

MWIR Continuous Zoom – Commercial off the shelf lens

MIRACLE

MWIR 15-300mm 30-600mm F/4 Continuous Zoom Zero Boresight Folded Lenses

Features:

- The ultimate solution for various applications such as stabilized small payloads
- Focus is maintained through the entire zoom range providing extremely fast zoom and focus response
- Low boresight error

Optical		MIRACLE300	MIRACLE600
Focal Length / F#		15 - 300 mm F/4 (to within ±5%)	30 - 600 mm F/4 (to within ±5%)
Detector (FPA) type / size		For 9.6 mm x 7.68 mm F/4 cooled detectors with 19 – 22 mm cold shield	
Working Spectral Range		3 - 5μ	
FOV (Degrees)		Wide FOV: 35.5°(H) x 28.7° (V) Narrow FOV:1.8°(H) x 1.5°(V)	Wide FOV: 18°(H) x 14.5° (V) Narrow FOV:0.92°(H) x 0.73°(V)
Optical Coatings	All internal surfaces	High efficiency AR coating, Average transmission: 90%	
	Front surface	High durability AR coating (DLC by request)	
Optical Back Focal Length		34 mm	
Mechanical			
Mechanical Back Focal Length		24.7 mm Nominal	
Focus / Zoom mechanism		Motorized with 2 motors	
Through Zoom Boresight		≤ 0.045mm radius at the focal plane	
NFOV Boresight Retention		≤ 0.015mm radius at the focal plane	
Focus Range		10m - Infinity	30m – Infinity
Total Weight		1.05 kg	2.27 kg
Ext. Dimensions ø x length (mm)		144x99x135 (Please refer to MICD)	219x165x169 (Please refer to MICD)
Electrical			
Power Input		12VDC, 1.0 A	
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	

*IFOV is indicated in mrad

**All values are nominal: to within ±5%