



Stingray F-033



- Versatile VGA camera
- Advanced feature set
- Many variants
- Excellent image quality

High-quality (mid-priced) industrial VGA camera with image pre-processing

The Stingray F-033B/F-033C is a high-quality VGA camera. It is equipped with a sensitive Sony ICX414 CCD sensor and includes many image pre-processing functions. At full resolution, it runs at 84 frames per second. Higher frame rates can be reached by using a smaller area of interest (AOI), binning (b/w) or sub-sampling.

Options:

- IEEE 1394b connectors: 2 x copper (daisy chain), Hirose power: out
- Various IR cut/pass filters, various lens mounts
- Angled head, board level version, white medical housing

Specifications

| | |
|----------------------|---|
| Stingray | F-033 |
| インターフェイス | IEEE 1394b - 800 Mb/s, 2 ports, daisy chain |
| 解像度 | 656 (H) × 492 (V) |
| センサー | Sony ICX414 |
| Sensor type | CCD Progressive |
| センサーサイズ | Type 1/2 |
| ピクセルサイズ | 9.9 μm × 9.9 μm |
| Lens mount (default) | C-Mount |
| フレームレート (フル解像度) | 84 fps |
| ADC | 14 Bit |
| Image buffer (RAM) | Up to 128 MByte |

撮影性能



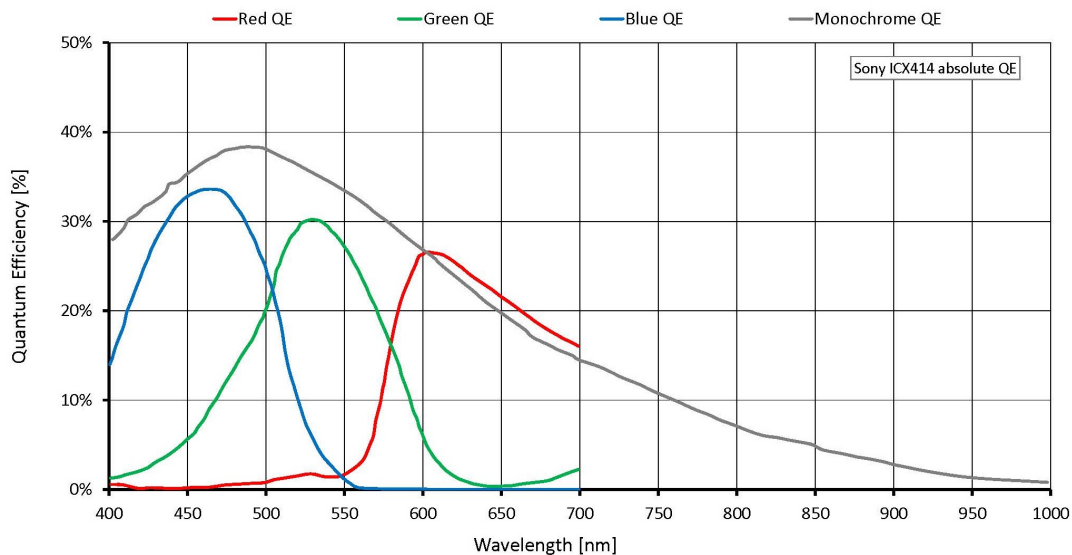
Stingray

F-033

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.

| | |
|--|---|
| 量子効率 (529nm) | 38 % |
| ダークノイズ | 22.0 e ⁻ |
| 飽和電荷量 | 25300 e ⁻ |
| ダイナミックレンジ | 61.0 dB |
| 限界感度 | 22.5 e ⁻ |
| Output | |
| Bit depth | 8-14 Bit |
| ビデオフォーマット(Mono) | Mono8, Mono12, Mono16 |
| ビデオフォーマット(RGB) | RGB8 |
| ビデオフォーマット(Raw) | 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 |
| 消費電力 | <4 W (@ 12 VDC) |
| Mass | 92 g |
| Body dimensions (L × W × H in mm) | 72.9 × 44 × 29 (including connectors) |
| Regulations | CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B |

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 (31 μ s 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

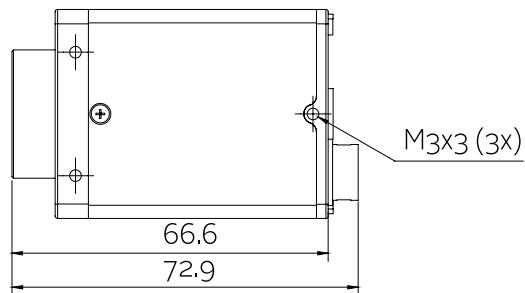
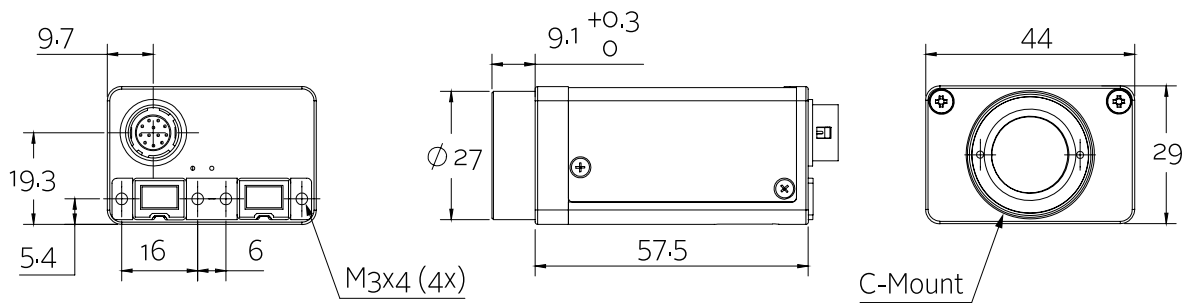
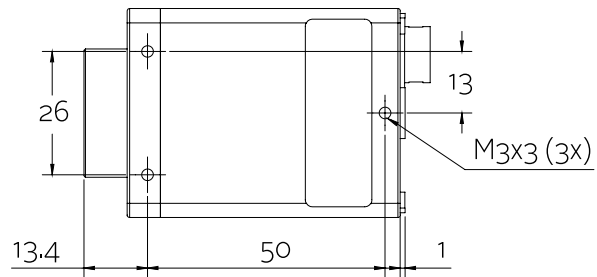


Scope of delivery

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

Technical drawing

2 x 1394b copper





Applications

The Stingray F-033B/F-033C is a high-quality industrial VGA camera with many image pre-processing functions. It offers several opportunities for customization. This mid-priced camera fits for all sorts of applications with high demands, for example:

- Industrial inspection and automation
- Semiconductor inspection
- Logistics
- Science and research
- Healthcare and medical (white housing available)
- Ophthalmology
- 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)