

zSignal[™] WLAN test app



80 MHz 802.11ac test suite example: gated power vs. time, constellation, spectrum flatness/mask, EVM, Pilot EVM, Data & pilot EVM, TX freq. error, center freq. leakage, I/Q gain/phase/delay mismatch, peak/average power.

zSignal WLAN

LitePoint's zSignal WLAN test app shortens time to profit through prevalidated standards-based testing – with full instrument synchronization, built-in RF envelope, backplane or EXT triggering and save setup for automated batch runs and analysis.

LitePoint's zSignal WLAN test app runs the newest 802.11ac 80 and 160 MHz modulation standards, manages x2 to x8 MIMO tests using library and imported custom IQ waveforms to speed chip or module characterization.

LitePoint's zSeries Test Solutions with 500 MHz I/Q modulation bandwidth and the zSignal WLAN test app shorten the time to next generation wireless.

"Got to get this chip qualified for 160 MHz this week. Wish I could just get the results I need and not have to design and automate a tester!"

Features

- Standards-based real-time, swept or batch run testing
- Parametric sweeps for full WLAN characterizations in seconds
- Comprehensive WLAN standards and modulation bandwidths: 802.11a, b, g, n, p, ac, af 160, 80+80, 80, 40 and 20 MHz BPSK to 256QAM
- All channel frequencies: 250 MHz to 6 GHz
- N x M MIMO streams: x2 to x8
- Connects to digital predistortion test app and individual instrument panels
- Table driven automated characterization
- Save setups and results





zSignal WLAN 2x2 MIMO with Waveform Creator

nperature ak Time C E V E Start Delta E Stop Delta	25 300 3.3	-20	85	65	Temperature set p	oints																	
C E V E Start Delta E Stop Delta	3.3																						
E V E Start Delta E Stop Delta																							
E Start Delta E Stop Delta																							
E Start Delta E Stop Delta	2.95																						
E Stop Delta	4,006-07				Power up before P	A																	
	3.006-07				Power held after P	P off																	
E Duty Cycle	50	20																					
AV	2.95																						
ader Only	1																						
I Packet																							
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EAT				_	_																		
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10	5.18	5.5	5.85		Channel frequency																		
MMCS	0	2			Medialation select																		
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1980 MCS 99 ICC MCS		2												7									
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r	-20	-5	1		input power: io, hi	(199)																	
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able	1																						
/	20												EVM	EVM									
19	5.21	\$.53	5.775										Header	Header	EVM Full	EVM Full							Cu.
MMCS		2								Frequency	PI	P_0	Only	Only	Packet	Packet	VCC	KCC .	ICC TX99	Pdet/	PAE	LNA	
isked MCS	0		:			Protocol		-			(dBm)	(dBm)	(48)	(%)	(db)	(%)	(V)	(A)	(A)	Polici	(M)	(V)	Cyc (N
99 ICC MCS	0	2	:																				
			:			80211ac	TX	20	8	5.21E+09	-20	6.6923	-45.3558	0.5400	-47.2489	0.4341	3.3002	0.0342	0.1542	0.0800	2.95		
	-20	-5	2			80211ac	TX	20		5.210+09	-19	7.5650	-64.6022	0.5888	-46.4575		3.2999	0.0349	0.1559	0.1013		2.95	
						80211ac	TX	20	8	5.21E+09	-18	8.5117	-43,7653	0.6483	-45.5416	0.5284	3.2999	0.0349	0.1585	0.0797	2.95	2.95	
	80211ac				Third Test Subset	80211ac	TX	20	8	5.21E+09	-17	9,5440	-42,8488	0.7204	-44,7334		3.2997	0.0361	0.1609	0.1065		2.95	
de T	TX					80211ac	TX	20	÷	5.210+09	-16	10.5445	-42.0102	0.7234	-43.9516		3.2997	0.0365	0.1655	0.0609		2.95	
(b)c	1																						
	42					80211ac	TX	20	8	5.21E+09	-15	11.5889	-41.3412	0.8570	-43.2818	0.6854	3.3003	0.0383	0.1710	0.0968		2.95	
	5.21	5.53	5.775			80211ac	TX	20	8	5.21E+09	-14	12.5529	-40.9658	0.8948	-42.6208	0.7396	3.3000	0.0403	0.1751	0.0964	2.55	2.95	
a M MCS	5.41	3.53	2.02			80211ac	TX	20		5.210+09	-13	13,5701	-40.2423	0.9725	-41.1429	0.8757	3,3000	0.0397	0.1822	0.1211	2 55	2.95	
						80211ac	TX	20	8	5.218+09	-12	14,5207	-38.2683	1.2207	-38.4797	1.1913	3.3002	0.0434	0.1891	0.0887		2.95	
isked MCS	0	7																					
99 ICC MCS	0	2				80211ac	TX	20	8	5.21E+09	-11	15.4740	-34.2426	1.9405	-34.4919		3.3008	0.0453	0.1975	0.1315		2.95	
*	-20	-5	1			80211ac	TX	20		5.21E+09	-10	16.4544	-29.9655	3.1749	-30.5265	2.9763	3.3011	0.0479	0.2093	0.1265		2.95	
						80211ac	TX	20	8	5.21E+09	-9	17.5348	-26.8652	4.5367	-27,4330	4,2497	3.3007	0.0500	0.2213	0.1513	2.95	2.95	
ndard 8	80211ec				Fourth Test Subse		TX	20		5,210+09	-4	18,3340	-24.9678	5.6443	-25.3467		3,3014	0.0535	0.2322	0.1824		2.95	
	TX				Pound Inter Adda																		
	IA .					80211ac	TX	20	8	5.212+09	-7	19.1423	-24.0109	6.3017	-24.3599		3.3020	0.0561	0.2460	0.1625		2.95	
ble	1					80211ac	TX	20	8	5.21E+09	-6	19.9629	-23.5353	6.6563	-24.0761	6.2545	3.3028	0.0612	0.2609	0.1826	2.95	2.95	
	80					80211ac	TX	20		5.210+09	-5	20.6879	-23.1512	6.9573	-23.6725	6.5520	3,3028	0.0651	0.2780	0.2041	2.95	2.95	
	5.21	5.53	5.775			80211ac	TXLP	20	8	5.210+09	-20	5,8130	-42,2958	0.7679	-45,2456		3,3000	0.0291	0.1323	0.0628		2.95	
AMOS	0	2						20	2											0.0985			
ked MCS	ő	2				80211ac	TXLP			5.21E+09	-19	6.8818	-41.7272	0.8198	-44.7560		3.3000	0.0297	0.1346			2.95	
HOC MCS		2				80211ac	TXLP	20	8	5.218+09	-18	7.8707	-40.9094	0.9007	-44.0531		3.2999	0.0309	0.1377	0.0667		2.95	
increases.						80211ac	TXLP	20	8	5.21E+09	-17	8,8681	-39.7927	1.0242	-43.0245	0.7060	3.3001	0.0321	0.1412	0.1087	2.55	2.95	
	-20	-5	1			80211ac	TKLP	20		5.21E+09	-16	9.8483	-38.8337	1.1438	-42.0452		3.2999	0.0325	0.1668	0.0770		2.95	
						80211ac	TXLP	20	÷	5.210+09	-15	10.9700	-38.0687	1,2491	-41.2197		1,2999	0.0340	0.1422	0.0825		2.95	
dard 8	80211ac				Fifth Test Subset																		
	TRUP				Low power mode	80211ac	TXLP	20	8	5.21E+09	-24	11.9318	-37.5936	1.3193	-40.6213	0.9310	3.2999	0.0355	0.1557	0.0914	2.95	2.95	
the state					inst enabled for th	80211ac	TXLP	20	8	5.21E+09	-13	12.9473	-37.6800	1.3052	-40.5600	0.9376	3.3001	0.0364	0.1626	0.0841	2.55	2.95	
	80				and a state of the local data	80211ac	TXLP	20		5,215+09	-12	13.9285	-38,2543	1.2226	-40,5005		3,3003	0.0383	0.1694	0.1347		2.95	
	5.21	5.53	5,775			80211ac	TXLP	20	8	5.21E+09	-11	14,9395	-37.7683	1,2930	-38,4815		3,3004	0.0404	0.1801	0.1398		2.95	
		3.53																					
MCS	0		*	,		80211ac	TXLP	20	8	5.21E+09	-10	15.9659	-33.7142	2.0521	-34.1264	1.9665	3.3005	0.0427	0.1889	0.1039		2.95	
aed MCS	0	7	8			80211ac	TXLP	20	8	5.212+09	-9	16.9475	-29.2433	3.4501	-29.8798		3.3009	0.0467	0.2014	0.1465		2.95	
HOC MCS	0	7	8			80211ac	TXLP	20	8	5.21E+09	-8	17.8844	-26.1052	4.9516	-26.6753	4,6370	3.3015	0.0492	0.2149	0.1516	2.55	2.95	
	-20	-5	1			80211ac	TXLP	20		5,215+09	-7	18,7153	-24.5728	5.9069	-24.9040		3,3012	0.0523	0.2285	0.1521		2.95	
						80211ac	TXLP	20	÷	5.210+09	- A	19.5591	-23.7605	6.4859	-24.2096		3.3026	0.0548	0.2453	0.1384		2.95	
dard #	80211ac				Sixth Test Subset	ences 180																	
	IPM				Long packet made	80211ac	TXLP	20	8	5.21E+09	-5	20.3189	-23.3663	6.7871	-23.9513	6.3451	3.3022	0.0612	0.2608	0.1710	2.55	2.95	
be i					to a berriet unbac																		
e .	1						INP.	JTS or Co	oditi	ions			TEST R	ISULT OUT	PUTS								
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	5.21	5.53	5.775																				
MCS	2																						
and the second se	-25	-10																					

Test app sequencer

- Table driven
- Enable/disable individual blocks
- Control external equipment like temperature chambers
- Nested multiple passes for fully automated characterization

For more information: sales@litepoint.com

zSignal WLAN runs on LitePoint zSeries Wireless Test Sets



PA/FEM Tester



MIMO Tester



RF Chipset Tester



www.litepoint.com