

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. We 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

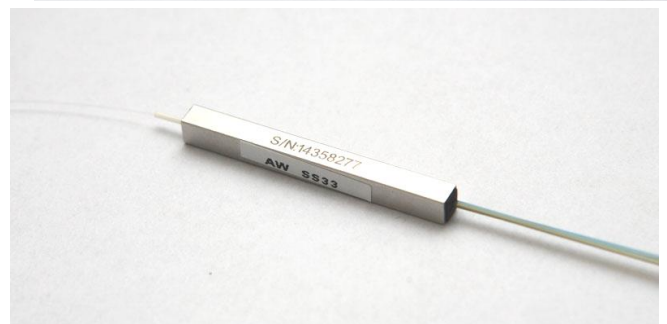
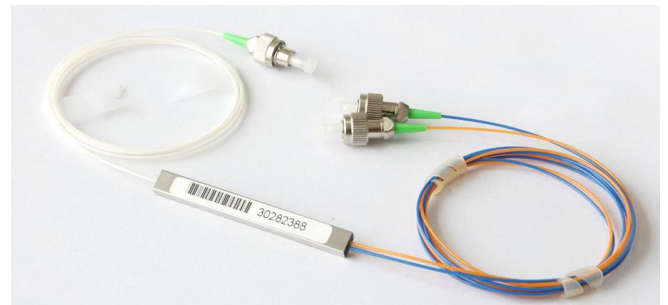
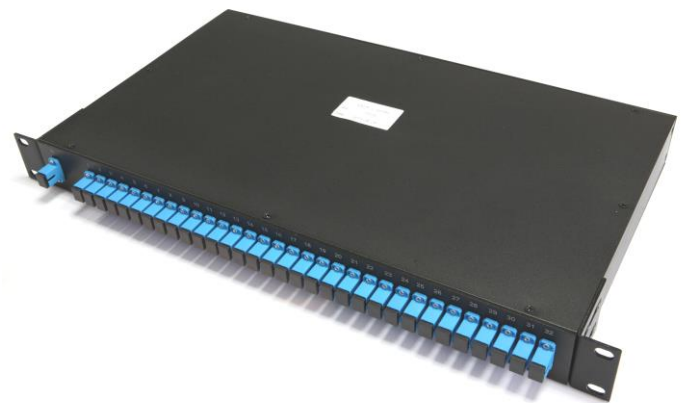
Applications

- 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 | 7.2/7.4 | 10.3/10.7 | 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 | ≤1.0 | ≤1.5 | ≤2.0 | ≤2.5 |
| Polarization Dependent Loss(dB) | ≤0.1 | ≤0.1 | ≤0.1 | ≤0.2 | ≤0.25 | ≤0.3 | ≤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 | ≤0.3 | ≤0.5 | ≤0.5 | ≤0.5 |
| Temperature Stability (-40~85 °C)(dB) | ≤0.5 | ≤0.5 | ≤0.5 | ≤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 | 40×4×4 | 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) | 60×7×4 | 60×7×4 | 60×7×4 | 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) | 3.9/4.2 | 7.3/7.6 | 10.5/11.0 | 14.4/14.6 | 17.4/17.9 | 21.0/21.5 | 24.5/25.0 |
| 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 | ≤0.2 | ≤0.3 | ≤0.3 | ≤0.3 | ≤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) | ≤0.5 | ≤0.5 | ≤0.5 | ≤0.5 | ≤0.5 | ≤0.5 | ≤0.5 |
| Operating Temperature (°C) | -40~85 | | | | | | |
| Storage Temperature (°C) | -40~85 | | | | | | |
| Device Dimension (mm) | 60×7×4 | 60×7×4 | 60×7×4 | 70×7×4 | 70×7×4 | 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 | 80×12×4 | 100×20×6 | N/A | N/A |

Notes:

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

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 | 5=4m | 5=ST | F=100X80X10 |
| | 1128=1x128 | 4=3.0mm cable | 6=LC | cable | S=special | 6=LC | G=120X80X18 |
| | 0204=2x4 | | 7=LC/APC | 4=3.0mm | | 7=LC/APC | H=140X115X18 |
| | 0208=2x8 | | 8=E2000 | cable | | 8=E2000 | I=19"1U Rack |
| | 0216=2x16 | | S=Special | | | S=Special | S=Special |
| | 0232=2x32 | | | | | | |
| | 0264=2x64 | | | | | | |