



Ekin X SPOTTER

Fixed ANPR, Speed and Traffic
Violation Recognition System



Next Generation Smart City Solutions

Ekin X Spotter is a fixed AI-based traffic enforcement system that performs automatic number plate recognition, speed, and violation detection of all vehicles in its field of view. Equipped with a 4K Super High Resolution sensor and video-based number plate recognition technology, it's able to perform continuous traffic monitoring.



Why Ekin X Spotter?

Self-Contained Design

Offering a compact design, it can be easily mounted on a post, cross arm or used on a tripod to perform traffic analytics and violation detection. Built-in and ready to use GPS, LTE, Wi-Fi, ethernet support, providing versatile application and range.

Fixed Surveillance

Our fixed application provides a surveillance range of 3 lanes. Able to operate in communication with all smart systems citywide, ensuring 100% continuous traffic monitoring.

High-Resolution Videos

Equipped with a 4K Super High Resolution sensor, the **Ekin X Spotter** ensures high-resolution video and ANPR. Able to capture images and videos while maintaining maximum focus and sharpness.

24/7 Surveillance and Traffic Control

Ekin's video-based number plate recognition technology can capture the violation moment as well as the entire traffic flow which offers a distinct benefit when compared to conventional photograph-based systems.

Internationally Applicable

Ekin X Spotter recognizes number plates from multiple regions including Europe, North America, Latin America, Asia, and the Middle East with high accuracy identification.

Central Management by Ekin Red Eagle OS

The Ekin Red Eagle OS operates the complete traffic systems of a city from one central back-office including **Ekin X Spotter** and other Ekin devices. Working simultaneously and in real-time to compare databases, it generates alerts to assure an effective response time from law enforcement officials.



FUNCTIONS

* More than one device is needed for all functions



Smart Traffic Analytics

- Analysis of rush hour congestion for specific points of interest, flow of cars passing toll points including delays and traffic congestion "hotspots" by date and time
- Congestion time monitoring
- Vehicle counting and identification in designated points of interest



Number Plate Recognition

- Ability to capture every number plate in its field of view with its video-based number plate recognition system
- Advance technology for up to 3 lanes
- Simultaneous automatic number plate recognition for approaching, departing, or parked vehicles
- Identification of wanted or stolen vehicles within a specific database
- Vehicle type classification (bus, truck, car, motorbike) based on AI image processing
- Vehicle make, model, color recognition from the front and rear of vehicle



Speed Detection

* Optional

- Automatic speed detection range for the vehicles in its field of view
- Different speed limit adjustment for each lane and/or vehicle type
- Generates automatic citations or reports accurately and with required violation information



Traffic Management Detection

- Red light enforcement and illegal turn violations
- Illegal lane change, tailgating, and safety lane violations
- Generates alerts of traffic congestion and accidents



Parking Enforcement

- Detection of vehicles exceeding the parking time in a defined parking zone
- Generates automatic citations or reports containing required violation information



Video Surveillance

- 24/7 surveillance and video recording
- Day and night 4K video recording, including in adverse weather conditions

ON-BOARD INTELLIGENCE



Fully Automated NPR



Speed Detection



Red Light Violation Detection



Vehicle Counting



Vehicle Make, Model, Color Recognition



Traffic Density Analytics



Vehicle Classification



Tailgating Detection



Lane, Turn, Wrong Way Violations



Vehicle Detection



Stopped Vehicle Detection



Pedestrian Detection

TECHNICAL FEATURES

DETECTION

Fixed Application Speed Detection Range	Up to 320 km/h
Coverage	3 lanes including approaching and departing vehicles
Number of Simultaneously Detected Vehicles	Over 100 vehicles

ILLUMINATION

IR Spot	✓
Day and Night Number Plate Detection	✓
Flash	Optional

SYSTEM SOFTWARE

Automatic Number Plate Recognition	24/7 for all the vehicles in the field of view
Web Service	✓
Protocol	TCP/IP, UDP, NTP, FTP, RAW
Various Database Support	SQL/NoSQL
Alarm Management	✓
Remote Secure Installation and Access	✓
Violation Photo and Video Evidence	✓
24/7 Surveillance Record	✓
Watermark	Applied on all photos and videos
Storage Capacity	Up to 8 TB
Vehicle Color, Brand, Type and Model Recognition	Optional
Communication with Other Safe City Solutions via Ekin Red Eagle OS	✓

CENTRAL SOFTWARE

Various Database Support	SQL/NoSQL
Graded Authorization	Admin, Supervisor, Users
Customizable Fine Printing	✓
SMS and Mail Support	✓
Automatic Update	✓
Log Record	✓

ELECTRICAL FEATURES

Connection Interfaces	Ethernet, LTE, Wi-Fi
Required Power Supply	12-24 VDC min/300 Watt
Power Consumption Average	<40 Watt/Hour

ENVIROMENTAL FEATURES

Operating Temperature	-40°C +60°C
Storage Temperature	-40°C +185°C
Humidity Rate	80-95% non-condensing
Protection Class	IP67
Impact Protection Class	IK10

PRODUCT DIMENSIONS

Dimensions (Width × Length × Height)	213 mm × 150 mm × 122 mm
Weight	3.5 kg



Next Generation Smart City Solutions

Mobile Products

Ekin Patrol G2

Ekin Bike Patrol

Ekin X Spotter *Incar*

Fixed Products

Ekin Spotter

Ekin Box Spotter

Ekin X Spotter



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