

PLC Splitter

1×N 2×N PLC Splitter



Overview

Planar lightwave circuit (PLC) splitter is a type of optical power management device that is fabricated using silica optical waveguide technology. It features small size, high reliability, wide operating wavelength range and good channel-to-channel uniformity, and is widely used in PON networks to realize optical signal power splitting.

Sourcelight provides whole series of 1xN and 2xN splitter products that are tailored for specific applications. All products meet GR-1209-CORE and GR-1221-CORE requirements.

Features

- ◆ Low Insertion loss
- ◆ Low PDL
- ◆ Compact Design
- ◆ Good channel-to-channel uniformity
- ◆ Wide Operating Wavelength:
From 1260nm to 1650nm
- ◆ Wide Operating Temperature:
From -40°C to 85°C
- ◆ High Reliability and Stability

Applications

- ◆ FTTX Systems
- ◆ PON Networks
- ◆ CATV Links
- ◆ Optical Signal Distribution

Compliance

- ◆ Telcordia GR-1209-CORE
- ◆ Telcordia GR-1221-CORE
- ◆ RoHS

Datasheet

Technical Specification

Table 1 – 1×N PLC Splitter

Parameters	1×2	1×4	1×8	1×16	1×32	1×64
Operating Wavelength (nm)	1260~1650					
Fiber Type	SMF-28e or customer specified					
Insertion Loss (dB) (S/P Grade)	4.0/3.8	7.3/7.0	10.5/10.2	13.7/13.5	16.9/16.5	21.0/20.5
Loss Uniformity (dB)	0.4	0.6	0.8	1.2	1.5	2.5
Return Loss (dB) (S/P Grade)	50/55	50/55	50/55	50/55	50/55	50/55
Polarization Dependent Loss(dB)	0.2	0.2	0.3	0.3	0.3	0.4
Directivity (dB)	55	55	55	55	55	55
Wavelength Dependent Loss(dB)	0.3	0.3	0.3	0.5	0.5	0.5
Temperature Stability(-40~85 °C)(dB)	0.5	0.5	0.5	0.5	0.5	0.5
Operating Temperature (°C)	-40~85					
Storage Temperature (°C)	-40~85					
Packaging Dimension (mm) (L×W×H)	40×4×4	40×4×4	40×4×4	40×4×4	50×7×4	60×12×4
Module Dimension (mm) (L×W×H)	100×80×10	100×80×10	100×80×10	120×80×18	140×115×18	140×115×18

Table 2 – 2×N PLC Splitter

Parameters	2×2	2×4	2×8	2×16	2×32
Operating Wavelength (nm)	1260~1650				
Fiber Type	SMF-28e or customer specified				
Insertion Loss (dB) (S/P Grade)	4.2	7.6	11.0	14.5	17.5
Loss Uniformity (dB)	0.8	1.5	1.5	2.0	2.5
Return Loss (dB) (S/P Grade)	50/55	50/55	50/55	50/55	50/55
Polarization Dependent Loss(dB)	0.2	0.2	0.3	0.4	0.4
Directivity (dB)	55	55	55	55	55
Wavelength Dependent Loss(dB)	0.3	0.5	0.5	0.5	0.5
Temperature Stability(-40~85 °C)(dB)	0.5	0.5	0.5	0.5	0.5
Operating Temperature (°C)	-40~85				
Storage Temperature (°C)	-40~85				
Packaging Dimension (mm) (L×W×H)	40×4×4	40×4×4	50×4×4	50×7×4	60×7×4
Module Dimension (mm) (L×W×H)	100×80×10	100×80×10	120×80×18	140×115×18	140×115×18

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Notes:

1. Specified without connectors.
2. Add an additional 0.2dB loss per connector.

Assembly drawing

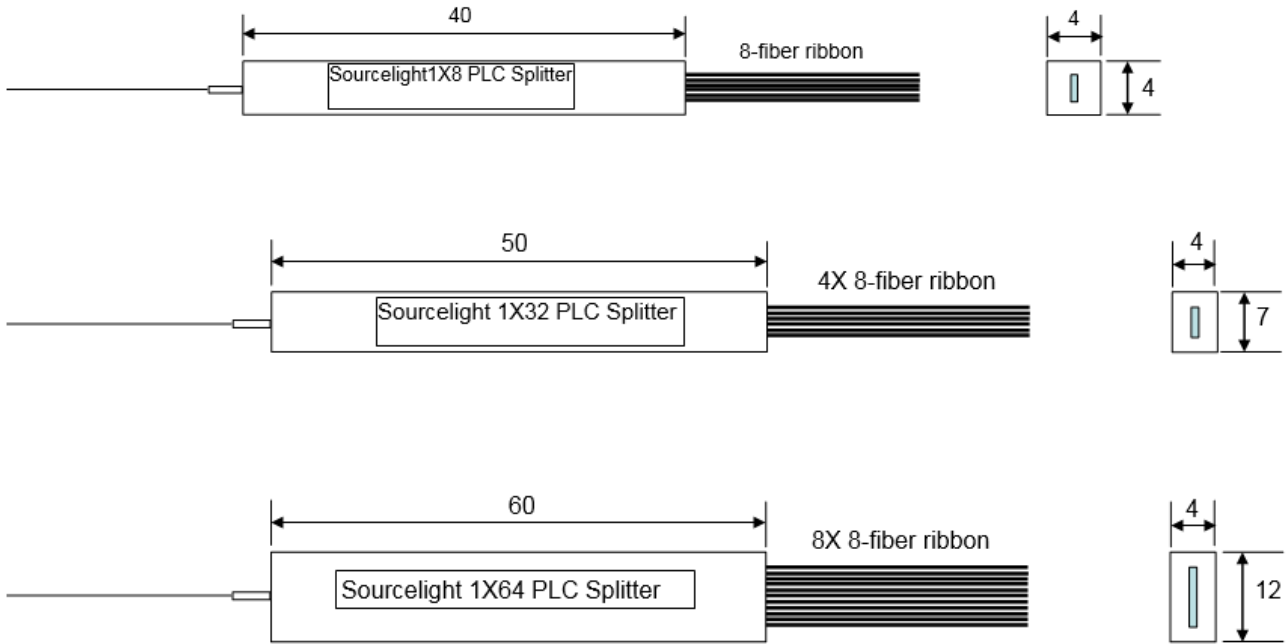


Figure1. Assembly drawing

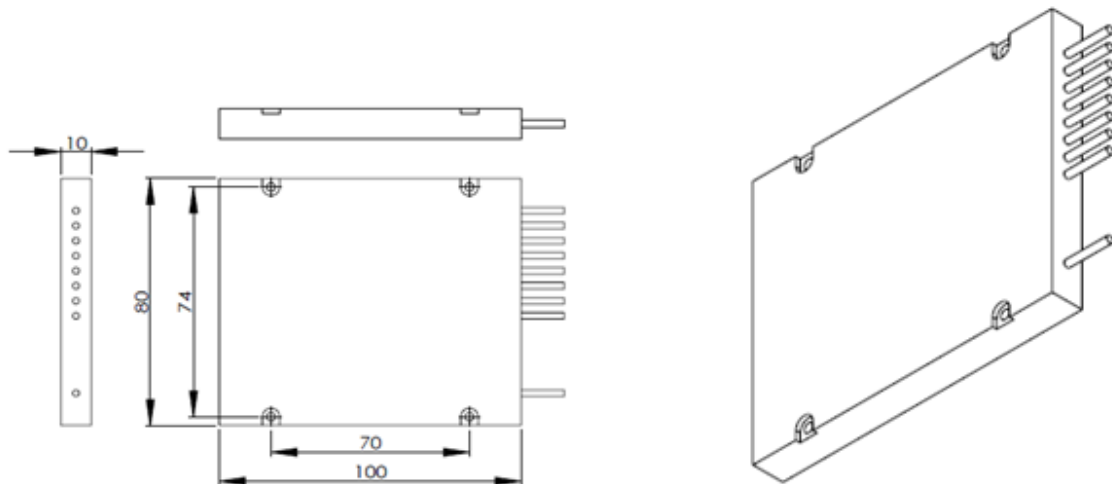


Figure2. Assembly drawing 100*80*10mm

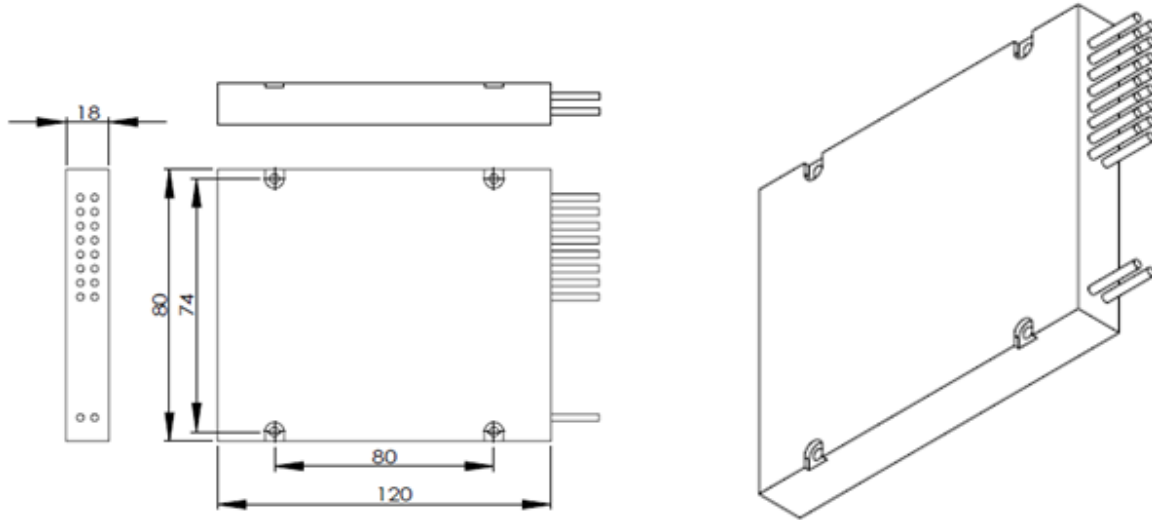


Figure3. Assembly drawing 120*80*18mm

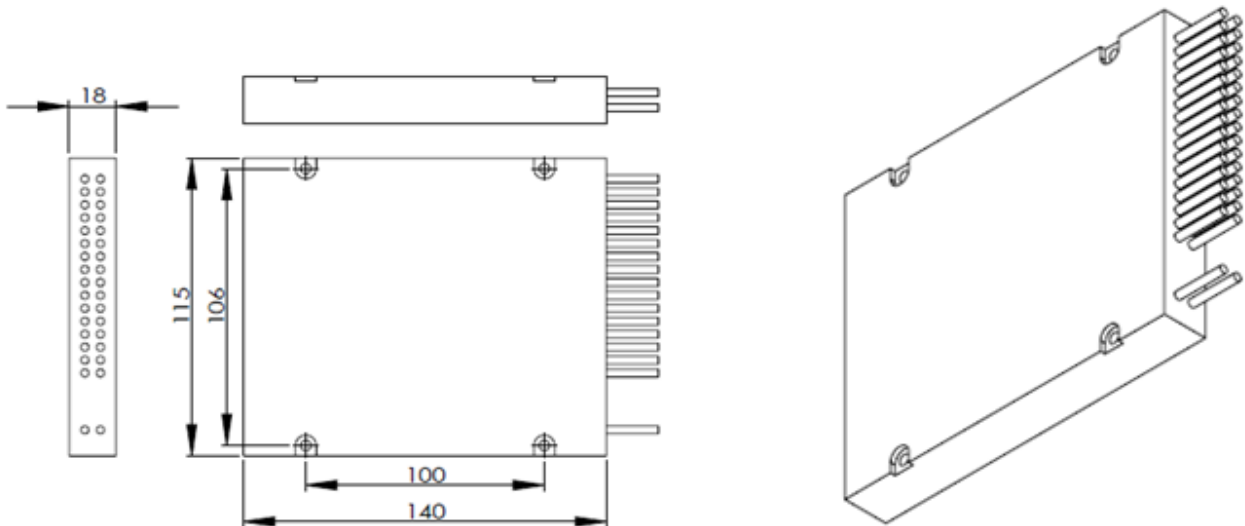


Figure4. Assembly drawing 140*115*18mm

Notes: All Planar lightwave circuit (PLC) splitter Ordering information please ask for our company sales, the contact information: sales@sourcelight.com.cn

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Ordering information

PLC Splitter - Planar Lightwave Circuit Splitter

SLPS-	XXX-	X	XX-	X	XX-	X	X
	Port Configuration	Input fiber type	Input fiber length	Output fiber type	Output fiber length	Input connector	Output connector
SL=Sourcelight	102=1×2	B=250μm bare fiber	10=1.0m	B=250μm bare fiber	10=1.0m	0=None	0=None
P=PLC	104=1×4	L=900μm loose tube	15=1.5m	R=ribbon fiber	15=1.5m	1=FC/UPC	1=FC/UPC
S=Splitter	108=1×8	T=900μm tight buffer	20=2.0m	F=Fant out box with 900μm loose tube	20=2.0m	2=FC/APC	2=FC/APC
						3=SC/UPC	3=SC/UPC
	164=1×64					4=SC/APC	4=SC/APC
	202=2×2					5=LC/UPC	5=LC/UPC
						6=LC/APC	6=LC/APC
	232=2×32					X=Customized	X=Customized

PLC Splitter Module

SLPM-	XXX-	XX-	XX	XX-	X	X
	Port Configuration	Modules type	Cable type	Fiber length	Input connector	Output connector
SL=Sourcelight	102=1×2	A=140X115X18,plastic	09=0.9 ϕ mm	10=1.0m	0=None	0=None
P=PLC splitter	104=1×4	B=120X80X18,plastic	20=2.0 ϕ mm	15=1.5m	1=FC/UPC	1=FC/UPC
M=Module	108=1×8	C=100X80X10,plastic	30=3.0 ϕ mm	20=2.0m	2=FC/APC	2=FC/APC
		MM=Mini-Module			3=SC/UPC	3=SC/UPC
	164=1×64	XX=Customized			4=SC/APC	4=SC/APC
	202=2×2				5=LC/UPC	5=LC/UPC
					6=LC/APC	6=LC/APC
	264=2×64				X=Customized	X=Customized

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PLC Splitter Box

SLPB-	XXX-	XX-	X	X
	Port Configuration	Box type	Input connector	Output connector
SL= Sourcelight	102=1×2	LX=LGX box, metal	0=None	0=None
P=PLC splitter	104=1×4	191U=19'1U Rack-Mount Box	1=FC/UPC	1=FC/UPC
B=Box	108=1×8	192U=19'2U Rack-Mount Box	2=FC/APC	2=FC/APC
		TP=ODF Box	3=SC/UPC	3=SC/UPC
	164=1×64	WM=Wall-Mount Box	4=SC/APC	4=SC/APC
	202=2×2	CP=ODF BOX-2	5=LC/UPC	5=LC/UPC
		XX=Customized	6=LC/APC	6=LC/APC
	264=2×64		X=Customized	X=Customized

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