

MWIR Continuous zoom – commercial off the shelf lens

JUNO

MWIR 18 - 275 mm F/5.5 Continuous zoom
High accuracy Lens with DSP controller



FEATURES / APPLICATIONS / CAPABILITIES

- X15 zoom ratio for F/5.5 cooled detectors
- Weighs **ONLY 220g**. Ultra-compact configuration
- Optimized for high accuracy payloads for various applications
- Focus is maintained through the entire zoom range

PARAMETER		VALUE	NOTES
Main	Sub		
OPTICAL			
Focal Length / F#		18 - 275 mm F/5.5	Nominal values. F# constant over zoom range
Detector (FPA) type / size		For 9.6 mm x 7.68 mm F/5.5 cooled detectors with 19 - 22 mm cold shield	
Working Spectral Range		3 - 5 μ	
FOV (degrees)		Wide FOV: 30.6°(H) x 24.5° (V) Narrow FOV: 2.05° (H) x 1.6°(V)	For detector size of 9.6 x 7.68 mm FOV within $\pm 5\%$ accuracy
Optical Coatings			
	All internal surfaces	High efficiency AR coating	Average transmission: 90%
	Front surface	High Durability AR (HDAR)	DLC is optional upon request
Optical Total lens track		66.5 mm	Nominal
Optical Back Focal Length		27.5 mm	Nominal
Boresight Retention		≤ 0.015 mm radius at the focal plane	
Through-zoom Boresight		≤ 0.05 mm radius at the focal plane	
MECHANICAL			
Mechanical Back Focal Length		Nominal 24.3 mm	Nominal
Focus / Zoom mechanism		Motorized	5m - Infinity
Total Weight		220 grams	Nominal, including electronic board
Ext. Dimensions ϕ x length (mm)		63.5x70 (Please refer to MICD for details)	
ELECTRICAL			
Power Input		12VDC, 1.0 A	Nominal
Communication Protocol		RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1
ENVIRONMENTAL			
Operating/Storage Temperature		-25°C to +55°C / -40°C to +70°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP67	By request