GigE Line Scan Industrial Camera Series

In response to the needs of line scan cameras for industrial production of large-format inspection and high-speed assembly line inspection, MindVision independently developed MV-GEL21C/M and MV-GEL41C/M,This series of cameras adopts domestic chips and GigE interfaces,4K high resolution, up to 28KHz line frequency, Integrate a variety of ISP image algorithms and functions, support line trigger, smooth trigger and other external trigger modes.It has greatly improve the production efficiency and detection accuracy in the field of industrial inspection.MV-GEL series are economical products with high performance and low cost, which enhances product competitiveness for customers! It is widely used in printing, textile, railway, logistics, metallurgy, food, pharmaceutical, material sorting, etc.

Product Features

- The line frequency can reach up to 48K and can be freely set by the software
- Support 2-line TDI mode, double the brightness and reduce the requirements for light sources
- Support encoder synchronous trigger, photoelectric sensor and encoder combined synchronous touchMultiple trigger modes such as

- Support frequency division and frequency doubling of encoder signal, and accurately match with the motion platform
- Hardware ISP supports gamma, contrast, lens shadow correction, etc
- Gigabit network interface, supporting Poe power supply, with a maximum transmission distance of 100m
- Color linear array camera supports RGB three line true color output

Product Selection Table

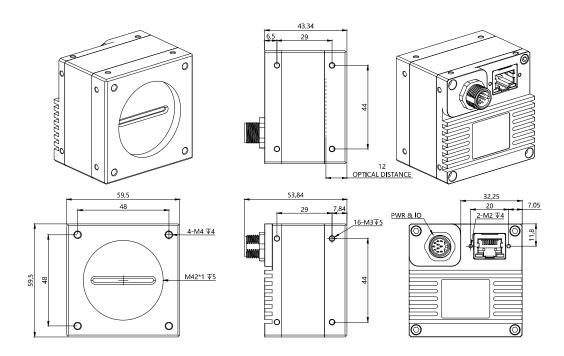| Product Selection table	Effective Pixel	Sensor Type	Shutter Mode	Pixel Size	Line Frequency	Imaging Size	Minimum Exposure	Sensor Model	Colour
MV-GEL21C	2048x3(RGB)	CMOS	Global shutter	14.04µm	18K	0.112X28.6mm (Active Pixel Only)	0.002ms	Mindvision	Colour
MV-GEL21M	2048x2	CMOS	Global shutter	14.04µm	48K	0.112X28.6mm (Active Pixel Only)	0.002ms	Mindvision	Mono
MV-GEL41C	4096x3(RGB)	CMOS	Global shutter	7.02µm	9K	0.112X28.6mm (Active Pixel Only)	0.002ms	Mindvision	Colour
MV-GEL41M	4096x2	CMOS	Global shutter	7.02µm	28K	0.112X28.6mm (Active Pixel Only)	0.002ms	Mindvision	Mono

Technical parameter

Model / Parameter	MV-GEL21C/M	
Resolution	Colour：2048X3(RGB)	Mono：2048x2
Frame rate	18K	48K
Pixel size	14.04μmX14.04μm	
Pixel bit depth	8bit	
Sensitivity	55.4 V/lux*s	
Acquisition mode	Continuous/soft trigger/hard trigger	
Maximum gain (multiple)	8	
Exposure time range（ms)	0.002~1	
Frame buffer	128M Bytes	
User-defined data area	2K Bytes	
Video output format	Colour：RGB888　Mono：Mono8	
Lens Mount	M42*1.0（Flange distance12mm）	
Power supply	9-24V（POE is standard）	
Power	＜6W	
Dimensions	59.5x59.5x43.3mm(Without back shell interface）	
Weight	＜500g	

Model / Parameter	MV-GEL41C/M	
Resolution	Colour：4096X3(RGB)	Mono：4096x2
Frame rate	9K	28K
Pixel size	7.02μmX7.02μm	
Pixel bit depth	8bit	
Sensitivity	27.7 V/lux*s	
Acquisition mode	Continuous/soft trigger/hard trigger	
Maximum gain (multiple)	8	
Exposure time range（ms)	0.002~1	
Frame buffer	128M Bytes	
User-defined data area	2K Bytes	
Video output format	Colour：RGB888　Mono：Mono8	
Lens Mount	M42*1.0（Flange distance12mm）	
Power supply	9-24V（POE is standard ）	
Power	＜6W	
Dimensions	59.5x59.5x43.3mm(Without back shell interface）	
Weight	＜500g	

General parameters

Programming language pack	C/C++/C#/VB6/VB. NET/Delphi/BCB/Python/Java
Operating system	WIINXP, WIN7/8/10 32@64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component
Data interface	10G copper cable 10GBase-T, compatible with 100M/1G/2.5G/5G
Vision Standard Agreement	GigE Vision V1.2、Genlcam
Filter	The black-and-white camera is equipped with double-sided ar antireflection film as standard, and the color camera is equipped with 650nm infrared cut-off filter as standard
Working temperature @humidity	0~50℃ @ 20%~80%(No condensation）
Storage temperature @humidity	-30~60℃ @ 20%~95%(No condensation）
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

GigE Line Scan Dimension Drawing

Unit: mm