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VC-21MDF-M/C460I

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



CoaXPress[®]
over-Fiber

The VC-21MDF-M/C460I camera is Vieworks' first camera with the CoF(CoaXPress over Fiber) interface that offers 454 frames per second at 5120 × 4096 resolution. This new interface supports transmitting image data at up to 80 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-21MDF-M/C460I 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.

Main Features

- y High Speed 21 Megapixel CMOS Image Sensor
- y CoaXPRESS over Fiber Interface up to 80 Gbps using 2 Links
- y Global Shutter CMOS Technology
- y DSNU and PRNU Correction
- y Flat Field Correction
- y Defective Pixel Correction
- y GenICam Compatible - XML based Control

Applications

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

Specifications

| | | |
|---------------------------|--|------------------------|
| Model | VC-21MDF-M/C460I | |
| 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 | |
| Connection* | Euresys CoF Frame Grabber(pc3625) × 2 Optic Transceiver(40G QSFP+ SR4) × 4 Optic Cable(MPO female to MPO female, type B) × 2 | |
| Max. Frame Rate (8 bit) | 454 fps | |
| Exposure Time | 4 μs - 60 s | |
| Partial Scan (Max. Speed) | 18370 fps at 32 Lines | |
| Mono Pixel Data Format | Mono 8/10 bit | |
| Color | GB Bayer 8/10 bit | |
| Electronic Shutter | Global Shutter | |
| Gain Control | Analog | 1.0×, 1.3×, 2.0×, 4.2× |
| | Digital | 1× ~ 32× |
| Black Level Control | 0 - 64 LSB at 10 bit | |
| Trigger Synchronization | Free-Run, Hardware Trigger, Software Trigger or CXP | |
| External Trigger | 3.3 V ~ 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 | 68 mm × 68 mm × 135 mm, 0.78 kg with F-Mount (Fan) | |
| | 68 mm × 68 mm × 135 mm, 0.77 kg, with F-Mount (Heat-sink) | |
| Temperature | Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C | |
| Lens Mount | F-mount, Custom mount available upon request | |
| External Power | 12 ~ 24 VDC | |
| | Dissipation | Typ. 34 W |
| Compliance | CE, FCC, KC | |

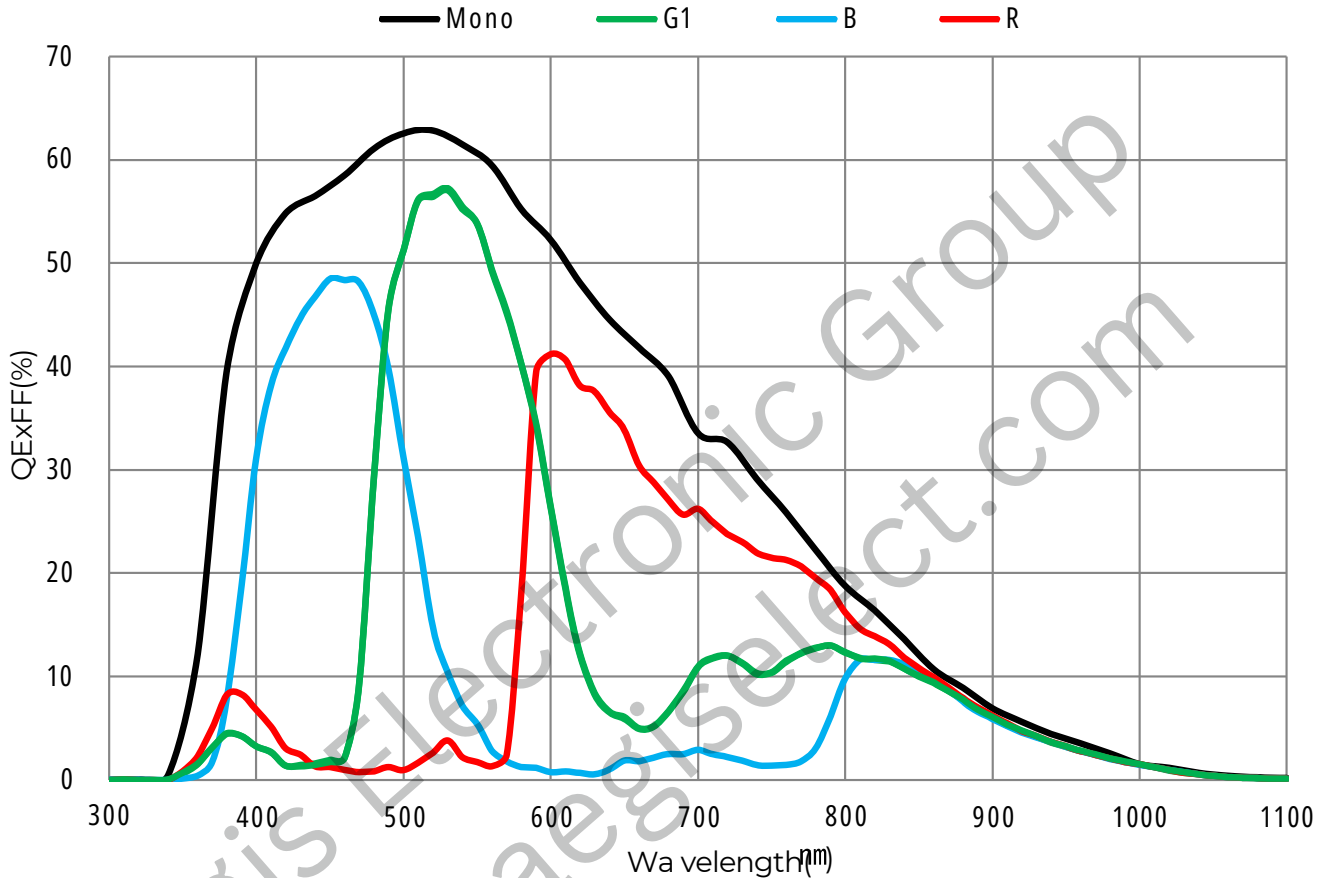
* For more information on how to connect frame grabbers and a camera, see the guide of the Euresys frame grabber in their web site.

VC-21MDF-M/C460I

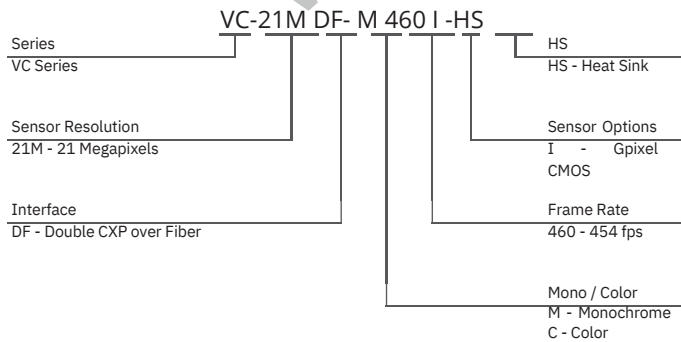
The Fastest Speed & High Resolution CMOS Digital Camera with CoF Interface



Spectral Response



Ordering Scheme



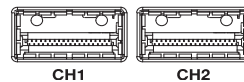
Connector Specification

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: Master Connection
- CH2: QSFP+

Connectors on camera body

VC-21MDF-M/C460I

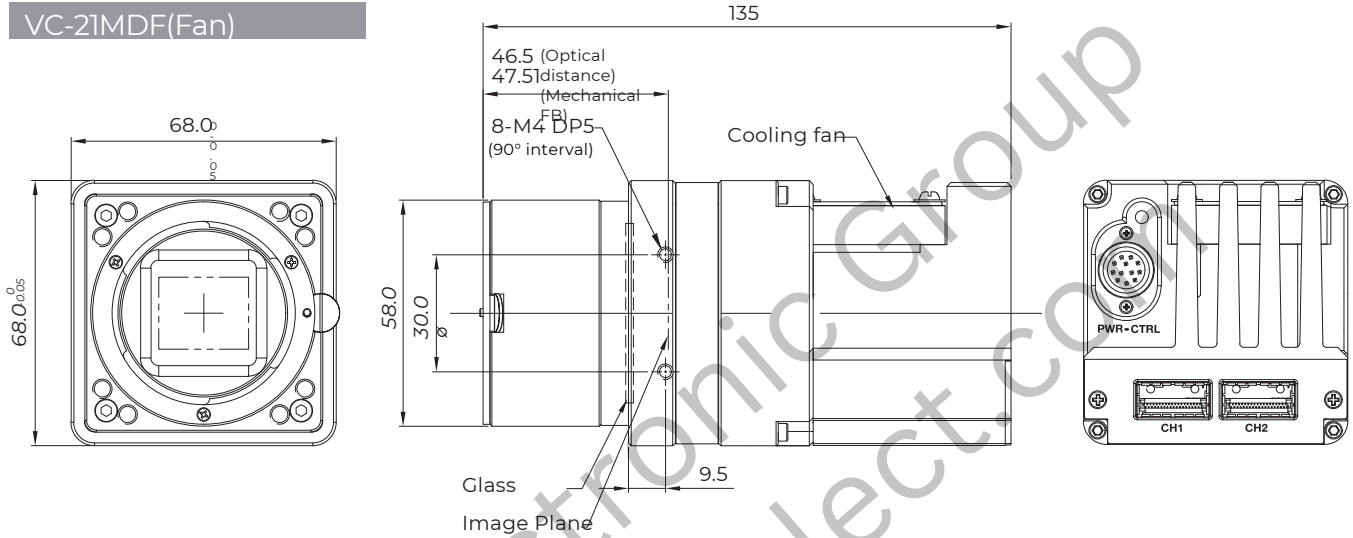
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Mechanical Dimensions

Unit: mm

VC-21MDF(Fan)



Unit: mm

VC-21MDF(Heat Sink)

