

MWIR Continuous zoom – commercial off the shelf lens

# RUBY

MWIR 20-320 mm F/5.5 Continuous zoom Lens

## FEATURES / APPLICATIONS / CAPABILITIES

- Very high zoom ratio for F/5.5 cooled detectors in an Ultra-compact configuration
- Optimized for stabilized payloads
- Focus is maintained through the entire zoom range
- Optional focal length extenders are available for this lens



| PARAMETER |     | VALUE | NOTES |
|-----------|-----|-------|-------|
| Main      | Sub |       |       |

| OPTICAL                              |                              |   |   |
|--------------------------------------|------------------------------|---|---|
| <b>Focal Length / F#</b>             |                              | 20-320 mm / F 5.5   | Nominal values. F# constant over zoom range |
| <b>Detector (FPA) type / size</b>    |                              | For 9.6 mm x 7.68 mm F/5.5 cooled detectors with 19 – 22 mm cold shield |   |
| <b>Working Spectral Range</b>        |                              | 3 – 5 $\mu$   |   |
| <b>FOV (degrees)</b>                 |                              | Wide FOV: 27.4°(H) x 22° (V)<br>Narrow FOV:1.8° (H) x 1.44°(V)          | For detector size of 9.6 x 7.68 mm          |
| Optical Coatings                     |                              |   |   |
|                                      | <b>All internal surfaces</b> | High efficiency AR coating  | Average transmission: 90%                   |
|                                      | <b>Front surface</b>         | High durability AR coating  | DLC is available upon request               |
| <b>Optical Total lens track</b>      |                              | 97.5 mm   | Nominal                                     |
| <b>Optical Back Focal Length</b>     |                              | 24.7 mm   | Nominal                                     |
| MECHANICAL                           |                              |   |   |
| <b>Mechanical Back Focal Length</b>  |                              | Nominal 15.5mm  | Nominal                                     |
| <b>Focus / Zoom mechanism</b>        |                              | Motorized   | 5m - Infinity                               |
| <b>Total Weight</b>                  |                              | 480 grams   | Nominal                                     |
| <b>External Dimensions</b>           |                              | Max Diameter: 73.2 mm; Length: 84 mm (Please refer to MICD for details) |   |
| ELECTRICAL                           |                              |   |   |
| <b>Power Input</b>                   |                              | 12VDC, 1.0 A  | Nominal                                     |
| <b>Communication Protocol</b>        |                              | RS-422/232 Full Duplex  | Baud rate 19,200, n, 8, 1                   |
| ENVIRONMENTAL                        |                              |   |   |
| <b>Operating/Storage Temperature</b> |                              | -30°C to +55°C / -40°C to +70°C   |   |
| <b>Shock and Vibrations</b>          |                              | Per applicable standard   |   |

