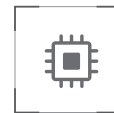


WN2T

Temperature Measurement Thermal Module

The WN2T series temperature measurement modules support 256/384/640 resolution across the entire lineup, featuring a self-developed high-frame-rate 12 μ m WLP packaged detector. Integrated with self-developed infrared ISP (second generation), these modules offer advantages including high performance, compact size, lightweight design, low power consumption, and cost-effectiveness, fully meeting SWaP (Size, Weight, Power/Price) application requirements. Combined with the new-generation dedicated infrared image processing algorithms, the modules deliver finely detailed and clear image output. Additionally, the modules provide a variety of digital interfaces, enabling flexible integration with diverse intelligent processing platforms.



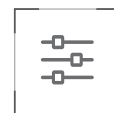
Proprietary
Infrared ISP



High-Quality
Imaging



High-Accuracy Temperature
Measurement Performance



Support for Multiple
Digital Interfaces

Specifications

Technical Parameters	WN2T 256	WN2T 384	WN2T 640
	Main Parameters		
Detector Type	Vanadium Oxide Uncooled Infrared Focal Plane Detector		
Resolution	256×192	384×288	640×512
Effective Frame Rate	25Hz	30Hz	30Hz
Pixel Pitch	12μm		
Spectral Band	8~14μm		
Noise Equivalent Temperature Difference(NETD)	≤40mK@25°C,F#1.0,25Hz		
Thermal Time Constant	<12ms		
	Image Adjustment		
Non-uniformity Correction	Shutter correction/shutter-less algorithm correction		
Brightness/Contrast	0 ~100,optional		
Polarity/Palette	White-hot/Black-hot/Various palettes supported		
Digital zoom	1.0 ~ 8.0x continuous zoom(step size: 0.1)		
Image Mirroring	Vertical/Horizontal/Diagonal		
	Electricity Parameters		
Digital Video	DVP/ USB2.0/MIPI		
Communication Interface	UART/I2C/USB2.0		
Power Supply Input	5V		
Typical power consumption of USB output @25°C	<0.35W	<0.42W	<0.7W
	Physical Characteristics		
Weight (without lens)	<7g	<7g	<8.6g
Dimensions (without lens)	21×21×10.3 mm		
	Temperature Measurement		
Measurement Range	-20°C~150°C (high-quality), 100°C~650°C (wide range)		
Measurement Accuracy(typ.)	±2°C or ±2%		
	Environment Adaptability		
Operating Temperature	-40°C ~ +80°C (imaging), -10°C ~ +70°C (temperature measurement)		
Storage Temperature	-50°C~+85°C		
Humidity	5%~95%, non-condensing		
Vibration	6.06g, random vibration, all axes		
Impact	80g, 4ms, final peak sawtooth wave, three axes and six directions		

Application Scenarios



Handheld Temperature Measurement Devices



Security Inspection & Monitoring



Commercial Drone



Smart Home Appliances

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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