Allied Vision

FireWire

Stingray

F-125

- Versatile 1.2 MP camera
- Advanced feature set
- Many variants
- Excellent image quality

Smart modularity

Stingray – Versatile FireWire camera

Stingray F-125 with Sony ICX445 runs 30 frames per second at 1.2 MP resolution.

The Stingray offers a particularly wide range of functions and image optimization options – for example, shading correction and low-noise binning mode. Thanks to its modular and flexible design, it is a particularly versatile high-performance camera for a wide range of applications. It is also available in board level and compact versions. Extreme distances can be bridged with the optional optical fiber interface.

Easy software integration with Allied Vision's Vimba Suite and compatibility to the most popular third party image-processing libraries.

See the Customization and OEM Solutions webpage for hardware options.

Allied Vision

Specifications

Interface	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain
Resolution	1292 (H) × 964 (V)
Sensor	Sony ICX445
Sensor type	CCD Progressive
Sensor size	Type 1/3
Pixel size	3.75 µm × 3.75 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	30 fps
ADC	14 Bit
Image buffer (RAM)	Up to 128 MByte

Imaging performance

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured at full resolution without optical filter. Contact Sales or AE for more information.

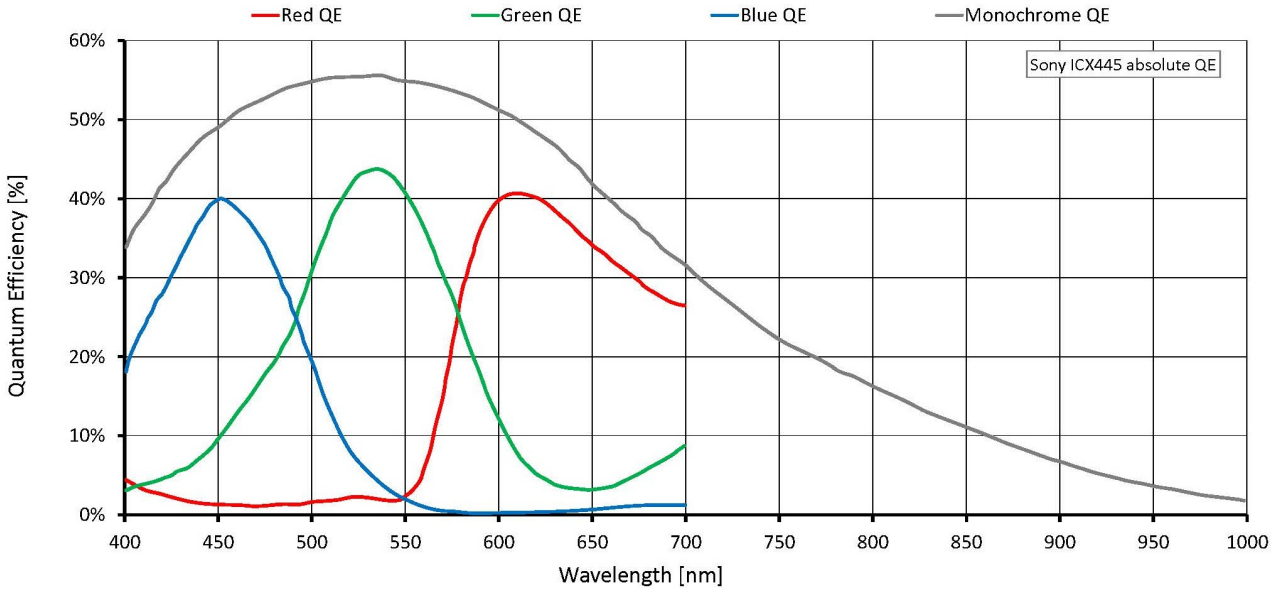
Quantum efficiency at 529 nm	55 %
Temporal dark noise	8.3 e^-
Saturation capacity	7700 e^-
Dynamic range	58.8 dB
Absolute sensitivity threshold	8.8 e^-

Output	
Bit depth	8-bit to 14-bit
Monochrome pixel formats	Mono8, Mono12, Mono16
RGB color pixel formats	RGB8
Raw color pixel formats (Bayer)	Raw8, Raw12, Raw16

General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 4 outputs
RS232	1

Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C
Power requirements (DC)	8 V to 36 V
Power consumption	<4 W (@ 12 VDC)
Mass	92 g
Body dimensions (L × W × H in mm)	72.9 × 44 × 29 (including connectors)

Quantum efficiency



Features

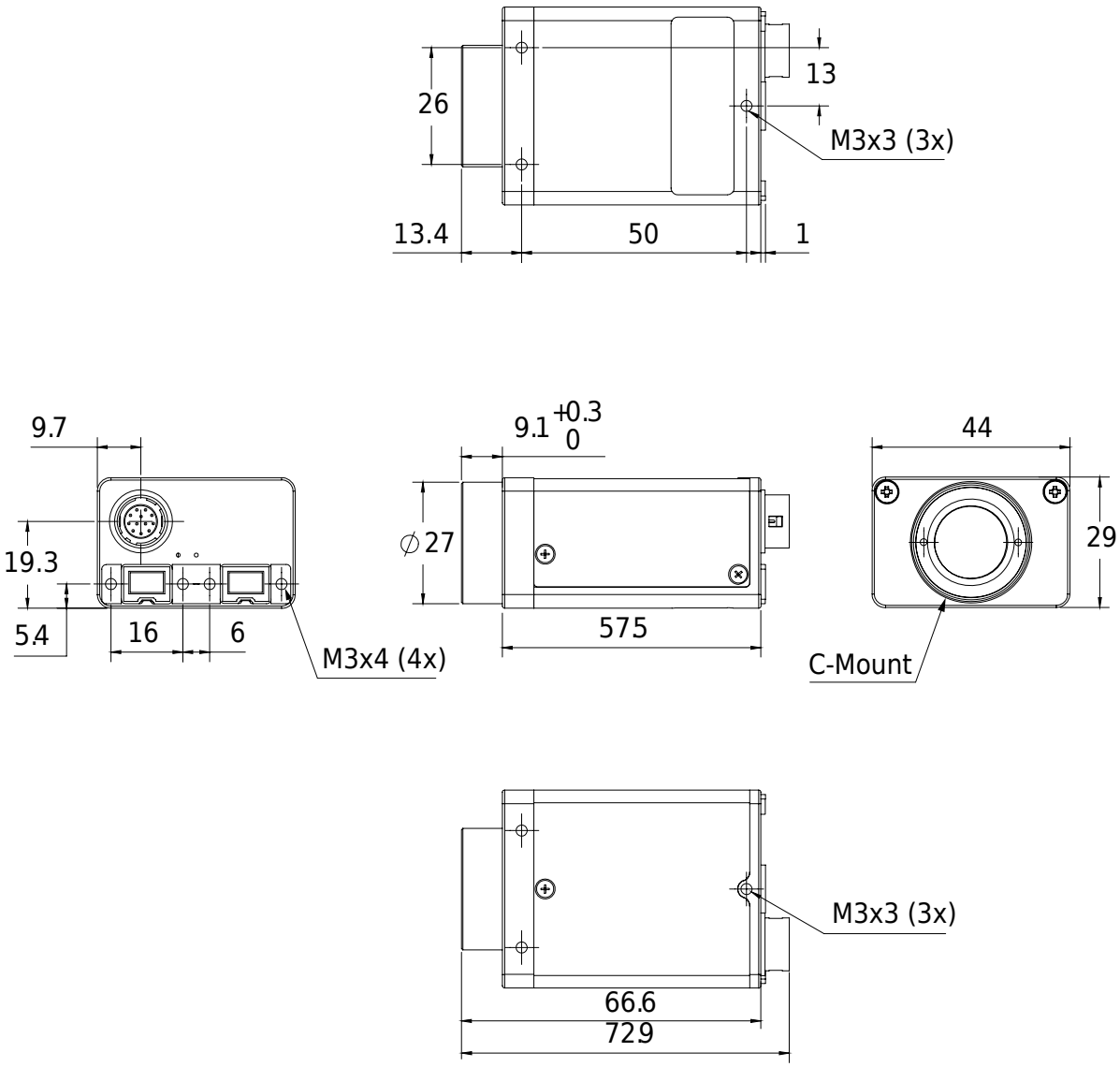
- High SNR mode (up to 24 dB better signal-to-noise ratio)
- Low-noise binning mode
- Shading correction
- Defect pixel correction
- Area of interest (AOI), separate AOI for auto features
- Binning
- Decimation
- Auto gain (manual gain control: 0 to 24.4 dB)
- Auto exposure (25 µs to 67 s)
- Auto white balance
- Look-up table (LUT)
- Hue, saturation
- Color correction
- Local color anti-aliasing
- Reverse X/Y
- Deferred image transport
- Trigger programmable, level, single, bulk, programmable delay
- Sequence mode (changes the camera settings on the fly)
- SIS (secure image signature, time stamp for trigger, frame count etc.)
- Storable user sets

Scope of delivery

- Camera and IEEE 1394b cable (other configurations on request)

Technical drawing

2 x 1394b copper



Applications

Stingray F-125B/F-125C cameras incorporate the Sony ExView ICX445 HAD sensor (very high sensivity). 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 (white housing available)
- Multimedia, entertainment and sports
- Intelligent traffic solutions (ITS)

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)