

PRELIMINARY

VC-21MDF-M/C454I

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



CoaXPress®
over-Fiber

The VC-21MDF-M/C454I 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 40 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/C454I 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-21MDF-M/C454I

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 40 Gbps using 2 CH
- 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-21MDF-M/C454I
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(Coaxlink QSFP+) × 2 Optic Cable(MPO) × 2
Max. Frame Rate (8 bit)		454 fps
Exposure Time		4 μs – 60 s
Partial Scan (Max. Speed)		18370 fps at 32 Lines
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×, 4.2×
	Digital	1× ~ 32×
Black Level Control		0 – 63 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
Power	External	12 ~ 24 VDC
	Dissipation	Typ. 34 W
Compliance		CE, FCC, KC

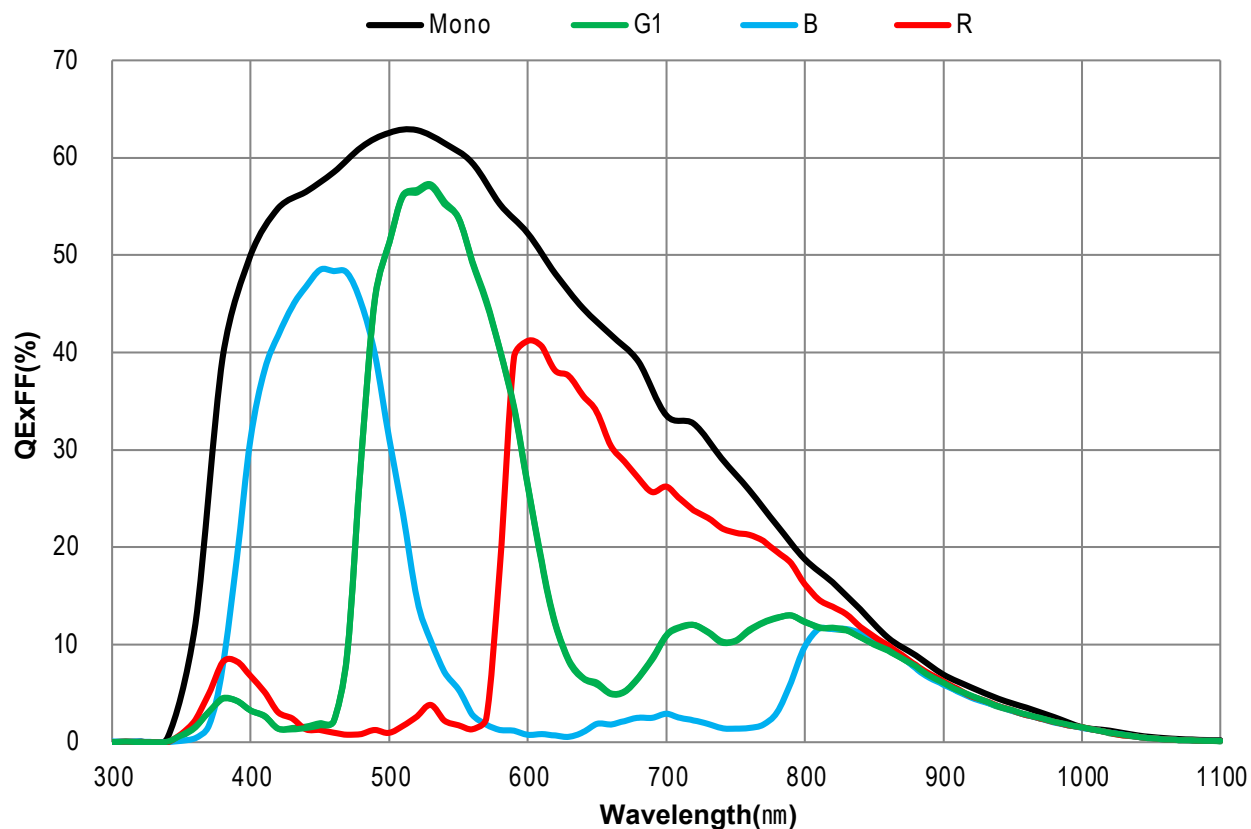
* For more information on how to connect frame grabbers and a camera, see the guide of the Euresys frame grabber in their web site.

VC-21MDF-M/C454I

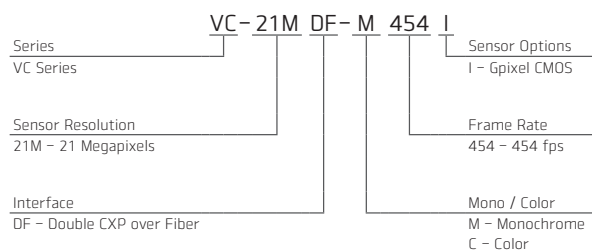
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Spectral Response



Ordering Scheme



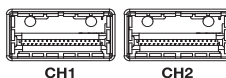
Connector Specification

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: QSFP+

Connectors on camera body

VC-21MDF-M/C454I

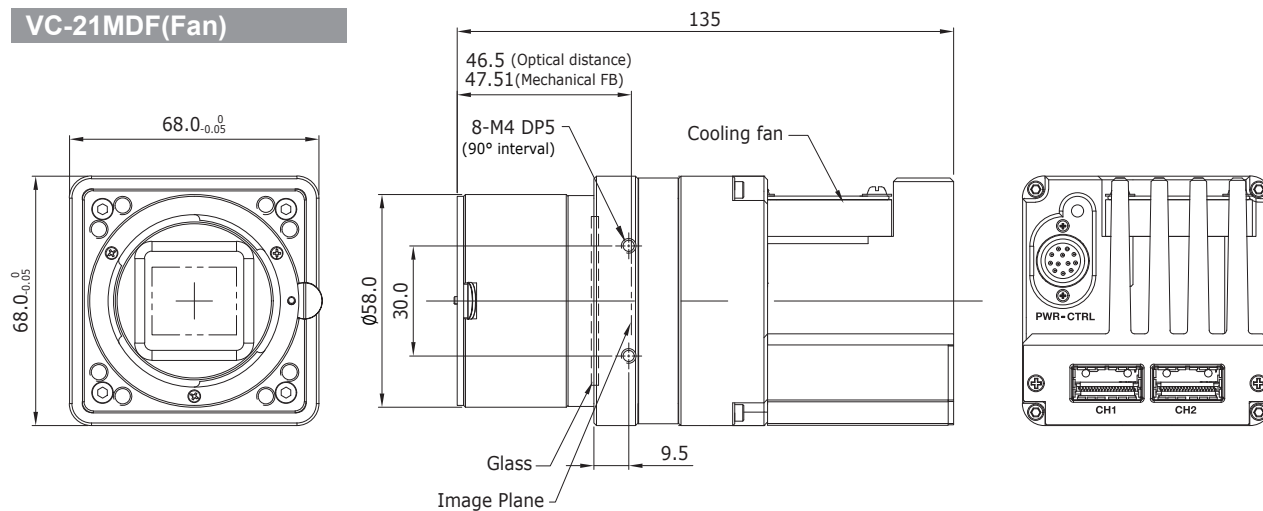
The Fastest Speed & High Resolution CMOS Digital Camera with CoF Interface

CoaxPress[®]
over-Fiber

Mechanical Dimensions

Unit: mm

VC-21MDF(Fan)



Unit: mm

VC-21MDF(Heat Sink)

