

Owl 320 High Speed SWIR

High speed, digital SWIR camera
320 x 256 • Frame Rate up to 349.5Hz • 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 349.5Hz
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: 170ke-
Pixel Operability	>99%
Digital Output Format	14 bit Camera Link (Base Configuration)
Exposure time	500ns to [Frame Period – Readout Time]
Frame Rate	Up to 349.5Hz 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 ±10%
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 (L*W*H) ⁴	79.10mm x 68.00mm x 50.00mm
Weight	390g

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

Owl 320 SWIR digital camera	OW17-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 ⁵	RPL-CL-CBL-2M
Optical Lenses ⁶	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: Dimensions include all connector parts on camera interface

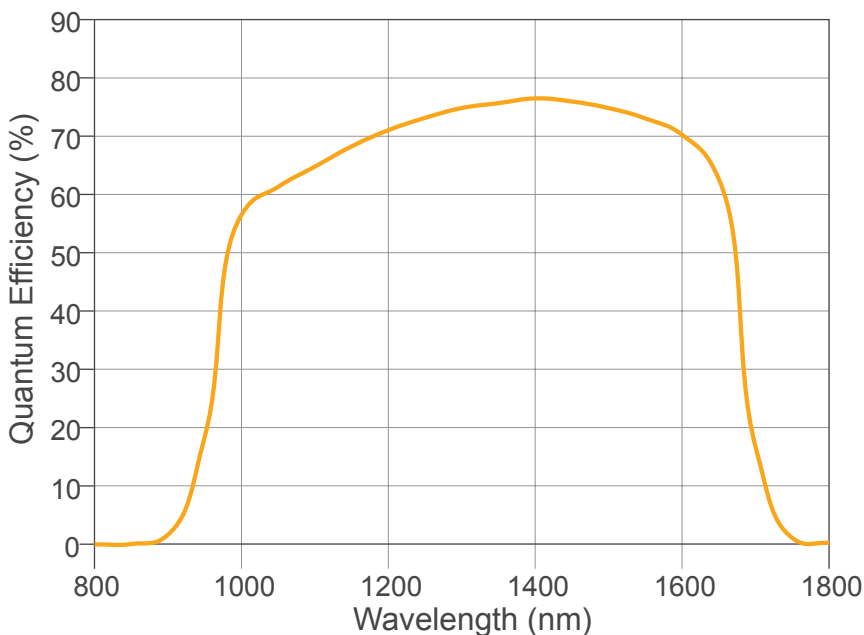
Note 5: Longer CL cable available

Note 6: 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 #: INOW17-CL-A 319



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

Raptor Photonics Ltd. (UK)
T: +44(0)2828 270 141
E: sales@raptorphotonics.com
www.raptorphotonics.com

Raptor Photonics Inc. (USA)
T: +1 (877) 230-4836
E: sales@raptorphotonics.com
www.raptorphotonics.com

