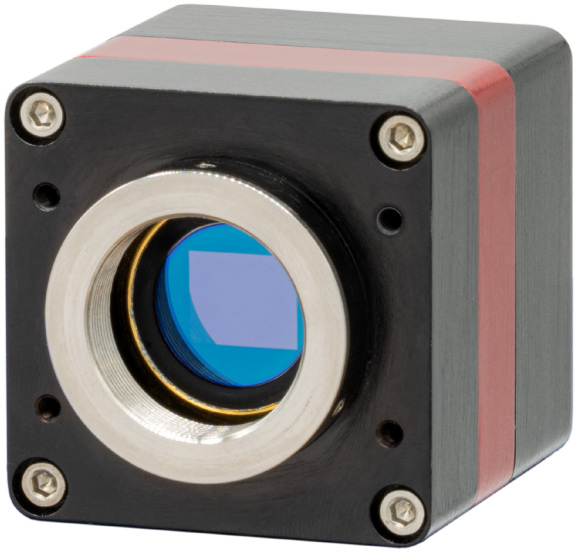
Raptor photonics

Owl 640 N

640 x 512, VIS-SWIR Camera



CAMERA Link

Key Features and Benefits

- **640 x 512,15µm pitch VIS-SWIR sensor**
  HD resolution imaging from 0.6µm to 1.7µm
- **On-board Intelligent 3 point NUC and ALC**
  Real time, optimal video in all light conditions
- **Designed for Harsh enviroments**
  High Shock, Vibration and extreme temperature resistance
- **Global Shutter**
  120Hz full frame video, with no distortion (ideal for triggering)
- **Low Noise Electronics**
  No artifical noise added, optmising low light capability

Resolution	640 x 512
Frame Rate	Up to 120Hz
Camera Link	14 bit
Wavelength Range	VIS-SWIR

Specification for Owl 640 N

Sensor	InGaAs PIN-Photodiode
Active Pixel	640 x 512
Pixel Pitch	15 µm x 15µm
Active Area	9.6mm x 7.68mm
Spectral Response[1]	0.6µm to 1.7µm
Readout Noise (RMS)	LG: <175e- (150e- typical) HG: <22e- (18e- typical)
Peak Quantumn Efficeny	>90% @1.3µm
Full Well Capacity	Low Gain: >250ke- High Gain: >10k-
Pixel Operability	>99.5%
Digital Output Format	14 bit Camera Link (Base Configuration / SDR)
Exposure Time	50µs to 26.8s[7]
Shutter Mode	Global Shutter
Frame Rate	Up to 120Hz
Optical Interface	C Mount
Dynamic Range (Typ)	LG: 62dB HG: 55dB
Trigger Interface	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ±0.5V
TE Cooling	Active
Image Correction	3 point NUC (offset, Gain & Dark Current) + pixel correction
Functions controlled by serial communication	Exposure, intelligent AGC, Non Uniformity Correction, Gamma, Pk/Av, TEC, ALC ROI
Camera Power Consumption[2]	<4W (TEC ON, NUC ON)
Operating Temperature[3]	-20˚C to +55˚C
Storage Temperature	-30˚C to +60˚C
Dimensons (excluding standard mounting)[4]	69.4mm x 50.00mm x 50.00mm
Weight	242g

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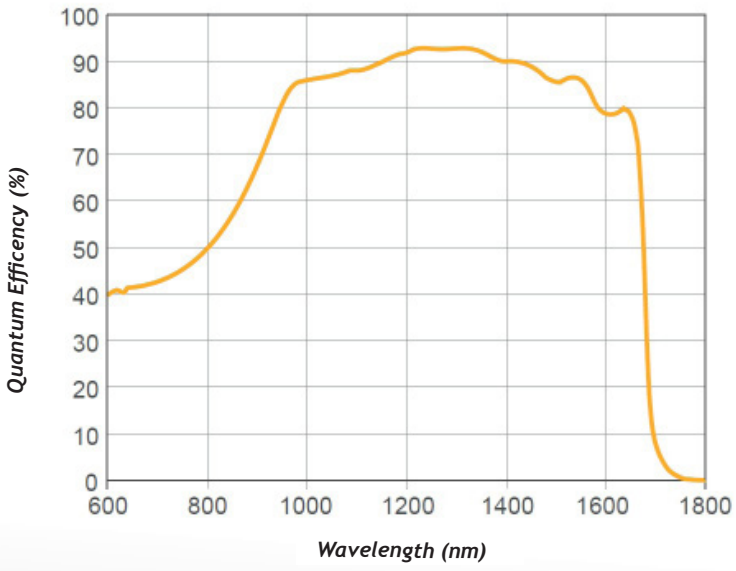

Data Supplied by Sensor Manufacturer

Specification for Owl 640 N

Camera

OWL 640 N Digital Camera	NO1.7-VS-CL-640
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 CameraLink Cable[5] (2m)	RPL-MCL-CBL-2M
Optical SWIR lenses [6]	RPL-xx-xxx

Applications

- 860,1064 & 1550nm laser line detection
- Active Imaging
- Airborne Payload
- Handheld Systems
- Imaging through Fog
- Range Finding
- Vision Enhancement
- Hyperspectral Imaging
- Semi Conductor Inspection
- Solar Cell Inspection

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

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