

Planar Lightwave Circuit Splitter

Description

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. RIK-COM 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 to 85
- ☒ High Reliability and Stability

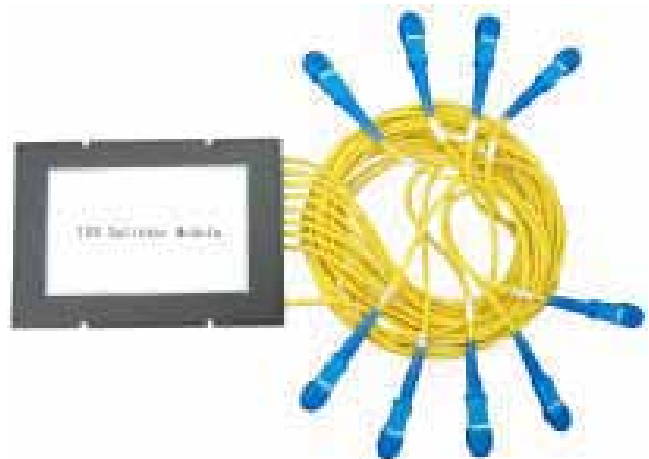


Applications

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

Compliance

- ☒ Telcordia GR-1209-CORE
- ☒ Telcordia GR-1221-CORE
- ☒ RoHS



Specifications

Table 1 – 1xN PLC Splitter

Parameters	1x2	1x4	1x8	1x16	1x32	1x64
Operating Wavelength (nm)	1260~1650					
Fibre Type	G657A or customer specified					
Insertion Loss dB (P/S Grade)	3.8/4.0	7.1/7.3	0.2/10.5	13.5/13.7	16.5/16.9	20.5/21.0
Loss Uniformity (dB)	0.4	0.6	0.8	1.2	1.5	2.0
Return Loss (dB)	55	55	55	55	55	55
PDL (dB)	0.2	0.2	0.2	0.25	0.3	0.35
Directivity (dB)	55	55	55	55	55	55
Wavelength Dependant Loss (dB)	0.3	0.3	0.3	0.5	0.5	0.5
Temperature Stability (-40~85 °C)(dB)	0.4	0.4	0.4	0.5	0.5	0.5
Operating Temperature (°C)	-40~85					
Storage Temperature (°C)	-40~85					
Dimension (mm) (LxWxH)	40x4x4	40x4x4	40x4x4	50x4x4	50x7x4	60x12x4
Module Dimension (mm) (LxWxH)	100x80x10	100x80x10	100x80x10	120x80x10	140x115x18	140x115x18
Mini-Module Dimension (mm) (LxWxH)	50x7x4	50x7x4	60x7x4	60x12x4	80x20x6	N/A

Table 2 – 2xN PLC Splitter

Parameters	2x2	2x4	2x8	2x16	2x32	2x64
Operating Wavelength (nm)	1260~1650					
Fibre Type	G657A or customer specified					
Insertion Loss dB (P/S Grade)	4.0	7.6	11.0	14.4	17.5	21.0
Loss Uniformity (dB)	0.6	1.0	1.2	1.5	1.8	2.2
Return Loss (dB)	55	55	55	55	55	55
PDL (dB)	0.2	0.2	0.3	0.3	0.4	0.4
Directivity (dB)	55	55	55	55	55	55
Wavelength Dependant Loss (dB)	0.3	0.4	0.5	0.5	0.5	0.5
Temperature Stability (-40~85 °C)(dB)	0.4	0.4	0.4	0.5	0.5	0.5
Operating Temperature (°C)	-40~85					
Storage Temperature (°C)	-40~85					
Dimension (mm) (LxWxH)	40x4x4	50x4x4	50x4x4	50x7x4	60x7x4	60x12x4
Module Dimension (mm) (LxWxH)	100x80x10	100x80x10	100x80x10	120x80x10	140x115x18	140x115x18
Mini-Module Dimension (mm) (LxWxH)	60x7x4	60x7x4	60x7x4	60x12x4	80x20x6	N/A

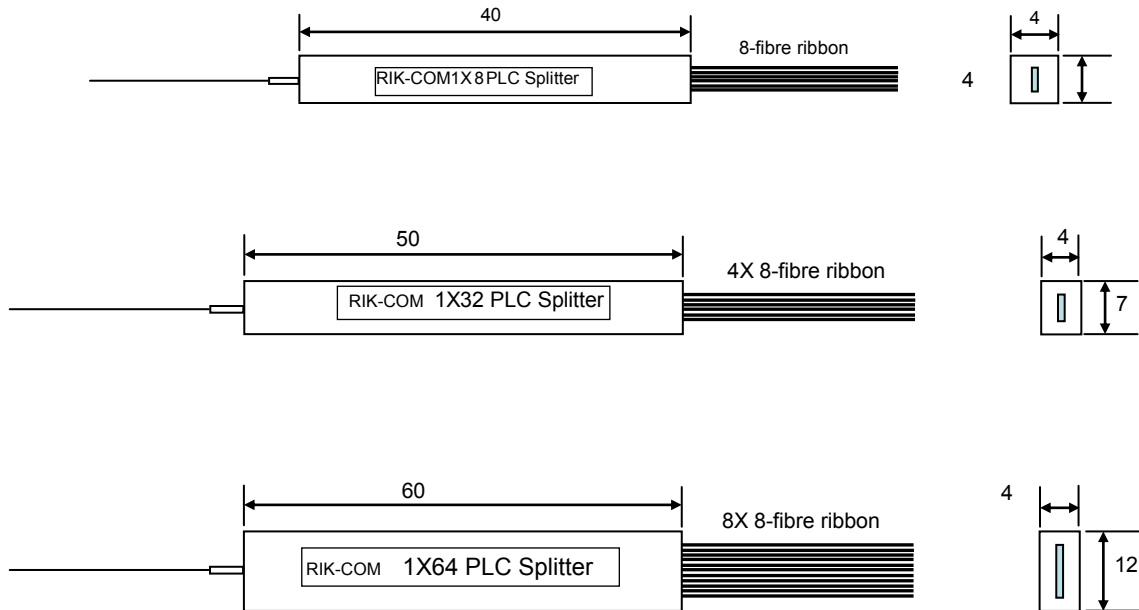
Notes:

1. Specified without connectors.
2. Add an additional 0.15dB loss per connector.

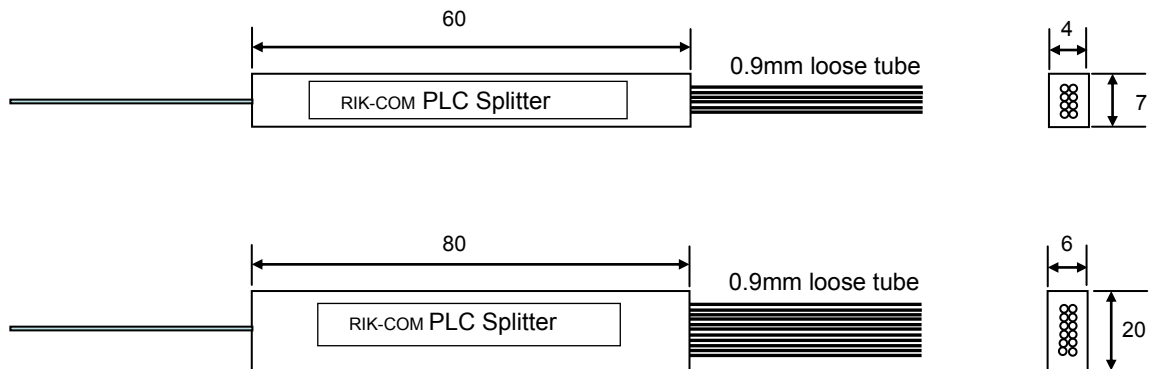


Mechanical Dimensions

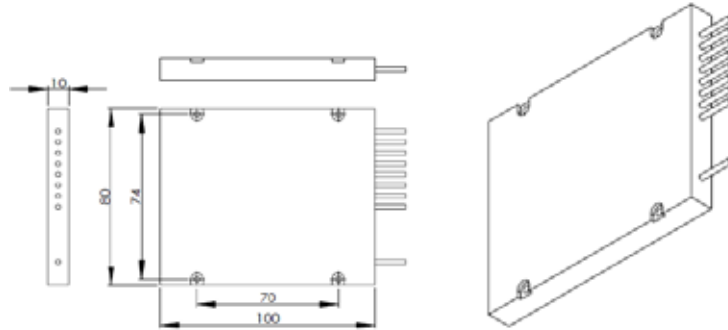
PLC Splitter



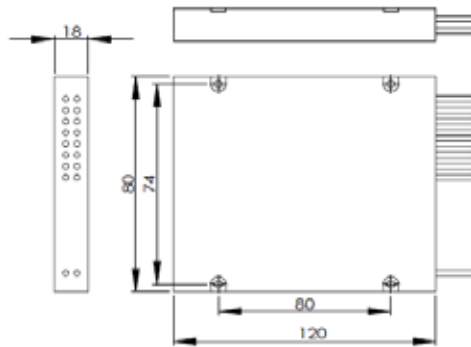
PLC Splitter Mini -Module



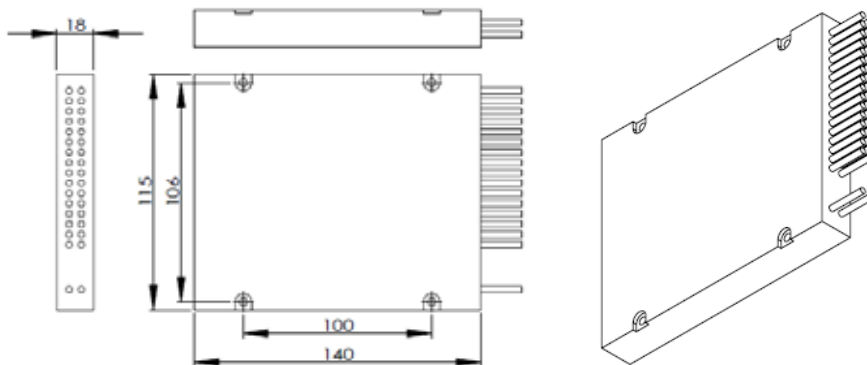
PLC Splitter Module



100X80X10



120X80X18



140X115X18



Ordering information

PLC Splitter

Splitter Type	Port Config.	Input fibre Type	Input Fibre Length	Output Fibre Type	Output Fibre Length	Input Connector	Output Connector
PLC Splitter=PLCS APC=STA	1X2	BR= Bare Fibre	1.2=1.2m	BR= Bare Fibre	1.2m=1.2	FC=FC	ST
Splitter=S	1X8	LT=Loose Tube	2.5=2.5m	LT=Loose Tube	2.5m=2.5	SC APC=SCA	None=0
	2X32	TB=Tight Buffer	5=5m	TB=Tight Buffer	5m=5	Customized=X	LC=LC

PLC Splitter Module

Splitter Type	Port Config.	Module Type	Cable Type	Fibre Length	Input Connector	Output Connector
PLC Splitter=PLCS	1X2	Large Module=LM	900um=09	1.2m=1.2	FC=FC	ST APC=STA
Module=M	1X32	Medium Module=MM	2mm=2	5m=5	None=0	Customized=X
	2X64	Small Module=SM	2mm=2	5.2m=5.2	SC APC=SCA	Customized=X

PLC Splitter Box

Splitter Type	Port Config.	Box Type	Input Connector	Output Connector
PLC Splitter=PLCS	1X2	Metal Box=MB	FC=FC	ST APC=STA
Box=M	1X32	19" 1U box=191B	None=0	Customized=X
	2X64	Wall Mound Box=WMB	SC APC=SCA	E2000 APC=E2A

