Technical Specifications - Equipment for control and record of driving parameters of motor vehicles

- Integrated device for reading speed and trajectory through GPS signal with a separate display unit and GPS antenna
- Output data rate minimally 100 Hz, including GPS signal
- Adjustable output data rate
- Operating temperature range at least -10 to +50°C
- Power supply from car electric network in range at least from 7 to 30 V DC, cable length minimally 2 m
- Power adaptor for electric grid operation
- Recording to a memory card
- Analogue inputs, minimally 4
- Digital inputs, minimally 2
- Audio input for voice tagging
- Headset with microphone
- Input and output CAN-Bus interface
- Analogue outputs, minimally 1
- Digital outputs, minimally 1
- Possibility of system integration for bridging of GPS signal dropout, using 3-axis gyroscope
- Wireless signal transmission - Bluetooth (capable of transmitting data at a maximum output data rate)
- Separate display unit, wireless (bluetooth) connection, touch-sensitive colour display minimally 9 inches (minimally 1,024 x 768 pixels)
- Holder of display unit
- Separate GPS antenna with magnetic holder, cable length minimally 3 m

- Software for data collection from external devices, combining signals from GPS, vehicle control unit and external devices according to a single time base, data export to XLS or XLSX or CSV or TXT
- Software for monitoring of compliance of driving cycles parameters which must enable defining any measurement cycle depending on v = f (t) and v = f (s), setting the tolerance area of speed, visualization of the instantaneous velocity in relation to a tolerance band, interruption and re-start of cycle process at any given time
- Software support without restriction, minimally 5 years
- Delivery including basic cabling minimally 1 piece of each type
- Carry case

Minimum specification for GPS system:

- Update rate minimally 100 Hz
- Position accuracy minimally 3 m without DGPS correction
- Position accuracy less than 3 m with DGPS correction
- Evaluation of movement speed in range of 0-200 km/h with resolution minimally 0.01 km/h, with accuracy minimally 0.1 km/h
- Evaluation of acceleration with resolution minimally 0.01 g, with accuracy minimally 1%
- Evaluation of angle (heading) with resolution minimally 0.01°, with accuracy minimally 0.1°.