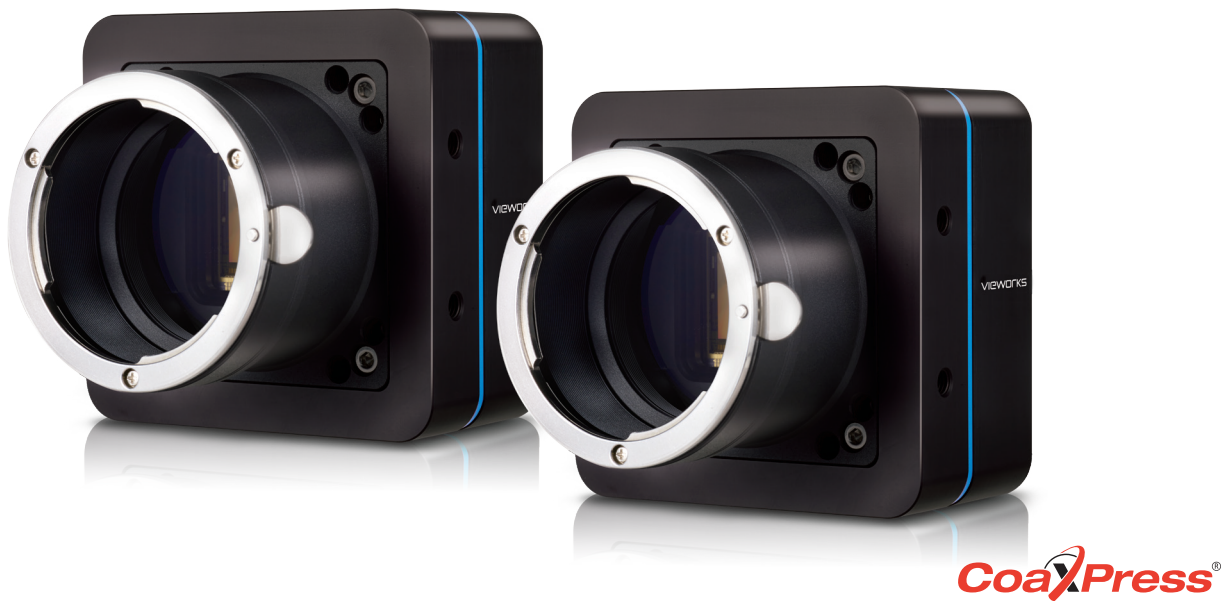


VC-12MX-M/C 180 VC-25MX-M/C 72 VC-25MX-M/C 81 D

High Speed & High Resolution CMOS Digital Camera
with CoaXPress Interface



The VC-12MX-180, VC-25MX-72 and VC-25MX-81 D, the latest members of industrial proven VC series, are based on the latest CMOS global shutter imagers. The VC-12MX-180 features 12 megapixel resolution with frame rates of up to 181 fps, the VC-25MX-72 features 25 megapixel resolution with frame rates of up to 72 fps and the VC-25MX-81 D features 25 megapixel resolution with frame rates of up to 81 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. These high speed and high resolution models are ideal for wide range of demanding applications including PCB and semiconductor inspections.

VIEWWORKS

www.vieworks.com

VC-12MX-180 / VC-25MX-72 / VC-25MX-81 D

High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

Main Features

- 12 & 25 Megapixel Resolutions
- High-Speed Progressive Scan CMOS Imager
- Global Shutter CMOS Technology
- CoaXPress Interface up to 181 fps at 25 Gbps using 4 CH (VC-12MX-180)
- Flat Field Correction
- DSNU and PRNU Correction (VC-25MX-72/VC-25MX-81 D)
- 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	VC-25MX-M/C 81 D
Resolution (H × V)		4096 × 3072	5120 × 5120	5120 × 5120
Sensor		CMOSIS CMV 12000	On Semi. VITA-25K	On Semi. PYTHON-25K
Sensor Size		22.5 mm × 16.9 mm (Diagonal: 28.1 mm)	23.04 mm × 23.04 mm (Optical Format: 35 mm)	23.04 mm × 23.04 mm (Diagonal: 32.6 mm)
Sensor Type		High Speed CMOS Image Sensor		
Pixel Size		5.5 μm × 5.5 μm	4.5 μm × 4.5 μm	4.5 μm × 4.5 μm
Interface		CoaXPress		
Max. Frame Rate		1 CH: 46 fps @ 6.25 Gbps	1 CH: N/A	1 CH: N/A
		2 CH: 92 fps @ 6.25 Gbps	2 CH: 46 fps @ 6.25 Gbps	2 CH: 44 fps @ 6.25 Gbps
		4 CH: 181 fps @ 6.25 Gbps	4 CH: 72 fps @ 6.25 Gbps	4 CH: 81 fps @ 6.25 Gbps
Exposure Time† (1 μs step)		43 μs – 60 s	1 μs – 60 s	
Partial Scan (Max. Speed)		15151 fps at 4 Lines	7692 fps at 4 Lines (H: 256)	10989 fps at 4 Lines (H: 256)
Pixel Data Format		8 bit	8 bit, 10 bit	8 bit
Electronic Shutter		Global Shutter		
Gain Control		1 × ~ 4 ×		
Black Level Control		0 – 16 LSB at 8 bit	0 – 16 LSB at 8 bit 0 – 64 LSB at 10 bit	0 – 16 LSB at 8 bit
Trigger Synchronization		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	External	10 ~ 38 V DC, Typ. 12 W	10 ~ 38 V DC, Typ. 10.5 W	10 ~ 38 V DC, Typ. 12 W
	PoCXP	24 V DC, Minimum of two PoCXP cables required		
Compliance		CE, FCC, KC		
API SDK		Viewworks Imaging Solution 7.X		

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

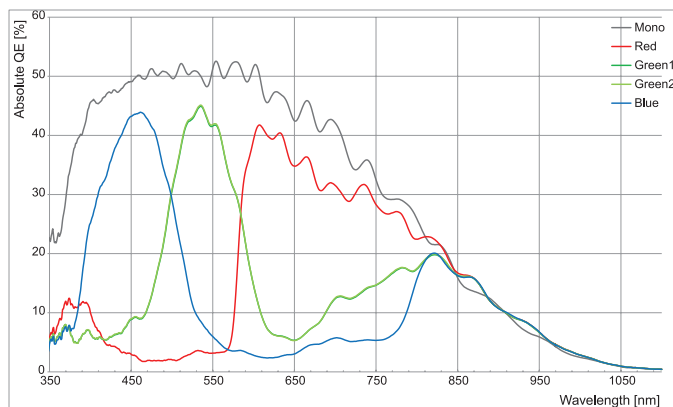
† The minimum actual exposure time varies depending on the camera model.

VC-12MX-180 / VC-25MX-72 / VC-25MX-81 D

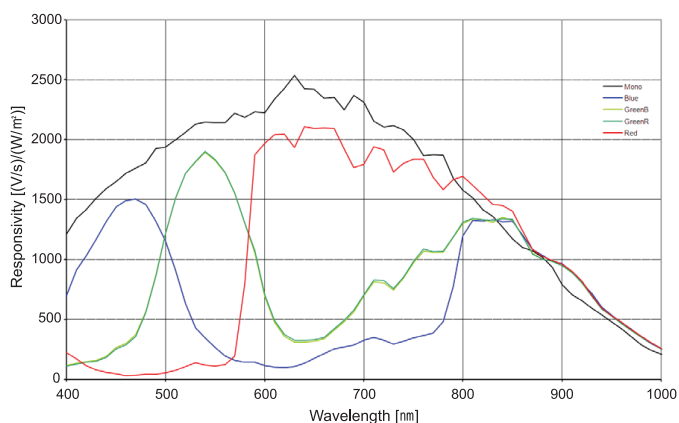
High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

Spectral Response

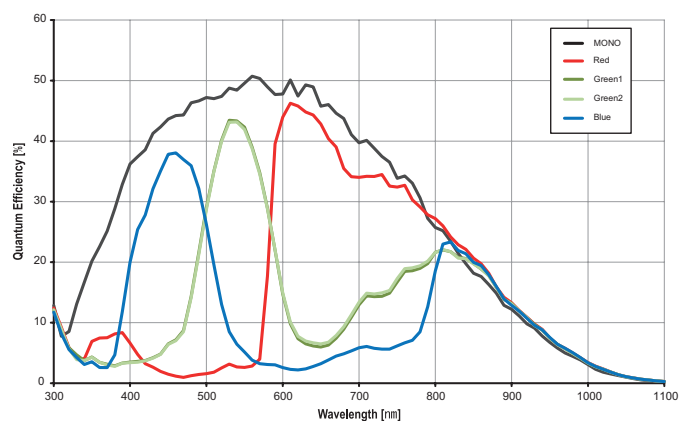
VC-12MX-M/C 180



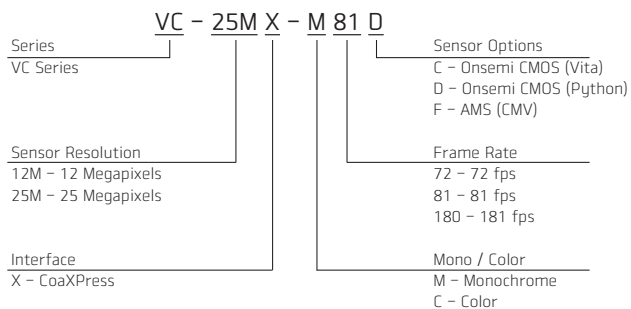
VC-25MX-M/C 72



VC-25MX-M/C 81 D



Ordering Scheme



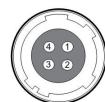
Connector Specification

Power



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

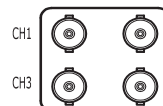
Control



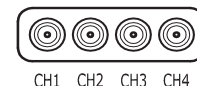
1: Trigger IN+ 2: Trigger IN-
3: DC Ground 4: Strobe OUT+
(HR10A-7R-4S)

Data Transfer/Communications

BNC



DIN



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

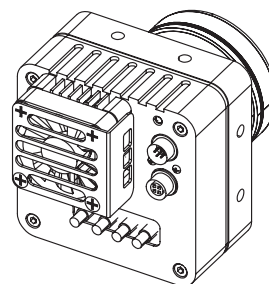
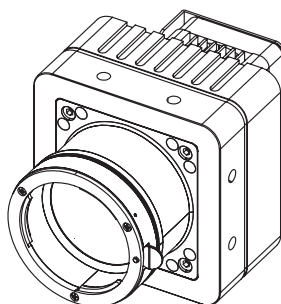
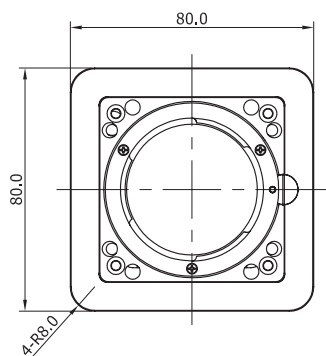
Connectors on camera body

VC-12MX-180 / VC-25MX-72 / VC-25MX-81 D

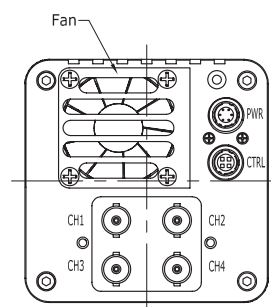
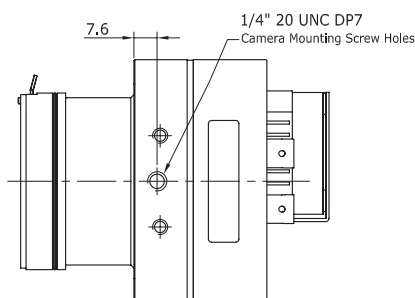
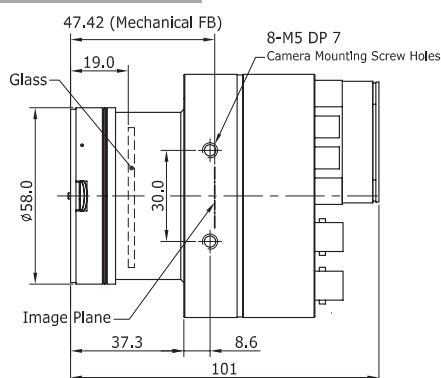
High Speed & High Resolution CMOS Digital Camera with CoaXPress Interface

Mechanical Dimensions

Unit: mm



BNC Type Connector



DIN 1.0/2/3 Type Connector

