Dual fiber port
8K Line Scan Cameras

MV-L168M-20G-V1

- 8K/5μm   8TDI

- 150K line frequency
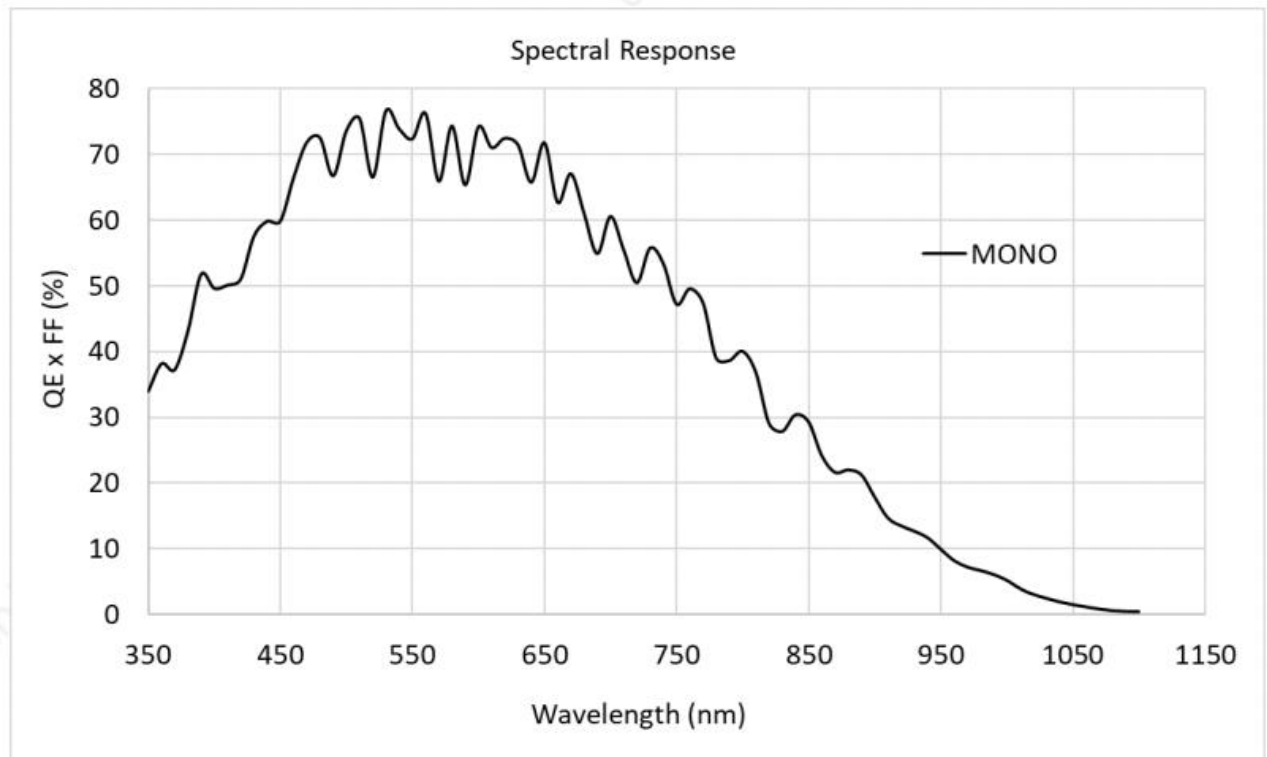
- Low power design, less thermal noise

Key Features

- 8K pixels, 5um pixels,Mono
- 20G bandwidth, 150KHZ line frequency
- Support light/dark field correction, lens shadow correction, light uniformity correction, space correction
- Optical fiber transmission, free from electromagnetic interference, transmission distance of 300 meters
- Fanless design, lasting work more stable
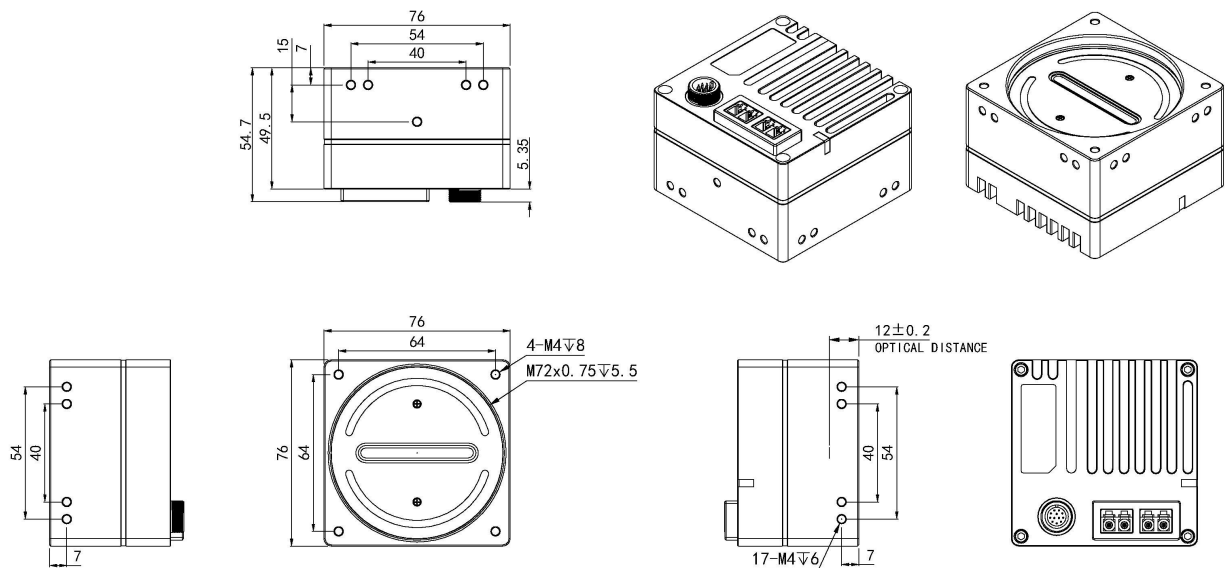- Dimensions:76mm×76mm×60.7mm

Specifications

Model parametric	MV-L168M-20G-V1
	Dual fiber port 8K line scan camera
Performance Parameters	
Sensor Type	CMOS Global Shutter
Pixel Size	5.0µm×5.0µm
Sensor Size	40.96mm
Resolution	8192×8
Mono/Color	Mono
Max Frame Rate	150K(1line Mono12 Packed)100K(8-TDI Mono12 Packed)
Imaging mode	1line/8-TDI
DR	63.5dB
Gain	Analog 1X-2X,1x step, digital 1X-16X,0.1x step
Exposure Time	1.64us-40ms, 0.1us step
Exposure mode	Support manual exposure/single exposure/automatic exposure/pulse width control exposure

Pixel format	Mono8/Mono12Packed
Pixel merging	Horizontal/vertical 1-2-4 pixels are arbitrarily merged
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	20G dual fiber port (own protocol)
I/O Interface	1 channel frame signal input 2 line signal input 4 single-ended outputs, configurable as 2 differential outputs 3 universal inputs (1 differential input and 2 single-ended input), multiplexed with output
Power supply	DC12V-24V (±10%) (24V power supply when IO line > 5M)
Typical Power Consumption	8W@24VDC

Structure and environmental parameters	
Lens Interface	M72*0.75, flange rear focal 12mm, can be transferred to F port, C port and other threaded port lens through the adapter ring
IO and Power Interface	12 core industrial circular connector
Filter	Full-band anti-reflection film
Dimension	76mm×76mm×60.7mm
Weight	Approx.475g
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	Windows 7/10 32/64bit； PC Linux 32/64bit
Protocols/Standards	GenICam
Compatible Software	No support for third-party software
Certifications	CE,RoHS

Spectral response

Dimension（Unit: mm）

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	A+	Line1+	Encoder A+ input	Differential/single-ended input	Supports 3.3V - 24V differential, PNP, and NPN signals
4	Red and white	A-	Line1-	Encoder A- input		
5	Black	B+	Line2+	Encoder B+ input		
6	Black and white	B-	Line2-	Encoder B- input		
7	Yellow	TRIG+	Line3+	Frame signal input +		
8	Green	TRIG-	Line3-	Frame signal input -		
9	White	IO1	Line4	Single-ended output 1 / Differential output 1+ / Universal input 1+	Output and differential/ single-ended input	Single-ended output high level: 5V/12V Single-ended output low level: 0V Differential output swing: 4V The input supports 3.3V-24V differential, PNP, and NPN signals
10	Grey	IO2	Line5	Single-ended output 2 / Differential output 1- / Universal input 1-		
11	Purple	IO3	Line6	Single-ended output 3 / Differential output 2+ / Universal input 2	Output and single-ended input	Single-ended output high level: 5V/12V Single-ended output low level: 0V Differential output swing: 4V Input PNP and NPN signals supporting 5V-24V
12	Orange	IO4	Line7	Single-ended output 4 / Differential output 2- / Universal input 3		
	Transparency	Shielding cable		Connect to camera housing		Remarks: Transparent heat-shrinkable tubing for shielded wire cover
Trigger Block						