Allied Vision

Manta

G-223 NIR

- NIR enhanced CMOS sensor
- Power over Ethernet option
- Angled head and board level variants
- Video-iris lens control

Description

GigE camera with CMOSIS/ams CMV2000, NIR optimized, global shutter

Manta G-223B NIR is a machine vision camera that incorporates the NIR-optimized Type 2/3 (12.7 mm diagonal) CMOSIS/ams CMV2000 CMOS sensor with global shutter. At full resolution, this camera runs 53.7 frames per second. With a smaller region of interest, higher frame rates are possible.
Manta is one of Allied Vision's versatile GigE Vision cameras with a wide range of features. Particular highlights are the three look-up tables, a robust metal housing, and many modular options. By default, the Manta G-223B NIR ships with no optical filter.

Options:

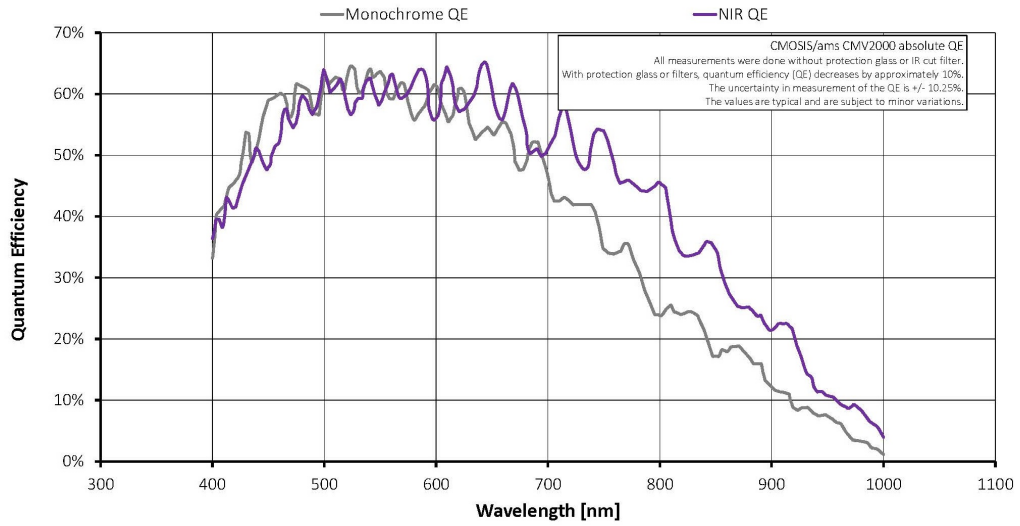
- Power over Ethernet (PoE)
- Various optical filter and lens mount options
- Angled head, board level variants, white medical housing

See the Modular Concept for lens mount, housing variants, optical filters, case design, and other modular options. See the Customization and OEM Solutions page for additional options.

Specifications

Manta	G-223 NIR
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	2048 (H) × 1088 (V)
Sensor	CMOSIS/ams CMV2000 NIR
Sensor type	CMOS
Sensor size	Type 2/3

Manta	G-223 NIR
Pixel size	5.5 µm x 5.5 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	53.7 fps
ADC	12 bit
Image buffer (RAM)	128 MByte
Output	
Bit depth	8-12 bit
Monochrome pixel formats	Mono8, Mono12Packed, Mono12
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS232	1
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC; PoE
Power consumption	2.7 W @ 12 VDC; 3.1 W PoE
Mass	190 g; 200 g (PoE)
Body dimensions (L × W × H in mm)	86.4 × 44 × 29 (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 (18 µs to 126 s; 1 µs increments)
- Black level (offset)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Pixel defect masking
- Piecewise Linear HDR mode
- Region of interest (ROI), separate ROI for auto features
- Reverse X/Y

Camera control features:

- Auto-iris (video type)
- Event channel
- Image chunk data
- IEEE 1588 Precision Time Protocol (PTP)
- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (main board)
- Trigger over Ethernet (ToE) Action Commands

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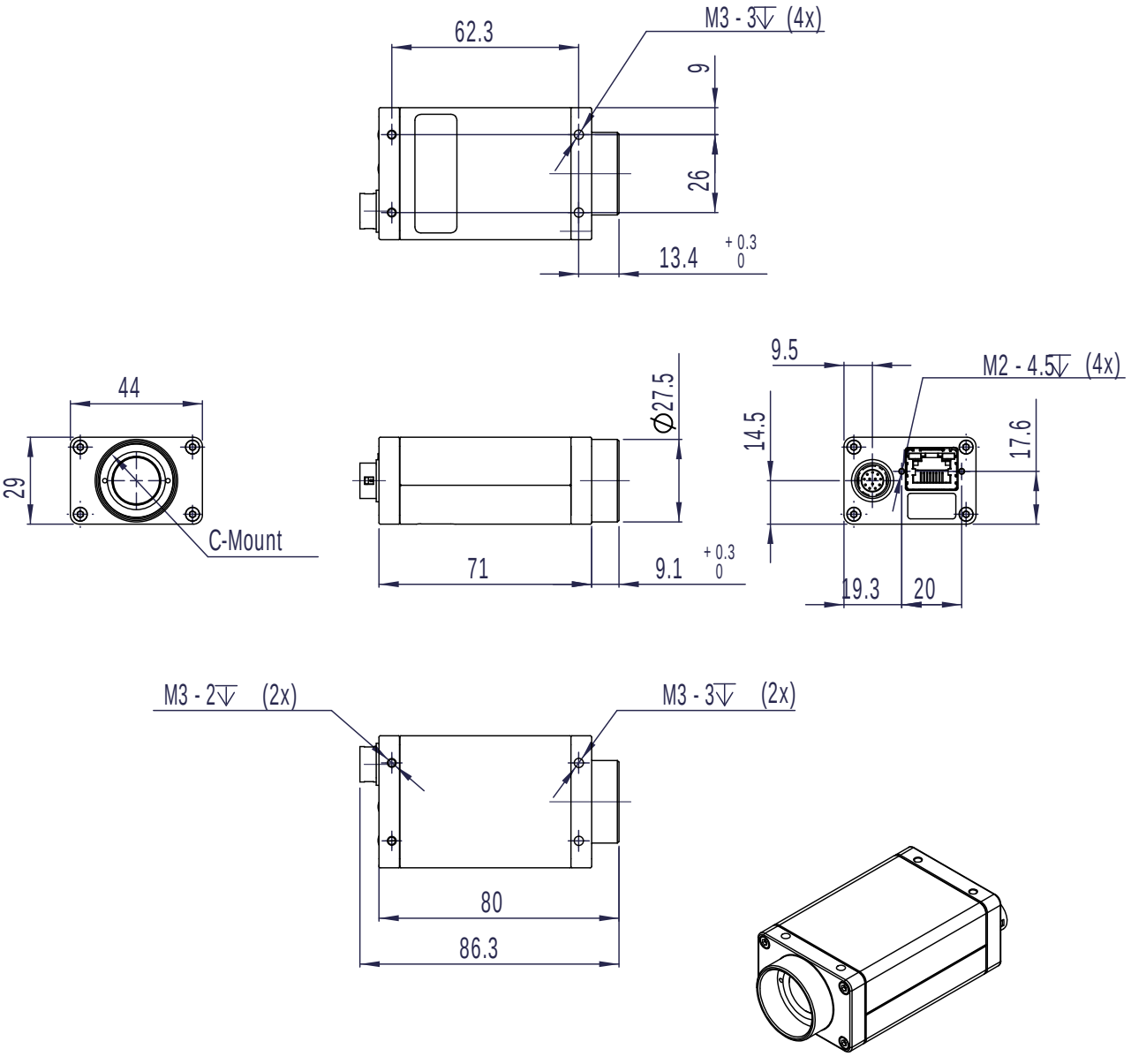
Technical drawing



Applications

Manta G-223B NIR is ideal for a wide range of applications including:

- Multimedia and entertainment
- Machine vision
- Security and surveillance
- Metrology and inspection systems
- Industrial image processing