

# Manta

## G-283



- Versatile 2.8 Megapixel camera
- 30.4 fps @ full resolution
- Power over Ethernet option
- Video-iris lens control

## Description

### GigE camera with Sony ICX674 CCD sensor, 30.4 frames per second

Manta G-283B/G-283C is a machine vision camera that incorporates the high quality Type 2/3 (10.972 mm diagonal) Sony ICX674 CCD sensor with EXview HAD II technology. This sensor is distinguished by reduced smear, higher quantum efficiency, and enhanced near-infrared sensitivity. This camera with its ICX674 sensor has an excellent image quality even under challenging light conditions. At full resolution, this camera runs 30.4 frames per second. With a smaller region of interest, higher frame rates are possible. The 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.

### Options:

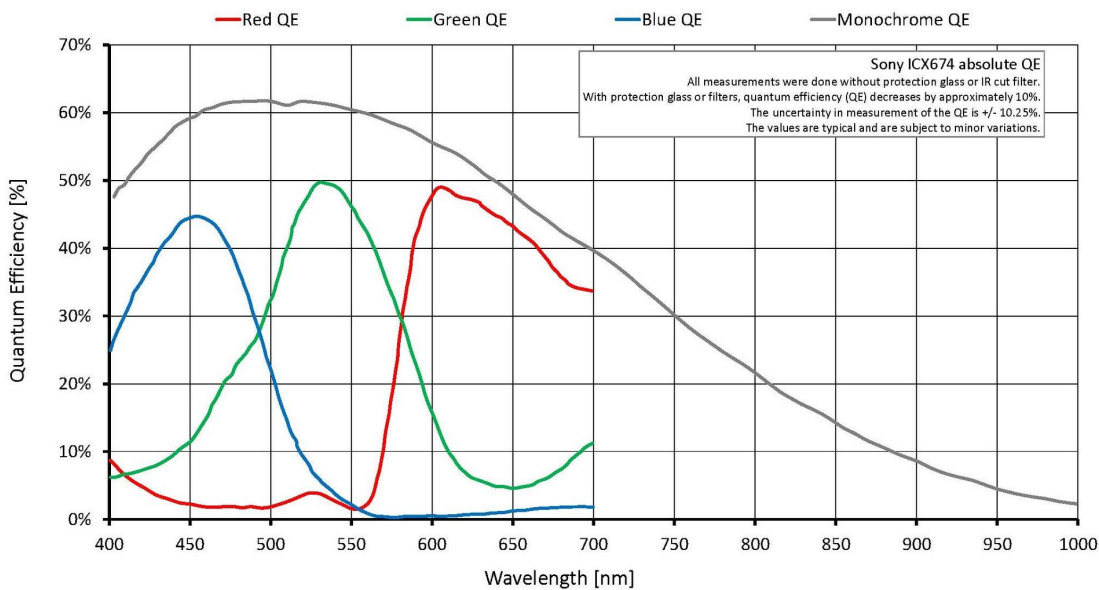
- Power over Ethernet (PoE)
- Various optical filter and lens mount options
- White medical housing

See the Modular Concept for lens mount, housing variants, optical filters, case design, and other modular options.

## Specifications

Manta	G-283
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	1936 (H) × 1458 (V)
Sensor	Sony ICX674

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Sensor type	CCD Progressive
Cell size	4.54 $\mu\text{m}$ x 4.54 $\mu\text{m}$
Lens mount	C-Mount
Max frame rate at full resolution	30.4 fps
ADC	12 bit
Image buffer (RAM)	128 MByte
<b>Output</b>	
Bit depth	8/14-8/12 bit
Mono modes	Mono8, Mono12Packed, Mono12
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed
Raw modes	BayerRG8, BayerRG12, BayerRG12Packed
<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)	3.7 W @ 12 VDC; 4.3 W PoE
Mass	190 g; 200 g (PoE)
Body dimensions (L x W x H in mm)	86.4 x 44 x 29 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES





## Features

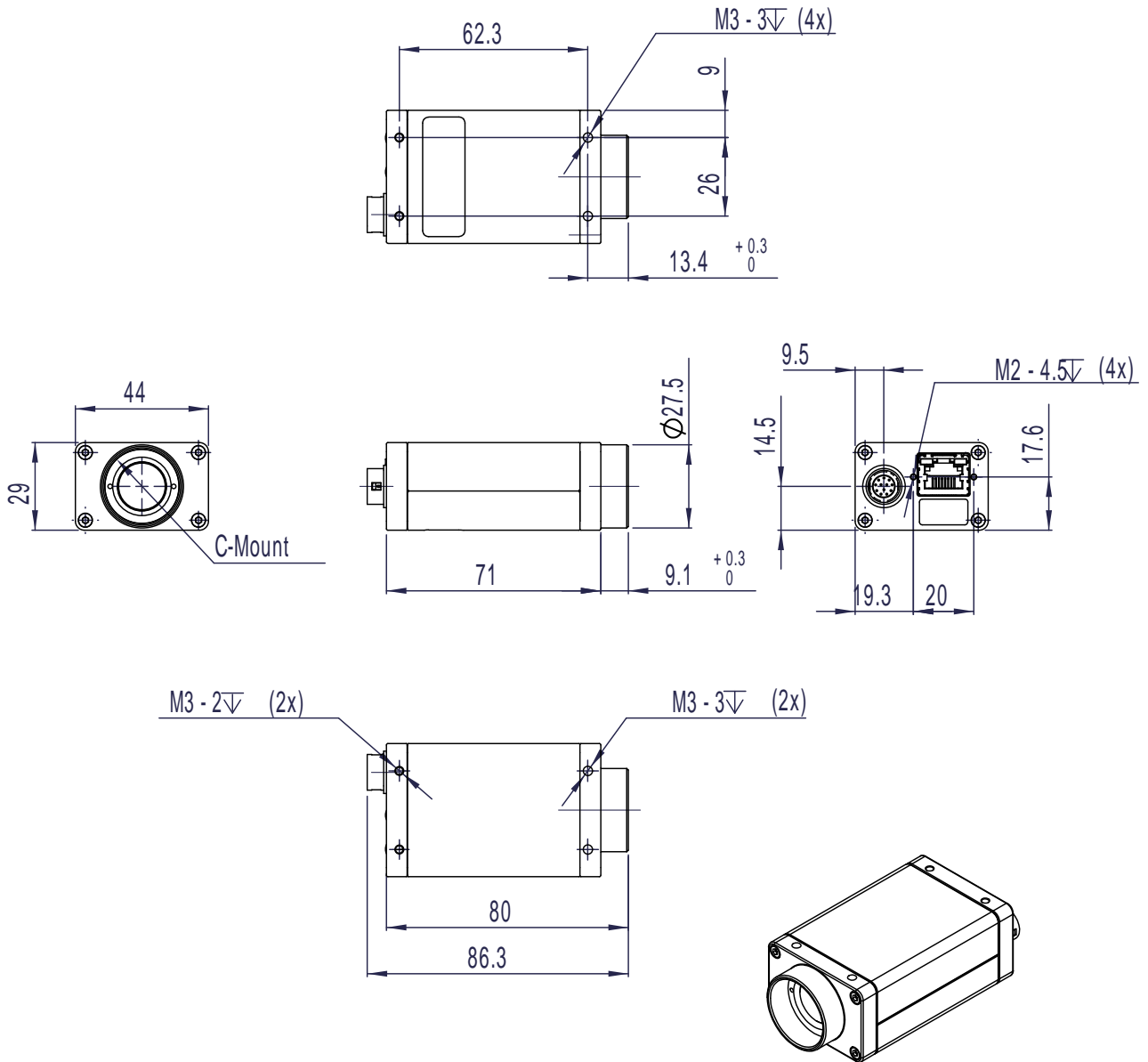
### Image optimization features:

- Auto gain (manual gain control: 0 to 33 dB; 1 dB increments)
- Auto exposure (41 #s to 38 s; 1 #s#increments)
- Auto white balance (color models only)
- Binning
- Black level (offset)
- Color correction, hue, saturation#(color models only)
- Decimation
- Gamma correction
- Look-up tables (LUTs) (3)
- Region of interest (ROI), separate ROI for auto features

### Camera control features:

- Auto-iris (video type)
- Event channel
- Image chunk data
- IEEE 1588 Precision Time Protocol (PTP)
- Storable user sets
- StreamBytesPerSecond (easy bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Tap mode switchable in Vimba Viewer 2.0 or later (two-tap, one-tap)
- Temperature monitoring (main board)
- Trigger over Ethernet (ToE) Action Commands

## Technical drawing





## Applications

**Manta G-283B/G-283C is ideal for a wide range of applications including:**

- Metrology and inspection systems
- Scientific measurement
- Microscopy
- Forensic solutions
- Intelligent traffic solutions (ITS)
- Applications requiring a highly sensitive camera (low light conditions)
- Applications requiring good sensitivity in the NIR spectrum