

Manta

G-223



- CMOSIS/ams CMOS sensor
- Power over Ethernet option
- Angled head and board level variants
- Video-iris lens control

Description

GigE camera with CMOSIS/ams CMV2000 CMOS sensor

Manta G-223 is a machine vision camera that incorporates the high quality Type 2/3 (12.7 mm diagonal) CMOSIS/ams CMV2000 sensor. At full resolution, this camera runs 53.7 frames per second. With a smaller region of interest, higher frame rates are possible. Manta G-223 is offered in both monochrome and color models.

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, sophisticated color correction capabilities, a robust metal housing, and many modular options. By default monochrome models ship with protection glass B 270 (ASG) and color models ship with an IRC Hoya C-5000 IR cut filter. A 2/3 inch lens may cause vignetting (1 inch lens recommended).

Benefits and features:

- Monochrome (G-223B) and color (G-223C) models
- GigE Vision interface with Power over Ethernet option
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Trigger over Ethernet (ToE) Action Commands allow for a single cable solution to reduce system costs
- Easy camera mounting via standard M3 threads on top and bottom of housing or optional tripod adapter
- Comprehensive I/O functionality for simplified system integration
- Popular C-Mount lens mount
- Easy software integration with Allied Vision's [Vimba SDK](#) and compatibility to the most popular [third party image-processing libraries](#).

Options:

- Available with Power over Ethernet (PoE) compliant interface
- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)
- Available with various angled-head housings or board level version
- Available with white medical design

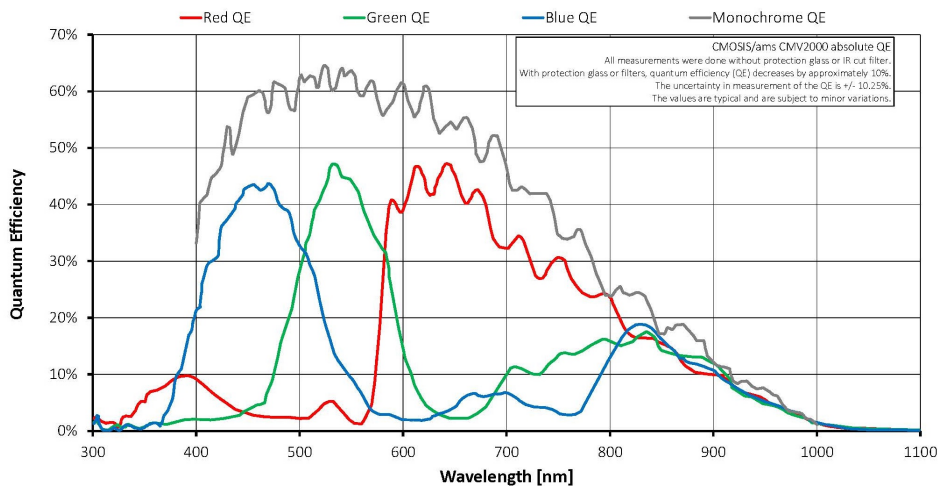
See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options. See the [Customization and OEM Solutions](#) webpage for additional options.

Specifications

Manta	G-223
インターフェイス	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
解像度	2048 (H) × 1088 (V)
センサー	CMOSIS/ams CMV2000
Sensor type	CMOS
センサーサイズ	Type 2/3
ピクセルサイズ	5.5 μm × 5.5 μm
レンズマウント (標準搭載)	C-Mount
フレームレート (フル解像度)	53.7 fps
ADC	12 bit
Image buffer (RAM)	128 MByte
Output	
Bit depth	8/12 bit
ビデオフォーマット(Mono)	Mono8, Mono12Packed, Mono12
ビデオフォーマット(YUV)	YUV411Packed, YUV422Packed, YUV444Packed
ビデオフォーマット(RGB)	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
ビデオフォーマット(Raw)	BayerGB8, BayerGB12, BayerGB12Packed
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
消費電力	2.7 W at 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)

Manta
Regulations

G-223
CE: 2014/30/EU (EMC), 2011/65/EU, including
amendment 2015/863/EU (RoHS); FCC Class B;
CAN ICES-003



Features

Image optimization features:

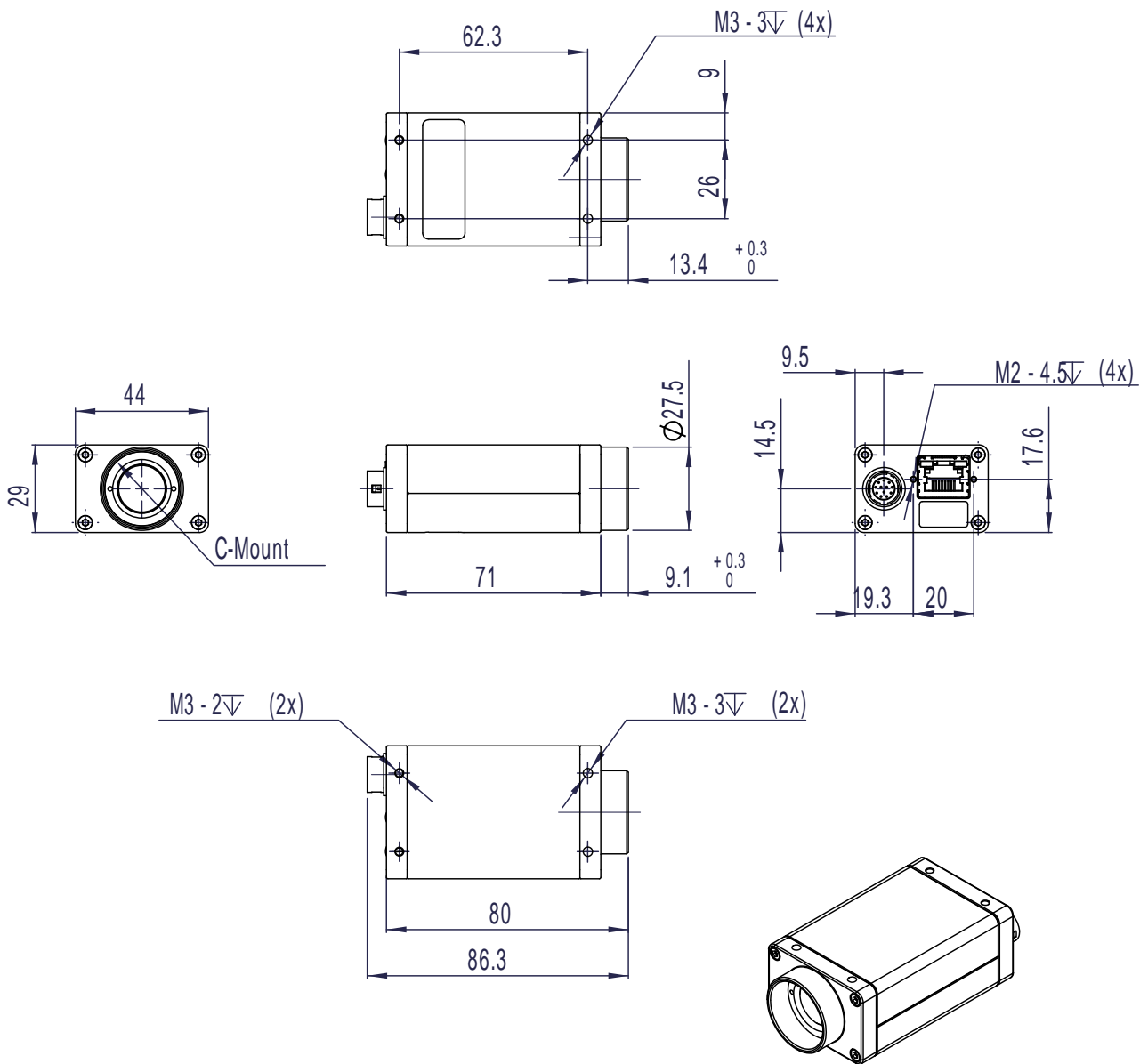
- Auto gain (manual gain control: 0 to 26 dB; 1 dB increments)
- Auto exposure (18 μ s to 126 s; 1 μ s increments)
- Auto white balance (G-223C only)
- Black level (offset)
- Color correction, hue, saturation (G-223C only)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Piecewise Linear 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 (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

Technical drawing





Applications

Manta G-223 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)