

Mako G

G-192



- Teledyne e2v Sapphire CMOS sensor
- Switchable shutter modes
- Power over Ethernet
- 60 fps at full resolution

Description

GigE Vision camera, Teledyne e2v CMOS sensor, 60 fps

The Mako G-192 is a 1.9 megapixel GigE machine vision camera that incorporates the high quality Type 1/1.8 (9 mm diagonal) Teledyne e2v Sapphire EV76C570 CMOS sensor. At full resolution, this camera runs 60 frames per second. With a smaller region of interest, higher frame rates are possible.

Mako G cameras have the same ultra-compact form factor and the same mounting positions as many analog cameras. All models include Power over Ethernet (PoE), two 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-192B) and color (G-192C) 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:

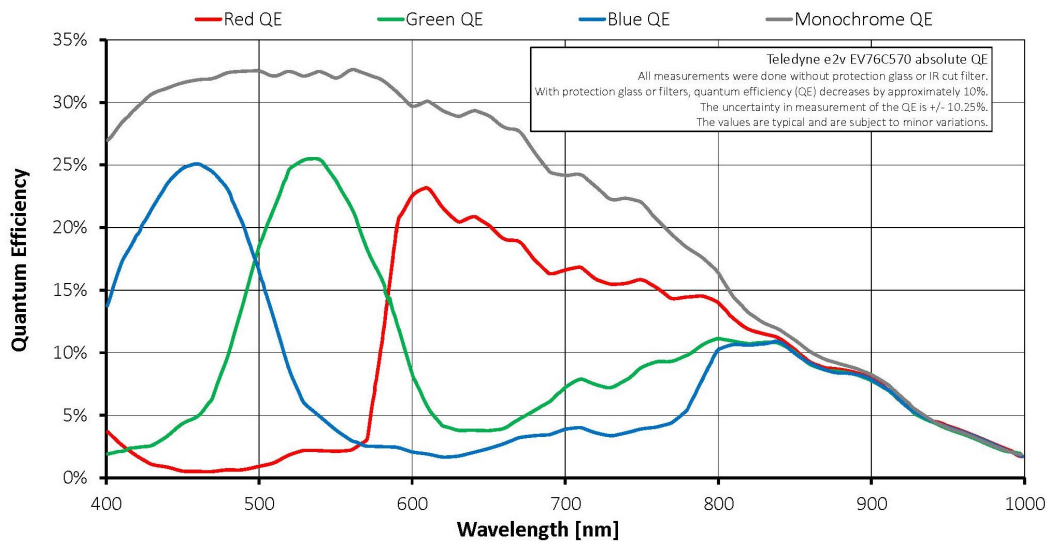
- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)



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-192 |
|---|---|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution | 1600 (H) × 1200 (V) |
| Sensor | Teledyne e2v EV76C570 |
| Sensor type | CMOS |
| Sensor size | Type 1/1.8 |
| Pixel size | 4.5 μm × 4.5 μm |
| Lens mount (default) | C-Mount |
| Max. frame rate at full resolution | 60 fps |
| ADC | 10 bit |
| Image buffer (RAM) | 64 MByte |
| Output | |
| Bit depth | 8/10 bit |
| Monochrome pixel formats | Mono8, Mono10 |
| YUV color pixel formats | YUV411Packed, YUV422Packed, YUV444Packed |
| RGB color pixel formats | RGB8Packed, BGR8Packed |
| Raw pixel formats | BayerGB8, BayerGB10 |
| 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 | 2.1 W at 12 VDC; 2.4 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:

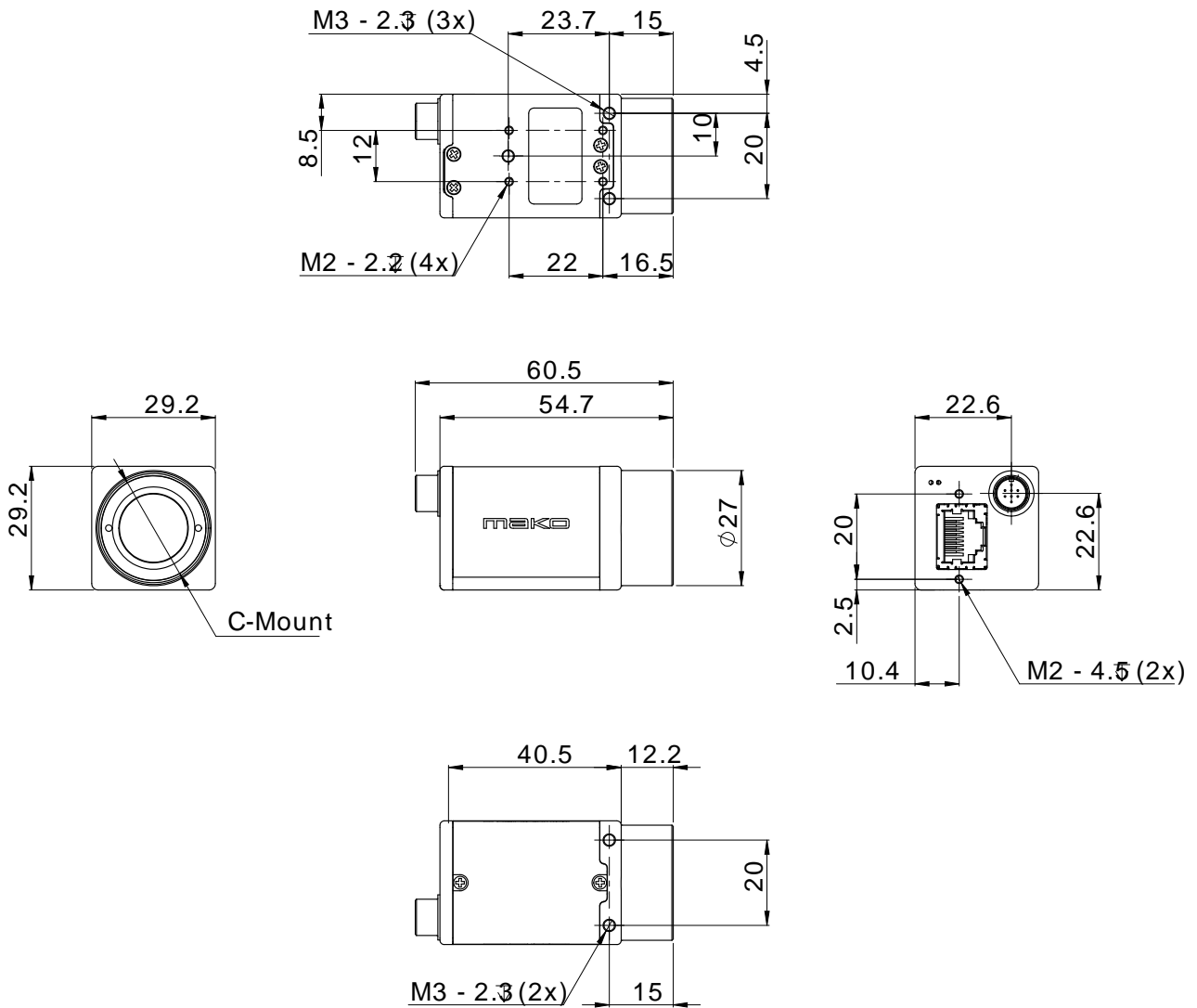
- Auto gain (manual gain control: 0 to 24 dB; 1 dB increments)
- Auto exposure (exposure time control varies by pixel format)
- Auto white balance (G-192C only)
- Binning (1x1 and 2x2 binning)
- Color correction, hue, saturation (G-192C only)
- Decimation
- Gamma correction
- One look-up table (LUT)
- Pixel defect masking
- Region of interest (ROI), separate ROI for auto features
- Reverse X/Y

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
- Switchable Rolling / Global / GlobalReset shutter modes

- Temperature monitoring (main board only)

Technical drawing





Applications

Mako G-192 is ideal for a wide range of applications including:

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