

## LWIR Continuous zoom – Commercial off the shelf lens

# CACTUS

Cooled LWIR 15 – 300 mm F/2 Continuous zoom  
Lens for 640 x 512 x 15 $\mu$  cooled detectors

AVAILABLE  
SOON

### FEATURES / APPLICATIONS / CAPABILITIES

- The ultimate lens for medium to long range surveillance systems in various applications.
- Excellent MTF performances

PARAMETER		VALUE	NOTES
Main	Sub		

#### OPTICAL

Focal Length / F#	15-300 mm F/2	Nominal values
Detector (FPA) type / size	640 x 512 x 15 $\mu$	Cooled LWIR detector with cold stop at 19.8mm
Cold Stop	19.8mm	
Working Spectral Range	7.8-10 $\mu$	
FOV (degrees)	Wide FOV: 35.5°(H) Narrow FOV: 1.8° (H)	All to within $\pm$ 5%
Optical Coatings		
	All internal surfaces	High efficiency AR coating
	Front surface	High efficiency AR coating
Optical Total lens track	260mm	Nominal, From 1 <sup>st</sup> lens vertex to FPA

#### MECHANICAL

Mechanical Back Focal Length	Please refer to MICD	Nominal
Focus / Zoom mechanism	Motorized	
Thru zoom boresight		$\leq$ 0.15 mm radius at focal plane
NFOV boresight retention		$\leq$ 0.045 mm radius at focal plane
Total Weight	~3Kg	Nominal
Ext. Dimensions $\varnothing$ x length (mm)	170 x 271	Exist NUC shutter

#### ELECTRICAL

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

#### ENVIRONMENTAL

Operating/Storage Temperature	-40°C to +60°C / -40°C to +75°C	
Shock and Vibrations	Per applicable standard	
Front lens sealing	IP66	IP67 By request