

RS615BM1

Short-Wave Infrared Focal Plane Detector

The RS615BM1 is a general-purpose short-wave infrared InGaAs focal plane detector with an area array size of 640×512 and a pixel pitch of 15μm. It supports high frame rate operation and ROI windowing and is housed in a hermetically sealed metal package with a built-in TEC for active temperature control. The product features high sensitivity, low power consumption, and multifunctionality. It can be widely used in applications such as visual enhancement, machine vision, photovoltaic inspection, industrial sorting, and laser detection.



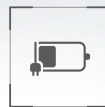
Low Noise



Higher
Frame Rate



Supports
High-Speed
ROI



Low Power
Consumption

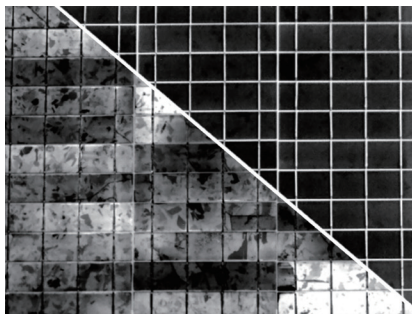


Multifunction



Built-in TEC

Product Imaging



Specifications

Technical Specifications	RS615BM1
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	15 μ m
Area Array Size	640 \times 512
Effective Pixel Rate	\geq 99.8%
Maximum Frame Rate (Full Window)	400fps@25MHz
Integration Type	Global shutter
Minimum Integration Time	5 μ s
Readout Noise (Typical)	30e@20°C, high gain mode
Optional Gain	3-level
Average Pixel Dark Current	\leq 100ke/s@20°C
Operating Power Consumption	\leq 240mW
Output Signal Swing	1.8 \pm 0.1V
Dynamic Range	\geq 50dB
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	25 \pm 2g
Operating Environment Temperature	-40°C - +60°C
Storage Environment Temperature	-55°C - +70°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

Raytron Microelectronics Co., Ltd.

Phone: 400-998-9038

Email: marketing@raytrontek.com

Website: www.raytron-microelectronics.com

Version: PL202510V1