

# VP-103MX2-M/C24I

103-Megapixel Thermoelectric Peltier Cooled Camera  
with CoaXPress 2.0 Interface



The VP-103MX2, the latest model of the industrial proven VP series, is a new 103-megapixel CoaXPress camera and adopts the cutting-edge High Speed CMOS Image Sensor.

The VP-103MX2 camera offers up to 24.7 frames per second at 11,264 × 9,200 resolution.

This camera uses thermoelectric Peltier (TEC) cooling technology developed for and used by many demanding medical market customers. The TEC maintains the operating temperature of the CMOS image sensor at up to 15 degrees below ambient temperature. This camera provides a stable operating condition and the ability to expose for a long period of time to increase camera sensitivity.

Featuring the stable operating capability and high resolution, this camera is ideal for demanding applications such as FPD, PCB and semiconductor inspections.

**VIEWWORKS**

[vision.vieworks.com](http://vision.vieworks.com)

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## Main Features

- Thermoelectric Peltier Cooled –  $15 \pm 2^\circ\text{C}$  below
- 103 Megapixel Resolution
- CoaXPress 2.0 Interface up to 24.7 fps at 50 Gbps using 4 CH
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- GenICam Compatible – XML based Control

## Applications

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

## Specifications

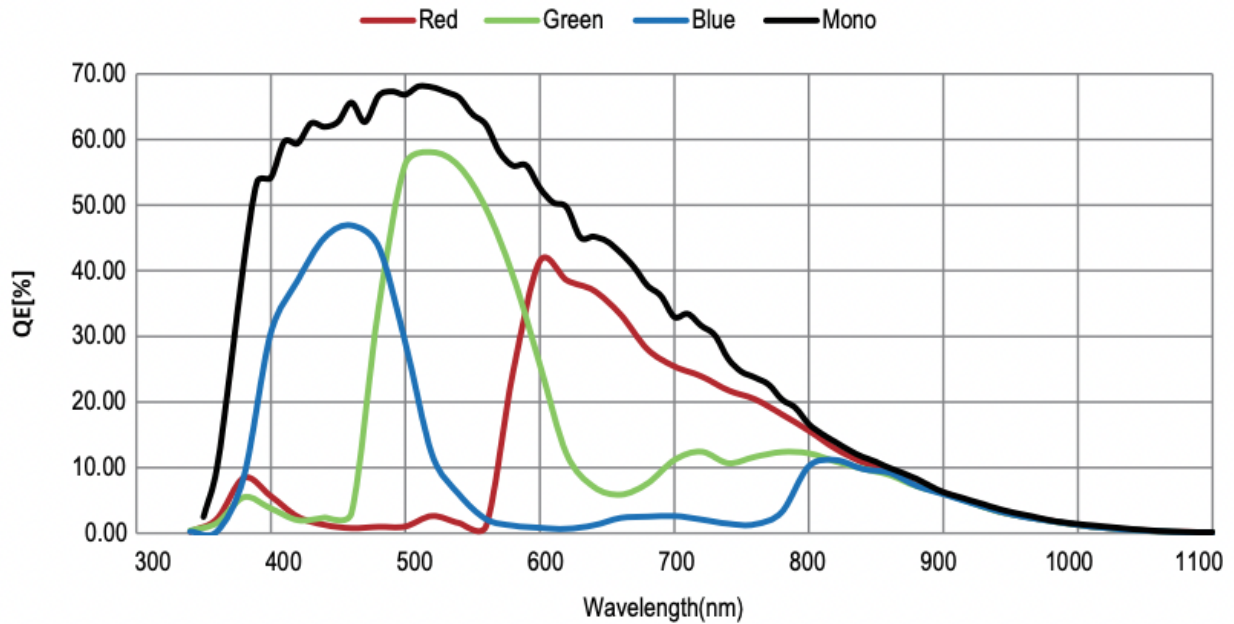
Model	VP-103MX2-M/C24I	
Resolution (H × V)	11,264 × 9,200	
Sensor Size (Diagonal)	36.1 mm × 29.4 mm (Photo Sensitive Area)	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	3.2 $\mu\text{m}$ × 3.2 $\mu\text{m}$	
Interface	CXP-12 × 4	
Max. Frame Rate (8 bit)	CXP-6 × 4	22.8 fps
	CXP-10 × 4	24.7 fps
	CXP-12 × 4	24.7 fps
Exposure Time (1 $\mu\text{s}$ step)	1 $\mu\text{s}$ – 60 s	
Partial Scan (Max. Speed)	850.2 fps at 4 Lines(CXP-12)	
Pixel Data Format	Mono	8/10/12 bit
	Color	GB Bayer 8/10/12 bit
Electronic Shutter	Global Shutter	
Binning	×1, ×2, ×4(Monochrome), Horizontal and Vertical Independent	
Gain Control	Analog	1.4× ~ 5.2×
	Digital	1.0× ~ 32.0×
Black Level Control	0 – 255 LSB at 12 bit	
Trigger Synchronization	Free-Run, Hardware Trigger, Software Trigger or CXP	
External Trigger	3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated	
Software Trigger	Asynchronous, Programmable via Camera API	
Dynamic Range	Typical 66 dB at 12 bit	
Cooling Method	Thermoelectric Peltier Cooling	
Cooling Performance	$15 \pm 2^\circ\text{C}$ below Ambient Temperature – Standard Cooling with a Fan	
Dimension / Weight	100.0 mm × 100.0 mm × 120.0 mm, 1.55 kg (with M72-mount)	
Temperature	Operating: $0^\circ\text{C}$ ~ $40^\circ\text{C}$ , Storage: $-40^\circ\text{C}$ ~ $70^\circ\text{C}$	
Lens Mount	M72-mount	
Power	External	11 ~ 24 V DC
	Dissipation	Typical 30 W, Maximum 32 W
Compliance	CE, FCC, KC	

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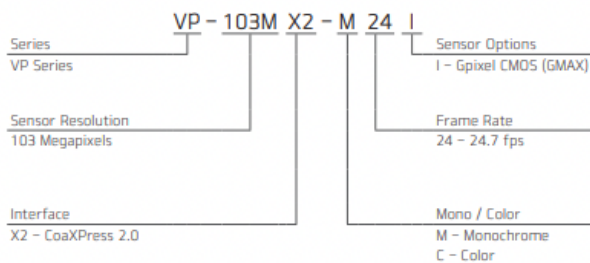
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## Spectral Response



## Ordering Scheme



## Connector Specification

### Power



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

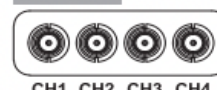
### Control



1: Trigger IN+  
2: Trigger IN-  
3: Strobe Out-(GND)  
4: Strobe Out+ (HR10A-7R-4S)

### Data Transfer / Communications

Micro-BNC



CH1: Master Connection  
75  $\Omega$  , Micro-BNC (HD-BNC)

Connectors on Camera Body

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## Mechanical Dimensions

