

Preliminary

# VCS-14MHF-M/C670 I

The Fastest Speed CMOS Digital Camera  
with Back-side Illuminated Sensor



**CoaXPress®**  
over-Fiber

The VCS-14MHF-M/C670I camera is Vieworks' first camera with the CoF(CoaXPress over Fiber) interface that offers 670 frames per second at 4,608 X 3,072 resolution. This new interface supports transmitting image data at up to 100 Gbps. Equipped with the Vieworks' innovative technologies, this camera delivers not only very fast frame rates but also enhanced flexibility for extended cable lengths.

Featured with high speed and high performance, the VCS-14MHF-M/C670I camera is an excellent choice for applications that require high speed and resolutions, such as FPD, PCB and semiconductor inspections. For wide range of choice, Vieworks provides this amazing product in two different types, the fan type and the heat sink type, with the same specification.

**VIEWORKS**

vision.vieworks.com

# VCS-14MHF-M/C670I

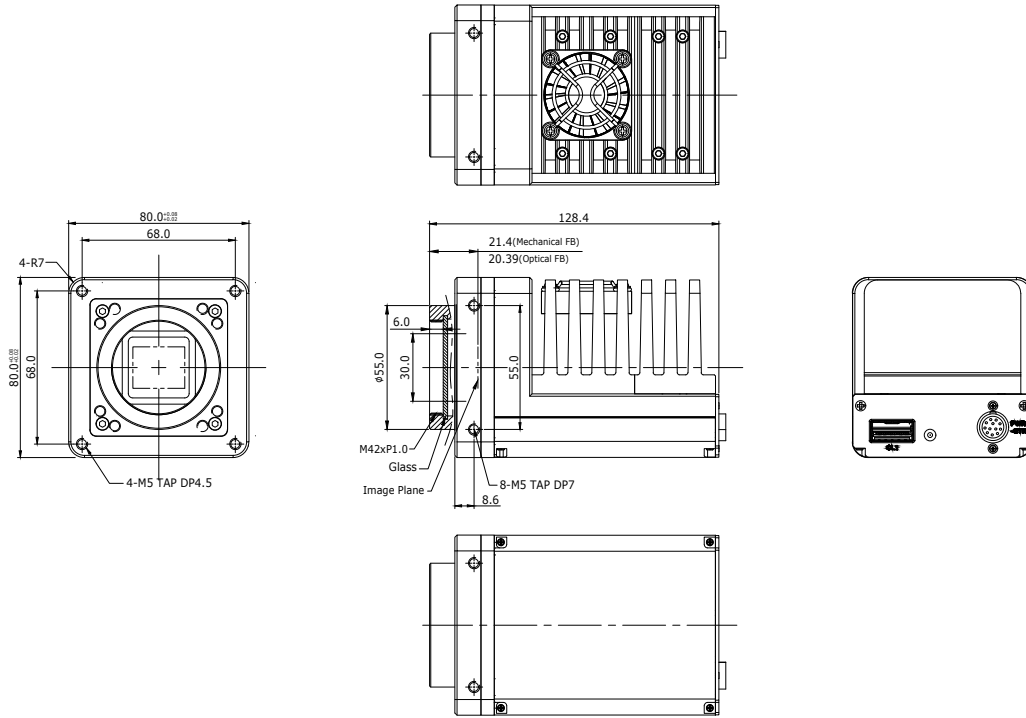
The Fastest Speed & High Resolution CMOS Digital Camera with CoF Interface



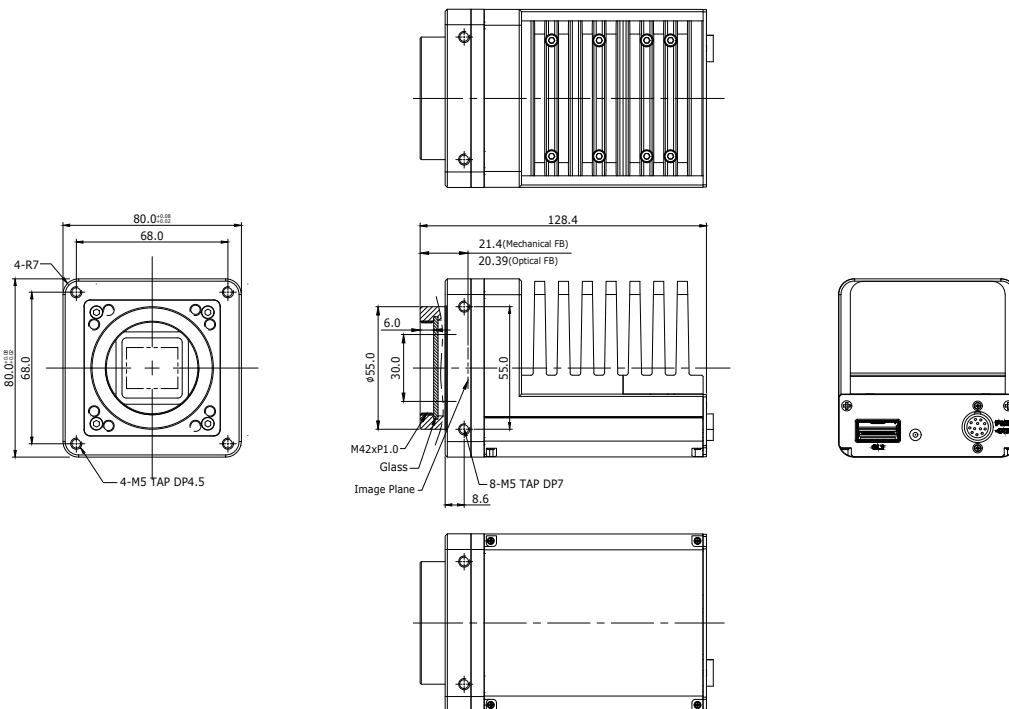
## Mechanical Dimensions

Unit: mm

### VCS-14MHF-M/C670I



### VCS-14MHF-M/C670I-HS



# VCS-14MHF-M/C670I

The Fastest Speed & High Resolution CMOS Digital Camera with CoF Interface



## Main Features

- High Speed 14 Megapixel CMOS Image Sensor
- BSI (Backside Illuminated) CMOS Image Sensor
- CoaXPress over Fiber Interface up to 100 Gbps using 1 Link
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction
- GenICam Compatible – XML based Control
- Low-gain and High-gain Composite Image

## Applications

- FPD and Electronics Inspection
- Semiconductor Inspection
- Research and Scientific Imaging
- Document / Film Scanning

## Specifications

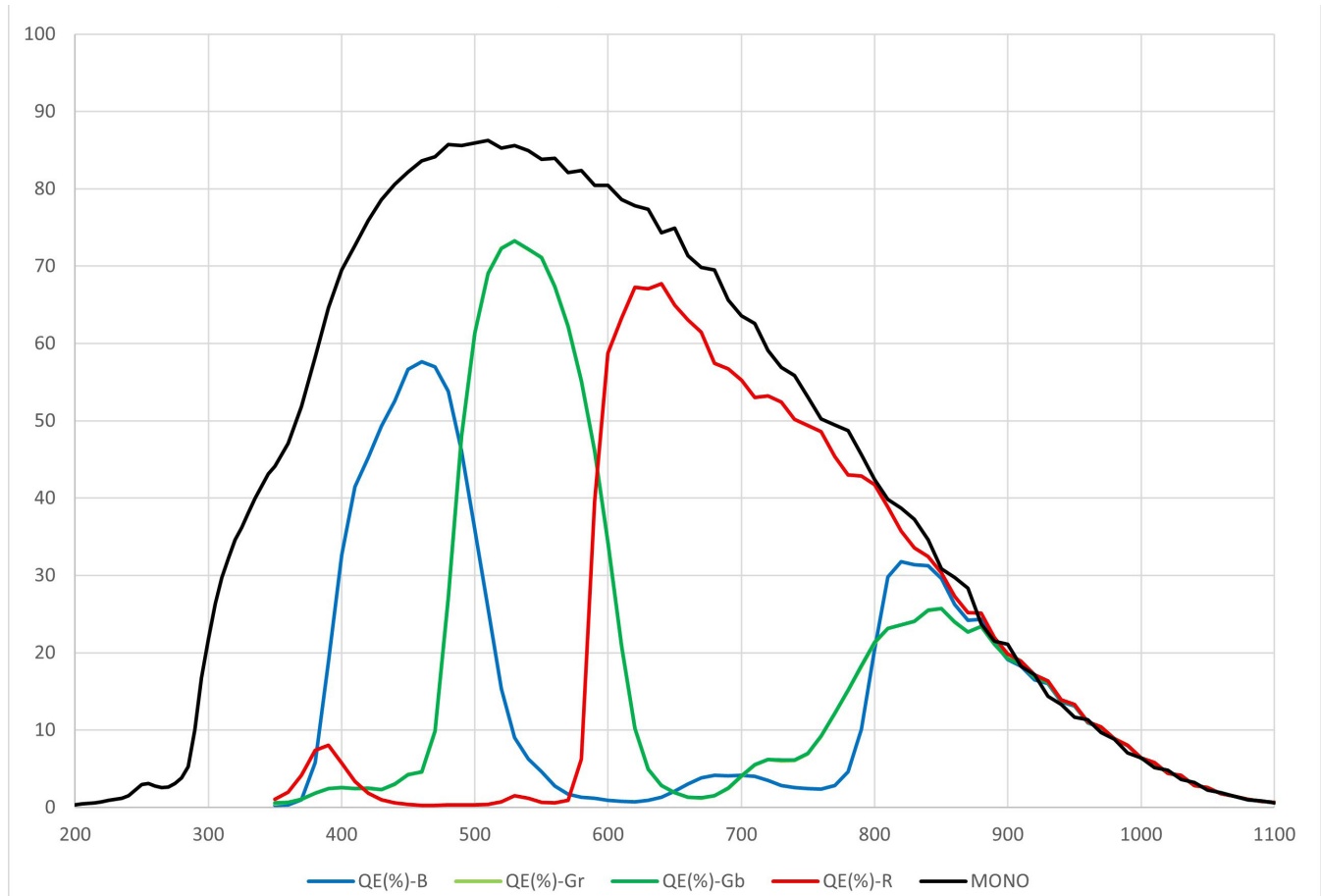
Model	VCS-14MHF-M/C670I10	VCS-14MHF-M/C670I10-HS
Resolution (H × V)	4,608 × 3,072	
Sensor	Gpixel GSPRINT 5514	
Optical Format (Diagonal)	25.34 mm × 16.90 mm (30.5 mm)	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	5.5 μm × 5.5 μm	
Interface	CoaXPress over Fiber	
Optical Transceiver	100G QSFP28 SR4	
Max. Frame Rate	670 fps @ 10 bit	
Exposure Time	4 μs to 10 s	
Pixel Data Format	Mono	Mono 8/10 bit
	Color	GB Bayer 8/10/12 bit
Electronic Shutter	Global Shutter	
Gain Control	Analog	1.0×, 1.55×, 2.17×, 2.77× and 5.0×
	Digital	1× to 32×
Trigger Synchronization	Free-Run, Hardware Trigger, Software Trigger or CXP	
External Trigger	3.3 V to 24.0 V, 10 mA, Logical Level Input, Optically Isolated	
Software Trigger	Asynchronous, Programmable via Camera API	
Dynamic Range	Typ. 66 dB at 12 bit	
Dimension / Weight	80 x 80 x 128.4 mm / 1,200g	80 x 80 x 128.4 mm / 1,220 g
Temperature	Operating: 0°C to 40°C, Storage: -40°C to 70°C	
Lens Mount	F-mount, Custom mount available upon request	
Power	External	11 to 24 VDC
	Dissipation	Typ. 26 W
Compliance	CE, FCC, and KC	

# VCS-14MHF-M/C670I

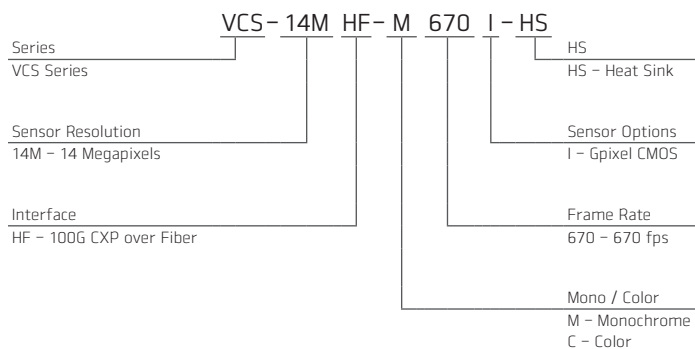
The Fastest Speed & High Resolution CMOS Digital Camera with CoF Interface



## Spectral Response



## Ordering Scheme



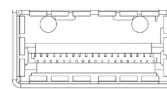
## Connector Specification

### Power / Control



- 1: DC Ground
- 2: +12 VDC
- 3: I/O Output-
- 4: I/O Output1+
- 5: Trigger IN-
- 6: Trigger IN+
- 7: I/O Output2+
- 8: I/O Output3+
- 9: I/O Output4+
- 10: I/O Output5+
- 11: +12 VDC
- 12: DC Ground (HR10A-10R-12PB)

### Data Transfer / Communications



CH1

CH1: Master Connection / QSFP28

Connectors on camera body