

RF Test Report

Applicant : Nippon POP Rivets & Fasteners Ltd.
Product Type : Power Tool
Trade Name : STANLEY
Model Number : NB08PT-18
Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2013
Received Date : Oct. 19, 2020
Test Period : Nov. 12 ~ Dec. 02, 2020
Issued Date : Dec. 15, 2020

Issued by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C.)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330
Frequency Range : 9 kHz to 40 GHz
Test Firm MRA designation number: TW0010

Note:

- 1.The test results are valid only for samples provided by customers and under the test conditions described in this report.
- 2.This report shall not be reproduced except in full, without the written approval of A Test Lab Technology Corporation.
- 3.The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.



Revision History

Rev.	Issued Date	Revisions	Revised By
00	Dec. 15, 2020	Initial Issue	Tobey Cheng

Verification of Compliance

Applicant : Nippon POP Rivets & Fasteners Ltd.

Product Type : Power Tool

Trade Name : STANLEY

Model Number : NB08PT-18

FCC ID : 2AWAW-NB08PT18

EUT Rated Voltage : DC 20 V

Test Voltage : DC 20 V

Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2013

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>

A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : Ken Yang
(Manager) (Ken Yang)



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1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
15.207	AC Power Conducted Emission	N/A	The EUT used DC Power source.
15.247(d)	Transmitter Radiated Emissions	PASS	----
15.247(b)(3)	Max. Output Power	PASS	----
15.247(a)(2)	6 dB RF Bandwidth	PASS	----
15.247(e)	Maximum Power Spectral Density	PASS	----
15.247(d)	Out of Band Conducted Spurious Emission	PASS	----
15.203	Antenna Requirement	PASS	----

Decision Rule

- Uncertainty is not included.
- Uncertainty is included.

Standard	Description
CFR47, Part 15, Subpart C	Intentional Radiators
ANSI C63. 10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01 15.247 Meas Guidance v05r02	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES
KDB 662911 D01 v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)

1.2. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Radiated Emission	9 kHz ~ 30 MHz	2.14
	30 MHz ~ 1000 MHz	4.99
	1000 MHz ~ 18000 MHz	4.99
	18000 MHz ~ 26500 MHz	4.23
	26500 MHz ~ 40000 MHz	4.39
Conducted Output Power	0.92 dB	
RF Bandwidth	4.79 %	
Power Spectral Density	0.92 dB	



2 EUT Description

Applicant	Nippon POP Rivets & Fasteners Ltd. Hosoda, Noyori-cho, Toyohashi-shi, Aichi, 441-8540, Japan			
Manufacturer	Nippon Pop Rivets & Fasteners Ltd. Hosoda, Noyori-cho, Toyohashi-shi, Aichi, 441-8540, Japan			
Product Type	Power Tool			
Trade Name	STANLEY			
Model Number	NB08PT-18			
FCC ID	2AWAW-NB08PT18			
Operate Freq. Band	Frequency Range (MHz)	Modulation	Channel Bandwidth	Data Rate 400 / 800 GI (ns)
IEEE 802.11b	2412 ~ 2462	DSSS	20 MHz	Up to 11 Mbps
IEEE 802.11g	2412 ~ 2462	OFDM	20 MHz	Up to 54 Mbps
IEEE 802.11n 2.4 GHz 20 MHz	2412 ~ 2462	OFDM	20 MHz	Up to 86.7 Mbps
IEEE 802.11n 2.4 GHz 40 MHz	2422 ~ 2452	OFDM	40 MHz	Up to 200 Mbps
Antenna information	Type		Max. Gain (dBi)	
	PCB antenna		2	
Antenna Delivery	See section 3.1			
Operate Temp. Range	0 ~ +40 °C			

Frequency Band	Max. RF Output Power (W)
IEEE 802.11b	0.018
IEEE 802.11g	0.050
IEEE 802.11n 2.4 GHz 20 MHz	0.053
IEEE 802.11n 2.4 GHz 40 MHz	0.052

3 Test Methodology

3.1. Mode of Operation

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: IEEE 802.11b Continuous TX mode
Mode 2: IEEE 802.11g Continuous TX mode
Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode
Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes.

By preliminary testing and verifying three axis (X and Y) position of EUT transmitted status, it was found that "Y axis" position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

Test Mode	ANT-0
Mode 1	V
Mode 2	V
Mode 3	V
Mode 4	V

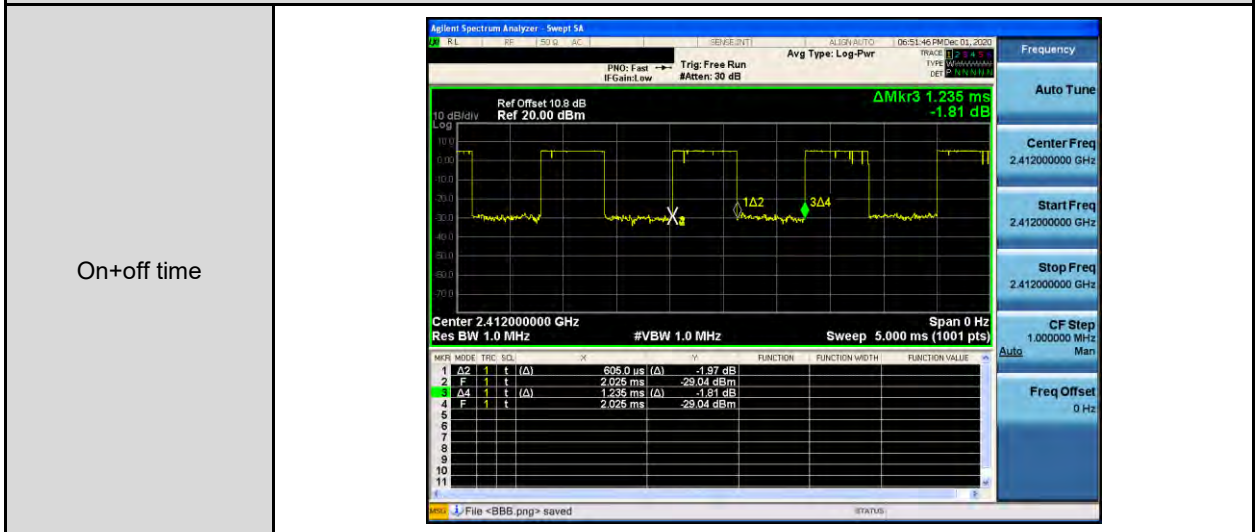
Test Mode	Antenna Delivery	Data Rate (Mbps)	Test Channel
Mode 1	1TX	1	1, 6, 11
Mode 2	1TX	6	1, 6, 11
Mode 3	1TX	6.5	1, 6, 11
Mode 4	1TX	13.5	3, 6, 9

Duty cycle

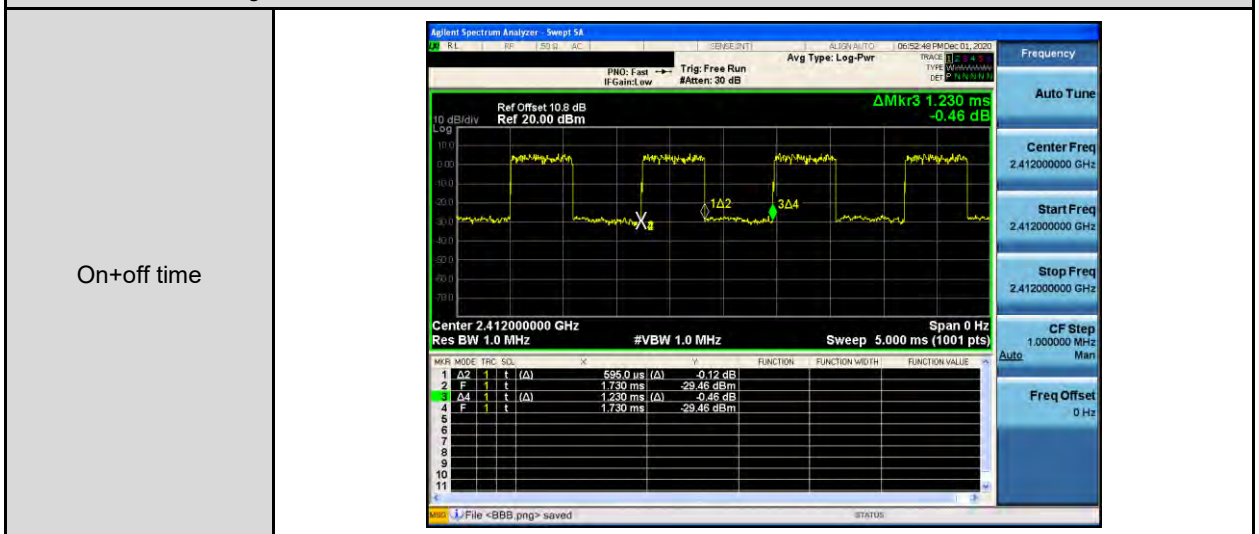
Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 1	2412.0	0.605	1.235	0.490	3.099	1.653
Mode 2	2412.0	0.595	1.230	0.484	3.154	1.681
Mode 3	2412.0	0.575	1.210	0.475	3.231	1.739
Mode 4	2422.0	0.590	1.225	0.482	3.173	1.695

Duty Cycle Graphs

Mode 1: IEEE 802.11b Continuous TX mode



Mode 2: IEEE 802.11g Continuous TX mode



Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode

On+off time



Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode

On+off time





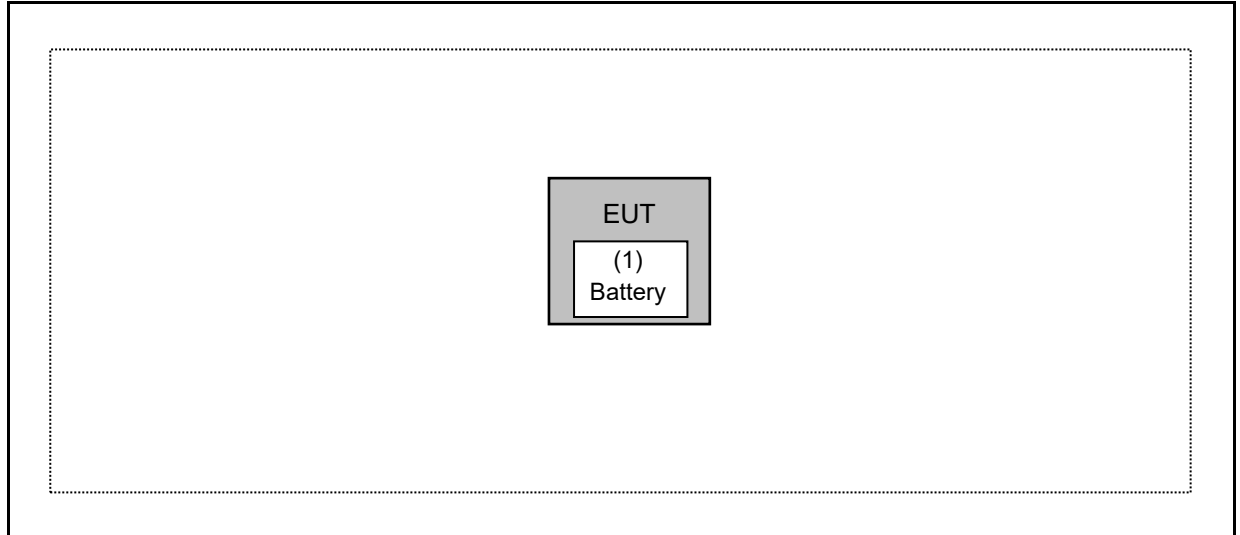
3.2. EUT Test Step

1.	Setup the EUT shown on "Configuration of Test System Details".
2.	Turn on the power of all equipment.
3.	Turn on TX function.
4.	EUT run test program.

Measurement Software			
No.	Description	Software	Version
1	Radiated Emission	EZ EMC	1.1.4.4

3.3. Configuration of Test System Details

Radiated Emissions



Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Battery	DEWALT	DCB203	N/A	N/A

3.4. Test Instruments

For Radiated Emissions

Test Period: Nov. 14 ~ Nov. 30, 2020

Testing Engineer: Ricky Liu, Pink.Li, JS Liao, Marc Yeh

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer	Keysight	N9030B	MY57143537	04/14/2020	1 year
Pre Amplifier (1 kHz~1 GHz)	Titan	T0910E00014330A 1F	001	07/23/2020	1 year
Pre Amplifier (1~26.5 GHz)	Titan	T0912E01263025A 1F	002	07/23/2020	1 year
Broadband Antenna	Schwarzbeck	VULB9168	01146	07/03/2020	1 year
Horn Antenna (1~18 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	02207	06/30/2020	1 year
Horn Antenna (18~40 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	08/18/2020	1 year
Coaxial Cable	Titan	T0710AT327A10A 100	J11005	08/13/2020	1 year
Coaxial Cable	Titan	T0710AT327A10A 900	J11004	08/13/2020	1 year
Coaxial Cable	Titan	T0712AT340A12A 900	J11002	08/13/2020	1 year

For Conducted

Test Period: Nov. 12 ~ Dec. 02, 2020

Testing Engineer: Brian.Lin, Andy Lu, Peter Shui

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Power Sensor	Anritsu	MA2411B	1126022	09/01/2020	1 year
Power Meter	Anritsu	ML2495A	1135009	09/01/2020	1 year
Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	09/24/2020	1 year

Note: N.C.R. = No Calibration Request.

3.5. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	45-75

4 Measurement Procedure

4.1. Radiated Emission Measurement

■ Limit

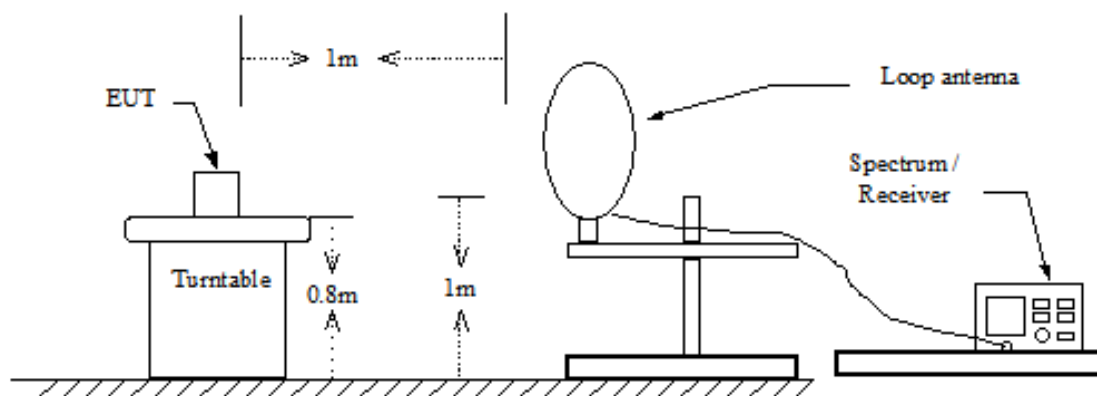
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$ at meter)	Measurement Distance (meters)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 - 88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

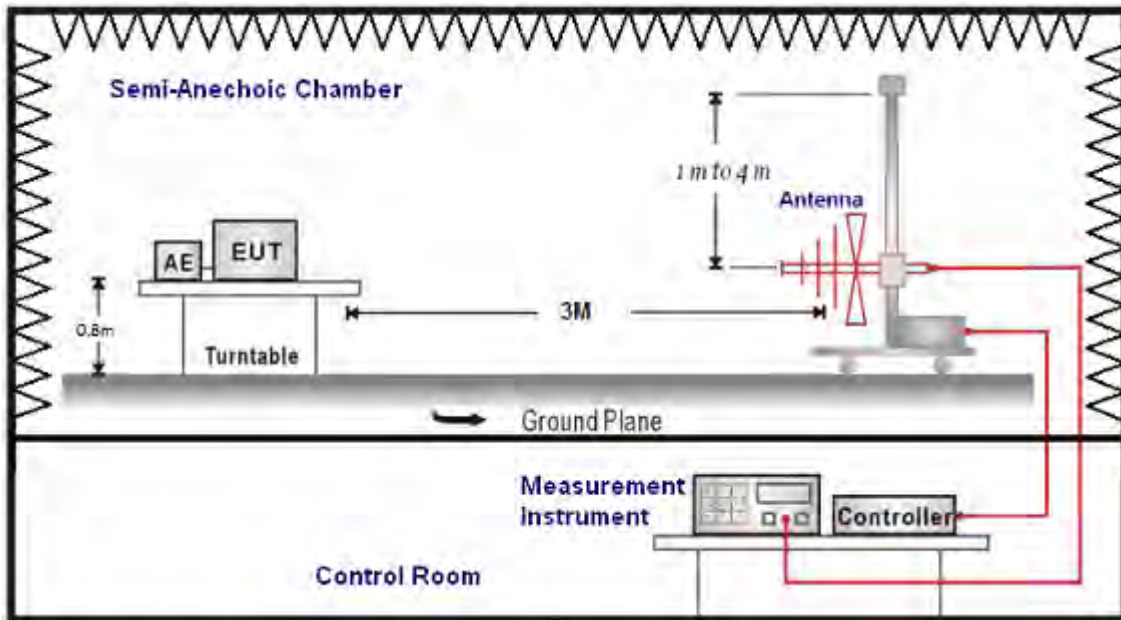
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

■ Setup

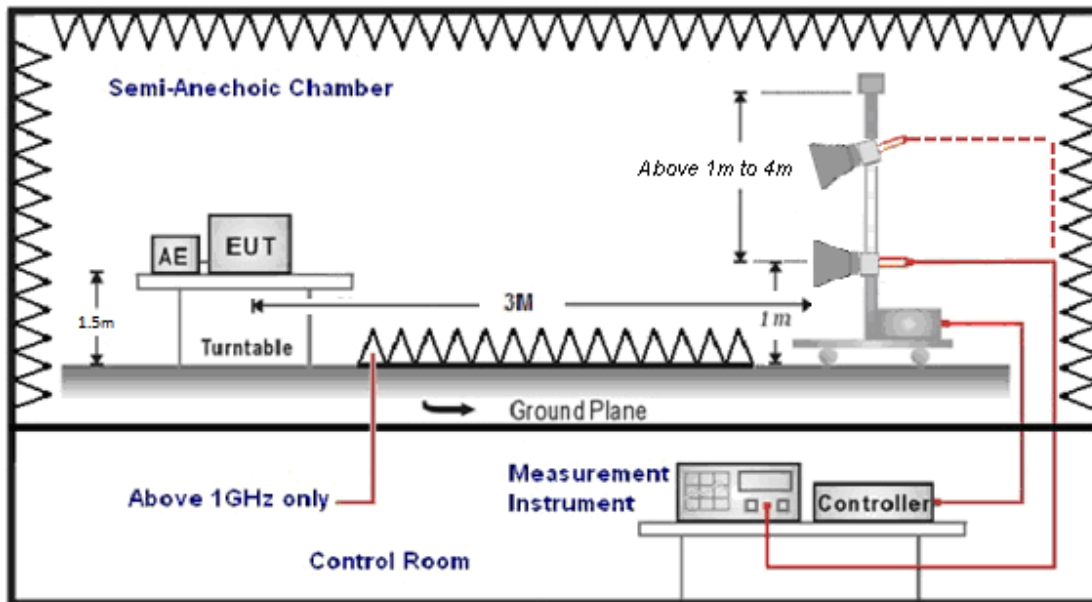
9 kHz ~ 30 MHz



Below 1 GHz



Above 1 GHz



■ Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 or 1.5 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements and 10 Hz for average measurements when Duty cycle >0.98 / $1/T$ for average measurements when Duty cycle <0.98 . A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna was used in frequencies 1 –26.5 GHz at a distance of 3 meter. The antenna at an angle toward the source of the emission. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20 dB/decade).

For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).



The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) $\text{Amplitude (dBuV/m)} = \text{FI (dBuV)} + \text{AF (dBuV)} + \text{CL (dBuV)} - \text{Gain (dB)}$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

(2) $\text{Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30 dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

Data of measurement within this frequency range without mark in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.

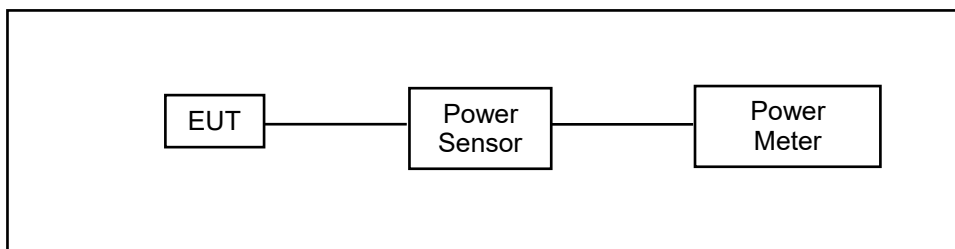
4.2. Maximum Conducted Output Power Measurement

■ Limit

For systems using digital modulation in the 2400-2483.5 MHz, the limit for maximum output power is 30 dBm.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ Test Setup



■ Test Procedure

The testing follows the Measurement Procedure of ANSI C63.10:2013 section 11.9.2.3.2 Method AVGPM.

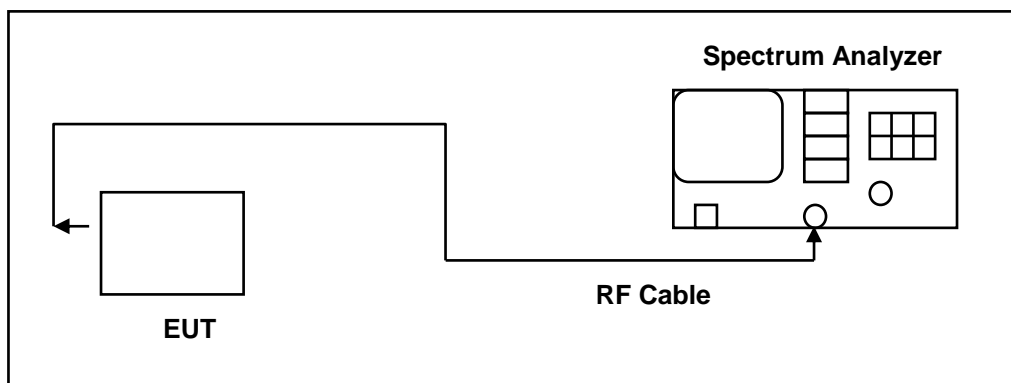
The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor.

4.3. 6 dB RF Bandwidth Measurement

■ Limit

6 dB RF Bandwidth: Systems using digital modulation techniques may operate in the 2400–2483.5 MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

■ Test Setup



■ Test Procedure

The EUT tested to DTS test procedure of ANSI C63.10:2013 section 11.8.2 option2 for compliance to FCC 47CFR 15.247 requirements.

6 dB RF Bandwidth: The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

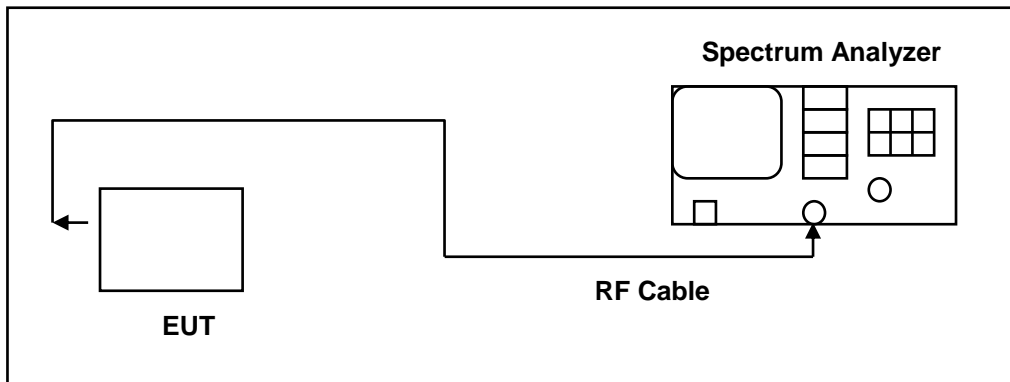
The test was performed at 3 channels (Channel low, middle, high)

4.4. Maximum Power Spectral Density Measurement

■ **Limit**

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.

■ **Test Setup**



■ **Test Procedure**

The EUT tested to DTS test procedure of ANSI C63.10:2013 section 11.10.2 Method PKPSD for compliance to FCC 47CFR 15.247 requirements.

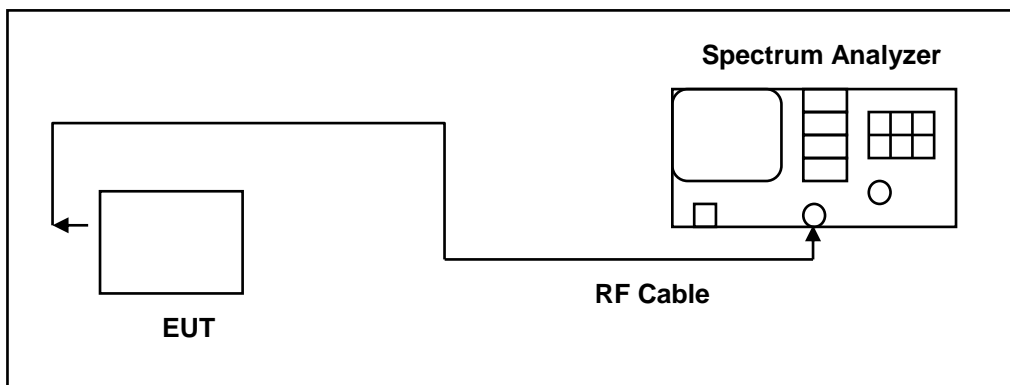
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

4.5. Out of Band Conducted Emissions Measurement

■ **Limit**

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

■ **Test Setup**



■ **Test Procedure**

In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function. All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band. The test was performed at 3 channels.

4.6. Antenna Measurement

■ **Limit**

For intentional device, according to 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 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ **Antenna Description**

See section 2 – antenna information.



5 Test Results

Annex A. Conducted Test Results

Maximum Conducted Output Power Measurement

ANT-0							
Test Mode	Frequency (MHz)	Data Rate	Measurement Results				Limit
			Average Output Power		Peak Output Power		
			dBm	W	dBm	W	dBm
Mode 1	2412	1 M	10.02	0.010	12.48	0.018	≤ 30
	2437		8.74	0.007	11.37	0.014	≤ 30
	2462		7.40	0.005	9.98	0.010	≤ 30
Mode 2	2412	6 M	11.13	0.013	17.01	0.050	≤ 30
	2437		10.35	0.011	16.66	0.046	≤ 30
	2462		9.69	0.009	16.07	0.040	≤ 30
Mode 3	2412	6.5 M	11.41	0.014	17.28	0.053	≤ 30
	2437		10.52	0.011	16.71	0.047	≤ 30
	2462		9.79	0.010	16.12	0.041	≤ 30
Mode 4	2422	13.5 M	10.72	0.012	17.13	0.052	≤ 30
	2437		10.21	0.010	16.71	0.047	≤ 30
	2452		10.31	0.011	16.61	0.046	≤ 30

Note: The relevant measured result has the offset with cable loss already.



6 dB RF Bandwidth Measurement

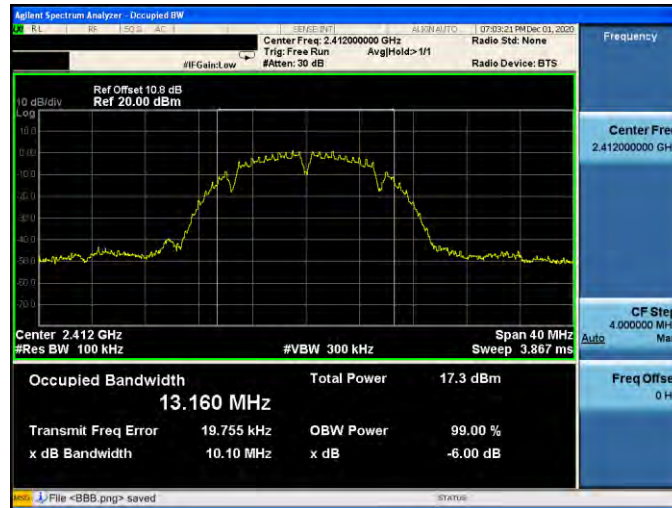
ANT-0			
Test Mode	Frequency (MHz)	Measurement (kHz)	Limit (kHz)
Mode 1	2412	10100	≥ 500
	2437	10070	≥ 500
	2462	9583	≥ 500
Mode 2	2412	16350	≥ 500
	2437	16350	≥ 500
	2462	16360	≥ 500
Mode 3	2412	17040	≥ 500
	2437	17540	≥ 500
	2462	17540	≥ 500
Mode 4	2422	36160	≥ 500
	2437	35840	≥ 500
	2452	35910	≥ 500



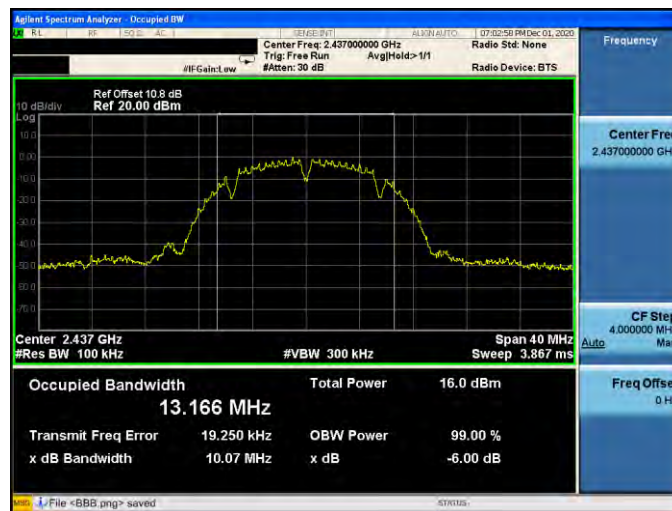
■ Test Graphs

Mode 1: IEEE 802.11b Continuous TX mode_ANT-0

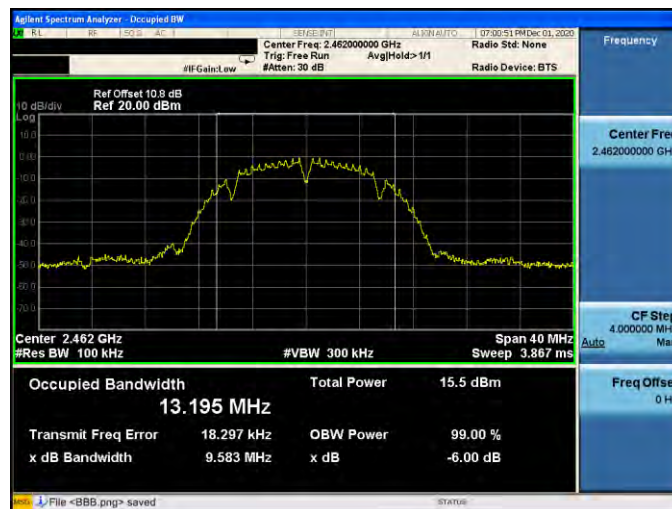
2412 MHz



2437 MHz



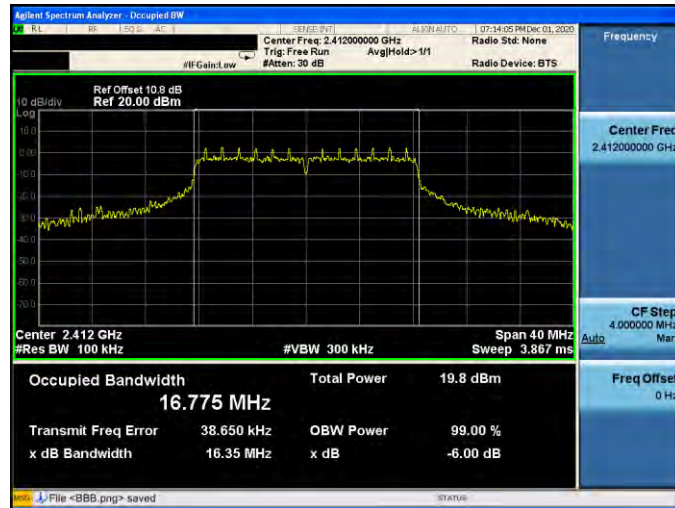
2462 MHz



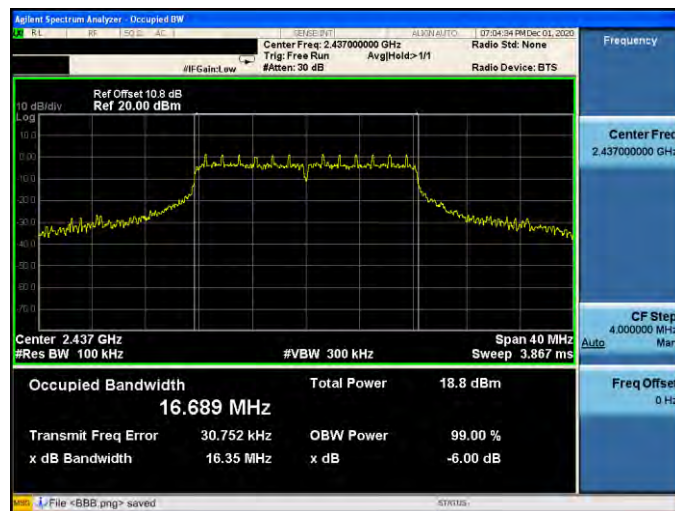


Mode 2: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



2437 MHz



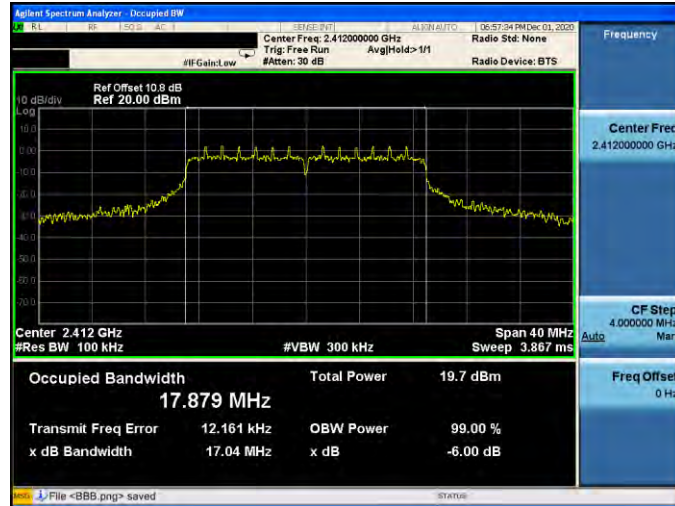
2462 MHz



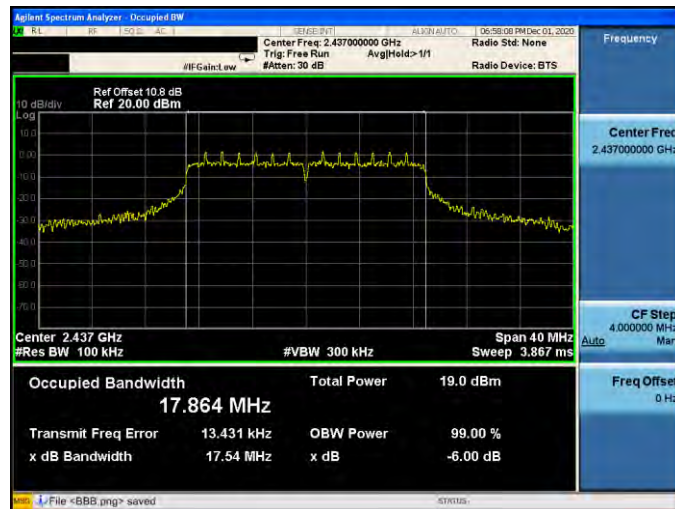


Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

2412 MHz



2437 MHz



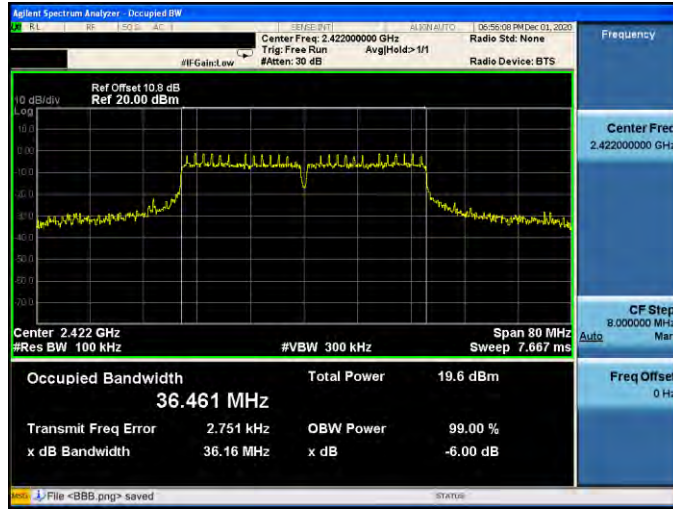
2462 MHz



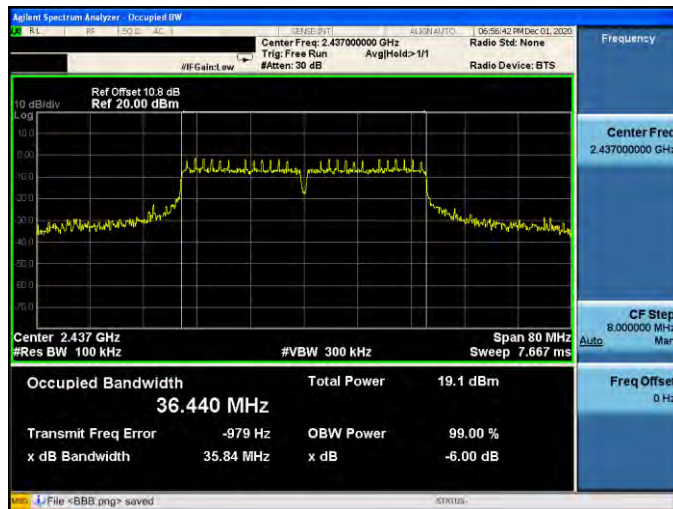


Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode _ANT-0

2422 MHz



2437 MHz



2452 MHz





Maximum Power Spectral Density Measurement

ANT-0			
Test Mode	Frequency (MHz)	Measurement (dBm/3 kHz)	Limit (dBm/ 3 kHz)
Mode 1	2412	-12.203	≤ 8
	2437	-13.340	≤ 8
	2462	-13.580	≤ 8
Mode 2	2412	-13.243	≤ 8
	2437	-13.393	≤ 8
	2462	-14.062	≤ 8
Mode 3	2412	-13.135	≤ 8
	2437	-14.284	≤ 8
	2462	-14.596	≤ 8
Mode 4	2422	-16.730	≤ 8
	2437	-16.397	≤ 8
	2452	-17.061	≤ 8



Mode 1: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz



2437 MHz



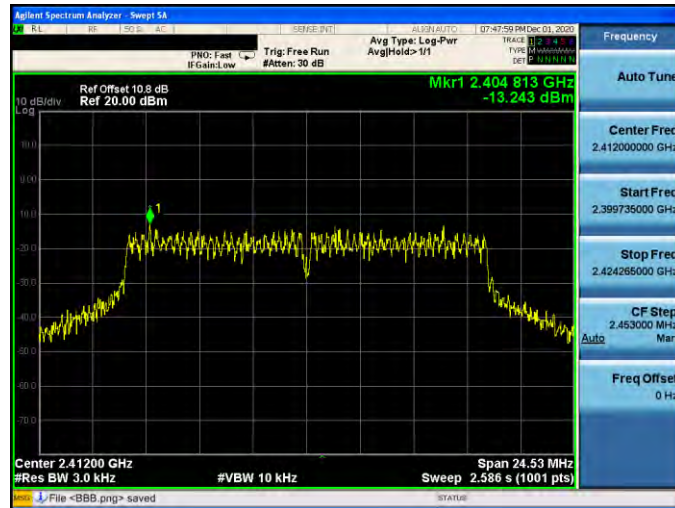
2462 MHz



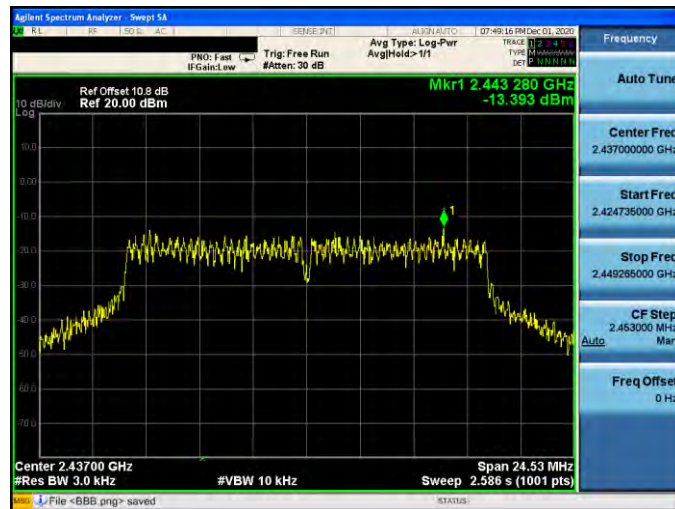


Mode 2: IEEE 802.11g Continuous TX mode_ANT-0

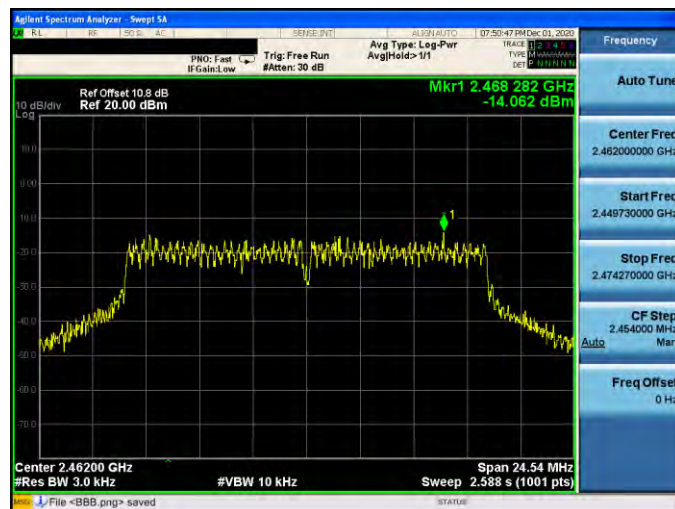
2412 MHz



2437 MHz



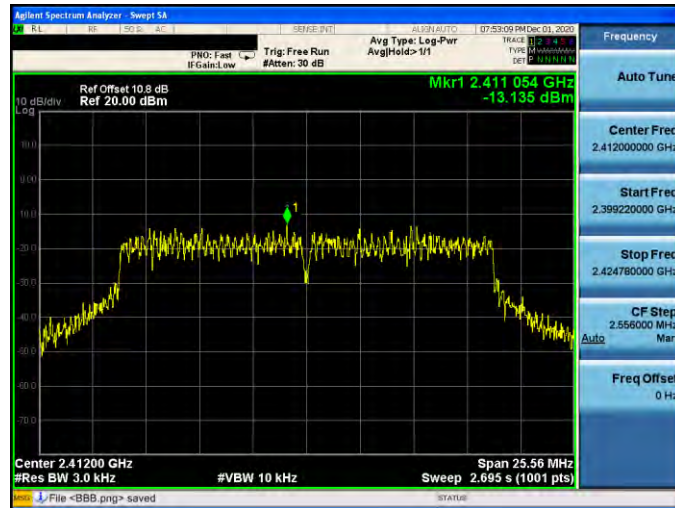
2462 MHz



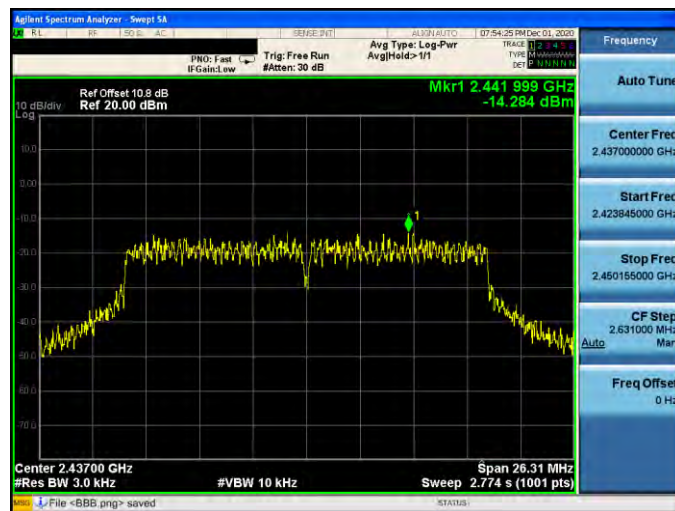


Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

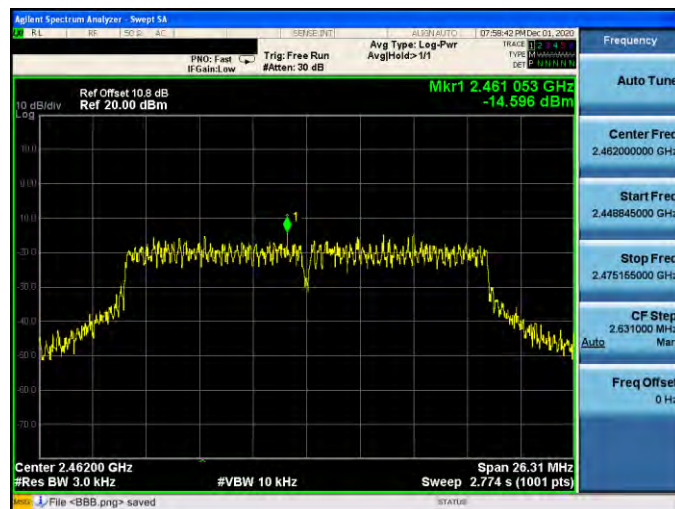
2412 MHz



2437 MHz



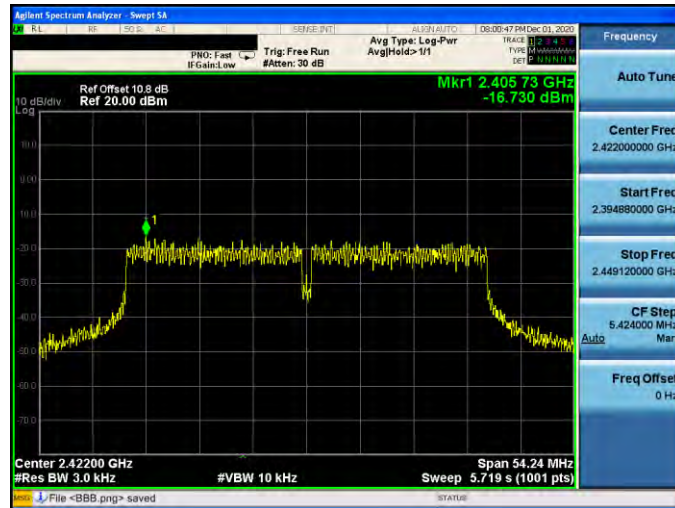
2462 MHz



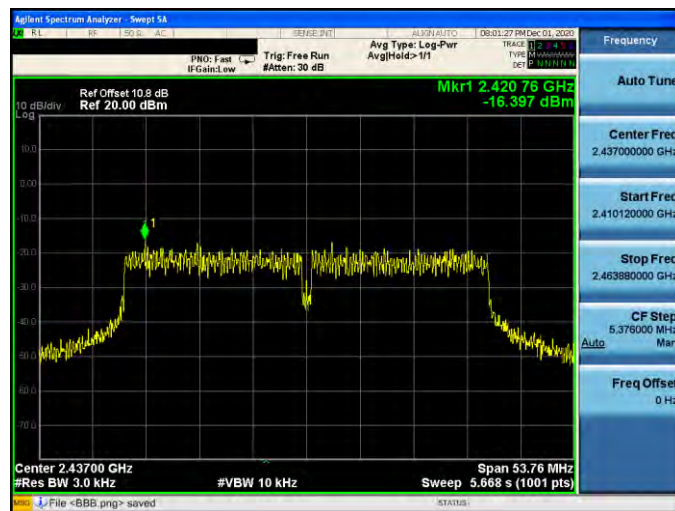


Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode _ANT-0

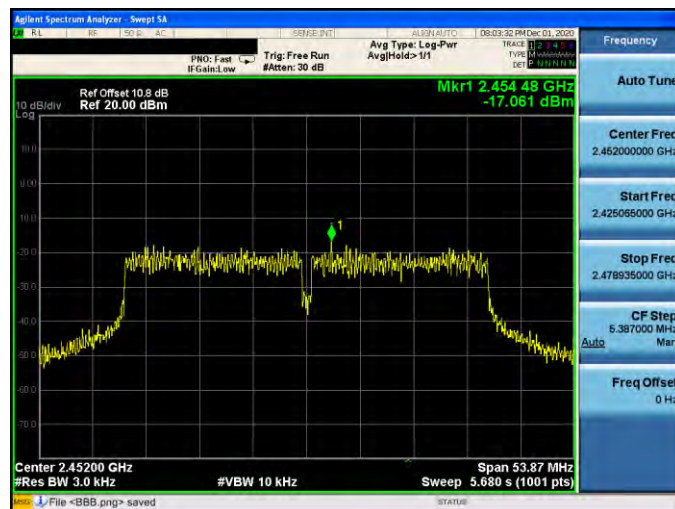
2422 MHz



2437 MHz



2452 MHz





Out of Band Conducted Emissions Measurement

■ Test Graphs

Reference level

Mode 1: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz



2437 MHz



2462 MHz





Mode 2: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



2437 MHz



2462 MHz





Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

2412 MHz



2437 MHz



2462 MHz





Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode _ANT-0

2422 MHz



2437 MHz



2452 MHz

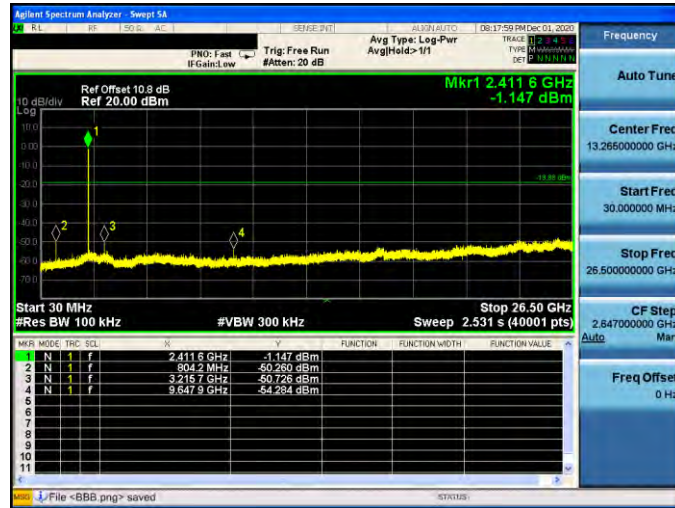




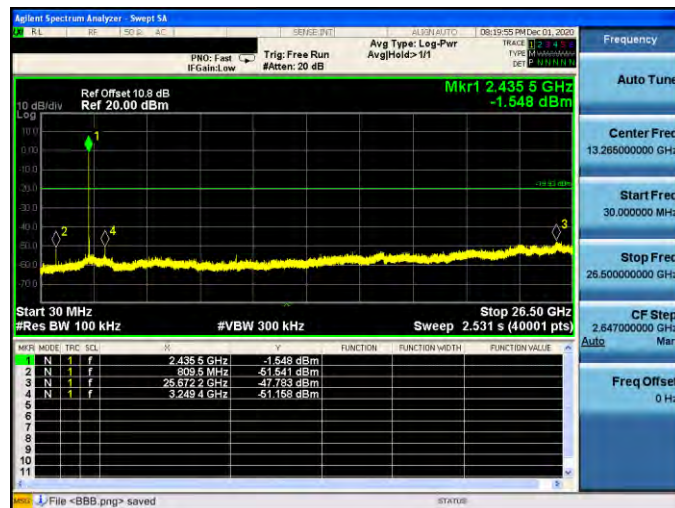
Out of Band Conducted Emissions

Mode 1: IEEE 802.11b Continuous TX mode_ANT-0

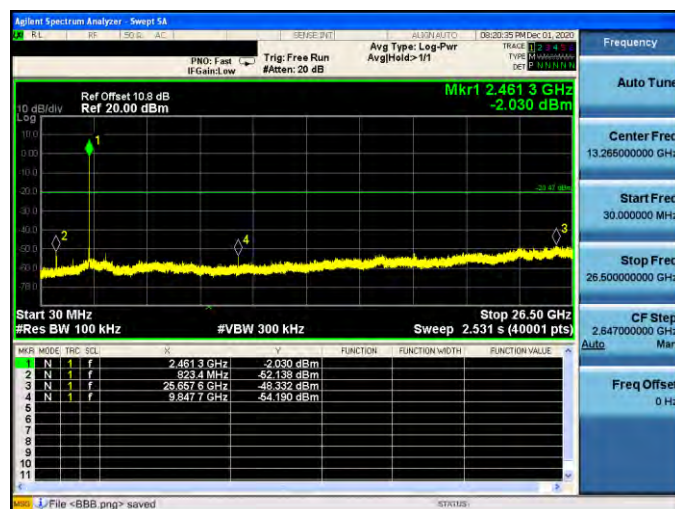
2412 MHz



2437 MHz



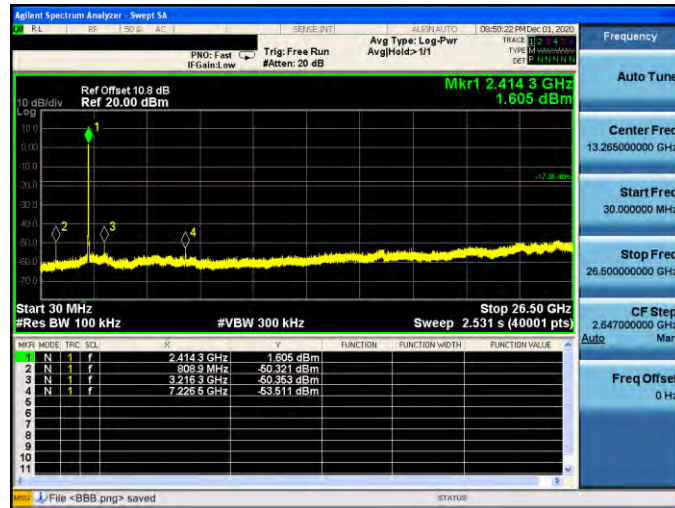
2462 MHz



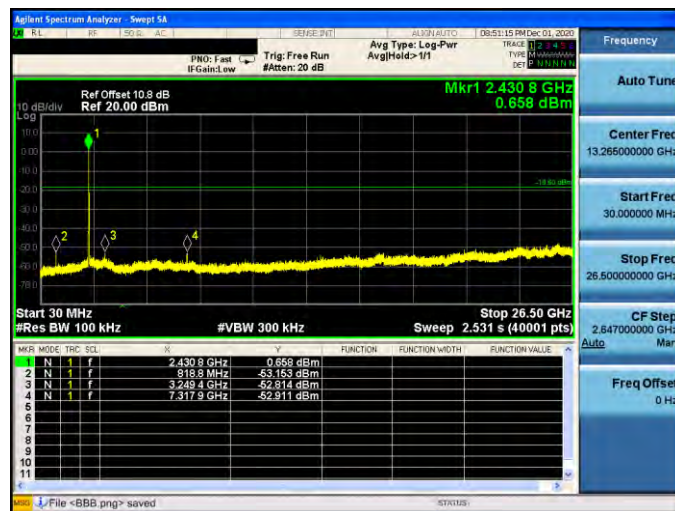


Mode 2: IEEE 802.11g Continuous TX mode_ANT-0

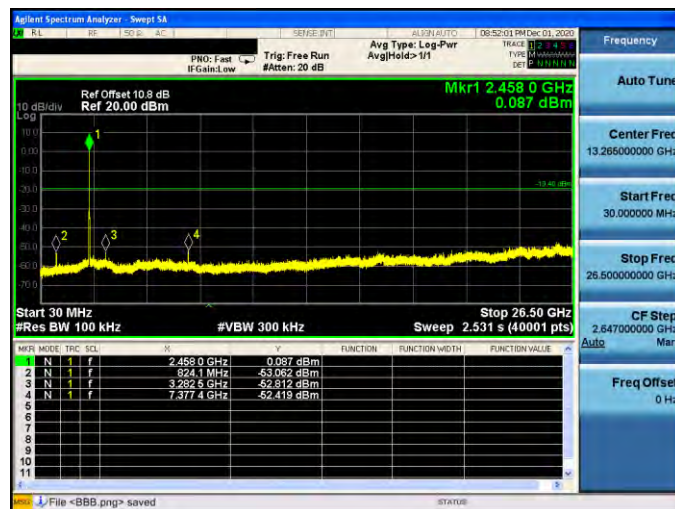
2412 MHz



2437 MHz



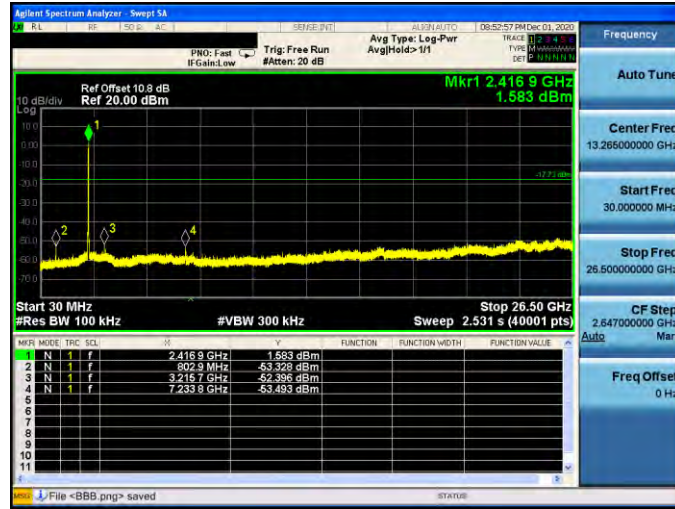
2462 MHz



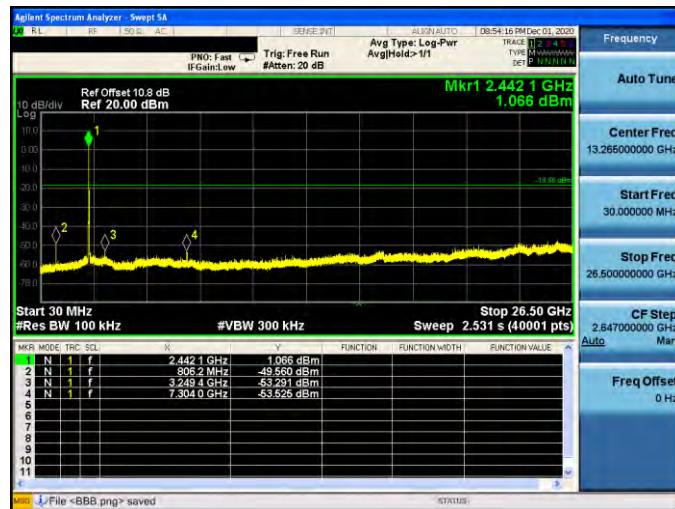


Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

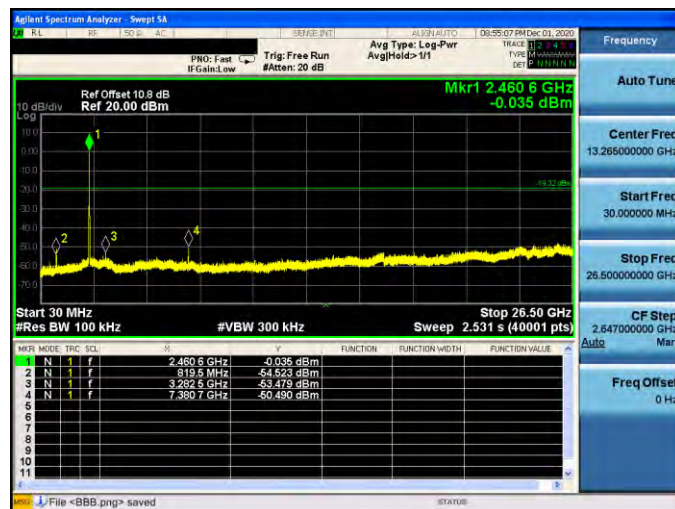
2412 MHz



2437 MHz



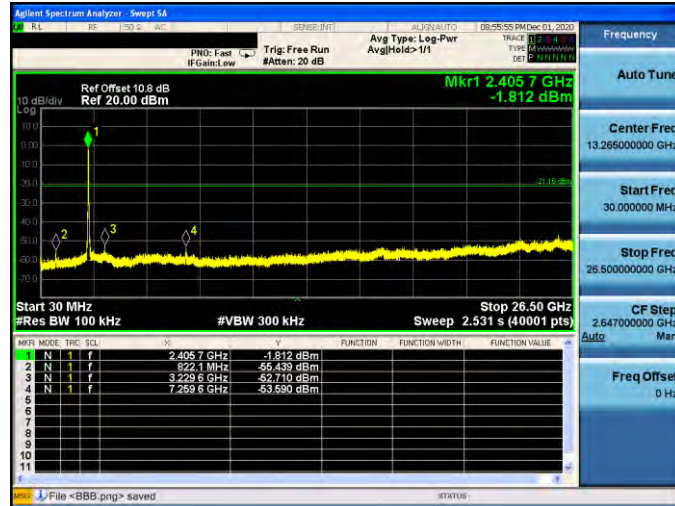
2462 MHz



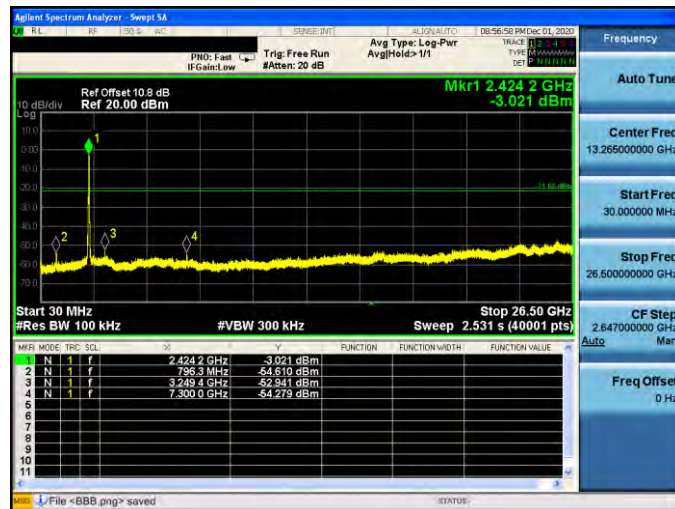


Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode _ANT-0

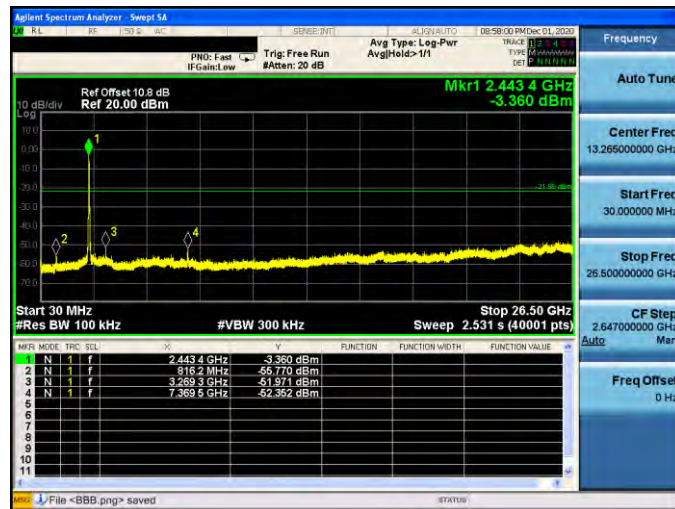
2422 MHz



2437 MHz



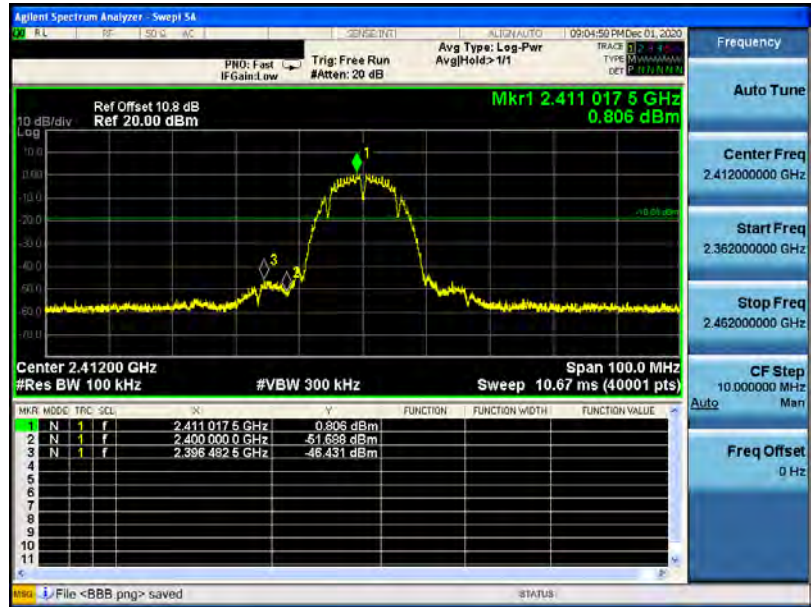
2452 MHz



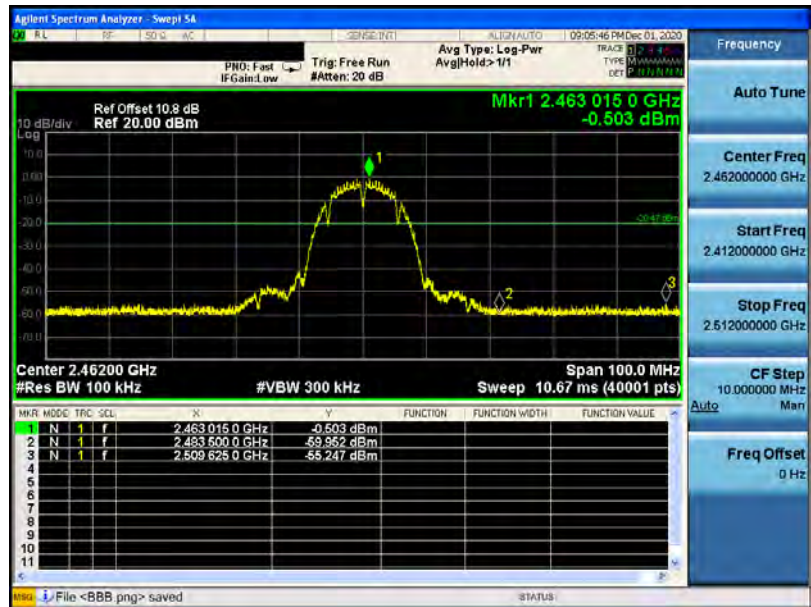
Conducted Band Edge

Mode 1: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz



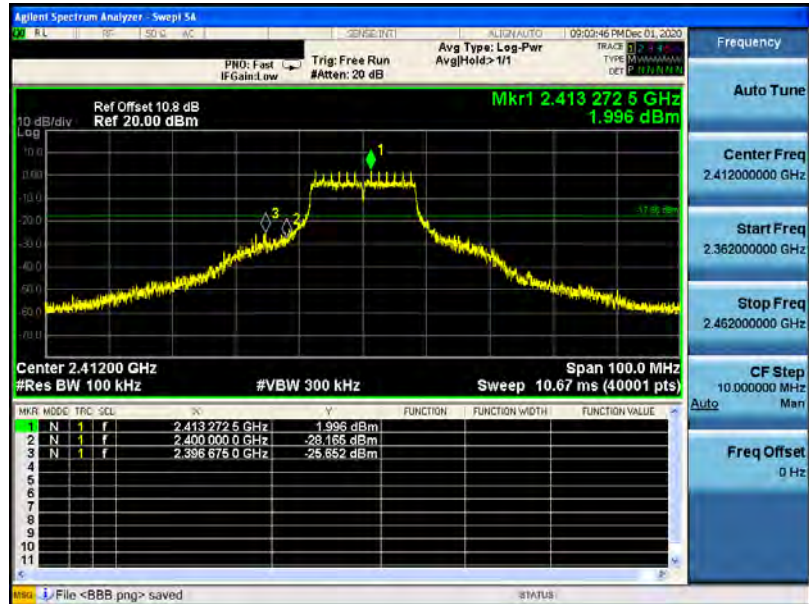
2462 MHz



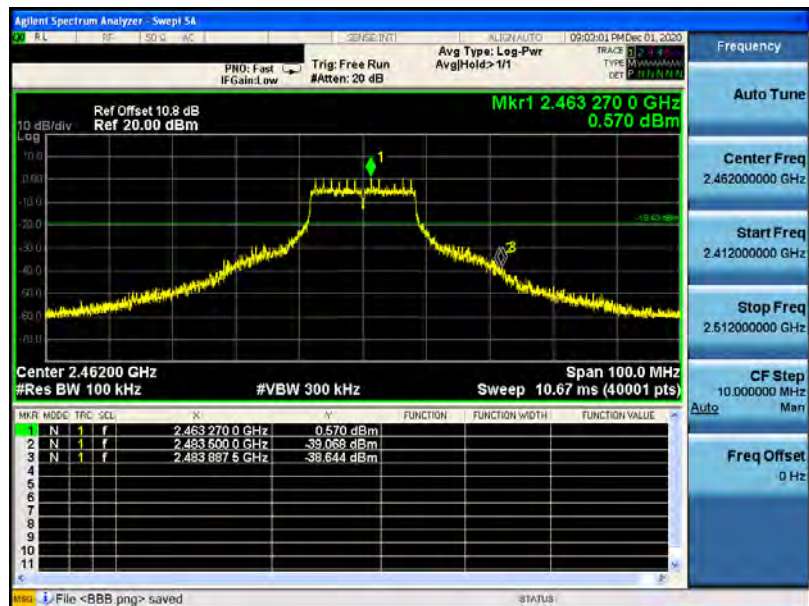


Mode 2: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



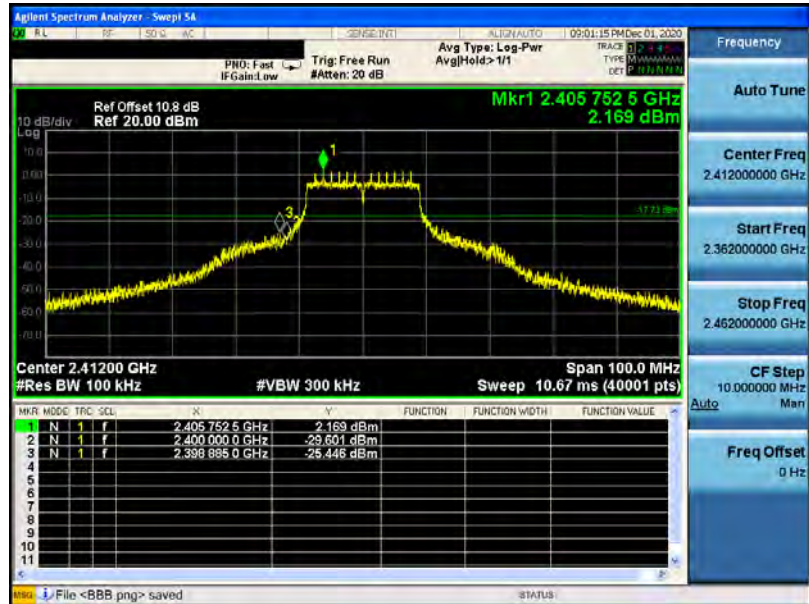
2462 MHz



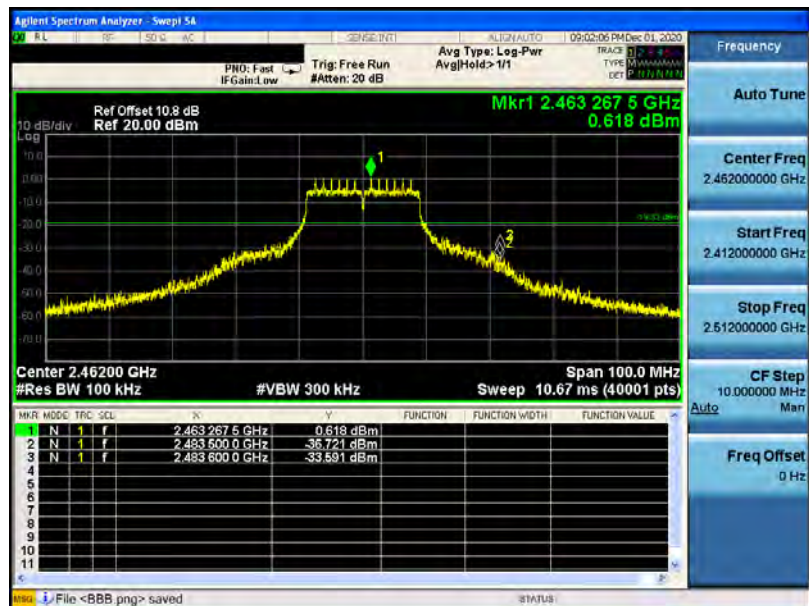


Mode 3: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

2412 MHz



2462 MHz

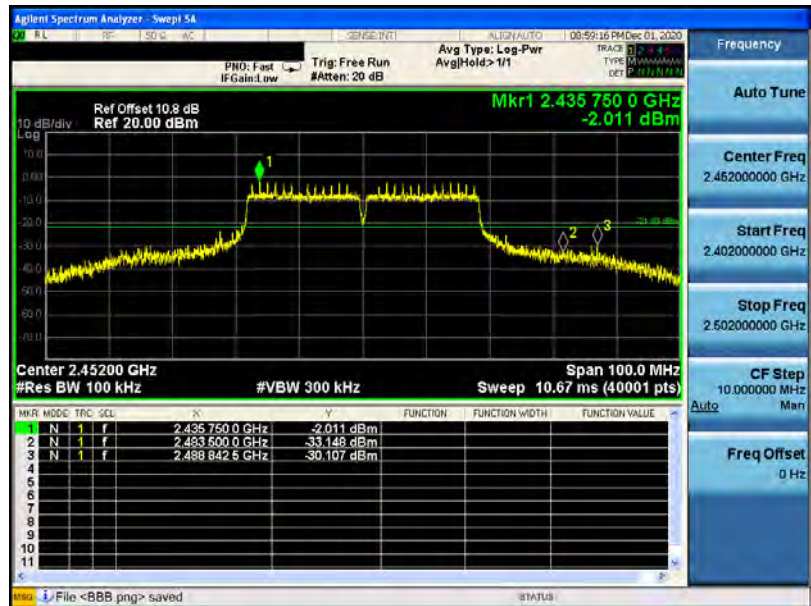


Mode 4: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode_ ANT-0

2422 MHz



2452 MHz

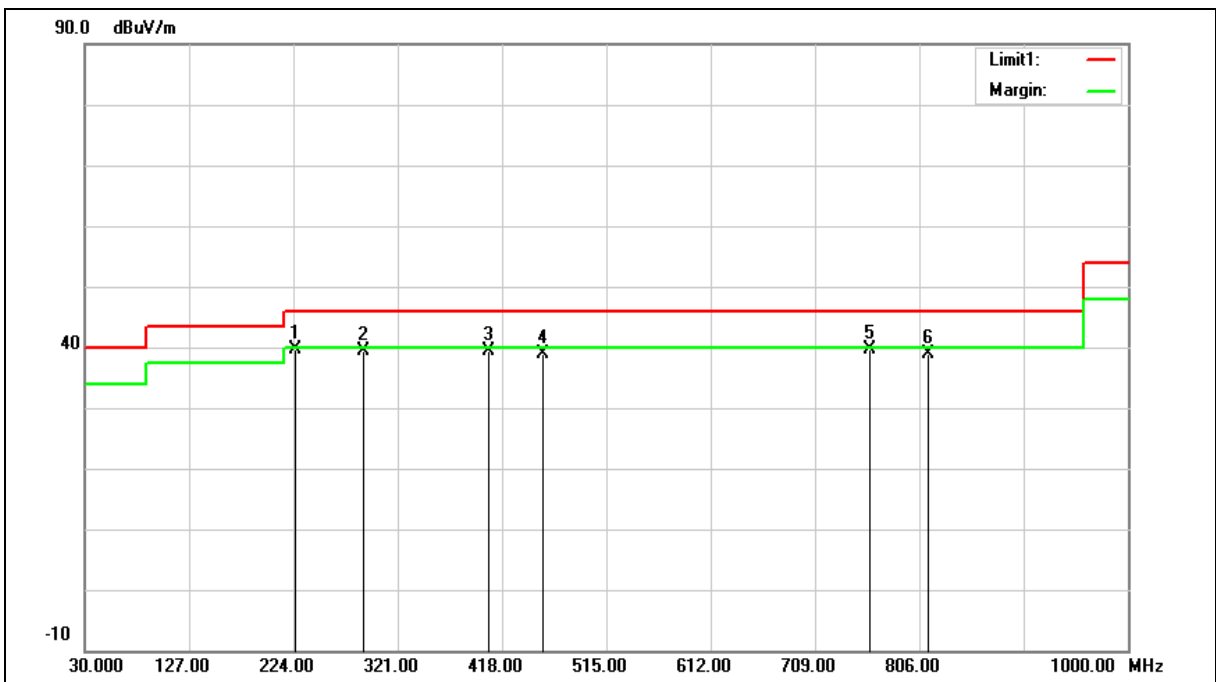




Annex B. Radiated Emission Measurement

Below 1 GHz

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Radiated Emission		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	225.9400	65.91	-26.29	39.62	46.00	-6.38	QP
2	288.9900	63.38	-23.93	39.45	46.00	-6.55	QP
3	405.3900	60.46	-21.20	39.26	46.00	-6.74	QP
4	455.8300	59.05	-20.11	38.94	46.00	-7.06	QP
5	759.4400	54.85	-15.10	39.75	46.00	-6.25	QP
6	814.7300	53.28	-14.35	38.93	46.00	-7.07	QP

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

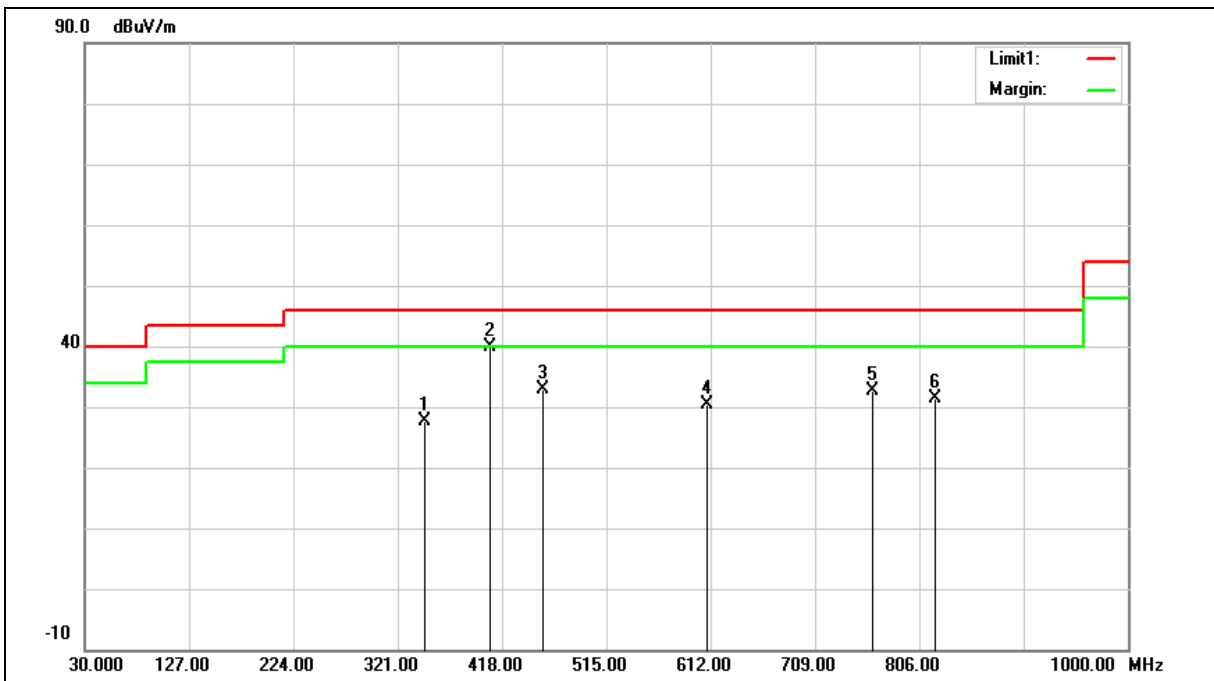
Example: $39.62 = -26.29 + 65.91$

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Radiated Emission		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	346.2200	50.27	-22.54	27.73	46.00	-18.27	QP
2	407.3300	61.02	-21.15	39.87	46.00	-6.13	QP
3	455.8300	53.08	-20.11	32.97	46.00	-13.03	QP
4	608.1200	47.40	-17.04	30.36	46.00	-15.64	QP
5	762.3500	47.72	-15.05	32.67	46.00	-13.33	QP
6	820.5500	45.66	-14.27	31.39	46.00	-14.61	QP

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: $27.73 = -22.54 + 50.27$

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

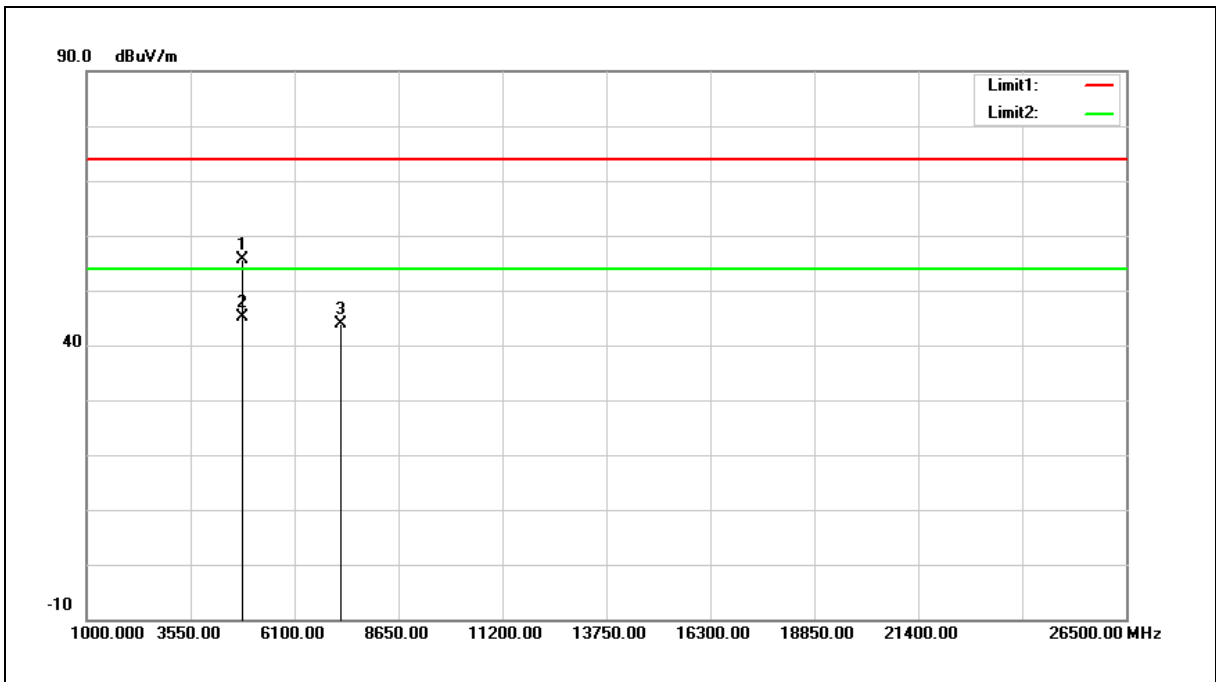
3.When the peak results are less than average limit, so not need to evaluate the average.



Harmonic

Above 1 GHz

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 1		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	56.76	-1.25	55.51	74.00	-18.49	peak
2	4824.000	46.47	-1.25	45.22	54.00	-8.78	AVG
3	7236.000	37.97	5.85	43.82	74.00	-30.18	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

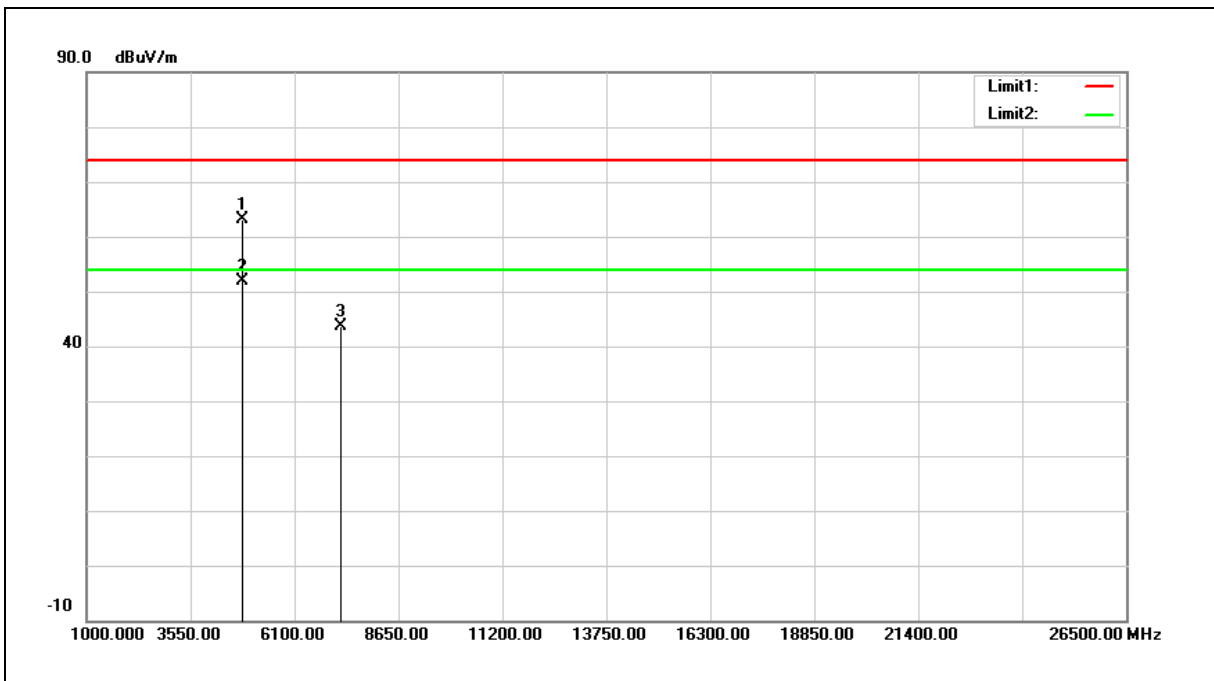
Example: $55.51 = -1.25 + 56.76$

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 1		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	64.35	-1.25	63.10	74.00	-10.90	peak
2	4824.000	53.03	-1.25	51.78	54.00	-2.22	AVG
3	7236.000	37.90	5.85	43.75	74.00	-30.25	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

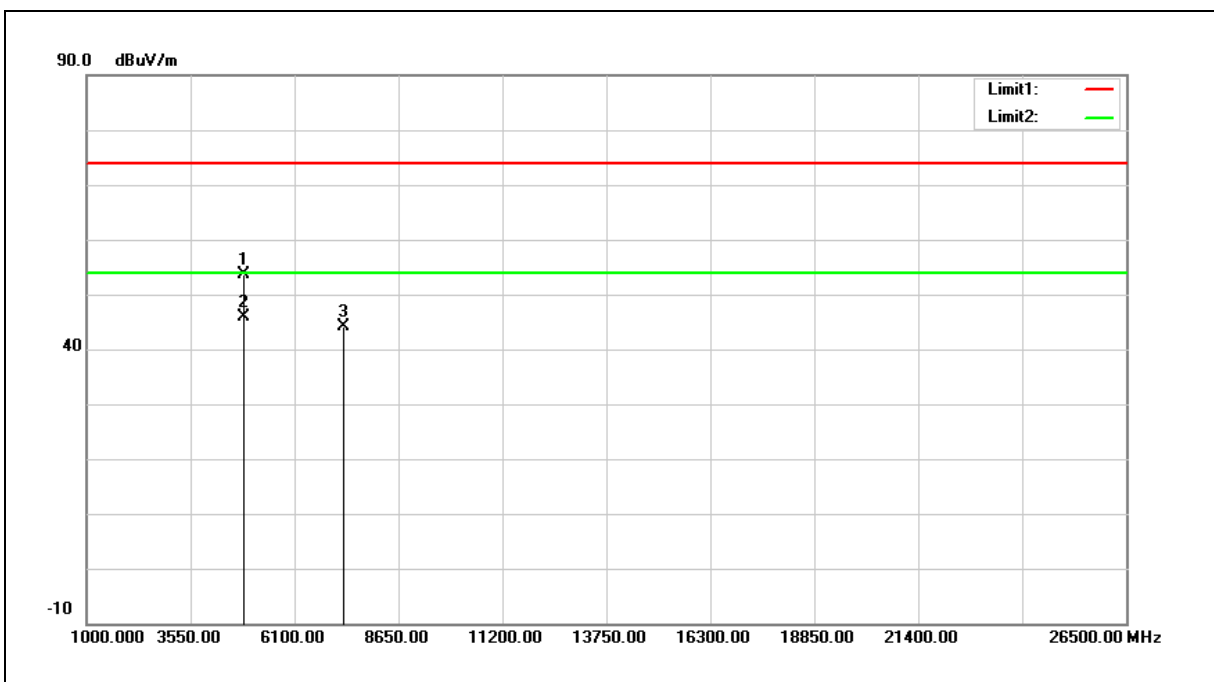
Example: $63.10 = -1.25 + 64.35$

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 1		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	54.80	-1.12	53.68	74.00	-20.32	peak
2	4874.000	47.08	-1.12	45.96	54.00	-8.04	AVG
3	7311.000	38.05	6.11	44.16	74.00	-29.84	peak

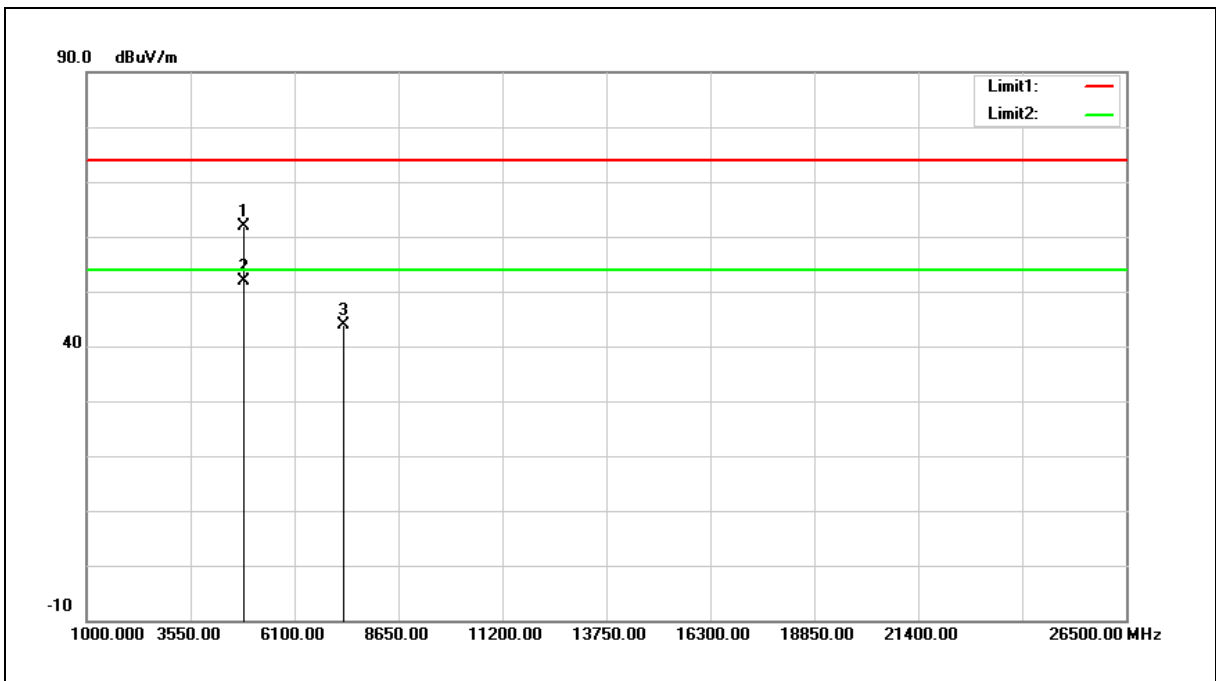
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 1		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	63.05	-1.12	61.93	74.00	-12.07	peak
2	4874.000	53.04	-1.12	51.92	54.00	-2.08	AVG
3	7311.000	37.66	6.11	43.77	74.00	-30.23	peak

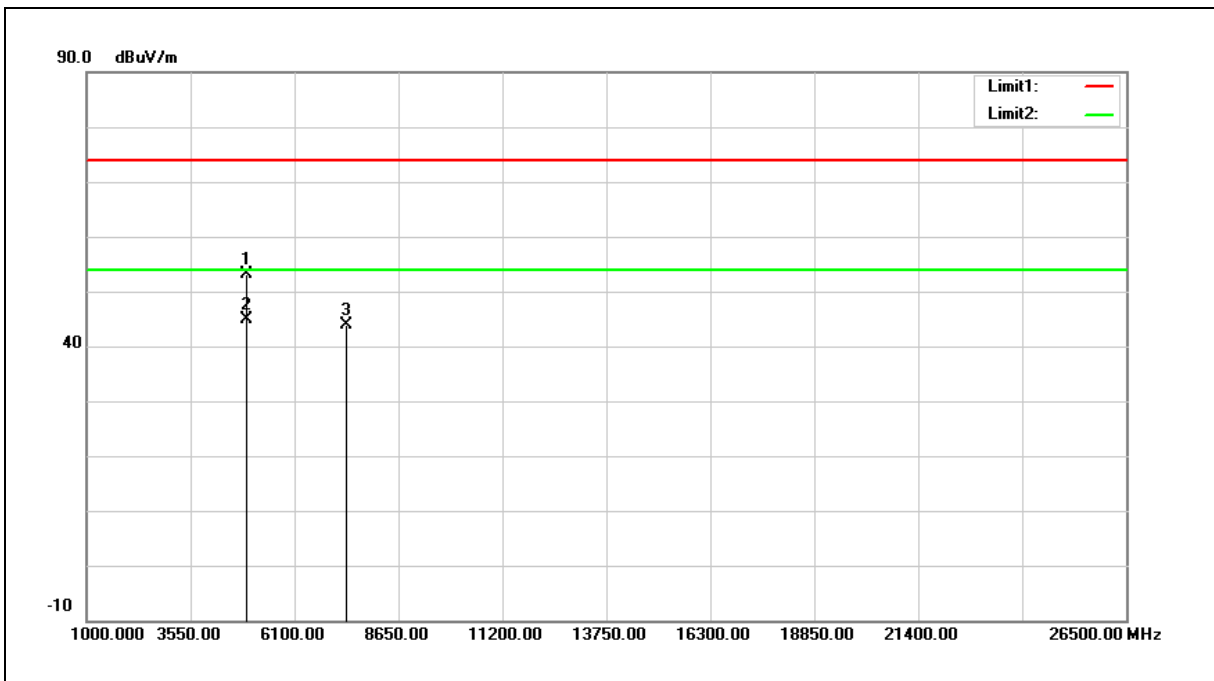
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 1		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	54.08	-0.99	53.09	74.00	-20.91	peak
2	4924.000	45.93	-0.99	44.94	54.00	-9.06	AVG
3	7386.000	37.43	6.38	43.81	74.00	-30.19	peak

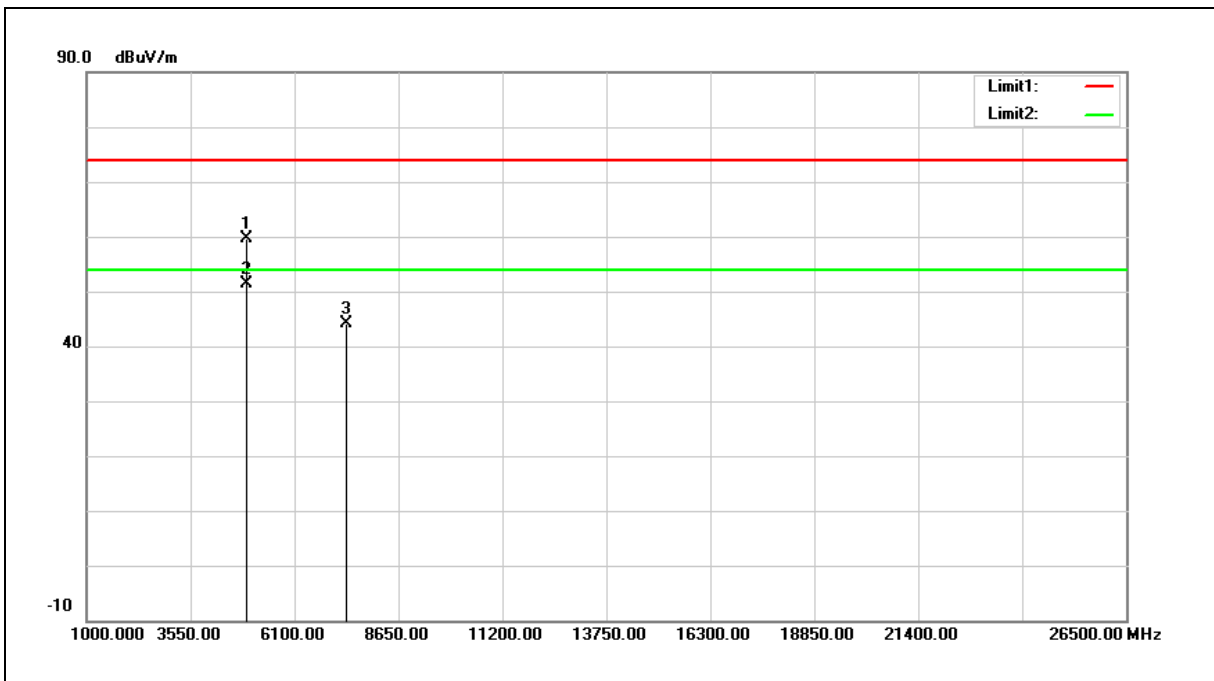
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 1		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	60.52	-0.99	59.53	74.00	-14.47	peak
2	4924.000	52.48	-0.99	51.49	54.00	-2.51	AVG
3	7386.000	37.73	6.38	44.11	74.00	-29.89	peak

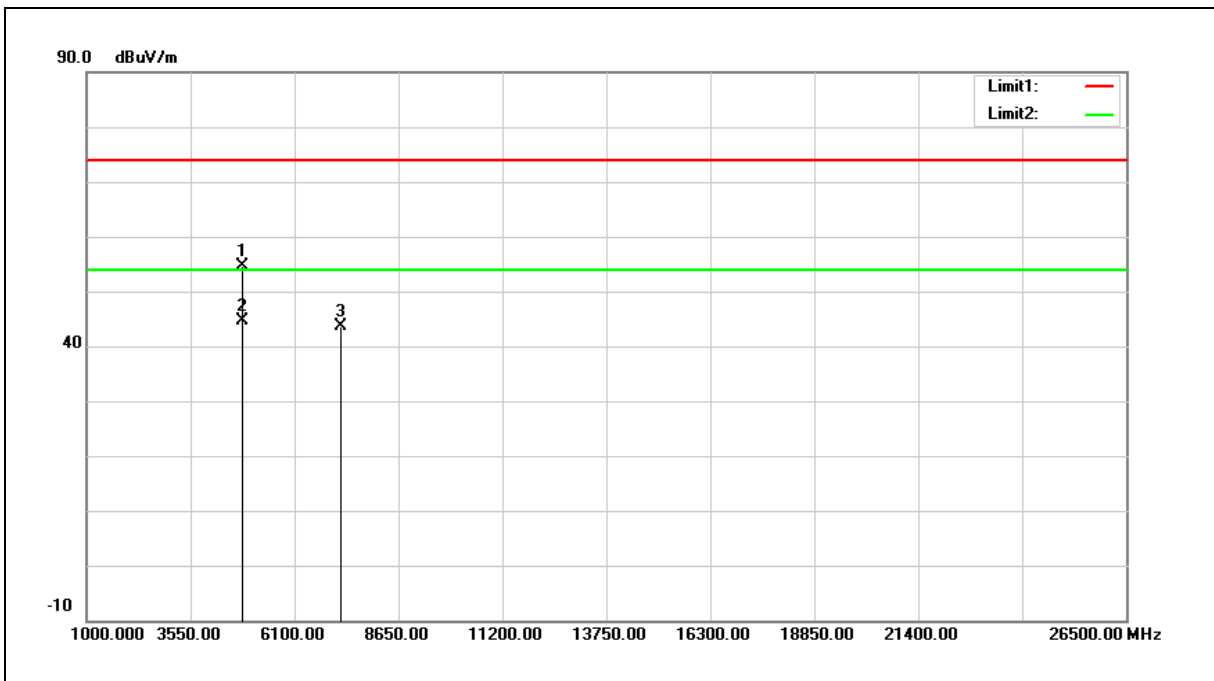
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	55.97	-1.25	54.72	74.00	-19.28	peak
2	4824.000	45.82	-1.25	44.57	54.00	-9.43	AVG
3	7236.000	37.67	5.85	43.52	74.00	-30.48	peak

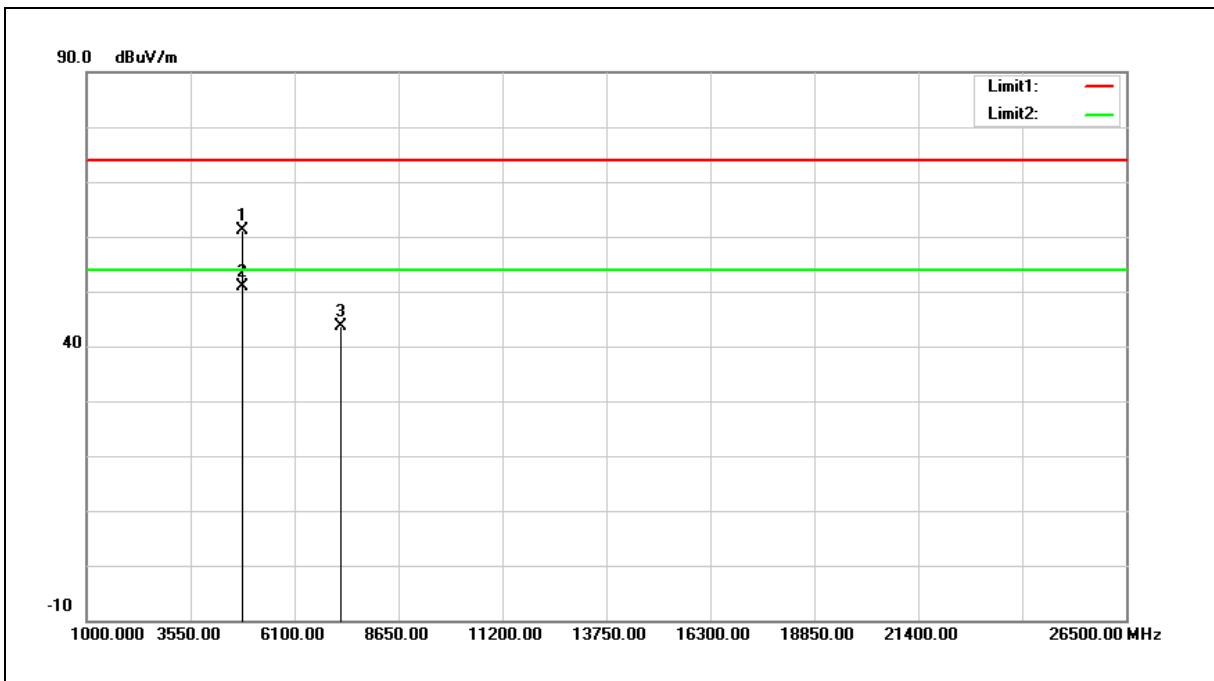
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	62.39	-1.25	61.14	74.00	-12.86	peak
2	4824.000	52.16	-1.25	50.91	54.00	-3.09	AVG
3	7236.000	37.72	5.85	43.57	74.00	-30.43	peak

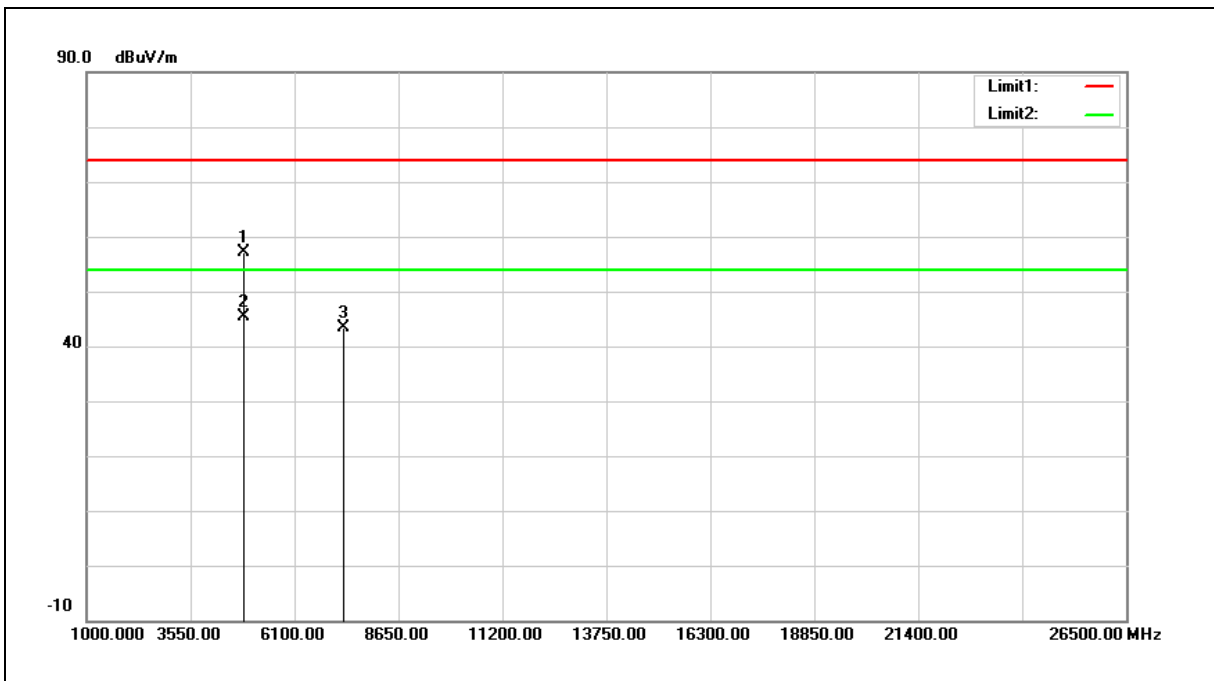
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	58.13	-1.12	57.01	74.00	-16.99	peak
2	4874.000	46.51	-1.12	45.39	54.00	-8.61	AVG
3	7311.000	37.37	6.11	43.48	74.00	-30.52	peak

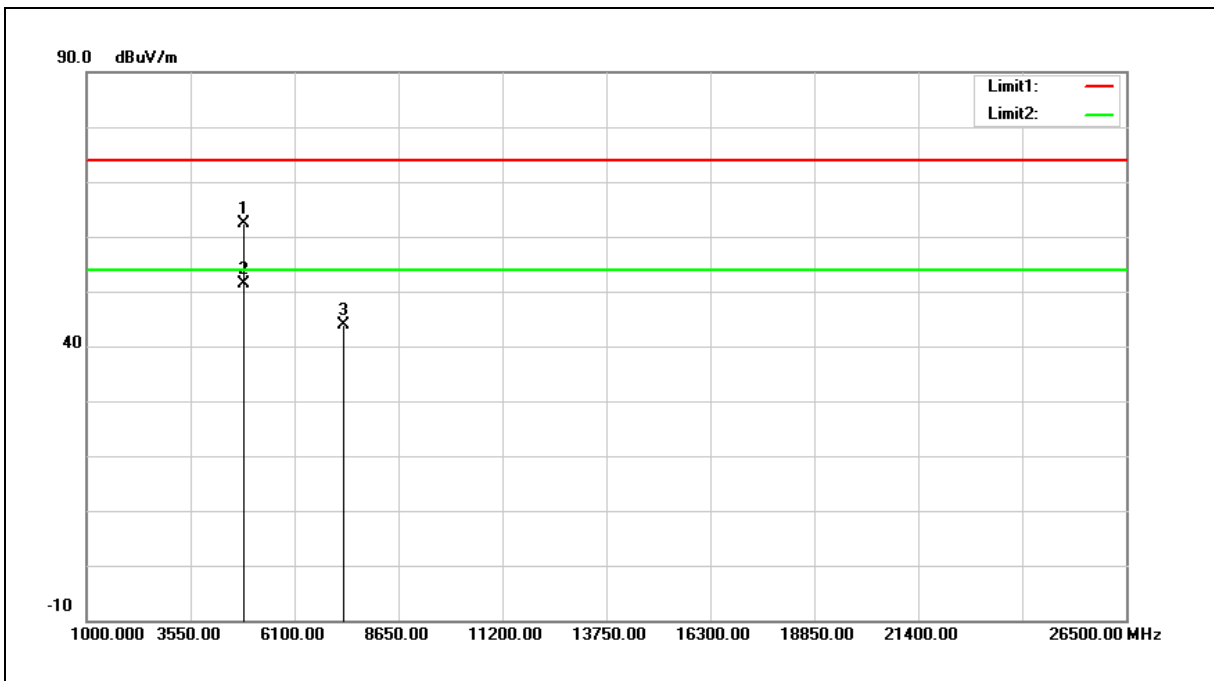
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	63.55	-1.12	62.43	74.00	-11.57	peak
2	4874.000	52.60	-1.12	51.48	54.00	-2.52	AVG
3	7311.000	37.70	6.11	43.81	74.00	-30.19	peak

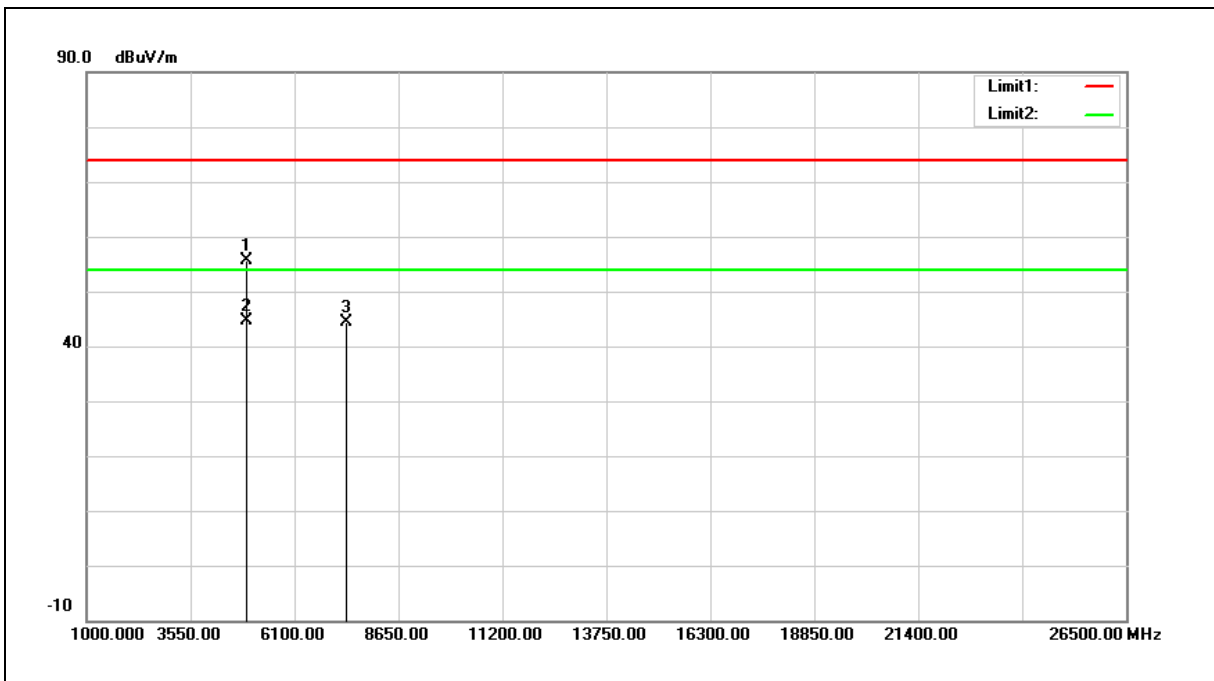
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	56.51	-0.99	55.52	74.00	-18.48	peak
2	4924.000	45.67	-0.99	44.68	54.00	-9.32	AVG
3	7386.000	37.97	6.38	44.35	74.00	-29.65	peak

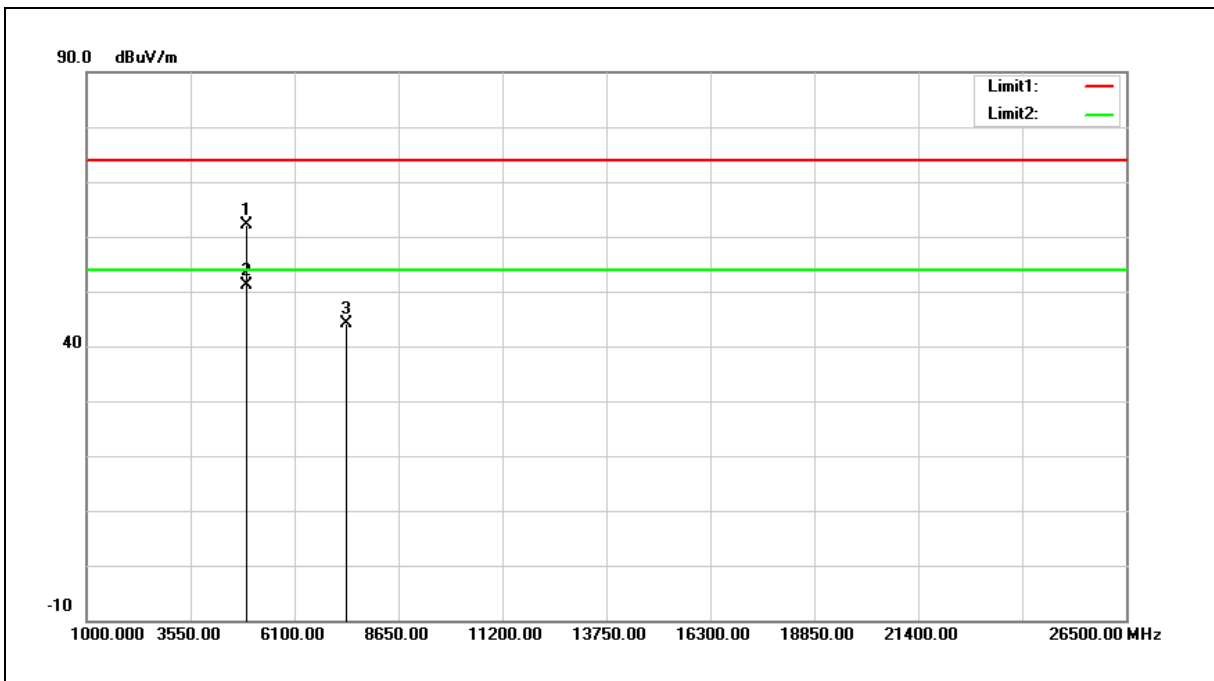
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	63.23	-0.99	62.24	74.00	-11.76	peak
2	4924.000	52.09	-0.99	51.10	54.00	-2.90	AVG
3	7386.000	37.72	6.38	44.10	74.00	-29.90	peak

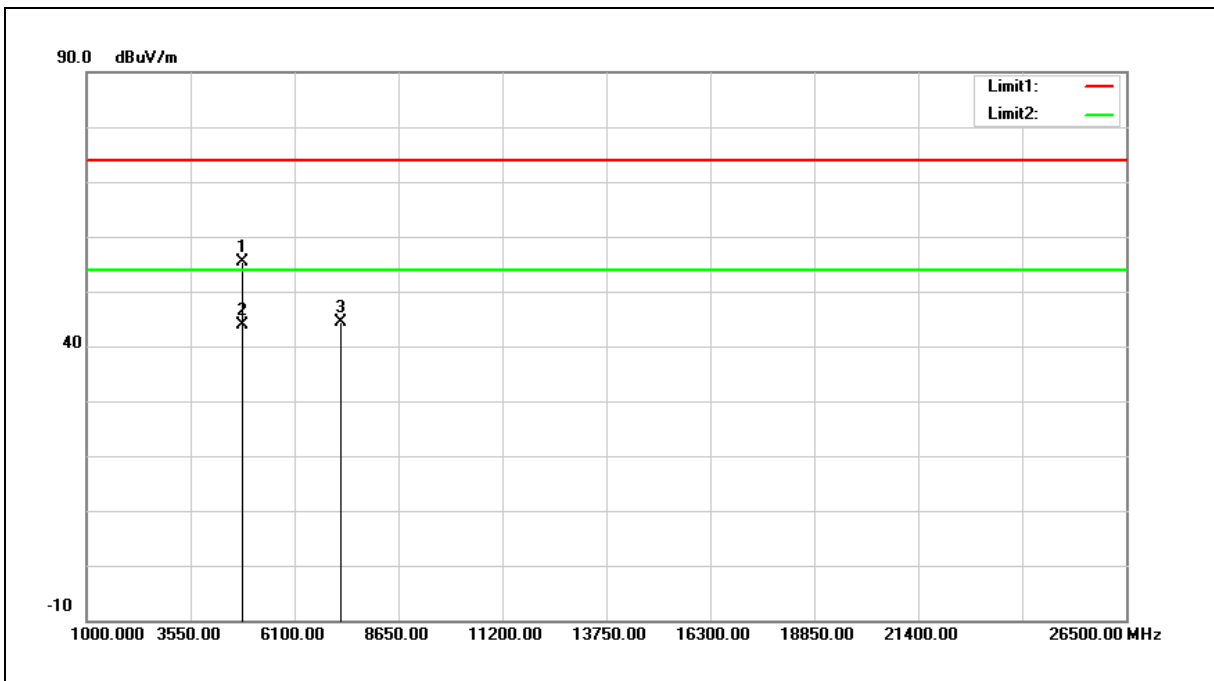
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	56.63	-1.25	55.38	74.00	-18.62	peak
2	4824.000	45.25	-1.25	44.00	54.00	-10.00	AVG
3	7236.000	38.57	5.85	44.42	74.00	-29.58	peak

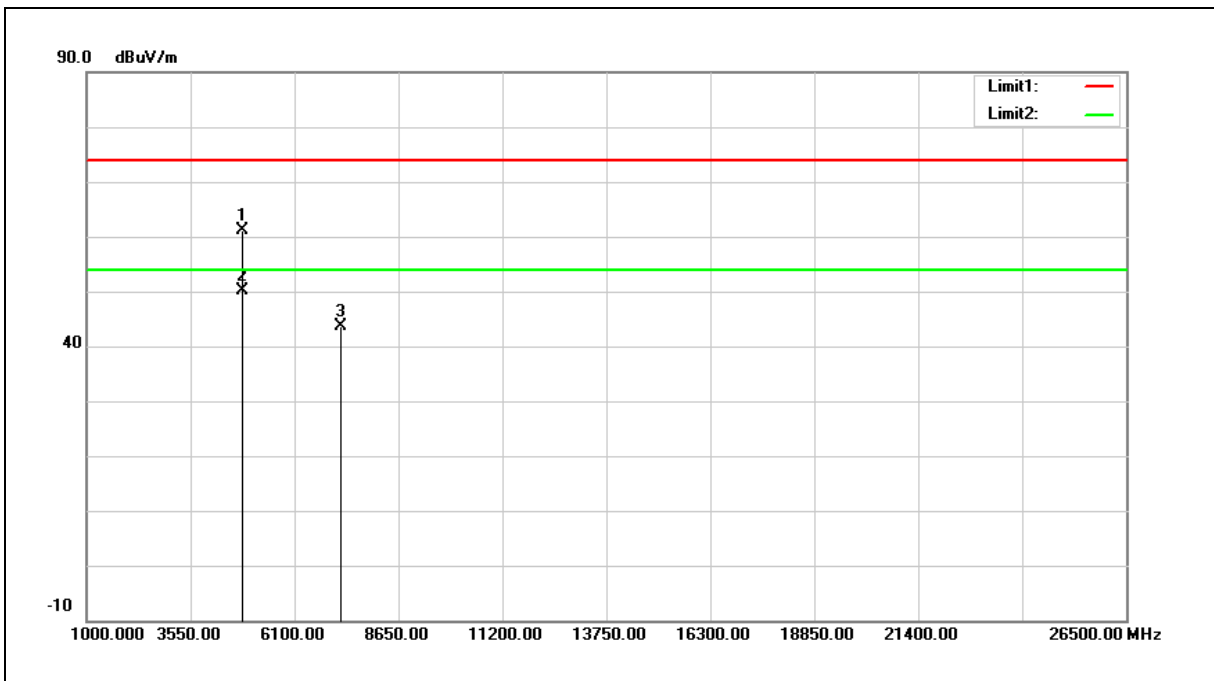
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		

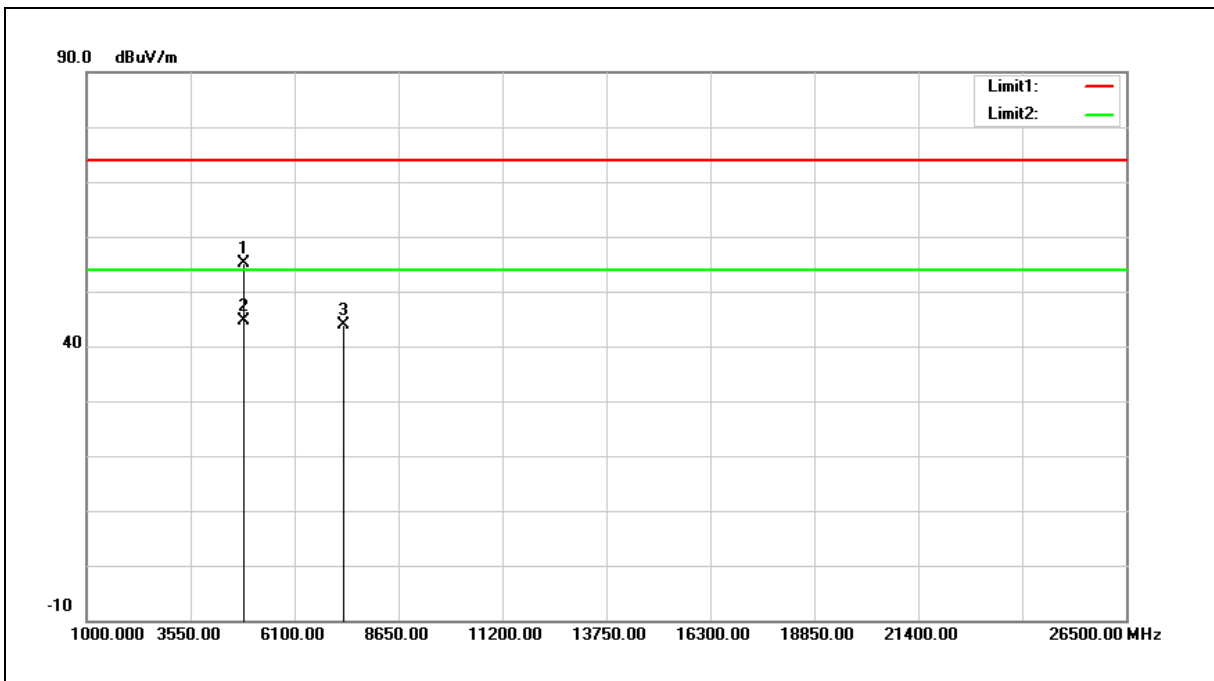


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	62.27	-1.25	61.02	74.00	-12.98	peak
2	4824.000	51.27	-1.25	50.02	54.00	-3.98	AVG
3	7236.000	37.73	5.85	43.58	74.00	-30.42	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).
 2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).
 3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	56.26	-1.12	55.14	74.00	-18.86	peak
2	4874.000	45.85	-1.12	44.73	54.00	-9.27	AVG
3	7311.000	37.71	6.11	43.82	74.00	-30.18	peak

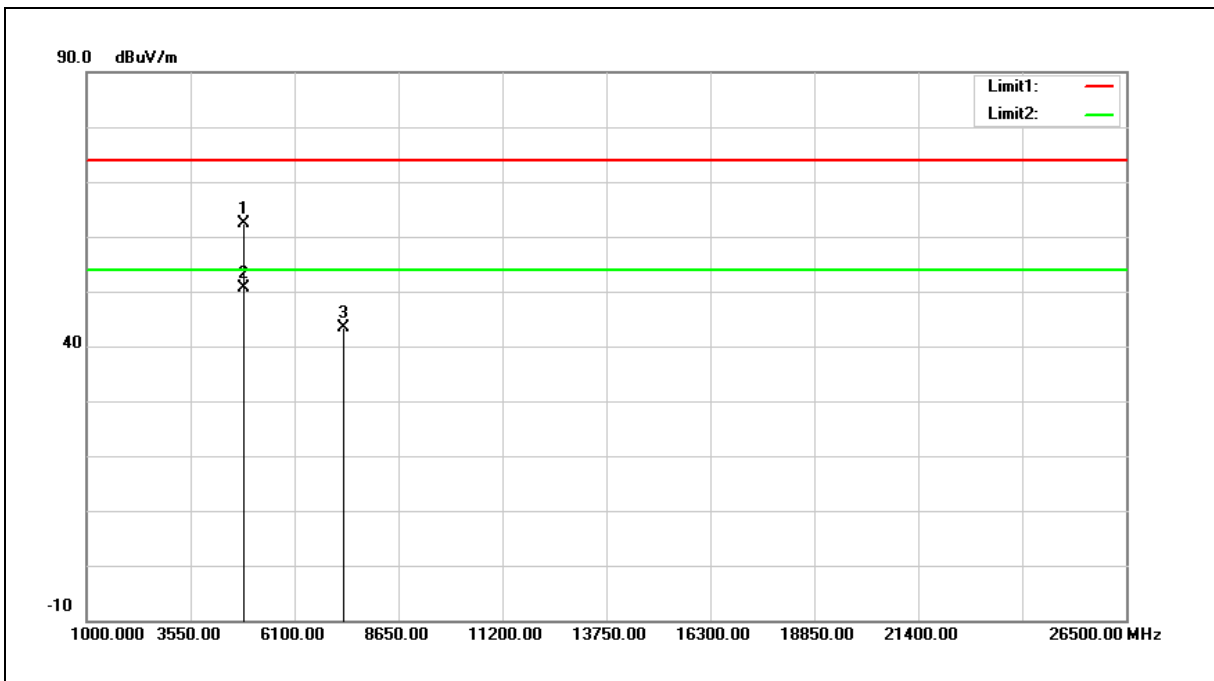
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	63.41	-1.12	62.29	74.00	-11.71	peak
2	4874.000	51.70	-1.12	50.58	54.00	-3.42	AVG
3	7311.000	37.15	6.11	43.26	74.00	-30.74	peak

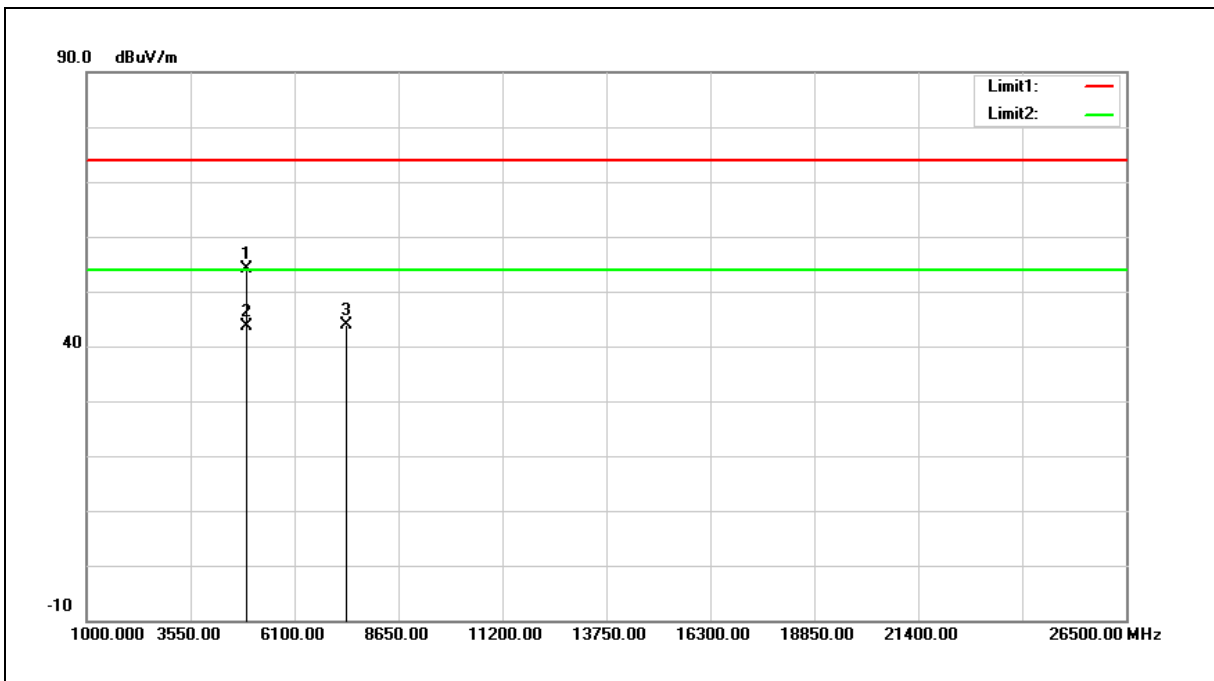
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	55.01	-0.99	54.02	74.00	-19.98	peak
2	4924.000	44.69	-0.99	43.70	54.00	-10.30	AVG
3	7386.000	37.38	6.38	43.76	74.00	-30.24	peak

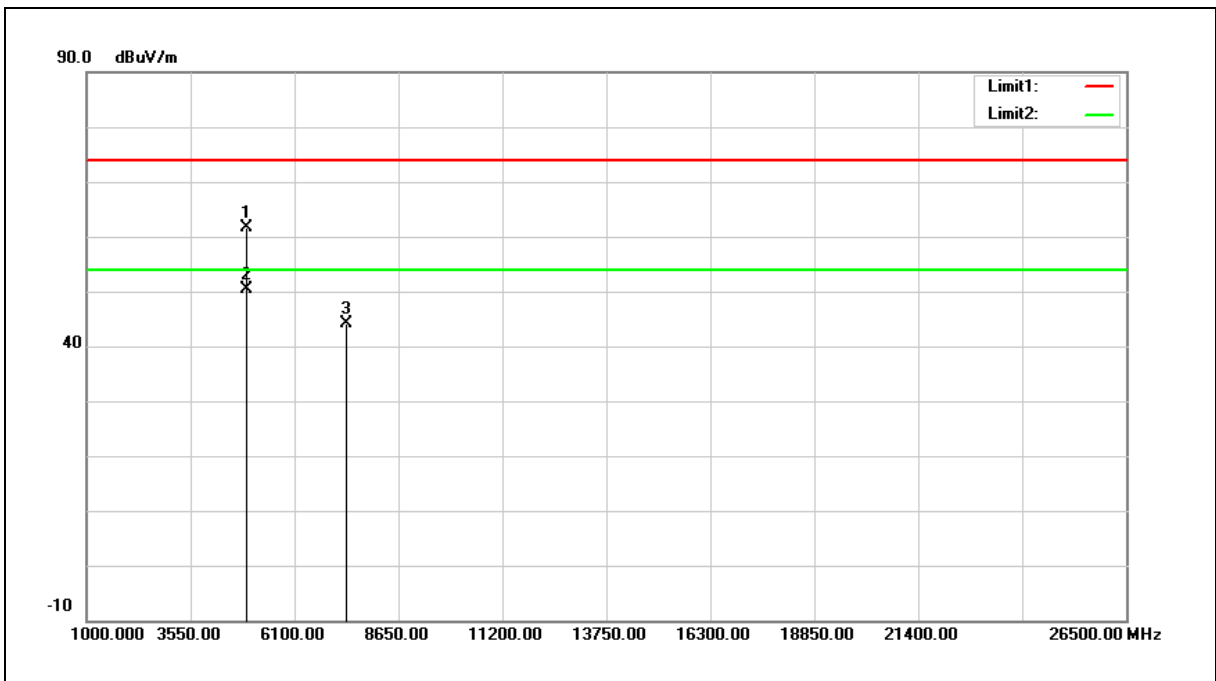
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	62.51	-0.99	61.52	74.00	-12.48	peak
2	4924.000	51.33	-0.99	50.34	54.00	-3.66	AVG
3	7386.000	37.68	6.38	44.06	74.00	-29.94	peak

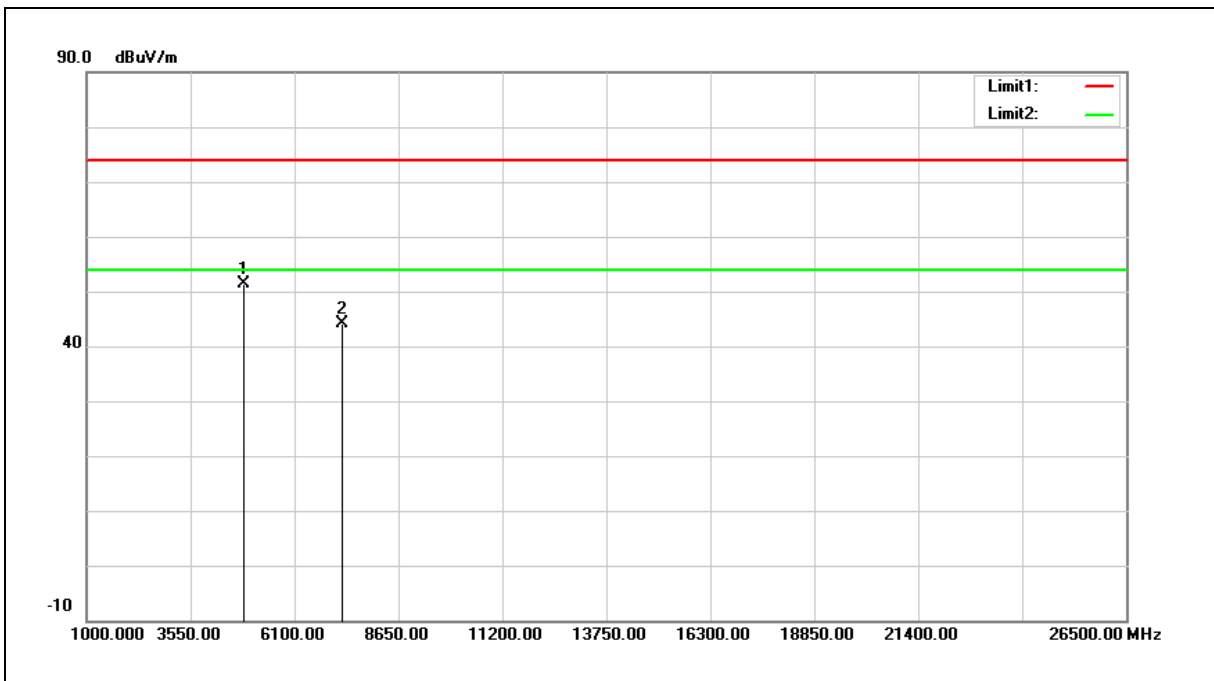
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	52.62	-1.19	51.43	74.00	-22.57	peak
2	7266.000	38.06	5.95	44.01	74.00	-29.99	peak

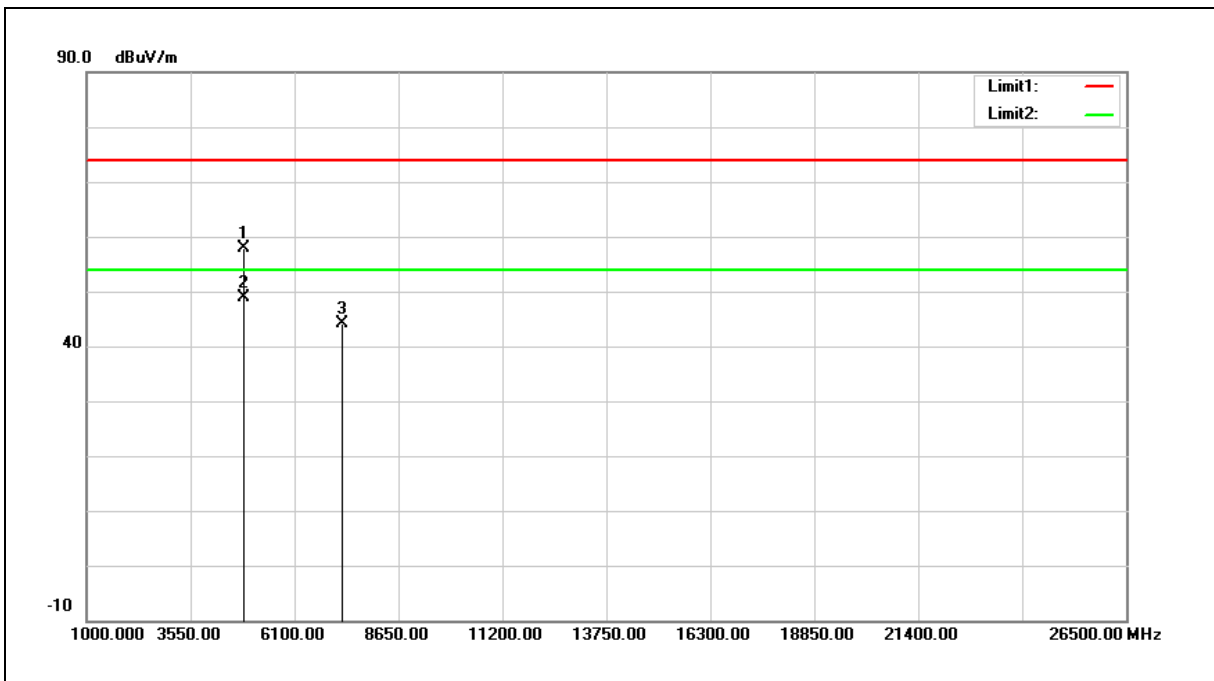
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	59.06	-1.19	57.87	74.00	-16.13	peak
2	4844.000	49.99	-1.19	48.80	54.00	-5.20	AVG
3	7266.000	38.30	5.95	44.25	74.00	-29.75	peak

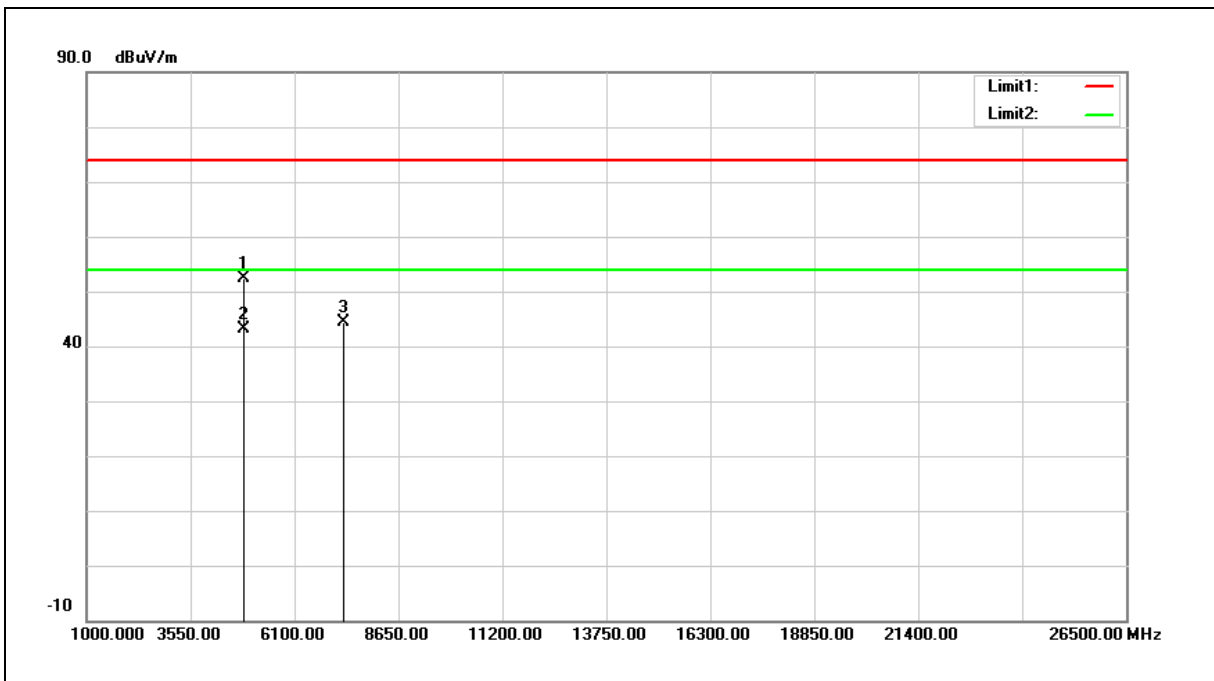
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	53.39	-1.12	52.27	74.00	-21.73	peak
2	4874.000	44.25	-1.12	43.13	54.00	-10.87	AVG
3	7311.000	38.32	6.11	44.43	74.00	-29.57	peak

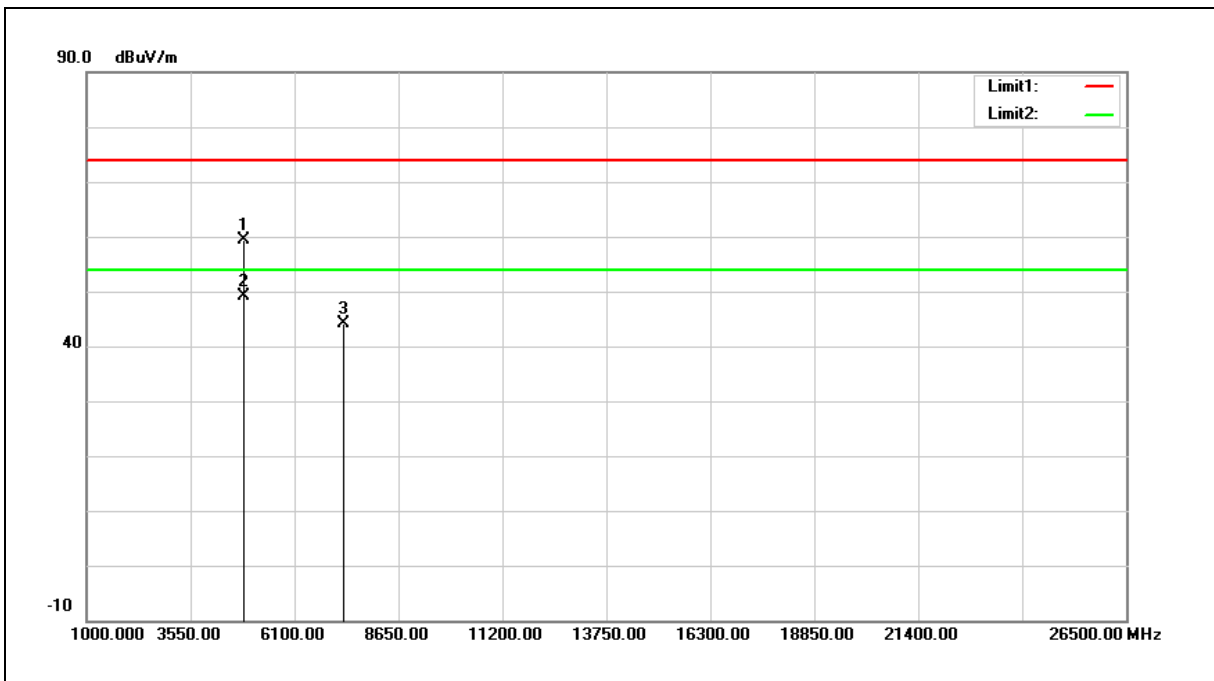
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	60.39	-1.12	59.27	74.00	-14.73	peak
2	4874.000	50.27	-1.12	49.15	54.00	-4.85	AVG
3	7311.000	38.14	6.11	44.25	74.00	-29.75	peak

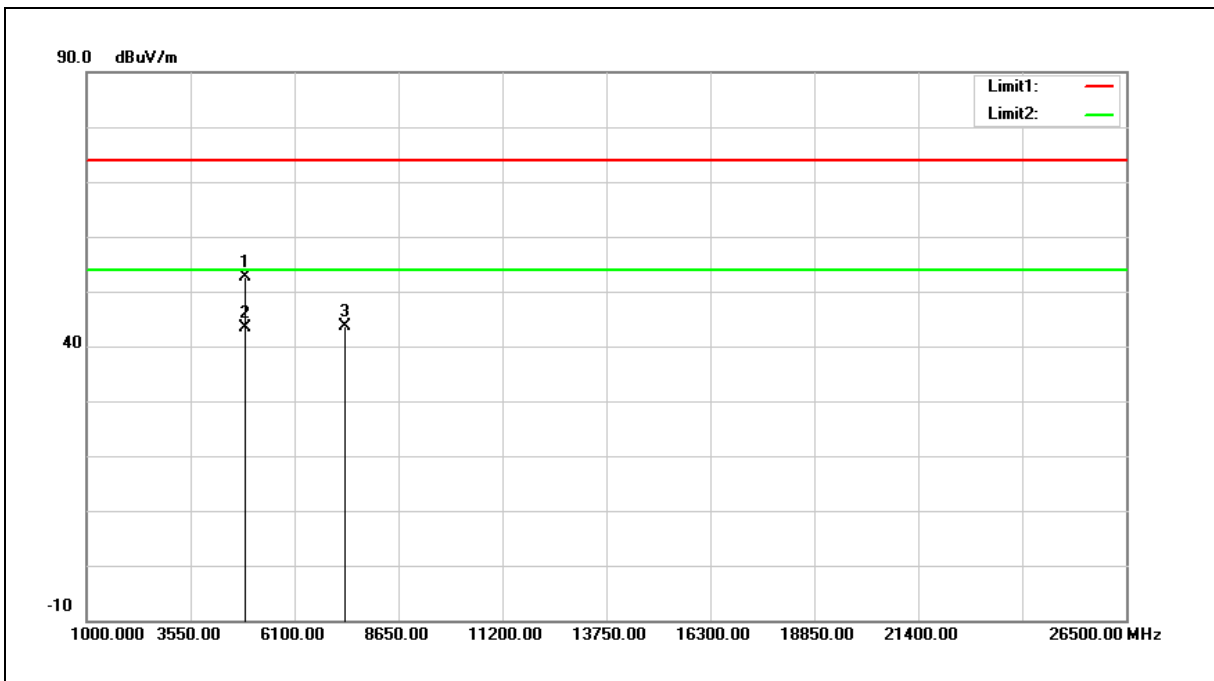
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	53.62	-1.04	52.58	74.00	-21.42	peak
2	4904.000	44.36	-1.04	43.32	54.00	-10.68	AVG
3	7356.000	37.34	6.27	43.61	74.00	-30.39	peak

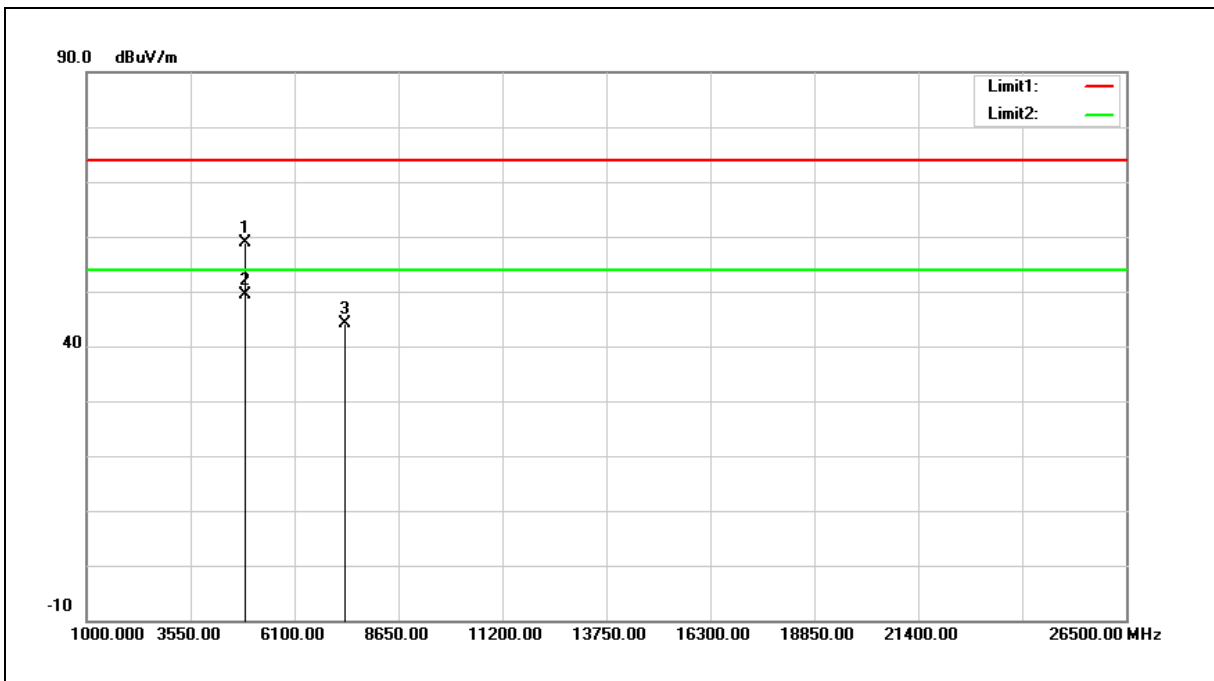
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	59.82	-1.04	58.78	74.00	-15.22	peak
2	4904.000	50.35	-1.04	49.31	54.00	-4.69	AVG
3	7356.000	37.90	6.27	44.17	74.00	-29.83	peak

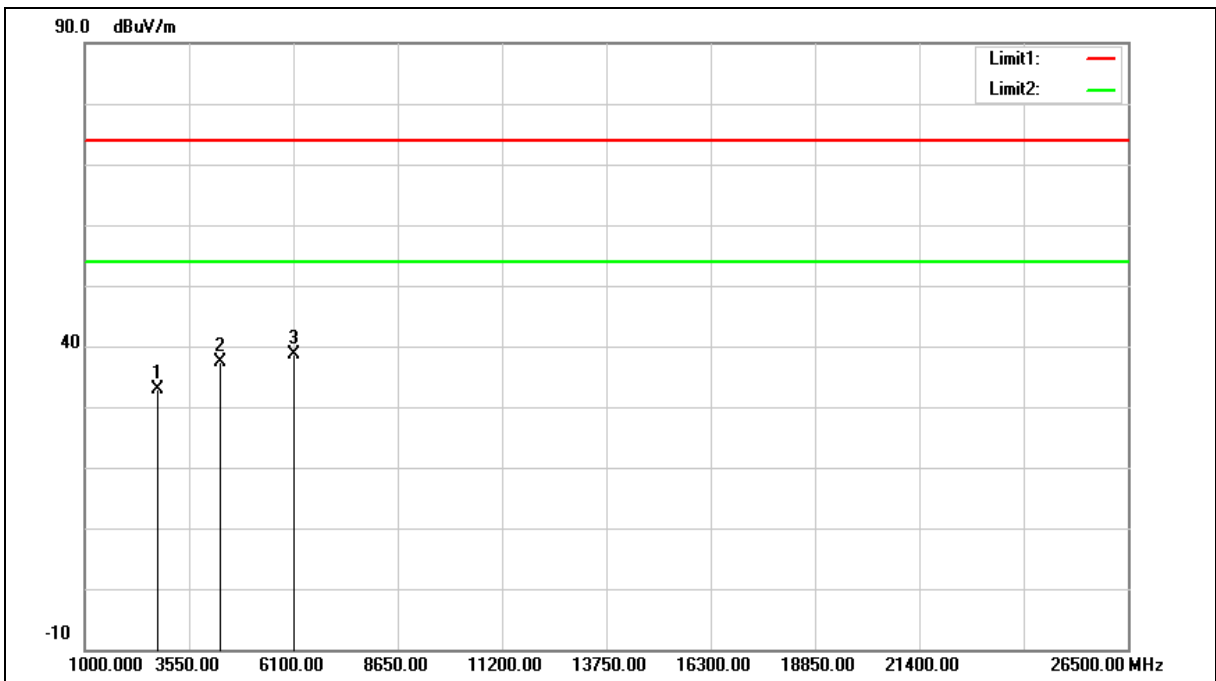
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Mode:	Simultaneous Transmitting (Bluetooth + WLAN 2.4 GHz)		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2785.000	38.95	-6.11	32.84	74.00	-41.16	peak
2	4298.000	40.02	-2.69	37.33	74.00	-36.67	peak
3	6117.000	36.65	1.99	38.64	74.00	-35.36	peak

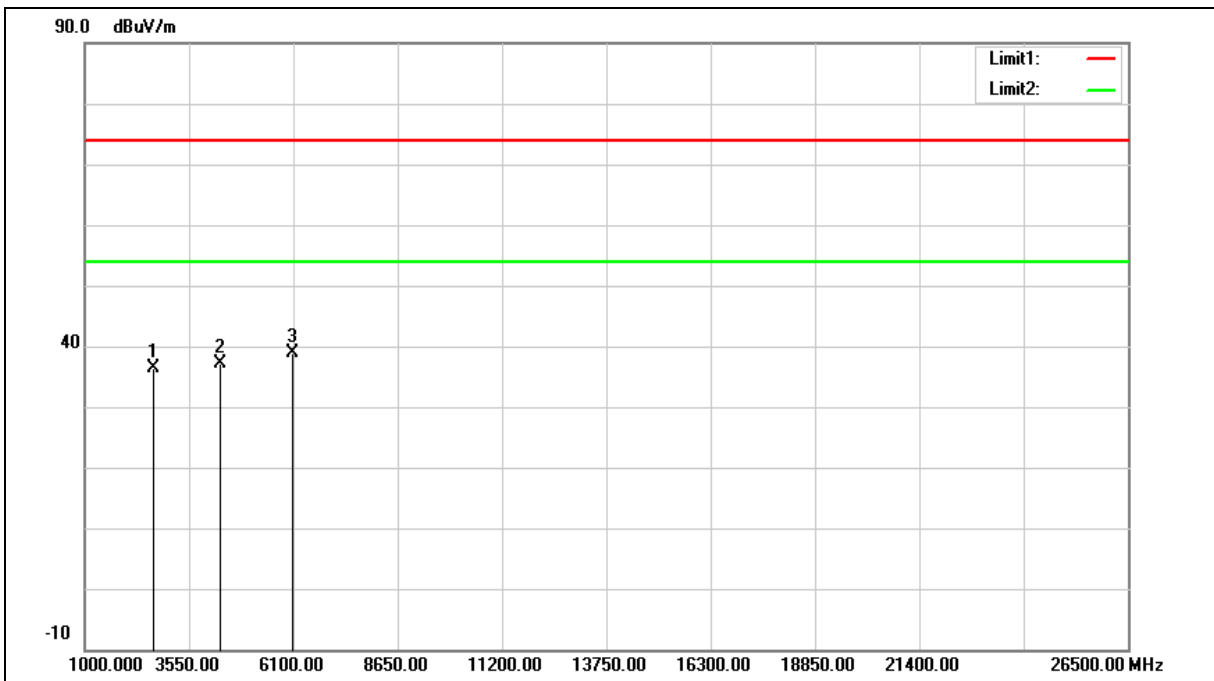
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Mode:	Simultaneous Transmitting (Bluetooth + WLAN 2.4 GHz)		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2666.000	42.91	-6.60	36.31	74.00	-37.69	peak
2	4315.000	39.66	-2.64	37.02	74.00	-36.98	peak
3	6066.000	37.20	1.80	39.00	74.00	-35.00	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

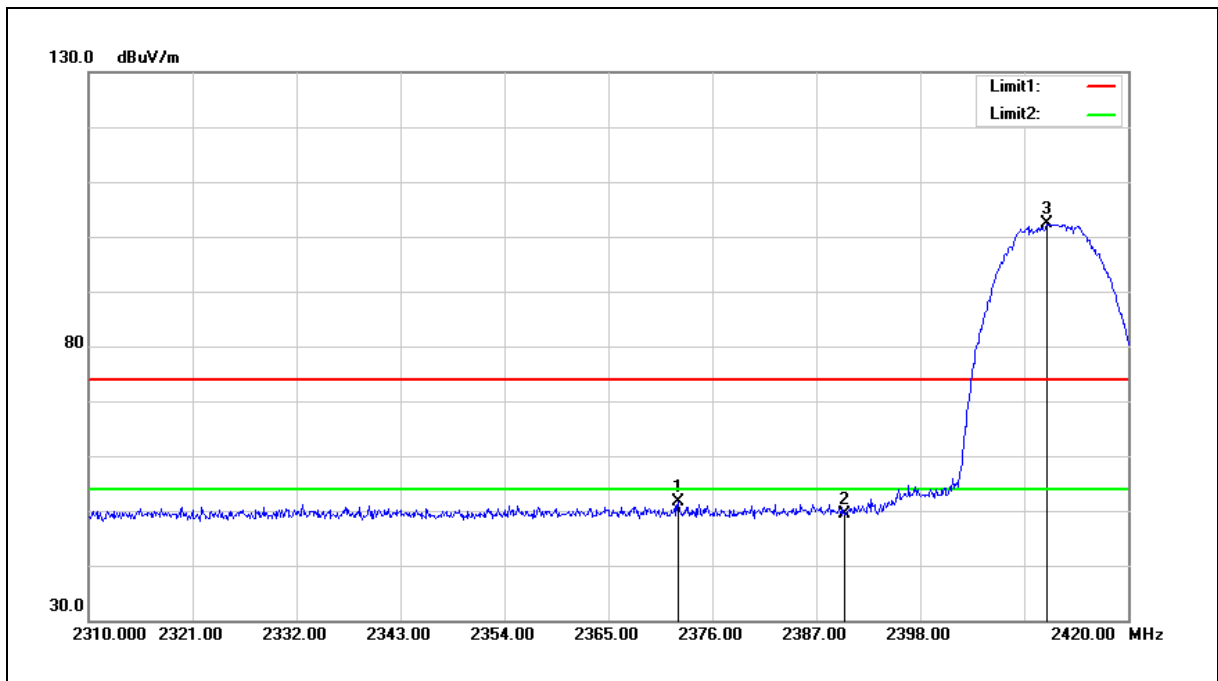
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.



Band Edge

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 1		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2372.370	59.44	-7.78	51.66	74.00	-22.34	peak
2	2390.000	56.98	-7.72	49.26	74.00	-24.74	peak
3	2411.420	109.96	-7.64	102.32	--	--	peak

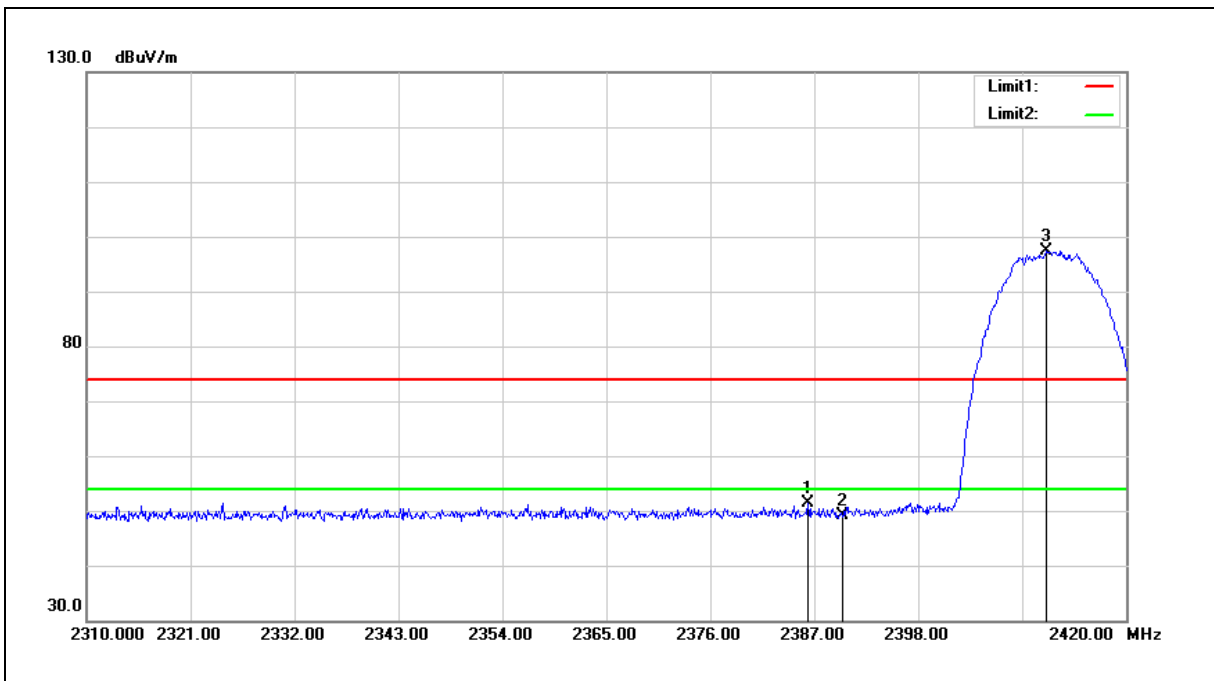
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 1		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.340	59.14	-7.73	51.41	74.00	-22.59	peak
2	2390.000	56.96	-7.72	49.24	74.00	-24.76	peak
3	2411.530	105.00	-7.64	97.36	--	--	peak

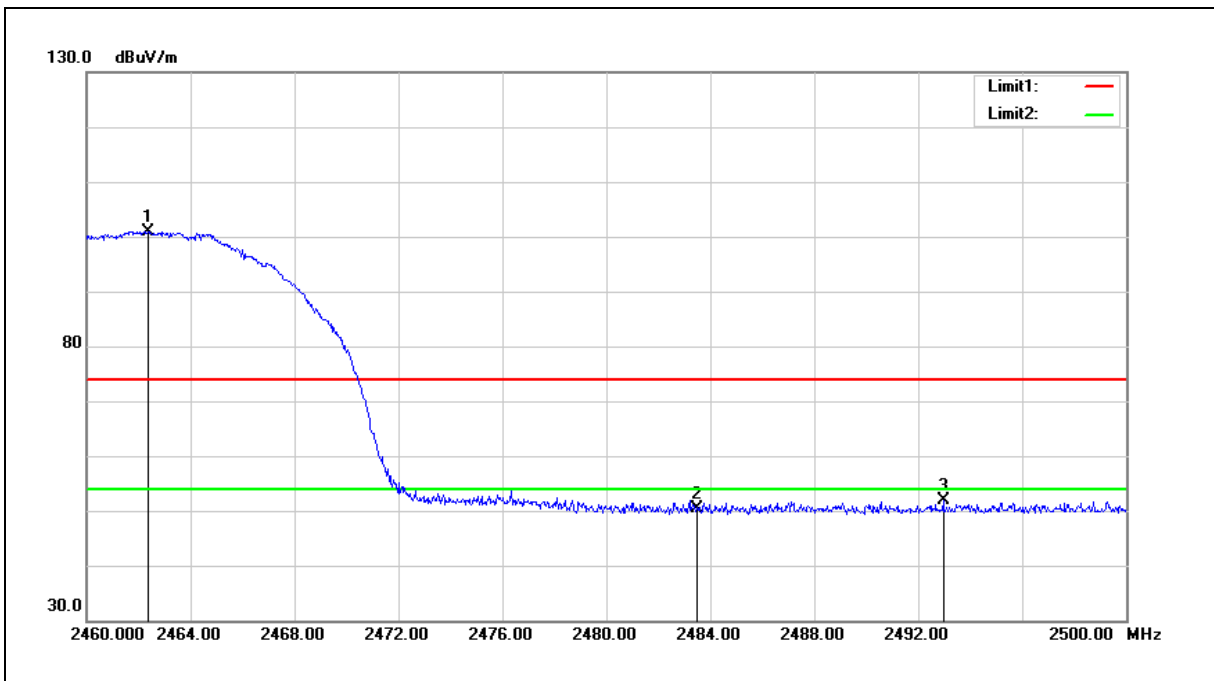
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 1		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2462.360	108.35	-7.42	100.93	--	--	peak
2	2483.500	57.83	-7.34	50.49	74.00	-23.51	peak
3	2492.960	59.19	-7.30	51.89	74.00	-22.11	peak

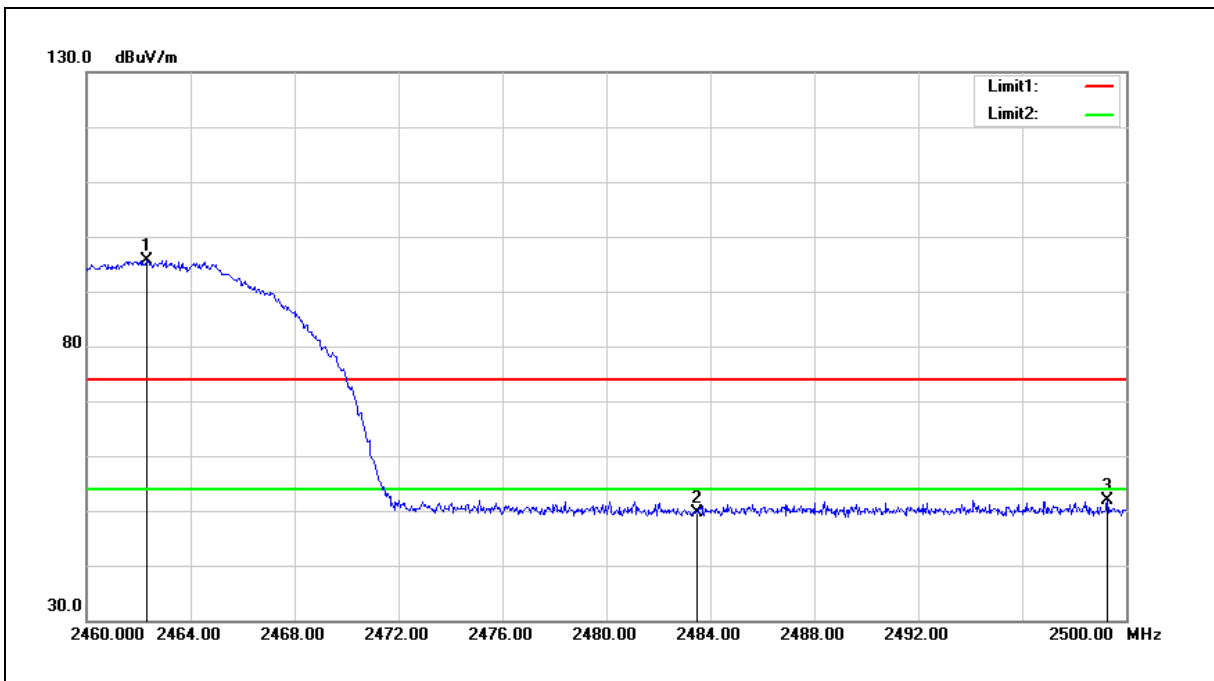
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 1		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2462.320	103.14	-7.42	95.72	--	--	peak
2	2483.500	56.87	-7.34	49.53	74.00	-24.47	peak
3	2499.280	59.08	-7.27	51.81	74.00	-22.19	peak

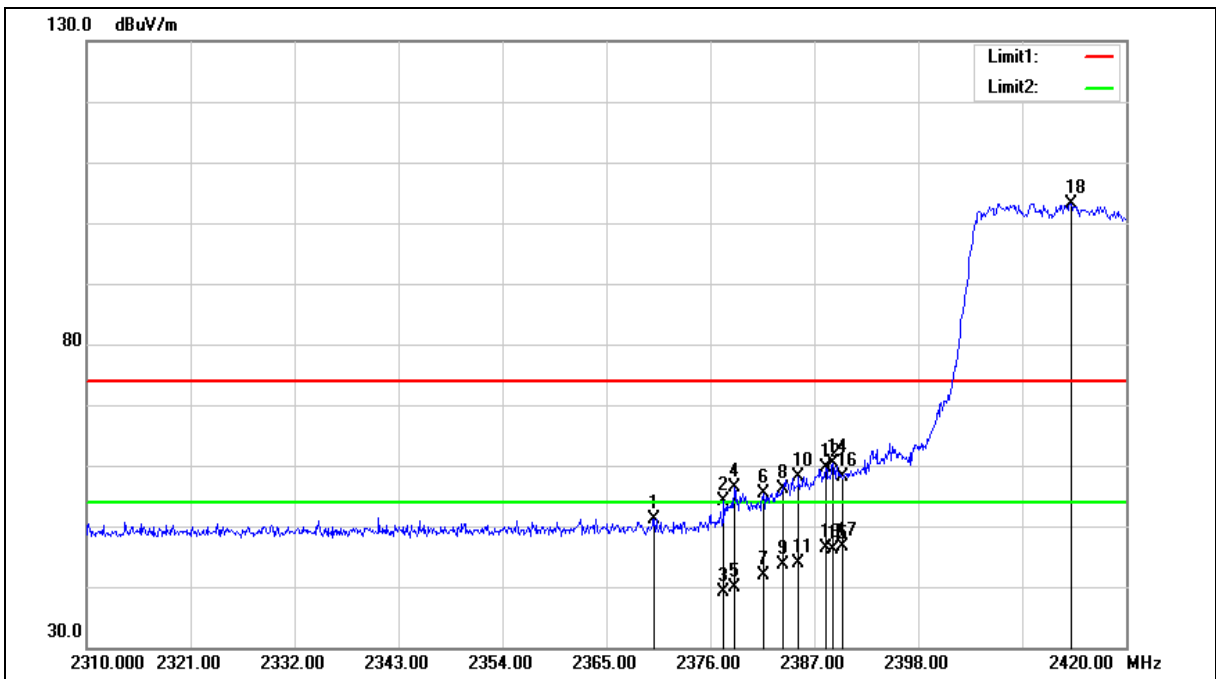
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2370.060	58.99	-7.80	51.19	74.00	-22.81	peak
2	2377.430	61.87	-7.77	54.10	74.00	-19.90	peak
3	2377.430	46.90	-7.77	39.13	54.00	-14.87	AVG
4	2378.530	64.20	-7.76	56.44	74.00	-17.56	peak
5	2378.530	47.67	-7.76	39.91	54.00	-14.09	AVG
6	2381.610	63.03	-7.76	55.27	74.00	-18.73	peak
7	2381.610	49.75	-7.76	41.99	54.00	-12.01	AVG
8	2383.700	63.85	-7.75	56.10	74.00	-17.90	peak
9	2383.700	51.31	-7.75	43.56	54.00	-10.44	AVG
10	2385.350	65.93	-7.73	58.20	74.00	-15.80	peak
11	2385.350	51.73	-7.73	44.00	54.00	-10.00	AVG
12	2388.210	67.34	-7.73	59.61	74.00	-14.39	peak
13	2388.210	53.99	-7.73	46.26	54.00	-7.74	AVG
14	2388.980	68.17	-7.72	60.45	74.00	-13.55	peak
15	2388.980	53.91	-7.72	46.19	54.00	-7.81	AVG
16	2390.000	65.96	-7.72	58.24	74.00	-15.76	peak
17	2390.000	54.28	-7.72	46.56	54.00	-7.44	AVG
18	2414.170	110.82	-7.62	103.20	--	--	peak

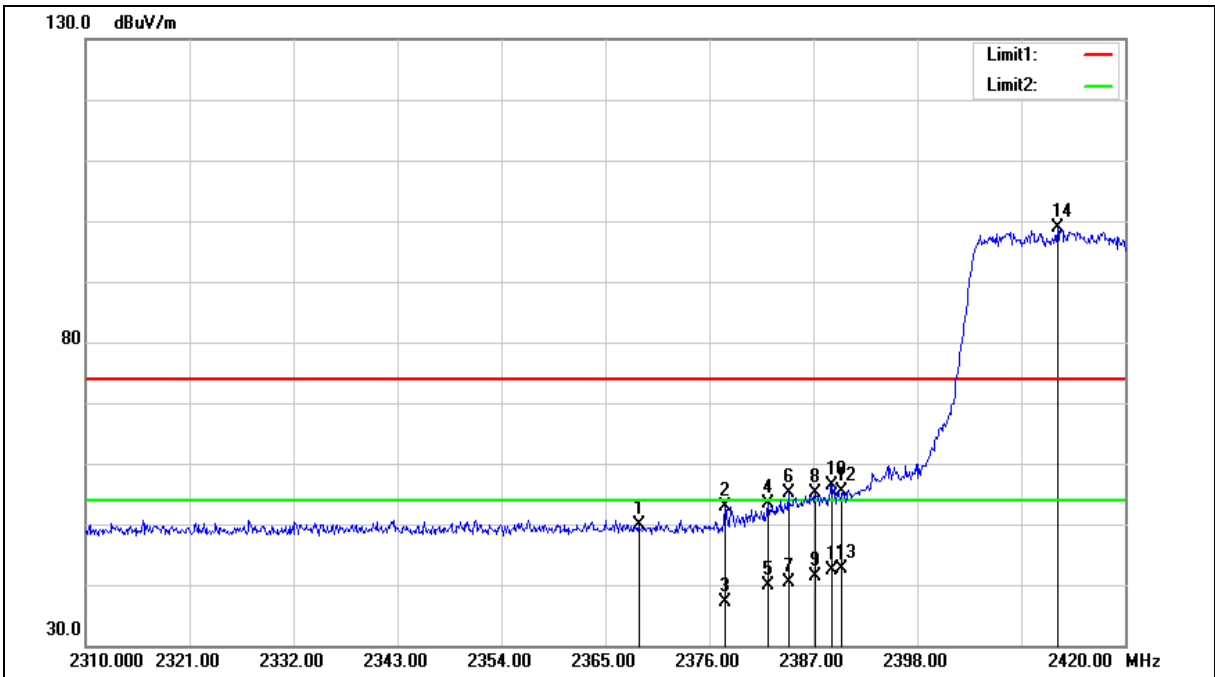
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2368.520	57.71	-7.80	49.91	74.00	-24.09	peak
2	2377.650	60.73	-7.77	52.96	74.00	-21.04	peak
3	2377.650	44.82	-7.77	37.05	54.00	-16.95	AVG
4	2382.160	61.24	-7.75	53.49	74.00	-20.51	peak
5	2382.160	47.55	-7.75	39.80	54.00	-14.20	AVG
6	2384.360	62.78	-7.75	55.03	74.00	-18.97	peak
7	2384.360	48.14	-7.75	40.39	54.00	-13.61	AVG
8	2387.220	62.85	-7.73	55.12	74.00	-18.88	peak
9	2387.220	49.22	-7.73	41.49	54.00	-12.51	AVG
10	2388.980	64.16	-7.72	56.44	74.00	-17.56	peak
11	2388.980	50.02	-7.72	42.30	54.00	-11.70	AVG
12	2390.000	63.16	-7.72	55.44	74.00	-18.56	peak
13	2390.000	50.28	-7.72	42.56	54.00	-11.44	AVG
14	2412.850	106.47	-7.62	98.85	--	--	peak

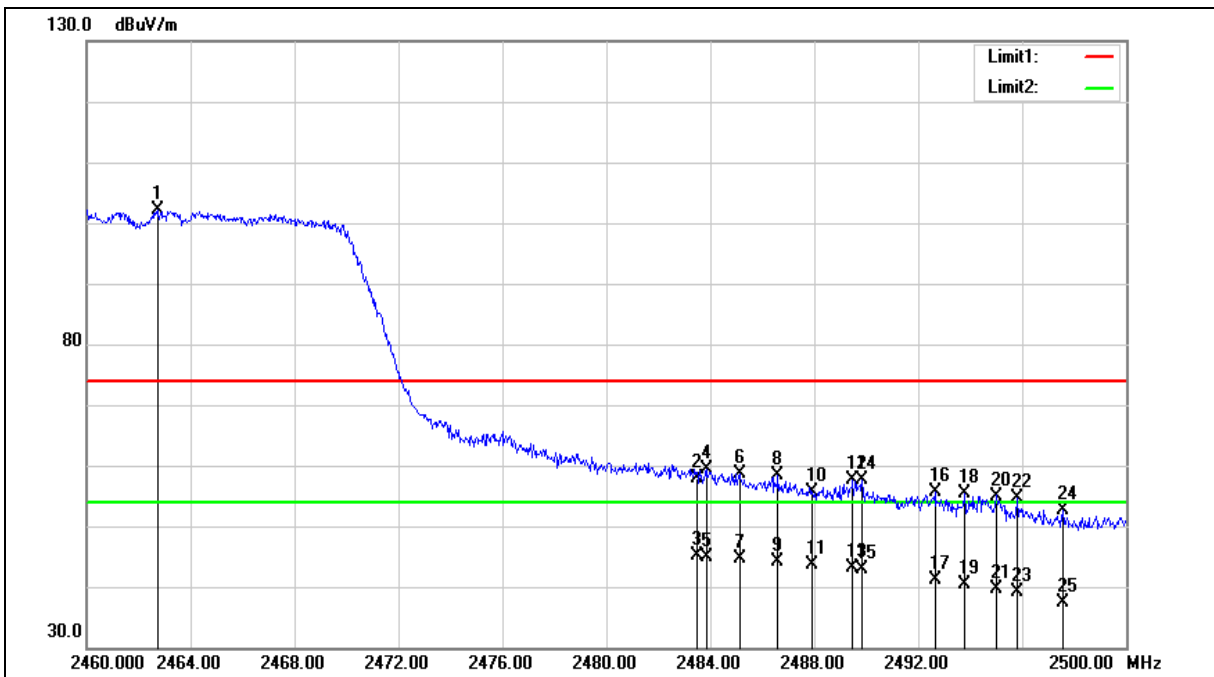
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2462.760	109.58	-7.42	102.16	--	--	peak
2	2483.500	65.34	-7.34	58.00	74.00	-16.00	peak
3	2483.500	52.53	-7.34	45.19	54.00	-8.81	AVG
4	2483.840	66.70	-7.34	59.36	74.00	-14.64	peak
5	2483.840	52.28	-7.34	44.94	54.00	-9.06	AVG
6	2485.120	65.96	-7.33	58.63	74.00	-15.37	peak
7	2485.120	51.88	-7.33	44.55	54.00	-9.45	AVG
8	2486.600	65.70	-7.32	58.38	74.00	-15.62	peak
9	2486.600	51.45	-7.32	44.13	54.00	-9.87	AVG
10	2487.920	62.87	-7.32	55.55	74.00	-18.45	peak
11	2487.920	50.86	-7.32	43.54	54.00	-10.46	AVG
12	2489.480	64.85	-7.31	57.54	74.00	-16.46	peak
13	2489.480	50.37	-7.31	43.06	54.00	-10.94	AVG
14	2489.840	64.99	-7.31	57.68	74.00	-16.32	peak
15	2489.840	50.14	-7.31	42.83	54.00	-11.17	AVG
16	2492.640	62.85	-7.30	55.55	74.00	-18.45	peak
17	2492.640	48.48	-7.30	41.18	54.00	-12.82	AVG
18	2493.800	62.68	-7.29	55.39	74.00	-18.61	peak
19	2493.800	47.72	-7.29	40.43	54.00	-13.57	AVG
20	2495.000	62.29	-7.29	55.00	74.00	-19.00	peak
21	2495.000	46.94	-7.29	39.65	54.00	-14.35	AVG
22	2495.800	62.02	-7.28	54.74	74.00	-19.26	peak
23	2495.800	46.51	-7.28	39.23	54.00	-14.77	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
24	2497.560	59.85	-7.28	52.57	74.00	-21.43	peak
25	2497.560	44.69	-7.28	37.41	54.00	-16.59	AVG

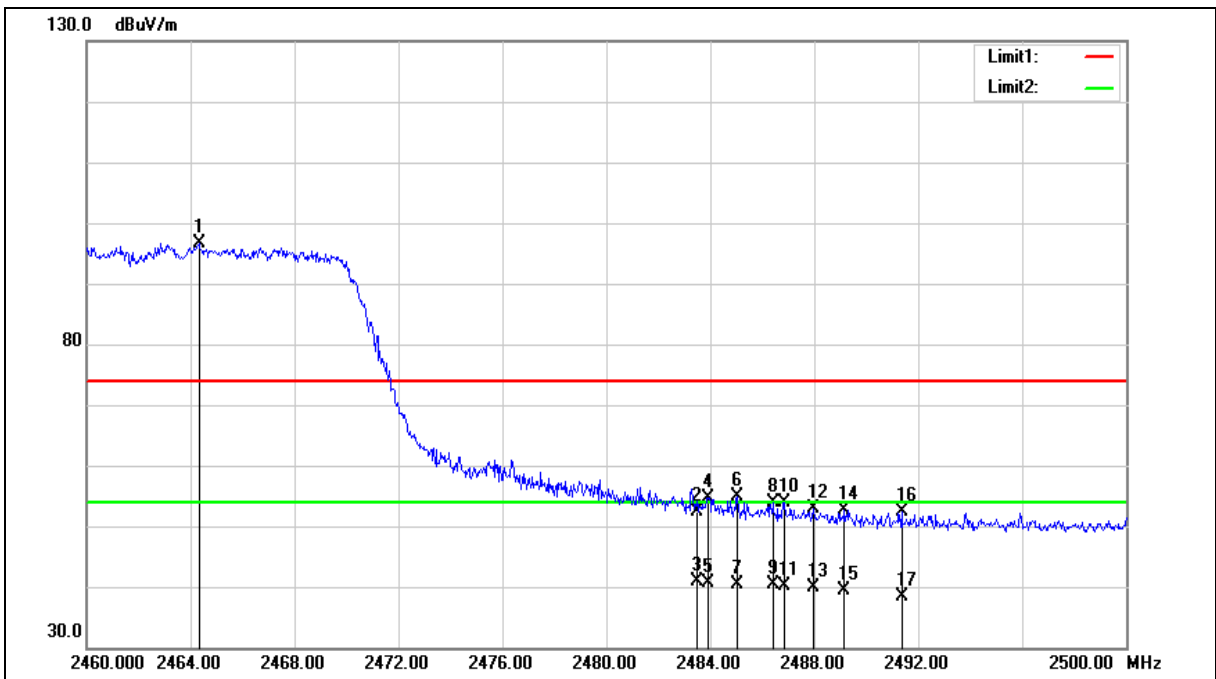
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2464.320	104.03	-7.42	96.61	--	--	peak
2	2483.500	59.73	-7.34	52.39	74.00	-21.61	peak
3	2483.500	48.29	-7.34	40.95	54.00	-13.05	AVG
4	2483.920	61.88	-7.34	54.54	74.00	-19.46	peak
5	2483.920	47.98	-7.34	40.64	54.00	-13.36	AVG
6	2485.040	62.13	-7.33	54.80	74.00	-19.20	peak
7	2485.040	47.71	-7.33	40.38	54.00	-13.62	AVG
8	2486.400	61.16	-7.32	53.84	74.00	-20.16	peak
9	2486.400	47.63	-7.32	40.31	54.00	-13.69	AVG
10	2486.840	61.20	-7.32	53.88	74.00	-20.12	peak
11	2486.840	47.57	-7.32	40.25	54.00	-13.75	AVG
12	2487.960	60.15	-7.32	52.83	74.00	-21.17	peak
13	2487.960	47.21	-7.32	39.89	54.00	-14.11	AVG
14	2489.160	59.93	-7.31	52.62	74.00	-21.38	peak
15	2489.160	46.74	-7.31	39.43	54.00	-14.57	AVG
16	2491.360	59.67	-7.31	52.36	74.00	-21.64	peak
17	2491.360	45.79	-7.31	38.48	54.00	-15.52	AVG

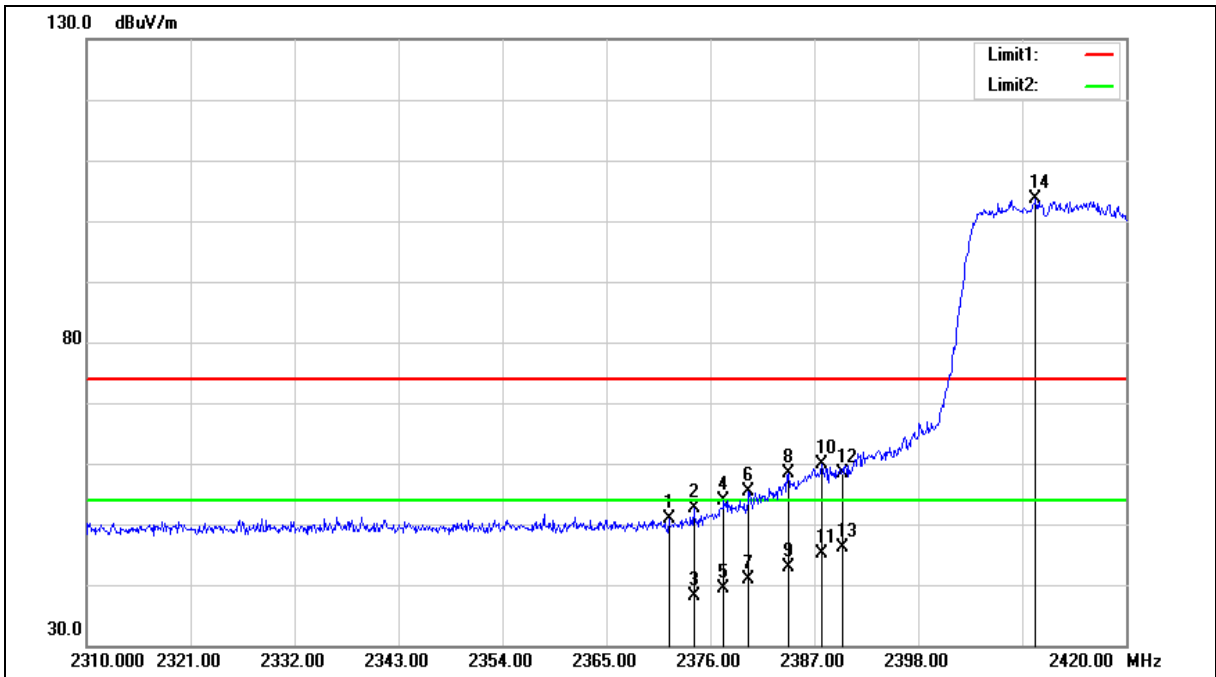
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2371.600	58.76	-7.80	50.96	74.00	-23.04	peak
2	2374.240	60.37	-7.78	52.59	74.00	-21.41	peak
3	2374.240	45.94	-7.78	38.16	54.00	-15.84	AVG
4	2377.430	61.54	-7.77	53.77	74.00	-20.23	peak
5	2377.430	47.22	-7.77	39.45	54.00	-14.55	AVG
6	2380.070	63.11	-7.76	55.35	74.00	-18.65	peak
7	2380.070	48.69	-7.76	40.93	54.00	-13.07	AVG
8	2384.250	66.17	-7.75	58.42	74.00	-15.58	peak
9	2384.250	50.69	-7.75	42.94	54.00	-11.06	AVG
10	2387.770	67.62	-7.73	59.89	74.00	-14.11	peak
11	2387.770	52.77	-7.73	45.04	54.00	-8.96	AVG
12	2390.000	66.18	-7.72	58.46	74.00	-15.54	peak
13	2390.000	53.92	-7.72	46.20	54.00	-7.80	AVG
14	2410.430	111.33	-7.64	103.69	--	--	peak

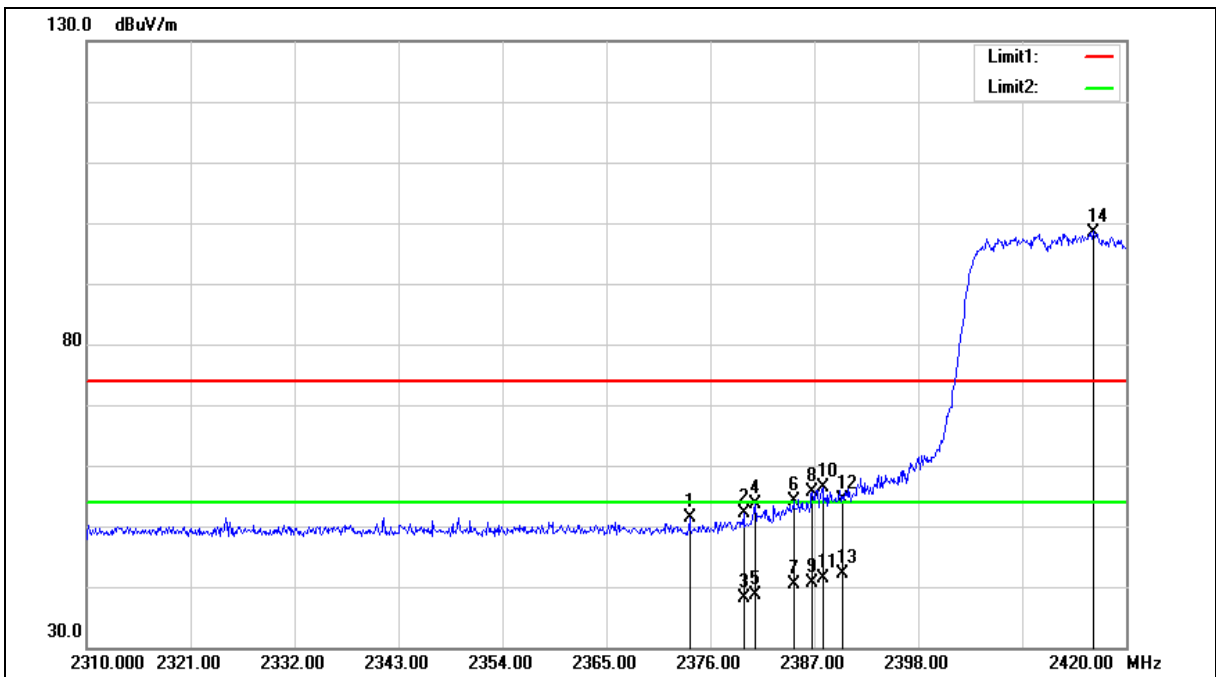
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2373.800	59.14	-7.78	51.36	74.00	-22.64	peak
2	2379.520	59.79	-7.76	52.03	74.00	-21.97	peak
3	2379.520	45.91	-7.76	38.15	54.00	-15.85	AVG
4	2380.730	61.35	-7.76	53.59	74.00	-20.41	peak
5	2380.730	46.41	-7.76	38.65	54.00	-15.35	AVG
6	2384.800	61.77	-7.75	54.02	74.00	-19.98	peak
7	2384.800	48.05	-7.75	40.30	54.00	-13.70	AVG
8	2386.780	63.24	-7.73	55.51	74.00	-18.49	peak
9	2386.780	48.31	-7.73	40.58	54.00	-13.42	AVG
10	2387.880	63.99	-7.73	56.26	74.00	-17.74	peak
11	2387.880	49.00	-7.73	41.27	54.00	-12.73	AVG
12	2390.000	62.19	-7.72	54.47	74.00	-19.53	peak
13	2390.000	49.79	-7.72	42.07	54.00	-11.93	AVG
14	2416.480	106.11	-7.61	98.50	--	--	peak

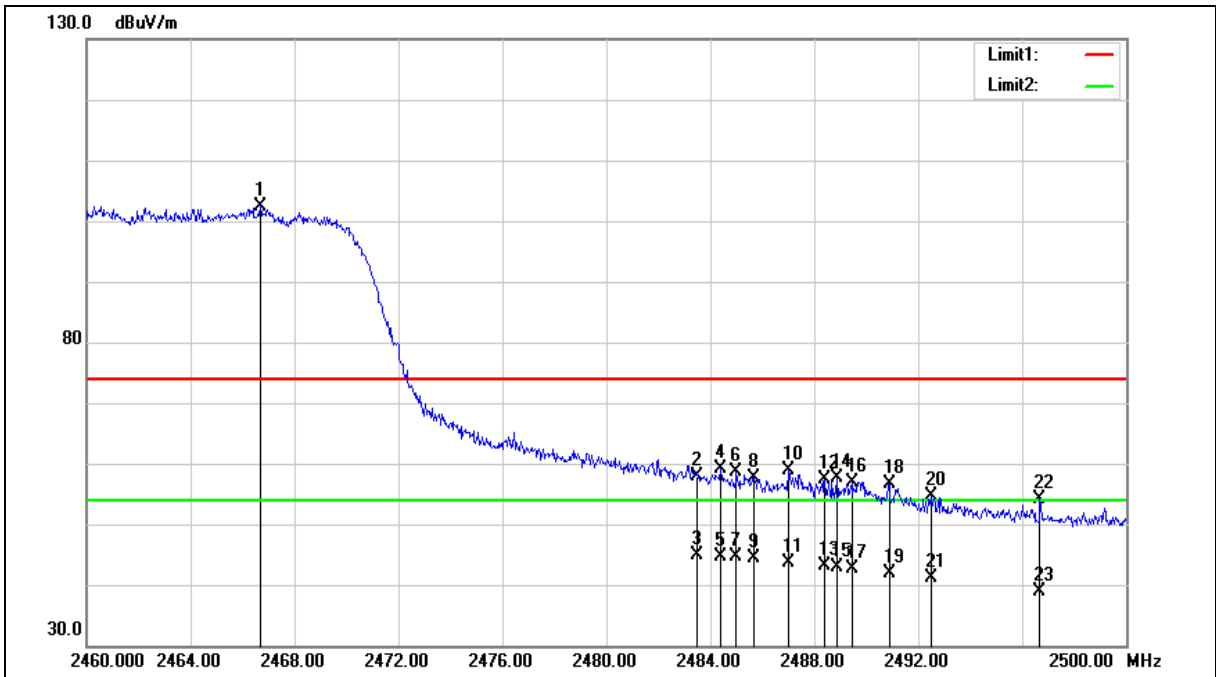
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2466.680	109.90	-7.40	102.50	--	--	peak
2	2483.500	65.19	-7.34	57.85	74.00	-16.15	peak
3	2483.500	52.26	-7.34	44.92	54.00	-9.08	AVG
4	2484.400	66.40	-7.34	59.06	74.00	-14.94	peak
5	2484.400	51.87	-7.34	44.53	54.00	-9.47	AVG
6	2485.000	65.97	-7.34	58.63	74.00	-15.37	peak
7	2485.000	52.02	-7.34	44.68	54.00	-9.32	AVG
8	2485.680	64.96	-7.32	57.64	74.00	-16.36	peak
9	2485.680	51.70	-7.32	44.38	54.00	-9.62	AVG
10	2487.000	66.11	-7.32	58.79	74.00	-15.21	peak
11	2487.000	50.99	-7.32	43.67	54.00	-10.33	AVG
12	2488.400	64.74	-7.31	57.43	74.00	-16.57	peak
13	2488.400	50.39	-7.31	43.08	54.00	-10.92	AVG
14	2488.880	65.03	-7.31	57.72	74.00	-16.28	peak
15	2488.880	50.24	-7.31	42.93	54.00	-11.07	AVG
16	2489.440	64.15	-7.31	56.84	74.00	-17.16	peak
17	2489.440	49.91	-7.31	42.60	54.00	-11.40	AVG
18	2490.880	63.89	-7.31	56.58	74.00	-17.42	peak
19	2490.880	49.22	-7.31	41.91	54.00	-12.09	AVG
20	2492.480	62.04	-7.30	54.74	74.00	-19.26	peak
21	2492.480	48.38	-7.30	41.08	54.00	-12.92	AVG
22	2496.680	61.37	-7.28	54.09	74.00	-19.91	peak
23	2496.680	46.10	-7.28	38.82	54.00	-15.18	AVG

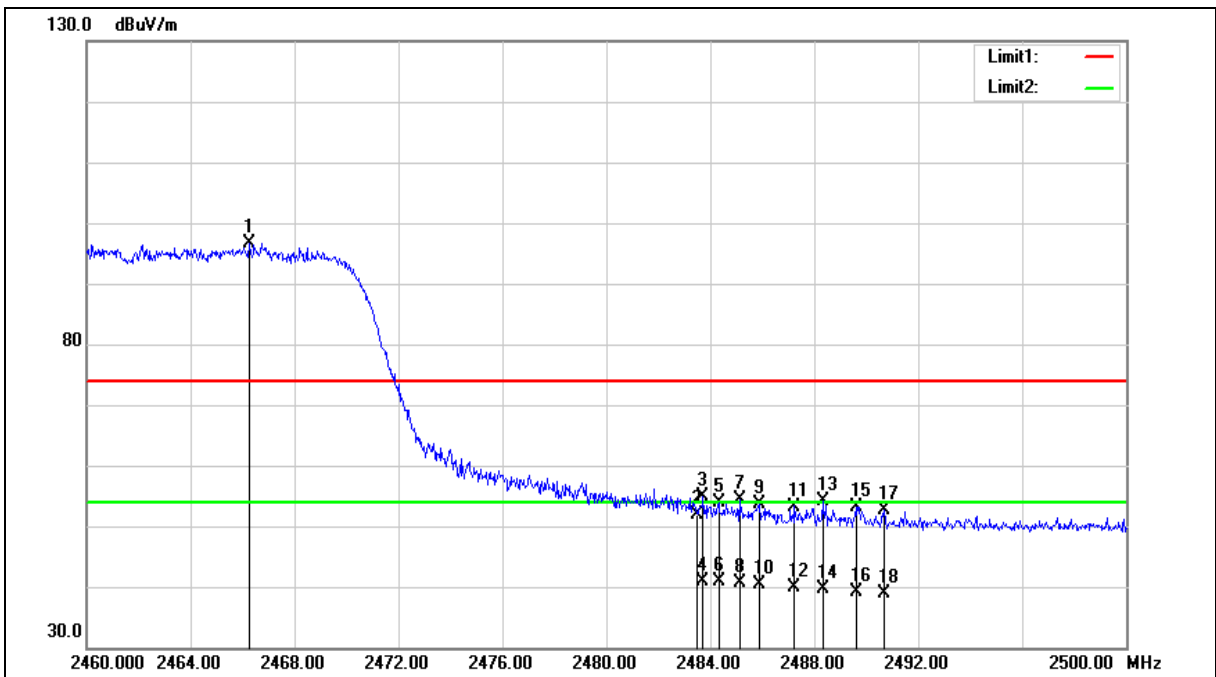
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2466.280	104.04	-7.40	96.64	--	--	peak
2	2483.500	59.34	-7.34	52.00	74.00	-22.00	peak
3	2483.720	62.30	-7.34	54.96	74.00	-19.04	peak
4	2483.720	48.16	-7.34	40.82	54.00	-13.18	AVG
5	2484.320	61.10	-7.34	53.76	74.00	-20.24	peak
6	2484.320	48.32	-7.34	40.98	54.00	-13.02	AVG
7	2485.120	61.79	-7.33	54.46	74.00	-19.54	peak
8	2485.120	48.02	-7.33	40.69	54.00	-13.31	AVG
9	2485.880	60.96	-7.32	53.64	74.00	-20.36	peak
10	2485.880	47.72	-7.32	40.40	54.00	-13.60	AVG
11	2487.240	60.57	-7.32	53.25	74.00	-20.75	peak
12	2487.240	47.22	-7.32	39.90	54.00	-14.10	AVG
13	2488.320	61.34	-7.32	54.02	74.00	-19.98	peak
14	2488.320	46.89	-7.32	39.57	54.00	-14.43	AVG
15	2489.600	60.53	-7.31	53.22	74.00	-20.78	peak
16	2489.600	46.42	-7.31	39.11	54.00	-14.89	AVG
17	2490.680	59.83	-7.31	52.52	74.00	-21.48	peak
18	2490.680	46.10	-7.31	38.79	54.00	-15.21	AVG

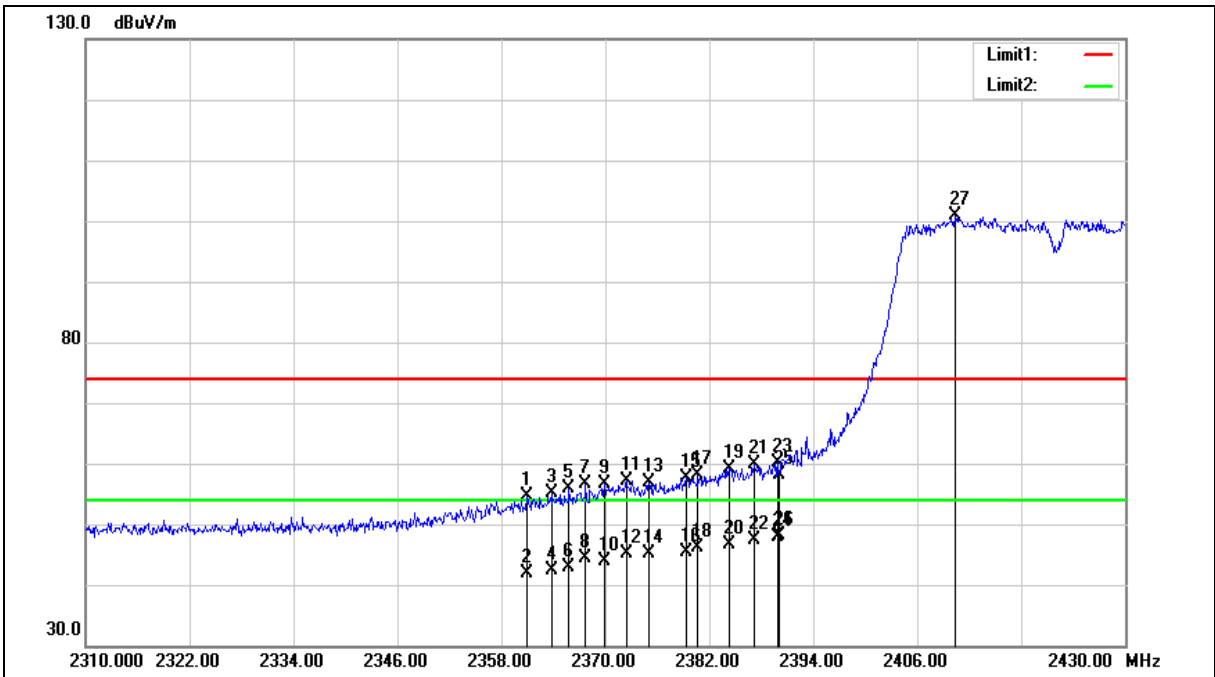
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2361.000	62.42	-7.84	54.58	74.00	-19.42	peak
2	2361.000	49.65	-7.84	41.81	54.00	-12.19	AVG
3	2363.760	62.85	-7.83	55.02	74.00	-18.98	peak
4	2363.760	50.22	-7.83	42.39	54.00	-11.61	AVG
5	2365.800	63.70	-7.82	55.88	74.00	-18.12	peak
6	2365.800	50.72	-7.82	42.90	54.00	-11.10	AVG
7	2367.720	64.33	-7.81	56.52	74.00	-17.48	peak
8	2367.720	52.18	-7.81	44.37	54.00	-9.63	AVG
9	2369.880	64.42	-7.80	56.62	74.00	-17.38	peak
10	2369.880	51.68	-7.80	43.88	54.00	-10.12	AVG
11	2372.400	64.92	-7.78	57.14	74.00	-16.86	peak
12	2372.400	52.98	-7.78	45.20	54.00	-8.80	AVG
13	2375.040	64.76	-7.77	56.99	74.00	-17.01	peak
14	2375.040	52.87	-7.77	45.10	54.00	-8.90	AVG
15	2379.360	65.44	-7.76	57.68	74.00	-16.32	peak
16	2379.360	53.25	-7.76	45.49	54.00	-8.51	AVG
17	2380.680	65.94	-7.76	58.18	74.00	-15.82	peak
18	2380.680	53.79	-7.76	46.03	54.00	-7.97	AVG
19	2384.280	66.96	-7.75	59.21	74.00	-14.79	peak
20	2384.280	54.38	-7.75	46.63	54.00	-7.37	AVG
21	2387.160	67.56	-7.73	59.83	74.00	-14.17	peak
22	2387.160	55.06	-7.73	47.33	54.00	-6.67	AVG
23	2389.920	67.86	-7.72	60.14	74.00	-13.86	peak

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
24	2389.920	55.71	-7.72	47.99	54.00	-6.01	AVG
25	2390.000	65.84	-7.72	58.12	74.00	-15.88	peak
26	2390.000	55.76	-7.72	48.04	54.00	-5.96	AVG
27	2410.320	108.62	-7.64	100.98	--	--	peak

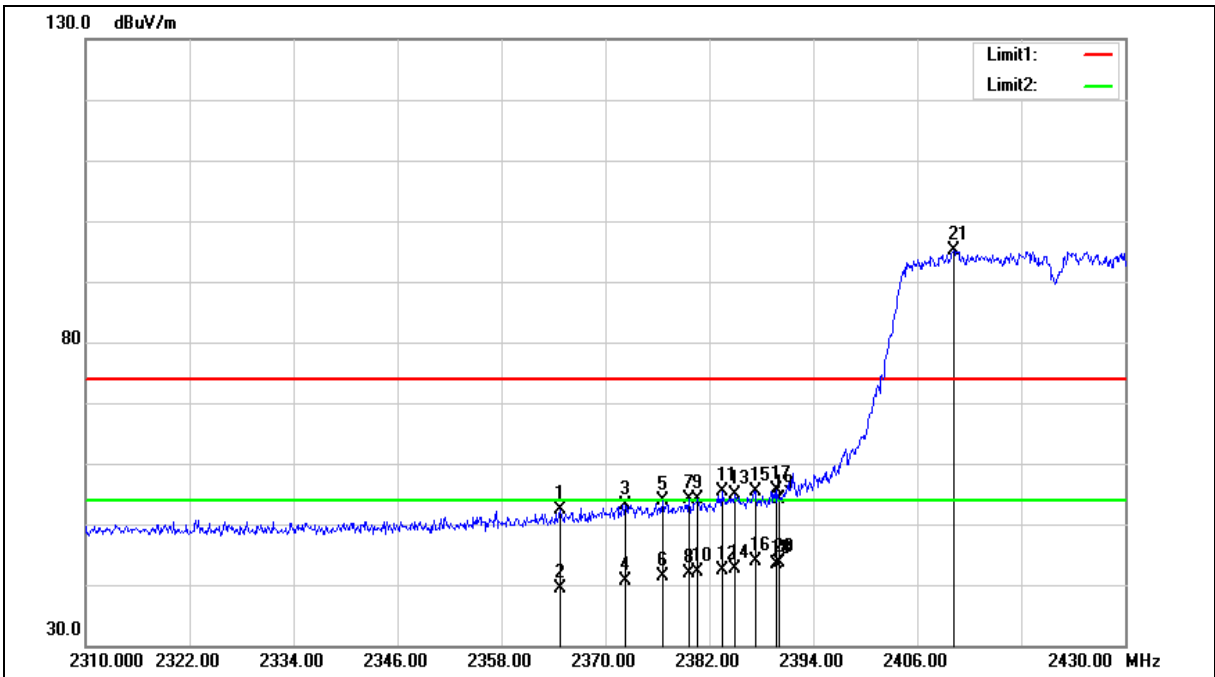
Note:1.Result (dBUV/m) = Correct Factor (dB/m) + Reading(dBUV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2364.720	60.18	-7.83	52.35	74.00	-21.65	peak
2	2364.720	47.31	-7.83	39.48	54.00	-14.52	AVG
3	2372.280	61.02	-7.78	53.24	74.00	-20.76	peak
4	2372.280	48.37	-7.78	40.59	54.00	-13.41	AVG
5	2376.600	61.69	-7.77	53.92	74.00	-20.08	peak
6	2376.600	49.08	-7.77	41.31	54.00	-12.69	AVG
7	2379.720	61.97	-7.76	54.21	74.00	-19.79	peak
8	2379.720	49.75	-7.76	41.99	54.00	-12.01	AVG
9	2380.680	61.82	-7.76	54.06	74.00	-19.94	peak
10	2380.680	49.83	-7.76	42.07	54.00	-11.93	AVG
11	2383.440	63.10	-7.75	55.35	74.00	-18.65	peak
12	2383.440	50.20	-7.75	42.45	54.00	-11.55	AVG
13	2384.880	62.58	-7.75	54.83	74.00	-19.17	peak
14	2384.880	50.30	-7.75	42.55	54.00	-11.45	AVG
15	2387.280	63.12	-7.73	55.39	74.00	-18.61	peak
16	2387.280	51.69	-7.73	43.96	54.00	-10.04	AVG
17	2389.800	63.40	-7.72	55.68	74.00	-18.32	peak
18	2389.800	51.15	-7.72	43.43	54.00	-10.57	AVG
19	2390.000	61.85	-7.72	54.13	74.00	-19.87	peak
20	2390.000	51.23	-7.72	43.51	54.00	-10.49	AVG
21	2410.200	102.79	-7.64	95.15	--	--	peak

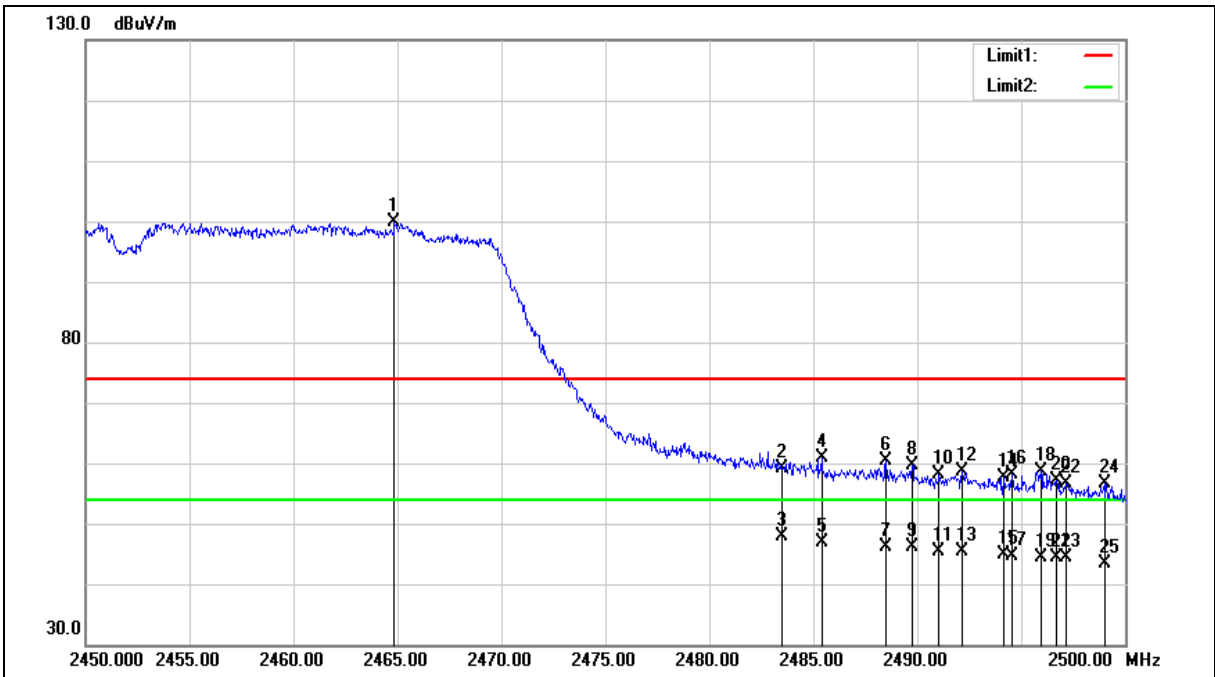
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2464.850	107.28	-7.42	99.86	--	--	peak
2	2483.500	66.45	-7.34	59.11	74.00	-14.89	peak
3	2483.500	55.24	-7.34	47.90	54.00	-6.10	AVG
4	2485.400	68.12	-7.32	60.80	74.00	-13.20	peak
5	2485.400	54.25	-7.32	46.93	54.00	-7.07	AVG
6	2488.500	67.75	-7.31	60.44	74.00	-13.56	peak
7	2488.500	53.45	-7.31	46.14	54.00	-7.86	AVG
8	2489.750	66.84	-7.31	59.53	74.00	-14.47	peak
9	2489.750	53.42	-7.31	46.11	54.00	-7.89	AVG
10	2491.050	65.35	-7.31	58.04	74.00	-15.96	peak
11	2491.050	52.79	-7.31	45.48	54.00	-8.52	AVG
12	2492.150	65.81	-7.30	58.51	74.00	-15.49	peak
13	2492.150	52.65	-7.30	45.35	54.00	-8.65	AVG
14	2494.150	64.92	-7.29	57.63	74.00	-16.37	peak
15	2494.150	52.05	-7.29	44.76	54.00	-9.24	AVG
16	2494.550	65.39	-7.29	58.10	74.00	-15.90	peak
17	2494.550	51.93	-7.29	44.64	54.00	-9.36	AVG
18	2495.950	65.96	-7.28	58.68	74.00	-15.32	peak
19	2495.950	51.64	-7.28	44.36	54.00	-9.64	AVG
20	2496.700	64.34	-7.28	57.06	74.00	-16.94	peak
21	2496.700	51.66	-7.28	44.38	54.00	-9.62	AVG
22	2497.150	63.93	-7.28	56.65	74.00	-17.35	peak
23	2497.150	51.59	-7.28	44.31	54.00	-9.69	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
24	2499.000	63.91	-7.27	56.64	74.00	-17.36	peak
25	2499.000	50.69	-7.27	43.42	54.00	-10.58	AVG

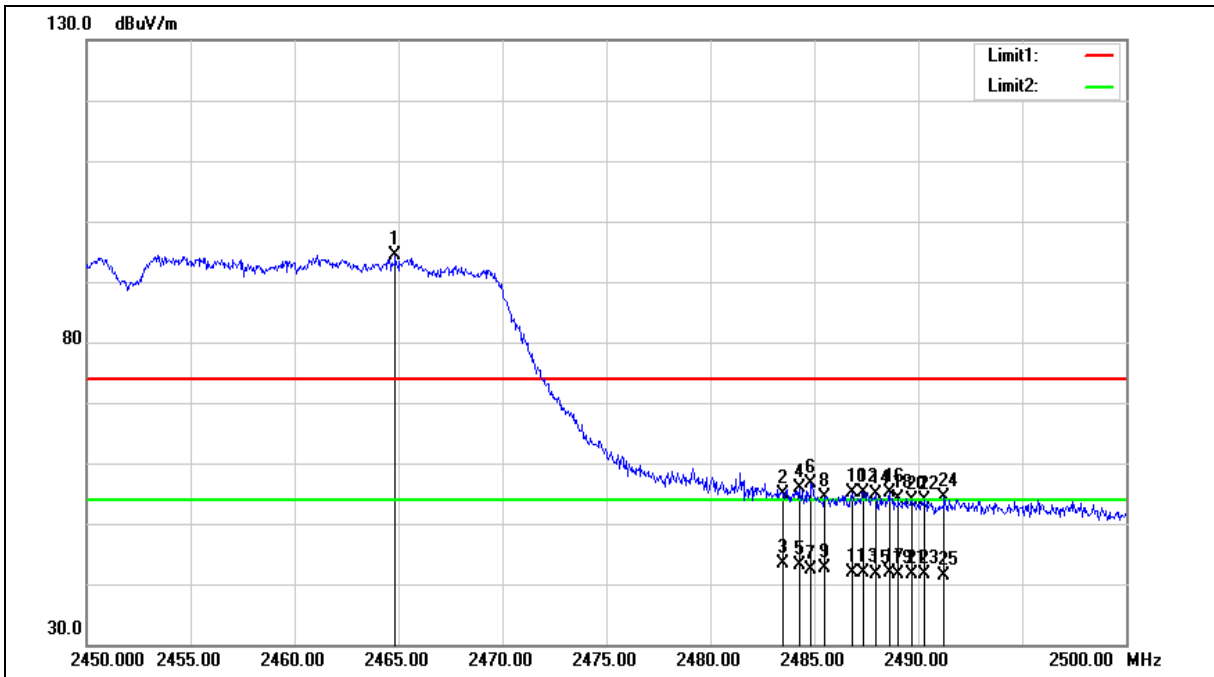
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		





Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2464.850	101.86	-7.42	94.44	--	--	peak
2	2483.500	62.14	-7.34	54.80	74.00	-19.20	peak
3	2483.500	50.61	-7.34	43.27	54.00	-10.73	AVG
4	2484.300	63.28	-7.34	55.94	74.00	-18.06	peak
5	2484.300	50.47	-7.34	43.13	54.00	-10.87	AVG
6	2484.850	64.06	-7.34	56.72	74.00	-17.28	peak
7	2484.850	49.84	-7.34	42.50	54.00	-11.50	AVG
8	2485.500	61.73	-7.32	54.41	74.00	-19.59	peak
9	2485.500	50.00	-7.32	42.68	54.00	-11.32	AVG
10	2486.800	62.50	-7.32	55.18	74.00	-18.82	peak
11	2486.800	49.09	-7.32	41.77	54.00	-12.23	AVG
12	2487.350	62.57	-7.32	55.25	74.00	-18.75	peak
13	2487.350	49.24	-7.32	41.92	54.00	-12.08	AVG
14	2487.950	62.23	-7.32	54.91	74.00	-19.09	peak
15	2487.950	49.06	-7.32	41.74	54.00	-12.26	AVG
16	2488.600	62.52	-7.31	55.21	74.00	-18.79	peak
17	2488.600	49.14	-7.31	41.83	54.00	-12.17	AVG
18	2489.050	61.39	-7.31	54.08	74.00	-19.92	peak
19	2489.050	49.03	-7.31	41.72	54.00	-12.28	AVG
20	2489.700	61.28	-7.31	53.97	74.00	-20.03	peak
21	2489.700	49.02	-7.31	41.71	54.00	-12.29	AVG
22	2490.300	61.15	-7.31	53.84	74.00	-20.16	peak
23	2490.300	48.99	-7.31	41.68	54.00	-12.32	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
24	2491.250	61.58	-7.31	54.27	74.00	-19.73	peak
25	2491.250	48.81	-7.31	41.50	54.00	-12.50	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

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