



Photon C330B

Cooled VOCs Gas Detection Thermal Camera

Photon C330B cooled VOCs Gas Detection thermal camera is exclusively designed to detect leakage of organic compounds (VOCs) around the wavelength of $3.3\mu\text{m}$. It features low NETD and a high response rate, converting invisible gases into visible infrared images. It is widely used in fields such as the petrochemical industry, natural gas transportation, and environmental monitoring. The product series supports multiple video output interfaces, providing complete solutions for secondary development of products such as handheld products, UAVs, robots and PTZ.



Product Highlights

High sensitivity and excellent gas visualization capability

- New self-developed gas detection algorithms and NETD as low as 10mK to satisfy observation requirements of remote or micro leakage.



Rich products to satisfy application requirements in various scenarios

- Equipped with multiple detectors and lenses to satisfy application requirements in different scenarios.



Multiple output interfaces for convenient and efficient secondary development

- Support multiple output interfaces such as PAL, Camera Link, RS422, RS422 servo interface, and RJ45 100M Ethernet port to facilitate secondary development.



Specifications

Model		Photon C330B		
Performance Characteristics				
Detector Type		Cooled Infrared Detector		
Resolution		320×256		
Pixel Pitch		30μm		
F#		1.2		
Frame Rate		25Hz		
Spectral Band		3.2±0.2~3.4±0.2μm		
NETD		≤10mK@25°C		
Cooling Time		≤5min@25°C		
Types of Gases for Leakage Detection		Methane, ethane, propane, butane, pentane, hexane, heptane, octane, ethylene, propylene, isoprene, methanol, ethanol, butanone, benzene, toluene, xylene, ethylbenzene, etc.		
Optical Indicator				
Focal Length		23mm	50mm	25~75mm
FOV		23.5°×19°	10.97°×8.78°	25mm: 22.2°×17.7° 75mm: 7.3°×5.9°
Image Adjustment				
Mirroring		Horizontal/Vertical/Diagonal		
Palette		Support (8 palettes)		
Digital Zoom		1.0~4.0× continuous zoom (step size: 0.1)		
Image Processing		Non-uniformity correction/Pixel defect correction/Digital filtering noise reduction/Digital detail enhancement/Self-adaptive contrast adjustment		
Power Supply				
Power Interface		DC 24V (Camera Link)/POE IEEE 802.3AT (Ethernet port)		
Power Protection		Overvoltage, undervoltage, and reverse connection supported by user extension components (Camera Link)		
Power Consumption@25°C	Maximum Power Consumption	≤18W (Camera Link) /22W (Ethernet)		
	Stable Power Consumption	≤12W (Camera Link) /15W (Ethernet)		
Interface				
Electrical Interface		Camera Link, RS422, RS422 servo interface (Camera Link)		
		RJ45 100M Ethernet port (Ethernet port)		
Analog Video		PAL system (base) (not available for Ethernet port)		
Digital Video		Camera Link (not available for Ethernet port)		
Control		Software control via the upper computer (RS422; Baud rate: 115200)		
Physical Characteristics				
Weight		850g (Camera Link, without lens)		
		≤1.0Kg (Camera Link, including the shell & 23mm fixed-focus lens)		
		1.22Kg (Camera Link, including the shell & 50mm fixed-focus lens)		
		1.98Kg (Camera Link, including the shell & 25~75mm continuous zoom lens)		
		≤1.55Kg (Ethernet, including the shell & 50mm fixed-focus lens)		
		≤2.04Kg (Ethernet, including the shell & 25~75mm continuous zoom lens)		
Dimensions		135×76×87mm (Camera Link, without lens)		
		173×78×90mm (Ethernet, including the shell, base & 23mm fixed-focus lens)		
		187×78×90mm (Camera Link, including the shell & 50mm fixed-focus lens)		
		254.5×103×100mm (Camera Link, including the shell & 25~75mm continuous zoom lens)		
		187×80×90.2mm (Ethernet, including the shell & 50mm fixed-focus lens)		
		254.5×105×100mm (Ethernet, including the shell & 25~75mm continuous zoom lens)		
Environment Adaptability				
Operating Temperature		-20°C~+50°C		
Storage Temperature		-30°C~+60°C		

Applications



Gas Detection



Petrochemical Industry



Environmental Monitoring



Gas Transportation

Raythink Technology Co., Ltd.

Company Address: No.5 Wanshoushan Road, Fulaishan Street, Yantai Area of China (Shandong) Pilot Free Trade Zone Postal Code: 264000
 Official Website: <http://www.raythink-tech.com> Service Email: sales@raythink-tech.com

The information is for illustrative purposes only. The pictures and technical specifications are subject to change without notice. Sample No.: O2024-Photon C330B-2P001