

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

Raptor Photonics Limited reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical errors.

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

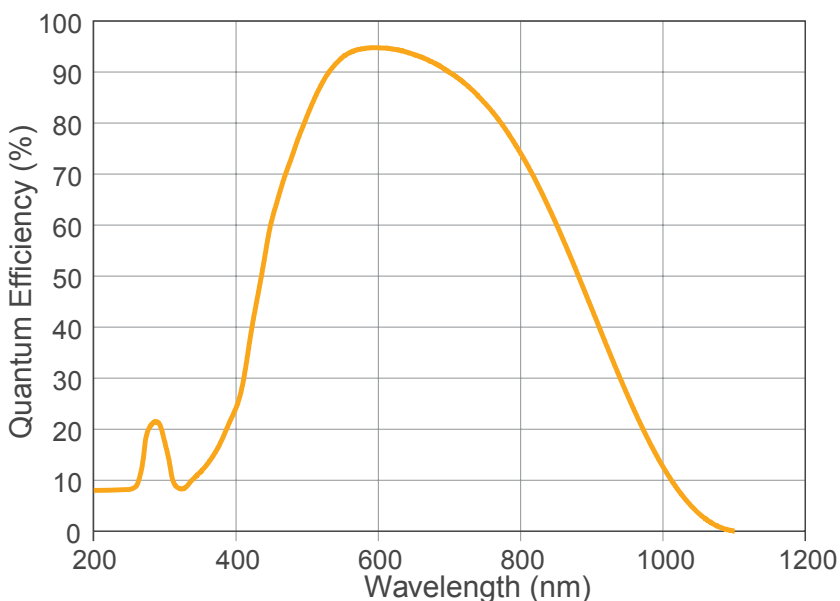


Edificio Antalia. Albasanz 16. 28037 Madrid
 +34 91 567 97 00 | alavaingenieros.com | alava@grupoalava.com
 Madrid | Barcelona | Zaragoza | Lisboa | Lima | Quito | Texas

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

Document #: INKE60V-BV-CL 0117R1



Willowbank Business Park
 Larne, Co Antrim
 BT40 2SF,
 Northern Ireland

ROW Sales
 T: +44(0)2828 270 141
 E: sales@raptorphotonics.com
www.raptorphotonics.com

USA Sales
 T: (770) 364-7240
 E: request@phxatl.com
www.phxatl.com

