

Manta

G-505



- Versatile 5 Megapixel camera
- 15 fps @ full resolution
- Power over Ethernet option
- Video-iris lens control

Description

GigE camera with Sony ICX625 CCD sensor, 15.0 frames per second

Manta G-505B/G-505C is a machine vision camera that incorporates the high quality Type 2/3 (11.016 mm diagonal) Sony ICX625 CCD sensor. This sensor is suitable for a wide variety of high-resolution applications such as inspection and microscopy solutions. At full resolution, this camera runs 15.0 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:

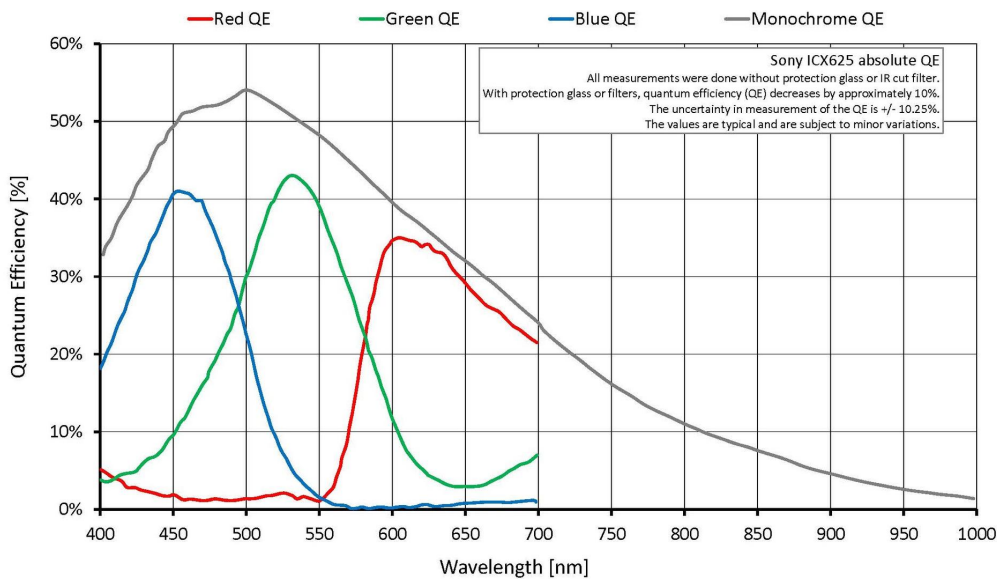
- Power over Ethernet (PoE)
- Various optical filter and lens mount options
- White medical housing

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

Specifications

Manta	G-505
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	2452 (H) × 2056 (V)
Sensor	Sony ICX625
Sensor type	CCD Progressive

Manta	G-505
Cell size	3.45 μm x 3.45 μm
Lens mount	C-Mount
Max frame rate at full resolution	15 fps
ADC	14 bit
Image buffer (RAM)	128 MByte
Output	
Bit depth	8-12 bit
Mono modes	Mono8, Mono12Packed, Mono12
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed
Raw modes	BayerRG8, BayerRG12, BayerRG12Packed
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS-232	1
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC; PoE
Power consumption (@12 V)	3.9 W @ 12 VDC; 4.5 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

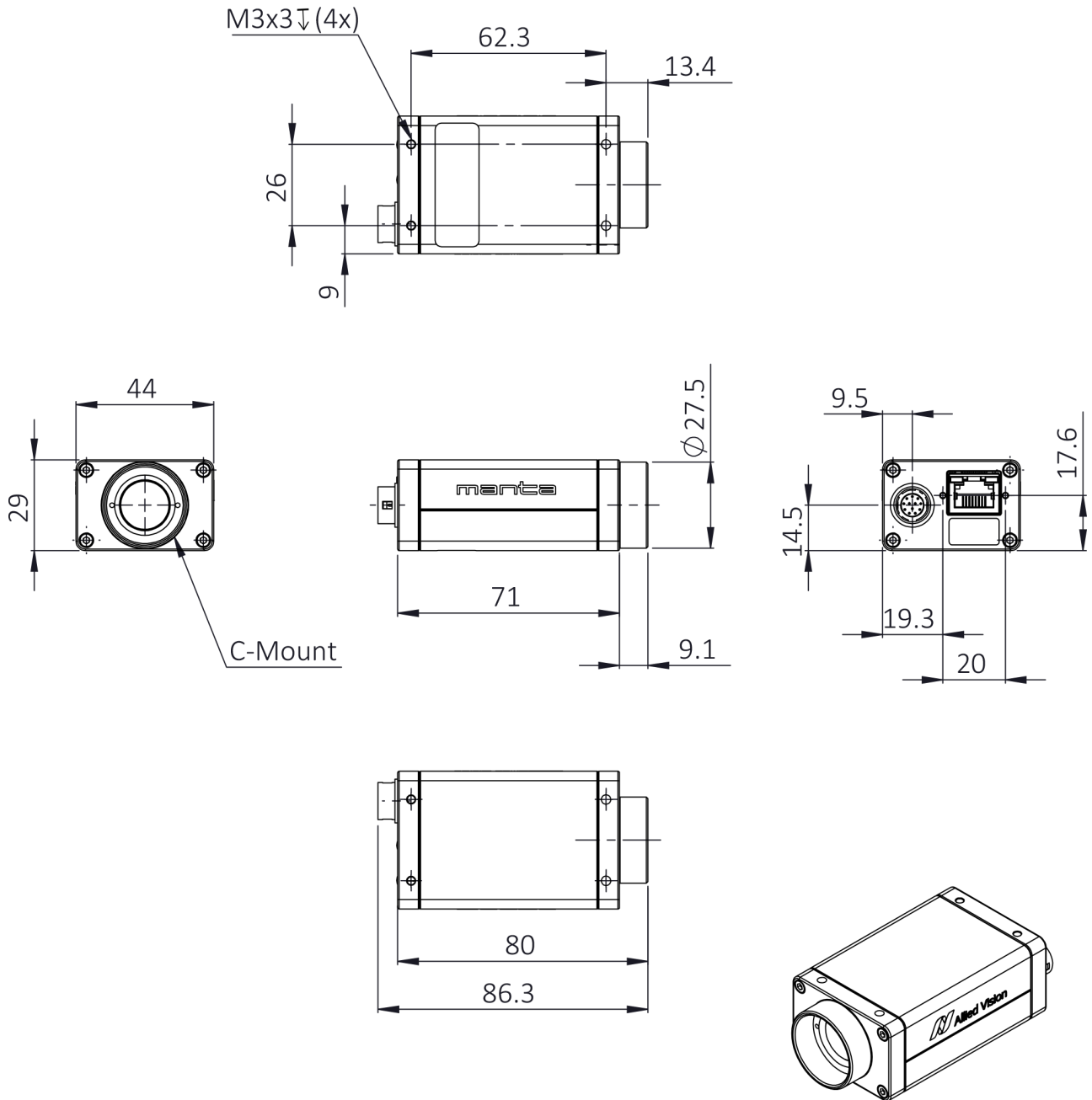
Image optimization features:

- Auto gain (manual gain control: 0 to 31 dB; 1 dB increments)
- Auto exposure (49 #s to 38 s; 1 #s#i 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
- Reverse X

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
- 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-505B/G-505C is ideal for a wide range of applications including:

- Machine vision
- Inspection and quality control
- Microscopy
- Intelligent traffic solutions (ITS)
- Automation
- Logistics