

# VP-31MX-M/C 35 H

31MP Thermoelectric Peltier Cooled Camera



**CoaXPress®**

The VP-31MX-35 H, the latest model of the industrial proven VP series, is a new 31 megapixel CoaXPress camera and based on the latest CMOS image sensor technology (IMX342) from Sony Semiconductor Solutions Corporation. The VP-31MX-35 H offers up to 35.4 frames per seconds 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-31MX 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.

**VIEWWORKS**

[www.viewworks.com](http://www.viewworks.com)

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## Main Features

- Thermoelectric Peltier Cooled –  $15 \pm 2^\circ\text{C}$  below
- 31 Megapixel Resolution
- CoaXPress Interface up to 35.4 fps at 25 Gbps using 4 CH
- 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

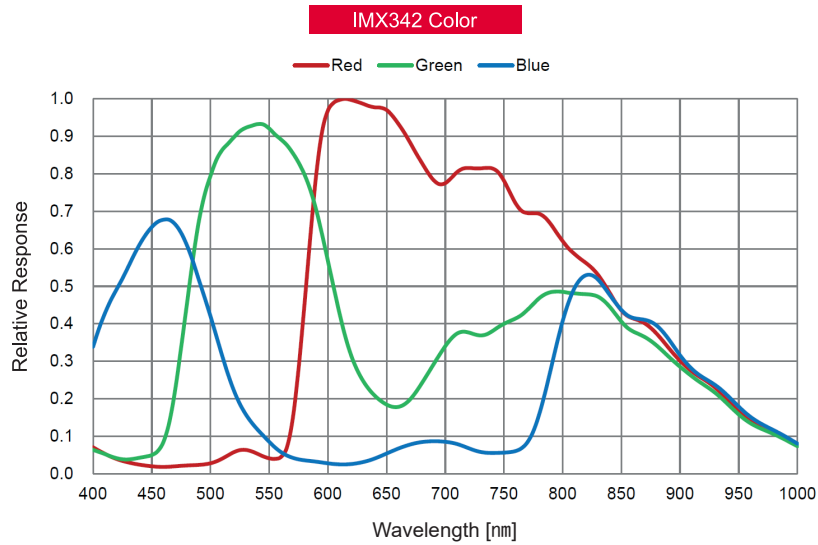
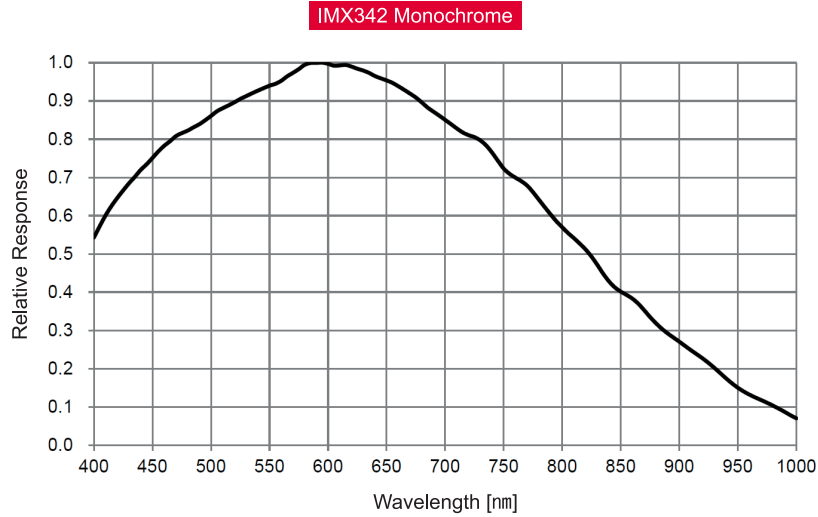
## Specifications

Model	VP-31MX-M/C 35 H	
Resolution (H × V)	6464 × 4852	
Sensor	SONY IMX342	
Optical Format (Diagonal)	APS-C (27.9 mm)	
Pixel Size	3.45 $\mu\text{m}$ × 3.45 $\mu\text{m}$	
Interface	CoaXPress (CXP-3 / CXP-6)	
Max. Frame Rate	8 bit	35.4 fps
	10 bit	35.4 fps
	12 bit	25.8 fps
Exposure Time	2.4 $\mu\text{s}$ – 60 s	
Partial Scan (Max. Speed)	1464.7 fps at 4 Lines	
Binning	Sensor	×1, ×2 (Horizontal and Vertical Dependent)
Pixel Data Format	Mono	Mono 8 / Mono 10 / Mono 12
	Color	RG Bayer 8 / RG Bayer 10 / RG Bayer 12
Electronic Shutter	Global Shutter	
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	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°C below ambient temperature – Standard cooling with a fan	
Dimension / Weight	90.0 mm × 90.0 mm × 129.3 mm, 1261.4 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	

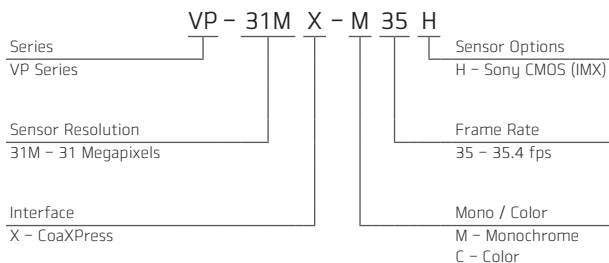
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## Relative Sensitivity Curves

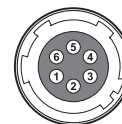


## Ordering Scheme



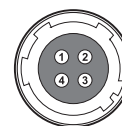
## Connector Specification

### Power



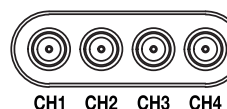
1, 2, 3: +12V DC  
4, 5, 6: GND  
(HR10A-7R-6PB)

### Control



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

### Data Transfer / Communications



CH1: Master Connection  
75 Ω, DIN 1.0/2.3

CH1 CH2 CH3 CH4

Connectors on camera body

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## Mechanical Dimensions

Unit: mm

