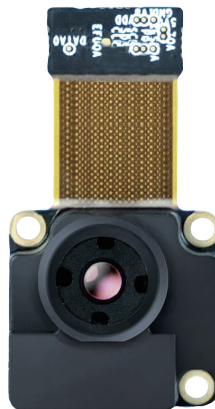


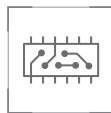
# LCM160

## Uncooled Infrared Thermal Module

LCM160 is a long-wave infrared (8~14 $\mu$ m, LWIR) infrared thermal imaging module, which can convert the thermal radiation of the object itself into a digital signal output. The product is composed of a detector, shutter, a lens, and structural components, the host completes the corresponding ISP algorithm processing. The product is small, light in weight, and low in power consumption, and is suitable for security monitoring, thermal measurement devices, smart home appliances and other fields.



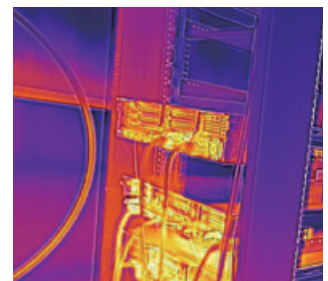
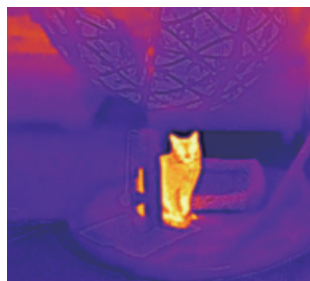
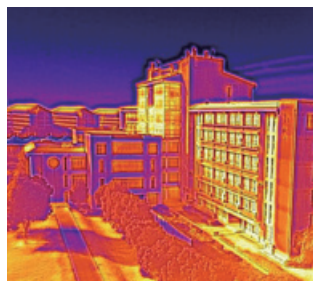
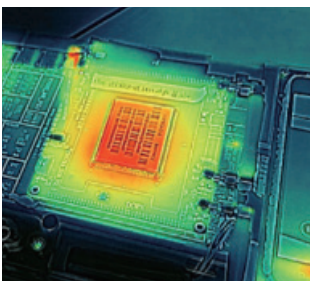
Low Cost



Advanced  
Support System



Simple Structure with  
Strong Robustness



## Specifications

Technical Specifications	LCM160
	<b>Overview</b>
Detector Type	Vanadium Oxide Uncooled Infrared Focal Plane Detector
IR Wavelength	8~14 $\mu\text{m}$
Resolution	160 $\times$ 120
Pixel Pitch	12 $\mu\text{m}$
Noise Equivalent Temperature Difference (NETD)	<50mK @25°C, F#1.0, 25Hz
Thermal Time Constant	<10ms
Effective Frame Rate	$\leq$ 25Hz
Non-uniformity Correction	Supports 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
	<b>Temperature Measurement</b>
Measurement Range	-20°C~150°C (high quality) 0°C~550°C (wide range)
Measurement Accuracy	$\pm$ 2°C or $\pm$ 2% (typical value)
	<b>Electricity</b>
Input Supply Voltage	5V (analog), 1.8V (digital)
Image Data Interface	8-bits standard parallel port
Control Interface	I2C
Typical Power Consumption	Normal mode: 45 mW (typical value), Shutter pressed: 750mW (typical value)
	<b>Physical Characteristics of Module (lens and flange not included)</b>
Package Dimension (W $\times$ L $\times$ H)	17.9mm $\times$ 16.8mm $\times$ 9.9mm (as per drawing)
Weight	-
	<b>Environment</b>
Operating Temperature	-20°C~60°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

## 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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