

# Kepler CMOS Camera

## KL4040 BI

### 4K x 4K at 23 fps

The KL4040 BI scientific CMOS camera has the same pixel size and imaging area as the popular KAF-16803 CCD, but with 1/4 the noise, 90% peak quantum efficiency, and excellent sensitivity in the UV. 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	Back Illuminated CMOS
Sensor	GPixel GSense4040BSI
Shutter Type	Rolling
Active Pixels	4096 x 4096
Pixel Size (microns)	9 x 9 $\mu$ m
Imaging Area (Diagonal)	36.8 X 36.8 mm (52 mm)
Full Well Capacity	39000 electrons
Typical Readout Noise	2.3 e-
Dynamic Range	84.2 dB
Frame Rate	23 fps (QSFP V2)
Cooling Method <sup>1</sup>	Air and Liquid
Max. Cooling (Air)	40°C below ambient
Temperature Stability	0.1°C
Dark Current (typical)	0.4 eps at -10C
Interface	USB 3.0 (Optional QSFP <sup>2</sup> )
Data Bit Depth	16 bit <sup>3</sup>
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)

<sup>1</sup> Liquid circulation connectors sold separately

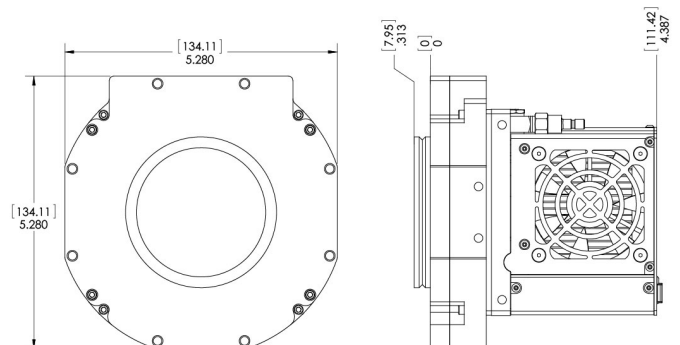
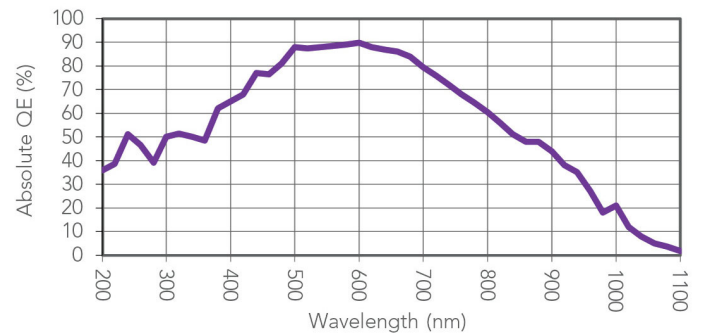
<sup>2</sup> QSFP = Quad Small Form factor Pluggable: high speed fiber optic interface

<sup>3</sup> 16-bit data merged from two 12 bit converters



Shown with optional 65mm shutter housing

#### Absolute Quantum Efficiency



See [www.flicamera.com](http://www.flicamera.com) for alternate configurations