

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. Flyin Optronics 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

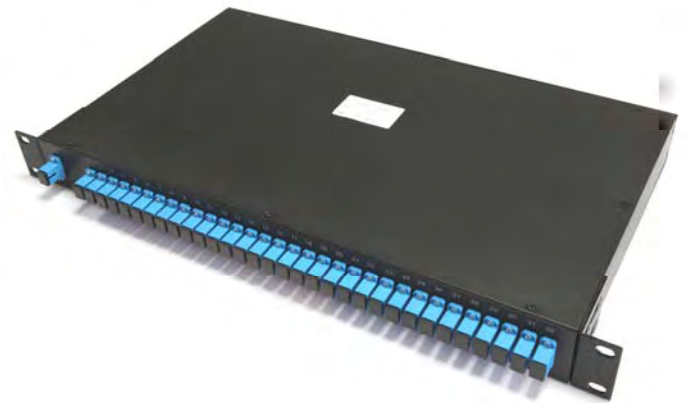
- Low Insertion loss
- Low PDL
- Compact Design
- Good channel-to-channel uniformity
- Wide Operating Wavelength:
From 1260nm to 1650nm
- Wide Operating Temperature:
From -40°C to 85°C
- High Reliability and Stability

Applications

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

Compliance

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



Specifications

1×N PLC Splitter

Parameters	1×2	1×4	1×8	1×16	1×32	1×64	1×128
Operating Wavelength (nm)	1260~1650						
Fiber Type	G657A1 or customer specified						
Insertion Loss (dB) (P/S Grade)	3.8/4.0	7.1/7.3	10.2/10.5	13.5/13.7	16.5/16.9	20.5/21.0	23.8/24.2
Loss Uniformity (dB)	0.4	0.6	0.8	1.2	1.5	2.0	2.5
Polarization Dependent Loss(dB)	0.2	0.2	0.2	0.25	0.3	0.35	0.4
Return Loss (dB) (P/S Grade)	55/50	55/50	55/50	55/50	55/50	55/50	55/50
Directivity (dB)	55	55	55	55	55	55	55
Wavelength Dependent Loss (dB)	0.3	0.3	0.3	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	0.5
Operating Temperature (°C)	-40~85						
Storage Temperature (°C)	-40~85						
Device Dimension (mm)	40×4×4	40×4×4	40×4×4	50×4×4	50×7×4	60×12×4	N/A
Module Dimension (mm)	100×80×10	100×80×10	100×80×10	120×80×18	140×115×18	140×115×18	140×115×18
Mini-Module Dimension (mm)	50×7×4	50×7×4	50×7×4	60×12×4	80×20×6	100×40×6	N/A

2×N PLC Splitter

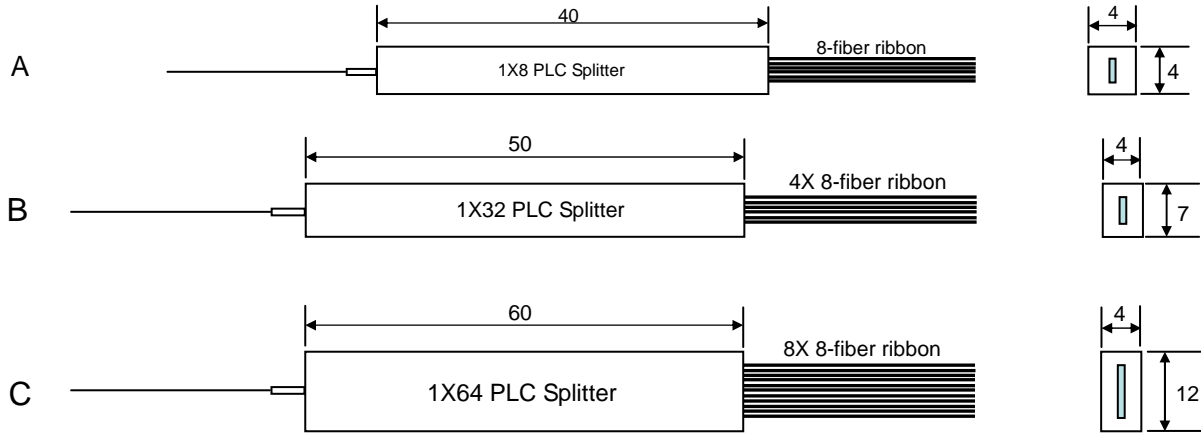
Parameters	2×2	2×4	2×8	2×16	2×32	2×64	2×128
Operating Wavelength (nm)	1260~1650						
Fiber Type	G657A1 or customer specified						
Insertion Loss (dB) P/S Grade)	4.0	7.6	11.0	14.4	17.5	21.0	24.5
Loss Uniformity (dB)	0.6	1.0	1.2	1.5	1.8	2.2	2.5
Polarization Dependent Loss(dB)	0.2	0.2	0.3	0.3	0.35	0.4	0.4
Return Loss (dB) P/S Grade)	55/50	55/50	55/50	55/50	55/50	55/50	55/50
Directivity (dB)	55	55	55	55	55	55	55
Wavelength Dependent Loss (dB)	0.3	0.4	0.5	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	0.5
Operating Temperature (°C)	-40~85						
Storage Temperature (°C)	-40~85						
Device Dimension (mm)	40×4×4	50×4×4	50×4×4	50×7×4	60×7×4	N/A	N/A
Module Dimension (mm)	100×80×10	100×80×10	100×80×10	120×80×18	140×115×18	140×115×18	140×115×18
Mini-Module Dimension (mm)	60×7×4	60×7×4	60×7×4	60×12×4	80×20×6	N/A	N/A

Notes:

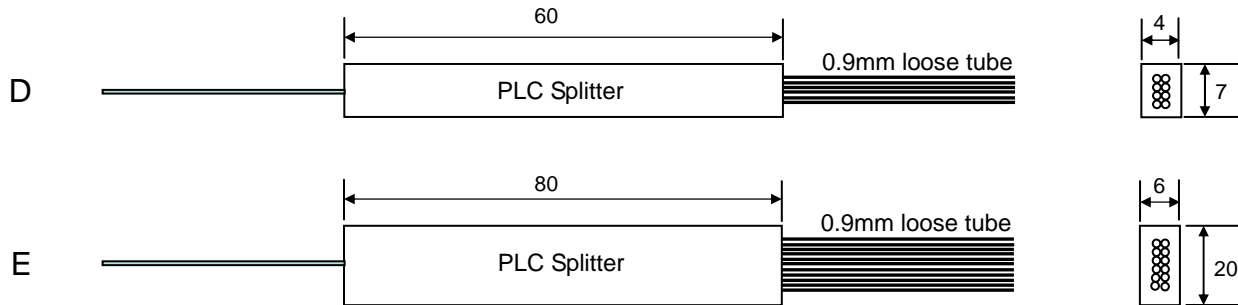
1. Specified without connectors.
2. Add an additional 0.15dB loss per connector.

Mechanical Dimensions

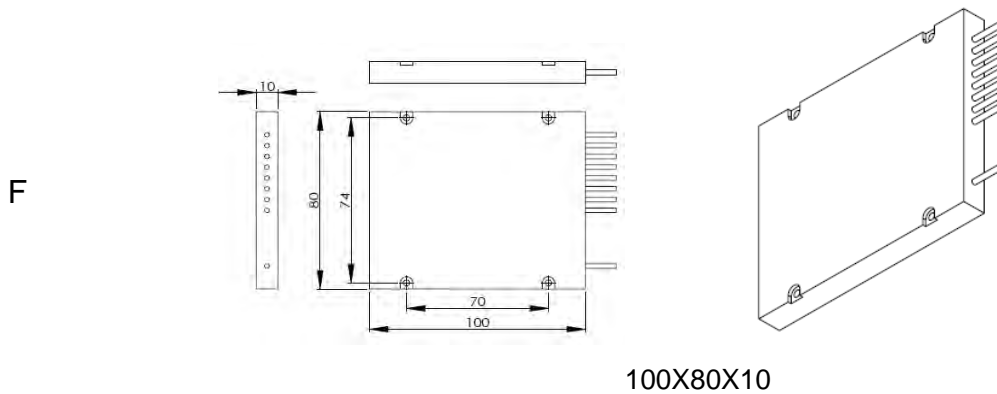
PLC Splitter packed in stainless steel tube



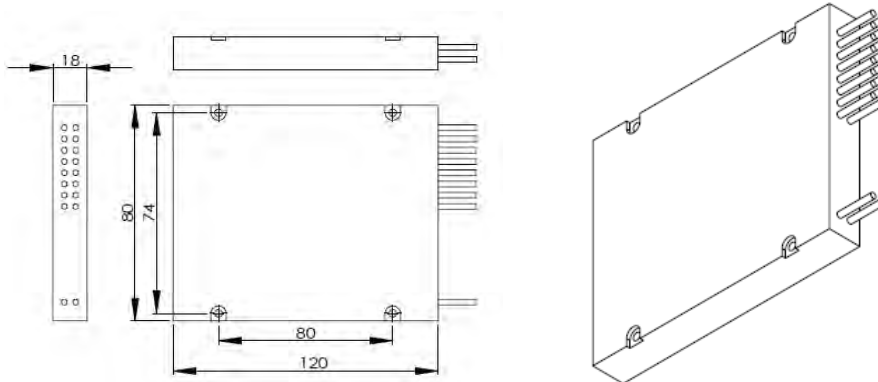
PLC Splitter Mini-Module



PLC Splitter Module

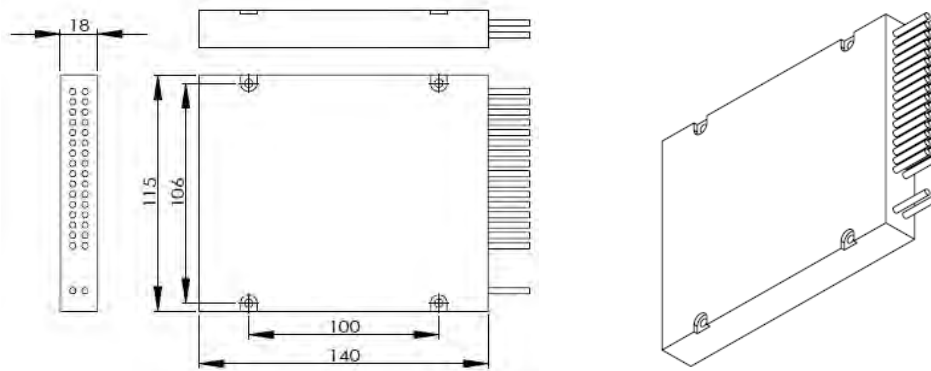


G



120X80X18

H



140X115X18

Ordering information

PLC	XXXX	X	X	X	X	X	X
	Port	Input Pigtail Style	Input Connector	Output Pigtail Style	Fiber Length	Output Connector	Package type
PLC	0102=1x2	0=bare fiber	0=none	0=bare fiber	0=0.5m	0=none	A=4X4X40
	0104=1x4	1=900um	1=SC/PC	1=900um	1=1m	1=SC/PC	B=4X7X50
	0108=1x8	Loose tube	2=SC/APC	Loose tube	2=1.5m	2=SC/APC	C=4X12X60
	0116=1x16	2=900um	3=FC/PC	2=900um	3=2m	3=FC/PC	D=4X7X60
	0132=1x32	Jacket	4=FC/APC	Jacket	4=3m	4=FC/APC	E=6X20X80
	0164=1x64	3=2.0mm cable	5=ST	3=2.0mm cable	5=4m	5=ST	F=100X80X10
	1128=1x128	4=3.0mm cable	6=LC	4=3.0mm cable	S=special	6=LC	G=120X80X18
	0204=2x4		7=LC/APC			7=LC/APC	H=140X115X18
	0208=2x8		8=E2000			8=E2000	I=19"1U Rack
	0216=2x16		S=Special			S=Special	S=Special
	0232=2x32						
	0264=2x64						
	2128=2x128						