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.

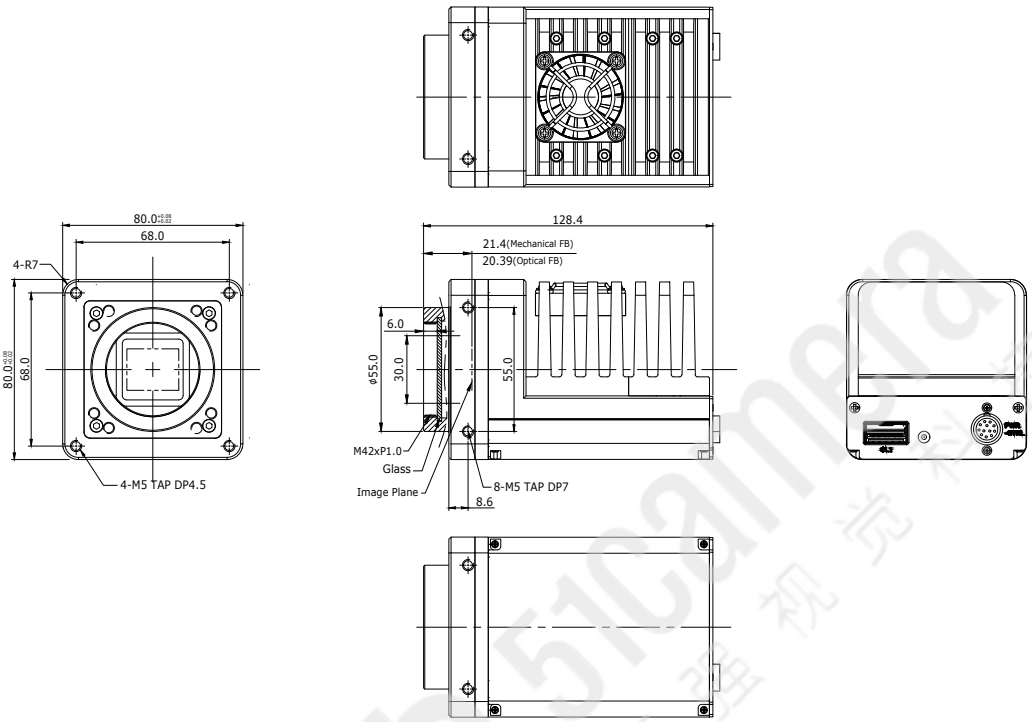
Featured with high speed and high performance, the VCS-14MHF-M/C670I camera is an excellent choice for applications that require high speed and resolutions, such as FPD, PCB and semiconductor inspections.

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.

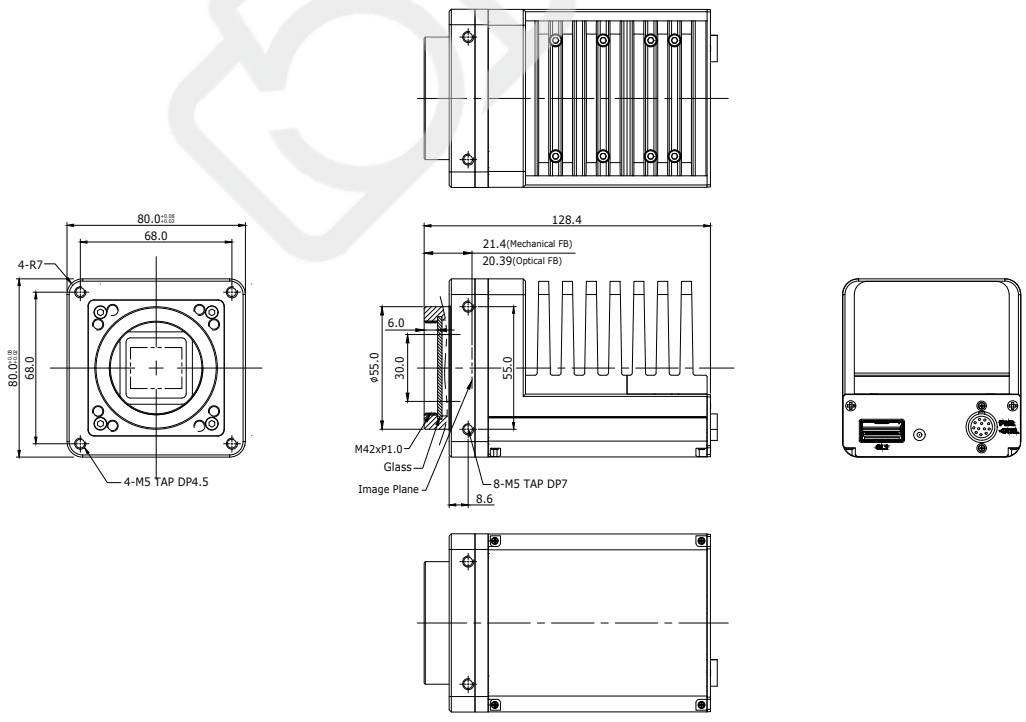
Mechanical Dimensions

Unit: mm

VCS-14MHF-M/C670I



VCS-14MHF-M/C670I-HS



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VCS-14MHF-M/C670I

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

CoaXPress over-Fiber

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

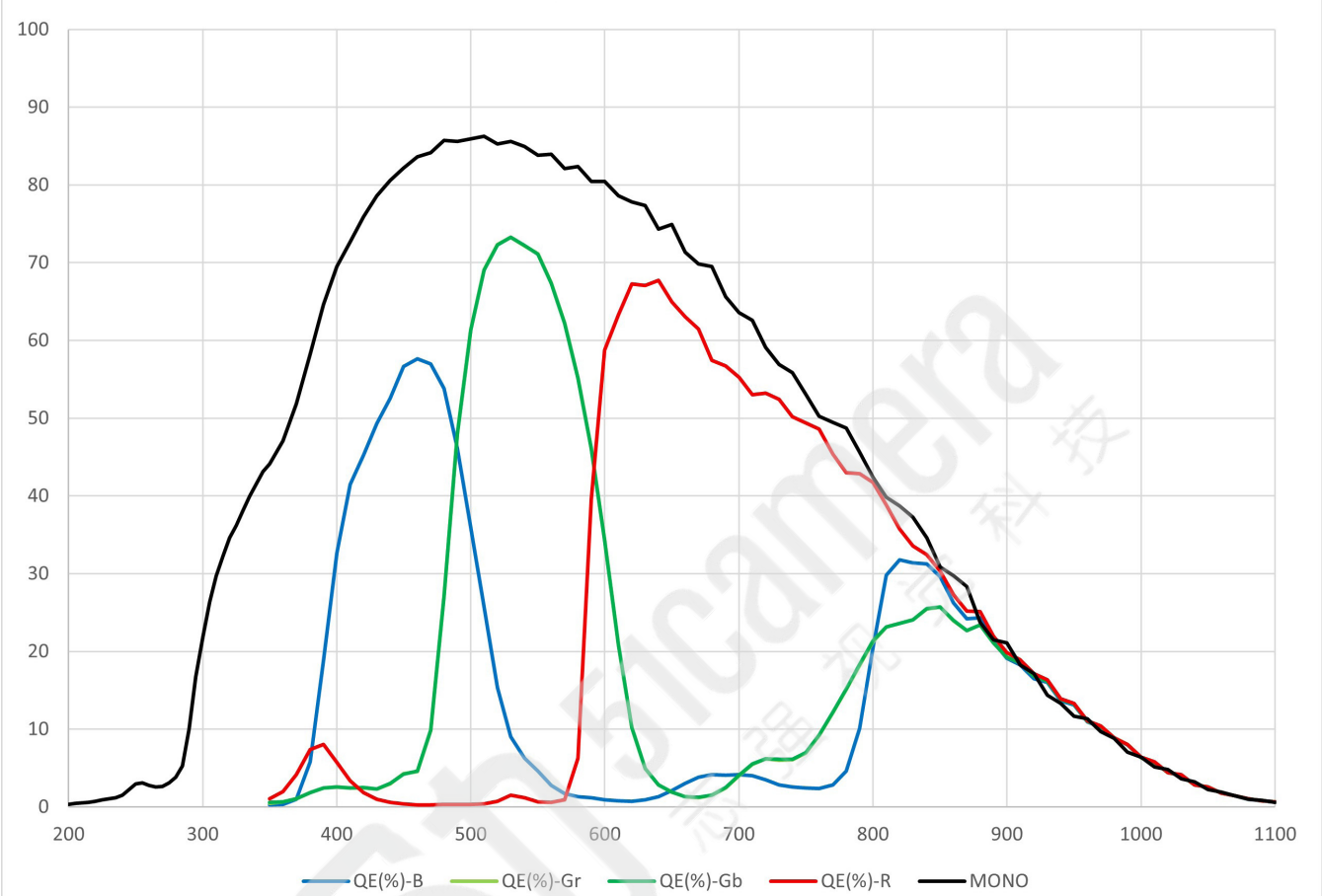
Applications

- 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 ㎜ × 16.90 ㎜ (30.5 ㎜)	
Sensor Type		High Speed CMOS Image Sensor	
Pixel Size		5.5 ㎛ × 5.5 ㎛	
Interface		CoaXPress over Fiber	
Optical Transceiver		100G QSFP28 SR4	
Max. Frame Rate		670 fps @ 10 bit	
Exposure Time		4 ㎲ 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 ㎃, 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℃ to 40℃, Storage: -40℃ to 70℃	
Lens Mount		F-mount, Custom mount available upon request	
Power	External	11 to 24 VDC	
	Dissipation	Typ. 26 W	
Compliance		CE, FCC, and KC	

Spectral Response



Ordering Scheme

VCS- 14M HF- M 670 I - HS

Series	VCS Series
Sensor Resolution	14M – 14 Megapixels
Interface	HF – 100G CXP over Fiber
Mono / Color	M – Monochrome C – Color
Frame Rate	670 – 670 fps
Sensor Options	I – Gpixel CMOS
HS	HS – Heat Sink

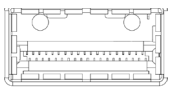
Connector Specification

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: Master Connection / QSFP28

CH1

Connectors on camera body