



Introduction



Umicore's GASIR® infrared lenses have been developed for an easy fit with a wide range of camera cores. Our catalog lenses provide a cost-effective solution for high-resolution thermal imaging and sensing applications.

This **passively athermalized infrared lens** fits the latest **17 μm VGA** and **25 μm qVGA+** uncooled detectors as well as **12 μm XGA detectors** or smaller. Its **low distortion** makes it ideally suited for use in thermal imaging applications.

Optical Specifications

| | |
|-------------------------|--|
| Focal length | 25.0 mm |
| Aperture-based f-number | f/1.20 |
| Waveband | 8-12 μm |
| Transmission | > 87% average over waveband |
| Focus range | 1.0 m to infinity with 0.64 mm refocus |
| Assembly weight | 40 g |

Field of view

| | | | |
|------------|-------|-------|--|
| 1024 x 768 | 12 μm | XGA | 27.1° (H) x 20.7° (V) - 33.3° (diagonal) |
| 640 x 512 | 17 μm | | 24.2° (H) x 19.6° (V) - 30.5° (diagonal) |
| 640 x 480 | 17 μm | VGA | 24.2° (H) x 18.4° (V) - 29.8° (diagonal) |
| 384 x 288 | 25 μm | qVGA+ | 21.5° (H) x 16.3° (V) - 26.6° (diagonal) |
| 320 x 240 | 25 μm | qVGA | 18.0° (H) x 13.6° (V) - 22.4° (diagonal) |
| 640 x 480 | 12 μm | VGA | 17.3° (H) x 13.1° (V) - 21.5° (diagonal) |
| 384 x 288 | 17 μm | qVGA+ | 14.8° (H) x 11.1° (V) - 18.4° (diagonal) |
| 320 x 240 | 17 μm | qVGA | 12.4° (H) x 9.3° (V) - 15.4° (diagonal) |

Environmental Specifications

| | |
|-----------------------|--|
| Operating temperature | -40 °C to +80 °C |
| Storage temperature | -57 °C to +105 °C |
| Vibration | MIL-STD-810E Method 514.4 Proc I Cat 8 |
| Mechanical shock | MIL-E-5400T |
| Solar radiation | MIL-STD-810G Method 505.5 |
| Sealing | IP67 |

Front surface
Internal surfaces

iDLC @ 8-12 μm
High efficiency anti-reflective coating @ 8-12 μm

Assembly & Interface Specifications

Black anodized aluminium

Image plane-related dimensions valid with 1 mm Ge detector window (not included)

