



Description

4 Megapixel camera with Kodak KAI-4022 type 1.2 sensor - high resolution, low noise

The Pike F-421B/C is equipped with a Kodak HAD CCD sensor type 1.2.

The reason for this large sensor format is the goal to achieve high resolution images with low noise. The sensor has a wide pixel pitch of 7.4 μm .

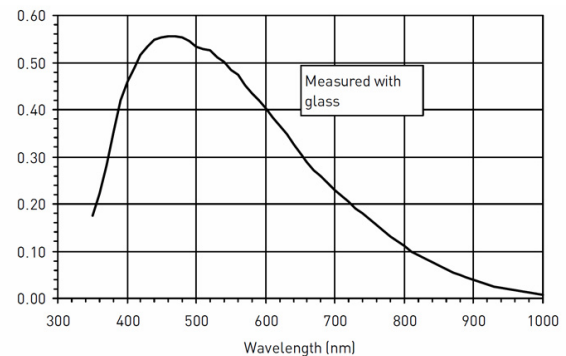
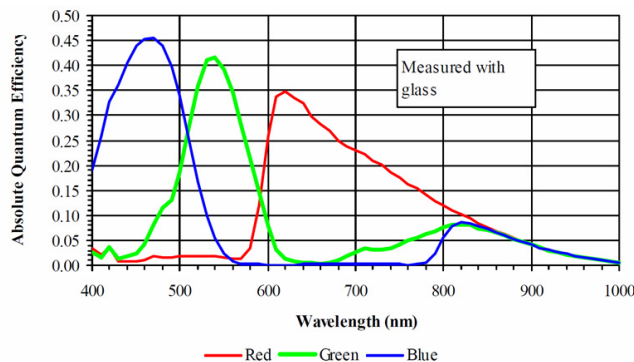
At full resolution, the camera runs up to 16 fps. Higher frame rates can be reached by a smaller AOI, binning (b/w), or sub-sampling.

- Kodak KAI-4022
- 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-421	
Interface	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional
Resolution	2048 x 2048
Sensor	Kodak KAI-4022
Type	CCD Progressive
Sensor Size	Type 1.2
Cell size	7.4 µm
Lens mount	C
Max frame rate at full resolution	16 fps
A/D	14 bit
On-board FIFO	64 MB
Output	
Bit depth	8-14 bit
Mono modes	Mono8, Mono12, Mono16
Color modes YUV	YUV411, YUV422
Color modes RGB	RGB8
Raw modes	Raw8, Raw12, Raw16
General purpose inputs/outputs (GPIOs)	
TTL I/Os	0
Opto-coupled I/Os	2 inputs, 4 outputs
RS-232	1
Power/Mass/Dimensions/Regulations	
Power requirements (DC)	8 V - 36 V
Power consumption (12 V)	4 W
Mass	250 g
Body Dimensions (L x W x H in mm)	96.8 x 44 x 44 mm including connectors, w/o tripod and lens
Regulations	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: 70 μ 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

Equipped with a large sensor format (type 1.2), the Pike F-421B/C is the perfect fit for low-light applications. It is distinguished by high-resolution images and an extraordinary image quality with very low noise. The smart pre-processing features of the Pike even enhance the image quality. This Pike camera is especially suited for:

- Applications which require the highest image quality even with low light
- OEM applications (modular concept)
- Microscopy
- Science and research
- ITS (Intelligent traffic solutions)
- Long cable lengths, 400 meters and more (fiber version)