

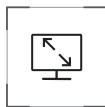
RSS101M1

Short-Wave Infrared InGaAs Focal Plane Detector

The RSS101M1 is a digital high-resolution short-wave infrared InGaAs focal plane detector with an area array size of 1280×1024 and a pixel pitch of 10μm. It supports high frame rate ROI windowing and is housed in a hermetically sealed metal package with a built-in TEC for active temperature control. The product features a large array format, high resolution, low noise, and low power consumption. It can be widely used in applications such as visual enhancement, machine vision, photovoltaic inspection, and space remote sensing.



Digital



High Resolution



Low Noise



Low Power Consumption



Large Array Format



Built-in TEC

Product Imaging



Specifications

Technical Specifications	RSS101M1
Sensor	InGaAs
Spectral Response Range	0.9 - 1.7 μ m
Quantum Efficiency	>70% (1.0 μ m - 1.6 μ m)
Optical Fill Factor	100%
Pixel Pitch	10 μ m
Area Array Size	1280 \times 1024
Effective Pixel Rate	\geq 99.8%
Maximum Frame Rate (Full Window)	60fps
Integration Type	Global shutter
Minimum Integration Time	1 μ s
Readout Noise (Typical)	45e@20 $^{\circ}$ C, high gain mode
Optional Gain	3-level
Average Pixel Dark Current	\leq 90ke/s@20 $^{\circ}$ C
Operating Power Consumption	\leq 350mW
Effective Data Output Bit Depth	13bit
Dynamic Range	\geq 48dB
Response Inhomogeneity	\leq 5%, non-corrected
Packaging Type	Hermetically sealed metal package (Built-in Single-Stage TEC)
Outline Dimensions(Excluding pin size)	32.0 \times 23.5 \times 7.0mm ³
Device Weight	28 \pm 2g
Operating Environment Temperature	-40 $^{\circ}$ C - +65 $^{\circ}$ C
Storage Environment Temperature	-45 $^{\circ}$ C - +70 $^{\circ}$ C

■ This information is for reference only. Images and technical specifications are subject to change without notice.

Applications



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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