



## Pike F-210

### Description

#### HDTV camera with video frame rate - 2 Megapixel

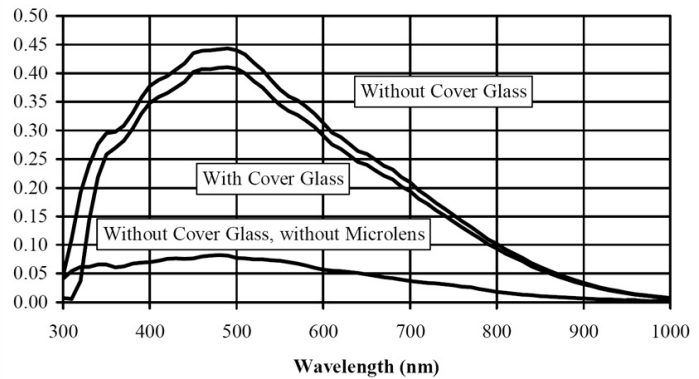
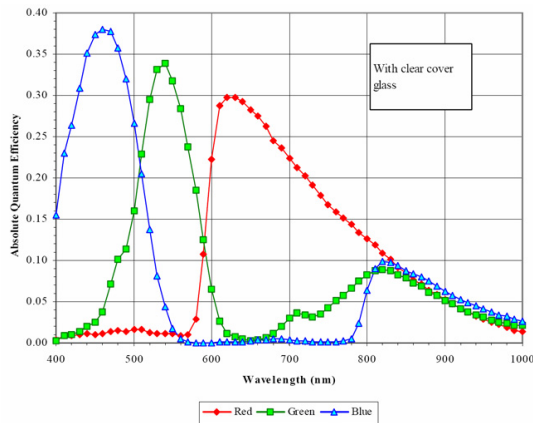
The Pike F-210B/C is equipped with a Kodak KAI-2093 CCD sensor, and it features smart real-time functions. At full resolution, it runs up to 31 fps. Higher frame rates can be reached by a smaller AOI, binning (b/w), or sub-sampling.

- Kodak KAI-2093
- 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
  - F/M39-Mount
  - Hirose power: out
  - Angled head
  - White medical housing

## Specifications

Pike	F-210
<b>Interface</b>	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional
<b>Resolution</b>	1920 x 1080
<b>Sensor</b>	Kodak KAI-2093
<b>Type</b>	CCD Progressive
<b>Sensor Size</b>	Type 1
<b>Cell size</b>	7.4 $\mu$ m
<b>Lens mount</b>	C
<b>Max frame rate at full resolution</b>	31 fps
<b>A/D</b>	14 bit
<b>On-board FIFO</b>	64 MB
<b>Output</b>	
<b>Bit depth</b>	8-14 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

[Pike technical drawing \(C-Mount\)](#)



## Smart features

- Programmable LUT, white balance, hue, saturation
- Debayering
- Gain
  - Auto/manual
  - Manual gain control: 0 - 22 dB
- Exposure
  - Auto/manual
  - Exposure time: 43  $\mu$ 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-210B/C suits for applications which require the highest quality in HDTV resolution (1920 x 1080) at video frame rates. Besides the excellent image quality, its flexibility makes it suitable for many applications. The fiber version supports cable lengths of 400 meters and even more without any additional repeaters.

### **Pike cameras are especially suited for:**

- Entertainment, movie pre-production, video recording
- OEM applications (modular concept)
- Motion studies
- Science and research
- Healthcare and sports
- Event documentation
- Long cable lengths, 400 meters and more (fiber version)

### **Application Case Studies:**

#### **Every Nook and Cranny**

The Mephisto Extreme 3D-Scanner from 3DDynamics relies on AVT Pike digital cameras to scan objects, humans, animals or plants with the highest possible precision in three dimensions.