Owl 1280 VIS-SWIR Digital

High resolution, High Sensitivity, Digital VIS-SWIR camera
1280 x 1024 VIS-SWIR • 10µm x 10µm • <40e readout noise

Key Features and Benefits

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

- **1280 x 1024, 10µm pitch VIS-SWIR technology**
  Enables highest resolution imaging from 0.4µm to 1.7µm
- **<40 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**
Frame rate	**Up to 60Hz**
Cameralink	**12bit**
Wavelength Range	**VIS-SWIR**

Raptor photonics

www.raptorphotonics.com

Specification for Owl 1280 VIS-SWIR Digital

Sensor Type	InGaAs PIN-Photodiode
Active Pixel	1280 x 1024
Pixel Pitch	10µm x 10µm
Active Area	12.8mm x 10.24mm
Spectral response[1]	0.4µm to 1.7µm
Noise (RMS, typical)	<180 electrons Low Gain (171 electrons typical), <40 electrons High Gain (37 electrons typical)
Quantum Efficiency	Peak >92% (>87% @ 1.064nm, 82% @ 1.55nm)
Pixel Well Depth	Low Gain: 500Ke-, High Gain: 10Ke-
Pixel Operability	>99.5%
Digital Output Format	12bit CameraLink (Medium Configuration)
Exposure time	10µs to 1 / frame rate
Shutter mode	Global shutter
Frame Rate	10Hz to 60Hz programmable, 25ns resolution
Optical Interface	C mount (selection of SWIR lens avaliable) 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
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 61.2mmv / 247g

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

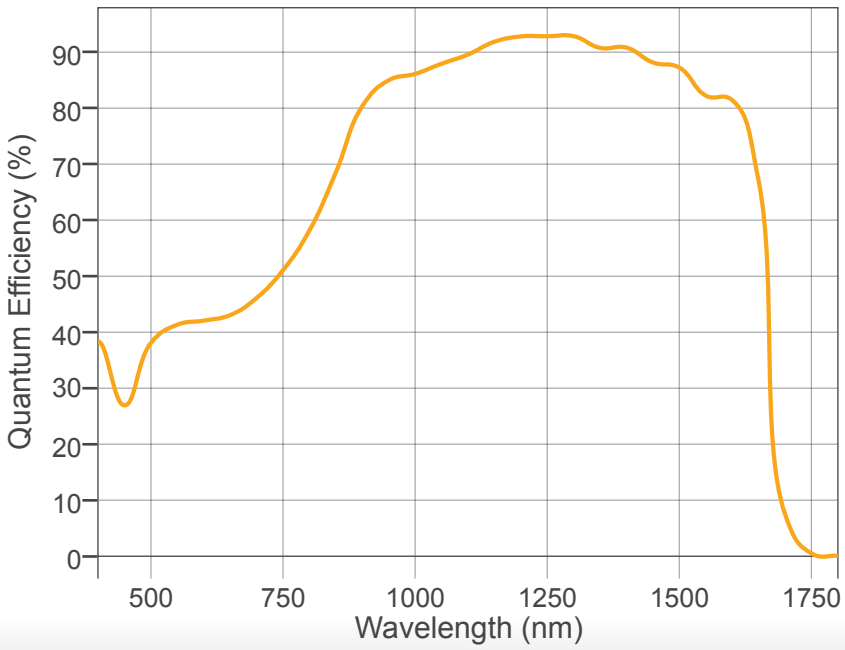
EPIX® Medium/Full CL card	RPL-EPIX-E8
Mini PC with EL1 card	RPL-PC-EL1
EPIX(R) XCAP STD software	RPL-XCAP-STD
CameraLink Cable, 2m (x2)[4]	RPL-MCL-CBL-2M
Optical SWIR lenses[5]	RPL-xx-xxxx

Note 1: Optional filters available: Low, High or bandpass
Note 2: Measured @ 30˚C
Note 3: Extended Operating Temperature range on request
Note 4: Two cables required
Note 5: 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

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

Document #: INOWL1.7-VS-CL-1280 0118R3

Raptor photonics

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

USA Sales
T: (770) 364-7240
E: request@phxatl.com
www.phxatl.com