



**GASIR® Infrared Lens
FL 3.7 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, wide-angle, passively athermalized infrared lens** offers superior performance and is suitable for use with **17 μm** and **12 μm VGA** detectors or smaller.

Optical Specifications

Focal length	3.7 mm
Aperture-based f-number	f/1.33
Waveband	8-12 μm
Transmission	> 97% average over waveband
Focus range	0.2 m to infinity with 0.04 mm refocus
Assembly weight	2.3 g

Field of view

320 x 240	17 μm	qVGA	89.9° (H) x 65.3° (V) - 119.5° (diagonal)
160 x 120	25 μm	qqVGA	63.9° (H) x 47.3° (V) - 81.7° (diagonal)
320 x 240	12 μm	qVGA	61.2° (H) x 45.3° (V) - 78.0° (diagonal)
80 x 80	34 μm		42.7° (H) x 42.7° (V) - 61.2° (diagonal)
160 x 120	17 μm	qqVGA	42.7° (H) x 31.8° (V) - 53.7° (diagonal)
160 x 120	12 μm	qqVGA	29.9° (H) x 22.3° (V) - 37.5° (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	IP55

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)

