Kite EMCCD

Digital Monochrome Scientific Interline EMCCD

Actual Size

Key Features and Benefits

Ultra low noise readout for improved image quality!

- **658 x 496 EMCCD sensor.**
  Enables optimum image resolution in low light imaging applications
- **B/W EMCCD technology.**
  Enables high sensitivity imaging with 1000x on-chip gain
- **16 bit CameraLink output.**
  Provides wide dynamic range
- **53% QE from Virtual Phase sensor.**
  Optimum Photon collection
- **Frame Interline Transfer (FIT).**
  No mechanical shutter required, less smear at shorter exposures
- **High frame rate imaging.**
  Enables capture of fast events

Resolution	658 x 496
Readout Noise	<1e Noise
Frame Rate	50Hz
CameraLink	16 bit

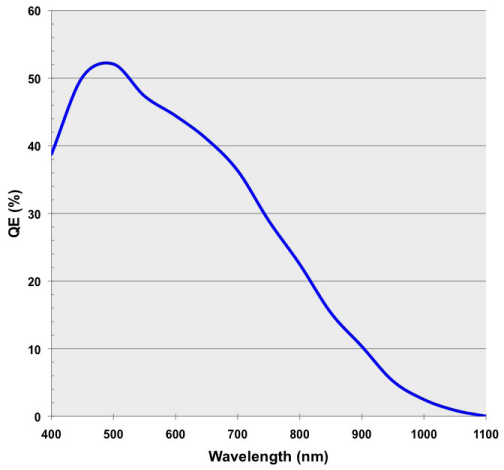
Raptor photonics

Capturing Tomorrow

Specification for KITE EM247 CL

Sensor	Texas Instruments TC247SPD
Sensor Type	1/2” Frame Interline Transfer (FIT) Impactron
Active Pixel	658 x 496
Pixel Size	10μm x 10μm
Active Area	6.58mm x 4.96mm
Full Well Capacity	24000 electrons
Shift Register Well Depth	100000 electrons
Non Linearity	< 1%
Readout noise	< 1 electrons with EM gain ON
	< 20 electrons with EM gain OFF
Dynamic Range	65 dB
Frame Rate	50Hz
Dark Current	< 1e / pix / sec
Digital Output Format	16 bit CameraLink (base configuration)
Peak Quantum Efficiency	53% @ 530nm
Spectral response	350 - 1100nm
Cooling	-20°C with ambient air @ +20°C
Binning	1x1, 2x2, 3x3, 4x4, 5x5
Antiblooming protection	Yes
Lens Mount	C mount
Synchronisation	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ±10%
Total power consumption	< 12W
Operating case temperature	-20°C to +55°C
Storage Temperature	-30°C to +85°C
Dimensions	97mm x 68mm x 61mm
Weight (no lens)	< 550g

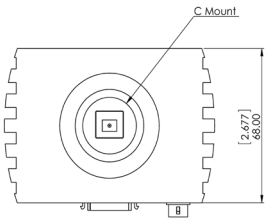
Quantum Efficiency

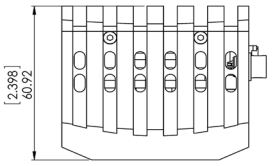


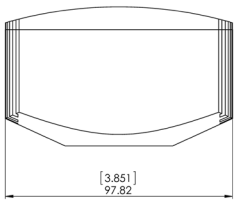
Sample Applications

- 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
- LIBS
- Live Cell Imaging
- Single molecule detection
- Solar Cell Inspection
- X-ray tomography

Dimensions







Unit: [inch] mm

Power connector on camera: Hirose HR10-7R-4P

Cable connector (socket): Hirose HR10-7P-4S

Ordering Information

Camera	
KITE EM247 digital B/W camera	KI247-CL
KITE Power Supply Cable	RPL-FA-CBL
Optional Accessories	
EPIX(R) base CL card	RPL-EPIX-EB1
EPIX(R) base Notebook CL card	RPL-EPIX-ECB1-34
EPIX(R) XCAP STD software	RPL-XCAP-STD
CameraLink Cable, 2m[1]	RPL-CL-CBL-2M
Optical Visible lenses[2]	RPL-xx-xxxx

Note 1: Longer CL cable available
Note 2: Please consult us to check our range of lenses

Equipment may require UK Government authorisation for export purposes

Document #: KI247-CL 0113R1

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