

Preliminary

VCS-245MX2-M/C12H00

Ultra High Resolution CMOS Digital Camera
with CoaXPress 2.0 Interface



CoaXPress[®]

The VCS-245MX2-M/C12H00 camera is a new 245-Megapixel CoaXPress camera equipped with the CoaXPress interface and based on the latest BSI (Backside-Illuminated) CMOS image sensor technology (IMX811) from Sony Semiconductor Solutions Corporation. Equipped with the Vieworks' innovative technologies proved by world's top FPD manufacturers, this camera offers not only fast frame rates but also highly uniformed images.

Featured with high speed and high performance, the VCS-245MX2-M/C12H00 camera is an excellent choice for applications that require high data rates and resolutions, such as FPD, PCB and semiconductor inspections.

VIEWORKS

vision.vieworks.com

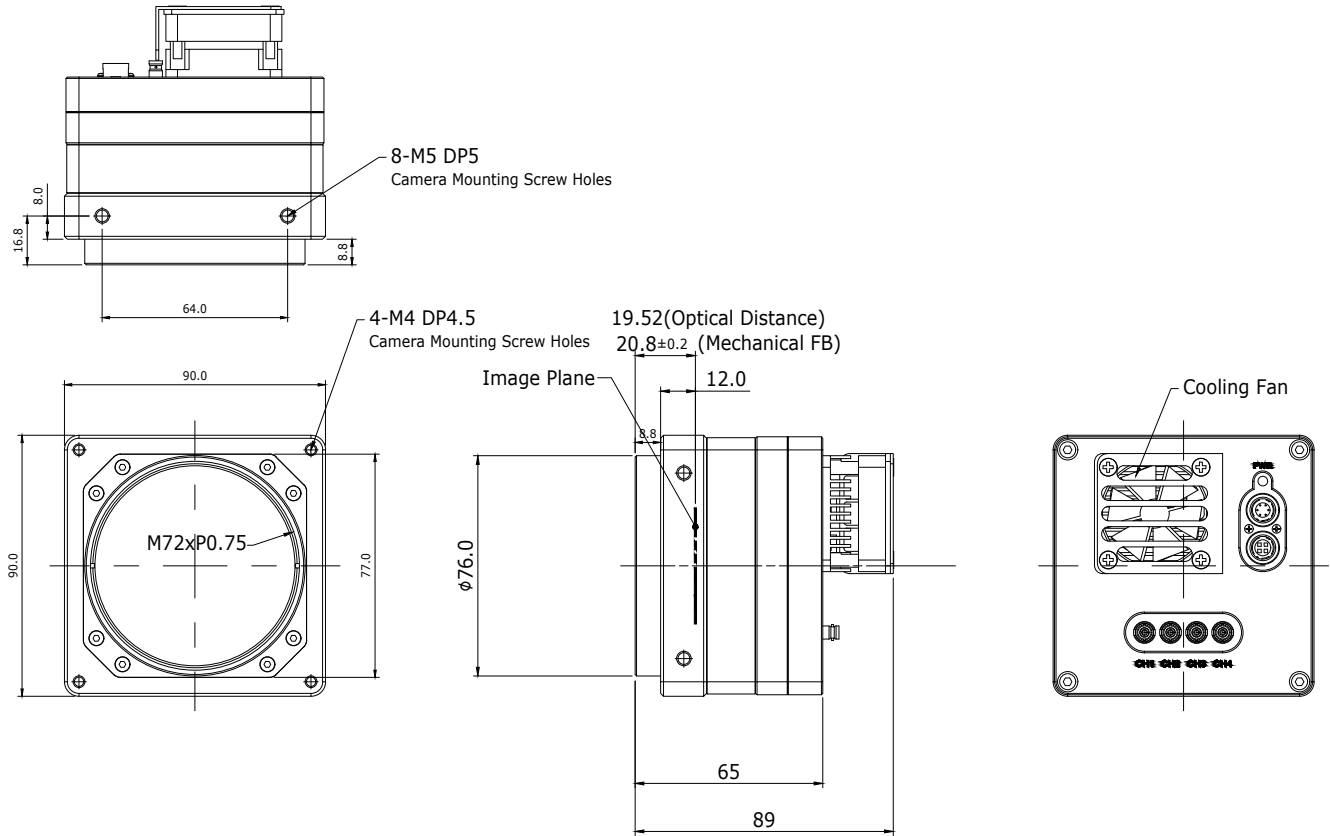
VCS-245MX2-M/C12H00

The Fastest Speed & High Resolution CMOS Digital Camera with CoaXPress 2.0 Interface



Mechanical Dimensions

Unit: mm



Main Features

- BSI (Backside Illuminated) CMOS Image Sensor
- CoaXPress 2.0 Interface up to 12.4 fps at 50 Gbps using 4 Channels
- Rolling Shutter CMOS Technology
- DSNU and PRNU Correction
- Defective Pixel Correction
- Pixel by Pixel Flat Field Correction
- GenICam Compatible – XML based Control

Applications

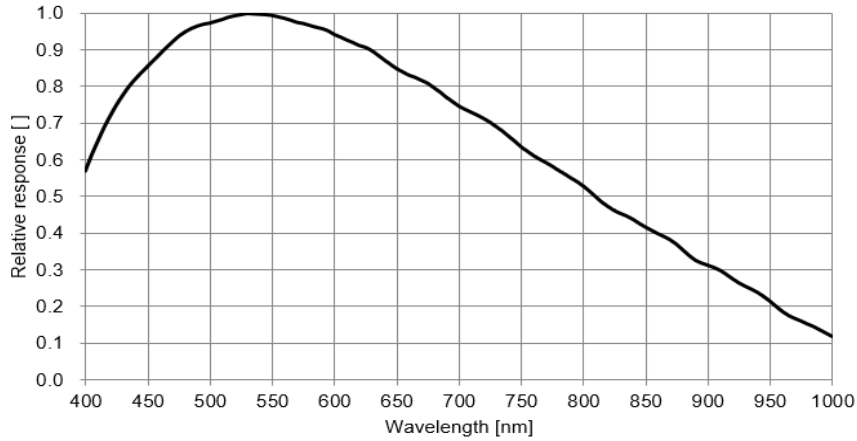
- FPD and Electronics Inspection
- PCB Inspection
- Electronics Inspection
- Semiconductor Inspection

Specifications

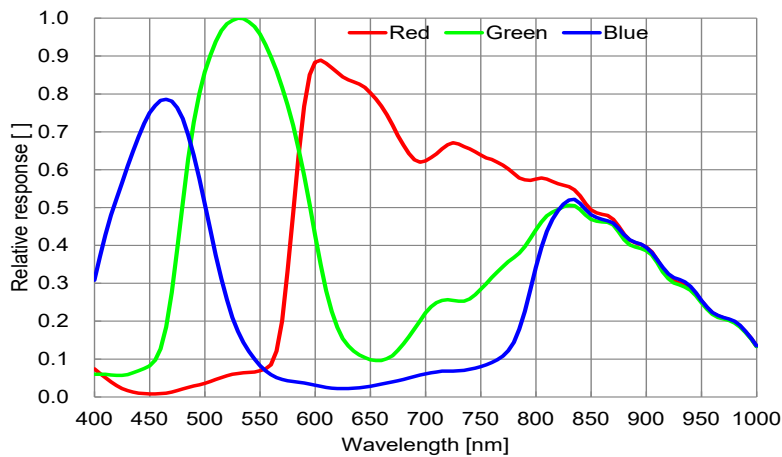
Model		VCS-245MX2-M/C12H00
Resolution (H × V)		19,200 × 12,800
Sensor (Type)		SONY IMX811 (Back-Illuminated CMOS Image Sensor)
Sensor Size (Diagonal)		64.84 mm
Pixel Size		2.81 μm × 2.81 μm
Interface		CoaXPress 2.0 (CXP-12)
Max. Frame Rate (Trigger mode non-overlap)		12.4fps@12bit
Exposure Time (1 μs step)		1 μs to 60 s (1 μs step)
Pixel Data Format	Monochrome	8/10/12/14/16 bit
	Color	RG Bayer 8/10/12/14/16 bit
Electronic Shutter		Rolling Shutter
Exposure Mode		Timed, Trigger Width
Dynamic Range		72dB@12bit, 76dB@14bit, and 78dB@16bit
Gain	Digital Gain	×1 to ×12
	Analog Gain	×1 to ×32
Digital Black Level		0 to 4095 LSB at 16bit (1 LSB step)
Dimension / Weight		90.0 mm × 90.0 mm × 89.0 mm / TBD
Temperature		Operating: 0°C to 40°C, Storage: -40°C to 70°C
Trigger Synchronization	Overlapped	Free-Run
	Non-overlapped	Hardware Trigger, Software Trigger or CXP
External Trigger		3.3 V to 24.0 V, 10 mA, Logical Level Input Optically Isolated
Digital IO		TTL Level Exposure Active, Frame Active, User Output, Timer, and Strobe Output
Lens Mount		M72-mount, Custom mount available upon request
Power	Adapter	11 to 24V DC, Typ. 24W
	PoCXP	24V DC, Minimum of two PoCXP cables required
Compliance		CE, FCC, and KC
API SDK		Vieworks Imaging Solution 7.X

Spectral Response

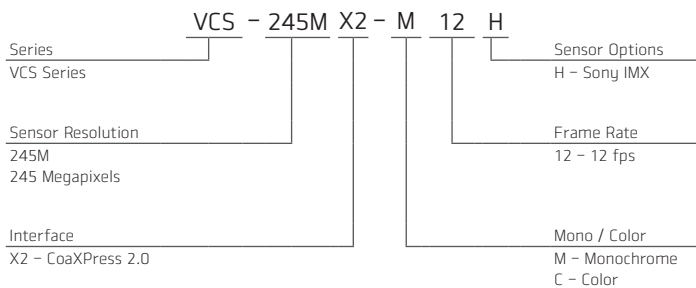
- Mono



- Color

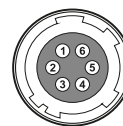


Ordering Scheme



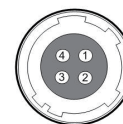
Connector Specification

Power



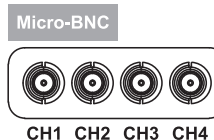
1, 2, 3: +12V DC 4, 5, 6: GND
(HR10A-7R-6PB)

Control



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

Data Transfer / Communications



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

Connectors on camera body