

Product number:

11179\_110

**Athermalized  
Fixed focus**

**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	> 95% average over waveband
Focus range	14.0 m to infinity with 0.75 mm refocus
Assembly weight	369 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  $\mu\text{m}$

## Assembly & Interface Specifications

Black anodized aluminium

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

