

# Owl 320 High Speed VIS-SWIR

High speed, digital VIS-SWIR camera

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



## Key Features and Benefits

### High-Speed VIS-SWIR Technology

- **VIS-SWIR technology**  
Enables high speed imaging from 0.4 $\mu$ m to 1.7 $\mu$ 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

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Resolution	<b>320 x 256</b>
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Full Frame Rate	<b>up to 344Hz</b>
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Camera Link	<b>14bit</b>
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Wavelength Range	<b>VIS-SWIR</b>
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## Specification for Owl 320 High Speed VIS-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 <sup>1</sup>	0.4µm to 1.7µm
Readout Noise (RMS)	High Gain: <225 electrons (202 electrons typical)
Quantum Efficiency	>80% @ 1.55µm
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 <sup>2</sup>
Dynamic Range (Typical)	High Gain: 39dB
Trigger interface	Trigger IN and OUT – TLL 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 <6W with TEC ON, NUC ON (ambient of 25°C)
Operating Case Temperature <sup>3</sup>	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions	74.59mm x 50.00mm x 50.00mm
Weight	250g

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## Ordering Information

### Camera

Owl 320 VIS-SWIR digital camera	OW1.7-VS-CL-S
Power Supply Cable	RPL-HR4-K

### 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 <sup>4</sup>	RPL-MCL-CBL-2M
Optical Lenses <sup>5</sup>	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

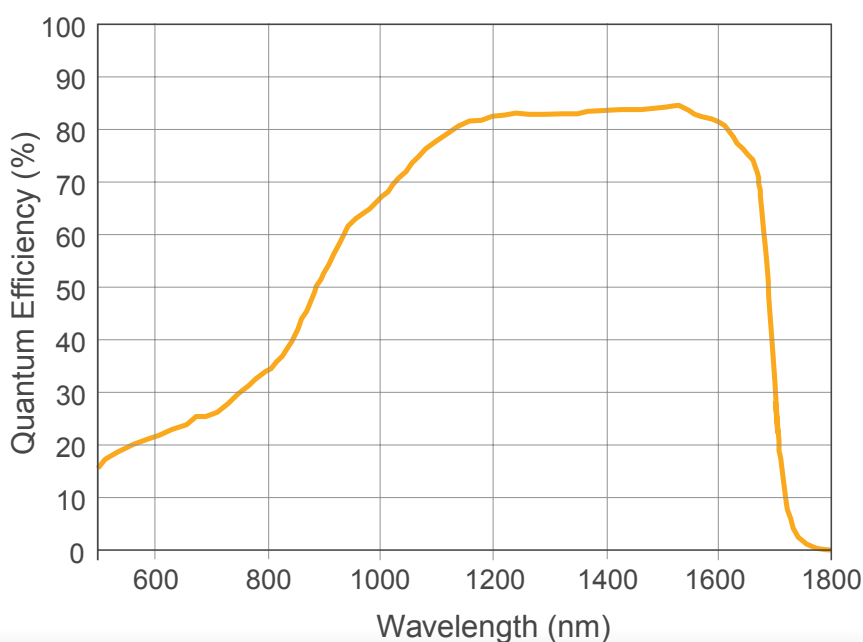
Note 4: Longer CL cable available

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](http://www.raptorphotonics.com)

## Quantum Efficiency



## Applications

### Scientific

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

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