

MWIR Continuous zoom – commercial off the shelf lens

DIAMOND+ Beam Expander

 +Beam Expander*

MWIR 36 - 860mm, 45 – 1075mm
F/5.5 Continuous zoom Lens with DSP controller



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#		36-860, 45–1075 mm	Nominal. F/5.5 const. over zoom range
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 DIAM860 (DIAMOND + X2 BE)		Wide FOV:15.2° (H) x 12.2°(V) Narrow FOV:0.64°(H) x 0.5°(V)	For detector size of 9.6 x 7.68 mm All values are nominal: to within +/- 5%
FOV (degrees) of the DIAM1075 (DIAMOND + X2.5 BE)		Wide FOV:12.2° (H) x 9.75°(V) Narrow FOV:0.5°(H) x 0.4°(V)	
Optical Coatings			
	All internal surfaces	High efficiency AR coating	Average transmission: 88% for base lens
	Front surface	DLC	
LENS		DIAM860	DIAM1075
Transmission with HDAR/ DLC		82% / 77%	82% / 77%
Optical Total lens track		~260mm	~305mm
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	
Focus Range		60m – Infinity	100m - Infinity
Total Weight (Nominal)		~3,000 gr.	~4,850 gr.
Ext. Dimensions (DiamxLength)		206mm X 250mm	230mm X 270mm
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		-30°C to +50°C / -40°C to +70°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP67	

