

LSX Optical Distribution Frames

COMMSCOPE®

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Frame

CommScope's LSX solution is designed to fit a variety of termination, splice and storage applications. Each frame option is built to industry standards to ensure commonality with patch cord routing, slack storage and fiber protection. The frame is shipped complete with front cable management, top and bottom troughs.

Termination panel

The LSX panel is available in adaptor only versions with in configurations of 24, 48, 72, 96, 144, and 288. Preterminated panels are available in 48, 96, 144, and 288 fiber versions with either intrafacility (IFC), outside plant (OSP) cables for ease of installation.

Splice panel

CommScope's splice panel protects splices of multiple splice types.

Value-added module (VAM) chassis

Adding signal management and enhancement functions, such as splitters, couplers and wavelength division multiplexers, optimizes the value of your fiber network, by providing nonintrusive access to the optical signal for monitoring and testing signal integrity. The LGX compatible VAM chassis accommodates various splitter and WDM modules.

Product overview

Recommended applications	Small to medium fiber count applications. Minimal cable management features. Lowest cost solution.
Description	LGX compatible
Number of fibers, future growth potential	Up to 5,000
Interconnect	Good
Cross-connect	Good, no rear cable management
Accommodates on-frame splicing	Good
Accommodates off-frame splicing	Good
Rear access	Must have full access to front and rear
Density – terminations per frame	1,008 terminations per frame
Front access to rear connector	No
VAM capabilities	Yes
Slack storage location	Utilizes drip loop method
Connector access	Straight adapter

* LGX is a registered trademark of Furukawa Electric North America.

HIGH-DENSITY DISTRIBUTION FRAME SOLUTION (USING 288-TERMINATION/SPLICE PANEL)

The termination and splice LSX-288 solution utilizes a traditional frame designed to fit a variety of termination, splice and storage applications. This front load frame is built to ensure commonality with patch cord routing, slack storage and fiber protection. Available accessories include panels, lower trough, interbay management panels (IMPs) and end guards.



CommScope's recommended fiber frame lineup uses three frames with 1.7 mm fiber jumpers to maintain the industry standard 2-inch patch cord pile-up

ORDERING INFORMATION

DESCRIPTION	DIMENSIONS (H X W X D)	CATALOG NUMBER	
Empty rack-WECO 7' network non-seismic rack, front 8"D GB, (39) 2.00" WECO mtg. spaces	2.1 m x 660 mm x 381 mm (7' x 26" x 15")	RAC-7A0160	
Lower horizontal cable trough	203.2 mm x 203.2 mm (8" W x 8" D)	E-501-11115	
5"D x 26'W rear guard box	660 mm x 127 mm (26" W x 5" D)	RAC-0X0439	
15"D interbay management panel, 8"D spools, overhead/under floor access	2.1 m x 127 mm x 381 mm (7' x 5" x 15")	E-501-L139-HD	
5" rear guard box	127 mm x 127 mm (5" W x 5" D)	RAC-0X0440	
15"D end guard-universal-style end guard	2.1 m x 64 mm x 381 mm (7' x 2.5" x 15")	RAC-7B0162	
3" universal end guard extender	2.1 m x 64 mm x 76 mm (7' x 2.5" x 3")	E-501-12002	

TRADITIONAL LSX UNIVERSAL FIBER DISTRIBUTING FRAME SOLUTION

The traditional LSX universal frame provides the framework for managing a cross-connect or interconnect fiber system. Use this frame for applications requiring lower density panels (12-144 terminations).







E-501-LGX (Includes cable rings)

ORDERING INFORMATION			
DESCRIPTION	DIMENSIONS (H X W X D)	CATALOG NUMBER	
Traditional LSX universal frame; putty white (include anchor bolts for concrete floors)	2.14 m x 584 mm x 305 mm (7' x 23" x 12")	E-501-LGX	
Interbay management panel (IMP)	2.14 m x 127 mm x 305 mm (7' x 5" x 12")	E-501-L139-A	
End guard (mounts on an IMP or network frame)	2.14 m x 64 mm x 305 mm (7' x 2.5" x 12")	UEGP-7PW	

DEF	DEFINITION OF VARIABLES			
1	Connector and adapter type #1—specific adapter/connector type required at the LSX			
2	Connector type #2—specific connector type required at the far end opposite the LSX			
3	Cable type—type of cable to be terminated to the LSX			
4	Cable length required—length of the cable terminated to the LSX			

PRETERMINATED FIBER TERMINATION PANELS WITH MULTIFIBER CABLE

The LSX panel can be loaded with intrafacility cable (IFC). The panel adapts to 19- or 23-inch rack mounting, WECO or EIA spacing. The 288-position panel can only be mounted in a 23-inch rack.



ADAPTER-ONLY FIBER TERMINATION PANELS

The LSX panel has the same mounting dimensions as an LGX compatible panel.

ORDERING INFORMATION		
NUMBER OF TERMINATIONS	ADAPTER TYPE	CATALOG NUMBER
24	Singlemode	
44 mm	SC ultra polish	LSX-170000
(1.75") height	SC angled polish	LSX-1L0000
48	Singlemode	
89 mm	SC ultra polish	LSX-270000
(3.5") height	SC angled polish	LSX-2L0000
72	Singlemode	
178 mm	SC ultra polish	LSX-670000
(7") height	SC angled polish	LSX-6L0000
96	Singlemode	
178 mm	SC ultra polish	LSX-770000
(7") height	SC angled polish	LSX-7L0000
	Singlemode	
44	SC ultra polish	LSX-T70000
228 mm	SC angled polish	LSX-TL0000
(9") height	LC ultra polish ¹	LSX-TK0000
	LC angled polish ¹	LSX-TM0000
	Singlemode	
288	SC ultra polish	LSX-L70000
279 mm	SC angled polish	LSX-LL0000
(11") height	LC ultra polish ¹	LSX-LK0000
	LC angled polish ¹	LSX-LM0000



 $^{\rm 1}$ LC Connectors do not double the density of the LSX panel

144-position panel (Front view)

PRETERMINATED FIBER TERMINATION/SPLICE PANELS WITH PIGTAILS

LSX preterminated fiber termination/splice panels are available with a splicing area integrated into the panel. These panels include a rear flip-down splicing compartment. The panels can be ordered with 12-fiber ribbon or 12-fiber stranded pigtails.



288-Position termination/splice panel

ORDERING INFORMATION				
NUMBER OF TERMINATIONS	ADAPTER TYPE	LOADED WITH 12-FIBER RIBBON PIGTAILS	LOADED WITH 12-FIBER STRANDED PIGTAILS	
	Singlemode			
144	SC ultra polish	LSX-T75123-A-SPL	LSX-T71122-A-SPL	
228 mm (9") height	SC angled polish	LSX-TL5123-A-SPL	LSX-TL1122-A-SPL	
15" deep	LC ultra polish ¹	LSX-TK5123-A-SPL	LSX-TK1122-A-SPL	
	LC angled polish ¹	LSX-TM5123-A-SPL	LSX-TM1122-A-SPL	
	Singlemode			
288*	SC ultra polish	LSX-L75243-A-SPL	LSX-L71242-A-SPL	
279 mm (11") height	SC angled polish	LSX-LL5243-A-SPL	LSX-LL1242-A-SPL	
15" deep	LC ultra polish ¹	LSX-LK5243-A-SPL	LSX-LK1242-A-SPL	
	LC angled polish ¹	LSX-LM5243-A-SPL	LSX-LM1242-A-SPL	

¹ LC Connectors do not double the density of the LSX panel ^{*} 288 Termination /splice panel does not fit 19-inch frames. For 23-inch frames only.

9-INCH LSX OPTICAL DISTRIBUTION FRAME FIBER TERMINATION PANEL FEATURING NG4 CMOD'S

The 9-inch LSX ODF Fiber Termination Panel updates the LGX style chassis using a higher density NG4 quick termination cable and CMODs for plug-and-play installation.

- $\cdot\,$ Designed to be mounted in a 19' or 23" frame.
- $\cdot~$ Up to 288 LC or 144 SC terminations (12 CMODs).
- Each panel opening fits a cabled module, MPO module, or VAM module with tray adapter insert.
- $\cdot \,$ Modules may be mixed and matched in the same chassis.
- · Rear cable management addressed cable management.

ORDERING INFORMATION			
DESCRIPTION	DIMENSIONS (H X W X D)	PART NUMBER	
LSX 288 C-MOD EMPTY PANEL	483/584 x 280 x 229 mm (19/23" X 11" X 9")	LSX-700000-CMOD	



LSX-70000-CMOE (Front)



LSX-70000-CMOD (Back)

5-INCH LSX OPTICAL DISTRIBUTION FRAME FIBER TERMINATION PANEL FEATURING NG4 CMOD'S

The 5-inch LSX ODF Fiber Termination Panel updates the LGX style chassis using a higher density NG4 quick termination cable and CMODs for plug-and-play installation.

- · Designed to be mounted in a 19' or 23" frame.
- · Up to 144 LC or 72 SC terminations (6 CMODs).
- Each panel opening fits a cabled module, MPO module, or VAM module with tray adapter insert.
- $\cdot \,$ Modules may be mixed and matched in the same chassis.
- · Rear cable management addressed cable management.

ORDERING INFORMATION			
DESCRIPTION	DIMENSIONS (H X W X D)	PART NUMBER	
LSX 144 C-MOD EMPTY PANEL	483/584 x 280 x 127 mm (19/23" X 11" X 5")	LSX-300000-CMOD	



LSX-300000-CMOD (Front)



LSX-300000-CMOD (Back)

9-INCH LSX OPTICAL DISTRIBUTION FRAME FIBER TERMINATION PANEL FEATURING NG4 CMOD's

The 9-inch LSX ODF Fiber Termination Panel updates the LGX style chassis using a higher density NG4 quick termination cable and CMODs for plug-and-play installation.

- · Designed to be mounted in a 19' or 23" frame.
- $\cdot\,$ Up to 288 LC or 144 SC terminations (12 CMODs).
- Each panel opening fits a cabled module, MPO module, or VAM module with tray adapter insert.
- · Modules may be mixed and matched in the same chassis.
- · Rear cable management addressed cable management.

Ordering information

Description	Dimensions (H x W x D)	Part number
LSX 288 C-MOD EMPTY PANEL	483/584 x 280 x 229 mm (19/23" X 11" X 9")	LSX-700000-CMOD



LSX-70000-CMOD (Front)



LSX-70000-CMOD (Rear)

5-INCH LSX OPTICAL DISTRIBUTION FRAME FIBER TERMINATION PANEL FEATURING NG4 CMOD's

The 5-inch LSX ODF Fiber Termination Panel updates the LGX style chassis using a higher density NG4 quick termination cable and CMODs for plug-and-play installation.

- · Designed to be mounted in a 19' or 23" frame.
- $\cdot\,$ Up to 144 LC or 72 SC terminations (6 CMODs).
- Each panel opening fits a cabled module, MPO module, or VAM module with tray adapter insert.
- \cdot Modules may be mixed and matched in the same chassis.
- $\cdot\;$ Rear cable management addressed cable management.

Ordering information

Description	Dimensions (H x W x D)	Part number
LSX 144 C-MOD EMPTY PANEL	483/584 x 280 x 127 mm (19/23" X 11" X 5")	LSX-300000-CMOD





LSX-300000-CMOD (Rear)

CABLED MODULES WITH PRETERMINATED IFC

Preterminated cable modules

NG4access cabled modules will save operators significant time and cost in their cable deployments. Using the LC cabled module, for example, an installer can route a 24-fiber cable to any access tray in a universal chassis, then rapidly terminate the module's 24-fiber connectors using a single click, rather than installing 24 individual connectors. Cabled modules are available in LC and SC, singlemode configurations. Each module is designed for craft friendliness. Individual adapter ports are labeled for easy identification. Two cable options are available with cabled modules, conventional IFC or 24-fiber microcable IFC cable.



LC Cabled Module with Preterminated IFC

Cabled modules with preterminated IFC

With IFC cabled module solutions, multiple cabled modules are preterminated to IFC cable. For example, a 144 LC configuration would include six 24-fiber cabled modules secured to a 144 IFC cable. Rather than handling and installing 144 discrete connectors, the six cabled modules quickly snap into place on the access tray saving installation time and greatly reducing wiring errors and the potential for breaking adjacent fiber connectors. IFC cabled modules are available with stub ends or with connectors or cabled modules on the far end. All IFC cabled modules utilize reduced bend radius fiber and have the appropriate break out length to be installed in any access tray on any chassis in the frame. IFC cabled modules ordered with far end connectors can be used as tie cables to existing legacy ODF's. The far end breakouts for these assemblies are designated by the last three digits in the ordering configurations. All IFC cabled modules ship with the cable clamp required on the NG4access frame and at the far end if required for double ended assemblies.



LC Cabled module with 24-fiber microcable



LCcabled module with preterminated IFC

Cabled modules with preterminated IFC

ORDERING INFORMATION



.68"

.47 "

.54"

.70"

.61"

.61" .61"

.71"

.47"

.54"

.70"

17.3 mm

11.9 mm

13.7 mm

17.7 mm

15.5 mm

15.5 mm

15.5 mm

18 mm

11.9 mm

13.7 mm

17.7 mm

144 Flat matrix ribbon IFC

72 Loose tube stranded IFC

96 Loose tube stranded IFC

144 Loose tube stranded IFC

72 Flat matrix Ribbon Indoor/Outdoor

96 Flat matrix Ribbon Indoor/Outdoor

144 Flat matrix Ribbon Indoor/Outdoor

216 Flat matrix Ribbon Indoor/Outdoor

72 Loose tube Stranded Indoor/Outdoor

96 Loose tube Stranded Indoor/Outdoor

144 Loose tube Stranded Indoor/Outdoor

GQ

KQ

HQ

GR

JR

GL

CABLED MODULES WITH PRETERMINATED IFC continued

Ordering information



CABLED MODULES WITH ROLLABLE RIBBON INDOOR/OUTDOOR JACKETING





Rollable Ribbon Cable

Ordering information

			NG4 - CMD	
	Cabled	module connector type #1		Sta
	Single	mode		510
	K	LC ultra polish		(
				(
	М	LC angled polish		(
I	Fareno	d connector type #2*		
	Single	mode		
	0	No connector/stub end		
	U			

Cable type

	Number of Fibers		iter neter
RG	72	10.5 mm	.41"
RK	96	10.5 mm	.41"
R3	144	10.5 mm	.41"
RJ	216	12.5 mm	.49"
R4	288	12.5 mm	.49"
R5	432	15.5 mm	.61"
R6	576	17.0 mm	.67"
R8	864	19.5 mm	.77"

Standard cable length***

016	5 16 m (50')
023	23 m (75')
031	31 m (100')
046	46 m (150')
_ 061	61 m (200')
092	2 92 m (300')
122	2 122 m (400')
138	138 m (450')
153	153 m (500')
183	183 m (600')
305	305 m (1000')

***Use XXX for non-standard lengths in meters 76" breakout on LC end

CABLED MODULES WITH ROLLABLE RIBBON INDOOR/OUTDOOR JACKETING

Cabled modules with Rollable Ribbon Indoor/Outdoor Jacketing



Rollable Ribbon Cable

Ordering information

		NG4 - CMD	
Cabled	module connector type #1		
Single	mode		
K	LC ultra polish		
М	LC angled polish		
Far en	d connector type #2*		
Single	mode		
0	No connector/stub end		

Cable type

	Number of Fibers	Outer Diameter	
R3	144	10.5 mm	.41"
R4	288	12.5 mm	.49"
R5	432	15.5 mm	.61"
R6	576	17.0 mm	.67"
R8	864	19.5 mm	.77"

Standard cable length***

016	16 m (50')	
023	23 m (75')	
031	31 m (100')	
046	46 m (150')	
061	61 m (200')	
092	92 m (300')	
122	122 m (400')	
138	138 m (450')	
153	153 m (500')	
183	183 m (600')	
305	305 m (1000')	

***Use XXX for non-standard lengths in meters 76" breakout on LC end

CABLED MODULES WITH 24-FIBER MICROCABLE

For LC configurations, a single cabled module is connected to a 24-fiber microcable. For SC configurations, two cabled modules are connected to a 24-fiber microcable. The 24-fiber microcable is a plenum rated dual zip-cable containing reduced bend radius 250 micron fiber in a loose tube design. The 24-fiber microcable has the same compression, tensile strength and crush rating as conventional IFC cable and is fully compliant with GR-409. It can be secured to overhead cable racking or is flexible to be placed in FiberGuide or any fiber cable management system. Cabled modules are available with a stub end or with connectors on the far end. The breakout length for 24 fiber microcable IFC with far end connectors is 45 inches. This breakout length will accommodate all legacy CommScope ODF solutions however, a fanout mounting bracket kit must be ordered separately to match the far end clamping requirements.



Plenum PVC outer jacket

Aramid yarn strength members

12 x 250 µm acrylate coated fibers



Ordering information

		NG4 - CMD	M2
Cabled	module connector type #	1	
Singler	node		
К	LC ultra polish		
М	LC angled polish		
7	SC ultra polish		
L.	SC angled polish		
Far end Singler	I connector type #2 node		
0	No connector/stub end		
K	LC ultra polish****		
М	LC angled polish****		
7	SC ultra polish****		
L	SC angled polish****		
N	Cabled Module**		
E	MPO Connector		



Two SC cabled modules with 24-fiber microcable 2 modules stacked for photo

Standard cable length***

	016	16 m (50')
	023	23 m (75')
-	031	31 m (100')
	046	46 m (150')
	061	61 m (200')

Cable type

24-fiber microcable

** Far end cabled module connector type is always same as type #1 connector type

*** Use XXX for non-standard lengths in meters

**** Far End Fanout 900um upjacketing.

Contact CommScope's Technical Assistance Center for availability of other upjacketing options.

CABLED MODULES WITH 24-FIBER ROLLABLE RIBBON CABLE

For LC configurations, a single cabled module is connected to a 24-fiber Rollable ribbon. The 24-fiber rollable ribbon is a plenum rated cable containing reduced bend radius 250 micron rollable fiber in a loose tube design.

The 24-fiber cable is flexible enough to be placed in FiberGuide or any fiber cable management system. Cabled modules with rollable ribbon are available with a stub end.





Rollable Ribbon Cable



Ordering information



Stan	hrch	cable	lenc	ith***
Juan	uaiu	Lanic	ICIIC	

	016	16 m (50')
	023	23 m (75')
-	031	31 m (100')
	046	46 m (150')
	061	61 m (200')

Cable type

2 24-fiber rollable ribbon

*** Use XXX for non-standard lengths in meters

Contact CommScope's Technical Assistance Center for availability of other upjacketing options.

SPLICE PANELS

The LSX splice panel has the same mounting dimensions as LGX compatible panels and consists of six drawers, designation labels and a cover. Maximum splice capacity is 144 when splicing individual stranded fibers or 432 fibers when using ribbon fiber and mass fusion splicing. The LSX splice panel requires F3DF splice trays. Each drawer holds twenty-four 900 micron pigtails or twelve 3.0 mm pigtails. Pigtails and cable enter and exit through access ports in the rear of the panel.

Vertical cable guides must be ordered along with the LSX splice panel unless it is mounted into a frame that includes vertical cable guides. If needed, cable clamp kit must be ordered separately (below).



Splice panel shown without vertical cable guides Ordered separately (front view)

ORDERING INFORMATION		
DESCRIPTION	ADAPTER TYPE	
LSX splice panel; 483 mm or 584 mm (19" or 23") rack mount	LSX-SPLCA06	

SPLICE TRAY

Each splice tray is purchased separately.



Splice tray

ORDERING INFORMATION		
DESCRIPTION	ADAPTER TYPE	
Splice tray; 12 splices per tray mass fusion ribbon	FST-F3DF-MT-D*	
Heat shrink (single fiber fusion)	FST-F3DF-HS	
Bare fusion	FST-F3DF-FT	
Mechanical (mass fusion)	FST-F3DF-MT	
Nortel QPAK	FST-F3DF-NT	

* Use only one FST-F3DF-MT-D per splice drawer (24 splices per tray).

Use trays with the LSX splice panel only (above).

Note: Trays can not be used in preterminated LSX splice panels. Preterminated LSX splice panels already include splice trays.

Frame Accessories

FRAME INSTALLATION KIT



Network Type Unequal Flange Frame Mounting Details



Underfloor Mounting Kit

Frame installation kits may be used on network frames and are seismic zone 4 rated.

ORDERING INFORMATION			
DESCRIPTION	CATALOG NUMBER		
Frame installation kit for 2.14 m (7') frames, includes; 1 floor mounting kit 1 top attachment kit for 2.14 m (7') frames 12 frame tie brackets kits 1 frame ground kit for 2.14 m (7') frames	RINST-DSX7-PW		
Universal anchor kit, for all UEF frames includes; 4 anchor assemblies 2 universal hold down bars 8 anchor plate washers 8 shim plates 2 mm (0.063") 4 shim plates 3 mm (0.125")	RINST-FLR		
Isolation Pad accomodates: 1 UEF 23" network frame 2 end guards 2 interbay management panels	FDF-ISOTEMPLATE		

INTERBAY MANAGEMENT PANEL

ORDERING INFORMATION		
DESCRIPTION	DIMENSIONS (H X W X D)	CATALOG NUMBER
Interbay Management panel (IMP)	2.14 m x 127 mm x 305 mm (7' x 5" x 12")	E-501-L139-A



Interbay management panel

END GUARD

End guards provide protection and a finished appearance at the start and end of frame lineups. They attach to either a frame or an interbay management panel. End guards serve as a mounting place for outlets and switches and are used interchangeable for either left or right applications.

ORDERING INFORMATION	
DESCRIPTION	CATALOG NUMBER
End guard Mounts on IMP or network frame 2.14 m x 64 mm x 305 mm (7' H x 2.5" W x 12" D)	UEGP-7PW



End guard

CABLE CLAMP KIT AND CABLE RING KIT

The cable clamp kit provides a means of securing the end of an OSP or IFC cable to the side of an LSX panel. The cable ring protects and manages jumpers on the frame.

ORDERING INFORMATION	
DESCRIPTION	CATALOG NUMBER
Cable clamp kit includes 1 dual bracket and 1 cable clamp LSX-CBL	
Cable ring kit includes 2 cable rings and appropriate hardware	LSX-ACCVCGKIT

STANDARD CROSS-CONNECT PATCH CORD LENGTHS

NUMBER OF FRAMES	APPROXIMATE PATCH CORD LENGTH METERS (FEET)
1	4 m and 6 m (13.1' and 19.7')
2	6 m (19.7')
3	6 m and 7 m (19.7' and 23')
4	7 m and 8 m (23' and 26.2')
5	8 m and 9 m (26.2' and 29.5')
6	9 m (29.5')

For recommended cross-connect methods and installation instructions, refer to LSX user manual.

ORDERING INFORMATION FOR PATCH CORDS AND ATTENUATORS

CommScope offers a comprehensive line of cable assembly and accessory products including patch cords, IFC assemblies, attenuators.

Please visit www.commscope.com or contact customer service.

CommScope (NASDAQ: COMM) helps design, build and manage wired and wireless networks around the world. As a communications infrastructure leader, we shape the always-on networks of tomorrow. For more than 40 years, our global team of greater than 20,000 employees, innovators and technologists has empowered customers in all regions of the world to anticipate what's next and push the boundaries of what's possible. Discover more at commscope.com



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