Description

Compact, flexible, modular IEEE 1394 1.4 Megapixel C-Mount camera

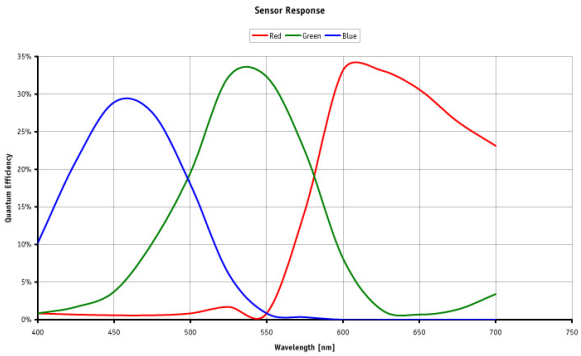
The Marlin F-145B/C is equipped with a highly sensitive SONY CCD sensor.
It runs at 10 fps (full resolution, Format_7). Higher frame rates can be reached by a smaller AOI and binning.

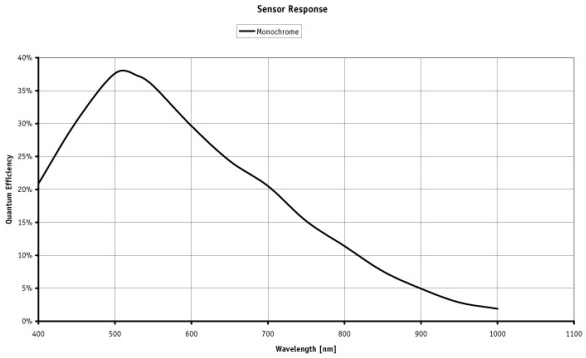
- Sony ICX414 (removable IR cut filter)
- Trigger
  - Edge mode, trigger level control, single trigger, bulk trigger, programmable trigger delay
- Options
  - Various IR cut/pass filters
  - CS-Mount
  - Angled head
  - Lateral cable exit
  - White medical housing

Specifications

Marlin	F-145
Interface	IEEE 1394a - 400 Mb/s, 1 port
Resolution	1392 x 1040
Sensor	Sony ICX205
Type	CCD Progressive
Sensor Size	Type 1/2
Cell size	4.65 µm
Lens mount	C
Max frame rate at full resolution	10 fps
A/D	12 bit
On-board FIFO	8 MB
	Output
Bit depth	8-10 bit
Mono modes	Mono8, Mono16
Color modes YUV	YUV411, YUV422
Color modes RGB	RGB8
Raw modes	Raw8
	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 - 36 V
Power consumption (12 V)	<3 W
Mass	<120 g
Body Dimensions (L x W x H in mm)	72 x 44x 29 mm including connectors, w/o tripod and lens
Regulations	CE, FCC Class B, RoHS

Download Marlin technical drawing (click here)





Smart features

Marlin cameras are equipped with many useful real-time image pre-processing functions. They are performed by the FPGA inside the camera – with no additional CPU load on the host, so that an inexpensive system is sufficient.

- Programmable LUT, white balance, hue, saturation
- Debayering
- Gain
  - Auto/manual
  - Manual gain control: 0 - 24 dB
- Exposure
  - Auto/manual
  - Exposure time: 38 µs - 67 s
- Color correction
- Shading correction
- Sub-sampling, 2x binning (b/w)
- AOI (with speed increase)
- Sequence mode - changes the image settings on the fly
- Image mirror
- Deferred image transport
- SIS (secure image signature, time stamp for trigger, frame count etc.)
- Storable user settings

Applications

With its modular and flexible design and the real-time pre-processing functions, this Marlin camera fits for many applications:

- Machine vision
- Quality control
- Industrial inspection
- ... and many more

Application Case Study:

- **Full Scale Testing**
  Security & Traffic: Fatigue test of CF-18 aircraft at NRC Aerospace (National Research Council of Canada).