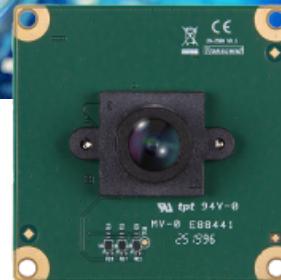


## Embedded Solutions



MIPI Interface

# ECM 100

Designed for embedded systems and intelligent applications, Transcend's industrial-grade ECM100 Embedded Camera Module is equipped with the high-sensitivity Galaxycore 2093 CMOS sensor. It delivers 2MP resolution and a 130° field of view, producing sharp, low-noise images even in low-light environments. Supporting the MIPI CSI-2 interface, the ECM100 can be seamlessly integrated into various embedded platforms, including AI edge computing, industrial inspection, and robotic systems.

With an operating temperature range of -30°C to 70°C and a robust, vibration-resistant design, the ECM100 ensures reliable performance in harsh environments. Flexible customization options—such as focal length, field of view, and FPC cable length—accommodate diverse project requirements, providing your system with high reliability and long-term supply assurance.

## Hardware Features

- Support high frame rate, delivering smooth and detailed video capture for fast-moving subjects.
- An integrated HDR (High Dynamic Range) function ensures clear and well-balanced images even in scenes with extreme contrast.
- The module offers horizontal and vertical mirroring, allowing flexible image orientation to suit different installation requirements.
- Its low power consumption design makes it ideal for battery-powered or energy-sensitive applications.

## Ordering Information

0GB TS-ECM100M22

## Firmware Features

- Customize image parameters in the driver to ensure image quality meets customer requirements.
- Provide ISP (Image Signal Processor) tools, allowing customers to fine-tune image parameters themselves and achieve optimal results in various shooting environments.
- Auto Exposure Control (AEC) and Auto White Balance (AWB) provide quick and accurate adjustments for optimal image brightness and color fidelity.



## Specifications

<b>Appearance</b>	Dimensions	38 mm x 38 mm x 16.13 mm (1.5" x 1.5" x 0.64")
<b>Interface</b>	Bus Interface	MIPI CSI-2
	CMOS Sensor	Galaxycore GC2093
	Active Pixel	1920 (H) x 1080 (V) = 2 MP
	Pixel Size	2.8 $\mu$ m x 2.8 $\mu$ m
	Lens Field of View	130°/105°/54°
	Illuminated Type	Front Side Illuminated (FSI)
	ADC Resolution	10-bit ADC
	Optical Format	1/2.9"
	Shutter Type	Rolling Shutter
	Chromaticity	Color
<b>Camera</b>	Maximum Frame Rate	Full size @ 60 fps
	Connector	22 pin
	Operating Temperature	-30°C (-22°F) ~ 70°C (158°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)

## Mechanical Dimensions

