Allied Vision

Manta
G-145

- PoE option
- Auto iris
- Angled head option
- Board level option

Simplify your setup of multi-camera applications

Modular machine vision camera with GigE Vision interface

Manta G-145 with Sony ICX285 runs 15.0 frames per second at 1.4 MP resolution.

Manta is Allied Vision's most versatile GigE Vision camera series. It provides the largest choice of image sensors and its advanced feature set simplifies the setup of multi-camera applications. With its modular hardware concept, Manta offers nearly endless configuration possibilities to adapt the camera to your application.

Easy software integration with Allied Vision's Vimba Suite and compatibility to the most popular third party image-processing libraries.

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

Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	1388 (H) × 1038 (V)
Sensor	Sony ICX285
Sensor type	CCD Progressive
Shutter mode	GS (Global shutter)
Sensor size	Type 2/3
Pixel size	6.45 µm × 6.45 µm
Lens mounts (available)	C-Mount, CS-Mount
Max. frame rate at full resolution	15 fps
ADC	12 Bit
Image buffer (RAM)	32 MByte

Imaging performance

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured at full resolution without optical filter. Contact Sales or AE for more information.

Quantum efficiency at 529 nm	54 %
Temporal dark noise	10.4 e$^-$
Saturation capacity	18100 e$^-$
Dynamic range	64.3 dB
Absolute sensitivity threshold	11.0 e$^-$

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, RGBA8Packed, BGRA8Packed
Raw pixel formats	BayerRG8, BayerRG12Packed, BayerRG12

General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS232	1

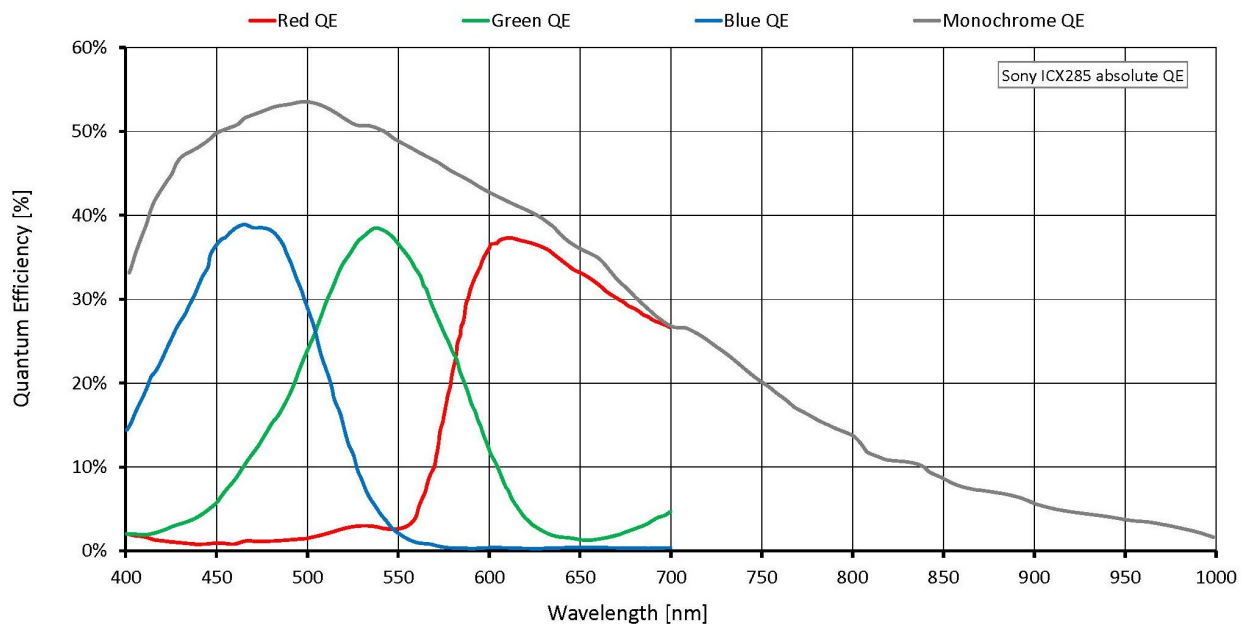| Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC AUX or IEEE 802.3af PoE
Power consumption	External power: 3.7 W at 12 VDC | Power over Ethernet: 4.3 W
Mass	200 g; 210 g (PoE)
Body dimensions (L × W × H in mm)	86.4 × 44 × 29 (including connectors)

Quantum efficiency

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Features

Image control: Auto

- Auto exposure
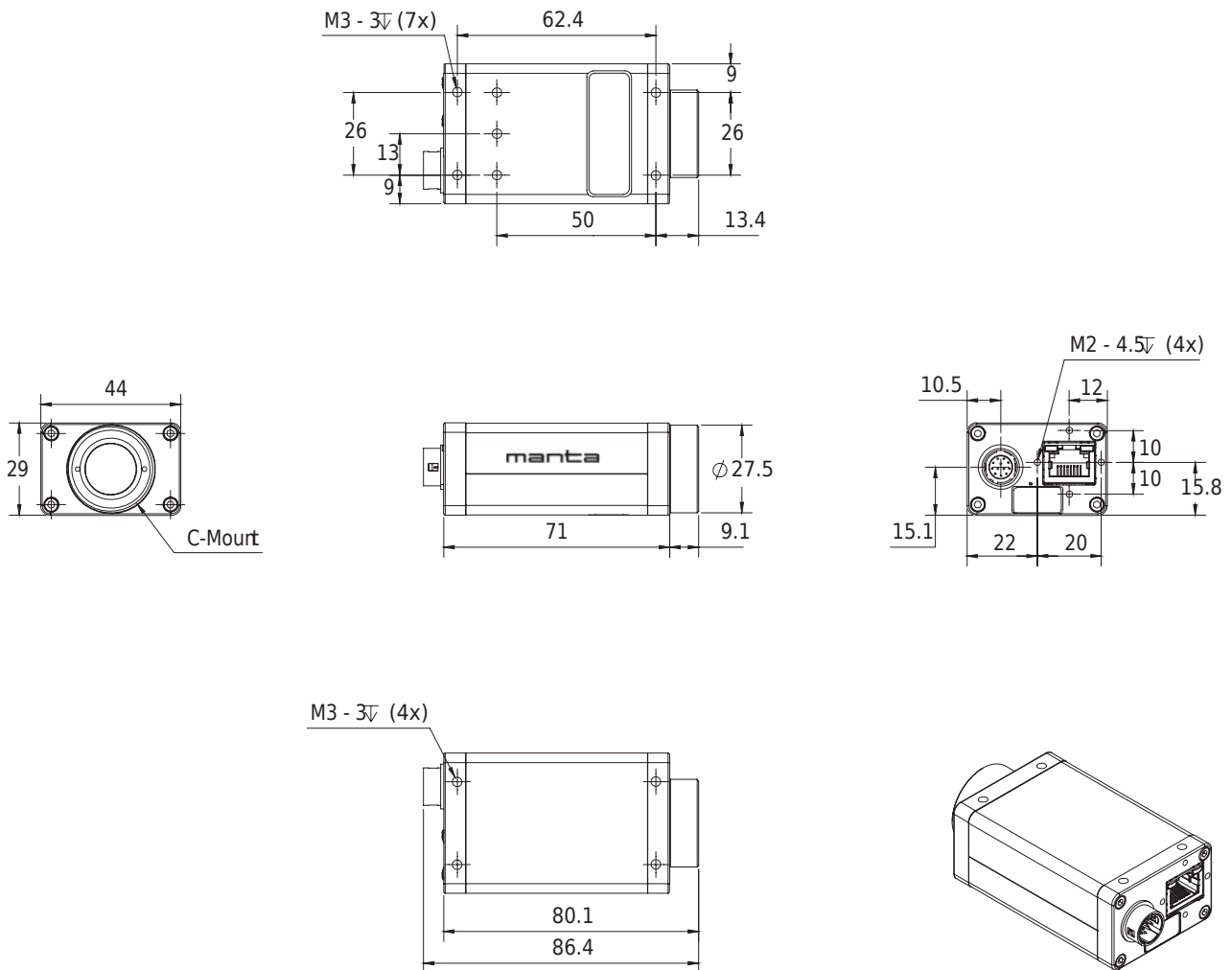- Auto gain
- Auto white balance (color models)

Image control: Other

- Binning
- Black level
- Color transformation (incl. hue, saturation; color models)
- Decimation
- Gamma
- LUT (look-up table)
- Reverse X
- ROI (region of interest)

Camera control

- Acquisition frame rate
- Auo iris
- Bandwidth control
- Event channel
- Firmware update in the field
- I/O and trigger control
- Image chunk data
- Stream hold
- User sets

Technical drawing

Applications

Manta G-145 is ideal for a wide range of applications including:

- Machine vision
- Science and research
- Medical and healthcare
- Microscopy
- Ophthalmology
- Intelligent traffic solutions (ITS) and Traffic monitoring