



**GASIR® Infrared Lens  
FL 35 mm f/1.1**



**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 **ultralight, passively athermalized infrared lens** offers superior performance and is suitable for use with **17 μm VGA** and **12 μm VGA** detectors or smaller. Its **low distortion** makes it ideally suited for use in thermal imaging applications.

**Optical Specifications**

Focal length	35.0 mm
Aperture-based f-number	f/1.14
Waveband	8-12 μm
Transmission	> 94% average over waveband
Focus range	5.0 m to infinity with 0.25 mm refocus
Assembly weight	45.8 g

**Field of view**

640 x 480	17 μm	VGA	16.9° (H) x 12.9° (V) - 20.7° (diagonal)
384 x 288	25 μm	qVGA+	15.1° (H) x 11.5° (V) - 18.5° (diagonal)
320 x 240	25 μm	qVGA	12.7° (H) x 9.6° (V) - 15.7° (diagonal)
640 x 480	12 μm	VGA	12.2° (H) x 9.3° (V) - 15.1° (diagonal)
384 x 288	17 μm	qVGA+	10.5° (H) x 7.9° (V) - 13.0° (diagonal)
320 x 240	17 μm	qVGA	8.8° (H) x 6.6° (V) - 10.9° (diagonal)
384 x 288	12 μm	qVGA+	7.4° (H) x 5.6° (V) - 9.3° (diagonal)

**Environmental Specifications**

Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C
Vibration	MIL-STD-810G Method 514.6C-II / Cat. 4
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  $\mu\text{m}$

## Assembly & Interface Specifications

Black anodized aluminium

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

