

**GASIR® Infrared Lens
FL 19 mm f/1.2**



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 suitable for use with **17 µm** and **25 µm qVGA+ detectors** and smaller. Its **low distortion** makes it well suited for thermal imaging applications.

Optical Specifications

Focal length	18.8 mm
Aperture-based f-number	f/1.23
Waveband	8-12 µm
Transmission	> 94% average over waveband
Focus range	1.0 m to infinity with 0.37 mm refocus
Assembly weight	29 g

Field of view

384 x 288	25 µm	qVGA+	27.9° (H) x 21.3° (V) - 34.0° (diagonal)
320 x 240	25 µm	qVGA	23.6° (H) x 17.9° (V) - 28.9° (diagonal)
384 x 288	17 µm	qVGA+	19.4° (H) x 14.7° (V) - 24.0° (diagonal)
320 x 240	17 µm	qVGA	16.3° (H) x 12.3° (V) - 20.2° (diagonal)
160 x 120	25 µm	qqVGA	12.1° (H) x 9.1° (V) - 15.0° (diagonal)
160 x 120	17 µm	qqVGA	8.2° (H) x 6.2° (V) - 10.3° (diagonal)

Environmental Specifications

Operating temperature	-40 °C to +60 °C
Storage temperature	-57 °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 μm

Assembly & Interface Specifications

Black anodized aluminium

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

