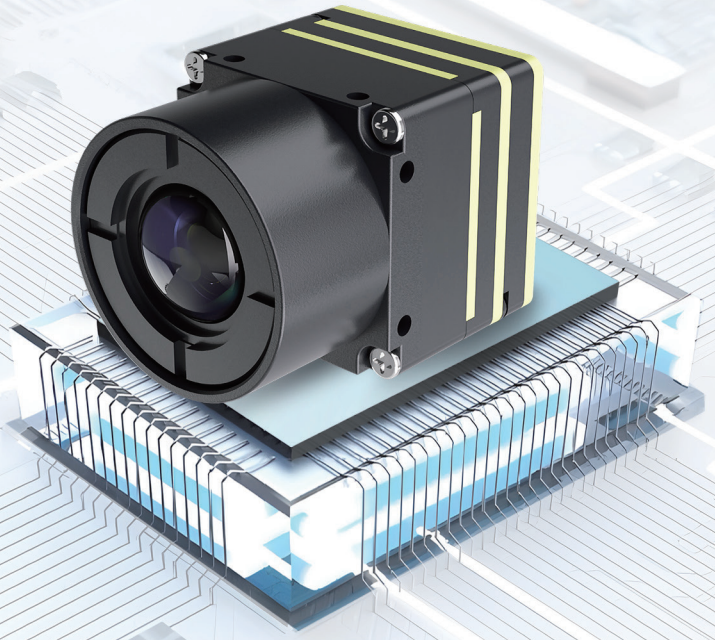
Raytron | Microelectronics



WN2

Imaging Thermal Module

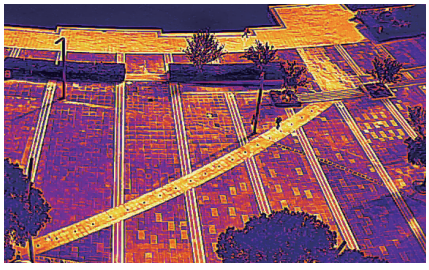
The WN2 series uncooled infrared module offers optional resolutions of 640×512, 384×288, and 256×192, featuring a high-frame-rate 12 μm WLP detector and a second-generation self-developed infrared LY300. It delivers high performance in a compact, lightweight design with low power consumption and cost,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

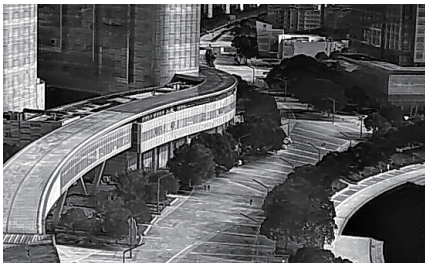
The entire series is equipped with the shutterless algorithm that ensures smooth and non-choppy images. The next-generation infrared-specific NMX3.0 and IMX3.0 image processing algorithms can ensure delicate and clear image quality.

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





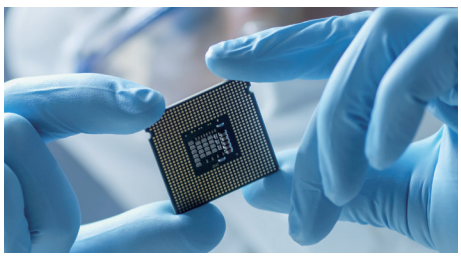
Specifications

Technical specifications	WN2 256	WN2 384	WN2 640
Main Parameters			
Detector type	Uncooled VOx infrared detector		
Resolution	256×192	384×288	640×512
Detector frame rate	25/50Hz	30/60Hz	30/60Hz
Pixel pitch	12μm		
Spectral band	8~14μm		
NETD	≤40mK@25°C,F#1.0, 25Hz		
Image Adjustment			
Non-uniformity correction	Shutter correction/Shutter-Less algorithm correction		
Brightness/Contrast adjustment	0~100,optional		
Polarity/Palette	White-hot/Black-hot/Various palettes supported		
Digital zoom	1.0~8.0xcontinuous zoom(step size: 0.1)		
Mirroring	Vertical/Horizontal/Diagonal		
Electrical Parameters			
Analog video	PAL/NTSC		
Digital video	DVP/BT656/ 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)	<9g		
Dimensions (without lens)	21×21×10.3mm		
Environment Adaptability			
Operating temperature	-40°C~+80°C		
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, 3 axes and 6 directions		

Application Scenarios

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.
Phone: 400-998-9038
Email: marketing@raytrontek.com
Website: www.raytron-microelectronics.com

Version: PL202610V1