

MARS-5000-24GTM/C

50MP CMOS 10GigE Area Scan Camera



The MARS-5000-24GTM/C is a monochrome/color GigE Vision camera with the Gpixel GMAX3249 CMOS sensor. The MARS-5000-24GTM/C 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 cameras with high reliability and high performance ratio.

Applications

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

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

Specifications

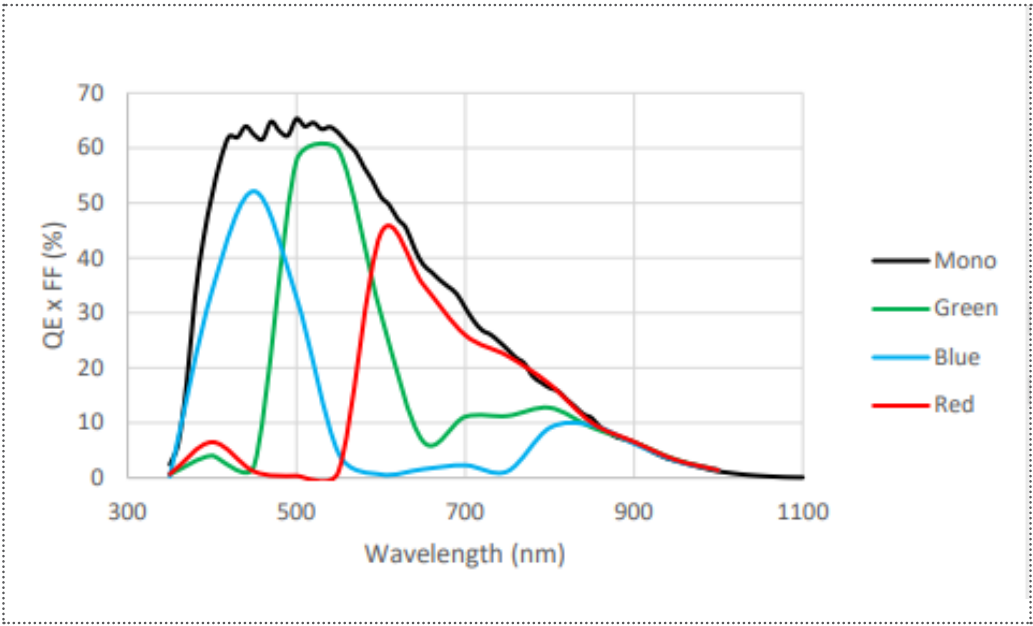
Model	MARS-5000-24GTC	MARS-5000-24GTM
Resolution	7008(H) × 7000(V)	
Sensor	Gpixel GMAX3249 Global shutter CMOS	
Sensor Format	2"	
Pixel Size	3.2μm × 3.2μm	
Frame Rate	24.7 fps	
ADC	12 bit	
Pixel Bit Depth	8 bit, 12 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer GB8 / Bayer GB12 / Mono8 / Mono12 / RGB8 / BGR8 / Bayer GB12Packed / Mono12Packed	Mono8 / Mono12 / Mono12Packed
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	< 15W @ 12VDC	
Operating Temp.	0°C ~ +50°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	M58-D1(11.48mm), F	
Dimensions	74(W) × 74(H) × 59(L) mm (without mount length)	
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

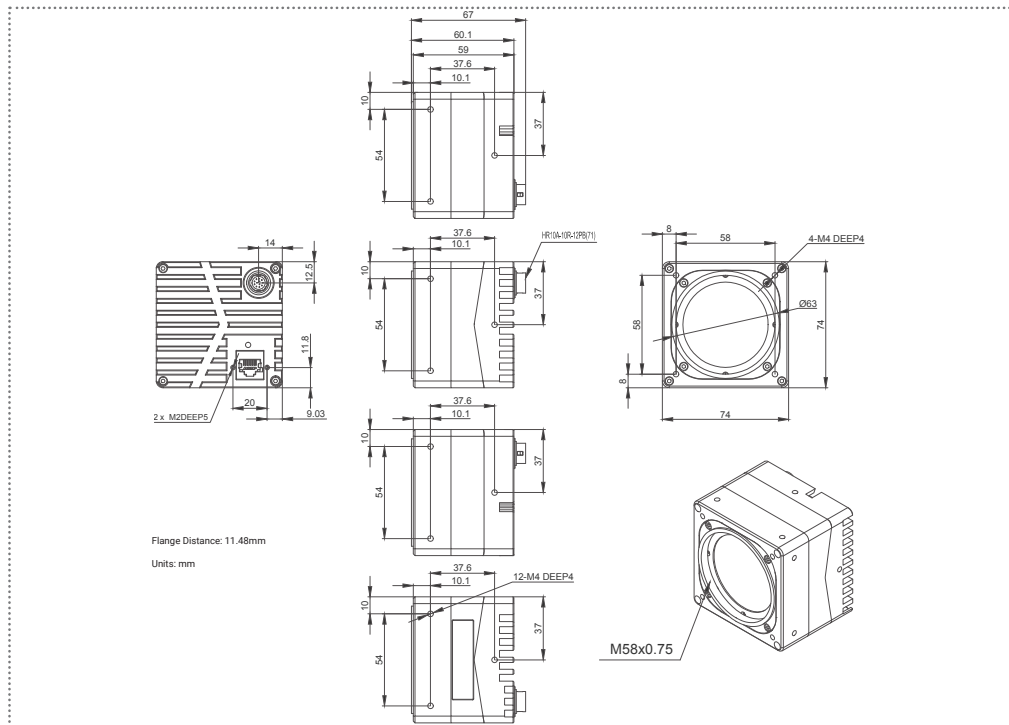


Pin	Definition	Description
1	Line 0+	Opto-isolated input +
2	GND	PWR GND & GPIO GND
3	Line 0-	Opto-isolated input -
4	POWER_IN	Camera external power 12V (-10%) ~ +24V (+10%)
5	Line 2	GPIO input/output
6	RS232 Rx	RS232 receive
7	Line 1-	Opto-isolated output -
8	Line 1+	Opto-isolated output +
9	GND	PWR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

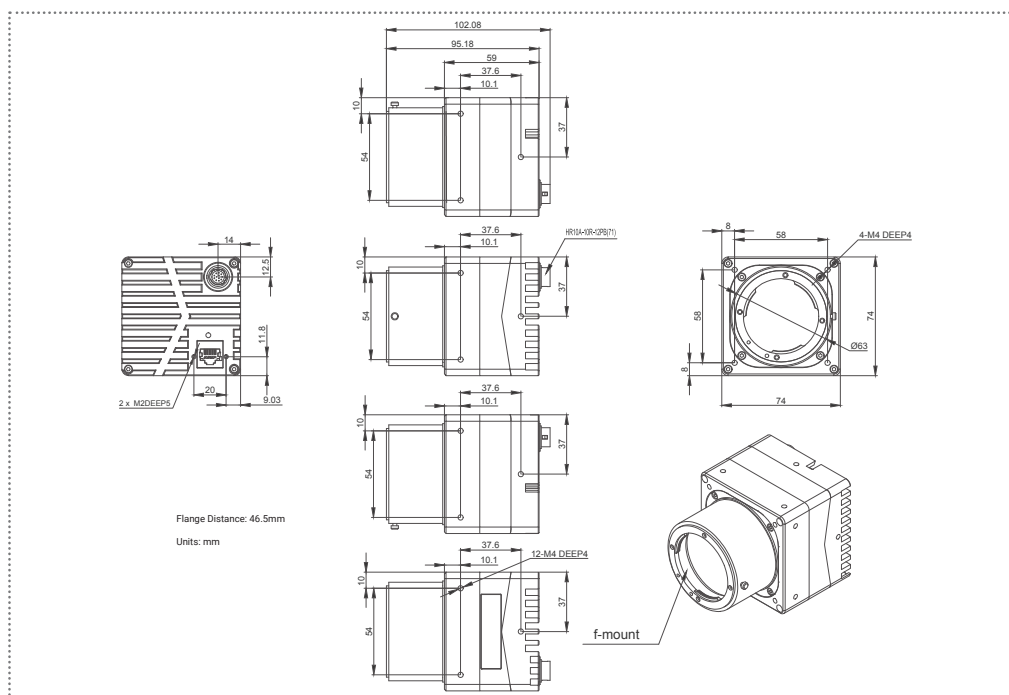
Spectral Response



Technical Drawing



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



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

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