

Owl 640 Mini VIS-SWIR

VGA resolution, low power, VIS-SWIR camera

640 x 512 • 15 μm x 15 μm pixel pitch • VIS-SWIR Technology •



Key Features and Benefits

TEC-less Visible SWIR technology

- **TEC-less Visible SWIR**
Enables ultra low power
- **15 μm x 15 μm pixel pitch**
Enables highest resolution VIS-SWIR image
- **Ultra high intrascene dynamic range**
Enables simultaneous capture of bright & dark portions of a scene
- **Ultra compact, Rugged, No fan**
Specially designed for integration into small OEM platforms

Resolution	640 x 512
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Ultra Low Power	<2.5W
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Optical Interface	C-mount
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Wavelength Range	VIS-SWIR
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Specification for OWL SWIR 640 Mini

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	0.4µm to 1.7µm
Noise (RMS)	<195 electrons Low Gain (176 electrons typical)
Quantum Efficiency	Peak >85% (>73% @ 1.064µm, 78% @ 1.55µm)
Pixel Well Depth	Low Gain: 600Ke-
Pixel Operability	>99.5%
Output Format	14 bit CameraLink (base configuration)
Exposure time	1µs to 1 / frame rate
Shutter mode	Global shutter
Frame Rate	Up to 120Hz programmable
Optical Interface	C mount
Camera Setup / Control	Cameralink
Trigger interface	Trigger IN and OUT - TTL compatible
Power supply	12V DC ±10%
TE Cooling	None
Functions controlled by serial communication	Exposure, intelligent AGC
Camera Power Consumption ²	< 2.5W
Operating Case Temperature ³	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions & Weight	42mm x 42mm x 67mm / 282g

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Ordering Information

Camera

OWL 640 SWIR Digital LP C-Mount	OW1.7-VS-CL-LP-640
OWL Power Supply Cable	RPL-HR4-K

Optional Accessories

EPIX(R) base notebook CL card	RPL-EPIX-ECB1-34
EPIX(R) base notebook CL card	RPL-EPIX-ECB1-54
Optical SWIR lenses ⁴	RPL-xx-xxxx

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

Note 2: Measured @ 30°C

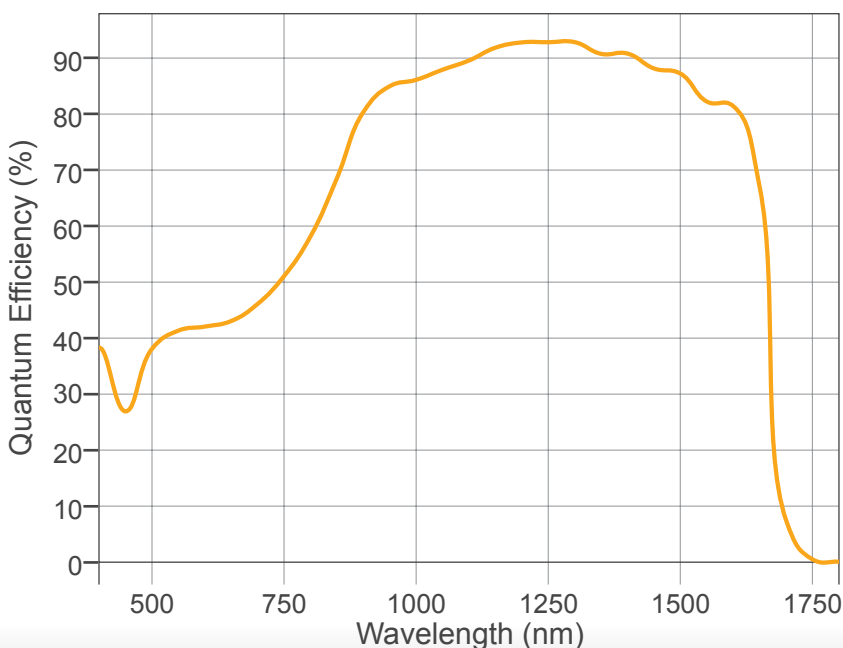
Note 3: Extended Operating Temperature range on request

Note 4: 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



Applications

- 860, 1064 & 1550nm laser line detection
- Hand Held Goggles
- Vision enhancement
- Machine vision
- Beam profiling

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