108481003
M20AP-148	Almond	760075051
M21A-003	Black	108066325
M21A-112	Orange	108066333
M21A-123	Yellow	108066341
M21A-226	Green	108066358
M21A-246	Ivory	108066457
M21A-262	White	108066465
M21A-270	Gray	108066473
M21A-317	Red	108066481
M21A-318	Blue	108066499
M21A-361	Violet	108337692
M21A-215	Misty Cream	108480997

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

Modular Information Outlet ICON Inserts

The M60 and M61 ICONs are small plastic inserts used to depict applications of specific jacks on the M-Series modular information outlet. The ICONs are packaged 25 in a polybag, and 20 polybags in a box. The M60 ICONs are etched with the following symbol word:

- Telephone—symbol representing a telephone application
- Computer—symbol representing a computer application
- DATA—word representing a data application
- VOICE—word representing a voice application
- Blank—has blank space for writing or denoting any application the user may designate or require

Product Number	Detailed Description	Color	Material ID
M60A-003	Telephone ICON	Black	107296386
M60A-112	Telephone ICON	Orange	107296402
M60A-123	Telephone ICON	Yellow	107296394
M60A-246	Telephone ICON	Ivory	107296352
M60A-262	Telephone ICON	White	107296378
M60A-270	Telephone ICON	Gray	107296360
M60A-317	Telephone ICON	Red	107296428
M60A-318	Telephone ICON	Blue	107296436
M60B-003	Blank ICON	Black	107296485
M60B-112	Blank ICON	Orange	107296501
M60B-123	Blank ICON	Yellow	107296493
M60B-226	Blank ICON	Green	107296519
M60B-246	Blank ICON	Ivory	107296451
M60B-262	Blank ICON	White	107296477
M60B-270	Blank ICON	Gray	107296469
M60B-317	Blank ICON	Red	107296527
M60B-318	Blank ICON	Blue	107296444
M60C-112	Computer ICON	Orange	107296584
M60C-123	Computer ICON	Yellow	107296576
M60C-226	Computer ICON	Green	107296592
M60C-246	Computer ICON	Ivory	107296535
M60C-262	Computer ICON	White	107296550
M60C-270	Computer ICON	Gray	107296543
M60C-317	Computer ICON	Red	107296600
M60C-318	Computer ICON	Blue	107296618
M60D-003	DATA ICON	Black	107296659
M60D-112	DATA ICON	Orange	107296675
M60D-123	DATA ICON	Yellow	107296667
M60D-226	DATA ICON	Green	107296683
M60D-246	DATA ICON	Ivory	107296626
M60D-262	DATA ICON	White	107296642
M60D-270	DATA ICON	Gray	107296634
M60D-317	DATA ICON	Red	107296691
M60D-318	DATA ICON	Blue	107296709

Product Number	Detailed Description	Color	Material ID
M60E-003	VOICE ICON	Black	107296741
M60E-112	VOICE ICON	Orange	107296766
M60E-123	VOICE ICON	Yellow	107296758
M60E-226	VOICE ICON	Green	107296774
M60E-246	VOICE ICON	Ivory	107296717
M60E-262	VOICE ICON	White	107296733
M60E-270	VOICE ICON	Gray	107296725
M60E-317	VOICE ICON	Red	107296782
M60E-318	VOICE ICON	Blue	107296790
M60M-148	Voice/Computer/Telephone ICON	Almond	760076034
M61A-003	icon for MGS400	Black	108065657
M61A-112	icon for MGS400	Orange	108065673
M61A-123	icon for MGS400	Yellow	108065707
M61A-215	icon for MGS400	Misty Cream	108481011
M61A-226	icon for MGS400	Green	108065731
M61A-246	icon for MGS400	Electrical Ivory	108065756
M61A-262	icon for MGS400	Electrical White	108065780
M61A-270	icon for MGS400	Electrical Gray	108065806
M61A-317	icon for MGS400	Red	108065814
M61A-318	icon for MGS400	Blue	108065822
M61F-003	voice icon Connector	Black	108066234
M61F-112	voice icon Connector	Orange	108066242
M61F-123	voice icon Connector	Yellow	108066259
M61F-226	voice icon Connector	Green	108066267
M61F-246	voice icon Connector	Ivory	108066275
M61F-262	voice icon Connector	White	108066283
M61F-270	voice icon Connector	Gray	108066291
M61F-317	voice icon Connector	Red	108066309
M61F-318	voice icon Connector	Blue	108066317
M61H-003	Computer icon, MPSE, DATA	Black	108373515
M61H-112	Computer icon, MPSE, DATA	Orange	108373523
M61H-123	Computer icon, MPSE, DATA	Yellow	108373531
M61H-215	Computer icon, MPSE, DATA	Misty Cream	108481029
M61H-226	Computer icon, MPSE, DATA	Green	108373549
M61H-246	Computer icon, MPSE, DATA	Ivory	108373564
M61H-262	Computer icon, MPSE, DATA	White	108373572
M61H-270	Computer icon, MPSE, DATA	Gray	108373580
M61H-317	Computer icon, MPSE, DATA	Red	108373598
M61H-318	Computer icon, MPSE, DATA	Blue	108373606
M61H-361	Computer icon, MPSE, DATA	Violet	108373614

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Workstation
Platforms &
Accessories

Enclosures

Glossary

Index

Flexible Surface Mount Outlet



The M40 Multimedia Information Outlet is a surface-mounted plastic enclosure designed to support a copper/fiber intergrated environment, an all copper environment or an all fiber environment.

The M40 design makes it versatile by utilizing removable panel inserts allowing termination of copper, fiber or composite cables. Panels are available to hold RJ-45, ST, SC and LC adapters.

The M40 outlet comes equipped with one M40RJ4A and one M40ST8 panel. Other panels must be ordered separately.

Physical Specifications:

Height: M40A1-B 6.88 in (17.5 cm)

Width: M40A1-B 5.79 in (14.7 cm)

Depth: M40A1-B 1.70 in (4.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Detailed Description	Color	Material ID
M40A1-B-262	Basic Outlet w/ M40RJ4A and M40ST8	Electrical White	107992927
M40ST8-B-262	Insert Panel holds 8 ST Couplings	Electrical White	107239485
M40DSC4-B-262	Insert Panel holds 4 Duplex SC Couplings	Electrical White	107239493
M40R-J2-246	Insert Panel holds 4 RJ45 Jacks	Electrical Ivory	106669278
M40RJ4A-262	Insert Panel holds 4 RJ45 Jacks, 4 M81 Mounting Modules	Electrical White	108004268
M40ST4-262	Insert Panel holds 4 ST Couplings	Electrical White	107800658

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

24-Port Consolidation Point Box

The new low profile M224CPN Consolidation Box is introduced as an enhancement to the zone wiring architecture.

This product provides a connection and distribution point for data and telecom cables in installations requiring a consolidation point. The slim design permits installation in a variety of non-plenum spaces such as under floors, limited space closets, inside paneled furniture, on walls in plain view and on shelves. The box can be mounted, with additional support, to single- or dual-gang electrical type boxes. For best results, the box is mounted on a flat surface, horizontally or vertically. The new M224CPN is substantially smaller than the M36PA (36-Port plenum) box only 27% of the box volume and 36% of the box area.

The box design utilizes four removable panels that can accommodate a variety of copper and fiber based connectors. Each panel will hold up to six connectors each. The box has a capacity of 24 dual SC connectors, single SC connectors, dual LC connectors, ST connectors, M-Series type copper connectors, S-Video, RCA, BNC and F-type video connectors, or any combination thereof. Connector types can be mixed and matched within the box by using two different panels. The box comes equipped with four 6-port inserts, two blank inserts, 12 dust covers for M-Series outlet holes, closing screws, wire ties, and instructions.

The M-Series panel has the most variety in connector options; it accommodates all but the dual SC connectors. Three fiber optic splice organizers are available which will accommodate fusion, mechanical or mass fusion splices.

Features and Benefits:

- Non-metallic housing
- 24-Port capacity
- Accommodates copper M-Series outlets, fiber connectors and copper and fiber terminations
- Can be populated with any M-Series voice, data or video outlet
- Expandable/Stackable features
- Easy access for terminations and moves, adds and changes
- Designed for mounting in various non-plenum environments (i.e., on the floor, under floor tile, surface-mount, wall, furniture, inside cabinets)
- Supports cable/port labeling
- Equipped with removable cover section for cord/label access that does not expose horizontal cables/terminations

Physical Specifications:

Height: 12.14 in (30.8 cm)
Width: 8.45 in (21.5 cm)
Depth: 1.44 in (3.7 cm)
Burn Rating: Non plenum



M224CPN-246

Product Number	Detailed Description	Color	Material ID
M224CPN-003	Box Base Cover, 4 M-Series Panels, 2 Blank Panels	Black	700016462
M224CPN-246	Box Base Cover, 4 M-Series Panels, 2 Blank Panels	Ivory	700016470
M224CPN-270	Box Base Cover, 4 M-Series Panels, 2 Blank Panels	Gray	700016496
M224CPN-262	Box Base Cover, 4 M-Series Panels, 2 Blank Panels	White	700016488
M224MSP-003	Panel Kit Includes 4 M-Series Panels of One Color	Black	700016504
M224MSP-246	Panel Kit Includes 4 M-Series Panels of One Color	Ivory	700016512
M224MSP-262	Panel Kit Includes 4 M-Series Panels of One Color	White	700016520
M224MSP-270	Panel Kit Includes 4 M-Series Panels of One Color	Gray	700016538
M224SCP-003	Panel Kit Includes 4-Dual SC Panels of One Color	Black	700019482
M224SCP-246	Panel Kit Includes 4-Dual SC Panels of One Color	Ivory	700019490
M224SCP-262	Panel Kit Includes 4-Dual SC Panels of One Color	White	700019508
M224SCP-270	Panel Kit Includes 4-Dual SC Panels of One Color	Gray	700019516
M224FOS-262	Fiber Optic Spool Kit Includes 2 White Spools	White	700016553

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

32-Port Zone Wiring Box



M32CPP

The M32CPP Data/Communication Distribution Box is a zone wiring box (i.e. consolidation point [CP]) that provides for the distribution of data and telecommunication signals throughout the work area environment. The box has 32 positions for M-Series copper and/or fiber connectors. It is intended to mount above ceilings or below floors in open office buildings.

The key benefit is that it saves costs in moves, adds and changes (MACs) when zone cabling is required in a plenum environment. The Box is UL Listed to meet the stringent plenum requirements. The National Electric Code allows locating this type of zone box in space used for environmental air.

The M32CPP Distribution Box Assembly comes with: connector bracket, plenum cover, plenum box, foam fence, fiber reel (optional to use), foam retainer, bushing (optional to use), fire foam, interconnection label, installation instructions, hex nut (No. 4-40), long pan-head screw (No. 8-32 by 3/38 in [9.5 mm]) and plenum cable tie.

Physical Specifications:

Height: 13.08 in (33.2 cm)
Width: 14.00 in (35.6 cm)
Depth: 4.25 in (10.8 cm)

Product Number	Detailed Description	Material ID
M32CPP	32-Port Zone Wiring Box	700188931
110C Connecting Block	110C Connecting Block Kit for Plenum Box	760006395

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

36-Port Zone Wiring Box

The M36CPP Data/Communication Distribution Box is a zone wiring box (i.e. consolidation point [CP]) that provides for the distribution of data and telecommunication signals throughout the work area environment. The box has 36 positions for M-Series copper and/or fiber connectors. It is intended to mount above ceilings or below floors in open office buildings.

The key benefit is that it saves costs in moves, adds and changes (MACs) when zone cabling is required in a plenum environment. The Box is UL Listed to meet the stringent plenum requirements. The National Electric Code allows locating this type of zone box in space used for environmental air.

The M36CPP Distribution Box Assembly comes with: connector bracket, plenum cover, plenum box, foam fence, fiber reel (optional to use), foam retainer, bushing (optional to use), fire foam, interconnection label, installation instructions, hex nut (No. 4-40), long pan-head screw (No. 8-32 by 3/38 in [9.5 mm]) and plenum cable tie.

Physical Specifications:

Height: 19.12 in (48.6 cm)
Width: 14.14 in (35.9 cm)
Depth: 1.82 in (4.6 cm)



M36CPP DATA

Product Number	Detailed Description	Material ID
M36CPP DATA	36-Port Zone Wiring Box	108482845

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

48-Port Zone Wiring Box



M48CPP

The 48-Port Plenum Zone Wiring Box provides a connection and distribution point for data and telecom cables in installations requiring a consolidation point. The design includes a 3.35 in x 2.566 in (85.04 mm x 65.18 mm) rectangular bottom knockout to be used in conjunction with a standard dual-gang electrical box, in addition to twelve 0.75 in (19.05 mm) knockouts for use with conduit.

The size of the M48CCP design will allow installation in a variety of plenum spaces such as under floors and above ceilings. The design has 48 positions that accommodate a variety of M-Series type copper, fiber and video connectors. It also has one fire foam entrance and four fire foam exit areas for plenum-rated cable (4-pair and 25-pair).

Features and Benefits:

- 48-port capacity
- Support copper M-Series outlets, fiber connectors, copper and fiber terminations
- Easy access for terminations, moves, adds and changes
- Designed for mounting in various plenum and non-plenum environments (floor, under floor, surface mount or wall)
- Supports cable/port labeling
- Equipped with removable cover section for cord/label access and does not expose horizontal cables

Physical Specifications:

Height: 13.08 in (33.2 cm)
Width: 14.00 in (35.6 cm)
Depth: 4.25 in (10.8 cm)

Product Number	Detailed Description	Material ID
M48CPP	48-Port Zone Wiring Box	700188923

Table of Contents
Introduction
Copper
Fiber
Intelligent Infrastructure
Workstation Platforms & Accessories
Enclosures
Glossary
Index

Surface-Mount Boxes

Single Port

The M101SMB Modular Surface-Mount Box is designed for use with one M-Series modular information outlet (copper or fiber). It can be mounted on a flat surface using the screws or the double-sided adhesive tape provided. This unit will accept 22-26 gauge cable.

Physical Specifications:

Height: 2.26 in (5.7 cm)

Width: 1.22 in (3.1 cm)

Depth: 1.29 in (3.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Color	Material ID
M101SMB-B-003	Black	107983983
M101SMB-B-246	Electrical Ivory	107984007
M101SMB-B-262	Electrical White	107984015
M101SMB-B-270	Electrical Gray	107984023

Dual Port

The M102SMB Modular Surface-Mount Box is a modular surface-mounted duplex box designed for use with one or two M-Series modular information outlets (copper and/or fiber). It can be mounted on a flat surface using the screws or the double-sided adhesive tape provided. This unit will accept 22-26 gauge cable.

Physical Specifications:

Height: 2.26 in (5.7 cm)

Width: 2.06 in (5.2 cm)

Depth: 1.29 in (3.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Color	Material ID
M102SMB-B-003	Black	107984031
M102SMB-B-246	Electrical Ivory	107984049
M102SMB-B-262	Electrical White	107984056
M102SMB-B-270	Electrical Gray	107984064

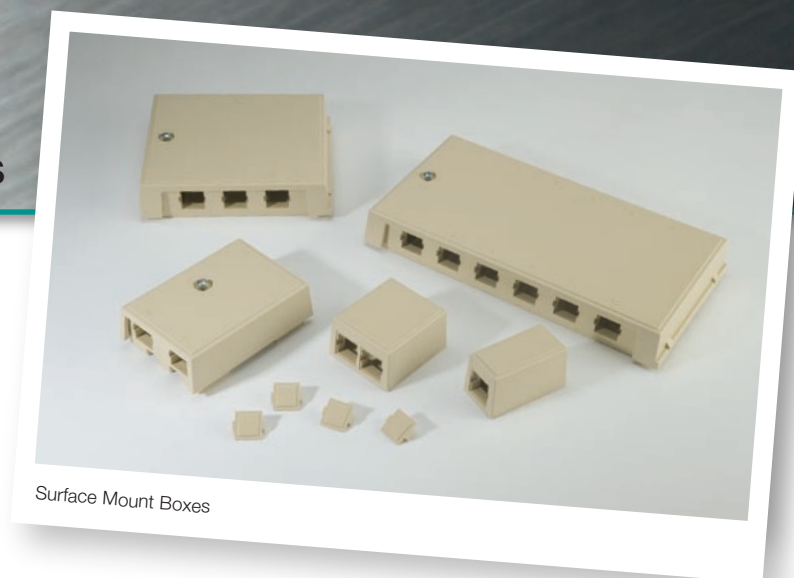


Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Workstation Platforms & Accessories

Enclosures

Glossary

Index

4-Port

The M104SMB Modular Surface-Mount Box is a modular multimedia surface-mounted quadplex box designed for use with one to four M-Series modular jacks (copper and/or fiber). The M104SMB can be mounted on a flat surface using the screws or the double-sided adhesive tape provided. One mounting magnet kit is required for mounting on steel walls or furniture.

The outlet openings are numbered on both the base and cover for installation and maintenance identification. The M104SMB is packaged with three color-coordinated M20AP Dust Covers/Blanks to cover any unused jacks. This unit will accept 22-26 gauge cable.

Physical Specifications:

Width: 2.83 in (7.2 cm)

Length: 3.92 in (10.0 cm)

Depth: 1.20 in (3.0 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Color	Material ID
M104SMB-A-003	Black	107952475
M104SMB-A-246	Electrical Ivory	107952442
M104SMB-A-262	Electrical White	107952459
M104SMB-A-270	Electrical Gray	107952467

6-Port

The M106SMB Modular Surface-Mount Box is a modular multimedia surface-mounted sixplex box designed for use with one to six M-Series modular jacks (copper and/or fiber). It is used to terminate 25-pair Category 5 cable at the transition point or to terminate 4-pair wiring in the work location subsystem or to terminate 4 strands of fiber. The M106SMB can be mounted on a flat horizontal surface or on a wall using two mounting screws, double-sided sticky tape or magnets. Four magnet pockets are manufactured within the structure of the M106SMB as holders.

The M106SMB has a storage device/area for storing unterminated copper conductors.

Physical Specifications:

Height: 5.49 in (13.9 cm)

Width: 4.81 in (12.2 cm)

Depth: 1.22 in (3.1 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Product Number	Color	Material ID
M106SMB-003	Black	107431520
M106SMB-246	Electrical Ivory	107431546
M106SMB-262	Electrical White	107431538
M106SMB-270	Electrical Gray	107431553

12-Port

The M112SMB Modular Surface-Mount Box is a 12-Port modular multimedia surface-mounted box designed for use with 12 M-Series modular jacks and/or fiber modules. The M112SMB can be mounted on a flat surface using the screws or the double-sided adhesive tape provided. Four mounting magnets (optional) are required for mounting on steel walls or furniture. The M112SMB is packaged with six color-coordinated M20AP Dust Cover/Blanks to cover any unused jacks. The outlet openings are numbered on both the base and cover for installation and maintenance identification.

Physical Specifications:

Height: 9.13 in (23.2 cm)

Width: 4.81 in (12.2 cm)

Depth: 1.30 in (3.3 cm)

Plastic: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic

Mounting: Surface

Product Number	Color	Material ID
M112SMB-003	Black	106658164
M112SMB-246	Electrical Ivory	106658149
M112SMB-262	Electrical White	106658156
M112SMB-270	Electrical Gray	106688419

Accessories

The SMBFG fiber organizer has a small spindle to protect and support the fiber bend radius and two guides to route the fiber to the connector. It supports up to four fibers in an all-fiber environment in the M106SMB modular surface-mount box and supports up to six fibers in an all-fiber environment in the M112SMB modular surface-mount box.

The 345A mounting magnet contains two magnets and is used with the M104SMB modular surface-mount box.

The 362PS zone wiring kit labels are used with the M106SMB and M112SMB modular surface-mount boxes.

The D180880 mounting magnet kit contains four magnets and is used with the M106SMB and M112SMB modular surface-mount boxes.

Product Number	Detailed Description	Material ID
SMBFG	Fiber Organizer	107431512
345A	Mounting Magnet	106928765
362PS	Zone Wiring Kit Labels	108035049
D180880	Mounting Magnet Kit	103184156

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Workstation
Platforms &
Accessories

Enclosures

Glossary

Index

200 Series Surface-Mount Boxes



200 Series Surface Mount Boxes are designed for interior surface-mount applications and can support copper and fiber terminations. All information outlets simply snap into place. The 2-, 4-, and 8-port boxes are UL-rated and available in four standard colors.

The 200 series surface mount boxes can support new generation, larger diameter data cables, and offer multiple cable entrances through the base and/or sides.

The 200 series surface mount boxes are equipped with the corresponding number of dust covers and two port adapters. These adapters support two M-series outlets each. A variety of other adapters are available but not included to configure LC, ST and SC fiber couplers, VGA, S-Video, Coax, BNC, and RCA couplers.

Features and Benefits:

- Support a wide range of applications and configurations using the following snap-in components: 8 Position Modular Outlets; S-Video Outlets; VGA Adapters; RCA Adapters; BNC Adapters; Coaxial Couplers
- Can support new generation, larger diameter data cables
- Cable entrances available through the base and/or sides
- Can mount to solid surfaces or single gang electrical boxes
- Easy front access to outlets, adapters and couplers
- Includes dust covers, cable ties, labels/label holders, adhesive backed velcro, double sided tape and screws
- Comes with label and label cover as well as a smooth surface for labeling the front of the enclosure
- Snap-in fiber spool is included to assist with fiber management (does not apply to the M202SMB and M204ASMB)
- Material: Plastic

Applications:

- Consolidation point for zone wiring
- High speed data applications where larger cables are required (10G)
- Multimedia applications using copper, fiber and coaxial
- Utilized on kick plates for modular office furniture
- Plenum version for wireless access points and IP cameras

Product Number	Detailed Description	Color	Material ID
M202SMB-303	2 Port Surface Mount Box	Black	760057349
M202SMB-262	2-Port Surface-Mount Box	White	760057331
M202SMB-246	2-Port Surface-Mount Box	Ivory	760057356
M202SMB-270	2-Port Surface-Mount Box	Gray	760057364
M202 Plenum SMB-262	2-Port Surface-Mount Box	White	760067207
M204ASMB-003	4-Port Surface-Mount Box	Black	760057380
M204ASMB-262	4-Port Surface-Mount Box	White	760057372
M204ASMB-246	4-Port Surface-Mount Box	Ivory	760057398
M204ASMB-270	4-Port Surface-Mount Box	Gray	760057406
M204SMB-003	4-Port Surface-Mount Box	Black	760045005
M204SMB-246	4-Port Surface-Mount Box	Ivory	760045013
M204SMB-262	4-Port Surface-Mount Box	White	760044990
M204SMB-270	4-Port Surface-Mount Box	Gray	760045021
M208SMB-303	8 Port Surface Mount Box	Black	760057422
M208SMB-262	8-Port Surface-Mount Box	White	760057414
M208SMB-246	8-Port Surface-Mount Box	Ivory	760057430
M208SMB-270	8-Port Surface-Mount Box	Gray	760057448

Multimedia Adapters/Couplers

Each individually packaged adapter/coupler comes with (4) adapter housings (black, gray, ivory and white), with the exception of S-Video to 110 and the RCA to 110 products.

S-Video to 110 Punchdown Module

Product Number	Detailed Description	Material ID
M81-SVHS-110-003	Black S-Video/110 Connector	760005256
M81-SVHS-110-246	Ivory S-Video/110 Connector	760005264
M81-SVHS-110-262	White S-Video/110 Connector	760005272
M81-SVHS-110-270	Gray S-Video/110 Connector	760005280

S-Video to S-Video

Product Number	Detailed Description	Material ID
M81-SVHS-SVHS-003	S-Video Pass Through, Black	760101014
M81-SVHS-SVHS-246	S-Video Pass Through, Ivory	760101030
M81-SVHS-SVHS-262	S-Video Pass Through, White	760101048
M81-SVHS-SVHS-270	S-Video Pass Through, Gray	760101022

RCA to 110 Punchdown Module

Product Number	Detailed Description	Material ID
M81-RCA-110-003-W	Black Housing/White Connector	760005298
M81-RCA-110-246-W	Ivory Housing/White Connector	760005306
M81-RCA-110-262-W	White Housing/White Connector	760005314
M81-RCA-110-270-W	Gray Housing/White Connector	760005322
M81-RCA-110-003-Y	Black Housing/Yellow Connector	760005330
M81-RCA-110-246-Y	Ivory Housing/Yellow Connector	760005348
M81-RCA-110-262-Y	White Housing/Yellow Connector	760005355
M81-RCA-110-270-Y	Gray Housing/Yellow Connector	760005363
M81-RCA-110-003-R	Black Housing/Red Connector	760005371
M81-RCA-110-246-R	Ivory Housing/Red Connector	760005389
M81-RCA-110-262-R	White Housing/Red Connector	760005397
M81-RCA-110-270-R	Gray Housing/Red Connector	760005405
M81-RCA-110-003-B	Black Housing/Black Connector	760005413
M81-RCA-110-246-B	Ivory Housing/Black Connector	760005421
M81-RCA-110-262-B	White Housing/Black Connector	760005439
M81-RCA-110-270-B	Gray Housing/Black Connector	760005447

RCA to RCA Module (pass through)

Product Number	Detailed Description	Material ID
M81-RCA-PT-W	White Coupler	760005454
M81-RCA-PT-Y	Yellow Coupler	760005462
M81-RCA-PT-R	Red Coupler	760005470
M81-RCA-PT-B	Black Coupler	760005488

BNC to BNC Module (pass through)

Product Number	Detailed Description	Material ID
M81-BNC-B Coupler	BNC to BNC (50 ohm)	108009424
M81-BNC	BNC Coax Coupler (75 ohm)	760074914



Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Workstation
Platforms &
Accessories

Enclosures

Glossary

Index

Multimedia Adapters/Couplers (cont.)

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Workstation
Platforms &
Accessories

Enclosures

Glossary

Index

F Coax to F Coax Module (pass-through)

Product Number	Detailed Description	Material ID
M81C	F-Coax Pass Through	108009432

Audio Jack

Product Number	Detailed Description	Material ID
M81-S35MM-S35MM	3.5mm Audio Jack (Ivory, White, Black and Gray Mounting Modules Included)	760101006

The M30FP series of adapters are for use with the FP series faceplates or any 200 series surface mount box. Easy snap-in mounting and no assembly or tools required.

VGA to VGA (15 pin pass-through)

Product Number	Detailed Description	Material ID
M30-FP-VGA-PT-003	Black VGA Coupler	760028704
M30-FP-VGA-PT-246	Ivory VGA Coupler	760028712
M30-FP-VGA-PT-262	White VGA Coupler	760028720
M30-FP-VGA-PT-270	Gray VGA Coupler	760028738

S-Video to 110

Product Number	Detailed Description	Material ID
M30-FP-SVHS-110-003	Black S Video to 110	760013094
M30-FP-SVHS-110-246	Ivory S Video to 110	760013102
M30-FP-SVHS-110-262	White S Video to 110	760013110
M30-FP-SVHS-110-270	Gray S Video to 110	760013128

S-Video to 110

Product Number	Detailed Description	Material ID
M30-FP-3RCA-110-003	Black 3 Port RCA to 110	760017541
M30-FP-3RCA-110-246	Ivory 3 Port RCA to 110	760017558
M30-FP-3RCA-110-262	White 3 Port RCA to 110	760017566
M30-FP-3RCA-110-270	Gray 3 Port RCA to 110	760017574



M81C-Coupler



M81-S35MM-S35MM



M30-FP-VGA-PT-003 (back)



M30-FP-VGA-PT-003 (front)

Enclosures 276



Enclosures

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Through its Enclosure product line, CommScope now provides the physical structure and protection essential to making an infrastructure solution secure and complete. Created with the same high standards of quality, performance and reliability as the physical layer solutions themselves, CommScope Enclosures now give customers a single source for all network infrastructure component needs.

CommScope Enclosures include cabinets, racks and cable management devices, all designed and built to aid installation, enhance network management and protect CommScope network infrastructure components. This infrastructure framework is created to work ideally with CommScope solutions offerings and helps further protect your network's performance and your investment.

Cabinets

CommScope's cabinets are the right cabinet to protect the right solution. Using X-Frame technology, CommScope cabinets are designed to be the right size, the right weight and have the right level of durability to support the entire line of CommScope solutions, including SYSTIMAX GigaSPEED X10D and SYSTIMAX LazrSPEED Solutions, the industry-leading 10 Gbps solutions. The right cabinet means less physical impact on the network infrastructure and ultimately, on the network's performance.

Racks and Cable Management

While a necessity for managing, distributing and controlling structured cabling, all racks and cable management devices are not created equal. CommScope understands the potential negative impact on network performance and company productivity when installation and accessibility are challenging. CommScope designs its racks and cable management devices with the same level of detail and importance as its infrastructure solutions, ensuring that customers get the best product to protect and manage their investment.

For more information, please reference our CommScope Enclosures product catalog or visit www.commscope.com.

Table of
Contents

Introduction

Copper

Fiber

Intelligent
Infrastructure

Faceplates &
Zone Boxes

Enclosures

Glossary

Index

Glossary of Terms

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

The following glossary offers explanations for a number of terms used in this catalog. It additionally provides explanations for a number of other terms frequently used within the networking and cabling industries.

10BASE-T

10 Mbps Ethernet using 2-pairs of Category 3 cable.

100BASE-T4

100 Mbps Fast Ethernet using 4-pairs of Category 3 cable.

100BASE-TX

100 Mbps Fast Ethernet using 2-pairs of Category 5 cable.

100VG-AnyLAN

100 Mbps LAN using Demand Priority Protocol originally developed by Hewlett Packard and AT&T for Category 3 cable.

1000BASE-T

1000 Mbps (1 Gbps) Ethernet using 4-pairs of Category 5e cable.

1000BASE-TX

A low cost alternative to 1000BASE-T developed by TIA for Category 6 cabling.

1000BASE-SX

1000 Mbps (1 Gbps) Ethernet operating on multimode fiber with short wave lasers (850 nm).

1000BASE-LX

1000 Mbps (1 Gbps) Ethernet operating on multimode fiber with long wave lasers (1300 nm).

10GBASE-T

10 Gbps Ethernet using 4-pairs of Category 6 or better cabling.

10GBASE-LR

10 Gigabit Ethernet operating at long wavelength (1300 nm) on single-mode optical fiber. 10GBASE-LR is the LAN version, 10GBASE-LW is the WAN version. Up to 10 Km reach.

10GBASE-LX4

10 Gigabit Ethernet operating at long wavelength (1300 nm) on multimode or single-mode optical fiber. Designed to overcome the imperfections of legacy multimode fiber, by utilizing 4 lasers and 4 detectors operating at different wavelengths. Up to 300 m reach on multimode, 10 Km on single-mode.

10GBASE-SR

10 Gigabit Ethernet operating at short wavelength (850 nm) on laser optimized (OM3) multimode fiber. The lowest cost

transceiver alternative, taking advantage of the advances in multimode fiber technology that eliminate the imperfections of legacy multimode. Up to 300 m reach on laser optimized (OM3) multimode fiber (up to 550 m supported on enhanced OM3 fiber).

Ad hoc cabling

Cabling scheme where different types of cabling components from different vendors are linked together to form a cabling system.

Alien Crosstalk

Signal coupling between adjacent cabling components (cables, connectors) or between adjacent links or channels.

Analogue transmission

A method of signal transmission in which the shape of the signal is a continuously variable and directly measurable physical quantity such as voltage.

Application

A system, with its associated transmission method which is supported by telecommunications cabling.

Application layer

The uppermost layer (layer 7) of the open systems interconnection (OSI) model. This layer is concerned with support to the user application and is responsible for managing the communication between applications, e.g. Email, File transfer, etc.

ASCII

The American Standard Code for Information Interchange. A widely-used 7 or 8 bit binary code used to represent alphabetic and numeric characters in computer understandable form.

Asynchronous

Two or more signals sourced from independent clocks, therefore having different frequency and phase relations.

Asynchronous data transfer

A method of data transfer in which each alphabetic or numeric character (represented by 7 or 8 bits) is preceded by 'start' and 'stop' bits to delineate the 7/8 bit pattern from the ideal pattern which otherwise occupies the (digital) transmission medium.

Asynchronous transfer mode (ATM)

A high-speed cell-based switching and multiplexing technology based on segmentation of voice, data and video into fixed packets (cells). These cells are transferred along switched paths and are not received on a regular basis (hence the term asynchronous).

Attenuation

The effect of signal dwindling, experienced with accumulating line length or distance of radio transmission.

Backbone(s)

The part of a premises distribution system that includes a main cable route and facilities for supporting the cable from the equipment room to the upper floors, or along the same floor to the wiring closets.

Balanced circuit

A circuit where equal and opposite signals are generated and sent on to two conductors. The better the balance of a circuit, the lesser is its emissions and the greater is its noise immunity (hence the better is its EMC performance).

Balanced twisted pair cable

A cable consisting of one or more metallic symmetrical cable elements (twisted pairs or quads).

Balun

An adapter used to convert balanced to unbalanced signals in order to connect legacy equipment or video devices to structured cabling.

Bandwidth

The range of frequencies that can be used for transmitting information on a channel. It indicates the transmission-carrying capacity of a channel. Thus, the larger the bandwidth, the greater the amount of information that can pass through the circuit. Measured in hertz or bits per second or MHz-Km (for fiber).

Bit error rate (BER)

A measure of quality of a digital transmission line, either quoted as a percentage, or more usually as a ratio, typically 1 error in 10E8 or 10E9 bits carried. The lower the number of errors, the better the quality of the line.

Bridge(s)

A device used to link two subnetworks using the same communications method and sometimes the same kind of transmission medium.

Building backbone cable

A cable that connects the building distributor to a floor distributor. Building backbone cables may also connect floor distributors in the same building.

Building distributor

A distributor in which the building backbone cable(s) terminate(s) and at which connections to the campus backbone cable(s) may be made.

Building entrance facility

A facility that provides all necessary mechanical facility and electrical services, that complies with all relevant regulations, for the entry of telecommunications cables into a building.

BUS

Consists of a common transmission path with a number of nodes attached to it. Sometimes referred to as linear network topology.

Cable fill

The ratio of cable installed into a conduit/trunking against the theoretical maximum capacity of the conduit/trunking.

Cable routing diagram

A detailed drawing showing the layout of the cable routes.

Cabling

A system of telecommunications cables, cords and connecting hardware that can support the connection of information technology equipment.

Campus

A premises containing more than one building adjacent or near to one another.

Campus backbone cabling

A cable that connects the campus distributor to the building backbone distributor(s). Campus backbone cables may also connect building cabling distributors directly.

Carrier sense multiple access/collision (CSMA/CD)

Network access method in which nodes contend for the right to send data. If two or more nodes attempt to transmit at the same time, they abort their transmission until a random time period of microseconds has transpired and then attempt to resend.

Category 3

Industry standard for cable and connecting hardware products with transmission characteristics specified to 16 MHz, designed to support digital transmission of 10 Mbps.

Category 5

Industry standard for cable and connecting hardware products with transmission characteristics specified to 100 MHz, designed to support digital transmission of 100 Mbps.

Category 5e

Enhanced Category 5 specifications for cable and connecting hardware products with transmission characteristics specified to 100 MHz, intended to support digital transmission of 1000 Mbps.

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Category 6

Industry standard for cable and connecting hardware products with transmission characteristics specified to 250 MHz, designed to support digital transmission in excess of 1000 Mbps.

Category 6A

Specification currently in draft to become an industry standard for cable and connecting hardware products with transmission characteristics specified to 500 MHz, designed to support digital transmission of 10 Gbps.

Category 7

Industry standard for cable and connecting hardware products with transmission characteristics specified to 600 MHz, and requiring individually shielded pair cables. May require either a switched RJ-45 or a non-RJ-45 connector.

Ceiling distribution

Distribution system that uses the space between the false or suspended ceiling and the structural ceiling for housing horizontal cable routes.

Cell relay

A fast packet switching technique which uses fixed-length cells. Generic name for ATM, SMDS and BISDN.

CENELEC

European committee for electrotechnical standardization.

CENELEC EN50173

The European standard for generic cabling for customer premises.

CENELEC EN50174

A proposed European cabling systems planning & installation standard being developed by CENELEC.

Channel

The end-to-end transmission path connecting any two pieces of application-specific equipment. Equipment cables and work area cables are included in the channel.

Churn

The relocation of an individual or a group of individuals within a building such that the workspace or services to the workspace require change.

Client/server

A technique by which processing can be distributed between nodes requesting information (clients) and those maintaining data (servers).

Coaxial Cable (Coax)

A cable with a center conductor surrounded by a thick insulation, surrounded by an outer conductor made of metal braid. An outer jacket insulation is optional.

Collapsed backbone

This architecture is a backbone topology where wiring concentrators located at floor levels are attached in a star configuration to a central high performance switching concentrator.

Consolidation point

An interconnection point in horizontal cabling, typically used to support the re-arrangement of furniture cloisters.

Cords

A short length of copper wire or fiber optic cable with connectors on each end. Used to connect equipment to cabling, or to connect cabling segments (cross-connection).

Cross-connect

A facility enabling the termination of cable elements and their connection, primarily by means of patch cords or jumpers.

Crosstalk

An electromagnetic coupling between two physically isolated circuits in a system. This coupling causes a signal on one circuit to induce a noise voltage on adjacent circuits, thereby causing signal interference.

CSMA/CD

See Carrier Sense Multiple Access/Collision Detect.

Customer premises equipment (CPE)

Customer owned equipment used to terminate or process information from the public network (i.e. Multiplexer or PABX).

Data circuit terminating equipment (DCE)

The equipment terminating and controlling the transmission line, and often marking the end point of the public data network. Data terminal equipment's (DTEs) such as computers are connected directly to DCE.

Data terminating equipment (DTE)

The term used to describe any type of computer or other equipment, when connected to a data communications network.

Datalink layer

Layer 2 of the OSI model. This layer is responsible for error free transmission of bits on a physical interface. Also known as the link layer. The best known layer 2 protocol is HDLC (High Level Data Link Control).

Decibel (dB)

A unit used to measure relative increase or decrease in power, voltage or current, using a logarithmic scale.

Digital transmission

A technique in which all information is converted into binary digits for transmission.

Distributor

The term used for the functions of a collection of components (i.e. patch panels, patch cords) used to connect cables.

EIA/TIA

North American Standards organization.

EIA/TIA 568B

North American commercial building telecommunications wiring standard.

EIA/TIA 569A

North American commercial building standard for telecommunications pathways and spaces. Its purpose is to standardize specific design and construction practices within and between buildings which are in support of telecommunications media and equipment.

EIA/TIA 606

North American administration standard for the telecommunications infrastructure of commercial buildings. Its purpose is to provide guidelines for a uniform administration scheme for the cabling infrastructure.

Electromagnetic compatibility (EMC)

The ability of a system, equipment or device to operate satisfactorily in its environment without introducing unacceptable electromagnetic disturbance, or being affected by that environment.

Electromagnetic flux

Electric and magnetic fields (commonly referred to as emissions) generated by equipment or system.

Electromagnetic interference (EMI)

The interference in signal transmission or reception caused by the radiation of electric and magnetic fields.

Equipment cable

A cable connecting equipment to a distributor.

Equipment room

A room dedicated for housing distributors and application-specific equipment.

Ethernet

A LAN originally developed by DEC, Xerox and Intel. It uses the CSMA/CD protocol.

Fast Ethernet

A 100 Mbps LAN based on CSMA/CD protocol. See 100BASE-T.

Fiber

See Optical Fiber.

Fiber channel

This is an ANSI standard describing point to point and switched point to point physical interface, transmission protocol, signalling protocol, services and command set mapping of a high performance serial link for uses between mainframe computers and computer peripherals.

Fiber distributed data interface (FDDI)

An American National Standards Institute standard for fiber-based token passing access protocol that operates at a 100 Mbps data transfer rate.

Flood wiring

The concept of wiring for future growth, by providing full coverage of information outlets.

Flood distributor

The distributor used to connect between the horizontal cable and other cabling subsystems or equipment (see telecommunications closet).

Foil screened twisted pair cable (F/UTP)

A cable that uses a metallic foil to surround the conductors in a twisted pair cable.

Full duplex

Simultaneous two-way communication on the same link or cabling channel.

Full duplex Ethernet

Full duplex Ethernet allows nodes to transmit and receive data at the same time, doubling throughput between workstation and switch.

Generic cabling

A structured telecommunications cabling system, capable of supporting a wide range of applications. Generic cabling can be installed without prior knowledge of the required applications. Application-specific hardware is not a part of generic cabling.

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Grid Computing

Grid computing makes spare CPU horsepower available across the network to large jobs that require it, by harnessing the capabilities of dispersed devices across the network.

Half duplex

Two-way transmission on a single link or cabling channel, one direction at a time.

Horizontal cable

A cable connecting the floor distributor to the telecommunications outlet(s).

Horizontal runs

See horizontal subsystem.

Horizontal subsystem

The part of the premises distribution system installed on one floor that includes the cabling and distribution components connecting the riser backbone or equipment wiring to the information outlet.

Hub

A concentrator or repeater in a star topology at which node connections meet.

Hybrid cable

An assembly of two or more different types of cable units, cables or categories covered by an overall sheath. It may be covered by an overall shield.

IEC 60332

The international standard covering fire performance of cables.

IEEE

Institute of Electrical and Electronic Engineers in the USA. This organization is also involved in producing Local Area Network standards such as Ethernet.

Individual pair screened

Where each twisted pair in one overall cable has its own screen.

InfiniBand™ architecture

A high bandwidth switched network topology currently being developed for Storage Area Networks (SANS).

Integrated services digital network (ISDN)

Integrated voice and data network based on digital communications technology and standards interfaces.

Intelligent buildings

Buildings that maximize the efficiency of its occupants and allow effective management of resources with minimum life-time costs (Source: European Intelligent Building Group).

Interconnect

A location at which equipment cables are terminated and interconnected to the cabling subsystems without using a patch cord or jumper.

Interface cards

See Network Interface Cards.

Interference

A signal impairment caused by the interaction of another unwanted signal.

ISO

International Standards Organization.

ISO seven layer model

A 7 layer hierarchical reference structure model developed by the ISO for defining, specifying and relating communications protocol.

ISO/IEC IS 11801

The international standard for generic cabling for customer premises.

ISO/IEC 14763-1

The international standard for basic administration of generic cabling.

Jumper

A cable unit or cable element without connectors used to make a connection on a cross-connect.

Keying

A mechanical feature of a connector system which guarantees correct orientation of a connection or prevents the connection to a jack or optical fiber adapter of the same type intended for another purpose.

Permanent link

The transmission path between two mated interfaces of generic cabling, excluding equipment cables, work area cables and cross-connections.

Local area network(s) (LANs)

A LAN allows users to share information and computer resources. Typically, a local area network is limited to a single building.

Multimedia

A means of conveying information with components in different media such as voice, music, text, graphics, image and video.

Multimode fiber

Optical fibers that have a large core and that permit non-axial rays or modes to propagate through the core.

Network architecture

Network topology and design.

Network interface cards (NICs)

The piece of equipment that is installed into the expansion port of a personal computer and allows communication between the PC and the network.

Network layer

The network layer is layer 3 of the OSI model. This layer sets up an end-to-end connection across a network determining which permutation of individual links to be used. Thus the network layer performs overall routing functions.

Node(s)

A piece of communications equipment on the network.

Noise

The term used for spurious signals produced in a conductor by sources other than the transmitter to which it is connected. Noise can affect a legitimate signal to the extent that it is inaccurate or indecipherable when it reaches the receiver. The higher the speed of data transmission, the worse the effects of noise become.

Open system interconnection (OSI)

A conceptual model specified by CCITT recommendations in the X200 series. The model describes the 7-layer process of communication between co-operating computers. The model provides a standard for the development of communication protocols allowing for computers of different manufacturers to be interconnected.

Optical fiber

A transmission medium consisting of a core of glass or plastic surrounded by a protective cladding. Signals are transmitted as light pulses, introduced into the fiber by a light transmitter (i.e. Laser or an LED).

Outlets

A term used to describe the sockets provided in the work location of a structured cabling system. These are usually 8-pin modular sockets which can support a variety of services (i.e. voice, video and data).

PABX

Private Automatic Branch Exchange. A private switching system that switches calls both internally within a building or premises and outside to the telephone network.

Packet switching

A type of exchange or network which conveys a string of information from origin to destination by cutting it up into a number of packets and carrying each independently. A packet-switched effect could be achieved by sending individual pages of a book through the post separately. The receiving device re-assembles the message. Thus a direct connection between origin and destination does not exist at any point.

Patch cord(s)

Flexible cable unit or element with connector(s), used to establish connections on a patch panel.

Patch panel(s)

Termination and administration hardware designed to accommodate the use of patch cords. It facilitates administration for moves and changes.

Pathway(s)

Designated cable routes and/or support structures in a false floor or ceiling.

Peripheral(s)

Additions to a system, a resource (i.e. printer, scanner, etc).

Physical layer

Layer 1 of the open systems interconnection (OSI) model. The physical layer protocol is the hardware and software in the line terminating device which converts the databits needed by the datalink layer into the electrical pulses, modem tones, optical signals or other means which will transmit the data.

Physical topology

Physical cabling layout (i.e. ring, bus, star wired etc).

Ports

A computer interface capable of transmitting and or receiving information.

PowerSum

A method of testing and measuring crosstalk in multi-pair cables that accounts for the sum of crosstalk affecting a pair when all other pairs are active. This is the only method of specifying crosstalk performance that is suited to cables with more than four pairs.

Table of Contents

Introduction

Copper

Fiber

Intelligent Infrastructure

Faceplates & Zone Boxes

Enclosures

Glossary

Index

Presentation

Layer 6 of the OSI model. Responsible for identifying the syntax of layer the data being transmitted.

Proprietary networks

Networks that are not designed or installed to standard based guidelines and do not relate specifically to any relevant standard.

Proprietary

Systems that are not standards specific and therefore are not interoperable with standards based equipment.

Protocol(s)

A rule of procedure by which computer devices intercommunicate. Thus a protocol is the equivalent of a human language, with punctuation and grammatical rules.

Public network interface

A point of demarcation between public and private network. In many cases the public network interface is the point of connection between the network provider's facilities and the customer premises cabling.

Raceway

Any distribution method designed for holding cables, (i.e. conduit, metal or plastic trunking, cable trays, etc).

Redundancy risers

A fail-safe method of splitting and routing riser/backbone cables via two or more riser cores. Also known as diverse routing.

Ring

A closed loop network topology.

Riser(s)

The term used to describe a space utilized by backbone cabling to house communications cabling and other building services. This space should preferably be specified, or allowed for, at the time of the building design.

Router(s)

An intermediate system between two or more networks capable of forwarding data packets at the network layer (layer 3).

Scaleable

The ability to adapt to different bit rates.

Screened cable

See foil screened twisted pair cable.

Serial communications

See serial data transmission.

Serial data transmission

Data transmission between computer devices using only a single circuit path. Whole bytes of information (8 bits) are sent in sequential pattern. Compares with parallel transmission. Parallel transmission is often used internally within computing devices because of the higher processing speeds which are possible, but for long-distance telecommunication, serial transmission is more economic in terms of line plant.

Serial port(s)/transmission

Normally a DB 9-pin connector located on the mother board of a PC. A technique in which each bit of information is sent sequentially on a single channel.

Server(s)

Host computer(s).

Session layer

Layer 5 of the OSI model. Responsible for establishment and control of dialogues between users on different machines. Synchronization for reliable data transfer and token management to control use of the connection are services provided by this layer.

Shielded twisted pair cable (STP)

An electrically conducting cable comprising one or more elements each of which is individually shielded. There may be an overall shield in which case the cable is referred to as a shielded twisted pair cable with an overall shield.

Signal to noise ratio (SNR)

The ratio of the signal magnitude to the noise magnitude and is usually expressed in dB. The higher the SNR of a system, the better is its performance.

Simplex

A transmission means allowing only one direction of transmission. (i.e. public broadcast radio.)

Single-mode

Optical fiber with a small core diameter in which only single-mode is capable of propagation. 8.3 micron is the common standard core size.

Splice

A joining of conductors or fibers, generally from separate cables.

Star

A physical point to point network topology.

Star physical topology

See Star.