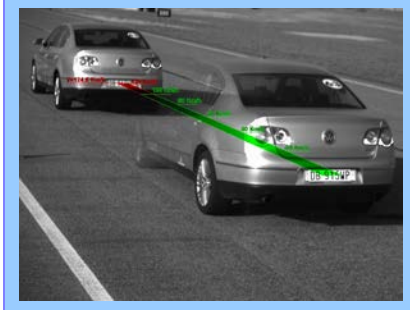
T-EXSPEED V. 2.0

Advanced technology for Traffic Applications **PATENTED** Intellectual property: KRIA S.r.l.

Speed, red light and trajectory-based violation detection System



T-EXSPEED V 2.0 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 V. 2.0 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 V. 2.0 high degree of scalability an modularity allows the application in multilane highways (6 lanes monitorable with only two lateral installations).

The T-EXSPEED V. 2.0 Processing Unit detects the license plate and the shape of one or more simultaneous vehicles.

Central T-EXSPEED V. 2.0 Event Server manages multiple units and can be interfaced with third-party backend soft.

Architecture of the T-EXSPEED system

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

Connection: CAT 6 copper cable or fiber optics dedicated for video and configuration data transfer.

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

Connection: any TCP/IP network.

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

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T-EXSPEED V. 2.0 DATASHEET

On site: reduced visual impact

Acquisition Unit: IP66 housing (20x85x13) for cameras and IR lighting systems weight without /with outdoor chassis (5Kg)

Vertical pole mount 15-20m before the monitored site

T-EXSPEED V.2.0 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

Available both in fixed and mobile configuration

Simply installable at the side of the road

The installation of the fixed Acquisition Unit can be done without traffic suspension in short time

Features

Instantaneous and average speed detection on 3 lanes

Detection of parallel, queuing, lanes crossing transits

Red light, illegal turn, overtaking, wrong way, distance between vehicles and generally every trajectory-based violation detection

Multiple license plate layout for different nationality

License plate black-list for immediate alarm to police

3D Vehicle classification

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 V. 2.0 Processing Unit (on site)

worldwide layouts and fonts, Kemler code automatic recognition

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

Traffic statistics

Rev 2.1

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