# Catalogue 2010

fiber optic system

# Index

## FIBER OPTIC SYSTEM

# Fiber optic patch cord

- Patch cord SC SM Simplex
- Patch cord SC MM Simplex
- Patch cord SC SM Duplex
- Patch cord SC MM Duplex
- Patch cord SC/APC SM Simplex

TYPE

- Patch cord LC SM Simplex
- Patch cord LC MM Simplex
- Patch cord LC SM Duplex
- Patch cord LC MM Duplex
- Patch cord LC/APC SM Simplex
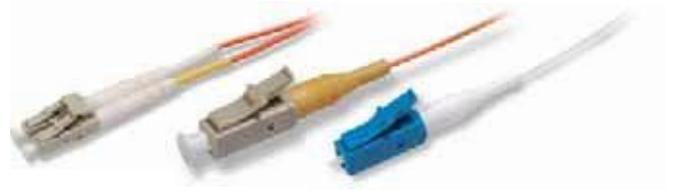
TYPE

- Patch cord ST SM Simplex
- Patch cord ST MM Simplex
- Patch cord ST SM Duplex
- Patch cord ST MM Duplex
- Patch cord ST/APC SM Simplex

TYPE

- Patch cord FC SM Simplex
- Patch cord FC MM Simplex
- Patch cord FC SM Duplex
- Patch cord FC MM Duplex
- Patch cord FC/APC SM Simplex

TYPE

- Patch cord MTRJ SM/MM Duplex
- Patch cord MU SM/MM Simplex
- Patch cord SMA MM Simplex
- Patch cord DIN SM Simplex
- Patch cord D4 SM Simplex
- Patch cord ESCON MM Duplex

# Fiber optic patch cord



## SPECIFICATIONS

Connector: SC, LC,ST,FC, MU, MT-RJ, DIN, D4,SMA &E2000

Polishing: PC, UPC& APC

Single mode fiber: ITU- TG.652D

Multi monde fiber: ITU-TG.651

Standard: Telcordia GR-326-CORE

Standard housing, ceramicferrule or plasticferrule

Cable diameter: 0.9mm, 1.6mm, 1.8mm, 2.0mm, 2.4mm, 3.0mm

Fiber type: 9/125um, 62.5/125um & 50/125um

Insertion loss: SMLess than 0.3dB,MM Less than 0.3dB

Return loss

PC SM largerthan 45dB

UPC SM largerthan 50dB

APC SM largerthan 60dB

PC MM largerthan 20 dB

Repeatability: Less than 0.2 dB

Changeability: Less than 0.1 dB

Operating temperature range:-40 ~ 80 ℃

Storage temperature range:-40 ~ 80 ℃

Tensilestrength: 100N

Min. bending radius: 35mm

# PLC splitter

## APPLICATION

FTTX system

LAN, WAN and Metro networks

Analog/Digital passive optical networks

CATV Networks

Other applications in fiber optic systems

## STANDARD

Telcordia GR-1209-CORE

Telcordia GR-1221-CORE

## KEY 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

Full Telcordia GR 1209/1221 qualifications

The single-mode planar lightwave circuit splitter(PLCS) 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. PLCS devices have high return loss and excellent uniformity over a wide wavelength range from 1260nm to 1620nm. PLCS devices have standard configurations of 1X4, 1X8, 1X16 and 1X32 configurations, as well as customized structures of 2X16, 2X32 and 2X64.

These products meet or exceed Telcordia GR-1209-CORE and Telcordia GR-1221-CORE reliability qualification requirement.

| Port Configuration | 1X4 | 1X8 | 1X16 | 1X32 |
|---|---|---|---|---|
| Fiber type | SMF-28 | | | |
| Operation wavelength | 1260nm ~ 1620nm | | | |
| Insertion loss | ≤7.25dB | ≤10.8dB | ≤14.0dB | ≤17.4dB |
| Uniformity | ≤0.5dB | ≤0.8dB | ≤1.2dB | ≤1.5dB |
| Polarization dependent loss | 0.2dB | | | |
| Return loss | 50dB | | | |
| Directivity | 55dB | | | |
| Operating temperature | -40 ℃ to +85 ℃ | | | |
| Storage temperature | -60 ℃ to +85 ℃ | | | |
| Package dimension | 40X3.9X3.2mm | 40X3.9X3.2mm | 40X3.9X3.2mm | 50X5.9X3.2mm |

# Fiber optic coupler

## FEATURE

Low insertion Loss

High directivity

High stable and reliable

Polarization Insensitivity

Flexible Packaging

## APPLICATION

Long Haul Telecommunication

Fiber in the loop(FITL)

Local Area Networks(LAN)

Cable TV & video distribution

Passive optical networks(PON)

# Fiber optic pigtail
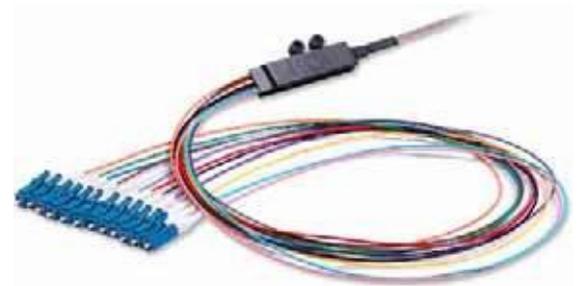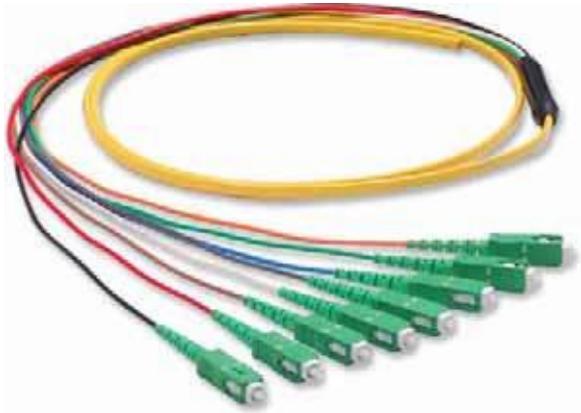


## SPECIFICATIONS

Connector type: SC,ST,FC, LC, MTRJ,D4, DIN, E2000,ESCON, MPO, FDDI,MU

Polishing: PC, UPC,APC

Single mode fiber:ITU -T G.652 D

Multi mode fiber:ITU -T G.651

Standard: Telcordia GR-326-CORE

Standard housing, ceramicferrule or plasticferrule

Cable diameter: 0.9mm,1.6mm, 1.8mm, 2.0mm,2.4mm, 3.0mm

Fiber type: 9/125um,62.5/125um or 50/125um

## SPECIFICATIONS

Insertion loss: SMLess than 0.3dB & MMLess than 0.3dB

Return loss: SM/PClarger than 45dB; SM/UPC largerthan 50dB; SM/APClarger than 60dB;PC MM largerthan 20dB

Repeatability: Less than0.2 dB

Changeability: Less than0.1 dB

Operating temperature range:-40　～80　　℃

Storage temperature range:-40　～80　　℃

Tensilestrength: 100N

Min. bending radius:35mm

# Fiber optic connector
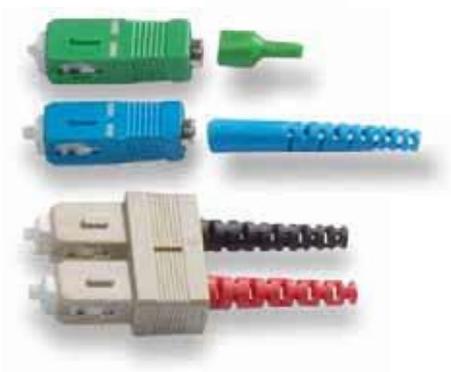
## TYPE

- Connector SCSM 0.9/2.0/3.0mm
- Connector SCMM 0.9/2.0/3.0mm
- Connector SC/APCSM 0.9/2.0/3.0mm

## TYPE      P/N

- Connector LCSM 0.9/2.0/3.0mm
- Connector LCMM 0.9/2.0/3.0mm
- Connector LC/APCSM 0.9/2.0/3.0mm



## TYPE      P/N

- Connector STSM 0.9/2.0/3.0mm
- Connector STMM 0.9/2.0/3.0mm
- Connector ST/APCSM 0.9/2.0/3.0mm

## TYPE      P/N

- Connector FCSM 0.9/2.0/3.0mm
- Connector FCMM 0.9/2.0/3.0mm
- Connector FC/APCSM 0.9/2.0/3.0mm

## TYPE

- Connector MTRJSM/MM duplex male
- Connector MTRJSM/MM duplex female
- Connector MUSM/MM simplex
- Connector SMAMM simplex
- Connector DINSM simplex
- Connector D4SM simplex
- Connector ESCONMM duplex

# Fiber optic attenuator

## TYPE

- AttenuatorSC SM Plug
- AttenuatorSC/APC SM Plug
- AttenuatorLC SM Plug
- AttenuatorLC/APC SM Plug
- AttenuatorST SM Plug
- AttenuatorST/APC SM Plug
- AttenuatorFC SM Plug
- AttenuatorFC/APC SM Plug
- AttenuatorMU SM Plug

## TYPE

| | |
|---|---|
| - In-line attenuator3.0mm | JFAT-L3 |
| - In-line attenuator0.9mm | JFAT-L9 |





## TYPE

- AttenuatorSC Fixed
- AttenuatorLC Fixed
- AttenuatorFC Fixed

## TYPE

-Variable attenuatorFC

# Fiber optic adapter

## TYPE

- AdapterLC SM Simplex
- AdapterLC SM Duplex
- AdapterLC/APC SM Simplex
- AdapterLC/APC SM Duplex
- AdapterLC MM Simplex
- AdapterLC MM Duplex
- AdapterLC SM Quadplex
- AdapterLC MM Quadplex

## TYPE

- Bare fiberadapter FC SM/MM1
- Bare fiberadapter FC SM/MM2
- Bare fiberadapter FC SM/MM3

## TYPE

- AdapterSC SM Simplex
- AdapterSC MM Simplex
- AdapterSC SM Duplex
- AdapterSC MM Duplex
- AdapterSC/APC SM Simplex
- AdapterSC/APC SM Duplex

## TYPE

- AdapterST SM Simplex
- AdapterST MM Simplex
- AdapterST/APC SM Simplex
- AdapterST/APC SM Duplex
- AdapterSM Conversion Duplexmetal
- AdapterSM Conversion Duplexplastic

## TYPE

- AdapterSC-ST SM Duplexmetal
- AdapterSC-ST SM Simplexplastic
- AdapterSC-ST SM Simplexmetal
- AdapterSC-ST SM Duplexplastic
- AdapterSC-FC SM Simplexplastic
- AdapterSC-FC SM Duplexplastic
- AdapterSC-FC SM Simplexmetal
- AdapterSC-FC SM Duplexmetal
- AdapterSC-FC APCSM Simplex
- AdapterFC-ST SM Simplexplastic
- AdapterFC-ST SM Duplexplastic
- AdapterFC-ST SM Simplexmetal
- AdapterFC-ST SM Duplexmetal

# Wall mounted terminal box
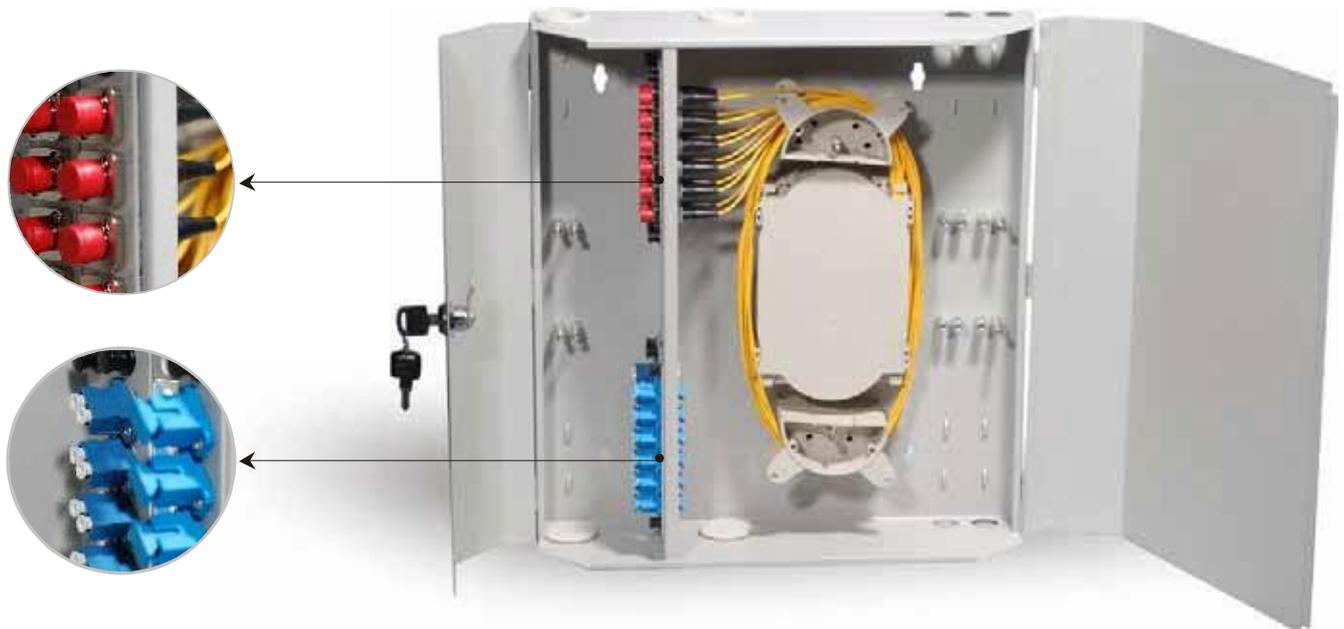


Patch Box (Wall mounted) 24Core 400X350X75mm

## KEY FEATURE

Workability

Widen working space

Splicing, slack storage and distribution

Adopts the imported lock

Individual distribution panel for efficient work

Steel plates and aluminum alloy

Suitable for both loose tube and ribbon cable management

Suitable for inserting installation of SC, FC, ST and LC adapter

Integrated fiber, pigtail and cable management

Apply to extensive

## APPLICATION

In fiber access, it is designated for fiber termination, protection and distribution

# Rack mounted patch panel
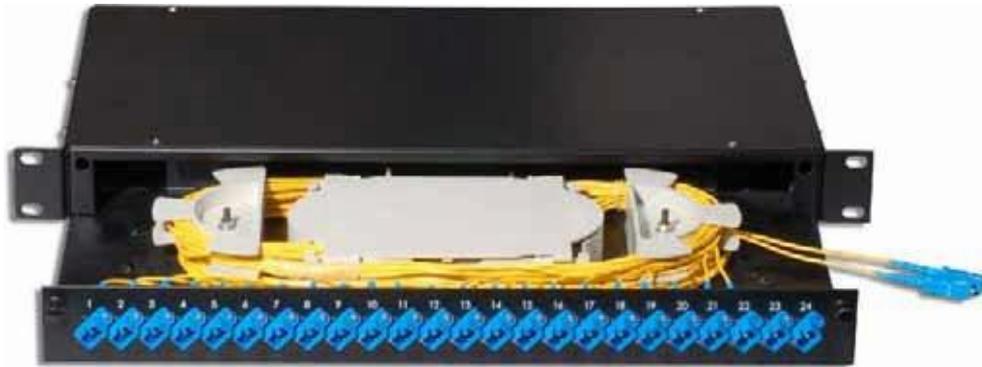


## FEATURES

The shell is high intensified & insulated material, thus having excellent mechanic performance

It is solid and durable

Fiber input: 4 ports

Adapters output: 12 cores or 24 cores or 48 cores

Strength core and shell was insulation, add with grounding lead

Suitable for inserting installation of SC, FC, ST and LC adaptor

Full accessories for convenient operations



## PERFORMANCE

Excellent design

maximum cores: 48

fiber lead, grounding and perfect fixup, reliable

Pigtail fixes up reliable and perfect protection

Apply to extensive field

Convenient operations and maintenance



## SPECIFICATIONS

Environment temperature: -40 ~+80 ℃

Relative humidity: =85% (30 )℃

Atmosphere pressure: 70~106KPa

Insulated Resistance: =210M/500V (DC)

Intensity = 15kv (DC) /1min, no spark-over and no flying arc

Fiber bending radius guaranteed more than 40mm

Application: It is applicable for straight-through connection and diverged connection in aerial layout.



## REMARKS

The above three styles rack mounted fiber distribution box can comply with 48 ports; but the fiber pigtail diameter will be 0.9          mm only.

# Optical distribution frame(ODF)
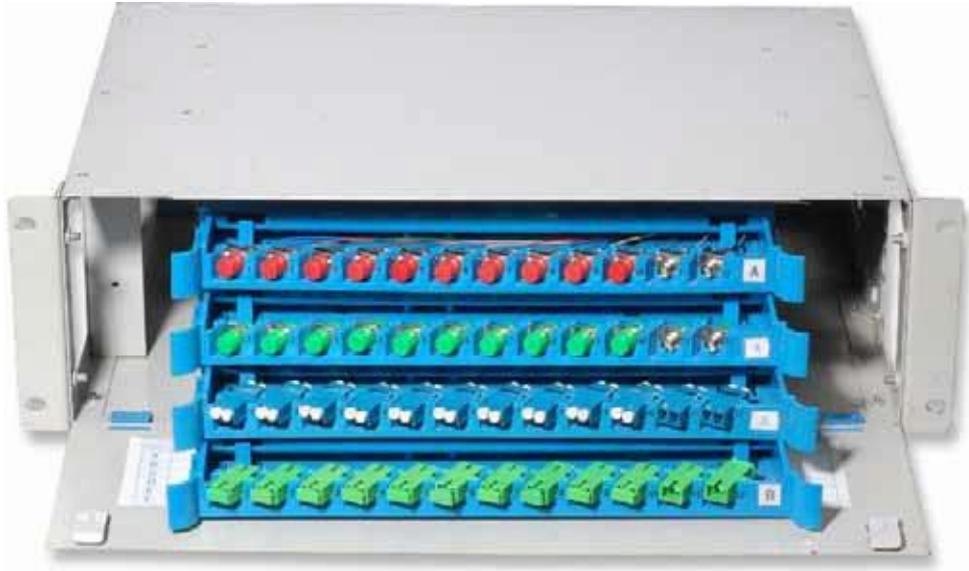


## KEY FEATURES

Workability

Widen working space

Individual distribution panel for efficient work

Steel Plates and Aluminum Alloy

Suitable for inserting installation of SC, FC, ST and LC adaptor

Front and rear covers can be opened, It is convenient for Fiber connecting, supervising and maintaining

All kinds of types and specifications are available.

## 12-CORE FUSION SPLICING AND DISTRIBUTING MODULE

### KEY FEATURES

Adaptor installation and fusion splicing points fixed in the module

Available for ribbon and common cables.

Fusion splicing and distributing can be operated in the same working panel.

Install adaptor respectively.



| Name | Capacity | P/N No . | Dimension(mm) |
|---|---|---|---|
| Drawer style ODF unit | 12Cores | JFOPP-D12 | 482 X300X 45 |
| Drawer style ODF unit | 24Cores | JFOPP-D24/36 | 482 X300X 90 |
| Drawer style ODF unit | 36Cores | JFOPP-D24/36 | 482 X300X 90 |
| Drawer style ODF unit | 48Cores | JFOPP-D48 | 482 X300X 135 |
| Drawer style ODF unit | 72Cores | JFOPP-D72 | 482 X300X 180 |
| Drawer style ODF unit | 96Cores | JFOPP-D96 | 482 X300X 225 |

# Optical distribution frame
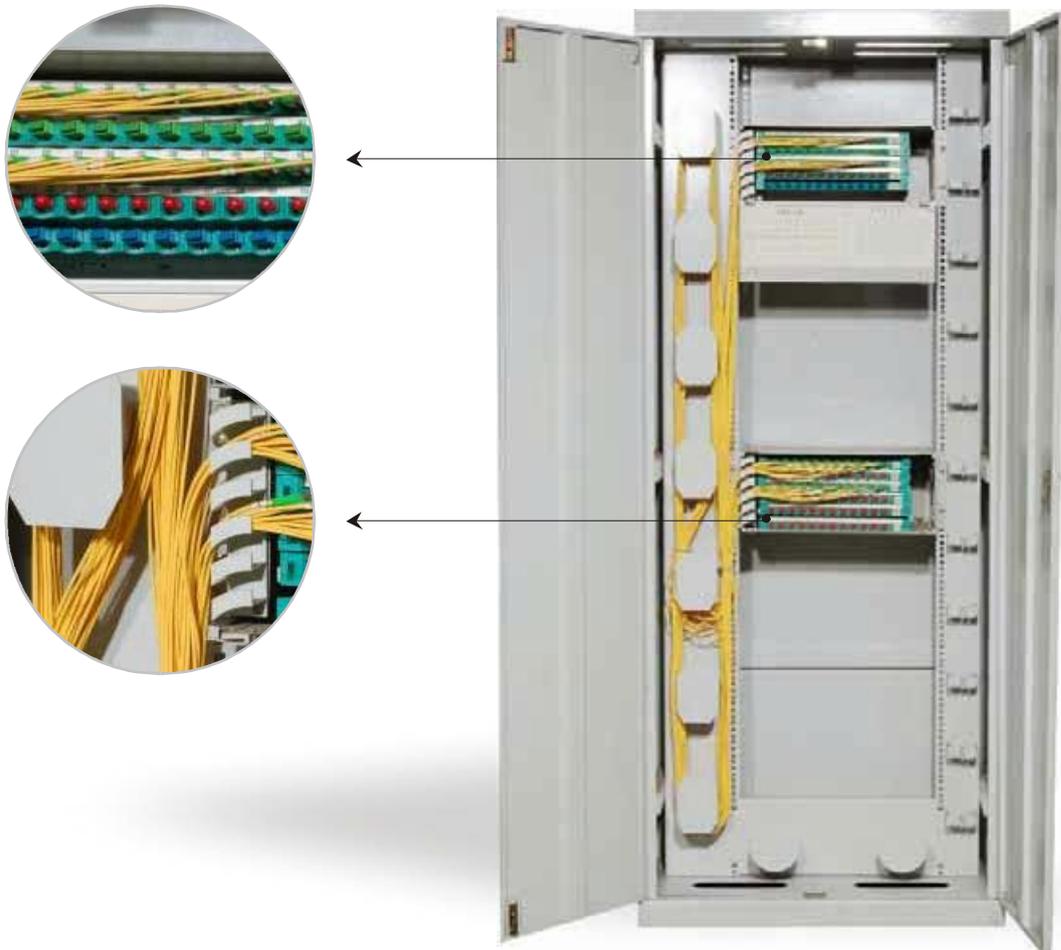
## FEATURES

Aluminum-based cabinets with static-sprayed surface, nice appearance

All front access

Can be installed against wall or back to back so that optimizing space

Modular structure

Suitable for ribbon and non-ribbon optical cables

Suitable for inserting adapters of FC, SC, LC and ST (additional flange)

30° oblique installation of adapters, preventing eyes from laser and ensure the bend radius of the optical patch cords

Reliable stripping, protecting, fixing and grounding devices for fiber cables

Fiber bending radius guaranteed more than 40mm at any place

Accomplishing scientific management for optical patchcords with several groups of passing-fiber units

Cable entry top and bottom realized, by easy adjustment of cable fixed group unit

Complete and reliable grounding system provided

Clear and complete markers

# Fiber optic closure dome type

## KEY FEATURES

The box add aging-resistant in imported high tensile construction plastic out-faster is made up of stainless steel.

Overlap structure in splicing tray easy to install

Suitable for ordinary fiber and ribbon fiber

Perfect leak proofness and fine function

Perfect and reliable sealing operations

Fiber bending radium guaranteed more than 40mm

Full accessories for convenient operations

Fiber optic splice tray can be used repeatedly

High reliability

For aerial and direct buried applications

## SPECIFICATIONS

Temperature:-40 ℃ to +80 ℃

Atmosphere: 70 to 106kpa

Sealing property at normal temperature:

Internal pressure: 70KPa, without decrease in 72 hours

High temperature sealing property:

Internal pressure: 70KPa, without decrease in 168 hours at 60 degree

Insulated resistance: >2×104MΩ

Intensity: 15KV (DC) not being broken down, has no flying arc.

Additional Loss: No additional loss when optic fibers are winded in the splice trays

The aging time of the material of the enclosure is beyond 20 years

# Fiber optic closure horizontal type

## KEY FEATURES

The box add aging-resistant in imported high tensile construction plastic out-faster is made up of stainless steel.

Overlap structure in splicing tray easy to install

Suitable for ordinary fiber and ribbon fiber

Perfect leak proofness and fine function

Perfect and reliable sealing operations

Full accessories for convenient operations

Fiber optic splice tray can be used repeatedly

High reliability

For aerial, and direct buried applications

## SPECIFICATIONS

Temperature:-40 ℃ to +80 ℃

Atmosphere: 70 to 106kpa

Sealing property at normal temperature: Internal pressure: 70 KPa, without decrease in 72hours

High temperature sealing property: internal pressure:70KPa, without decrease in 168 hours at 60 degree

Insulated resistance: $>2 \times 104M\Omega$

Intensity: 15KV (DC) not being broken down, has no flying arc.

Additional Loss: No additional loss when optic fibers are winded in the splice trays

The-aging time of the material of the enclosure is beyond 20 years

# Media converter





## CONFIGURATION

Single mode or multi-mode

LAN port speed: 10/100M, 10/100/1000M or 1000M

Internal or external power supply

Wavelength: MM 850nm and 1300nm; SM 1310nm and 1550nm

Transmission distance: MM 350m-5km; SM 20km-120km

Fiber Port: SC, ST, LC and FC are available

Fiber type: MM 50/125um or 62.5/125um SM 9/125um



## FEATURES

Standard: IEEE 802.3, IEEE 802.3u, IEEE802.3x, IEEE802.3ab, IEEE802.3z

Auto-detection and half/full duplex transfer mode

Easy-to-view LED indicators provides status to easily monitor network activity

Easily for setting and debugging

Standalone type and card type are available and all compliant with Rack

Lightning proof and Broadcast-Storm proof

Different ports configuration can be customized

Operation temperature: 0 ~70 ℃

Storage temperature: -40 ~85 ℃

Humidity: 5%~95 %(Non-condensing)

# Loopback assembly



| TYPE | P/N |
| --- | --- |
| - Loopback assembly SC SM | JFLB-1PS |
| - Loopback assembly SC MM | JFLB-1PM |

| TYPE | P/N |
| --- | --- |
| - Loopback assembly LC SM | JFLB-2PS |
| - Loopback assembly LC MM | JFLB-2PM |





| TYPE | P/N |
| --- | --- |
| - Loopback assembly MTRJ SM | JFLB-5PS |
| - Loopback assembly MTRJ MM | JFLB-5PM |

## DESCRIPTION

Fiber Optic Loopbacks are designed to provide a media of return patch for a fiber optic signal; typically it is used for fiber      optic testing applications or network restorations. For the testing applications, the loopback signal is used for diagnosing a problem. Sending a loopback te    st to network equipment, one at a time, is a technique for isolating a problem.

Similar as fiber optic patch cords, fiber optic loopbacks can be with various jacket types and cable diameters, and they can be     with different
 terminations and length. Shenzhen Jiafu makes the fiber optic loopbacks strictly according to industry standard, each of the c    able is functionally tested before shipping, and we offer customized assemblies for fiber optic loopbacks such as customized connector configuration    s and special polished.

## APPLICATION

Optical Fiber Amplifier
Fiber Optic Sensor
Instrumentation SC, ST, FC, LC, MTRJ
CATV

## FEATURE

Loopback cable for many test applications
Multimode, 50/125 or 62.5/125 fiber; Singlemode, 9/125 fiber
Connectors with precision ceramic ferrule for maximum optical performance
Molded connector to secure connection
Fully tested cables to ensure superior quality and durability
Jacket Style: PVC or LSZH
Operating Wavelength: 850 nm (Multimode), 1310nm (Singlemode)
Return Loss: more than 50dB(SM), more than 20dB(MM)

# Test equipment

## TYPE

- Pon powermeter
- Handheld multi-meter
- Optical lightsource
- Optical powermeter
- Mini-optical powermeter
- Mini-optical lightsource

# Indoor fiber cable

Fiber to the home(FTTH) fiber cable

Distribution fiber cable

4 cores multimode fan-out fibercable

12 cores multimode fan-out fibercable

Multi mode fan-outfiber cable
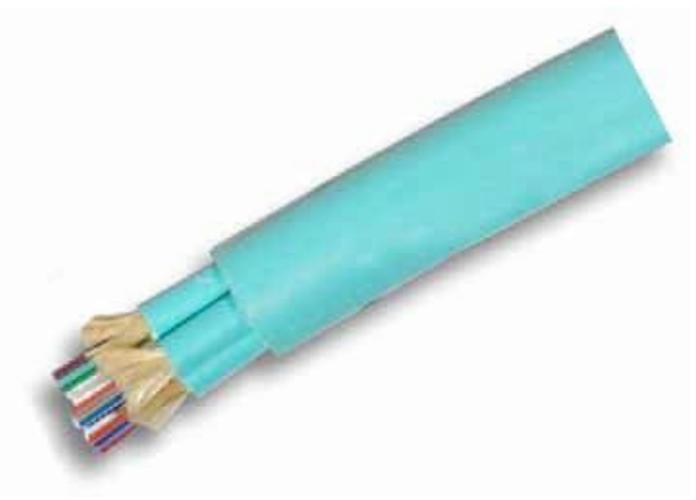
10G fan-out fibercable

# Outdoor fiber cable



Loose tube stranded fiber cable with steel tape



All dielectric self-support fiber cable



GJFPA-8



GJFPZY-8



Armored loose tube fiber cable



Loose tube Aluminum fiber cable

# Armored fiber cable



4 fiber armored cable MM



Armored cable for military (Multicore) with PU jacket



Simplex armored cable big core (105/125;200/230)SM



Simplex armored cable SM



Duplex armored cable SM



Duplex(two fibers in one tube) armored cable MM

# Armored fiber cable

4 fiber armored cable SM

Simplex waterproof armored cable SM

Simplex armored cable R15 SM

Simplex armored cable MM

Armored cable for military(simplex and duplex)with PU jacket

Duplex armored cable MM