
VN-25MX-M/C 72

PIXEL SHIFTING CAMERA WITH COAXPRESS INTERFACE



The VN-25MX, the new model of the VN series, is the world first CMOS pixel shifting camera equipped with new CoaXPress interface and based on the latest CMOS global shutter imager. It features 25 megapixel resolutions with frame rate up to 72 fps. This is the first CMOS pixel shifting camera whose resolution is extended from 25 MP up to 235 MP through vieworks' iconic pixel shifting technology.

With the VN-25MX, customers in the industrial market can take advantage of 235 million pixels resolution at 8 fps. Its CoaXPress interface supports transmitting image data at up to 6.25 Gbps using a single coaxial cable and up to 25 Gbps using four cables. Featured with high speed and high resolution, this new technology is ideal for inspection systems such as FPD, PCB and semiconductor as well as 3D imaging and digitizing of different objects.

VN-25MX

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Main Features

- * 25 Megapixels Resolution
- * High Speed Progressive Scan CMOS Image Sensor
- * Global Shutter CMOS Technology
- * CoaXPRESS Interface up to 72 fps at 25 Gbps using 4 coax cables (4 CH)
- * Pixel Shifting Mechanism
- * Extended Resolution up to 235 MP at 8 fps (9 Shot Mode)

Applications

- * FPD and PCB Inspection
- * Semiconductor Inspection
- * High Speed 3D Imaging
- * Digitizing and Scanning
- * Research and Scientific Imaging

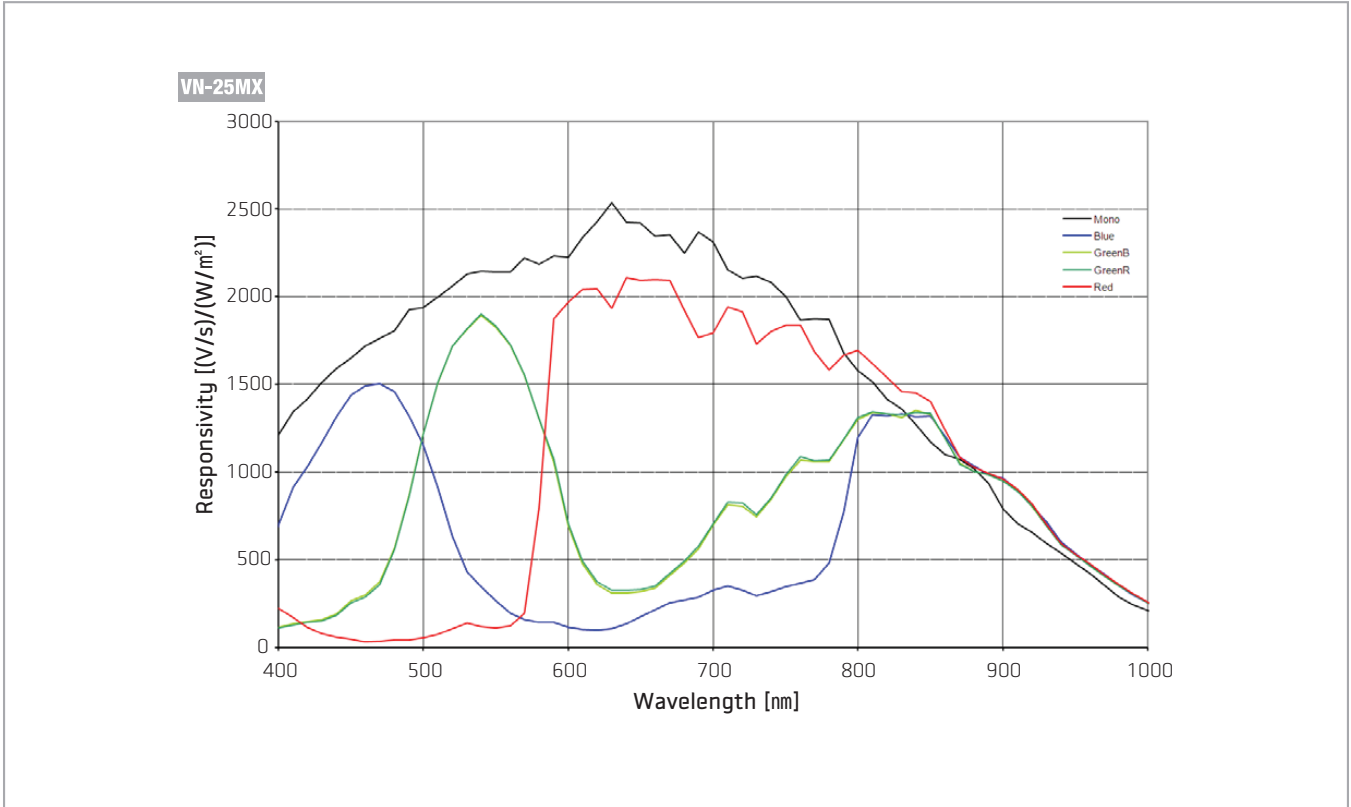
Specifications

Model	VN-25MX-M/C 72		
Resolution (H × V)	5120 × 5120		
Sensor	On Semiconductor VITA-25K		
Sensor Size (Optical Format)	23.04 mm × 23.04 mm (35 mm)		
Sensor Type	High Speed CMOS Image Sensor		
Pixel Size	4.5 μm × 4.5 μm		
Interface	CoaXPRESS		
Max. Frame Rate	25 MP	2 CH: 36 fps at 6.25 Gbps	4 CH: 72 fps at 6.25 Gbps
	100 MP	2 CH: 9 fps at 6.25 Gbps	4 CH: 18 fps at 6.25 Gbps
	235 MP	2 CH: 4 fps at 6.25 Gbps	4 CH: 8 fps at 6.25 Gbps
Exposure Time (1 μs step)	10 μs – 60 s		
Partial Scan (Max. Speed)	7692 fps at 4 Lines (H: 256)		
Pixel Data Format	Mono	Mono 8, Mono 10	
	Color	Bayer 8, Bayer 10	
Electronic Shutter	Global Shutter		
Gain Control	×1 ~ ×4		
Black Level Control	0 – 16 LSB at 8 bit, 0 – 64 LSB at 10 bit (1 LSB step)		
Exposure Mode	Free-Run, Timed, Trigger Width		
Dynamic Range	54 dB		
Shift Range	0 ~ 7.5 μm, 1 nm step		
Shift Resolution	0.001 μm		
Shift Control	Sequence Mode (mono4, mono9, mono2H, mono2V, bayer4, bayer16)		
Dimension / Weight	80 mm × 80 mm × 150 mm, 1100 g		
Temperature	Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C		
Lens Mount	F-mount		
Power	Adapter	11 ~ 30 V DC, Typ. 13 W	
	PoCXP	24 V DC, Minimum of two PoCXP cables required	
Compliance	CE, FCC, KC		
API SDK	Vieworks Imaging Solution 7.X		

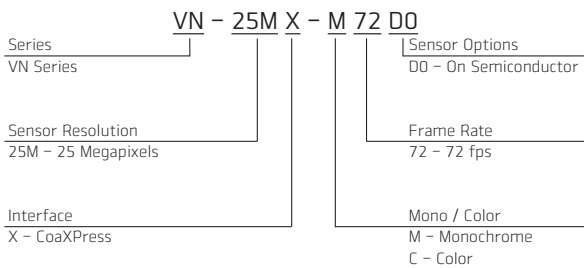
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Quantum Efficiency Curves



Ordering Scheme



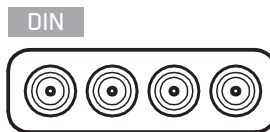
Connector Specification

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



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

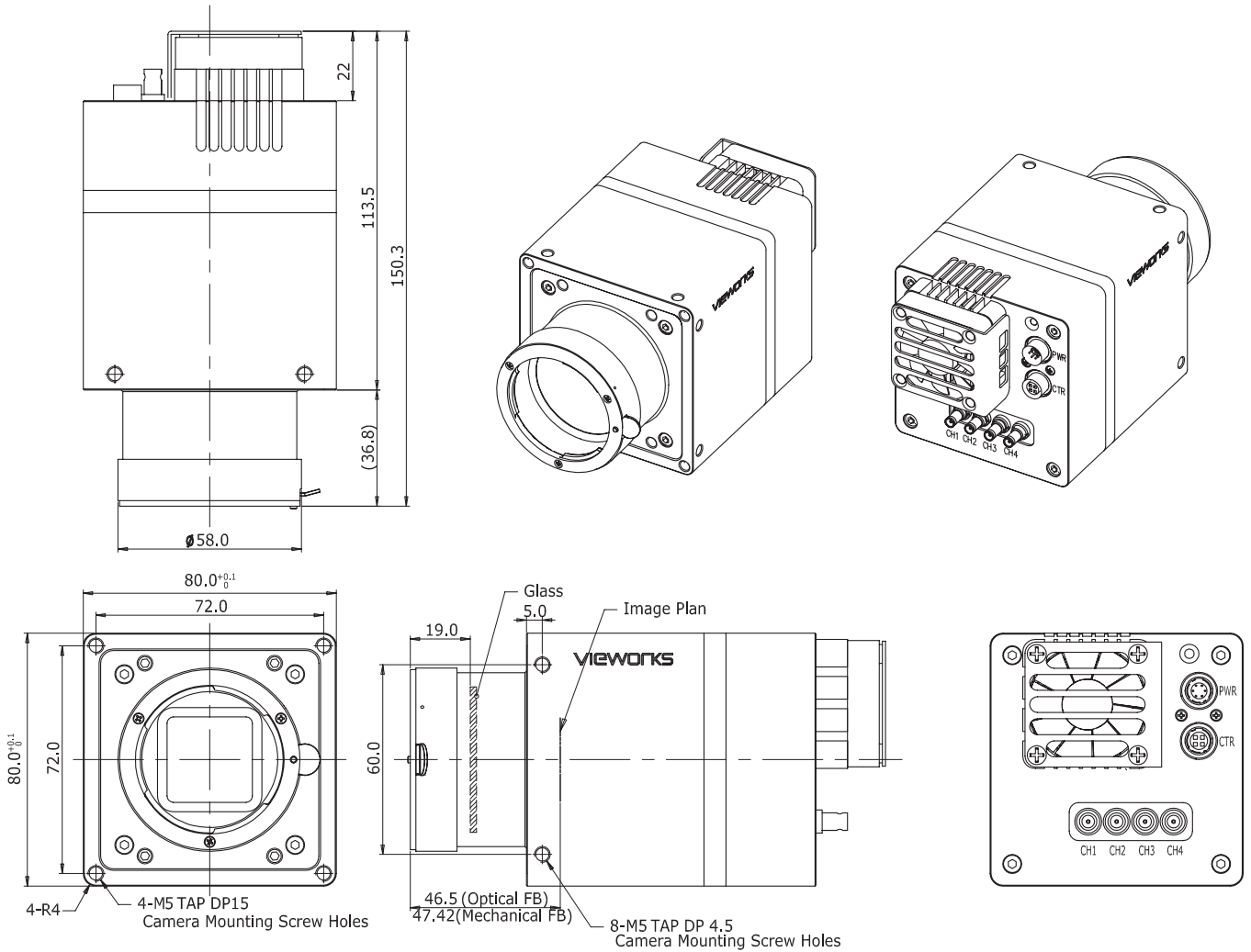
Connectors on camera body

VN-25MX

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Mechanical Dimensions

Unit: mm



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