

Mako G

G-319



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

Description

GigE Vision camera featuring the Sony IMX265 CMOS sensor

Mako G-319 is a 3.2 megapixel 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. The Mako G-319 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-319B) and color (G-319C) 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

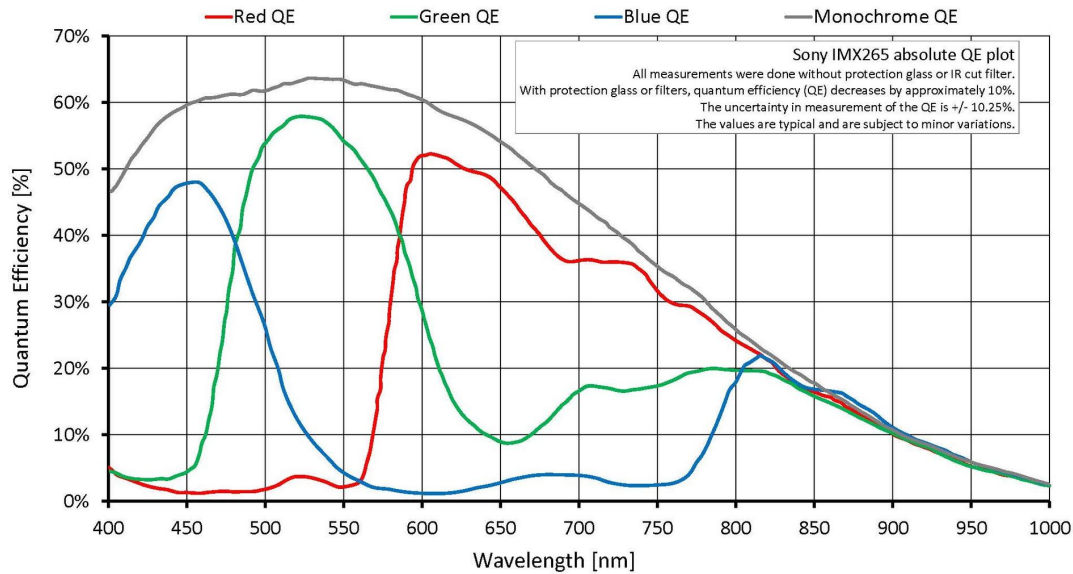
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)

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-319 |
|---|---|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution | 2064 (H) × 1544 (V) |
| Sensor | Sony IMX265 |
| Sensor type | CMOS |
| Sensor size | Type 1/1.8 |
| Pixel size | 3.45 μm × 3.45 μm |
| Lens mount (default) | C-Mount |
| Max. frame rate at full resolution | 37.5 fps |
| ADC | 12 bit |
| Image buffer (RAM) | 64 |
| Output | |
| Bit depth | 8/12 bit |
| Monochrome pixel formats | Mono8, Mono12, Mono12Packed |
| YUV color pixel formats | YUV411Packed, YUV422Packed, YUV444Packed |
| RGB color pixel formats | RGB8Packed, BGR8Packed |
| Raw pixel formats | 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 | 2.3 W at 12 VDC; 2.6 W PoE |
| Mass | 80 g |
| 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

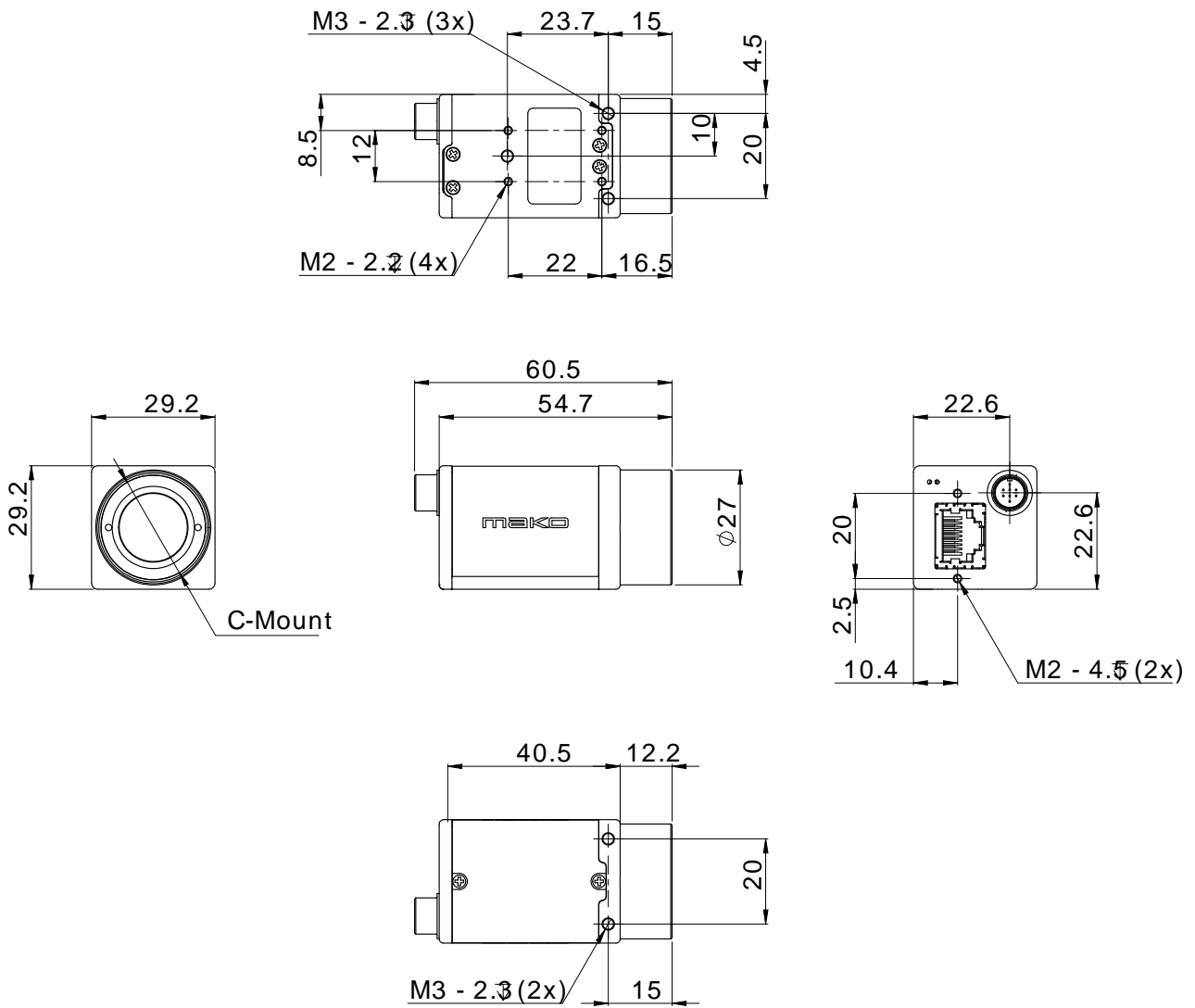
Image optimization features:

- 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-319C only)
- Binning
- Color correction, hue, saturation (G-319C 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
- Global shutter mode
- Storable user sets
- StreamBytesPerSecond (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-319 is suitable for a wide range of applications including:

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