

Owl 640 VIS-SWIR Analog

VGA resolution, low noise, VIS-SWIR camera, CCIR / EIA



Key Features and Benefits

Cooled VGA Surveillance Analog InGaAs

- **VIS-SWIR technology**
Compatible with VIS-SWIR illuminators, markers & pointers
- **15 μ m x 15 μ m pixel pitch**
Enables highest resolution VIS-SWIR image
- **Ultra high intrascene dynamic range**
Enables simultaneous capture of bright & dark portions of a scene
- **On-board Automated Gain Control (AGC)**
Enables clear video in all light conditions
- **Ultra compact, Low power**
Ideal for hand-held, mobile or airborne systems

Resolution	640 x 512
Analog output	CCIR / EIA
Readout noise ⁵	39 electrons
Wavelength Range	VIS-SWIR

Specification for Owl 640 VIS-SWIR Analog

Sensor Type	InGaAs PIN-Photodiode
Active Pixel	640 x 480 (EIA) / 640 x 512 (CCIR)
Pixel Pitch	15µm x 15µm
Active Area	9.6mm x 7.2mm
Spectral response ¹	0.4µm to 1.7µm
Noise (RMS)	<195 electrons Low Gain (176 electrons typical), <50 electrons High Gain (39 electrons typical)
Quantum Efficiency	Peak >85% (>73% @ 1.064µm, 78% @ 1.55µm)
Pixel Well Depth	Low Gain: 650Ke-, High Gain: 15Ke-
Pixel Operability	>99.5%
Analogue Output Format	CCIR / EIA
Exposure time	1µs to 1 / frame rate
Shutter mode	Global shutter
Frame Rate	25Hz (CCIR) / 30Hz (EIA)
Optical Interface	C mount or M42
Camera Setup / Control	RS 485
Trigger interface	Trigger IN and OUT - TTL compatible
Power supply	12V DC ±10%
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 ²	< 5W (TEC OFF, typical)
Operating Case Temperature ³	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions & Weight	50mm x 50mm x 82mm / 282g

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Ordering Information

Camera

OWL SWIR analog-CCIR C-Mount	OW1.7-VS-AC-640
OWL SWIR analog-EIA C-Mount	OW1.7-VS-AE-640
OWL SWIR analog-CCIR M42-Mount	OW1.7-VS-AC-640-M42
OWL SWIR analog-EIA M42-Mount	OW1.7-VS-AE-640-M42
OWL Power Supply Cable	RPL-MDM-CBL-J

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

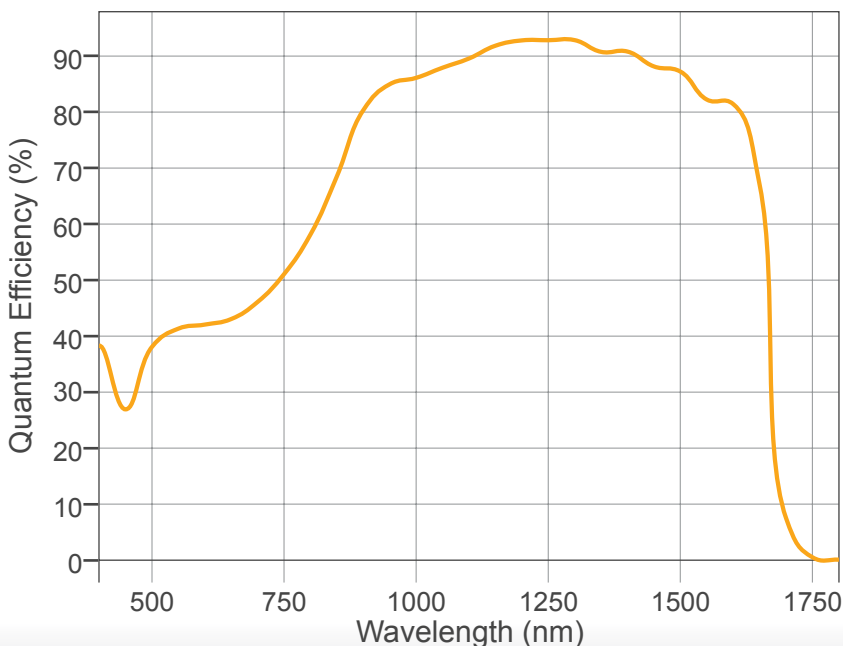
Note 4: Please consult us to check our range of lenses

Note 5: Typical value

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
- Active Imaging
- Airborne Payload
- Hand Held Goggles
- Imaging through Fog
- Range Finding
- Vision enhancement
- Maritime / Coastal surveillance
- UAV

Document #: INOWL1.7-VS-AC / AE 0616R1