

Keen B615

Short-Wave Infrared Camera

Keen B615 short-wave infrared camera is a product designed for high-definition applications. Adopting a high-sensitivity InGaAs shortwave infrared detector with a pixel size of $15\mu\text{m}$ and an array size of 640×512 , it features superior built-in image processing algorithms that deliver finer and higher-quality images. This product features low power consumption, low noise, and wide dynamic range. It supports multiple serial communication and video output interfaces. With various lightweight infrared lenses provided, it can be widely used in security monitoring, machine vision, semiconductor testing, laser detection, and other fields.



Product Highlights

Excellent Performance

- Equipped with a self-developed InGaAs short-wave infrared detector with a resolution of 640×512 and a pixel size of $15\mu\text{m}$.
- Combines miniaturization, low power consumption, and lightweight design.
- Built-in TEC temperature control system ensures lower dark current.



All Weather Multi-Scenario Imaging

- The product showcases a robust capacity to permeate haze and smoke, enabling long detection distances even in adverse weather conditions.
- The InGaAs spectral band covers various commonly used laser wavelengths, making it widely applicable in the laser field.
- It features some thermal imaging characteristics, capable of detecting high-temperature radiation targets ($\geq 250^\circ\text{C}$).



Multiple Selections

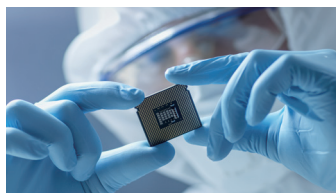
- It supports multiple video protocols, including BT.656, BT.1120, and LVDS.
- Expandable USB 3.0 and Cameralink user interfaces.
- It provides an SDK that is simple and easy to use, supporting secondary development.



Specifications

Product Model	Keen B615
Detector Type	InGaAs short-wave infrared focal plane detector
Spectral Response Range	0.9-1.7μm
Pixel Pitch	15μm
Resolution	640×512
Frame Rate	25Hz/50Hz
Effective Pixel Rate	≥99.8%
Integration Type	Snapshot global shutter
Exposure Time Range	0.005ms~30ms 35ms
Cooled Mode	TEC 1
Output Data Depth	8bit/10bit/14bit
Readout Noise (Typical value)	30e@Gain0
Optional Gain	3-level
Dynamic Range	50dB(Gain0),62dB(Gain1),72dB(Gain2)
Average Pixel Dark Current	≤ 100ke/s@20°C
On-board Image Processing	Non-uniformity correction, brightness/contras adjustment, time domain/airspace noise reduction, digital detail enhancement
Power Supply Range	5-24V DC (voltage: 12V, DC, recommended)
Typical Power Consumption @25°C	<1.8W(USB)
Digital Video	Cameralink/USB 3.0/Ethernet
Communication Interface	RS-232/RS-422/UART (3.3V)
Optical Interface	C-Mount
Weight	135g±3g (USB)
Dimensions	48mm×48mm×48.5mm (USB)
Operating Case Temperature	-40°C~+50°C
Storage Case Temperature	-45°C~+85°C
Vibration	6.06g, random vibration, 3 axes
Shock	80g, 4ms, sawtooth waveform, 3 axes/6 directions

Applications



Semiconductor Testing



Photovoltaic Testing



Laser Tracking



Security Monitoring

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