

# Owl 640 Mini VIS-SWIR

VGA resolution, low power, VIS-SWIR camera

640 x 512 • 15  $\mu\text{m}$  x 15 $\mu\text{m}$  pixel pitch • VIS-SWIR Technology •



## Key Features and Benefits

*TEC-less Visible SWIR technology*

- **TEC-less Visible SWIR**  
Enables ultra low power
- **15 $\mu\text{m}$  x 15 $\mu\text{m}$  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	<b>640 x 512</b>
------------	------------------

---

Ultra Low Power	<b>&lt;2.5W</b>
-----------------	-----------------

---

Optical Interface	<b>C-mount</b>
-------------------	----------------

---

Wavelength Range	<b>VIS-SWIR</b>
------------------	-----------------

---

## 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 <sup>1</sup>	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 <sup>2</sup>	< 2.5W
Operating Case Temperature <sup>3</sup>	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions & Weight	42mm x 42mm x 67mm / 170g

Raptor Photonics Limited reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical errors.

## 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 <sup>4</sup>	RPL-xx-xxxx

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

Note 2: Measured @ 30°C

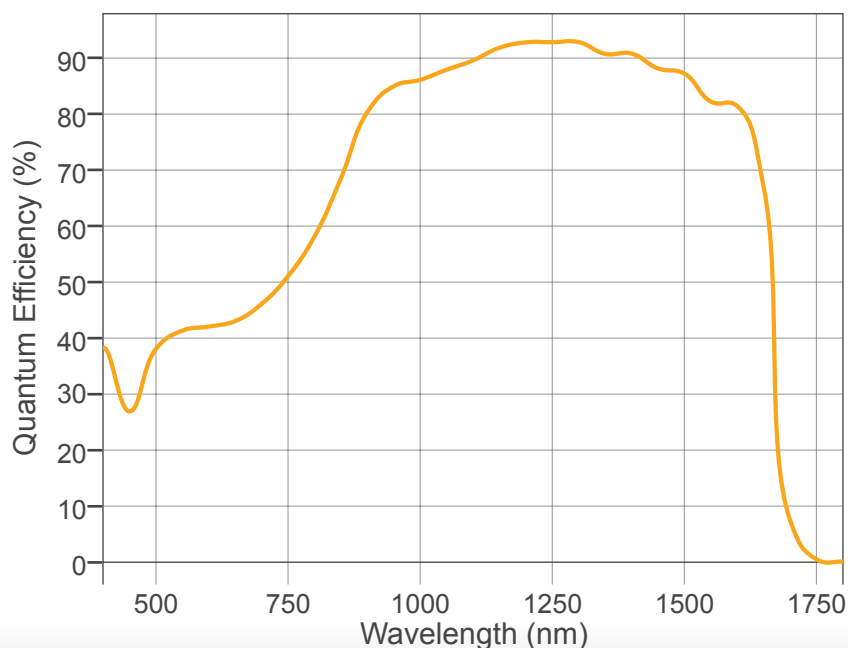
Note 3: Extended Operating Temperature range on request

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](http://www.raptorphotonics.com)

## Quantum Efficiency



## Applications

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

Document #: INOWL1.7-VS-CL-LP-640 / AE 0417R1



Willowbank Business Park  
Larne, Co Antrim  
BT40 2SF,  
Northern Ireland

ROW Sales  
T: +44 (0)2828 270 141  
E: sales@raptorphotonics.com  
[www.raptorphotonics.com](http://www.raptorphotonics.com)

USA Sales  
T: +1 (770) 364-7240  
E: request@phxatl.com  
[www.phxatl.com](http://www.phxatl.com)

