



LGX and 1RU splitter specification guide

Singlemode devices

COMMScope®

Overview

Passive optical components can have a significant impact on the efficiency of communication network rollouts. The incorporation of fiber-optic splitters reduces the number of fibers in the network—decreasing both the footprint and investment cost of network rollouts. In existing networks, these components allow capacity upgrades at a relatively low cost without additional construction work.

CommScope's LGX and 1RU splitter portfolio is based on planar lightwave circuit (PLC) technology used to split and combine light. The LGX and 1RU housings support a variety of split ratios: 1:N and 2:N configurations where N=1 to 64. LGX and 1RU configurations are released with LC/APC, LC/UPC, SC/APC, and SC/UPC connectors.

CommScope's portfolio of LGX and 1RU splitters meets OSP operating temperature and environment requirements of -40°C to +70°C.

LGX and 1RU products are tested to GR-63-CORE packaging requirements and IEC 61300-2-1, 61300-2-4, 61300-2-5, 61300-2-9, 61300-2-19, 61300-2-21, 61300-2-22, 61300-2-4 and 61300-2-45.

Advantages

- Low insertion loss
- Consistent performance
- Small footprint
- Excellent uniformity
- Low PDL

Applications

- Passive optical networks (PONs)—FTTH and FTTx
- Telecommunications networks
- CATV / MSOs

The incorporation of fiber-optic splitters reduces the number of fibers in the network—decreasing both the footprint and investment cost of network rollouts.



LGX and 1RU splitter optical performance

Split ratio	Bandpass (nm)	Insertion loss max (dB) with connectors	Uniformity max (dB)	RL min (dB)	PDL max (dB)	Directivity min (dB)
1x2 (50/50)	1260-1650	4.2	0.85	50	0.2	55
1x4	1260-1650	7.6	0.95	50	0.2	55
1x8	1260-1650	10.9	1.3	50	0.2	55
1x16	1260-1650	14.2	1.55	50	0.3	55
1x32	1260-1650	17.5	1.85	50	0.3	55
1x64	1260-1650	21.0	2.3	50	0.4	55
2x2 (50/50)	1260-1650	4.7	1.45	50	0.3	55
2x4	1260-1650	8.0	1.65	50	0.3	55
2x8	1260-1650	11.4	1.85	50	0.3	55
2x16	1260-1650	14.8	2.3	50	0.4	55
2x32	1260-1650	18.2	2.65	50	0.4	55
2x64	1260-1650	21.8	3.2	50	0.4	55



Example of LGX Module with LC adapters



Example of 1RU Panel with SC adapters

Housing types and dimensions

Split ratio	Housing type LGX: single width and double width with LC connectors			
	Length (mm)	Width (mm)	Height (mm)	Number of splitters
1x2	127.00	28.70	130.05	6
1x4				4
1x8				2
1x16				1
2x2				6
2x4				4
2x8				2
2x16				1
1x32	127.00	57.91	130.05	1
2x32				1

Split ratio	Housing type LGX: single width and double width with SC connectors			
	Length (mm)	Width (mm)	Height (mm)	Number of splitters
1x2	127.00	28.70	130.05	3
1x4				2
1x8				1
2x2				3
2x4				2
2x8				1
1x16	127.00	57.91	130.05	1
2x16				1

Split ratio	Housing type 1RU panel (19-inch rack mount)				
	Length (mm)	Width (mm) *including bracket	Height (mm)	Number of splitters with LC	Number of splitters with SC
1x32	199.89	482.60	43.69	1 or 2	1
2x32				2	1
1x64				1	N/A

LGX splitter ordering information



LGX splitter module with LC/APC

MID	Description
LX2SSP1232001	Double width LGX module, 2x32 split ratio, 1 splitter, LC/APC connectors
LX1SSP1216001	Single width LGX module, 2x16 split ratio, 1 splitter, LC/APC connectors
LX1SSP1208002	Single width LGX module, 2x8 split ratio, 2 splitters, LC/APC connectors
LX1SSP1204004	Single width LGX module, 2x4 split ratio, 4 splitters, LC/APC connectors
LX1SSP1202006	Single width LGX module, 2x2 symmetrical split ratio, 6 splitters, LC/APC connectors
LX2SSP1132001	Double width LGX module, 1x32 split ratio, 1 splitter, LC/APC connectors
LX1SSP1116001	Single width LGX module, 1x16 split ratio, 1 splitter, LC/APC connectors
LX1SSP1108002	Single width LGX module, 1x8 split ratio, 2 splitters, LC/APC connectors
LX1SSP1104004	Single width LGX module, 1x4 split ratio, 4 splitters, LC/APC connectors
LX1SSP1102006	Single width LGX module, 1x2 symmetrical split ratio, 6 splitters, LC/APC connectors

LGX splitter module with LC/UPC

MID	Description
LX2SSP2232001	Double width LGX module, 2x32 split ratio, 1 splitter, LC/UPC connectors
LX1SSP2216001	Single width LGX module, 2x16 split ratio, 1 splitter, LC/UPC connectors
LX1SSP2208002	Single width LGX module, 2x8 split ratio, 2 splitters, LC/UPC connectors
LX1SSP2204004	Single width LGX module, 2x4 split ratio, 4 splitters, LC/UPC connectors
LX1SSP2202006	Single width LGX module, 2x2 symmetrical split ratio, 6 splitters, LC/UPC connectors
LX2SSP2132001	Double width LGX module, 1x32 split ratio, 1 splitter, LC/UPC connectors
LX1SSP2116001	Single width LGX module, 1x16 split ratio, 1 splitter, LC/UPC connectors
LX1SSP2108002	Single width LGX module, 1x8 split ratio, 2 splitters, LC/UPC connectors
LX1SSP2104004	Single width LGX module, 1x4 split ratio, 4 splitters, LC/UPC connectors
LX1SSP2102006	Single width LGX module, 1x2 symmetrical split ratio, 6 splitters, LC/UPC connectors

LGX splitter ordering information

LGX Splitter Module with SC/APC

MID	Description
LX1SSP3102003	Single Width LGX module, 1x2 symmetrical split ratio, 3 splitters, SC/APC connectors
LX1SSP3104002	Single Width LGX module, 1x4 split ratio, 2 splitters, SC/APC connectors
LX1SSP3108001	Single Width LGX module, 1x8 split ratio, 1 splitter, SC/APC connectors
LX2SSP3116001	Double Width LGX module, 1x16 split ratio, 1 splitter, SC/APC connectors
LX1SSP3202003	Single Width LGX module, 2x2 symmetrical split ratio, 3 splitters, SC/APC connectors
LX1SSP3204002	Single Width LGX module, 2x4 split ratio, 2 splitters, SC/APC connectors
LX1SSP3208001	Single Width LGX module, 2x8 split ratio, 1 splitter, SC/APC connectors
LX2SSP3216001	Double Width LGX module, 2x16 split ratio, 1 splitter, SC/APC connectors

LGX Splitter Module with SC/UPC

MID	Description
LX1SSP4102003	Single Width LGX module, 1x2 symmetrical split ratio, 3 splitters, SC/UPC connectors
LX1SSP4104002	Single Width LGX module, 1x4 split ratio, 2 splitters, SC/UPC connectors
LX1SSP4108001	Single Width LGX module, 1x8 split ratio, 1 splitter, SC/UPC connectors
LX2SSP4116001	Double Width LGX module, 1x16 split ratio, 1 splitter, SC/UPC connectors
LX1SSP4202003	Single Width LGX module, 2x2 symmetrical split ratio, 3 splitters, SC/UPC connectors
LX1SSP4204002	Single Width LGX module, 2x4 split ratio, 2 splitters, SC/UPC connectors
LX1SSP4208001	Single Width LGX module, 2x8 split ratio, 1 splitter, SC/UPC connectors

1RU splitter ordering information



1RU Splitter Panel with LC/APC

MID	Description
1RU-SP1264001	1RU panel, 2x64 split ratio, 1 splitter, LC/APC connectors
1RU-SP1164001	1RU panel, 1x64 split ratio, 1 splitter, LC/APC connectors
1RU-SP1232002	1RU panel, 2x32 split ratio, 2 splitters, LC/APC connectors
1RU-SP1132002	1RU panel, 1x32 split ratio, 2 splitters, LC/APC connectors
1RU-SP1132001	1RU panel, 1x32 split ratio, 1 splitter, LC/APC connectors
1RU-SP1116004	1RU panel, 1x16 split ratio, 4 splitters, LC/APC connectors
1RU-SP1232001	1RU panel, 2x32 split ratio, 1 splitter, LC/APC connectors

1RU Splitter Panel with LC/UPC

MID	Description
1RU-SP2164001	1RU panel, 1x64 split ratio, 1 splitter, LC/UPC connectors
1RU-SP2232002	1RU panel, 2x32 split ratio, 2 splitters, LC/UPC connectors
1RU-SP2132002	1RU panel, 1x32 split ratio, 2 splitters, LC/UPC connectors
1RU-SP2132001	1RU panel, 1x32 split ratio, 1 splitter, LC/UPC connectors
1RU-SP2264001	1RU panel, 2x64 split ratio, 1 splitter, LC/UPC connectors
1RU-SP2232001	1RU panel, 2x32 split ratio, 1 splitter, LC/UPC connectors

1RU Splitter Panel with SC/APC

MID	Description
1RU-SP3132001	1RU panel, 1X32 split ratio, 1 splitter, SC/APC connectors
1RU-SP3232001	1RU panel, 2X32 split ratio, 1 splitter, SC/APC connectors
1RU-SP3116004	1RU panel, 1x16 split ratio, 4 splitters, SC/APC connectors
1RU-SP3164001	1RU panel, 1X64 split ratio, 1 splitter, SC/APC connectors

1RU Splitter Panel with SC/UPC

MID	Description
1RU-SP4132001	1RU panel, 1X32 split ratio, 1 splitter, SC/UPC connectors
1RU-SP4232001	1RU panel, 2X32 split ratio, 1 splitter, SC/UPC connectors

LGX rack mounting solutions

4RU back-to-back chassis

Features:

- The LGX 4RU back-to-back chassis holds 14 single-width LGX modules per side or seven dual-width LGX modules per side
- Maximum density of 28 single-width LGX modules or 14 dual-width LGX modules
- 19-in. or 23-in. rack mount
- 2.5-in., 5-in., or 8-in. recess mounting options
- Dimensions (H x W x D): 6.9 x 17 x 15 inches
- LGX pass-through module: Pass-through modules (qty. 2 required) can be mounted anywhere in chassis to allow cables from rear modules to pass to front of chassis.



Description	Color	CommScope part number
LGX 4RU back-to-back chassis Ships equipped with 2 pass-through modules (MID: LGX-PASSTHRU-3BK)	Black	FBPS-LGX-4RU-BLK

3RU chassis

Features:

- Maximum density of 14 single-width LGX modules or 7 dual-width LGX modules
- 19-in. rack mount
- Dimensions (H x W x D): 132.5 x 482 x 235 mm



Description	Color	CommScope part number
FPS-OCM-I-F-BLK	Black	760252747

1RU chassis

Features:

- Holds three single-width LGX modules
- 19-inch rack mount
- Dimensions (H x W x D): 1.7 x 18.9 x 8.9 inches / 44 x 481 x 225 mm



Description	Color	CommScope part number
LGX 1RU chassis—FPS-OCM-K-F-BLK	Black	760250917

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CO-115266.3-EN (09/23)