

MARS-24600-12X2M/C-TF

246MP CMOS CXP2.0 Area Scan Camera



MARS-24600-12X2M/C-TF camera is equipped with Sony IMX811 245.76MP rolling shutter sensor and uses CoaXPress interface for high-speed transmission of image data, featuring high quality images, low power consumption, high transmission speed, stable operating capability.

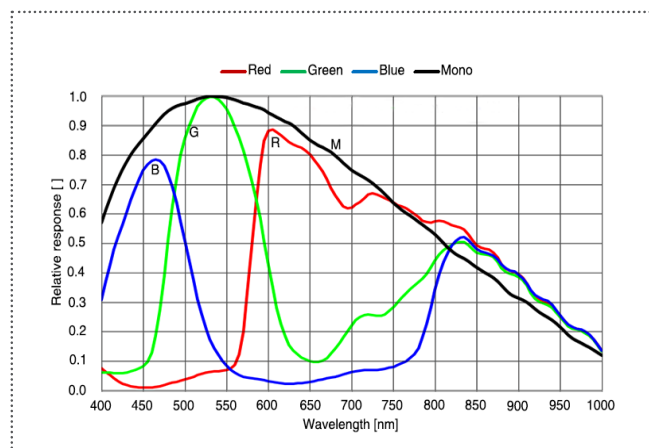
Applications

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

Features

- PRNU, DSNU, FFC, Static Defect Correction
- The Sequencer Control supports parameter configuration of exposure, gain, and FFC up to 16 groups
- Color models support Light Source Preset, Color Transformation Control and Saturation
- Gamma, Black Level, Timer, Counter, LUTs and User Set Control
- DAHENG IMAGING or third-party frame grabbers are available

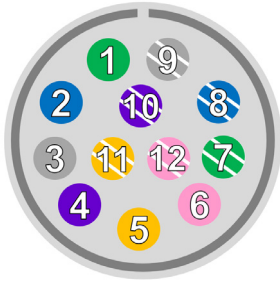
Spectral Response



Specifications

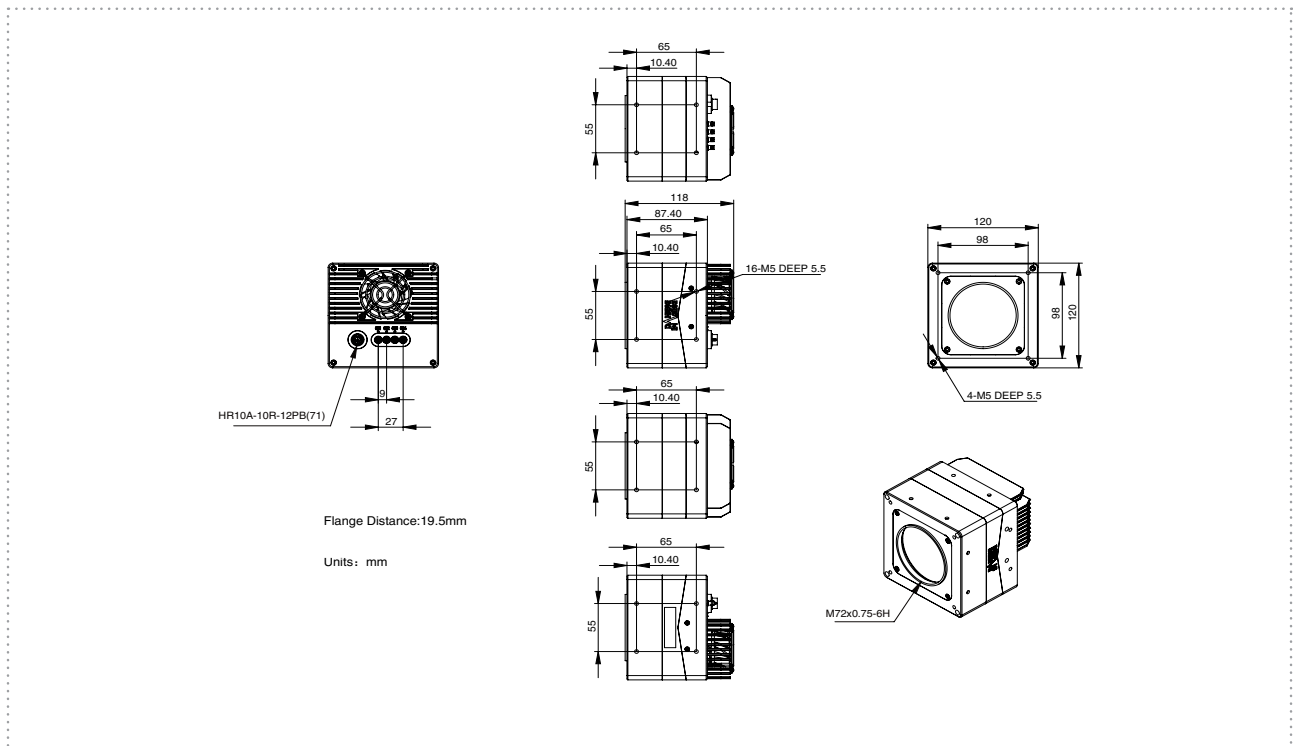
Model	MARS-24600-12X2C-TF	MARS-24600-12X2M-TF
Resolution	19200(H) × 12800(V)	
Sensor	Sony IMX811 245.76MP Rolling shutter CMOS	
Max. Image Circle	64.84 mm	
Pixel Size	2.81μm × 2.81μm	
Frame Rate	10.54fps @ 19200 × 12800	
ADC	12 bit, 14 bit, 16 bit	
Pixel Bit Depth	8 bit, 12 bit, 14 bit, 16 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer RG8 / Bayer RG12 / Bayer RG14 / Bayer RG16	Mono8 / Mono12 / Mono14 / Mono16
SNR	43.9 dB	44.2 dB
Exposure Time	CXP12.5 × 4, Actual Steps: 4 row periods Bayer RG8: 144μs ~ 60s. Bayer RG12: 123μs ~ 60s. Bayer RG14: 144μs ~ 60s. Bayer RG16: 287μs ~ 60s	
Gain	Digital Gain: 0dB~24dB; Default: 0dB, Steps: 0.1dB Analog Gain: 0dB~16dB; Default: 0dB, Steps: 0.1dB	
Binning	Not Supported	
Decimation	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, 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	Typical: 40.6W@24V, ambient temp. 25°C, Sensor temp. 10°C, TEC (ON), FAN (ON) 44W@Rapid cooling stage, TEC (ON), FAN (ON)	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Cooling	Thermoelectric Cooling (TEC) with a fan	
Lens Mount	M72	
Dimensions	120(W) × 120(H) × 118(L) mm	
Weight	2340 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	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 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 24V ± 10%
12	RS232 Tx	White Pink	RS232 transmit

Technical Drawing



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