

# Planar Lightware Circuit Splitter

## PLC Type



Steel Tube



ABS Cassette



Plugin



LGX Metal



Tray



Rack Fixed

## Overview

Sopto's single-mode Planar Lightware Circuit Splitter (PLC type) are developed based on unique silica glass waveguide process with reliable precision aligned fiber pigtail in a miniature package, it provides a low-cost light distribution solution with small form factor and high reliability. The PLC type devices have high performance in terms of low insertion loss, low PDL high return loss and excellent uniformity over a wide wavelength range from 1260nm to 1650nm and working in temperature from -40C to +85C. The PLCS devices have standard configurations of 1x4, 1x8, 1x16 and 1x32 configurations, as well as customized structures of 2x8, 2x16, 2x32 and 2x64.

## Features

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Large operating temperature range
- Customized packaging and configuration

## Applications

- FTTx systems
- LAN,WAN and Metro Networks
- Analog/Digital Passive Optical Networks
- CATV Networks
- Other applications in fiber optical systems

## Compliance

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

## 1XN PLC Steel Tube Specifications

Port Configuration		1X2	1X4	1X8	1X16	1X32	1X64	1X128
Fiber Type		G.652D, G.657.A1, G.657.A2 or Customer specified						
Operating Wavelength(nm)		1260~1650						
Insertion Loss(dB)	PLC Device	≤3.8	≤7.4	≤10.5	≤13.5	≤16.8	≤20.5	≤24
	PLC Plug type	≤4.2	≤7.8	≤10.9	≤13.9	≤17.2	≤20.9	≤24.4
	PLC Adaptor type	≤4.4	≤8.0	≤11.1	≤14.1	≤17.4	≤21.1	≤24.6
Polarization Dependent Loss(dB)		≤0.3	≤0.3	≤0.3	≤0.3	≤0.3	≤0.3	≤0.5
Loss Uniformity (dB)	Fixed working wavelength	≤0.6	≤0.7	≤1.0	≤1.2	≤1.5	≤2.0	≤2.5
	Full working bandwidth	≤1.1	≤1.2	≤1.5	≤1.7	≤2.0	≤2.5	≤3.0
Return Loss(dB)	PLC Device	≥55						
	PLC Plug type	≥45 (PC) ; ≥50 (UPC) ; ≥55 (APC) ;						
Directivity(dB)		≥55						

<b>Temperature Dependent Loss(° C)</b>	-40~+85C
<p>The test wavelengths of insertion loss in the table are: 1310nm, 1490nm, 1550nm, and the insertion loss in the 1260nm-1300nm and 1600nm-1650nm wavelength range increases 0.3dB on the basis of the above index.</p> <p>The test wavelengths of Loss Uniformity in the table are: 1310nm, 1490nm, 1550nm. The channel uniformity index in the 1260nm-1300nm and 1600nm-1650nm wavelength range increases 0.5dB based on the above index.</p>	

Notes: 1. Specifications without fiber connectors.

2. Room temperature test.

### 2XN Steel Tube PLC Specifications

Port Configuration		2X2	2X4	2X8	2X16	2X32	2X64	2X128
Fiber Type		G.652D, G.657.A1, G.657.A2 or Customer specified						
Operating Wavelength(nm)		1260~1650						
Insertion Loss(dB)	PLC Device	≤4.0	≤7.6	≤10.8	≤13.8	≤17.1	≤20.8	≤24.3
	PLC Plug type	≤4.4	≤8.0	≤11.2	≤14.2	≤17.5	≤21.2	≤24.7
	PLC Adaptor type	≤4.6	≤8.2	≤11.4	≤14.4	≤17.7	≤21.4	≤24.9
Polarization Dependent Loss(dB)		≤0.3	≤0.3	≤0.3	≤0.3	≤0.3	≤0.3	≤0.5
Loss Uniformity (dB)	Fixed working wavelength	≤0.6	≤0.7	≤1.0	≤1.2	≤1.5	≤2.0	≤2.5
	Full working bandwidth	≤1.1	≤1.2	≤1.5	≤1.7	≤2.0	≤2.5	≤3.0
Return Loss(dB)	PLC Device	≥55						
	PLC Plug type	≥45 (PC) ; ≥50 (UPC) ; ≥55 (APC) ;						
Directivity(dB)		≥55						

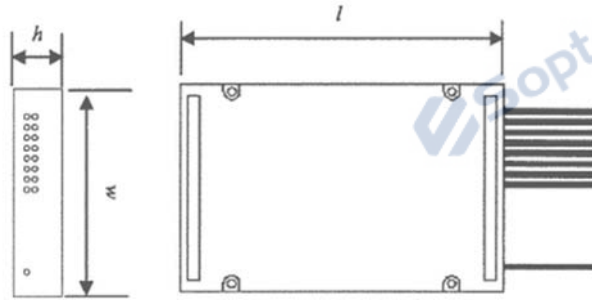
<b>Temperature Dependent Loss(° C)</b>	-40~+85C
<p>The test wavelengths of insertion loss in the table are: 1310nm, 1490nm, 1550nm, and the insertion loss in the 1260nm-1300m and 1600nm-1650nm wavelength range increases 0.3dB on the basis of the above index.</p> <p>The test wavelengths of Loss Uniformity in the table are: 1310nm, 1490nm, 1550nm. The channel uniformity index in the 1260nm-1300nm and 1600nm-1650nm wavelength range increases 0.5dB based on the above index.</p>	

Notes: 1. Specifications without fiber connectors.  
2. Room temperature test.

### Ordering Information

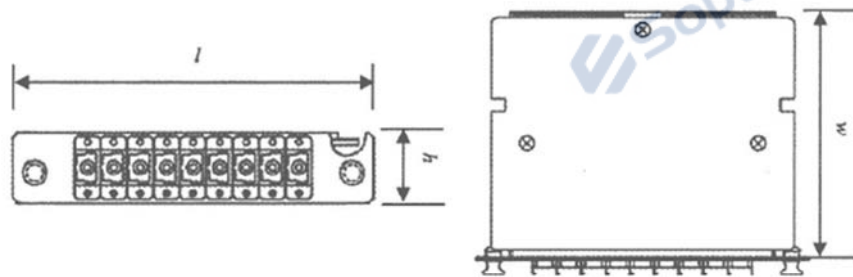
<b>Part Number: SPS-<u>2</u>×<u>16</u>-<u>A1</u>-<u>09</u>-<u>1</u> S S U- <u>B</u> <u>P</u></b>	
1 2 3 4 5 6 7 8 9 10	
<b>Product Description: Splitter PLC Type Steel Tube 2× 16 G.657.A1 0.9mm Diameter 1M Fiber Length with Loose Tube Input SC/UPC Output SC/UPC</b>	
1 - Input Number	1; 2
2 - Output Number	2; 4; ; 8; 16; 32; 64; 128etc
3- Fiber Type	D: G.652D; A1: G.657.A1; A2: G.657.A2; M1: OM1; M2:OM2; M3: OM3; M4: OM4; M5: OM5; M: Customized Fiber Type
4 - Diameter	25: 250μm; 09: 0.9mm; 20: 2.0mm; 30: 3.0mm; I: built-in
5 - Length	05: 0.5M; 1: 1M; 15: 1.5Metc
6 - Input Connector	【Null】 :No Input Connector; L: LC; S:SC; F:FC
7 - Output Connector	【Null】 :No Input Connector; L: LC; S:SC; F:FC
8 - Connector Endface	U: UPC; A: APC; P: PC
9- Package	B: Steel Tube; P:Plugin; A: ABS Cassette; T: Tray; R:Rack Fixed
10 -Type	P:PLC

### Dimensions& Installation Dimensions



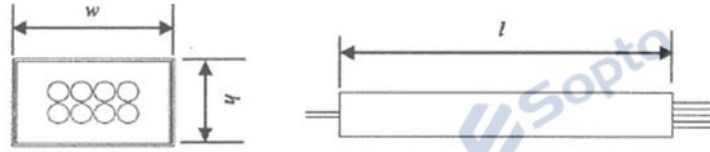
number	Specifications	Reference size (l×w×h) mm
1	1×2	90×20×10
2	1×4	100×80×10
3	1×8	100×80×10
4	1×16	120×80×18
5	1×32	120×80×18
6	1×64	140×114×18
7	2×4	100×80×10
8	2×8	100×80×10
9	2×16	120×80×18
10	2×32	120×80×18
11	2×64	140×114×18

### ABS Cassette



number	Specifications	Reference size (l×w×h) mm
1	1×2	130×100×25
2	1×4	130×100×25
3	1×8	130×100×25
4	1×16	130×100×50
5	1×32	130×100×102
6	1×64	130×100×200
7	2×4	130×100×25
8	2×8	130×100×25
9	2×16	130×100×50
10	2×32	130×100×102
11	2×64	130×100×200

### Plugin



number	Specifications	Reference size (l×w×h)	mm
1	1×2	60×7×4	
2	1×4	60×7×4	
3	1×8	60×7×4	
4	1×16	60×12×4	
5	1×32	80×20×6	
6	1×64	100×20×12	
7	2×4	60×7×4	
8	2×8	60×7×4	
9	2×16	60×12×4	
10	2×32	80×20×6	
11	2×64	100×20×12	

### Steel Tube

E-mail: [info@sopto.com.cn](mailto:info@sopto.com.cn)

Web : <http://www.sopto.com.cn>