

# LEAD Fiber Optics PRODUCT CATALOGUE

## CERAMIC FERRULE

TEL:+886-2-8672-2371    FAX:+886-2-8672-3275    Web:<http://www.twfiberoptic.com>

## Ceramic Ferrule



Ferrule is the most important component of **Fiber Connectors** and **Fiber Patch cord**. It could be made of different materials, such as plastics, stainless steel, and ceramic (zirconia). Most of the ferrules used in optical connectors are made of ceramic (Zirconia) material due to some of the desirable properties they possess. Ceramic Ferrule include low insertion loss required for optical transmission, remarkable strength, small elasticity coefficient, easy control of product characteristics, and strong resistance to changes in environmental conditions.

The outer diameter (OD) Ceramic (Zirconia) Ferrule size for ST, FC and SC Fiber Connectors is  $\phi 2.5\text{mm}$ , The OD Ceramic(Zirconia) Ferrule size for the MU and LC Fiber Connector Versions is  $\phi 1.25\text{ mm}$ .

The OD Ceramic (Zirconia) Ferrules size is precise with a tolerance level of  $\pm 0.0005\text{ mm}$ . The inner diameter (ID) Ceramic Ferrules size has a precision of  $0.001\text{mm}$  in concentricity and  $0.0005\text{mm}$  in eccentricity for the single mode ferrules used for optical communication components.

The OD Ceramic Ferrules size is precise with a tolerance level of  $\pm 0.001\text{ mm}$ . The inner diameter (ID) Ceramic Ferrules size has a precision of  $0.003\text{mm}$  in concentricity and  $0.004\text{mm}$  in eccentricity for the multimode ferrules used for LAN and/or SAN Applications.

We provide wide variations of high precision single mode and multimode standard Ceramic (Zirconia) ferrules with PC,UPC, APC, conical and step end-face for ST, SC, FC, LC, MU fiber connectors and patch cord, Standard ferrule assemblies with standard type SC, ST, MU flange are also available.

## Ceramic Ferrule

### Features

- Precise ID dimension
- Best concentricity
- 100% inspected
- Pre-Domed end face for quick termination
- Pre-angled end face available for quick termination
- High performance and superior durability



### Applications

- Ferrules designed for ST, SC, FC, MU, LC connector
- Singlemode application
- Multimode application

## Specifications

Style	Length (mm)	O.D (mm)		I.D. Tolerance (um)		Concentricity (um)		Spherical Radius
		SM	MM	SM	MM	SM	MM	
SC(FC)	10.5	2.499±0.0005	2.499±0.001	+1,-0	+3,-0	+1	+4	20+5/-10
ST	12.7	2.499±0.0005	2.499±0.001					20+5/-10
LC	6.4	1.249±0.0005	1.249±0.001					-
MU	6.5	1.249±0.0005	1.249±0.001					-

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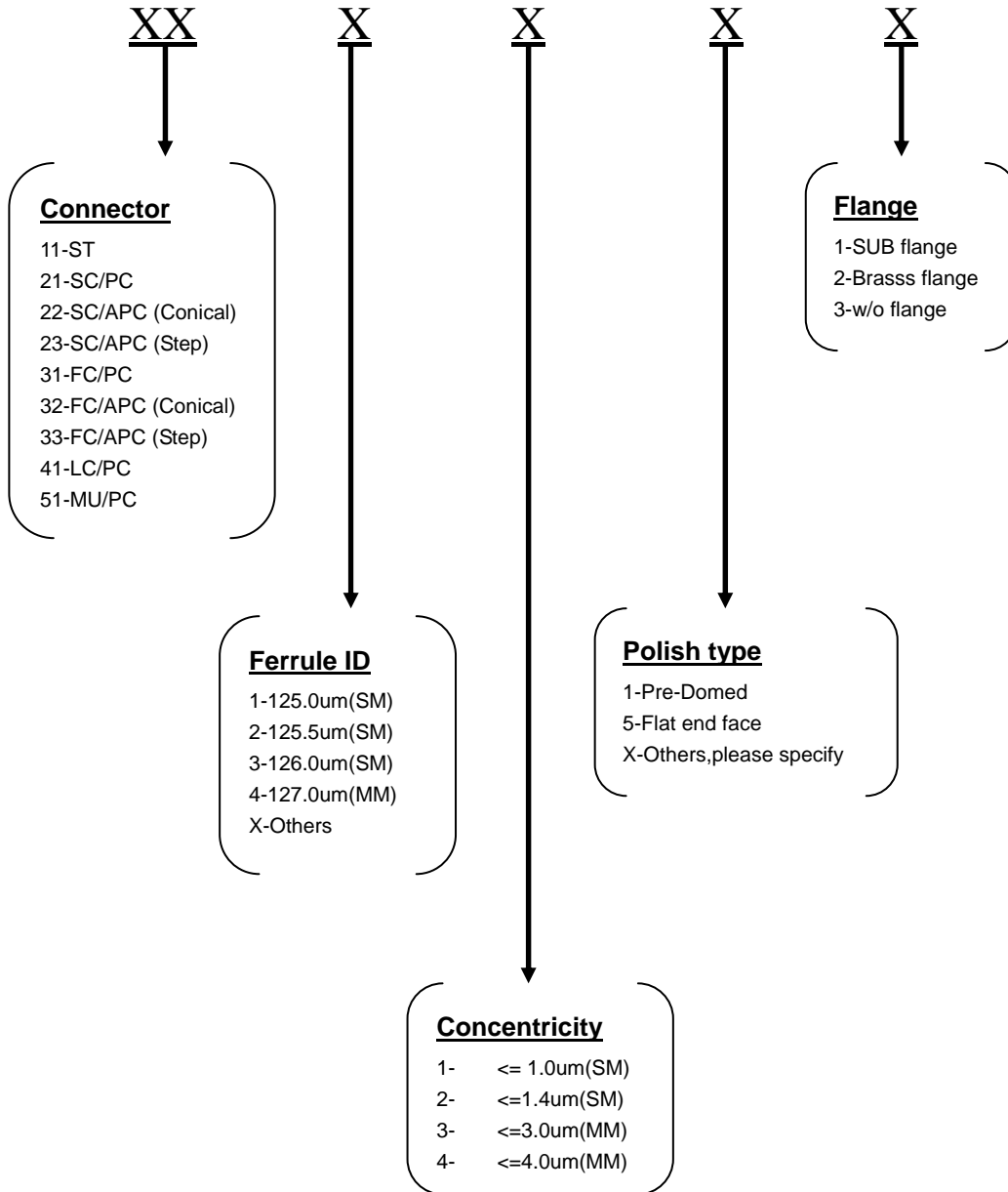
[sales@fiber optic.com.tw](mailto:sales@fiber optic.com.tw)

3F., No.135, Dasyue Rd., Sansia Township, Taipei County 23741, Taiwan (R.O.C.)

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## Ceramic Ferrule Ordering information

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## **LFO Ceramic Ferrule Series**



### **ST Ceramic Ferrule**

The ST ferrule use 2.5mm diameter Ceramic ferrules with PC End-face. The ferrule hole size 125um, 125.5um, 126um and hole concentricity of typically 1um are for singlemode performance; The ferrule hole size 126um, 126.5um, 127um and hole concentricity of typically 4 um are for multimode performance.

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### **SC/FC Ceramic Ferrule**

The SC/FC ferrule use 2.5mm diameter Ceramic ferrules with PC or APC End-face. The ferrule hole size 125um, 125.5um, 126um and hole concentricity of typically 1um are for singlemode performance; The ferrule hole size 126um, 126.5um, 127um and hole concentricity of typically 4 um are for multimode performance.

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### **LC Ceramic Ferrule**

The LC ferrule use 1.25mm diameter Ceramic ferrules with PC End-face. The ferrule hole size 125um, 125.5um, 126um and hole concentricity of typically 1um are for singlemode performance; The ferrule hole size 126um, 126.5um, 127um and hole concentricity of typically 4 um are for multimode performance.

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### **MU Ceramic Ferrule**

The MU ferrule use 1.25mm diameter Ceramic ferrules with PC End-face. The ferrule hole size 125um, 125.5um, 126um and hole concentricity of typically 1um are for singlemode performance; The ferrule hole size 126um, 126.5um, 127um and hole concentricity of typically 4 um are for multimode performance.

## ST Ceramic Ferrule

### Features

- High performance & durability
- Low insertion loss
- Low back reflection

### Applications

- High performance fiber optic connectors used in environments requiring durability after repeated mating, low insertion loss and low back reflection
- ST fiber optic connectors
- Single mode and multimode



## Specifications

ITEM	SM	MM
Length(mm)	12.7 mm	
Outer Diameter(mm)	2.499±0.0005	2.499±0.001
Inner Diameter(um)	+1,-0	+3,-0
Concentricity(um)	+1	+4

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## FC/SC Ceramic Ferrule

### Features

- High performance & durability
- Low insertion loss
- Low back reflection
- APC type with various end face configurations, as well as pre-angled end face for quick polishing and ultra-low back-reflection

### Applications

- High performance fiber optic connectors used in environments requiring durability after repeated mating, low insertion loss and low back reflection
- FC/SC fiber optic connectors
- Single mode and multimode



## Specification

ITEM	SM	MM
Length(mm)	10.5 mm	
Outer Diameter(mm)	2.499±0.0005	2.499±0.001
Inner Diameter(um)	+1,-0	+3,-0
Concentricity(um)	+1	+4

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## LC Ceramic Ferrule

### Features

- High performance & durability
- Low insertion loss
- Low back reflection

### Applications

- High performance fiber optic connectors used in environments requiring durability after repeated mating, low insertion loss and low back reflection
- LC fiber optic connectors
- Single mode and multimode



## Specifications

ITEM	SM	MM
Length(mm)	6.4 mm	
Outer Diameter(mm)	1.249±0.0005	1.249±0.001
Inner Diameter(um)	+1,-0	+3,-0
Concentricity(um)	+1	+4

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## MU Ceramic Ferrule

### Features

- High performance & durability
- Low insertion loss
- Low back reflection

### Applications

- High performance fiber optic connectors used in environments requiring durability after repeated mating, low insertion loss and low back reflection
- MU fiber optic connectors
- Single mode and multimode



## Specifications

ITEM	SM	MM
Length(mm)	6.5 mm	
Outer Diameter(mm)	1.249±0.0005	1.249±0.001
Inner Diameter(um)	+1,-0	+3,-0
Concentricity(um)	+1	+4

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