VC-25MX2-M/C150I Series

25 Megapixel High Speed CMOS Digital Camera with CoaXPress 2.0 Interface

CoaXPress®

The VC-25MX2-M/C150I Cameras, the latest model of the industrial proven VC series, are new 25-megapixel CoaXPress cameras and based on the CMOS global shutter image sensor technology (GMAX0505) from Gpixel. The VC-25MX2-150I cameras offer up to 150.2 frames per second at 5,120 × 5,120 resolution.

The cameras come with the next generation CoaXPress 2.0 (CXP-12) interface delivering up to 50 Gigabits per second over four coaxial cables. These combinations of the CMOS sensor technology and CoaXPress 2.0 interface set a new standard for industrial, scientific and surveillance digital imaging applications.

Customers in the industrial market can take advantage of simple coax cabling to transmit images at rates and distance above and beyond previous standards. These high-speed and high-resolution cameras are ideal for wide range of demanding applications such as FPD, PCB and semiconductor inspections. For wide range of choice, Vieworks provides this amazing product in two different types, the fan type and the heat sink type, with the same specification.

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VC-25MX2-M/C150I Series

25 Megapixel High Speed CMOS Digital Camera with CoaXPress 2.0 Interface

Main Features

- High Speed 25 Megapixel CMOS Image Sensor
- CoaXPress 2.0 Interface up to 150.2 fps at 50 Gbps using 4 CH
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction
- GenICam Compatible – XML based Control

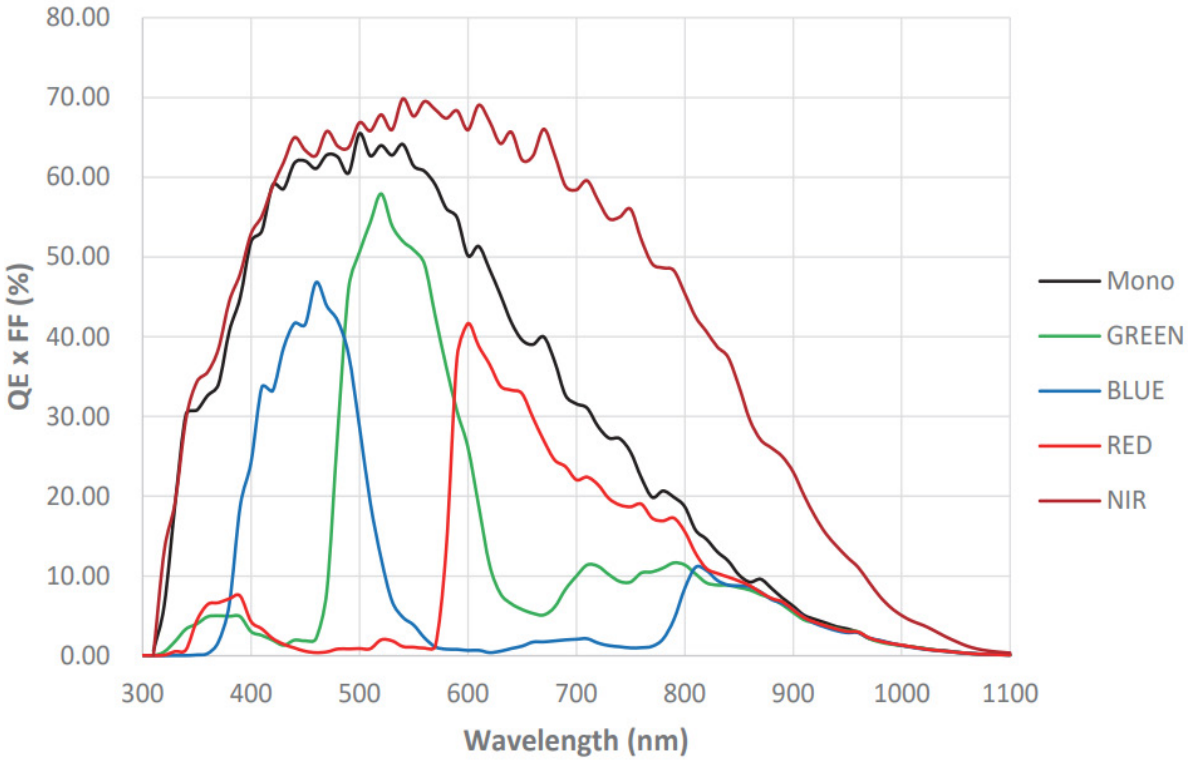
Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning

Specifications

Model		VC-25MX2-M/C150I-HS	VC-25MX2-M/C150I	VC-25MX2-M/C150I-NIR
Resolution (H × V)		5,120 × 5,120		
Sensor		GMAX0505 (Monochrome/Color)		GMAX0505RF (NIR enhanced)
Sensor Size (Diagonal)		12.8㎜ × 12.8㎜ (18.1㎜)		
Sensor Type		High Speed CMOS Image Sensor		
Pixel Size		2.5 ㎛ × 2.5 ㎛		
Interface		CXP-12 × 4		
Max. Frame Rate (8 bit)	CXP-6 × 4	93.1 fps		
	CXP-10 × 4	145.6 fps		
	CXP-12 × 4	149.9 fps	150.2 fps	
Exposure Time (1 ㎲ step		1 ㎲ – 60 s		
Partial Scan (Max. Speed)		16472 fps at 4 Lines	9022 fps at 4 Lines	
Pixel Data Format	Mono	Mono 8 / Mono 10		
	Color	GB Bayer 8 / GB Bayer 10		
Electronic Shutter		Global Shutter		
Gain Control		1× ~ 32×		
Black Level Control		0 – 63 LSB at 10 bit		
Trigger Synchronization		Free-Run, Hardware Trigger, Software Trigger or CXP		
External Trigger		3.3 V ~ 24.0 V, Logical Level Input, Optically Isolated		
Software Trigger		Asynchronous, Programmable via Camera API		
Dynamic Range		61 dB		
Dimension / Weight		62.0㎜ × 62.0㎜ × 60.5㎜, 373g (C-mount)	80.0㎜ × 80.0㎜ × 69.4㎜, 560 g (C-mount)	
Temperature		Operating: 0℃ ~ 40℃, Storage: -40℃ ~ 70℃		
Lens Mount		C-mount, Custom mount available upon request		
Power	External	11 ~ 24 VDC		
	Dissipation	Typ. 12.5 W	Typ. 14.0 W	
	PoCXP	24 VDC, Minimum of two PoCXP cables required		
Compliance		CE, FCC, KC		
API SDK		Vieworks Imaging Solution 7.X		

Spectral Response



Ordering Scheme

VC - 25M X2 - M 150 I

- Series: VC Series
- Sensor Resolution: 25M – 25 Megapixels
- Interface: X2 – CoaXPress 2.0
- Mono / Color: M – Monochrome; C – Color
- Frame Rate: 150 – 150.2 fps
- Sensor Options: I – Gpixel CMOS

VC - 25M X2 - M 150 I - HS

- Series: VC Series
- Sensor Resolution: 25M – 25 Megapixels
- Interface: X2 – CoaXPress 2.0
- Mono: M – Monochrome; C – Color
- Frame Rate: 150 – 150.2 fps; 150 – 149.9 fps
- Sensor Options: I – Gpixel CMOS
- Additional Options: NIR – Near InfraRed; HS – Heat Sink

Connector Specification

Category / Image

Description

Power /Control

(VC-25MX2-M/C150I-HS only)
1: DC Ground 2: +12 VDC
3: I/O Output1- 4: I/O Output1+
5: Trigger IN- 6: Trigger IN+
7: I/O Output2+ 8: I/O Output3+
9: I/O Output4+ 10: I/O Output5+
11: +12 VDC 12: DC Ground
(HR10A-10R-12PB)

Power

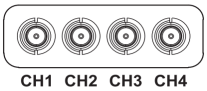
(Except for VC-25MX2-M/C150I-HS)
1,2,3: +12 VDS 4,5,6: GND
(HR10A-7R-6PB)

Control

(Except for VC-25MX2-M/C150I-HS)
1: DC Ground 2: 12 VDC
3: I/O Output- 4: I/O Output1+

Data Transfer / Communications

Micro-BNC



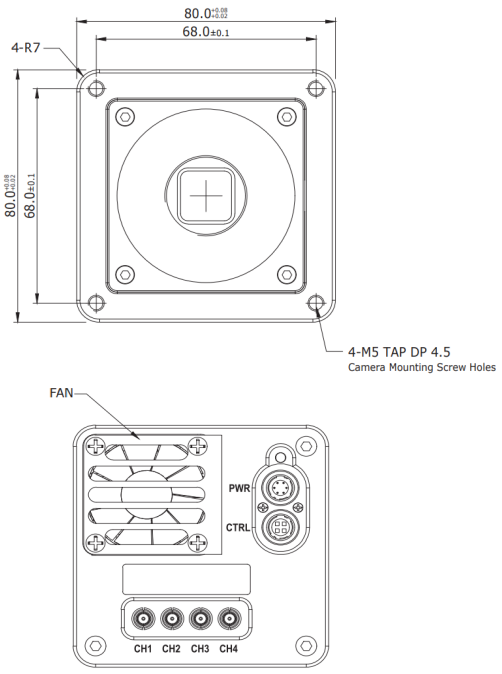
CH1: Master Connection
75 Ω, Micro-BNC (HD-BNC)

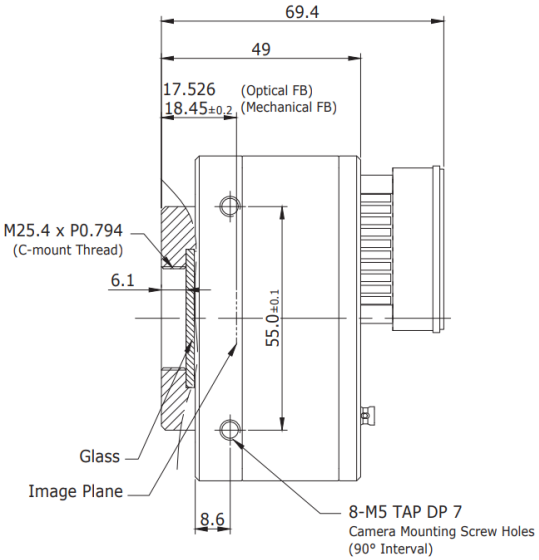
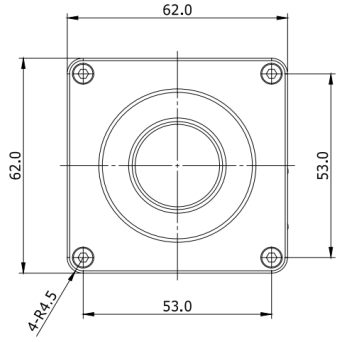
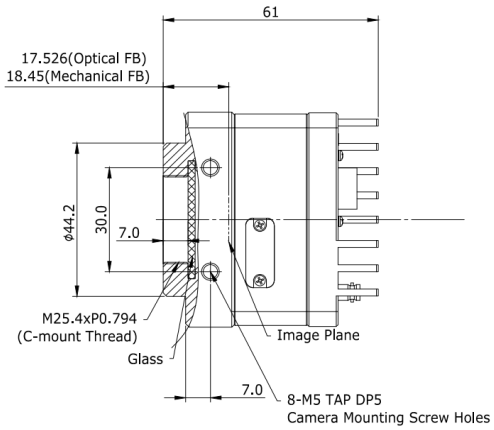
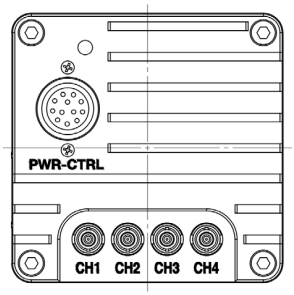
Connectors on camera body

Mechanical Demensions

Unit: mm

VC-25MX2-M/C150I / VC-25MX2-M/C150I-NIR





VC-25MX2-M/C150I-HS