VC-51MX2-M/C30I00

Ultra High Resolution CMOS Digital Camera

The VC-51MX2-M/C30I00 is a new 51-megapixel CoaXPress camera based on GMAX4651, the latest CMOS image sensor technology, from Gpixel. It offers up to 30 frames per second at 8,416 × 6,032 resolution. The camera comes with the next generation CoaXPress 2.0 (CXP-12) interface, delivering up to 50 Gigabits per second over 4 coaxial cables. With advanced uniformity and high-speed image processing capabilities, it sets a new standard for high-performance digital imaging in industrial, scientific, and surveillance fields. This camera is ideal for demanding applications such as FPD, PCB, and semiconductor inspections.

Mechanical Dimensions

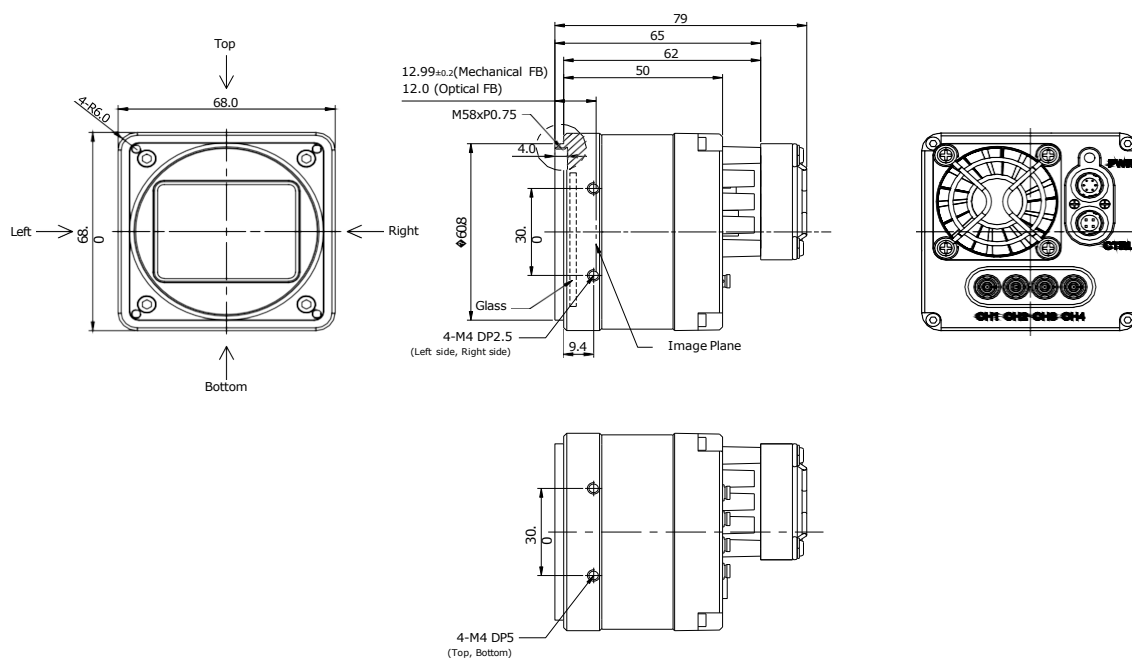Unit: ㎜

VC-51MX2 (FAN)

VC-51MX2 (Heatsink)

vieworks

D-25-1343
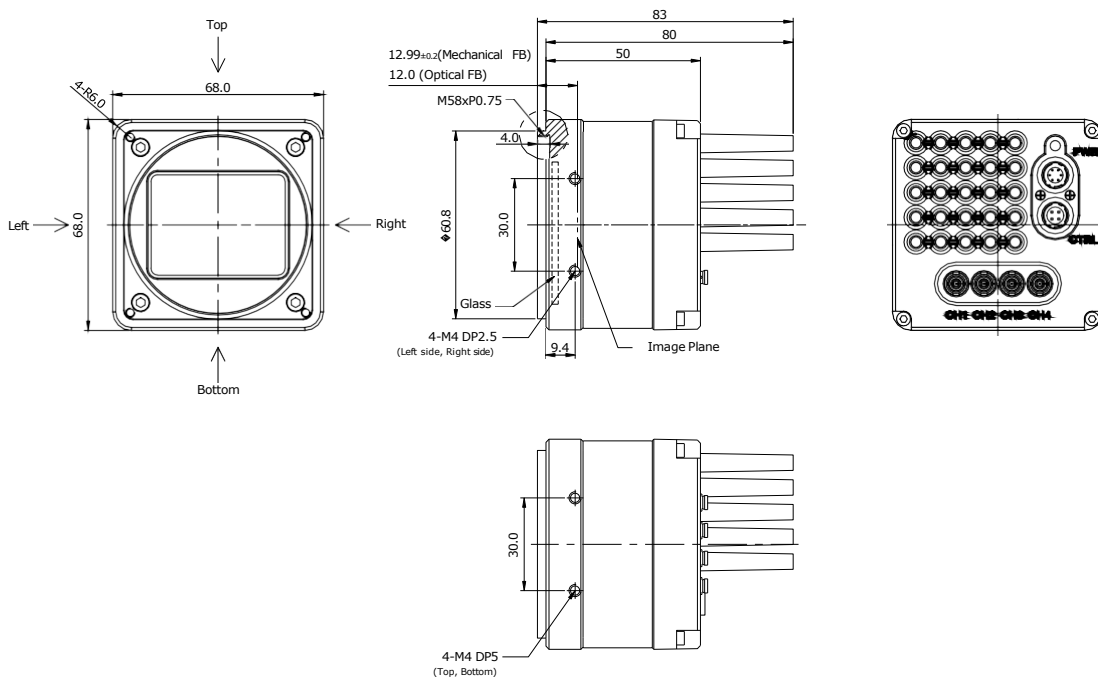
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Main Features

- 51-Megapixel Resolution
- CoaXPress 2.0 Interface up to 30 fps at 50 Gbps using 4 Channels
- Power over CoaXPress (PoCXP)
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
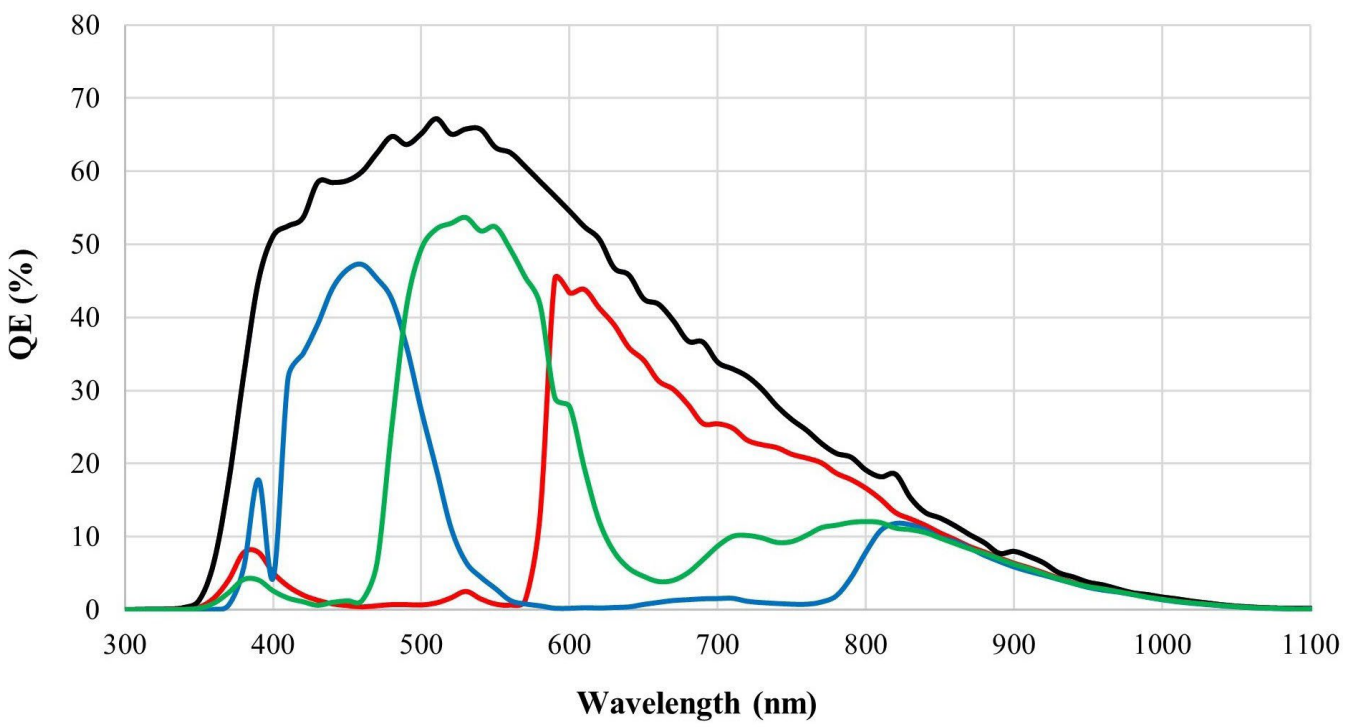- Flat Field Correction
- Defective Pixel Correction

Applications

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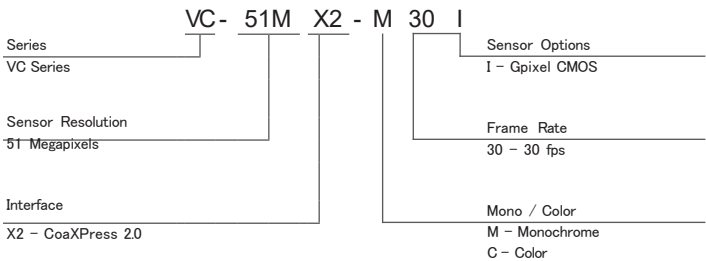- Document / Film Scanning

Specifications

Model		VC-51MX2-M/C30I00
Resolution (H × V)		8,416 x 6,032
Sensor		GMAX4651
Sensor Size (Diagonal)		38.8 mm × 27.8 mm (47.63 mm)
Pixel Size		4.6 μm × 4.6 μm
Interface		CoaXPress 2.0 (CXP-6/10/12)
Max. Frame Rate (8 bit)		30.3 fps
Exposure Time (1 μs step)		1 μs to 20 s
Binning		Horizontal and Vertical Independent: ×1, ×2, and ×4(Mono Only)
Pixel Data Format	Monochrome	8/10/12 bit
	Color	RG Bayer 8/10/12 bit
Electronic Shutter		Global Shutter
Exposure Mode		Timed, Trigger Width
Dynamic Range		65 dB at 12 bit
Gain Control	Analog	×3.5 to ×5
	Digital	×1 to ×32
Black Level Control		0 to 256 LSB at 12 bit
Dimension / Weight	FAN	68 mm × 68 mm × 79 mm, 0.47kg
	Heatsink	168 mm × 68 mm × 83 mm, 0.45kg
Temperature		Operating: 0℃ to 40℃, Storage: -40℃ to 70℃
Trigger Synchronization		Free-Run, Hardware Trigger, Software Trigger, and CXP
External Trigger		3.3 V to 24.0 V, 10 mA, Logical Level Input, Optically Isolated
Software Trigger		Asynchronous, Programmable via Camera API
Lens Mount		M58 mount, F-mount adapter, or custom mount available upon request
Power	External	11 to 24 V DC
	Dissipation	Typ.11.5 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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Spectral Response

Ordering Scheme

Series
VC Series

Sensor Resolution
51 Megapixels

Interface
X2 – CoaXPress 2.0

VC- 51M X2 - M 30 I

Sensor Options
I – Gpixel CMOS

Frame Rate
30 – 30 fps

Mono / Color
M – Monochrome
C – Color

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