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Manta
G-504

GigE VISION

Description

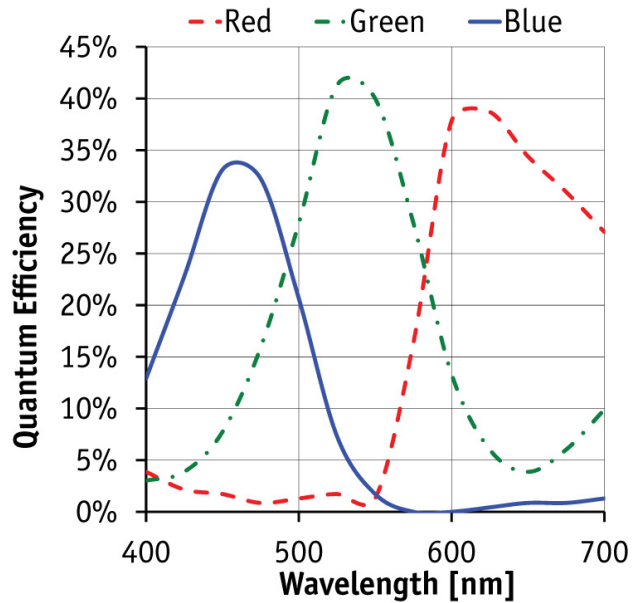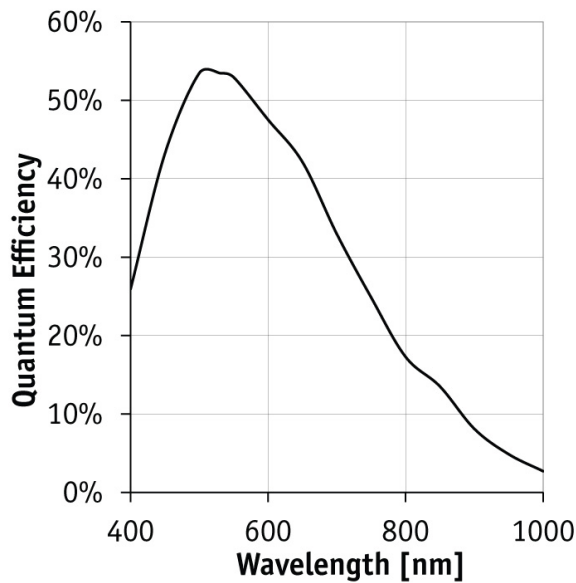## 5 Megapixel GigE camera, ICX655 - PoE option

The Manta G-504B/C is a 5 Megapixel GigE Vision camera with the Sony ICX655 sensor. It runs at 9 fps (full resolution).
The camera incorporates three LUTs, sophisticated color correction algorithms, a robust metal housing, and many modular options like angled heads or board level versions. Manta cameras cover a wide range of imaging applications. The Manta is optionally available with PoE (Power over Ethernet).

- Sony ICX655 (type 2/3), 5 Megapixels
- 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 seconds in 1 µs increments
- Modular options
  - Various IR cut/pass filters
  - Board level version
  - Angled head
  - White medical design
  - PoE (Power over Ethernet)

Specifications

Manta	G-504
Interface	IEEE 802.3 1000baseT
Resolution	2452 x 2056
Sensor	Sony ICX655
Sensor type	CCD Progressive
Sensor size	Type 2/3
Cell size	3.45 µm
Lens mount	C/CS-Mount
Max frame rate at full resolution	9 fps
A/D	14 bit
On-board FIFO	32 MB
	Output
Bit depth	8-12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411, YUV422, YUV444
Color modes RGB	RGB24, BGR24
Raw modes	BayerGB8, BayerGB12, BayerGB12Packed
	General purpose inputs/outputs (GPIOs)
Opto-coupled I/Os	2 inputs, 2 outputs
RS-232	1
	Operating conditions/Dimensions
Operating temperature	+5 °C ... +45 °C
Power requirements (DC)	8 V - 30 V
Power consumption (12 V)	<3.9 W
Mass	<200 g
Body Dimensions (L x W x H in mm)	86.4 x 44 x 29 mm incl. connectors
Regulations	CE, FCC Class B, RoHS

Smart features

- ROI (Region of Interest Readout)
- Exposure
  - Auto/one push/programmable
  - Exposure time 38 μs to 60 s
- White balance
  - Auto/one push/programmable
- On-board debayering
- Hue, saturation, sharpness (color versions)
- Gain
  - Auto/one push/programmable
  - Manual gain control: 0 to 32 dB (1 dB/step)
- Three look-up tables (LUTs), gamma correction
- DSP subregion (selectable ROI for auto features)
- Binning (up to 8 x 14, independent x and y binning)
- Sub-sampling (decimation)
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- Event channel
- Chunk data
- 5 storable user sets

Applications

The Manta G-504B/C is a 5 Megapixel GigE Vision camera with an outstanding price/performance ratio. On request, board level versions with separate sensor head (up to 200 mm distance to camera mainboard) are available. Thanks to the three LUTs (separate R, G, and B control), color correction features and the PoE option, this Manta camera suits a large variety of imaging applications.

Applications:

- Industrial inspection with high resolution
- Automation
- Logistics
- Science and research
- Healthcare and medical
- ITS (Intelligent traffic solutions)
- ... and many more