

MWIR HD Continuous zoom – Commercial off the shelf lens

LIRA

MWIR 50-600 F/3.0 Continuous zoom Lens
for 1280 x 1024 x 10 μ HD cooled detectors



FEATURES / APPLICATIONS / CAPABILITIES

- X12 optical zoom lens for HD 10 μ sensors
- Ultimate optical performances
- Include RP unique "Zero boresight" mechanism
- Actively Athermalized to maintain focus to infinity through temperature changes

	HFOV for Wide (50mm)				HFOV for Narrow (600mm)			
	640x512	1024x768	1280x1024	IFOV (mrad)	640x512	1024x768	1280x1024	IFOV (mrad)
10u	7.3°	11.7°	14.6°	0.20	0.61°	0.98°	1.22°	0.0167
12u	8.8°	14.0°		0.24	0.73°	1.17°		0.020
15u	10.9°			0.30	0.92°			0.025
16u	11.7°			0.320	0.98°			0.0267

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL			
Focal Length / F#		50 - 600 F/3.0	Compatible with detectors having F# > F/3.
Detector (FPA) type / size		Up to 1,280 x 1,024 x 10 μ	See table above.
Working Spectral Range		3.6 – 4.9 μ	
Optical Coatings	All internal surfaces	High Efficiency AR coating	
	Front surface	High Durability AR coating	DLC is available upon request
CSH		19-21mm	
MECHANICAL			
Focus / Zoom mechanism		Motorized	
Focus Range		30m / 250m – Infinity	For WOFV / NFOV accordingly
Through zoom boresight		$\leq 30\mu$ radius at the focal plane	
NFOV boresight retention		$\leq 20\mu$ at the focal plane	
Total Weight		6.4 kg	
Ext. Dimensions ϕ x length (mm)		225mm x 335mm	
ELECTRICAL			
Power Input		12VDC, 3.0A	
Communication Protocol		RS-422/232 Full Duplex	
ENVIRONMENTAL			
Operating / Storage Temperature		-32°C to +60°C / -40°C to +70°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP66	IP67 By request

*All values are nominal: to within $\pm 5\%$

