



KL4040 Cooled Scientific CMOS Cameras

High Resolution and Low Noise at Video Frame Rate

PRELIMINARY

KL4040: 4K x 4K at 24 fps

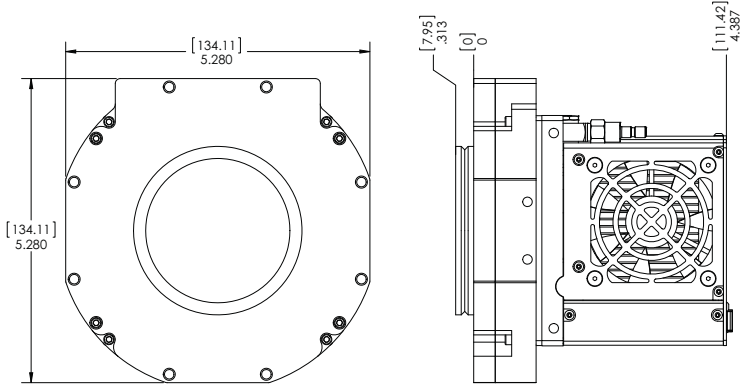
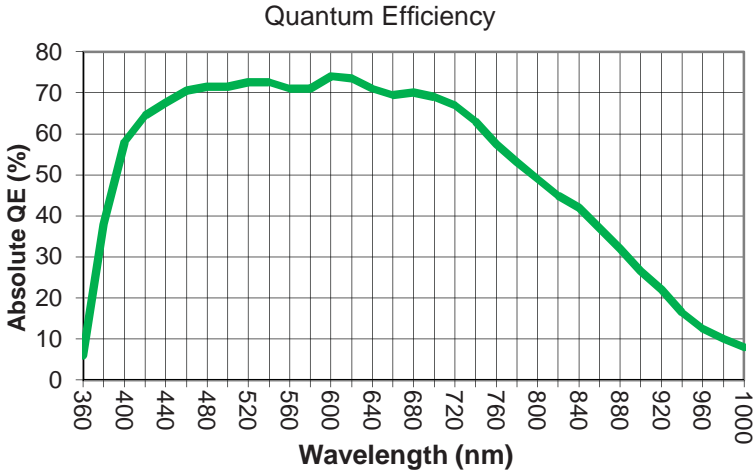
The KL4040 scientific CMOS camera has the same pixel size and imaging area as the popular KAF-16803 CCD, but with 1/3 the noise and 40% higher quantum efficiency. Kepler cooled sCMOS cameras provide ultra-high sensitivity, ultra-low noise, and high frame rates, all at game-changing price to performance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



Kepler KL4040

Camera Applications:
Orbital Debris Detection
Photocell Inspection
TEM

Sensor Type	Front illuminated
Shutter Type	Rolling; Rolling with Global Reset
Active Pixels	4096 x 4096
Pixel Size	9 x 9 microns
Effective Area	36.9 x 36.9 mm
Sensor Diagonal	52.1 mm
Full Well Capacity	70000 electrons
Max. Frame Rate (QSFP)	24 fps
Max. Frame Rate (USB3)	8 fps
Read Noise (rolling)	3.7 e-
Dynamic Range	86 dB
Peak QE	74% (CMT)
Cooling	Air and Liquid ¹
Maximum Cooling (Air)	40°C Below Ambient
Dark Current	0.15 eps at -20C
Interface	USB 3.0
Interface (Optional)	QSFP ²
Data Bit Depth ³	16 bit
Mount	F-mount
Video size	3.3"
Subarray Readout	Yes
Electromechanical Shutter	Optional 65mm
Ex Trigger In	Yes



Quality. Cooled. Cameras.

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¹ Liquid circulation connectors sold separately

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

³ 16-bit data merged from two 12 bit converters