



Stingray F-145

Description

Sony ICX285 ExView HAD sensor, 1394b

The Stingray F-145B/C incorporates the popular Sony ICX285 ExView HAD sensor. In combination with the Stingray's image pre-processing functions like low-noise binning mode and High SNR mode, this camera produces clear and brilliant images even with very low light. At full resolution, it runs at 16 fps. Also available: Stingray F-145B/C-30 fps (monochrome).

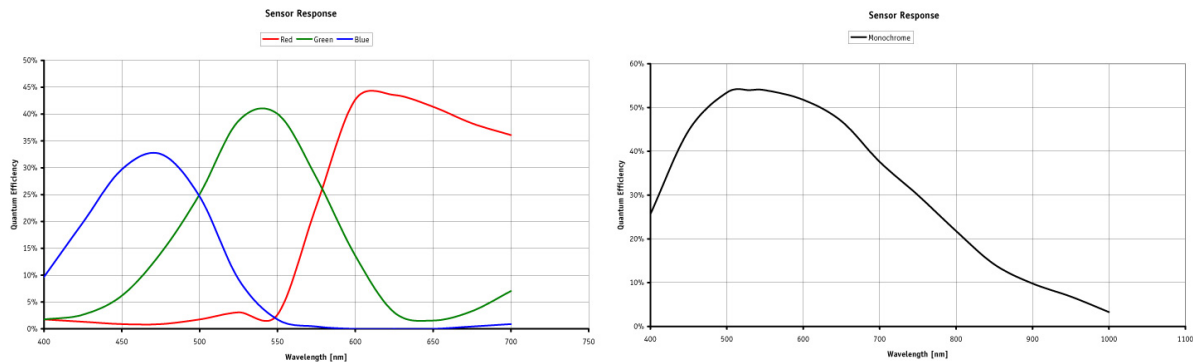
- Sony ICX285 ExView HAD CCD sensor
- Trigger
 - Programmable, trigger level control, single trigger, bulk trigger, programmable trigger delay
- Options
 - 1394b connectors: 2 x copper (daisy chain) or 1 x GOF, 1 x copper
 - Various IR cut/pass filters, removed cover glass
 - Various lens mounts on request
 - Hirose power: out
 - Angled head
 - White medical housing
 - Compact housing version
 - Board level versions on request

Specifications

Stingray F-145	
Interface	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional
Resolution	1388 x 1038
Sensor	Sony ICX285
Type	CCD Progressive
Sensor Size	Type 2/3
Cell size	6.45 µm
Lens mount	C
Max frame rate at full resolution	16 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

Max frame rate for monochrome version: 30 fps

[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
- Gain
 - Auto/manual
 - Manual gain control: 0 - 24.4 dB
- Exposure
 - Auto/manual
 - Exposure time: 74 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

Thanks to the ExView HAD Sony ICX285 sensor and especially the High SNR mode, defect pixel correction and low-noise binning mode, Stingray F-145B/C cameras are the perfect choice for low-light applications in:

- Industrial inspection and automation
- Logistics
- Science and research
- Healthcare and medical (light grey housing available)
- Solar cell inspection
- LCD panel inspection
- Multimedia and entertainment
- ITS (Intelligent traffic solutions)
- ... and many more

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 (fiber version)