AUTOMATEMATRIX

Event CAM

Software-Hardware Integrated Solution Provider for Terminal Video Understanding

EVENT CAM

WWW.AUTOMATEMATRIX.COM

EventCAM® 2D

Industrial Event Recording Camera

Efficient Docking of Multiple PLCs

Seamlessly compatible with more than 30 types of mainstream PLCs. Real-time PLC key information is displayed on the screen through OSD, and the data is presented accurately and intuitively.

Intelligent Concurrent Video Recording

Supports 7×24 hours continuous video recording. Combined with external signal triggering mechanism, it can efficiently distinguish between abnormal and normal video to meet complex recording needs.

High Frame Rate

Equipped with 240FPS high frame rate shooting capability, the camera outputs high-definition and delicate images. It accurately captures details, and adapts to the demanding image quality requirements of industrial scenes.

Professional Data Storage

Professional storage technology ensures convenient and efficient data storage, guarantees the safety and reliability of video data, and supports traceable recall at any time.

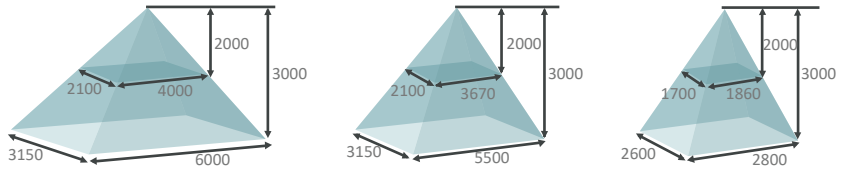
SPECIFICATIONS

Model	XMR-ARJ335	XMR-POEJ335
Specifications	-	POE
Pixels (M)	5	
Resolution	2592(H) × 1944(V)	
Sensor	1/2.8'	
Shutter	Rolling Shutter	
Maximum Frame Rate (FPS)	60	
Voltage (VDC)	24	-
Current (A)	< 0.4	
Mono/Color	Color	
Lens Mount	C/CS/S	
Size (mm)	83.4 x 51.8 x 71	
Weight (g)	Approximately 240	
Installation Dimensions	2-M4, depth: 5mm, hole pitch: 35mm	
External Interfaces	M12 Aviation Plug x 2	
Digital I/O Interfaces	4 channels of optocoupler isolated I/Os	
Industrial Interfaces	Fast Ethernet (1000Mbit/s); RS-485	Fast Ethernet (1000Mbit/s)
Industrial Protocols	ModbusTCP/RTU, TCP/IP, UDP, FTP, RTSP, Websocket, Profinet, Ethernet/IP	
Operating Temperature	-20°C~45°C	
Protection Rating	IP67	
Vibration Rating	4gs (30min 10-120Hz)	
Certification	CE/FCC	

EventCAM 2D is an industrial event recording camera with high-performance image capture and video processing capabilities. It is capable of capturing and recording events within the industrial control system in real time, generating important short video records for further analysis. At the same time, it features industrial data collection and protocol streaming functions. It can integrate with PLCs or robots to obtain real-time status from the control system, including fault alerts, production signals, workpiece scanning results, etc. With comprehensive industrial bus communication protocols, it facilitates seamless integration with production lines.

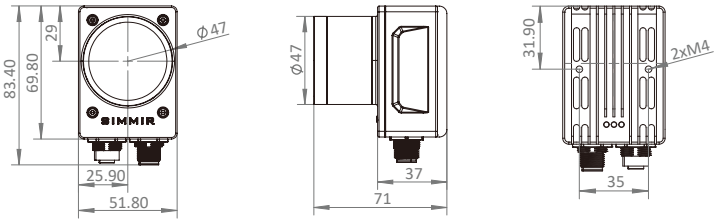
EventCAM 2D offers ultra-high 4K resolution and 240FPS frame rate. High-performance SOCs, ISPs, and low-latency video encoding IP are utilized in EventCAM 2D to ensure image quality.

FIELD OF VIEW (FOV)



90°x 55° (Standard) | 85°x 55° (Standard) | 50°x 38° (Optional)

DIMENSIONS *(Unit: mm)*



Safety EventCAM® 2D

Industrial Safety Camera

Functional Safety PL d

Ultimate Safety and Reliability

Engineered with a dual-chip circuit design featuring cross-redundancy verification, achieving PLd level safety certification and a Mean Time Between Failures (MTBF) exceeding 50,000 hours, this solution is built to withstand all harsh industrial scenarios.

Full Compatibility and Adaptability

Seamlessly connects to more than 95% of mainstream industrial equipment. The system is ready to use without the need for complex debugging. It covers 99% of industrial scenarios.

Lightning-fast Security Identification

Extremely fast inference within 80ms; 360° omni-directional sensing; Pixel-level recognition. This product is a generation ahead of its peer.

Complete Software Tool Chain

100+ feature configurations and support for over 20 mainstream industrial protocols. Customizable AI recognition scenarios and complete SDK available.

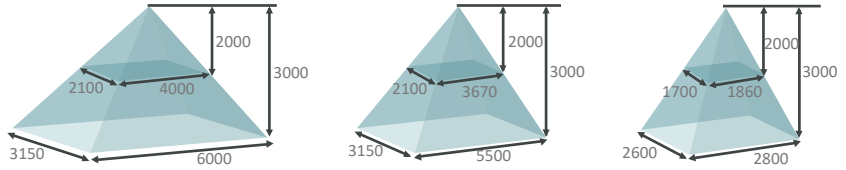
SPECIFICATIONS

Model	SVIC-2D01	SVIC-2D02	SVIC-2D03	SVIC-2D04
Specifications	Low-light Environment Specialized Series	—	Series for Mobile Environment	—
Pixels (M)	8	2	1.3	4
Resolution	3840(H) × 2160(V)	1920(H) × 1080(V)	1280(H) × 1024(V)	2688(H) × 1512(V)
Sensor	1/1.73'	1/2.8'	1/2.7'	1/1.8'
Shutter	Rolling Shutter		Global Shutter	Rolling Shutter
Maximum Frame Rate (FPS)	60	120	180	90
Voltage (VDC)	24			
Current (A)	1			
Mono/Color	Color			
Lens Mount	C/CS/S			
Size (mm)	180 x 56 x 80.8			
Weight (g)	1200			
Installation Dimensions	8-M4, depth:10mm			
External Interfaces	M12 Aviation Plug x 2			
Digital I/O Interfaces	2 redundant channels of optocoupler isolated safety inputs, 24V PNP; 3 redundant channels of optocoupler isolated safety outputs, 24V PNP"			
Industrial Interfaces	Fast Ethernet (1000Mbit/s)			
Industrial Protocols	ModbusTCP/RTU, TCP/IP, UDP, FTP, RTSP, Websocket, Profinet, Ethernet/IP			
Operating Temperature	-20°C~45°C			
Protection Rating	IP67			
Vibration Rating	4gs (30min 10-120Hz)			
Certification	CE/FCC			
Performance Level	PL d (ISO 13849-1)			
Response Time	80ms			
MTTF-D	94.57 Years			
PFH-D	1.14 x 10^{-7}			

Safety EventCAM 2D is a safety event detection camera that complies with PL d standard, as well as ISO13849, IEC61508, and IEC60201 certification standards. Based on AI EventCAM 2D, Safety EventCAM 2D incorporates multiple redundancies including hardware, operating system, software algorithms, and safety outputs. It is also equipped with a comprehensive status detection system.

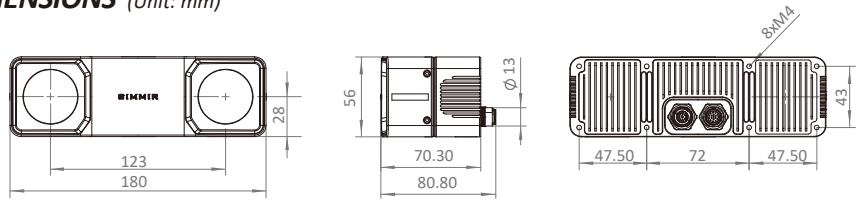
Safety EventCAM 2D aims to provide the automation industry with a new safety protection option. It utilizes advanced technology to address the human protection problems in the industry. This product meets stringent safety requirements and provides comprehensive event detection and recording at the same time.

FIELD OF VIEW (FOV)



90°x 55° (Standard) | 85°x 55°(Standard) | 50°x 38°(Optional)

DIMENSIONS *(Unit: mm)*



AI EventCAM® 2D

AI Event Detection Camera

Powerful AI Processing Capability

Maximum frame rate up to 180FPS; Fast motion analysis within 80ms; Hardware acceleration at the edge; Efficient real-time AI analysis.

Wide Range of Applications

Covering more than 98% of behavioral analysis scenarios, it can easily cope with different environmental conditions and complex scenarios.

Precise Analysis

Embedded with 10+ behavioral understanding inference models trained on huge data sets, the error of action analysis accuracy is less than 2%, and the analysis results are accurate and reliable.

Highly Compatible and Expandable

Supports docking of more than 20 mainstream industrial protocols. Offers comprehensive customization for diverse AI recognition scenarios, complemented by a complete SDK and a rich API.

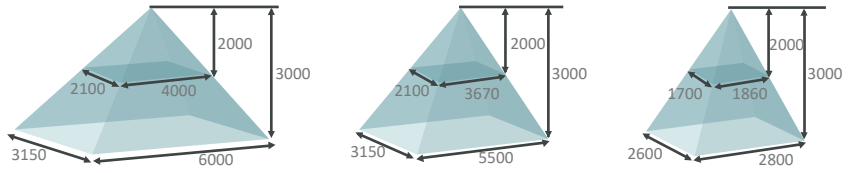
SPECIFICATIONS

Model	XMR-AI01	XMR-AR950	XMR-AR850	XMR-ARJ462	XMR-ARJ130	XMR-POEJ462	XMR-POEJ130	XMR-POE950	XMR-POE850
Specifications	-	-	Low-light Environment Specialized Series	High Frame Rate	Ultra High Frame Rate	POE	POE	POE	Low-light Environment Specialized Series with POE
Pixels (M)	8.3	4	8.3	2	1.3	2	1.3	4	8.3
Resolution	3840(H) × 2160(V)	2688(H) × 1512(V)	3840(H) × 2160(V)	1920(H) × 1080(V)	1280(H) × 1024(V)	1920(H) × 1080(V)	1280(H) × 1024(V)	2688(H) × 1512(V)	3840(H) × 2160(V)
Sensor	1/1.8'		1/1.73'	1/2.8'	1/2.7'	1/2.8'	1/2.7'	1/1.8'	1/1.73'
Shutter	Rolling Shutter		Rolling Shutter		Global Shutter	Rolling Shutter	Global Shutter	Rolling Shutter	
Maximum Frame Rate (FPS)	60	90	60	120	180	120	180	90	60
Voltage (VDC)	24						-		
Current (A)	< 0.4								
Mono/Color	Color								
Lens Mount	C/CS/S								
Size (mm)	86.4 x 59.8 x 71								
Weight (g)	Approximately 300								
Installation Dimensions	2-M4, depth: 5mm, hole pitch: 35mm								
External Interfaces	M12 Aviation Plug x 2								
Digital I/O Interfaces	4 channels of optocoupler isolated I/Os								
Industrial Interfaces	Fast Ethernet (1000Mbit/s); RS-485					Fast Ethernet (1000Mbit/s)			
Industrial Protocols	ModbusTCP/RTU, TCP/IP, UDP, FTP, RTSP, Websocket, Profinet, Ethernet/IP								
Operating Temperature	-20°C~45°C								
Protection Rating	IP65								
Vibration Rating	4gs (30min 10-120Hz)								
Certification	CE/FCC								

AI EventCAM 2D is an AI-powered video event trigger camera, which is an upgraded version of EventCAM 2D. Apart from all the original functions of EventCAM 2D, it is also equipped with AI and DSP engines to enhance the video understanding capability at the edge. A lightweight video processing AI network model and a real-time operating platform are embedded in the system to implement fast and accurate recognition of people's presence, action recognition, trajectory classification, anomaly detection, etc.

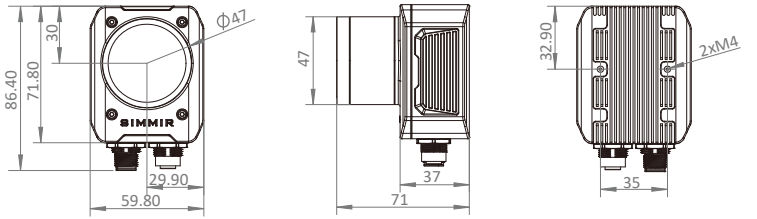
AI EventCAM 2D also offers ultra-high 4K resolution and 240FPS frame rate. It was developed on the heterogeneous chip architecture platform, and the in-house developed video understanding AI models were highly optimized. It incorporates a low-latency video encoding IP and ISP module to provide high-quality images and videos.

FIELD OF VIEW (FOV)



90°x 55° (Standard) | 85°x 55° (Standard) | 50°x 38° (Optional)

DIMENSIONS *(Unit: mm)*



EX EventCAM® 2D

Explosion-proof AI Event Detection Camera

Safe and Reliable

Meets Ex ib IIC T6 Gb/Ex ib IIIC T80°C Db intrinsically safe explosion-proof standards; Supports usage in explosive environments.

Precise Analysis

Embedded with multiple pre-trained models for video comprehension and reasoning trained on very large data sets.

Wide Range of Applications

Covers most of the automated production line scenarios of pyrotechnic products, flammable and explosive products.

Strong Adaptability

Adaptable to most of the mainstream domestic and international robots and industrial equipment.

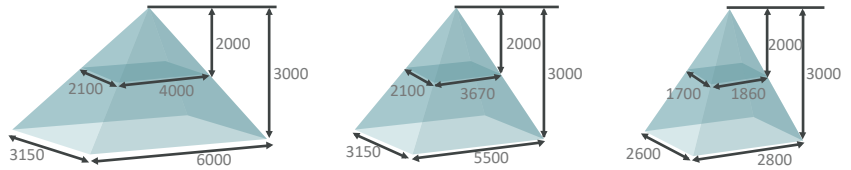
SPECIFICATIONS

Model	XMR-EX950	XMR-EX850	XMR-EXJ335	XMR-EXJ462	XMR-EXJ130
Specifications	AI Intrinsic Safety Explosion-Proof Series	Explosion-Proof Series for Low-light Environments	Intrinsic Safety Explosion-Proof Series	AI Intrinsic Safety Explosion-Proof Series	AI Intrinsic Safety Explosion-Proof Series
Pixels (M)	4	8	5	2	1.3
Resolution	2688(H) × 1512(V)	3840(H) × 2160(V)	2592(H) × 1944(V)	1920(H) × 1080(V)	1280(H) × 1024(V)
Sensor	1/1.8'	1/1.8'	1/2.8'	1/2.8'	1/2.7'
Shutter	Rolling Shutter				Global Shutter
Maximum Frame Rate (FPS)	90	60	60	120	180
Voltage (VDC)	9				
Current (A)	2				
Mono/Color	Color				
Lens Mount	C/CS/S				
Size (mm)	86.4 x 67.8 x 71				
Weight (g)	300				
Installation Dimensions	2-M4, depth: 5mm, hole pitch: 43mm				
External Interfaces	M12 Aviation Plug x 2, M8 Aviation Plug x 1				
Digital I/O Interfaces	4 channels of optocoupler isolated I/Os				
Industrial Interfaces	Fast Ethernet (1000Mbit/s); RS-485				
Industrial Protocols	ModbusTCP/RTU, TCP/IP, UDP, FTP, RTSP, Websocket, Profinet, Ethernet/IP				
Operating Temperature	-20°C~45°C				
Protection Rating	IP65				
Vibration Rating	4gs (30min 10-120Hz)				
Certification	CE/FCC				

EX EventCAM 2D is an industrial event trigger camera that complies with the Ex ib IIC T6 Gb/Ex ib IIIC T80°C Db intrinsic safe explosion protection standards for harsh conditions in explosive atmospheres.

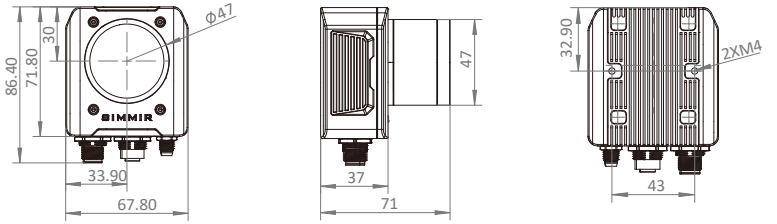
The EX version is an extended version of the EventCAM 2D and AI EventCAM 2D. Its hardware has been specially adjusted to meet the requirements of automated production lines for pyrotechnic products as well as flammable and explosive products. Overall hardware optimizations including on circuit design, electronic components, manufacturing processes, housing structure, assembly processes, as well as testing and aging processes. Significant improvements and enhancements have been made, particularly in protection rating, power supply safety, short-circuit protection, overheating detection, and alarm.

FIELD OF VIEW (FOV)



90°x 55° (Standard) | 85°x 55° (Standard) | 50°x 38° (Optional)

DIMENSIONS *(Unit: mm)*



EventCAM® IR

Dual-spectrum Infrared AI Event Detection Camera

Accurate Analysis

Embedded with multiple AI models of large data sets, it accurately realizes event analysis and intelligent reasoning, and the accuracy of scene understanding is as high as 99%.

Dual Spectrum Collaborative Sensing

By integrating infrared and visible light dual-spectrum imaging, this system overcomes the limitations of day and night, strong and weak lighting, and other complex environmental factors, establishing a 24/7 three-dimensional sensing system to meet diverse monitoring needs.

End-side Technology

This solution innovatively achieves deep synergy between video comprehension algorithms, model compression technology, and chip architecture at the edge, optimizing local real-time computing performance for efficient data processing and decision-making output.

High Adaptability

It supports flexible installation and deployment, and is deeply compatible with domestic and foreign mainstream industrial robots and various types of industrial equipment, seamlessly integrating into the industrial automation ecosystem and adapting to the needs of complex scenarios.

SPECIFICATIONS

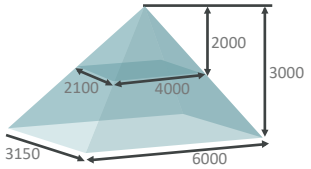
Model	XMR-POE950IR	XMR-POE120IR	XMR-POEC02IR	XMR-POEC05IR	XMR-POEC12IR	XMR-POE130IR	XMR-AR950IR	XMR-ARK120IR	XMR-CG02IR	XMR-CG05IR	XMR-CG12IR	XMR-AR130IR
Specifications	POE		POE				-					
Pixels (M)	8	4	2.4	4	12	1.3	5	4	2.4	4	12	1.3
Resolution	4	2.7	2	4	4	1	2592(H)x1944(V)	2.7	2	4	4	1
Sensor	1/1.8'	1/1.8'	1/1.7'	2/3"	1.1"	1/2.7'	1/2.8'	1/1.8'	1/1.7'	2/3"	1.1"	1/2.7'
Shutter	Rolling Shutter		Global Shutter				Rolling Shutter		Global Shutter			
Maximum Frame Rate (FPS)	60		166	73	30	240	60		166	73	30	240
Voltage (VDC)	24											
Current (A)	<0.4											
Detector Type	Uncooled Vanadium Oxide (VOx) Focal Plane Detector											
Detector Resolution	640×512 384x288 1280x1024											
Pixel Size	12μm											
Thermal Sensitivity	≤40mK@f/1.0											
Focal Length	7mm											
Measurement Range	Low temperature mode: -20°C~+150°C ; High temperature mode: 0°C~550°C											
Image Adjustment	Brightness, contrast, detail enhancement, noise reduction, pseudo-color											
Mono/Color	Color											
Lens Mount	C/CS/S											
Size (mm)	114 x 71 x 70											
Weight (g)	Approximately 550											
Installation Dimensions	2-M4, depth: 5mm, hole pitch: 35mm											
External Interfaces	M12 Aviation Plug x 2											
Digital I/O Interfaces	4 channels of optocoupler isolated I/Os											
Industrial Interfaces	Fast Ethernet (1000Mbit/s)											
Industrial Protocols	ModbusTCP/RTU, TCP/IP, UDP, FTP, RTSP, Websocket, Profinet, Ethernet/IP											
Operating Temperature	-20°C~45°C											
Protection Rating	IP65											
Vibration Rating	4gs (30min 10-120Hz)											
Certification	CE/FCC											

EventCAM IR is a high-performance infrared camera for complex environments, supporting multi-resolution and dual/multi-sensor fusion. Dual-light fusion integrates spectral data for clear imaging in harsh lighting, while multi-sensor fusion filters noise to enhance accuracy.

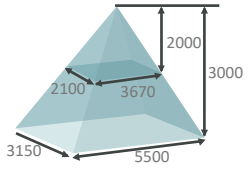
Ideal for dark surveillance, flammable safety, laser welding, and precision temperature measurement: it monitors reliably without visible light, detects fire-prone temperature anomalies, guides real-time welding optimization, and enables non-contact diagnostics for equipment and energy efficiency.

Engineered for industrial inspection, its stable performance empowers precise monitoring and control, enhancing safety and productivity in challenging scenarios, making it a trusted tool for advanced visual detection.

FIELD OF VIEW (FOV)

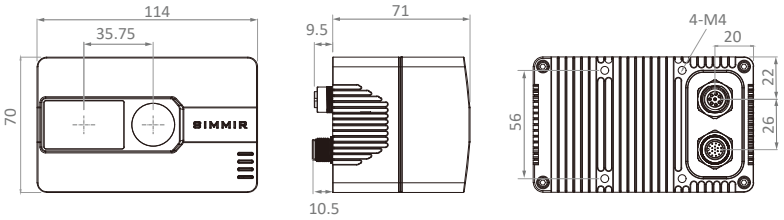


90°x 55° (Standard)



85°x 55° (Standard)

DIMENSIONS *(Unit: mm)*



EventCAM® 3D

3D AI Event Detection Camera

Dual-Sensor High-Precision Imaging

Combining dToF and visible light dual imaging, the point cloud is highly accurate in reproducing 3D details of complex scenes.

Easy-to-use Tool Chain

Supports customized 3D space foreign object intrusion and abnormal trajectory detection; Adapts to diversified scenarios; Supports all mainstream industrial protocols.

Innovative Architecture

Self-developed edge-side acceleration hardware; Integrated 2D/3D heterogeneous chips; Efficient computing power; Real-time processing of bi-spectral data to cope with complex scenes.

High Adaptability

Supports flexible installation and deployment without complex debugging; Compatible with various mainstream industrial equipment; Seamlessly integrated into the industrial automation ecosystem.

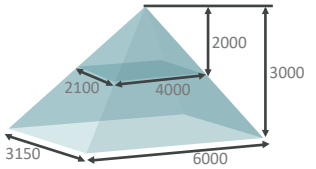
SPECIFICATIONS

Model	XMR-3D01	XMR-3D02	XMR-3D03	XMR-3D04
Specifications	Series with Wide Angle	Series with Normal Field of View	Series with Wide Angle	Series with Normal Field of View
Field of View (FOV)	ToF FOV: 105 x 75 RGB FOV: 90 x 55	ToF FOV: 64 x 50 RGB FOV: 50 x 39	ToF FOV: 105 x 75 RGB FOV: 90 x 55	ToF FOV: 64 x 50 RGB FOV: 50 x 39
Resolution	RGB: 2688 x 1512; ToF: 640 x 480		RGB: 3840 x 2160; ToF: 640 x 480	
Shutter	Rolling Shutter			
Maximum Frame Rate (FPS)	75		30	
Voltage (VDC)	24			
Current (A)	3			
Mono/Color	Color			
Lens Mount	S			
Light Source	940nm Vesel			
Size (mm)	130 x 70 x 70			
Weight (g)	1500			
Installation Dimensions	4-M5, depth: 5mm, hole pitch: 56 x 56mm			
External Interfaces	M12 Aviation Plug x 2			
Digital I/O Interfaces	4 channels of optocoupler isolated I/Os			
Industrial Interfaces	Fast Ethernet (1000Mbit/s); RS-485			
Industrial Protocols	ModbusTCP/RTU, TCP/IP, UDP, FTP, RTSP, Websocket, Profinet, Ethernet/IP			
Operating Temperature	-20°C~45°C			
Protection Rating	IP67			
Vibration Rating	4gs(30min 10-120Hz)			
Certification	CE/FCC			

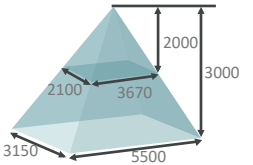
EventCAM 3D is a product isomorphic to EventCAM 2D in terms of the underlying structure, and their operation is also the same. It adds 3D image capture and computation to AI EventCAM 2D. EventCAM 3D combines traditional 3D camera features with an embedded processing system. It is capable of transmitting high-quality RGB-D images and supports AI processing without the need for a separate industrial computer, thanks to its integrated AI processor.

With the embedded in-house developed video understanding algorithms, EventCAM 3D supports a wide range of out-of-the-box features, making it very user-friendly. Its system latency is also far lower than separated architectures, allowing flexible applications in various scenarios. It aims to further lower the barriers of 3D+AI applications and realize codeless deployment.

FIELD OF VIEW (FOV)

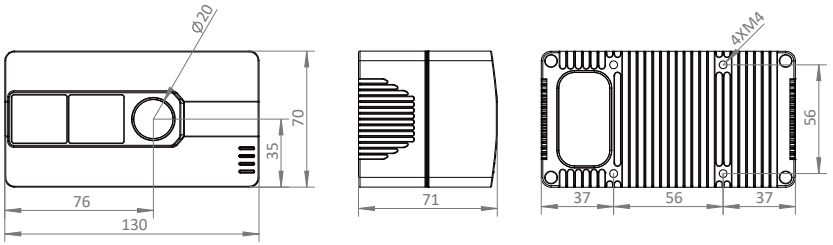


90°x 55° (Standard)



85°x 55° (Standard)

DIMENSIONS *(Unit: mm)*



EventNAS

Intelligent Network Attached Storage

High-performance Hardware

Multi-core processor, dual 10GbE ports + NVMe cache, 20Gb/s speed for complex industrial tasks.

Comprehensive Security

Hardware RAID + security modules resist cyberattacks, ensuring data integrity and safety.

Intelligent Backup & Recovery

Full-scene backup (cloud/local/offline), snapshot technology enables minute - level recovery.

Flexible Expansion

PCIe slots + hot-swappable design, scalable to EB-level storage for diverse industrial needs.

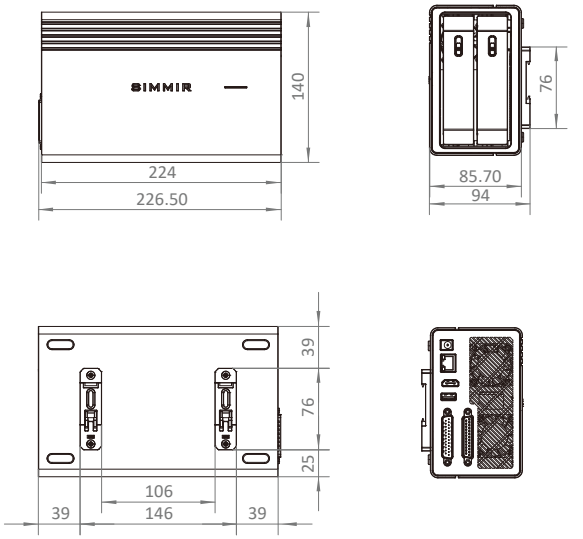
SPECIFICATIONS

Model	XMR-NAS204	XMR-NAS208	XMR-NAS212	XMR-NAS216	XMR-NAS220
Storage Capacity	4T	8T	12T	16T	20T
Operation System	LINUX				
Drive Bays	2 x SATA supporting both hot-swappable and fixed installation mechanisms				
Supported Types of Drives	3.5 inch server mechanical hard drive				
Voltage	24VDC				
Weight	2kg				
Installation Dimensions	C45 Rail Mounting				
External Interfaces	D25 Connector x 2, RJ45, USB, HDMI, DC-power				
Digital I/O Interfaces	16 channels of optocoupler isolated I/Os				
Industrial Interfaces	1 channel of isolation 485 interfaces supporting ModbusRTU protocol; 1 channel of isolation CAN interfaces supporting Canopen protocol; 1 channel of isolation 232 interfaces, 1 channel of non-isolated TTL serial interfaces				
Industrial Protocols	1 gigabit ethernet interface supporting ModbusTCP, TCP/IP, UDP, HTTP, MQTT, FTP, RTSP, Websocket, Profinet, Ethernet/IP				
Operating Temperature	-20°C~45°C				
Protection Rating	IP40				
Vibration Rating	0.5gs (30min 10-120Hz)				
Certification	CE/FCC				

The NAS features a dual-drive base with cluster expansion: single device for basic storage, multi-unit clustering for PB-level capacity scaling, flexibly adapting to data growth. Powered by in-house developed management software, it supports multi-protocol sharing, intelligent caching, and full-lifecycle management, integrating enterprise tools like permission control and snapshot backup (minute-level recovery) for efficient storage.

High-performance hardware: 10GbE ports + NVMe caching enable over 20Gb/s read/write speeds for heavy loads; security includes hardware RAID, intrusion detection, and AES 256 encryption to ensure data reliability.

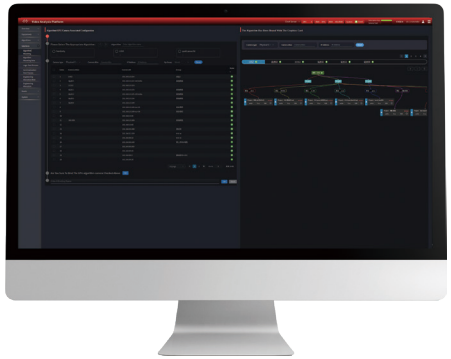
DIMENSIONS *(Unit: mm)*



Video Analysis Platform (AVAP)

AVAP is a intelligent video analysis platform that supports large-scale localized data center deployment. It is compatible with Automate Matrix's intelligent hardware or third-party hardware products and provides open and accessible SDK interfaces.

The system offers functions such as device access and management, device cluster configuration, AI model library configuration, video analysis and calculation, database and data querying, multimedia visualization, etc. It adapts to different application scenarios and provides multiple modules for users to customize and expand according to their needs.



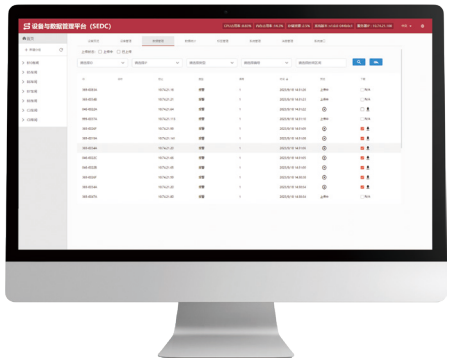
Artificial Intelligence Integrate Platform (AAIP)

AAIP is a cloud-based AI training platform. It has functions including video pre-processing, data labeling, dataset management, model training, model testing, model management, model conversion and downloading. It can integrate seamlessly with all of Automate Matrix's hardware and software products and platforms. AAIP also offers localized deployment services for users with high data confidentiality requirements.

Equipment and Data Center (AEDC)

AEDC is a platform for management on self-developed hardware products and data. It supports large-scale device access and cluster management and can handle massive multi-dimensional data.

AEDC has various out-of-the-box functions, including device status monitoring, communication data management, data labeling and statistics, label management, reporting, and visualization. AEDC also provides open and accessible SDK interfaces for users. It supports both localized and cloud-based deployment.



High-performance analysis platform

Supports large-scale localized data center deployment, capable of processing large amounts of video data and conducting efficient analysis.

Flexible customization and integration

Provides open and accessible SDK interfaces for users to integrate and customize applications easily.

Compatibility with third-party hardware

Compatible with Automate Matrix's intelligent hardware or third-party hardware products to meet the requirements of users for different device choices.

Multiple functions

Supports device access and management, device cluster configuration, AI model library configuration, video analysis and inference, etc.

Large-scale device access and cluster management

AEDC can handle the access and management of numerous devices, allowing users to manage and monitor devices in one place.

Cloud deployment

Users can connect to AAIP through the Internet without configuration of local hardware environments, greatly simplifying deployment and maintenance, and reducing hardware costs.

Massive multi-dimensional data management

AEDC can handle massive multi-dimensional data, helping users manage and analyze data efficiently, thereby extracting valuable information and insights.

Localized deployment

Users can deploy AAIP on local private clouds or terminal computing devices to ensure data security and privacy.

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