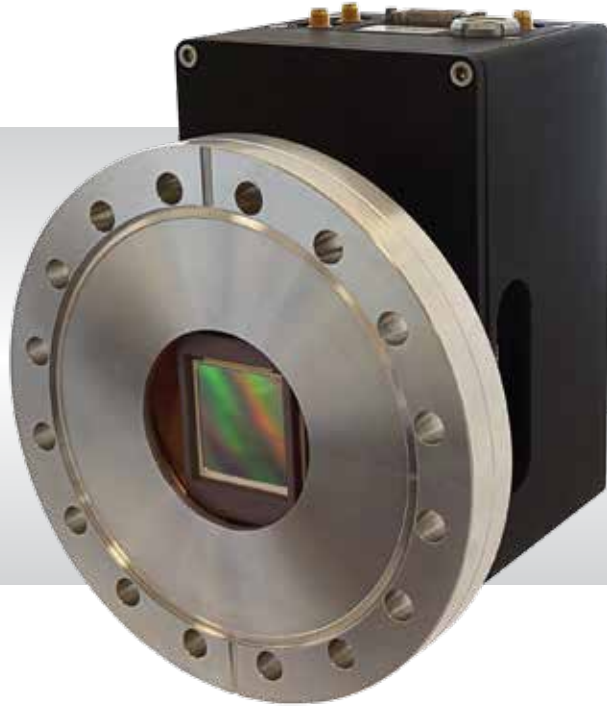


Eagle XO

Open Front, Direct detection CCD

2048 x 2048 and 2048 x 512 formats • 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 with 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 2048 x 512
Dark Current	0.0004 e/p/s
Readout Noise	2.3 e/p RMS
Cameralink	16bit

Specification for Eagle XO

Sensor	E2V 4240 Back Illuminated, AIMO ¹	E2V 4210 Back Illuminated, AIMO ¹
Active Pixel Array Size	2048 × 2048 pixels	2048 × 512 pixels
Pixel Size	13.5µm × 13.5µm	
Active Area	27.65mm × 6.9mm (28.45mm diagonal)	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 @ -75°C (typical)	0.0004 e-/pixel/second	
Cooling Active	ΔT > 100°C, -75°C air cooled / -80°C water cooler	
Cooling Method	Air / Liquid	
Flange	CF152 (6") 2	
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]	

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Ordering Information

Camera

Eagle XO Open Front CCD 4MP	EA4240XO-BN-CL
Eagle XO Open Front CCD 1MP	EA4210XO-BN-CL
Eagle XV Power Supply unit	E4240XV-PSU

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 ³	RPL-CL-CBL-2M
Water cooler (Recommended coolant flow rate >0.5liters per min. & cooling capacity >100W @ 20°C)	Contact us for order information

Note 1: Other sensors options available on request

Note 2: Other flange options available such as ISO-K-DN100-

Note 3: Longer CL cable available

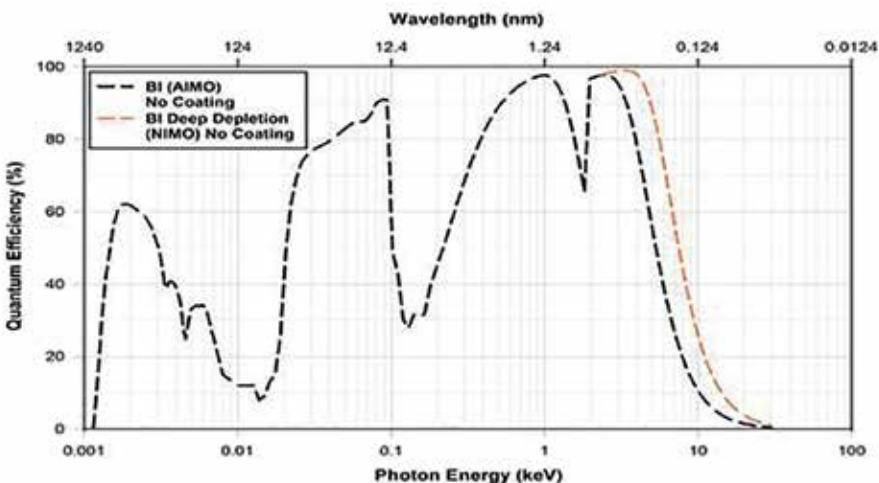
Note 4: Please consult us to check our range of lenses

Note 5: A range of coatings are available

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

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

Quantum Efficiency



Applications

Document #: USEA4240XV-CL 0217R1