



Mako G-508B POL

- Sony IMX250MZR polarized CMOS sensor
- IEEE 1588 PTP
- Trigger over Ethernet
- Power over Ethernet

Small and powerful

Ultra-compact GigE Vision cameras

Mako G-508B POL with Sony IMX250MZR runs 23.7 frames per second at 5.1 MP resolution.

Mako G is an attractively priced GigE Vision-compliant camera in a compact rugged industrial housing. Many models include advanced functionalities such as Precision Time Protocol (PTP), Trigger over Ethernet (ToE) Action Commands, and Power over Ethernet (PoE). Screw mount RJ45 connector and multiple I/Os facilitate your straightforward system integration. Mako G cameras are also available as Near Infrared (NIR) and polarizer variants.

Easy software integration with Allied Vision's [Vimba Suite](#) and compatibility to the most popular [third party image-processing libraries](#).

See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options. See the [Customization and OEM Solutions](#) webpage for additional options.

Specifications

Mako G-508B POL	
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	2464 (H) × 2056 (V)
Sensor	Sony IMX250MZR
Sensor type	CMOS
Shutter mode	Global shutter
Sensor size	Type 2/3

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Pixel size	3.45 μm \times 3.45 μm
Lens mounts (available)	C-Mount, CS-Mount
Max. frame rate at full resolution	23.7 fps
ADC	12 Bit
Image buffer (RAM)	64 MByte

Imaging performance

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured at full resolution without optical filter and unpolarized light. Contact Sales or AE for more information.

Quantum efficiency at 529 nm	25 %
Temporal dark noise	2.1 e^-
Saturation capacity	10200 e^-
Dynamic range	71.4 dB
Absolute sensitivity threshold	2.8 e^-

Output

Bit depth	12 Bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed

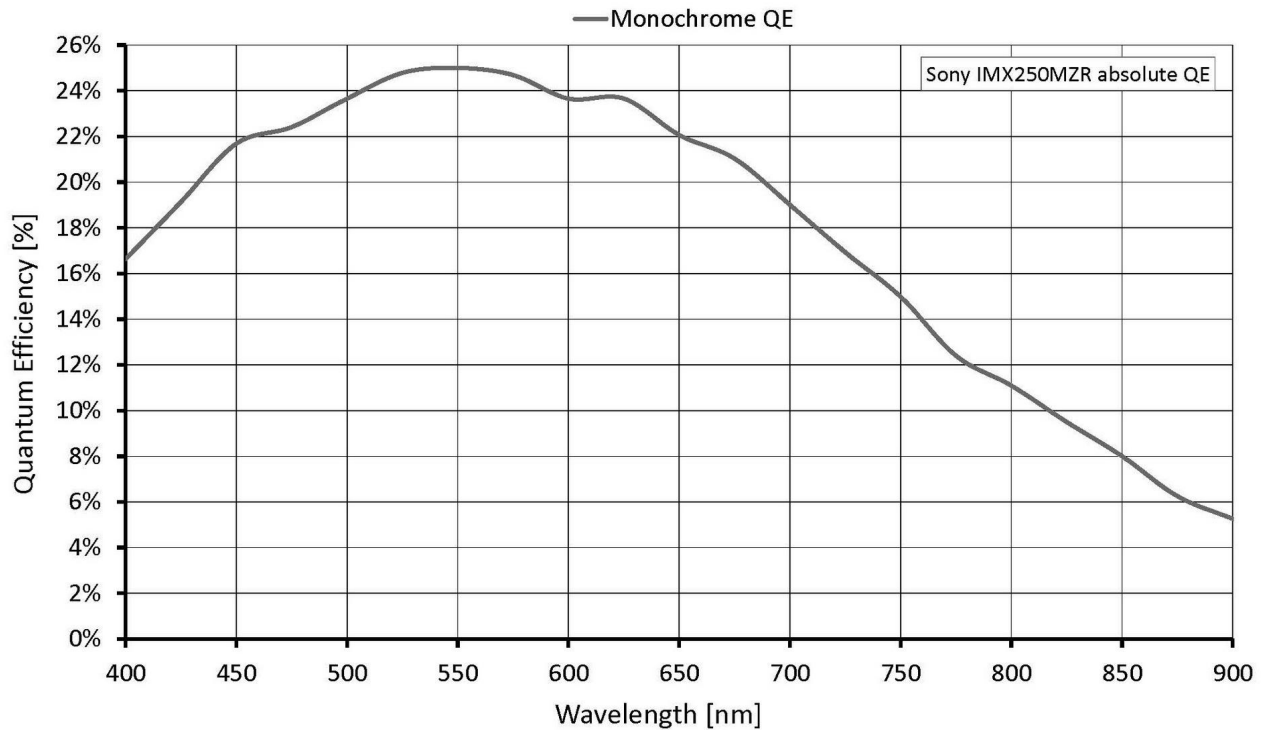
General purpose inputs/outputs (GPIOs)

Opto-isolated I/Os	1 input, 3 outputs
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Operating conditions/dimensions

Operating temperature	+5 °C to +45 °C housing temperature
Power requirements (DC)	10.8 to 26.4 VDC AUX or 802.3at Type 1 PoE
Power consumption	2.4 W at 12 VDC; 2.4 W PoE
Mass	80 g (with C-Mount)
Body dimensions (L \times W \times H in mm)	60.5 \times 29.2 \times 29.2 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS)); FCC Class B; CAN ICES-003

Quantum efficiency



Features

Image optimization features:

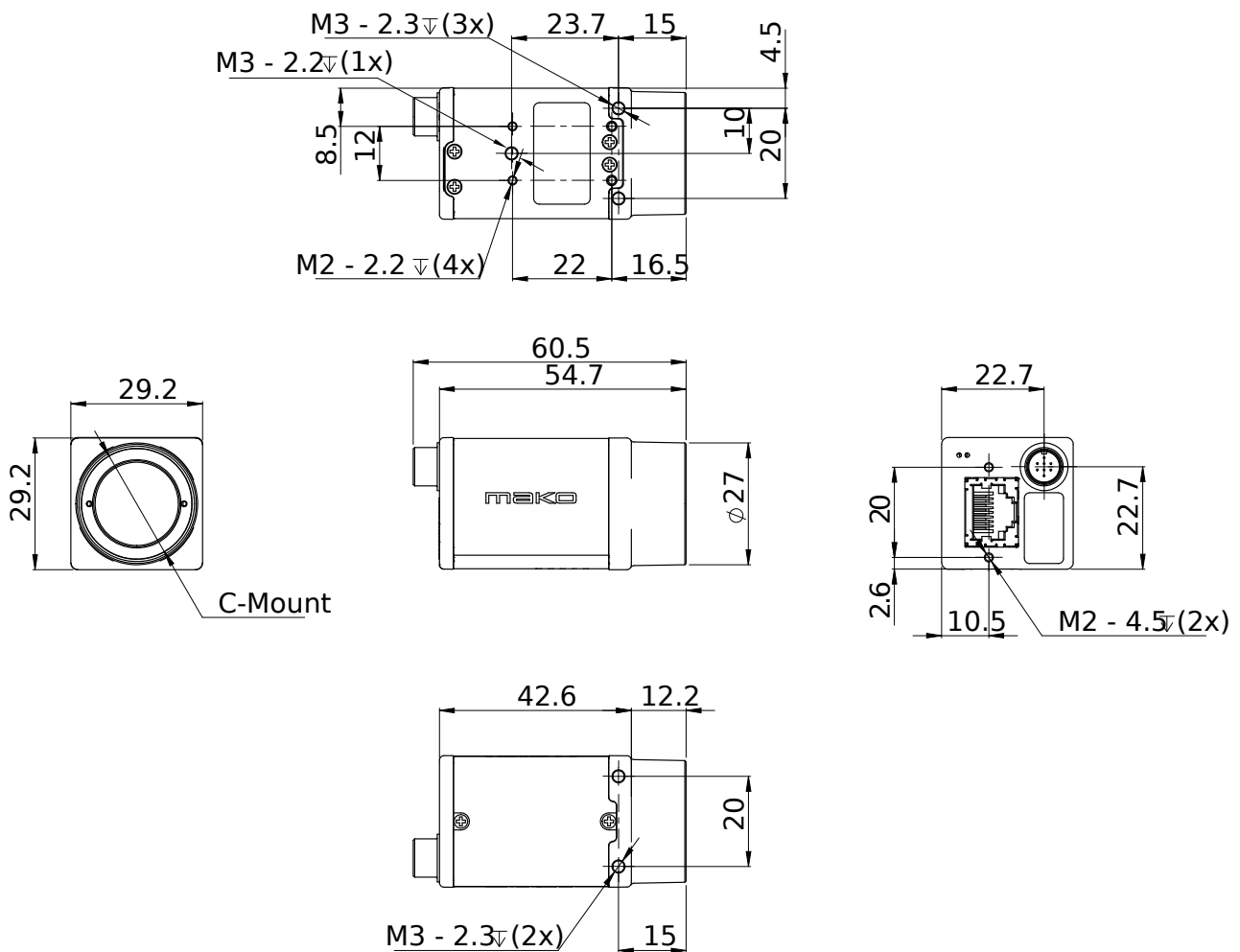
- Auto gain (manual gain control: 0 to 40 dB; 0.1 dB increments)
- Auto exposure (exposure time control varies by pixel format)
- Binning
- Decimation
- Gamma correction
- One look-up table
- Region of interest, separate region for auto features

Camera control features:

- Event channel
- Image chunk data

- IEEE 1588 Precision Time Protocol
- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (main board)
- Trigger over Ethernet Action Commands

Technical drawing



Applications

Mako G-508B POL is suitable for a wide range of inspection tasks including:

- Surface inspection (for example damage, flatness, scratches)
- Low-contrast imaging (for example carbon fibre, tires, welding spots)
- Material stress detection
- Reflection reduced imaging