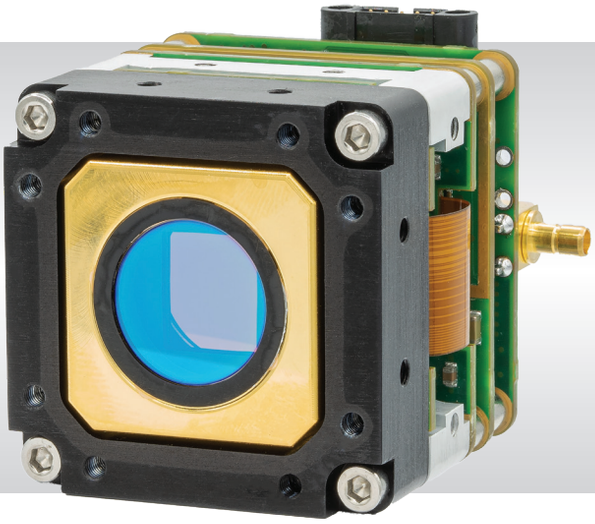
Owl 1280 SDI - OEM ONLY

High resolution, High Sensitivity, Digital VIS-SWIR camera 1280 x 1024 • 10µm x 10µm Pixel Pitch • 28e- 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 0.6µm to 1.7µm
- **28e- 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
- **HD-SDI SMPTE-274M**
  Provides full HD resolution 1080p/30

Resolution	**1280 x 1024**
Frame rate	**30Hz**
HD-SDI	**1080p/30**
Wavelength Range	**VIS-SWIR**

Specification for Owl 1280 SDI

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]	0.6µm to 1.7µm
Readout Noise (RMS)[2] LG = Low Gain HG = High Gain	LG: <190 electrons (160 electrons typical) HG: <50 electrons (28 electrons typical)
Peak Quantum Efficiency	>90% @ 1.3µm
Pixel Well Depth	LG: 450ke- HG: 10ke-
Pixel Operability	>99.5%
Digital Output Format	10 bit serial SMPTE274M 1080 p/30
Exposure time	LG: 50µs to 25.8ms
Shutter mode	Global shutter
Frame Rate	30Hz
Communication	RS422
Optical Interface	C mount (selection of SWIR lens avaliable)
Dynamic Range	LG: 69dB, HG: 51dB
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, TEC, ROI
Camera Power Consumption[3]	<8W with TEC ON, NUC ON
Operating Case Temperature[4]	-40˚C to +71˚C
Storage Temperature	-55˚C to +85˚C
Dimensions (L*W*H)[5]	68.8mm x 46.0mm x 49.5mm
Weight	200g

Ordering Information

Camera

Owl 1280 Digital Camera	OW1.7-VS-SD-1280-OEM4
Power Supply Cable	RPL-M80-9411005

Optional Accessories

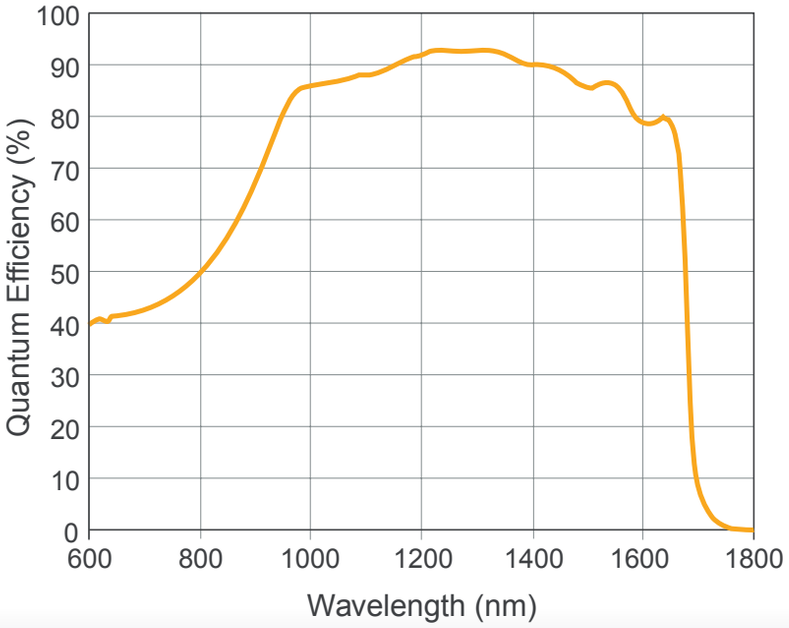
Optical Lenses[6]	RPL-xx-xxxx

Note 1: Optional filters available: Low, High or bandpass.
Note 2: Typical readout noise is calculated from an average of the last 20 cameras shipped.
Note 3: Measured in an ambient of 25°C with adequate heat sinking. For more detailed power consumption values, please refer to the user manual.
Note 4: Extended operating temperature range on request.
Note 5: Dimensions include all connector parts on the camera interface.
Note 6: 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



*Data supplied by sensor manufacturer

Applications

Surveillance

- HD long range day / night SWIR imaging
- Airborne and Ground Payload
- Hand Held Systems
- Driving Vision Enhancement (DVE)
- Airborne EVS
- Vision enhancement

Scientific

- Astronomy
- Beam Profiling
- Hyperspectral Imaging
- Semiconductor Inspection
- Solar Cell Inspection
- Thermography

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