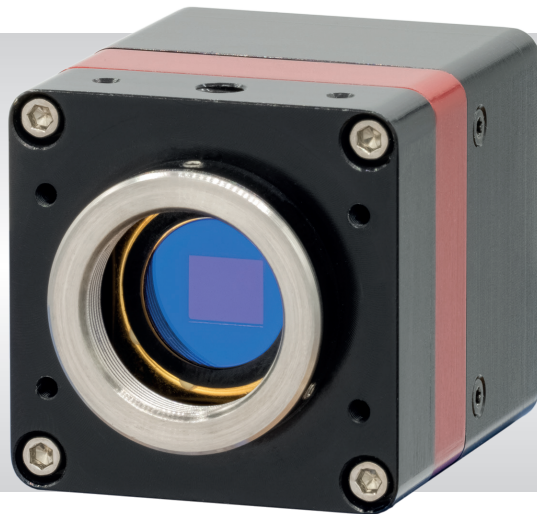




Owl 320 HS

High speed, digital VIS-SWIR camera
320 x 256 • 30µm x 30µm Pixel Pitch • Frame Rate up to 349Hz •



Key Features and Benefits

High-Speed VIS-SWIR Technology

- **VIS-SWIR technology**
Enables high speed imaging from 0.4µm to 1.7µm
- **Easy control of camera parameters**
Control of Exposure, Frame rate, Gain, Temperature, trigger, etc
- **High Speed - up to 349Hz in full frame resolution**
Perfect for Hyperspectral Imaging applications
- **Rugged, No fan**
Enables integration into UAV, handheld or Electro-Optic systems

Resolution	320 x 256
Full Frame Rate	up to 349Hz
Camera Link	14 bit
Wavelength Range	VIS-SWIR

Specification for Owl 320 HS

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	0.6µm to 1.7µm
Readout Noise (RMS) ²	High Gain: <225 electrons (202 electrons typical)
Peak Quantum Efficiency	>90% @1.3µm
Full Well Capacity	High Gain: 170ke-
Pixel Operability	>99%
Digital Output Format	14 bit Camera Link (Base Configuration / SDR)
Exposure time	500ns to [Frame Period – Readout Time]
Frame Rate ³	Up to 349Hz
Dynamic Range (Typical)	High Gain: 59dB
Trigger interface	Trigger IN and OUT – TLL compatible
Image Correction ⁴	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 ⁵	<6W with TEC ON, NUC ON
Operating Case Temperature ⁶	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions (L*W*H) ⁷	74.59mm x 50.00mm x 50.00mm
Weight	250g

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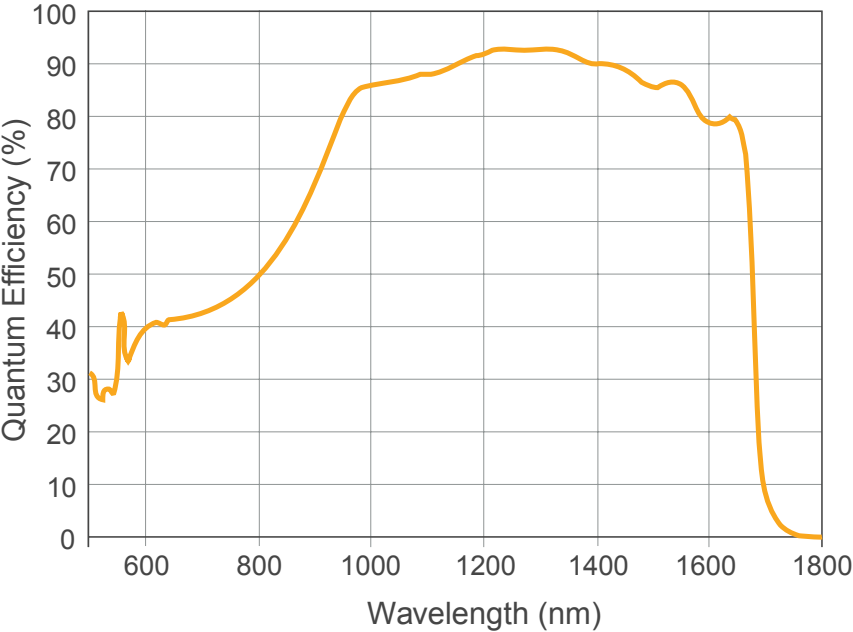
Ordering Information

Camera	
Owl 320 HS 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-mf2280
Thunderbolt frame grabber	RPL-mf2280
EPIX® EB1 frame grabber	RPL-EPIX-EB1
EPIX® XCAP Std software	RPL-XCAP-STD
MDR-SDR Camera Link Cable ⁸	RPL-MCL-CBL-2M
Optical Lenses ⁹	RPL-xx-xxxx
Note 1: Optional filters available: Low, High or bandpass	
Note 2: Typical readout noise is calculated from an average of the last 20 cameras shipped.	
Note 3: Higher frame rates available when using ROI.	
Note 4: NUC is not active when using ROI.	
Note 5: Measured in an ambient of 25°C with adequate heat sinking. For full detailed power consumption values, please refer to the user manual.	
Note 6: Extended operating temperature range on request.	
Note 7: Dimensions include all connector parts on the camera interface.	
Note 8: Longer Camera Link cable available.	
Note 9: 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



*Data supplied by sensor manufacturer

Applications

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