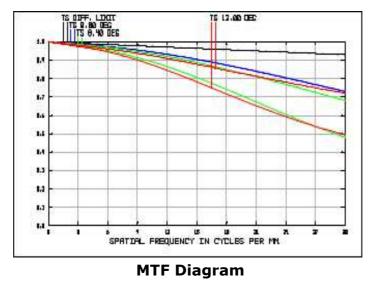


Shortwave Infrared wavelength band offers a unique imaging advantages over visible and other thermal bands. So it is quietly earning a growing place in industrial machine vision for quality inspection and in military applications.

SWIR lenses are utilized where other detectors or cameras are not sensitive enough for the finite detail recognition.

So here in Wavelength Technology, we have come up with our LSW lenses (SWIR) which are designed to meet the latest advancement in SWIR technology. Our designed is for high resolution operation at low light level. It also offers a superior image quality, better transmission and performance. LSW lenses function in the wavelengths of 900nm-1700nm with the detector size of 20mm diagonal and pixel size of  $25\mu$ m.



The following is the MTF performance for LSW05014640

Our LSW lens design can be customized as per your requirement or selection from our available designs.

### Applications:

LSW Lens are used in industrial, military applications, portable and unmanned aerial vehicle applications. It is extensively utilize in quality inspection and tracking.



**Optics Leading the Light** 

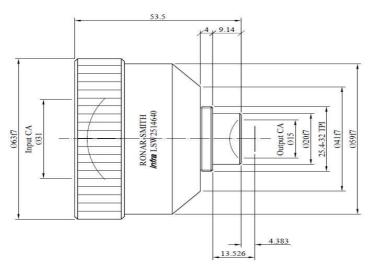
RONAR-SMITH<sup>®</sup> Laser Optics & IR Lens

# LSW Lens 900-1700nm



### Part no.: LSW02514640

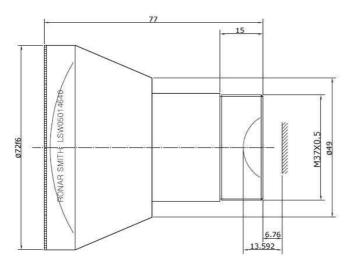
<b>Opto-Mechanic Property</b>	Specification	Remarks
Focal Length	25mm	
F#	1.4	
Wavelength	900-1700nm	
Image Diagonal	20mm	
Average Transmission	90%	
Circular FOV	43.6°	
Back Focus Distance	13.526mm	
Back Working Distance	4.383mm	
Dimensions	Length53.5mm, Φ63mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	25.4-32TPI	
Detector	640*480pixels, 25µm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection Coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	





Part no.: LSW05014640		
<b>Opto-Mechanic Property</b>	Specification	Remarks
Focal Length	50mm	
F#	1.4	
Wavelength	900-1700nm	
Image Diagonal	20mm	
Average Transmission	90%	
Circular FOV	22.6°	
Back Focus Distance	21.76mm	
Back Working Distance	6.76mm	
Dimensions	Length77mm, Φ72mm	
Focus Type	Manual Focus	
Focus Range	1m to infinity	
Mount Type	M37*0.5	
Detector	640*480pixels, 25µm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection Coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

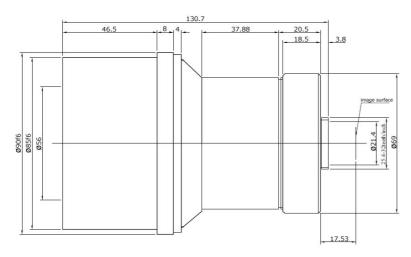
### NOFO1 ACAO





### Part no.: LSW07515640

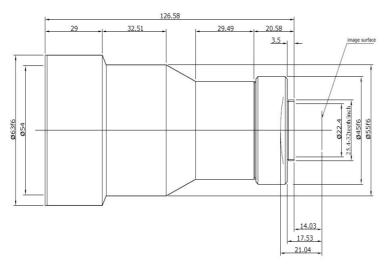
Opto-Mechanic Property	Specification	Remarks
Focal Length	75mm	
F#	1.5	
Wavelength	900-1700nm	
Image Diagonal	20mm	
Average Transmission	90%	
Circular FOV	15.2°	
Back Focus Distance	17.53mm	
Back Working Distance	13.73mm	
Dimensions	Length130.7mm, Φ90mm	
Focus Type	Manual Focus	
Focus Range	2m to infinity	
Mount Type	25.4 -32teeth/inch	
Detector	640*480pixels, 25µm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	





Part no.: LSW10020640			
<b>Opto-Mechanic Property</b>	Specification	Remarks	
Focal Length	100mm		
F#	2.0		
Wavelength	900-1700nm		
Image Diagonal	20mm		
Average Transmission	90%		
Circular FOV	11.4°		
Back Focus Distance	17.53mm		
Back Working Distance	14.03mm		
Dimensions	Length126.58mm, Φ63mm		
Focus Type	Manual Focus		
Focus Range	2m to infinity		
Mount Type	25.4-32teeth/inch		
Detector	640*480pixels, 25µm		
Weight	-		
Environmental			
Operating Temperature	-30°C to +60°C		
Storage Temperature	-40°C to +80°C		
External Coating	AR	Anti-Reflection coating	
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours		

### 110000640







Optics Leading the Light



### Part no.: LSW20024640

Opto-Mechanic Property	Specification	Remarks
Focal Length	200mm	
F#	2.4	
Wavelength	900-1700nm	
Image Diagonal	20mm	
Average Transmission	90%	
Circular FOV	5.7°	
Back Focus Distance	17.526mm	
Back Working Distance	12.526mm	
Dimensions	Length200.39mm, Φ110mm	
Focus Type	Manual Focus	
Focus Range	2m to infinity	
Mount Type	1"-32teeth/inch	
Detector	640*480pixels, 25µm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	AR	Anti-Reflection coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

