



Photon M615S

Medium-Wave Cooled Infrared Module

Photon M615S 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, perimeter surveillance and other scenarios. It provides an SDK, which is simple and easy to use, reducing secondary development costs.



Product Highlights

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 100Hz, meeting the requirements of large-range dynamic target capture.



Specifications

Model	Photon M615S
Performance Indicators	
Detector Type	HgCdTe cooled infrared detector
Resolution	640×512
Pixel Pitch	15μm
Frame Rate	100Hz/50Hz/30Hz
F#	F2.0/F4.0
Spectral Band	3.7±0.2μm~4.8±0.2μm
NETD	≤15mK@25°C
Detector Defective Pixel Rate	≤0.5%
Cooling Time@25°C	≤7min
Image Adjustment	
Brightness/Contrast Adjustment	Manual/Auto
Polarity	Black-hot/White-hot (white-hot by default)
Reticle	Display/Blank/Move
Digital Zoom	1.0~8.0 continuous zoom (step size: 0.1)
Image Processing	Non-uniformity correction, digital filter noise reduction, digital detail enhancement
Mirroring	Horizontal/Vertical/Diagonal
Power Supply	
Power Supply Range	27~36V DC (with isolation), typical voltage of 28V DC
Power Consumption (Typical, @25°C)	Steady status ≤16W, peak ≤35W
Interface	
Analog Video	PAL
Digital Video	Cmaeralink/SDI
Serial Communication Interface	RS422 (default baud rate: 115200)
External Synchronization	Internal synchronization (default)/external synchronization/adaptive synchronization mode
Physical Characteristics	
Weight (g)	≤870 (with isolation)
Dimensions (mm)	144×75×81 (with isolation)
Environment Adaptability	
Operating Temperature	-40°C~+60°C
Storage Temperature	-45°C~+65°C
Temperature Shock	-45°C~+65°C (≤5°C/min)
Random Vibration	6.06g
Shock	Final peak sawtooth wave, 40g, 11ms (18 times in 3 axes and 6 directions in total)
MTTF	≥6000h
Storage Life	≥10 years

Applications



Perimeter Surveillance



Nature Reserve



Handheld Device



Vision Enhancement

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The information is for illustrative purposes only. The pictures and technical specifications are subject to change without notice. Sample No.: O2025-Photon M615S-2P001