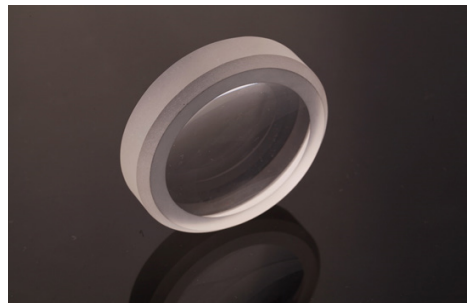


High Power 1µm Fiber Laser Lenses and Mirrors

Using pure fused silica material and applying high damage threshold coating to withstand short pulse and high power 1µm laser above KW.

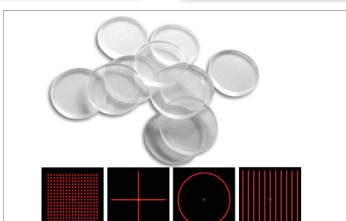
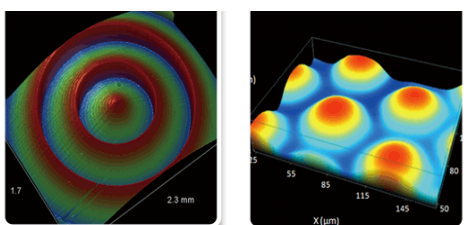
Product Features :

- High power focusing lens for fiber laser are made by fused silica, with low absorption coating at 1064nm, which can be applied for over 1000w 1064nm laser.
- Following focusing lens come with protective window.



Part No.	FL (mm)	WD (mm)	Diameter (mm)	Type
HFL80-42	80	68.6	42	Singlet
HFL100-42	100	89.5	42	Singlet
HFL120-42	120	109.5	42	Singlet
HFL120-42-2	120	109.1	42	Doublet

Diffractive Optical Element



Wavelength Opto-Electronic serves the simulation of laser optics, micro optical systems, diffractive optics, interferometers, imaging and illumination systems. Optical design may contain refractive, diffractive, hybrid, Fresnel and GRIN lenses, diffractive optical elements, diffusers, beam shapers, diffractive beam splitters, computer generated holograms, phase plates, elements with free form surfaces and micro lens arrays. Based on unified optical modeling, the light propagation can be provided using different propagation models ranging from geometrical optics to physical optics.

Beam Splitter

Product Item	Wavelength	Number of Spots	Image Lens	Size
HL-7x 7DEG	10.6µm	7x7	2f System Add Another Focus Lens f=50nm	13x13mm ² T=1
HL-8x 8DEG	2940nm	8x8		13x13mm ² , 20x20mm ² T=1
HL-8x 8DEG	1064nm	8x8		
HL-9x 9DEG	532nm	9x9		

Line Beam

Product Item	Wavelength	Line Length	Line Width	Image Lens	Size
HL-L100x W0.2	355nm~1080nm	~200nm	10µm to 200mm	f=50mm~f=500mm	13x13mm ² , 20x20mm ² T=1

Focal Type Beam Shaper



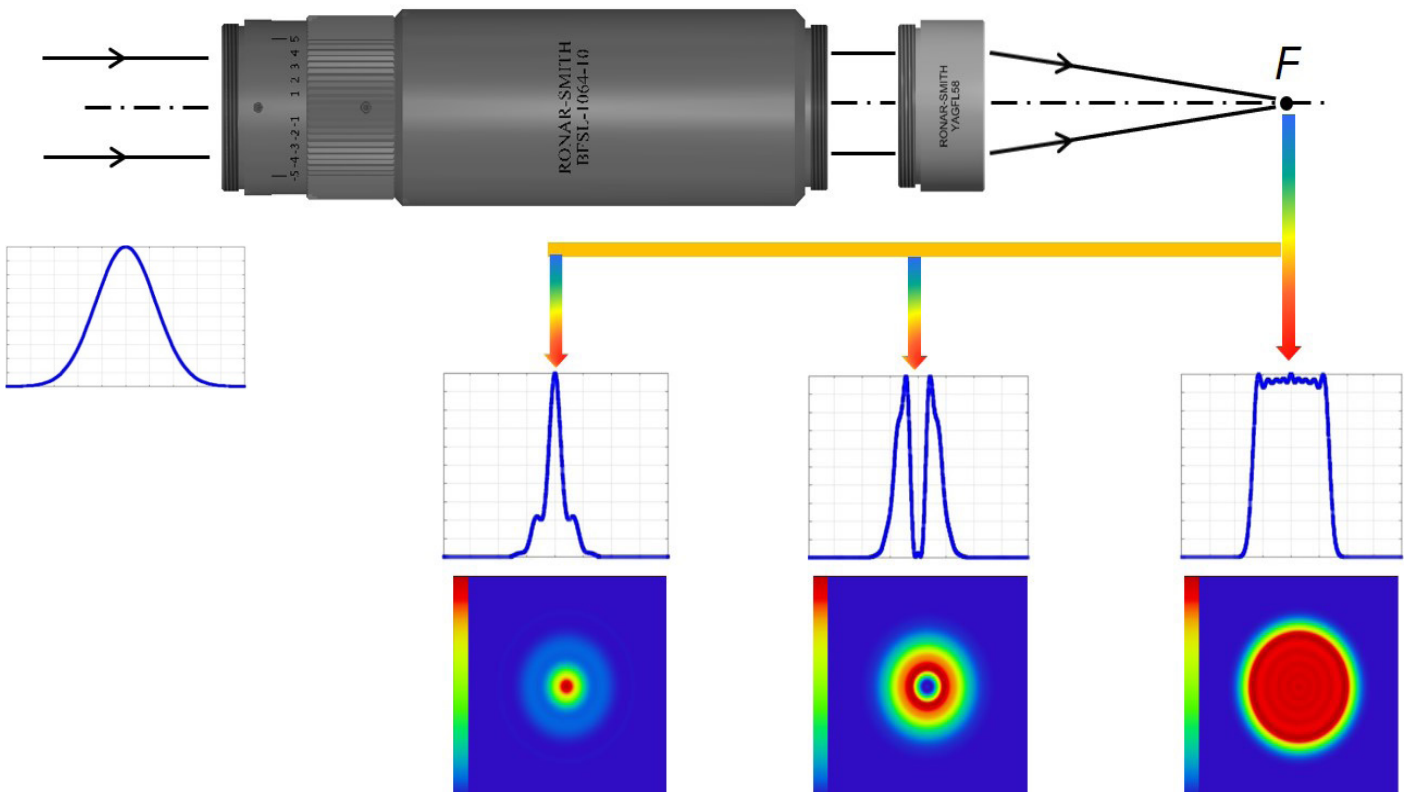
Newly launched Focal Beam Shaper Series which converts a collimated Gaussian beam to a collimated output beam. This output beam is not a flat top profile but it was designed and manipulated to achieve flat top profile at focal plane of objective lens.

This beam shaper has to be used incorporated with a focusing lens or diffraction-limited performance lens to acquire a flat top focused spot at vicinity of target plane. The flat top spot size is able to achieve sub- micron level and good uniformity.

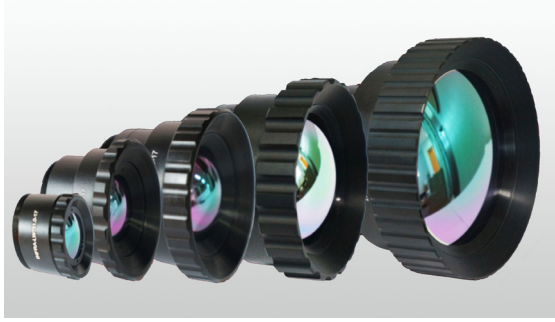
Focusing lens is available at different Focal Length for your application upon request.

Part No.	Wavelength	Beam Mode	M^2	Beam Ellipticity	Input Beam Waist Diameter (1/e ²)(mm)	Output Beam Diameter (mm)	Input Full Beam Divergence Angle (mrad)	Output Full Beam Divergence Angle (mrad)
BSFL-355-6	355nm	TEM ₀₀	<1.2	~0.98-1	6.0	6.0	~0.1	~1.0
BSFL-1064-10	1064nm				10.0	10.0	~0.2	~1.6
BSFL-532-10	532nm				10.0	10.0	~0.1	~1.1
BSFL-10.6-20	10.6um				20.0	20.0	~0.04	~4.7

Figure : System layout to achieve focused flat top spot



IR Athermal Lens

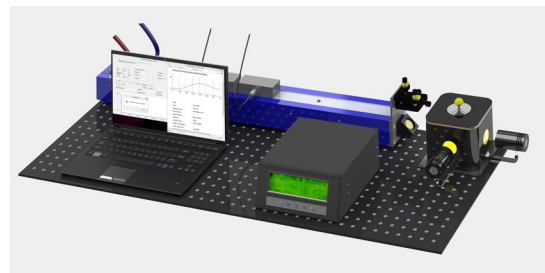


Wavelength Opto-Electronic recently developed Athermal version of *Infra*[™] LWIR lenses, with standardized BWD and mount which allowed any end user or System Integrator to replace or change any lens suitable to their applications as easy as 1.. 2.. 3.. No need to make a new adapter mount, it is cost and time saving.

Part No.	FL	F#	Image Diagonal	Circular FOV	BWD	BFD	Mount	Focus Type	Transmission (typical)
Infra-LW8.51.2-17A	8.5mm	1.2	13.6mm	77°	10.47mm	15.47mm	M34x0.5	Manual	90%
Infra-LW191.2-17A	19mm	1.2		39°					
Infra-LW251.2-17A	25mm	1.2		30°					
Infra-LW351.2-17A	35mm	1.2		21.9°					
Infra-LW601.25-17A	60mm	1.25		12.9°					
Infra-LW1001.5-17A	100mm	1.5		7.8°					

Laser Calorimetry System

Laser Vacuum Calorimetry to measure material used for 3D additive manufacturing: Precision measurement of material absorption values vs laser wavelength provides useful guidance for material manufacturers intended for 3D additive manufacturing industry. Our Laser Vacuum Calorimetry has successfully proven to measure material in layer form, liquid form and even solid form.



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