

OWL SW1.7 CL-640

Digital & rugged high sensitivity SWIR camera

640 x 512 • 25/30/50/60Hz • 14 bit • TEC • SWIR



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DATA SHEET
Preliminary

Key Features and Benefits

- ✓ **SWIR technology.** Enables high sensitivity imaging from 0.9 μ m to 1.7 μ m
- ✓ **15 μ m x 15 μ m pixel pitch.** Enables highest resolution SWIR image
- ✓ **< 100 electrons readout noise.** Enables highest SWIR detection limit
- ✓ **14 bit CameraLink output.** Enables high speed digital video with intelligent auto AGC
- ✓ **On-board Automated Gain Control (AGC).** Enables clear video in all light conditions
- ✓ **On-board intelligent 3 point NUC.** Enables highest quality images
- ✓ **Ultra compact, Low power (< 5W).** Ideal for hand-held, mobile or airborne systems
- ✓ **Rugged, No fan.** Enables integration into UAV, handheld or any Electro-Optic systems



••••• Capturing Tomorrow

Specification for OWL SW1.7 CL-640

FPA Specification

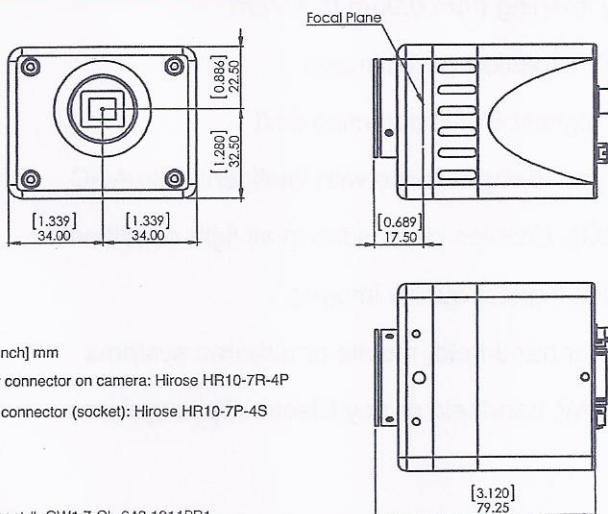
Sensor	Alcatel-Thales III-V Lab
Sensor Type	InGaAs PIN-Photodiode
Active Pixel	640 x 512
Pixel Pitch	15µm x 15µm
Active Area	9.6mm x 7.68mm
Spectral response	0.9µm to 1.7µm
Noise (RMS)	<100 electrons
Quantum Efficiency	>70% @ 1.5µm
Pixel Operability	>99.5%

Camera Specification

Digital Output Format	14 bit CameraLink (Base Configuration)
Exposure time	32µs to 16.6ms
Shutter mode	Rolling shutter
Frame Rate	25Hz, 30Hz, 50Hz or 60Hz
Optical Interface	C mount (selection of SWIR lens available)
Camera Setup / Control	CameraLink
Dynamic Range	14 bit
Trigger interface	Trigger IN and OUT - TTL compatible
Power supply	12V DC ±10%
TE Cooling	ON / OFF
Image Corection	3 point NUC
Camera Power Consumption ¹	< 5W without TEC
Operating Case Temperature	-20°C to +55°C
Storage Temperature	-30°C to +60°C
Dimensions & Weight	68mm x 55mm x 80mm / 427g

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Note 1: Up to additional 5W with TEC ON

Dimensions



Unit: [inch] mm

Power connector on camera: Hirose HR10-7R-4P

Cable connector (socket): Hirose HR10-7P-4S

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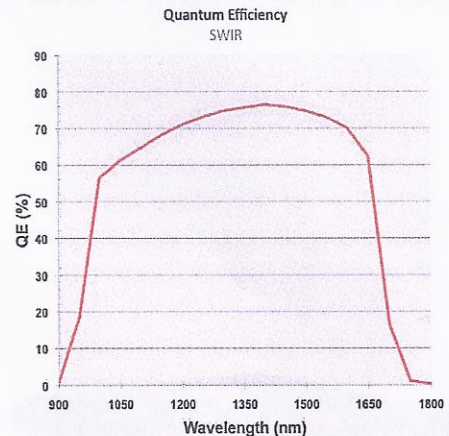


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Equipment may require UK Government authorisation for export purposes

Quantum Efficiency



Sample Applications

Raptor's OWL SWIR camera cores are ideally suited for cutting edge application such as:

- 1.55µm laser line detection
- Range finding
- Active Imaging
- Imaging through fog
- Vision enhancement
- Semiconductor Inspection
- Astronomy

Ordering Information

Camera

OWL SWIR digital camera	OW1.7-CL-640
OWL Power Supply Cable	RPL-HR4-CBL-B

Optional Accessories

Epix base CL card	RPL-EPIX-EB1
Epix base notebook CL card	RPL-EPIX-ECB1-54
Epix Xcap ltd software	RPL-XCAP-LTD
CameraLink Cable, 2m ¹	RPL-CL-CBL-2M
Optical SWIR lenses ²	RPL-xx-xxxx

Note: ¹ Longer CL cable available

² Please consult us to check our range of lenses