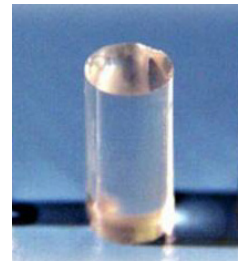


Curved Gradient Index Micro Lens

(patent pending)

Product Description

GL series Curved Gradient Index Micro Lens is an oxide glass lens made of Agiltron's patent pending gradient index optical material. It features excellent optical and mechanical performance for demanding telecommunication and data communication applications, such as fiber collimator, optical isolator and WDM components. The curved optical surface provides optimal coupling efficiency of light source, such as LD or LED, to optical fibers. Agiltron also offers dimension and surface coating options to meet specific customer requirements.



Specifications

Polarization Preservation	> 25 dB		
Standard pitch	0.22 P, 0.23 P, 0.25 P, 0.50 P		
Radius of Curvature (R)	2 ± 0.1 mm		
Numerical Aperture (NA)	0.46, 0.60		
Standard diameter (d)	1.8 mm, 1.0 mm		
√A	1550 nm	NA=0.46	0.326 mm ⁻¹
		NA=0.60	0.417 mm ⁻¹
	1310 nm	NA=0.46	0.327 mm ⁻¹
		NA=0.60	0.418 mm ⁻¹
Effective lens diameter	>70% typical		
Lens length tolerance	±2.5%		
Lens diameter tolerance	+0.005/-0.010 mm		
End facet perpendicularity	6 mrad		
Ellipticity	3 μm		
Angle facet tolerance	±0.5 degree		
Glass material	Proprietary GRIN optical material		
Optical coating	Single band AR or Dual Band AR optional		
Young's Modulus	6,000-8,000 Kgf/mm ²		
Thermal Expansion Coefficient	10x10 ⁻⁶ /°C		
Maximum temperature	350 °C		

Features

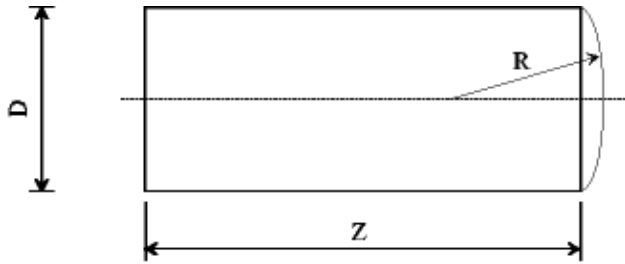
- Low Insertion Loss
- Polarization Preservation
- Low Cost

Applications









- Laser Diode Coupling
- Optical Isolator
- Optical Switch
- Micro WDM devices
- Optical coupling

Curved Gradient Index Micro Lens

End-Face Geometry



Ordering Information

GLNS								
	Diameter	Pitch	λ^*	NA	Coating		Surface type	Angle
	1.8mm=1 1.0mm=2	0.23P = 1 0.25p = 2 0.50p = 3	1550 = 1 1310 = 2 Special=3	0.46=1 0.60=2	1310=1 1550 =2 1310+1550=3 Special=0	Non=0 Front=1 Back= 2 Front/Back=3	Flat/ Aspheric = 11	0 degrees=0 8 degrees=8 Special=9

* Wavelength for which pitch is optimized