

SWIR-V Series SenSWIR InGaAs Camera

VCI-A3UT+SWIR-V Series | USB3.0 | Cooled Industrial Area Scan Camera Using SenSWIR InGaAs

- 1、SONY SenSWIR InGaAs sensor
- 2、Built-in TEC or External TEC cooling chip
- 3、Precise temperature control, the temperature difference can reach 10-25 degrees Celsius
- 4、Spectral response range: 400nm-1800nm
- 5、5um pixel size
- 6、Global shutter
- 7、Support interface: USB3 / GigE / MIPI(developing) / CameraLink(developing)
- 8、12-bit ADC
- 9、4Gb memory
- 10、Support external IO trigger control
- 11、High framerate exceeding official parameters

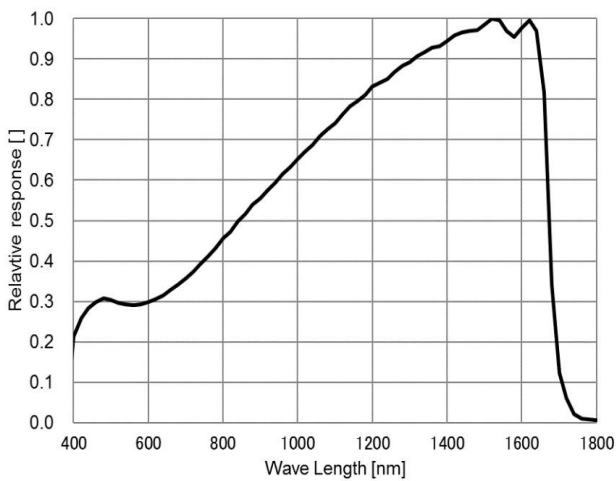
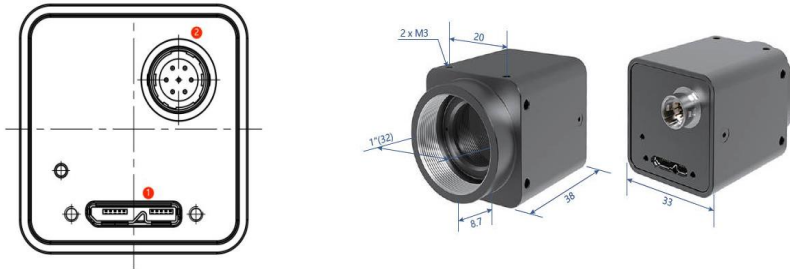


Specification

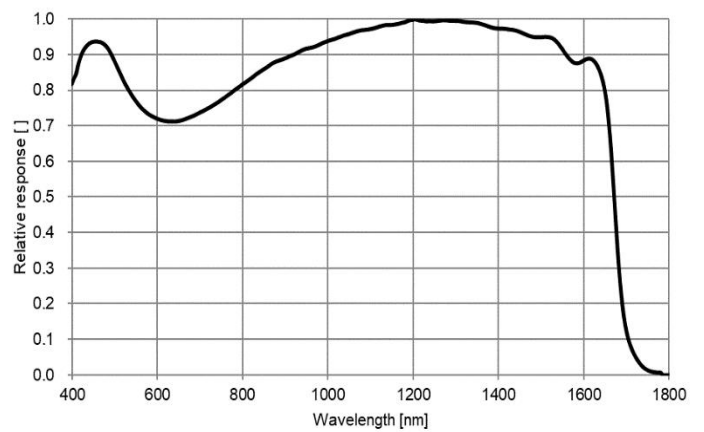
| Parameter | Model | VCI-A3UT500GM-SWIR-V | VCI-A3UT130GM-SWIR-V | VCI-A3UT033GM-SWIR-V |
|---------------------------|-------|--|--|--|
| | | 5.0M pixels 1/1.4" CMOS USB3.0 | 1.3M pixels 1/2" CMOS USB3.0 | 0.33M pixels 1/4" CMOS USB3.0 |
| Sensor model | | Sony IMX992-AABJ-C | Sony IMX990-AABJ-C | Sony IMX991-AABJ-C |
| Sensor type | | InGaAs | InGaAs | InGaAs |
| Spectral range | | 400nm-1800nm | 400nm-1800nm | 400nm-1800nm |
| pixel size | | 3.45 μm x 3.45 μm | 5.0 μm x 5.0 μm | 5.0 μm x 5.0 μm |
| Target size | | 1/1.4" | 1/2" | 1/4" |
| ADC | | 12 Bit / 8 Bit | 12 Bit / 8 Bit | 12 Bit / 8 Bit |
| Frame Rate & Resolution | | 8 Bit:71@2560x2048、 252@1280x1024 12 Bit:35.5@2560x2048、 135.7@1280x1024 | 8 Bit:223fps@1280 x 1024、 428fps@640 x 512 12 Bit:118.7fps@1280 x 1024、 227.7fps@640 x 512 | 8 Bit:428.1fps@640 x 512、 807fps@320 x 256 12 Bit:227.7fps@640 x 512、 429.3fps@320 x 256 |
| Image Buffer | | 512MByte | 512MByte | 512MByte |
| Conversion gain | | 43.0e/ADU | 42.8e/ADU | 43.0e/ADU |
| Conversion gain | | 59.6dB | 58.7dB | 59.6dB |
| Read noise | | 178.8e | 197.6e | 178.8e |
| Full well charge | | 176.2ke | 175.4ke | 176.2ke |
| Maximum SNR | | 52.5dB | 52.4dB | 52.5dB |
| Sensitivity | | 121mV | 121mV | 121mV |
| Dark current | | 638e/s(20°C) | 638e/s(20°C) | 638e/s(20°C) |
| Gain range | | 1x-15x | 1x-15x | 1x-15x |
| Exposure time range | | 15μs-60sec | 15μs-60sec | 15μs-60sec |
| Shutter mode | | Global shutter | Global shutter | Global shutter |
| Binning | | Software2x2, 3x3, 4x4 | Software2x2, 3x3, 4x4 | Software2x2, 3x3, 4x4 |
| Data interface | | USB3.0 | USB3.0 | USB3.0 |
| Digital I/O | | 1 optocoupler isolated input, 1 optocoupler isolated output, One optical-coupling isolated input | 1 optocoupler isolated input, 1 optocoupler isolated output, One optical-coupling isolated input | 1 optocoupler isolated input, 1 optocoupler isolated output, One optical-coupling isolated input |
| Data Format | | 8bit / 12bit | 8bit / 12bit | 8bit / 12bit |
| Optical filter | | 400-1800nm(default); 1030-1800nm(optional) | 400-1800nm(default); 1030-1800nm(optional) | 400-1800nm(default); 1030-1800nm(optional) |
| CRA | | 2.35 Deg | 2.35 Deg | 2.35 Deg |
| General parameters | | | | |

| | |
|-------------------|--|
| Power supply | Power with USB3.0 or 12V Power adapter |
| Power consumption | <2.11W |
| Temperature | Working temperature -20~60°C, storage temperature -40~85°C |
| Humidity | 20%-80% , non-condensing |
| Size and Weight | 33mm×33mm×38mm, 70g |
| Lens mount | C-mount interface |
| Software | SDK |
| Operating system | Win32/WinRT/Linux/macOS/Android |

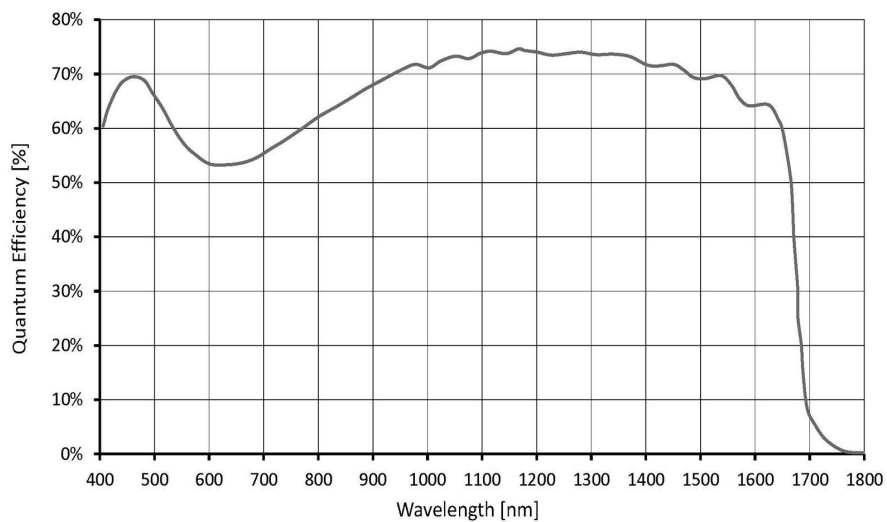
Camera Dimensions



VCI-A3UT033GM-SWIR-V spectral response curve



VCI-A3UT033GM-SWIR-V relative quantum efficiency



VCI-A3UT033GM-SWIR-V absolute quantum efficiency