

VL-2K7NG-M/C VL-4K3.5NG-M/C

Line Scan Cameras with 5GigE Interface



VL-2K7NG-M/C and VL-4K3.5NG-M/C, the new line scan cameras provide a fast line rate equipped with the 5GigE (NBASE-T) interface, compatible with 2.5GigE and 1GigE.

The VL-2K7NG-M/C and VL-4K3.5NG-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-2K7NG-M/C and VL-4K3.5NG-M/C are small format cameras compatible with M42 and C-mount lenses. Featuring high speed and color variation, the VL-2K7NG-M/C and VL-4K3.5NG-M/C cameras are ideal for a wide range of demanding applications, such as food and agricultural inspection, pharmaceutical inspection, wood inspection, and fabric inspection.

VIEWORKS

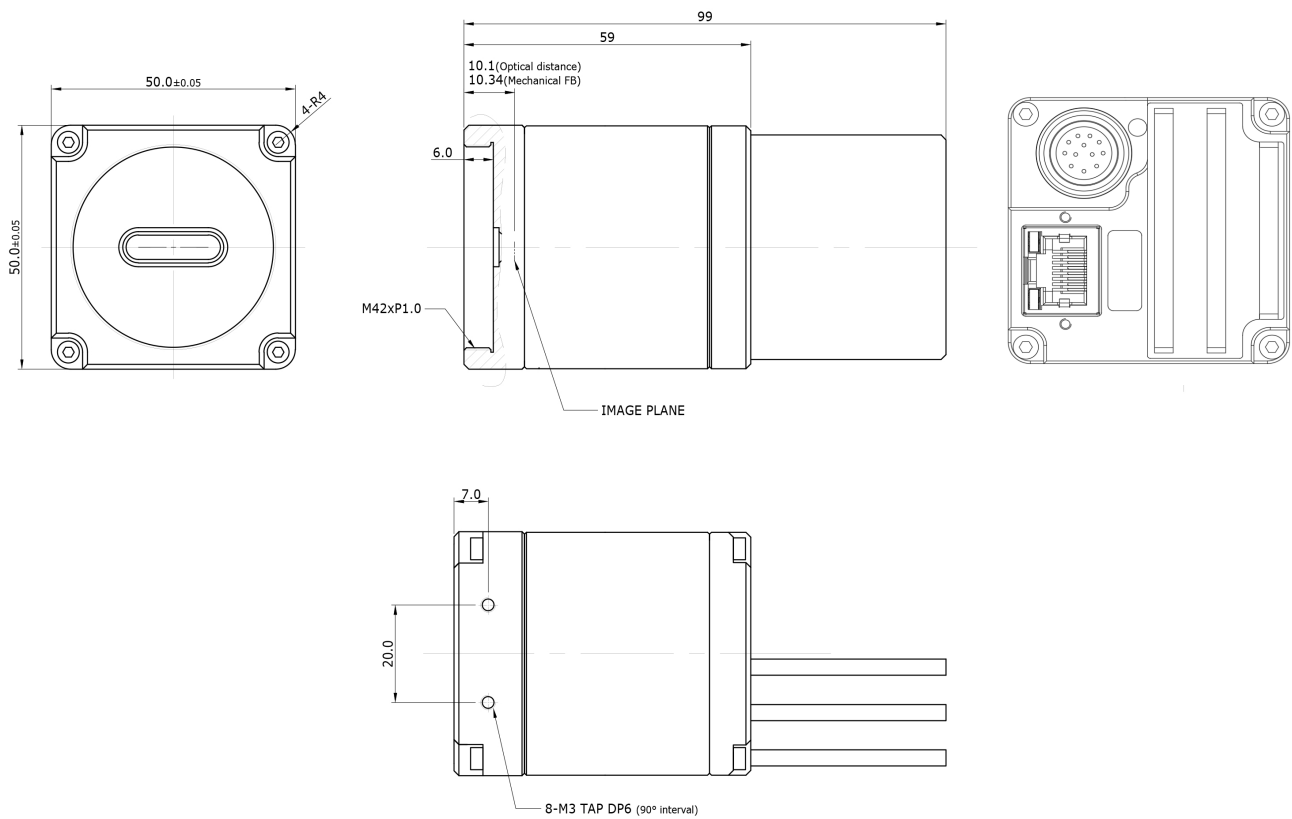
vision.vieworks.com

VL-2K7NG-M/C / VL-4K3.5NG-M/C

Line Scan Camera with 5GigE Interface (Nbase-T)

Mechanical Dimensions

Unit: mm



VL-2K7NG-M/C / VL-4K3.5NG-M/C

Line Scan Camera with 5GigE Interface (Nbase-T)

Main Features

- M42-mount based 2k / 4k Line Scan Cameras
- Supports NBASE-T and backward compatibility (5GigE, 2.5GigE, 1GigE)
- Supports 2 stage TDI (Mono)
- GL3504 2k color supports 3-line true color with RGBW Quad-Linear method
- Individual Gain/Exposure Control
- Supports PoE (IEEE 802.3af)
- Optimized for M42, 50x50mm size (C-Mount possible when using adapter)
- Defective Pixel Correction
- GenICam Compatible – XML based Control

Applications

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

Specifications

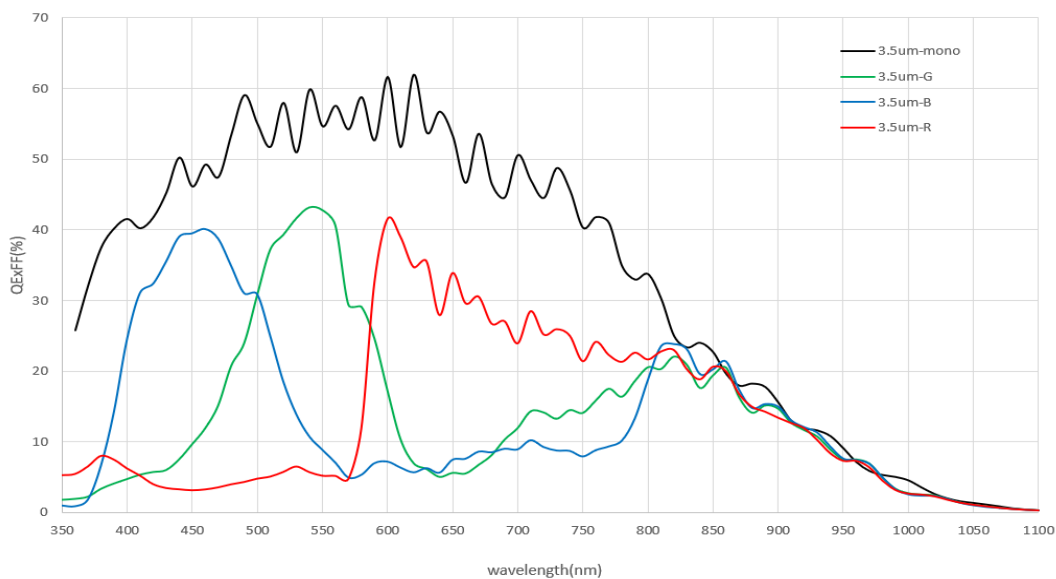
Model		VL-2K7NG-M170I-2	VL-2K7NG-C44I-4	VL-4K3.5NG-M83I-2	VL-4K3.5NG-C42I-2
Active Image (H × V)		2048 × 2	2048 × 4	4096 × 2	4096 × 2
Sensor		GL3504			
Pixel Size		7.0 μm × 7.0 μm		3.5 μm × 3.5 μm	
Interface		5 GigE (Nbase-T)			
Dynamic Range		65.5dB		65.8dB	
Line Rate		170kHz (@Singleline) 87kHz (@Dualline)	44kHz (@Quadline)	83kHz (@Singleline) 42kHz (@Dualline)	42kHz (@Dualline)
Pixel Data Format		Mono 8/10/12 Mono 10/12 Packed	RGB/BGR 8/10/12 RGBa/BGRa 8	Mono 8/10/12 Mono 10/12 Packed	RGB/BGR 8/10/12
Black Level Control		Adjustable (−2048 ~ 2048 LSB at 12 bits)			
Gain Control		Individual Band Gain: x1.0 ~ x4.0 Digital Gain: x1.00 ~ x32.00			
Exposure Time		0.1 ~ 1000μs (All or Individual band)			
Trigger Synchronization		Free-Run, Hardware Trigger			
External Trigger		External, 3.3V ~ 5.0V			
Gamma Correction		User defined LUT (Look Up Table)			
Offset and Gain Correction		DSNU, PRNU			
Lens Mount		M42, C-mount (Adaptor)			
Mechanical		50mm x 50mm x 99mm, 279g			
Temperature		Storage: −40°C ~ 70°C			
Power	External Dissipation PoE	11 ~ 24V			
		Max. 10W (@PoE)			
		48VDC, 802.3af (Class 0)			
API SDK		Viewworks Imaging Solution 7.x			

VL-2K7NG-M/C / VL-4K3.5NG-M/C

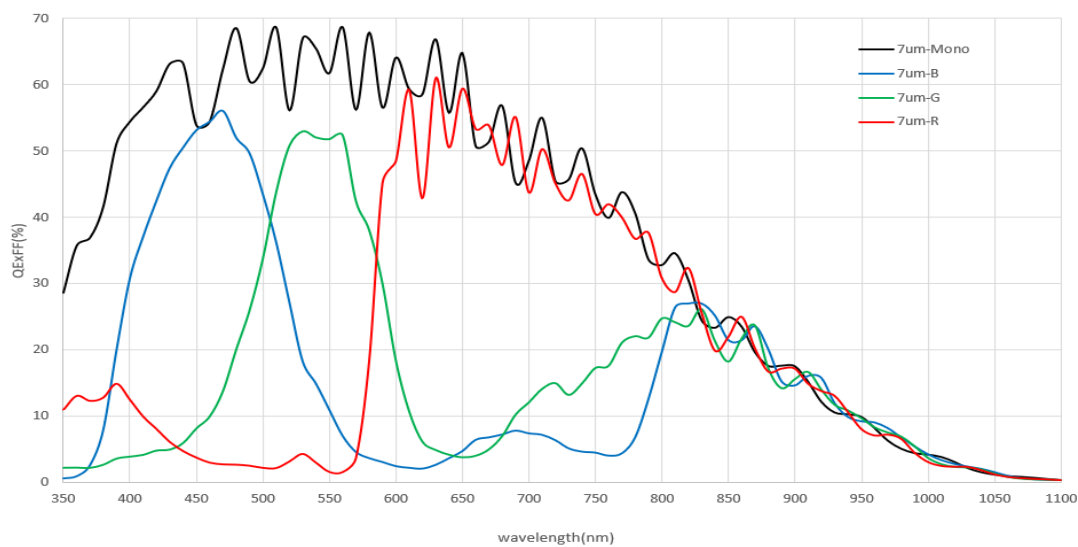
Line Scan Camera with 5GigE Interface (Nbase-T)

Spectral Response

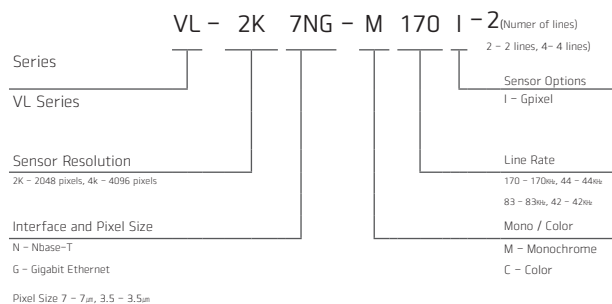
- VL-4K3.5NG-M/C



- VL-2K7NG-M/C

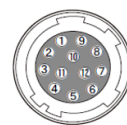


Ordering Scheme



Connector Specification

Power/Control



- | | |
|------------------|-------------------|
| 1: DC Ground | 2: +12 VDC |
| 3: Signal Ground | *4: Line3+ |
| 5: Signal Ground | *6: Line0+ |
| 7: NC | 8: NC |
| *9: Line1+ | *10: Line2+ |
| 11: NC | 12: Signal Ground |
- (HR10A-10R-12PB)

- *Line3+ is connected with Output function
- *Line0+ is connected with Trigger In+ function
- *Line1+ is connected with Scan direction In+
- *Line2+ is connected with Frame Start In+

Connectors on camera body