

APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
HONG KONG NATURAL SOUND ELECTRONICS LIMITED

MID

Model No.: PC1018BXC, Trio-Stealth G4X 10.1, Trio HD Elite 10.1 Tablet,
MST-10X41, G4X 10.1

FCC ID: PWK-PC1018BXC

Prepared for : HONG KONG NATURAL SOUND ELECTRONICS
LIMITED
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Report Number : ATE20140578
Date of Test : Apr 11-26,2014
Date of Report : Apr 26,2014

TABLE OF CONTENTS

Description	Page
Test Report Certification	
1. GENERAL INFORMATION	5
1.1. Description of Device (EUT).....	5
1.2. Carrier Frequency of Channels	6
1.3. Special Accessory and Auxiliary Equipment	6
1.4. Description of Test Facility	6
1.5. Measurement Uncertainty	7
2. MEASURING DEVICE AND TEST EQUIPMENT	8
3. OPERATION OF EUT DURING TESTING	9
3.1. Operating Mode	9
3.2. Configuration and peripherals	9
4. TEST PROCEDURES AND RESULTS	10
5. 6DB BANDWIDTH MEASUREMENT.....	11
5.1. Block Diagram of Test Setup.....	11
5.2. The Requirement For Section 15.247(a)(2).....	11
5.3. EUT Configuration on Measurement	11
5.4. Operating Condition of EUT	11
5.5. Test Procedure	11
5.6. Test Result	12
6. MAXIMUM PEAK OUTPUT POWER	19
6.1. Block Diagram of Test Setup.....	19
6.2. The Requirement For Section 15.247(b)(3).....	19
6.3. EUT Configuration on Measurement	19
6.4. Operating Condition of EUT	19
6.5. Test Procedure	19
6.6. Test Result	20
7. POWER SPECTRAL DENSITY MEASUREMENT	27
7.1. Block Diagram of Test Setup.....	27
7.2. The Requirement For Section 15.247(e).....	27
7.3. EUT Configuration on Measurement	27
7.4. Operating Condition of EUT	27
7.5. Test Procedure	27
7.6. Test Result	28
8. BAND EDGE COMPLIANCE TEST	35
8.1. Block Diagram of Test Setup.....	35
8.2. The Requirement For Section 15.247(d)	35
8.3. EUT Configuration on Measurement	35
8.4. Operating Condition of EUT	35
8.5. Test Procedure	35
8.6. Test Result	36
9. RADIATED SPURIOUS EMISSION TEST	57
9.1. Block Diagram of Test Setup.....	57
9.2. The Limit For Section 15.247(d)	57
9.3. Restricted bands of operation	58

9.4.	Configuration of EUT on Measurement	58
9.5.	Operating Condition of EUT	59
9.6.	Test Procedure	59
9.7.	The Field Strength of Radiation Emission Measurement Results	59
10.	CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST	90
10.1.	Block Diagram of Test Setup.....	90
10.2.	The Requirement For Section 15.247(d)	90
10.3.	EUT Configuration on Measurement	90
10.4.	Operating Condition of EUT	90
10.5.	Test Procedure	91
10.6.	Test Result	91
11.	AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A) ..	98
11.1.	Block Diagram of Test Setup.....	98
11.2.	The Emission Limit	98
11.3.	Configuration of EUT on Measurement	99
11.4.	Operating Condition of EUT	99
11.5.	Test Procedure	99
11.6.	Power Line Conducted Emission Measurement Results	99
12.	ANTENNA REQUIREMENT.....	102
12.1.	The Requirement	102
12.2.	Antenna Construction	102

Test Report Certification

Applicant : HONG KONG NATURAL SOUND ELECTRONICS LIMITED

Manufacturer : Natural Sound Electronics (Shenzhen) Co., Ltd.

EUT Description : MID

(A) MODEL NO.: PC1018BXC, Trio-Stealth G4X 10.1, G4X 10.1, MST-10X41, Trio HD Elite 10.1 Tablet

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 3.7V (Powered by battery) or DC 5V (Powered by adapter)

Measurement Procedure Used:

**FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.4: 2009**

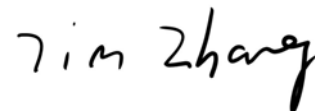
The EUT was tested according to DTS test procedure of April 09, 2013 KDB558074 D01 DTS Meas Guidance v03 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by ACCURATE TECHNOLOGY 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 Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. 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 ACCURATE TECHNOLOGY CO. LTD.

Date of Test : Apr 10, 2014-Apr 26, 2014

Prepared by :



(Tim.zhang, Engineer)

Approved & Authorized Signer :



(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	MID
Model Number	:	PC1018BXC, Trio-Stealth G4X 10.1, G4X 10.1, MST-10X41, Trio HD Elite 10.1 Tablet Note: These samples are same except for the model number is difference. So we prepare the PC1018BXC for test
Frequency Range	:	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz Bluetooth 4.0: 2402-2480MHz
Number of Channels	:	802.11b/g/n (20MHz):11 802.11n (40MHz): 7 Bluetooth 4.0:40
Antenna Gain	:	1.0dBi
Power Supply	:	DC 5V (Power by adapter)&DC 3.7V(Battery)
Adapter	:	Model number: FY0502000 Input: AC 100-240V; 50/60Hz 0.6A Output: DC 5V/2.0A USB line: Non-shielded, Non-detachable, 0.8m
Modulation mode	:	GFSK DSSS,OFDM
Applicant	:	HONG KONG NATURAL SOUND ELECTRONICS LIMITED
Address	:	FLAT/RM M 4/F CONTINENTAL MANSION 300 KING' S ROAD HONG KONG
Manufacturer	:	Natural Sound Electronics (Shenzhen) Co., Ltd.
Address	:	4th Building, Xinyuan Industrial Zone, Gushu Village, Bao'an District, Shenzhen, China
Date of sample received	:	Apr 11, 2014
Date of Test	:	Apr 11-26,2014

1.2.Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	---	---

802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

1.3.Special Accessory and Auxiliary Equipment

n.a.

1.4.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee
for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.
Science & Industry Park, Nanshan, Shenzhen, Guangdong
P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty
(9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty
(30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty
(Above 1GHz) = 4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 11, 2014	Jan. 10, 2015
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 11, 2014	Jan. 10, 2015
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 11, 2014	Jan. 10, 2015
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 11, 2014	Jan. 10, 2015
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2014	Jan. 14, 2015
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan. 15, 2014	Jan. 14, 2015
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 11, 2014	Jan. 10, 2015
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 11, 2014	Jan. 10, 2015
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 11, 2014	Jan. 10, 2015
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 11, 2014	Jan. 10, 2015

3. OPERATION OF EUT DURING TESTING

3.1. Operating Mode

The mode is used: **1.802.11b Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

2.802.11g Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

3.802.11n (20MHz) Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

4.802.11n (40MHz) Transmitting mode

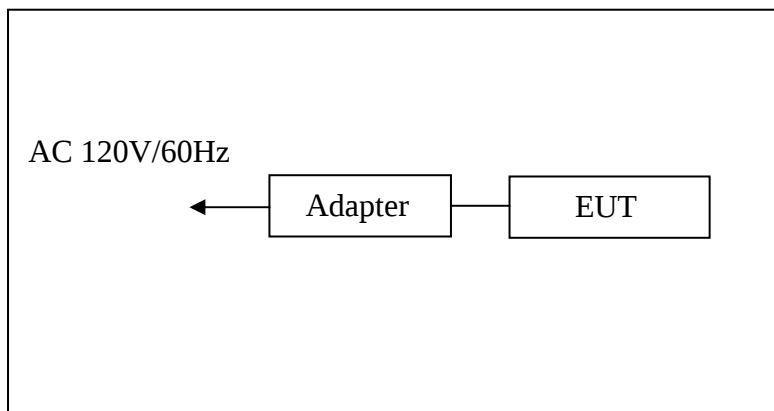
Low Channel: 2422MHz

Middle Channel: 2437MHz

High Channel: 2452MHz

5. Charging

3.2. Configuration and peripherals



4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.247(d)	Conducted Spurious Emission Test	Compliant
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 6DB BANDWIDTH MEASUREMENT

5.1. Block Diagram of Test Setup



5.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.3. EUT Configuration on Measurement

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

5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

5.5. Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.6.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	10.12	> 0.5MHz
Middle	2437	10.12	> 0.5MHz
High	2462	10.12	> 0.5MHz

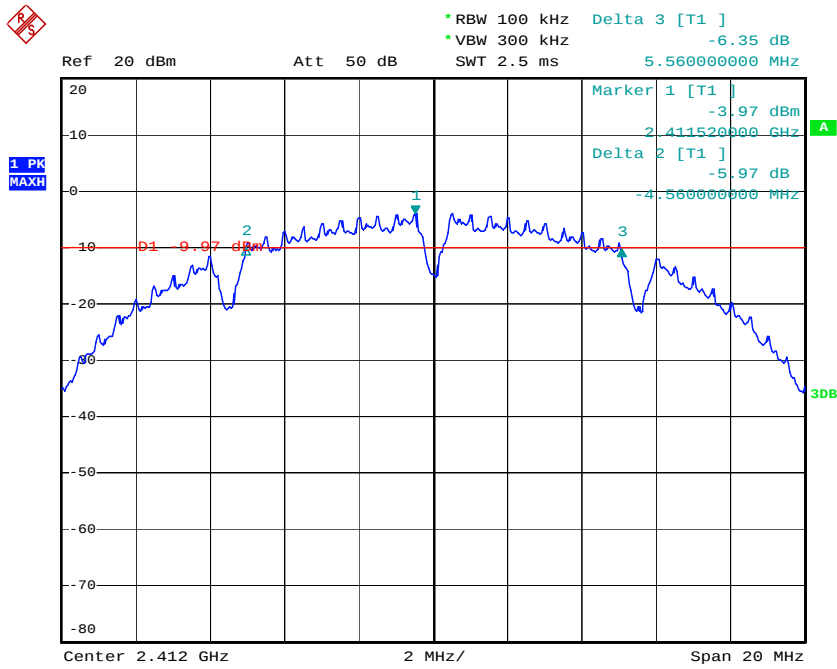
The test was performed with 802.11g			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	16.60	> 0.5MHz
Middle	2437	16.60	> 0.5MHz
High	2462	16.60	> 0.5MHz

The test was performed with 802.11n (Bandwidth: 20 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	17.88	> 0.5MHz
Middle	2437	17.88	> 0.5MHz
High	2462	17.88	> 0.5MHz

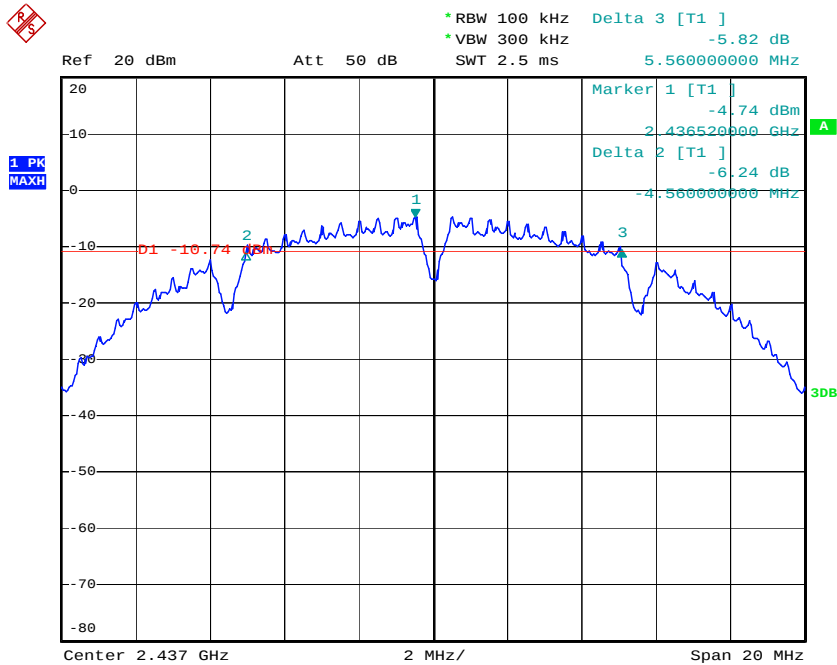
The test was performed with 802.11n (Bandwidth: 40 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2422	36.56	> 0.5MHz
Middle	2437	36.56	> 0.5MHz
High	2452	36.56	> 0.5MHz

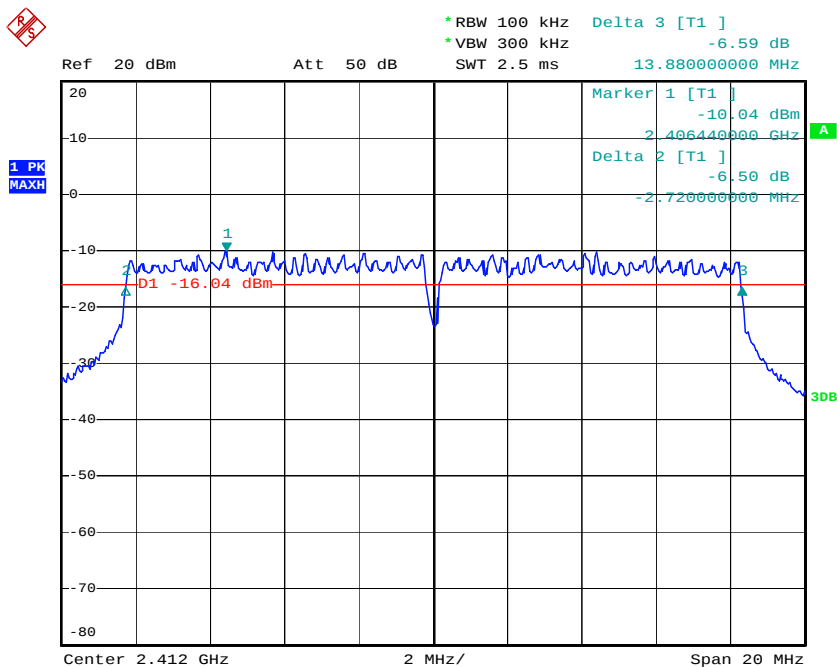
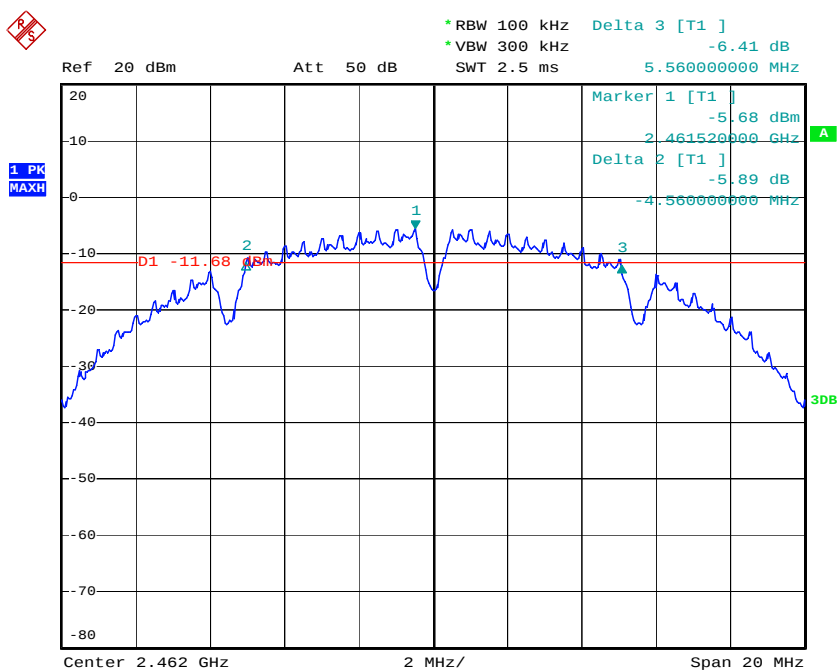
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz

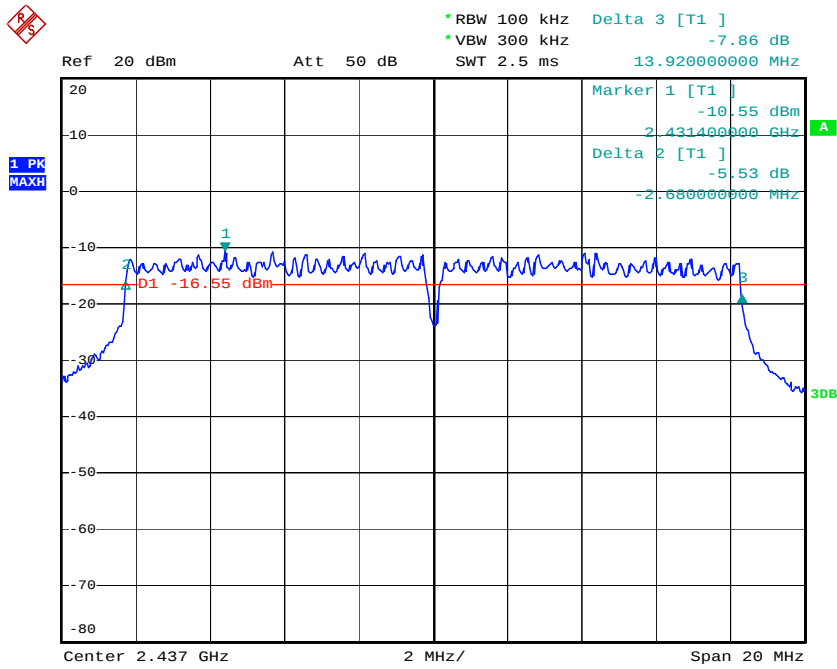


802.11b Channel Middle 2437MHz

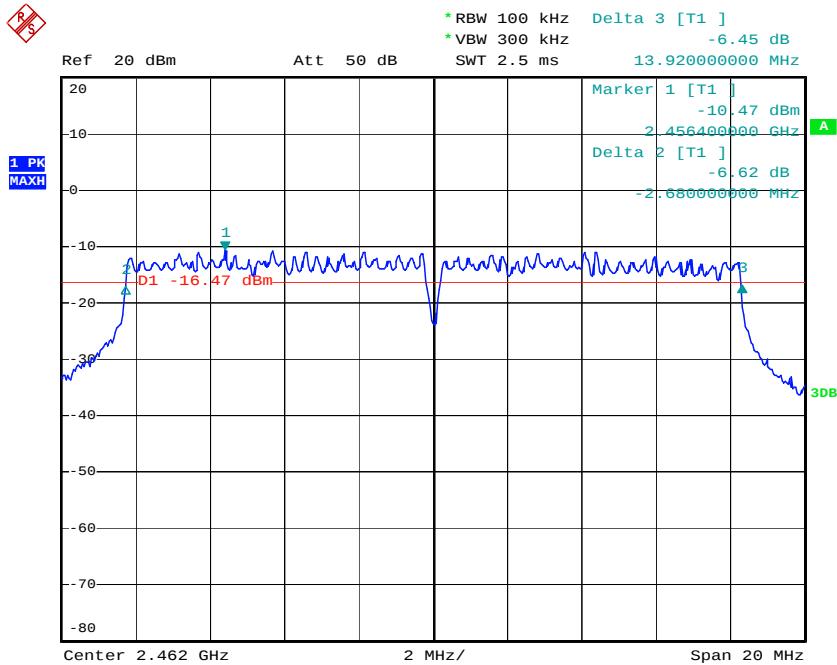




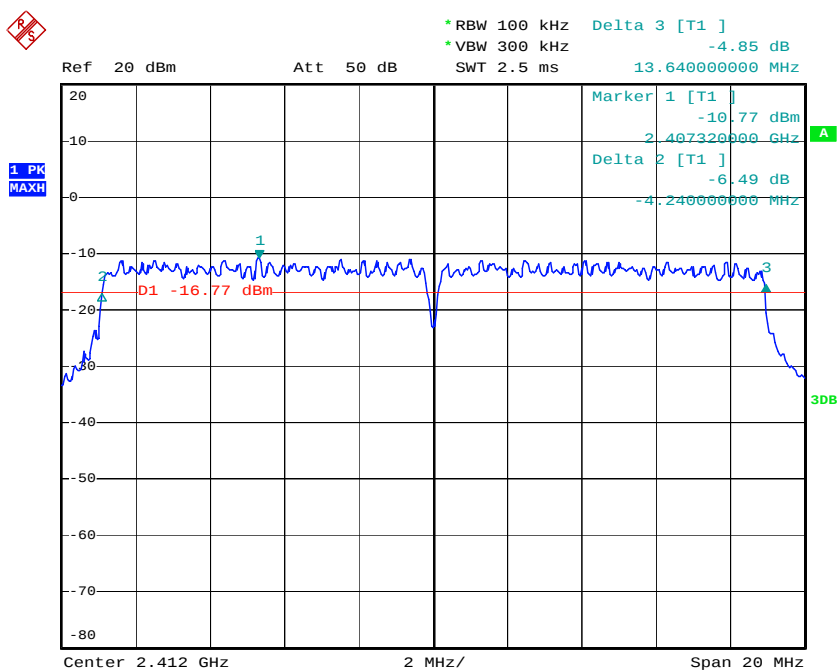
802.11g Channel Middle 2437MHz



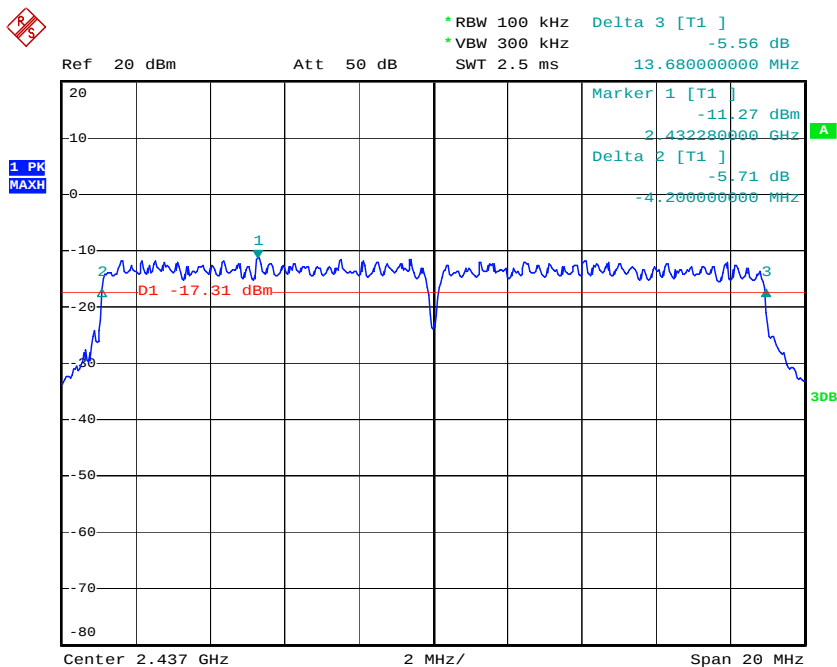
802.11g Channel High 2462MHz



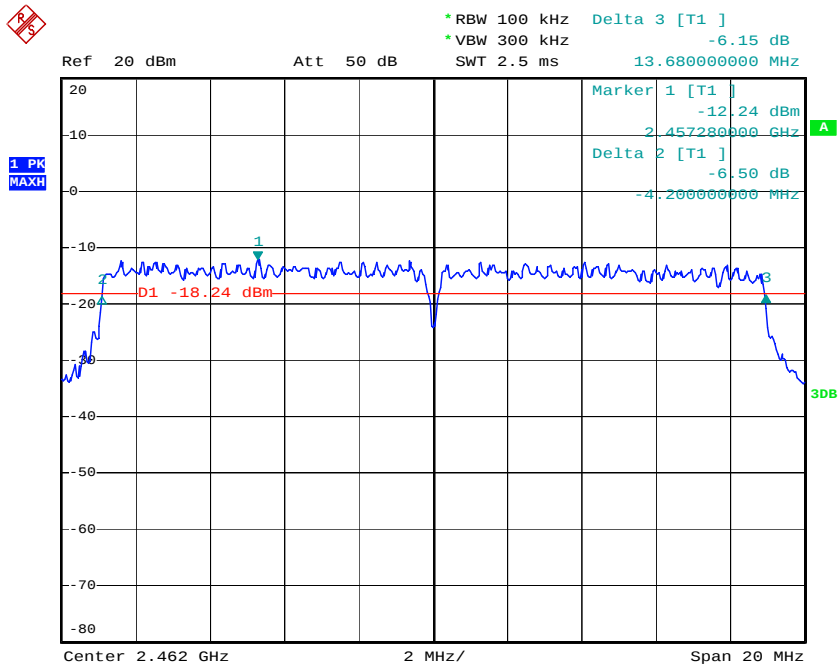
802.11n Channel Low 2412MHz (20MHz)



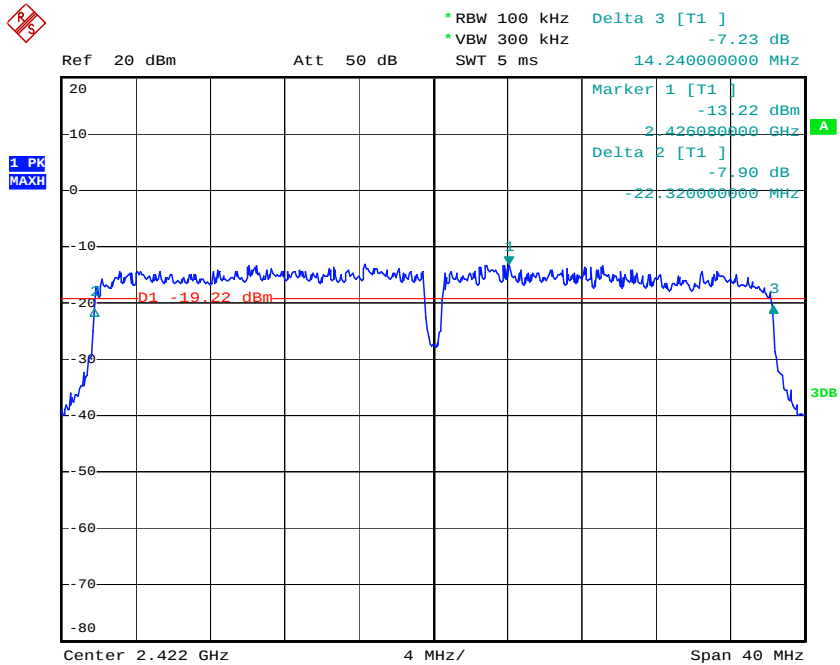
802.11n Channel Middle 2437MHz(20MHz)



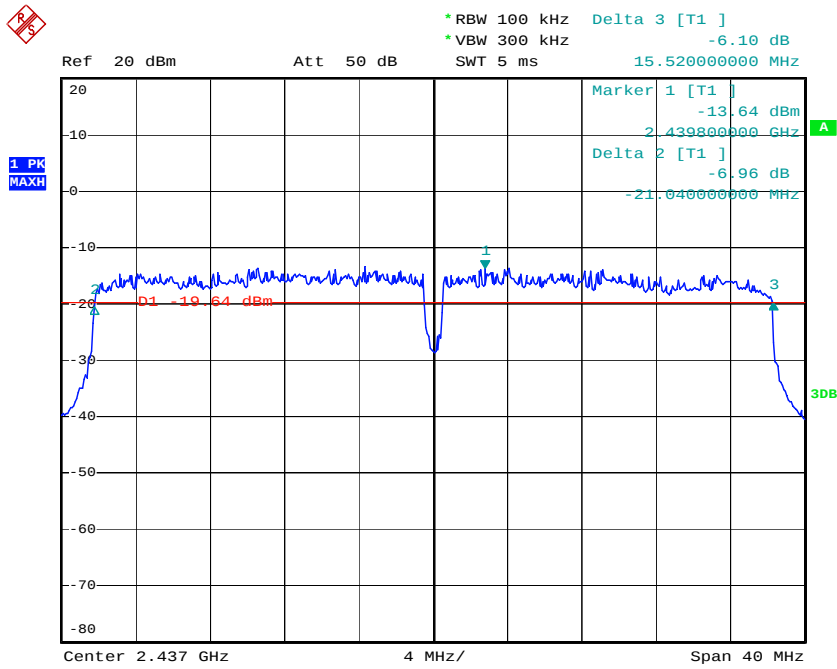
802.11n Channel High 2462MHz(20MHz)



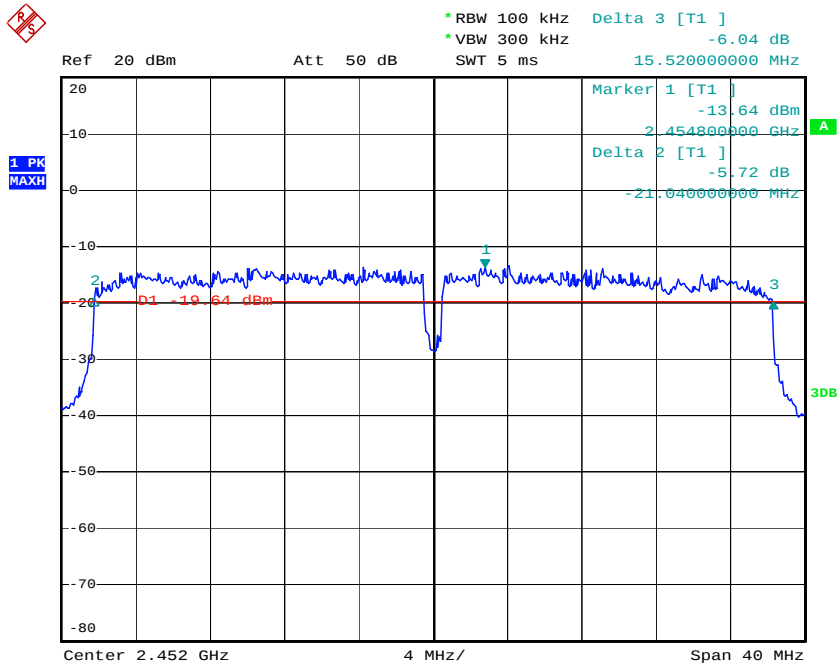
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)



802.11n Channel High 2452MHz(40MHz)



6. MAXIMUM PEAK OUTPUT POWER

6.1. Block Diagram of Test Setup



6.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

6.3. EUT Configuration on Measurement

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

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

6.5. Test Procedure

6.5.1. The EUT was tested according to DTS test procedure of April 09, 2013 KDB558074 D01 DTS Meas Guidance v03 for compliance to FCC 47CFR 15.247 requirements.

6.5.2. The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.3. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.

6.5.4. Measurement the maximum peak output power.

6.6.Test Result

The test was performed with 802.11b				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	9.11	8.15	30 dBm / 1 W
Middle	2437	8.49	7.06	30 dBm / 1 W
High	2462	8.05	6.38	30 dBm / 1 W

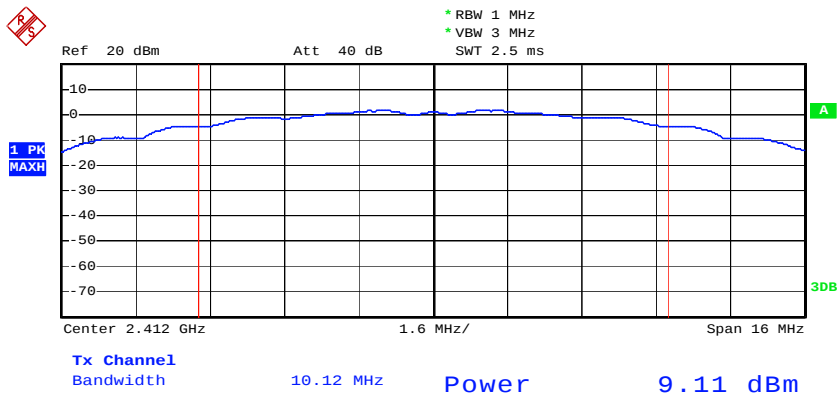
The test was performed with 802.11g				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	7.93	6.21	30 dBm / 1 W
Middle	2437	7.82	6.05	30 dBm / 1 W
High	2462	6.71	4.69	30 dBm / 1 W

The test was performed with 802.11n (20MHz)				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	7.70	5.89	30 dBm / 1 W
Middle	2437	7.13	5.16	30 dBm / 1 W
High	2462	6.71	4.69	30 dBm / 1 W

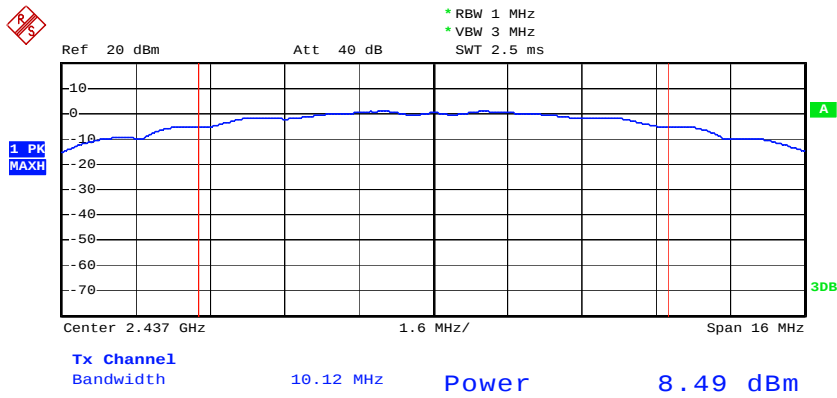
The test was performed with 802.11n (40MHz)				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2422	7.44	5.55	30 dBm / 1 W
Middle	2437	6.59	4.56	30 dBm / 1 W
High	2452	6.07	4.05	30 dBm / 1 W

The spectrum analyzer plots are attached as below.

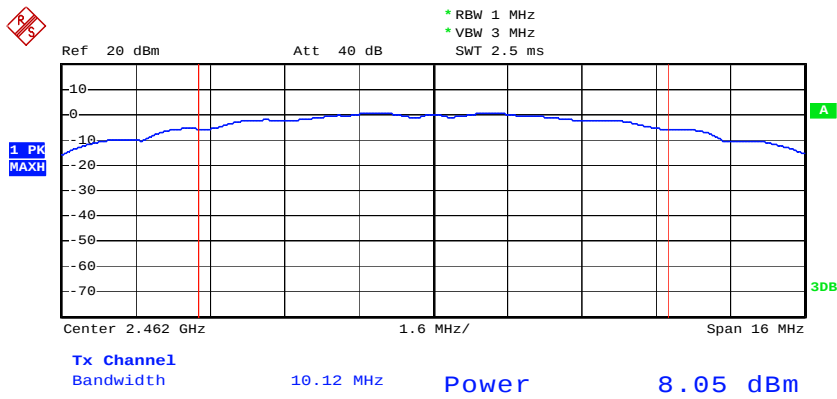
802.11b Channel Low 2412MHz



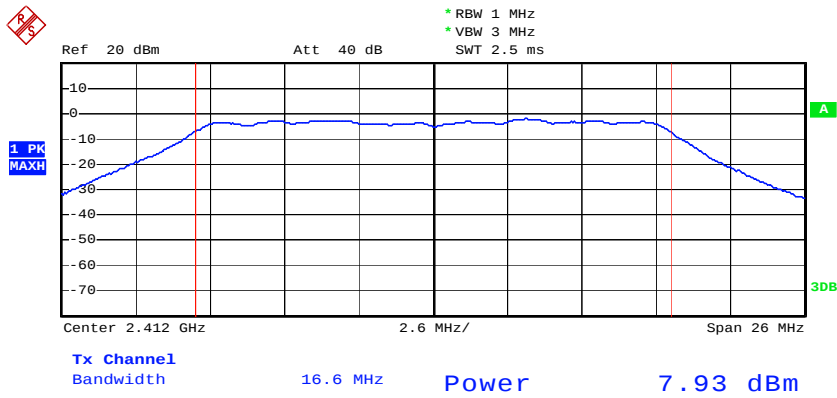
802.11b Channel Middle 2437MHz



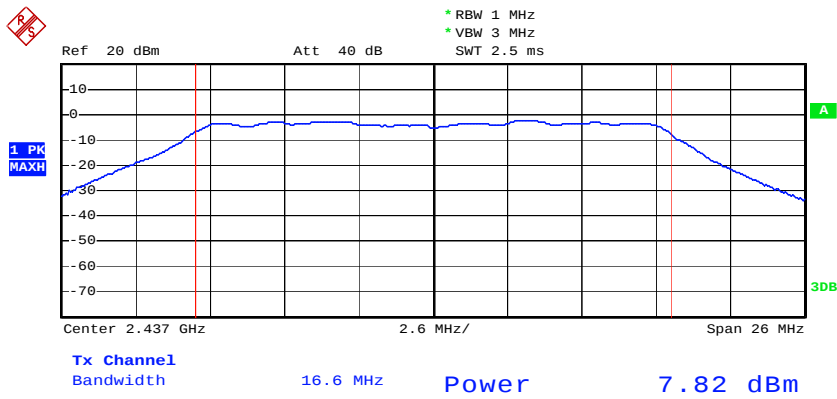
802.11b Channel High 2462MHz



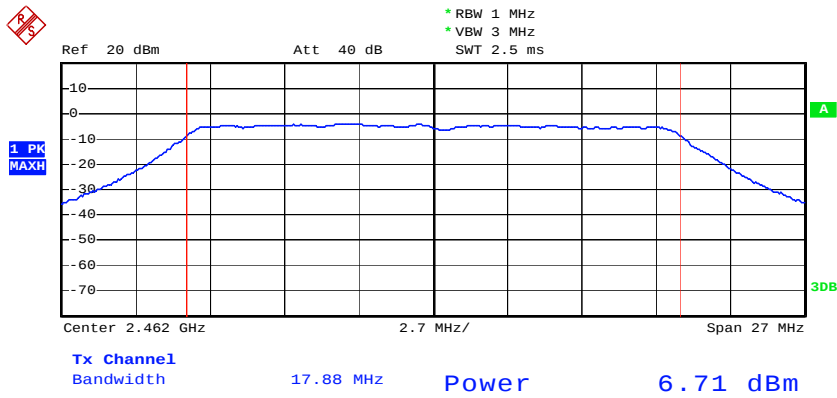
802.11g Channel Low 2412MHz



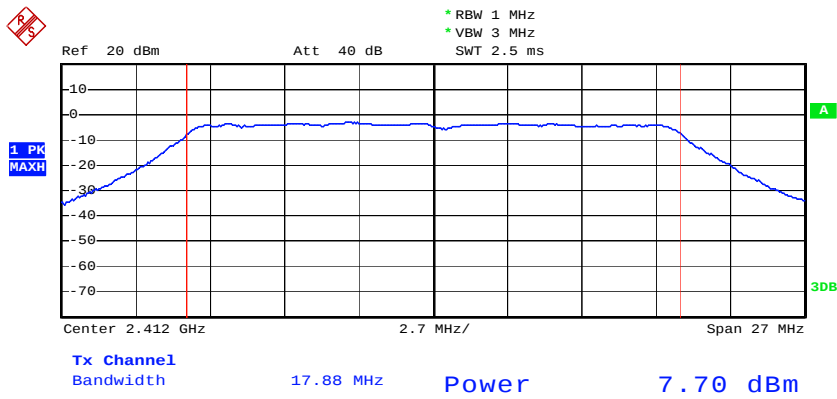
802.11g Channel Middle 2437MHz



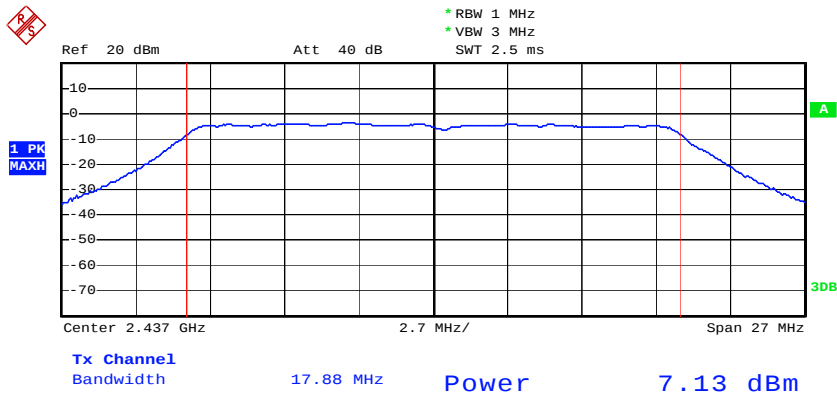
802.11g Channel High 2462MHz



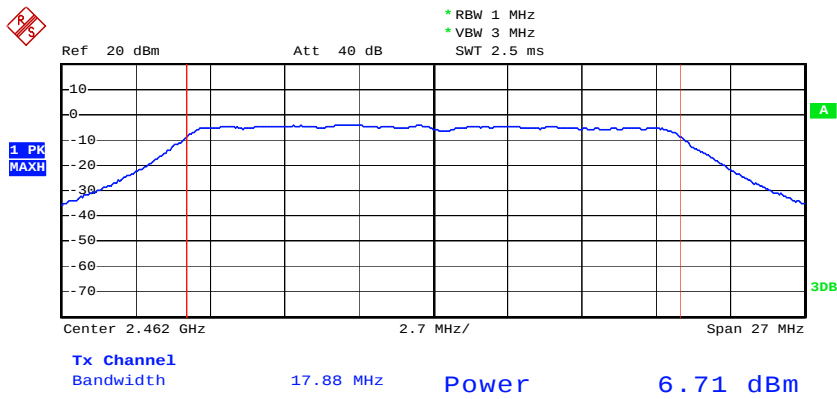
802.11n Channel Low 2412MHz (20MHz)



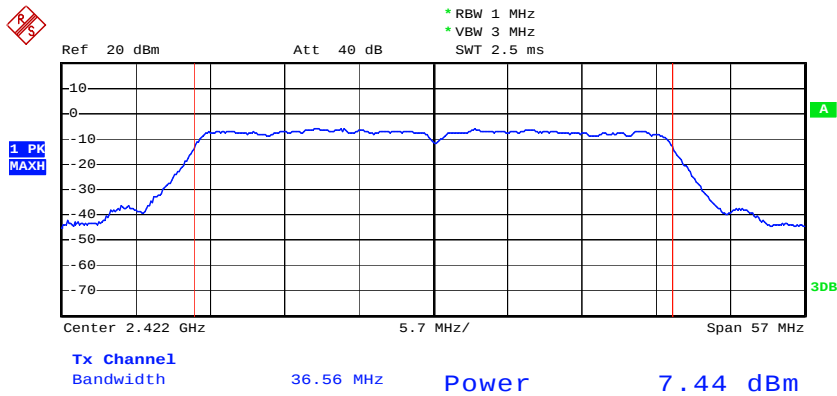
802.11n Channel Middle 2437MHz (20MHz)



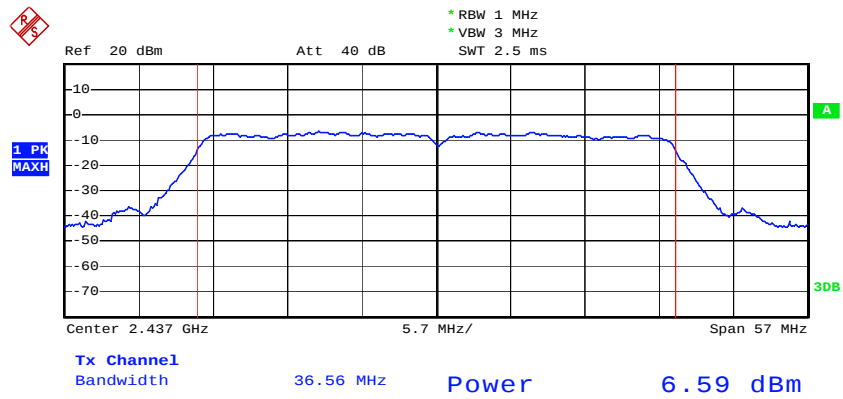
802.11n Channel High 2462MHz (20MHz)



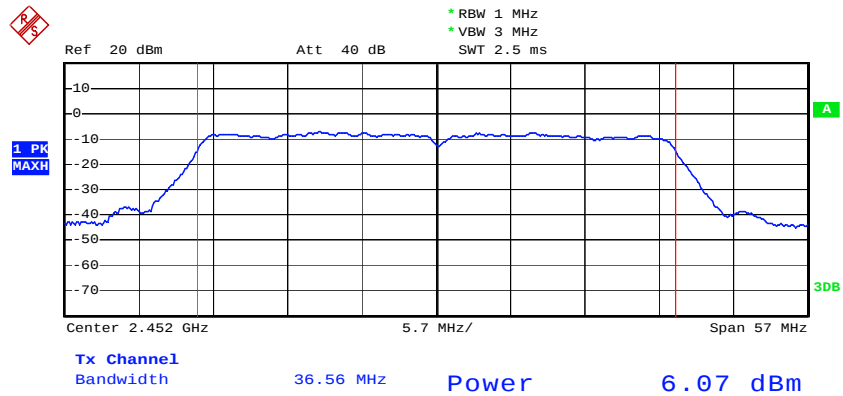
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz (40MHz)

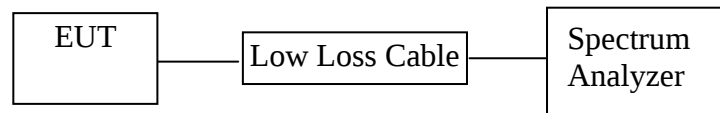


802.11n Channel High 2452MHz (40MHz)



7. POWER SPECTRAL DENSITY MEASUREMENT

7.1. Block Diagram of Test Setup



7.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.3. EUT Configuration on Measurement

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

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.2. Measurement Procedure PKPSD:

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.

3. Set the RBW $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

7.5.3.Measurement the maximum power spectral density.

7.6.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-23.59	8 dBm
Middle	2437	-24.70	8 dBm
High	2462	-25.42	8 dBm

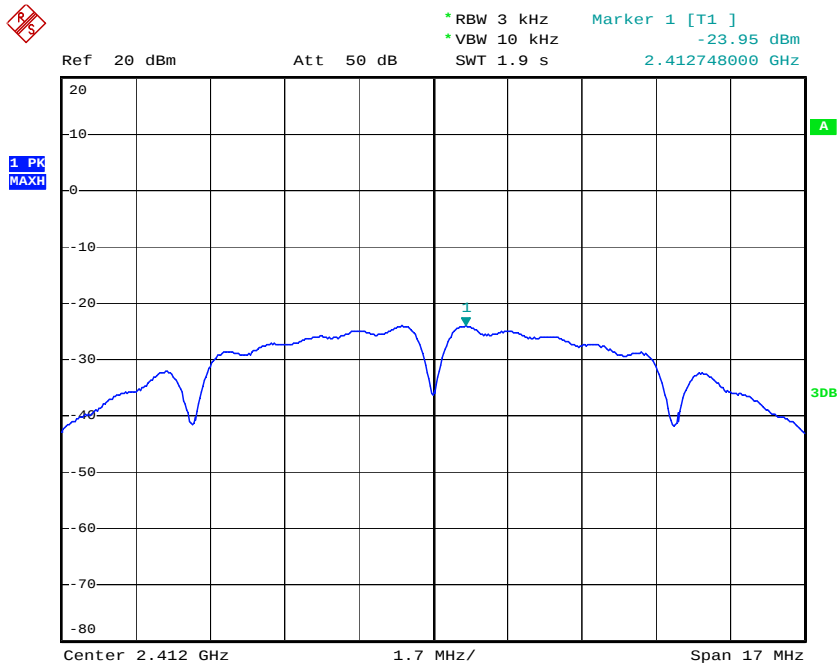
The test was performed with 802.11g			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-26.15	8 dBm
Middle	2437	-26.60	8 dBm
High	2462	-27.66	8 dBm

The test was performed with 802.11n (20MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-26.25	8 dBm
Middle	2437	-27.30	8 dBm
High	2462	-27.74	8 dBm

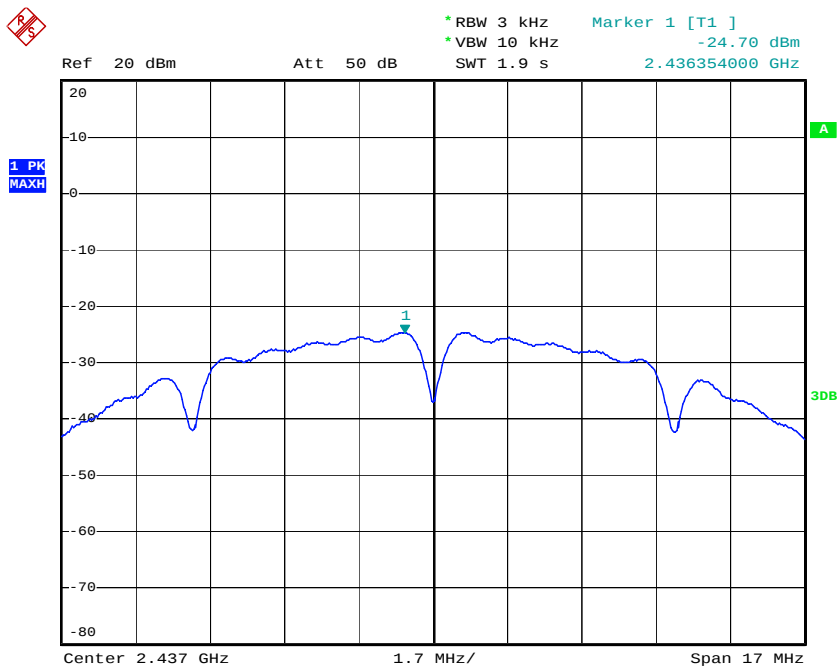
The test was performed with 802.11n (40MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2422	-28.74	8 dBm
Middle	2437	-28.83	8 dBm
High	2452	-29.05	8 dBm

The spectrum analyzer plots are attached as below.

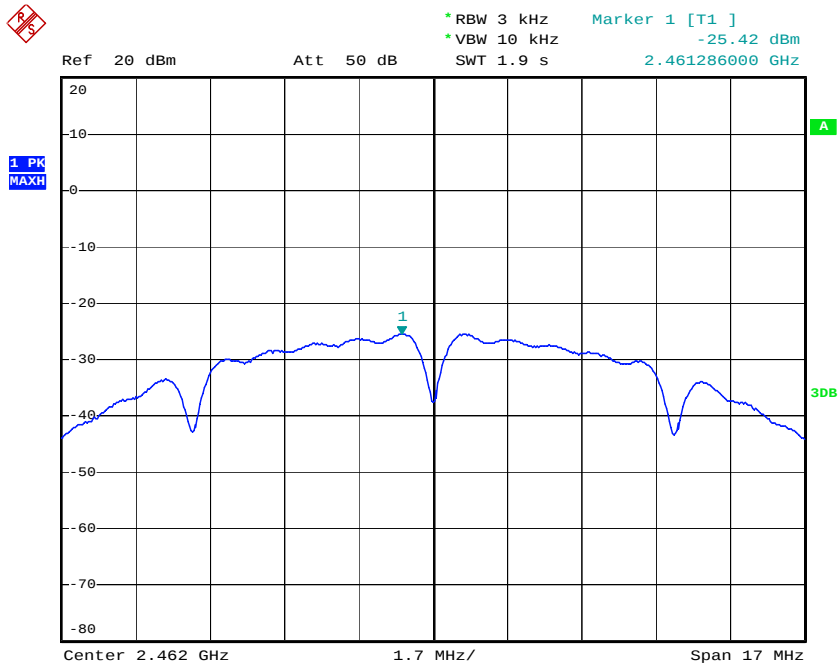
802.11b Channel Low 2412MHz



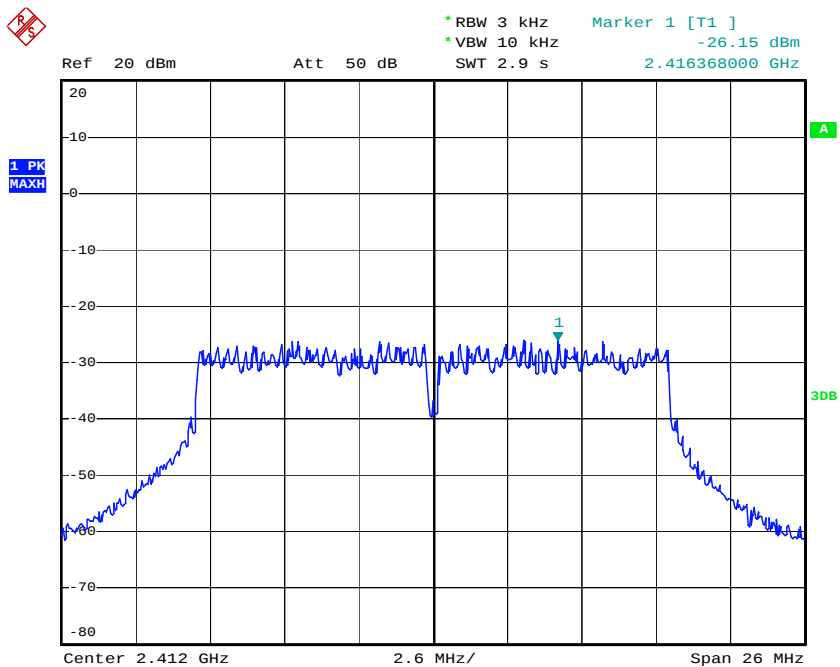
802.11b Channel Middle 2437MHz



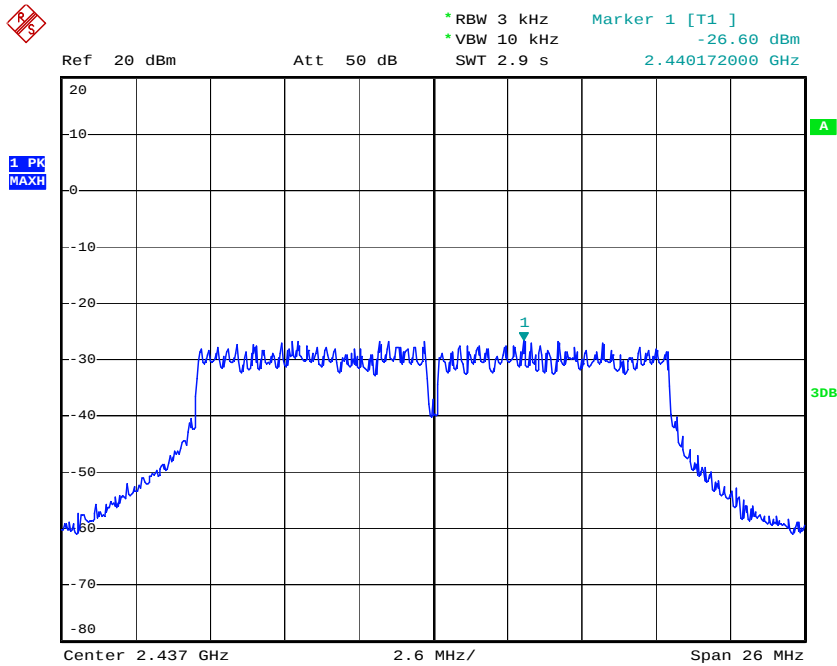
802.11b Channel High 2462MHz



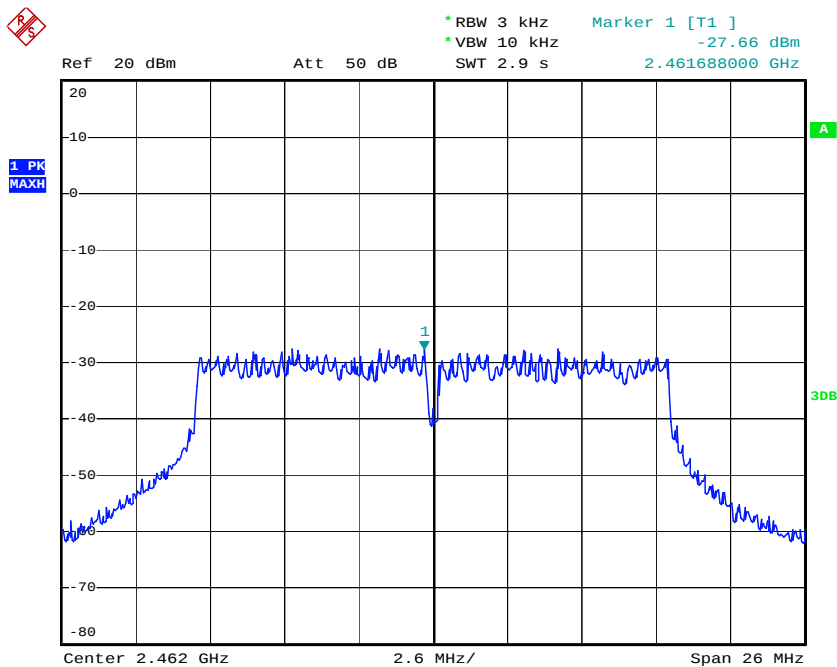
802.11g Channel Low 2412MHz



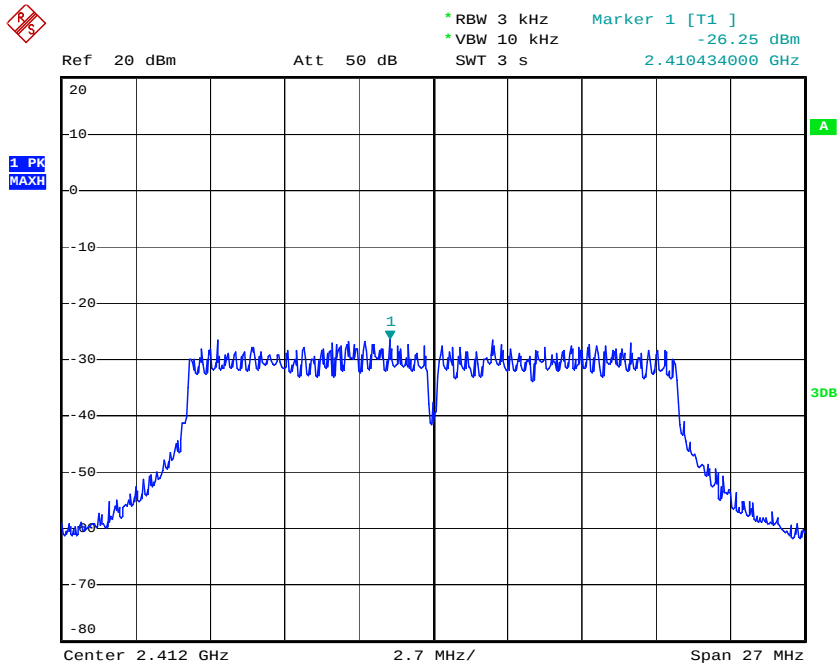
802.11g Channel Middle 2437MHz



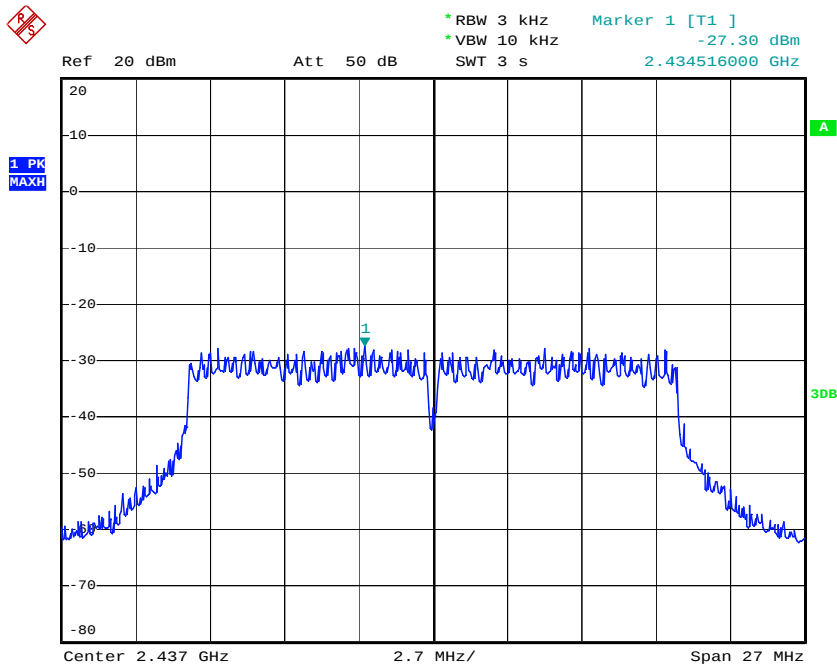
802.11g Channel High 2462MHz



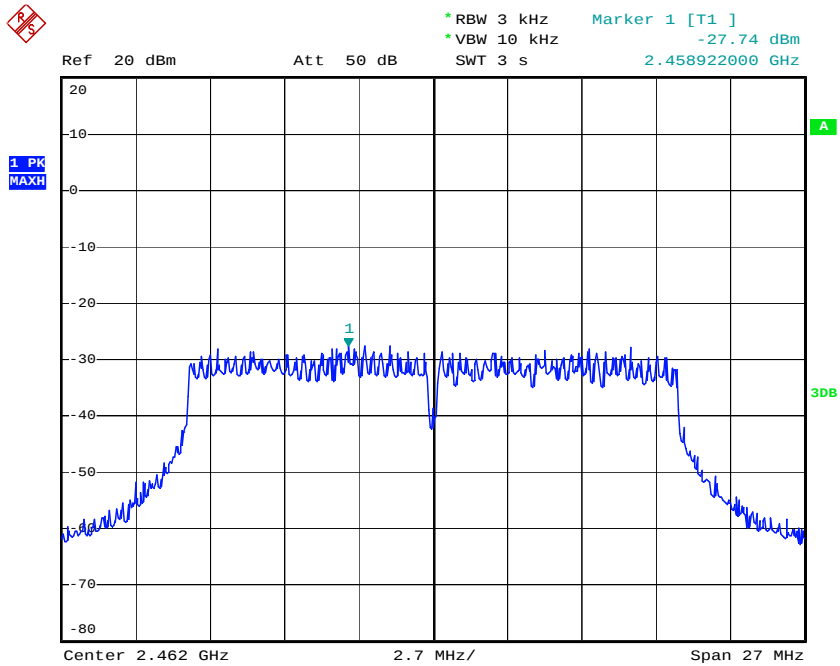
802.11n Channel Low 2412MHz (20MHz)



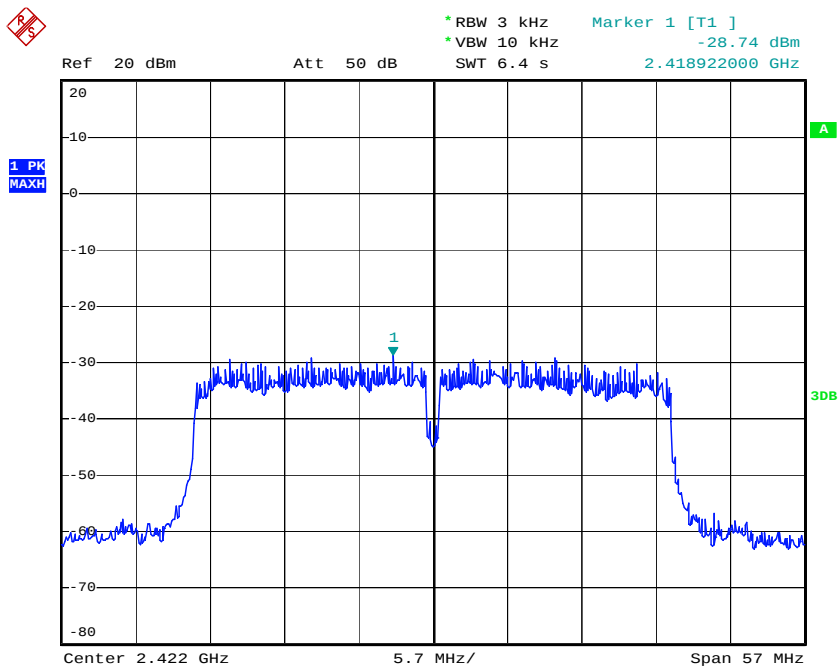
802.11n Channel Middle 2437MHz (20MHz)



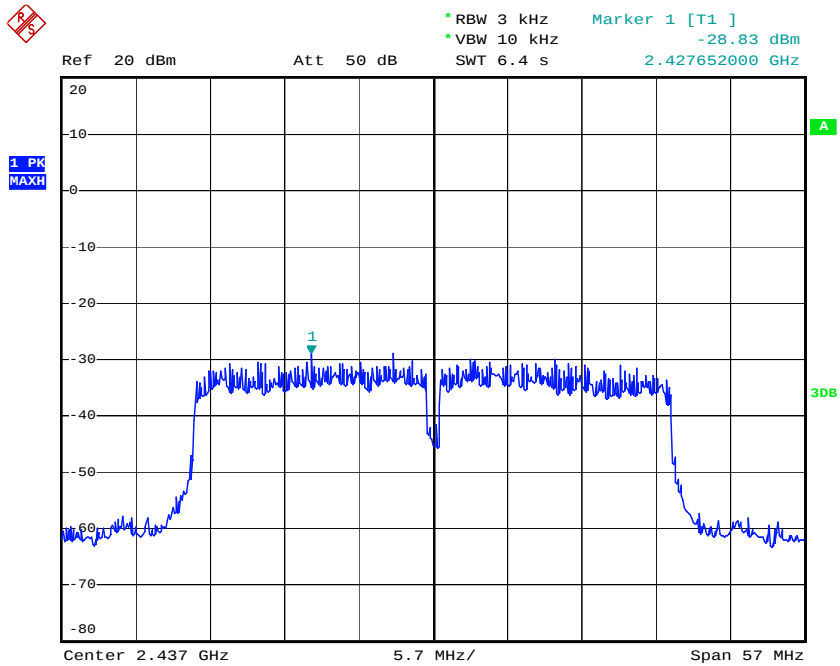
802.11n Channel High 2462MHz(20MHz)



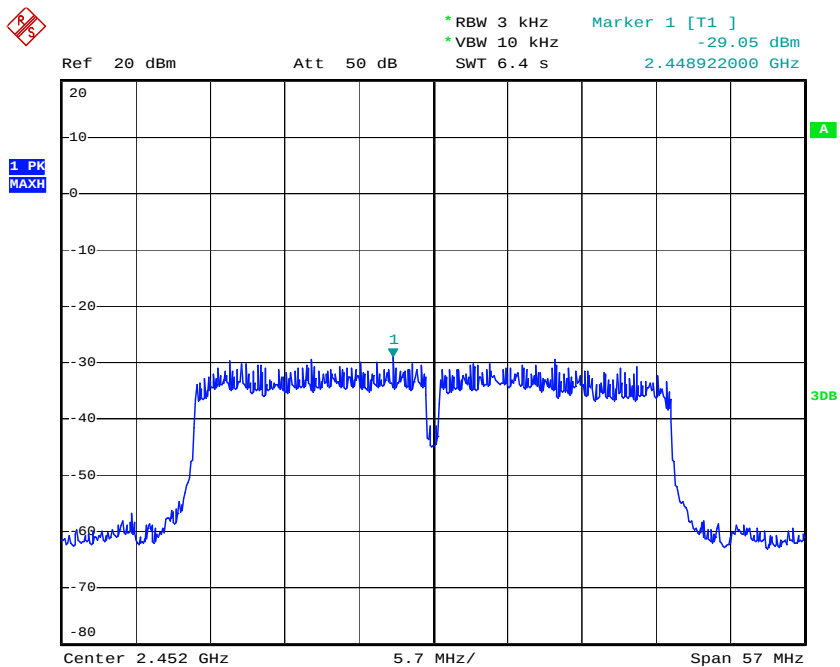
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)



802.11n Channel High 2452MHz(40MHz)



8. BAND EDGE COMPLIANCE TEST

8.1. Block Diagram of Test Setup



8.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

8.3. EUT Configuration on Measurement

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

8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

8.5. Test Procedure

Conducted Band Edge:

8.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

8.5.2. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

8.5.3. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

8.5.4. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

8.5.5. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

8.5.6. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

8.5.7. The band edges were measured and recorded.

8.6. Test Result

The test was performed with 802.11b

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	44.68	> 20dBc
2462	52.87	> 20dBc

The test was performed with 802.11g

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	34.95	> 20dBc
2462	40.66	> 20dBc

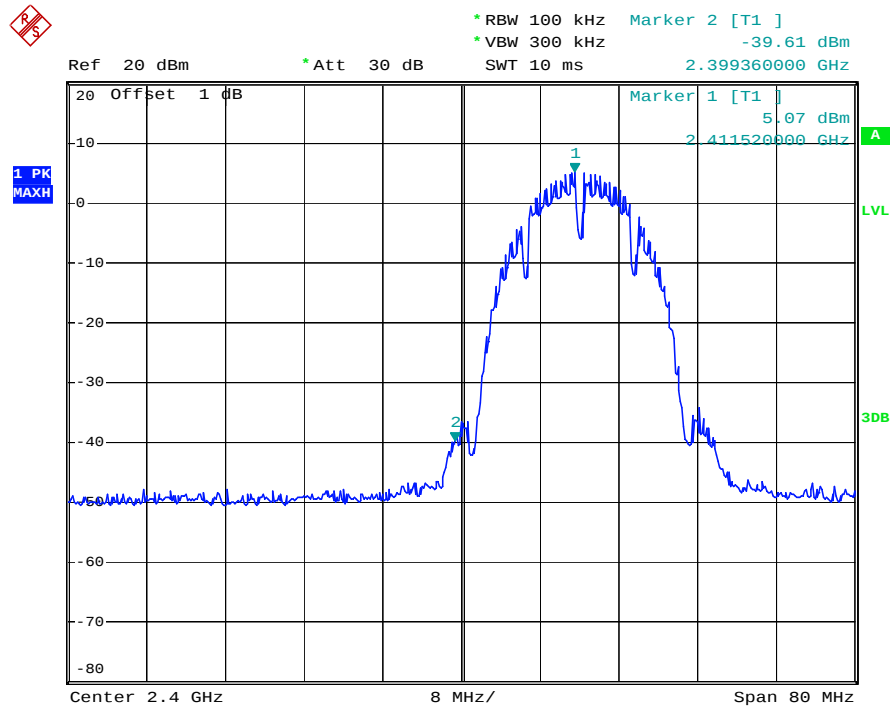
The test was performed with 802.11n (20MHz)

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	36.25	> 20dBc
2462	41.87	> 20dBc

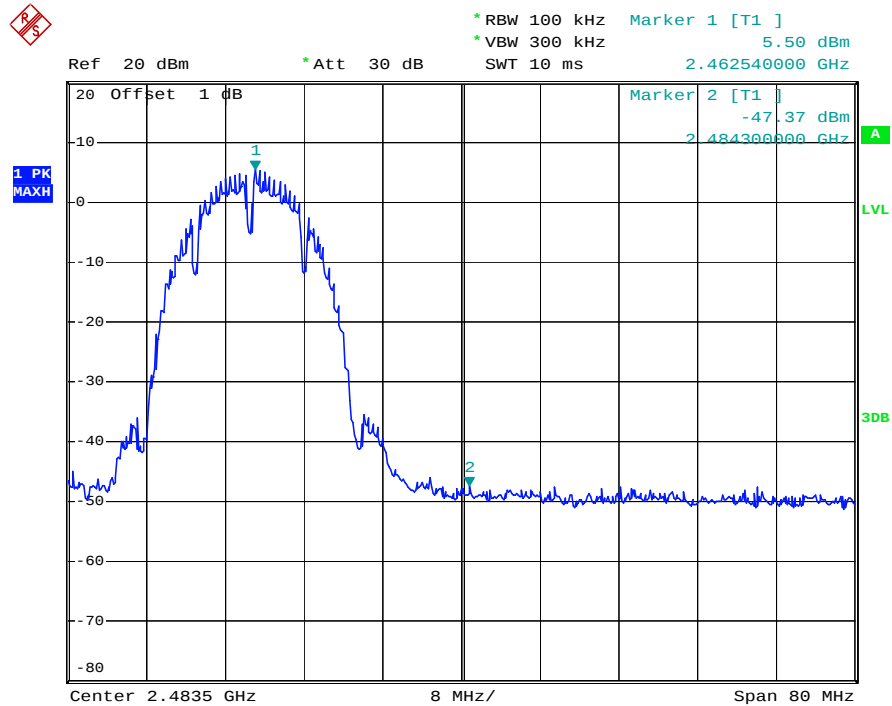
The test was performed with 802.11n (40MHz)

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2422	31.15	> 20dBc
2452	37.70	> 20dBc

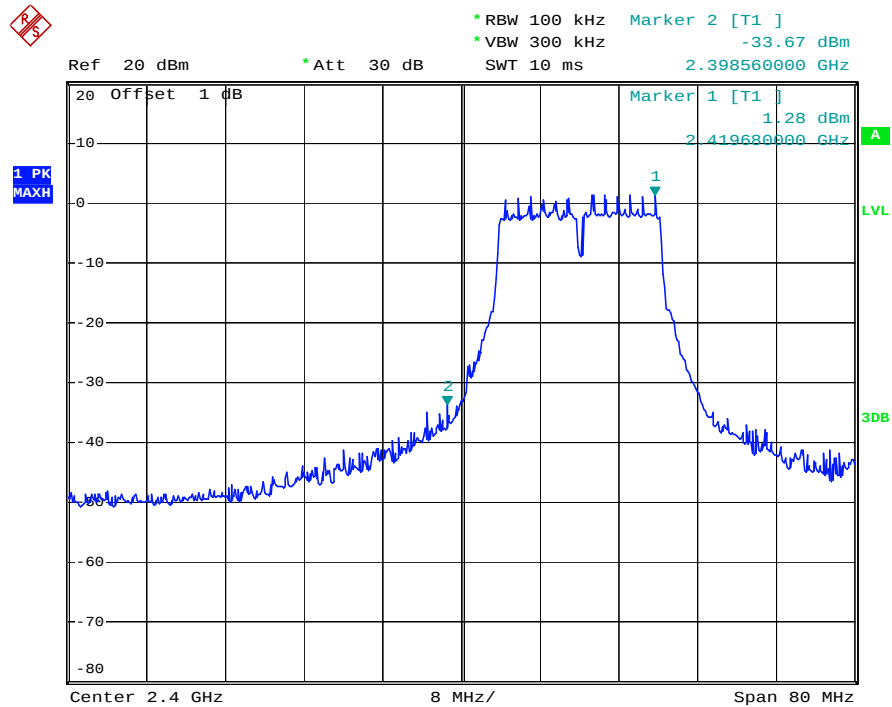
802.11b Channel Low 2412MHz



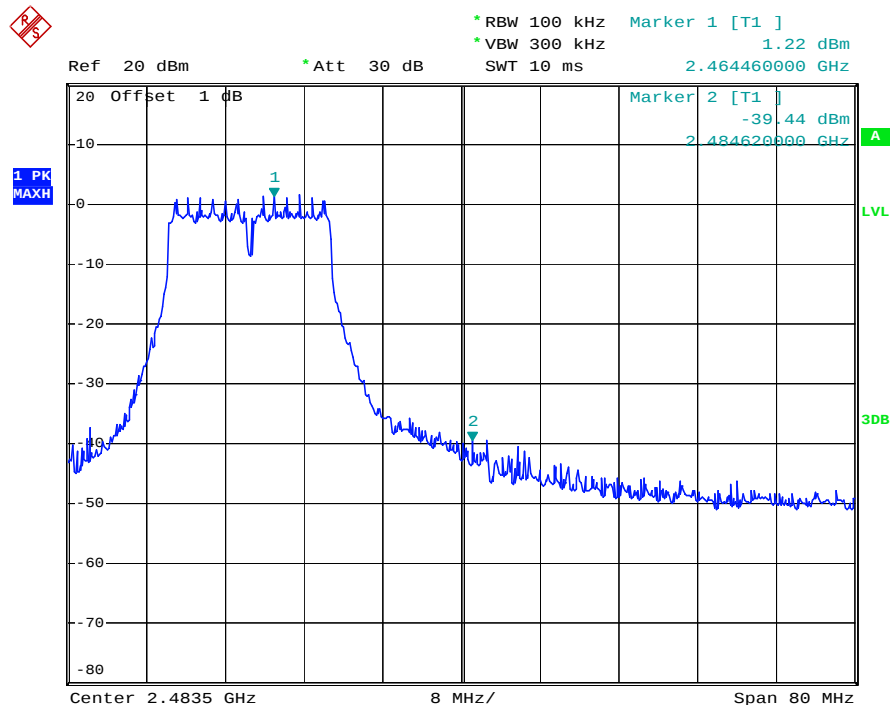
802.11b Channel High 2462MHz



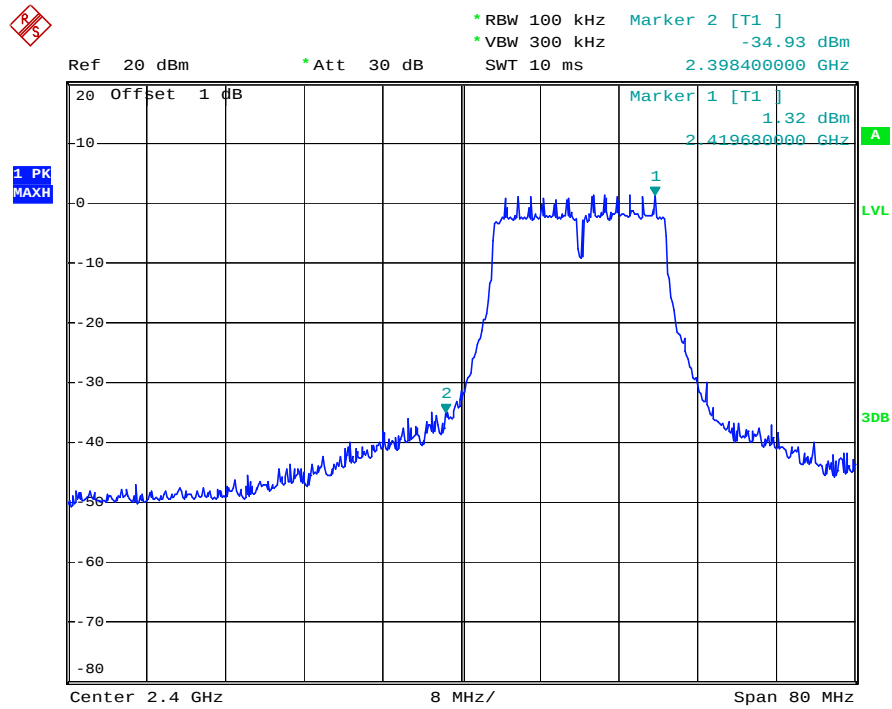
802.11g Channel Low 2412MHz



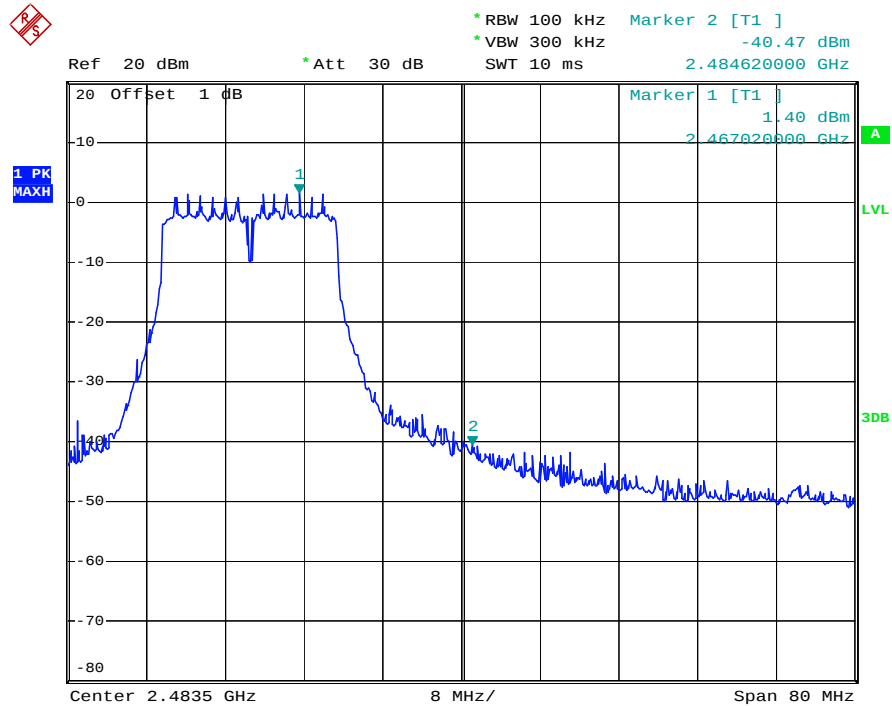
802.11g Channel High 2462MHz



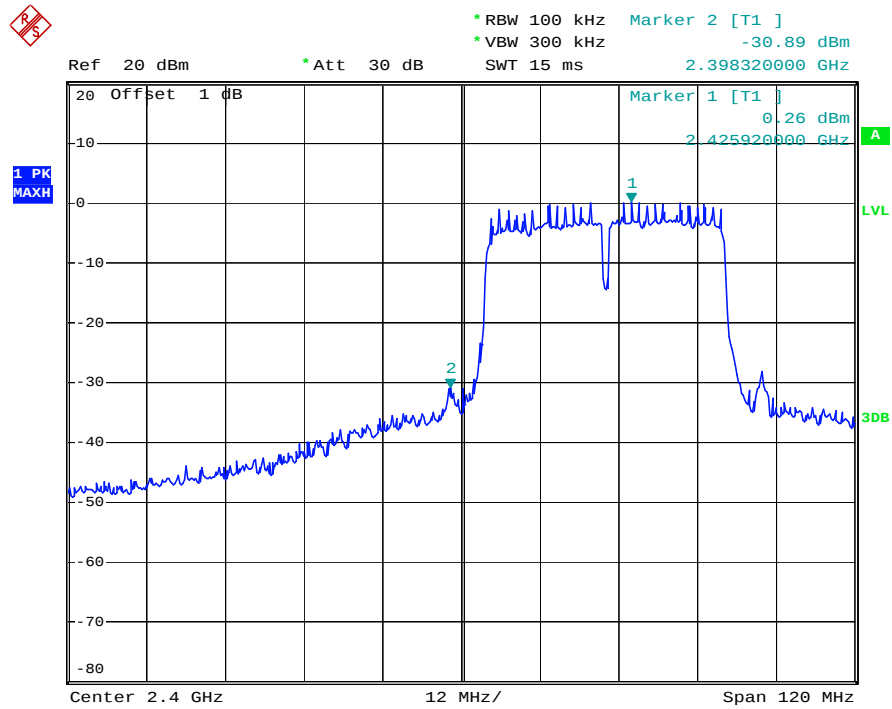
802.11n Channel Low 2412MHz (20MHz)



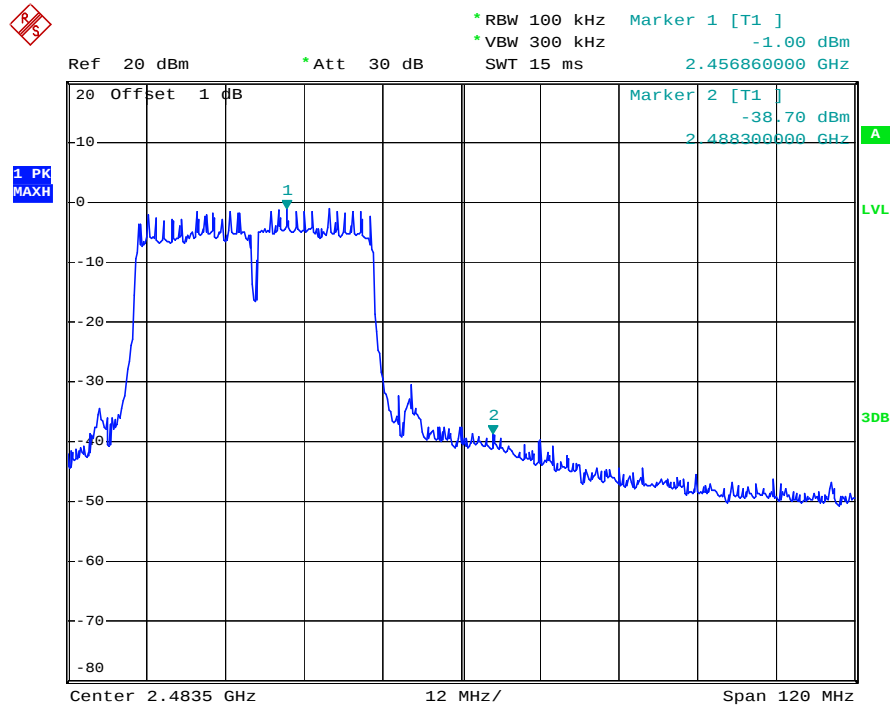
802.11n Channel High 2462MHz (20MHz)



802.11n Channel Low 2422MHz (40MHz)



802.11n Channel High 2452MHz (40MHz)



Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

3. Display the measurement of peak values.



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Job No.: alen #2924

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

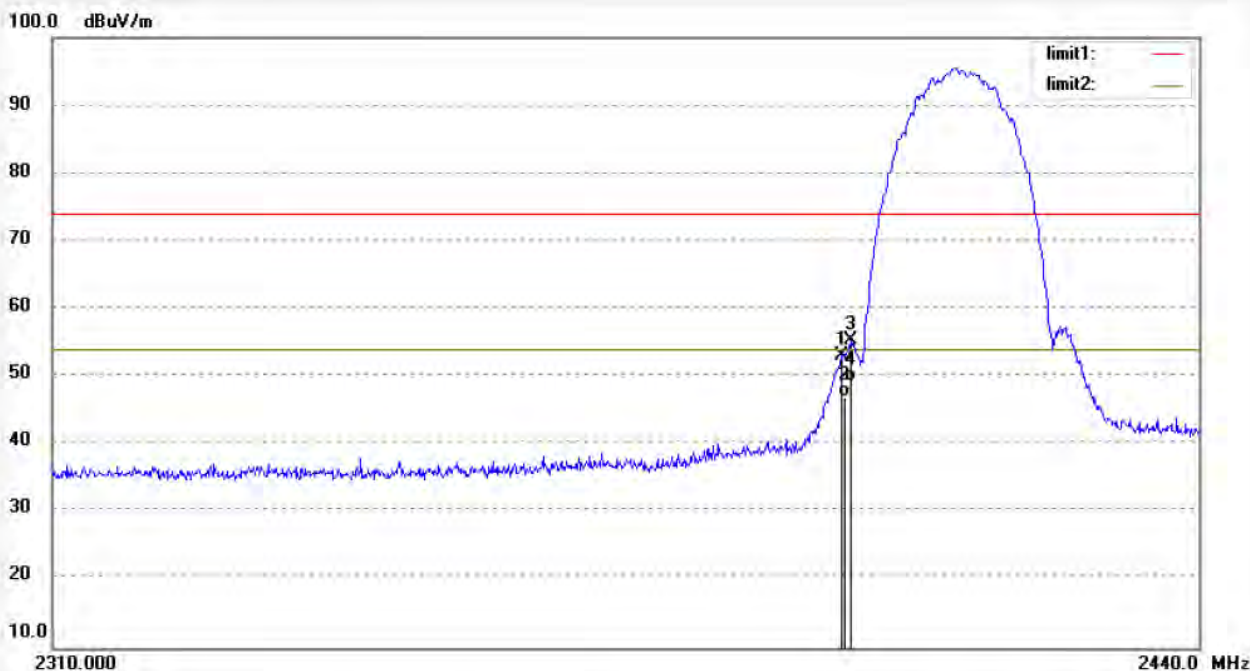
Date: 14/04/24/

Time: 13/59/39

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.920	59.81	-6.76	53.05	74.00	-20.95	peak			
2	2398.920	53.78	-6.76	47.02	54.00	-6.98	AVG			
3	2399.960	62.04	-6.76	55.28	74.00	-18.72	peak			
4	2399.960	56.01	-6.76	49.25	54.00	-4.75	AVG			



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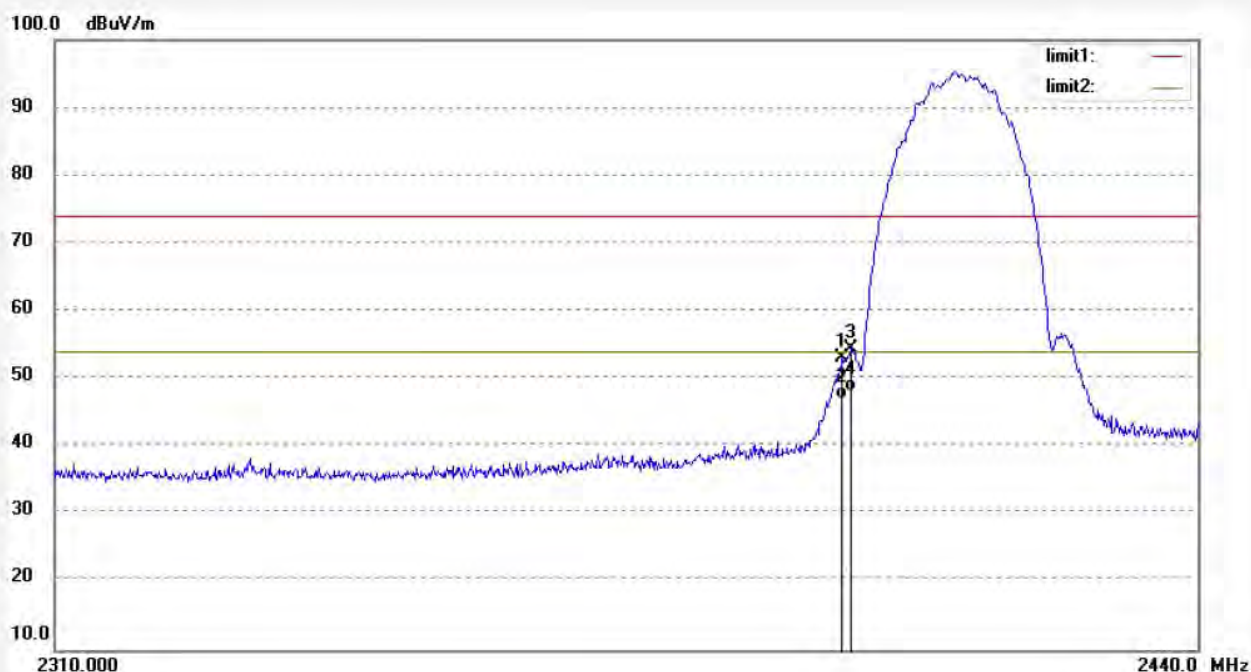
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2923
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/58/59
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.920	59.78	-6.76	53.02	74.00	-20.98	peak			
2	2398.920	53.69	-6.76	46.93	54.00	-7.07	AVG			
3	2399.960	61.09	-6.76	54.33	74.00	-19.67	peak			
4	2399.960	54.87	-6.76	48.11	54.00	-5.89	AVG			



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Fax:+86-0755-26503396

Job No.: alen #2925

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

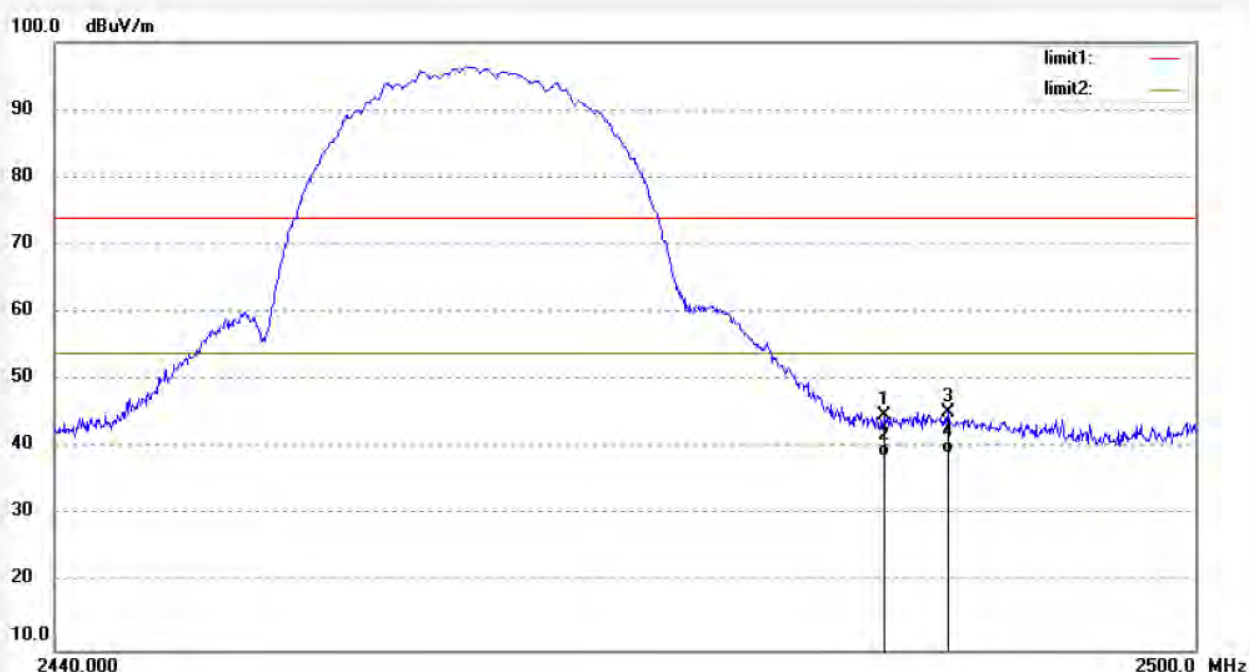
Date: 14/04/24/

Time: 14/01/18

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	51.20	-6.54	44.66	74.00	-29.34	peak			
2	2483.500	45.12	-6.54	38.58	54.00	-15.42	AVG			
3	2486.860	51.78	-6.53	45.25	74.00	-28.75	peak			
4	2486.860	45.57	-6.53	39.04	54.00	-14.96	AVG			



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Job No.: alen #2926

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

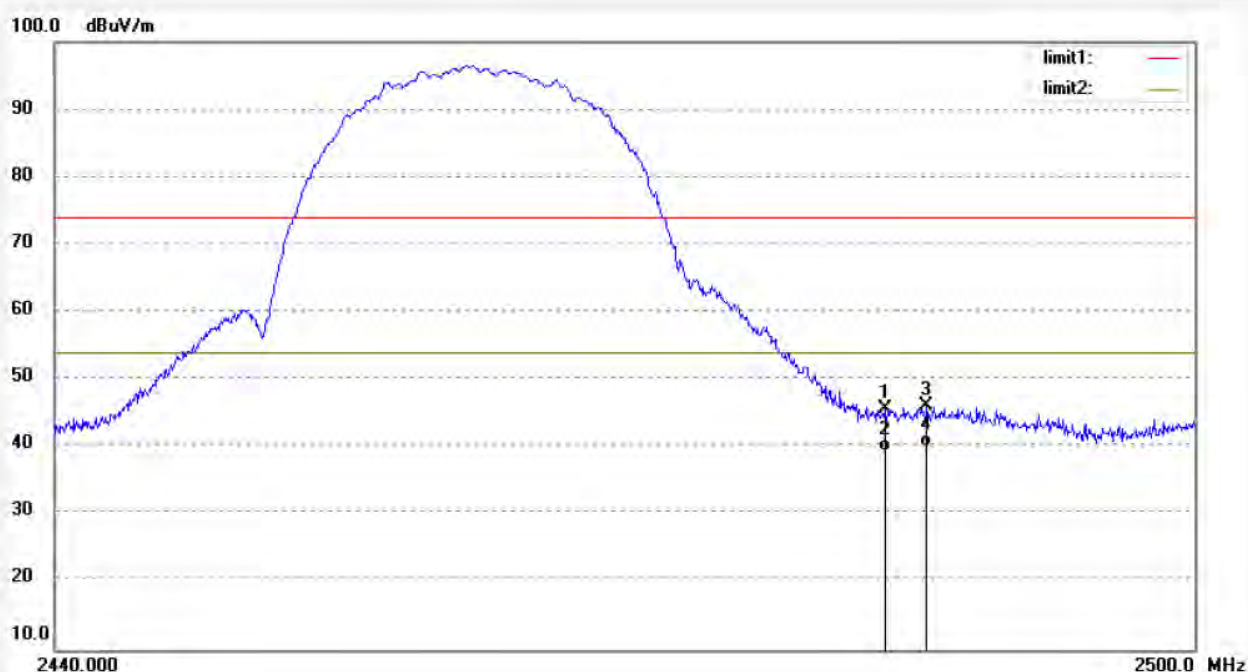
Date: 14/04/24/

Time: 14/01/55

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.560	52.17	-6.54	45.63	74.00	-28.37	peak			
2	2483.560	46.01	-6.54	39.47	54.00	-14.53	AVG			
3	2485.780	52.55	-6.54	46.01	74.00	-27.99	peak			
4	2485.780	46.47	-6.54	39.93	54.00	-14.07	AVG			

Job No.: alen #2929

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

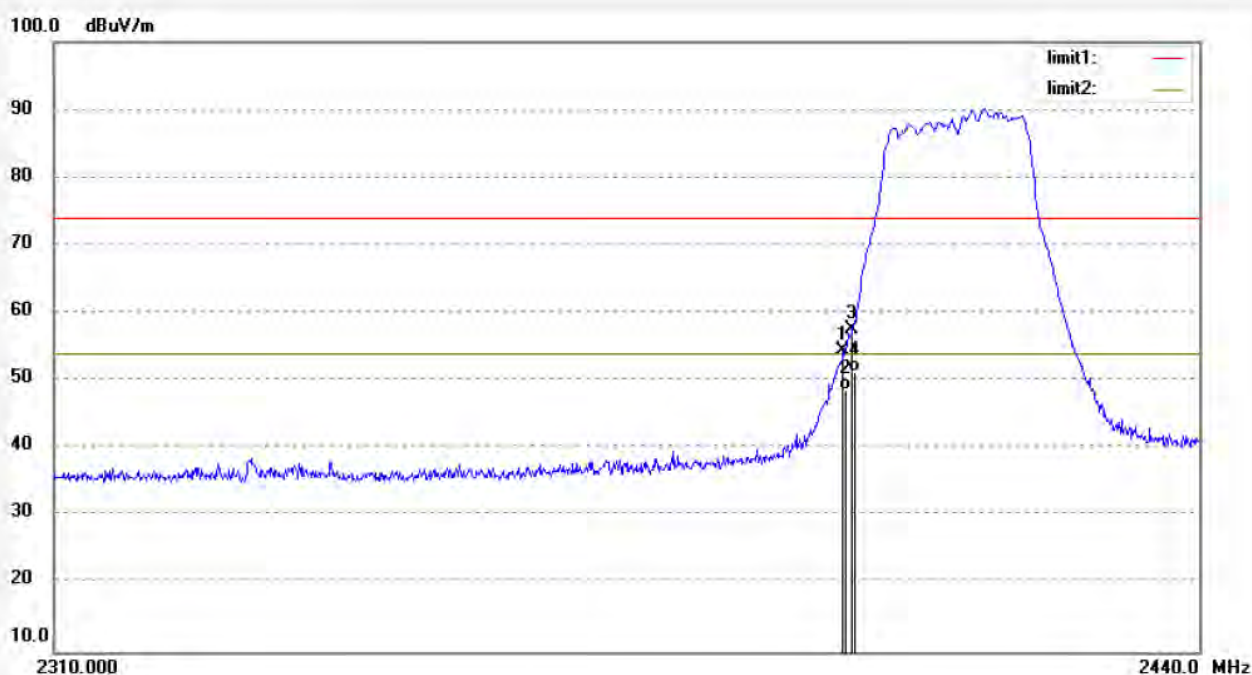
Date: 14/04/24/

Time: 14/05/36

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.920	61.25	-6.76	54.49	74.00	-19.51	peak			
2	2398.920	55.32	-6.76	48.56	54.00	-5.44	AVG			
3	2399.960	64.24	-6.76	57.48	74.00	-16.52	peak			
4	2399.960	58.01	-6.76	51.25	54.00	-2.75	AVG			



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Job No.: alen #2930

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

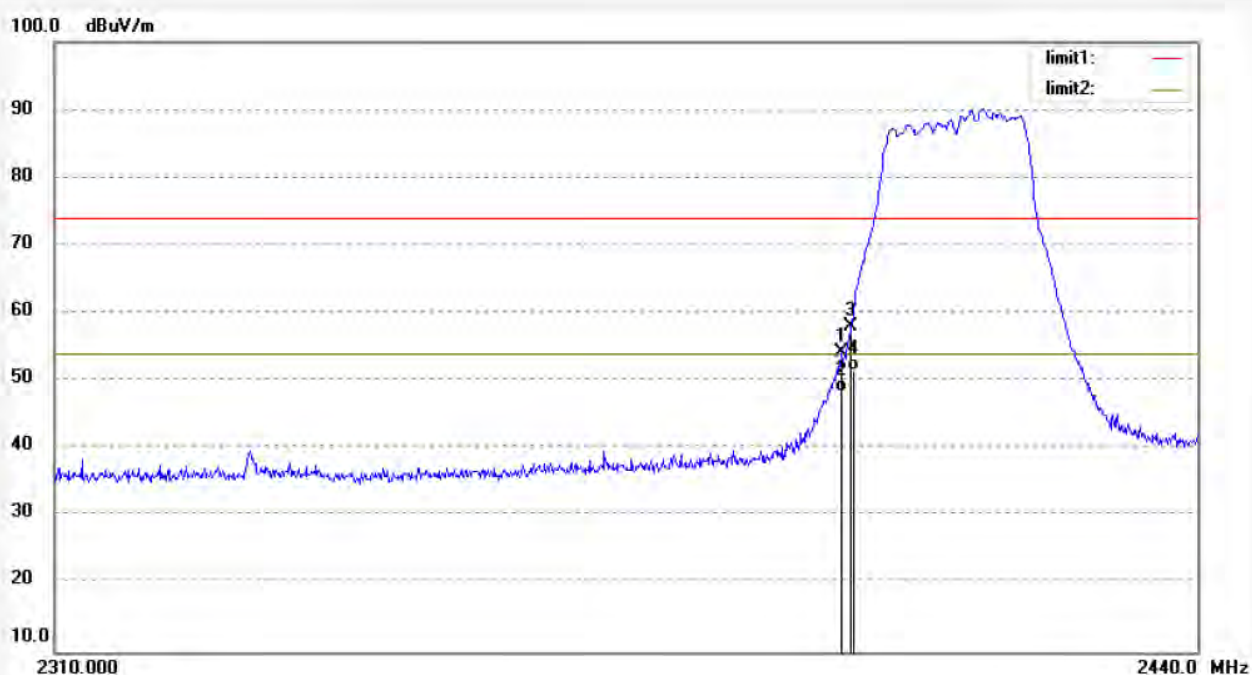
Date: 14/04/24/

Time: 14/06/16

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.790	61.05	-6.76	54.29	74.00	-19.71	peak			
2	2398.790	55.07	-6.76	48.31	54.00	-5.69	AVG			
3	2399.960	64.88	-6.76	58.12	74.00	-15.88	peak			
4	2399.960	58.36	-6.76	51.60	54.00	-2.40	AVG			



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Job No.: alen #2928

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

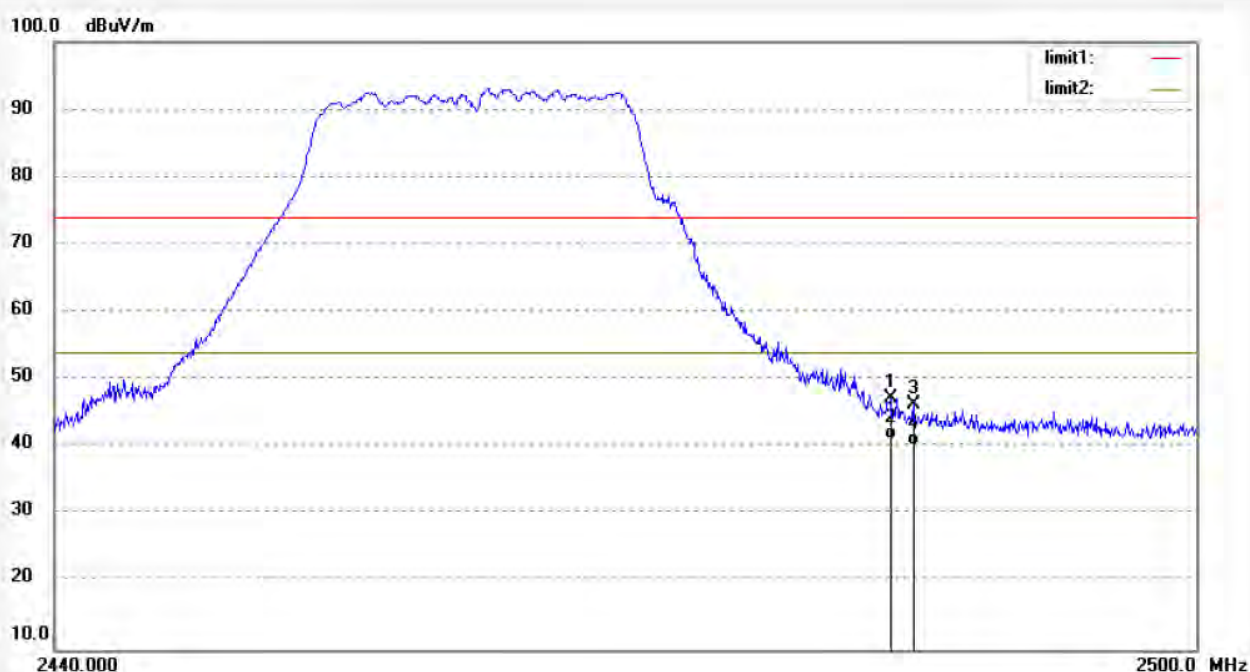
Date: 14/04/24/

Time: 14/04/03

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.800	53.77	-6.54	47.23	74.00	-26.77	peak			
2	2483.800	47.68	-6.54	41.14	54.00	-12.86	AVG			
3	2485.000	52.81	-6.54	46.27	74.00	-27.73	peak			
4	2485.000	46.74	-6.54	40.20	54.00	-13.80	AVG			



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Job No.: alen #2927

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

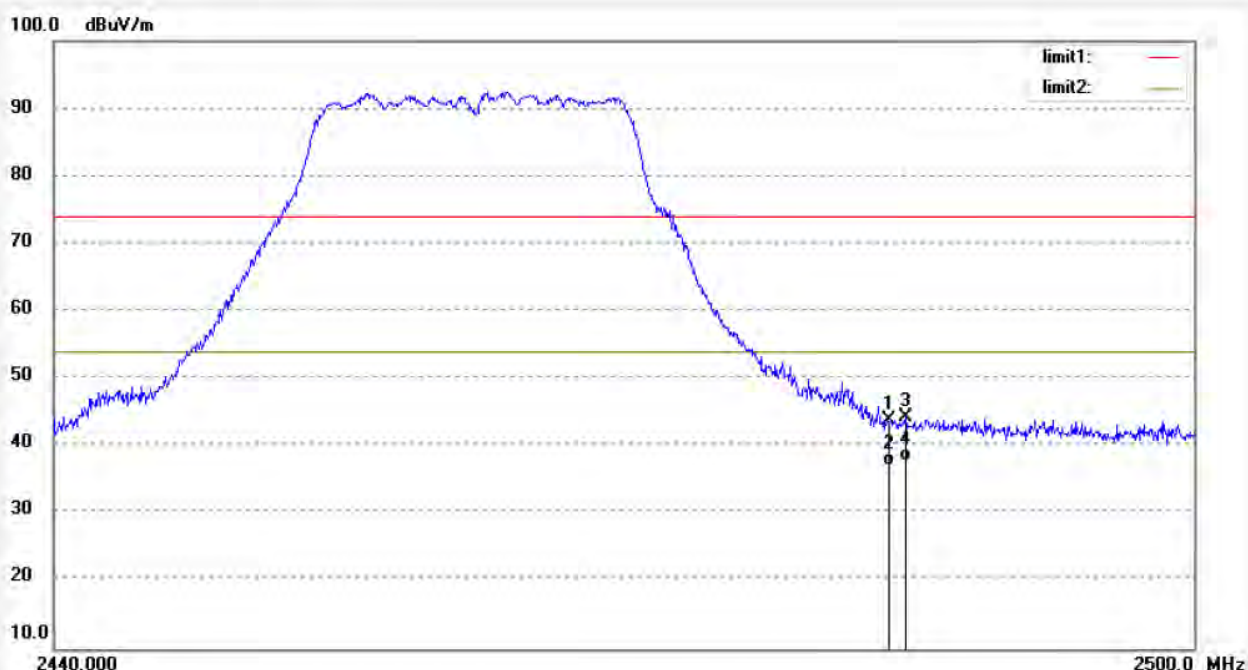
Date: 14/04/24/

Time: 14/03/26

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.740	50.38	-6.54	43.84	74.00	-30.16	peak			
2	2483.740	43.74	-6.54	37.20	54.00	-16.80	AVG			
3	2484.700	50.77	-6.54	44.23	74.00	-29.77	peak			
4	2484.700	44.28	-6.54	37.74	54.00	-16.26	AVG			



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Job No.: alen #2932

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11n20)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

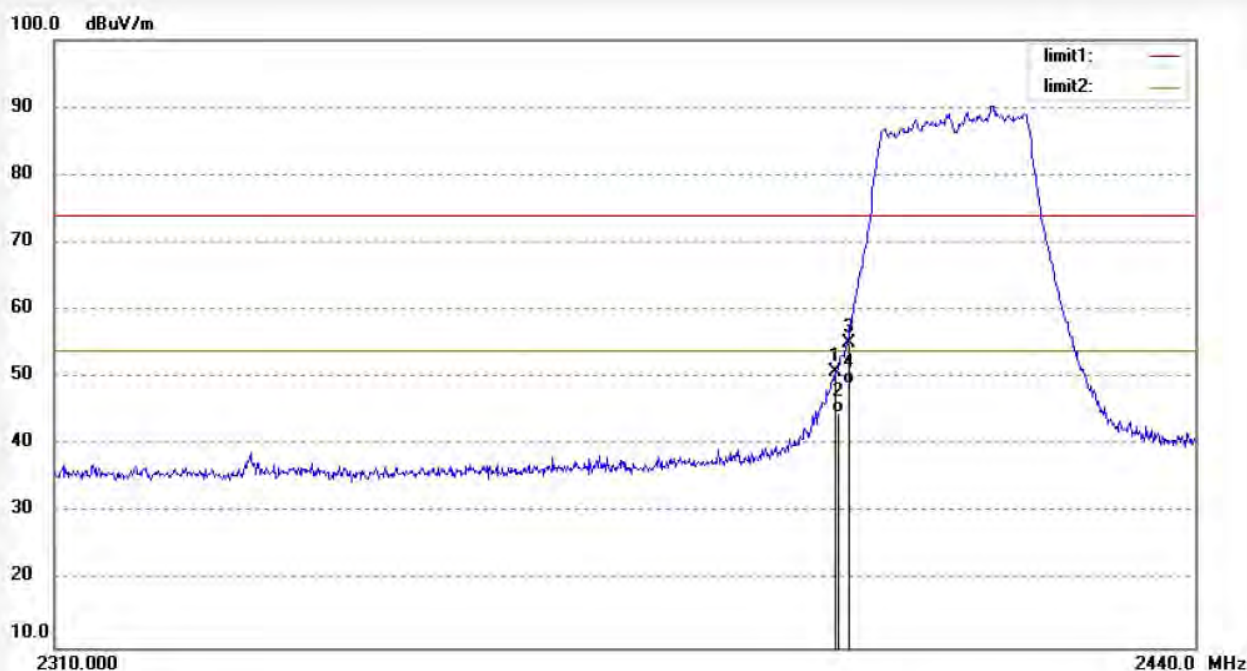
Date: 14/04/24/

Time: 14/08/26

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.400	57.64	-6.75	50.89	74.00	-23.11	peak			
2	2398.400	51.57	-6.75	44.82	54.00	-9.18	AVG			
3	2399.700	61.77	-6.76	55.01	74.00	-18.99	peak			
4	2399.700	55.81	-6.76	49.05	54.00	-4.95	AVG			



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Site: 1# Chamber

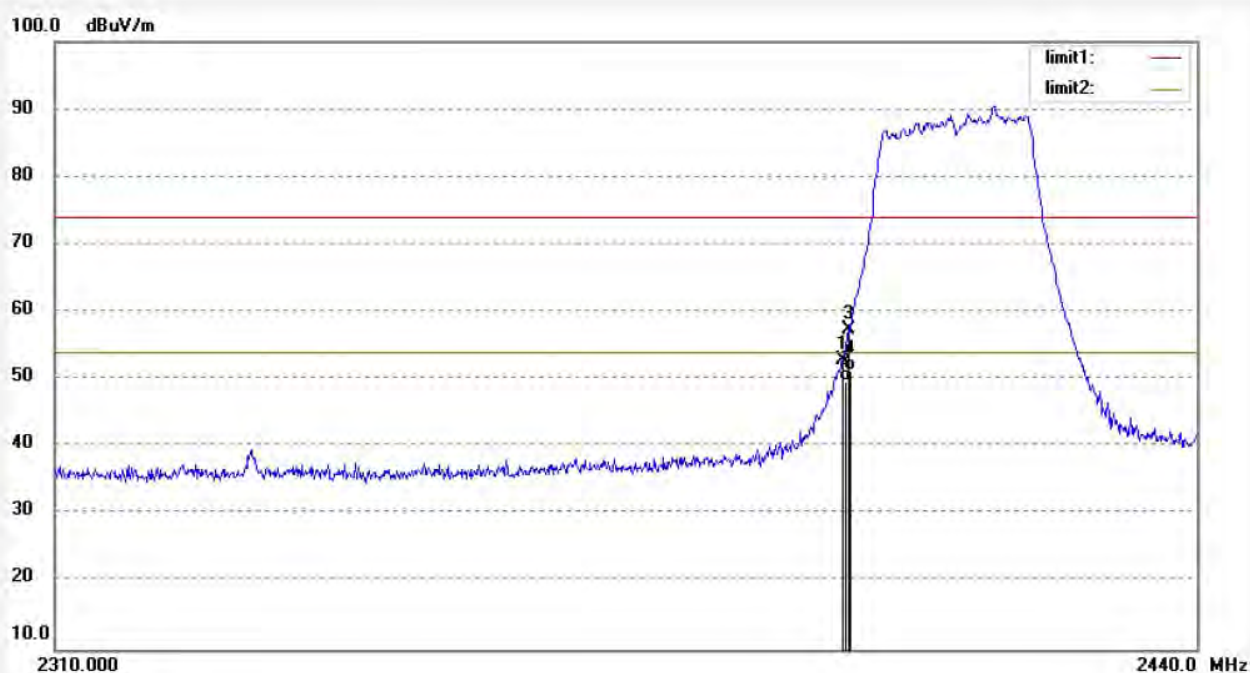
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2931
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11n20)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 14/07/47
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578

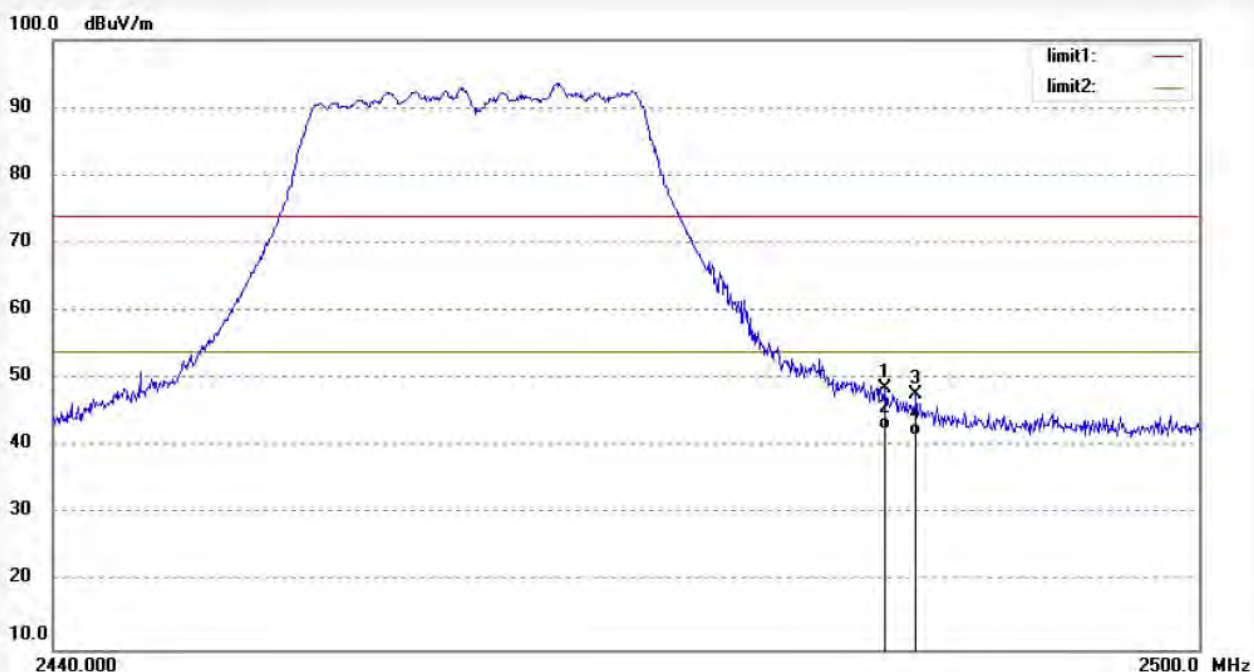


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2399.050	59.73	-6.76	52.97	74.00	-21.03	peak			
2	2399.050	56.38	-6.76	49.62	54.00	-4.38	AVG			
3	2399.700	64.11	-6.76	57.35	74.00	-16.65	peak			
4	2399.700	58.04	-6.76	51.28	54.00	-2.72	AVG			

Job No.: alen #2933
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2462MHz(802.11n20)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 14/10/04
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.440	55.08	-6.54	48.54	74.00	-25.46	peak			
2	2483.440	49.02	-6.54	42.48	54.00	-11.52	AVG			
3	2485.060	54.15	-6.54	47.61	74.00	-26.39	peak			
4	2485.060	48.13	-6.54	41.59	54.00	-12.41	AVG			

Job No.: alen #2934

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11n20)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

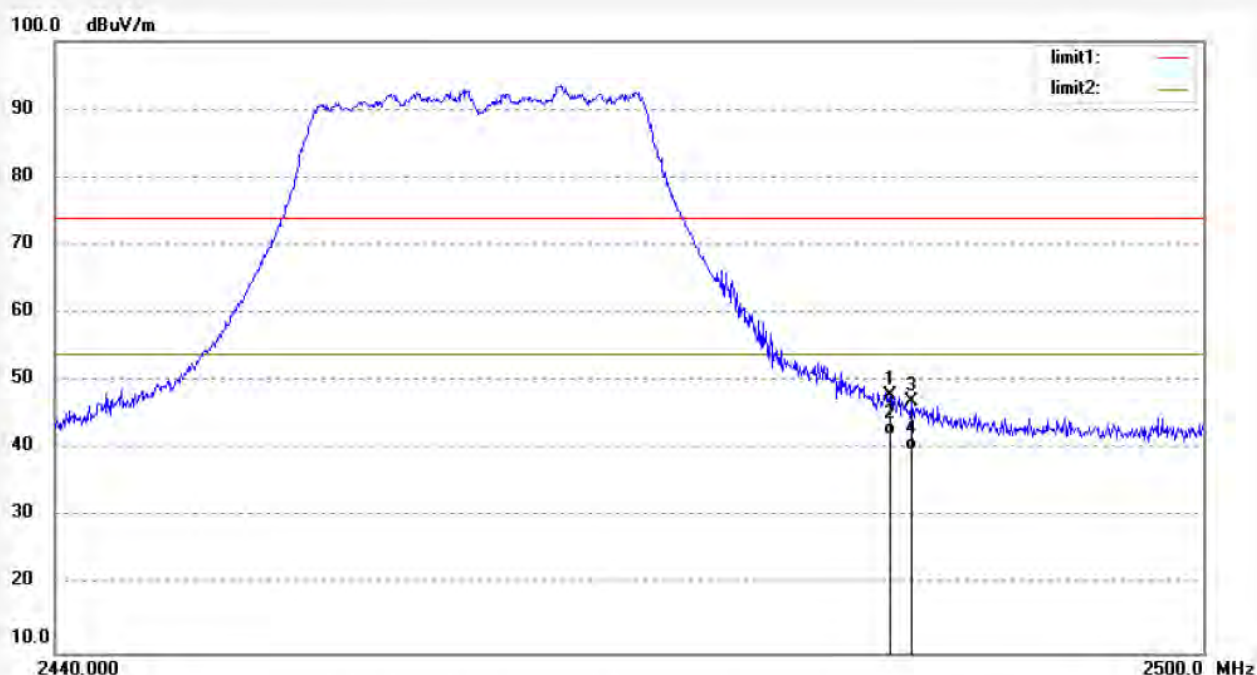
Date: 14/04/24/

Time: 14/10/44

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	54.54	-6.54	48.00	74.00	-26.00	peak			
2	2483.500	48.57	-6.54	42.03	54.00	-11.97	AVG			
3	2484.640	53.48	-6.54	46.94	74.00	-27.06	peak			
4	2484.640	46.42	-6.54	39.88	54.00	-14.12	AVG			



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Fax:+86-0755-26503396

Job No.: alen #2937

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2422MHz(802.11n40)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

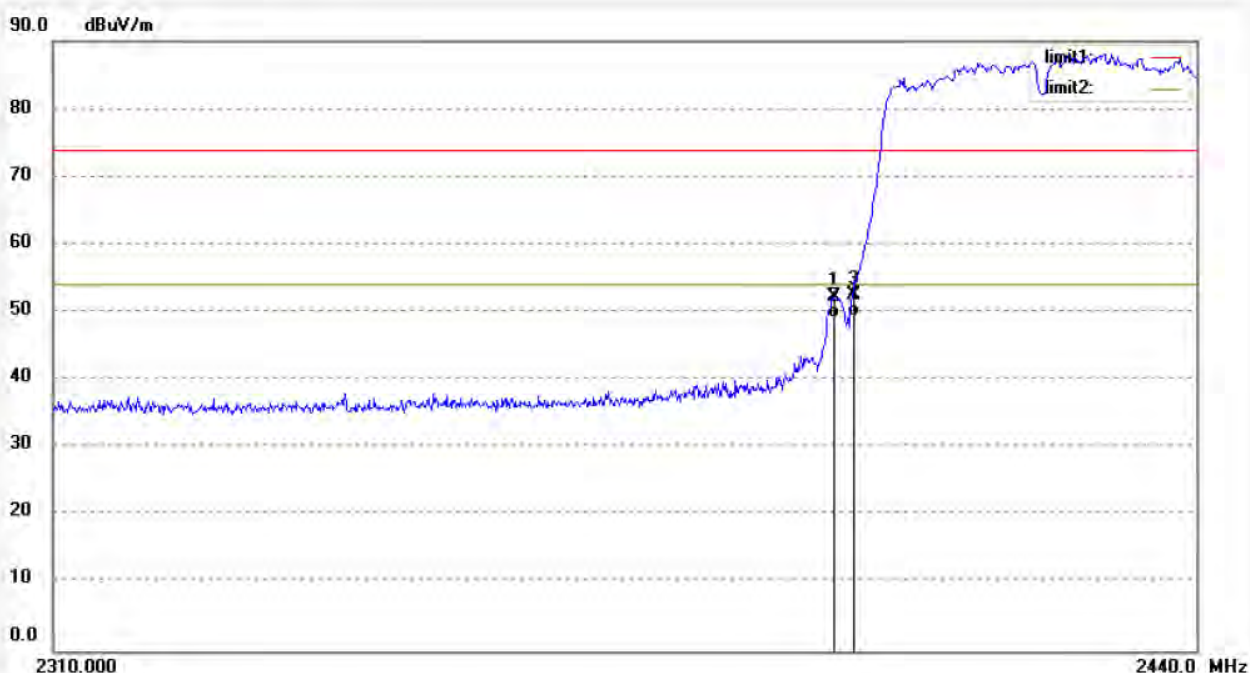
Date: 14/04/24/

Time: 14/14/30

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.140	59.13	-6.75	52.38	74.00	-21.62	peak			
2	2398.140	56.01	-6.75	49.26	54.00	-4.74	AVG			
3	2400.220	59.35	-6.76	52.59	74.00	-21.41	peak			
4	2400.220	56.14	-6.76	49.38	54.00	-4.62	AVG			



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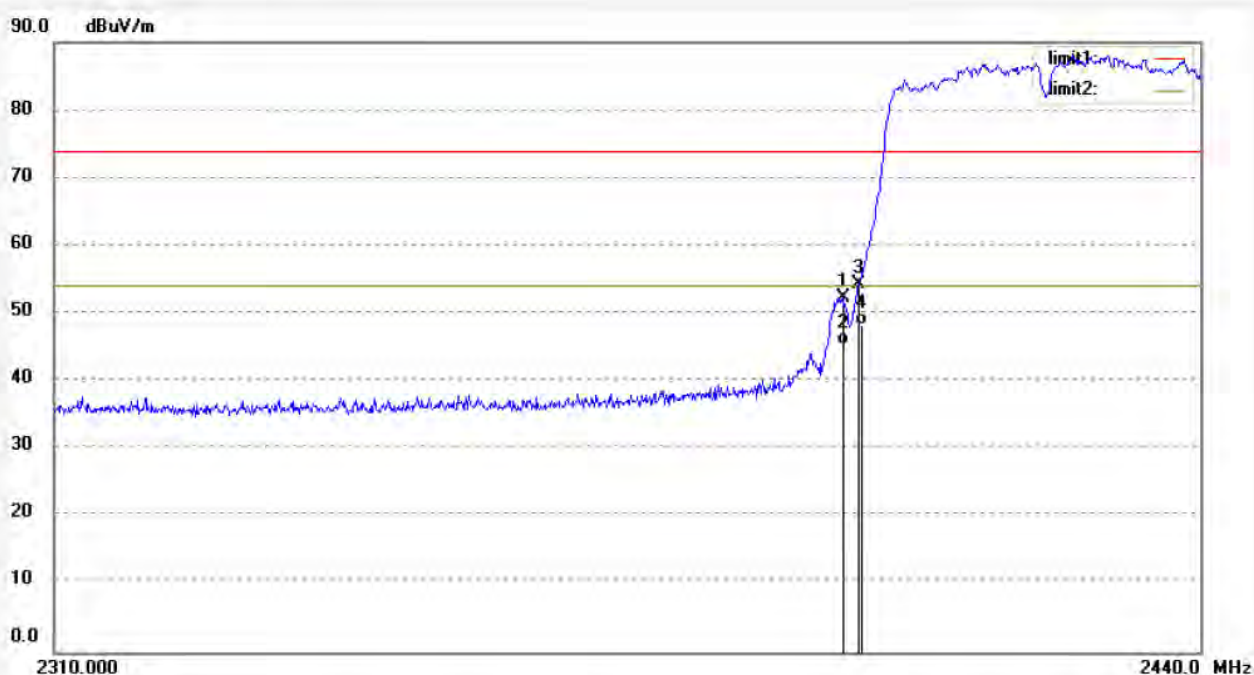
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2938
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2422MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 14/15/10
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.790	59.16	-6.76	52.40	74.00	-21.60	peak			
2	2398.790	52.17	-6.76	45.41	54.00	-8.59	AVG			
3	2400.610	61.10	-6.76	54.34	74.00	-19.66	peak			
4	2400.610	55.04	-6.76	48.28	54.00	-5.72	AVG			



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Fax:+86-0755-26503396

Job No.: alen #2936

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2452MHz(802.11n40)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

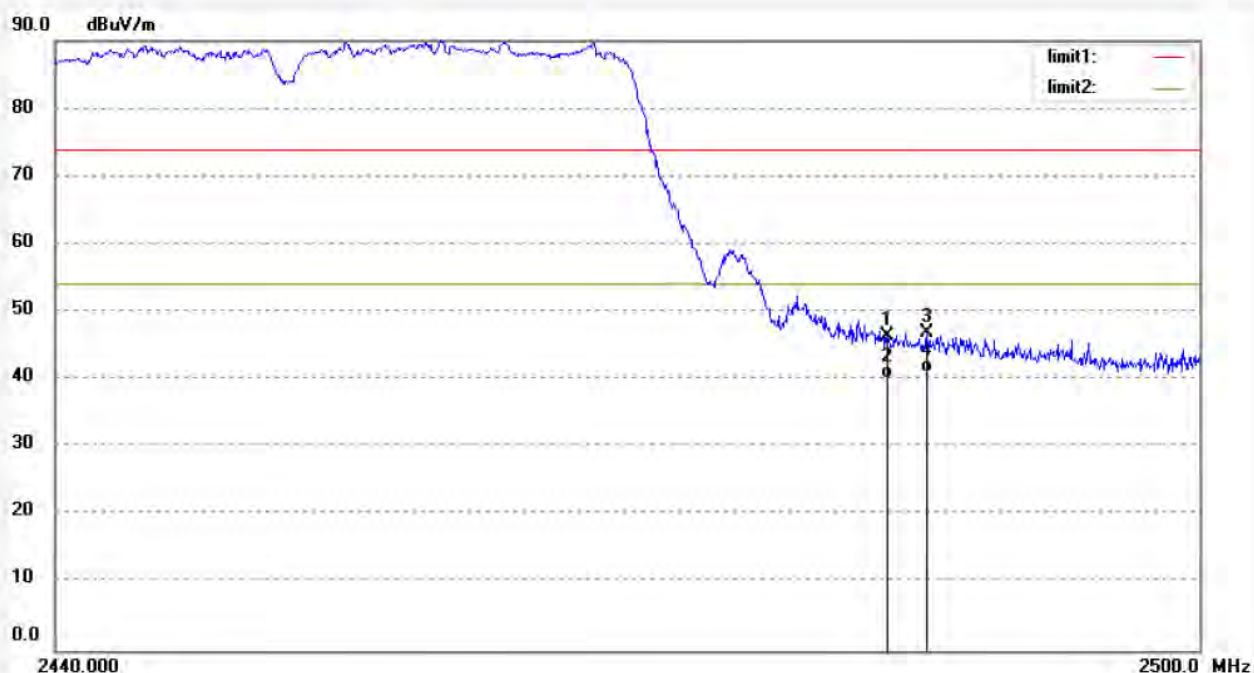
Date: 14/04/24/

Time: 14/12/46

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	52.96	-6.54	46.42	74.00	-27.58	peak			
2	2483.500	46.65	-6.54	40.11	54.00	-13.89	AVG			
3	2485.600	53.47	-6.54	46.93	74.00	-27.07	peak			
4	2485.600	47.58	-6.54	41.04	54.00	-12.96	AVG			



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Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2935

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2452MHz(802.11n40)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

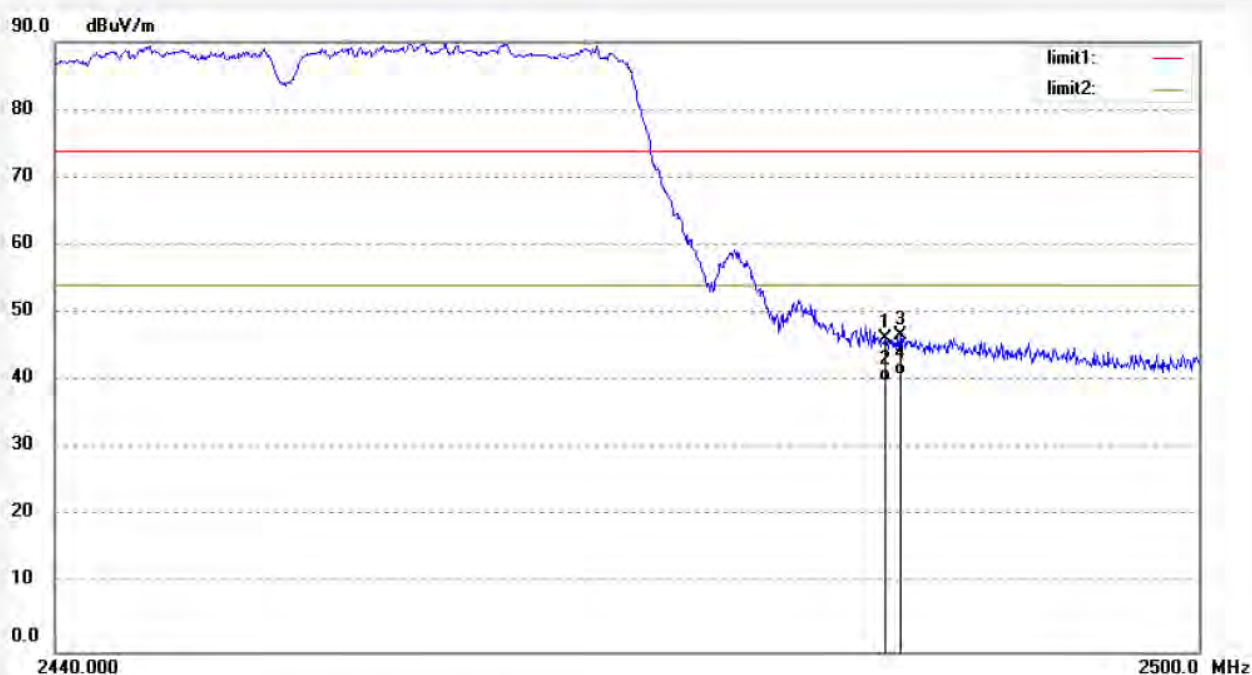
Date: 14/04/24/

Time: 14/12/18

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578

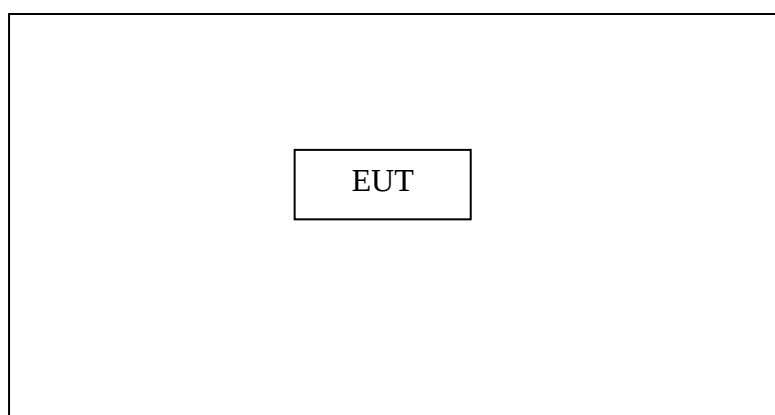


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.440	52.68	-6.54	46.14	74.00	-27.86	peak			
2	2483.440	46.57	-6.54	40.03	54.00	-13.97	AVG			
3	2484.220	53.34	-6.54	46.80	74.00	-27.20	peak			
4	2484.220	47.35	-6.54	40.81	54.00	-13.19	AVG			

9. RADIATED SPURIOUS EMISSION TEST

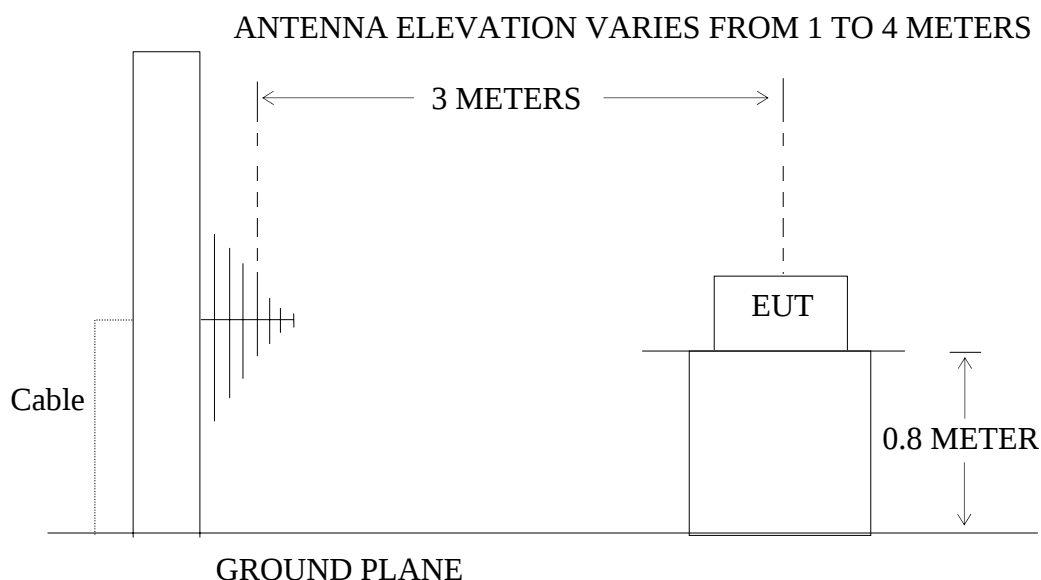
9.1. Block Diagram of Test Setup

9.1.1. Block diagram of connection between the EUT and peripherals



Setup: Transmitting mode

9.1.2. Semi-Anechoic Chamber Test Setup Diagram



9.2. The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the

transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

9.3.Restricted bands of operation

9.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

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)
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

9.4.Configuration of EUT on Measurement

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

9.5. Operating Condition of EUT

9.5.1. Setup the EUT and simulator as shown as Section 9.1.

9.5.2. Turn on the power of all equipment.

9.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

9.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 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 polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The worst-case data rate for this channel to be 1Mbps for 802.11b mode and 6Mbps for 802.11g mode and 150Mbps for 802.11n mode, based on previous with 802.11 WLAN product design architectures.

The bandwidth of test receiver is set at 9kHz in below 30MHz. and set at 120kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9kHz to 25GHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

9.7. The Field Strength of Radiation Emission Measurement Results

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. The average measurement was not performed when peak measured data under the limit of average detection.

3. The fundamental radiated emissions were reduced by Band Reject Filter in the attached plots.

4. The EUT is tested radiation emission at each test mode(802.11 b/g/n) in three axes. The worst emissions are reported in all test mode and channels.

5. The 18-25GHz emissions are not reported, because the levels are too low against the limit.

Below 1G



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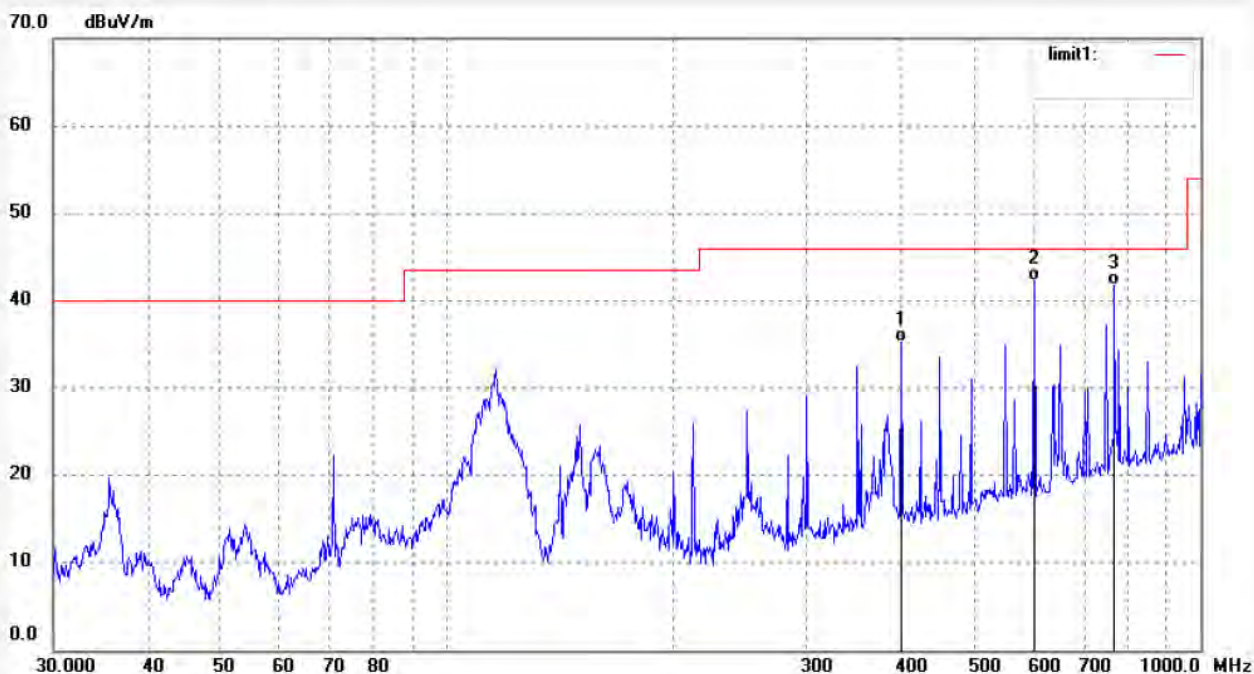
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3972
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/23/
Time: 14/47/49
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	400.4318	50.97	-15.63	35.34	46.00	-10.66	QP			
2	601.4265	53.88	-11.65	42.23	46.00	-3.77	QP			
3	768.7481	50.02	-8.30	41.72	46.00	-4.28	QP			



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Site: 1# Chamber

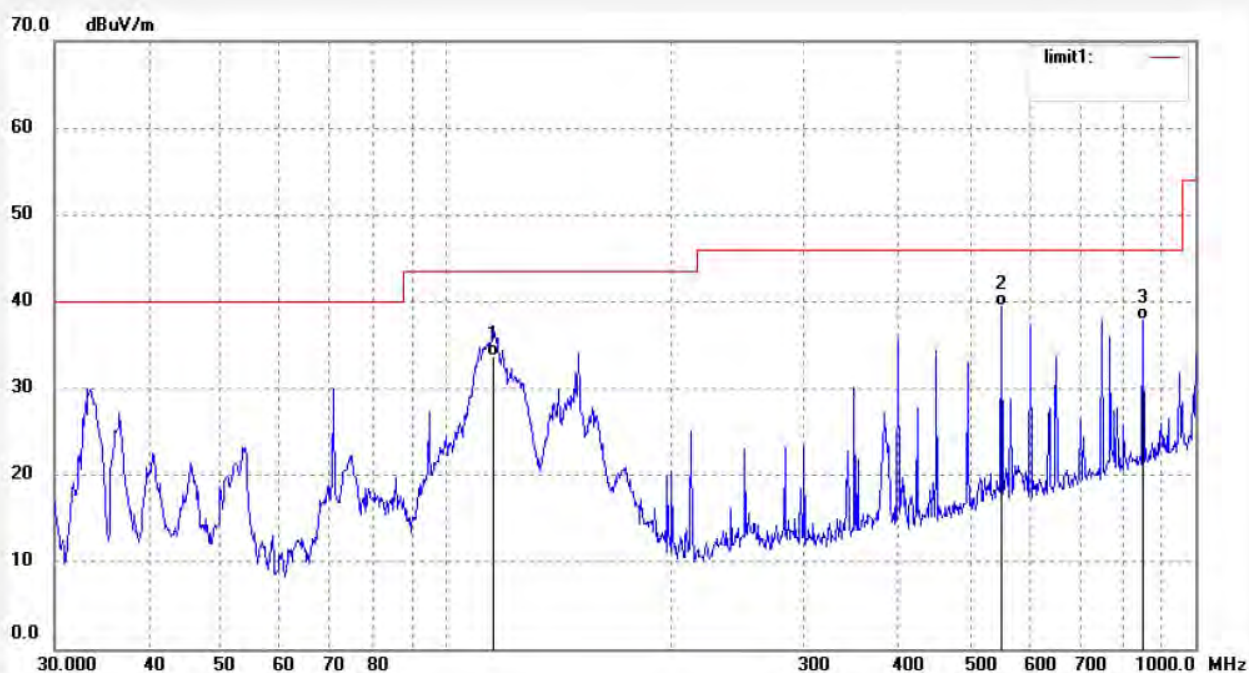
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3973
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/23/
Time: 14/48/39
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	115.3204	56.02	-22.35	33.67	43.50	-9.83	QP			
2	550.9479	52.37	-12.82	39.55	46.00	-6.45	QP			
3	851.0353	44.83	-6.95	37.88	46.00	-8.12	QP			

Job No.: alen #3975

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2437MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

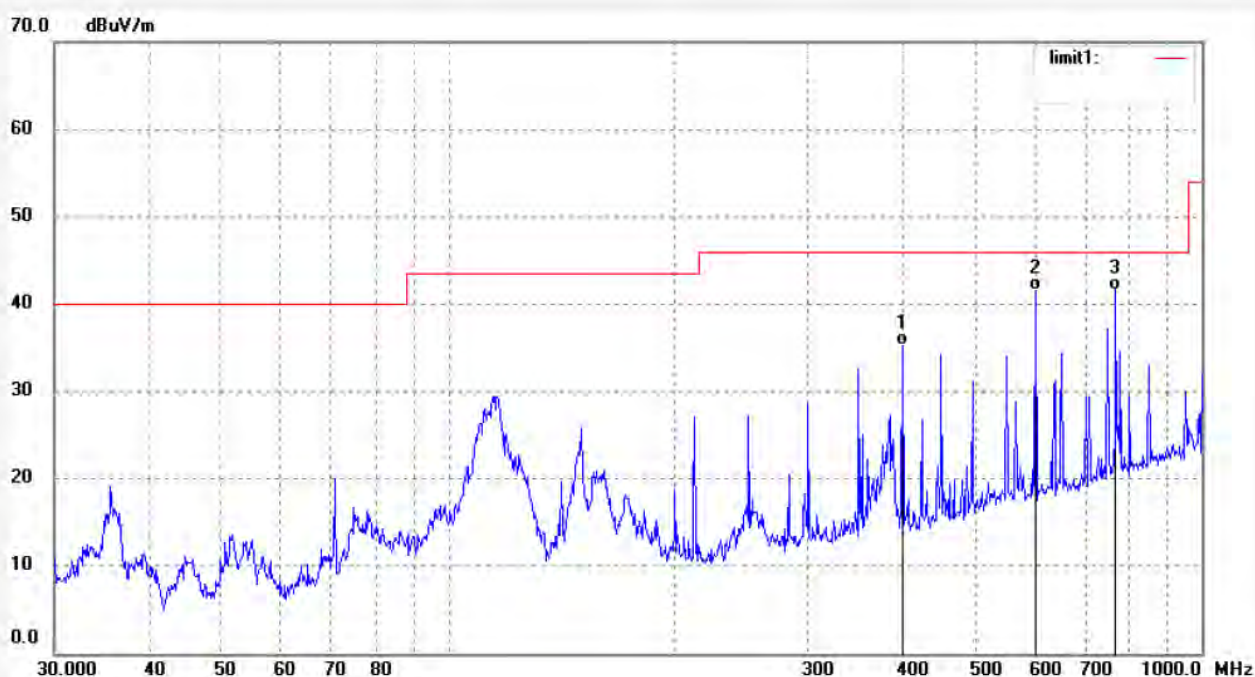
Date: 14/04/23/

Time: 14/50/14

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	400.4318	50.85	-15.63	35.22	46.00	-10.78	QP			
2	601.4265	53.25	-11.65	41.60	46.00	-4.40	QP			
3	768.7481	49.95	-8.30	41.65	46.00	-4.35	QP			



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Job No.: alen #3974

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2437MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 14/04/23/

Time: 14/49/18

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	115.7256	57.35	-22.37	34.98	43.50	-8.52	QP			
2	550.9479	52.49	-12.82	39.67	46.00	-6.33	QP			
3	851.0353	45.37	-6.95	38.42	46.00	-7.58	QP			



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Job No.: alen #3976

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

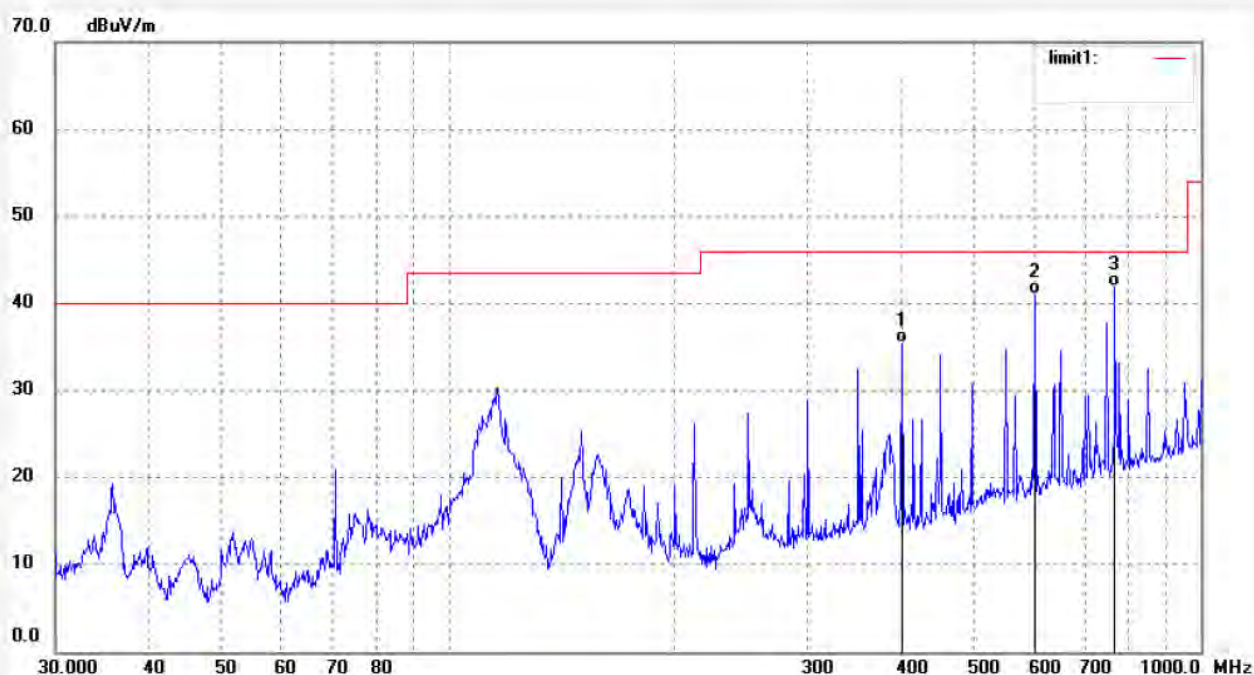
Date: 14/04/23/

Time: 14/51/03

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	400.4318	51.05	-15.63	35.42	46.00	-10.58	QP			
2	601.4265	52.77	-11.65	41.12	46.00	-4.88	QP			
3	768.7481	50.15	-8.30	41.85	46.00	-4.15	QP			

Job No.: alen #3977

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

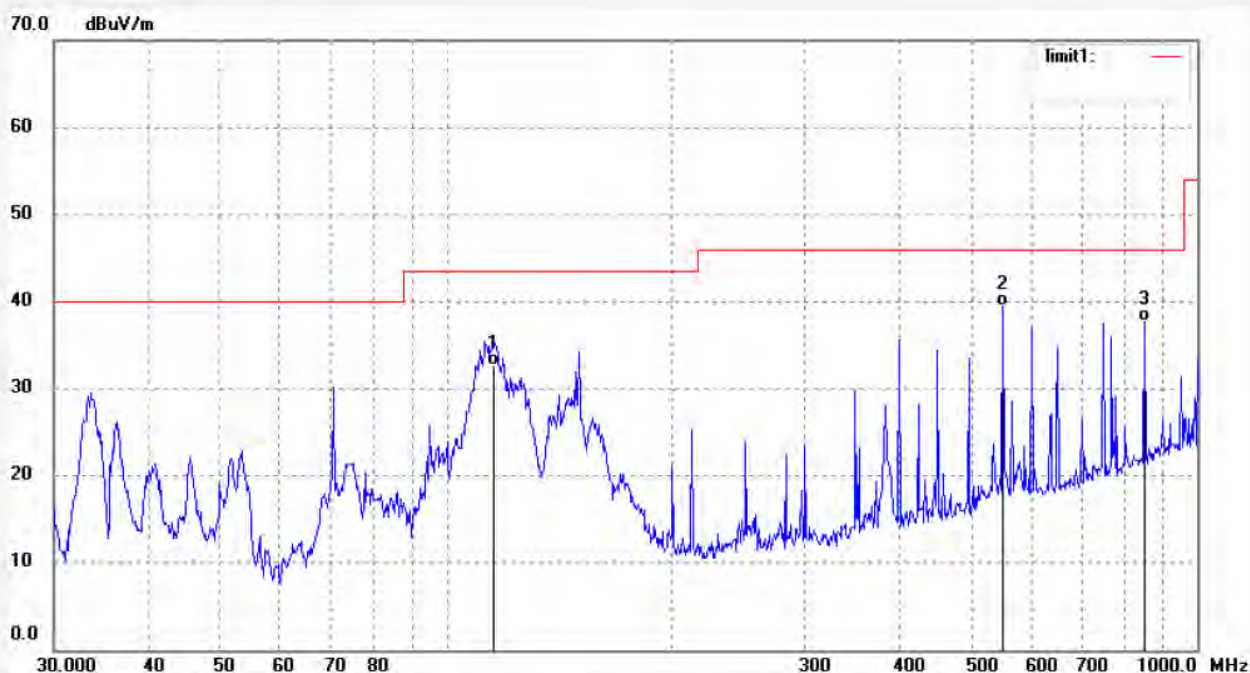
Date: 14/04/23/

Time: 14/51/54

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	115.7256	54.98	-22.37	32.61	43.50	-10.89	QP			
2	550.9479	52.21	-12.82	39.39	46.00	-6.61	QP			
3	851.0353	44.60	-6.95	37.65	46.00	-8.35	QP			

Above 1G



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Site: 1# Chamber

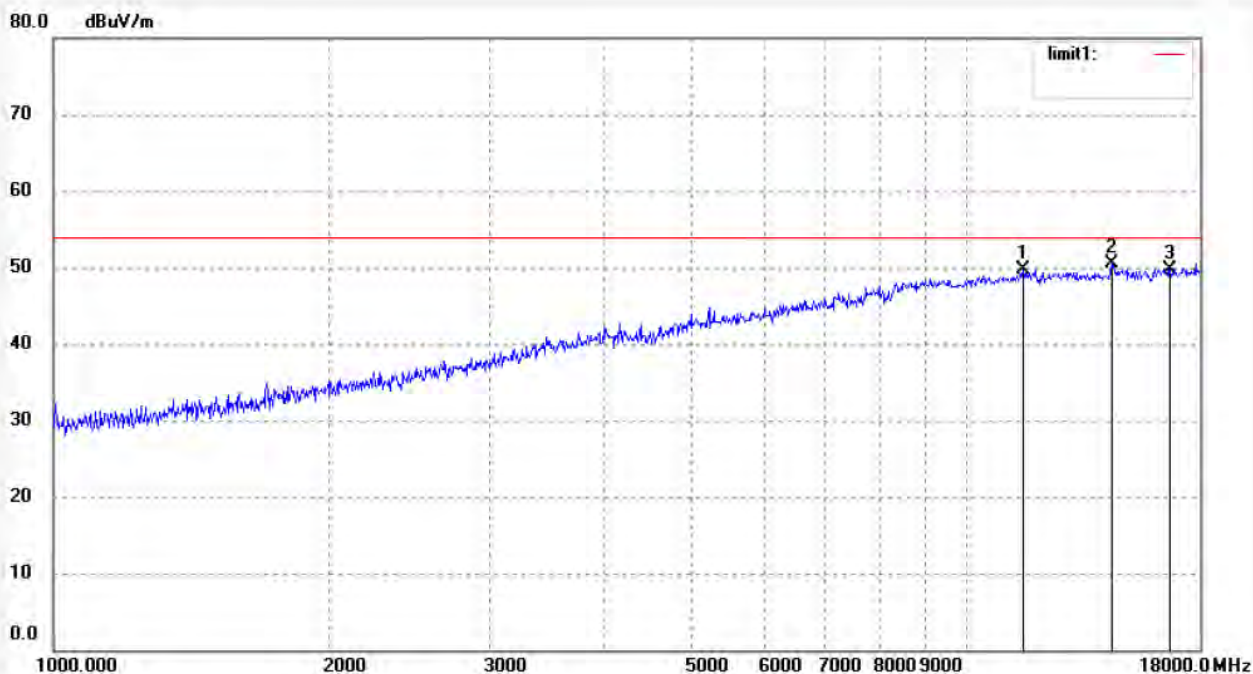
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2900
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 9/59/42
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578

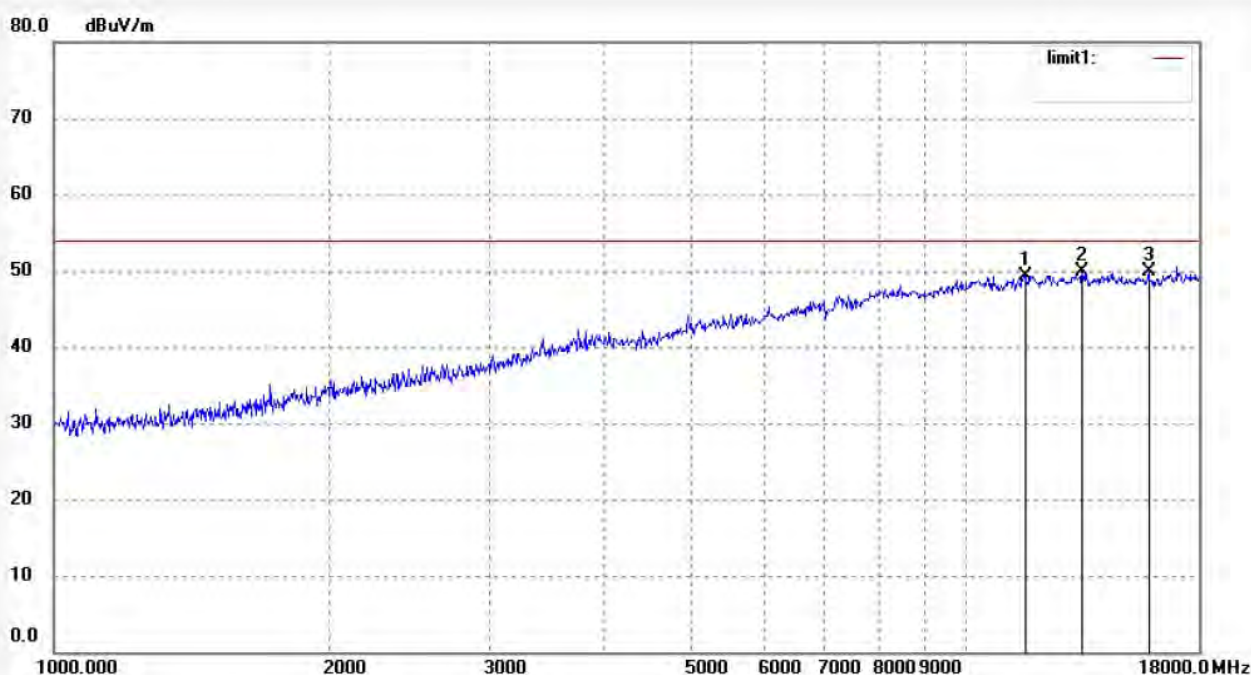


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11533.485	43.72	6.07	49.79	54.00	-4.21	peak			
2	14408.425	37.93	12.53	50.46	54.00	-3.54	peak			
3	16696.884	36.97	12.81	49.78	54.00	-4.22	peak			

Job No.: alen #2899
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 9/59/01
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11600.350	43.21	6.14	49.35	54.00	-4.65	peak			
2	13404.009	41.03	8.82	49.85	54.00	-4.15	peak			
3	15850.410	38.42	11.48	49.90	54.00	-4.10	peak			



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Fax:+86-0755-26503396

Job No.: alen #2901

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2437MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

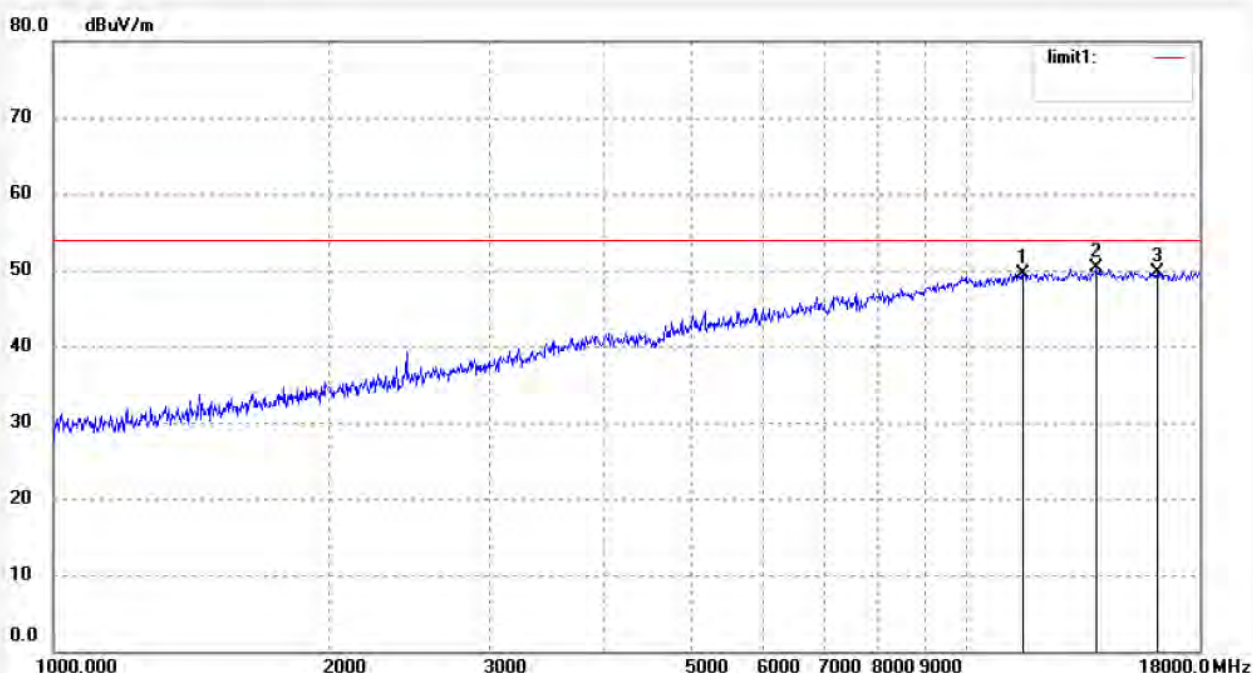
Date: 14/04/24/

Time: 10/01/25

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11533.485	43.52	6.07	49.59	54.00	-4.41	peak			
2	13877.076	40.14	10.08	50.22	54.00	-3.78	peak			
3	16174.372	37.91	11.79	49.70	54.00	-4.30	peak			



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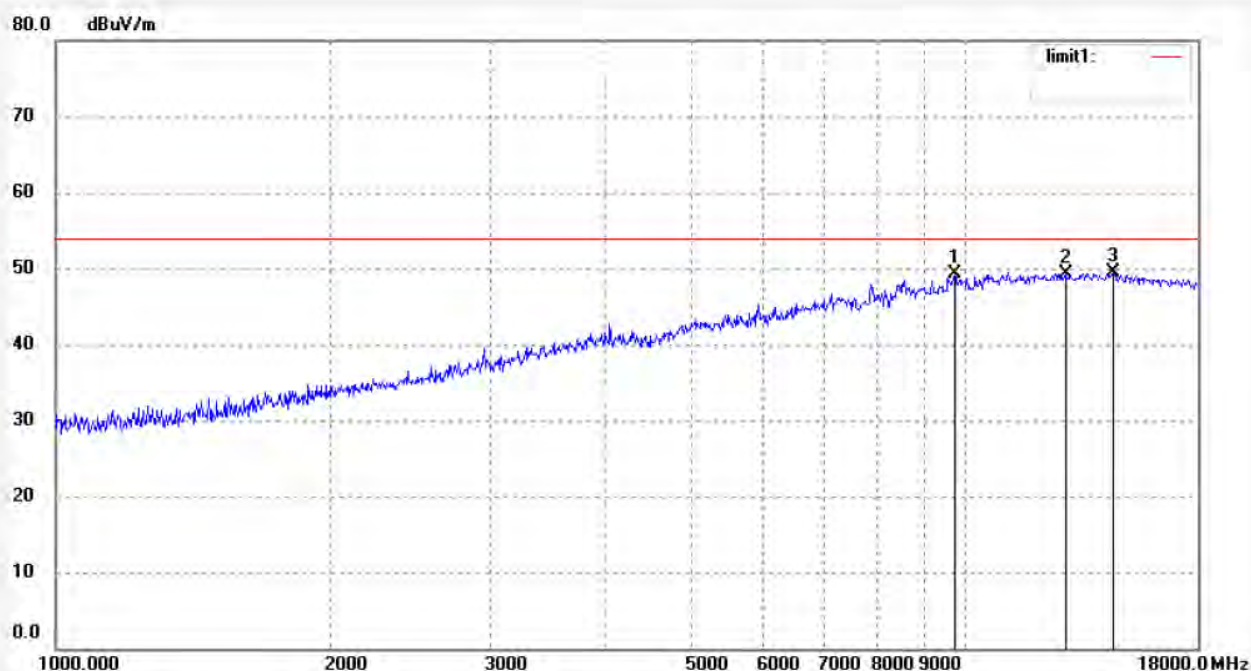
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2902
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2437MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 10/01/51
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9725.221	44.24	5.03	49.27	54.00	-4.73	peak			
2	12872.441	41.68	7.72	49.40	54.00	-4.60	peak			
3	14533.906	36.67	12.92	49.59	54.00	-4.41	peak			



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Fax:+86-0755-26503396

Job No.: alen #2904

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11b)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

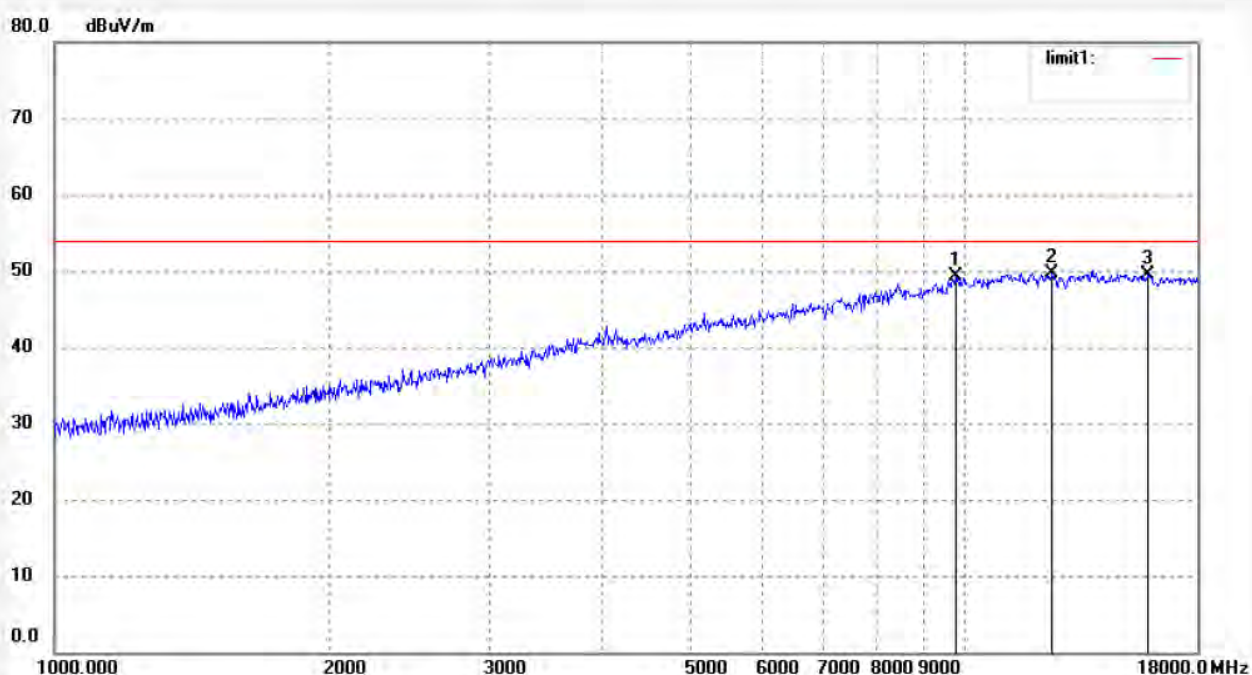
Date: 14/04/24/

Time: 10/04/12

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9753.371	44.19	5.06	49.25	54.00	-4.75	peak			
2	12469.611	42.54	7.12	49.66	54.00	-4.34	peak			
3	15850.410	38.11	11.48	49.59	54.00	-4.41	peak			



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Site: 1# Chamber

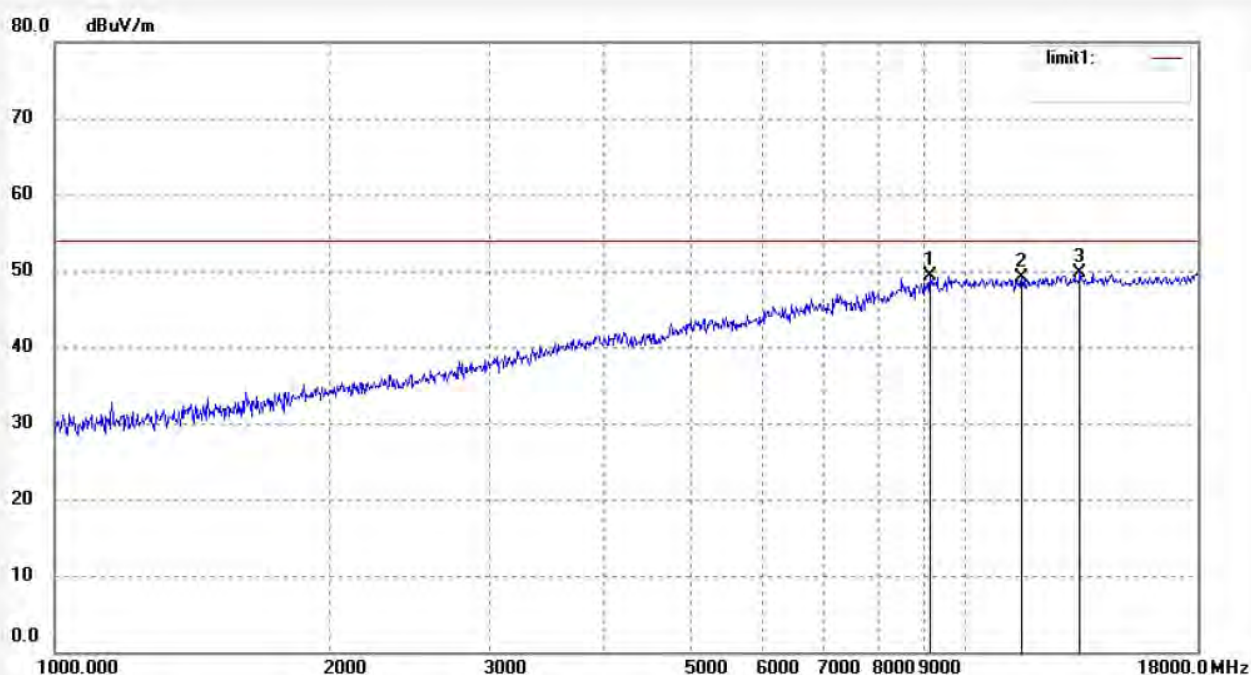
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2903
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2462MHz(802.11b)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 10/03/29
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9152.479	45.47	3.88	49.35	54.00	-4.65	peak			
2	11533.485	42.94	6.07	49.01	54.00	-4.99	peak			
3	13365.322	41.06	8.74	49.80	54.00	-4.20	peak			

Job No.: alen #2909

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

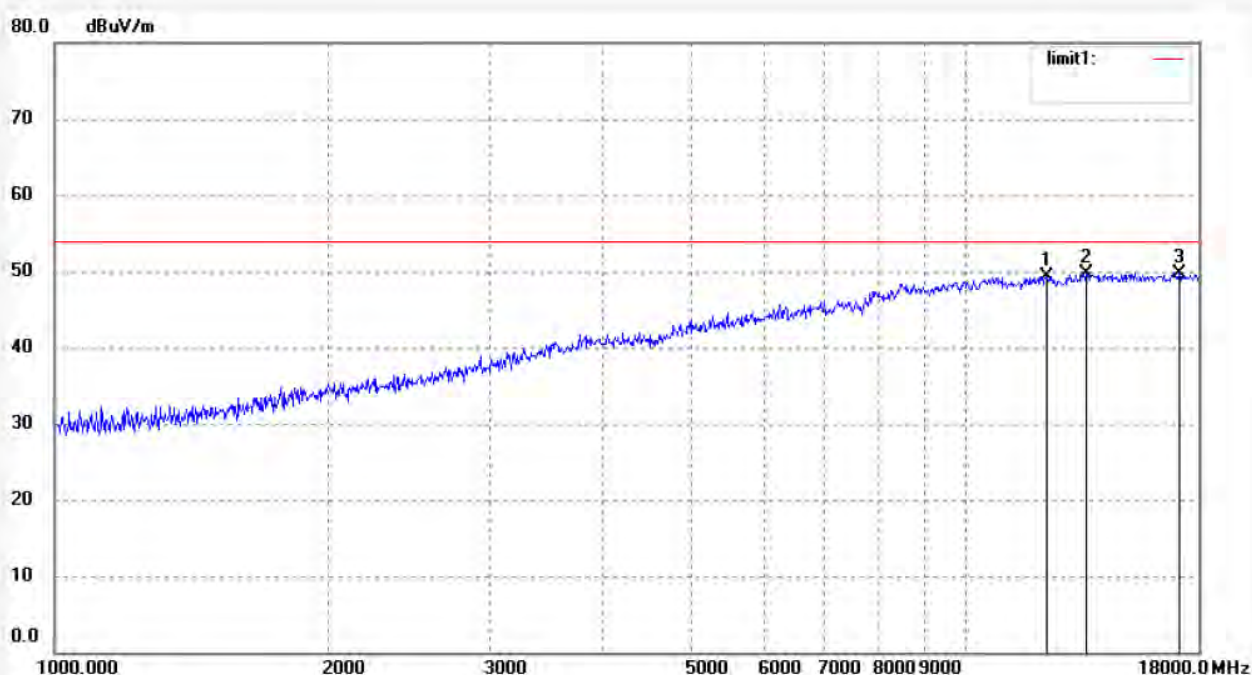
Date: 14/04/24/

Time: 13/45/26

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12255.224	42.46	6.84	49.30	54.00	-4.70	peak			
2	13559.879	40.43	9.22	49.65	54.00	-4.35	peak			
3	17136.924	35.33	14.42	49.75	54.00	-4.25	peak			

Job No.: alen #2910

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

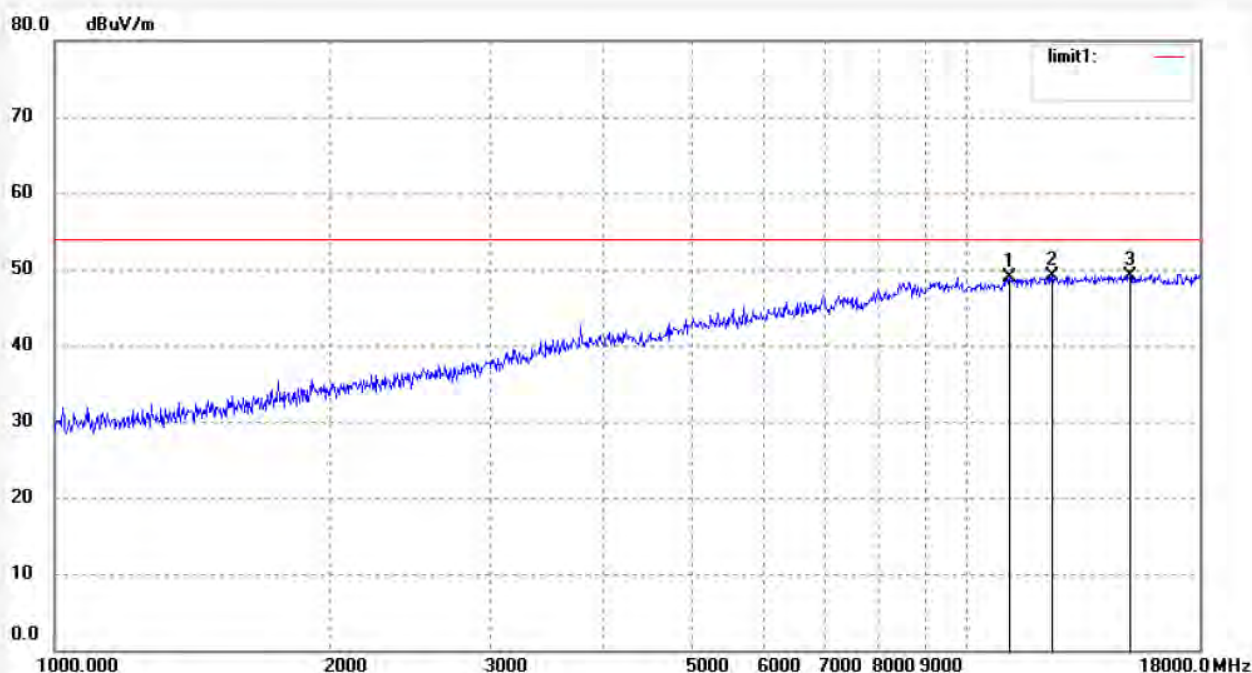
Date: 14/04/24/

Time: 13/46/09

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11140.310	43.23	5.65	48.88	54.00	-5.12	peak			
2	12397.735	42.07	7.02	49.09	54.00	-4.91	peak			
3	15090.405	37.33	11.76	49.09	54.00	-4.91	peak			



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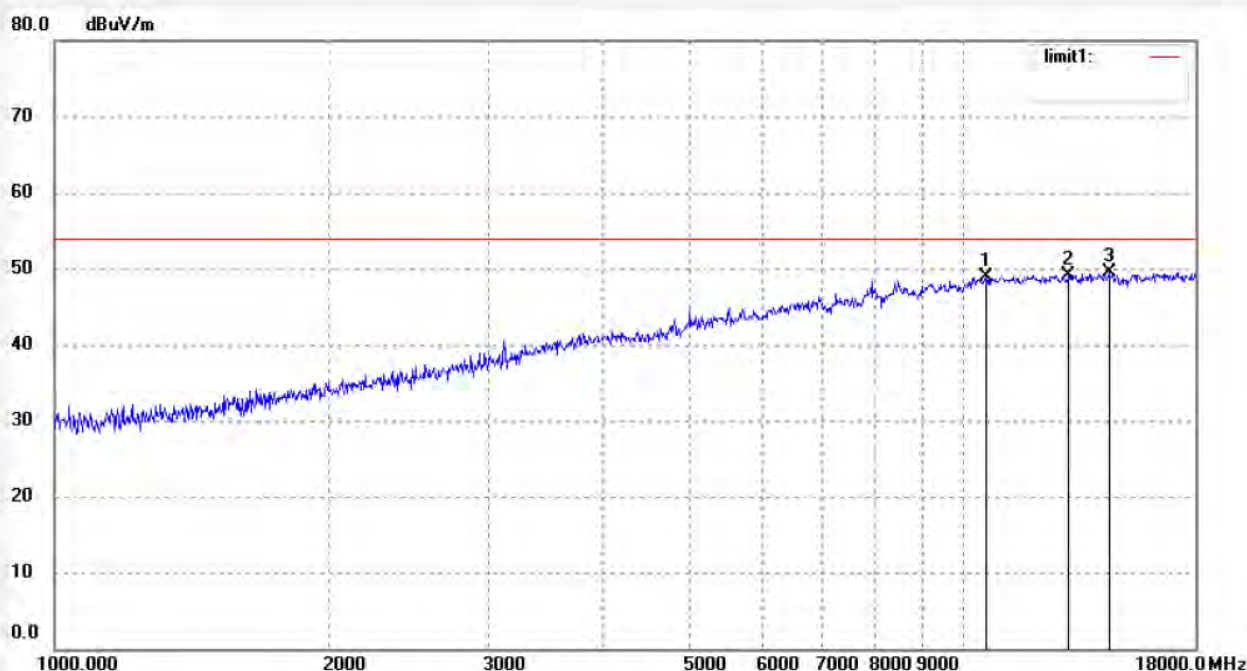
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2908
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2437MHz(802.11g)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/44/37
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10606.147	43.64	5.26	48.90	54.00	-5.10	peak			
2	13059.822	41.06	8.02	49.08	54.00	-4.92	peak			
3	14450.131	36.83	12.73	49.56	54.00	-4.44	peak			



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Job No.: alen #2907

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2437MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

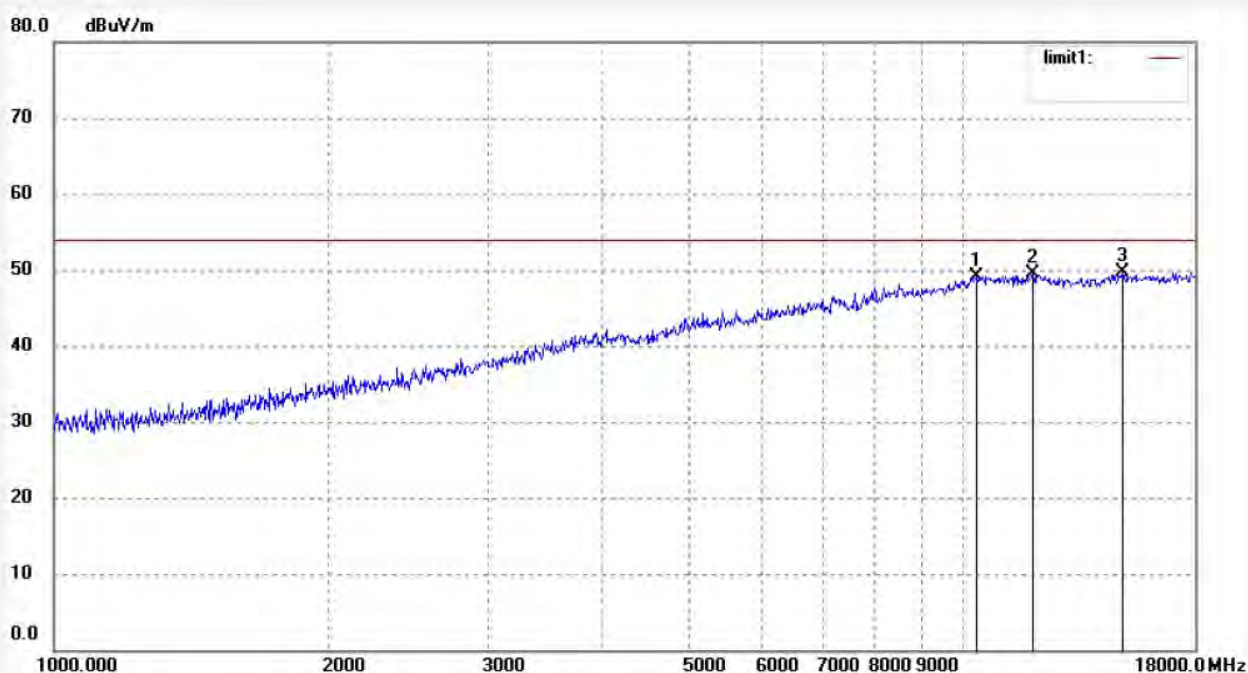
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Time: 13/43/49

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10333.803	43.88	5.26	49.14	54.00	-4.86	peak			
2	11940.536	43.01	6.43	49.44	54.00	-4.56	peak			
3	14960.120	37.77	11.98	49.75	54.00	-4.25	peak			



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Job No.: alen #2905

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

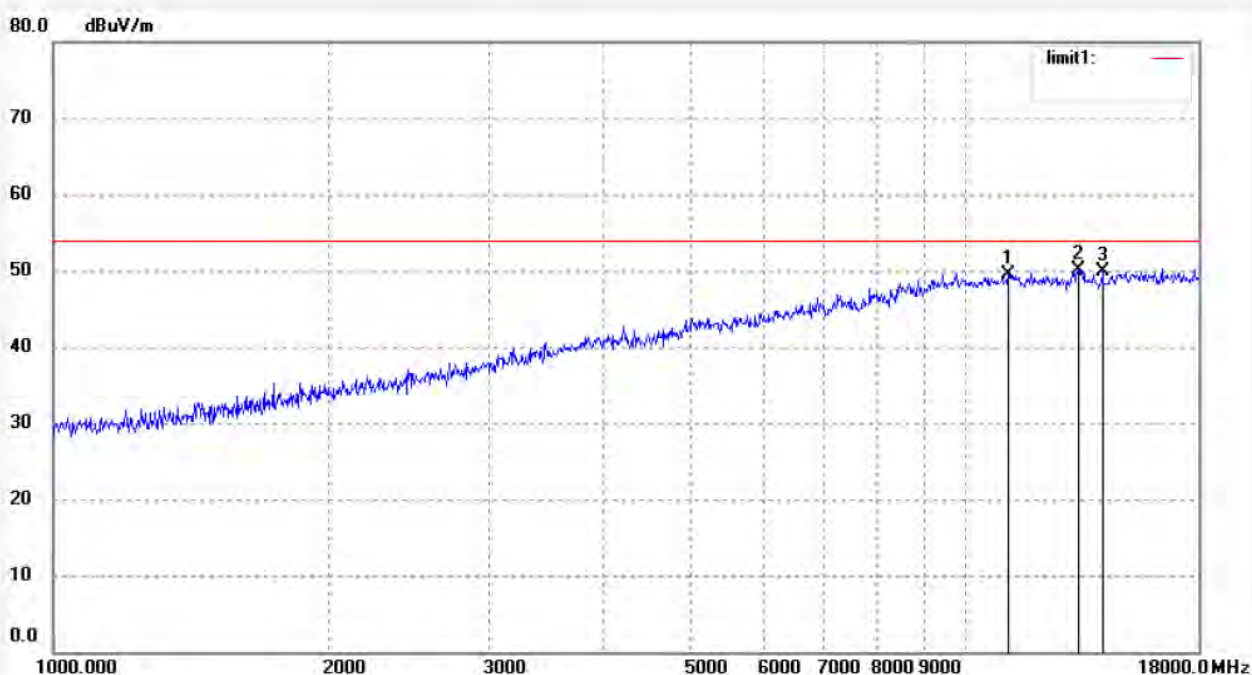
Date: 14/04/24/

Time: 10/05/59

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578





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Job No.: alen #2906

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11g)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

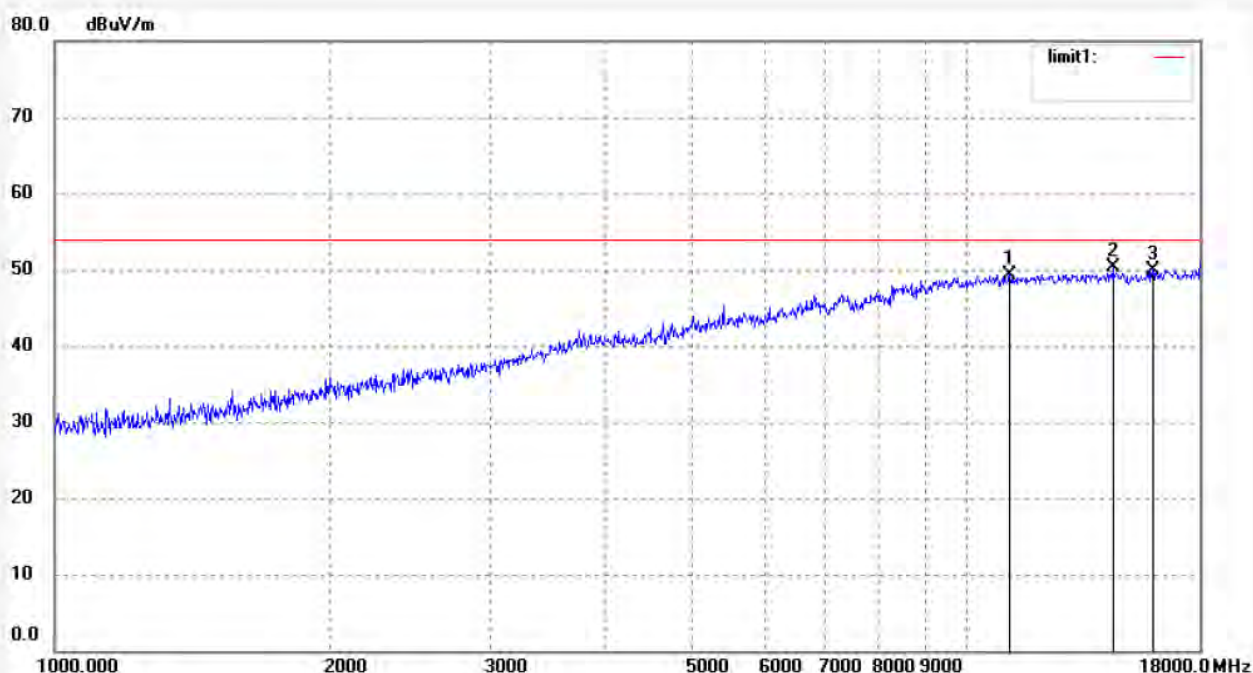
Date: 14/04/24/

Time: 10/06/33

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11140.310	43.60	5.65	49.25	54.00	-4.75	peak			
2	14450.131	37.54	12.74	50.28	54.00	-3.72	peak			
3	15988.449	38.43	11.57	50.00	54.00	-4.00	peak			



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Fax:+86-0755-26503396

Job No.: alen #2912

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2412MHz(802.11n20)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

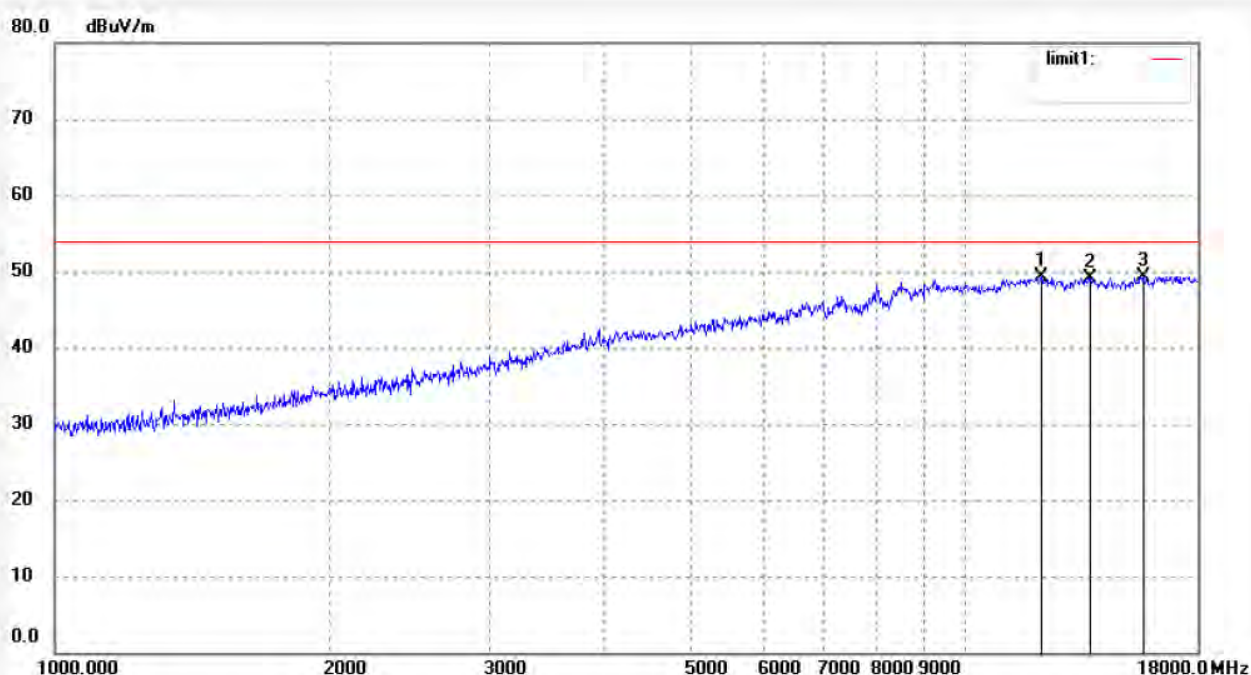
Date: 14/04/24/

Time: 13/46/45

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12114.352	42.58	6.65	49.23	54.00	-4.77	peak			
2	13717.561	39.49	9.66	49.15	54.00	-4.85	peak			
3	15713.564	38.00	11.40	49.40	54.00	-4.60	peak			



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Site: 1# Chamber

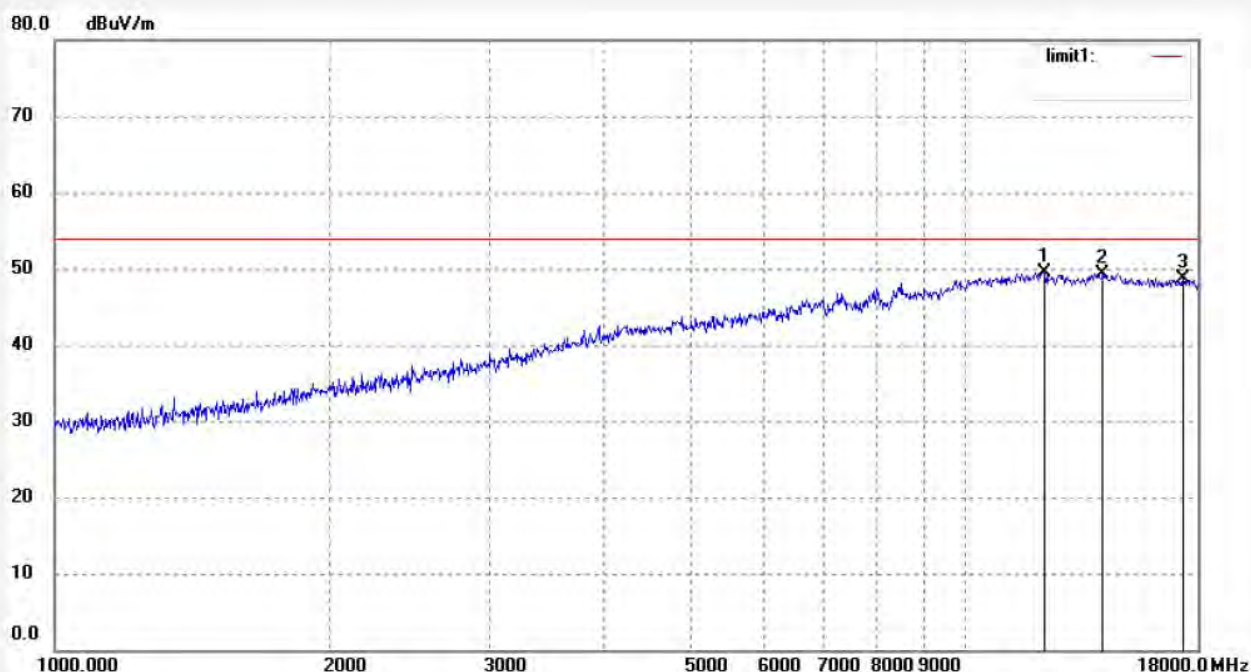
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2911
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2412MHz(802.11n20)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/46/45
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12219.853	42.69	6.79	49.48	54.00	-4.52	peak			
2	14160.705	38.11	11.24	49.35	54.00	-4.65	peak			
3	17336.202	33.37	15.33	48.70	54.00	-5.30	peak			



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Fax:+86-0755-26503396

Job No.: alen #2913

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2437MHz(802.11n20)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

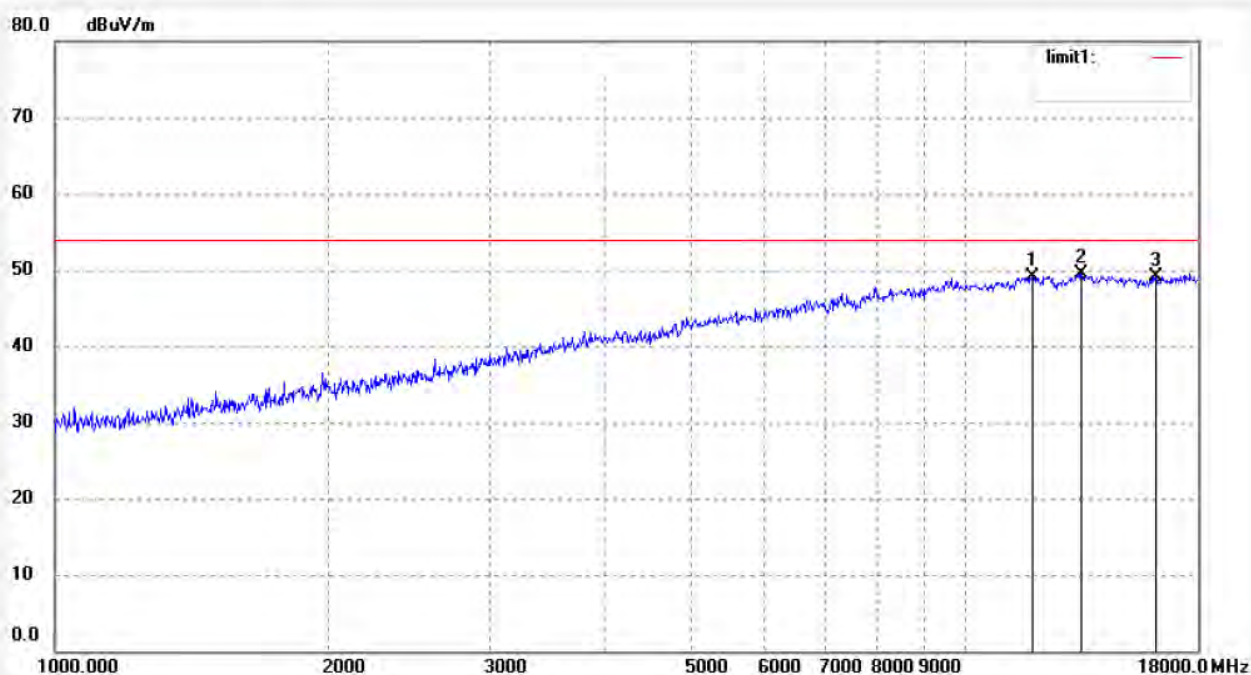
Date: 14/04/24/

Time: 13/48/06

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11837.445	42.83	6.34	49.17	54.00	-4.83	peak			
2	13404.009	40.71	8.82	49.53	54.00	-4.47	peak			
3	16174.372	37.35	11.79	49.14	54.00	-4.86	peak			



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Fax:+86-0755-26503396

Job No.: alen #2914

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2437MHz(802.11n20)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Vertical

Power Source: AC 120V/60Hz

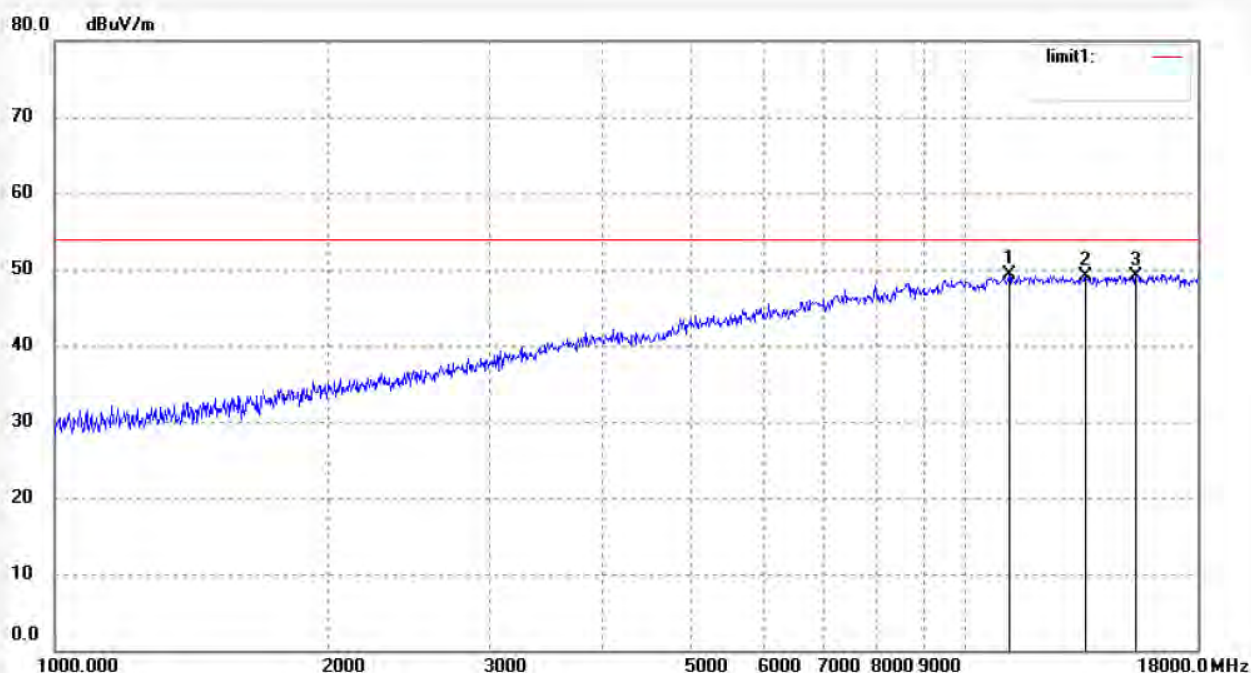
Date: 14/04/24/

Time: 13/49/07

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11172.556	43.53	5.69	49.22	54.00	-4.78	peak			
2	13559.879	39.87	9.22	49.09	54.00	-4.91	peak			
3	15398.832	37.69	11.38	49.07	54.00	-4.93	peak			

Job No.: alen #2916

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: MID

Mode: TX 2462MHz(802.11n20)

Model: PC1018BXC

Manufacturer: Natural Sound

Polarization: Horizontal

Power Source: AC 120V/60Hz

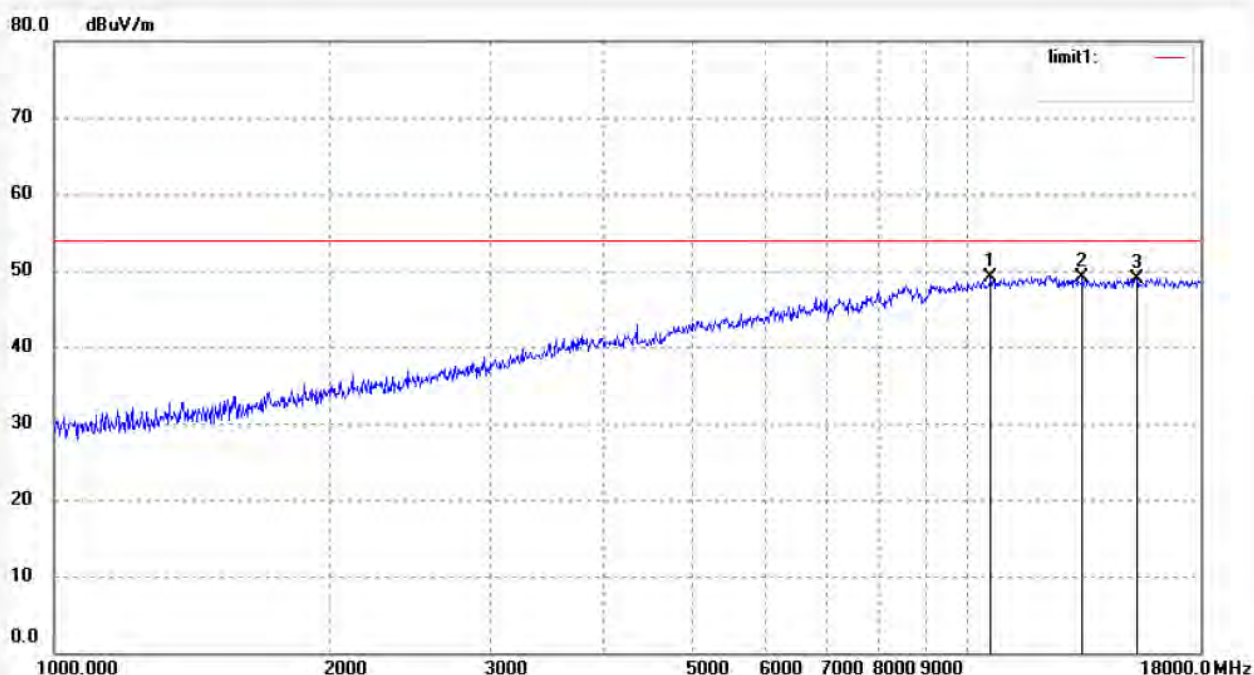
Date: 14/04/24/

Time: 13/50/22

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140578

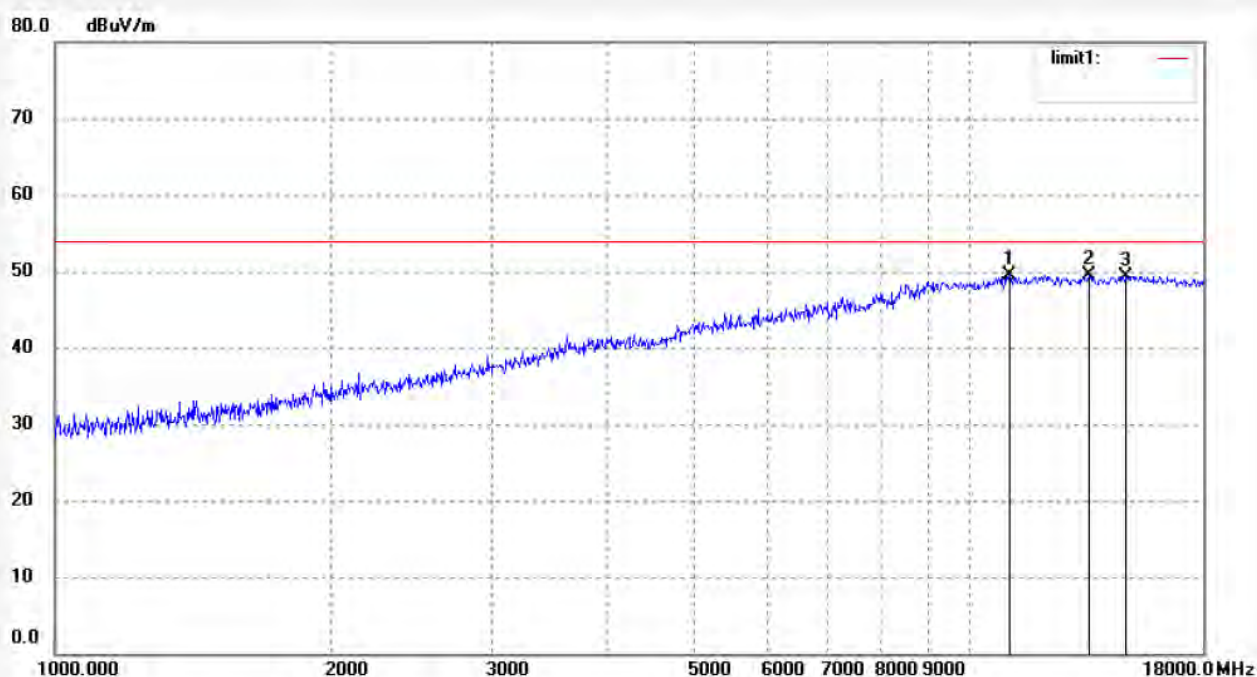


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10606.147	43.78	5.26	49.04	54.00	-4.96	peak			
2	13365.322	40.37	8.74	49.11	54.00	-4.89	peak			
3	15354.388	37.45	11.43	48.88	54.00	-5.12	peak			

Job No.: alen #2915
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2462MHz(802.11n20)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/49/41
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578

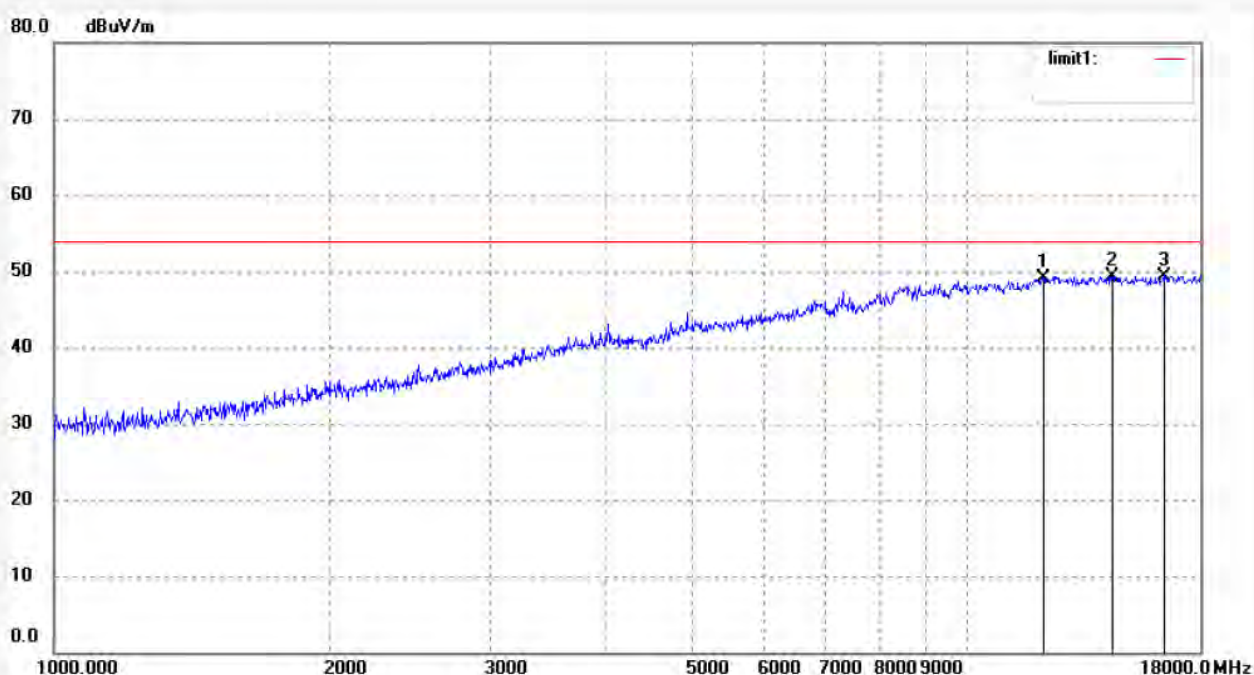


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11044.129	43.94	5.55	49.49	54.00	-4.51	peak			
2	13481.719	40.48	9.01	49.49	54.00	-4.51	peak			
3	14788.154	37.03	12.36	49.39	54.00	-4.61	peak			

Job No.: alen #2921
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2422MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/54/04
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578

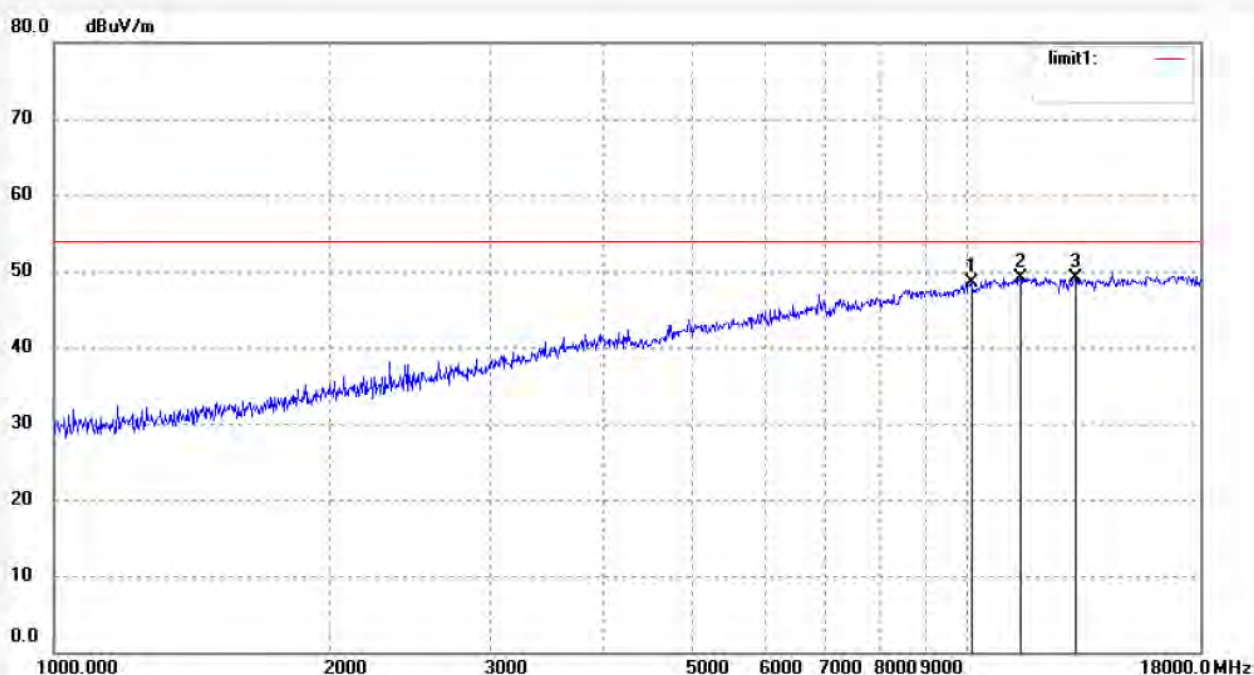


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12114.352	42.42	6.65	49.07	54.00	-4.93	peak			
2	14408.425	36.79	12.53	49.32	54.00	-4.68	peak			
3	16409.819	37.34	12.06	49.40	54.00	-4.60	peak			

Job No.: alen #2922
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2422MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/54/46
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10097.596	43.17	5.35	48.52	54.00	-5.48	peak			
2	11433.909	43.12	5.97	49.09	54.00	-4.91	peak			
3	13135.536	40.85	8.19	49.04	54.00	-4.96	peak			



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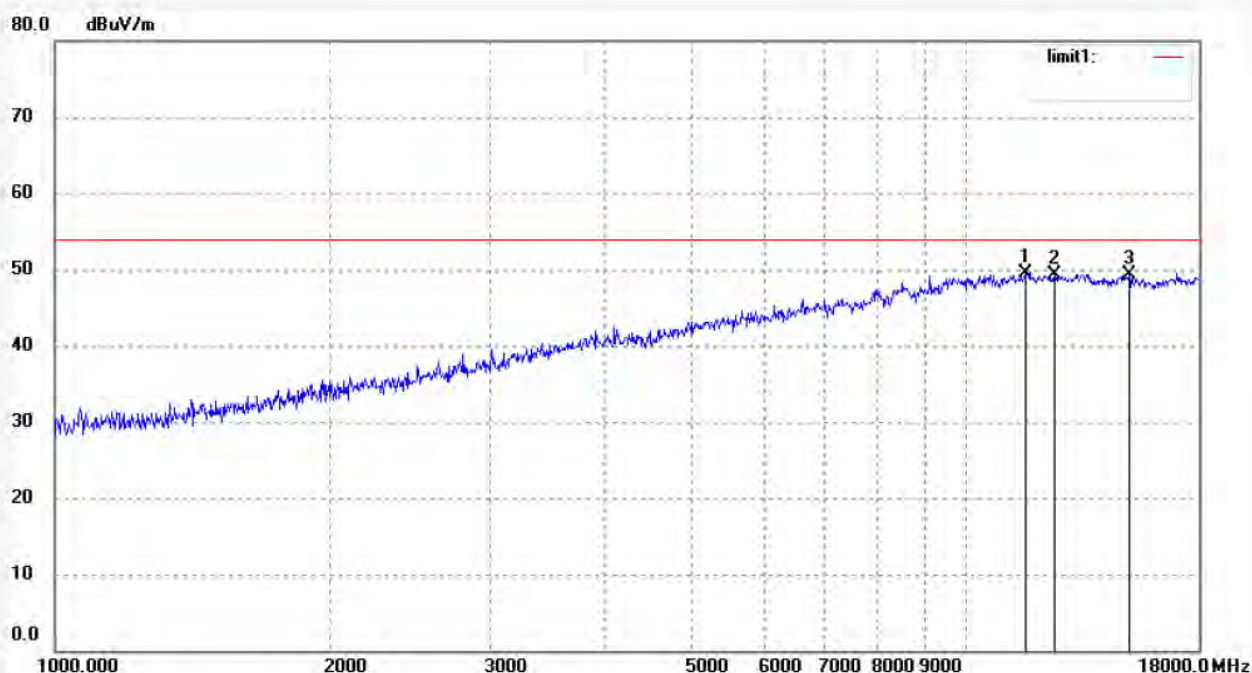
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: alen #2920
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2437MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/53/16
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578

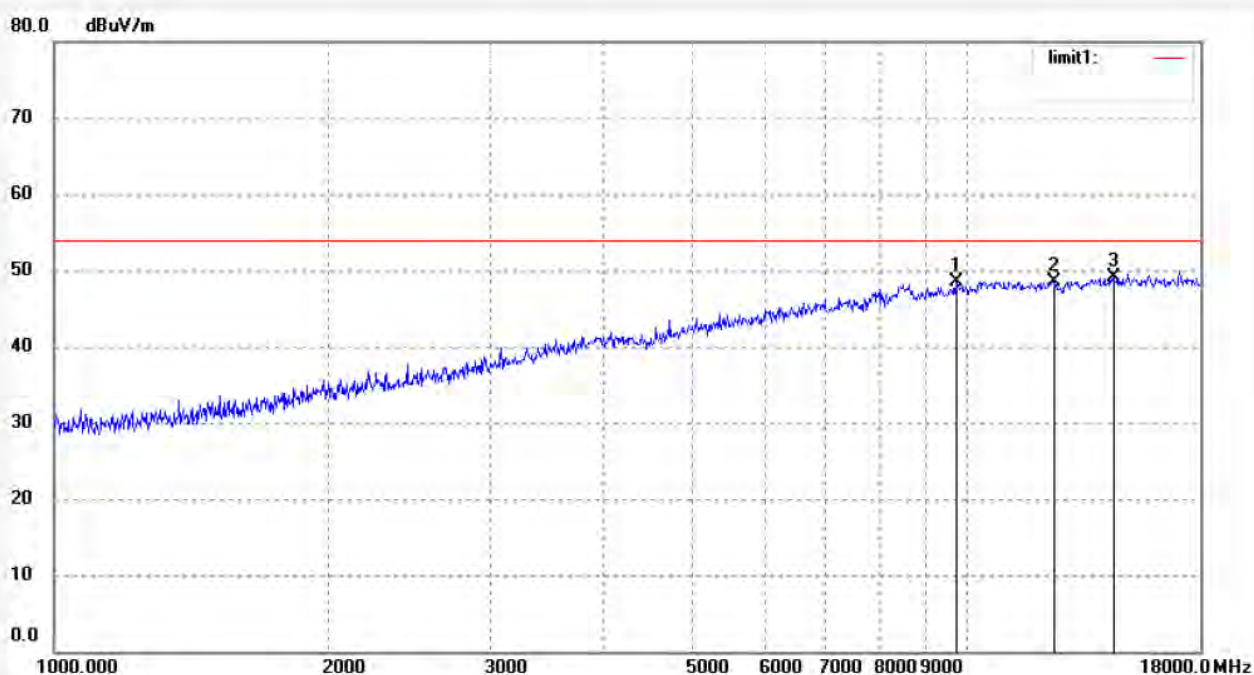


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11633.928	43.44	6.16	49.60	54.00	-4.40	peak			
2	12505.705	42.24	7.16	49.40	54.00	-4.60	peak			
3	15090.405	37.47	11.76	49.23	54.00	-4.77	peak			

Job No.: alen #2919
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2437MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/52/39
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578

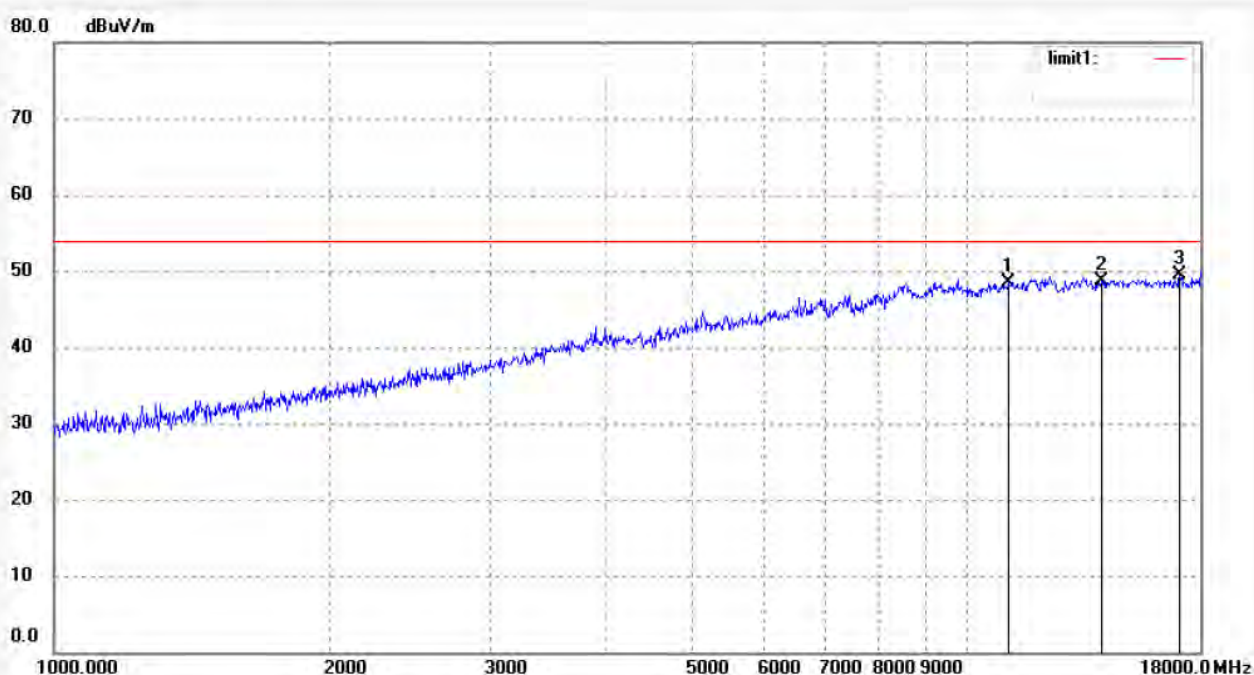


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9725.221	43.53	5.03	48.56	54.00	-5.44	peak			
2	12433.621	41.42	7.06	48.48	54.00	-5.52	peak			
3	14450.131	36.39	12.74	49.13	54.00	-4.87	peak			

Job No.: alen #2917
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2452MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/51/15
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	11108.157	42.96	5.62	48.58	54.00	-5.42	peak			
2	14038.447	38.17	10.61	48.78	54.00	-5.22	peak			
3	17087.464	35.29	14.19	49.48	54.00	-4.52	peak			



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

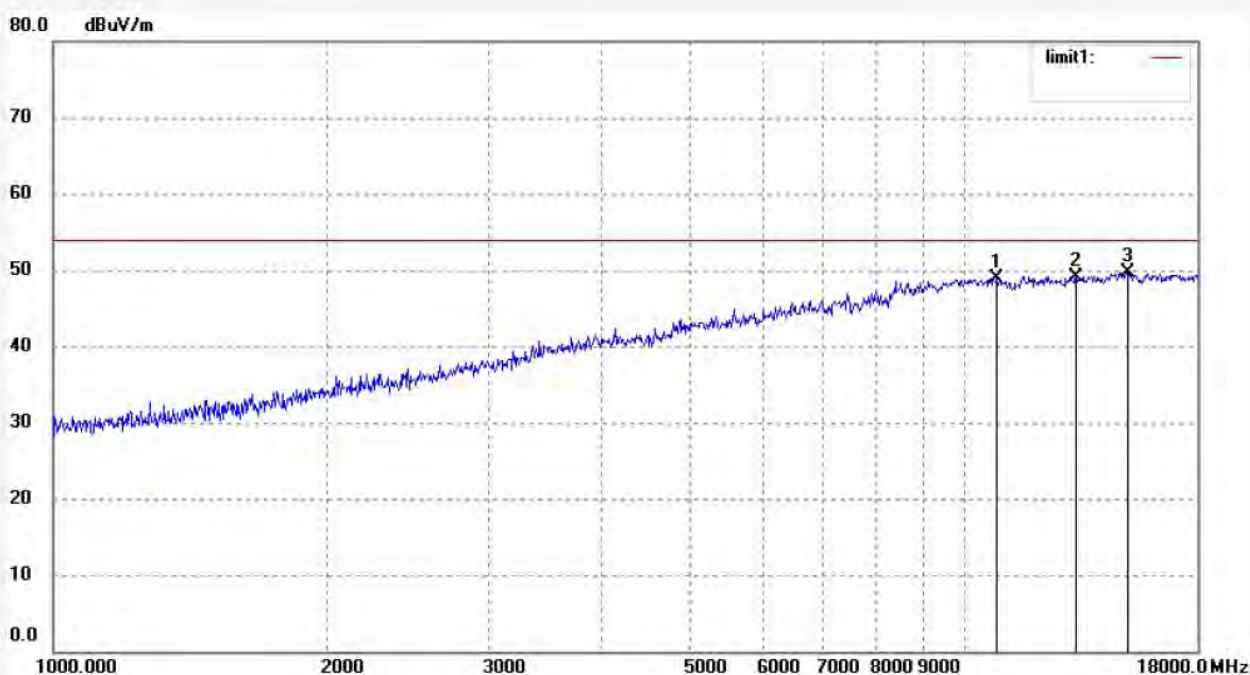
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2918
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX 2452MHz(802.11n40)
Model: PC1018BXC
Manufacturer: Natural Sound

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/04/24/
Time: 13/52/00
Engineer Signature:
Distance: 3m

Note: Report No:ATE20140578



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10854.250	43.47	5.41	48.88	54.00	-5.12	peak			
2	13249.931	40.73	8.46	49.19	54.00	-4.81	peak			
3	15090.405	37.93	11.76	49.69	54.00	-4.31	peak			

10.CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

10.1.Block Diagram of Test Setup



10.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

10.3.EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.4.Operating Condition of EUT

10.4.1.Setup the EUT and simulator as shown as Section 10.1.

10.4.2.Turn on the power of all equipment.

10.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

10.5. Test Procedure

10.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

10.5.2. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz (below 1GHz).

10.5.3. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz (above 1GHz).

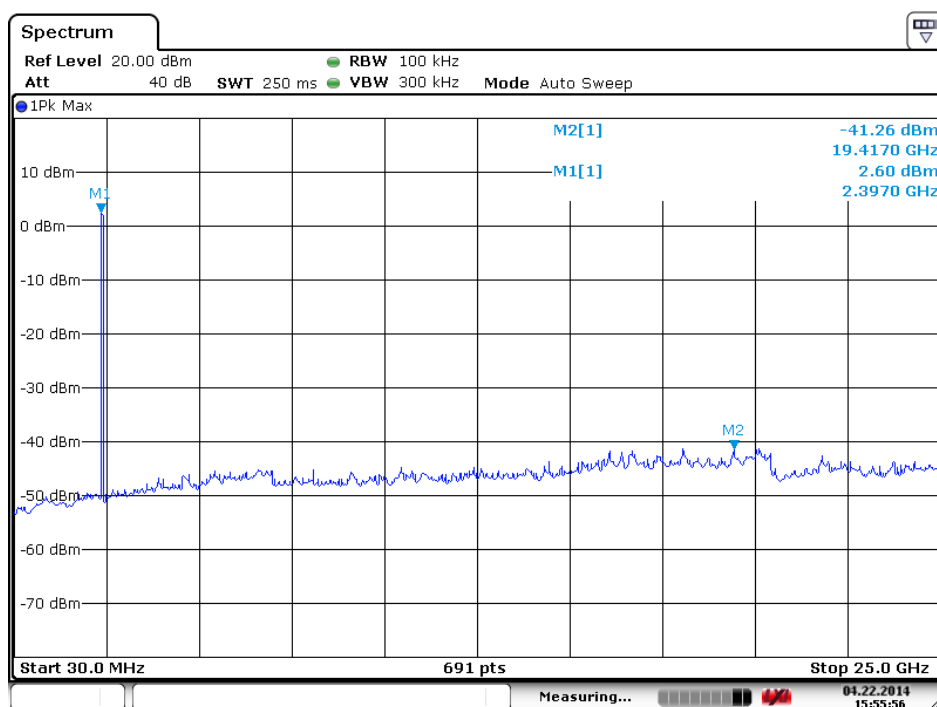
10.5.4. The Conducted Spurious Emission was measured and recorded.

10.6. Test Result

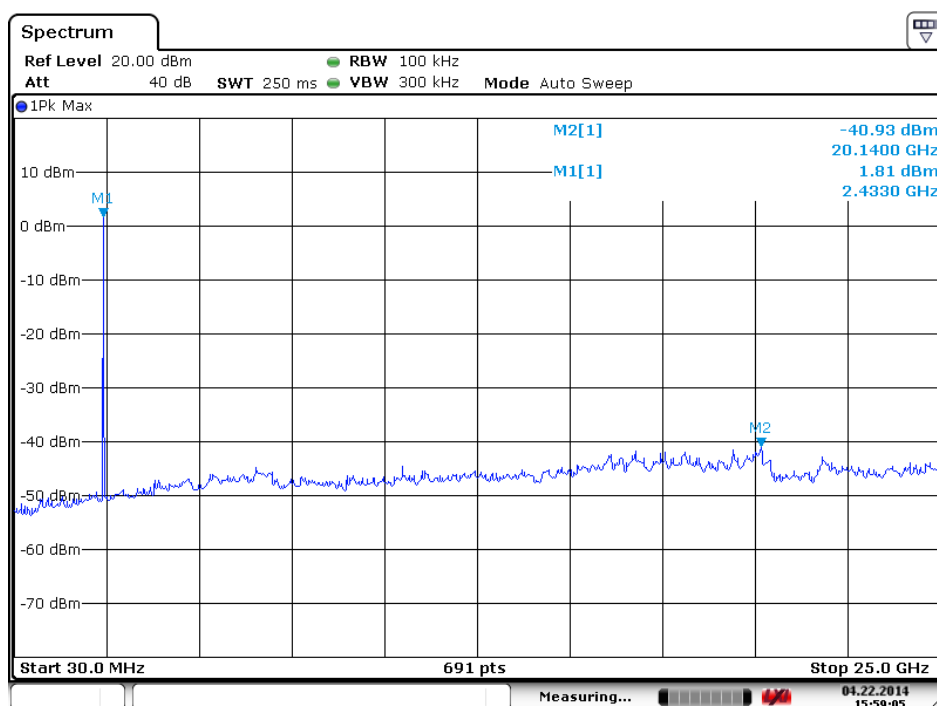
Pass.

The spectrum analyzer plots are attached as below.

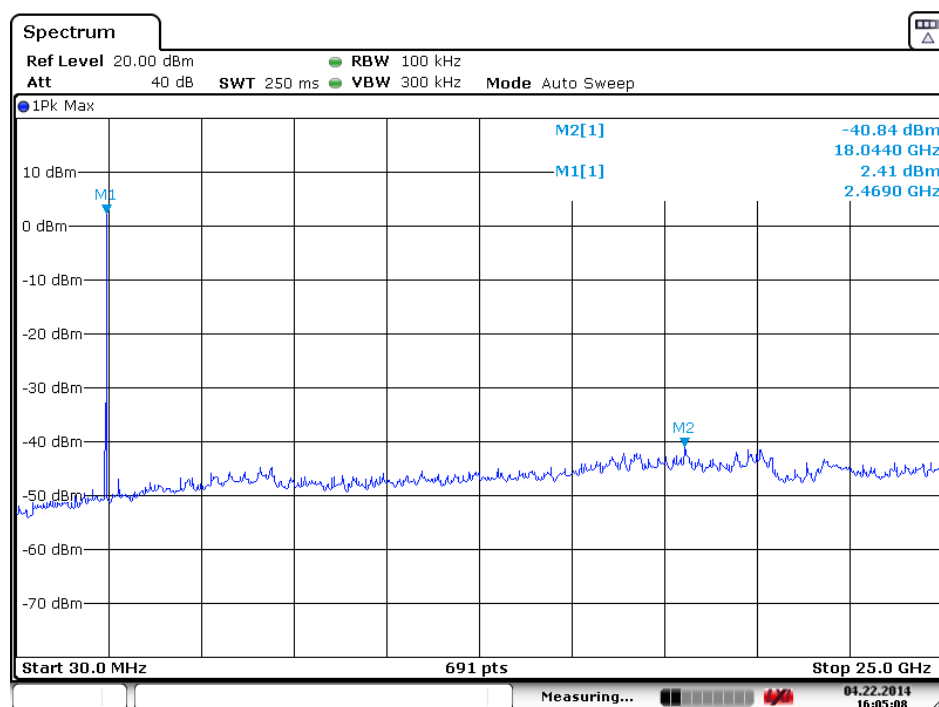
TX 802.11b Channel Low 2412MHz



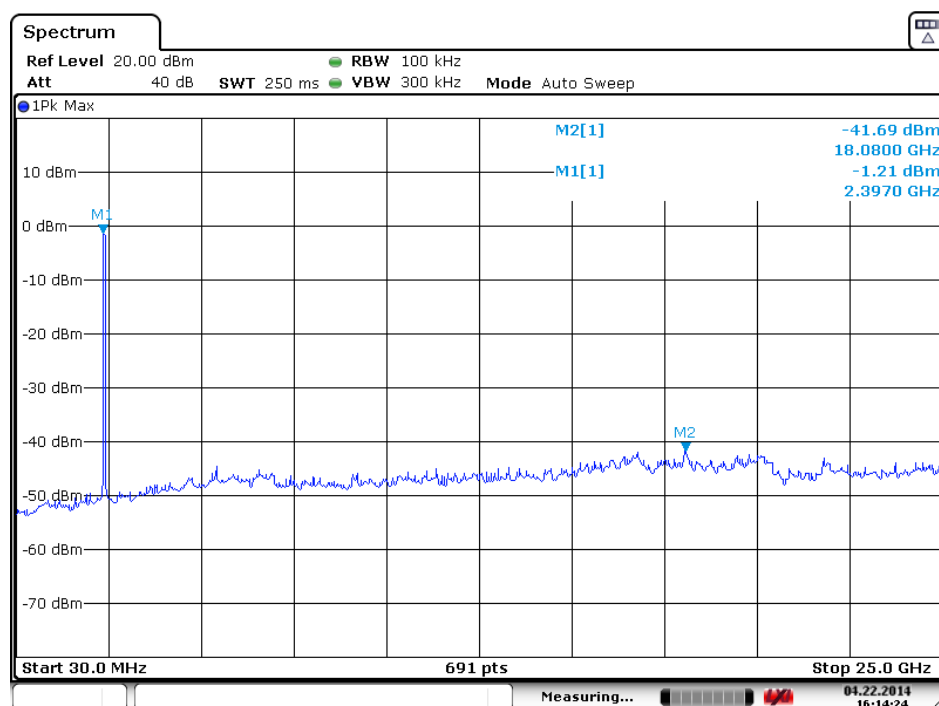
TX 802.11b Channel Middle 2437MHz



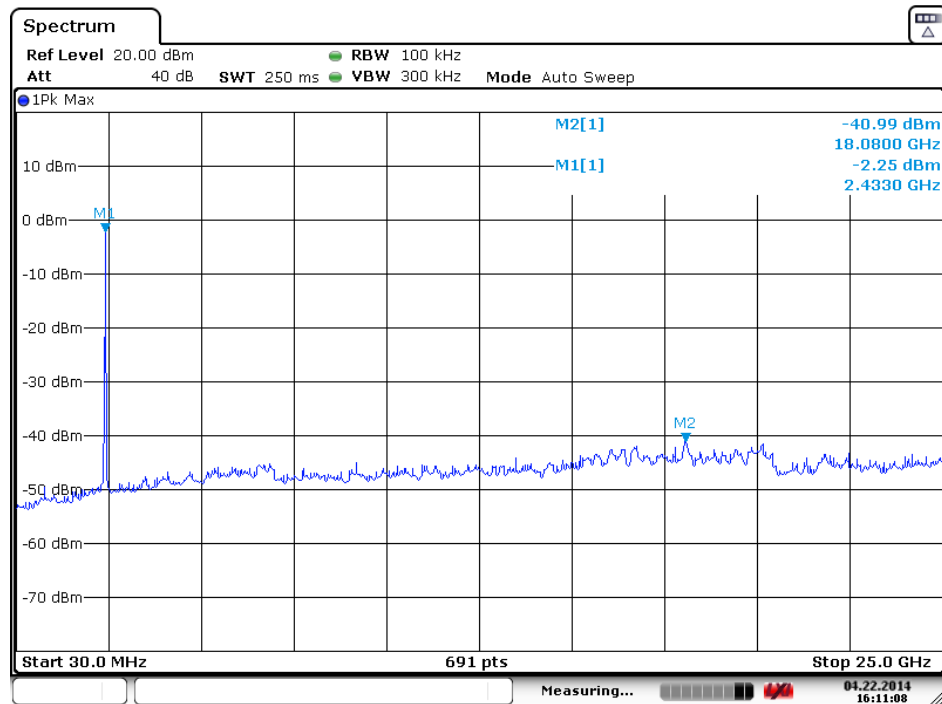
TX 802.11b Channel High 2462MHz



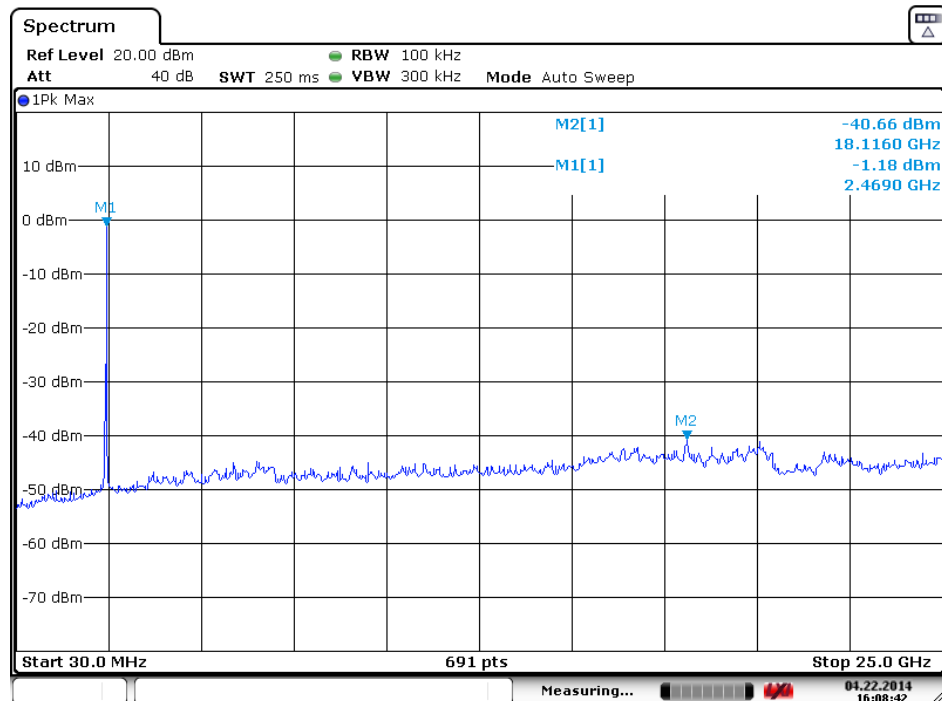
TX 802.11g Channel Low 2412MHz



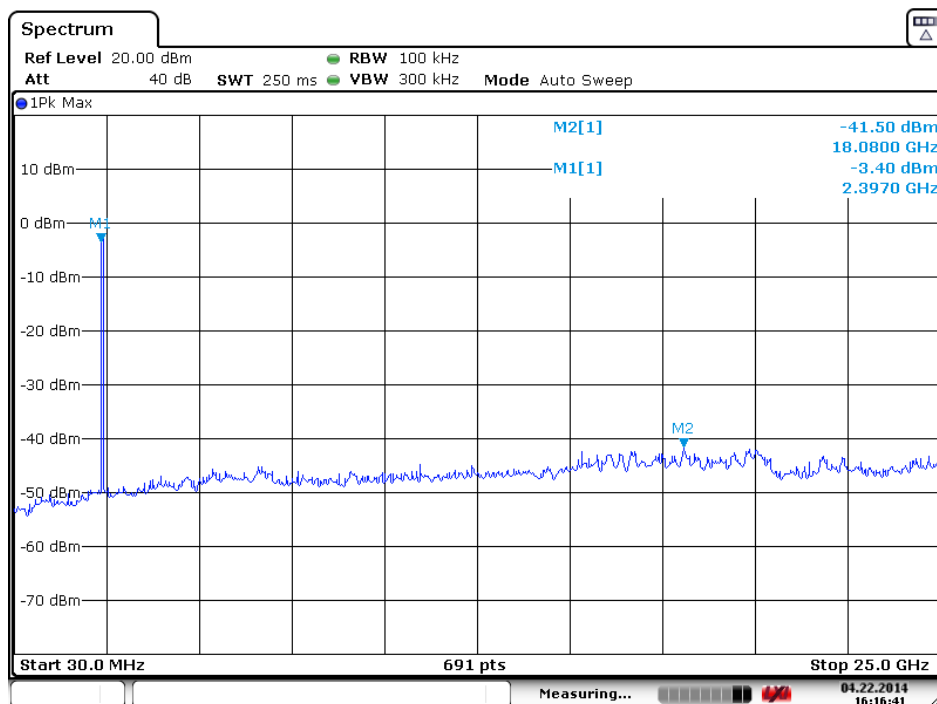
TX 802.11g Channel Middle 2437MHz



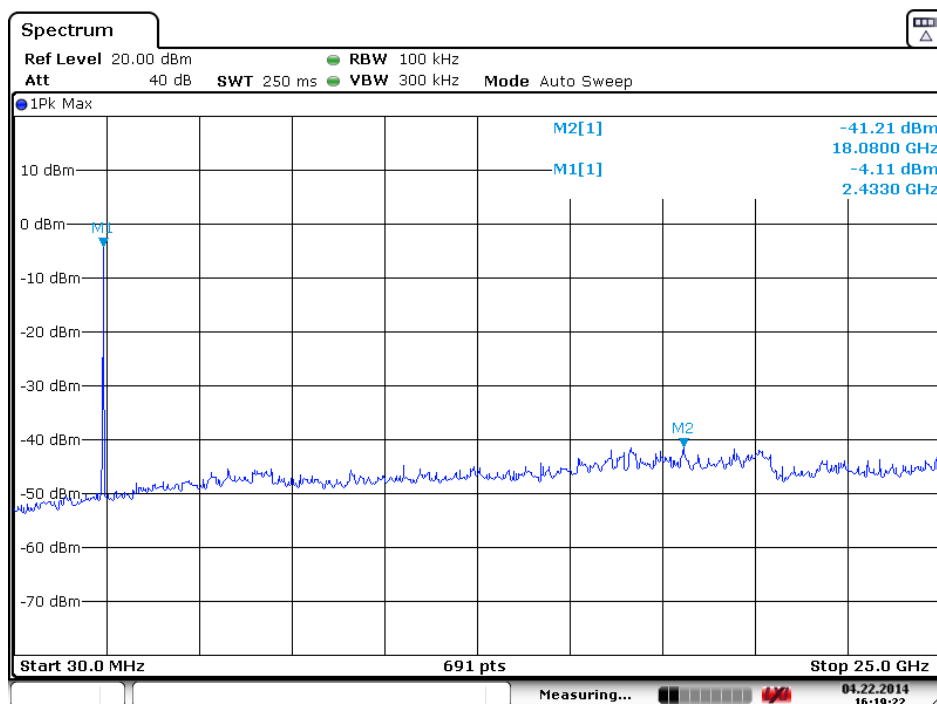
TX 802.11g Channel High 2462MHz



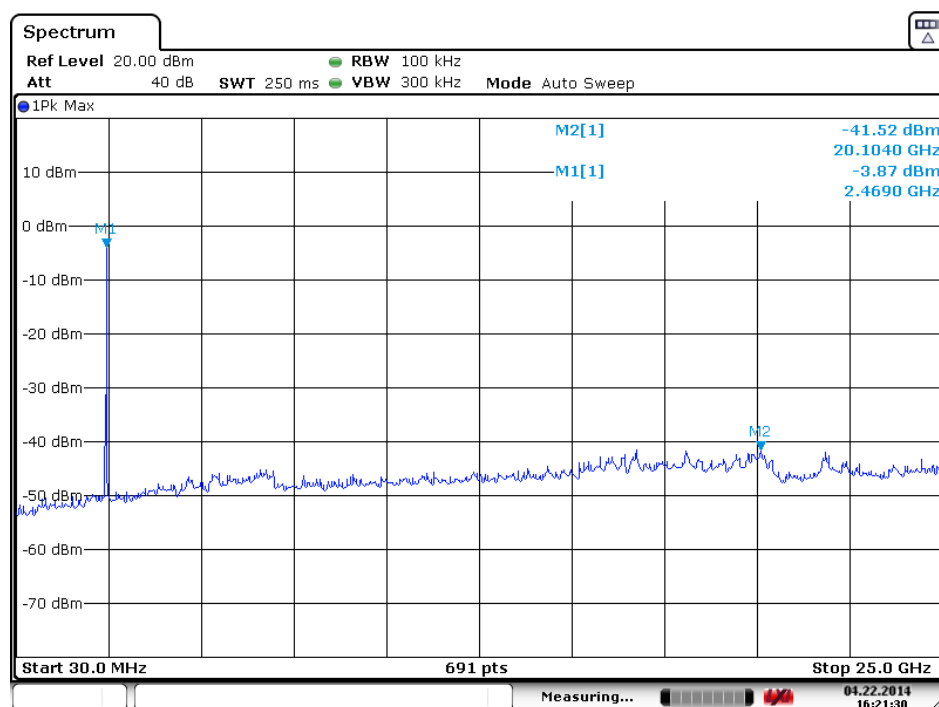
TX 802.11n Channel Low 2412MHz (20MHz)



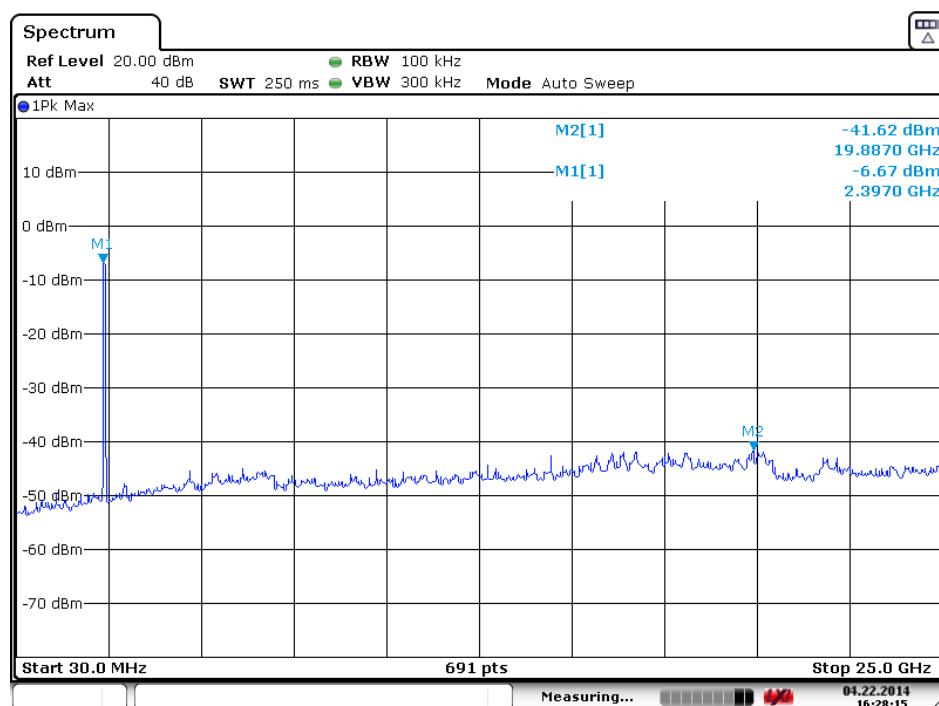
TX 802.11n Channel Middle 2437MHz (20MHz)



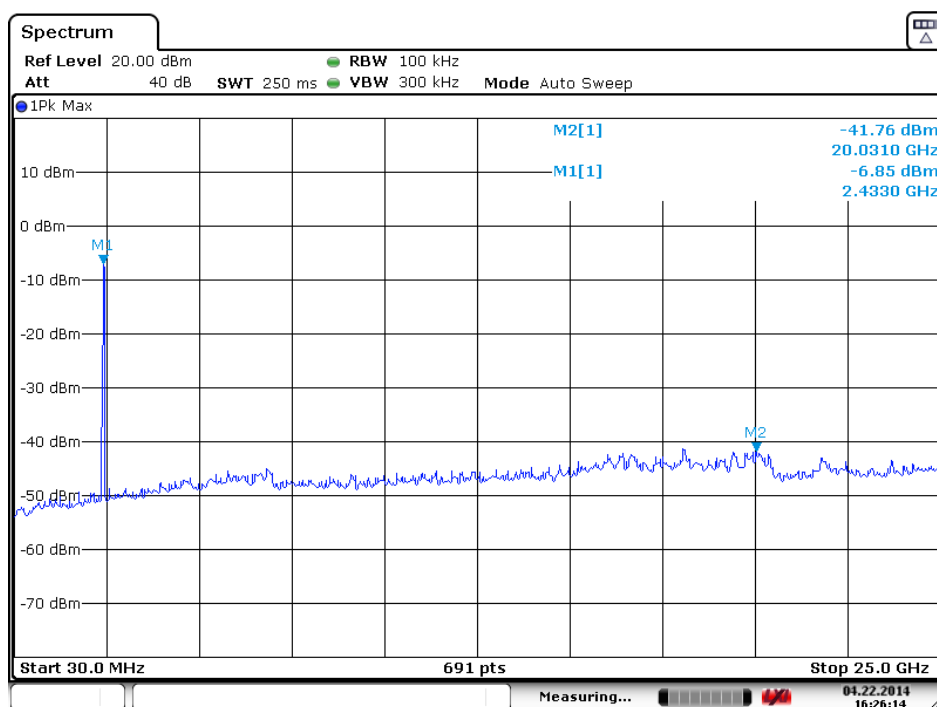
TX 802.11n Channel High 2462MHz (20MHz)



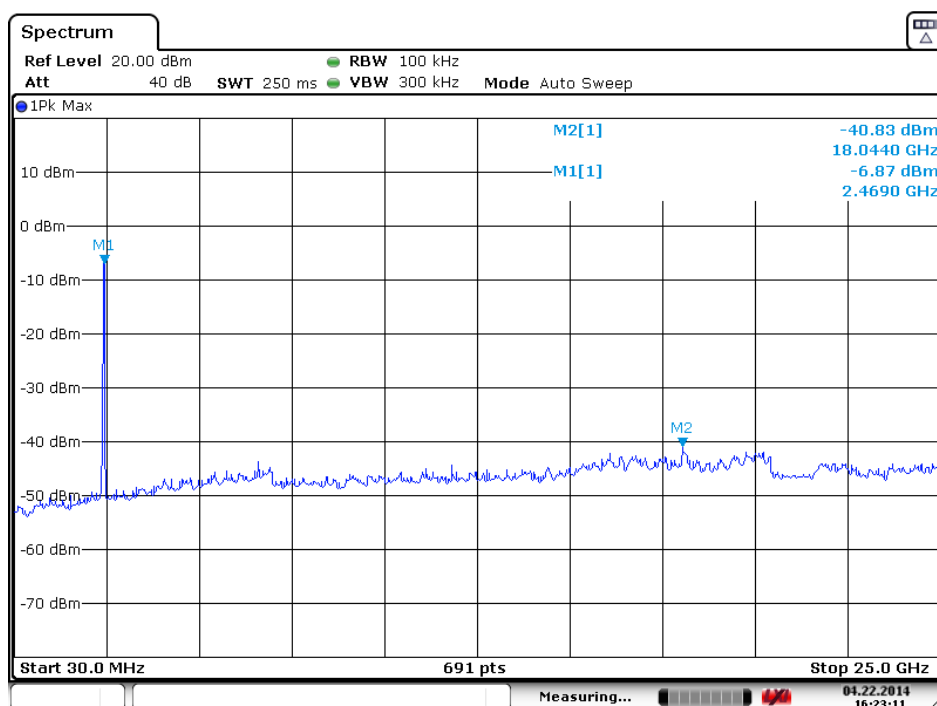
TX 802.11n Channel Low 2422MHz (40MHz)



TX 802.11n Channel Middle 2437MHz (40MHz)



TX 802.11n Channel High 2452MHz (40MHz)

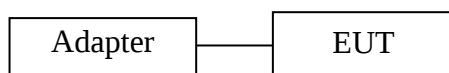


11.AC POWER LINE CONDUCTED EMISSION FOR FCC PART

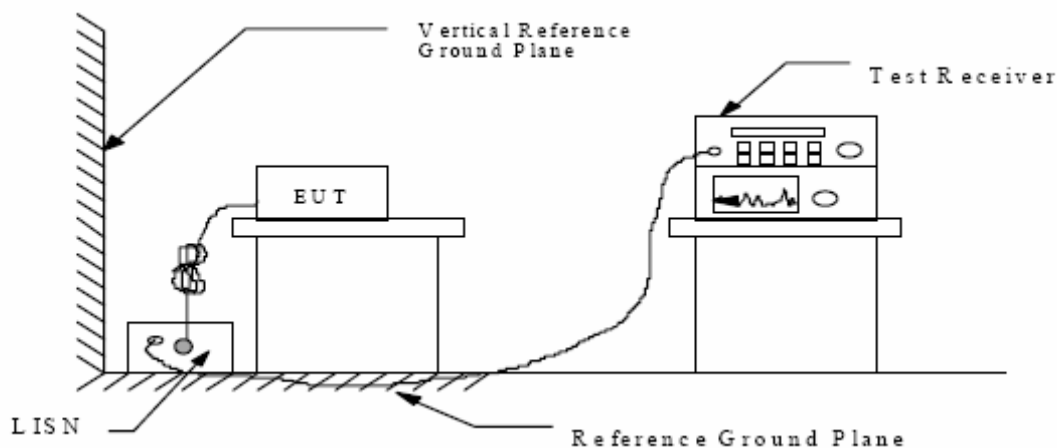
15 SECTION 15.207(A)

11.1.Block Diagram of Test Setup

11.1.1.Block diagram of connection between the EUT and simulators



11.1.2.Shielding Room Test Setup Diagram



11.2.The Emission Limit

11.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

* Decreases with the logarithm of the frequency.

11.3.Configuration of EUT on Measurement

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

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in test mode and measure it.

11.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines 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 C63.4: 2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

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

11.6.Power Line Conducted Emission Measurement Results

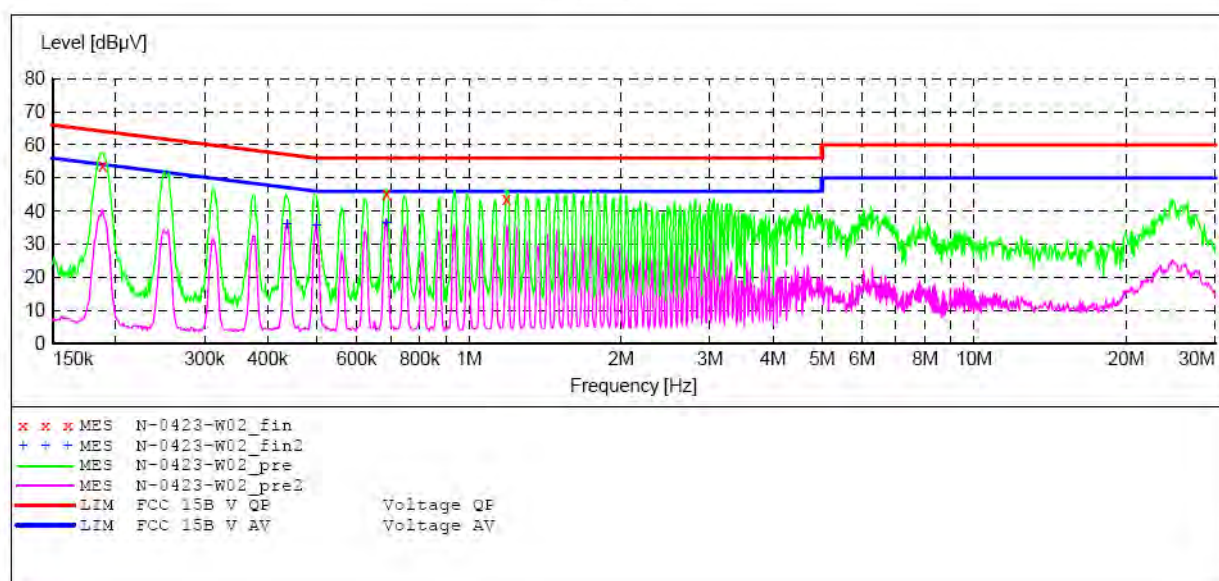
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: MID M/N:PC1018BXC
 Manufacturer: Natural Sound
 Operating Condition: WiFi/Charging
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: N 120V/60Hz
 Comment: Report No:ATE20140578
 Start of Test: 4/23/2014 / 8:45:23AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "N-0423-W02_fin"

4/23/2014 8:47AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.188327	53.90	10.5	64	10.2	QP	N	GND
0.686493	45.30	10.8	56	10.7	QP	N	GND
1.186191	43.60	10.9	56	12.4	QP	N	GND

MEASUREMENT RESULT: "N-0423-W02_fin2"

4/23/2014 8:47AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.437246	36.00	10.7	47	11.1	AV	N	GND
0.498814	35.70	10.7	46	10.3	AV	N	GND
0.686493	36.40	10.8	46	9.6	AV	N	GND

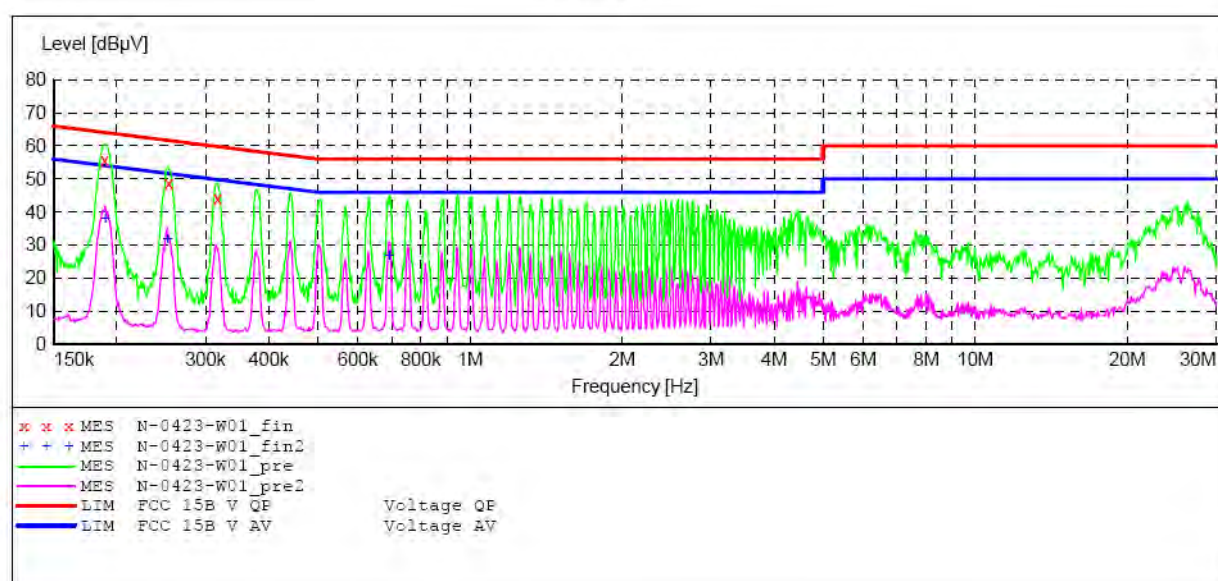
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: MID M/N:PC1018BXC
 Manufacturer: Natural Sound
 Operating Condition: WiFi/Charging
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: L 120V/60Hz
 Comment: Report No:ATE20140578
 Start of Test: 4/23/2014 / 8:41:34AM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "N-0423-W01_fin"

4/23/2014 8:44AM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.189080	55.80	10.5	64	8.3	QP	L1	GND
0.253051	48.80	10.6	62	12.9	QP	L1	GND
0.316443	44.00	10.6	60	15.8	QP	L1	GND

MEASUREMENT RESULT: "N-0423-W01_fin2"

4/23/2014 8:44AM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.189837	38.00	10.5	54	16.0	AV	L1	GND
0.252043	31.80	10.6	52	19.9	AV	L1	GND
0.691995	26.70	10.8	46	19.3	AV	L1	GND

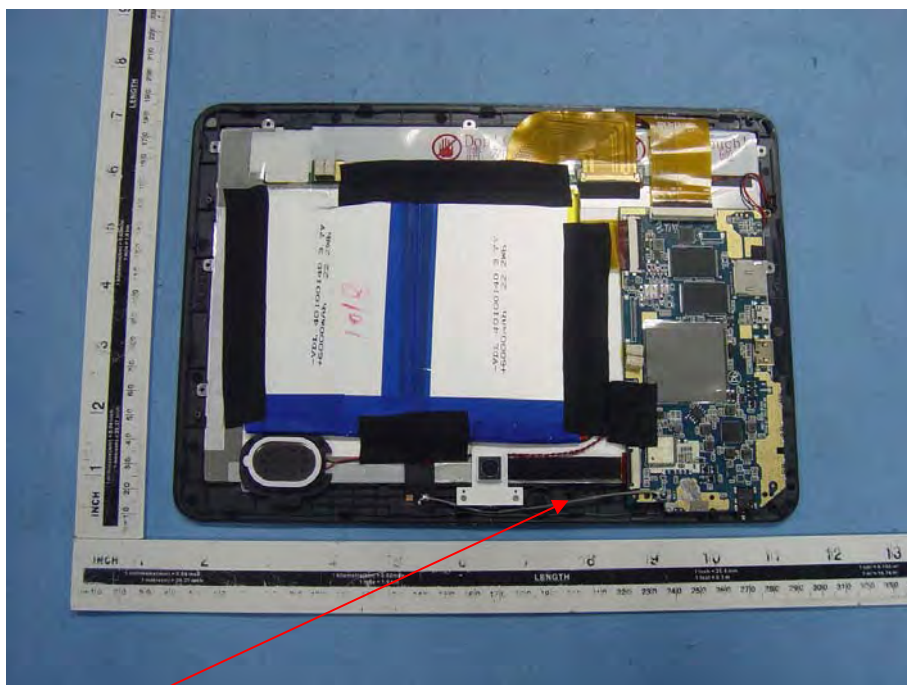
12.ANTENNA REQUIREMENT

12.1.The Requirement

According to 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.

12.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna