

---LWIR Continuous zoom – Commercial off the shelf lens

→ CEDAR

LWIR 15-100mm F/1.4 Continuous zoom Lens
for 640 x 480 x 17 μ uncooled detectors



FEATURES / APPLICATIONS / CAPABILITIES

- High sensitivity (LOW F#) 1.4
- Rugged design for harsh environments
- Supports detector types with up to 13.6mm diagonal

	HFOV for Wide (15mm)				HFOV for Narrow (100mm)			
	640x480	1024x768	1280x1024	IFOV (mrad)	640x480	1024x768	1280x1024	IFOV (mrad)
12u	28.7°	44.5°		0.046	4.4°	7.1°		0.0069
17u	39.8°			0.065	6.23°			0.0097

PARAMETER		VALUE	NOTES
Main	Sub		

🕒 OPTICAL			
Focal Length / F#		15-100mm / 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		11mm	
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		1Kg	
Ext. Dimensions \varnothing x length (mm)		115 x 119	
💡 ELECTRICAL			
Power Input		12VDC, 1.0A	
Communication Protocol		RS-422/232 Full Duplex	
🌿 ENVIRONMENTAL			
Operating / Storage Temperature		-25°C to +55°C / -50°C to +75°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP66	IP67 By default

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

