VIGILATE

Patrol A5B

License plate reading cameras for mobile applications

Patrol ANPR

Monitoring stopped vehicles, checkpoints and car patrols.

We speak to the traffic police, the local police and in general the law enforcement agencies operating on the road.
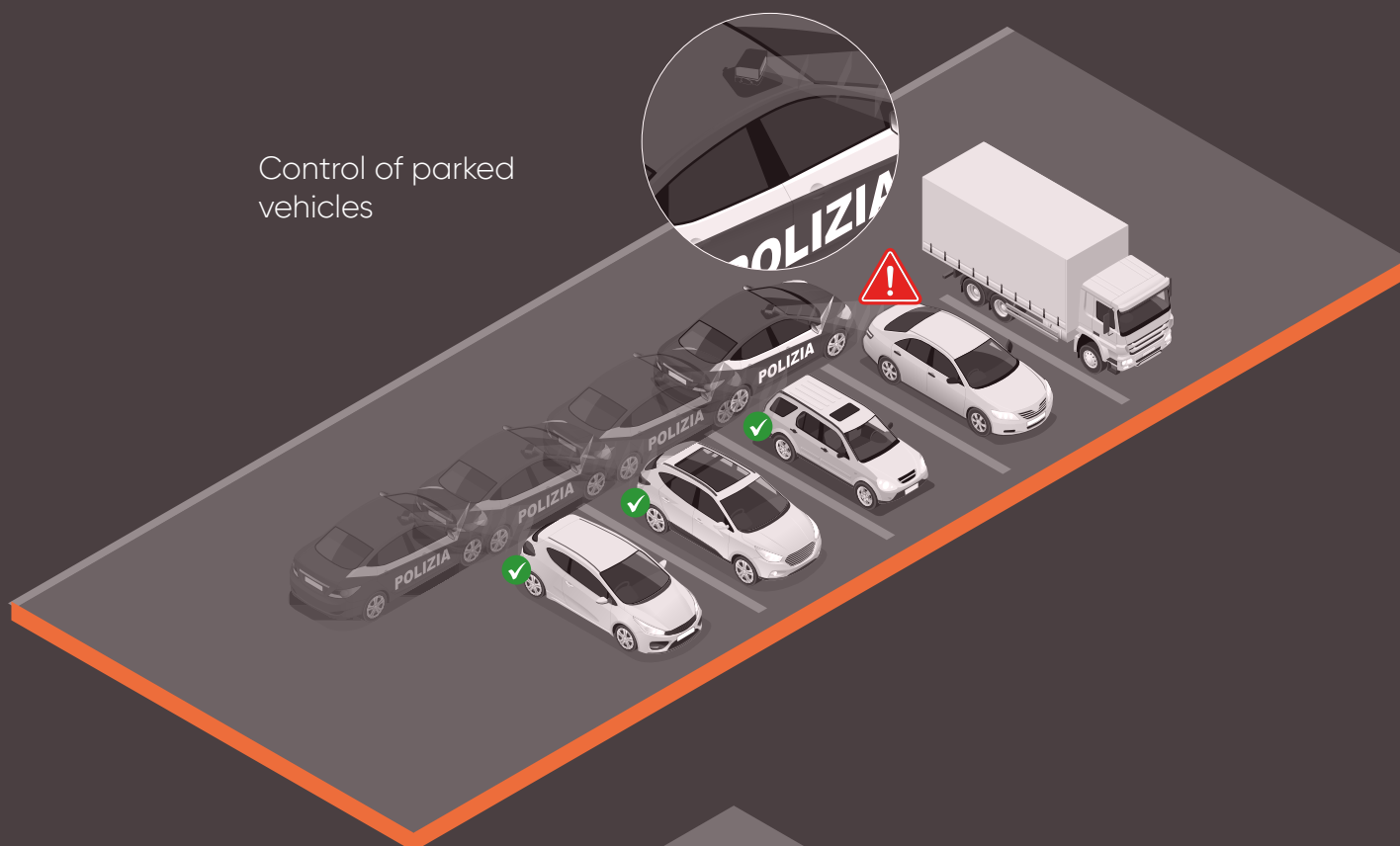
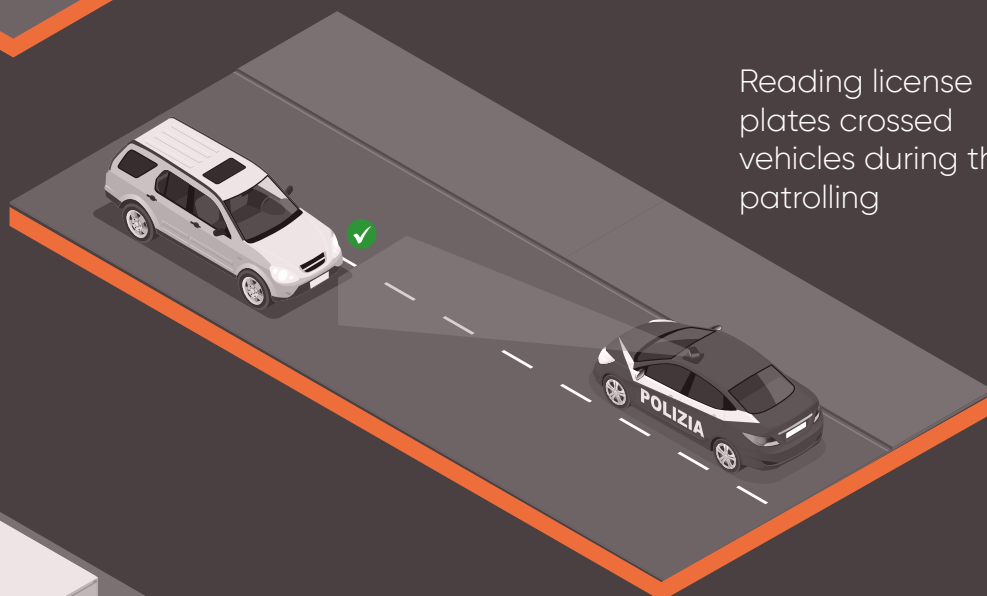## The ideal solution for monitoring during patrolling services

Automatic Number Plate Recognition (ANPR) mobile cameras offer significant advantages during police patrol operations. They allow the rapid identification of vehicles of interest, aiding crime prevention, vehicle recovery and traffic control. Their portability improves the flexibility of surveillance, allowing law enforcement to efficiently cover different locations. Thanks to real-time data analysis capabilities, they improve situational awareness and enable proactive policing strategies. Ultimately, mobile ANPR cameras improve the overall effectiveness of law enforcement by providing officers with crucial information to make informed decisions quickly and accurately.
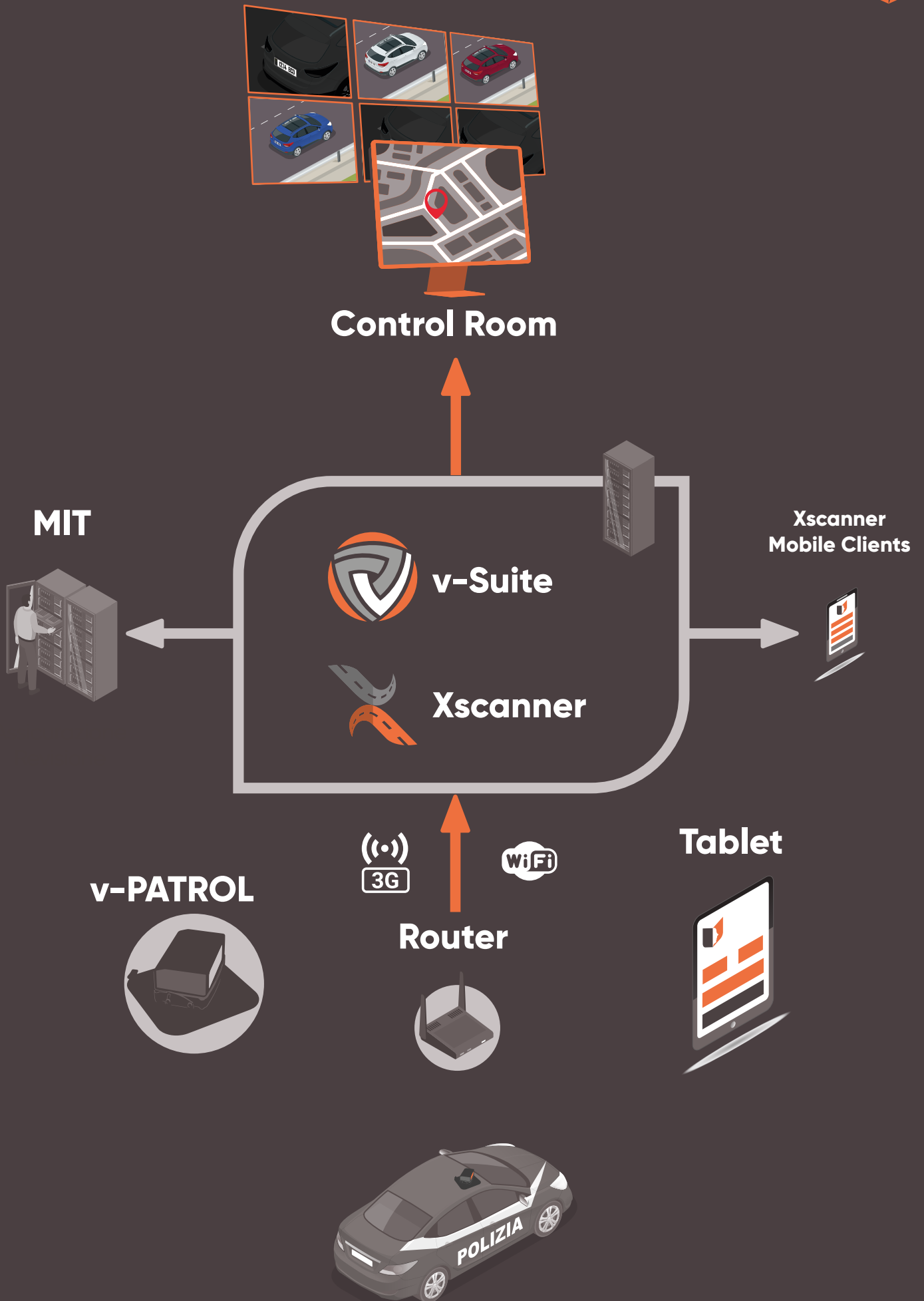
Application examples

Control of parked vehicles

Reading license plates crossed vehicles during the patrolling

Reading license plates in transit in front at the checkpoint

Control Room

MIT

v-Suite

Xscanner

Xscanner Mobile Clients

v-PATROL

3G

WiFi

Router

Tablet

POLIZIA

Main features of the camera

High performance professional OCR

OCR library mixed between traditional approach and neural network to be more precise in character recognition OCR to improve nationality recognition

Double camera

Double head for OCR and Context

Multiple images capture in sync

Strobed pulsed infrared illuminator

Deep Learning

Algorithm training on a neural network directly produced by the Vigilate R&D team.

High-Speed CMOS

Global Shutter, Rolling Shutter, Black/White, Color, from 2 to 12 Megapixel

HD SSD

from 128GB to 4TB HD in solid state technology

Day & Night

High performance day and night

NVIDIA Inside

Powered by NVIDIA deep learning hardware

PoE

UPoE 60W class 6 power supply

API

REST API libraries (with authentication) that guarantee the possibility of integration with third-party systems.

Certifications

EN ISO 9001 :2015 , ISO/IEC 27017:2015
ISDP©10003:2020

Local Nvr function

Continuous recording function on board high resolution video streaming camera; transit video clip production.

Streaming Video

Continuous streaming function RTSP H264, HLS, MJPEG and complete Onvif S profile protocol.

Speed estimate

Transit speed estimation function

ANPR

OCR library on board with 41 European, 13 Asian, 6 African, 5 South American nations and special license plates such as Trailers, Kemler ADR, Kemler ADR Empty, Tram.

Checklist

Black & White List

Vehicles classes

Classificazione diurna dei veicoli per tipologia in 11+ 1 (Macchine, Camion, Camion con rimorchio, Motoveicoli, Motocicli, Ciclomotori, Bus, Mini van, Big van, Cassonati, Caravan, sconosciuto).

Night-time classification of vehicles by type in 4 classes +1 (trucks, buses, cars, motor vehicles and unknown).

Colors

Daytime classification of vehicles by color in 11 classes + 1 (black, white, grey, red, blue, yellow, green, orange, pink, purple, cyan, unknown).

Brand

Vehicle brand classification (around 100 brands supported).

Models

Model classification of vehicles in transit rear view (about 400 models supported).

Cloud Ready

Compatible with Vigilate's v-SUITE general supervision platform.

Patrol

Technical features

General parameters

Software Features	
Operating mode:	• **continuously acquisition (free-run)** • **on request (by SW trigger or HW trigger)** **Both modes can draw on the two local lists that can be configured locally or by remote synchronization with the FTP server**
Real-time diagnostics:	• **CPU temperature** • **Mainboard temperature** • **IR illumination module operation** • **Lighting module current peaks** • **Capture status of physically connected sensors** • **Input current level (power port)** • **Input voltage level (power port)** • **Camera tilt angle** • **Internal humidity level** • **CPU consumption** • **RAM consumption** • **Storage disks status** • **Utilization of the 4 physical cores (CPU monitoring)** • **Check status of operational threads** • **Monitoring of analysis times and operating status of active algorithms** **Generation of any alarms (local and possibly remote) in the face of anomalies detected**
Supported sending protocols:	• **TCP (nei formati binario, XML, string)** • **TCP Milestone** • **FTP (imgs + dati testuali in *.txt/*.csv)** • **RPC-XML over HTTP / HTTPS (messaggio BASE oppure ESTESO)** • **Custom Protocol** • **Seriale (su porta RS 485)** • **Wiegand (è necessario installare SC20 converter)** • **Xentinel message (over HTTP)** • **v-SUITE message (over HTTP / HTTPS)**
Supported communication protocols:	• **TCP/IP** • **RTP/RTSP** • **UDP** • **openVPN** • **HTTP** • **ONVIF (S- profile)** • **HTTPS** • **NTP** • **FTP** • **SNMP** • **FTPS**
Data protection:	• **Possibility to activate the management of the web configurator by HTTPS connection** • **FTPS encryption on TLS/SSL protocol** • **AES-256-ECB encryption for data and images saved locally and/or sent via the supported protocols** • **image hash using SHA-512 algorithm and possible encryption of the signature itself using AES-256-ECB** • **Totally GDPR compliant storage management with periodic deletion of the history** • **Cockpit masking function (in case of front detection of vehicles) in order to ensure respect for privacy** • **Possibility to connect the camera inside an openVPN with certificate installed directly on board** • **Advanced management of the firewall on the machine with the possibility of disabling access to the local servers present on the machine** • **(FTP server, ONVIF server, SNMP server, service ports)**

PATROL A5B

Optical group	
Sensor (OCR + COLOR):	5 MP (2560 x 1936) CMOS COLOR + IR (bispectral) global shutter sensor
Frame rate:	Up to 75 fps
Optics:	Fixed lens (f = 16 mm)
Illuminator	
Integrated IR illuminator:	n. 8 LED IR (CLASS 1M CEI EN 69825-1 ED. 4, 850 nm IR LED)
Power Supply	
Supported power supply:	12VDC (5 A) or UPoE 60W class 6
Consumption:	12W typically
HW features:	
Processor:	Quad-core + HW video encoder unit + Neural coprocessor
Memoriy:	16 GB e-MMC Flash
RAM:	4 GB
S.O.:	Linux
Storage Disk:	HD SSD 128 GB (up to 2 TB)
I/O	
Ports:	N.1 10/100/1000 Mbps Ethernet port
General characteristics	
Dimensions:	212 X 138 X 117
Weight:	2900 g
Operating temperature:	- 30°; +60°
Humidity:	fino al 90%
Protection:	IP67
Attack:	External mounting via magnetic plate or internal via suction cup bracket
Certifications	
OCR library:	Certified high reliability, the library has been validated several times by UNI 10772:2016 class A for all vehicle classes
Classification algorithms:	The percentages of correct classification depend on compliance with the installation geometry but are above 90% regardless of the external environmental conditions
Data security:	ISDP10003:2018 - Privacy by Default e Privacy by Design
Regulations	
Regulations respected:	ISO/IEC 27001 / 27017 - 27018 ISDP©10003:2020

Vigilate is a "tech company" specialized in the production of devices and software platforms for security and traffic control.
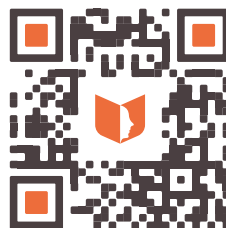
Traffic

- **Parking**
- **Homeland Security**
- **Highway & Tolling**
- **Enforcement**
- **Smart Road**

Security

- **Company, shops, hotel, parking**
- **Critical infrastructures**
- **Banks**
- **Retail, Fashion, GDO**
- **Control Room**
- **Logistics**

VIGILATE

www.vigilatevision.com