

LWIR Continuous zoom – Commercial off the shelf lens

DEKEL



LWIR 25-150mm F/1.4 Continuous zoom Lens
for 640 x 480 x 17 μ uncooled detector

FEATURES / APPLICATIONS / CAPABILITIES

- High performance lens for medium range surveillance systems at various applications
- Suitable for 6" stabilized payloads
- Optimized for relatively short total track and low weight

	HFOV for Wide (25mm)				HFOV for Narrow (105mm)			
	640x480	1024x768	1280x1024	IFOV (mrad)	640x480	1024x768	1280x1024	IFOV (mrad)
12u	17.4°	27.6°		0.028	4.2°	6.7°		0.0046
17u	24.5°			0.039	5.93°			0.0065

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL

Focal Length / F#		25-150mm / F1.4	
Detector (FPA) type / size		Up to 640 x 480 x 17 μ	
Working Spectral Range		8-14 μ	
Optical Coatings	All internal surfaces	High Efficiency AR coating	
	Front surface	High Durability AR coating	DLC is available upon request

MECHANICAL

Mechanical Back Focal Length		7.32 mm	
Focus / Zoom mechanism		Motorized	
Focus range		5m / 20m – Infinity	For WOFV / NFOV accordingly
Through zoom boresight		≤ 0.15 mm radius at focal plane	
NFOV boresight retention		≤ 0.045 mm radius at focal plane	
Total Weight		1.2Kg	
Ext. Dimensions \varnothing x length (mm)		116 x 153.7	

ELECTRICAL

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

ENVIRONMENTAL

Operating / Storage Temperature		-25°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 $\pm 5\%$

