

Optical Fiber Splitter

TECHNICAL DATA SHEET

1 x 16 PLC Fiber Splitter, Mini Module, 900µm, LC/APC, Single Mode



1X 16 PLC Fiber Splitter, Mini Module, 900μm, LC/APC, Single Mode

Product Description

The 1 × 16 PLC Fiber Splitter (Mini Module) is a passive optical component based on Planar Lightwave Circuit (PLC) technology, designed to split one optical input signal into sixteen output ports with stable and uniform optical power distribution.

The splitter is packaged in a compact Mini Module enclosure with 900μm tight-buffered fibers and terminated with LC/APC connectors, making it ideal for FTTH, FTTx, GPON, EPON, data centers, and telecommunications applications requiring high-density fiber distribution.

Features:

- 1 × 16 optical splitting ratio
- PLC (Planar Lightwave Circuit) technology
- Compact mini module design
- 900μm tight-buffered fiber construction
- LC/APC connectorized ends
- Low insertion loss and excellent uniformity
- High reliability and environmental stability
- Wide operating wavelength range (1260–1650 nm)
- Low polarization dependent loss (PDL)
- Plug-and-play installation
- RoHS compliant
- Telcordia GR-1209 / GR-1221 qualified

Application:

- FTTH (Fiber to the Home) networks
- FTTx access networks
- GPON / EPON systems
- Passive Optical Networks (PON)
- Optical Distribution Frames (ODF)
- Fiber Distribution Boxes (FDB)

Optical Specifications

Parameter	Value
Configuration	1 × 16
Operating Wavelength	1260 ~ 1650 nm
Insertion Loss (Max)	≤ 13.5 dB
Uniformity	≤ 1.2 dB
Return Loss	≥ 60 dB
Polarization Dependent Loss (PDL)	≤ 0.3 dB
Directivity	≥ 55 dB
Wavelength Dependent Loss (WDL)	≤ 0.6 dB
Repeatability	≤ 0.1 dB
Stability	≤ 0.2 dB

Mechanical Specifications

Item	Specification
Package Type	Mini Module
Fiber Type	Single Mode OS2
Fiber Diameter	900μm Tight Buffer
Connector Type	LC/APC
Housing Material	ABS / Metal Mini Module
Input/Output Length	1.0 m (Typical, Customizable)
Operating Temperature	-40°C ~ +85°C

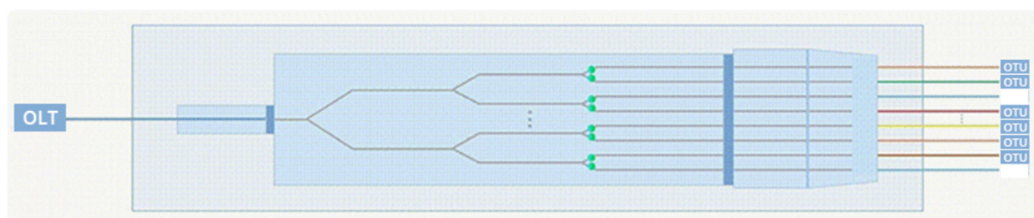
Environmental Performance

Test Item	Condition	Requirement
High Temperature	+85°C, 96H	$\Delta IL \leq 0.3 \text{ dB}$
Low Temperature	-40°C, 96H	$\Delta IL \leq 0.3 \text{ dB}$
Thermal Cycling	-40°C ↔ +85°C	$\Delta IL \leq 0.3 \text{ dB}$
Humidity Test	95% RH, 96H	Stable Performance
Long-term Aging	Continuous Operation	No Degradation

Mechanical Reliability

Test Item	Requirement
Tensile Strength	≥ 10 N
Connector Durability	≥ 500 Mating Cycles
Vibration Resistance	Stable
Shock Resistance	Stable
Long-term Stability	Excellent

Uniform distribution of the optical signal



Widely used in FTTX projects and data communication centers

