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Rapid Fiber Panel Series

Fiber Termination Panels with RapidReel Fiber Cable Spools



PRODUCT CATALOG | 4TH EDITION

Contents

Rapid Fiber Panel Series	
Overview	
Fiber Termination Panels with MPO Connector - (Central Office/Data Center/Wireless	5)
Typical Application Central Office/Data Center	7
Wireless Connectivity	
Ordering Information	9
Fiber Termination Panels with Single Fiber Breakouts - (Central Office/Data Center)	
Frame Fanout Mounting Brackets	
Typical Application Central Office/Data Center	11
Ordering Information	12
Fiber Termination Panels with Stub and Pulling Eye - (Central Office/Data Center)	
Typical Application Central Office/Data Center	13
Ordering Information	
Fiber Termination Panels with NG4access Cables Modules	
Tie Panel Application Central Office/Data Center	
Ordering Information	
Specifications	
3 mm 24-Fiber Zip Plenum Rated Microcable	17
3.6 mm 12-Fiber Indoor/Outdoor Singlemode Microcable	
3mm 24-Fiber Plenum Rated Cable	19

Rapid Fiber Panel Series Overview

The Rapid Fiber panel is an important innovation in the fiber optic panel market. Serving as a key distribution point between the active equipment and the main optical distribution frame, the Rapid Fiber panel offers service providers unmatched savings in installation time, labor costs and performance.

Rapid Fiber panels utilize CommScope's unique RapidReel fiber cable spools so the cable is always the right length. Available to store up to 100' of cable inside the panel up to 1000' of total cable length, the cable terminates to a single fiber breakout (SC or LC) or MPO which enables a plug-and-play connection to the main distribution frame or other point of connection. Stub-end cable options are available for splicing at the far end. The Rapid Fiber panel connector options and cables ensure fast cable routing and easy handling by technicians; and offers maximum space savings for high density fiber applications.

The Rapid Fiber panel's combination of cable, RapidReel spooling and connector technology in a single panel not only relieves cable congestion but also simplifies the ordering and inventory of equipment. The panel also features CommScope's industry-leading cable management—providing bend radius protection, intuitive cable routing paths and excellent physical protection for optimal network performance. Panels are available with SC or LC connectors on the front, singlemode or multimode, and Indoor/Outdoor or Plenum cable with single fiber breakouts (SC or LC), MPO's or stubs on the far-end.





Benefits

- Cost Savings: RapidReel cable spools reduce upfront deployment costs by simplifying site survey inspections, reducing labor hours and streamlining cable deployment.
- Speed of Deployment: Pre-connectorized, plug-and-play solution eliminates splice labor requirements and speeds network construction.
- Access: Technician-friendly, front-facing interface ensures trouble-free maintenance and fast service turn-ups.
- Simplified Ordering: All-in-one panel, cable and slack storage solution simplifies ordering and stocking requirements.

- Space Savings Rack Density: Compact low loss MPO connector design and multi-fiber cable is ideal for high density intrafacility applications. Excess fiber is stored within unit – no additional enclosures are required.
- Space Savings Overhead: Each Rapid Fiber panel cable is the equivalent of 24 fiber jumpers—resulting in 70% space savings within FiberGuide cable management compared to 1.7 mm jumpers, and 85% space savings within ladder racking compared to standard IFC cable.
- Performance: Offers superior cable management with highly reliable connectors for uninterrupted network operation and high quality of service.

Rapid Fiber Panel Series Overview

The Rapid Fiber panel incorporates the latest panel, cable and connector technology—and can help drive down total cost of installation by as much as 25%.

Key features:

Panel

- RapidReel fiber cable spools ensure IFC cable is always the right length; available up to 100' increments (up to 1000')
- Spool assembly is equipped with a pulling eye for easy cable routing and installation
- Mounting brackets allow 19" or 23" rack installation
- Meets UL 1863 and NEBS Level 3 requirements for central office applications
- Seamlessly integrates with plug-and-play equipment such as CommScope's NG3, NGF, LGX and FDF fiber frames; or
- Any fiber frame equipment

Cable Types

- Dual 12-fiber 3.6 mm singlemode indoor/outdoor cable; or
- Dual 12-fiber 3.0 mm plenum rated cable
- Single fiber breakout with pulling sock; or
- 24f 3.0mm plenum rated cable on 288f 4RU
- Cable stubs come with a pulling eye
- GR 409 compliant, robust microcable design to fit a variety of applications and environments
- Reduced bend radius fiber technology provides cable protection and reduces concerns around proper handling, slack storage, and attenuation loss from tight bends

Connectors

- Cable can be terminated to single fiber breakouts with SC/LC connectors or MPO connectors
- Panel available with singlemode SC/LC connectors
- Low MPO and SC/LC connector insertion loss and return loss minimizes impact on link loss budget
- Optical connectors designed and tested to GR 326 and GR 1435



RapidReel Cable Spools Speed Installation Requirements and Lowers Deployment Costs

Applications

- Central Offices
- Switch Centers
- Data Centers
- Intermediate frames and panels
- Co-location environments
- Cell Sites
- Intra-building networks

Specifications

	1 RU (1.75")	3 RU (5.25")	4 RU (7 ")	
Mounting width:	1	9-inch or 23-inch, EIA or WEC	0	
Recess options:	2, 4 or 5 inches (5.08, 10.16 or 12.7 cm)			
Spool assemblies per panel:	1	3	6	
Connector types available on panel:	SC or LC	SC or LC	SC or LC	
Ports per spool assembly:	SC=24, LC=48	SC =24, LC=48	SC = 24, LC = 48	
Panel port capacity:	SC=24, LC=48	SC =72, LC=144	SC = 144, LC = 288	

Maximum cable length shipped on internal spool

Panel Height	Fiber Terminations	LC (Indoor Plenum Cable)	SC (Indoor Plenum Cable)	LC (Indoor/Outdoor Riser Cable)	SC (Indoor/Outdoor Riser Cable)
	12	200 ft	200 ft	200 ft	200 ft
1 RU	24	100 ft	100 ft	100 ft	100 ft
	48	100 ft	N/A	N/A	N/A
3 RU	72	200 ft	200 ft	100 ft	100 ft
5 10	144	100 ft	100 ft	N/A	N/A
4 RU	144	100 ft	100 ft	75 ft	75 ft
	288	75 ft	N/A	N/A	N/A

Note: Panels ordered with stub lengths listed above or shorter will be stored on the internal spool. For panels ordered with longer stub lengths the difference between the length ordered and the length above will be stored on a disposable external spool. In these situations the slide-in spool assemblies will ship separately from the chassis and will need to be installed in the field.



Rapid Fiber Panel with Internal Slide-In Spool and External Spool Assemblies (total up to 1000' cable)



Overview



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Typical Central Office/Data Center Application



Shown above is a rendering of a typical Rapid Fiber panel application. Below is an interconnection diagram that details the application and also highlights some of the available frame and panel options with MPO connectivity.

Active Equipment Bay



Typical Wireless Connectivity Application



Fiber Termination Panels with MPO Connector



ONLY AVAILABLE IN RISER/PLENUM (P) CABLE TYPE² RAPID PANEL IS DESIGNED AND QUALIFIED FOR UP TO 1000' (305 METERS) OF CABLE.³

Maximum Density	1U	3U	4U
LC Connector	48	144	288
SC Connector	24	72	144

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Typical Central Office/Data Center Application



Shown above is a rendering of a typical Rapid Fiber panel application. Below is an interconnection diagram that details the application and also highlights some of the available frame and panel options with single fiber breakout connectivity.



Fiber Termination Panels with Single Fiber Breakouts



ONLY FOR MULTIMODE VERSION.1

ONLY AVAILABLE IN RISER/PLENUM (P) CABLE TYPE²

RAPID PANEL IS DESIGNED AND QUALIFIED FOR UP TO 1000' (305 METERS) OF CABLE.³ ONLY AVAILABLE IN LC288 4RU⁴

Maximum Density	1U	3U	4U
LC Connector	48	144	288
SC Connector	24	72	144

Rapid Fiber Panel Series Fiber Termination Panels with Single Fiber Breakouts

Frame Fanout Mounting Brackets





NG3 Fanout Bracket

LSX Fanout Bracket



FDF Fanout Bracket

Description*	Part Number
NG3 Bracket Bracket for attaching fanouts to standard NG3 panels (included with 67" single fiber breakout panels)	NG3-ACCMPOBKT
LSX Bracket Bracket for attaching fanouts to standard 7" high LSX panels	LSX-ACC036
8" FDF Bracket Bracket for attaching fanouts to standard 8" high FDF panels	FDF-ACC378
EIA/WECO Bracket Bracket for attaching fanouts to Network or UEF style racks	RCP-ACCFANOUTBKT

*Rapid Fiber panels with fanouts do not include fanout mounting brackets.

Note: Fanout mounting brackets generally attach to the panels cable clamp mounting location.

Rapid Fiber Panel Series Fiber Termination Panels with Stub and Pulling Eye

Typical Central Office/Data Center Application



Shown above is a rendering of a typical Rapid Fiber panel application. Below is an interconnection diagram that details the application and also highlights some of the available frame and panel options with splice capabilties.



Fiber Termination Panels with Stub and Pulling Eye



ONLY FOR MULTIMODE VERSION.1

ONLY AVAILABLE IN RISER/PLENUM (P) CABLE TYPE² RAPID PANEL IS DESIGNED AND QUALIFIED FOR UP TO 1000' (305 METERS) OF CABLE.³

Maximum Density1U3U4ULC Connector48144288SC Connector2472144

750 FT SPOOLED (229 METERS)

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Tie Panel Application

The Rapid Fiber panel may be used as to connect from an equipment area to an optical distribution frame (ODF), or as a tie panel to connect two different ODF areas. The Rapid Fiber panel installs into any standard rack. The installer then pays out the cabled module from the internal RapidReel cable spool, and at the far end loads that cabled module into th NG4access chassis.



Fiber Termination Panel with NG4access Cabled Modules



 Fiber Count of Loaded		
	12 Fiber	
	24 Fiber	
	48 FIBER	
	72 FIBER	
	144 FIBER	
В	288 FIBER ³	

ONLY FOR MULTIMODE VERSION.1

ONLY AVAILABLE ON 1RU, 3RU AND BLACK OPTION ON PANEL COLOR.²

ONLY AVAILABLE IN RISER/PLENUM (P) CABLE TYPE.³

RAPID PANEL IS DESIGNED AND QUALIFIED FOR UP TO 1000' (305 METERS) OF CABLE.⁴

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3mm 24-Fiber Zip Plenum Rated Microcable

Specifications

Specifications		1		
				– Plenum PVC
Jacket Color		3 mm		- Aramid yarn strength
Singlemode Plenum Rated:	lvory			members
Multimode OM4:	Aqua			42.250
Environmental				 12x 250 µm acrylate coated fibers
Storage temperature:	-40° to 70° C (-40° to 158° F)			
Operating temperature:	0° to 70° C (32° to 158° F)			
Installation temperature:	0° to 50° C (32° to 122° F)			
Mechanical				
Number of Fibers:	24			
Maximum tensile load				
	Short term:	660 N (150 lbf)		
	Long term:	200 N (45 lbf)		
Minimum bend radius				
	Installed:	30 mm (1.18")		
	Loaded:	60 mm (2.36")		
Maximum compression:	10 N/mm (57 lbf/in)			
Maximum impact:	2.94 N∙m (2.17 lbf∙ft)			
Optical Performance				
	Maximum attenuation (dB/km)	Typical attenuation (dB/km)	Guaranteed minimum bandwidth (MHz/km) 1310	
	1310 nm/1550 nm	1310 nm/1550 nm	nm/1550 nm	
Singlemode reduced bend radius1	1.0/1.0	0.4/0.3	N/A	
Transmission Performance – Guarant	teed			
	Fast Ethernet	Gigabit Ethernet	10 Gigabit Ethernet	
	100 Mbps	1 Gbps	10 Gbps	
	1310 nm/1550 nm	1310 nm/1550 nm	1310 nm/1550 nm	
Singlemode reduced bend radius	2 km/NA	5 km/NA	10 km/40 km	

Compliances

- Telcordia GR-409-CORE Interconnect Category,
 - Impact and compression compliant to horizontal and vertical backbone cable requirements
 - Tensile compliant to horizontal backbone cable requirements
- UL 910 plenum flammability rating
- EIA/TIA FOTPS
- EIA/TIA 568-B
- NFPA 262, NEC OFNP, FT-6
- Restriction of the use of hazardous substances. RoHS (2002/95/EC)
- Comply with California Prop 65 for Safe Drinking and Toxic Enforcement Act

¹ Reduced Bend Radius Fiber is compliant to ITU-T G.652.D, ITU-T G.657A&B, and IEC 60793-2-50 Type B.1.3

3.6 mm 12-Fiber Indoor/Outdoor Singlemode Microcable

Specifications

				LSZH Outer Jacket
Environmental				Aramid yarn strength members
Operating temperature:	-40° to 75° C (-40° to 1678° F)	3.6 mm	EP.	
Installation temperature:	-30° to 50° C (-22° to 122° F)	5.0 mm		Water swellable member
Mechanical				 Acrylate coated fibers
Number of Fibers:	12			
Maximum tensile load (lbf)				
	Short term:	220 (50)		
	Long term:	110 (25)		
Minimum bend radius (in.)				
	Installed:	36 mm (1.4")		
	Loaded:	54 mm (2.1")		
Compliances				
Restriction of the use of hazardo	ous substances RoHS (2002/95/EC)			
Optical Performance				
	Maximum attenuation (dB/km) 1310 nm/1550 nm	Typical attenuation (dB/km) 1310 nm/1550 nm	Guaranteed minimun bandwidth (MHz/km) nm/1550 nm	
Singlemode reduced bend radius ¹	1.0/1.0	0.4/0.3	N/A	
Transmission Performance – Guarant	teed			

Gigabit Ethernet

1 Gbps

5 km/NA

Fast Ethernet 100 Mbps

Singlemode reduced bend radius¹

• Comply with California Prop 65 for Safe Drinking and Toxic Enforcement Act

2 km/NA

- Telcordia GR-20 tested to relevant specifications
- Telcordia GR-409-CORE, EIA/TIA FOTPS (Independently verified)
- ISO/IEC 11801, IEC 60794-2 Optical Fiber Cables Part 2
- EIA/TIA 568-B
- (UL) 1666, NEC OFNR (Riser Rated), FT-4

¹ Reduced Bend Radius Fiber allows the minimum bend radius to be cut in half and is compliant to ITUT G.652.D, ITU-T G.657A&B, and IEC 60793-2-50 Type B.1.3



10 Gigabit Ethernet

10 Gbps

10 km/40 km

Specifications

24-Fiber MPO Light Duty Patchcord Cable

Specifications

En increased		Outer Jacket -	\sim
Environmental Operating temperature:	0° to +70° C (+32° to 158° F)	Aramid Yarn -	
Installation temperature:	0° to +70° C (+32° to 158° F)	250 μm Optical _ Fiber	
Mechanical		Fiber	
Number of Fibers:	24		
Maximum tensile load (lbf)			~
	Short term:	267 N 60.024 lbf	
	Long term:	80 N 17.985 lbf	
Minimum bend radius (in.)			
	Installed:	24 mm 0.945 in	
	Loaded:	45 mm 1.772 in	
Optical Specifications			
Fiber Type	G.652.D	G.657.A2/B2	OS2



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