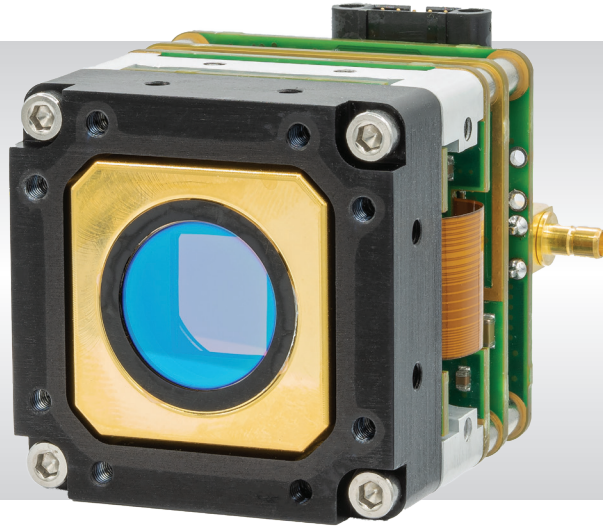


Owl 640 II SDI - OEM ONLY

High resolution, High Sensitivity, Digital VIS-SWIR camera
640 x 512 • 15µm x 15µm Pixel Pitch • <50e readout noise •



Key Features and Benefits

The best performing VIS-SWIR camera in the World!

- **640 x 512, 15µm pitch VIS-SWIR technology**
Enables highest resolution imaging from 0.6µm to 1.7µm
- **<50 electrons readout noise**
Enables highest VIS-SWIR detection limit
- **On-board Automated Gain Control (AGC)**
Enables clear video in all light conditions
- **On-board Intelligent 3 point NUC**
Enables highest quality photos
- **HD-SDI SMPTE-274M**
Provides full HD resolution 1080p/30

Resolution	640 x 512
Frame rate	30Hz
HD-SDI	1080p/30
Wavelength Range	VIS-SWIR

Specification for Owl 640 II SDI

Sensor Type	InGaAs PIN-Photodiode
Active Pixel	640 x 512
Pixel Pitch	15µm x 15µm
Active Area	9.6mm x 7.68mm
Spectral response ¹	0.6µm to 1.7µm
Readout Noise (RMS) ² LG = Low Gain HG = High Gain	LG: <190 electrons (174 electrons typical) HG: <50 electrons (36 electrons typical)
Peak Quantum Efficiency	>90% @ 1.3µm
Pixel Well Depth	LG: 650ke- HG: 10ke-
Pixel Operability	>99.5%
Digital Output Format	10 bit serial SMPTE274M 1080 p/30
Exposure time	LG: 1µs to 27.33ms
Shutter mode	Global shutter
Frame Rate	30Hz
Communication	RS422
Optical Interface	C mount (selection of SWIR lens available)
Dynamic Range	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, ROI
Camera Power Consumption ³	<8W with TEC ON, NUC ON
Operating Case Temperature ⁴	-40°C to +71°C
Storage Temperature	-55°C to +85°C
Dimensions (L*W*H) ⁵	68.8mm x 46.0mm x 49.5mm
Weight	200g

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Ordering Information

Camera

Owl 640 Digital Camera	OW17-VS-SD-640-OEM1
Power Supply Cable	RPL-M80-9411005

Optional Accessories

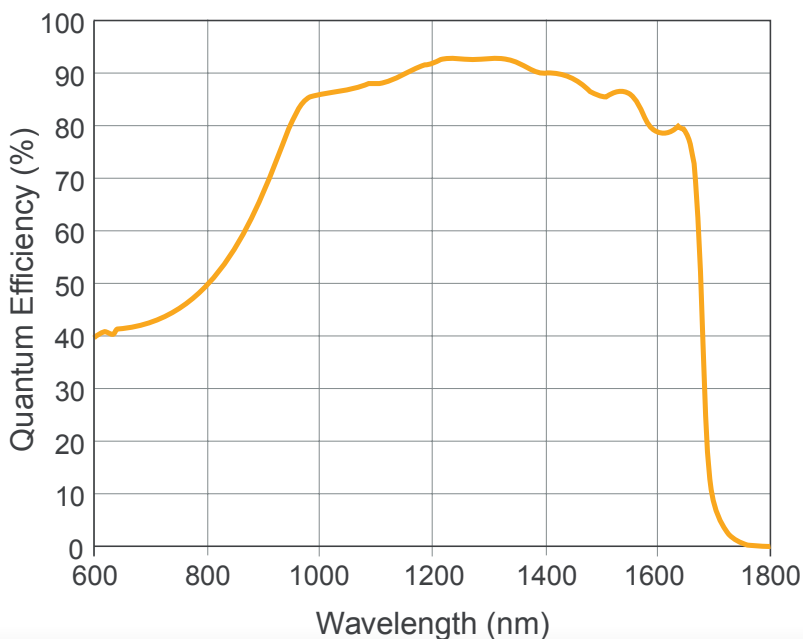
Optical Lenses ⁶	RPL-xx-xxxx
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- Note 1: Optional filters available: Low, High or bandpass.
 Note 2: Typical readout noise is calculated from an average of the last 20 cameras shipped.
 Note 3: Measured in an ambient of 25°C with adequate heat sinking. For more detailed power consumption values, please refer to the user manual.
 Note 4: Extended operating temperature range on request.
 Note 5: Dimensions include all connector parts on the camera interface.
 Note 6: 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

Surveillance

- HD long range day / night SWIR imaging
- Airborne and Ground Payload
- Hand Held Systems
- Driving Vision Enhancement (DVE)
- Airborne EVS
- Vision enhancement

Scientific

- Astronomy
- Beam Profiling
- Hyperspectral Imaging
- Semiconductor Inspection
- Solar Cell Inspection
- Thermography

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