

MWIR Continuous zoom – commercial off the shelf lens

IR-FLY Series

MWIR 15 - 250 mm F/4.0 Continuous zoom
Ultra Compact Lens for cold shield detectors



FEATURES / APPLICATIONS / CAPABILITIES

- Ultra Compact and low weight lens
- The ultimate solution for small volume applications including small gimbal payloads
- Available in several versions to support multiple applications

PARAMETER	IR-FLY	IR-FLYs	NOTES
OPTICAL			
Focal Length	15-250 mm	18-250 mm	Nominal values.
F#	4.0		F# constant over zoom range
Cooled Detector - Size / Cold Shield Height (CSH)	640 x 512 x 12µ/15µ 13.5-14.5mm CSH	640 x 512 x 15 µ/16µ 19-21mm CSH	
Spectral Range	3 – 5 µ		
FOV (degrees)	27°x21.7° 2.2°x1.75°	27°x21.7° 2.2°x1.7°	
Wide/ Narrow FOV: H x V	For 640 x 512 x 15µ 21.7°x17.4° 1.78°x1.40°	For 640 x 512 x 15µ 31.7°x25.6° 2.35°x1.9°	
For 640 x 512 x 12µ		For 640 x 512 x 16µ	
Optical Coatings			
All internal surfaces	High efficiency AR coating		Average transmission: 90%
Front surface	High durability AR coating		DLC is available upon request.
Optical Total lens track	111 mm		Nominal
Optical Back Focal Length	18 mm		Nominal
MECHANICAL			
Mechanical BFL	6-7 mm	7 mm	Air gap between rear flange & detector
Zoom mechanism	Motorized		
Focus Range	20m / 200m – Infinity		For WOFV / NFOV accordingly
Thru zoom boresight	Better than 0.06 mm		4 pixels radius
NFOV boresight retention	Better than 0.03 mm		2 pixels radius
Total Weight	265 grams		Nominal
External Dimensions	Max Diameter: 78.4 mm; Length: 91.5 mm (Please refer to MICD for details)		
ELECTRICAL			
Power Input	12VDC, 1.0 A		Nominal
Communication Protocol	RS-422/232 Full Duplex		Baud rate 19,200, n, 8, 1
ENVIRONMENTAL			
Operating/Storage	-32°C to +71°C / -40°C to +85°C		
Shock and Vibrations	Per applicable standard		
Front lens sealing	IP67 By request		

