Company profile

Shenzhen OpCsun Industry Co., Ltd.,

established in 2004, is a high-tech enterprise specializing in Fiber Optic Zro₂ Ceramic ferrules R&D, manufacture and marketing.

Products include: Zro₂ Ceramic ferrules;

Optical Fiber Passive Products.

Ferrule is the core component in optical fiber connection devices. Quality connections are critical in fiber optic networks. OPCSUN relies on ceramic ferrule blank and equipments imported from Japan; centers on manufacturing, researching and marketing of ceramic ferrule; works on providing extremely high quality ceramic ferrule and precise optical communication for its clients. With the support of high quality ceramic ferrule and good quality optical passive products, such as optical fiber assemblies, connectors, adapters and attenuators, we have won the loyalty of domestic and overseas clients. Meanwhile, we source various optical active products for clients’ request to serve them more efficiently.

This section of the OPCSUN catalogue is your official guide to our fiber optic products.

For in-depth information on our complete product line and new developments, please visit OPCSUN’s website or call us.
Ferrule is generally treated as the core part of the connector. Zirconia ceramic ferrules are recognized to have the best durability and reliability among various kinds of material.

OPCSUN import Logos equipments, with the Ferrule blank from Japan, our ferrules' optical and mechanical performance are good and exceed your expectation.

**Ferrule**

**MATERIAL**
- Ferrule: Zirconia Ceramic
- Flange: Stainless Steel (S303) Or Ni-Plated Cu

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**SC/SM Ferrule**

**SC/MM Long Flange Ferrule**
SC/MM Ferrule

SC/APC Cone type Ferrule
### SC/APC Step type Ferrule

**PARAMETER:**

<table>
<thead>
<tr>
<th>Spec items</th>
<th>SC/SM</th>
<th>SC/MM</th>
<th>SC/APC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>SC/SM</strong></td>
<td><strong>SC/MM</strong></td>
<td><strong>SC/APC</strong></td>
</tr>
<tr>
<td><em>OD (mm)</em></td>
<td>Ø2.4990±0.0005</td>
<td>Ø2.4990±0.001</td>
<td>Ø2.4990±0.0005</td>
</tr>
<tr>
<td><em>ID (mm)</em></td>
<td>Ø0.1250-0.001</td>
<td>Ø0.1255-0.001</td>
<td>Ø0.126-0.001</td>
</tr>
<tr>
<td>Concentricity (mm)</td>
<td>≤0.001</td>
<td>≤0.004</td>
<td>≤0.001</td>
</tr>
<tr>
<td>End Curve Radius</td>
<td>20 +5/-10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length (mm)</td>
<td>10.5±0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Special Spec Ferrule are available according to your CAD drawing.
LC/SM Ferrule

LC/MM Ferrule
**PARAMETER:**

<table>
<thead>
<tr>
<th>Type Spec items</th>
<th>LC/SM</th>
<th>LC/MM</th>
<th>LC/APC</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD(mm)</td>
<td>Ø1.2490±0.0005</td>
<td>Ø1.2490±0.001</td>
<td>Ø1.2490±0.0005</td>
</tr>
<tr>
<td>ID(mm)</td>
<td>Ø0.1255±0.008</td>
<td>Ø0.1267±0.004</td>
<td>Ø0.1255±0.001</td>
</tr>
<tr>
<td>Concentricity (mm)</td>
<td>≤0.001</td>
<td>≤0.004</td>
<td>≤0.001</td>
</tr>
<tr>
<td>End-face Diameter (mm)</td>
<td>Ø0.6+0.15/-0  (35°)</td>
<td>Ø0.6+0.15/-0  (35°)</td>
<td>Ø0.6+0.15/-0  (35°)</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>6.5±0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*SPECIAL SPEC FERRULE ARE AVAILABLE ACCORDING TO YOUR CAD DRAWING*

**MU/SM Ferrule**
PARAMETER:

<table>
<thead>
<tr>
<th>Spec items</th>
<th>Type</th>
<th>MU/SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD(mm)</td>
<td></td>
<td>Ø1.2490±0.0005</td>
</tr>
<tr>
<td>ID(mm)</td>
<td>Ø0.1250±0.001</td>
<td>Ø0.1255±0.001</td>
</tr>
<tr>
<td>Concentricity (mm)</td>
<td></td>
<td>≤0.001</td>
</tr>
<tr>
<td>End-face Diameter (mm)</td>
<td>Ø0.53±0.10</td>
<td>(35° or 45°)</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>6.5±0.05</td>
<td></td>
</tr>
</tbody>
</table>

APPLICATIONS:
- CATV
- Fiber stub
- Data Networks
- Electronic device
- Components for Laser device
- Components for Medical machine
- SC, FC, ST, MU, LC, DIN, D4 and other connector& patch cord & pigtail & attenuator

FEATURES:
- Precise Ferrule Design Makes Outstanding Fiber Alignment
- Pc Pre-Polishing
- High Performance & Durability
- Low Insertion Loss and Back Reflection Loss
- Good Concentricity
- Certificated by ROHS
- 100% factory tested and certified

Special Ferrule

SPECIAL SPEC FERRULE ARE AVAILABLE ACCORDING TO YOUR CAD DRAWING
Fiber optic connector is a core component in fiber optic communication devices. OPCSUN manufactures many sorts of fiber connectors.

**SC connector**
- INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.25DB
- RETURN LOSS: SM/PC ≥ 45DB, MM ≥ 40DB
  - SM/UPC ≥ 55DB, SM/APC ≥ 65DB

**LC connector**
- INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.25DB
- RETURN LOSS: SM/PC ≥ 45DB, MM ≥ 40DB
  - SM/UPC ≥ 55DB, SM/APC ≥ 65DB

**FC connector**
- INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.25DB
- RETURN LOSS: SM/PC ≥ 45DB, MM ≥ 40DB
  - SM/UPC ≥ 55DB, SM/APC ≥ 65DB

**ST connector**
- INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.25DB
- RETURN LOSS: SM/PC ≥ 45DB, MM ≥ 40DB
  - SM/UPC ≥ 55DB

**FEATURES**
- Compliant with TIA/EIA, FOCIS, GR-326, IEC and JIS C5973 etc
- Meets UL94-V0 flammability requirements
- High precision alignment
- Excellent durability
- Excellent interchangeability
- Excellent repeatability
- Good temperature characteristic
- High performance and reliability

**APPLICATIONS**
- Fiber optic patch cord & pigtails
- Telecommunication devices
- Data communications networks
- Optical fiber LAN and access network
- Industry and military applications
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APPLICATIONS

- Fiber optic patch cord & pigtail
- Telecommunication devices
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- Optical fiber LAN and access network
- Industry and military applications

MU Connector
INSERTION LOSS: SM ≤ 0.20DB
RETURN LOSS: SM/PC ≥ 45DB

MTRJ Connector
INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.30DB
RETURN LOSS: SM/PC ≥ 45DB, MM ≥ 40DB

DIN Connector
INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.25DB
RETURN LOSS: SM/PC ≥ 45DB, MM ≥ 35DB

SMA905 Connector
INSERTION LOSS: SM ≤ 0.20DB MM ≤ 0.25DB
RETURN LOSS: SM ≥ 45DB, MM ≥ 35DB
PROFILE
OPCSUN’s Fiber optic cable assemblies include patch cord; pigtail, Loopback etc. The connector type includes SC, ST, FC, LC, MU, E2000, D4, MT-RJ etc. PC, UPC, APC polishing way etc. Assemble ways was include Simplex, Duplex, multi-fiber, Fan-out, ribbon or bundle Fan-out. Every piece of cable assemblies supplied by OPCSUN is guaranteed to be well polished and exceeds the industry strand.

FEATURES
- Standard telcordia GR-326-core
- Low insertion loss
- High return loss
- Clean and scratch-free end face
- High quality 100% factory tested

APPLICATIONS
- Fiber optic CATV, LAN systems
- Optical network equipment
- Optical fiber communications
- Optical test equipment
- Industry and military application
- Access network,
- Telecom, gigabit data network

<table>
<thead>
<tr>
<th></th>
<th>SC/SM</th>
<th>SC/MM</th>
<th>SC/APC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion loss</td>
<td>≤0.20db</td>
<td>≤0.25db</td>
<td>≤0.15db</td>
</tr>
<tr>
<td>Return loss</td>
<td>≥50 db</td>
<td>≥50 db</td>
<td>≥65 db</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>&gt;10kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durability</td>
<td>&lt;0.20 db typical change, 1000 matings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability</td>
<td></td>
<td>≤0.1db</td>
<td></td>
</tr>
<tr>
<td>Storage , operating temperature [°C]</td>
<td></td>
<td>-40–+85</td>
<td></td>
</tr>
</tbody>
</table>
Adapter

PROFILE
Fiber optic adapters are used to calibrate two fiber optic connectors. OPCSUN could supply standard types of adapters, such as FC, SC, LC, ST, MU, MTRJ, E2000 etc. Hybrid is also available.

FEATURES
- Standard telcordia GR-326-core
- High precision alignment
- Excellent durability
- Excellent interchangeability
- Excellent repeatability
- Good temperature characteristic
- High performance and reliability
- 100% factory tested

APPLICATIONS
- Telecom, access network
- Optical fiber CATV
- Terminal of the devices and multimedia
- Testing and medical devices
- Optical fiber LAN and access network
- Industry and military applications

SLEEVE
SM and APC type: Ceramic
MM: Phosphor Bronze

SPEC PERFORMANCE:
IL: SM<0.2dB, MM<0.2dB, APC<0.15dB
Durability: <0.20 dB typical change, 1000 matings
Plug-in Fixed Attenuator. (Female to male)

**PROFILE**
Adopting advanced attenuation fiber technology, OPCSUN's Fixed Plug-in and Adapter type attenuators feature high power endurance and low back reflection, suitable for high speed digital transmission and analog applications. Available in single mode and multimode, FC, SC, ST, LC and MU. OPCSUN's attenuators are designed to be used from 1240nm to 1600nm.

**FEATURES**
- Gr-910, UL94-V0 compliant
- Durable for high-input power
- Ideal for WDM application
- Precise control of attenuation range
- High return loss
- High reliability

**APPLICATIONS**
- Power level adjustment of optical fiber Communication networks.
- EDFA
- Dynamic power leveling in optical add/drop
- Multiplexing
- Dynamic power balancing in DWDM systems
- CATV systems
- Optical network equipment
- Bi-directional systems

**OPERATING BANDWIDTH:** 1240~1600nm OR 1310nm, 1550nm
**RETURN LOSS:** PC≥50DB, UPC≥55DB, APC≥65DB
**ATTENUATION TOLERANCE:**
1~10DB±0.5DB &10~30DB±10%
**VIBRATION:** 10~55HZ(2HR)
**MAXI OPTICAL INPUT POWER:** 200mW

Adapter-type Fixed Attenuator (female to female)

**ATTENUATION RANGE:** 0-30DB
**AVAILABLE WAVELENGTHS:** 1310nm OR 1550nm
**FIXED ATTENUATION VALUE:**
1、2、3、5、10、15、20DB OR OPTIONAL
**RETURN LOSS:** PC≥50 DB, APC≥60 DB
**POLARIZATION DEPENDENT LOSS:** ≤0.2DB
**TEMPERATURE RANGE:** -40°C-80°C

In-line Fixed Attenuator