

Product number:

16084\_100

**Athermalized  
Fixed focus**

**GASIR® Infrared Lens  
FL 13 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 **high-speed, passively athermalized infrared lens** provides the crispest of images for sensing and image processing.

**Optical Specifications**

Focal length	12.8 mm
Aperture-based f-number	f/1.10
Waveband	8-12 µm
Transmission	> 94% average over waveband
Focus range	0.2 m to infinity with 0.8 mm refocus
Assembly weight	10.8 g

**Field of view**

32 x 32	90 µm		12.8° (H) x 12.8° (V) - 18.1° (diagonal)
80 x 80	34 µm		12.1° (H) x 12.1° (V) - 17.1° (diagonal)
160 x 120	17 µm	qqVGA	12.1° (H) x 9.1° (V) - 15.1° (diagonal)
60 x 60	40 µm		10.7° (H) x 10.7° (V) - 15.1° (diagonal)
206 x 156	12 µm		11.0° (H) x 8.4° (V) - 13.8° (diagonal)
160 x 120	12 µm	qqVGA	8.6° (H) x 6.4° (V) - 10.7° (diagonal)
80 x 60	17 µm		6.1° (H) x 4.6° (V) - 7.6° (diagonal)
80 x 60	12 µm		4.3° (H) x 3.2° (V) - 5.4° (diagonal)

**Environmental Specifications**

Operating temperature	-10 °C to +50 °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 0.725 mm Si detector window (not included)

