VC-12MX-M/C 65H

High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface





The VC-12MX-65 cameras, the latest members of industrial proven VC series, are based on the latest CMOS global shutter imagers. The cameras feature 12 megapixel resolution with frame rates of up to 65 fps. These combinations of resolution, frame rate, and global shutter set a new standard for Industrial, Scientific, and Surveillance digital imaging applications. Customers in the industrial market can take advantage of common coax cabling to transmit images at rates and distance above and beyond previous standards. With these cameras, image data can be transmitted at up to 6.25 Gbps using a single coaxial cable and up to 12.5 Gbps using two cables. These high speed and high resolution models are ideal for wide range of demanding applications including PCB and semiconductor inspections.

For efficiency, Vieworks provides this amazing product in two different types, the straight type and the right-angle type, with the same specification.



Main Features

- 12 Megapixel Resolutions
- High-speed Progressive Scan CMOS Imager
- Global Shutter CMOS Technology
- CoaXPress Interface up to 64.6 fps at 12.5 Gbps using 2 CH
- Flat Field Correction
- Low Noise with Optimized Heat Treatment

Applications

- PCB Inspection
- Semiconductor Inspection
- 3D Inspection
- High-end Surveillance

Specifications

Model		VC-12MX-M/C 65 H (Both Straight Type and Right-angle Type)
Resolution (H $ imes$ V)		4,096 × 3,000
Sensor		Sony IMX253
Sensor Size(Diagonal)		17.6 mm
Sensor Type		High Speed CMOS Image Sensor
Pixel Size		$3.45~\mu\mathrm{m}~ imes~3.45~\mu\mathrm{m}$
Interface		CXP-6 × 2 (Micro BNC)
Max. Frame Rate		64.6 fps
Exposure Time (1 μ s step)		1.51 μs – 60 s
Partial Scan (Max. Speed)		3413.7 fps at 4 Lines
Pixel Data Format		8 bit
Electronic Shutter		Global Shutter
Gain Control		Analog: ×1 - ×8, Digital: ×1 - ×32
Black Level Control		0 - 15 LSB at 8 bit
Trigger Synchronization		Free-Run, Timed, Trigger Width
Dynamic Range		65 dB
Dimension,	Straight Type	50 mm $ imes$ 50 mm $ imes$ 44 mm, 184 g (C-mount)
Weight	Right-angle Type	50 mm $ imes$ 50 mm $ imes$ 45 mm, 198 g (C-mount)
Temperature		Operating: 0°C ~ 40°C (Housing: 10°C ~ 50°C), Storage: −40°C ~ 70°C
Lens Mount		C-mount
Power	External	11 ~ 24 VDC, Typical 6.5 W
Compliance		CE, FCC, KC, UL
API SDK		Vieworks Imaging Solution 7.X

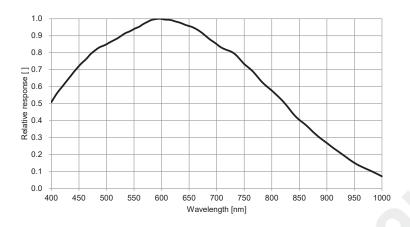
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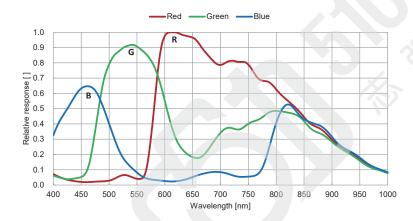
Spectral Response

* The sensitivity data may not match the measurement on the finished product necessarily because it is measured based on the wafer.

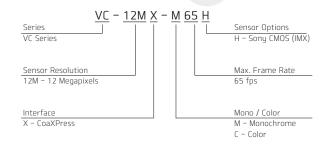
Monochrome *



Color*



Ordering Scheme



Connector Specification

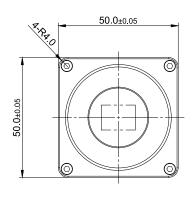
Power / Control 1: +12VDC 2: Trigger IN+ 3: Trigger IN-5, 6: DC Ground 4: Strobe OUT+ (HR10A-7R-6PB) Data Transfer / Communications CH1 CH₂ CH1: Master Connection (75 Ω, Micro BNC) Connectors on camera body

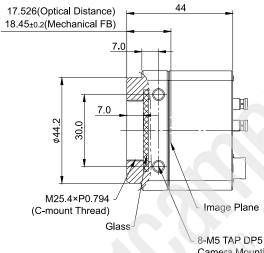
Mechanical Dimensions: Straight Type

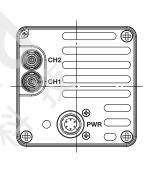
Unit: mm











- 8-M5 TAP DP5 Camera Mounting Screw Holes

Mechanical Dimensions: Right-angle Type

Unit: mm





