



2M Small USB Camera Module OS02H10

Key Properties

OS02H10 Image Sensor

MJPEG/YUV2 Format

Frame Rate: 30fps for 1920x1080 MJPG

Lenses Type

- Standard: FL3.2mm M8 Camera Lens Module (88°)
- Optional: FL4.4mm M8 Camera Lens Module (76°)
- Optional: FL2.9mm M8 Camera Lens Module (150°)

Application

Portable Media / Robot Vision Camera/ Image Recognition /
Laser Sensing Monitoring / DIY Camera Solutions

Feature

- ◆ 2M(1600x1200) image sensor OS02H10
 - Low illumination and high dynamic range sensor
- ◆ Megapixel M8 lenses optional
 - Standard: FL3.2mm M8 Camera Lens Module (88°)
 - Optional: FL4.4mm M8 Camera Lens Module (76°)
 - Optional: FL2.9mm M8 Camera Lens Module (150°)
- ◆ MJPEG compressed format output support
- ◆ UVC support, plug and play for Windows and Linux

Introduction

CM2M30M8S is a 2MP (1920 × 1080) USB camera module using the 1/2.8" OS02H10 CMOS image sensor, designed for compact camera and embedded vision applications. The OS02H10 features high sensitivity and a maximum dynamic range of 76.9 dB, providing good image performance under low-light and varying illumination conditions. CM2M30M8S supports resolutions up to 1920 × 1080 at 30 fps and is suitable for video capture, machine vision, sensor monitoring, and other general imaging applications.

The module provides multiple lens options with approximately 76°, 88°, and 150° field of view (FOV), allowing users to select the viewing angle according to their application requirements. It features an S-mount lens holder, enabling flexible lens and spectral filter selection. CM2M30M8S is a Plug-and-Play camera with UVC (USB Video Class) support for compatible operating systems.



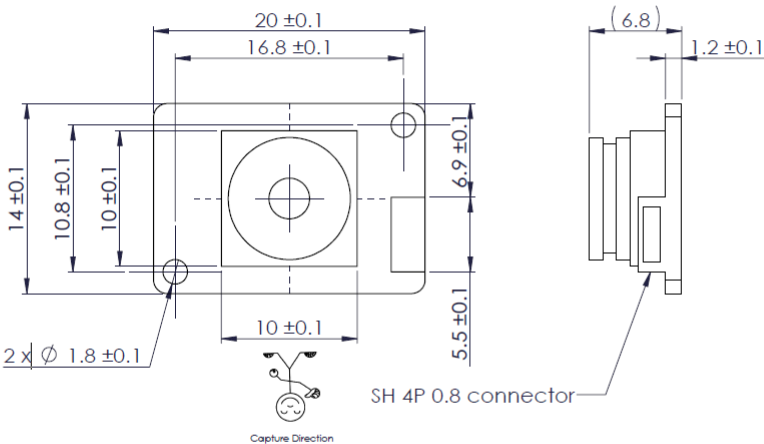


Specifications

Model	CM2M30M8S
Sensor	OS02H10
Image Size	1/2.8 inch
Pixel Size	3.0 μm
Image Area	5760 μm x 3240 μm
Image Pixels & Resolution	1920 (H) x 1080 (V)
Image Formats	MJPEG / YUY2
Image Transfer Rate	MJPEG 1920x1080 30FPS / YUY2 1920x1080 5FPS MJPEG 1280x720 30FPS / YUY2 1280x720 5FPS MJPEG 1024x768 30FPS / YUY2 1024x768 10FPS MJPEG 800x600 30FPS / YUY2 800x600 10FPS MJPEG 640x480 30FPS / YUY2 640x480 30FPS MJPEG 640x360 30FPS / YUY2 640x360 30FPS MJPEG 352x288 30FPS / YUY2 352x288 30FPS MJPEG 320x240 30FPS / YUY2 320x240 30FPS
Max S/N Ratio	37.1 dB
Connecting Port	USB2.0
Plug & Play	UVC(USB Video Class) Compliant support
Auto Exposure Control (AEC)	Support
Adjustable Parameters	Brightness, Contrast, Hue, Saturation, Sharpness, Gamma, Gain
Lens Parameters	Standard: FL3.2mm, 88° M8 Camera Lens Module FL4.4mm, 76° M8 Camera Lens Module FL2.9mm, 150° M8 Camera Lens Module
Lens Holder	Standard M8 lens holder
Power Supply	USB BUS POWER 4P-0.8mm Socket
Operating Voltage	DC 5V
Operating Current	< 120mA
Operating Temperature	-20 ~ 70°C
Storage Temperature	-20 ~ 85°C
PCBA Dimensions	14mm x 20mm
Weight	~2g
Cable Length	Standard 40cm
Operating System Request	WinXP/Win7/Win8/Win10 Linux / Android / MAC OSX

Specifications are subject to change without notice.



A	Image Sensor	2MP Sensor(OS02H10)										
	Sensor Size	1/2.8"						B				
	Image Pixels	2 MP						C				
	Resolution	1920 x 1080						D				
	Pixel Size	3um x 3um						E				
B	PCB Size(mm)	20 x 14						F				
	Connecting Interface	USB 2.0						G				
	Operating System	Windows / MAC OS / LINUX / Android						H				
C	Image Format	MJPEG/YUY2										
	Frame Rates	1920 x 1080 MJPG@ 30fps 1280 x 720 MJPG@ 30fps 640 x 480 MJPG@ 30fps 1920 x 1080 YUY2@ 5fps 1280 x 720 YUY2@ 10fps 640 x 480 YUY2@ 30fps										
D	S/N Ratio	37.1 dB										
	Max Dynamic Range	76.9db										
E	Operating Voltage	DC5V										
	Operating Current	120mA										
	Lens Type	M8 Fixfocal										
	Default FOV(D)	76° / 88° / 90° / 150°										
	Default Filter	IR Cut (420-650 nm)										
F	Operating Temperature	-20°C - 70°C										
G												
H												
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN mm SURFACE FINISH: 3a OR BETTER DEBURRING: BREAK ALL SHARP EDGES TOLERANCES: ANGLES X.X ± 0.1 : 2.XX ± 0.05 : 5P30° Material: - Surface Finish: -			REV. ZONE Description		By Date							
			Drawn By: Paul Yang		Title: CAMERA MODULE							
			Checked By: Leo Chiu		Part NO: CM2M30M8S							
			Approved By: Colin Wu		Unit: mm							
			Projection Type: 1st Angle		REV: A0							
			SCALE: 3:1		Date: 2022/9/21							
			Quantity: 1		SHEET: 1 OF 1							

