

Line Scan Camera Series



Line scan cameras are a type of camera that captures images one line at a time, unlike regular cameras that capture entire frames at once. They work by using a linear sensor of 1 or 2 pixels high that scans across the field of view. The motion of the sensor or the object being captured creates the second dimension of the image, building up the image one line at the time.

Line scan cameras are often used in industrial applications where objects are moving. Some examples include:

- Sorting and grading products on a conveyor belt for defects
- Capturing 3D profiles of objects
- Document scanning
- Postal sorting
- Steel beam inspection

Our line scan camera come equipped with GigE vision interface. The cameras follow the GenlCam standard widely used in machine vision software applications. With the free configuration software available on the download page, customers can adjust the camera parameters to fit the application. The settings can then be exported for future use or directly stored on the camera for deployment in your project.



Technical specifications

Monochrome

	VALINE-2K1-CM-140GM-P	VALINE-4K1-CM-80GM	VALINE-8K1-M72-150GTM	VALINE-16K1-M72-75GTM		
Resolution	2048 x 1	4096 x 1	8192 x 1	16384 x 1		
Pixel Size (um)	7	3.5	7	3.5		
Sensor Type	Global Shutter CMOS	Global Shutter CMOS	Global Shutter CMOS	Global Shutter CMOS		
Image Type	Monochrome	Monochrome	Monochrome	Monochrome		
Sensor Length (mm)	14.33	14.33	57.34	57.34		
Dynamic Range (dB)	>64.5	>54	>54.1	>53.7		
SNR (dB)	43.9	43.9	-	-		
Data Rate (MB/s)	287	123	1227	1227		
Max Analog Gain	8x	8x	8x	4x		
Analog Offset	0 ~ 1023	0 ~ 1023	0 ~ 1023	0 ~ 1023		
Digital Gain	0.1 ~ 8	0.001 ~ 15.99	0.1 ~ 8	0.1 ~ 8		
Digital Offset	-1023 ~ 1023	-1023 ~ 1023	-1023 ~ 1023	-1023 ~ 1023		
Lens Mount	C-Mount	C-Mount	M72	M72		
Max Line Rate (kHz)	140	80	150	75		
Trigger Mode	Free Run, Line Trigger, Frame Mode Trigger					
External Trigger	RS422 input					
Exposure Control	Pulse Width Control, Timed					
Exposure Time	2us ~ 1s	2us ~ 1s	1.7us ~ 6s	3.5us ~ 6s		
Data Format	8/10 bit	8 bit	8 bit	8 bit		
Operating Temperature (°C)	0 ~ 55	0 ~ 65	0 ~ 55	0 ~ 55		
Data Interface	GigE Vision	GigE Vision	10Gige Vision SFP+	10Gige Vision SFP+		
Power Interface	HD15 (Female)	HD15 (Female)	HD15 (Female)	HD15 (Female)		
Power Supply	12 ~ 24Vdc / PoE	12 ~24Vdc	12 ~24Vdc	12 ~24Vdc		
Power Consumption (W)	3.8	4.1	9.8	12.1		
Dimensions (mm)	62 x 62 x 42.6	63 x 63 x 56.8	76 x 76 x 65.1	76 x 76 x 65.1		



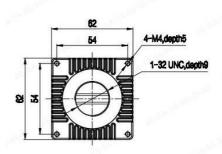
Color

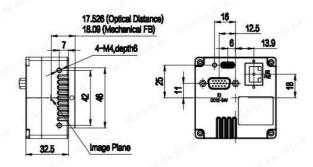
	VALINE-2K3-CM-48GC-P	VALINE-4K2-M42-30GC	VALINE-8K3-M72-50GTC	
Resolution	2048 x 3	4096 x 2	8192 x 3	
Pixel Size (um)	7	7	7	
Sensor Type	Global Shutter CMOS	Global Shutter CMOS	Global Shutter CMOS	
Image Type	Color	Color	Color	
Sensor Length (mm)	14.33	28.67	57.34	
Dynamic Range (dB)	>53.8	>63.5	>53.7	
SNR (dB)	-	43.9	-	
Data Rate (MB/s)	294	124	1226	
Max Analog Gain	8x	8x	8x	
Analog Offset	0 ~ 1023	0 ~ 1023	0 ~ 1023	
Digital Gain	0.01 ~ 8	0.004 ~ 8	0.1 ~ 8	
Digital Offset	-1023 ~ 1023	-1023 ~ 1023	-1023 ~ 1023	
Lens Mount	С	M42	M72	
Max Line Rate (kHz)	48	30	50	
Trigger Mode	Free Run, Line Trigger, Frame Mode Trigger			
External Trigger	RS422 input			
Exposure Control	Pulse Width Control, Timed			
Exposure Time	6us ~ 1s	6us ~ 1s	3.5us ~ 6s	
Data Format	8/10/12 bit	8/10/12 bit	8 bit	
Operating Temperature	0 ~ 65	0 ~ 65	0 ~ 55	
(°C)				
Data Interface	GigE Vision	GigE Vision	10Gige Vision SPF+	
Power Interface	HD15 (Female)	HD15 (Female)	HD15 (Female)	
Power Supply	12 ~24Vdc / POE	12 ~24Vdc	12 ~24Vdc	
Power Consumption (W)	3.8	4.9	12.7	
Dimensions (mm)	Dimensions (mm) 62 x 62 x 42.6		76 x 76 x 65.1	

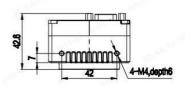


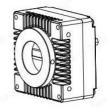
Technical drawings

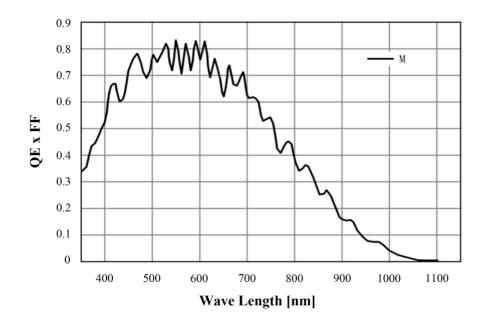
VALINE-2K1-CM-140GM-P





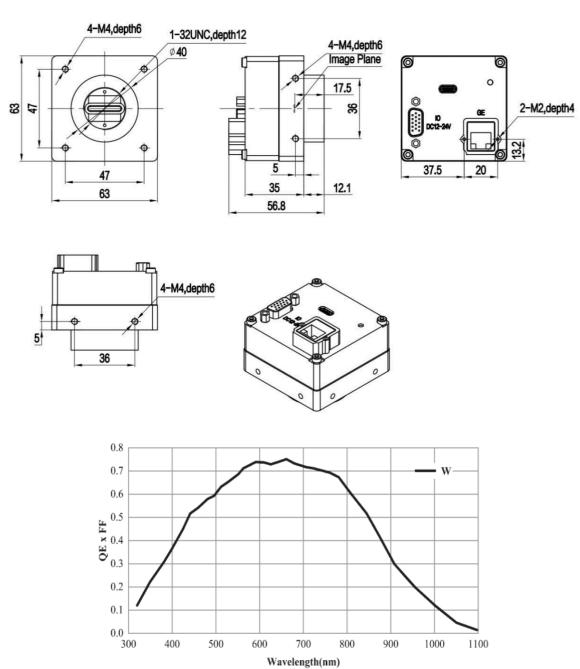






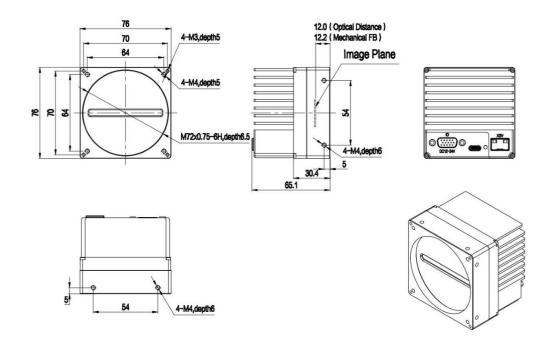


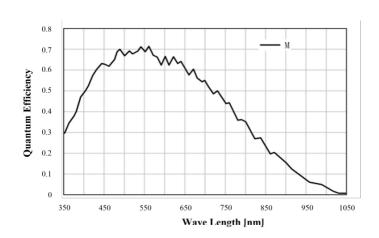
VALINE-4K1-CM-80GM





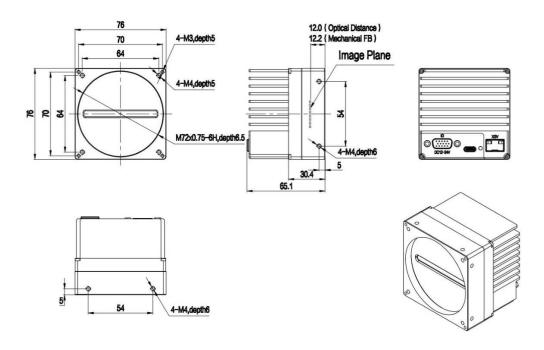
VALINE-8K1-M72-150GTM

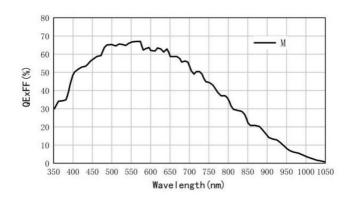






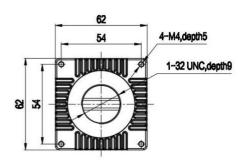
VALINE-16K1-M72-75GTM

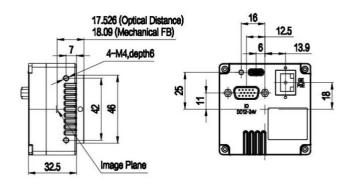


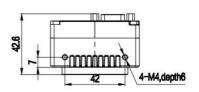


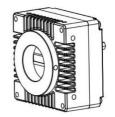


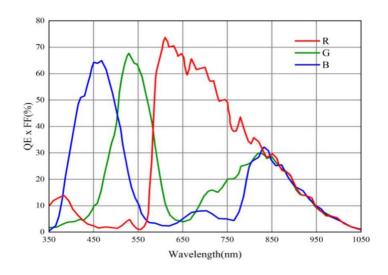
VALINE-2K3-CM-48GC-P





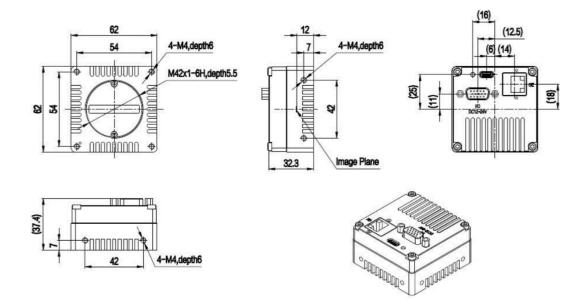


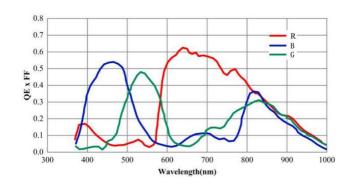






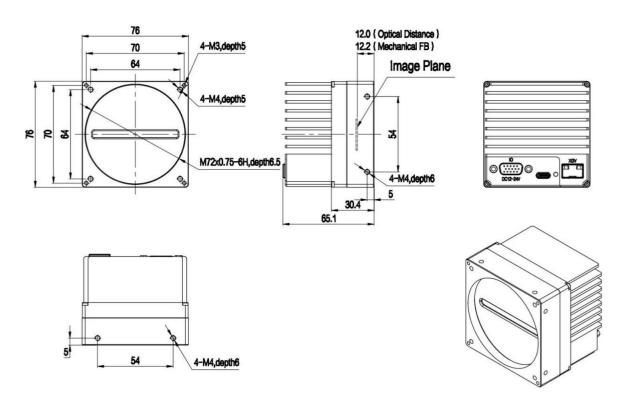
VALINE-4K2-M42-30GC

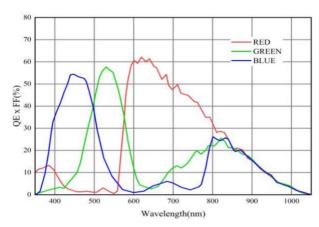






VALINE-8K3-M72-50GTC







Accessories

VA8-CABLE-GIGE-3M VA8-CABLE-GIGE-5M VA8-CABLE-GIGE-7M VA8-CABLE-GIGE-10M VA8-CABLE-GIGE-15M VA16-CABLE-IO-HD15-OE-5m VA16-PCIe4-10GF-2 3 meter Gigabit ethernet cable 5 meter Gigabit ethernet cable 7 meter Gigabit ethernet cable 10 meter Gigabit ethernet cable 15 meter Gigabit ethernet cable 5 meter IO / power cable 2 port 10 Gigabit frame grabber

Product number

VALINE	- Pixels	- Mount	-	Line rate	Interface	Color/Mono - POE
	2K1	CM		30	G	СР
	2K3	M42		48	GT	M
	4K1	M72		50		
	4K2			75		
	8K1			80		
	8K3			140		
	16K1			150		