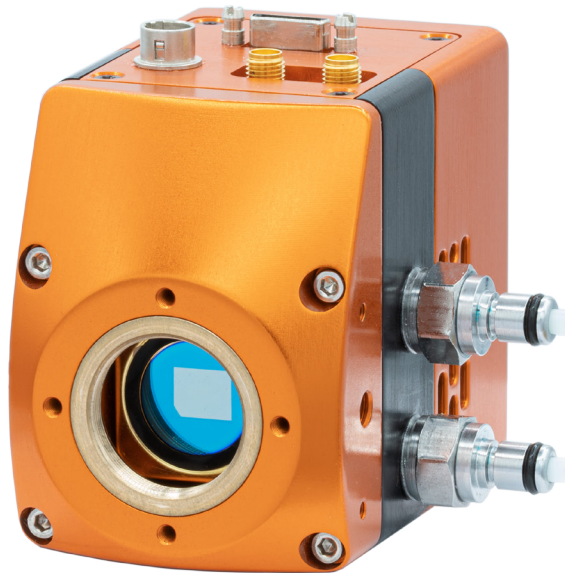


# Ninox 1280

1280 x 1024, VIS-SWIR, -15°C Cooled Camera



## Key Features and Benefits

- **1280 x 1024, 10 $\mu$ m pitch VIS-SWIR sensor**  
VGA resolution imaging from 0.6 $\mu$ m to 1.7 $\mu$ m
- **Low Readout Noise**  
Maximising Sensitivity
- **Global Shutter**  
60Hz full frame video, with no distortion (ideal for triggering)
- **Cooled VIS-SWIR Technology**  
Air Cooled to -15°C, for low dark current and longer exposures

Resolution	1280 x 1024
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Frame Rate	up to 60Hz
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RBit Depth (ADC)	12 bit
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Wavelength Range	VIS-SWIR
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## Specification for Ninox 1280

Sensor	InGaAs PIN-Photodiode
Active Pixel	1280 x 1024
Pixel Pitch	10µm x 10µm
Active Area	12.8mm x 10.24mm
Spectral Response <sup>1</sup>	0.6µm to 1.7µm
Readout Noise (RMS) <sup>2</sup>	LG: <180 electrons (160e- typical) HG: <50 electrons (35e- typical)
Peak Quantum Efficiency	>90% @1.3µm
Full Well Depth	LG: 450ke- HG: 10ke-
Pixel Operability	>99.5%
Dark Current (e/p/s)	<4,000 @ -15°C (2,000 typical)
Digital Output Format	12 bit Camera Link (medium configuration)
Exposure Time	LG: 20µs to 10s HG: 40µs to 80ms
Shutter Mode	Global Shutter
Frame Rate	10 - 60Hz
Optical Interface	C Mount (selection of SWIR Lens available)
Dynamic Range (Typ)	LG:69dB HG:51dB
Trigger Interface	Trigger IN and OUT-TTL compatible
Power Supply	12V DC ± 0.5V
TE Cooling	Air Cooled to -15°C
Image Correction <sup>3</sup>	3 point NUC (offset,gain and dark current) + pixel correction
Functions controlled by serial communication	Exposure,intelligent AGC,Non Uniformity Correction,Gamma,Pk/ Av,TEC,ALCROI
Camera Power Consumption <sup>4</sup>	<15W with TEC ON,NUC ON
Operating Temperature <sup>5</sup>	-20 to + 55°C
Storage Temperature	-30 to + 60°C
Dimensions (excluding standard mounting) <sup>6</sup>	87mm x 79mm x 79mm
Weight	555g

Raptor Photonics Limited reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical errors. This product is under the export control of the UK government and may be subject to a single individual export license before shipment. 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: The NUC is not active for exposure times greater than 92.5ms. For more detailed information, please refer to the user manual. Note 4: Measured in an ambient of 25°C with adequate heat sinking. For more detailed power consumption values, please refer to the user manual. Note 5: Extended operating temperature range available on request. Note 6: Dimensions include all connector parts on the camera interface. Note 7: Two cables are required. The maximum cable length is 2m. For more information, please refer to the user manual. Note 8: This includes the tubing & connectors. Note 9: Please consult with us to check our range of lenses

## Specification for Ninox 1280

### Camera

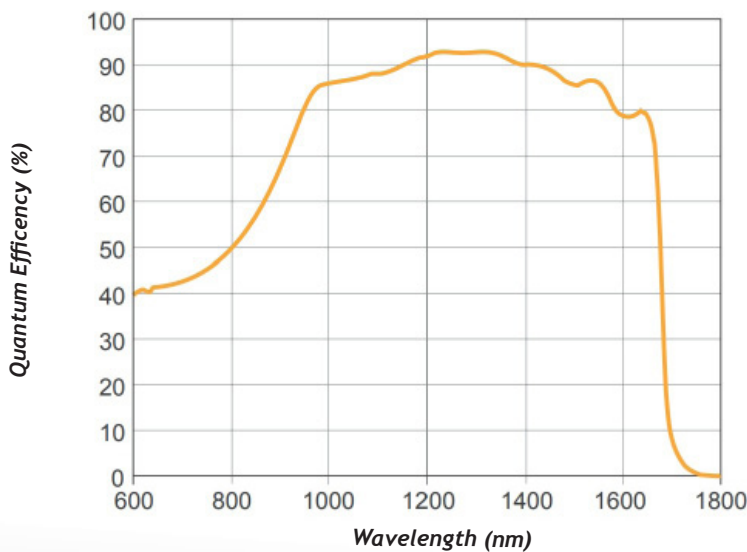
Ninox 1280 Digital Camera	NX1.7-VS-CL-1280
Power Supply Cable	RPL-HR4-K

### Optional Accessories

Mini PC with XCAP STD and Frame Grabber	RPL-PC-mf2280
Thunderbolt Frame Grabber	RPL-mf2280
EPIX® E8 Frame Grabber	RPL-EPIX-E8
EPIX® XCAP STD Software	RPL-XCAP-STD
CameraLink Cable (2m)	RPL-MCL-CBL-2M
Thermoelectric Water Cooling Unit	RPL- CHILLER
Chiller Tubing <sup>8</sup>	RPL-WTUBE-NINOX
Optical Lenses <sup>9</sup>	RPL-xx-xxxx

### Applications

- Art Inspection
- Astronomy
- Beam Profiling
- Solar Cell Inspection
- Hyperspectral Imaging
- Microscopy
- Semi Conductor Inspection



\*Data Supplied by Sensor Manufacturer

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

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