Ekin X SPOTTER
Fixed ALPR, Speed and Traffic Violation Recognition System
Ekin X Spotter is a fixed AI-based traffic enforcement system that performs automatic license plate recognition, speed, and violation detection of all vehicles in its field of view. Equipped with a 4K lens and video-based license 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 lens, the Ekin X Spotter ensures high-resolution video and ALPR. Able to capture images and videos while maintaining maximum focus and sharpness.

**24/7 Surveillance and Traffic Control**
Ekins video-based license 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 license 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

License Plate Recognition

- Ability to capture every license plate in its field of view with its video-based license plate recognition system
- Advance technology for up to 3 lanes
- Simultaneous automatic license 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 LPR
- 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: -400...+200 km/h
- Coverage: 3 lanes including approaching and departing vehicles
- Number of Simultaneously Detected Vehicles: Over 100 vehicles

ILLUMINATION
- IR Spot: ✓
- Day and Night License Plate Detection: ✓
- Flash: Optional

SYSTEM SOFTWARE
- Automatic License 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
- Media Local Storage: Up to 2 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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Interfaces</td>
<td>Ethernet, LTE, Wi-Fi</td>
</tr>
<tr>
<td>Required Power Supply</td>
<td>12-24 VDC min/300 Watt</td>
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<tr>
<td>Power Consumption Average</td>
<td>&lt;50 Watt/Hour</td>
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## ENVIRONMENTAL FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
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<tbody>
<tr>
<td>Operating Temperature</td>
<td>-25°C +55°C</td>
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<tr>
<td>Storage Temperature</td>
<td>-25°C +70°C</td>
</tr>
<tr>
<td>Humidity Rate</td>
<td>80-95% non-condensing</td>
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<td>Protection Class</td>
<td>IP67</td>
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## PRODUCT DIMENSIONS

<table>
<thead>
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<th>Feature</th>
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<tbody>
<tr>
<td>Dimension (Width × Length × Height)</td>
<td>213,2 mm × 150 mm × 122,2 mm</td>
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<tr>
<td>Weight</td>
<td>3,5 kg</td>
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</tbody>
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Next Generation Smart City Solutions

Mobile Products
- Ekin Patrol G2
- Ekin Bike Patrol
- Ekin X Spotter

Fixed Products
- Ekin Spotter
- Ekin Box Spotter
- Ekin X Spotter

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