

Owl 320 High Speed SWIR

High speed, digital SWIR camera

320 x 256 • Frame Rate up to 344Hz • SWIR Technology •



Key Features and Benefits

High-Speed SWIR Technology

- **SWIR technology**
Enables high speed imaging from 0.9 μ m to 1.7 μ m
- **Easy control of camera parameters**
Control of Exposure, Frame rate, Gain, Temperature, trigger, etc
- **Ultra compact, Low power (< 5W)**
Ideal for hand-held, mobile or airborne systems
- **Rugged, No fan**
Enables integration into UAV, handheld or Electro-Optic systems

Resolution	320 x 256
Full Frame Rate	up to 344Hz
Camera Link	14bit
Wavelength Range	SWIR

Specification for Owl 320 High Speed SWIR

Sensor Type	InGaAs PIN-Photodiode
Active Pixel	320 x 256
Pixel Pitch	30µm x 30µm
Active Area	9.6mm x 7.68mm
Spectral response ¹	0.9µm to 1.7µm
Readout Noise (RMS)	High Gain: <225 electrons (192 electrons typical)
Quantum Efficiency	>70% @ 1.5µm
Full Well Capacity	High Gain: 17ke-
Pixel Operability	>99%
Digital Output Format	14 bit Camera Link (Base Configuration)
Exposure time	500ns to [Frame Period – Readout Time]
Frame Rate	Up to 344Hz ²
Dynamic Range (Typical)	High Gain: 40dB
Trigger interface	Trigger IN and OUT – TTL compatible
Image Correction	2 point NUC (offset & gain) + pixel correction
Optical Interface	C mount (selection of SWIR lens available)
Power supply	12V DC ±0.5V
TE Cooling	Active
Camera Power Consumption	<5W with TEC OFF, NUC ON <13W with TEC ON, NUC ON
Operating Case Temperature ³	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions	79.10mm x 68.00mm x 50.00mm
Weight	390g
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Ordering Information

Camera

Owl 320 SWIR digital camera	OW1.7-CL-A
Power Supply Cable	RPL-HR12-CBL-B

Optional Accessories

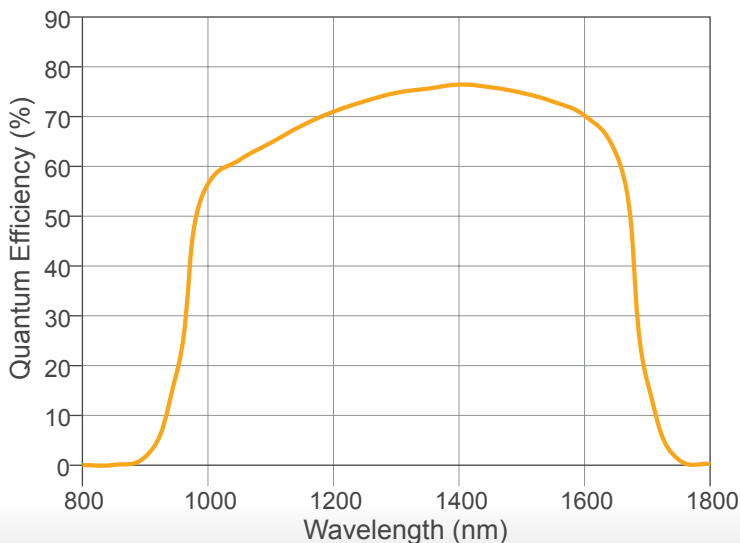
Mini PC with Xcap STD and frame grabber	RPL-PC-EL1
EPIX® E8 base CL card	RPL-EPIX-E8
EPIX® XCAP STD software	RPL-XCAP-STD
Camera Link Cable, 2m ⁴	RPL-CL-CBL-2M
Optical Lenses ⁵	RPL-xx-xxxx

Note 1: Optional filters available: Low, High or bandpass
 Note 2: Higher frame rates available when using ROI
 Note 3: Extended Operating Temperature range on request
 Note 4: Longer CL cable available
 Note 5: 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.raptorphotonics.com

Quantum Efficiency



Applications

Scientific

- Astronomy
- Beam Profiling
- Hyperspectral Imaging
- Semiconductor Inspection
- Solar Cell Inspection
- Thermography

Document #: USOW1.7-CL-A 1118



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