Signal generation/analysis platform tackles EW and radar test

Susan Nordyk - August 10, 2015

Based on the AXIe 1.0 standard, the Giga-tronics advanced signal generation and analysis system is optimized for applications requiring multiple coherent, wide instantaneous-bandwidth microwave signals, such as EW (electronic warfare) and radar testing. The platform comprises five main elements: a signal generator blade, signal analyzer blade, system reference module, two-channel or four-channel system chassis, and a two-slot blank module for airflow management and backplane termination.

The GT-ASGM18A signal generator blade combines an agile, low-noise, phase-coherent local oscillator with a millimeter-wave upconverter to generate microwave signals with high spectral purity over a frequency range of 100 MHz to 18 GHz. The GT-ASAM18A signal analyzer blade teams its local oscillator with a millimeter-wave downconverter to acquire microwave signals over the same 100-MHz to 18-GHz frequency range. For advanced signal creation and analysis, the blades can be used with a number of COTS arbitrary waveform generators and signal analyzers.

Supporting both the signal generator and analyzer in a single chassis is the GT-SRM100A system reference module, which covers frequencies of 10 MHz, 100 MHz, and 1200 GHz. It is designed for use with the GT-CHSIS2A two-channel chassis and the GT-CHSIS4A four-channel chassis. Engineers can use the signal source and upconverter platform for EW threat simulation, radar target generation, communications, and commercial signal emulation.

Giga-tronics, www.gigatronics.com

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