adept electronic solutions
The Machine Vision and Imaging Speciaists
Perth: +61 (08) 9242 5411
Sydney: +61 (02) 9979 2599
Melbourne: +61 (03) 9555 5621
Email: adept@adept.net.au
Web: http://www.adept.net.au

AVT STINGRAY F-033B / F-033C
AVT STINGRAY F-033B / F-033C fiber

STINGRAY. The Transformer Camera

The STINGRAY falls into the mid-range in terms of price, but offers a breadth of functions unrivaled in its class and an unbeatable price/performance ratio. The six different versions are equipped with a fast FireWire IEEE1394b interface and high-end CCD sensors in color and monochrome, with resolutions from VGA up to 2 megapixels. To meet the highest requirements in the industry, the STINGRAY comes optionally in a version with a copper daisy chain connection or 1 x copper combined with 1 x GOF connector (2 x optical fiber on LCLC). The camera is loaded with typical AVT intelligent functions for image pre-processing, like lookup tables, shading corrections, white blance and 2 to 8x binning for enhanced photosensitivity. Grabber functions, including an internal memory and deferred transport mode, make the STINGRAY ideal for multi-camera operations, while the sequence mode enables lightning-fast parameter changes. The STINGRAY is designed to be modular and flexible, offering a wide selection of lens-mounts, sensors, case variations, interfaces and cable outputs, which can be flexibly configured using building-block principles.

Highlights

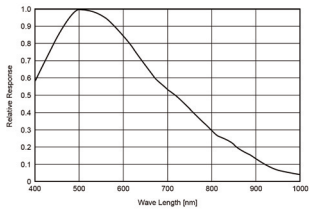
- IEEE 1394b (S 800 daisy chain)
- 656 (H) X 492 (V)
- Up to 84 fps (full resolution)
- Progressive scan CCD, monochrome and color
- Image pre-processing features:
  - LUT
  - Real-time shading correction
  - High SNR mode
  - Hue, saturation
  - Color debayering
  - 2x ... 8x binning / sub-sampling
  - Auto gain, exposure, white balance
  - And lots more ...
- Smart frame grabber features:
  - 32 MB on-board
  - Deferred image transport
  - Trigger delay
  - Multi-shot, mirror image
  - SIS (secure image signature)
  - Sequence mode, user sets
  - And lots more ...
- Industry proven and robust housing
- C-Mount / CS-Mount
- Angled head, board level version (on request), peltier cooling device (soon)
- Medical design on request

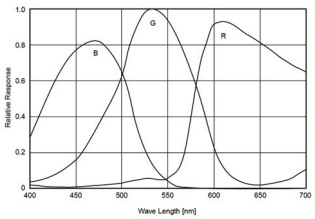
ALLIED VISION TECHNOLOGIES GMBH
Taschenweg 2a | D-07646 Stadtroda | Germany
Phone: +49 (0)36428 6770 | Fax: +49 (0)36428 677-24
www.alliedvisiontec.com | info@alliedvisiontec.com

Adept Electronic Solutions
www.adept.net.au

ALLIED Vision Technologies

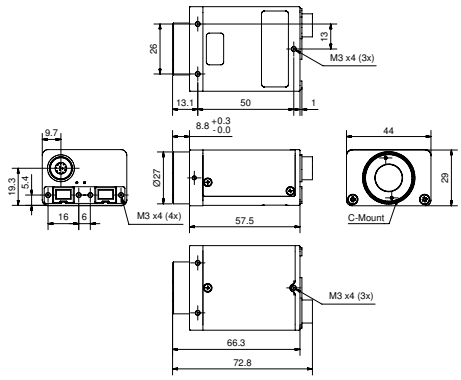
AVT STINGRAY F-033B / F-033C
AVT STINGRAY F-033B / F-033C fiber





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

AOI height / pixel	Frame rate / fps
492	84
480	86
320	122
240	152
120	246
60	366
30	476
10	593
2	640



Dimensions

Stingray (2x IEEE 1394b)
72.8 x 44 x 29 (L x W x H)

Copper / Daisy Chain
Copper / GOF connections

Pin	Signal
1	External GND
2	External Power (8...36 V DC)
3	GP Output 4
4	GP Input 1 (Default: Trigger)
5	GP Output 3 (Default: Busy)
6	GP Output 1 (Default: IntEna)
7	GP Input GND
8	RxD (RS-232)
9	TxD (RS-232)
10	GP Output Power(max. 36 V DC)
11	GP Input 2 (CMOS/TTL)
12	GP Output 2

Camera Specifications

	STINGRAY F-033 B/C	STINGRAY F-033 B/C fiber
Image device	Type 1/2 (diag. 8 mm), progressive scan SONY CCD, ICX 414	
Picture size	656 (H) x 492 (V)	
Cell size	9.9 µm x 9.9 µm	
Resolution depth	8 bit / 14 bit (16 bit in High SNR mode)	
Lens mount	C-Mount / CS-Mount	
Digital interface	IEEE1394b, (IIDC V1.31) S 800 daisy chain	
Transfer rate	100 Mbit/s, 200 Mbit/s, 400 Mbit/s, 800 Mbit/s	
Frame rates	Up to 84 fps (full resolution)	
Gain control	Manual: 0...24 dB, auto gain	
Shutter speed	30 µs ... ~ 67 s, auto shutter	
Image pre-processing	LUT; shading correction; High SNR mode; white balance; color interpolation (debayering); local color anti aliasing; hue; saturation; sub-sampling; 2x - 8x binning (only b/w) or sub-sampling; seperate reference AOI for auto features	
Grabber features	32 MB on-board memory; deferred image transport; trigger delay; multi-shot; mirror image; several trigger modes; SIS (secure image signature); sequence mode; storable user sets	
Power requirements	DC 8 V - 36 V; < 3.5 W @ 12 V	
Dimensions	72.8 mm x 44 mm x 29 mm (L x W x H)	
Mass	92 g (without lens)	
Operating temperature	+ 5 ... + 45° Celsius	
Storage temperature	- 10 ... + 60 ° Celsius	
Regulations	CE, FCC Class B, RoHS (2002/95/EC)	
Options	Angled head, board level version (on request), peltier cooling device (soon),cable tails, optical filters medical design on request; AVT FirePackage / Active FirePackage / Fire4Linux	

ALLIED VISION TECHNOLOGIES GMBH
Taschenweg 2a | D-07646 Stadtroda | Germany
Phone: +49 (0)36428 6770 | Fax: +49 (0)36428 677-24
www.alliedvisiontec.com | info@alliedvisiontec.com

Design and specification of the described product(s)
are subject to change without notice.
© 5/2008