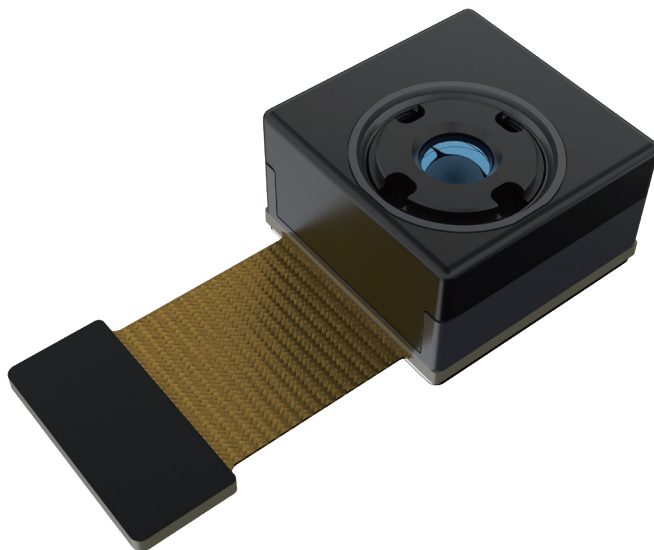


# TC2-C

## Uncooled Infrared Thermal Module

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TC2-C is a long-wave infrared thermal imaging module, built with the self-developed LY 300 ASIC, which converts thermal radiation into high-quality images and precise temperature data. The ASIC ensures excellent imaging performance with powerful thermal data processing capabilities while maintaining low power consumption. It features excellent performance, low power consumption, and compact size. And this product applies to multiple scenarios, e.g. handheld devices, security inspection, fire rescue, healthcare, driving assistance, etc.



Small Size



High-Quality  
Imaging



Simple  
Integration

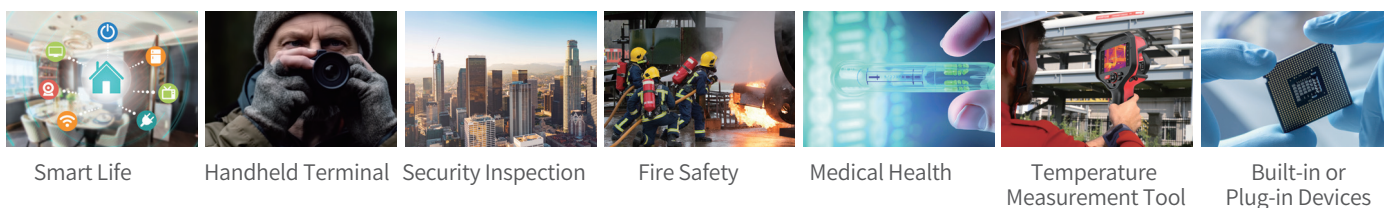


Versatile Scene  
Coverage

## Specifications

Technical Parameters	TC2-C
	<b>Overview</b>
Detector Type	Vanadium Oxide Uncooled Infrared Focal Plane Detector
IR Wavelength	8~14μm
Resolution	256×192
Pixel Pitch	12μm
Noise Equivalent Temperature Difference (NETD)	<50mK @25°C, F#1.0, 25Hz
Thermal Time Constant	<10ms
Detector Framerate	≤25Hz
Non-uniformity Correction	Automatic with shutter correction/shutterless
Image Output Formats	YUV422 (image data)/Y16 (temperature data)
Focusing Mode	Fixed focus, athermalized
	<b>Temperature Measurement</b>
Measurement Range	-20°C~150°C(high quality) 50°C~550°C(wide range)
Measurement Accuracy	±2°C or ±2% (typical value)
	<b>Electricity</b>
Input Supply Voltage	5V (analog), 3.3V, 1.8V
Video Output Format	DVP/VOSPI/MIPI/USB
Command and Control Interface	I2C/USB/UART
Typical Power Consumption	Normal operation: 280mW (typical value), Shutter pressed: 750mW (typical value)
	<b>Physical Characteristics of Module (with lens and flange)</b>
Package Dimension (W×L×H)	13.2mm×13.2mm×8.75mm (as per drawing)
	<b>Environment</b>
Operating Temperature	Imaging: -40°C~80°C, Temperature measurement: -10°C~70°C
Storage Temperature	-45°C~85°C
Shock	25g, 11msec, half sine wave, 3 axes

## Application Scenarios



Smart Life

Handheld Terminal

Security Inspection

Fire Safety

Medical Health

Temperature Measurement Tool

Built-in or Plug-in Devices

## Company Profile

Raytron Microelectronics Co., Ltd. is a wholly-owned subsidiary of Raytron Technology Co., Ltd., providing global customers with infrared detectors, core modules, and industry solutions.

Our products are widely used in various fields, including infrared temperature measurement, night vision observation, machine vision, intelligent driving, Commercial Drone, smart industry, security monitoring, Internet of Things, medical epidemic prevention and gas detection.

With the mission of "to create incremental value for customers with technological advancements", we are committed to leaving a name in the history of constantly expanding human perception capabilities.



Official Website



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