

**BV-C3210CL 2 SWIR Bandwidth Line Scan Camera BTO**


The BV-C3210CL is a SWIR line scan camera using a prism optics and two InGaAs sensors to disperse the SWIR wavelength band from 900nm to 1900nm in two wavelength bands. This structure is very useful and effective to detect foreign materials by comparing two images, or to discriminate materials to be adulterated by measuring the response of light such as reflection, transmission or absorption to the different wavelength. It is known that the light in SWIR bandwidth responds differently to materials and by utilizing this characteristics, the BV-C3210CL has a capability to inspect foreign materials, scratches or internal conditions which are difficult by visible cameras. The BV-C3210CL has a camera link interface and M52 lens mount.

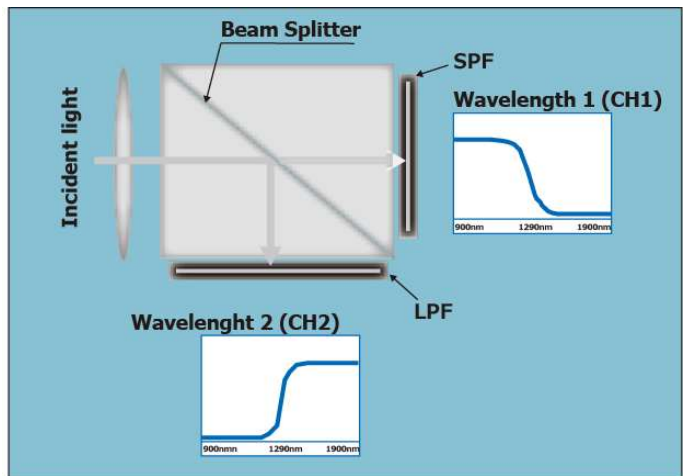


Image by visible light

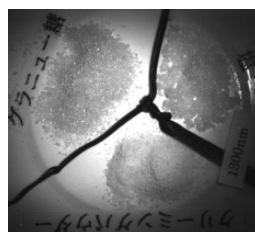


Image by SWIR (900nm to 1290nm)

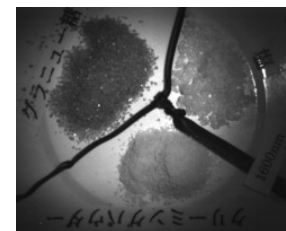


Image by SWIR (1290nm to 1900nm)

In addition to the BV-C3210CL, BlueVision Ltd., Japan will produce a camera to disperse the visible light in two specific wavelengths or the SWIR bandwidth in two specific wavelengths. All those products are build-to-order products.

## Specifications

Item	BV-C3210CL
Optical system	F2.8 Prism optics
Image sensor	Effective pixel : 512 pixels, Pixel Size : 25 $\mu$ m $\times$ 25 $\mu$ m Image effective line length : 12.8mm, InGaAs line sensor x 2 pcs
Pixel clock interval	5 MHz
Band width (Standard characteristics)	Bandwidth 1 : 900nm $\sim$ 1290nm (Sensor:900nm $\sim$ 1700nm) Bandwidth 2 : 1290nm $\sim$ 1900nm(Sensor:1000nm $\sim$ 1900nm)
Total clock	615 clk, (Internal)
Line rate	123 $\mu$ s (Internal)
Line frequency	8.13 kHz (Internal)
Line rate variable range	Depend on the trigger interval Minimum line rate: Exposure time +105.2 $\mu$ s
Conversion efficiency	0.93 $\mu$ V/e-
Synchronization	Internal / External trigger
S/N	55dB (Gain=0dB)
Video output	Camera Link Base Configuration 10bit x2 or 8bit x2
Electronic shutter	17.8 $\mu$ s $\sim$ 100ms Variable unit : 12.5ns
Gain	0 dB $\sim$ 12 dB (each channel)
Black level	$\pm$ 127LSB (each channel)
Trigger input	Hirose 12P: TTL, Camera Link (CC1): LVDS
Communication interface	Camera Link: EIA644, 9600bps / 115200bps
Power consumption	Input: 10.8V $\sim$ 13.2V, 500mA (Typical), 800mA(Start up)
Lens mount	M52 mount
Flange back	46.5mm Tolerance : 0 $\sim$ -0.05mm
Operating temp./ humidity	-5 $^{\circ}$ C to +45 $^{\circ}$ C / 20% to 80% (Non-condensing)
Dimensions (W x H x D)	95mm x 95mm x 95 mm (excluding protrusion)
Weight	820 g

- BV-C3210CL is in the scope of Export Trade Control Order and requires Export License etc.
- Specifications are subject to change without prior notice.

## Associated Equipment

### ■ Wavelength Variable Type Light Source

#### BV-M1020/M1021



Main light source: halogen

Waveband: 1250nm $\sim$ 2500nm (BV-M1020)

900nm $\sim$ 1800nm (BV-M1021)

Fiber length: 1m

Weight: 4.2Kg

### ■ SWIR lenses



## BlueVision Ltd., Japan

3-17-2 Shin-Yokohama, Yokohama, Kanagawa 222-0033, Japan

TEL:+81-45-471-4595 / FAX:+81-45-471-4598

URL: <http://www.bluevision.jp> / E-mail: [sales@bluevision.jp](mailto:sales@bluevision.jp)

