

## LWIR Triple FOV – commercial off the shelf lens

# TRiF

LWIR 60/110/360 mm Triple FOV  
 Lens with DSP controller for cooled LWIR detectors



### FEATURES / APPLICATIONS / CAPABILITIES

- An ultimate lens for long range surveillance systems at various applications
- Optimized for relatively short total track and low weight

| PARAMETER                     |                       | VALUE   | NOTES  |
|-------------------------------|-----------------------|---|--|
| Main                          | Sub                   |   |  |
| <b>OPTICAL</b>                |                       |   |  |
| Focal Length / F#             |                       | 60/110/360 mm / F2.24   | Nominal values   |
| Detector (FPA) type / size    |                       | 640 x 512 pixles x 15 microns   | Max FPA effective area is: 9.6 mm W x 7.68 mm H (12.3 mm diagonal) |
| FOV (degrees)                 |                       | Wide: 9°(H) x 7°(V)<br>Middle: 5°(H) x 4°(V)<br>Narrow: 1.55°(H) x 1.25°(V) | For detector size of 640 x 512 pixles x 15μ                        |
| <b>Optical Coatings</b>       |                       |   |  |
|                               | All internal surfaces | High efficiency AR coating  | Average transmission: 82%  |
|                               | Front surface         | High durability AR coating  | DLC upon request   |
| Optical Total lens track      |                       | 193 mm  | Front element vertex to FPA, Nominal Value                         |
| <b>MECHANICAL</b>             |                       |   |  |
| Mechanical Back Focal Length  |                       | 23.5 mm   | Request MICD for details.  |
| Zoom mechanism / Focus        |                       | Motorized   | With single motor  |
| Rear shutter / NUC flag       |                       | Motorized   |  |
| Thru zoom boresight           |                       | ≤0.15 mm radius at the focal plane  |  |
| NFOV boresight retention      |                       | ≤0.03 mm radius at the focal plane  |  |
| Total Weight                  |                       | 3.0 kg  | Nominal  |
| Structure                     |                       | Open frame configuration  |  |
| External Dimensions           |                       | 174mm Diameter x 193 mm length  |  |
| <b>ELECTRICAL</b>             |                       |   |  |
| Power Input                   |                       | 12VDC, 0.5A   | Nominal  |
| Communication Protocol        |                       | RS-422/232 Full Duplex  | Default is RS422; Baud rate 19,200, n, 8, 1                        |
| <b>ENVIRONMENTAL</b>          |                       |   |  |
| Operating/Storage Temperature |                       | -25°C to +55°C / -40°C to +70°C   |  |
| Shock and Vibrations          |                       | IP67 by request   |  |

