



## Stingray F-125

### Description

#### Industrial camera, Sony ExView HAD CCD sensor ICX445

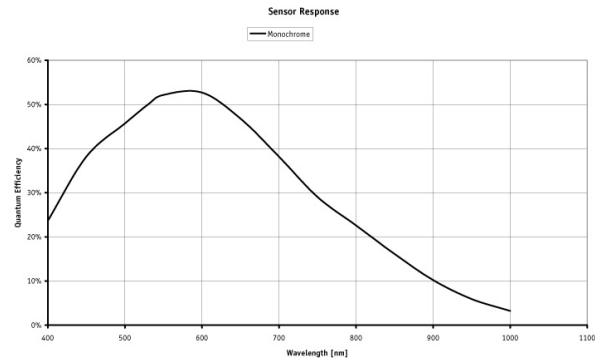
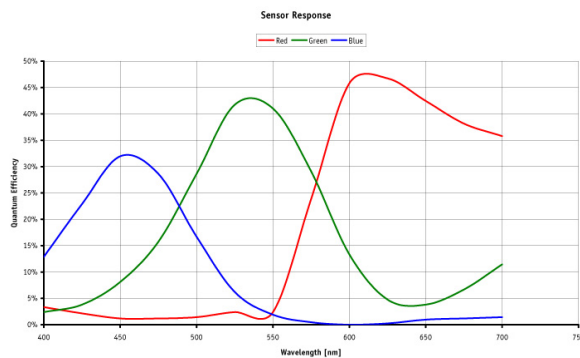
The Stingray F-125B/C is equipped with the SONY ExView HAD CCD sensor ICX445 and has an extra high sensitivity. At full resolution, it runs at 30 fps. Higher frame rates can be reached by a smaller AOI, binning (b/w) or sub-sampling.

- Sony ICX445 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

<b>Stingray</b>		<b>F-125</b>	
<b>Interface</b>	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional		
<b>Resolution</b>	1292 x 964		
<b>Sensor</b>	Sony ICX445		
<b>Type</b>	CCD Progressive		
<b>Sensor Size</b>	Type 1/3		
<b>Cell size</b>	3.75 µm		
<b>Lens mount</b>	C		
<b>Max frame rate at full resolution</b>	30 fps		
<b>A/D</b>	14 bit		
<b>On-board FIFO</b>	32 MB		
<b>Output</b>			
<b>Bit depth</b>	8-14 bit		
<b>Mono modes</b>	Mono8, Mono12, Mono16		
<b>Color modes YUV</b>	YUV411, YUV422		
<b>Color modes RGB</b>	RGB8		
<b>Raw modes</b>	Raw8, Raw12, Raw16		
<b>General purpose inputs/outputs (GPIOs)</b>			
<b>TTL I/Os</b>	0		
<b>Opto-coupled I/Os</b>	2 inputs, 4 outputs		
<b>RS-232</b>	1		
<b>Power/Mass/Dimensions/Regulations</b>			
<b>Power requirements (DC)</b>	8 V - 36 V		
<b>Power consumption (12 V)</b>	<4 W		
<b>Mass</b>	92 g		
<b>Body Dimensions (L x W x H in mm)</b>	72.9 x 44 x 29 mm including connectors, w/o tripod and lens		
<b>Regulations</b>	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
- Gain
  - Auto/manual
  - Manual gain control: 0 - 24.4 dB
- Exposure
  - Auto/manual
  - Exposure time: 25  $\mu$ 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

Stingray F-125B/C cameras incorporate the Sony ExView HAD sensor ICX445 (very high sensitivity). Furthermore, its smart functions like the High SNR mode enhance the image quality especially in low light situations. This industrial camera is ideally suited for:

- Industrial inspection and automation
- Logistics
- Science and research
- Healthcare and medical (light gray housing available)
- Multimedia, entertainment and sports
- 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 (glass optical fiber version: Stingray F-125B/C fiber)