

Mako G

G-507



- Sony IMX264 CMOS sensor
- Power over Ethernet
- 5.1 megapixel resolution
- Ultra-compact design

5.1 Megapixel machine vision camera with GigE interface

Mako G-507 is a 5.1 megapixel GigE machine vision camera that incorporates the high quality Type 2/3 (11.1 mm diagonal) Sony IMX264 CMOS sensor. At full resolution, this camera runs 23.7 frames per second. With a smaller region of interest, higher frame rates are possible. The Mako G-507 is an ideal replacement for legacy CCD models.

Mako G cameras have an ultra-compact form factor and the same mounting positions as many analog cameras. All models include Power over Ethernet (PoE), three opto-isolated outputs, and a 64 MB image buffer. The image quality profits from the precisely aligned sensor. By default monochrome models ship with no optical filter and color models ship with IRC Hoya C-5000 IR cut filter.

Benefits and features:

- Monochrome (G-507B) and color (G-507C) models
- GigE Vision interface with Power over Ethernet
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Comprehensive I/O functionality for simplified system integration
- Popular C-Mount lens mount
- Easy camera mounting via standard M3 threads on top and bottom of housing or optional tripod adapter
- Easy software integration with Allied Vision's [Vimba SDK](#) and compatibility to the most popular [third party image-processing libraries](#).

Options:

- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)



See the [Modular Concept](#) for lens mount and optical filter options.
 See the [Customization and OEM Solutions](#) webpage for additional options.

Specifications

Mako G	G-507
インターフェイス	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
解像度	2464 (H) × 2056 (V)
センサー	Sony IMX264
Sensor type	CMOS
センサーサイズ	Type 2/3
ピクセルサイズ	3.45 μm × 3.45 μm
レンズマウント (標準搭載)	C-Mount
フレームレート (フル解像度)	23.7 fps
ADC	12 bit
Image buffer (RAM)	64 MByte
Imaging performance	HEADLINE-IP

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. Contact Sales or AE for more information.

Quantum efficiency at 529 nm	64 %
Temporal dark noise	2.0 e ⁻
Saturation capacity	10600 e ⁻
Dynamic range	72.0 dB
Absolute sensitivity threshold	2.7 e ⁻

Output

Bit depth	12 Bit
ビデオフォーマット(Mono)	Mono8, Mono12, Mono12Packed
ビデオフォーマット(YUV)	YUV411Packed, YUV422Packed, YUV444Packed
ビデオフォーマット(RGB)	RGB8Packed, BGR8Packed
ビデオフォーマット(Raw)	BayerRG8, BayerRG12, BayerRG12Packed

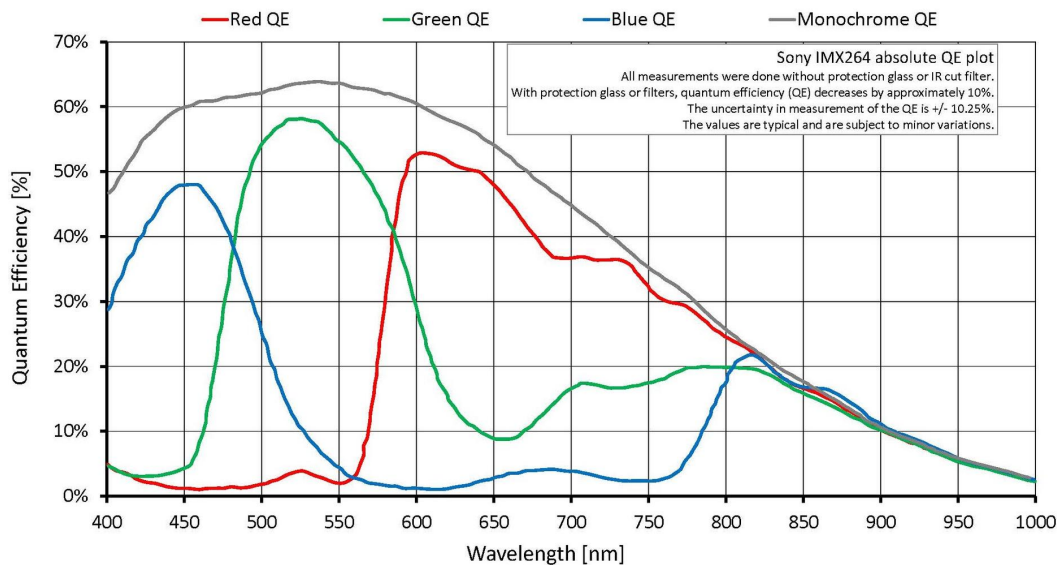
General purpose inputs/outputs (GPIOs)

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)	12 to 24 VDC AUX or 802.3at Type 1 PoE
消費電力	2.3 W at 12 VDC; 2.4 W PoE
Mass	80 g

Mako G	G-507
Body dimensions (L × W × H in mm)	60.5 × 29.2 × 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



Features

Image optimization features:

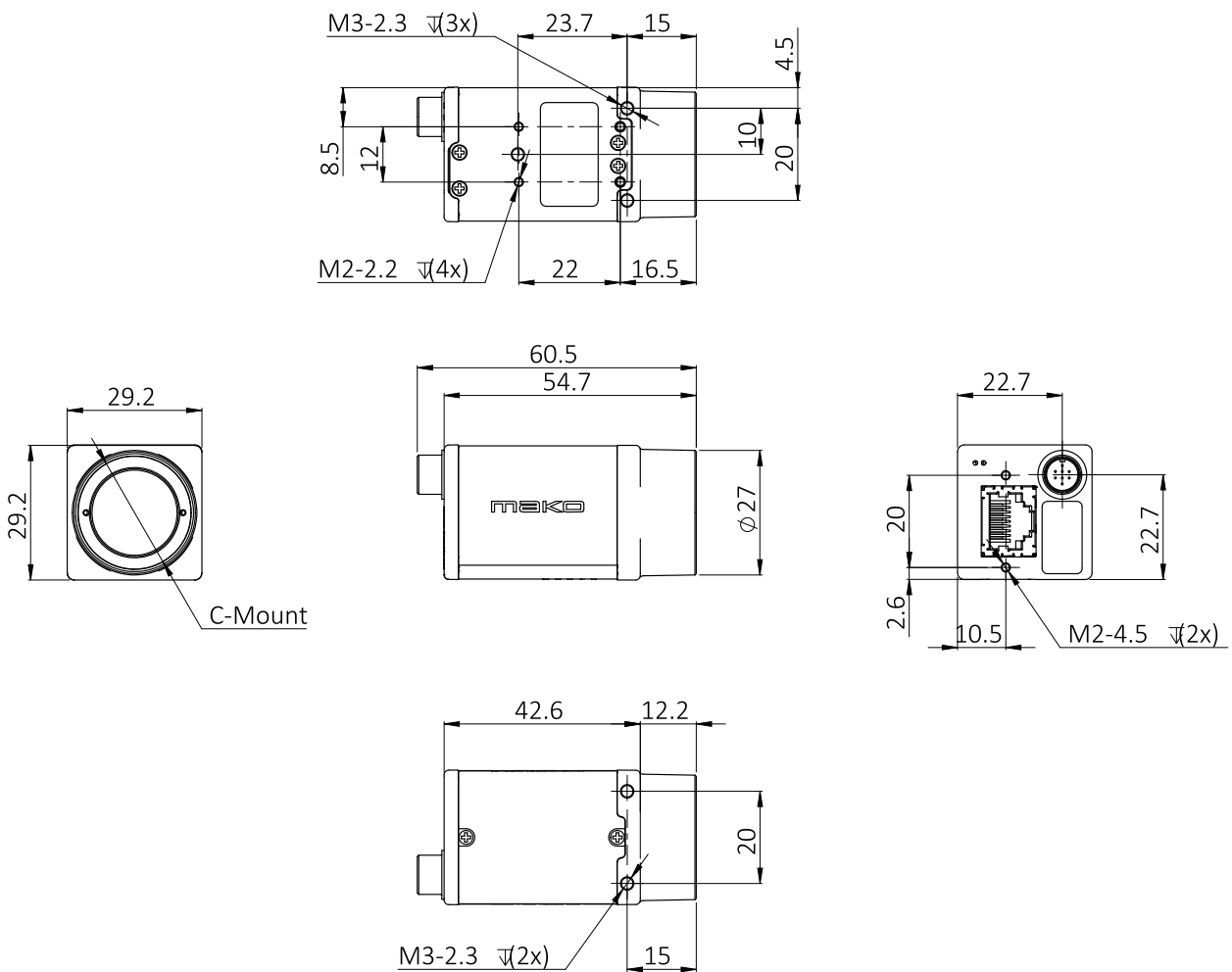
- Auto gain (manual gain control: 0 to 40 dB; 0.1 dB increments)
- Auto exposure (exposure time control varies by pixel format)
- Auto white balance (G-507C only)
- Binning
- Color transformation, hue, saturation (G-507C only)
- Decimation
- Gamma correction
- One look-up table (LUT)
- Region of interest (ROI), separate ROI for auto features

Camera control features:

- Event channel
- Image chunk data

- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (main board)

Technical drawing





Applications

Mako G-507 is suitable for a wide range of applications including:

- Robotics
- Quality control
- Inspection, surveillance
- Industrial imaging
- Machine vision
- Logistics