

MWIR Continuous zoom – Commercial off the shelf lens

GARNET

MWIR 30-400mm F/3.0-4.0 Continuous zoom Lens for FHD 1920 x 1536 x 10 μ cooled detectors



FEATURES / APPLICATIONS / CAPABILITIES

- For FHD 10 μ detectors and with up to 24.59mm diagonal
- Highest resolution performance over entire zoom range
- Rugged design to comply with different applications

	HFOV for Wide (30mm)				HFOV for Narrow (400mm)			
	640 x 512	1280x1024	1920 x 1536	IFOV (mrad)	640x512	1280x1024	1920 x 1536	IFOV (mrad)
10u	12.2°	24°	35.5°	0.019	0.9°	1.8°	2.75°	0.0014
12u	14.6°	28.7°		0.023	1.1°	2.2°		0.0017
15u	18.2°	35.5°		0.028	1.4°	2.75°		0.0021
16u	19.4°			0.03	1.5°			0.0023

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL

Focal Length / F#		30-400 mm F/ 3.0 - 4.0	F/ 3.0 from 30- 300mm F/4.0 at 400mm
Detector (FPA) type / size		Up to 1920 x 1536 x 10 μ	
Working Spectral Range		3.6 – 4.8 μ	
Optical Coatings	All internal surfaces	High Efficiency AR coating	
	Front surface	High Durability AR coating	DLC is available upon request
CSH		28 \pm 1mm	

MECHANICAL

Zoom / Focus mechanism		Motorized	
Focus Range		50m / 100m – Infinity	For WOFV / NFOV accordingly
Through zoom boresight		\leq 0.15 mm radius at the focal plane	
NFOV boresight retention		\leq 0.045 mm radius at the focal plane	
Total Weight		1.25Kg	
Ext. Dimensions \varnothing x length (mm)		120 x 230	

ELECTRICAL

Power Input		12VDC, 1.0 A	
Communication Protocol		RS-422/232 Full Duplex	

ENVIRONMENTAL

Operating / Storage Temperature		-20°C to +55°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%

