

VL-2K/4K Series

High Sensitivity & High Speed Line Scan Cameras



The cameras in the VL-2K/4K series are new 2k and 4k CMOS line scan cameras available with the Camera Link interface. The VL-2K7C-M200I-2 camera delivers a maximum line rate of 200 kHz at 2k resolution. Even higher resolution, up to 4096 pixel resolution at 200 kHz line rate can be achieved using the VL-4K7C-M200I-2 camera. The VL-2K7C-C100I-2 and VL-4K7C-C100I-2, the color line scan cameras, are also available for your color applications and color detection.

Featuring high sensitivity and high speed, these cameras are ideal for wide range of demanding applications such as flat panel display inspection, printed circuit board inspection, and high-performance document scanning.

VIEWORKS

vision.vieworks.com

VL-2K/4K Series

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Main Features

- CMOS Line Scan
- Camera Link Full Interface
- Max. 4 k Pixel Resolution
- Dual Integration Mode
- Exposure Control
- PoCL Compliant
- GenICam Compatible –XML based Control

Applications

- Flat Panel Display Inspection
- Printed Circuit Board Inspection
- High Performance Document Scanning
- Printing and Packaging System

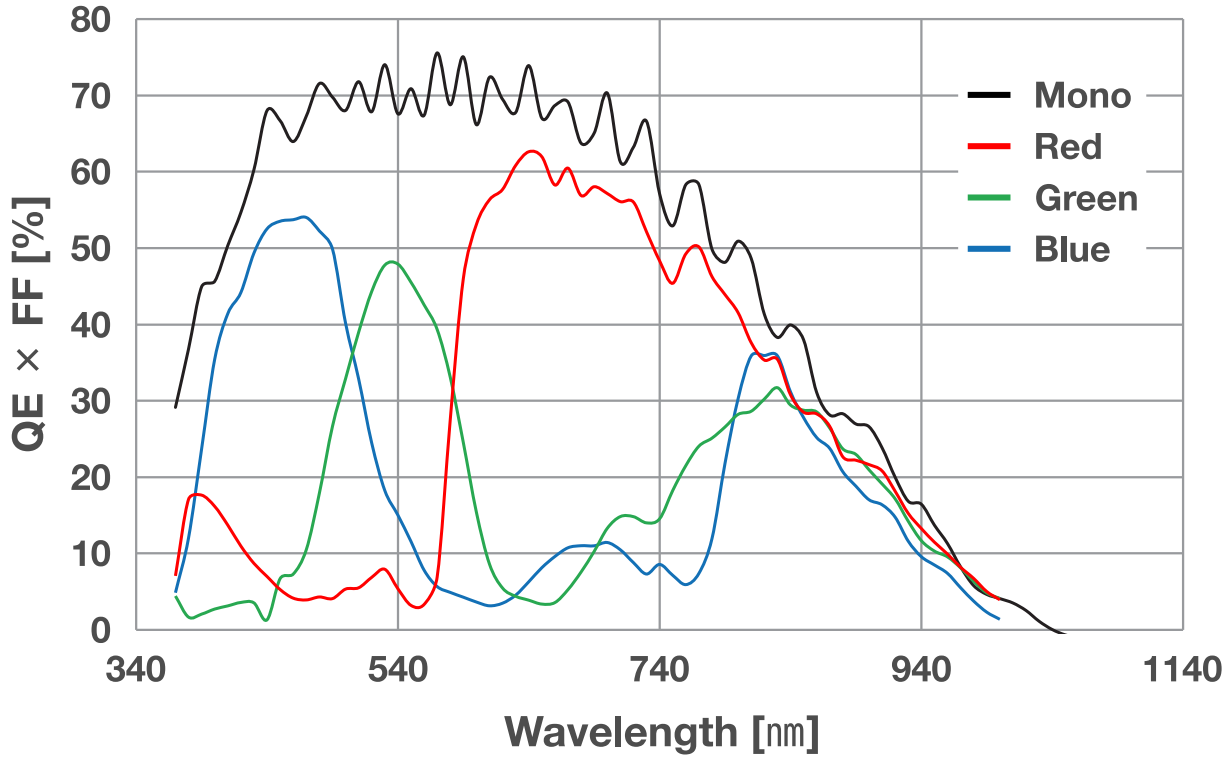
Specifications

Model	VL-2K7C-M200I-2	VL-2K7C-C100I-2	VL-4K7C-M200I-2	VL-4K7C-M120I-1	VL-4K7C-C100I-2	VL-4K7C-C60I-2
Resolution (H × V)	2048 × 2		4096 × 2			
Sensor	Vieworks		Gpixel GL0402			
Mono / Color	Mono	Color	Mono		Color	
Pixel Size	7.0 μm × 7.0 μm					
Data Output Mode	2 Tap: 8/10/12 bit 3 Tap: 8/10/12 bit 4 Tap: 8/10/12 bit 8 Tap: 8/10 bit 10 Tap: 8 bit	2 Tap: 8/10/12 bit 3 Tap: 8/10/12 bit 4 Tap: 8/10/12 bit 6 Tap: 8 bit 8 Tap: 8/10 bit 10 Tap: 8 bit	2 Tap: 8/10/12 bit 3 Tap: 8/10/12 bit 4 Tap: 8/10/12 bit 8 Tap: 8/10 bit 10 Tap: 8 bit	2 Tap: 8/10 bit 3 Tap: 8/10 bit 4 Tap: 8/10 bit 8 Tap: 8/10 bit 10 Tap: 8 bit	2 Tap: 8/10/12 bit 3 Tap: 8/10/12 bit 4 Tap: 8/10/12 bit 6 Tap: 8 bit 8 Tap: 8/10 bit 10 Tap: 8 bit	2 Tap: 8/10 bit 3 Tap: 8/10 bit 4 Tap: 8/10 bit 6 Tap: 8 bit 8 Tap: 8/10 bit 10 Tap: 8 bit
Interface	Camera Link Base / Medium / Full / 10 Tap, 26-pin SDR Connector					
Max. Line Rate	200 kHz	100 kHz	200 kHz	120 kHz	100 kHz	60 kHz
Exposure time	1.00 ~ 1000.00 μs					
Pixel Format	Mono	Mono 8/10/12		Mono 8/10	Mono 8/10/12	Mono 8/10
	Color	N/A	BiColorRGBG 8/10/12 RGB 8/10/12 BGR 8/10/12	N/A	BiColorRGBG 8/10/12 RGB 8/10/12 BGR 8/10/12	BiColorRGBG 8/10 RGB 8/10 BGR 8/10
Pixel Clock Speed	45/65/85 MHz			50 MHz	45/65/85 MHz	50 MHz
Binning	Sensor(H×V)	2 × 2	N/A	2 × 2	N/A	N/A
	Logic(H×V)	1 × 2, 2 × 2				
Trigger Synchronization	Free-Run, Hardware Trigger, CC1					
External Trigger	3.3 V ~ 5.0 V					
Dynamic Range	62 dB					
Black Level	from -4096 to 4095 LSB at 12 bit			from -256 to 255 LSB at 10 bit	from -4096 to 4095 LSB at 12 bit	from -256 to 255 LSB at 10 bit
Gain Control	Analog Gain	1.25×, 1.75×, 2.00×, 3.00×, 4.00×				
	Digital Gain	1.00× ~ 32.00×				
Lens Mount	M42 × 1.0 mm (Sensor to Camera Front: 10.10 mm)					
Dimension / Weight	60 mm × 60 mm × 37.1 mm / 224 g					
Temperature	Ambient Operating: 0°C ~ 40°C (Housing: 0°C ~ 60°C), Storage: -40°C ~ 70°C					
Power	External	10 – 30 VDC				
	Dissipation	Typ. 6.8 W		Typ. 5.1 W	Typ. 6.8 W	Typ. 5.1 W
	PoCL	PoCL Compliant – Two PoCL cables required				
Compliance	CE, FCC, KC, UL	CE, FCC, KC, UKCA, UL	CE, FCC, KC, UL		CE, FCC, KC, UKCA, UL	CE, FCC, KC, UL

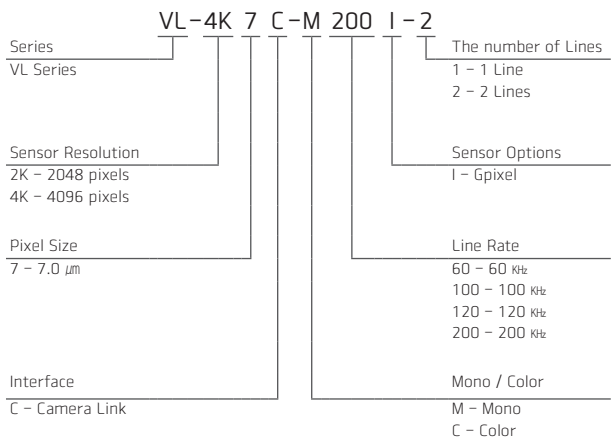
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Quantum Efficiency

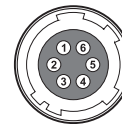


Ordering Scheme



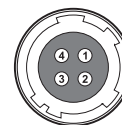
Connector Specification

Power



1, 2, 3: +12 VDC
4, 5, 6: GND
(HR10A-7R-6PB)

Control



1: Trigger IN
3: DC Ground
4: Strobe OUT
(HR10A-7R-4S)

Connectors on camera body

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Mechanical Dimensions

Unit: mm

