

MAY 2017

GPS Tracking with SP80:

High-precision GNSS receiver for localisation of VRUs and solid objects

GeneSys is offering a new turnkey solution for the development of driver assistance systems focused on the localisation of fixed objects and on vulnerable road users (VRU) participating in the road test. The achievable position accuracy is ± 2 cm. The key feature here is Spectra Precision's SP80 which was greatly enhanced in terms of functionality and exclusively adapted to the application in a joint development with GeneSys.

The high-precision GNSS receiver is therefore perfectly suited for motion tracking of slowly moving objects such as VRUs, e.g. pedestrians and cyclists, as well as for gauging the test environment, e.g. parking spaces or vehicle dimensions.

The joint development of GeneSys Elektronik GmbH and PPM Precise Positioning Management GmbH greatly enhanced the functionality of the SP80 and adapted it exclusively to the application.

On the one hand, the SP80 is ideal for the motion tracking of slowly moving objects such as VRUs (Vulnerable Road Users such as pedestrians and cyclists). On the other hand, the compact and portable GNSS receiver is predestined for gauging the test environment in order to calibrate parking spaces or road markings, for example.

The unique technology installed in the SP80 uses all 4 GNSS systems: GPS, GLONASS, BeiDou and Galileo.

A powerful GNSS antenna receives data from GPS and GLONASS satellites. The SP80 receives the DGPS correction data via a cellular modem (3.5G GSM, UMTS) for dialling into a correction data service

MAY 2017

such as AXIO-NET or SAPOS. The system is alternatively available with an integrated wireless modem which enables the smooth reception of correction data from a GeneSys GPS base station.

The position data can be logged to an SD card in the SP80. Real-time data output via WiFi can be transmitted simultaneously. The Dewesoft data logging software has a plug-in for synchronous data recording in combination with the GPS-augmented inertial system ADMA (Automotive Dynamic Motion Analyzer). The data output rate is up to 20 Hz.

The SP80 can be operated absolutely wireless. Both batteries can be swapped during operation with one hand, thus ensuring interruption-free measurement. The high-precision GNSS receiver is also equipped with a status display which provides all important information and is highly legible even in sunlight. Thanks to the fiberglass reinforced housing, the SP80 is shock-proof and waterproof as per IP67 and can also be operated in ambient conditions of -40 to +65 degrees Celsius.

The SP80 supplements the ADMA systems and is suited for both: vehicle-to-pedestrian tracking and gauging fixed objects. Like all GeneSys measuring systems, the SP80 can be quickly installed. After configuration, further intervention by the user will not be necessary.

*Coming soon: the **VRU-Tracker**. This is a handheld GPS receiver developed by GeneSys. The wireless and light VRU Tracker is equipped with a separate small antenna dedicated to the precise localisation of VRUs.*

MAY 2017



SP80: the compact and portable GPS-based Tracking System is ideal for vehicle-to-pedestrian tracking and gauging of the test environment



The SP80 is excellently suited for the accurate determination of position and speed, e.g., here while calibrating a parking space or vehicle dimensions

MAY 2017

Visit us at the following trade fairs or contact us for more information.

GeneSys Elektronik GmbH

Automotive Testing Expo North America 2017, Detroit, Stand 3000

Approved for publication.
For reprints, kindly submit sample documents to:

GeneSys Elektronik GmbH
Dr. Bertold Huber
In der Spoeck 10
77656 Offenburg - Germany
T: +49 (0)781 / 969279-34
F: +49 (0)781 / 969279-11
E: huber@genesys-offenburg.de
W: www.genesys-offenburg.de