

Turing L1280

Uncooled Infrared Thermal Module

Turing L1280 uncooled infrared thermal module is a new generation of module components designed for expert users. The use of self-developed detectors has taken an important step forward in miniaturization and lightweighting, making us take a lead. With the advantage of large array imaging of 1280, the size is only 29mm×29mm, and the weight is only 24.5g. With a professional development team, it is the best choice for meeting the lightweight development needs.



Product Highlights

1280 Miniaturized Integration Solution

- Equipped with a self-developed 12μm VOx uncooled infrared detector. Resolution is 1,280×1,024, size is 29×29, and weight is 24.5g.



Excellent Performance

- The mega-pixel resolution, combined with high-quality image algorithms, highlights details.
- Convenient for users to find targets and monitor details.



Rich Selection

- With multiple lenses optional, it can flexibly adapt to multiple scenarios.
- Dedicated support to help users choose the right lens for themselves, efficient and convenient.



Specifications

Model	Turing L1280 Imaging	Turing L1280 Temperature Measurement
Performance Characteristics		
Detector Type	Uncooled VOx infrared detector	
Resolution	1280×1024	
Pixel Pitch	12μm	
Frame Rate	30Hz	
Spectral Band	8~14μm	
NETD	≤50mK at 25°C,F#1.0	
Image Adjustment		
Brightness/Contrast Adjustment	Manual/Automatic	
Polarity	Black-hot/White-hot	
Palette	Support	
Image Processing	TEC-less temperature control algorithm, digital filtering noise reduction, and digital detail enhancement	
Mirror Image	Vertical/Horizontal/Diagonal	
Power Supply		
Power Supply Range	4.0~5.5VDC/3.3V/1.8V	
	4.1~5.5V DC supported by user extension components	
Power Consumption	0.9W (Typical, @25°C, without extension)	1W (Typical, @25°C, without extension)
Interface		
Digital Video	BT1120	CDS2
Control Interface	14Bit or 8Bit LVCMOS/MIPI	
Extension Components	UART (3.3V) USB3.0	
Temperature Measurement Characteristics		
Temperature Measurement Range	/	Temperature measurement series: -20°C~+150°C, 100°C~+650°C
Measurement Accuracy	/	Temperature measurement series: ±2°C or ±2% of reading (The greater shall prevail) @Ambient temperature of 15°C~35°C
Measurement Tool	/	Secondary analysis of points, lines, and areas
Physical Characteristics		
Dimensions (Without Lens and Extension Components)	29mm×29 mm×18.9mm	
Weight (Without Lens and Extension Components)	24.5g	
Lens	10mm/19mm/24mm/35mm/50mm/75mm/100mm	10mm/19mm/24mm/35mm/50mm
Environment Adaptability		
Operating Temperature	-40°C~+70°C	-20°C~+60°C measurement
Storage Temperature	-45°C~+85°C	
Humidity	5~95%, non-condensing	
Product Certification	RoHS2.0	

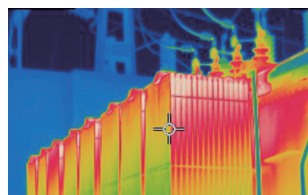
Applications



Commercial Drone



Security Monitoring



Industrial Temperature Measurement



Machine Vision

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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