

Kepler CMOS Camera

KL4040 FI

4K x 4K at 23 fps

The KL4040 scientific CMOS camera has the same pixel size and imaging area as the popular KAF-16803 CCD, but with 1/3 the noise and 40% higher quantum efficiency. Kepler cooled sCMOS cameras provide ultra-high sensitivity, ultra-low noise, and high frame rates, all at game-changing price to performance ratio.

Technical Data

Sensor Type	Front Illuminated CMOS
Sensor	GPixel GSense4040
Shutter Type	Rolling; Rolling with Global Reset
Active Pixels	4096 x 4096
Pixel Size (microns)	9 x 9 μm
Imaging Area (Diagonal)	36.9 X 36.9 mm (52.1 mm)
Full Well Capacity (e-)	70000 electrons
Typical Readout Noise	3.7 e-
Dynamic Range	85.2 dB
Frame Rate (fps)	23 fps (QSFP V2)
Cooling Method¹	Air and Liquid
Max. Cooling (Air)	35°C below ambient
Temperature Stability	0.1°C
Dark Current (typical)	0.08 eps at -10C
Interface	USB 3.0 (Optional QSFP ²)
Data Bit Depth	16 bit ³
Optional Shutter	65mm
Optional Mounts	Medium Format Recommended (6x7)
Subarray Readout	Standard
External Trigger In/Out	Standard
SDK / Software	Kepler SDK / FLI Pilot
Weight	4 lbs (1.8 kg)

¹ Liquid circulation connectors sold separately

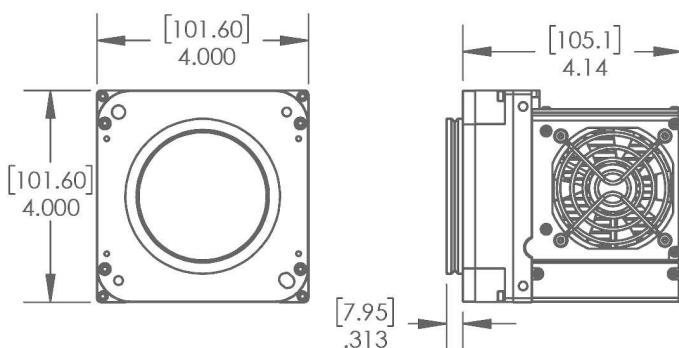
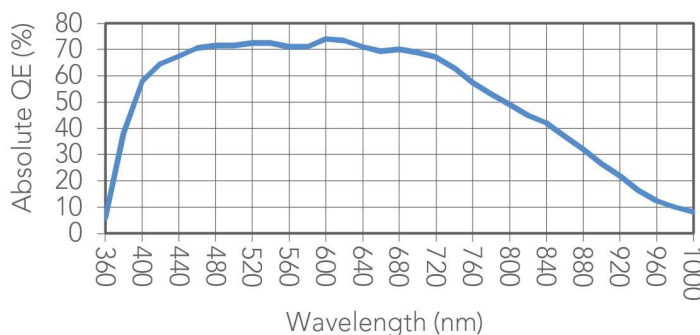
² QSFP = Quad Small Form factor Pluggable: high speed fiber optic interface

³ 16-bit data merged from two 12 bit converters



KL4040 without shutter

Absolute Quantum Efficiency



See FLIcamera.com for alternate configurations



Finger Lakes Instrumentation
FLIcamera.com
USA 585-624-3760

Kepler CMOS Camera

KL4040 FI 65mm

4K x 4K at 23 fps

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Power Supply: 100-240 AC in; 12V out +0.7/-0.4. TEC off <1A. TEC 100% 4.6A. Shutter open pulse 1A. Shutter hold current <0.2A.

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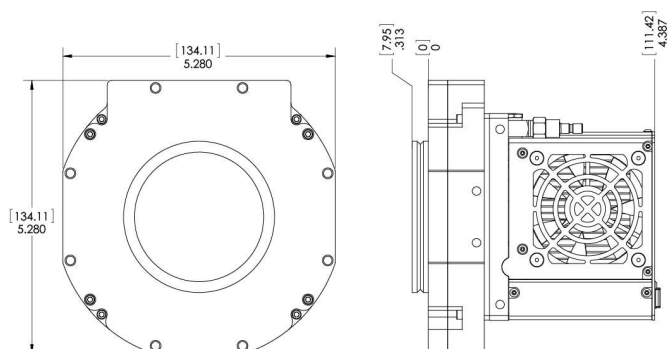
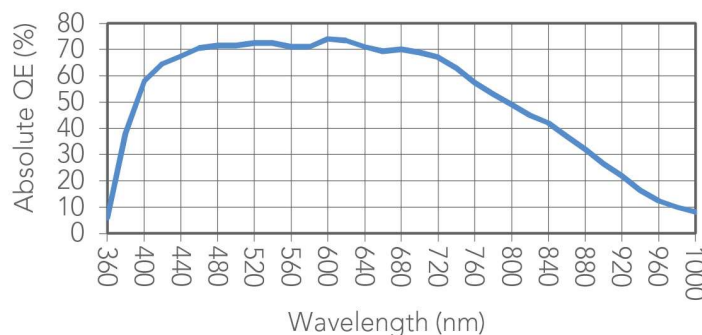
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Shown with optional 65mm shutter housing

Absolute Quantum Efficiency



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