

Software Enables Single-Instrument WLAN Measurement Solutions



Anritsu Company introduces software for its MS269xA and MS2830A series Signal Analyzers, as well as its MG3700A Vector Signal Generator to create single-instrument solutions that support the IEEE802.11n/p/a/b/g/j wireless LAN (WLAN) standards. With the software installed, the instruments provide developers of WLAN devices, modules and boards used in home entertainment and automobile onboard wireless systems with accurate, cost-effective solutions to verify design performance.

The WLAN Measurement Software allows the MS269xA and MS2830A to support EVM modulation analysis, which is required for evaluating the Tx characteristics of IEEE802.11n/p/a/b/g/j WLAN signals. The analyzers can also measure key characteristics, such as spectrum mask, spurious, and adjacent channel leakage power. Templates and signal capture/replay functions make it simple to read graphically displayed measurement results and operation procedures, which make evaluating Tx characteristics at the R&D stage more efficient.

In addition, the signals required for evaluation of Rx characteristics can be outputted by installing the WLAN IQproducer in either the MS269xA or MS2830A, when the analyzers are configured with the optional vector signal generator. This capability allows engineers to more thoroughly verify WLAN equipment design. IQproducer can be operated using a simple GUI, making it easy to set the signal output conditions recommended by the WLAN standards.

Engineers can also evaluate the Rx characteristics of WLAN equipment with the MG3700A, when WLAN IQproducer is used. It also has an easy-to-use GUI that simplifies setting output signals that meet WLAN standards. The MG3700A has a

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built-in two-waveform addition function for outputting both the wanted and interference/AWGN signals from a single unit, eliminating the expense of the previously needed two signal generators.

High-end Instrument Performance

The new software extends the capabilities of the MS269xA series, MS2830A, and MG3700A, each of which delivers high-end performance. The MS269xA series supports a standard analysis bandwidth of 31.25 MHz that can be extended to 125 MHz with optional hardware. A patented calibration process that includes multi-point amplitude calibration and phase calibration results in best-in-class level accuracy of ± 0.5 dB across a 6 GHz span. The analyzers' advanced technology also creates faster measurement times.

The MS2830A is a single instrument with measurement capability that previously required both a spectrum analyzer and a signal generator. With everything in a single chassis, the MS2830A costs as much as 30% less than having discrete signal analyzers and signal generators. In addition, the MS2830A consumes ? 110 W, which is 45% less than a comparable signal analyzer. Not only does this help reduce operating costs, it makes the MS2830A an environmentally friendly test solution. With this significant power reduction, the analyzer reduces CO2 emissions by 45%.

The MG3700A is a signal generator for outputting the digital modulation signals for all key mobile communications systems. The built-in arbitrary-waveform baseband generator outputs any digital modulation signal simply by selecting the waveform pattern file.

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