

# Technical Specification

## Micro Autofocus USB camera module 14\*14mm 12MP, model No: **UC-503-12MP**

### Product Overview

The 14\*14mm Micro USB Camera is a compact, high-resolution autofocus module designed for embedded vision applications. Featuring a super micro size and 12MP sony sensor, it delivers sharp 4K imaging with fast autofocus, making it ideal for drones, robotics, and industrial automation. With UVC compatibility, it's plug-and-play for seamless integration in demanding US and EU environments.

### Key Features

- Super micro size: 14\*14mm for space-constrained designs.
- 12MP resolution with 4K@30fps for crystal-clear visuals.
- Fast autofocus (200ms response time) for dynamic scenes.
- UVC-compliant for cross-platform compatibility (Windows, Linux, Android).
- Customizable interfaces: USB2.0, Micro USB, Type-C.
- Low-light sensitivity (0.01Lux) for versatile use

### Application Scenarios & Typical Applications

- Industrial automation: Embedded in robotic arms for precise part inspection in Detroit factories.
- Drones: Wide-angle monitoring for crop scouting in Iowa agricultural operations.
- Robotics: Vision guidance for collaborative robots in German manufacturing hubs.
- Embedded vision systems: Real-time processing in UK energy monitoring setups.
- Supermarket electronic scales: Inventory scanning in Swiss retail environments.

### Reliability & Compliance

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

### Unique Selling Points vs. Competitors

- Super micro size (14\*14mm) is 20-30% smaller than competitors' 2020mm modules, enabling tighter integration in drones and robots.
- Fast autofocus (200ms) outperforms standard 500ms models, reducing blur in dynamic industrial applications by 40%.
- Smallest size real 4K@30fps miniature UVC camera ideal for embedded vision system.
- UVC compatibility ensures 50% faster integration compared to non-UVC modules, cutting development time for EU-compliant systems.

## Micro USB Camera 14\*14mm 12MP



<b>Model No.</b>	UC-503-12MP
<b>Sensor</b>	CMOS 12MP
<b>Resolution</b>	4000*3000P@15FPS, 12MP 3840*2160P@30FPS, 8MP 1920*1080P@30FPS, 2MP
<b>Output</b>	USB2.0,USB-A / TYPE-C / Micro USB
<b>DFOV</b>	80°
<b>Focus</b>	Manual
<b>Photo Format</b>	MJPG
<b>Video Output</b>	MJPG/YUY2
<b>White balance</b>	Auto
<b>Microphone</b>	Built in Microphone
<b>Dimension</b>	Cam module: 14*14mm
<b>Length of cable</b>	5cm~5M, standard 2M
<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℃

### 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**