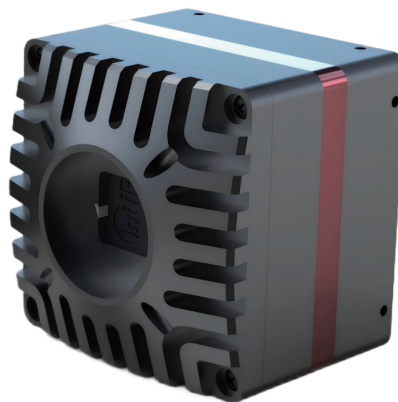


Keen F615

Uncooled Short-Wave Infrared Module Component

KSF615 uncooled short-wave infrared module component is a camera designed for high frame rates. A high-sensitivity InGaAs shortwave infrared detector with a pixel size of $15\ \mu\text{m}$ and an array size of 640×512 is used, and the frame rate can reach 200/300 Hz. 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 hyperspectral analysis, ultra-high temperature measurement, laser welding, and other fields.



Product Highlights

Excellent Performance

- Equipped with a self-developed InGaAs shortwave infrared detector with a resolution of 640×512 and a pixel size of $15\ \mu\text{m}$.
- Boasts a miniaturized, low-power and lightweight design, with 200/300 Hz high frame rate image output.
- 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

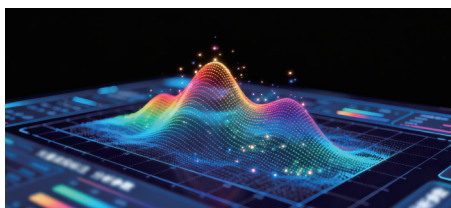
- LVCMOS video protocol
- Expandable USB 3.0 (200 Hz), Camera Link (300 Hz) user interface
- Provides an SDK that is simple and easy to use, supporting secondary development



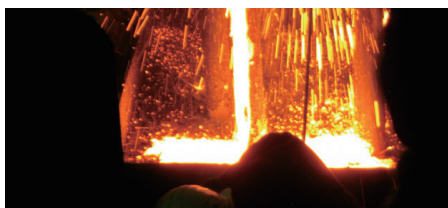
Specifications

Product Model	Keen F615
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~200Hz/300Hz
Effective Pixel Rate	≥99.8%
Integration Type	Snapshot global shutter
Exposure Time Range	0.1~35.1ms@200Hz 0.1~36.8ms@300Hz
Cooled Mode	TEC 1
Average Pixel Dark Current	≤100ke/s@20°C
Power Supply Range	5-24V DC (voltage: 12V, DC, recommended)
Typical Power Consumption @25°C	<4W
Digital Video	Camera Link (300 Hz)/USB 3.0 (200 Hz)
Communication Interface	RS-422/USB
Optical Interface	C-Mount
Weight	195g±3g (without lens)
Dimensions	54mm×54mm×48mm±0.3mm (without lens)
Operating Case Temperature	-40°C~+50°C
Storage Case Temperature	-45°C~+85°C
Vibration	6.06g, random vibration, 3 axes
Shock	80g, 4ms, final peak sawtooth wave, 3 axes and 6 directions

Applications



Hyperspectral Analysis



Ultra-high Temperature Measurement



Laser Welding

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