
VC-12MX-M/C 180

VC-25MX-M/C 72

HIGH SPEED & HIGH RESOLUTION CMOS DIGITAL CAMERA
WITH COAXPRESS INTERFACE



The VC-12MX and VC-25MX, the latest members of industrial proven VC series, are based on the latest CMOS global shutter imagers. The VC-12MX features 12 megapixel resolutions with frame rate up to 180 fps and the VC-25MX features 25 megapixel resolutions with frame rate up to 72 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 25 Gbps using four cables. This high speed and high resolution model is ideal for wide range of demanding applications including PCB and semiconductor inspections.

VIEWWORKS

VC-12MX / VC-25MX

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Main Features

- * 12 & 25 Megapixels Resolution
- * High-Speed Progressive Scan CMOS Imager
- * Global Shutter CMOS Technology
- * CoaXPRESS Interface up to 180 fps at 25 Gbps using 4 CH (VC-12MX)
- * Flat Field Correction
- * DSNU and PRNU Correction (VC-25MX)
- * Low Noise with Optimized Heat Treatment

Applications

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

Specifications

Model	VC-12MX-M/C 180	VC-25MX-M/C 72
Resolution (H × V)	4096 × 3072	5120 × 5120
Sensor	CMOSIS CMV 12000	On Semiconductor VITA-25K
Sensor Size (Optical Format)	22.5 mm × 16.9 mm (Diagonal: 28.14 mm, APS-like)	23.04 mm × 23.04 mm (35 mm)
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	5.5 μm × 5.5 μm	4.5 μm × 4.5 μm
Interface	CoaXPRESS	
Max. Frame Rate	1 CH: 45 fps @ 6.25 Gbps 2 CH: 90 fps @ 6.25 Gbps 4 CH: 180 fps @ 6.25 Gbps	1 CH: N/A 2 CH: 46 fps @ 6.25 Gbps 4 CH: 72 fps @ 6.25 Gbps
Exposure Time† (1 μs step)	43 μs – 60 s	1 μs – 60 s
Partial Scan (Max. Speed)	11494 fps at 4 Lines	7692 fps at 4 Lines (H: 256)
Pixel Data Format	8 bit	8 bit, 10 bit
Electronic Shutter	Global Shutter	
Gain Control	×1 ~ ×4	
Black Level Control	0 – 16 LSB at 8 bit, 0 –64 LSB at 10 bit	
Exposure Mode	Free-Run, Timed, Trigger Width	
Dynamic Range	54 dB	
Dimension / Weight	80 mm × 80 mm × 101 mm, 620 g (F-mount)	80 mm × 80 mm × 101 mm, 630 g (F-mount)
Temperature	Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C	
Lens Mount	F-mount	
Power	Adapter	10 ~ 38 V DC, Typ. 12 W
	PoCXP	10 ~ 38 V DC, Typ. 10.5 W
Compliance	24 V DC, Minimum of two PoCXP cables required	
API SDK	CE, FCC, KC	
	Vieworks Imaging Solution 7.X	

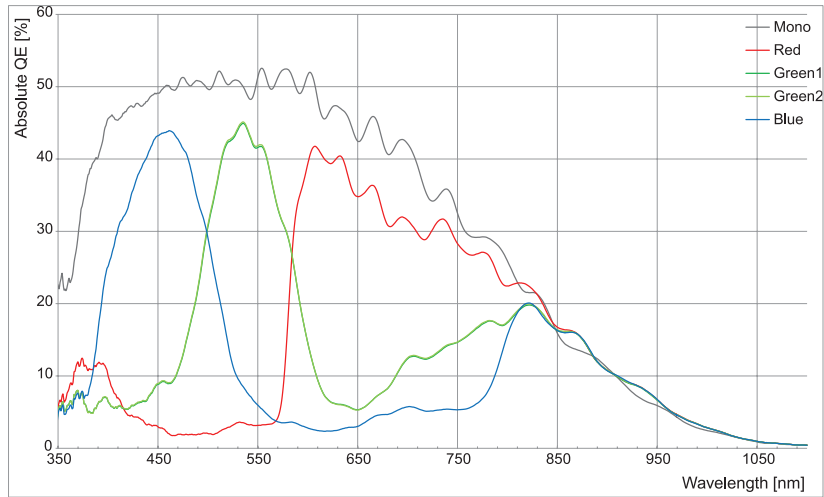
† The minimum actual exposure time varies depending on the camera model.

VC-12MX / VC-25MX

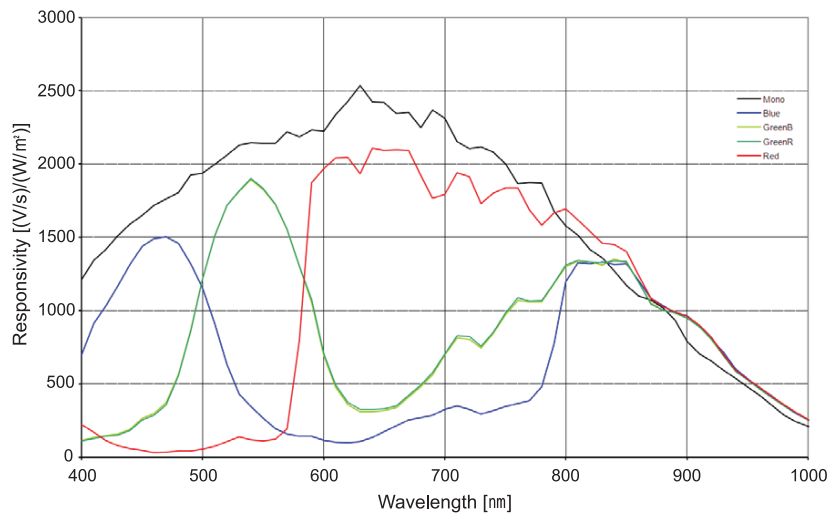
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Quantum Efficiency Curves

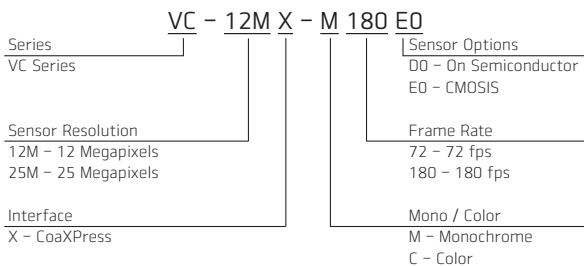
VC-12MX



VC-25MX



Ordering Scheme



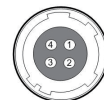
Connector Specification

Power



1 2 3: +12V DC, 4 5 6: GND (HR10A-7R-6PB)

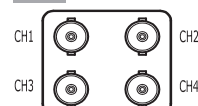
Control



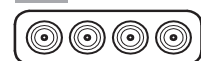
1: Trigger IN+, 2: Trigger IN-
3: DC Ground, 4: Strobe OUT+ (HR10A-7R-4S)

Data Transfer/Communications

BNC



DIN



CH1: Master Connection (75 Ω, DIN 1.0/2.3)

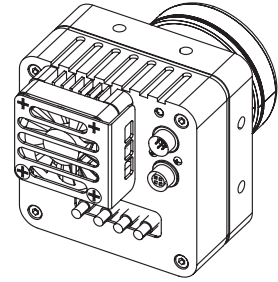
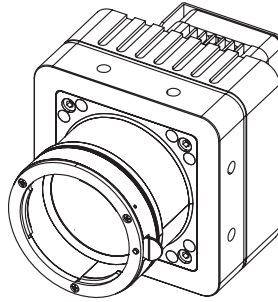
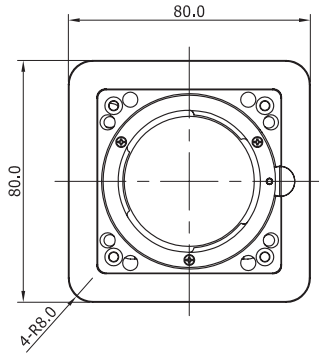
Connectors on camera body

VC-12MX / VC-25MX

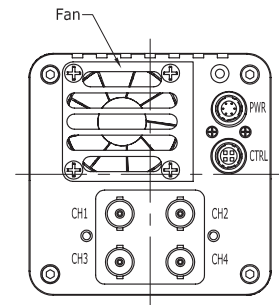
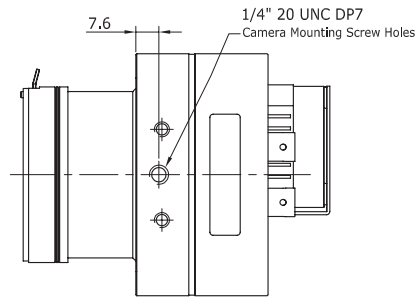
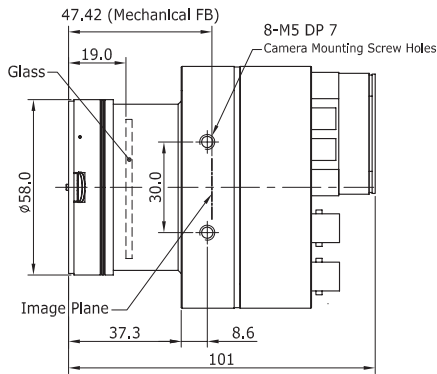
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Mechanical Dimensions

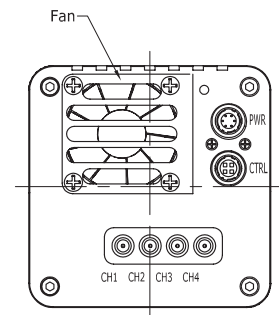
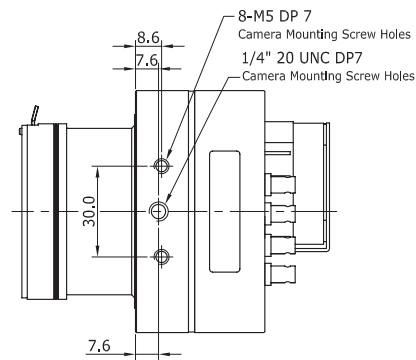
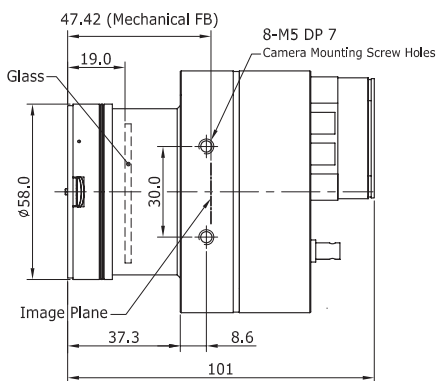
Unit: mm



BNC Type Connector



DIN 1.0/2/3 Type Connector



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