

# FPX Series Fiber Panels

CommScope's FPX series provides industry-leading fiber cable protection and management in a modular footprint.

CommScope's FPX series provides industry-leading fiber cable protection and management in a modular footprint. With a depth of 12.0" and with front only as well as front and rear access, the FPX panel is suitable for a wide range of applications including central offices, data centers, indoor and outdoor cabinets, huts, CEV's and more.

The FPX panel utilizes an internal splicing system that creates a compact, feature-rich, high-density solution. FPX achieves densities of 48-fiber terminations/splices in 1 RU (1.75") and 288-terminations/splices in 5 RU (8.75") using LC connectors (24 and 144 respectively using SC). These densities are attained while utilizing CommScope's angled adapters to ease cable access, protect bend radius and provide individual fiber access. Field-installable vertical cable guides on either side of the panel allow for managed routing and protection of the fiber entering and exiting the panel. The FPX's wide range of features and options are designed for your networks' growing needs. Panels are equipped with adjustable mounting brackets to provide either 19- or 23-inch rack mounting with 2, 5, and 8 inch recess mounting. The panel is available preterminated with pigtailed, IFC cable, or adapters only to simplify ordering and reduce installation time.

## Features

- 12.0" total depth with front only access allows the panel to fit in a wide range of applications including central office, datacenter, outside plant cabinets, and more
- Front and rear access makes field termination and splicing fast and efficient, regardless of the application or network location
- Combines the unique features of vertical cable guides and angle-left/angle-right adapters, offering bend radius protection, intuitive routing and easy connector access
- Adapter packs can be pre-configured at the factory for more efficient service turn-up, or delivered separately for shorter lead times and to defer expenses for when network growth is needed
- MPO Cassettes eliminate the need for on-site fiber terminations or splicing, which decreases overall deployment time
- Equipped with adjustable mounting brackets to provide either 19- or 23-inch rack or cabinet mounting (EIA or WECCO) as well as 2, 5, or 8 inch recess mounting
- Available in a variety of sizes and configurations and utilizes a single footprint



# Product Overview

Recommended Applications	Medium to high-density termination and/or splice panel solution. Suitable for Central Office/Head End/Data center rack mounts, back-to-back mounting, and use in constrained spaces such as outside plant cabinets, huts, controlled environmental vaults (CEVs), and other customer premise applications.
Description	FPX Rack Mount Panel. Available in 1 RU, 2 RU, 3 RU, 4 RU and 5 RU chassis height configurations. Includes adapter only, termination/splice, MPO cassette, and preterminated/stubbed options.
Number of fibers, future growth potential	12 to 288; modularity allows for a mix of connection types and to grow capacity with network demand
Interconnect	Ideal
Cross-connect	Suitable for moderate fiber count cross-connect use; for high counts (above 288) consider the NG4access Optical Distribution Frame
Accommodates on-frame splicing	Yes. Built-in
Accommodates off-frame splicing	Yes, with the purchase of separate IFC cable. Multifiber clamp included.
Rear access	Yes
Front access	Yes
Customer premises application	Ideal
19" mounting	Yes
23" mounting	Yes
Mix equipment with fiber product?	Ideal
Use as dedicated fiber frame	Not recommended (See ODF catalog #103743AE)
VAM capabilities	No
Optimum jumper storage location	IMP or separate storage panel required
Vertical Cable guide	Includes VCG on both sides
Compliance	Meets UL 1863 and NEBS (GR-63 and -1089) certification requirements



# Density by Connector Type and Application

Maximum Density	Size in Rack Units				
	1	2	3	4	5
LC Connector:	48	96	144	192	288
SC Connector	24	48	72	96	144
Adaptor Pack Configuration:	2 modular adapter packs: 1 angle right/ 1 angle left	4 modular adapter packs: 2 angle right/ 2 angle left	6 modular adapter packs: 3 angle right/ 3 angle left	8 modular adapter packs: 4 angle right/ 4 angle left	12 modular adapter packs: 6 angle right/ 6 angle left
	Vertical cable guide with panel can be removed				
Features at a Glance:	Angled left/right adapters, highest density with maximum cable management features.				

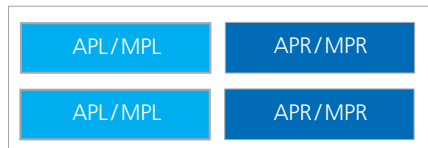
## Panel Configurations

FPX series chassis utilize modular adapter packs which are unique to either the right or left position of the chassis. The left / right position must be specified to ensure proper adapter orientation and color order in the backplane. Below illustrates the various configurations for the five available FPX chassis.

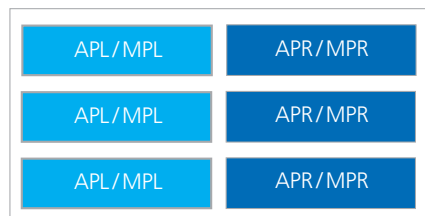
1 RU Chassis



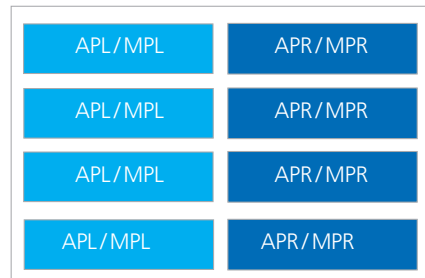
2 RU Chassis



3 RU Chassis



4 RU Chassis



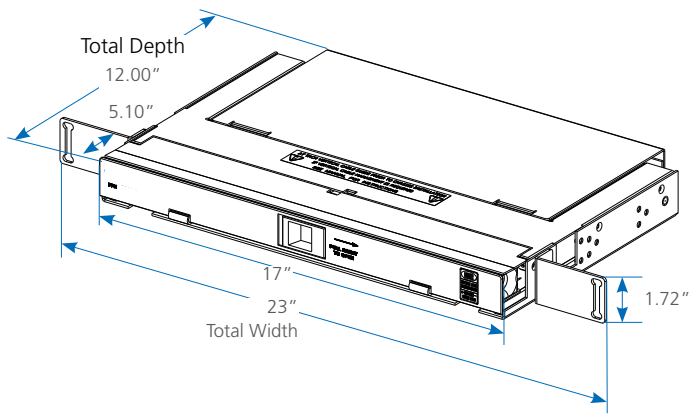
5 RU Chassis



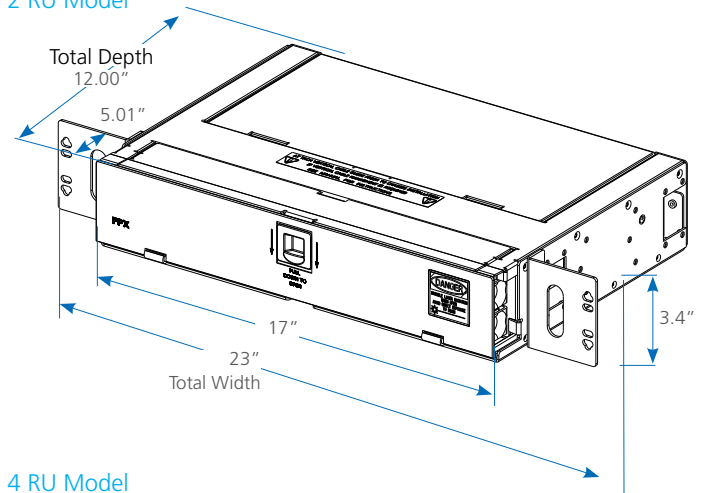
APL = angle left adapter pack  
 APR = angle right adapter pack  
 MPL = left MPO cassette  
 MPR = right MPO cassette

# Chassis Dimensions

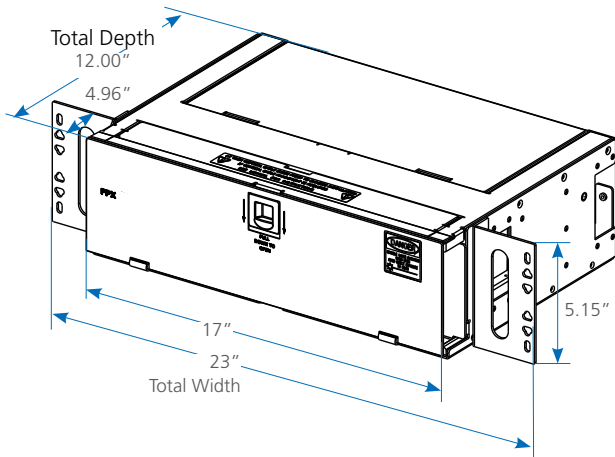
1 RU Model



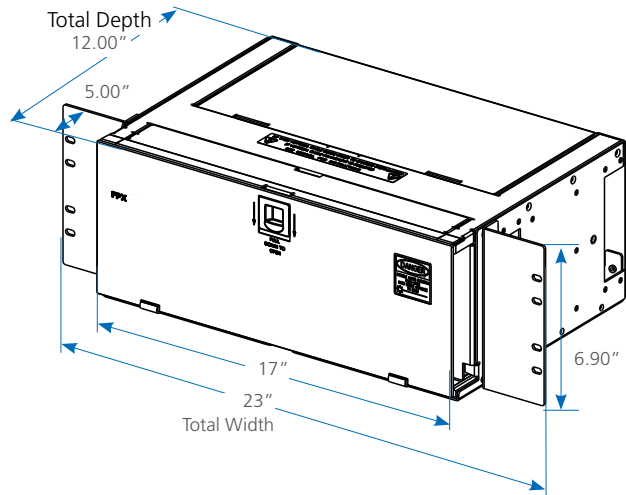
2 RU Model



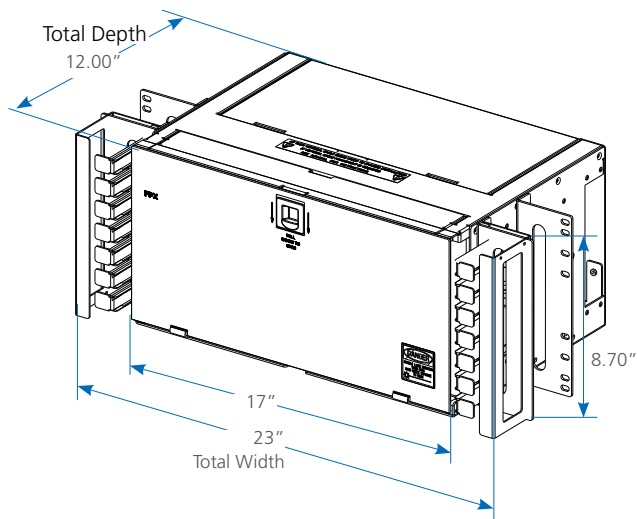
3 RU Model



4 RU Model



5 RU Model



**NOTE:**

"Total width" includes removable/reconfigurable features such as cable management and mounting brackets.

"Total depth" includes external features such as doors, latches, and hinges.

# MPO Cassette Optical Specifications and Polarity

FPX cassettes are wired straight through as per the recommendations made in TIA standard TIA-568-C Connectivity Method A.

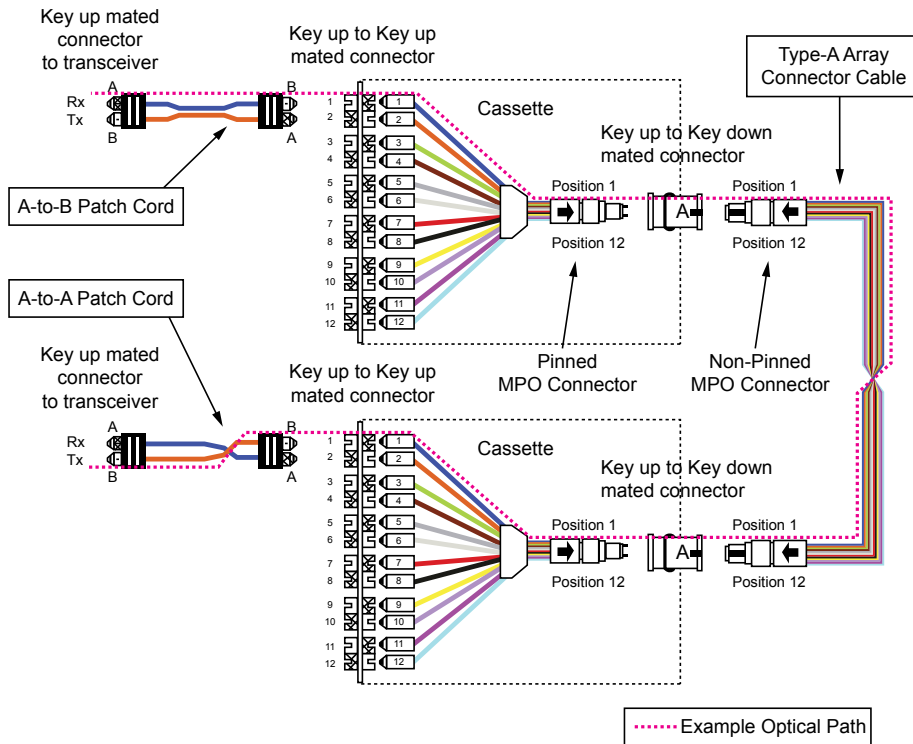
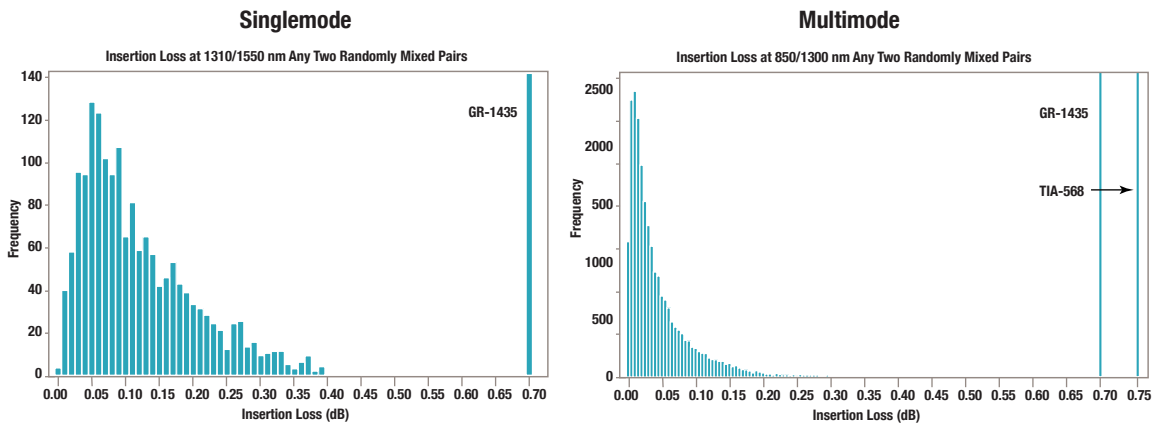
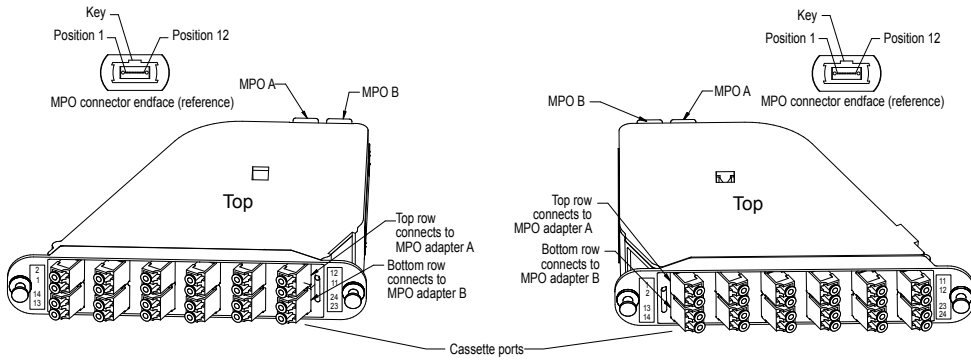


Figure 1: Connectivity Method A for Duplex Signals

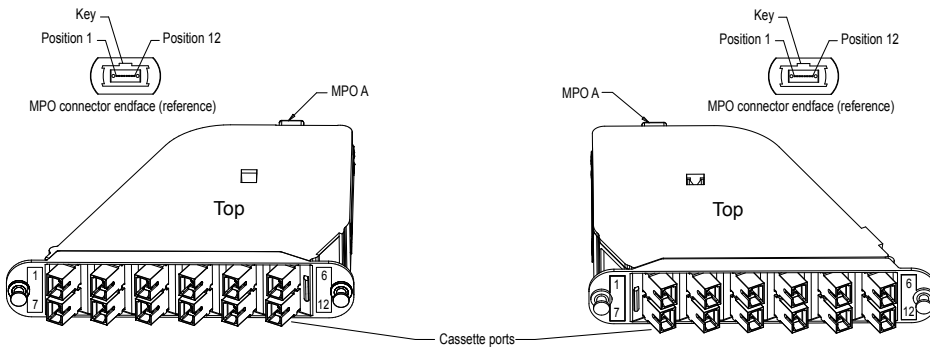
## Low-loss MPO Connector



# 24 Fiber LC - MPO Cassette Wiring



# 12 Fiber SC - MPO Cassette



## 24 Fiber LC - MPO Cassette Wiring

### Polarity/Wire Chart

Cassette Port No.		MPO	Fiber
MPO-A	MPO-B	Fiber Pos.	Color
Port 1	Port 13	1	Blue
Port 2	Port 14	2	Orange
Port 3	Port 15	3	Green
Port 4	Port 16	4	Brown
Port 5	Port 17	5	Slate
Port 6	Port 18	6	White
Port 7	Port 19	7	Red
Port 8	Port 20	8	Black
Port 9	Port 21	9	Yellow
Port 10	Port 22	10	Violet
Port 11	Port 23	11	Rose
Port 12	Port 24	12	Aqua

## 12 Fiber SC - MPO Cassette Wiring

### Polarity/Wire Chart

Cassette Port No.	MPO	Fiber
MPO-A	Fiber Pos.	Color
Port 1	1	Blue
Port 2	2	Orange
Port 3	3	Green
Port 4	4	Brown
Port 5	5	Slate
Port 6	6	White
Port 7	7	Red
Port 8	8	Black
Port 9	9	Yellow
Port 10	10	Violet
Port 11	11	Rose
Port 12	12	Aqua

# FPX Series Empty Chassis

The FPX series chassis can be purchased without adapter packs. In this form, the end-user can mix and match any combinations of modular FPX adapter packs or simply utilize a “grow as you go” approach to their network.

Description	Height	Part Number
Rack or cabinet mount panel, putty white		
1 RU empty panel, putty white; accommodates 1 angle LEFT and 1 angle RIGHT adapter packs;	1.75"	FPX-1FR000-000
2 RU empty panel, putty white; accommodates 2 angle LEFT and 2 angle RIGHT adapter packs;	3.50"	FPX-2FR000-000
3 RU empty panel, putty white; accommodates 3 angle LEFT and 3 angle RIGHT adapter packs;	5.15"	FPX-3FR000-000
4 RU empty panel, putty white; accommodates 4 angle LEFT and 4 angle RIGHT adapter packs;	6.90"	FPX-4FR000-000
5 RU empty panel, putty white; accommodates 6 angle LEFT and 6 angle RIGHT adapter packs;	8.75"	FPX-5FR000-000
3RU empty panel with IFC cable management	5.15"	FPX-3FS0/0000000
4RU empty panel with IFC cable management	6.90"	FPX-4FS0/0000000
5RU empty panel with IFC cable management	8.75"	FPX-5FS0/0000000
Accessories		
Single fusion heat shrink splice tray without protection sleeves		FPX-HST-48
Blank plates		FPX-00AP00
Mass Fusion and Mechanical Splice tray without protection sleeves		FPX-RBN-TRAY-12
FPX KIT CABLE CLAMP Standard	.2" - 1.0" cable OD	FPX-ACCCLMP*
FPX KIT CABLE CLAMP Large	.8" - 1.2" cable OD	FPX-ACCCLMP-LG

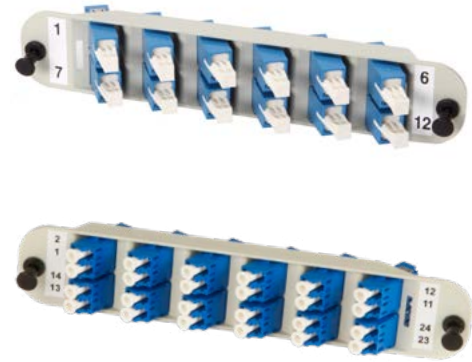
\* All Chassis ship with 1 standard cable clamp included.



# FPX Series Standard Adapter Packs

The FPX series offers a variety of standard modular adapter packs to accommodate most applications. The modular design is user-friendly and offers maximum flexibility to the end-user. CommScope's standard adapter pack offerings are SC and LC in both multimode and singlemode options. The same adapter packs are used throughout the FPX platform and oriented in the same direction in each chassis to optimize craft friendliness.

The FPX modular adapter packs can only be used with the FPX series panels. Each adapter pack contains labels that make it able to be loaded correctly in only one side of the panel. These craft friendly labels help insure correct installation. The FPX adapter packs are not interchangeable with other CommScope fiber panels (FL2000, FMT, or FL1000).



## Adapter Only Packs

Description	Part Number
Multimode adapter only packs	
SC adapters, aqua color <sup>1</sup> ; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-AF-12APLA9
Angle RIGHT adapter pack	FPX-AF-12APRA9
LC adapters, aqua color <sup>1</sup> ; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-AF-24APLA6
Angle RIGHT adapter pack	FPX-AF-24APRA6
Singlemode adapter only packs	
SC ultra polish (UPC) adapters, blue color; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-AF-12APL07
Angle RIGHT adapter pack	FPX-AF-12APR07
LC ultra polish (UPC) adapters, blue color; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-AF-24APL08
Angle RIGHT adapter pack	FPX-AF-24APR08
SC angle polish (APC) adapters, green color; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-AF-12APL0J
Angle RIGHT adapter pack	FPX-AF-12APR0J
LC angle polish (APC) adapters, green color; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-AF-24APL0Z
Angle RIGHT adapter pack	FPX-AF-24APR0Z

<sup>1</sup> CommScope recommends the use of aqua colored adapters with laser-optimized multimode fiber for 10 Gigabit (OM3 and OM4) applications for circuit identification.

<sup>2</sup> Each LC adapter accepts 2 fibers each

# Adapter Packs with Pigtailed

CommScope's FPX modular adapter packs are available to be shipped from the factory with preterminated 3 meter pigtailed. These configurations can simplify the ordering process and reduce installation time and costs for the end-user.



## Ordering Information

FPX - AF - XXAPXXXXXX

### Number of Fiber Ports per Bulkhead

12	12 Fibers <sup>1</sup>
24	24 Fibers <sup>2</sup>
00	None

### Pack Orientation

L	Left adapter pack
R	Right adapter pack

### Adapter Style

00	None
Singlemode	
07	SC/UPC
0J	SC/APC
08	LC/UPC
0Z	LC/APC
Multimode	
A6	LCMM - AQUA <sup>3</sup>
A9	SCMM - AQUA <sup>3</sup>

### Pigtail Length

LEAVE BLANK	Adapters only
3	3 meter pigtailed

### Pigtail Type

LEAVE BLANK	Adapters only
R	Ribbon
P	Stranded

### Fiber Type

LEAVE BLANK	Adapters only
S	Singlemode
D	50/125 Multimode (OM3)
Q	50/125 Multimode (OM4)

<sup>1</sup> SC only

<sup>2</sup> LC only

<sup>3</sup> CommScope recommends the use of aqua adapters to identify OM3 and OM4 circuits

# FPX Termination/Splice and adapter-only Fiber Panels

CommScope's FPX series fiber panels are available to be shipped with factory installed adapter packs and/or preterminated pigtail assemblies which simplifies the ordering process and reduces installation time and cost.



## Ordering Information

FPX - X X R X X X - X X X

### Chassis Size

1	1 RU
2	2 RU
3	3 RU
4	4 RU
5	5 RU

### Chassis Style

F	12" depth chassis
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### Adapters/Pigtails

0	None
A	Adapter only
P	SM Stranded pigtails and adapters
R	SM Ribbon Stranded pigtails and adapters
J	OM4 Stranded pigtails and adapters

### Connector/Adapter Color

0	Normal (Green SMAPC, Blue SMUPC, Beige MM)
A	Aqua - (MM OM4)

### Connector Type

0	None
7	SC/UPC
J	SC/APC
8	LC/UPC
Z	LC/APC
9	MMSC
6	MMLC

### Splice Tray Type

0	None or Adapter only
1	Bare Fusion (stranded fiber)
2	Heat Shrink Fusion (stranded fiber)
3	Ribbon/Mass fusion

### Ports Loaded

00	Base Chassis
12	12
24	24
36	36
48	48
72	72
96	96
144	144
288	288

### Density Per Rack Unit by Connector Type

Maximum Density	1	2	3	4	5
LC Connector	48	96	144	192	288
SC Connector	24	48	72	96	144

# FPX Preconfigured Termination Panels with IFC/OSP Cable

To accommodate varying networks requirements and fast installation, the FPX series fiber panels are available preterminated with either intrafacility cable (IFC) or outside plant (OSP) cables.



## Ordering Information

FPX - X X X X / O X X X X X X

### Chassis Size

1	1 RU
2	2 RU
3	3 RU
4	4 RU
5	5 RU

### Chassis Style

F	12" depth chassis
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### Fiber Type

S	Singlemode
M	Multimode

### Connector Style Near

7	SM SC/UPC
J	SM SC/APC
8	SM LC/UPC
Z	SM LC/APC
6	MMLC (AQUA)
9	MMSC (AQUA)
0	STUB (far end only)*

\* Note: The first character can not be a "0" for stub end; it must indicate a connector style option. The second character can be a "0" for stub end or any connector style option for the far end of the cable.

### Cable Size

1	12
2	24
3	36
4	48
7	72
9	96
A	144
H	288 (2x144)

### Cable Length

008	8 meters (25')
016	16 meters (50')
023	23 meters (75')
031	31 meters (100')
039	39 meters (125')
046	46 meters (150')
061	61 meters (200')
077	77 meters (250')
092	92 meters (300')
122	122 meters (400')

### Cable Exit Location

U	Up
D	Down
R	Up/Right
S	Down/Right

### Cable Type

Multimode	
Q	50/125 μm Laser Optimized to 550 meters (OM4) IFC Riser Stranded
E	50-125 μm Laser Optimized to 300 meters (OM3) IFC Riser Stranded
Singlemode	
M	IFC Ribbon
A	IFC Stranded
F	IFC Stranded Plenum
H	Indoor/Outdoor
R	Indoor/Outdoor Ribbon
T	OSP Dielectric Ribbon
J	OSP Dielectric Stranded
G	OSP Single Armor Stranded

### Density Per Rack Unit by Connector Type

Maximum Density	1	2	3	4	5
LC Connector	48	96	144	192	288
SC Connector	24	48	72	96	144

# FPX MPO Cassettes

CommScope's FPX series MPO cassettes utilize the same user interface as the modular adapter packs, but offer the end-user the flexibility of a plug-and-play MPO architecture. Each cassette has a front bulkhead identical to the adapter pack with an internal cable assembly converting to an MPO male connector. This assembly is housed in an enclosed cassette with a rear MPO adapter allowing the user to utilize an MPO trunk to turn up service.



## Ordering Information

FPX - X X M P X X X X

### Number of Fiber Ports per Cassette

12	12 connections <sup>1</sup>
24	24 connections <sup>2</sup>

### Cassette Orientation

L	Left cassette
R	Right cassette

### Fiber Type - Orientation

D	Multimode Ultra 50/125 (OM3)
Q	Multimode Ultra 50/125 (OM4)
S	Singlemode

### Adapter Style

Multimode	
A6	LCMM aqua
A9	SCMM aqua
Singlemode	
07	SC/UPC
0J	SC/APC
08	LC/UPC
0Z	LC/APC

<sup>1</sup> SC only

<sup>2</sup> LC only

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