



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

High-end FireWire

Fast 1394b cameras with high frame rates and powerful features

Pike F-210 with ON Semi KAI-2093 runs 31.0 frames per second at 2.1 MP resolution.

The Pike is a fast IEEE 1394b camera for demanding applications (e.g. industrial and medical imaging). Numerous pre-processing functions produce an outstanding image quality. Pike cameras operate with very high frame rates.

Pike cameras include extraordinary image pre-processing functions like the High SNR mode (up to 24 dB better signal-to-noise ratio).

Pike cameras are available both with two copper ports (for daisy-chaining) and with copper/GOF (glass optical fiber) ports.

- Sony and OnSemi CCD sensors (1/3, 1/2, 2/3, 1, 1.2, 35 mm)
- 8 models (VGA to 16 Megapixel)
- Options
 - 1394b connectors: daisy chain copper or copper and GOF
 - Various IR cut/pass filters
 - F/M39-Mount (F-032 only: CS/M12-Mount)
 - Pike F-1100/F-1600: M42/M58-Mount
 - Hirose power: out
 - Angled head
 - White medical housing
 - Sensor variants: Taped cover glass w/o microlenses, fixed quartz cover glass w/o microlenses available for some models

Specifications

Interface	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional
Resolution	1920 (H) × 1080 (V)
Sensor	ON Semi KAI-2093
Sensor type	CCD Progressive
Sensor size	Type 1
Pixel size	7.4 μm × 7.4 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	31 fps
ADC	14 Bit
Image buffer (RAM)	64 MByte

Output

Bit depth	8-bit to 14-bit
Monochrome pixel formats	Mono8, Mono12, Mono16

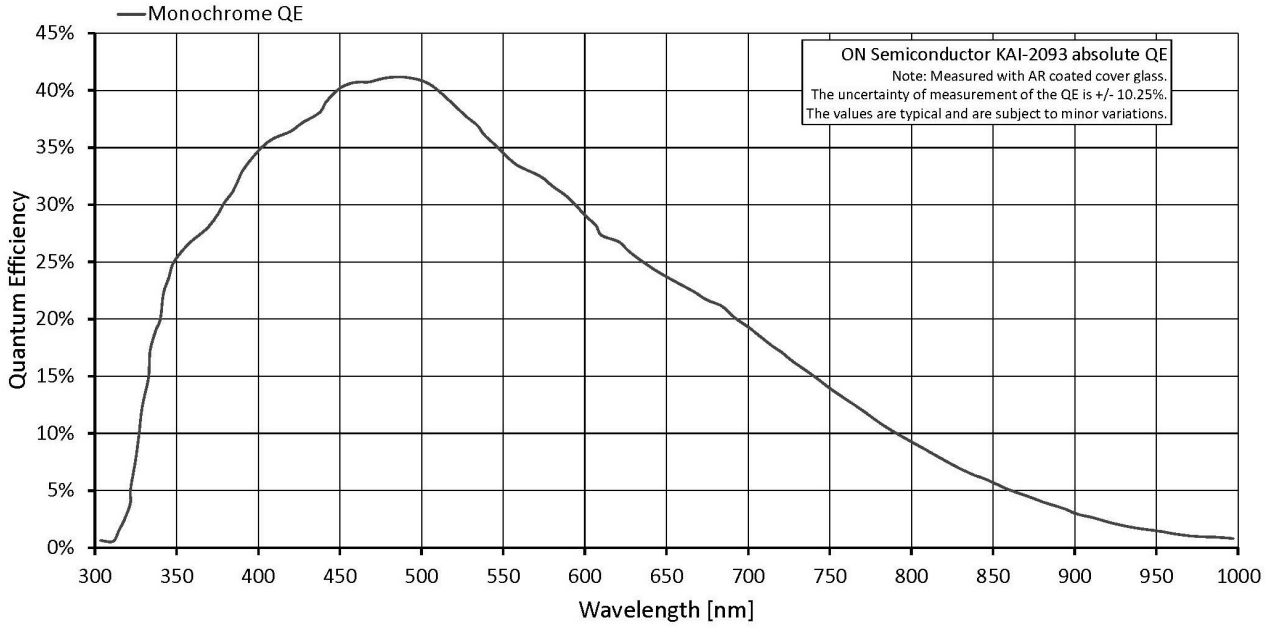
General purpose inputs/outputs (GPIOs)

Opto-isolated I/Os	2 inputs, 4 outputs
RS232	1

Operating conditions/dimensions

Operating temperature	+5 °C to +50 °C
Power requirements (DC)	8 V to 36 V
Power consumption	4 W (@ 12 VDC)
Mass	250 g
Body dimensions (L × W × H in mm)	96.8 × 44 × 44 (including connectors)

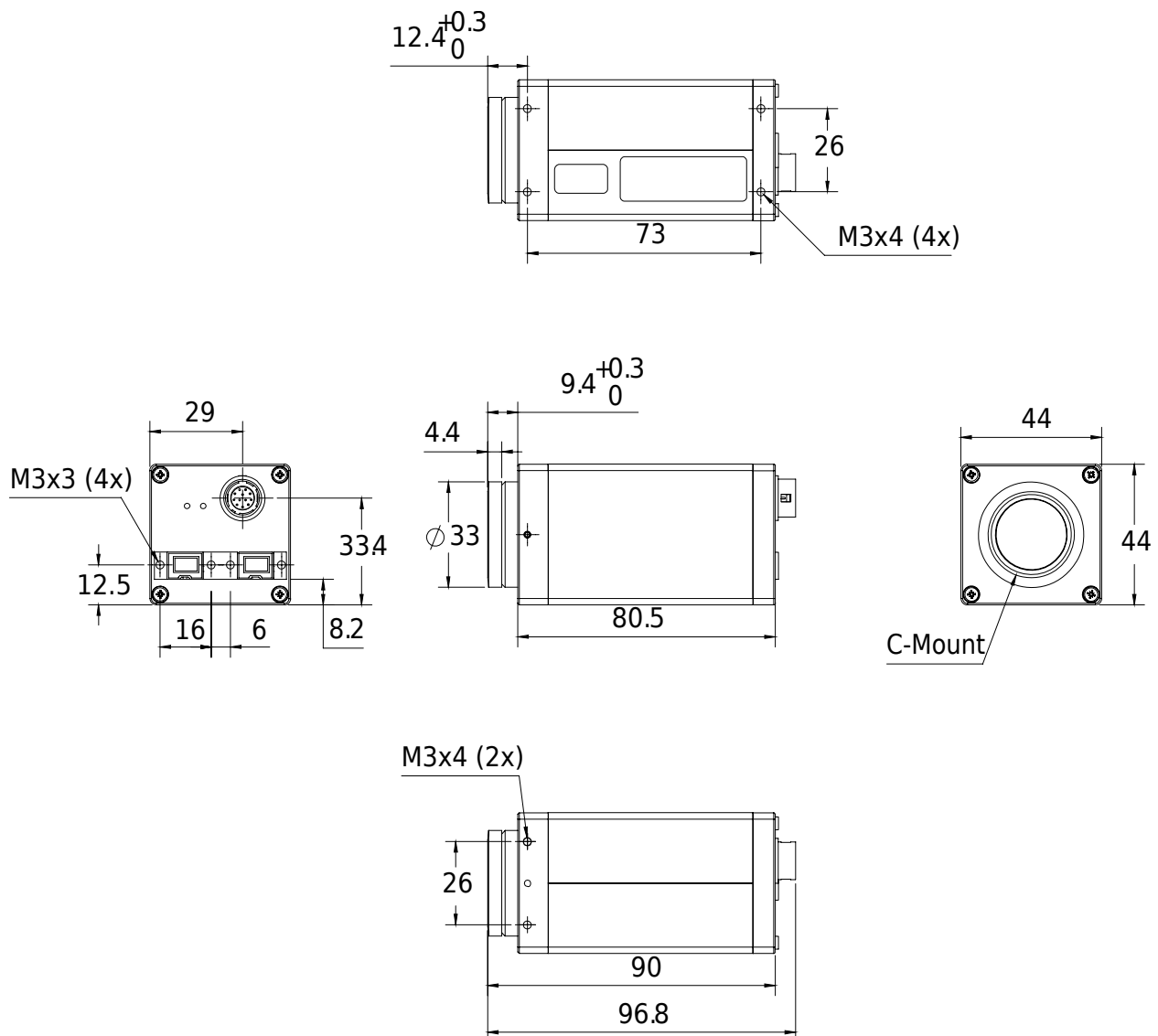
Quantum efficiency



Features

- High SNR mode (up to 24 dB better signal-to-noise ratio)
- Low-noise binning mode
- Smear reduction
- Shading correction
- Area of interest (AOI), separate AOI for auto features
- Binning
- Decimation
- Auto gain (manual gain control: 0 to 22 dB)
- Auto exposure (43 μ s to 67 s)
- Look-up table (LUT)
- 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)
- Storable user sets

Technical drawing



Applications

The Pike F-210B 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
- Intelligent traffic solutions (ITS)
- Long cable lengths, 400 meters and more (fiber version)