**KL400: 95% Peak QE, 1.3 e- Noise RMS**

The Kepler KL400 sCMOS camera represents the first release in a new family of Scientific CMOS cameras from Finger Lakes Instrumentation. The KL400 provides ultra-high sensitivity, ultra-low noise with high frame rates; all at game-changing price to performance ratio.

**Applications:**
- Orbital Debris Detection
- Photocell Inspection
- Forensic Sciences
- Super-Resolution Microscopy
- Confocal Microscopy
- Light Sheet Microscopy
- TIRF and GFP

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**Sensor Type** | Back illuminated
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**Active Pixels** | 2048 x 2048
**Pixel Size (microns)** | 11 x 11
**Effective Area** | 22.5 x 22.5 mm
**Sensor Diagonal** | 31.9 mm
**Full Well Capacity** | 89000 electrons
**Frame rate (rolling)** | 48 fps
**Read Noise (rolling)** | 1.5 e- HDR
**Dynamic Range** | 96 dB HDR
**Peak QE** | 94%
**Cooling** | Air and Liquid
**Maximum Cooling (Air)** | 60°C Below Ambient
**Dark Current** | 0.4 eps at -20C
**Interface** | USB 3.0
**Interface (Optional)** | SFP
**Data Bit Depth** | 16 bit
**Mount** | F-mount
**Video size** | 2.0”
**Subarray Readout** | Yes
**Electromechanical Shutter** | Optional
**Ex Trigger In** | Yes
**Ex Trigger Out** | Yes
**Software** | FLI

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1 SFP = Small Form factor Pluggable: high speed fiber optic interface
2 16-bit data merged from two 12 bit converters
The Kepler KL2020 cooled Scientific CMOS camera provides high sensitivity, low noise, and ultra high frame rates; all at game-changing price to performance ratio.

**Applications:**
- Super-Resolution Microscopy
- Confocal Microscopy
- Light Sheet Microscopy
- TIRF and GFP

**Sensor Type:** Front illuminated

**Active Pixels:** 2048 x 2048

**Pixel Size (microns):** 6.5 x 6.5

**Effective Area:** 13.3 x 13.3 mm

**Sensor Diagonal:** 18.8 mm

**Full Well Capacity:** 48000 electrons

**Frame rate (global):** 376 fps (10 bit) / 94 fps HDR

**Frame rate (rolling):** 94 fps / 47 fps HDR

**Read Noise (global):** 6 e- RMS

**Read Noise (rolling):** 2 e- RMS

**Dynamic Range:** 88 dB HDR

**Peak QE:** 62%

**Cooling:** Air and Liquid

**Maximum Cooling (Air):** 60ºC Below Ambient

**Dark Current:** <1 e/s at 0°C

**Interface:** USB 3.0

**Interface (Optional):** QSFP

**Data Bit Depth:** 16 bit

**Mount:** C-mount

**Video size:** 1.2"

**Subarray Readout:** Yes

**Electromechanical Shutter:** Optional

**Ex Trigger In:** Yes

**Ex Trigger Out:** Yes

**Software:** FLI

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**KL2020: 375 fps, 2.0 e- Noise RMS**

1. QSFP = Quad Small Form factor Pluggable high speed fiber optic interface
2. 16-bit data merged from two 12 bit converters

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**Quality. Cooled. Cameras.**

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