BlueVision

BV-C8320CL　3 Sensor RGB CMOS Video Camera

The BV-C8320CL is a 3CMOS area scan color camera which employs newly developed prism optics and uses 1/2.9” 1.58MP Global shutter type CMOS sensors.　It can capture the full image with maximum 43 frames per second (full resolution). It employs VGA mode, and its maximum framerate is 200fps. C mount and Camera Link interface are featured.

Key Features

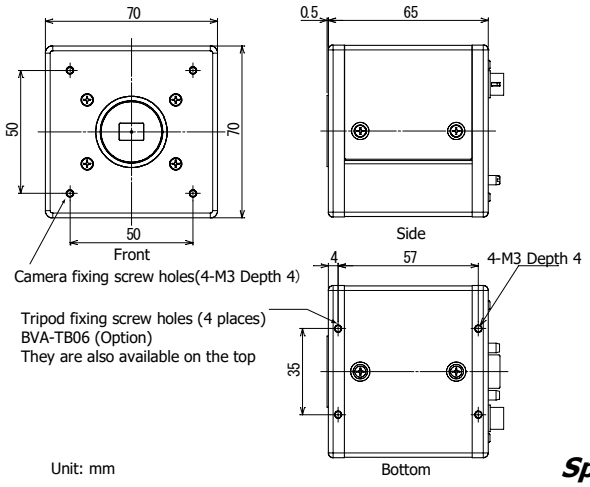
- Newly developed 1/3-inch prism optics
- 3 x 1440(H) x 1080(V) pixels, 3.45µm size, Global shutter CMOS are used
- In addition to full resolution, a VGA mode is employed.
- Small size and light in weight, compact and rugged body
- Effective output image size: 1440(H)x1080(V) (full resolution)
- Maximum 43 frames per second for full image, 200fps for VGA mode
- Precise shutter setting of 1µsec unit (10µs ~ ”frame rate-340µs”)
- Gain adjustment from 0dB to 12dB
- Partial scan readout (ROI) is available for faster capturing (corresponds to full readout and VGA mode)
- Shading compensation, Image enhancement and LUT
- Internal mode or external trigger mode
- Three operation modes　(No Shutter mode, Shutter Select mode, Pulse width)
- Camera Link Base Configuration, 8bit
- BV camera control tool is available

Specifications

Item & Function	BV-C8320CL
Optical system	1/3-inch RGB dichroic prism
Image sensor	1/2.9-inch Global shutter, 3.45µm, Progressive scan CMOS
Effective output image pixel	1440(H) x 1080(V), Pixel size 3.45µm square pixel
Synchronization	Internal or External trigger
Pixel clock cycle	74.25MHz
Frame rate	Full pixels readout: 1440(H) x 1080(V) 43fps ROI: 1440(H) x 960(V) 50fps, 640(H) x 480(V) VGA 200fps
Image output	Camera Link Base configuration 8bit x 3
Standard illumination	Full readout: 2000lx (F8.0, Shutter 1/45s, Gain 0dB, G ch) VGA mode: 1000lx (F8.0, Shutter 1/45s, Gain 0dB G ch)
S/N	8bit gradation (More than 48dB)
Partial scan (ROI)	Full readout: Height 8 ～ 1080 / Offset Y: 0 ～ 1072 VGA mode: Height 8 ～ 480 / Offset Y: 0 ～ 472
Electronic shutter	Range: 10µs～framerate-340µ, 1µsec unit
Gain	R/G/B 0dB ～ +12dB
Auto white balance	One push, R/B gain adjustment range: -6dB ～ +12dB
Black level	R/G/B 0LSB ～ 31LSB
LUT	Gamma 1/0.6/0.45, Arbitrary setting by customer (LUT)
Image enhancement	1)Edge enhancement 2)High Frequency MTF compensation 3)Edge enhancement & High Frequency MTF compensation
Trigger input	Camera Link LVDS (CC1)
Operation mode (Exposure Mode)	1. No Shutter mode (Internal trigger) 2. Shutter Select mode (Internal/External trigger) 3. Pulse Width Control (External trigger)
Shading Compensation	ON/OFF function: RGB Flat shading compensation
Communication interface	Camera Link EIA644, Baud rate 115200bps
Lens mount	C mount
IR cut filter	Not built-in (※1)
Input voltage / Current consumption	DC 12V～24V, Typical 0.4A / Max. 0.5A (at DC12V input)
Operating temperature/ humidity	-5℃ ～ +45℃ / 20%～80% (non-condensing)
Storage temperature / humidity	-25℃ ～ +60℃ / 20%～80% (non-condensing)
Dimensions (W x H x D)	70 x 70 x 65 mm (excluding protrusion)
Weight	320g

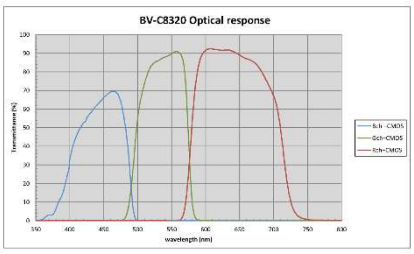
(※1) As this camera is designed based on LED illumination, if Halogen lamp or etc. are used, it is recommended to use IR cut filter.

Dimensions



Rear Panel

Optical Response



Specifications are subject to change without prior notice.

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