



**GASIR® Infrared Lens  
FL 1.9 mm f/1.3**

**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 provides the highly sought after 90 degree field of view.

**Optical Specifications**

Focal length	1.87 mm
Aperture-based f-number	f/1.26
Waveband	8-12 μm
Transmission	> 95% average over waveband
Focus range	0.05 m to infinity with 0.05 mm refocus
Assembly weight	0.58 g

**Field of view**

32 x 32	90 μm		97.1° (H) x 97.1° (V) - 160.8° (diagonal)
80 x 80	34 μm		90.7° (H) x 90.7° (V) - 145.3° (diagonal)
160 x 120	17 μm	qqVGA	90.7° (H) x 66.0° (V) - 120.3° (diagonal)
60 x 60	40 μm		78.6° (H) x 78.6° (V) - 119.8° (diagonal)
206 x 156	12 μm		81.3° (H) x 60.2° (V) - 106.3° (diagonal)
160 x 120	12 μm	qqVGA	61.6° (H) x 45.6° (V) - 78.4° (diagonal)
80 x 60	17 μm		42.9° (H) x 32.0° (V) - 54.0° (diagonal)

**Environmental Specifications**

Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C

## Coating

Front surface  
Internal surfaces

High durability anti-reflective coating @ 8-12  $\mu\text{m}$   
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)

