Allied Vision

Mako G

G-223

- Ultra-compact design
- Affordable
- Power over Ethernet
- CMOSIS/ams CMV2000 CMOS sensor

Description

GigE Vision camera, CMOSIS/ams CMV2000 CMOS sensor, 49.5 fps

Mako G-223 is a 2.2 megapixel GigE machine vision camera that incorporates the high quality Type 2/3 (12.7 mm diagonal) CMOSIS/ams CMV2000 CMOS sensor. At full resolution, this camera runs 49.5 frames per second. With a smaller region of interest, higher frame rates are possible. Mako G-223 is offered in both monochrome (G-223B) and color (G-223C) models.
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), 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 housing design options.
See the Customization and OEM Solutions page for additional options.

Specifications

Mako G	G-223
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	2048 (H) × 1088 (V)
Sensor	CMOSIS/ams CMV2000
Sensor type	CMOS

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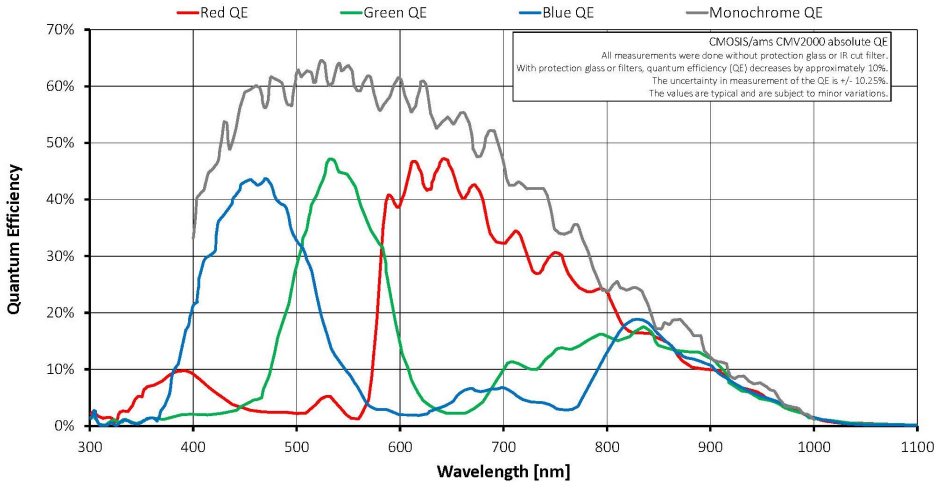
Sensor size	Type 2/3
Pixel size	5.5 µm × 5.5 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	49.5 fps
ADC	12 bit
Image buffer (RAM)	64 MByte
Output	
Bit depth	8/12 bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
YUV color pixel formats	YUV411Packed, YUV422Packed, YUV444Packed
RGB color pixel formats	RGB8Packed, BGR8Packed
Raw pixel formats	BayerGB8, BayerGB12, BayerGB12Packed
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	2.4 W @ 12 VDC; 2.8 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 (RoHS); FCC Class B; CAN ICES-003



Features

Image optimization features:

- Auto gain (manual gain control: 0 to 26 dB; 1 dB increments)
- Auto exposure (manual exposure control: 30 µs to 153 s; 1 µs increments)
- Auto white balance (G-223C only)
- Color correction, hue, saturation (G-223C only)
- Column defect masking
- Gamma correction
- One look-up table (LUT)
- Piecewise Linear HDR mode
- Region of interest (ROI), separate ROI for auto features

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
- Temperature monitoring (main board only)

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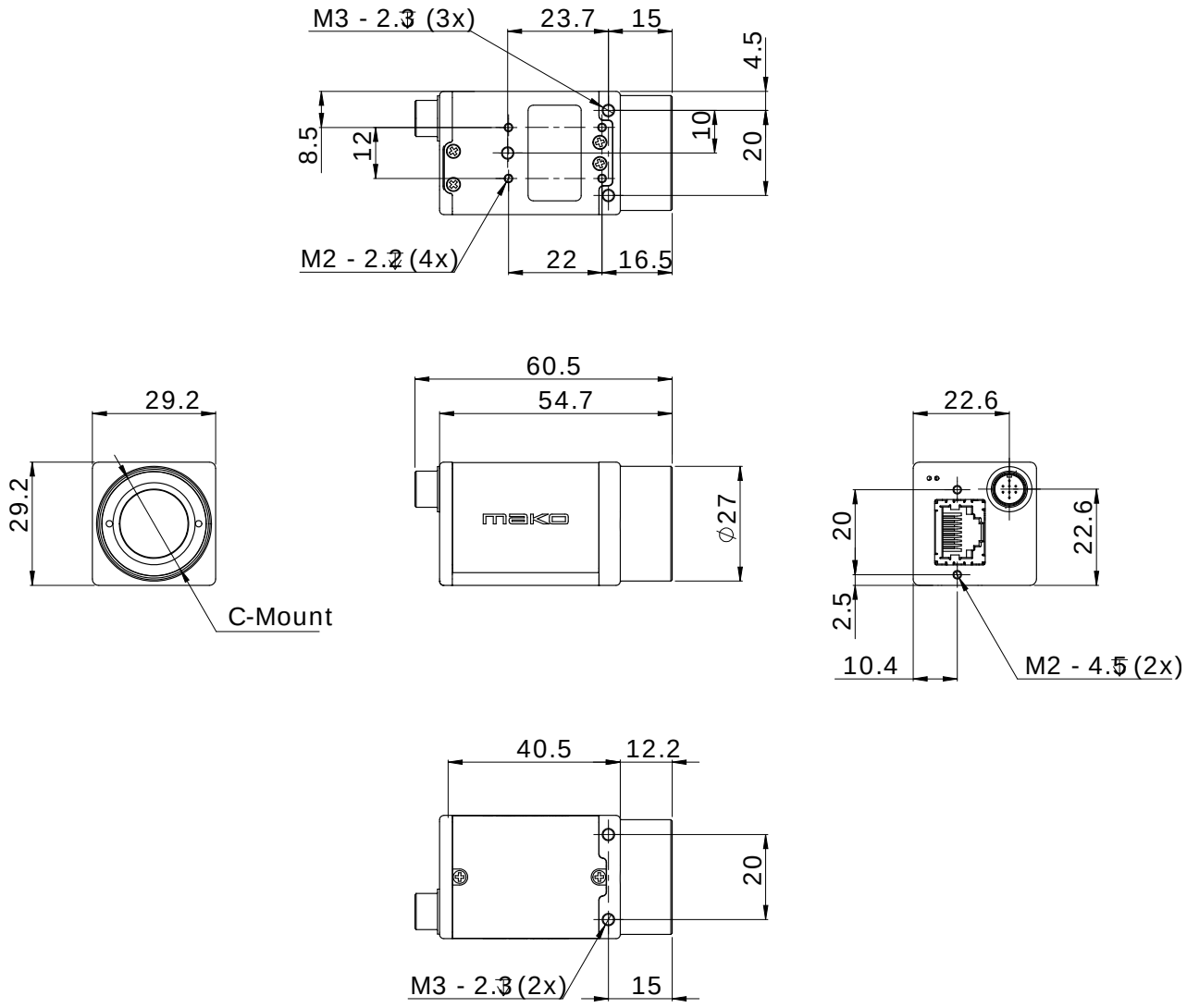
Technical drawing



Applications

Mako G-223 is ideal for a wide range of applications including:

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