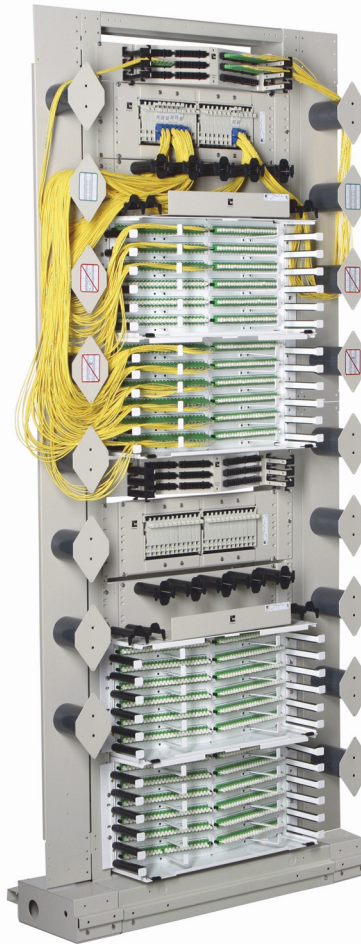


LGX-Compatible (LSX)® Homerun Splitter Solution Using LSX 288-Position Panels



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INTRODUCTION

This manual contains a description and installation guidelines for the LGX-Compatible (LSX) Homerun Splitter Solution Using LSX 288 Termination Panels. This configuration consists of four 288-position termination or termination/splice panels, two 24-position splitter chassis, two splitter output cable “parking lots,” and related cable management equipment mounted on a seven-foot network rack.

An alternate configuration, also documented in this panel, replaces the two-rack-unit parking lot in the first configuration with a one-rack-unit parking lot and a one-rack-unit tie panel. This alternate configuration provide a means to route splitter output cables to a termination panel on another rack.

- ▶ **Note:** This manual documents a particular application of the LSX 288 panel. The catalog numbers of the products are listed in [Table 1 on Page 5](#). For more information, see **Related Publications** below.
- ▶ **Note:** This manual covers spatial arrangement of the components on the rack; cabling between components; and storage of splitter output cables in parking lots on the rack. Note that this manual does not cover rack installation and mounting of the components on the rack. It is assumed that the rack and rack components being installed have their own documentation.

Related Publications

Listed below are related ADC publications. Copies can be ordered by contacting the Technical Assistance Center at 1-800-366-3891 (in U.S.A. or Canada) or 952-917-3000, extension 73475 (outside U.S.A. and Canada).

Publications are also available on the ADC web site ([adc.com](https://www.commscope.com)) using the following URL:
<https://www.commscope.com/SupportCenter>

Title/Description	ADC Number
LSX 288 Termination Panel User Manual	ADCP-96-146 (1470247_ADC)
LSX 288 Termination/Splice Panel User Manual	ADCP-93-095

1 GENERAL DESCRIPTION

The Homerun Splitter Solution is an assembly consisting of four LSX 288 termination panels, two splitter chassis, two splitter output cable “parking lots,” and related cable management mounted on a seven-foot network rack. [Figure 1](#) indicates the overall function of this assembly. As shown, feeder fibers from an Optical Line Terminal (OLT) are terminated at plug and play splitters in the splitter chassis to multiply output signals. Splitter output cables carrying individual output signals are stored temporarily in the parking lot until connected to the LSX termination panel to route them to a specific subscriber.

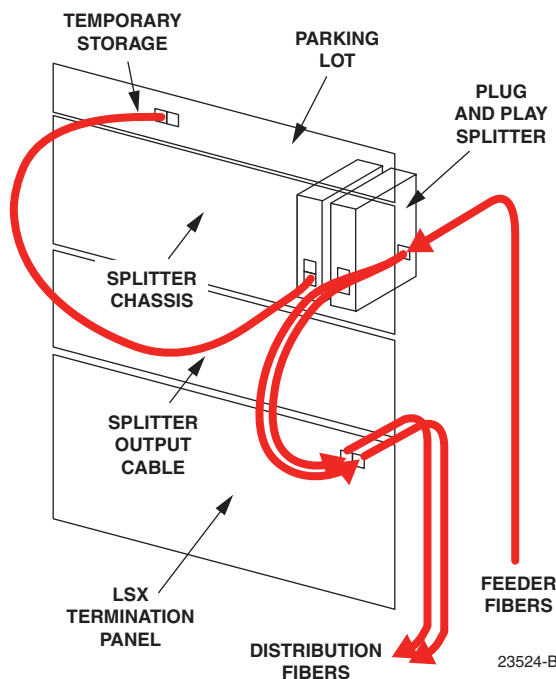


Figure 1. Functional Diagram

An alternate rack configuration is available for routing splitter output cables from a splitter chassis on one rack to a termination panel on another rack, or to a termination panel on the other half of the same rack. This configuration features a one-rack-unit parking lot (1RU) and a one-rack-unit tie panel.

2 MAIN COMPONENTS

[Figure 2](#) shows the main components of the stand-alone The components are:

- **Network Rack**—is a seven-foot tall unequal flange rack with WECO hole spacing.
- **Interbay Management Panel (IMP)**—provides storage space for splitter output cables.
- **Parking Lot**—provides temporary termination of splitter output cables. This parking lot occupies two rack units.

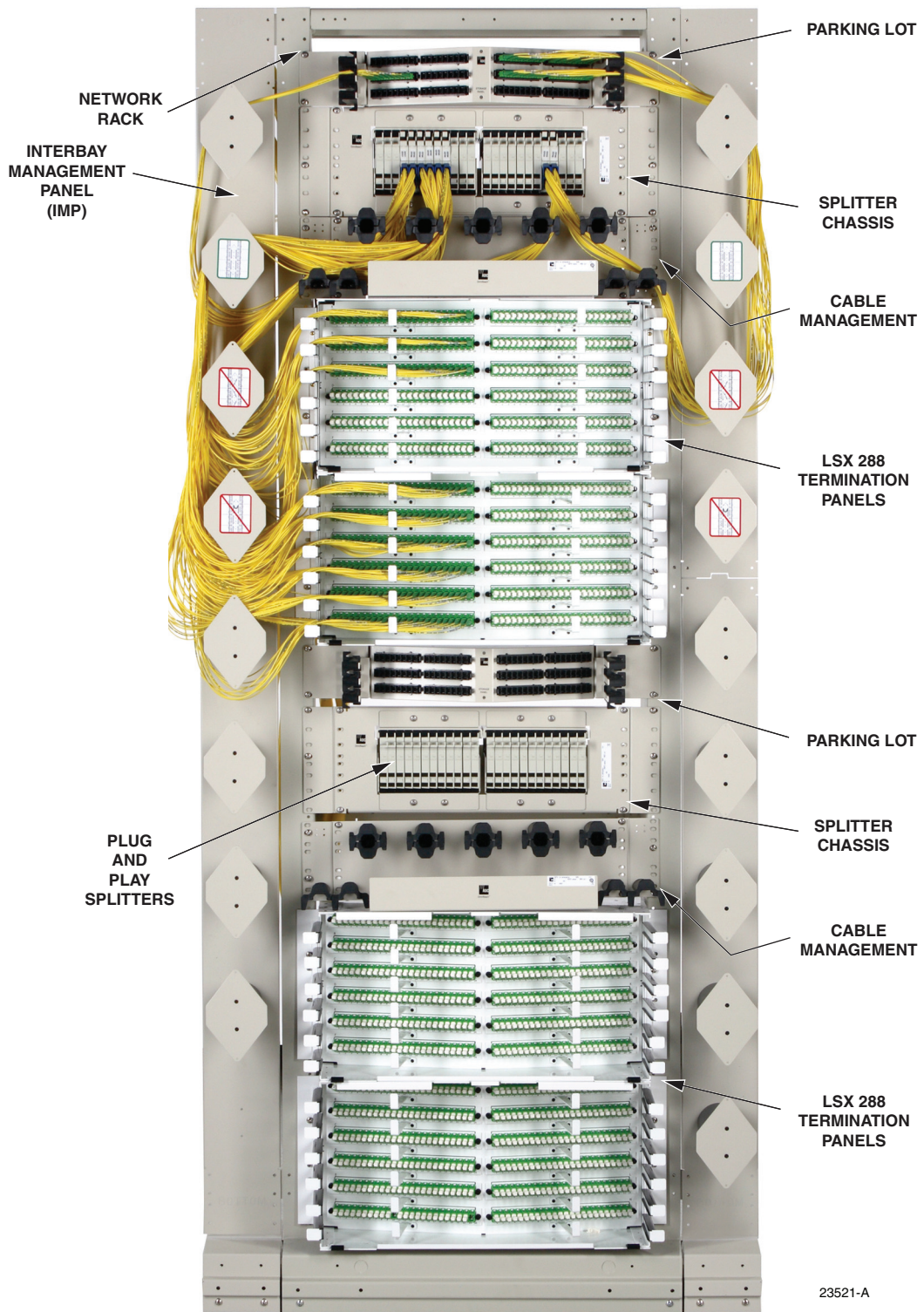


Figure 2. Homerun Splitter Solution Components

- ▶ **Note:** An alternate configuration containing a one-rack-unit parking lot and a one-rack-unit tie panel, in place of the two-rack-unit parking lot, provides a means to route splitter output cables to a termination panel on another rack.
- **Splitter Chassis**—supports 24 plug and play splitter modules. In a typical application, a feeder cable from an Optical Line Terminal (OLT) is terminated at this panel and the individual signals are split out into multiple outputs. Each splitter position has two input ports to accommodate 2xn splitters; the standard splitter used is 1x32.
- **Plug and Play Splitter**—splits an input signal into multiple identical outputs. Splitters are available with different split ratios depending on customer need.
- **LSX 288 Termination Panel**—provides 288 termination points for splitter output cables. In this application, splitter output cables are terminated at the front of the termination bulkhead. Connectorized distribution fibers to individual network subscribers are terminated at the rear of the bulkhead.
- **LSX 288 Termination/Splice Panel**—(not shown) has the same front features as the LSX 288 termination panel with a splice compartment in the rear of the panel. In this application, splitter output cables are terminated at the front of the termination bulkhead, as in the termination only panel. Pre-connectorized internal pigtailed transition to the splice deck where they are spliced to distribution fibers.
 - ▶ **Note:** Due to the additional space required for the splice deck, the termination/splice panel has an 18-inch (45.72 cm) depth and must be used with a network rack having an frame rear guard box, which gives the rack an 18-inch deep footprint.
- **End Guard**—(not shown) protects the beginning and the ends of each lineup.
- **Frame Rear Guard Box**—(not shown) protects the bottom rear surface of the network rack. It is used when the configuration includes LSX 288 termination/splice panels.
- **IMP Rear Guard Box**—(not shown) protects the bottom rear surface of the IMP. It is only when the configuration includes LSX 288 termination/splice panels.

3 CATALOG NUMBERS AND SPECIFICATIONS

Table 1 provides catalog numbers for the Homerun Splitter Solution. Table 2 lists specifications for a fully-loaded rack. For additional ordering information, see ADC spec sheet 106370AE, downloadable from the company website (adc.com).

Table 1. Homerun Splitter Solution Catalog Numbers

Description	Catalog Number
Network Rack (Height 84 in., footprint 15 in)	RAC-7A0160
Parking Lot (1RU)	FMT-D-EMPTY
Parking Lot (2RU)	ACE-ACC200-PKLT3
Rack Mount Splitter Chassis (with Cable Management)	FPS-MPPRACKMTKT

Table 1. Homerun Splitter Solution Catalog Numbers

Description	Catalog Number
LSX 288 Termination Panel (SC/APC adapters, with two 31M stranded 144 fiber Intra Facility Cables)	LSX-LL/0WB031
LSX 288 Termination/Splice Panel (SC/APC adapters, 12-fiber stranded pigtails)	LSX-LL1242-A-SPL
Plug and Play Splitter (standard 1x32 with SC/APC connectors)	FPS-MPP1AJJ
End Guard (15 in. deep footprint)	RAC-7A0160
Interbay Management Panel (IMP) (15 in. deep footprint)	E-501-L139-HD
End Guard (15 in. deep footprint)	RAC-7B0162
Frame Rear Guard Box # (5 in. deep footprint)	RAC-0X0439
3-inch End Guard Extender # (5 in. deep footprint)	E-501-12002
Interbay Management Panel (IMP) Rear Guard Box # (5 in. deep footprint)	RAC-0X0440
Interbay Management Panel (IMP) (15 in. deep footprint)	E-501-L139-HD

* Variable sequence of characters depending on order details
Only used in LSX 288 termination/splice panel application
Items with 5 in. deep footprint add 3 in. to rack footprint because 2 in bumper is removed

Table 2. Homerun Splitter Solution Specifications

Parameter	Specification	Remarks
Dimensions (HxWxD)	84 x 26 x 15 in.* (213.3 x 66 x 38.1 cm)	Maximum dimensions of total rack configuration (any component)
	*configuration used with termination/splice panels has a depth of 18 in.	
Mounting	23-inch	WECO hole spacing
Feeder cable	OSP stranded or ribbon	
Number of inputs	Up to 96 network inputs	Standard configuration using 1x32 splitters has 24 inputs per splitter chassis
Number of outputs	Up to 3072 outputs per rack	Up to 1536 outputs per splitter chassis
Number of terminations	1152 terminations per rack	288 per LSX termination panel
Parking lot positions	192 positions per rack	6 x 32 splitter outputs
Plug and play splitters	48 splitter modules	24 per splitter chassis

4 INSTALLING THE RACK

In a single rack configuration, all splitters, LSX panels, and splitter output cables are on the same rack in locations shown in the [Figure 3](#) ruler of rack units. Use the following procedure to install the components in a single rack configuration.

1. Install the network rack per the documentation provided with the rack.
2. Install two IMPs, one on each side of the network rack.
3. Install other racks, if any, and end guards.
4. Install any other rack components identified in [Table 1 on Page 5](#).

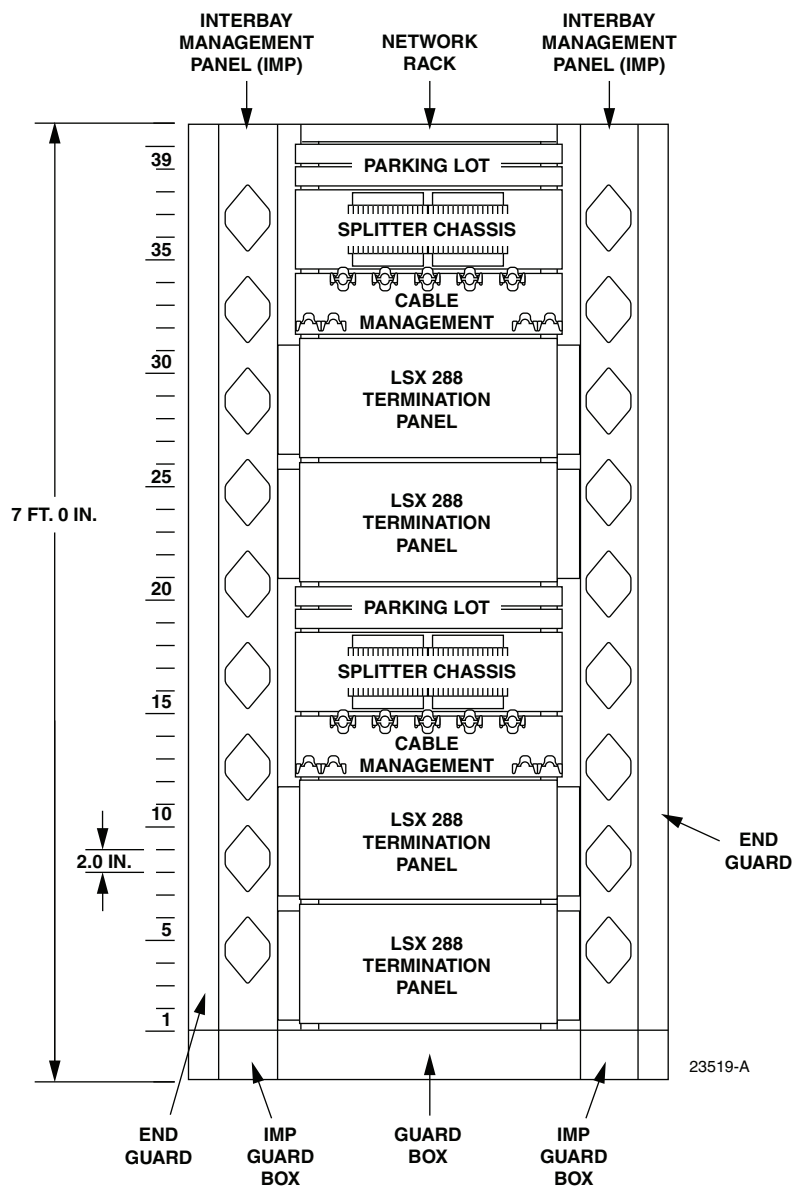


Figure 3. Spatial Arrangement of Solution Components

5. Starting at the bottom of the rack, install the first LSX 288-position panel, referring for instructions to the user manual provided with the panel.
6. Proceed upward, install other components in the order shown, referring for instructions to the documentation provided with each component.

- **Note:** The alternate configuration shown in [Figure 4](#) containing a one-rack-unit parking lot and one-rack-unit tie panel provides a means to route splitter outputs to a termination panel on another rack or on a different half of the same rack.

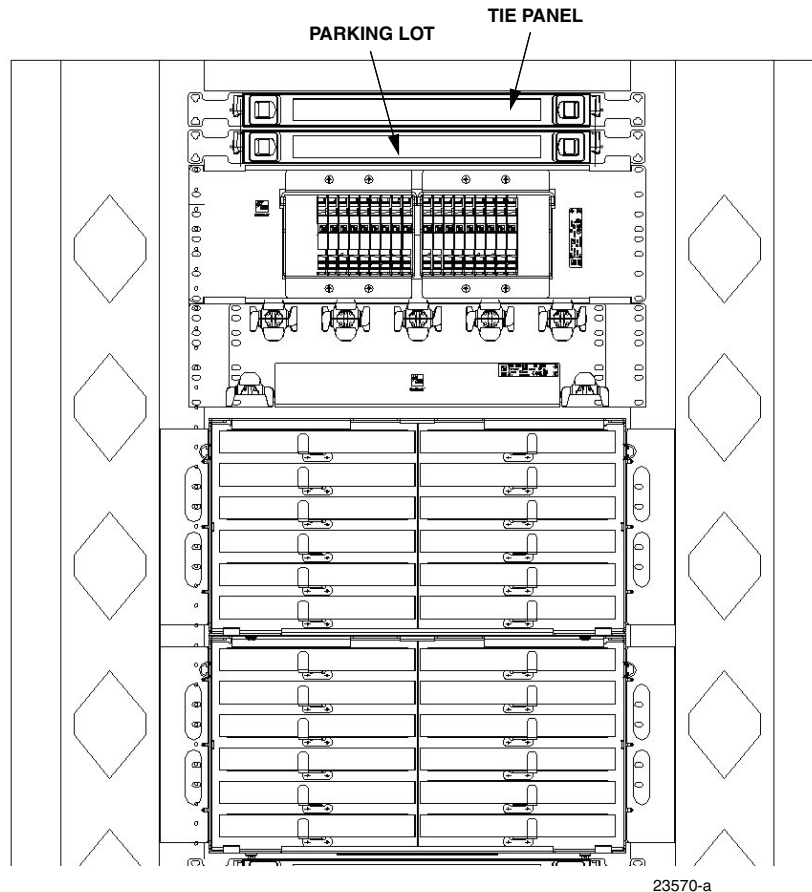


Figure 4. Alternate Configuration With Tie Panel

5 INSTALLING SPLITTER OUTPUT CABLES

Splitter output cables are installed on the front side of the LSX panel. The function of these cables is to route splitter outputs to the distribution cable fibers terminated on the rear side of the panel. Unassigned splitter output cables can be stored temporarily in the parking lot.

- **Note:** To route cables to a termination panel on the other half of the same rack or on an adjacent rack, the rack must have a tie panel such as shown in [Figure 4](#).

[Figure 5](#) shows a partially cabled Homerun Splitter assembly with splitter output cables connected between the plug and play splitters and the parking lot, and between the plug and play splitters and the LSX 288 termination panels.

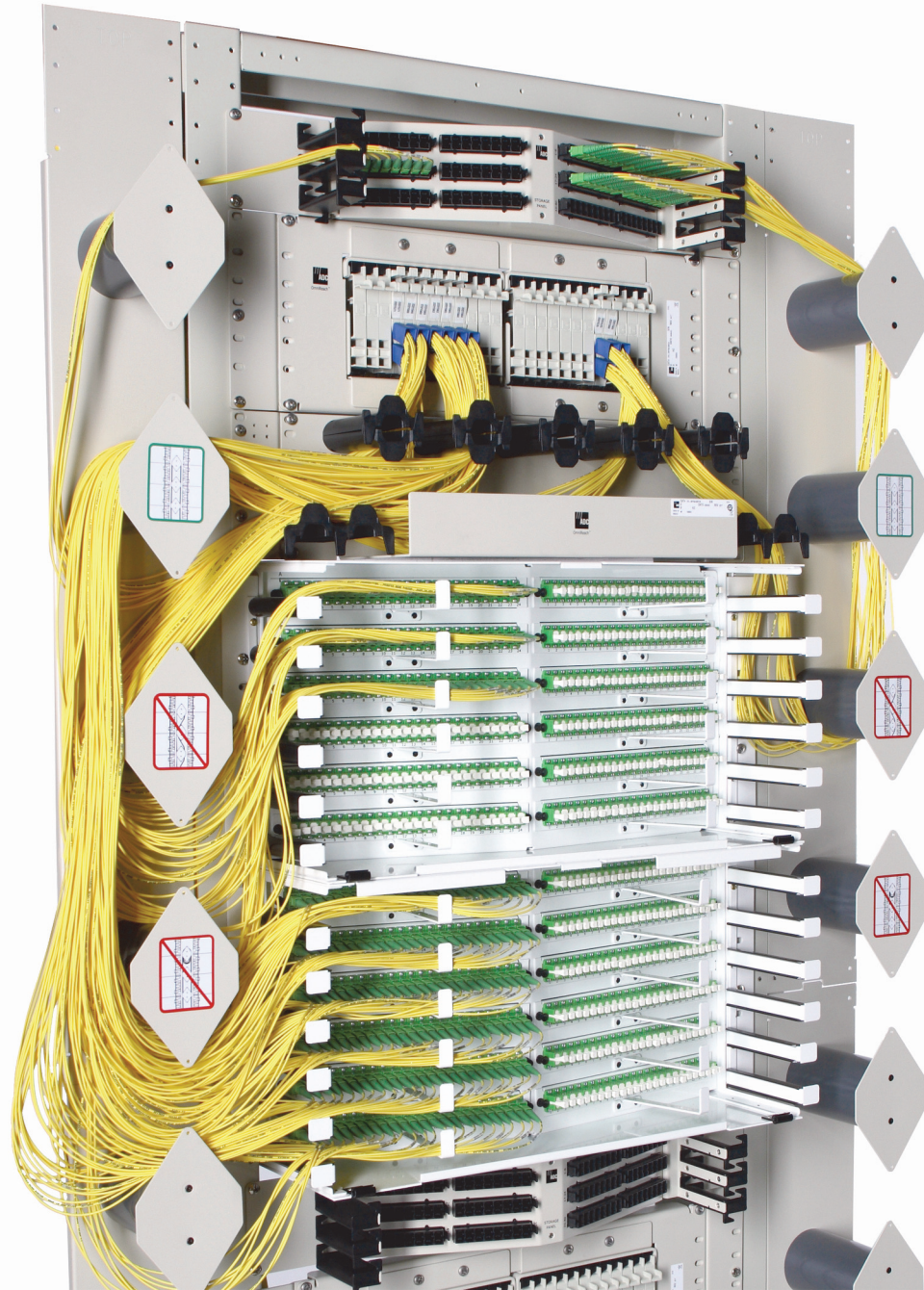


Figure 5. Cable Routing Examples Photo

This photograph illustrates the correct use of the cable management panel, cable guides, and IMP spools.

5.1 Cabling from Splitter Chassis to Parking Lot

When routing splitter output cables from a splitter to a parking lot, route the splitter output cable down from the splitter through the cable guides and under the IMP spools as shown for cables **A** and **B** in Figure 6. Adjust the cable to take up slack as shown in Figure 7.

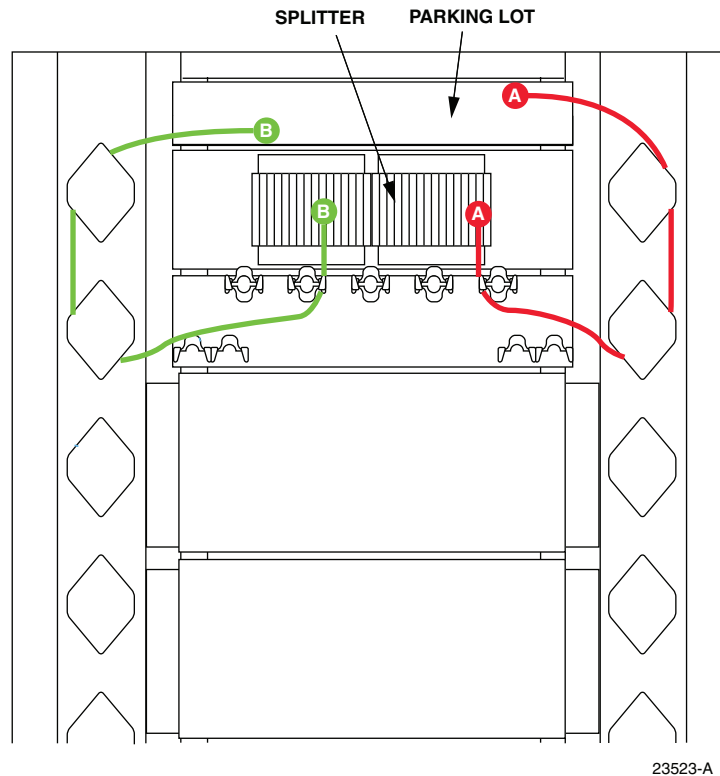


Figure 6. Cabling from Splitter Chassis to Parking Lot

5.2 Cabling from Splitter Chassis to LSX Panels

When routing splitter output cables from a splitter to a termination panel, route the cables down from the splitter over or through the cable guides and around the IMP spools as shown for cables **C** and **D** in Figure 8. Adjust the cable to take up slack as shown in Figure 7.

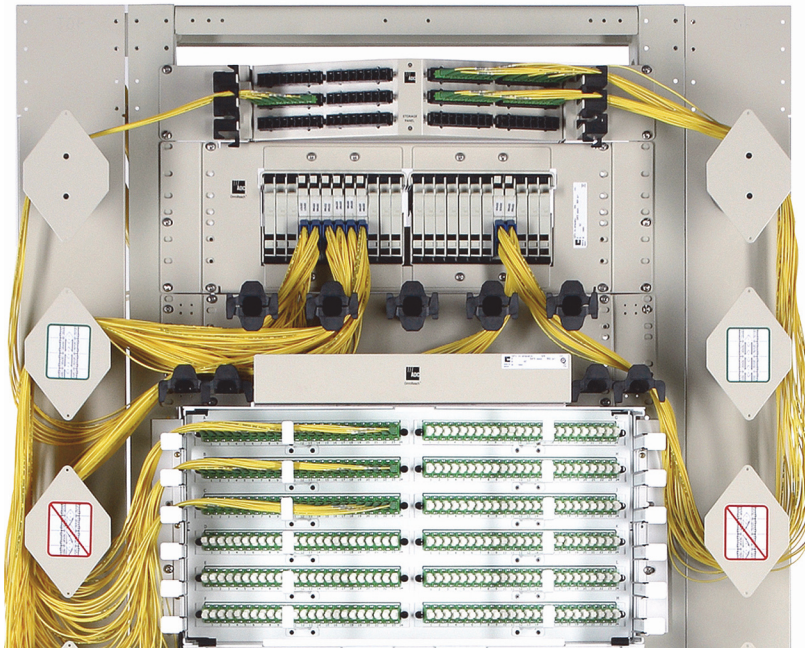
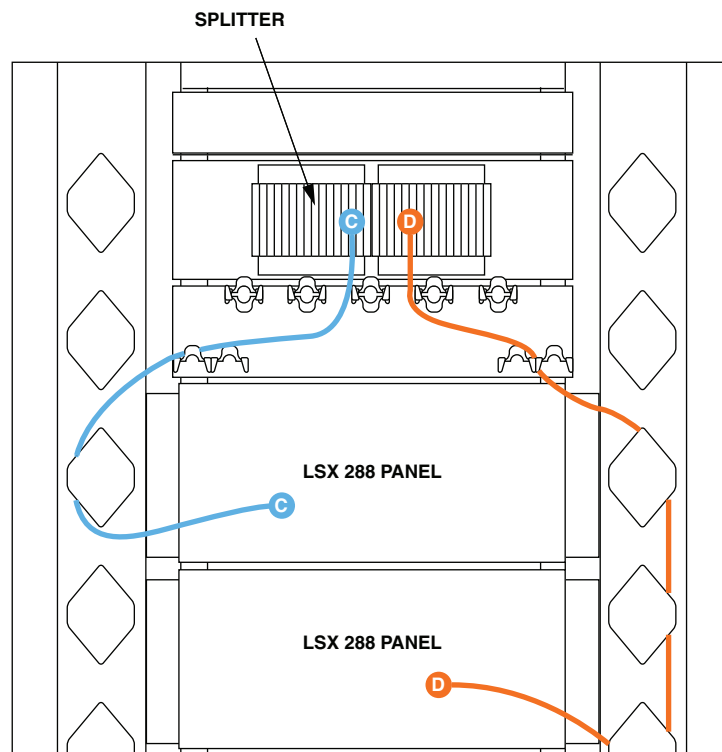


Figure 7. Splitter Output Cable Routing



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Figure 8. Cabling from Splitter Chassis to LSX Panels

5.3 Cabling from a Fiber Tie Panel to LSX Panel on Adjacent Rack

When routing splitter output cables from a splitter to a termination panel on an adjacent rack, the cable can be routed using a tie panel such as shown for cable **E** in Figure 9. Adjust the cable to take up slack. Within the tie panel, connect the splitter output cable using the adapter interface to a 5 or 7 meter long patch cord, as shown for cable **F**. Route the patch cord up through an overhead fiber management system to the adjacent rack and down through an IMP to the destination panel (not shown). Figure 10 shows use of a tie panel with a 3 meter patch cord to get to the other half of the same frame.

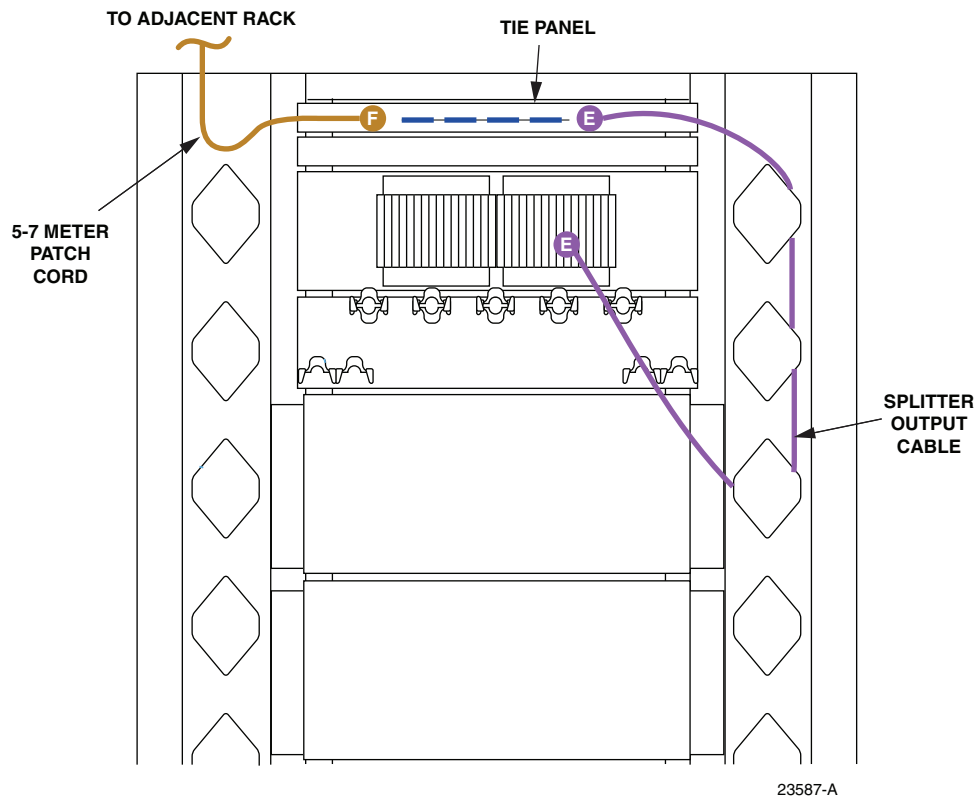


Figure 9. Cabling from Tie Panel to LSX Panel on Adjacent Rack or Different Half

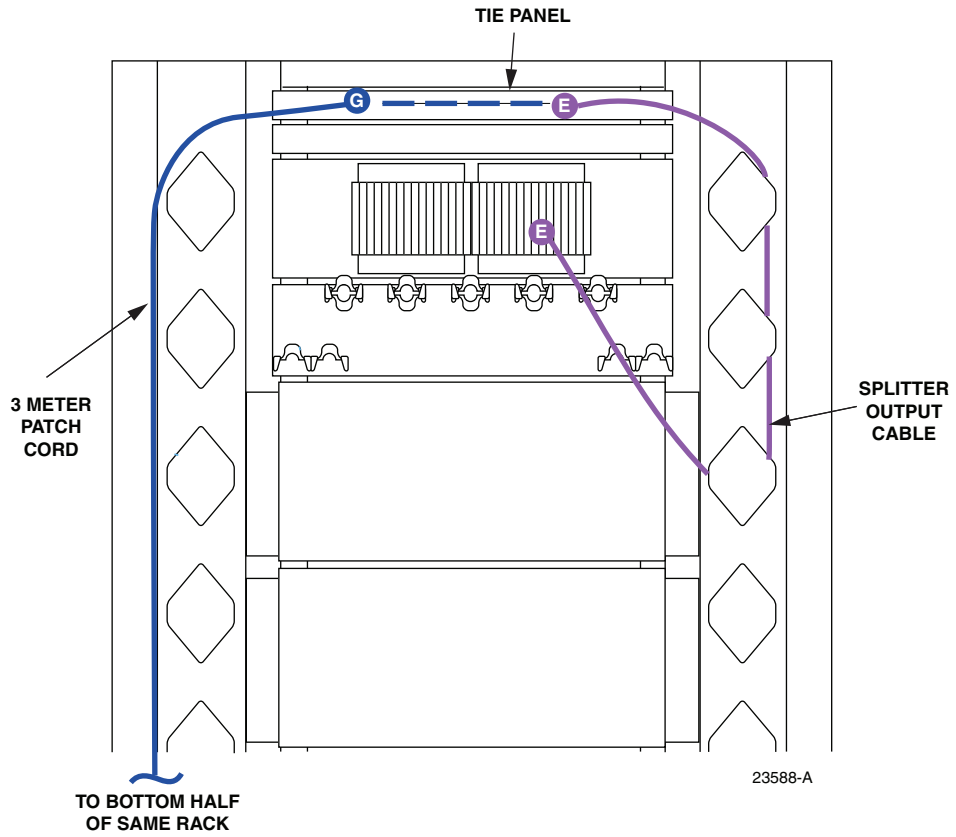


Figure 10. Cabling from Tie Panel to LSX Panel on Different Half of Same Rack

6 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/SupportCenter>

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