ORCA®-Flash4.0LT PLUS

Explore more with sCMOS

Want to make the jump from a traditional CCD but need both the increased flexibility and sensitivity of a scientific CMOS (sCMOS) camera? With established performance and an affordable price, the newly re-designed ORCA-Flash4.0 LT PLUS featuring 82 % peak quantum efficiency fits into any experiment that needs simple connectivity, moderately fast frame rates, and great sensitivity. The ORCA-Flash4.0 LT PLUS is designed to bring all the advantages of sCMOS technology—wide field of view, low-light sensitivity, and large dynamic range—to every research lab. Easy connectivity and powerful performance help you explore your pressing biological questions. Think of all that LT PLUS can help you discover.

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PHOTON IS OUR BUSINESS

ORCA-Flash4.0 LT PLUS
C11440-42U30

Specifications

Imaging device	Scientific CMOS image sensor
Peak Quantum Efficiency (QE)	82 % @ 560 nm
Cell Size	6.5 µm(H) x 6.5 µm(V)
Effective number of pixels	2048(H) x 2048(V)
Effective area	13.312 mm(H) x 13.312 mm(V)
Readout noise (electrons)	0.9 (median) / 1.5 (rms)
Cooling temperature (Passive-air cooled, Ambient temperature +25 °C)	+10 °C
Dark current (electrons/pixel/s)	0.6 (Air cooled, cooling temperature: +10 °C)
Frame rate (fps) @ Full resolution	30
Full well capacity (electrons)	30 000
Dynamic range (Typ.)	33 000:1
Binning	2x2, 4x4
Sub-array	Yes
Digital output	16 bit
Lens mount	C-mount
Interface	USB 3.0

TRIGGER INPUTS

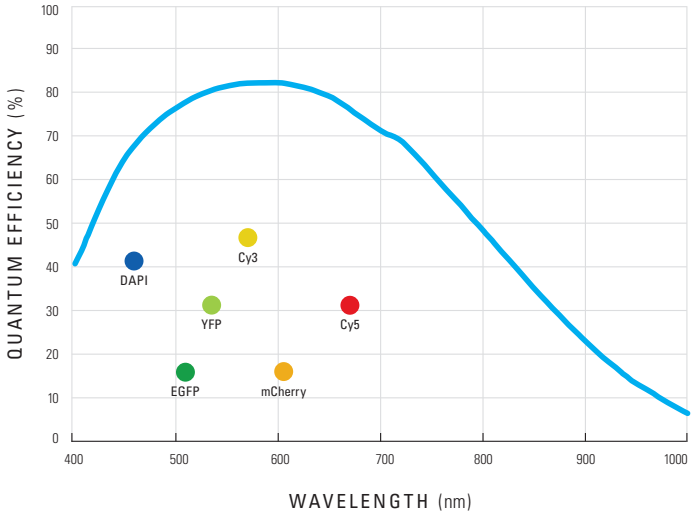
Edge, Level, Synchronous readout, Start trigger	●
Global reset (Edge/Level)	●
W-View mode with different exposure time (Edge/Start)	●

TIMING OUTPUTS

Global exposure output, Trigger ready output	●
Output Signal Ports	3
Continuous High/Low output	●
Multi-channel sync	●

* Read noise is reported as both median (med) and root mean square (rms). The rms calculation of read noise is typically higher but provides the more meaningful value for signal to noise calculations and predicting image quality.

Quantum Efficiency Curves



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