

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.

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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

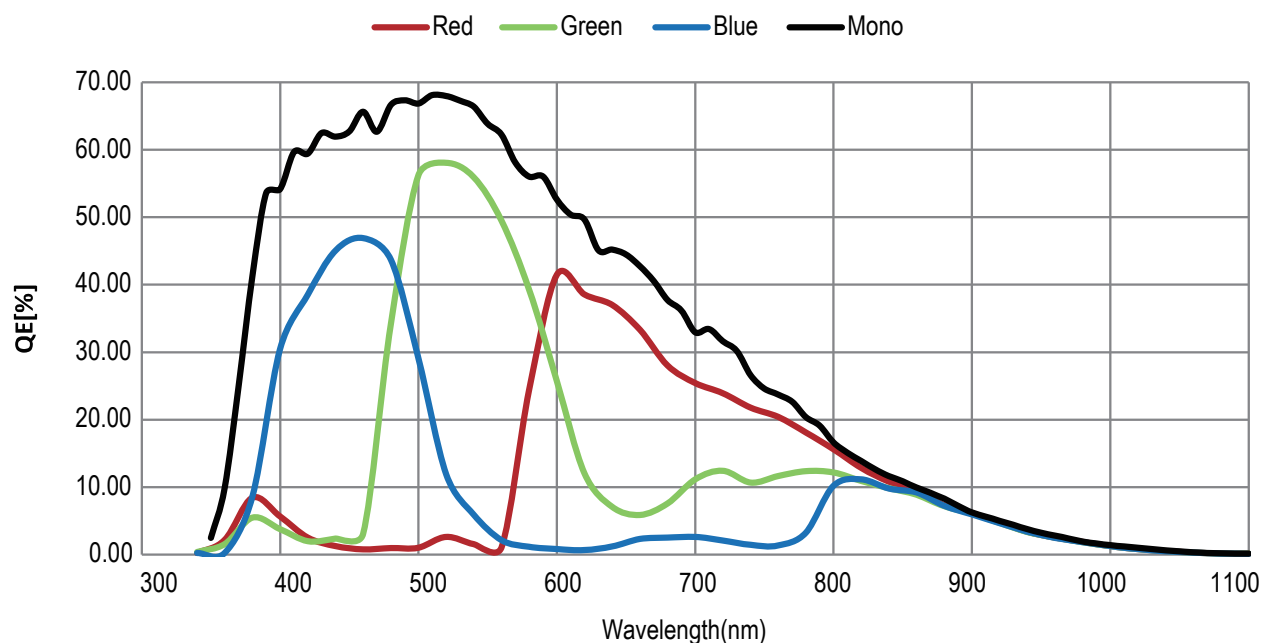
Model		VP-103MX2-M/C24I
Resolution (H × V)		11,264 × 9,200
Sensor Size (Diagonal)		36.1 mm × 29.4 mm (Photo Sensitive Area)
Sensor Type		High Speed CMOS Image Sensor
Pixel Size		3.2 μm × 3.2 μm
Interface		CXP-12 × 4
Max. Frame Rate (8 bit)	CXP-6 × 4	22.8 fps
	CXP-10 × 4	24.7 fps
	CXP-12 × 4	24.7 fps
Exposure Time (1 μs step)		1 μs – 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°C ~ 40°C , Storage: -40°C ~ 70°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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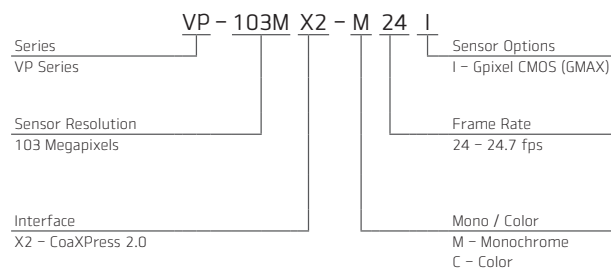
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Spectral Response



Ordering Scheme



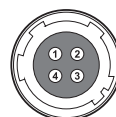
Connector Specification

Power



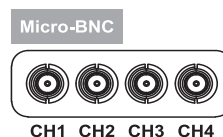
1, 2, 3: +12V DC (HR10A-7R-6PB)
4, 5, 6: GND

Control



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

Data Transfer / Communications



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

Connectors on Camera Body

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Mechanical Dimensions

