

Photon M615

Medium-Wave Cooled Infrared Module

Photon M615 medium-wave cooled infrared module is provided with the high-performance HgCdTe cooled infrared FPA detector, and carried with the self-developed image processing algorithm. It reaches the frame rate of up to 100Hz, and has the NETD as low as 15mK. It supports multiple digital video interfaces, is suitable for multiple focus and continuous zoom lenses, and is widely applied in sighting distance enhancement, border and coastal surveillance and other scenarios. It provides an SDK, which is simple and easy to use, reducing secondary development costs.



Product Imaging

Delicate Images with High Sensitivity

- The NETD is as low as 15mK, meeting the requirements of long-distance observation of tiny targets.



Self-Developed Algorithm for Intelligent Imaging

- Equipped with a new self-developed image algorithm, it supports a wide dynamic range and adaptive integral time, providing the best imaging effect for different scenarios.



Higher Frame Rate for Timely Capture

- The resolution is up to 640×512 and the frame rate is as high as 50Hz, meeting the requirements of large-range dynamic target capture.



Applications



Border Surveillance



Coastal Surveillance



Handheld Device



Vision Enhancement

Specifications

Product Model	Photon M615S		Photon M615L	Photon M615D
Specifications				
Detector Type	Mercury cadmium telluride refrigerated infrared focal plane detector			
Resolution	640×512			
Pixel Pitch	15μm			
Frame Rate	100Hz/50Hz	50Hz/30Hz		
F #	F2.0/F4.0	F4.0/F5.5		
Response Band	3.7~4.8μm			
NETD	≤15mK@25°C			
Detector Dead-pixel Rate	≤0.5%			
Cooled Time@25°C	≤7min			
Optional Lens	Straight-tube Focus free : 50mm, 100mm			
	Straight-tube continuous zoom: 15~300mm, 18~275mm, 25~460mm, 33~660mm, 88~1100mm			
	Folded-path continuous zoom: 88~1100mm			
Image Adjustment				
Brightness/Contrast Adjustment	Automatic/manual			
Polarity	Black hot / white hot (default)			
Cross Cursor	Display/hide/move			
Electronic Zoom	1.0~8.0× continuous zoom (step 0.1×)			
Image Processing	Non-uniformity correction, digital filtering noise reduction, digital detail enhancement			
Image Flip	Left/right, up/down, diagonal flip			
Power Source				
Power Supply Range	27~36V DC (with isolation board), typical voltage: 28V	11~13V DC (without isolation board), typical voltage:12V	11~13V DC (without spacer plate), typical voltage: 12V	
Typical Power Consumption @25°C	Stable power consumption≤ 16W, peak power consumption≤ 35W	Stable power consumption≤ 10W, peak power consumption≤ 25W	Stable power consumption ≤ 15W, peak power consumption ≤ 25W	
Interface				
Analog Video	PAL format			
Digital Video	Cmaeralink/SDI	Cameralink/SDI/Ethernet		
Serial Communication Interface	RS422 (default baud rate: 115200)			
External Synchronization	Internal synchronization (default)/external synchronous output/external synchronous input/adaptive synchronization			
Physical Properties				
Dimensions (no lens)	144mm×75mm×81mm (with isolation board)	120 mm×88 mm×57mm (Without spacer plate)	104mm×102mm×55mm (without spacer plate)	
Weight (no lens)	≤ 870g (with isolation board)	≤ 480g (without spacer plate)	≤572g (without spacer plate)	
Environmental Adaptability				
Operating Case Temperature	-40°C~-60°C			
Storage Case Temperature	-45°C~+65°C			
Temperature Shock	-45°C~+65°C (≤5°C/min)			
Random Vibration	6.06g	4.2g		
Shock	Sawtooth waveform, 40g, 11ms (3 axes/ 6 directions, 3 times each)			
MTTF	≥6000h			≥18000h
Storage Life	≥10years			

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