

Kestrel EMCCD

Digital Monochrome Scientific Frame Transfer EMCCD
128 x 128 • 24µm x 24µm pixels • Cooled to -95°C •



Key Features and Benefits

Ultra low noise readout with THE FASTEST speeds

- **500 frames per second**
Full resolution speed making it the fastest EMCCD on the market
- **128 x 128 Back-thinned EMCCD sensor**
Enables optimum image resolution in low light imaging applications
- **16 bit CameraLink output**
Realtime imaging for low latency photon to digital image
- **Up to 95% QE from back-illuminated sensor**
Optimum Photon collection
- **Strong UV and NIR reponse and ultrawide bandwidth**
From 200nm through to 1100nm
- **Deep cooled to -95°C**
For minimal background events

Resolution	128 x 128
Pixel Size	24µm x 24µm
Readout Noise	<0.01e
Frame Rate	500fps
Cameralink	16bit

Specification for Kestrel EMCCD

Sensor Type	1/3" Back Thinned Frame Transfer EMCCD
Active Pixel	128 x 128
Pixel Size	24µm x 24µm
Active Area	3.1mm x 3.1mm
Full Well Capacity	160,000 electrons
Shift Register Well Depth	800,000 electrons
Non-linearity	<1%
Readout Noise	<0.01 electrons with EM gain ON, <60 electrons with EM gain OFF
Full Resolution Frame Rate	>500fps
Dark Current (@ -95°C)	0.001 e/p/s
Digital Output Format	16 bit CameraLink (base configuration)
Peak Quantum Efficiency	95%
Spectral Response	200 - 1100nm
Cooling	-95°C with +10°C coolant
Binning	1 x 1 up to 32 x 32
Lens Mount	C-Mount
Synchronisation	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ±10%
Total power consumption	<80W
Operating case temperature	-20°C to +55°C
Storage Temperature	-30°C to +85°C
Dimensions	129mm x 112mm x 94mm
Weight (no lens)	< 1.5kg

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Ordering Information

Camera

Kestrel EM60 digital B/W camera	RPL-KE60V-BV-CL
Kestrel Power Supply Cable	RPL-KY-CBL

Optional Accessories

EPIX(R) EB1 base CL card	RPL-EPIX-EB1
EPIX(R) base Notebook CL card	RPL-EPIX-ECB1-34
EPIX(R) base Notebook CL card	RPL-EPIX-ECB1-54
EPIX(R) XCAP STD software	RPL-XCAP-STD
CameraLink Cable, 2m ²	RPL-CL-CBL-2M
Optical Visible lenses ³	RPL-xx-xxxx

Note 1: Extended operating temperature range on request.

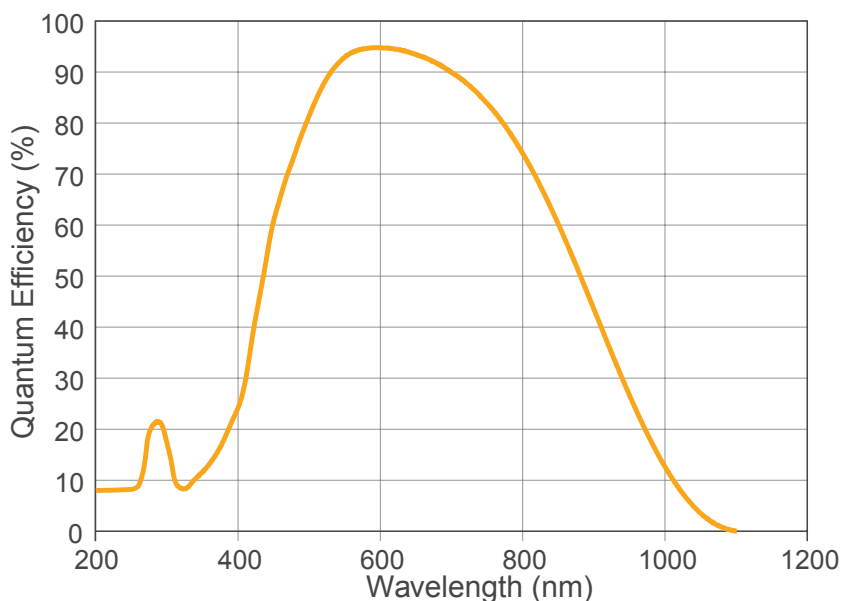
Note 2: Longer CL cable available up to 25M

Note 3: Please consult us to check our range of lenses

Demo is available on request.
Pricing AOR subject to volumes.

Detailed technical drawings
can be downloaded at
www.raptorphotonics.com

Quantum Efficiency



Applications

- Adaptive Optics and Astronomy
- Calcium signaling
- Fluorescence imaging / spectroscopy
- Flow cytometry
- FRET / FRAP / TIRF
- Genome sequencing
- High content screening
- High resolution fluorescence imaging
- Hyperspectral imaging
- Live Cell Imaging
- Photon counting
- Single molecule detection
- Solar cell inspection
- X-ray & High energy

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