



## 8M 4-lanes MIPI Camera Module

### Key Properties

IMX415 Image Sensor  
10/12-bit RAW format  
Frame Rate: 30fps @ 3840 x 2160  
Max Resolution: 3840 x 2160  
S-Mount : M7/M12  
Lenses Type: Fixed / Auto Focus (default 82°)

### Application

Quality Control & Inspection / Image Recognition Laser Sensing  
/ DIY Camera Solutions / Robotics Vision / Process Monitoring

### Feature

- ◆ 8M(3840x2160) image sensor IMX415
  - Low illumination and high dynamic range sensor
- ◆ Megapixel M7 or M12 lenses optional
- ◆ 12/10-bit RAW data

### Introduction

The **MCM8M30M7** MIPI Camera Module is a compact, high-resolution imaging solution based on Sony's advanced 8.4MP IMX415 stacked CMOS sensor. Built for embedded system developers and AI vision integrators, this module delivers stunning 4K Ultra HD video at up to 60 frames per second, along with excellent low-light performance and Digital Overlap HDR (DOL-HDR) for enhanced dynamic range.

Supporting output resolutions up to 3864 × 2192, this module enables smooth 4K @ 60fps, 1080p @ 90fps, and 720p @ 120fps streaming through a MIPI CSI-2 interface (4 lanes). With a pixel size of 1.45 μm, it offers high sensitivity in both daylight and low-light environments. The onboard M7/M12 lens holder makes it easy to adapt different lenses based on your application needs.



## Specifications

Model	MCM8M30M7
Sensor	IMX415
Image Size	1/2.8 inch
Pixel Size	1.45 $\mu\text{m}$
Image Area	4732 $\mu\text{m}$ x 3515 $\mu\text{m}$
Image Pixels & Resolution	8M / 3840(H) x 2160(V)
Image Formats	10/12-bit RAW Format
Image Transfer Rate	4208x3120 @30fps 3840x3104 @30fps 3840x2160 @30fps 3264x2448 @30fps 2592x1944 @30fps 1920x1080 @60fps
Max S/N Ratio	TBD
Dynamic Range	TBD
Sensitivity	TBD
Mini illumination	TBD
Shutter Type	Electronic rolling shutter
Lens Parameters	Standard: 82° , Autofocus
Lens Holder	Standard M7 lens holder
Power Supply	3 External Powers
Operating Voltages	DC 1.2 / 1.8 / 2.8 volts
Operating Current	< 250mA
Operating Temperature	-20 ~ 60°C
Storage Temperature	0 ~ 50°C
Operating System Request	Driver is required
Total Length	54mm
FPC Pin Numbers	24
FPC Pin Pitch	0.5mm

Specifications are subject to change without notice.



## Mechanical Drawing

