

# VP-103MC-M/C71

High Resolution Thermoelectric Peltier Cooled Camera



The VP-103MC, the latest model of the industrial proven VP series, is the 103-megapixel resolution CMOS camera available with the Camera Link interface. The camera is based on the latest CMOS image sensor technology (GMAX32103) from Gpixel.

The VP-103MC offers up to 7.6 frames per second at  $11,264 \times 9,200$  resolution. These cameras use thermo-electric 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. These cameras provide a stable operating condition and the ability to expose for a long period of time to increase camera sensitivity.

Featured with the stable operating capability and high resolution, these cameras are ideal for demanding applications such as FPD, PCB and semiconductor inspections.

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# VP-103MC-M/C7I

High Resolution Thermoelectric Peltier Cooled Camera

## Main Features

- Thermoelectric Peltier Cooled – 15°C below
- 103 Megapixel Resolution
- Camera Link Full Interface
- Global Shutter
- DSNU and PRNU Correction
- Flat Field Correction with Sequencer Control
- Hot Pixel Correction
- Dynamic Defective Pixel Correction

## Applications

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

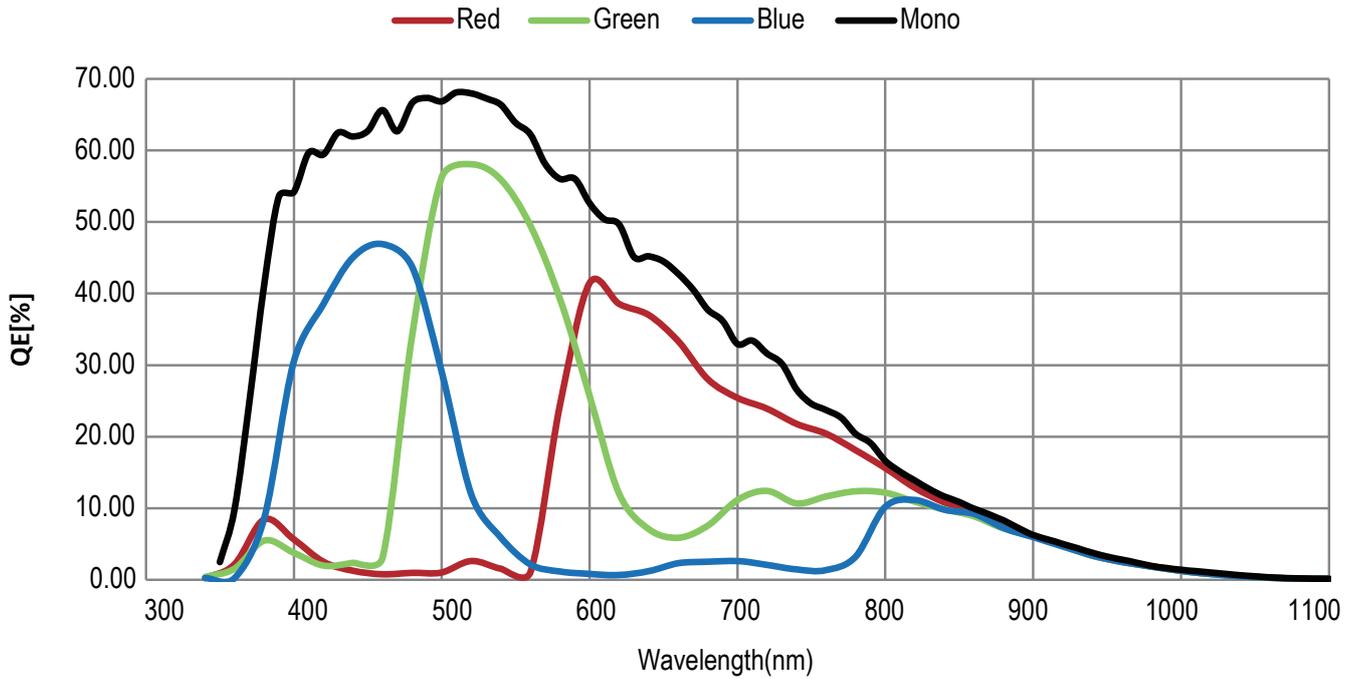
## Specifications

Model		VP-103MC-M/C7I
Resolution (H × V)		11,264 × 9,200
Sensor		GMAX32103
Sensor Size (Diagonal)		36.1 mm × 29.4 mm (Photo Sensitive Area)
Pixel Size		3.2 μm × 3.2 μm
Interface		Camera Link Base/Medium/Full/10-taps, 2 channels of 26-pin SDR Connector
Max. Frame Rate (8 bit)	4-taps	3.0 fps
	8-taps	6.1 fps
	10-taps	7.6 fps
Exposure Time (1 μs step)		1 μs – 60 s (1 μs Step)
Binning		×1, ×2, ×4(Monochrome), Horizontal and Vertical Independent
Pixel Data	Mono	8/10/12 bit
Format	Color	GB Bayer 8/10/12 bit
Electronic Shutter		Global Shutter
Exposure Mode		Free-Run, Timed, Trigger Width
Dynamic Range		Typical 66 dB at 12 bit
Cooling Method		Thermoelectric Peltier Cooling
Cooling Performance		15±2°C below Ambient Temperature – Standard Cooling with a Fan
Gain Control	Analog	1.4× ~ 5.2×
	Digital	1.0× ~ 32.0×
Black Level Control		0 – 255 LSB at 12 bit
Dimension / Weight		100 mm × 100 mm × 120 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 28 W, Maximum 30 W
Compliance		CE, FCC, KC

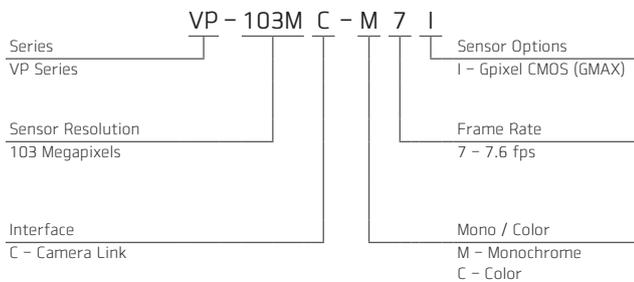
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## Relative Sensitivity Curves



## 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: Strobe Out-(GND)  
4: Strobe OUT+  
(HR10A-7R-4S)

Connectors on Camera Body

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## Mechanical Dimensions

Unit: mm

