

GHOPTO SWIR CAMERAS

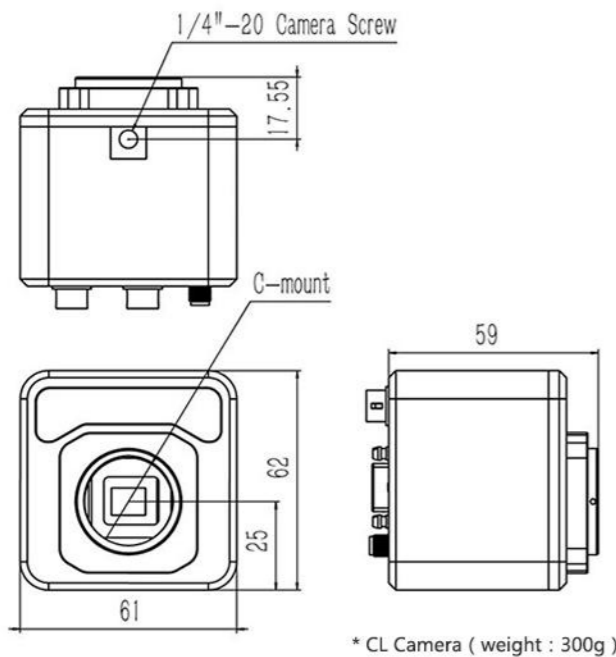
GH-SW640-CL



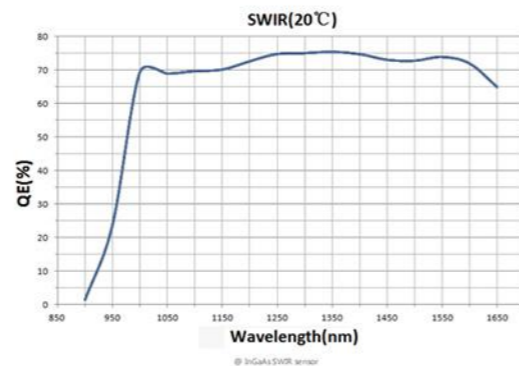
GHOPTO SWIR camera is based on an in-house developed InGaAs detector with multiple resolutions. The compact GH-SW640-CL meets requirements of high sensitivity in the SWIR range from 900nm to 1700nm and with accompanied by extended wavelength from 400nm to 1700nm options. The camera comes with PAL output and Camera Link vision interface, supporting 14-bit data transfer and adjustable exposure time. The Short-Wave Infrared (SWIR) camera offers unique capabilities for various applications in Industrial inspections as nondestructive test, Si wafer inspection, semiconductor circuit detection, laser beam profiling and process monitoring.

FEATURES

- ▶ InGaAs linear response, snapshot mode
- ▶ High frame rate and high efficiency
- ▶ Automatic on-board image processing
- ▶ Sensor fan cooling, no condensation
- ▶ Single point correction of electronic shutter
- ▶ External synchronization, multi-position expansion



▲ GH-SW640-CL Camera structure



▲ Quantum Efficiency

SPECIFICATION

TYPE	GH-SW640-CL
Array Type	InGaAs
FPA Format	640 x 512
Spectral Response	0.9 ~ 1.7 μm / 0.4 ~ 1.7 μm (optional)
Pixel Pitch	15 μm
Active Area	9.6 mm x 7.68 mm
Quantum Efficiency	> 70% (1.0 ~ 1.6 μm)
Frame Rate	100 Hz / 200 Hz
Integration Type	snapshot
Integration Time Range	50 μs ~ 20 ms / 100Hz maximum integral: 9ms
On-board Image Processing	One/two-point correction, bad pixel replacement, image denoising, image smoothing, controllable shutter compensation
Operability	> 99.5%
Dynamic Range	76 dB (linear mode)
Charge handing capacity	1.7 x 10 ⁴ e ⁻ (@HG, 1.8V)
ADC	14 bit
Analog Output	PAL
Digital Output	SDR 26 pin connector, Base Camera Link
Image Acquisition	GUI / SDK
Trigger	CameLink CC1 input (lag < 1us)
Serial Port Controller	Camera link SerTC, SerTFG, baud rate: 115200 bps
Power Input	DC 8-24V
Power Consumption	< 3W (no TEC)
Lens Mount	C-Mount
Operating Temperature	- 20 °C ~ + 50 °C / - 40 °C ~ + 60 °C (optional)
Storage Temperature	- 40 °C ~ + 80 °C

APPLICATIONS

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