

IQview 802.11a/b/g WLAN Test Solution

Test with confidence...Simpler, Faster

The LitePoint IQview® one-box tester (OBT), the ultra compact, all-inclusive 802.11 test instrument, offers easy to use, pre-configured WLAN tests, traditionally implemented with separate, expensive VSG and VSA instruments. By utilizing wide bandwidth digitizing in a capture-one-measure-all architecture, the IQview one-box tester is the ideal WLAN test solution supporting product requirements for 802.11a/b/g, MIMO, and Bluetooth®. IQview comes bundled with LitePoint IQsignal™ Software Suite and, optionally, LitePoint IQwave™ Waveform Generator Software and Bluetooth FM and EDR Software Package. It delivers efficient and repeatable measurements demanded by today's R&D and manufacturing engineers. IQview supports 802.11 receiver and transmitter tests via integrated high performance vector signal generator (VSG) and vector signal analyzer (VSA) functionality.

Speed and Flexibility

The IQview tester provides two RF ports enabling instant and flexible configuration of test set-ups. Utilizing the integrated RF switch capabilities, IQview supports independent, simultaneous RX and TX measurements offering dual head test functionality.

Versatility and Consistency – from R&D to Manufacturing

The IQview offers an extensive range of preprogrammed test features and a flexible software interface (API) at a cost that makes it ideal as the one instrument to use in both R&D and manufacturing to ensure consistency in test results and analysis through the entire product development lifecycle.

IQview architecture allows you to share the captured raw signal data files for further analysis, debugging, simulation, logging, and more. IQview software solutions may be used on PCs independent of test instruments, facilitating fast communication, reporting, and parallel analysis throughout the entire product development lifecycle.

Longevity and Reliability

IQview evolves with your increasingly stringent testing requirements and is designed for long-term deployment in R&D and manufacturing environments. Software upgrades will ensure compliance with WLAN standards changes.



The Complete IQview 802.11a/b/g WLAN Test Solution

- VSG & VSA in one box
- Differential baseband inputs/outputs optional

- **Truly one-box tester (OBT) solution** – ready for complete 802.11 WLAN testing. No additional equipment or software required.
- **No learning curve** – intuitive user interface gives R&D engineers immediate and easy access to standards compliant test functions.
- **Independent simultaneous Rx and Tx measurements** – speed up test time with increased flexibility.
- **Test in the lab...analyze at your desk** – save raw test data, retrieve and analyze. Anywhere. Anytime.
- **High performance RF and EVM accuracy** – significantly exceeding 802.11 WLAN test limits.
- **I/Q analog baseband input and output ports** – for testing and validation of radio and baseband subsections.
- **Industry standard Matlab interface** – for full user customization. Build your own IQview-based Test Solution for proprietary signal formats.
- **Visual C++® DLL interface** – for generating automated manufacturing and characterization test programs.





Measurements

- Average/Peak Power
- Amplitude Statistics (CCDF) & Crest Factor
- PSD/Spectral Density
- Clear Channel Assessment (CCA)
- Adjacent Channel Power
- IQ Mismatch
- Phase Noise
- RX Sensitivity & PER
- Transmit Impairment Options
- Frequency Error vs. Time

Modulation Formats

802.11 OFDM (a/g)

- BPSK, QPSK, 16 QAM, 64 QAM
- Normal, Turbo, 1/2, & 1/4 rate modes

802.11 DSSS (b/g)

- BPSK, QPSK, CCK

IQwave (optional software)

- User Defined Waveform Data

MATLAB®

- Compatible Interface for Arbitrary Waveforms

Operation Modes

- RF Bands (2.4-2.5GHz, 4.9-6.0GHz)
- Baseband I/Q Modulation/Demodulation
- Single Ended Baseband I/Os (Differential Optional)
- External Trigger; Signal Trigger or Free Running Capabilities
- Programmable or Continuous TX Waveform Repeat

Modulation Analysis

- Constellation Diagram
- EVM
- I/Q Amplitude & Phase Mismatch
- Spectral Flatness
- Carrier Leakage
- Phase Noise
- Frequency Error
- EVM vs. Symbol/Time

IQview Detailed Specifications

Frequency Bands	2.4 - 2.5GHz 4.9 - 6.0GHz
RF Output Power	2.4 GHz Band -10 to -90dBm 5 GHz Band -10 to -90dBm
RF Input Range	2.4 GHz Band +20 to -70dBm 5 GHz Band +20 to -70dBm
Baseband Input Bandwidth	60MHz
Baseband Output Bandwidth	60MHz
Baseband Input Quantization	14 bit
Baseband Output Quantization	14 bit
Baseband Inputs	I & Q
- Differential*	I-, I+, Q-, Q+
Baseband Outputs	I & Q
- Differential*	I-, I+, Q-, Q+
EVM Accuracy	
RF Input	2.4 GHz Band -36dB EVM 5 GHz Band -36dB EVM
RF Output	2.4 GHz Band Better than -36dB EVM 5 GHz Band Better than -36dB EVM
Baseband Input	-45dB EVM
Baseband Output	-45dB EVM

* Optional

Accessories

Software

- Bluetooth for Manufacturing
- MIMO for Manufacturing
- IQwave Waveform Generator
- MATLAB API
- MATLAB API for MIMO
- IQfact Production Test Programs

Hardware

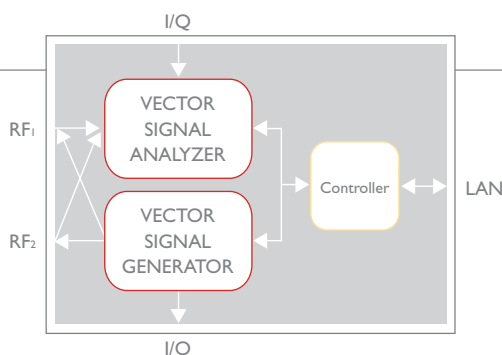
- MIMO 2.4GHz Channel Simulator
- MIMO RF 1:4 Coupler/Splitter

Our commitment is to serve our customers' long-term technology and strategic needs.

LitePoint Corporation designs and markets innovative, dedicated test instrument solutions for existing high volume and emerging wireless products markets, such as IEEE 802.11 WLAN, IEEE 802.15.3a (WiMedia™), IEEE 802.16 (WiMAX®), and Bluetooth®. LitePoint solutions are designed specifically to simplify and accelerate standards compliance and performance tests.

Demo IQview Today!

- Online - go to www.litepoint.com/demos/
- Live WebEx - go to www.litepoint.com/demos/webex/
- In person - call your local rep for an appointment



IQview is a vector signal based instrument, integrating both VSG and VSA functions in a single unit. The two RF ports and an advanced RF switch matrix eliminate the need for external switching.

MIMO Ready & optional Bluetooth functionality!

LitePoint Corp. - Corporate Headquarters

575 Maude Court Sunnyvale, CA 94085 | +1.408.456.5000 | www.litepoint.com

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