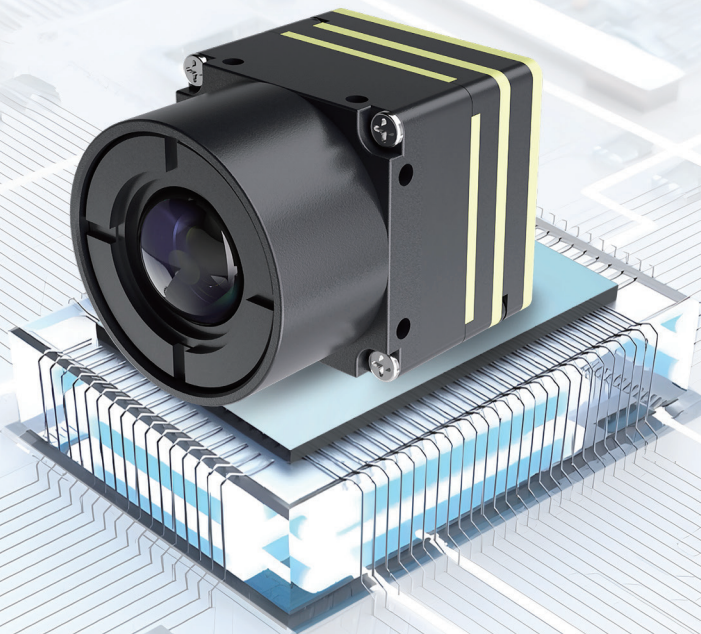




WN2

Imaging Thermal Module

The WN2 series uncooled infrared module offers optional resolutions of 640×512 , 384×288 , and 256×192 , featuring a high-frame-rate $12 \mu\text{m}$ WLP detector and a second-generation self-developed infrared LY300. It delivers high performance in a compact, lightweight design with low power consumption and cost, meeting the SWaP (Size, Weight, and Power/Price) requirements for modern applications.

The entire series is equipped with the shutterless algorithm that ensures smooth and non-choppy images. The next-generation infrared-specific NM3.0 and IM3.0 image processing algorithms can ensure delicate and clear image quality.

The module provides multiple digital interfaces and supports flexible integration with various intelligent processing platforms.



High
Frame Rate



Standard
Shutter-Less Algorithm

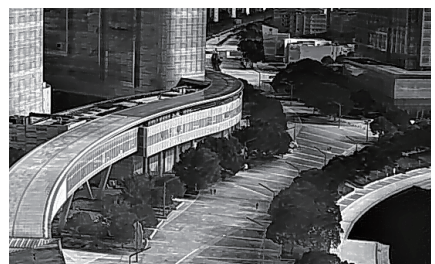
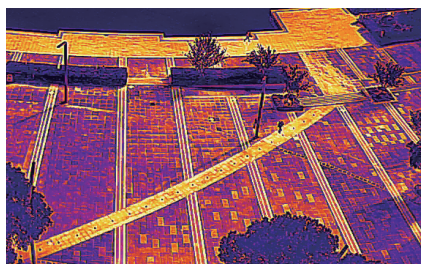


High-Quality
Image Display



Higher Cost
Performance

Product Imaging



Specifications

Product Model	WN2 256	WN2 384	WN2 640
Specifications			
Detector Type	Vanadium oxide uncooled infrared focal plane detector		
Spectral Range	8-14μm		
Pixel Pitch	12μm		
NETD	≤40mK@25°C,F#1.0,25Hz		
Detector Frame Rate	25Hz/50Hz	30Hz/60Hz	30Hz/60Hz
Image Adjustment			
Brightness/Contrast Adjustment	0~100 levels selectable		
Electronic Zoom	1.0~8.0× continuous zoom (step 0.1×)		
Polarity	Black hot/white hot		
Pseudocolor	Supported		
Crosshair	Display/hide/move		
Image Processing	Non-uniformity correction/digital filtering noise reduction/detail enhancement		
Nonuniformity Correction	Shutter correction/shutterless algorithm correction		
Image Mirroring	Left/right, up/down, diagonal		
Focusing Method	Fixed focus/manual focus lens, optional		
Temperature Measurement			
Range	-20°C~ 150°C (high image quality)100°C~ 650°C (wide range)		
Temperature Measurement Accuracy (Typical value)	±2°C or ±2% of the reading (whichever is greater)		
Temperature Measurement Tools	Analysis tools: spot, line, area		
Information Row	Information bar: displays temperature and other measurement data		
Electrical Parameters			
Power Supply Voltage (Typical)	5V		
Typical Power Consumption @25°C	<0.35W	<0.42W	<0.7W
Analog Video	PAL/NTSC		
Digital Video	DVP/BT656/USB2.0/MIPI		
Serial Communication Interface	UART/I2C/USB2.0		
Physical Characteristics (Excluding lens and flange)			
Dimensions (W×L×H) mm	21mm×21mm×10.3mm		
Weight (g)	<7g	<7g	<8.6g
Optional Lenses			
Lens (mm)	4mm/9.1mm/15mm/25mm	4mm/6.8mm/9.1mm/15mm/25mm/35mm	9.1mm/13.5mm/18mm/25mm/35mm/55mm
Environmental Adaptability			
Operating Case Temperature	-40°C~+ 80°C (-20°C~+ 70°C temperature measurement)		
Storage Case Temperature	-45°C~+85°C		
Humidity	5%~95%, non-condensing		
Vibration	6.06g, random vibration, all axes		
Shock	80g@4ms, sawtooth waveform, 3 axes/ 6 directions		1000g@0.3ms optical axis direction

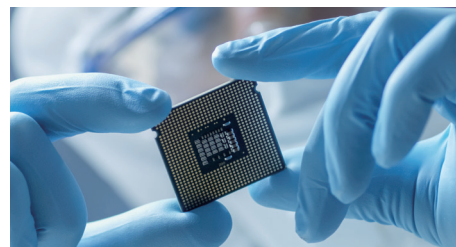
Applications



Portable Terminal



Security/Fire Inspection



Intelligent Integration

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

Raytron Microelectronics Co., Ltd.
Tel (Global): +86 400-998-9038
WhatsApp Business: +86 198 0619 1838
Email: marketing@raytrontek.com
Website: www.raytron-microelectronics.com
Version: PL202610V1