

# Kepler CMOS Camera

KL2020 BI

PRELIMINARY

## The Ultimate in Speed

The Kepler KL2020 cooled scientific CMOS camera provides high sensitivity, low noise, and high frame rates, all at a game-changing price to performance ratio.

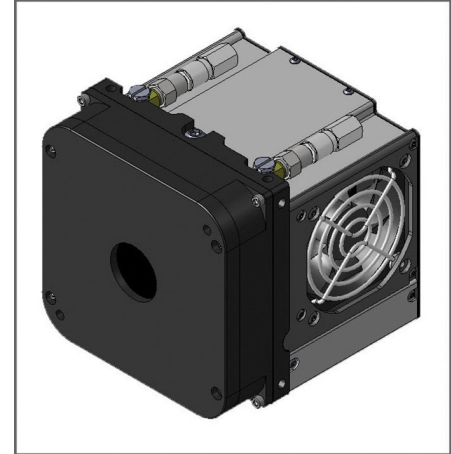
### Technical Data

<b>Sensor Type</b>	Back Illuminated CMOS
<b>Sensor</b>	GPixel GSense2020
<b>Shutter Type</b>	Rolling
<b>Active Pixels</b>	2048 x 2048
<b>Pixel Size (microns)</b>	6.5 x 6.5 $\mu\text{m}$
<b>Imaging Area (Diagonal)</b>	13.3 X 13.3 mm (18.8 mm)
<b>Full Well Capacity</b>	54000 electrons
<b>Typical Readout Noise</b>	1.6 e- / 1.2 e- (2-CMS)
<b>Dynamic Range</b>	90.2 dB
<b>Frame Rate</b>	43 fps (12 bit)
<b>Cooling Method<sup>1</sup></b>	Air and Liquid
<b>Max. Cooling (Air)</b>	50°C below ambient
<b>Temperature Stability</b>	0.1°C
<b>Dark Current (typical)</b>	0.2 eps at -20C
<b>Interface</b>	USB 3.0
<b>Data Bit Depth</b>	16 bit <sup>2</sup>
<b>Optional Shutter</b>	25mm
<b>Optional Mounts</b>	C-mount
<b>Subarray Readout</b>	Yes
<b>External Trigger In/Out</b>	Yes
<b>SDK / Software</b>	Kepler / FLI Pilot
<b>Weight</b>	3 lbs (1.3 kg)

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

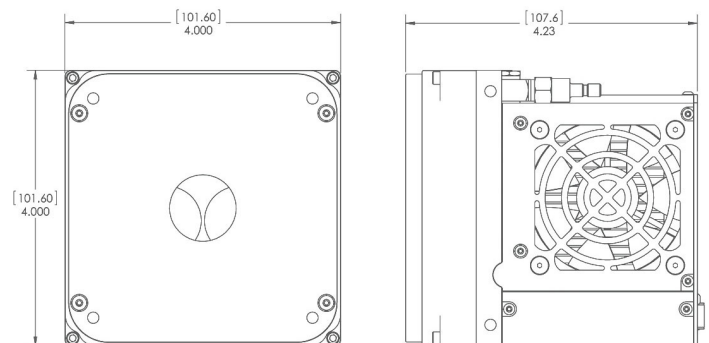
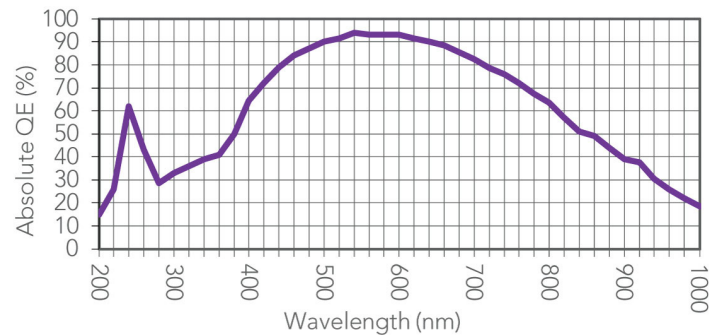
<sup>3</sup> 16-bit data merged from two 12 bit converters

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



KL2020 with air & liquid cooling

### Absolute Quantum Efficiency



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