

VC-4MX-M144F Series

Compact 4MP CMOS Digital Camera with CoaXPress Interface



The VC-4MX-M144F series, a very compact solution for easy system integration, is based on the CMOS global shutter imager. These VC-4MX cameras feature 4 megapixel resolution with frame rate up to 144 fps. This combination of global shutter, resolution and frame rate sets a new standard for industrial, scientific and surveillance digital imaging applications. Customers in the industrial market can take advantage of common coax cabling to transmit images at rates and distance above and beyond previous standards. With these cameras, image data can be transmitted at up to 6.25 Gbps using a single coaxial cable. Featuring high quality image and high speed, this camera is ideal for wide range of demanding applications including PCB and semiconductor inspections.

For wide range of choice, Vieworks provides this amazing product in three different types, the fan-less type, the fan type, and the FV type with the same specification.

VIEWORKS

vision.vieworks.com

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Main Features

- 4 Megapixel Resolution
- Global Shutter CMOS Technology
- CoaXPress Interface up to 144 fps at 6.25 Gbps
- Reverse X / Reverse Y
- Defective Pixel Correction
- Low Noise with Optimized Heat Treatment
- GenICam Compatible – XML based Control

Applications

- PCB Inspection
- Semiconductor Inspection
- 3D Inspection
- High-end Surveillance

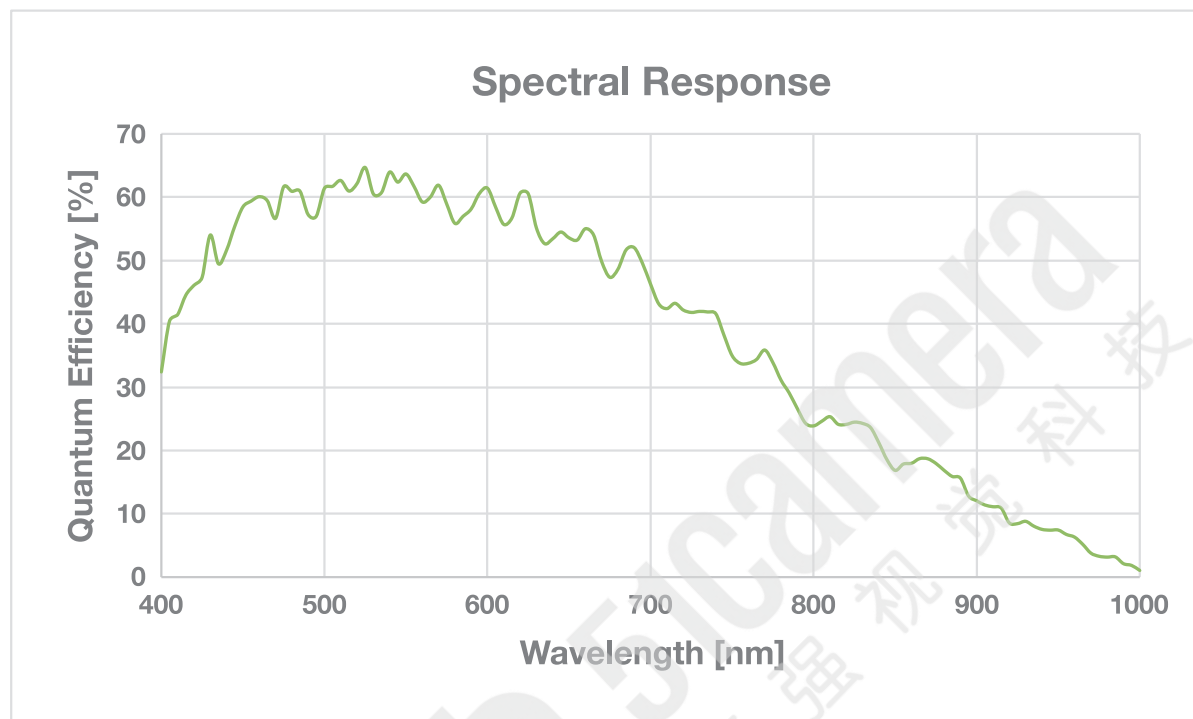
Specifications

Model		VC-4MX-M144F00 / VC-4MX-M144F00-FAN / VC-4MX-M144F00-FV
Resolution (H × V)		2048 × 2048
Sensor		AMS CMOSIS CMV4000
Sensor Size (Optical Format)		11.26 mm × 11.26 mm (1")
Sensor Type		High Speed CMOS Image Sensor
Pixel Size		5.5 μm × 5.5 μm
Interface		CoaXPress (CXP-6 × 1 CH / DIN Connector)
Max. Frame Rate		144 fps @ 6.25 Gbps
Exposure Time (1 μs step)		1 μs – 60 s
Partial Scan (Max. Speed)		19607 fps at 1 Line
Pixel Data Format		Mono 8
Electronic Shutter		Global Shutter
Trigger Synchronization		Free-Run, Hardware Trigger or CXP
External Trigger		3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated
Dynamic Range		53 dB
Gain Control		1 × ~ 4 ×
Black Level Control		0 ~ 16 LSB
Dimension / Weight		40 mm × 40 mm × 39 mm, 105 g (No fan) 40 mm × 40 mm × 54 mm, 110 g (Fan) 40 mm × 40 mm × 52 mm, 107 g (FV)
Temperature		Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C
Lens Mount		C-mount, Custom Mount Available upon Request
Power	External	10 ~ 24 VDC
	Dissipation	Typ. 3.5 W(No fan) / Typ. 4.2 W(Fan)
	PoCXP	24 VDC
Compliance		CE, FCC, KC, UL(except for VC-4MX-M144F00-FV)
API SDK		Vieworks Imaging Solution 7.X

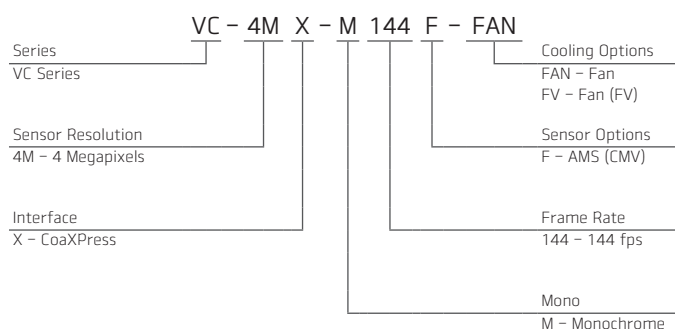
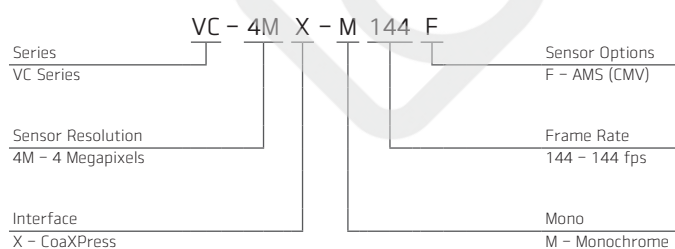
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Quantum Efficiency Curve

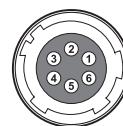


Ordering Scheme



Connector Specification

Power



- | | |
|---------------------------|----------------|
| 1: +12 VDC | 2: Trigger IN+ |
| 3: Trigger IN- | 4: Output+ |
| 5: Output- (HR10A-7R-6PB) | 6: DC Ground |

Data Transfer / Communications



CXP Single Channel
75 Ω, DIN 1.0/2.3

Connectors on Camera Body

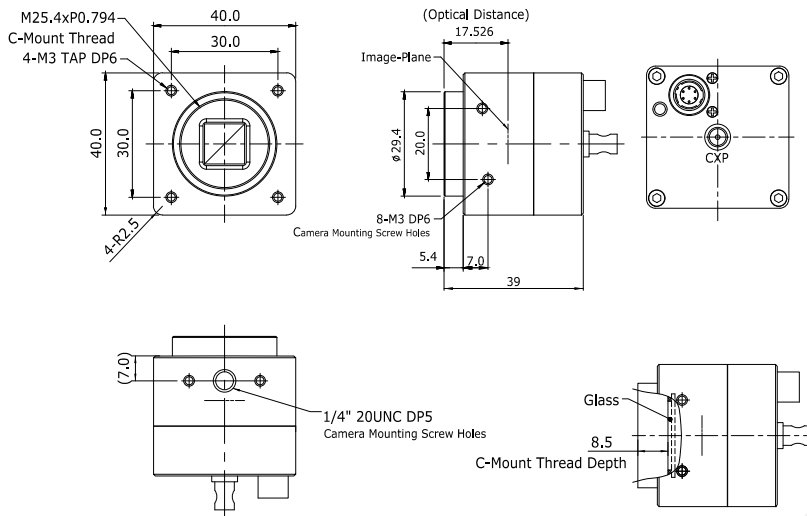
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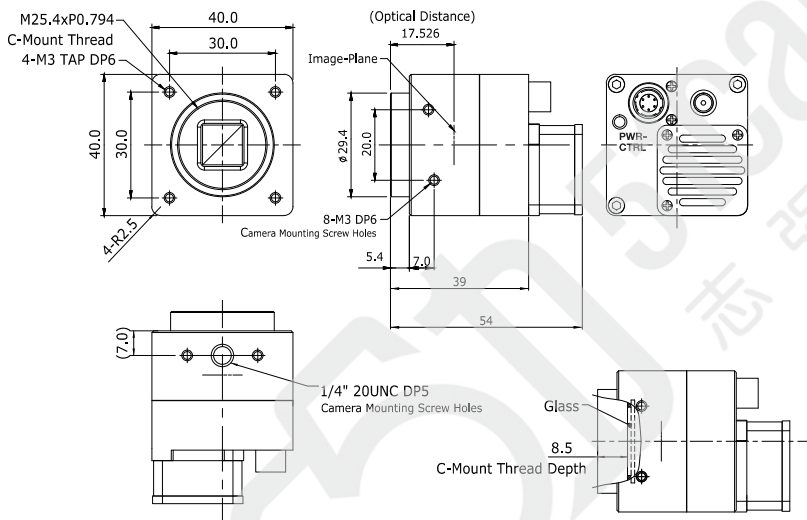
Mechanical Dimensions

Unit: mm

VC-4MX-M144F00



VC-4MX-M144F00-FAN



VC-4MX-M144F00-FV

