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.

vieworks

VC-12MX / VC-25MX

HGH SPEED & HIGH RESOLUTION CMOS DIGITAL CAMERA WITH COAXPRESS INTERFACE

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
* 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: 36 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℃ ~ 40℃, Storage: –40℃ ~ 70℃	
Lens Mount		F-mount	
Power	Adapter	10 ~ 38 V DC, MAX. 14 W	
	PoCXP	24 V DC, Minimum of two PoCXP cables required	
Compliance		CE, FCC, KC	
API SDK		Vieworks Imaging Solution 7.X	

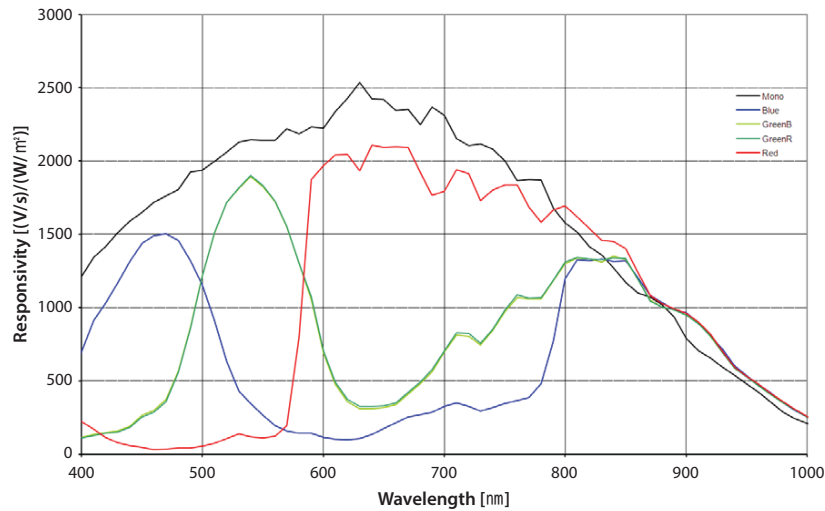† The minimum actual exposure time varies depending on the camera model.

Quantum Efficiency Curves

VC-12MX

VC-25MX

Ordering Scheme

VC – 12M X – M 180 E0

Series
VC Series

Sensor Resolution
12M – 12 Megapixels
25M – 25 Megapixels

Interface
X – CoaXPress

Sensor Options
D0 – On Semiconductor
E0 – CMOSIS

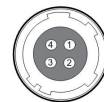Frame Rate
72 – 72 fps
180 – 180 fps

Mono / Color
M – Monochrome
C – Color
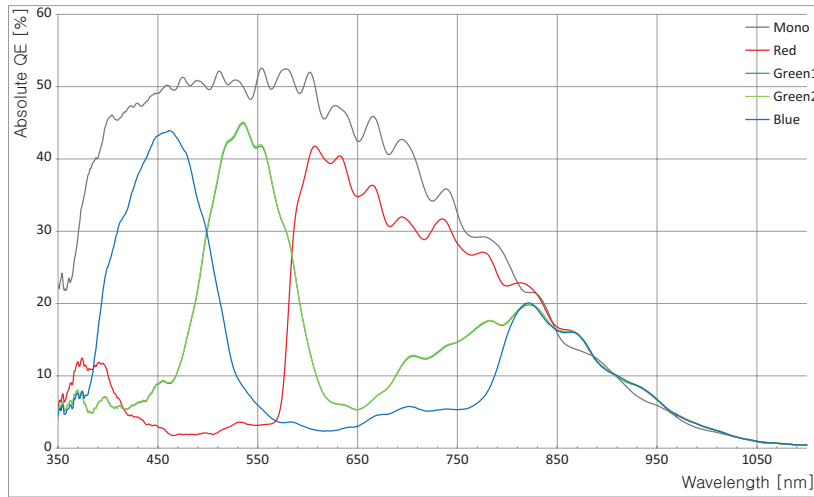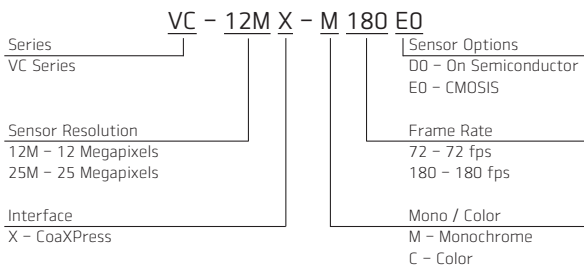
Connector Specification

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

CH1   CH2
CH3   CH4

DIN

CH1 CH2 CH3 CH4
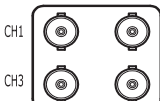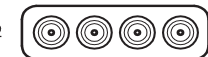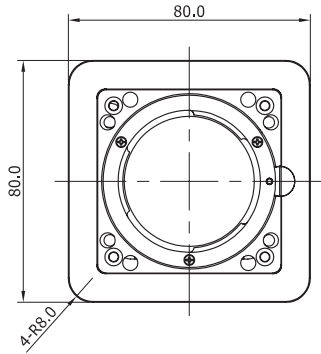
CH1: Master Connection   (75 Ω, DIN 1.0/2.3)
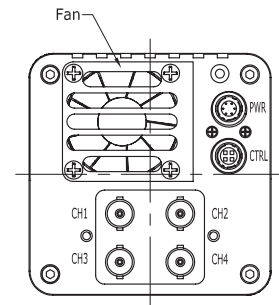
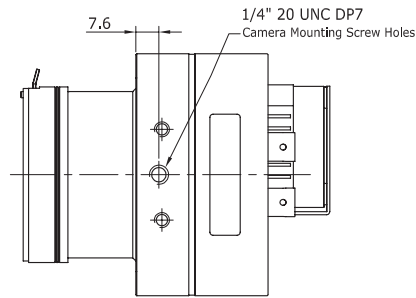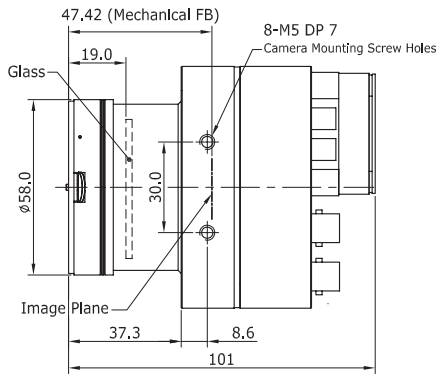Connectors on camera body

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Mechanical Dimensions

Unit: mm

80.0

80.0

4-R8.0

BNC Type Connector

47.42 (Mechanical FB)

19.0

Glass

8-M5 DP 7
Camera Mounting Screw Holes

Ø58.0

30.0

Image Plane

37.3

8.6

101

7.6

1/4" 20 UNC DP7
Camera Mounting Screw Holes

Fan

PWR

CTRL

CH1 CH2 CH3 CH4

DIN 1.0/2/3 Type Connector

47.42 (Mechanical FB)

19.0

Glass

8-M5 DP 7
Camera Mounting Screw Holes

Ø58.0

30.0

Image Plane

37.3

8.6

101

8.6

7.6

8-M5 DP 7
Camera Mounting Screw Holes

1/4" 20 UNC DP7
Camera Mounting Screw Holes

30.0

7.6

Fan

PWR

CTRL

CH1 CH2 CH3 CH4
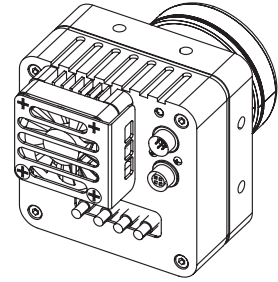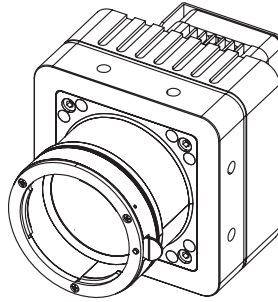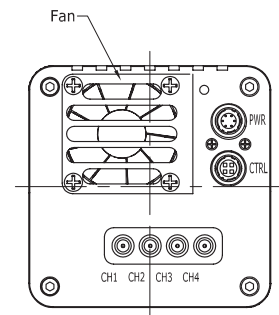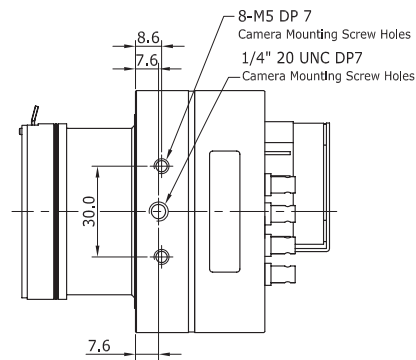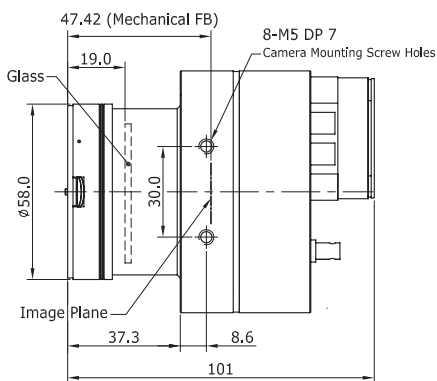
For more information please contact local distributor or
visit our website at http://www.vieworks.com.

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