

# SWIR Camera

A wide-band and high-sensitivity SWIR camera



The Omron SWIR Series utilizes the Sony SenSWIR image sensor with the addition of Omron's unique Peltier Cooling heat dissipation design.

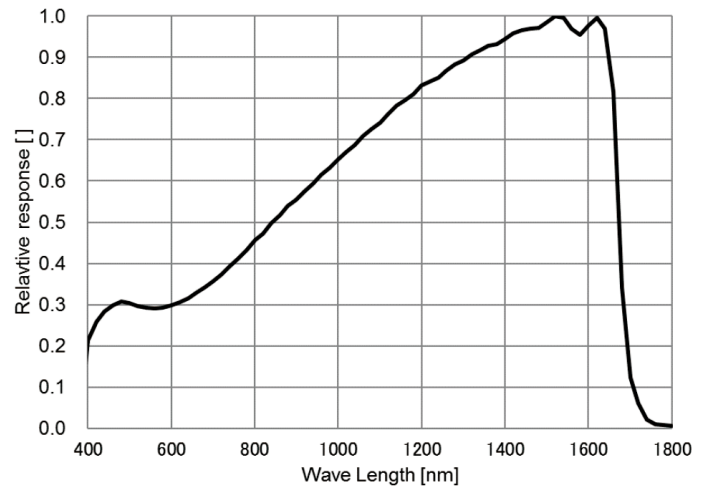
- A wide range of sensitivity from visible light to 1700nm SONY IMX990, IMX991 adopted SWIR camera
- Interface GigE Vision USB3 Vision Camera Link
- 0.3M (640x512)
- 1.3M (1280x1024)
- Lens Mount: C-mount Peltier cooling supported

## Specifications

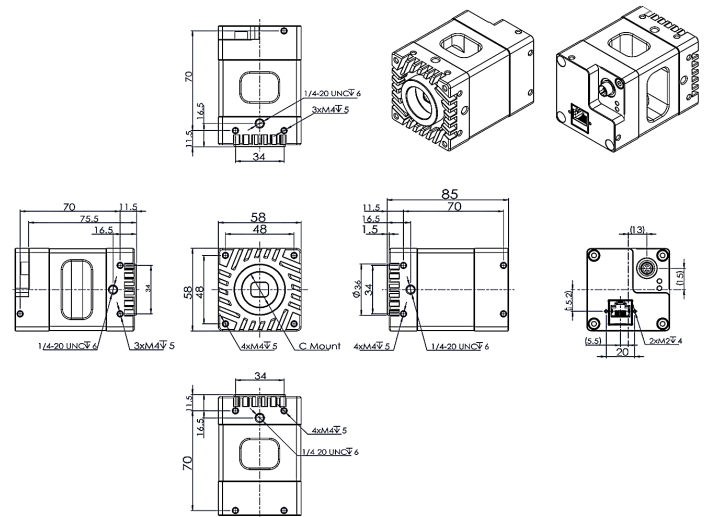
Model	0.3M	STC-LBS34POE-SWIR
	1.3M	STC-LBS132POE-SWIR
Image Sensor	0.3M	1/4" 0.3M Progressive SWIR CMOS (IMX991)
	1.3M	1/2" 1.3M Progressive SWIR CMOS (IMX990)
Shutter mode	Global Shutter	
Effective Pixels	0.3M	656 x 520 (0.3M)
	1.3M	1,280 x 1,024 (1.3M)
Cell size	5.0(H) x 5.0(V) $\mu$ m	
Scan mode	Full scan/ ROI	
Maximum FPS	0.3M	242.2fps(8bit), 167.8fps(10bit) 223.7fps(10bit Packed), 42fps(12bit), 56fps(12bit Packed)
	1.3M	84fps(8bit), 42fps(10bit), 56fps(10bit Packed), 42fps (12bit), 56fps(12bit Packed)
Image format	Mono8 / Mono10 / Mono10Packed / Mono12 /Mono12Packed	
Capable bandwidth	400 nm ~ 1,700nm	
Electronic shutter	8 $\mu$ sec ~ 16.777 sec	
Analog gain	0 ~ 14.8 dB	
Digital gain	x1 ~ x3	
ROI	0.3M	Horizontal : 8~640pixel/Vertical : 8~512Line image size adjust unit : H 8pixel/ V 8Line image offset adjustment valley : H 8pixel/ V 8Line
	1.3M	Horizontal : 8~1,280pixel/Vertical : 8~1,024Line image size adjust unit : H 8pixel/ V 8Line image offset adjustment valley : H 8pixel/ V 8Line
Gamma	Gamma 0.1~4.0	
Binning	x2 Horizontal • Vertical / Off	
Decimation	x2 Horizontal • Vertical / Off	
Image Flip	Top bottom / right left / top bottom right left / off	
Pixel defect correction	Maximum 8,192 pixels	
Automatic image quality control	Automatic exposure : corresponded Auto Gain : corresponded Auto white balance : N/A	
Operating mode	Edge preset / pulse trigger / free run (continuous mode)	
Interface	PoE : IEEE802.3af CLASS3 (1000BASE-T)	
Protocol	GigE Vision 2.1 GenICam SFNC 2.6 base IEEE1588(PTP)corresponded	
Input/output terminal	1Input (opt isolated) / 1output (opt isolated) 1In/output (non-isolated, open collector)	
Power input voltage	+10.8 ~ 26.4Vdc(power signal connector) Power Over Ethernet (IEEE802.3afbase)	
Power consumption	+12V / +24V : 10.1 W, PoE : 10.2W	
Lens mount	C mount	
Weight	around 465g	
Operating temperature (low limit)	Ambient environment temperature : 0°C, Ambient environment humidity : 20~85%RH (no condensation)	
Operating temperature (high limit)	Ambient environment temperature : +56°C, Ambient environment humidity : 20~85%RH (no condensation) ,boundary temperature : +68°C	

**Note: Do not use this document to operate the Unit.**

## Spectral characteristic table



## Drawing



**OMRON AUTOMATION AMERICAS HEADQUARTERS** • Chicago, IL USA • 847.843.7900 • 800.556.6766 • automation.omron.com

**OMRON CANADA, INC. • HEAD OFFICE**

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • automation.omron.com

**OMRON MEXICO • HEAD OFFICE**

Ciudad de México • 52.55.5901.4300 • 01.800.386.6766 • mela@omron.com

**OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE**

São Paulo, SP, Brasil • 55 11 5171-8920 • automation.omron.com

**OMRON ARGENTINA • SALES OFFICE**

Buenos Aires, Argentina • +54.11.4521.8630 • +54.11.4523.8483  
mela@omron.com

**OTHER OMRON LATIN AMERICA SALES**

+54.11.4521.8630 • +54.11.4523.8483 • mela@omron.com

*Authorized Distributor:*

**Controllers & I/O**

- Machine Automation Controllers (MAC) • Motion Controllers
- Programmable Logic Controllers (PLC) • Temperature Controllers • Remote I/O

**Robotics**

- Industrial Robots • Mobile Robots

**Operator Interfaces**

- Human Machine Interface (HMI)

**Motion & Drives**

- Machine Automation Controllers (MAC) • Motion Controllers • Servo Systems
- Frequency Inverters

**Vision, Measurement & Identification**

- Vision Sensors & Systems • Measurement Sensors • Auto Identification Systems

**Sensing**

- Photoelectric Sensors • Fiber-Optic Sensors • Proximity Sensors
- Rotary Encoders • Ultrasonic Sensors

**Safety**

- Safety Light Curtains • Safety Laser Scanners • Programmable Safety Systems
- Safety Mats and Edges • Safety Door Switches • Emergency Stop Devices
- Safety Switches & Operator Controls • Safety Monitoring/Force-guided Relays

**Control Components**

- Power Supplies • Timers • Counters • Programmable Relays
- Digital Panel Meters • Monitoring Products

**Switches & Relays**

- Limit Switches • Pushbutton Switches • Electromechanical Relays
- Solid State Relays

**Software**

- Programming & Configuration • Runtime