

FCC PART 15E TEST REPORT FOR CERTIFICATION On Behalf of

Altai Technologies Limited

Altai A8n (ac) Super WiFi Base Station

WA8011NAC-X

FCC ID: UCC-WA8011NAC-X

Prepared for: Altai Technologies Limited

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

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Report Number : ACS-F16073

Date of Test : Feb.18~Mar.14, 2016

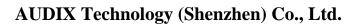
Date of Report : Apr.29, 2016





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TEST REPORT CERTIFICATION

Applicant : Altai Technologies Limited

Manufacturer : Altai Technologies Limited

EUT Description : Altai A8n (ac) Super WiFi Base Station

FCC ID : UCC-WA8011NAC-X

(A) Model No. : WA8011NAC-X

(B) Power Supply : DC 56V

(C) Test Voltage : DC 56V From POE Input AC 120V/60Hz

Tested for comply with:

FCC CFR47 Part 15 Subpart E: 2014

Test procedure used: ANSI C63.10: 2013 KDB789033D01

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart E 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. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

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: Feb.18~Mar.	.14, 2016	Report of date:	Apr.29, 2016
Prepared by: Cind	Zhw	Reviewed by:	2
Cindy Zhu /	Assistant AUD	- @ 片类料 H (河 lol) 专题 /	nzhen) Co., Ltd.
Approved & Authorized Signer		ignature: David lin Mar	oln

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				
Power Line Conducted Emission	FCC Part 15: 15.207	PASS				
Radiated Emission	FCC Part 15: 15.209	PASS				
Band Edge Compliance	FCC Part 15: 15.407	PASS				
6dB&26Bandwidth Test	FCC Part 15: 15.407(a)	PASS				
Output Power Test	FCC Part 15: 15.407(a)	PASS				
Power Spectral Density Test	FCC Part 15: 15.407(a)	PASS				
Frequency Stability	FCC Part 15: 15.407(g)	PASS				
Antenna requirement	FCC Part 15: 15.203	PASS				
Power Spectral Density Test Frequency Stability	FCC Part 15: 15.407(a) FCC Part 15: 15.407(g)	PASS PASS				

N/A is an abbreviation for Not Applicable.



2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : Altai A8n (ac) Super WiFi Base Station

Model No. : WA8011NAC-X

FCC ID : UCC-WA8011NAC-X

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

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

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

IEEE 802.11n HT20: 2412MHz—2462MHz; 5745MHz—5825MHz IEEE 802.11n HT40: 2422MHz—2452MHz; 5755MHz—5795MHz

IEEE 802.11ac VHT20: 5745MHz—5825MHz IEEE 802.11ac VHT40: 5755MHz—5795MHz

IEEE 802.11ac VHT80: 5775MHz

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

IEEE 802.11a/g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac VHT20, VHT40, VHT80: OFDM(16QAM,

64QAM, 256QAM, QPSK, BPSK)

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

16QAM,QPSK,BPSK)

Antenna Assembly : 2.4GHz: Sector Antenna, 14dBi gain,

Gain 5GHz: Panel Antenna, 20dBi gain

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

POE : Manufacturer: FSGREAT;M/N: GRT-560110A

INPUT:AC 100-240V 50/60Hz

OUTPUT:56V 1100mA

Date of Test : Feb.18~Mar.14, 2016

Date of Receipt : Feb.16, 2016

Sample Type : Prototype production



2.2.Test Information

A special test software was used to control EUT work in Continuous TX mode (nearly 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)			
	6	Low :CH149	5745			
IEEE 802.11a	6	Middle: CH157	5785			
	6	High: CH165	5825			
	MCS0	Low :CH149	5745			
IEEE 802.11nHT20	MCS0	Middle: CH157	5785			
	MCS0	High: CH165	5825			
IEEE 802.11nHT40	MCS0	Low:CH151	5755			
1EEE 002.111111140	MCS0	High: CH159	5795			
	MCS0	Low :CH149	5745			
IEEE 802.11acVHT20	MCS0	Middle: CH157	5785			
	MCS0	High: CH165	5825			
IEEE 802.11acVHT40	MCS0	Low:CH151	5755			
1EEE 002.11ac V H 140	MCS0	High: CH159	5795			
IEEE 802.11acVHT80	MCS0	CH155	5775			

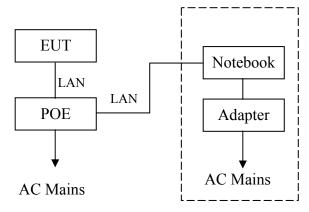
Note: 1. According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

Note: 2. This device use MIMO Mode, test with two antenna transmit simultaneously and comply with KDB662911D01 V02r01.

2.1.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number		
		N/A	DELL	PP09S	N/A		
1	1,0000001	Power Cord: Unshielded, Detachable, 1.8m Power Adapter: Manufacturer: DELL, M/N: LA65NS1-00 Cable: Unshielded, Detachable, 4.0m(Bond one ferrite core)					

2.2.Block diagram of connection between the EUT and simulators



(EUT: Altai A8n (ac) Super WiFi Base Station)



2.3. Test Facility

Site Description

Audix Technology (Shenzhen) Co., Ltd.

Name of Firm No. 6, Ke Feng Rd., 52 Block, Shenzhen

Science & Industrial Park, Nantou, Shenzhen,

Guangdong, China

Certificated by FCC, USA

3m Anechoic Chamber : Registration Number: 90454

Valid Date: Dec.30, 2017

Certificated by FCC, USA

3m & 10m Anechoic Chamber : Registration Number: 794232

Valid Date: Jul.12, 2016

Certificated by Industry Canada

EMC Lab. : Registration Number: IC 5183A-1

Valid Date: May.14, 2017

Certificated by DAkkS, Germany

Registration No: D-PL-12151-01-00

Valid Date: Dec.15, 2016

Accredited by NVLAP, USA

NVLAP Code: 200372-0 Valid Date: Mar.31, 2017

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

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.4dB (150KHz to 30MHz)
	2.6 dB(30~200MHz, Polarization: H)
Uncertainty for Radiation Emission test	2.6 dB(30~200MHz, Polarization: V)
in 3m chamber	3.0 dB(200M~1GHz, Polarization: H)
	2.8 dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in	6.3 dB (1~6GHz, Distance: 3m)
3m chamber (1GHz-18GHz)	5.7 dB (6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.6 dB
Uncertainty for Conduction Spurious emission test	2.0 dB
Uncertainty for Output power test	0.8 dB
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.1 %
Uncertainty for test site temperature and	0.6
humidity	3%

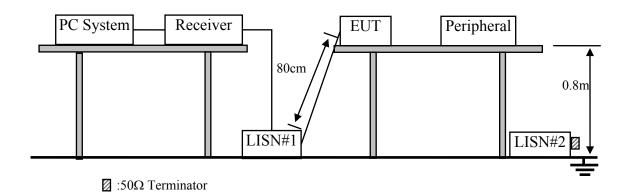


3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	Apr.17,15	1 Year
2.	Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.28,15	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	100429	Oct.18,15	1 Year
4.	L.I.S.N#2	Kyoritsu	K NW-403D	8-1750-2	Apr.28,15	1 Year
5.	Terminator	Hubersuhner	50Ω	No.1	Apr.28,15	1 Year
6.	Terminator	Hubersuhner	50Ω	No.2	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	3D-2W	No.1	Apr.28,15	1Year
8.	Coaxial Switch	Anritsu	MP59B	6200766906	Apr.28,15	1 Year
9.	Test Software	AUDIX	E3	6.100913a	N/A	N/A

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(µV)	$dB(\mu V)$		
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. Altai A8n (ac) Super WiFi Base Station (EUT)

Model Number : WA8011NAC-X

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: 2013 on Conducted Emission Test

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

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

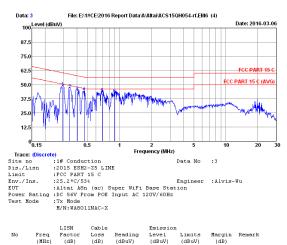
3.7. Power Line Conducted Emission Test Results

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



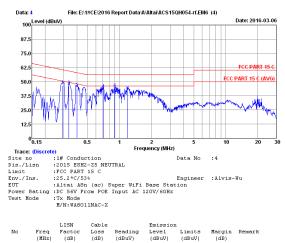
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No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.294	0.13	0.05	47.59	47.77	60.41	12.64	QP
2	0.341	0.13	0.06	45.49	45.68	59.18	13.50	QP
3	0.402	0.79	0.06	42.75	43.60	57.81	14.21	QP
4	0.466	0.33	0.06	42.80	43.19	56.58	13.39	QP
5	0.690	0.15	0.06	41.87	42.08	56.00	13.92	QP
6	0.904	0.16	0.07	41.53	41.76	56.00	14.24	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
2.If the average limit is met when using a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.



No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.294	0.13	0.05	46.35	46.53	60.41	13.88	QP
2	0.336	0.13	0.06	45.85	46.04	59.31	13.27	QP
3	0.398	0.14	0.06	43.65	43.85	57.90	14.05	QP
4	0.705	0.15	0.06	43.04	43.25	56.00	12.75	QP
5	0.909	0.16	0.07	43.33	43.56	56.00	12.44	QP
6	1.197	0.17	0.08	41.27	41.52	56.00	14.48	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
2.If the average limit is met when using a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

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4. RADIATED EMISSION TEST

4.1.Test Equipment

4.1.1.For frequency range 30 MHz ~1000MHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Mar.28,15	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	Apr.28,15	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	Apr.28,15	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr.28,15	1 Year
5.	Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-493	May.06,15	1 Year
6.	RF Cable	MIYAZAKI	CFD400-N W(3.5M)	No.3	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	CFD400-L W(22M)	No.7	Apr.28,15	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397222	Apr.28,15	1 Year
9.	Test Software	AUDIX	e3	6.2009-5-21a(n)	N/A	N/A

4.1.2.For frequency range 1GHz~40GHz (In 3m Anechoic Chamber)

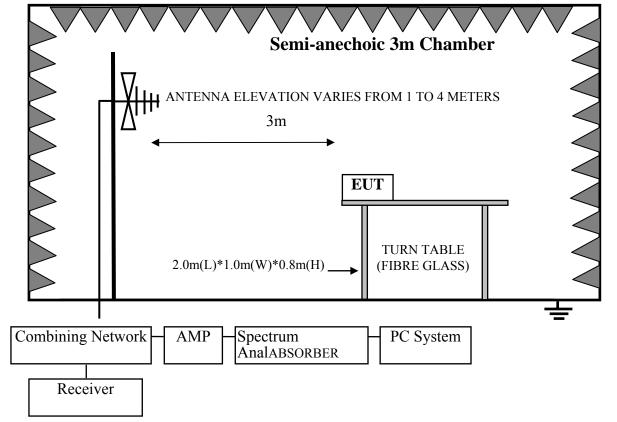
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Horn Antenna	ETS	3115	9510-4877	Oct.15,15	1 Year
3.	Amplifier	Agilent	8449B	3008A02495	Apr.28,15	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr.28,15	1 Year
5.	Horn Antenna	ETS	3116	00060089	Oct.15,15	1 Year
6.	Test Software	AUDIX	e3	6.2009-5-21a(n)	N/A	N/A



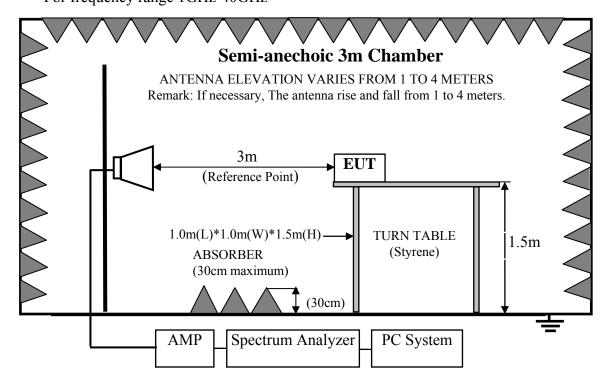
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4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-40GHz





4.3 Radiated Emission Limit

For transmitters operating in the 5.15-5.25 GHz; 5.25-5.35GHz; 5.47-5.725GHz, 5.725-5.850GHz band: all emissions outside of those band shall not exceed an EIRP of -27 dBm/MHz. Unwanted emissions below 1 GHz and those emissions appearing within 15.205 restricted frequency bands must comply with the general field strength limits set forth in Section 15.209

4.3.1.15.209 limits

FREQUENCY	DISTANCE	FIELD STREN	NGTHS 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	/)/m (Average)	

Remarks: (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	16.42 - 16.423	399.9 - 410	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)

4.4.EUT Configuration 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.

4.4.1. Altai A8n (ac) Super WiFi Base Station (EUT)

Model Number: WA8011NAC-X

Serial Number: N/A

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



4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let EUT work in Tx mode.

4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the 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 for frequency 30MHz~1000MHz, and the Horm antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2013 on radiated emission Test.

For emissions below 1GHz and those emissions appearing within 15.205 restricted frequency bands use below procedure:

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 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

For the emissions above 1GHz and not appearing within 15.205 restricted frequency bands use below procedure:

- (1). The maximum emission at 3m distance was measured and recorded with receive antenna in both vertical and horizontal by rotating the turntable and by lowering the receive antenna.
- (2). The EUT was then removed and replaced with a substitution antenna in the same position and the substitution antenna must have the same polarization with the receive antenna.
- (3). A signal which have the same frequency obtained in step 2 was fed to the substitution, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver, the level of the signal generator was adjusted until the measured field strength level in step 2 was obtained, recorded the level of the signal generator.
- (4). Repeated step 4 with both antenna polarizations
- (5). The spurious emissions is equal to the power supplied by the signal generator and corrections due to the gain of the substitution antenna and the cable loss between the signal generator and the substitution antenna. or use procedure (6).
- (6). Per KDB789033 clause H 2)d).if the test distance is 3m,the EIRP(dBm)=E(dBuv/m)-95.2 Get the result of all unwanted emission outside the restricted band is less than the -27dBm/MHz.
 - We had checked frequency range that is 30MHz to 10th harmonic (40GHz) and no any emissions were found from 18GHz to 40GHz, so the radiated emission from 18GHz to 40GHz were not record.

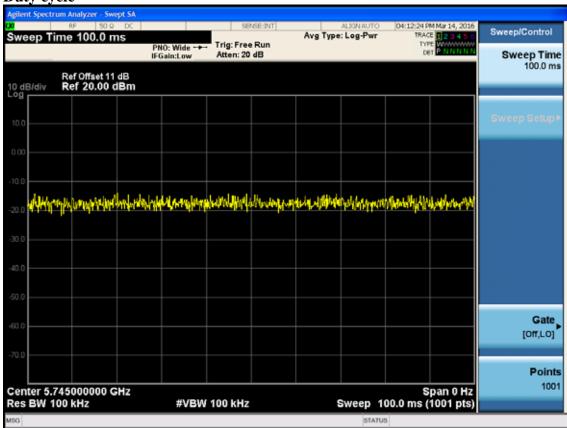
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4.7. Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 1 GHz were comply with 15.209 limits. All other emission comply with 15.407 (b)(1) requirements.

Duty cycle



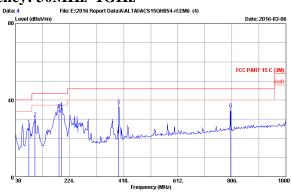
Note: The Duty Cycle is close to 100%.

AUDIX Technology (Shenzhen) Co., Ltd.

<u>Page 4-6</u>

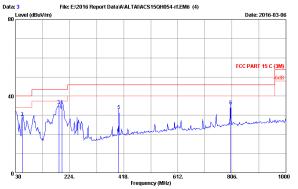
Frequency: 30MHz~1GHz

FCC ID:UCC-WA8011NAC-X

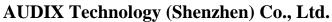


No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	78.500	7.69	0.98	18.21	26.88	40.00	13.12	QP
2	99.840	11.50	1.10	18.18	30.78	43.50	12.72	QP
3	185.200	10.15	1.43	23.54	35.12	43.50	8.38	QP
4	194.900	10.45	1.49	24.12	36.06	43.50	7.44	QP
5	400.540	16.91	2.20	18.29	37.40	46.00	8.60	QP
6	801.150	21.11	3.26	11.05	35.42	46.00	10.58	QP

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



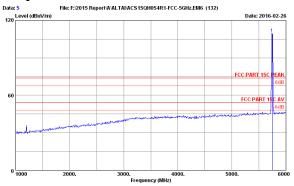
No.	Freq.	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.30	0.51	9.49	30.30	40.00	9.70	QP
2	54.250	8.48	0.85	19.71	29.04	40.00	10.96	QP
3	185.200	10.15	1.43	23.64	35.22	43.50	8.28	QP
4	195.870	10.48	1.49	23.28	35.25	43.50	8.25	QP
5	400.540	16.91	2.20	13.51	32.62	46.00	13.38	QP
6	801.150	21.11	3.26	10.70	35.07	46.00	10.93	QP





FCC ID:UCC-WA8011NAC-X Page 4-7

Frequency: 1GHz~18GHz



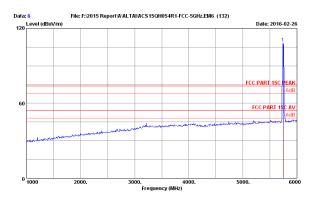
Site no. : 3m Chamber Data r
Dis / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23 **C/54*
Engineer : Leo-Li
EUT : Altai Abn (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEE802.11a 5745MHz TX
WA8011NAC-X

 Ant.
 Cable
 AMF
 Emission

 Factor
 Loss
 factor
 Reading
 Level
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV)m
 (dBuV)m
 (dB)
 (dB)
 1 5745.000 34.55 9.90 35.11 99.88 109.22 74.00 -35.22 Peak

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



 Ant.
 Cable
 AMP
 Emission

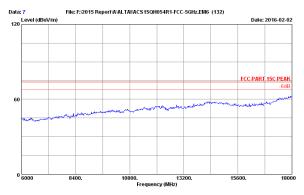
 Factor
 Loss
 factor
 Reading
 Level
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dBuV)
 (dBuV/m)
 (dBuV/m)
 (dB)
 (dB)
 1 5745.000 34.55 9.90 35.11 98.86 108.20 74.00 -34.20 Peak

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

File: F:\2015 Report\A\ALTAI\ACS15QH054R1-FCC-5GHz.EM6 (132)

Date: 2016-02-02



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEE802.11a 5745MHz Tx
WA8011NAC-X

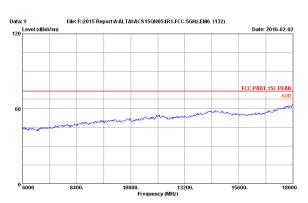
120 Level (dBuV/m) FCC PART 15C PEAK FCC PART 15C AV 0 6000 10800. 18000 requency (MHz)

Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEE802.11a 5745MHz Tx
WA8011NAC-X

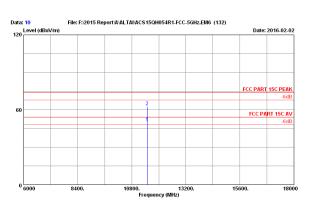
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11490.000 11490.000		14.54 14.54	35.33 35.33	31.07 44.26	49.37 62.56	54.00 74.00		Average Peak

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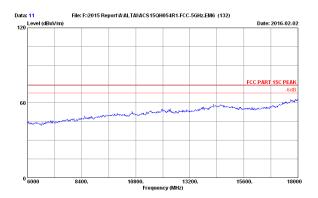
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEE8602.11a 5745MHz Tx
WA8011NAC-X Data no. : 9 Ant. pol. : HORIZONTAL



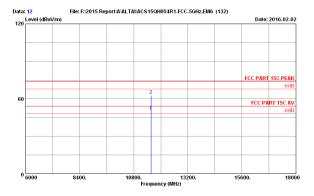
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-L1
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBOS.11a 5745MHz TX
WA801INAC-X Data no. : 10 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11490.000	39.09	14.54	35.33	31.47	49.77	54.00	4.23	Average
2	11490.000	39.09	14.54	35.33	44.27	62.57	74.00	11.43	Peak

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



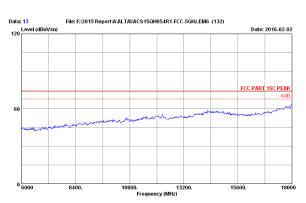
Data no. : 11 Ant. pol. : HORIZONTAL



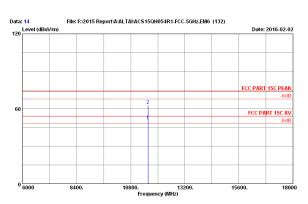
Data no. : 12 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emissior	1		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11570.000	39.14	14.60	35.31	31.48	49.91	74.00	24.09	Average
2	11570.000	39.14	14.60	35.31	44.26	62.69	74.00	11.31	Peak
					_		_		

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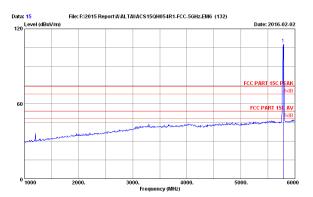
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23*C548
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEE802.11a 5785MHz Tx
WA8011NAC-X Data no. : 13 Ant. pol. : VERTICAL



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23*C548
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEE802.11a 5785MHz Tx
WA8011NAC-X

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11570.000	39.14	14.60	35.31	32.04	50.47	54.00	3.53	Average
2	11570.000	39.14	14.60	35.31	44.26	62.69	74.00	11.31	Peak

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



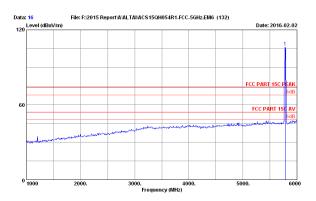
Data no. : 15 Ant. pol. : HORIZONTAL

 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.57 9.91 35.10 98.65 108.03 74.00 -34.03 Peak 1 5785.000

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



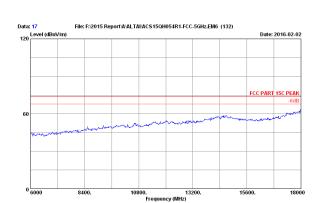
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FOC PART 15C PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-L1
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBOZ.11a 5785MHz TX
WA801INAC-X Data no. : 16 Ant. pol. : VERTICAL

 Ant.
 Cable
 AHP
 Emission

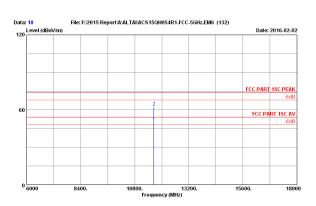
 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.57 9.91 35.10 96.85 106.23 74.00 -32.23 Peak 1 5785.000

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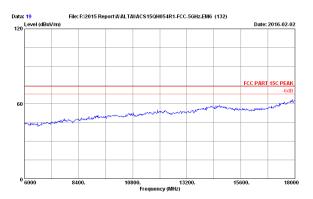
Data no. : 17 Ant. pol. : VERTICAL



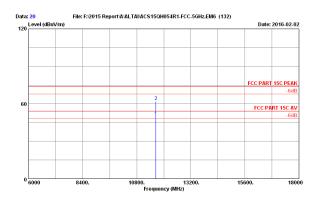
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-L1
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBOS.11a 5825MHz Tx
WA801INAC-X

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11650.000	39.19	14.66	35.29	31.34	49.90	54.00	4.10	Average
2	11650.000	39.19	14.66	35.29	43.76	62.32	74.00	11.68	Peak
	Domorko: 1	Fmiceic	n Lessel	= intenne	Factor 4	Cable Lo	ee + Dee	dino	

-Amp Factor The emission levels that are 20dB below the official limit are not reported.



Data no. : 19 Ant. pol. : HORIZONTAL



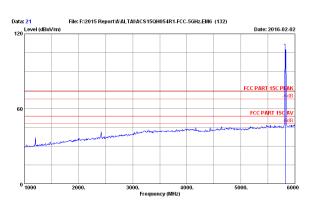
Data no. : 20 Ant. pol. : HORIZONTAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
	11650.000		14.66	35.29	30.89	49.45	54.00		Average
2 1	11650.000	39.19	14.66	35.29	43.26	61.82	74.00	12.18	Peak
	Danier 1	Post and			V	C-1-1- 1-	· D		

sarks: 1. Emission Level= Antenna Factor - Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

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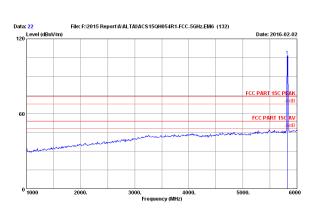
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Data no. : 21 Ant. pol. : HORIZONTAL

		ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(HHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5825.000	34.60	9.93	35.08	98.59	108.04	74.00	-34.04	Peak

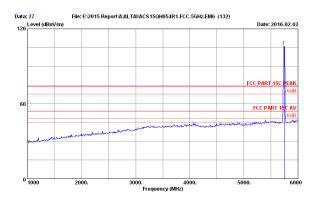
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-L1
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBOS.11a 5825MHz Tx
WA801INAC-X

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)		Limits (dBuV/m)		Remark
1	5825.000	34.60	9.93	35.08	96.89	106.34	74.00	-32.34	Peak
	Remarks:	1. Emissio	n Level	= Antenna	Factor	+ Cable Lo	ss + Res	ding	

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

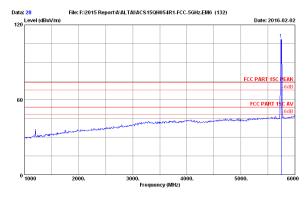


Data no. : 27 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
1	5745.000	34.55	9.90	35.11	96.77	106.11	74.00	-32.11	Peak
	Remarks: 1.	Emissio		Antenna	Factor +	Cable Los	ss + Read	ling	

-Amp Factor

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



Data no. : 28 Ant. pol. : HORIZONTAL

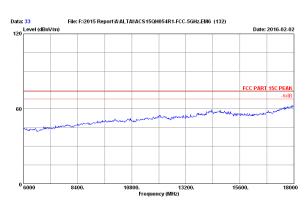
 Ant.
 Cable
 AHP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

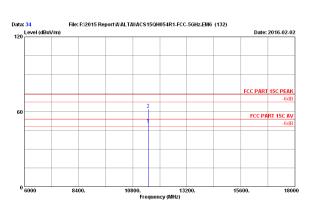
 (dB/m)
 (dB)
 (dB)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.55 9.90 35.11 99.25 108.59 74.00 -34.59 Peak 1 5745.000

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Data no. : 33 Ant. pol. : VERTICAL

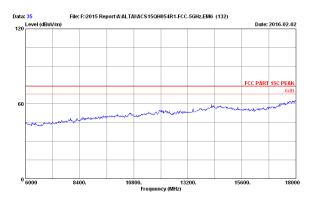


Data no. : 34 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11490.000	39.09	14.54	35.33	31.75	50.05	54.00	3.95	Average
2	11490.000	39.09	14.54	35.33	43.87	62.17	74.00	11.83	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor -Amp ractor

 The emission levels that are 20dB below the official limit are not reported.



Data no. : 35 Ant. pol. : HORIZONTAL

0 60	00	8400.	10800.	13200. ncy (MHz)	15600.	1800
H						
E					FCCPA	RT 15C AV -6dE
ا_0			2		rec Da	DT 450 N
						-6dB
					FCC PART	15C PEAK
a: 36	vel (dBuV/m)	File: F:\2015 Re			Date:	2016-02-0

Data no. : 36 Ant. pol. : HORIZONTAL

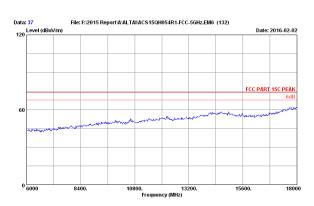
 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin

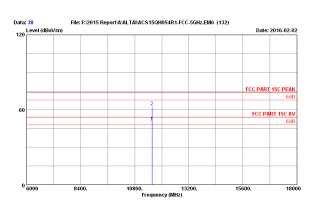
 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m)
 (dBuV/m)
 (dB

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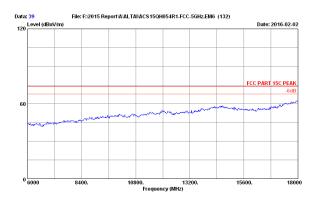
Data no. : 37 Ant. pol. : HORIZONTAL



Data no. : 38 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission							
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark				
1	11570.000	39.14	14.60	35.31	31.56	49.99	54.00	4.01	Average				
2	11570.000	39.14	14.60	35.31	44.03	62.46	74.00	11.54	Peak				

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



Data no. : 39 Ant. pol. : VERTICAL

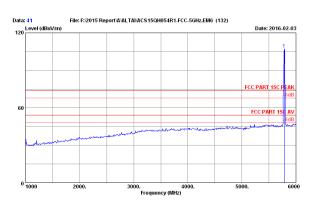
Data:	10	File: F:\2015 Re	2)					
120 L	evel (dBuV/m)						Date:	2016-02-02
120								
- 1								
- 1								
-							FCC PART	15C PEAK
- 1				2				-6dB
60				- 1				
00							FCC PA	RT 15C AV
								-6dB
- 1								
- 1								
-								
٦								
0 6	000	8400.	108		132	200.	15600.	18000
				Freque	ncy (MHz)			

Data no. : 40 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	11570.000 11570.000	39.14 39.14		35.31 35.31	32.04 43.58	50.47 62.01	54.00 74.00		Average Peak
	D	P	v		T	C-1-1- 1-			

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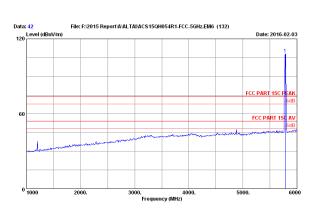
Page 4-14



Data no. : 41 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5785.000	34.57	9.91	35.10	97.56	106.94	74.00	-32.94	Peak

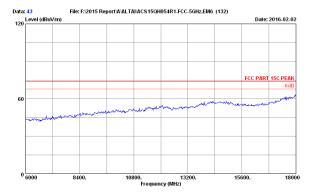
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



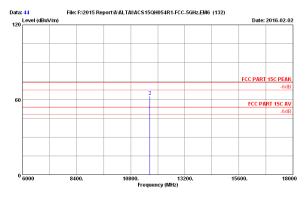
Data no. : 42 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5785.000	34.57	9.91	35.10	98.59	107.97	74.00	-33.97	Peak
	Remarks: 1	. Emissio	n Level	= Antenn	a Factor -	+ Cable Lo	ss + Res	ding	

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



Data no. : 43 Ant. pol. : VERTICAL



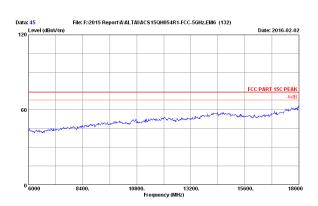
Data no. : 44 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
_	11650.000 11650.000		14.66 14.66	35.29 35.29	31.86 44.23	50.42 62.79	54.00 74.00		Average Peak
	D	Post and a	Y 1		F	C-1-1- 1-			

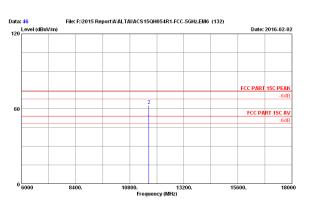
sarks: 1. Emission Level= Antenna Factor - Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

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Data no. : 45 Ant. pol. : HORIZONTAL

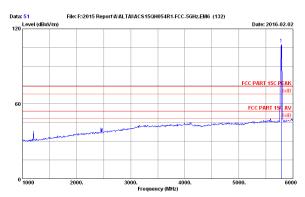


Data no. : 46 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11650.000	39.19	14.66	35.29	32.41	50.97	54.00	3.03	Average
2	11650.000	39.19	14.66	35.29	44.28	62.84	74.00	11.16	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor

-Amp ractor
2. The emission levels that are 20dB below the official limit are not reported.



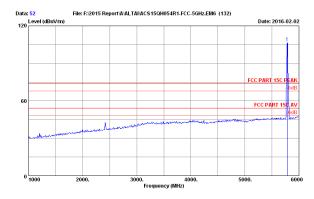
Data no. : 51 Ant. pol. : HORIZONTAL

 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.57 9.91 35.10 98.69 108.07 74.00 -34.07 Peak 1 5785.000

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



Data no. : 52 Ant. pol. : VERTICAL

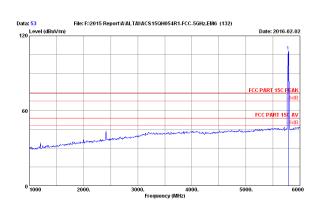
 Ant.
 Cable
 AHP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.57 9.91 35.10 97.26 106.64 74.00 -32.64 Peak 1 5785.000

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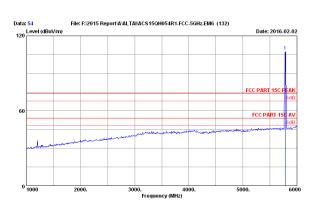
Page 4-16



Data no. : 53 Ant. pol. : VERTICAL

| Ant. | Cable | AMP | Emission | Level | Limits | Margin | Remark | (MHz) | (dB/m) | (dB) | (dB) | (dBuy) | (dBuy/m) | (dBuy/m) | (dBuy/m) | (dB) | 1 5785.000

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

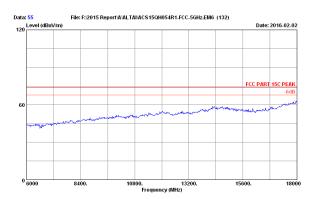


Data no. : 54 Ant. pol. : HORIZONTAL

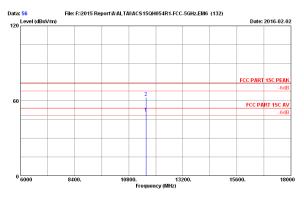
| Ant. | Cable | AMP | Emission | Limits | Margin | Remark | (MHz) | (dB/m) | (dB) | (dB) | (dBW) | (dBW/m) | (dBW/m 1 5785.000 Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor

-Amp Factor

 The emission levels that are 20dB below the official limit are not reported.



Data no. : 55 Ant. pol. : HORIZONTAL



Data no. : 56 Ant. pol. : HORIZONTAL

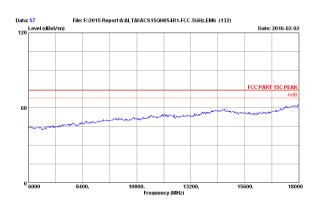
 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin

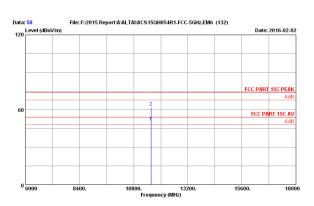
 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m)
 (dB)
 31.85 44.26

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Data no. : 57 Ant. pol. : VERTICAL



Data no. : 58 Ant. pol. : VERTICAL

 Ant.
 Cable
 AMP
 Emission

 Factor
 Loss factor
 Reading
 Level
 Limits
 Margin
 Remark

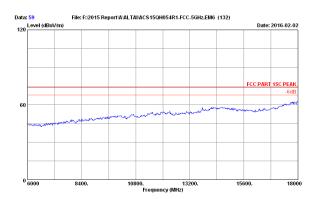
 (dB/W)
 (dB)
 (d

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor

-Amp Factor

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

File: F:\2015 Report\A\ALTA\ACS15QH054R1-FCC-5GHz.EM6 (132)



Data no. : 59 Ant. pol. : VERTICAL

120 Level (dBuV/m) Date: 2016-02-02 FCC PART 15C PEAK 18000 Frequency (MHz)

Data no. : 60 Ant. pol. : VERTICAL

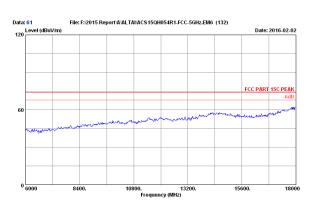
 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin

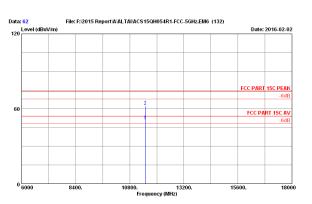
 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m)
 (dB)

AUDIX Technology (Shenzhen) Co., Ltd.

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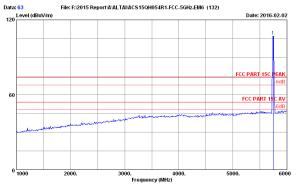
Data no. : 61 Ant. pol. : HORIZONTAL



Data no. : 62 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11490.000	39.09	14.54	35.33	32.16	50.46	54.00	3.54	Average
2	11490.000	39.09	14.54	35.33	44.04	62.34	74.00	11.66	Peak

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



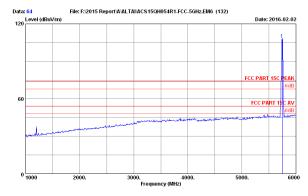
Data no. : 63 Ant. pol. : VERTICAL

 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.55 9.90 35.11 97.58 106.92 74.00 -32.92 Peak 1 5745.000

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



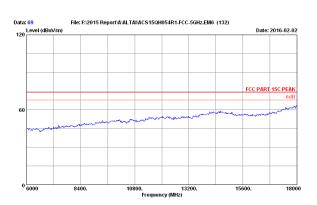
Data no. : 64 Ant. pol. : HORIZONTAL

 Ant.
 Cable
 AHP
 Emission

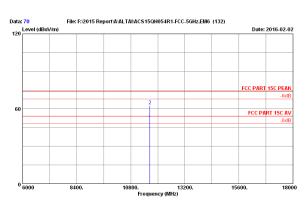
 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.55 9.90 35.11 98.25 107.59 74.00 -33.59 Peak 1 5745.000

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Data no. : 69 Ant. pol. : HORIZONTAL



Data no. : 70 Ant. pol. : HORIZONTAL

Ant. Cable AMP Emission
Factor Loss factor Reading Level Limits Margin Remark
(dB/m) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor -Amp ractor

 The emission levels that are 20dB below the official limit are not reported.

File: F:\2015 Report\A\ALTA\ACS15QH054R1-FCC-5GHz.EM6 (132)

File: F:\2015 Report\A\ALTAI\ACS15QH054R1-FCC-5GHz.EM6 (132) Level (dBuV/m) Date: 2016-02-02 120 FCC PART 15C PEAR

Frequency (MHz)

Data no. : 71 Ant. pol. : VERTICAL

120 Level (dBuV/m) Date: 2016-02-02 FCC PART 15C PEAK 18000 ,. Frequency (MHz)

Data no. : 72 Ant. pol. : VERTICAL

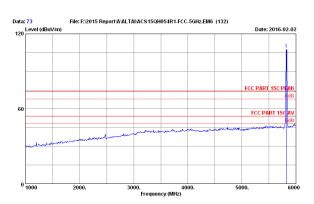
 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m)
 (dB)
 1 11650.000 2 11650.000

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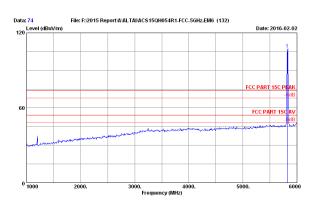
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Data no. : 73 Ant. pol. : VERTICAL

		Ant.	cante	Anr		THISSION			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5825.000	34.60	9.93	35.08	98.23	107.68	74.00	-33.68	Peak

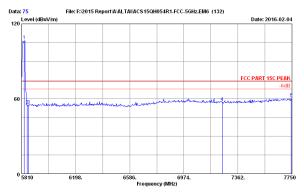
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Data no. : 74 Ant. pol. : HORIZONTAL

			Ant.	cante	Anr		THISSION				
No.	Freq.		Factor	Loss	factor	Reading	Level	Limits	Margin	Remark	
	(MHz)		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	5825.000		34.60	9.93	35.08	97.59	107.04	74.00	-33.04	Peak	
	Remarks:	1.	Emissio	n Level	- Antenna	Factor -	+ Cable Lo	ss + Rea	ding		

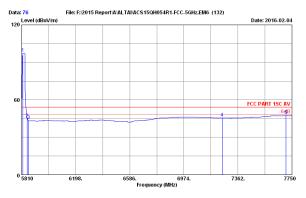
1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
 2. The emission levels that are 20dB below the official
limit are not reported.



Data no. : 75 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission	1		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor	Reading (dBuV)	Level	Limits		Remark
	(MHz)	(QD/M)	(45)	(dB)	(ubuv)	(ubuv/m)	(dBuV/m)	(ub)	
1	5829.400	34.60	9.94	35.08	97.03	106.49	74.00	-32.49	Peak
2	5850.000	34.61	9.95	35.07	45.01	54.50	74.00	19.50	Peak
3	5860.000	34.62	9.95	35.07	45.32	54.82	74.00	19.18	Peak
4	7249.480	36.10	10.74	35.50	45.67	57.01	74.00	16.99	Peak
5	7744.180	36.85	11.22	35.70	47.92	60.29	74.00	13.71	Peak

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



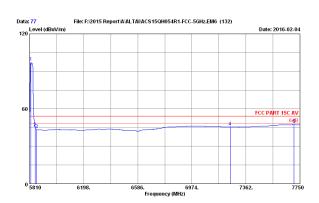
Data no. : 76 Ant. pol. : HORIZONTAL

Ant. Cable AMP Emission

No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(asuv/m)	(dBuV/m)	(dB)	
1	5819.700	34.59	9.93	35.08	87.96	97.40	54.00	-43.40	Average
2	5850.000	34.61	9.95	35.07	35.32	44.81	54.00	9.19	Average
3	5860.000	34.62	9.95	35.07	34.01	43.51	54.00	10.49	Average
4	7250.000	36.10	10.74	35.50	34.17	45.51	54.00	8.49	Average
5	7707.320	36.82	11.18	35.68	35.02	47.34	54.00	6.66	Average

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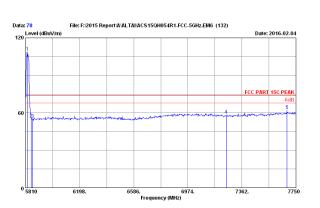
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Data no. : 77 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits		Remark
1	5819.700	34.59	9.93	35.08	87.85	97.29	54.00	-43.29	Average
2	5850.000	34.61	9.95	35.07	35.16	44.65	54.00	9.35	Average
3	5860.000	34.62	9.95	35.07	33.91	43.41	54.00	10.59	Average
4	7250.000	36.10	10.74	35.50	34.16	45.50	54.00	8.50	Average
5	7707.320	36.82	11.18	35.68	35.01	47.33	54.00	6.67	Average

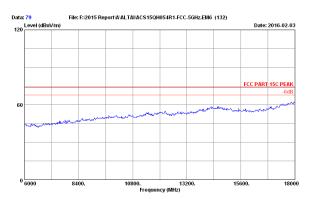
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



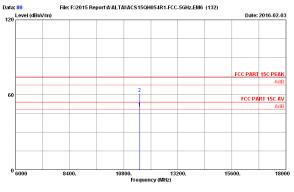
Data no. : 78 Ant. pol. : VERTICAL

		Ant.	Cable	AMP					
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5823.580	34.59	9.93	35.08	99.14	108.58	74.00	-34.58	Peak
2	5850.000	34.61	9.95	35.07	45.81	55.30	74.00	18.70	Peak
3	5860.000	34.62	9.95	35.07	45.47	54.97	74.00	19.03	Peak
4	7250.000	36.10	10.74	35.50	46.96	58.30	74.00	15.70	Peak
5	7685.980	36.81	11.16	35.67	49.51	61.81	74.00	12.19	Peak

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



Data no. : 79 Ant. pol. : HORIZONTAL

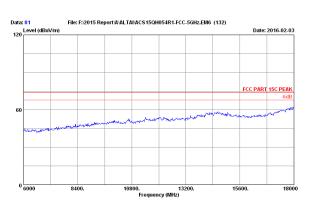


Data no. : 80 Ant. pol. : HORIZONTAL

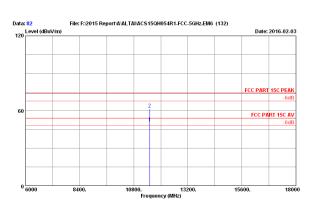
		Ant.	Cable	AMP		Emissior	1		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1 :	11510.000	39.11	14.56	35.33	31.26	49.60	54.00	4.40	Average
2 :	11510.000	39.11	14.56	35.33	42.89	61.23	74.00	12.77	Peak
					_		_		

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Data no. : 81 Ant. pol. : VERTICAL



Data no. : 82 Ant. pol. : VERTICAL

 Ant.
 Cable
 AMP
 Emission

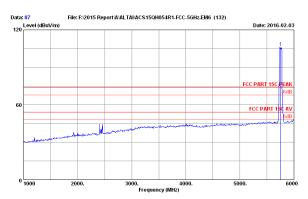
 Factor
 Loss
 factor
 Reading
 Level
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m)
 (dBuV/m)
 (dB
 (dB)

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor

-Amp Factor

 The emission levels that are 20dB below the official limit are not reported.



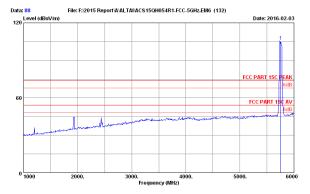
Data no. : 87 Ant. pol. : VERTICAL

 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.55 9.91 35.11 96.59 105.94 74.00 -31.94 Peak 1 5755.000

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



Data no. : 88 Ant. pol. : HORIZONTAL

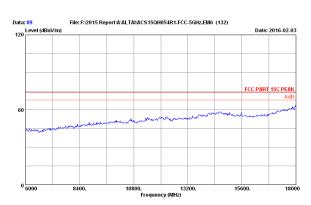
 Ant.
 Cable
 AHP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

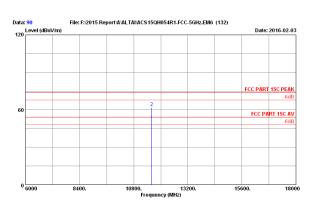
 (dB/m)
 (dB)
 (dB)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.55 9.91 35.11 95.86 105.21 74.00 -31.21 Peak 1 5755.000

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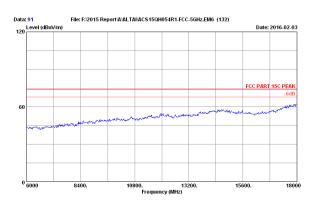
Data no. : 89 Ant. pol. : VERTICAL



Data no. : 90 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11590.000	39.15	14.61	35.30	32.48	50.94	54.00	3.06	Average
2	11590.000	39.15	14.61	35.30	43.54	62.00	74.00	12.00	Peak

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



Data no. : 91 Ant. pol. : HORIZONTAL

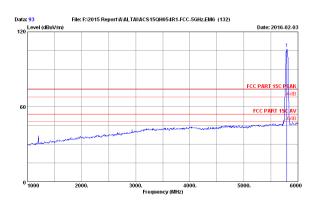
File: F:\2015 Report\A\ALTAI\ACS15QH054R1-FCC-5GHz.EM6 (132) 120 Level (dBuV/m) Date: 2016-02-03 FCC PART 15C PEAK Frequency (MHz)

Data no. : 92 Ant. pol. : HORIZONTAL

		ant.	capie	Anr		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11590.000	39.15	14.61	35.30	32.52	50.98	54.00	3.02	Average
2	11590.000	39.15	14.61	35.30	43.28	61.74	74.00	12.26	Peak

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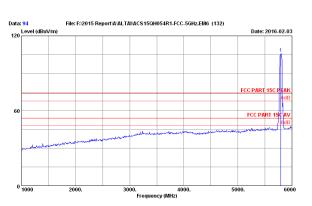
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Data no. : 93 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission	ı		
No	. Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5795.000	34.58	9.92	35.09	97.26	106.67	74.00	-32.67	Peak

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

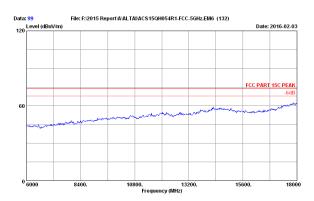


Data no. : 94 Ant. pol. : VERTICAL

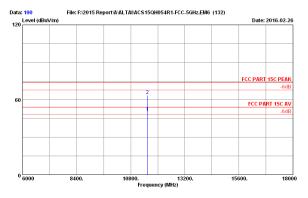
| No. | Freq. | Factor | Cable | AIP | Ends | Inc. | Ends | Ends | Inc. | Ends | Inc. | Ends | Inc. | Ends | Inc. | Ends | Ends | Inc. | Ends 1 5795.000 Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor

-Amp Factor

 The emission levels that are 20dB below the official limit are not reported.



Data no. : 99 Ant. pol. : VERTICAL



Data no. : 100 Ant. pol. : VERTICAL

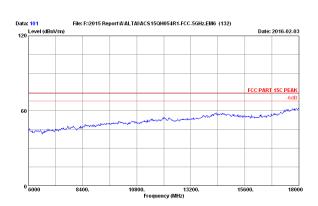
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
1	11550.000	39.13	14.58	35.31	31.42	49.82	54.00	4.18	Average
2	11550.000	39.13	14.58	35.31	45.16	63.56	74.00	10.44	Peak
	Description 1	Want and a	* 1		T	C-1-1- 1-			

warks: 1. Emission Level= Antenna Factor - Amp Factor

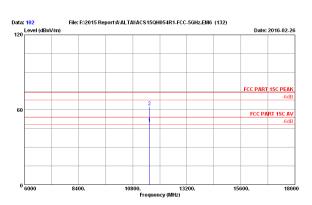
2. The emission levels that are 20dB below the official limit are not reported.

AUDIX Technology (Shenzhen) Co., Ltd.

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Data no. : 101 Ant. pol. : HORIZONTAL

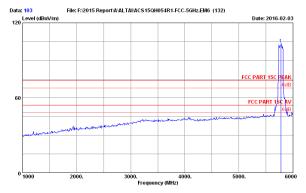


Data no. : 102 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP	Emission				
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11550.000	39.13	14.58	35.31	30.85	49.25	54.00	4.75	Average
2	11550.000	39.13	14.58	35.31	44.13	62.53	74.00	11.47	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor

-Amp ractor
2. The emission levels that are 20dB below the official limit are not reported.



Data no. : 103 Ant. pol. : VERTICAL

1 5775.000

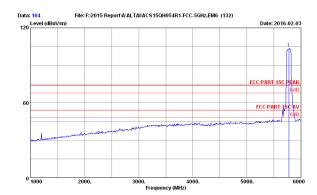
 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)

34.57 9.91 35.10 93.69 103.07 74.00 -29.07 Peak

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



Data no. : 104 Ant. pol. : HORIZONTAL

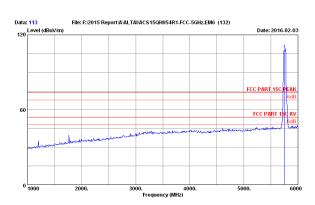
 Ant.
 Cable
 AMP
 Emission

 Factor
 Loss
 factor
 Reading
 Level
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV)
 (dBuV)
 (dBuV)
 (dB
 34.57 9.91 35.10 94.26 103.64 74.00 -29.64 Peak 1 5775.000

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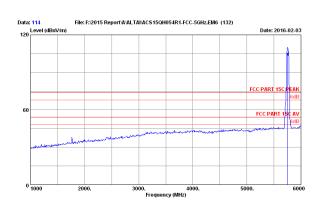
Page 4-26



Data no. : 113 Ant. pol. : HORIZONTAL

		ant.	capie	Anr		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5755.000	34.55	9.91	35.11	98.62	107.97	74.00	-33.97	Peak

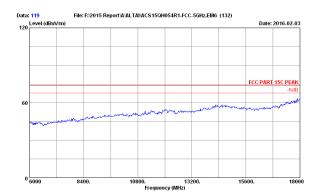
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



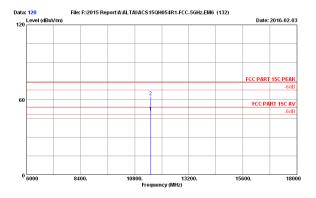
Data no. : 114 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
	755.000						74.00 -		Peak

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



Data no. : 119 Ant. pol. : HORIZONTAL

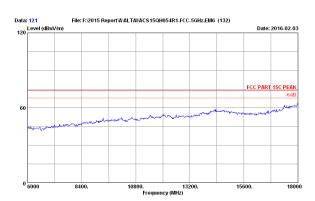


Data no. : 120 Ant. pol. : HORIZONTAL

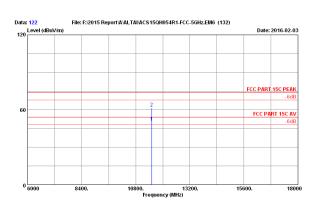
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	1510.000	39.11	14.56	35.33	31.89	50.23	54.00	3.77	Average
	1510.000	39.11	14.56	35.33	44.01	62.35	74.00	11.65	Peak

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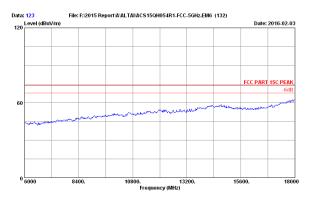
Data no. : 121 Ant. pol. : VERTICAL



Data no. : 122 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11510.000	39.11	14.56	35.33	31.85	50.19	54.00	3.81	Average
2	11510.000	39.11	14.56	35.33	43.29	61.63	74.00	12.37	Peak

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



Data no. : 123 Ant. pol. : VERTICAL

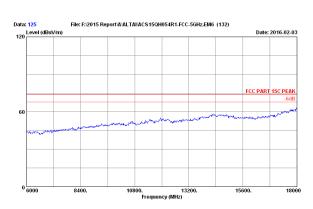
Data:	124	File: F:\2015 Rep	ort\A\ALTA	IACS15	QH054R1-FCC	-5GHz.EM6 (1	32)	
120 I	Level (dBuV/m)						Date:	2016-02-26
							FCC PART	15C PEAK
				2				-6dB
60				— í			ree D	DT 450 BV
- 1				-	_		FCC PA	RT 15C AV
ŀ								-6dB
ı								
1								
0 5	5000	8400.	108			200.	15600.	18000
				Frequ	ency (MHz)			

Data no. : 124 Ant. pol. : VERTICAL

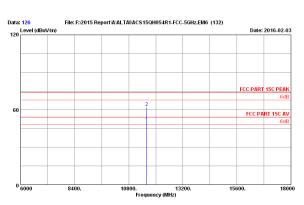
		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(HHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11590.000	39.15	14.61	35.30	30.85	49.31	54.00	4.69	Average
2	11590.000	39.15	14.61	35.30	43.74	62.20	74.00	11.80	Peak

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Data no. : 125 Ant. pol. : HORIZONTAL

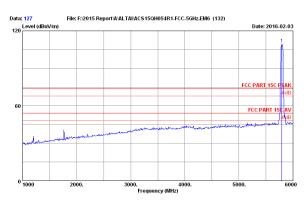


Data no. : 126 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	11590.000	39.15	14.61	35.30	31.28	49.74	54.00	4.26	Average
2	11590.000	39.15	14.61	35.30	43.26	61.72	74.00	12.28	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor

-Amp ractor
2. The emission levels that are 20dB below the official limit are not reported.

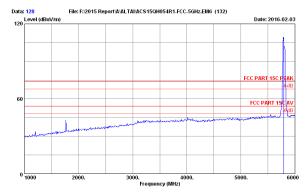


Data no. : 127 Ant. pol. : HORIZONTAL

 Ant.
 Cable
 AMP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV)
 (dBuV/m) (dBuV/m)
 (dB)
 34.58 9.92 35.09 100.23 109.64 74.00 -35.64 Peak 1 5795.000 Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Data no. : 128 Ant. pol. : VERTICAL

 Ant.
 Cable
 AHP
 Emission

 Factor
 Lovel
 Limits
 Margin
 Remark

 (dB/m)
 (dB)
 (dB)
 (dBuV/m) (dBuV/m) (dBuV/m)
 (dB)
 34.58 9.92 35.09 95.86 105.27 74.00 -31.27 Peak 1 5795.000

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5. BAND EDGE COMPLIANCE TEST

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Amp	HP	8449B	3008A02495	Apr.28,15	1 Year
3.	Horn Antenna	ETS	3115	9510-4877	Oct.15,15	1 Year
4.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr.28,15	1 Year

5.2.Limit

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.

For devices with both operating frequencies and channel bandwidths contained within the band 5250-5350 MHz.

All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.

For transmitters operating in the band 5470-5725MHz, Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.

For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz.

5.3 Test Produce

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO
- 5. Per KDB789033 clause H 2)d).if the test distance is 3m, the EIRP(dBm)=E(dBuv/m)-95.2 Get the final compare with limit.

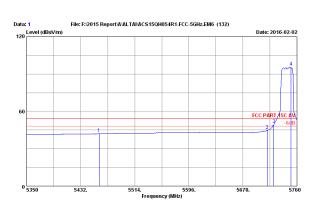
5.4. Test Results

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



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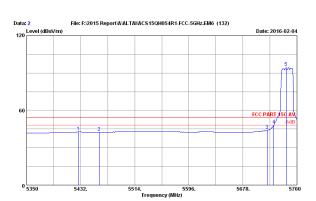


Site no. : 3m Chamber Date r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART ISC AV
Env. / Ins. : 23°C/54*
Engineer : Leo-Li
EUT : Altai A8n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBGG.11a 5745MHz TX
WA8011NAC-X

Data no. : 1 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark
1	5460.000	34.33	9.76	35.25	33.16	42.00	54.00	12.00	Average
2	5715.000	34.53	9.88	35.12	35.45	44.74	54.00	9.26	Average
3	5725.000	34.53	9.89	35.12	40.13	49.43	54.00	4.57	Average
4	5750.980	34.55	9.90	35.11	86.18	95.52	54.00	-41.52	Average

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



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 1SC AV
Env. / Ins. : 23*C/54*
Engineer : Leo-L1
EUT : Altai ABn (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBGG.11a 5745MHz TX
WA8011NAC-X

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5428.720	34.27	9.74	35.26	33.96	42.71	54.00	11.29	Average
2	5459.880	34.33	9.76	35.25	33.60	42.44	54.00	11.56	Average
3	5715.000	34.53	9.88	35.12	34.84	44.13	54.00	9.87	Average
4	5725.000	34.53	9.89	35.12	39.09	48.39	54.00	5.61	Average
5	5743.600	34.55	9.90	35.11	85.24	94.58	54.00	-40.58	Average

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

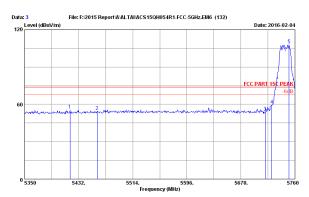
Data: 4

120 Level (dBuV/m)

File: F:\2015 Report\A\ALTAI\AC\$15QH054R1-FCC-5GHz.EM6 (132)

Date: 2016-02-04

FCC PART 15C PEAR



Site no. : 3m Chamber Date r
Dis./ Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEEGG.11a 5745MHz TX
WA8011NAC-X Data no. : 3 Ant. pol. : VERTICAL

		Anc.	camie	Anr		FUITSSIOI			
No.	Freq.	Factor	Loss	factor	Reading		Limits		Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5418.880	34.25	9.74	35.26	46.69	55.42	74.00	18.58	Peak
2	5460.000	34.33	9.76	35.25	45.67	54.51	74.00	19.49	Peak
3	5715.000	34.53	9.88	35.12	44.68	53.97	74.00	20.03	Peak
4	5725.000	34.53	9.89	35.12	50.06	59.36	74.00	14.64	Peak
5	5750.980	34.55	9.90	35.11	98.70	108.04	74.00	-34.04	Peak

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

Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-8977 Ant. pol. :
Limit : FCC PART 1SC PEAK
Env. / Ins. : 23*C/54*
Engineer : Leo-L1
EUT : Altai ABn (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBGG.11a 5745MHz TX
WA8011NAC-X

		Ant.	Cable	AMP		Emissior	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)		Limits (dBuV/m)		Remark
1	5396.330	34.21	9.74	35.27	46.62	55.30	74.00	18.70	Peak
2	5460.000	34.33	9.76	35.25	43.29	52.13	74.00	21.87	Peak
3	5715.000	34.53	9.88	35.12	44.82	54.11	74.00	19.89	Peak
4	5725.000	34.53	9.89	35.12	54.05	63.35	74.00	10.65	Peak
5	5750.980	34.55	9.90	35.11	99.17	108.51	74.00	-34.51	Peak

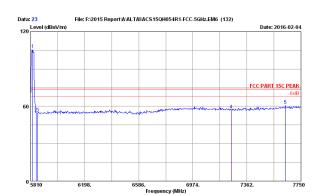
. Frequency (MHz)

Data no. : 4 Ant. pol. : HORIZONTAL



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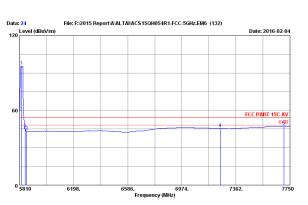
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Site no. : 3m Chamber Date r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART ISC PEAK
Env. / Ins. : 23°C/54*
Engineer : Leo-Li
EUT : Altai A8n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBGG.11a 5825MHz TX
WA8011NAC-X Data no. : 23 Ant. pol. : VERTICAL

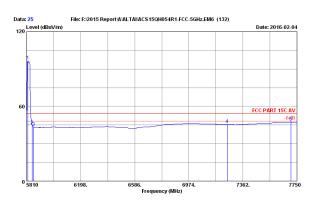
		ant.	Capte	Anr		Lm13310n	ı			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark	
1	5825.520	34.60	9.94	35.08	96.02	105.48	74.00	-31.48	Peak	
2	5850.000	34.61	9.95	35.07	45.23	54.72	74.00	19.28	Peak	
3	5860.000	34.62	9.95	35.07	45.09	54.59	74.00	19.41	Peak	
4	7250.000	36.10	10.74	35.50	45.88	57.22	74.00	16.78	Peak	
5	7637.480	36.78	11.11	35.65	48.56	60.80	74.00	13.20	Peak	

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



No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5823.580	34.59	9.93	35.08	86.05	95.49	54.00	-41.49	Average
2	5850.000	34.61	9.95	35.07	34.92	44.41	54.00	9.59	Average
3	5860.000	34.62	9.95	35.07	33.75	43.25	54.00	10.75	Average
4	7250.000	36.10	10.74	35.50	34.14	45.48	54.00	8.52	Average
5	7705.380	36.82	11.18	35.68	35.01	47.33	54.00	6.67	Average

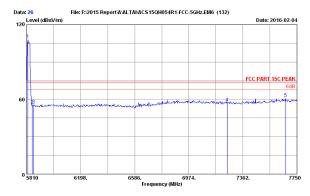
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Date r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC AV
Env. / Ins. : 23*C/54*
Engineer : Leo-Li
EUT : Altai A6n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEEGO.11a 5025MHz TX
WA8011NAC-X Data no. : 25 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5819.700	34.59	9.93	35.08	87.13	96.57	54.00	-42.57	Average
2	5850.000	34.61	9.95	35.07	34.93	44.42	54.00	9.58	Average
3	5860.000	34.62	9.95	35.07	33.77	43.27	54.00	10.73	Average
4	7250.000	36.10	10.74	35.50	34.12	45.46	54.00	8.54	Average
5	7705.380	36.82	11.18	35.68	35.01	47.33	54.00	6.67	Average

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



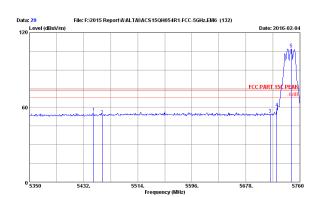
Site no. : 3m Chamber Date r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART ISC PEAK
Env. / Ins. : 23°C/54*
Engineer : Leo-Li
EUT : Altai A8n (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEEBGG.11a 5825MHz TX
WA8011NAC-X Data no. : 26 Ant. pol. : HORIZONTAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits		Remark
1	5819.700	34.59	9.93	35.08	98.55	107.99	74.00	-33.99	Peak
2	5850.000	34.61	9.95	35.07	45.60	55.09	74.00	18.91	Peak
3	5860.000	34.62	9.95	35.07	45.86	55.36	74.00	18.64	Peak
4	7250.000	36.10	10.74	35.50	45.84	57.18	74.00	16.82	Peak
5	7668.520	36.80	11.15	35.67	48.68	60.96	74.00	13.04	Peak



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Page 5-4



Data no. : 29 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits		Remark
1	5447.170	34.30	9.75	35.25	46.72	55.52	74.00	18.48	Peak
2	5460.000	34.33	9.76	35.25	44.57	53.41	74.00	20.59	Peak
3	5715.000	34.53	9.88	35.12	45.31	54.60	74.00	19.40	Peak
4	5725.000	34.53	9.89	35.12	50.28	59.58	74.00	14.42	Peak
5	5746.880	34.55	9.90	35.11	97.75	107.09	74.00	-33.09	Peak

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

Data: 30 File: F:\2015 Report\A\ALTAI\ACS15QH054R1-FCC-5GHz.EM6 (132) 120 Level (dBuV/m) Date: 2016-02-04 ΜM FCC PART 15C AV 0 5350 5514. . Frequency (MHz)

Data no. : 30 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5458.650	34.33	9.76	35.25	33.42	42.26	54.00	11.74	Average
2	5460.000	34.33	9.76	35.25	33.44	42.28	54.00	11.72	Average
3	5715.000	34.53	9.88	35.12	35.32	44.61	54.00	9.39	Average
4	5725.000	34.53	9.89	35.12	40.04	49.34	54.00	4.66	Average
5	5741.550	34.54	9.90	35.11	88.32	97.65	54.00	-43.65	Average

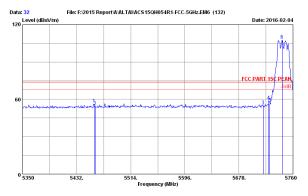
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

0 5350	5432.		5514.	5596.	5678.	57
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60					FCC F	PART 15C AV
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						6
20 Level (dE	BuV/m)				Dat	e: 2016-02-0

Data no. : 31 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5428.720	34.27	9.74	35.26	34.77	43.52	54.00	10.48	Average
2	5460.000	34.33	9.76	35.25	34.24	43.08	54.00	10.92	Average
3	5715.000	34.53	9.88	35.12	34.24	43.53	54.00	10.47	Average
4	5724.330	34.53	9.89	35.12	37.78	47.08	54.00	6.92	Average
5	5725.000	34.53	9.89	35.12	37.49	46.79	54.00	7.21	Average
6	5738.680	34.54	9.90	35.11	87.29	96.62	54.00	-42.62	Average

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



Data no. : 32 Ant. pol. : VERTICAL

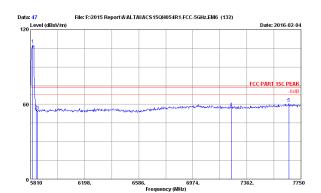
| Site no. | Sim Chamber | Data of Dat

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emissior Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5458.650	34.33	9.76	35.25	47.35	56.19	74.00	17.81	Peak
2	5460.000	34.33	9.76	35.25	45.27	54.11	74.00	19.89	Peak
3	5715.000	34.53	9.88	35.12	45.36	54.65	74.00	19.35	Peak
4	5723.100	34.53	9.89	35.12	49.68	58.98	74.00	15.02	Peak
5	5725.000	34.53	9.89	35.12	47.44	56.74	74.00	17.26	Peak
6	5743.600	34.55	9.90	35.11	98.18	107.52	74.00	-33.52	Peak



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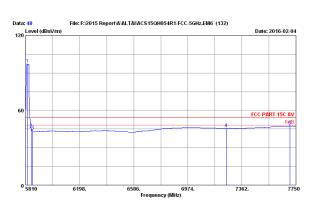
Page 5-5



Data no. : 47 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading	Emission Level (dBuV/m)	Limits		Remark
1	5825.520	34.60	9.94	35.08	98.39	107.85	74.00	-33.85	Peak
2	5850.000	34.61	9.95	35.07	45.67	55.16	74.00	18.84	Peak
3	5860.000	34.62	9.95	35.07	44.85	54.35	74.00	19.65	Peak
4	7250.000	36.10	10.74	35.50	45.82	57.16	74.00	16.84	Peak
5	7662.700	36.80	11.15	35.67	48.45	60.73	74.00	13.27	Peak

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



Data no. : 48 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5823.580	34.59	9.93	35.08	87.77	97.21	54.00	-43.21	Average
2	5850.000	34.61	9.95	35.07	35.60	45.09	54.00	8.91	Average
3	5860.000	34.62	9.95	35.07	34.03	43.53	54.00	10.47	Average
4	7250.000	36.10	10.74	35.50	34.16	45.50	54.00	8.50	Average
5	7705.380	36.82	11.18	35.68	35.01	47.33	54.00	6.67	Average

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

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Data no. : 49 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5819.700	34.59	9.93	35.08	88.15	97.59	54.00	-43.59	Average
2	5850.000	34.61	9.95	35.07	35.37	44.86	54.00	9.14	Average
3	5860.000	34.62	9.95	35.07	33.98	43.48	54.00	10.52	Average
4	7250.000	36.10	10.74	35.50	34.15	45.49	54.00	8.51	Average
5	7711.200	36.83	11.18	35.68	35.01	47.34	54.00	6.66	Average

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

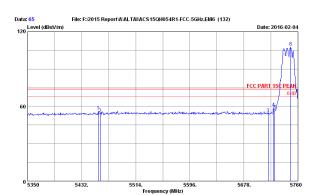
Data: 50 File: F:\2015 Report\A\ALTAI\AC\$15QH054R1-FCC-5GHz.EM6 (132) 120 Level (dBuV/m) Date: 2016-02-04 FCC PART 15C PEAK Frequency (MHz)

Data no. : 50 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emissior	1		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5819.700	34.59	9.93	35.08	97.53	106.97	74.00	-32.97	Peak
2	5850.000	34.61	9.95	35.07	45.85	55.34	74.00	18.66	Peak
3	5860.000	34.62	9.95	35.07	45.60	55.10	74.00	18.90	Peak
4	7250.000	36.10	10.74	35.50	47.66	59.00	74.00	15.00	Peak
5	7561.820	36.74	11.04	35.62	48.83	60.99	74.00	13.01	Peak

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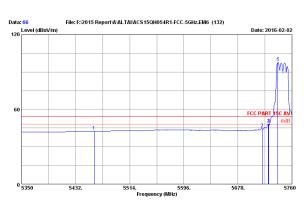
Page 5-6



Data no. : 65 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2 3 4 5	5457.420 5460.000 5715.000 5723.100 5725.000	34.32 34.33 34.53 34.53 34.53	9.76 9.76 9.88 9.89 9.89	35.25 35.25 35.12 35.12 35.12	47.19 45.37 44.83 49.40 47.31	56.02 54.21 54.12 58.70 56.61	74.00 74.00 74.00 74.00 74.00	17.98 19.79 19.88 15.30 17.39	Peak Peak Peak Peak Peak
6	5748.930	34.55	9.90	35.11	98.29	107.63	74.00	-33.63	Peak

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



Data no. : 66 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	34.33	9.76	35.25	33.46	42.30	54.00	11.70	Average
2	5715.000	34.53	9.88	35.12	35.01	44.30	54.00	9.70	Average
3	5724.330	34.53	9.89	35.12	38.95	48.25	54.00	5.75	Average
4	5725.000	34.53	9.89	35.12	38.73	48.03	54.00	5.97	Average
5	5738.680	34.54	9.90	35.11	88.27	97.60	54.00	-43.60	Average

Data: 68

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

File: F:\2015 Report\A\ALTAI\AC\$15QH054R1-FCC-5GHz.EM6 (132)

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Data no. : 67 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5430.770	34.28	9.75	35.26	34.77	43.54	54.00	10.46	Average
2	5460.000	34.33	9.76	35.25	34.25	43.09	54.00	10.91	Average
3	5715.000	34.53	9.88	35.12	34.50	43.79	54.00	10.21	Average
4	5725.000	34.53	9.89	35.12	38.53	47.83	54.00	6.17	Average
5	5740.730	34.54	9.90	35.11	87.02	96.35	54.00	-42.35	Average

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

120 Level (dBuV/m) Date: 2016-02-02 FCC PART 15¢ PEAI . Frequency (MHz)

Data no. : 68 Ant. pol. : VERTICAL

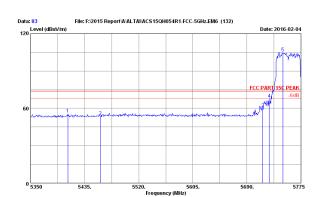
| Site no. | Sim Chamber | Data of Dat

		Ant.	Cable	AMP		Emission	1		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)		Limits (dBuV/m)		Remark
1	5460.000	34.33	9.76	35.25	46.97	55.81	74.00	18.19	Peak
2	5715.000	34.53	9.88	35.12	44.45	53.74	74.00	20.26	Peak
3	5723.920	34.53	9.89	35.12	47.54	56.84	74.00	17.16	Peak
4	5725.000	34.53	9.89	35.12	46.49	55.79	74.00	18.21	Peak
5	5741.550	34.54	9.90	35.11	98.02	107.35	74.00	-33.35	Peak



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<u>Page 5-7</u>



Data no. : 83 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2 3 4	5408.650 5460.000 5715.000 5725.000 5746.525	34.24 34.33 34.53 34.53 34.55	9.74 9.76 9.88 9.89 9.90	35.27 35.25 35.12 35.12 35.11	46.66 44.72 50.68 58.09 95.30	55.37 53.56 59.97 67.39 104.64	74.00 74.00 74.00 74.00 74.00	18.63 20.44 14.03 6.61 -30.64	Peak Peak Peak Peak Peak

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



Data no. : 84 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5452.000	34.31	9.76	35.25	33.12	41.94	54.00	12.06	Peak
2	5460.000	34.33	9.76	35.25	33.04	41.88	54.00	12.12	Peak
3	5715.000	34.53	9.88	35.12	37.31	46.60	54.00	7.40	Peak
4	5725.000	34.53	9.89	35.12	39.41	48.71	54.00	5.29	Peak
5	5746.525	34.55	9.90	35.11	69.35	78.69	54.00	-24.69	Peak

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

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Level (dB	ıV/m)				Date	2016-02-0
Level (dB)				QH054R1-FCC-5GHz.EM6		2016-02-0

Data no. : 85 Ant. pol. : VERTICAL

Anc. cable					ANY ENISSION						
	No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level	Limits (dBuV/m)	Margin (dB)	Remark	
				(45)			(GDGV/III)		(GD)		
	1	5449.025	34.31	9.76	35.25	33.57	42.39	54.00	11.61	Average	
	2	5460.000	34.33	9.76	35.25	33.34	42.18	54.00	11.82	Average	
	3	5715.000	34.53	9.88	35.12	37.62	46.91	54.00	7.09	Average	
	4	5725.000	34.53	9.89	35.12	40.13	49.43	54.00	4.57	Average	
	5	5746.525	34.55	9.90	35.11	69.35	78.69	54.00	-24.69	Average	

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

File: F:\2015 Report\A\ALTAI\AC\$15QH054R1-FCC-5GHz.EM6 (132) Data: 86 120 Level (dBuV/m) Date: 2016-02-04 FCC PAR Frequency (MHz)

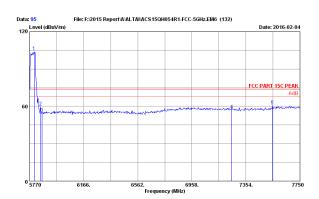
Data no. : 86 Ant. pol. : VERTICAL

| Site no. | Sim Chamber | Data of Dat

No.	Freq.	Ant. Factor	Cable Loss	AMP factor	Reading	Emission Level	Limits	Margin	Domark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)		(dBuV/m)	(dB)	TO THE PERSON NAMED IN
1	5452.850	34.32	9.76	35.25	46.84	55.67	74.00	18.33	Peak
2	5460.000	34.33	9.76	35.25	45.56	54.40	74.00	19.60	Peak
3	5715.000	34.53	9.88	35.12	48.35	57.64	74.00	16.36	Peak
4	5721.025	34.53	9.89	35.12	59.02	68.32	74.00	5.68	Peak
5	5725.000	34.53	9.89	35.12	51.10	60.40	74.00	13.60	Peak
6	5748.650	34.55	9.90	35.11	96.74	106.08	74.00	-32.08	Peak

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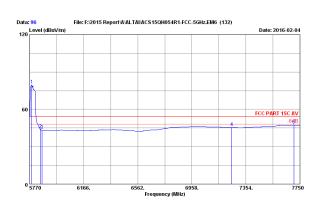
Page 5-8



Data no. : 95 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark
1	5803.660	34.58	9.92	35.09	94.68	104.09	74.00	-30.09	Peak
2	5850.000	34.61	9.95	35.07	50.00	59.49	74.00	14.51	Peak
3	5860.000	34.62	9.95	35.07	44.98	54.48	74.00	19.52	Peak
4	7250.000	36.10	10.74	35.50	45.89	57.23	74.00	16.77	Peak
5	7548.040	36.73	11.02	35.62	48.33	60.46	74.00	13.54	Peak

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



Data no. : 96 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.840	34.57	9.91	35.10	70.03	79.41	54.00	-25.41	Average
2	5850.000	34.61	9.95	35.07	34.29	43.78	54.00	10.22	Average
3	5860.000	34.62	9.95	35.07	33.72	43.22	54.00	10.78	Average
4	7250.000	36.10	10.74	35.50	34.14	45.48	54.00	8.52	Average
5	7704.460	36.82	11.18	35.68	35.01	47.33	54.00	6.67	Average

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

Data: 98

File: F:\2015 Report\A\ALTAI\AC\$15QH054R1-FCC-5GHz.EM6 (132)

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20 E	evel (dBuV/r	n)			Date: 2016-02-0

Data no. : 97 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5789.800	34.57	9.92	35.09	66.99	76.39	54.00	-22.39	Average
2	5850.000	34.61	9.95	35.07	34.31	43.80	54.00	10.20	Average
3	5860.000	34.62	9.95	35.07	33.76	43.26	54.00	10.74	Average
4	7250.000	36.10	10.74	35.50	34.13	45.47	54.00	8.53	Average
5	7706.440	36.82	11.18	35.68	34.98	47.30	54.00	6.70	Average

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

120 Level (dBuV/m) Date: 2016-02-26 FCC PART 15C PEAK . Frequency (MHz)

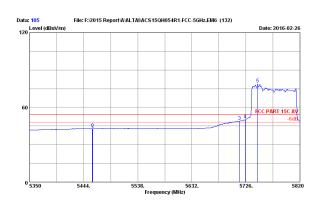
Data no. : 98 Ant. pol. : HORIZONTAL

			ant.	capie	Anr		Emission	ı		
	No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
-										
	1	5803.660	34.58	9.92	35.09	96.20	105.61	74.00	-31.61	Peak
	2	5850.000	34.61	9.95	35.07	51.35	60.84	74.00	13.16	Peak
	3	5860.000	34.62	9.95	35.07	46.17	55.67	74.00	18.33	Peak
	4	7250.000	36.10	10.74	35.50	45.98	57.32	74.00	16.68	Peak
	5	7704.460	36.82	11.18	35.68	48.54	60.86	74.00	13.14	Peak
-										



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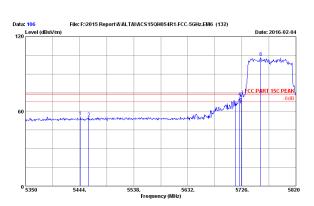
Page 5-9



Data no. : 105 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5459.040	34.33	9.76	35.25	34.05	42.89	54.00	11.11	Average
2	5460.000	34.33	9.76	35.25	34.00	42.84	54.00	11.16	Average
3	5715.000	34.53	9.88	35.12	39.35	48.64	54.00	5.36	Average
4	5725.000	34.53	9.89	35.12	40.95	50.25	54.00	3.75	Average
5	5746.210	34.55	9.90	35.11	69.41	78.75	54.00	-24.75	Average

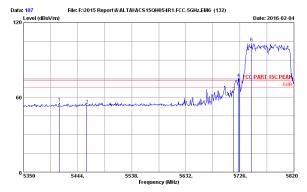
Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Data no. : 106 Ant. pol. : VERTICAL

		ant.	capie	Anr		Emission	1			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
	5445.410	34.30	9.75	35.25	46.86	55.66	74.00	18.34	Peak	
1										
2	5460.000	34.33	9.76	35.25	45.87	54.71	74.00	19.29	Peak	
3	5715.000	34.53	9.88	35.12	54.36	63.65	74.00	10.35	Peak	
4	5722.240	34.53	9.89	35.12	61.93	71.23	74.00	2.77	Peak	
5	5725.000	34.53	9.89	35.12	59.41	68.71	74.00	5.29	Peak	
6	5758.900	34.56	9.91	35.11	93.88	103.24	74.00	-29.24	Peak	

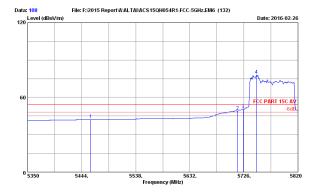
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Data no. : 107 Ant. pol. : HORIZONTAL

Emission
Level Limits Margin Remark
(dBuV/m) (dBuV/m) (dB) 74.00 74.00 74.00 74.00 74.00 74.00 5412.510 5460.000 5715.000 5723.650 34.24 34.33 34.53 34.53 9.74 9.76 9.88 9.89 35.26 35.25 35.12 35.12 55.39 53.65 63.69 75.25 62.30 94.13

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

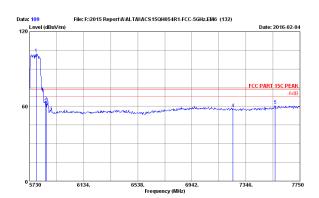


Data no. : 108 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	34.33	9.76	35.25	33.31	42.15	54.00	11.85	Average
2	5715.000	34.53	9.88	35.12	39.67	48.96	54.00	5.04	Average
3	5725.000	34.53	9.89	35.12	40.95	50.25	54.00	3.75	Average
4	5748.090	34.55	9.90	35.11	68.55	77.89	54.00	-23.89	Average

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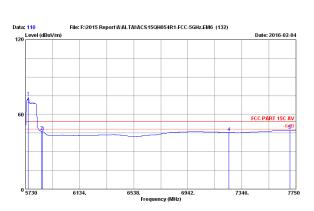
Page 5-10



Data no. : 109 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5780.500	34.57	9.91	35.10	92.75	102.13	74.00	-28.13	Peak
2	5850.000	34.61	9.95	35.07	54.31	63.80	74.00	10.20	Peak
3	5860.000	34.62	9.95	35.07	52.85	62.35	74.00	11.65	Peak
4	7250.000	36.10	10.74	35.50	46.77	58.11	74.00	15.89	Peak
5	7564.160	36.74	11.04	35.63	48.55	60.70	74.00	13.30	Peak

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



Data no. : 110 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5750.200			05.44			F4 00	40.04	
1	5750.200	34.55	9.90	35.11	64.60	73.94	54.00	-19.94	Average
2	5850.000	34.61	9.95	35.07	36.93	46.42	54.00	7.58	Average
3	5860.000	34.62	9.95	35.07	36.35	45.85	54.00	8.15	Average
4	7250.000	36.10	10.74	35.50	34.10	45.44	54.00	8.56	Average
5	7703.540	36.82	11.18	35.68	34.98	47.30	54.00	6.70	Average

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

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Leve	el (dBuV/m)			Dat	e: 2016-02-0

Data no. : 111 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5746.160	34.55	9.90	35.11	63.05	72.39	54.00	-18.39	Average
2	5850.000	34.61	9.95	35.07	36.87	46.36	54.00	7.64	Average
3	5860.000	34.62	9.95	35.07	36.83	46.33	54.00	7.67	Average
4	7250.000	36.10	10.74	35.50	34.13	45.47	54.00	8.53	Average
5	7703.540	36.82	11.18	35.68	34.99	47.31	54.00	6.69	Average

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

Data: 112 File: F:\2015 Report\A\ALTAI\AC\$15QH054R1-FCC-5GHz.EM6 (132) 120 Level (dBuV/m) Date: 2016-02-04 FCC PART 15C PEAK 6942. . Frequency (MHz)

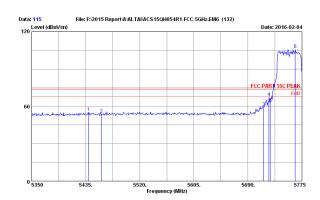
Data no. : 112 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5740.100	34.54	9.90	35.11	95.73	105.06	74.00	-31.06	Peak
2	5850.000	34.61	9.95	35.07	58.87	68.36	74.00	5.64	Peak
3	5860.000	34.62	9.95	35.07	55.45	64.95	74.00	9.05	Peak
4	7250.000	36.10	10.74	35.50	45.74	57.08	74.00	16.92	Peak
5	7699.500	36.82	11.18	35.68	48.52	60.84	74.00	13.16	Peak



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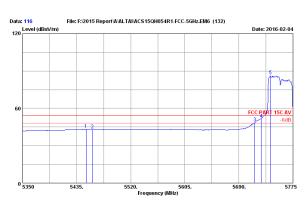
Page 5-11



Data no. : 115 Ant. pol. : VERTICAL

N	ο.	Freq.	Factor	Loss	factor	Reading	Level	Limits		Remark
		(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
	1	5439.250	34.29	9.75	35.25	46.51	55.30	74.00	18.70	Peak
	2	5460.000	34.33	9.76	35.25	45.00	53.84	74.00	20.16	Peak
	3	5715.000	34.53	9.88	35.12	49.71	59.00	74.00	15.00	Peak
	4	5723.150	34.53	9.89	35.12	58.04	67.34	74.00	6.66	Peak
	5	5725.000	34.53	9.89	35.12	52.86	62.16	74.00	11.84	Peak
	6	5764.375	34.56	9.91	35.10	96.10	105.47	74.00	-31.47	Peak

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



Data no. : 116 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5449.875	34.31	9.76	35.25	34.17	42.99	54.00	11.01	Average
2	5460.000	34.33	9.76	35.25	33.96	42.80	54.00	11.20	Average
3	5715.000	34.53	9.88	35.12	39.30	48.59	54.00	5.41	Average
4	5725.000	34.53	9.89	35.12	42.10	51.40	54.00	2.60	Average
5	5739.725	34.54	9.90	35.11	76.82	86.15	54.00	-32.15	Average

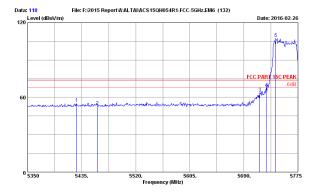
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

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Data no. : 117 Ant. pol. : HORIZONTAL

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No.	Freq.	Factor	Loss	factor	Reading	Level	Limits		Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5450.725	34.31	9.76	35.25	33.30	42.12	54.00	11.88	Average
2	5460.000	34.33	9.76	35.25	33.25	42.09	54.00	11.91	Average
3	5715.000	34.53	9.88	35.12	40.39	49.68	54.00	4.32	Average
4	5725.000	34.53	9.89	35.12	42.92	52.22	54.00	1.78	Average
5	5741.850	34.55	9.90	35.11	76.73	86.07	54.00	-32.07	Average

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

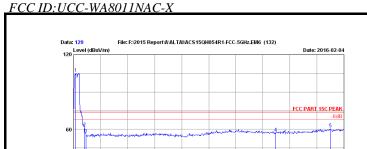


| Site no. | Sim Chamber | Data of Dat Data no. : 118 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5427.350	34.27	9.74	35.26	46.54	55.29	74.00	18.71	Peak
2	5460.000	34.33	9.76	35.25	44.00	52.84	74.00	21.16	Peak
3	5715.000	34.53	9.88	35.12	54.14	63.43	74.00	10.57	Peak
4	5725.000	34.53	9.89	35.12	57.88	67.18	74.00	6.82	Peak
5	5740.150	34.54	9.90	35.11	98.01	107.34	74.00	-33.34	Peak

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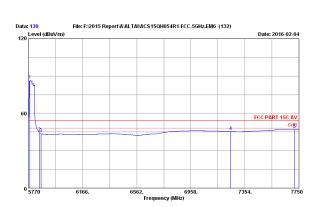
Data no. : 129 Ant. pol. : VERTICAL

6562.

r. Frequency (MHz)

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark	
1	5785.840	34.57	9.91	35.10	95.64	105.02	74.00	-31.02	Peak	
2	5850.000	34.61	9.95	35.07	51.64	61.13	74.00	12.87	Peak	
3	5860.000	34.62	9.95	35.07	46.75	56.25	74.00	17.75	Peak	
4	7250.000	36.10	10.74	35.50	45.79	57.13	74.00	16.87	Peak	
5	7651.000	36.79	11.13	35.66	48.20	60.46	74.00	13.54	Peak	

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



Data no. : 130 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5779.900	34.57	9.91	35.10	77.31	86.69	54.00	-32.69	Average
2	5850.000	34.61	9.95	35.07	34.93	44.42	54.00	9.58	Average
3	5860.000	34.62	9.95	35.07	34.16	43.66	54.00	10.34	Average
4	7250.000	36.10	10.74	35.50	34.13	45.47	54.00	8.53	Average
5	7716.340	36.83	11.20	35.69	34.95	47.29	54.00	6.71	Average

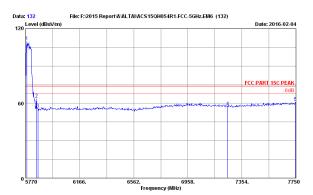
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

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Data no. : 131 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.840	0.00	9.91	35.10	111.72	86.53	54.00	-32.53	Average
2	5850.000	0.00	9.95	35.07	69.59	44.47	54.00	9.53	Average
3	5860.000	0.00	9.95	35.07	68.90	43.78	54.00	10.22	Average
4	7250.000	0.00	10.74	35.50	70.26	45.50	54.00	8.50	Average
5	7704.460	0.00	11.18	35.68	71.80	47.30	54.00	6.70	Average

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



Data no. : 132 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5779.900	34.57	9.91	35.10	100.20	109.58	74.00	-35.58	Peak
2	5850.000	34.61	9.95	35.07	53.99	63.48	74.00	10.52	Peak
3	5860.000	34.62	9.95	35.07	45.84	55.34	74.00	18.66	Peak
4	7250.000	36.10	10.74	35.50	45.87	57.21	74.00	16.79	Peak
5	7746.040	36.85	11.22	35.70	48.41	60.78	74.00	13.22	Peak

FCC ID:UCC-WA8011NAC-X Page 6-1

6. 6dB&26dB Bandwidth Test

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
3.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28,15	1 Year
4.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17.15	1 Year

6.2.Limit

6dB Bandwidth should be not less than 500kHz

6.3. Test Procedure

6dB Bandwidth:

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 KHz VBW for signal width below 20MHz and 300KHz RBW ,1MHz VBW for Above 20MHz signal Bandwidth.

26dB Bandwidth:

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 KHz VBW The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

6.4. Test Results



FCC ID: UCC-WA8011NAC-X Page 6-2

6dB bandwidth

EUT: Altai A8n (ac) Super WiFi Base Station				
M/N: WA8011NAC-X				
Test date: 2016-02-18	Pressure: 101.3±1.0 kpa	Humidity: 50.4±3.0%		
Tested by: Donjon_Huang	Test site: RF site	Temperature: 21.3±0.6		

Test Mode	СН	6dB bandwidth (MHz)		Limit
Tost Wiode		ANT1	ANT2	(KHz)
	CH149	16.51	16.44	500
11a	CH157	16.49	16.48	500
	CH165	16.47	16.51	500
11	CH149	17.69	17.67	500
11n HT20	CH157	17.71	17.71	500
П120	CH165	17.73	17.73	500
11n	CH151	36.32	37.11	500
HT40	CH159	36.42	36.46	500
1.1	CH149	17.73	17.68	500
11ac VHT20	CH157	17.72	17.71	500
VIII 20	CH165	17.68	17.57	500
11ac	CH151	36.44	35.12	500
VHT40	CH159	35.50	35.85	500
11ac VHT80	CH155	75.14	72.58	500
Conclusion: P.	ASS			



FCC ID: UCC-WA8011NAC-X Page 6-3

26dB bandwidth

EUT: Altai A8n (ac) Super WiFi Base Station				
M/N: WA8011NAC-X				
Test date: 2016-02-18	Pressure: 101.8±1.0 kpa	Humidity: 50.2±3.0%		
Tested by: Donjon_Huang	Test site: RF site	Temperature:20.5±0.6		

Test Mode	СН		ndwidth Hz)	Limit
1 est Wode	CII	ANT1	ANT2	(KHz)
	CH149	20.52	19.43	N/A
11a	CH157	20.02	19.80	N/A
	CH165	19.84	20.05	N/A
11	CH149	21.17	20.56	N/A
11n HT20	CH157	21.13	20.99	N/A
11120	CH165	20.64	20.91	N/A
11n	CH151	39.86	39.62	N/A
HT40	CH159	39.29	39.62	N/A
1100	CH149	20.99	20.75	N/A
11ac VHT20	CH157	21.10	21.09	N/A
V11120	CH165	20.80	20.89	N/A
11ac	CH151	39.03	38.68	N/A
VHT40	CH159	38.74	38.74	N/A
11ac VHT80	CH155	78.29	77.79	N/A
Conclusion: P.	ASS			

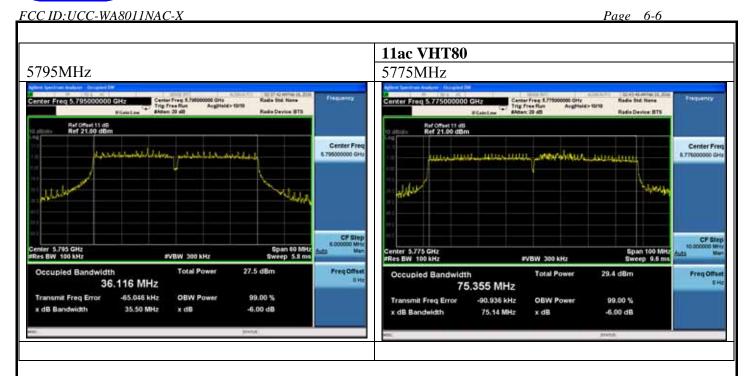


Page 6-4 FCC ID:UCC-WA8011NAC-X 6dB bandwidth ANT 1 11a 11n HT20 5745MHz 5745MHz Ref Offset 11 die Ref 21.00 dBm Center Free 8.745000000 GH Center Free #VBW 300 kHz #VBW 300 kHz Occupied Bandwidth Total Power 29.5 dBm Occupied Bandwidth **Total Powe** 26.9 dRm 16.469 MHz 17.651 MHz Transmit Freq Error -30.969 kHz **OBW Power** 99.00 % Transmit Freq Error -20.112 kHz **OBW Power** 99.00 % 16.51 MHz -6.00 dB x dB Bandwidth 17.69 MHz -6.00 dB 5785MHz 5785MHz #VBW 300 kHz #VBW 300 KHZ Total Power Occupied Bandwidth Total Powe 16.459 MHz 17.684 MHz Transmit Freq Error -33.245 kHz **OBW Power** 99.00 % -25.672 kHz mit Freq Error **OBW Power** 99.00 % 16,49 MHz x dB -6.00 dB 17.71 MHz x dB -6.00 dB 5825MHz 5825MHz Ref 21.00 dBn Center Fre CF Ste enter 5.825 GHz Res BW 100 kHz #VBW 300 KHz 27.4 dBm Total Power 16,439 MHz 17.693 MHz -33.018 kHz Transmit Freg Error **OBW Power** 99.00% -23.641 kHz **OBW Power** 99.00 % Transmit Freq Error 16.47 MHz x dB -6.00 dB 17.73 MHz x dB Bandwidth x dB -6.00 dB



Page 6-5 FCC ID:UCC-WA8011NAC-X 11n HT40 5755MHz 5785MHz Center Fre Center Fre CF Step enter 5.755 GHz Res BW 100 kHz enter 5.785 GHz Res BW 100 kHz #VBW 300 KHZ #VBW 300 KHz 28.9 dBm Occupied Bandwidth Occupied Bandwidth 36.737 MHz 17.673 MHz -350.13 kHz -26.630 kHz Transmit Freq Error **OBW Power** 99.00 % Transmit Freq Error **OBW Power** 99.00 % x dB Bandwidth 36.32 MHz -6.00 dB x dB Bandwidth 17.72 MHz -6.00 dB x dB x dB 5825MHz 5795MHz Center Freq 5.795000000 GH2 Trig Free Run Angittelic>1010 Shtten 20 dB Centar Freq 5.820000000 GHz
Trig Free Run Angitteld > 1016
Skram 20 dB Ref Offset 11 dB Ref 21.00 dBn Center Free Center Freq CF Step CF Step enter 5.795 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz Span 60 MHz Sweep 5.8 ms Span 30 MHz reep 2.933 ms Occupied Bandwidth Occupied Bandwidth 17.672 MHz 36.702 MHz Transmit Freq Error 431.37 kHz **OBW Power** 99.00 % Transmit Freq Error -22.104 kHz **OBW Power** 99.00 % 36.42 MHz 17.68 MHz x dB -6.00 dB x dB Bandwidth x dB -6.00 dB 11ac VHT40 **11ac VHT20** 5745MHz 5755MHz Center Freq 5.7a0000000 GHz Trig Free Run Angilleid>1616 8Azen 20 48 Radio Std None Radio Std. None Center Freq 5.700000000 GHz Trig Free Run Avg81664 Hinto Ref Offset 11 dB Ref 21.00 dBro Center Free Center Free Res BW 100 kHz Res BW 100 kHz Span 30 MHz reep 2.933 ms Span 60 MHz Sweep 5.8 ms 27.5 dBm 27.6 dBm Occupied Bandwidth Occupied Bandwidth 17.671 MHz 36.147 MHz -20.745 kHz 99.00 % Transmit Freq Error -17.241 kHz 99.00 % Transmit Freq Error **OBW Power OBW Power** 17.73 MHz 36.44 MHz x dB Bandwidth -6.00 dB x dB Bandwidth -6.00 dB x dB x dB

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FCC ID:UCC-WA8011NAC-X

6dB bandwidth ANT 2 11a 11n HT20 5745MHz 5745MHz Ref Offset 11 die Ref 21.00 dBm Center Free 8.745000000 GH Center Free #VBW 300 kHz #VBW 300 kHz Occupied Bandwidth Total Power 28.5 dBm Occupied Bandwidth **Total Powe** 26.9 dRm 16.431 MHz 17.650 MHz -20.475 kHz Transmit Freq Error **OBW Power** 99.00 % Transmit Freq Error -20.030 kHz **OBW Power** 99.00 % 16.44 MHz -6.00 dB x dB Bandwidth 17.67 MHz -6.00 dB 5785MHz 5785MHz #VBW 300 kHz #VBW 300 KHZ Total Power Occupied Bandwidth Total Powe 16.441 MHz 17.683 MHz -46.214 kHz Transmit Freq Error **OBW Power** 99.00 % mit Freq Error -35.812 kHz **OBW Power** 99.00 % 16,48 MHz x dB -6.00 dB 17.71 MHz x dB -6.00 dB 5825MHz 5825MHz Ref 21.00 dBn Center Fre CF Ste enter 5.825 GHz Res BW 100 kHz #VBW 300 KHz 27.9 dBm Total Power 16,459 MHz 17.691 MHz -26.782 kHz Transmit Freg Error **OBW Power** 99.00% -14.010 kHz **OBW Power** 99.00 % Transmit Freq Error 16.51 MHz x dB -6.00 dB 17.73 MHz x dB Bandwidth x dB -6.00 dB



Page 6-8 FCC ID:UCC-WA8011NAC-X 11n HT40 5755MHz 5785MHz Center Fre Center Fre CF Step enter 5.785 GHz Res BW 100 kHz #VBW 300 KHZ #VBW 300 KHz Occupied Bandwidth Occupied Bandwidth 36.782 MHz 17.677 MHz -376.47 kHz -18.956 kHz Transmit Freq Error **OBW Power** 99.00 % Transmit Freq Error **OBW Power** 99.00 % x dB Bandwidth 37.11 MHz -6.00 dB x dB Bandwidth 17.71 MHz -6.00 dB x dB x dB 5825MHz 5795MHz Center Freq 5.795000000 GH2 Trig Free Run Angittelic>1010 Shtten 20 dB Centar Freig 5.820000000 GHz
Trig Free Run Avg@teld=10100
#Mann 20 dB Center Free Center Freq CF Step CF Ster Center 5.825 GHz Res BW 100 kHz enter 5.795 GHz Res BW 100 kHz Span 60 MHz Sweep 5.8 ms Span 30 MHz reep 2.933 ms 29.2 dBm Occupied Bandwidth Occupied Bandwidth 36.751 MHz 17.669 MHz Transmit Freq Error 415.35 kHz **OBW Power** 99.00 % Transmit Freq Error -21.453 kHz **OBW Power** 99.00 % 36.46 MHz 17.57 MHz x dB -6.00 dB x dB Bandwidth x dB -6.00 dB 11ac VHT40 **11ac VHT20** 5745MHz 5755MHz Radio Std None Radio Std. None Center Free 5 740000000 GH2 Trig Free Run Angittele: 1010 Bitter: 20 48 Center Freq 5.700000000 GHz Trig Free Run Avg81664 Hinto Center Free Center Free Res BW 100 kHz Res BW 100 kHz Span 30 MHz reep 2.933 ms Span 60 MHz Sweep 5.8 ms 27.0 dBm 27.9 dBm Occupied Bandwidth Occupied Bandwidth 17.650 MHz 36.154 MHz -10.840 kHz 99.00 % Transmit Freq Error -18.272 kHz 99.00 % Transmit Freq Error **OBW Power OBW Power** 17.68 MHz x dB Bandwidth -6.00 dB x dB Bandwidth 35.12 MHz -6.00 dB x dB x dB

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Page 6-9 FCC ID:UCC-WA8011NAC-X **11ac VHT80** 5775MHz 5795MHz Center Free 5.795000000 GH Center Fre 8.775000000 GH Occupied Bandwidth 75.277 MHz 27.9 dBm 29.5 dBm Occupied Bandwidth 36.135 MHz -92.587 kHz 99.00 % -103,67 kHz 99.00 % Transmit Freq Error **OBW Power** Transmit Freq Error **OBW Power** 35.85 MHz -6.00 dB 72.58 MHz -6.00 dB x dB Bandwidth x dB x dB Bandwidth x dB

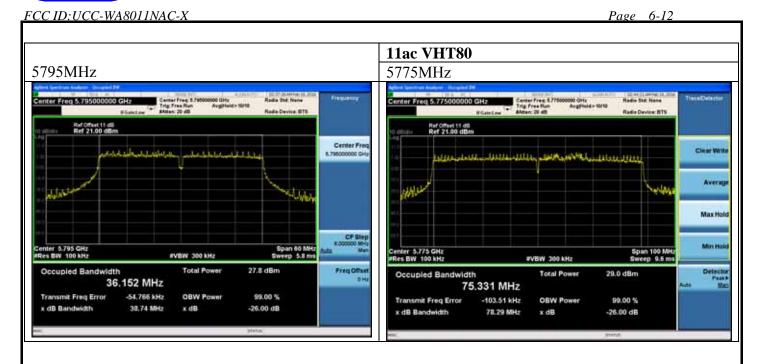


Page 6-10 FCC ID:UCC-WA8011NAC-X 26dB bandwidth ANT 1 11a 11n HT20 5745MHz 5745MHz Ref 21.00 dBm Center Fre 5.745000000 G Center Free 8.745000000 GH FVBW 300 kHz #VBW 300 kHz Total Power 27.1 d8m Occupied Bandwidth **Total Powe** 16.459 MHz 17.663 MHz mit Freq Error -16.493 kHz **OBW Power** 99.00% Transmit Freq Error -26.810 kHz **OBW Power** 99.00 % 20.52 MHz x dB -26.00 dB x dB Bandwidth 21.17 MHz -26.00 dB 5785MHz 5785MHz #VBW 300 kHz #VBW 300 KHZ Total Power Occupied Bandwidth Total Powe 16.461 MHz 17.670 MHz Transmit Freq Error -39.417 kHz **OBW Power** 99.00 % mit Freq Error -31.819 kHz **OBW Power** 99.00 % 20,02 MHz x dB -26.00 dB 21.13 MHz x dB -26.00 dB 5825MHz 5825MHz Ref 21.00 dBn Center Fro CF SI enter 5.825 GHz Res BW 100 kHz #VBW 300 KHz 27.8 dBm Total Power 16,456 MHz 17.689 MHz -30.738 kHz Transmit Freg Error **OBW Power** 99.00 % -23.541 kHz **OBW Power** 99.00 % Transmit Freq Error 19.84 MHz x dB -76.00 dB 20.64 MHz x dB Bandwidth x dB -26.00 dB



Page 6-11 FCC ID:UCC-WA8011NAC-X 11n HT40 5755MHz 5785MHz Ref Offset 11 dB Ref 21.00 dBm Center Free Center Fre CF Step enter 5.755 GHz Res BW 100 kHz enter 5.785 GHz Res BW 100 kHz #VBW 300 KHZ #VBW 300 KHz 29.0 dBm Occupied Bandwidth Occupied Bandwidth 17.676 MHz 36.726 MHz -373.24 kHz -17.607 kHz Transmit Freq Error **OBW Power** 99.00 % Transmit Freq Error **OBW Power** 99.00 % x dB Bandwidth 39.86 MHz -26.00 dB x dB Bandwidth 21.10 MHz -26.00 dB x dB x dB 5825MHz 5795MHz Center Freq 5.795000000 GH2 Trig Free Run Angittelic>1010 Shtten 20 dB Centar Freig 5.820000000 GHz
Trig Free Run Avg@teld=10100
#Mann 20 dB Ref Offset 11 dB Ref 21.00 dBar Center Freq Max Hol CF Step enter 5.795 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz Span 30 MHz reep 2.933 ms Span 60 MH. Sweep 5.8 mm 29.3 dBm Occupied Bandwidth Occupied Bandwidth 36.712 MHz 17.681 MHz 426.46 kHz **OBW Power** 99.00 % Transmit Freq Error -20.961 kHz **OBW Power** 99.00 % Transmit Freq Error 39.29 MHz 20.80 MHz -26.00 dB x dB -26.00 dB x dB Bandwidth x dB 11ac VHT40 **11ac VHT20** 5745MHz 5755MHz Radio Std. None Center Freq 5.745000000 GHz
Trig Free Run Angilleich türtü Center Freq 5.700000000 GHz Trig Free Run Avg81664 Hinto Center Free Center Free Res BW 100 kHz Res BW 100 kHz Span 30 MHz reep 2.933 ms Span 60 MHz Sweep 5.8 ms 27.3 dBm 28.0 dBm Occupied Bandwidth Occupied Bandwidth 17.661 MHz 36.193 MHz -14.332 kHz 99.00 % Transmit Freq Error -19.778 kHz 99.00 % Transmit Freq Error **OBW Power OBW Power** x dB Bandwidth 20.99 MHz -26.00 dB x dB Bandwidth 39.03 MHz -26.00 dB x dB x dB

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Page 6-13 FCC ID:UCC-WA8011NAC-X 26dB bandwidth ANT 2 11a 11n HT20 5745MHz 5745MHz Ref 21.00 dBm Center Fre 5.745000000 G Center Free 8.745000000 GH FVBW 300 kHz #VBW 300 kHz Total Power Occupied Bandwidth **Total Powe** 26.8 dRm 16.453 MHz 17.651 MHz mit Freq Error -19.536 kHz **OBW Power** 99.00% Transmit Freq Error -20.521 kHz **OBW Power** 99.00 % 19.43 MHz x dB -26.00 dB x dB Bandwidth 20.56 MHz -26.00 dB 5785MHz 5785MHz #VBW 300 kHz #VBW 300 KHZ Total Power Occupied Bandwidth Total Powe 16.447 MHz 17.702 MHz Transmit Freq Error 40 507 kHz **OBW Power** 99.00 % mit Freq Error -29.489 kHz **OBW Power** 99.00 % 19.80 MHz x dB -26.00 dB 20.99 MHz x dB -26.00 dB 5825MHz 5825MHz Ref 21.00 dBn Center Fro CF SI enter 5.825 GHz Res BW 100 kHz #VBW 300 KHz 27.8 dBm Total Power 16,459 MHz 17.705 MHz -23.495 kHz Transmit Freg Error **OBW Power** 99.00 % -11.429 kHz **OBW Power** 99.00 % Transmit Freq Error 20.05 MHz x dB -76.00 dB 20.91 MHz x dB Bandwidth x dB -26.00 dB



Page 6-14 FCC ID:UCC-WA8011NAC-X 11n HT40 5755MHz 5785MHz Center Fre Center Fre CF Step enter 5.785 GHz Res BW 100 kHz #VBW 300 KHZ #VBW 300 KHz 28.8 dBm Occupied Bandwidth Occupied Bandwidth 36.731 MHz 17.657 MHz -374.90 kHz -31.570 kHz Transmit Freq Error **OBW Power** 99.00 % Transmit Freq Error **OBW Power** 99.00 % x dB Bandwidth 39.62 MHz -26.00 dB x dB Bandwidth 21.09 MHz -26.00 dB x dB x dB 5825MHz 5795MHz Center Freq 5.795000000 GH2 Trig Free Run Angittelic>1010 Shtten 20 dB Centar Freq 5.820000000 GHz
Trig Free Run Angitteld > 1016
Skram 20 dB Center Free Center Freq CF Step CF Step Center 5.825 GHz Res BW 100 kHz enter 5.795 GHz Res BW 100 kHz Span 60 MH. Sweep 5.8 ms Span 30 MHz reep 2.933 ms 29.2 dBm Occupied Bandwidth Occupied Bandwidth 36.744 MHz 17.681 MHz Transmit Freq Error 435.62 kHz **OBW Power** 99.00 % Transmit Freq Error -21.204 kHz **OBW Power** 99.00 % 39.62 MHz 20.89 MHz -26.00 dB x dB -26.00 dB x dB Bandwidth x dB **11ac VHT40 11ac VHT20** 5745MHz 5755MHz Radio Std None Center Free 5 740000000 GH2 Trig Free Run Angittele: 1010 Bitter: 20 48 Center Freq 5.700000000 GHz Trig Free Run Avg81664 Hinto Center Free Center Free Res BW 100 kHz Res BW 100 kHz Span 30 MHz reep 2.933 ms Span 60 MHz Sweep 5.8 ms 26.8 dBm 27.9 dBm Occupied Bandwidth Occupied Bandwidth 17.655 MHz 36.214 MHz -21.508 kHz 99.00 % Transmit Freq Error -33.276 kHz 99.00 % Transmit Freq Error **OBW Power OBW Power** 20.75 MHz x dB Bandwidth -26.00 dB x dB Bandwidth 38.68 MHz -26.00 dB x dB x dB

Occupied Bandwidth

Transmit Freq Error

x dB Bandwidth

36.125 MHz

38.74 MHz

#VBW 300 KHZ

x dB

OBW Power

27.4 d8m

99.00 %

-26.00 dB

29.2 dBm

99.00 %

-26.00 dB

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11ac VHT80

5795MHz

5795MHz

Center Freq 5.795000000 GHz

Tig Free Run
Aughelet-1919
Radio State Here
Tig Free Run
Aughelet-1919
Radio Device BTB
Ref 21.00 dBm

Center Freq
Ref 21.00 dBm

Occupied Bandwidth 75.243 MHz

Transmit Freq Error

x dB Bandwidth

-81.158 kHz

77.79 MHz

OBW Power

x dB



7. OUTPUT POWER TEST

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
3.	Power meter	Anritsu	ML2487A	6K00002472	Aug.21,15	1Year
4.	Power sensor	Anritsu	MA2491A	0033005	Aug.21,15	1Year
5.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28,15	1 Year
6.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17,15	1 Year

7.2.Limit

For the band 5.15–5.25 GHz.

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the max-imum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

7.3.Test Procedure

- 1. Connected the EUT's antenna port to measure device by 26dB attenuator.
- 2. For IEEE 802.11a and IEEE802.11n HT20 and 802.11ac VHT20 mode, use a PK power meter which's bandwidth is 20MHz and above 26dB bandwidth of signal to measure out each test modes' PK output power.
- 3. For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So use the test method described in KBD789033 clause E Method SA-1
 - 1) Connect the antenna port to the spectrum analyzer and Set span of the spectrum to encompass the entire emission bandwidth (EBW) of the signal.
 - 2) Set the RBW=1MHz and VBW=3MHz
 - 3) Number of points in sweep ≥ 2 Span / RBW
 - 4) Detector = RMS
 - 5) Sweep time = auto couple
 - 6) Allow the sweep to "free run" and set the Trace average at least 100 traces in power averaging (i.e., RMS) mode.
 - 7) Compute power by integrating the spectrum across the 26 dB EBW of the signal using the instrument's band power measurement function with band limits set equal to the EBW band edges.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.



FCC ID: UCC-WA8011NAC-X Page 7-2

7.4.Test Results

EUT: Altai A	8n (ac) Super WiF	i Base Station	1				
M/N: WA8011NAC-X							
Test date: 2016-02-18		Pressure:1	Pressure: 101.8±1.0 kpa		Humidity:50.3±3.0%		
Tested by: Do	sted by: Donjon_Huang		Temperature:	20.2±0.6			
Test	Frequency	Maximu	n Conducted ou (dBm)	itput power	Limit		
Mode	(MHz)	ANT1	ANT2	Total	(dBm)		
	5745	11.67	11.57	14.63	13		
11a	5785	12.60	11.78	15.22	13		
Test date: 2016-02-18 Tested by: Donjon_H Test	5825	12.63	12.03	15.35	13		
11	5745	11.41	11.07	14.25	13		
	5785	11.60	11.47	14.55	13		
пт20	5825	11.93	10.88	14.45	13		
11n	5755	12.49	12.24	15.38	13		
HT40	5795	12.43	12.00	15.23	13		
1.1	5745	11.43	11.88	14.67	13		
	5785	12.25	11.41	14.86	13		
V11120	5825	12.48	11.45	15.01	13		
11ac	5755	11.96	11.76	14.87	13		
VHT40	5795	12.03	11.87	14.96	13		
11ac VHT80	5775	12.35	11.65	15.02	13		
Conclusion: PASS							

Directional Gain=G_{ANT} + 10log2(dBi)

=20dBi+3dBi

=23dBi > 6dBi

Output Power Limit=30dBm-(23dBi-6dBi)

=13dBm



Page 7-3 FCC ID:UCC-WA8011NAC-X ANT 1 11n HT40 5755MHz 5795MHz Power Spectral Density Power Spectral Density Channel Power Channel Power 12.49 dBm / 37 MHz -63.19 dBm /Hz 12.03 dBm / 37 MHz -63.65 dBm /Hz 11ac VHT80 5795MHz 5775MHz Ref Offset 11 die Ref 21.00 dBm Ref (Meet 11 di) Ref 21.00 dBm Span 100 MHz Sweep 1 ms enter 5.775 GHz Res BW 1 MHz #VBW 3 MHz #VBW 3 MHz Power Spectral Density Power Spectral Density Channel Power Channel Power 12.43 dBm / 37 MHz -63.25 dBm /Hz 12.35 dBm / 78 MHz -66.57 dBm /Hz 11acVHT40 5755MHz Ref Offset 11 die Ref 21.00 dBm Power Spectral Density 11.96 dBm / 37 MHz -63.72 dBm /Hz



<u>Page 7-4</u> FCC ID:UCC-WA8011NAC-X ANT 2 11n HT40 5755MHz 5795MHz Power Spectral Density Power Spectral Density Channel Power Channel Power 12.24 dBm / 37 MHz -63.44 dBm /Hz 11.87 dBm / 37 MHz -63.81 dBm /Hz 11ac VHT80 5795MHz 5775MHz Ref Offset 11 die Ref 21.00 dBm Ref (Meet 11 di) Ref 21.00 dBm enter 5.775 GHz Res BW 1 MHz Span 100 MHz Sweep 1 ms #VBW 3 MHz #VBW 3 MHz Power Spectral Density Power Spectral Density Channel Power Channel Power 12.00 dBm / 37 MHz -63.68 dBm /Hz 11.65 dBm / 78 MHz -67.27 dBm /Hz 11acVHT40 5755MHz Ref Offset 11 die Ref 21.00 dBm Power Spectral Density 11.76 dBm / 37 MHz -63.92 dBm /Hz

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8. SPECTRAL DENSITY TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
3.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28,15	1 Year
4.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17,15	1 Year

8.2.Limit

Band 5150-5250 MHz:

The e.i.r.p spectral density shall not exceed 10 dBm in any 1.0 MHz band.

Band 5250-5350 MHz:

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

Band 5470-5725 MHz:

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

Band 5725-5850 MHz:

The power spectral density shall not exceed 30 dBm in any 500 KHz band.

8.3. Test Procedure

For the Band 5.15-5.25GHz:

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW; Detector: RMS mode.

For the band 5.725-5.85 GHz:

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW,RMS Detector.

So use the test method described in KDB789033 clause E

- 1) Set the RBW=100kHz and VBW =3MHz
- 2) Number of points in sweep \geq 2 Span / RBW.(This ensures that bin-to-bin spacing is \leq RBW/2, so that narrowband signals are not lost between frequency bins.)
- 3) Sweep time = auto
- 4) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- 5) Use the "peak search" function of spectrum analyzer find the max value, then add 10log (500kHz/RBW) to the measured result.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.



FCC ID: UCC-WA8011NAC-X Page 8-2

8.4. Test Results

EUT: Altai A8n (ac) Super WiFi Base Station				
M/N: WA8011NAC-X				
Test date: 2016-02-19	Pressure:101.8±1.0 kpa	Humidity:50.3±3.0%		
Tested by: Donjon_Huang	Test site: RF site	Temperature:20.2±0.6		

Test	Frequency		Power dens (dBm/500K)	Limit			
Mode	(MHz)	ANT1	ANT2	Total	(dBm/500KHz)		
	5745	-9.9473	-10.1673	-7.05	13		
11a	5785	-9.8283	-10.2873	-7.04	13		
	5825	-9.9563	-10.5273	-7.22	13		
11	5745	-10.7803	-11.0053	-7.88	13		
11n HT20	5785	-10.7663	-10.8463	-7.80	13		
11120	5825	-10.2723	-11.2683	-7.73	13		
11n	5755	-13.9453	-14.0593	-10.99	13		
HT40	5795	-13.7463	-13.4163	-10.57	13		
11	5745	-10.3513	-10.1923	-7.26	13		
11ac VHT20	5785	-9.9713	-9.6933	-6.82	13		
V11120	5825	-10.0513	-10.1443	-7.09	13		
11ac	5755	-15.7873	-14.9923	-12.36	13		
VHT40	5795	-14.9973	-15.0123	-11.99	13		
11ac VHT80	5775	-19.7583	-19.7523	-16.74	13		
Conclusion: PASS							

Directional Gain=G_{ANT} + 10log2(dBi) =20dBi+3dBi

=23dBi > 6dBi

Output Power Limit=30dBm-(23dBi-6dBi) =13dBm



Page 8-3 FCC ID:UCC-WA8011NAC-X ANT 1 11a 11n HT20 5745MHz 5745MHz r 1 5.739960000000 GHz Fib 1 as + Trig Free Run Fibrid Inc. + Shaper 20 40 70000 GHz FRO Task Trip Free Run Shake 20 dB Avg Type FMS Avgitteid: 100/16 Avg Type: FMS Avgitteid: 100/10 Ref 11.00 dilm 5.739 96 (17.770 d Ref 0ffset 11 dB Ref 11.00 dBm magaithe griaphaiteireach Center 5.74500 GHz FVBW 1.0 MHz FVBW 1.0 MH 5785MHz 5785MHz Avg Type: FMS Avgitteld:= 100/100 Avg Type: FMS Avg(Heid:> 100/100 16.818 dB 5.791 21 GH 17.756 dB Ref 11.00 dBm Ref 11.00 dBm Mkr -- Ref Ly Mkr -- RefLy 5825MHz 5825MHz 1 Trig Free Run Shirt I am Bazen 20 dil 100 GHz FND Fail (+) Trig Free Run Shirten 20 48 Avg Type: FMS Avgitteid > 100/100 Avg Type: FMS Avgitteid > 100/100 5.832 47 GH -16.946 dB 5.819 96 C 17.262 d Ref 11.00 dBm Ref 11.00 dBm Next Pk Let FVBW 1.0 MHZ FVBW 1.0 MHz*



FCC ID: UCC-WA8011NAC-X Page 8-4 11n HT40 5755MHz 5785MHz Avg Type FMS Avgitteid > 100/100 Ref 11.00 dillm Ref 11.00 dBm Mkr-RefLy Mkr-RefLy 5795MHz 5825MHz Avg Type: FMS Avgitteid: 100/100 Avg Type: FMS Avgitteid: 100/100 5.821 22 G 17.041 dl Ref Offset 11 dB Ref 11.00 dBm Ref 11.00 dBm EVBW 1.0 MHZ* #VBW 1.0 MHz* **11ac VHT20** 11ac VHT40 5745MHz 5755MHz 7000 GHz Fig. 1 as Trig Free Run S Galettes # Shitten 20 dill 000 GHz PRO I se Trig Free Run Shahal se BAzzen 20 dill Avg Type: FMS Avgitteid > 100/100 Avg Type: FMS Avgitteid > 100/100 5.739 99 G 17.341 dl 5.740 00 G -22.777 dl Ref 11.00 dBm Ref 11.00 dBm FVBW 1.0 MHz*

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S795MHz

S795MHz

S795MHz

S775MHz

S77

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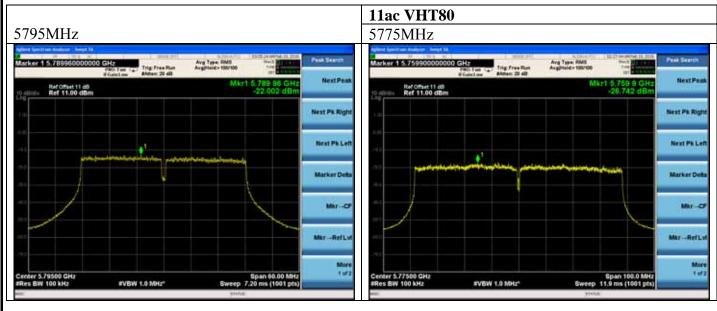
FCC ID:UCC-WA8011NAC-X

ANT 2 11a 11n HT20 5745MHz 5745MHz Warker 1 5.738730000000 GHz ther 1 5.754240000000 GHz Filto I see 14 Shine 20 dB Avg Type FMS Avgitteid: 100/16 Avg Type: FMS Avgitteid: 100/10 Ref 11.00 dilm Ref 0ffset 11 dB Ref 11.00 dBm Center 5.74500 GHz FVBW 1.0 MHZ #VBW 1.0 MH 5785MHz 5785MHz Avg Type: FMS Avgitteid:>100/100 Avg Type: FMS Avg(Heid:> 100/100 5.778 70 G 17.277 dl 5.786 23 GH 17.836 dBr Ref 11.00 dBm Ref 11.00 dBm ertzeptemeneran _{Antonstriestrattennen d}en Mkr -- Ref Ly Mkr -- RefLy 5825MHz 5825MHz 000 GHz PRO I se Trig Free Run Shahal se BAzzen 20 dill 1 Trig Free Run Street and BAtten 20 dill Avg Type: FMS Avgitteid > 100/100 Avg Type: FMS Avgitteid > 100/100 5.828 75 GI -17.517 dB 5.831 24 GI 18.258 dB Ref 11.00 dBm Ref 0ffset 11 dB Ref 11.00 dBm Next Pk Let FVBW 1.0 MHZ FVBW 1.0 MHz*

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FCC ID: UCC-WA8011NAC-X 11n HT40 5755MHz 5785MHz Ref 11.00 dBm Ref 11.00 dBm Mkr-RefLy Mkr-RefLy 5795MHz 5825MHz Avg Type FMS Avgitteid: 100/100 Avg Type: FMS Avgitteid: 100/100 5.823 71 0 17.134 d Ref Offset 11 dB Ref 11.00 dBm Ref 11.00 dBm #VBW 1.0 MHz* FVBW 1.0 MHZ **11ac VHT20** 11ac VHT40 5745MHz 5755MHz arker 1 5.743660000000 GHz 1000 GHz PAGE Last Trig Free Run Stiglet as \$Amon 20 dill Avg Type: FMS Avgitteid > 100/100 Avg Type: FMS Avgitteid > 100/100 5.739 96 G 17 182 df Ref 11.00 dBm Ref 11.00 dBm FVBW 1.0 MHz*



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9. FREQUENCY STABILITY MEASUREMENT

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Oct.18,15	1 Year
2.	Amplifier	Agilent	8449B	3008A02495	Apr.28,15	1 Year
3.	Horn Antenna	ETS	3115	9510-4877	Oct.15,15	1 Year
4.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr.28,15	1 Year

9.2.Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emissions is maintained within the band of operation under all conditions of normal operation as specified in the user's manual or ± 20 ppm

9.3.Test Procedure

- 1. The transmitter output (antenna port) was connected to the spectrum analyzer. EUT have transmitted absence of modulation signal and fixed channelise. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings. fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 106 ppm and the limit is less than ±20ppm The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
- 2. Extreme temperature rule is -30°C~50°C.

9.4. Test Result



EUT: Altai A8n (ac) Super WiFi Base Station						
M/N: WA8011NAC-X						
Test date: 2016-02-26	Pressure:101.8±1.0 kpa	Humidity:50.8±3.0%				
Tested by: Donjon_Huang	Test site: RF site	Temperature:20.9±0.6				

Frequency Stability vs Voltage:

Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.033	5745	5.74	±20
	25	CH151	5755.029	5755	5.04	±20
AC 108V		CH155	5775.038	5775	6.58	±20
AC 108 V		CH157	5785.029	5785	5.01	±20
		CH159	5795.025	5795	4.31	±20
		CH165	5825.034	5825	5.84	±20
Conclusion:	PASS					

Conclusion: PASS

Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
	25	CH149	5745.036	5745	6.27	±20
		CH151	5755.031	5755	5.39	±20
AC 120V		CH155	5775.029	5775	5.02	±20
AC 120V		CH157	5785.034	5785	5.88	±20
		CH159	5795.036	5795	6.21	±20
		CH165	5825.029	5825	4.98	±20



Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.029	5745	5.05	±20
	25	CH151	5755.030	5755	5.21	±20
AC 132V		CH155	5775.029	5775	5.02	±20
AC 132 V		CH157	5785.034	5785	5.89	±20
		CH159	5795.028	5795	4.83	±20
		CH165	5825.026	5825	4.46	±20
Conclusion:	PASS					

Frequency Stability vs. Temperature:

	rrequericy st	aumity vs. 161	nperature.			
Test Voltage (V)	Temp ()	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.022	5745	3.83	±20
	4.5	CH151	5755.046	5755	7.99	±20
AC 120V		CH155	5775.038	5775	6.58	±20
AC 120V	-45	CH157	5785.026	5785	4.49	±20
		CH159	5795.041	5795	7.08	±20
		CH165	5825.029	5825	4.98	±20
Conclusion	· DACC	•	_			



Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.028	5745	4.87	±20
	-35	CH151	5755.039	5755	6.78	±20
AC 120V		CH155	5775.027	5775	4.68	±20
AC 120V		CH157	5785.035	5785	6.05	±20
		CH159	5795.042	5795	7.25	±20
		CH165	5825.031	5825	5.32	±20
Conclusion	r PASS					

Conclusion: PASS

Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.031	5745	5.40	±20
	-25	CH151	5755.029	5755	5.04	±20
AC 120V		CH155	5775.036	5775	6.23	±20
AC 120V		CH157	5785.042	5785	7.26	±20
		CH159	5795.038	5795	6.56	±20
		CH165	5825.052	5825	8.93	±20
Conclusion	· DASS	•				



Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.026	5745	4.53	±20
	-15	CH151	5755.033	5755	5.73	±20
AC 120V		CH155	5775.047	5775	8.14	±20
AC 120V		CH157	5785.035	5785	6.05	±20
		CH159	5795.034	5795	5.87	±20
		CH165	5825.021	5825	3.61	±20
Conclusion	r PASS					

Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.034	5745	5.92	±20
	-5	CH151	5755.027	5755	4.69	±20
AC 120V		CH155	5775.029	5775	5.02	±20
AC 120V		CH157	5785.031	5785	5.36	±20
		CH159	5795.037	5795	6.38	±20
		CH165	5825.029	5825	4.98	±20
Conclusion	· PASS					



Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
		CH149	5745.037	5745	6.44	±20
	5	CH151	5755.041	5755	7.12	±20
AC 120V		CH155	5775.028	5775	4.85	±20
AC 120V		CH157	5785.026	5785	4.49	±20
		CH159	5795.051	5795	8.80	±20
		CH165	5825.039	5825	6.70	±20
Conclusion	· PASS					

Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
	CH149	5745.029	5745	5.05	±20
15	CH151	5755.035	5755	6.08	±20
	CH155	5775.028	5775	4.85	±20
13	CH157	5785.034	5785	5.88	±20
	CH159	5795.026	5795	4.49	±20
	CH165	5825.027	5825	4.64	±20
	Temp ()	CH CH CH CH 151 CH151 CH155 CH157 CH159	CH (MHz) CH (MH	Temp () CH Max. Reading (MHz) Frequency (MHz) CH149 5745.029 5745 CH151 5755.035 5755 CH155 5775.028 5775 CH157 5785.034 5785 CH159 5795.026 5795	Temp () CH Max. Reading (MHz) Frequency (MHz) Result (ppm) CH149 5745.029 5745 5.05 CH151 5755.035 5755 6.08 CH155 5775.028 5775 4.85 CH157 5785.034 5785 5.88 CH159 5795.026 5795 4.49



Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
	25	CH149	5745.034	5745	5.92	±20
		CH151	5755.029	5755	5.04	±20
AC 120V		CH155	5775.036	5775	6.23	±20
AC 120 V		CH157	5785.042	5785	7.26	±20
		CH159	5795.039	5795	6.73	±20
		CH165	5825.043	5825	7.38	±20
Conclusion: PASS						

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Test Voltage (V)	Temp	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
	35	CH149	5745.030	5745	5.22	±20
		CH151	5755.031	5755	5.39	±20
A C 120V		CH155	5775.041	5775	7.10	±20
AC 120V		CH157	5785.039	5785	6.74	±20
		CH159	5795.028	5795	4.83	±20
		CH165	5825.031	5825	5.32	±20



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Test Voltage (V)	Temp	СН	H Max. Reading Target (MHz) Frequency (MHz)		Result (ppm)	Limit (ppm)
	45	CH149	5745.029	5745	5.05	±20
		CH151	5755.031	5755	5.39	±20
AC 120V		CH155	5775.029	5775	5.02	±20
AC 120 V		CH157	5785.027	5785	4.67	±20
		CH159	5795.034	5795	5.87	±20
		CH165	5825.038	5825	6.52	±20
Conclusion: PASS						

Test Voltage (V)	Temp	CH Max. Reading Target Frequency (MHz)		Result (ppm)	Limit (ppm)	
	55	CH149	5745.031	5745	5.39	±20
		CH151	5755.036	5755	6.26	±20
A C 120V		CH155	5775.029	5775	5.02	±20
AC 120V		CH157	5785.031	5785	5.36	±20
		CH159	5795.042	5795	7.25	±20
		CH165	5825.029	5825	4.98	±20



	СН	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)	Limit (ppm)
65	CH149	5745.028	5745	4.87	±20
	CH151	5755.036	5755	6.26	±20
	CH155	5775.029	5775	5.02	±20
	CH157	5785.038	5785	6.57	±20
	CH159	5795.036	5795	6.21	±20
	CH165	5825.039	5825	6.70	±20
_	65	CH151 CH155 CH157 CH159 CH165	CH151 5755.036 CH155 5775.029 CH157 5785.038 CH159 5795.036 CH165 5825.039	CH149 5745.028 5745 CH151 5755.036 5755 CH155 5775.029 5775 CH157 5785.038 5785 CH159 5795.036 5795 CH165 5825.039 5825	CH149 5745.028 5745 4.87 CH151 5755.036 5755 6.26 CH155 5775.029 5775 5.02 CH157 5785.038 5785 6.57 CH159 5795.036 5795 6.21 CH165 5825.039 5825 6.70

10. MPE ESTIMATION

10.1. Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/cm ²)	Averaging time(minutes)
300MHz1.5GHz	F/1500	30
1.5GHz100GHz	1.0	30

Note: F= Frequency in MHz 10.2. Estimation Result

EUT: Altai A8n (ac) Super WiFi Base Station					
M/N: WA8011NAC-X	M/N: WA8011NAC-X				
Test date: 2016-02-25	Pressure: 101.3±1.0 kpa	Humidity: 50.2±3.0%			
Tested by: Donjon_Huang	Test site: RF site	Temperature:20.4±0.6			

Test Mode	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	МРЕ
	5745	14.63	29.04	20	100.00	0.5780
11a	5785	15.22	33.27	20	100.00	0.6621
	5825	15.35	34.28	20	100.00	0.6823
11	5745	14.25	26.61	20	100.00	0.5296
11n HT20	5785	14.55	28.51	20	100.00	0.5675
11120	5825	14.45	27.86	20	100.00	0.5546
11n	5755	15.38	34.51	20	100.00	0.6870
HT40	5795	15.23	33.34	20	100.00	0.6637
11ac	5745	14.67	29.31	20	100.00	0.5834
VHT20	5785	14.86	30.62	20	100.00	0.6095
V11120	5825	15.01	31.70	20	100.00	0.6309
11ac	5755	14.87	30.69	20	100.00	0.6109
VHT40	5795	14.96	31.33	20	100.00	0.6237
11ac VHT80	5775	15.02	31.77	20	100.00	0.6323

MPE=
$$\frac{PG}{4\pi R^2}$$
 (R=20 cm)

11. ANTENNA REQUIREMENT

11.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Antenna Connected Construction

The antennas used for this product are Omni Antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 20 dBi.



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12. DEVIATION TO TEST SPECIFICATIONS	
[NONE]	