

MARS-1231-46G5M/C-P

12MP CMOS 5GigE Area Scan Camera



MARS-1231-46G5M/C-P is a monochrome/color GigE Vision camera with the Sony IMX253 CMOS sensor. The extremely compact, robust metal housings and locking screw connectors can secure the reliability of cameras deployed in harsh environments. The MARS-1231-46G5M/C-P camera has opto-isolated I/Os. The GPIOs give the cameras maximum flexibility to adapt to specific needs.

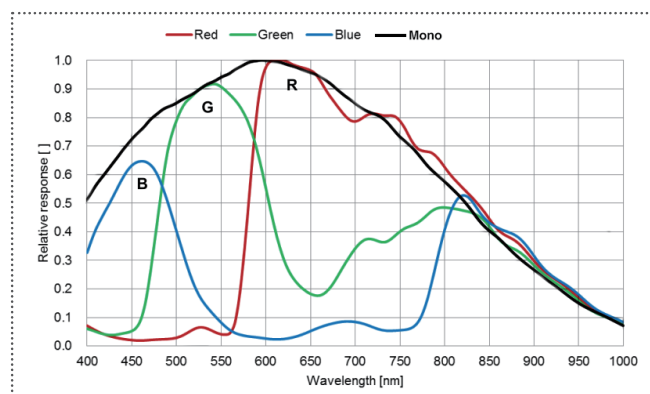
Applications

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

Features

- Auto Exposure, Auto Gain, ROI
- Decimation
- Black Level
- User Set Control
- Defect Pixel Correction

Spectral Response



Specifications

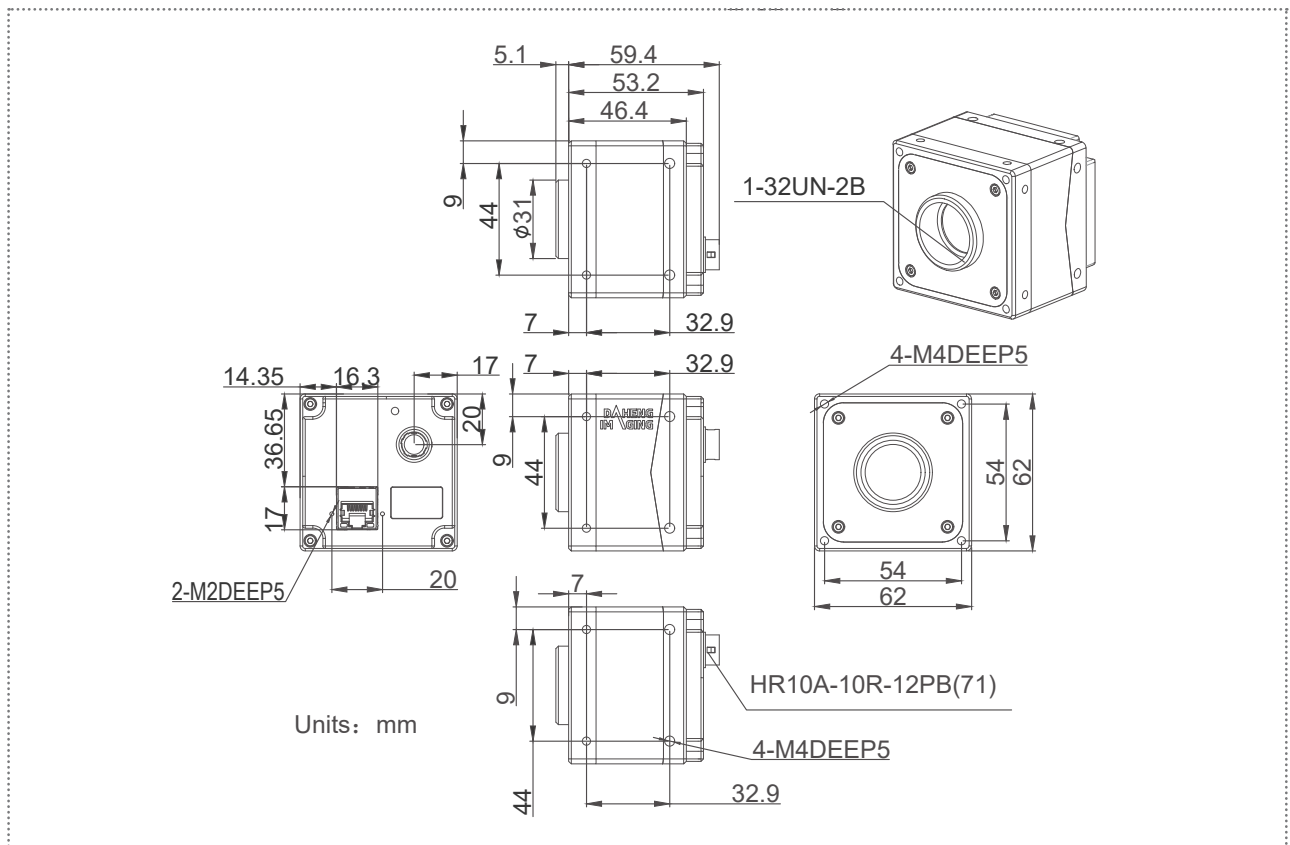
Model	MARS-1231-46G5C-P	MARS-1231-46G5M-P
Resolution	4096(H) × 3000(V)	
Sensor	Sony IMX253 Global shutter CMOS	
Sensor Format	1.1"	
Pixel Size	3.45μm × 3.45μm	
Frame Rate	47 fps	
ADC	10 bit	
Pixel Bit Depth	8 bit, 10 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer RG8 / Bayer RG10	Mono8 / Mono10
SNR	40.79 dB	40.68 dB
Exposure Time	21μs~1s	
Gain	0dB~24dB	
Synchronization	Hardware trigger, software trigger	
Acquisition Control	Continuous, Software trigger, Hardware trigger	
I/O Interface	1 input and 1 output with opto-isolated, 2 programmable GPIOs	
Data Interface	5GigE	
Power Supply	PoE (Power over Ethernet, IEEE802.3af compliant) or 12VDC-10% ~ 24VDC+10%, supplied via the camera's 12-pin Hirose connector	
Power Consumption	< 9 W @ 12 VDC, < 10.5 W @ PoE	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C	
Dimensions	62(W) × 62(H) × 53.2(L) mm (without lens adapter or connectors)	
Weight	305 g	
Software	3rd-party software such as HALCON, VisionPro and LabVIEW	
OS	32bit / 64bit Windows, Linux, Mac OS	
Conformity	CE, RoHS, GigE Vision®, GenICam®	

I/O Interface



Pin	Definition	Core Color	Description
1	Line 0+	Green	Opto-isolated input +
2	GND	Blue	PWR GND & GPIO GND
3	Line 0-	Grey	Opto-isolated input -
4	POWER_IN	Purple	Camera external power, +12V DC~+24V DC
5	Line 2	Orange	GPIO input/output
6	Line 3	Pink	GPIO input/output
7	Line 1-	White Green	Opto-isolated output -
8	Line 1+	White Blue	Opto-isolated output +
9	NC1	White Grey	Not Connected, reserved
10	GND	White Purple	PWR GND & GPIO GND
11	NC2	White Orange	Not Connected, reserved
12	NC3	White Pink	Not Connected, reserved

Technical Drawing



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