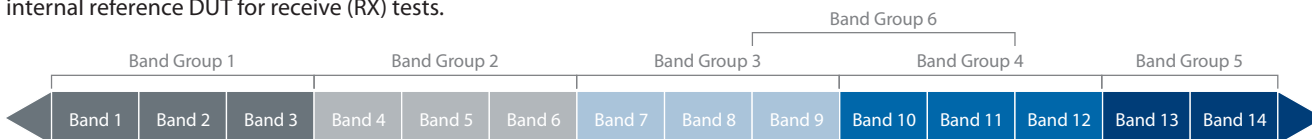


IQultra WiMedia Test System

Complete Test Solution for WiMedia UWB Multiband OFDM Products

IQultra™ is an integrated instrument for PHY layer testing of WiMedia devices based on MB-OFDM modulation (Multi-Band – Orthogonal Frequency Division Multiplexing). IQultra offers coverage of all 6 band groups within the WiMedia specification from 3.1 GHz to 10.6 GHz using a unique high bandwidth vector signal analyzer (VSA) for transmit (TX) tests along with a built in attenuator and an external or internal reference DUT for receive (RX) tests.



Full Frequency Coverage (6 Band Groups)

IQultra offers economical testing of WiMedia devices by virtue of its WiMedia focused design. IQultra combines high speed digitizing aspects of oscilloscopes with down conversion techniques of spectrum analyzers to provide up to 1.6 GHz of digitizing bandwidth covering an entire band group in one acquisition with full band group frequency coverage up to 10.6 GHz. This unique architecture offers full PHY layer characterization capabilities at a fraction of the cost of traditional test approaches.



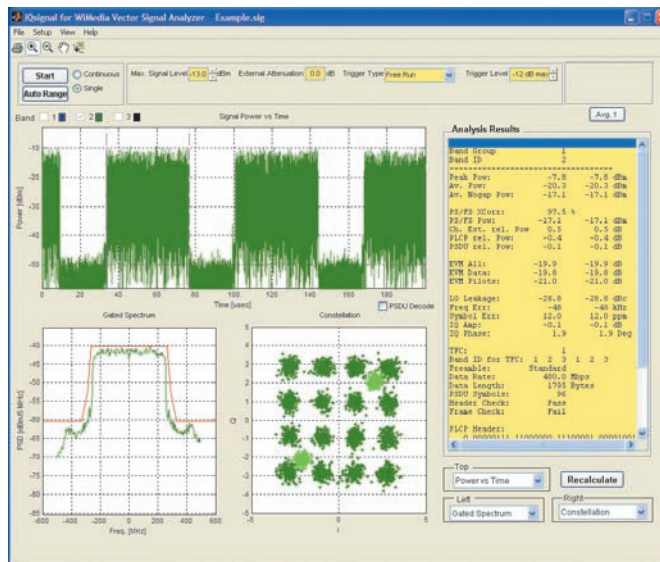
IQultra offers a full suite of built in characterization tests for WiMedia. These include:

- EVM (Error Vector Magnitude)
- TX Power
- Mask Measurements
- RX Sensitivity (with reference DUT)
- ACLR (Adjacent Channel Leakage Ratio)

All of these and other tests are pre-defined and accessible through either a graphical user interface or a C/C++ API. This allows users to rapidly characterize WiMedia devices either in an R&D environment, or develop automated test programs for manufacturing test.



IQultra WiMedia Test System



Graphical User Interface with Built In Measurements



Interfaces Caution: all front and rear connector interfaces are ESD sensitive

Front	DUT interface (DUT)	N-type female	<ul style="list-style-type: none"> Bidirectional RF signal 50 Ohms RF input: +10 dBm average maximum DC Voltage: 30Vdc maximum, Input DC blocked
	Reference transceiver interface (REF-in)	N-type female	<ul style="list-style-type: none"> Bidirectional RF signal 50 Ohms RF input: +10 dBm average maximum DC Voltage: 30Vdc maximum, Input DC blocked
	Internal reference transceiver interface (REF-out)	N-type female	<ul style="list-style-type: none"> Bidirectional RF signal 50 Ohms RF input: +10 dBm average maximum DC Voltage: 30Vdc maximum, Input DC blocked
	Power switch	Pushbutton	<ul style="list-style-type: none"> On/standby
	Power LED	Bi-color indicator	<ul style="list-style-type: none"> On: green Standby: red
Rear	USB PC port	USB Type B	<ul style="list-style-type: none"> Interface to PC USB 2.0 compatible
	USB peripheral port	USB Type A (2 connectors)	<ul style="list-style-type: none"> Interface for peripherals or accessories USB 2.0 compatible
	10 MHz reference input	BNC female	<ul style="list-style-type: none"> External 10 MHz reference clock input connector 200 Ω 0.1 to 2.0Vrms input level
	Trigger ports (2x)	BNC female	<ul style="list-style-type: none"> Programmable as output or trigger input Rising-edge input trigger signal for VSA 5VTTL/CMOS interface Input voltage ≥ 0.5V, ≤ 5.5V Pulse width ≥ 25 ns
	AC power in	15A IEC connector	<ul style="list-style-type: none"> For use with country-specific cord and plug 90-132VAC or 198-264VAC (automatically switched) 47-63 Hz
	0 / 1	Switch	<ul style="list-style-type: none"> Master AC power switch

Order Code

Order Code	Product Description
IQULTRA100	LitePoint IQultra-100 Single Band Capture WiMedia Test System
IQULTRA300	LitePoint IQultra-300 Triple Band Capture WiMedia Test System

Available Product Options

Order Code	Product Description
IQULTRA100-XWR	IQultra-100 Extended Warranty
IQULTRA300-XWR	IQultra-300 Extended Warranty
IQULTRA-CAL	IQmax Annual Calibration
IQULTRA-CAL/PP	IQmax Annual Calibration, prepaid
IQfact Test Programs	Consult Factory for latest availability and order codes

RF Interface Specifications (DUT)

Noise floor (at maximum sensitivity setting)	<ul style="list-style-type: none"> ≤ -70 dBm (5MHz BW)
Operating input level	<ul style="list-style-type: none"> -35 to 0 dBm average (528 MHz BW)
Absolute maximum input level (beyond which the port is damaged)	<ul style="list-style-type: none"> +10 dBm average +20 dBm peak DC Voltage: 30Vdc maximum, Inputs DC blocked
Power measurement accuracy	<ul style="list-style-type: none"> Typical: ± 1.0 dB
Residual EVM (VSA contribution to measurement) (at input power levels ≥ -20 dBm)	<ul style="list-style-type: none"> Specification: ≤ -27 dB Typical: ≤ -30 dB
SNR (VSA contribution to measurement) (at input power level ≥ -20 dBm)	<ul style="list-style-type: none"> Specification: ≥ 30 dB (4.125 MHz resolution BW) Typical: ≥ 33 dB
Spurious response	<ul style="list-style-type: none"> ≤ -45 dB (CW)
Amplitude flatness	<ul style="list-style-type: none"> ≤ 1.0 dB peak-peak (within each 528 MHz band)
Integrated phase noise	<ul style="list-style-type: none"> ≤ 1.5 degrees RMS (10 kHz - 1 MHz)
Input return loss	<ul style="list-style-type: none"> Specification: ≥ 10 dB Typical: ≥ 15 dB

External PC System Minimum Requirements

PC	Intel Pentium processor or compatible, 500MHz (1GHz or higher recommended)
Operating system	Microsoft Windows 2000 (SP3 or higher), Windows XP (SP1 or higher) US English versions
Memory	512MB of RAM
Disk space	500MB of available hard disk space
Monitor	1024 x 768 resolution
Connectivity	USB 2.0

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.