

OWL-IR LWIR

F/1.1 FIXED FOCUS OBJECTIVES

Long-Wave Infrared (Athermal)

II-VI Aerospace & Defense (II-VI A&D) is pleased to introduce a series of F/1.1 Athermalized Long Wave Infrared fixed focus objectives. These lenses are designed for the 8-14 μ m spectral range and offer image consistency across a wide temperature range. These Athermal LWIR objectives are manufactured to provide excellent optical MTF performance with manual fine focus adjustment. A wide range of standard fields-of-view are available for a variety of applications in changing environmental conditions.

II-VI Aerospace & Defense possesses in-house capabilities for producing customized Athermal LWIR objectives, engineered and built to exacting customer specifications. Optional camera integrations are available upon request.

LWIR



KEY FEATURES

- | F-Number: F/1.1
- | Optimized for 1024 x 768 FPA, 21.8mm FPA
- | Passive Athermal Design (-40 to +60°C)
- | Manual Fine Focus Adjustment
- | Wavelength: 8 – 14 μ m
- | Durable Exterior Coatings
- | Narrow to Wide Field-of-View
- | Standard and Customized Camera Mounts

OBJECTIVE SPECIFICATIONS

FOCAL LENGTH	35 mm	50 mm	100 mm	150 mm
Wavelength	8-14 microns	8-14 microns	8-14 microns	8-14 microns
F Number	1.1	1.1	1.1	1.1
Image Diagonal (max)	21.8 mm	21.8 mm	21.8 mm	21.8 mm
Full Field-of-View (for 17 micron pixel) (FFOV)*	34.5°	24.5°	12.4°	8.3°
MTF @ 30 lp/mm (On-Axis, Nominal)	> 0.30	> 0.35	> 0.35	> .40
Focus Range	10 m to infinity	3 m to infinity	12 m to infinity	20 m to infinity
Flange to FPA	20.62 mm	22.07 mm	22.07 mm	22.07 mm
Mount Type **	T	T	T	T
Athermal (Passive)	-40 to +60 °C	-40 to +60 °C	-40 to +60 °C	-40 to +60 °C
External Coating ***	Broadband AR Coating	Broadband AR Coating	Broadband AR Coating	Broadband AR Coating
Transmission (Ave.)	> 88%	> 88%	> 88%	> 88%
Back Working Distance (BWD)	21.68 mm	21.53 mm	64.04 mm	34.62 mm
Weight	565 g (1.2 lbs)	567 g (1.3 lbs)	3.5 kg (7.7 lbs)	4.18 kg (9.2 lbs)



*Full Field-Of-View (FFOV) based on indicate FPA size.

**T- threaded lens mount (2 5/16"-36 UNC-2A). Custom mounts are available upon request.

***Custom Coatings Available Upon Request.