

### Fiber Planar Lightwave Circuit (PLC) Splitter



## Overview

Planar light wave 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 achieve optical signal power splitting. TTECH 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 (Polarization Dependent Loss)
- Compact Design
- Good channel-to-channel uniformity
- Wide Operating Wavelength: from 1260nm to 1650nm
- Wide Operating Temperature: from -40°C~85°C
- High Reliability and Stability

## Applications

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

## 1 × N PLC Splitter

Parameters	1×2	1×4	1×8	1×16	1×32	1×64
Operating Wavelength (nm)	1260~1650					
Fiber Type	G657A 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
Loss Uniformity (dB)	0.4	0.6	0.8	1.2	1.5	2.0
Return Loss (dB) (P/S Grade)	55/50	55/50	55/50	55/50	55/50	55/50
Polarization Dependent Loss(dB)	0.2	0.2	0.2	0.25	0.3	0.35
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)	0.4	0.4	0.4	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	40×4×4	40×4×4	50×4×4	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
Mini-Module Dimension (mm) (L×W×H)	50×7×4	50×7×4	60×7×4	60×12×4	80×20×6	N/A

### Notes:

1. Specification without connectors
2. Additional 0.2dB loss per connector.

## 2 × N PLC Splitter

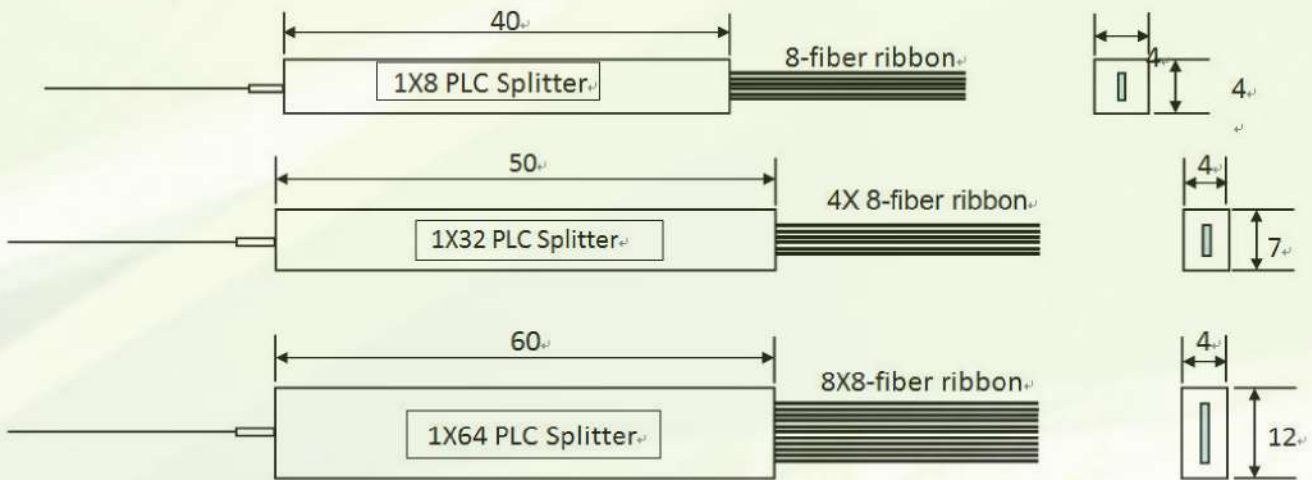
Parameters	2×2	2×4	2×8	2×16	2×32	2×64
Operating Wavelength (nm)	1260~1650					
Fiber Type	G657A or customer specified					
Insertion Loss (dB)	4.0	7.6	11.0	14.4	17.5	21.0
Loss Uniformity (dB)	0.6	1.0	1.2	1.5	1.8	2.2
Return Loss (dB) (P/S Grade)	55/50	55/50	55/50	55/50	55/50	55/50
Polarization Dependent Loss(dB)	0.2	0.2	0.3	0.3	0.4	0.4
Directivity (dB)	55	55	55	55	55	55
Wavelength Dependent 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					
Device Dimension (mm) (L×W×H)	40×4×4	50×4×4	50×4×4	50×7×4	60×7×4	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
Mini-Module Dimension (mm) (L×W×H)	60×7×4	60×7×4	60×7×4	60×12×4	80×20×6	N/A

### Notes:

1. Specification without connectors
2. Additional 0.2dB loss per connector.

## Mechanical Dimensions

### PLC Splitter



### PLC Splitter Mini-Module

