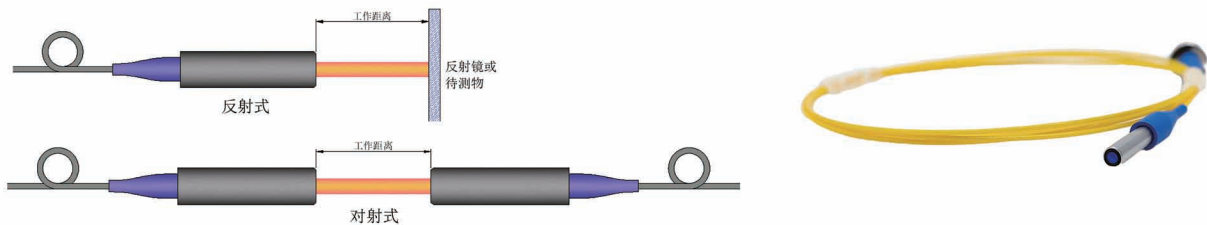


单模光纤准直器
Single-mode fiber collimator

由光纤尾纤和聚焦透镜精确定位封装而成，可将光纤传输出射光变成平行光束（高斯光束），或将外界的平行光聚焦耦合进入光纤内。亦可以单只使用，按照既定发散角，在特定位置达到要求尺寸的光斑。

It is packaged by precise positioning of fiber pigtail and focusing lens, which can transform the output light of fiber into parallel light beam (Gaussian beam) or couple external parallel light into the fiber. It can also be used alone to achieve the required spot size at a specific position according to the predetermined divergence angle.



按照工作距离划分，可分为固定工作距离（定焦）准直器和工作距离范围可变（长景深）准直器，根据不同工作距离选用球面透镜或者渐变折射率透镜。我们建议准直器安装在光学精密调节架中进行对准和调试，保证耦合空间光束时达到最佳耦合效率。

According to the working distance, it can be divided into fixed working distance (fixed focus) collimator and variable collimator for working distance range. Conventional lenses or Grin lenses should be selected according to different working distances. We recommend installing the collimator in an optical precision adjustment frame for adjustment to ensure the best coupling efficiency.

区别	固定工作距离（定焦）准直器	工作距离可变准直器
Difference	Fixed Working Distance Collimator	Variable Collimator for Working Distance Range
工作距离 Working Distance	1M	0~1M Any Position
光束特点 Beam characteristics	准直/ 汇聚 Collimation / Focus	准直 Collimation
光斑 Beam Size	某一固定位置得到精准尺寸光斑，最小可到20um,前后移动光斑变化大 At a fixed position, a precise sized beam spot can be obtained, with a minimum size of 20um. The beam size rapid changes when moved forwards or backwards.	在可调距离范围内前后移动，光斑尺寸变化非常小 Move forward and backward within an adjustable range, and the spot size changes very little.
配对损耗 Insert Loss For A Pair	随距离变化配对损耗变化明显 Changes significantly with distance.	随距离变化配对损耗变化不敏感 Insensitive to changes with distance
出射损耗 Output Loss	无差别 No difference	
回损 Return Loss	无差别 No difference	

固定工作距离光纤准直器 SM Fiber Optic Collimator for Fixed Working Distance

Wavelength	Bandwidth	WD	Waist Beam	Divergence Angle	Package	Insert Loss	Return Loss	Mode-Field Diameter	Fiber Type	Connector
405nm	±20nm	100mm	0.27mm	2.1mrad	Φ3.4mm	≤2.0dB	≥55dB	3.0±0.5um	405HP	FC/PC FC/APC LC/PC Or Customer specified
	±20nm	300mm	0.70mm	0.78mrad	Φ3.4mm	≤2.0dB	≥55dB			
450nm	±20nm	100mm	0.26mm	2.3mrad	Φ3.4mm	≤2.0dB	≥55dB	3.5±0.5um	460HP	
	±20nm	300mm	0.68mm	0.87mrad	Φ3.4mm	≤2.0dB	≥55dB			
520nm	±20nm	100mm	0.31mm	2.3mrad	Φ3.4mm	≤1.5dB	≥55dB	3.6±0.5um		
	±20nm	300mm	0.8mm	0.87mrad	Φ3.4mm	≤1.5dB	≥55dB			
635nm	±20nm	100mm	0.39mm	2.6mrad	Φ3.4mm	≤0.7 dB	≥55dB	4.2±0.5um	630HP	
	±20nm	300mm	0.85mm	1.0mrad	Φ3.4mm	≤0.8 dB	≥55dB			
	±20nm	1000mm	1.32mm	0.7mrad	Φ3.4mm	≤1.0 dB	≥55dB			
780nm	±20nm	100mm	0.39mm	2.6mrad	Φ3.4mm	≤0.6 dB	≥55dB	4.5±0.5um	780HP	
	±20nm	300mm	0.99mm	1.0mrad	Φ3.4mm	≤0.7 dB	≥55dB			
	±20nm	1000mm	1.55mm	0.7mrad	Φ4.0mm	≤0.9 dB	≥55dB			
850nm	±20nm	100mm	0.37mm	3.0mrad	Φ3.4mm	≤0.6 dB	≥55dB	5.0±0.5um		
	±20nm	300mm	0.97mm	1.1mrad	Φ3.4mm	≤0.7 dB	≥55dB			
	±20nm	1000mm	1.51mm	0.75mrad	Φ4.0mm	≤0.9 dB	≥55dB			
980nm	±20nm	100mm	0.36mm	3.5mrad	Φ3.4mm	≤0.5 dB	≥55dB	5.9±0.3um	Hi1060	
	±20nm	300mm	0.96mm	1.4mrad	Φ3.4mm	≤0.6 dB	≥55dB			
	±20nm	1000mm	1.48mm	0.87mrad	Φ4.0mm	≤0.9 dB	≥55dB			
1064nm	±20nm	100mm	0.37mm	3.3mrad	Φ3.4mm	≤0.5 dB	≥55dB	6.2±0.3um		
	±20nm	300mm	0.99mm	1.4mrad	Φ3.4mm	≤0.6 dB	≥55dB			
	±20nm	1000mm	1.53mm	0.87mrad	Φ4.0mm	≤0.9 dB	≥55dB			
1310nm	±20nm	100mm	0.38mm	4.4mrad	Φ3.4mm	≤0.4 dB	≥55dB	9.6±0.4um		
	±20nm	300mm	0.73mm	2.3mrad	Φ3.4mm	≤0.5 dB	≥55dB			
	±20nm	1000mm	0.91mm	1.9mrad	Φ4.0mm	≤0.7 dB	≥55dB			
1550nm	±20nm	100mm	0.46mm	4.5mrad	Φ3.4mm	≤0.4 dB	≥55dB	10.4±0.5um	Smf-28e/ G657A1/ G657A2 ZBL	
	±20nm	300mm	0.85mm	2.4mrad	Φ3.4mm	≤0.5 dB	≥55dB			
	±20nm	1000mm	1.35mm	1.7mrad	Φ4.0mm	≤0.7 dB	≥55dB			
1650nm	±5nm	100mm	0.47mm	4.5mrad	Φ3.4mm	≤0.4 dB	≥55dB	10.9±0.5um		
	±5nm	300mm	0.89mm	2.4mrad	Φ3.4mm	≤0.5 dB	≥55dB			
	±5nm	1000mm	1.22mm	1.7mrad	Φ4.0mm	≤0.7 dB	≥55dB			



工作距离可调光纤准直器 SM Fiber Optic Collimator for Variable Working Distance Range

Wavelength	Bandwidth	WD	Export beam Size	Divergence Angle	Package	Insert Loss	Return Loss	Mode-Field Diameter	Fiber Type	Connector
780nm	±20nm	0-350mm	0.9mm	0.95mrad	Φ3.4mm	≤0.8 dB	≥55dB	4.5±0.5um	780HP	FC/PC FC/APC LC/PC Or Customer specified
850nm	±20nm	0-350mm	1.0mm	1.05mrad	Φ3.4mm	≤0.8 dB	≥55dB	5.0±0.5um		
980nm	±20nm	0-350mm	0.99mm	1.26mrad	Φ3.4mm	≤0.7 dB	≥55dB	5.9±0.3um	Hi1060	
980nm	±20nm	50-1000mm	1.54mm	0.81mrad	Φ4.0mm	≤0.9 dB	≥55dB			
1064nm	±20nm	0-350mm	1.0mm	1.35mrad	Φ3.4mm	≤0.7 dB	≥55dB	6.2±0.3um		
1064nm	±20nm	50-1000mm	1.6mm	0.85mrad	Φ4.0mm	≤0.9 dB	≥55dB			
1310nm	±20nm	0-350mm	0.81mm	2.06mrad	Φ3.4mm	≤0.7 dB	≥55dB	9.6±0.4um	Smf-28e/ G657A1/ G657A2 ZBL	
1310nm	±20nm	50-1000mm	1.3mm	1.31mrad	Φ4.0mm	≤0.9 dB	≥55dB			
1550nm	±20nm	0-350mm	0.9mm	2.15mrad	Φ3.4mm	≤0.7 dB	≥55dB	10.4±0.5um		
1550nm	±20nm	50-1000mm	1.45mm	1.36mrad	Φ4.0mm	≤0.9 dB	≥55dB			
1650nm	±20nm	0-350mm	0.96mm	2.19mrad	Φ3.4mm	≤0.7 dB	≥55dB	10.9±0.5um		
1650nm	±20nm	50-1000mm	1.50mm	1.40mrad	Φ4.0mm	≤0.9 dB	≥55dB			