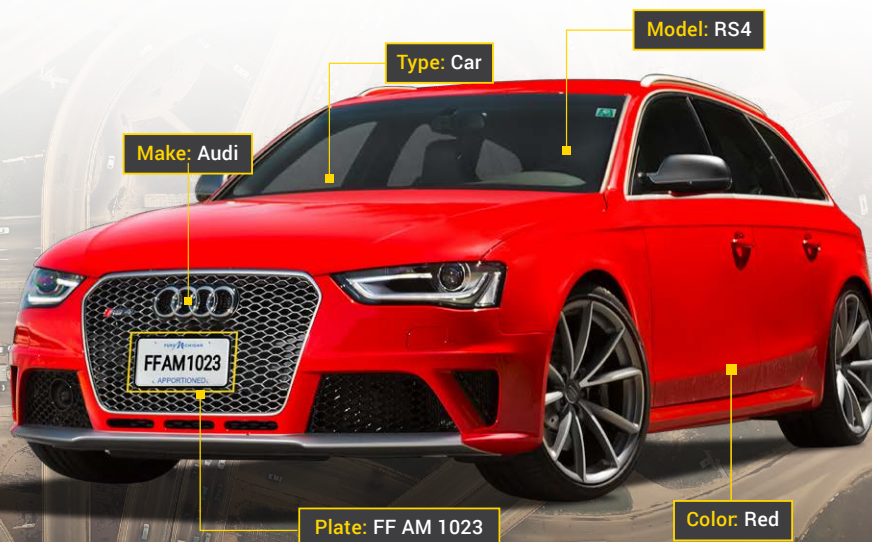# CAMMRA™

CAMMRA

high-speed camera-based application for vehicle license plate, make, model, colour and type recognition

CAMMRA is an universal vehicle recognition app for various traffic, parking and law enforcement scenarios. The app uses Axis camera image and edge processing power for capture and recognition of all vehicle license plates in high speed and multi-lane environment. Additionally, it recognizes also vehicle make (brand), model and classifies it into vehicle classes and recognizes vehicle colours. As a result, the customer can use the recognized data for vehicle search, raising alarms, triggering barriers or other devices and generate various reports, calculations and data insights realized in dashboards in FF DataFactory or other 3rd party software.

> Captures and recognizes vehicle license plates in all speeds and scenarios

> Recognizes vehicle make and model

> Recognizes 11 vehicle colours

> Classifies vehicles in 7 classes

> Detects direction of travel of vehicles

> Transmits data in real-time to FF DataFactory or 3rd party system

> Easily integrates with external databases

Model: RS4

Type: Car

Make: Audi

Plate: FF AM 1023

Color: Red

FFAM1023

ff-group.org/cammra

CAMMRA™

An ACAP application for vehicle license plate, make, model, colour and type recognition running on all Axis Communications Artpec 6, 7 and 8 cameras using ACAP open platform

Product specifications

Supported CPU	Artpec 6, 7 and 8
Recommended cameras	Q1700-LE, P1465-LE, P1455-LE, P3255-LVE, P3265-LVE, Q1656-LE, P3925-LRE, Q1785-LE, Q1798-LE
The number of recognized road lanes	up to 2 (recommendation: highway 1 lane, city 2 lanes)
Recognition speed, mph	up to 100 mph
Make and model data set	1000 models, 100 brands
Vehicle colours	11 (black, white, red, green, blue, yellow, orange, brown, beige, silver, grey)
Classification	7 types (car, SUV, LCV, van, truck, bus, moto)
Camera black/white lists capacity	20 000 license plates total (10 000 each)
License plate recognition accuracy	95%
Make and model recognition accuracy	90%

Main product features

Detects and recognizes vehicle registration plates (incl. tractor, trailers, motorcycles etc.)

Recognizes vehicle make, model, color and type

Saves database on the camera

Saves screenshots on SD card (up to 100 000 events)

Black and white lists management

Barrier management

Direction detection

Multiple recognition zones

Full / cropped / downscaled screenshot saving

Events storage limiting options

Transfers data to the 3rd-party applications

Axis access control system integration (Axis A1001, Axis A91xx)

Additional product features

Autostart enabled (app starts automatically after reset/restart)

Designed for 24/7 operation

Time synchronization with NTP server

Variable mounting (recommended height from 3 ft to 7 ft)

Saves time of recognition with every event (timestamp)

Works in real-time mode (exchanges data automatically and simultaneously)

Support available on weekdays, working hours

Quarterly software updates

Corridor mode support

Configurable buffer options

Event type sending selection and conditions

Country installation selection

False detections filter available

LPR and MMR threshold configuration

Multiple endpoints for data sending

Secured data sending (HTTPS, self-signed certificates)

Integration

Protocols	ONVIF, VAPIX events, open HTTP management (JSON), TCP, FTP, UTMC
Native integration	FF DataFactory, Milestone XProtect
Other systems	Qognify Cayuga (over SAI), Axis Camera Station (Node red), Genetec Security Center (Smart Plate plugin), Invipo Smart city platform, Digifort, Wavestore, Ateas Security, ISS, Fast Protect, EV Track, CathexisVision, Inner Range Integriti
External databases	Jenoptik TraffiData, Macq M3, NCIC

Regional coverage

All european countries + CIS, Turkey, Israel, South Africa, Indonesia, Australia, Canada, USA, Mexico, New Zealand