



**GASIR® Infrared Lens
FL 100 mm f/1.5**



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 Super-Tele infrared lens** fits the latest **17 µm XGA** and **25 µm VGA** uncooled detectors and smaller. Its **very compact** design makes it ideal for use in situations where weight is an important factor.

Optical Specifications

| | |
|-------------------------|---|
| Focal length | 100 mm |
| Aperture-based f-number | f/1.50 |
| Waveband | 8-12 µm |
| Transmission | > 94% average over waveband |
| Focus range | 14.0 m to infinity with 0.75 mm refocus |
| Assembly weight | 366 g |

Field of view

| | | | |
|------------|-------|-------|--|
| 1024 x 768 | 17 µm | XGA | 9.7° (H) x 7.4° (V) - 11.9° (diagonal) |
| 640 x 480 | 25 µm | VGA | 8.9° (H) x 6.8° (V) - 11.0° (diagonal) |
| 640 x 480 | 17 µm | VGA | 6.2° (H) x 4.6° (V) - 7.7° (diagonal) |
| 384 x 288 | 25 µm | qVGA+ | 5.5° (H) x 4.1° (V) - 6.8° (diagonal) |
| 320 x 240 | 25 µm | qVGA | 4.6° (H) x 3.4° (V) - 5.7° (diagonal) |
| 384 x 288 | 17 µm | qVGA+ | 3.7° (H) x 2.8° (V) - 4.6° (diagonal) |
| 320 x 240 | 17 µm | qVGA | 3.1° (H) x 2.3° (V) - 3.9° (diagonal) |

Environmental Specifications

| | |
|-----------------------|--|
| Operating temperature | -40 °C to +80 °C |
| Storage temperature | -55 °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 |

Coating

All surfaces

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)

