

Embedded Solutions

USB Interface

ECM310U2M



Transcend's USB Embedded Camera Module ECM310U2M features a high-resolution CMOS sensor, delivering 5MP (2592 × 1944) image quality with smooth video output of up to 60 fps, enabling more detailed and refined image capture.

The ECM310U2M adopts a USB 2.0 interface with a 5-pin connector design and supports the UVC (USB Video Class) protocol, allowing plug-and-play compatibility across most mainstream operating systems. It can be quickly integrated into a wide range of embedded platforms and edge computing devices without the need for additional driver installation.

Hardware Features

- 2K high resolution captures images with outstanding clarity and fine detail.
- Compact and lightweight design, ideal for industrial tablets, POS systems, and gaming machines.
- Includes a USB 5-pin cable, ensuring broad compatibility with a wide range of USB-based embedded systems.

Ordering Information

| | |
|-----|--------------|
| 0GB | TS-ECM310U2M |
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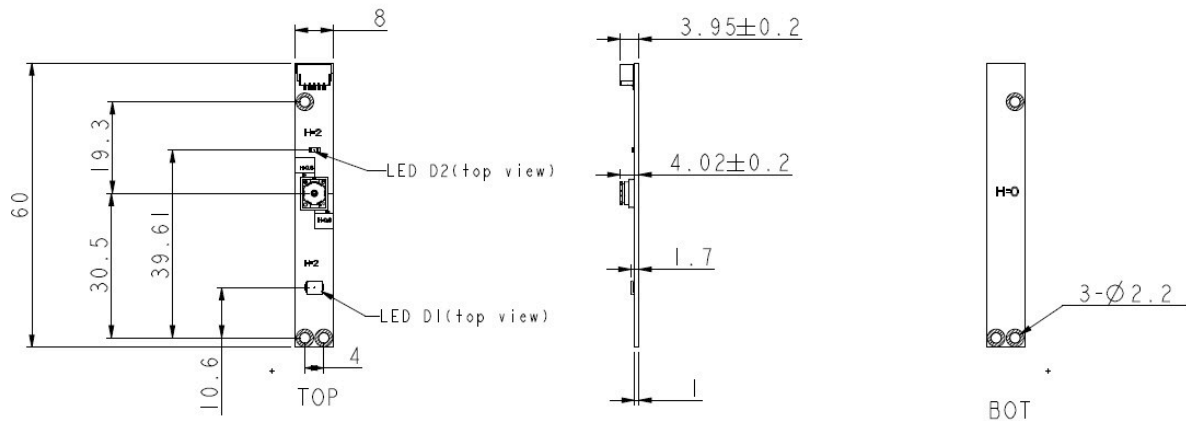
Firmware Features

- Customize image parameters in the driver to ensure image quality meets customer requirements.
- A built-in ISP (Image Signal Processor) automatically optimizes image settings to deliver optimal image quality across various operating environments.

Specifications

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|-------------------------------|-----------------------|--|
| Appearance | Dimensions | 60 mm x 8 mm x 4.02 mm (2.38" x 0.31" x 0.16") |
| | Interface | Bus Interface |
| | Connector | 5 pin |
| Camera | CMOS Sensor | Galaxycore GC05A2 |
| | Active Pixel | 2592 (H) x 1944 (V) = 5 MP |
| | Pixel Size | 1.12µm x 1.12µm |
| | Lens Field of View | 86°/73°/58° |
| | Illumination Type | Back Side Illumination(BSI) |
| | ADC Resolution | 10-bit ADC |
| | Optical Format | 1/5" |
| | Shutter Type | Rolling Shutter |
| | Chromaticity | Color |
| | Maximum Frame Rate | Full size @ 60 fps |
| | Power | Operating Voltage |
| Power Consumption (Operation) | | 1.1 watt(s) |
| Operating Environment | Operating Temperature | -20°C (-4°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.