

Manta

G-145



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

Description

GigE Vision camera with Sony ICX285 EXview HAD CCD sensor, PoE option

Manta G-145B/G-145C is an inexpensive GigE Vision camera with the very sensitive Sony ICX285 EXview HAD sensor. At full resolution, this camera runs at 15.0 frames per second. This camera incorporates three look-up tables, sophisticated color correction algorithms, a robust metal housing, and many modular options.

Options:

- Power over Ethernet (PoE)
- Various IR cut/pass filters and lens mounts
- Angled head, board level variants, white medical housing

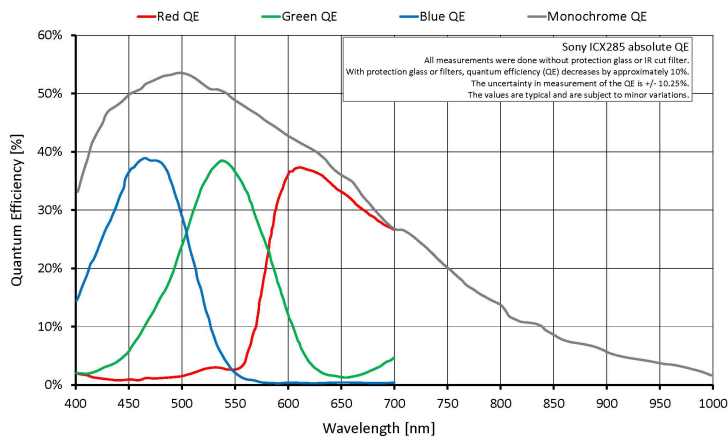
See the [#Modular Concept#](#) for lens mount, housing variants, optical filters, case design, and other modular options.

Optical filter note: By default monochrome models ship with protection glass B 270 (ASG) and color models ship with an IRC Hoya C-5000 IR cut filter.

Specifications

| Manta | G-145 |
|-----------------------------------|--|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional |
| Resolution | 1388 (H) × 1038 (V) |
| Sensor | Sony ICX285 |
| Sensor type | CCD Progressive |
| Cell size | 6.45 μm x 6.45 μm |
| Lens mount | C-Mount |
| Max frame rate at full resolution | 15.0 fps |

| Manta | G-145 |
|---|--|
| ADC | 12 bit |
| Image buffer (RAM) | 32 MByte |
| Output | |
| Bit depth | 8-12 bit |
| Mono modes | Mono8, Mono12, Mono12Packed |
| Color modes YUV | YUV411Packed, YUV422Packed, YUV444Packed |
| Color modes RGB | RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed |
| Raw modes | BayerRG8, BayerRG12Packed, BayerRG12 |
| 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) | 3.7 W; 4.3 W PoE |
| Mass | 200 g; 210 g (PoE) |
| Body dimensions (L × W × H in mm) | 86.4 × 44 × 29 (including connectors) |
| Regulations | CE, RoHS, REACH, WEEE, FCC, ICES |



Features

Image optimization features:

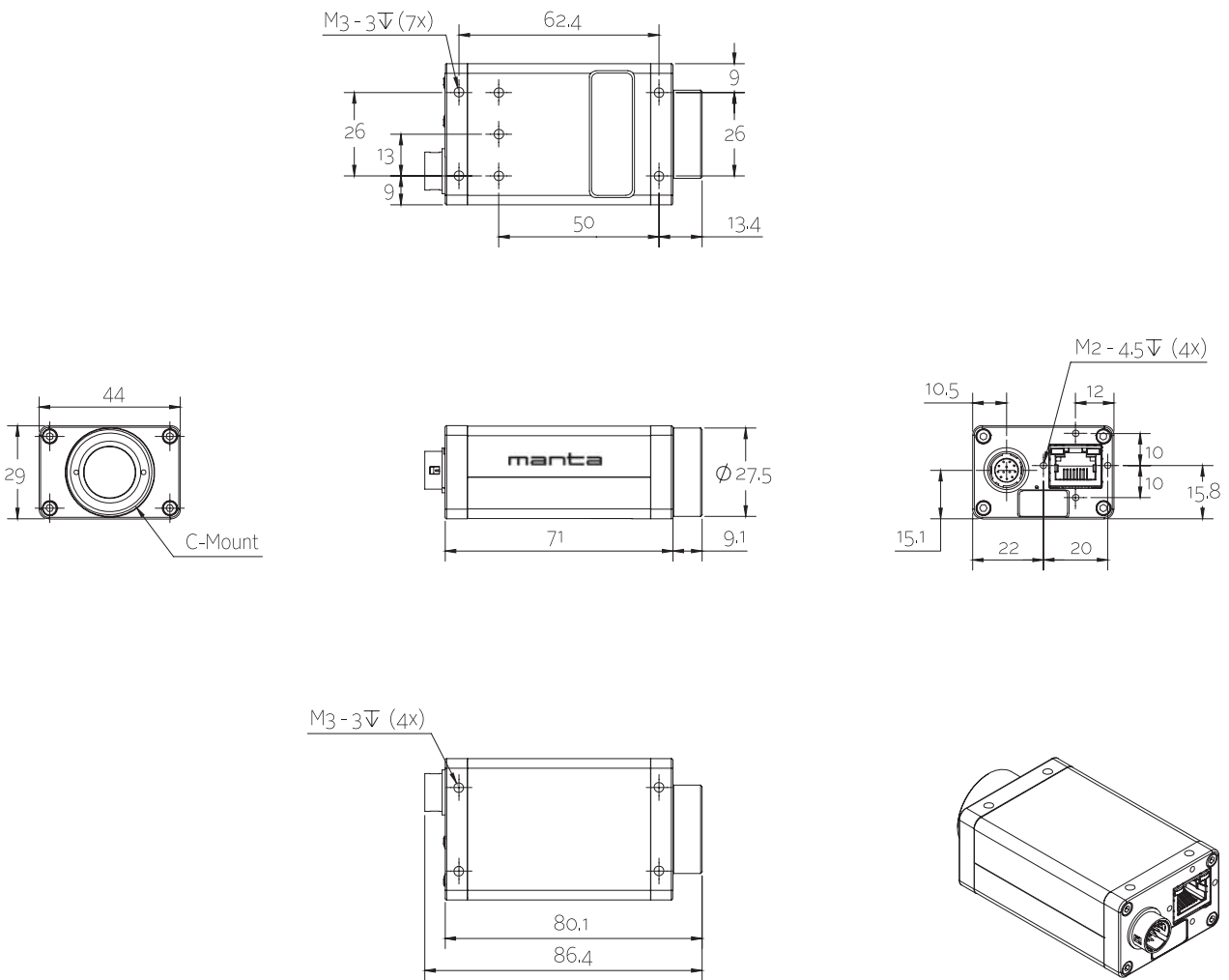


- Auto gain (manual gain control: 0 to 33 dB)
- Auto exposure (43 #s to 60 s)
- Auto white balance
- Binning
- Black level (offset)
- Color correction, hue, saturation (color models only)
- Decimation
- Gamma correction
- Look-up tables (LUTs)
- Region of interest (ROI), separate ROI for auto features

Camera control features:

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

Technical drawing



Applications

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



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