

## 1550nm SMA collimator NA 0.1 focal length

**15.29mm**



### ● Product Description

Idealphotonics' fiber collimators are pre-aligned to collimate light from FC/APC connector fibers and have diffraction-limited performance. These fiber collimators have no moving parts, are compact, and can be easily integrated into existing devices. Because aspheric lenses produce chromatic aberration, the effective focal length (EFL) is wavelength-dependent. The design wavelength is the wavelength corresponding to the ideal beam divergence angle. Some collimators at the design wavelength have different collimated beam diameters. When connected to specific single-mode fiber jumpers, they can collimate light at the design wavelength. In addition, the

aspheric lenses are anti-reflection coated on both sides to minimize surface reflections (see the AR Coating Curves tab). For some applications, the collimators can also be used for other wavelengths within the AR coating wavelength range. Please refer to the theoretical divergence angle curves of each collimator to determine whether it is suitable for your application. These collimators have a stable operating range from  $-40^{\circ}\text{C}$  to  $93^{\circ}\text{C}$ . Please note that these collimators cannot be used in a vacuum. If you need a custom alignment wavelength, operating temperature, or vacuum compatibility, please contact us for customization

- **Product features**

Fiber Collimator with FC/APC Connector (2.2 mm Wide Key) for Single Mode Patch Cables、 Aligned wavelengths from 405 nm to  $4.55\ \mu\text{m}$ 、 Collimated beam diameters from 0.63 mm to 4.05 mm, depending on wavelength、 Each collimator is factory aligned、 Simplifies fiber-coupled detection systems、 Non-magnetic stainless steel housing compatible with narrow and wide key FC/APC plugs

- **Part Number**

MP-CLM-1550-0.1-SMA



## ● Application area

Fiber amplifiers、 WDM & DWDM systems、 Fiber optic equipment、 Fiber lasers

## ● Core parameters

| Wavelength | Focal Length | Numerical Aperture |
|------------|--------------|--------------------|
| 1550nm     | 15.29mm      | 0.1                |

## ● General Parameters

### Parameters

| Parameter                              | Unit | Value   | Note                                |
|----------------------------------------|------|---------|-------------------------------------|
| Focal length Specified wavelength (nm) | nm   | 1150.00 | Other wavelengths can be customized |
| Insertion loss                         | dB   | ≤0.2    | 1550nm,30mw,DFB                     |
| Corrected wavelength (nm):             | nm   | 1550.00 | @25 Celsius                         |
|                                        |      | 1310.00 |                                     |
| Effective aperture CA                  | mm   | 5.5     | Full temperature :<br>-40-+75°C     |
| Effective focal length EFL             | mm   | 11.0    |                                     |



|                                                                 |              |                                     |                                    |
|-----------------------------------------------------------------|--------------|-------------------------------------|------------------------------------|
| <b>Shield diameter</b>                                          | <b>mm</b>    | <b>11.00</b>                        |                                    |
| <b>Shield length</b>                                            | <b>mm</b>    | <b>17.1</b>                         |                                    |
| <b>Numerical aperture NA</b>                                    | <b>N/A</b>   | <b>0.25</b>                         | <b>Other fiber types available</b> |
| <b>Coating:</b>                                                 |              | <b>BBAR (1050-1600nm)</b>           |                                    |
| <b>Connector</b>                                                |              | <b>FC</b>                           |                                    |
| <b>Return loss (in/out)</b>                                     | <b>dB</b>    | <b>&gt; 60/55dB</b>                 |                                    |
| <b>Maximum operating power</b>                                  | <b>W</b>     | <b>2</b>                            |                                    |
| <b>Operating temperature</b>                                    | <b>°C</b>    | <b>-5-70°C</b>                      |                                    |
| <b>Storage temperature</b>                                      | <b>°C</b>    | <b>-40-85°C</b>                     |                                    |
| <b>Substrate</b>                                                | <b>D-ZK3</b> |                                     |                                    |
| <b>Refractive index nd:</b>                                     | <b>1.586</b> |                                     |                                    |
| <b>Effective focal length/effective aperture diameter ratio</b> |              | <b>2.00</b>                         |                                    |
| <b>Wavelength range</b>                                         |              | <b>1050 - 1600</b>                  |                                    |
| <b>RoHS:</b>                                                    |              | <b>Comply with standards</b>        |                                    |
| <b>Test light source</b>                                        |              | <b>1550nm Benchtop light source</b> |                                    |



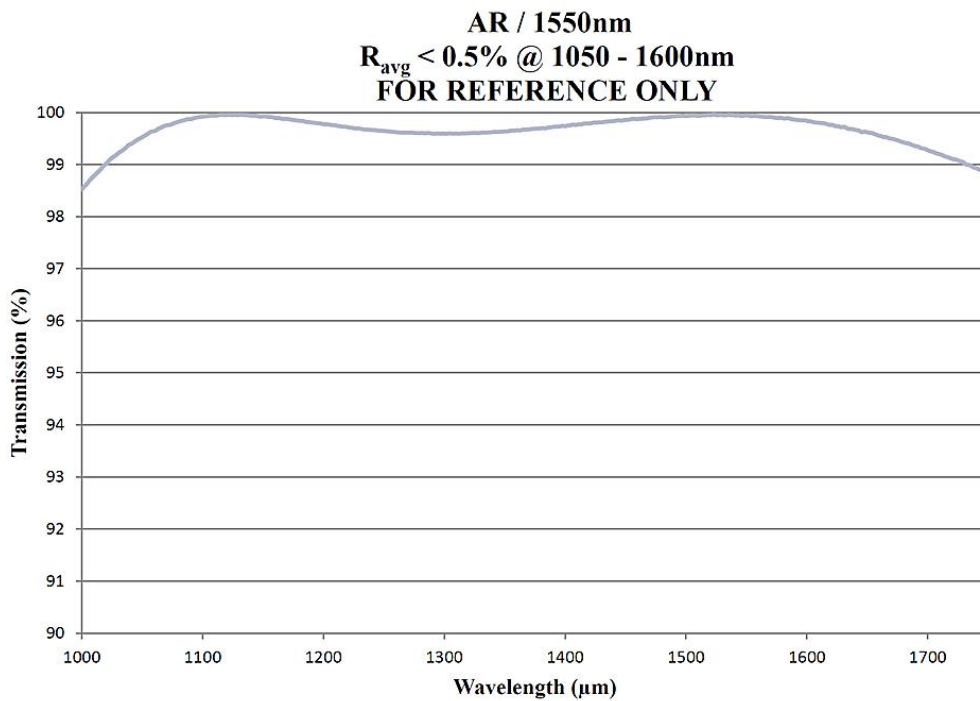
|                   |  |                |  |
|-------------------|--|----------------|--|
| Package size (mm) |  | As shown below |  |
|-------------------|--|----------------|--|

**Notes:**

\*. All indicators are without connectors and are only valid at the above wavelengths, polarization states and temperatures.

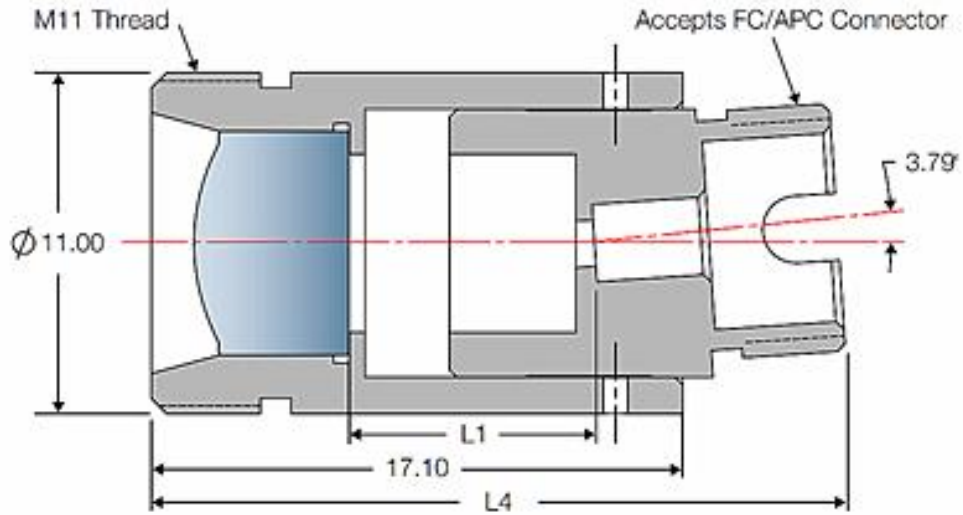
\*\* . Indicators are subject to change without prior notice.

## About coating

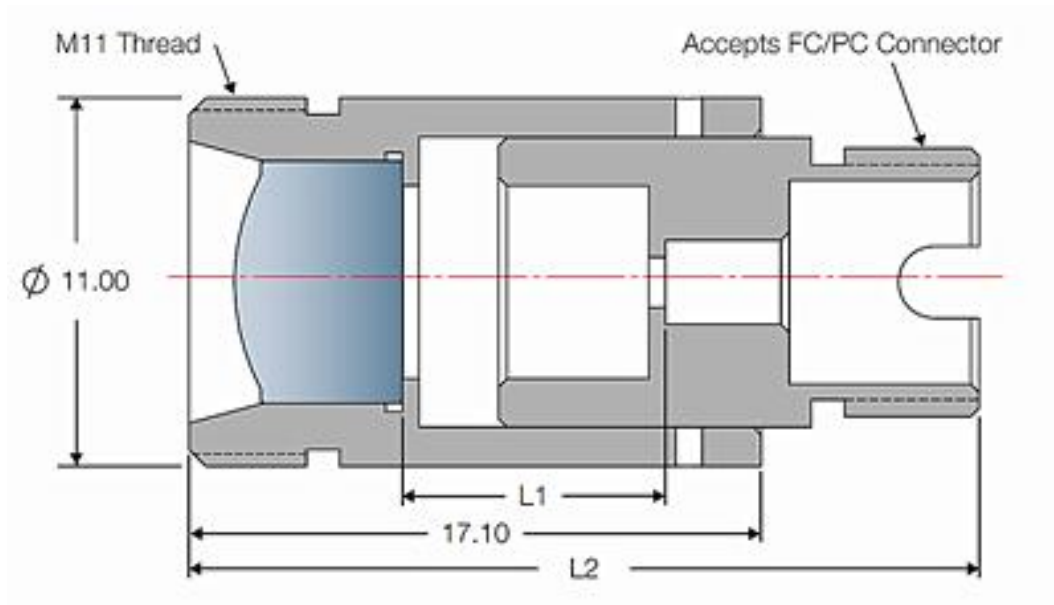




## FC/APC Size

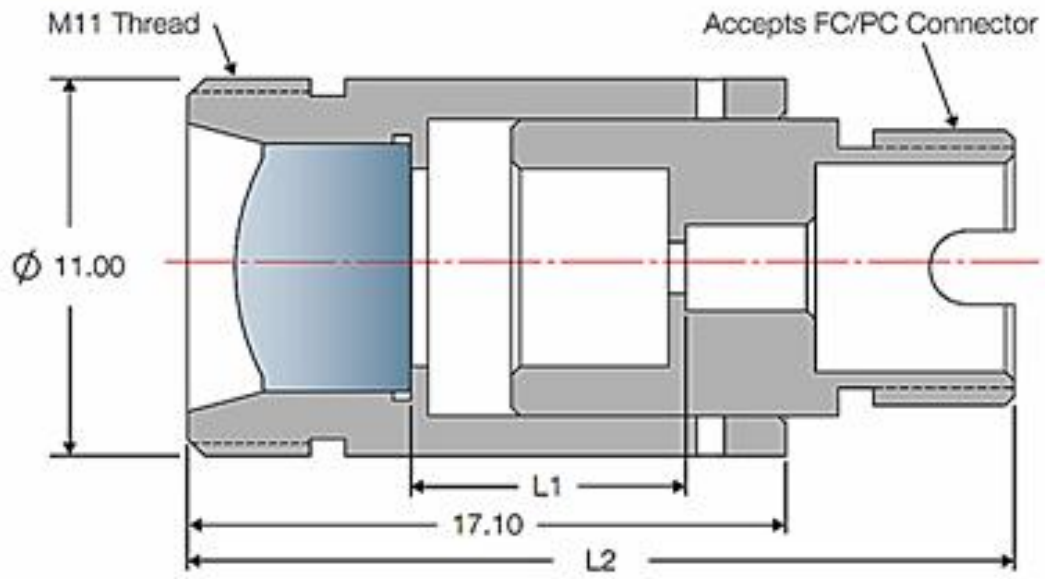


## FC/PC Size

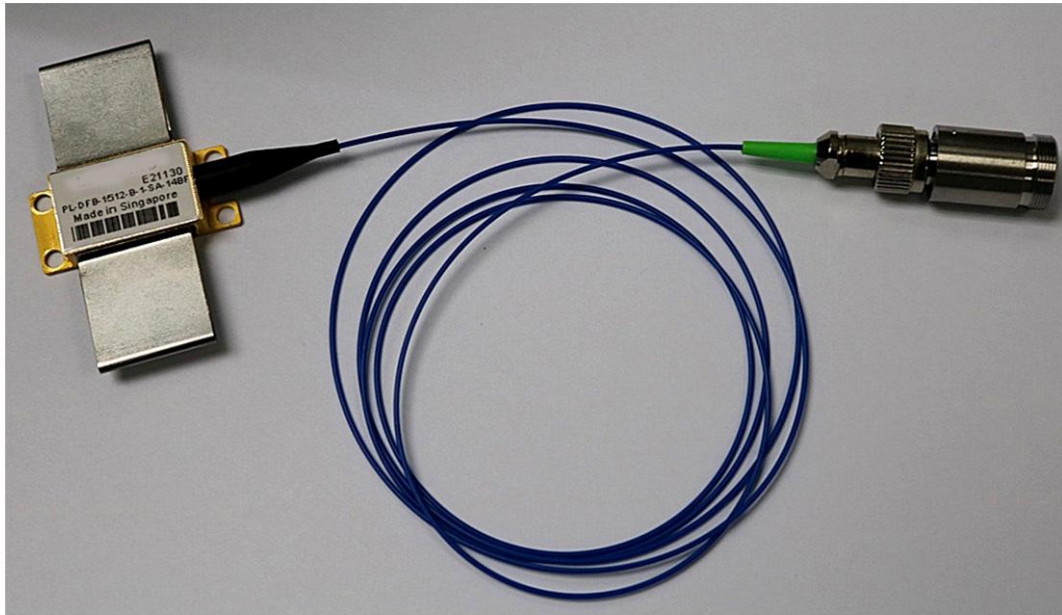




## SMA Size



## How to use



## Ordering information

MP-CLM-- W□□□□-S○ - XX

W□□□□: Wavelength

0850:850nm

0980:980nm

\*\*\*\*\*

1064:1064nm

1310:1310nm

1550:1550nm



**SO : NA&EFL**

**N3E10 = NA0.37,EFL=10.1mm**

**N5E8 = NA0.5,EFL=8mm**

**N4E6 =NA0.4,EFL=6.24mm**

**N2E11 =NA0.25,EFL=11mm**

**N1E15 =NA0.16,EFL=15.29mm**

**XX: Connector Type**

**FA = FC/APC**

**FP = FC/PC**

**SA =SMA**