

## LWIR Dual FOV – Commercial off the shelf lens

# BARKAT

LWIR 45/135mm F1.1/1.6 Dual FOV Lens  
for 640 x 480 x 17 $\mu$  uncooled detectors

### Features:

- Rugged design for demanding payloads
- Optimized for relatively short total track and low weight
- Supports detector types with up to 13.6mm diagonal



HFOV for Wide (45mm)				HFOV for Narrow (135mm)			
640x480	1024x768	1280x1024	IFOV (mrad)	640x480	1024x768	1280x1024	IFOV (mrad)
12u	9.75°		0.26	3.3°			0.089
17u	13.7°		0.38	4.62°			0.12

Optical	
Focal Length / F#	45/135 mm F1.1 / 1.6
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 DLC coating / HDAR is available upon request
Mechanical	
Mechanical Back Focal Length	9.25 ( $\pm$ 0.56) mm / Please refer to MICD for details
Focus / Zoom mechanism	Motorized / With single motor
Focus range	10m – Infinity
NFOV boresight retention	$\leq$ 0.045mm radius at the focal plane
Total Weight	1.6Kg
Structure	Sealed configuration/Open frame/No bottom plate upon request
Ext. Dimensions L x W x H (mm)	142 x 99 x 110 / Please refer to MICD for details
Electrical	
Power Input	12VDC, 1A
Communication Protocol	RS-422/232 Full Duplex
Environmental	
Operating / Storage Temperature	-25 $^{\circ}$ C to +55 $^{\circ}$ 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%