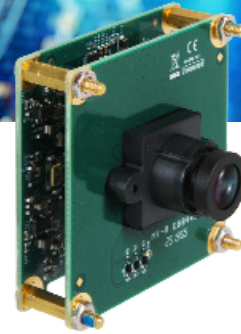


Embedded Solutions

USB Interface

ECM100U2C



The ECM100U2C embedded camera module features a 2MP CMOS sensor capable of delivering Full HD 1920 × 1080 resolution with smooth video output up to 60 fps, ensuring clear and stable image quality across various operating environments.

Equipped with a USB 2.0 Type-C interface, the ECM100U2C supports the UVC (USB Video Class) protocol, enabling plug-and-play compatibility with most mainstream operating systems without requiring additional drivers. This allows rapid integration into a wide range of embedded platforms and edge computing devices. The module also integrates an ISP (Image Signal Processor) to enhance image quality and simplify system development.

Designed for reliability in demanding conditions, the ECM100U2C supports an operating temperature range of -30°C to 70°C, making it well suited for applications such as smart retail devices and entry-level AI vision systems.

Hardware Features

- A 2.8 μm pixel size enables enhanced light sensitivity and superior image quality in various lighting conditions.
- 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.

Firmware Features

- A built-in ISP (Image Signal Processor) automatically optimizes image settings to deliver optimal image quality across various operating environments.
- Customize image parameters in the driver to ensure image quality meets customer requirements.
- Auto Exposure Control (AEC) and Auto White Balance (AWB) provide quick and accurate adjustments for optimal image brightness and color fidelity.

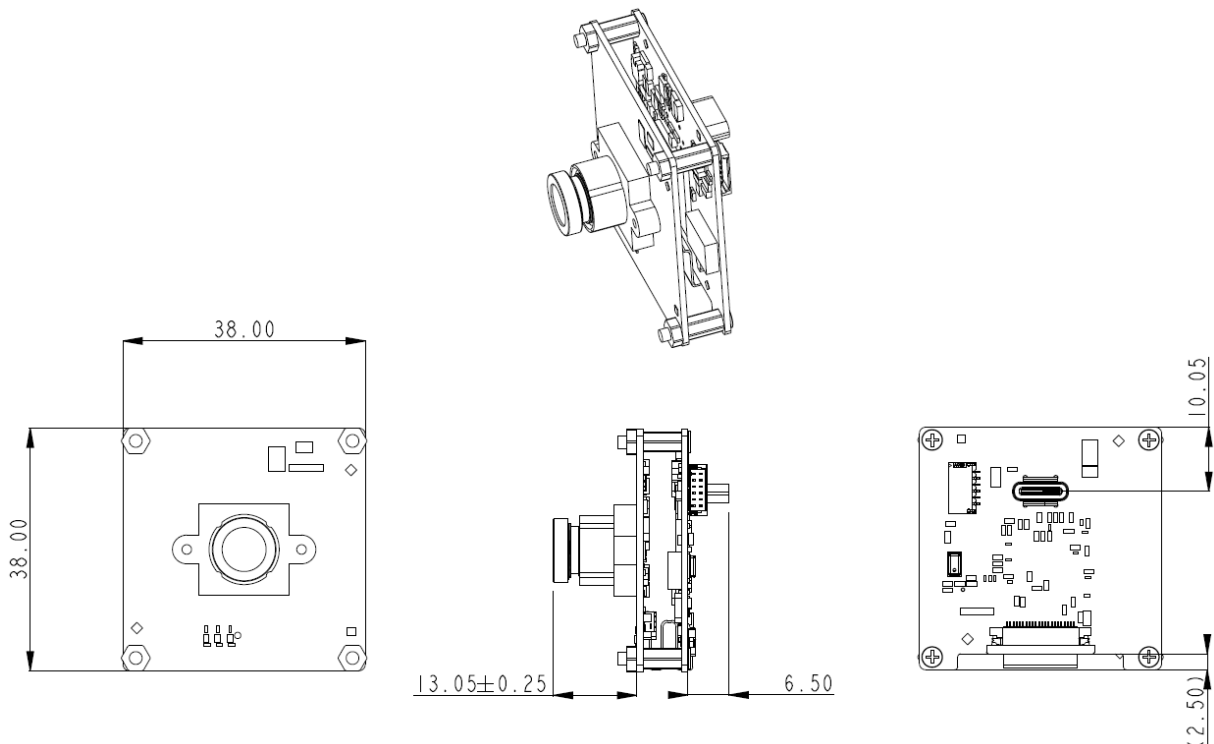
Ordering Information

0X	TS-ECM100U2C
----	--------------

Specifications

Appearance	Dimensions	38 mm x 38 mm x 29.55 mm (1.5" x 1.5" x 1.16")
Interface	Bus Interface	USB 2.0
Camera	CMOS Sensor	Galaxycore GC2093
	Active Pixel	1920 (H) x 1080 (V) = 2 MP
	Pixel Size	2.8µm x 2.8µm
	Lens Field of View	136°/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
Power	Operating Voltage	5V
	Power Consumption (Operation)	1.25 watt(s)
Operating Environment	Operating Temperature	-30°C (-22°F) ~ 70°C (158°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
Warranty	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.