

T-EXSPEED



Advanced technology for Traffic Applications

PATENTED Intellectual property: KRIA S.r.l.

Speed, red light and trajectory-based violation detection System



T-EXSPEED is the newest and most innovative digital system for detection of vehicle speed (instantaneous/average), red-light and trajectory-based violations. It does not need additional, external sensors (inductive loops, radars or lasers), as it detects the vehicle trajectory directly from images taken by high definition cameras, repeating the real time recognition process at every new video frame. It measures the speed of the vehicles up to 300 km/h.

It is able to detect single, multiple, parallel and simultaneous violations.

The T-EXSPEED Acquisition Unit is equipped with three HD cameras (two monochrome, one colour) for 3D reconstruction and license plate reading over two or three lanes, and 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 (28x134x28) 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

Simply installable at the side of the road

Also available in mobile configuration

Features

Instantaneous and average speed detection on two lanes

Detection of parallel, queuing, lanes crossing transits

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

Vehicle and transits classification and statistics

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.

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