# Allied Vision

# Manta
## G-033

- Versatile VGA camera
- PoE option
- Angled head and board level variants
- Video-iris lens control

## Description

GigE Vision camera, Sony ICX414 sensor, PoE option

Manta G-033B/G-033C is a VGA GigE Vision camera with the Sony ICX414 CCD sensor. At full resolution, this camera runs at 88.7 frames per second. With a smaller region of interest, higher frame rates are possible. This camera#incorporates three look-up tables, sophisticated color correction algorithms, a robust metal housing, and many modular options.
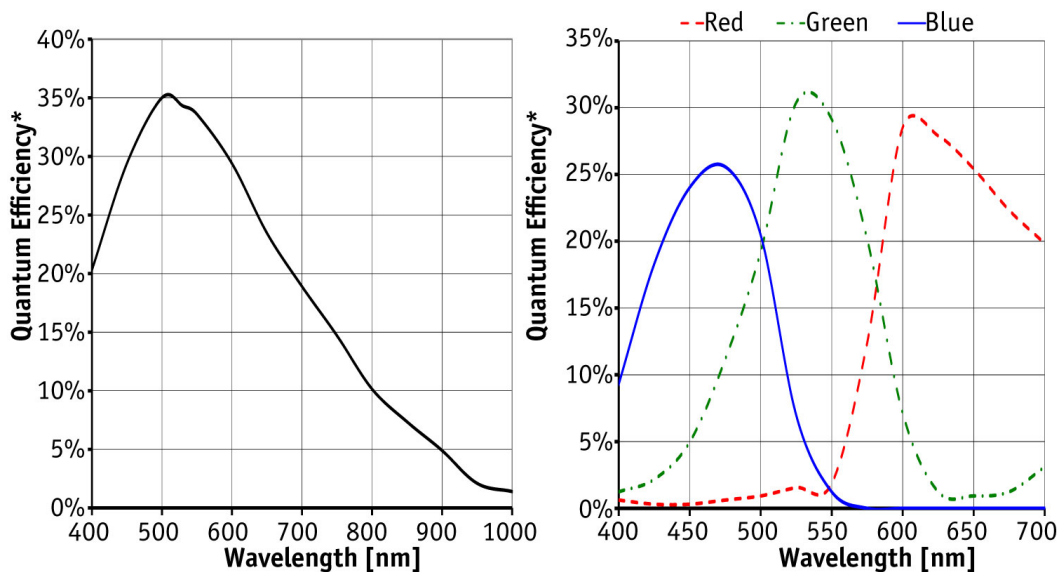**Options**

- 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.

## Specifications

| Manta | G-033 |
|---|---|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional |
| Resolution | 656 (H) × 492 (V) |
| Sensor | Sony ICX414 |
| Sensor type | CCD Progressive |
| Cell size | 9.9 µm x 9.9 µm |
| Lens mount | C-Mount |
| Max frame rate at full resolution | 88.7 fps |
| ADC | 12 bit |
| Image buffer (RAM) | 32 Mbyte |

| Manta | G-033 |
|---|---|
| **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, 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) | 3.6 W @ 12 VDC; 4.2 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 |



*QE measured without protection glass or filters. With glass or filters, quantum efficiency decreases by approximately 10%.
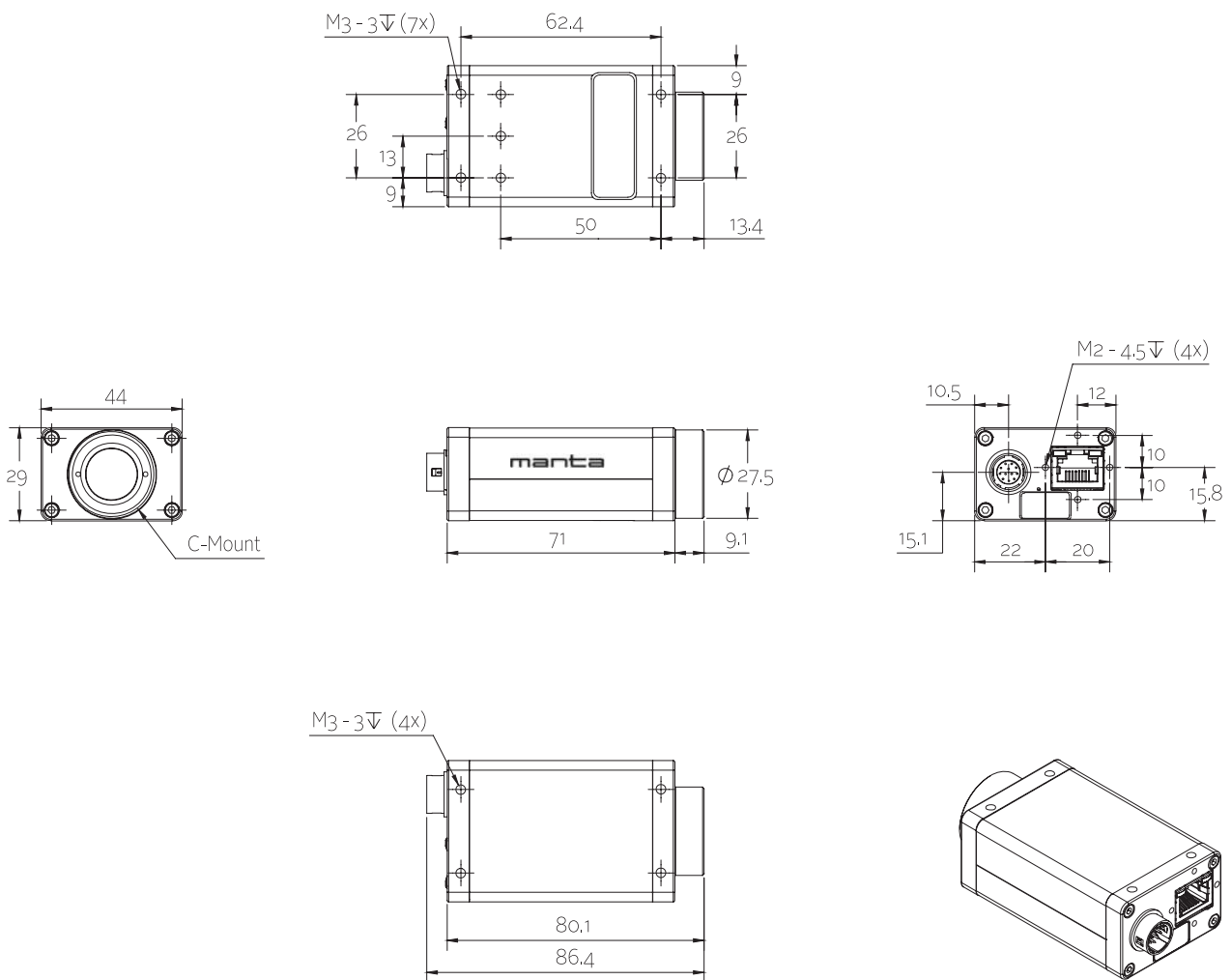
# Features

**Manta G-033B/G-033C features include:**

- Video-type auto iris

- Region of interest (ROI), separate ROI for auto features
- Binning
- Decimation
- Auto gain (manual gain control: 0 to 35 dB)
- Auto exposure (26 #s to 60 s)
- Auto white balance
- Look-up tables (LUTs)
- Gamma
- Hue, saturation, color correction
- StreamBytesPerSecond (easy bandwidth control)
- Stream hold
- Sync out modes: Trigger#ready, input, exposing, readout, imaging, strobe, GPO
- Event channel
- Chunk data
- Storable user sets

# Technical drawing

M3 - 3 ∇ (7x)   62.4
26   13   9   50   9   26   13.4

44
29
C-Mount

manta   Ø 27.5
71   9.1

M2 - 4.5 ∇ (4x)
10.5   12   10   10   15.8
15.1   22   20

M3 - 3 ∇ (4x)
80.1
86.4

# Applications

**Manta G-033B/G-033C is ideal for a wide range of applications including:**

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