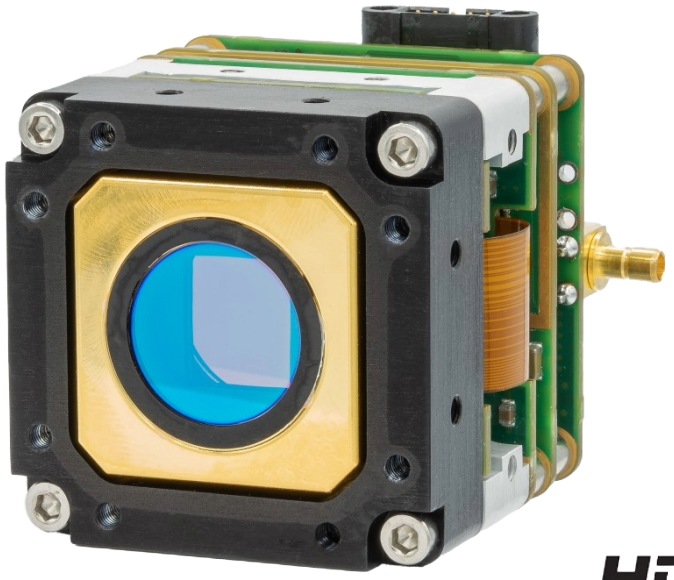
Raptor photonics

Owl 640 II SDI

640 x 512, VIS-SWIR camera



HDSDI

Key Features and Benefits

- **640 x 512,10µm pitch VIS-SWIR sensor**
  VGA 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**
  30Hz 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	30Hz
HD-SDI	1080p/30
Wavelength Range	VIS-SWIR

Specification for Owl 640 II SDI

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)[2]	LG: <190e- (174e- typical) HG: <50e- (36e- typical)
Peak Quantumn Efficeny	>90% @1.3µm
Full Well Capacity	LG: 650ke- HG: 10ke-
Pixel Operability	>99.5%
Digital Output Format	10 bit serial SMPTE274M 1080 p/30
Exposure Time	1µs to 27.33s ?
Shutter Mode	Global Shutter
Frame Rate	30Hz
Optical Interface	C Mount
Communication	RS422
Dynamic Range (Typ)	LG: 71dB HG: 49dB
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[3]	<4W with TEC ON, NUC ON
Operating Temperature[4]	-20˚C to +55˚C
Storage Temperature	-30˚C to +60˚C
Dimensons (excluding standard mounting)[5]	67.2mm x 51.2mm x 51.2mm
Weight	>230g

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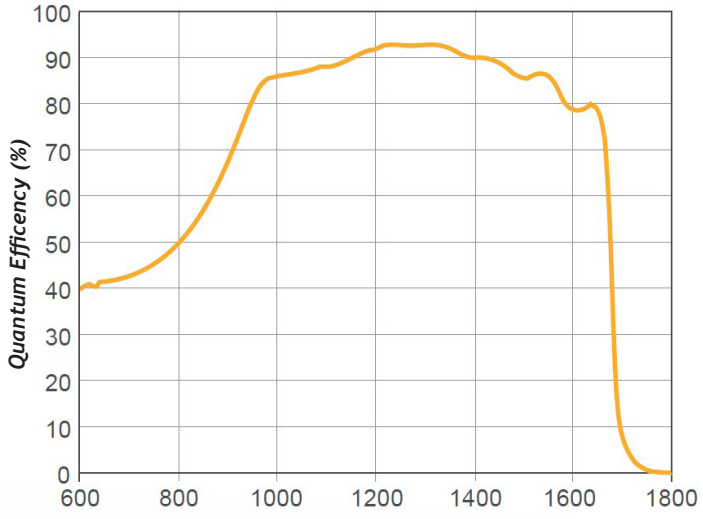

*Data Supplied by Sensor Manufacturer

Specification for Owl 640 II

Camera

OWL 640 II Digital Camera	OW1.7-VS-SD-640-OEM1
Power & Comms Cable with D-type	RPL-SDPC-CBL-D-VERT
Power & Comms Cable w/o D-type	RPL-SDPC-CBL-FL-VERT

Optional Accessories

Optical Lenses[6]	RPL-xx-xxx

Applications

- HD long range day / night SWIR imaging
- Airborne and Ground Payload
- Hand Held Systems
- Driving Vision Enhancement (DVE)
- Airborne EVS
- Vision enhancement
- Astronomy
- Beam Profiling
- Hyperspectral Imaging
- Semiconductor Inspection
- Solar Cell Inspection
- Thermography

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

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