

VL-2K7X-M/C VL-4K3.5X-M/C

Line Scan Cameras with CoaXPress 1.0 Interface



CoaXPress®

The new line scan cameras, VL-2K7X-M/C and VL-4K3.5X-M/C, provide a fast line rate and are equipped with the CoaXPress 1.0 interface. The VL-2K7X-M/C and VL-4K3.5X-M/C cameras feature line rates of up to 170kHz at 2K resolution. The GL3504 image sensors support 7 μ m pixel lines at 2k resolution and 3.5 μ m pixel lines at 4k resolution. VL-2K7X-M/C and VL-4K3.5X-M/C are small format cameras compatible with M42 and C-mount lenses. Featuring high speed and color variation, the VL-2K7X-M/C and VL-4K3.5X-M/C cameras are ideal for a wide range of applications, such as food and agricultural inspection, pharmaceutical inspection, wood inspection, and fabric inspection.

VIEWORKS

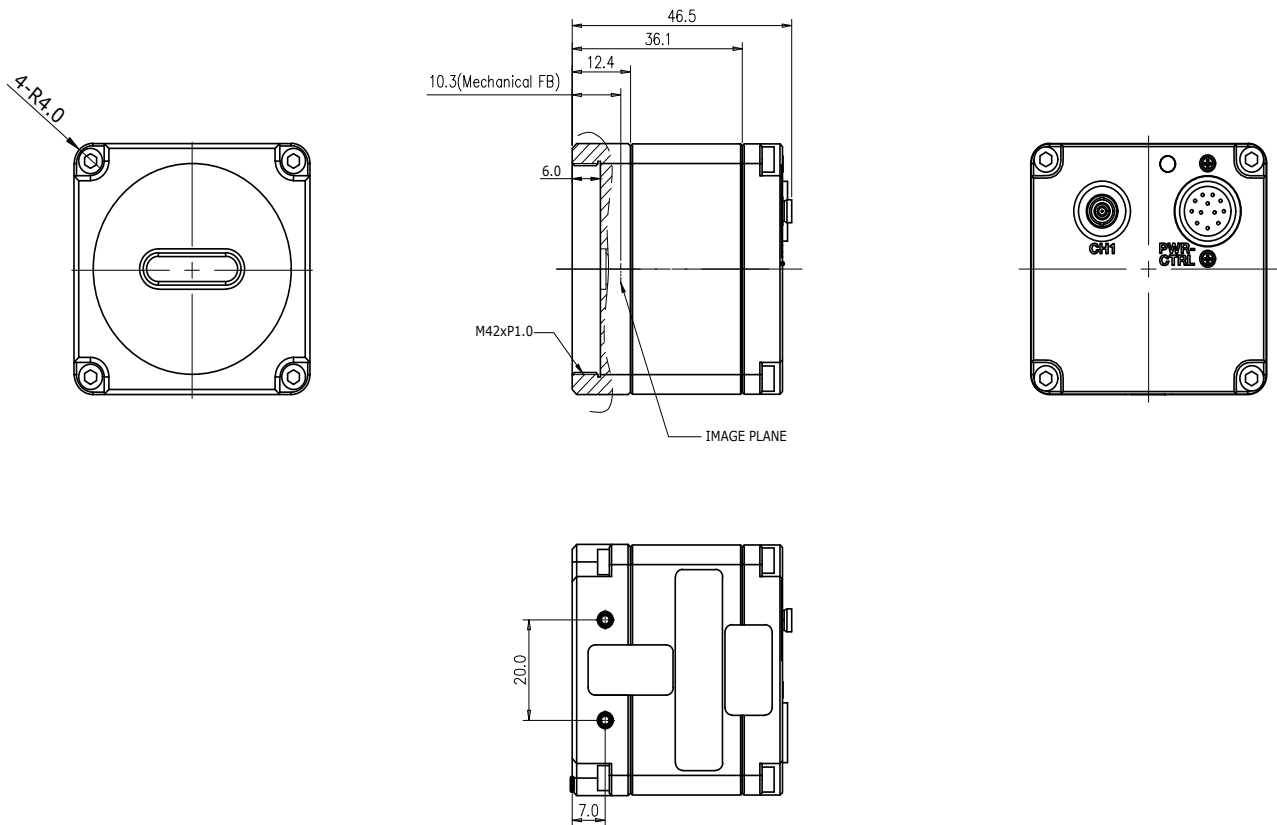
vision.vieworks.com

VL-2K7X-M/C / VL-4K3.5X-M/C

Line Scan Camera with CoaXPress 1.0

Mechanical Dimensions

Unit: mm



VL-2K7X-M/C / VL-4K3.5X-M/C

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Main Features

- M42-mount based 2k / 4k Line Scan Cameras
- CoaXPress Interface
- Supports 2 stage TDI (Mono)
- GL3504 2k color supports 3-line true color with RGBW Quad-Linear method
- Individual Gain/Exposure Control
- Optimized for M42, 50x50 mm size (C-Mount is available when using an adapter)
- GenICam Compatible – XML based Control

Applications

- Food & Agricultural Inspection
- Pharmaceutical Inspection
- Wood Inspection
- Fabric Inspection

Specifications

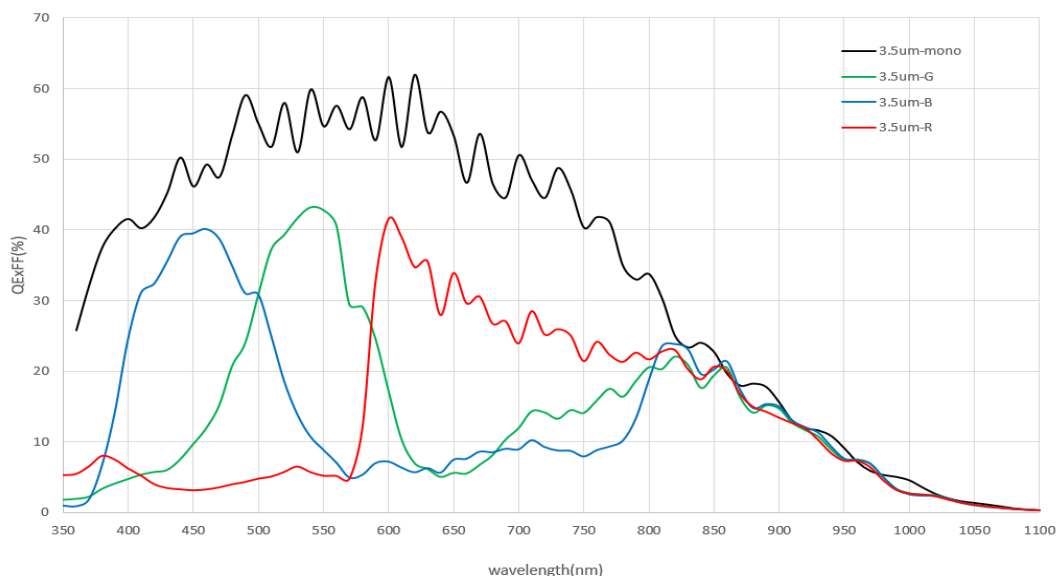
Model		VL-2K7X-M170I-2	VL-2K7X-C44I-4	VL-4K3.5X-M83I-2	VL-4K3.5X-C42I-2
Resolution (H × V)		2048 × 2	2048 × 4	4096 × 2	4096 × 2
Sensor		GL3504			
Mono / Color		Mono	True Color	Mono	Bayer Color
Pixel Size		7.0 μm × 7.0 μm		3.5 μm × 3.5 μm	
Electronic Shutter		Global Shutter			
Interface		CoaXPress 1.0 (CXP-3 / CXP-6)			
Max. Line Rate		Single: 170 kHz Dual: 87 kHz	Quad: 44 kHz	Single: 83 kHz Dual: 42 kHz	Dual: 42 kHz
Exposure Time		0.1 to 1000 μs (All or Individual band)			
Pixel Data Format		Mono 8/10/12	RGB/BGR 8/10/12 RGBa/BGRa 8	Mono 8/10/12	RGB/BGR 8/10/12
Gamma Correction		User defined LUT (Look Up Table)			
Offset and Gain Correction		DSNU and PRNU			
Trigger Synchronization		Free-Run, Hardware Trigger, and CoaXPress			
External Trigger		3.3 V to 5.0 V			
Dynamic Range		65.5 dB		65.8 dB	
Black Level		-2048 to 2048 LSB at 12bits			
Gain Control	Individual Gain	1.00 x to 4.00 x			
	Digital Gain	1.00 x to 32.00 x			
Lens Mount		M42, C-mount			
Dimension / Weight		50 mm x 50 mm x 46.5 mm, 195 g			
Temperature		Ambient Operationg: 0°C to 40°C (Housing: 10°C to 50°C) Storage: -40°C to 70°C			
Power	External Dissipation PoCXP	11 to 24 VDC			
		Max. 5.0 W			
		24 VDC			
API SDK		Vieworks Imaging Solution 7.X			

VL-2K7X-M/C/ VL-4K3.5X-M/C

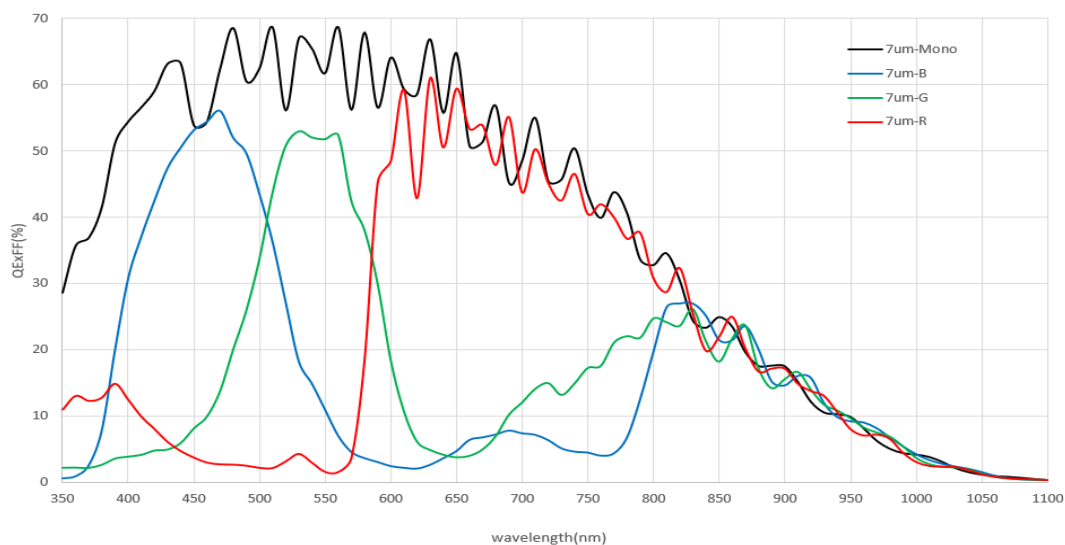
Line Scan Camera with CoaXPress 1.0

Spectral Response

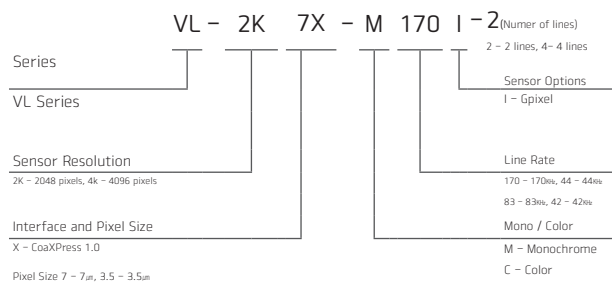
- VL-4K3.5X-M/C



- VL-2K7X-M/C

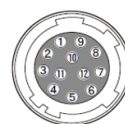


Ordering Scheme



Connector Specification

Power/Control



- | | |
|------------------|------------------------------------|
| 1: DC Ground | 2: +12 VDC |
| 3: Signal Ground | *4: Line2+ |
| 5: Signal Ground | *6: Line0+ |
| 7: NC | 8: NC |
| *9: Line1+ | *10: NC |
| 11: NC | 12: Signal Ground (HR10A-10R-12PB) |

*Line0+ is connected with Trigger In+ function
*Line1+ is connected with Scan direction In+
*Line2+ is connected with Strobe

Data Transfer / Communications



CH1

Single Channel
75 Ω, Micro BNC

Connectors on Camera Body