

# FPX Series Fiber Panels

Next Generation FPL



TE Connectivity's (TE) FPX series provides industry-leading fiber cable protection and management in a modular footprint. The panel utilizes an internal splicing system that creates a compact, feature-rich, high-density solution. FPX achieves densities of 24-fiber terminations/splices in 1 RU (1.75") and 144-terminations/splices in 5 RU (8.75") using SC connectors. These densities are attained while utilizing TE'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 either four- or five-inch recess mounting. The panel is available preterminated with pigtailed or adapters to simplify ordering and reduce installation time. Using LC small-form-factor connectors doubles the capacity of each panel.

## FEATURES

- FPX panels combine the unique features of vertical cable guides and angle-left/angle-right adapters, offering bend radius protection, intuitive routing and easy connector access
- Rear access makes field termination or splicing fast and efficient. 1 RU, 2 RU, 3 RU and 4 RU versions feature convenient sliding access to terminations and splicing. 5 RU version features a hinged swing door on the back - provides technicians unrestricted access for splicing and reconfiguring cable
- Sold separately for maximum flexibility with minimum lead time, FPX adapter packs can also be pre-configured at the factory for more efficient service turn-up
- Provides an MPO cassette interface which eliminates the need for on-site fiber terminations or splicing, which decreases overall deployment time
- Panels are equipped with adjustable mounting brackets to provide either 19- or 23-inch rack or cabinet mounting (EIA or WECCO) as well as 4- or 5-inch recess mounting
- FPX panels are available in a variety of sizes and configurations and utilize a single footprint

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## Product Overview

<b>Recommended Applications</b>	High-density termination/splice panel solution. Often used in small wire closets or frames. Ideal for small to medium fiber counts.
<b>Description</b>	FPX Rack Mount Panel available in 1 RU, 2 RU, 3 RU, 4 RU and 5 RU chassis height configurations and include adapter only, termination/splice, or MPO cassette options.
<b>Number of fibers, future growth potential</b>	12 to 288
<b>Flexibility/ability to grow</b>	Yes
<b>Interconnect</b>	Ideal
<b>Cross-connect</b>	Yes
<b>Accommodates on-frame splicing</b>	Yes. Built-in
<b>Accommodates off-frame splicing</b>	Yes, with the purchase of separate IFC cable. Multifiber clamp included.
<b>Rear access</b>	Required
<b>All front access</b>	No
<b>Customer premises application</b>	Ideal
<b>19" mounting</b>	Yes
<b>23" mounting</b>	Yes
<b>Mix equipment with fiber product?</b>	Ideal
<b>Use as dedicated fiber frame</b>	Not recommended (See ODF catalog #103743AE)
<b>VAM capabilities</b>	No
<b>Optimum jumper storage location</b>	IMP or separate storage panel required
<b>Vertical Cable guide</b>	Includes VCG on both sides
<b>Compliance</b>	Meets UL 1863 and NEBS certification requirements



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## Density by Connector Type and Application

	Size in Rack Units				
	1	2	3	4	5
<b>Maximum Density</b>					
<b>LC connector:</b>	48	96	144	192	288
<b>SC connector:</b>	24	48	52	96	144
<b>Adapter Pack Configuration:</b>	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				
<b>Best Application:</b>	Cabinets near servers, switches, routers, SANs				
<b>Features at a Glance:</b>	Angled left/right adapters, highest density with maximum cable management features.				

## SPECIFICATIONS

**Storage/operating temperature:** 40 to 85° C (-40 to 185° F)

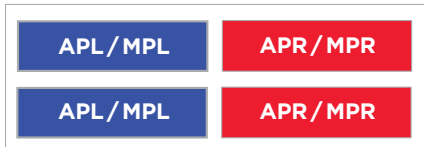
## PANEL CONFIGURATIONS

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 three available FPX chassis.

### 1 RU CHASSIS



### 2 RU CHASSIS



### 3 RU CHASSIS



### 4 RU CHASSIS



### 5 RU CHASSIS



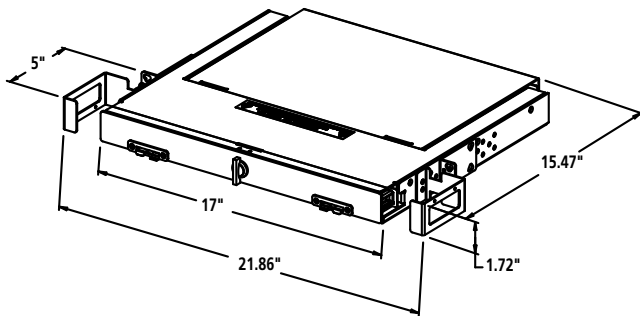
APL = angle left adapter pack  
 APR = angle right adapter pack  
 MPL = left MPO cassette  
 MPR = right MPO cassette

# FPX Series Fiber Panels

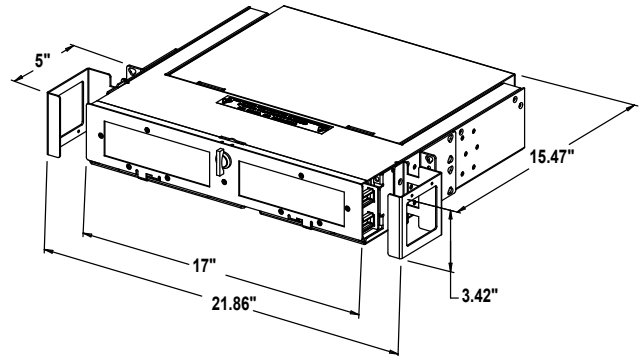
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## Chassis Dimensions

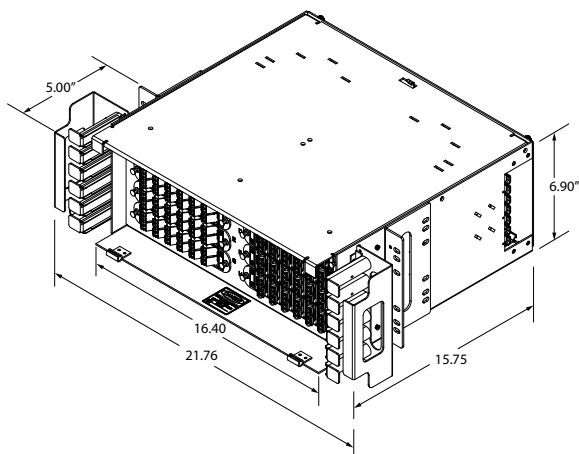
1 RU MODEL



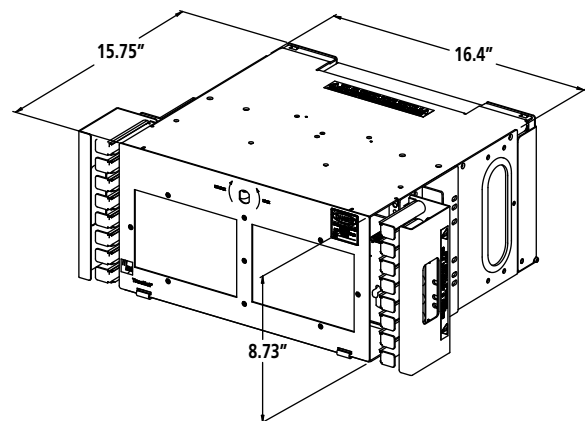
2 RU MODEL



3 RU MODEL



5 RU MODEL



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## 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.

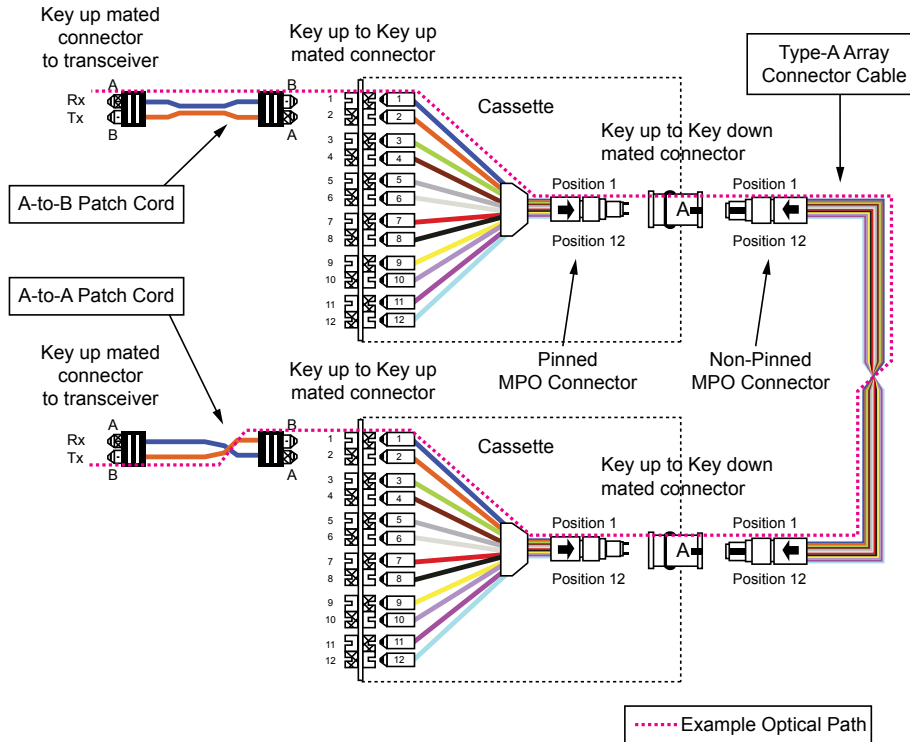
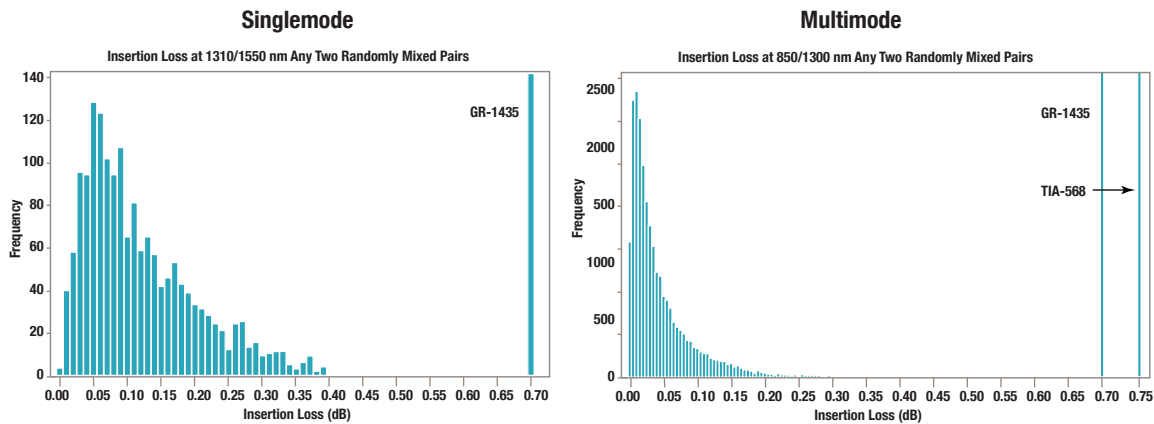


Figure 1: Connectivity Method A for Duplex Signals

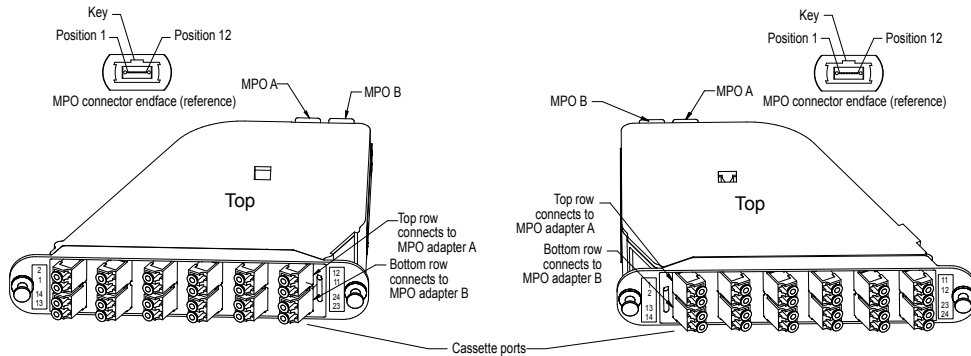
## LOW-LOSS MPO CONNECTOR



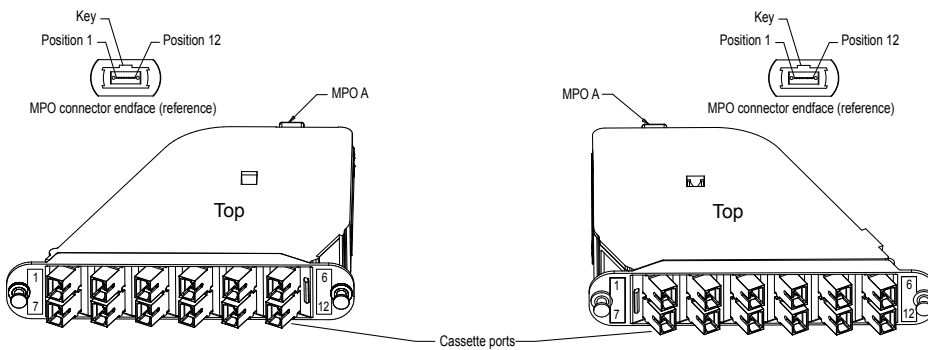
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## 24 FIBER LC - MPO CASSETTE WIRING



## 12 FIBER SC - MPO CASSETTE



### 24 Fiber LC - MPO Cassette Wiring

Polarity/Wire Chart			
Cassette Port No.		MPO Fiber Pos.	Fiber Color
MPO-A	MPO-B		
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 Pos.	Fiber Color
MPO-A		
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 Fiber Panels

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### 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
<b>Termination only rack or cabinet mount panel, putty white</b>		
1 RU empty panel, putty white; accommodates 1 angle LEFT and 1 angle RIGHT adapter packs; T-handle latch close	1.75"	FPX-1TR000-000
2 RU empty panel, putty white; accommodates 2 angle LEFT and 2 angle RIGHT adapter packs; T-handle latch close	3.50"	FPX-2TR000-000
3 RU empty panel, putty white; accommodates 3 angle LEFT and 3 angle RIGHT adapter packs; T-handle latch close	5.15"	FPX-3TR000-000
4 RU empty panel, putty white; accommodates 4 angle LEFT and 4 angle RIGHT adapter packs; T-handle latch close	6.90"	FPX-4TR000-000
5 RU empty panel, putty white; accommodates 6 angle LEFT and 6 angle RIGHT adapter packs; T-handle latch close	8.75"	FPX-5TR000-000
<b>Accessories</b>		
Heat Shrink Fusion Splice Tray		FST-HS-48
Blank plates		FPX-00APO0

### 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. TE'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 TE Fiber panels (FL2000, FMT, or FL1000).

See ordering information on next page.

# FPX Series Fiber Panels

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### Adapter only packs

Description	Part Number
<b>Multimode adapter only packs</b>	
SC adapters, beige color; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter only pack	FPX-12APLO9
Angle RIGHT adapter only pack	FPX-12APRO9
SC adapters, aqua color <sup>1</sup> ; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-12APLA9
Angle RIGHT adapter pack	FPX-12APRA9
LC adapters, beige color; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-24APL06
Angle RIGHT adapter pack	FPX-24APRO6
LC adapters, aqua color <sup>1</sup> ; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-24APLA6
Angle RIGHT adapter pack	FPX-24APRA6
<b>Singlemode adapter only packs</b>	
SC ultra polish (UPC) adapters, blue color; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-12APL07
Angle RIGHT adapter pack	FPX-12APRO7
LC ultra polish (UPC) adapters, blue color; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-24APL08
Angle RIGHT adapter pack	FPX-24APRO8
SC angle polish (APC) adapters, green color; 12 adapters or 12 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-12APLOJ
Angle RIGHT adapter pack	FPX-12APROJ
LC angle polish (APC) adapters, green color; 12 adapters <sup>2</sup> or 24 fiber ports per adapter pack	
Angle LEFT adapter pack	FPX-24APLOZ
Angle RIGHT adapter pack	FPX-24APROZ

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

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



# FPX Series Fiber Panels

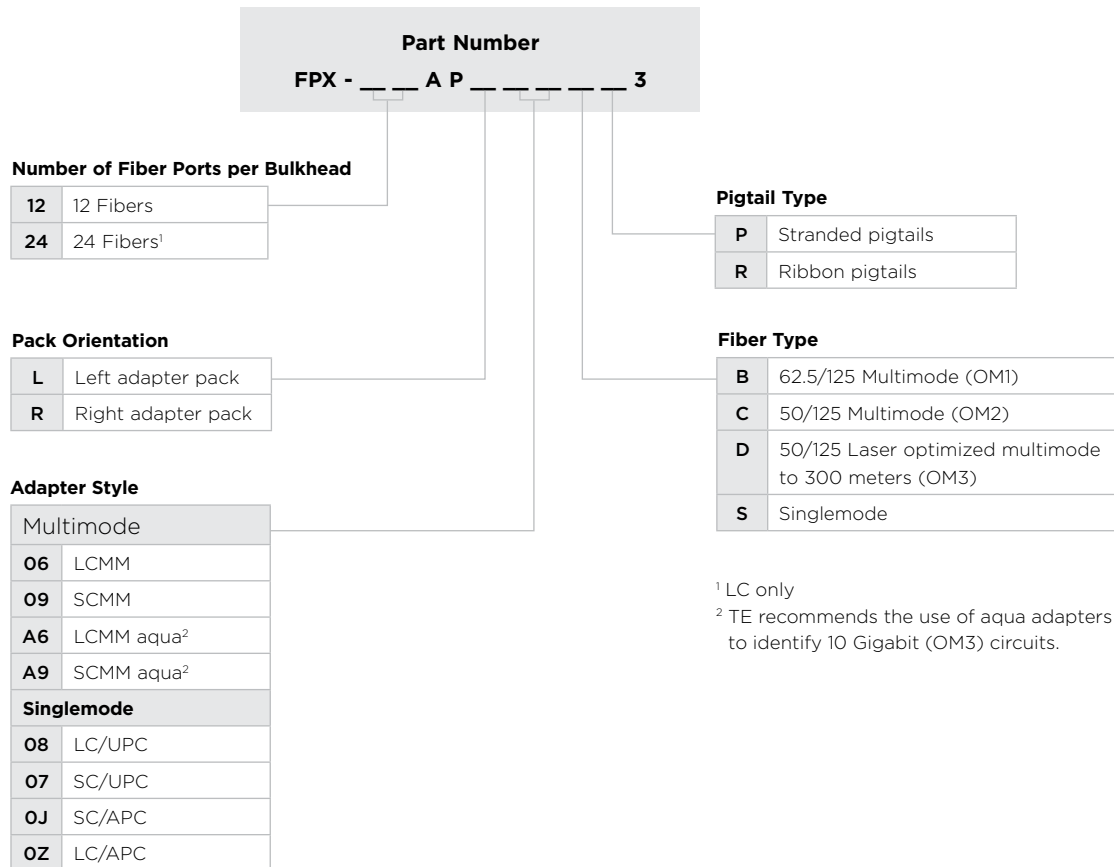
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## Adapter packs with pigtails

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



## ORDERING INFORMATION

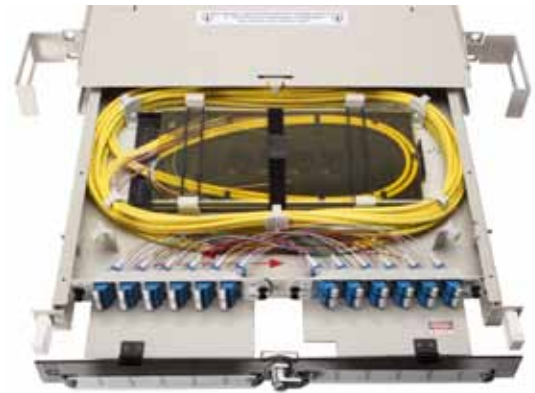


# FPX Series Fiber Panels

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## FPX Pre-configured Termination/Splice Fiber Panels

TE'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

**Part Number**  
**FPX - [ ] R [ ] - [ ]**

**Chassis Size (Color: Putty White)**

	Description	Max Capacity		Panel Height
		SC	LC	
<b>1T</b>	1 RU chassis	24	48	1.75"
<b>2T</b>	2 RU chassis	48	96	3.5"
<b>3T</b>	3 RU chassis	72	144	5.15"
<b>4T</b>	4 RU chassis	96	192	6.9"
<b>5T</b>	5 RU chassis	144	288	8.75"

**Adapters/Pigtails**

<b>A</b>	Adapter only
	Stranded pigtails
<b>P</b>	Singlemode
	Multimode (62.5/125) OM1
<b>R</b>	Ribbon pigtails
	Singlemode
<b>B</b>	Stranded pigtails
	Multimode (50/125) OM2
<b>G</b>	Stranded pigtails
	Multimode (50/125) OM3
	Laser optimized to 300M

**Splice Type**

<b>1</b>	Bare Fusion
<b>2</b>	Heat Shrink Fusion
<b>3</b>	Mechanical

**Ports Loaded**

<b>12</b>	12
<b>24</b>	24
<b>48</b>	48
<b>72</b>	72
<b>96</b>	96
<b>144</b>	144
<b>288</b>	288 <sup>2</sup>

**Adapter/Connector Style**

Multimode	
<b>O6</b>	LCMM
<b>O9</b>	SCMM
<b>A6</b>	LCMM aqua <sup>1</sup>
<b>A9</b>	SCMM aqua <sup>1</sup>
Singlemode	
<b>O8</b>	LC/UPC
<b>O7</b>	SC/UPC
<b>OJ</b>	SC/APC
<b>OZ</b>	LC/APC

<sup>1</sup> TE recommends the use of aqua adapters to identify 10 Gigabit (OM3) circuits.

<sup>2</sup> LC only

# FPX Series Fiber Panels

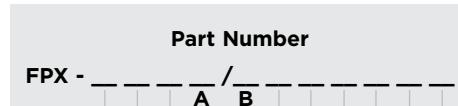
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## FPX Preconfigured Termination Panels with IFC/OSP Cable

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



#### Chassis Size (Color: Putty White)

Description	Max Adapter Packs	Panel Height
<b>1T</b> 1 RU chassis	2	1.75"
<b>2T</b> 2 RU chassis	4	3.5"
<b>3T</b> 3 RU chassis	6	5.15"
<b>4T</b> 4 RU chassis	8	6.9"
<b>5T</b> 5 RU chassis	12	8.75"

#### Panel Type

<b>S</b>	Singlemode
<b>M</b>	Multimode

#### Near End (A)/Far End (B) Connector and Adapter Type\*

<b>0</b>	Stub
<b>Multimode</b>	
<b>6</b>	LCMM
<b>9</b>	SCMM
<b>Singlemode</b>	
<b>8</b>	LC/UPC
<b>7</b>	SC/UPC
<b>J</b>	SC/APC

#### Cable Size

<b>1</b>	12
<b>2</b>	24
<b>3</b>	36
<b>4</b>	48
<b>7</b>	72
<b>9</b>	96
<b>A</b>	144

\*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.

#### Standard Cable Lengths\*

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

\*Example lengths. Additional cable lengths available in feet or meters upon request.

#### Cable Exit Location

<b>U</b>	Up
<b>D</b>	Down
<b>R</b>	Up Right
<b>S</b>	Down Right

#### Cable Type

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

# FPX Series Fiber Panels

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### FPX MPO Cassettes

TE'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.



Description	Part Number
<b>Multimode cassettes</b>	
12 fiber cassettes; 12 SC (aqua) multimode adapters; 50/125 fiber laser optimized to 300 meters (OM3)	
Angle LEFT cassette	FPX-12MPLDA9
Angle RIGHT cassette	FPX-12MPRDA9
24 fiber cassettes; 12 LC (aqua) multimode adapters <sup>1</sup> ; 50/125 fiber laser optimized to 300 meters (OM3)	
Angle LEFT cassette	FPX-24MPLDA6
Angle RIGHT cassette	FPX-24MPRDA6
<b>Singlemode cassettes</b>	
12 fiber cassettes; 12 SC/UPC singlemode adapters; singlemode fiber	
Angle LEFT cassette	FPX-12MPLS07
Angle RIGHT cassette	FPX-12MPRS07
24 fiber cassettes; 12 LC/UPC singlemode adapters <sup>1</sup> ; singlemode fiber	
Angle LEFT cassette	FPX-24MPLS08
Angle RIGHT cassette	FPX-24MPRS08
12 fiber cassettes; 12 SC/APC singlemode adapters; singlemode fiber	
Angle LEFT cassette	FPX-12MPLS0J
Angle RIGHT cassette	FPX-12MPRS0J

<sup>1</sup> Each LC adapter accepts 2 fibers each

## DATA SHEET

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