

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.



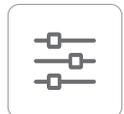
All Weather Multi-Scenario Imaging

- 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

Model	Keen B615
Performance Characteristics	
Detector Type	InGaAs Short-Wave Infrared Detector
Resolution	640×512
Pixel Pitch	15μm
Detector Frame Rate	25/50Hz
Spectral Band	0.9~1.7μm
Quantum Efficiency	≥70%
Operability	≥99.8%
Average Pixel Dark Current	≤ 60fA (@-0.2V image element bias@25°C)
Exposure Time Range	0.1~30ms
Integration type	Snapshot global shutter
Cooling Mode	TEC 1
Depth of Output Data	8bit/10bit/14bit
Image Adjustment	
Palette	Support
Digital Zoom	1.0~2.0× continuous zoom (step size: 0.1)
Image Processing	Non-uniformity correction/Brightness and contrast adjustment/Temporal filtering/Spatial filtering noise reduction/Digital detail enhancement
Mirroring	Horizontal/Vertical/Diagonal
Cross Cursor	Display/Blank/Move
Power and Interface	
Power Supply Range	5-24V DC (Recommended voltage of 12V DC)
Power Consumption	<1.5w (Typical, @25°C)
Digital Video	Cameralink/USB 3.0
Communication Interface	RS-232/RS-422/UART (3.3V)
Optical Interface	C-Mount
Physical Characteristics	
Weight	130±3g
Size	48×48×48.5mm
Environment Adaptability	
Operating Temperature	-40°C~+50°C
Storage Temperature	-45°C~+85°C
Humidity	5-95%, non-condensing
Vibration	6.06g, random vibration, 3 axes
Shock	80g,4ms,the terminal peak sawtooth pulse,3 axes and 6 directions
Product Certification	RoHS2.0

Applications



Semiconductor Testing



Photovoltaic Testing



Laser Tracking



Security Monitoring

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The information is for illustrative purposes only. The pictures and technical specifications are subject to change without notice. Sample No.: O2024-Keen B615-2P001