

Fast – smart – perfect: 1394b goes Pike.



Description

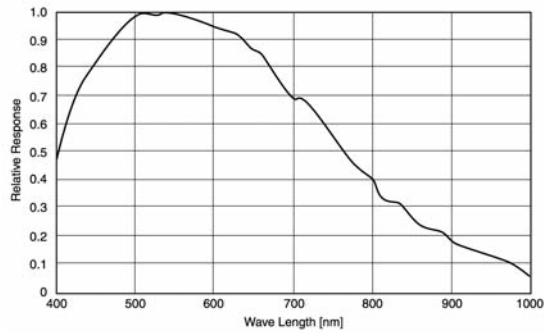
The AVT Pike camera family is equipped with an IEEE 1394b (S800) interface, as well as high-quality CCD sensors and comes in a surprising variety of different versions for the most demanding applications. The Pike offers a selection of six different high-quality sensors (b/w and color) with high sensitivity and true-to-life color reproduction. To meet the highest requirements in the industry, the Pike 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). This not only saves costs in multi-camera operations but also makes it possible to use up to 500 meters of cable. The direct fiber technology of the Pike in the GOF version also provides for equalization of potential and EMC independence. The high data rates of the Pike (max. 62.5 MByte/s) and a huge number of smart features ensure an extraordinary performance in PC-based image processing.

The integrated image pre-processing of the Pike not only reduces demands on PC computer power, but also cuts system costs by eliminating the now unnecessary frame grabbers.

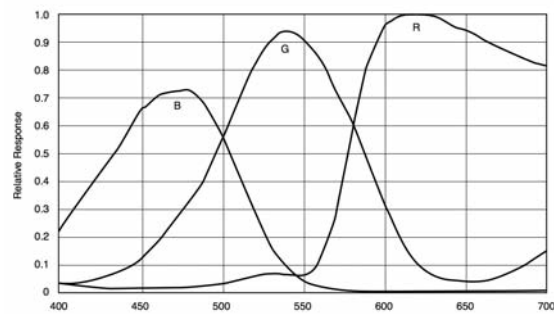
Highlights

- IEEE 1394b
- 1.45 megapixel (1388 x 1038)
- Up to 30 fps/**optional up to 16 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)
- Optocoupled asynchronous image trigger
- Image pre-processing features:
 - Auto controlled gain, exposure, white balance
 - Anti-smear mode
 - Color correction, hue, saturation (color only)
 - Real-time shading correction, progr. LUT
 - 2x/4x/8x binning
 - And lots more ...
- Smart frame grabber features:
 - Image FIFO memory (22 full frames)
 - High SNR mode (up to 16 bit)
- 2 prog. inputs, 4 prog. outputs, on-board RS232
- Sequence mode
 - SIS (secure image signature)
- Industry proven and robust housing
- C-Mount
- Angled head and customized housings

Sensor Specification b/w

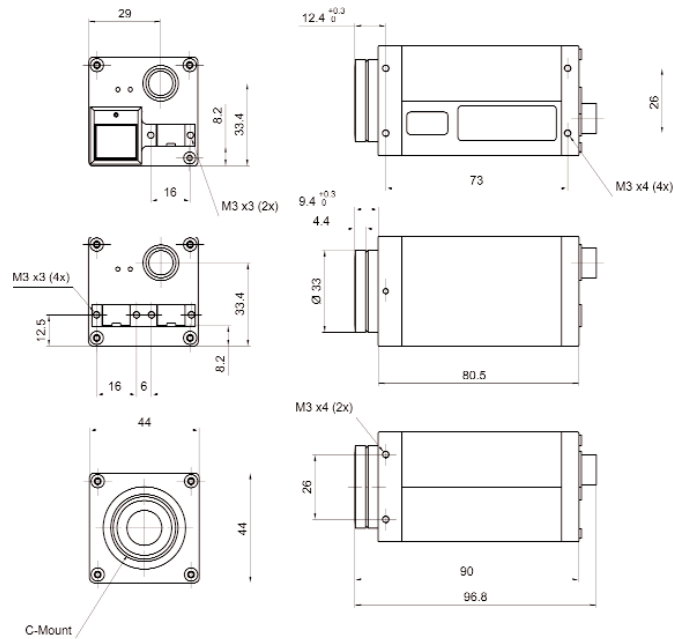


Sensor Specification color



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

Dimensions



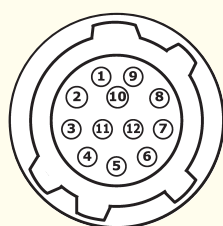
Connections Copper / Daisy Chain



Connections Copper / GOF



Pike F-145B/C		Pike F-145B/C-15fps		I/O Connector	
AOI height / pixel	Frame rate	AOI height / pixel	Frame rate	Pin	Signal
1038	30	1038	16 ¹⁾	1	External Ground
1024	30	1024	16 ¹⁾	2	External Power (+8 ... +36 V DC)
600	46	600	24	3	GP Output 4
480	53	480	28	4	GP Input 1 (Default: -)
240	79	240	42	5	GP Output 3 (Default: Busy)
120	105	120	56	6	GP Output 1 (Default: IntEna)
60	126	60	67	7	Input GND
30	139	30	74	8	RxD RS232
				9	TxD RS232
				10	Output Power (max. 36 V DC)
				11	GP Input 2 (Default: -)
				12	GP Output 2 (Default: Follow GP Input 2)



¹⁾ Due to a firmware upgrade, the Pike F-145 B / C -15 fps can perform 16 fps.

Camera specifications	Pike F-145 B/C	Pike F-145 B/C fiber
Image device	Type 2/3 progressive scan, SONY IT CCD ICX285	
Picture size	1388 (H) x 1038 (V) (Format_7 Mode_0)	
Cell size	6.45 µm x 6.45 µm	
Resolution depth	8 bit / 10 bit / 12 bit / 14 bit / 16 bit (High SNR mode)	
Lens mount	C-Mount	
Digital interface	IEEE 1394b, 2x bilingual (daisy chain)	IEEE1394b, 1 x bilingual, 1 x GOF connector (2 x optical fiber on LCLC)
Transfer rate	100 Mbit/s, 200 Mbit/s, 400 Mbit/s, 800 Mbit/s	
Frame rates	30 fps (Mono8, Raw8), 30 fps (YUV 4:1:1), 23 fps (YUV 4:2:2, RAW16), 15 fps (RGB8); optional: 16 fps (Mono8, Raw8,) 16 fps (YUV 4:1:1), 16 fps (YUV 4:2:2, Raw16), 15 fps (RGB8)	
Gain control	mono: Manual 0 - 32dB, auto gain;	color: Manual 0 - 32dB, auto gain
Shutter speed	39 µs ...~ 67 s, auto shutter; optional: 71 µs ...~ 67 s, auto shutter	
External trigger shutter	Programmable, trigger level control, single trigger, bulk trigger, programmable trigger delay	
Smart features	AGC/AEC/AWB with autofunction AOI; only color: AWB/color correction/hue/saturation; real-time shading correction, LUT, 64 MB image memory, mirror, binning (only b/w), sub-sampling, High SNR, storable user sets, 2 progr. inputs, 4 progr. outputs, RS-232 port, SIS (secure image signature), sequence mode, anti-smear mode, 4x/8x binning, 12-bit speed increase mode	
Power requirements	DC 8 V bis 36 V (via IEEE 1394 cable or 12-pin HIROSE)	
Power consumption	Typ. 5 watt (@ 12 V DC);	fiber: Typ. 5.75 watt (@ 12 V DC)
Dimensions	96.8 mm x 44 mm x 44 mm (L x W x H); incl. connectors, w/o tripod and lens	
Mass	250 g (without lens)	
Operating temperature	+5 ... +50 ° Celsius housing temperature (without condensation)	
Storage temperature	-10 ... +60 ° Celsius ambient temperature (without condensation)	
Regulations	CE, FCC Class B, RoHS (2002/95/EC)	
Options	IR cut/pass filter (mono), protection glass (color), host adapter card, angled head, 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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