



Stingray F-046

Description

1394b camera - ICX415

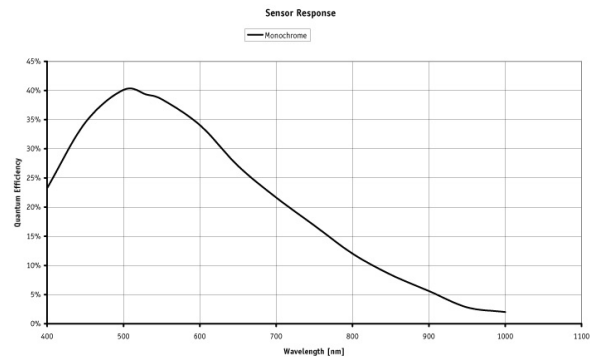
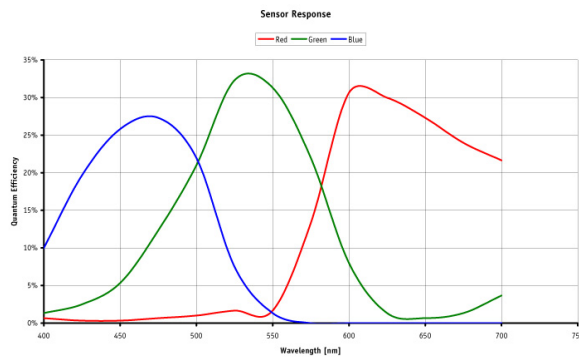
The Stingray F-046B/C is a 1394b camera with a sensitive SONY HAD CCD sensor (ICX415), and runs at 61 fps at full resolution. Thanks to its comprehensive image pre-processing functions, it delivers an outstanding high image quality.

- Sony ICX415
- Trigger
 - Programmable, trigger level control, single trigger, bulk trigger, programmable trigger delay
- Options
 - 1394b connectors: 2 x copper (daisy chain) or 1 x GOF, 1 x copper
 - Various IR cut/pass filters
 - Various lens mounts on request
 - Hirose power: out
 - Angled head
 - White medical housing
 - Compact housing version
 - Board level versions on request

Specifications

Stingray F-046	
Interface	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional
Resolution	780 x 580
Sensor	Sony ICX415
Type	CCD Progressive
Sensor Size	Type 1/2
Cell size	8.3 µm
Lens mount	C
Max frame rate at full resolution	61 fps
A/D	14 bit
On-board FIFO	32 MB
Output	
Bit depth	8-14 bit
Mono modes	Mono8, Mono12, Mono16
Color modes YUV	YUV411, YUV422
Color modes RGB	RGB8
Raw modes	Raw8, Raw12, Raw16
General purpose inputs/outputs (GPIOs)	
TTL I/Os	0
Opto-coupled I/Os	2 inputs, 4 outputs
RS-232	1
Power/Mass/Dimensions/Regulations	
Power requirements (DC)	8 V - 36 V
Power consumption (12 V)	<4 W
Mass	92 g
Body Dimensions (L x W x H in mm)	72.9 x 44 x 29 mm including connectors, w/o tripod and lens
Regulations	CE, FCC Class B, RoHS

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



Smart features

Stingray cameras include numerous real-time image pre-processing functions. All below mentioned functions are performed by the FPGA inside the camera – with no additional CPU load and thus an inexpensive host computer.

- AOI (true partial scan), separate AOI for auto features
- Programmable LUT, white balance, hue, saturation
- Debayering
- Auto gain, auto exposure
- Gain
 - Auto/manual
 - Manual gain control: 0 - 24.4 dB
- Exposure
 - Auto/manual
 - Exposure time: 31 μ s - 67 s
- Color correction
- Shading correction
- High SNR mode (up to 24 dB better signal-to-noise ratio)
- Local color anti-aliasing
- Sub-sampling, 2x – 8x binning (b/w)
- Low noise binning mode
- Defect pixel correction
- Sequence mode (changes the camera settings on the fly)
- Image mirror
- Deferred image transport
- SIS (secure image signature, time stamp for trigger, frame count etc.)
- Storable user settings

The Technical Manual of the Stingray contains detailed descriptions of all functions.

Applications

The Stingray F-046B/C includes comprehensive image pre-processing functions. It is only mid-priced, but performs with high image quality. This 0.5 Megapixel 1394b camera is suitable for applications with high demands:

- Industrial inspection and automation
- Logistics
- Science and research
- Healthcare and medical (light gray housing available)
- Multimedia, entertainment and sports
- ITS (Intelligent traffic solutions)

Additionally, it is ideally suited for:

- Demanding OEM camera applications (board level versions with separate sensor board available on request)
- Daisy chaining (two copper connectors)
- Long cables - 400 meters and more without additional repeaters (GOF version available)