

# VC-127MX2-M/C21H

Ultra High Resolution CMOS Digital Camera



**CoaXPress®**

The VC-127MX2-M/C21H, the latest model of the industrial proven VC series, is a new 127-megapixel CoaXPress camera and based on the CMOS global shutter image sensor technology (IMX661) from Sony. The VC-127MX2-M/C21H offers up to 21.9 frames per second at 13376 × 9528 resolution. The camera comes with the next generation CoaXPress 2.0 (CXP-12) interface delivering up to 50 Gigabits per second over four coaxial cables. These combinations of the CMOS sensor technology and CoaXPress 2.0 interface set a new standard for industrial, scientific and surveillance digital imaging applications. Equipped with the Viewworks' innovative technologies proved by world's top FPD manufacturers, the VC-127MX2-M/C21H camera offers not only highly uniformed images but also high-speed image processing capabilities. Featured with high-quality image uniformity and high-resolution, this camera is ideal for demanding applications such as FPD, PCB and semiconductor inspections.

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## Main Features

- 127-Megapixel Resolution
- CoaXPress 2.0 Interface up to 21.9 fps at 50 Gbps using 4 Channels
- Power over CoaXPress (PoCXP)
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction with Sequencer Control
- Hot Pixel Correction
- Defective Pixel Correction

## Applications

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

## Specifications

Model	VC-127MX2-M/C21H	
Resolution (H × V)	13376 × 9528	
Sensor	SONY IMX661	
Sensor Size (Diagonal)	46.15 mm × 32.87 mm (56.73 mm)	
Pixel Size	3.45 μm × 3.45 μm	
Interface	CoaXPress 2.0 (CXP-6/10/12)	
Max. Frame Rate	1 CH	8.8 fps
	2 CH	17.9 fps
	4 CH	21.9 fps
Exposure Time (1 μs step)	1 μs – 60 s	
Binning	Sensor (12, 14 bit)	Horizontal and Vertical Dependent: ×1, ×2
	Logic	Horizontal and Vertical Independent: ×1, ×2, and ×4(Mono Only)
Pixel Data Format	Monochrome	8/10/12/14 bit
	Color	RG Bayer 8/10/12/14 bit
Electronic Shutter	Global Shutter	
Exposure Mode	Timed, Trigger Width	
Dynamic Range	72.7 dB at 14 bit	
Gain Control	Analog	1× ~ 12×
	Digital	1× ~ 32×
Black Level Control	0 ~ 1023 LSB at 14 bit	
Dimension / Weight	100 mm × 100 mm × 81 mm, 1.01 kg (with M-72 mount)	
Temperature	Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C	
Trigger Synchronization	Free-Run, Hardware Trigger, Software Trigger, UserOutput0, CXP, Timer	
External Trigger	3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated	
Software Trigger	Asynchronous, Programmable via Camera API	
Lens Mount	M72-mount, Custom mount available upon request	
Power	External	11 ~ 24 V DC
	Dissipation	Typ. 25.5 W
	PoCXP	24 V DC, Minimum 2 of PoCXP cables required
Compliance	CE, FCC, KC	
API SDK	Vieworks Imaging Solution 7.X	

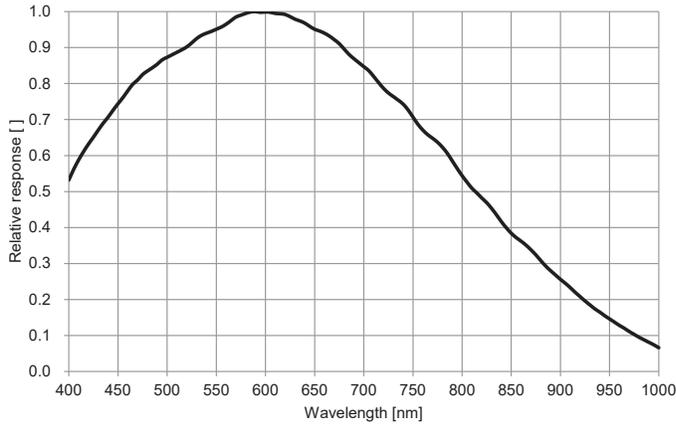
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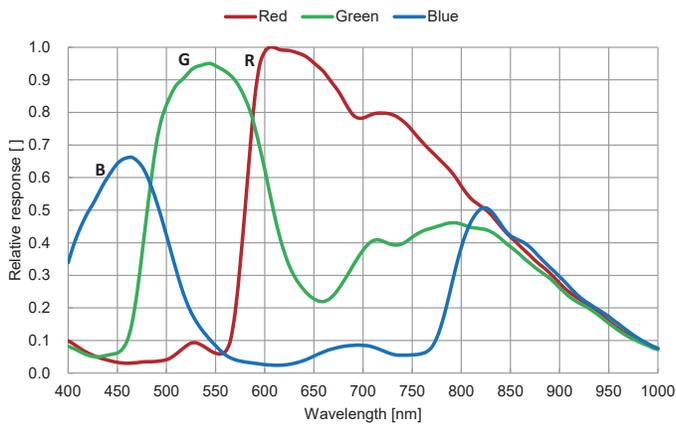
## Relative Sensitivity Curves

\* The sensitivity data may not match the measurement on the finished product necessarily because it is measured based on the wafer.

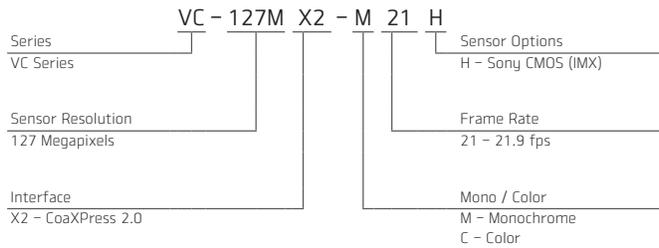
### IMX661 Monochrome



### IMX661 Color



## Ordering Scheme



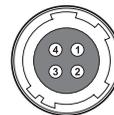
## Connector Specification

### 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

#### Micro-BNC



CH1 CH2 CH3 CH4

CH1: Master Connection  
75 Ω, Micro-BNC (HD-BNC)

Connectors on camera body

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## Mechanical Dimensions

Unit: mm

