



# Manta G-223 NIR



## Description

### GigE camera with CMOSIS CMV2000, NIR optimized, global shutter

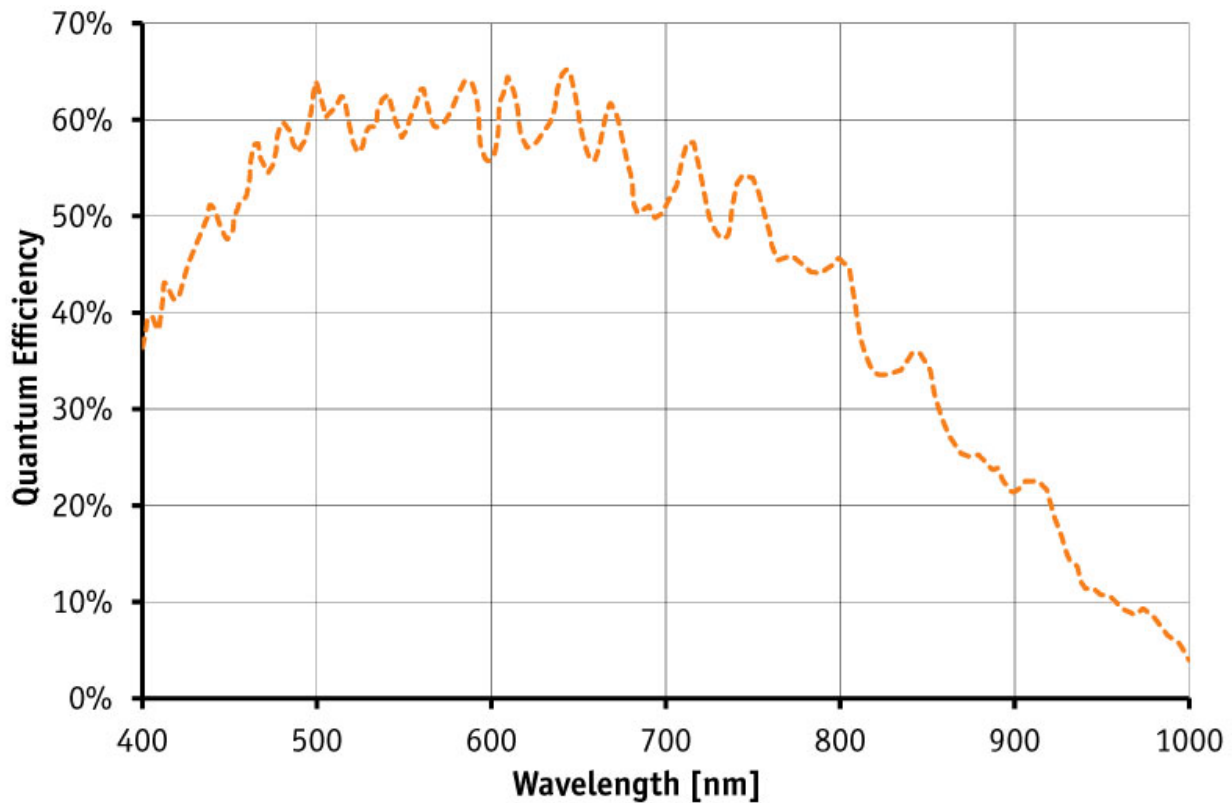
The Manta G-223B NIR is an NIR optimized GigE camera with a 2/3" CMOSIS CMV2000 sensor. The Manta G-223B NIR offers several modular options (examples include PoE, board level and angled head versions, filter selections for improving the image quality, and OEM branding).

- CMOSIS CMV2000 (type 2/3, 1 inch lens recommended), 2.2 Megapixels (monochrome)
- 53.7 fps @ 124 MB/s; 60.1 burst mode
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - External trigger delay: 0 to 60 s in 1  $\mu$ s increments
- Modular options
  - Various IR cut/pass filters
  - White medical housing
  - PoE (Power over Ethernet)
  - Board level and angled head versions
- Camera temperature monitoring

## Specifications

| Manta                                    | G-223 NIR  |
|--|--|
| <b>Interface</b>                         | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional |
| <b>Resolution</b>                        | 2048 x 1088  |
| <b>Sensor</b>                            | CMOSIS CMV2000                                     |
| <b>Sensor type</b>                       | CMOS Progressive                                   |
| <b>Sensor size</b>                       | Type 2/3   |
| <b>Cell size</b>                         | 5.5 $\mu\text{m}$                                  |
| <b>Lens mount</b>                        | C-Mount  |
| <b>Max frame rate at full resolution</b> | 53.7 fps   |
| <b>A/D</b>                               | 12 bit   |
| <b>On-board FIFO</b>                     | 128 MB   |
|  | <b>Output</b>                                      |
| <b>Bit depth</b>                         | 8-12 bit   |
| <b>Mono modes</b>                        | Mono8, Mono12Packed, Mono12                        |
|  | <b>General purpose inputs/outputs (GPIOs)</b>      |
| <b>Opto-coupled I/Os</b>                 | 2 inputs, 2 outputs                                |
| <b>RS-232</b>                            | 1  |
|  | <b>Operating conditions/Dimensions</b>             |
| <b>Operating temperature</b>             | +5 °C ... +45 °C                                   |
| <b>Power requirements (DC)</b>           | 8 V - 30 V   |
| <b>Power consumption (12 V)</b>          | 3.2 W (PoE) / 2.7 W (non-PoE)                      |
| <b>Mass</b>                              | 150 g  |
| <b>Body Dimensions (L x W x H in mm)</b> | 86.4 x 44 x 29 mm incl. connectors                 |
| <b>Regulations</b>                       | CE, FCC Class B, RoHS                              |

[Download Manta technical drawing \(click here\)](#)



## Smart features

- ROI (Region of Interest Readout)
- Gain (manual gain 0 to 26 dB)
- Exposure (exposure time 18  $\mu$ s to 60 s)
- Decimation (sub-sampling)
- 3 Look-up tables (LUTs)
- Gamma (0.25 - 4.0)
- DSP subregion (selectable ROI for auto features)
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- IEEE 1588 (PTP, Precision Time Protocol)
- Event channel
- Chunk data
- Storable user sets
- Camera temperature monitoring

## Applications

The Manta G-223B NIR is a robust, flexible NIR optimized camera with a sensitive CMOSIS CMV2000 sensor.

Typical applications:

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