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AVT STINGRAY F-046B / F-046C
AVT STINGRAY F-046B / F-046C 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)
- 780 (H) X 580 (V)
- Up to 61 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, peltier cooling device
- Medical design on request

* available with upcoming firmware release

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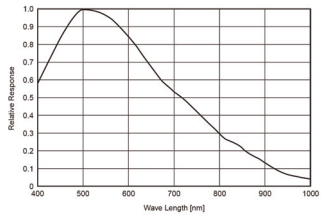
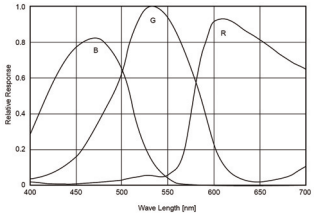
ALLIED Vision Technologies

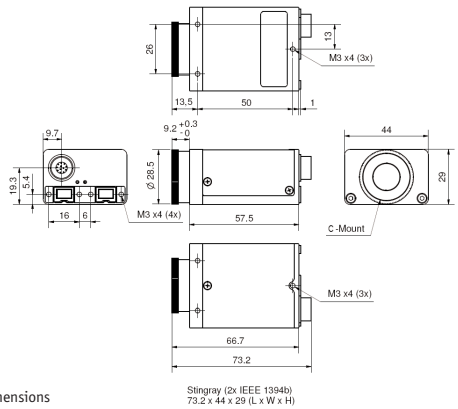
AVT STINGRAY F-046B / F-046C
AVT STINGRAY F-046B / F-046C fiber



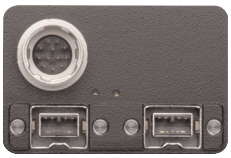


Sensor specifications b/w; color
(extracted from the data sheet of the sensor - excluding lens and filter)

AOI height / pixel	Frame rate / fps
580	61
480	73
320	103
240	128
120	212
60	311
30	406
10	509
2	552



Dimensions



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. 35 V DC)
11	GP Input 2 (CMOS/TTL)
12	GP Output 2

Camera Specifications

	STINGRAY F-046 B/C	STINGRAY F-046 B/C fiber
Image device	Type 1/2 (diag. 8 mm), progressive scan CCD, SONY ICX 415	
Picture size	780 (H) x 580 (V)	
Cell size	8.3 µm x 8.3 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 61 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* 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	73.2 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 heads, cable tails, optical filters, board level versions, peltier cooled device, medical design on request; AVT FirePackage / Active FirePackage / Fire4Linux	

* available with upcoming firmware release

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