2.5GigE Line Scan Cameras

MV-L043C-DG-V1

- 4K high sensitivity
- 70 KHz line frequency
- Low power design, less thermal noise

Key Features

- 4K pixels, 7μm pixels,Color.
- 2.5G bandwidth, 70KHZ line frequency.
- Support light/dark field correction, lens shadow correction, light source correction, black level.
- Transmission distance: 100 meters. Strong anti-interference capability.
- Built-in 4G image cache, with verification and repair technology, reliable transmission.
- Support GigE Vision, compatible with OpenCV, LabView, Halcon and other software.
- Dimensions:62mm×62mm×36.8mm

Specifications

Model / parametric	MV-L043C-DG-V1 4K Color 2.5GigE line scan camera
Performance Parameters	
Sensor Type	CMOS Global Shutter
Pixel Size	7.0μm×7.0μm
Sensor Size	28mm
Resolution	4096×3Line
Mono/Color	Color
Max Frame Rate	Burst mode: 70K Continuous mode: 70Khz(Bayer format), 23Khz(BGR8Packed format)
Output image format	RGB8、BGR8、BayerGR8
DR	65dB
Gain	1x-16x,0.25x adjustable step
Exposure Time	3.6us -- 40ms, 1us steps
Exposure mode	Support manual exposure/one key exposure/fixed exposure/ automatic exposure/pulse width control exposure
Data rate	300MB/S
Flash lamp control	Support

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Image cache	4Gbit
Trigger Mode	Row triggered, frame triggered, row + frame triggered
Mirror image	Support horizontal mirroring
Source of trigger signal	Internal trigger, external trigger
Line frequency control	Camera internal frequency doubling/frequency division (external trigger), software setting (internal trigger)
ISP	FPN correction/light and dark field correction/look-up table / Gamma/ multiple lens distortion correction/light source correction/contrast/black level
Electrical Characteristics	
Data Interface	2.5GigE
I/O Interface	1 channel frame signal input (support RS422 standard differential and 3.3V-24V single-ended signal), 2 line signal input (support RS422 standard differential and 3.3V-24V single-ended signal), 2 differential outputs or 4 single-ended outputs (output level 5V/12V), Can be multiplexed to 3 inputs (1 differential input and 2 single-ended inputs)
Power supply	DC12V-24V（±10%）
Typical Power Consumption	4.5W@24VDC
Structure and environmental parameters	
Lens Interface	M42*1
IO and Power Interface	12 core industrial circular connector
Filter	380nm-650nm bandpass filter
Dimension	62mm×62mm×36.8mm
Weight	Approx.220g
IP Protection Rating	IP40(with lens and cable properly installed)
Temperature	OperatingTemperature:-10℃~45℃ StorageTemperature:-20℃~70℃
Humidity	5%~90%RH(non-condensing)
Software and Protocols	
Software	SDK development kit, and related demonstration/calibration software BasedCam3
Operating Systems	Windows7/10 64bits,PC Linux 64bits, ARM Linux
Protocols/Standards	GigE Vision 1.2，GenICam
Compatible Software	OpenCV, LabView, Halcon
Certifications	CE,RoHS

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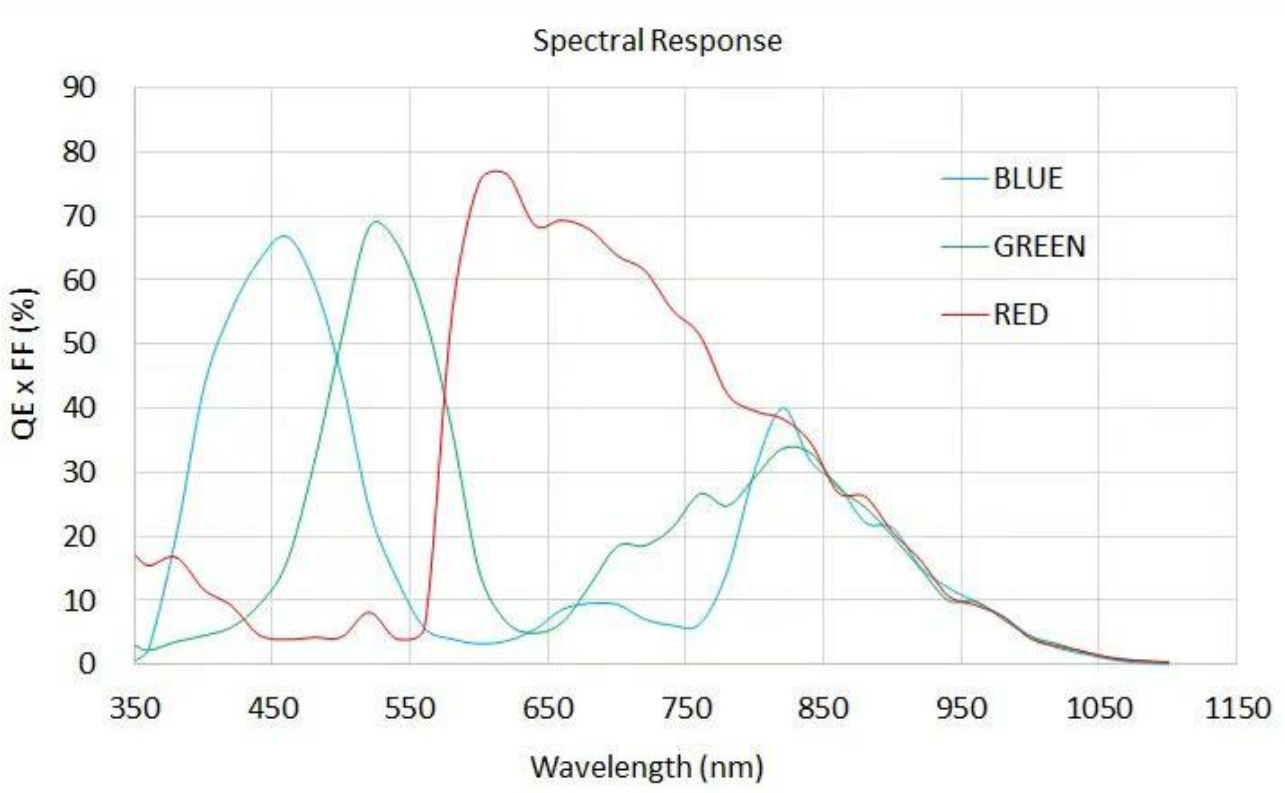
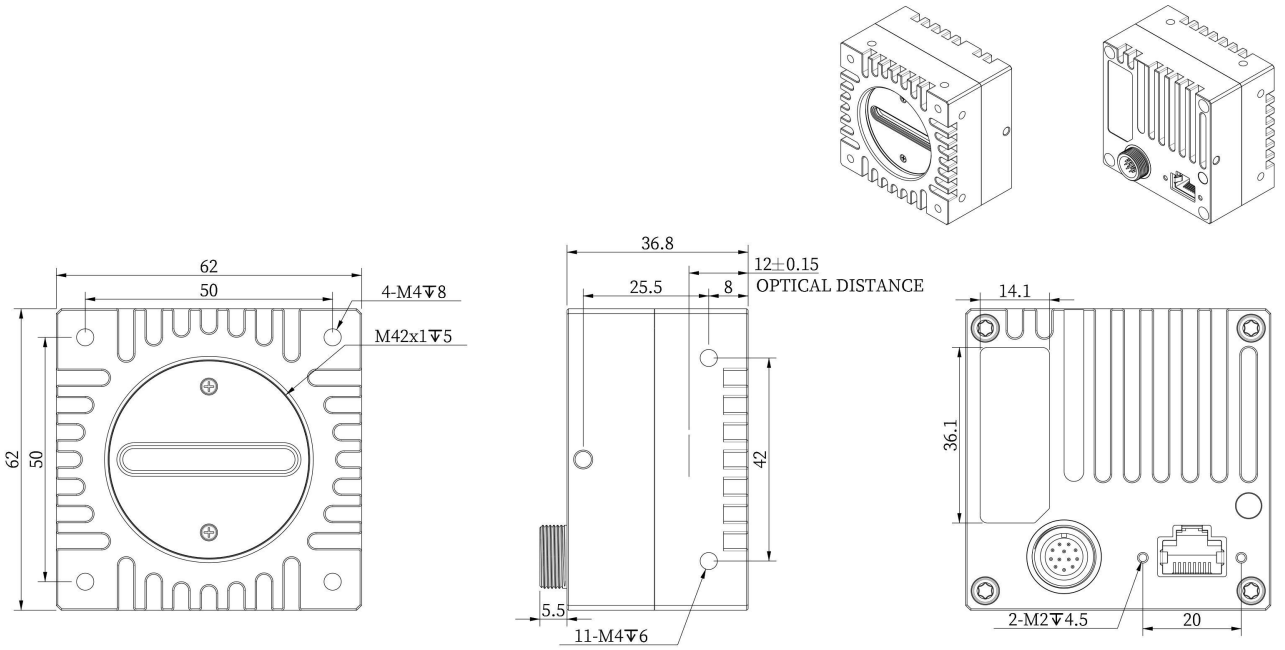
Spectral response



Dimension（Unit: mm）



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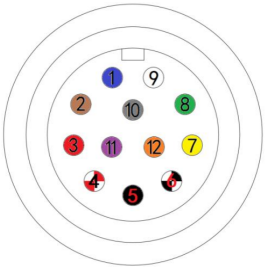
Pin	Color	Definition	Signal source	Notes	Interface properties	Input/output parameters
1	Blue	GND		Power/signal ground	Power supply + signal ground	
2	Brown	POWER		Power supply positive electrode		12-24V power supply input
3	Red	IN1+	Line1+	Encoder A+ input	Differential input	Supports 3.3V-24V differential, PNP and NPN signals
4	Red and white	IN1-	Line1-	Encoder A- input		
5	Black	IN2+	Line2+	Encoder B+ input		
6	Black and white	IN2-	Line2-	Encoder B- input		
7	Yellow	TRIG+	Line3+	Frame signal input +	Differential input	
8	Green	TRIG-	Line3-	Frame difference input -		
9	White	STROBE1	Line4	Single-ended output 1 / General input 1+	Push-pull output + differential input	Output high level: 5V/12V Output low level: 0V The input supports 3.3V-24V differential, PNP, and NPN signals
10	Grey	STROBE2	Line5	Single-ended output 2 / General input 1-		
11	Purple	STROBE3	Line6	Single-ended output 3 / General input 2	Push-pull output + single-ended input	Output high level: 5V/12V Output low level: 0V Input PNP and NPN signals supporting 5V-24V
12	Orange	STROBE4	Line7	Single-ended output 4 / General input 3		
	Transparency	Shielding cable		Connect to camera housing		Remarks: Transparent heat-shrinkable tubing for shielded wire cover
Trigger Block						

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