

MWIR Continuous zoom – Commercial off the shelf lens

IR-BEE

MWIR 20-340mm F/5.5 Continuous zoom Lens
for 640 x 512 x 15µ cooled detectors



FEATURES / APPLICATIONS / CAPABILITIES

- Ultra Compact and light weight lens
- “ZERO” boresight errors for maximum accuracy
- Perfect solution for airborne payloads

| | HFOV for Wide (20mm) | | | | HFOV for Narrow (340mm) | | | |
|-----|----------------------|----------|-----------|-------------|-------------------------|----------|-----------|-------------|
| | 640x512 | 1024x768 | 1280x1024 | IFOV (mrad) | 640x512 | 1024x768 | 1280x1024 | IFOV (mrad) |
| 10u | 18.1° | | | 0.028 | 1.1° | | | 0.0017 |
| 12µ | 21.7° | | | 0.034 | 1.3° | | | 0.002 |
| 15u | 27° | | | 0.043 | 1.62° | | | 0.0025 |

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

🔍 OPTICAL

| | | | |
|----------------------------|-------------------|----------------------------|-----------------|
| Focal Length / F# | | 20-340mm F/5.5 | |
| Detector (FPA) type / size | | 640 x 512 x 15µ | |
| Working Spectral Range | | 3 – 5µ | |
| Optical Coatings | Internal surfaces | High Efficiency AR coating | |
| | Front surface | High Durability AR coating | DLC is optional |

⚙️ MECHANICAL

| | | | |
|----------------------------|--|--------------------------------|-----------------------------|
| Focus / Zoom mechanism | | Motorized | |
| Focus Range | | 20m / 200m – Infinity | For WOFV / NFOV accordingly |
| Through zoom boresight | | ≤0.075mm radius at focal plane | |
| NFOV boresight retention | | ≤0.03mm radius at focal plane | |
| Total Weight | | 265gr | |
| Dimensions ø x length (mm) | | 79 x 87 | |

💡 ELECTRICAL

| | | | |
|------------------------|--|------------------------|--|
| Power Input | | 12VDC, 1.0 A | |
| Communication Protocol | | RS-422/232 Full Duplex | |

🌍 ENVIRONMENTAL

| | | | |
|---------------------------------|--|---------------------------------|-----------------|
| Operating / Storage Temperature | | -25°C to +55°C / -40°C to +80°C | |
| Shock and Vibrations | | Per applicable standard | |
| Front lens sealing | | IP66 | IP67 By request |

*All values are nominal: to within ±5%

