



# Stingray

## F-504



- Versatile 5 MP camera
- Advanced feature set
- Many variants
- Excellent image quality

## Description

High performance IEEE 1394b camera - 5 Megapixel - 9 fps

The Stingray F-504B/F-504C is equipped with a 5 Megapixel Sony ICX655 CCD sensor. At full resolution, this IEEE 1394b camera runs at 9 frames per second. Higher frame rates can be reached by using a smaller area of interest (AOI), binning (b/w) or sub-sampling.

Options:

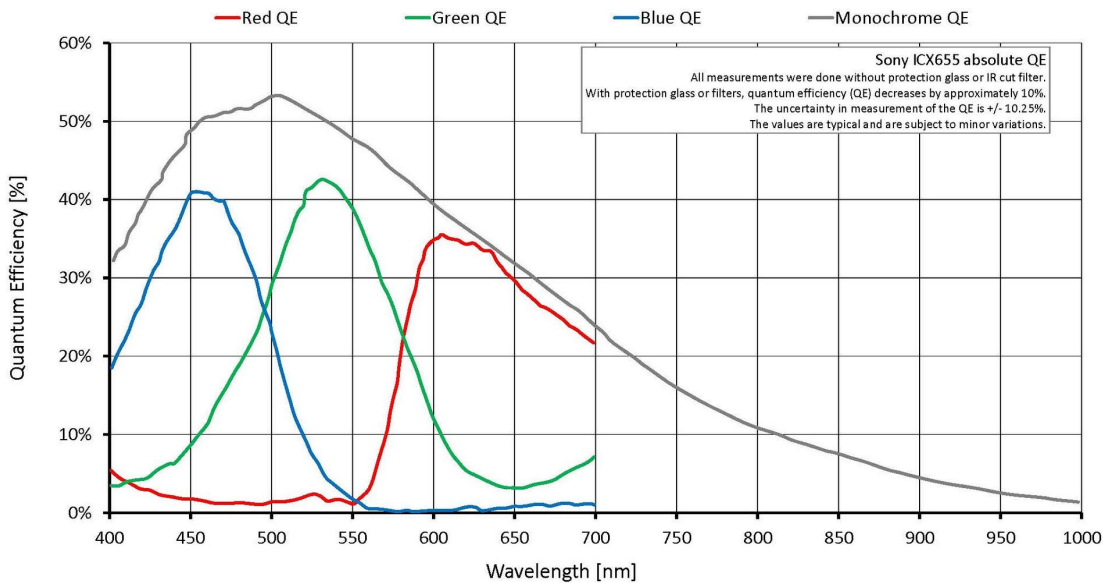
- IEEE 1394b connectors: 2 x copper (daisy chain), Hirose power: out
- Various IR cut/pass filters, various lens mounts
- Angled head, board level version, white medical housing

## Specifications

| Stingray                           | F-504                                       |
|------------------------------------|---|
| Interface                          | IEEE 1394b - 800 Mb/s, 2 ports, daisy chain |
| Resolution                         | 2452 (H) × 2056 (V)                         |
| Sensor                             | Sony ICX655                                 |
| Sensor type                        | CCD Progressive                             |
| Sensor size                        | Type 2/3                                    |
| Pixel size                         | 3.45 μm × 3.45 μm                           |
| Lens mount (default)               | C-Mount                                     |
| Max. frame rate at full resolution | 9 fps                                       |
| ADC                                | 14 bit                                      |
| Image buffer (RAM)                 | Up to 128 MByte                             |

### Output

| Stingray                                      | F-504  |
|---|--|
| Bit depth                                     | 8-14 bit   |
| Monochrome pixel formats                      | Mono8, Mono12, Mono16                                |
| RGB color pixel formats                       | RGB8   |
| Raw pixel formats                             | Raw8, Raw12, Raw16                                   |
| <b>General purpose inputs/outputs (GPIOs)</b> |  |
| Opto-isolated I/Os                            | 2 inputs, 4 outputs                                  |
| RS232   | 1  |
| <b>Operating conditions/dimensions</b>        |  |
| 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)                |
| Regulations                                   | CE: 2014/30/EU (EMC), 2011/65/EU (RoHS); FCC Class B |



## 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



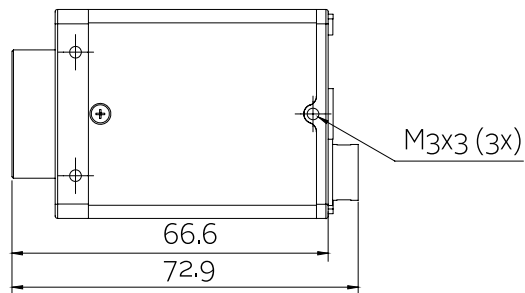
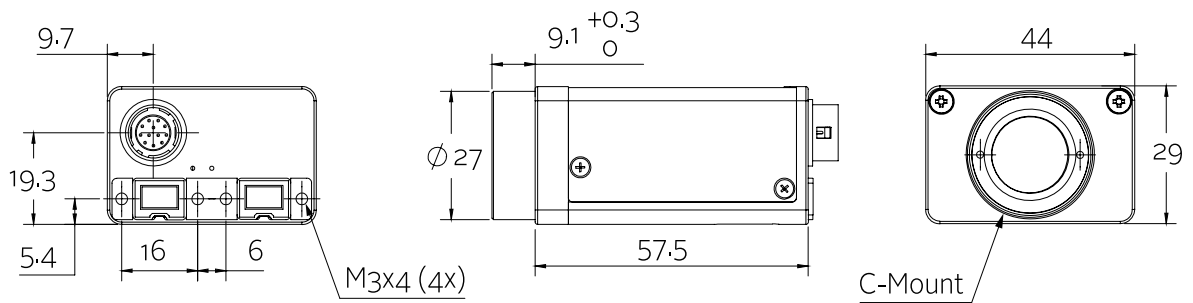
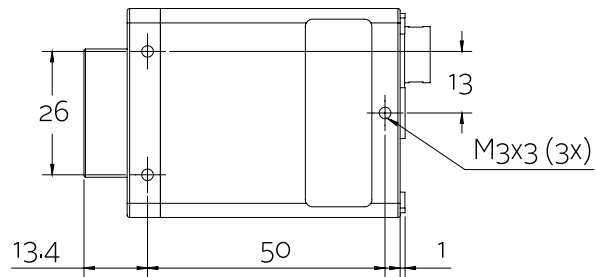
- Binning
- Decimation
- Auto gain (manual gain control: 0 to 24.4 dB)
- Auto exposure (42  $\mu$ s to 67 s)
- Auto white balance
- Look-up table (LUT)
- Hue, saturation
- Color correction
- Local color anti-aliasing
- Reverse X/Y
- Deferred image transport
- Trigger programmable, level, single, bulk, 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-504B/F-504C meets high demands. Its brilliant image quality can be enhanced by several image pre-processing functions. Due to the modular design, customization is easy and cost-effective. This 5 Megapixel camera fits for:

- Intelligent traffic systems (ITS)
- Industrial inspection and automation
- Logistics
- Science and research
- Microscopy
- Healthcare and medical (white housing available)
- Multimedia and entertainment

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)