

# MER2-1220-9GM/C(-P)

12MP CMOS GigE Area Scan Camera



GEN*i*CAM



The MER2-1220-9GM/C(-P) camera is a monochrome/color GigE Vision camera with the Sony IMX226 CMOS sensor. 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. The MER2-1220-9GM/C(-P) camera has opto-isolated I/Os. The GPIOs give MER2-G(-P) cameras maximum flexibility to adapt to specific needs.

## 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

## Specifications

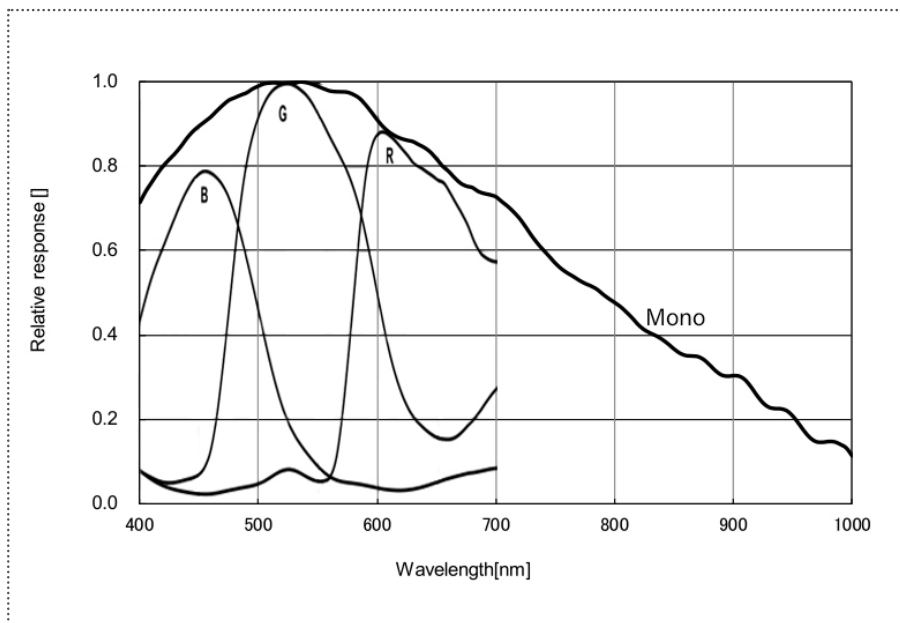
Model	MER2-1220-9GC	MER2-1220-9GC-P	MER2-1220-9GM	MER2-1220-9GM-P
Resolution	4024(H) × 3036(V)			
Sensor	Sony IMX226 Rolling shutter CMOS			
Sensor Format	1/1.7"			
Pixel Size	1.85μm × 1.85μm			
Frame Rate	9.63 fps			
ADC	12 bit			
Pixel Bit Depth	8 bit, 12 bit			
Mono/Color	Color		Mono	
Pixel Formats	Bayer RG8 / Bayer RG12		Mono8 / Mono12	
SNR	40.14 dB	39.86 dB	40.06 dB	40.2 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	GigE PoE	GigE	GigE PoE
Power Supply	12VDC-10% ~ 24VDC+10% supplied via the camera's Hirose connector MER2-G-P support PoE (Power over Ethernet, IEEE802.3af compliant)			
Typical Power	2.57W @ 12VDC	2.57W @ 12VDC 2.81W @ PoE	2.57W @ 12VDC	2.57W @ 12VDC 2.81W @ PoE
Operating Temp.	0°C ~ +45°C			
Storage Temp.	-20°C ~ +70°C			
Operating Humidity	10% ~ 80%			
Lens Mount	C / CS			
Dimensions	MER2-G: 29(W) × 29(H) × 29(L) mm (without lens adapter or connectors) MER2-G-P: 29(W) × 29(H) × 40.3(L) mm (without lens adapter or connectors)			
Weight	MER2-G: 65 g; MER2-G-P: 75 g			
Software	3rd-party software such as HALCON, VisionPro and LabVIEW			
OS	32bit / 64bit Windows, Linux, Mac OS			
Conformity	CE, RoHS, FCC, ICES, UKCA, UL, GigE Vision®, GenICam®			

I/O Interface

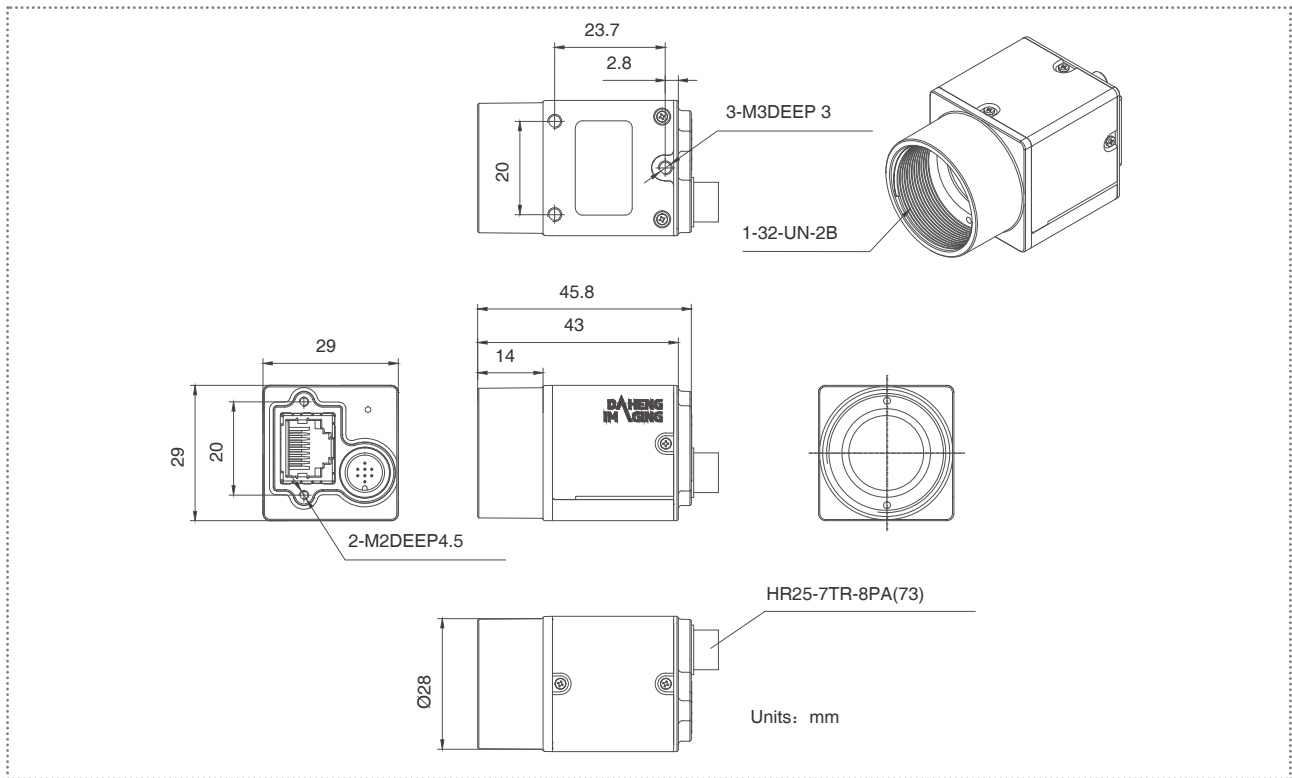


Pin	Definition	Description
1	Line 0+	Opto-isolated input +
2	GND	PWR GND & GPIO GND
3	Line 0-	Opto-isolated input -
4	POWER_IN	Camera external power, +12V DC ~ +24V DC
5	Line 2	GPIO input/output
6	Line 3	GPIO input/output
7	Line 1-	Opto-isolated output -
8	Line 1+	Opto-isolated output +

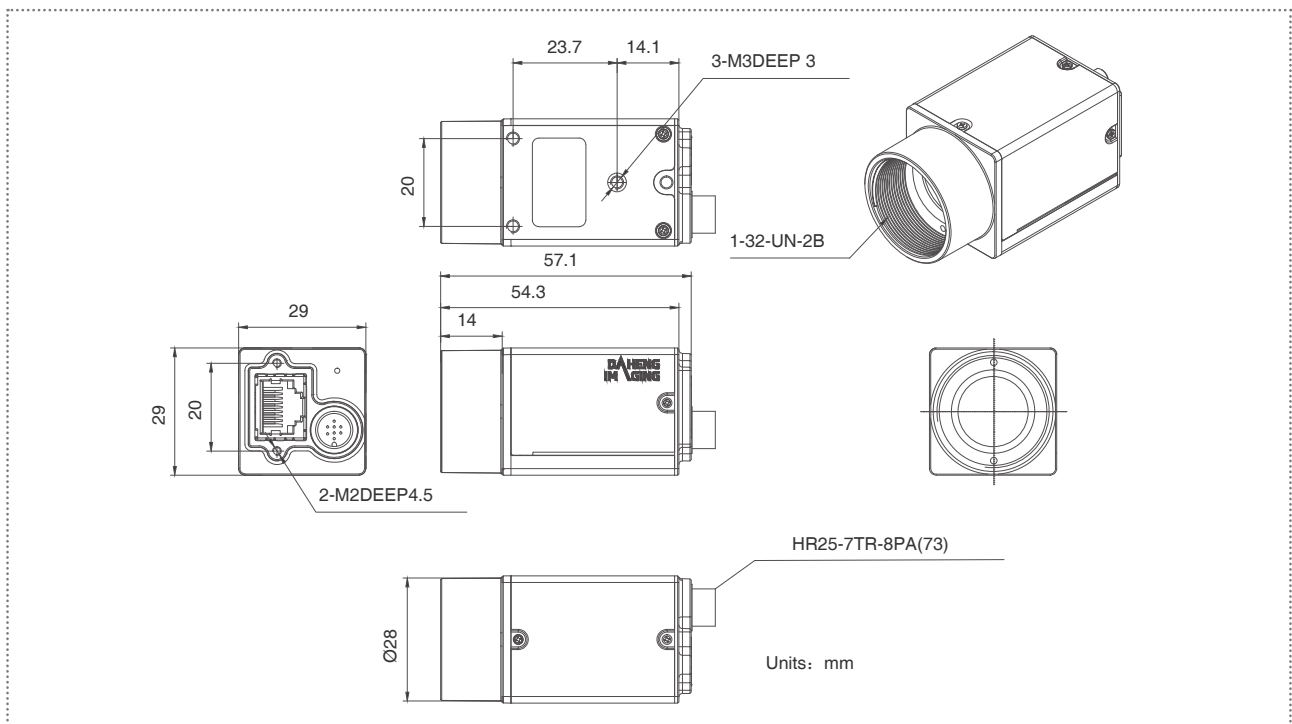
Spectral Response



Technical Drawing



MER2-1220-9GM/C



MER2-1220-9GM/C-P

China Daheng Group, Inc. Beijing Image Vision Technology Branch

12F Daheng Science & Technology Tower, No.3 Suzhou Street, Haidian District, Beijing China, 100080

Tel: +86 10 82828878

E-mail: isales@daheng-imaging.com