OpenMV® M8 Super Telephoto Lens

Datasheet

SKU: IR-M8-Super-Telephoto-Lens / M8-Super-Telephoto-Lens

Description

The M8 Super Telephoto Lens gives your OpenMV AE3 the ability to see longer distances with a super zoom. The standard lens has about a 70-degree FOV which allows your camera to see more things, but with less detail. This lens has about a 25-degree FOV, providing a 3.4x super zoom on any particular object — the highest magnification in the M8 lineup. The lens comes with damping grease; gluing is recommended for vibration environments. Available with or without a 650 nm IR cut filter.

Target Areas

Extreme long-range detection, eye tracking, surveillance corridors, wildlife monitoring, industrial inspection at distance, traffic monitoring.

Key Features

- **25-degree FOV (3.4x zoom)** — 24.4° diagonal / 20.8°H / 13.1°V with PAG7936. 3.4x optical zoom — highest in M8 lineup.
- **Very low distortion** — Only -0.7% TV distortion for clean images.
- **8 MP resolution** — Supports up to 8 MP sensor resolution — highest resolving power in M8 lineup.
- **High relative illumination** — >89% relative illumination for uniform brightness across the image.
- **M8 x P0.35 mount** — Standard M8 threaded mount for OpenMV AE3 and PAG7936 dual-camera modules.
- **IR cut filter option** — Available with 650 nm IR cut filter or without for night vision use.
- **3D model available** — STEP file available on GrabCAD for mechanical integration.

Applications

The M8 Super Telephoto Lens is great for any application where you need your OpenMV AE3 to really zoom in on a subject. For example, the lens makes it easy to do eye-tracking by zooming in on someone's eye, making it easier to determine the direction their pupil is pointing.

Contents

1 Specifications

1.1 Optical Specifications

Component	Details
Model	M8-10036L-S
Mount	M8 x P0.35 threaded
F-Number	F3.0
Effective Focal Length	10.5 mm
Mechanical Back Focus	2.77 mm
Total Track Length	16.03 mm
Image Circle	Ø7.4 mm
Image Format	1/2.7"
Resolution	8 MP
Size	Ø8.0 x 13.0 mm
Construction	5G + IR (5 glass elements plus IR filter)
Focus / Iris / Zoom	Manual focus, fixed iris, fixed zoom
IR Coating Filter	650 nm (variant with IR cut filter)
Min. Object Distance	5 cm

1.2 Field of View (1/2.7" format)

Component	Details
Diagonal	36°
Horizontal	31°
Vertical	18°
TV Distortion	-0.7%
Relative Illumination	>89%
Chief Ray Angle	<10°

All specifications ±5% tolerance.

1.3 Actual FOV with PAG7936 Sensor

Component	Details
Diagonal	24.4°
Horizontal	20.8°
Vertical	13.1°
Optical Zoom	3.4x

1.4 Compatibility

Component	Details
Supported Cameras	OpenMV AE3, dual-camera modules using PAG7936 sensors.
Installation	Includes damping grease. Gluing recommended for vibration environments. M8 lock ring solution in development.

2 General Info

Dimension	Value
Length	13 mm
Width	8 mm
Height	8 mm
Weight	0.5 g
Operating Temperature	-20°C to +60°C
Storage Temperature	-20°C to +60°C
Country of Origin	China
HS Code	8473.30.2000
UPC	602772227120, 602772227113
SKU	IR-M8-Super-Telephoto-Lens, M8-Super-Telephoto-Lens
ECCN	EAR99

3 Company Information

Field	Details
Website	https://openmv.io
Documentation	https://docs.openmv.io
Support	https://forums.openmv.io

4 Reference Documentation

Reference	Link / Document
Product Page	https://openmv.io/products/m8-super-telephoto-lens
3D Model (STEP)	https://grabcad.com/library/m8-super-telephoto-lens-1

5 Revision History

Date	Revision	Changes
2026-04-04	Rev 1	Initial public release.