

## 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. provides whole series of 1xN and 2xN splitter products that are tailored for specific applications. All products meet GR-1209-CORE-2001 and GR-1221-CORE-1999 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-2001
- Telcordia GR-1221-CORE-1999
- RoHS

## Specifications

Table 1 – 1×N PLC Splitter

Parameters	1x2	1x4	1x8	1x16	1x32	1x64	1x128
Operating Wavelength (nm)	1260~1650						
Fiber Type	G657A or customer specified						
Insertion Loss (dB)	3.8	7.0	10.2	13.5	16.8	20.5	24.5
Loss Uniformity (dB)	0.4	0.5	0.8	1.0	1.2	2	2.5
Return Loss (dB)	55	55	55	55	55	55	55
Polarization Dependent Loss(dB)	0.2	0.2	0.2	0.2	0.2	0.35	0.35
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)	-5~75						
Storage Temperature (°C)	-40~85						
Device Dimension (mm) (L×W×H)	40×4×4	40×4×4	40×4×4	50×4×4	50×7×4	60×12×4	NA
Module Dimension (mm) (L×W×H)	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) (L×W×H)	50×7×4	50×7×4	50×7×4	60×12×4	80×20×6	100×40×6	NA

Notes:

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

Table 2 – 2×N PLC Splitter

Parameters	2x2	2x4	2x8	2x16	2x32	2x64	2x128
Operating Wavelength (nm)	1260~1650						
Fiber Type	G657A or customer specified						
Insertion Loss (dB)	4	7.6	11	14.4	17.5	21	24.5
Loss Uniformity (dB)	0.6	1	1.2	1.5	1.8	2.2	2.5
Return Loss (dB) (P/S Grade)	55/50	55/50	55/50	55/50	55/50	55/50	55/50

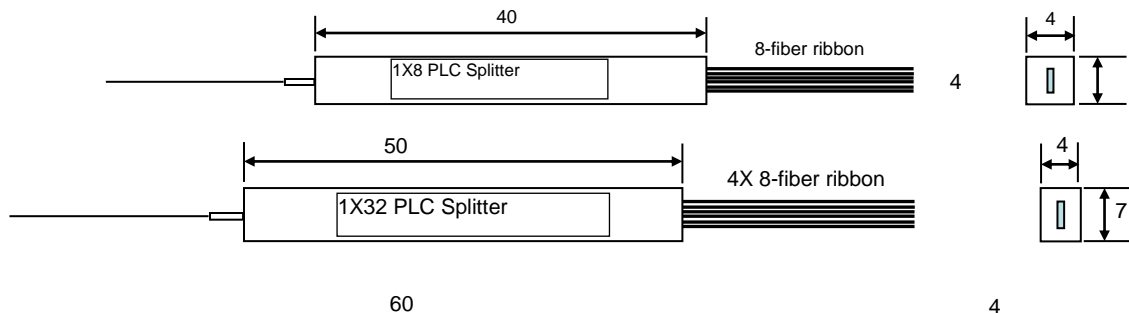
Polarization Dependent Loss(dB)	0.2	0.2	0.3	0.3	0.4	0.4	0.4
Directivity (dB)	55	55	55	55	55	55	55
Wavelength Dependent Loss(dB)	0.3	0.4	0.5	0.5	0.5	0.5	0.5
Temperature Stability(-40~85 °C)(dB)	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Operating Temperature (°C)	-40~85						
Storage Temperature (°C)	-40~85						
Device Dimension (mm) (L×W×H)	40×4×4	50×4×4	50×4×4	50×7×4	60×7×4	60×12×4	NA
Module Dimension (mm) (L×W×H)	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) (L×W×H)	60×7×4	60×7×4	60×7×4	60×12×4	80×20×6	100×40×6	NA

Notes:

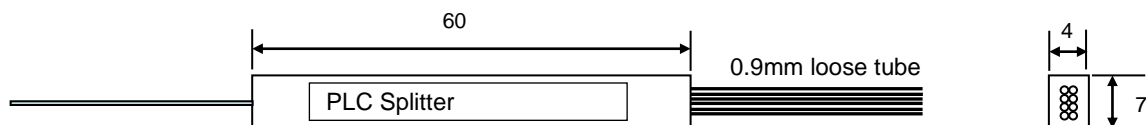
- 1、Specified without connectors.
- 2、Add an additional 0.2dB loss per connector.

## Mechanical Dimensions

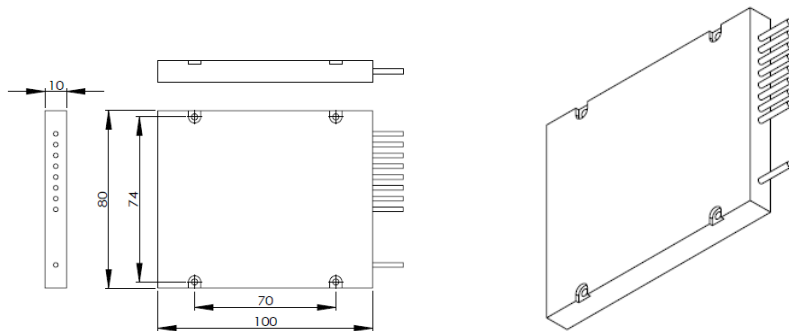
### PLC Splitter



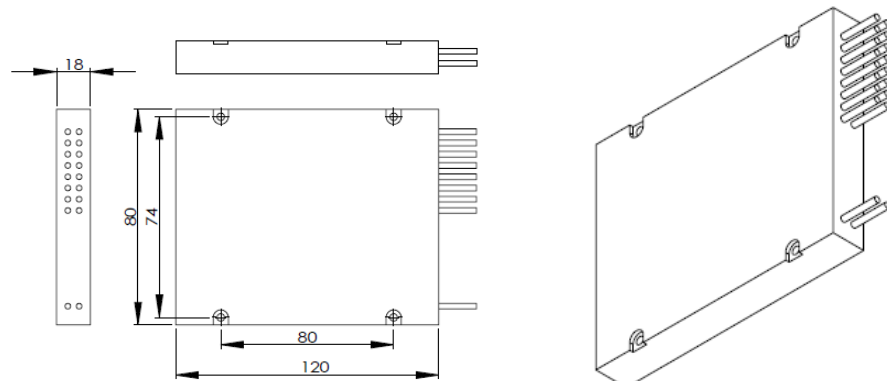
### PLC Splitter Mini-Module



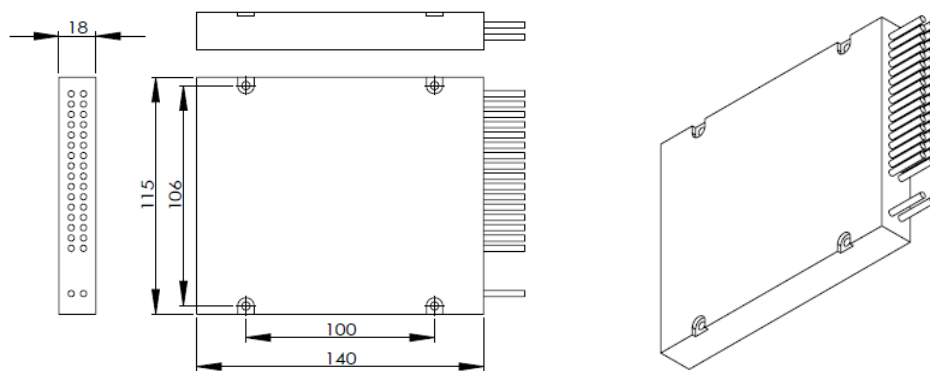
## PLC Splitter Module



100X80X10



120X80X18



140X115X18

## Ordering information

### Planar Lightwave Circuit Splitter -PLC Splitter

BNT-	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
BNT	102=1x2	B=250μm bare fiber	10=1.0m	B=250μm bare fiber	10=1.0m	0=None	0=None
P=PLC	104=1x4	L=900μm loose tube	15=1.5m	R=ribbon fiber	15=1.5m	1=FC/UPC	1=FC/UPC
S=Splitter	108=1x8	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=1x64					4=SC/APC	4=SC/APC
	202=2x2					5=LC/UPC	5=LC/UPC
	... ..					6=LC/APC	6=LC/APC
	232=2x32					X=Customized	X=Customized

### PLC Splitter Module

BNT-	XXX	XX	XX	XX	X	X
	Port Configuration	Modules type	Cable type	Fiber length	Input connector	Output connector
BNT	102=1x2	A=140X115X18,plastic	09=0.9ϕ mm	10=1.0m	0=None	0=None
P=PLC splitter	104=1x4	B=120X80X18,plastic	20=2.0ϕ mm	15=1.5m	1=FC/UPC	1=FC/UPC
M=Module	108=1x8	C=100X80X10,plastic	30=3.0ϕ mm	20=2.0m	2=FC/APC	2=FC/APC
	... ..	MM=Mini-Module		... ..	3=SC/UPC	3=SC/UPC
	164=1x64	XX=Customized			4=SC/APC	4=SC/APC
	202=2x2				5=LC/UPC	5=LC/UPC
	... ..				6=LC/APC	6=LC/APC
	264=2x64				X=Customized	X=Customized

## PLC Splitter Box

<b>BNT-</b>	<b>XXX</b>	<b>XX</b>	<b>X</b>	<b>X</b>
	Port Configuration	Box type	Input connector	Output connector
BNT	102=1x2	LX=LGX box, metal	0=None	0=None
P=PLC splitter	104=1x4	19=19'1U Rack-Mount Box	1=FC/UPC	1=FC/UPC
B=Box	108=1x8	TP=ODF Box	2=FC/APC	2=FC/APC
	... ..	WM=Wall-Mount Box	3=SC/UPC	3=SC/UPC
	164=1x64	CP=ODF BOX-2	4=SC/APC	4=SC/APC
	202=2x2	XX=Customized	5=LC/UPC	5=LC/UPC
	... ..		6=LC/APC	6=LC/APC
	264=2x64		X=Customized	X=Customized

SatDigital Co., Ltd.

88/468 Kanlapaphruek Road, Bang Khae, Bangkok 10160

Tel : 081-3050809 / 02-0237929

E-Mail : info@satsdigital.com

LINE ID: @satsdigital