

MER2-1220-9GM/C-W90-S90

12MP CMOS GigE Area Scan Camera



GEN<i>i</i>CAM



The MER2-1220-9GM/C-W90-S90 camera is a monochrome/color GigE Vision camera with the Sony IMX226 CMOS sensor. The sensor surface is at a 90 degree angle to the data interface surface. Thanks to the extremely compact (29mm × 29mm), robust metal housings and locking screw connectors, the MERCURY2 cameras can secure the reliability of cameras deployed in harsh environments.

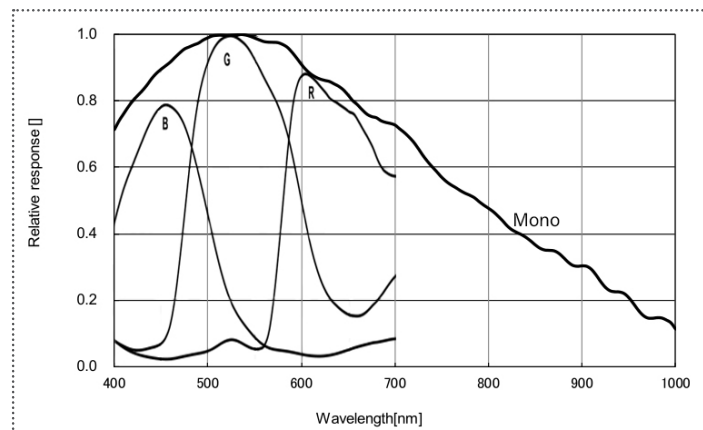
Applications

Suitable for machine vision applications such as industrial inspection, medical, scientific research, education and so on.

Features

- Auto Gain, Auto Exposure, ROI
- Global Reset Release Shutter exposure (GRR)
- Binning, Decimation, Timer, Counter, LUTs and User Set Control
- Gamma, Black Level, Digital Shift, Sharpness
- Color models support Light Source Preset, Color Transformation Control, Saturation and White Balance
- Monochrome models support Noise Reduction
- Remove Parameter Limits
- 16KB User Data Area

Spectral Response



Specifications

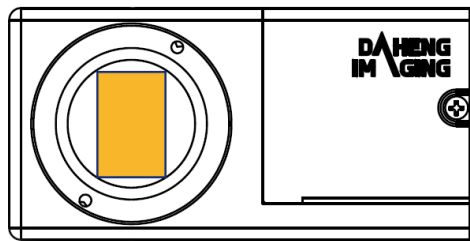
Model	MER2-1220-9GC-W90-S90	MER2-1220-9GM-W90-S90
Resolution	4024(H) × 3036(V)	
Sensor	Sony IMX226 Rolling shutter CMOS	
Sensor Format	1/1.7"	
Pixel Size	1.85μm × 1.85μm	
Frame Rate	9.63 fps	
ADC	12 bit	
Pixel Bit Depth	8 bit, 12 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer RG8 / Bayer RG12	Mono8 / Mono12
SNR	40.14 dB	40.06 dB
Exposure Time	Standard: 23μs~1s, GRR: 23μs~1s, Actual Steps: 1 row period	
Gain	0dB~24dB, Default: 0dB, Steps: 0.1dB	
Binning	FPGA: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4	
Decimation	FPGA: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4	
Synchronization	Hardware trigger, software trigger	
Acquisition Control	Single frame, Continuous, Software trigger, Hardware trigger	
Reverse X/Y	Reverse X/Y	
I/O Interface	1 input and 1 output with opto-isolated, 2 programmable GPIOs	
Data Interface	GigE	
Power Supply	12VDC-10% ~ 24VDC+10% supplied via the camera's Hirose connector	
Typical Power	2.57W @ 12VDC	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C / CS	
Dimensions	29(W) × 29(H) × 58.8(L) mm (with lens adapter, without I/O connectors)	
Weight	81 g	
Software	3rd-party software such as HALCON, VisionPro and LabVIEW	
OS	32bit / 64bit Windows, Linux, Mac OS	
Conformity	CE, RoHS, FCC, ICES, UKCA, GigE Vision®, GenICam®	

I/O Interface



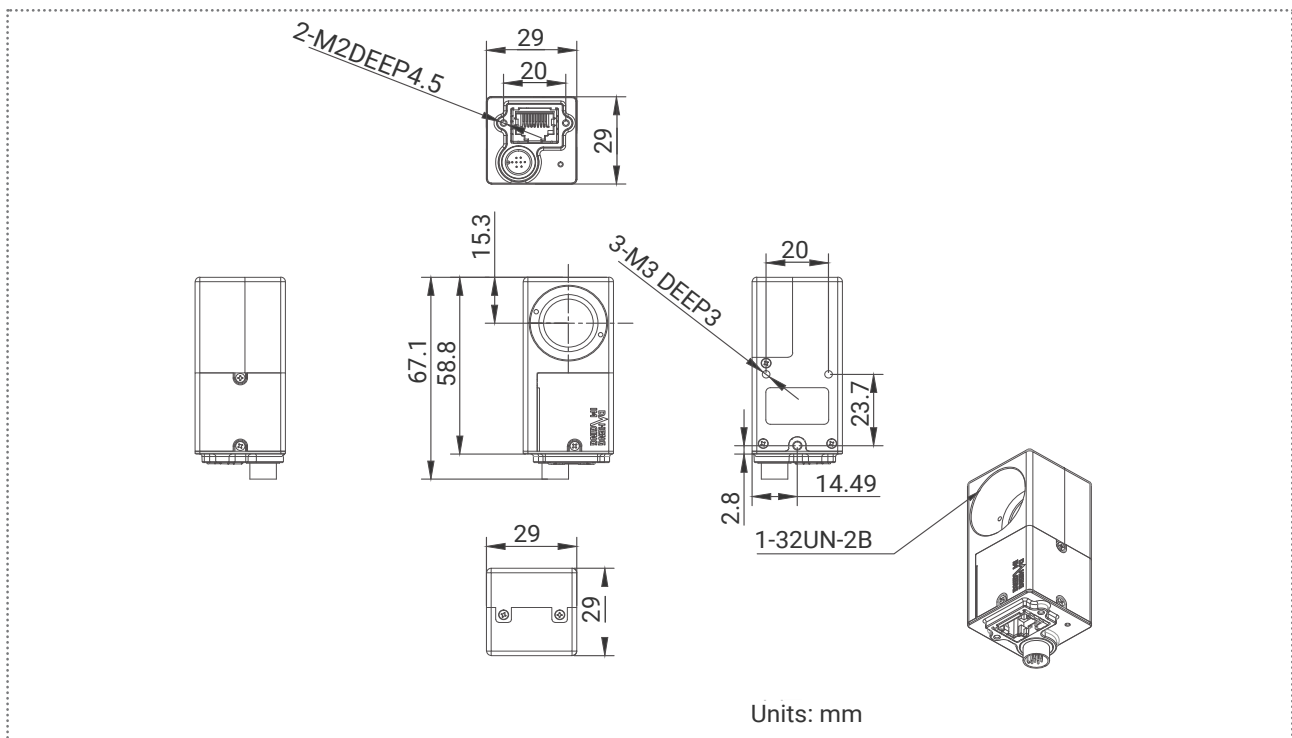
Pin	Definition	Description
1	Line 0+	Opto-isolated input +
2	GND	PWR GND & GPIO GND
3	Line 0-	Opto-isolated input -
4	POWER_IN	Camera external power, +12V DC~+24V DC
5	Line 2	GPIO input/output
6	Line 3	GPIO input/output
7	Line 1-	Opto-isolated output -
8	Line 1+	Opto-isolated output +

Sensor Angle Direction



MER2-W90-S90

Technical Drawing



Units: mm

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