

Mako G

G-503



- Ultra-compact (60.5 × 29 × 29 mm)
- ON Semiconductor CMOS sensor
- 14 fps @ 5 Megapixel
- Switchable shutter modes

Description

Gigabit Ethernet camera with ON Semiconductor CMOS sensor; 14 frames per second

Mako G-503B/G-503C is an industrial GigE camera with the ON Semiconductor MT9P031 (monochrome) / MT9P006 (color) CMOS sensor. Mako G cameras have the same 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 sensors.

Options:

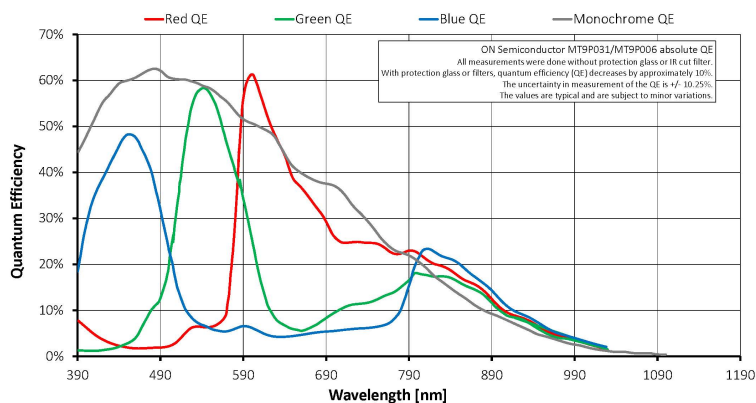
- Various optical filters and lens mounts
- White medical housing

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

Specifications

| Mako G | G-503 |
|-----------------------------------|---|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution | 2592 (H) × 1944 (V) |
| Sensor | OnSemi MT9P031 / MT9P006 |
| Sensor type | CMOS |
| Cell size | 2.2 μm x 2.2 μm |
| Lens mount | C-Mount |
| Max frame rate at full resolution | 14 fps |
| ADC | 12 bit |
| Image buffer (RAM) | 64 MByte |
| Output | |
| Bit depth | 8/12 bit |

| Mako G | G-503 |
|--|--|
| Mono modes | Mono8, Mono12, Mono12Packed |
| Color modes YUV | YUV411Packed, YUV422Packed, YUV444Packed |
| Color modes RGB | RGB8Packed, BGR8Packed |
| Raw modes | BayerGR8, BayerGR12Packed, BayerGR12 |
| 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) | 2.0 W @ 12 VDC; 2.2 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 24 dB)
- Auto exposure
- Auto white balance
- Binning

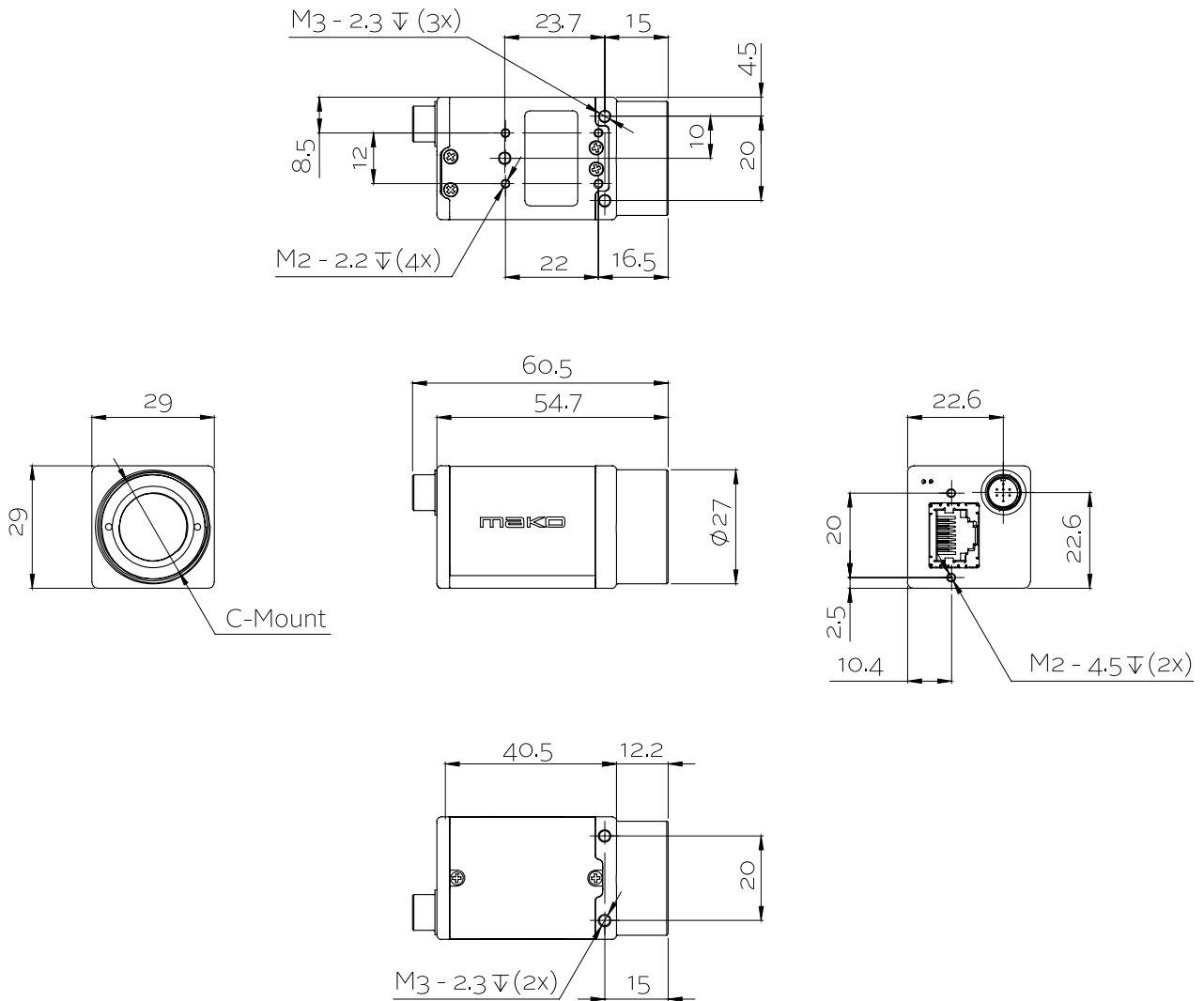


- Color correction, hue, saturation (color models only)
- Decimation
- Gamma correction
- Look-up tables (LUTs)
- Pixel defect masking
- Region of interest (ROI), separate ROI for auto features
- Reverse X/Y

Camera control features:

- Event channel
- Image chunk data
- Storable user sets
- StreamBytesPerSecond (easy bandwidth control)
- StreamHold
- Switchable Rolling/GlobalReset shutter modes
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring

Technical drawing



Applications

Mako G-503B/G-503C is suitable for all typical machine vision applications including:



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