

## K5 sCMOS Microscope Camera



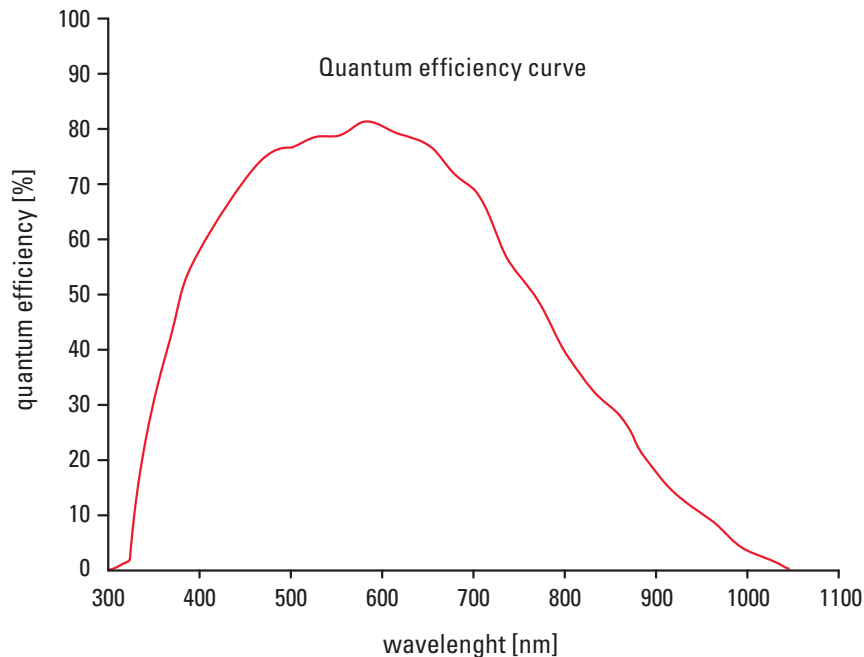
## FLEXIBLE IMAGING

The K5's well-rounded specifications offer many benefits to research labs, biotech companies, and those interested in taking the next step in their routine fluorescent imaging workflows. High-throughput screening, routine 2D and 3D cell culture, and whole-mount observations are all wonderful applications for this camera. Additionally, the K5 can be triggered with experimental factors to minimize phototoxicity and improve physiologically relevant observation. The following benefits come together to provide an excellent camera for labs with diverse imaging needs:

- > Affordably bring the flexibility and power of sCMOS technology into your lab
- > Image the details of your imaging assays with the K5's high-resolution 4.2 megapixel sensor
- > Reduce phototoxic effects thanks to the K5's 80% high Quantum Efficiency
- > Image Live samples with up to 40 fps
- > Trigger your K5 to synchronize camera exposure with illumination and minimize photobleaching
- > Improve signal-to-background when using the K5 with a Leica THUNDER Imager system

## Specifications

Type of sensor	Customized sCMOS
Pixel dimensions	2048 x 2048 (4.2 MP); 6.5 $\mu\text{m}$ x 6.5 $\mu\text{m}$ pixel size
Sensor format / diagonal	13.3 x 13.3 mm / 18 mm
Shutter mode	Rolling Shutter
Fullwell capacity (typ.)	45000 $e^-$
Readout noise (typ.)	2.1 $e^-$ med / 2.3 $e^-$ rms
Quantum efficiency	Up to 80%
Dynamic range	21400:1 up to 87dB
Spectral range	370 nm ... 1100 nm
Dark current (typ.)	15 $e^-$ /pixel/s @ 21°C
DSNU	0.5 $e^-$ rms @ 21 °C
PRNU	0.60 %
Frame rate	40 fps @ full resolution
Exposure / shutter time	1 ms ... 5 s
Dynamic range A/D	16 bit
A/D conversion factor	$e^-$ /count 0.65
Region of interest	8 x 8 minimum ROI
Binning (h x v)	1x1 ... 4x4
Non-linearity	< 0.6 %
Cooling method	Passive cooling
Trigger input signals	frame trigger, acquire (SMA connectors)
Trigger output signals	Exposure, busy (SMA connectors)
Data interface	USB 3.1 Gen 1
Timestamp	in image (100 $\mu\text{s}$ resolution)



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