

# Mako G

## G-319



- Sony IMX265 sensor
- Power over Ethernet
- Ultra-compact design
- Affordable

## Description

GigE Vision camera with Sony IMX265 CMOS sensor, Pregius global shutter

Mako G-319B/G-319C is a GigE machine vision camera that incorporates the high quality Type 1/1.8 (8.9 mm diagonal) Sony IMX265 CMOS sensor with Pregius global shutter. At full resolution, this camera runs 37.5 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:

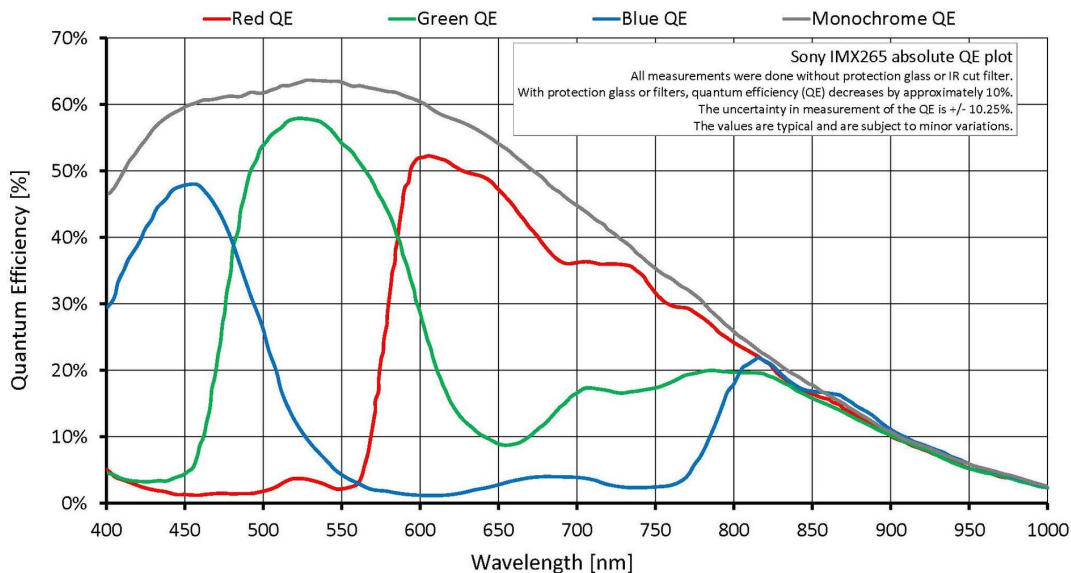
- Various optical filter and lens mount options
- White medical housing

See the [Modular Concept](#) for lens mount, optical filter, and case design options.

## Specifications

Mako G	G-319
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	2048 (H) × 1544 (V)
Sensor	Sony IMX265
Sensor type	CMOS
Cell size	3.45 μm x 3.45 μm
Lens mount	C-Mount
Max frame rate at full resolution	37.5 fps

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ADC	12 bit
Image buffer (RAM)	64
<b>Output</b>	
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed
Raw modes	BayerRG8, BayerRG12, BayerRG12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
Opto-isolated I/Os	1 input, 3 outputs
<b>Operating conditions/dimensions</b>	
Operating temperature	+5 °C to +45 °C housing temperature
Power requirements (DC)	12 to 24 VDC; PoE
Power consumption (@12 V)	2.3 W @ 12 VDC; 2.6 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





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

## Technical drawing





## Applications

Mako G-319B/G-319C is suitable for a wide range of applications including:

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