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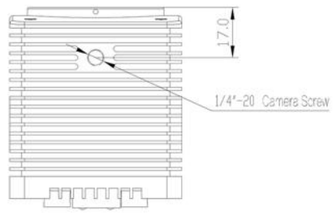
GHOPTO SWIR CAMERAS

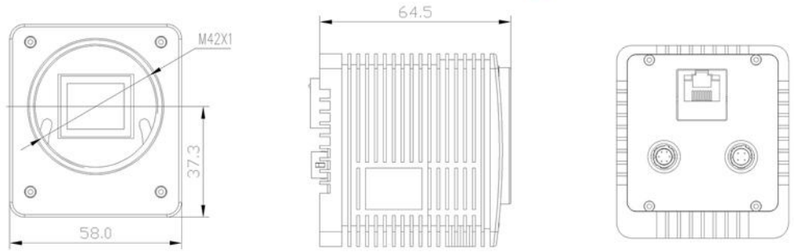
GH-SW1280-GigE

The first domestic high-resolution SWIR camera independently developed and designed by GHOPTO has a resolution of 1280×1024 pixels, 15μm pixel pitch, and high-sensitivity detection capability in the 900nm-1700nm band, which can provide high-definition images in this band. The camera has TE Cooler built in, has lower dark current, and the readout noise is as low as 40e-. In addition, the camera has a variety of gain modes and non-uniformity correction, which can improve high-definition images in low light condition at night, and can also image through fog and haze. Small in size and light in weight, it is easy to integrate in surveillance systems such as UAV, ships, and airborne optoelectronic pods. It is widely used in various fields such as wafer inspection, surveillance, and hyperspectral imaging.

Features

- 1280×1024 format
- 15μm pixel pitch
- Windowing
- TEC
- Low read noise
- Low dark current
- Low power consumption
- SDK provided
- Digital 14-bit base GigE output





▲ GH-SW1280-GigE Camera structure

SPECIFICATION

TYPE	GH-SW1280-GigE
Array Type	InGaAs
FPA Format	1280 x 1024
Active Area	19.2 mm x 15.36 mm
Pixel Pitch	15 μm x 15 μm
Lens mount	M42 × 1
Spectral Response	0.9 μm ~ 1.7 μm (Optional 0.4 μm ~ 1.7 μm)
Quantum Efficiency	> 70%
Charge handing capacity	1.8Me-
Cooling Capability	TEC
Dark current	30fA@0.1V&18℃
Output Format	GigE
Digital Output	14bit
Frame Rate	25 fps@1280 x 1024
Windowing	Programmable
Shutter mode	Global shutter
Readout modes	IWR
Exposure time	0.2 μs ~
Operating Temperature	-20° ～ +70°
Weight	280g (no lens)
Voltage	12V +-2V
Dimension (D x W x H)	75 mm × 58 mm × 65 mm
Power Dissipation	< 4W (no TEC)
Trigger Interface	RS-422 / TTL compatible
Noise with ROIC	<40e- (CDS mode)
Image Correction	1-point & 2-point correction
Software	SDK provided

APPLICATIONS

- Solar Cell Inspection
- Laser Beam Profiling
- Surveillance and Security
- Plastics Sorting | Airborne Remote Sensing
- Others: Medical Imaging | Hyperspectral Imaging