

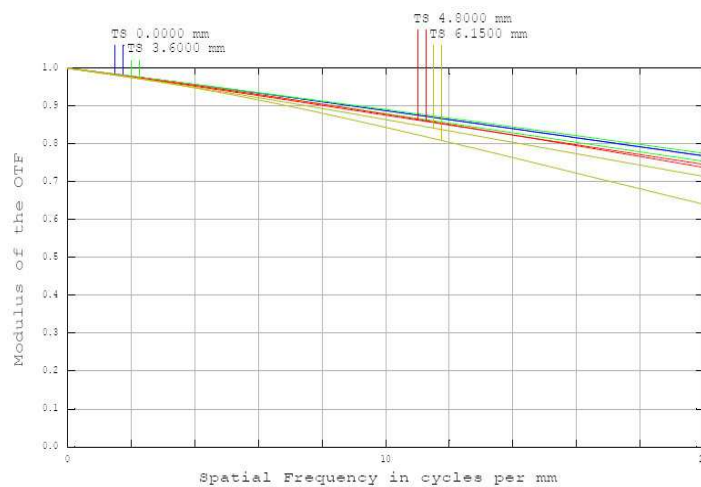
MWIR Lens

Wavelength Mid-wave (MWIR) lenses feature cooled technology, which offers very high sensitivity and better transmission.

We have our standard design but we also offer customized design to meet our customer needs.

These lenses include EFL from 25mm to 100m and function in the wavelengths of 2 - 5 μ m and 3 - 5 μ m. The F number is 2. The lenses also cover various detector sizes from 15.36x12.29 to 320x240 pixels.

The outer most lens is coated with Hard Diamond coating and mounted with aluminum mounts. The MTF profile is shown in the following.



MTF Diagram

Applications:

MWIR Lens are used in manufacturing and in critical military applications.

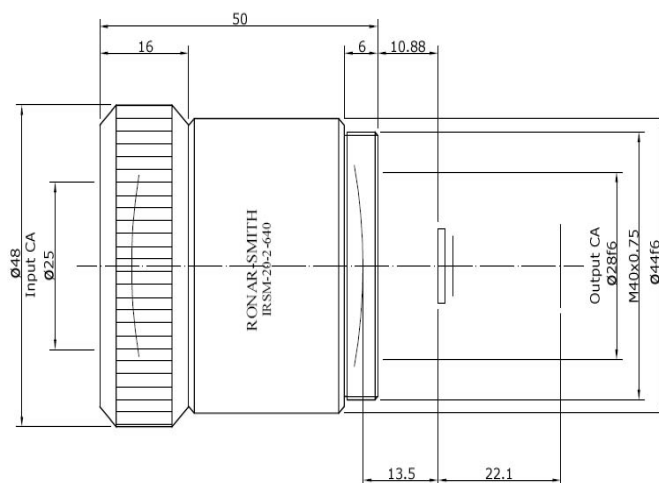
MWIR Lens 2-5μm



Part no.: IRSM20-2-640

Opto-Mechanic Property	Specification	Remarks
Focal Length	20mm	
F#	2.0	
Wavelength	2μm—5μm	
Image Diagonal	12.3mm	
Average Transmission	>85%	
Circular FOV	34.19°	
Back Focus Distance	35.6mm	
Back Working Distance	32.98mm	
Dimensions	Length 50mm, Ø48mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M40*0.75	
Detector	640*512pixels, 15μm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



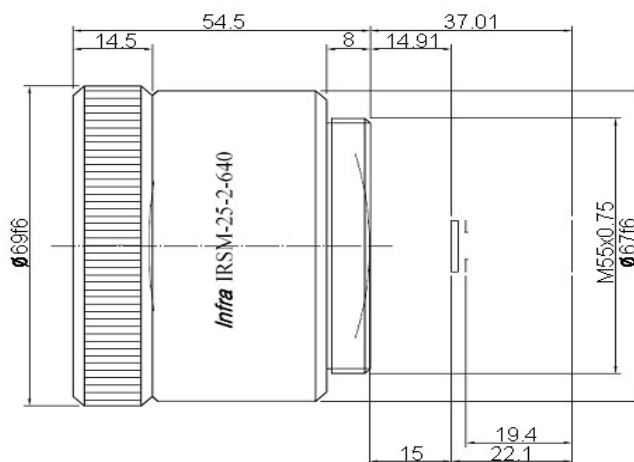
MWIR Lens 2-5um

NEW

Part no.: IRSM25-2.0-640

Opto-Mechanic Property	Specification	Remarks
Focal Length	25mm	
F#	2.0	
Wavelength	2μm—5μm	
Image Diagonal	12.3mm	
Average Transmission	>90%	
Circular FOV	27.64°	
Back Focus Distance	45.01mm	
Back Working Distance	37.01mm	
Dimensions	Length 54.5mm, Φ69mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M55*0.75	
Detector	640*512pixels, 15μm	
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	

Drawing

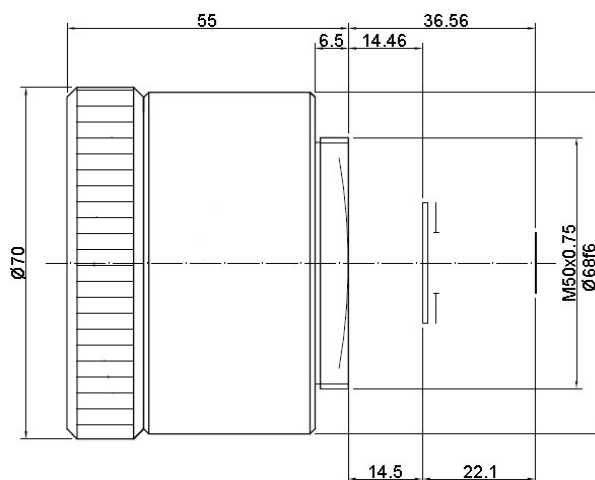


MWIR Lens 2-5um

NEW**Part no.: IRSM50-2.0-640**

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	2.0	
Wavelength	2μm—5μm	
Image Diagonal	12.3mm	
Average Transmission	>90%	
Circular FOV	14°	
Back Focus Distance	43.06mm	
Back Working Distance	36.56mm	
Dimensions	Length55mm, Φ70mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	M50*0.75	
Detector	640*512pixels, 15μm	
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	

Drawing



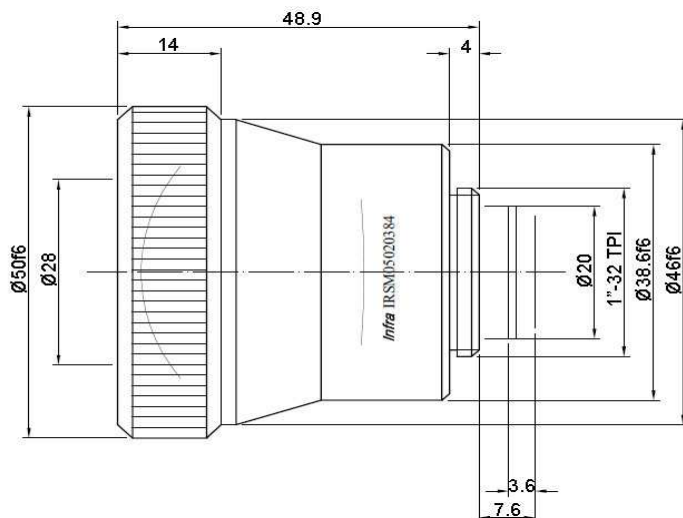
MWIR Lens 2-5um

NEW

Part no.: IRSM5020384

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	2.0	
Wavelength	2μm—5μm	
Image Diagonal	16.8mm	
Average Transmission	>85%	
Circular FOV	19.07°	
Back Focus Distance	11.6mm	
Back Working Distance	7.6mm	
Dimensions	Length 48.9mm, Ø50mm	
Focus Type	Manual Focus	
Focus Range	-	
Mount Type	1"-32 TPI	
Detector	384*288pixels, 35μm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing

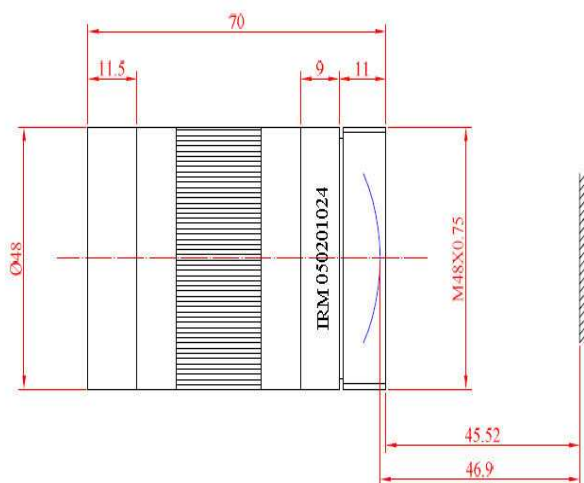


MWIR Lens 2-5um

Part no.: IRM050201024

Opto-Mechanic Property	Specification	Remarks
Focal Length	50mm	
F#	2.0	
Wavelength	2μm—5μm	
Image Diagonal	19.67mm	
Average Transmission	>95%	
Circular FOV	22.3°	
Back Focus Distance	56.52mm	
Back Working Distance	45.52mm	
Dimensions	Length70mm, Φ48mm	
Focus Type	Manual Focus	
Focus Range	100m to infinity	
Mount Type	M48*0.75	
Detector	15.36*12.29pixels, 15μm	
Weight	-	
Environmental		
Operating Temperature	-30°C to +60°C	
Storage Temperature	-40°C to +80°C	
External Coating	DLC	Diamond like coating
Humidity	100%RH at 26°C and 74%RH at 35°C for 24 hours	

Drawing



MWIR Lens
(2-5um)