

GigE Line Scan Cameras

MV-L023C-GF-V2



- 2K, 7μm large pixel size
- True color RGB
- High sensitivity, low power consumption

Key Features

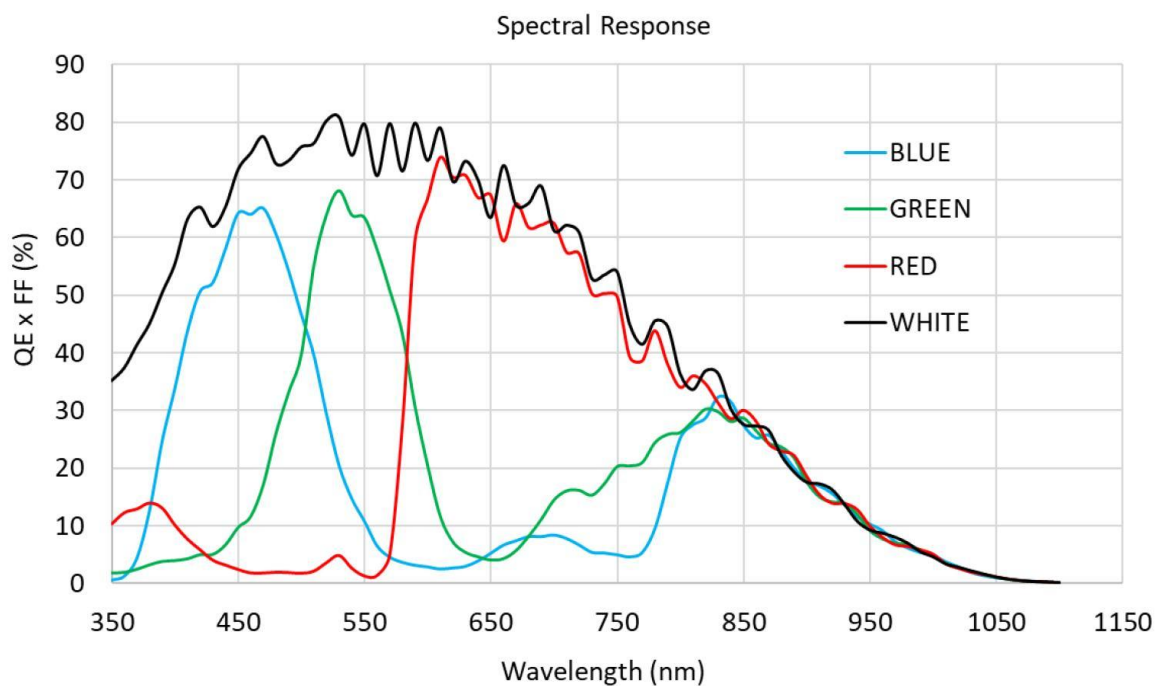
- High sensitivity, low noise, true color RGB.
- Flat-field supports writing and storing multiple sets of camera parameters.
- Built-in large-capacity frame buffer, safe and reliable verification and repair technology to ensure transmission.
- Frame timeout function, enhancing the fault tolerance of the camera for mechanical motion with excessively long lag time, low power consumption, low temperature rise and low thermal noise.
- Software is compatible with GigEVision and GenICam protocols.
- Size: 62mm×62mm×37.4mm

Specifications

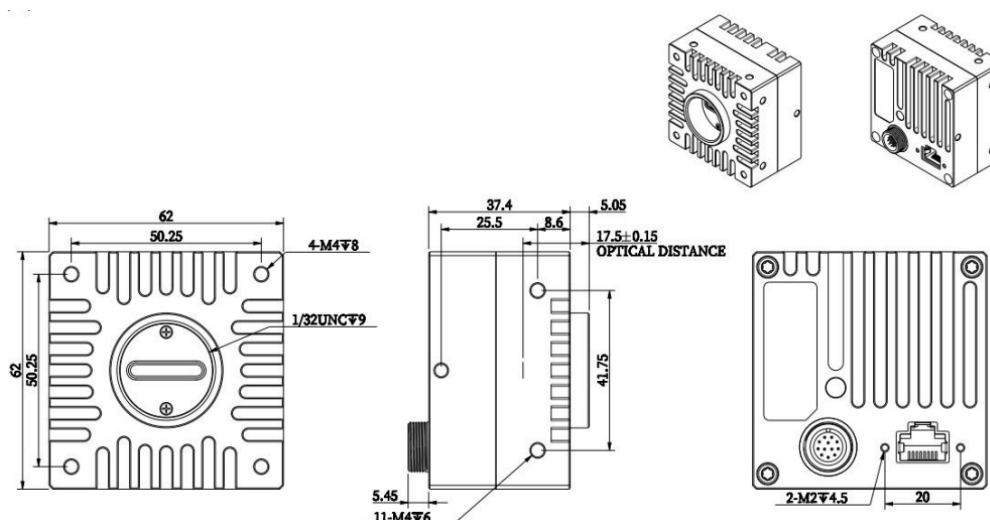
Model parametric	MV-L023C-GF-V2	
	2K color GigE line scan camera	
Performance Parameters		
Sensor Type	CMOS Global Shutter	
Pixel Size	7.0um×7.0um	
Sensor Size	14.336mm	
Resolution	2048×3	
Mono/Color	Color	
Max Frame Rate	Burst Mode: 55K, Continuous Mode: 19K (3Line mode)	
Imaging mode	3Line	
DR	65 dB	
Gain	1x-16x, 0.125x adjustable step	
Exposure Time	4.3us - 40ms, 1us adjustable step	
Exposure mode	Support manual exposure/single exposure/fixed exposure /automatic exposure/pulse width control exposure	

Flash mode	Support 4-way time-division stroboscopic
Output image format	RGB24、BGR24
Trigger Mode	Row triggered, frame triggered, row + frame triggered
Mirror image	Support horizontal mirroring, vertical mirroring
Source of trigger signal	Internal trigger, external trigger
Line frequency control	Camera internal frequency doubling/frequency division(external trigger),software setting(internal trigger)
Image cache	4Gbit
ISP	FPN correction/light and dark field correction/look-up table /Gamma/multiple lens distortion correction/light source correction/space correction/white balance/contrast/black level
Electrical Characteristics	
Data Interface	GigE
I/O Interface	1 channel frame signal input (optically coupled isolation), 2 channels row signal input (AB phase), 4 channels output (non-optically coupled isolation)
Power supply	DC 12V~24V (±10%)
Typical Power Consumption	3W@12VDC
Structure and environmental parameters	
Lens Interface	C, Flange rear focal 17.5mm
IO and Power Interface	12 core industrial circular connector
Filter	380nm~650nm bandpass filter
Dimension	62mm×62mm×37.4mm(lens connector not included)
Weight	Approx. 263.5g
IP Protection Rating	IP40 (with lens and cable properly installed)
Temperature	Operating Temperature: -10°C ~ 50°C Storage Temperature: -20°C ~ 70
Humidity	5% ~ 90%RH (non-condensing)
Software and Protocols	
Software	SDK development kit, and related demo/calibration software BasedCam3
Operating Systems	Windows 7/10 32/64bit ; PC Linux 32/64bit
Protocols/Standards	GigEVision, GenICam
Compatible Software	LabView, Halcon
Certifications	CE, RoHS

Spectral response



Dimension (Unit: mm)



Pin	Color	Definition	Signal source	Notes	Isolated/ non-isolated	Interface circuit	Input/output parameters
1	Blue	GND	Line (6~9)-	Power/signal ground			
2	Brown	POWER		The power input is positive			12-24V power supply input
3	Red	IN1+	Line1+	The encoder phase A inputs the positive end	Non-isolated input	Comparator	Support 3.3V-24V differential signal Support 12-24V voltage signal Support 12-24V PNP signal
4	Red and white	IN1-	Line1-	The encoder phase A inputs the negative end			
5	Black	IN2+	Line2+	The encoder phase B inputs the positive end			Support NPN input
6	Black and white	IN2-	Line2-	The encoder phase B inputs the negative end			
7	Yellow	TRIG	Line3	Trigger signal input	Isolate input	Optical coupling	Low effectiveness: 0-1V High efficiency: 5-24V Port without polarity
8	Green	TRIG	Line3	Trigger signal input			
9	White	FLASH_OUT1+	Line4+	Time-sharing exposure output 1	Non-isolated output	Push-pull circuit	Output high level: 12V Output low level: 0.3V
10	Grey	FLASH_OUT2+	Line5+	Time-sharing exposure output 2			
11	Purple	FLASH_OUT3+	Line6+	Time-sharing exposure output 3			
12	Orange	FLASH_OUT4+	Line7+	Time-sharing exposure output 4			
	Transparent	Shielding cable		Connect to camera housing			Remarks: Transparent heat-shrinkable tubing for shielded wire cover
Trigger Block	