

780nm FC/APC Fixed Fiber Collimator

NA 0.37 Focal Length 10.1mm



● 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°C to 93°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.

● Part Number

NIR-CLM-W780-N3E10-FA

● 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 μm 、 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

● Application area

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

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 : -40-+75 $^{\circ}\text{C}$
Effective focal length EFL	mm	11.0	
Shield diameter	mm	11.00	
Shield length	mm	17.1	
Numerical aperture NA	N/A	0.25	Other fiber types available
Coating:		BBAR (1050-1600nm)	
Connector		FC	

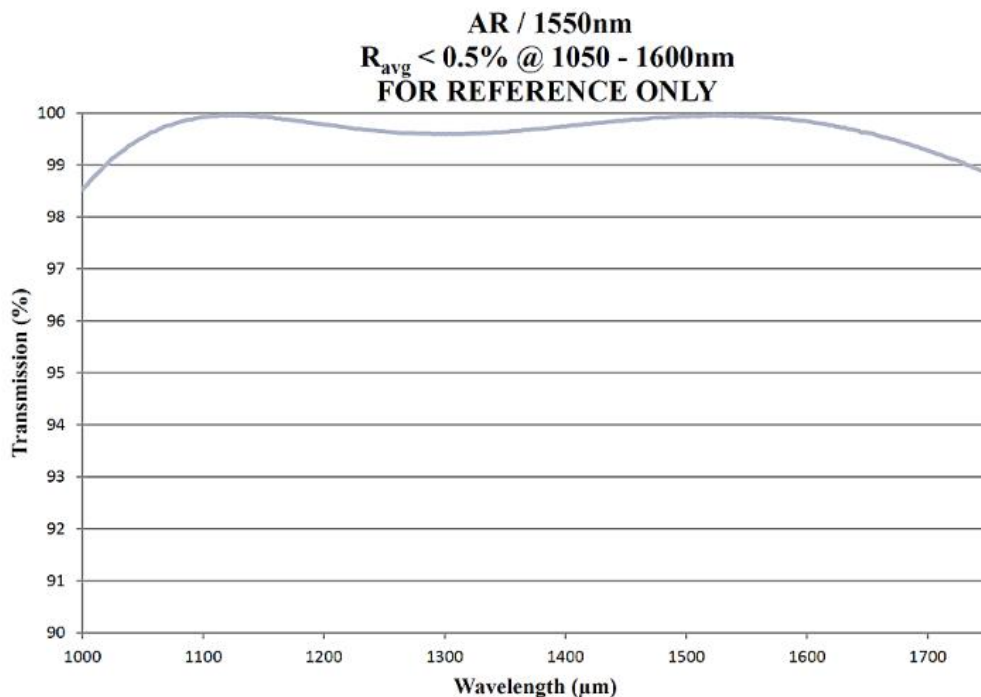
Return loss (in/out)	dB	> 60/55dB	
Maximum operating power	W	2	
Operating temperature	°C	-5-70°C	
Storage temperature	°C	-40-85°C	
Substrate		D-ZK3	
Refractive index nd:		1.586	
Effective focal length/effective aperture diameter ratio		2.00	
Wavelength range		1050 - 1600	
RoHS:		Comply with standards	
Test light source		1550nm Benchtop light source	
Package size (mm)		As shown below	

Notes:

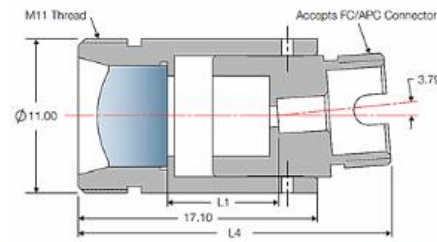
*. All indicators are without connectors and are only valid at the above wavelengths, polarization states and temperatures.

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

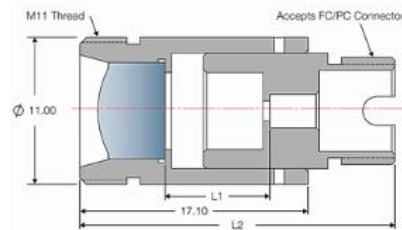
About coating



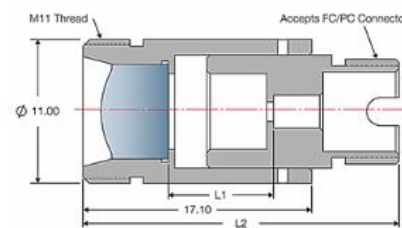
FC/APC Size



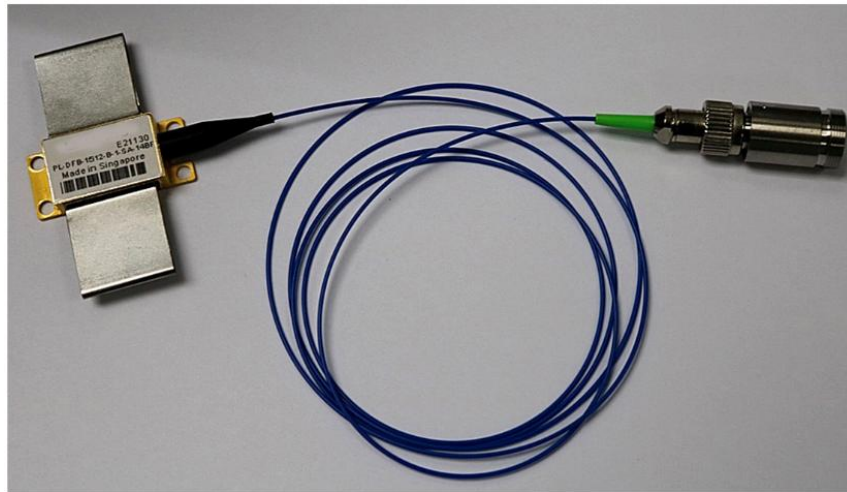
FC/PC Size



SMA Size



How to use



Ordering information

NIR-CLM- W□□□□-S○ - XX

W□□□□: Wavelength

0850:850nm

0980:980nm

1064:1064nm

1310:1310nm

1550:1550nm

S○ : 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