

--- LWIR Dual/Triple FOV – commercial off the shelf lens

# ROTEM

LWIR 70/220 mm F/1.1 & / F1.45 Dual FOV  
 Lens with DSP controller for 25 / 17 $\mu$  detectors



## FEATURES / APPLICATIONS / CAPABILITIES

- The ultimate lens for medium to long range surveillance systems in various applications
- Excellent MTF performance
- Supports multiple detector types: 640 x 480 x 25 $\mu$  pitch. 640 x 480 x 17 $\mu$  pitch and HD 1,024 x 768 x 17 $\mu$  pitch

PARAMETER		VALUE	NOTES
Main	Sub		

### OPTICAL

<b>Focal Length / F#</b>	70/220mm, F/1.1 & / F1.45	Nominal values.	
<b>Detector (FPA) type / size</b>	640 x 480 pixels x 25 microns		
	1,024 x 768 pixels x 17 microns		
	640 x 480 pixels x 17 microns		
<b>FOV (degrees)</b>	Wide: 13.1°(H) x 9.8° (V) Narrow: 4.17°(H) x 3.12° (V)	For detector size of 16 x 12 mm (640 x 480 x 25 $\mu$ )	
	Wide: 14.2°(H) x 10.7° (V) Narrow: 4.6°(H) x 3.4° (V)	For detector size of 16 x 12 mm (1,024 x 768 x 17 $\mu$ )	
	Wide: 9.0(H) x 6.72° (V) Narrow: 2.83°(H) x 2.12° (V)	For detector size of 10.88 x 8.16 mm (640 x 480 x 17 $\mu$ )	
<b>Optical Coatings</b>			
	<b>All internal surfaces</b>	High efficiency AR coating	Average transmission: 92%
	<b>Front surface</b>	High durability AR coating	DLC is available upon request
<b>Optical Total lens track</b>	240.1 mm	Nominal	

### MECHANICAL

<b>Mechanical Back Focal Length</b>	12.1 mm	Nominal
<b>Focus / Zoom mechanism</b>	Motorized	Focus range: 5m - Infinity
<b>Total Weight</b>	4,150 grams	Nominal
<b>External Dimensions</b>	Max Diameter: 194 mm; Length: 228 mm (excluding motor and electronic board)	

### ELECTRICAL

<b>Power Input</b>	12VDC, 2.0A	Nominal
<b>Communication Protocol</b>	RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1

### ENVIRONMENTAL

<b>Operating/Storage Temperature</b>	-32°C to +55°C / -40°C to +70°C	
<b>Shock and Vibrations</b>	Per applicable standard	
<b>Front lens sealing</b>	IP67	

