



## Pike F-032

### Description

#### Fast VGA camera, high quality, 1394b FireWire, 208 fps

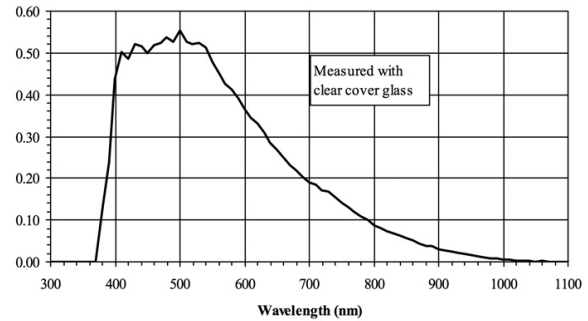
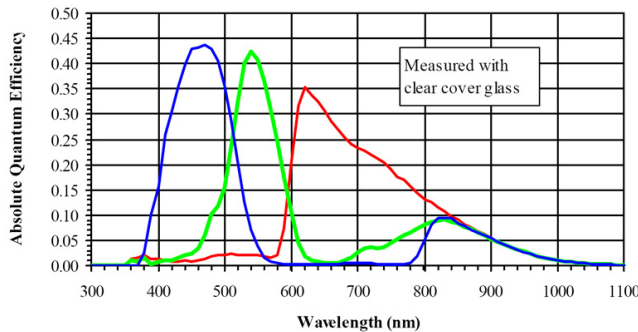
The Pike F-032B/C is a very fast VGA camera with premium image quality and a fast FireWire 1394b interface. It is equipped with a Kodak KAI-0340 CCD sensor. At full resolution, it runs 208 fps. Higher frame rates can be reached by a smaller AOI, binning (b/w), or sub-sampling. The Pike F-032B/C is an excellent motion analysis camera.

- Kodak KAI-0340
- Trigger
  - Programmable, trigger level control, single trigger, bulk trigger, programmable trigger delay
- Options
  - 1394b connectors: daisy chain copper or copper and GOF
  - Various IR cut/pass filters
  - CS-Mount, M12-Mount adapter
  - Hirose power: out
  - Angled head
  - White medical housing

## Specifications

<b>Pike</b>		<b>F-032</b>	
<b>Interface</b>	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional		
<b>Resolution</b>	640 x 480		
<b>Sensor</b>	Kodak KAI-0340		
<b>Type</b>	CCD Progressive		
<b>Sensor Size</b>	Type 1/3		
<b>Cell size</b>	7.4 $\mu$ m		
<b>Lens mount</b>	C		
<b>Max frame rate at full resolution</b>	208 fps		
<b>A/D</b>	14 bit		
<b>On-board FIFO</b>	64 MB		
<b>Output</b>			
<b>Bit depth</b>	8-14 bit bit		
<b>Mono modes</b>	Mono8, Mono12, Mono16		
<b>Color modes YUV</b>	YUV411, YUV422		
<b>Color modes RGB</b>	RGB8		
<b>Raw modes</b>	Raw8, Raw12, Raw16		
<b>General purpose inputs/outputs (GPIOs)</b>			
<b>TTL I/Os</b>	0		
<b>Opto-coupled I/Os</b>	2 inputs, 4 outputs		
<b>RS-232</b>	1		
<b>Power/Mass/Dimensions/Regulations</b>			
<b>Power requirements (DC)</b>	8 V - 36 V		
<b>Power consumption (12 V)</b>	4 W		
<b>Mass</b>	250 g		
<b>Body Dimensions (L x W x H in mm)</b>	96.8 x 44 x 44 mm including connectors, w/o tripod and lens		
<b>Regulations</b>	CE, FCC Class B, RoHS		

[Download Pike technical drawing \(click here\)](#)



## Smart features

- Programmable LUT, white balance, hue, saturation
- Debayering
- Gain
  - Auto/manual
  - Manual gain control: 0 - 22 dB
- Exposure
  - Auto/manual
  - Exposure time: 18  $\mu$ s - 67 s
- Color correction
- Shading correction
- High SNR mode (up to 24 dB better signal-to-noise ratio)
- Smear reduction
- Sub-sampling, 2x - 8x binning (b/w)
- Separate AOI for auto features
- Sequence mode (changes the image settings on the fly)
- Image mirror
- Deferred image transport
- SIS (secure image signature, time stamp for trigger, frame count etc.)
- Storable user settings

## Applications

The Pike F-032B/C combines a very high frame rate of 208 fps with elaborate image pre-processing functions and a fast 1394b FireWire port. The modular design of the Pike provides many opportunities for customization.

This Pike camera is especially suited for:

- Applications which require high frame rates and outstanding image quality
- OEM applications (modular concept)
- Sports, motion studies
- 3D recordings of still and moving objects
- 3D scanning
- Science and research
- Healthcare
- Multimedia and entertainment
- Long cable lengths, 400 meters and more (fiber version)

### Application Case Studies:

- **Motion Capture With AVT Cameras Makes Orthopedic Diagnosis Easier**

With the aid of high-speed Pike 1394b cameras and SIMI Motion Software, doctors and scientists are researching musculoskeletal dysfunction and can already offer new therapies to patients, tailored to their individual needs.

- **Perfect Swing**

With two Pike digital 1394b cameras, "Swing & See" helps recreational golfers to practice their swing like professionals do.

- **AVT Pike Makes Football Robot Nearly Unbeatable**

Automated table soccer game designed by Cologne University of Applied Science.