

Preliminary

# VC-21MDHF-M/C1000I

The Fastest Speed & High Resolution CMOS Digital Camera  
with CoaXPress-over-Fiber Interface



**CoaXPress<sup>®</sup>**  
over-Fiber

The VC-21MDHF-M/C1000I camera is Vieworks' first camera with the CoF(CoaXPress over Fiber) interface that offers 1,000 frames per second at 5120 × 4096 resolution. This new interface supports transmitting image data at up to 200 Gbps. Equipped with the Vieworks' innovative technologies, this camera delivers not only very fast frame rates but also big availability to extend lengths for cables.

Featured with high speed and high performance, the VC-21MDHF-M/C1000I 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

# VC-21MDHF-M/C1000I

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



## Main Features

- High Speed 21 Megapixel CMOS Image Sensor
- CoaXPRESS over Fiber Interface up to 100 Gbps using 2 Links
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction
- GenICam Compatible – XML based Control

## Applications

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

## Specifications

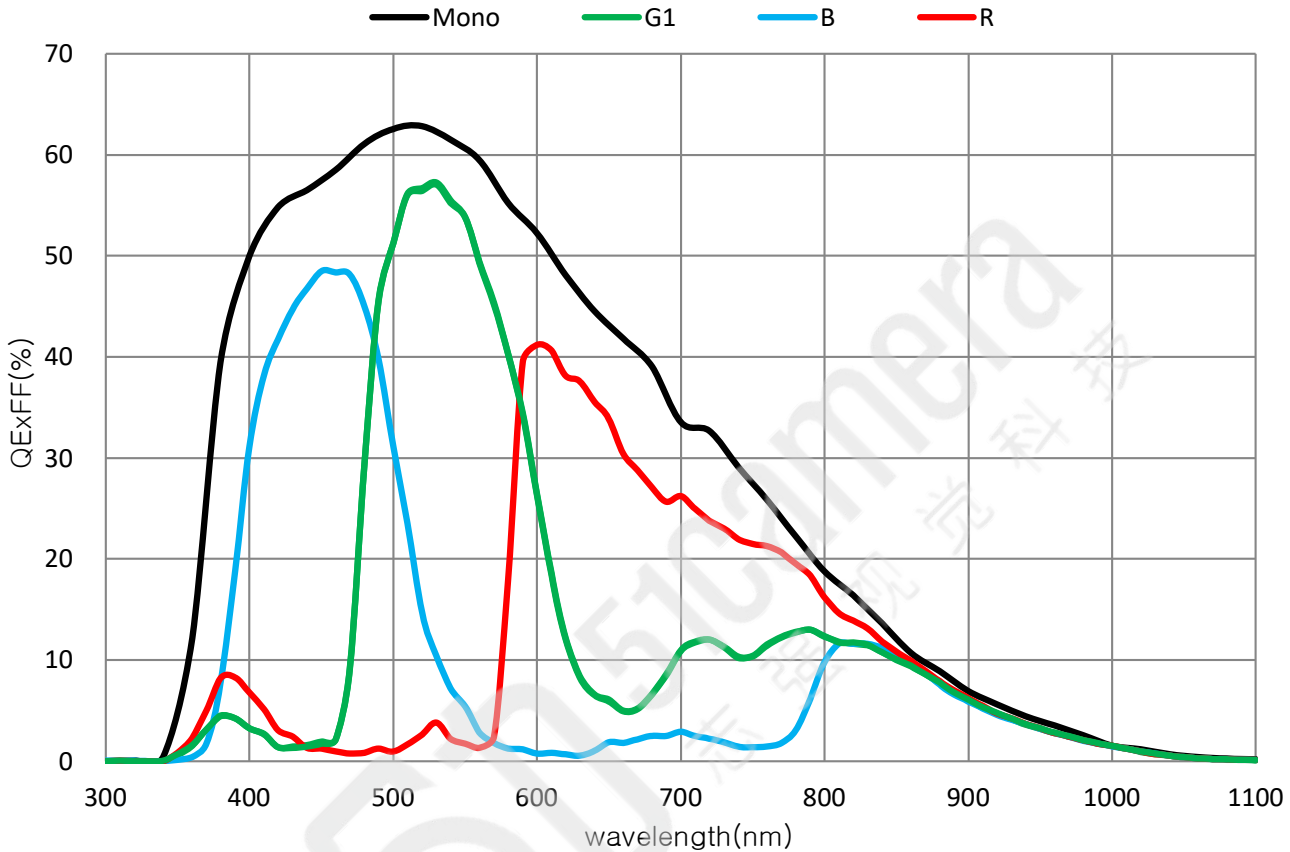
Model	VC-21MDHF-M/C1000I	
Resolution (H × V)	5,120 × 4,096	
Sensor	Gpixel GSPRINT 4521	
Optical Format (Diagonal)	23.04 mm × 18.43 mm (29.5 mm)	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	4.5 μm × 4.5 μm	
Interface	CoaXPRESS over Fiber	
Optical Transceiver	100G QSFP28 SR4	
Max. Frame Rate (8 bit)	1,000 fps	
Exposure Time	4 μs to 10 s	
Partial Scan (Max. Speed)	tbd	
Pixel Data Format	Mono	Mono 8/10 bit
	Color	GB Bayer 8/10 bit
Electronic Shutter	Global Shutter	
Gain Control	Analog	1.0×, 1.3×, 2.0×, and 4.2×
	Digital	1× to 32×
Black Level Control	0 to 64 LSB at 10 bit	
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. 62.14 dB at 10 bit	
Dimension / Weight	tbd	
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	tbd
Compliance	CE, FCC, and KC	

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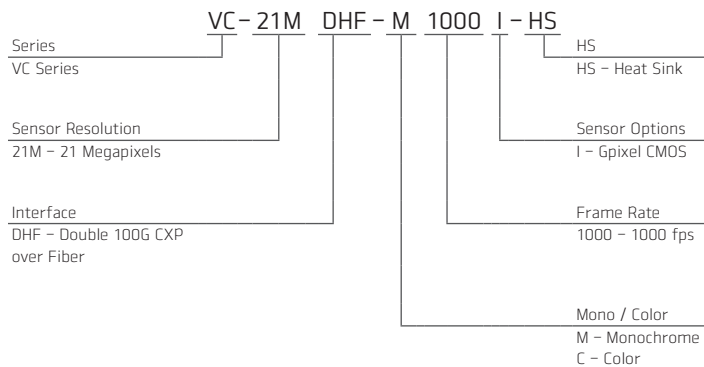
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## Spectral Response



## Ordering Scheme



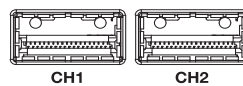
## Connector Specification

### 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 (HR10A-10R-12PB)
- 12: DC Ground

### Data Transfer / Communications



- CH1: Master Connection
- CH2: QSFP28

Connectors on camera body

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## Mechanical Dimensions

Unit: mm

[tbd]

Unit: mm

