GPS & WLAN antenna integrated in magnetic aerodynamic unit

Channels and Connections:
- 3 x 12bit DC (channels), 20 Hz (throttle, etc.)
- 2 ch TTL input, 2 ch TTL output
- 1 ch RPM, 1-20 kHz, adjustable threshold
- Ethernet port for connecting Flybook mini-PC
- 2 expansion ports for external modules, 1 GPS expansion port

General:
- Dimensions: 220 x 170 x 45 mm
- Weight: 8.750 kg
- Power supply: 12 VDC / 0.4 A max

Option: PASS-BY MEASUREMENT

GPS System for Pass-by measurements according to ISO 362/08, 2001/43CE

DYNATRACK onboard-unit

- GPS Unit/Receiver
  - Data rate: 20 Hz (standard) up to 100 Hz (optional)
  - High performance GPS receiver, using carrier and phase signals
  - Position precision: 10 mm code, 0.1 mm phase
  - Absolute position accuracy: 10 cm (differential mode)
  - Speed accuracy: 0.82 mm / 0.072 km/h
- Radio Unit:
  - Optimized WLAN technology
  - Range: 500 m (line-of-sight)
  - Adjustable output power
- Omni-directional antenna
- Signal range coverage expandable by diversity antenna

Channels and Connections:
- 1 Ethernet port for connecting Soundbook
- 2 expansion ports
- Integrated meteo station (optional)

General:
- Dimensions: 220 x 170 x 45 mm
- Weight: 0.350 kg
- Tripod support
- Battery power supply: 12V / 7.5 Ah (24 h battery runtime)

STARPASS Software

- User interface oriented towards ‘in-field’ use
- Virtual gates for the measurement area
- Subsystem quality control in real-time: radio link, satellite solution, signal acquisition
- Real-time connection with Soundbook analyzer
- Time synchronization of measurements by GNSS clock
- Adaptive information interface for measurement parameters
- Compliance with the new ISO 382:08 standard
- Acceleration pre-test
- ISO 867:98 pass-by test
- ISO 13313:08 coast-down test
- Customized project for each kind of test
- On-line calculation of time-based event sessions
- Final assessment values computed over season results
- Customizable vehicle databases for all sensitive data
- Interactive test guidance
- A set of visual guidance warnings
-.Reporting features (csv, latex, etc.)
- Remote Control of Soundbook analyzer
- Measurement of auxiliary noise (microphone, MNT, etc.)

SOUNDBOOK

- Basic unit of the measurement system based on Toughbook™ CF-19
- Multi-channel analyzer (2/4/8 ch) with 2 trigger/tacho channels and up to 5 service channels
- 500 GByte HDD, PCI/PCI-Express, USB
- High-contrast, touch-screen display - 10.4” TFT (1024 x 768)
- Shock, vibration, humidity and dust resistant magnesium case with IP54 protection and shock resistance according to MIL-STD 810F
- Temperature range from -10 °C to +50 °C
- Lithium ion battery pack with 4 hours of autonomy
- Dimensions: 280 x 220 x 65 mm
- Weight: 3.1 kg
- Tripod support

SAMURAI

- Sound Level Meter according to following standards: IEC 60651 / 804 type 1, IEC 61672 class 1
- Digital filters in real-time from 0.04 Hz to 40 kHz according to IEC 61260 standard class 0 (1/1 and 1/3 octaves)
- THD + Noise > 85 dB in standard mode and more than 120 dB in ‘Extended Range’
- ‘Multi-analysis’: all channels of the instrument can measure in parallel and in real-time SLM values, FFT, 1/3 octaves together with time signal recording (.wav)
- Weighting filters A, C, Z and time weightings Fast, Slow, Impulse in parallel
- Software option PASS-BY Noise necessary

Noise & Vibration Works for Windows

- User interface oriented towards ‘in-field’ use
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GPS System for Pass-by measurements according to ISO 362/08, 2001/43CE

The best way to simplify your Pass-by measurement
Dynatrack is a special system for pass-by tests based on high accuracy GNSS technology. The Dynatrack system has been specifically designed to allow a single operator to carry out the tests.

Starpass, the management and measurement application software, is an easy-to-use tool provided with an intuitive user interface. This new pass-by system offers you the possibility of gathering, from the perspective of the driver, all the information required to perform the homologation tests according to ISO 362/98, ISO 362/08 and 2001/43/CE standards.

The onboard-unit has been developed to acquire the data concerning vehicle speed, position and RPM in real time. Moreover, by sharing the information with the fixed unit, it is also possible to appreciate the position of the vehicle, making reference to the input and output virtual barriers.

Through the combined features of Dynatrack and Starpass, the driver can handle all the information required to perform the test by himself in a quick and profitable way.

A perfect compliance with the current standards

All acoustic parameters are acquired and analyzed through Soundbook analyzer, the multi-channel sound level meter based on a Windows operating system platform. The Soundbook analyzer, approved by PTB, complies with IEC 61672 homologation for each of the 2, 4 or 8 acquisition channels. The 1/3 octave filters of each channel fulfill the IEC 61260 standards. The hardware consists of the onboard-unit and the base-station. The base-station is designed to acquire and analyze the sound pressure level signals through Soundbook, the multi-channel analyzer, and to transfer them to the mobile unit by means of a specific WLAN technology.

The acoustic measurements performed by Soundbook are synchronized with the base station, and immediately after carrying out the test, he is able to select only the relevant data, accepting or refusing the test, all without leaving his seat.

This system also offers the possibility of performing the tests in both directions: both the right and left microphones are recognized automatically according to the run direction. Finally, a prediction model will establish whether the test result is acceptable according to the class of the tested vehicle and the limits established by the selected standards (including the new ISO 362/08).

Open to meet user’s requirements

The system has been developed not only to be used for individual pass-by tests complying with a single standard, but also for carrying out different in-field tests according to various standards: SAE J 1470, 2001/43/CE, ISO 11819, ISO 11439 and others on request.

It is also possible to share both speed and position with the data coming from the auxiliary channels provided by the onboard unit for other uses. By using the optional modules connected with the system expansion ports, you can acquire:

- information from the vehicle through OBD II
- acceleration data on 3 axes with IMU (Inertial Measurements Unit)
- DC channels: 3 input channels at 20 Hz
- Frequency output: 2 fast inputs and 2 TTL outputs

It is possible to use a second Soundbook analyzer with the onboard unit in the vehicle for parallel inside and outside noise measurement.