

Product number:

16083_100

**Athermalized
Fixed focus**

**GASIR® Infrared Lens
FL 6.8 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 **passively athermalized infrared lens** is a perfect fit for the most demanding thermal imaging and sensing applications.

Optical Specifications

Focal length	6.75 mm
Aperture-based f-number	f/1.27
Waveband	8-12 µm
Transmission	> 97% average over waveband
Focus range	0.1 m to infinity with 0.43 mm refocus
Assembly weight	7.0 g

Field of view

32 x 32	90 µm		24.4° (H) x 24.4° (V) - 34.7° (diagonal)
80 x 80	34 µm		23.1° (H) x 23.1° (V) - 32.8° (diagonal)
160 x 120	17 µm	qqVGA	23.1° (H) x 17.3° (V) - 28.9° (diagonal)
60 x 60	40 µm		20.4° (H) x 20.4° (V) - 28.9° (diagonal)
206 x 156	12 µm		21.0° (H) x 15.9° (V) - 26.3° (diagonal)
160 x 120	12 µm	qqVGA	16.3° (H) x 12.2° (V) - 20.4° (diagonal)
80 x 60	17 µm		11.5° (H) x 8.6° (V) - 14.4° (diagonal)
80 x 60	12 µm		8.1° (H) x 6.1° (V) - 10.2° (diagonal)

Environmental Specifications

Operating temperature	-40 °C to +60 °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 μm

Assembly & Interface Specifications

Black anodized aluminium

Image plane-related dimensions valid with 0.725 mm Si detector window (not included)

