

▶ 远距准直器300M

Long Distance CollimatorFor300m

针对长达300米距离的激光准直或耦合应用场景，我们特别将准直镜头的焦距精心设计为约150毫米。这一设计能够对从光纤出射的激光进行更为有效的准直整形，生成更大光斑的高质量激光束。

该准直镜头采用多片空气间隔透镜的先进设计架构，不仅能够输出极高的光束质量（光束质量因子M²接近1），还能实现极小的波前误差。这使其尤其适用于远距离激光传输以及脉冲型激光出射的应用。在有效工作距离范围内，它能够确保激光束保持极佳的准直效果，同时，其输出的光束能量分布近似高斯分布，光斑清晰锐利，无明显衍射现象，极大地提升了激光的传输性能和应用效果。在实际使用中，这款准直镜头具备高度的适配性，可与单模光纤、多模光纤以及大芯径光纤完美兼容，广泛应用于激光空间通信、激光雷达探测、激光遥测监控等前沿领域，为各类高精度激光应用提供可靠的技术支持。

For laser collimation or coupling at up to 300 meters, we've carefully designed the collimating lens with a focal length of around 150 mm. This effectively collimates and shapes the fiber-emitted laser beam, yielding a high-quality beam with a larger beam.The lens uses an advanced multi-air-spaced lens design. It outputs a beam of extremely high quality (M² approaching 1) with minimal wavefront error, making it perfect for long-distance laser transmission and pulsed laser emission. Within the effective range, it ensures excellent collimation, with an approximately Gaussian energy distribution, a clear and sharp spot, and no obvious diffraction, thus enhancing laser performance.



特征 Features:

适合光纤到自有空间的准直或耦合Suitable for the collimation or coupling from optical fiber to free space

- 在300M范围内保持良好的准直特性 Maintain good collimation characteristics within a range of 300 meters.
- 可耦合的最大输入光纤NA为0.24 The maximum input fiber numerical aperture (NA) that can be coupled is 0.24.

- 透镜镀三种增透膜可选 Threee AR-Coated Aspheric Lens Options: 400-700nm、650-1050nm、1050-1650nm
- 衍射极限波前误差Diffraction-limited wavefront error、 $\lambda/8$ @633 nm
- 建议选配远讯的标准跳线，提高参数的重复性和一致性

It is recommended to select Ysenser's standard patch cords to improve the repeatability and consistency of the parameters.

Wavelength	Bandwidth	Waist Beam	Divergence Angle	EFL	NA (Lens)	Package Dia.	Fiber Type	Connector	Transmittance
405nm	±30nm	23.36mm	0.057+0.03 mrad	136.0 mm	0.18	Φ58mm	405HP	FC/PC FC/APC	>92%
450nm	±30nm	22.89mm	0.048+0.03 mrad	139.9 mm	0.17	Φ58mm	460HP		
520nm	±30nm	27.2mm	0.045+0.03 mrad	143.8 mm	0.17	Φ58mm			
635nm	±30nm	29.8mm	0.043+0.03 mrad	147.5 mm	0.17	Φ58mm	630HP		
780nm	±30nm	29.79mm	0.045+0.03 mrad	150 .0mm	0.16	Φ58mm	780HP		
850nm	±30nm	32.62mm	0.046+0.03 mrad	150.8 mm	0.16	Φ58mm			
905nm	±30nm	34.8mm	0.048+0.03 mrad	151.2 mm	0.16	Φ58mm			
980nm	±30nm	31.56mm	0.049+0.03 mrad	151.8 mm	0.16	Φ58mm	Hi1060		
1064nm	±30nm	34.38mm	0.050+0.03 mrad	152.3 mm	0.16	Φ58mm			
1310nm	±30nm	27.8mm	0.065+0.03 mrad	153.3 mm	0.16	Φ58mm	Smf-28e		
1550nm	±30nm	29.2mm	0.072+0.03 mrad	154.0 mm	0.16	Φ58mm			
1654nm	±10nm	30.02mm	0.075+0.03 mrad	154.2mm	0.16	Φ58mm			