



2M MIPI Global Shutter Camera Module AR0234CS

Key Properties

AR0234CS Image Sensor

Output Formats: 8- /10-bit RAW

Frame Rate:

120fps for 1920(H)x1200(V)

120fps for 1920(H)x1080(V)

120fps for 1280(H)x960(V)

120fps for 800(H)x600(V)

120fps for 640(H)x480(V)



S-mount M12 Lens Holder

Application

Autonomous Mobile Robots / Drones / Video Doorbells / AR/VR/MR

Headsets / Barcode Readers

Feature

- ♦ 2.3M(1920x1200) image sensor AR0234CS
- ♦ Global Shutter that captures the frame simultaneously
- ♦ Lens holder M12 and the lens is changeable
- ♦ 8-bit / 10-bit RAW output
- ♦ MIPI CSI-2 Output
- ♦ Low-Light performance

Introduction

MCM2M120M12 is a 2.3-megapixel CMOS image sensor designed for high-performance embedded vision applications that demand both speed and image quality. It features a global shutter to accurately capture fast-moving objects without motion artifacts, making it ideal for machine vision, robotics, industrial inspection, and AI-based systems.

With a 1920×1200 active pixel array and 3.0 μm pixel size, the MCM2M120M12 delivers crisp, detailed images while maintaining excellent low-light performance. Its pixel architecture and advanced noise-reduction design enable high sensitivity with low noise, allowing the sensor to produce clear and accurate images even in dim or high dynamic range conditions.

Supporting up to 120 frames per second (fps) at full resolution and featuring a MIPI CSI-2 interface, the MCM2M120M12 provides both speed and ease of integration for modern vision systems.



Specifications

Model	MCM2M120M12
Sensor	AR0234CS
Image Size	1/2.6 inch
Pixel Size	3.0 x 3.0 μm
Image Area	2912 μm x 2167 μm
Image Pixels & Resolution	1920(H) x 1200(V)
Output Formats	Raw Bayer 8/10-bits
Image Transfer Rate	Full resolution (1920x1080): 120 fps
Max S/N Ratio	38dB
Dynamic Range	74.1dB
Sensitivity	3.87 V/lux-sec
Shutter Type	global shutter
Lens Parameters	Standard: FOV(D)80°
Lens Holder	Standard M7 lens holder
Power Supply	External Input
Operating Voltage	DC 1.8V / 1.2V / 2.8V
Power Consumption	< 395mW @ 120 FPS
Operating Temperature	-40 ~ 85°C
Stable Image Temperature	0 ~ 50°C
Total length	120mm
FFC Pin Numbers	24
FFC Pin Pitch	0.5mm

Specifications are subject to change without notice.

Sensor Board Drawings

