

MARS-1240-302X2M/C-NF

12.4MP CMOS CXP2.0 Area Scan Camera



MARS-1240-302X2M/C-NF camera uses CoaXPress interface for high-speed transmission of image data. The camera is equipped with cooling fan, which can effectively reduce thermal noise and generate high-quality images.

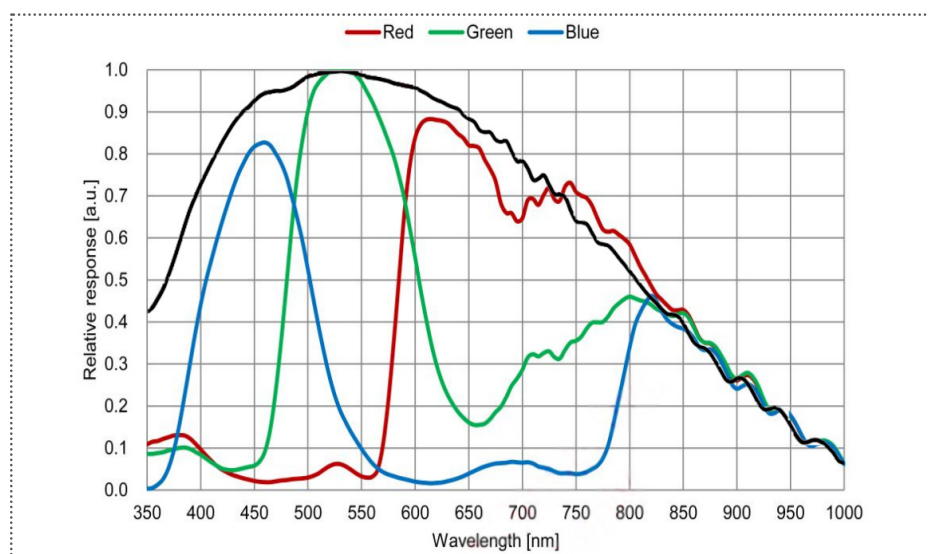
Applications

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

Features

- FFC, Hot Pixel Correction
- Multi Slope Exposure
- The Sequencer Control supports parameter configuration of exposure, gain, and FFC up to 16 groups
- Gamma, Black Level, Timer, Counter and LUTs
- DAHENG IMAGING or third-party frame grabbers are available

Spectral Response



Specifications

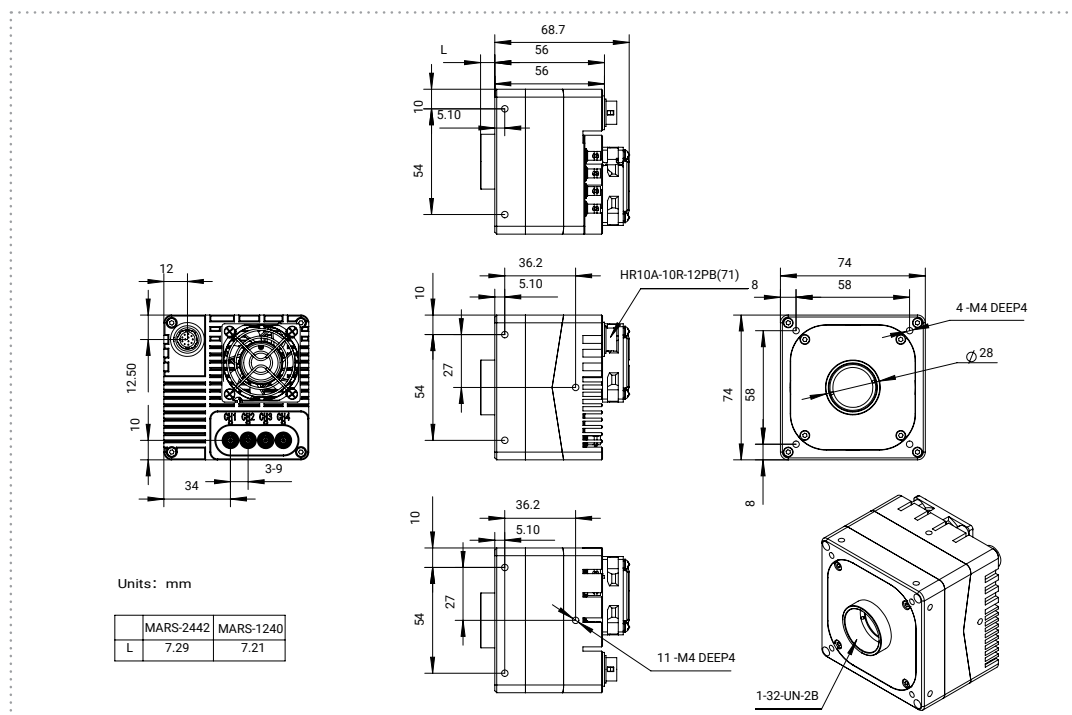
Model	MARS-1240-302X2C-NF	MARS-1240-302X2M-NF
Resolution	4128(H) × 3008(V)	
Sensor	IMX936 12.41MP Global shutter CMOS	
Sensor Format	11.31mm × 8.24mm	
Pixel Size	2.74μm × 2.74μm	
Frame Rate	302.02 fps	
ADC	10 bit, 12 bit	
Pixel Bit Depth	8 bit, 10 bit, 12 bit	
Mono/Color	Color	Mono
Pixel Formats	BayerRG8 / BayerRG10 / BayerRG12	Mono8 / Mono10 / Mono12
SNR	39.8 dB	39.7 dB
Exposure Time	5μs~1s, Actual Steps: 1μs	
Gain	Digital Gain: 0dB~16dB; Default: 0dB, Steps: 0.1dB Analog Gain (the pixel bit depth is Bpp10): 0dB~18dB; Default: 0dB, Steps: 0.1dB Analog Gain (the pixel bit depth is Bpp12): 0dB~24dB; Default: 0dB, Steps: 0.1dB	
Binning	1×1, 2×2	
Decimation	1×1, 2×2	
Synchronization	Hardware trigger, software trigger	
Acquisition Control	Single frame, Continuous, Software trigger, Hardware trigger, CXP trigger	
Reverse X/Y	Reverse X/Y	
I/O Interface	1 input and 1 output with opto-isolated, 1 bidirectional GPIO, 1 RS232	
Data Interface	CXP-12 × 4 (HDBNC)	
Power Supply	24 VDC or PoCXP	
Power Consumption	14.17W@24V	14.138W@24V
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Cooling	Fan	
Lens Mount	C	
Dimensions	74(W) × 74(H) × 75.9(L) mm	
Weight	499 g	
Software	DAHENG IMAGING or third-party frame grabbers supporting software	
OS	Win7 / Win8 / Win10 / Win11	
Conformity	CE, RoHS, FCC, ICES, UKCA, CoaXPress2.0, 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 24V $\pm$ 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 24V $\pm$ 10%
12	RS232 Tx	RS232 transmit

Technical Drawing



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