MARS-138-232X2M-TN-SWIR F02

1.3MP CMOS CXP2.0 SWIR Area Scan Camera

MARS-138-232X2M-TN-SWIR F02 camera is equipped with Sony IMX990 Global 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.

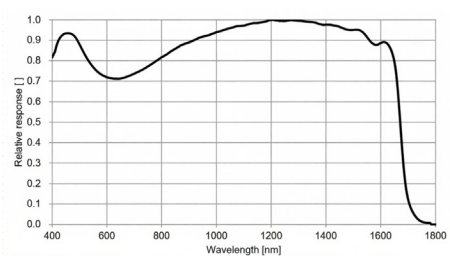
Applications

Suitable for applications such as wafer inspection, AOI inspection, spots inspection, medical inspection and so on.

Features

- PRNU, DSNU, Static Defect Correction
- The Sequencer Control supports parameter configuration of exposure, gain, and Gamma up to 8 groups
- Gamma, Black Level, Sharpness, Noise Reduction, Timer, Counter, LUTs and User Set Control
- DAHENG IMAGING or third-party frame grabbers are available

Spectral Response



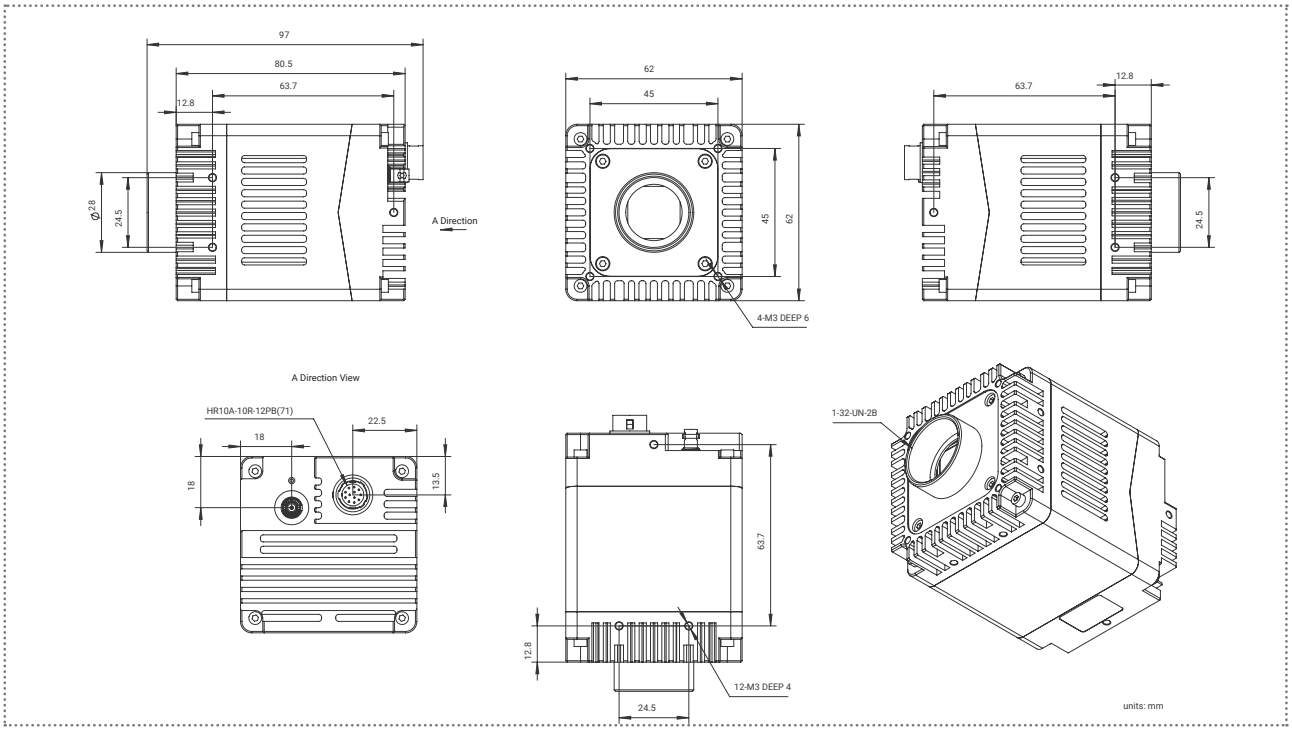
Specifications

Model	MARS-138-232X2M-TN-SWIR F02
Resolution	1280(H) × 1024(V)
Sensor	Sony IMX990 Global shutter CMOS
Sensor Format	1/2"
Pixel Size	5μm × 5μm
Frame Rate	232.29fps
ADC	8 bit, 10 bit, 12 bit
Pixel Bit Depth	8 bit, 10 bit, 12 bit
Mono/Color	Mono, SWIR
Pixel Formats	Mono8 / Mono10 / Mono12
SNR	42.195 dB
Exposure Time	Ultra short: 3μs~100μs, Actual Steps: 1μs Standard: 27μs~1s, Actual Steps: 1μs
Gain	Digital Gain: 0dB~24dB, Default: 0dB, Steps: 0.1dB
Binning	Horizontal: FPGA X1 X2 X4, Mode: Average, Sum
Decimation	Sensor: 1×1, 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, 1 RS232
Data Interface	CXP-12 × 1 (HD-BNC)
Power Supply	24 VDC or PoCXP
Power Consumption	12.326W @PoCXP (The target temperature for TEC is 15°C)
Operating Temp.	0° C ~ +45° C
Storage Temp.	-20° C ~ +70° C
Operating Humidity	10% ~ 80%
Cooling	TEC, Passive cooling, optional: Heat Dissipation Fins
Lens Mount	C
Color filter/ translucent film	-
Dimensions	62(W) × 62(H) × 80.5(L) mm (without C mount)
Weight	485.7 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 24VDC (±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 24VDC (±10%)
12	RS232 Tx	RS232 transmit

Technical Drawing



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