Manta
G-033

Description
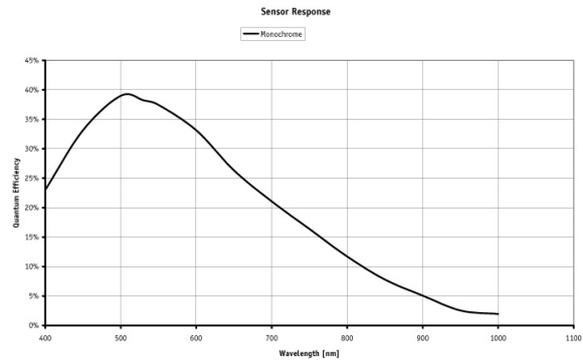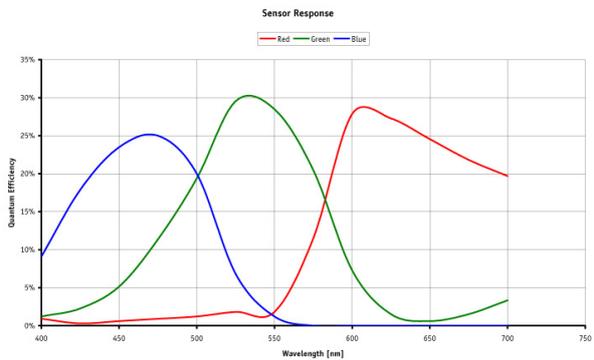
GigE Vision camera, Sony ICX414, PoE option

The Manta G-033B/C is a VGA GigE Vision camera with the Sony ICX414 CCD sensor. It runs at 88 fps (full resolution). With a smaller ROI, higher frame rates are possible.
It 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 **now optionally available with PoE (Power over Ethernet).**

- Sony ICX414 (type 1/2), 0.3 Megapixels
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - External trigger delay: 0 to 60 seconds in 1 µs increments
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Modular options
  - Various IR cut/pass filters
  - CS-Mount
  - Board level version
  - Angled head
  - White medical housing
  - **NEW: PoE (Power over Ethernet)**

Specifications

Manta	G-033
Interface	IEEE 802.3 1000baseT
Resolution	656 x 492
Sensor	Sony ICX414
Type	CCD Progressive
Sensor Size	Type 1/2
Cell size	9.9 µm
Lens mount	C/CS
Max frame rate at full resolution	88 fps
A/D	14 bit
On-board FIFO	32 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)
TTL I/Os	0
Opto-coupled I/Os	2 inputs, 2 outputs
RS-232	1
	Power/Mass/Dimensions/Regulations
Power requirements (DC)	8 V - 30 V
Power consumption (12 V)	<3.6 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

Download Manta technical drawing (click here)

Sensor Response

Red — Green — Blue

Sensor Response

Monochrome

Smart features

- ROI (Region of Interest Readout)
- Exposure
  - Auto/one push/programmable
  - Exposure time 26 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 35 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
- Video-type auto-iris
- 5 storable user sets

Applications

The Manta G-033B/C is a rich-featured, modular camera with GigE Vision interface and VGA resolution. Many options are available: PoE (Power over Ethernet), three separate look-up tables for R, G, and B, angled heads, or boardlevel versions with separate sensor head.

Typical applications:

• Machine vision
• Industrial inspection and automation
• Semiconductor inspection
• Logistics
• ITS/Traffic monitoring
• ... and many more