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# VC-4MX-M/C 144

HIGH SPEED & HIGH RESOLUTION CMOS DIGITAL CAMERA  
WITH COAXPRESS INTERFACE



**CoaXPress®**

The VC-4MX, the latest member of industrial proven VC CXP series, is based on the CMOS global shutter imager. The VC-4MX features 4 megapixel resolutions with frame rate up to 144 fps. This combination of resolution, frame rate, and global shutter sets 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 this camera, image data can be transmitted at up to 6.25 Gbps using a single coaxial cable. This high speed and high resolution model is ideal for wide range of demanding applications including PCB and semiconductor inspections.

**VIEWWORKS**

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## Main Features

- \* 4 Megapixels Resolution
- \* High Speed Progressive Scan CMOS Imager
- \* Global Shutter CMOS Technology
- \* CoaXPress Interface up to 144 fps at 25 Gbps
- \* Reverse X / Reverse Y
- \* Low Noise with Optimized Heat Treatment

## Applications

- \* PCB Inspection
- \* Semiconductor Inspection
- \* 3D Inspection
- \* High-end Surveillance

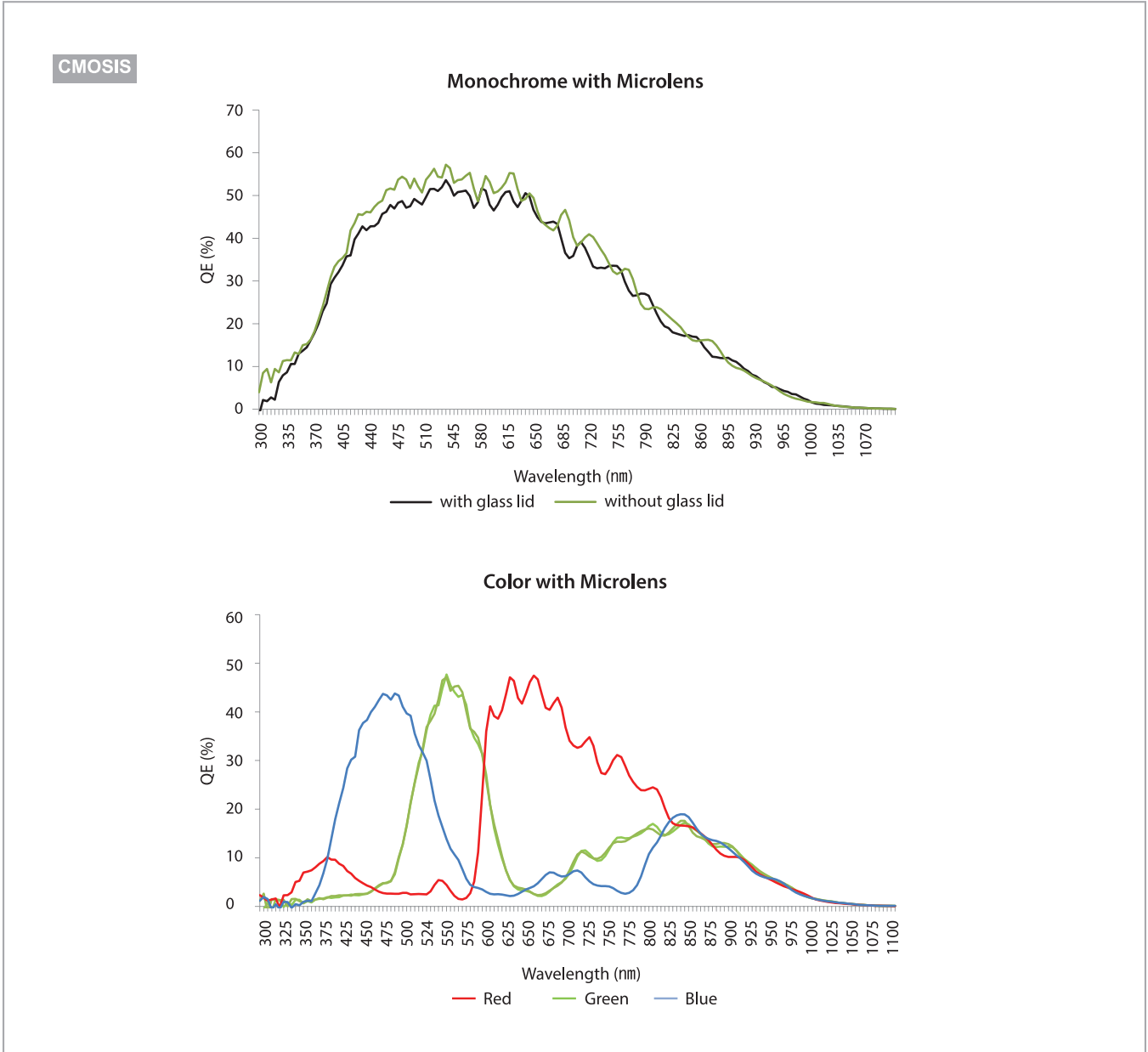
## Specifications

Model	VC-4MX-M/C 144	
Resolution (H × V)	2048 × 2048	
Sensor	CMOSIS CMV 4000	
Sensor Size (Optical Format)	11.26 mm × 11.26 mm (1")	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	5.5 μm × 5.5 μm	
Interface	CoaXPress (CXP-6 DIN Single Channel)	
Max. Frame Rate	144 fps @ 6.25 Gbps	
Exposure Time (1 μs step)	16 μs – 60 s	
Partial Scan (Max. Speed)	16394 fps at 4 Lines	
Pixel Data Format	8 bit	
Electronic Shutter	Global Shutter	
Gain Control	×1 ~ ×4	
Black Level Control	0 – 16 LSB	
Exposure Mode	Free-Run, Timed, Trigger Width	
Dynamic Range	52 dB	
External Trigger	3.3 V ~ 24.0 V, 10 mA – Logical Level Input Optically isolated, CoaXPress Control Port	
Dimension / Weight	40 mm × 40 mm × 41 mm, 200 g (C-mount)	
Temperature	Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C	
Lens Mount	C-mount	
Power	Adapter	10 ~ 24 V DC, Typ. 3 W
	PoCXP	24 V DC
API SDK	Vieworks Imaging Solution 7.X	

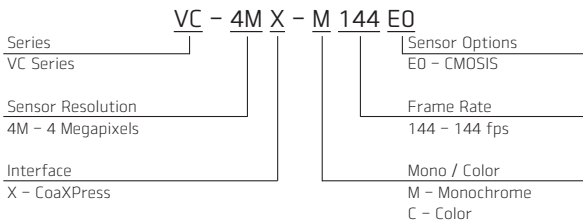
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## Quantum Efficiency Curves



## Ordering Scheme



## Connector Specification

### Power & Control



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

### Data Transfer/Communications

DIN



CXP

75 Ω, DIN 1.0/2.3

Connectors on camera body

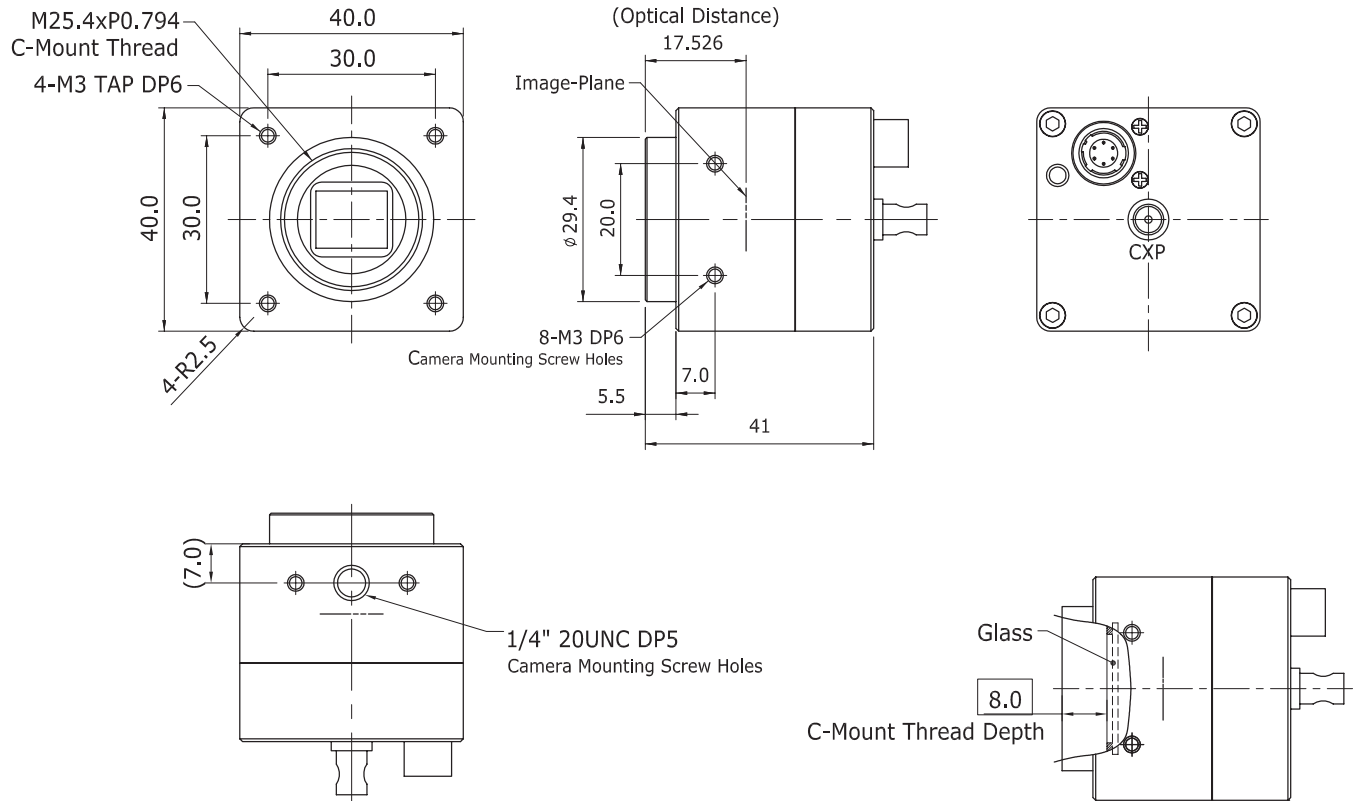
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## Mechanical Dimensions

Unit: mm

### DIN 1.0/2/3 Type Connector



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