

Manta G-223 NIR



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

Description

GigE camera with CMOSIS CMV2000, NIR optimized, global shutter

Manta G-223B NIR is a near infrared (NIR) optimized GigE camera with a 2/3" CMOSIS CMV2000 CMOS sensor and global shutter. This camera offers several modular options.

Options

- Power over Ethernet (PoE)
- Various IR cut/pass filters and lens mounts
- Angled head, board level variants, white medical housing

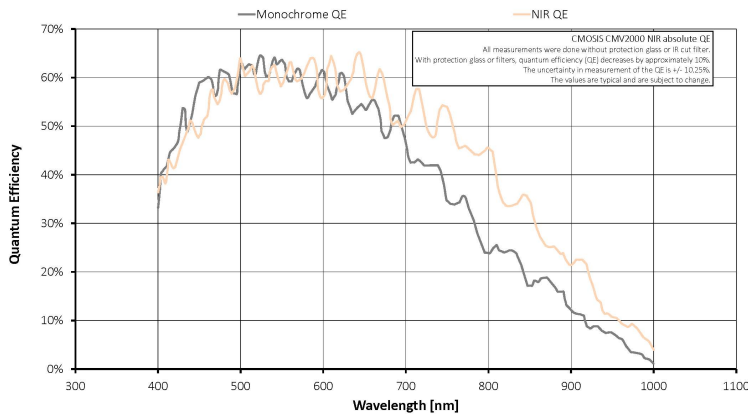
See the [#Modular Concept#](#) for lens mount, housing variants, optical filters, case design, and other modular options.

Optical filter note: By default, the Manta G-223B NIR model ships with no optical filter.#

Specifications

Manta	G-223 NIR
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	2048 (H) × 1088 (V)
Sensor	CMOSIS CMV2000 NIR
Sensor type	CMOS
Cell size	5.5 μm x 5.5 μm
Lens mount	C-Mount
Max frame rate at full resolution	53.7 fps
ADC	12 bit
Image buffer (RAM)	128 MByte
Output	

Manta	G-223 NIR
Bit depth	8-12 bit
Mono modes	Mono8, Mono12Packed, Mono12
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS-232	1
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC; PoE
Power consumption (@12 V)	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, RoHS, REACH, WEEE, FCC, ICES



Features

Image optimization features:

- Auto gain (manual gain control: 0 to 26 dB)
- Auto exposure (18 #s to 126 s)
- Auto white balance
- Black level (offset)
- Decimation
- Gamma correction

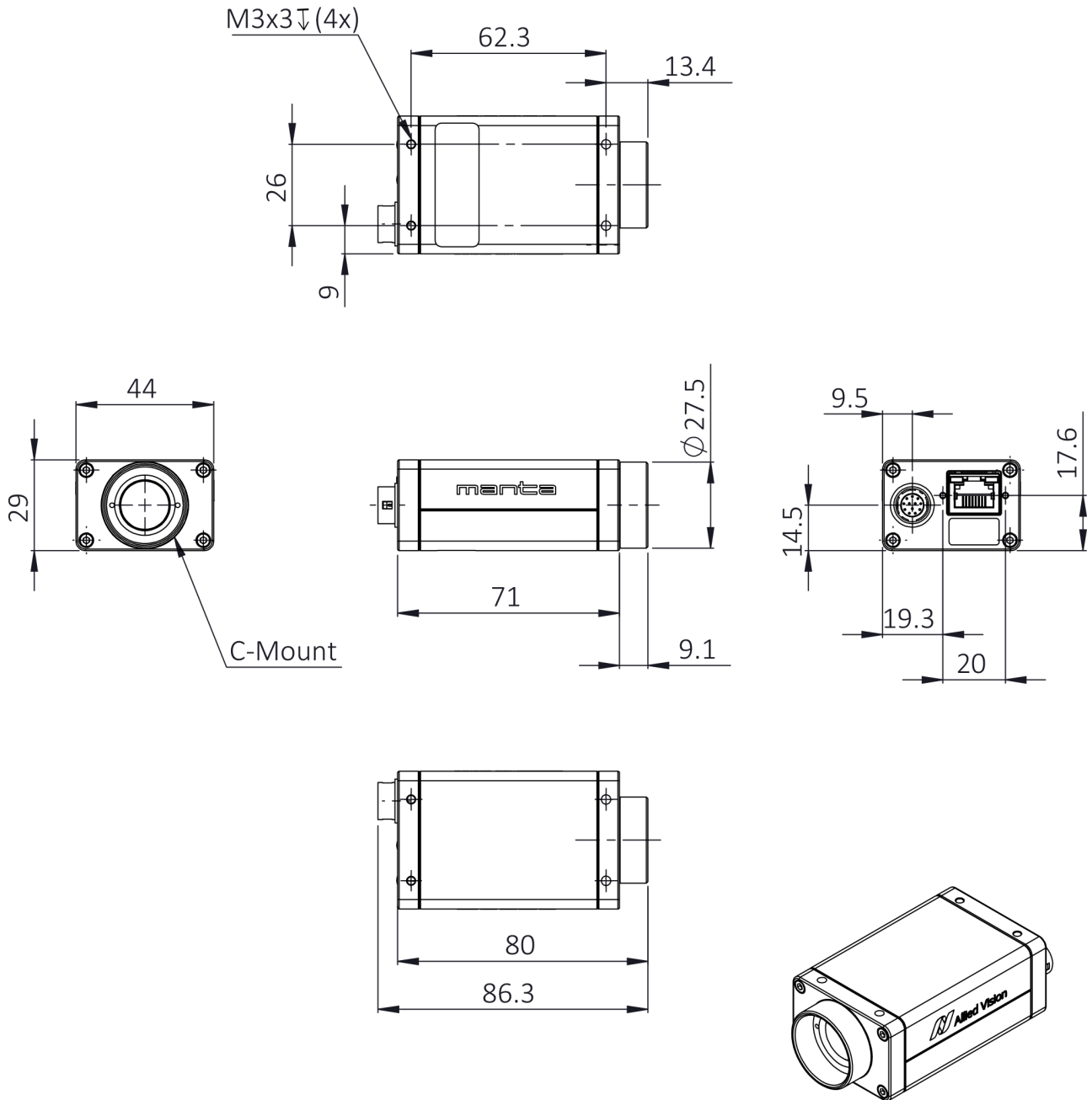


- Look-up tables (LUTs)
- Piecewise linear HDR mode
- Pixel defect masking
- Region of interest (ROI), separate ROI for auto features
- Reverse X/Y

Camera control features:

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

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