

## Agilent Technologies' N6700 Modular Power System Family Adds Application-Specific Modules



Agilent Technologies announced the addition of two new application-specific modules to the N6700 Modular Power System (MPS) family, the N6783A-MFG mobile communications DC power module and the N6783A-BAT battery charge/discharge module.

The N6783A-MFG module offers sourcing and measurement capabilities specifically designed to meet the challenges of battery-powered (mobile) device manufacturing. The N6783A-BAT module offers basic two-quadrant operation for charging and discharging batteries as necessary for the design of a mobile device.

“The N6700 modular power system family now supports every aspect of battery-powered device design,” said Gary Whitman, vice president and general manager of Agilent’s System Products Division. “Each module provides the necessary features and price to meet the specific requirements of the task.”

At the beginning stages of design, engineers can qualify the battery for use in the final product by using the new battery charge/discharge module. Throughout the design, they can use the N6781A source measure unit to perform battery drain analysis. Finally, when the design is complete and moves to manufacturing, the mobile communications DC power module can be used in the final test system.

The Agilent N6783A-MFG module offers advanced features specifically for testing mobile devices in manufacturing. Its excellent voltage transient response ensures that a stable output voltage is maintained at the device under test during load transients. This maximizes system throughput by eliminating inadvertent device shutdowns that occur if the voltage is allowed to drop too low, such as when a non-specialized power supply is used.

The built-in digitizer also allows for maximum throughput by providing fast, accurate and flexible measurements that are customizable so that the desired balance between speed and accuracy can be achieved. The N6783A-MFG module is a follow-on product to the Agilent 66300 mobile communications DC source series but has twice the output density (up to four outputs in 1 U) and modern I/O (USB, LAN and GPIB are standard).

The N6783A-BAT module is a basic two-quadrant DC module designed to enable mobile device designers to validate the battery to be used in the device being designed. During the research and development of a mobile device, the designer

must properly validate the battery that will be used in the final design, especially if the battery will be permanently installed. Battery validation requires charging and discharging the battery while measuring voltage and current to ensure it meets the desired specifications.

The N6783A-BAT's two-quadrant operation allows it to act as a power supply to charge the battery or as an electronic load to discharge the battery. Its built-in digitizing measurement system allows accurate measurements over the short and long term. When used in the N6705B DC power analyzer mainframe along with the 14585A control and analysis software, short- and long-term measurements for battery validation are made easy.

The N6783A-BAT can also be used to condition batteries for test in mobile devices by charging or discharging the battery to a specific level to see how the device performs under specific conditions. This allows R&D engineers to understand real-world operation of their designs during different levels of charge. The N6783A-BAT can be used for battery charge/discharge only. For advanced battery drain analysis and battery emulation, the N6781A two-quadrant SMU for battery drain analysis should be used.

The new N6783A-MFG and N6783A-BAT are a part of the N6700 modular power system family, which consists of the N6700 low-profile mainframes for automated test environments and the N6705 DC power analyzer mainframe for R&D. The product family has four mainframes and over 25 DC power modules, providing a complete spectrum of solutions, from R&D through design validation and manufacturing.

### **U.S. Pricing and Availability**

Both the N6783A-MFG mobile communications DC power module and N6783A-BAT battery charge/discharge module are available for immediate purchase and will ship in July. The list prices are \$1,240 and \$1,450, respectively.

Information about Agilent is available at [www.agilent.com](http://www.agilent.com) [1].

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### **Links:**

[1] <http://www.agilent.com>