



# RS6152M1

## Short-Wave Infrared InGaAs Focal Plane Detector

RS6152M1 is a digital 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 MROI multi-windowing, with the hermetically sealed package and built-in TEC for active temperature control. This detector features high sensitivity, low power consumption, and multifunctionality. It can be widely used in machine vision, spectral imaging, visual enhancement, laser detection, and other fields.



Digital



MROI



Low Noise



Low Power  
Consumption



Multifunction



Built-in TEC

### Product Imaging



## Specifications

Technical Specifications	RS6152M1
Sensor	InGaAs
Spectral Response Range	0.9 - 1.7 $\mu$ m
Quantum Efficiency	>70% (1.0 $\mu$ m - 1.6 $\mu$ m)
Optical Fill Factor	100%
Pixel Pitch	15 $\mu$ m
Area Array Size	640×512
Effective Pixel Rate	≥99.8%
Maximum Frame Rate (Full Window)	120fps
Integration Type	Global shutter
Minimum Integration Time	1 $\mu$ s
Readout Noise (Typical)	35e@20°C, high gain mode
Optional Gain	3-level
Average Pixel Dark Current	≤100ke/s@20°C
Operating Power Consumption	≤200mW
Effective Data Output Bit Depth	13bit
Dynamic Range	≥50dB
Response Inhomogeneity	≤5%, non-corrected
Packaging Type	Hermetically sealed metal package (Built-in Single-Stage TEC)
Outline Dimensions(Excluding pin size)	32.0×23.5×7.0mm <sup>3</sup>
Device Weight	25±2g
Operating Environment Temperature	-40°C - +65°C
Storage Environment Temperature	-45°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



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Raytron Microelectronics Co., Ltd.  
 Phone: 400-998-9038  
 Email: marketing@raytrontek.com  
 Website: www.raytron-microelectronics.com  
 Version: PL202510V1