

VC-21MDHF-M/C1000I

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



CoaXPress[®]
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.

VC-21MDHF-M/C1000I

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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

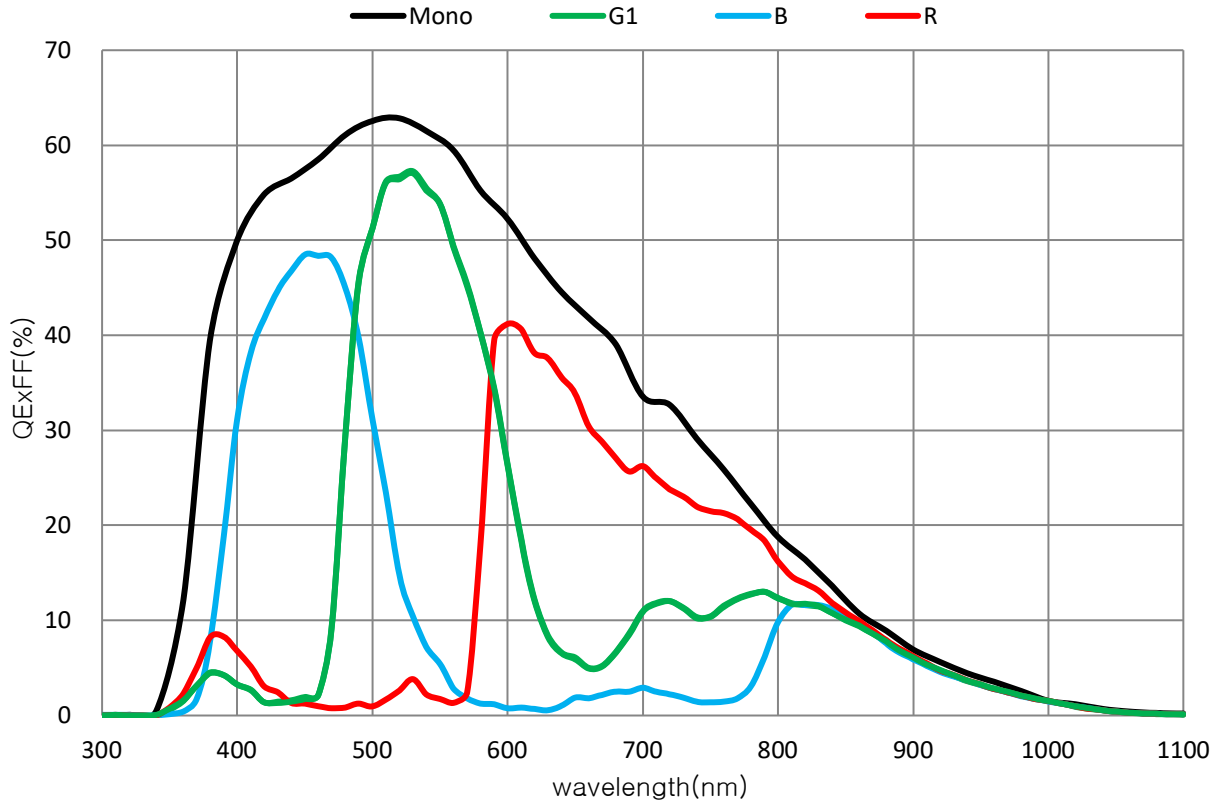
| | | |
|---------------------------|---|----------------------------|
| Model | VC-21MDHF-M/C1000I | |
| Resolution (H × V) | 5,120 × 4,096 | |
| Sensor | Gpixel GSPRINT 4521 | |
| Optical Format (Diagonal) | 23.04 mm × 18.43 mm (29.5 mm) | |
| Sensor Type | High Speed CMOS Image Sensor | |
| Pixel 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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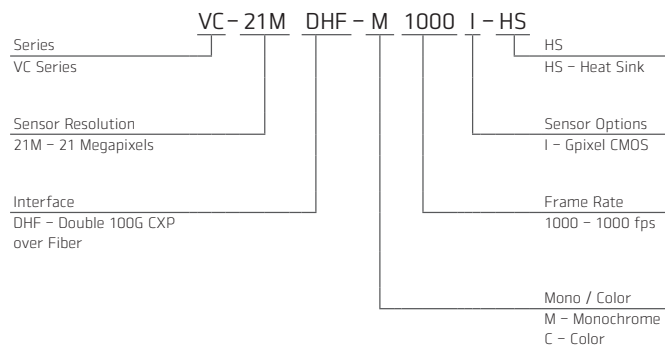
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Spectral Response



Ordering Scheme



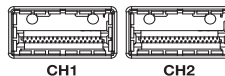
Connector Specification

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

Data Transfer / Communications



- CH1: Master Connection
- CH2: QSFP28

Connectors on camera body

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Mechanical Dimensions

Unit: mm

[tbd]

Unit: mm



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