FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

Altai Technologies Limited

A8in Super WiFi Base Station

Model Number: WA8011N-HE

FCC ID: UCC-WA8011N-HE

Prepared for: Altai Technologies Limited

Units 209, 2/F, Lakeside 2, 10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong, China

Prepared By: Audix Technology (Shenzhen) Co., Ltd.

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Report Number : ACS-F13298

Date of Test : Mar.02, 2013~Aug.02, 2014

Date of Report : Aug.02, 2014



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TEST REPORT CERTIFICATION

Applicant : Altai Technologies Limited

Manufacturer : Altai Technologies Limited

EUT Description : A8in Super WiFi Base Station

FCC ID : UCC-WA8011N-HE

(A) MODEL NO. : WA8011N-HE

(B) SERIAL NO. : N/A

(C) POWER SUPPLY: AC 100-240V, 50/60Hz

(D) TEST VOLTAGE: DC 56V From Adapter Input AC 120V/60Hz

Tested for comply with:

FCC Rules and Regulations Part 15 Subpart C: 2012

Test procedure used: ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test: Mar.02, 2013~Aug.02, 2014 Report of date: Aug.04, 2014

Prepared by:

Lisa Liang / As

AstistanDIX

信奉科技(深圳)有限公司unny Lu / Audix Technology (Shenzhen) Co., Ltd.

ssistant Manager

EMC部門報告專用章

Stamp only for EMC Dept. Repor

Signature Dowld Jin 2.4

David Jin / Manager

Approved & Authorized Signer:

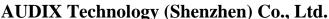


1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

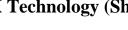
The EUT have been tested according to the applicable standards as referenced below.

EMISSION						
Description of Test Item	Standard	Results				
Downer Line Conducted Emission	FCC Part 15: 15.207	PASS				
Power Line Conducted Emission	ANSI C63.10: 2009	PASS				
Dadioted Envisore	FCC Part 15: 15.209	PASS				
Radiated Emission	ANSI C63.10: 2009	rass				
Dand Edge Compliance	FCC Part 15: 15.247	PASS				
Band Edge Compliance	ANSI C63.10: 2009	PASS				
Conducted annihim animism	FCC Part 15: 15.247					
Conducted spurious emissions	ANSI C63.10: 2009	PASS				
CID Day day; 1th	FCC Part 15: 15.247					
6dB Bandwidth	ANSI C63.10: 2009	PASS				
Deale Contract Decrees	FCC Part 15: 15.247	DAGG				
Peak Output Power	ANSI C63.10: 2009	PASS				
D G (1D)	FCC Part 15: 15.247	DAGG				
Power Spectral Density	ANSI C63.10: 2009	PASS				
Antenna requirement	FCC Part 15: 15.203	PASS				



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2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : A8in Super WiFi Base Station

Model Number : WA8011N-HE

FCC ID : UCC-WA8011N-HE

Radio : IEEE802.11 a/b/g/n

Operation Frequency: IEEE 802.11a: 5745MHz—5825MHz

IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz

IEEE 802.11nHT20: 2412MHz—2462MHz, 5745MHz—5825MHz IEEE 802.11nHT40: 2422MHz—2452MHz, 5755MHz—5795MHz

Modulation : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)

Technology IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)

IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM,

QPSK,BPSK)

Antenna Assembly : 2.4GHz:

Gain Antenna type: Integrated 2.4GHz 14dBi sector, dual slant +-45

degree

Antenna gain (for per antenna and antenna panel): 14dBi

5GHz:

Antenna type: 5GHz 20dBi panel, dual linear

Antenna gain (for per antenna and antenna panel): 20dBi

Applicant : Altai Technologies Limited

Units 209, 2/F, Lakeside 2, 10 Science Park West Avenue, Hong

Kong Science Park, Shatin, Hong Kong, China

Manufacturer : Altai Technologies Limited

Units 209, 2/F, Lakeside 2, 10 Science Park West Avenue, Hong

Kong Science Park, Shatin, Hong Kong, China

AC Adapter : Manufacturer: FSGREAT

M/N: GRT-560110A S/N: 130840101

Date of Test : Mar.02, 2013~Aug.02, 2014

Date of Receipt : Mar.01, 2013

Sample Type : Prototype production



2.2.Test Information

A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information							
Mode	data rate	Channel	Frequency				
	(Mpbs)(see Note)		(MHz)				
IEEE 802.11b	1	Low:CH1	2412				
	1	Middle: CH6	2437				
	1	High: CH11	2462				
IEEE 802.11g	6	Low:CH1	2412				
	6	Middle: CH6	2437				
	6	High: CH11	2462				
IEEE 802.11n HT20	6.5	Low:CH1	2412				
	6.5	Middle: CH6	2437				
	6.5	High: CH11	2462				
IEEE 802.11n HT40	13.5	Low:CH1	2422				
	13.5	Middle: CH4	2437				
	13.5	High: CH7	2452				

Note 1: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

Note2:This device have 4pcs wireless module. each module have two antennas, and 4pcs wireless module can not transmit simultaneously, but two antennas of each module can transmit at the same time. According to exploratory test. The module1# has the maximum output power and worse case radiated emission. So the final tests was performed which module#1 as a representative.

Tested mode, channel, and data rate information						
Mode	data rate	Channel	Frequency			
	(Mpbs)(see Note)		(MHz)			
IEEE 802.11a	6	Low :CH149	5745			
	6	Middle: CH157	5785			
	6	High: CH165	5825			
IEEE 802.11n HT20	6.5	Low :CH149	5745			
	6.5	Middle: CH157	5785			
	6.5	High: CH165	5825			
IEEE 802.11n HT40	13.5	Low :CH151	5755			
	13.5	High: CH159	5795			

Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

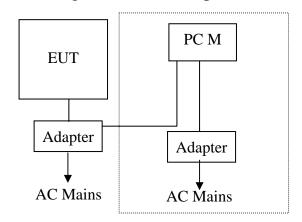


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2.3. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type			
1	Personal	Test PC M	DELL	Studio 540	224XK2X	☑FCC DoC ☑BSMI ID:R33002			
			Power Cord: Unshielded, Detachable, 1.8m Display Card: HD3450 (DVI+VGA+HDMI)						
2	Manitan	ACS-EMC-LM04R	DELL	1907FPt	CN-009759-7161 8-6AP-ACPP	☑FCC DoC ☑BSMI ID: R3A002			
		Power Cord: Unshielded, Detachable, 1.8m VGA Cable: Shielded, Detachable, 2.0m (with two cores)							
		DVI Cable: Shielded	d, Detachable, 2.0	Om (with two	cores)	☑ FCC DoC			
3	USB Mouse	ACS-EMC-M04R	DELL	M0C5UO	512024282	☑ FCC B0C ☑BSMI ID: R41108			
		Power Cord: shielded, Undetachable, 1.8m							
4	USB Keyboard	ACS-EMC- K04R	DELL	SK-8115	CN-ODJ313-716 16-6BB-049J	☑ FCC DoC ☑BSMI ID: T3A002			
		Power Cord: shielde	d, Undetachable	, 2.0m					

2.4. Block Diagram of Test Setup



(EUT: A8in Super WiFi Base Station)

AUDIX Technology (Shenzhen) Co., Ltd.







2.5. Test Facility

Site Description

Name of Firm Audix Technology (Shenzhen) Co., Ltd.

No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou,

Shenzhen, Guangdong, China

3m Anechoic Chamber Certificated by FCC, USA

> Registration Number: 90454 Valid Date: Feb.22, 2015

3m & 10m Anechoic Chamber Certificated by FCC, USA

Registration Number: 794232 Valid Date: Oct.31, 2015

EMC Lab. Certificated by Industry Canada

Registration Number: IC 5183A-1

Valid Date: Jun.13, 2014

Certificated by DAkkS, Germany Registration No: D-PL-12151-01-01

Valid Date: Feb.01, 2014

Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2014

2.6. Measurement Uncertainty (95% confidence levels, k=2)

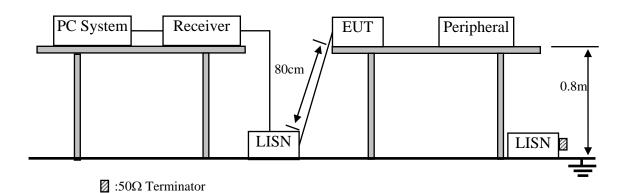
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.1 dB (150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.22 dB(30~200MHz, Polarize: H) 3.23 dB(30~200MHz, Polarize: V) 3.49 dB(200M~1GHz, Polarize: H) 3.39 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	5.04dB (1~6GHz, Distance: 3m) 5.06 dB (6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57 dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Power density test	2.00 dB
Uncertainty for Frequency range test	$7x10^{-8}$
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and	0.6℃
humidity	3%

3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 12	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 12	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 13	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 13	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 13	1 Year
6.	RF Cable	Fujikura	3D-2W	No.1	May.08, 13	1Year
7.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 13	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 13	1 Year

3.2.Block Diagram of Test Setup



3.3. Power Line Conducted Emission Test Limits

	Maximum RF Line Voltage			
Frequency	Quasi-Peak Level	Average Level		
	$dB(\mu V)$	$dB(\mu V)$		
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*		
500kHz ~ 5MHz	56	46		
5MHz ~ 30MHz	60	50		

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. A8in Super WiFi Base Station (EUT)

Model Number : WA8011N-HE

Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5. Operating Condition of EUT

- 3.5.1. Setup the EUT and simulator as shown as Section 3.2.
- 3.5.2. Turned on the power of all equipment.
- 3.5.3. PC run test software to control EUT work in Tx mode.

3.6.Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 9kHz.

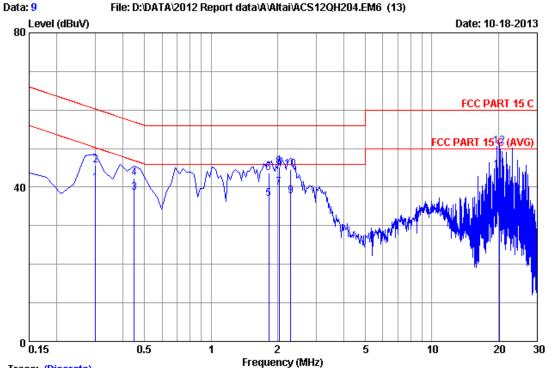
The frequency range from 150kHz to 30MHz is checked.

3.7. Power Line Conducted Emission Test Results

PASS. (All emissions not reported below are too low against the prescribed limits.)



2.4G:



Trace: (Discrete)

Site no :1#conduction Data No :9

Dis./Ant. :** 2012 ESH2-Z5 LINE

Limit :FCC PART 15 C

Env./Ins. :22.9*C/45% Engineer :Leo-Li

EUT : A8in Super WiFi Base Station

Power Rating :DC 56V From Adapter Input AC 120V/60Hz

Test Mode :Tx Mode

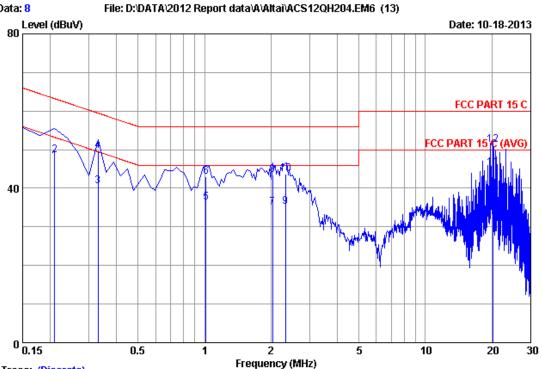
M/N:WA8011N-HE

		LISN	Cable		Emissior	1		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.29925	0.19	0.01	40.89	41.09	50.26	9.17	Average
2	0.29925	0.19	0.01	45.41	45.61	60.26	14.65	QP
3	0.44850	0.19	0.02	38.45	38.66	46.90	8.24	Average
4	0.44850	0.19	0.02	42.16	42.37	56.90	14.53	QP
5	1.822	0.24	0.04	36.77	37.05	46.00	8.95	Average
6	1.822	0.24	0.04	43.33	43.61	56.00	12.39	QP
7	2.031	0.24	0.04	39.59	39.87	46.00	6.13	Average
8	2.031	0.24	0.04	44.87	45.15	56.00	10.85	QP
9	2.299	0.25	0.04	37.29	37.58	46.00	8.42	Average
10	2.299	0.25	0.04	44.23	44.52	56.00	11.48	QP
11	20.269	1.18	0.14	42.92	44.24	50.00	5.76	Average
12	20.269	1.18	0.14	49.23	50.55	60.00	9.45	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.

2.If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.





Trace: (Discrete)

Site no :1#conduction Data No :8

Dis./Ant. :** 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 C

Env./Ins. :22.9*C/45% Engineer :Leo-Li

EUT : A8in Super WiFi Base Station

Power Rating :DC 56V From Adapter Input AC 120V/60Hz

Test Mode :Tx Mode

M/N:WA8011N-HE

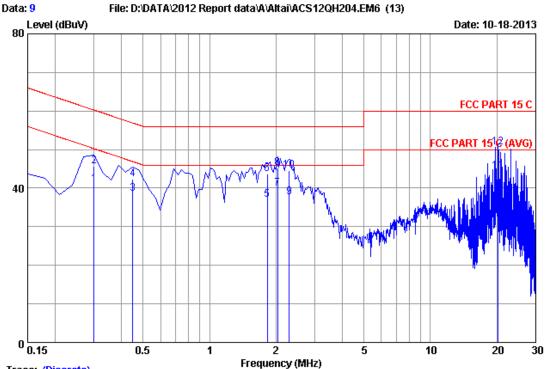
		LISN	Cable		Emission	ı		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.20970	0.21	0.01	46.86	47.08	53.22	6.14	Average
2	0.20970	0.21	0.01	48.32	48.54	63.22	14.68	QP
3	0.32910	0.22	0.01	40.36	40.59	49.47	8.88	Average
4	0.32910	0.22	0.01	49.36	49.59	59.47	9.88	QP
5	1.016	0.24	0.03	36.14	36.41	46.00	9.59	Average
6	1.016	0.24	0.03	42.70	42.97	56.00	13.03	QP
7	2.031	0.28	0.04	34.72	35.04	46.00	10.96	Average
8	2.031	0.28	0.04	43.16	43.48	56.00	12.52	QP
9	2.329	0.29	0.04	34.87	35.20	46.00	10.80	Average
10	2.329	0.29	0.04	43.28	43.61	56.00	12.39	QP
11	20.269	0.98	0.14	44.19	45.31	50.00	4.69	Average
12	20.269	0.98	0.14	50.04	51.16	60.00	8.84	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.

^{2.}If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



5.8G:



Trace: (Discrete)

Site no :1#conduction Data No :9

Dis./Ant. :** 2012 ESH2-Z5 LINE

Limit :FCC PART 15 C

Env./Ins. :22.9*C/45% Engineer :Leo-Li

EUT : A8in Super WiFi Base Station

Power Rating :DC 56V From Adapter Input AC 120V/60Hz

Test Mode :Tx Mode

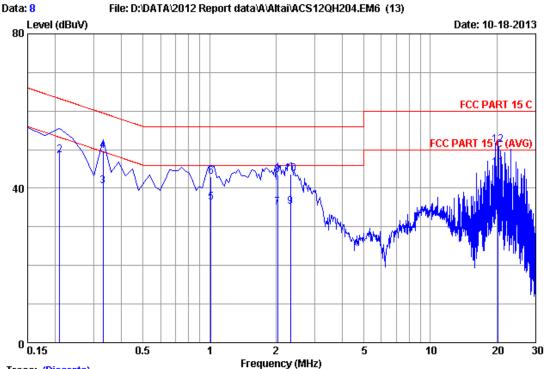
M/N:WA8011N-HE

		LISN	Cable		Emissior	1		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.29925	0.19	0.01	40.89	41.09	50.26	9.17	Average
2	0.29925	0.19	0.01	45.41	45.61	60.26	14.65	QP
3	0.44850	0.19	0.02	38.45	38.66	46.90	8.24	Average
4	0.44850	0.19	0.02	42.16	42.37	56.90	14.53	QP
5	1.822	0.24	0.04	36.77	37.05	46.00	8.95	Average
6	1.822	0.24	0.04	43.33	43.61	56.00	12.39	QP
7	2.031	0.24	0.04	39.59	39.87	46.00	6.13	Average
8	2.031	0.24	0.04	44.87	45.15	56.00	10.85	QP
9	2.299	0.25	0.04	37.29	37.58	46.00	8.42	Average
10	2.299	0.25	0.04	44.23	44.52	56.00	11.48	QP
11	20.269	1.18	0.14	42.92	44.24	50.00	5.76	Average
12	20.269	1.18	0.14	49.23	50.55	60.00	9.45	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.

2.If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.





Trace: (Discrete)

Site no :1#conduction Data No :8

Dis./Ant. :** 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 C

Env./Ins. :22.9*C/45% Engineer :Leo-Li

EUT :A8in Super WiFi Base Station

Power Rating :DC 56V From Adapter Input AC 120V/60Hz

Test Mode :Tx Mode

M/N:WA8011N-HE

		LISN	Cable		Emission	ı		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.20970	0.21	0.01	46.86	47.08	53.22	6.14	Average
2	0.20970	0.21	0.01	48.32	48.54	63.22	14.68	QP
3	0.32910	0.22	0.01	40.36	40.59	49.47	8.88	Average
4	0.32910	0.22	0.01	49.36	49.59	59.47	9.88	QP
5	1.016	0.24	0.03	36.14	36.41	46.00	9.59	Average
6	1.016	0.24	0.03	42.70	42.97	56.00	13.03	QP
7	2.031	0.28	0.04	34.72	35.04	46.00	10.96	Average
8	2.031	0.28	0.04	43.16	43.48	56.00	12.52	QP
9	2.329	0.29	0.04	34.87	35.20	46.00	10.80	Average
10	2.329	0.29	0.04	43.28	43.61	56.00	12.39	QP
11	20.269	0.98	0.14	44.19	45.31	50.00	4.69	Average
12	20.269	0.98	0.14	50.04	51.16	60.00	8.84	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.

^{2.}If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1.Test Equipment

4.1.1. For frequency range 30MHz~1000MHz (At Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A N/A		1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 13	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 13	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 13	1 Year
5	Bilog Antenna	TESEQ	CBL6112D	35375	May.30, 13	1 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	May.08, 13	1 Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 13	1 Year

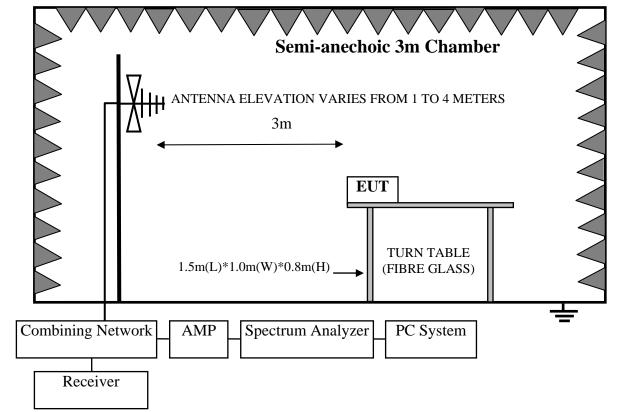
4.1.2. For frequency range above 1GHz (At Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 12	1 Year
2	Horn Antenna	EMCO	3115	9510-4580	June.05, 12	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 12	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77980/6	May.08, 12	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	May.08, 12	1 Year
6	Horn Antenna	EMCO	3116	00060089	June.05,12	1 Year

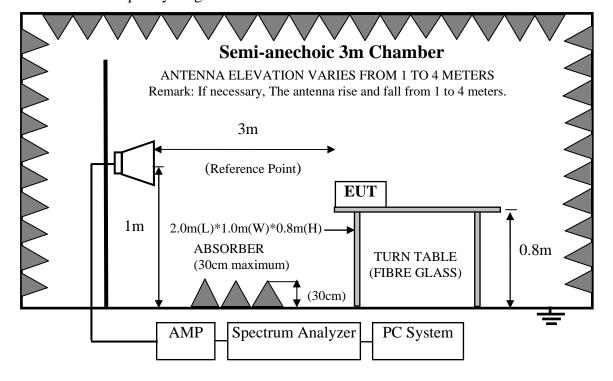


4.2.Block Diagram of Test Setup

4.2.1. For frequency range 30MHz-1000MHz



4.2.2. For frequency range above 1GHz



4.3. Radiated Emission Limit

4.3.1.15.247&209 limits

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMIT			
MHz	Meters	μV/m	$dB(\mu V)/m$		
30 ~ 88	3	100	40.0		
88 ~ 216	3	150	43.5		
216 ~ 960	3	200	46.0		
960 ~ 1000	3	500	54.0		
Above 1000	3	74.0 dB(μV)/m (Peak)			
		54.0 dB(μV	V)/m (Average)		

Remark: (1) Emission level $dB\mu V = 20 \log Emission$ level $\mu V/m$

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2.15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	0.090 - 0.110 16.42 - 16.423		4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions or comply with 15.209 limits.

4.4.EUT Configuration on Test

The configurations of EUT are listed in Section 3.5.

4.5. Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and



down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (40GHz) are checked. and no any emissions were found from 18GHz to 40 GHz, So the radiated emissions from 18GHz to 40GHz were not record

4.7. Radiated Emission Test Results

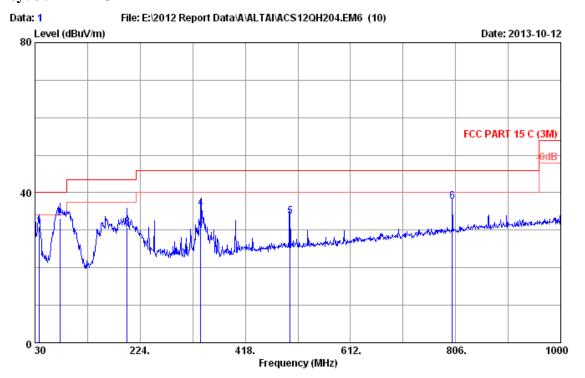
PASS.

All the emissions from 30MHz to 40 GHz were comply with 15.209 limits.

Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.



2.4G: Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/65% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power rating : DC 56V From Adapter Input AC 120V/60Hz

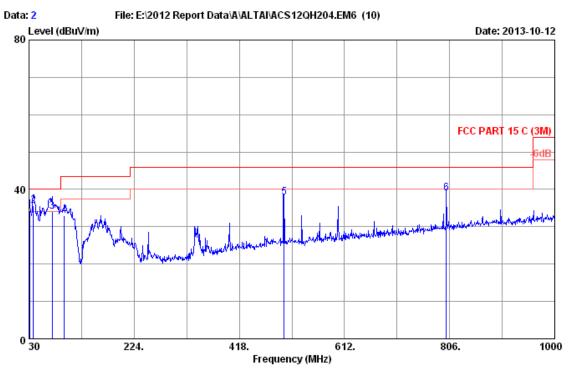
Test Mode : Tx Mode

M/N:WA8011N-HE

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	37.760	15.34	0.97	14.74	31.05	40.00	8.95	QP
2	75.590	7.18	1.30	24.63	33.11	40.00	6.89	QP
3	199.750	10.29	1.79	18.78	30.86	43.50	12.64	QP
4	335.550	14.82	2.27	18.87	35.96	46.00	10.04	QP
5	500.450	18.01	2.75	12.85	33.61	46.00	12.39	QP
6	800.180	20.90	3.61	13.06	37.57	46.00	8.43	QP

^{2.} The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : VERTICAL

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/65% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power rating : DC 56V From Adapter Input AC 120V/60Hz

Test Mode : Tx Mode

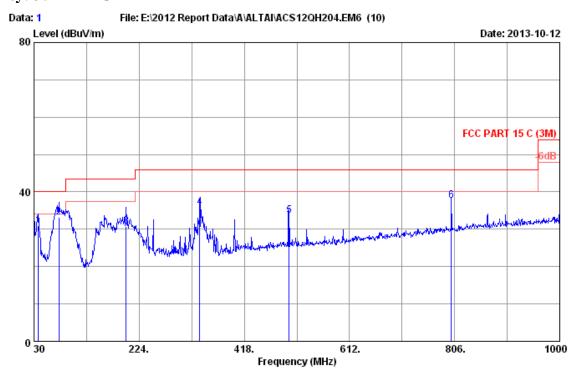
M/N:WA8011N-HE

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	30.970	19.47	0.85	13.90	34.22	40.00	5.78	QP
2	37.760	15.34	0.97	19.26	35.57	40.00	4.43	QP
3	72.680	6.97	1.29	25.84	34.10	40.00	5.90	QP
4	94.990	10.40	1.39	21.15	32.94	43.50	10.56	QP
5	500.450	18.01	2.75	17.08	37.84	46.00	8.16	QP
6	800.180	20.90	3.61	14.57	39.08	46.00	6.92	QP

^{2.} The emission levels that are 20dB below the official limit are not reported.



5.8G: Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/65% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

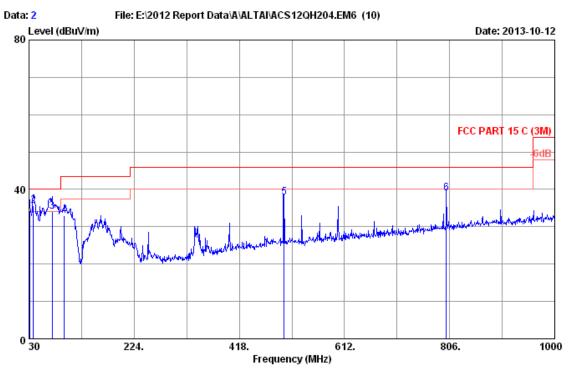
Power rating : DC 56V From Adapter Input AC 120V/60Hz

Test Mode : Tx Mode

 ${\tt M/N:WA8011N-HE}$

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	_	Remark
1	37.760	15.34	0.97	14.74	31.05	40.00	8.95	QP
2	75.590	7.18	1.30	24.63	33.11	40.00	6.89	QP
3	199.750	10.29	1.79	18.78	30.86	43.50	12.64	QP
4	335.550	14.82	2.27	18.87	35.96	46.00	10.04	QP
5	500.450	18.01	2.75	12.85	33.61	46.00	12.39	QP
6	800.180	20.90	3.61	13.06	37.57	46.00	8.43	QP





Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : VERTICAL

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/65% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power rating : DC 56V From Adapter Input AC 120V/60Hz

Test Mode : Tx Mode

M/N:WA8011N-HE

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	_	Emission Level (dBuV/m)		Margin (dB)	Remark
1	30.970	19.47	0.85	13.90	34.22	40.00	5.78	QP
2	37.760	15.34	0.97	19.26	35.57	40.00	4.43	QP
3	72.680	6.97	1.29	25.84	34.10	40.00	5.90	QP
4	94.990	10.40	1.39	21.15	32.94	43.50	10.56	QP
5	500.450	18.01	2.75	17.08	37.84	46.00	8.16	QP
6	800.180	20.90	3.61	14.57	39.08	46.00	6.92	QP

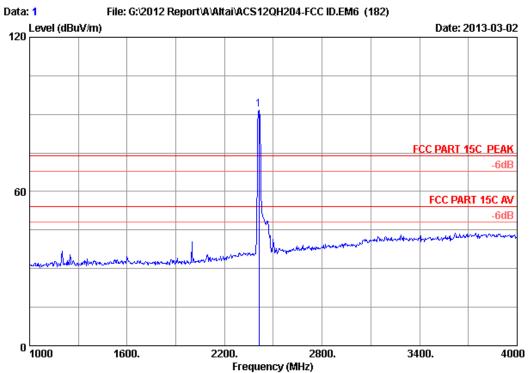
^{2.} The emission levels that are 20dB below the official limit are not reported.



<u>page 4-9</u> FCC ID:UCC-WA8011N-HE

2.4G:

Frequency: 1GHz~6GHz



Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL

Limit

: FCC PART 15C PEAK : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

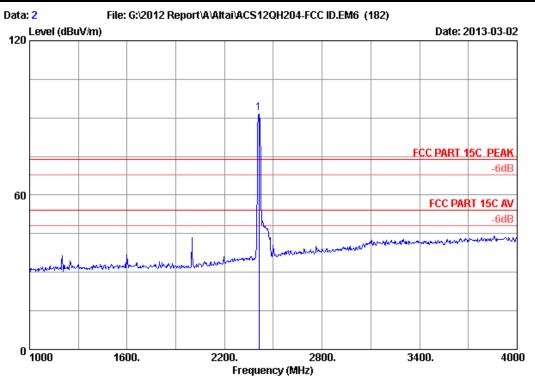
Power supply: DC 56V From Adapter Input AC 120V/60Hz

: IEEE802.11b CH 1 2412MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2412.000	28.21	5.81	35.70	93.62	91.94	74.00	-17.94	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

WA8011N-HE

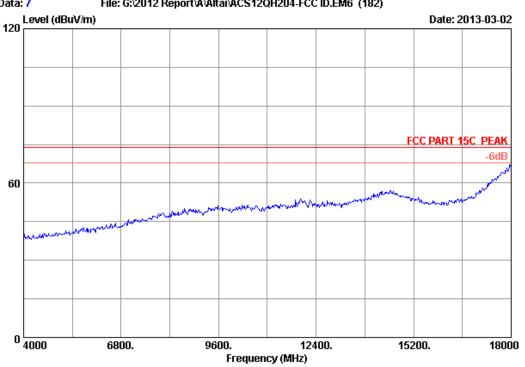
	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Level (dBuV/m)	Limits	_	Remark
1	2412.000	28.21	5.81	35.70	93.46	91.78	74.00	-17.78	Peak

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Data no. : 7

Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 23*C/54%

Engineer : Leo-Li

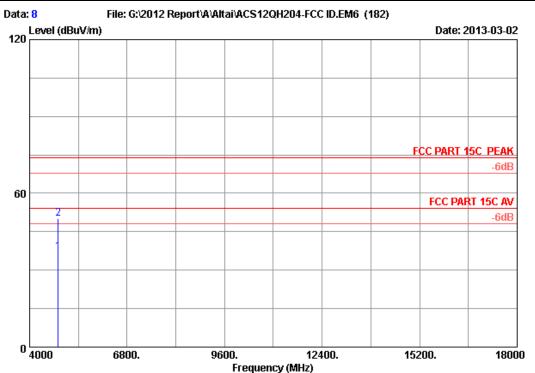
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

WASO11N-HE





: 3m Chamber Site no.

Data no. : 8 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

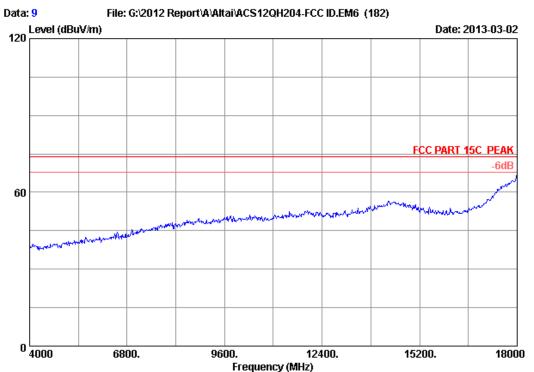
Test mode : IEEE802.11b CH 1 2412MHz Tx

	Freq. (MHz)		Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	4824.000	32.88		35.70	31.26	37.02	54.00	16.98	Average
2	4824.000	32.88		35.70	44.51	50.27	74.00	23.73	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber

Data no. : 9 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

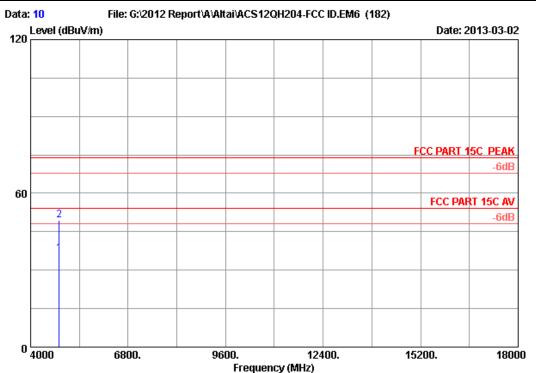
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx





: 3m Chamber Site no.

Data no. : 10 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

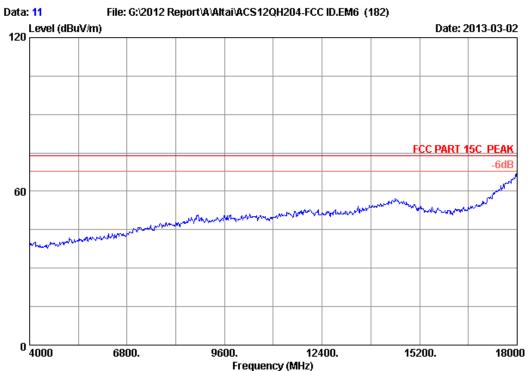
Test mode : IEEE802.11b CH 1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2	4824.000 4824.000	32.88 32.88		35.70 35.70		36.34 49.54	54.00 74.00	17.66 24.46	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 11 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

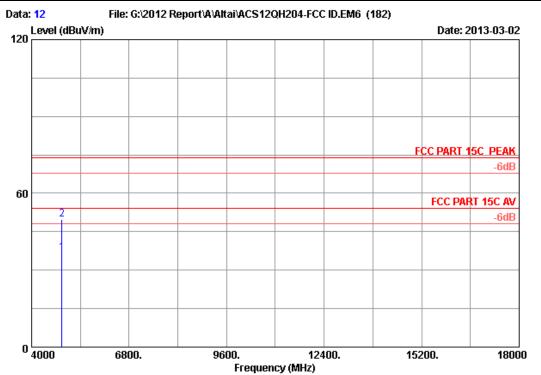
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 6 2437MHz Tx





: 3m Chamber Site no.

Data no. : 12 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

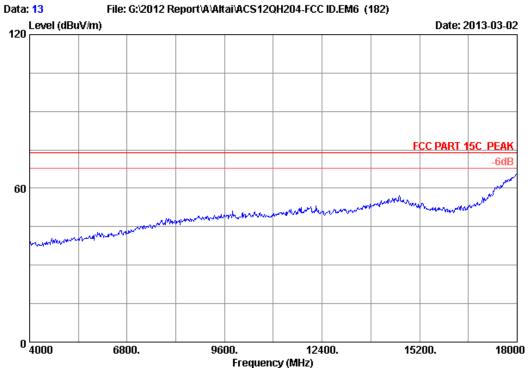
Test mode : IEEE802.11b CH 6 2437MHz Tx

	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	4874.000 4874.000		35.70 35.70	30.89 43.97	36.79 49.87	54.00 74.00	17.21 24.13	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 13 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

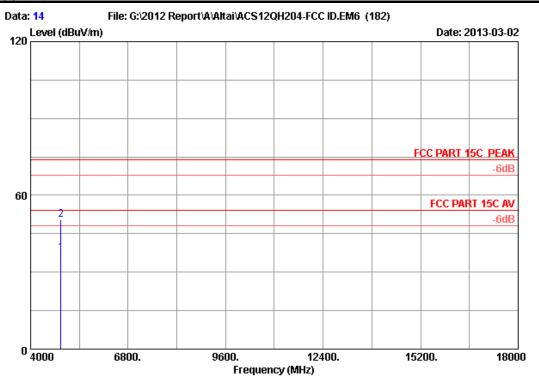
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 6 2437MHz Tx





: 3m Chamber Site no.

Data no. : 14 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

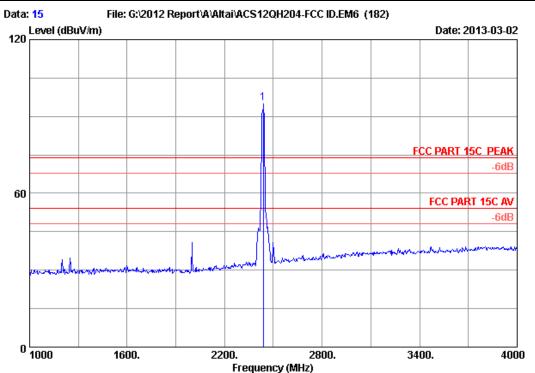
Test mode : IEEE802.11b CH 6 2437MHz Tx

	Ant.		Cable	Amp.		Emission					
	Freq. (MHz)	Factor (dB/m)	loss (dB)		_	Level (dBuV/m)		Margin (dB)	Remark		
_	4874.000 4874.000			35.70 35.70	31.46 44.70	37.36 50.60	54.00 74.00	16.64 23.40	Average Peak		

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 15 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 6 2437MHz Tx

WA8011N-HE

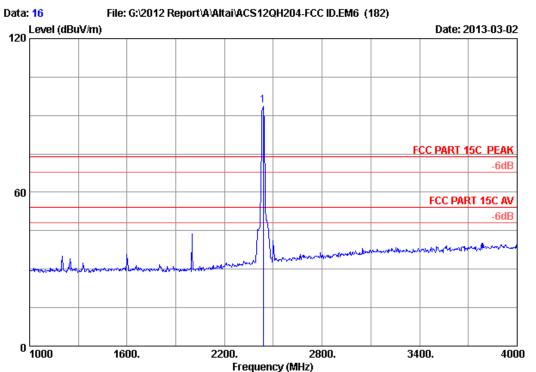
		Ant.	Cable	Amp.		Emission			
	-				_	Level		_	Remark
	(MHz)	(dB/m)	(dB)	(dB) 	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2437.000	28.26	5.85	35.70	96.79	95.20	74.00	-21.20	Peak

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-20 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 16 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 6 2437MHz Tx

WA8011N-HE

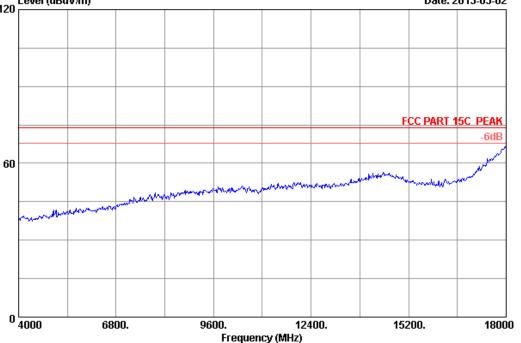
		Ant.	Cable	Amp.		Emission				
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark	
1	2437.000	28.26	5.85	35.70	95.62	94.03	74.00	-20.03	Peak	

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-21 FCC ID:UCC-WA8011N-HE File: G:\2012 Report\A\Altai\ACS12QH204-FCC ID.EM6 (182) Data: 17 Date: 2013-03-02 Level (dBuV/m)



: 3m Chamber Site no.

Data no. : 17 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

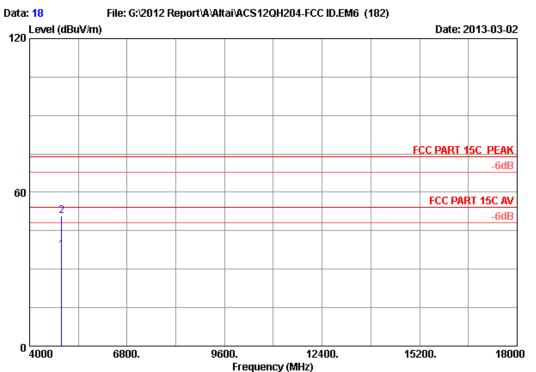
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx



page 4-22 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 18 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

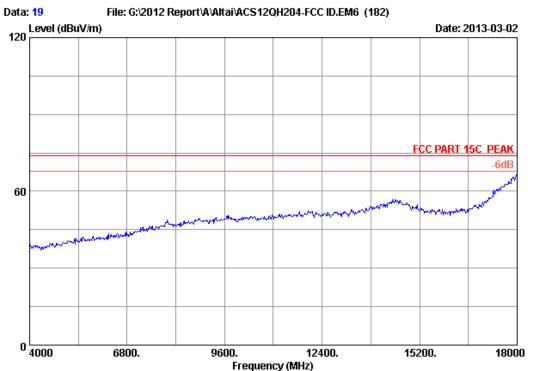
Test mode : IEEE802.11b CH 11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4924.000 4924.000			35.70 35.70	31.26 44.73	37.31 50.78	54.00 74.00	16.69 23.22	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber

Data no. : 19 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

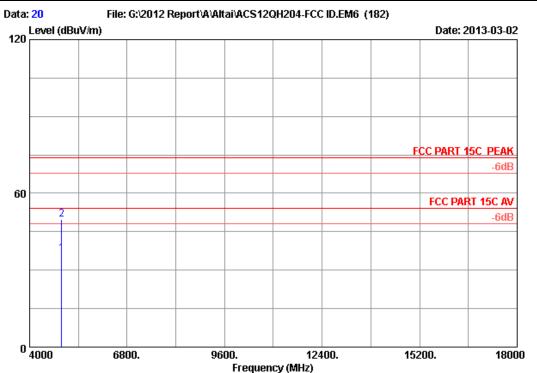
: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx



page 4-24 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 20 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

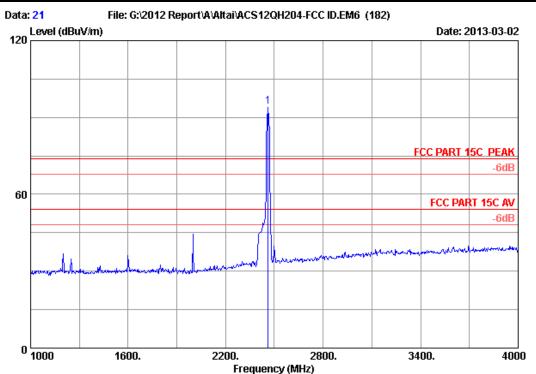
Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4924.000 4924.000			35.70 35.70		36.49 49.76		17.51 24.24	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

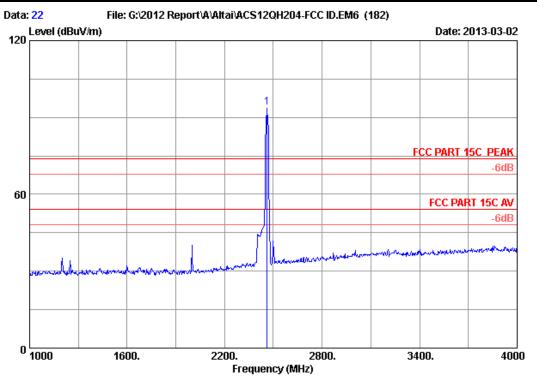
WA8011N-HE

		Ant.	Cable	Amp.		Emission				
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark	
1	2462.000	28.32	5.89	35.70	95.65	94.16	74.00	-20.16	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 22 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

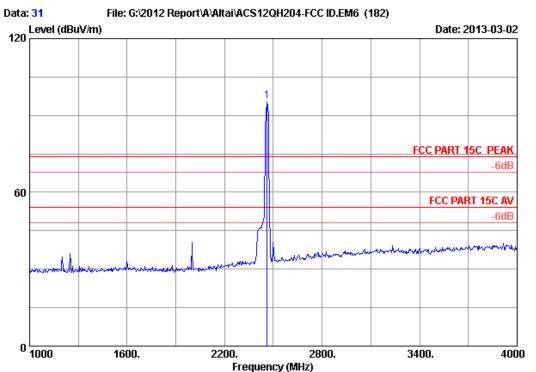
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
1	2462.000	28.32	5.89	35.70	95.34	93.85	74.00	-19.85	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 31 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

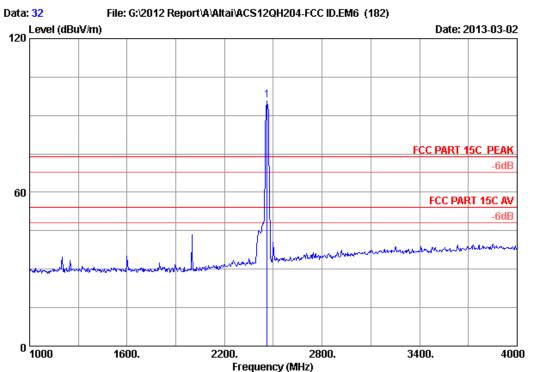
Test mode : IEEE802.11g CH 11 2462MHz Tx

WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
1	2462.000	28.32	5.89	35.70	97.14	95.65	74.00	-21.65	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

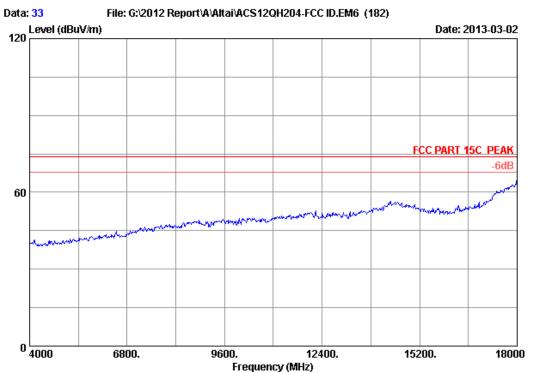
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2462.000	28.32	5.89	35.70	97.33	95.84	74.00	-21.84	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 33 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

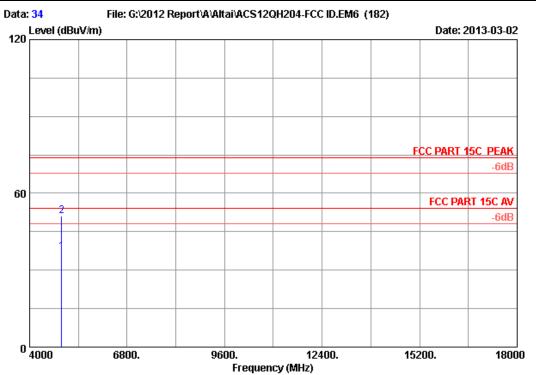
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz Tx



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: 3m Chamber Site no.

Data no. : 34 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

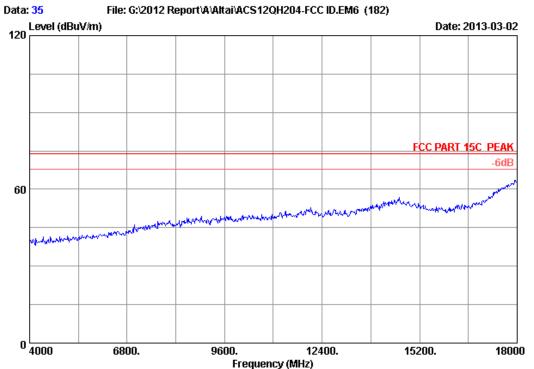
Test mode : IEEE802.11g CH11 2462MHz Tx

		Ant.	Cable	Amp.		Emission		
	Freq. (MHz)		loss (dB)		_	Level (dBuV/m)	_	Remark
_	4924.000 4924.000			35.70 35.70		37.07 51.28	16.93 22.72	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 35 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

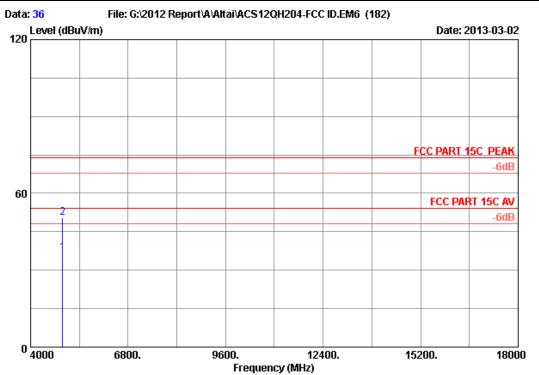
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz Tx



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: 3m Chamber Site no.

Data no. : 36 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

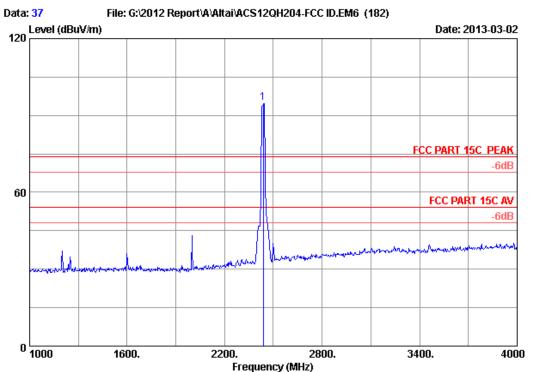
Test mode : IEEE802.11g CH11 2462MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor (dB/m)	loss (dB)		_	Level (dBuV/m)		_	Remark
_	4924.000 4924.000			35.70 35.70	30.71 44.59	36.76 50.64	54.00 74.00	17.24 23.36	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 37 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH 6 2437MHz Tx

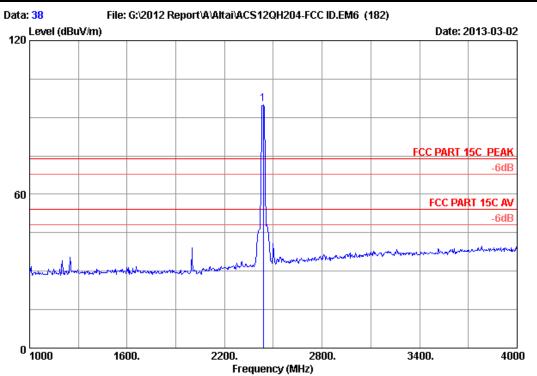
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2437.000	28.26	5.85	35.70	96.62	95.03	74.00	-21.03	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 38 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH 6 2437MHz Tx

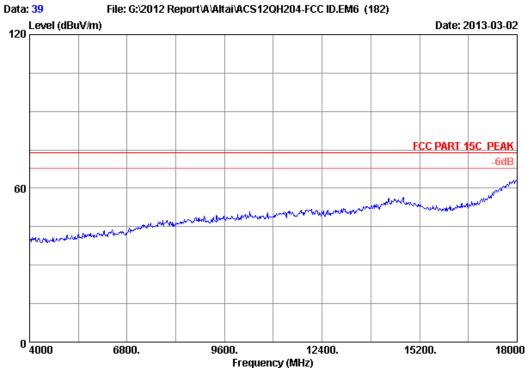
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2437.000	28.26	5.85	35.70	96.85	95.26	74.00	-21.26	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 39 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

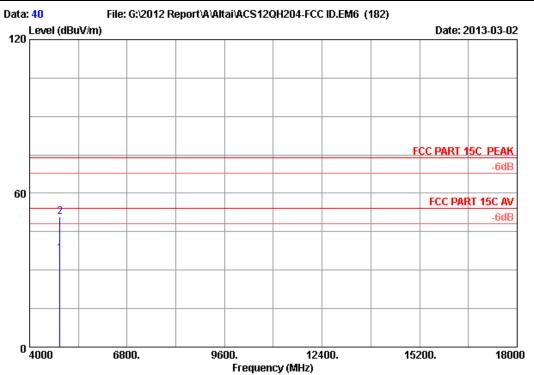
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz Tx



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: 3m Chamber Site no.

Data no. : 40 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

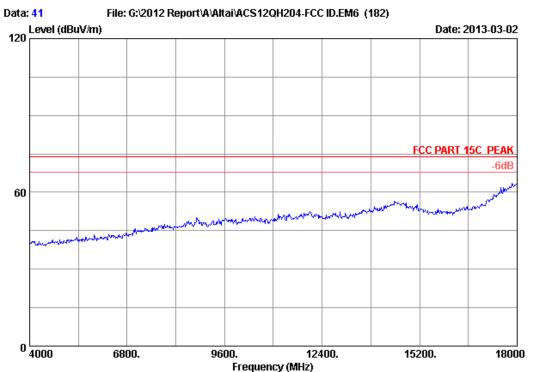
Test mode : IEEE802.11g CH6 2437MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)			Margin (dB)	Remark
_	4874.000 4874.000			35.70 35.70	30.57 44.96	36.47 50.86	54.00 74.00	17.53 23.14	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 41 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

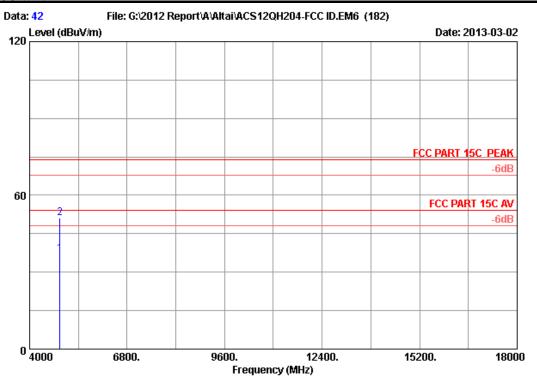
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz Tx



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: 3m Chamber Site no.

Data no. : 42 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

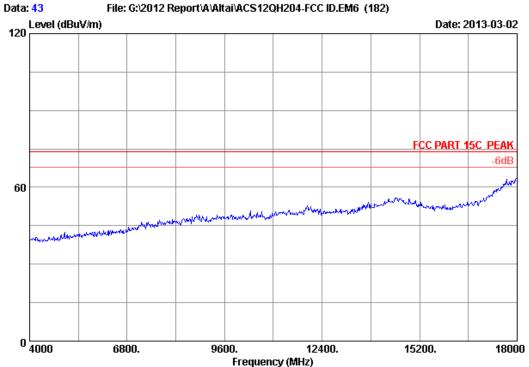
Test mode : IEEE802.11g CH6 2437MHz Tx

	Ant.	Cable	Amp.		Emission		
Freq. (MHz)		loss (dB)		_	Level (dBuV/m)	_	Remark
4874.000 4874.000				31.25 45.29	37.15 51.19	16.85 22.81	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.







: 3m Chamber Site no.

Data no. : 43 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

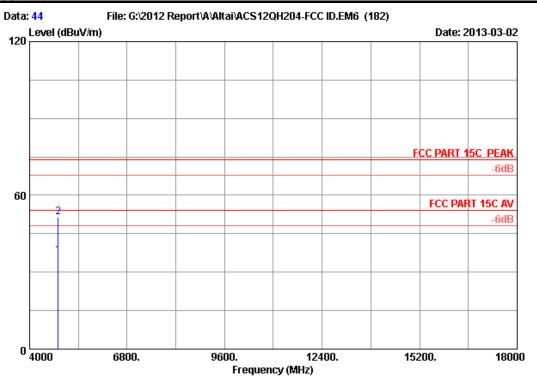
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz Tx



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: 3m Chamber Site no.

Data no. : 44 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

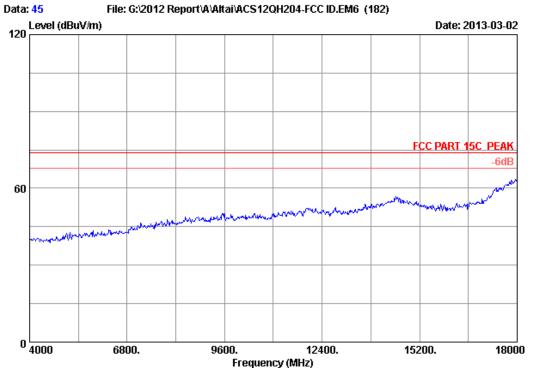
Test mode : IEEE802.11g CH1 2412MHz Tx

		Ant.	Cable	Amp.		Emission		
	Freq.		loss (dB)		_	Level (dBuV/m)	_	Remark
_	4824.000 4824.000			35.70 35.70	30.78 45.66		 17.46 22.58	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 45 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

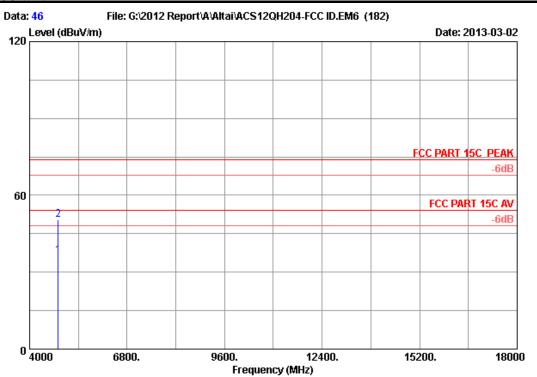
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz Tx





: 3m Chamber Site no.

Data no. : 46 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

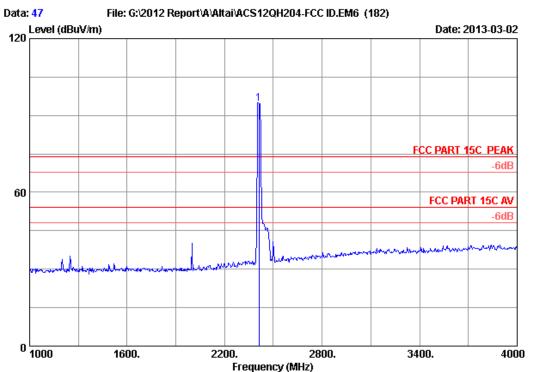
Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz Tx

	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	4824.000 4824.000	 	35.70 35.70		36.28 50.33		17.72 23.67	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





: 3m Chamber Site no.

Data no. : 47 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

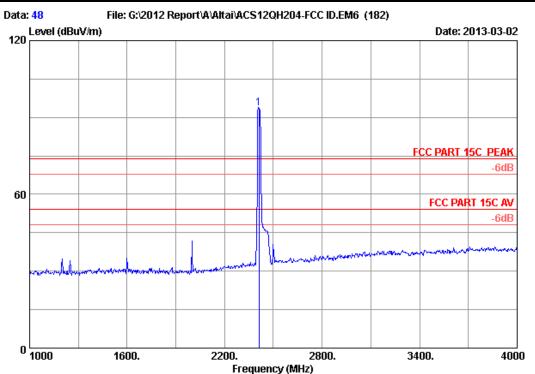
Test mode : IEEE802.11g CH 1 2412MHz Tx

WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2412.000	28.21	5.81	35.70	96.28	94.60	74.00	-20.60	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





: 3m Chamber Site no.

Data no. : 48 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

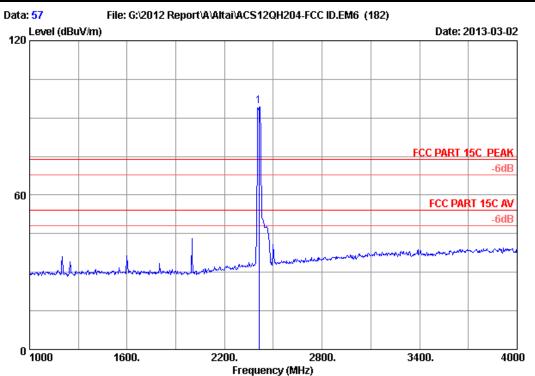
Test mode : IEEE802.11g CH 1 2412MHz Tx

WA8011N-HE

		Ant.	Cable	Amp.		Emission				
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark	
1	2412.000	28.21	5.81	35.70	95.42	93.74	74.00	-19.74	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 57
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

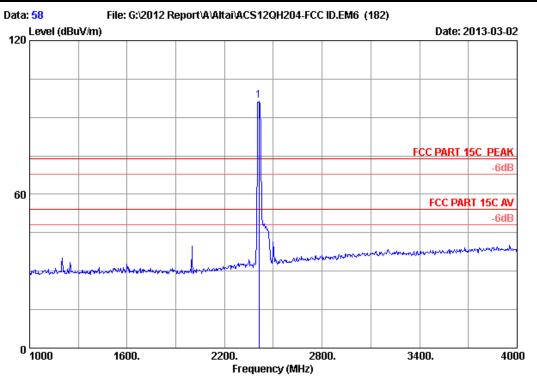
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2412.000	28.21	5.81	35.70	96.37	94.69	74.00	-20.69	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





: 3m Chamber Site no.

Data no. : 58 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

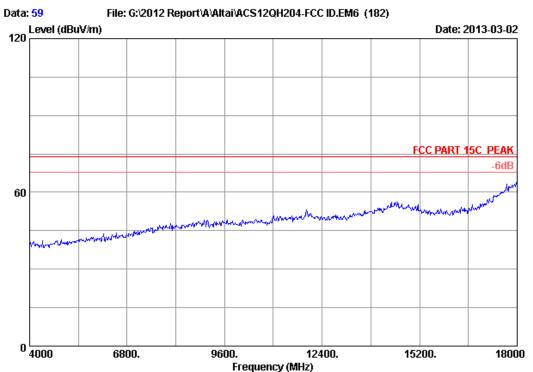
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2412.000	28.21	5.81	35.70	98.22	96.54	74.00	-22.54	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 59 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

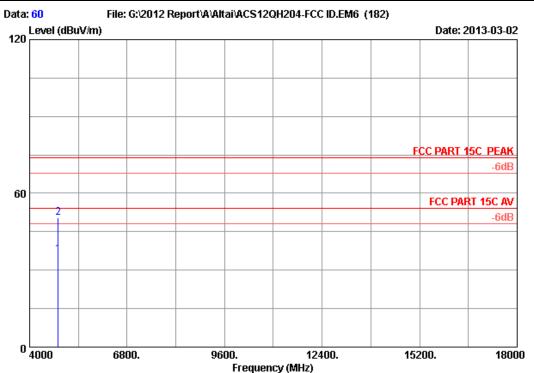
Engineer : Leo-Li Env. / Ins. : 23*C/54%

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH1 2412MHz Tx





: 3m Chamber Site no.

Data no. : 60 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

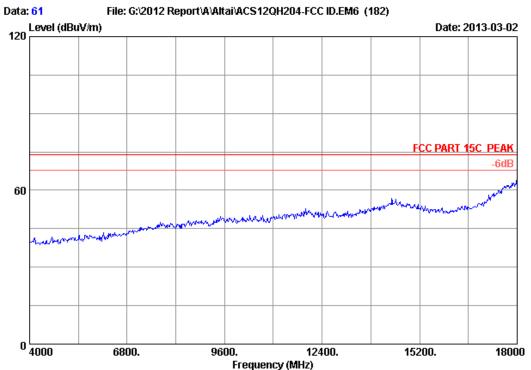
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4824.000 4824.000		35.70 35.70	30.41 44.73	36.17 50.49	54.00 74.00	17.83 23.51	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 61 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

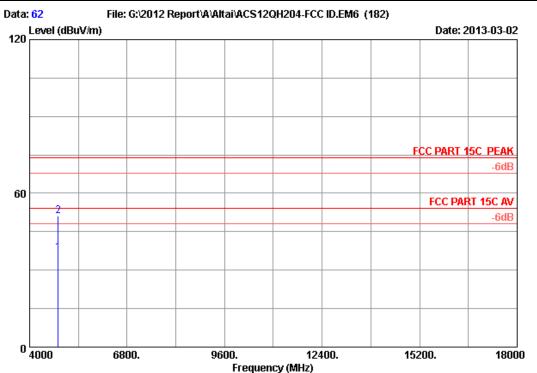
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH1 2412MHz Tx



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: 3m Chamber Site no.

Data no. : 62 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

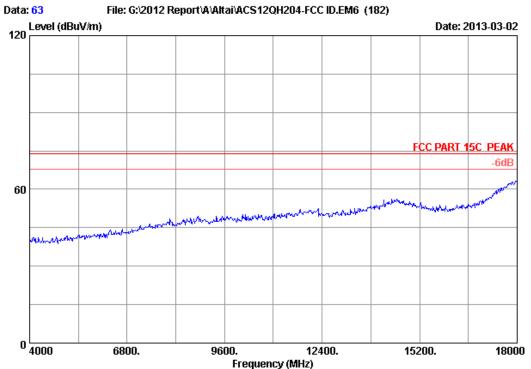
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4824.000 4824.000			35.70 35.70		36.88 51.09	54.00 74.00	17.12 22.91	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-51 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 63 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

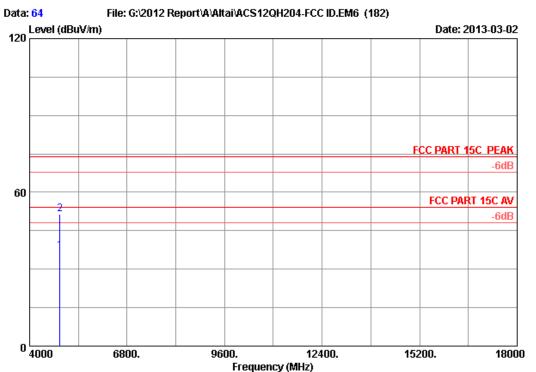
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH6 2437MHz Tx



page 4-52 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 64 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

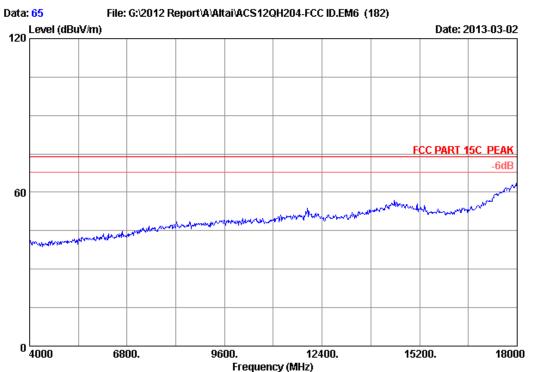
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	4874.000 4874.000		 35.70 35.70		37.00 51.39	54.00 74.00	17.00 22.61	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-53 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 65 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

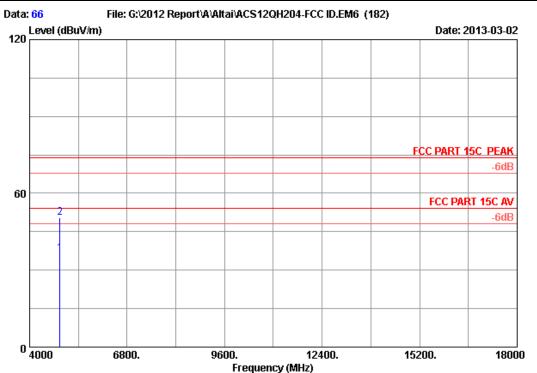
: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH6 2437MHz Tx



page 4-54 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 66 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

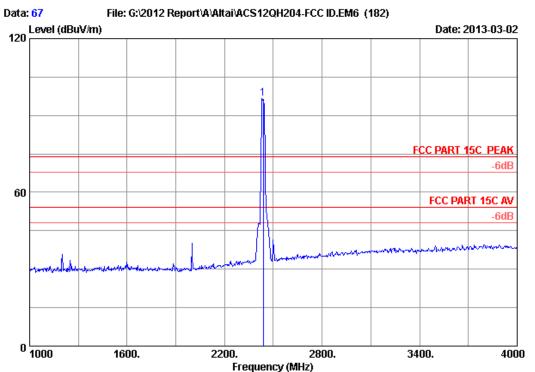
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4874.000 4874.000			35.70 35.70		36.38 50.59	54.00 74.00	17.62 23.41	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-55 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 67 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

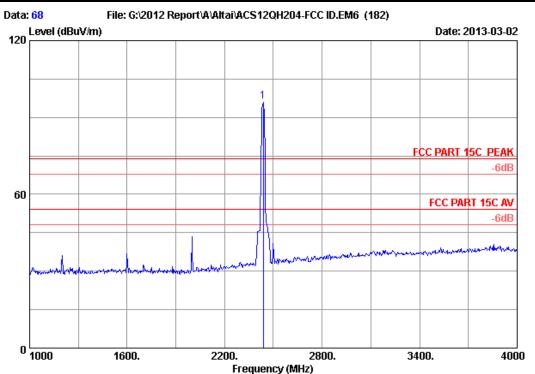
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2437.000	28.26	5.85	35.70	98.15	96.56	74.00	-22.56	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 68

Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

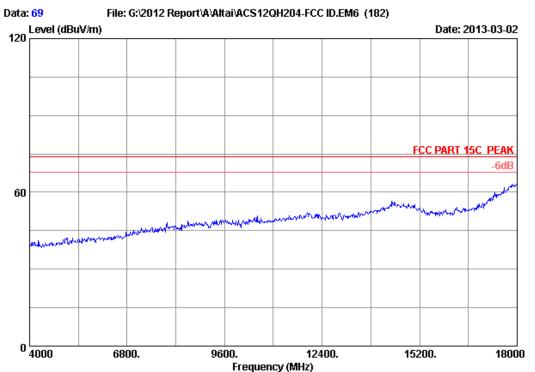
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2437.000	28.26	5.85	35.70	97.93	96.34	74.00	-22.34	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 69 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

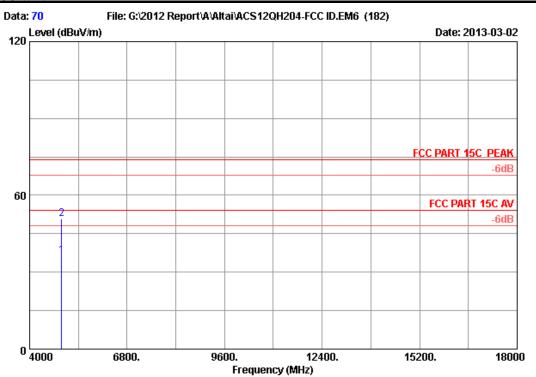
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH11 2462MHz Tx



page 4-58 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 70 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

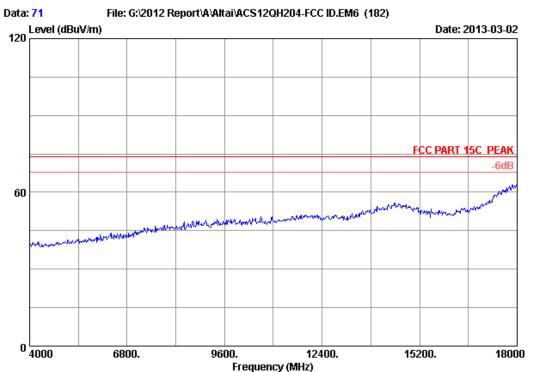
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

	Freq. (MHz)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4924.000 4924.000	 	35.70 35.70	30.55 44.81	36.60 50.86	54.00 74.00	17.40 23.14	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-59 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 71 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

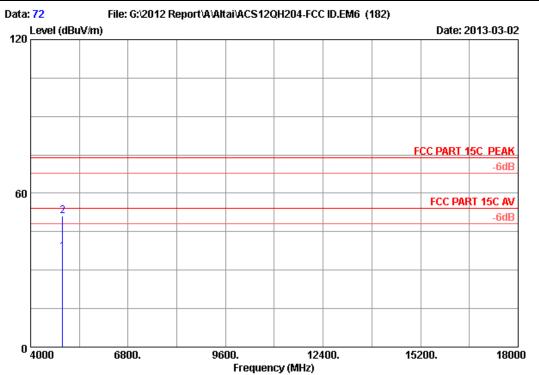
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH11 2462MHz Tx



FCC ID:UCC-WA8011N-HE page 4-60



: 3m Chamber Site no.

Data no. : 72 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

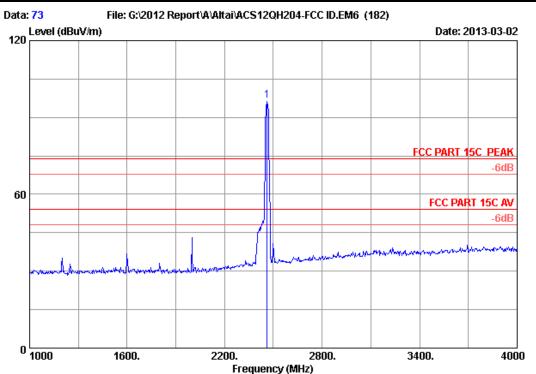
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
_	4924.000 4924.000			35.70 35.70		37.03 51.18	54.00 74.00	16.97 22.82	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-61



: 3m Chamber Site no.

Data no. : 73 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

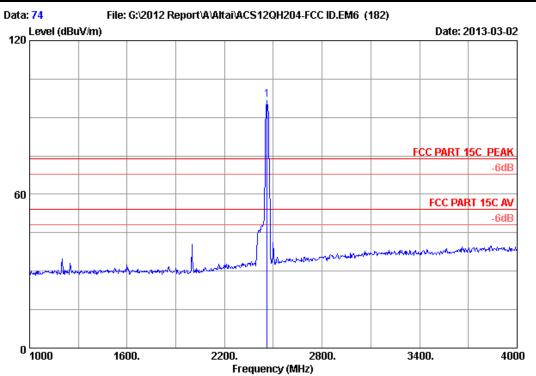
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
1	2462.000	28.32	5.89	35.70	98.16	96.67	74.00	-22.67	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-62 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 74 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

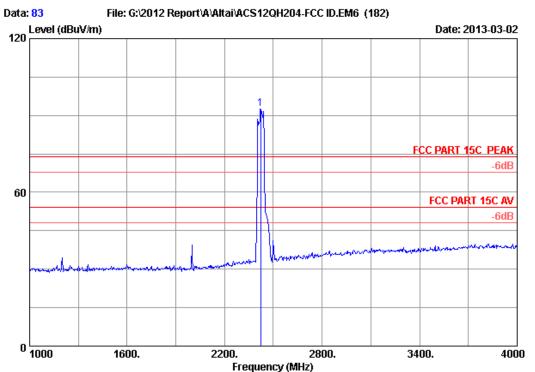
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark	
1	2462.000	28.32	5.89	35.70	98.32	96.83	74.00	-22.83	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-63



: 3m Chamber Site no.

Data no. : 83 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

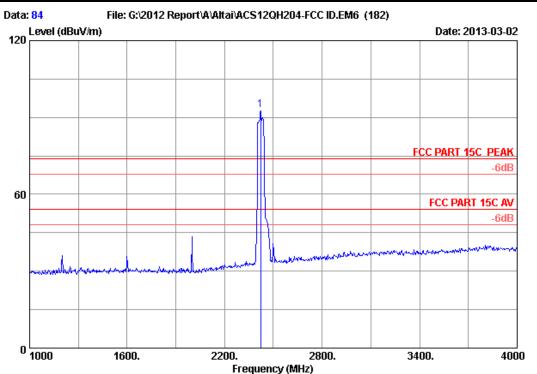
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2422.000	28.23	5.83	35.70	94.18	92.54	74.00	-18.54	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-64



: 3m Chamber Site no.

Data no. : 84 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

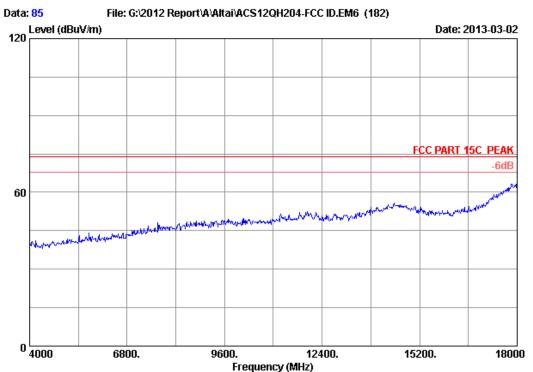
Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark	
1	2422.000	28.23	5.83	35.70	94.41	92.77	74.00	-18.77	Peak	-

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-65 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 85 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

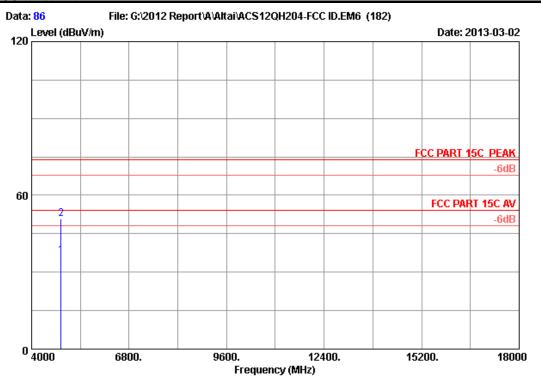
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH1 2422MHz Tx



FCC ID:UCC-WA8011N-HE page 4-66



: 3m Chamber Site no.

Data no. : 86 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

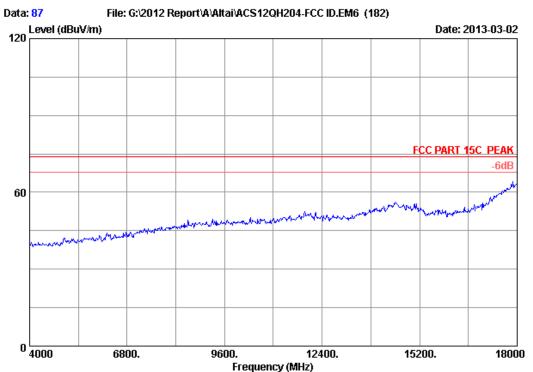
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

	Freq.	Ant. Factor (dB/m)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4844.000 4844.000		 35.70 35.70	30.75 44.83	36.57 50.65	54.00 74.00	17.43 23.35	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-67 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 87 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

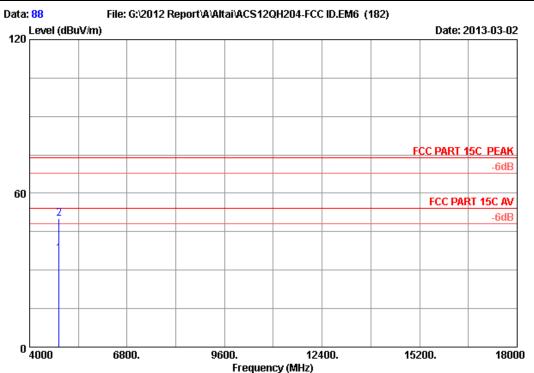
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH1 2422MHz Tx



FCC ID:UCC-WA8011N-HE page 4-68



: 3m Chamber Site no.

Data no. : 88 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

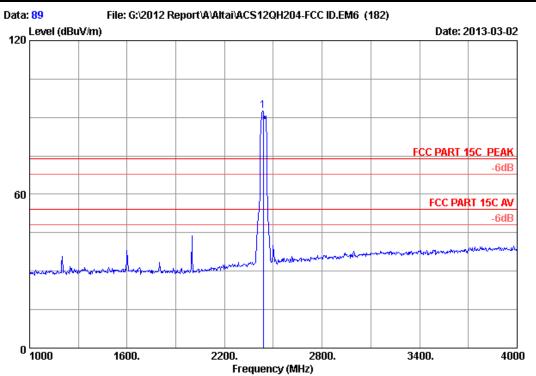
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4844.000 4844.000		35.70 35.70	30.51 44.38	36.33 50.20	54.00 74.00	17.67 23.80	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-69



Site no. : 3m Chamber Data no. : 89

Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

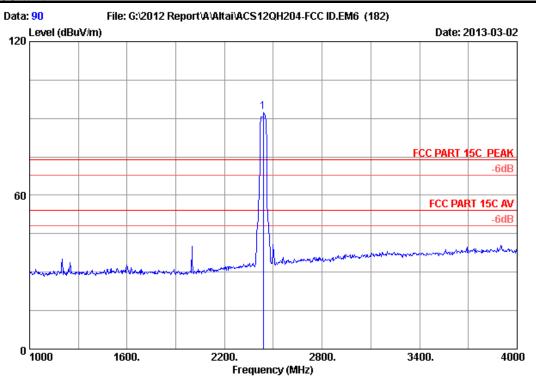
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
1	2437.000	28.26	5.85	35.70	94.11	92.52	74.00	-18.52	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-70 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 90 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

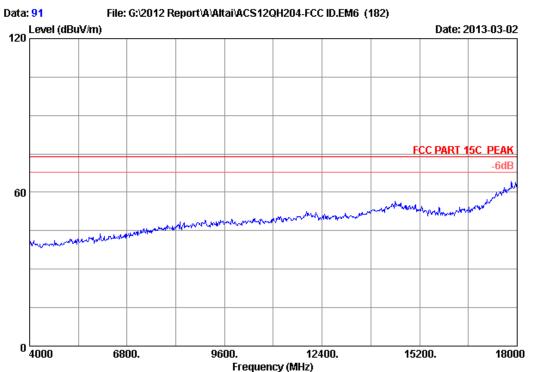
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
1	2437.000	28.26	5.85	35.70	94.07	92.48	74.00	-18.48	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-71 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 91 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

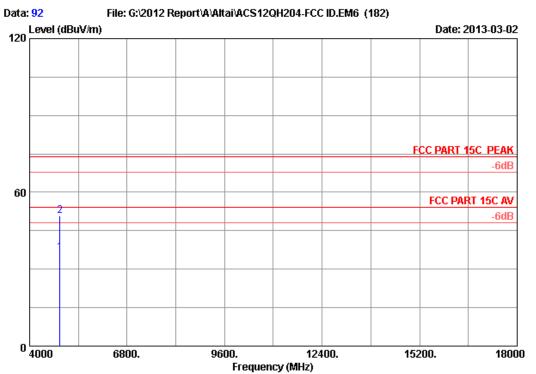
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH4 2437MHz Tx



FCC ID:UCC-WA8011N-HE page 4-72



: 3m Chamber Site no.

Data no. : 92 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

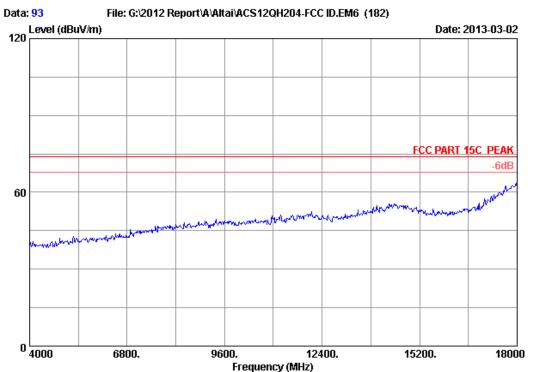
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx

	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	4874.000 4874.000		35.70 35.70	30.60 44.79	36.50 50.69	54.00 74.00	17.50 23.31	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-73 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 93 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

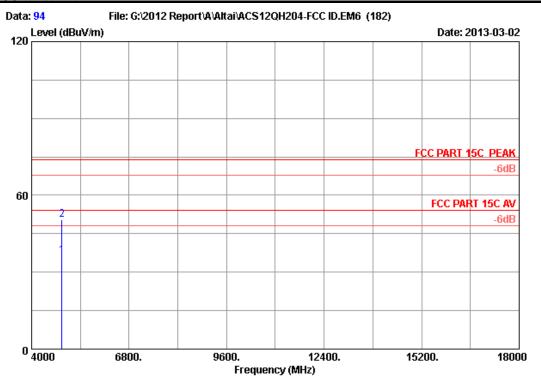
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH4 2437MHz Tx



page 4-74 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 94 Ant. pol. : VERTICAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

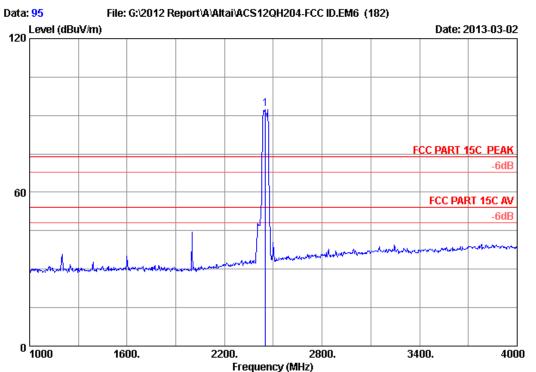
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx

	Freq.		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	4874.000 4874.000		35.70 35.70	30.52 44.70	36.42 50.60	54.00 74.00	17.58 23.40	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-75 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 95 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

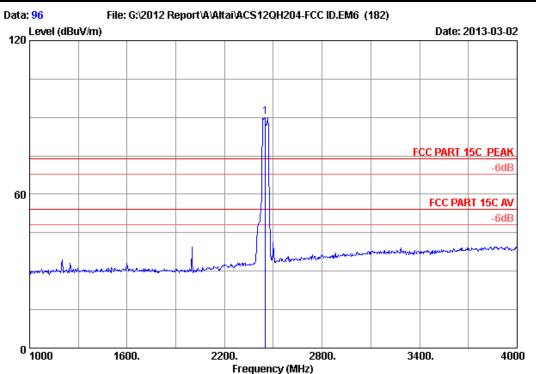
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.				_	Level		_	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2452.000	28.29	5.87	35.70	94.08	92.54	74.00	-18.54	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-76 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 96 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

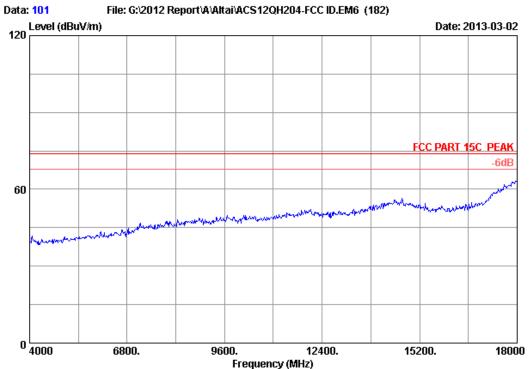
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
	0.450 000							46.05	D1-
Т	2452.000	28.29	5.87	35.70	91.79	90.25	74.00	-16.25	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID: UCC-WA8011N-HE page 4-77



Site no. : 3m Chamber Data no. : 101
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

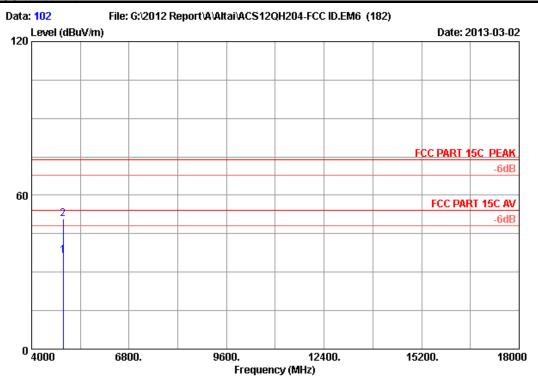
EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx



FCC ID: UCC-WA8011N-HE page 4-78



Site no. : 3m Chamber Data no. : 102
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

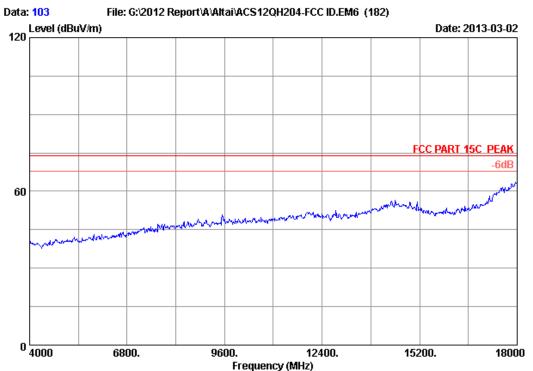
WA8011N-HE

	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2	4904.000 4904.000		35.70 35.70	30.37 44.73	36.36 50.72	54.00 74.00	17.64 23.28	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-79 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 103 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

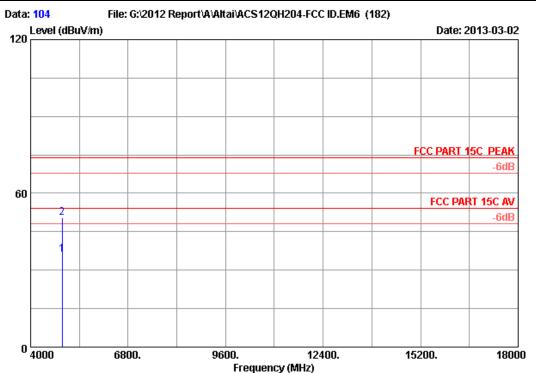
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx



page 4-80 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 104 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

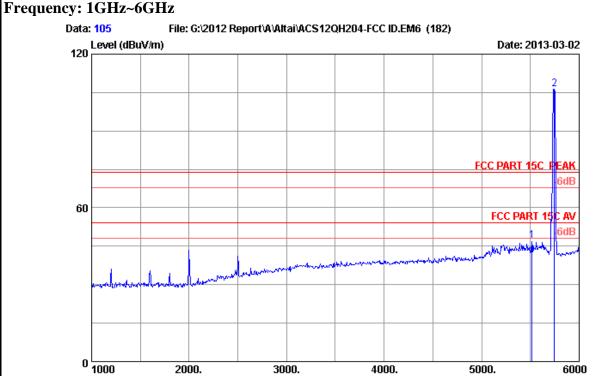
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2		33.03 33.03		35.70 35.70		36.18 50.35	54.00 74.00	17.82 23.65	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-81

5.8G:



Site no. : 3m Chamber Data no. : 105
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Frequency (MHz)

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 149 5745MHz Tx

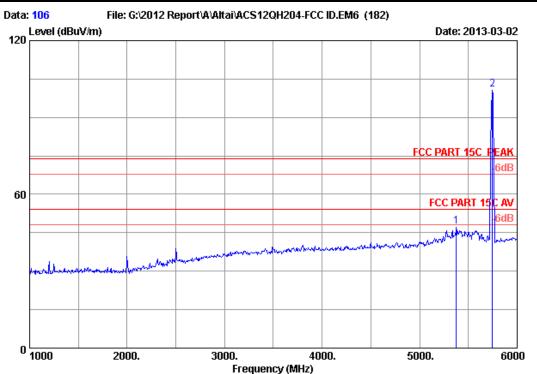
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5515.000 5745.000		 35.70 35.70	39.38 98.30	46.99 106.25	74.00 74.00	27.01 -32.25	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-82 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 106 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

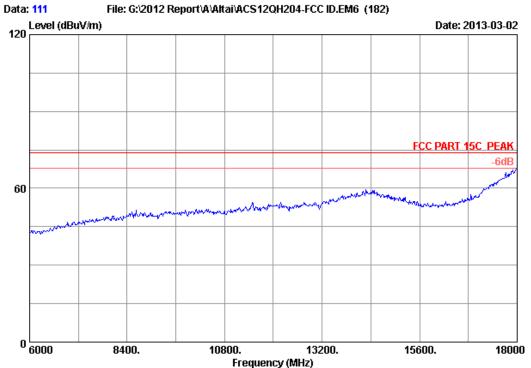
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 149 5745MHz Tx

	Freq.		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5375.000 5745.000	 	35.70 35.70	40.14 93.07		74.00 74.00	26.60 -27.02	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-83



Site no. : 3m Chamber Data no. : 111
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

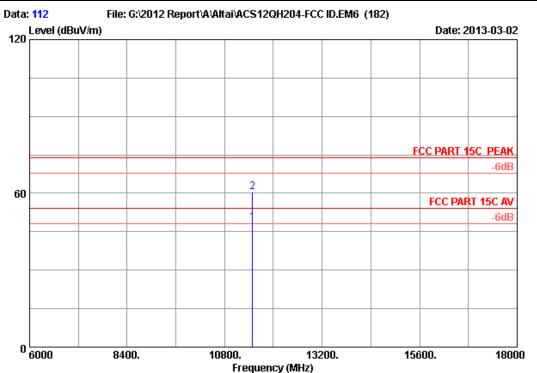
EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 149 5745MHz Tx



FCC ID:UCC-WA8011N-HE page 4-84



Site no. : 3m Chamber Data no. : 112
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 149 5745MHz Tx

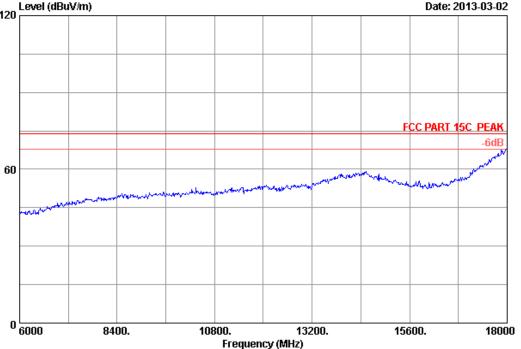
WA8011N-HE

	Freq.	Ant. Factor (dB/m)		Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
_	11490.000 11490.000		13.28 13.28		31.69 43.88	48.38 60.57	54.00 74.00	5.62 13.43	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.







: 3m Chamber Site no.

Data no. : 113 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

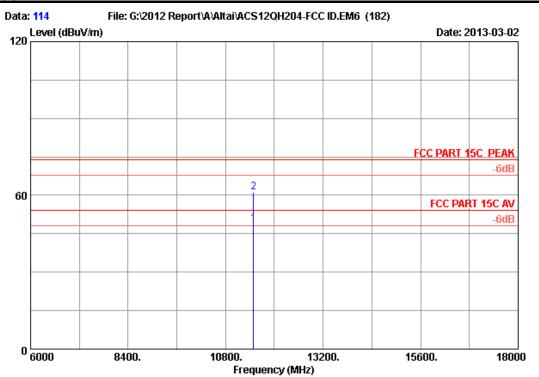
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 149 5745MHz Tx



page 4-86 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 114 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

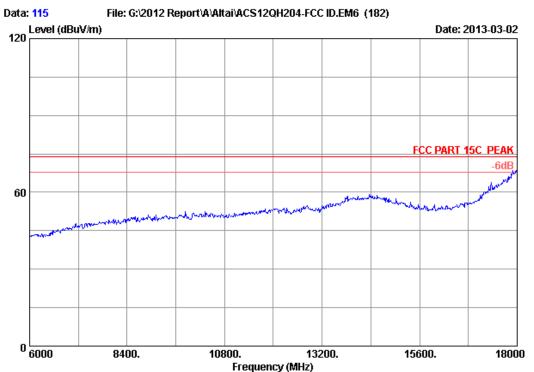
Test mode : IEEE802.11a CH 149 5745MHz Tx

	Freq.	Ant. Factor (dB/m)		Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
_	11490.000 11490.000		13.28 13.28		32.12 44.37	48.81 61.06	54.00 74.00	5.19 12.94	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-87 FCC ID:UCC-WA8011N-HE



Site no. : 3m Chamber

Data no. : 115 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

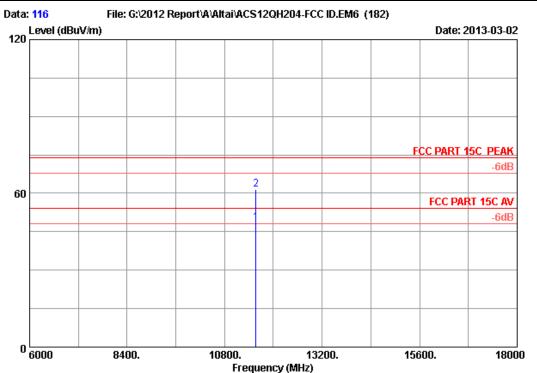
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 157 5785MHz Tx



page 4-88 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 116 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

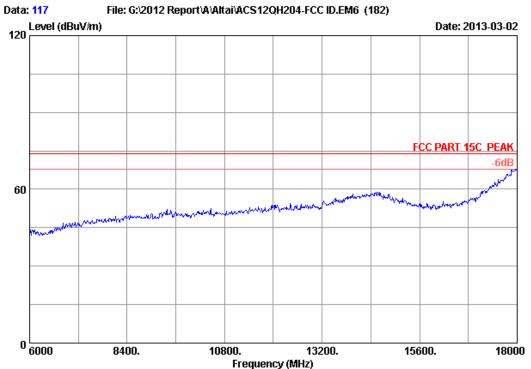
Test mode : IEEE802.11a CH 157 5785MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11570.000 11570.000		13.32 13.32	35.26 35.26		48.44 61.53	54.00 74.00	5.56 12.47	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-89



Site no. : 3m Chamber Data no. : 117
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

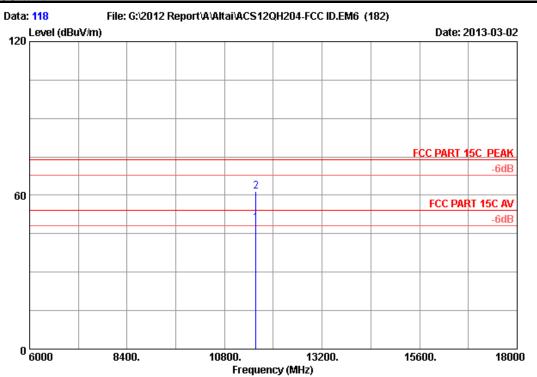
EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 157 5785MHz Tx



FCC ID:UCC-WA8011N-HE page 4-90



Site no. : 3m Chamber Data no. : 118
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 157 5785MHz Tx

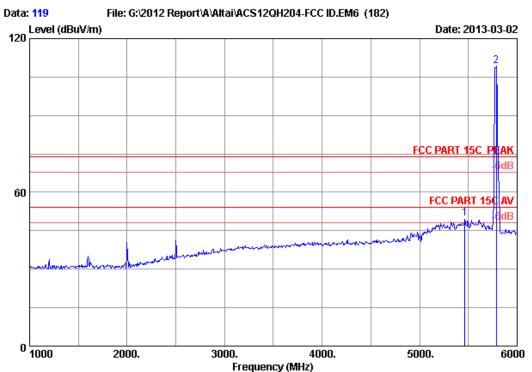
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		Margin (dB)	Remark
1	11570.000	38.80	13.32	35.26	32.38	49.24	54.00	4.76	Average
2	11570.000	38.80	13.32	35.26	44.62	61.48	74.00	12.52	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID: UCC-WA8011N-HE page 4-91



Site no. : 3m Chamber Data no. : 119
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 157 5785MHz Tx

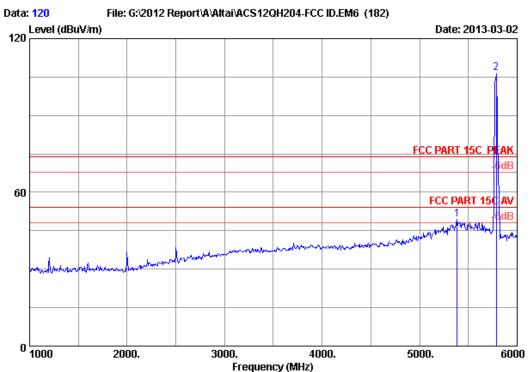
WA8011N-HE

	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5465.000 5785.000	 		42.22 101.19		74.00 74.00	24.29 -35.19	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-92 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 120 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

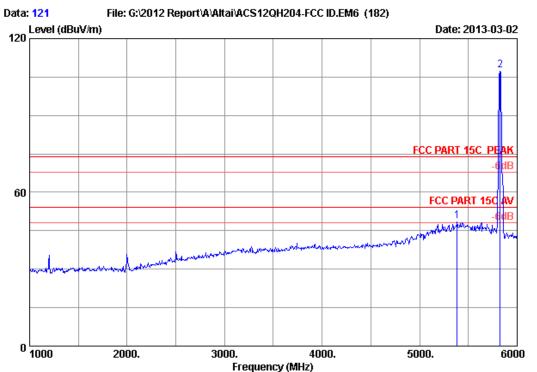
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 157 5785MHz Tx

	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5385.000 5785.000	 9.17 9.59	35.70 35.70	42.25 98.52		74.00 74.00	24.46 -32.52	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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: 3m Chamber Site no.

Data no. : 121 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

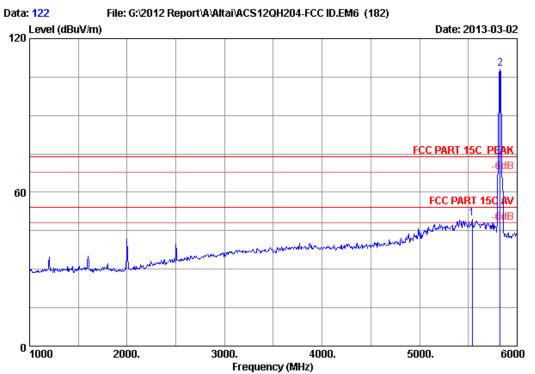
Test mode : IEEE802.11a CH 165 5825MHz Tx

	Freq.		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5385.000 5825.000	 9.17 9.63		41.42 99.68		74.00 74.00	25.29 -33.74	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-94



Site no. : 3m Chamber Data no. : 122
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 165 5825MHz Tx

WA8011N-HE

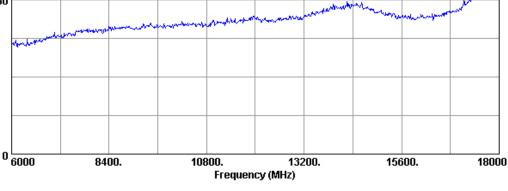
	Freq. (MHz)		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5540.000 5825.000	 	35.70 35.70	42.00 100.31	49.65 108.37	74.00 74.00	24.35 -34.37	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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page 4-95 FCC ID:UCC-WA8011N-HE File: G:\2012 Report\A\Altai\ACS12QH204-FCC ID.EM6 (182) Data: 127 Date: 2013-03-02 Level (dBuV/m) FCC PART 15C PEAK



: 3m Chamber Site no.

Data no. : 127 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

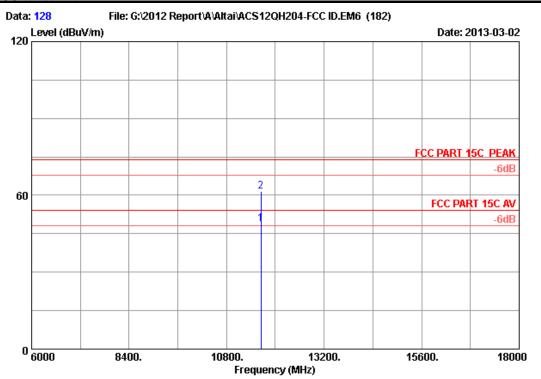
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 165 5825MHz Tx



page 4-96 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 128 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz

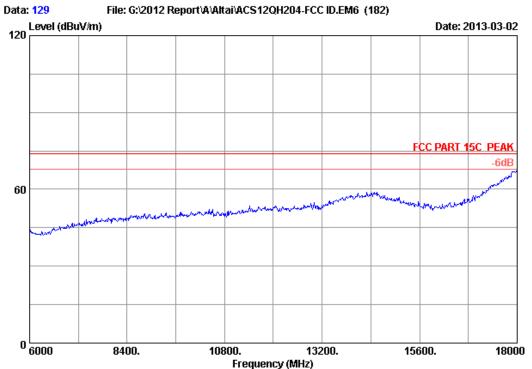
Test mode : IEEE802.11a CH 165 5825MHz Tx

	Ant.	Cable	Amp.		Emission			
Freq. (MHz)		loss (dB)		_	Level (dBuV/m)		Margin (dB)	Remark
1 11650.000 2 11650.000					48.70 61.44	54.00 74.00	5.30 12.56	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Data no. : 129 Ant. pol. : VERTICAL : 3m Chamber Site no.

Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Engineer : Leo-Li Env. / Ins. : 23*C/54%

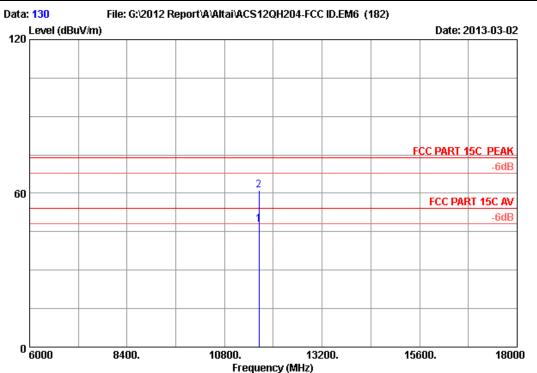
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz

Test mode : IEEE802.11a CH 165 5825MHz Tx



FCC ID:UCC-WA8011N-HE page 4-98



Site no. : 3m Chamber Data no. : 130
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11a CH 165 5825MHz Tx

WA8011N-HE

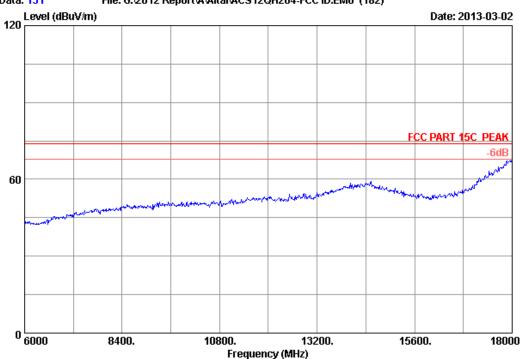
	Freq.	Ant. Factor (dB/m)		Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
_	11650.000 11650.000		13.37 13.37		30.89 44.13	47.92 61.16	54.00 74.00	6.08 12.84	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



 FCC ID:UCC-WA8011N-HE
 page 4-99

 Data: 131
 File: G:\2012 Report\A\Altai\ACS12QH204-FCC ID.EM6 (182)
 Date: 2013.03.02



Site no. : 3m Chamber Data no. : 131
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

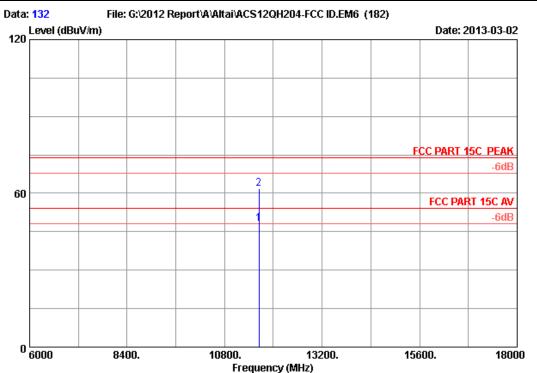
Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 165 5825MHz Tx



FCC ID: UCC-WA8011N-HE page 4-100



Site no. : 3m Chamber Data no. : 132
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

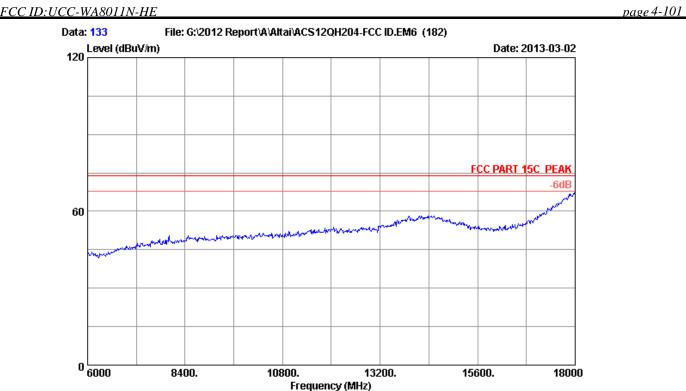
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 165 5825MHz Tx

WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11650.000 11650.000		13.37 13.37		31.25 44.74	48.28 61.77	54.00 74.00	5.72 12.23	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber

Data no. : 133 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

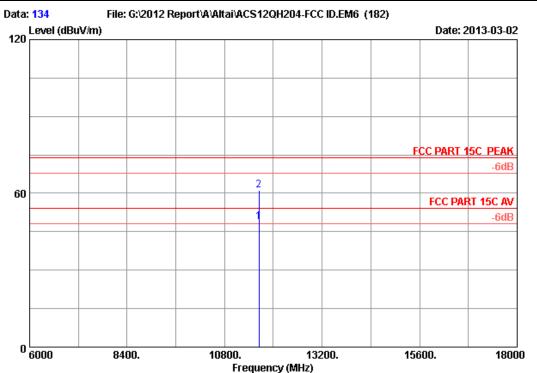
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 165 5825MHz Tx



page 4-102 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 134 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

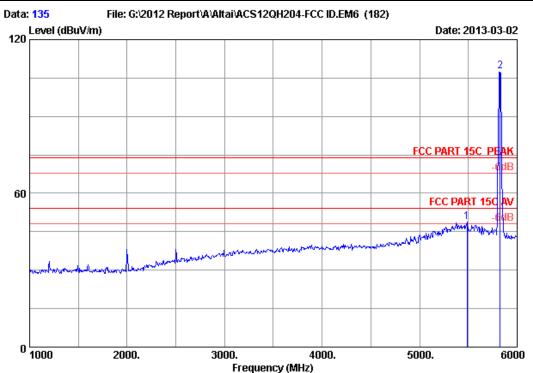
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 165 5825MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11650.000 11650.000		13.37 13.37			48.67 61.01	54.00 74.00	5.33 12.99	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-103 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 135 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

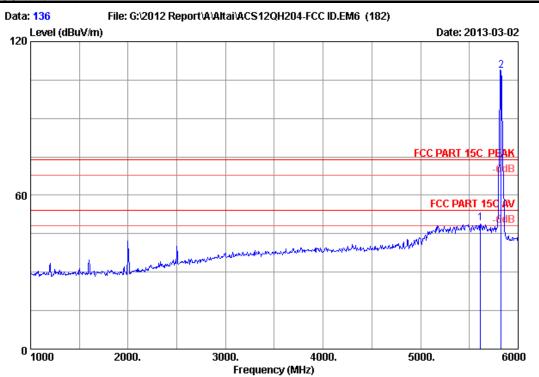
Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 165 5825MHz Tx

		ant.	Cable	Amp.		Emission			
	Freq.		loss (dB)		_	Level (dBuV/m)	_	Remark	
_	5485.000 5825.000				41.35 99.69		 25.10 -33.75	Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID: UCC-WA8011N-HE page 4-104



Site no. : 3m Chamber Data no. : 136
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 165 5825MHz Tx

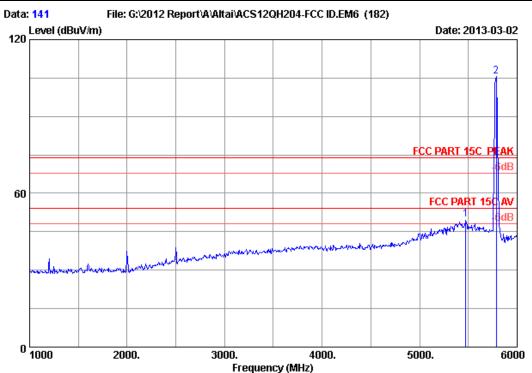
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.		loss (dB)		_	Level (dBuV/m)		_	Remark
_	5615.000 5825.000				41.21 100.43		74.00 74.00	25.03 -34.49	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-105 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 141 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

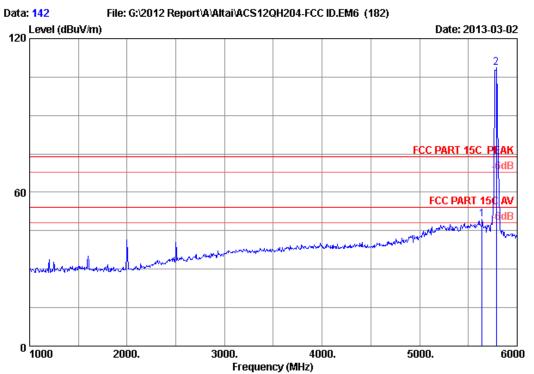
Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 157 5785MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.		loss (dB)		_	Level (dBuV/m)	_	Remark	
_	5475.000 5785.000				42.18 97.55		 24.30 -31.55	Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-106



Site no. : 3m Chamber Data no. : 142
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 157 5785MHz Tx

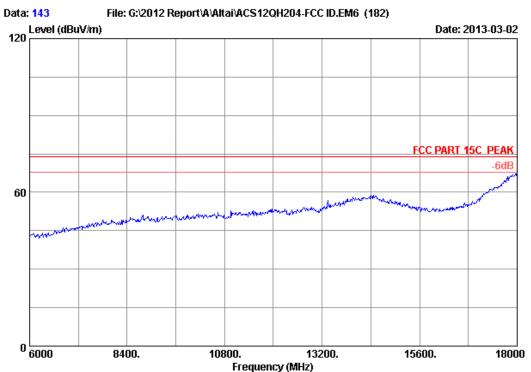
WA8011N-HE

	Freq.		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5640.000 5785.000	 9.44 9.59		41.81 100.51	49.61 108.51	74.00 74.00	24.39 -34.51	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-107



Site no. : 3m Chamber Data no. : 143
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

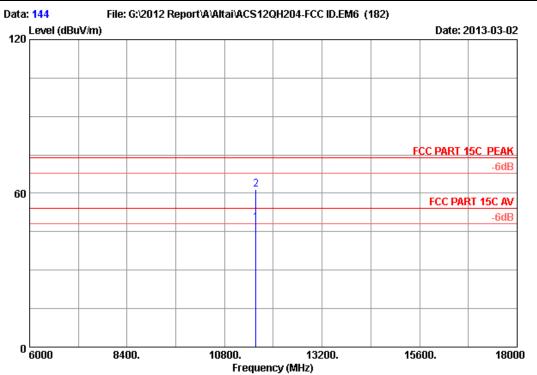
Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 157 5785MHz Tx



FCC ID: UCC-WA8011N-HE page 4-108



Site no. : 3m Chamber Data no. : 144
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 157 5785MHz Tx

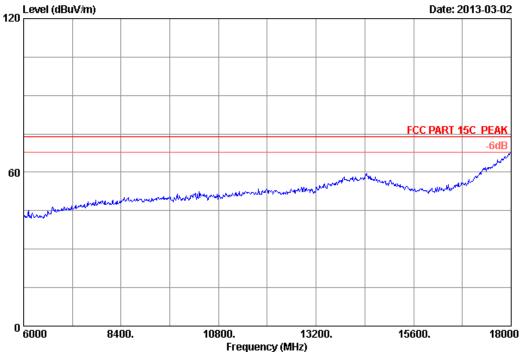
WA8011N-HE

	Freq.	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11570.000 11570.000		13.32 13.32			48.31 61.64	54.00 74.00	5.69 12.36	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-109 FCC ID:UCC-WA8011N-HE File: G:\2012 Report\A\Altai\ACS12QH204-FCC ID.EM6 (182) Data: 145 Date: 2013-03-02 Level (dBuV/m)



: 3m Chamber Site no.

Data no. : 145 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

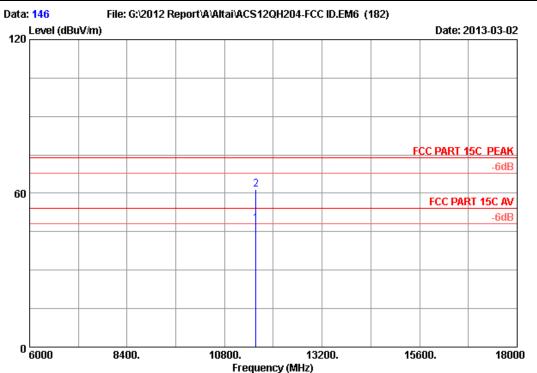
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 157 5785MHz Tx



FCC ID:UCC-WA8011N-HE page 4-110



: 3m Chamber Site no.

Data no. : 146 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

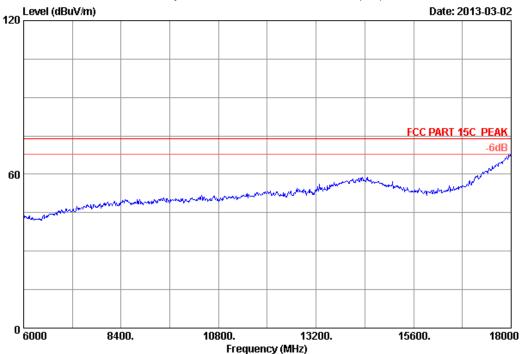
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 157 5785MHz Tx

	Freq.	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11570.000 11570.000		13.32 13.32	35.26 35.26		48.24 61.67	54.00 74.00	5.76 12.33	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-111 FCC ID:UCC-WA8011N-HE File: G:\2012 Report\A\Altai\ACS12QH204-FCC ID.EM6 (182) Data: 147 120 Level (dBuV/m) Date: 2013-03-02



Site no. : 3m Chamber

Data no. : 147 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

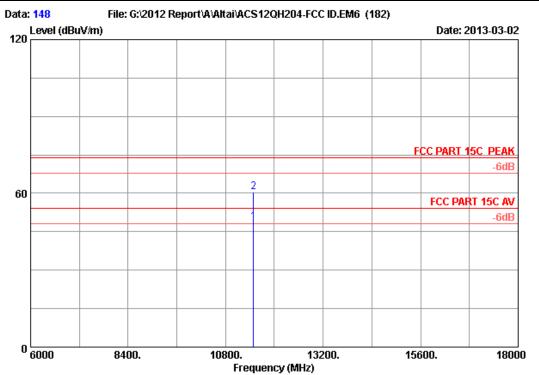
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 149 5745MHz Tx



FCC ID:UCC-WA8011N-HE page 4-112



: 3m Chamber Site no.

Data no. : 148 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

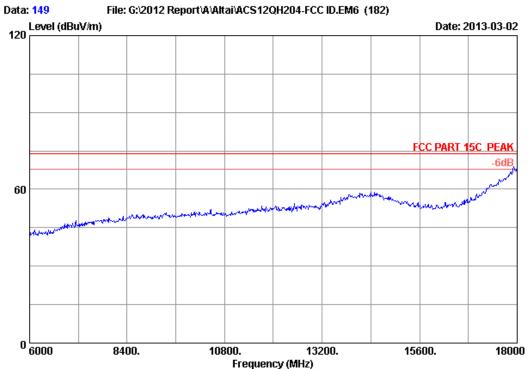
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 149 5745MHz Tx

	Frea.	Ant. Factor	Cable loss	-	Reading	Emission Level		Margin	Remark
	(MHz)	(dB/m)			_	(dBuV/m)		_	
_	11490.000 11490.000		13.28 13.28		32.10 43.88	48.79 60.57	54.00 74.00	5.21 13.43	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID: UCC-WA8011N-HE page 4-113



Site no. : 3m Chamber Data no. : 149
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

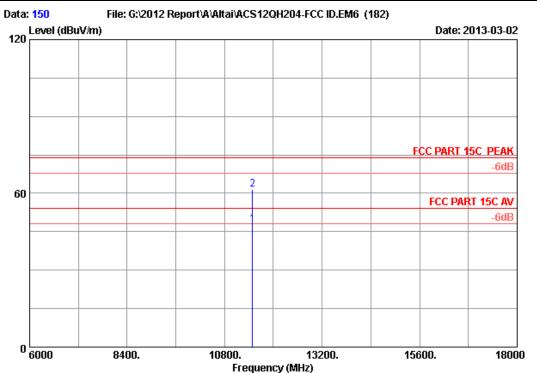
Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 149 5745MHz Tx



FCC ID: UCC-WA8011N-HE page 4-114



Site no. : 3m Chamber Data no. : 150
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 * C / 54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 149 5745MHz Tx

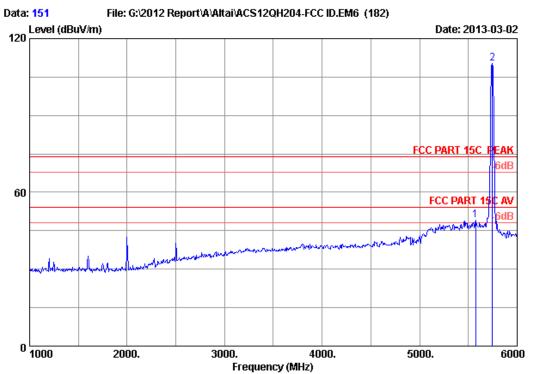
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11490.000	38.69	13.28	35.28	31.27	47.96	54.00	6.04	Average
2	11490.000	38.69	13.28	35.28	44.73	61.42	74.00	12.58	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-115



Site no. : 3m Chamber Data no. : 151
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 149 5745MHz Tx

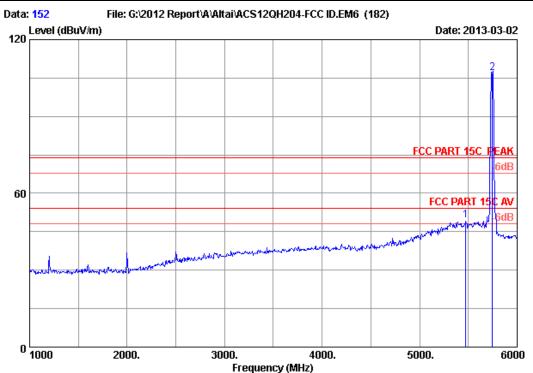
WA8011N-HE

		Ant.	Cable	Amp.		Emission				
	Freq.	Factor (dB/m)			_	Level (dBuV/m)		_	Remark	
_	5575.000 5745.000				41.46 102.30		74.00 74.00	24.84 -36.25	Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-116 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 152 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

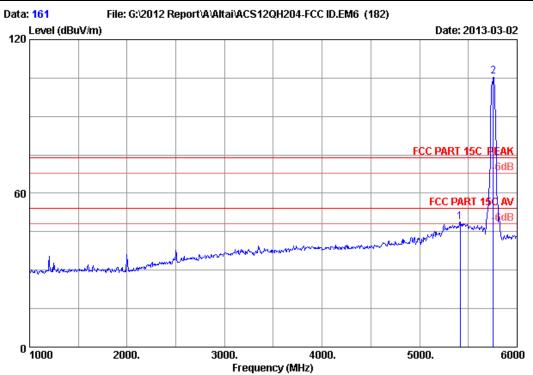
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT20 CH 149 5745MHz Tx

	Freq. (MHz)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	5475.000 5745.000	 	35.70 35.70	41.86 99.14	49.38 107.09	74.00 74.00	24.62 -33.09	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-117 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 161 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

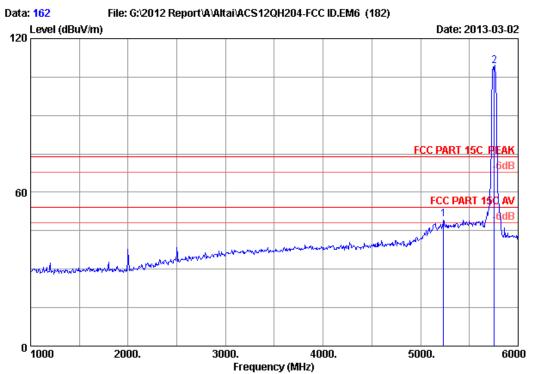
Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 151 5755MHz Tx

		Ant.	Cable	Amp.		Emission				
	Freq. (MHz)		loss (dB)		_	Level (dBuV/m)		_	Remark	
_	5415.000 5755.000			35.70 35.70	41.60 97.64	48.96 105.60	74.00 74.00	25.04 -31.60	Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-118



Site no. : 3m Chamber Data no. : 162
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 151 5755MHz Tx

WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
_	5235.000 5755.000				42.50 101.23	49.39 109.19	74.00 74.00	24.61 -35.19	Peak Peak

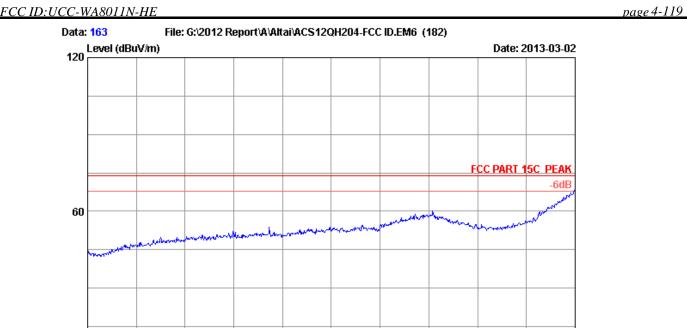
- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

18000

15600.



0 6000



13200.

Data no. : 163 Ant. pol. : VERTICAL Site no. : 3m Chamber

10800.

Dis. / Ant. : 3m 2013 3115 (4580)

Frequency (MHz)

: FCC PART 15C PEAK Limit

8400.

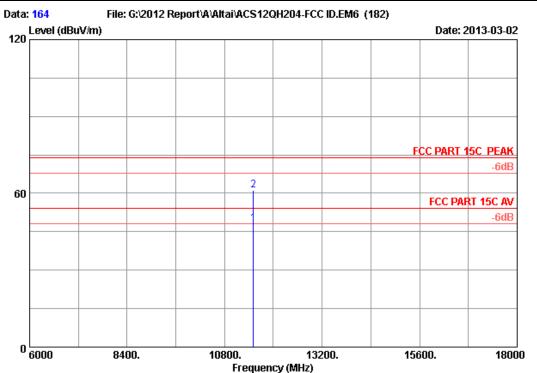
Engineer : Leo-Li Env. / Ins. : 23*C/54%

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 151 5755MHz Tx



FCC ID: UCC-WA8011N-HE page 4-120



Site no. : 3m Chamber Data no. : 164
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

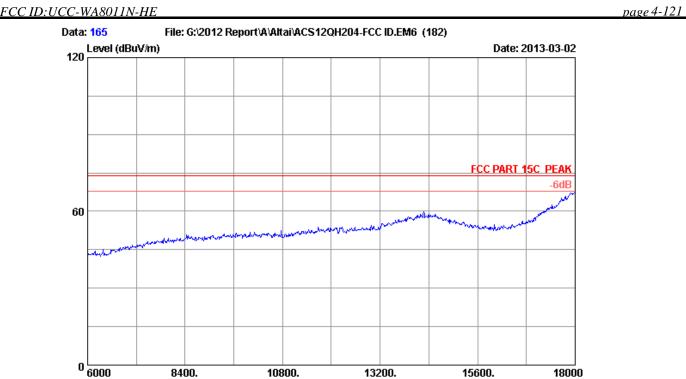
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 151 5755MHz Tx

WA8011N-HE

	Freq.	Ant. Factor (dB/m)		Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
_	11510.000 11510.000		13.29 13.29		31.37 44.29	48.10 61.02	54.00 74.00	5.90 12.98	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber

Data no. : 165 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

Frequency (MHz)

: FCC PART 15C PEAK Limit

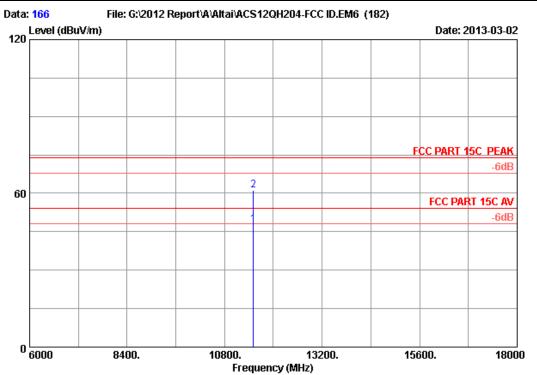
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 151 5755MHz Tx



FCC ID:UCC-WA8011N-HE page 4-122



: 3m Chamber Site no.

Data no. : 166 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 151 5755MHz Tx

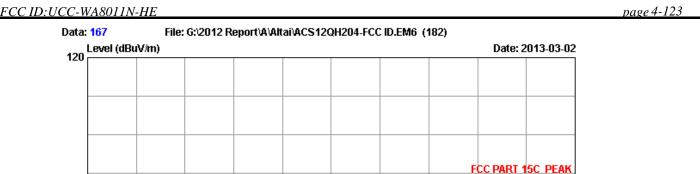
	Freq.			Factor	_	Emission Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
	11510.000						54.00		Average
2	11510.000	38.71	13.29	35.27	44.28	61.01	74.00	12.99	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



60

0 6000



Site no. : 3m Chamber

10800.

Data no. : 167 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

Frequency (MHz)

13200.

15600.

18000

: FCC PART 15C PEAK Limit

8400.

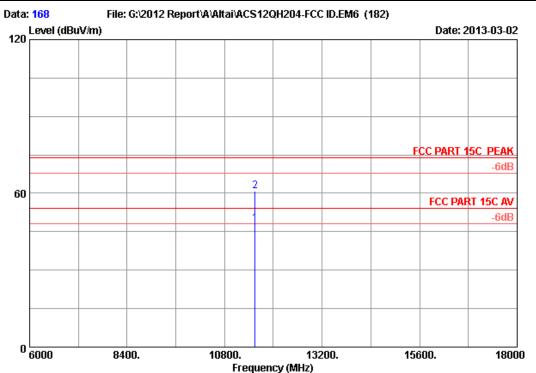
Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 155 5775MHz Tx



FCC ID:UCC-WA8011N-HE page 4-124



: 3m Chamber Site no.

Data no. : 168 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

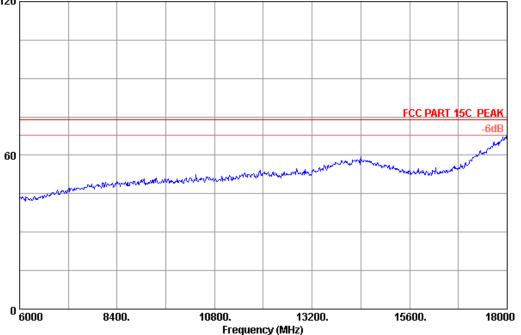
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 155 5775MHz Tx

	Freq.	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11550.000 11550.000		13.31 13.31		31.45 43.88	48.26 60.69	54.00 74.00	5.74 13.31	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.







Site no. : 3m Chamber Data no. : 169
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

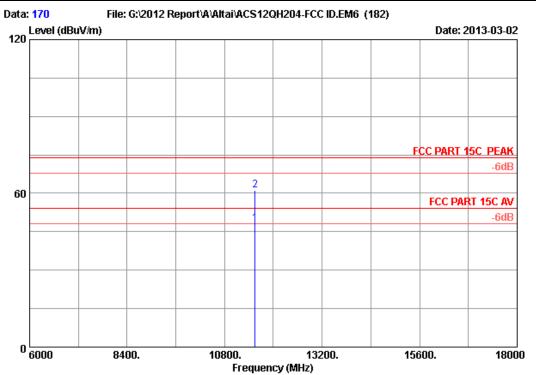
Env. / Ins. : 23 *C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 155 5775MHz Tx



FCC ID:UCC-WA8011N-HE page 4-126



Site no. : 3m Chamber Data no. : 170
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 155 5775MHz Tx

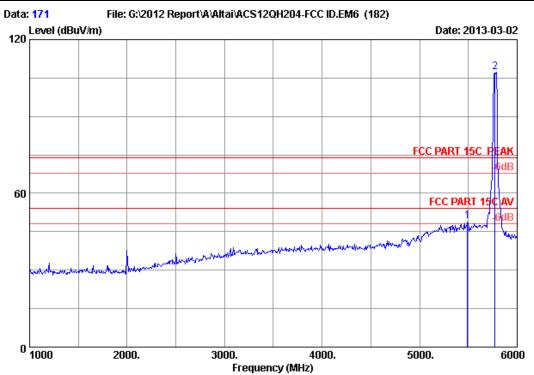
WA8011N-HE

	Freq. (MHz)	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11550.000 11550.000		13.31 13.31		31.34 44.22	48.15 61.03	54.00 74.00	5.85 12.97	Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID: UCC-WA8011N-HE page 4-127



Site no. : 3m Chamber Data no. : 171
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 155 5775MHz Tx

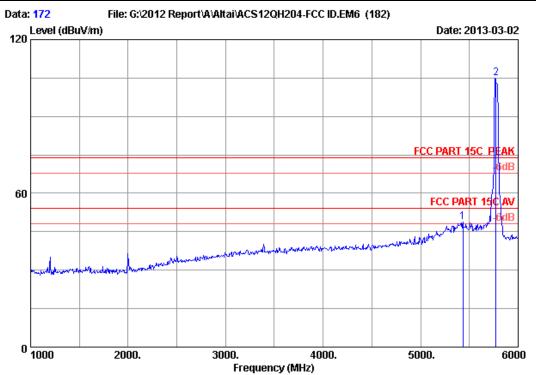
WA8011N-HE

		Ant.	Cable	Amp.		Emission			
	Freq.		loss (dB)		_	Level (dBuV/m)		_	Remark
_	5490.000 5775.000			35.70 35.70	41.50 99.23	49.06 107.22	74.00 74.00	24.94 -33.22	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



FCC ID:UCC-WA8011N-HE page 4-128



: 3m Chamber Site no.

Data no. : 172 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

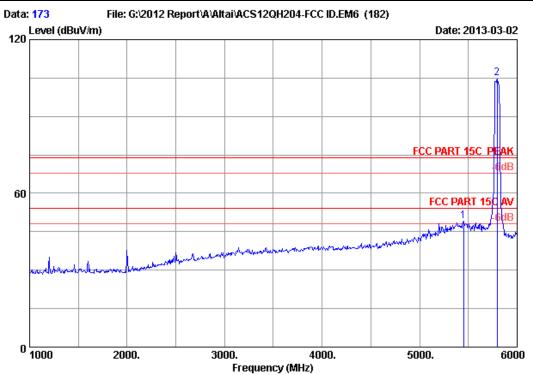
Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 155 5775MHz Tx

	Freq.		Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5435.000 5775.000	 9.22 9.58		41.53 96.89		74.00 74.00	25.05 -30.88	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



page 4-129 FCC ID:UCC-WA8011N-HE



: 3m Chamber Site no.

Data no. : 173 Ant. pol. : HORIZONTAL 2013 3115 (4580) Dis. / Ant. : 3m

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

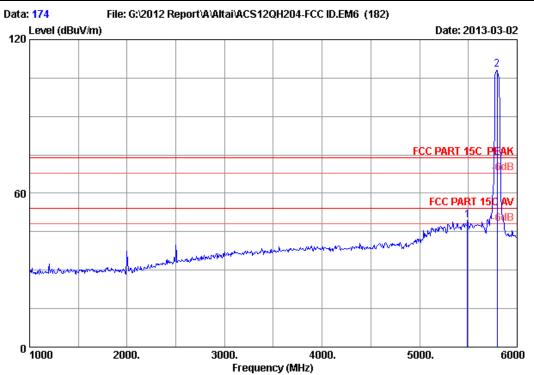
: A8in Super WiFi Base Station

Power supply: DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 159 5795MHz Tx

		Ant.	Cable	Amp.		Emission		
	Freq.		loss (dB)		_	Level (dBuV/m)	_	Remark
_	5450.000 5795.000				41.76 96.87		 24.78 -30.89	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 174
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH 159 5795MHz Tx

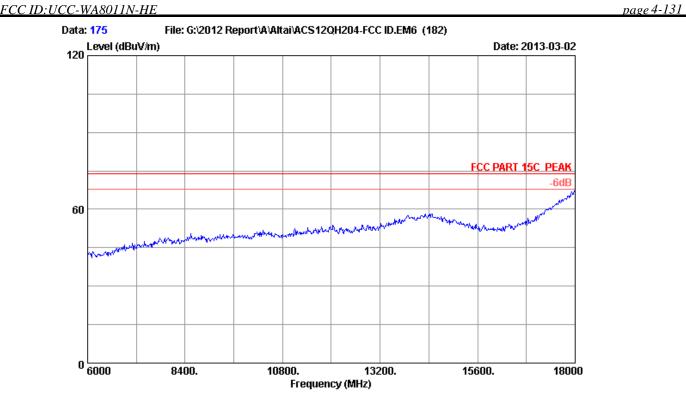
WA8011N-HE

	Freq.	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	5490.000 5795.000	 			49.58 108.34	74.00 74.00	24.42 -34.34	Peak Peak

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 175
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

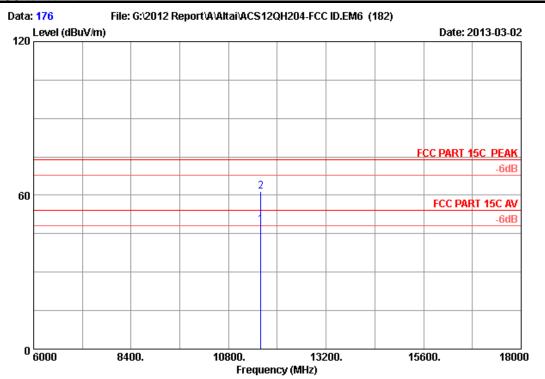
Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 159 5795MHz Tx

WA8011N-HE





Site no. : 3m Chamber Data no. : 176
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 159 5795MHz Tx

WA8011N-HE

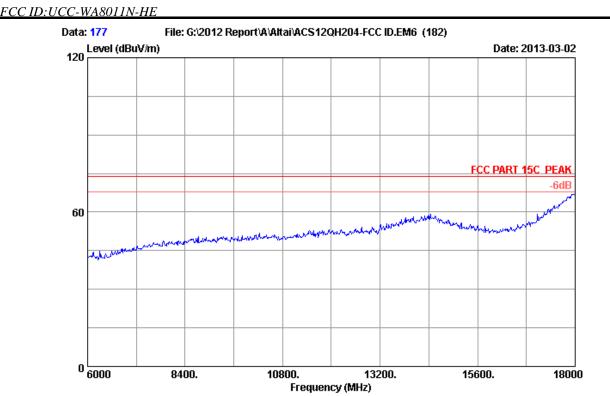
	Freq.	Ant. Factor (dB/m)		Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11590.000 11590.000		13.34 13.34		31.46 44.74	48.37 61.65	54.00 74.00	5.63 12.35	Average Peak

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 177

Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

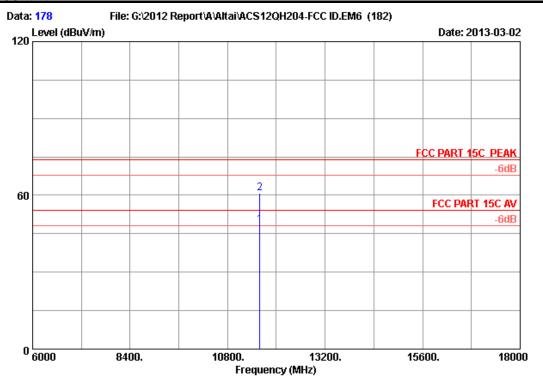
Env. / Ins. : 23*C/54% Engineer : Leo-Li

EUT : A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 159 5795MHz Tx

WA8011N-HE





: 3m Chamber Site no.

Data no. : 178 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2013 3115 (4580)

: FCC PART 15C PEAK Limit

Env. / Ins. : 23*C/54% Engineer : Leo-Li

: A8in Super WiFi Base Station

Power supply : DC 56V From Adapter Input AC 120V/60Hz Test mode : IEEE802.11nHT40 CH 159 5795MHz Tx

WA8011N-HE

		Ant.	Cable	-					
	Freq.				_	Level		Margin	Remark
	(MHz)	(dB/m)	(as)	(as)	(asuv)	(dBuV/m)	(abuv/m)	(as)	
1	11590.000	38.83	13.34	35.26	31.64	48.55	54.00	5.45	Average
2	11590.000	38.83	13.34	35.26	43.85	60.76	74.00	13.24	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Oct.31, 12	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,13	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,13	1Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

Note: The cable loss and attenuator loss were offset into spectrum analyzer as an amplitude offset.

The frequency range from 30MHz to 10th harmonic (40GHz) are checked. and no any emissions were found from 25GHz to 40 GHz, So the conducted spurious emissions from 25GHz to 40GHz were not record.

5.4. Test result

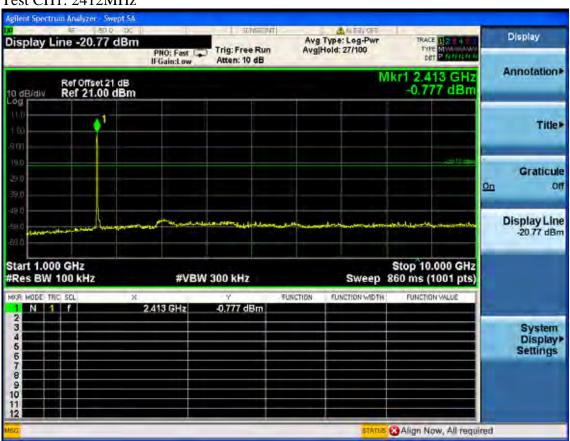
PASS (The testing data was attached in the next pages.)

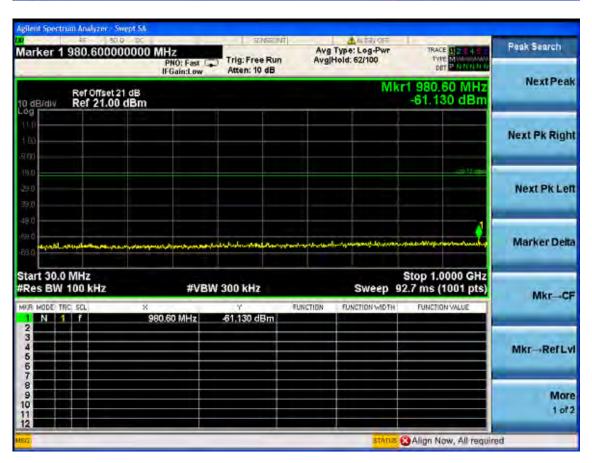


2.4G: Chain 1:

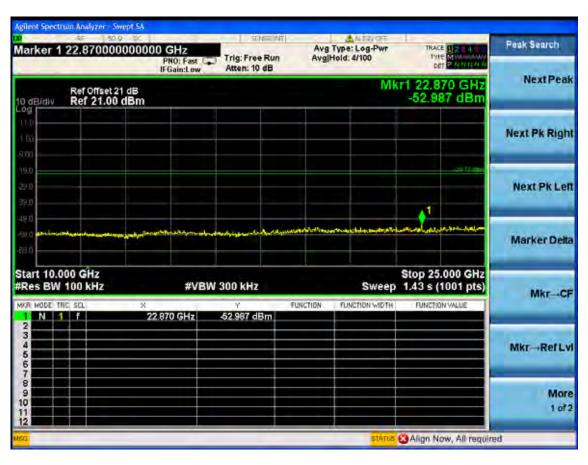
Test Mode: IEEE 802.11b TX

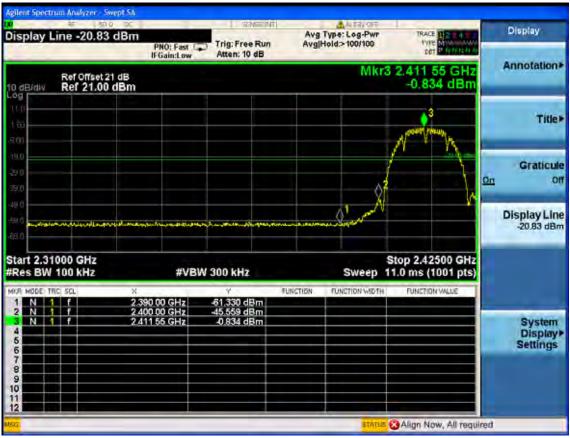
Test CH1: 2412MHz





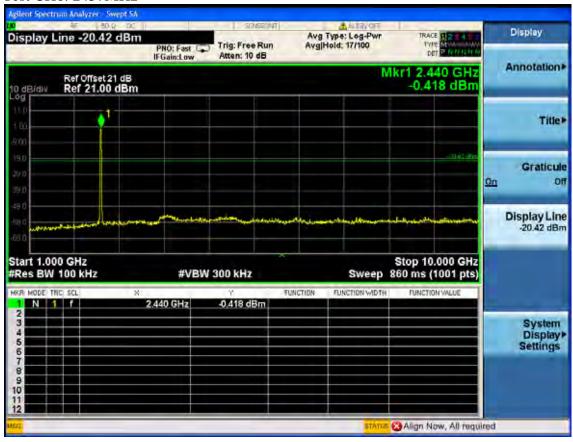


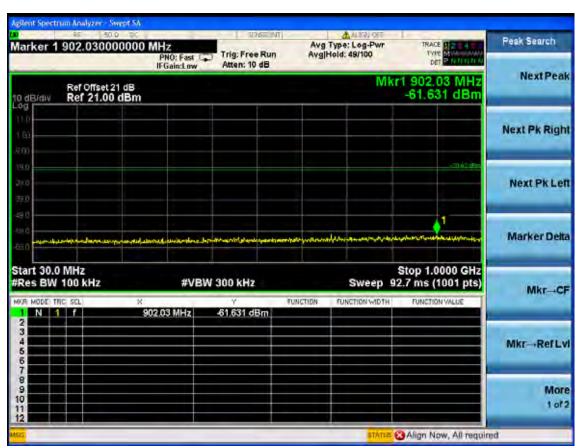




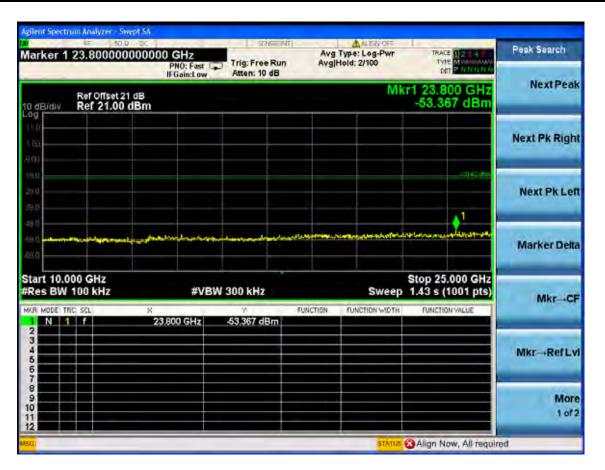


Test CH6: 2437MHz

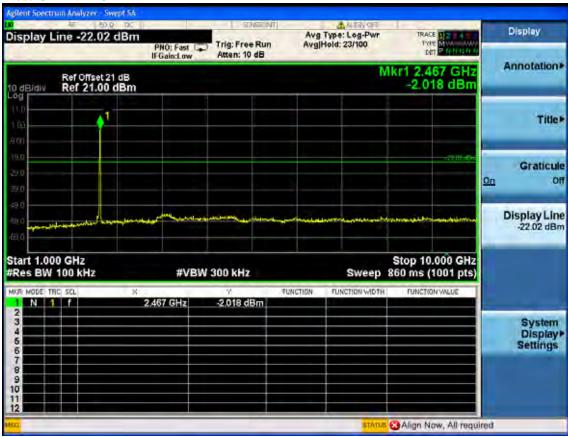




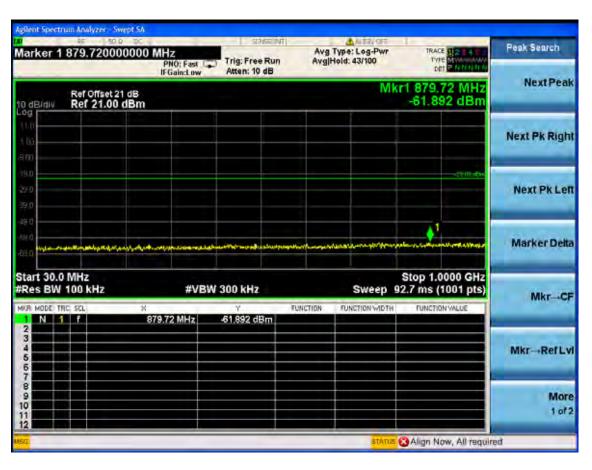


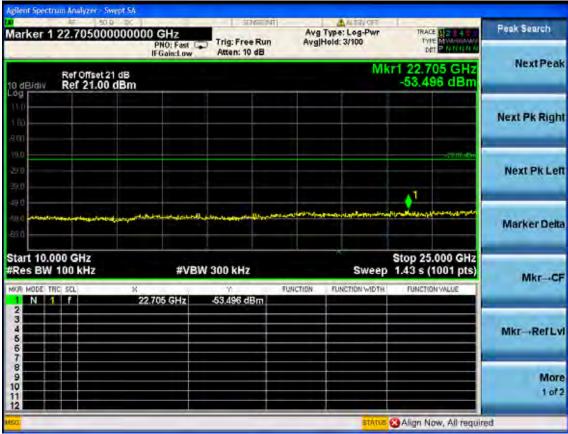


Test CH11: 2462MHz







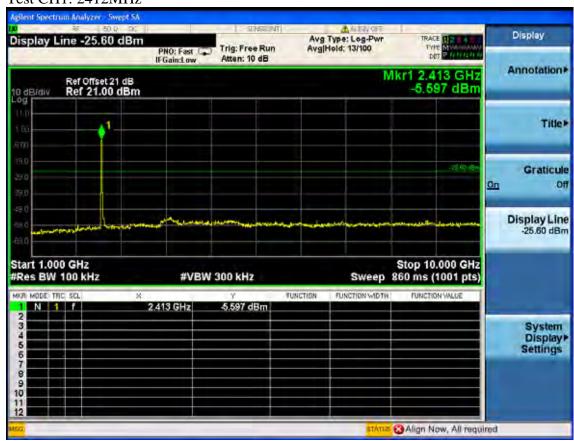




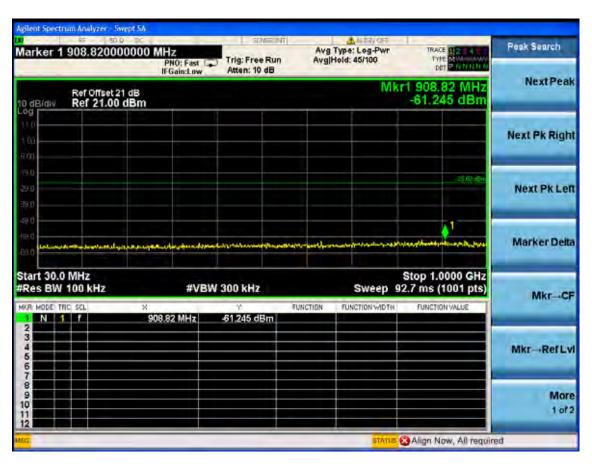


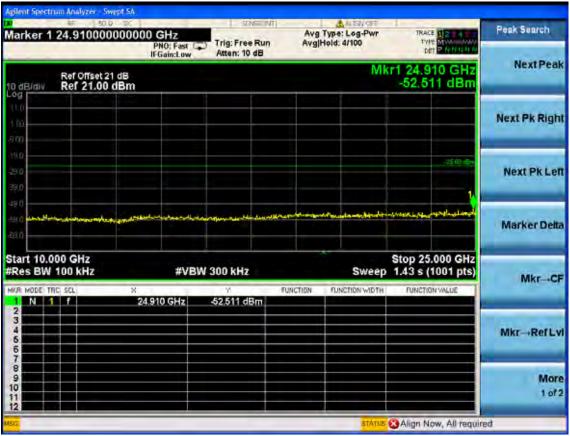
Test Mode: IEEE 802.11g TX

Test CH1: 2412MHz

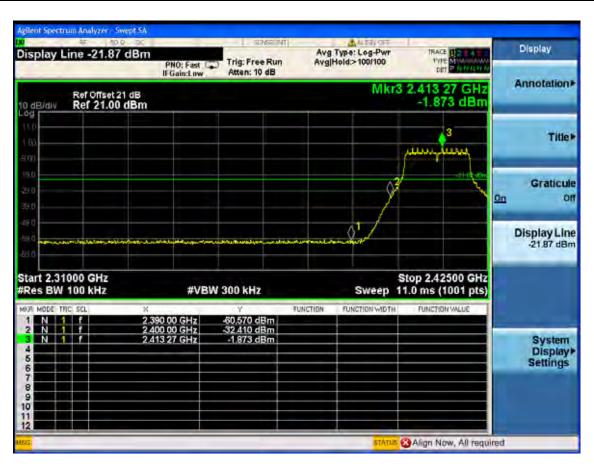




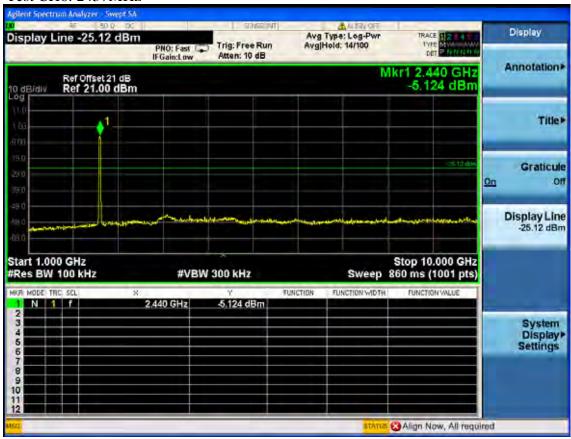






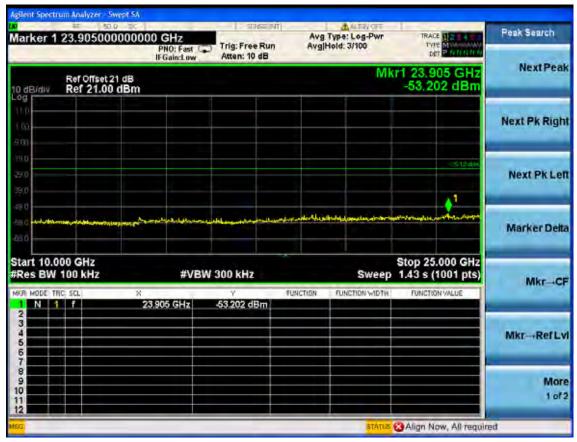


Test CH6: 2437MHz



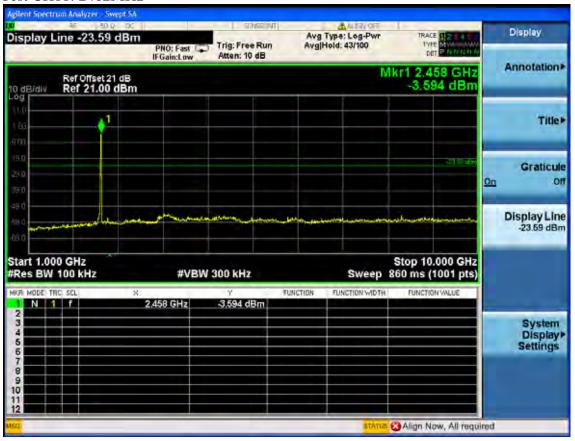


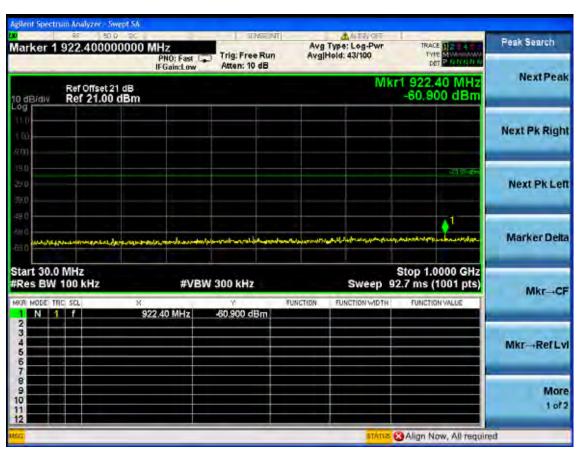




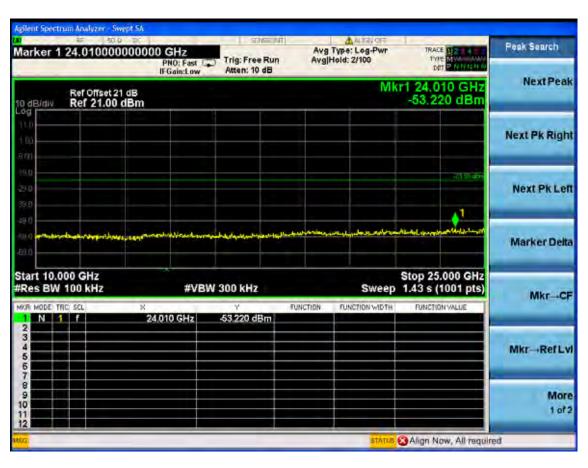


Test CH11: 2462MHz







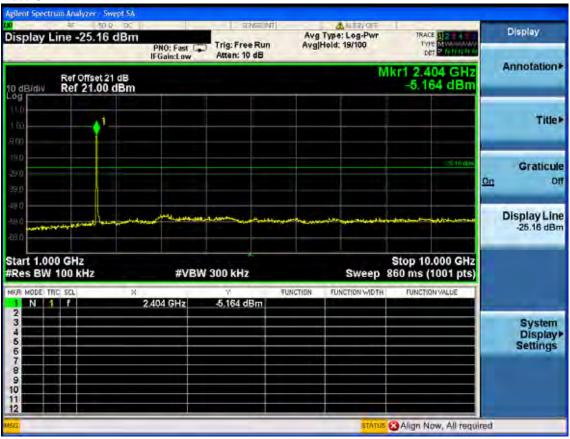


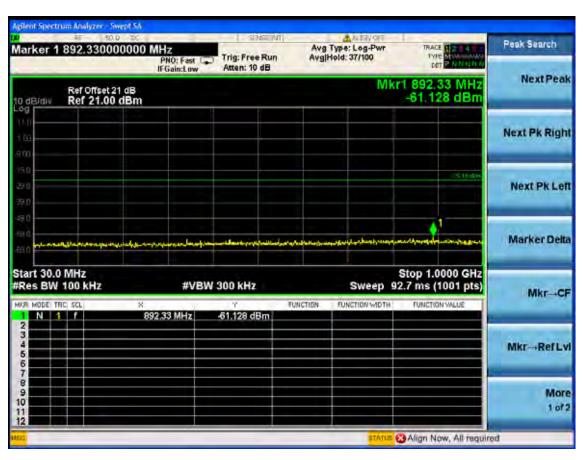




Test Mode: IEEE 802.11n HT20 TX

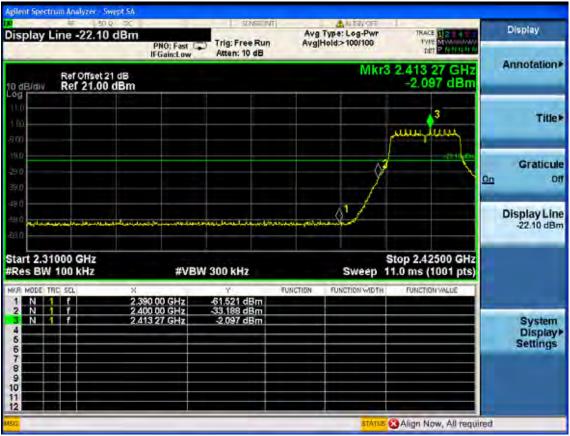
Test CH1: 2412MHz





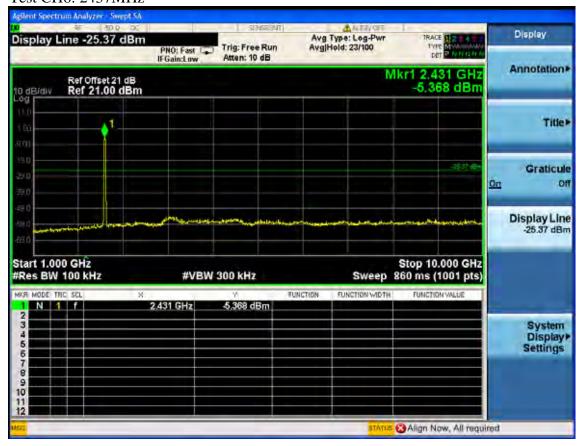


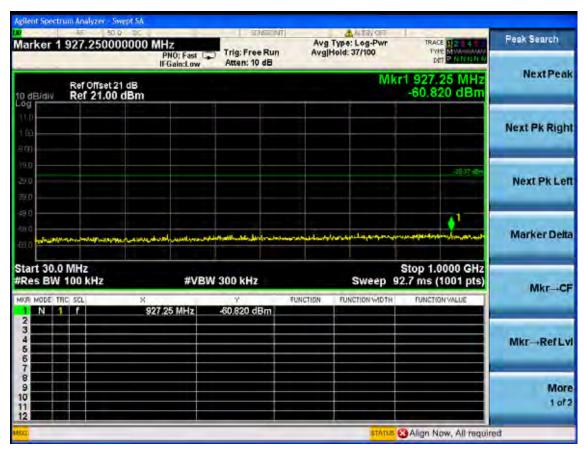




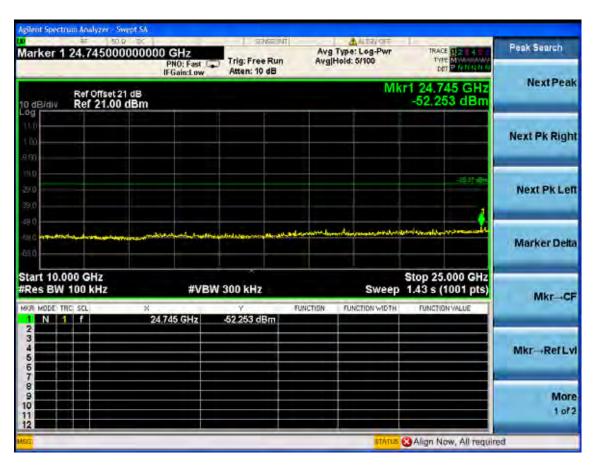


Test CH6: 2437MHz

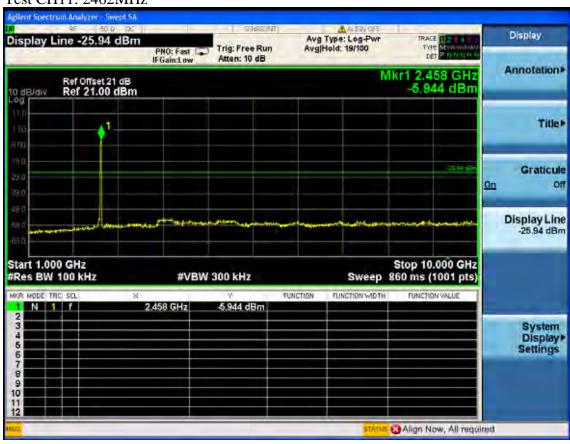




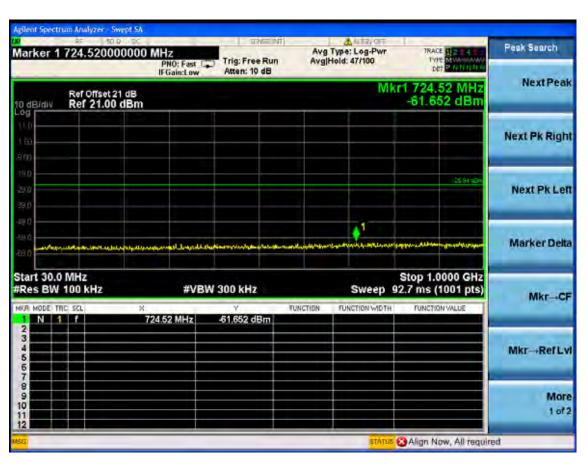


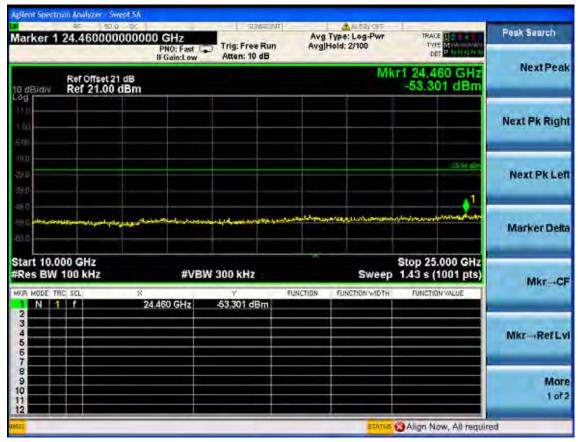


Test CH11: 2462MHz







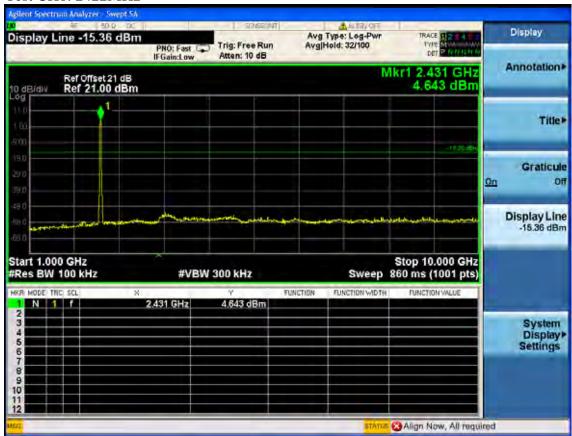




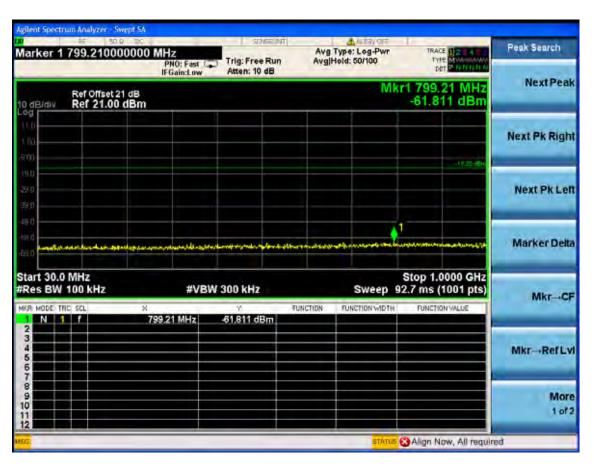


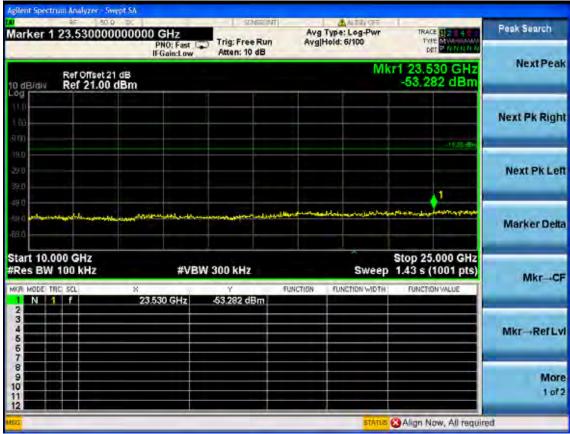
Test Mode: IEEE 802.11n HT40 TX

Test CH1: 2422MHz

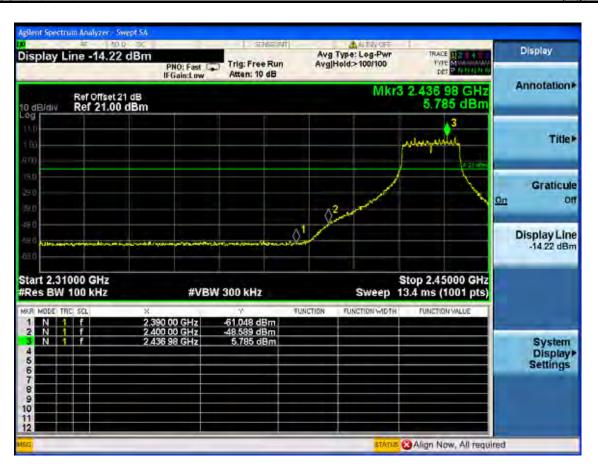












Test CH4: 2437MHz

