

MWIR Continuous zoom – commercial off the shelf lens

DORADO

MWIR 25 - 200 mm F/4.0 Continuous zoom
High accuracy Lens with DSP controller



FEATURES / APPLICATIONS / CAPABILITIES

- Ultra-compact and low weight configuration
- An ultimate solution for small volume applications
- Designed to VGA resolution FPA detectors: 640x512x15μ pitch
- 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#		25 – 200mm / F 4.0	Nominal values. F# constant.
Detector (FPA) type / size		640 x 512 x 15μ detectors	Support regular detectors with 19 - 22mm CSH.
Working Spectral Range		3 – 5 μ	
FOV (degrees)		Wide FOV: 21.7°(H) x 17.5° (V) Narrow FOV: 2.8°(H) x 2.25°(V)	For detector size of 9.6 x 7.68 mm
Optical Coatings			
	All internal surfaces	High efficiency AR coating	Average transmission: 90%
	Front surface	High durability AR coating	DLC is available. Average transmission 84%
Optical Total lens track		139 mm	Nominal
Optical Back Focal Length		19.8 mm	Nominal
Boresight Retention		≤ 0.02mm radius at the focal	
Through – zoom Boresight		≤ 0.08mm radius at the focal plane	
⚙️ MECHANICAL			
Zoom mechanism		Motorized	With 2 motors
Focus Range		15 m / 30m – Infinity	For WOFV / NFOV accordingly
Total Weight		TBD	
External Dimensions		Max flange Ø 77 mm; Length: 114 mm (Please refer to MICD for details)	
💡 ELECTRICAL			
Power Input		12VDC, 1.0 A	Nominal active 0.2A in idle mode.
Communication Protocol		RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1
🌿 ENVIRONMENTAL			
Operating/Storage Temperature		-30°C to +60°C / -40°C to +71°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP67	By request

