

LWIR Dual FOV – Commercial off the shelf lens

TOPAZ

LWIR 22/66mm F/1.25 Dual FOV Lens
for 640 x 480 x 17 μ uncooled detectors

FEATURES / APPLICATIONS / CAPABILITIES

- Smallest Dual FOV lens, for 4" payloads
- Suitable for various applications
- High sensitivity- LOW F# 1.25
- Rugged design for harsh environments



	HFOV for Wide (22mm)				HFOV for Narrow (66mm)			
	640x480	1024x768	1280x1024	IFOV (mrad)	640x480	1024x768	1280x1024	IFOV (mrad)
12u	19.8°			0.031	6.6°			0.01
17u	27.8°			0.044	9.4°			0.014

PARAMETER		VALUE	NOTES
Main	Sub		
🕒 OPTICAL			
Focal Length / F#		22/66 mm F/1.25	
Detector (FPA) type / size		Up to 640 x 480 x 17 μ	
Working Spectral Range		8-12 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		8.9mm	
Focus / Zoom mechanism		Motorized	
Focus range		5m / 10m – 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		350gr	
Ext. Dimensions ϕ x length (mm)		78 x 58	Excluding motor
💡 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 $\pm 5\%$

