APPLICATION FOR CERTIFICATION On Behalf of

ALTAI TECHNOLOGIES LIMITED

C1 WiFi CPE/AP

Model Number: WA1011C

FCC ID: UCC-WA1011C

Prepared for: ALTAI TECHNOLOGIES LIMITED

Unit209, 2/F, Lakeside 2, 10 Science Park West Avenue,

HK Science Park, Shatin, Hong Kong, China

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

No. 6, Ke Feng Rd., 52 Block,

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Report Number : ACS-F10021

Date of Test : Dec.23, 2009~Jan.28, 2010

Date of Report : Jan.28, 2010

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REPORT CERTIFICATION TEST

Applicant

ALTAI TECHNOLOGIES LIMITED

Manufacturer

SmartAnt Telecom Co. Ltd.

EUT Description

C1 WiFi CPE/AP

FCC ID

UCC-WA1011C

(A) MODEL NO.

: WA1011C

(B) SERIAL NO.

: N/A

(C) POWER SUPPLY: DC 12V From Adapter

(D) TEST VOLTAGE: DC 12V From Adapter Input

AC 120V/60Hz

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C 2008

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions.

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 requirements.

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.

Date of Test: Dec.23, 2009 Jan.28, 2010

Huang Prepared by: Edie Huang / Assistant

Reviewer:

Jamy Yu / Supervisor

图信華科技(深圳)有限公司 AUDIX Audix Technology (Shenzhen) Co., Ltd. EMC部門報告專用章 Stamp only for EMC Dept. Report

Len Signature: Approved & Authorized Signer:

Ken Lu / Manager

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 Test	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS			
Radiated Emission Test	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS			
Band Edge Compliance Test	FCC Part 15: 15.247	PASS			
Conducted spurious emissions test	FCC Part 15: 15.247	PASS			
6dB Bandwidth Test	FCC Part 15: 15.247	PASS			
Output Power Test	FCC Part 15: 15.247	PASS			
Power Spectral Density Test	FCC Part 15: 15.247	PASS			
Antenna requirement	FCC Part 15: 15.203	PASS			

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : C1 WiFi CPE/AP

Model Number : WA1011C

FCC ID : UCC-WA1011C

Operation Frequency : IEEE 802.11b/g: 2412MHz---2462MHz

Channel Number : IEEE 802.11b/g: 11 Channels

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

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

Output Power : IEEE 802.11b: 23.09dBm

IEEE 802.11g: 24.69dBm

Antenna and Gain : Integral PCB antenna, 10dBi gain.

Applicant : ALTAI TECHNOLOGIES LIMITED

Unit209, 2/F, Lakeside 2, 10 Science Park West Avenue,

HK Science Park, Shatin, Hong Kong, China

Manufacturer : SmartAnt Telecom Co. Ltd.

3F, No.58, Park Avenue 2nd Rd., Science-based Industrial Park, Hsinchu 30075, Taiwan, R.O.C.

Power Adapter : Manufacturer: DVE

M/N: DSA-12G-12 FUS 120120

Cable: Unshielded, Undetachable, 1.6m

Date of Test : Dec.23, 2009~Jan.28, 2010

Date of Receipt : Dec.17, 2009

Sample Type : Prototype production

2.2.Test information

The test software "art.exe" was used to control EUT work in Continuous TX mode, and select test channel, wireless mode and data rate.

Tested mode, channel	Tested mode, channel, and data rate information					
Mode	data rate (Mpbs)	Channel	Frequency (MHz)			
	1	Low:CH1	2412			
IEEE 802.11b	1	Middle: CH6	2437			
	1	High: CH11	2462			
	6	Low:CH1	2412			
IEEE 802.11g	6	Middle: CH6	2437			
	6	High: CH11	2462			

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

2.3.Date rate VS power

Mode	Data rate(Mbps)	СН	Level (dBm)
	1	CH6	23.09
11b	2	CH6	22.34
110	5.5	CH6	22.45
	11	CH6	22.12
	6	CH6	24.69
	9	CH6	24.23
	12	CH6	24.13
110	18	CH6	24.54
11g	24	CH6	24.32
	36	CH6	24.11
	48	CH6	24.20
	54	CH6	24.14

When IEEE 802.11b's data rate was 1Mbps; IEEE 802.11g's data rate was 6Mbps, the EUT have maximum output power and all the test was performed in this data rate set.

2.4. Tested Supporting System Details

2.4.1. Personal Computer

EMC CODE : Test PC M
M/N : Studio 540
S/N : 224XK2X

Manufacturer : DELL

Power cord : Unshielded, Detachabled, 1.8m

FCC ID : By DoC BSMI ID : R33002

Display Card : HD3450(VGA+DVI+HDMI)

2.4.2. Monitor

EMC CODE
 M/N
 VLCDS26064-2W
 S/N
 A210521A0131

Manufacturer : ViewSonic

Data Cable (VGA)
Shielded, Detachabled, 2.0m
Data Cable (DVI)
Shielded, Detachabled, 2.0m
Power Cord
Unshielded, Detachabled, 1.8m

FCC ID : By DoC BSMI ID : R31374

2.4.3. USB Keyboard

EMC CODE : ACS-EMC-K02R

M/N : SK-8115

S/N : CN-ORH656-65890-686-007J

Manufacturer : DELL

Data Cable : Shielded, Undetachabled, 2.0m

FCC ID : By DoC BSMI ID : T3A002

2.4.4. USB Mouse

EMC CODE : ACS-EMC-M02R

M/N : M056UO S/N : 512024264

Manufacturer : Dell

Data Cable : Shielded, Undetachabled, 1.8m

FCC ID : By DoC BSMI ID : R41108

2.4.5. Cables

LAN Cable : Unshielded, Detachable 10m

2.5. Test Facility

Site Description

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

No. 6, Ke Feng Rd., 52 Block, Shenzhen

Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

3m Anechoic Chamber : Mar.31, 2009 File on Federal

Communication Commission Registration Number: 90454

3m & 10m Anechoic Chamber : Jan. 31, 2007 File on Federal

Communication Commission Registration Number: 794232

EMC Lab. : Accredited by DATech, German

Registration Number: DAT-P-091/99-01

Feb. 02, 2009

Accredited by NVLAP, USA NVLAP Code: 200372-0

Apr. 01, 2009

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

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	2.40dB
Uncertainty for Radiation Emission test	3.82 dB (Polarize: V)
in 3m chamber	4.32 dB (Polarize: H)
Uncertainty for Output power test	0.94 dB
Uncertainty for Power density test	2.10 dB
Uncertainty for Temperature and humidity	2%
test	1℃
Uncertainty for Frequency range test	1x10 ⁻⁹
Uncertainty for Bandwidth test	$1x10^{-9}$
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and	0.6° C
humidity	3%

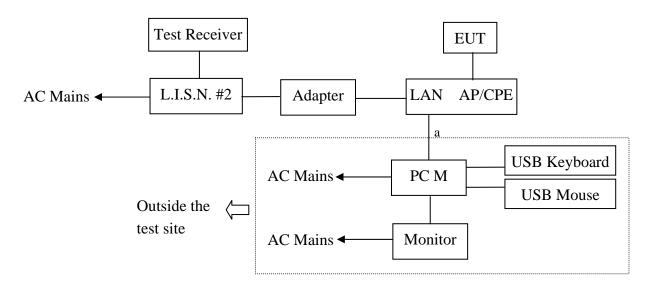
3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde & Schwarz	ESHS20	836600/006	May.08, 09	1 Year
2	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	May.08, 09	1 Year
3	Terminator	Hubersuhner	50Ω	No. 1	May.08, 09	1 Year
4	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 09	1Year
5	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 09	1 Year
6	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 09	1 Year

3.2.Block Diagram of Test Setup

3.2.1. Block diagram of connection between the EUT and simulators



a: LAN Cable 10m

(EUT: C1 WiFi CPE/AP)

3.3. Power Line Conducted Emission Test Limits

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

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

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

3.4. Configuration of EUT on Test

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

3.4.1.C1 WiFi CPE/AP (EUT)

Model Number : WA1011C Serial Number : N/A.

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 the EUT worked in test mode (Tx Mode) and measured it.

3.6.Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 2#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS20) is set at 10kHz.

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

The test result are reported on Section 3.7.,

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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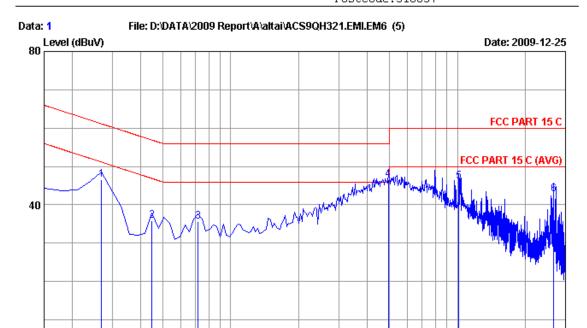
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5

10

20

30



2

Frequency (MHz)

Trace: (Discrete)

0 .15 .2

Site no : Audix No.1 Conduction Data no :1

Dis./Ant. :** 2009 KNW407 VA

Limit :FCC PART 15 C

Env./Ins. :Temp:23'C Humi:54% Engineer :Jolly_Xu

EUT :C1 WiFi CPE/AP M/N:WA1011C

.5

Power Rating :DC 12V From Adapter Input AC 120V/60Hz

Test Mode :Tx

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.26940	0.40	9.88	36.25	46.53	61.14	14.61	QP
2	0.44850	0.34	9.89	25.62	35.85	56.90	21.05	QP
3	0.71715	0.36	9.89	25.40	35.65	56.00	20.35	QP
4	4.956	0.39	9.91	36.32	46.62	56.00	9.38	QP
5	10.150	0.43	9.94	35.81	46.18	60.00	13.82	QP
6	26.597	0.67	10.04	32.03	42.74	60.00	17.26	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading 2.If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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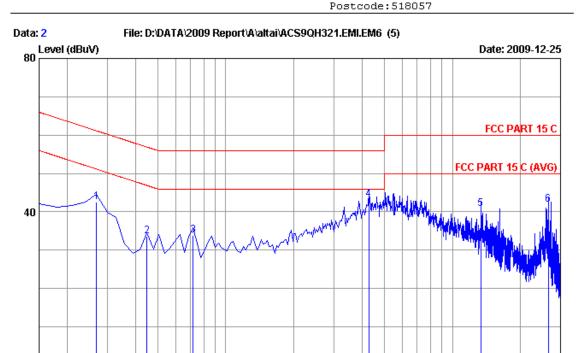
Tel:+86-755-26639495 Fax:+86-755-26632877

5

10

20

30



2

Frequency (MHz)

Trace: (Discrete)

0 .15 .2

Site no : Audix No.1 Conduction Data no :2

Dis./Ant. :** 2009 KNW407 VB

Limit :FCC PART 15 C

Env./Ins. :Temp:23'C Humi:54% Engineer :Jolly_Xu

EUT :C1 WiFi CPE/AP M/N:WA1011C

.5

Power Rating :DC 12V From Adapter Input AC 120V/60Hz

Test Mode :Tx

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.26940	0.42	9.88	32.22	42.52	61.14	18.62	QP
2	0.44850	0.35	9.89	23.31	33.55	56.90	23.35	QP
3	0.71715	0.35	9.89	23.61	33.85	56.00	22.15	QP
4	4.269	0.37	9.91	32.93	43.21	56.00	12.79	QP
5	13.374	0.47	9.96	30.25	40.68	60.00	19.32	QP
6	26.478	0.61	10.04	31.16	41.81	60.00	18.19	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading 2.If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1.Test Equipment

Frequency rang: 30~1000MHz

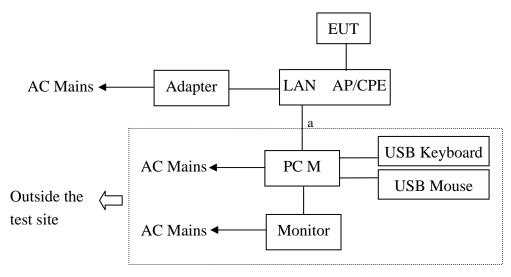
	<u> </u>					
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.05,09	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 09	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 09	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 09	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 09	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 09	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 09	1 Year

Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3	Horn Antenna	EMCO	3116	00060089	Nov.25, 09	1.5 Year
4	Amplifier	Agilent	8449B	3008A08495	Aug.04,09	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Nov.28, 09	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	Nov.28, 09	1 Year

4.2.Block Diagram of Test Setup

Block diagram of connection between the EUT and simulators

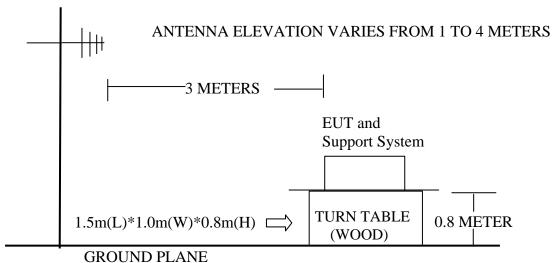


a: LAN Cable 10m

(EUT: C1 WiFi CPE/AP)

4.2.1. In Anechoic Chamber

ANTENNA TOWER



4.3. Radiated Emission Limit

4.3.1.15.209 limits

FREQUENCY	DISTANCE	FIELD STREM	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	V)/m (Peak)
		54.0 dB(μV	V)/m (Average)

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

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

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)

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

4.4.EUT Configuration on Test

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

4.4.1.C1 WiFi CPE/AP (EUT)

Model Number : WA1011C Serial Number : N/A

4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turned on the power of all equipment.
- 4.5.3. PC run test software to control the EUT worked in test mode (Tx Mode) and measured it.

4.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

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

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

4.7. Radiated Emission Test Results

PASS.

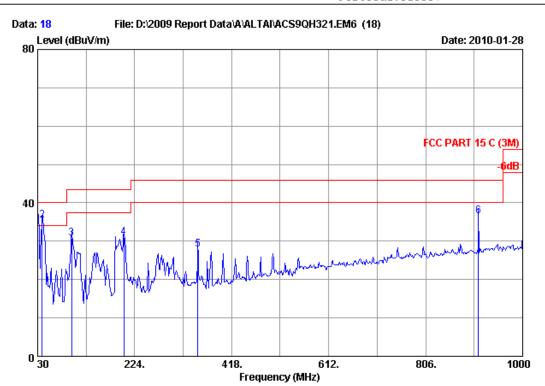
All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

Frequency: 30MHz~1GHz



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Data no. : 18

Site no. : 3m chamber
Dis. / Ant. : 3m 2009 CBL6111C Ant. pol. : HORIZONTAL

: FCC PART 15 C (3M) Limit

Env. / Ins. : 24*C/56% Engineer : Jamy

: C1 WiFI CPE/AP M/N:WA1011C Power Rating : DC12V from adapter input AC 120V/60Hz

Test Mode : Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.600	19.44	0.52	16.90	36.86	40.00	3.14	QP
2	38.900	15.04	0.58	19.90	35.52	40.00	4.48	QP
3	97.900	10.12	0.89	19.72	30.73	43.50	12.77	QP
4	202.660	10.06	1.33	19.50	30.89	43.50	12.61	QP
5	350.100	15.10	1.83	10.96	27.89	46.00	18.11	QP
6	911.730	23.17	3.22	10.09	36.48	46.00	9.52	QP

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

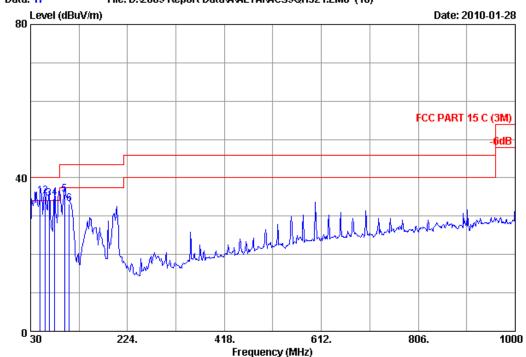
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m chamber Data no. : 17 Dis. / Ant. : 3m 2009 CBL6111C Ant. pol. : VERTICAL

Limit : FCC PART 15 C (3M) Env. / Ins. : 24*C/56%

Engineer : Jamy

: C1 WiFI CPE/AP M/N:WA1011C Power Rating : DC12V from adapter input AC 120V/60Hz

Test Mode : Tx Mode

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	49.400	9.72	0.65	24.92	35.29	40.00	4.71	QP	
2	59.100	6.22	0.70	28.34	35.26	40.00	4.74	QP	
3	66.860	6.24	0.75	27.50	34.49	40.00	5.51	QP	
4	78.500	7.63	0.80	26.35	34.78	40.00	5.22	QP	
5	97.900	10.12	0.89	24.61	35.62	43.50	7.88	QP	
6	107.600	11.20	0.93	21.17	33.30	43.50	10.20	QP	

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

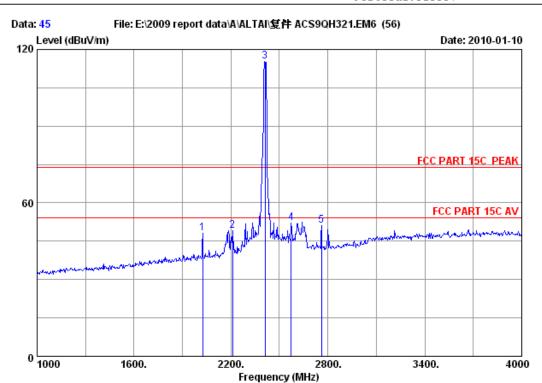
2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz



No.6 Ke Feng Road, Block 52, ShenZhen Science & Industry Park Noutou, ShenZhen, GuangDong, China Tel:+86-755-26639495-7

Fax:+86-755-26632877 Postcode:518057



Site no. : 10m Chamber Data no. : 45

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

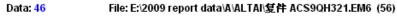
Test mode : IEEE802.11b CH1 2412MHz

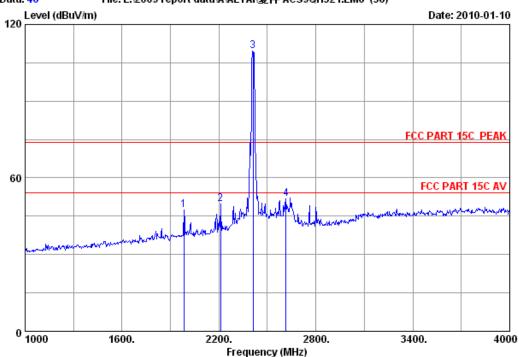
M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/r	Margin n) (dB)	Remark	
1	2026.000	29.21	7.80	47.21	48.10	74.00	25.90	Peak	
2	2209.000	29.32	8.36	47.59	49.25	74.00	24.75	Peak	
3	2412.000	29.45	8.60	113.13	115.23	74.00	-41.23	Peak	
4	2572.000	29.83	9.21	49.07	52.23	74.00	21.77	Peak	
5	2761.000	30.83	9.80	46.44	51.09	74.00	22.91	Peak	

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







Site no. : 10m Chamber Data no. : 46
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

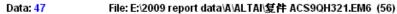
Test mode : IEEE802.11b CH1 2412MHz

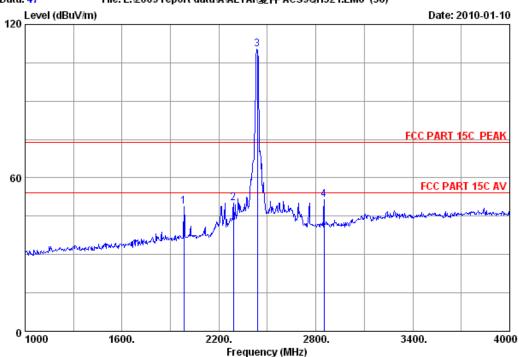
M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark	
1	1984.000	29.11	7.76	46.65	47.46	74.00	26.54	Peak	
2	2209.000	29.32	8.36	48.18	49.84	74.00	24.16	Peak	
3	2412.000	29.45	8.60	107.42	109.52	74.00	-35.52	Peak	
4	2614.000	30.08	9.04	48.81	51.87	74.00	22.13	Peak	

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







Site no. : 10m Chamber Data no. : 47
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11b CH6 2437MHz

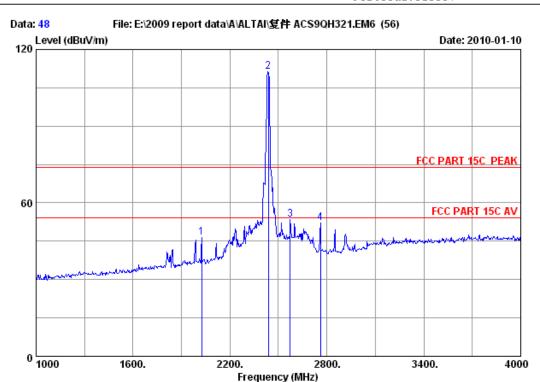
M/N : WA1011C

		Ant.	Cable		Emission				
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/r	Margin n) (dB)	Remark	
1	1984.000	29.11	7.76	47.98	48.79	74.00	25.21	Peak	
2	2290.000	29.38	8.72	48.10	50.28	74.00	23.72	Peak	
3	2437.000	29.47	8.60	108.16	110.17	74.00	-36.17	Peak	
4	2851.000	31.25	9.39	46.81	51.49	74.00	22.51	Peak	

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



Postcode:518057



Site no. : 10m Chamber Data no. : 48

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

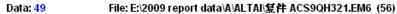
Test mode : IEEE802.11b CH6 2437MHz

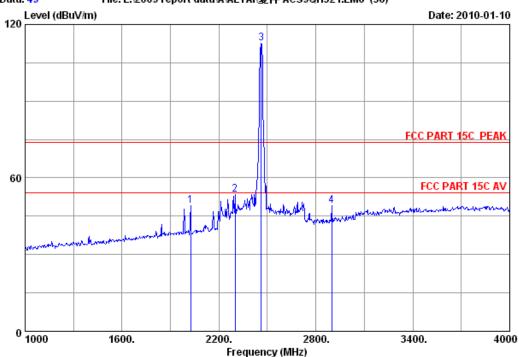
M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m	Margin n) (dB)	Remark	
1	2026.000	29.21	7.80	45.70	46.59	74.00	27.41	Peak	
2	2437.000	29.47	8.60	109.36	111.37	74.00	-37.37	Peak	
3	2572.000	29.83	9.21	50.27	53.43	74.00	20.57	Peak	
4	2761.000	30.83	9.80	47.65	52.30	74.00	21.70	Peak	

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







Site no. : 10m Chamber Data no. : 49

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz

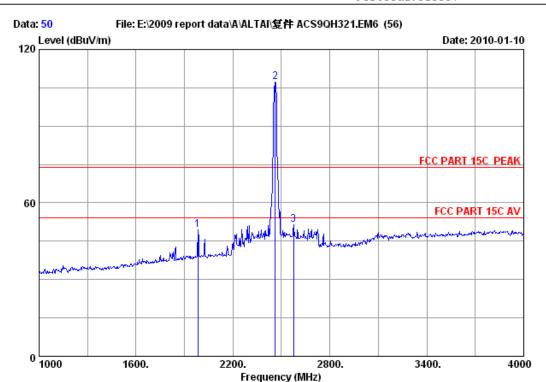
M/N : WA1011C

		Ant.	Cable		Emission				
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m	Margin) (dB)	Remark	
1	2026.000	29.21	7.80	48.09	48.98	74.00	25.02	Peak	
2	2299.000	29.38	8.71	51.34	53.51	74.00	20.49	Peak	
3	2462.000	29.48	8.76	110.37	112.59	74.00	-38.59	Peak	
4	2899.000	31.50	9.55	44.27	49.30	74.00	24.70	Peak	

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



Postcode:518057



Site no. : 10m Chamber Data no. : 50
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

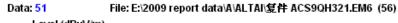
Test mode : IEEE802.11b CH11 2462MHz

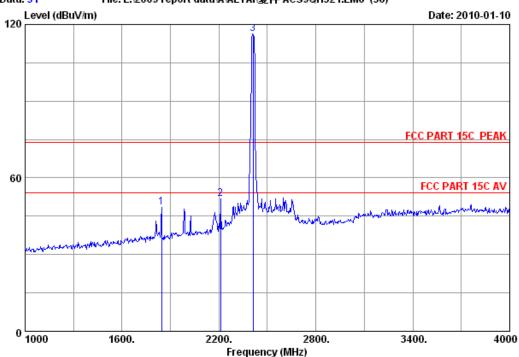
M/N : WA1011C

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/	m) (dB)	
1	1984.000	29.11	7.76	48.80	49.61	74.00	24.39	Peak
2	2462.000	29.48	8.76	105.00	107.22	74.00	-33.22	Peak
3	2575.000	29.92	9.21	48.15	51.50	74.00	22.50	Peak

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







Site no. : 10m Chamber Data no. : 51 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

: C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

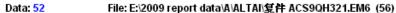
Test mode : IEEE802.11g CH1 2412MHz

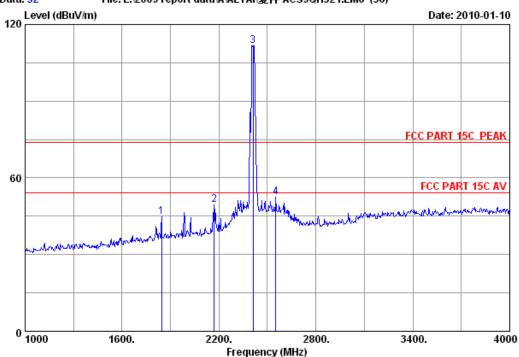
M/N : WA1011C

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m	Margin) (dB)	Remark
1 1846.000	28.36	7.52	48.68	48.33	74.00	25.67	Peak
2 2209.000	29.32	8.36	50.30	51.96	74.00	22.04	Peak
3 2412.000	29.45	8.60	114.16	116.26	74.00	-42.26	Peak

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







Site no. : 10m Chamber Data no. : 52

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

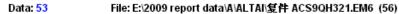
Test mode : IEEE802.11g CH1 2412MHz

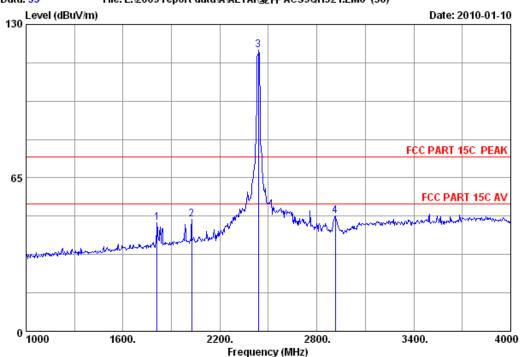
M/N : WA1011C

		Ant.	Cable		Emission				
	Freq.	Factor	Loss	_	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)		
1	1846.000	28.36	7.52	44.98	44.63	74.00	29.37	Peak	
2	2170.000	29.30	8.12	48.07	49.54	74.00	24.46	Peak	
3	2412.000	29.45	8.60	109.69	111.79	74.00	-37.79	Peak	
4	2551.000	29.75	9.22	49.58	52.62	74.00	21.38	Peak	

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







Site no. : 10m Chamber Data no. : 53
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

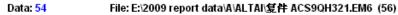
Test mode : IEEE802.11g CH6 2437MHz

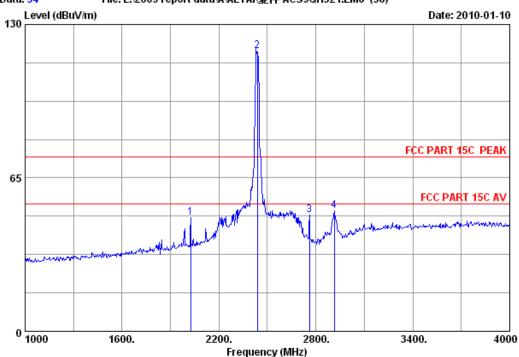
M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m	Margin) (dB)	Remark	
1 2	1810.000 2026.000	28.17 29.21	7.46 7.80	46.72 46.63	46.01 47.52	74.00 74.00	27.99 26.48	Peak Peak	
3	2437.000 2914.000	29.47 31.58	8.60 9.55	117.07 43.59	119.08 48.81		-45.08 25.19	Peak Peak	

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







Site no. : 10m Chamber Data no. : 54

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

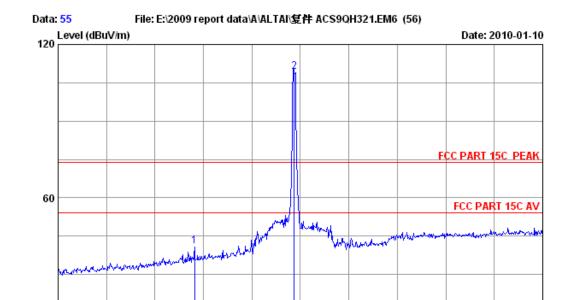
Test mode : IEEE802.11g CH6 2437MHz

M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/n	Margin	Remark	
1	2026.000	29.21	7.80	47.30	48.19	74.00	25.81	Peak	
2	2437.000	29.47	8.60	116.95	118.96	74.00	-44.96	Peak	
3	2761.000	30.83	9.80	44.70	49.35	74.00	24.65	Peak	
4	2914.000	31.58	9.55	45.71	50.93	74.00	23.07	Peak	

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





Site no. : 10m Chamber Data no. : 55

2200.

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Frequency (MHz)

2800.

3400.

4000

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP
Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C

1600.

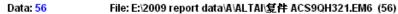
	Freq.		Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	_	Remark	
1	1846.000	28.36	7.52	41.34	40.99	74.00	33.01	Peak	
2	2462.000	29.48	8.76	107.14	109.36	74.00	-35.36	Peak	

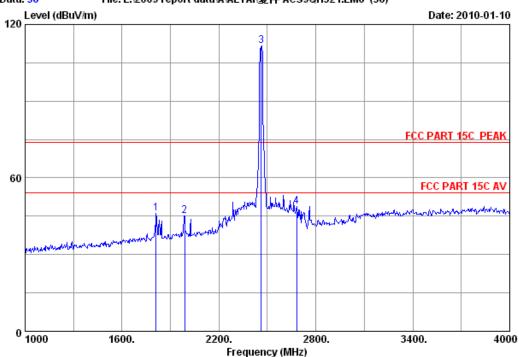
Remarks:

0 1000

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







Site no. : 10m Chamber Data no. : 56
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m	Margin	Remark	
1	1810.000	28.17	7.46	46.81	46.10	74.00	27.90	Peak	
2	1987.000	29.11	7.76	44.35	45.16	74.00	28.84	Peak	
3	2462.000	29.48	8.76	109.50	111.72	74.00	-37.72	Peak	
4	2680.000	30.42	9.21	45.21	48.93	74.00	25.07	Peak	

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

18000

15200.



0 4000

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Site no. : 10m Chamber Data no. : 29
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Frequency (MHz)

12400.

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

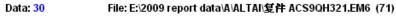
9600.

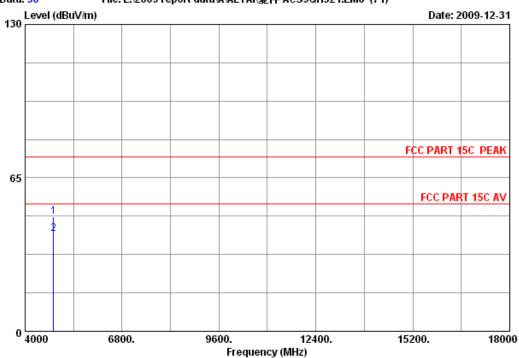
Test mode : IEEE802.11g CH1 2412MHz

M/N : WA1011C

6800.







Site no. : 10m Chamber Data no. : 30
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz

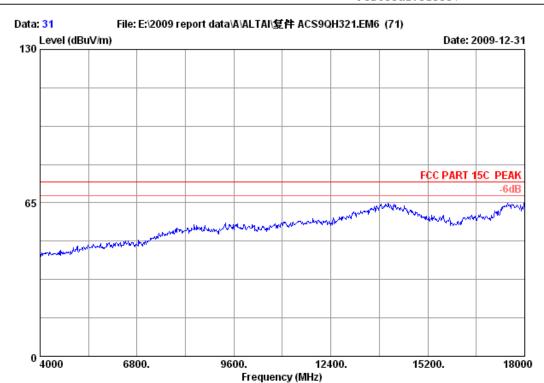
M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark
1	4824.000	34.32	12.58	36.87	48.52	74.00	25.48	Peak
	4824.000	34.32	12.58	29.72	41.37	54.00	12.63	Average

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



Postcode:518057



Site no. : 10m Chamber Data no. : 31

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

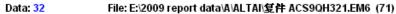
EUT : C1 WiFi CPE/AP

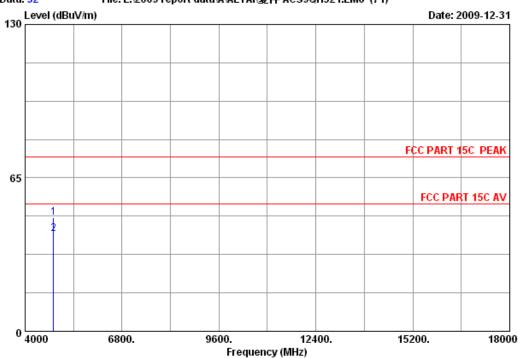
Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz

M/N : WA1011C







Site no. : 10m Chamber Data no. : 32

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

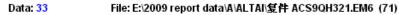
Test mode : IEEE802.11g CH1 2412MHz

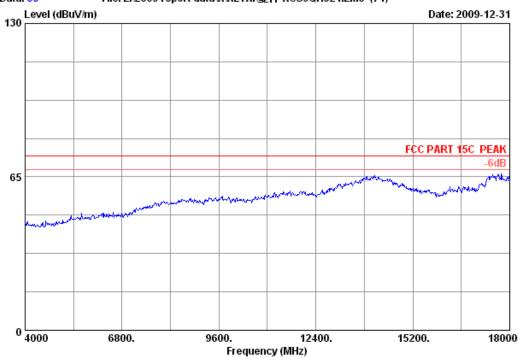
M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark
1	4824.000	34.32	12.58	36.55	48.20	74.00	25.80	Peak
2	4824.000	34.32	12.58	29.68	41.33	54.00	12.67	Average

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







Site no. : 10m Chamber Data no. : 33

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

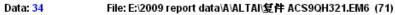
EUT : C1 WiFi CPE/AP

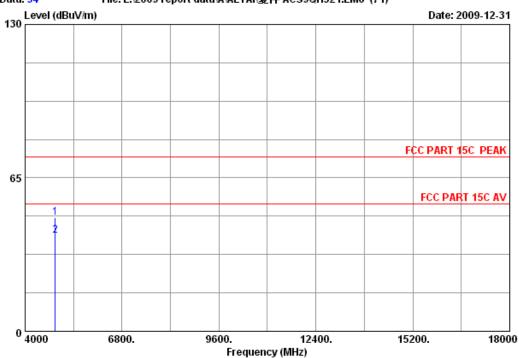
Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz

M/N : WA1011C







Site no. : 10m Chamber Data no. : 34

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

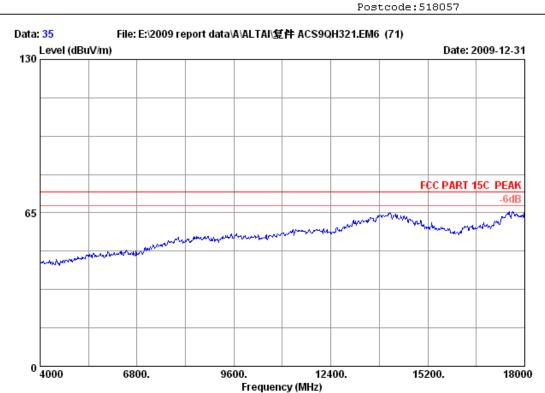
Test mode : IEEE802.11g CH6 2437MHz

M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark
1	4874.000	34.41	12.23	36.97	48.25	74.00	25.75	Peak
	4874.000	34.41	12.23	29.37	40.65	54.00	13.35	Average

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





Site no. : 10m Chamber Data no. : 35
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

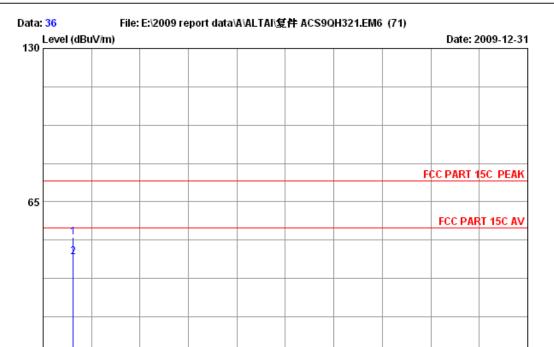
EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz

M/N : WA1011C





Site no. : 10m Chamber Data no. : 36
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

9600.

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

Frequency (MHz)

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz

M/N : WA1011C

6800.

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark
1	4874.000	34.41		38.65	49.93	74.00	24.07	Peak
2	4874.000	34.41		30.24	41.52	54.00	12.48	Average

12400.

15200.

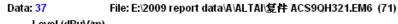
18000

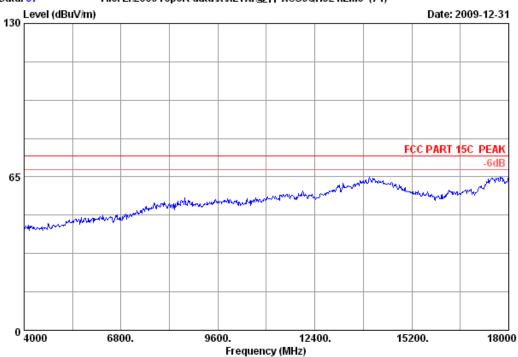
Remarks:

0 4000

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







Site no. : 10m Chamber Data no. : 37 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

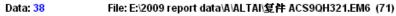
: C1 WiFi CPE/AP

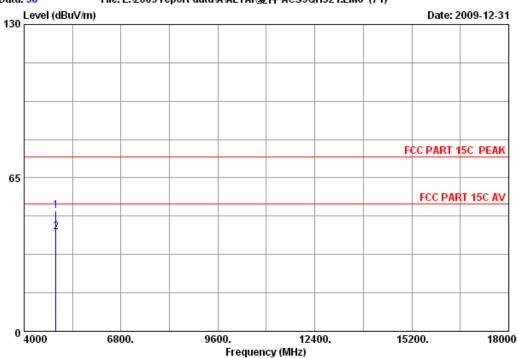
Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C







Site no. : 10m Chamber Data no. : 38
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark
1	4924.000	34.49	12.58	39.37	51.10	74.00	22.90	Peak
2	4924.000	34.49	12.58	30.28	42.01	54.00	11.99	Average

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

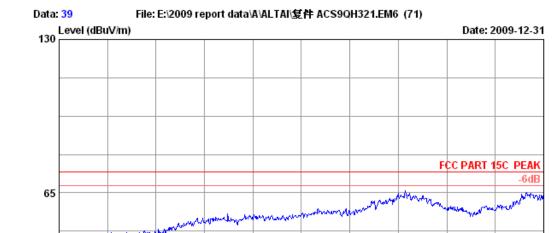
18000

15200.



0 4000

No.6 Ke Feng Road, Block 52, ShenZhen Science & Industry Park Noutou, ShenZhen, GuangDong, China Tel:+86-755-26639495-7 Fax:+86-755-26632877 Postcode:518057



Site no. : 10m Chamber Data no. : 39
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Frequency (MHz)

9600.

12400.

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

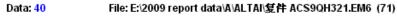
Power Rating : DC 12V From Adapter input AC 120V/60Hz

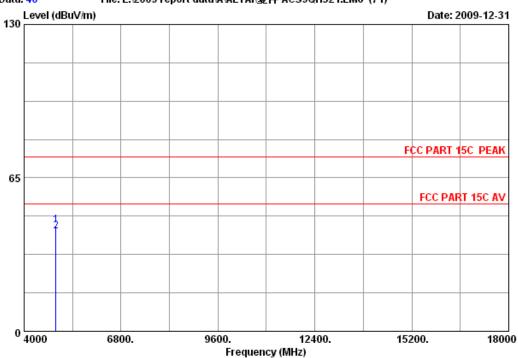
Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C

6800.







Site no. : 10m Chamber Data no. : 40

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin) (dB)	Remark
1	4924.000	34.49	12.58	33.29	45.02	74.00	28.98	Peak
	4924.000	34.49	12.58	30.81	42.54	54.00	11.46	Average

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

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 09	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08, 09	1Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

5.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz.

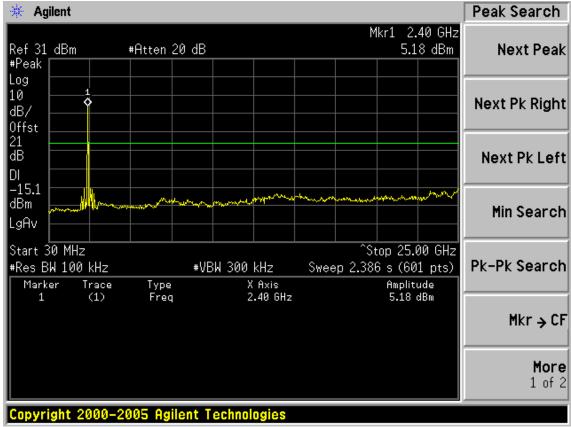
5.4. Test result

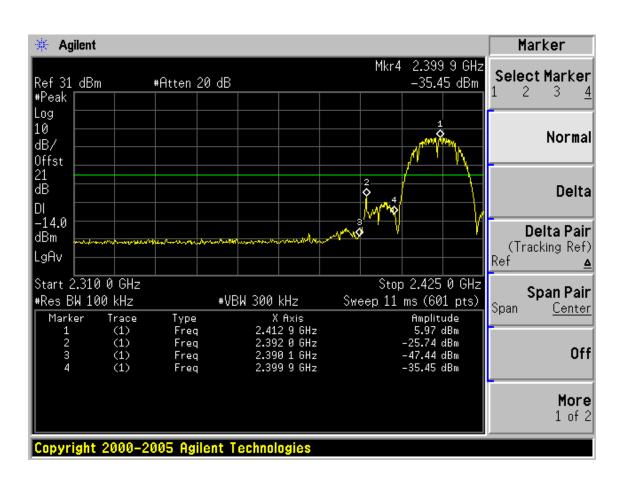
PASS (The testing data was attached in the next pages.)

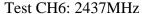
Conducted emission test data:

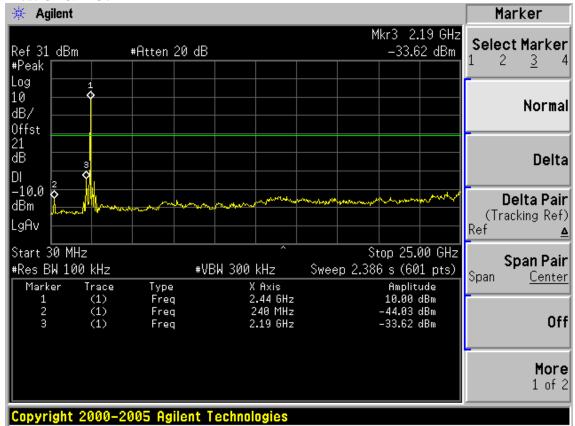
Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz

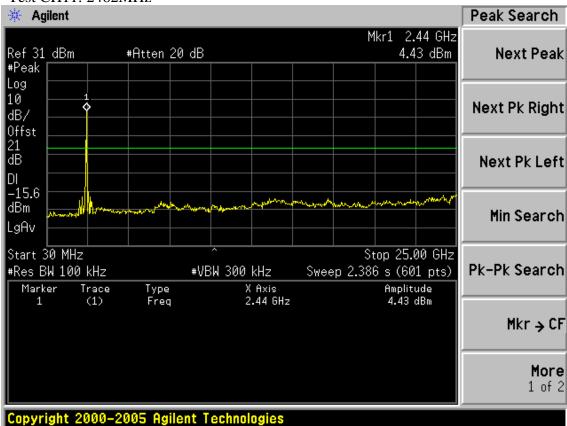


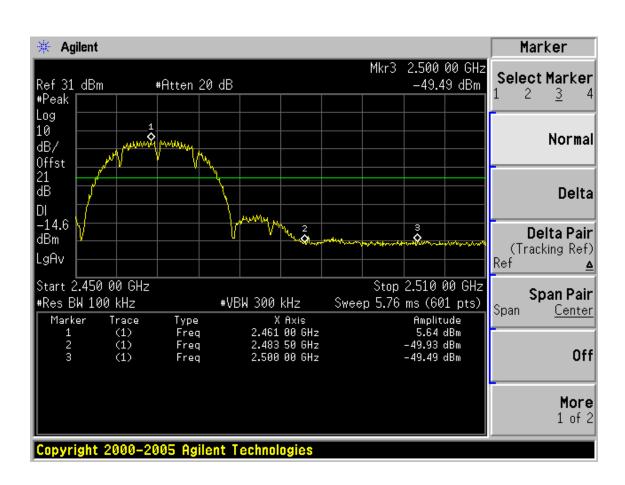




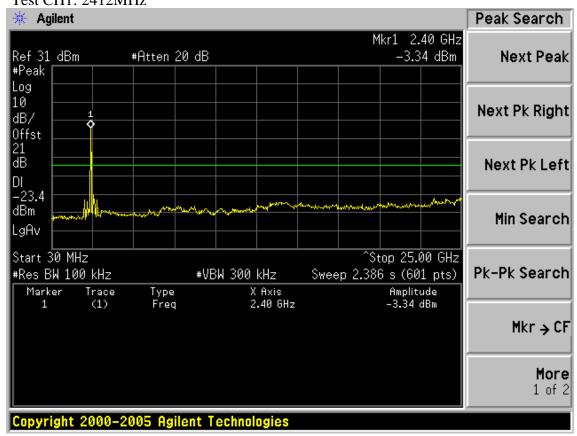


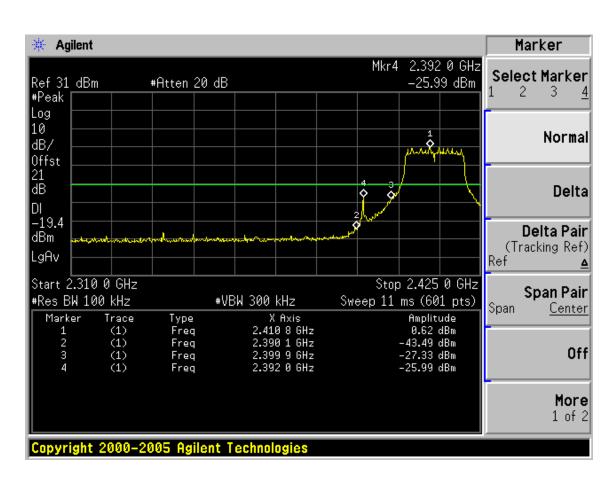
Test CH11: 2462MHz

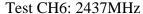


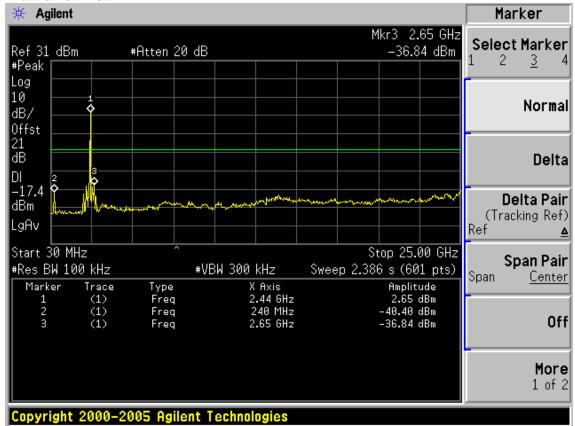


Test Mode: IEEE 802.11g TX Test CH1: 2412MHz

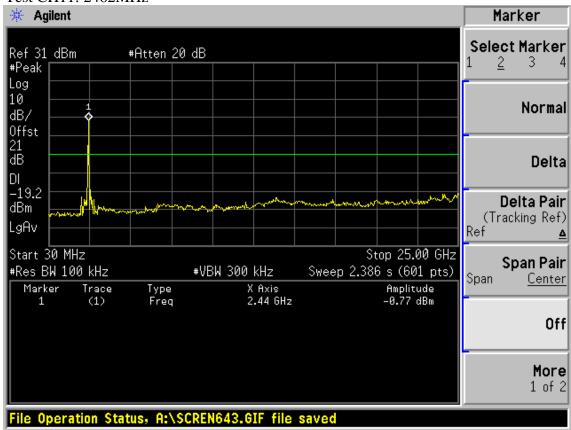


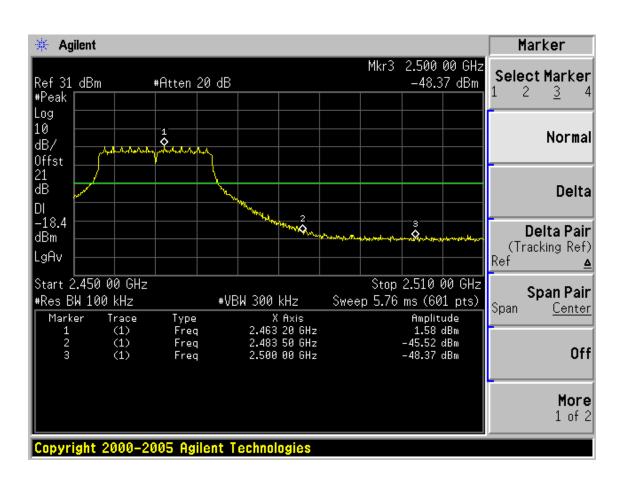






Test CH11: 2462MHz





6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 09	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May.08, 09	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX 102	271471/4	May.08, 09	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX 102	29086/2	May.08, 09	1 Year

6.2.Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

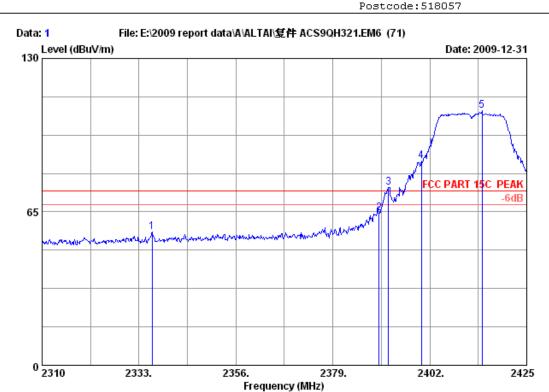
- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

6.4. Test Results

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

All the emissions outside operation frequency band were comply with 15.209 limit





Site no. : 10m Chamber Data no. : 1

Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz

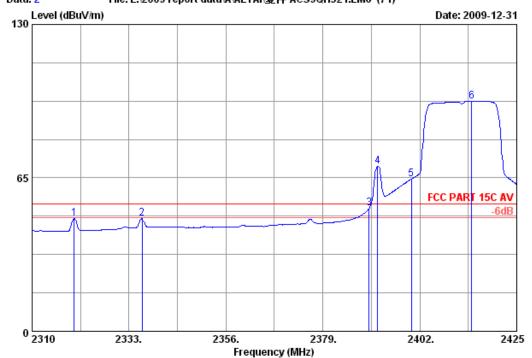
M/N : WA1011C

		Ant.	Cable		Emission				
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/r	n) (dB)		
1	2336.105	29.41	8.64	54.44	56.50	74.00	17.50	Peak	
2	2390.000	29.44	8.41	62.82	64.58	74.00	9.42	Peak	
3	2392.225	29.44	8.41	73.73	75.49	74.00	-1.49	Peak	
4	2400.000	29.44	8.60	84.60	86.55	74.00	-12.55	Peak	
5	2414.420	29.45	8.60	105.63	107.73	74.00	-33.73	Peak	

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







Site no. : 10m Chamber Data no. : 2
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

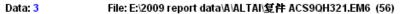
Test mode : IEEE802.11g CH1 2412MHz

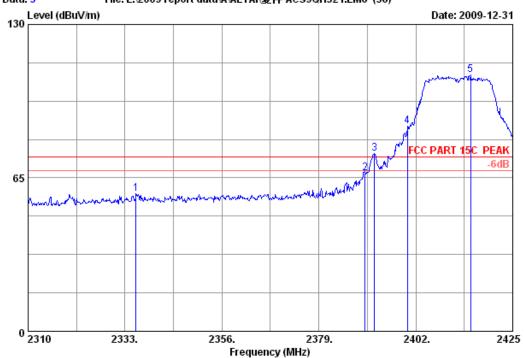
M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/n	Margin	Remark
1	2320.005	29.40	8.64	45.69	47.67	54.00	6.33	Average
2	2336.105	29.41	8.64	45.66	47.72	54.00	6.28	Average
3	2390.000	29.44	8.41	50.44	52.20	54.00	1.80	Average
4	2391.995	29.44	8.41	68.30	70.06	54.00	-16.06	Average
5	2400.000	29.44	8.60	62.61	64.56	54.00	-10.56	Average
6	2414.305	29.45	8.60	95.47	97.57	54.00	-43.57	Average

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







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

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23 *C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz

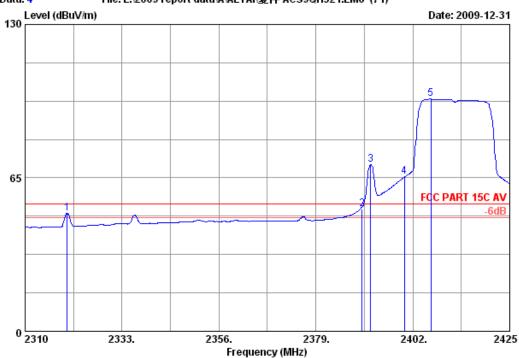
M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emissio: Level (dBuV/m)	Limits	Margin) (dB)	Remark	_
1	2335.645	29.41	8.64	35.99	56.22	58.28	74.00	15.72	Peak	
2	2390.000	29.44	8.41	36.09	65.27	67.03	74.00	6.97	Peak	
3	2392.225	29.44	8.41	36.09	73.46	75.22	74.00	-1.22	Peak	
4	2400.000	29.44	8.60	36.09	84.93	86.88	74.00	-12.88	Peak	
5	2414.995	29.45	8.60	35.95	106.46	108.56	74.00	-34.56	Peak	

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







Site no. : 10m Chamber Data no. : 4

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

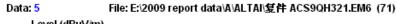
Test mode : IEEE802.11g CH1 2412MHz

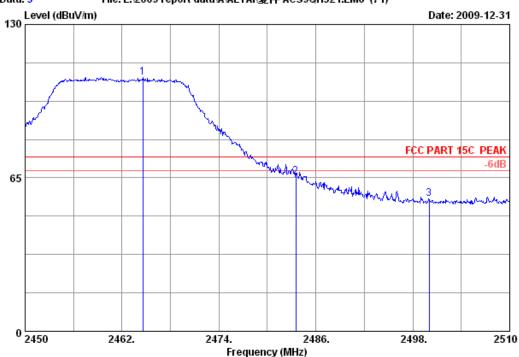
M/N : WA1011C

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/	_	Remark
1 2320.005	29.40	8.64	48.10	50.08	54.00	3.92	Average
2 2390.000	29.44	8.41	49.85	51.61	54.00	2.39	Average
3 2391.995	29.44	8.41	68.79	70.55	54.00	-16.55	Average
4 2400.000	29.44	8.60	63.52	65.47	54.00	-11.47	Average
5 2406.255	29.45	8.60	96.27	98.37	54.00	-44.37	Average

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







Site no. : 10m Chamber Data no. : 5

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

: C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

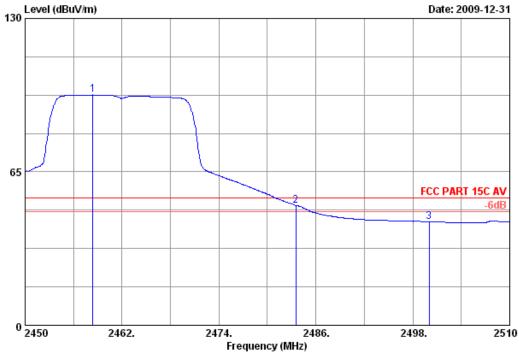
M/N : WA1011C

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	_	Remark
1 2464.580	29.48	8.76	105.46	107.68	74.00	-33.68	Peak
2 2483.500	29.49	8.94	63.08	65.54	74.00	8.46	Peak
3 2500.000	29.50	8.89	53.83	56.22	74.00	17.78	Peak

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







Site no. : 10m Chamber Data no. : 6

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

: C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz

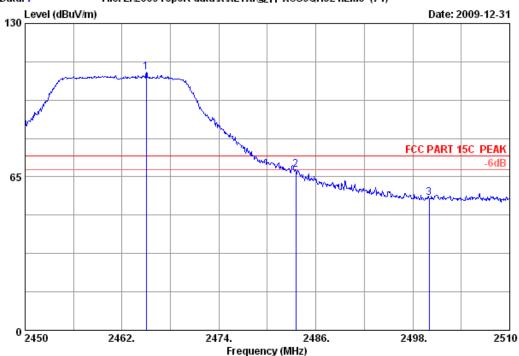
M/N : WA1011C

		Ant.	Cable		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/		Remark
1	2458.400	29.48	8.48	95.68	97.62	54.00	-43.62	Average
2	2483.500	29.49	8.94	48.32	50.78	54.00	3.22	Average
3	2500.000	29.50	8.89	41.41	43.80	54.00	10.20	Average

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







Site no. : 10m Chamber Data no. : 7
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Dis. / Ant. : 3m 3115(0911) Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

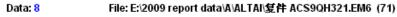
Test mode : IEEE802.11g CH11 2462MHz

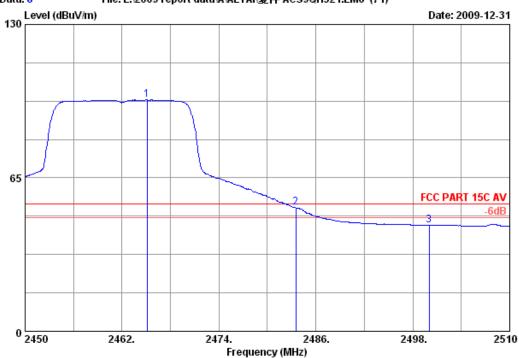
M/N : WA1011C

		Ant.	Cable		Emission			
	Freq.	Factor	Loss			Limits		Remark
	(MHz)	(dB/m) 	(dB) 	(dBuV) 	(dBuV/m)	(aBuv/1	m) (dB) 	
1	2465.000	29.48	8.76	107.02	109.24	74.00	-35.24	Peak
2	2483.500	29.49	8.94	65.65	68.11	74.00	5.89	Peak
3	2500.000	29.50	8.89	53.61	56.00	74.00	18.00	Peak

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







Site no. : 10m Chamber Data no. : 8
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

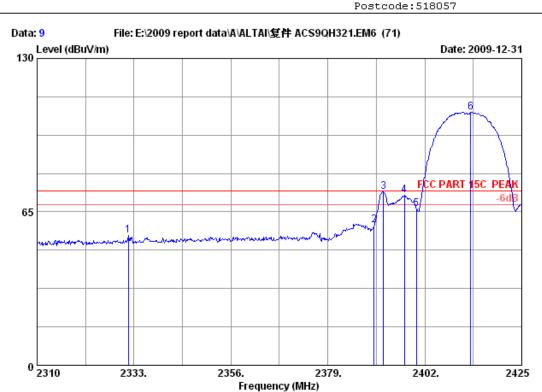
Test mode : IEEE802.11g CH11 2462MHz

M/N : WA1011C

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/r	n) (dB)	
1	2465.120	29.48	8.76	95.76	97.98	54.00	-43.98	Average
2	2483.500	29.49	8.94	49.88	52.34	54.00	1.66	Average
3	2500.000	29.50	8.89	42.46	44.85	54.00	9.15	Average

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





Site no. : 10m Chamber Data no. : 9

Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

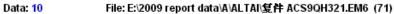
Test mode : IEEE802.11b CH1 2412MHz

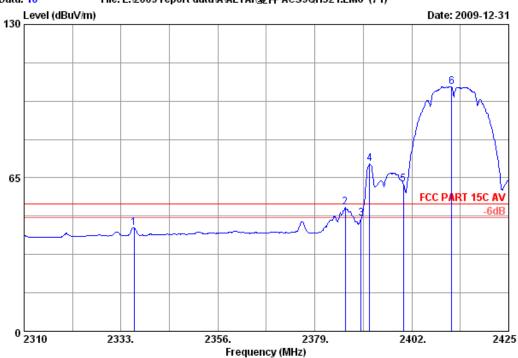
M/N : WA1011C

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/r	Margin n) (dB)	Remark	
1	2331.620	29.40	8.64	53.07	55.05	74.00	18.95	Peak	
2	2390.000	29.44	8.41	57.53	59.29	74.00	14.71	Peak	
3	2392.225	29.44	8.41	71.65	73.41	74.00	0.59	Peak	
4	2397.170	29.44	8.41	70.19	71.95	74.00	2.05	Peak	
5	2400.000	29.44	8.60	64.45	66.40	74.00	7.60	Peak	
6	2412.925	29.45	8.60	105.07	107.17	74.00	-33.17	Peak	

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







Site no. : 10m Chamber Data no. : 10
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

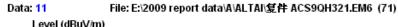
Test mode : IEEE802.11b CH1 2412MHz

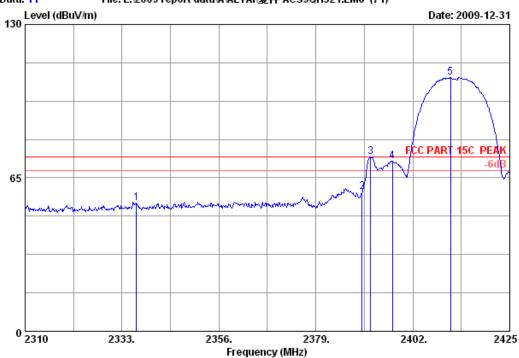
M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/)	_	Remark	
1	2336.105	29.41	8.64	41.94	44.00	54.00	10.00	Average	
2	2386.245	29.44	8.41	50.66	52.42	54.00	1.58	Average	
3	2390.000	29.44	8.41	45.96	47.72	54.00	6.28	Average	
4	2391.995	29.44	8.41	69.07	70.83	54.00	-16.83	Average	
5	2400.000	29.44	8.60	60.21	62.16	54.00	-8.16	Average	
6	2411.430	29.45	8.60	101.58	103.68	54.00	-49.68	Average	

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







Site no. : 10m Chamber Data no. : 11

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

: C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

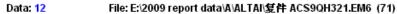
Test mode : IEEE802.11b CH1 2412MHz

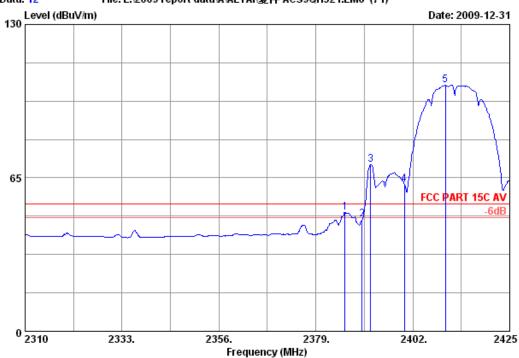
M/N : WA1011C

		Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/r	Margin	Remark	
-:	1	2336.450	29.41	8.64	52.30	54.36	74.00	19.64	Peak	
2	2	2390.000	29.44	8.41	57.41	59.17	74.00	14.83	Peak	
3	3	2391.995	29.44	8.41	72.15	73.91	74.00	0.09	Peak	
4	1	2397.170	29.44	8.41	70.29	72.05	74.00	1.95	Peak	
ţ	5	2410.970	29.45	8.60	105.36	107.46	74.00	-33.46	Peak	

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







Site no. : 10m Chamber Data no. : 12

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

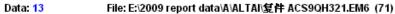
Test mode : IEEE802.11b CH1 2412MHz

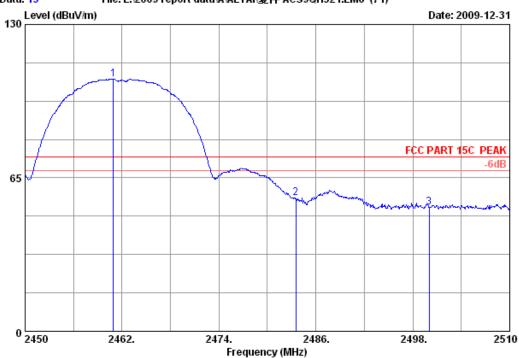
M/N : WA1011C

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/n	Margin	Remark	
1	2385.900	29.44	8.41	48.72	50.48	54.00	3.52	Average	
2	2390.000	29.44	8.41	45.78	47.54	54.00	6.46	Average	
3	2391.995	29.44	8.41	68.93	70.69	54.00	-16.69	Average	
4	2400.000	29.44	8.60	60.32	62.27	54.00	-8.27	Average	
5	2409.705	29.45	8.60	102.18	104.28	54.00	-50.28	Average	

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







Site no. : 10m Chamber Data no. : 13

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

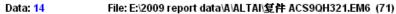
Test mode : IEEE802.11b CH11 2462MHz

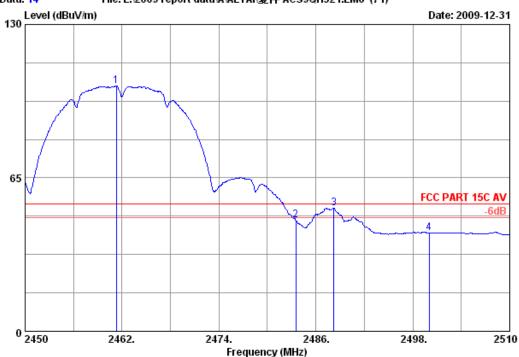
M/N : WA1011C

		Ant.	Cable		Emission			
	Freq.		Loss	Reading		Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/r	n) (dB)	
1	2460.920	29.48	8.76	104.61	106.83	74.00	-32.83	Peak
2	2483.500	29.49	8.94	53.99	56.45	74.00	17.55	Peak
3	2500.000	29.50	8.89	50.22	52.61	74.00	21.39	Peak

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







Site no. : 10m Chamber Data no. : 14

Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

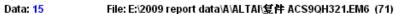
Test mode : IEEE802.11b CH11 2462MHz

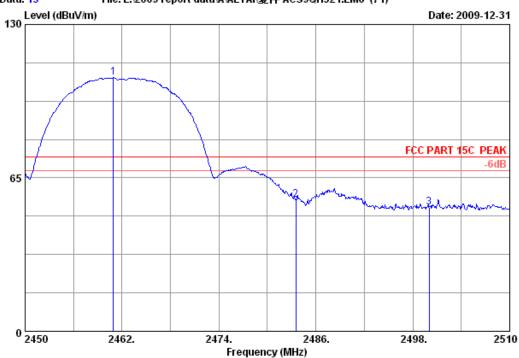
M/N : WA1011C

•	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2461.280 2 2483.500 3 2488.220 4 2500.000	29.48 29.49 29.50 29.50	8.76 8.94 8.94 8.94 8.89	101.66 44.66 49.84 39.37	47.12 52.28	54.00 - 54.00 54.00 54.00	49.88 6.88 1.72 12.24	Average Average Average Average

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







Site no. : 10m Chamber Data no. : 15
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

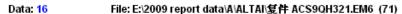
Test mode : IEEE802.11b CH11 2462MHz

M/N : WA1011C

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/r	n) (dB)	
1	2460.920	29.48	8.76	105.20	107.42	74.00	-33.42	Peak
2	2483.500	29.49	8.94	53.47	55.93	74.00	18.07	Peak
3	2500.000	29.50	8.89	50.11	52.50	74.00	21.50	Peak

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







Site no. : 10m Chamber Data no. : 16
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 23*C/54% Engineer : Paul Tian

EUT : C1 WiFi CPE/AP

Power Rating : DC 12V From Adapter input AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz

M/N : WA1011C

		oss Reading NB) (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2 2483.500 3 2487.680	29.49 8 29.50 8	3.76 101.78 3.94 42.11 3.94 46.91 3.89 38.51	44.57 49.35	54.00 - 54.00 54.00 54.00	50.00 9.43 4.65 13.10	Average Average Average Average

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

7. 6dB Bandwidth Test

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
						Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 09	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08, 09	1Year

7.2.Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

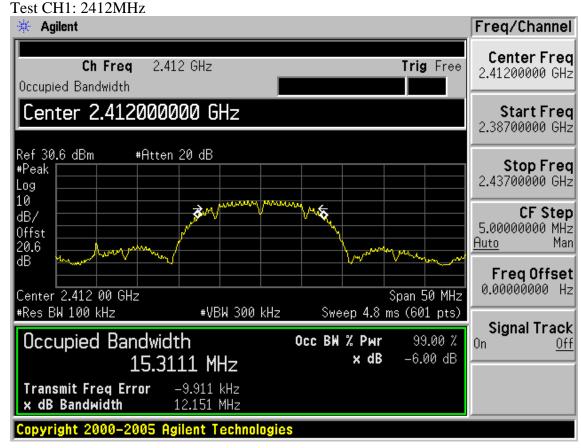
Test Mode: IEEE 802.11b TX

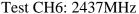
СН	6dB Bandwidth (MHz)	Limit	Conclusion
1	12.151	>500	PASS
6	12.140	>500	PASS
11	12.134	>500	PASS

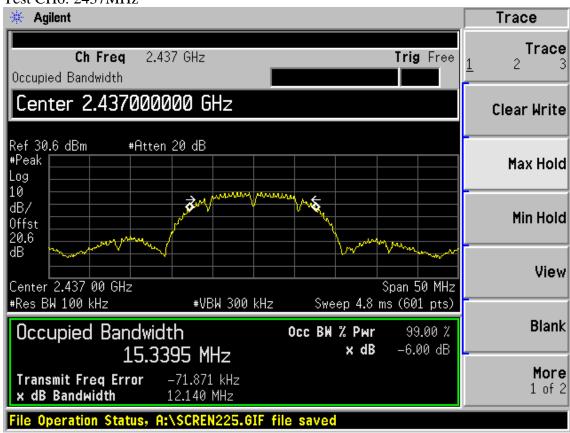
Test Mode: IEEE 802.11g TX

СН	6dB Bandwidth (MHz)	Limit	Conclusion
1	16.453	>500	PASS
6	16.514	>500	PASS
11	16.475	>500	PASS

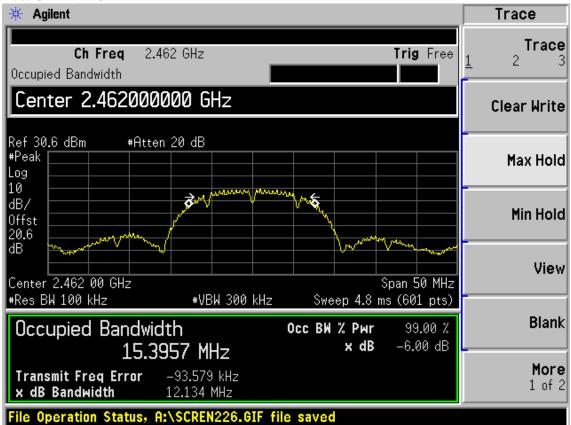
Test Mode: IEEE 802.11b TX







Test CH11: 2462MHz

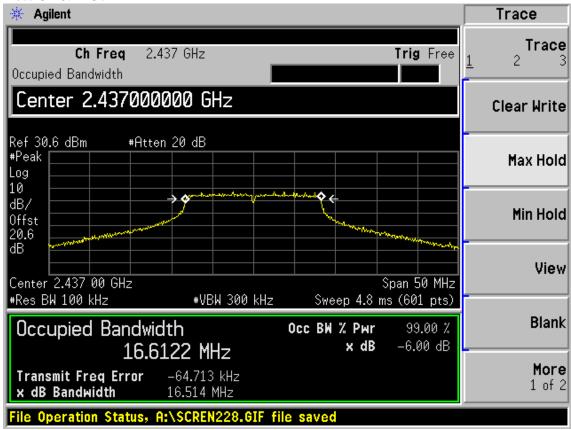


Test Mode: IEEE 802.11g TX

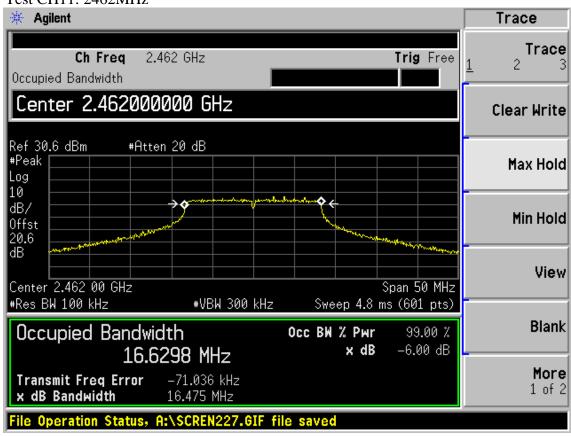
Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power meter	Anritsu	ML2487A	6K00002472	Oct.20.09	1Year
2	Power sensor	Anritsu	MA2491A	0033005	Oct.20.09	1Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 09	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08, 09	1Year

8.2.Limit(FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.3.Test Procedure

Use power output option 1 method of KDB 558074, the transmitter output was connection to a power meter by suitable attenuation, read out the peak output power of device.

8.4. Test Results

EUT: C1 WiFi CPE/AP M/N: WA1011C Power: DC 12V From Adapter input AC 120V/60Hz Data Rate:11b 1Mbps; 11g 6Mbps; (Note 1) Relative Humidity: 62% Ambient Temperature:26°℃ Test date:2009/12/23 Test site: RF site Tested by:Paul Tian CH1 2412MHz CH6 2437MHz Test CH CH11 2462MHz PK Limit Mode CH Conclusion (dBm) (dBm) CH1 18.68 26.00 **PASS** 11b **PASS** CH₆ 23.09 26.00 CH11 18.26 26.00 **PASS** 20.39 CH1 26.00 **PASS** 11g CH6 24.69 26.00 **PASS** CH11 20.84 26.00 **PASS**

Note1: According Exploratory test, These data rate have the maximum output power

Note2: The antenna Gain of EUT is 10dBi, so the limit should be 30dBm-(10dB-6dB)=26dBm

9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 09	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08, 09	1Year

9.2.Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3.Test Procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 3kHz RBW and 30kHz VBW, sweep time=span/3kHz.

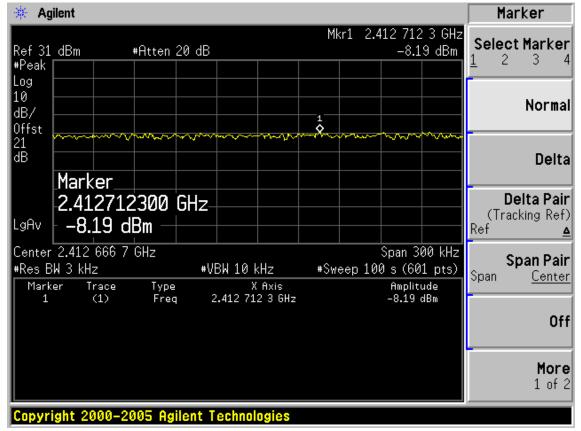
•

9.4.Test Results

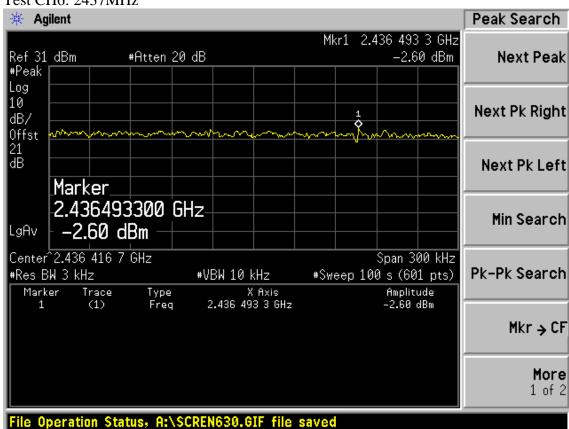
Data Rate:11b: 1Mbps; 11g: 6Mbps (Note 1) Ambient Temperature:25°C Relative Humidity: 62% Test date:2009/12/23 Test site: RF site Tested By: Paul Tian					
Test date:2009/12/23 Test site: RF site Tested By: Paul Tian Test CH CH1:2412MHz CH6:2437MHz CH11:2462MHz Mode CH Result (dBm) Limit (dBm) Conclusion CH1 -8.19 8.00 PASS CH6 -2.60 8.00 PASS CH1 -9.35 8.00 PASS CH1 -12.98 8.00 PASS CH6 -8.05 8.00 PASS	EUT:C1 W	ViFi CPE/Al	P M/N: WA1	011C	
Ambient Temperature:25°C Relative Humidity: 62% Test date:2009/12/23 Test site: RF site Tested By: Paul Tian Test CH CH1:2412MHz CH6:2437MHz CH11:2462MHz Mode CH Result (dBm) Limit (dBm) Conclusion 11b CH1 -8.19 8.00 PASS 11b CH6 -2.60 8.00 PASS CH1 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	Power: DO	C 12V From	Adapter input AC 120V/6	50Hz	
Test date:2009/12/23 Test site: RF site Tested By: Paul Tian Test CH CH1:2412MHz CH6:2437MHz CH11:2462MHz Mode CH Result (dBm) Limit (dBm) Conclusion CH1 -8.19 8.00 PASS 11b CH6 -2.60 8.00 PASS CH1 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	Data Rate:	11b: 1Mbps	; 11g : 6Mbps (Note 1)	
Test CH CH1:2412MHz CH6:2437MHz CH11:2462MHz Mode CH Result (dBm) Limit (dBm) Conclusion 11b CH1 -8.19 8.00 PASS 11b CH6 -2.60 8.00 PASS CH11 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	Ambient T	emperature	:25°C Relative Humidity	: 62%	
Mode CH Result (dBm) Limit (dBm) Conclusion 11b CH1 -8.19 8.00 PASS 11b CH6 -2.60 8.00 PASS CH11 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	Test date:2	2009/12/23	Test site: RF site	Tested By: Paul	Tian
Mode CH (dBm) Conclusion 11b CH1 -8.19 8.00 PASS 11b CH6 -2.60 8.00 PASS CH11 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	Test CH	CH1:2412N	MHz CH6:2437MHz C	CH11:2462MHz	
CH6 -2.60 8.00 PASS CH11 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	Mode	СН			Conclusion
CH11 -9.35 8.00 PASS CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS	11b	CH1	-8.19	8.00	PASS
CH1 -12.98 8.00 PASS 11g CH6 -8.05 8.00 PASS		СН6	-2.60	8.00	PASS
11g CH6 -8.05 8.00 PASS		CH11	-9.35	8.00	PASS
		CH1	-12.98	8.00	PASS
CH11 -12.13 8.00 PASS	11g	СН6	-8.05	8.00	PASS
		CH11	-12.13	8.00	PASS
Note1:According Exploratory test, These data rate have the maximum output power	Note1:Acc	cording Expl	loratory test, These data ra	te have the maximum outp	out power

Test Mode: IEEE 802.11b TX

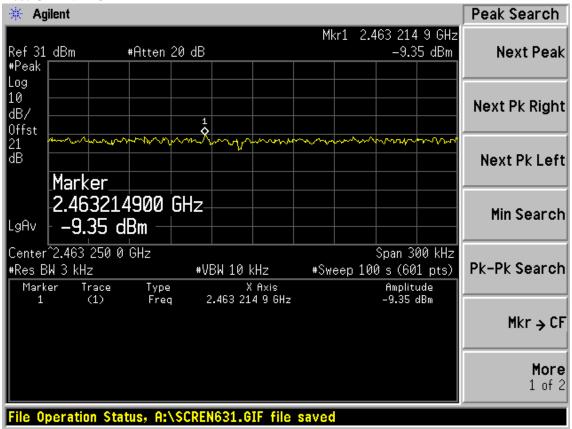
Test CH1: 2412MHz



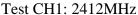
Test CH6: 2437MHz

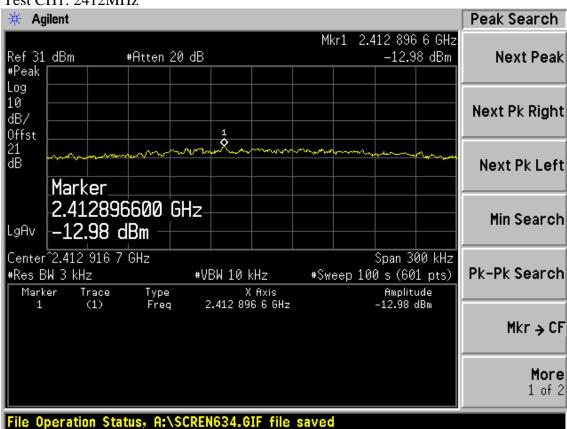


Test CH11: 2462MHz

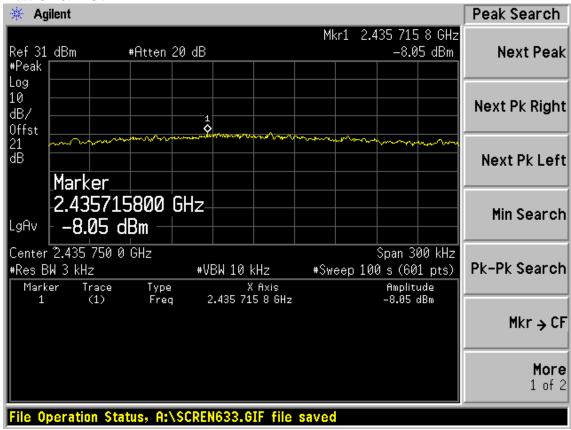


Test Mode: IEEE 802.11g TX

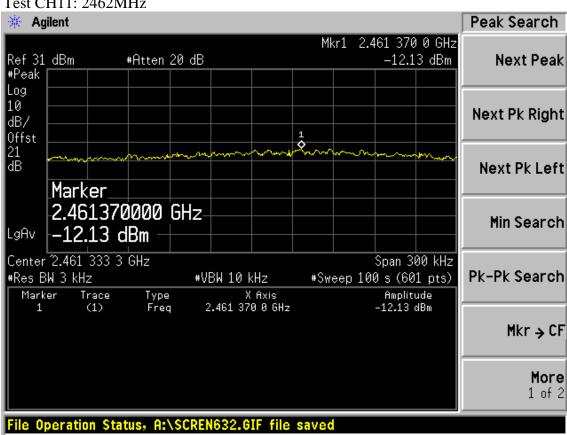




Test CH6: 2437MHz



Test CH11: 2462MHz



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 15.247 (b), 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 integral PCB antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the antenna is 10dBi.

11.MPE ESTIMATION

11.1.Limit for General Population/ Uncontrolled Exposures

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

Frequency(MHz)	Power density (mW/cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz

11.2.Estimation Result

Mode	СН	Frequency (MHz)	PK Output power (dBm)	Output power (mW)	antenna Gain (dBi)	antenna Gain(linear)	MPE
	1	2412	18.68	73.79	10	10.00	0.1469
11b	6	2437	23.09	203.70	10	10.00	0.4055
	11	2462	18.26	66.99	10	10.00	0.1333
11g	1	2412	20.39	109.40	10	10.00	0.2177
	6	2437	24.69	294.44	10	10.00	0.5861
	11	2462	20.84	121.34	10	10.00	0.2415

Note: The estimation distance is 20cm

12.DEVIATION TO TEST SPECIFICATIONS

[NONE]