![Allied Vision logo]

Mako G
G-507

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

Description

GigE Vision camera with Sony IMX264 CMOS sensor, Pregius global shutter

Mako G-507B/G-507C is a GigE machine vision camera that incorporates the high quality Type 2/3 (11.1 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. 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 MByte 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.
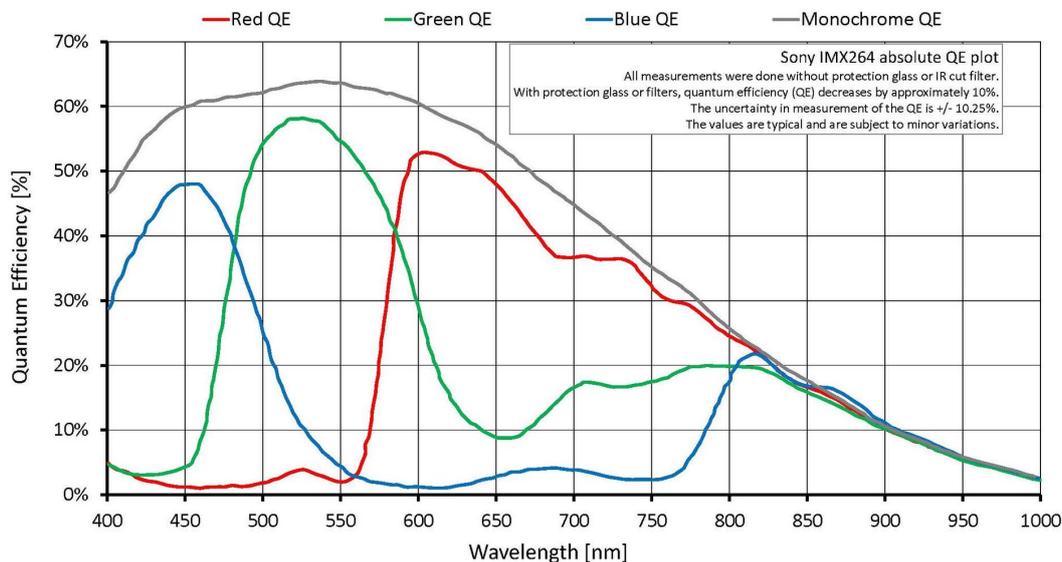
Options:

- Various optical filter and lens mount options
- White medical housing

See the Modular Concept for lens mount, optical filter, and case design options.

Specifications

Mako G	G-507
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	2464 (H) × 2056 (V)
Sensor	Sony IMX264
Sensor type	CMOS
Cell size	3.45 µm x 3.45 µm
Lens mount	C-Mount
Max frame rate at full resolution	23.7 fps

Mako G	G-507
ADC	12 bit
Image buffer (RAM)	64 MByte
Output	
Bit depth	12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed
Raw modes	BayerRG8, BayerRG12, BayerRG12Packed
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	1 input, 3 outputs
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C housing temperature
Power requirements (DC)	12 to 24 VDC; PoE
Power consumption (@12 V)	2.4 W @ 12 VDC; 2.8 W PoE
Mass	80 g
Body dimensions (L × W × H in mm)	60.5 × 29 × 29 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES

Sony IMX264 absolute QE plot
All measurements were done without protection glass or IR cut filter.
With protection glass or filters, quantum efficiency (QE) decreases by approximately 10%.
The uncertainty in measurement of the QE is +/- 10.25%.
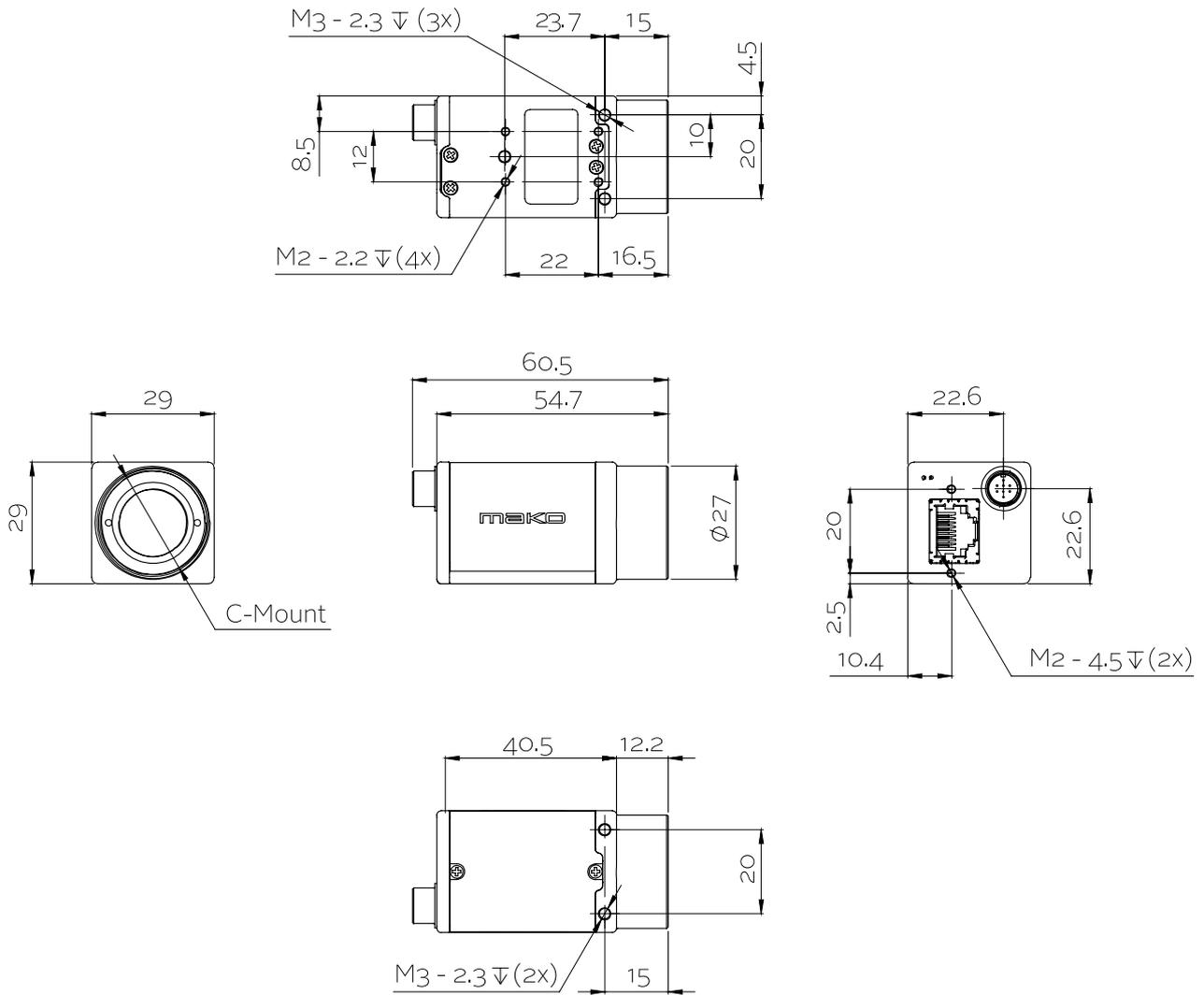The values are typical and are subject to minor variations.

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 (color models only)
- Binning
- Color transformation, hue, saturation (color models only)
- Decimation
- Gamma correction
- Look-up table (LUT) (1)
- Region of interest (ROI), separate ROI for auto features

Camera control features:

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

Technical drawing

M3 - 2.3 ⍌ (3x)

23.7

15

4.5

8.5

12

10

20

M2 - 2.2 ⍌ (4x)

22

16.5

29

29

C-Mount

60.5

54.7

mako

Ø 27

22.6

20

22.6

2.5

10.4

M2 - 4.5 ⍌ (2x)

40.5

12.2

20

M3 - 2.3 ⍌ (2x)

15

Applications

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

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