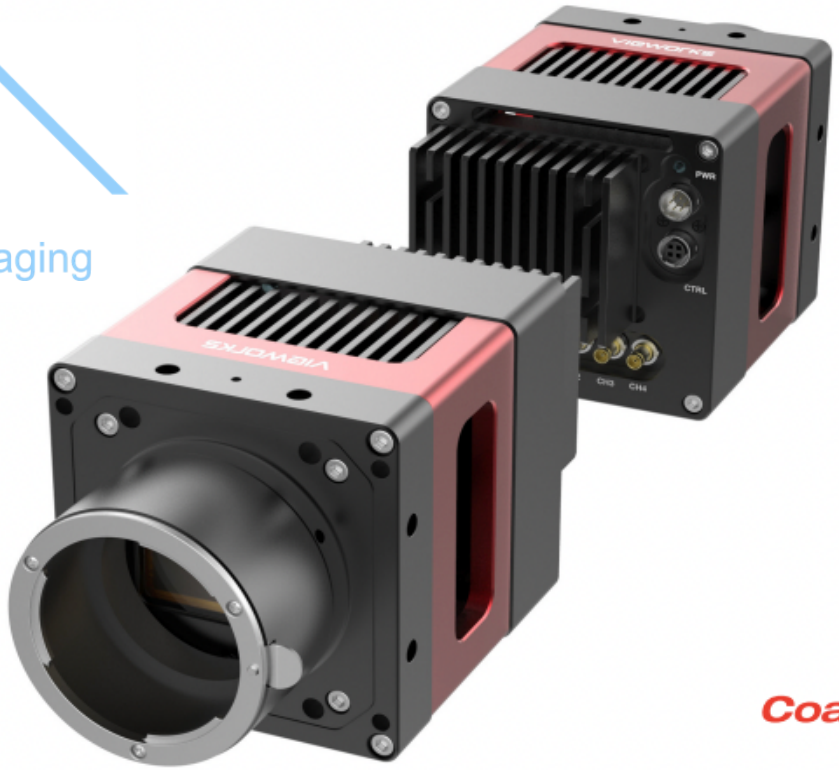
VP-61MX-M/C 18 H

61MP Thermoelectric Peltier Cooled Camera

Pyramid Imaging



CoaXPress®

The VP-61MX-18 H, the latest model of the industrial proven VP series, is a new 61 megapixel CoaXPress camera and based on the latest CMOS image sensor technology (IMX455) from Sony Semiconductor Solutions Corporation. The VP-61MX-18 H offers up to 17.9 frames per second at 9568 × 6380 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 degrees below ambient temperature. The VP-61MX 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℃ below
- 61 Megapixel Resolution
- CoaXPress Interface up to 17.9 fps at 25 Gbps using 4 CH
- Electronic Rolling Shutter
- DSNU and PRNU Correction
- Flat Field Correction with Sequencer Control
- Hot Pixel Correction

Applications

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

Specifications

Model		VP-61MX-M/C 18 H
Resolution (H × V)		9568 × 6380
Sensor		SONY IMX455
Max. Image Circle		Diagonal 43.3 ㎜ (Type 2.7)
Pixel Size		3.76 ㎛ × 3.76 ㎛
Interface		CoaXPress (CXP-3 / CXP-6)
Max. Frame Rate	8/10/12 bit	17.93 fps
	14 bit	9.99 fps
	16 bit	3.98 fps
Exposure Time (2-Line step)		17.33 ㎲ – 60 s
Partial Scan (Max. Speed)		2057.6 fps at 4 Lines
Binning	Sensor	×1, ×2, ×3 (Horizontal and Vertical Dependent, 8/10/12 bit only)
	Logic	×1, ×2, ×4 (Horizontal and Vertical Independent)
Pixel Data Format	Mono	Mono 8/10/12/14/16
	Color	RG Bayer 8/10/12/14/16
Electronic Shutter		Rolling Shutter
Trigger Synchronization	Overlapped	Free-Run
	Non-overlapped	Hardware Trigger, Software Trigger, CXP or User Output0
External Trigger		3.3 V ~ 24.0 V, 10 ㎃, Logical Level Input, Optically Isolated
Software Trigger		Asynchronous, Programmable via Camera API
Dynamic Range		78 ㏈
Gain Control	Analog	1× ~ 32×
	Digital	1× ~ 32×
Black Level Control		0 ~ 1023 LSB at 16 bit
Cooling Method		Thermoelectric Peltier Cooling
Cooling Performance		15℃ below Ambient Temperature – Standard Cooling with a Fan
Dimension / Weight		80.0 ㎜ × 80.0 ㎜ × 154.6 ㎜, 1070 g (with F-mount)
Temperature		Operating: 0℃ ~ 40℃, Storage: -40℃ ~ 70℃
Lens Mount		F-mount, Custom Mount Available upon Request
Power	External	11 ~ 24 V DC
	Dissipation	Typ. 28.0 W
Compliance		CE, FCC, KC (in preparation)
API SDK		Vieworks Imaging Solution 7.X

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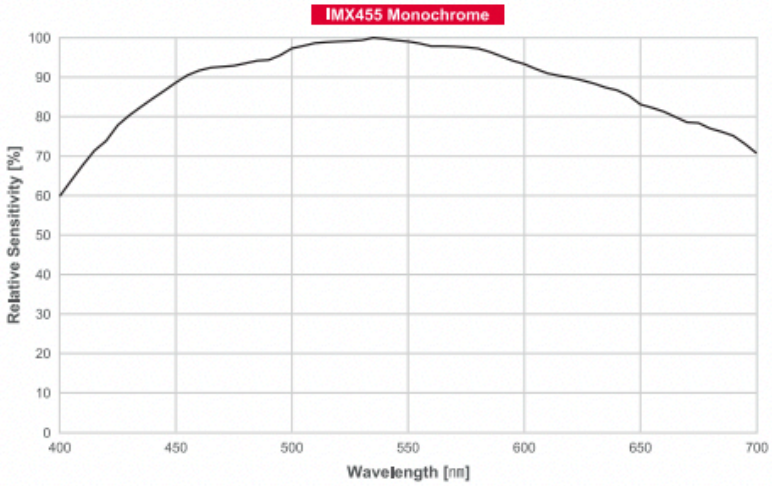
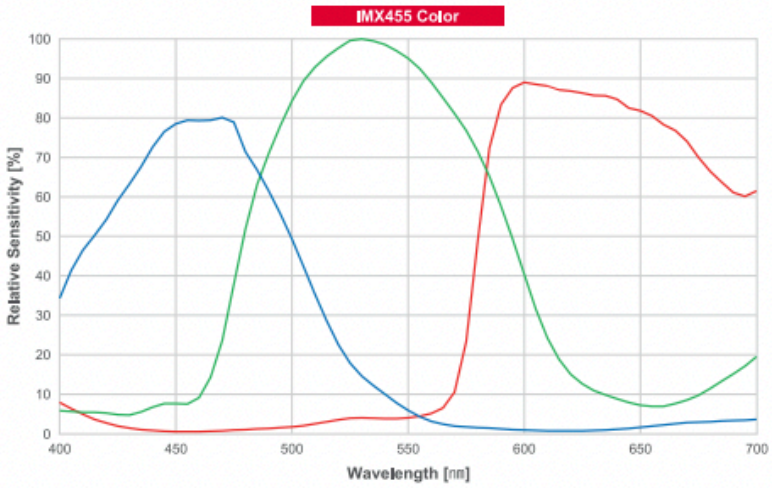
Relative Sensitivity Curves





Ordering Scheme

VP - 61M X - M 18 H

- Series: VP Series
- Sensor Resolution: 61M = 61 Megapixels
- Interface: X = CoaXPress
- Mono / Color: M = Monochrome, C = Color
- Frame Rate: 18 = 17.93 fps
- Sensor Options: H = Sony CMOS (IMX)

Connector Specification

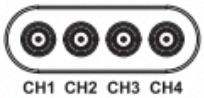
Power

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

Connectors on Camera Body

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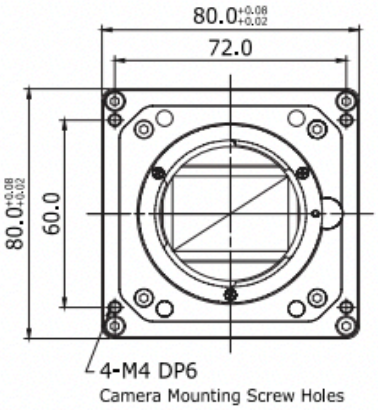
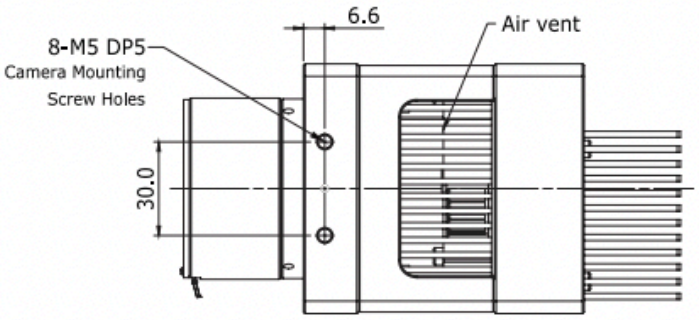
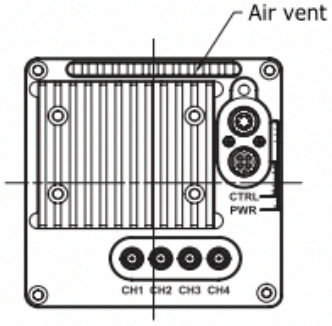
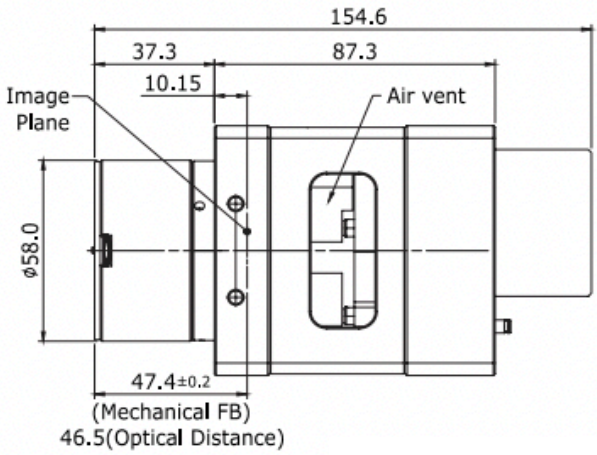
Mechanical Dimensions

Unit: mm









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