Precise Sourcing and Measurement Necessary for Advanced Battery Drain Analysis and Functional Test

Agilent Technologies Inc. announces the addition of two source measure units (SMUs) to its N6700 Series Modular Power Systems -- the N6781A 2-quadrant source measure unit for battery drain analysis and the N6782A 2-quadrant source measure unit for functional test.

The new SMUs offer advanced sourcing and measurement capabilities required for the testing challenges associated with battery-powered devices and their components. Agilent also introduced new software and updates for its DC power analyzer mainframe.

The N6781A and N6782A eliminate the challenges of measuring dynamic currents with a feature called seamless measurement ranging. With seamless measurement ranging, engineers can precisely measure dynamic currents without any glitches or disruptions to the measurement. As the current drawn by the device under test (DUT) changes, the SMU automatically detects the change and switches to the current measurement range that will return the most precise measurement.

When combined with the SMU’s built-in 18-bit digitizer, seamless measurement ranging enables unprecedented effective vertical resolution of 28-bits. This provides unrivaled productivity gains and insights into power consumption by enabling engineers to see the complete current waveform they have never seen before, from nano-amps to amps, in one pass and one picture. The N6781 2-quadrant source measure unit for battery drain analysis offers the features required to accurately capture the power consumption of portable, battery-powered devices. When used with the new Agilent 14585A software, the N6781A becomes an even more powerful battery drain analysis solution offering greater measurement insight. The N6781A is ideal for testing devices such as e-Book readers, MP3 players, mobile phones and pacemakers.

The N6782A 2-quadrant source measure unit for functional test can modulate its output up to 100 kHz and provides 2-quadrant operation. This makes the SMU a perfect fit for advanced functional test for a variety of devices including DC/DC converters, power management units, power amplifiers and power management

ICs.

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