

# Technical Specification

**Micro USB camera 15\*15mm 2MP, model No: [UC-501-2MP](#)**

## Product Overview

The 15×15mm Micro USB Camera Module (2MP) is designed for compact embedded vision applications where space, image quality, and integration flexibility are critical. With a high-resolution 2MP sensor and USB plug-and-play interface, this module is ideal for robotics, industrial inspection, drones, IoT devices, and medical equipment.

### Highlights:

- Ultra-compact design: only 12×12mm PCB
- High-definition 2MP (1920×1080@30fps) resolution
- USB 2.0/USB-C(Type-C)/Micro USB interface for easy integration
- Low-light performance for night vision & inspection
- Custom lens options available (M12 lens interchangeable)

### Key Features

- Sensor: 1/2.9" low light CMOS 2MP
- Resolution: 1920(H) × 1080(V) @ 30fps
- Interface: USB 2.0 (UVC compliant)
- Lens: Interchangeable, DFOV options 5°–230°
- Size: 15×15mm Lens holder
- Low Power Consumption,
- lightweight (Average Net weight: 40gram include 2m usb cable)

### Application Scenarios

- Robotics: AGV/AMR navigation, Cobot vision
- Industrial Inspection: PCB quality control, machinery monitoring
- IoT & Embedded Devices: Smart kiosks, handheld terminals
- Medical & Scientific Devices: Microscopes, portable diagnostics

### Reliability & Compliance

- CE, FCC, RoHS certified
- Passed 48h burn-in test @ 60°C
- Shock & vibration tested

### Custom-made available

- (1) Different EFL lens (include its IR filter) and DFOV can be customized (see below)
- (2) Different wires/cable(include cable type and length) (see below)
- (3) With or without lens holder, camera bracket can be custom-made too
- (4) USB interfaces can be customized (see below)
- (5) rename device name specially even rename every device unique serial number

## Micro USB Camera 15\*15mm 2MP



<b>Model No.</b>	UC-501-2MP
<b>Sensor</b>	CMOS 1/2.9" 2MP
<b>Resolution</b>	1920*1080P@30FPS
<b>Output</b>	USB2.0,USB-A / TYPE-C / Micro USB
<b>DFOV</b>	3°~230° optional
<b>Focus</b>	Manual
<b>Photo Format</b>	MJPEG
<b>Video Output</b>	MJPEG/YUY2
<b>White balance</b>	Auto
<b>Microphone</b>	Built in Microphone
<b>Dimension</b>	Lens Holder: 15*15mm
<b>Length of cable</b>	5cm~10M, standard 2.5M
<b>Power</b>	5V / 130mA, 5V / 90mA
<b>System</b>	WIN7/8/10/Android/Apple Mac/Linux
<b>Material</b>	Plastic camera with metal lens
<b>Temperature</b>	-10~+70℃

## Replaceable Lens options

	Distortionless lens	Wide angle lens	Panoramic lens	Telephoto lens	Pinhole lens	Auto focus lens	Starlight lens
Appearance							
EFL(mm)	3.6/4/6/8/12/16	2.1/2.5/2.8	1.0/1.56/1.7/1.8	15/20/22/25/30 /35/45/50/70	2.1/2.5/2.8/3.7/4.3/ 5/6/7/8/10/12	2.8/3.6/6	2.8/4/6/8/12
FOV	90~30°	160~100°	210~170°	30~3°	140~25°	100~60°	110~30°

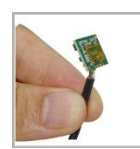
### Interface options



### Cable options



### Custom-made



Support custom designed PCB shape and size, camera housing and cable and interface.

Spec updated date: 18.08.2025