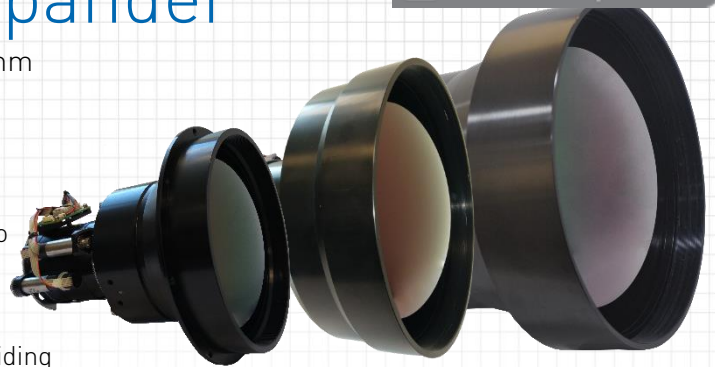


MWIR Continuous zoom – commercial off the shelf lens

DIAMOND+ Beam Expander

 + Beam Expander*

MWIR 30-600, 40 - 860mm, 45 - 1075mm, 60 - 1415mm
F/5.5 Continuous zoom Lens



FEATURES / APPLICATIONS / CAPABILITIES

- Ultra long focal length zoom lens with highest zoom ratio
- Outstanding performance over entire zoom range
- Rugged design to comply with various applications
- Focus is maintained through the entire zoom range providing Fast zoom and focus response

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL

Focal Length / F#	30-600mm, 40-860mm, 45-1075mm, 60-1415mm			Nominal. F/5.5 constant
Detector (FPA) type / size	For 9.6 mm x 7.68 mm F/5.5 Cooled detectors with 19 - 22 mm cold shield			
Working Spectral Range	3 - 5 μ			
FOV (degrees) of the DIAM600	Wide FOV:19.3° (H) x 15.5°(V) Narrow FOV:0.9°(H) x 0.72°(V)			For detector size of 9.6 x 7.68mm All values are nominal: to within +/- 5%
FOV (degrees) of the DIAM860	Wide FOV:15.2° (H) x 12.2°(V) Narrow FOV:0.64°(H) x 0.5°(V)			
FOV (degrees) of the DIAM1075	Wide FOV:12.2° (H) x 9.75°(V) Narrow FOV:0.5°(H) x 0.4°(V)			
FOV (degrees) of the DIAM1415	Wide FOV: 9.15°(H)x 7.32°(V) Narrow FOV: 0.4°(H)x 0.31°(V)			
Optical Coatings				
	All internal surfaces	High efficiency AR coating		Average transmission: 88% for base
	Front surface	High durability AR coating		DLC is available upon request
LENS	DIAM600	DIAM860	DIAM1075	DIAM1415
Transmission with HDAR/ DLC	70%/65%	82% / 77%	82% / 77%	80% / 75%
Optical Total lens track	~215mm	~260mm	~305mm	~365mm
Optical Back Focal Length	24.7 mm Nominal			

MECHANICAL

Mechanical Back Focal Length	~ 15mm Nominal for standard MICD. [Customized lengths are available]			
Zoom mechanism	Motorized			
Trough zoom boresight	≤0.15 mm radius at focal plane			
NFOV boresight retention	≤0.045 mm radius at focal plane			
Focus Range	50m - Infinity	60m - Infinity	100m - Infinity	100m - Infinity
Total Weight (Nominal)	~1,700 gr.	~3,000 gr.	~3,600 gr.	10kg
Ext. Dimensions ϕ x length (mm)	131 x 200	206 x 250	230 x 260	320 x 337

ELECTRICAL

Power Input	12VDC, 1.0 A	Nominal
Communication Protocol	RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1

ENVIRONMENTAL

Operating/Storage Temperature	-25°C to +50°C / -40°C to +70°C	
Shock and Vibrations	Per applicable standard	
Front lens sealing	IP66	IP67 By request

