

Owl 1280 VIS-SWIR Digital

High resolution, High Sensitivity, Digital VIS-SWIR camera
1280 x 1024 VIS-SWIR • 10 μ m x 10 μ m • <35e readout noise



Key Features and Benefits

The best performing HD VIS-SWIR camera in the World!

- **1280 x 1024, 10 μ m pitch VIS-SWIR technology**
Enables highest resolution imaging from 0.4 μ m to 1.7 μ m
- **640 x 512, 20 μ m pitch with 2x2 binning**
Enables highest sensitivity for low light imaging
- **<35 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

Resolution	1280 x 1024
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Frame rate	Up to 60Hz
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Cameralink	14bit
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Wavelength Range	VIS-SWIR
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Specification for Owl 1280 VIS-SWIR Digital

Sensor Type	InGaAs PIN-Photodiode
Active Pixel	1280 x 1024 / 640 x 512 (binning)
Pixel Pitch	10µm x 10µm / 20µm x 20µm (binning)
Active Area	12.8mm x 10.24mm
Spectral response ¹	0.4µm to 1.7µm
Noise (RMS, typical)	<170 electrons Low Gain, <35 electrons High Gain
Quantum Efficiency	Peak >85% (>73% @ 1.064µm, >80% @ 1.55µm)
Pixel Well Depth	Low Gain: 500Ke-, High Gain: 10Ke-
Pixel Operability	>99.5%
Digital Output Format	14 bit CameraLink (Base Configuration)
Exposure time	1µs to 1 / frame rate
Shutter mode	Global shutter
Frame Rate	10Hz to 60Hz programmable, 25ns resolution
Optical Interface	C mount (selection of SWIR lens available) or M42
Camera Setup / Control	CameraLink
Trigger interface	Trigger IN and OUT - TTL compatible
Power supply	12V DC ±10%
TE Cooling	ON / OFF
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, ALPD
Camera Power Consumption ²	< 3W (TEC OFF, NUC ON) <5W (TEC ON in ambient, NUC ON)
Operating Case Temperature ³	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions & Weight	50mm x 50mm x 61.2mm / 247g

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Ordering Information

Camera

OWL SWIR digital camera C-Mount	OW1.7-VS-CL-1280
OWL SWIR digital camera M42 Mount	OW1.7-VS-CL-1280-M42
OWL Power Supply Cable	RPL-HR4-K

Optional Accessories

EPIX(R) base CL card	RPL-EPIX-EB1
EPIX(R) base notebook CL card	RPL-EPIX-ECB1-34
EPIX(R) base notebook CL card	RPL-EPIX-ECB1-54
EPIX(R) XCAP STD software	RPL-XCAP-STD
CameraLink Cable, 2m ⁴	RPL-CL-CBL-2M
Optical SWIR lenses ⁵	RPL-xx-xxxx

Note 1: Optional filters available: Low, High or bandpass

Note 2: Measured @ 30°C

Note 3: Extended Operating Temperature range on request

Note 4: Longer CL cable available

Note 5: Please consult us to check our range of lenses

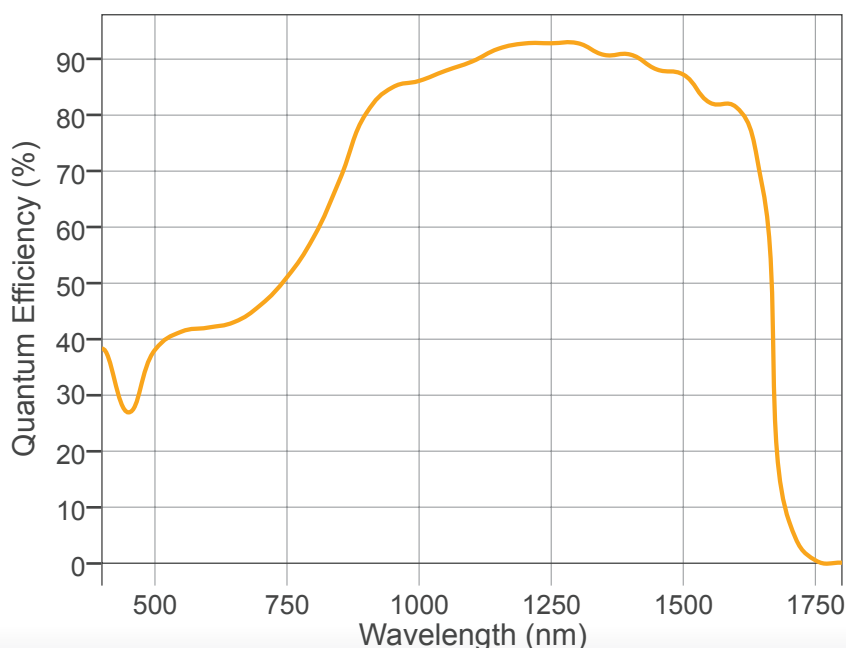


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Demo is available on request.
Pricing AOR subject to volumes.

**Detailed technical drawings
can be downloaded at
www.raptorphotonics.com**

Quantum Efficiency



Applications

Surveillance

- ALPD: 860, 1064 & 1550nm laser spot detection
- HD long range day / night SWIR imaging
- Airborne and Ground Payload
- Hand Held Goggles
- Driving Vision Enhancement (DVE)
- Airborne EVS
- Vision enhancement

Scientific

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

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