

# Manta

## G-223



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

## Description

**GigE camera with CMOSIS CMV2000 sensor, global shutter**

Manta G-223B/G-223C is an industrial GigE camera with a 2/3" CMOSIS CMV2000 sensor. 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

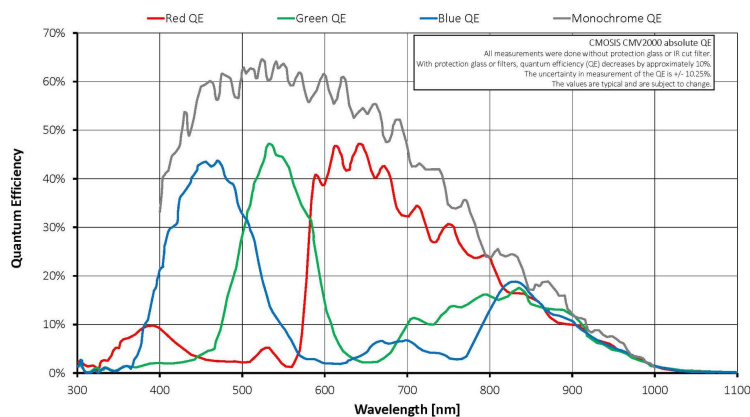
See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options.

Optical filter note: By default monochrome models ship with protection glass B 270 (ASG) and color models ship with an IRC Hoya C-5000 IR cut filter.

## Specifications

Manta	G-223
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	2048 (H) × 1088 (V)
Sensor	CMOSIS CMV2000
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

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<b>Output</b>	
Bit depth	8-12 bit
Mono modes	Mono8, Mono12Packed, Mono12
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
Raw modes	BayerGB8, BayerGB12, BayerGB12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
Opto-isolated I/Os	2 inputs, 2 outputs
RS-232	1
<b>Operating conditions/dimensions</b>	
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)

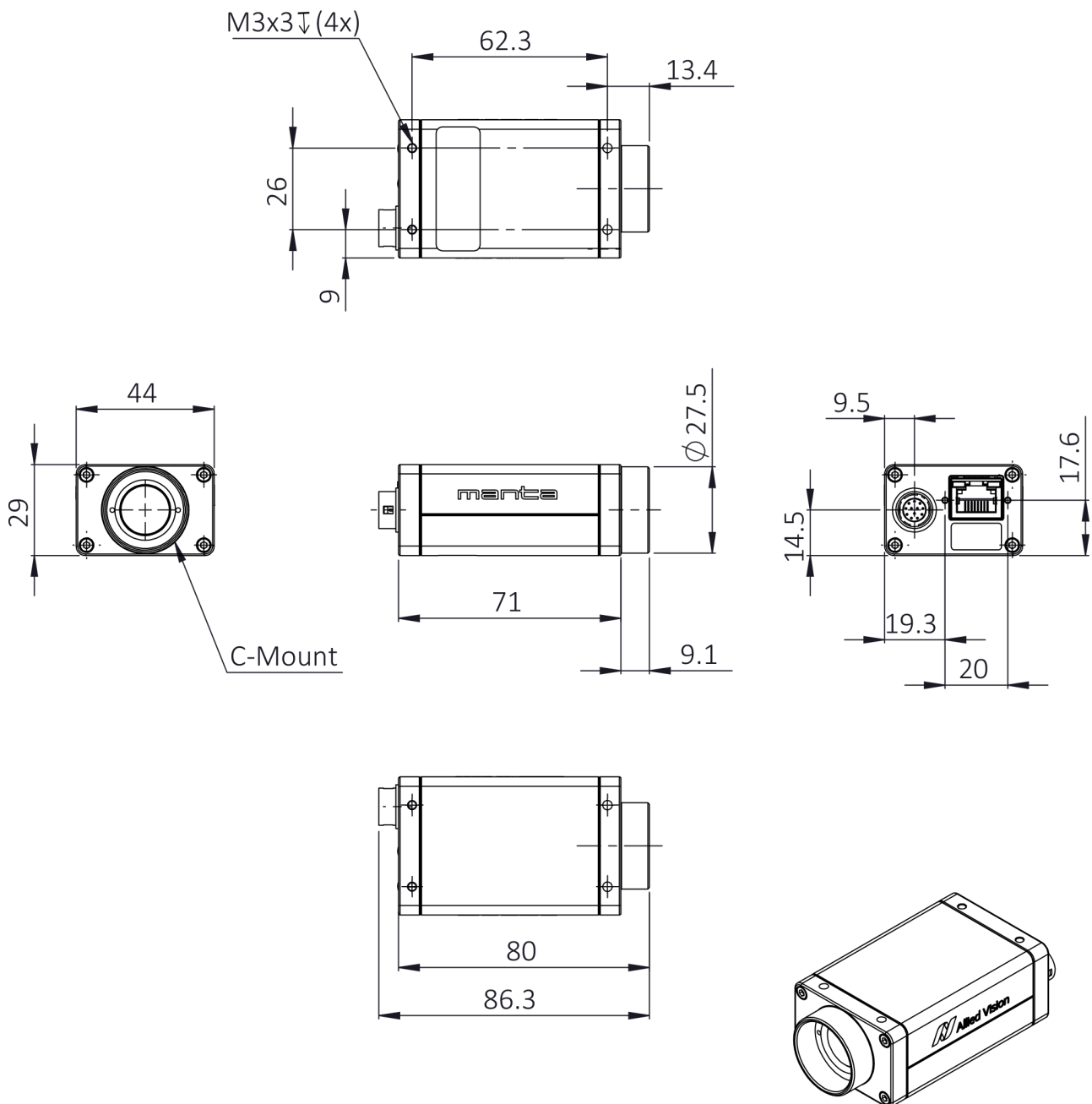


- Auto exposure (18 #s to 126 s)
- Auto white balance
- Black level (offset)
- Color correction, hue, saturation (color models only)
- Decimation
- Gamma correction
- Look-up tables (LUTs)
- Piecewise linear HDR mode
- Pixel defect masking
- Region of interest (ROI), separate ROI for auto features
- 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/G-223C is ideal for a wide range of applications including:



- Full HD solutions
- Machine vision
- Industrial inspection
- Security and surveillance
- Industrial image processing
- Intelligent traffic solutions (ITS)