MWIR HD Continuous zoom - Commercial off the shelf lens

PARAGON1200

MWIR 57– 1200mm F/4.7 Continuous zoom Lens for 1280 x 1024 x 15 μ cooled detectors

FEATURES / APPLICATIONS / CAPABILITIES

- Highest resolution performance over entire zoom range
- Very high X21 zoom ratio
- Rugged design to comply with various applications
- Supports FHD 10µ detectors and sensors with up to 24.59mm diagonal



	HF0V for	r Wide (57mr	m)		HFOV for Narrow (1200mm)			
	640 x 512	1280x1024	1920 x 1536	IFOV (mrad)	640x512	1280x1024	1920 x 1536	IFOV (mrad)
10ι	6.4°	12.8°	19.1°	0.01	0.3°	0.6°	0.9°	0.0048
12ι	7.7°	15.3°		0.012	0.37°	0.7°		0.0057
15ı	9.6°	19.1°		0.015	0.46°	0.9°		0.0072

Main Sub OPTICAL Focal Length / F# 57-1200mm F/4.7 Detector (FPA) type / size Up to 1280 x 1024 x 15µ Working Spectral Range 3 - 5µ Optical Coatings Front surfaces DLC coating HDAR is available upon request CSH 28 ± 1mm Methanical Focus / Zoom mechanism Motorized Through zoom boresight < <0.15 mm radius at the focal plane NFOV boresight retention < <0.075 mm radius at the focal plane Focus Range 50m / 400m - Infinity For WFOV / NFOV accordingly Total Weight -7 kg Ext. Dimensions Ø x length (mm) 273 x 397 PELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C Shock and Vibrations Per applicable standard	PARAMETER		VALUE	NOTES			
Focal Length / F# 57-1200mm F/4.7 Detector (FPA) type / size Up to 1280 x 1024 x 15µ Working Spectral Range 3 − 5µ Optical Coating Internal surfaces High Efficiency AR coating Coatings HDAR is available upon request CSH 28 ± 1mm MECHANICAL Focus / Zow mechanism Motorized Through zown boresight 40.15 mm radius at the focal plane NFOV boresight retention <0.075 mm radius at the focal plane Focus Range 50m / 400m – Infinity For WFOV / NFOV accordingly Total Weight -7 kg Ext. Dimensions ø x length (mm) 273 x 397 ELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Main	Sub					
Focal Length / F# 57-1200mm F/4.7 Detector (FPA) type / size Up to 1280 x 1024 x 15µ Working Spectral Range 3 − 5µ Optical Coating Internal surfaces High Efficiency AR coating Coatings HDAR is available upon request CSH 28 ± 1mm MECHANICAL Focus / Zow mechanism Motorized Through zown boresight 40.15 mm radius at the focal plane NFOV boresight retention <0.075 mm radius at the focal plane Focus Range 50m / 400m – Infinity For WFOV / NFOV accordingly Total Weight -7 kg Ext. Dimensions ø x length (mm) 273 x 397 ELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	◎ OPTICA	 \L					
Working Spectral Range Optical Coatings Internal surfaces Front surface DLC coating HDAR is available upon request CSH 28 ± 1mm WECHANICAL Focus / Zoom mechanism Motorized Through zoom boresight NFOV boresight retention Focus Range 50m / 400m − Infinity For WFOV / NFOV accordingly Total Weight -7 kg Ext. Dimensions Ø x length (mm) T273 x 397 PLECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex FOUND FOR Surge Temperature -25°C to +55°C / -40°C to +70°C	_		57-1200mm F/4.7				
Optical Coatings Front surfaces DLC coating HDAR is available upon request CSH 28 ± 1mm MECHANICAL Focus / Zoom mechanism Motorized Through zoom boresight NFOV boresight retention Focus Range 50m / 400m − Infinity For WFOV / NFOV accordingly Total Weight Ext. Dimensions Ø x length (mm) 273 x 397 PELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex POPERATION AND AND AND AND AND AND AND AND AND AN	Detector (FPA) type / size		Up to 1280 x 1024 x 15µ				
Coatings Front surface DLC coating HDAR is available upon request CSH 28 ± 1mm MECHANICAL Focus / Zoom mechanism Motorized Through zoom boresight <0.15 mm radius at the focal plane NFOV boresight retention <0.075 mm radius at the focal plane Focus Range 50m / 400m − Infinity For WFOV / NFOV accordingly Total Weight -7 kg Ext. Dimensions ø x length (mm) 273 x 397 PELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Working Spectral Range		3 – 5µ				
CSH 28 ± 1mm MECHANICAL Focus / Zoom mechanism Motorized Through zoom boresight ≤0.15 mm radius at the focal plane NFOV boresight retention ≤0.075 mm radius at the focal plane Focus Range 50m / 400m − Infinity For WFOV / NFOV accordingly Total Weight ~7 kg Ext. Dimensions ø x length (mm) 273 x 397 PELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Optical	Internal surfaces	High Efficiency AR coating				
Focus / Zoom mechanism Motorized Through zoom boresight NFOV boresight retention Focus Range Focus Range 50m / 400m − Infinity Total Weight Ext. Dimensions Ø x length (mm) 273 x 397 PELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex Focus Range 12°C to +55°C / -40°C to +70°C	Coatings	Front surface	DLC coating	HDAR is available upon request			
Focus / Zoom mechanism Motorized Through zoom boresight	CSH		28 ± 1mm				
Through zoom boresight	MECHANICAL						
NFOV boresight retention	Focus / Zoom mechanism		Motorized				
Focus Range 50m / 400m − Infinity For WFOV / NFOV accordingly Total Weight ~7 kg Ext. Dimensions ø x length (mm) 273 x 397 PELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Through zoom boresight		<0.15 mm radius at the focal plane				
Total Weight ~7 kg Ext. Dimensions ø x length (mm) 273 x 397 P ELECTRICAL Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex	NFOV boresight retention		≤0.075 mm radius at the focal plane				
Ext. Dimensions Ø x length (mm) Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature 273 x 397 12VDC, 3.0 A RS-422/232 Full Duplex	Focus Range		50m / 400m – Infinity	For WFOV / NFOV accordingly			
Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex € ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Total Weight		~7 kg				
Power Input 12VDC, 3.0 A Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Ext. Dimensions ø x length (mm)		273 x 397				
Communication Protocol RS-422/232 Full Duplex ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	P ELECT	RICAL					
© ENVIRONMENTAL Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Power Input		12VDC, 3.0 A				
Operating / Storage Temperature -25°C to +55°C / -40°C to +70°C	Communic	ation Protocol	RS-422/232 Full Duplex				
	ENVIR	DNMENTAL					
Shock and Vibrations Per applicable standard	Operating / Storage Temperature		-25°C to +55°C / -40°C to +70°C				
The state of the s	Shock and	Vibrations	Per applicable standard				
Front lens sealing IP67	Front lens	sealing	IP67				

^{*}All values are nominal: to within ±5%

