

MARS-5000-24GTM/C-NF

50MP CMOS 10GigE Area Scan Camera

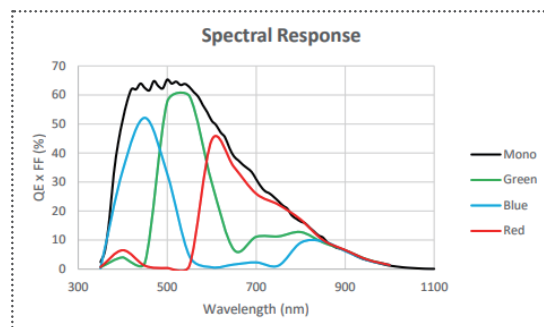


The MARS-5000-24GTM/C-NF is a monochrome/color GigE Vision camera with the Gpixel GMAX3249 CMOS sensor. The MARS-5000-24GTM/C-NF is capable of 10Gbit/s maximum transfer data rate, and has opto-isolated I/Os. Thanks to locking screw connectors, the MARS cameras can secure the reliability of cameras deployed in harsh environments. The MARS cameras are industrial digital cameras with high reliability and high performance ratio.

Applications

Suitable for 3C, lithium battery, photovoltaic, railway, AR and other industrial applications.

Spectral Response



Features

- Time Stamp, Binning, Decimation, Reverse X/Y
- The Sequencer Control supports multiple sets of parameters configuration of FFC
- Trigger mode: Frame Start /Frame Burst Start
- Gain, GainAuto, Gamma, Black Level, Digital Shift, Flat Field Correction
- Color models support Light Source Preset, Color Transformation Control and Saturation
- Static Defect Correction, Hot Pixel Correction, Sharpness, Noise Reduction(Mono)
- Timer, Counter, LUTs and User Set Control
- Remove Parameter Limit to expand the range of Parameter
- Data storage area for saving algorithm coefficients and parameter configuration
- Fan cooling

Specifications

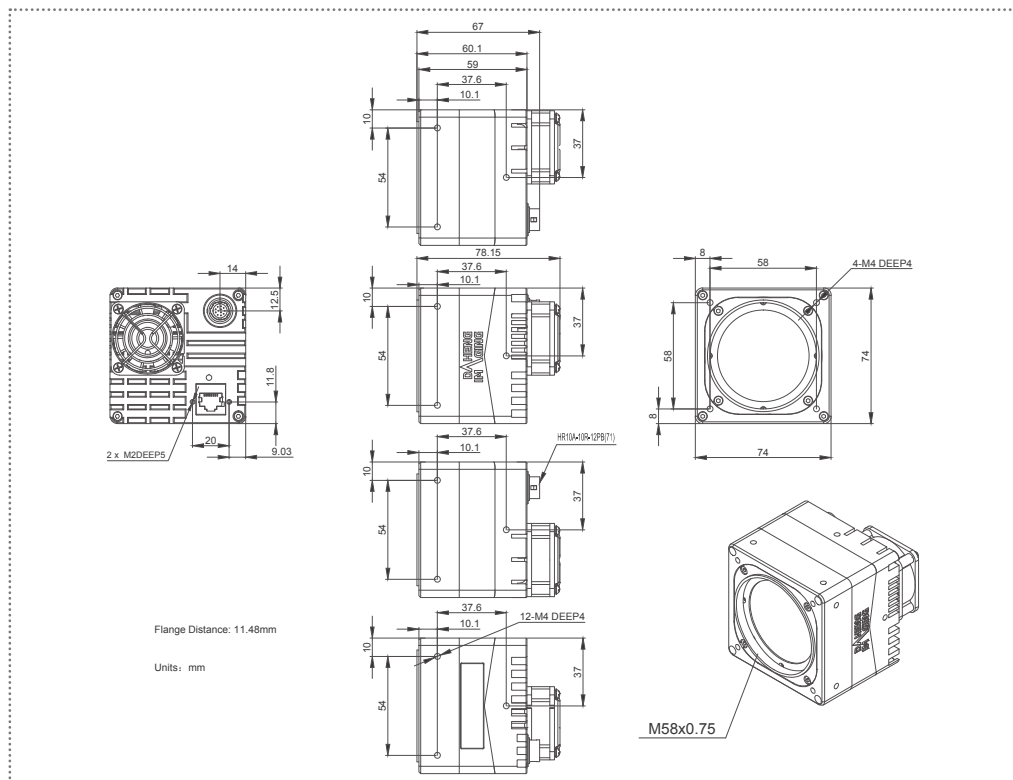
Model	MARS-5000-24GTC-NF	MARS-5000-24GTM-NF
Resolution	7008(H) × 7000(V)	
Sensor	Gpixel GMAX3249 Global shutter CMOS	
Sensor Format	2"	
Pixel Size	3.2μm × 3.2μm	
Frame Rate	24.7 fps	
ADC	12 bit	
Pixel Bit Depth	8 bit, 12 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer GB8 / Bayer GB12	Mono8 / Mono12
SNR	40.42 dB	40.05 dB
Exposure Time	14μs~1s, Actual Steps: 1 row period	
Gain	0dB~16dB, Default: 0dB, Steps: 0.1dB	
Binning	1×1, 1×2, 2×1, 2×2	
Decimation	Horizontal FPGA, Vertical Sensor: 1×1, 1×2, 2×1, 2×2	
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, 1 bidirectional programmable GPIO	
Data Interface	10GigE	
Power Supply	12VDC-10% ~ 24VDC+10%	
Power Consumption	< 16W @ 12VDC	
Operating Temp.	0°C ~ +50°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	M58-D1(11.48mm), M58(19.5mm), F	
Dimensions	74(W) × 74(H) × 59(L) mm (without lens adapter or connectors)	
Weight	540 g	
OS	Win10/Win11 32bit, 64bit OS, 64bit OS is recommended	
Conformity	CE, RoHS, FCC, ICES, UKCA, GigE Vision®, GenICam®	

I/O Interface

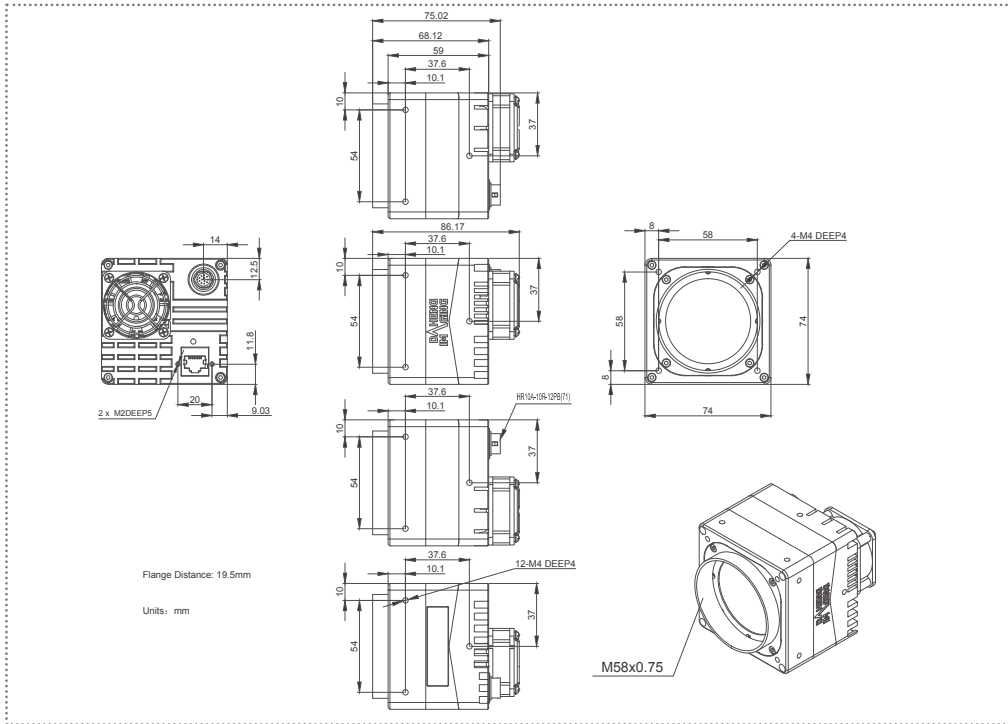


Pin	Definition	Core Color	Description
1	Line 0+	Green	Opto-isolated input +
2	GND	Blue	PWR GND & GPIO GND
3	Line 0-	Grey	Opto-isolated input -
4	POWER_IN	Purple	Camera external power 12V (-10%) ~ +24V (+10%)
5	Line 2	Orange	GPIO input/output
6	RS232 Rx	Pink	RS232 receive
7	Line 1-	White Green	Opto-isolated output -
8	Line 1+	White Blue	Opto-isolated output +
9	GND	White Grey	PWR GND & GPIO GND
10	GND	White Purple	PWR GND & GPIO GND
11	POWER_IN	White Orange	Camera external power 12V (-10%) ~ +24V (+10%)
12	RS232 Tx	White Pink	RS232 transmit

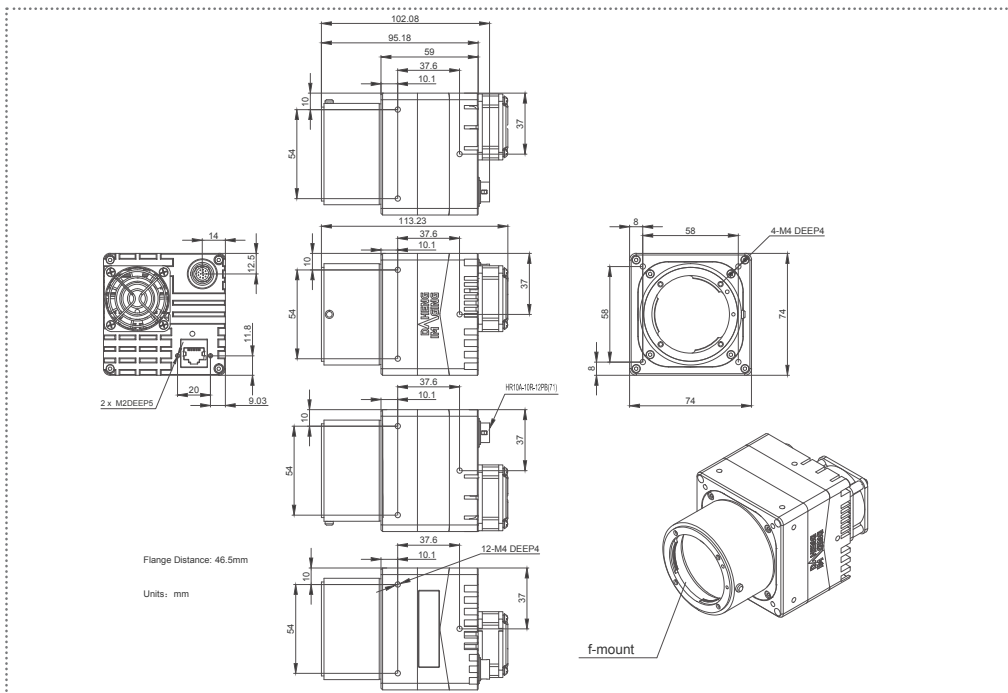
Technical Drawing



MARS-5000-24GTM/C-NF M58-D1, M58-mount, flange distance:11.48mm



MARS-5000-24GTM/C-NF M58, M58-mount, flange distance:19.5mm



MARS-5000-24GTM/C-NF F, F-mount

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