Planner Lightwave Circuit (PLC) Splitter

Planar Lightwave Circuit (PLC) Fiber splitter is a micro optical passive component that is fabricated using silica optical wave-guide technology. Fiber PLC Splitters offer a low cost solution for optical signal distribution. Optical Splitter & coupler features small size, high reliability, wide operating wavelength range and excellent channel uniformity, and is widely used in PON networks to realize optical signal power splitting. Several types are available Fan-out PLC splitter, Micro module PLC splitter, LGX cassette PLC Splitter or Rack mount PLC splitter.

1xN PLC Splitter Specifications

Port Configuration		1x2	1x4	1x8	1x16	1x32	1x64
Fiber Type		SMF28-e or customer specified					
Operating Wavelength (nm)		1260～1650					
Insertion Loss (dB)	Typical	3.7	6.8	10.0	13.0	16.0	19.5
	Max	4.0	7.2	10.5	13.5	16.9	21.0
Loss Uniformity(dB)	Max	0.4	0.6	0.8	1.2	1.5	2.5
Return Loss (dB) (S/P Grade)	Min	50/55	50/55	50/55	50/55	50/55	50/55
Polarization Dependent Loss(dB)	Max	0.2	0.2	0.3	0.3	0.3	0.4
Directivity (dB)	Min	55	55	55	55	55	55
Wavelength Dependent Loss(dB)	Max	0.3	0.3	0.3	0.5	0.5	0.8
Temperature Stability (-40～85 ℃)(dB)	Max	0.5	0.5	0.5	0.8	0.8	1.0
Operating Temperature (℃)		-40～85					
Storage Temperature (℃)		-40～85					

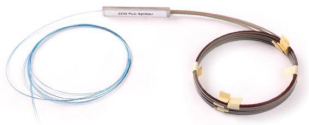
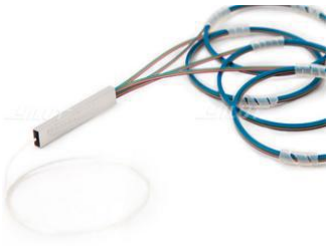
Note: All the data above does not include connectors.
Add an additional 0.2dB loss per connector.

2xN PLC Splitter Specifications

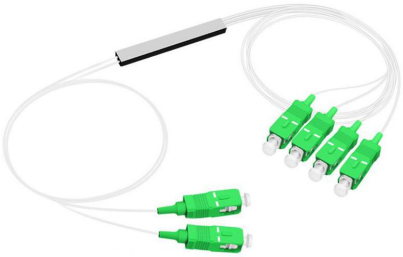
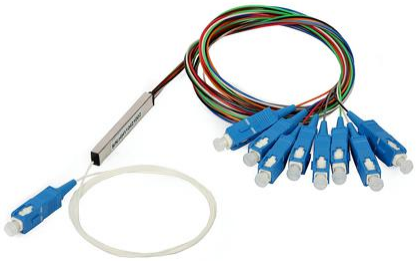
Port Configuration		2x2	2x4	2x8	2x16	2x32	2x64
Fiber Type		SMF28-e or customer specified					
Operating Wavelength (nm)		1260-1650					
Insertion Loss (dB)	Typical	3.8	7.4	10.8	14.2	17.0	21.0
	Max	4.2	7.8	11.2	14.6	17.5	21.5
Loss Uniformity(dB)	Max	1.0	1.4	1.5	2.0	2.5	2.5
Return Loss (dB) (S/P Grade)	Min	50/55	50/55	50/55	50/55	50/55	50/55
Polarization Dependent Loss(dB)	Max	0.2	0.2	0.4	0.4	0.4	0.5
Directivity (dB)	Min	55	55	55	55	55	55
Wavelength Dependent Loss(dB)	Max	0.8	0.8	0.8	0.8	0.8	1.0
Temperature Stability (-40～85 ℃)(dB)	Max	0.5	0.5	0.5	0.8	0.8	1.0
Operating Temperature (℃)		-40～85					
Storage Temperature (℃)		-40～85					

Note: All the data above does not include connectors.
Add an additional 0.2dB loss per connector.

1. Bare Fiber PLC Splitter


2. Micro Module PLC Splitter


3. ABS Module PLC Splitter

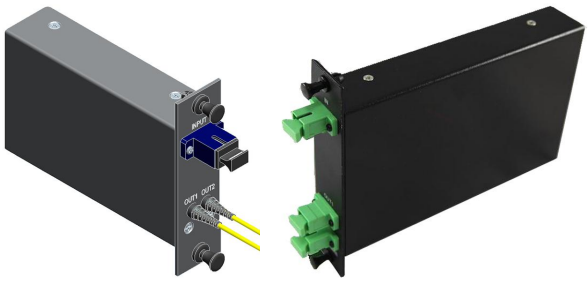


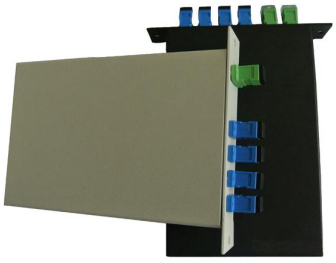

4. Rack-mount PLC Splitter


PLC Splitter Package Dimension						
PLC Splitter	**1*2**	**1*4**	**1*8**	**1*16**	**1*32**	**1*64**
Bare Fiber	40*4*4mm	40*4*4mm	40*4*4mm	50*7*4mm	50*7*4mm	60*12x*4mm
Mini Module	60*7*4mm	60*7*4mm	60*7*4mm	60*12*4mm	80*20*6mm	100*40*6mm
ABS Module	100*80*10mm	100*80*10mm	100*80*10mm	120*80*18mm	120*80*18mm	140*115*18mm
Rack-mount	/	482*250*44mm	482*250*44mm	482*250*44mm	482*250*44mm	482*250*88mm
PLC Splitter	**2*2**	**2*4**	**2*8**	**2*16**	**2*32**	**2*64**
Bare Fiber	60*7*4mm	60*7*4mm	60*7*4mm	60*7*4mm	80*20*6mm	/
Mini Module	60*7*4mm	60*7*4mm	60*7*4mm	60x12x4mm	80*20*6mm	/
ABS Module	100*80*10mm	100*80*10mm	100*80*10mm	120*80*18mm	120*80*18mm	140*115*18mm
Rack-mount	/	482*250*44mm	482*250*44mm	482*250*44mm	482*250*44mm	482*250*88mm

LGX Module PLC Splitter

Standard LGX Module PLC Splitter provides a plug-and-play method for integration in the network, which eliminates any risks during installation. It eliminates the need for splicing machines on the field and there is no need for skilled personnel for deployment. PLC Splitter LGX Modules are available in the form of either plastic module cassette (an ABS box) with ruggedized fiber jackets of 2mm and up to 3mm, or LGX metal box for plug and play splitter applications.





Specifications

Part No.	FLK-LGX-SP102, SP104, SP108
Dimension	129×120×29 mm
Input	1xSC/APC adapter
Output	2, 4, 8×SC/APC adapter
PLC Splitter	1x2, 1x4, 1x8 Micro PLC Splitter
Color of LGX box	Black or Grey

1x8 LGX module Splitter

2x8 LGX Module Splitter

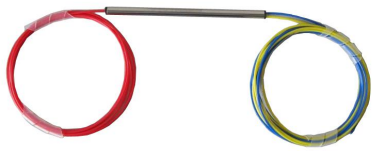
2x32 LGX Module Splitter

Specifications

Part No.	FLK-LGX-SP108	FLK-LGX-SP208	FLK-LGX-SP232
Dimension	129×120×29 mm	129×120×29 mm	86×120×18 mm
Input	1xLC/APC adapter	2xLC/APC adapter	2xLC/APC adapter
Output	8×LC/APC Pigtails of 2.0mm	8×LC/APC Pigtails of 2.0mm	8×LC/APC Pigtails of 2.0mm
PLC Splitter	1x8 Micro PLC Splitter	2x8 Micro PLC Splitter	2x32 Micro PLC Splitter
Color of LGX box	Black or Grey	Black or Grey	Black or Grey

Fiber Optic FBT Coupler

FBT Optical Fiber Couplers are used to distribute optical signals to two output fibers. We offer various types of single mode or multimode coupler including standard couplers, polarization independent couplers, wavelength independent couplers and wavelength flattened couplers. These couplers are highly stable. They have low insertion loss, low polarization sensitivity and excellent uniformity.



Performance Specifications

Single mode Dual Window Wideband Couplers		
Grade	P	A
Coupling Ratio (%)	50/50	50/50
Excess Loss (Typical) (dB)	0.07	0.1
Maximum Insertion loss (dB)	3.6	3.8
Uniformity (Max.) (dB)	0.7	1.0
Polarization Sensitivity (dB)	0.10	0.15
Operating Wavelength (nm)	1310 / 1550 ± 40, 1310*1585 ± 40, or custom wavelength	

Coupling Ratio/insertion Loss Conversion Chart

Coupling Ratio	Insertion Loss	
	Premium	A Grade
40/60	4.7/2.7	5.0/2.9
30/70	6.0/1.9	6.4/2.1
20/80	7.9/1.2	8.5/1.4
10/90	11.3/0.5	12.0/0.8
5/95	14.0/0.35	14.6/0.43
1/99	22.5/0.25	23.0/0.35
Coupling Ratio(%)	1~50	
Directivity (dB)	>55	
Operating Temperature (℃)	-20 - + 85	
Storage Temperature (℃)	-40 - + 85	
Fiber Type	Corning Singlemode SMF-28, DS Fiber, or flexcore	
Fiber Pigtail Length (m)	1	
Port Configuration	1x2 or 2x2	
Package Dimension	Package D,E,F,G	

Package Dimensions & Pigtail Style

Package Type	Dimension	Pigtail Style
Package D:	3mm x 40mm stainless steel tube	250um bare fiber
Package E:	3mm x 54mm stainless steel tube	250um bare fiber
Package F:	3mm x 60mm stainless steel tube	250um bare fiber or 900um loose tube
Package G:	10mm x 20mm x 90mm case	2mm, 3mm cable or 900um loose tube