

T-EXSPEED



Advanced technology for Traffic Applications

PATENT PENDING Intellectual property: Kria S.r.l.

Section speed, red light and trajectory-based violation detection



T-EXSPEED is the newest and most innovative digital system for vehicle speed and trajectory-based violation detections. Based on special video cameras, it doesn't require additional sensors (inductive loops, radars or lasers). It measures the speed of the vehicles (instantaneous and average) up to 300 km/h.

It also detects single and multiple violations.

The T-EXSPEED Acquisition Unit is equipped with three HD cameras (two monochrome and one color cameras) for 3D reconstruction and license plate reading over two lanes, for a detailed documentation of the alleged violation.

The T-EXSPEED Processing Unit detects the license plate and the shape of one or more simultaneous vehicles.

Central T-EXSPEED Event Server manages multiple units and can be interfaced with third-party backend software.

T-EXSPEED passed every test provided for UNI 10772 with a 100% recognition rate.

Architecture of the T-EXSPEED system

Acquisition Unit (3 cameras with infrared lighting systems in an IP66 housing).



Connection: dedicated for video and configuration data transfer.

Processing Unit (T-EXSPEED industrial PC, Windows OS and T-EXSPEED processing software for violation detection).



Connection: encrypted TCP/IP network.

Central Unit (Event Server with safe encrypted database and Clients for operator access).



On site: reduced visual impact

Acquisition Unit: IP66 housing (140 cm - diameter 30 cm) for cameras and IR lighting systems

Vertical pole mount 15 m before the monitored site

T-EXSPEED Processing Unit: ultra-slim industrial PC

On site: no civil works

Automatic non-invasive vehicle detection does not require invasive inductive loops, radars or laser

Wireless data transmission among system components does not require excavations

System installation time less than 1 hours without traffic suspension

Available in mobile and fixed configurations

Features

Instantaneous speed detection on two lanes

Average speed detection on two lanes

Red light, turn violation, wrong way, distance between vehicles, and generally every trajectory-based violation detection on two lanes

Multiple license plate layout for different nationality

License plate black-list for immediate alarm to police

Self-check of the device calibration for speed estimation

Violation data can be sent to the Central Unit or stored inside the Processing Units for on-demand download

Data encryption and watermarking

T-EXSPEED Server (on site)

UNI 10772 certified - 100% recognition rate - Top "A" Class - LPR worldwide layouts and fonts

Video rate automatic license plate reading

Speed measure and vehicle 3D classification at video-rate

Storage of compressed videos and images

Transit detection up to 300 Km/h

Night-time and all-weather transit detection

Simultaneous transit detection for multi-lane or queued traffic

Optional function: inter vehicle distance estimation

Event Server (Central unit)

User interface for data check (place, time, license plate, speed), with images and videos

Violation documents and video export

Interface to third-party backend systems

Data statistics.

Rev 1.7