

PHOTO RADAR MOBILE SYSTEM



The «KRIS»P photo radar mobile system is an on-line speed monitoring device designed for photo- and videorecording of traffic violations and can transmit obtained data to remote mobile station by Wi-Fi. The system also provides automatic recognition of license plates.

BASIC FUNCTIONS AND BENEFITS

- Automatic speed measuring and photographing of vehicles with violation date and time specified in images.
- Visual monitoring and traffic situation recording.
- On-line wireless transmission up to 1.5 km
- Built-in infrared lighting for night operation.
- Creation and storage of databases of registered traffic violations; search and collating by different parameters; capability to print out saved images.
- Storing the obtained data in non-volatile memory (USB flash drive installed in sensor) using the recirculating method of data writing (the newest data overwrites the oldest one).
- Use of USB flash drive for transferring obtained data to the database of registered traffic violations which is hosted on the server of stationary traffic police point.
- The system is self-powered and tripod-mounted which enables selection of any comfortable place to operate. Long distance between Mobile Photo Radar and the patrol vehicle gives a traffic police officer enough time to stop traffic violators.
- Embedded speed sensor is a radar with a planar directional antenna and narrow beam which provides the speed measurements only for targets which are available on the image.
- Automatic recognition of license plates and their search in various federal or regional databases.



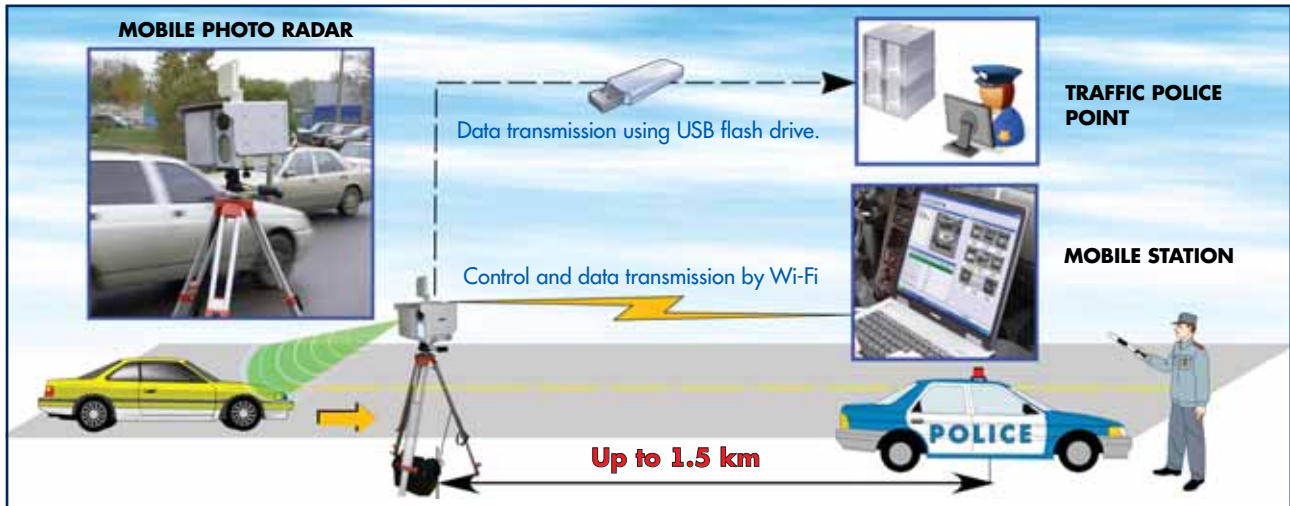
Mobile photo radar positioning and setting up



Mobile station, which receives data by wireless radio channel

“KRIS”P Photo Radar Mobile System

OPERATING PRINCIPLE



The «KRIS»P photo radar system consists of two main units: **Mobile Photo Radar (MPR)** and **Mobile Station (MS)**.

I. MOBILE PHOTO RADAR (MPR)

The MPR is installed on the roadside. The photo radar sensor is designed as leakproof single block. At the operating location the sensor is installed on the tripod. The sensor is supplied from a vehicular battery placed in the battery box. The photo radar sensors are provided with the latest firmware, which enables mathematical processing of data received from the radar and television camera, analysis of images and recognition of license plates, self-diagnostics, climate control, as well as performing communication functions. After data processing and image analysis, the photo radar sensor generates one registered image with a speed value and identified license plate.

II. MOBILE STATION (MS)

The MS is installed in a patrol car. The MS includes a laptop with specialized software and a transceiver module mounted inside the patrol car. The delivery set may include a battery box for self-contained power supply of the mobile station's equipment.

To ensure stable connection (with MPR), the MS should be located at max 1.5 km distance from the MPR in the direct view area.

TECHNICAL DATA AND WARRANTY

PARAMETER	VALUE
Operating frequency	24.15±0.05 GHz
Speed measurement range	20-250 km/h
Speed measurement accuracy	±1 km/h
Speed threshold setting	step 1 km/h
Maximum identification range of vehicle's license plate	
- visual determination	up to 100 m
- automatic license plate recognition by the software ²⁾	up to 50 m
Maximum range of infrared lighting	up to 50 m
Horizontal angle between sensor axis and vehicle movement vector	25°±1°
Admissible license plate lean angle ³⁾	± 15°
Number of images saved in archive on USB flash drive	not less than 9,000 images
Maximum range of data transmission by Wi-Fi	up to 1,500 m
Period of operation from battery, 55 Ah capacity	8 hours
Supply voltage	11.5 to 15.2V
MPR power consumption, max	70W
Calibration interval	2 years
Weight (Sensor / Tripod)	9 / 6 kg
Overall dimensions (Sensor / Tripod, assembled)	390 x 270 x 330 / 1,250 x 350 x 350 mm

¹⁾ Due to various license plate types in different countries, the recognition not always available or some software improvement may be required.

²⁾ Capability to identify the license plate when it is fixed in inclined position, during vehicle maneuvering in the monitoring area.

- The system's warranty period is 1 years.
- The system meets the requirements of the Technical Design Assignment coordinated with the Traffic Safety Dept. of the Russian Ministry of Internal Affairs in the context of the Federal Purpose-Oriented Program "Improving Traffic Safety in 2006-2012".
- Approval Certificate, type RU.C.28.002.A No. 29282, valid till October 2012.
- At present, the «KRIS»P systems are used in administrative practices of traffic police in all regions of Russia.

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