Z Series

PRODUCT OVERVIEW

Power Amplifier/ Front-End Module Test Solution

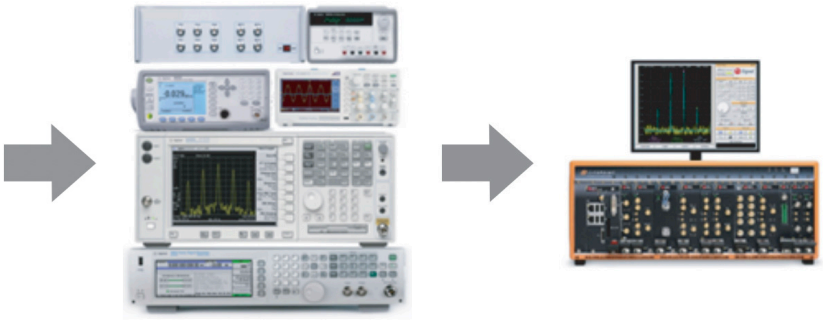
Overview

zSeries PA/FEM is a fully-integrated hardware and software test solution combining 7.2 GHz VSG/VSA for accurate characterization and testing of the existing and the next gen Wi-Fi standard 802.11ax (Wi-Fi 6) PA/FEM's. Covering measurement bandwidths of up to 1 GHz useful for digital pre distortion testing, the FEM solution guarantees low noise and distortion necessary for validating the high efficiency 1024QAM devices. Meeting the exponential rise in the number of Wi-Fi capable devices in the market, the zSeries offers reduced time-to-test from weeks to hours or days.

Advantages

- Lab-in-a-Box configuration
- Seamless hardware and software enhancements using a modular PXIe platform
- Reduce time-to-test from weeks to hours or days
- Test apps to setup complex tests for PA/FEM characterization and design verification without code

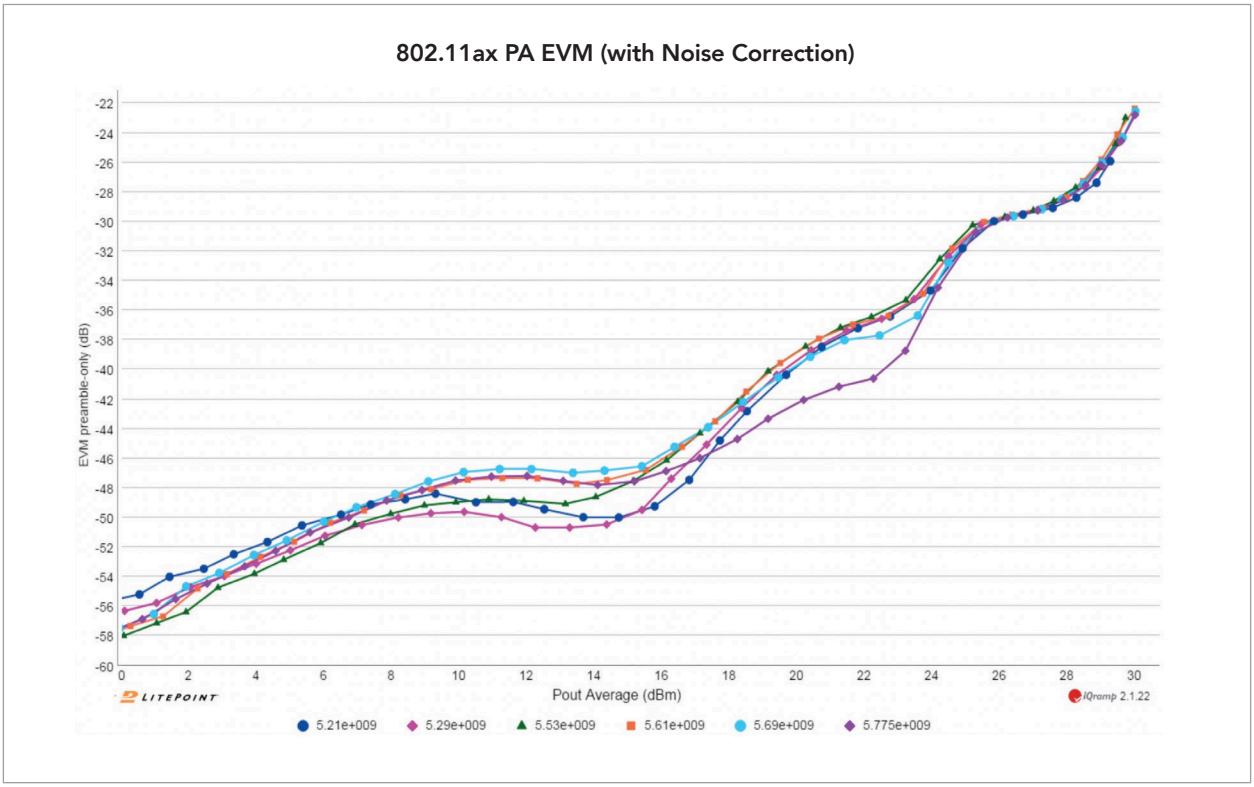
VSA	Scopes
VSG	LO
Digital I/O	AWG
SMU	Switches



LITEPOINT

Advanced software integration tools and support

- Graphical User Interfaces (GUI) for real-time 'bench-top' interactive operation for RF designers and field application engineers
- Support for C/C++, LabVIEW™, Matlab, TCL and Python programming environments with example code and projects
- Digital Pre-Distortion (DPD) software tests the improvements in spectral mask and EVM with DPD in-circuit
- Comprehensive measurements including Dynamic EVM, ACLR, Spectral Mask, PAE, Gain, etc.



Key Specifications

- Best-in-industry residual EVM performance: <-50 dB, required for 802.11ax PA/FEM tests
- Supports 1 GHz wide instantaneous bandwidth for testing
- 20 GHz spectrum analyzer extension for Harmonic & Spurious emission testing
- Advanced testing including Noise Reduction and Envelope Tracking

Test Capabilities

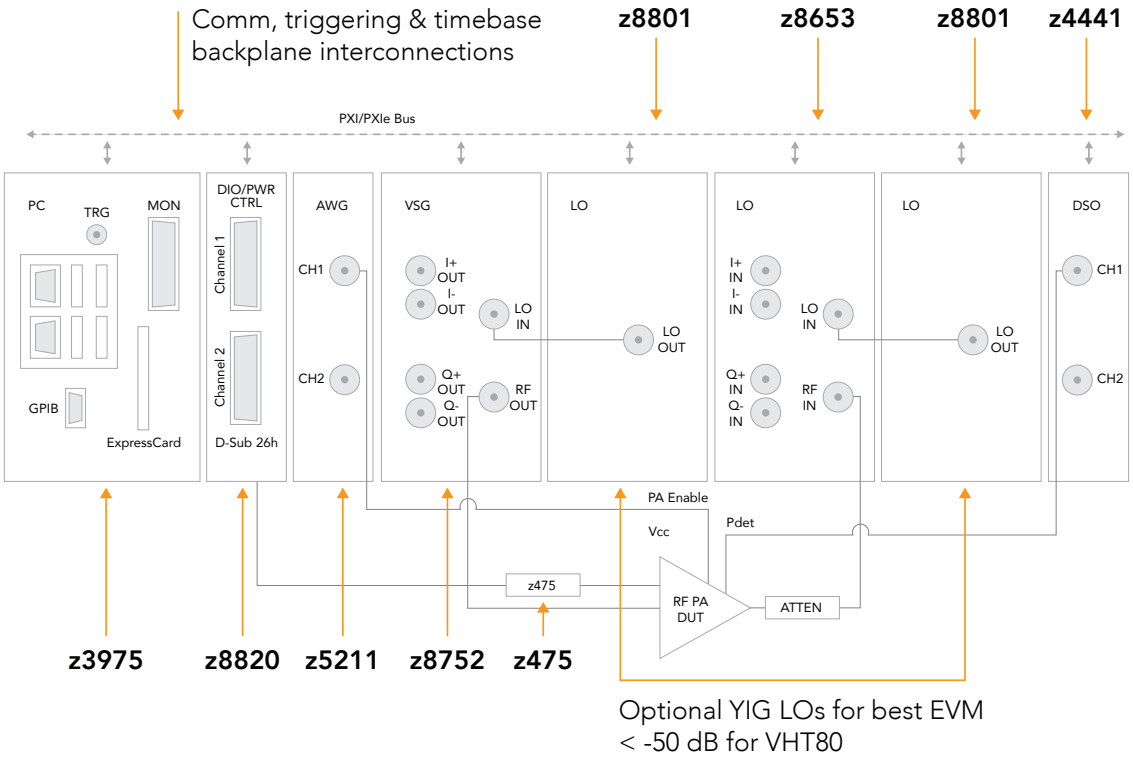
- Multi band support 2.4GHz, 5GHz, U-NII-4/5/6/7/8 with comprehensive range of operation from 250 MHz – 7.2 GHz
- All Wi-Fi standards: 802.11 a/b/g/j/n/p/ac/af/ah/ax
- All Modulation Bandwidths: 160 MHz, 80 MHz, 40 MHz & 20 MHz
- All Modulation Coding Schemes (MCS) and Bit Rates: BPSK to 1024 QAM
- Ideal for MIMO applications (up to 8x8 true MIMO in a single zSeries 18-slot chassis)
- MIMO Streams: X2 to X8

Configurations

9-slot PA/FEM

18-slot PA/FEM

zSeries PA/FEM DVT



Core Modules

- z8752 Vector Signal Generator
- z8655 Wideband 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 Local Oscillator
- z4441 Digitizer/Oscilloscope
- z5211 Arbitrary Waveform Generator

z8655 Vector Signal Analyzer

z8752 Vector Signal Generator

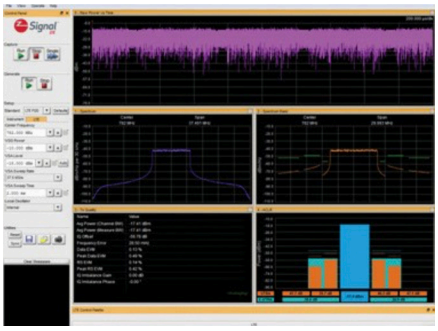
z8817 Front End Module

Software

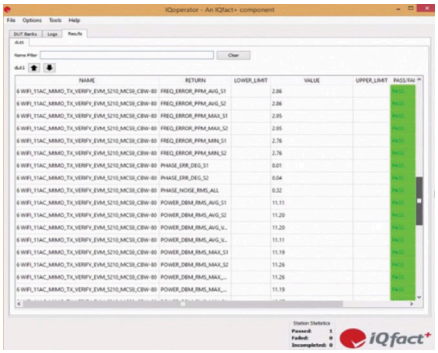
- zSignal WLAN (a/b/g/j/n/p/ac/af/ah/ax)
- zSignal Cellular (2G/3G/4G)
- IQfact+
- IQramp
- zScript
- Support for C/C++, LabVIEW™, Matlab, TCL and Python programming environments

* All software included

zSignal Cellular

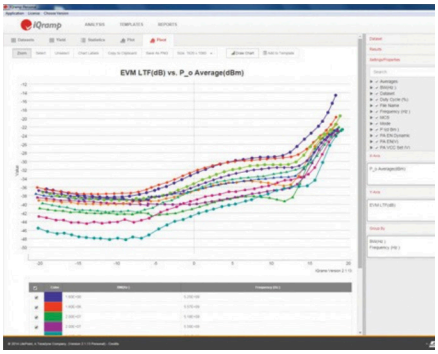


zSignal WLAN



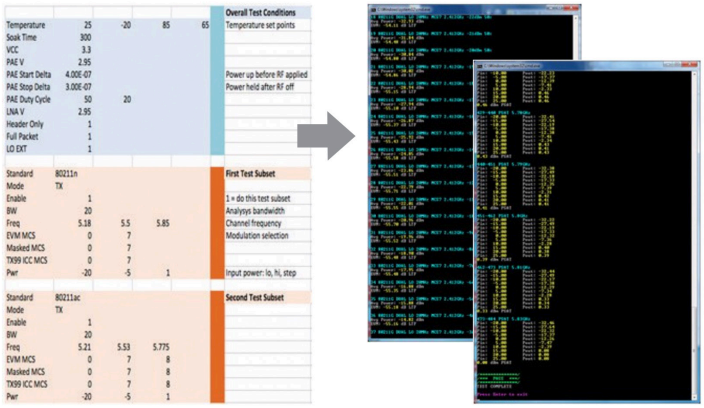
IQfact+

- Software provides turnkey calibration and verification solutions for key wireless chipsets
- Growing library of over 350 chipsets



IQramp

- Data analysis toolset
- Report data for EVM, ACLR, Gain, PAE, Icc, IMD, etc instantly



zScript

zScript allows you to setup a test run in minutes. Multiple test conditions can be inputted directly into the script. All results are printed into a CSV file.

zSeries PA/FEM Test Solution Specification Summary

VSA/VSG	Value
RF Frequency	250 MHz to 7.2 GHz
VSA RF Input Level Range	+30 dBm to Noise Floor
VSA Analysis Bandwidth	1 GHz
VSG RF Output Level Range	+27 dBm to -105 dBm
Spectrum Analyzer	**Value**
RF Frequency	250 MHz to 20 GHz
SMU	**Value**
DC Power	+10 V@ 3A
Current Measurement	Down to 10pA
Channels	1 or 4
I/O	**Levels**
Voltage/Current	-2 V to +6 V/ 25 mA
Clock rate	200 MHz
Serial interface support	MIPI RFFE, SPI, others