







# Description

#### \*Preliminary\*

The Manta G-419B/C is an industrial GigE camera with a 1" CMOSIS CMV4000 sensor. At full resolution, it runs 25 fps. The Manta G-419B/C offers the same modular options as the other Manta camera models (for example, angled head, board level version, and PoE).

- CMOSIS CMV4000 (type 1), 4.2 Megapixels
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - $\,\circ\,$  External trigger delay: 0 to 60 s in 1  $\mu s$  increments
- Modular options
  - Various IR cut/pass filters
  - Board level version
  - Angled head
  - White medical housing
  - PoE (Power over Ethernet)



# Specifications

| Manta                                | G-419                                  |
|--------------------------------------|--|
| Interface                            | IEEE 802.3 1000baseT                   |
| Resolution                           | 2048 x 2048                            |
| Sensor                               | CMOSIS CMV4000                         |
| Sensor type                          | CMOS Progressive                       |
| Sensor size                          | Туре 1                                 |
| Cell size                            | 5.5 μm                                 |
| Lens mount                           | C-Mount                                |
| Max frame rate at full resolution    | 25 fps                                 |
| A/D                                  | 12 bit                                 |
| On-board FIFO                        | 64 MB                                  |
|                                      | Output                                 |
| Bit depth                            | 8-12 bit                               |
| Mono modes                           | Mono8, Mono16, Mono12 packed           |
| Color modes YUV                      | YUV411, YUV422, YUV444                 |
| Color modes RGB                      | RGB24, BGR24                           |
| Raw modes                            | Bayer8, Bayer16, Bayer12 packed        |
|                                      | General purpose inputs/outputs (GPIOs) |
| Opto-coupled I/Os                    | 2 inputs, 2 outputs                    |
| RS-232                               | 1                                      |
|                                      | Operating conditions/Dimensions        |
| Operating<br>temperature             | +5 °C +45 °C                           |
| Power requirements<br>(DC)           | 8 V - 30 V                             |
| Power consumption<br>(12 V)          | tbd                                    |
| Mass                                 | tbd                                    |
| Body Dimensions<br>(L x W x H in mm) | 86.4 x 44 x 29 mm incl. connectors     |
| Regulations                          | CE, FCC Class B, RoHS                  |

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### **Smart features**

- ROI (Region of Interest Readout)
- Gain, exposure
- 3 Look-up tables (LUTs)
- Gamma (0.25 4.0)
- DSP subregion (selectable ROI for auto features)
- Binning
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- IEEE 1588 (PTP, Precision Time Protocol)
- Event channel
- Chunk data
- Storable user sets



## Applications

The Manta G-419B/C is an industrial GigE camera with a 1" CMOSIS CMV2000 sensor. At full resolution, it runs 25 fps. The Manta G-419B/C offers the same modular options as the other Manta camera models (for example, angled head, board level version, and PoE).

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