



The Raptor Cygnnet range of 2.1MP or 4.2MP cameras utilises Scientific CMOS technology enabling **high frame rates for shorter exposures & faster events giving realtime imaging in Full HD.**

SeeSense are an official distributor for Raptor Photonics products and are able to provide full technical assistance backed directly by the manufacturer.

SeeSense also offer additional accessories and expert lens advice. Please contact us for full details of their range and for lens options for the Raptor Cygnnet camera range.

### Available in two versions:

- |                                |                     |
|--------------------------------|---------------------|
| <b>2.1MP Colour</b>            | <b>CY2MP-CL-RGB</b> |
| <b>2.1MP Monochrome</b>        | <b>CY2MP-CL</b>     |
| <b>4.2 MP Colour</b>           | <b>CY2MP-CL-RGB</b> |
| <b>4.2MP Monochrome</b>        | <b>CY4MP-CL</b>     |
| <b>4.2MP Mono. Fibre Optic</b> | <b>CY4MP-CL-FO</b>  |

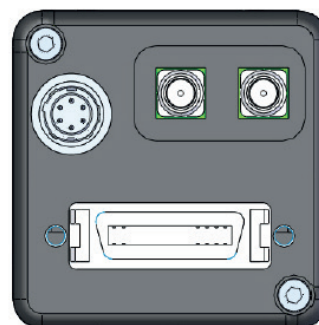
**OEM Version Available Upon Request**

### Specifications:

- Digital 2/3" SCMOS camera 2.1MP  
**Digital 1" SCMOS camera 4.2MP**
- Scientific CMOS technology  
Offers low detection limit, comparable to best CCDs
- 2.1MP 2/3" Scientific CMOS sensor OR  
**4.2MP 1" Scientific CMOS sensor**  
Provides Full HD resolution up to 52Hz
- 5.5µm x 5.5µm pixels  
Enables ultra sharp image resolution
- Quantum Efficiency >63% @ 500nm  
Optimum Photon collection
- High frame rate : up to 52Hz Full Frame  
Enables realtime imaging in full HD format
- Resolution 2048 x 1088(2/3") / **2048 x 2048 (1")**
- CameraLink 12 bit
- Dynamic Range 60dB
- Power Usage <2.9 Watts
- Compact (43 x 43 x 57mm) one-piece system

Raptor's full HD Scientific CMOS camera is ideally suited for cutting edge low light scientific, industrial and surveillance imaging applications including:

- Airborne Payload
- Biochip Reading
- Border Control
- Broadcasting
- Day channel vision for EO system
- Industrial imaging
- Long Range Identification
- Spectral (Hyperspectral) Imaging
- Surveillance



Please contact SeeSense for details and advice.

Rev: 1.007.02.15 E&O.E.

### Specification Performance

Power Requirements	12 VDC $\pm$ 10% Hirose connector
Power Consumption	Less than 2.9 watts
Image Sensor	2/3" or 1" Scientific CMOS
Sensor Type	CMOSIS Scientific CMOS CMV2000 (2.1MP) CMOSIS Scientific CMOS CMV4000 (4.2MP)
Active Pixels	2048 x 1088 (2/3"), 2048 x 2048 (1")
Resolution	2048 x 1088 (2/3"), 2048 x 2048 (1")
Active Area	11.26 x 5.98mm (2/3") 11.26 x 11.26mm (1")
Pixel Size	5.5 $\mu$ m x 5.5 $\mu$ m
Full Well Capacity	12,000 electrons
Non Linearity	<1%
Readout Noise	12 Electrons (Global Shutter)
Cooling	No
Dynamic Range	60 dB (single shot)
Exposure Time	27.7 $\mu$ s to 1/frame rate
Frame Rate	25Hz, 30Hz, 52 Hz (2/3"), 37.5Hz (1")
Spectral Range	350 – 1100 nm
Shutter Mode	Global Shutter (snapshot)
Digital Video Output Format	12 Bit CameraLink, Base Configuration 1" camera - Fibre Optic Output available
Chroma	Mono / RGB options
Peak Quantum Efficiency	>63% @ 500nm, >34% @ 850nm
Lens Mount	C/CS-mount 17.526mm / 12.5mm (in Air)
Synchronisation	Trigger IN and OUT - TTL Compatible
Dimensions	43 x 42 x 57mm (Including CS-mount)
Weight	<120 grammes
Operating Temperature	-20°C to + 55°C (Extended range available on request)
Storage Temperature	-40°C to + 85°C
OEM VERSION	AVAILABLE UPON REQUEST

### Accessories

RPL-HR4-K	Power Supply Unit
RPL-EPIX-E8	EPIX (R) E8 full CL card
RPL-XCAP-STD	EPIX (R) XCAP STD software
RPL-CL-CBL-2M	CameraLink Cable 2m (others available)

### Power Connector

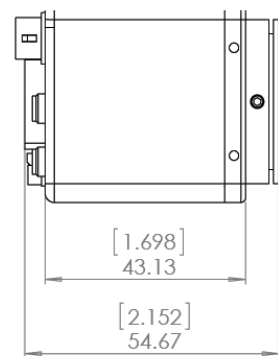
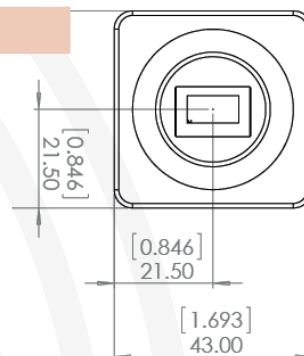
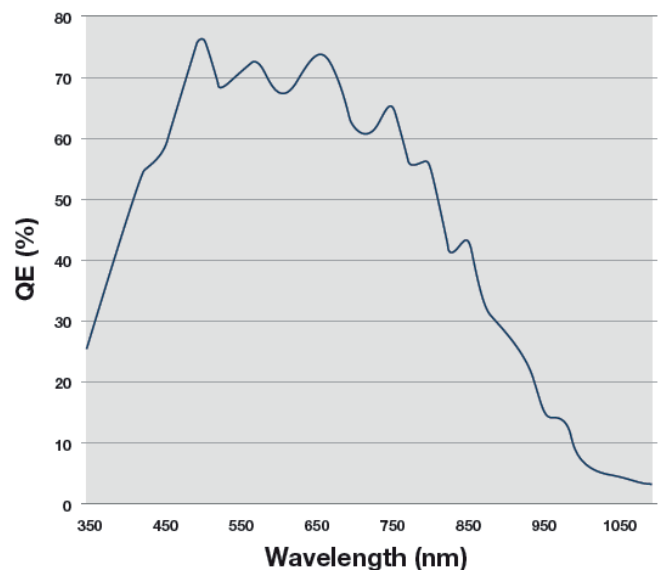
Hirose	HR10-7P-4S Available from SeeSense
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### Lenses

SeeSense specialise in the specification and supply of C & CS-mount lenses. We recommend that you contact us if you require assistance.

Contact SeeSense for details and advice

### Camera Quantum Efficiency (Monochrome)



Rev: 1.013.02.15 E&O.E.