



License Plate Recognition



Next generation artificial intelligence LPR solution

Aicuda's AIVA LPR Series enable high performance intelligent detection and recognition of license plates in real-time or from recorded video files. It utilizes deep learning algorithms to help identify and trace stolen vehicles, recognize regular customers to develop loyalty programs, detect permit and non-permit holders and improve site security. With a flexible, scalable and open design the AIVA LPR Series are easy to deploy and maintain. Suitable from small business to enterprise solutions for different segments of the surveillance market such as parking, access control, red light enforcement, traffic monitoring, tolling systems and high-speed enforcement.

Simple configuration and management

The open architecture technology of the AIVA LPR 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 AIVA appliance for fast video search and review.



Highlights

- Excellent value for an intelligent LPR surveillance appliance
- 3 application modes - parking lot, city road, highway - to optimize performance
- AIVA 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: drive-throughs, gas stations, toll stations, retail stores

AIVA LPR Series SMB

Intelligent LPR 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 LPR solution. The AIVA search engine is intuitive and based on easy-to-use natural language interface.



AIVA-LPR 110 / 130



AIVA-LPR 510

AIVA LPR Series Enterprise

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

📍 Highlights

- High-performance intelligent appliance
- 3 application modes - parking lot, city road, highway - to optimize performance
- Up to 32 AI resources
- AIVA solutions are trained, not programmed
- Out of the box solution
- 2 year warranty on hardware / 1 year software maintenance

Ideal for:

- Mid-sized installations: secured apartment complex, construction sites, hotels, supermarkets
- Large-sized installations: airports, banks, casinos, city surveillance, government, prisons, public facilities, schools, shopping centers, transportation, warehouses

Key Functions

AIVA LPR Series operate in 3 different application modes to optimize performance and resource usage: parking lot (vehicle speed < 5 kilometers/hour, require 2 AI resources per LPR channel), city road (vehicle speed ≤ 70 kilometers/hour, require 4 AI resources per LPR channel) and highway (vehicle speed > 70 kilometers/hour, require 6 AI resources per LPR channel). The operator can select the appropriate mode to consume a minimum of AI computing resources while maintaining the best accuracy.

Features

Detection	Capture and read license plates from an angle of 20° (when the license plate is not completely in front of the camera). Works under different lighting conditions and in the most challenging weather conditions.
Recognition and Search	Enables operator to search for license plate numbers in two ways: search in recorded videos and search in lists. Automatically match detected license plates with saved lists. Enables partial license plate search and vehicle search based on type and color.
Alert	Provide real-time alerts. AIVA LPR is continuously processing video from multiple camera live streams to capture and identify license plates. Set alerts for license plates that are in a list or not in any list. Show detected events on the map based on the camera location. Track target objects like stolen cars by event time stamp and camera location. Set schedule for alerts (for example: alert when vehicle in list X enters the factory between 6pm - 7am from Monday to Friday and during the weekend).
Record and listing	Record license plates with time stamp and camera location for easy review. Add multiple blacklists / whitelists. Add captured license plate to existing or new lists. Edit misidentified license plates.
Viewing	Support live views from vehicles that enter and leave secured areas. Display cropped snapshots of license plates, including the corresponding 10-seconds clip of the event.
System and integration	Support the license plate formats and languages of 100+ countries. Support live streams from all ONVIF IP-based cameras. Enable viewing live streams as a video wall in the AIVA user interface. Compatible with cameras like Axis, Bosch, Hanwha, Sony and others. Compatible with leading VMS like Axxonsoft, Digifort, Genetec, ISS, Milestone 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 license plate and vehicle 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, intrusion detection, license plate recognition and real time alerts with a high accuracy rate.

Aicuda AIVA benefits for the customer

Aicuda AIVA license plate recognition 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 AIVA LPR 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 objects 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**

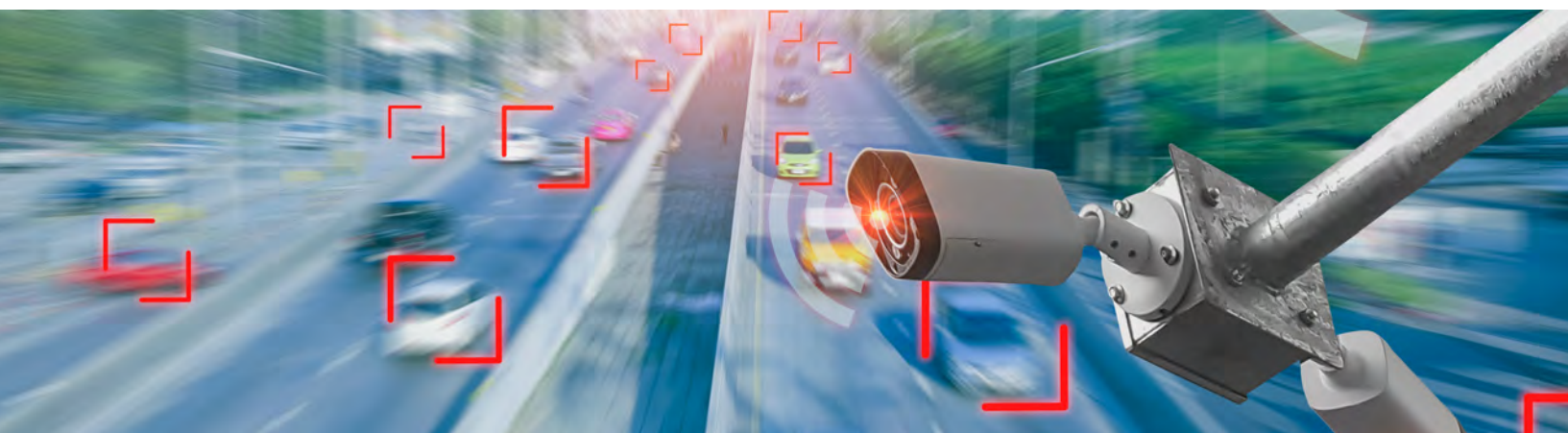
Out of the box ready to use artificial intelligence solution with pretrained self learning artificial intelligence models.

- **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 and others.

- **Significant increase in productivity**

Rapidly pinpoint persons and objects of interest. Review





Product Specifications



Model	AIVA-LPR 110	AIVA-LPR 130	AIVA-LPR 510
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Product Image



Model Series	AIVA-LPR 100 series	AIVA-LPR 500 series	AIVA-LPR 500 series
AI resources	16	32	32
AI LPR - highway mode	Max. 2 channels	Max. 5 channels	Max. 5 channels
AI LPR - city road mode	Max. 4 channels	Max. 8 channels	Max. 8 channels
AI LPR - parking lot mode	Max. 8 channels	Max. 16 channels	Max. 16 channels
Central Search	Yes	Yes	Yes
Form Factor	Mini-PC	Mini-PC	1U
CPU	Intel Core i5	Intel Core i7	Intel Core i7
AI GPU	NVIDA Performance GPU	NVIDA Performance GPU	NVIDA Performance GPU
AI Storage	Include one 1TB HDD 1x 3.5" SATA III cold swappable disk bay	Include one 1TB HDD 1x 3.5" SATA III cold swappable disk bay	Include one 1TB HDD 2x 3.5" SATA III hot swappable disk bay
Network	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet
System HDD	128GB SSD	128GB SSD	2x 240GB SSD (RAID1)
Memory	8GB	16GB	16GB
RAID Support	No RAID Support	No RAID Support	RAID 0, 1
HDD Support	1, 2, 4, 6, 8, 10TB HDD	1, 2, 4, 6, 8, 10TB HDD	1, 2, 4, 6, 8, 10TB HDD
Stackable	Yes	Yes	Yes
Rack Mount	No	No	Yes
Video File Format	MP4,WMV,AVI,MOV,MPG	MP4,WMV,AVI,MOV,MPG	MP4,WMV,AVI,MOV,MPG
Supported codes	H.264, H.265, MJPEG, MPEG1 MPEG2, MPEG4, VC1, VP8, VP9	H.264, H.265, MJPEG, MPEG1 MPEG2, MPEG4, VC1, VP8, VP9	H.264, H.265, MJPEG, MPEG1 MPEG2, MPEG4, VC1, VP8, VP9
File-Based Ingestion	Multi File Videos or Single File Videos	Multi File Videos or Single File Videos	Multi File Videos or Single File Videos
Deployments	SMB	SMB	Enterprise
Warranty	2 years warranty HW 1 year SW maintenance	2 years warranty HW 1 year SW maintenance	2 years warranty HW 1 year SW maintenance

* For every camera channel with LPR, Video Search is automatically included without requiring additional AI resources.

* Supports 3 LPR modes: highway, city road and parking lot. Region license plate support.

* Design and specifications are subject to change without notice.

