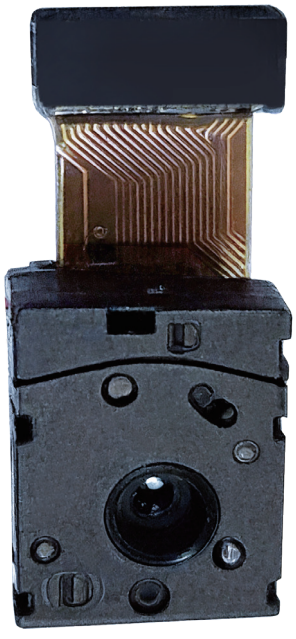
Raytron | Microelectronics

ECOT

Uncooled Infrared Thermal Module

ECO series is a long-wave infrared (8-14μm, LWIR) uncooled infrared thermal imaging module, which can convert the thermal radiation of the object itself into image and temperature data. The product is small, light in weight, and low in power consumption, and is suitable for mobile phones, temperature measurement devices, consumer electronics, smart home appliances and other fields.



Compact Size

Light weight Design

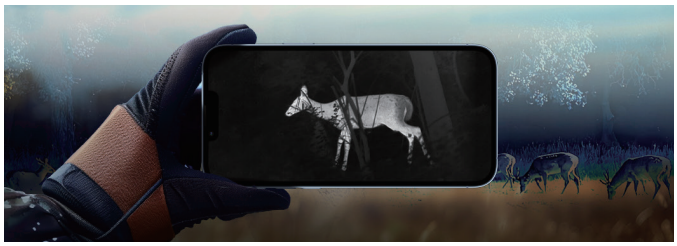
Optimized for Mobile Devices

Low Power Consumption

Specifications

Technical Parameters	ECOT
	Overview
Detector Type	Vanadium Oxide Uncooled Infrared Focal Plane Detector
IR Wavelength	8~14μm
Resolution	160×120
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	Supports on-chip 4-bit non-uniformity correction and shutter correction.
Image Output Formats	Standard parallel port output, line by line output, black-hot, Raw 14bit
Focusing Mode	Fixed focus, athermalized
	Temperature Measurement
Measurement Range	-15°C~150°C (high quality) 50°C~550°C (wide range)
Measurement Accuracy(typ.)	±3°C or ±3%
	Electricity
Input Supply Voltage	5V(analog), 3.3V,1.8V
Video Output Format	8-bits standard parallel port
Command and Control Interface	I2C
Typical Power Consumption@25°C(typ.)	Normal mode:45 mW Peak (shutter power consumption):750 mW
	Physical Characteristics of Module (lens and flange not indluded)
Package Dimension (W×L×H)	10.5mm×10.5mm×5.8mm (as per drawing)
	Environment
Operating Temperature (typ.)	Imaging:-20°C~70°C；Temperature measurement:-10°C~50°C
Storage Temperature (typ.)	-45°C~85°C

Application Scenarios



Mobile Phones & Tablets

IoT 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

LinkedIn Official Account

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