

# LWIR Dual FOV – Commercial off the shelf lens

## SHARK

LWIR 85/190mm F/1.2 Dual FOV Lens  
for 640 x 480 x 17 $\mu$  uncooled detectors



### Features:

- Discrete zoom lens for medium range, demanding applications
- Excellent MTF performance
- High sensitivity, Low F#

HFOV for Wide (85mm)				HFOV for Narrow (190mm)			
640x480	1024x768	1280x1024	IFOV (mrad)	640x480	1024x768	1280x1024	IFOV (mrad)
12u	5.2°		0.14	2.3°			0.063
17u	7.45°		0.2	3.2°			0.089

Optical	
Focal Length / F#	85/190mm F/1.2
Detector (FPA) type / size	Up to 640 x 480 x 17 $\mu$
Working Spectral Range	8-12 $\mu$
Optical Coatings	All internal surfaces High efficiency AR coating
	Front surface High durability AR coating / DLC is available upon request
Mechanical	
Focus / Zoom mechanism	Motorized
Focus range	30m / 100m – Infinity For WOFV / NFOV accordingly
NFOV boresight retention	$\leq 0.045$ mm radius at the focal plane
Total Weight	2.3Kg
Ext. Dimensions $\phi$ x length (mm)	170 x 232
Electrical	
Power Input	12VDC, 3.0A
Communication Protocol	RS-422/232 Full Duplex
Environmental	
Operating / Storage Temperature	-40 $^{\circ}$ C to +60 $^{\circ}$ C / -40 $^{\circ}$ C to +70 $^{\circ}$ C
Shock and Vibrations	Per applicable standard
Front lens sealing	IP66 IP67 By request

\*IFOV is indicated in mrad

\*\*All values are nominal: to within  $\pm 5\%$