



1M Pixel MIPI Endoscope Camera Module

Key Properties

Resolution: 1Mega, 1280 x 720 @30FPS, MJPG Format

Dimensions: D3.5x15mm (including stainless steel tube)

Lenses Type -Standard: FOV(D)88°

-Option: FOV(D)65° / FOV(D)100° / FOV(D)120° / FOV(D)140°

Depth Of Field(DOF): 5mm ~ 100mm (Refer to the specification table below)



Application

Low-Temperature Endoscopy / Pipe Inspection / Electronics Inspection / Cool-Tip Probe

Feature

- ◆ The camera is designed to stay below 43°C for temperature-sensitive uses.
- ◆ A lighting system with six LEDs for optimal illumination of inner cavities
- ◆ CMOS video transmission to host via MIPI conversion board.
- ◆ Flexible lens options to support different field-of-view(FOV) applications
- ◆ Available in two configurations: bare board type or IP68 waterproof encapsulated type
- ◆ Supports Windows, Linux, and Android systems.

Introduction

The SCM1M30D3.5M is a compact, high-performance 1-Megapixel (1280x720) MIPI endoscope camera module designed for space-constrained and low-power applications. Built with a 1/9" CMOS sensor, it delivers smooth 720p video at 30 fps via a low-latency MIPI interface, making it ideal for embedded systems and portable devices.

Equipped with six integrated LEDs, the module provides bright and uniform illumination for dark environments. For safe operation in temperature-sensitive inspections, the probe tip maintains an operating temperature below 43°C. Additionally, multiple lens options are available to meet various field-of-view (FOV) requirements, offering exceptional versatility for specialized inspection tasks.



Specifications

Model	SCM1M30D3.5M
Sensor	OV9734
Image Size	1/9 inch
Pixel Size	1.4 μm
Image Area	1972 μm x 1008 μm
Image Pixels & Resolution	1280(H) x 720(V)
Native Interface	MIPI CSI-2
Max Frame Rate	720P @ 30 fps
Max S/N Ratio	36 dB
Dynamic Range	68 dB
Sensitivity	600 mV/lux-sec @ 550nm
Min illumination	0.1 lux
Shutter Type	Electronic Rolling Shutter
Lens Parameters	Standard: FOV(D)88° DOF: 15-100mm Option: FOV(D)65° DOF: 20-60mm / FOV(D)100° DOF: 5-100mm FOV(D)120° DOF: 5-50mm / FOV(D)140° DOF: 5-100mm
Operating Volt. (MIPI Module)	DC 3.3V (Native MIPI)
Operating Volt. (USB Board)	DC 5V
Operating Current	100mA
Operating Temperature	-20 ~ 70°C
Stable Image Temperature	0 ~ 50°C
Max. Probe Temperature	< 43°C
Main Module OS Support	Embedded Linux, Android, Windows (Requires driver integration)
Optional USB Board OS Support	Windows, Linux, Android (Plug-and-Play / UVC Compliant)
Cable Length	0.5m / 1m / 1.5m
Cable Type	USB Type-C

Specifications are subject to change without notice.



Sensor Board Drawings

