

VC-5/9/18MX2 Series

5/9/18 Megapixel High Speed CMOS Digital Camera
with CoaXPress 2.0 Interface



The VC-5/9/18MX2 cameras, the latest model of the industrial proven VC series, are new 5/9/18-megapixel CoaXPress cameras and based on the CMOS global shutter image sensor technology (GMAX2505, 2509, 2518) from Gpixel. In the case of the VC-5MX2-289I camera, it offers up to 289 frames per second at $2,592 \times 2,160$ resolution. The camera comes with the next generation CoaXPress 2.0 (CXP-12) interface delivering up to 25 Gigabits per second over two 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. The high-speed and high-resolution camera is ideal for wide range of demanding applications such as FPD, PCB and semiconductor inspections.

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Main Features

- High Speed 5/9/18 Megapixel CMOS Image Sensor
- CoaXPress 2.0 Interface up to 289 fps at 25 Gbps using 2 CH (VC-5MX2-M/C289)
- Power over CoaXPress (PoCXP)
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction

Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning
- Factory Automation, Robotics or AOI

Specifications

Model	VC-5MX2-M/C289	VC-9MX2-M/C262I	VC-9MX2-M120I	VC-18MX2-M/C132
Resolution (H × V)	2,592 × 2,160	4,192 × 2,160		4,480 × 4,096
Sensor	Gpixel GMAX2505	Gpixel GMAX2509		Gpixel GMAX2518
Sensor Size (Diagonal)	6.5 mm × 5.4 mm (8.45 mm)	10.5 mm × 5.4 mm (11.8 mm)		11.27 mm × 10.24 mm (15.22 mm)
Sensor Type	High Speed CMOS Image Sensor			
Pixel Size	2.5 μm × 2.5 μm			
Interface	CoaXPress 2.0			
Max. Frame Rate	289 fps	262 fps	120 fps	132 fps
Exposure Time (1 μs step)	1 μs – 60 s			
Partial Scan (Max. Speed)	27459.9 fps at 2 Lines (8 bit)	24844.7 fps at 2 Lines (8 bit)		14101.0 fps at 2 Lines (8 bit)
Pixel Data Format	Mono 8/10 bit, Color GB Bayer 8/10 bit Mono 12 bit(VC-9MX2-M120I00 only)			
Electronic Shutter	Global Shutter			
Digital Gain	1 × ~ 32 ×			
Black Level Control	0 – 63 LSB at 10 bit (1 LSB step)			
Exposure Mode	Free-Run, Timed, Trigger Width			
External Trigger	3.3 V ~ 24.0 V, 10mA, Logical Level Input Optically isolated, CoaXPress Control Port			
Software Trigger	Asynchronous, Programmable via Camera API			
Dynamic Range	62 dB			
Dimension / Weight	50.0 mm × 50.0 mm × 87 mm, 270 g (C-mount)			
Temperature	Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C			
Lens Mount	C-mount			
Power	11 ~ 24 VDC, Typ. 16 W			
	24 VDC, Minimum of two PoCXP cables required			
Compliance	CE, FCC, KC, UL			

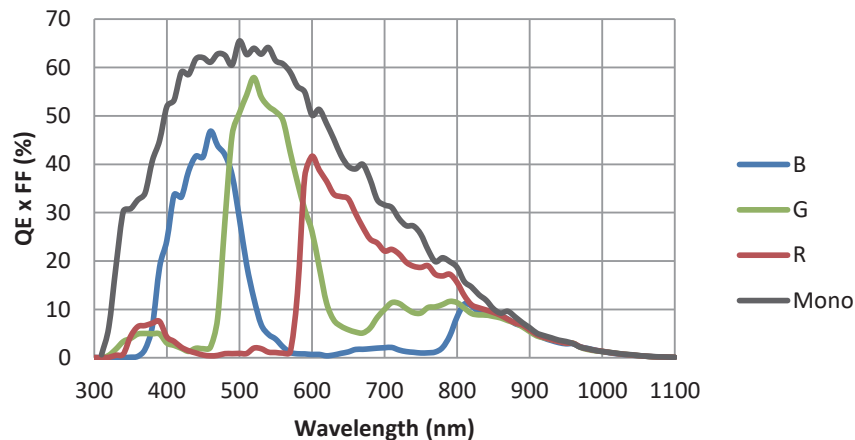
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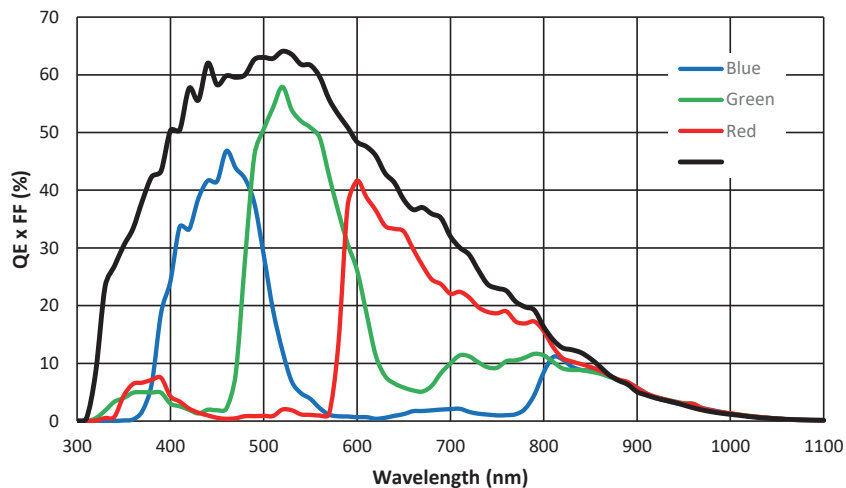


Spectral Response

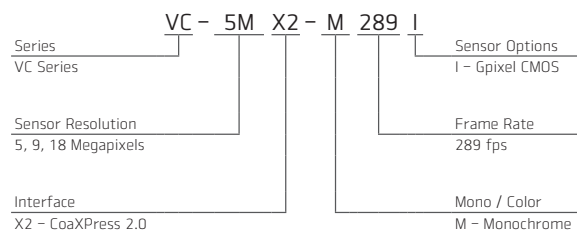
VC-5/9MX2



VC-18MX2

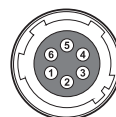


Ordering Scheme



Connector Specification

Power



- | | |
|----------------|----------------|
| 1: +12V DC | 2: Trigger IN+ |
| 3: Trigger IN- | 4: Output+ |
| 5: Output- | 6: DC Ground |
- (HR10A-7R-6PB)

Data Transfer / Communications

Micro-BNC



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

Connectors on camera body

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Mechanical Dimensions

Unit: mm

