

## 2M Camera Sensor Module USB2.0 HM2056

### Key Properties

HM2056 Image Sensor

MJPEG/YUV2 Format

Frame Rate: 30fps for UXGA(1600(H)x1200(V))

S-mount M5 Lens Holder

Lenses Type -Standard: 120° (Camera Lens Module)

-Optional: 75° (Sensor Lens Module)



### Application

Portable Media / Robot Vision Camera/ Image Recognition

Laser Sensing / DIY Camera Solutions

### Feature

- ◆ 2M(1620x1220) image sensor HM2056
  - Low illumination and high dynamic range sensor
- ◆ Megapixel M5 lenses optional
  - Standard: 120° Camera Lens Module
  - Optional: 75° Sensor Lens Module
- ◆ MJPEG compressed format output support
- ◆ UVC support, plug and play for Windows and Linux



### Introduction

CM2M30M5C is a 2 MP(1620x1220) USB camera board using 1/5" HM2056 designed for both low light and high dynamic range scene performance. CM2M30M5C is an ideal solution of small USB camera module for low light and high dynamic range applications like backlighting image and face recognition. It has S-mount (M5) lens holder for enabling the users to choose the lens and any spectral filter as per their requirements. It is a Plug-and-Play camera (UVC compliant) for Windows, Linux.



## Specifications

Model	CM2M30M5C
Sensor	HM2056
Image Size	1/5 inch
Pixel Size	1.75 $\mu\text{m}$
Image Area	3835 $\mu\text{m}$ x 2135 $\mu\text{m}$
Image Pixels & Resolution	2M / 1620(H) x 1220(V)
Image Formats	MJPEG / YUV2 (YUYV)
Image Transfer Rate	MJPEG: 640x480@30fps/ 800x600@30fps/ 1280x720@30fps/ 1280x1024@30fps/ 1600x1200@30fps YUY2: 640x480@30fps/ 800x600@30fps/ 1280x720@15fps/ 1280x1024@15fps/ 1600x1200@15fps
Max S/N Ratio	36dB
Dynamic Range	70dB
Sensitivity	1200mV/lux-sec@550nm
Mini illumination	0.1 lux
Shutter Type	Electronic rolling shutter
Connecting Port	USB2.0 High Speed
OTG Protocol	USB2.0 OTG
Plug & Play	UVC(USB Video Class) Compliant support
Auto Exposure Control (AEC)	Support
Auto Exposure Bracketing (AEB)	Support
Auto Gain Control (AGC)	Support
Adjustable Parameters	Brightness, Contrast, Saturation, Hue, Sharpness, Gamma, Gain, White Balance, Backlight Contrast, Exposure
Lens Parameters	Standard: 120° Camera Lens Module Optional: 75° Sensor Lens Module
Lens Holder	Standard M5 lens holder
Power Supply	USB BUS POWER 5P-1.0mm Socket
Operating Voltage	DC 5V
Operating Current	120mA ~ 140mA
Operating Temperature	-20 ~ 70°C
Storage Temperature	-20 ~ 85°C
PCBA Dimensions	8mm x 60mm
Weight	~30g
Cable Length	Data Wire



Operating System Request	Win7/Win8/Win10/Win11 (no SDK) Linux 2.6 or above (SDK support) Android 4.0 or above (SDK support)
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Specifications are subject to change without notice.

### Sensor Board Drawings

