

MWIR Dual FOV – commercial off the shelf lens

OPAL



MWIR 50/250 mm F/4.0 Dual FOV Lens

FEATURES / APPLICATIONS / CAPABILITIES

- An ultimate solution for harsh environment applications
- Sealed to IP67 level

PARAMETER		VALUE	NOTES
Main	Sub		
🕒 OPTICAL			
Focal Length / F#		50 / 250 mm / F4.0	Nominal values.
Detector (FPA) type / size		320 x 256 pixels x 30 microns 640 x 512 pixels x 15 microns	
FOV (degrees)		Wide FOV: 11°(H) x 8.3° (V) Narrow FOV: 2.25°(H) x 1.7°(V)	For detector size of 9.6 x 7.2 mm
Optical Coatings			
	All internal surfaces	High efficiency AR coating	Average transmission: 92%
	Front surface	High durability AR coating	DLC is available upon request
Optical Total lens track		128 mm	Front element vertex FPA, nominal value
Optical Back Focal Length		WFOV: 5 m / NFOV: 10m	
⚙️ MECHANICAL			
Mechanical Back Focal Length		Nominal 35.6mm	Equivalent in air.
Focus / Zoom mechanism		Motorized	With single motor
Thru zoom bore sight		0.3 mRad	Typical value
LOS shift during focusing		0.1mm on PFA	Typical value
FOV indication position		Included	Thru encoder of motor and opto-switch.
FOV switching time		1 sec	Typical value
Total Weight		~ 1520 grams	
Structure		Environmentally sealed configuration	
External Dimensions		Max dimension: 93mm W x 115mm H x 150mm length	
💡 ELECTRICAL			
Power Input		12VDC, 0.5 A	Nominal
Communication Protocol		RS-422/232 Full Duplex	Default is RS422; Baud rate 19,200, n, 8, 1
🌿 ENVIRONMENTAL			
Operating/Storage Temperature		-20°C to +50°C / -30°C to +70°C	
Shock and Vibrations		Per applicable standard	
Sealing		IP67	