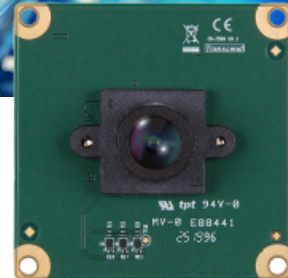


## Embedded Solutions



### MIPI CSI-2 Interface

# ECM100M22

Transcend's industrial embedded camera module ECM100M22 features a high-sensitivity CMOS sensor, delivering 2MP resolution with a 130° wide field of view. Even in low-light environments, it captures clear images with excellent detail and low noise. The module supports a MIPI CSI-2 interface with a 22-pin connector and provides ISP image processing software, enabling easy integration into a wide range of embedded platforms, including AI edge computing, industrial inspection, and robotics systems.

The ECM100M22 operates within a wide temperature range of -30°C to 70°C and features a low-power design (approximately 350mW), ensuring reliable performance even in harsh environments. Flexible customization options are available to meet specific project requirements, delivering high reliability and long-term supply stability for your embedded vision applications.

## Hardware Features

- 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.
- Includes a MIPI CSI-2 flexible ribbon cable, enabling seamless integration into embedded vision solutions.

## 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.

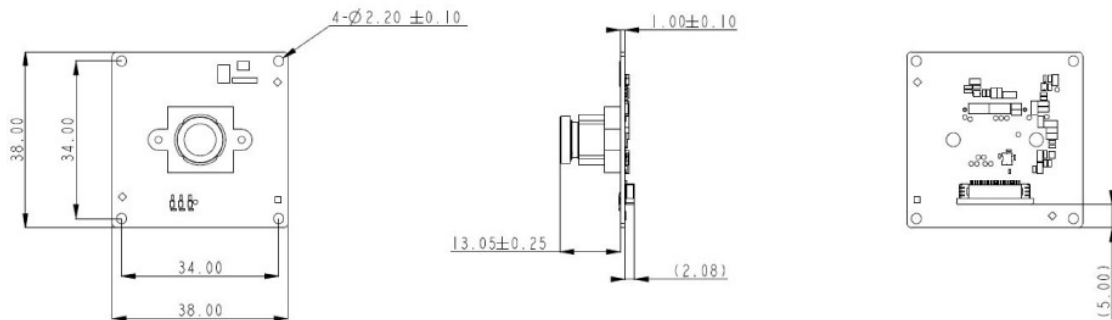
## Ordering Information

0GB	TS-ECM100M22
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## 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
	Connector	22 pin
<b>Camera</b>	CMOS Sensor	Galaxycore GC2093
	Active Pixel	1920 (H) x 1080 (V) = 2 MP
	Pixel Size	2.8µm x 2.8µm
	Lens Field of View	130°/105°/54°
	Illumination Type	Front Side Illumination(FSI)
	ADC Resolution	10-bit ADC
	Optical Format	1/2.9"
	Shutter Type	Rolling Shutter
	Chromaticity	Color
	Maximum Frame Rate	Full size @ 60 fps
<b>Power</b>	Operating Voltage	3.3V
	Power Consumption (Operation)	0.35 watt(s)
<b>Operating Environment</b>	Operating Temperature	-30°C (-22°F) ~ 70°C (158°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
<b>Warranty</b>	Warranty	Three-year Limited Warranty

## Mechanical Dimensions



Product specifications are subject to change without notice. Pictures shown may differ from actual products. Total accessible capacity varies depending on operating environment. Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.