# MARS-15200-16X2M/C-TF

## 152MP CMOS CXP2.0 Area Scan Camera

The MARS-15200-16X2M/C-TF camera uses CoaXPress interface for high-speed transmission of image data. The camera is equipped with TEC and cooling fan, which can effectively reduce thermal noise and generate high-quality images.

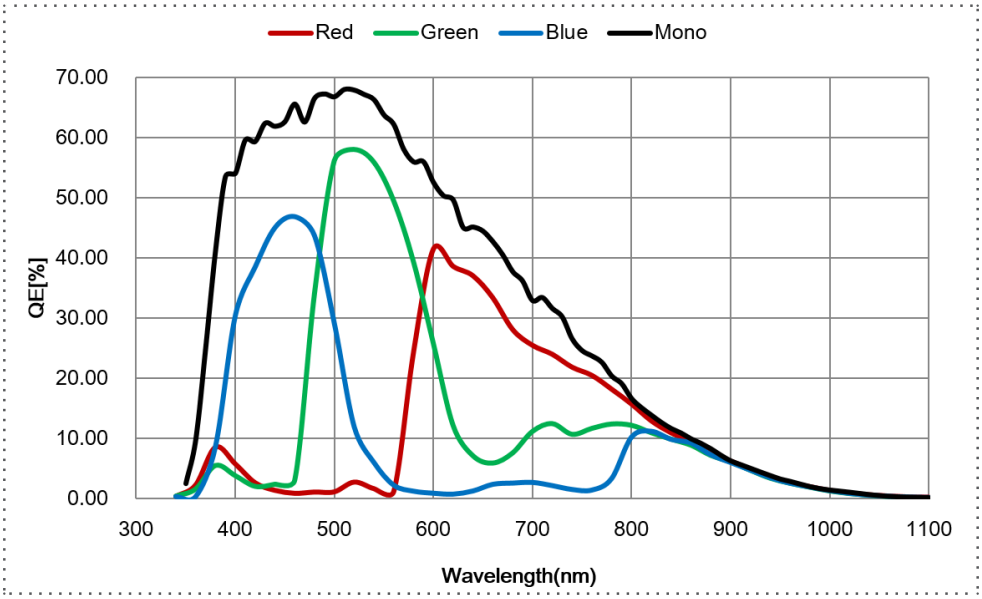
### Applications

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

### Features

- PRNU, DSNU, FFC, Hot Pixel Correction, 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, Timer, Counter, LUTs and User Set Control
- DAHENG IMAGING or third-party frame grabbers are available

### Spectral Response



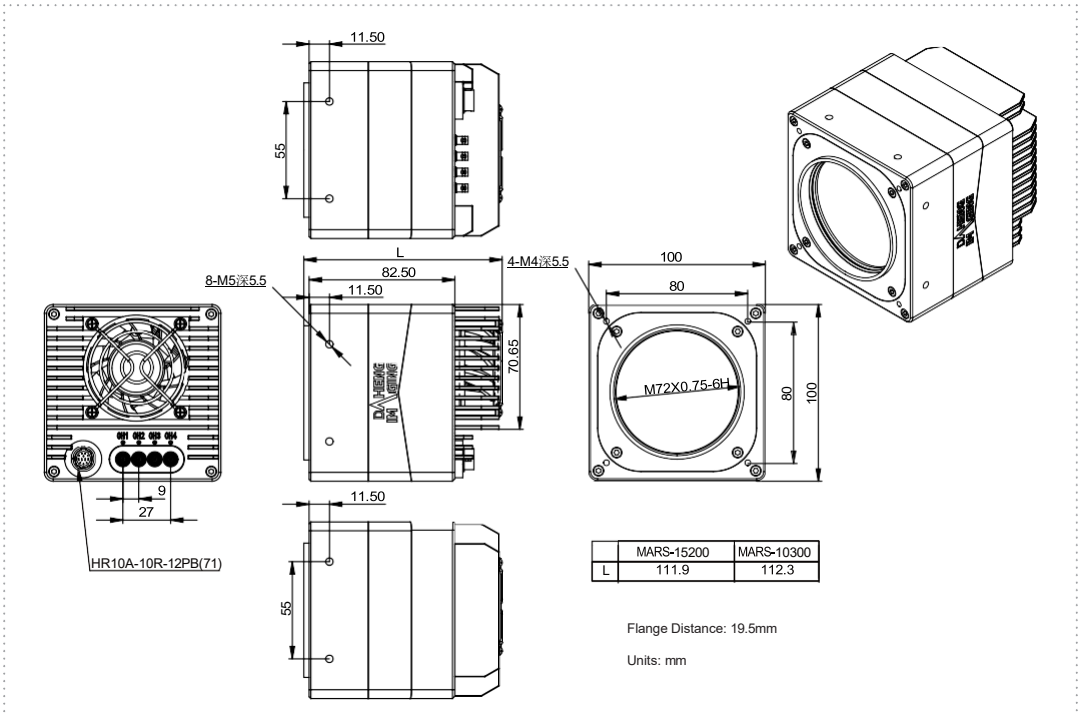
## Specifications

| Model | MARS-15200-16X2C-TF | MARS-15200-16X2M-TF |
|---|---|---|
| Resolution | 16544(H) × 9200(V) | |
| Sensor | Gpixel GMAX32152 Global shutter CMOS | |
| Sensor Format | 53.0mm × 29.4mm | |
| Pixel Size | 3.2μm × 3.2μm | |
| Frame Rate | 16.3 fps | |
| ADC | 12 bit | |
| Pixel Bit Depth | 8 bit, 12 bit | |
| Mono/Color | Color | Mono |
| Pixel Formats | Bayer GB8 / Bayer GB12 | Mono8 / Mono12 |
| SNR | 40.4 dB | 39.5 dB |
| Exposure Time | 20μs~1s, Actual Steps: 1μs | |
| Gain | Digital Gain: 0dB~16dB; Default: 0dB, Steps: 0.1dB<br>Analog Gain: 0.5dB~2.8dB; Default: 1.4dB, Steps: 0.1dB | |
| Binning | 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4 | |
| Decimation | Horizontal FPGA, Vertical Sensor: 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 | Typ.: 22W@24V, ambient temp. 25°C, sensor constant temp. 10°C, TEC&FAN (ON)<br>Max.: 30W@fast cooling (TEC&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 | 100(W) × 100(H) × 111.9(L) mm | |
| Weight | 1610 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 ± 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 ± 10% |
| 12 | RS232 Tx | RS232 transmit |

## Technical Drawing

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