

GHOPTO SWIR CAMERAS

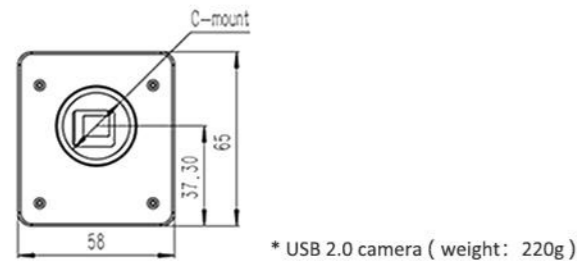
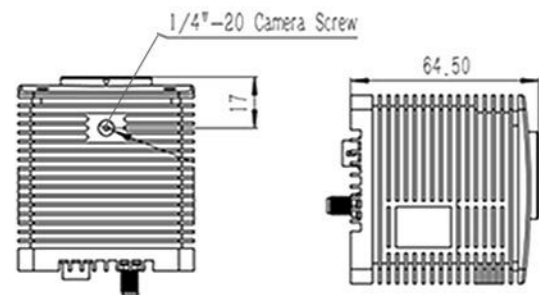
GH-SW640-U2



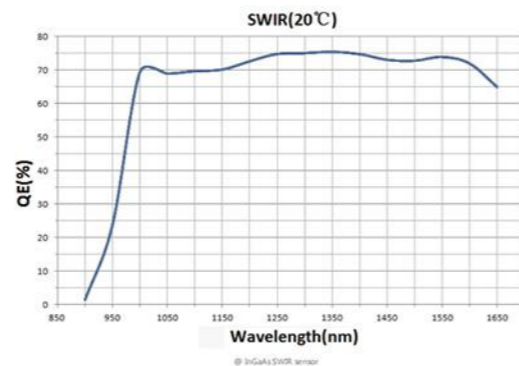
GHOPTO SWIR camera is based on an in-house developed InGaAs detector with multiple resolutions. The compact GH-SW640-U2 meets requirements of high sensitivity in the SWIR range from 900nm to 1700nm and with accompanied by extended wavelength from 400nm to 1700nm options. The camera comes with PAL output and USB2.0 vision interface, supporting 14-bit data transfer and adjustable exposure time. The Short-Wave Infrared (SWIR) camera offers unique capabilities for various applications, such as in Industrial inspections as nondestructive test, Si wafer inspection, liquid level detection in packaging, laser beam profiling and process monitoring.

Features

- ▶ Compact industrial design
- ▶ Automatic on-board image processing
- ▶ Region of interest (ROI) control
- ▶ Single point correction of electronic shutter
- ▶ VGA/QVGA resolution
- ▶ Small size, light weight and low power



▲ GH-SW640-U2 Camera structure



▲ Quantum Efficiency

SPECIFICATION

| TYPE | GH-SW640-U2 |
|---------------------------|---|
| 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 | 50 Hz |
| Integration Type | snapshot |
| Integration Time Range | 50 μs ~ 20 ms |
| 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、 SMA |
| Digital Output | USB 2.0 |
| Image Acquisition | GUI / SDK |
| Trigger | Trigger TTL (optional) |
| Power Input | DC 12V |
| Power Consumption | < 2.5W (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