

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



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### 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.

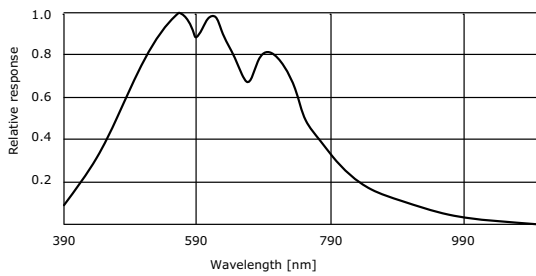
Two additional interlaced versions (EIA, CCIR) make it even more attractive to switch from analog to digital image processing.

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.

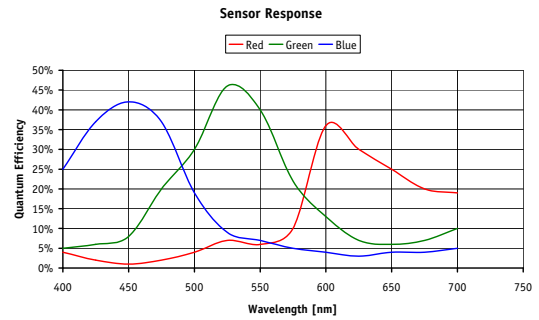
### Highlights

- IEEE 1394a
- > QWXGA 2592 x 1944
- Up to 6.5 fps (full resolution)
- Electronic rolling shutter (ERS) and global reset release shutter (GRR), CMOS, 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, exposure, 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
- Optional customized housings
- Optical filters; cables; medical design (on request)

Sensor specification b/w

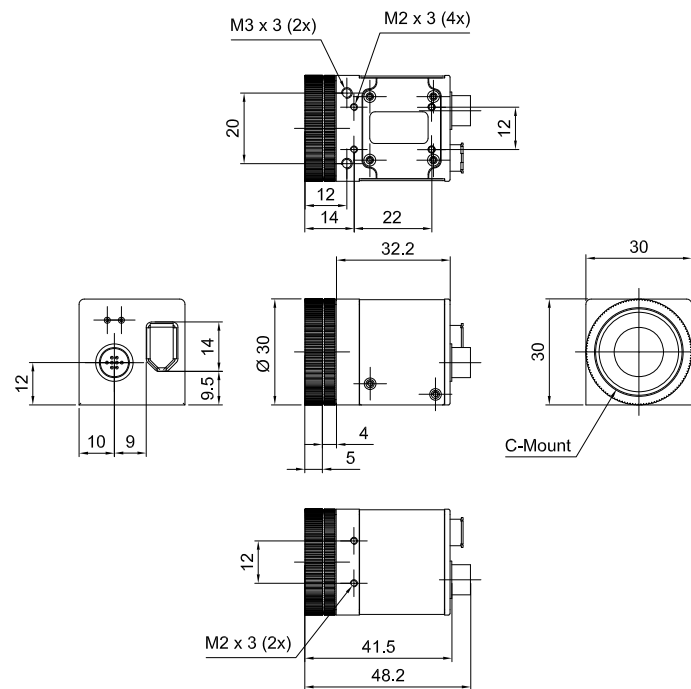


Sensor specification color



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

Dimensions



Connections

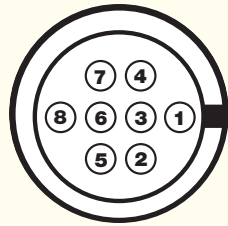


Front view



Resolution / frame rate	
AOI height / pixel	Frame rate / fps
1944	6.5
1600	7.8
1280	9.8
1024	12.3
800	15.8
640	19.7
480	26.2
320	39.3
240	52.4
120	104.5

I/O Connector	
Pin	Signal
1	CameraOut1 (Default: IntEna)
2	CameraOut2 (Default: -)
3	CameraOut3 (Default: Busy)
4	GP Input 1 (Default: Trigger)
5	RxD_RS232
6	TxD_RS232
7	External Power (+8...+36 V DC)
8	External GND



Camera specifications	Guppy F-503B (b/w)	Guppy F-503C (color)
Image device	Type 1/2.5 (diag. 7.13 mm); Micron / Aptina CMOS MT9P031	
Picture size	2592 (H) x 1944 (V)	
Cell size	2.2 µm x 2.2 µm	
Resolution depth	8 bit /12 bit (12 bit ADC)	
Lens mount	C-Mount, CS-Mount (convertible via adapter)	
Digital interface	IEEE 1394a (S400) single port	
Transfer rate	100 Mbit/s, 200 Mbit/s, 400 Mbit/s	
Frame rates	Up to 6.5 fps (full frames)	
Gain control	Manual 0 - 26 dB; auto gain (select. AOI)	
Shutter speed	41.8 µs ... ~2.3s, shutter speed max. 2.3 s (select. AOI)	
External trigger shutter	Programmable; programmable trigger delay	
Smart features	2x - 4x binning or sub-sampling, multi-shot, separate reference AOI for auto features, mirror (vertical and horizontal), defect pixel correction	
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	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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