

## LWIR Dual FOV – Commercial off the shelf lens

# BARKAT

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



### FEATURES / APPLICATIONS / CAPABILITIES

- 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°			0.015	3.3°			0.0051
17u	13.7°			0.022	4.62°			0.0072

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL			
Focal Length / F#		45/135 mm F1.1 / 1.6	
Detector (FPA) type / size		Up to 640 x 480 x 17μ	
Working Spectral Range		8-12μ	
Optical Coating	All internal surfaces	High efficiency AR coating	
	Front surface	DLC coating	HDAR is available upon request
MECHANICAL			
Mechanical Back Focal Length		9.25 (±0.56) mm	Please refer to MICD for details
Focus / Zoom mechanism		Motorized	With single motor
Focus range		10m – Infinity	
NFOV boresight retention		≤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°C to +55°C / -40°C to +70°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP66	IP67 By request

\*All values are nominal: to within ±5%

