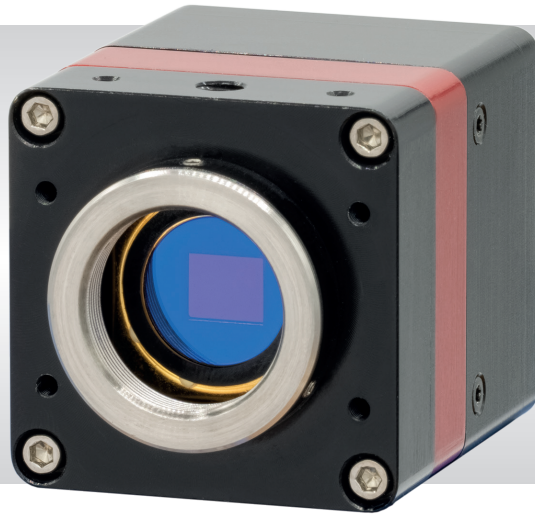




Owl 320 HS

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 – TTL 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

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

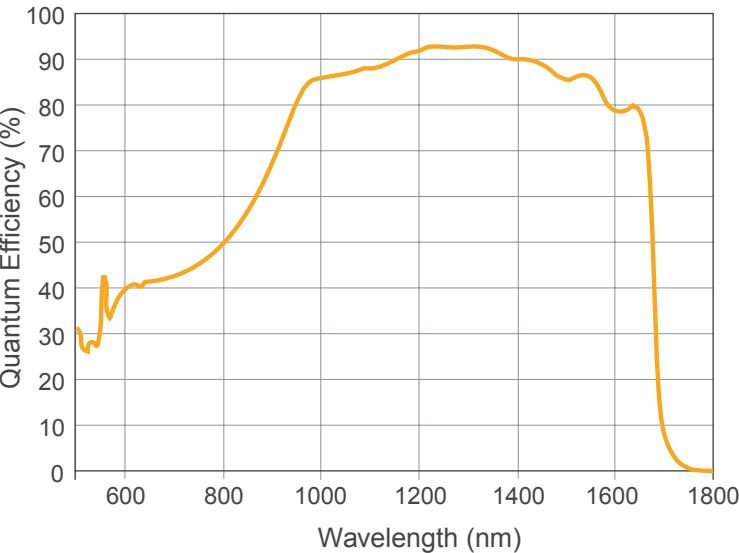
Camera	
Owl 320 HS Digital Camera	OW1.7-VS-CL-S
Power Supply Cable	RPL-HR4-K
Optional Accessories	
Mini PC with XCAP STD and frame grabber	RPL-PC-mf2280
Thunderbolt frame grabber	RPL-mf2280
EPIX® EB1 frame grabber	RPL-EPIX-EB1
EPIX® XCAP Std software	RPL-XCAP-STD
MDR-SDR Camera Link Cable ⁸	RPL-MCL-CBL-2M
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