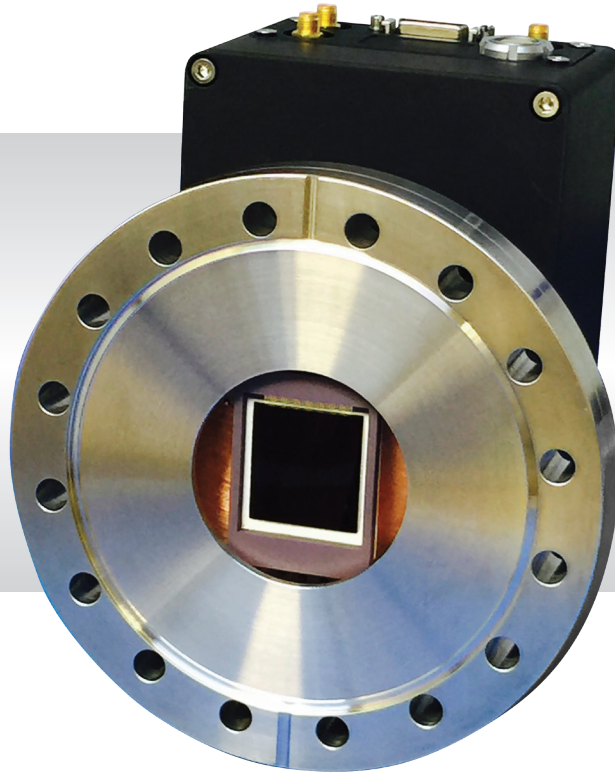


Eagle XO

Open Front, Direct detection CCD

2048 x 2048 • 75KHz and 2MHz • High resolution soft X-ray scientific imaging •



Key Features and Benefits

Ultimate Sensitivity Performance

- **Open front end**
CF152 (6") flange for direct interfacing to vacuum chambers
- **Deep cooled using Thermoelectric cooler (TEC)**
Minimize dark current and enable long exposure
- **Back Illuminated 4MP no coating**
Optimizes sensitivity and large field of view imaging
- **13.5 μ m x 13.5 μ m pixels**
Enables ultra sharp image resolution and high dynamic range

Resolution	2048 x 2048
Dark Current	0.005 e/p/s
Full Well Capacity	100,000 e/p
Readout Noise	2.3 e/p RMS
Cameralink	16bit

Specification for Eagle XO

Sensor	E2V CCD42-40 Back Illuminated, AIMO or E2V CCD42-40 Back Illuminated Deep Depleted, AIMO
Active Pixel Array Size	(2048 × 2048) pixels
Pixel Size	13.5µm × 13.5µm
Active Area	27.65mm × 27.65mm (39.10mm diagonal)
Binning	Programmable, up to 64×64 pixels
Full Well Capacity	100,000 e/p
Non-Linearity	< 1%
Readout Noise	@ 75kHz pixel readout rate, 2.3 e/p @ 2MHz pixel readout rate, 9.0 e- rms
Binned Read Noise	@75kHz pixel readout rate, 16×16 binning < 5.0 e- rms
Peak Quantum Efficiency (QE)	> 90%
Spectral Response	1.2eV to 20KeV
Dark Current @ -60°C	0.005 e-/pixel/second
Shutter	Mechanical, aperture φ = 45mm
Cooling	Active, ΔT > 90°C
Cooling Method	Air / Liquid
Flange	CF152 (6") - See Note 1
Synchronization	Trigger IN and OUT – TTL compatible
Digital Output	16-bit
Data Interface	CameraLink (base)
Power Supply	12V DC ±10%
Total Power Consumption	TEC OFF < 9W TEC ON < 100W
Operating Temperature Range	-20°C to +55°C
Storage Temperature Range	-40°C to +70°C
Dimensions	141mm x 133mm x 110mm
Weight (excluding lens)	5.0kg [11lb]

Note 1: Other flange options available such as ISO-K-DN100-
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

Eagle XO Open Front CCD 4MP	EA4240XO-BN-CL
Eagle XO Open Front CCD 4MP	EA4240XO-BIDD-CL
Eagle XV Power Supply unit	E4240XV-PSU

Optional Accessories

EPIX(R) EB1 base CL card	RPL-EPIX-EB1
EPIX(R) XCAP STD software	RPL-XCAP-STD
CameraLink Cable, 2m ²	RPL-CL-CBL-2M
Water cooler (Recommended coolant flow rate >0.5liters per min. & cooling capacity >100W @ 20°C)	Contact us for order information

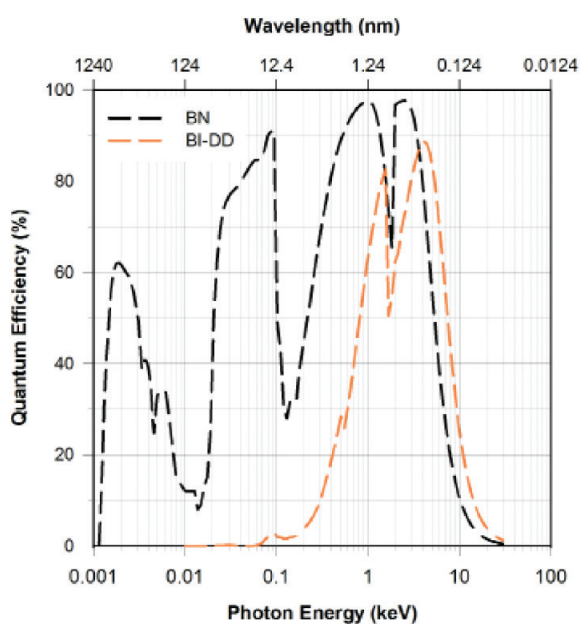
Note2: Longer CL cable available

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.raptorphotronics.com

Quantum Efficiency



Applications

Document #: INEA4240XV-CL 1215R1



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

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

