

# Manta G-146



- 17.8 fps at full resolution
- PoE option
- Angled-head and board level variants
- Video-iris lens control

Simplify your setup of multi-camera applications

## Modular machine vision camera with GigE Vision interface

Manta G-146 with Sony ICX267 runs 17.8 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**.

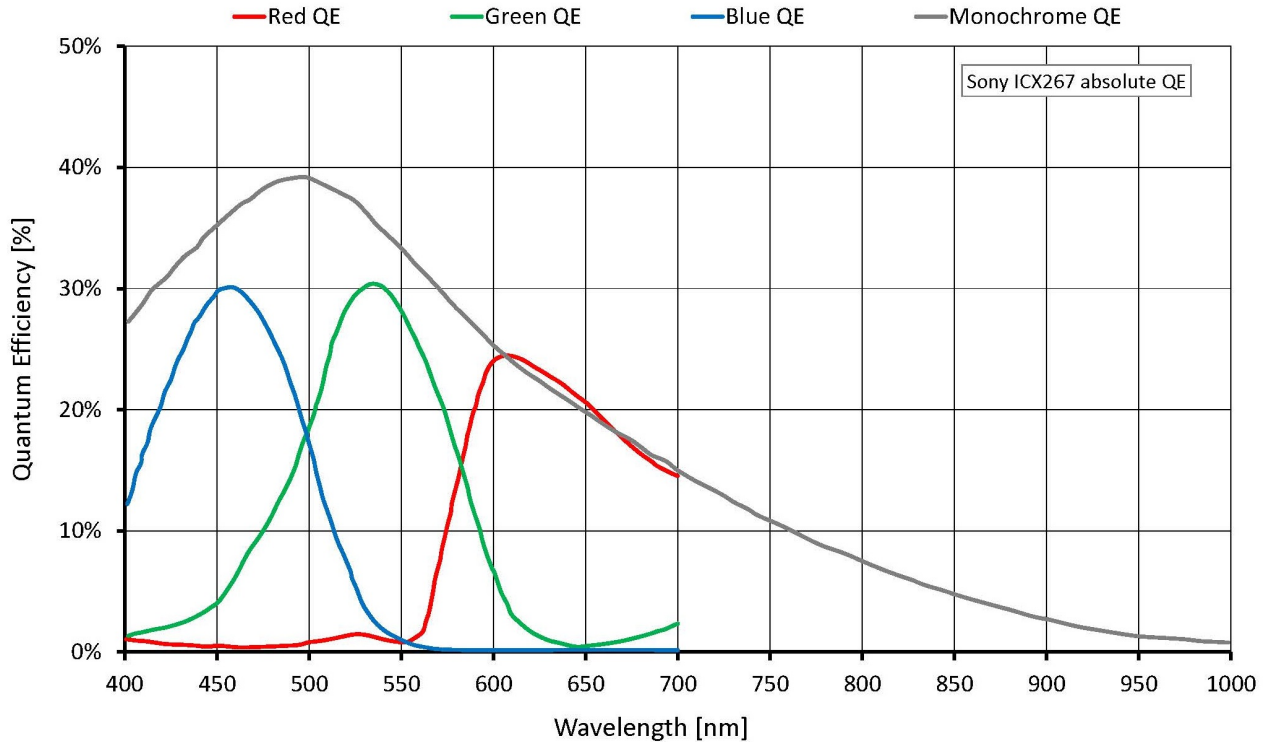
See the **Modular Concept** for lens mount, housing variants, optical filters, case design, and other modular options. See the **Customization and OEM Solutions** webpage for additional options.

## Specifications

Manta G-146	
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	1388 (H) × 1038 (V)
Sensor	Sony ICX267
Sensor type	CCD Progressive
Sensor size	Type 1/2
Pixel size	4.65 μm × 4.65 μm
Lens mounts (available)	C-Mount, CS-Mount

<b>Manta G-146</b>	
Max. frame rate at full resolution	17.8 fps
ADC	12 Bit
Image buffer (RAM)	32 MByte
<b>Imaging performance</b>	
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	41 %
Temporal dark noise	12.4 e <sup>-</sup>
Saturation capacity	11400 e <sup>-</sup>
Dynamic range	58.9 dB
Absolute sensitivity threshold	12.9 e <sup>-</sup>
<b>Output</b>	
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	BayerGB8, BayerGB12Packed, BayerGB12
<b>General purpose inputs/outputs (GPIOs)</b>	
Opto-isolated I/Os	2 inputs, 2 outputs
RS232	1
<b>Operating conditions/dimensions</b>	
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: 3.6 W at 12 VDC   Power over Ethernet: 4.2 W
Mass	200 g; 210 g (PoE)
Body dimensions (L × W × H in mm)	86.4 × 44 × 29 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B; CAN ICES-3 (B)

## Quantum efficiency



## Features

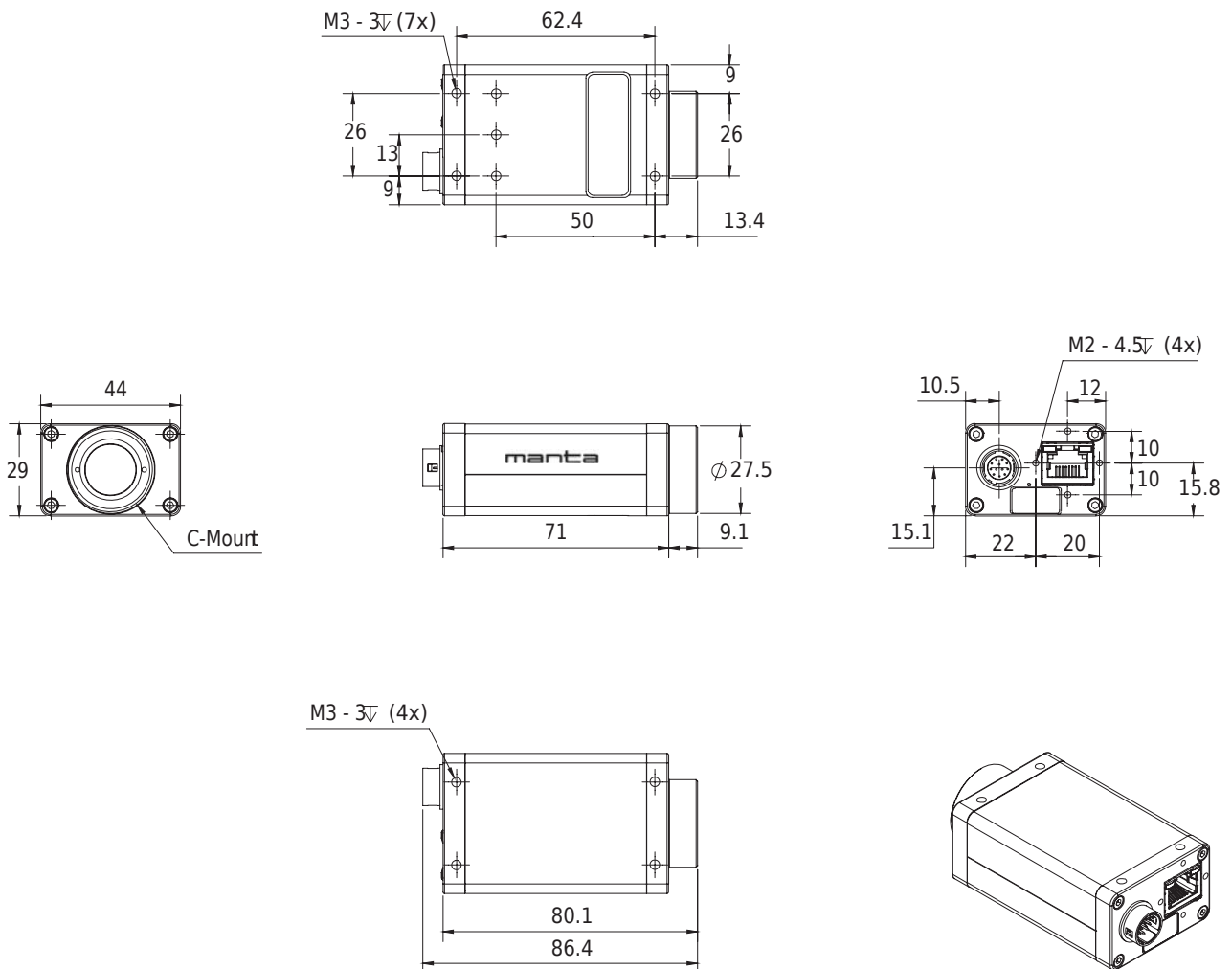
Image optimization features:

- Auto gain (manual gain control: 0 to 33 dB; 1 dB increments)
- Auto exposure (31  $\mu$ s to 60 s; 1  $\mu$ s increments)
- Auto white balance (G-146C only)
- Binning
- Black level (offset)
- Color correction, hue, saturation (G-146C only)
- Decimation
- Gamma correction
- Three look-up tables
- Region of interest, separate region for auto features
- ReverseX (G-146B only)

## Camera control features:

- Auto-iris (video type)
- Event channel
- Image chunk data
- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO

## Technical drawing





## Applications

Manta G-146 is ideal for a wide range of applications including:

- Machine vision
- Industrial inspection
- Logistics and automation
- Healthcare
- Intelligent traffic solutions (ITS)