SmartSensor

Vehicle control on public roads

LECTOR VISION

- **Up to 250 km/h**
- **Brand, model, colour, type of vehicle**
- **Traffic data**
- **All-in-one (camera, processor, IR...)**
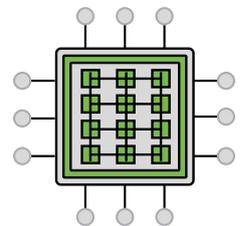
ITS/Traffic   **ANPR AI**

SmartSensor® is a traffic sensor designed to help cities and operators understand and manage mobility with reliable real-time data. It captures the information needed to monitor vehicle flow, support decision-making, and enable use cases such as regulated zone management and optimization of public road operations. It is a compact solution, designed to be deployed efficiently and adapted to different control and analysis needs.

Access control in restricted areas and mobility data analysis.

Tested reliability in over 70 countries.

AI / Deep Learning for maximum accuracy (CNN and capsule networks)

SmartSensor
Technical details

The system supports the incorporation of ITS algorithms and high-performance vision analytics. It also allows external sensors (e.g., Doppler) and external illuminators to be added to obtain additional information and improve capture in complex scenarios.

- Embedded **FPGA** processing for high-performance ITS analytics.
- Provides **real-time monitoring** of vehicle flow.

- Supports traffic management, road safety enforcement and tolling use cases.
- Maximum reading accuracy enabled by major **technological advances.**
- Also suitable for LEZ operations when required.

ADVANTAGES

Features

- **Vehicle attributes**: license plate + make, model, color, and type.
- **Speed and direction:** instantaneous speed up to 250 km/h and direction of travel.
- **Advanced mobilit**y: travel times and origin-destination matrices.
- **AI/Deep Learning**: advanced algorithms (CNN and capsule networks).

All in one system

- **All integrated**: capture + IR + control + FPGA + communications + software in a single device.
- **Easier** maintenance and spare parts stock **management**.
- Requires a lighter communications **network**.
- **Point-to-point growth** without modifying control-centre hardware.
- **Offline** operating capability.