

MWIR HD Continuous zoom – commercial off the shelf lens

# PARAGON+ Beam Expander

45 – 960mm & 57 – 1200mm MWIR F/4.7

Continuous zoom Lens for HD cameras



## FEATURES / APPLICATIONS / CAPABILITIES

- Highest resolution performance over entire zoom rang
- Very high focal length zoom lens with highest zoom ratio
- Rugged design to comply with various applications
- Focus is maintained throughout the entire zoom range, with extremely fast zoom and focus response

PARAMETER		VALUE	NOTES
Main	Sub		
<b>OPTICAL</b>			
<b>Focal Length / F#</b>		45-960mm, 57-1200mm	Nominal F/4.7
<b>Detector (FPA) type / size</b>		Supports HD 1,280 x 1,024 x 15 μm (19.2 x 15.36 mm)	
<b>Working Spectral Range</b>		3 – 5 μ	
<b>FOV for PARAGON960</b> (with X2 BE) 45-960mm		Wide FOV: 22.5° (H) x 18.5°(V) Narrow FOV: 1.12°(H) x 0.9°(V)	For detector size of 19.2 x 15.36mm <b>All values are nominal: to within +/- 5%</b>
<b>FOV for PARAGON1200</b> (with X2.5 BE) 57-1200mm		Wide FOV: 18° (H) x 14.8°(V) Narrow FOV: 0.9°(H) x 0.72°(V)	
<b>Optical Coatings</b>	<b>Internal surfaces</b>	High efficiency AR coating	Average transmission: 75%
	<b>Front surface</b>	High durability AR coating	DLC is available upon request
<b>LENS</b>		<b>PARAGON980</b>	<b>PARAGON1200</b>
<b>Optical Total lens track</b>		400mm~	432.3mm
<b>Cold Stop distance</b>		28 ± 1mm	
<b>Optical Back Focal Length</b>		36 mm Nominal	
<b>MECHANICAL</b>			
<b>Mechanical Back Focal Length</b>		32 Nominal for standard MICD.	
<b>Zoom mechanism</b>		Motorized	
<b>Focus Range</b>		50 – Infinity, 300 – Infinity (narrow)	50 – Infinity, 400 – Infinity (narrow)
<b>Total Weight (Nominal)</b>		~5.5 kg.	~6.7 kg.
<b>Ext. Dimensions (DiamxLength)</b>		135 x 192mm	273 X 396.4mm
<b>ELECTRICAL</b>			
<b>Power Input</b>		12VDC, 1.0 A	Nominal
<b>Communication Protocol</b>		RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1
<b>ENVIRONMENTAL</b>			
<b>Operating/Storage Temperature</b>		-30°C to +50°C / -40°C to +70°C	
<b>Shock and Vibrations</b>		Per applicable standard	
<b>Front lens sealing</b>		IP67	By default

