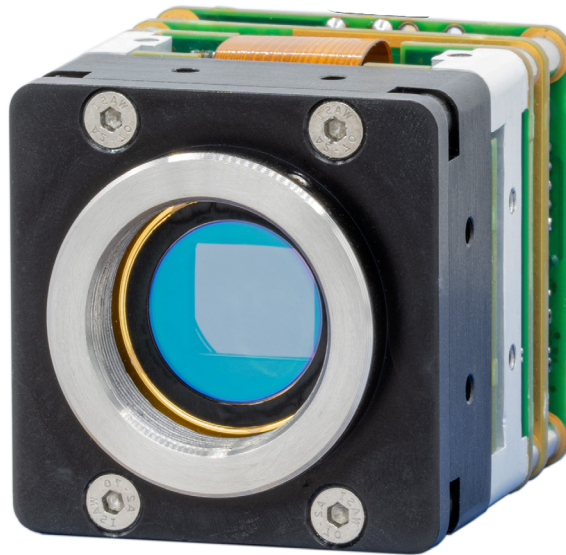


OWL 1280 MIPI

High Resolution, VIS-SWIR MIPI CSI-2 Camera



Preliminary

Key Features and Benefits

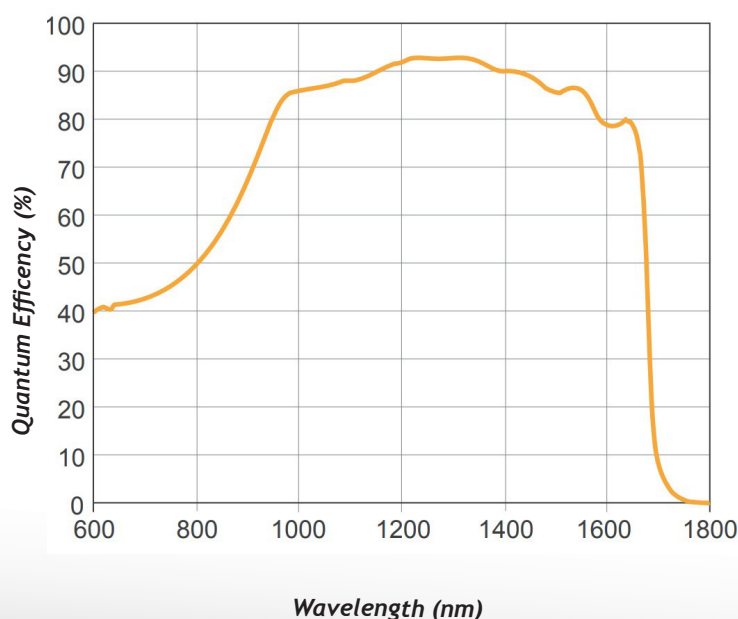
- **1280 x 1024, 10 μ m pitch VIS-SWIR sensor**
VGA resolution imaging from 0.6 μ m to 1.7 μ m
- **On-board Intelligent 3 point NUC and ALC**
Real time, optimal video in all light conditions
- **Designed for Harsh environments**
High Shock, Vibration and extreme temperature resistance
- **Global Shutter**
30Hz full frame video, with no distortion (ideal for triggering)
- **Low Noise Electronics**
No artificial noise added, optimising low light capability
- **MIPI CSI-2**
Ideal for compact EO Systems

Resolution	1280 x 1024
Frame Rate	30Hz
MIPI CSI-2	1280 x 1024, up to 4 lanes
Wavelength Range	0.6 to 1.7 μ m

Specification for Owl 1280 MIPI

Sensor	InGaAs PIN-Photodiode
Active Pixel	1280 x 1024
Pixel Pitch	10µm x 10µm
Active Area	12.8mm x 10.24mm
Spectral Response ¹	0.6µm to 1.7µm
Readout Noise (RMS) ²	LG: <190 electrons (160 typ) HG: <50 electrons (28 typ)
Peak Quantum Efficiency	>90% @1.3µm
Pixel Well Depth	LG: 450ke- HG: 10ke-
Pixel Operability	>99.5%
Digital Output Format	MIPI CSI-2, 1280 x 1024, RAW12, up to 4 lanes
Exposure Time	LG: 50µs to 25.8ms
Shutter Mode	Global Shutter
Frame Rate	30Hz
Communication	I2C 3.3v
Optical Interface ¹	Removable C-Mount (selection of SWIR Lens available)
Dynamic Range (Typ)	LG:69dB HG:51dB
Trigger Interface	Trigger IN and OUT 3.3v
Connector	FH55-225-0.55H 22-way, 0.5mm pitch
Power Supply	12V DC ± 0.5V
TE Cooling	Active
Image Correction	3 point NUC 9offset,gain and dark current) + pixel correction
Functions controlled by serial communication	Exposure,intelligent AGC,Non Uniformity Correction,Gamma,Pk/ Av,TEC,ROI
Camera Power Consumption ³	<8W with TEC ON,NUC ON
Operating Temperature ⁴	-20°C to + 55°C
Storage Temperature	-55° to + 85°C
Dimensons (excluding standard mounting) ⁵	68.8mm x 46mm x 49.5 mm
Weight	200g

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Specification for Owl 1280 MIPI

Camera

OWL 1280 Digital Camera	OW1.7-VS-MP-1280
Power Supply Cable	N/A

Optional Accessories

22 pin Raspberry PI MIPI CSI-2 Adaptor Board	RPL-MP-22pin-CSI
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Applications

Surveillance

- 860,1064 & 1550nm laser line detection
- Active Imaging
- Airborne Payload
- Handheld Systems
- Imaging through Fog
- Range Finding
- Vision Enhancement

Scientific

- Astronomy
- Beam Profiling
- Hyperspectral Imaging
- Semi Conductor Inspection
- Solar Cell Inspection
- Thermography

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

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