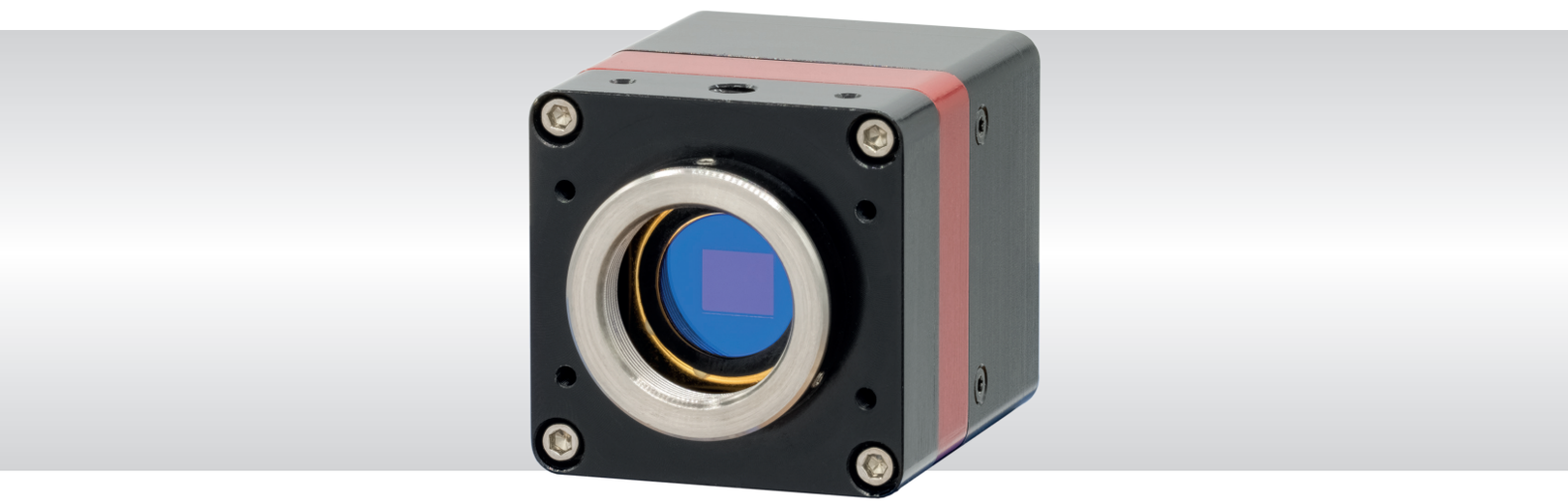
Owl 320 HS

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

Ordering Information

Camera

Owl 320 HS Digital Camera	OW1.7-VS-CL-S
Power Supply Cable	RPL-HR4-K

Optional Accessories

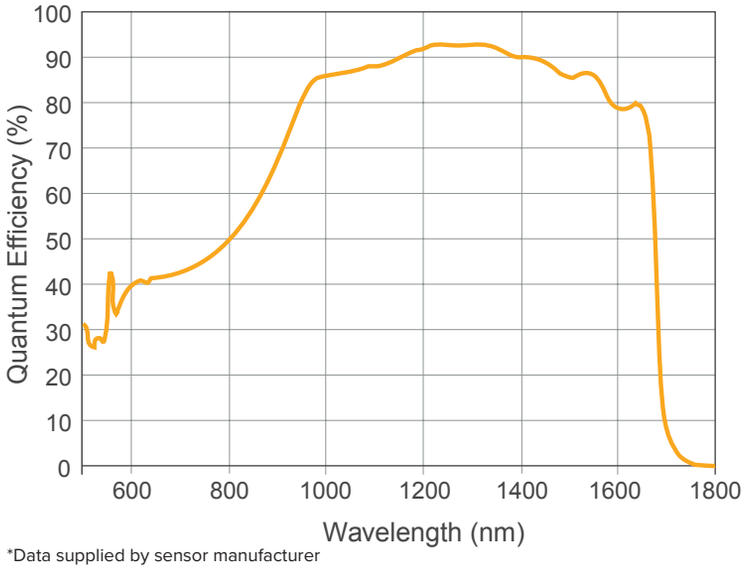
Mini PC with XCAP STD and frame grabber	RPL-PC-mf2280
Thunderbolt frame grabber	RPL-mf2280
EPIX® EB1 frame grabber	RPL-EPIX-EB1
EPIX® XCAP Std software	RPL-XCAP-STD
MDR-SDR Camera Link Cable[8]	RPL-MCL-CBL-2M
Optical Lenses[9]	RPL-xx-xxxx

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

Raptor photonics

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