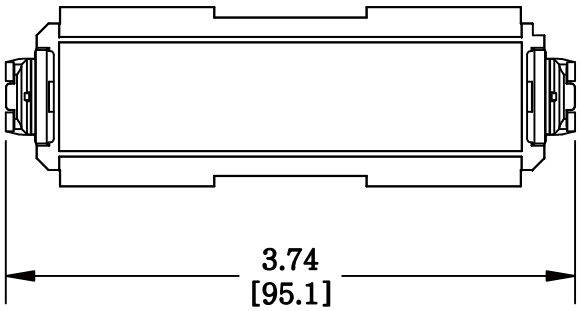
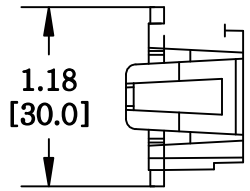
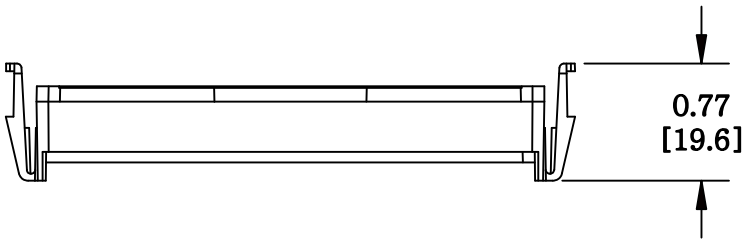
MATERIAL ID	DESCRIPTION
760109462	360G2 MOD PANEL BLANK,4 PANELS







NOTES:

1. SEE SYSTIMAX CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS IN PARENTHESES ARE IN METRIC.
4. PART INCLUDES:

   (4) PANEL BLANK,G2 TYPE

360G2-MOD-BLANK-4PK

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1	05/23/11		INITIAL ISSUE	MC	AW		
					DATE 05/23/2011		760109462

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760109462 | 360G2-MOD-BLANK-4PK

360G2 Mod Panel Blank Adapter Pack, 4 Panels

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack, blank

General Specifications

Adapter Color	None
Interface Feature	Blank plate
Pigtails Included, quantity	0

Dimensions

Height	30.48 mm | 1.2 in
Width	91.44 mm | 3.6 in
Depth	2.54 mm | 0.1 in

Packaging and Weights

Packaging quantity	4

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
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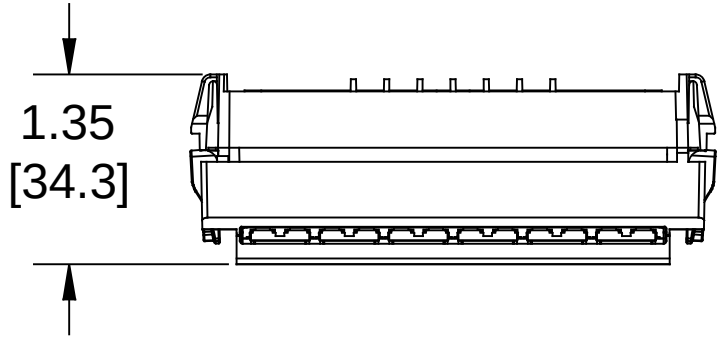
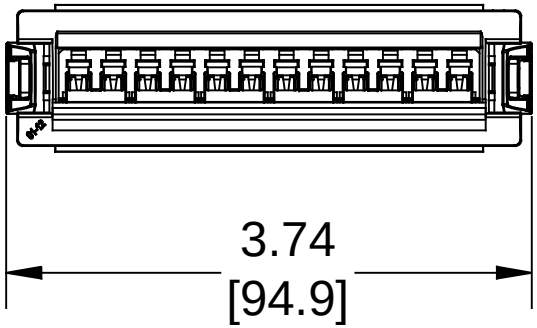
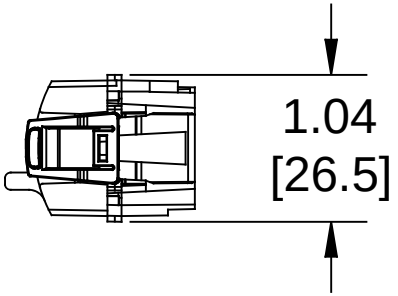
MATERIAL ID	DESCRIPTION
760230938	ASSEMBLY, BEZEL DMis



NOTES:

1. SEE SYSTIMAX CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS ARE IN INCHES[MM].
4. PART INCLUDES:
   (1) BEZEL ASSEMBLY, AQUA





360DPis-12LC-LS

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					DATE 07-NOV-2016		760230938

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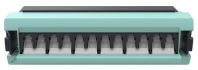
760230938 | 360DPis-12LC-LS



360 Distribution Adapter Pack,Multimode OM4, 12 LC/UPC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Aqua
Interface	LC/UPC
Interface Feature	Internal shutters
Pigtails Included, quantity	0
Shuttered	Yes
Total Ports, quantity	12

Material Specifications

Alignment Sleeve Material	Zirconia

Optical Specifications

Fiber Mode	Multimode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**

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760230938 | 360DPis-12LC-LS

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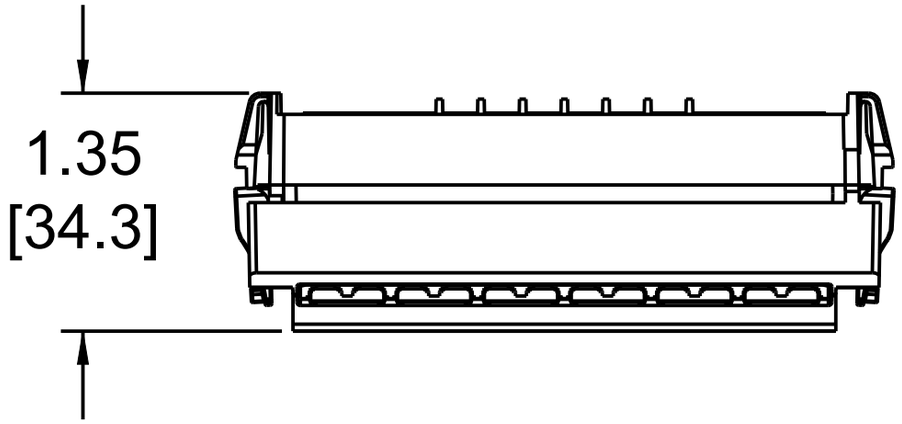
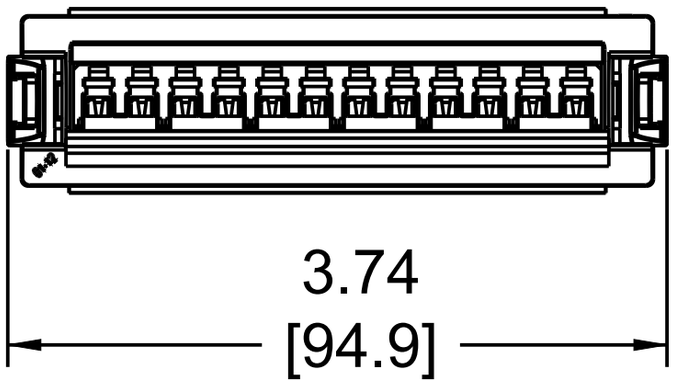
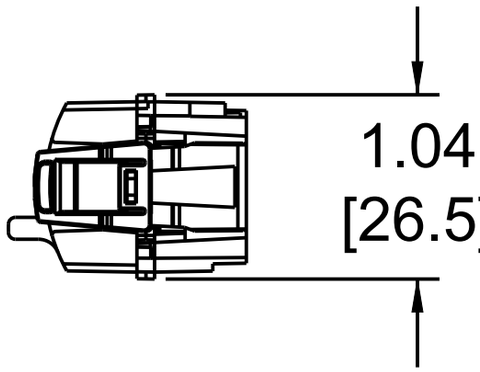
MATERIAL ID	DESCRIPTION
760230946	ASSEMBLY, BEZEL DMis



NOTES:

1. SEE SYSTIMAX CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS ARE IN INCHES[MM].
4. PART INCLUDES:
   (1) BEZEL ASSEMBLY, BLUE





360DPis-12LC-SM

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					DATE 07-NOV-2016		760230946

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760230946 | 360DPis-12LC-SM

360 Distribution Adapter Pack, Singlemode, 12 LC/UPC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Blue
Interface	LC/UPC
Interface Feature	Internal shutters
Pigtails Included, quantity	0
Shuttered	Yes
Total Ports, quantity	12

Material Specifications

Alignment Sleeve Material	Zirconia

Optical Specifications

Fiber Mode	Singlemode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

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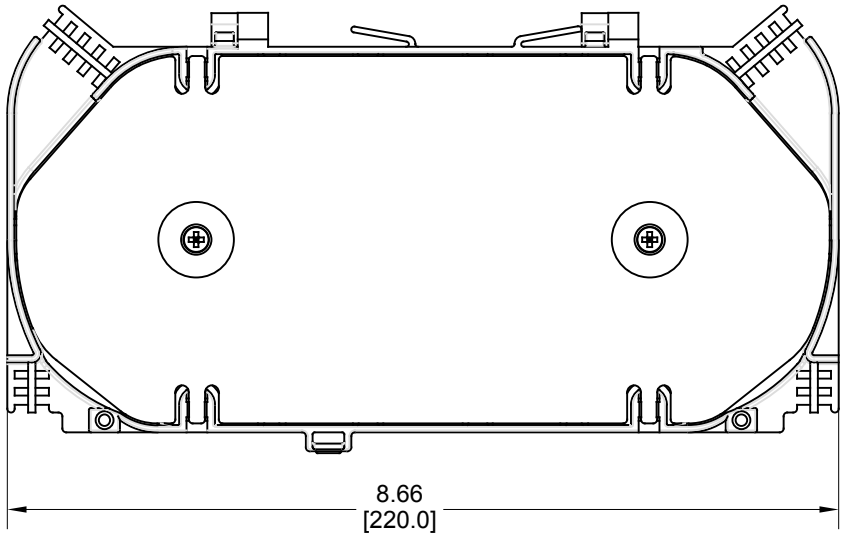
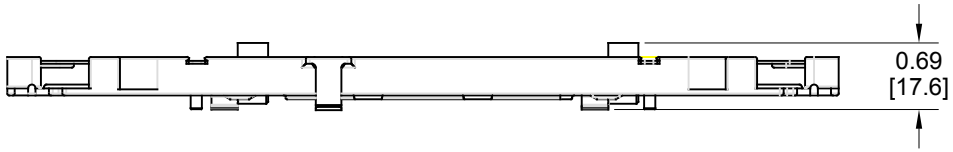
MATERIAL ID	DESCRIPTION
760241378	48F PLASTIC SPLICING TRAY KIT, 1U FIBER OPTIC PANEL

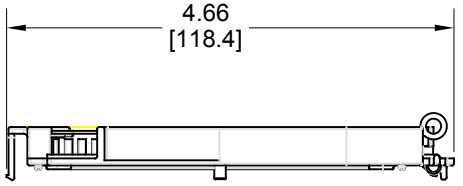


NOTES:

1. SEE COMMSCOPE CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE COMMSCOPE CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS IN PARENTHESES ARE IN METRIC[MM].
4. PART INCLUDES:

   (1) ASSEMBLY, SPLICING TRAY KIT





48F PLASTIC SPLICING TRAY KIT

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1	12/3/18		INITIAL ISSUE	IZ	DRAWN BY JW		
					DATE 12/3/2018		760241378

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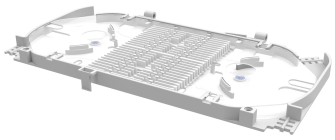
760241378 | EPX-SPLICE-48 (AGL-SPLICE-48)



Fiber Optic Splice Tray Kit, stackable, 48-fiber capacity

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber splice tray
Product Series	EPX

General Specifications

Application	Used in AGILE panels and enclosures
Color	Light gray
Splicing Capacity, maximum	48

Dimensions

Height	17.6 mm | 0.693 in
Width	220 mm | 8.661 in
Depth	118.4 mm | 4.661 in

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
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760249998 | EPX-1U-MOD-ENC

EPX 1U sliding panel, accepts (4) G2 style splice cassettes, modules or adapter packs, providing up to 48 duplex LC ports

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber patch panel | Fiber patch/splice panel
Product Series	EPX

General Specifications

Application	Accepts four G2 modular cassettes
Color	Black
Intelligence Type	Not iPatch® ready
Interface, front	Unloaded
Module/Adapter Pack Slots, quantity	4
Rack Type	EIA 19 in
Rack Units	1
Shelf Movement	Sliding
Total Fibers, quantity	96
Total Ports, quantity	0

Dimensions

Height	44.45 mm | 1.75 in
Width	482.6 mm | 19 in
Depth	412.75 mm | 16.25 in

Environmental Specifications

Safety Standard	CSA 22.2 | UL 1863

Packaging and Weights

Packaging quantity	1

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760249998 | EPX-1U-MOD-ENC

Weight, net	3.529 kg | 7.78 lb

Regulatory Compliance/Certifications

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REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
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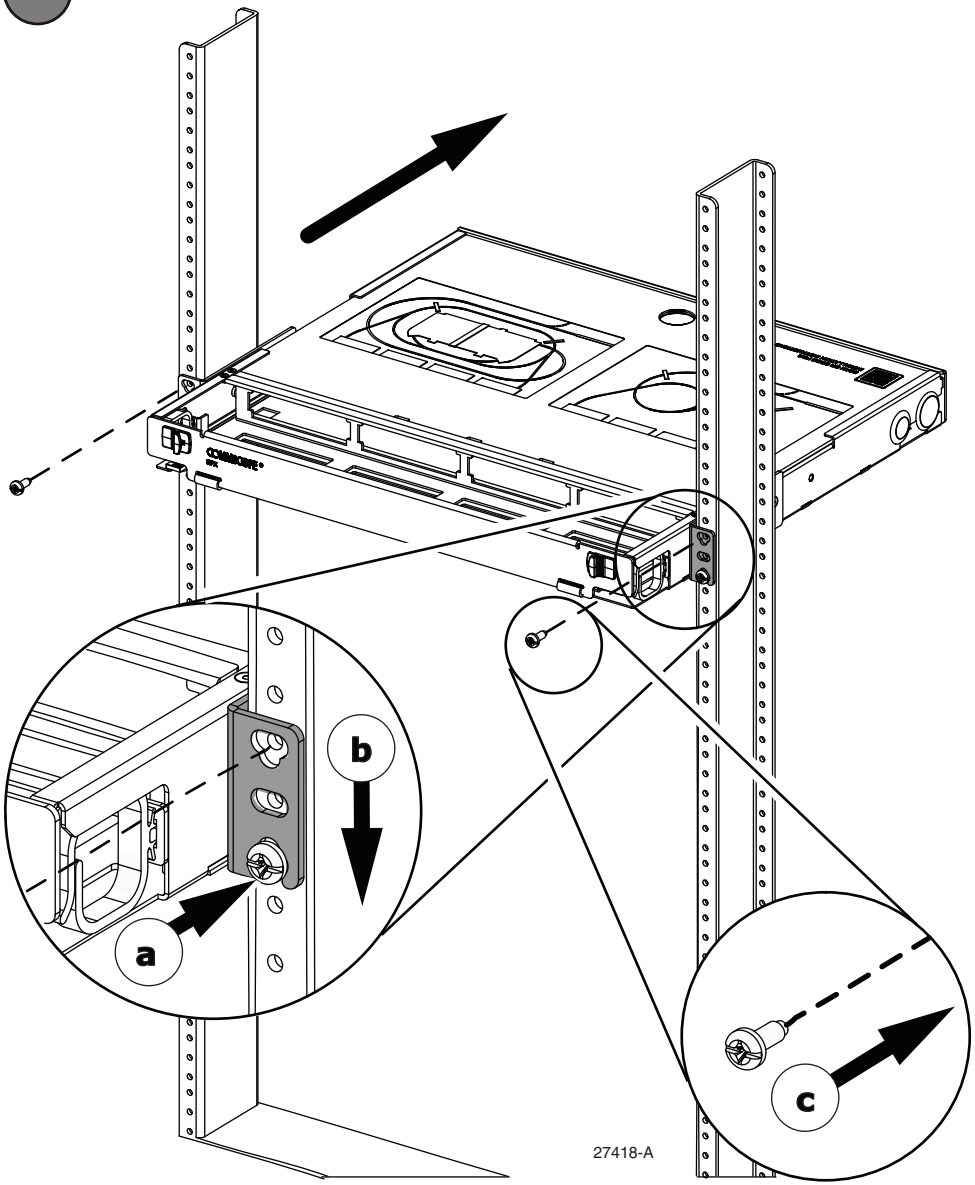
Quick Start
(Guía rápida)

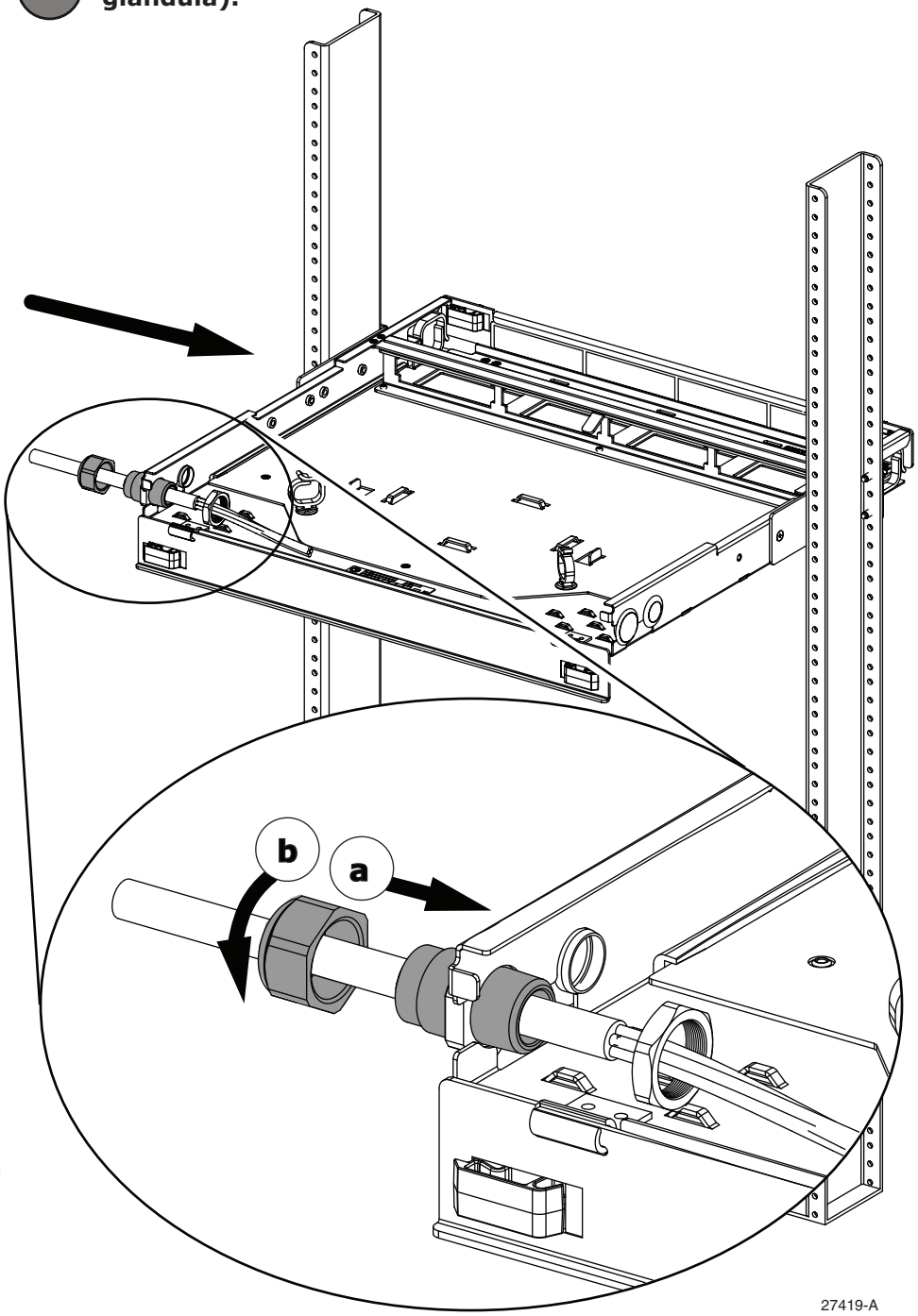
TC-96301-IP-EN/SP · Rev B · April (Abril) 2021

EPX Panel

1 **Installation on rack (Instalación en bastidor de equipo).**



2 **Installation of connector gland (Instalación de conector glándula).**



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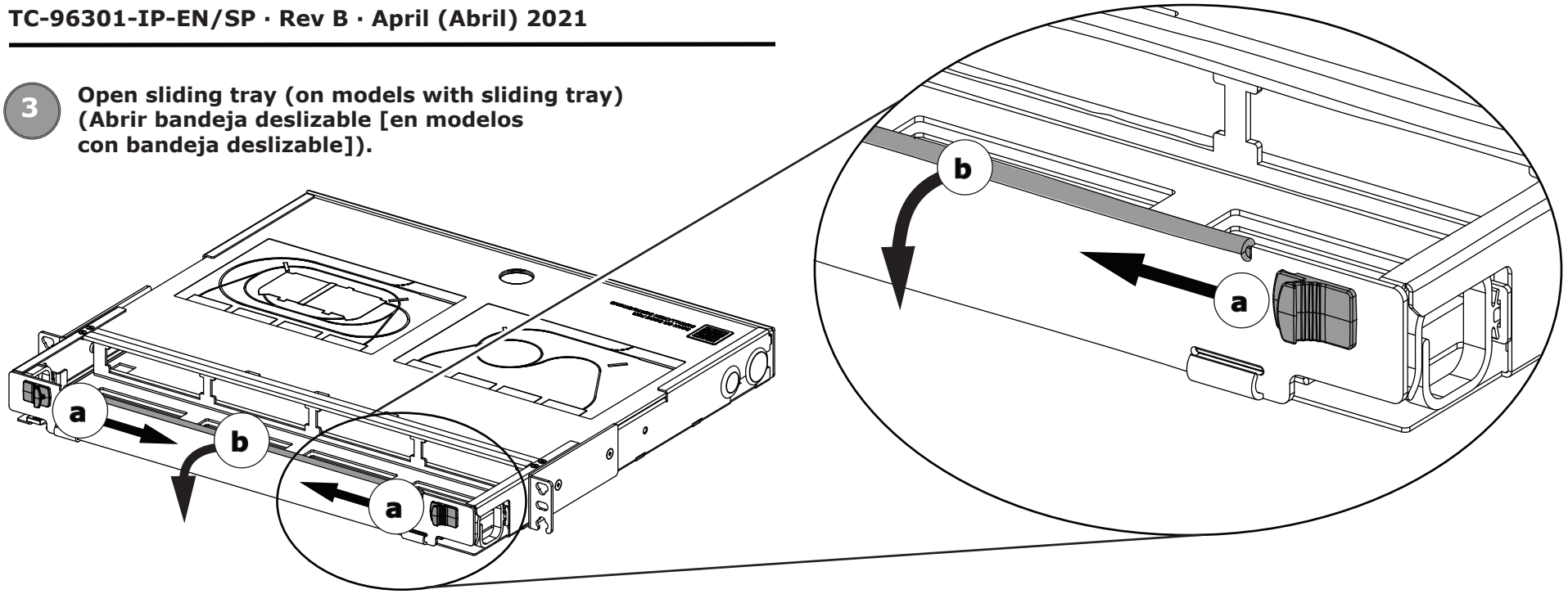
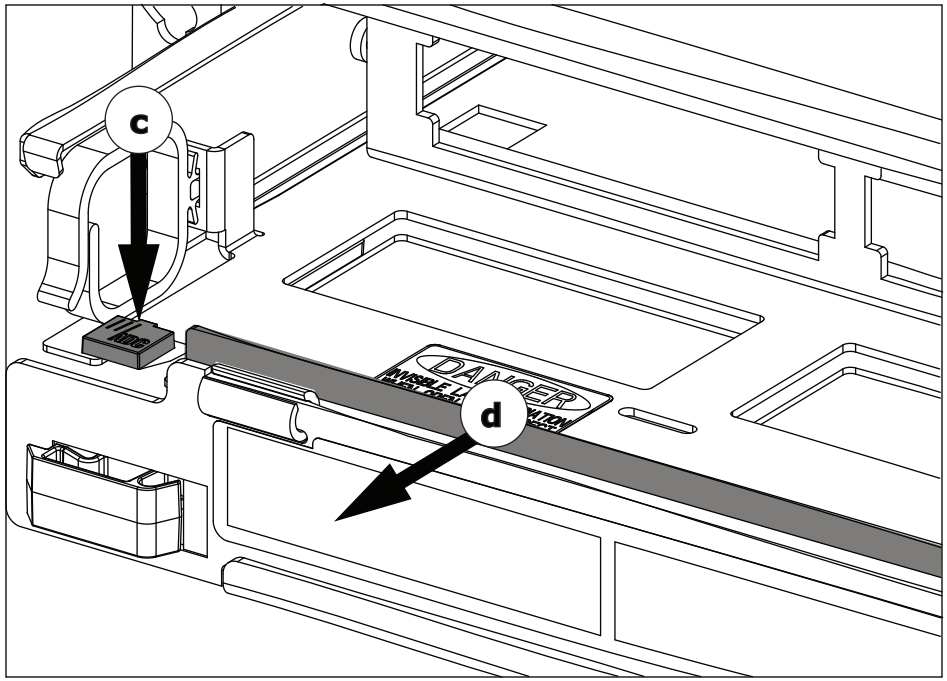
3 **Open sliding tray (on models with sliding tray) (Abrir bandeja deslizable [en modelos con bandeja deslizable]).**





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User Manual

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EPX Panel

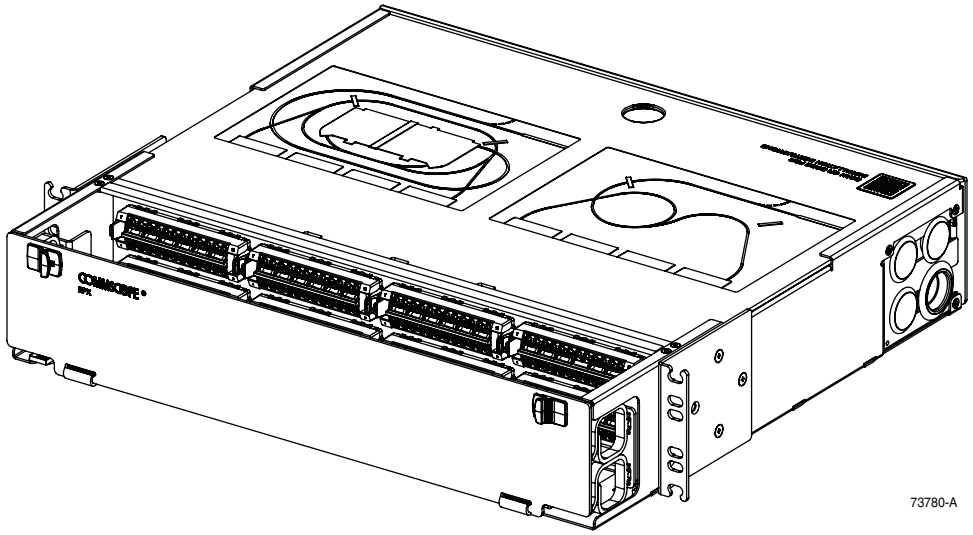

Figure 1. EPX Panel (2U Shown)

Content **Page**

1 INTRODUCTION 2
1.1 EPX G2 Panel Configurations Covered by This User Manual 2
1.2 EPX LGX/1000 Configurations Covered by This User Manual. 3
1.3 Available Accessories 3
1.4 Parts List. 4
1.5 Important Safety Cautions 4
1.6 Precautions. 5
1.7 Related Publications 5
2 PRODUCT DESCRIPTION 6
2.1 General Description. 6
2.2 EPX Panel as Shipped 6
2.3 Main Product Features 7
2.4 Cable Gland Feature 8
2.5 Specifications and Dimensions 9
3 UNPACKING AND INSPECTION 11
4 OVERVIEW OF INSTALLATION 12
5 INSTALLING THE PANEL. 12
5.1 Determining Rack Size and Mounting Hardware 12

Continued

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5.2 Mounting Panel on Rack . . . 13
5.3 Opening the Front Door . . . 14
5.4 Operating the Sliding Tray (If Panel Has Sliding Tray) . . . 15
5.5 Installing Adapter Packs . . . 16
5.6 Installing MPO Modules . . . 17
5.7 Installing Splice Cassettes . . . 19
5.8 Installing AGILE Splice Trays . . . 20
5.9 Field Termination . . . 22
6 CABLE ROUTING . . . 23
6.1 Cable Routing . . . 23
6.2 Cable Gland Capacities . . . 23
6.3 Installing a Cable . . . 25
7 CONTACT INFORMATION . . . 26

1 INTRODUCTION

The CommScope EPX Fiber Panel line is a flexible solution which allows interchangeable MPO modules, adapter packs, and splice cassettes, including in-panel splicing using splice trays. It is available in G2 or LGX/1000 bulkheads in 1U, 2U, and 4U sizes, sliding or fixed. This user manual describes the EPX panel and provides procedures to unpack the panel, mount the panel on a rack, install modules, and route cables. In addition, this manual tells how to operate the panel and how to obtain technical assistance if needed.

1.1 EPX G2 Panel Configurations Covered by This User Manual

Table 1 lists the EPX G2 panel configurations covered in this user manual.

Table 1: EPX G2 Configurations

Material ID (MID)	Catalog Number
760249998	EPX-1U-MOD-ENC
760251042	EPX-1U-MOD-ENC-FX
760251044	EPX-2U-MOD-ENC
760251046	EPX-2U-MOD-ENC-FX
760251048	EPX-4U-MOD-ENC
760251050	EPX-4U-MOD-ENC-FX
760251098	EPX-1U-MOD-OPEN-FX

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1.2 EPX LGX/1000 Configurations Covered by This User Manual

Table 2 lists the EPX LGX/1000 panel configurations covered in this user manual.

Table 2: EPX LGX/1000 Configurations

Material ID (MID)	Catalog Number
760249997	EPX-1U-PNL-ENC
760251043	EPX-1U-PNL-ENC-FX
760251045	EPX-2U-PNL-ENC
760251047	EPX-2U-PNL-ENC-FX
760251049	EEPX-4U-PNL-ENC
760251051	EPX-4U-PNL-ENC-FX
760251099	EPX-1U-PNL-OPEN-FX

1.3 Available Accessories

For a listing of the available EPX accessories, see Table 3.

Table 3: Available EPX Accessories

Material ID (MID)	Catalog Number	Description
760241378	AGL-SPLICE-48	48f stranded splice tray
760243494	AGL-MF-SPLICE-12	12f ribbon splice tray
760039875	G2-SRF	Liquid-tight cable fitting kit for small-diameter cables
760039883	G2-23BRKT	Frame mounting bracket kit for 23” frames and ETSI frames
760058677	RMB-6-1/2	InstaPATCH Plus attachment bracket, rack mounted, six 1/2-inch fittings
760058685	RMB-6-3/8	InstaPATCH Plus attachment bracket, rack mounted, six 3/8-inch fittings
760058701	RMB-5-3/4	3/4” Rack MTG bracket – 5X
760122895	BAF-1/2-NPT	Bracket for Armor Fitting, 1/2 NPT
760122903	BAF-3/4-NPT	Bracket for Armor Fitting, 3/4 NPT
760122911	BAF-1-NPT	Bracket for Armor Fitting, 1 NPT
760122929	BAF-1-1/4-NPT	Bracket for Armor Fitting, 1-1/4 NPT
760122937	BAF-1-1/2-NPT	Bracket for Armor Fitting, 1-1/2 NPT

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1.4 Parts List

Verify parts against Table 4 below.

Table 4: Parts List

Quantity	Description
1	Shelf assembly (fixed or sliding)
4	#12-24 x 1/2-inch screws for 19-inch (483mm) rack mounting
4	M6 x 12 mm screws for ETSI rack mounting
2	Liquid-tight strain relief fittings (black)
4	Cable ties
1	Hook and loop kit
4	Snap-Fit Gland Washers (1U ENC only). See Section 6.2 on page 23

1.5 Important Safety Cautions

When installing or operating the panel, observe the safety cautions:

- To reduce the risk of fire, electric shock, and injury to persons, read, understand, and adhere to the following instructions as well as any warnings marked on the product.
- This product has a remote risk of electric shock. Never install the product in wet conditions or during lightning storms. Never touch uninsulated communication wires or terminals.
- Disconnected optical components may emit invisible optical radiation that can damage your eyes. Never look directly into an optical component that may have a laser coupled to it. Serious and permanent retinal damage is possible. If accidental exposure to laser radiation is suspected, consult a physician for an eye examination.
- Wearing safety glasses during installation of this panel is recommended. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne hardware and cleaning solvents

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1.6 Precautions

When installing or operating the panel, observe the following precautions:

- Fiber optic trunk cable and jumper performance is sensitive to bending, pulling, and crushing. Minimum bend radius must be maintained during installation per the manufacturer's specification. Appropriate pulling grips must be used during installation, and pulling forces shall not exceed manufacturer's recommendations.
- All wiring that connects to this equipment must meet applicable local and national building codes and network wiring standards for communication cable.
- **IMPORTANT**: Dust covers are installed in the ports to protect the fibers connected to the back of the ports. Do not remove a dust cover from a port until you connect a patch cord to that port. If you remove a patch cord later, replace the dust cover in the port.
- **Prior** to installation, clean the trunk cable and jumper connectors per the manufacturer's recommendations.
- Isopropyl alcohol is flammable, and can cause eye irritation on contact. If eye contact occurs, flush with water for at least 15 minutes. In case of ingestion, consult a physician. Use only in well ventilated areas.
- Care should be taken not to compromise the stability of the rack by installation of this equipment.

1.7 Related Publications

The following publication is available by contacting the CommScope Support Center at https://www.commscope.com/SupportCenter

Title	Number
EPX Panel Quick Start	**TC-96301-IP**

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2 PRODUCT DESCRIPTION

2.1 General Description

The EPX Panel is a 19-inch rack- or cabinet-mount fiber optic patch panel intended for indoor use. Frame adapter kits are available which enable the EPX panel to be mounted in a 23-inch or ETSI equipment rack or cabinet. The panel is available in one, two, or four rack unit size (abbreviated as 1U, 2U, or 4U), on either fixed or sliding trays, per customer order. Recess mounting options for the EPX panel are 3-inch recess and 5-inch recess.

Transitions from patch cords to cable are accomplished through the customer choice of connection modules including adapter packs, MPO modules, or splice cassettes. In-panel splicing is possible using Agile splice trays. The EPX bulkhead may be either LGX/1000 style with three modules per rack unit, or G2 Style with four modules per rack unit.

2.2 EPX Panel as Shipped

Figure 2 shows product features of interest to the user in the EPX panel as shipped. All panels are shipped with no modules or splice trays installed. Module installation and splicing are accomplished on-site following the instructions provided in this user manual.

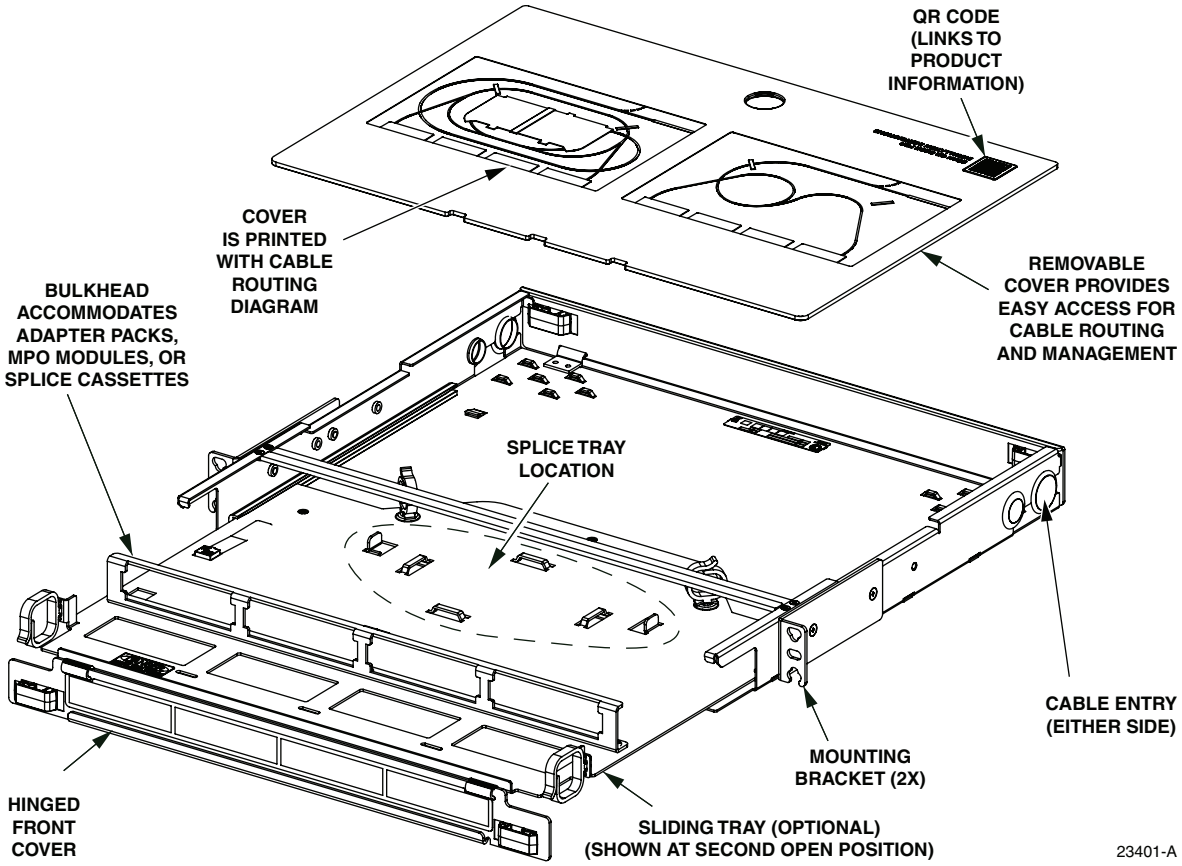

Figure 2. EPX 1U Panel as Shipped

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2.3 Main Product Features

Figure 3 shows a loaded panel. The main features include the following (clockwise from top right call-out).

- **Plastic Cover**—can be removed providing top access to the panel.
- **Cable Routing Diagram**—is printed on cover for guidance in installing cables.
- **Cable Entry Ports**—are available for securing rear entry cables. The panel is designed for use of cable glands that mount within the cable entry holes. Refer to Section 2.4 on Page 8.
- **Mounting Bracket (one on each side)**—provide mounting of the panel in a frame or cabinet. The panel is shipped with 19-inch mounting brackets. Kits are available permitting mounting in a 23-inch or ETSI rack or cabinet.
- **Cover Latch**—when slid toward center, releases cover so it can swing into open position.
- **Hinged Removable Front Cover**—drops down 90 degrees to provide open access to the panel interior. For operation refer to Section 7 on Page 26.
- **Sliding Tray (Optional)**—slides out to provide additional access for connector module and splice tray installation. For operation refer to Section 5.4 on Page 15.
- **Bulkhead**—supports connection modules per customer order. Options include adapter packs, MPO modules, and splice cassettes. The EPX bulkhead may be either LGX/1000 style with three modules per rack unit, or G2 Style with four modules per rack unit.
- **Adapter Packs (or MPO Module or Splice Cassette)**—interface between patch cords and facility cables.

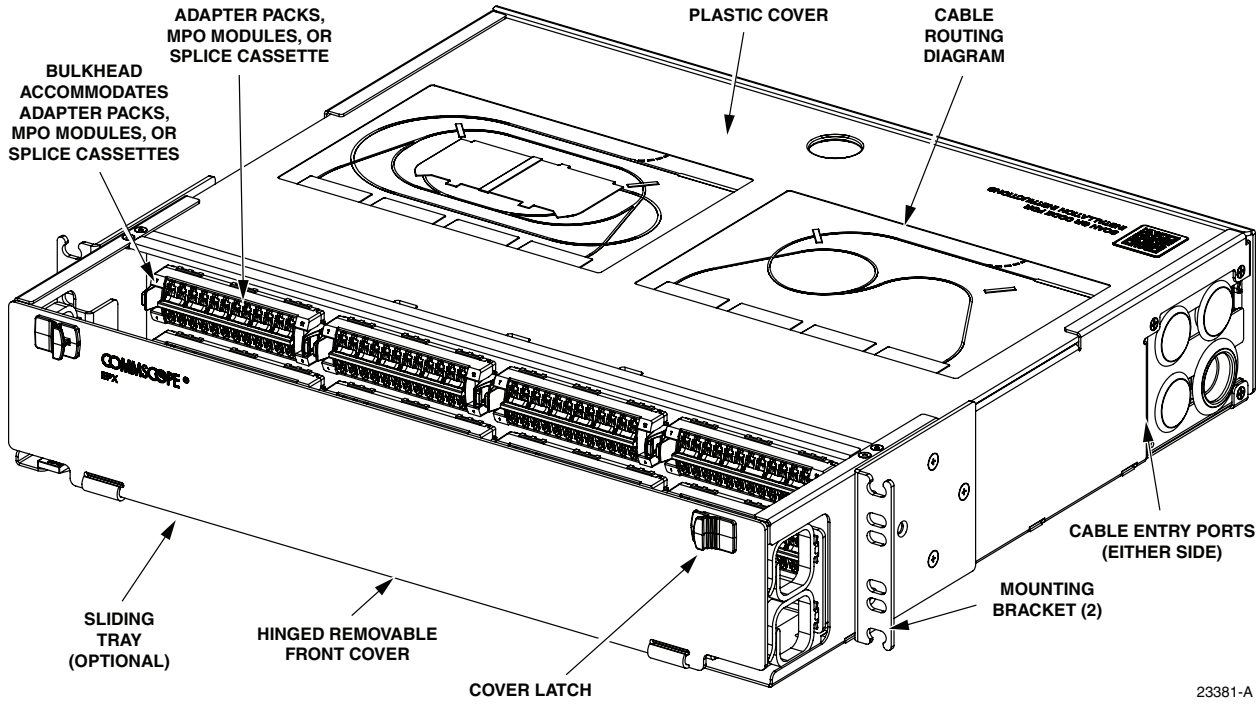

Figure 3. EPX panel (2U Shown)

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2.4 Cable Gland Feature

The EPX panel is designed for connection of fiber cables using cable glands inserted into cable entry slots provided (see Figure 4). For more information, refer to Section 6.2 on page 23

Note: Another method for securing fiber cables is the use of optional rack mounted brackets, which is not covered here. Cables can also be secured with tie wraps and the lances provided in the back of the panel.

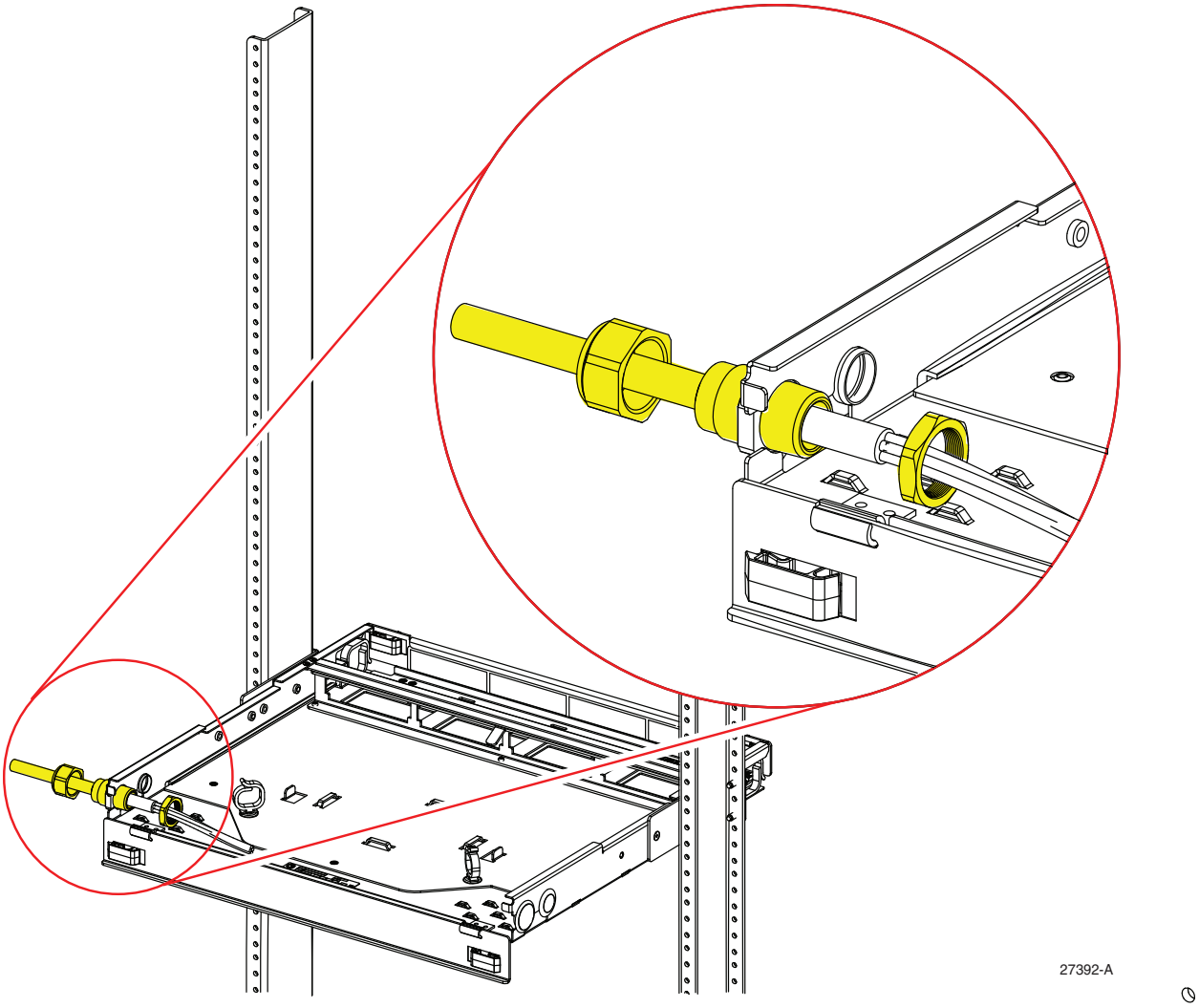

Figure 4. Direct Connection of Fiber Cables Using Fiber Glands

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SMALLER DIAMETER CABLES

For smaller diameter cables, the G2-SRF kit (ordered separately) (shown in Figure 5) provides two liquid-tight fittings with a smaller inside diameter. Smaller diameter fittings would be more appropriate for these cables.

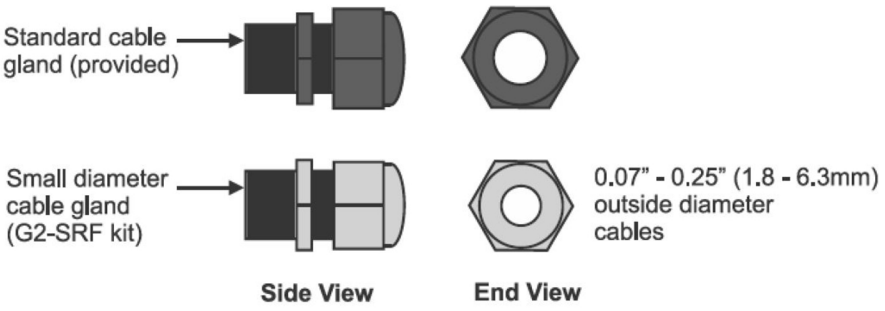

Figure 5. Fittings for Smaller Diameter Cable

2.5 Specifications and Dimensions

Figure 6 shows dimensions for an EPX open fixed panel. Figure 7 shows dimensions for an EPX enclosed panel. Table 5 lists specifications for the EPX panel except for weight. Table 6 lists weights for all configurations of the EPX panel.

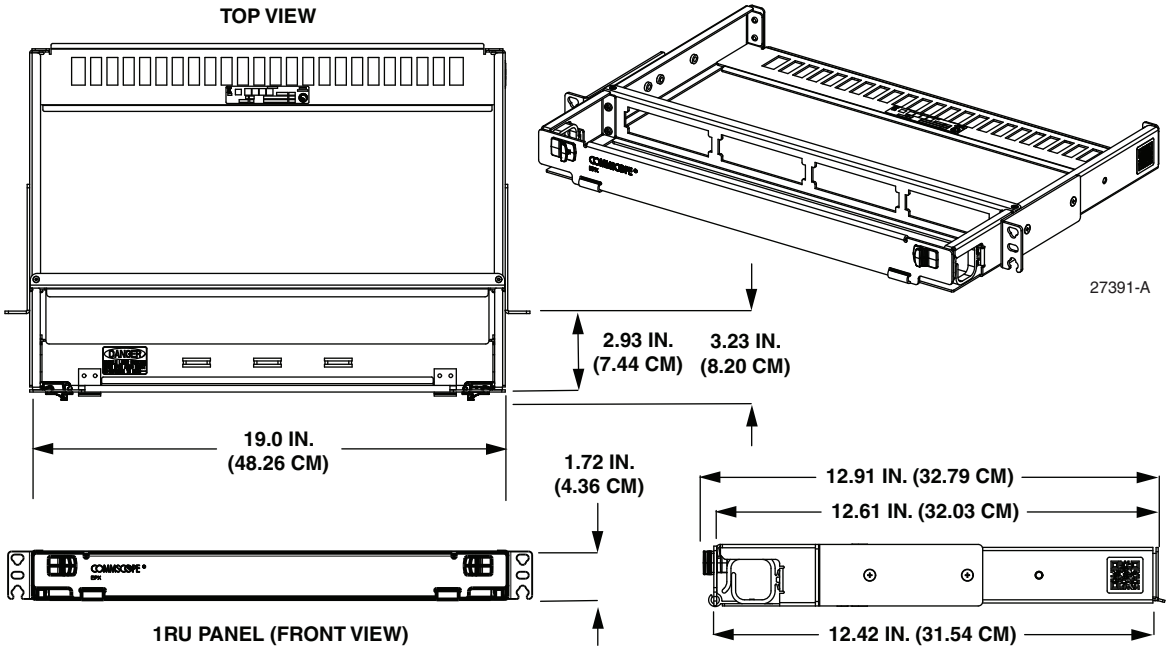

Figure 6. Dimensions of EPX Open Fixed Panel

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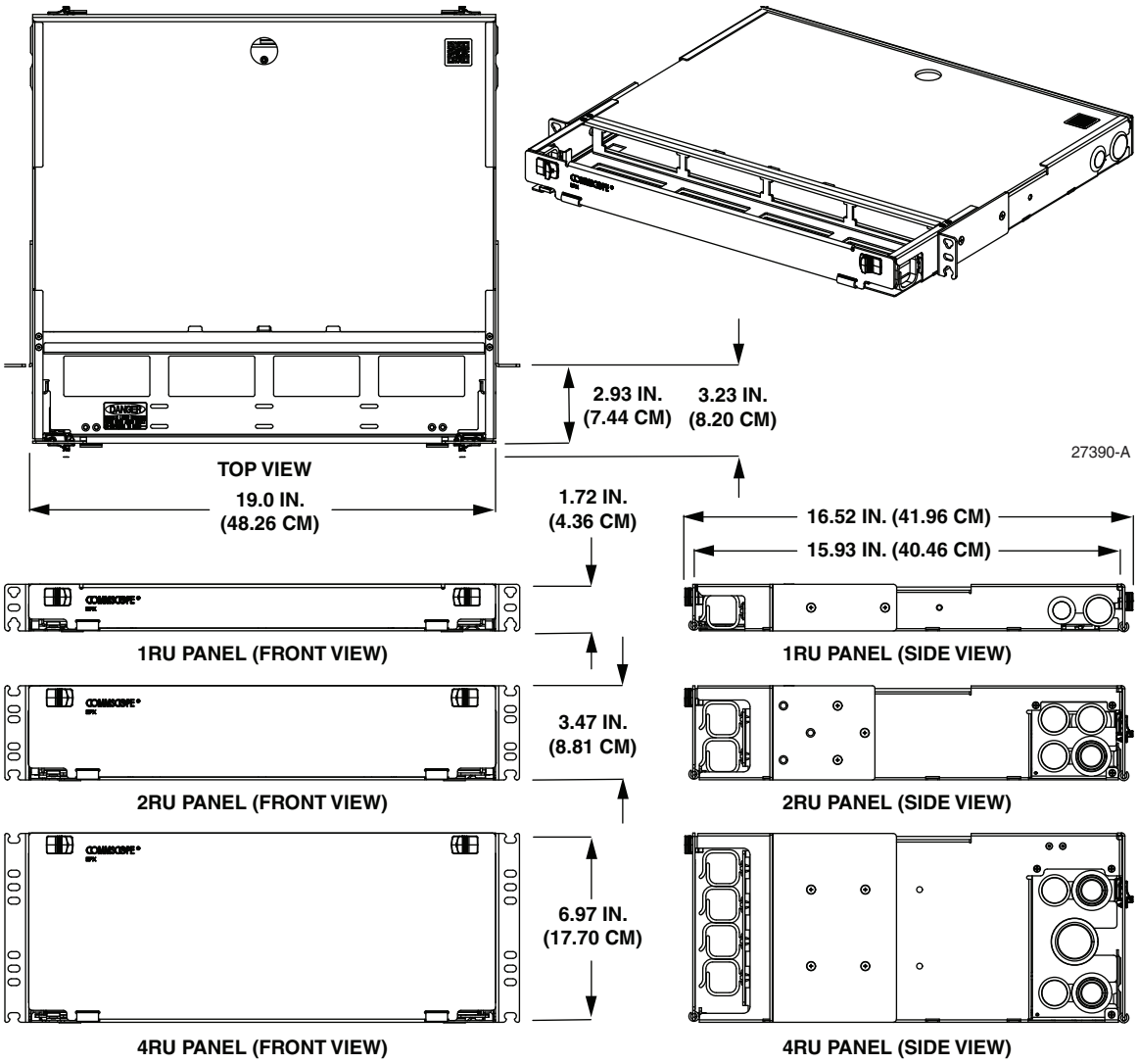

Figure 7. Dimensions of EPX Enclosed Panel

Table 5: EPX Panel Specifications (Except Weight)

Parameter	EPX 1U	EPX 2U	EPX 4U
Height	1.72 in (4.36 cm)	3.47 in. (8.81 cm)	6.97 in (17.70 cm)
Width	19.0 in. (48.26 cm)	19.0 in. (48.26 cm)	19.0 in. (48.26 cm)
Depth	16.52 in. (41.96 cm)	16.52 in. (41.96 cm)	16.52 in. (41.96 cm)
Side ports	4	8	10

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Table 6: EPX Panel Weight

MID (Part Number)	Catalog Number (ecatalog)	Net Weight (lb.)	Gross Weight (lb.)
760251098	EPX-1U-MOD-OPEN-FX	2.33	4.91
760251099	EPX-1U-PNL-OPEN-FX	2.60	5.18
760249997	EPX-1U-PNL-ENC	7.91	10.58
760249998	EPX-1U-MOD-ENC	7.78	10.45
760251042	EPX-1U-MOD-ENC-FX	6.60	9.27
760251043	EPX-1U-PNL-ENC-FX	6.70	9.37
760251044	EPX-2U-MOD-ENC	9.88	12.84
760251045	EPX-2U-PNL-ENC	10.15	13.11
760251046	EPX-2U-MOD-ENC-FX	7.98	10.94
760251047	EPX-2U-PNL-ENC-FX	8.34	11.30
760251048	EPX-4U-MOD-ENC	16.40	20.60
760251049	EPX-4U-PNL-ENC	16.90	21.10
760251050	EPX-4U-MOD-ENC-FX	14.30	18.52
760251051	EPX-4U-PNL-ENC-FX	14.88	19.10

3 UNPACKING AND INSPECTION

Use the following procedure to unpack and inspect the product.

1. Inspect the exterior of the shipping container(s) for evidence of rough handling that may have damaged the components in the container.
2. Unpack each container while carefully checking the contents for damage.
3. If damage is found or parts are missing, contact the CommScope Support Center using the URL: http://www.commscope.com/SupportCenter
4. Save any damaged cartons for inspection by the carrier.

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4 OVERVIEW OF INSTALLATION

Installing the panel and accessories involves the following activities:

- Determining rack size and mounting hardware (covered in Section 5.1 on Page 12)
- Mounting the panel in an equipment rack or cabinet (covered in Section 5.2 on Page 13)
- Opening the front door of the panel (covered in Section 5.3 on Page 14)
- Operating the sliding tray if panel has sliding tray (covered in Section 5.4 on Page 15)
- Installing adapter packs if used (covered in Section 5.5 on Page 16)
- Installing MPO modules if used (covered in Section 5.6 on Page 17)
- Installing splice cassettes if used (covered in Section 5.7 on Page 19)
- Installing Agile splice trays if used (covered in Section 5.8 on Page 20)
- Installing field-terminated cables if used (covered in Section 5.9 on Page 22)

5 INSTALLING THE PANEL

5.1 Determining Rack Size and Mounting Hardware

The panel is shipped with mounting brackets suitable for mounting on a 19-inch equipment rack or cabinet. Accessory kits are available for 23-inch or ETSI mounting.

Refer to the following guidelines.

- **For 23-inch (584mm) rack** – Use the G2-23BRKT accessory kit (available separately) and install two conversion brackets to pre-installed mounting brackets, using the four #10-32 x 3/8-inch conversion screws included in accessory kit. Use one conversion bracket and two screws per side. Mount panel to rack using four #12-24 x 1/2-inch screws (provided as part of basic panel).

- **For ETSI rack** – Use the G2-23BRKT accessory kit (available separately) and install one conversion bracket to either of the pre-installed mounting brackets, using two of four #10-32 x 3/8-inch conversion screws included in accessory kit. Shelf will not be centered when mounted in rack. Mount panel to rack using four M6 x 12mm screws (provided as part of basic panel).

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5.2 Mounting Panel on Rack

The panel is shipped with mounting brackets suitable for mounting on a 19-inch equipment rack or cabinet. If mounting on a 23-inch or ETSI equipment rack or cabinet, see Section 5.1 on Page 12. Install two screws on each side of the panel.

Use the following procedure, referring to Figure 8.

1. Install the bottom two screws at the desired panel location.
2. Set the panel into position on the screws just installed.
3. Secure the panel to the rack by installing the remaining two mounting screws.

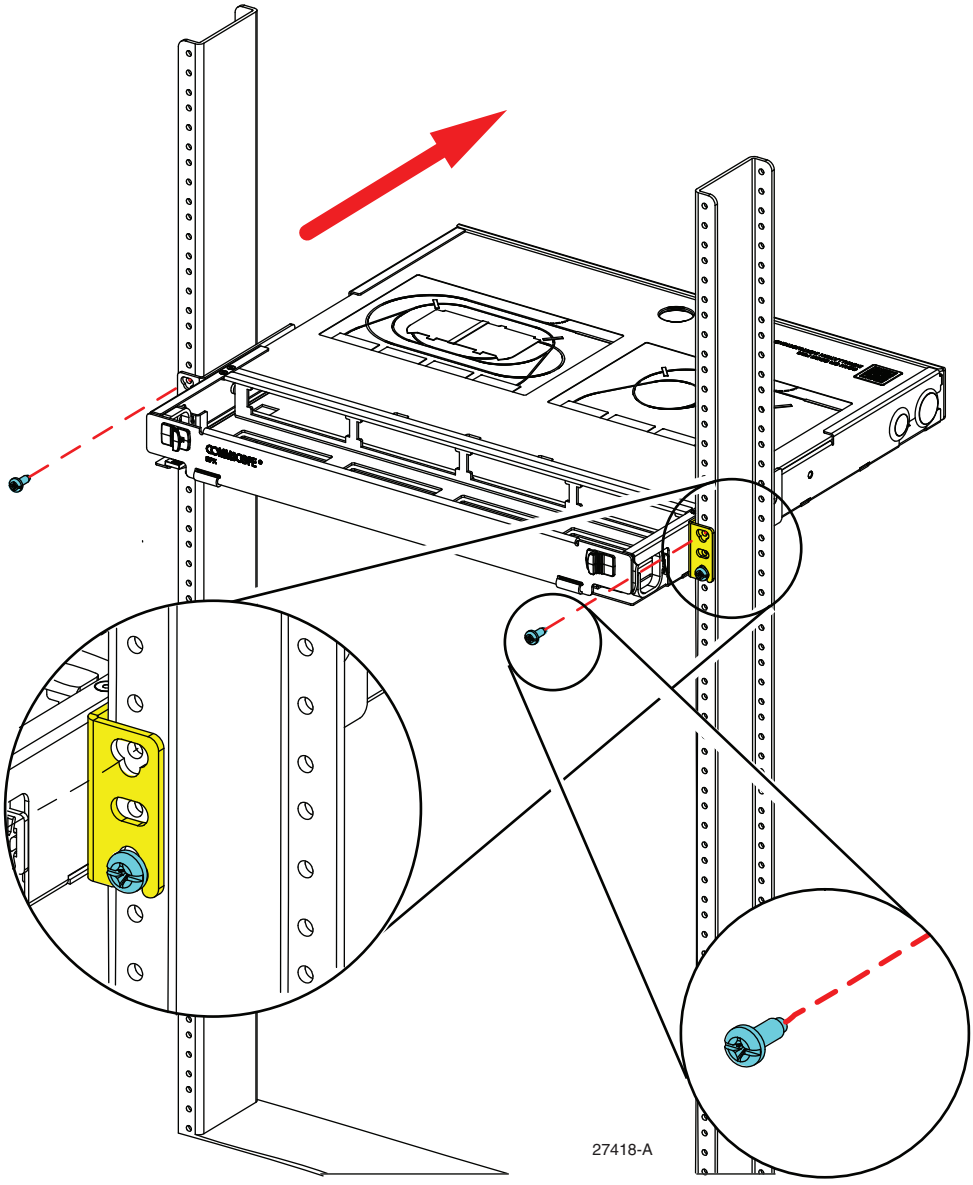

Figure 8. Mounting the EPX Panel (1U Panel Shown)

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5.3 Opening the Front Door

To open the front door: (a) move the door latch inward and (B) open the door allowing it to hang down until flat with the frame. Refer to Figure 9.

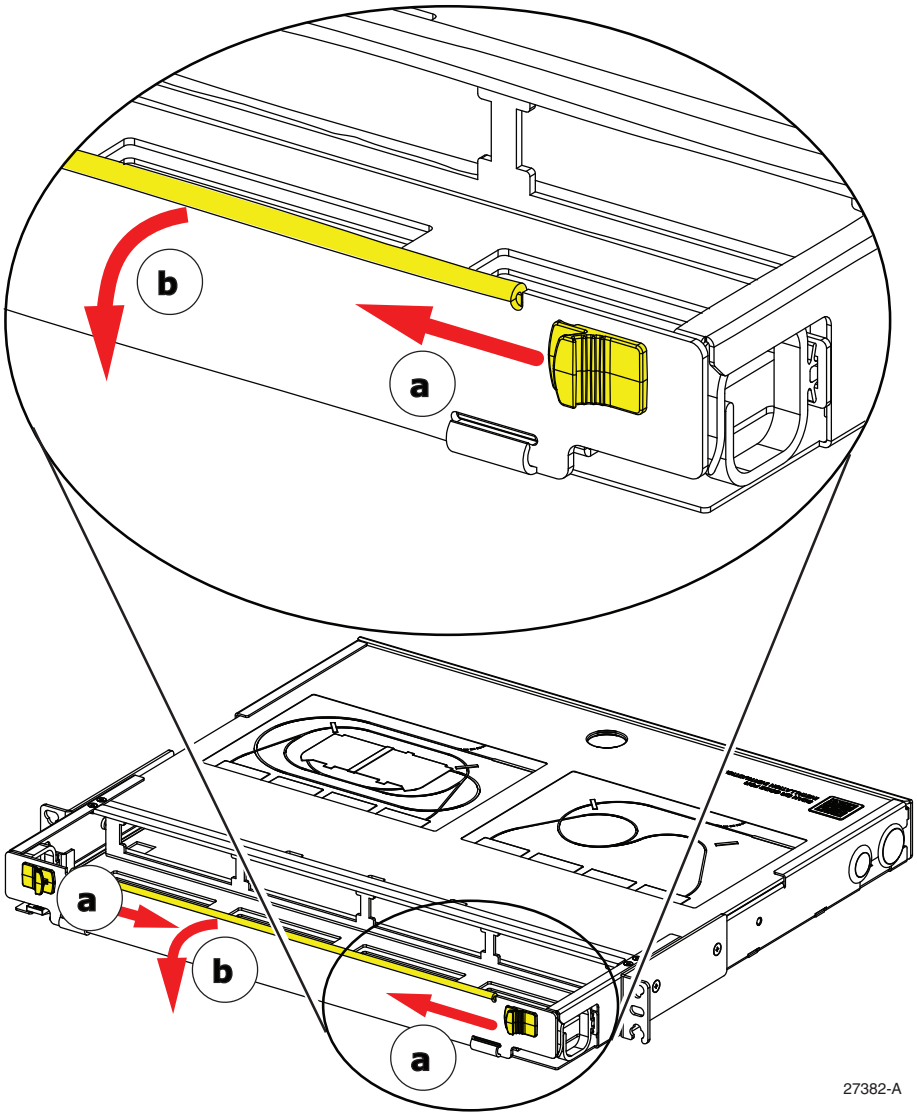

Figure 9. Opening the Front Door

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5.4 Operating the Sliding Tray (If Panel Has Sliding Tray)

Some panels are equipped with a sliding tray (optional). Panels with a sliding tray have a tray release button and tray retainer clip designed to ensure that the drawer is opened carefully and remains open until work in the drawer is competed. This item looks the same and operate the same on the 1U, 2U, and 4U panels.

To release a closed drawer, press the release button down, as shown in Figure 10 (c), and slide the drawer out to the first detent (d).

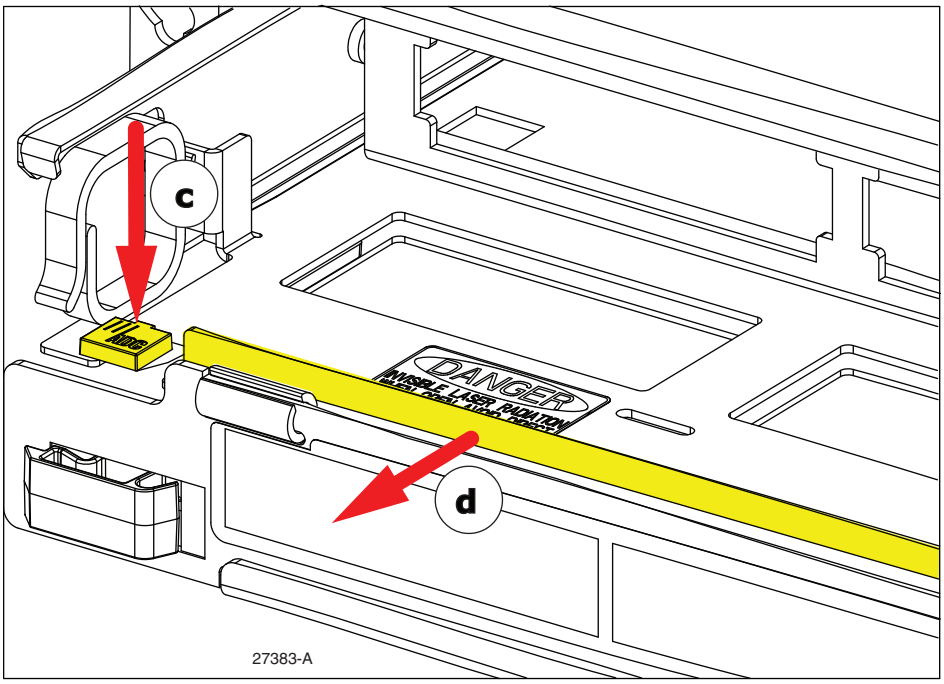

Figure 10. Releasing Closed Drawer to Open It

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5.5 Installing Adapter Packs

Align the adapter pack with the selected location in the bulkhead. Push in and secure with push in pin if present (LGX/1000 only). Refer to Figure 11 and Figure 12.

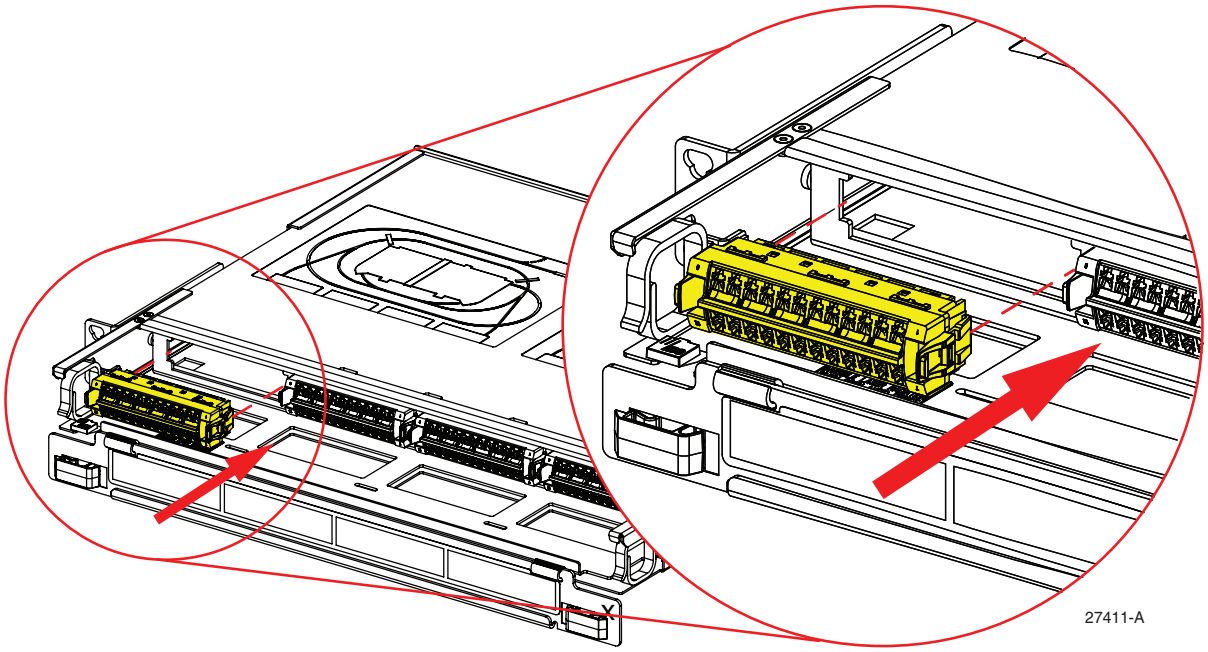

Figure 11. Installing Adapter Packs (G2)

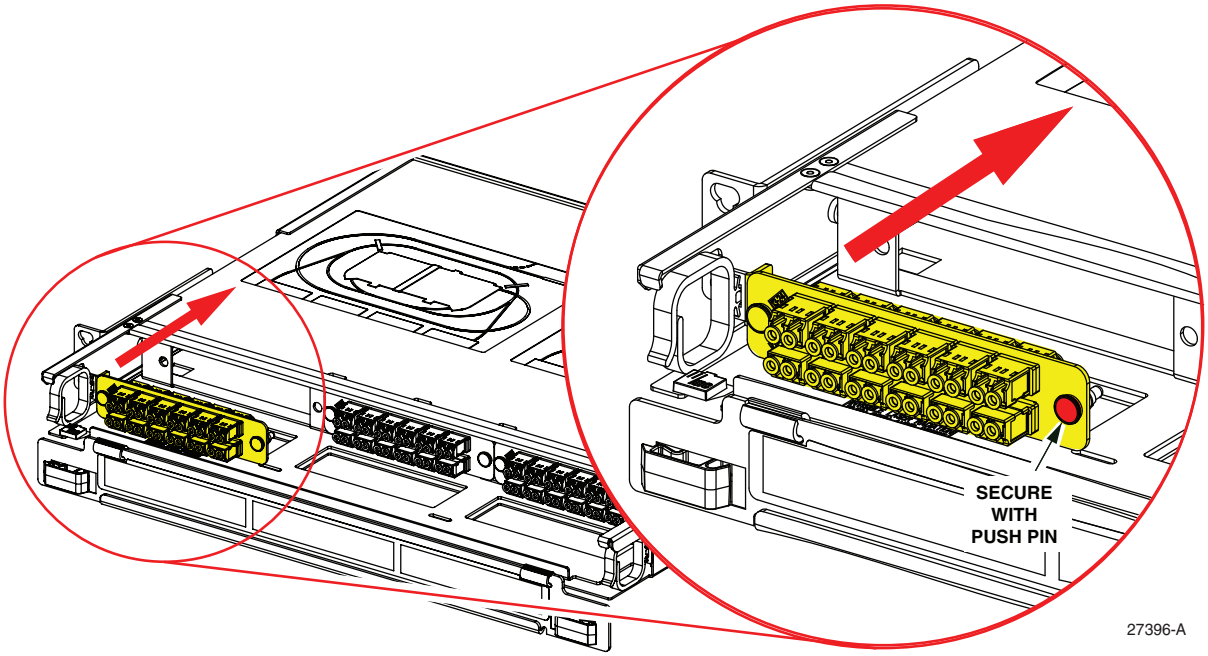

Figure 12. Installing Adapter Packs (LGX/1000)

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5.6 Installing MPO Modules

1. Align the MPO module with the selected location in the bulkhead. Push in and secure with push in pin if present (LGX/1000 only). Refer to Figure 13 and Figure 14.

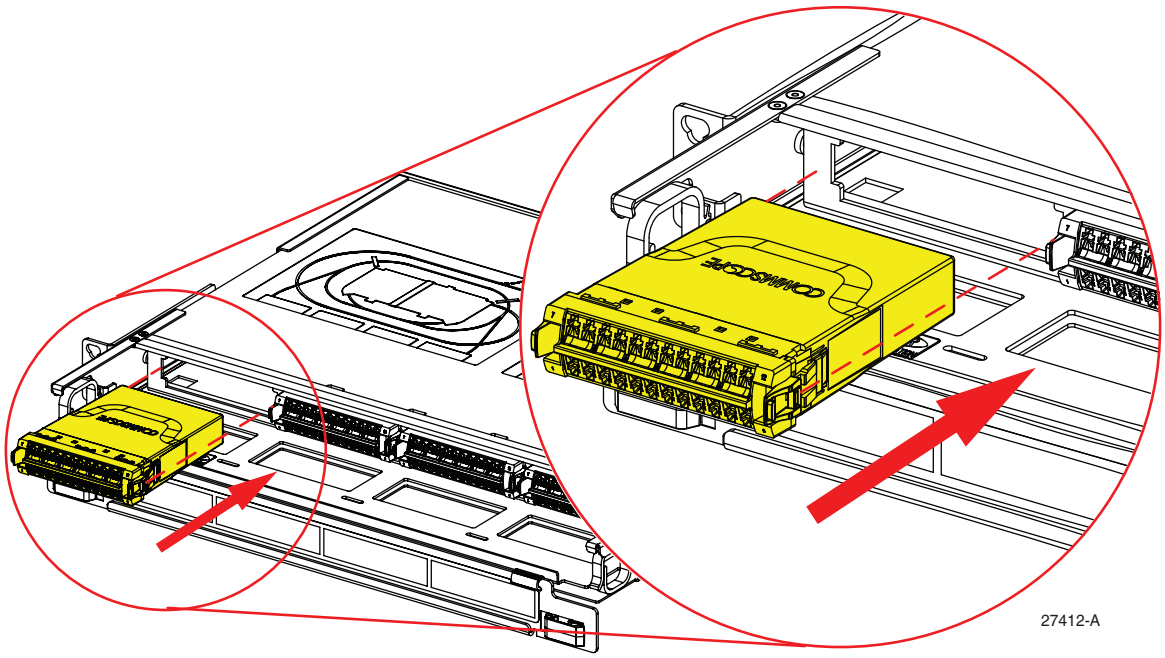

Figure 13. Installing MPO Modules (G2)

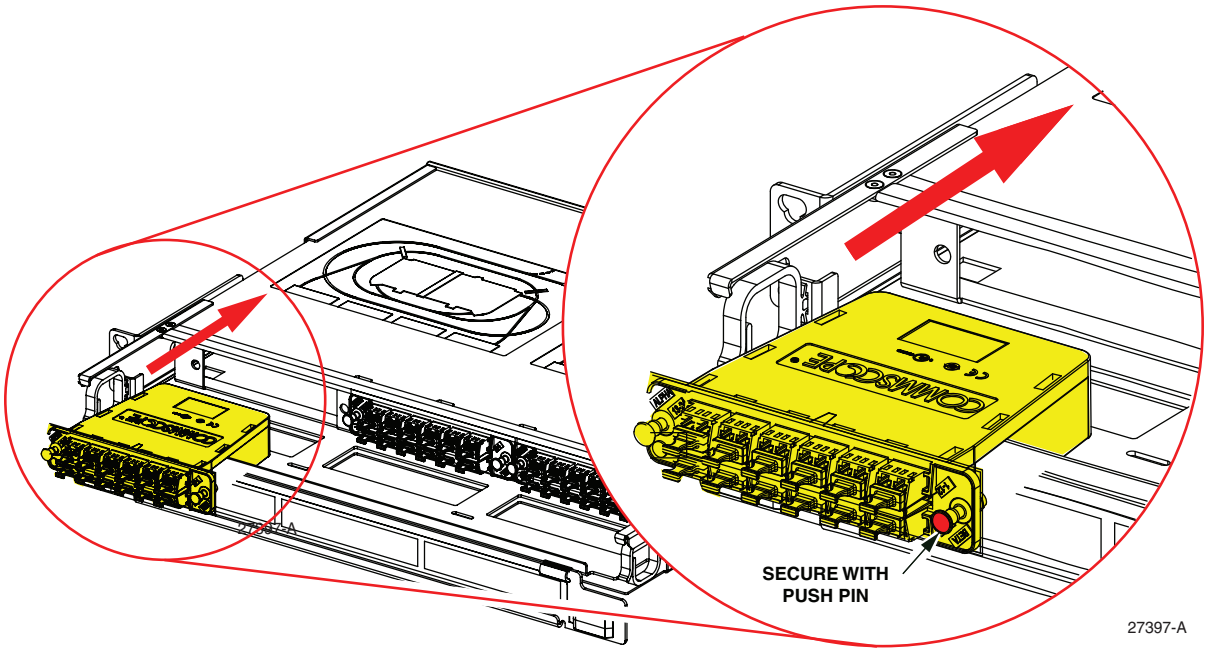

Figure 14. Installing MPO Modules (LSX/1000)

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2. Secure the cable and cable gland to the panel as shown in Figure 15. Route the cable as shown in Figure 16.

Note: For details and other options, refer to Section 6.3 on page 25.

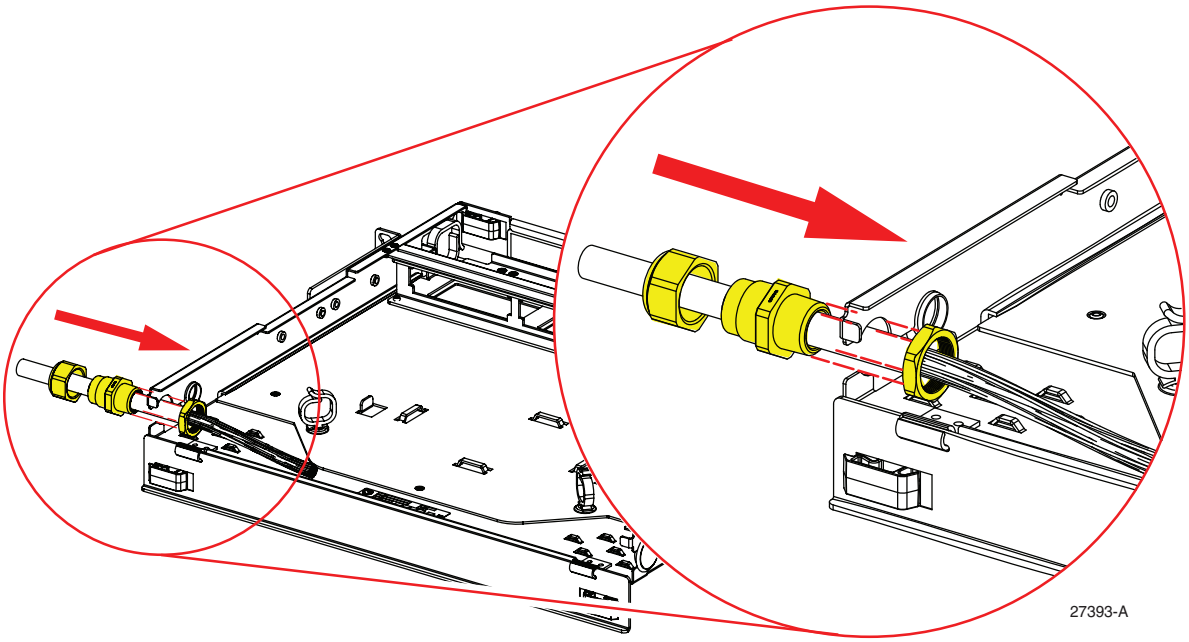

Figure 15. Installing Cable Gland (Standard 1/2-inch Cable Gland, Provided)

3. Loop the MPO cable around through the cable retainers as shown in Figure 16.

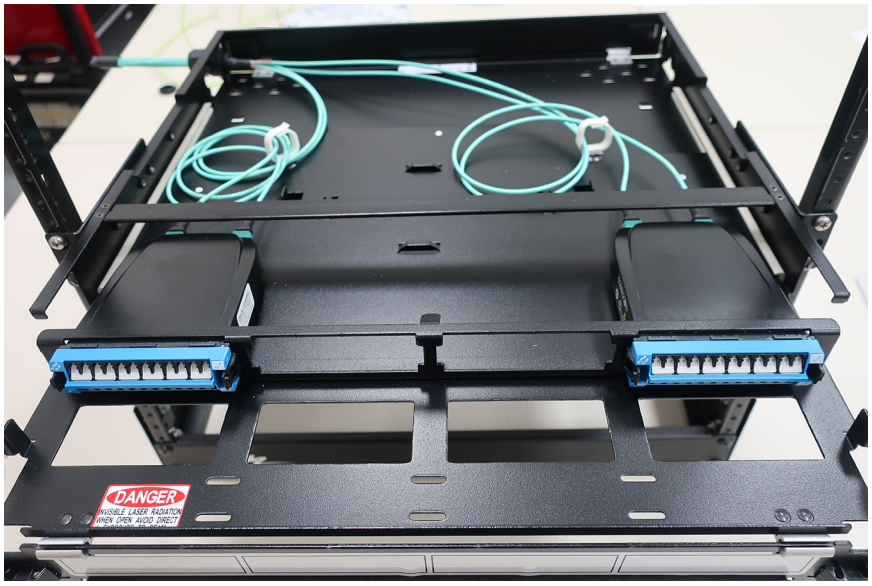

Figure 16. Cable Routing to MPO Modules

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5.7 Installing Splice Cassettes

1. Insert the splice cassette into the opening provided in the bulkhead, oriented so that the rear side passes through the opening first. Secure using push pins identified in Figure 17.

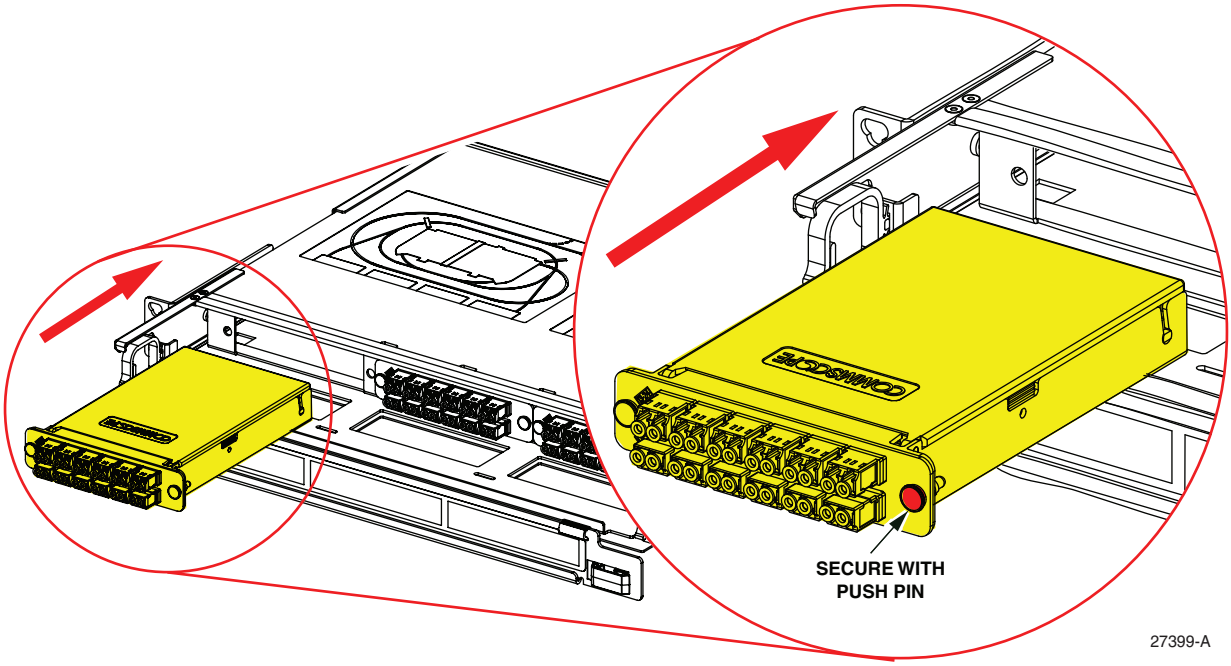

Figure 17. Installing Splice Cassette (LSX/1000 shown)

2. Route cables from rear of panel to splice cassettes as shown in Figure 18 below.

Figure 18. Cable Routing to Splice Modules (G2 shown)

3. Splice fibers from cable to splice cassette per instructions included with the splice cassettes.

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5.8 Installing AGILE Splice Trays

The splice tray provides a splice interface between a facility cable and pigtails terminated at adapter packs on the EPX bulkhead. Refer to the instructions enclosed with that kit for all details not covered here. Up to two splice trays may be installed per U height.

1. Install the splice tray as shown in Figure 19.

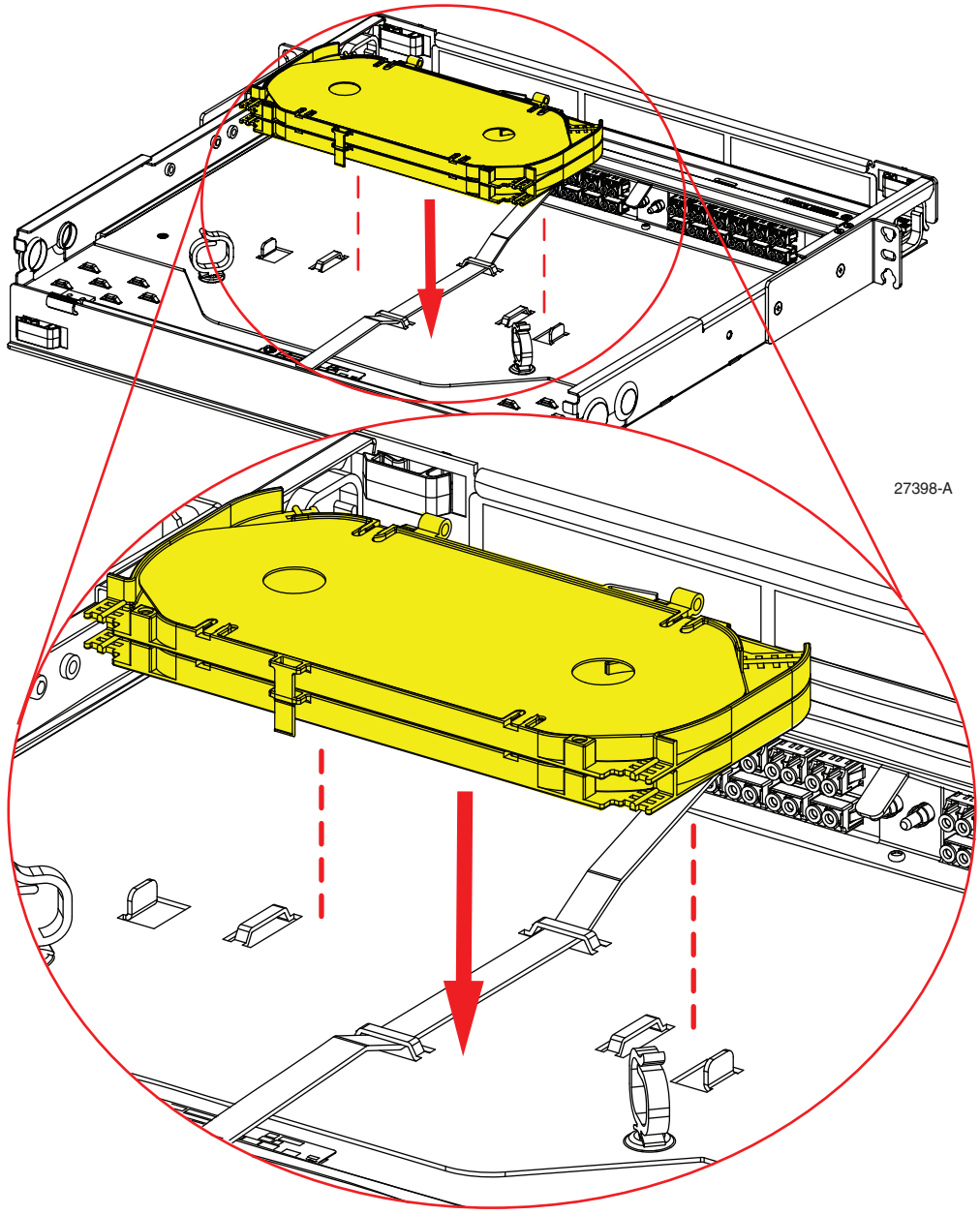

Figure 19. Installing Splice Trays

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2. Route pigtails to the panel and terminate the pigtail connectors at the assigned adapter pack, as shown in Figure 20. Cable slack shall be spooled inside the perimeter of chassis and restrained with cable ties at tie-down points provided, as necessary.
3. Route the facility cable to the panel and secure it in a cable entry port using a gland connector as shown in Figure 20.

Note: For more information on cable glands, refer to Section 6 on page 23.

4. Route the pigtails and facility cable within the EPX panel in the opposite direction and into the opposite side of the Agile splice tray as shown in Figure 20.

Note: On 2U and 4U shelves splice trays may be installed stacked on top of each other. Ensure that suitable slack is provided to allow tray on sliding versions to fully extend

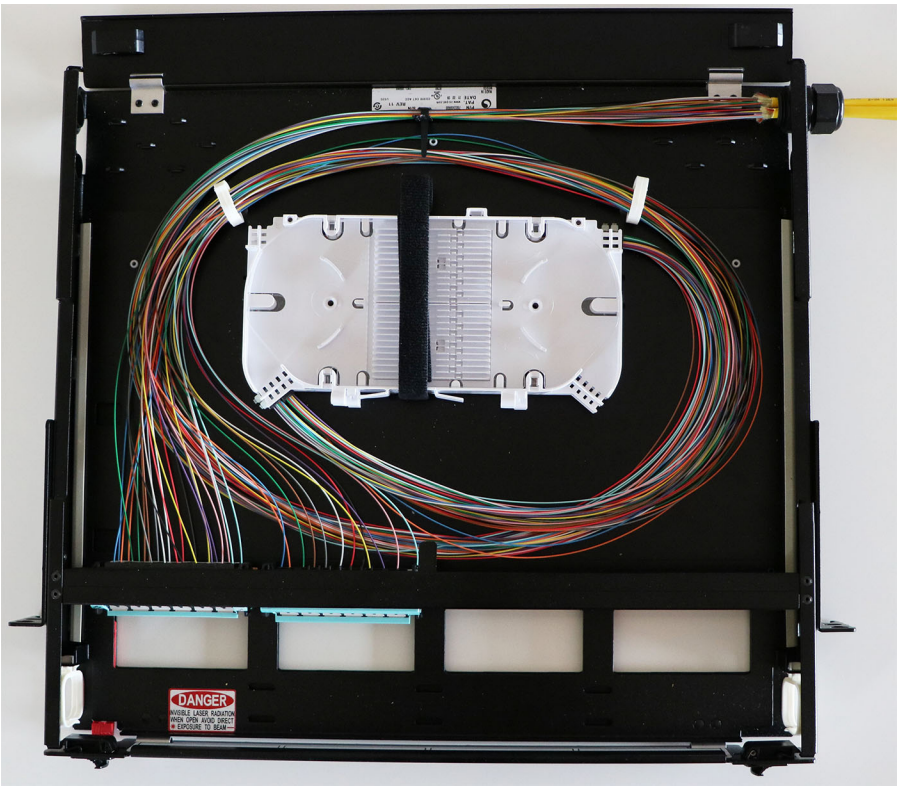

Figure 20. Cable Routing to AGILE Splice Tray (G2 shown)

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5.9 Field Termination

Use the following procedure referring to Figure 21 for an example of correct cable routing in the EPX panel.

1. Insert adapter pack into opening provided in bulkhead, oriented so that adapters pass through opening first. Refer to Section 5.5 on Page 16.

Note: On a 2U panel, start on bottom row first.

2. After connectorization, route buffered fibers from cable toward front of tray.
3. Terminate connector end of pigtails into module adapter openings in standard sequence.
4. Spool excess fiber slack length.
5. Repeat items 1-4 for all remaining locations.

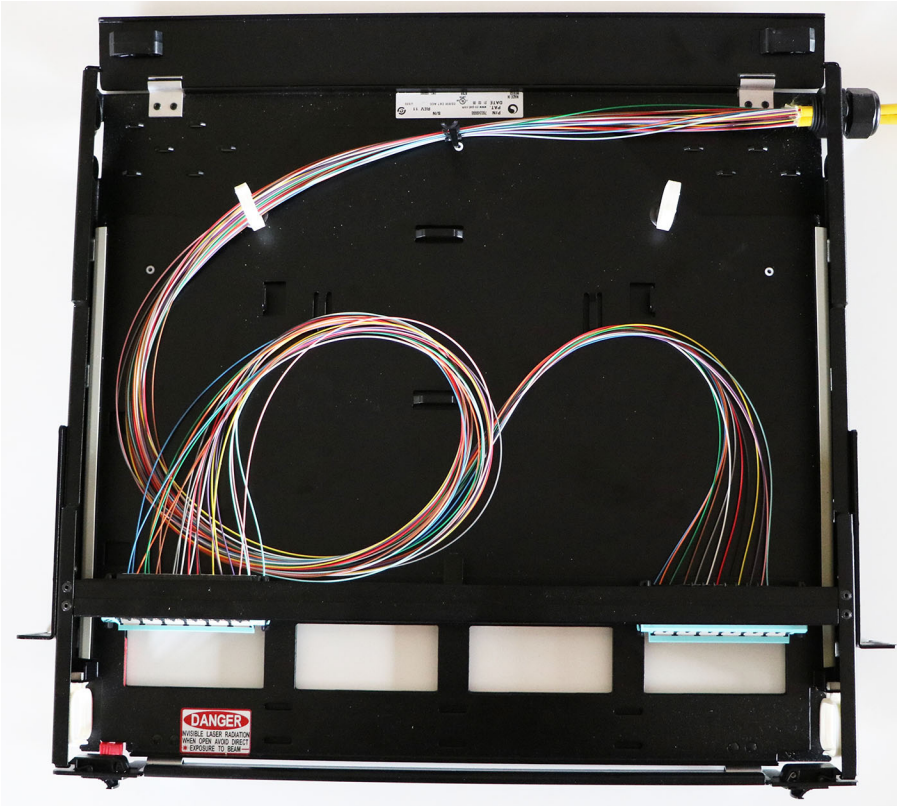

Figure 21. Cable Routing in EPX Panel

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6 CABLE ROUTING

6.1 Cable Routing

When routing cables, follow the routing path indicated on the top cover of the panel.

6.2 Cable Gland Capacities

Table 7 lists cable gland capacities for EPX 1U, 2U, and 4U panels for different diameter cables.

Table 7: EPX Panel Gland Capacities

# Gland Openings	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT
1U	2	2	0	0
2U	0	12	2	0
4U	0	16	4	2

Cable glands of the appropriate size are included with the different sized cable assemblies when shipped. All of these standard cable glands have the same basic components and are installed in the same way, as shown in Figure 22.

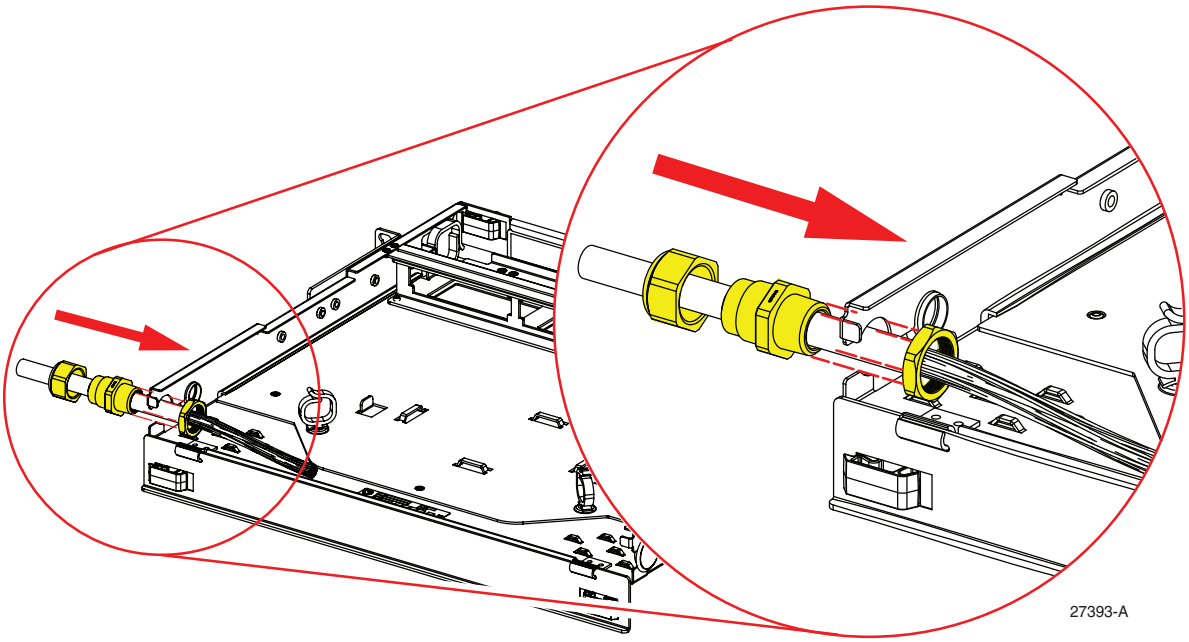

Figure 22. Installing Standard Cable Gland (1/2-inch Gland in EPX 1U Panel Shown)

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The EPX-1U panel has two 3/8-inch gland openings and two 1/2-inch gland openings. For smaller cable sizes, the 1U panels include snap-fit washers to reduce the 1/2-inch opening to 3/8-inch, as shown in Figure 23.

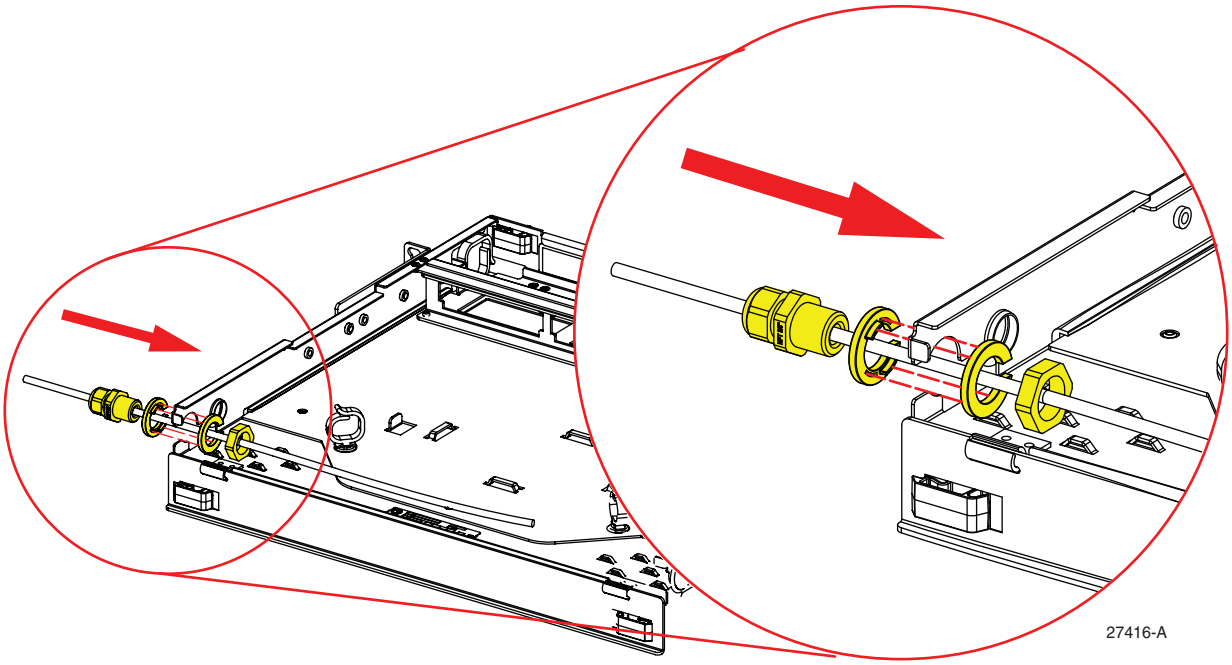

Figure 23. Installing 3/8-inch Cable Gland With Snap-Fit Washers (EPX 1U Panel Only)

For additional information on smaller diameter cables, refer to Section 2.4 on page 8.

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6.3 Installing a Cable

Note: These instructions cover only the cable gland method of securing fiber cables.

1. Loosely secure fiber cable to equipment rack upright approximately 3 inches (76mm) above or below panel, using cable tie or hook-and-loop strip. Leave approximately 48-inch (2.1m) length of cable to route into panel.
2. Fiber cables may enter panel from either right side, left side or rear apron. Carefully loop fiber cable to rear of panel on either side and continue to feed cable over top of rear apron.
3. Temporarily store slack fibers in panel.
4. Remove plug from appropriate size opening in panel to accommodate cable gland on fiber cable. Select an opening on rear apron or either right or left side that will be most advantageous for cable entry.
5. Completely loosen gland nut from cable gland.
6. Feed fibers and subunit tubes through panel opening. Temporarily coil fibers loosely in panel.
7. Insert threaded body of cable gland into opening and tighten gland nut onto threaded section to secure cable gland unit to panel.

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7 CONTACT INFORMATION

- To find out more about CommScope® products, visit us on the web at www.commscope.com
- For technical assistance, customer service, or to report any missing/damaged parts, visit us at http://www.commscope.com/SupportCent

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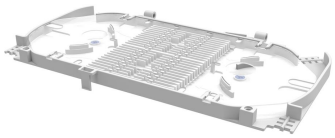
760241378 | AGL-SPLICE-48

Fiber Optic Splice Tray Kit, stackable, 48-fiber capacity



Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber splice tray
Product Series	AGILE

General Specifications

Application	Used in AGILE panels and enclosures
Color	Light gray
Splicing Capacity, maximum	48

Dimensions

Height	17.6 mm | 0.693 in
Width	220 mm | 8.661 in
Depth	118.4 mm | 4.661 in

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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760109462 | 360G2-MOD-BLANK-4PK

360G2 Mod Panel Blank Adapter Pack, 4 Panels

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack, blank

General Specifications

Adapter Color	None

Dimensions

Height	30.48 mm | 1.2 in
Width	91.44 mm | 3.6 in
Depth	2.54 mm | 0.1 in

Packaging and Weights

Packaging quantity	4

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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CERTIFICATE

Certificate Number: 111045.000
Including Seven Page Addendum

The Quality Management System and implementation of:

CommScope, Inc.

With Virtual Central Function at:
1100 CommScope Place SE
Hickory, NC 28602
United States

meets the requirements of the standard:

ISO 9001:2015

Scope:

The sales, marketing, design, manufacture, test, repair, support, service, and distribution of telecommunications products, components, and services for the telecommunications, wireless, and broadcast networks industries

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Business Segments	Exceptions
Connectivity and Cable Solutions (CCS)	None
Networking, Intelligent Cellular & Security Solutions (NICS)	None
Outdoor Wireless Networks (OWN)	None
Access Network Solutions (ANS)	None

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
Atlanta, GA 30339 USA
(215) 997-4519
https://www.dekra.us/en/audits/

ANAB ANSI National Accreditation Board ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page One of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Activities Legend:	HQ = Headquarters	MFG = Manufacturing	SER = Services (Professional Services and/or Technical Support)
	HW DE= Hardware Development	REP = Repair	SC = Purchasing, Supplier Management, Manufacturing Support, Repair Support
	SW DE= Software Development	SAL = Sales, Marketing	DIST = Distribution

Site Address	**Site Activities**
CommScope Inc 1100 CommScope Place SE Hickory, NC 28602 United States	HQ (Virtual)
ARRIS Technology, Inc. 3871 Lakefield Drive Suwanee, GA 30024 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 101 Tournament Dr. Horsham, PA, 19044 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 6450 Sequence Drive San Diego, CA 92121 United States	SW DE, SER
ARRIS Technology, Inc. 900 Chelmsford St. Lowell, MA 01851 United States	HW & SW DE, SER, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Two of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Solutions, Inc. 2400 Ogden Ave., Suite 180 Lisle, IL 60532 United States	HW & SW DE, SAL, SER, SC
ARRIS 15 Sterling Drive Wallingford, CT 06492 United States	HW & SW DE, SER, SC
ARRIS Technology, Inc. 2450/2500 Walsh Avenue Santa Clara, CA 95051 United States	HW & SW DE, SAL, SER
Ruckus Wireless International Inc. 350 West Java Dr. Sunnyvale, CA 94089 United States	HW & SW DE, SER
Ruckus Wireless Network Technology (Shenzhen) Co. Ltd. Units C&D, 5th Floor, No. 2 Finance base, 8 KeFa Road, Shenzhen, China	SW DE, SC, HW DE

Certificate Expires: January 04, 2026
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Three of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
Site Address	**Site Activities**
CommScope Asia (Suzhou) Technologies Co., Ltd. 77 Qiming Road, Suzhou Industrial Park Suzhou,Jiangsu 215121 Peoples Republic of China	MFG, SC
Ruckus Wireless International Inc., Taiwan Branch @ Neihu District, Taipei City, Rui Road 411, 10th floor, Taipei	SW DE
ARRIS Group India Pvt Limited (AGIPL) Salarpuria Supreme, Ground Floor West Wing &First Floor Munnekolalu Village, Varthur Hobli, Outer Ring Road, Bangalore-560037	SW DE
ARRIS Group de Mexico S.A. de C.V. Av. La Paz 11721 Parque Industrial Pacifico Tijuana, BC 22643 Mexico	MFG, REP, SC
ARRIS Communications Ireland Limited Building 4300, Cork Airport Business Park Kinsale Road Cork County Ireland	HW & SW DE
ARRIS Group India Private Limited "The Senate" No:33/1, Ulsoor Road, Bangalore - 560 042 India	HW & SW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Four of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Group, Inc. 50 Stranmillis Embankment Belfast, BT95FL Northern Ireland	SW DE
CommScope Czech Republic, s.r.o Turanka 856/98B 627 00 Brno Czech Republic	HW DE,
CommScope CZ, spol. s.r.o. U Morusi 888, 53006 Pardubice Czech Republic Czech Republic	HW DE,
CommScope Connectivity UK Limited Units 1 and 4 Kinmel Park Industrial Estate Bodelwyddan, Denbighshire, LL18 5TZ United Kingdom	HW DE, MFG, SAL
CommScope Design & Integration UK Ltd. Unit 5 & 6 Eden Business Park Eden House Drive Old Malton, Malton, North Yorkshire YO17 6AE United Kingdom	HW DE, MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Five of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
CommScope Design & Integration UK Limited 412 The Quadrant, Birchwood Park Warrington, WA3 6FW United Kingdom	SER
CommScope EMEA Ltd. Corke Abbey Avenue Bray, Co. Dublin Ireland	MFG, SAL
CommScope EMEA Ltd. Diestsesteenweg 692 3010 Kessel-Lo, Belgium	HW DE, MFG, SAL
CommScope Italy Srl Via Archimede, 22/24 Agrate Brianza (MB) 20864 Italy	HW DE, REP, SW DE
Telecom Networks Americas AV. HIPOLITO YRIGOYEN 2999, DEPOSITO 6 EL TALAR, TIGRE Buenos Aires B1618AXD Argentine Republic	SAL, DIST
Commscope Networks India Private Limited Salarpuria Softzone, A Block, 1st Floor Survey No 80/1, 81/1, 81/2, B Wing, Belandur Village, Varthur Hobli, Outer Ring Bangalore – Karanataka 560103 India	SW DE
ADC India Communications Ltd. No 10 C , 2nd Phase Peenya Industrial Area Bangalore – Karnataka 560058 India	MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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Atlanta, GA 30339 USA
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Six of Seven

The Quality Management System and implementation of:

CommScope, Inc.

With site at:

CommScope Asia (Suzhou) Technologies Co.,Ltd.

77 Qiming Road, Suzhou Industrial Park
Suzhou,Jiangsu 215121
Peoples Republic of China

meets the requirements of the standard:

ISO 9001:2015

The validity of this certificate depends on the validity of the main certificate.

Scope:
Production of network cable, fiber cable and communication equipment component (copper patch cords, copper panel, accessories etc.)

Certification Structure: Multi-site

Certificate Expires:	January 04, 2026
Certificate Issued:	January 05, 2023
Certified Since:	January 10, 2001

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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证 书 附 录

证书编号: 111045.000

附录第7页,共7页

质量管理体系和实施:

CommScope, Inc.

其场所:

康普科技（苏州）有限公司

中国江苏省苏州工业园区启明路77 号,邮编215121

符合以下标准要求:

ISO 9001:2015

本证书的有效性取决于主证书的有效性。

范围:

网络线、光缆、通信系统设备材料（网络跳线、配线装置等）的生产。

认证结构: **多场所**

证书有效期: 2026.01.04

发证日期: 2023.01.05

首次发证日期: 2001.1.10

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
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CERTIFICATION BODY

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IAF

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

CommScope, Inc. of North Carolina
1100 CommScope Place SE
Hickory
North Carolina
28603-0339
USA

Holds Certificate No: **EMS 648387**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The environmental management system to control the risks associated with the manufacture, distribution, field support and central function of telecommunication products and services.

For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

...making excellence a habit.™

This certificate remains the property of BSI and shall be returned immediately upon request.
An electronic certificate can be authenticated online. Printed copies can be validated at www.bsigroup.com/ClientDirectory
To be read in conjunction with the scope above or the attached appendix.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Telecommunications de Reynosa S. de R.L. de C.V. Av. Industrial Reynosa Lte 2 al 5 Parque Industrial Center Reynosa Tamaulipas 88780 Mexico	Manufacture and distribution of telecommunication products including antenna and cable.
CommScope Asia (Suzhou) Technologies Co., Ltd. EPZ II, 77 Qiming Road Suzhou Industrial Park Suzhou Jiangsu 215121 China	Manufacture and distribution of telecommunication products, including cable.
Andrew Telecommunications India Pvt. Ltd. Plot No. N-2, Phase IV Verna Industrial Estate Verna Salcette Goa 403 722 India	Manufacture and distribution of telecommunication products, including antenna and cable.
CommScope EMEA Ltd. Corke Abbey Avenue Bray County Dublin A98FY03 Ireland	Manufacture and distribution of telecommunication products, including cable and connectors.
CommScope Telecommunications (China) Co., Ltd. 68 West Su Hong Xi Lu Suzhou Industrial Park Suzhou Jiangsu 215021 China	Manufacture and distribution of telecommunication products, including antenna and cables.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Wireless Systems GmbH Industriering 10 Buchdorf 86675 Germany	Manufacture and distribution of telecommunication products, including amplifiers and antenna systems.
CommScope, Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Corporate headquarters responsible for management system oversight of all locations listed on this certificate.
CommScope Inc. 6519 CommScope Road Catawba North Carolina 28609-0199 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Inc. 3642 US Hwy 70 East Claremont North Carolina 28610-0879 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Czech Republic s.r.o. Turanka 98B Brno 62700 Czech Republic	Manufacture and distribution of telecommunication products, including connectors and terminations.
CommScope Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Customer care, facility maintenance, and administrative functions.
ADC de Delicias, S. de R.L. de C.V. Blvd. Fernando Baeza No. 1301 Sur Delicias Chihuahua 33000 Mexico	Manufacturing and distribution of telecommunication products.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
ADC de Juarez S. de R.L. de C.V. Parque Industrial Antonio J Bermudez Ciudad Juarez Chihuahua 32470 Mexico	Manufacturing and distribution of telecommunication products.
CommScope Connectivity Belgium bvba Diestsesteenweg 692 Kessel-lo 3010 Belgium	Manufacture and distribution of telecommunication products.
CommScope Technologies de Juarez S. de R.L. de C.V. Santiago Troncoso 331 Praderas del Sur, Ciudad Juarez Chihuahua 32575 Mexico	Manufacture of Fiber Optic Splice Closures (FOSC), Fiber Guide Systems (FGS), Hardened Connectivity and Molding-Gel Filling, including: plastic injection molding, plastic extrusion, plastic and metal machining, and assembly operations.
CommScope Connectivity UK Limited Unit 1 Kinmel Park Bodelwyddan Rhyl, Denbighshire LL18 5TZ United Kingdom	Fibre optic cable manufacturing, termination and design of other telecommunication products and services.
CommScope 11312 S. Pipeline Road Euless Texas 76040 USA	Manufacture, distribution, field support and central function of telecommunication products.
ARRIS GROUP DE MEXICO SA DE CV Av. De la Paz, #11721 Parque Industrial Pacifico Tijuana Baja California 22643 Mexico	Manufacture, repair, support, repair service, distribution of products and components for telecommunications that provide integrated solutions for voice, video and data through the processes of SMT, manual and mechanical assembly, soldering (manual, selective, printed, wave) electrical testing and packaging.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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Certificate No: **EMS 648387**

Location	Registered Activities
CommScope Design & Integration UK Ltd Unit 5 & 6, Eden Business Park Edenhouse Drive Old Malton Malton YO17 6AE United Kingdom	Manufacture and distribution of telecommunications products including cabinets.
Arris Indústria Eletrônica do Brasil Ltda. CNPJ: 09.154.836/0001-15 Avenida Torquato Tapajós, 9475 Tarumã Manaus Amazonas 69041-025 Brasil	Manufacturer and distribution of Receivers, Television signal Decoders and Modulator/Router.
CommScope Design and Integration UK Ltd. Lovell House, 412 The Quadrant Birchwood Park Warrington WA3 6FW United Kingdom	Telecommunications project management, site surveys, installations commissioning and rigging.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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RoHS Certificate of Compliance

COMMSCOPE®

Product Name: EPX-1U-MOD-ENC

Product Number: 760249998

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: October 29, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided and our analysis and assessment of the risks. This information is subject to change and if a change occurs which affects compliance, then this Statement will be updated. Compliance to EU ROHS 2011/65 amended by EU RoHS 2015/863 means the part numbers have a maximum concentration of no more than 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). These parts also have a maximum concentration of no more than 0.1% by weight in homogenous materials for DEHP, BBP, DBP and DIBP (substances that are restricted starting from July 22, 2019). Finished electrical and electronic products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked.

Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

760230946 | 360DPis-12LC-SM

360 Distribution Adapter Pack, Singlemode, 12 LC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Blue
Interface	LC with Internal Shutters
Interface Feature	UPC
Shuttered	Yes
Total Ports, quantity	12

Optical Specifications

Fiber Mode	Singlemode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**

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760230946 | 360DPis-12LC-SM

CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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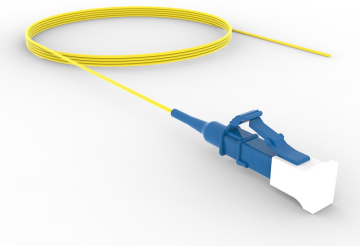
FBWLCUC11

Base Product



TeraSPEED® LC/UPC to Unconnectorized, Fiber Pigtail, 0.9 mm SBJ

Product Classification

Regional Availability	Asia | Australia/New Zealand | China | Europe | India | Latin America | Middle East/Africa | North America
Portfolio	CommScope®
Product Type	Fiber pigtail, unjacketed
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FBW
Ordering Note	Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Blue
Color, connector A	Blue
Interface, Connector A	LC/UPC
Jacket Color	Yellow
Total Fibers, quantity	1

Dimensions

Cable Assembly Length Range (m)	1 – 20
Cable Assembly Length Range (ft)	1 – 66

Ordering Tree

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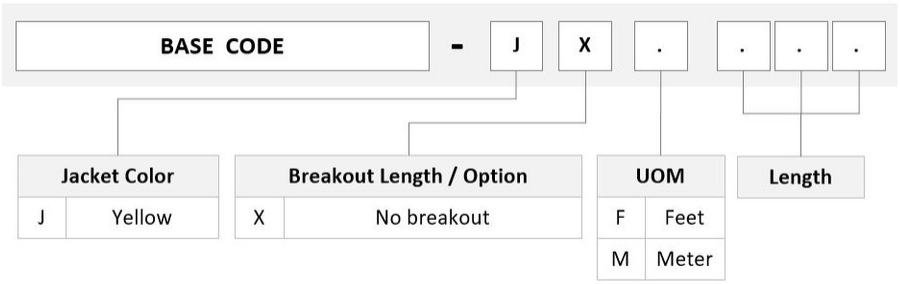
FBWLCUC11



Mechanical Specifications

Cable Retention Strength, maximum	2.00 lb @ 90 ° | 5.00 lb @ 0 °

Optical Specifications

Fiber Mode	Singlemode
Fiber Type	G.652.D | G.657.A1, TeraSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Dual Rated LSZH/Riser

Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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FBWLCUC11

760004564 N-001-RF-8W-F09YL	–	Fiber Indoor Cable, TeraSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Singlemode G.652.D and G.657.A1, Gel-free, Feet jacket marking, Yellow jacket color
860657283	–	LC/UPC Connector, Singlemode, Blue

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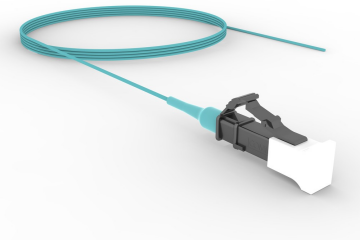
FBXLCUC11

Base Product



OM4 LC/UPC to Unconnectorized, Fiber Pigtail, 0.9 mm SBJ

Product Classification

Regional Availability	Asia | Australia/New Zealand | Europe | Latin America | Middle East /Africa | North America
Portfolio	CommScope®
Product Type	Fiber pigtail, unjacketed
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FBX
Ordering Note	Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Aqua
Color, connector A	Black
Interface, Connector A	LC/UPC
Jacket Color	Aqua
Total Fibers, quantity	1
Transmission Standards	TIA/EIA-568-C.3

Dimensions

Cable Assembly Length Range (m)	1 – 20
Cable Assembly Length Range (ft)	1 – 66

Ordering Tree

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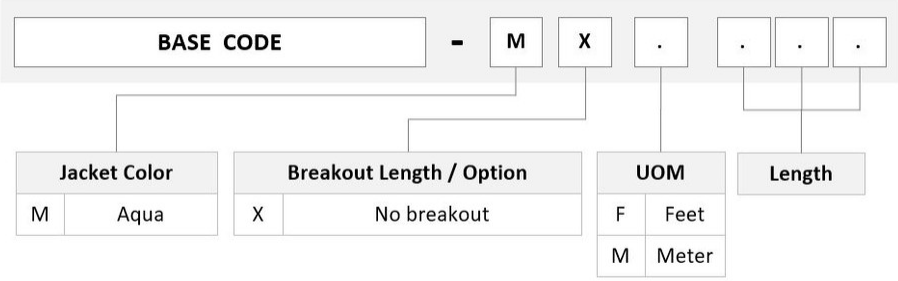
FBXLCUC11



Mechanical Specifications

Cable Retention Strength, maximum	2.00 lb @ 90 ° | 5.00 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Fiber Type	OM4, LazrSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Low Smoke Zero Halogen (LSZH)

Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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760010603 N-001-RF-5K-F09AQ	–	Fiber Indoor Cable, LazrSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Multimode OM4, Gel-free, Feet jacket marking, Aqua jacket color
860657284	–	LC/UPC Connector, Multimode, Aqua

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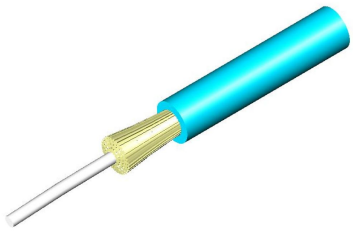
760010603 | N-001-RF-5K-F09AQ



Fiber Indoor Cable, LazrSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Multimode OM4, Gel-free, Feet jacket marking, Aqua jacket color

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber indoor cable
Product Series	N-RF

General Specifications

Cable Type	Cordage
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Aqua
Jacket Marking	Feet
Total Fiber Count	1

Dimensions

Diameter Over Jacket	0.9 mm | 0.035 in

Representative Image

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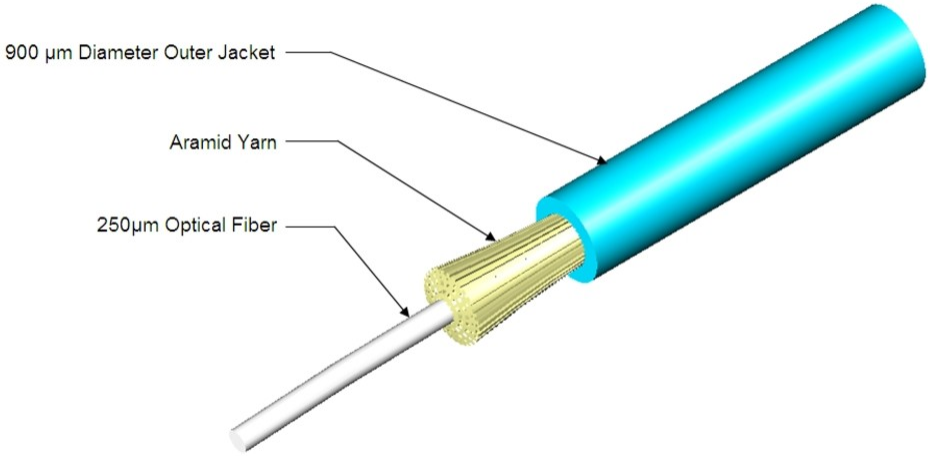
760010603 | N-001-RF-5K-F09AQ



Mechanical Specifications

Minimum Bend Radius, loaded	38 mm | 1.496 in
Minimum Bend Radius, unloaded	15 mm | 0.591 in
Tensile Load, long term, maximum	20 N | 4.496 lbf
Tensile Load, short term, maximum	67 N | 15.062 lbf
Compression	10 N/mm | 57.101 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	300 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	0.74 N-m | 6.55 in lb
Impact Test Method	FOTP-25 | IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 | IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 | IEC 60794-1 E7
Vertical Rise, maximum	500 m | 1,640.42 ft

Optical Specifications

Fiber Type	OM4, LazrSPEED® 550 | OM4, bend insensitive

Environmental Specifications

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Installation temperature	-10 °C to +50 °C (+14 °F to +122 °F)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409
Environmental Space	Low Smoke Zero Halogen (LSZH) | Riser
Flame Test Listing	NEC OFNR-ST1 (ETL) and c(ETL)
Flame Test Method	IEC 60332-3 | IEC 60754-2 | IEC 61034-2 | UL 1666 | UL 1685

Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Packaging and Weights

Cable weight	1 kg/km | 0.672 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable

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860657284

LC/UPC Connector, Multimode, Aqua

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber connector

General Specifications

Color, boot	Aqua
Color, housing	Black
Interface	LC/UPC

Dimensions

Length	39.6 mm | 1.559 in
Compatible Cable Diameter	0.9 mm | 0.035 in

Material Specifications

Ferrule Material	Zirconia

Mechanical Specifications

Cable Retention Strength, maximum	1.00 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Insertion Loss Change, mating	0.2 dB
Optical Components Standard	ANSI/TIA-568. 3-D | IEC 61753-1
Insertion Loss Change, temperature	0.2 dB
Insertion Loss, maximum	0.24 dB
Return Loss, minimum	27 dB

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Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Insertion Loss Change, mating	TIA-568: Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)

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LIMITED WARRANTY

1. **Definitions.** For purposes of this Warranty, (i) "Buyer" shall mean the individual or entity identified on the applicable purchase order or supply agreement (or, if different, on Seller's quotation, order acknowledgement or statement of work), (ii) "Seller" shall mean the CommScope entity identified on such entity's quotation, order acknowledgement, statement of work or supply agreement, (iii) "Hardware" means equipment designed and manufactured by or on behalf of Seller, or any third-party manufacturer's equipment offered for sale by Seller to Buyer, (iv) "Product" shall mean a product manufactured by or on behalf of Seller pursuant to the applicable supply agreement, quotation or order acknowledgement, and includes any combination of Hardware and Software, (v) "Services" means site engineering, system integration, product installation, implementation, training, maintenance and technical support services for Products, or other professional services provided by Seller to Buyer. Services exclude managed services and hosted cloud services provided by Seller, (vi) "Software" means Seller-licensed software, either embedded or standalone, including any updates provided, and any other enhancements, modifications, and bug fixes provided thereto, in object code form only (unless otherwise specified), and any full or partial copies thereof. Software does not include software created or owned by third parties, including but not limited to MediaKind Software, Google's Android Software or any third party application software, and (vii) "Warranty Period" means, unless a different time period is set forth in **Exhibit A,** (a) for Hardware, one year from date of original shipment from Seller's facility, (b) for Software-only Products, ninety (90) days from the date such Software is first made available to Buyer, or for Software embedded in a Hardware Product, ninety (90) days from date of original shipment of the Product from Seller's facility, and (c) for Services, thirty (30) days from the date the performance of such Services has been rendered.

2. **Limited Warranty.** Seller warrants that, as of the date of delivery, Seller has good title to the Product, free from any lawful security interest or other lien or encumbrance unknown to Buyer. In addition, during the Warranty Period, the Product and Services will be free from defects in materials or workmanship arising under proper and normal use. This Warranty shall apply only to the Products and Services and shall not apply to any other goods or materials, parts or components of a system or any system as a whole. This Warranty does not cover ordinary wear and tear. Seller does not warrant (i) Products not purchased from Seller or its authorized resellers; (ii) that the operation of the Product will be uninterrupted or error-free; (iii) that the Product will operate in combination with other third-party products selected by Buyer; or (iv) any products manufactured by third parties; provided that Seller will, to the extent permitted by the manufacturer, assign third-party warranties to Buyer. Seller gives no warranty for, and shall have no liability with respect to, any defects arising from any software (other than the Software), including, but not limited to MediaKind Software, Android Software or any third-party application software, downloaded to or otherwise used in conjunction with the Product. Seller further warrants to Buyer that during the Warranty Period, all Services performed by Seller for Buyer will be provided in a workmanlike manner.

3. **Disclaimers.** EXCEPT AS EXPRESSLY SET FORTH IN THIS LIMITED WARRANTY OR IN A SEPARATE, APPLICABLE SOFTWARE LICENSE AGREEMENT, ALL SOFTWARE IS LICENSED ON AN "AS IS" BASIS WITHOUT WARRANTY.

4. **Inspection and Return Authorization**. Buyer must promptly notify Seller of any claimed defect in the Product and/or Services. If Buyer claims that a Product is defective in materials or workmanship, Seller shall have the right to either examine the Product where it is located or, in its sole discretion, issue shipping instructions for return of the Product. Seller's inspection in response to a warranty claim shall not constitute acceptance or acknowledgment of the claim's validity. Except as otherwise agreed to in writing, Products may not be returned to Seller without prior authorization. Buyer must contact Seller to obtain an authorization number and return the Products to the location designated by Seller. Any Products returned to Seller without proper authorization will be returned to Buyer at Buyer's expense. Risk of loss, damage and insurance responsibilities for the Products shall not pass from Buyer to Seller until delivery of the Products to Seller's designated location. Buyer shall prepay all transportation charges for such return.

5. **Remedies.** Seller's sole and exclusive obligation and Buyer's exclusive remedy under this Warranty is Seller's repair or replacement of the defective Product or re-performance of Services or issuance of a credit for the net book value of the purchase price of the defective Product. Seller shall have sole discretion as to which of these remedies Seller will provide. Seller is not liable for any repair or maintenance costs incurred by Buyer, unless Seller authorizes such charges in writing in advance of the commencement of the work. If Seller elects to replace or repair the defective Product, the replaced or repaired Product will be warranted for the remainder of the Warranty Period applicable to the originally shipped Product, but the Warranty shall not be extended beyond the original Warranty Period. Replacement Products may be new, refurbished or contain refurbished materials.

6. **Notice and Waiver**. If Buyer discovers any defect in the Product, Buyer must provide prompt (and in no case later than thirty (30) days after discovery) written notice to Seller of the claimed defect. Such notice shall describe, in reasonable detail, the symptoms of such defect. The notice must be received by Seller during the Warranty Period for such Product. Failure to give timely notice of a claim shall result in Buyer's waiver of such claim.

7. **Transfer of Ownership.** This Warranty is not transferable unless Buyer is expressly authorized by Seller in writing to resell the Product. In addition, Buyer must notify Seller on or before the fifteenth (15^{th}) day after the date on which it transfers ownership of the warranted Product. Any transfers in violation of this Section shall invalidate this Warranty. Notice of the transfer of ownership must be in writing and shall include the name and address of the new owner.

8. **Exclusions from Warranty.** This Warranty shall not apply to problems attributable to, or as a result of:

(a) improper installation or misapplication of parts;
(b) chain or system failures induced by other products or components;
(c) lack of proper inspection or maintenance or failure to provide a suitable operating environment;
(d) any consumables provided with the Product, including but not limited to batteries and other accessories, and any other materials, components or products manufactured by a third party;
(e) power surges, fire, unusual mechanical, physical or electrical stress, severe weather conditions or acts of nature, including but not limited to, lightning or floods;
(f) usage or operation not in accordance with published ratings, specifications or instructions, including but not limited to environmental specifications identified by Seller;
(g) any adjustment, modification, alteration, removal or repair of any part of the Product, including but not limited to removal or alteration of serial numbers or other identifying marks not expressly authorized by Seller in writing;
(h) accidental damage, misuse, abuse, neglect or unauthorized access of the Product or of any system of which the warranted Product is a part;
(i) any type of aesthetic changes due to oxidation or corrosion occurring on stainless steel or galvanized steel parts installed in unusually corrosive marine and industrial atmospheres (in which case Seller's only obligation shall be to ensure that Product complies with Seller's published material specifications);
(j) use of the Product for purposes other than that for which it was designed; or
(k) mishandling during shipment of the Product.

LIMITED WARRANTY

This Warranty is for Products installed and used in accordance with Seller's design, installation and operating parameters. Buyer's failure to ensure conformity with such parameters will void all warranties. Under no circumstance shall Seller have any liability or obligation with respect to expenses, liabilities or losses associated with the installation or removal of any Product or the installation or removal of any components for inspection, testing or redesign occasioned by any defect or by any repair or replacement of a Product.

9. **Limitation on Liability.** THE WARRANTIES SET FORTH IN SECTION 2 HEREOF ARE EXCLUSIVE AND ARE MADE ONLY TO BUYER. SELLER MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS AND EXCLUDES ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION OR WARRANTY ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OR PERFORMANCE. No person is authorized to give any additional warranties on Seller's behalf or to assume for Seller any other liability, except in a writing signed by an authorized officer of Seller. SELLER'S TOTAL LIABILITY FOR ANY CLAIM OR DAMAGE ARISING OUT OF AND/OR IN CONNECTION WITH THE MANUFACTURE, SALE, DELIVERY OR USE OF THE PRODUCTS OR SERVICES WILL BE LIMITED TO PROVEN DIRECT DAMAGES, NOT TO EXCEED (I) FOR PRODUCTS, THE DEPRECIATED VALUE OF THE PURCHASE PRICE OF SUCH PRODUCTS OR (II) FOR SERVICES, THE ACTUAL AMOUNT PAID TO SELLER FOR SERVICES DURING THE 12 MONTH PERIOD IMMEDIATELY PRIOR TO THE EVENT (OR SERIES OF EVENTS) GIVING RISE TO THE LIABILITY. IN NO EVENT WILL SELLER BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY CLAIM FOR LOSS OF ACTUAL OR ANTICIPATED DATA, USE, REVENUES OR PROFITS. The Products are not specifically designed, tested, manufactured or intended for operation or use in any inherently dangerous, life endangering or life support applications where any failure of the Products could lead to death, personal injury or significant physical or environmental damage (High Risk Activities). If Buyer uses the Products in High Risk Activities, including but not limited to nuclear facilities or the flight, navigation or communication of aircraft, Buyer agrees that neither Seller nor its third party licensors are liable in whole or in part, for any claims or damages arising from such use, and that Buyer shall indemnify and hold Seller and its third party licensors harmless from any and all claims for loss, cost, damage, expense or liability arising out of or in connection with any use of the Products in High Risk Activities. These limitations on liability will apply regardless of the form of action, whether in contract, tort, strict liability or otherwise, and whether damages were foreseeable and will survive failure of any exclusive remedies provided in Section 4 hereof.

10. **Choice of Law.** The terms and conditions contained herein and the rights of the parties to any transaction to which they relate shall be governed by and construed in accordance with the laws of the State of North Carolina, U.S.A. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

LIMITED WARRANTY

Exhibit A

Product Categories	Warranty Period from Original Shipment Date*
Category A Products E6000® Converged Edge Router (CER); E6000n™ Remote PHY Devices (RPDs); E6000r™ Remote PHY Shelves; E6000n™ Remote MACPHY Devices (RMDs); vManager; Remote OLT (R-OLT); associated power supplies and accessories. FLX PON OLT portfolio including vOLT. CherryPicker products, Encoder products including ME-7000, SE-6000; DSR-4xxx, DSR-6xxx and DSR-7xxx series IRD products, and Uplink systems including TME-2020, VDP-1000, BNC, DEM, and SEM; All APEX Universal EQAM including APEX1000 and APEX3000; All Aloha interactive products including OM2000, ARPD, ADM4000 and NC1500 4.0. All SDM products. All VUE and VTM Software Products. All STDC products.	Hardware One (1) Year Software Ninety (90) Days
Category B Products All High and Standard Definition Transport Adapter MS4000™ Media Streamer	Hardware One (1) Year Software Ninety (90) days ** For certain CPE, option for 1% overship in lieu of Hardware warranty is standard
Category C Products Intentionally left blank.	
Category D Products All Third Party OEM Products: power meters; All VUE and VTM hardware platforms; NC1500 4.0 hardware platform; LQA256 Legacy QAM Adapter; Elemental Products including Live, Server, Delta, Conductor and StatMux; DC2180 Cabinet Node. Cooling Systems	Pass Through from OEM: Hardware One (1) Year Software Ninety (90) Days
Category E Products Intentionally left blank	
Category F Products All OM and SG optical node platforms, Flex Max® and Starline® amplifier platforms, RF Taps & Passives, and Optical Passives	Hardware Five (5) Years within the United States and Canada Hardware Three (3) Years outside United States and Canada Software Ninety (90) Days
Category F1 Products All CHP Headend Optical (HEO) Elements	Hardware Three (3) Years Software Ninety (90) Days
Category G1 Products All NC optical node platforms and Optical Passives, including OP/NP/DP/DC models.	Hardware Five (5) Years Software Ninety (90) Days
Category G2 Products All CH3 Headend (HEO) Elements	One (1) year
Category G3 Products All EPON and GPON ONUs, RFoG/HPON R-ONUs, including, CP8 models and associated power supplies and accessories	Hardware Three (3) Years Software Ninety (90) Days

Category H Products All ConvergeMedia™ Distribution Platforms and Management Suite, AdManager™ including SkyVision Ad Management and EMP solutions CVEx™, SVA, all Vertasent products including SVOM, SVM and ERM, AdEdge™ COM and AdEdge APS,VMS, Manifest Delivery Controller (MDC), ARRIS Video Content Manager (AVCM) and Next Generation Insertion (NGI) and Multicast ABR.	Hardware One (1) Year Software Ninety (90) Days
Category I Products ServAssure® Advanced, ServAssure® NXT - Alarm Central, ServAssure® NXT - Analyze, ServAssure Domain Manager and EventAssure™. WorkAssure™® Workforce Management, Mobile TV, SecureMedia and Titanium	Hardware One (1) Year Software Ninety (90) Days
Category J Products Intentionally left blank	
Category K Products Intentionally left blank.	
Category L Products Intentionally left blank	
Category M Products Intentionally left blank.	
Category N Products Intentionally left blank.	
Category O Products All CAS Products including DAC, CASMR (and associated plug-ins), CAST, Advisor, CSS, OLL, CSS-Lite, KLS, DKS, CPMS	DAC, CASMR, CAST, Advisor, CSS Hardware Three (3) Years OLL, CSS-Lite, KLS, DKS, OLES, CPMS Hardware One (1) Year Software Ninety (90) Days
Category P Products Intentionally left blank.	
Category P1 Products Intentionally left blank	
Category Q Products Intentionally left blank	
Category R Products Intentionally left blank	
Category R1 Products Intentionally left blank	
Category S Products Intentionally left blank	
Category S1 Products Intentionally left blank	

LIMITED WARRANTY

Category T Products RUCKUS Wi-Fi	Hardware: - Indoor Access Points and Wall Plate Access Points – Limited Lifetime Warranty,** except for access points with an "e" suffix (e.g., R350e), for which the HW warranty period is one (1) year. - Outdoor Access Points – One (1) Year - Controllers – One (1) Year, except ZoneDirector controllers are covered by the Limited Lifetime Warranty** Software Ninety (90) Days
Category T1 Products RUCKUS ICX Switches	- ICX Switches (including switch modules, PSUs, and Fans, but excluding removable optics/transceivers and LEDs) – Limited Lifetime Warranty,** except for ICX 7150- C08PT, for which the HW warranty period is 13 months. - LEDs – 12 months - Removable Optics/Transceivers – 60 months (13 months if shipped from Seller prior to June 1, 2021) Software: Limited lifetime access to defect repairs, and software maintenance updates through end of support date of product
Category T2 Products Intentionally left blank	
Category U Products Other OSP Cable Products (P3®, Drop Coax, Fiber Cable, Fiber Drop Cable, CIC) NovuX Products Prodigy Products FDH Products Multiservice terminals (MST), Open Terminals (OTE) and Hardened Drop Cable Assemblies OSP "Box" Products Mini-RDTs and RDTs FOSC™, FIST™ and Tenio™ OSP Copper Connect and Closure Products HELIAX® FiberFeed® Products, including FiberFeed® hybrid and fiber cables and assemblies, power cables and junction boxes Fiber Optic Panels, including Accessories, Mounting Hardware, Modules Fiber Optic Field Terminated Connectors, Kits, Tools, Consumables, Accessories Indoor Fiber Cable, Patch Cords, Cable Assemblies, Fiber Trunks Passive Optical Components and Value Added Modules (VAMs) FiberGuide® : Fiber cable Management System Optical Distribution Frames, including Modules, Blocks, Accessories and Hardware Cabinets Cable and Apparatus Products Alifabs™ Cabinets & Ancillary Products Alifabs™ Telecommunications Towers and Accessories Metro Cell Products, including Enclosures; Integrated Pole; Standard Poles; Accessories; and Wood Pole Brackets	One (1) year

LIMITED WARRANTY

Category V Products ValuDAS® Passive Products, including Air Directional Couplers, Hybrid Couplers, High Power Splitters, and Cell-Max™ Antennas Standard Tower Mounted Amplifier, Bias Tee and Power Distribution Unit Products Standard Filter & Combiner Products Electronic Enclosure Products (Cabinets) Alifabs™ Free Cooling Products and Accessories and Spare Parts, including Monitor All-In-One FLX (Active Passive Cabines) PowerShift™ & Power Products	Two (2) years
Category W Products ValuSite® Products I-Line Accessory Products Microwave Antennas Terrestrial Microwave System Products (including Microwave System Flex-Twist, Coupler, Filter and Diplexer Products)	Three (3) years
Category X Products Broadband RF Connectivity Products Premium Passive Products, including In-Building Directional Couplers, Hybrid Matrices, Tappers, Power Splitters, Terminations, Attenuators and CMAX Antenna Products	Five (5) years
Category Y Products QR® Coaxial Cable	Five (5) years
Category Z Products Standard RADIAX® Cable, Connector, Accessory and Cable Assembly* Products * RADIAX® Cable Assembly Product means any RADIAX® coaxial cable that has been fitted with Seller's connectors in accordance with the installation instructions.	One (1) year
Category AA Products Standard CNT® Cable, Connector, Accessory and Cable Assembly* Products * CNT® Cable Assembly Product means any CNT® coaxial cable that has been fitted with Seller's connectors by Seller or its certified distributor	Five (5) years; except that the Warranty Period for Products purchased for resale purposes shall be one (1) year.
Category BB Products Standard HELIAX® Cable, Connector, Accessory and Cable Assembly* Products * HELIAX® Cable Assembly Product means any HELIAX® coaxial cable or elliptical waveguide that has been fitted with Seller's connectors by Seller or its certified distributor.	Ten (10) years; except for the following: (i) three (3) years for weatherproofing kits (including SureGuard boots); (ii) one (1) year for cable preparation tools (excluding blades); (iii) one year for single click-on hanger kits; and (iv) two (2) years for surge arrestors.
Category CC Products Standard ERA/ION-E®, ION-M®, ION-U®, MR, CMR, i-POI®, e-POI™, and Node Repeater Products	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of shipment. Software Ninety (90) Days
Category DD Products In- Building and Fixed Subscriber Antennas	The earlier of: (i) three (3) years from the date of installation or (ii) thirty-nine (39) months from the date of original shipment

LIMITED WARRANTY

Category EE Products OneCell® Powered Fiber Cable Solution: Hybrid Copper and Fiber Cables, Class 2 Power Supplies, Indoor/Outdoor POE Extenders, Field Terminated Outlets, Consolidation Boxes and Related Passive Components	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of original shipment Software Ninety (90) Days
Category FF Products Small Cell Device Management System (DMS) Software DAS Device Management System (AIMOS) Software	Ninety (90) days
Category GG Products Base Station Antenna, Small Cell Antenna & Mosaic™ Products	Two (2) years for all base station antennas except base station antennas incorporating N-type connectors, which shall have a warranty of one (1) year
Category HH Products DryLine® Dehydrator Systems and Line Monitoring Systems	Three (3) years or 3,000 hours of actual run time, whichever occurs first; except the Warranty Period for the compressor is only one (1) year or 1,000 hours of actual run time, whichever occurs first.
Category II Products SiteRise™ Solutions	One (1) year on workmanship for the Solution.
Category JJ Products Copper Structured Cabling Products Other Enterprise Products (Coax, Automotive Cables, Enterprise Enclosures and miscellaneous items) (excluding software)	One (1) year from the date of Installation
Category KK Products Alifabs™ Services (power upgrades, enablements, installation and decommission work, rigging, and fault management)	One (1) year from the date of completion of the work.
Category LL Products imVision Overlays and Controllers	Three (3) years

** For Category H and Category I Products only, if Seller is engaged by Buyer to provide Services for the implementation of the purchased Products, warranty period for such Products shall commence upon Buyer's acceptance of the Products and Services.*

** For Category T Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing for as long as the original end user of the Product continues to own and use the Product. For Category T1 Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing (i) for as long as the original end user of the Product continues to own and use the Product or (ii) through the End of Support date, as defined in the RUCKUS End of Life Policy, whichever is earlier.

RoHS Certificate of Compliance

COMMSCOPE®

Product Name: EPX-1U-MOD-DRW

Product Number: 760242455

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: May 03, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

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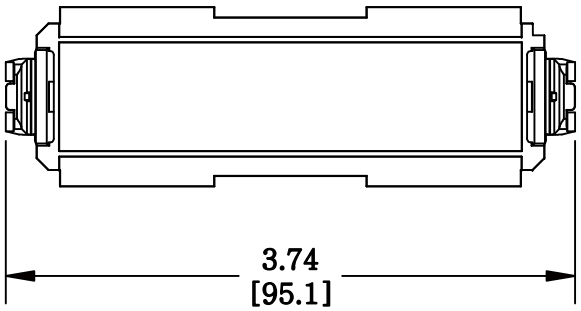
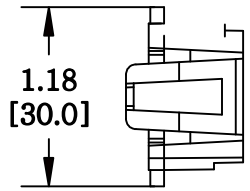
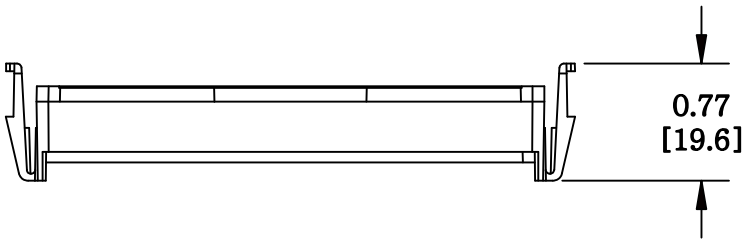
Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

MATERIAL ID	DESCRIPTION
760109462	360G2 MOD PANEL BLANK,4 PANELS







NOTES:

1. SEE SYSTIMAX CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS IN PARENTHESES ARE IN METRIC.
4. PART INCLUDES:

   (4) PANEL BLANK,G2 TYPE

360G2-MOD-BLANK-4PK

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REV	DATE	ECR	DESCRIPTION	APPROVED BY	DRAWN BY		DWG NO
1	05/23/11		INITIAL ISSUE	MC	AW		
					DATE 05/23/2011		760109462

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760109462 | 360G2-MOD-BLANK-4PK

360G2 Mod Panel Blank Adapter Pack, 4 Panels

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack, blank

General Specifications

Adapter Color	None
Interface Feature	Blank plate
Pigtails Included, quantity	0

Dimensions

Height	30.48 mm | 1.2 in
Width	91.44 mm | 3.6 in
Depth	2.54 mm | 0.1 in

Packaging and Weights

Packaging quantity	4

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
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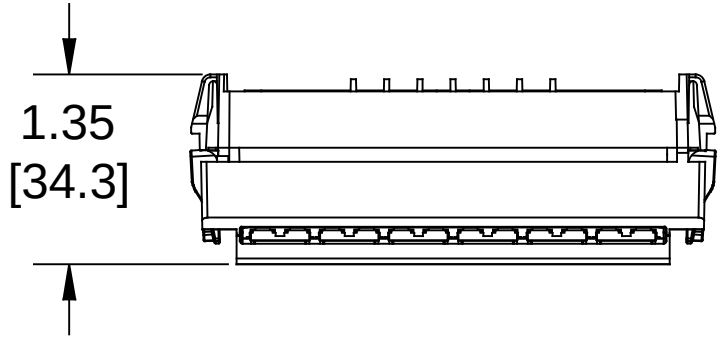
MATERIAL ID	DESCRIPTION
760230938	ASSEMBLY, BEZEL DMis



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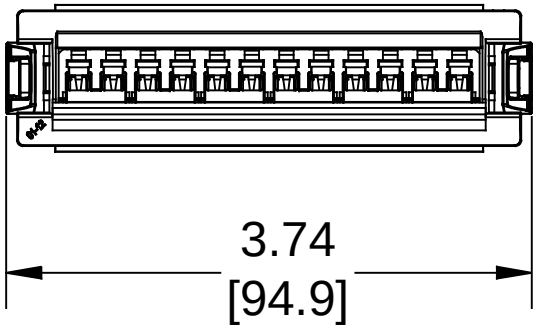
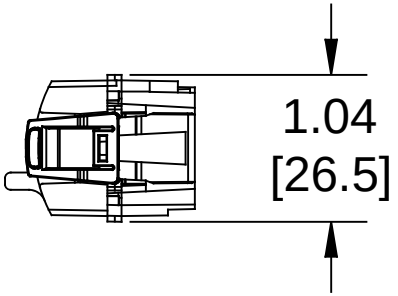
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS ARE IN INCHES[MM].
4. PART INCLUDES:
   (1) BEZEL ASSEMBLY, AQUA





360DPis-12LC-LS

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					DATE 07-NOV-2016		760230938

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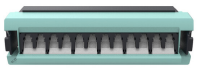
760230938 | 360DPis-12LC-LS



360 Distribution Adapter Pack,Multimode OM4, 12 LC/UPC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Aqua
Interface	LC/UPC
Interface Feature	Internal shutters
Pigtails Included, quantity	0
Shuttered	Yes
Total Ports, quantity	12

Material Specifications

Alignment Sleeve Material	Zirconia

Optical Specifications

Fiber Mode	Multimode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**

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760230938 | 360DPis-12LC-LS

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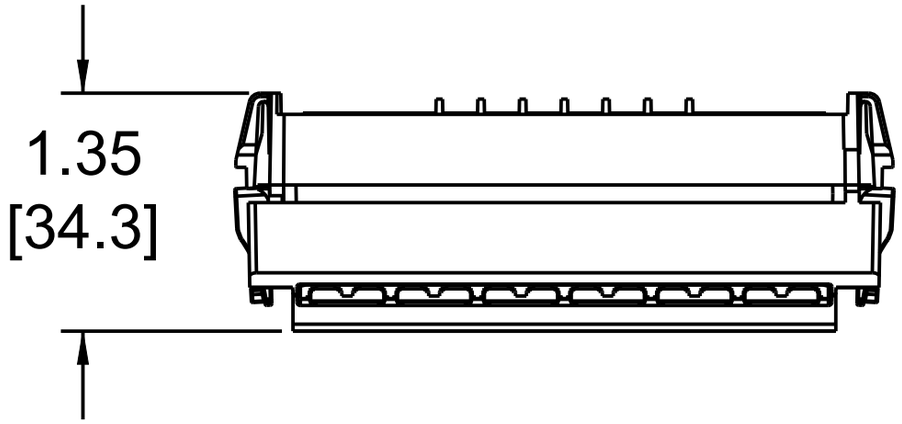
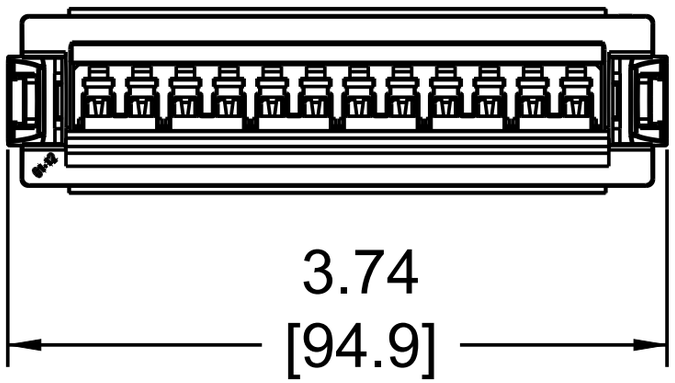
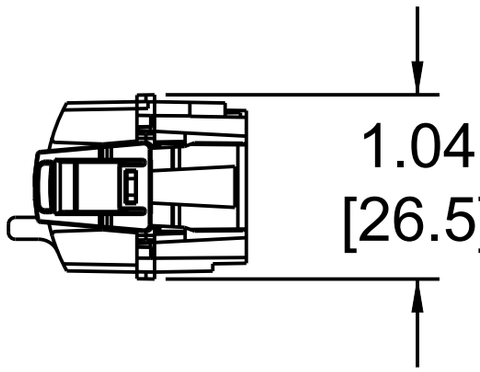
MATERIAL ID	DESCRIPTION
760230946	ASSEMBLY, BEZEL DMis



NOTES:

1. SEE SYSTIMAX CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS ARE IN INCHES[MM].
4. PART INCLUDES:
   (1) BEZEL ASSEMBLY, BLUE





360DPis-12LC-SM

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					DATE 07-NOV-2016		760230946

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760230946 | 360DPis-12LC-SM

360 Distribution Adapter Pack, Singlemode, 12 LC/UPC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Blue
Interface	LC/UPC
Interface Feature	Internal shutters
Pigtails Included, quantity	0
Shuttered	Yes
Total Ports, quantity	12

Material Specifications

Alignment Sleeve Material	Zirconia

Optical Specifications

Fiber Mode	Singlemode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

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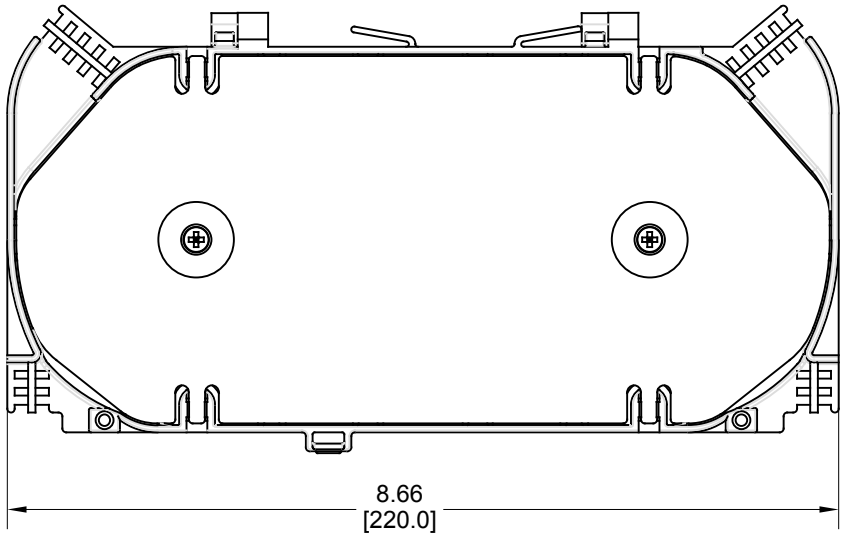
MATERIAL ID	DESCRIPTION
760241378	48F PLASTIC SPLICING TRAY KIT, 1U FIBER OPTIC PANEL



NOTES:

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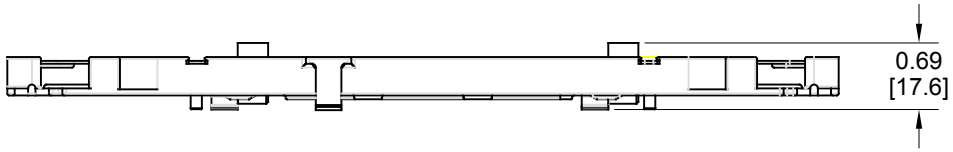
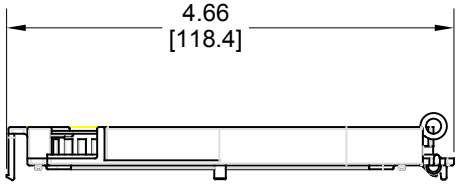
2. SEE COMMSCOPE CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS IN PARENTHESES ARE IN METRIC[MM].
4. PART INCLUDES:

   (1) ASSEMBLY, SPLICING TRAY KIT





48F PLASTIC SPLICING TRAY KIT

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1	12/3/18		INITIAL ISSUE	IZ	DRAWN BY JW		
					DATE 12/3/2018		760241378

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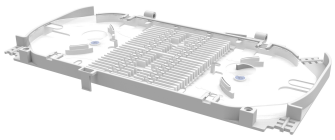
760241378 | EPX-SPLICE-48 (AGL-SPLICE-48)



Fiber Optic Splice Tray Kit, stackable, 48-fiber capacity

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber splice tray
Product Series	EPX

General Specifications

Application	Used in AGILE panels and enclosures
Color	Light gray
Splicing Capacity, maximum	48

Dimensions

Height	17.6 mm | 0.693 in
Width	220 mm | 8.661 in
Depth	118.4 mm | 4.661 in

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
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760249998 | EPX-1U-MOD-ENC

EPX 1U sliding panel, accepts (4) G2 style splice cassettes, modules or adapter packs, providing up to 48 duplex LC ports

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber patch panel | Fiber patch/splice panel
Product Series	EPX

General Specifications

Application	Accepts four G2 modular cassettes
Color	Black
Intelligence Type	Not iPatch® ready
Interface, front	Unloaded
Module/Adapter Pack Slots, quantity	4
Rack Type	EIA 19 in
Rack Units	1
Shelf Movement	Sliding
Total Fibers, quantity	96
Total Ports, quantity	0

Dimensions

Height	44.45 mm | 1.75 in
Width	482.6 mm | 19 in
Depth	412.75 mm | 16.25 in

Environmental Specifications

Safety Standard	CSA 22.2 | UL 1863

Packaging and Weights

Packaging quantity	1

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760249998 | EPX-1U-MOD-ENC

Weight, net	3.529 kg | 7.78 lb

Regulatory Compliance/Certifications

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REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
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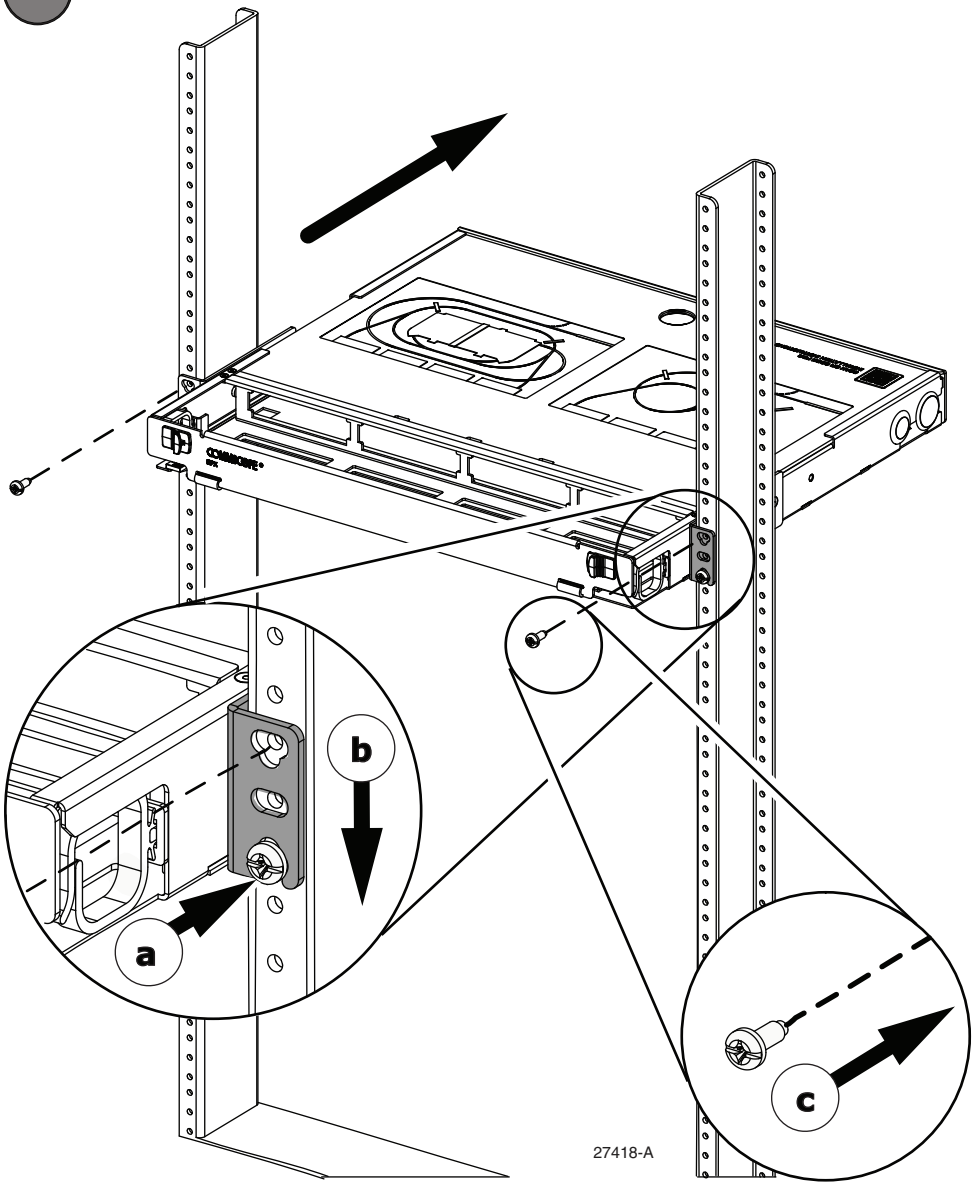
Quick Start
(Guía rápida)

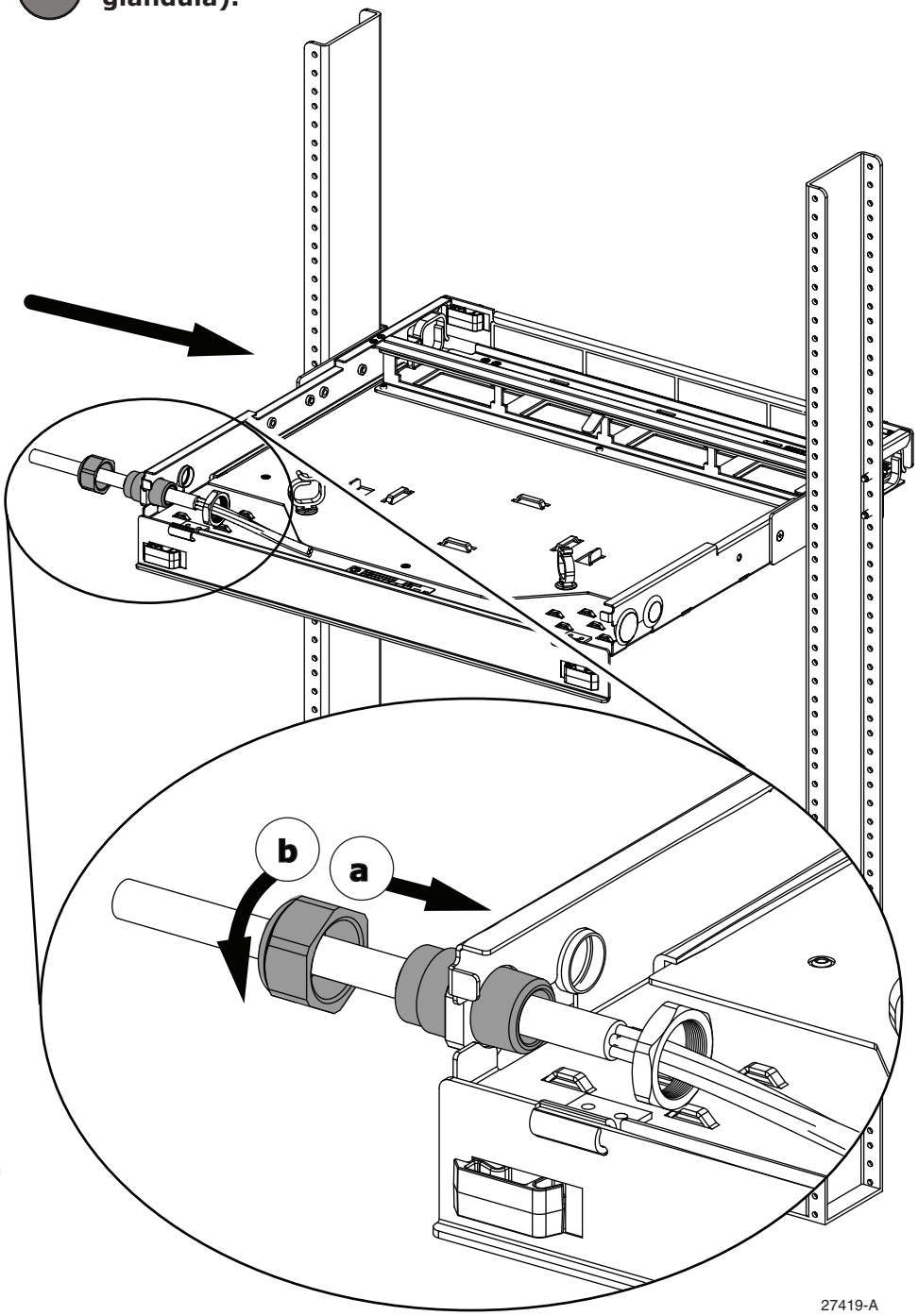
TC-96301-IP-EN/SP · Rev B · April (Abril) 2021

EPX Panel

1 **Installation on rack (Instalación en bastidor de equipo).**



2 **Installation of connector gland (Instalación de conector glándula).**



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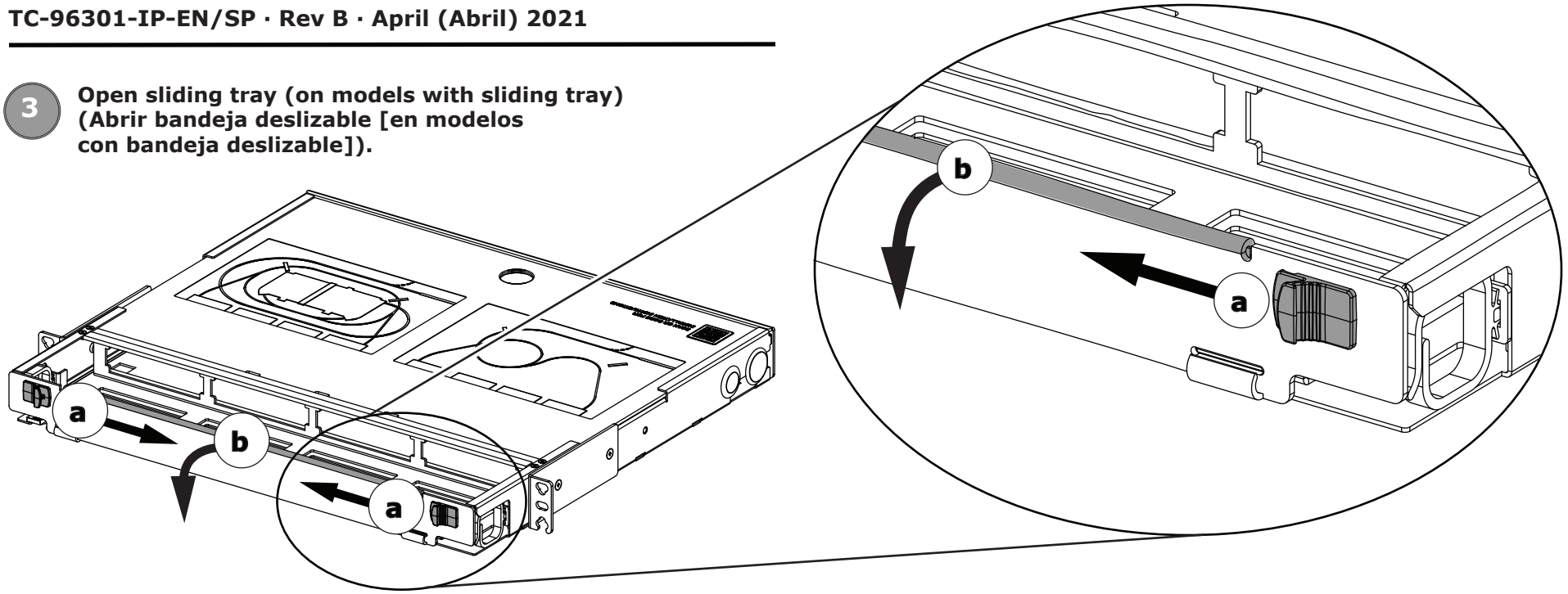
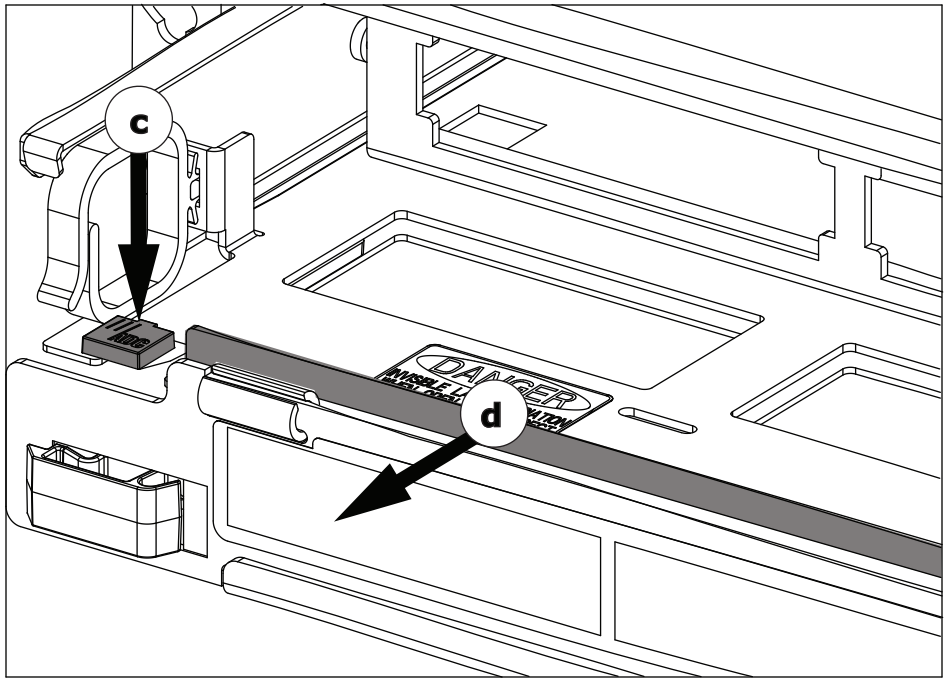
3 **Open sliding tray (on models with sliding tray) (Abrir bandeja deslizable [en modelos con bandeja deslizable]).**





User Manual
(Manual de Usuario):
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QRC-00-035

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User Manual

TC-96302-IP
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EPX Panel

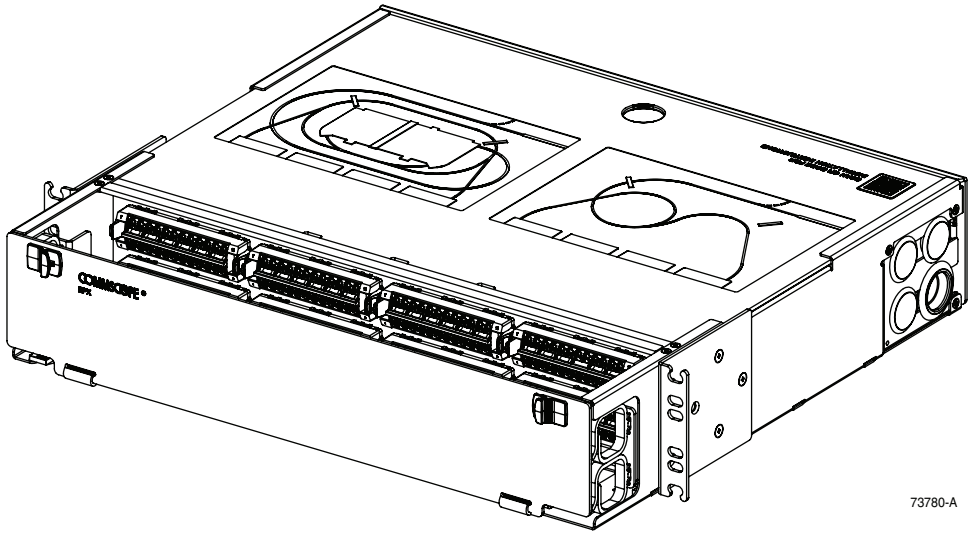

Figure 1. EPX Panel (2U Shown)

Content **Page**

1 INTRODUCTION 2
1.1 EPX G2 Panel Configurations Covered by This User Manual 2
1.2 EPX LGX/1000 Configurations Covered by This User Manual. 3
1.3 Available Accessories 3
1.4 Parts List. 4
1.5 Important Safety Cautions 4
1.6 Precautions. 5
1.7 Related Publications 5
2 PRODUCT DESCRIPTION 6
2.1 General Description. 6
2.2 EPX Panel as Shipped 6
2.3 Main Product Features 7
2.4 Cable Gland Feature 8
2.5 Specifications and Dimensions 9
3 UNPACKING AND INSPECTION 11
4 OVERVIEW OF INSTALLATION 12
5 INSTALLING THE PANEL. 12
5.1 Determining Rack Size and Mounting Hardware 12

Continued

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5.2 Mounting Panel on Rack . . . 13
5.3 Opening the Front Door . . . 14
5.4 Operating the Sliding Tray (If Panel Has Sliding Tray) . . . 15
5.5 Installing Adapter Packs . . . 16
5.6 Installing MPO Modules . . . 17
5.7 Installing Splice Cassettes . . . 19
5.8 Installing AGILE Splice Trays . . . 20
5.9 Field Termination . . . 22
6 CABLE ROUTING . . . 23
6.1 Cable Routing . . . 23
6.2 Cable Gland Capacities . . . 23
6.3 Installing a Cable . . . 25
7 CONTACT INFORMATION . . . 26

1 INTRODUCTION

The CommScope EPX Fiber Panel line is a flexible solution which allows interchangeable MPO modules, adapter packs, and splice cassettes, including in-panel splicing using splice trays. It is available in G2 or LGX/1000 bulkheads in 1U, 2U, and 4U sizes, sliding or fixed. This user manual describes the EPX panel and provides procedures to unpack the panel, mount the panel on a rack, install modules, and route cables. In addition, this manual tells how to operate the panel and how to obtain technical assistance if needed.

1.1 EPX G2 Panel Configurations Covered by This User Manual

Table 1 lists the EPX G2 panel configurations covered in this user manual.

Table 1: EPX G2 Configurations

Material ID (MID)	Catalog Number
760249998	EPX-1U-MOD-ENC
760251042	EPX-1U-MOD-ENC-FX
760251044	EPX-2U-MOD-ENC
760251046	EPX-2U-MOD-ENC-FX
760251048	EPX-4U-MOD-ENC
760251050	EPX-4U-MOD-ENC-FX
760251098	EPX-1U-MOD-OPEN-FX

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1.2 EPX LGX/1000 Configurations Covered by This User Manual

Table 2 lists the EPX LGX/1000 panel configurations covered in this user manual.

Table 2: EPX LGX/1000 Configurations

Material ID (MID)	Catalog Number
760249997	EPX-1U-PNL-ENC
760251043	EPX-1U-PNL-ENC-FX
760251045	EPX-2U-PNL-ENC
760251047	EPX-2U-PNL-ENC-FX
760251049	EEPX-4U-PNL-ENC
760251051	EPX-4U-PNL-ENC-FX
760251099	EPX-1U-PNL-OPEN-FX

1.3 Available Accessories

For a listing of the available EPX accessories, see Table 3.

Table 3: Available EPX Accessories

Material ID (MID)	Catalog Number	Description
760241378	AGL-SPLICE-48	48f stranded splice tray
760243494	AGL-MF-SPLICE-12	12f ribbon splice tray
760039875	G2-SRF	Liquid-tight cable fitting kit for small-diameter cables
760039883	G2-23BRKT	Frame mounting bracket kit for 23” frames and ETSI frames
760058677	RMB-6-1/2	InstaPATCH Plus attachment bracket, rack mounted, six 1/2-inch fittings
760058685	RMB-6-3/8	InstaPATCH Plus attachment bracket, rack mounted, six 3/8-inch fittings
760058701	RMB-5-3/4	3/4” Rack MTG bracket – 5X
760122895	BAF-1/2-NPT	Bracket for Armor Fitting, 1/2 NPT
760122903	BAF-3/4-NPT	Bracket for Armor Fitting, 3/4 NPT
760122911	BAF-1-NPT	Bracket for Armor Fitting, 1 NPT
760122929	BAF-1-1/4-NPT	Bracket for Armor Fitting, 1-1/4 NPT
760122937	BAF-1-1/2-NPT	Bracket for Armor Fitting, 1-1/2 NPT

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1.4 Parts List

Verify parts against Table 4 below.

Table 4: Parts List

Quantity	Description
1	Shelf assembly (fixed or sliding)
4	#12-24 x 1/2-inch screws for 19-inch (483mm) rack mounting
4	M6 x 12 mm screws for ETSI rack mounting
2	Liquid-tight strain relief fittings (black)
4	Cable ties
1	Hook and loop kit
4	Snap-Fit Gland Washers (1U ENC only). See Section 6.2 on page 23

1.5 Important Safety Cautions

When installing or operating the panel, observe the safety cautions:

- To reduce the risk of fire, electric shock, and injury to persons, read, understand, and adhere to the following instructions as well as any warnings marked on the product.
- This product has a remote risk of electric shock. Never install the product in wet conditions or during lightning storms. Never touch uninsulated communication wires or terminals.
- Disconnected optical components may emit invisible optical radiation that can damage your eyes. Never look directly into an optical component that may have a laser coupled to it. Serious and permanent retinal damage is possible. If accidental exposure to laser radiation is suspected, consult a physician for an eye examination.
- Wearing safety glasses during installation of this panel is recommended. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne hardware and cleaning solvents

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1.6 Precautions

When installing or operating the panel, observe the following precautions:

- Fiber optic trunk cable and jumper performance is sensitive to bending, pulling, and crushing. Minimum bend radius must be maintained during installation per the manufacturer's specification. Appropriate pulling grips must be used during installation, and pulling forces shall not exceed manufacturer's recommendations.
- All wiring that connects to this equipment must meet applicable local and national building codes and network wiring standards for communication cable.
- **IMPORTANT**: Dust covers are installed in the ports to protect the fibers connected to the back of the ports. Do not remove a dust cover from a port until you connect a patch cord to that port. If you remove a patch cord later, replace the dust cover in the port.
- **Prior** to installation, clean the trunk cable and jumper connectors per the manufacturer's recommendations.
- Isopropyl alcohol is flammable, and can cause eye irritation on contact. If eye contact occurs, flush with water for at least 15 minutes. In case of ingestion, consult a physician. Use only in well ventilated areas.
- Care should be taken not to compromise the stability of the rack by installation of this equipment.

1.7 Related Publications

The following publication is available by contacting the CommScope Support Center at https://www.commscope.com/SupportCenter

Title	Number
EPX Panel Quick Start	**TC-96301-IP**

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2 PRODUCT DESCRIPTION

2.1 General Description

The EPX Panel is a 19-inch rack- or cabinet-mount fiber optic patch panel intended for indoor use. Frame adapter kits are available which enable the EPX panel to be mounted in a 23-inch or ETSI equipment rack or cabinet. The panel is available in one, two, or four rack unit size (abbreviated as 1U, 2U, or 4U), on either fixed or sliding trays, per customer order. Recess mounting options for the EPX panel are 3-inch recess and 5-inch recess.

Transitions from patch cords to cable are accomplished through the customer choice of connection modules including adapter packs, MPO modules, or splice cassettes. In-panel splicing is possible using Agile splice trays. The EPX bulkhead may be either LGX/1000 style with three modules per rack unit, or G2 Style with four modules per rack unit.

2.2 EPX Panel as Shipped

Figure 2 shows product features of interest to the user in the EPX panel as shipped. All panels are shipped with no modules or splice trays installed. Module installation and splicing are accomplished on-site following the instructions provided in this user manual.

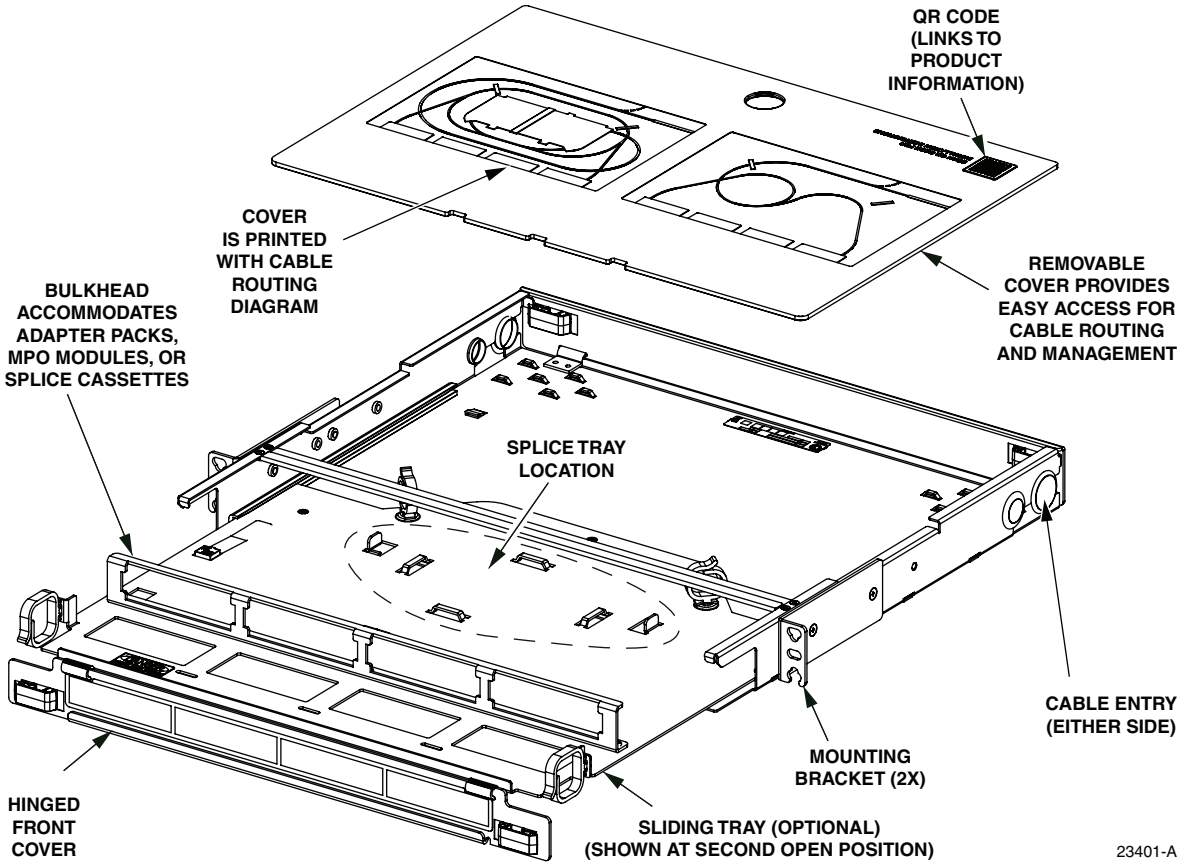

Figure 2. EPX 1U Panel as Shipped

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2.3 Main Product Features

Figure 3 shows a loaded panel. The main features include the following (clockwise from top right call-out).

- **Plastic Cover**—can be removed providing top access to the panel.
- **Cable Routing Diagram**—is printed on cover for guidance in installing cables.
- **Cable Entry Ports**—are available for securing rear entry cables. The panel is designed for use of cable glands that mount within the cable entry holes. Refer to Section 2.4 on Page 8.
- **Mounting Bracket (one on each side)**—provide mounting of the panel in a frame or cabinet. The panel is shipped with 19-inch mounting brackets. Kits are available permitting mounting in a 23-inch or ETSI rack or cabinet.
- **Cover Latch**—when slid toward center, releases cover so it can swing into open position.
- **Hinged Removable Front Cover**—drops down 90 degrees to provide open access to the panel interior. For operation refer to Section 7 on Page 26.
- **Sliding Tray (Optional)**—slides out to provide additional access for connector module and splice tray installation. For operation refer to Section 5.4 on Page 15.
- **Bulkhead**—supports connection modules per customer order. Options include adapter packs, MPO modules, and splice cassettes. The EPX bulkhead may be either LGX/1000 style with three modules per rack unit, or G2 Style with four modules per rack unit.
- **Adapter Packs (or MPO Module or Splice Cassette)**—interface between patch cords and facility cables.

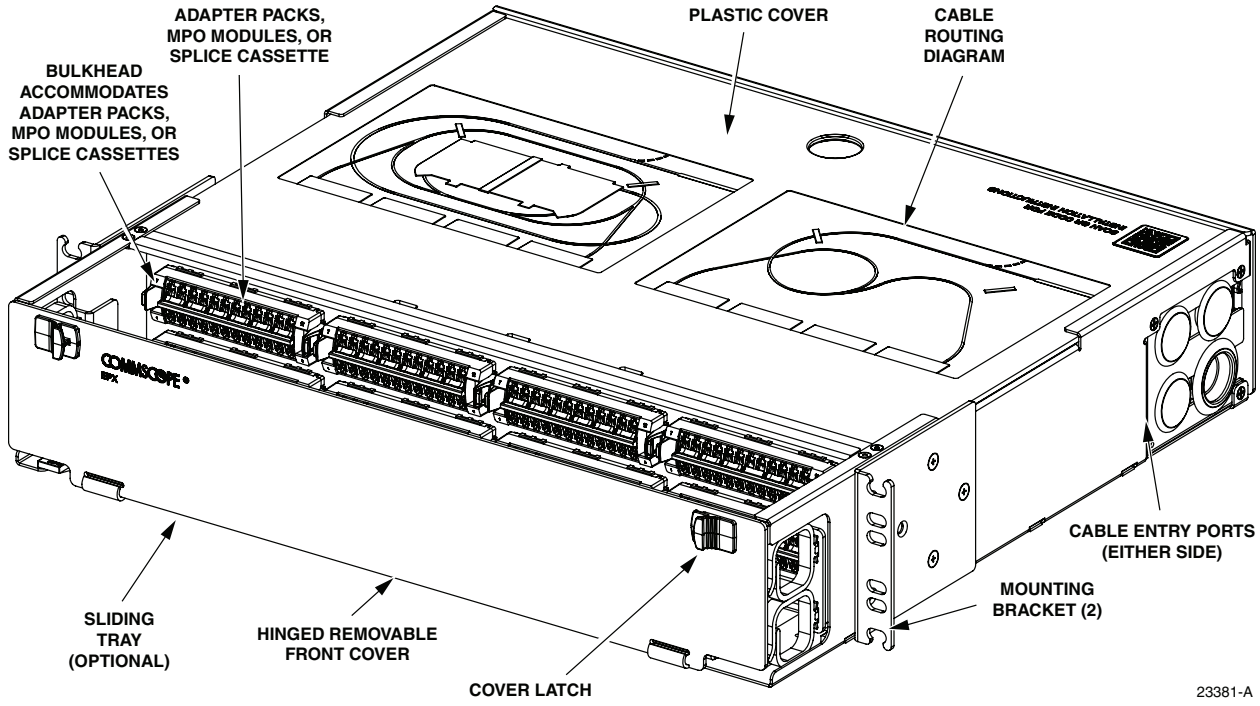

Figure 3. EPX panel (2U Shown)

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2.4 Cable Gland Feature

The EPX panel is designed for connection of fiber cables using cable glands inserted into cable entry slots provided (see Figure 4). For more information, refer to Section 6.2 on page 23

Note: Another method for securing fiber cables is the use of optional rack mounted brackets, which is not covered here. Cables can also be secured with tie wraps and the lances provided in the back of the panel.

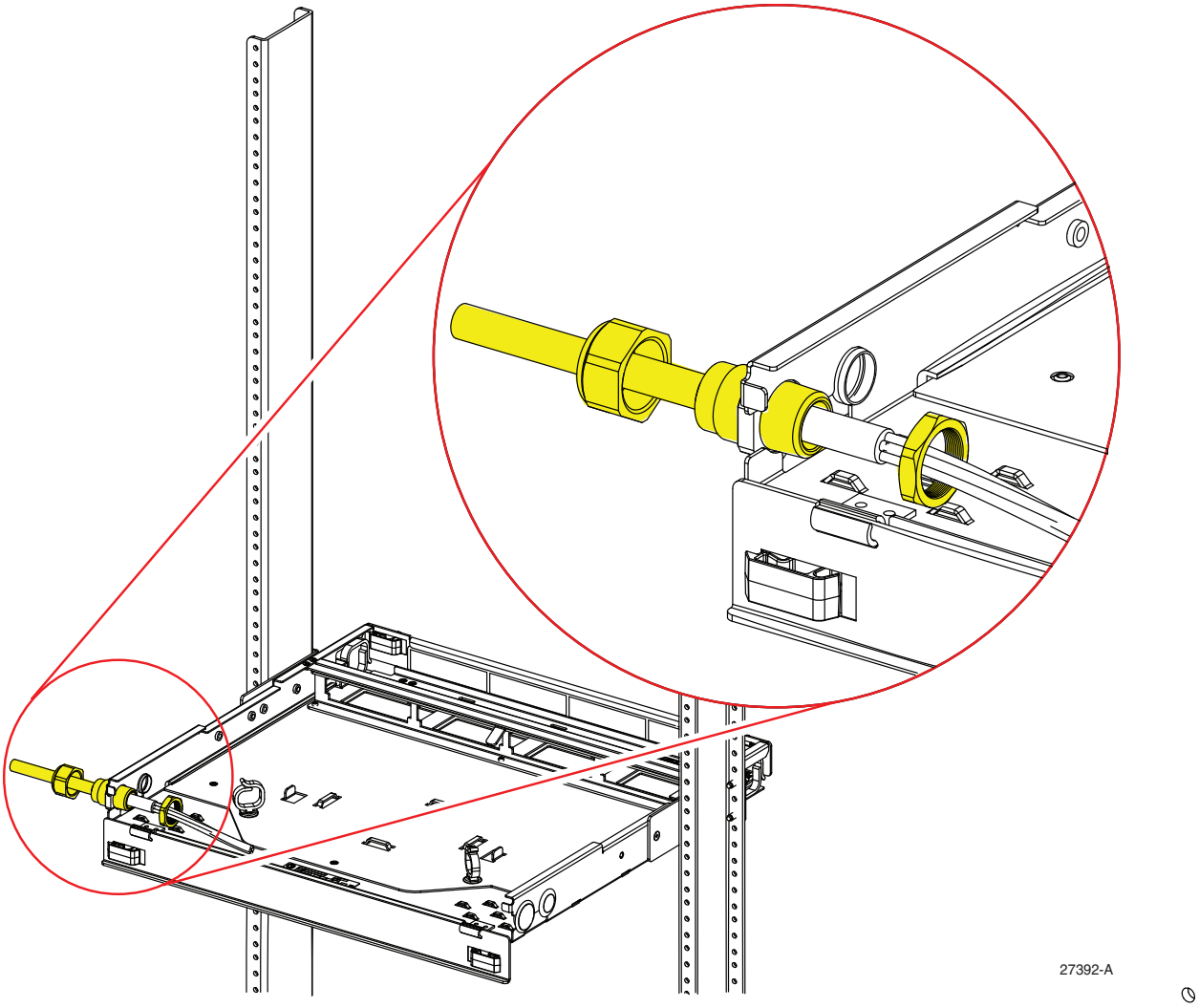

Figure 4. Direct Connection of Fiber Cables Using Fiber Glands

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SMALLER DIAMETER CABLES

For smaller diameter cables, the G2-SRF kit (ordered separately) (shown in Figure 5) provides two liquid-tight fittings with a smaller inside diameter. Smaller diameter fittings would be more appropriate for these cables.

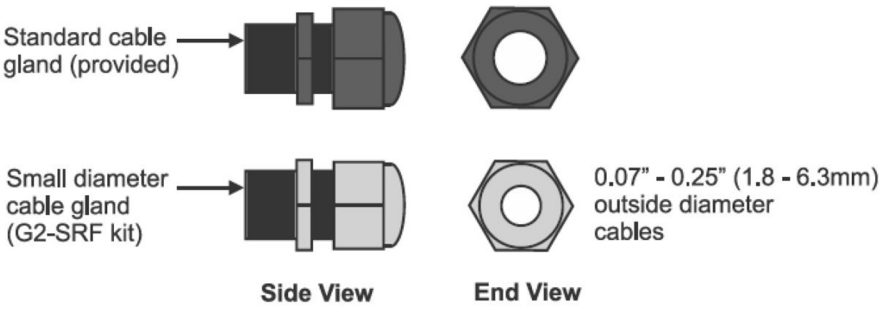

Figure 5. Fittings for Smaller Diameter Cable

2.5 Specifications and Dimensions

Figure 6 shows dimensions for an EPX open fixed panel. Figure 7 shows dimensions for an EPX enclosed panel. Table 5 lists specifications for the EPX panel except for weight. Table 6 lists weights for all configurations of the EPX panel.

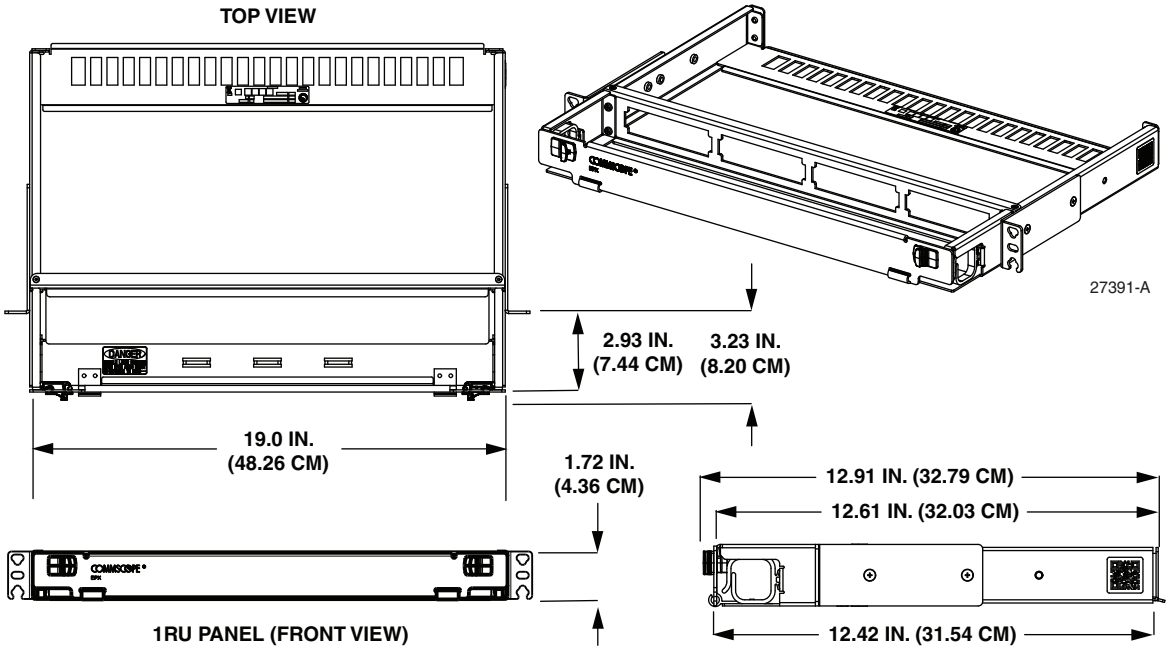

Figure 6. Dimensions of EPX Open Fixed Panel

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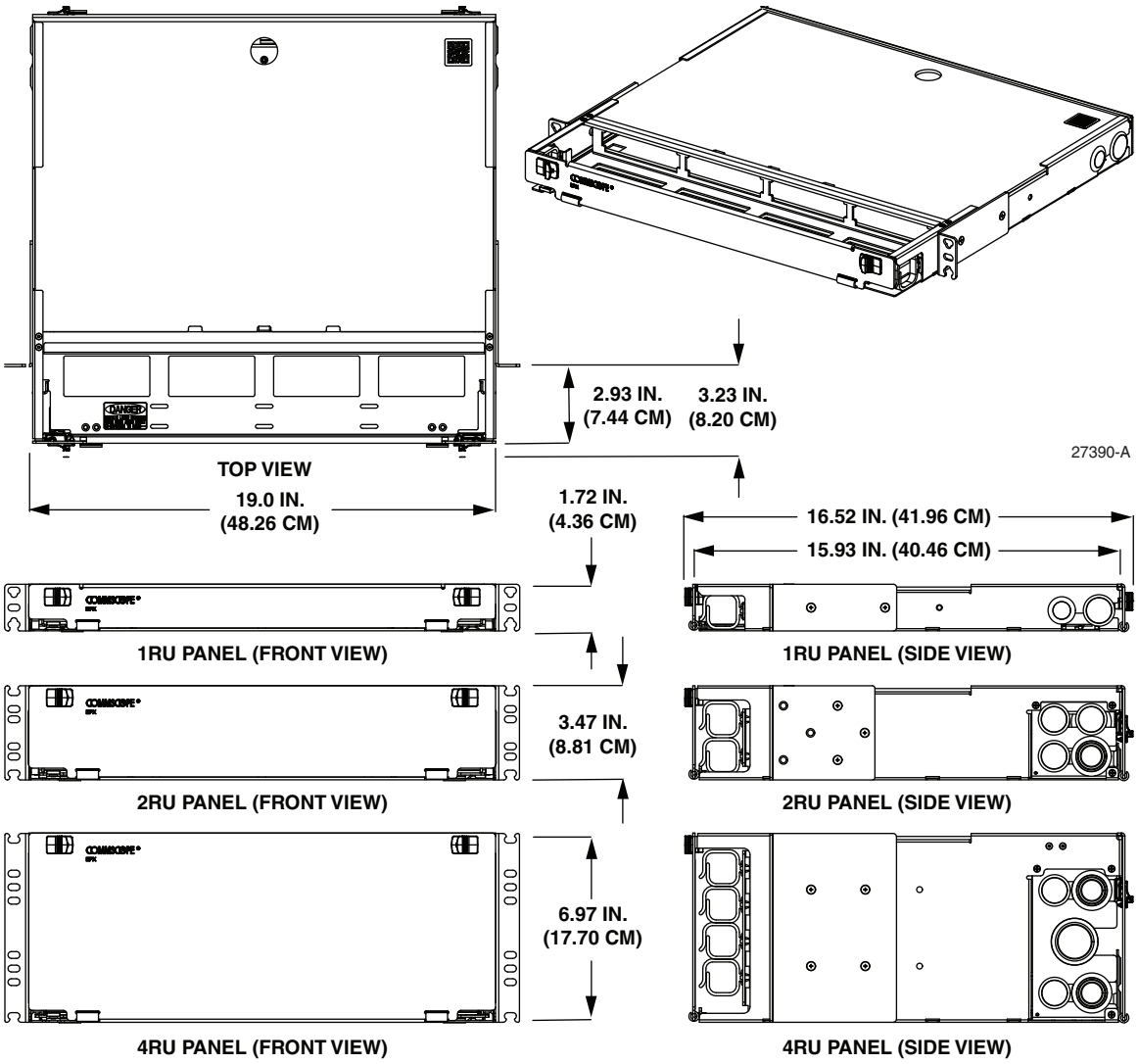

Figure 7. Dimensions of EPX Enclosed Panel

Table 5: EPX Panel Specifications (Except Weight)

Parameter	EPX 1U	EPX 2U	EPX 4U
Height	1.72 in (4.36 cm)	3.47 in. (8.81 cm)	6.97 in (17.70 cm)
Width	19.0 in. (48.26 cm)	19.0 in. (48.26 cm)	19.0 in. (48.26 cm)
Depth	16.52 in. (41.96 cm)	16.52 in. (41.96 cm)	16.52 in. (41.96 cm)
Side ports	4	8	10

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Table 6: EPX Panel Weight

MID (Part Number)	Catalog Number (ecatalog)	Net Weight (lb.)	Gross Weight (lb.)
760251098	EPX-1U-MOD-OPEN-FX	2.33	4.91
760251099	EPX-1U-PNL-OPEN-FX	2.60	5.18
760249997	EPX-1U-PNL-ENC	7.91	10.58
760249998	EPX-1U-MOD-ENC	7.78	10.45
760251042	EPX-1U-MOD-ENC-FX	6.60	9.27
760251043	EPX-1U-PNL-ENC-FX	6.70	9.37
760251044	EPX-2U-MOD-ENC	9.88	12.84
760251045	EPX-2U-PNL-ENC	10.15	13.11
760251046	EPX-2U-MOD-ENC-FX	7.98	10.94
760251047	EPX-2U-PNL-ENC-FX	8.34	11.30
760251048	EPX-4U-MOD-ENC	16.40	20.60
760251049	EPX-4U-PNL-ENC	16.90	21.10
760251050	EPX-4U-MOD-ENC-FX	14.30	18.52
760251051	EPX-4U-PNL-ENC-FX	14.88	19.10

3 UNPACKING AND INSPECTION

Use the following procedure to unpack and inspect the product.

1. Inspect the exterior of the shipping container(s) for evidence of rough handling that may have damaged the components in the container.
2. Unpack each container while carefully checking the contents for damage.
3. If damage is found or parts are missing, contact the CommScope Support Center using the URL: http://www.commscope.com/SupportCenter
4. Save any damaged cartons for inspection by the carrier.

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4 OVERVIEW OF INSTALLATION

Installing the panel and accessories involves the following activities:

- Determining rack size and mounting hardware (covered in Section 5.1 on Page 12)
- Mounting the panel in an equipment rack or cabinet (covered in Section 5.2 on Page 13)
- Opening the front door of the panel (covered in Section 5.3 on Page 14)
- Operating the sliding tray if panel has sliding tray (covered in Section 5.4 on Page 15)
- Installing adapter packs if used (covered in Section 5.5 on Page 16)
- Installing MPO modules if used (covered in Section 5.6 on Page 17)
- Installing splice cassettes if used (covered in Section 5.7 on Page 19)
- Installing Agile splice trays if used (covered in Section 5.8 on Page 20)
- Installing field-terminated cables if used (covered in Section 5.9 on Page 22)

5 INSTALLING THE PANEL

5.1 Determining Rack Size and Mounting Hardware

The panel is shipped with mounting brackets suitable for mounting on a 19-inch equipment rack or cabinet. Accessory kits are available for 23-inch or ETSI mounting.

Refer to the following guidelines.

- **For 23-inch (584mm) rack** – Use the G2-23BRKT accessory kit (available separately) and install two conversion brackets to pre-installed mounting brackets, using the four #10-32 x 3/8-inch conversion screws included in accessory kit. Use one conversion bracket and two screws per side. Mount panel to rack using four #12-24 x 1/2-inch screws (provided as part of basic panel).

- **For ETSI rack** – Use the G2-23BRKT accessory kit (available separately) and install one conversion bracket to either of the pre-installed mounting brackets, using two of four #10-32 x 3/8-inch conversion screws included in accessory kit. Shelf will not be centered when mounted in rack. Mount panel to rack using four M6 x 12mm screws (provided as part of basic panel).

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5.2 Mounting Panel on Rack

The panel is shipped with mounting brackets suitable for mounting on a 19-inch equipment rack or cabinet. If mounting on a 23-inch or ETSI equipment rack or cabinet, see Section 5.1 on Page 12. Install two screws on each side of the panel.

Use the following procedure, referring to Figure 8.

1. Install the bottom two screws at the desired panel location.
2. Set the panel into position on the screws just installed.
3. Secure the panel to the rack by installing the remaining two mounting screws.

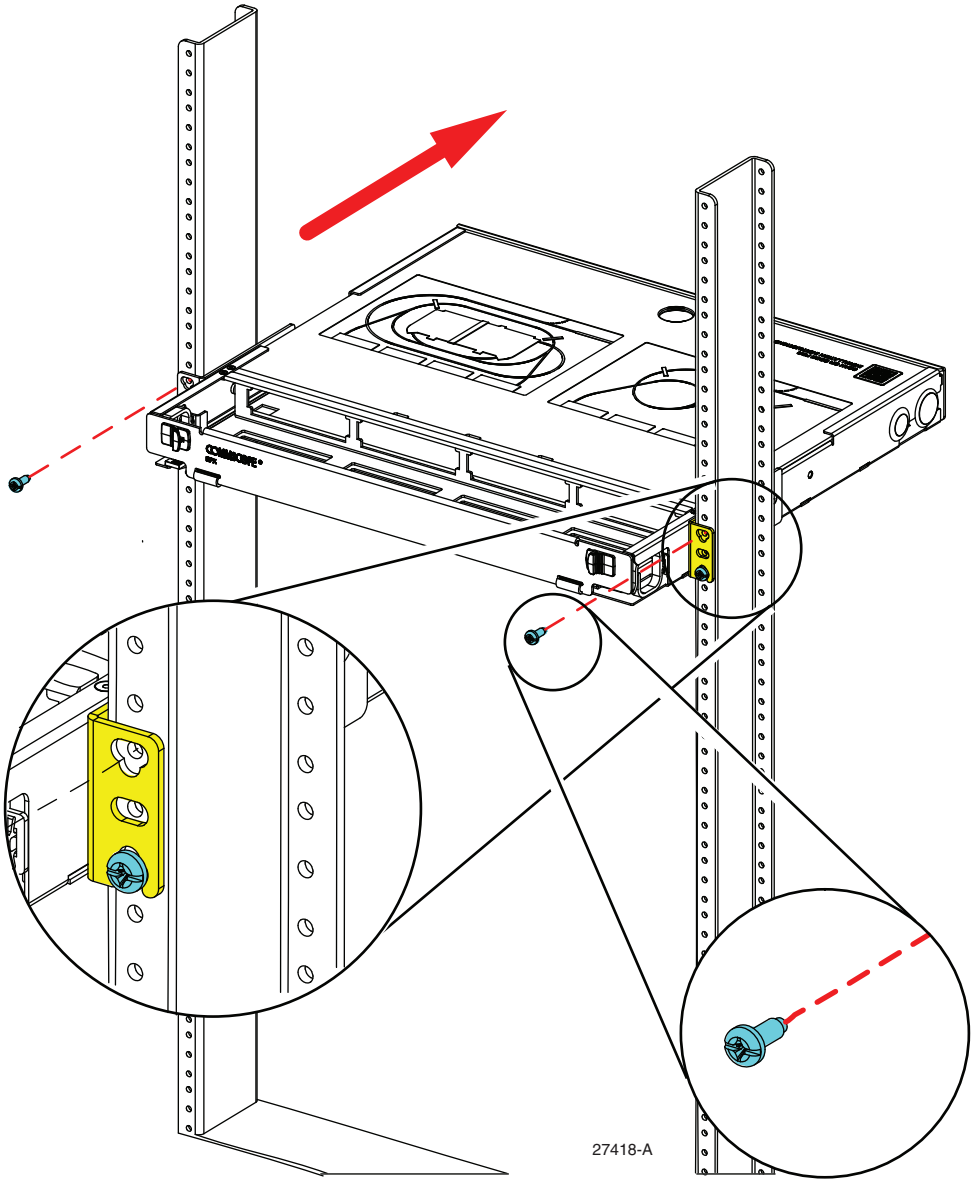

Figure 8. Mounting the EPX Panel (1U Panel Shown)

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5.3 Opening the Front Door

To open the front door: (a) move the door latch inward and (B) open the door allowing it to hang down until flat with the frame. Refer to Figure 9.

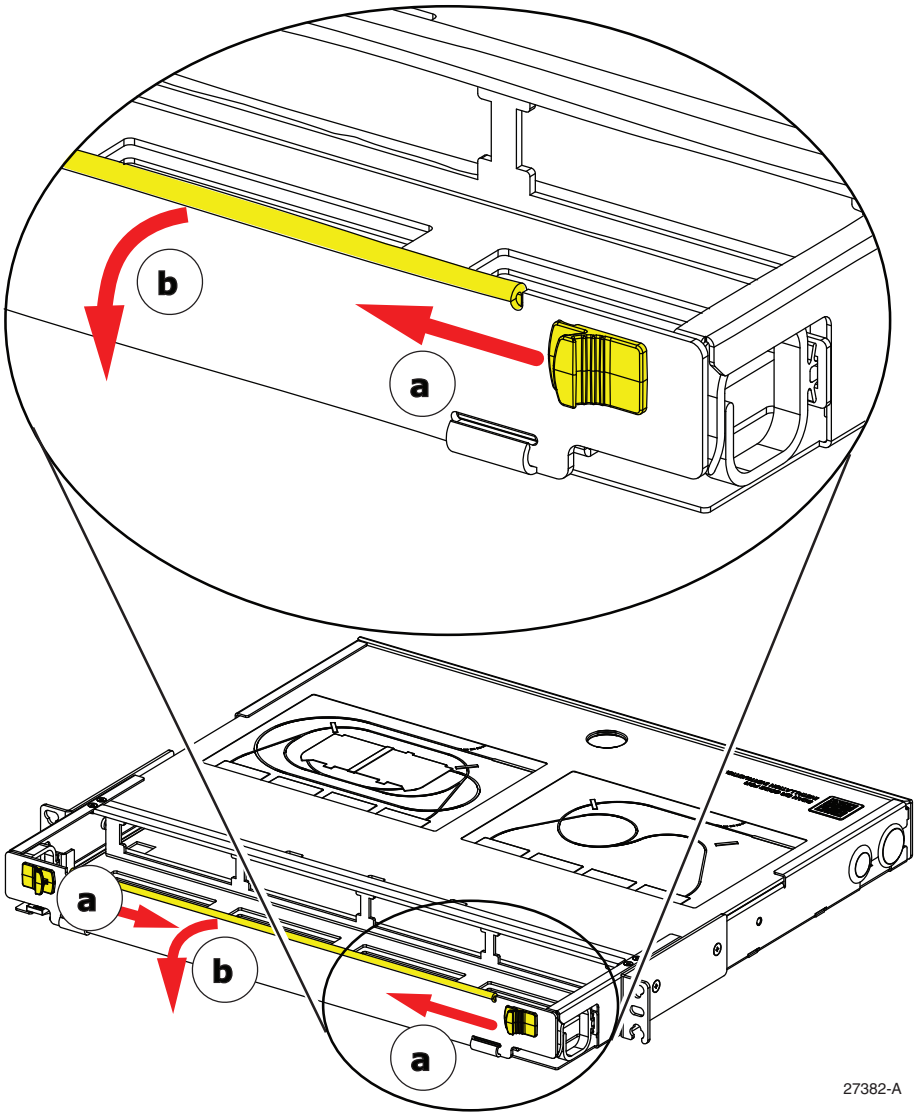

Figure 9. Opening the Front Door

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5.4 Operating the Sliding Tray (If Panel Has Sliding Tray)

Some panels are equipped with a sliding tray (optional). Panels with a sliding tray have a tray release button and tray retainer clip designed to ensure that the drawer is opened carefully and remains open until work in the drawer is competed. This item looks the same and operate the same on the 1U, 2U, and 4U panels.

To release a closed drawer, press the release button down, as shown in Figure 10 (c), and slide the drawer out to the first detent (d).

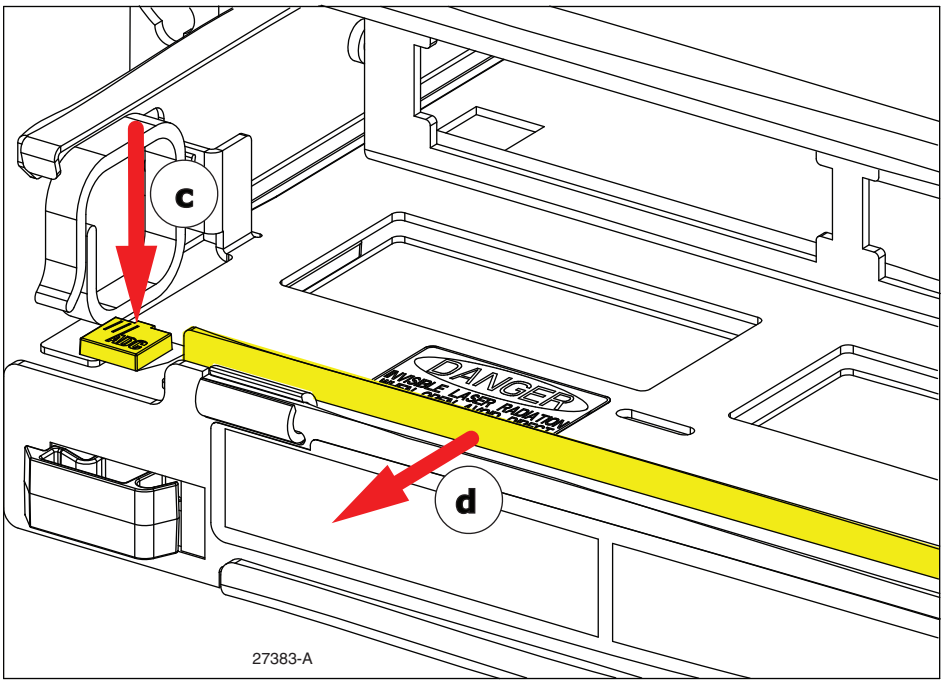

Figure 10. Releasing Closed Drawer to Open It

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5.5 Installing Adapter Packs

Align the adapter pack with the selected location in the bulkhead. Push in and secure with push in pin if present (LGX/1000 only). Refer to Figure 11 and Figure 12.

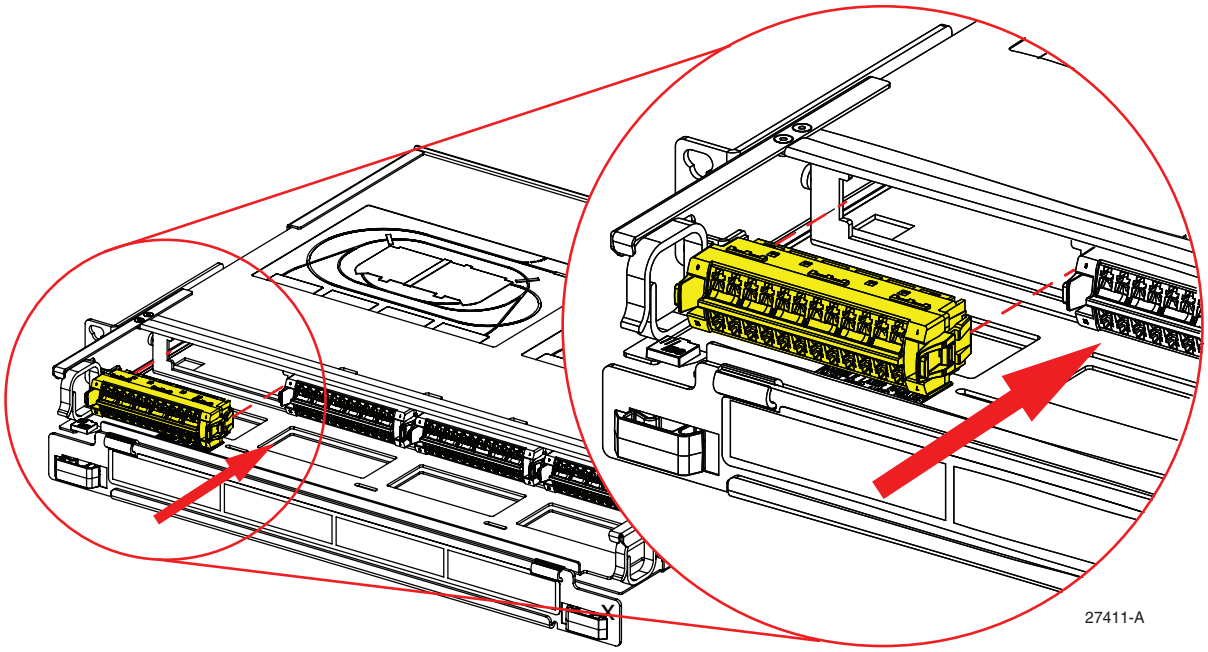

Figure 11. Installing Adapter Packs (G2)

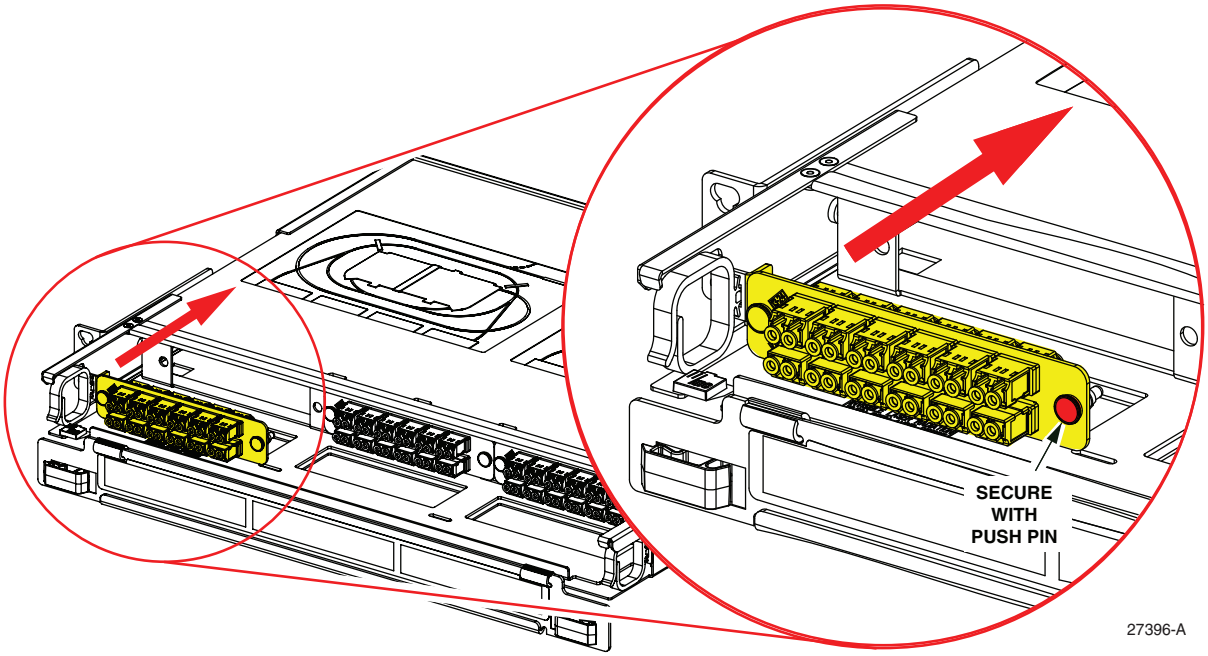

Figure 12. Installing Adapter Packs (LGX/1000)

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5.6 Installing MPO Modules

1. Align the MPO module with the selected location in the bulkhead. Push in and secure with push in pin if present (LGX/1000 only). Refer to Figure 13 and Figure 14.

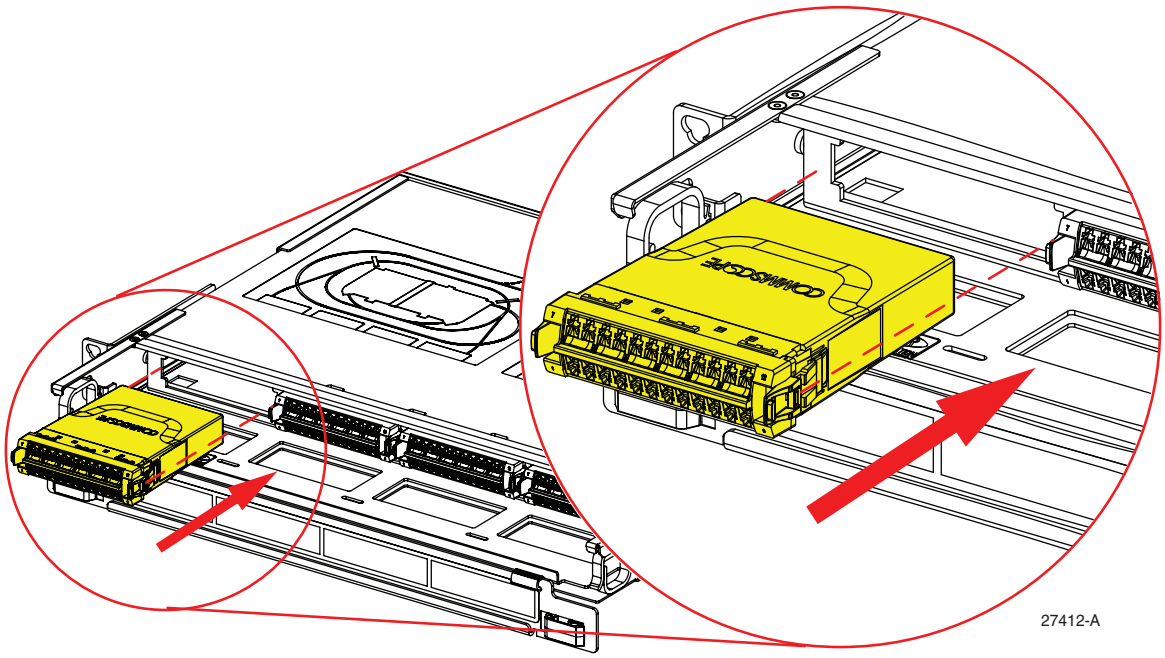

Figure 13. Installing MPO Modules (G2)

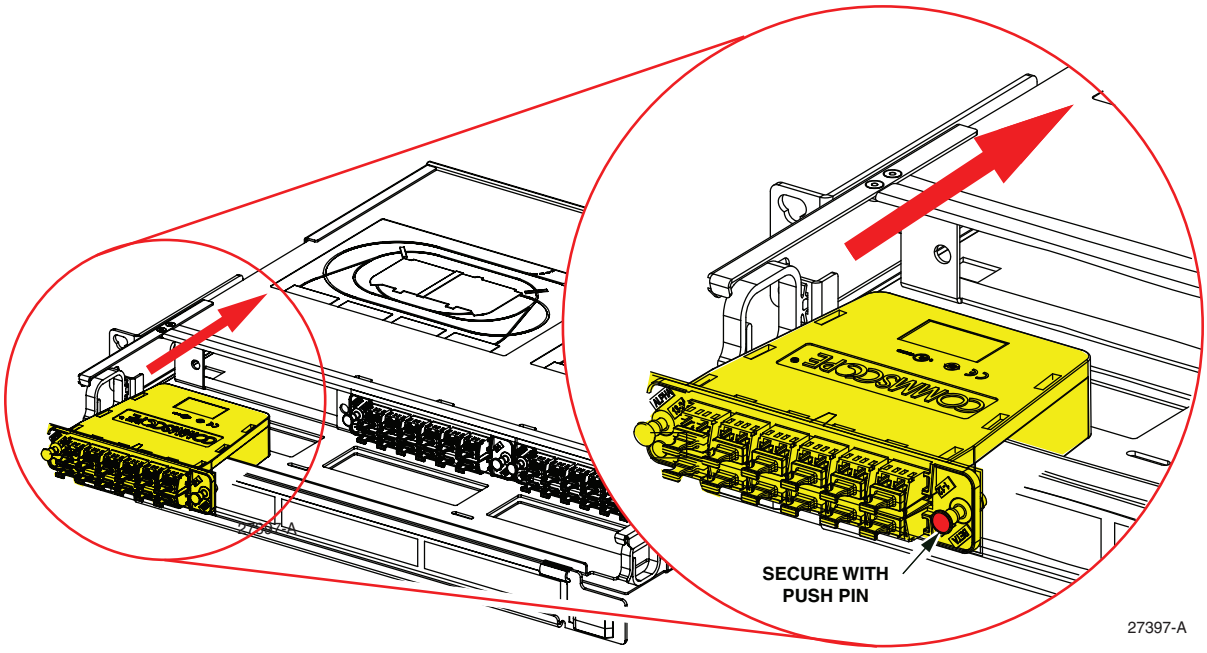

Figure 14. Installing MPO Modules (LSX/1000)

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2. Secure the cable and cable gland to the panel as shown in Figure 15. Route the cable as shown in Figure 16.

Note: For details and other options, refer to Section 6.3 on page 25.

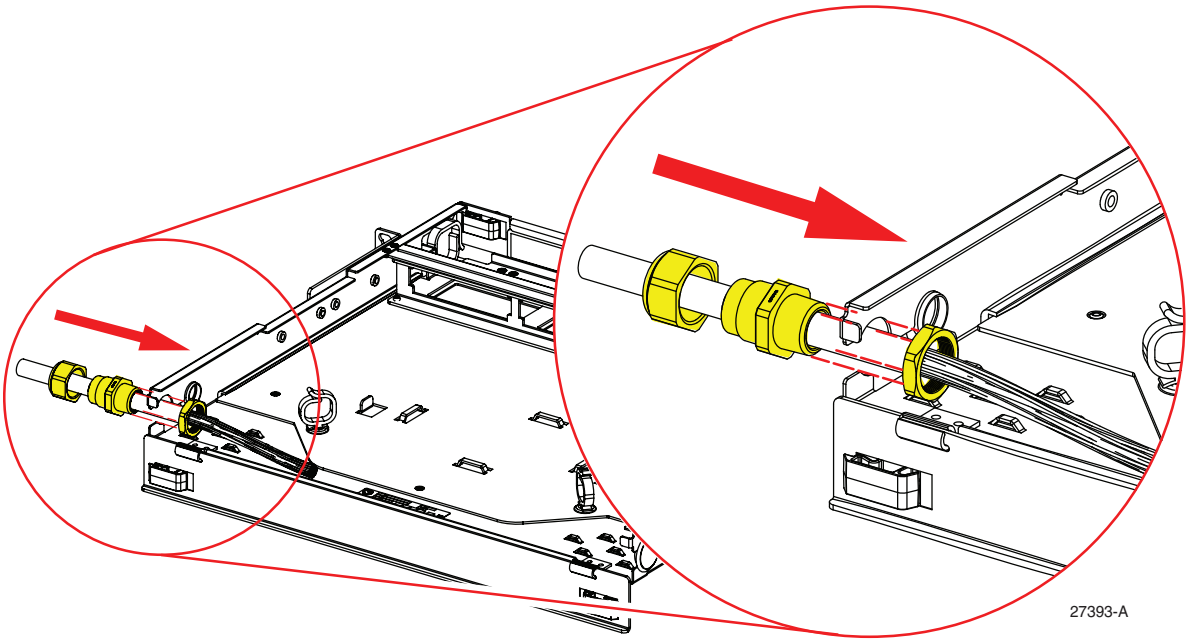

Figure 15. Installing Cable Gland (Standard 1/2-inch Cable Gland, Provided)

3. Loop the MPO cable around through the cable retainers as shown in Figure 16.

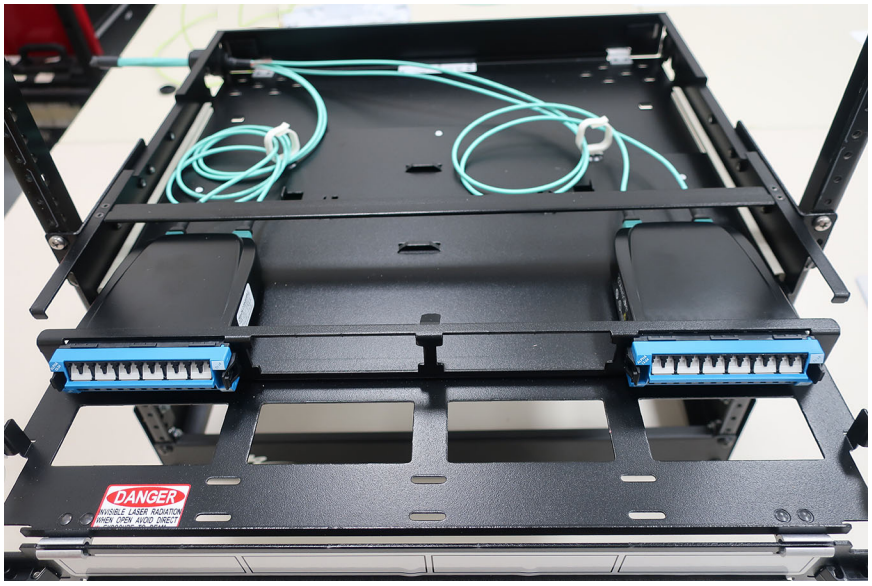

Figure 16. Cable Routing to MPO Modules

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5.7 Installing Splice Cassettes

1. Insert the splice cassette into the opening provided in the bulkhead, oriented so that the rear side passes through the opening first. Secure using push pins identified in Figure 17.

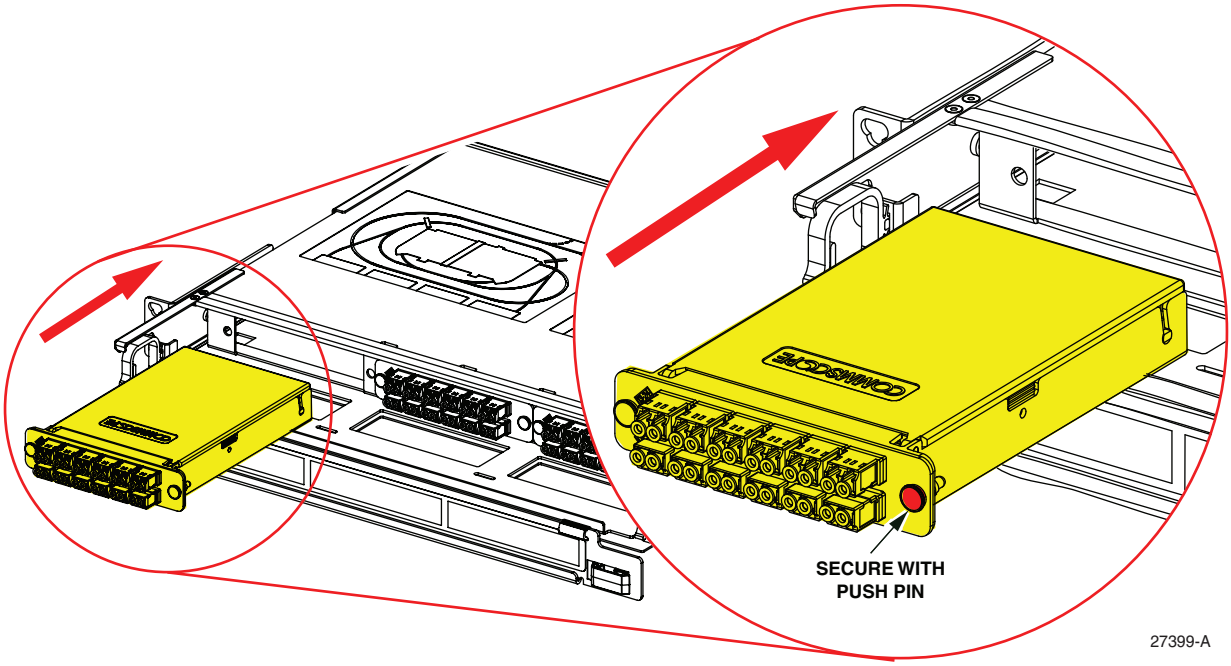

Figure 17. Installing Splice Cassette (LSX/1000 shown)

2. Route cables from rear of panel to splice cassettes as shown in Figure 18 below.

Figure 18. Cable Routing to Splice Modules (G2 shown)

3. Splice fibers from cable to splice cassette per instructions included with the splice cassettes.

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5.8 Installing AGILE Splice Trays

The splice tray provides a splice interface between a facility cable and pigtails terminated at adapter packs on the EPX bulkhead. Refer to the instructions enclosed with that kit for all details not covered here. Up to two splice trays may be installed per U height.

1. Install the splice tray as shown in Figure 19.

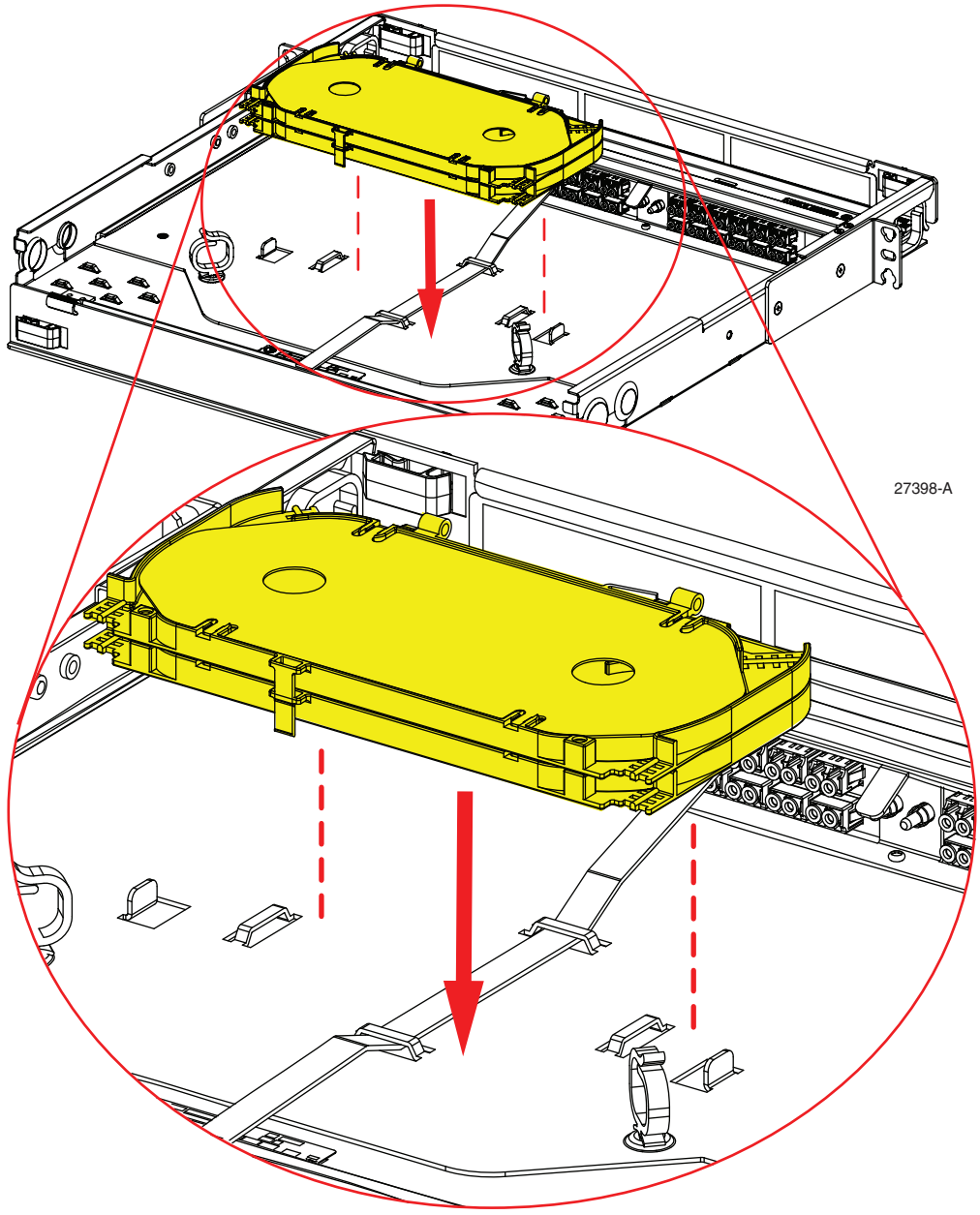

Figure 19. Installing Splice Trays

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2. Route pigtails to the panel and terminate the pigtail connectors at the assigned adapter pack, as shown in Figure 20. Cable slack shall be spooled inside the perimeter of chassis and restrained with cable ties at tie-down points provided, as necessary.
3. Route the facility cable to the panel and secure it in a cable entry port using a gland connector as shown in Figure 20.

Note: For more information on cable glands, refer to Section 6 on page 23.

4. Route the pigtails and facility cable within the EPX panel in the opposite direction and into the opposite side of the Agile splice tray as shown in Figure 20.

Note: On 2U and 4U shelves splice trays may be installed stacked on top of each other. Ensure that suitable slack is provided to allow tray on sliding versions to fully extend

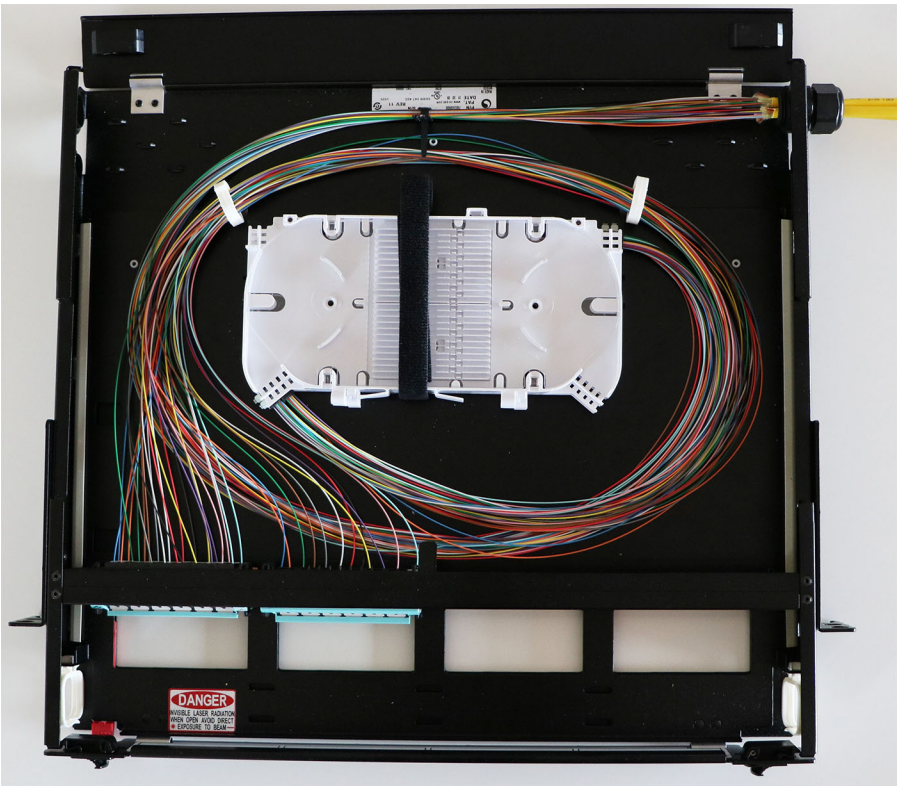

Figure 20. Cable Routing to AGILE Splice Tray (G2 shown)

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5.9 Field Termination

Use the following procedure referring to Figure 21 for an example of correct cable routing in the EPX panel.

1. Insert adapter pack into opening provided in bulkhead, oriented so that adapters pass through opening first. Refer to Section 5.5 on Page 16.

Note: On a 2U panel, start on bottom row first.

2. After connectorization, route buffered fibers from cable toward front of tray.
3. Terminate connector end of pigtails into module adapter openings in standard sequence.
4. Spool excess fiber slack length.
5. Repeat items 1-4 for all remaining locations.

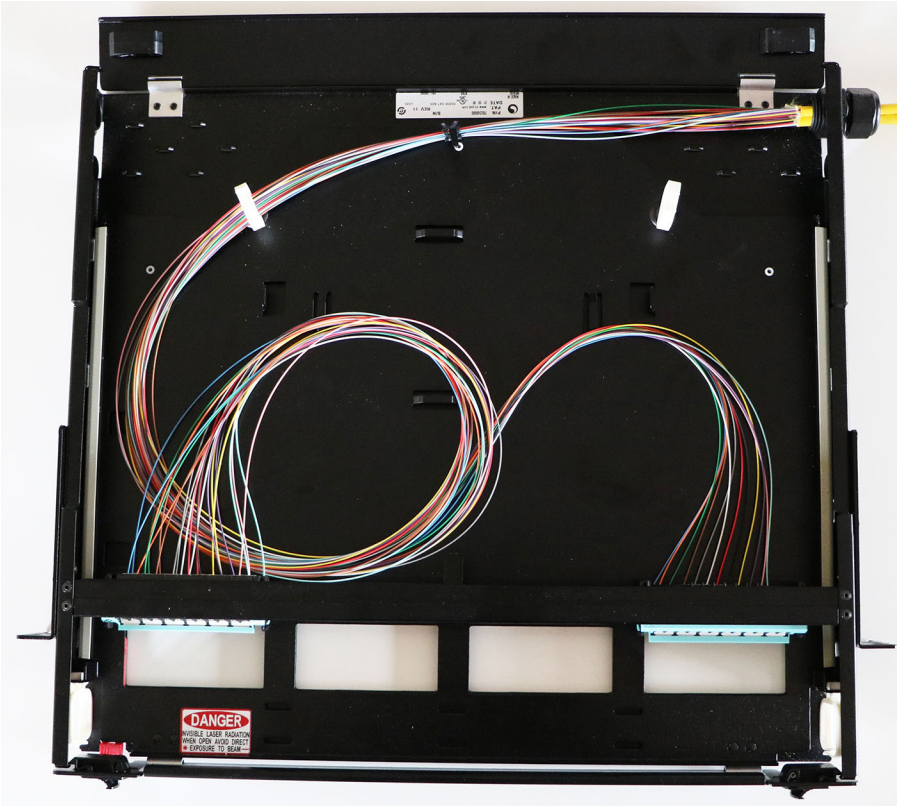

Figure 21. Cable Routing in EPX Panel

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6 CABLE ROUTING

6.1 Cable Routing

When routing cables, follow the routing path indicated on the top cover of the panel.

6.2 Cable Gland Capacities

Table 7 lists cable gland capacities for EPX 1U, 2U, and 4U panels for different diameter cables.

Table 7: EPX Panel Gland Capacities

# Gland Openings	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT
1U	2	2	0	0
2U	0	12	2	0
4U	0	16	4	2

Cable glands of the appropriate size are included with the different sized cable assemblies when shipped. All of these standard cable glands have the same basic components and are installed in the same way, as shown in Figure 22.

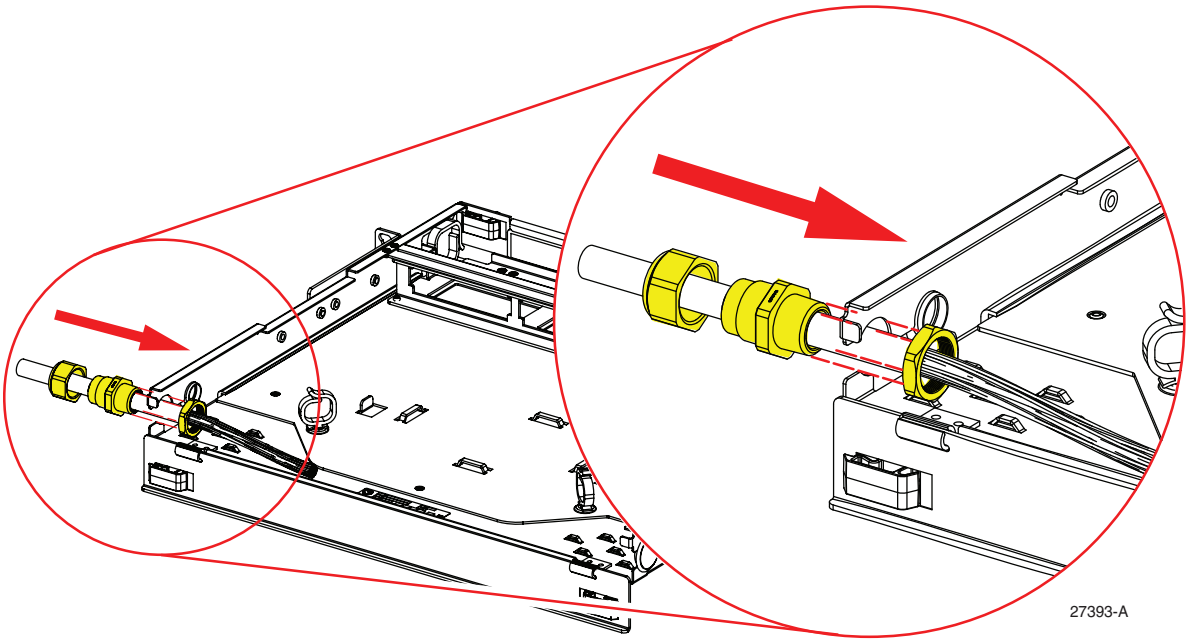

Figure 22. Installing Standard Cable Gland (1/2-inch Gland in EPX 1U Panel Shown)

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The EPX-1U panel has two 3/8-inch gland openings and two 1/2-inch gland openings. For smaller cable sizes, the 1U panels include snap-fit washers to reduce the 1/2-inch opening to 3/8-inch, as shown in Figure 23.

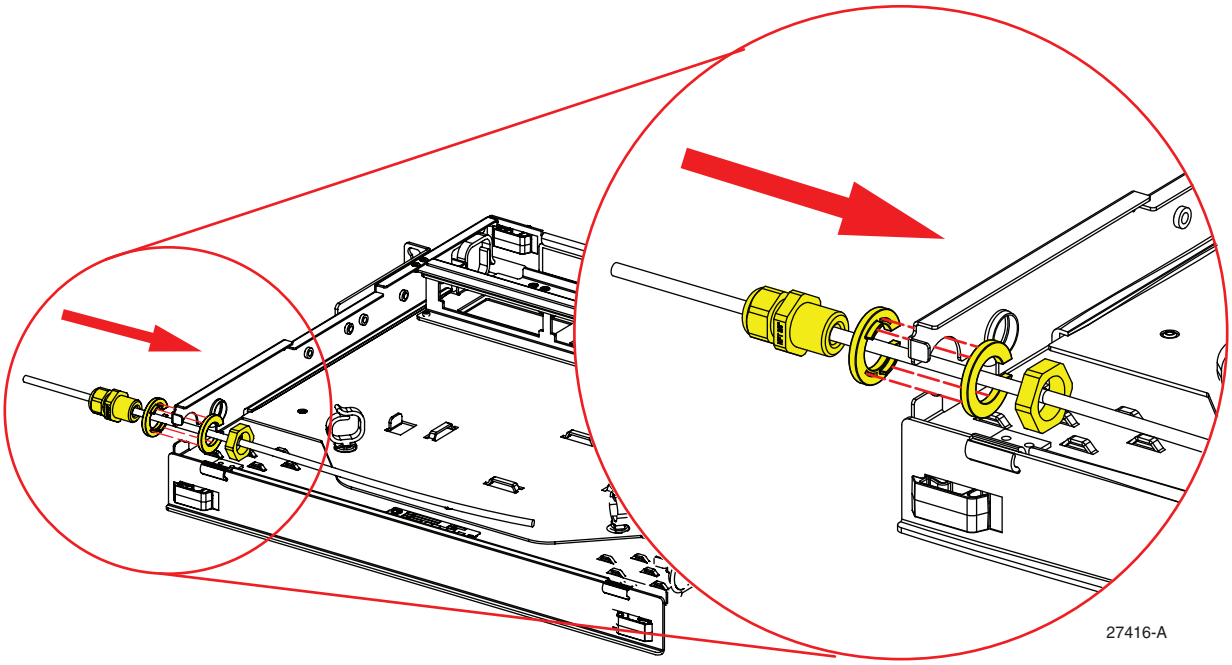

Figure 23. Installing 3/8-inch Cable Gland With Snap-Fit Washers (EPX 1U Panel Only)

For additional information on smaller diameter cables, refer to Section 2.4 on page 8.

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6.3 Installing a Cable

Note: These instructions cover only the cable gland method of securing fiber cables.

1. Loosely secure fiber cable to equipment rack upright approximately 3 inches (76mm) above or below panel, using cable tie or hook-and-loop strip. Leave approximately 48-inch (2.1m) length of cable to route into panel.
2. Fiber cables may enter panel from either right side, left side or rear apron. Carefully loop fiber cable to rear of panel on either side and continue to feed cable over top of rear apron.
3. Temporarily store slack fibers in panel.
4. Remove plug from appropriate size opening in panel to accommodate cable gland on fiber cable. Select an opening on rear apron or either right or left side that will be most advantageous for cable entry.
5. Completely loosen gland nut from cable gland.
6. Feed fibers and subunit tubes through panel opening. Temporarily coil fibers loosely in panel.
7. Insert threaded body of cable gland into opening and tighten gland nut onto threaded section to secure cable gland unit to panel.

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7 CONTACT INFORMATION

- To find out more about CommScope® products, visit us on the web at www.commscope.com
- For technical assistance, customer service, or to report any missing/damaged parts, visit us at http://www.commscope.com/SupportCent

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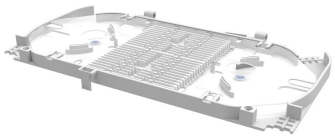
760241378 | AGL-SPLICE-48

Fiber Optic Splice Tray Kit, stackable, 48-fiber capacity



Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber splice tray
Product Series	AGILE

General Specifications

Application	Used in AGILE panels and enclosures
Color	Light gray
Splicing Capacity, maximum	48

Dimensions

Height	17.6 mm | 0.693 in
Width	220 mm | 8.661 in
Depth	118.4 mm | 4.661 in

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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760109462 | 360G2-MOD-BLANK-4PK

360G2 Mod Panel Blank Adapter Pack, 4 Panels

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack, blank

General Specifications

Adapter Color	None

Dimensions

Height	30.48 mm | 1.2 in
Width	91.44 mm | 3.6 in
Depth	2.54 mm | 0.1 in

Packaging and Weights

Packaging quantity	4

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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CERTIFICATE

Certificate Number: 111045.000
Including Seven Page Addendum

The Quality Management System and implementation of:

CommScope, Inc.

With Virtual Central Function at:
1100 CommScope Place SE
Hickory, NC 28602
United States

meets the requirements of the standard:

ISO 9001:2015

Scope:

The sales, marketing, design, manufacture, test, repair, support, service, and distribution of telecommunications products, components, and services for the telecommunications, wireless, and broadcast networks industries

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Business Segments	Exceptions
Connectivity and Cable Solutions (CCS)	None
Networking, Intelligent Cellular & Security Solutions (NICS)	None
Outdoor Wireless Networks (OWN)	None
Access Network Solutions (ANS)	None

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
Atlanta, GA 30339 USA
(215) 997-4519
https://www.dekra.us/en/audits/

ANAB ANSI National Accreditation Board ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page One of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Activities Legend:	HQ = Headquarters	MFG = Manufacturing	SER = Services (Professional Services and/or Technical Support)
	HW DE= Hardware Development	REP = Repair	SC = Purchasing, Supplier Management, Manufacturing Support, Repair Support
	SW DE= Software Development	SAL = Sales, Marketing	DIST = Distribution

Site Address	**Site Activities**
CommScope Inc 1100 CommScope Place SE Hickory, NC 28602 United States	HQ (Virtual)
ARRIS Technology, Inc. 3871 Lakefield Drive Suwanee, GA 30024 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 101 Tournament Dr. Horsham, PA, 19044 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 6450 Sequence Drive San Diego, CA 92121 United States	SW DE, SER
ARRIS Technology, Inc. 900 Chelmsford St. Lowell, MA 01851 United States	HW & SW DE, SER, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Two of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Solutions, Inc. 2400 Ogden Ave., Suite 180 Lisle, IL 60532 United States	HW & SW DE, SAL, SER, SC
ARRIS 15 Sterling Drive Wallingford, CT 06492 United States	HW & SW DE, SER, SC
ARRIS Technology, Inc. 2450/2500 Walsh Avenue Santa Clara, CA 95051 United States	HW & SW DE, SAL, SER
Ruckus Wireless International Inc. 350 West Java Dr. Sunnyvale, CA 94089 United States	HW & SW DE, SER
Ruckus Wireless Network Technology (Shenzhen) Co. Ltd. Units C&D, 5th Floor, No. 2 Finance base, 8 KeFa Road, Shenzhen, China	SW DE, SC, HW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Three of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
Site Address	**Site Activities**
CommScope Asia (Suzhou) Technologies Co., Ltd. 77 Qiming Road, Suzhou Industrial Park Suzhou,Jiangsu 215121 Peoples Republic of China	MFG, SC
Ruckus Wireless International Inc., Taiwan Branch @ Neihu District, Taipei City, Rui Road 411, 10th floor, Taipei	SW DE
ARRIS Group India Pvt Limited (AGIPL) Salarpuria Supreme, Ground Floor West Wing &First Floor Munnekolalu Village, Varthur Hobli, Outer Ring Road, Bangalore-560037	SW DE
ARRIS Group de Mexico S.A. de C.V. Av. La Paz 11721 Parque Industrial Pacifico Tijuana, BC 22643 Mexico	MFG, REP, SC
ARRIS Communications Ireland Limited Building 4300, Cork Airport Business Park Kinsale Road Cork County Ireland	HW & SW DE
ARRIS Group India Private Limited "The Senate" No:33/1, Ulsoor Road, Bangalore - 560 042 India	HW & SW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Four of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Group, Inc. 50 Stranmillis Embankment Belfast, BT95FL Northern Ireland	SW DE
CommScope Czech Republic, s.r.o Turanka 856/98B 627 00 Brno Czech Republic	HW DE,
CommScope CZ, spol. s.r.o. U Morusi 888, 53006 Pardubice Czech Republic Czech Republic	HW DE,
CommScope Connectivity UK Limited Units 1 and 4 Kinmel Park Industrial Estate Bodelwyddan, Denbighshire, LL18 5TZ United Kingdom	HW DE, MFG, SAL
CommScope Design & Integration UK Ltd. Unit 5 & 6 Eden Business Park Eden House Drive Old Malton, Malton, North Yorkshire YO17 6AE United Kingdom	HW DE, MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Five of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
CommScope Design & Integration UK Limited 412 The Quadrant, Birchwood Park Warrington, WA3 6FW United Kingdom	SER
CommScope EMEA Ltd. Corke Abbey Avenue Bray, Co. Dublin Ireland	MFG, SAL
CommScope EMEA Ltd. Diestsesteenweg 692 3010 Kessel-Lo, Belgium	HW DE, MFG, SAL
CommScope Italy Srl Via Archimede, 22/24 Agrate Brianza (MB) 20864 Italy	HW DE, REP, SW DE
Telecom Networks Americas AV. HIPOLITO YRIGOYEN 2999, DEPOSITO 6 EL TALAR, TIGRE Buenos Aires B1618AXD Argentine Republic	SAL, DIST
Commscope Networks India Private Limited Salarpuria Softzone, A Block, 1st Floor Survey No 80/1, 81/1, 81/2, B Wing, Belandur Village, Varthur Hobli, Outer Ring Bangalore – Karanataka 560103 India	SW DE
ADC India Communications Ltd. No 10 C , 2nd Phase Peenya Industrial Area Bangalore – Karnataka 560058 India	MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Six of Seven

The Quality Management System and implementation of:

CommScope, Inc.

With site at:

CommScope Asia (Suzhou) Technologies Co.,Ltd.

77 Qiming Road, Suzhou Industrial Park
Suzhou,Jiangsu 215121
Peoples Republic of China

meets the requirements of the standard:

ISO 9001:2015

The validity of this certificate depends on the validity of the main certificate.

Scope:
Production of network cable, fiber cable and communication equipment component (copper patch cords, copper panel, accessories etc.)

Certification Structure: Multi-site

Certificate Expires:	January 04, 2026
Certificate Issued:	January 05, 2023
Certified Since:	January 10, 2001

Dr. Cem O. Onus
Managing Director

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证 书 附 录

证书编号: 111045.000

附录第7页,共7页

质量管理体系和实施:

CommScope, Inc.

其场所:

康普科技（苏州）有限公司

中国江苏省苏州工业园区启明路77 号,邮编215121

符合以下标准要求:

ISO 9001:2015

本证书的有效性取决于主证书的有效性。

范围:

网络线、光缆、通信系统设备材料（网络跳线、配线装置等）的生产。

认证结构: **多场所**

证书有效期: 2026.01.04

发证日期: 2023.01.05

首次发证日期: 2001.1.10

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Managing Director

DEKRA Certification, Inc.
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CERTIFICATION BODY

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IAF

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

CommScope, Inc. of North Carolina
1100 CommScope Place SE
Hickory
North Carolina
28603-0339
USA

Holds Certificate No: **EMS 648387**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The environmental management system to control the risks associated with the manufacture, distribution, field support and central function of telecommunication products and services.

For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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To be read in conjunction with the scope above or the attached appendix.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Telecommunications de Reynosa S. de R.L. de C.V. Av. Industrial Reynosa Lte 2 al 5 Parque Industrial Center Reynosa Tamaulipas 88780 Mexico	Manufacture and distribution of telecommunication products including antenna and cable.
CommScope Asia (Suzhou) Technologies Co., Ltd. EPZ II, 77 Qiming Road Suzhou Industrial Park Suzhou Jiangsu 215121 China	Manufacture and distribution of telecommunication products, including cable.
Andrew Telecommunications India Pvt. Ltd. Plot No. N-2, Phase IV Verna Industrial Estate Verna Salcette Goa 403 722 India	Manufacture and distribution of telecommunication products, including antenna and cable.
CommScope EMEA Ltd. Corke Abbey Avenue Bray County Dublin A98FY03 Ireland	Manufacture and distribution of telecommunication products, including cable and connectors.
CommScope Telecommunications (China) Co., Ltd. 68 West Su Hong Xi Lu Suzhou Industrial Park Suzhou Jiangsu 215021 China	Manufacture and distribution of telecommunication products, including antenna and cables.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Wireless Systems GmbH Industriering 10 Buchdorf 86675 Germany	Manufacture and distribution of telecommunication products, including amplifiers and antenna systems.
CommScope, Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Corporate headquarters responsible for management system oversight of all locations listed on this certificate.
CommScope Inc. 6519 CommScope Road Catawba North Carolina 28609-0199 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Inc. 3642 US Hwy 70 East Claremont North Carolina 28610-0879 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Czech Republic s.r.o. Turanka 98B Brno 62700 Czech Republic	Manufacture and distribution of telecommunication products, including connectors and terminations.
CommScope Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Customer care, facility maintenance, and administrative functions.
ADC de Delicias, S. de R.L. de C.V. Blvd. Fernando Baeza No. 1301 Sur Delicias Chihuahua 33000 Mexico	Manufacturing and distribution of telecommunication products.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
ADC de Juarez S. de R.L. de C.V. Parque Industrial Antonio J Bermudez Ciudad Juarez Chihuahua 32470 Mexico	Manufacturing and distribution of telecommunication products.
CommScope Connectivity Belgium bvba Diestsesteenweg 692 Kessel-lo 3010 Belgium	Manufacture and distribution of telecommunication products.
CommScope Technologies de Juarez S. de R.L. de C.V. Santiago Troncoso 331 Praderas del Sur, Ciudad Juarez Chihuahua 32575 Mexico	Manufacture of Fiber Optic Splice Closures (FOSC), Fiber Guide Systems (FGS), Hardened Connectivity and Molding-Gel Filling, including: plastic injection molding, plastic extrusion, plastic and metal machining, and assembly operations.
CommScope Connectivity UK Limited Unit 1 Kinmel Park Bodelwyddan Rhyl, Denbighshire LL18 5TZ United Kingdom	Fibre optic cable manufacturing, termination and design of other telecommunication products and services.
CommScope 11312 S. Pipeline Road Euless Texas 76040 USA	Manufacture, distribution, field support and central function of telecommunication products.
ARRIS GROUP DE MEXICO SA DE CV Av. De la Paz, #11721 Parque Industrial Pacifico Tijuana Baja California 22643 Mexico	Manufacture, repair, support, repair service, distribution of products and components for telecommunications that provide integrated solutions for voice, video and data through the processes of SMT, manual and mechanical assembly, soldering (manual, selective, printed, wave) electrical testing and packaging.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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Certificate No: **EMS 648387**

Location	Registered Activities
CommScope Design & Integration UK Ltd Unit 5 & 6, Eden Business Park Edenhouse Drive Old Malton Malton YO17 6AE United Kingdom	Manufacture and distribution of telecommunications products including cabinets.
Arris Indústria Eletrônica do Brasil Ltda. CNPJ: 09.154.836/0001-15 Avenida Torquato Tapajós, 9475 Tarumã Manaus Amazonas 69041-025 Brasil	Manufacturer and distribution of Receivers, Television signal Decoders and Modulator/Router.
CommScope Design and Integration UK Ltd. Lovell House, 412 The Quadrant Birchwood Park Warrington WA3 6FW United Kingdom	Telecommunications project management, site surveys, installations commissioning and rigging.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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RoHS Certificate of Compliance

COMMSCOPE®

Product Name: EPX-1U-MOD-ENC

Product Number: 760249998

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: October 29, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided and our analysis and assessment of the risks. This information is subject to change and if a change occurs which affects compliance, then this Statement will be updated. Compliance to EU ROHS 2011/65 amended by EU RoHS 2015/863 means the part numbers have a maximum concentration of no more than 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). These parts also have a maximum concentration of no more than 0.1% by weight in homogenous materials for DEHP, BBP, DBP and DIBP (substances that are restricted starting from July 22, 2019). Finished electrical and electronic products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked.

Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

760230946 | 360DPis-12LC-SM

360 Distribution Adapter Pack, Singlemode, 12 LC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Blue
Interface	LC with Internal Shutters
Interface Feature	UPC
Shuttered	Yes
Total Ports, quantity	12

Optical Specifications

Fiber Mode	Singlemode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**

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760230946 | 360DPis-12LC-SM

CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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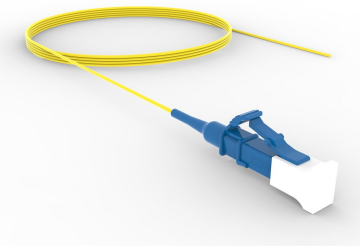
FBWLCUC11

Base Product



TeraSPEED® LC/UPC to Unconnectorized, Fiber Pigtail, 0.9 mm SBJ

Product Classification

Regional Availability	Asia | Australia/New Zealand | China | Europe | India | Latin America | Middle East/Africa | North America
Portfolio	CommScope®
Product Type	Fiber pigtail, unjacketed
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FBW
Ordering Note	Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Blue
Color, connector A	Blue
Interface, Connector A	LC/UPC
Jacket Color	Yellow
Total Fibers, quantity	1

Dimensions

Cable Assembly Length Range (m)	1 – 20
Cable Assembly Length Range (ft)	1 – 66

Ordering Tree

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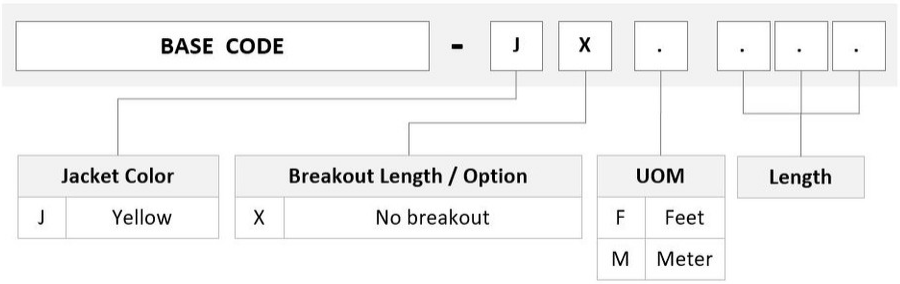
FBWLCUC11



Mechanical Specifications

Cable Retention Strength, maximum	2.00 lb @ 90 ° | 5.00 lb @ 0 °

Optical Specifications

Fiber Mode	Singlemode
Fiber Type	G.652.D | G.657.A1, TeraSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Dual Rated LSZH/Riser

Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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FBWLCUC11

760004564 N-001-RF-8W-F09YL	–	Fiber Indoor Cable, TeraSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Singlemode G.652.D and G.657.A1, Gel-free, Feet jacket marking, Yellow jacket color
860657283	–	LC/UPC Connector, Singlemode, Blue

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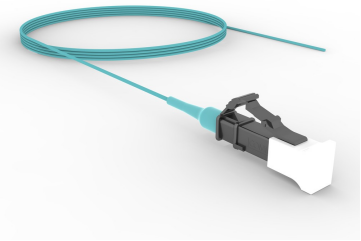
FBXLCUC11

Base Product



OM4 LC/UPC to Unconnectorized, Fiber Pigtail, 0.9 mm SBJ

Product Classification

Regional Availability	Asia | Australia/New Zealand | Europe | Latin America | Middle East /Africa | North America
Portfolio	CommScope®
Product Type	Fiber pigtail, unjacketed
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FBX
Ordering Note	Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Aqua
Color, connector A	Black
Interface, Connector A	LC/UPC
Jacket Color	Aqua
Total Fibers, quantity	1
Transmission Standards	TIA/EIA-568-C.3

Dimensions

Cable Assembly Length Range (m)	1 – 20
Cable Assembly Length Range (ft)	1 – 66

Ordering Tree

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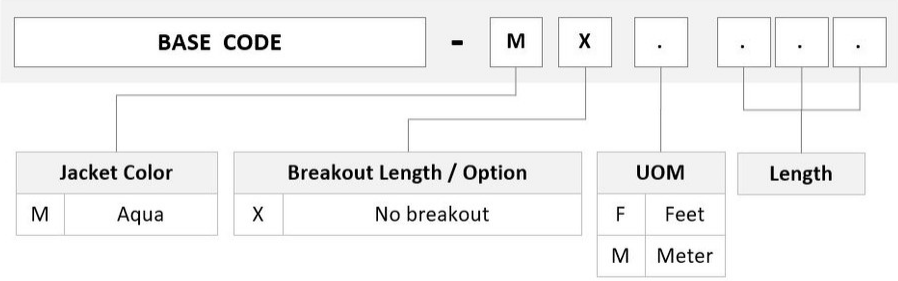
FBXLCUC11



Mechanical Specifications

Cable Retention Strength, maximum	2.00 lb @ 90 ° | 5.00 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Fiber Type	OM4, LazrSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Low Smoke Zero Halogen (LSZH)

Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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760010603 N-001-RF-5K-F09AQ	–	Fiber Indoor Cable, LazrSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Multimode OM4, Gel-free, Feet jacket marking, Aqua jacket color
860657284	–	LC/UPC Connector, Multimode, Aqua

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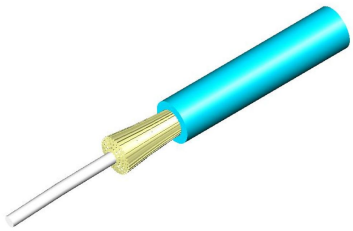
760010603 | N-001-RF-5K-F09AQ



Fiber Indoor Cable, LazrSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Multimode OM4, Gel-free, Feet jacket marking, Aqua jacket color

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber indoor cable
Product Series	N-RF

General Specifications

Cable Type	Cordage
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Aqua
Jacket Marking	Feet
Total Fiber Count	1

Dimensions

Diameter Over Jacket	0.9 mm | 0.035 in

Representative Image

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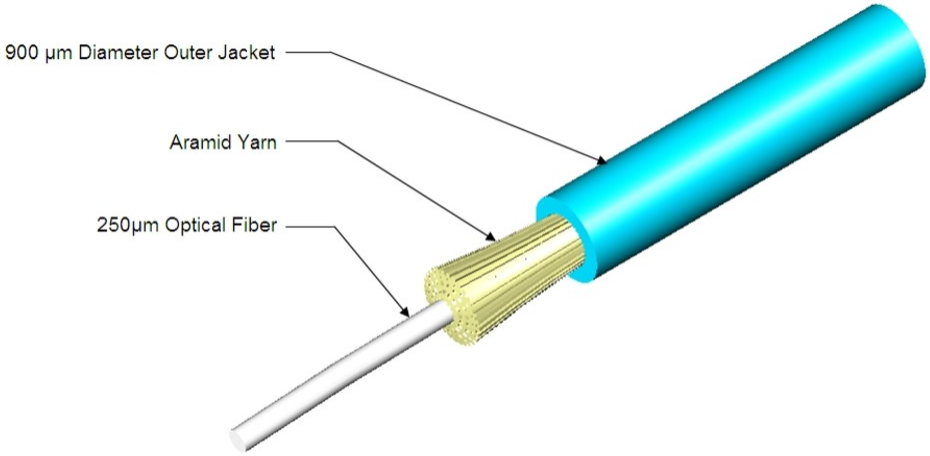
760010603 | N-001-RF-5K-F09AQ



Mechanical Specifications

Minimum Bend Radius, loaded	38 mm | 1.496 in
Minimum Bend Radius, unloaded	15 mm | 0.591 in
Tensile Load, long term, maximum	20 N | 4.496 lbf
Tensile Load, short term, maximum	67 N | 15.062 lbf
Compression	10 N/mm | 57.101 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	300 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	0.74 N-m | 6.55 in lb
Impact Test Method	FOTP-25 | IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 | IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 | IEC 60794-1 E7
Vertical Rise, maximum	500 m | 1,640.42 ft

Optical Specifications

Fiber Type	OM4, LazrSPEED® 550 | OM4, bend insensitive

Environmental Specifications

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Installation temperature	-10 °C to +50 °C (+14 °F to +122 °F)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409
Environmental Space	Low Smoke Zero Halogen (LSZH) | Riser
Flame Test Listing	NEC OFNR-ST1 (ETL) and c(ETL)
Flame Test Method	IEC 60332-3 | IEC 60754-2 | IEC 61034-2 | UL 1666 | UL 1685

Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Packaging and Weights

Cable weight	1 kg/km | 0.672 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable

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860657284

LC/UPC Connector, Multimode, Aqua

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber connector

General Specifications

Color, boot	Aqua
Color, housing	Black
Interface	LC/UPC

Dimensions

Length	39.6 mm | 1.559 in
Compatible Cable Diameter	0.9 mm | 0.035 in

Material Specifications

Ferrule Material	Zirconia

Mechanical Specifications

Cable Retention Strength, maximum	1.00 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Insertion Loss Change, mating	0.2 dB
Optical Components Standard	ANSI/TIA-568. 3-D | IEC 61753-1
Insertion Loss Change, temperature	0.2 dB
Insertion Loss, maximum	0.24 dB
Return Loss, minimum	27 dB

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Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Insertion Loss Change, mating	TIA-568: Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)

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LIMITED WARRANTY

1. **Definitions.** For purposes of this Warranty, (i) "Buyer" shall mean the individual or entity identified on the applicable purchase order or supply agreement (or, if different, on Seller's quotation, order acknowledgement or statement of work), (ii) "Seller" shall mean the CommScope entity identified on such entity's quotation, order acknowledgement, statement of work or supply agreement, (iii) "Hardware" means equipment designed and manufactured by or on behalf of Seller, or any third-party manufacturer's equipment offered for sale by Seller to Buyer, (iv) "Product" shall mean a product manufactured by or on behalf of Seller pursuant to the applicable supply agreement, quotation or order acknowledgement, and includes any combination of Hardware and Software, (v) "Services" means site engineering, system integration, product installation, implementation, training, maintenance and technical support services for Products, or other professional services provided by Seller to Buyer. Services exclude managed services and hosted cloud services provided by Seller, (vi) "Software" means Seller-licensed software, either embedded or standalone, including any updates provided, and any other enhancements, modifications, and bug fixes provided thereto, in object code form only (unless otherwise specified), and any full or partial copies thereof. Software does not include software created or owned by third parties, including but not limited to MediaKind Software, Google's Android Software or any third party application software, and (vii) "Warranty Period" means, unless a different time period is set forth in **Exhibit A,** (a) for Hardware, one year from date of original shipment from Seller's facility, (b) for Software-only Products, ninety (90) days from the date such Software is first made available to Buyer, or for Software embedded in a Hardware Product, ninety (90) days from date of original shipment of the Product from Seller's facility, and (c) for Services, thirty (30) days from the date the performance of such Services has been rendered.

2. **Limited Warranty.** Seller warrants that, as of the date of delivery, Seller has good title to the Product, free from any lawful security interest or other lien or encumbrance unknown to Buyer. In addition, during the Warranty Period, the Product and Services will be free from defects in materials or workmanship arising under proper and normal use. This Warranty shall apply only to the Products and Services and shall not apply to any other goods or materials, parts or components of a system or any system as a whole. This Warranty does not cover ordinary wear and tear. Seller does not warrant (i) Products not purchased from Seller or its authorized resellers; (ii) that the operation of the Product will be uninterrupted or error-free; (iii) that the Product will operate in combination with other third-party products selected by Buyer; or (iv) any products manufactured by third parties; provided that Seller will, to the extent permitted by the manufacturer, assign third-party warranties to Buyer. Seller gives no warranty for, and shall have no liability with respect to, any defects arising from any software (other than the Software), including, but not limited to MediaKind Software, Android Software or any third-party application software, downloaded to or otherwise used in conjunction with the Product. Seller further warrants to Buyer that during the Warranty Period, all Services performed by Seller for Buyer will be provided in a workmanlike manner.

3. **Disclaimers.** EXCEPT AS EXPRESSLY SET FORTH IN THIS LIMITED WARRANTY OR IN A SEPARATE, APPLICABLE SOFTWARE LICENSE AGREEMENT, ALL SOFTWARE IS LICENSED ON AN "AS IS" BASIS WITHOUT WARRANTY.

4. **Inspection and Return Authorization**. Buyer must promptly notify Seller of any claimed defect in the Product and/or Services. If Buyer claims that a Product is defective in materials or workmanship, Seller shall have the right to either examine the Product where it is located or, in its sole discretion, issue shipping instructions for return of the Product. Seller's inspection in response to a warranty claim shall not constitute acceptance or acknowledgment of the claim's validity. Except as otherwise agreed to in writing, Products may not be returned to Seller without prior authorization. Buyer must contact Seller to obtain an authorization number and return the Products to the location designated by Seller. Any Products returned to Seller without proper authorization will be returned to Buyer at Buyer's expense. Risk of loss, damage and insurance responsibilities for the Products shall not pass from Buyer to Seller until delivery of the Products to Seller's designated location. Buyer shall prepay all transportation charges for such return.

5. **Remedies.** Seller's sole and exclusive obligation and Buyer's exclusive remedy under this Warranty is Seller's repair or replacement of the defective Product or re-performance of Services or issuance of a credit for the net book value of the purchase price of the defective Product. Seller shall have sole discretion as to which of these remedies Seller will provide. Seller is not liable for any repair or maintenance costs incurred by Buyer, unless Seller authorizes such charges in writing in advance of the commencement of the work. If Seller elects to replace or repair the defective Product, the replaced or repaired Product will be warranted for the remainder of the Warranty Period applicable to the originally shipped Product, but the Warranty shall not be extended beyond the original Warranty Period. Replacement Products may be new, refurbished or contain refurbished materials.

6. **Notice and Waiver**. If Buyer discovers any defect in the Product, Buyer must provide prompt (and in no case later than thirty (30) days after discovery) written notice to Seller of the claimed defect. Such notice shall describe, in reasonable detail, the symptoms of such defect. The notice must be received by Seller during the Warranty Period for such Product. Failure to give timely notice of a claim shall result in Buyer's waiver of such claim.

7. **Transfer of Ownership.** This Warranty is not transferable unless Buyer is expressly authorized by Seller in writing to resell the Product. In addition, Buyer must notify Seller on or before the fifteenth (15^{th}) day after the date on which it transfers ownership of the warranted Product. Any transfers in violation of this Section shall invalidate this Warranty. Notice of the transfer of ownership must be in writing and shall include the name and address of the new owner.

8. **Exclusions from Warranty.** This Warranty shall not apply to problems attributable to, or as a result of:

(a) improper installation or misapplication of parts;
(b) chain or system failures induced by other products or components;
(c) lack of proper inspection or maintenance or failure to provide a suitable operating environment;
(d) any consumables provided with the Product, including but not limited to batteries and other accessories, and any other materials, components or products manufactured by a third party;
(e) power surges, fire, unusual mechanical, physical or electrical stress, severe weather conditions or acts of nature, including but not limited to, lightning or floods;
(f) usage or operation not in accordance with published ratings, specifications or instructions, including but not limited to environmental specifications identified by Seller;
(g) any adjustment, modification, alteration, removal or repair of any part of the Product, including but not limited to removal or alteration of serial numbers or other identifying marks not expressly authorized by Seller in writing;
(h) accidental damage, misuse, abuse, neglect or unauthorized access of the Product or of any system of which the warranted Product is a part;
(i) any type of aesthetic changes due to oxidation or corrosion occurring on stainless steel or galvanized steel parts installed in unusually corrosive marine and industrial atmospheres (in which case Seller's only obligation shall be to ensure that Product complies with Seller's published material specifications);
(j) use of the Product for purposes other than that for which it was designed; or
(k) mishandling during shipment of the Product.

LIMITED WARRANTY

This Warranty is for Products installed and used in accordance with Seller's design, installation and operating parameters. Buyer's failure to ensure conformity with such parameters will void all warranties. Under no circumstance shall Seller have any liability or obligation with respect to expenses, liabilities or losses associated with the installation or removal of any Product or the installation or removal of any components for inspection, testing or redesign occasioned by any defect or by any repair or replacement of a Product.

9. **Limitation on Liability.** THE WARRANTIES SET FORTH IN SECTION 2 HEREOF ARE EXCLUSIVE AND ARE MADE ONLY TO BUYER. SELLER MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS AND EXCLUDES ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION OR WARRANTY ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OR PERFORMANCE. No person is authorized to give any additional warranties on Seller's behalf or to assume for Seller any other liability, except in a writing signed by an authorized officer of Seller. SELLER'S TOTAL LIABILITY FOR ANY CLAIM OR DAMAGE ARISING OUT OF AND/OR IN CONNECTION WITH THE MANUFACTURE, SALE, DELIVERY OR USE OF THE PRODUCTS OR SERVICES WILL BE LIMITED TO PROVEN DIRECT DAMAGES, NOT TO EXCEED (I) FOR PRODUCTS, THE DEPRECIATED VALUE OF THE PURCHASE PRICE OF SUCH PRODUCTS OR (II) FOR SERVICES, THE ACTUAL AMOUNT PAID TO SELLER FOR SERVICES DURING THE 12 MONTH PERIOD IMMEDIATELY PRIOR TO THE EVENT (OR SERIES OF EVENTS) GIVING RISE TO THE LIABILITY. IN NO EVENT WILL SELLER BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY CLAIM FOR LOSS OF ACTUAL OR ANTICIPATED DATA, USE, REVENUES OR PROFITS. The Products are not specifically designed, tested, manufactured or intended for operation or use in any inherently dangerous, life endangering or life support applications where any failure of the Products could lead to death, personal injury or significant physical or environmental damage (High Risk Activities). If Buyer uses the Products in High Risk Activities, including but not limited to nuclear facilities or the flight, navigation or communication of aircraft, Buyer agrees that neither Seller nor its third party licensors are liable in whole or in part, for any claims or damages arising from such use, and that Buyer shall indemnify and hold Seller and its third party licensors harmless from any and all claims for loss, cost, damage, expense or liability arising out of or in connection with any use of the Products in High Risk Activities. These limitations on liability will apply regardless of the form of action, whether in contract, tort, strict liability or otherwise, and whether damages were foreseeable and will survive failure of any exclusive remedies provided in Section 4 hereof.

10. **Choice of Law.** The terms and conditions contained herein and the rights of the parties to any transaction to which they relate shall be governed by and construed in accordance with the laws of the State of North Carolina, U.S.A. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

LIMITED WARRANTY

Exhibit A

Product Categories	Warranty Period from Original Shipment Date*
Category A Products E6000® Converged Edge Router (CER); E6000n™ Remote PHY Devices (RPDs); E6000r™ Remote PHY Shelves; E6000n™ Remote MACPHY Devices (RMDs); vManager; Remote OLT (R-OLT); associated power supplies and accessories. FLX PON OLT portfolio including vOLT. CherryPicker products, Encoder products including ME-7000, SE-6000; DSR-4xxx, DSR-6xxx and DSR-7xxx series IRD products, and Uplink systems including TME-2020, VDP-1000, BNC, DEM, and SEM; All APEX Universal EQAM including APEX1000 and APEX3000; All Aloha interactive products including OM2000, ARPD, ADM4000 and NC1500 4.0. All SDM products. All VUE and VTM Software Products. All STDC products.	Hardware One (1) Year Software Ninety (90) Days
Category B Products All High and Standard Definition Transport Adapter MS4000™ Media Streamer	Hardware One (1) Year Software Ninety (90) days ** For certain CPE, option for 1% overship in lieu of Hardware warranty is standard
Category C Products Intentionally left blank.	
Category D Products All Third Party OEM Products: power meters; All VUE and VTM hardware platforms; NC1500 4.0 hardware platform; LQA256 Legacy QAM Adapter; Elemental Products including Live, Server, Delta, Conductor and StatMux; DC2180 Cabinet Node. Cooling Systems	Pass Through from OEM: Hardware One (1) Year Software Ninety (90) Days
Category E Products Intentionally left blank	
Category F Products All OM and SG optical node platforms, Flex Max® and Starline® amplifier platforms, RF Taps & Passives, and Optical Passives	Hardware Five (5) Years within the United States and Canada Hardware Three (3) Years outside United States and Canada Software Ninety (90) Days
Category F1 Products All CHP Headend Optical (HEO) Elements	Hardware Three (3) Years Software Ninety (90) Days
Category G1 Products All NC optical node platforms and Optical Passives, including OP/NP/DP/DC models.	Hardware Five (5) Years Software Ninety (90) Days
Category G2 Products All CH3 Headend (HEO) Elements	One (1) year
Category G3 Products All EPON and GPON ONUs, RFoG/HPON R-ONUs, including, CP8 models and associated power supplies and accessories	Hardware Three (3) Years Software Ninety (90) Days

Category H Products All ConvergeMedia™ Distribution Platforms and Management Suite, AdManager™ including SkyVision Ad Management and EMP solutions CVEx™, SVA, all Vertasent products including SVOM, SVM and ERM, AdEdge™ COM and AdEdge APS,VMS, Manifest Delivery Controller (MDC), ARRIS Video Content Manager (AVCM) and Next Generation Insertion (NGI) and Multicast ABR.	Hardware One (1) Year Software Ninety (90) Days
Category I Products ServAssure® Advanced, ServAssure® NXT - Alarm Central, ServAssure® NXT - Analyze, ServAssure Domain Manager and EventAssure™. WorkAssure™® Workforce Management, Mobile TV, SecureMedia and Titanium	Hardware One (1) Year Software Ninety (90) Days
Category J Products Intentionally left blank	
Category K Products Intentionally left blank.	
Category L Products Intentionally left blank	
Category M Products Intentionally left blank.	
Category N Products Intentionally left blank.	
Category O Products All CAS Products including DAC, CASMR (and associated plug-ins), CAST, Advisor, CSS, OLL, CSS-Lite, KLS, DKS, CPMS	DAC, CASMR, CAST, Advisor, CSS Hardware Three (3) Years OLL, CSS-Lite, KLS, DKS, OLES, CPMS Hardware One (1) Year Software Ninety (90) Days
Category P Products Intentionally left blank.	
Category P1 Products Intentionally left blank	
Category Q Products Intentionally left blank	
Category R Products Intentionally left blank	
Category R1 Products Intentionally left blank	
Category S Products Intentionally left blank	
Category S1 Products Intentionally left blank	

LIMITED WARRANTY

Category T Products RUCKUS Wi-Fi	Hardware: - Indoor Access Points and Wall Plate Access Points – Limited Lifetime Warranty,** except for access points with an "e" suffix (e.g., R350e), for which the HW warranty period is one (1) year. - Outdoor Access Points – One (1) Year - Controllers – One (1) Year, except ZoneDirector controllers are covered by the Limited Lifetime Warranty** Software Ninety (90) Days
Category T1 Products RUCKUS ICX Switches	- ICX Switches (including switch modules, PSUs, and Fans, but excluding removable optics/transceivers and LEDs) – Limited Lifetime Warranty,** except for ICX 7150- C08PT, for which the HW warranty period is 13 months. - LEDs – 12 months - Removable Optics/Transceivers – 60 months (13 months if shipped from Seller prior to June 1, 2021) Software: Limited lifetime access to defect repairs, and software maintenance updates through end of support date of product
Category T2 Products Intentionally left blank	
Category U Products Other OSP Cable Products (P3®, Drop Coax, Fiber Cable, Fiber Drop Cable, CIC) NovuX Products Prodigy Products FDH Products Multiservice terminals (MST), Open Terminals (OTE) and Hardened Drop Cable Assemblies OSP "Box" Products Mini-RDTs and RDTs FOSC™, FIST™ and Tenio™ OSP Copper Connect and Closure Products HELIAX® FiberFeed® Products, including FiberFeed® hybrid and fiber cables and assemblies, power cables and junction boxes Fiber Optic Panels, including Accessories, Mounting Hardware, Modules Fiber Optic Field Terminated Connectors, Kits, Tools, Consumables, Accessories Indoor Fiber Cable, Patch Cords, Cable Assemblies, Fiber Trunks Passive Optical Components and Value Added Modules (VAMs) FiberGuide® : Fiber cable Management System Optical Distribution Frames, including Modules, Blocks, Accessories and Hardware Cabinets Cable and Apparatus Products Alifabs™ Cabinets & Ancillary Products Alifabs™ Telecommunications Towers and Accessories Metro Cell Products, including Enclosures; Integrated Pole; Standard Poles; Accessories; and Wood Pole Brackets	One (1) year

LIMITED WARRANTY

Category V Products ValuDAS® Passive Products, including Air Directional Couplers, Hybrid Couplers, High Power Splitters, and Cell-Max™ Antennas Standard Tower Mounted Amplifier, Bias Tee and Power Distribution Unit Products Standard Filter & Combiner Products Electronic Enclosure Products (Cabinets) Alifabs™ Free Cooling Products and Accessories and Spare Parts, including Monitor All-In-One FLX (Active Passive Cabines) PowerShift™ & Power Products	Two (2) years
Category W Products ValuSite® Products I-Line Accessory Products Microwave Antennas Terrestrial Microwave System Products (including Microwave System Flex-Twist, Coupler, Filter and Diplexer Products)	Three (3) years
Category X Products Broadband RF Connectivity Products Premium Passive Products, including In-Building Directional Couplers, Hybrid Matrices, Tappers, Power Splitters, Terminations, Attenuators and CMAX Antenna Products	Five (5) years
Category Y Products QR® Coaxial Cable	Five (5) years
Category Z Products Standard RADIAX® Cable, Connector, Accessory and Cable Assembly* Products * RADIAX® Cable Assembly Product means any RADIAX® coaxial cable that has been fitted with Seller's connectors in accordance with the installation instructions.	One (1) year
Category AA Products Standard CNT® Cable, Connector, Accessory and Cable Assembly* Products * CNT® Cable Assembly Product means any CNT® coaxial cable that has been fitted with Seller's connectors by Seller or its certified distributor	Five (5) years; except that the Warranty Period for Products purchased for resale purposes shall be one (1) year.
Category BB Products Standard HELIAX® Cable, Connector, Accessory and Cable Assembly* Products * HELIAX® Cable Assembly Product means any HELIAX® coaxial cable or elliptical waveguide that has been fitted with Seller's connectors by Seller or its certified distributor.	Ten (10) years; except for the following: (i) three (3) years for weatherproofing kits (including SureGuard boots); (ii) one (1) year for cable preparation tools (excluding blades); (iii) one year for single click-on hanger kits; and (iv) two (2) years for surge arrestors.
Category CC Products Standard ERA/ION-E®, ION-M®, ION-U®, MR, CMR, i-POI®, e-POI™, and Node Repeater Products	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of shipment. Software Ninety (90) Days
Category DD Products In- Building and Fixed Subscriber Antennas	The earlier of: (i) three (3) years from the date of installation or (ii) thirty-nine (39) months from the date of original shipment

LIMITED WARRANTY

Category EE Products OneCell® Powered Fiber Cable Solution: Hybrid Copper and Fiber Cables, Class 2 Power Supplies, Indoor/Outdoor POE Extenders, Field Terminated Outlets, Consolidation Boxes and Related Passive Components	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of original shipment Software Ninety (90) Days
Category FF Products Small Cell Device Management System (DMS) Software DAS Device Management System (AIMOS) Software	Ninety (90) days
Category GG Products Base Station Antenna, Small Cell Antenna & Mosaic™ Products	Two (2) years for all base station antennas except base station antennas incorporating N-type connectors, which shall have a warranty of one (1) year
Category HH Products DryLine® Dehydrator Systems and Line Monitoring Systems	Three (3) years or 3,000 hours of actual run time, whichever occurs first; except the Warranty Period for the compressor is only one (1) year or 1,000 hours of actual run time, whichever occurs first.
Category II Products SiteRise™ Solutions	One (1) year on workmanship for the Solution.
Category JJ Products Copper Structured Cabling Products Other Enterprise Products (Coax, Automotive Cables, Enterprise Enclosures and miscellaneous items) (excluding software)	One (1) year from the date of Installation
Category KK Products Alifabs™ Services (power upgrades, enablements, installation and decommission work, rigging, and fault management)	One (1) year from the date of completion of the work.
Category LL Products imVision Overlays and Controllers	Three (3) years

** For Category H and Category I Products only, if Seller is engaged by Buyer to provide Services for the implementation of the purchased Products, warranty period for such Products shall commence upon Buyer's acceptance of the Products and Services.*

** For Category T Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing for as long as the original end user of the Product continues to own and use the Product. For Category T1 Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing (i) for as long as the original end user of the Product continues to own and use the Product or (ii) through the End of Support date, as defined in the RUCKUS End of Life Policy, whichever is earlier.

RoHS Certificate of Compliance

COMMSCOPE®

Product Name: EPX-1U-MOD-DRW

Product Number: 760242455

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: May 03, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

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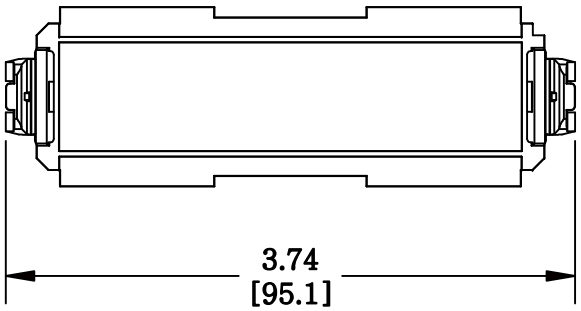
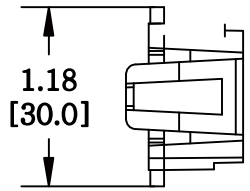
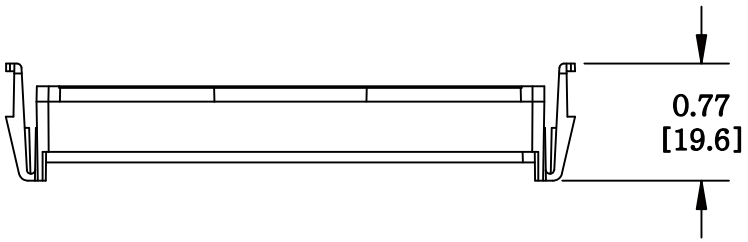
Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

MATERIAL ID	DESCRIPTION
760109462	360G2 MOD PANEL BLANK,4 PANELS







NOTES:

1. SEE SYSTIMAX CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS IN PARENTHESES ARE IN METRIC.
4. PART INCLUDES:

   (4) PANEL BLANK,G2 TYPE

360G2-MOD-BLANK-4PK

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REV	DATE	ECR	DESCRIPTION	APPROVED BY	DRAWN BY		DWG NO
1	05/23/11		INITIAL ISSUE	MC	AW		
					DATE 05/23/2011		760109462

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760109462 | 360G2-MOD-BLANK-4PK

360G2 Mod Panel Blank Adapter Pack, 4 Panels

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack, blank

General Specifications

Adapter Color	None
Interface Feature	Blank plate
Pigtails Included, quantity	0

Dimensions

Height	30.48 mm | 1.2 in
Width	91.44 mm | 3.6 in
Depth	2.54 mm | 0.1 in

Packaging and Weights

Packaging quantity	4

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
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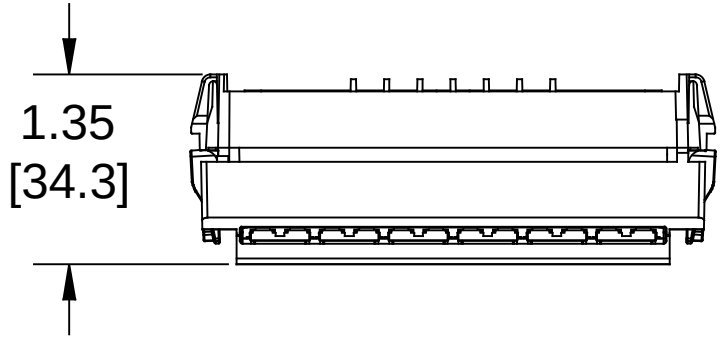
MATERIAL ID	DESCRIPTION
760230938	ASSEMBLY, BEZEL DMis



NOTES:

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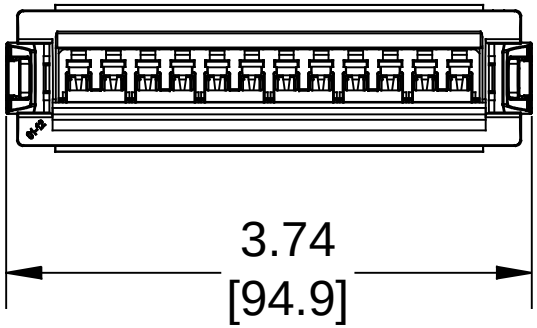
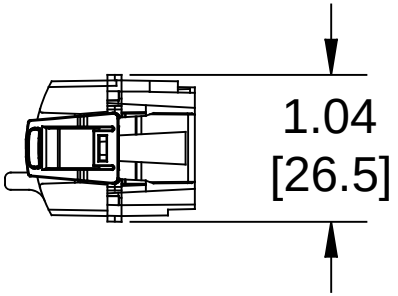
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS ARE IN INCHES[MM].
4. PART INCLUDES:
   (1) BEZEL ASSEMBLY, AQUA





360DPis-12LC-LS

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REV	DATE	ECR	DESCRIPTION	APPROVED BY	DRAWN BY		DWG NO
1	07-NOV-16		INITIAL ISSUE	PT	TZ		
					DATE 07-NOV-2016		760230938

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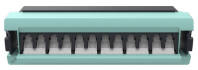
760230938 | 360DPis-12LC-LS



360 Distribution Adapter Pack,Multimode OM4, 12 LC/UPC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Aqua
Interface	LC/UPC
Interface Feature	Internal shutters
Pigtails Included, quantity	0
Shuttered	Yes
Total Ports, quantity	12

Material Specifications

Alignment Sleeve Material	Zirconia

Optical Specifications

Fiber Mode	Multimode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**

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760230938 | 360DPis-12LC-LS

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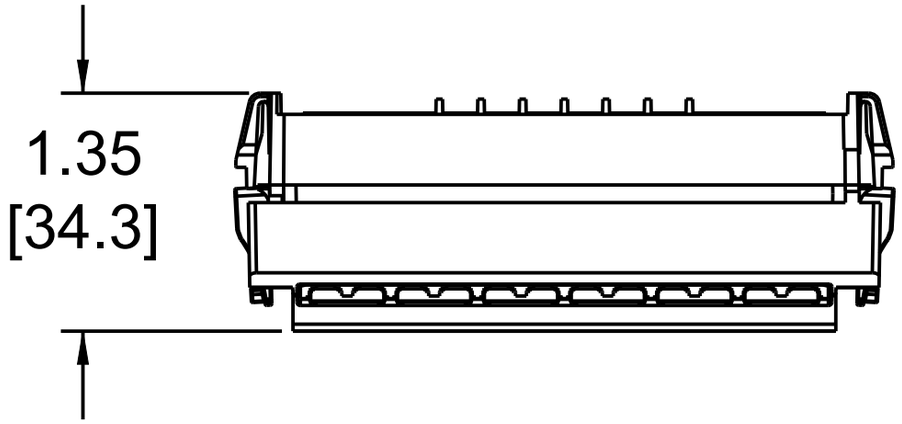
MATERIAL ID	DESCRIPTION
760230946	ASSEMBLY, BEZEL DMis



NOTES:

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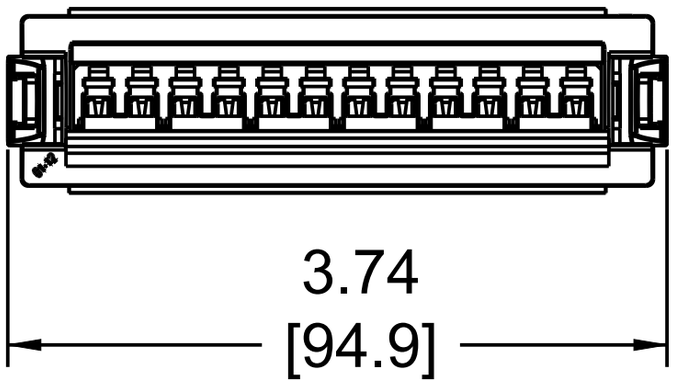
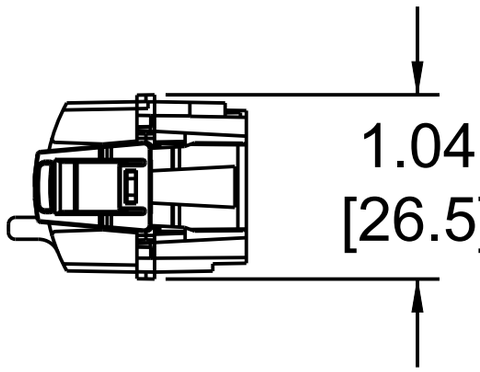
2. SEE SYSTIMAX CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS ARE IN INCHES[MM].
4. PART INCLUDES:
   (1) BEZEL ASSEMBLY, BLUE





360DPis-12LC-SM

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1	07-NOV-16		INITIAL ISSUE	PT	TZ		
					DATE 07-NOV-2016		760230946

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760230946 | 360DPis-12LC-SM

360 Distribution Adapter Pack, Singlemode, 12 LC/UPC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Blue
Interface	LC/UPC
Interface Feature	Internal shutters
Pigtails Included, quantity	0
Shuttered	Yes
Total Ports, quantity	12

Material Specifications

Alignment Sleeve Material	Zirconia

Optical Specifications

Fiber Mode	Singlemode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

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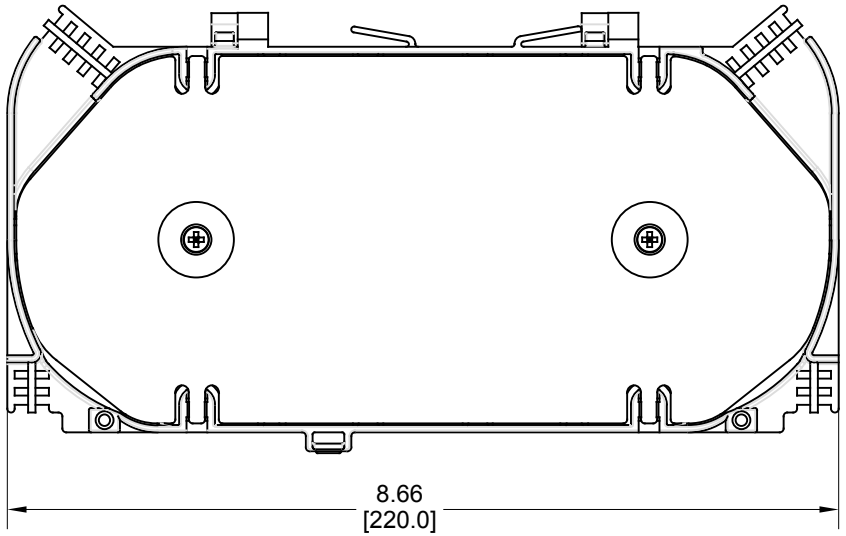
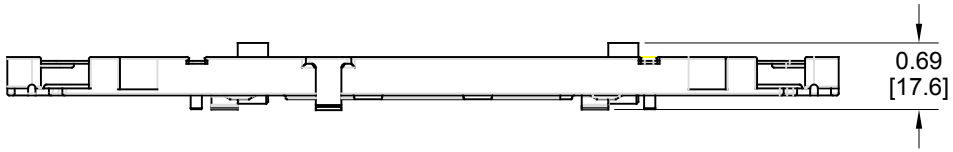
MATERIAL ID	DESCRIPTION
760241378	48F PLASTIC SPLICING TRAY KIT, 1U FIBER OPTIC PANEL

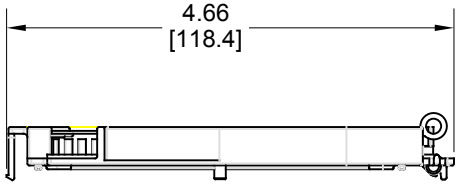


NOTES:

1. SEE COMMSCOPE CATALOG FOR PART NUMBER SUFFIXES TO INDICATE COLOR/PKG.
2. SEE COMMSCOPE CATALOG FOR COMPLETE LIST OF PARTS RELATED TO THE USE OF THIS PRODUCT.
3. DIMENSIONS IN PARENTHESES ARE IN METRIC[MM].
4. PART INCLUDES:

   (1) ASSEMBLY, SPLICING TRAY KIT





48F PLASTIC SPLICING TRAY KIT

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1	12/3/18		INITIAL ISSUE	IZ	DRAWN BY JW		
					DATE 12/3/2018		760241378

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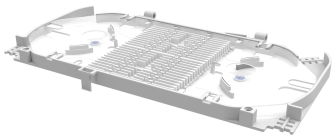
760241378 | EPX-SPLICE-48 (AGL-SPLICE-48)



Fiber Optic Splice Tray Kit, stackable, 48-fiber capacity

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber splice tray
Product Series	EPX

General Specifications

Application	Used in AGILE panels and enclosures
Color	Light gray
Splicing Capacity, maximum	48

Dimensions

Height	17.6 mm | 0.693 in
Width	220 mm | 8.661 in
Depth	118.4 mm | 4.661 in

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
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760249998 | EPX-1U-MOD-ENC

EPX 1U sliding panel, accepts (4) G2 style splice cassettes, modules or adapter packs, providing up to 48 duplex LC ports

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber patch panel | Fiber patch/splice panel
Product Series	EPX

General Specifications

Application	Accepts four G2 modular cassettes
Color	Black
Intelligence Type	Not iPatch® ready
Interface, front	Unloaded
Module/Adapter Pack Slots, quantity	4
Rack Type	EIA 19 in
Rack Units	1
Shelf Movement	Sliding
Total Fibers, quantity	96
Total Ports, quantity	0

Dimensions

Height	44.45 mm | 1.75 in
Width	482.6 mm | 19 in
Depth	412.75 mm | 16.25 in

Environmental Specifications

Safety Standard	CSA 22.2 | UL 1863

Packaging and Weights

Packaging quantity	1

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760249998 | EPX-1U-MOD-ENC

Weight, net	3.529 kg | 7.78 lb

Regulatory Compliance/Certifications

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REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
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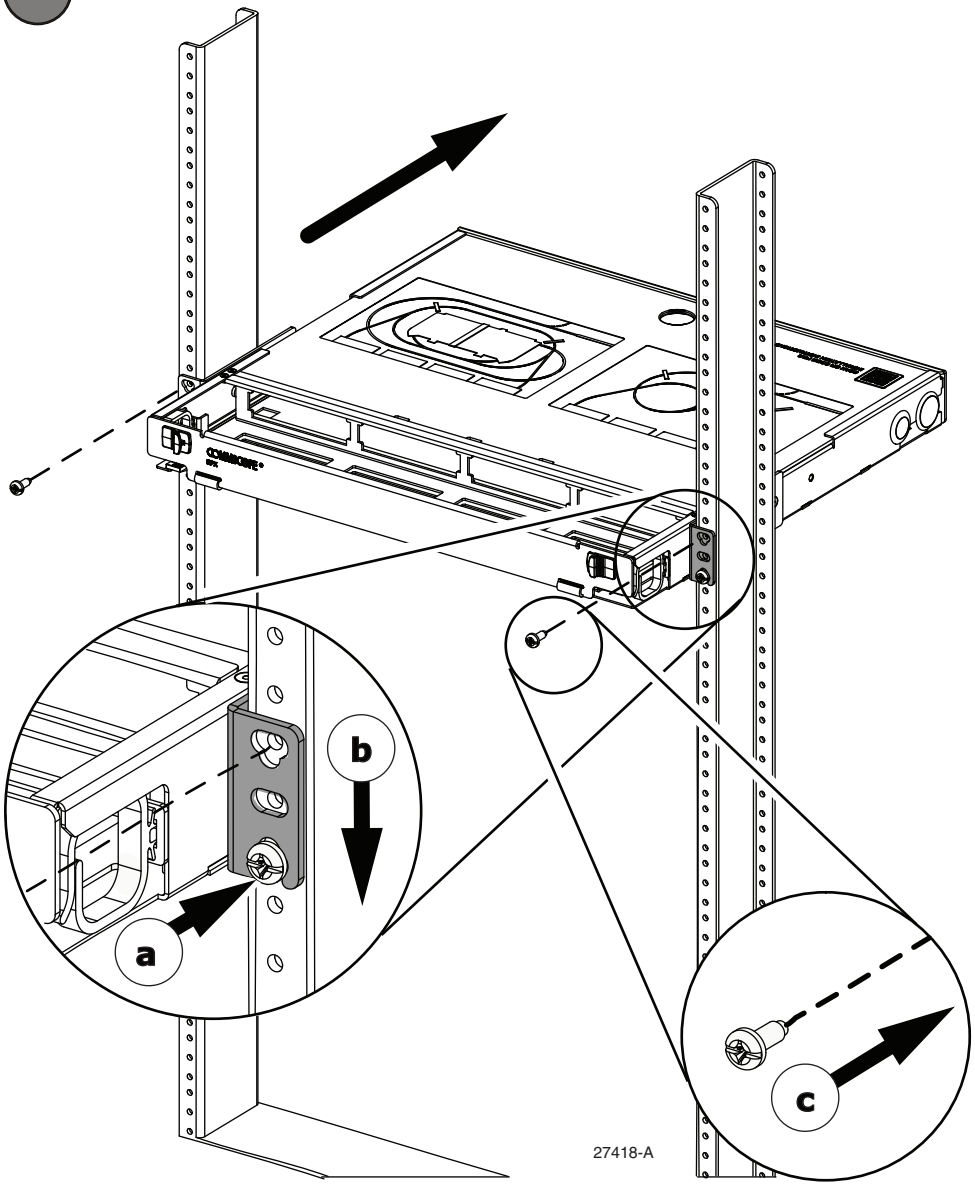
Quick Start
(Guía rápida)

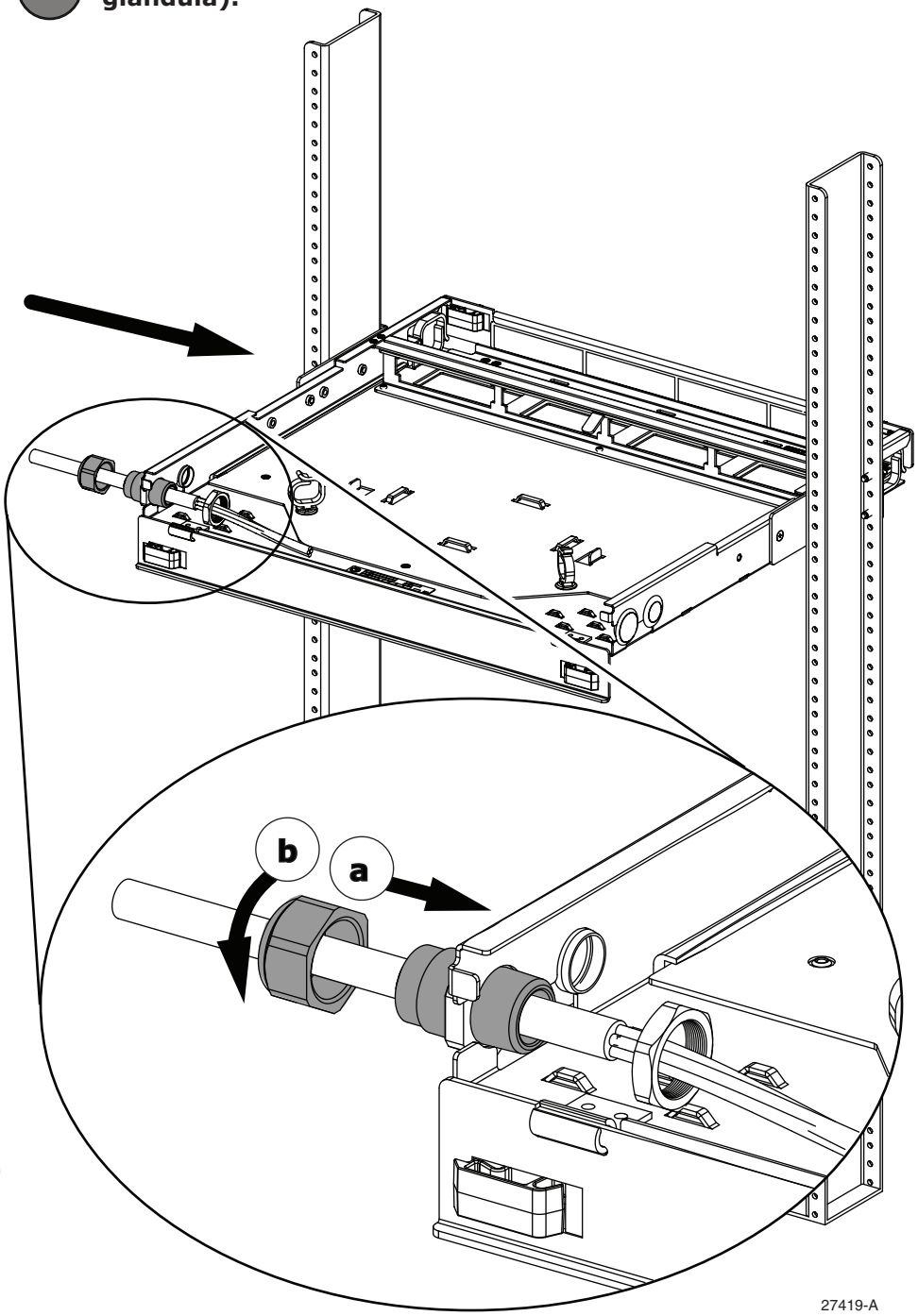
TC-96301-IP-EN/SP · Rev B · April (Abril) 2021

EPX Panel

1 **Installation on rack (Instalación en bastidor de equipo).**



2 **Installation of connector gland (Instalación de conector glándula).**



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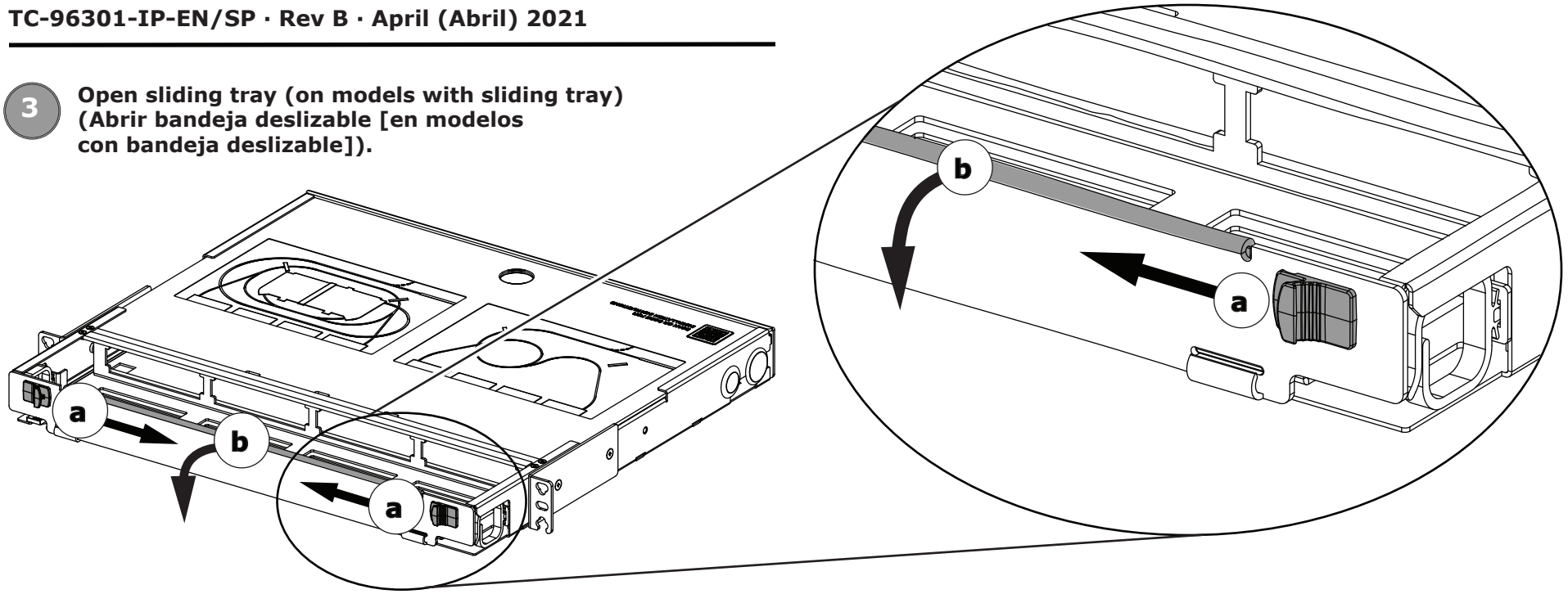
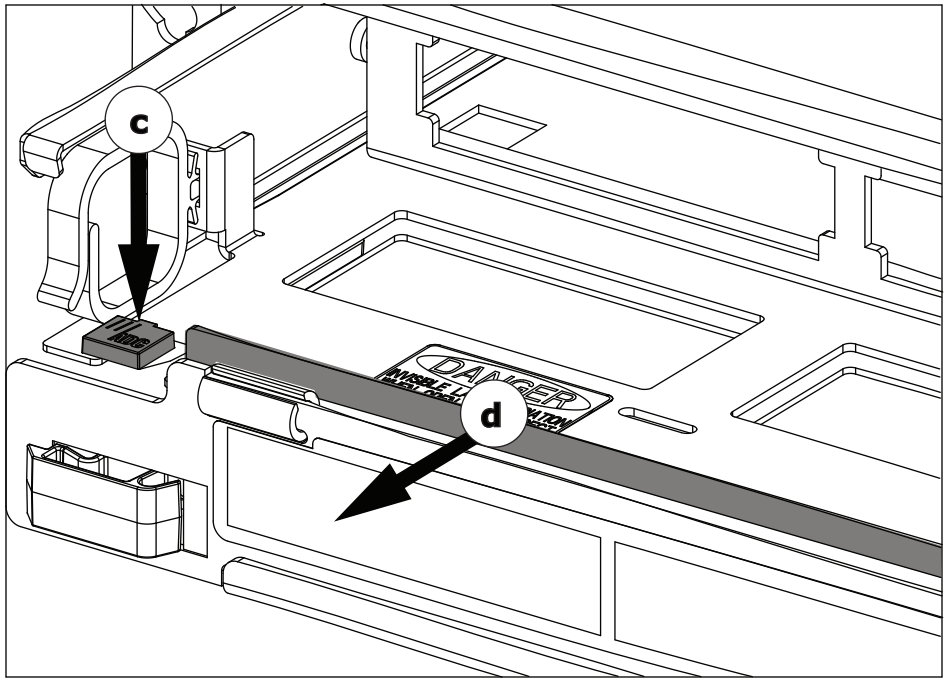
3 **Open sliding tray (on models with sliding tray) (Abrir bandeja deslizable [en modelos con bandeja deslizable]).**





User Manual
(Manual de Usuario):
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QRC-00-035

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User Manual

TC-96302-IP
Rev A, February 2021
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EPX Panel

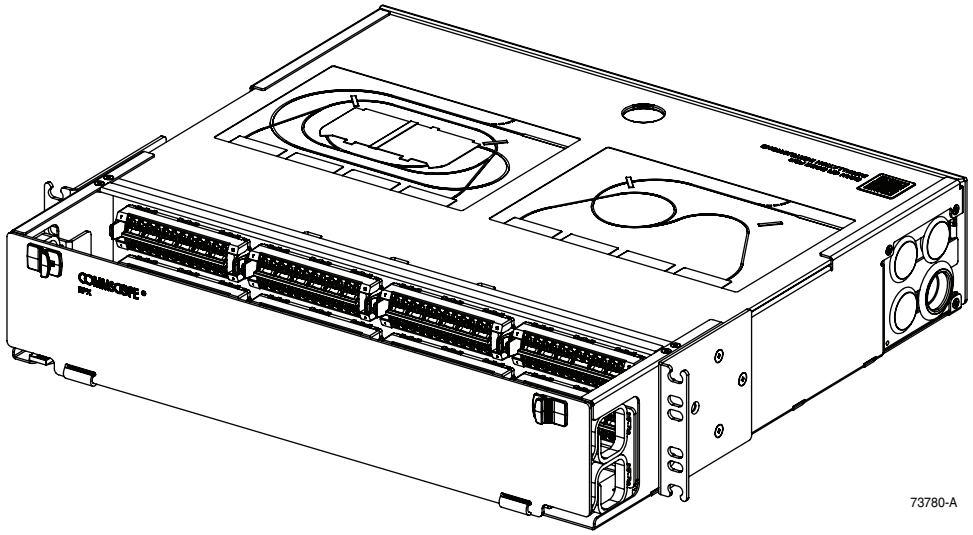

Figure 1. EPX Panel (2U Shown)

Content **Page**

1 INTRODUCTION 2
1.1 EPX G2 Panel Configurations Covered by This User Manual 2
1.2 EPX LGX/1000 Configurations Covered by This User Manual. 3
1.3 Available Accessories 3
1.4 Parts List. 4
1.5 Important Safety Cautions 4
1.6 Precautions. 5
1.7 Related Publications 5
2 PRODUCT DESCRIPTION 6
2.1 General Description. 6
2.2 EPX Panel as Shipped 6
2.3 Main Product Features 7
2.4 Cable Gland Feature 8
2.5 Specifications and Dimensions 9
3 UNPACKING AND INSPECTION 11
4 OVERVIEW OF INSTALLATION 12
5 INSTALLING THE PANEL. 12
5.1 Determining Rack Size and Mounting Hardware 12

Continued

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5.2 Mounting Panel on Rack . . . 13
5.3 Opening the Front Door . . . 14
5.4 Operating the Sliding Tray (If Panel Has Sliding Tray) . . . 15
5.5 Installing Adapter Packs . . . 16
5.6 Installing MPO Modules . . . 17
5.7 Installing Splice Cassettes . . . 19
5.8 Installing AGILE Splice Trays . . . 20
5.9 Field Termination . . . 22
6 CABLE ROUTING . . . 23
6.1 Cable Routing . . . 23
6.2 Cable Gland Capacities . . . 23
6.3 Installing a Cable . . . 25
7 CONTACT INFORMATION . . . 26

1 INTRODUCTION

The CommScope EPX Fiber Panel line is a flexible solution which allows interchangeable MPO modules, adapter packs, and splice cassettes, including in-panel splicing using splice trays. It is available in G2 or LGX/1000 bulkheads in 1U, 2U, and 4U sizes, sliding or fixed. This user manual describes the EPX panel and provides procedures to unpack the panel, mount the panel on a rack, install modules, and route cables. In addition, this manual tells how to operate the panel and how to obtain technical assistance if needed.

1.1 EPX G2 Panel Configurations Covered by This User Manual

Table 1 lists the EPX G2 panel configurations covered in this user manual.

Table 1: EPX G2 Configurations

Material ID (MID)	Catalog Number
760249998	EPX-1U-MOD-ENC
760251042	EPX-1U-MOD-ENC-FX
760251044	EPX-2U-MOD-ENC
760251046	EPX-2U-MOD-ENC-FX
760251048	EPX-4U-MOD-ENC
760251050	EPX-4U-MOD-ENC-FX
760251098	EPX-1U-MOD-OPEN-FX

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1.2 EPX LGX/1000 Configurations Covered by This User Manual

Table 2 lists the EPX LGX/1000 panel configurations covered in this user manual.

Table 2: EPX LGX/1000 Configurations

Material ID (MID)	Catalog Number
760249997	EPX-1U-PNL-ENC
760251043	EPX-1U-PNL-ENC-FX
760251045	EPX-2U-PNL-ENC
760251047	EPX-2U-PNL-ENC-FX
760251049	EEPX-4U-PNL-ENC
760251051	EPX-4U-PNL-ENC-FX
760251099	EPX-1U-PNL-OPEN-FX

1.3 Available Accessories

For a listing of the available EPX accessories, see Table 3.

Table 3: Available EPX Accessories

Material ID (MID)	Catalog Number	Description
760241378	AGL-SPLICE-48	48f stranded splice tray
760243494	AGL-MF-SPLICE-12	12f ribbon splice tray
760039875	G2-SRF	Liquid-tight cable fitting kit for small-diameter cables
760039883	G2-23BRKT	Frame mounting bracket kit for 23” frames and ETSI frames
760058677	RMB-6-1/2	InstaPATCH Plus attachment bracket, rack mounted, six 1/2-inch fittings
760058685	RMB-6-3/8	InstaPATCH Plus attachment bracket, rack mounted, six 3/8-inch fittings
760058701	RMB-5-3/4	3/4” Rack MTG bracket – 5X
760122895	BAF-1/2-NPT	Bracket for Armor Fitting, 1/2 NPT
760122903	BAF-3/4-NPT	Bracket for Armor Fitting, 3/4 NPT
760122911	BAF-1-NPT	Bracket for Armor Fitting, 1 NPT
760122929	BAF-1-1/4-NPT	Bracket for Armor Fitting, 1-1/4 NPT
760122937	BAF-1-1/2-NPT	Bracket for Armor Fitting, 1-1/2 NPT

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1.4 Parts List

Verify parts against Table 4 below.

Table 4: Parts List

Quantity	Description
1	Shelf assembly (fixed or sliding)
4	#12-24 x 1/2-inch screws for 19-inch (483mm) rack mounting
4	M6 x 12 mm screws for ETSI rack mounting
2	Liquid-tight strain relief fittings (black)
4	Cable ties
1	Hook and loop kit
4	Snap-Fit Gland Washers (1U ENC only). See Section 6.2 on page 23

1.5 Important Safety Cautions

When installing or operating the panel, observe the safety cautions:

- To reduce the risk of fire, electric shock, and injury to persons, read, understand, and adhere to the following instructions as well as any warnings marked on the product.
- This product has a remote risk of electric shock. Never install the product in wet conditions or during lightning storms. Never touch uninsulated communication wires or terminals.
- Disconnected optical components may emit invisible optical radiation that can damage your eyes. Never look directly into an optical component that may have a laser coupled to it. Serious and permanent retinal damage is possible. If accidental exposure to laser radiation is suspected, consult a physician for an eye examination.
- Wearing safety glasses during installation of this panel is recommended. Although standard safety glasses provide no protection from potential optical radiation, they offer protection from accidental airborne hardware and cleaning solvents

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1.6 Precautions

When installing or operating the panel, observe the following precautions:

- Fiber optic trunk cable and jumper performance is sensitive to bending, pulling, and crushing. Minimum bend radius must be maintained during installation per the manufacturer's specification. Appropriate pulling grips must be used during installation, and pulling forces shall not exceed manufacturer's recommendations.
- All wiring that connects to this equipment must meet applicable local and national building codes and network wiring standards for communication cable.
- **IMPORTANT**: Dust covers are installed in the ports to protect the fibers connected to the back of the ports. Do not remove a dust cover from a port until you connect a patch cord to that port. If you remove a patch cord later, replace the dust cover in the port.
- **Prior** to installation, clean the trunk cable and jumper connectors per the manufacturer's recommendations.
- Isopropyl alcohol is flammable, and can cause eye irritation on contact. If eye contact occurs, flush with water for at least 15 minutes. In case of ingestion, consult a physician. Use only in well ventilated areas.
- Care should be taken not to compromise the stability of the rack by installation of this equipment.

1.7 Related Publications

The following publication is available by contacting the CommScope Support Center at https://www.commscope.com/SupportCenter

Title	Number
EPX Panel Quick Start	**TC-96301-IP**

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2 PRODUCT DESCRIPTION

2.1 General Description

The EPX Panel is a 19-inch rack- or cabinet-mount fiber optic patch panel intended for indoor use. Frame adapter kits are available which enable the EPX panel to be mounted in a 23-inch or ETSI equipment rack or cabinet. The panel is available in one, two, or four rack unit size (abbreviated as 1U, 2U, or 4U), on either fixed or sliding trays, per customer order. Recess mounting options for the EPX panel are 3-inch recess and 5-inch recess.

Transitions from patch cords to cable are accomplished through the customer choice of connection modules including adapter packs, MPO modules, or splice cassettes. In-panel splicing is possible using Agile splice trays. The EPX bulkhead may be either LGX/1000 style with three modules per rack unit, or G2 Style with four modules per rack unit.

2.2 EPX Panel as Shipped

Figure 2 shows product features of interest to the user in the EPX panel as shipped. All panels are shipped with no modules or splice trays installed. Module installation and splicing are accomplished on-site following the instructions provided in this user manual.

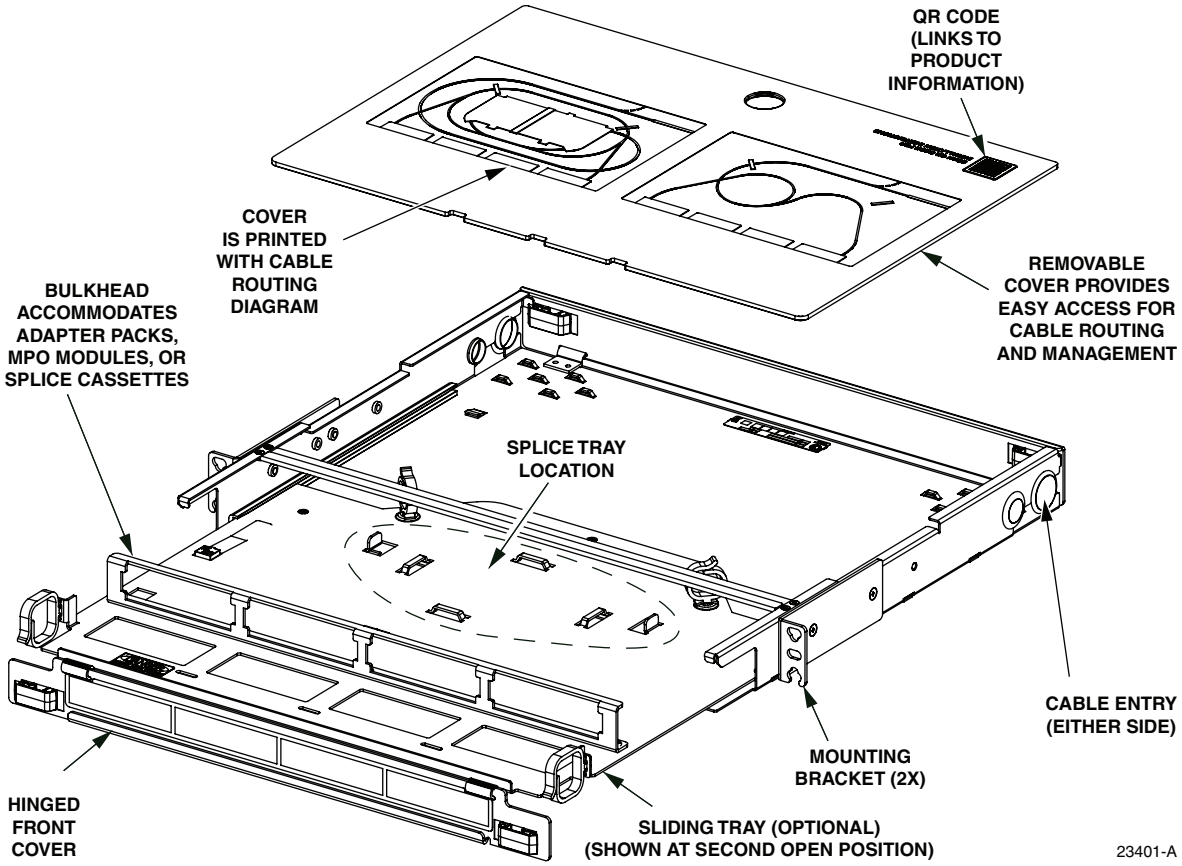

Figure 2. EPX 1U Panel as Shipped

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2.3 Main Product Features

Figure 3 shows a loaded panel. The main features include the following (clockwise from top right call-out).

- **Plastic Cover**—can be removed providing top access to the panel.
- **Cable Routing Diagram**—is printed on cover for guidance in installing cables.
- **Cable Entry Ports**—are available for securing rear entry cables. The panel is designed for use of cable glands that mount within the cable entry holes. Refer to Section 2.4 on Page 8.
- **Mounting Bracket (one on each side)**—provide mounting of the panel in a frame or cabinet. The panel is shipped with 19-inch mounting brackets. Kits are available permitting mounting in a 23-inch or ETSI rack or cabinet.
- **Cover Latch**—when slid toward center, releases cover so it can swing into open position.
- **Hinged Removable Front Cover**—drops down 90 degrees to provide open access to the panel interior. For operation refer to Section 7 on Page 26.
- **Sliding Tray (Optional)**—slides out to provide additional access for connector module and splice tray installation. For operation refer to Section 5.4 on Page 15.
- **Bulkhead**—supports connection modules per customer order. Options include adapter packs, MPO modules, and splice cassettes. The EPX bulkhead may be either LGX/1000 style with three modules per rack unit, or G2 Style with four modules per rack unit.
- **Adapter Packs (or MPO Module or Splice Cassette)**—interface between patch cords and facility cables.

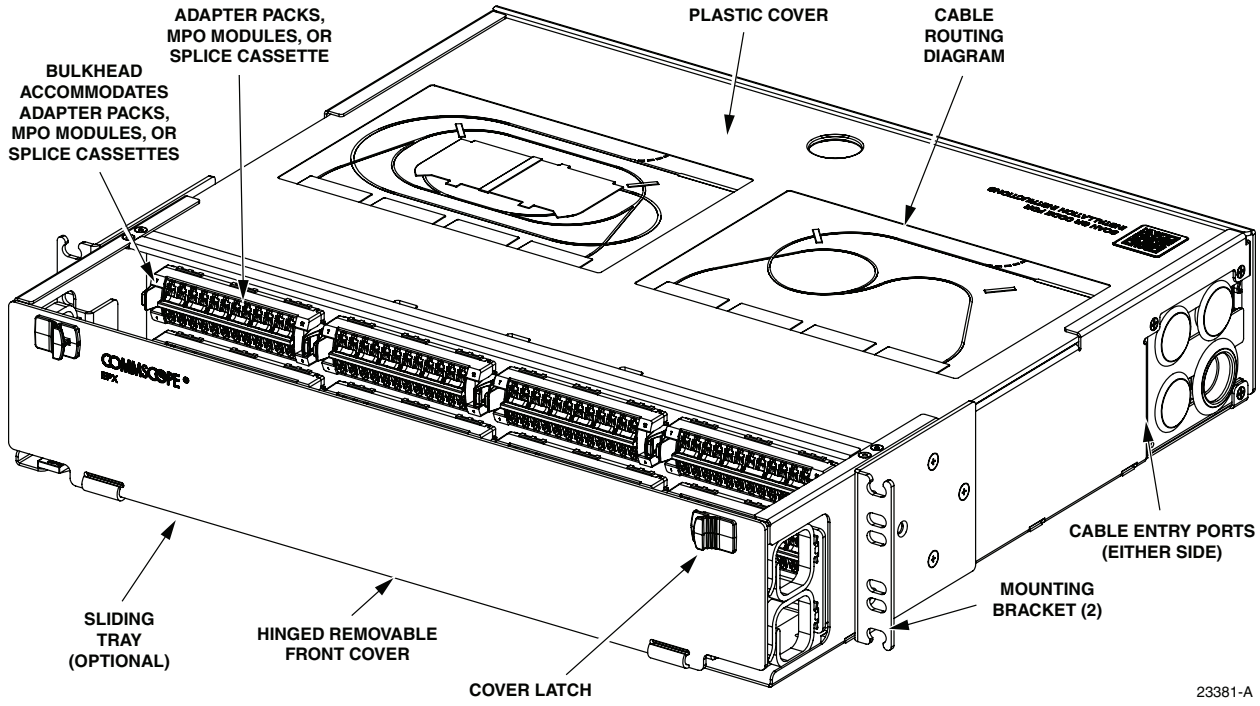

Figure 3. EPX panel (2U Shown)

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2.4 Cable Gland Feature

The EPX panel is designed for connection of fiber cables using cable glands inserted into cable entry slots provided (see Figure 4). For more information, refer to Section 6.2 on page 23

Note: Another method for securing fiber cables is the use of optional rack mounted brackets, which is not covered here. Cables can also be secured with tie wraps and the lances provided in the back of the panel.

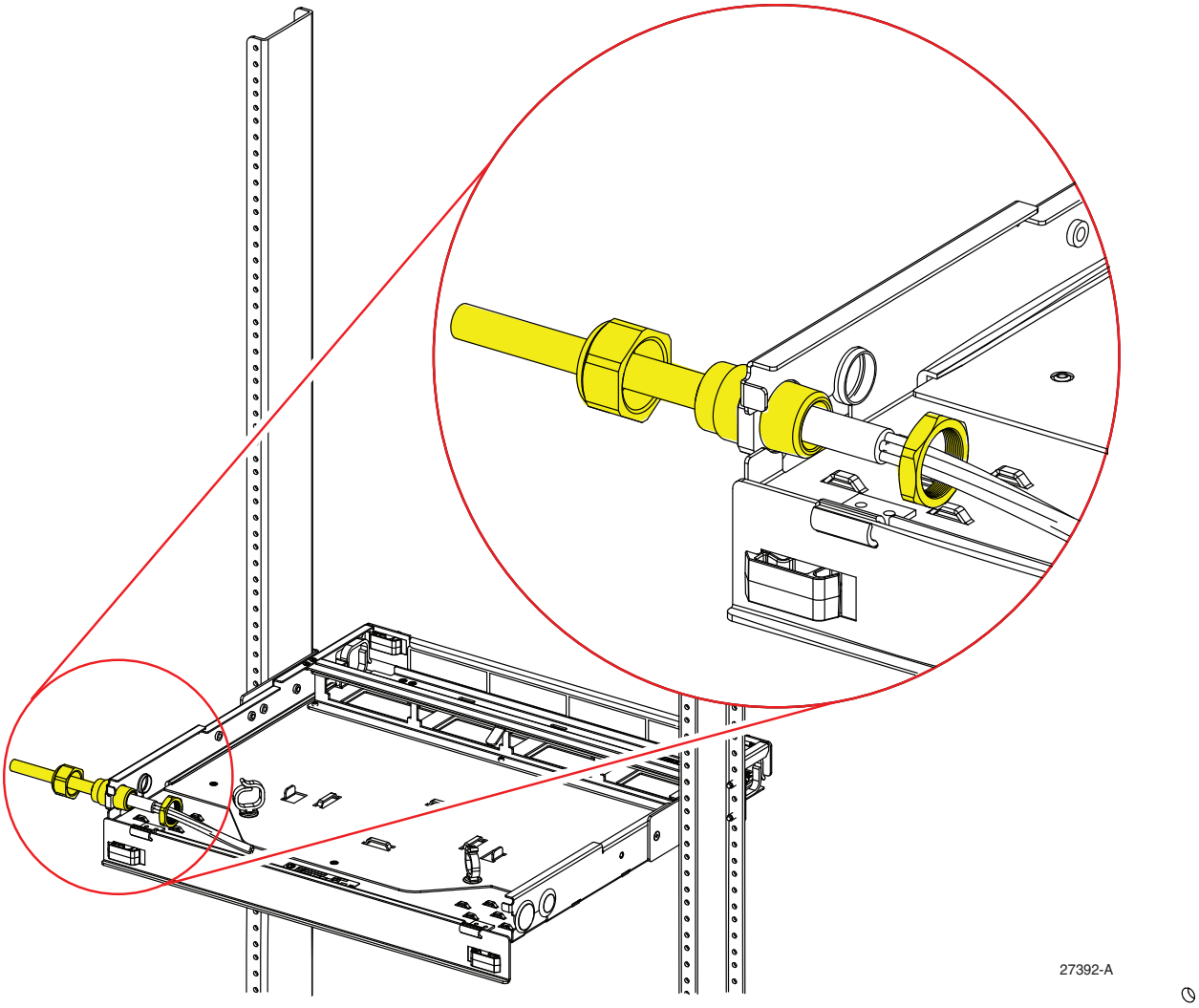

Figure 4. Direct Connection of Fiber Cables Using Fiber Glands

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SMALLER DIAMETER CABLES

For smaller diameter cables, the G2-SRF kit (ordered separately) (shown in Figure 5) provides two liquid-tight fittings with a smaller inside diameter. Smaller diameter fittings would be more appropriate for these cables.

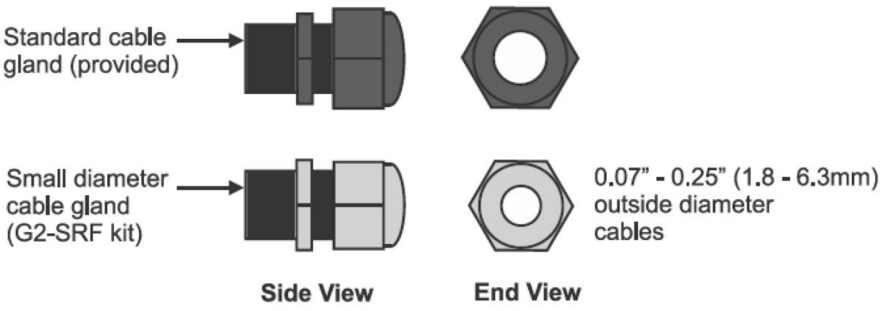

Figure 5. Fittings for Smaller Diameter Cable

2.5 Specifications and Dimensions

Figure 6 shows dimensions for an EPX open fixed panel. Figure 7 shows dimensions for an EPX enclosed panel. Table 5 lists specifications for the EPX panel except for weight. Table 6 lists weights for all configurations of the EPX panel.

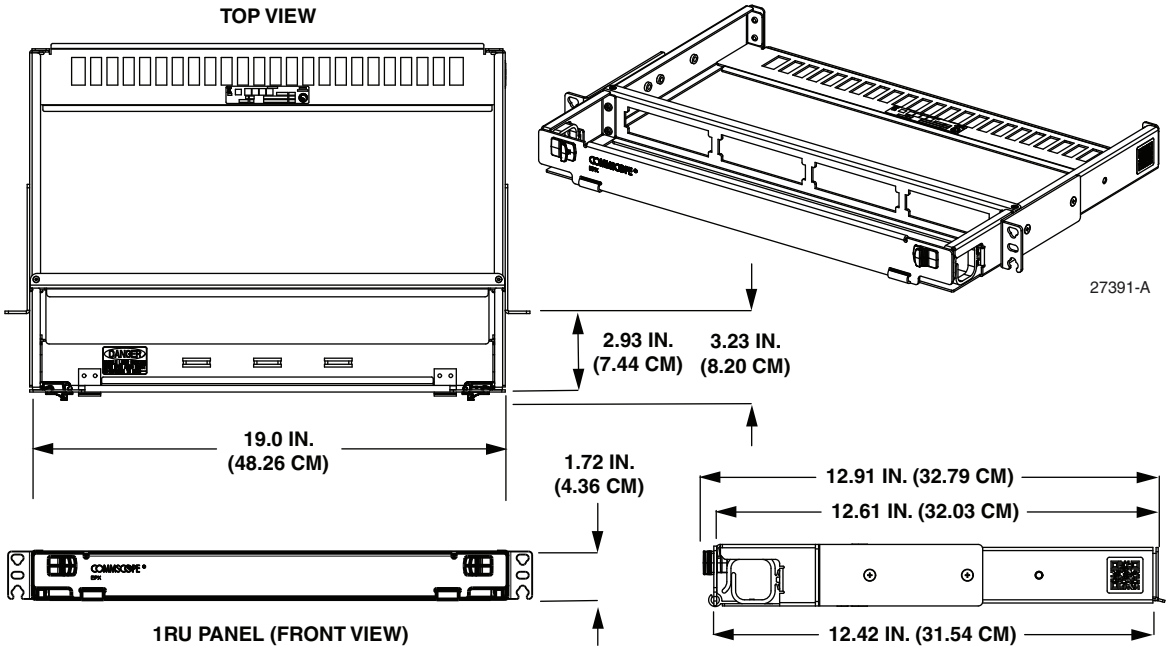

Figure 6. Dimensions of EPX Open Fixed Panel

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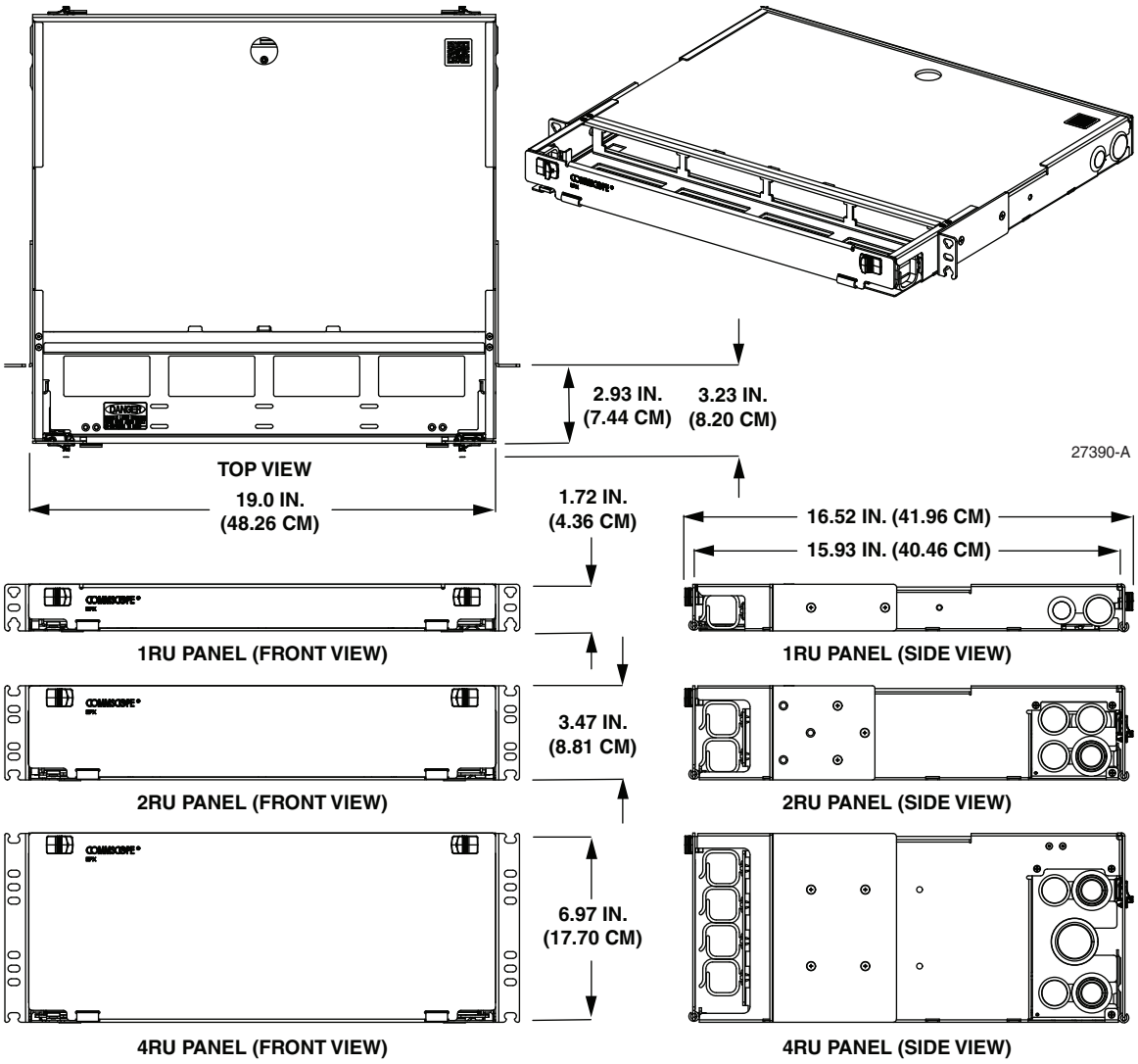

Figure 7. Dimensions of EPX Enclosed Panel

Table 5: EPX Panel Specifications (Except Weight)

Parameter	EPX 1U	EPX 2U	EPX 4U
Height	1.72 in (4.36 cm)	3.47 in. (8.81 cm)	6.97 in (17.70 cm)
Width	19.0 in. (48.26 cm)	19.0 in. (48.26 cm)	19.0 in. (48.26 cm)
Depth	16.52 in. (41.96 cm)	16.52 in. (41.96 cm)	16.52 in. (41.96 cm)
Side ports	4	8	10

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Table 6: EPX Panel Weight

MID (Part Number)	Catalog Number (ecatalog)	Net Weight (lb.)	Gross Weight (lb.)
760251098	EPX-1U-MOD-OPEN-FX	2.33	4.91
760251099	EPX-1U-PNL-OPEN-FX	2.60	5.18
760249997	EPX-1U-PNL-ENC	7.91	10.58
760249998	EPX-1U-MOD-ENC	7.78	10.45
760251042	EPX-1U-MOD-ENC-FX	6.60	9.27
760251043	EPX-1U-PNL-ENC-FX	6.70	9.37
760251044	EPX-2U-MOD-ENC	9.88	12.84
760251045	EPX-2U-PNL-ENC	10.15	13.11
760251046	EPX-2U-MOD-ENC-FX	7.98	10.94
760251047	EPX-2U-PNL-ENC-FX	8.34	11.30
760251048	EPX-4U-MOD-ENC	16.40	20.60
760251049	EPX-4U-PNL-ENC	16.90	21.10
760251050	EPX-4U-MOD-ENC-FX	14.30	18.52
760251051	EPX-4U-PNL-ENC-FX	14.88	19.10

3 UNPACKING AND INSPECTION

Use the following procedure to unpack and inspect the product.

1. Inspect the exterior of the shipping container(s) for evidence of rough handling that may have damaged the components in the container.
2. Unpack each container while carefully checking the contents for damage.
3. If damage is found or parts are missing, contact the CommScope Support Center using the URL: http://www.commscope.com/SupportCenter
4. Save any damaged cartons for inspection by the carrier.

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4 OVERVIEW OF INSTALLATION

Installing the panel and accessories involves the following activities:

- Determining rack size and mounting hardware (covered in Section 5.1 on Page 12)
- Mounting the panel in an equipment rack or cabinet (covered in Section 5.2 on Page 13)
- Opening the front door of the panel (covered in Section 5.3 on Page 14)
- Operating the sliding tray if panel has sliding tray (covered in Section 5.4 on Page 15)
- Installing adapter packs if used (covered in Section 5.5 on Page 16)
- Installing MPO modules if used (covered in Section 5.6 on Page 17)
- Installing splice cassettes if used (covered in Section 5.7 on Page 19)
- Installing Agile splice trays if used (covered in Section 5.8 on Page 20)
- Installing field-terminated cables if used (covered in Section 5.9 on Page 22)

5 INSTALLING THE PANEL

5.1 Determining Rack Size and Mounting Hardware

The panel is shipped with mounting brackets suitable for mounting on a 19-inch equipment rack or cabinet. Accessory kits are available for 23-inch or ETSI mounting.

Refer to the following guidelines.

- **For 23-inch (584mm) rack** – Use the G2-23BRKT accessory kit (available separately) and install two conversion brackets to pre-installed mounting brackets, using the four #10-32 x 3/8-inch conversion screws included in accessory kit. Use one conversion bracket and two screws per side. Mount panel to rack using four #12-24 x 1/2-inch screws (provided as part of basic panel).

- **For ETSI rack** – Use the G2-23BRKT accessory kit (available separately) and install one conversion bracket to either of the pre-installed mounting brackets, using two of four #10-32 x 3/8-inch conversion screws included in accessory kit. Shelf will not be centered when mounted in rack. Mount panel to rack using four M6 x 12mm screws (provided as part of basic panel).

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5.2 Mounting Panel on Rack

The panel is shipped with mounting brackets suitable for mounting on a 19-inch equipment rack or cabinet. If mounting on a 23-inch or ETSI equipment rack or cabinet, see Section 5.1 on Page 12. Install two screws on each side of the panel.

Use the following procedure, referring to Figure 8.

1. Install the bottom two screws at the desired panel location.
2. Set the panel into position on the screws just installed.
3. Secure the panel to the rack by installing the remaining two mounting screws.

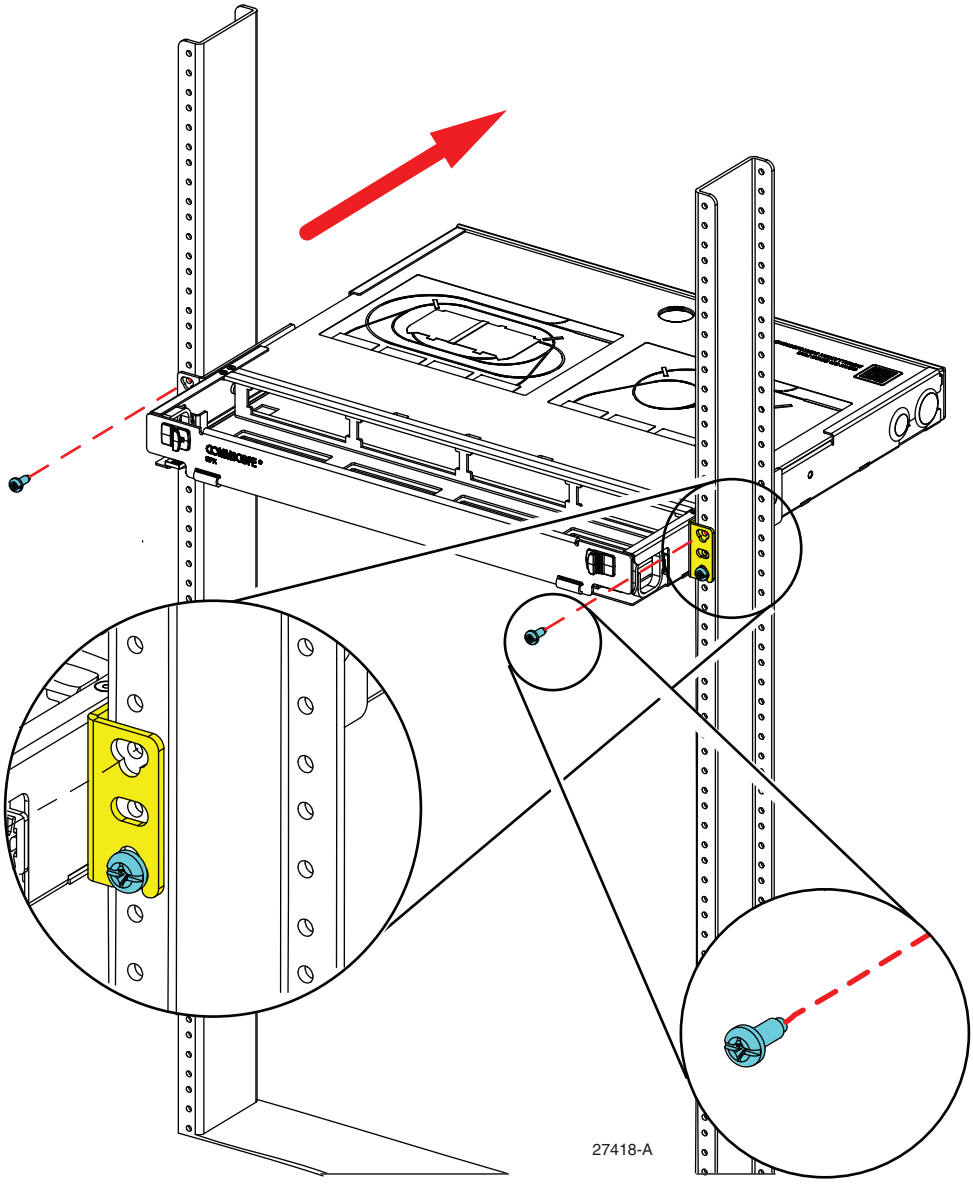

Figure 8. Mounting the EPX Panel (1U Panel Shown)

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5.3 Opening the Front Door

To open the front door: (a) move the door latch inward and (B) open the door allowing it to hang down until flat with the frame. Refer to Figure 9.

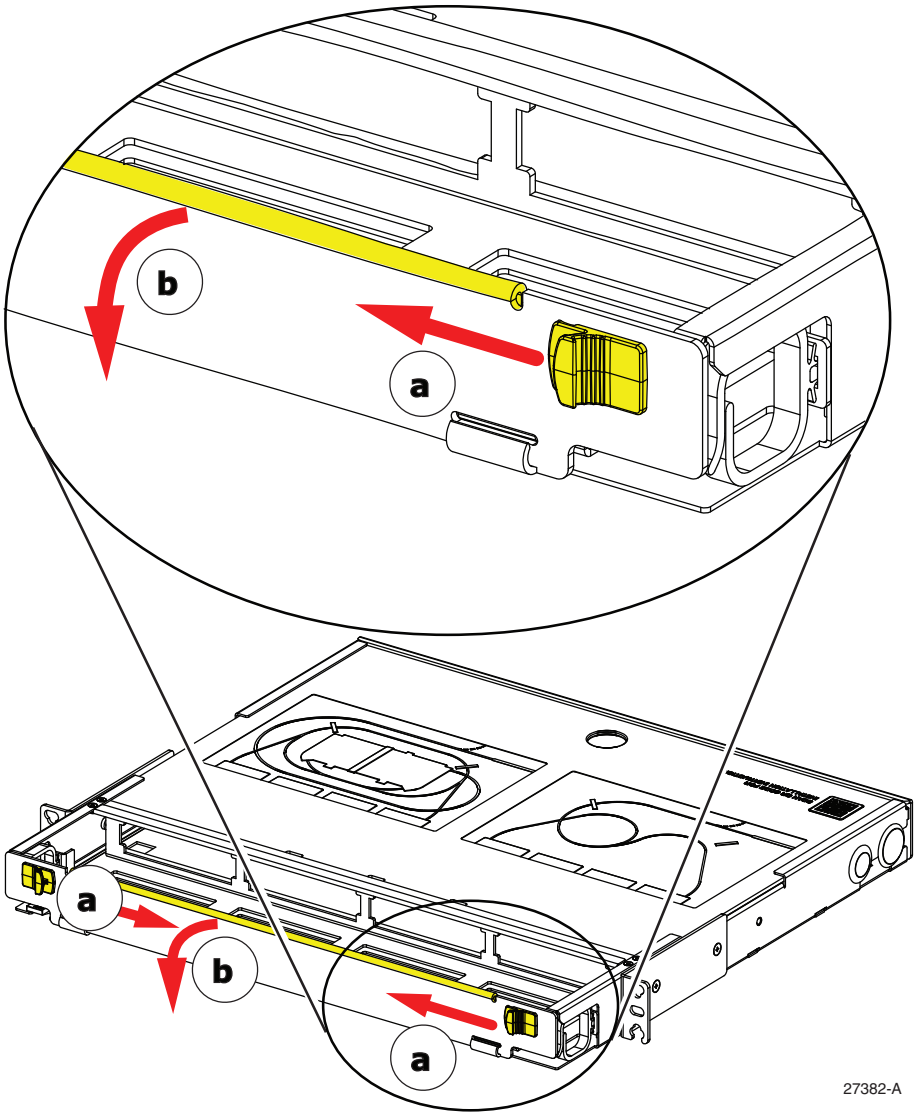

Figure 9. Opening the Front Door

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5.4 Operating the Sliding Tray (If Panel Has Sliding Tray)

Some panels are equipped with a sliding tray (optional). Panels with a sliding tray have a tray release button and tray retainer clip designed to ensure that the drawer is opened carefully and remains open until work in the drawer is competed. This item looks the same and operate the same on the 1U, 2U, and 4U panels.

To release a closed drawer, press the release button down, as shown in Figure 10 (c), and slide the drawer out to the first detent (d).

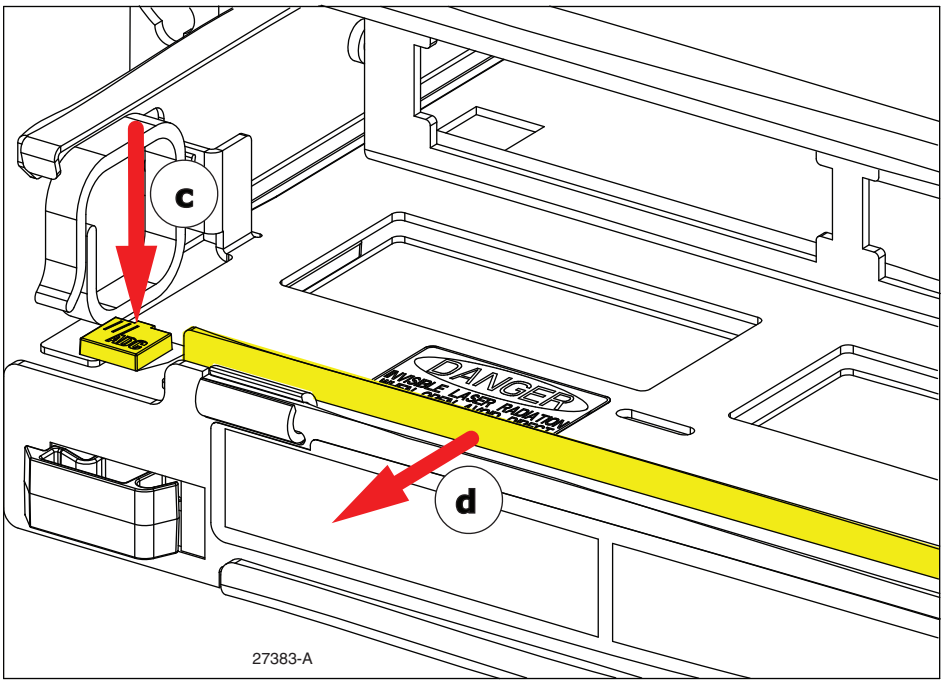

Figure 10. Releasing Closed Drawer to Open It

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5.5 Installing Adapter Packs

Align the adapter pack with the selected location in the bulkhead. Push in and secure with push in pin if present (LGX/1000 only). Refer to Figure 11 and Figure 12.

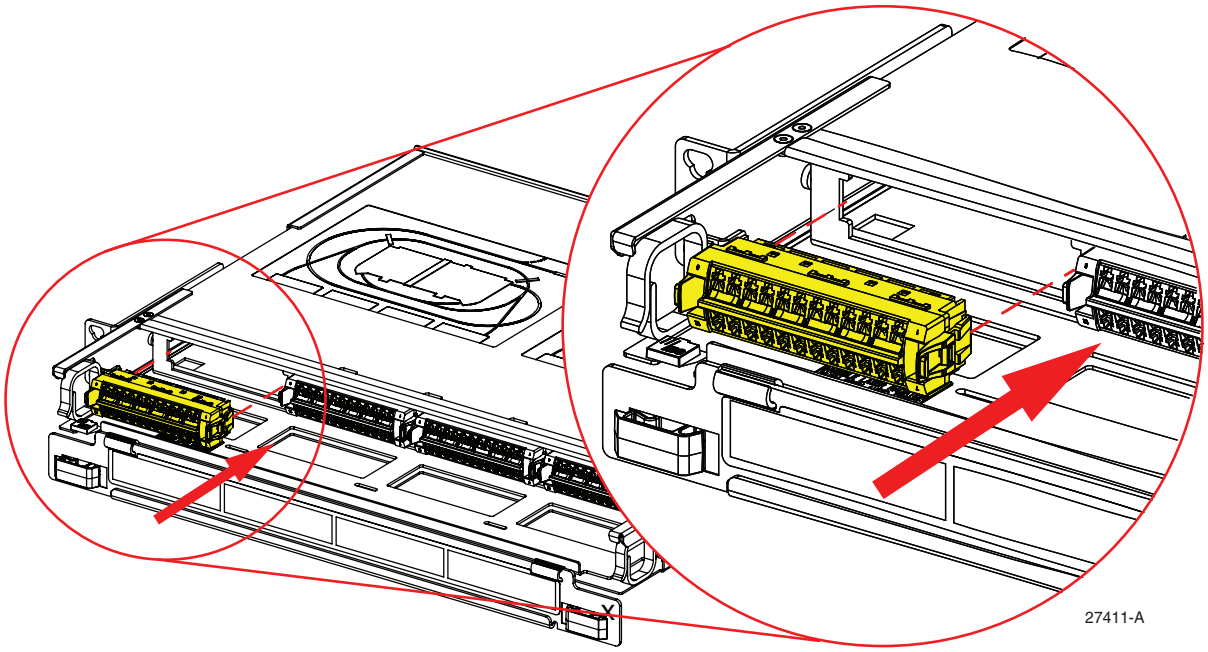

Figure 11. Installing Adapter Packs (G2)

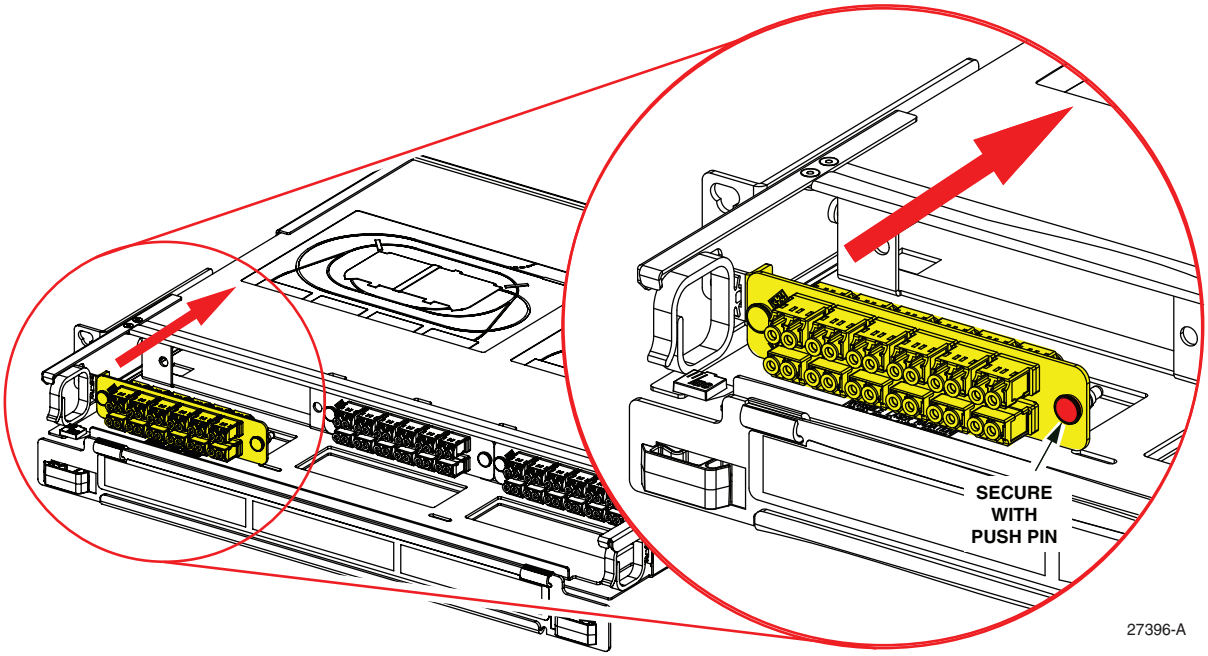

Figure 12. Installing Adapter Packs (LGX/1000)

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5.6 Installing MPO Modules

1. Align the MPO module with the selected location in the bulkhead. Push in and secure with push in pin if present (LGX/1000 only). Refer to Figure 13 and Figure 14.

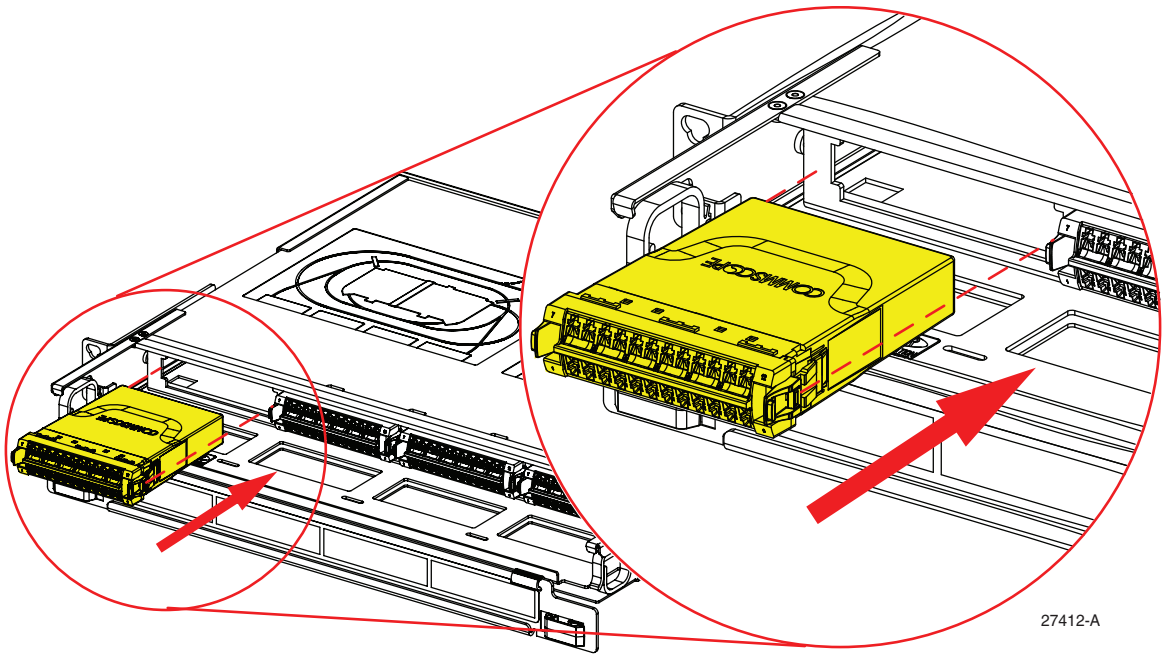

Figure 13. Installing MPO Modules (G2)

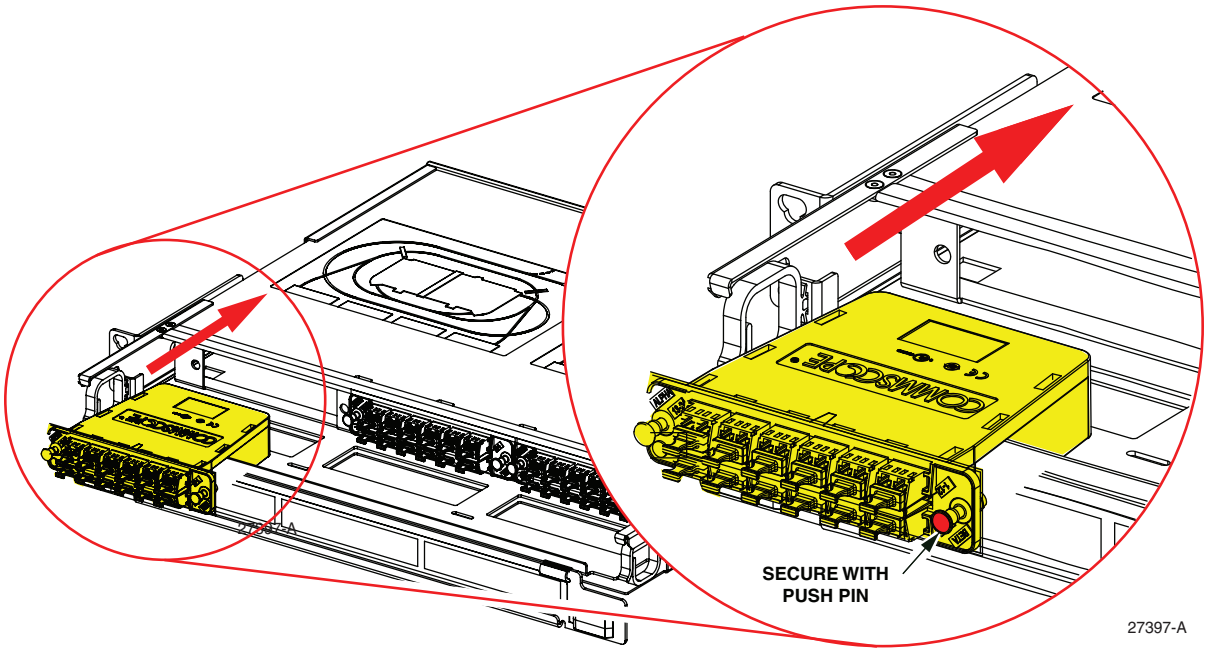

Figure 14. Installing MPO Modules (LSX/1000)

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2. Secure the cable and cable gland to the panel as shown in Figure 15. Route the cable as shown in Figure 16.

Note: For details and other options, refer to Section 6.3 on page 25.

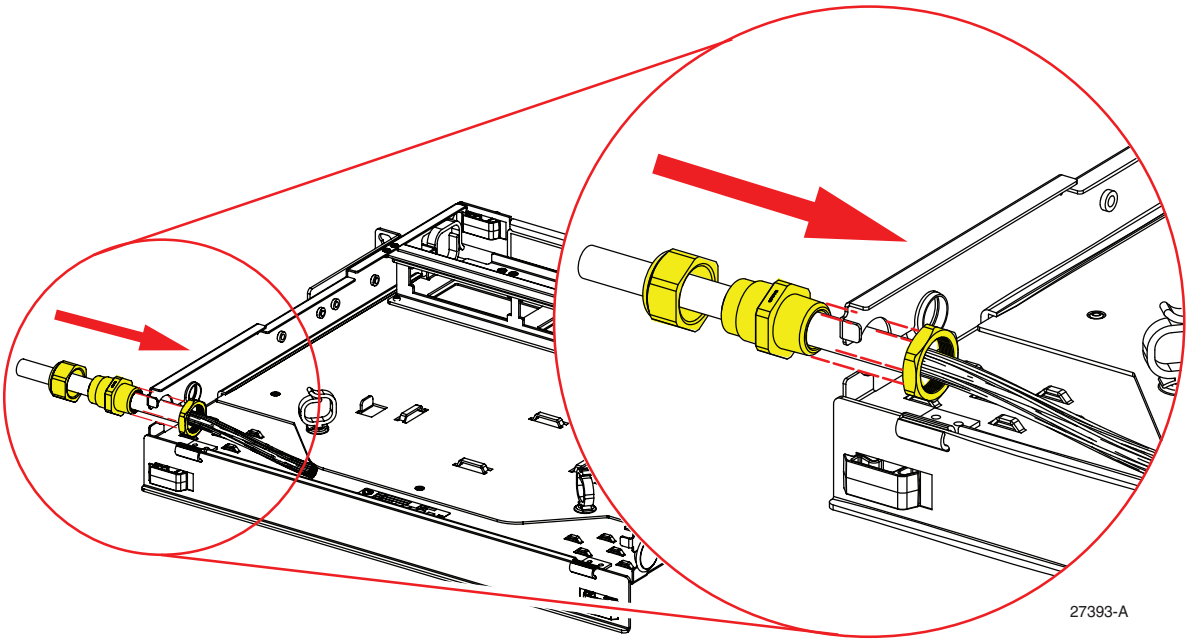

Figure 15. Installing Cable Gland (Standard 1/2-inch Cable Gland, Provided)

3. Loop the MPO cable around through the cable retainers as shown in Figure 16.

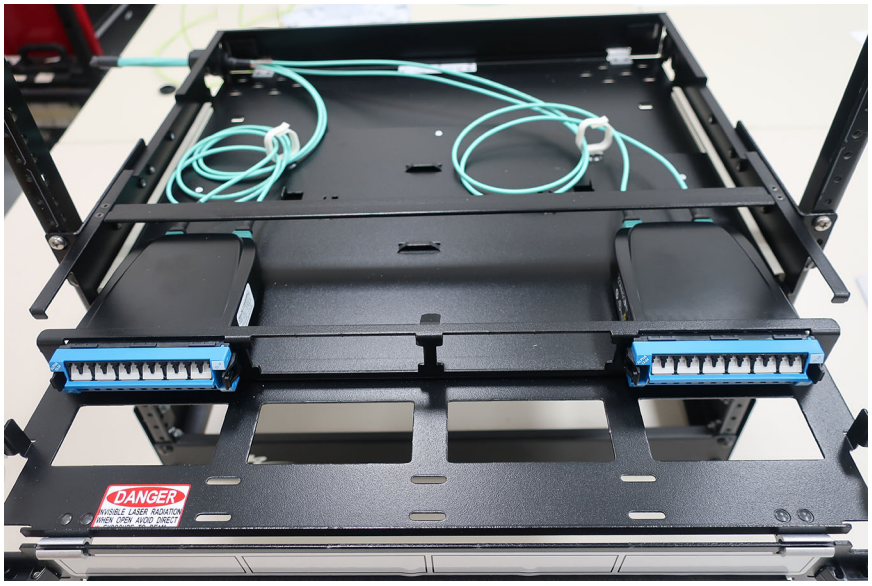

Figure 16. Cable Routing to MPO Modules

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5.7 Installing Splice Cassettes

1. Insert the splice cassette into the opening provided in the bulkhead, oriented so that the rear side passes through the opening first. Secure using push pins identified in Figure 17.

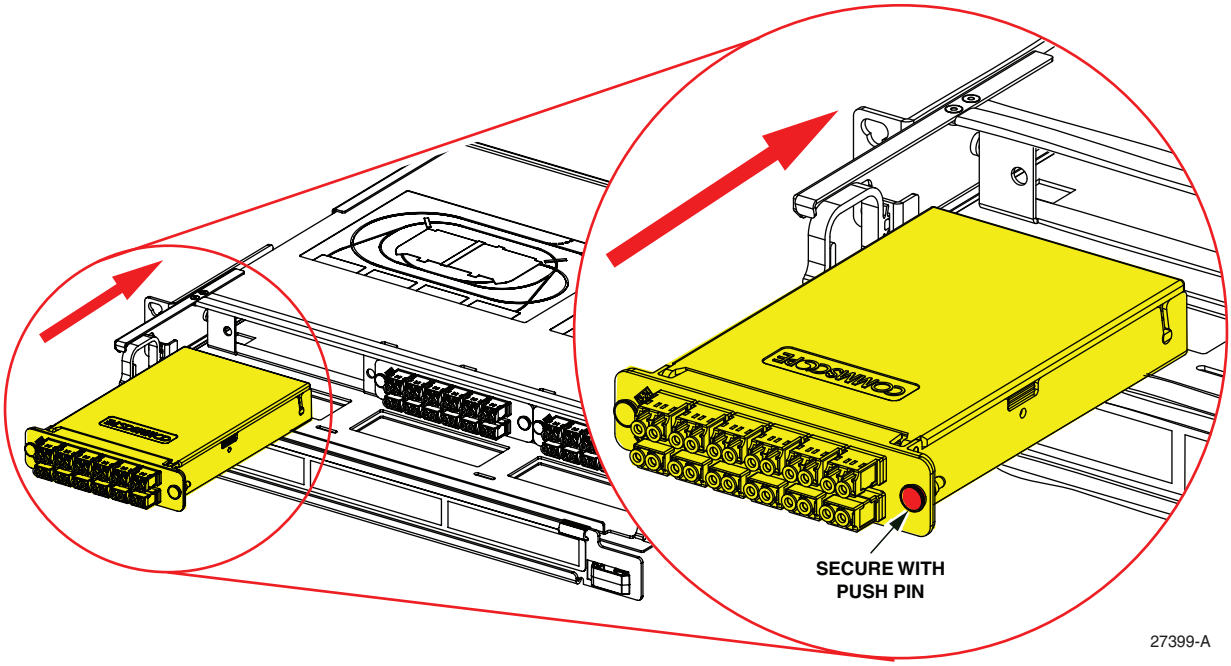

Figure 17. Installing Splice Cassette (LSX/1000 shown)

2. Route cables from rear of panel to splice cassettes as shown in Figure 18 below.

Figure 18. Cable Routing to Splice Modules (G2 shown)

3. Splice fibers from cable to splice cassette per instructions included with the splice cassettes.

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5.8 Installing AGILE Splice Trays

The splice tray provides a splice interface between a facility cable and pigtails terminated at adapter packs on the EPX bulkhead. Refer to the instructions enclosed with that kit for all details not covered here. Up to two splice trays may be installed per U height.

1. Install the splice tray as shown in Figure 19.

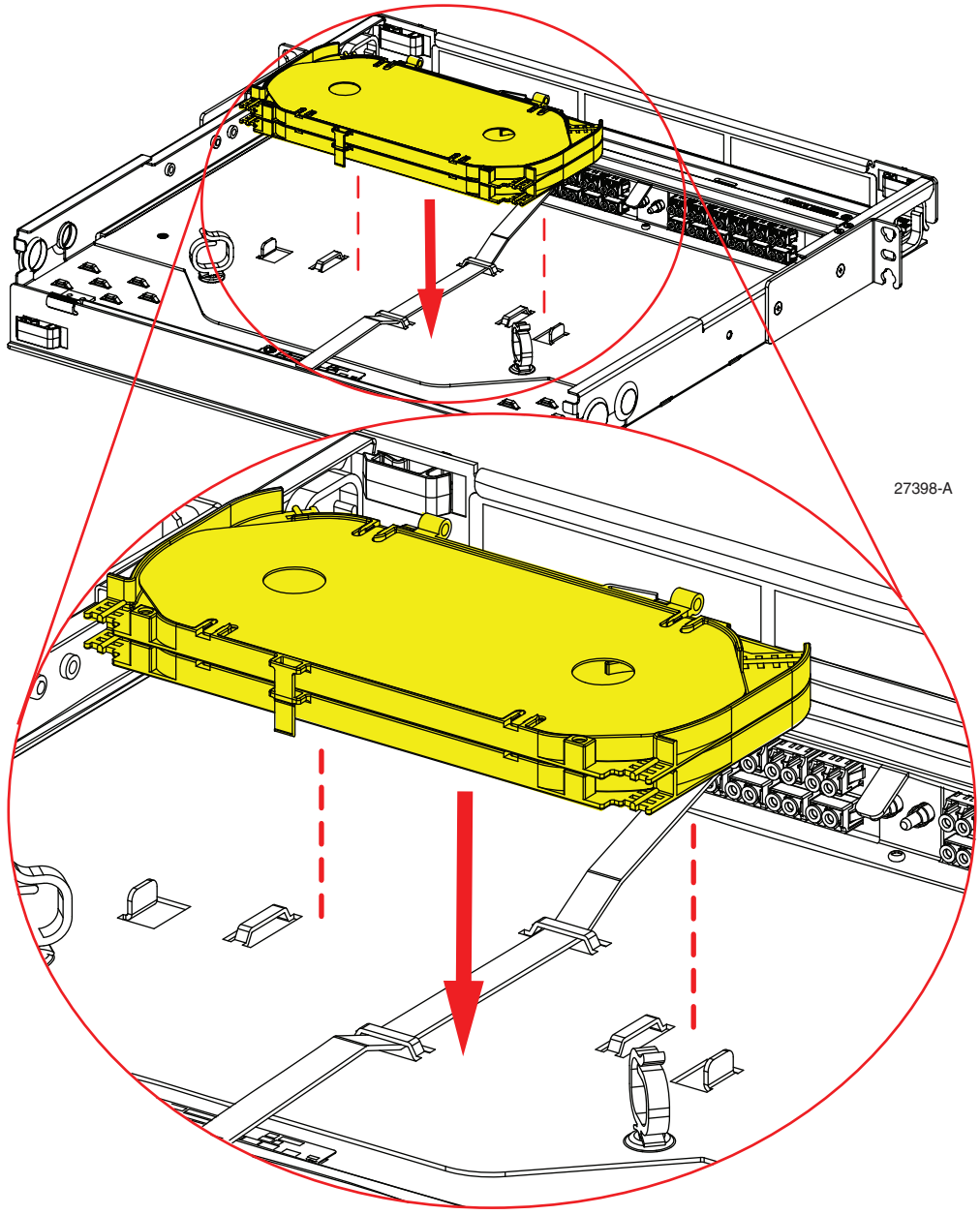

Figure 19. Installing Splice Trays

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2. Route pigtails to the panel and terminate the pigtail connectors at the assigned adapter pack, as shown in Figure 20. Cable slack shall be spooled inside the perimeter of chassis and restrained with cable ties at tie-down points provided, as necessary.
3. Route the facility cable to the panel and secure it in a cable entry port using a gland connector as shown in Figure 20.

Note: For more information on cable glands, refer to Section 6 on page 23.

4. Route the pigtails and facility cable within the EPX panel in the opposite direction and into the opposite side of the Agile splice tray as shown in Figure 20.

Note: On 2U and 4U shelves splice trays may be installed stacked on top of each other. Ensure that suitable slack is provided to allow tray on sliding versions to fully extend

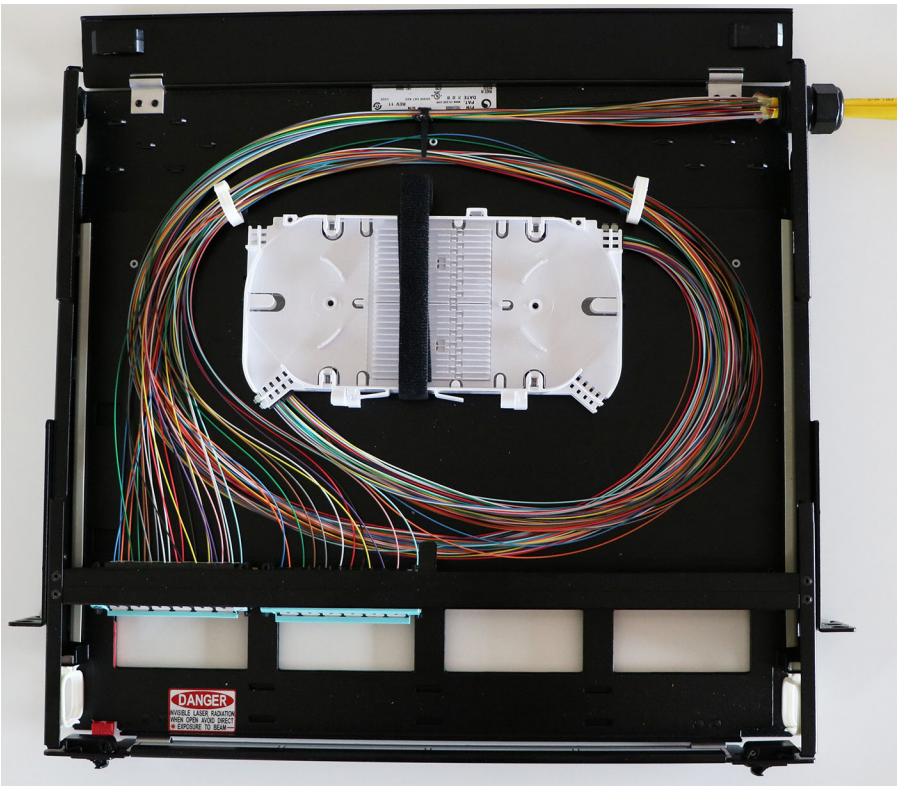

Figure 20. Cable Routing to AGILE Splice Tray (G2 shown)

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5.9 Field Termination

Use the following procedure referring to Figure 21 for an example of correct cable routing in the EPX panel.

1. Insert adapter pack into opening provided in bulkhead, oriented so that adapters pass through opening first. Refer to Section 5.5 on Page 16.

Note: On a 2U panel, start on bottom row first.

2. After connectorization, route buffered fibers from cable toward front of tray.
3. Terminate connector end of pigtails into module adapter openings in standard sequence.
4. Spool excess fiber slack length.
5. Repeat items 1-4 for all remaining locations.

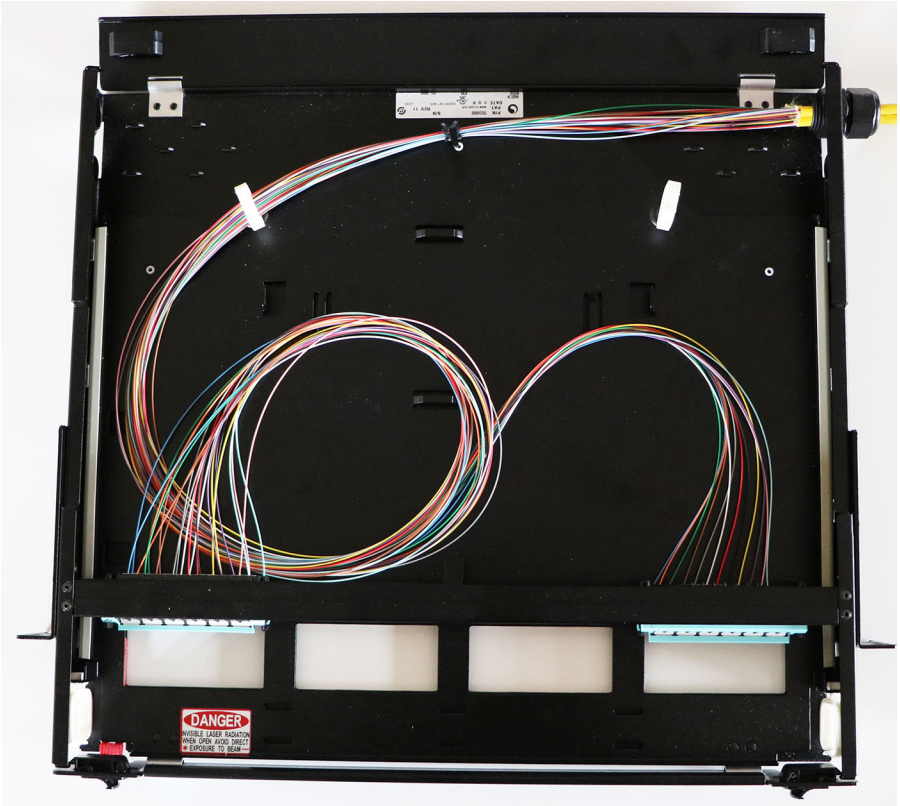

Figure 21. Cable Routing in EPX Panel

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6 CABLE ROUTING

6.1 Cable Routing

When routing cables, follow the routing path indicated on the top cover of the panel.

6.2 Cable Gland Capacities

Table 7 lists cable gland capacities for EPX 1U, 2U, and 4U panels for different diameter cables.

Table 7: EPX Panel Gland Capacities

# Gland Openings	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT
1U	2	2	0	0
2U	0	12	2	0
4U	0	16	4	2

Cable glands of the appropriate size are included with the different sized cable assemblies when shipped. All of these standard cable glands have the same basic components and are installed in the same way, as shown in Figure 22.

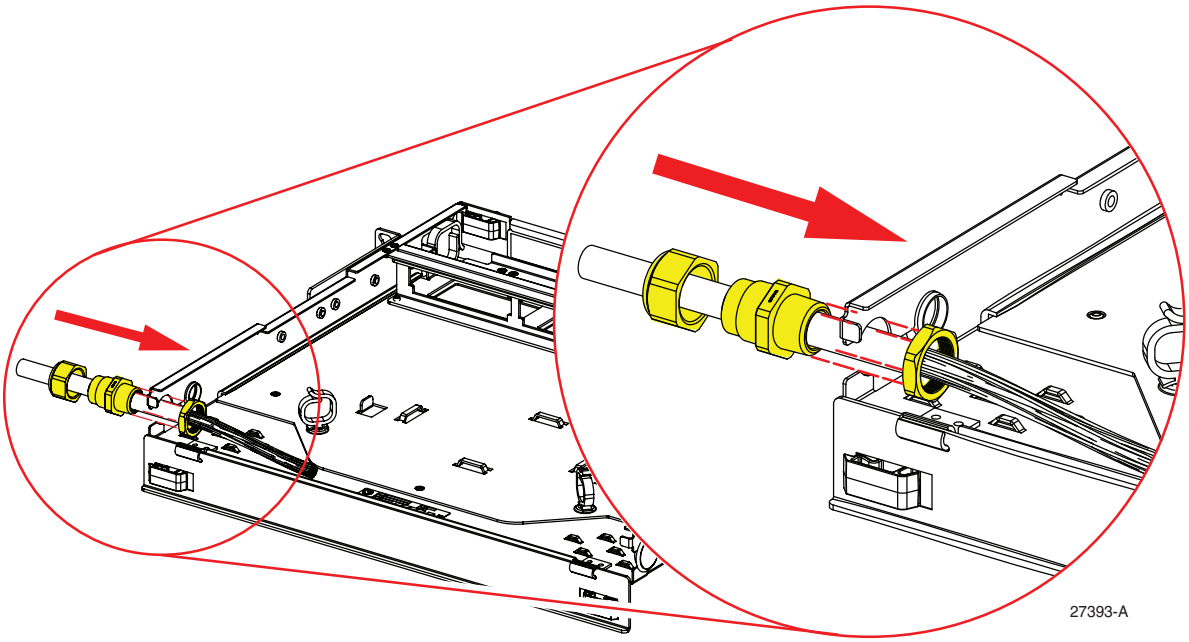

Figure 22. Installing Standard Cable Gland (1/2-inch Gland in EPX 1U Panel Shown)

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The EPX-1U panel has two 3/8-inch gland openings and two 1/2-inch gland openings. For smaller cable sizes, the 1U panels include snap-fit washers to reduce the 1/2-inch opening to 3/8-inch, as shown in Figure 23.

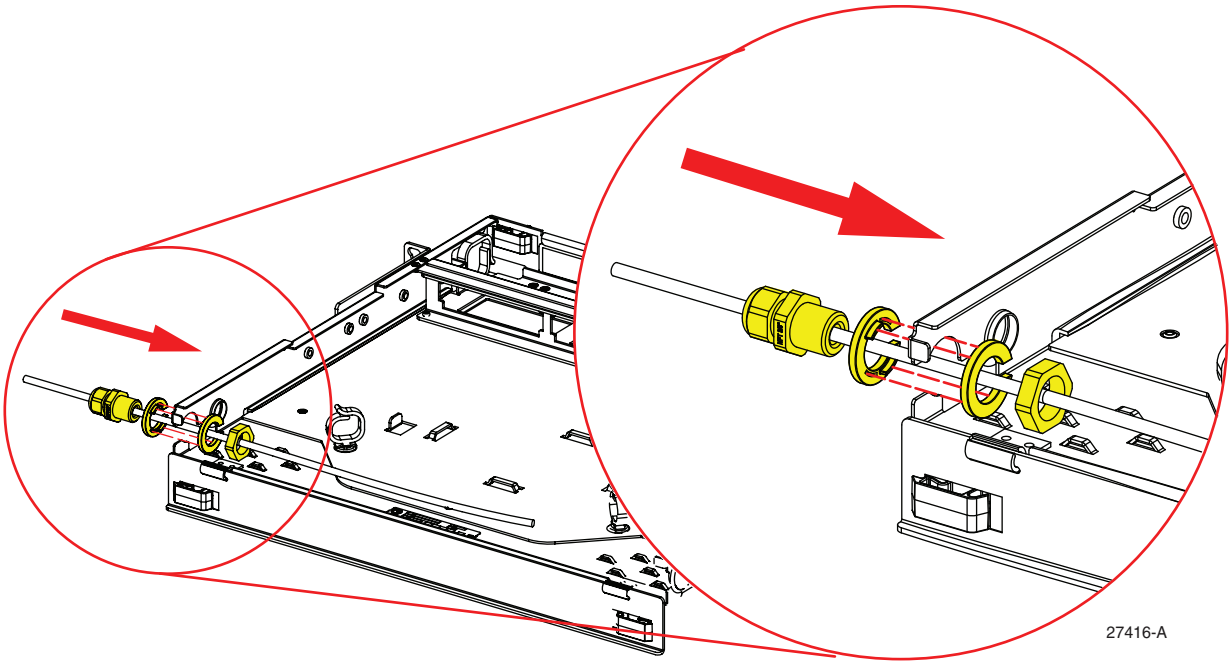

Figure 23. Installing 3/8-inch Cable Gland With Snap-Fit Washers (EPX 1U Panel Only)

For additional information on smaller diameter cables, refer to Section 2.4 on page 8.

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6.3 Installing a Cable

Note: These instructions cover only the cable gland method of securing fiber cables.

1. Loosely secure fiber cable to equipment rack upright approximately 3 inches (76mm) above or below panel, using cable tie or hook-and-loop strip. Leave approximately 48-inch (2.1m) length of cable to route into panel.
2. Fiber cables may enter panel from either right side, left side or rear apron. Carefully loop fiber cable to rear of panel on either side and continue to feed cable over top of rear apron.
3. Temporarily store slack fibers in panel.
4. Remove plug from appropriate size opening in panel to accommodate cable gland on fiber cable. Select an opening on rear apron or either right or left side that will be most advantageous for cable entry.
5. Completely loosen gland nut from cable gland.
6. Feed fibers and subunit tubes through panel opening. Temporarily coil fibers loosely in panel.
7. Insert threaded body of cable gland into opening and tighten gland nut onto threaded section to secure cable gland unit to panel.

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7 CONTACT INFORMATION

- To find out more about CommScope® products, visit us on the web at www.commscope.com
- For technical assistance, customer service, or to report any missing/damaged parts, visit us at http://www.commscope.com/SupportCent

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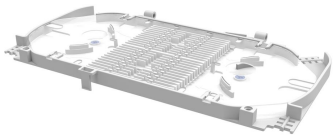
760241378 | AGL-SPLICE-48

Fiber Optic Splice Tray Kit, stackable, 48-fiber capacity



Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber splice tray
Product Series	AGILE

General Specifications

Application	Used in AGILE panels and enclosures
Color	Light gray
Splicing Capacity, maximum	48

Dimensions

Height	17.6 mm | 0.693 in
Width	220 mm | 8.661 in
Depth	118.4 mm | 4.661 in

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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760109462 | 360G2-MOD-BLANK-4PK

360G2 Mod Panel Blank Adapter Pack, 4 Panels

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack, blank

General Specifications

Adapter Color	None

Dimensions

Height	30.48 mm | 1.2 in
Width	91.44 mm | 3.6 in
Depth	2.54 mm | 0.1 in

Packaging and Weights

Packaging quantity	4

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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CERTIFICATE

Certificate Number: 111045.000
Including Seven Page Addendum

The Quality Management System and implementation of:

CommScope, Inc.

With Virtual Central Function at:
1100 CommScope Place SE
Hickory, NC 28602
United States

meets the requirements of the standard:

ISO 9001:2015

Scope:

The sales, marketing, design, manufacture, test, repair, support, service, and distribution of telecommunications products, components, and services for the telecommunications, wireless, and broadcast networks industries

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Business Segments	Exceptions
Connectivity and Cable Solutions (CCS)	None
Networking, Intelligent Cellular & Security Solutions (NICS)	None
Outdoor Wireless Networks (OWN)	None
Access Network Solutions (ANS)	None

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
Atlanta, GA 30339 USA
(215) 997-4519
https://www.dekra.us/en/audits/

ANAB ANSI National Accreditation Board ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page One of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Activities Legend:	HQ = Headquarters	MFG = Manufacturing	SER = Services (Professional Services and/or Technical Support)
	HW DE= Hardware Development	REP = Repair	SC = Purchasing, Supplier Management, Manufacturing Support, Repair Support
	SW DE= Software Development	SAL = Sales, Marketing	DIST = Distribution

Site Address	**Site Activities**
CommScope Inc 1100 CommScope Place SE Hickory, NC 28602 United States	HQ (Virtual)
ARRIS Technology, Inc. 3871 Lakefield Drive Suwanee, GA 30024 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 101 Tournament Dr. Horsham, PA, 19044 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 6450 Sequence Drive San Diego, CA 92121 United States	SW DE, SER
ARRIS Technology, Inc. 900 Chelmsford St. Lowell, MA 01851 United States	HW & SW DE, SER, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Two of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Solutions, Inc. 2400 Ogden Ave., Suite 180 Lisle, IL 60532 United States	HW & SW DE, SAL, SER, SC
ARRIS 15 Sterling Drive Wallingford, CT 06492 United States	HW & SW DE, SER, SC
ARRIS Technology, Inc. 2450/2500 Walsh Avenue Santa Clara, CA 95051 United States	HW & SW DE, SAL, SER
Ruckus Wireless International Inc. 350 West Java Dr. Sunnyvale, CA 94089 United States	HW & SW DE, SER
Ruckus Wireless Network Technology (Shenzhen) Co. Ltd. Units C&D, 5th Floor, No. 2 Finance base, 8 KeFa Road, Shenzhen, China	SW DE, SC, HW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Three of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
Site Address	**Site Activities**
CommScope Asia (Suzhou) Technologies Co., Ltd. 77 Qiming Road, Suzhou Industrial Park Suzhou,Jiangsu 215121 Peoples Republic of China	MFG, SC
Ruckus Wireless International Inc., Taiwan Branch @ Neihu District, Taipei City, Rui Road 411, 10th floor, Taipei	SW DE
ARRIS Group India Pvt Limited (AGIPL) Salarpuria Supreme, Ground Floor West Wing &First Floor Munnekolalu Village, Varthur Hobli, Outer Ring Road, Bangalore-560037	SW DE
ARRIS Group de Mexico S.A. de C.V. Av. La Paz 11721 Parque Industrial Pacifico Tijuana, BC 22643 Mexico	MFG, REP, SC
ARRIS Communications Ireland Limited Building 4300, Cork Airport Business Park Kinsale Road Cork County Ireland	HW & SW DE
ARRIS Group India Private Limited "The Senate" No:33/1, Ulsoor Road, Bangalore - 560 042 India	HW & SW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Four of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Group, Inc. 50 Stranmillis Embankment Belfast, BT95FL Northern Ireland	SW DE
CommScope Czech Republic, s.r.o Turanka 856/98B 627 00 Brno Czech Republic	HW DE,
CommScope CZ, spol. s.r.o. U Morusi 888, 53006 Pardubice Czech Republic Czech Republic	HW DE,
CommScope Connectivity UK Limited Units 1 and 4 Kinmel Park Industrial Estate Bodelwyddan, Denbighshire, LL18 5TZ United Kingdom	HW DE, MFG, SAL
CommScope Design & Integration UK Ltd. Unit 5 & 6 Eden Business Park Eden House Drive Old Malton, Malton, North Yorkshire YO17 6AE United Kingdom	HW DE, MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Five of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
CommScope Design & Integration UK Limited 412 The Quadrant, Birchwood Park Warrington, WA3 6FW United Kingdom	SER
CommScope EMEA Ltd. Corke Abbey Avenue Bray, Co. Dublin Ireland	MFG, SAL
CommScope EMEA Ltd. Diestsesteenweg 692 3010 Kessel-Lo, Belgium	HW DE, MFG, SAL
CommScope Italy Srl Via Archimede, 22/24 Agrate Brianza (MB) 20864 Italy	HW DE, REP, SW DE
Telecom Networks Americas AV. HIPOLITO YRIGOYEN 2999, DEPOSITO 6 EL TALAR, TIGRE Buenos Aires B1618AXD Argentine Republic	SAL, DIST
Commscope Networks India Private Limited Salarpuria Softzone, A Block, 1st Floor Survey No 80/1, 81/1, 81/2, B Wing, Belandur Village, Varthur Hobli, Outer Ring Bangalore – Karanataka 560103 India	SW DE
ADC India Communications Ltd. No 10 C , 2nd Phase Peenya Industrial Area Bangalore – Karnataka 560058 India	MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Six of Seven

The Quality Management System and implementation of:

CommScope, Inc.

With site at:

CommScope Asia (Suzhou) Technologies Co.,Ltd.

77 Qiming Road, Suzhou Industrial Park
Suzhou,Jiangsu 215121
Peoples Republic of China

meets the requirements of the standard:

ISO 9001:2015

The validity of this certificate depends on the validity of the main certificate.

Scope:
Production of network cable, fiber cable and communication equipment component (copper patch cords, copper panel, accessories etc.)

Certification Structure: Multi-site

Certificate Expires:	January 04, 2026
Certificate Issued:	January 05, 2023
Certified Since:	January 10, 2001

Dr. Cem O. Onus
Managing Director

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证 书 附 录

证书编号: 111045.000

附录第7页,共7页

质量管理体系和实施:

CommScope, Inc.

其场所:

康普科技（苏州）有限公司

中国江苏省苏州工业园区启明路77 号,邮编215121

符合以下标准要求:

ISO 9001:2015

本证书的有效性取决于主证书的有效性。

范围:

网络线、光缆、通信系统设备材料（网络跳线、配线装置等）的生产。

认证结构: **多场所**

证书有效期: 2026.01.04

发证日期: 2023.01.05

首次发证日期: 2001.1.10

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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CERTIFICATION BODY

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IAF

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

CommScope, Inc. of North Carolina
1100 CommScope Place SE
Hickory
North Carolina
28603-0339
USA

Holds Certificate No: **EMS 648387**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The environmental management system to control the risks associated with the manufacture, distribution, field support and central function of telecommunication products and services.

For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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To be read in conjunction with the scope above or the attached appendix.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Telecommunications de Reynosa S. de R.L. de C.V. Av. Industrial Reynosa Lte 2 al 5 Parque Industrial Center Reynosa Tamaulipas 88780 Mexico	Manufacture and distribution of telecommunication products including antenna and cable.
CommScope Asia (Suzhou) Technologies Co., Ltd. EPZ II, 77 Qiming Road Suzhou Industrial Park Suzhou Jiangsu 215121 China	Manufacture and distribution of telecommunication products, including cable.
Andrew Telecommunications India Pvt. Ltd. Plot No. N-2, Phase IV Verna Industrial Estate Verna Salcette Goa 403 722 India	Manufacture and distribution of telecommunication products, including antenna and cable.
CommScope EMEA Ltd. Corke Abbey Avenue Bray County Dublin A98FY03 Ireland	Manufacture and distribution of telecommunication products, including cable and connectors.
CommScope Telecommunications (China) Co., Ltd. 68 West Su Hong Xi Lu Suzhou Industrial Park Suzhou Jiangsu 215021 China	Manufacture and distribution of telecommunication products, including antenna and cables.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Wireless Systems GmbH Industriering 10 Buchdorf 86675 Germany	Manufacture and distribution of telecommunication products, including amplifiers and antenna systems.
CommScope, Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Corporate headquarters responsible for management system oversight of all locations listed on this certificate.
CommScope Inc. 6519 CommScope Road Catawba North Carolina 28609-0199 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Inc. 3642 US Hwy 70 East Claremont North Carolina 28610-0879 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Czech Republic s.r.o. Turanka 98B Brno 62700 Czech Republic	Manufacture and distribution of telecommunication products, including connectors and terminations.
CommScope Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Customer care, facility maintenance, and administrative functions.
ADC de Delicias, S. de R.L. de C.V. Blvd. Fernando Baeza No. 1301 Sur Delicias Chihuahua 33000 Mexico	Manufacturing and distribution of telecommunication products.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
ADC de Juarez S. de R.L. de C.V. Parque Industrial Antonio J Bermudez Ciudad Juarez Chihuahua 32470 Mexico	Manufacturing and distribution of telecommunication products.
CommScope Connectivity Belgium bvba Diestsesteenweg 692 Kessel-lo 3010 Belgium	Manufacture and distribution of telecommunication products.
CommScope Technologies de Juarez S. de R.L. de C.V. Santiago Troncoso 331 Praderas del Sur, Ciudad Juarez Chihuahua 32575 Mexico	Manufacture of Fiber Optic Splice Closures (FOSC), Fiber Guide Systems (FGS), Hardened Connectivity and Molding-Gel Filling, including: plastic injection molding, plastic extrusion, plastic and metal machining, and assembly operations.
CommScope Connectivity UK Limited Unit 1 Kinmel Park Bodelwyddan Rhyl, Denbighshire LL18 5TZ United Kingdom	Fibre optic cable manufacturing, termination and design of other telecommunication products and services.
CommScope 11312 S. Pipeline Road Euless Texas 76040 USA	Manufacture, distribution, field support and central function of telecommunication products.
ARRIS GROUP DE MEXICO SA DE CV Av. De la Paz, #11721 Parque Industrial Pacifico Tijuana Baja California 22643 Mexico	Manufacture, repair, support, repair service, distribution of products and components for telecommunications that provide integrated solutions for voice, video and data through the processes of SMT, manual and mechanical assembly, soldering (manual, selective, printed, wave) electrical testing and packaging.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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Certificate No: **EMS 648387**

Location	Registered Activities
CommScope Design & Integration UK Ltd Unit 5 & 6, Eden Business Park Edenhouse Drive Old Malton Malton YO17 6AE United Kingdom	Manufacture and distribution of telecommunications products including cabinets.
Arris Indústria Eletrônica do Brasil Ltda. CNPJ: 09.154.836/0001-15 Avenida Torquato Tapajós, 9475 Tarumã Manaus Amazonas 69041-025 Brasil	Manufacturer and distribution of Receivers, Television signal Decoders and Modulator/Router.
CommScope Design and Integration UK Ltd. Lovell House, 412 The Quadrant Birchwood Park Warrington WA3 6FW United Kingdom	Telecommunications project management, site surveys, installations commissioning and rigging.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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To be read in conjunction with the scope above or the attached appendix.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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RoHS Certificate of Compliance

COMMSCOPE®

Product Name: EPX-1U-MOD-ENC

Product Number: 760249998

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: October 29, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided and our analysis and assessment of the risks. This information is subject to change and if a change occurs which affects compliance, then this Statement will be updated. Compliance to EU ROHS 2011/65 amended by EU RoHS 2015/863 means the part numbers have a maximum concentration of no more than 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). These parts also have a maximum concentration of no more than 0.1% by weight in homogenous materials for DEHP, BBP, DBP and DIBP (substances that are restricted starting from July 22, 2019). Finished electrical and electronic products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked.

Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

760230946 | 360DPis-12LC-SM

360 Distribution Adapter Pack, Singlemode, 12 LC with internal shutters

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber adapter pack
Product Series	G2

General Specifications

Adapter Color	Blue
Interface	LC with Internal Shutters
Interface Feature	UPC
Shuttered	Yes
Total Ports, quantity	12

Optical Specifications

Fiber Mode	Singlemode

Environmental Specifications

Qualification Standards	IEC 61753-1 | TIA-568.3-D
Safety Standard	UL

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**

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760230946 | 360DPis-12LC-SM

CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

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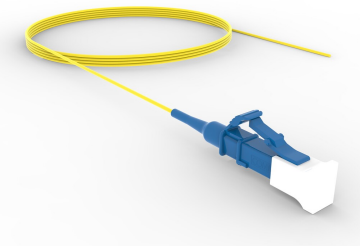
FBWLCUC11

Base Product



TeraSPEED® LC/UPC to Unconnectorized, Fiber Pigtail, 0.9 mm SBJ

Product Classification

Regional Availability	Asia | Australia/New Zealand | China | Europe | India | Latin America | Middle East/Africa | North America
Portfolio	CommScope®
Product Type	Fiber pigtail, unjacketed
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FBW
Ordering Note	Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Blue
Color, connector A	Blue
Interface, Connector A	LC/UPC
Jacket Color	Yellow
Total Fibers, quantity	1

Dimensions

Cable Assembly Length Range (m)	1 – 20
Cable Assembly Length Range (ft)	1 – 66

Ordering Tree

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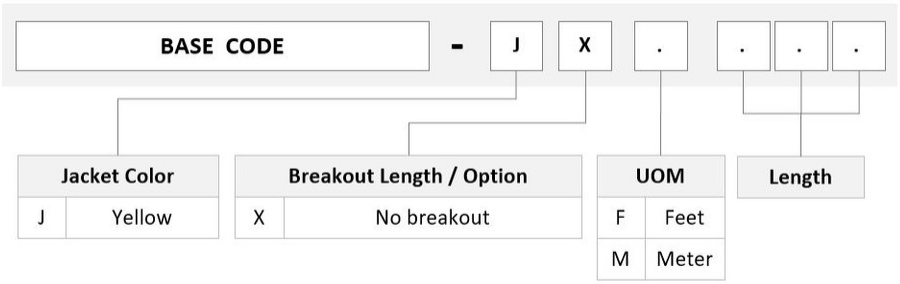
FBWLCUC11



Mechanical Specifications

Cable Retention Strength, maximum	2.00 lb @ 90 ° | 5.00 lb @ 0 °

Optical Specifications

Fiber Mode	Singlemode
Fiber Type	G.652.D | G.657.A1, TeraSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Dual Rated LSZH/Riser

Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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FBWLCUC11

760004564 N-001-RF-8W-F09YL	–	Fiber Indoor Cable, TeraSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Singlemode G.652.D and G.657.A1, Gel-free, Feet jacket marking, Yellow jacket color
860657283	–	LC/UPC Connector, Singlemode, Blue

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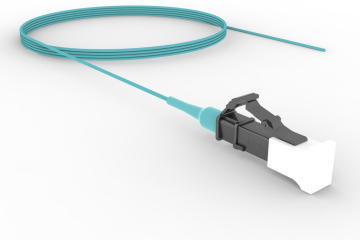
FBXLCUC11

Base Product



OM4 LC/UPC to Unconnectorized, Fiber Pigtail, 0.9 mm SBJ

Product Classification

Regional Availability	Asia | Australia/New Zealand | Europe | Latin America | Middle East /Africa | North America
Portfolio	CommScope®
Product Type	Fiber pigtail, unjacketed
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FBX
Ordering Note	Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Aqua
Color, connector A	Black
Interface, Connector A	LC/UPC
Jacket Color	Aqua
Total Fibers, quantity	1
Transmission Standards	TIA/EIA-568-C.3

Dimensions

Cable Assembly Length Range (m)	1 – 20
Cable Assembly Length Range (ft)	1 – 66

Ordering Tree

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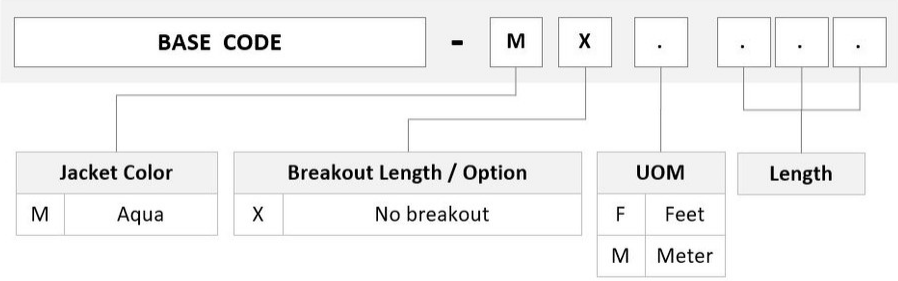
FBXLCUC11



Mechanical Specifications

Cable Retention Strength, maximum	2.00 lb @ 90 ° | 5.00 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Fiber Type	OM4, LazrSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Low Smoke Zero Halogen (LSZH)

Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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760010603 N-001-RF-5K-F09AQ	–	Fiber Indoor Cable, LazrSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Multimode OM4, Gel-free, Feet jacket marking, Aqua jacket color
860657284	–	LC/UPC Connector, Multimode, Aqua

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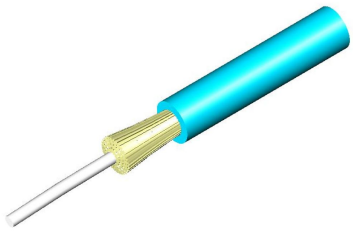
760010603 | N-001-RF-5K-F09AQ



Fiber Indoor Cable, LazrSPEED® 0.9 mm Low Smoke Zero Halogen Reinforced Buffered, 1 fiber, Multimode OM4, Gel-free, Feet jacket marking, Aqua jacket color

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber indoor cable
Product Series	N-RF

General Specifications

Cable Type	Cordage
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Aqua
Jacket Marking	Feet
Total Fiber Count	1

Dimensions

Diameter Over Jacket	0.9 mm | 0.035 in

Representative Image

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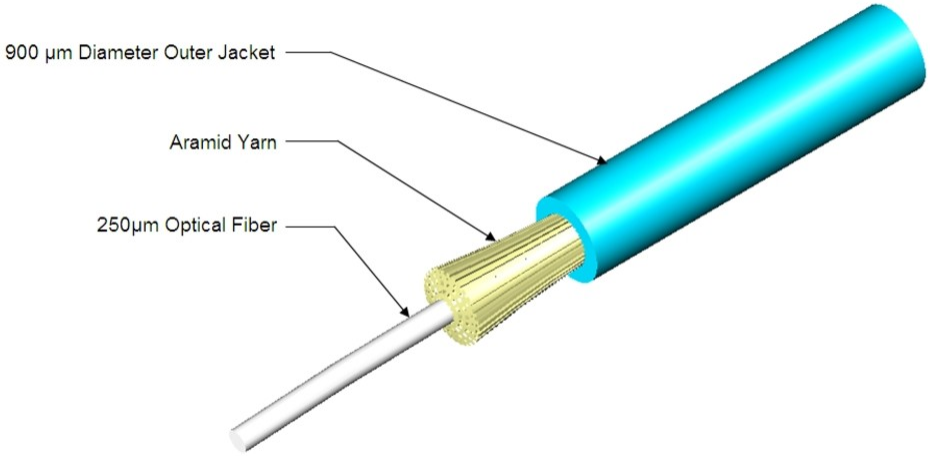
760010603 | N-001-RF-5K-F09AQ



Mechanical Specifications

Minimum Bend Radius, loaded	38 mm | 1.496 in
Minimum Bend Radius, unloaded	15 mm | 0.591 in
Tensile Load, long term, maximum	20 N | 4.496 lbf
Tensile Load, short term, maximum	67 N | 15.062 lbf
Compression	10 N/mm | 57.101 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	300 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	0.74 N-m | 6.55 in lb
Impact Test Method	FOTP-25 | IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 | IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 | IEC 60794-1 E7
Vertical Rise, maximum	500 m | 1,640.42 ft

Optical Specifications

Fiber Type	OM4, LazrSPEED® 550 | OM4, bend insensitive

Environmental Specifications

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Installation temperature	-10 °C to +50 °C (+14 °F to +122 °F)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409
Environmental Space	Low Smoke Zero Halogen (LSZH) | Riser
Flame Test Listing	NEC OFNR-ST1 (ETL) and c(ETL)
Flame Test Method	IEC 60332-3 | IEC 60754-2 | IEC 61034-2 | UL 1666 | UL 1685

Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Packaging and Weights

Cable weight	1 kg/km | 0.672 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable

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860657284

LC/UPC Connector, Multimode, Aqua

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber connector

General Specifications

Color, boot	Aqua
Color, housing	Black
Interface	LC/UPC

Dimensions

Length	39.6 mm | 1.559 in
Compatible Cable Diameter	0.9 mm | 0.035 in

Material Specifications

Ferrule Material	Zirconia

Mechanical Specifications

Cable Retention Strength, maximum	1.00 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Insertion Loss Change, mating	0.2 dB
Optical Components Standard	ANSI/TIA-568. 3-D | IEC 61753-1
Insertion Loss Change, temperature	0.2 dB
Insertion Loss, maximum	0.24 dB
Return Loss, minimum	27 dB

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Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Insertion Loss Change, mating	TIA-568: Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)

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LIMITED WARRANTY

1. **Definitions.** For purposes of this Warranty, (i) "Buyer" shall mean the individual or entity identified on the applicable purchase order or supply agreement (or, if different, on Seller's quotation, order acknowledgement or statement of work), (ii) "Seller" shall mean the CommScope entity identified on such entity's quotation, order acknowledgement, statement of work or supply agreement, (iii) "Hardware" means equipment designed and manufactured by or on behalf of Seller, or any third-party manufacturer's equipment offered for sale by Seller to Buyer, (iv) "Product" shall mean a product manufactured by or on behalf of Seller pursuant to the applicable supply agreement, quotation or order acknowledgement, and includes any combination of Hardware and Software, (v) "Services" means site engineering, system integration, product installation, implementation, training, maintenance and technical support services for Products, or other professional services provided by Seller to Buyer. Services exclude managed services and hosted cloud services provided by Seller, (vi) "Software" means Seller-licensed software, either embedded or standalone, including any updates provided, and any other enhancements, modifications, and bug fixes provided thereto, in object code form only (unless otherwise specified), and any full or partial copies thereof. Software does not include software created or owned by third parties, including but not limited to MediaKind Software, Google's Android Software or any third party application software, and (vii) "Warranty Period" means, unless a different time period is set forth in **Exhibit A,** (a) for Hardware, one year from date of original shipment from Seller's facility, (b) for Software-only Products, ninety (90) days from the date such Software is first made available to Buyer, or for Software embedded in a Hardware Product, ninety (90) days from date of original shipment of the Product from Seller's facility, and (c) for Services, thirty (30) days from the date the performance of such Services has been rendered.

2. **Limited Warranty.** Seller warrants that, as of the date of delivery, Seller has good title to the Product, free from any lawful security interest or other lien or encumbrance unknown to Buyer. In addition, during the Warranty Period, the Product and Services will be free from defects in materials or workmanship arising under proper and normal use. This Warranty shall apply only to the Products and Services and shall not apply to any other goods or materials, parts or components of a system or any system as a whole. This Warranty does not cover ordinary wear and tear. Seller does not warrant (i) Products not purchased from Seller or its authorized resellers; (ii) that the operation of the Product will be uninterrupted or error-free; (iii) that the Product will operate in combination with other third-party products selected by Buyer; or (iv) any products manufactured by third parties; provided that Seller will, to the extent permitted by the manufacturer, assign third-party warranties to Buyer. Seller gives no warranty for, and shall have no liability with respect to, any defects arising from any software (other than the Software), including, but not limited to MediaKind Software, Android Software or any third-party application software, downloaded to or otherwise used in conjunction with the Product. Seller further warrants to Buyer that during the Warranty Period, all Services performed by Seller for Buyer will be provided in a workmanlike manner.

3. **Disclaimers.** EXCEPT AS EXPRESSLY SET FORTH IN THIS LIMITED WARRANTY OR IN A SEPARATE, APPLICABLE SOFTWARE LICENSE AGREEMENT, ALL SOFTWARE IS LICENSED ON AN "AS IS" BASIS WITHOUT WARRANTY.

4. **Inspection and Return Authorization**. Buyer must promptly notify Seller of any claimed defect in the Product and/or Services. If Buyer claims that a Product is defective in materials or workmanship, Seller shall have the right to either examine the Product where it is located or, in its sole discretion, issue shipping instructions for return of the Product. Seller's inspection in response to a warranty claim shall not constitute acceptance or acknowledgment of the claim's validity. Except as otherwise agreed to in writing, Products may not be returned to Seller without prior authorization. Buyer must contact Seller to obtain an authorization number and return the Products to the location designated by Seller. Any Products returned to Seller without proper authorization will be returned to Buyer at Buyer's expense. Risk of loss, damage and insurance responsibilities for the Products shall not pass from Buyer to Seller until delivery of the Products to Seller's designated location. Buyer shall prepay all transportation charges for such return.

5. **Remedies.** Seller's sole and exclusive obligation and Buyer's exclusive remedy under this Warranty is Seller's repair or replacement of the defective Product or re-performance of Services or issuance of a credit for the net book value of the purchase price of the defective Product. Seller shall have sole discretion as to which of these remedies Seller will provide. Seller is not liable for any repair or maintenance costs incurred by Buyer, unless Seller authorizes such charges in writing in advance of the commencement of the work. If Seller elects to replace or repair the defective Product, the replaced or repaired Product will be warranted for the remainder of the Warranty Period applicable to the originally shipped Product, but the Warranty shall not be extended beyond the original Warranty Period. Replacement Products may be new, refurbished or contain refurbished materials.

6. **Notice and Waiver**. If Buyer discovers any defect in the Product, Buyer must provide prompt (and in no case later than thirty (30) days after discovery) written notice to Seller of the claimed defect. Such notice shall describe, in reasonable detail, the symptoms of such defect. The notice must be received by Seller during the Warranty Period for such Product. Failure to give timely notice of a claim shall result in Buyer's waiver of such claim.

7. **Transfer of Ownership.** This Warranty is not transferable unless Buyer is expressly authorized by Seller in writing to resell the Product. In addition, Buyer must notify Seller on or before the fifteenth (15^{th}) day after the date on which it transfers ownership of the warranted Product. Any transfers in violation of this Section shall invalidate this Warranty. Notice of the transfer of ownership must be in writing and shall include the name and address of the new owner.

8. **Exclusions from Warranty.** This Warranty shall not apply to problems attributable to, or as a result of:

(a) improper installation or misapplication of parts;
(b) chain or system failures induced by other products or components;
(c) lack of proper inspection or maintenance or failure to provide a suitable operating environment;
(d) any consumables provided with the Product, including but not limited to batteries and other accessories, and any other materials, components or products manufactured by a third party;
(e) power surges, fire, unusual mechanical, physical or electrical stress, severe weather conditions or acts of nature, including but not limited to, lightning or floods;
(f) usage or operation not in accordance with published ratings, specifications or instructions, including but not limited to environmental specifications identified by Seller;
(g) any adjustment, modification, alteration, removal or repair of any part of the Product, including but not limited to removal or alteration of serial numbers or other identifying marks not expressly authorized by Seller in writing;
(h) accidental damage, misuse, abuse, neglect or unauthorized access of the Product or of any system of which the warranted Product is a part;
(i) any type of aesthetic changes due to oxidation or corrosion occurring on stainless steel or galvanized steel parts installed in unusually corrosive marine and industrial atmospheres (in which case Seller's only obligation shall be to ensure that Product complies with Seller's published material specifications);
(j) use of the Product for purposes other than that for which it was designed; or
(k) mishandling during shipment of the Product.

LIMITED WARRANTY

This Warranty is for Products installed and used in accordance with Seller's design, installation and operating parameters. Buyer's failure to ensure conformity with such parameters will void all warranties. Under no circumstance shall Seller have any liability or obligation with respect to expenses, liabilities or losses associated with the installation or removal of any Product or the installation or removal of any components for inspection, testing or redesign occasioned by any defect or by any repair or replacement of a Product.

9. **Limitation on Liability.** THE WARRANTIES SET FORTH IN SECTION 2 HEREOF ARE EXCLUSIVE AND ARE MADE ONLY TO BUYER. SELLER MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS AND EXCLUDES ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION OR WARRANTY ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OR PERFORMANCE. No person is authorized to give any additional warranties on Seller's behalf or to assume for Seller any other liability, except in a writing signed by an authorized officer of Seller. SELLER'S TOTAL LIABILITY FOR ANY CLAIM OR DAMAGE ARISING OUT OF AND/OR IN CONNECTION WITH THE MANUFACTURE, SALE, DELIVERY OR USE OF THE PRODUCTS OR SERVICES WILL BE LIMITED TO PROVEN DIRECT DAMAGES, NOT TO EXCEED (I) FOR PRODUCTS, THE DEPRECIATED VALUE OF THE PURCHASE PRICE OF SUCH PRODUCTS OR (II) FOR SERVICES, THE ACTUAL AMOUNT PAID TO SELLER FOR SERVICES DURING THE 12 MONTH PERIOD IMMEDIATELY PRIOR TO THE EVENT (OR SERIES OF EVENTS) GIVING RISE TO THE LIABILITY. IN NO EVENT WILL SELLER BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY CLAIM FOR LOSS OF ACTUAL OR ANTICIPATED DATA, USE, REVENUES OR PROFITS. The Products are not specifically designed, tested, manufactured or intended for operation or use in any inherently dangerous, life endangering or life support applications where any failure of the Products could lead to death, personal injury or significant physical or environmental damage (High Risk Activities). If Buyer uses the Products in High Risk Activities, including but not limited to nuclear facilities or the flight, navigation or communication of aircraft, Buyer agrees that neither Seller nor its third party licensors are liable in whole or in part, for any claims or damages arising from such use, and that Buyer shall indemnify and hold Seller and its third party licensors harmless from any and all claims for loss, cost, damage, expense or liability arising out of or in connection with any use of the Products in High Risk Activities. These limitations on liability will apply regardless of the form of action, whether in contract, tort, strict liability or otherwise, and whether damages were foreseeable and will survive failure of any exclusive remedies provided in Section 4 hereof.

10. **Choice of Law.** The terms and conditions contained herein and the rights of the parties to any transaction to which they relate shall be governed by and construed in accordance with the laws of the State of North Carolina, U.S.A. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

LIMITED WARRANTY

Exhibit A

Product Categories	Warranty Period from Original Shipment Date*
Category A Products E6000® Converged Edge Router (CER); E6000n™ Remote PHY Devices (RPDs); E6000r™ Remote PHY Shelves; E6000n™ Remote MACPHY Devices (RMDs); vManager; Remote OLT (R-OLT); associated power supplies and accessories. FLX PON OLT portfolio including vOLT. CherryPicker products, Encoder products including ME-7000, SE-6000; DSR-4xxx, DSR-6xxx and DSR-7xxx series IRD products, and Uplink systems including TME-2020, VDP-1000, BNC, DEM, and SEM; All APEX Universal EQAM including APEX1000 and APEX3000; All Aloha interactive products including OM2000, ARPD, ADM4000 and NC1500 4.0. All SDM products. All VUE and VTM Software Products. All STDC products.	Hardware One (1) Year Software Ninety (90) Days
Category B Products All High and Standard Definition Transport Adapter MS4000™ Media Streamer	Hardware One (1) Year Software Ninety (90) days ** For certain CPE, option for 1% overship in lieu of Hardware warranty is standard
Category C Products Intentionally left blank.	
Category D Products All Third Party OEM Products: power meters; All VUE and VTM hardware platforms; NC1500 4.0 hardware platform; LQA256 Legacy QAM Adapter; Elemental Products including Live, Server, Delta, Conductor and StatMux; DC2180 Cabinet Node. Cooling Systems	Pass Through from OEM: Hardware One (1) Year Software Ninety (90) Days
Category E Products Intentionally left blank	
Category F Products All OM and SG optical node platforms, Flex Max® and Starline® amplifier platforms, RF Taps & Passives, and Optical Passives	Hardware Five (5) Years within the United States and Canada Hardware Three (3) Years outside United States and Canada Software Ninety (90) Days
Category F1 Products All CHP Headend Optical (HEO) Elements	Hardware Three (3) Years Software Ninety (90) Days
Category G1 Products All NC optical node platforms and Optical Passives, including OP/NP/DP/DC models.	Hardware Five (5) Years Software Ninety (90) Days
Category G2 Products All CH3 Headend (HEO) Elements	One (1) year
Category G3 Products All EPON and GPON ONUs, RFoG/HPON R-ONUs, including, CP8 models and associated power supplies and accessories	Hardware Three (3) Years Software Ninety (90) Days

Category H Products All ConvergeMedia™ Distribution Platforms and Management Suite, AdManager™ including SkyVision Ad Management and EMP solutions CVEx™, SVA, all Vertasent products including SVOM, SVM and ERM, AdEdge™ COM and AdEdge APS,VMS, Manifest Delivery Controller (MDC), ARRIS Video Content Manager (AVCM) and Next Generation Insertion (NGI) and Multicast ABR.	Hardware One (1) Year Software Ninety (90) Days
Category I Products ServAssure® Advanced, ServAssure® NXT - Alarm Central, ServAssure® NXT - Analyze, ServAssure Domain Manager and EventAssure™. WorkAssure™® Workforce Management, Mobile TV, SecureMedia and Titanium	Hardware One (1) Year Software Ninety (90) Days
Category J Products Intentionally left blank	
Category K Products Intentionally left blank.	
Category L Products Intentionally left blank	
Category M Products Intentionally left blank.	
Category N Products Intentionally left blank.	
Category O Products All CAS Products including DAC, CASMR (and associated plug-ins), CAST, Advisor, CSS, OLL, CSS-Lite, KLS, DKS, CPMS	DAC, CASMR, CAST, Advisor, CSS Hardware Three (3) Years OLL, CSS-Lite, KLS, DKS, OLES, CPMS Hardware One (1) Year Software Ninety (90) Days
Category P Products Intentionally left blank.	
Category P1 Products Intentionally left blank	
Category Q Products Intentionally left blank	
Category R Products Intentionally left blank	
Category R1 Products Intentionally left blank	
Category S Products Intentionally left blank	
Category S1 Products Intentionally left blank	

LIMITED WARRANTY

Category T Products RUCKUS Wi-Fi	Hardware: - Indoor Access Points and Wall Plate Access Points – Limited Lifetime Warranty,** except for access points with an "e" suffix (e.g., R350e), for which the HW warranty period is one (1) year. - Outdoor Access Points – One (1) Year - Controllers – One (1) Year, except ZoneDirector controllers are covered by the Limited Lifetime Warranty** Software Ninety (90) Days
Category T1 Products RUCKUS ICX Switches	- ICX Switches (including switch modules, PSUs, and Fans, but excluding removable optics/transceivers and LEDs) – Limited Lifetime Warranty,** except for ICX 7150- C08PT, for which the HW warranty period is 13 months. - LEDs – 12 months - Removable Optics/Transceivers – 60 months (13 months if shipped from Seller prior to June 1, 2021) Software: Limited lifetime access to defect repairs, and software maintenance updates through end of support date of product
Category T2 Products Intentionally left blank	
Category U Products Other OSP Cable Products (P3®, Drop Coax, Fiber Cable, Fiber Drop Cable, CIC) NovuX Products Prodigy Products FDH Products Multiservice terminals (MST), Open Terminals (OTE) and Hardened Drop Cable Assemblies OSP "Box" Products Mini-RDTs and RDTs FOSC™, FIST™ and Tenio™ OSP Copper Connect and Closure Products HELIAX® FiberFeed® Products, including FiberFeed® hybrid and fiber cables and assemblies, power cables and junction boxes Fiber Optic Panels, including Accessories, Mounting Hardware, Modules Fiber Optic Field Terminated Connectors, Kits, Tools, Consumables, Accessories Indoor Fiber Cable, Patch Cords, Cable Assemblies, Fiber Trunks Passive Optical Components and Value Added Modules (VAMs) FiberGuide® : Fiber cable Management System Optical Distribution Frames, including Modules, Blocks, Accessories and Hardware Cabinets Cable and Apparatus Products Alifabs™ Cabinets & Ancillary Products Alifabs™ Telecommunications Towers and Accessories Metro Cell Products, including Enclosures; Integrated Pole; Standard Poles; Accessories; and Wood Pole Brackets	One (1) year

LIMITED WARRANTY

Category V Products ValuDAS® Passive Products, including Air Directional Couplers, Hybrid Couplers, High Power Splitters, and Cell-Max™ Antennas Standard Tower Mounted Amplifier, Bias Tee and Power Distribution Unit Products Standard Filter & Combiner Products Electronic Enclosure Products (Cabinets) Alifabs™ Free Cooling Products and Accessories and Spare Parts, including Monitor All-In-One FLX (Active Passive Cabines) PowerShift™ & Power Products	Two (2) years
Category W Products ValuSite® Products I-Line Accessory Products Microwave Antennas Terrestrial Microwave System Products (including Microwave System Flex-Twist, Coupler, Filter and Diplexer Products)	Three (3) years
Category X Products Broadband RF Connectivity Products Premium Passive Products, including In-Building Directional Couplers, Hybrid Matrices, Tappers, Power Splitters, Terminations, Attenuators and CMAX Antenna Products	Five (5) years
Category Y Products QR® Coaxial Cable	Five (5) years
Category Z Products Standard RADIAX® Cable, Connector, Accessory and Cable Assembly* Products * RADIAX® Cable Assembly Product means any RADIAX® coaxial cable that has been fitted with Seller's connectors in accordance with the installation instructions.	One (1) year
Category AA Products Standard CNT® Cable, Connector, Accessory and Cable Assembly* Products * CNT® Cable Assembly Product means any CNT® coaxial cable that has been fitted with Seller's connectors by Seller or its certified distributor	Five (5) years; except that the Warranty Period for Products purchased for resale purposes shall be one (1) year.
Category BB Products Standard HELIAX® Cable, Connector, Accessory and Cable Assembly* Products * HELIAX® Cable Assembly Product means any HELIAX® coaxial cable or elliptical waveguide that has been fitted with Seller's connectors by Seller or its certified distributor.	Ten (10) years; except for the following: (i) three (3) years for weatherproofing kits (including SureGuard boots); (ii) one (1) year for cable preparation tools (excluding blades); (iii) one year for single click-on hanger kits; and (iv) two (2) years for surge arrestors.
Category CC Products Standard ERA/ION-E®, ION-M®, ION-U®, MR, CMR, i-POI®, e-POI™, and Node Repeater Products	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of shipment. Software Ninety (90) Days
Category DD Products In- Building and Fixed Subscriber Antennas	The earlier of: (i) three (3) years from the date of installation or (ii) thirty-nine (39) months from the date of original shipment

LIMITED WARRANTY

Category EE Products OneCell® Powered Fiber Cable Solution: Hybrid Copper and Fiber Cables, Class 2 Power Supplies, Indoor/Outdoor POE Extenders, Field Terminated Outlets, Consolidation Boxes and Related Passive Components	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of original shipment Software Ninety (90) Days
Category FF Products Small Cell Device Management System (DMS) Software DAS Device Management System (AIMOS) Software	Ninety (90) days
Category GG Products Base Station Antenna, Small Cell Antenna & Mosaic™ Products	Two (2) years for all base station antennas except base station antennas incorporating N-type connectors, which shall have a warranty of one (1) year
Category HH Products DryLine® Dehydrator Systems and Line Monitoring Systems	Three (3) years or 3,000 hours of actual run time, whichever occurs first; except the Warranty Period for the compressor is only one (1) year or 1,000 hours of actual run time, whichever occurs first.
Category II Products SiteRise™ Solutions	One (1) year on workmanship for the Solution.
Category JJ Products Copper Structured Cabling Products Other Enterprise Products (Coax, Automotive Cables, Enterprise Enclosures and miscellaneous items) (excluding software)	One (1) year from the date of Installation
Category KK Products Alifabs™ Services (power upgrades, enablements, installation and decommission work, rigging, and fault management)	One (1) year from the date of completion of the work.
Category LL Products imVision Overlays and Controllers	Three (3) years

** For Category H and Category I Products only, if Seller is engaged by Buyer to provide Services for the implementation of the purchased Products, warranty period for such Products shall commence upon Buyer's acceptance of the Products and Services.*

** For Category T Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing for as long as the original end user of the Product continues to own and use the Product. For Category T1 Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing (i) for as long as the original end user of the Product continues to own and use the Product or (ii) through the End of Support date, as defined in the RUCKUS End of Life Policy, whichever is earlier.

RoHS Certificate of Compliance

COMMSCOPE®

Product Name: EPX-1U-MOD-DRW

Product Number: 760242455

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: May 03, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided and our analysis and assessment of the risks. This information is subject to change and if a change occurs which affects compliance, then this Statement will be updated. Compliance to EU ROHS 2011/65 amended by EU RoHS 2015/863 means the part numbers have a maximum concentration of no more than 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). These parts also have a maximum concentration of no more than 0.1% by weight in homogenous materials for DEHP, BBP, DBP and DIBP (substances that are restricted starting from July 22, 2019). Finished electrical and electronic products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked.

Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

CERTIFICATE

Certificate Number: 111045.000
Including Seven Page Addendum

The Quality Management System and implementation of:

CommScope, Inc.

With Virtual Central Function at:
1100 CommScope Place SE
Hickory, NC 28602
United States

meets the requirements of the standard:

ISO 9001:2015

Scope:

The sales, marketing, design, manufacture, test, repair, support, service, and distribution of telecommunications products, components, and services for the telecommunications, wireless, and broadcast networks industries

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Business Segments	Exceptions
Connectivity and Cable Solutions (CCS)	None
Networking, Intelligent Cellular & Security Solutions (NICS)	None
Outdoor Wireless Networks (OWN)	None
Access Network Solutions (ANS)	None

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
Atlanta, GA 30339 USA
(215) 997-4519
https://www.dekra.us/en/audits/

ANAB ANSI National Accreditation Board ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page One of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Activities Legend:	HQ = Headquarters	MFG = Manufacturing	SER = Services (Professional Services and/or Technical Support)
	HW DE= Hardware Development	REP = Repair	SC = Purchasing, Supplier Management, Manufacturing Support, Repair Support
	SW DE= Software Development	SAL = Sales, Marketing	DIST = Distribution

Site Address	**Site Activities**
CommScope Inc 1100 CommScope Place SE Hickory, NC 28602 United States	HQ (Virtual)
ARRIS Technology, Inc. 3871 Lakefield Drive Suwanee, GA 30024 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 101 Tournament Dr. Horsham, PA, 19044 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 6450 Sequence Drive San Diego, CA 92121 United States	SW DE, SER
ARRIS Technology, Inc. 900 Chelmsford St. Lowell, MA 01851 United States	HW & SW DE, SER, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Two of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Solutions, Inc. 2400 Ogden Ave., Suite 180 Lisle, IL 60532 United States	HW & SW DE, SAL, SER, SC
ARRIS 15 Sterling Drive Wallingford, CT 06492 United States	HW & SW DE, SER, SC
ARRIS Technology, Inc. 2450/2500 Walsh Avenue Santa Clara, CA 95051 United States	HW & SW DE, SAL, SER
Ruckus Wireless International Inc. 350 West Java Dr. Sunnyvale, CA 94089 United States	HW & SW DE, SER
Ruckus Wireless Network Technology (Shenzhen) Co. Ltd. Units C&D, 5th Floor, No. 2 Finance base, 8 KeFa Road, Shenzhen, China	SW DE, SC, HW DE

Certificate Expires: January 04, 2026
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Three of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
Site Address	**Site Activities**
CommScope Asia (Suzhou) Technologies Co., Ltd. 77 Qiming Road, Suzhou Industrial Park Suzhou,Jiangsu 215121 Peoples Republic of China	MFG, SC
Ruckus Wireless International Inc., Taiwan Branch @ Neihu District, Taipei City, Rui Road 411, 10th floor, Taipei	SW DE
ARRIS Group India Pvt Limited (AGIPL) Salarpuria Supreme, Ground Floor West Wing &First Floor Munnekolalu Village, Varthur Hobli, Outer Ring Road, Bangalore-560037	SW DE
ARRIS Group de Mexico S.A. de C.V. Av. La Paz 11721 Parque Industrial Pacifico Tijuana, BC 22643 Mexico	MFG, REP, SC
ARRIS Communications Ireland Limited Building 4300, Cork Airport Business Park Kinsale Road Cork County Ireland	HW & SW DE
ARRIS Group India Private Limited "The Senate" No:33/1, Ulsoor Road, Bangalore - 560 042 India	HW & SW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Four of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Group, Inc. 50 Stranmillis Embankment Belfast, BT95FL Northern Ireland	SW DE
CommScope Czech Republic, s.r.o Turanka 856/98B 627 00 Brno Czech Republic	HW DE,
CommScope CZ, spol. s.r.o. U Morusi 888, 53006 Pardubice Czech Republic Czech Republic	HW DE,
CommScope Connectivity UK Limited Units 1 and 4 Kinmel Park Industrial Estate Bodelwyddan, Denbighshire, LL18 5TZ United Kingdom	HW DE, MFG, SAL
CommScope Design & Integration UK Ltd. Unit 5 & 6 Eden Business Park Eden House Drive Old Malton, Malton, North Yorkshire YO17 6AE United Kingdom	HW DE, MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Five of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
CommScope Design & Integration UK Limited 412 The Quadrant, Birchwood Park Warrington, WA3 6FW United Kingdom	SER
CommScope EMEA Ltd. Corke Abbey Avenue Bray, Co. Dublin Ireland	MFG, SAL
CommScope EMEA Ltd. Diestsesteenweg 692 3010 Kessel-Lo, Belgium	HW DE, MFG, SAL
CommScope Italy Srl Via Archimede, 22/24 Agrate Brianza (MB) 20864 Italy	HW DE, REP, SW DE
Telecom Networks Americas AV. HIPOLITO YRIGOYEN 2999, DEPOSITO 6 EL TALAR, TIGRE Buenos Aires B1618AXD Argentine Republic	SAL, DIST
Commscope Networks India Private Limited Salarpuria Softzone, A Block, 1st Floor Survey No 80/1, 81/1, 81/2, B Wing, Belandur Village, Varthur Hobli, Outer Ring Bangalore – Karanataka 560103 India	SW DE
ADC India Communications Ltd. No 10 C , 2nd Phase Peenya Industrial Area Bangalore – Karnataka 560058 India	MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Six of Seven

The Quality Management System and implementation of:

CommScope, Inc.

With site at:

CommScope Asia (Suzhou) Technologies Co.,Ltd.

77 Qiming Road, Suzhou Industrial Park
Suzhou,Jiangsu 215121
Peoples Republic of China

meets the requirements of the standard:

ISO 9001:2015

The validity of this certificate depends on the validity of the main certificate.

Scope:
Production of network cable, fiber cable and communication equipment component (copper patch cords, copper panel, accessories etc.)

Certification Structure: Multi-site

Certificate Expires:	January 04, 2026
Certificate Issued:	January 05, 2023
Certified Since:	January 10, 2001

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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证 书 附 录

证书编号: 111045.000

附录第7页,共7页

质量管理体系和实施:

CommScope, Inc.

其场所:

康普科技（苏州）有限公司

中国江苏省苏州工业园区启明路77 号,邮编215121

符合以下标准要求:

ISO 9001:2015

本证书的有效性取决于主证书的有效性。

范围:

网络线、光缆、通信系统设备材料（网络跳线、配线装置等）的生产。

认证结构: **多场所**

证书有效期: 2026.01.04

发证日期: 2023.01.05

首次发证日期: 2001.1.10

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
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CERTIFICATION BODY

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT
IAF

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

CommScope, Inc. of North Carolina
1100 CommScope Place SE
Hickory
North Carolina
28603-0339
USA

Holds Certificate No: **EMS 648387**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The environmental management system to control the risks associated with the manufacture, distribution, field support and central function of telecommunication products and services.

For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

...making excellence a habit.™

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An electronic certificate can be authenticated online. Printed copies can be validated at www.bsigroup.com/ClientDirectory
To be read in conjunction with the scope above or the attached appendix.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Telecommunications de Reynosa S. de R.L. de C.V. Av. Industrial Reynosa Lte 2 al 5 Parque Industrial Center Reynosa Tamaulipas 88780 Mexico	Manufacture and distribution of telecommunication products including antenna and cable.
CommScope Asia (Suzhou) Technologies Co., Ltd. EPZ II, 77 Qiming Road Suzhou Industrial Park Suzhou Jiangsu 215121 China	Manufacture and distribution of telecommunication products, including cable.
Andrew Telecommunications India Pvt. Ltd. Plot No. N-2, Phase IV Verna Industrial Estate Verna Salcette Goa 403 722 India	Manufacture and distribution of telecommunication products, including antenna and cable.
CommScope EMEA Ltd. Corke Abbey Avenue Bray County Dublin A98FY03 Ireland	Manufacture and distribution of telecommunication products, including cable and connectors.
CommScope Telecommunications (China) Co., Ltd. 68 West Su Hong Xi Lu Suzhou Industrial Park Suzhou Jiangsu 215021 China	Manufacture and distribution of telecommunication products, including antenna and cables.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Wireless Systems GmbH Industriering 10 Buchdorf 86675 Germany	Manufacture and distribution of telecommunication products, including amplifiers and antenna systems.
CommScope, Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Corporate headquarters responsible for management system oversight of all locations listed on this certificate.
CommScope Inc. 6519 CommScope Road Catawba North Carolina 28609-0199 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Inc. 3642 US Hwy 70 East Claremont North Carolina 28610-0879 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Czech Republic s.r.o. Turanka 98B Brno 62700 Czech Republic	Manufacture and distribution of telecommunication products, including connectors and terminations.
CommScope Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Customer care, facility maintenance, and administrative functions.
ADC de Delicias, S. de R.L. de C.V. Blvd. Fernando Baeza No. 1301 Sur Delicias Chihuahua 33000 Mexico	Manufacturing and distribution of telecommunication products.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
ADC de Juarez S. de R.L. de C.V. Parque Industrial Antonio J Bermudez Ciudad Juarez Chihuahua 32470 Mexico	Manufacturing and distribution of telecommunication products.
CommScope Connectivity Belgium bvba Diestsesteenweg 692 Kessel-lo 3010 Belgium	Manufacture and distribution of telecommunication products.
CommScope Technologies de Juarez S. de R.L. de C.V. Santiago Troncoso 331 Praderas del Sur, Ciudad Juarez Chihuahua 32575 Mexico	Manufacture of Fiber Optic Splice Closures (FOSC), Fiber Guide Systems (FGS), Hardened Connectivity and Molding-Gel Filling, including: plastic injection molding, plastic extrusion, plastic and metal machining, and assembly operations.
CommScope Connectivity UK Limited Unit 1 Kinmel Park Bodelwyddan Rhyl, Denbighshire LL18 5TZ United Kingdom	Fibre optic cable manufacturing, termination and design of other telecommunication products and services.
CommScope 11312 S. Pipeline Road Euless Texas 76040 USA	Manufacture, distribution, field support and central function of telecommunication products.
ARRIS GROUP DE MEXICO SA DE CV Av. De la Paz, #11721 Parque Industrial Pacifico Tijuana Baja California 22643 Mexico	Manufacture, repair, support, repair service, distribution of products and components for telecommunications that provide integrated solutions for voice, video and data through the processes of SMT, manual and mechanical assembly, soldering (manual, selective, printed, wave) electrical testing and packaging.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
CommScope Design & Integration UK Ltd Unit 5 & 6, Eden Business Park Edenhouse Drive Old Malton Malton YO17 6AE United Kingdom	Manufacture and distribution of telecommunications products including cabinets.
Arris Indústria Eletrônica do Brasil Ltda. CNPJ: 09.154.836/0001-15 Avenida Torquato Tapajós, 9475 Tarumã Manaus Amazonas 69041-025 Brasil	Manufacturer and distribution of Receivers, Television signal Decoders and Modulator/Router.
CommScope Design and Integration UK Ltd. Lovell House, 412 The Quadrant Birchwood Park Warrington WA3 6FW United Kingdom	Telecommunications project management, site surveys, installations commissioning and rigging.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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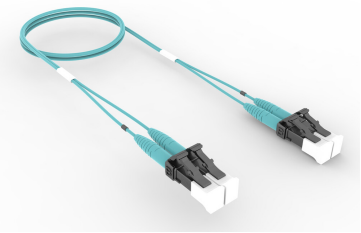
Base Product



Fiber Patch Cord, LC/UPC/UPC to LC/UPC/UPC, Multimode OM4, 1.6 mm Duplex, Low Smoke Zero Halogen (LSZH)

Product Classification

Regional Availability	Asia | Australia/New Zealand | China | Europe | India | Latin America | Middle East/Africa | North America
Portfolio	CommScope®
Product Type	Fiber patch cord, duplex
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FFX
Ordering Note	For lengths greater than 999 ft (304 m), orders must be in meters | Minimum length may vary based on cable configuration | Replacement for MEA Region: 2105027

General Specifications

Color, boot A	Aqua
Color, connector A	Black
Color, boot B	Aqua
Color, connector B	Black
Interface, Connector A	LC/UPC
Interface, Connector B	LC/UPC
Jacket Color	Aqua
Polarity	Pairs, flipped
Total Fibers, quantity	2
Transmission Standards	TIA/EIA-568-C.3

Dimensions

Cable Assembly Length Range (m)	1 – 999
Cable Assembly Length Range (ft)	1 – 999
Diameter Over Jacket	1.6 mm | 0.063 in

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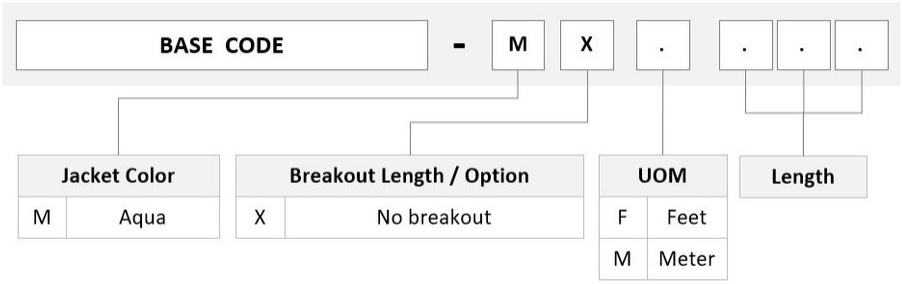
Ordering Tree



Mechanical Specifications

Cable Retention Strength, maximum	11.24 lb @ 0 ° | 4.40 lb @ 90 °

Optical Specifications

Fiber Mode	Multimode
Fiber Type	OM4, LazrSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Environmental Space	Dual Rated LSZH/Riser

Packaging and Weights

Packaging quantity	1

Regulatory Compliance/Certifications

Agency	**Classification**
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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Included Products

760021659 N-002-ZC-5K-F16AQ/E	–	Fiber Indoor Cable, LazrSPEED® 1.6 mm Low Smoke Zero Halogen Riser, 2-fiber Zipcord, Multimode OM4, Feet jacket marking, Aqua jacket color, Eca Flame Rating
860655461	–	LC/UPC Connector, Multimode, Aqua

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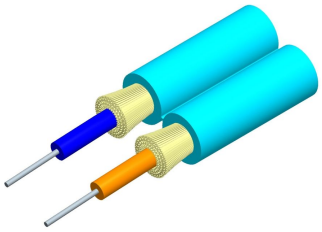
760021659 | N-002-ZC-5K-F16AQ/E



Fiber Indoor Cable, LazrSPEED® 1.6 mm Low Smoke Zero Halogen Riser, 2-fiber Zipcord, Multimode OM4, Feet jacket marking, Aqua jacket color, Eca Flame Rating

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber indoor cable
Product Series	N-ZC

General Specifications

Cable Type	Cordage
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Aqua
Jacket Marking	Feet
Total Fiber Count	2

Dimensions

Height Over Jacket	1.7 mm | 0.067 in
Width Over Jacket	3.5 mm | 0.138 in

Representative Image

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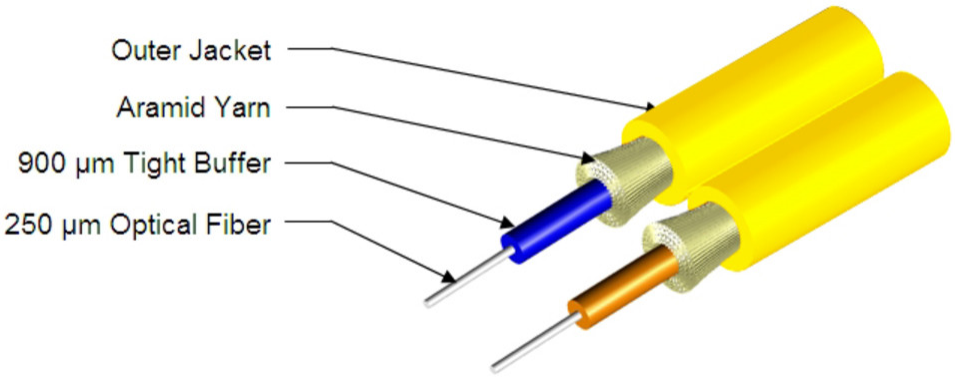
760021659 | N-002-ZC-5K-F16AQ/E



Mechanical Specifications

Minimum Bend Radius, loaded	38 mm | 1.496 in
Minimum Bend Radius, unloaded	15 mm | 0.591 in
Tensile Load, long term, maximum	53 N | 11.915 lbf
Tensile Load, short term, maximum	178 N | 40.016 lbf
Compression	10 N/mm | 57.101 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	300 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	0.74 N-m | 6.55 in lb
Impact Test Method	FOTP-25 | IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 | IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 | IEC 60794-1 E7
Vertical Rise, maximum	500 m | 1,640.42 ft

Optical Specifications

Fiber Type	OM4, LazrSPEED® 550 | OM4, LazrSPEED® 550

Environmental Specifications

Installation temperature	-20 °C to +60 °C (-4 °F to +140 °F)

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Operating Temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409
EN50575 CPR Cable EuroClass Fire Performance	Eca
Environmental Space	Low Smoke Zero Halogen (LSZH) | Riser
Flame Test Listing	NEC OFNR-ST1 (ETL) and c(ETL)
Flame Test Method	IEC 60332-1-2 | IEC 60332-3 | IEC 60754-2 | IEC 61034-2 | UL 1666 | UL 1685

Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Packaging and Weights

Cable weight	6 kg/km | 4.032 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable

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860655461

LC/UPC Connector, Multimode, Aqua

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber connector

General Specifications

Color, boot	Aqua
Color, housing	Black
Interface	LC/UPC

Dimensions

Length	41.6 mm | 1.638 in
Compatible Cable Diameter	1.6 mm | 0.063 in | 2 mm | 0.079 in

Material Specifications

Ferrule Material	Zirconia

Mechanical Specifications

Cable Retention Strength, maximum	11.24 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Insertion Loss Change, mating	0.2 dB
Optical Components Standard	ANSI/TIA-568. 3-D | IEC 61753-1
Insertion Loss Change, temperature	0.2 dB
Insertion Loss, maximum	0.24 dB
Return Loss, minimum	27 dB

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* Footnotes

Insertion Loss Change, mating	TIA-568: Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)

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LIMITED WARRANTY

1. **Definitions.** For purposes of this Warranty, (i) "Buyer" shall mean the individual or entity identified on the applicable purchase order or supply agreement (or, if different, on Seller's quotation, order acknowledgement or statement of work), (ii) "Seller" shall mean the CommScope entity identified on such entity's quotation, order acknowledgement, statement of work or supply agreement, (iii) "Hardware" means equipment designed and manufactured by or on behalf of Seller, or any third-party manufacturer's equipment offered for sale by Seller to Buyer, (iv) "Product" shall mean a product manufactured by or on behalf of Seller pursuant to the applicable supply agreement, quotation or order acknowledgement, and includes any combination of Hardware and Software, (v) "Services" means site engineering, system integration, product installation, implementation, training, maintenance and technical support services for Products, or other professional services provided by Seller to Buyer. Services exclude managed services and hosted cloud services provided by Seller, (vi) "Software" means Seller-licensed software, either embedded or standalone, including any updates provided, and any other enhancements, modifications, and bug fixes provided thereto, in object code form only (unless otherwise specified), and any full or partial copies thereof. Software does not include software created or owned by third parties, including but not limited to MediaKind Software, Google's Android Software or any third party application software, and (vii) "Warranty Period" means, unless a different time period is set forth in **Exhibit A,** (a) for Hardware, one year from date of original shipment from Seller's facility, (b) for Software-only Products, ninety (90) days from the date such Software is first made available to Buyer, or for Software embedded in a Hardware Product, ninety (90) days from date of original shipment of the Product from Seller's facility, and (c) for Services, thirty (30) days from the date the performance of such Services has been rendered.

2. **Limited Warranty.** Seller warrants that, as of the date of delivery, Seller has good title to the Product, free from any lawful security interest or other lien or encumbrance unknown to Buyer. In addition, during the Warranty Period, the Product and Services will be free from defects in materials or workmanship arising under proper and normal use. This Warranty shall apply only to the Products and Services and shall not apply to any other goods or materials, parts or components of a system or any system as a whole. This Warranty does not cover ordinary wear and tear. Seller does not warrant (i) Products not purchased from Seller or its authorized resellers; (ii) that the operation of the Product will be uninterrupted or error-free; (iii) that the Product will operate in combination with other third-party products selected by Buyer; or (iv) any products manufactured by third parties; provided that Seller will, to the extent permitted by the manufacturer, assign third-party warranties to Buyer. Seller gives no warranty for, and shall have no liability with respect to, any defects arising from any software (other than the Software), including, but not limited to MediaKind Software, Android Software or any third-party application software, downloaded to or otherwise used in conjunction with the Product. Seller further warrants to Buyer that during the Warranty Period, all Services performed by Seller for Buyer will be provided in a workmanlike manner.

3. **Disclaimers.** EXCEPT AS EXPRESSLY SET FORTH IN THIS LIMITED WARRANTY OR IN A SEPARATE, APPLICABLE SOFTWARE LICENSE AGREEMENT, ALL SOFTWARE IS LICENSED ON AN "AS IS" BASIS WITHOUT WARRANTY.

4. **Inspection and Return Authorization**. Buyer must promptly notify Seller of any claimed defect in the Product and/or Services. If Buyer claims that a Product is defective in materials or workmanship, Seller shall have the right to either examine the Product where it is located or, in its sole discretion, issue shipping instructions for return of the Product. Seller's inspection in response to a warranty claim shall not constitute acceptance or acknowledgment of the claim's validity. Except as otherwise agreed to in writing, Products may not be returned to Seller without prior authorization. Buyer must contact Seller to obtain an authorization number and return the Products to the location designated by Seller. Any Products returned to Seller without proper authorization will be returned to Buyer at Buyer's expense. Risk of loss, damage and insurance responsibilities for the Products shall not pass from Buyer to Seller until delivery of the Products to Seller's designated location. Buyer shall prepay all transportation charges for such return.

5. **Remedies.** Seller's sole and exclusive obligation and Buyer's exclusive remedy under this Warranty is Seller's repair or replacement of the defective Product or re-performance of Services or issuance of a credit for the net book value of the purchase price of the defective Product. Seller shall have sole discretion as to which of these remedies Seller will provide. Seller is not liable for any repair or maintenance costs incurred by Buyer, unless Seller authorizes such charges in writing in advance of the commencement of the work. If Seller elects to replace or repair the defective Product, the replaced or repaired Product will be warranted for the remainder of the Warranty Period applicable to the originally shipped Product, but the Warranty shall not be extended beyond the original Warranty Period. Replacement Products may be new, refurbished or contain refurbished materials.

6. **Notice and Waiver**. If Buyer discovers any defect in the Product, Buyer must provide prompt (and in no case later than thirty (30) days after discovery) written notice to Seller of the claimed defect. Such notice shall describe, in reasonable detail, the symptoms of such defect. The notice must be received by Seller during the Warranty Period for such Product. Failure to give timely notice of a claim shall result in Buyer's waiver of such claim.

7. **Transfer of Ownership.** This Warranty is not transferable unless Buyer is expressly authorized by Seller in writing to resell the Product. In addition, Buyer must notify Seller on or before the fifteenth (15^{th}) day after the date on which it transfers ownership of the warranted Product. Any transfers in violation of this Section shall invalidate this Warranty. Notice of the transfer of ownership must be in writing and shall include the name and address of the new owner.

8. **Exclusions from Warranty.** This Warranty shall not apply to problems attributable to, or as a result of:

(a) improper installation or misapplication of parts;
(b) chain or system failures induced by other products or components;
(c) lack of proper inspection or maintenance or failure to provide a suitable operating environment;
(d) any consumables provided with the Product, including but not limited to batteries and other accessories, and any other materials, components or products manufactured by a third party;
(e) power surges, fire, unusual mechanical, physical or electrical stress, severe weather conditions or acts of nature, including but not limited to, lightning or floods;
(f) usage or operation not in accordance with published ratings, specifications or instructions, including but not limited to environmental specifications identified by Seller;
(g) any adjustment, modification, alteration, removal or repair of any part of the Product, including but not limited to removal or alteration of serial numbers or other identifying marks not expressly authorized by Seller in writing;
(h) accidental damage, misuse, abuse, neglect or unauthorized access of the Product or of any system of which the warranted Product is a part;
(i) any type of aesthetic changes due to oxidation or corrosion occurring on stainless steel or galvanized steel parts installed in unusually corrosive marine and industrial atmospheres (in which case Seller's only obligation shall be to ensure that Product complies with Seller's published material specifications);
(j) use of the Product for purposes other than that for which it was designed; or
(k) mishandling during shipment of the Product.

LIMITED WARRANTY

This Warranty is for Products installed and used in accordance with Seller's design, installation and operating parameters. Buyer's failure to ensure conformity with such parameters will void all warranties. Under no circumstance shall Seller have any liability or obligation with respect to expenses, liabilities or losses associated with the installation or removal of any Product or the installation or removal of any components for inspection, testing or redesign occasioned by any defect or by any repair or replacement of a Product.

9. **Limitation on Liability.** THE WARRANTIES SET FORTH IN SECTION 2 HEREOF ARE EXCLUSIVE AND ARE MADE ONLY TO BUYER. SELLER MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS AND EXCLUDES ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION OR WARRANTY ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OR PERFORMANCE. No person is authorized to give any additional warranties on Seller's behalf or to assume for Seller any other liability, except in a writing signed by an authorized officer of Seller. SELLER'S TOTAL LIABILITY FOR ANY CLAIM OR DAMAGE ARISING OUT OF AND/OR IN CONNECTION WITH THE MANUFACTURE, SALE, DELIVERY OR USE OF THE PRODUCTS OR SERVICES WILL BE LIMITED TO PROVEN DIRECT DAMAGES, NOT TO EXCEED (I) FOR PRODUCTS, THE DEPRECIATED VALUE OF THE PURCHASE PRICE OF SUCH PRODUCTS OR (II) FOR SERVICES, THE ACTUAL AMOUNT PAID TO SELLER FOR SERVICES DURING THE 12 MONTH PERIOD IMMEDIATELY PRIOR TO THE EVENT (OR SERIES OF EVENTS) GIVING RISE TO THE LIABILITY. IN NO EVENT WILL SELLER BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY CLAIM FOR LOSS OF ACTUAL OR ANTICIPATED DATA, USE, REVENUES OR PROFITS. The Products are not specifically designed, tested, manufactured or intended for operation or use in any inherently dangerous, life endangering or life support applications where any failure of the Products could lead to death, personal injury or significant physical or environmental damage (High Risk Activities). If Buyer uses the Products in High Risk Activities, including but not limited to nuclear facilities or the flight, navigation or communication of aircraft, Buyer agrees that neither Seller nor its third party licensors are liable in whole or in part, for any claims or damages arising from such use, and that Buyer shall indemnify and hold Seller and its third party licensors harmless from any and all claims for loss, cost, damage, expense or liability arising out of or in connection with any use of the Products in High Risk Activities. These limitations on liability will apply regardless of the form of action, whether in contract, tort, strict liability or otherwise, and whether damages were foreseeable and will survive failure of any exclusive remedies provided in Section 4 hereof.

10. **Choice of Law.** The terms and conditions contained herein and the rights of the parties to any transaction to which they relate shall be governed by and construed in accordance with the laws of the State of North Carolina, U.S.A. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

LIMITED WARRANTY

Exhibit A

Product Categories	Warranty Period from Original Shipment Date*
Category A Products E6000® Converged Edge Router (CER); E6000n™ Remote PHY Devices (RPDs); E6000r™ Remote PHY Shelves; E6000n™ Remote MACPHY Devices (RMDs); vManager; Remote OLT (R-OLT); associated power supplies and accessories. FLX PON OLT portfolio including vOLT. CherryPicker products, Encoder products including ME-7000, SE-6000; DSR-4xxx, DSR-6xxx and DSR-7xxx series IRD products, and Uplink systems including TME-2020, VDP-1000, BNC, DEM, and SEM; All APEX Universal EQAM including APEX1000 and APEX3000; All Aloha interactive products including OM2000, ARPD, ADM4000 and NC1500 4.0. All SDM products. All VUE and VTM Software Products. All STDC products.	Hardware One (1) Year Software Ninety (90) Days
Category B Products All High and Standard Definition Transport Adapter MS4000™ Media Streamer	Hardware One (1) Year Software Ninety (90) days ** For certain CPE, option for 1% overship in lieu of Hardware warranty is standard
Category C Products Intentionally left blank.	
Category D Products All Third Party OEM Products: power meters; All VUE and VTM hardware platforms; NC1500 4.0 hardware platform; LQA256 Legacy QAM Adapter; Elemental Products including Live, Server, Delta, Conductor and StatMux; DC2180 Cabinet Node. Cooling Systems	Pass Through from OEM: Hardware One (1) Year Software Ninety (90) Days
Category E Products Intentionally left blank	
Category F Products All OM and SG optical node platforms, Flex Max® and Starline® amplifier platforms, RF Taps & Passives, and Optical Passives	Hardware Five (5) Years within the United States and Canada Hardware Three (3) Years outside United States and Canada Software Ninety (90) Days
Category F1 Products All CHP Headend Optical (HEO) Elements	Hardware Three (3) Years Software Ninety (90) Days
Category G1 Products All NC optical node platforms and Optical Passives, including OP/NP/DP/DC models.	Hardware Five (5) Years Software Ninety (90) Days
Category G2 Products All CH3 Headend (HEO) Elements	One (1) year
Category G3 Products All EPON and GPON ONUs, RFoG/HPON R-ONUs, including, CP8 models and associated power supplies and accessories	Hardware Three (3) Years Software Ninety (90) Days

Category H Products All ConvergeMedia™ Distribution Platforms and Management Suite, AdManager™ including SkyVision Ad Management and EMP solutions CVEx™, SVA, all Vertasent products including SVOM, SVM and ERM, AdEdge™ COM and AdEdge APS,VMS, Manifest Delivery Controller (MDC), ARRIS Video Content Manager (AVCM) and Next Generation Insertion (NGI) and Multicast ABR.	Hardware One (1) Year Software Ninety (90) Days
Category I Products ServAssure® Advanced, ServAssure® NXT - Alarm Central, ServAssure® NXT - Analyze, ServAssure Domain Manager and EventAssure™. WorkAssure™® Workforce Management, Mobile TV, SecureMedia and Titanium	Hardware One (1) Year Software Ninety (90) Days
Category J Products Intentionally left blank	
Category K Products Intentionally left blank.	
Category L Products Intentionally left blank	
Category M Products Intentionally left blank.	
Category N Products Intentionally left blank.	
Category O Products All CAS Products including DAC, CASMR (and associated plug-ins), CAST, Advisor, CSS, OLL, CSS-Lite, KLS, DKS, CPMS	DAC, CASMR, CAST, Advisor, CSS Hardware Three (3) Years OLL, CSS-Lite, KLS, DKS, OLES, CPMS Hardware One (1) Year Software Ninety (90) Days
Category P Products Intentionally left blank.	
Category P1 Products Intentionally left blank	
Category Q Products Intentionally left blank	
Category R Products Intentionally left blank	
Category R1 Products Intentionally left blank	
Category S Products Intentionally left blank	
Category S1 Products Intentionally left blank	

LIMITED WARRANTY

Category T Products RUCKUS Wi-Fi	Hardware: - Indoor Access Points and Wall Plate Access Points – Limited Lifetime Warranty,** except for access points with an "e" suffix (e.g., R350e), for which the HW warranty period is one (1) year. - Outdoor Access Points – One (1) Year - Controllers – One (1) Year, except ZoneDirector controllers are covered by the Limited Lifetime Warranty** Software Ninety (90) Days
Category T1 Products RUCKUS ICX Switches	- ICX Switches (including switch modules, PSUs, and Fans, but excluding removable optics/transceivers and LEDs) – Limited Lifetime Warranty,** except for ICX 7150- C08PT, for which the HW warranty period is 13 months. - LEDs – 12 months - Removable Optics/Transceivers – 60 months (13 months if shipped from Seller prior to June 1, 2021) Software: Limited lifetime access to defect repairs, and software maintenance updates through end of support date of product
Category T2 Products Intentionally left blank	
Category U Products Other OSP Cable Products (P3®, Drop Coax, Fiber Cable, Fiber Drop Cable, CIC) NovuX Products Prodigy Products FDH Products Multiservice terminals (MST), Open Terminals (OTE) and Hardened Drop Cable Assemblies OSP "Box" Products Mini-RDTs and RDTs FOSC™, FIST™ and Tenio™ OSP Copper Connect and Closure Products HELIAX® FiberFeed® Products, including FiberFeed® hybrid and fiber cables and assemblies, power cables and junction boxes Fiber Optic Panels, including Accessories, Mounting Hardware, Modules Fiber Optic Field Terminated Connectors, Kits, Tools, Consumables, Accessories Indoor Fiber Cable, Patch Cords, Cable Assemblies, Fiber Trunks Passive Optical Components and Value Added Modules (VAMs) FiberGuide® : Fiber cable Management System Optical Distribution Frames, including Modules, Blocks, Accessories and Hardware Cabinets Cable and Apparatus Products Alifabs™ Cabinets & Ancillary Products Alifabs™ Telecommunications Towers and Accessories Metro Cell Products, including Enclosures; Integrated Pole; Standard Poles; Accessories; and Wood Pole Brackets	One (1) year

LIMITED WARRANTY

Category V Products ValuDAS® Passive Products, including Air Directional Couplers, Hybrid Couplers, High Power Splitters, and Cell-Max™ Antennas Standard Tower Mounted Amplifier, Bias Tee and Power Distribution Unit Products Standard Filter & Combiner Products Electronic Enclosure Products (Cabinets) Alifabs™ Free Cooling Products and Accessories and Spare Parts, including Monitor All-In-One FLX (Active Passive Cabines) PowerShift™ & Power Products	Two (2) years
Category W Products ValuSite® Products I-Line Accessory Products Microwave Antennas Terrestrial Microwave System Products (including Microwave System Flex-Twist, Coupler, Filter and Diplexer Products)	Three (3) years
Category X Products Broadband RF Connectivity Products Premium Passive Products, including In-Building Directional Couplers, Hybrid Matrices, Tappers, Power Splitters, Terminations, Attenuators and CMAX Antenna Products	Five (5) years
Category Y Products QR® Coaxial Cable	Five (5) years
Category Z Products Standard RADIAX® Cable, Connector, Accessory and Cable Assembly* Products * RADIAX® Cable Assembly Product means any RADIAX® coaxial cable that has been fitted with Seller's connectors in accordance with the installation instructions.	One (1) year
Category AA Products Standard CNT® Cable, Connector, Accessory and Cable Assembly* Products * CNT® Cable Assembly Product means any CNT® coaxial cable that has been fitted with Seller's connectors by Seller or its certified distributor	Five (5) years; except that the Warranty Period for Products purchased for resale purposes shall be one (1) year.
Category BB Products Standard HELIAX® Cable, Connector, Accessory and Cable Assembly* Products * HELIAX® Cable Assembly Product means any HELIAX® coaxial cable or elliptical waveguide that has been fitted with Seller's connectors by Seller or its certified distributor.	Ten (10) years; except for the following: (i) three (3) years for weatherproofing kits (including SureGuard boots); (ii) one (1) year for cable preparation tools (excluding blades); (iii) one year for single click-on hanger kits; and (iv) two (2) years for surge arrestors.
Category CC Products Standard ERA/ION-E®, ION-M®, ION-U®, MR, CMR, i-POI®, e-POI™, and Node Repeater Products	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of shipment. Software Ninety (90) Days
Category DD Products In- Building and Fixed Subscriber Antennas	The earlier of: (i) three (3) years from the date of installation or (ii) thirty-nine (39) months from the date of original shipment

LIMITED WARRANTY

Category EE Products OneCell® Powered Fiber Cable Solution: Hybrid Copper and Fiber Cables, Class 2 Power Supplies, Indoor/Outdoor POE Extenders, Field Terminated Outlets, Consolidation Boxes and Related Passive Components	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of original shipment Software Ninety (90) Days
Category FF Products Small Cell Device Management System (DMS) Software DAS Device Management System (AIMOS) Software	Ninety (90) days
Category GG Products Base Station Antenna, Small Cell Antenna & Mosaic™ Products	Two (2) years for all base station antennas except base station antennas incorporating N-type connectors, which shall have a warranty of one (1) year
Category HH Products DryLine® Dehydrator Systems and Line Monitoring Systems	Three (3) years or 3,000 hours of actual run time, whichever occurs first; except the Warranty Period for the compressor is only one (1) year or 1,000 hours of actual run time, whichever occurs first.
Category II Products SiteRise™ Solutions	One (1) year on workmanship for the Solution.
Category JJ Products Copper Structured Cabling Products Other Enterprise Products (Coax, Automotive Cables, Enterprise Enclosures and miscellaneous items) (excluding software)	One (1) year from the date of Installation
Category KK Products Alifabs™ Services (power upgrades, enablements, installation and decommission work, rigging, and fault management)	One (1) year from the date of completion of the work.
Category LL Products imVision Overlays and Controllers	Three (3) years

** For Category H and Category I Products only, if Seller is engaged by Buyer to provide Services for the implementation of the purchased Products, warranty period for such Products shall commence upon Buyer's acceptance of the Products and Services.*

** For Category T Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing for as long as the original end user of the Product continues to own and use the Product. For Category T1 Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing (i) for as long as the original end user of the Product continues to own and use the Product or (ii) through the End of Support date, as defined in the RUCKUS End of Life Policy, whichever is earlier.

RoHS Certificate of Compliance

COMMSCOPE®

Product Name: JUMPER,LSZH,LS,1.6MM,DPLX,LC-STD/LC-STD

Product Number: FFXLCLC42

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: May 06, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided and our analysis and assessment of the risks. This information is subject to change and if a change occurs which affects compliance, then this Statement will be updated. Compliance to EU ROHS 2011/65 amended by EU RoHS 2015/863 means the part numbers have a maximum concentration of no more than 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). These parts also have a maximum concentration of no more than 0.1% by weight in homogenous materials for DEHP, BBP, DBP and DIBP (substances that are restricted starting from July 22, 2019). Finished electrical and electronic products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked.

Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

COMMSCOPE®

TECP-96-194 Rev C May 2019

LC and MPO Connectors

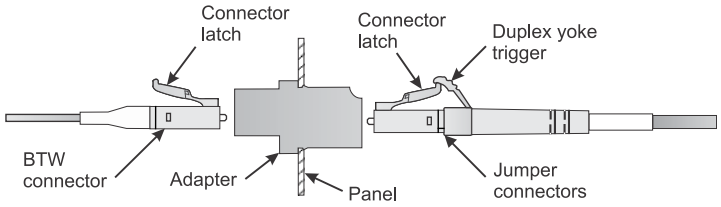
Instructions for Use

For optimal connectivity performance, invest in a Fiber Optic Inspection and Cleaning Kit for your installation team.

CommScope® Cleaning and Inspection Kit – 760053199 -- Consumable Replacement Kit – 760053207

Install LC Connectors into Adapter

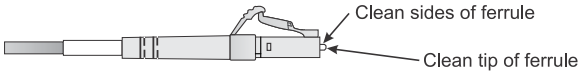
1. Install connectors into the adapter by aligning the latch on the connector with the slot on the adapter and gently push into place. An audible click is heard when the connector snaps into the adapter.
2. If a high-loss condition exists, use the LC cleaning procedures and reinstall the connector as described in Step 1.
3. When doing rearrangements or reinsertions of LC connectors, use the LC cleaning procedures to clean all components and reinstall the connectors as described in Step 1.



Clean LC Connector and Adapter

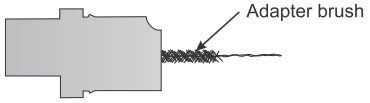
Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face. **Clean connector ferrule** inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Rotate cleaning stick with medium pressure in one circular motion as it is pulled away from the adapter. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule are not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. Always inspect connector end face for contamination after each cleaning.



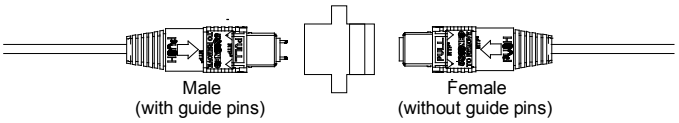
Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently pull out with twisting motion. Repeat process with a dry cleaning stick.

Caution: Do not try to clean adapter with a standard pipe cleaner. The sleeve inner diameter of LC adapters is too small. Do not try to clean the adapter with cleaning stick if a connector is mounted in one side. Discard cleaning sticks after each use.



Install MPO Connectors into MPO Adapter

1. Before installing, remove the dust cap and refer to the MPO cleaning instructions.
2. Attach an MPO connector end into an MPO adapter by aligning the key on the connector body with the keyway in the adapter. Apply enough pressure till you hear a "click" sound, which signifies that the connector is plugged into the adapter.



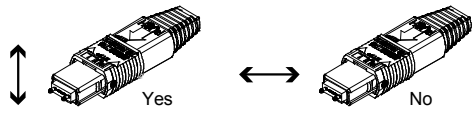
3. If a high loss is present, remove the MPO connector, use the MPO cleaning instructions and reinstall the connector.
4. Whenever disconnecting and reconnecting the MPO connector, refer to the MPO cleaning instructions before reinstallation.

   Warning: Do not connect male connector ends to each other. Doing so will damage the connector end face. Do not connect two female ends. If you do connect two female ends together, the test results will present a high insertion loss.

Cleaning the MPO Connector and MPO Adapter

Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face. **Clean connector ferrule** inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Applying medium pressure, wipe the end face in direction perpendicular to fiber array and all the way around each pin. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule is not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. To prevent scratching the end face, always clean the MPO connectors with a cleaning motion from top to bottom. Never clean the MPO connector by rubbing across it from side to side.



Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently wiping inside surface. Repeat process with a dry cleaning stick.

Caution: Do not try to clean the adapter with cleaning stick if a connector is mounted in one side. Discard cleaning sticks after each use.

COMMSCOPE®

How to Contact Us

- For product information and support, visit us on the web at http://www.commscope.com/SupportCenter
- For technical assistance:
  - Within the United States, contact your local account representative or technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized Business Partner.
  - Within the United States, report any missing/damaged parts or any other issues to CommScope Customer Claims at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized Business Partner.

Instructions for Use

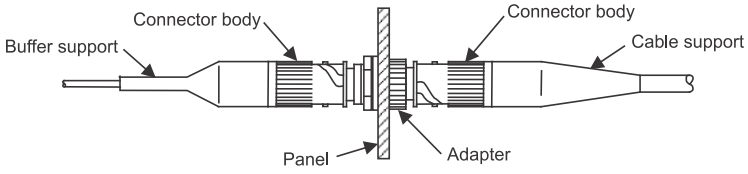
ST® and SC Connectors

For optimal connectivity performance, invest in a Fiber Optic Inspection and Cleaning Kit for your installation team.

CommScope® Cleaning and Inspection Kit – 760053199
Consumable Replacement Kit – 760053207

Install ST® Connectors into Adapter

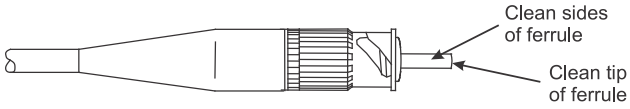
1. Install the connectors into the adapter by aligning the mark on the rim of the connector body with the slot in the adapter. Complete the connection by pushing the connector into the adapter with a clockwise twist-locking motion.
2. If a high-loss condition exists, use the **ST** cleaning procedures and reinstall the connectors as described in Step 1.
3. When doing rearrangements or reinsertions of **ST** connectors, use the **ST** cleaning procedures to clean all components and reinstall the connectors as described in Step 1.



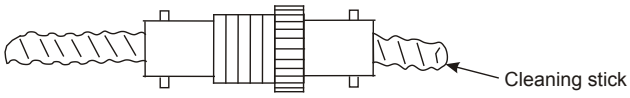
Clean *ST* Connector and Adapter

Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face.
Clean connector ferrule inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Rotate cleaning stick with medium pressure in one circular motion as it is pulled away from the adapter. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule are not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. Always inspect connector end face for contamination after each cleaning.

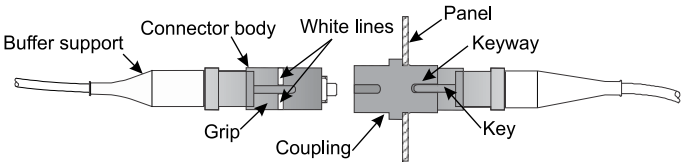


Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently pull out with twisting motion. Repeat process with a dry cleaning stick.
Caution: Discard cleaning sticks after each use. Do not try to clean the adapter with cleaning stick if a connector is mounted in one side.



Install SC Connectors into Adapter

1. Install each connector into the adapter by aligning the key on the connector body with the keyway on the adapter. The connector is properly installed when the white line in the grip disappears inside the adapter.
2. If a high-loss condition exists, use the SC cleaning procedures and reinstall the connectors as described in Step 1.
3. When doing rearrangements or reinsertions of SC connectors, use the SC cleaning procedures to clean all components and reinstall the connectors as described in Step 1.

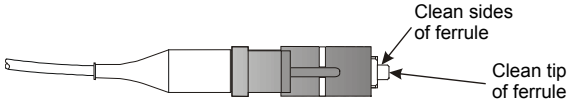


Clean SC Connector and Adapter

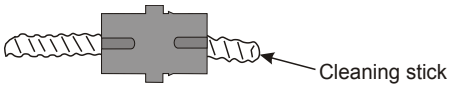
Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face.

Clean connector ferrule inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Rotate cleaning stick with medium pressure in one circular motion as it is pulled away from the adapter. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule are not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. Always inspect connector end face for contamination after each cleaning.



Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently pull out with twisting motion. Repeat process with a dry cleaning stick.
Caution: Discard cleaning sticks after each use. Do not try to clean the adapter with cleaning stick if a connector is mounted in one side.



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CERTIFICATE

Certificate Number: 111045.000
Including Seven Page Addendum

The Quality Management System and implementation of:

CommScope, Inc.

With Virtual Central Function at:
1100 CommScope Place SE
Hickory, NC 28602
United States

meets the requirements of the standard:

ISO 9001:2015

Scope:

The sales, marketing, design, manufacture, test, repair, support, service, and distribution of telecommunications products, components, and services for the telecommunications, wireless, and broadcast networks industries

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Business Segments	Exceptions
Connectivity and Cable Solutions (CCS)	None
Networking, Intelligent Cellular & Security Solutions (NICS)	None
Outdoor Wireless Networks (OWN)	None
Access Network Solutions (ANS)	None

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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Atlanta, GA 30339 USA
(215) 997-4519
https://www.dekra.us/en/audits/

ANAB ANSI National Accreditation Board ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page One of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Activities Legend:	HQ = Headquarters	MFG = Manufacturing	SER = Services (Professional Services and/or Technical Support)
	HW DE= Hardware Development	REP = Repair	SC = Purchasing, Supplier Management, Manufacturing Support, Repair Support
	SW DE= Software Development	SAL = Sales, Marketing	DIST = Distribution

Site Address	**Site Activities**
CommScope Inc 1100 CommScope Place SE Hickory, NC 28602 United States	HQ (Virtual)
ARRIS Technology, Inc. 3871 Lakefield Drive Suwanee, GA 30024 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 101 Tournament Dr. Horsham, PA, 19044 United States	HW & SW DE, SAL, SER, SC
ARRIS Technology, Inc. 6450 Sequence Drive San Diego, CA 92121 United States	SW DE, SER
ARRIS Technology, Inc. 900 Chelmsford St. Lowell, MA 01851 United States	HW & SW DE, SER, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Two of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Solutions, Inc. 2400 Ogden Ave., Suite 180 Lisle, IL 60532 United States	HW & SW DE, SAL, SER, SC
ARRIS 15 Sterling Drive Wallingford, CT 06492 United States	HW & SW DE, SER, SC
ARRIS Technology, Inc. 2450/2500 Walsh Avenue Santa Clara, CA 95051 United States	HW & SW DE, SAL, SER
Ruckus Wireless International Inc. 350 West Java Dr. Sunnyvale, CA 94089 United States	HW & SW DE, SER
Ruckus Wireless Network Technology (Shenzhen) Co. Ltd. Units C&D, 5th Floor, No. 2 Finance base, 8 KeFa Road, Shenzhen, China	SW DE, SC, HW DE

Certificate Expires: January 04, 2026
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Certificate Number: 111045.000
ADDENDUM Page Three of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
Site Address	**Site Activities**
CommScope Asia (Suzhou) Technologies Co., Ltd. 77 Qiming Road, Suzhou Industrial Park Suzhou,Jiangsu 215121 Peoples Republic of China	MFG, SC
Ruckus Wireless International Inc., Taiwan Branch @ Neihu District, Taipei City, Rui Road 411, 10th floor, Taipei	SW DE
ARRIS Group India Pvt Limited (AGIPL) Salarpuria Supreme, Ground Floor West Wing &First Floor Munnekolalu Village, Varthur Hobli, Outer Ring Road, Bangalore-560037	SW DE
ARRIS Group de Mexico S.A. de C.V. Av. La Paz 11721 Parque Industrial Pacifico Tijuana, BC 22643 Mexico	MFG, REP, SC
ARRIS Communications Ireland Limited Building 4300, Cork Airport Business Park Kinsale Road Cork County Ireland	HW & SW DE
ARRIS Group India Private Limited "The Senate" No:33/1, Ulsoor Road, Bangalore - 560 042 India	HW & SW DE

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

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Managing Director

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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Four of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
ARRIS Group, Inc. 50 Stranmillis Embankment Belfast, BT95FL Northern Ireland	SW DE
CommScope Czech Republic, s.r.o Turanka 856/98B 627 00 Brno Czech Republic	HW DE,
CommScope CZ, spol. s.r.o. U Morusi 888, 53006 Pardubice Czech Republic Czech Republic	HW DE,
CommScope Connectivity UK Limited Units 1 and 4 Kinmel Park Industrial Estate Bodelwyddan, Denbighshire, LL18 5TZ United Kingdom	HW DE, MFG, SAL
CommScope Design & Integration UK Ltd. Unit 5 & 6 Eden Business Park Eden House Drive Old Malton, Malton, North Yorkshire YO17 6AE United Kingdom	HW DE, MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Five of Seven

The Quality Management System and implementation of:

CommScope, Inc.

meets the requirements of the standard:

ISO 9001:2015

Site Address	Site Activities
CommScope Design & Integration UK Limited 412 The Quadrant, Birchwood Park Warrington, WA3 6FW United Kingdom	SER
CommScope EMEA Ltd. Corke Abbey Avenue Bray, Co. Dublin Ireland	MFG, SAL
CommScope EMEA Ltd. Diestsesteenweg 692 3010 Kessel-Lo, Belgium	HW DE, MFG, SAL
CommScope Italy Srl Via Archimede, 22/24 Agrate Brianza (MB) 20864 Italy	HW DE, REP, SW DE
Telecom Networks Americas AV. HIPOLITO YRIGOYEN 2999, DEPOSITO 6 EL TALAR, TIGRE Buenos Aires B1618AXD Argentine Republic	SAL, DIST
Commscope Networks India Private Limited Salarpuria Softzone, A Block, 1st Floor Survey No 80/1, 81/1, 81/2, B Wing, Belandur Village, Varthur Hobli, Outer Ring Bangalore – Karanataka 560103 India	SW DE
ADC India Communications Ltd. No 10 C , 2nd Phase Peenya Industrial Area Bangalore – Karnataka 560058 India	MFG, SC

Certificate Expires: January 04, 2026
Certificate Issued: January 05, 2023
Certified Since: January 10, 2001

Dr. Cem O. Onus
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CERTIFICATE ADDENDUM

Certificate Number: 111045.000
ADDENDUM Page Six of Seven

The Quality Management System and implementation of:

CommScope, Inc.

With site at:

CommScope Asia (Suzhou) Technologies Co.,Ltd.

77 Qiming Road, Suzhou Industrial Park
Suzhou,Jiangsu 215121
Peoples Republic of China

meets the requirements of the standard:

ISO 9001:2015

The validity of this certificate depends on the validity of the main certificate.

Scope:
Production of network cable, fiber cable and communication equipment component (copper patch cords, copper panel, accessories etc.)

Certification Structure: Multi-site

Certificate Expires:	January 04, 2026
Certificate Issued:	January 05, 2023
Certified Since:	January 10, 2001

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
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Atlanta, GA 30339 USA
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证 书 附 录

证书编号: 111045.000

附录第7页,共7页

质量管理体系和实施:

CommScope, Inc.

其场所:

康普科技（苏州）有限公司

中国江苏省苏州工业园区启明路77 号,邮编215121

符合以下标准要求:

ISO 9001:2015

本证书的有效性取决于主证书的有效性。

范围:

网络线、光缆、通信系统设备材料（网络跳线、配线装置等）的生产。

认证结构: **多场所**

证书有效期: 2026.01.04

发证日期: 2023.01.05

首次发证日期: 2001.1.10

Dr. Cem O. Onus
Managing Director

DEKRA Certification, Inc.
1945 The Exchange SE #300
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MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT
IAF

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

CommScope, Inc. of North Carolina
1100 CommScope Place SE
Hickory
North Carolina
28603-0339
USA

Holds Certificate No: **EMS 648387**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The environmental management system to control the risks associated with the manufacture, distribution, field support and central function of telecommunication products and services.

For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Telecommunications de Reynosa S. de R.L. de C.V. Av. Industrial Reynosa Lte 2 al 5 Parque Industrial Center Reynosa Tamaulipas 88780 Mexico	Manufacture and distribution of telecommunication products including antenna and cable.
CommScope Asia (Suzhou) Technologies Co., Ltd. EPZ II, 77 Qiming Road Suzhou Industrial Park Suzhou Jiangsu 215121 China	Manufacture and distribution of telecommunication products, including cable.
Andrew Telecommunications India Pvt. Ltd. Plot No. N-2, Phase IV Verna Industrial Estate Verna Salcette Goa 403 722 India	Manufacture and distribution of telecommunication products, including antenna and cable.
CommScope EMEA Ltd. Corke Abbey Avenue Bray County Dublin A98FY03 Ireland	Manufacture and distribution of telecommunication products, including cable and connectors.
CommScope Telecommunications (China) Co., Ltd. 68 West Su Hong Xi Lu Suzhou Industrial Park Suzhou Jiangsu 215021 China	Manufacture and distribution of telecommunication products, including antenna and cables.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
Andrew Wireless Systems GmbH Industriering 10 Buchdorf 86675 Germany	Manufacture and distribution of telecommunication products, including amplifiers and antenna systems.
CommScope, Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Corporate headquarters responsible for management system oversight of all locations listed on this certificate.
CommScope Inc. 6519 CommScope Road Catawba North Carolina 28609-0199 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Inc. 3642 US Hwy 70 East Claremont North Carolina 28610-0879 USA	Manufacture and distribution of telecommunication products, including cable.
CommScope Czech Republic s.r.o. Turanka 98B Brno 62700 Czech Republic	Manufacture and distribution of telecommunication products, including connectors and terminations.
CommScope Inc. of North Carolina 1100 CommScope Place SE Hickory North Carolina 28603-0339 USA	Customer care, facility maintenance, and administrative functions.
ADC de Delicias, S. de R.L. de C.V. Blvd. Fernando Baeza No. 1301 Sur Delicias Chihuahua 33000 Mexico	Manufacturing and distribution of telecommunication products.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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Certificate No: **EMS 648387**

Location	Registered Activities
ADC de Juarez S. de R.L. de C.V. Parque Industrial Antonio J Bermudez Ciudad Juarez Chihuahua 32470 Mexico	Manufacturing and distribution of telecommunication products.
CommScope Connectivity Belgium bvba Diestsesteenweg 692 Kessel-lo 3010 Belgium	Manufacture and distribution of telecommunication products.
CommScope Technologies de Juarez S. de R.L. de C.V. Santiago Troncoso 331 Praderas del Sur, Ciudad Juarez Chihuahua 32575 Mexico	Manufacture of Fiber Optic Splice Closures (FOSC), Fiber Guide Systems (FGS), Hardened Connectivity and Molding-Gel Filling, including: plastic injection molding, plastic extrusion, plastic and metal machining, and assembly operations.
CommScope Connectivity UK Limited Unit 1 Kinmel Park Bodelwyddan Rhyl, Denbighshire LL18 5TZ United Kingdom	Fibre optic cable manufacturing, termination and design of other telecommunication products and services.
CommScope 11312 S. Pipeline Road Euless Texas 76040 USA	Manufacture, distribution, field support and central function of telecommunication products.
ARRIS GROUP DE MEXICO SA DE CV Av. De la Paz, #11721 Parque Industrial Pacifico Tijuana Baja California 22643 Mexico	Manufacture, repair, support, repair service, distribution of products and components for telecommunications that provide integrated solutions for voice, video and data through the processes of SMT, manual and mechanical assembly, soldering (manual, selective, printed, wave) electrical testing and packaging.

Original Registration Date: 2016-03-01

Effective Date: 2022-03-15

Latest Revision Date: 2022-04-21

Expiry Date: 2025-03-14

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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Certificate No: **EMS 648387**

Location	Registered Activities
CommScope Design & Integration UK Ltd Unit 5 & 6, Eden Business Park Edenhouse Drive Old Malton Malton YO17 6AE United Kingdom	Manufacture and distribution of telecommunications products including cabinets.
Arris Indústria Eletrônica do Brasil Ltda. CNPJ: 09.154.836/0001-15 Avenida Torquato Tapajós, 9475 Tarumã Manaus Amazonas 69041-025 Brasil	Manufacturer and distribution of Receivers, Television signal Decoders and Modulator/Router.
CommScope Design and Integration UK Ltd. Lovell House, 412 The Quadrant Birchwood Park Warrington WA3 6FW United Kingdom	Telecommunications project management, site surveys, installations commissioning and rigging.

Original Registration Date: 2016-03-01
Effective Date: 2022-03-15
Latest Revision Date: 2022-04-21
Expiry Date: 2025-03-14

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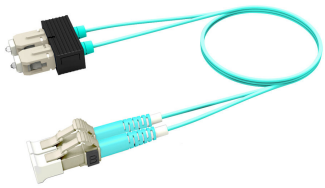
FFXLCSC42

Base Product



OM4 LC/UPC to SC/UPC, Fiber Patch Cord, 1.6 mm Duplex, Low Smoke Zero Halogen (LSZH)

Product Classification

Regional Availability	Asia | Australia/New Zealand | Europe | Latin America | Middle East /Africa | North America
Portfolio	CommScope®
Product Type	Fiber patch cord, duplex
Product Brand	SYSTIMAX InstaPATCH® 360
Product Series	FFX
Ordering Note	For lengths greater than 999 ft (304 m), orders must be in meters | Minimum length may vary based on cable configuration

General Specifications

Color, boot A	Aqua
Color, connector A	Beige
Color, boot B	Aqua
Color, connector B	Beige
Interface, Connector A	LC/UPC
Interface, Connector B	SC/UPC
Jacket Color	Aqua
Polarity	Method B
Total Fibers, quantity	2

Dimensions

Cable Assembly Length Range (m)	1 – 999
Cable Assembly Length Range (ft)	1 – 999
Diameter Over Jacket	1.6 mm | 0.063 in

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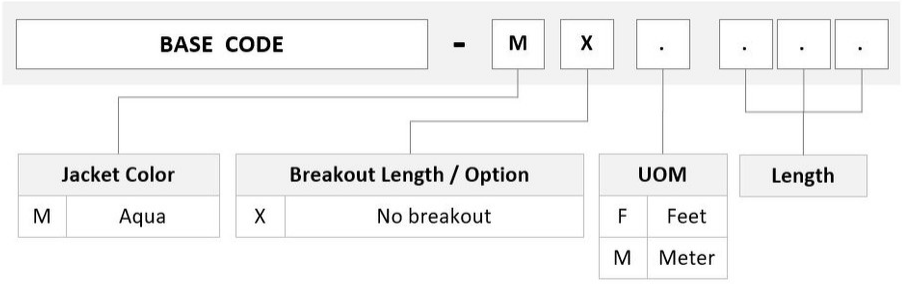
FFXLCSC42

Ordering Tree



Mechanical Specifications

Cable Retention Strength, maximum	11.24 lb @ 0 ° | 4.40 lb @ 90 °

Optical Specifications

Fiber Mode	Multimode
Fiber Type	OM4, LazrSPEED®

Environmental Specifications

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Operating Temperature, pending approval	-20 °C to +70 °C (-4 °F to +158 °F)
Environmental Space	Dual Rated LSZH/Riser

Regulatory Compliance/Certifications

Agency	Classification
ANATEL	Compliant
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

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460125198	–	Pre-Radiused LC Connector duplex for 1.6 mm Fiber, multimode
460125750	–	LazrSPEED® Pre-Radiused SC Connector for 1.6 mm Fiber Cordage, Duplex, multimode
760021659 N-002-ZC-5K-F16AQ/E	–	Fiber Indoor Cable, LazrSPEED® 1.6 mm Low Smoke Zero Halogen Riser, 2-fiber Zipcord, Multimode OM4, Feet jacket marking, Aqua jacket color, Eca Flame Rating

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460125198

Pre-Radiused LC Connector duplex for 1.6 mm Fiber, multimode

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber connector

General Specifications

Body Style	Duplex
Color	Beige
Ferrule Geometry	Pre-radiused
Interface	LC/UPC

Dimensions

Length	50.3 mm | 1.98 in
Compatible Cable Diameter	1.6 mm | 0.063 in

Material Specifications

Ferrule Material	Zirconia

Mechanical Specifications

Cable Retention Strength, maximum	11.24 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Insertion Loss Change, mating	0.3 dB
Optical Components Standard	ANSI/TIA-568-C.3
Insertion Loss Change, temperature	0.3 dB
Insertion Loss, maximum	0.3 dB
Insertion Loss, ULL, maximum	0.15 dB
Return Loss, minimum	27 dB

Packaging and Weights

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Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

* Footnotes

Insertion Loss Change, mating	TIA-568: Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)

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460125750

LazrSPEED® Pre-Radiused SC Connector for 1.6 mm Fiber Cordage, Duplex, multimode

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber connector
Product Brand	LazrSPEED®

General Specifications

Body Style	Duplex
Color	Beige
Ferrule Geometry	Pre-radiused
Interface	SC/UPC

Dimensions

Length	56 mm | 2.205 in
Compatible Cable Diameter	1.6 mm | 0.063 in

Material Specifications

Ferrule Material	Zirconia

Mechanical Specifications

Cable Retention Strength, maximum	11.24 lb @ 0 °

Optical Specifications

Fiber Mode	Multimode
Insertion Loss Change, mating	0.3 dB
Optical Components Standard	ANSI/TIA-568-C.3
Insertion Loss Change, temperature	0.3 dB
Insertion Loss, typical	0.3 dB
Insertion Loss, ULL, maximum	0.15 dB
Return Loss, minimum	25 dB

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Packaging and Weights

Packaging quantity	2

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

* Footnotes

Insertion Loss Change, mating	TIA-568: Maximum insertion loss change after 500 matings
Insertion Loss Change, temperature	Maximum insertion loss change from -10 °C to +60 °C (+14 °F to +140 °F)

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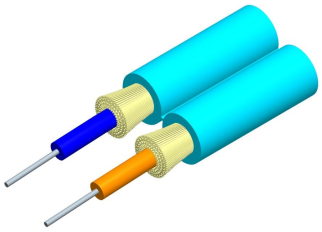
760021659 | N-002-ZC-5K-F16AQ/E



Fiber Indoor Cable, LazrSPEED® 1.6 mm Low Smoke Zero Halogen Riser, 2-fiber Zipcord, Multimode OM4, Feet jacket marking, Aqua jacket color, Eca Flame Rating

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Portfolio	CommScope®
Product Type	Fiber indoor cable
Product Series	N-ZC

General Specifications

Cable Type	Cordage
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Aqua
Jacket Marking	Feet
Total Fiber Count	2

Dimensions

Height Over Jacket	1.7 mm | 0.067 in
Width Over Jacket	3.5 mm | 0.138 in

Representative Image

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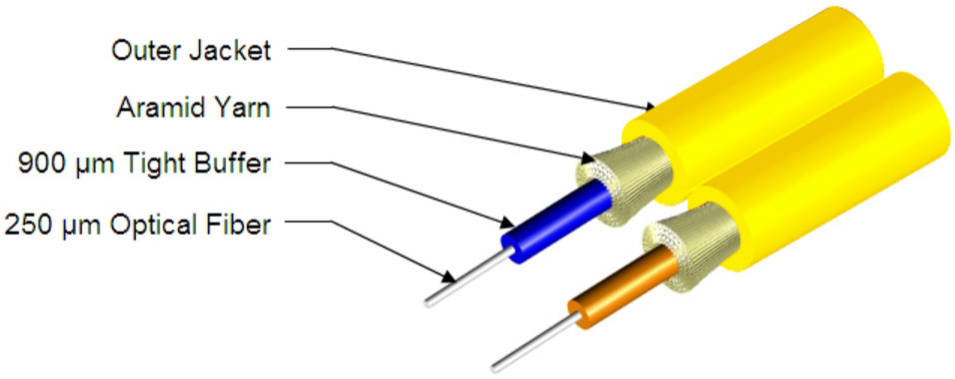
760021659 | N-002-ZC-5K-F16AQ/E



Mechanical Specifications

Minimum Bend Radius, loaded	38 mm | 1.496 in
Minimum Bend Radius, unloaded	15 mm | 0.591 in
Tensile Load, long term, maximum	53 N | 11.915 lbf
Tensile Load, short term, maximum	178 N | 40.016 lbf
Compression	10 N/mm | 57.101 lb/in
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	300 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact	0.74 N-m | 6.55 in lb
Impact Test Method	FOTP-25 | IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 | IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 | IEC 60794-1 E7
Vertical Rise, maximum	500 m | 1,640.42 ft

Optical Specifications

Fiber Type	OM4, LazrSPEED® 550 | OM4, LazrSPEED® 550

Environmental Specifications

Installation temperature	-20 °C to +60 °C (-4 °F to +140 °F)

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Operating Temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409
EN50575 CPR Cable EuroClass Fire Performance	Eca
Environmental Space	Low Smoke Zero Halogen (LSZH) | Riser
Flame Test Listing	NEC OFNR-ST1 (ETL) and c(ETL)
Flame Test Method	IEC 60332-1-2 | IEC 60332-3 | IEC 60754-2 | IEC 61034-2 | UL 1666 | UL 1685

Environmental Test Specifications

Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Packaging and Weights

Cable weight	6 kg/km | 4.032 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

Operating Temperature	Specification applicable to non-terminated bulk fiber cable

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LIMITED WARRANTY

1. **Definitions.** For purposes of this Warranty, (i) "Buyer" shall mean the individual or entity identified on the applicable purchase order or supply agreement (or, if different, on Seller's quotation, order acknowledgement or statement of work), (ii) "Seller" shall mean the CommScope entity identified on such entity's quotation, order acknowledgement, statement of work or supply agreement, (iii) "Hardware" means equipment designed and manufactured by or on behalf of Seller, or any third-party manufacturer's equipment offered for sale by Seller to Buyer, (iv) "Product" shall mean a product manufactured by or on behalf of Seller pursuant to the applicable supply agreement, quotation or order acknowledgement, and includes any combination of Hardware and Software, (v) "Services" means site engineering, system integration, product installation, implementation, training, maintenance and technical support services for Products, or other professional services provided by Seller to Buyer. Services exclude managed services and hosted cloud services provided by Seller, (vi) "Software" means Seller-licensed software, either embedded or standalone, including any updates provided, and any other enhancements, modifications, and bug fixes provided thereto, in object code form only (unless otherwise specified), and any full or partial copies thereof. Software does not include software created or owned by third parties, including but not limited to MediaKind Software, Google's Android Software or any third party application software, and (vii) "Warranty Period" means, unless a different time period is set forth in **Exhibit A,** (a) for Hardware, one year from date of original shipment from Seller's facility, (b) for Software-only Products, ninety (90) days from the date such Software is first made available to Buyer, or for Software embedded in a Hardware Product, ninety (90) days from date of original shipment of the Product from Seller's facility, and (c) for Services, thirty (30) days from the date the performance of such Services has been rendered.

2. **Limited Warranty.** Seller warrants that, as of the date of delivery, Seller has good title to the Product, free from any lawful security interest or other lien or encumbrance unknown to Buyer. In addition, during the Warranty Period, the Product and Services will be free from defects in materials or workmanship arising under proper and normal use. This Warranty shall apply only to the Products and Services and shall not apply to any other goods or materials, parts or components of a system or any system as a whole. This Warranty does not cover ordinary wear and tear. Seller does not warrant (i) Products not purchased from Seller or its authorized resellers; (ii) that the operation of the Product will be uninterrupted or error-free; (iii) that the Product will operate in combination with other third-party products selected by Buyer; or (iv) any products manufactured by third parties; provided that Seller will, to the extent permitted by the manufacturer, assign third-party warranties to Buyer. Seller gives no warranty for, and shall have no liability with respect to, any defects arising from any software (other than the Software), including, but not limited to MediaKind Software, Android Software or any third-party application software, downloaded to or otherwise used in conjunction with the Product. Seller further warrants to Buyer that during the Warranty Period, all Services performed by Seller for Buyer will be provided in a workmanlike manner.

3. **Disclaimers.** EXCEPT AS EXPRESSLY SET FORTH IN THIS LIMITED WARRANTY OR IN A SEPARATE, APPLICABLE SOFTWARE LICENSE AGREEMENT, ALL SOFTWARE IS LICENSED ON AN "AS IS" BASIS WITHOUT WARRANTY.

4. **Inspection and Return Authorization**. Buyer must promptly notify Seller of any claimed defect in the Product and/or Services. If Buyer claims that a Product is defective in materials or workmanship, Seller shall have the right to either examine the Product where it is located or, in its sole discretion, issue shipping instructions for return of the Product. Seller's inspection in response to a warranty claim shall not constitute acceptance or acknowledgment of the claim's validity. Except as otherwise agreed to in writing, Products may not be returned to Seller without prior authorization. Buyer must contact Seller to obtain an authorization number and return the Products to the location designated by Seller. Any Products returned to Seller without proper authorization will be returned to Buyer at Buyer's expense. Risk of loss, damage and insurance responsibilities for the Products shall not pass from Buyer to Seller until delivery of the Products to Seller's designated location. Buyer shall prepay all transportation charges for such return.

5. **Remedies.** Seller's sole and exclusive obligation and Buyer's exclusive remedy under this Warranty is Seller's repair or replacement of the defective Product or re-performance of Services or issuance of a credit for the net book value of the purchase price of the defective Product. Seller shall have sole discretion as to which of these remedies Seller will provide. Seller is not liable for any repair or maintenance costs incurred by Buyer, unless Seller authorizes such charges in writing in advance of the commencement of the work. If Seller elects to replace or repair the defective Product, the replaced or repaired Product will be warranted for the remainder of the Warranty Period applicable to the originally shipped Product, but the Warranty shall not be extended beyond the original Warranty Period. Replacement Products may be new, refurbished or contain refurbished materials.

6. **Notice and Waiver**. If Buyer discovers any defect in the Product, Buyer must provide prompt (and in no case later than thirty (30) days after discovery) written notice to Seller of the claimed defect. Such notice shall describe, in reasonable detail, the symptoms of such defect. The notice must be received by Seller during the Warranty Period for such Product. Failure to give timely notice of a claim shall result in Buyer's waiver of such claim.

7. **Transfer of Ownership.** This Warranty is not transferable unless Buyer is expressly authorized by Seller in writing to resell the Product. In addition, Buyer must notify Seller on or before the fifteenth (15^{th}) day after the date on which it transfers ownership of the warranted Product. Any transfers in violation of this Section shall invalidate this Warranty. Notice of the transfer of ownership must be in writing and shall include the name and address of the new owner.

8. **Exclusions from Warranty.** This Warranty shall not apply to problems attributable to, or as a result of:

(a) improper installation or misapplication of parts;
(b) chain or system failures induced by other products or components;
(c) lack of proper inspection or maintenance or failure to provide a suitable operating environment;
(d) any consumables provided with the Product, including but not limited to batteries and other accessories, and any other materials, components or products manufactured by a third party;
(e) power surges, fire, unusual mechanical, physical or electrical stress, severe weather conditions or acts of nature, including but not limited to, lightning or floods;
(f) usage or operation not in accordance with published ratings, specifications or instructions, including but not limited to environmental specifications identified by Seller;
(g) any adjustment, modification, alteration, removal or repair of any part of the Product, including but not limited to removal or alteration of serial numbers or other identifying marks not expressly authorized by Seller in writing;
(h) accidental damage, misuse, abuse, neglect or unauthorized access of the Product or of any system of which the warranted Product is a part;
(i) any type of aesthetic changes due to oxidation or corrosion occurring on stainless steel or galvanized steel parts installed in unusually corrosive marine and industrial atmospheres (in which case Seller's only obligation shall be to ensure that Product complies with Seller's published material specifications);
(j) use of the Product for purposes other than that for which it was designed; or
(k) mishandling during shipment of the Product.

LIMITED WARRANTY

This Warranty is for Products installed and used in accordance with Seller's design, installation and operating parameters. Buyer's failure to ensure conformity with such parameters will void all warranties. Under no circumstance shall Seller have any liability or obligation with respect to expenses, liabilities or losses associated with the installation or removal of any Product or the installation or removal of any components for inspection, testing or redesign occasioned by any defect or by any repair or replacement of a Product.

9. **Limitation on Liability.** THE WARRANTIES SET FORTH IN SECTION 2 HEREOF ARE EXCLUSIVE AND ARE MADE ONLY TO BUYER. SELLER MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS AND EXCLUDES ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION OR WARRANTY ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OR PERFORMANCE. No person is authorized to give any additional warranties on Seller's behalf or to assume for Seller any other liability, except in a writing signed by an authorized officer of Seller. SELLER'S TOTAL LIABILITY FOR ANY CLAIM OR DAMAGE ARISING OUT OF AND/OR IN CONNECTION WITH THE MANUFACTURE, SALE, DELIVERY OR USE OF THE PRODUCTS OR SERVICES WILL BE LIMITED TO PROVEN DIRECT DAMAGES, NOT TO EXCEED (I) FOR PRODUCTS, THE DEPRECIATED VALUE OF THE PURCHASE PRICE OF SUCH PRODUCTS OR (II) FOR SERVICES, THE ACTUAL AMOUNT PAID TO SELLER FOR SERVICES DURING THE 12 MONTH PERIOD IMMEDIATELY PRIOR TO THE EVENT (OR SERIES OF EVENTS) GIVING RISE TO THE LIABILITY. IN NO EVENT WILL SELLER BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY CLAIM FOR LOSS OF ACTUAL OR ANTICIPATED DATA, USE, REVENUES OR PROFITS. The Products are not specifically designed, tested, manufactured or intended for operation or use in any inherently dangerous, life endangering or life support applications where any failure of the Products could lead to death, personal injury or significant physical or environmental damage (High Risk Activities). If Buyer uses the Products in High Risk Activities, including but not limited to nuclear facilities or the flight, navigation or communication of aircraft, Buyer agrees that neither Seller nor its third party licensors are liable in whole or in part, for any claims or damages arising from such use, and that Buyer shall indemnify and hold Seller and its third party licensors harmless from any and all claims for loss, cost, damage, expense or liability arising out of or in connection with any use of the Products in High Risk Activities. These limitations on liability will apply regardless of the form of action, whether in contract, tort, strict liability or otherwise, and whether damages were foreseeable and will survive failure of any exclusive remedies provided in Section 4 hereof.

10. **Choice of Law.** The terms and conditions contained herein and the rights of the parties to any transaction to which they relate shall be governed by and construed in accordance with the laws of the State of North Carolina, U.S.A. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

LIMITED WARRANTY

Exhibit A

Product Categories	Warranty Period from Original Shipment Date*
Category A Products E6000® Converged Edge Router (CER); E6000n™ Remote PHY Devices (RPDs); E6000r™ Remote PHY Shelves; E6000n™ Remote MACPHY Devices (RMDs); vManager; Remote OLT (R-OLT); associated power supplies and accessories. FLX PON OLT portfolio including vOLT. CherryPicker products, Encoder products including ME-7000, SE-6000; DSR-4xxx, DSR-6xxx and DSR-7xxx series IRD products, and Uplink systems including TME-2020, VDP-1000, BNC, DEM, and SEM; All APEX Universal EQAM including APEX1000 and APEX3000; All Aloha interactive products including OM2000, ARPD, ADM4000 and NC1500 4.0. All SDM products. All VUE and VTM Software Products. All STDC products.	Hardware One (1) Year Software Ninety (90) Days
Category B Products All High and Standard Definition Transport Adapter MS4000™ Media Streamer	Hardware One (1) Year Software Ninety (90) days ** For certain CPE, option for 1% overship in lieu of Hardware warranty is standard
Category C Products Intentionally left blank.	
Category D Products All Third Party OEM Products: power meters; All VUE and VTM hardware platforms; NC1500 4.0 hardware platform; LQA256 Legacy QAM Adapter; Elemental Products including Live, Server, Delta, Conductor and StatMux; DC2180 Cabinet Node. Cooling Systems	Pass Through from OEM: Hardware One (1) Year Software Ninety (90) Days
Category E Products Intentionally left blank	
Category F Products All OM and SG optical node platforms, Flex Max® and Starline® amplifier platforms, RF Taps & Passives, and Optical Passives	Hardware Five (5) Years within the United States and Canada Hardware Three (3) Years outside United States and Canada Software Ninety (90) Days
Category F1 Products All CHP Headend Optical (HEO) Elements	Hardware Three (3) Years Software Ninety (90) Days
Category G1 Products All NC optical node platforms and Optical Passives, including OP/NP/DP/DC models.	Hardware Five (5) Years Software Ninety (90) Days
Category G2 Products All CH3 Headend (HEO) Elements	One (1) year
Category G3 Products All EPON and GPON ONUs, RFoG/HPON R-ONUs, including, CP8 models and associated power supplies and accessories	Hardware Three (3) Years Software Ninety (90) Days

Category H Products All ConvergeMedia™ Distribution Platforms and Management Suite, AdManager™ including SkyVision Ad Management and EMP solutions CVEx™, SVA, all Vertasent products including SVOM, SVM and ERM, AdEdge™ COM and AdEdge APS,VMS, Manifest Delivery Controller (MDC), ARRIS Video Content Manager (AVCM) and Next Generation Insertion (NGI) and Multicast ABR.	Hardware One (1) Year Software Ninety (90) Days
Category I Products ServAssure® Advanced, ServAssure® NXT - Alarm Central, ServAssure® NXT - Analyze, ServAssure Domain Manager and EventAssure™. WorkAssure™® Workforce Management, Mobile TV, SecureMedia and Titanium	Hardware One (1) Year Software Ninety (90) Days
Category J Products Intentionally left blank	
Category K Products Intentionally left blank.	
Category L Products Intentionally left blank	
Category M Products Intentionally left blank.	
Category N Products Intentionally left blank.	
Category O Products All CAS Products including DAC, CASMR (and associated plug-ins), CAST, Advisor, CSS, OLL, CSS-Lite, KLS, DKS, CPMS	DAC, CASMR, CAST, Advisor, CSS Hardware Three (3) Years OLL, CSS-Lite, KLS, DKS, OLES, CPMS Hardware One (1) Year Software Ninety (90) Days
Category P Products Intentionally left blank.	
Category P1 Products Intentionally left blank	
Category Q Products Intentionally left blank	
Category R Products Intentionally left blank	
Category R1 Products Intentionally left blank	
Category S Products Intentionally left blank	
Category S1 Products Intentionally left blank	

LIMITED WARRANTY

Category T Products RUCKUS Wi-Fi	Hardware: - Indoor Access Points and Wall Plate Access Points – Limited Lifetime Warranty,** except for access points with an "e" suffix (e.g., R350e), for which the HW warranty period is one (1) year. - Outdoor Access Points – One (1) Year - Controllers – One (1) Year, except ZoneDirector controllers are covered by the Limited Lifetime Warranty** Software Ninety (90) Days
Category T1 Products RUCKUS ICX Switches	- ICX Switches (including switch modules, PSUs, and Fans, but excluding removable optics/transceivers and LEDs) – Limited Lifetime Warranty,** except for ICX 7150- C08PT, for which the HW warranty period is 13 months. - LEDs – 12 months - Removable Optics/Transceivers – 60 months (13 months if shipped from Seller prior to June 1, 2021) Software: Limited lifetime access to defect repairs, and software maintenance updates through end of support date of product
Category T2 Products Intentionally left blank	
Category U Products Other OSP Cable Products (P3®, Drop Coax, Fiber Cable, Fiber Drop Cable, CIC) NovuX Products Prodigy Products FDH Products Multiservice terminals (MST), Open Terminals (OTE) and Hardened Drop Cable Assemblies OSP "Box" Products Mini-RDTs and RDTs FOSC™, FIST™ and Tenio™ OSP Copper Connect and Closure Products HELIAX® FiberFeed® Products, including FiberFeed® hybrid and fiber cables and assemblies, power cables and junction boxes Fiber Optic Panels, including Accessories, Mounting Hardware, Modules Fiber Optic Field Terminated Connectors, Kits, Tools, Consumables, Accessories Indoor Fiber Cable, Patch Cords, Cable Assemblies, Fiber Trunks Passive Optical Components and Value Added Modules (VAMs) FiberGuide® : Fiber cable Management System Optical Distribution Frames, including Modules, Blocks, Accessories and Hardware Cabinets Cable and Apparatus Products Alifabs™ Cabinets & Ancillary Products Alifabs™ Telecommunications Towers and Accessories Metro Cell Products, including Enclosures; Integrated Pole; Standard Poles; Accessories; and Wood Pole Brackets	One (1) year

LIMITED WARRANTY

Category V Products ValuDAS® Passive Products, including Air Directional Couplers, Hybrid Couplers, High Power Splitters, and Cell-Max™ Antennas Standard Tower Mounted Amplifier, Bias Tee and Power Distribution Unit Products Standard Filter & Combiner Products Electronic Enclosure Products (Cabinets) Alifabs™ Free Cooling Products and Accessories and Spare Parts, including Monitor All-In-One FLX (Active Passive Cabines) PowerShift™ & Power Products	Two (2) years
Category W Products ValuSite® Products I-Line Accessory Products Microwave Antennas Terrestrial Microwave System Products (including Microwave System Flex-Twist, Coupler, Filter and Diplexer Products)	Three (3) years
Category X Products Broadband RF Connectivity Products Premium Passive Products, including In-Building Directional Couplers, Hybrid Matrices, Tappers, Power Splitters, Terminations, Attenuators and CMAX Antenna Products	Five (5) years
Category Y Products QR® Coaxial Cable	Five (5) years
Category Z Products Standard RADIAX® Cable, Connector, Accessory and Cable Assembly* Products * RADIAX® Cable Assembly Product means any RADIAX® coaxial cable that has been fitted with Seller's connectors in accordance with the installation instructions.	One (1) year
Category AA Products Standard CNT® Cable, Connector, Accessory and Cable Assembly* Products * CNT® Cable Assembly Product means any CNT® coaxial cable that has been fitted with Seller's connectors by Seller or its certified distributor	Five (5) years; except that the Warranty Period for Products purchased for resale purposes shall be one (1) year.
Category BB Products Standard HELIAX® Cable, Connector, Accessory and Cable Assembly* Products * HELIAX® Cable Assembly Product means any HELIAX® coaxial cable or elliptical waveguide that has been fitted with Seller's connectors by Seller or its certified distributor.	Ten (10) years; except for the following: (i) three (3) years for weatherproofing kits (including SureGuard boots); (ii) one (1) year for cable preparation tools (excluding blades); (iii) one year for single click-on hanger kits; and (iv) two (2) years for surge arrestors.
Category CC Products Standard ERA/ION-E®, ION-M®, ION-U®, MR, CMR, i-POI®, e-POI™, and Node Repeater Products	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of shipment. Software Ninety (90) Days
Category DD Products In- Building and Fixed Subscriber Antennas	The earlier of: (i) three (3) years from the date of installation or (ii) thirty-nine (39) months from the date of original shipment

LIMITED WARRANTY

Category EE Products OneCell® Powered Fiber Cable Solution: Hybrid Copper and Fiber Cables, Class 2 Power Supplies, Indoor/Outdoor POE Extenders, Field Terminated Outlets, Consolidation Boxes and Related Passive Components	Hardware, the earlier of: (i) one (1) year from the date of installation; or (ii) fifteen (15) months from the date of original shipment Software Ninety (90) Days
Category FF Products Small Cell Device Management System (DMS) Software DAS Device Management System (AIMOS) Software	Ninety (90) days
Category GG Products Base Station Antenna, Small Cell Antenna & Mosaic™ Products	Two (2) years for all base station antennas except base station antennas incorporating N-type connectors, which shall have a warranty of one (1) year
Category HH Products DryLine® Dehydrator Systems and Line Monitoring Systems	Three (3) years or 3,000 hours of actual run time, whichever occurs first; except the Warranty Period for the compressor is only one (1) year or 1,000 hours of actual run time, whichever occurs first.
Category II Products SiteRise™ Solutions	One (1) year on workmanship for the Solution.
Category JJ Products Copper Structured Cabling Products Other Enterprise Products (Coax, Automotive Cables, Enterprise Enclosures and miscellaneous items) (excluding software)	One (1) year from the date of Installation
Category KK Products Alifabs™ Services (power upgrades, enablements, installation and decommission work, rigging, and fault management)	One (1) year from the date of completion of the work.
Category LL Products imVision Overlays and Controllers	Three (3) years

** For Category H and Category I Products only, if Seller is engaged by Buyer to provide Services for the implementation of the purchased Products, warranty period for such Products shall commence upon Buyer's acceptance of the Products and Services.*

** For Category T Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing for as long as the original end user of the Product continues to own and use the Product. For Category T1 Products only, "Limited Lifetime Warranty" means the period beginning on the Product shipment date and continuing (i) for as long as the original end user of the Product continues to own and use the Product or (ii) through the End of Support date, as defined in the RUCKUS End of Life Policy, whichever is earlier.

RoHS Certificate of Compliance

COMMSCOPE®

Product Name: JUMPER,LSZH,LS,1.6MM,DPLX,LC-STD/SC-STD

Product Number: FFXLCSC42

Company Name: CommScope
3642 E US Highway 70
Claremont, NC 28610 USA

Contact: ProductCompliance@Commscope.com

Generated on: May 06, 2024

Certified by:

Vinatha Viswanathan, Director Product Compliance

Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided and our analysis and assessment of the risks. This information is subject to change and if a change occurs which affects compliance, then this Statement will be updated. Compliance to EU ROHS 2011/65 amended by EU RoHS 2015/863 means the part numbers have a maximum concentration of no more than 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). These parts also have a maximum concentration of no more than 0.1% by weight in homogenous materials for DEHP, BBP, DBP and DIBP (substances that are restricted starting from July 22, 2019). Finished electrical and electronic products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked.

Compliance Status	Regulation	Revision	RoHS exemptions if any
Compliant	ROHS	EU RoHS - 2011/65/EU	

COMMSCOPE®

TECP-96-194 Rev C May 2019

LC and MPO Connectors

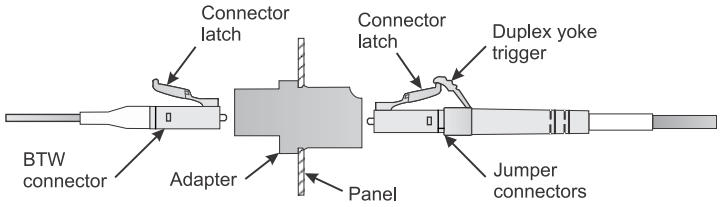
Instructions for Use

For optimal connectivity performance, invest in a Fiber Optic Inspection and Cleaning Kit for your installation team.

CommScope® Cleaning and Inspection Kit – 760053199 -- Consumable Replacement Kit – 760053207

Install LC Connectors into Adapter

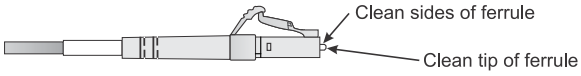
1. Install connectors into the adapter by aligning the latch on the connector with the slot on the adapter and gently push into place. An audible click is heard when the connector snaps into the adapter.
2. If a high-loss condition exists, use the LC cleaning procedures and reinstall the connector as described in Step 1.
3. When doing rearrangements or reinsertions of LC connectors, use the LC cleaning procedures to clean all components and reinstall the connectors as described in Step 1.



Clean LC Connector and Adapter

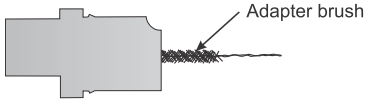
Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face. **Clean connector ferrule** inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Rotate cleaning stick with medium pressure in one circular motion as it is pulled away from the adapter. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule are not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. Always inspect connector end face for contamination after each cleaning.



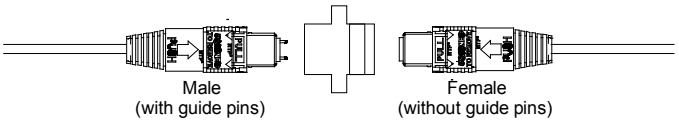
Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently pull out with twisting motion. Repeat process with a dry cleaning stick.

Caution: Do not try to clean adapter with a standard pipe cleaner. The sleeve inner diameter of LC adapters is too small. Do not try to clean the adapter with cleaning stick if a connector is mounted in one side. Discard cleaning sticks after each use.



Install MPO Connectors into MPO Adapter

1. Before installing, remove the dust cap and refer to the MPO cleaning instructions.
2. Attach an MPO connector end into an MPO adapter by aligning the key on the connector body with the keyway in the adapter. Apply enough pressure till you hear a "click" sound, which signifies that the connector is plugged into the adapter.



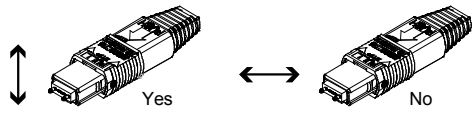
3. If a high loss is present, remove the MPO connector, use the MPO cleaning instructions and reinstall the connector.
4. Whenever disconnecting and reconnecting the MPO connector, refer to the MPO cleaning instructions before reinstallation.

   Warning: Do not connect male connector ends to each other. Doing so will damage the connector end face. Do not connect two female ends. If you do connect two female ends together, the test results will present a high insertion loss.

Cleaning the MPO Connector and MPO Adapter

Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face. **Clean connector ferrule** inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Applying medium pressure, wipe the end face in direction perpendicular to fiber array and all the way around each pin. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule is not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. To prevent scratching the end face, always clean the MPO connectors with a cleaning motion from top to bottom. Never clean the MPO connector by rubbing across it from side to side.



Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently wiping inside surface. Repeat process with a dry cleaning stick.

Caution: Do not try to clean the adapter with cleaning stick if a connector is mounted in one side. Discard cleaning sticks after each use.

COMMSCOPE®

How to Contact Us

- For product information and support, visit us on the web at http://www.commscope.com/SupportCenter
- For technical assistance:
  - Within the United States, contact your local account representative or technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized Business Partner.
  - Within the United States, report any missing/damaged parts or any other issues to CommScope Customer Claims at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized Business Partner.

Instructions for Use

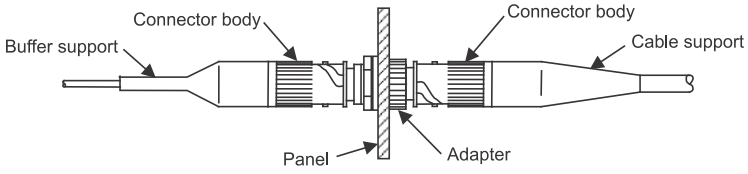
ST® and SC Connectors

For optimal connectivity performance, invest in a Fiber Optic Inspection and Cleaning Kit for your installation team.

CommScope® Cleaning and Inspection Kit – 760053199
Consumable Replacement Kit – 760053207

Install ST® Connectors into Adapter

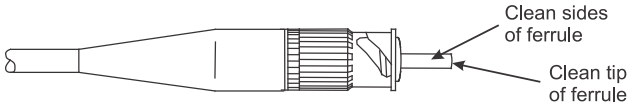
1. Install the connectors into the adapter by aligning the mark on the rim of the connector body with the slot in the adapter. Complete the connection by pushing the connector into the adapter with a clockwise twist-locking motion.
2. If a high-loss condition exists, use the **ST** cleaning procedures and reinstall the connectors as described in Step 1.
3. When doing rearrangements or reinsertions of **ST** connectors, use the **ST** cleaning procedures to clean all components and reinstall the connectors as described in Step 1.



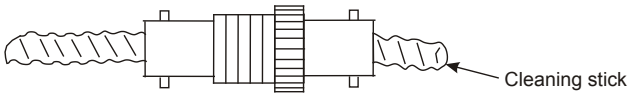
Clean *ST* Connector and Adapter

Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face.
Clean connector ferrule inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Rotate cleaning stick with medium pressure in one circular motion as it is pulled away from the adapter. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule are not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. Always inspect connector end face for contamination after each cleaning.

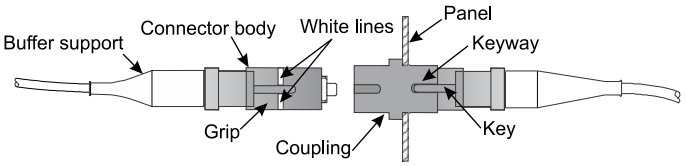


Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently pull out with twisting motion. Repeat process with a dry cleaning stick.
Caution: Discard cleaning sticks after each use. Do not try to clean the adapter with cleaning stick if a connector is mounted in one side.



Install SC Connectors into Adapter

1. Install each connector into the adapter by aligning the key on the connector body with the keyway on the adapter. The connector is properly installed when the white line in the grip disappears inside the adapter.
2. If a high-loss condition exists, use the SC cleaning procedures and reinstall the connectors as described in Step 1.
3. When doing rearrangements or reinsertions of SC connectors, use the SC cleaning procedures to clean all components and reinstall the connectors as described in Step 1.

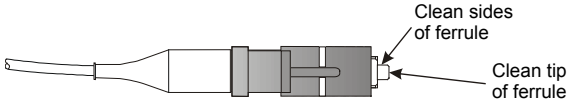


Clean SC Connector and Adapter

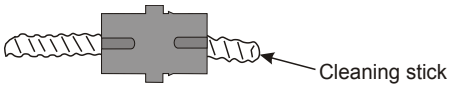
Clean exposed connector ferrule by lightly moistening lint-free wipe with fiber optic cleaning solution (or >91% isopropyl alcohol), and by applying medium pressure, first wipe against wet area and then onto dry area to clean potential residue from end face.

Clean connector ferrule inside adapter by inserting lightly moistened cleaning stick with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter until contact is made with connector on opposite end. Rotate cleaning stick with medium pressure in one circular motion as it is pulled away from the adapter. Repeat process using dry cleaning stick.

Caution: Signal strength will be affected if end and sides of ferrule are not thoroughly cleaned. Discard cleaning sticks after each use. Do not turn cleaning sticks back and forth pressing against connector end face. This may cause scratches if large contamination is present. Always inspect connector end face for contamination after each cleaning.



Clean adapter by inserting adapter cleaning stick (or fiber adapter sleeve brush) moistened with fiber optic cleaning solution (or >91% isopropyl alcohol) inside the adapter and gently pull out with twisting motion. Repeat process with a dry cleaning stick.
Caution: Discard cleaning sticks after each use. Do not try to clean the adapter with cleaning stick if a connector is mounted in one side.



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