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VP-101MC-M/C 8 H
VP-151MC-M/C 5 H

High Resolution Thermoelectric Peltier Cooled Camera

The VP-101MC and VP-151MC, the latest models of the industrial proven VP series, are 101 and 151 megapixel resolution CMOS cameras available with the Camera Link interface. These cameras are based on the latest CMOS image sensor technology (IMX461 and IMX411) from Sony Semiconductor Solutions Corporation. The VP-101MC-8 offers up to 8.1 frames per second at 11648 × 8742 resolution. For even higher resolution applications, the VP-151MC-5 offers up to 5.5 frames per second at 14192 × 10640 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.

VP-101MC-8 H / VP-151MC-5 H

High Resolution Thermoelectric Peltier Cooled Camera

Main Features

- Thermoelectric Peltier Cooled – 15℃ below
- 101 or 151 Megapixel Resolution
- Camera Link Full Interface
- Electronic Rolling Shutter
- DSNU and PRNU Correction
- Flat Field Correction with Sequencer Control
- Hot Pixel Correction
- Dynamic Defective Pixel Correction
- 4 Gb Frame Buffer for Burst Readout Mode

Applications

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

Specifications

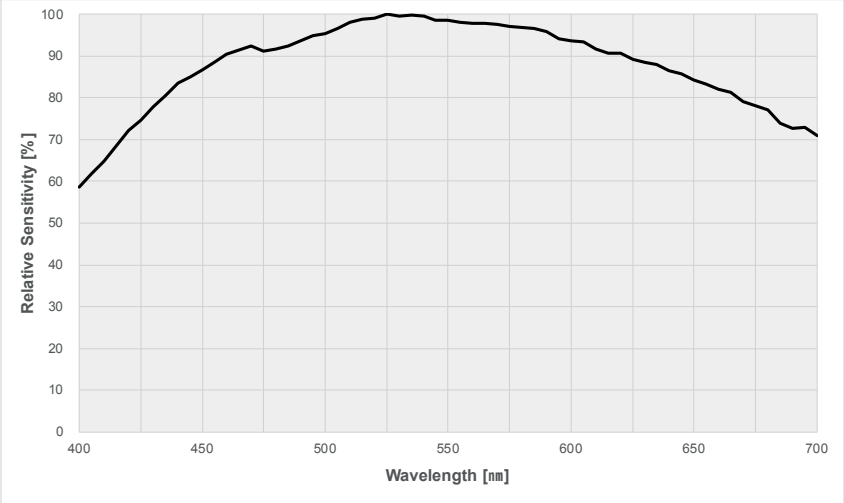
Model		VP-101MC-M/C 8 H	VP-151MC-M/C 5 H
Resolution (H × V)		11648 × 8742	14192 × 10640
Sensor		SONY IMX461	SONY IMX411
Sensor Size (Diagonal)		43.80 ㎜ × 32.87 ㎜ (55 ㎜)	53.36 ㎜ × 40.01 ㎜ (66.7 ㎜)
Pixel Size		3.76 ㎛ × 3.76 ㎛	3.76 ㎛ × 3.76 ㎛
Interface		Camera Link Base / Medium / Full / 10 Tap	
Max. Frame Rate		8.1 fps (with Overlapped Acquisition)	5.5 fps (with Overlapped Acquisition)
Camera Image Memory		4 Gb	
Exposure Time (1 ㎲ step)		1 ㎲ – 60 s	
Pixel Data Format		8 / 10 / 12 bit	
Data Output Pixel Clock Speed		85 ㎒ / 65 ㎒	
Electronic Shutter		Rolling Shutter	
Trigger Synchronization	Overlapped Acquisition	Free-Run	
	Non-overlapped Acquisition	Hardware Trigger or CC1	
Dynamic Range		78 dB	
Gain Control		1× ~ 32×	
Black Level Control		0 ~ 255 LSB at 12 bit	
Cooling Method		Thermoelectric Peltier Cooling	
Cooling Performance		15 below ambient temperature – Standard cooling with a fan	
Dimension / Weight		100 ㎜ × 100 ㎜ × 88 ㎜, 1.1 ㎏ (with M-72 mount)	110 ㎜ × 110 ㎜ × 88 ㎜, 1.4 ㎏ (with M-72 mount)
Temperature		Operating: 0℃ ~ 40℃, Storage: -40℃ ~ 70℃	
Lens Mount		M72-mount, Custom mount available upon request	
Power	External	11 ~ 24 V DC	
	Dissipation	Typ. 26.0 W	
Compliance		CE, FCC, KC	
API SDK		Vieworks Imaging Solution 7.X	

VP-101MC-8 H / VP-151MC-5 H

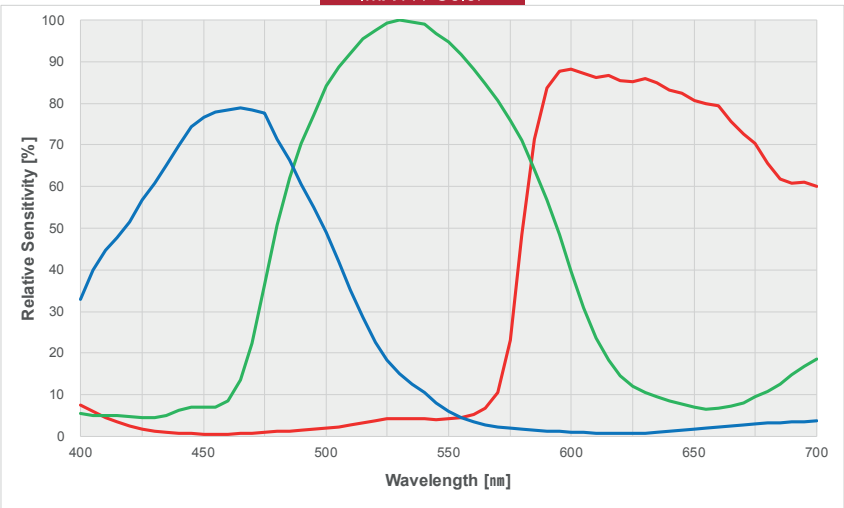
High Resolution Thermoelectric Peltier Cooled Camera

Relative Sensitivity Curves

IMX411 Monochrome



IMX411 Color



Ordering Scheme

VP – 151M C – M 5 H

Series VP Series			Sensor Options H – Sony CMOS (IMX)
Sensor Resolution 101M – 101 Megapixels 151M – 151 Megapixels			Frame Rate 5 – 5.5 fps 8 – 8.1 fps
Interface C – Camera Link			Mono / Color M – Monochrome C – Color

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

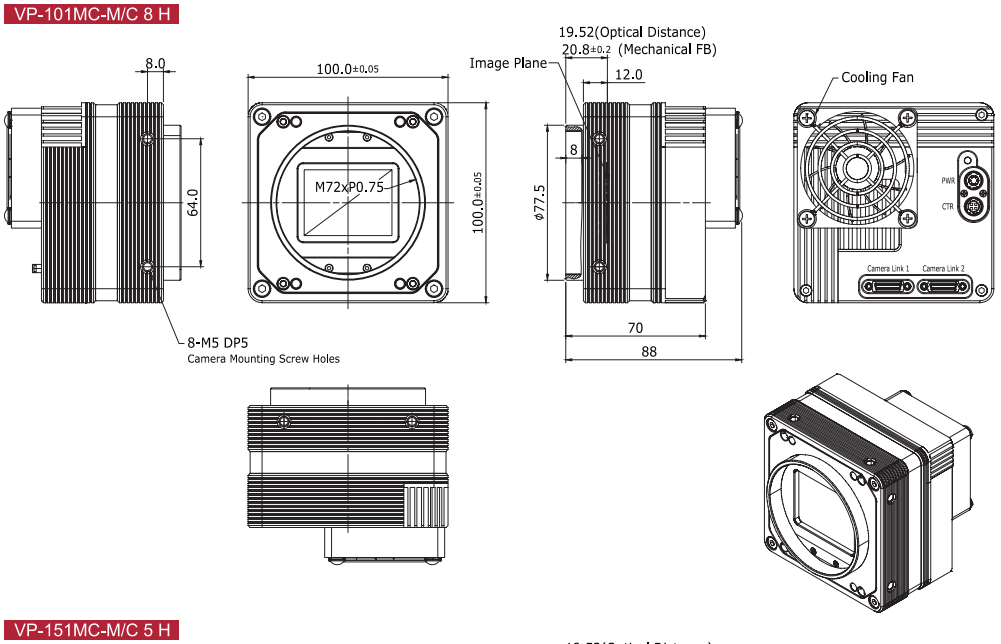
VP-101MC-8 H / VP-151MC-5 H

High Resolution Thermoelectric Peltier Cooled Camera

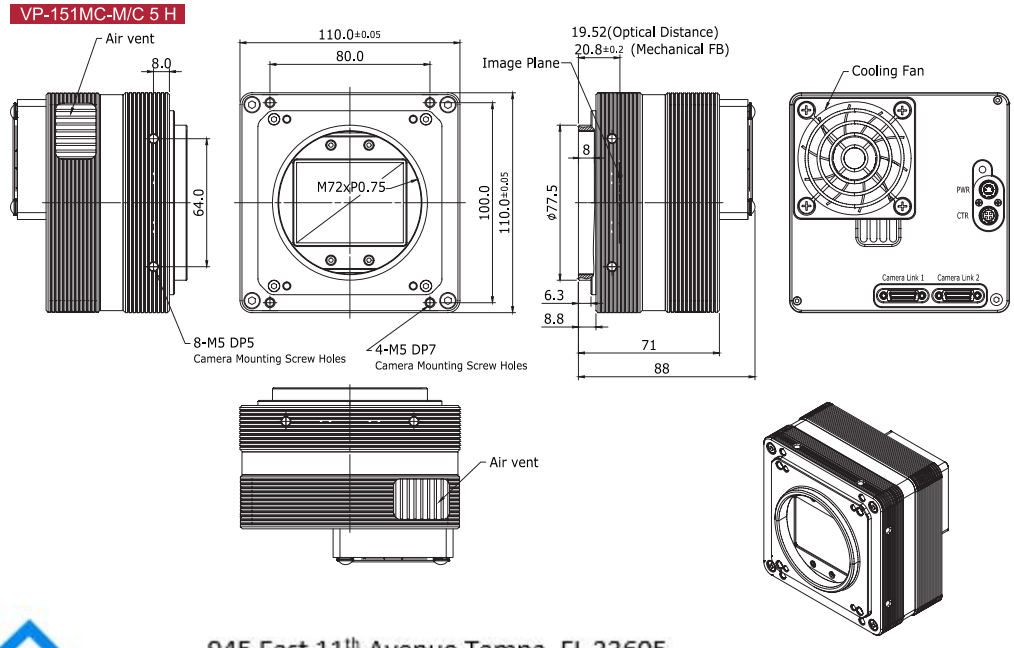
Mechanical Dimensions

Unit: mm

VP-101MC-M/C 8 H



VP-151MC-M/C 5 H



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