



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 **12 µm and 17 µm XGA** detectors or smaller. Its **low distortion** makes it well-suited for thermal imaging applications, while its **fast f/number** ensures high performance over the entire field of view.

Optical Specifications

Focal length	60.1 mm
Aperture-based f-number	f/1.25
Waveband	8-12 µm
Transmission	> 87% average over waveband
Focus range	7.0 m to infinity with 0.5 mm refocus
Assembly weight	218 g

Field of view

1024 x 768	17 µm	XGA	16.3° (H) x 12.3° (V) - 20.1° (diagonal)
640 x 480	25 µm	VGA	15.0° (H) x 11.3° (V) - 18.6° (diagonal)
640 x 480	17 µm	VGA	10.3° (H) x 7.7° (V) - 12.8° (diagonal)
384 x 288	25 µm	qVGA+	9.1° (H) x 6.8° (V) - 11.3° (diagonal)
320 x 240	25 µm	qVGA	7.6° (H) x 5.7° (V) - 9.5° (diagonal)
640 x 480	12 µm	VGA	7.3° (H) x 5.5° (V) - 9.1° (diagonal)
384 x 288	17 µm	qVGA+	6.2° (H) x 4.7° (V) - 7.7° (diagonal)
320 x 240	17 µm	qVGA	5.2° (H) x 3.9° (V) - 6.5° (diagonal)

Environmental Specifications

Operating temperature	-40 °C to +80 °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

Front surface
Internal surfaces

iDLC @ 8-12 μm
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)

