

# 180mm/F2.0 Motorized Lens for Cooled FPA at 7.7-9.4 micro

This lens module is motorized focusing mechanism with focal length of 180mm and f number 2.0, it is designed for cooled detector at LWIR wavelength range of 7.7-9.4 micro. it is optimized optically for high transmission, good MTF and low distortion. The sealing of the housing is IP67, it is weight about 1kg. The improvements and changes of the design for this module is available upon customer's special request.

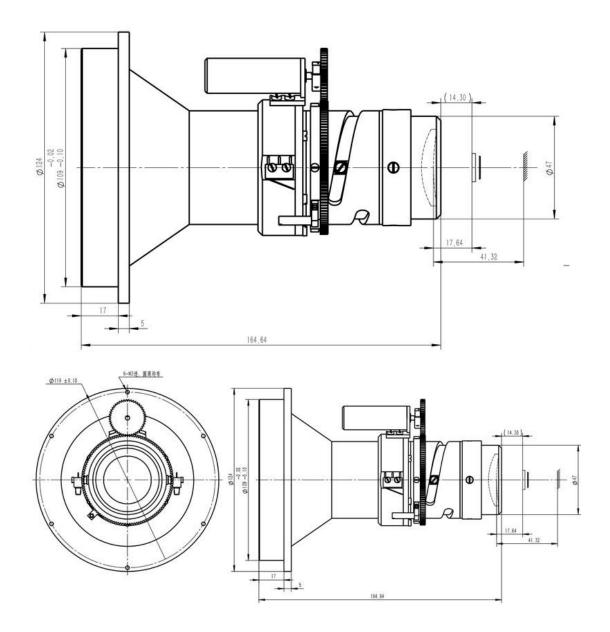


## **SPECIFICATIONS**

Optical Parameters	
EFL	180mm
f Number (f#)	2.0
Wavelength range	7.7~9.4micro
Detectors	640x512-15um, cooled
FOV	3°x2.4° (3.85°)
External Coating	AR
Average transmission	>83%
Overall optical length	200mm
Flange back distance	41.32mm (1.64mm from the protective
	windows)
Minium Working Distance	5M
Distortion	Maxium D-FOV distortion <1%

Mechanical Parameters	
Dimension	Dia124mm x 165mm length
Focusing mechanism	motorized, DC motor
Connector	Flange, 6-M3, Dia119mm
Driver voltage	12V DC
Sealing grade	IP67
Housing materials	Aluminium, anodized
Storage temperature	-50℃ ~ +70℃
Working termperature	-40℃ ~ +60℃
Weight	~1kg



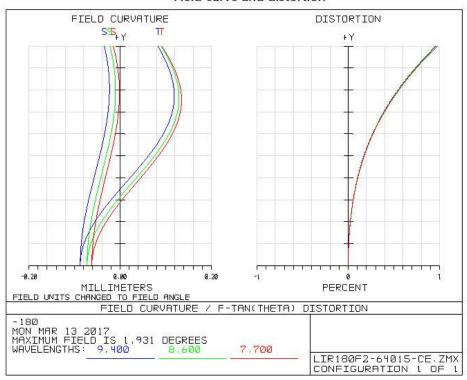


## Hangzhou Shalom Electro-optics Technology Co., Ltd.

LIR180F2-64015-CE.ZMX CONFIGURATION 1 OF 1

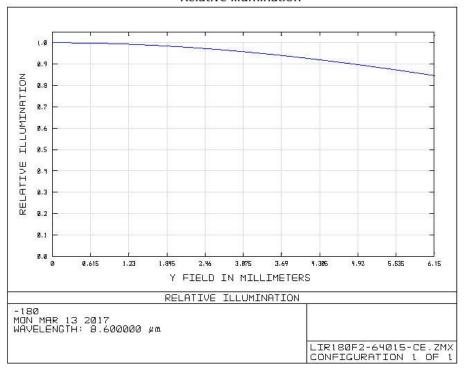
## MTF@201p/mm TS DIFF. LIMIT ||TS 0.0000 MM |||TS 1.8500 MM TS 3.0800 MM ||TS 4.3500 MM |||TS 5.2300 MM TS 6.1500 MM TS -6.1500 MM 1.0 0.8 910 8.7 8.6 8.5 ᆼ MODULUS 8.4 Ø.3 0.2 8. L SPATIAL FREQUENCY IN CYCLES PER MM POLYCHROMATIC DIFFRACTION MTF -180 MON MAR 13 2017 DATA FOR 7.7000 TO 9.4000 µm. SURFACE: IMAGE

#### Field curve and distortion





#### Relative illumination



## Vignetting

