# FCC PART 15E TEST REPORT FOR CERTIFICATION On Behalf of

Altai Technologies Limited

Altai A8-Ein (ac) Super WiFi Base Station

Model Number: WA8011NAC

FCC ID: UCC-WA8011NAC

Prepared for: Altai Technologies Limited

Units 209, 2/F, Lakeside 2.10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong, China

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

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Report Number : ACS-F15305

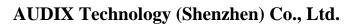
Date of Test : Sep.15~Oct.14, 2015

Date of Report : Dec.14, 2015



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### TEST REPORT CERTIFICATION

Applicant

Altai Technologies Limited

Manufacturer

Altai Technologies Limited

**EUT Description** 

Altai A8-Ein (ac) Super WiFi Base Station

FCC ID

UCC-WA8011NAC

(A) Model No.

WA8011NAC

(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 C: 2014

Test procedure used: ANSI C63.10: 2013 KDB789033D01

Prepared by:

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: Sep.15~Oct.14, 2015 Report of date: Dec.14, 2015

信奉科技(深圳)有限公司 Kayli He / Assistant

Reviewed by:

Audix Technology (Shenzhen) Co., Ltd. EMC部門報告専用章

Stamp only for EMC Dept. Report

Signature:

David Jin / Manager

Approved & Authorized Signer:



# 1. SUMMARY OF STANDARDS AND RESULTS

# 1.1.Description of Standards and Results

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

EMISSION						
Description of Test Item	Standard	Results				
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)	N/A				
Antenna requirement	FCC Part 15: 15.203	PASS				

N/A is an abbreviation for Not Applicable.

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### 2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : Altai A8-Ein (ac) Super WiFi Base Station

Model Number : WA8011NAC

FCC ID : UCC-WA8011NAC

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 : WIFI 2.4GHz: Sector Antenna, 19dBi

Gain WIFI 5GHz: Panel Antenna, 20dBi

Applicant : Altai Technologies Limited

Units 209, 2/F, Lakeside 2.10 Science Park West Avenue, Hong

Kong Science Park, Shatin, Hong Kong, China

Manufacturer : Altai Technologies Limited

Units 209, 2/F, Lakeside 2.10 Science Park West Avenue, Hong

Kong Science Park, Shatin, Hong Kong, China

Date of Test : Sep.15~Oct.14, 2015

Date of Receipt : Aug.25, 2015

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 802.111111140	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 802.11ac v f1140	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.

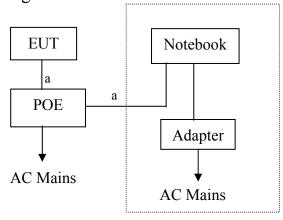
Note: 2. 11a use CDD Mode and 11ac/n use MIMO Mode, test with two antenna transmit simultaneously and comply with KDB662911D01 V02r01.



# 2.1.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number
		N/A	DELL	PP09S	N/A
1	1,00000011	Power Cord: Unshi Power Adapter: Ma Cable: Unshielded,	nufacturer: DEI	L, M/N: LA65N	

# 2.2.Block diagram of connection between the EUT and simulators



a: LAN Cable

(EUT: Altai A8-Ein (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, 2016

### 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	3.6 dB
Emission test in RF chamber	
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%

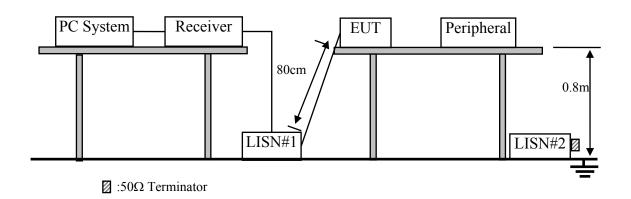


# 3. POWER LINE CONDUCTED EMISSION TEST

### 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.29,14	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.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101838	Oct.29,14	1 Year
10.	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*		
$500kHz \sim 5MHz$	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 A8-Ein (ac) Super WiFi Base Station (EUT)

Model Number : WA8011NAC

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.

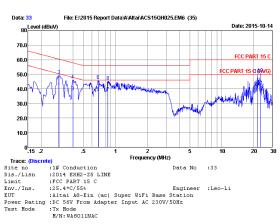
The frequency range from 150kHz to 30MHz is checked.

### 3.7. Power Line Conducted Emission Test Results

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

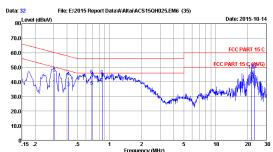
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No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.294	0.13	9.94	30.28	40.35	50.41	10.06	Average
2	0.294	0.13	9.94	39.33	49.40	60.41	11.01	QP
3	0.398	0.83	9.94	27.45	38.22	47.90	9.68	Average
4	0.398	0.83	9.94	35.35	46.12	57.90	11.78	QP
5	0.690	0.14	9.95	27.36	37.45	46.00	8.55	Average
6	0.690	0.14	9.95	35.64	45.73	56.00	10.27	QP
7	0.848	0.15	9.95	27.52	37.62	46.00	8.38	Average
8	0.848	0.15	9.95	35.00	45.10	56.00	10.90	QP
9	21.715	0.66	10.16	30.24	41.06	50.00	8.94	Average
10	21.715	0.66	10.16	39.17	49.99	60.00	10.01	QP
11	23.140	0.65	10.17	31.22	42.04	50.00	7.96	Average
12	23.140	0.65	10.17	39.51	50.33	60.00	9.67	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+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.



	.15 .2		.5	1	2	5	10	20
Trac	e: (Discret	e)		Fred	uency (MHz	)		
		:1# Conduc	ction			Data No	:32	
is./	Lisn	:2014 ESH	2-25 NEU	TRAL				
imit		:FCC PART	15 C					
Env./	Ins.	:25.4*C/5	5%			Engineer	:Leo-Li	
TUE		:Altai A8-	-Ein (ac	) Super W:	iFi Base	Station		
ower	Rating	:DC 56V F	om Adap	ter Input	AC 230V/	50Hz		
ľest	Mode	:Tx Mode						
		M/N: WA80	11NAC					
			Cable		Emissio			
No		Factor				Limits (dBuV)		Remark
	(nnz)	(GB)	(as)	(asuv)				
1	0.302	0.15	9.94	27.56			12.54	
1 2	0.302			27.56 36.10	37.65	50.19		Averag
		0.15	9.94		37.65 46.19	50.19 60.19	12.54	Averag QP
2 3 4	0.302	0.15 0.15 0.15	9.94 9.94 9.94	36.10 25.88 33.28	37.65 46.19 35.97 43.37	50.19 60.19 47.64	12.54 14.00	Averag QP
2 3 4 5	0.302 0.410 0.410 0.683	0.15 0.15 0.15 0.16	9.94 9.94 9.94 9.95	36.10 25.88 33.28 26.75	37.65 46.19 35.97 43.37 36.86	50.19 60.19 47.64 57.64 46.00	12.54 14.00 11.67 14.27 9.14	Averag QP Averag QP Averag
2 3 4 5 6	0.302 0.410 0.410 0.683 0.683	0.15 0.15 0.15 0.16 0.16	9.94 9.94 9.94 9.95 9.95	36.10 25.88 33.28 26.75 34.57	37.65 46.19 35.97 43.37 36.86 44.68	50.19 60.19 47.64 57.64 46.00 56.00	12.54 14.00 11.67 14.27 9.14 11.32	Averag QP Averag QP Averag QP
2 3 4 5 6 7	0.302 0.410 0.410 0.683 0.683	0.15 0.15 0.15 0.16 0.16 0.17	9.94 9.94 9.95 9.95 9.95	36.10 25.88 33.28 26.75 34.57 28.56	37.65 46.19 35.97 43.37 36.86 44.68 38.68	50.19 60.19 47.64 57.64 46.00 56.00 46.00	12.54 14.00 11.67 14.27 9.14 11.32 7.32	Averag QP Averag QP Averag QP Averag
2 3 4 5 6 7	0.302 0.410 0.410 0.683 0.683 0.853	0.15 0.15 0.15 0.16 0.16 0.17	9.94 9.94 9.95 9.95 9.95 9.95	36.10 25.88 33.28 26.75 34.57 28.56 34.08	37.65 46.19 35.97 43.37 36.86 44.68 38.68 44.20	50.19 60.19 47.64 57.64 46.00 56.00 46.00 56.00	12.54 14.00 11.67 14.27 9.14 11.32 7.32 11.80	Averag QP Averag QP Averag QP Averag QP
2 3 4 5 6 7 8	0.302 0.410 0.410 0.683 0.683 0.853 0.853	0.15 0.15 0.15 0.16 0.16 0.17 0.17	9.94 9.94 9.95 9.95 9.95 9.95	36.10 25.88 33.28 26.75 34.57 28.56 34.08 27.31	37.65 46.19 35.97 43.37 36.86 44.68 38.68 44.20 38.23	50.19 60.19 47.64 57.64 46.00 56.00 46.00 56.00 50.00	12.54 14.00 11.67 14.27 9.14 11.32 7.32 11.80 11.77	Averag QP Averag QP Averag QP Averag QP
2 3 4 5 6 7 8 9	0.302 0.410 0.410 0.683 0.683 0.853 0.853 21.715 21.715	0.15 0.15 0.15 0.16 0.16 0.17 0.17 0.76	9.94 9.94 9.95 9.95 9.95 9.95 9.95 10.16	36.10 25.88 33.28 26.75 34.57 28.56 34.08 27.31 36.84	37.65 46.19 35.97 43.37 36.86 44.68 38.68 44.20 38.23 47.76	50.19 60.19 47.64 57.64 46.00 56.00 46.00 50.00 60.00	12.54 14.00 11.67 14.27 9.14 11.32 7.32 11.80 11.77 12.24	Averag QP Averag QP Averag QP Averag QP Averag QP
2 3 4 5 6 7 8	0.302 0.410 0.410 0.683 0.683 0.853 0.853 21.715 21.715	0.15 0.15 0.15 0.16 0.16 0.17 0.17 0.76 0.76	9.94 9.94 9.95 9.95 9.95 9.95 9.95 10.16	36.10 25.88 33.28 26.75 34.57 28.56 34.08 27.31 36.84 30.12	37.65 46.19 35.97 43.37 36.86 44.68 38.68 44.20 38.23 47.76	50.19 60.19 47.64 57.64 46.00 56.00 46.00 56.00 50.00 60.00 50.00	12.54 14.00 11.67 14.27 9.14 11.32 7.32 11.80 11.77 12.24	Averag QP Averag QP Averag QP Averag QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+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	Nov.23,14	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.	3#Chamber	AUDIX	N/A	N/A	Nov.02, 14	1 Year
2.	Spectrum Analyzer	Agilent	E4407B	MY41440292	Apr. 28,15	1 Year
3.	Horn Antenna	ETS	3115	9607-4877	Sep.20, 14	1 Year
4.	Amplifier	Agilent	8449B	3008A00863	Apr. 28,15	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr. 28,15	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX106	28616/2	Apr. 28,15	1 Year
7.	Horn Antenna	ETS	3116	00060089	Sep.20, 14	1 Year

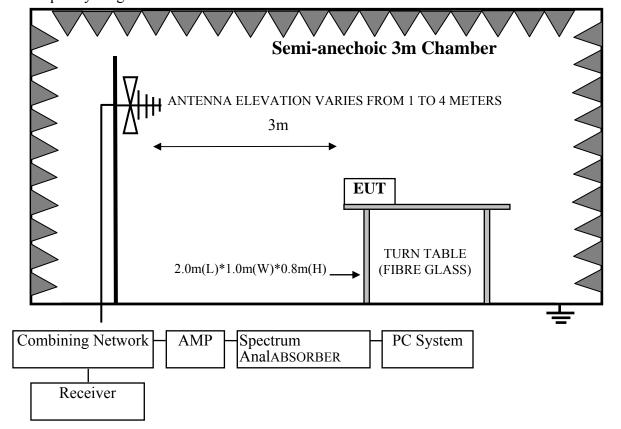
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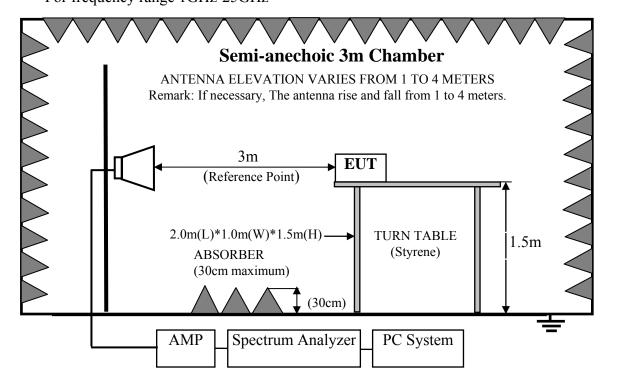
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4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



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#### 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
<sup>1</sup> 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 A8-Ein (ac) Super WiFi Base Station (EUT)

Model Number: WA8011NAC

Serial Number: N/A

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

FCC ID:UCC-WA8011NAC Page 4-4

### 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 10<sup>th</sup> harmonic (40GHz) and no any emissions were found from 18GHz to 40GHz, so the radiated emission from 18GHz to 40GHz were not record.

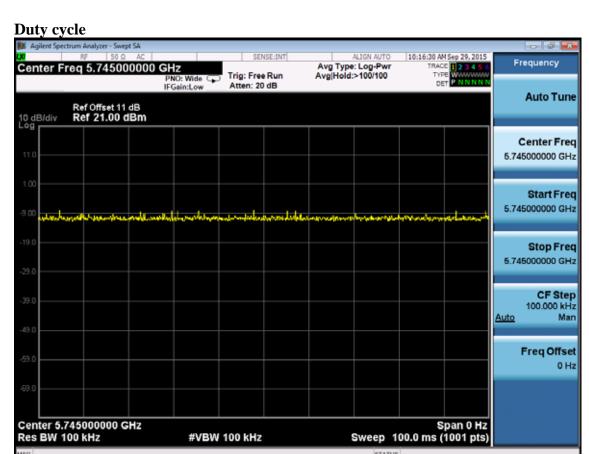


FCC ID:UCC-WA8011NAC Page 4-5

### 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.



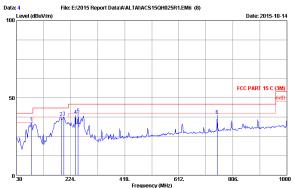
Note: The Duty Cycle is close to 100%.

# AUDIX Technology (Shenzhen) Co., Ltd.

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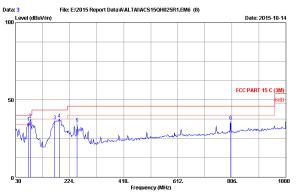
### Frequency: 30MHz~1GHz

FCC ID:UCC-WA8011NAC



No.	Freq.	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	83.350	8.30	1.02	24.67	33.99	40.00	6.01	QP
2	190.050	10.10	1.46	25.85	37.41	43.50	6.09	QP
3	199.750	10.59	1.51	25.61	37.71	43.50	5.79	QP
4	241.460	12.67	1.65	24.28	38.60	46.00	7.40	QP
5	251.160	13.32	1.71	24.41	39.44	46.00	6.56	QP
6	749.740	20.60	3.14	14.87	38.61	46.00	7.39	QP

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



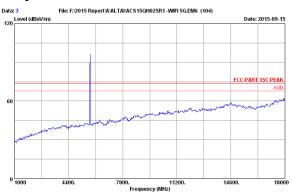
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	76.560	7.46	0.98	27.00	35.44	40.00	4.56	QP
2	83.350	8.30	1.02	28.32	37.64	40.00	2.36	QP
3	170.650	10.27	1.38	24.81	36.46	43.50	7.04	QP
4	187.140	10.10	1.46	26.08	37.64	43.50	5.86	QP
5	251.160	13.32	1.71	19.51	34.54	46.00	11.46	QP
6	801.150	21.09	3.26	11.81	36.16	46.00	9.84	QP

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

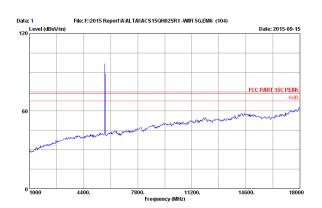


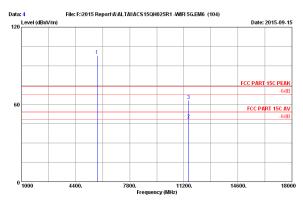
FCC ID: UCC-WA8011NAC Page 4-7

### Frequency: 1GHz~18GHz



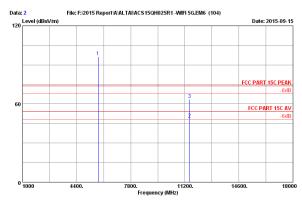
Site no. : 3m Chamber Data no. : 3
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 1SC PEAK
Env. / Ins. : 23\*C/54\*
Engineer : Leo-Li
EUT : Altai A8-Ein (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Hode : IEEEBGG.11a S74SMHz Tx
WA801INAC





No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
-	5745.000 11490.000 11490.000		9.90 14.54 14.54	35.11 35.33 35.33	88.65 30.09 44.83	97.84 48.29 63.03	74.00 54.00 74.00	-23.84 5.71 10.97	Peak Average 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.

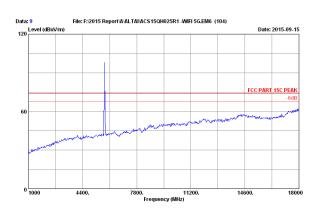


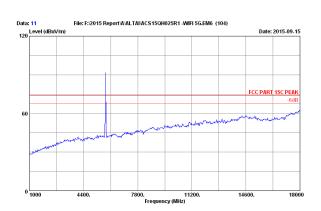
		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5745.000	34.40	9.90	35.11	86.97	96.16	74.00	-22.16	Peak
2	11490.000	38.99	14.54	35.33	30.13	48.33	54.00	5.67	Average
3	11490.000	38.99	14.54	35.33	45.37	63.57	74.00	10.43	Peak

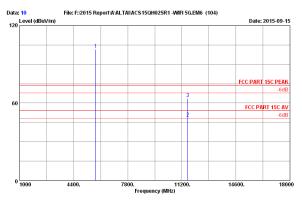
Remarks: 1. Emission Level\* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

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		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5785.000 11570.000 11570.000	34.42 39.03 39.03	9.91 14.60 14.60	35.10 35.31 35.31	92.50 30.21 45.23	101.73 48.53 63.55	74.00 54.00 74.00	-27.73 5.47 10.45	Peak Average 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.

			f		-oub
60				FCC PA	RT 15C AV -6dB
			3		- 042
				FCC PART	15C PEAK -6dB
120 Level (dBu	V/m)			Date:	2015-09-15
Data: 12		OIT W METATACS IS OF	1025R1 -WIFI 5G.EM6 (1		

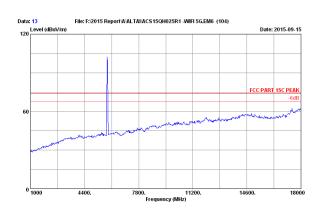
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading	Emission Level	Limits (dBuV/m)	Margin (dB)	Remark
	(nns)	(UD/III)	(ub)	(ub)	(ubuv)	(ubuv/m)	(ubuv/m)	(ub)	
1	5785.000	34.42	9.91	35.10	93.66	102.89	74.00	-28.89	Peak
2	11570.000	39.03	14.60	35.31	30.42	48.74	54.00	5.26	Average
3	11570.000	39.03	14.60	35.31	45.69	64.01	74.00	9.99	Peak
	Description of	Want and a			T	C-1-1- 1-	· D		

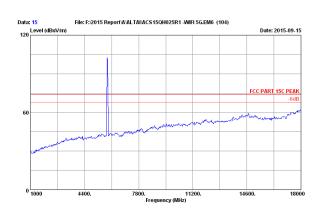
-marks: 1. Emission Level= Antenna Factor > -m... -Amp Factor

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

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,	1000	4400.	78	11200		14600.	180
-							
ŀ							
				:	2		-6dB
50						FCC PA	RT 15C AV
ŀ							-6dB
						FCC PART	
-							
ł							
		1					
20 L	_evel (dBuV/m)					Date:	2015-09-1

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)		Remark
	5825.000	34.43	9.93	35.08	99.28	108.56	74.00	-34.56	Peak
	11650.000	39.06	14.66	35.29	30.82	49.25	54.00	4.75	Average
	11650.000	39.06	14.66	35.29	45.96	64.39	74.00	9.61	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.

		Frame	ncy (MHz)		
0 1000	4400.	7800.	11200.	14600.	180
			2		-6d
0				FCC P	ART 15C A
			3		
				TCCTAI	-6dl
				ECC DAR	T 15C PEAI
		1			
Level (dB	uvini			Date	: 2015-09-

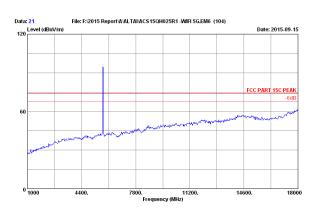
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.000	34.43	9.93	35.08	93.45	102.73	74.00	-28.73	Peak
2	11650.000	39.06	14.66	35.29	30.41	48.84	54.00	5.16	Average
3	11650.000	39.06	14.66	35.29	45.27	63.70	74.00	10.30	Peak

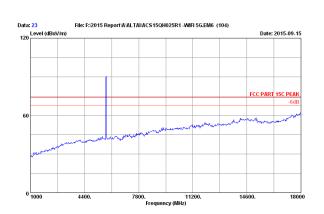
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

1. Emission Level= Antenna Factor + Cable Loss + Reading -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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0 10		4400.	78	11200	14600.	180
				2		-6dB
0					FCC PA	RT 15C AV
Н				3		-oue
H					FCC PART	-6dB
$\vdash$						
		1				
0						
_ Le	vel (dBuV/m)				Date:	2015-09-1

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5745.000 11490.000 11490.000	34.40 38.99 38.99	9.90 14.54 14.54	35.11 35.33 35.33	95.85 30.29 45.64	105.04 48.49 63.84	74.00 54.00 74.00	5.51	Peak Average 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.

1000	4400.	7800.	11200. ncy (MHz)	14600.	180
			l l		-6dB
				FCC P	ART 15C AV
,			3		
				TCCFAR	-6dB
				ECC DAD	T 15C PEAK
	4				

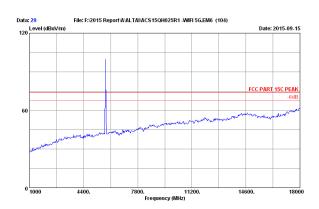
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.000	34.40	9.90	35.11	93.67	102.86	74.00	-28.86	Peak
2	11490.000	38.99	14.54	35.33	30.20	48.40	54.00	5.60	Average
3	11490.000	38.99	14.54	35.33	45.38	63.58	74.00	10.42	Peak

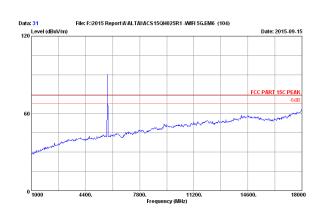
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

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

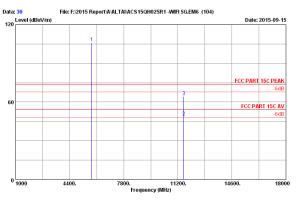
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| Site no. | Sim Chamber | Data no. | Site no. | Sim Chamber | Data no. | Site no. | Sim Zol4 3115 9607-4877 | Ant. pol. | VERTICAL Limit | FCC PART 15C PEAK | Env. / Ins. | 23\*C/54\* | Engineer | Leo-Li | EUT | Site no. | Site no.



		Ant.	Cable	AMP		Emission			
No.	Freq.	(dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level	Limits (dBuV/m)	Margin (dB)	Remark
	(nnz)	(ub/m)	(ub)		(ubuv)	(ubuv/m)	(ubuv/m)	(ub)	
1	5785.000	34.42	9.91	35.10	96.87	106.10	74.00	-32.10	Peak
2	11570.000	39.03	14.60	35.31	30.26	48.58	54.00	5.42	Average
3	11570.000	39.03	14.60	35.31	45.82	64.14	74.00	9.86	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.

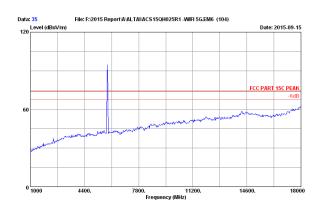
		7800.	11200.	14000.	180
o¦	1000 4400.	7800.	11200.	14600.	180
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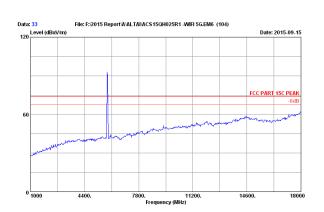
Remark		Limits	Emission Level (dBuV/m)	Reading (dBuV)	AMP factor (dB)	Cable Loss (dB)	Ant. Factor (dB/m)	Freq.	No.
Peak	-25.66	74.00	99.66	90.43	35.10	9.91	34.42	5785.000	1
Average	5.39	54.00	48.61	30.29	35.31	14.60	39.03	11570.000	2
Peak	10.32	74.00	63.68	45.36	35.31	14.60	39.03	11570.000	3

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading 1. Emission Level= Antenna Factor + Cable Loss + Reading -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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Date: 2015-09-1			/m)	Level (dBuV/m)
			1	
FCC PART 15C PEAR				
-6dE				
	3			
FCC PART 15C AV				
-6dE	2			
14600. 180	11200.	7800.	4400.	1000

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5825.000 11650.000 11650.000		9.93 14.66 14.66	35.08 35.29 35.29	97.26 30.41 45.98	106.54 48.84 64.41	74.00 54.00 74.00		Peak Average 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.

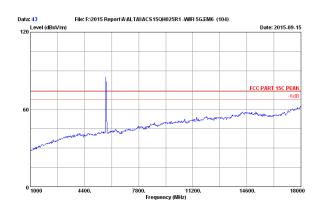
				ncy (MHz)		
0 100	0 44	100.	7800.	11200.	14600.	180
$\vdash$						_
$\vdash$				1 2		-6di
~					FCC PA	RT 15C AV
50				i_		
$\vdash$				3		-6dl
$\vdash$					FCC PART	
		1 1				
20 -						
Lov	el (dBuV/m)					2015-09-
ta: 34		: F:\2015 Repor	TA ALTAIACS 15Q	H025R1 -WIFI 5G.EM6		2015.00

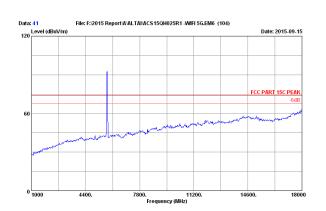
No	. Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Hargin (dB)	Remark
1	5825.000	34.43	9.93	35.08	90.36	99.64	74.00	-25.64	Peak
2	11650.000	39.06	14.66	35.29	30.08	48.51	54.00	5.49	Average
3	11650.000	39.06	14.66	35.29	45.11	63.54	74.00	10.46	Peak

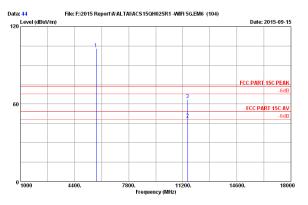
Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading -Amp Factor 2. The emission levels that are 20dB below the official limit are not reported.

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No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5755.000 11510.000 11510.000	34.40 39.00 39.00	9.91 14.56 14.56	35.11 35.33 35.33	93.87 30.19 45.26	103.07 48.42 63.49	74.00 54.00 74.00	-29.07 5.58 10.51	Peak Average 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.

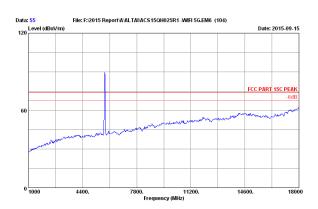
0 1000	4400.	7800. Freguer	11200. ncy (MHz)	14600.	1800
			1	FCC P	ART 15C AV -6dB
60			l i		
			3		-6dB
				FCC PAR	T 15C PEAK
	1				
120					
120 Level (dBu)	V/m)			Date	: 2015-09-15
Data: 42	File: F:\2015 Rep	ort\A\ALTAI\ACS15QF	1025R1 -WIFI 5G.EM6 (1	04)	

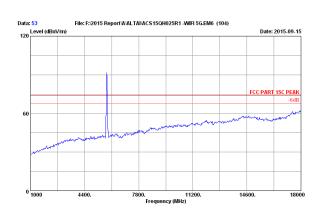
No	. Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5755.000	34.40	9.91	35.11	93.12	102.32	74.00	-28.32	Peak
2	11510.000	39.00	14.56	35.33	30.23	48.46	54.00	5.54	Average
3	11510.000	39.00	14.56	35.33	45.37	63.60	74.00	10.40	Peak

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

# AUDIX Technology (Shenzhen) Co., Ltd.

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| Site no. | Sim Chamber | Data no. | Side n

Data: 54 120 Level (dBuV/m)

	1)	025R1 -WIFI 5G.EM6 (10	REPORTA ALTAIACS 15QI	File: F:\2015 R6	a: 56
: 2015-09-1	Date: 2			//m)	Level (dBuV/m)
					.0
			,	1	
_					
	FCC PART				
-6dE		3			
					0
ART 15C AV	FCC PAF				٠
-6dE		2			
					0
180	14600.	11200. cy (MHz)	7800.	4400.	<sup>0</sup> 1000

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5795.000 11590.000 11590.000		9.92 14.61 14.61	35.09 35.30 35.30	96.48 30.52 45.67	105.73 48.87 64.02	74.00 54.00 74.00	-31.73 5.13 9.98	Peak Average 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.

FCC PART 15C AV 7800. 11200. Frequency (MHz)

File: F:\2015 Report\A\ALTAI\ACS15QH025R1 -WIFI 5G.EM6 (104)

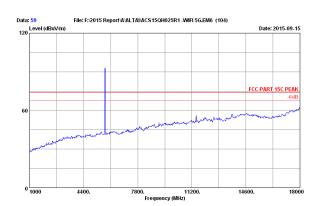
Date: 2015-09-15

No.	Freq.	Factor (dB/m)	Cable Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits		Remark
1	5795.000	34.42	9.92	35.09	91.48	100.73	74.00	-26.73	Peak
2	11590.000	39.04	14.61	35.30	45.33	63.68	74.00	10.32	Peak
3	11590.000	39.04	14.61	35.30	30.16	48.51	74.00	25.49	QP

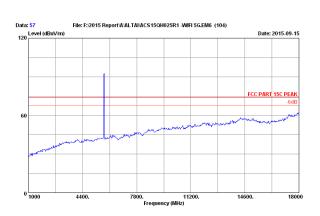
Remarks: 1. Emission Level= Antenna Factor.
-Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

# AUDIX Technology (Shenzhen) Co., Ltd.

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Site no. : 3m Chamber Data no. : 59
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23\*C/54\*
Engineer : Leo-Li
EUT : Altai A6-Kin (ac) Super WiFi Base Station
Power rating : DC 56V From POE Input AC 120V/60Hz
Test Mode : IEEERSG.2.1iac VHT20 5745NHz Tx
WA8011NAC



1000	4400.	7800.	11200. ency (MHz)	14600.	1800
			1 1		-6dB
0				FCC PA	RT 15C AV
			3		
					-6dB
				FCC PART	15C PEAK
	1				
0 Ecver (abar					
Level (dBu\	//m)			Date:	2015-09-1

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
	5745.000 11490.000 11490.000		9.90 14.54 14.54	35.11 35.33 35.33	96.77 30.25 45.64	105.96 48.45 63.84	74.00 54.00 74.00	5.55	Peak Average 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.

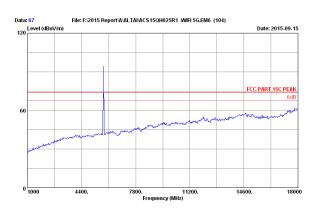
0 1000	4400.	7800.	11200.	14600.	180
					-6dE
50				FCC P	ART 15C AV
			3		
				FCC PAF	-6dE
		jl l			
		1			
Level (dBu	IV/m)			Date	e: 2015-09-1

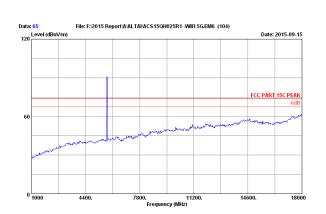
		Ant.	Cable	AMP		Emission			
No.		Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5745.000	34.40	9.90	35.11	90.32	99.51	74.00	-25.51	Peak
2	11490.000	38.99	14.54	35.33	30.28	48.48	54.00	5.52	Average
3	11490.000	38.99	14.54	35.33	45.40	63.60	74.00	10.40	Peak

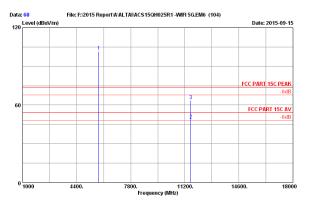
Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading -Amp Factor 2. The emission levels that are 20dB below the official limit are not reported.

# AUDIX Technology (Shenzhen) Co., Ltd.

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Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC FART 15C PEAK
Env. / Ins. : 23 "C/54"
Engineer : Leo-Li
EUT : Altai AB-Ein (ac) Super WiFi Base Station
Power rating : DC 56V From FOE Input AC 120V/60Hz
Test Mode : IEEEEGG.1iac VHT20 5785MHz Tx
WA8011NAC

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5785.000	34.42	9.91	35.10	92.43	101.66	74.00	-27.66	Peak
	11570.000	39.03	14.60	35.31	30.28	48.60	54.00	5.40	Average
	11570.000	39.03	14.60	35.31	45.26	63.58	74.00	10.42	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.

		F	icy (MHz)		
0 1000	4400.	7800.	11200.	14600.	180
			1 2	1001	-6di
0				FCC E	PART 15C AV
			3		
				ICCPAI	-6dE
				ECC DA	RT 15C PEAR
1					
Level (dBu	tV/m)			Date	e: 2015-09-

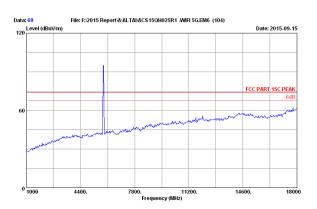
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2 1	5785.000 1570.000 1570.000		14.60		92.08 30.19 45.32	101.31 48.51 63.64	74.00 54.00 74.00		Peak Average Peak

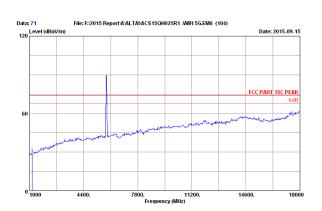
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

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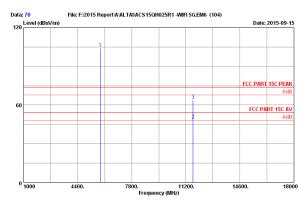


			Ant.	Cable	AMP		Emission			
	No.	Freq.	Factor	Loss	factor (dB)	Reading (dBuV)	Level	Limits (dBuV/m)	Margin (dB)	Remark
-										
	1	1170.000	24.47	4.63	37.38	36.53	28.25	74.00	45.75	Peak

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

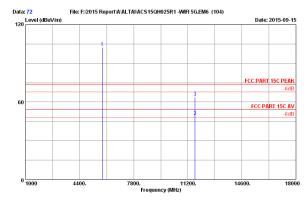
-Amp Factor

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



No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
	5825.000 11650.000 11650.000	34.43 39.06 39.06	9.93 14.66 14.66	35.08 35.29 35.29	94.57 30.07 45.33	103.85 48.50 63.76	74.00 54.00 74.00	-29.85 5.50 10.24	Peak Average 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.



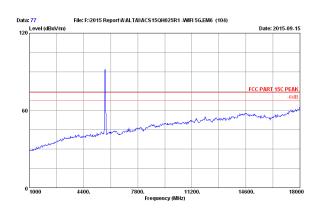
No.	. Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5825.000 11650.000 11650.000	34.43 39.06 39.06	9.93 14.66 14.66	35.08 35.29 35.29	92.85 30.47 45.38	102.13 48.90 63.81	74.00 54.00 74.00	-28.13 5.10 10.19	Peak Average Peak

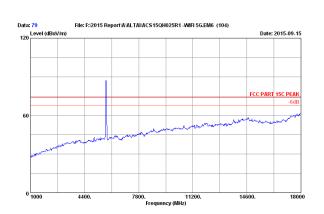
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

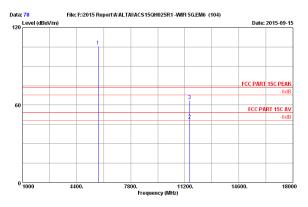
: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

# AUDIX Technology (Shenzhen) Co., Ltd.

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No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5755.000	34.40	9.91	35.11	96.48	105.68	74.00	-31.68	Peak
	11510.000	39.00	14.56	35.33	30.13	48.36	54.00	5.64	Average
	11510.000	39.00	14.56	35.33	45.36	63.59	74.00	10.41	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.

0 1000	4400.	7800.	11200. icy (MHz)	14600.	180
					-00
			1	FLCF	ART 15C A
0				reer	ADT 450 A
			3		-6d
				FCC PAR	T 15C PEA
-					-
20 20101 (42241	,			- Dan	
Level (dBu\	V/m)			Date	: 2015-09-

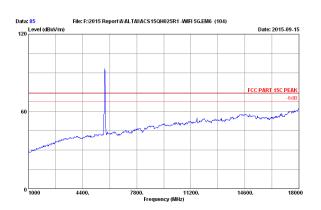
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5755.000 11510.000 11510.000	34.40 39.00 39.00	9.91 14.56 14.56	35.11 35.33 35.33	88.26 30.25 45.03	97.46 48.48 63.26	74.00 54.00 74.00	-23.46 5.52 10.74	Peak Average Peak

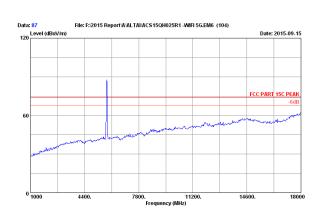
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

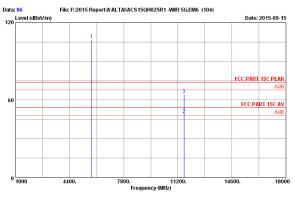
: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

# AUDIX Technology (Shenzhen) Co., Ltd.

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No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5795.000	34.42	9.92	35.09	97.26	106.51	74.00	-32.51	Peak
	11590.000	39.04	14.61	35.30	30.42	48.77	54.00	5.23	Average
	11590.000	39.04	14.61	35.30	45.78	64.13	74.00	9.87	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.

				-000
			FCC PA	-6dB
60		3		
			FCC PAR	15C PEAK -6dB
			FCC DAD	4EC DEAK
	1			
120	avan,		Duit.	2013-03-13
Level (dBu	File: F:\2015 Rep			2015-09-15

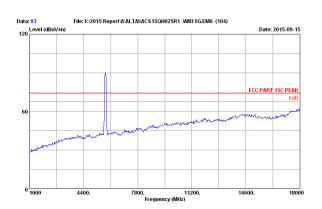
1 5795.000 34.42 9.92 35.09 88.62 97.87 74.00 -23.87 Peak 2 11590.000 39.04 14.61 35.30 30.23 48.58 54.00 5.42 Average	No.	. Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)		Remark
2 11590.000 39.04 14.61 35.30 30.23 48.58 54.00 5.42 Average	1	5795.000	34.42	9.92	35.09	88.62	97.87	74.00	-23.87	Peak
	2	11590.000	39.04	14.61	35.30	30.23	48.58	54.00	5.42	Average
3 11590.000 39.04 14.61 35.30 45.61 63.96 74.00 10.04 Peak	3	11590.000	39.04	14.61	35.30	45.61	63.96	74.00	10.04	Peak

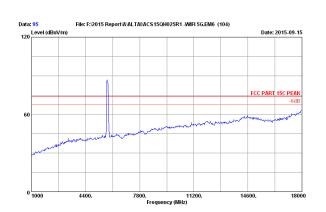
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

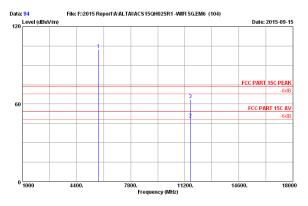
1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
 2. The emission levels that are 20dB below the official limit are not reported.

# AUDIX Technology (Shenzhen) Co., Ltd.

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No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	5775.000 11550.000 11550.000	34.41 39.02 39.02	9.91 14.58 14.58	35.10 35.31 35.31	93.15 30.33 45.16	102.37 48.62 63.45	74.00 54.00 74.00		Peak Average 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: <mark>96</mark>	File: F:\2015 Re	oort/A/ALTAI/ACS15QI	H025R1 -WIFI 5G.EM6 (*	104)	
120 Level (dBi	uV/m)			Date	2015-09-15
120					
	1				
				FCC PAR	T 15C PEAK
					-6dB
			3		
60				FCC PA	ART 15C AV
			2		-6dB
0 1000	4400.	7800.	11200.	14600.	1800
			ncy (MHz)		

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5775.000	34.41	9.91	35.10	87.65	96.87	74.00	-22.87	Peak
2	11550.000	39.02	14.58	35.31	30.42	48.71	54.00	5.29	Average
3	11550.000	39.02	14.58	35.31	45.26	63.55	74.00	10.45	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.

FCC ID: UCC-WA8011NAC Page 5-1

### 5. BAND EDGE COMPLIANCE TEST

### 5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Amp	HP	8449B	3008A02495	Apr. 28,15	1 Year
2.	Horn Antenna	ETS	3115	9510-4877	Sep.20,14	1 Year
3.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr. 28,15	1 Year
4.	RF Cable	Hubersuhner	Sucoflex102	28610/2	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 level.
- 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.

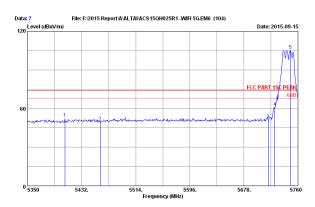
#### 5.4. Test Results

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



# AUDIX Technology (Shenzhen) Co., Ltd.

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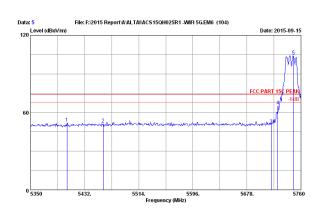


		Ant.	Cable	AMP		Emissior	1		
No.	Freq.	Factor (dB/m)	Loss	factor (dB)	Reading (dBuV)		Limits (dBuV/m)		Remark
1	5406.580	34.14	9.74	35.27	43.75	52.36	74.00	21.64	Peak
2	5460.000	34.23	9.76	35.25	40.88	49.62	74.00	24.38	Peak
3	5715.000	34.39	9.88	35.12	42.01	51.16	74.00	22.84	Peak
4	5725.000	34.39	9.89	35.12	51.83	60.99	74.00	13.01	Peak
5	5748.520	34.40	9.90	35.11	96.02	105.21	74.00	-31.21	Peak

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

-Amp factor

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



		Ant.	Cable	AMP		Emission	1		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5405.350	34.14	9.74	35.27	43.20	51.81	74.00	22.19	Peak
2	5459.880	34.23	9.76	35.25	42.25	50.99	74.00	23.01	Peak
3	5715.000	34.39	9.88	35.12	41.20	50.35	74.00	23.65	Peak
4	5725.000	34.39	9.89	35.12	55.94	65.10	74.00	8.90	Peak
5	5748.520	34.40	9.90	35.11	94.93	104.12	74.00	-30.12	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.

5350	5432.	5514.	5596. icy (MHz)	5678.	57
0 5050					
	1 2				J*
				PCCP	-6dE
60				reen	ART 15C AV
					1
					6
Level (dBuV	/m)			Date	: 2015-09-1
ıta: 8	File: F:\2015 Rep	ort\A\ALTAI\ACS15QF	1025R1 -WIFI 5G.EM6 (1	104)	

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2 3 4	5430.770 5460.000 5715.000 5723.920 5725.000	34.18 34.23 34.39 34.39 34.39	9.75 9.76 9.88 9.89 9.89	35.26 35.25 35.12 35.12 35.12	30.31 29.92 30.43 34.28 33.25	38.98 38.66 39.58 43.44 42.41	54.00 54.00 54.00 54.00 54.00	15.02 15.34 14.42 10.56 11.59	Average Average Average Average
6	5738.270	34.40	9.90	35.11	85.59	94.78		-40.78	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.

nta: 6		port\A\ALTAI\ACS15QF	025R1 -WIFI 5G.EM6 (		
20 Level (dBu)	V/m)			Date	e: 2015-09-
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Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC FART 15C AV
Env. / Ins. : 23\*C/54\*
Engineer : Leo-Li
EUT : Altai AB-Ein (ac) Super WiFi Base Station
Power rating : DC SeV From POE Input AC 120V/60Hz
Test Mode : EEEEBOL 11a 5745MHz Tx
WA8011NAC

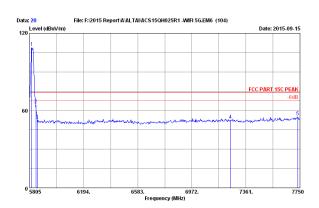
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5431.180	34.18	9.75	35.26	30.34	39.01	54.00	14.99	Average
2	5460.000	34.23	9.76	35.25	30.00	38.74	54.00	15.26	Average
3	5715.000	34.39	9.88	35.12	30.13	39.28	54.00	14.72	Average
4	5725.000	34.39	9.89	35.12	32.99	42.15	54.00	11.85	Average
5	5737.450	34.40	9.90	35.12	81.44	90.62	54.00	-36.62	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.



# AUDIX Technology (Shenzhen) Co., Ltd.

<u>Page 5-3</u>

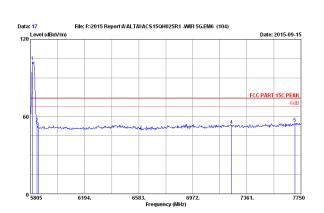


No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits		Remark
1	5820.560	34.43	9.93	35.08	99.81	109.09	74.00	-35.09	Peak
2	5850.000	34.44	9.95	35.07	55.21	64.53	74.00	9.47	Peak
3	5860.000	34.45	9.95	35.07	43.12	52.45	74.00	21.55	Peak
4	7250.000	35.91	10.74	35.50	41.29	52.44	74.00	21.56	Peak
5	7734.440	36.64	11.22	35.69	42.84	55.01	74.00	18.99	Peak

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

-Amp factor

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

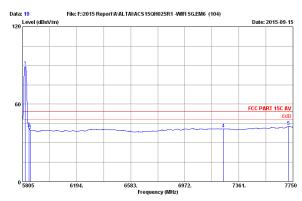


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5818.615	34.43	9.93	35.08	93.23	102.51	74.00	-28.51	Peak
2	5850.000	34.44	9.95	35.07	45.20	54.52	74.00	19.48	Peak
3	5860.000	34.45	9.95	35.07	41.81	51.14	74.00	22.86	Peak
4	7250.000	35.91	10.74	35.50	41.99	53.14	74.00	20.86	Peak
5	7705.265	36.63	11.18	35.68	42.62	54.75	74.00	19.25	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

No. Fr	eq. Facto Hz) (dB/m		factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Kemark
1 5824. 2 5850. 3 5860. 4 7250. 5 7716.	000 34.44 000 34.45 000 35.91	9.93 9.95 9.95 10.74 11.20	35.08 35.07 35.07 35.50 35.69	80.11 32.16 30.31 29.71 30.54	89.39 41.48 39.64 40.86 42.68	54.00 54.00 54.00 54.00 54.00		Average Average Average Average Average

Emission

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: 2015-09-15 FCC PART 15C AV Frequency (MHz)

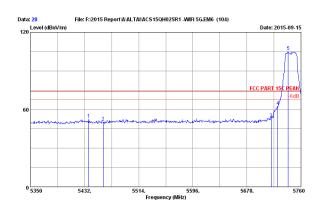
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5820.560	34.43	9.93	35.08	76.36	85.64	54.00	-31.64	Average
2	5850.000	34.44	9.95	35.07	30.34	39.66	54.00	14.34	Average
3	5860.000	34.45	9.95	35.07	29.72	39.05	54.00	14.95	Average
4	7250.000	35.91	10.74	35.50	29.71	40.86	54.00	13.14	Average
5	7720.825	36.63	11.20	35.69	30.59	42.73	54.00	11.27	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.



# AUDIX Technology (Shenzhen) Co., Ltd.

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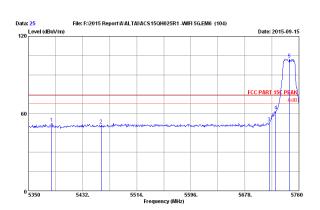


No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits		Remark
1	5438.150	34.19	9.75	35.25	43.86	52.55	74.00	21.45	Peak
2	5460.000	34.23	9.76	35.25	41.47	50.21	74.00	23.79	Peak
3	5715.000	34.39	9.88	35.12	43.68	52.83	74.00	21.17	Peak
4	5725.000	34.39	9.89	35.12	53.41	62.57	74.00	11.43	Peak
5	5740.730	34.40	9.90	35.11	95.61	104.80	74.00	-30.80	Peak

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

-Amp factor

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

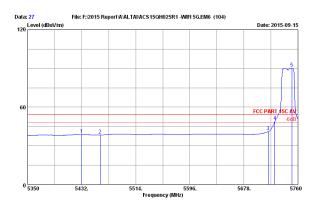


		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits		Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5384.850	34.10	9.73	35.28	43.84	52.39	74.00	21.61	Peak
2	5460.000	34.23	9.76	35.25	42.35	51.09	74.00	22.91	Peak
3	5715.000	34.39	9.88	35.12	43.76	52.91	74.00	21.09	Peak
4	5725.000	34.39	9.89	35.12	53.16	62.32	74.00	11.68	Peak
5	5745.650	34.40	9.90	35.11	93.25	102.44	74.00	-28.44	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

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5432.000	34.18	9.75	35.26	30.20	38.87	54.00	15.13	Average
2	5460.000	34.23	9.76	35.25	29.75	38.49	54.00	15.51	Average
3	5715.000	34.39	9.88	35.12	31.90	41.05	54.00	12.95	Average
4	5725.000	34.39	9.89	35.12	40.02	49.18	54.00	4.82	Average
5	5750.570	34.40	9.90	35.11	81.03	90.22	54.00	-36.22	Average

Emission

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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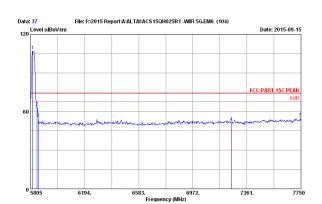
No. Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 5430.770 2 5460.000 3 5715.000 4 5725.000 5 5750.570	34.18 34.23 34.39 34.39 34.40	9.75 9.76 9.88 9.89 9.90	35.26 35.25 35.12 35.12 35.11	30.16 29.78 31.27 38.81 78.77	38.83 38.52 40.42 47.97 87.96	54.00 54.00 54.00 54.00	15.17 15.48 13.58 6.03	Average Average Average Average 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.



# AUDIX Technology (Shenzhen) Co., Ltd.

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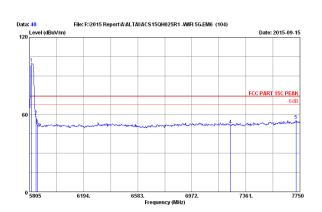


		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits		Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5820.560	34.43	9.93	35.08	97.62	106.90	74.00	-32.90	Peak
2	5850.000	34.44	9.95	35.07	53.92	63.24	74.00	10.76	Peak
3	5860.000	34.45	9.95	35.07	45.34	54.67	74.00	19.33	Peak
4	7250.000	35.91	10.74	35.50	40.27	51.42	74.00	22.58	Peak
5	7750.000	36.65	11.23	35.70	42.57	54.75	74.00	19.25	Peak

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

-Amp factor

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



No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5818.615	34.43	9.93	35.08	90.34	99.62	74.00	-25.62	Peak
2	5850.000	34.44	9.95	35.07	49.47	58.79	74.00	15.21	Peak
3	5860.000	34.45	9.95	35.07	42.47	51.80	74.00	22.20	Peak
4	7250.000	35.91	10.74	35.50	40.75	51.90	74.00	22.10	Peak
5	7720.825	36.63	11.20	35.69	43.37	55.51	74.00	18.49	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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Ant. Cable AMP

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5818.615	34.43	9.93	35.08	82.95	92.23	54.00	-38.23	Average
2	5850.000	34.44	9.95	35.07	33.99	43.31	54.00	10.69	Average
3	5860.000	34.45	9.95	35.07	30.89	40.22	54.00	13.78	Average
4	7250.000	35.91	10.74	35.50	28.77	39.92	54.00	14.08	Average
5	7720.825	36.63	11.20	35.69	29.82	41.96	54.00	12.04	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.

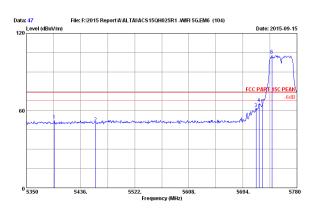
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No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	5830.285	34.43	9.94	35.08	79.60	88.89	54.00	-34.89	Average
2	5850.000	34.44	9.95	35.07	32.41	41.73	54.00	12.27	Average
3	5860.000	34.45	9.95	35.07	29.19	38.52	54.00	15.48	Average
4	7250.000	35.91	10.74	35.50	28.77	39.92	54.00	14.08	Average
5	7720.825	36.63	11.20	35.69	29.85	41.99	54.00	12.01	Average



# AUDIX Technology (Shenzhen) Co., Ltd.

Page



		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	5394.290	34.12	9.74	35.27	43.93	52.52	74.00	21.48	Peak
2	5460.000	34.23	9.76	35.25	41.84	50.58	74.00	23.42	Peak
3	5715.000	34.39	9.88	35.12	52.27	61.42	74.00	12.58	Peak
4	5719.800	34.39	9.89	35.12	56.27	65.43	74.00	8.57	Peak
5	5725.000	34.39	9.89	35.12	55.45	64.61	74.00	9.39	Peak
6	5740.010	34.40	9.90	35.11	93.60	102.79	74.00	-28.79	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.

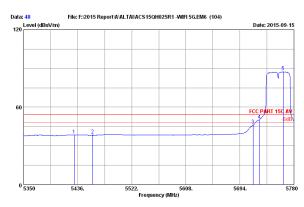
Data: 46 File: F:\2015 Report\A\ALTA\ACS150H025R1 -WIFL5G.EM6 (104) Date: 2015-09-15 0 5350 5522. Frequency (MHz)

			Ant.	Cable	AMP		Emission	n		
N	lo.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
		(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
	1	5451.910	34.22	9.76	35.25	43.16	51.89	74.00	22.11	Peak
	2	5460.000	34.23	9.76	35.25	41.61	50.35	74.00	23.65	Peak
	3	5715.000	34.39	9.88	35.12	50.53	59.68	74.00	14.32	Peak
	4	5721.090	34.39	9.89	35.12	56.67	65.83	74.00	8.17	Peak
	5	5725.000	34.39	9.89	35.12	53.28	62.44	74.00	11.56	Peak
	6	5750.760	34.40	9.90	35.11	93.07	102.26	74.00	-28.26	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.

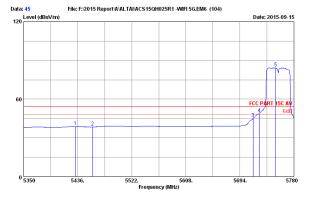


Ant. Cable AMP

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5430.410	34.18	9.75	35.26	29.92	38.59	54.00	15.41	Average
2	5460.000	34.23	9.76	35.25	29.55	38.29	54.00	15.71	Average
3	5715.000	34.39	9.88	35.12	37.04	46.19	54.00	7.81	Average
4	5725.000	34.39	9.89	35.12	40.96	50.12	54.00	3.88	Average
5	5762.800	34.41	9.91	35.10	78.32	87.54	54.00	-33.54	Average

Emission

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.



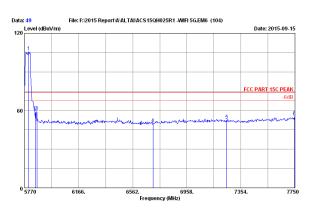
: 3m Chamber Data no. : 45 : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL : FCC PART 15C AV : 237C/544

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 2 3 4	5432.560 5460.000 5715.000 5725.000	34.18 34.23 34.39 34.39	9.75 9.76 9.88 9.89	35.26 35.25 35.12 35.12	30.15 29.75 36.02 39.75	38.82 38.49 45.17 48.91	54.00 54.00 54.00 54.00	15.18 15.51 8.83 5.09	Average Average Average Average
5	5750.760	34.40	9.90	35.11	75.17	84.36	54.00	-30.36	Average



# AUDIX Technology (Shenzhen) Co., Ltd.

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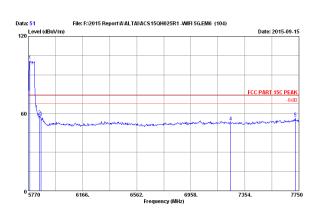


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5799.700	34.42	9.92	35.09	96.27	105.52	74.00	-31.52	Peak
2	5850.000	34.44	9.95	35.07	49.48	58.80	74.00	15.20	Peak
3	5860.000	34.45	9.95	35.07	49.68	59.01	74.00	14.99	Peak
4	6710.500	34.96	10.35	35.28	39.69	49.72	74.00	24.28	Peak
5	7250.000	35.91	10.74	35.50	41.31	52.46	74.00	21.54	Peak
6	7746.040	36.65	11.22	35.70	43.13	55.30	74.00	18.70	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.

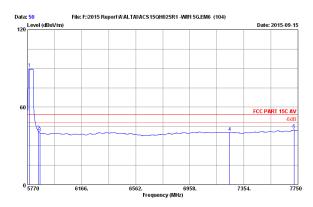


No.	Freq.	Ant. Factor	Cable Loss (dB)	factor (dB)	Reading	Level	Limits (dBuV/m)		Remark
	(HH2)			(GD)		(4547/10)	(GDGV/III)	(GD)	
1	5779.900	34.41	9.91	35.10	91.68	100.90	74.00	-26.90	Peak
2	5850.000	34.44	9.95	35.07	48.95	58.27	74.00	15.73	Peak
3	5860.000	34.45	9.95	35.07	47.49	56.82	74.00	17.18	Peak
4	7250.000	35.91	10.74	35.50	42.44	53.59	74.00	20.41	Peak
5	7724.260	36.64	11.20	35.69	44.44	56.59	74.00	17.41	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

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5783.860	34.42	9.91	35.10	80.67	89.90	54.00	-35.90	Average
2	5850.000	34.44	9.95	35.07	31.97	41.29	54.00	12.71	Average
3	5860.000	34.45	9.95	35.07	30.76	40.09	54.00	13.91	Average
4	7250.000	35.91	10.74	35.50	29.27	40.42	54.00	13.58	Average
5	7720.300	36.63	11.20	35.69	30.18	42.32	54.00	11.68	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.

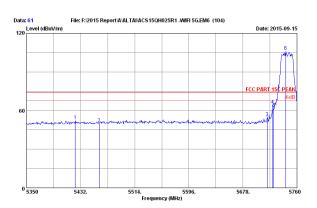
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No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5783.860	34.42	9.91	35.10	77.21	86.44	54.00	-32.44	Average
2	5850.000	34.44	9.95	35.07	31.22	40.54	54.00	13.46	Average
3	5860.000	34.45	9.95	35.07	31.24	40.57	54.00	13.43	Average
4	7250.000	35.91	10.74	35.50	29.51	40.66	54.00	13.34	Average
5	7724.260	36.64	11.20	35.69	30.42	42.57	54.00	11.43	Average



# AUDIX Technology (Shenzhen) Co., Ltd.

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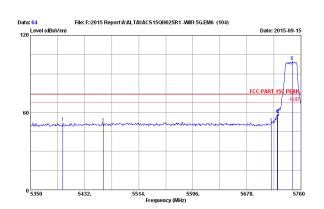


		Ant.	Cable	AMP		Emission	1		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5423.800	34.17	9.74	35.26	43.52	52.17	74.00	21.83	Peak
2	5460.000	34.23	9.76	35.25	41.21	49.95	74.00	24.05	Peak
3	5715.000	34.39	9.88	35.12	45.31	54.46	74.00	19.54	Peak
4	5723.100	34.39	9.89	35.12	55.03	64.19	74.00	9.81	Peak
5	5725.000	34.39	9.89	35.12	52.26	61.42	74.00	12.58	Peak
6	5742.780	34.40	9.90	35.11	96.79	105.98	74.00	-31.98	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.

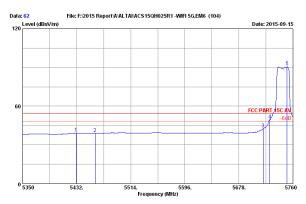


		Ant.	Cable	AMP		Emission	a		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5399.200	34.13	9.74	35.27	43.71	52.31	74.00	21.69	Peak
2	5460.000	34.23	9.76	35.25	42.56	51.30	74.00	22.70	Peak
3	5715.000	34.39	9.88	35.12	41.86	51.01	74.00	22.99	Peak
4	5723.920	34.39	9.89	35.12	49.38	58.54	74.00	15.46	Peak
5	5725.000	34.39	9.89	35.12	49.17	58.33	74.00	15.67	Peak
6	5746.880	34.40	9.90	35.11	90.42	99.61	74.00	-25.61	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

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2 3 4	5431.180 5460.000 5715.000 5725.000	34.18 34.23 34.39 34.39 34.40	9.75 9.76 9.88 9.89	35.26 35.25 35.12 35.12 35.11	30.53 29.97 33.42 40.28 81.52	39.20 38.71 42.57 49.44 90.71	54.00 54.00 54.00 54.00	14.80 15.29 11.43 4.56	Average Average Average Average

Emission

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.

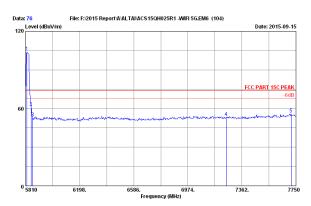
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No. Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emissior Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 5430.770 2 5460.000 3 5715.000 4 5725.000 5 5746.880	34.18 34.23 34.39 34.39 34.40	9.75 9.76 9.88 9.89 9.90	35.26 35.25 35.12 35.12 35.11	30.14 29.79 29.80 33.79 76.37	38.81 38.53 38.95 42.95 85.56	54.00 54.00 54.00 54.00	15.19 15.47 15.05 11.05	Average Average Average Average Average



# AUDIX Technology (Shenzhen) Co., Ltd.

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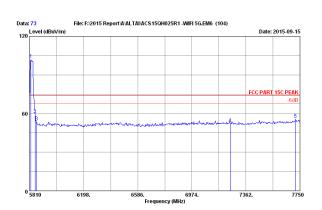


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5819.700	34.43	9.93	35.08	94.77	104.05	74.00	-30.05	Peak
2	5850.000	34.44	9.95	35.07	51.60	60.92	74.00	13.08	Peak
3	5860.000	34.45	9.95	35.07	43.53	52.86	74.00	21.14	Peak
4	7250.000	35.91	10.74	35.50	42.00	53.15	74.00	20.85	Peak
5	7715.080	36.63	11.20	35.69	43.55	55.69	74.00	18.31	Peak

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

-Amp factor

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

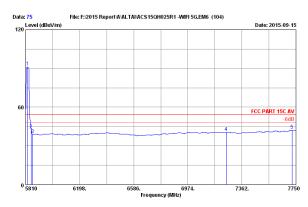


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits		Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5819.700	34.43	9.93	35.08	92.69	101.97	74.00	-27.97	Peak
2	5850.000	34.44	9.95	35.07	49.99	59.31	74.00	14.69	Peak
3	5860.000	34.45	9.95	35.07	44.31	53.64	74.00	20.36	Peak
4	7250.000	35.91	10.74	35.50	41.13	52.28	74.00	21.72	Peak
5	7717.020	36.63	11.20	35.69	43.50	55.64	74.00	18.36	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

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5823.580	34.43	9.93	35.08	81.87	91.15	54.00	-37.15	Average
2	5850.000	34.44	9.95	35.07	33.12	42.44	54.00	11.56	Average
3	5860.000	34.45	9.95	35.07	29.53	38.86	54.00	15.14	Average
4	7250.000	35.91	10.74	35.50	29.25	40.40	54.00	13.60	Average
5	7720.900	36.63	11.20	35.69	30.10	42.24	54.00	11.76	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.

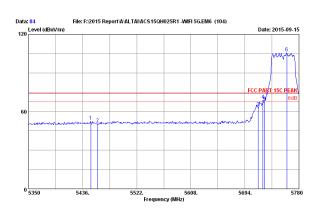
120 Level (dBuV/m) Date: 2015-09-15 FCC PART 15C AV 7362. Frequency (MHz)

: 3m Chamber Data no. : 74 : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL : FCC PART 15C AV 23 °C/541

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	5819.700	34.43	9.93	35.08	77.80	87.08	54.00	-33.08	Average
2	5850.000	34.44	9.95	35.07	31.49	40.81	54.00	13.19	Average
3	5860.000	34.45	9.95	35.07	29.83	39.16	54.00	14.84	Average
4	7250.000	35.91	10.74	35.50	29.26	40.41	54.00	13.59	Average
5	7717.020	36.63	11.20	35.69	30.11	42.25	54.00	11.75	Average

# AUDIX Technology (Shenzhen) Co., Ltd.

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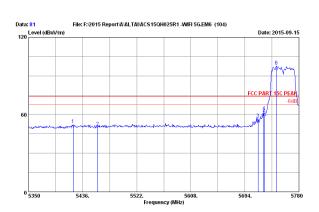


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5448.900	34.21	9.76	35.25	43.83	52.55	74.00	21.45	Peak
2	5460.000	34.23	9.76	35.25	41.71	50.45	74.00	23.55	Peak
3	5715.000	34.39	9.88	35.12	54.05	63.20	74.00	10.80	Peak
4	5722.810	34.39	9.89	35.12	59.58	68.74	74.00	5.26	Peak
5	5725.000	34.39	9.89	35.12	57.94	67.10	74.00	6.90	Peak
6	5760.650	34.41	9.91	35.11	96.35	105.56	74.00	-31.56	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.

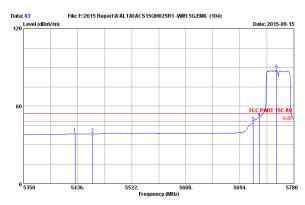


		Ant.	Cable	AMP		Emission	1		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5420.950	34.16	9.74	35.26	43.48	52.12	74.00	21.88	Peak
2	5460.000	34.23	9.76	35.25	41.53	50.27	74.00	23.73	Peak
3	5715.000	34.39	9.88	35.12	47.24	56.39	74.00	17.61	Peak
4	5724.100	34.39	9.89	35.12	52.89	62.05	74.00	11.95	Peak
5	5725.000	34.39	9.89	35.12	50.49	59.65	74.00	14.35	Peak
6	5744.310	34.40	9.90	35.11	88.39	97.58	74.00	-23.58	Peak

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

-Amp Factor

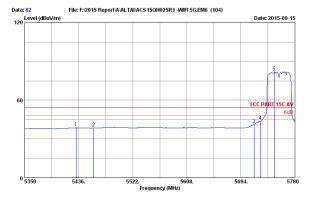
2. The emission levels that are 20dB below the official limit are not reported.



Ant. Cable AMP

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5431.700	34.18	9.75	35.26	29.96	38.63	54.00	15.37	Average
2	5460.000	34.23	9.76	35.25	29.68	38.42	54.00	15.58	Average
3	5715.000	34.39	9.88	35.12	38.30	47.45	54.00	6.55	Average
4	5725.000	34.39	9.89	35.12	41.81	50.97	54.00	3.03	Average
5	5752.050	34.40	9.90	35.11	78.88	88.07	54.00	-34.07	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. : 3m Chamber

Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : ...

Limit : FCC PART 15C AV

Env. / Ins. : 23\*C/5RT

AND

Env. / Ins. : ...

Ins. : ...

Ins. : ...

Env. / Ins. : ...

Env. / Ins. : ...

Ins. : ...

Ins. : ...

Ins. : ...

Env. / Ins. : ...

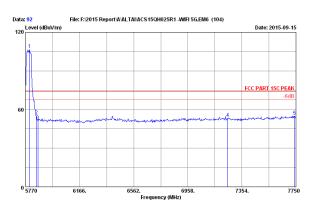
Ins. : ... : 3m Chamber Data no. : 82 : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL : FCC PART 15C AV : 237C/544

		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	5431.700	34.18	9.75	35.26	29.94	38.61	54.00	15.39	Average
2	5460.000	34.23	9.76	35.25	29.56	38.30	54.00	15.70	Average
3	5715.000	34.39	9.88	35.12	31.85	41.00	54.00	13.00	Average
4	5725.000	34.39	9.89	35.12	34.58	43.74	54.00	10.26	Average
5	5746.890	34.40	9.90	35.11	72.73	81.92	54.00	-27.92	Average



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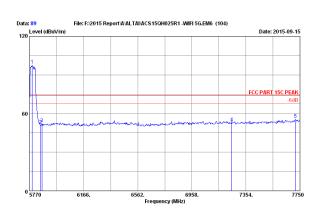


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5799.700	34.42	9.92	35.09	97.34	106.59	74.00	-32.59	Peak
2	5850.000	34.44	9.95	35.07	45.76	55.08	74.00	18.92	Peak
3	5860.000	34.45	9.95	35.07	41.93	51.26	74.00	22.74	Peak
4	7250.000	35.91	10.74	35.50	42.06	53.21	74.00	20.79	Peak
5	7740.100	36.65	11.22	35.70	42.76	54.93	74.00	19.07	Peak

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

-Amp factor

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

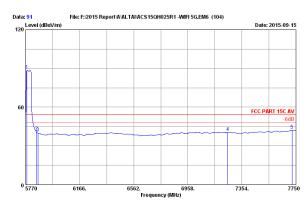


		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5789.800	34.42	9.92	35.09	88.19	97.44	74.00	-23.44	Peak
2	5850.000	34.44	9.95	35.07	41.41	50.73	74.00	23.27	Peak
3	5860.000	34.45	9.95	35.07	42.85	52.18	74.00	21.82	Peak
4	7250.000	35.91	10.74	35.50	41.72	52.87	74.00	21.13	Peak
5	7716.340	36.63	11.20	35.69	43.45	55.59	74.00	18.41	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

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5779.900	34.41	9.91	35.10	79.45	88.67	54.00	-34.67	Average
2	5850.000	34.44	9.95	35.07	31.50	40.82	54.00	13.18	Average
3	5860.000	34.45	9.95	35.07	30.66	39.99	54.00	14.01	Average
4	7250.000	35.91	10.74	35.50	29.13	40.28	54.00	13.72	Average
5	7720.300	36.63	11.20	35.69	30.01	42.15	54.00	11.85	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.

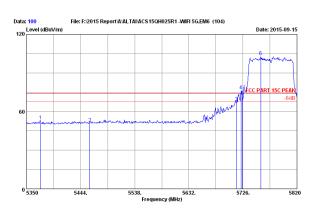
120 Level (dBuV/m) Date: 2015-09-15 FCC PART 15C AV 0 5770 7354. Frequency (MHz)

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	5799.700	34.42	9.92	35.09	72.72	81.97	54.00	-27.97	Average
2	5850.000	34.44	9.95	35.07	29.37	38.69	54.00	15.31	Average
3	5860.000	34.45	9.95	35.07	29.13	38.46	54.00	15.54	Average
4	7250.000	35.91	10.74	35.50	29.13	40.28	54.00	13.72	Average
5	7720.300	36.63	11.20	35.69	30.01	42.15	54.00	11.85	Average



# AUDIX Technology (Shenzhen) Co., Ltd.

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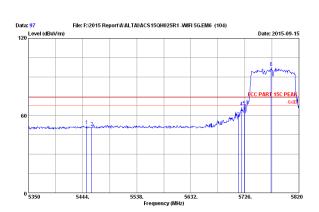


		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	5374.440	34.08	9.72	35.28	44.26	52.78	74.00	21.22	Peak
2	5460.000	34.23	9.76	35.25	42.21	50.95	74.00	23.05	Peak
3	5715.000	34.39	9.88	35.12	58.11	67.26	74.00	6.74	Peak
4	5722.710	34.39	9.89	35.12	67.18	76.34	74.00	-2.34	Peak
5	5725.000	34.39	9.89	35.12	62.68	71.84	74.00	2.16	Peak
6	5757.020	34.40	9.91	35.11	93.55	102.75	74.00	-28.75	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.

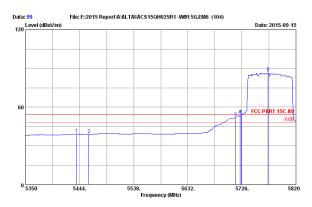


		Ant.	Cable	AMP		Emission	a		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
	5451.050	34.22	9.76	35.25	43.44	52.17	74.00	21.83	Peak
1	5451.050	34.44	9.76	35.25	43.44	52.17	74.00	21.03	reak
2	5460.000	34.23	9.76	35.25	42.07	50.81	74.00	23.19	Peak
3	5715.000	34.39	9.88	35.12	49.47	58.62	74.00	15.38	Peak
4	5720.360	34.39	9.89	35.12	57.20	66.36	74.00	7.64	Peak
5	5725.000	34.39	9.89	35.12	57.88	67.04	74.00	6.96	Peak
6	5771.590	34.41	9.91	35.10	88.07	97.29	74.00	-23.29	Peak

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

-Amp Factor

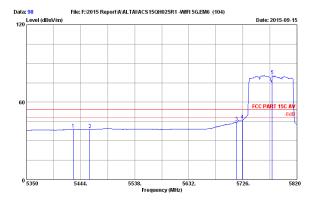
2. The emission levels that are 20dB below the official limit are not reported.



Ant. Cable AMP

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5438.360 5460.000	34.19	9.75	35.25	30.34	39.03 38.89	54.00	14.97	Average
3	5715.000	34.39	9.76 9.88	35.25 35.12	30.15 42.58	51.73	54.00 54.00	2.27	Average Average
4 5	5722.710 5725.000	34.39 34.39	9.89 9.89	35.12 35.12	44.56 44.44	53.72 53.60	54.00 54.00	0.28	Average Average
6	5771.590	34.41	9.91	35.10	77.52	86.74	54.00	-32.74	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

Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : ...

Limit : FCC PART 15C AV

Env. / Ins. : 23\*C/SEAT

Engineer : Leo-Li

EUT : Altal A8-Ein (ac) Super ViFi Base Station

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

Test Mode : IEEEBOG\_liac VHT80 5775HHz Tx

VA8011NAC

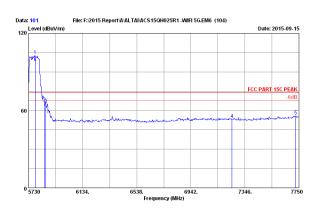
\*WD Emission

\*Town Lit : 3m Chamber Data no. : 98 : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL : FCC PART 15C AV : 237C/544

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	5431.310 5460.000	34.18	9.75 9.76	35.26 35.25	30.31	38.98 38.76	54.00 54.00	15.02 15.24	Average Average
3	5715.000	34.39	9.88	35.12	35.38	44.53	54.00	9.47	Average
4 5	5725.000 5776.760	34.39 34.41	9.89 9.91	35.12 35.10	37.04 71.32	46.20 80.54	54.00 54.00	7.80 -26.54	Average Average

# AUDIX Technology (Shenzhen) Co., Ltd.

<u>Page 5-1</u>3

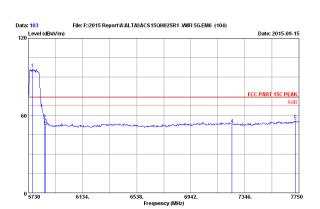


No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits		Remark
1	5780.500	34.41	9.91	35.10	93.44	102.66	74.00	-28.66	Peak
2	5850.000	34.44	9.95	35.07	56.45	65.77	74.00	8.23	Peak
3	5860.000	34.45	9.95	35.07	55.09	64.42	74.00	9.58	Peak
4	7250.000	35.91	10.74	35.50	41.92	53.07	74.00	20.93	Peak
5	7725.760	36.64	11.20	35.69	43.79	55.94	74.00	18.06	Peak

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

-Amp Factor

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



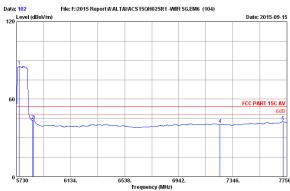
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		Remark
1	5760.300	34.41	9.91	35.11	87.00	96.21	74.00	-22.21	Peak
2	5850.000	34.44	9.95	35.07	47.32	56.64	74.00	17.36	Peak
3	5860.000	34.45	9.95	35.07	43.84	53.17	74.00	20.83	Peak
4	7250.000	35.91	10.74	35.50	42.11	53.26	74.00	20.74	Peak
5	7723.740	36.64	11.20	35.69	43.73	55.88	74.00	18.12	Peak

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

Data: 104

-Amp Factor

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



No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
3 4	5750.200 5850.000 5860.000 7250.000	34.40 34.44 34.45 35.91 36.63	9.90 9.95 9.95 10.74	35.11 35.07 35.07 35.50 35.69	76.46 34.08 33.86 29.38 30.28	85.65 43.40 43.19 40.53 42.42	54.00 54.00 54.00 54.00	-31.65 10.60 10.81 13.47 11.58	Average Average Average Average 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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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	5756.260	34.40	9.91	35.11	71.24	80.44	54.00	-26.44	Average
2	5850.000	34.44	9.95	35.07	29.66	38.98	54.00	15.02	Average
3	5860.000	34.45	9.95	35.07	29.49	38.82	54.00	15.18	Average
4	7250.000	35.91	10.74	35.50	29.34	40.49	54.00	13.51	Average
5	7719.700	36.63	11.20	35.69	30.27	42.41	54.00	11.59	Average

FCC ID:UCC-WA8011NAC 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	N9030A	MY51380221	Oct. 29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,15	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,15	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 Page 6-2

## 6dB bandwidth

EUT: Altai A8-Ein (ac) Super WiFi Base Station					
M/N: WA8011NAC					
Test date: 2015-09-29	Pressure: 101.2±1.0kpa	Humidity:52.9±3.0%			
Tested by: Leo-Li  Test site: RF site  Temperature:22.8±0.6 ℃					

Test Mode	Frequency		ndwidth Hz)	Limit	
1 650 1110 40	(MHz)	ANT 0	ANT 1	(KHz)	
	5745	16.45	16.46	≥500	
11a	5785	16.42	16.46	≥500	
	5825	16.44	16.41	≥500	
	5745	17.67	17.71	≥500	
11n HT20	5785	17.71	17.71	≥500	
	5825	17.66	17.66	≥500	
11n HT40	5755	35.07	37.07	≥500	
1111 11140	5795	35.88	35.13	≥500	
	5745	17.73	17.67	≥500	
11ac VHT20	5785	17.71	17.70	≥500	
	5825	17.64	17.66	≥500	
11ac VHT40	5755	32.59	36.71	≥500	
11ac vn140	5795	36.00	36.17	≥500	
11ac VHT80	5775	75.11	75.11	≥500	
Conclusion: PA	ASS				



FCC ID:UCC-WA8011NAC Page 6-3

## 26dB bandwidth

EUT: Altai A8-Ein (ac) Super WiFi Base Station					
M/N:WA8011NAC					
Test date: 2015-09-29	Pressure: 101.2±1.0kpa	Humidity:52.9±3.0%			
Tested by: Leo-Li  Test site: RF site  Temperature:22.8±0.6 ℃					

Test Mode	Frequency		ndwidth Hz)	Limit			
1 600 1110 40	(MHz)	ANT 0	ANT 1	(KHz)			
	5745	19.07	18.87	N/A			
11a	5785	19.23	19.16	N/A			
	5825	18.54	18.46	N/A			
	5745	20.99	20.99	N/A			
11n HT20	5785	20.70	20.69	N/A			
	5825	21.17	21.19	N/A			
11n HT40	5755	39.33	39.24	N/A			
1111 П140	5795	40.26	38.99	N/A			
	5745	20.96	20.97	N/A			
11ac VHT20	5785	20.42	20.72	N/A			
	5825	21.06	21.17	N/A			
11ac VHT40	5755	39.41	39.80	N/A			
11ac vn140	5795	47.80	38.99	N/A			
11ac VHT80	5775	93.45	99.85	N/A			
Conclusion: PA	Conclusion: PASS						

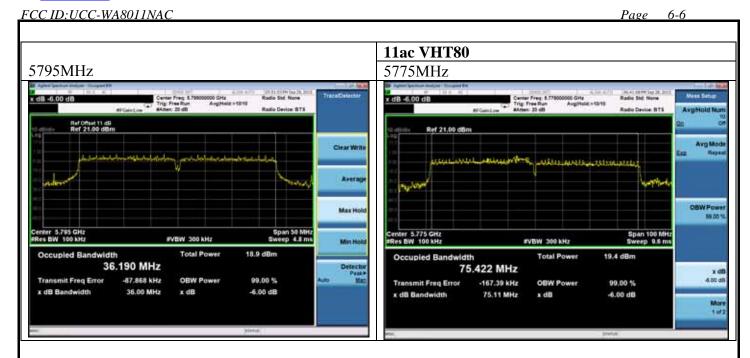


FCC ID:UCC-WA8011NAC 6dB bandwidth ANT 0 11a 11n HT20 5745MHz 5745MHz OBW Powe enter 5.745 GHz Res BW 100 kHz enter 5.745 GHz Res BW 100 kHz FVBW 300 kHz FVBW 300 kHz 18.9 dBm 17.670 MHz 16.402 MHz -64.978 kHz -51.768 kHz Transmit Freq Error 99.00 % Transmit Freq Error 99.00 % **OBW Power OBW Power** 17.67 MHz 16.45 MHz -6.00 dB -6.00 dB x dB Bandwidth x dB x dB Bandwidth x dB 5785MHz 5785MHz Center Fre ter 5.785 GHz s BW 100 kHz enter 5.785 GHz Res BW 100 kHz 16.434 MHz 17.665 MHz -73.329 kHz 99.00 % -85.795 kHz 99.00 % Transmit Freg Error **OBW Power** Transmit Freq Error **OBW Power** 16.42 MHz 17.71 MHz x dB Bandwidth x dB -6.00 dB x dB Bandwidth x dB -6.00 dB 5825MHz 5825MHz x dB -6.00 dB Center Free Max Hol enter 5,825 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz FVBW 300 kHz FVBW 300 kHz 17.680 MHz 16.421 MHz -57.074 kHz 99.00 % -75.985 kHz 99.00 % 17.66 MHz 16.44 MHz -6.00 dB -6.00 dB x dB x dB



FCC ID:UCC-WA8011NAC 11n HT40 5755MHz 5785MHz x dB -6.00 dB x dB -6,00 dB Ref Offset 11 dB Ref 21,00 dBm Max Hol Occupied Bandwidth Occupied Bandwidth 17.664 MHz 36.115 MHz -85.807 kHz 35.07 MHz 17.71 MHz x dB 5825MHz 5795MHz Ref Offset 11 dB Ref 21,00 dBm Center Freq Clear Writi Max Hol Res BW 100 kHz Span 50 MH. Sweep 4.8 m Center 5.825 GHz Res BW 100 kHz Total Power 19.0 dBm Occupied Bandwidth Occupied Bandwidth 36.755 MHz 17.676 MHz Transmit Freq Error 99.00 % 11ac VHT20 11ac VHT40 5745MHz 5755MHz Ref Offset 11 dB Ref 21,00 dBm Ref 21.00 dBm OBW Power Max Hob Center 5,745 GHz IRes BW 100 kHz Center 5.755 GHz Span 50 MH Sweep 4.8 m Occupied Bandwidth 17.666 MHz 36,083 MHz 17.73 MHz

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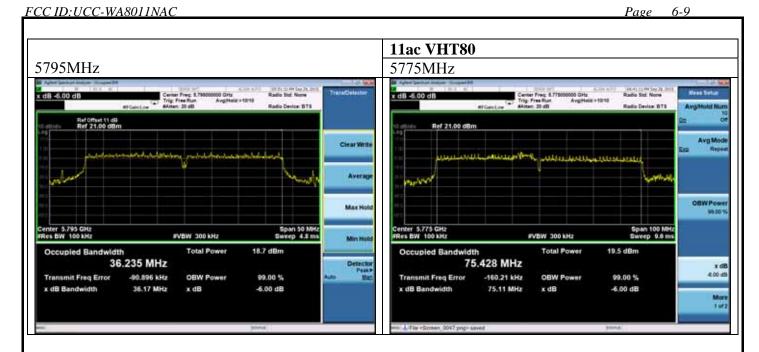


FCC ID:UCC-WA8011NAC 6dB bandwidth ANT 1 11a 11n HT20 5745MHz 5745MHz enter 5.745 GHz Res BW 100 kHz FVBW 300 kHz FVBW 300 kHz 17.670 MHz 16.401 MHz -46.032 kHz -67.815 kHz Transmit Freq Error 99.00 % Transmit Freq Error 99.00 % **OBW Power OBW Power** 17.71 MHz 16.46 MHz -6.00 dB -6.00 dB x dB Bandwidth x dB x dB Bandwidth x dB 5785MHz 5785MHz Center Fre ter 5.785 GHz s BW 100 kHz enter 5.785 GHz Res BW 100 kHz 16.441 MHz 17.666 MHz -77.865 kHz 99.00 % -85.733 kHz 99.00 % Transmit Freg Error **OBW Power** Transmit Freq Error **OBW Power** 16.46 MHz -6.00 dB 17.71 MHz x dB Bandwidth x dB x dB Bandwidth x dB -6.00 dB 5825MHz 5825MHz x dB -6.00 dB Center Free OBW Powe enter 5,825 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz FVBW 300 kHz FVBW 300 kHz Occupied Bandwidth 16.410 MHz 17.681 MHz -55.350 kHz 99.00 % -78.318 kHz 99.00 % 16.41 MHz 17.66 MHz -6.00 dB -6.00 dB x dB x dB



FCC ID:UCC-WA8011NAC 11n HT40 5755MHz 5785MHz x dB -6.00 dB x dB -6,00 dB Ref 21.00 dBm Max Hol Occupied Bandwidth Occupied Bandwidth 17.655 MHz 36.791 MHz -371.76 kHz 37.07 MHz 17.70 MHz x dB 5825MHz 5795MHz Ref Offset 11 dB Ref 21,00 dBm Ref 21,00 dBm Center Freq Clear Writi Max Hol Center 5.795 GHz Res BW 100 kHz Span 50 MH Sweep 4.8 m Center 5.825 GHz Res BW 100 kHz Total Power Occupied Bandwidth Occupied Bandwidth 36.192 MHz 17.678 MHz Transmit Freq Error -90.133 kHz 99.00 % -78.567 kHz 11ac VHT20 **11ac VHT40** 5745MHz 5755MHz Ref 21.00 dBm Ref 21.00 dBm Max Hol Max Hob Center 5.745 GHz Res BW 100 kHz Center 5,755 GHz Res BW 100 kHz Span 50 MH Sweep 4.8 m 17.670 MHz 36,605 MHz 17.67 MHz

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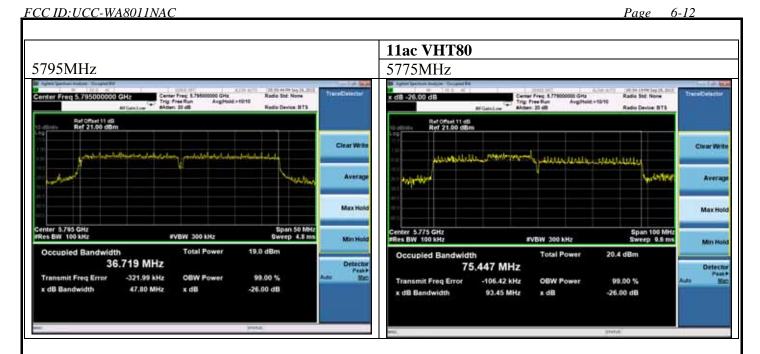


Page 6-10 FCC ID:UCC-WA8011NAC 26dB bandwidth ANT 0 11a 11n HT20 5745MHz 5745MHz Center Free enter 5.745 GHz Res BW 100 kHz enter 5.745 GH FVBW 300 kHz FVBW 300 kHz 17.671 MHz 16.415 MHz -61,155 kHz -54.760 kHz Transmit Freq Error 99.00 % Transmit Freq Error 99.00 % **OBW Power OBW Power** 19.07 MHz 20.99 MHz -26.00 dB -26.00 dB x dB Bandwidth x dB x dB Bandwidth x dB 5785MHz 5785MHz Max Hol Max Hob ter 5.785 GHz s BW 100 kHz enter 5.785 GHz Res BW 100 kHz 16.433 MHz 17.641 MHz -83.897 kHz 99.00 % -80.165 kHz 99.00 % Transmit Freg Error **OBW Power** Transmit Freq Error **OBW Power** 19.23 MHz 20.70 MHz x dB Bandwidth x dB -26.00 dB x dB Bandwidth x dB -26.00 dB 5825MHz 5825MHz x dB -26.00 dB Max Hol enter 5,825 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz Span 30 MHz Sweep 2,933 ms FVBW 300 kHz FVBW 300 kHz Occupied Bandwidth 16.405 MHz 17.676 MHz -56.923 kHz 99.00 % -77.025 kHz 99.00 % 18.54 MHz -26.00 dB 21.17 MHz -26.00 dB x dB x dB



FCC ID:UCC-WA8011NAC 11n HT40 5755MHz 5785MHz enter Freq 5.785000000 GHz Ref Offset 11 dB Ref 21,00 dBm Max Hol Max Hob Occupied Bandwidth Occupied Bandwidth 36.123 MHz 17.632 MHz -92.792 kHz -79.774 kHz 39.33 MHz 20.42 MHz x dB 5825MHz 5795MHz Ref Offset 11 dB Ref 21,00 dBm Ref 21,00 dBm Clear Writi Clear Writi Max Hol Max Hob Center 5.795 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz Span 50 MH Sweep 4.8 m Total Power 19.5 dBm Occupied Bandwidth Occupied Bandwidth 36.174 MHz 17.684 MHz Transmit Freq Error 99.00 % -74.244 kHz 11ac VHT20 11ac VHT40 5745MHz 5755MHz Ref Offset 11 dB Ref 21,00 dBm Ref 21.00 dBm Center 5.745 GHz #Res BW 100 kHz Center 5.755 GHz Span 50 MH Sweep 4.8 m Span 30 MH. Sweep 2.933 m Last Spa 17.671 MHz 36,539 MHz 20.96 MHz -26.00 dB -26.00 dB

# AUDIX Technology (Shenzhen) Co., Ltd.





Page 6-13 FCC ID:UCC-WA8011NAC 26dB bandwidth ANT 1 11a 11n HT20 5745MHz 5745MHz enter 5.745 GHz Res BW 100 kHz enter 5.745 GHz Res BW 100 kHz FVBW 300 kHz FVBW 300 kHz 17.672 MHz 16.411 MHz -55.153 kHz -61.093 kHz Transmit Freq Error 99.00 % Transmit Freq Error 99.00 % **OBW Power OBW Power** 20.99 MHz 18.87 MHz -26.00 dB -26.00 dB x dB Bandwidth x dB x dB Bandwidth x dB 5785MHz 5785MHz Max Hol Max Hob ter 5.785 GHz s BW 100 kHz enter 5.785 GHz Res BW 100 kHz 16.435 MHz 17.637 MHz -85.342 kHz 99.00 % -79.002 kHz 99.00 % Transmit Freg Error **OBW Power** Transmit Freq Error **OBW Power** 19.16 MHz 20.69 MHz x dB Bandwidth x dB -26.00 dB x dB Bandwidth x dB -26.00 dB 5825MHz 5825MHz x dB -26.00 dB Max Hol Max Hob enter 5,825 GHz Res BW 100 kHz Center 5.825 GHz Res BW 100 kHz FVBW 300 kHz FVBW 300 kHz Occupied Bandwidth 16.400 MHz 17.689 MHz -56.286 kHz 99.00 % -73.954 kHz 99.00 % 18.46 MHz 21.19 MHz -26.00 dB -26.00 dB x dB x dB



11n HT40 5755MHz 5785MHz x dB -26.00 dB enter Freq 5.785000000 GHz Ref Offset 11 dB Ref 21,00 dBm Max Hol Max Hob Occupied Bandwidth Occupied Bandwidth 17.645 MHz 36,093 MHz -81.215 kHz 39.24 MHz 20.72 MHz x dB -26.00 dB 5825MHz 5795MHz Radio Device BTS Ref 21,00 dBm OBW Powe Center 5.795 GHz Res BW 100 kHz Center 5.825 GHz #Res BW 100 kHz Span 30 MH. Sweep 2,933 m Span 60 MH. Sweep 5.8 m Total Power Occupied Bandwidth Occupied Bandwidth 36.717 MHz 17.676 MHz Transmit Freq Error -387.85 kHz 99.00 % Transmit Freq Error -77.659 kHz OBW Power 11ac VHT20 **11ac VHT40** 5745MHz 5755MHz Ref Offset 11 dB Ref 21,00 dBm Ref 21.00 dBm Max Hob Center 5.745 GHz Res BW 100 kHz Center 5.755 GHz Span 50 MH Sweep 4.8 m Span 30 MH. Sweep 2.933 m Last Spa 17.678 MHz 36,116 MHz -62.741 kHz 20.97 MHz

# AUDIX Technology (Shenzhen) Co., Ltd.

Page 6-15 FCC ID:UCC-WA8011NAC **11ac VHT80** 5775MHz 5795MHz x d8 -26.00 d8 x dB -26.00 dB Ref Offset 11 dB Ref 21,00 dBm والمال والمتعادي والطوال المتلفي والمتمانية Max Hob Occupied Bandwidth 36.712 MHz 75.699 MHz -387.11 kHz 99.00 % -85.887 kHz 99.00 % -26.00 dB -26.00 dB

FCC ID: UCC-WA8011NAC Page 7-1

### 7. OUTPUT POWER TEST

## 7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr.28, 15	1Year
3.	Power sensor	Anritsu	MA2491A	0033005	Apr.28, 15	1Year
4.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28, 15	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr.28, 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  $\geq 2$  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 Page 7-2

## 7.4. Test Results

EUT: Altai A8-Ein (ac) Super WiFi Base Station				
M/N:WA8011NAC				
Test date: 2015-09-28	Pressure: 101.3±1.0 kpa	Humidity:53.8±3.0%		
Tested by: Leo-Li  Test site: RF site  Temperature:23.2±0.6 ℃				

Test Mode	Frequency	Maximum	Limit		
	(MHz)	ANT 0	ANT 1	Total	(dBm)
	5745	10.48	10.64	13.57	16
11a	5785	10.82	10.73	13.79	16
	5825	10.86	10.98	13.93	16
1.1	5745	11.19	11.08	14.15	13
11n HT20	5785	11.12	11.16	14.15	13
П120	5825	10.85	10.95	13.91	13
11n	5755	11.03	11.01	14.03	13
HT40	5795	11.56	11.57	14.58	13
1.1	5745	11.22	11.07	14.16	13
11ac VHT20	5785	11.07	10.96	14.03	13
V11120	5825	11.06	11.01	14.05	13
11ac VHT40	5755	10.99	11.07	14.04	13
	5795	11.66	11.60	14.64	13
11ac VHT80	5775	8.30	8.34	11.33	13
Conclusion: P.	ASS	_			

Note: (1)11a Mode:

Directional Dain=  $G_{ANT}$ + Array Gain =20dBi+0dBi =20dBi>6dBi

(2)11n /ac Mode:

Directional Dain= G<sub>ANT</sub>+ Array Gain =20dBi+ (10log2)dBi =23dBi>6dBi



*Page* 7-3 FCC ID:UCC-WA8011NAC ANT 0 11n HT40 5755MHz 5795MHz Ref 21.00 dBn **Channel Power Power Spectral Density** Channel Power **Power Spectral Density** 11.03 dBm / 37 MHz -64.65 dBm /Hz 11.66 dBm / 37 MHz -64.02 dBm /Hz 11ac VHT80 5795MHz 5775MHz Ref 21.00 dBm Ref 21,00 dBm Center Free Channel Power **Power Spectral Density** Channel Power **Power Spectral Density** 11.56 dBm / 37 MHz -64.12 dBm /Hz 8.30 dBm / 78 MHz -70.62 dBm /Hz 11acVHT40 5755MHz Ref 21,00 dBm Center Free Center 5.755 GHz #Res BW 1 MHz Channel Power Power Spectral Density -64,69 dBm /Hz 10.99 dBm / 37 MHz

Page 7-4



FCC ID:UCC-WA8011NAC ANT 1 11n HT40 5755MHz 5795MHz Ref 21.00 dBm **Channel Power Power Spectral Density Channel Power Power Spectral Density** 11.01 dBm / 37 MHz -64.68 dBm /Hz 11.60 dBm / 37 MHz -64.08 dBm /Hz 11ac VHT80 5795MHz 5775MHz Ref 21.00 dBm Ref 21,00 dBm Center Free Channel Power **Power Spectral Density** Channel Power **Power Spectral Density** 11.57 dBm / 37 MHz -64.11 dBm /Hz 8.34 dBm / 78 MHz -70.58 dBm /Hz **11acVHT40** 5755MHz Ref Offset 11 dB Ref 21.00 dBm Center Free Center 5.755 GHz #Res BW 1 MHz Channel Power Power Spectral Density -64.61 dBm /Hz 11.07 dBm / 37 MHz

FCC ID: UCC-WA8011NAC Page 8-1

## 8. SPECTRAL DENSITY TEST

## 8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28, 15	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr.28, 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.



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# 8.4. Test Results

EUT: Altai A8-Ein (ac) Super WiFi Base Station					
M/N: WA8011NAC					
Test date: 2015-09-29	Pressure: 101.3±1.0 kpa	Humidity:53.8±3.0%			
Tested by: Leo-Li	Test site: RF site	Temperature:23.2±0.6 °C			

Test Mode	Frequency (MHz)	Power density (dBm/500KHz)			Limit (dBm/500KHz)
		ANT 0	ANT 1	Total	
	5745	-1.237	-0.275	2.28	13
11a	5785	-2.054	-2.300	0.84	13
	5825	-0.576	-1.073	2.19	13
	5745	-1.245	-2.233	1.30	13
11n HT20	5785	-1.944	-2.468	0.81	13
	5825	-2.367	-1.088	1.33	13
11m IIT40	5755	-3.467	-3.895	-0.67	13
11n HT40	5795	-2.899	-3.036	0.04	13
	5745	-0.730	-2.307	1.56	13
11ac VHT20	5785	-1.632	-2.952	0.77	13
	5825	-2.038	-2.255	0.87	13
11ac VHT40	5755	-4.412	-5.071	-1.72	13
	5795	-2.953	-3.234	-0.08	13
11ac VHT80	5775	-9.180	-9.127	-6.14	13
Conclusion: PASS					

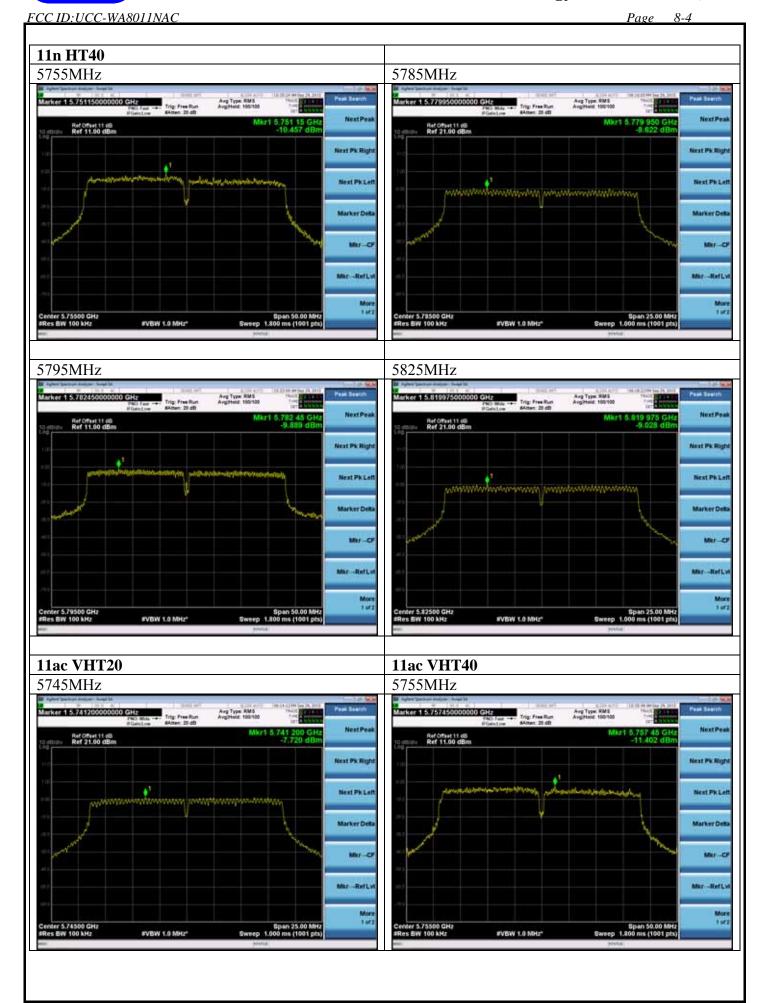
Note 1: 11a/ac/n Mode:

Directional Dain=  $G_{ANT}$ + Array Gain =20dBi+ (10log2)dBi =23dBi



FCC ID:UCC-WA8011NAC  $ANT \overline{0}$ 11a 11n HT20 5745MHz 5745MHz Marker 1 5.751150000000 GHz Aug Type: RMS Aug/Heid 100/10 Aug Type: RMS Aug/Hale: 100/10 Ref Offset 11 dB Ref 11.00 dBm Ref Offset 11 dS Ref 21.00 dBm 5785MHz 5785MHz Aug Type: RMS Aug/Heist 100:10 Aug Type: RMS Avg Held 100:10 Ref Offset 11 dS Ref 11.00 dBm Ref Offset 11 dS Ref 21.00 dBm Sandy and State of the State of 5825MHz 5825MHz arker 1 5.818700000000 GHz Aug Type: RMS Aug Heid 100 NA Aug Type: RMS Aux Heat 100/10 Ref Offset 11 dS Ref 11.00 dBm Ref 21.00 dBm Marker Det FVBW 1.0 MHZ

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IVBW 1.0 MHZ

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ANT 1 11a 11n HT20 5745MHz 5745MHz Marker 1 5.741190000000 GHz Aug Type: RMS Aug/Hald: 150/10 Aug Type: RMS Aug/Hale: 100/10 Ref Offset 11 dS Ref 11.00 dBm Ref Offset 11 dB Ref 11.00 dBm FVBW 1.0 MHz 5785MHz 5785MHz Aug Type: RMS Aug/Heist 100:10 Aug Type: RMS Avg Held 100:10 Ref Offset 11 dS Ref 11.00 dBm Ref Offset 11 dS Ref 11.00 dBm 5825MHz 5825MHz ker 1 5.821190000000 GHz arker 1 5.832410000000 GHz Aug Type: RMS Aug/Held: 100/10 Aug Type: RMS Aux Heat 100/10 .832 41 0 -8.078 d Ref 0ffeet 11 dS Ref 11.00 dBm Ref Offset 11 dS Ref 11.00 dBm FVBW 1.0 MHZ



FCC ID:UCC-WA8011NAC 11n HT40 5755MHz 5785MHz Aug Type: RMS Aug/Heid: 100/10 Aug Type: RMS Avg/Heid: 100/10 Ref 11.00 dBm Ref Offeet 11 dS Ref 11.00 dBm 5795MHz 5825MHz Aug Type: RMS Aug Heid 100/100 Ref Offset 11 dB Ref 11.00 dBm Ref Offset 11 dB Ref 11.00 dBm **11ac VHT40 11ac VHT20** 5745MHz 5755MHz Aug Type: RMS Aug Heid 100 NA Aug Type: RMS AuxiHeld: 100/100 Ref Offset 11 dS Ref 11.00 dBm 5.749 95 G -12.061 di Ref Offset 11 dS Ref 11.00 dBm

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# 9. MPE ESTIMATION

# 9.1. Limit for General Population/ Uncontrolled Exposures

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

Note: F= Frequency in MHz 9.2. Estimation Result

EUT: Altai A8-Ein (ac) Super WiFi Base Station					
M/N:WA8011NAC					
Test date: 2015-09-29	Pressure: 101.2±1.0 kpa	Humidity: 53.4±3.0%			
Tested by: Leo-Li	Test site: RF site	Temperature:23.7±0.6 °C			

Test Mode	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
	5745	13.57	22.75	20	100.00	0.4528
11a	5785	13.79	23.93	20	100.00	0.4764
	5825	13.93	24.72	20	100.00	0.4920
	5745	14.15	26.00	20	100.00	0.5175
11n HT20	5785	14.15	26.00	20	100.00	0.5175
	5825	13.91	24.60	20	100.00	0.4897
11n HT40	5755	14.03	25.29	20	100.00	0.5034
1111 П 140	5795	14.58	28.71	20	100.00	0.5714
	5745	14.16	26.06	20	100.00	0.5187
11ac VHT20	5785	14.03	25.29	20	100.00	0.5034
	5825	14.05	25.41	20	100.00	0.5058
11ac VHT40	5755	14.04	25.35	20	100.00	0.5046
	5795	14.64	29.11	20	100.00	0.5794
11ac VHT80	5775	11.33	13.58	20	100.00	0.2704

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

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# 10. ANTENNA REQUIREMENT

# 10.1. 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.

### 10.2. Antenna Connected Construction

The antennas used for this product are Panel 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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11. DEVIATION TO TEST SPECIFICATIONS	
[ NONE]	