

Manta

G-282



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

GigE camera with Sony ICX687 CCD sensor

Manta G-282 is a machine vision camera that incorporates the high quality Type 1/1.8 (8.918 mm diagonal) Sony ICX687 CCD sensor with EXview HAD II technology. This sensor has the same resolution as the ICX674 at a more cost-effective price level. 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.

Benefits and features:

- Monochrome (G-282B) and color (G-282C) models
- GigE Vision interface with Power over Ethernet option
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Comprehensive I/O functionality for simplified system integration
- Popular C-Mount lens mount
- Easy camera mounting via standard M3 threads on top and bottom of housing or optional tripod adapter
- Easy software integration with Allied Vision's [Vimba SDK](#) and compatibility to the most popular [third party image-processing libraries](#).

Options:

- Available with Power over Ethernet (PoE) compliant interface
- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)
- Available with white medical design



See the [Modular Concept](#) for lens mount, optical filters, case design, and other modular options.
 See the [Customization and OEM Solutions](#) webpage for additional options.

Specifications

| | |
|---------------------|---|
| Manta | G-282 |
| インターフェイス | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional |
| 解像度 | 1936 (H) × 1458 (V) |
| センサー | Sony ICX687 |
| Sensor type | CCD Progressive |
| センサーサイズ | Type 1/1.8 |
| ピクセルサイズ | 3.69 μm × 3.69 μm |
| レンズマウント (標準搭載) | C-Mount |
| フレームレート (フル解像度) | 30.4 fps |
| ADC | 12 bit |
| Image buffer (RAM) | 128 MByte |
| Imaging performance | HEADLINE-IP |

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 | 62 % |
| Temporal dark noise | 10.8 e ⁻ |
| Saturation capacity | 10300 e ⁻ |
| Dynamic range | 59.2 dB |
| Absolute sensitivity threshold | 11.3 e ⁻ |

Output

| | |
|-----------------|--|
| Bit depth | 8/12 Bit |
| ビデオフォーマット(Mono) | Mono8, Mono12Packed, Mono12 |
| ビデオフォーマット(YUV) | YUV411Packed, YUV422Packed, YUV444Packed |
| ビデオフォーマット(RGB) | RGB8Packed, BGR8Packed |
| ビデオフォーマット(Raw) | BayerRG8, BayerRG12Packed, BayerRG12 |

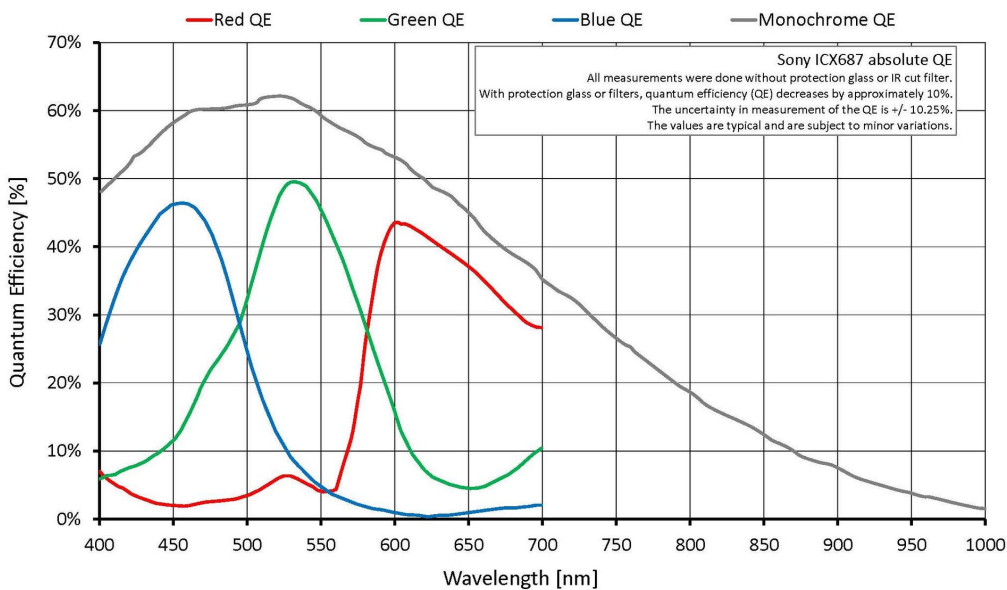
General purpose inputs/outputs (GPIOs)

| | |
|--------------------|---------------------|
| Opto-isolated I/Os | 2 inputs, 2 outputs |
| RS232 | 1 |

Operating conditions/dimensions

| | |
|-------------------------|--|
| Operating temperature | +5 °C to +45 °C ambient (without condensation) |
| Power requirements (DC) | 8 to 30 VDC AUX or 802.3af PoE |

| | |
|-----------------------------------|---|
| Manta | G-282 |
| 消費電力 | 3.5 W at 12 VDC; 4.1 W PoE |
| Mass | 190 g; 200 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-003 |



Features

Image optimization features:

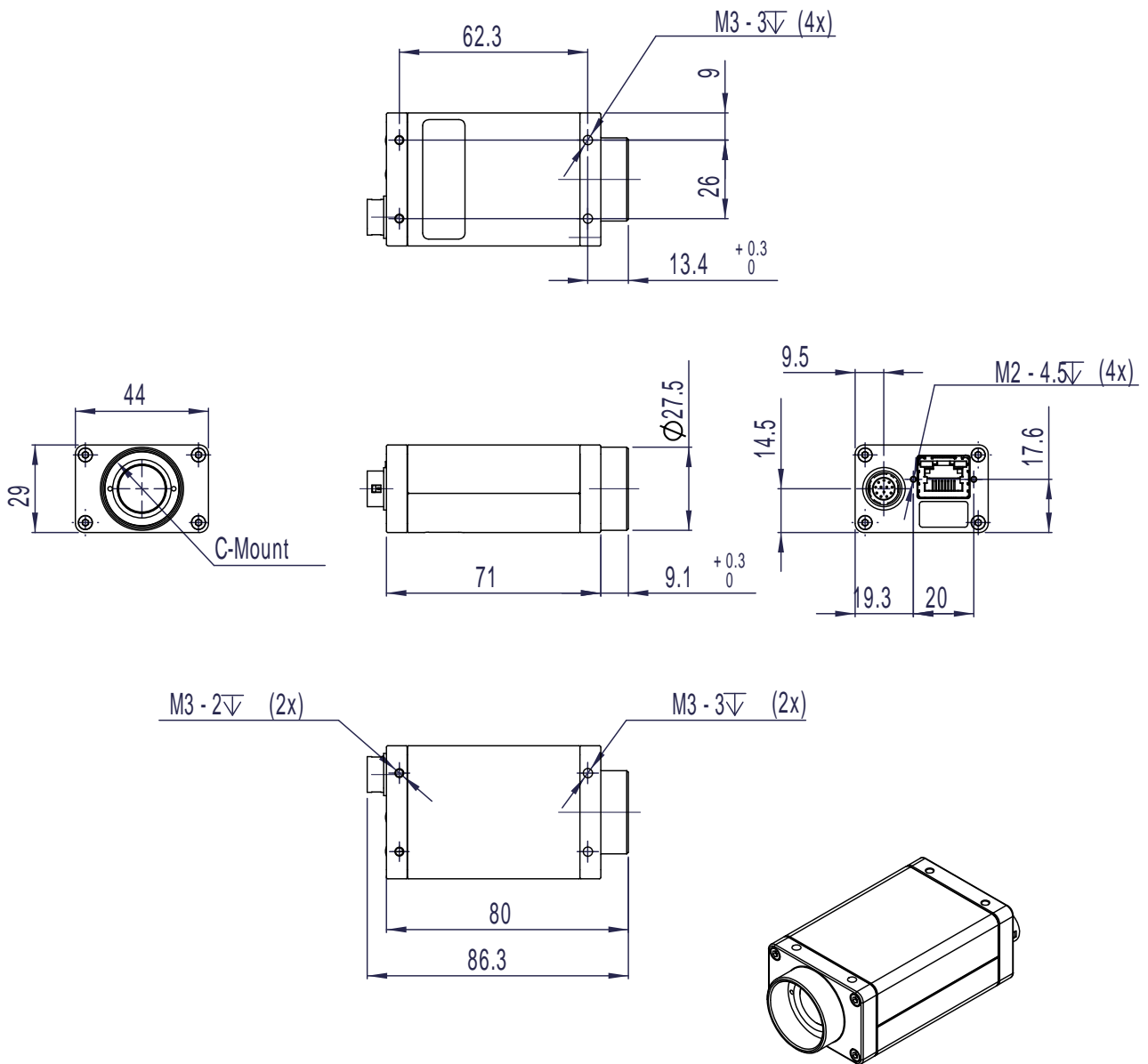
- Auto gain (manual gain control: 0 to 32 dB; 1 dB increments)
- Auto exposure (41 μ s to 38 s; 1 μ s increments)
- Auto white balance (G-282C only)
- Binning
- Black level (offset)
- Color correction, hue, saturation (G-282C only)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Region of interest (ROI), separate ROI for auto features



Camera control features:

- Auto-iris (video type)
- Event channel
- Image chunk data
- 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-282 is ideal for a wide range of applications including:

- Multimedia and entertainment
- Machine vision
- Security and surveillance
- Metrology and inspection systems
- Industrial image processing