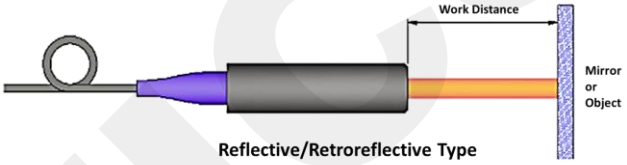
Single Mode Pigtailed Fiber Collimators

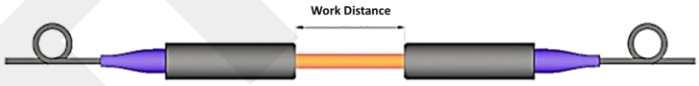
Single mode pigtailed fiber collimators are used to transform the laser emitted from fiber into a parallel Gaussian beam by finely positioning the lens to fiber or couple the parallel Gaussian beam into fiber in inverse. It can be used in reflective type and thrubeam type. Normally, a sphere lens or GRIN lens is used in collimator to transform light.

It can be divided into specified working distance collimators and wide working distance range collimators.

Schematic Diagram of the Reflective type and Thrubeam Type



Reflective/Retroreflective Type



Thrubeam Type

Characteristics of Specified WD Collimators vs Wide WD Range Collimators

	Specified WD Collimators	Wide WD range Collimators
Working distance	<1m (Set in factory)	0~1m
Beam Spot Size	Minimμm spot at specified distance	Changes little in WD range
Insert Loss	Sensitive to working distance	Changes little in WD range

405~635nm Specified Working Distance SM Pigtailed Fiber Collimators

Wavelength (nm)	WD (mm)	Bandwidth (nm)	Waist Dia. (mm)	Div. (mrad)	Package Dia. (mm)	Insert Loss (dB)	Return Loss (dB)	Mode-Field Dia. (μm)	Fiber Type	Connector
405	100	±20	0.27	2.1	ϕ3.4	≤2.5	≥55	3.0±0.5	405HP	FC/PC FC/APC LC/PC Or Custom specifie
405	300	±20	0.7	0.78	ϕ3.4	≤2.5	≥55	3.0±0.5		
450	100	±20	0.26	2.3	ϕ3.4	<2.0	≥55	3.5±0.5	450HP	
450	300	±20	0.68	0.87	ϕ3.4	≤2.0	≥55	3.5±0.5		
525	100	±20	0.31	2.3	ϕ3.4	≤1.5	≥55	3.6±0.5		
525	300	±20	0.8	0.87	ϕ3.4	≤1.5	≥55	3.6±0.5		
635	100	±20	0.39	2.6	ϕ3.4	≤0.7	≥55	4.2±0.5	630HP	
635	300	±20	0.85	1	ϕ3.4	≤0.8	≥55	4.2±0.5		
635	1000	±20	1.32	0.7	ϕ3.4	≤1.0	≥55	4.2±0.5		

780~1650nm Specified WD SM Pigtailed Fiber Collimators

Wavelength (nm)	WD (mm)	Bandwidth (nm)	Waist Dia. (mm)	Div. (mrad)	Package Dia. (mm)	Insert Loss (dB)	Return Loss (dB)	Mode-Field Dia. (μm)	Fiber Type	Connector
780	100	±20	0.39	2.6	ϕ3.4	≤0.6	≥55	4.5±0.5	780HP	FC/PC FC/APC LC/PC Or Customer specified
780	300	±20	0.99	1	ϕ3.4	≤0.7	≥55	4.5±0.5		
780	1000	±20	1.55	0.7	ϕ4.0	≤0.9	≥55	4.5±0.5		
850	100	±20	0.37	3	ϕ3.4	≤0.6	≥55	5.0±0.5		
850	300	±20	0.97	1.1	ϕ3.4	≤0.7	≥55	5.0±0.5		
850	1000	±20	1.51	0.75	ϕ4.0	≤0.9	≥55	5.0±0.5		
980	100	±20	0.36	3.5	ϕ3.4	≤0.5	≥55	5.9±0.3	980HP	
980	300	±20	0.96	1.4	ϕ3.4	≤0.6	≥55	5.9±0.3		
980	1000	±20	1.48	0.87	ϕ4.0	≤0.9	≥55	5.9±0.3		
1064	100	±20	0.37	3.3	ϕ3.4	≤0.5	≥55	6.2±0.3	980HP/ Hi1060	
1064	300	±20	0.99	1.4	ϕ3.4	≤0.6	≥55	6.2±0.3		
1064	1000	±20	1.53	0.87	ϕ4.0	≤0.9	≥55	6.2±0.3		
1310	100	±20	0.38	4.4	ϕ3.4	<0.4	≥55	9.6±0.4	Smf-28e G657A1 G657A2 ZBL	
1310	300	±20	0.73	2.3	ϕ3.4	≤0.5	≥55	9.6±0.4		
1310	1000	±20	0.91	1.9	ϕ4.0	≤0.7	≥55	9.6±0.4		
1550	100	±20	0.46	4.5	ϕ3.4	≤0.4	≥55	10.4±0.5		
1550	300	±20	0.85	2.4	ϕ3.4	≤0.5	≥55	10.4±0.5		
1550	1000	±20	1.35	1.7	ϕ4.0	≤0.7	≥55	10.4±0.5		
1650	100	±5	0.47	4.5	ϕ3.4	<0.4	≥55	10.9±0.5		
1650	300	±5	0.89	2.4	ϕ3.4	≤0.5	≥55	10.9±0.5		
1650	1000	±5	1.22	1.7	ϕ4.0	≤0.7	≥55	10.9±0.5		

780~1650nm Wide WD Range SM Pigtailed Fiber Collimators

Wavelength (nm)	WD (mm)	Bandwidth (nm)	Output beam Size (mm)	Div. (mrad)	Dia. (mm)	Insert Loss (dB)	Return Loss (dB)	Mode-Field Dia. (μm)	Fiber Type	Connector
780	0-350	±20	0.9	0.95	ϕ3.4	≤0.8	≥55	4.5±0.5	780HP	FC/PC FC/APC LC/PC Or Custom specifie
850	0-350	±20	1	1.05	ϕ3.4	≤0.8	≥55	5.0±0.5		
980	0-350	±20	0.99	1.26	ϕ3.4	≤0.7	≥55	5.9±0.3	Hi1061	
980	50-1000	±20	1.54	0.81	ϕ4.0	≤0 9	≥55	5.9±0.3		
1064	0-350	±20	1	1.35	ϕ3.4	≤0.7	≥55	6.2±0.3		
1064	50-1000	±20	1.6	0.85	ϕ4.0	≤0.9	≥55	6.2±0.3		
1310	0-350	±20	0.81	2.06	ϕ3.4	<0.7	≥55	9.6±0.4	Smf-28e G657A1 G657A2 ZBL	
1310	50-1000	±20	1.3	1.31	ϕ4.0	≤0.9	>55	9.6±0.4		
1550	0-350	±20	0.9	2.15	ϕ3.4	≤0.7	≥55	10.4±0.5		
1550	50-1000	±20	1.45	1.36	ϕ4.0	≤0.9	>55	10.4±0.5		
1650	0-350	±20	0.96	2.19	ϕ3.4	<0.7	≥55	10.9±0.5		
1650	50-1000	±20	1.5	1.4	ϕ4.0	≤0.9	>55	10.9±0.5		

TOP