Kepler Cooled CMOS Cameras

Kepler KL4040

4K x 4K at 17 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.

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)
17 fps
Max. Frame Rate (USB3)
7 fps
Read Noise (rolling)
3.7 e-
Dynamic Range
86 dB
Peak QE
74% (CMT)
Cooling
Air and Liquid\(^1\)
Maximum Cooling (Air)
40ºC 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
Ex Trigger Out
Yes
Software
FLI Pilot
SDK
Open Source

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

Camera Applications:
Orbital Debris Detection
Photocell Inspection

Absolute Quantum Efficiency

www.flicamera.com
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