

Owl 640 M

640 x 512, VIS-SWIR Camera



Key Features and Benefits

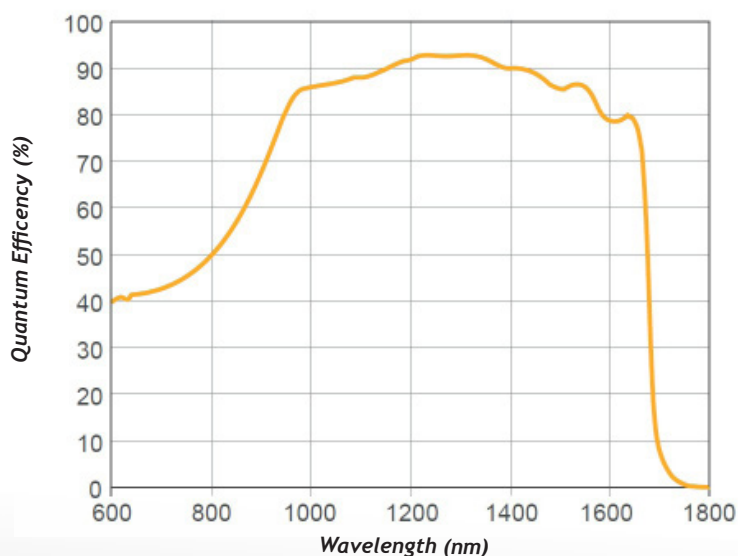
- **640 x 512, 15 μ m pitch VIS-SWIR sensor**
HD resolution imaging from 0.6 μ m to 1.7 μ m
- **On-board Intelligent 3 point NUC and ALC**
Real time, optimal video in all light conditions
- **Designed for Harsh environments**
High Shock, Vibration and extreme temperature resistance
- **Global Shutter**
120Hz full frame video, with no distortion (ideal for triggering)
- **Low Noise Electronics**
No artificial noise added, optimising low light capability
- **TEC-less VIS SWIR**
Enables ultra low power

Resolution	640 x 512
Frame Rate	Up to 120Hz
Ultra Low Power	<2.5W
Wavelength Range	VIS-SWIR

Specification for Owl 640 M

Sensor	InGaAs PIN-Photodiode
Active Pixel	640 x 512
Pixel Pitch	15 µm x 15µm
Active Area	9.6mm x 7.68mm
Spectral Response ¹	0.6µm to 1.7µm
Readout Noise (RMS) ²	LG: <190e- (174e- typical) HG: <50e- (36e- typical)
Peak Quantum Efficiency	>90% @1.3µm
Full Well Capacity	LG: 650ke- HG: 9ke-
Pixel Operability	>99.5%
Digital Output Format	14 bit Camera Link (Base Configuration / SDR)
Exposure Time ³	10µs to 26.8s
Shutter Mode	Global Shutter
Frame Rate	Up to 120Hz
Optical Interface	C Mount
Dynamic Range (Typ)	LG: 71dB HG: 48dB
Trigger Interface	Trigger IN and OUT - TTL compatible
Power Supply	12V DC ±0.5V
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, ALC ROI
Camera Power Consumption ⁴	<2.5 (NUC ON)
Operating Temperature ⁵	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions (excluding standard mounting) ⁶	69.4mm x 50.00mm x 50.00mm
Weight	260g

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*Data Supplied by Sensor Manufacturer

Specification for Owl 640 M

Camera

OWL 640 M Digital Camera	OW1.7-VS-CL-LP-640
Power Supply Cable	RPL-HR4-K

Optional Accessories

Mini PC with XCAP STD and Frame Grabber	RPL-PC-mf2280
Thunderbolt Frame Grabber	RPL-mf2280
EPIX® EB1 Frame Grabber	RPL-EPIX-EB1
EPIX® XCAP STD Software	RPL-XCAP-STD
MDR-SDR CameraLink Cable (2m) ⁷	RPL-MCL-CBL-2M
Optical SWIR Lenses ⁸	RPL-xx-xxx

Applications

- 860,1064 & 1550nm laser line detection
- Active Imaging
- Airborne Payload
- Handheld Systems
- Imaging through Fog
- Range Finding
- Vision Enhancement
- Hyperspectral Imaging
- Semi Conductor Inspection
- Solar Cell Inspection

For detailed technical drawings, volume pricing or to set up a demo, contact us at sales@raptorphotronics.com

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