

VP-31MC-M/C 26 H

31MP Thermoelectric Peltier Cooled Camera



The VP-31MC-26 H, the latest model of the industrial proven VP series, is a new 31 megapixel CMOS camera available with the Camera Link interface. This camera is based on the latest CMOS image sensor technology (IMX342) from Sony Semiconductor Solutions Corporation. The VP-31MC-26 H offers up to 26.2 frames per second at 6464 × 4852 resolution. This camera uses thermo-electric Peltier (TEC) cooling technology developed for and used by many demanding medical market customers. The TEC maintains the operating temperature of the image sensor at up to $15 \pm 2^{\circ}\text{C}$ below ambient temperature. The VP-31MC camera provides a stable operating condition and the ability to expose for a long period of time to increase the camera's sensitivity. Featuring high-speed and high-resolution with stable performance, 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
- 31 Megapixel Resolution
- Camera Link Full Interface
- Flat Field Correction with Sequencer Control
- PRNU Correction
- Hot Pixel Correction
- Defective Pixel Correction
- Frame Averaging
- GenICam Compatible – XML based Control

Applications

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

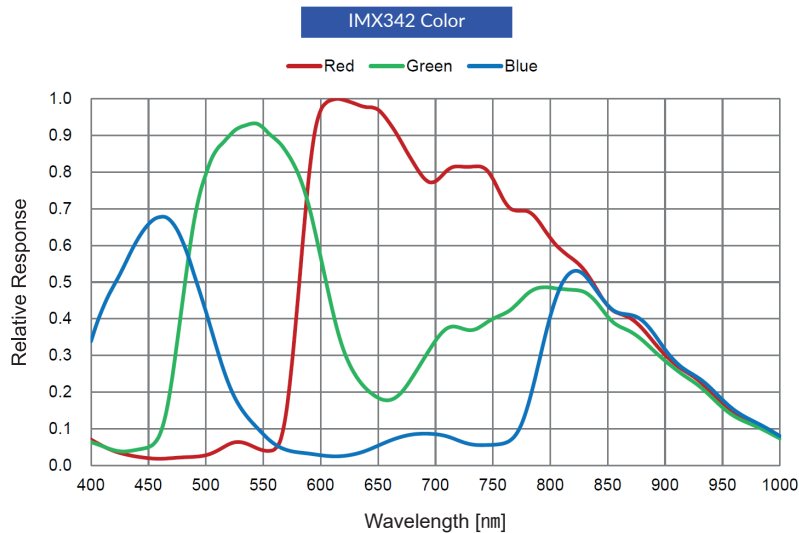
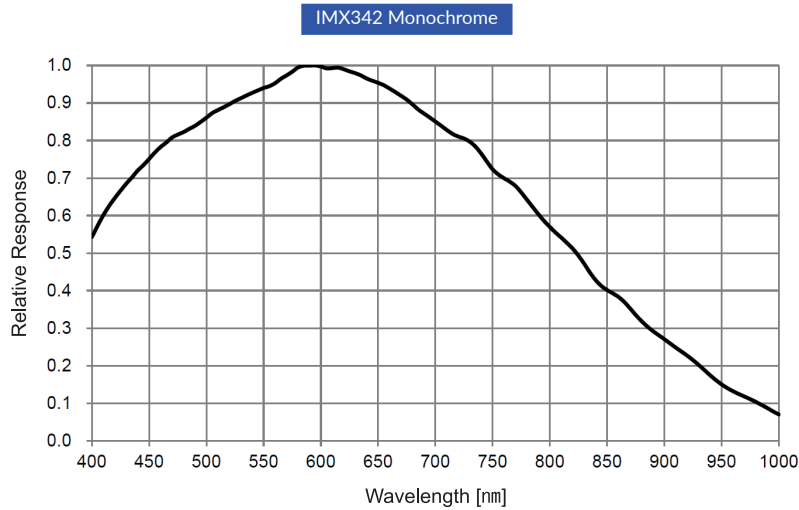
Specifications

Model		VC-31MC-M/C 26 H
Resolution (H × V)		6464 × 4852
Sensor		SONY IMX342
Optical Format (Diagonal)		APS-C (27.9 mm)
Pixel Size		3.45 μm × 3.45 μm
Interface		Camera Link Base / Medium / Full / 10 Tap, 26-pin SDR Connector
Max. Frame Rate	2 Tap	5.3 fps
	4 Tap	10.6 fps
	8 Tap (8 bit)	21.1 fps
	10 Tap (8 bit)	26.2 fps
Exposure Time		2.4 μs – 60 s
Partial Scan (Max. Speed)		1442.3 fps at 4 Lines
Binning	Sensor	×1, ×2 (Horizontal and Vertical Dependent)
	Mono	Mono 8 / Mono 10 / Mono 12
Pixel Data Format	Color	RG Bayer 8 / RG Bayer 10 / RG Bayer 12
	Data Output Pixel Clock Speed	65 MHz / 85 MHz
Electronic Shutter		Global Shutter
Trigger Synchronization		Free-Run, Hardware Trigger, Software Trigger or CC1
External Trigger		3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated
Software Trigger		Asynchronous, Programmable via Camera API
Dynamic Range		72 dB
Gain Control		1 × ~ 32 ×
Black Level Control		0 ~ 255 LSB 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		90.0 mm × 90.0 mm × 129.3 mm, 1256.1 g (with F-mount)
Temperature		Operating: 0°C ~ 40°C , Storage: -40°C ~ 70°C
Lens Mount		F-mount, Custom mount available upon request
Power	External	11 ~ 24 V DC
	Dissipation	Typ. 30.0 W
Compliance		CE, FCC, KC (in preparation)
API SDK		Vieworks Imaging Solution 7.X

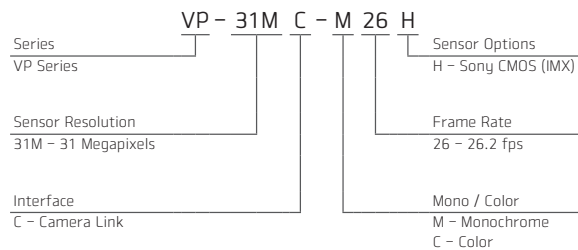
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Relative Sensitivity Curves

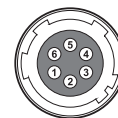


Ordering Scheme



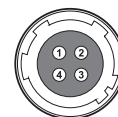
Connector Specification

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

