

MWIR Triple FOV – commercial off the shelf lens

SHAVIT

MWIR 22.5/55/135 mm F/4 Triple FOV
Lens for small FPA detectors



FEATURES / APPLICATIONS / CAPABILITIES

- Compact and low weight lens
- An ultimate solution for small volume applications
- Designed and Optimized for small FPA detectors: 384 x 288 x 15μ pitch
- Cost effective design and structure

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL			
Focal Length / F#		22.5/ 55/ 135mm / F4.0	Nominal values. F# constant for all FOV's
Detector (FPA) type / size		384 x 288 x 15 μ detectors	Support short cold shield detectors with approx 15 mm height.
Working Spectral Range		3 – 5 microns	
FOV (degrees)		Wide FOV: 14.6°(H) x 11.0° (V) Medium FOV: 6.0°(H) x 4.5° (V) Narrow FOV: 2.44°(H)x1.83°(V)	For 384 x 288 x 15μ detector with size of 5.76 x 4.32 mm
Optical Coatings			
	All internal surfaces	High efficiency AR coating	Average transmission: 90%
	Front surface	High durability AR coating	DLC available – Average transmission 84%
Optical Total lens track		84 mm	Nominal
Optical Back Focal Length		23 mm	Nominal
MECHANICAL			
Focus / Zoom mechanism		Motorized	Both FOV change and focus control – 1 motor
Focus Range		5m / 10m / 15m - Infinity	For WOFV / MFOV / NFOV accordingly
Thru zoom bore sight		Better than 0.15 mm	
NFOV bore sight retention		Better than 0.02 mm	
Total Weight		~ 200 grams	Nominal
External Dimensions		Max Diameter: 57 mm; Length: 70 mm (please refer to MICD)	
ELECTRICAL			
Power Input		12VDC, 1.0A	Nominal with motors active. 0.2A in idle mode.
Communication Protocol		RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1
ENVIRONMENTAL			
Operating/Storage Temperature		-32°C to +60°C / -40°C to +71°C	
Shock and Vibrations		Per applicable standard	

