



Artificial Intelligence Fire Detection



Next generation artificial intelligence fire detection

Aicuda's VAIDIO Series detect fire and smoke automatically in real-time with artificial intelligence technology and triggers an alarm when a fire or certain threshold of smoke enters the camera's field of view. The rapid detection of fire and smoke can save lives and prevent property damage. The VAIDIO product range has self-learning capabilities and will constantly improving its accuracy as the number of fire and non-fire situations occur. Detection works under different lighting conditions, challenging backgrounds and extreme weather conditions.

VAIDIO 100 Series SMB

Intelligent appliance for small-and-medium sized video surveillance deployments. Reliable and easy to set up. It is the ideal solution for customers requiring a cost-effective solution. The VAIDIO search engine is intuitive and based on easy-to-use natural language interface.



VAIDIO VSB 110 / 130

VAIDIO 500 Series Enterprise

Intelligent appliance ideal for mid-sized as well as large-sized video surveillance installations. Reliable, cost-effective and easy to deploy and maintain. Powerful solution for the most demanding artificial intelligence tasks.

There are 4 enterprise models available. VAIDIO VSB 510 is offered with a single NVIDIA 8GB High Performance GPU. VAIDIO VSB 530 and 550 are equipped with a dual NVIDIA 8GB High Performance GPU. VAIDIO VSB 570 is offered with a dual NVIDIA 16GB High Performance GPU.

Highlights

- Excellent value for an intelligent surveillance appliance
- VAIDIO solutions are trained, not programmed
- Significant time and cost savings
- Out of the box solution
- 2 year warranty on hardware / 1 year software maintenance
- Supports all ONVIF devices

Ideal for:

- Small-sized installations: gas stations, hotels, retail stores



VAIDIO VSB 510 / 530 / 550 / 570



📍 Highlights

- High-performance intelligent appliance
- Up to 128 channels
- VAIDIO solutions are trained, not programmed
- Out of the box solution
- 2 year warranty on hardware / 1 year software maintenance
- Supports all ONVIF devices

Ideal for:

- Mid-sized installations: apartment complex, commercial kitchens, offices.
- Large-sized installations: airports, forests and parks, historic monuments, hospitals, manufacturing plants, mining areas, public facilities, schools, shopping centers, train stations, tunnels, zoos



Simple configuration

The open architecture technology of the VAIDIO Series makes it easy to integrate with 3rd party hard- and software products. Connect to surveillance cameras for live streaming or to NVR or DVR for playback. Meta data is extracted from video files and stored on the VAIDIO appliance for fast video search and review.

Key Functions

VAIDIO Series patented technology can track fire and smoke in real time, show detected fire and smoke events on the map based on camera location and provide alerts and updates to the proper authorities and security officers via e-mail, mobile app or smart integration with 3rd party VMS.

Features

Artificial Intelligence	Intelligent detection of fire and smoke when it appears in the video footage from recorders or directly from the cameras. Provide critical video images to handle fire and smoke incidents in real-time.
Alert	Detect fire and smoke in real-time from multiple camera live streams and send alerts via smart phone, e-mail or integration with 3rd party VMS or sensor-based detection system. Simple-to-use Graphic User Interface (GUI) for alert generation. Aicuda mobile App support for smart phones (iPhone and Android) to enable detection and manage alerts.
Integration	Support live streams from all ONVIF IP-based cameras. Works as a stand-alone appliance or integrate with 3rd party VMS or sensor-based detection system to increase the range of alert actions (water spraying, lighting, siren). Compatible with cameras like Axis, Bosch, Hanwha, Mobotix, Sony and others. Compatible with leading VMS like Axxonsoft, Digifort, Genetec, ISS, Milestone, Qognify and others.



Deep Learning Technology

Surveillance is a repetitive and mundane task. This may cause performance dips for human beings. Aicuda Technology is developing AI solutions based on deep learning to let the technology do the surveillance for us.

Customer pain points

- Inability to perform object and person search in recorded video files from multiple sources like surveillance camera, internet or smartphone.
- Option for fast, real-time search for hundreds of object types is not available.
- Accidental elimination or overlooking of key video events due to human errors.
- High false alarm rates due to the inability to distinguish different object types in legacy sensor-based systems.
- Unavailability of an all-in-one solution that is able to support video search, face recognition, fire detection, weapon detection and real time alerts with a high accuracy rate.

Aicuda VAIDIO customer benefits

Aicuda VAIDIO intelligent fire detection is the industry's first artificial intelligence solution with a simple and easy user interface. The intelligent software eliminates the need to manually inspect hours of video for objects or persons of interest. The VAIDIO Series seamlessly transforms video into actionable intelligence.

- **All-in-One Solution**
Supports multiple functions like video search, face recognition, fire detection, intrusion detection, license plate recognition, and weapon detection.
- **Ability to learn**
Platform is able to learn from experience using a multi-layer neural network. It is trained to recognize items and patterns, not programmed.
- **Intuitive, easy-to-use interface**
Google-like search engine and intuitive result display based on easy-to-use natural language interface.
- **Plug-and-play**
Out of the box ready to use artificial intelligence solution with pretrained self learning artificial intelligence models.
- **Partner Proven**
Fully compatible with ONVIF IP cameras like Axis, Bosch, Hanwha, Mobotix and Sony. Compatible with leading VMS, including Axonsoft, Digifort, Genetec, ISS, Milestone, Qognify and others.
- **Significant increase in productivity**
Rapidly pinpoint persons and objects of interest. Review hours of video in minutes.





Product Specifications

Model	VAIDIO VSB-110	VAIDIO VSB-130	VAIDIO VSB-510	VAIDIO VSB-530	VAIDIO VSB-550	VAIDIO VSB-570
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Product Image



Model Series	VAIDIO 100 series	VAIDIO 100 series	VAIDIO 500 series	VAIDIO 500 series	VAIDIO 500 series	VAIDIO 500 series
Video Search	Max. 13 channels	Max. 26 channels	Max. 26 channels	Max. 52 channels	Max. 52 channels	Max. 96 channels
Intrusion Detection	Max. 8 channels	Max. 16 channels	Max. 16 channels	Max. 32 channels	Max. 52 channels	Max. 64 channels
FR / FS	Max. 4 channels	Max. 8 channels	Max. 8 channels	Max. 16 channels	Max. 32 channels	Max. 32 channels
FR Database	1000 persons (5 faces per person)	1000 persons (5 faces per person)	10,000 persons (5 faces per person)	10,000 persons (5 faces per person)	10,000 persons (5 faces per person)	10,000 persons (5 faces per person)
Object Left Behind	Max. 4 channels	Max. 8 channels	Max. 8 channels	Max. 16 channels	Max. 32 channels	Max. 32 channels
AI PPE	Max. 8 channels	Max. 16 channels	Max. 16 channels	Max. 32 channels	Max. 52 channels	Max. 64 channels
AI People Count	Max. 2 channels	Max. 4 channels	Max. 4 channels	Max. 8 channels	Max. 16 channels	Max. 16 channels
AI Vehicle Count	Max. 2 channels	Max. 4 channels	Max. 4 channels	Max. 8 channels	Max. 16 channels	Max. 16 channels
Clustering	Yes	Yes	Yes	Yes	Yes	Yes
Form Factor	Tower-PC	Tower-PC	1U-Server	2U-Server	2U-Server	2U-Server
CPU	Intel Core i5	Intel Core i7	Intel Xeon	Dual Intel Xeon	Dual Intel Xeon	Dual Intel Xeon
AI GPU	NVIDIA Performance GPU 4GB	NVIDIA Performance GPU 8GB	NVIDIA Performance GPU 8GB	NVIDIA Performance Dual GPU 8GB	NVIDIA Performance Dual GPU 8GB	NVIDIA Performance Dual GPU 16GB
AI Storage	Include one 1TB HDD 1x 3.5" SATA III internal disk bay	Include one 2TB HDD 1x 3.5" SATA III internal disk bay	Include one 2TB HDD 2x 3.5" SATA III hot swap disk bay	HDD not included 6x 3.5" SATA III hot swap disk bay	HDD not included 6x 3.5" SATA III hot swap disk bay	HDD not included 6x 3.5" SATA III hot swap disk bay
Network	One Gigabit Ethernet	One Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet
System HDD	240GB SSD	240GB SSD	480GB SSD	Dual 480GB SSD	Dual 480GB SSD	Dual 480GB SSD
Memory	8GB	16GB	16GB	32GB	64GB	64GB
RAID Support	No RAID Support	No RAID Support	RAID 0,1 Support	RAID 0,1,5,6 Support	RAID 0,1,5,6 Support	RAID 0,1,5,6 Support
HDD Support	1, 2, 4, 6, 8, 10, 12TB					
Stackable	Yes	Yes	Yes	Yes	Yes	Yes
Rack Mount	No	No	Yes	Yes	Yes	Yes
Video File Format	MP4,WMV,AVI, MOV,MPG	MP4,WMV,AVI, MOV,MPG	MP4,WMV,AVI, MOV,MPG	MP4,WMV,AVI, MOV,MPG	MP4,WMV,AVI, MOV,MPG	MP4,WMV,AVI, MOV,MPG
Supported codecs	H.264, H.265, MJPEG, MPEG1, MPEG2, MPEG4, VC1, VP8, VP9					
File-Based Ingestion	Multi File Videos or Single File Videos					
Warranty	2 years warranty HW 1 year SW maintenance					

- * For every camera channel with Aicuda Technology Video Analytics, Video Search is automatically included.
- * People Counting includes people counting, person reverse direction movement, person fall / crouch and loitering detection.
- * Vehicle Counting includes vehicle counting, vehicle reverse direction movement and illegal parking detection.
- * Design and specifications are subject to change without notice.

