

Osprey sCMOS

Digital Monochrome 4.2MP Scientific CMOS

2048 x 2048 • 37.5Hz Frame Rate • 4.2MP Scientific CMOS Sensor •



Key Features and Benefits

High Frame Rate for shorter exposures!

- **4.2MP Scientific CMOS sensor**
Enables large field of view imaging
- **5.5 μ m x 5.5 μ m**
Enables ultra sharp image resolution
- **12-bit CameraLink output**
Provides wide dynamic range
- **On-board Non-Uniformity Correction (NUC)**
Enables highest quality images
- **TE cooling**
Optimises dark current

Resolution	2048 x 2048
Frame Rate	37.5Hz
Cameralink	12 bit
Readout Noise	7e

Specification for Osprey sCMOS

Sensor	CMOSIS Scientific CMOS
Sensor Type	1" Scientific CMOS
Active Pixel	2048 x 2048
Pixel Size	5.5µm x 5.5µm
Active Area	11.26mm (H) x 11.26mm (V)
Full Well Capacity	12,000 electrons
Non Linearity	< 1%
Readout noise	< 9 electrons (Global Shutter)
Dynamic Range	65 dB (single shot)
Exposure time	277µs to 30min
Frame Rate	37.5Hz, higher through Binning & ROI
Dark Current	<9 eles/pix/sec @ +5°C
Digital Output Format	12 bit CameraLink, Base configuration 2-tap
Peak Quantum Efficiency	>63% @ 500nm >34% @ 850nm
Spectral response	350 - 1100nm
Shutter mode	Global Shutter (Snapshot)
Cooling	+5°C with ambient air @ +20°C
Cooling Method	TEC with forced air (fan)
Lens Mount	C mount
Synchronisation ¹	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ±10%
Total power consumption	< 2.5W without TEC <7.5W with TEC ON
Operating case temperature ²	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Dimensions	85.9mm x 65mm x 61.5mm]
Weight (no lens)	< 432g

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Ordering Information

Camera

OSPREY Scientific CMOS 4.2MP cooled digital B/W camera OS4MPc-CL

Power Supply Unit RPL-HR4-K

Optional Accessories

EPIX(R) E8 Full CL card RPL-EPIX-E8

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, 2m³ RPL-CL-CBL-2M

Optical Visible lenses⁴ RPL-xx-xxxx

Note 1: Flexible triggering options

Note 2: Extended Operating Temperature range on request

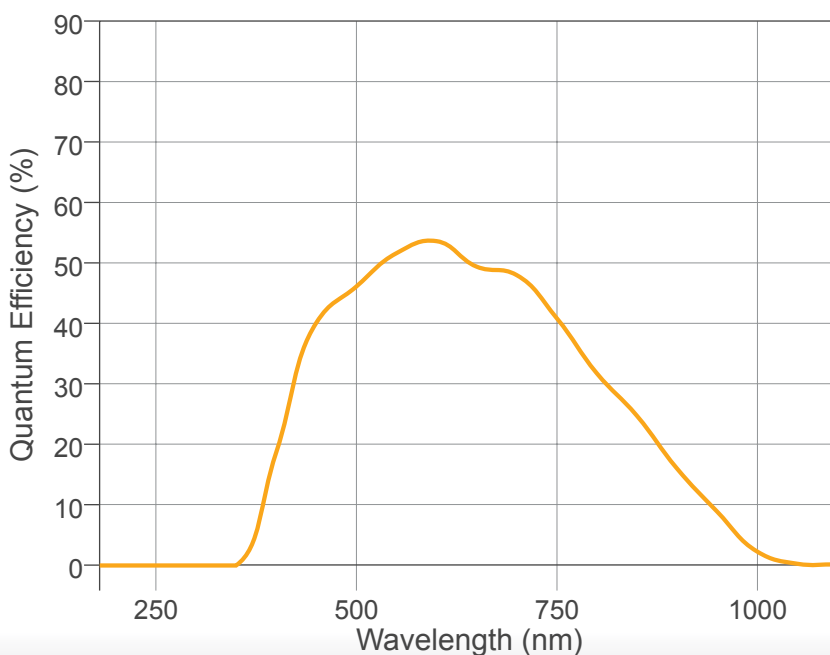
Note 3: Longer CL cable available

Note 4: 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.raptorphotronics.com

Quantum Efficiency



Applications

- Adaptive Optics and Astronomy
- Bio & Chemi-luminescence
- Calcium signaling
- Fluorescence imaging / spectroscopy
- Flow cytometry
- FRET / FRAP / TIRF
- Genome sequencing
- High content screening
- High resolution fluorescence imaging
- Hyperspectral imaging
- Live Cell Imaging
- Single molecule detection
- Solar Cell Inspection
- X-ray tomography

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