



Pike

F-421

- Versatile 1394b camera
- Advanced feature set
- Many variants
- High frame rates

Description

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

The Pike F-421B/C is equipped with a OnSemi 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 μ m.

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.

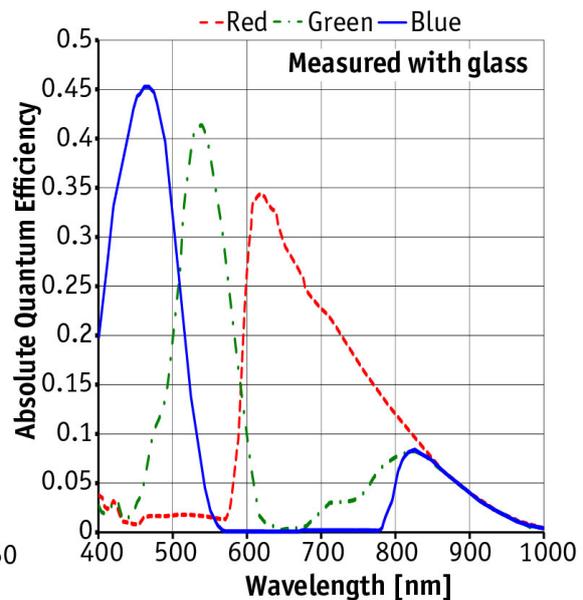
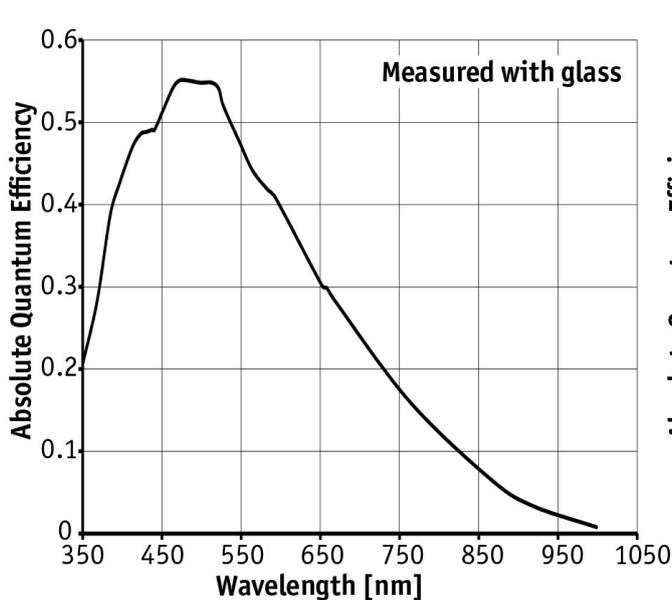
Options

- 1394b connectors: 2 x copper (daisy chain) or 1 x GOF, 1 x copper, Hirose power: out
- Various IR cut/pass filters, various lens mounts
- 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 × 2048
Sensor	OnSemi KAI-4022
Sensor type	CCD Progressive
Cell size	7.4 μ m
Lens mount	C-Mount
Max frame rate at full resolution	16 fps
ADC	14 bit
On-board FIFO	64 Mbyte
Output	

Pike	F-421
Bit depth	8-14 bit
Mono modes	Mono8, Mono12, Mono16
Color modes RGB	RGB8
Raw modes	Raw8, Raw12, Raw16
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 4 outputs
RS-232	1
Operating conditions/dimensions	
Power requirements (DC)	8 V - 36 V
Power consumption (@12 V)	4 W
Mass	250 g
Body dimensions (L × W × H in mm)	96.8 × 44 × 44 mm including connectors, w/o tripod and lens
Regulations	CE, FCC Class B, RoHS



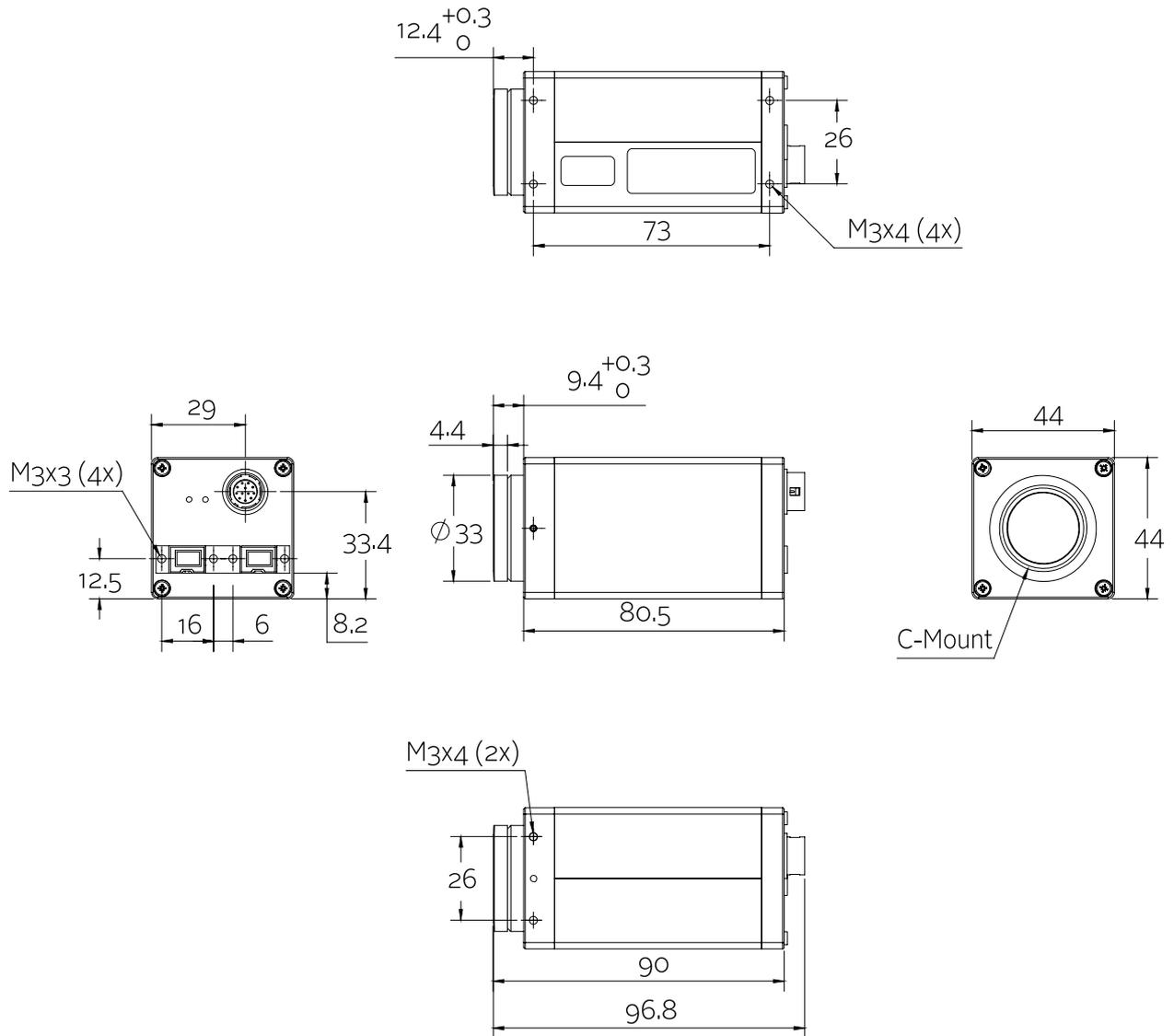
Features

- High SNR mode (up to 24 dB better signal-to-noise ratio)
- Low-Noise Binning Mode
- Smear reduction
- Shading correction
- ROI, separate ROI for auto features
- Binning



- Decimation
- Auto gain (manual gain control: 0 to 22 dB)
- Auto exposure (70 μ s to 67 s)
- Auto white balance
- LUT (look-up table)
- Hue, saturation, color correction
- Reverse X
- Deferred image transport
- Trigger programmable, level, single, bulk, programmable delay
- Sequence mode (changes the camera settings on the fly)
- SIS (secure image signature, time stamp for trigger, frame count etc.)
- Storable user sets

Technical drawing





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)