



BV-C3200 2 SWIR Bandwidth Line Scan Camera



The BV-C3200 is a SWIR line scan camera using a prism optics and two InGaAs sensors to disperse the SWIR wavelength band from 900 nm to 1680 nm 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-C3200 has a capability to inspect foreign materials, scratches or internal conditions which are difficult by visible cameras. The BV-C3200 has a camera link interface and M52 lens mount.

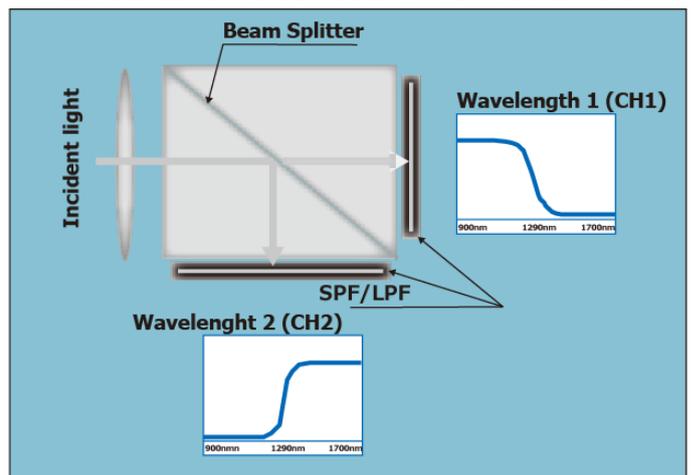


Image by visible light

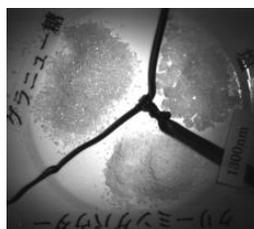


Image by SWIR (900nm to 1290nm)

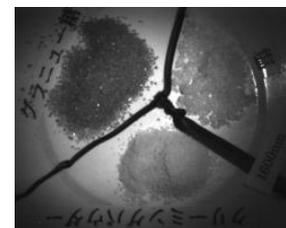


Image by SWIR (1290nm to 1600nm)

In addition to the BV-C3200, Bluevision Ltd., Japan will produce a camera to disperse the visible light in two specific wavelengths or the SWIR bandwidth in two specific wavelengths as build-to-order products.

Specifications

Item	BV-C3200
Optical system	F2.8 Prism optics
Image sensor	Effective pixel : 512 pixels, Pixel Size : 25 μ m \times 25 μ m Image effective line length : 12.8mm, InGaAs line sensor x 2 pcs
Pixel clock interval	5 MHz
Band width (Standard characteristics)	Wavelength band 1 : 900nm \sim 1290nm Wavelength band 2 : 1290nm \sim 1680nm
Total clock	615 clk, (Internal trigger)
Line rate	123 μ s (Internal trigger)
Line frequency	8.13 KHz (Internal trigger)
Line rate variable range	Depend on the trigger interval Minimum line rate: Exposure time +105.2 μ s
Conversion efficiency	0.93 μ V/e-
Synchronization	Internal/External trigger
S/N	55dB (Gain=0dB)
Video output	Camera Link Base Configuration 10bit x2 or 8bit x 2
Electronic shutter	17.8 μ 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-C3200 is in the scope of Export Trade Control Order and requires the export license.
- Specifications are subject to change without prior notice.

Associated equipment

■ Wavelength variable type light source ■ SWIR lenses

BV-M1020/M1021



Main light source: halogen
Waveband: 1250nm \sim 2500nm
(BV-M1020)
Waveband: 900nm \sim 1800nm
(BV-M1021)
Fiber length: 1m
Weight: 4.2Kg



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