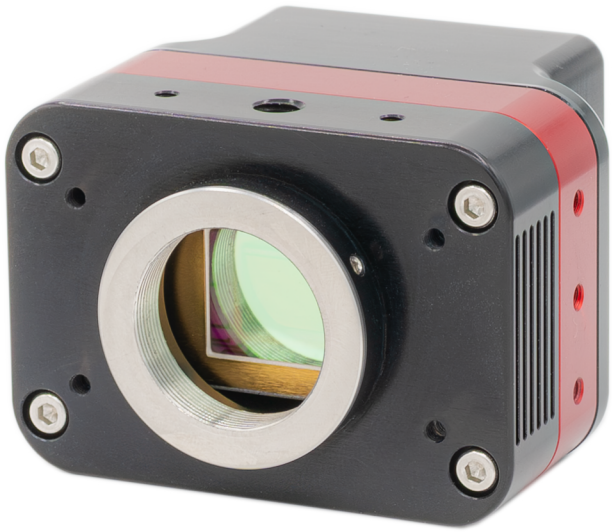
Raptor photonics

# Owl 320 HS II

320 x 256, High Speed SWIR camera



## Key Features and Benefits

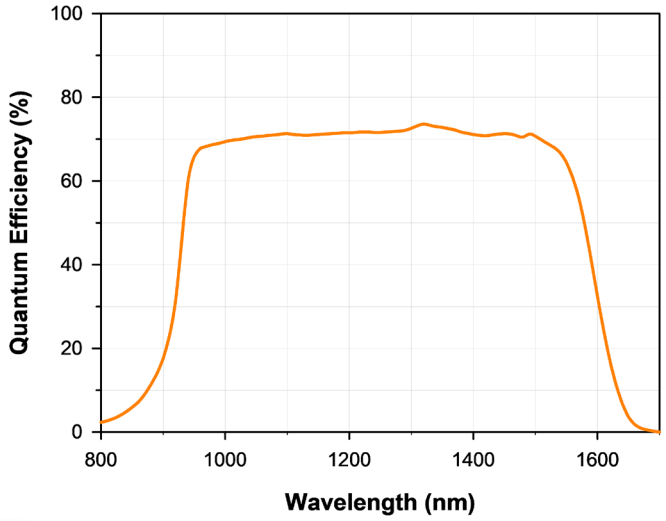
- **320 x 256,30µm pitch SWIR sensor**
  VGA resolution imaging from 0.9µm to 1.7µm
- **High Speed- up to 349Hz in full frame resolution**
  Perfect for Hyperspectral Imaging applications
- **Designed for Harsh enviroments**
  High Shock, Vibration and extreme temperature resistance
- **Low Noise Electronics**
  No artifical noise added, optmising low light capability

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

## Specification for Owl 320 HS II

| | |
|---|---|
| **Sensor** | 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)[2]** | HG: < 225 electrons (200 typ) |
| **Peak Quantumn Efficeny** | >80% @1.4µm |
| **Full Well Depth** | HG: 155ke- |
| **Pixel Operability** | >99% |
| **Dark Current (e/p/s)** | typ 50,000 |
| **Digital Output Format** | 14 bit Camera Link (base configuration/SDR) |
| **Exposure Time** | 500ns to (Frame Period - Readout Time) |
| **Shutter Mode** | Global Shutter |
| **Frame Rate[3]** | up to 349Hz |
| **Optical Interface** | C Mount (selection of SWIR Lens available) |
| **Dynamic Range (Typ)** | HG:58dB |
| **Trigger Interface** | Trigger IN and OUT-TTL compatible |
| **Power Supply** | 12V DC ± 0.5V |
| **TE Cooling** | Active |
| **Image Correction[4]** | 2 point NUC (offset and gain) + pixel correction |
| **Functions controlled by serial communication** | Exposure,intelligent AGC,Non Uniformity Correction,Gamma,Pk/Av,TEC,ALCROI |
| **Camera Power Consumption[5]** | <6W with TEC ON,NUC ON |
| **Operating Temperature[6]** | -20°C to + 55°C |
| **Storage Temperature** | -30°C to + 60°C |
| **Dimensons (excluding standard mounting)[7]** | 72.2mm x67.6mm x48.0mm |
| **Weight** | 299g |

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*Data Supplied by Sensor Manufacturer*

## Specification for Owl 320 HS

### Camera

| | |
|---|---|
| OWL 320 HS Digital Camera | OW1.7-CL-320-II |
| 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® EL1 Frame Grabber | RPL-EPIX-EL1 |
| EPIX® XCAP STD Software | RPL-XCAP-STD |
| CameraLink Cable (2m) | RPL-MCL-CBL-2M |
| Optical SWIR Lenses | RPL-xx-xxx |

### Custom Options

- No C-Mount, M42
- Board Level
- Extended operational temp -40°C to +75°C
- Flexi-rigid electronics to fit specfic EO Systems
- Customized mechanics

### Applications

- Astronomoy
- Beam Profiling
- Hyperspectral Imaging
- Semi Conductor Inspection
- Solar Cell Inspection

For detailed technical drawings, volume pricing or to set up a demo, contact us at sales@raptorphotonics.com

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