

## Small – easy – ingenious: Analog goes Guppy.



### Description

The AVT Guppy camera family is distinguished by an IEEE 1394 interface and an extremely compact design. It consists of twelve different camera variants (each available in b/w and color) and, with a wide variety of sensors and bandwidths, offers the right solution for nearly any conceivable application.

A selection of high-quality, sensitive sensors (CCD, CMOS) help the Guppy provide outstanding image quality and true color.

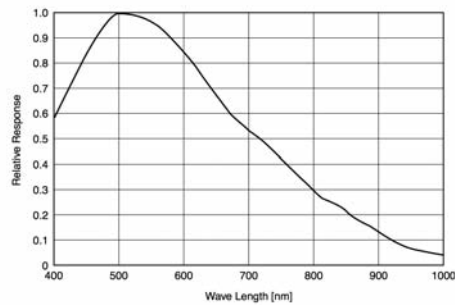
Two additional interlaced versions (EIA, CCIR) make it even more attractive to switch from analog to digital image processing.

Due to its modularity and the remarkable price/performance ratio, for many applications the Guppy is the ideal way to make the move to digital image processing.

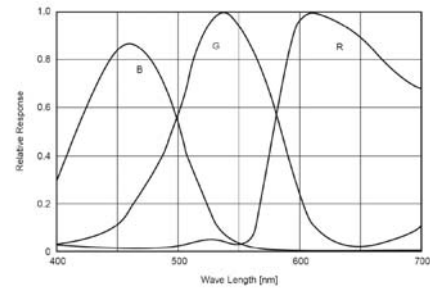
### Highlights

- IEEE 1394a
- > Wide VGA (780 x 582)
- Up to 49 fps (full resolution)
- Progressive scan CCD, monochrome and color
- True partial scan (higher frame rates by smaller AOI)
- Flexible AOI, flexible speed (full Format\_7 support)
- Asynchronous image trigger
- Image pre-processing features:
  - Auto controlled gain, auto white balance
  - (separate reference AOI)
  - Programmable LUT
  - And lots more ...
- Smart frame grabber features:
  - Single-shot, multi-shot, free run
  - 1 prog. input / 3 prog. outputs
  - On-board RS232 port
  - And lots more ...
- Industry proven and robust housing
- C-Mount / CS-Mount (convertible via adapter)
- Optional OEM board level version, customized housings

## Sensor specification b/w

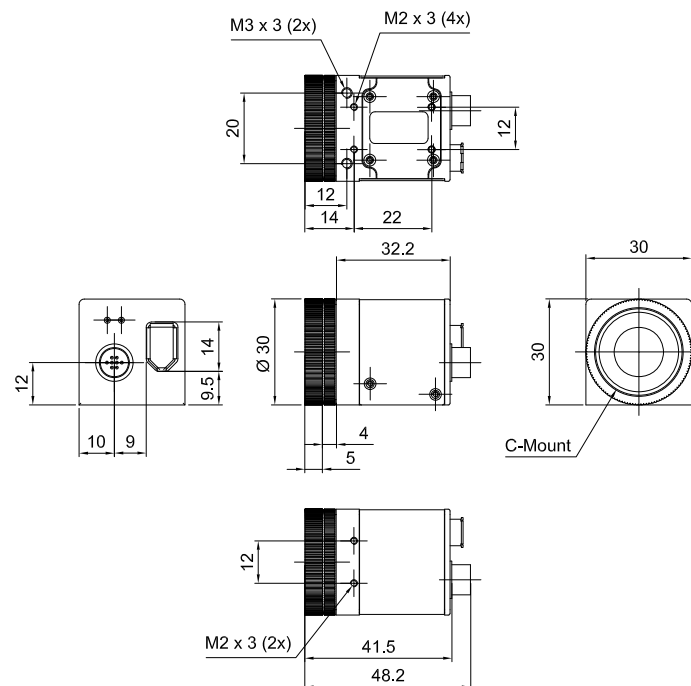


## Sensor specification color



The sensor specifications (excluding lens and filter) are typical for this camera model.

## Dimensions



## Connections

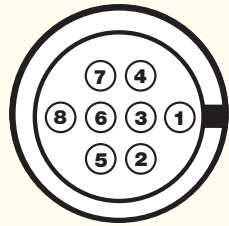


## Front view



| Resolution / frame rate |                  |
|-------------------------|------------------|
| AOI height / pixel      | Frame rate / fps |
| 582                     | 49.4             |
| 580                     | 49.5             |
| 560                     | 50.9             |
| 480                     | 57.1             |
| 320                     | 76.0             |
| 240                     | 91.0             |
| 160                     | 113.1            |
| 120                     | 128.5            |
| 80                      | 149.5            |
| 64                      | 159.8            |

| I/O Connector |                                 |
|---------------|---------------------------------|
| Pin           | Signal                          |
| 1             | GP Output 1 (Default: IntEna)   |
| 2             | GP Output 2 (Default: -)        |
| 3             | GP Output 3 ( Default: Busy)    |
| 4             | GP Input1 (Default: Trigger)    |
| 5             | RxD RS232                       |
| 6             | TxD RS232                       |
| 7             | External Power (+8 ... +36V DC) |
| 8             | External GND                    |



| Camera specifications    | Guppy F-046B (b/w)                                                                                                                                                           | Guppy F-046C (color) |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Image device             | Type 1/2 (diag. 8 mm) progressive scan, SONY IT CCD ICX415AL/AQ                                                                                                              |                      |
| Picture size             | Up to 780 x 582 pixel                                                                                                                                                        |                      |
| Cell size                | 8.3 µm x 8.3 µm                                                                                                                                                              |                      |
| Resolution depth         | 8 bit (12 bit ADC)                                                                                                                                                           |                      |
| Lens mount               | C-Mount, CS-Mount (convertible via adapter)                                                                                                                                  |                      |
| Digital interface        | IEEE 1394a (IIDC V1.3), single port                                                                                                                                          |                      |
| Transfer rate            | 100 Mbit/s, 200 Mbit/s, 400 Mbit/s                                                                                                                                           |                      |
| Frame rates              | Up to 49.4 fps (full frames)                                                                                                                                                 |                      |
| Gain control             | Manual 0-24 dB (0.035 dB/step); auto gain (select. AOI)                                                                                                                      |                      |
| Shutter speed            | 42 µs...67s; auto shutter (select. AOI)                                                                                                                                      |                      |
| External trigger shutter | Programmable, trigger level control, bulk mode (1 trigger, n shots), programmable trigger delay                                                                              |                      |
| Smart features           | AGC (auto gain control), AEC (auto exposure control), only color: AWB (auto white balance), LUT, 1 config. input, 3 config. outputs, RS-232 port (serial port, IIDC v. 1.31) |                      |
| Power requirements       | DC 8 V – 36 V via IEEE 1394 cable or 8-pin HIROSE                                                                                                                            |                      |
| Power consumption        | Less than 2 watt (@ 12V DC)                                                                                                                                                  |                      |
| Dimensions               | 48.2 mm x 30 mm x 30 mm (L x W x H), w/o tripod and lens                                                                                                                     |                      |
| Mass                     | 50 g (without lens)                                                                                                                                                          |                      |
| Operating temperature    | +5... + 45° Celsius without condensation                                                                                                                                     |                      |
| Storage temperature      | -10... + 60° Celsius without condensation                                                                                                                                    |                      |
| Regulations              | CE, FCC Class B, RoHS (2002/95/EC)                                                                                                                                           |                      |
| Options                  | Board level version, power out (HIROSE), AVT FirePackage / Active FirePackage / Fire4Linux                                                                                   |                      |

Design and specifications of the described product(s) are subject to change without notice.  
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