8752 VSG

PRODUCT OVERVIEW

z8752 Vector Signal Generator PXIe

Overview

The z8752 Vector Signal Generator combines a baseband I/Q Arbitrary Waveform Generator with an RF signal source to generate vector modulated signals from DC to 7.2 GHz to characterize high performance PAs.

The VSG provides a combination of 500 MHz modulation bandwidth, 16-bit DAC dynamic range, very high linearity and extremely low phase noise necessary to test and characterize devices operating on existing and the emerging WLAN standard 802.11ax (Wi-Fi 6).

Advantages

- Reduced test time through fast RF switching (<1msec end to end) and deep multiple-waveform memory
- Extremely low phase noise <-110 dBc/Hz
- Vector signal generation for analog or digitally-modulated RF signal

Applications

- Power Amplifier/Front End Module characterization and DVT
- Receiver Packet Error Rate (PER) analysis
- Radio Frequency Integrated Circuit (RFIC) testing
- Digital Pre-Distortion Waveform Generation

Key Specifications

- Multi band support 2.4GHz, 5GHz, U-NII-4/5/6/7/8 with comprehensive range of operation from 250 MHz – 7.2 GHz
- Supports up to 500 MHz modulation bandwidth
- LO input for ultra-low phase noise requirements
- Separate baseband I/Q outputs and LO input for modulator RFIC testing (optimized for broad bandwidth vector modulation)

Remarkable Test Capabilities

- Ideal for MIMO applications (up to 8x8 true MIMO in a single zSeries 18-slot chassis)
- Comprehensive testing capability on all Modulation and Coding Schemes (MCS) - BPSK up to 1024-QAM
- Supports all RF Modulation Bandwidths: 160 MHz, 80 MHz, 40 MHz & 20 MHz

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Configurations

Frequently used with:

- z8655 Vector Signal Analyzer
- z8817 Front End Module
- zSeries 9-slot or 18-slot chassis
- z3975/ z3985 Embedded Controller (Intel® Core™ i5/i7 processor)
- z8820 DC Power & Digital IO Controller
- z475 Remote DC Power supply
- z8801/z8802 Local Oscillator

z8752 Specifications

RF	Value
RF Output Frequency	250 MHz to 7.2 GHz
RF Output Level Range	-120 dBm to +20 dBm
Bandwidth	**Value**
Modulation Bandwidth	500 MHz
Digital-to-Analog Converter (DAC)	**Value**
DAC Vertical Resolution	16 bits (0.0015% of Full-Scale Range)
I/Q Data Memory	512 MiByte (up to 128 MiSamples of complex I/Q data pairs)
I/Q Output	**Value**
I/Q Channels	Two Differential Outputs, I± OUT and Q± OUT
Output Voltage Range (Differential)	80 mVppd to 8 Vppd
Digital I/O	**Value**
Digital Input / Output	4 signals, up to 125 MHz rate, 1.2V- 3.6V programmable level
Physical	**Value**
Physical Size	2-Slot 3U PXIe