Allied Vision

FireWire

Pike
F-1600

- 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-1600 with ON Semi KAI-16000 runs 3 frames per second at 15.8 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

Allied Vision

Specifications

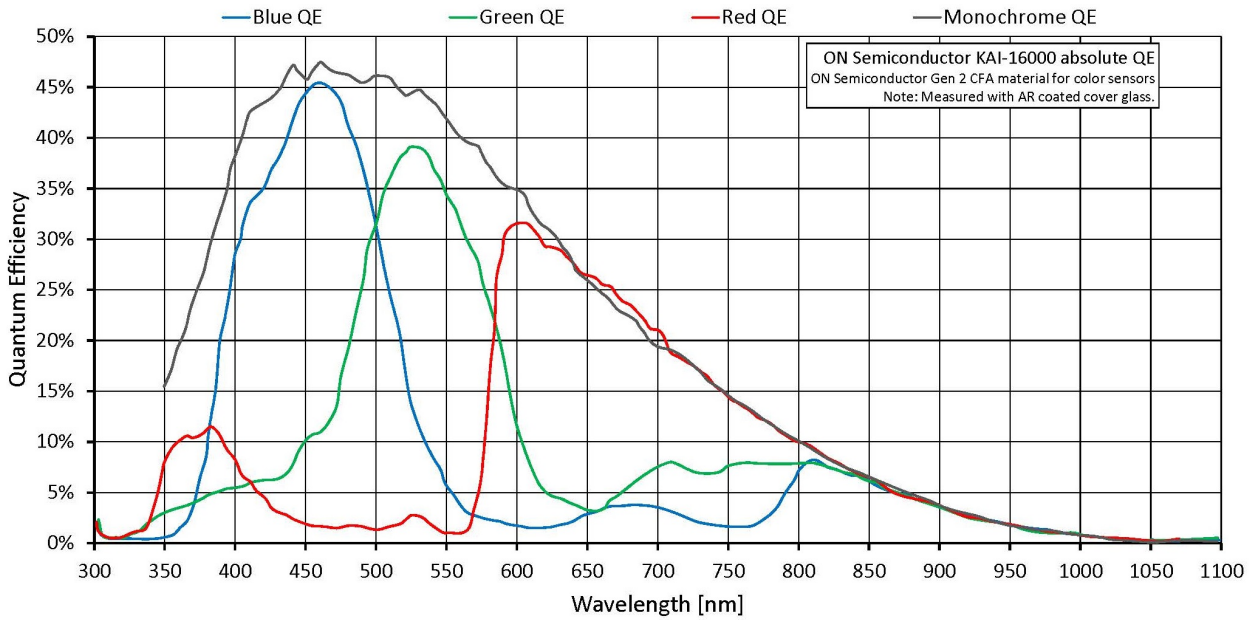
Interface	IEEE 1394b - 800 Mb/s, 2 ports, daisy chain, fiber optic (GOF) optional
Resolution	4872 (H) × 3248 (V)
Sensor	ON Semi KAI-16000
Sensor type	CCD Progressive
Sensor size	Type 35 mm
Pixel size	7.4 µm × 7.4 µm
Lens mount (default)	F-Mount
Max. frame rate at full resolution	3 fps
ADC	14 Bit
Image buffer (RAM)	256 MByte

Output	
Bit depth	8-bit to 14-bit
Monochrome pixel formats	Mono8, Mono12, Mono16
RGB color pixel formats	RGB8
Raw color pixel formats (Bayer)	Raw8, Raw12, Raw16

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	380 g
Body dimensions (L × W × H in mm)	142.8 × 59 × 59 (including connectors)

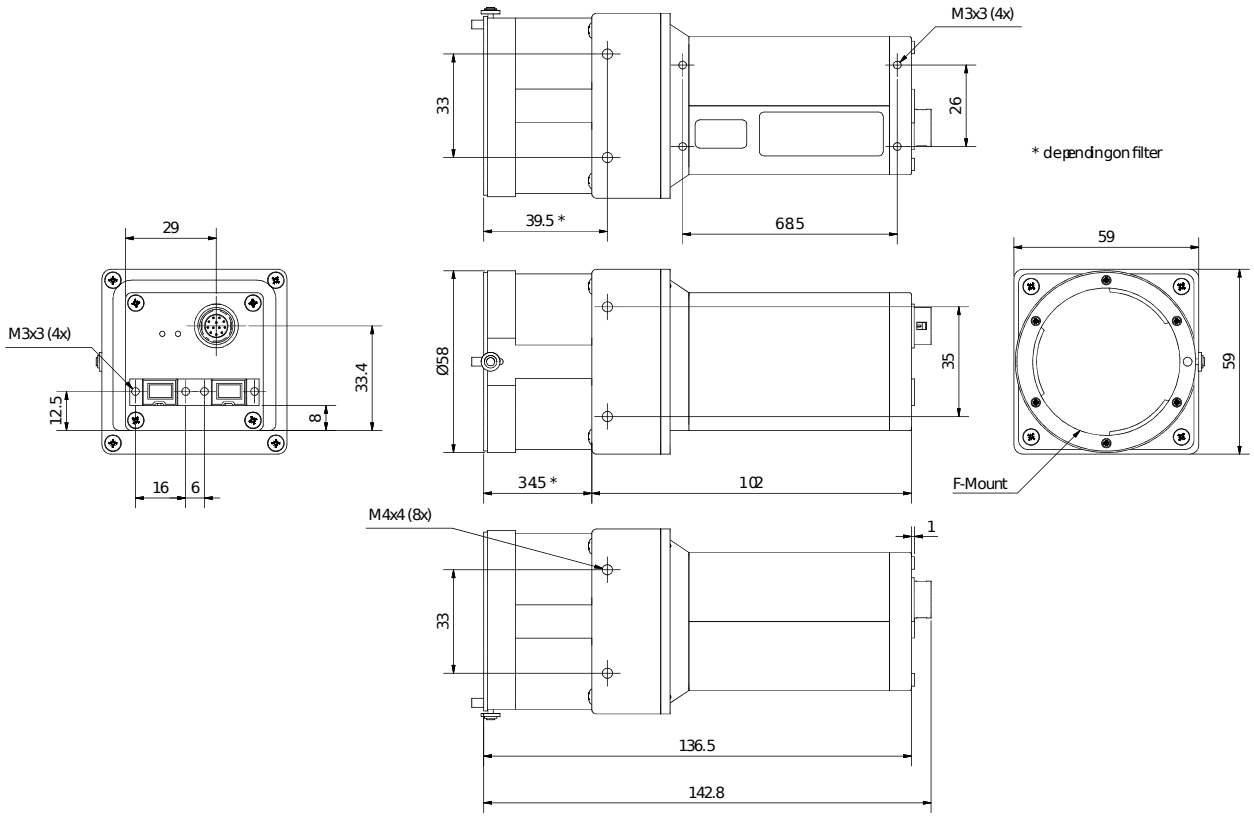
Quantum efficiency



Features

- High SNR mode (up to 24 dB better signal-to-noise ratio)
- Low-noise binning mode
- Smear reduction
- Shading correction
- Defect pixel correction
- Area of interest (AOI), separate AOI for auto features
- Binning
- Decimation
- Auto gain (manual gain control: 0 to 24 dB)
- Auto exposure (636 µs to 67 s)
- Auto white balance
- Look-up table (LUT)
- 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)
- Storable user sets

Technical drawing



Applications

The Pike F-1600B/F-1600C is made for high-precision applications which require highest attention to detail. Its excellent image quality can be enhanced by several image pre-processing functions. It is also available with M42-Mount or with M58-Mount.

This camera is well-suited for:

- Science and research
- Metrology
- Document scanning (replaces DSLR cameras - no mechanical shutter, long life time)
- Healthcare and medical applications
- Industrial inspection at high resolutions
- Aerial imaging
- Very demanding OEM camera applications
- Intelligent traffic solutions (ITS)
- Long cables - 400 meters and more without additional repeaters (fiber version)