AI96-SVR-STD-E1

96CH AI Server



Product Features
Device Connectivity
· Connects to HD IP cameras compliant with ONVIF, RTSP, GB28181 and WebRTC.
· Fully compatible with remote and local M51C camera video streams.
· Supports H.265/H.264 video and IP cameras up to 8 MP.
Intelligent Applications
· Visual management platform.
· Supports platform integration.
· Algorithm and Logic Functions.
· Over 60 built-in algorithms, continually optimized with ongoing upgrade support.

Key advantages compared with other products on the market:

No.	Product Features	Comparable Products on the Market
1	Extensively optimized for hazardous chemical production environments.	Only provide similar basic functions.
2	Built-in algorithms cover most applications, with no additional algorithm purchases required and free lifetime upgrades.	Include only a few algorithms; most require an additional fee.
3	Comprehensive remote management platform with remote maintenance and upgrades, simplifying installation and configuration.	No remote maintenance; personnel must visit the site for installation and commissioning.

4	Embedded Linux with a pure C/C++ architecture; each video channel can run more than 20 好的 algorithms simultaneously.	PC-based architecture limits optimization of concurrent algorithms across multiple channels; heavy configurations are prone to crashes.
5	Highly expandable, with ample storage and memory reserved for future algorithms. Custom algorithms can be developed for specific customer scenarios.	System architecture causes the operating system to occupy substantial space, limiting future algorithm expansion; custom algorithms are costly.
6	Supports flexible integration through multiple APIs.	Limited flexibility.
7	Low power consumption: No more than 100 W for the complete system.	Several hundred watts.
8	Over one year of extensive testing and field use by more than 300 partners has demonstrated product stability and reliability.	Most are at an early stage of development.
9	Supports large vision model applications.	Rarely available.

Host Specifications	
System Parameters	
Main Processor	Low-power 4-core industrial Control chipset
Operating System	Linux
Memory	8G DDR4, maximum 16 G
Storage	512G SSD, other configurations available
Mainboard Form Factor	Mini-ITX
Display Outputs	DP + HDMI outputs
Network Ports	2 x 2.5 GbE ports and 2 x Gigabit Ethernet ports
USB Ports	5 x USB ports
Application Software	
Management System	Built-in management system for configuring AI computing units and managing alarm messages. Supports standalone project operation and GB28181-compliant streaming platforms. Supports rule orchestration for large-model algorithms and secondary verification using large models. (Note: Large-model applications require an embedded large-model computing board.)
AI Computing Units	
BMC16H	Up to 6 x 16-channel AI computing units.
Intelligent Analytics	
Chassis Dimensions	Standard 1U width/height, 482 x 400 x 44.5 mm
Power Supply	220 V, 200 W
Actual Power Consumption	Complete system: ≤ 100 W
Cooling	2 mini fans
Switch	Touch- sensitive switch

AI Computing Unit Specifications	
System Parameters	
Main Processor	Quad-core low-power high-performance process with integrated NPU, Delivering 28.8 TOPS.
Operating System	Embedded Linux
Device Connectivity	
Video Input	ONVIF, RTSP, GB28181, M51C, WebRTC, RTMP Video resolution: Unrestricted, including 720 x 480, 1280 x 720, 1280 x 960, 1920 x 1080 (2MP), 2560 x 1440 (4MP) and 3840 x 2160 (8MP).
Video Decoding	H.264/H.265
Maximum Input Capacity	16 channels of 1080p video
Intelligent Analytics	
AI algorithms: Multiple algorithms run in parallel and can be configured per channel, including face recognition, structured analytics, behavior alerts and environmental anomaly detection. Over 60 algorithms are available and can be enabled by selecting the corresponding options.	**Face-to-person association + face recognition**: Up to 8/16 channels at full load Face capture, face recognition, facial attributes, person capture, person attributes and face-to-person association
	Structured video analytics: Up to 8/16 channels at full load **Image capture**: Faces, people, motor vehicles, non-motor vehicles and license plates **Attribute output**: Faces, people, motor vehicles, non-motor vehicles and license plates **License plate recognition** **Associations**: Face-to-person, vehicle-to-license-plate and person-to-non-motor-vehicle
	Behavior Detection Algorithms **Abnormal behavior**: **1)** Falls **2)** Smoking **3)** Phone calls **4)** Looking at a phone **5)** Running **6)** Sleeping on duty **7)** Leaving a post **8)** Crowding **9)** Fighting **10)** Calls for help
	Alert Algorithms - Intelligent Alerts **A. Environmental anomalies**: **1)** Flame alarms **2)** Smoke alarms **3)** Fire safety equipment detection **4)** Clutter accumulation (8 waste types) **5)** Warning signs **6)** Improper fuel unloading **B. PPE violations**: Alarms for **1)** No safety helmet **2)** No mask **3)** No workwear **4)** No safety harness **5)** No reflective vest **C. Perimeter alerts - people**: **1)** Loitering **2)** Wall climbing **3)** Intrusion **4)** Line crossing **5)** Excessive occupancy **6)** Insufficient occupancy **7)** Person leaving **8)** Overstaying **D. Perimeter alerts - vehicles**: **1)** Motor vehicles in no-parking zones **2)** Motor vehicle departure **3)** Non-motor vehicles in no-parking zones **4)** Non-motor vehicle departure

	5) Riding without a helmet **6)** Motor vehicle count above threshold **7)** Motor vehicle count below threshold **8)** Prohibited entry of special vehicles (19 types) **9)** Riding a motorcycle into a gas station
Event Reporting	1) Face capture, face recognition and facial attribute results 2) Capture and attributes of faces, people, motor vehicles, non-motor vehicles and license plates; license plate recognition results 3) Security alerts 4) Scheduled capture
Faces	Capture rate ≥ 99%
	False capture rate < 1%
	Allowlist recognition pass rate > 99.5%
	False recognition rate < 0.5%
	Maximum face database: 300,000 portraits
People	Capture rate ≥ 95%
	False capture rate < 1%
Motor Vehicles	Capture rate ≥ 90%
	False capture rate < 1%
Non-motor Vehicles	Capture rate ≥ 95%
	False capture rate < 1%
License Plates	Capture rate ≥ 95%
	False capture rate < 1%
	Recognition rate ≥ 95%
Other Alerts	Capture rate ≥ 90%
Platform Expansion	
AI Expansion	Supports AI algorithm expansion and remote upgrades/deployment.
Platform Integration	Integration with upper-level platforms via UDP, TCP, HTTP and Web APIs
National Standard Support	Supports GB28181 platform cascading.
Interfaces	
Network Ports	2 x 100/1000 Mbps auto-sensing Ethernet ports
Reset Button	1
Power Indicator (PWR)	1
Status Indicator (RUN)	1
System Functions	
Network Protocols	TCP/UDP/HTTP/MULTICAST/DHCP/FTP/NTP/HTTPS/RTSP/GAT1400, etc.
Management System	Embedded web management system for channel configuration, alarm rules and parameters; supports plugin-free video viewing and alarm image information lists.
Log Search	Query, search and display capture information for faces, people, motor vehicles, non-motor vehicles and license plates.

Environmental Requirements	
Operating Temperature	-20°C to +40°C
Storage Temperature	-30°C to +70°C
Relative Humidity	10% to 90% RH, non-condensing
Other Specifications	
Power Supply	DC 220V ±10%, 2 A
Chassis	Metal Chassis
Dimensions (L x D x H)	482 x 400 x 44.5 mm
Weight	< 8 kg
Package Dimensions	540 x 535 x 147 mm
Overall Dimension	

