

LWIR F/1.0 FIXED FOCUS OBJECTIVES

long-wave infrared

KEY FEATURES

F-number: F/1.0

Wavelength: 8-14 μm

Narrow to Wide Field-Of-View

Optimized for 640x480, 13.6 mm FPA

Manual fine focus adjustment

Exterior High Durable/HDL AR Coating

Standard & customized camera mounts



II-VI Optical Systems (II-VI OS) offers a series of F/1.0 long wave infra-red (LWIR) fixed focus objectives in the 8-14 μm spectral region. These LWIR objectives are manufactured to provide high optical MTF performance along with manual fine focus adjustment. A wide range of standard field-of-views are provided for various applications.

II-VI Optical Systems also provides customized LWIR objectives engineered and built to customer requirements. Optional camera integrations are available upon request.



OBJECTIVE SPECIFICATION

Lens pictured is the OWL-IR LWIR 100mm, F/1.0 fixed focus objective.

FOCAL LENGTH	18 MM	25 MM	50 MM	75 MM	100 MM
Wavelength	8-14 μm	8-14 μm	8-14 μm	8-14 μm	8-14 μm
F Number	1.0	1.0	1.0	1.0	1.0
Image Diagonal	13.6 mm	13.6 mm	13.6 mm	13.6 mm	13.6 mm
Full Field-of-View (FFOV)*	41.4°	30.4°	15.5°	10.4°	7.8°
MTF @ 30 lp/mm (On-Axis, Nominal)	>0.5	>0.5	>0.5	>0.5	>0.5
Flange to FPA	16.5 mm	16.5 mm	16.5 mm	16.5 mm	16.5 mm
Back Working Distance (BWD)	9.7 mm	9.7 mm	9.7 mm	9.7 mm	9.7 mm
Mount Type**	T	T	T	T	T
External Coating***	HDC/HCC	HDC/HCC	HDC/HCC	HDC/HCC	HDC/HCC
Transmission (Ave.)****	>88%	>88%	>88%	>88%	>88%

*** HDC = High Durable Coating; HCC = Hard Carbon Coating ; Coatings shall meet the quality requirements of MIL-C-675, MIL-STD-810, MIL-M-13508, MIL-F-48616, and MIL-C-48497 where applicable.

**** HDC average transmission over the 8-14 μm spectral region.