

## AVT Guppy F-033B / F-033C



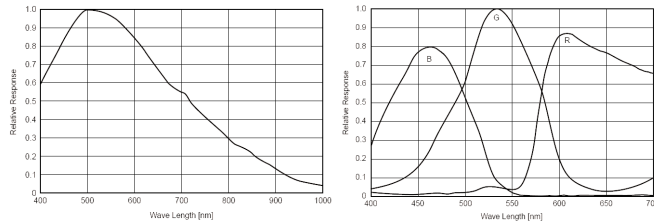
### Small - easy - ingenious: Analog goes GUPPY.

The AVT GUPPY camera family is distinguished by an IEEE 1394 interface (starting in the 3rd quarter 2006 also USB 2.0) and an extremely compact design. It consists of ten 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. The GUPPY is available optionally in a casing or board version (upon request) and therefore fits in the smallest spaces. A selection of high-quality, sensitive sensors (CCD, CMOS) help the GUPPY provide outstanding image quality and true color. Four additional interlaced versions (EIA, CCIR) make it even more attractive to switch from analog to digital image processing. Due to its modularity and remarkable price/performance ratio, for many applications the GUPPY is the ideal way to make the move to digital image processing.

#### Highlights

- IEEE 1394a
- USB 2.0 (Q3 2006)
- VGA (656 x 494)
- Up to 58 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 preprocessing 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 RS-232 Port
  - And lots more ...
- Industry proven and robust housing
- C-Mount /CS-Mount
- OEM board level version, customized housings

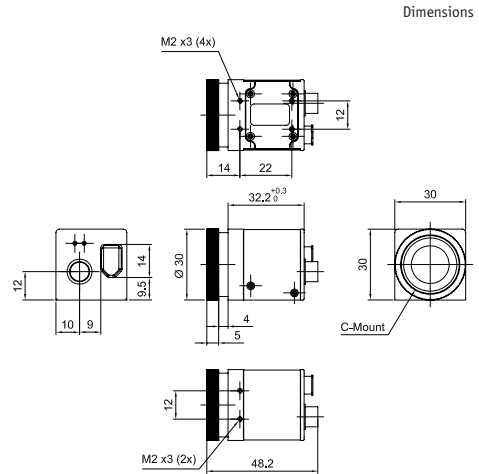
# AVT Guppy F-033B / F-033C



Sensor specifications b/w; color (extracted from the data sheet of the sensor - excluding lens and filter)

Pin	Signal
1	CameraOut1
2	CameraOut2
3	CameraOut3
4	CameraIn
5	RxD_RS232
6	TxD_RS232
7	External Power
8	GND

AOI height / pixel	Frame rate / fps
480	60
240	100
120	152
60	204
30	245



Dimensions



Connections

## Camera Specifications

	GUPPY F-033B (b/w)	GUPPY F-033C (color)
Image device	Type 1/3 (diag. 6 mm) progressive scan, SONY CCD	
Effective picture elements	658 (H) x 494 (V)	
Picture size	Up to 656 x 494 pixels	
Cell size	7.4 µm x 7.4 µm	
Resolution depth	8 bit (10 bit ADC)	
Lens mount	C-Mount /CS-Mount	
Digital interface	IEEE 1394 IIDC v. 1.3, single port	
Transfer rate	100 Mbit/s, 200 Mbit/s, 400 Mbit/s	
Frame rates	Up to 58 fps (full frames)	
Gain Control	Manual: 0-24 dB (0.0351 dB/step); auto gain (select. AOI)	
Shutter speed	20 µs...67s; auto shutter (select. AOI)	
External trigger shutter	Trigger_Mode_0, Trigger_Mode_1, advanced feature: Trigger_Mode_15 (bulk); 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 (@ 12 V 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	EN 55022, EN 61000, EN 55024, FCC Class B, DIN ISO 9022, ROHS in preparation	
Options	Board level version, Power Out (HIROSE), AVT FirePackage/Direct FirePackage/Fire4Linux	