Portable 12-channel data acquisition system

The LMS Scadas XS from LMS (Germany) is a data acquisition system designed for noise and vibration measurements. It supports 6 or 12 V/ICP/TEDS inputs (AC, DC, ICP), and can also be used to measure tacho signals, binaural microphone signals, CAN signals and GPS.

The portability of the system furthers testing flexibility (Photo: Siemens)

ITS DIMENSIONS OF 170 MM X 114 MM X 21 MM allows it to be carried along while doing remote tests or when traveling. With the LMS Smart Control tablet application, it is possible to verify measurement on the spot, without a PC. The system can be used in full standalone, with a tablet or in traditional PC setups, in the lab or on the move. The design enables it to withstand shock and vibration (MIL-STD-810F). Its Li-on battery allows using the system autonomously without recharging for 6 hours, or for 4 hours, if the WiFi or LAN are active. The system also features onboard storage capacity on a 32-GiB micro SD card and it can withstand temperatures from -10 °C up to 50 °C. The digital CAN interface also offers support for J1939 and OBD-2.

The system comes with a 7-inch tablet installed with the Smart Scope application. Through a wireless connection, this app allows on-the-go data monitoring and validation. A range of optional add-ons provides test teams with tools to master testing challenges. Apart from the 6 or 12 analog input channels for V/ICP, including TEDS, the system also supports the Scadas 3D Binaural Headset for binaural recording and stereo audio replay.
The monitoring system is available as an entry-level version (XS06-E) with 6 analog input channels and in an advanced 12-channel version (XS12-A). Both versions feature additional inputs for the binaural headset, digital heads, dual analog tacho, CAN, and GPS. A basic set of accessories is also included: a charger and a USB cable, a 32-GB micro SD card and card reader, CAN, GPS, SPDIF, and tacho cables, a 7-inch Google Nexus tablet which includes the LMS Smart Scope app and a USB charger, a storage bag, and a hard case for the safe storage of the system and the tablet.

Smart Scope runs on a 7-inch Android tablet. Through a wireless connection with the Scadas XS, the app allows engineers to monitor and control test settings and measurements, flip through existing measurement setups, or create a new configuration from scratch. The tablet makes it possible to install the monitoring system on or near the test object and walk around freely during a test, calibrating or monitoring signals on the tablet in real time.

A range of display types and layouts offers online data viewing, post-run data validation, and signal replay. Smart Scope allows the users to take their pick among the test setups preconfigured in the lab, or create a complete new test setup on the spot. A range of recording views to monitor and control data online during the test, or offline during post-run test data validation are available: base view for concise control and relevant parameter feedback, strip-chart time overview of all channels, level bars and numerical displays with configurable layouts, and customized view for signal replay and validation of time signals, frequency or octave content, orders, and more.