

RF Test Report

Applicant : Askey Computer Corp
Product Type : Wi-Fi and Bluetooth functionalities module
Trade Name : ASKEY
Model Number : STI625X
Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2013
Received Date : Aug. 17, 2021
Test Period : Aug. 25 ~ Sep. 09, 2021
Issued Date : Sep. 24, 2021

Issued by

A Test Lab Techno Corp.
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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.
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- 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	Sep. 24, 2021	Initial Issue	Tobey Cheng

Verification of Compliance

Applicant : Askey Computer Corp

Product Type : Wi-Fi and Bluetooth functionalities module

Trade Name : ASKEY

Model Number : STI625X

FCC ID : H8N-STI625X

EUT Rated Voltage : VBAT DC 3.3 V & VDDIO DC 1.8 V

Test Voltage : 120 Vac / 60 Hz

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 :

(Kai Yu Yang)



TABLE OF CONTENTS

1	General Information	5
1.1.	Summary of Test Result.....	5
1.2.	Measurement Uncertainty.....	6
2	EUT Description	7
3	Test Methodology	8
3.1.	Mode of Operation.....	8
3.2.	EUT Test Step.....	11
3.3.	Configuration of Test System Details	12
3.4.	Test Instruments	13
3.5.	Test Site Environment.....	14
4	Measurement Procedure	15
4.1.	AC Power Line Conducted Emission Measurement.....	15
4.2.	Radiated Emission Measurement	17
4.3.	Maximum Conducted Output Power Measurement.....	21
4.4.	6 dB RF Bandwidth Measurement	22
4.5.	Maximum Power Spectral Density Measurement.....	23
4.6.	Out of Band Conducted Emissions Measurement	24
4.7.	Antenna Measurement	25
5	Test Results.....	26
	Annex A. Conducted Emission	26
	Annex B. Conducted Test Results	28
	Annex C. Radiated Emission Measurement	58
6	EUT Photos.....	114



1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
15.207	AC Power Conducted Emission	PASS	----
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
Conducted Emission	150 kHz ~ 30 MHz	2.7 dB
Radiated Emission	9 kHz ~ 30 MHz	2.2 dB
	30 MHz ~ 1000 MHz	5.1 dB
	1000 MHz ~ 18000 MHz	5.1 dB
	18000 MHz ~ 26500 MHz	4.4 dB
	26500 MHz ~ 40000 MHz	4.6 dB
Conducted Output Power	1.1 dB	
RF Bandwidth	4.7 %	
Power Spectral Density	1.1 dB	



2 EUT Description

Applicant	Askey Computer Corp 10F, No. 119, JIANKANG RD. ZHONGHE DIST, NEW TAIPEI CITY, Taiwan			
Manufacturer	Askey Computer Corp 10F, No. 119, JIANKANG RD. ZHONGHE DIST, NEW TAIPEI CITY, Taiwan			
Product Type	Wi-Fi and Bluetooth functionalities module			
Trade Name	ASKEY			
Model Number	STI625X			
FCC ID	H8N-STI625X			
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(64QAM)	20 MHz	Up to 173.4 Mbps
IEEE 802.11n 2.4 GHz 20 MHz	2412 ~ 2462	OFDM(256QAM)	20 MHz	Up to 173.4 Mbps
IEEE 802.11ax 2.4 GHz 20 MHz	2412 ~ 2462	OFDM	20 MHz	Up to 286.8 Mbps
Antenna information	ANT	Model Number	Type	Max. Gain (dBi)
	ANT-0	STI6250-D315	Dipole Antenna	2.45
	ANT-1	STI6250-D315	Dipole Antenna	2.14
Antenna Delivery	See section 3.1			
Operate Temp. Range	0 ~ 40 °C			

Frequency Band	Max. RF Output Power (W)
IEEE 802.11b	0.352
IEEE 802.11g	0.612
IEEE 802.11n 2.4 GHz 20 MHz(64QAM)	0.585
IEEE 802.11n 2.4 GHz 20 MHz(256QAM)	0.594
IEEE 802.11ax 2.4 GHz 20 MHz	0.607



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:

Pre-Test Mode
Mode 1: Transmit mode
Mode 2: IEEE 802.11b Continuous TX mode
Mode 3: IEEE 802.11g Continuous TX mode
Mode 4: IEEE 802.11n 2.4 GHz 20 MHz(64QAM) Continuous TX Mode
Mode 5: IEEE 802.11n 2.4 GHz 20 MHz(256QAM) Continuous TX Mode
Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode

Final-Test Mode
Mode 1: Transmit mode
Mode 2: IEEE 802.11b Continuous TX mode
Mode 3: IEEE 802.11g Continuous TX mode
Mode 6: IEEE 802.11ax 2.4 GHz 20 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, Y and Z) position of EUT transmitted status, it was found that “Z axis” position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

Note 1: ANT-1 is the only in Mode 2.

Note 2: Investigation has been done on all the possible configurations for searching the worst cases (2.4 GHz ax mode covers 64QAM / 256QAM). The table is a list of the test modes show in this test report.

Note 3: IEEE 802.11ax only supports Full RU ◦



Test Mode	ANT-0	ANT-1	ANT-0+1
Mode 2	---	V	---
Mode 3	V	V	V
Mode 4	V	V	V
Mode 5	V	V	V
Mode 6	V	V	V

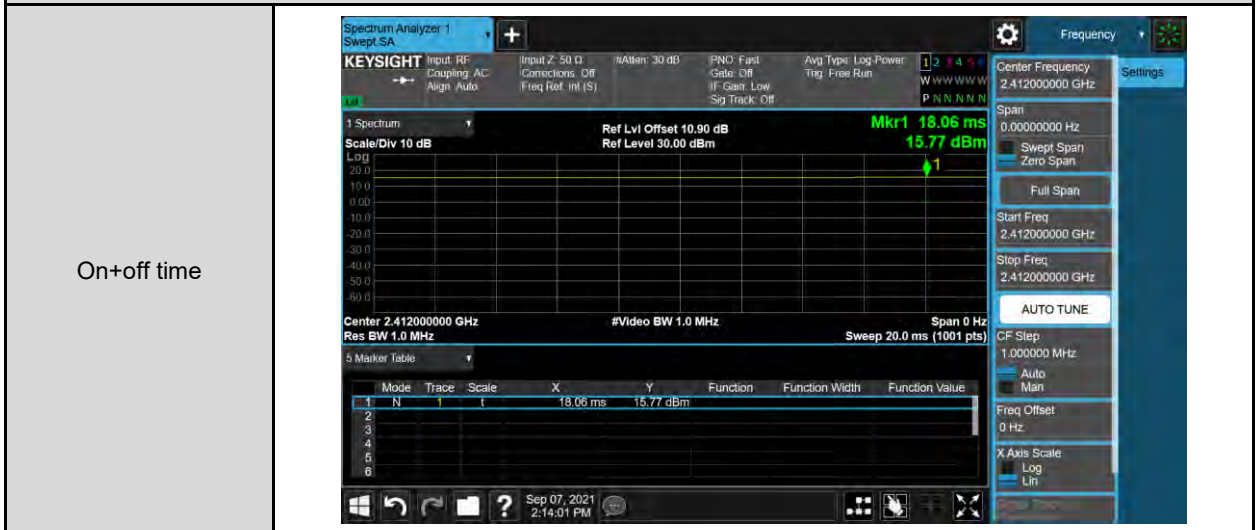
Test Mode	Antenna Delivery	Data Rate (Mbps)	Test Channel
Mode 2	1TX	1	1, 6, 11
Mode 3	2TX (CDD)	6	1, 6, 11
Mode 4	2TX (CDD)	13	1, 6, 11
Mode 5	2TX (CDD)	13	1, 6, 11
Mode 6	2TX (CDD)	MCS0	1, 6, 11

Duty cycle

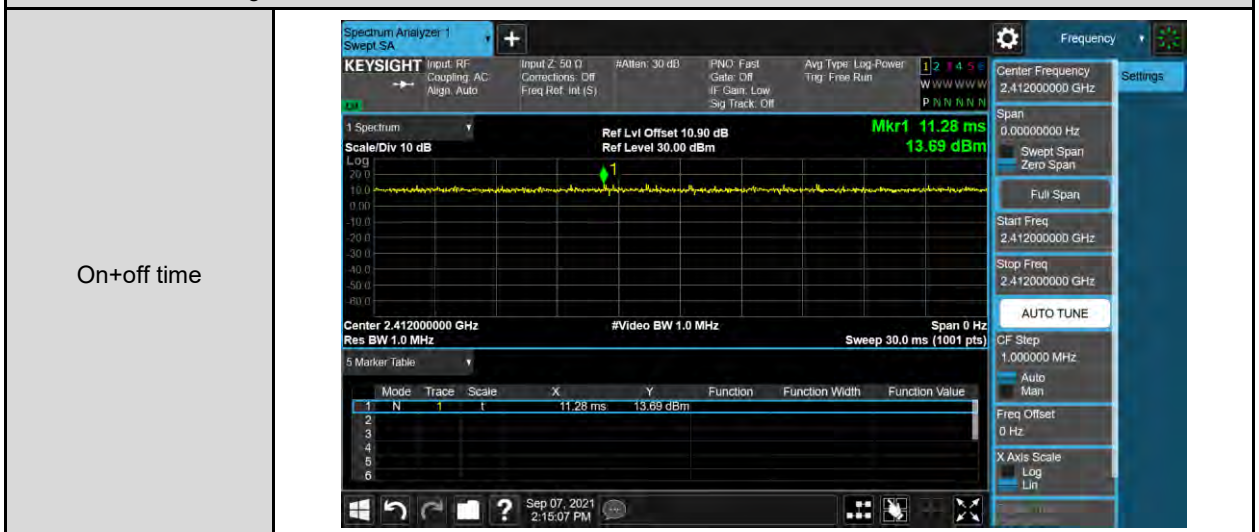
Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 2	2412.0	20.000	20.000	1.000	0.000	0.010
Mode 3	2412.0	30.000	30.000	1.000	0.000	0.010
Mode 6	2412.0	30.000	30.000	1.000	0.000	0.010

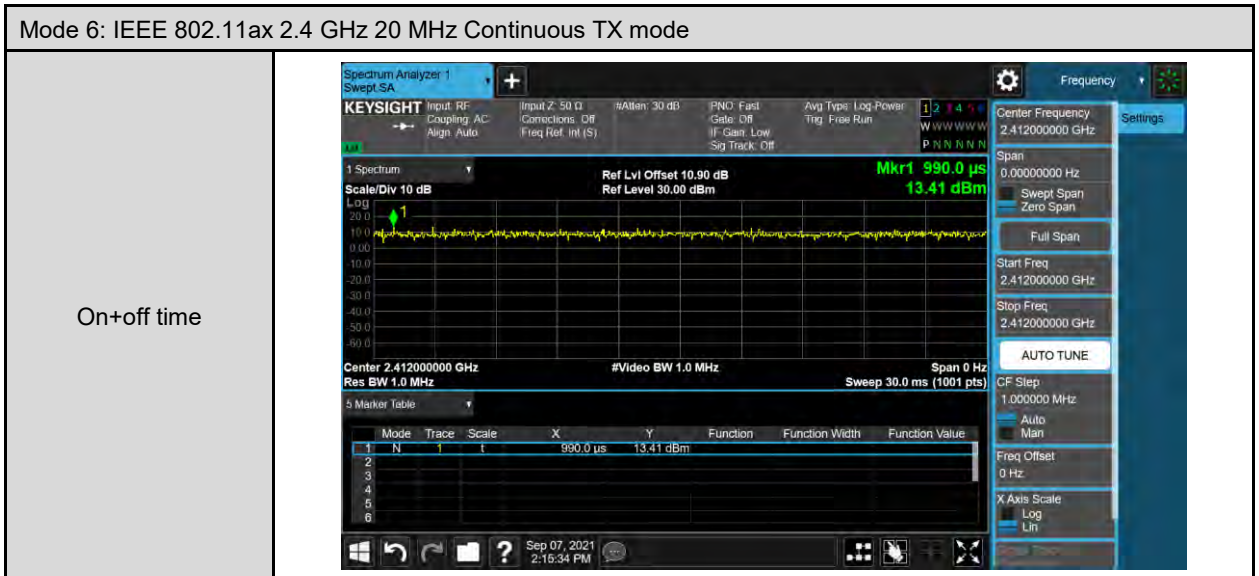
Duty Cycle Graphs

Mode 2: IEEE 802.11b Continuous TX mode



Mode 3: IEEE 802.11g Continuous TX mode





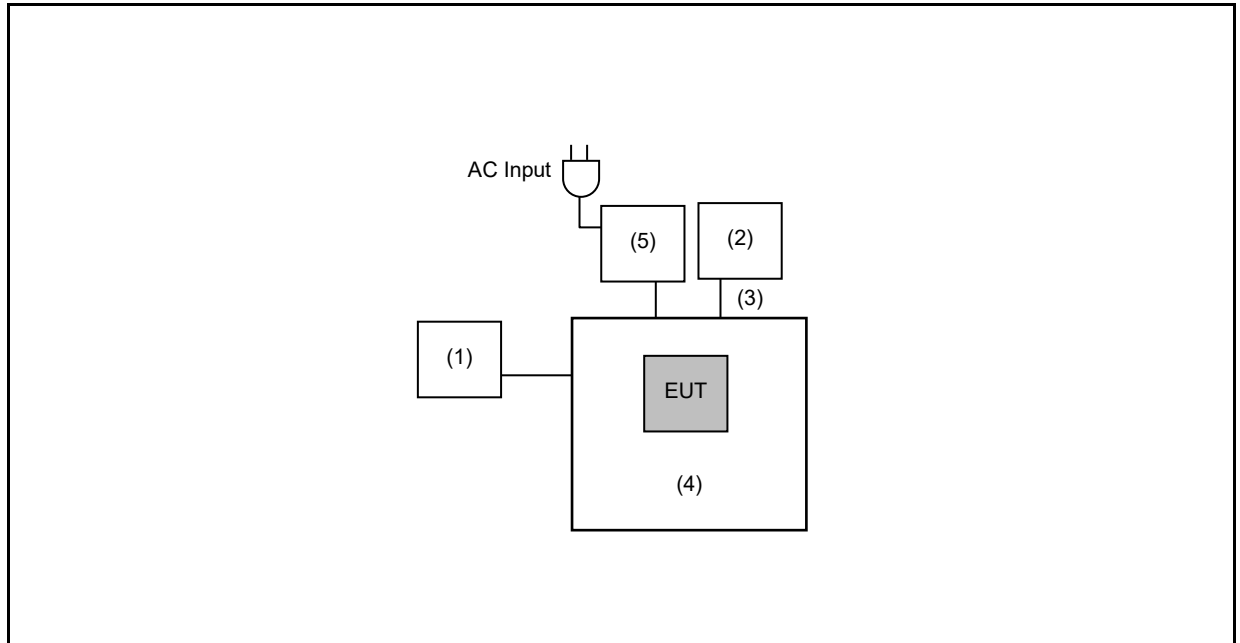
3.2. EUT Test Step

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.

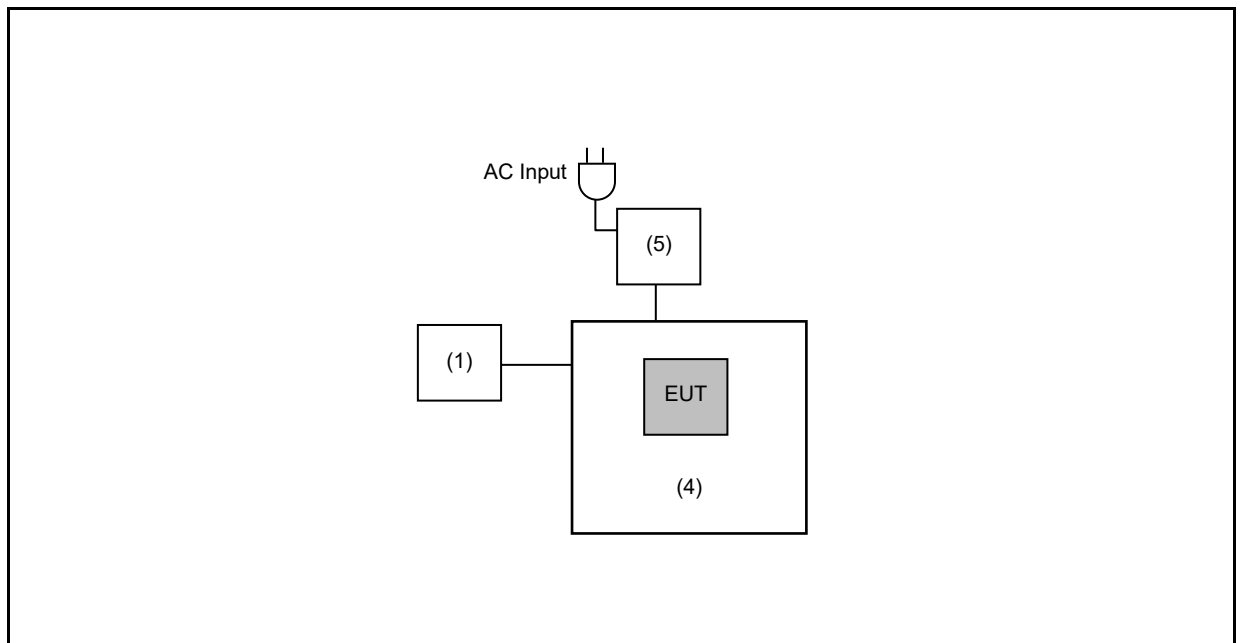
Measurement Software			
No.	Description	Software	Version
1	Conducted Emission	EZ EMC	1.1.4.3
2	Radiated Emission	EZ EMC	1.1.4.4

3.3. Configuration of Test System Details

Conducted Emission



Radiated Emissions





Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Notebook	acer	N19C1	NXEG8TA008109033BD3400	---
(2)	LCD Monitor	ViewSonic	VS16861	UZJ195120842	---
(3)	HDMI Cable	Avier	K48GHS	---	---
(4)	Fixture	Askey	STI625x	---	---
(5)	AC Adapter	Delta	ADP-90WH KBA	---	---

3.4. Test Instruments

For Conducted Emission

Test Period: Sep. 09, 2021

Testing Engineer: Andy Lu

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Test Receiver	R&S	ESCI	100367	05/21/2021	1 year
LISN	R&S	ENV216	101040	03/29/2021	1 year
LISN	R&S	ENV216	101041	04/08/2021	1 year
RF Cable	Woken	00100D1380194M	TE-02-03	05/28/2021	1 year

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



For Radiated Emissions

Test Period: Aug. 25 ~ Sep. 04, 2021

Testing Engineer: Hung Chou, Marc Yeh, Eva Lee, Pink.Li

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer (2 Hz~50 GHz)	Keysight	N9030B	MY57143537	04/19/2021	1 year
Pre Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	01/15/2021	1 year
Pre Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02237	10/21/2020	1 year
Broadband Antenna	Schwarzbeck	VULB9168	01146	07/19/2021	1 year
Horn Antenna (1~18 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	02207	07/09/2021	1 year
Horn Antenna (18~40 GHz)	ETS	3116	00086467	12/03/2020	1 year
Coaxial Cable	Titan	T0710AT327A10A 100	J11005	08/06/2021	1 year
Coaxial Cable	Titan	T0710AT327A10A 900	J11004	08/06/2021	1 year
Coaxial Cable	Titan	T0712AT340A12A 900	J11002	08/06/2021	1 year

For Conducted

Test Period: Sep. 07, 2021

Testing Engineer: Brian Lin

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Power Sensor	Anritsu	MA2411B	1126022	09/03/2021	1 year
Power Meter	Anritsu	ML2495A	1135009	09/03/2021	1 year
Spectrum Analyzer	Keysight	N9010B	MY59071418	03/17/2021	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

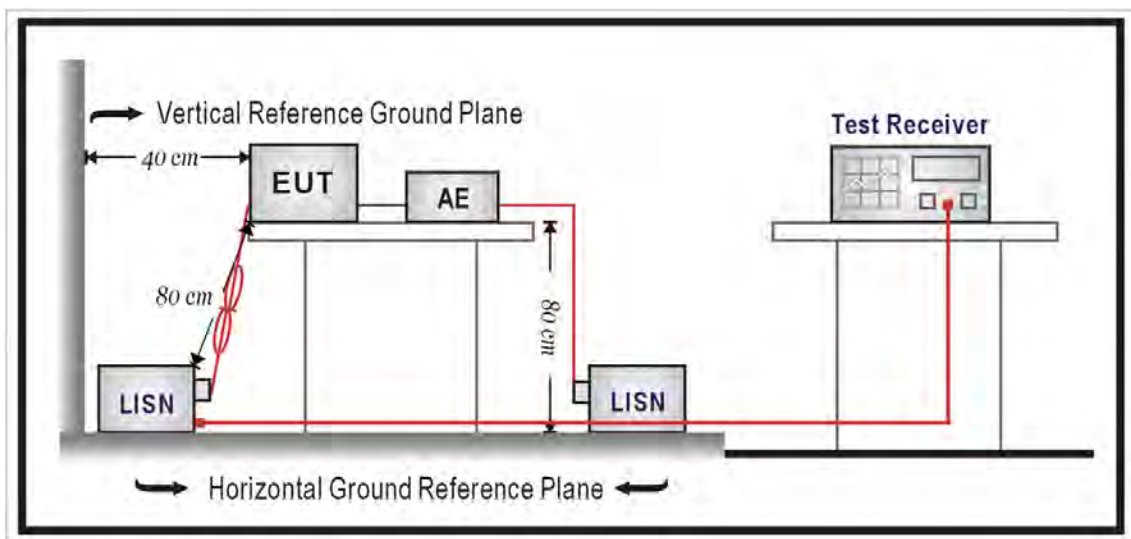
4 Measurement Procedure

4.1. AC Power Line Conducted Emission Measurement

■ Limit

Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

■ Test Setup



■ Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a $50 \Omega // 50 \mu\text{H}$ coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a $50 \Omega // 50 \mu\text{H}$ coupling impedance with 50 ohm termination.

Tabletop device shall be placed on a non-conducting platform, of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The wall of screened room shall be located 40 cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80 cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12 mm insulating material.

Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. When all of peak value were complied with quasi-peak and average limit from 150 kHz to 30 MHz then quasi-peak and average measurement was unnecessary.

The AMN shall be placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8 m from the AMN. If the mains power cable is longer than 1 m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4 m. All of interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1 m. All 50Ω ports of the LISN shall be resistively terminated into 50Ω loads when not connected to the measuring instrument.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored.

4.2. Radiated Emission Measurement

■ Limit

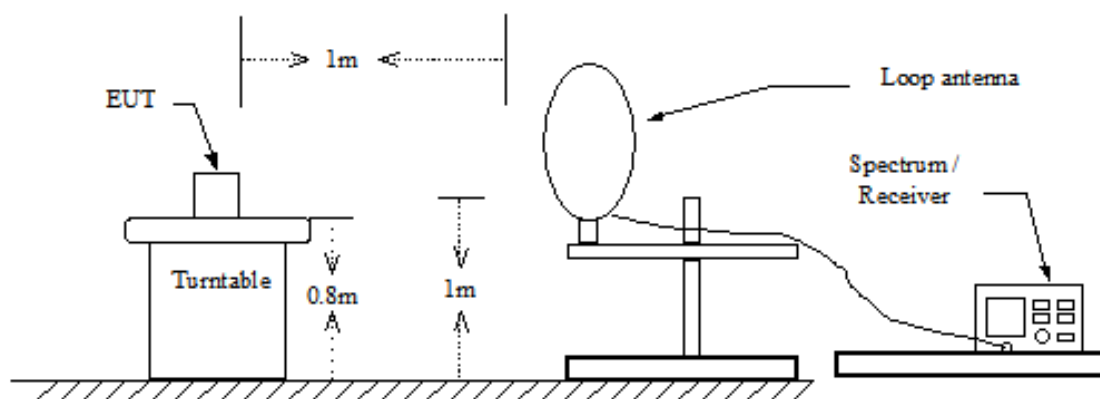
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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

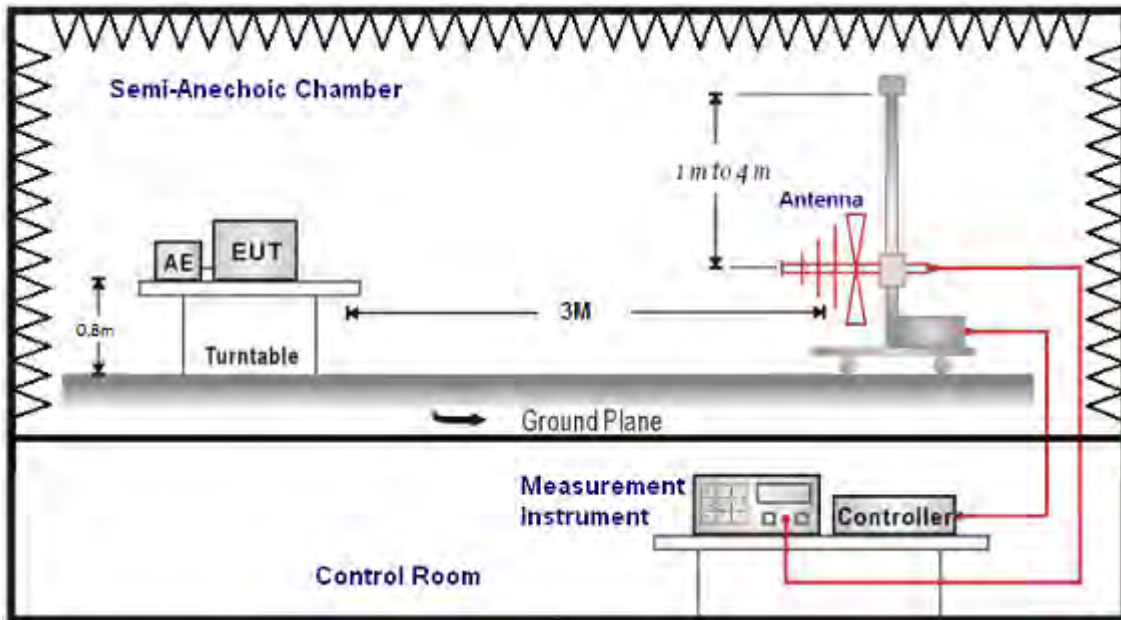
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this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

■ Setup

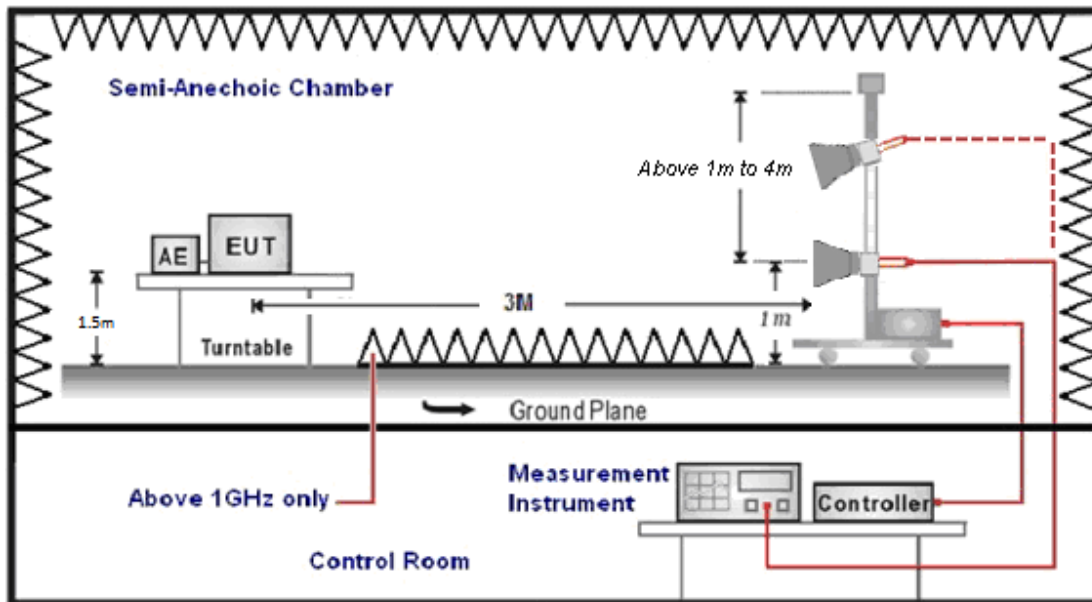
9 kHz ~ 30 MHz



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.

4.3. Maximum Conducted Output Power Measurement

■ **Limit**

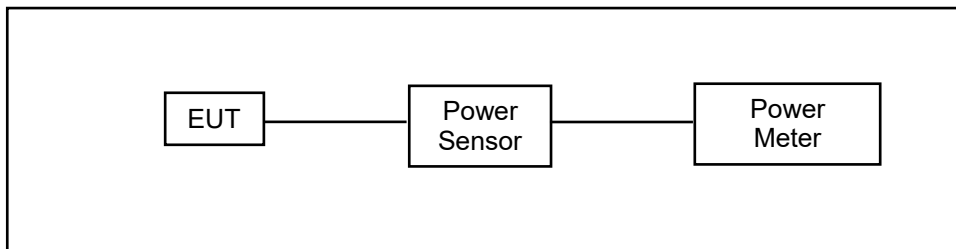
For systems using digital modulation in the 2400-2483.5 MHz, the limit for maximum output power is 30 dBm.

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.

CDD mode:

$$* \text{ Directional} = G_{\text{ANT}} = 10 * \log\{[10^{(G1/10)} + 10^{(G2/10)} + \dots + 10^{(Gn/10)}] / \text{NANT}\} = 2.3 \text{ dBi} < 6 \text{ dBi}$$

■ **Test Setup**



■ **Test Procedure**

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

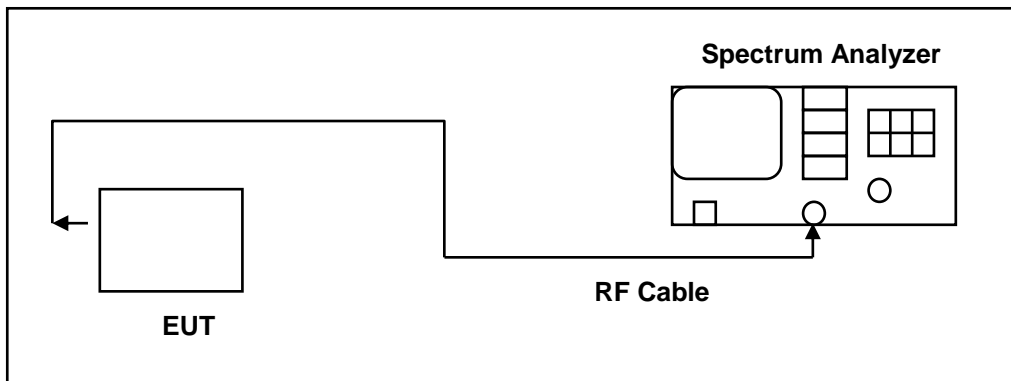
The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor.

4.4. 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)

4.5. Maximum Power Spectral Density Measurement

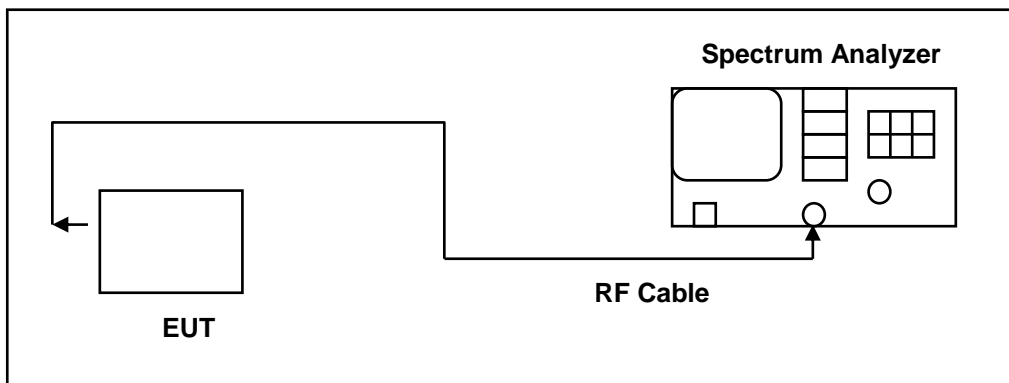
■ Limit

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.

CDD mode:

* Directional Gain = $10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / NANT\}$ = 5.31 dBi < 6 dBi;

■ 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.

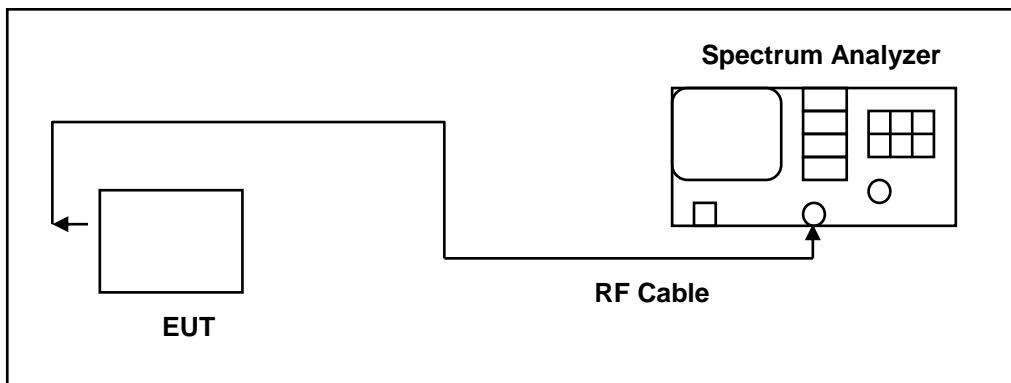
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
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.

4.6. 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.

4.7. 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.

■ Directional Gain Calculated

For Maximum Conducted Output Power

Operate Freq. Band	Directional Gain (dBi)
IEEE 802.11b	2.14
IEEE 802.11g	2.30
IEEE 802.11n 2.4 GHz 20 MHz(64QAM)	2.30
IEEE 802.11n 2.4 GHz 20 MHz(256QAM)	2.30
IEEE 802.11ax 2.4 GHz 20 MHz	2.30

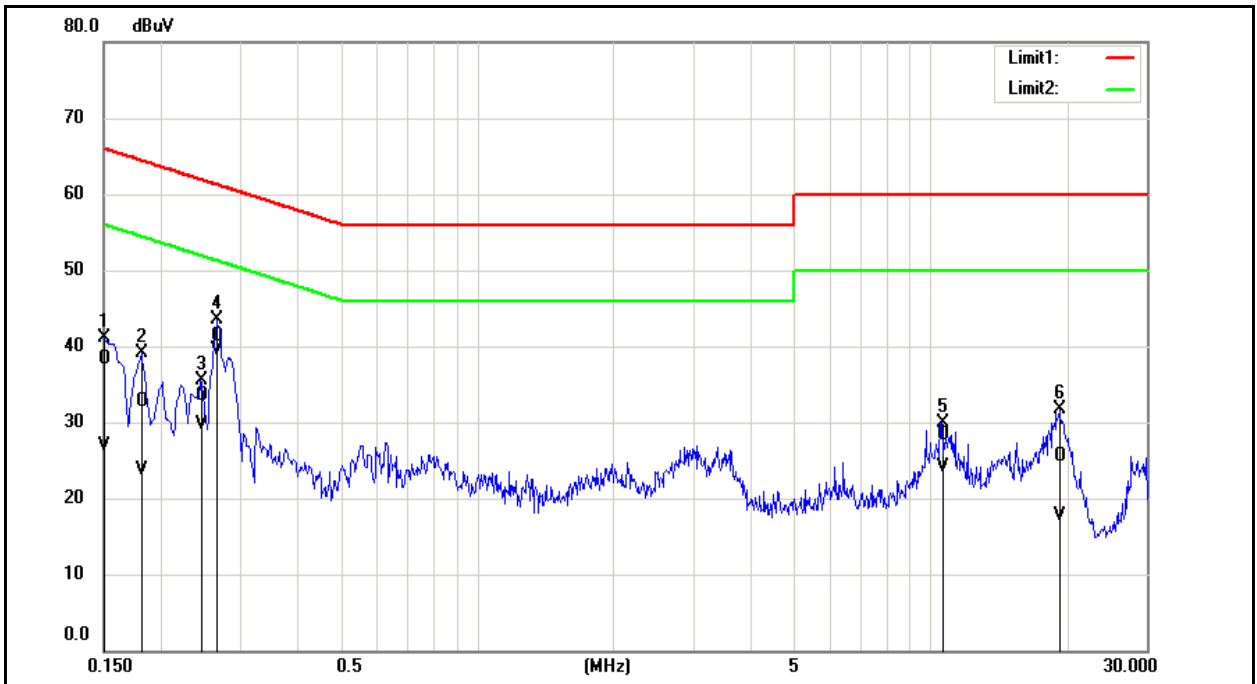
For Maximum Power Density

Operate Freq. Band	Directional Gain (dBi)
IEEE 802.11b	2.14
IEEE 802.11g	5.31
IEEE 802.11n 2.4 GHz 20 MHz(64QAM)	5.31
IEEE 802.11n 2.4 GHz 20 MHz(256QAM)	5.31
IEEE 802.11ax 2.4 GHz 20 MHz	5.31

5 Test Results

Annex A. Conducted Emission

Standard:	FCC Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Mode 1		
Description:			



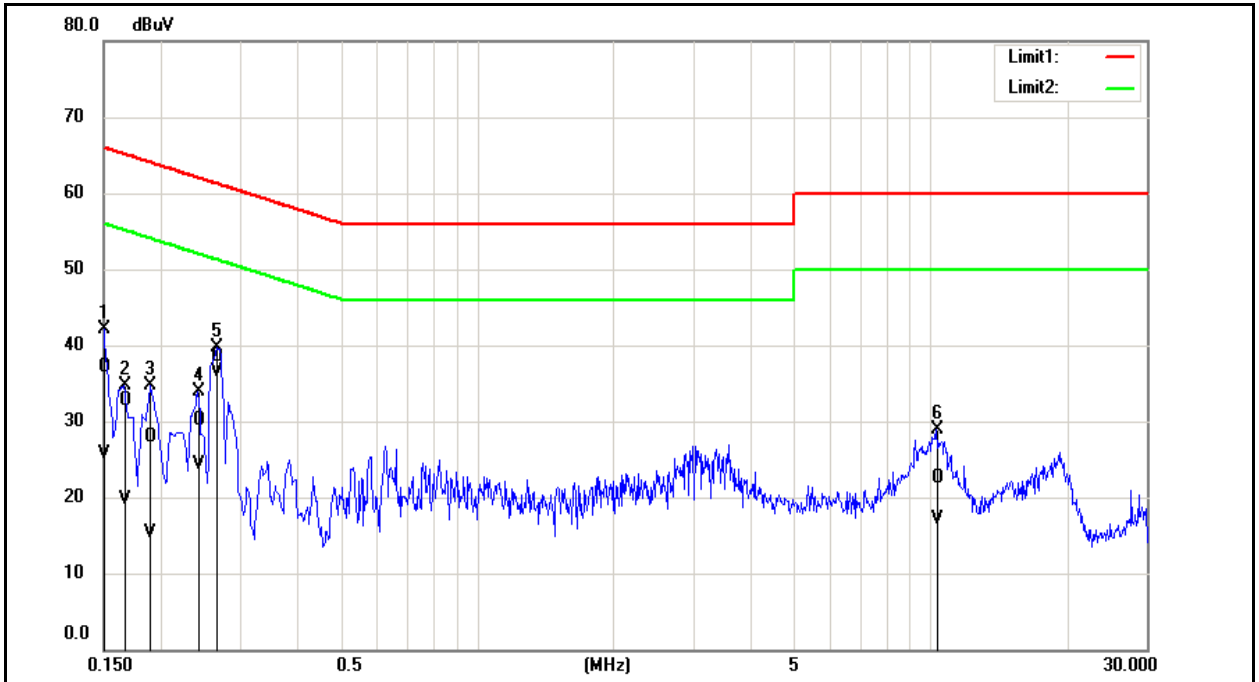
No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	28.52	17.16	9.74	38.26	26.90	66.00	56.00	-27.74	-29.10	Pass
2	0.1820	22.98	13.87	9.74	32.72	23.61	64.39	54.39	-31.67	-30.78	Pass
3	0.2460	23.86	20.00	9.74	33.60	29.74	61.89	51.89	-28.29	-22.15	Pass
4	0.2660	31.66	29.82	9.74	41.40	39.56	61.24	51.24	-19.84	-11.68	Pass
5	10.5660	18.33	14.14	9.98	28.31	24.12	60.00	50.00	-31.69	-25.88	Pass
6	19.3220	15.53	7.74	10.05	25.58	17.79	60.00	50.00	-34.42	-32.21	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).



Standard:	FCC Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Mode 1		
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	27.33	16.04	9.74	37.07	25.78	66.00	56.00	-28.93	-30.22	Pass
2	0.1660	23.00	9.94	9.74	32.74	19.68	65.16	55.16	-32.42	-35.48	Pass
3	0.1900	18.08	5.51	9.73	27.81	15.24	64.04	54.04	-36.23	-38.80	Pass
4	0.2420	20.33	14.67	9.73	30.06	24.40	62.03	52.03	-31.97	-27.63	Pass
5	0.2660	28.84	26.77	9.73	38.57	36.50	61.24	51.24	-22.67	-14.74	Pass
6	10.2940	12.57	7.03	9.99	22.56	17.02	60.00	50.00	-37.44	-32.98	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).
2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Annex B. Conducted Test Results

Maximum Conducted Output Power Measurement

Test Mode	Frequency (MHz)	RF Power setting in Test Software		Test Software Version
		ANT-0	ANT-1	
Mode 2	2412	---	83.0	Ampak RFTestTool ver:7.1
	2437	---	93.0	
	2462	---	82.0	
Mode 3	2412	63.0	63.0	
	2437	75.0	75.0	
	2462	60.0	60.0	
Mode 4	2412	53.0	53.0	
	2437	74.0	74.0	
	2462	53.0	53.0	
Mode 5	2412	53.0	53.0	
	2437	74.0	74.0	
	2462	53.0	53.0	
Mode 6	2412	53.0	53.0	
	2437	74.0	74.0	
	2462	53.0	53.0	



Maximum Conducted Output Power Measurement

ANT-0							
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		Peak Output Power		
			Measurement Results		Measurement Results		Limit
			dBm	W	dBm	W	dBm
Mode 3	2412	6 M	15.51	0.036	22.85	0.193	≤ 30
	2437		18.91	0.078	24.41	0.276	≤ 30
	2462		14.71	0.030	22.18	0.165	≤ 30
Mode 4	2412	13 M	13.53	0.023	21.16	0.131	≤ 30
	2437		18.65	0.073	24.32	0.270	≤ 30
	2462		13.14	0.021	20.91	0.123	≤ 30
Mode 5	2412	13 M	13.59	0.023	21.21	0.132	≤ 30
	2437		18.71	0.074	24.38	0.274	≤ 30
	2462		13.19	0.021	20.99	0.126	≤ 30
Mode 6	2412	MCS0	13.65	0.023	21.26	0.134	≤ 30
	2437		18.78	0.076	24.42	0.277	≤ 30
	2462		13.23	0.021	21.03	0.127	≤ 30

ANT-1							
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		Peak Output Power		
			Measurement Results		Measurement Results		Limit
			dBm	W	dBm	W	dBm
Mode 2	2412	1 M	20.30	0.107	23.40	0.219	≤ 30
	2437		23.09	0.204	25.47	0.352	≤ 30
	2462		20.31	0.107	23.23	0.210	≤ 30
Mode 3	2412	6 M	15.82	0.038	23.50	0.224	≤ 30
	2437		19.07	0.081	25.26	0.336	≤ 30
	2462		15.01	0.032	22.96	0.198	≤ 30
Mode 4	2412	13 M	13.76	0.024	21.71	0.148	≤ 30
	2437		18.71	0.074	24.98	0.315	≤ 30
	2462		13.36	0.022	21.36	0.137	≤ 30
Mode 5	2412	13 M	13.81	0.024	21.76	0.150	≤ 30
	2437		18.79	0.076	25.05	0.320	≤ 30
	2462		13.43	0.022	21.42	0.139	≤ 30
Mode 6	2412	MCS0	13.89	0.024	21.82	0.152	≤ 30
	2437		18.85	0.077	25.19	0.330	≤ 30
	2462		13.50	0.022	21.53	0.142	≤ 30

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

ANT-0+1							
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		Peak Output Power		
			Measurement Results		Measurement Results		Limit
			dBm	W	dBm	W	dBm
Mode 3	2412	6 M	18.68	0.074	26.20	0.417	≤ 30
	2437		22.00	0.159	27.87	0.612	≤ 30
	2462		17.87	0.061	25.60	0.363	≤ 30
Mode 4	2412	13 M	16.66	0.046	24.45	0.279	≤ 30
	2437		21.69	0.148	27.67	0.585	≤ 30
	2462		16.26	0.042	24.15	0.260	≤ 30
Mode 5	2412	13 M	16.71	0.047	24.50	0.282	≤ 30
	2437		21.76	0.150	27.74	0.594	≤ 30
	2462		16.32	0.043	24.22	0.264	≤ 30
Mode 6	2412	MCS0	16.78	0.048	24.56	0.286	≤ 30
	2437		21.83	0.152	27.83	0.607	≤ 30
	2462		16.38	0.043	24.30	0.269	≤ 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 3	2412	16360	≥ 500
	2437	16340	≥ 500
	2462	16360	≥ 500
Mode 6	2412	18560	≥ 500
	2437	18830	≥ 500
	2462	18780	≥ 500

ANT-1			
Test Mode	Frequency (MHz)	Measurement (kHz)	Limit (kHz)
Mode 2	2412	7124	≥ 500
	2437	7581	≥ 500
	2462	8046	≥ 500
Mode 3	2412	16400	≥ 500
	2437	16390	≥ 500
	2462	16400	≥ 500
Mode 6	2412	18840	≥ 500
	2437	18720	≥ 500
	2462	18870	≥ 500



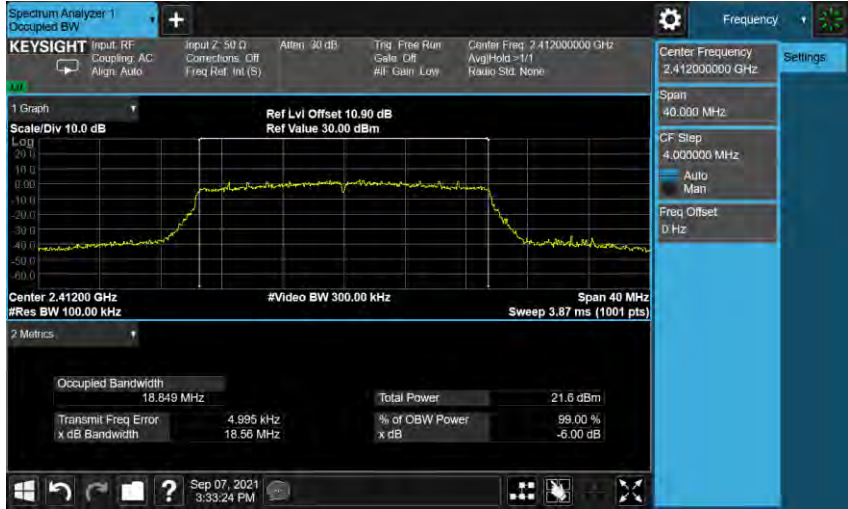
■ Test Graphs

Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

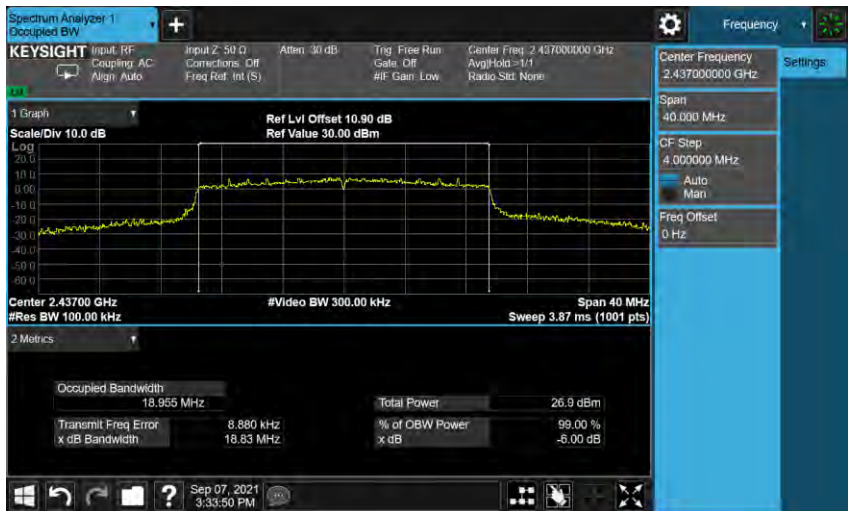
2412 MHz	<p>Center 2.41200 GHz #Res BW 100.00 kHz #Video BW 300.00 kHz Span 40 MHz Sweep 3.87 ms (1001 pts)</p> <table border="1"><tr><td>Occupied Bandwidth</td><td>16.473 MHz</td><td>Total Power</td><td>23.6 dBm</td></tr><tr><td>Transmit Freq Error</td><td>-3.549 kHz</td><td>% of OBW Power</td><td>99.00 %</td></tr><tr><td>x dB Bandwidth</td><td>16.36 MHz</td><td>x dB</td><td>-6.00 dB</td></tr></table>	Occupied Bandwidth	16.473 MHz	Total Power	23.6 dBm	Transmit Freq Error	-3.549 kHz	% of OBW Power	99.00 %	x dB Bandwidth	16.36 MHz	x dB	-6.00 dB
Occupied Bandwidth	16.473 MHz	Total Power	23.6 dBm										
Transmit Freq Error	-3.549 kHz	% of OBW Power	99.00 %										
x dB Bandwidth	16.36 MHz	x dB	-6.00 dB										
2437 MHz	<p>Center 2.43700 GHz #Res BW 100.00 kHz #Video BW 300.00 kHz Span 40 MHz Sweep 3.87 ms (1001 pts)</p> <table border="1"><tr><td>Occupied Bandwidth</td><td>16.685 MHz</td><td>Total Power</td><td>26.5 dBm</td></tr><tr><td>Transmit Freq Error</td><td>66.141 kHz</td><td>% of OBW Power</td><td>99.00 %</td></tr><tr><td>x dB Bandwidth</td><td>16.34 MHz</td><td>x dB</td><td>-6.00 dB</td></tr></table>	Occupied Bandwidth	16.685 MHz	Total Power	26.5 dBm	Transmit Freq Error	66.141 kHz	% of OBW Power	99.00 %	x dB Bandwidth	16.34 MHz	x dB	-6.00 dB
Occupied Bandwidth	16.685 MHz	Total Power	26.5 dBm										
Transmit Freq Error	66.141 kHz	% of OBW Power	99.00 %										
x dB Bandwidth	16.34 MHz	x dB	-6.00 dB										
2462 MHz	<p>Center 2.46200 GHz #Res BW 100.00 kHz #Video BW 300.00 kHz Span 40 MHz Sweep 3.87 ms (1001 pts)</p> <table border="1"><tr><td>Occupied Bandwidth</td><td>16.452 MHz</td><td>Total Power</td><td>22.3 dBm</td></tr><tr><td>Transmit Freq Error</td><td>-10.975 kHz</td><td>% of OBW Power</td><td>99.00 %</td></tr><tr><td>x dB Bandwidth</td><td>16.36 MHz</td><td>x dB</td><td>-6.00 dB</td></tr></table>	Occupied Bandwidth	16.452 MHz	Total Power	22.3 dBm	Transmit Freq Error	-10.975 kHz	% of OBW Power	99.00 %	x dB Bandwidth	16.36 MHz	x dB	-6.00 dB
Occupied Bandwidth	16.452 MHz	Total Power	22.3 dBm										
Transmit Freq Error	-10.975 kHz	% of OBW Power	99.00 %										
x dB Bandwidth	16.36 MHz	x dB	-6.00 dB										

Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-0

2412 MHz



2437 MHz



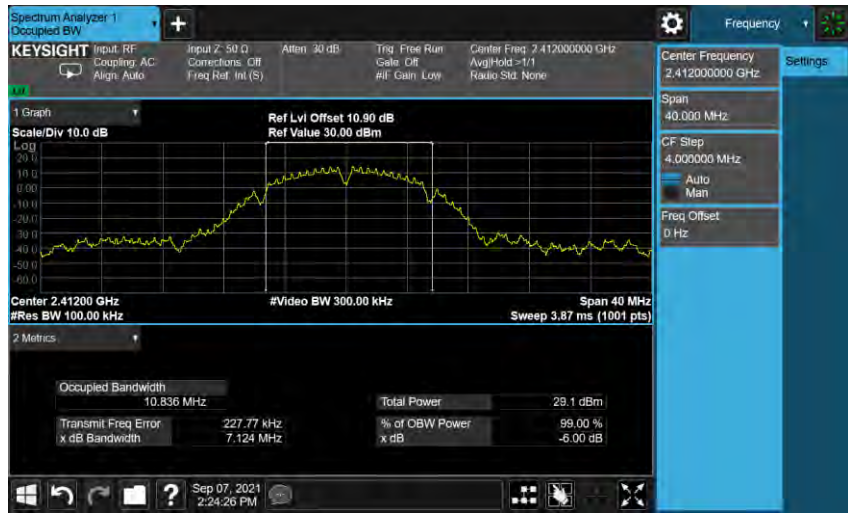
2462 MHz





Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz





Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

2412 MHz



2437 MHz



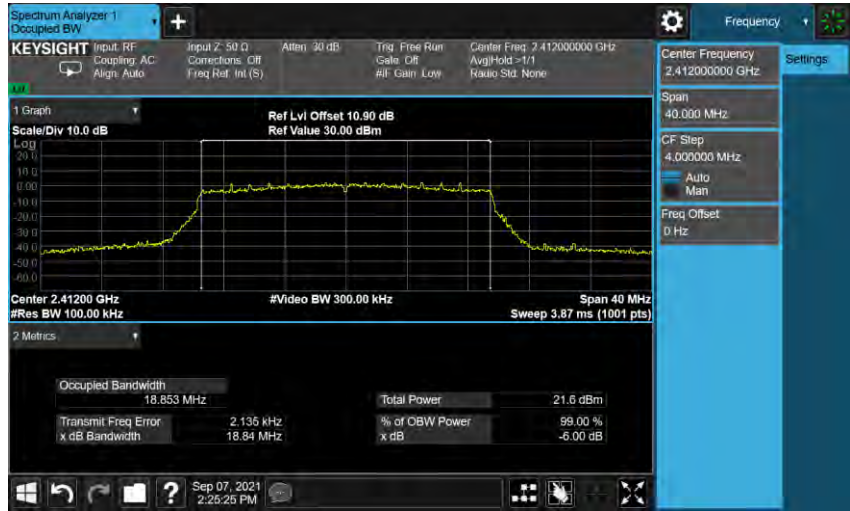
2462 MHz





Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz





Maximum Power Spectral Density Measurement

ANT-0			
Test Mode	Frequency (MHz)	Measurement (dBm/3 kHz)	Limit (dBm/ 3 kHz)
Mode 3	2412	-8.200	≤ 8
	2437	-5.410	≤ 8
	2462	-9.830	≤ 8
Mode 6	2412	-10.860	≤ 8
	2437	-5.770	≤ 8
	2462	-10.110	≤ 8

ANT-1			
Test Mode	Frequency (MHz)	Measurement (dBm/3 kHz)	Limit (dBm/ 3 kHz)
Mode 2	2412	-0.090	≤ 8
	2437	1.510	≤ 8
	2462	-1.400	≤ 8
Mode 3	2412	-7.960	≤ 8
	2437	-5.150	≤ 8
	2462	-9.190	≤ 8
Mode 6	2412	-10.050	≤ 8
	2437	-5.240	≤ 8
	2462	-9.830	≤ 8

ANT-0+1			
Test Mode	Frequency (MHz)	Measurement (dBm/3 kHz)	Limit (dBm/ 3 kHz)
Mode 3	2412	-5.068	≤ 8
	2437	-2.268	≤ 8
	2462	-6.488	≤ 8
Mode 6	2412	-7.426	≤ 8
	2437	-2.487	≤ 8
	2462	-6.957	≤ 8

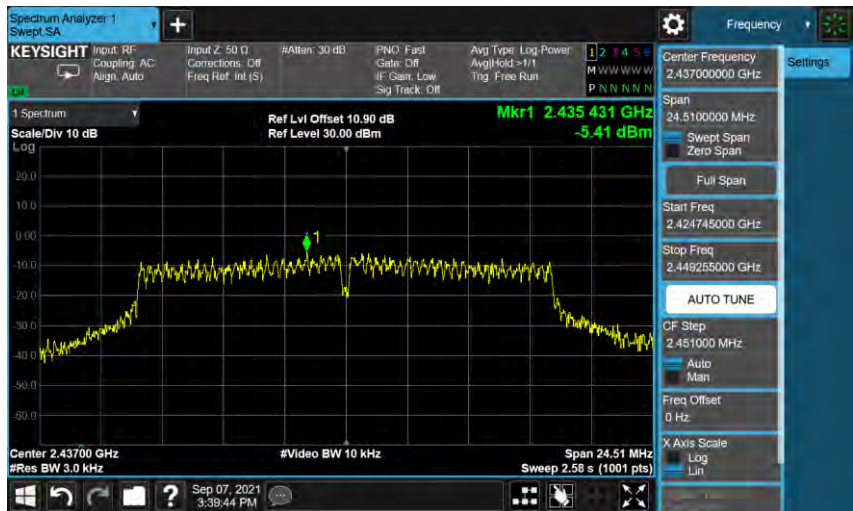


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

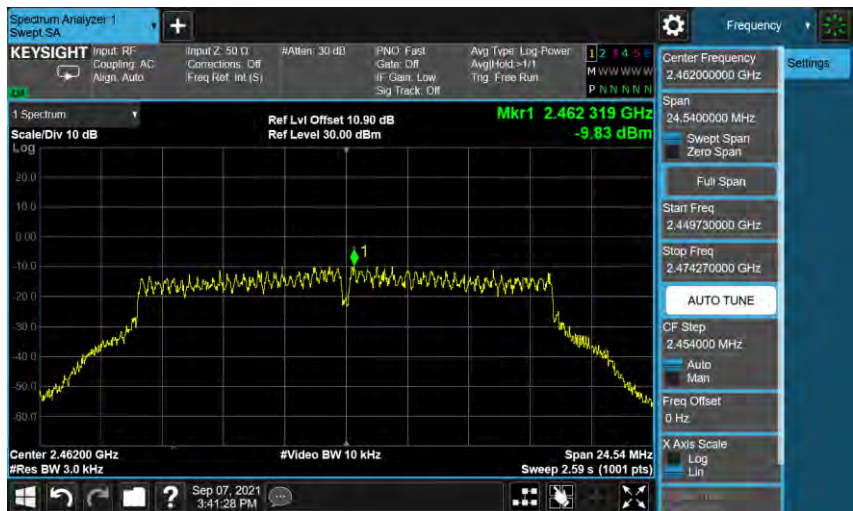
2412 MHz



2437 MHz



2462 MHz





Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-0

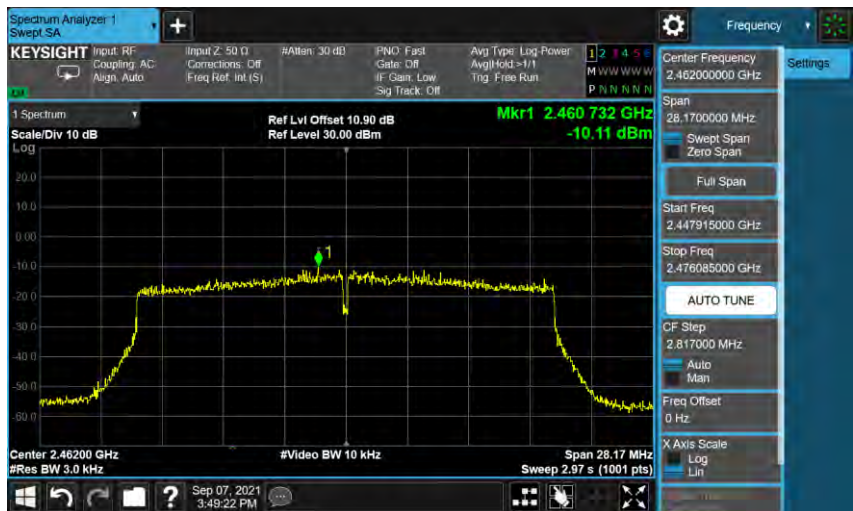
2412 MHz



2437 MHz



2462 MHz





Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz



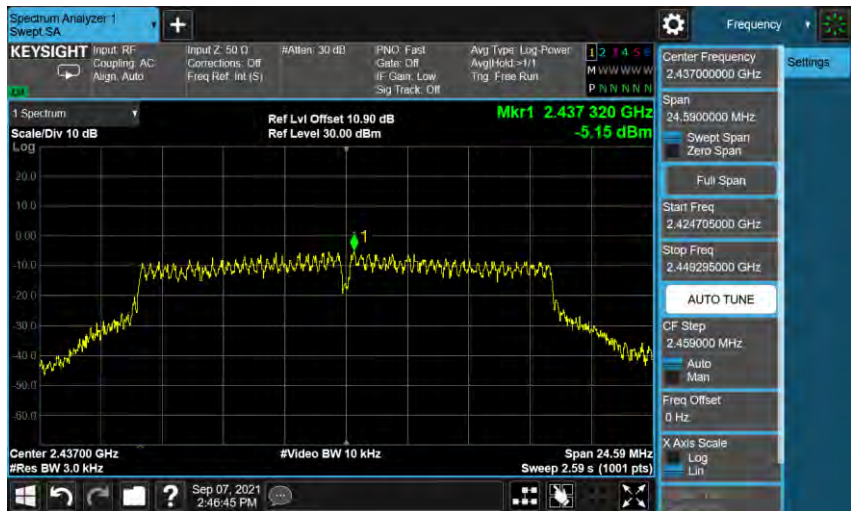


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

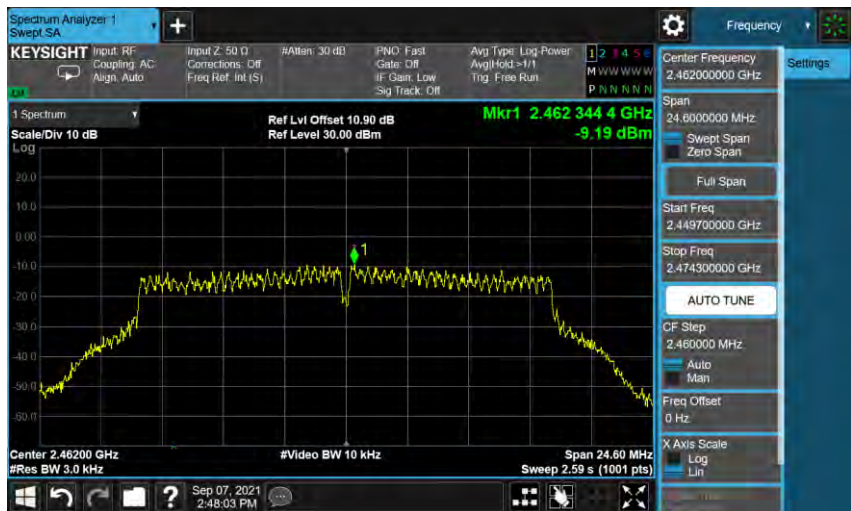
2412 MHz



2437 MHz



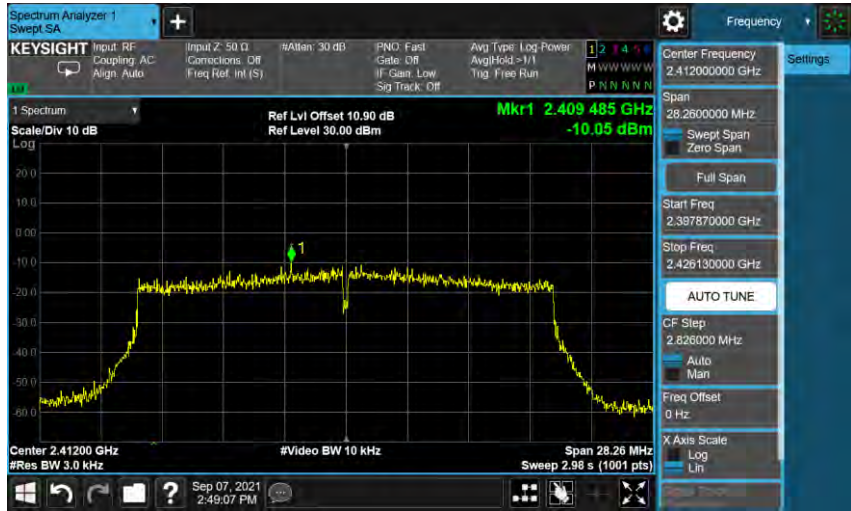
2462 MHz



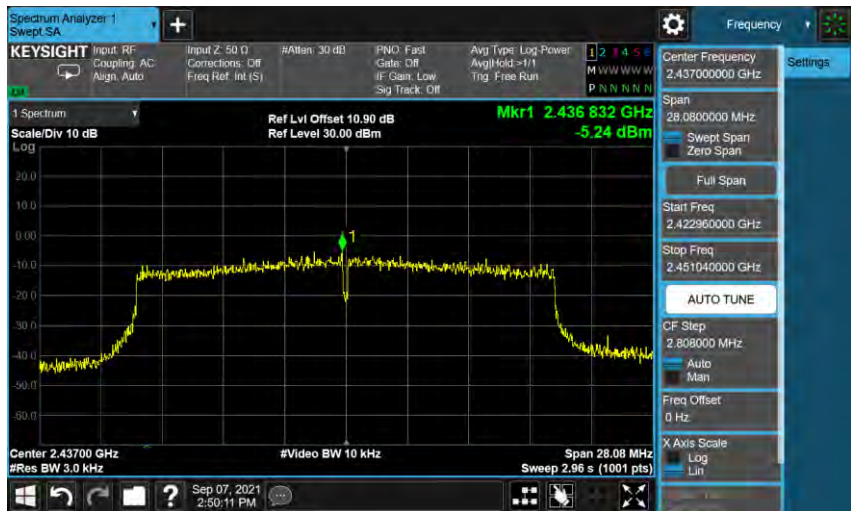


Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-1

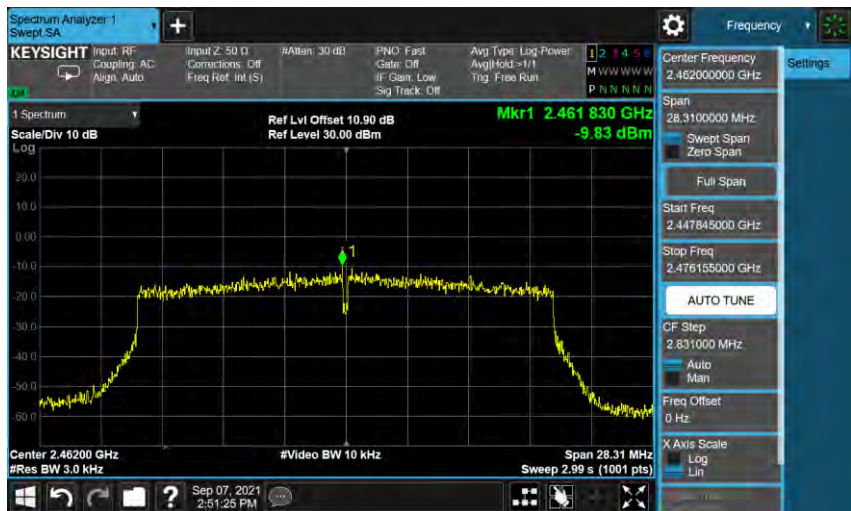
2412 MHz



2437 MHz



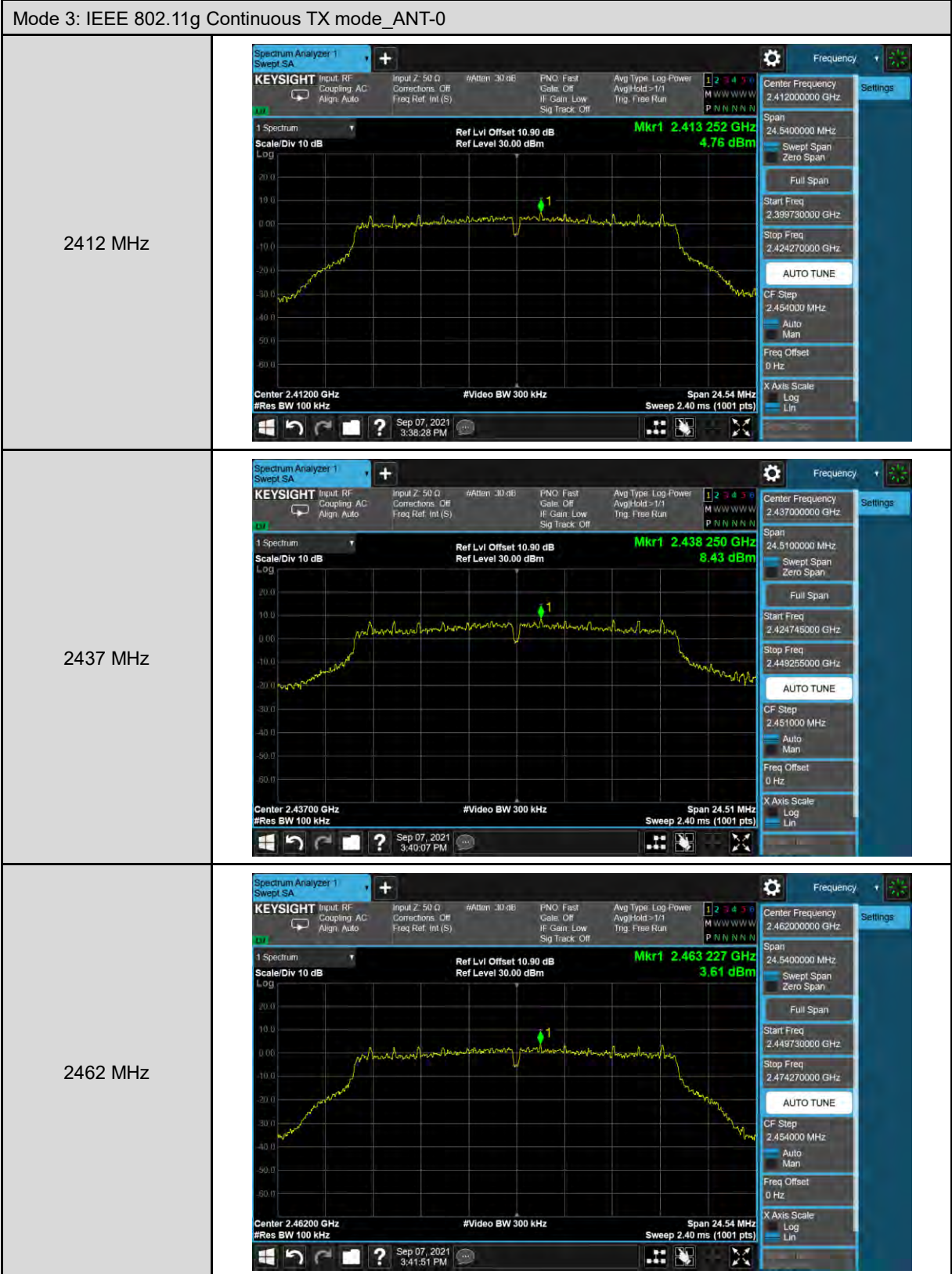
2462 MHz



Out of Band Conducted Emissions Measurement

■ Test Graphs

Reference level



Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-0

2412 MHz



2437 MHz



2462 MHz



Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz

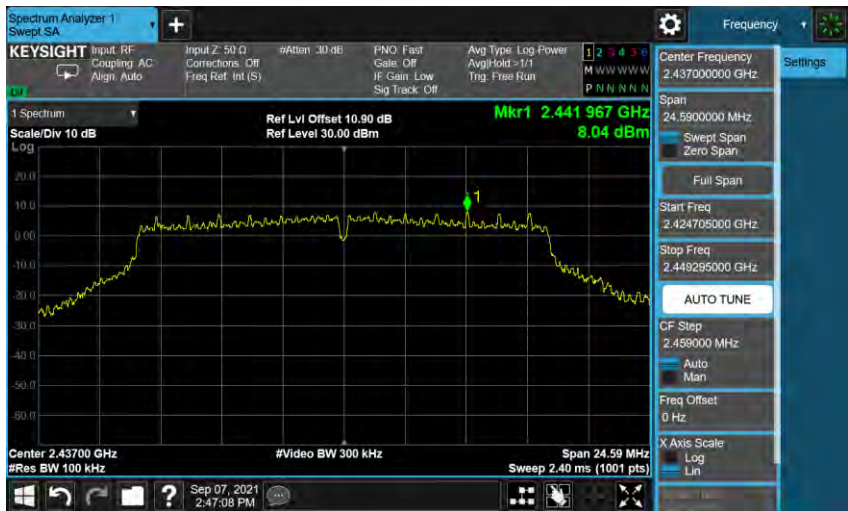


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz





Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-1

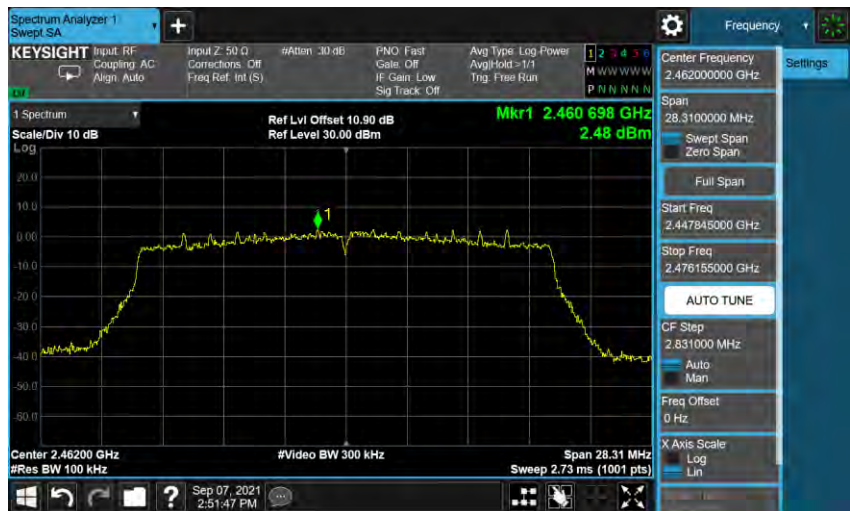
2412 MHz



2437 MHz



2462 MHz





Out of Band Conducted Emissions

Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



2437 MHz



2462 MHz



Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-0

2412 MHz



2437 MHz



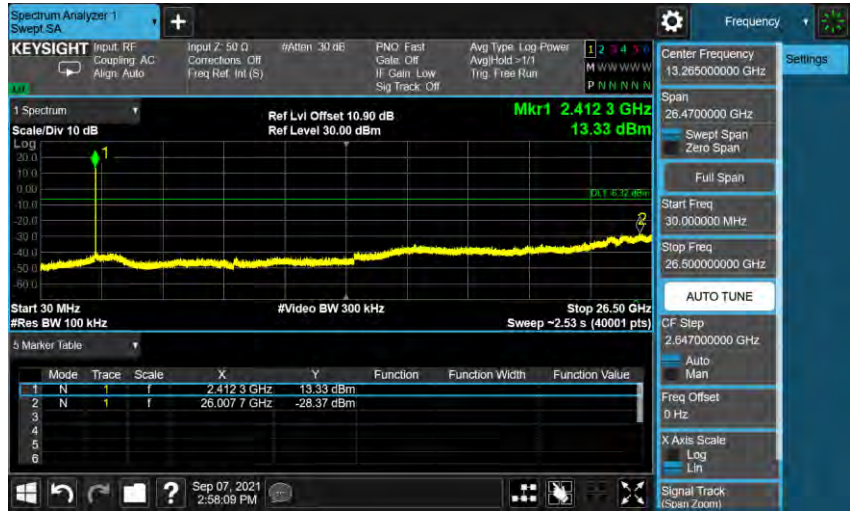
2462 MHz





Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz





Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz



Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-1

2412 MHz



2437 MHz



2462 MHz



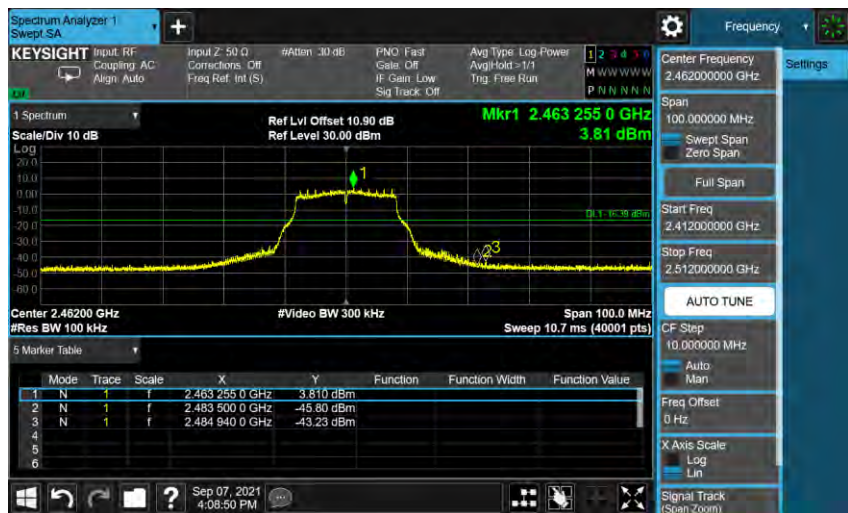
Conducted Band Edge

Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz

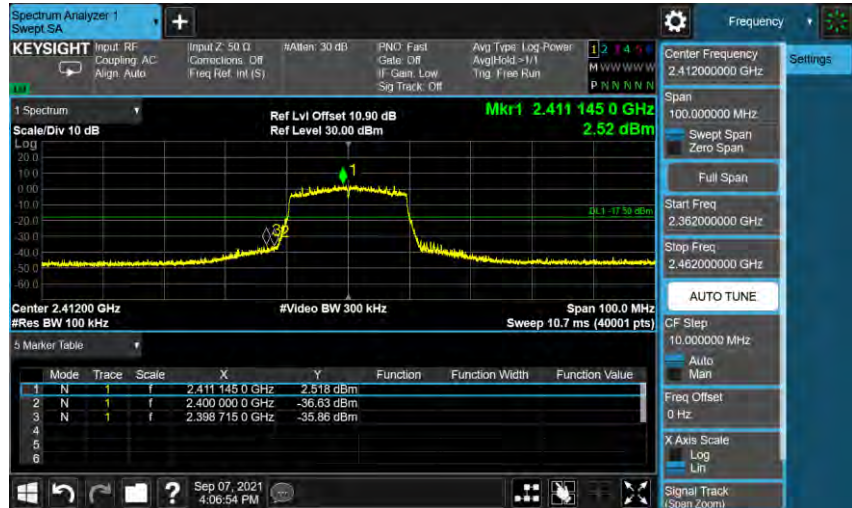


2462 MHz

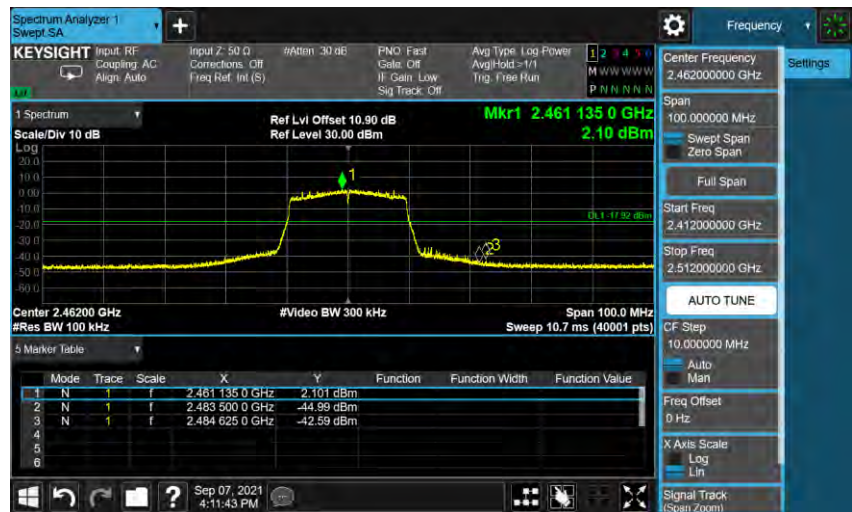


Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-0

2412 MHz



2462 MHz

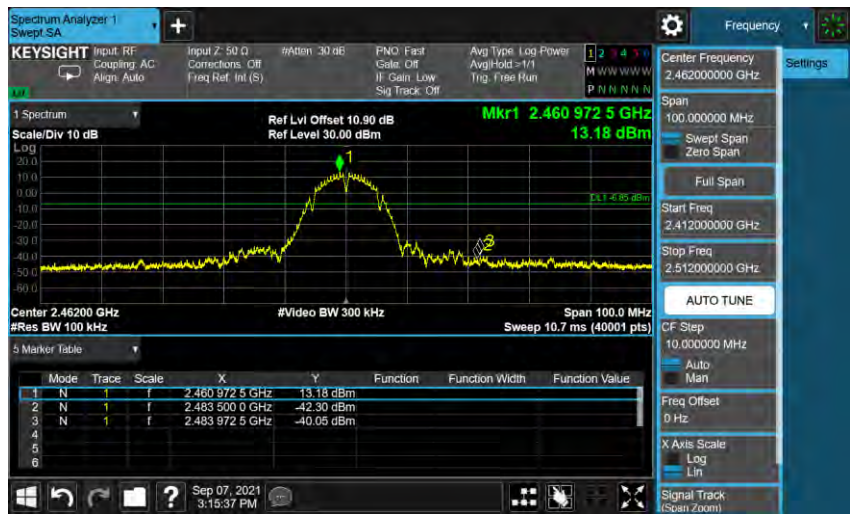


Mode 2: IEEE 802.11b Continuous TX mode_ANT-1

2412 MHz

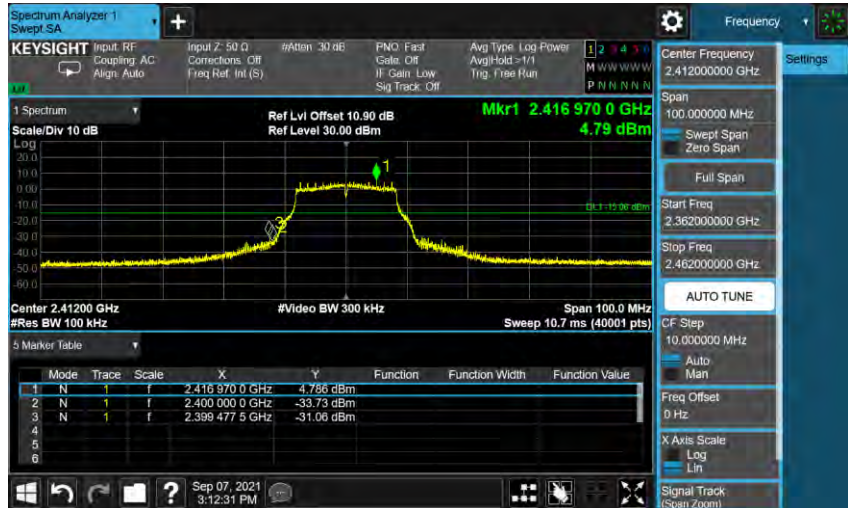


2462 MHz

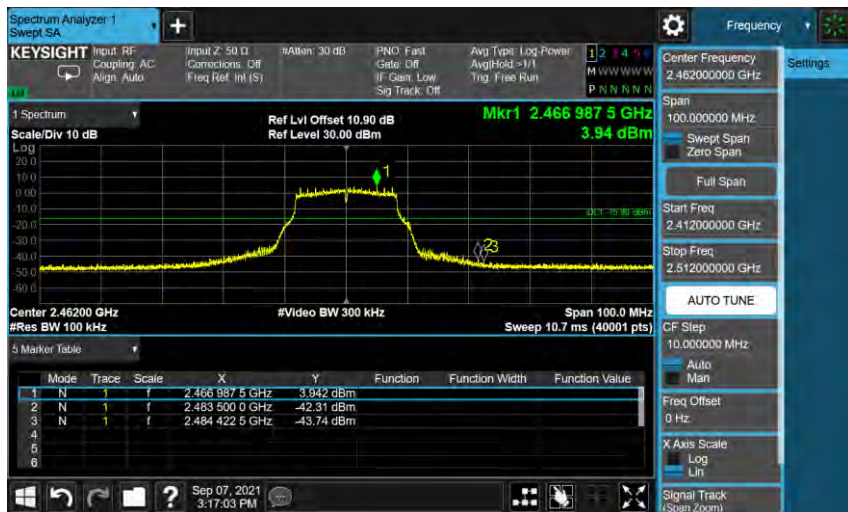


Mode 3: IEEE 802.11g Continuous TX mode_ANT-1

2412 MHz

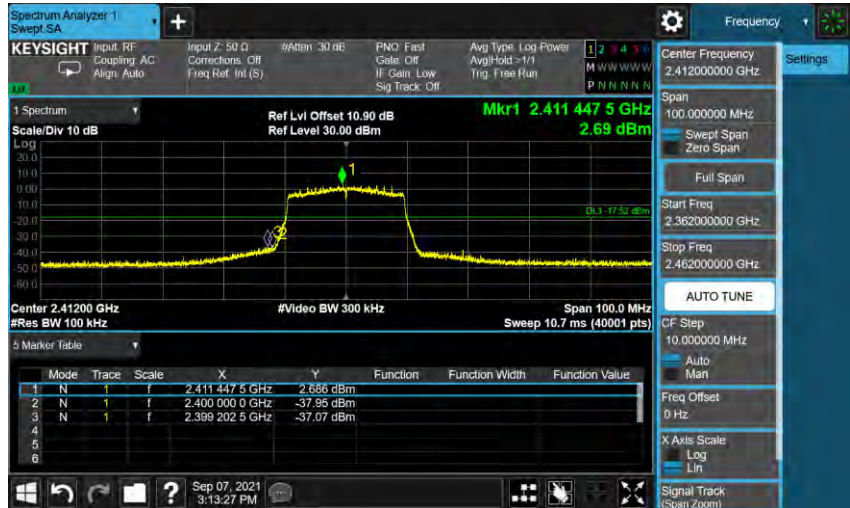


2462 MHz

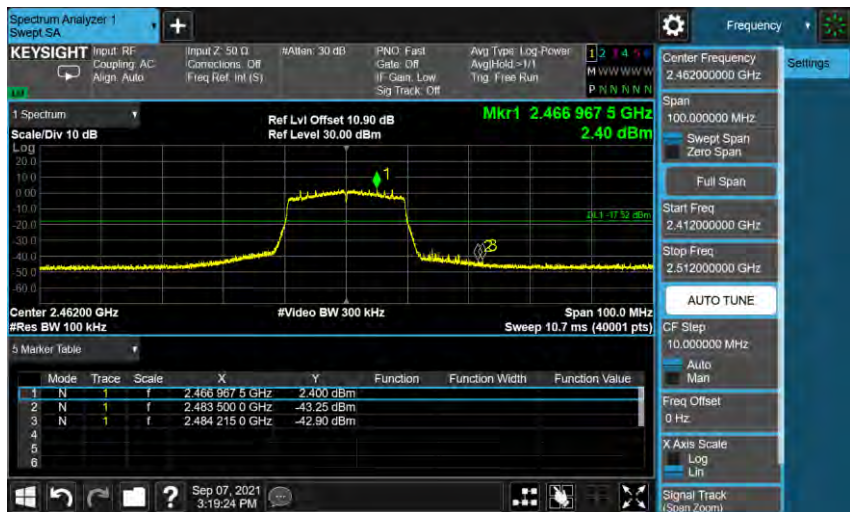


Mode 6: IEEE 802.11ax 2.4 GHz 20 MHz Continuous TX mode_ANT-1

2412 MHz



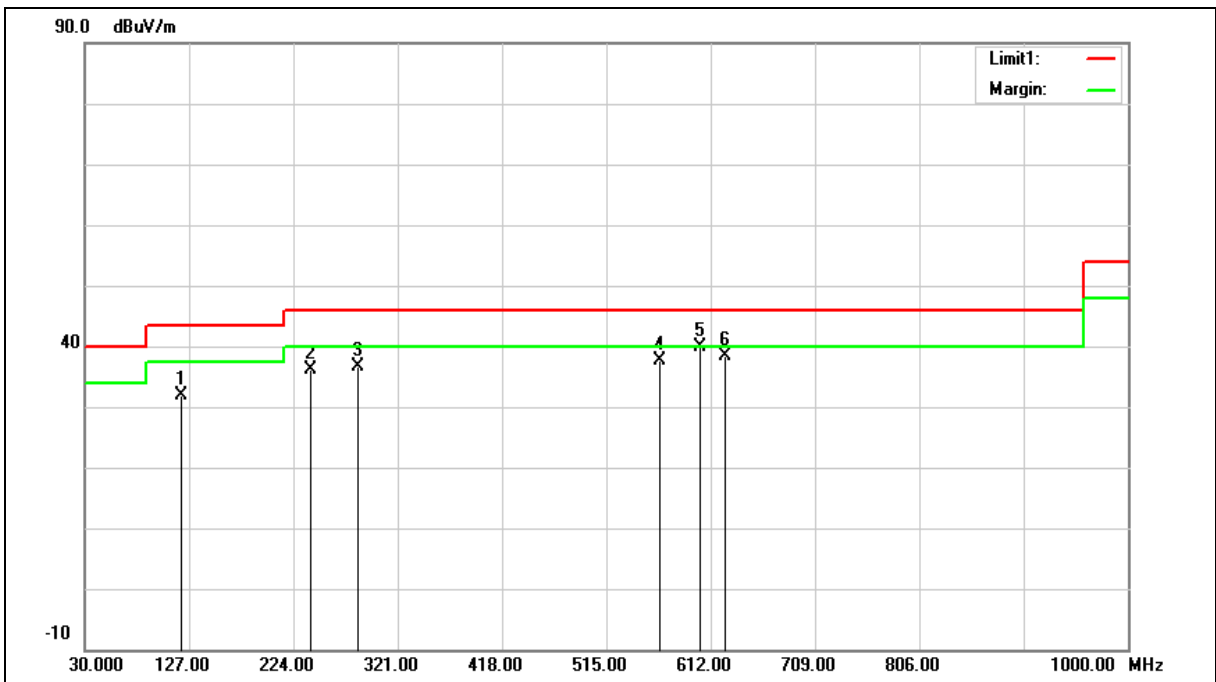
2462 MHz



Annex C. Radiated Emission Measurement

Below 1 GHz

Standard:	FCC Part 15.247	Test Distance:	3 m
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	120.2100	41.19	-9.39	31.80	43.50	-11.70	QP
2	239.5200	43.39	-7.34	36.05	46.00	-9.95	QP
3	284.1400	42.50	-5.79	36.71	46.00	-9.29	QP
4	564.4700	38.18	-0.46	37.72	46.00	-8.28	QP
5	602.3000	39.27	0.57	39.84	46.00	-6.16	QP
6	625.5800	37.56	0.84	38.40	46.00	-7.60	QP

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

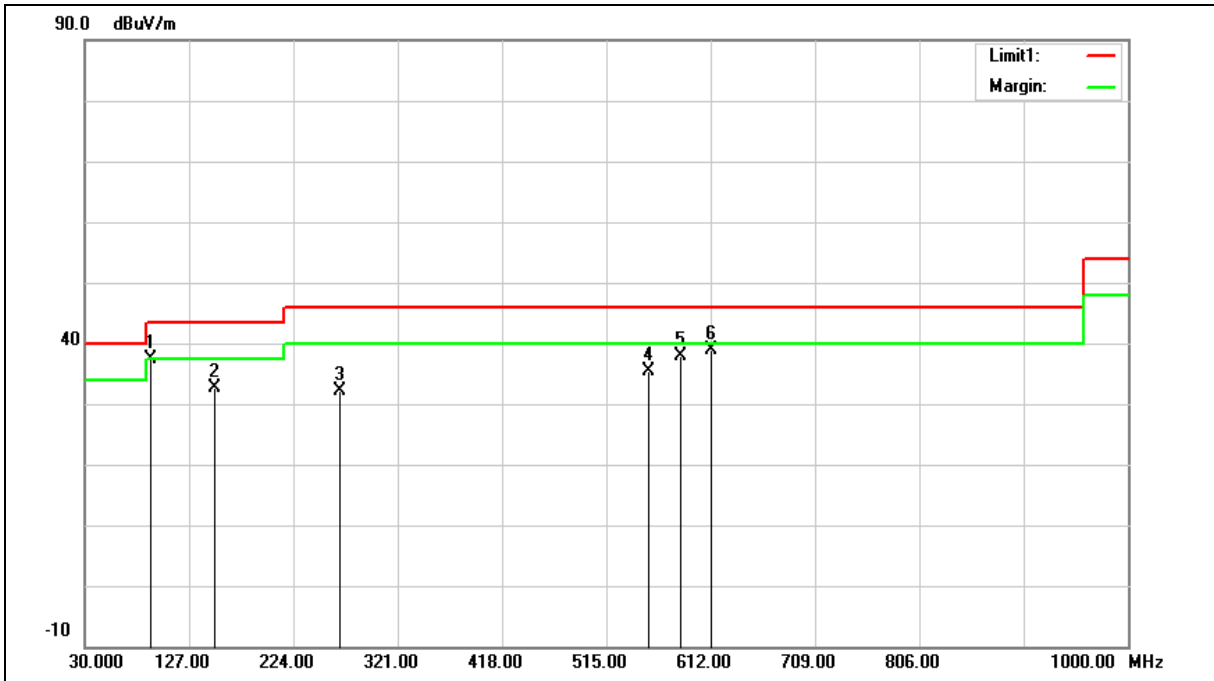
Example: $31.80 = -9.39 + 41.19$

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
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	91.1100	50.44	-12.99	37.45	43.50	-6.05	QP
2	150.2800	39.22	-6.63	32.59	43.50	-10.91	QP
3	266.6800	38.68	-6.46	32.22	46.00	-13.78	QP
4	553.8000	36.20	-0.77	35.43	46.00	-10.57	QP
5	583.8700	37.73	0.08	37.81	46.00	-8.19	QP
6	612.9700	38.23	0.69	38.92	46.00	-7.08	QP

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

Example: $37.45 = -12.99 + 50.44$

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

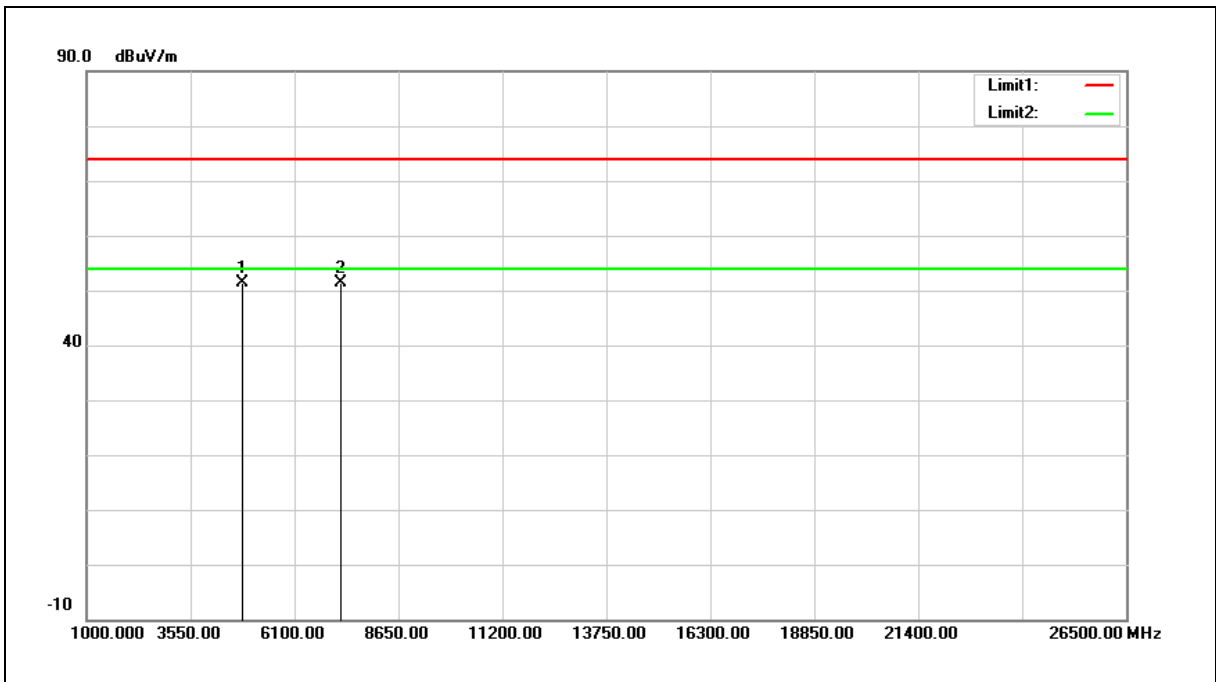
3.When the peak results are less than average limit, so not need to evaluate the average.



Harmonic

Above 1 GHz

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 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	47.60	3.84	51.44	74.00	-22.56	peak
2	7236.000	41.60	9.86	51.46	74.00	-22.54	peak

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

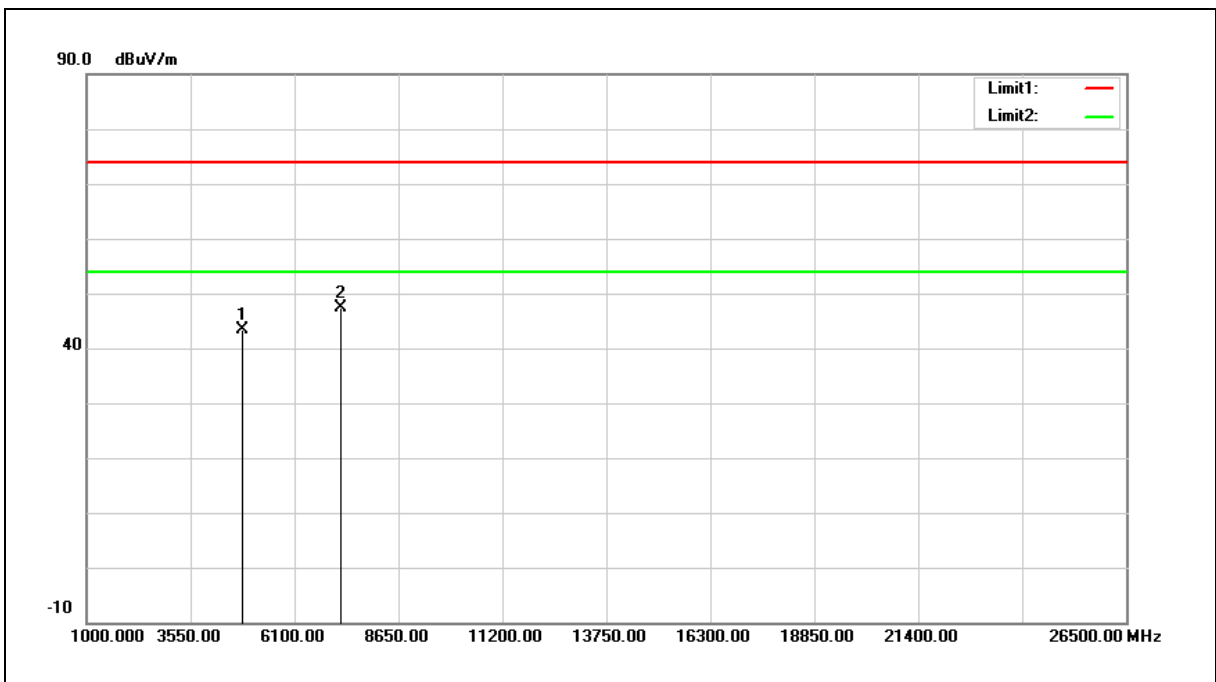
Example: 51.44 = 3.84 + 47.60

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	39.44	3.84	43.28	74.00	-30.72	peak
2	7236.000	37.49	9.86	47.35	74.00	-26.65	peak

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

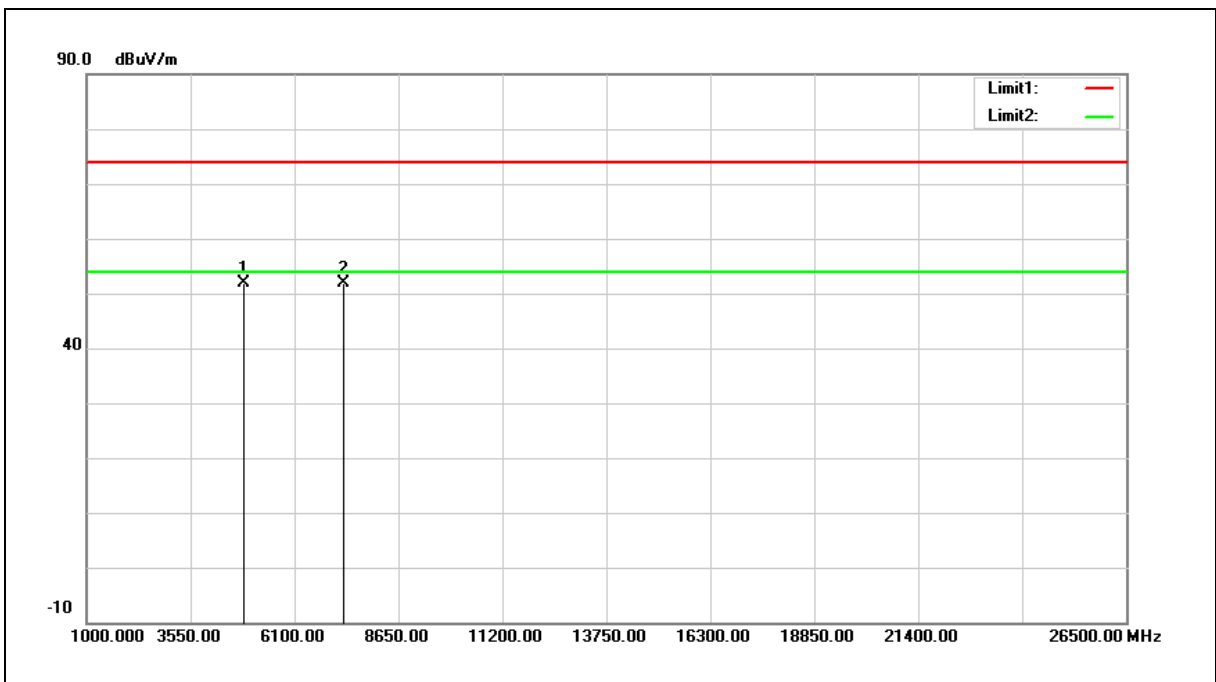
Example: $43.28 = 3.84 + 39.44$

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	47.94	4.01	51.95	74.00	-22.05	peak
2	7311.000	41.70	10.13	51.83	74.00	-22.17	peak

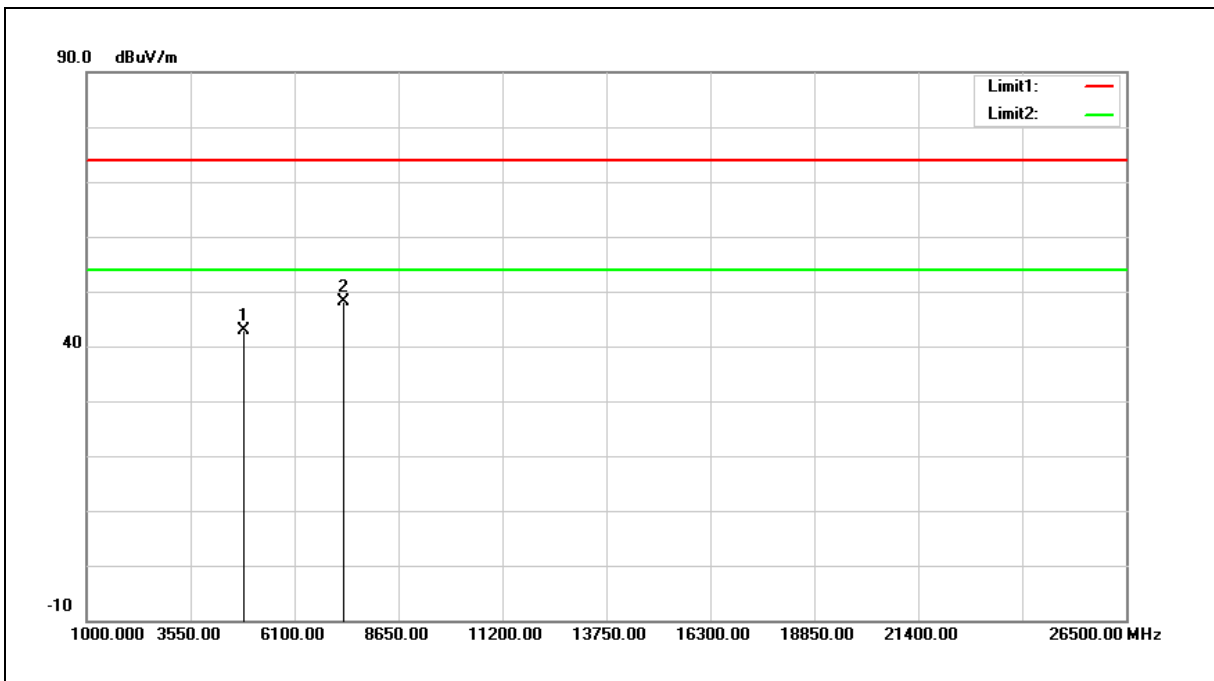
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	38.91	4.01	42.92	74.00	-31.08	peak
2	7311.000	37.95	10.13	48.08	74.00	-25.92	peak

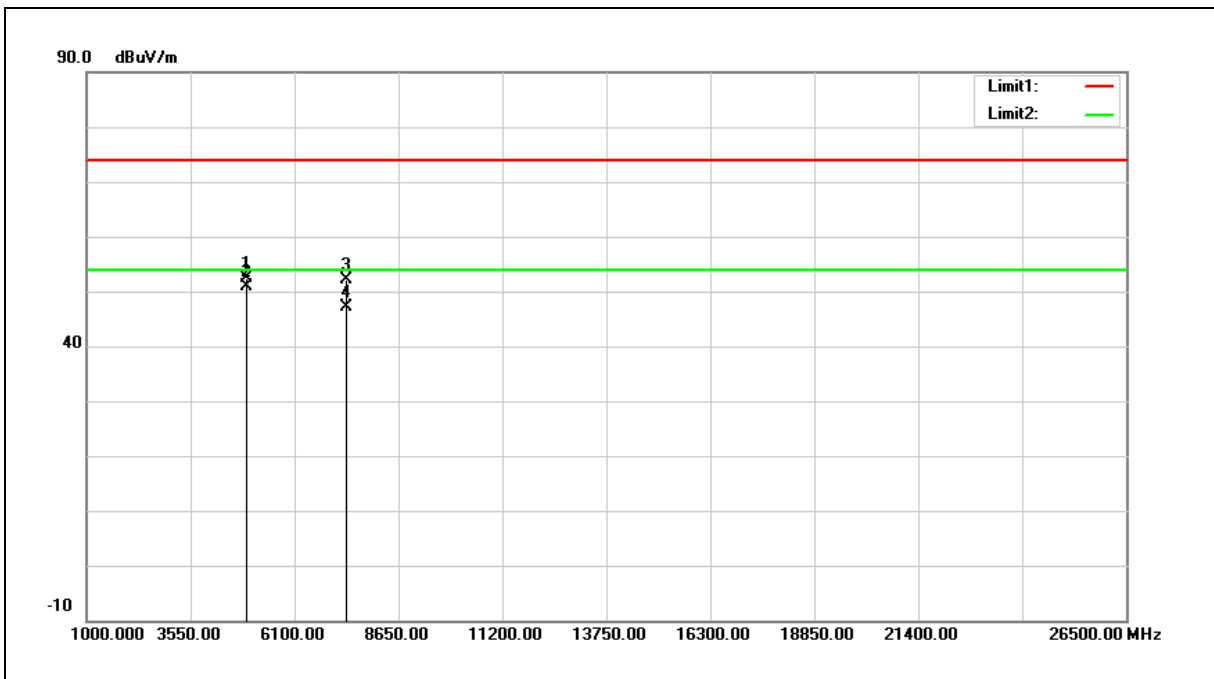
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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	48.11	4.17	52.28	74.00	-21.72	peak
2	4924.000	46.70	4.17	50.87	54.00	-3.13	AVG
3	7386.000	41.61	10.40	52.01	74.00	-21.99	peak
4	7386.000	36.73	10.40	47.13	54.00	-6.87	AVG

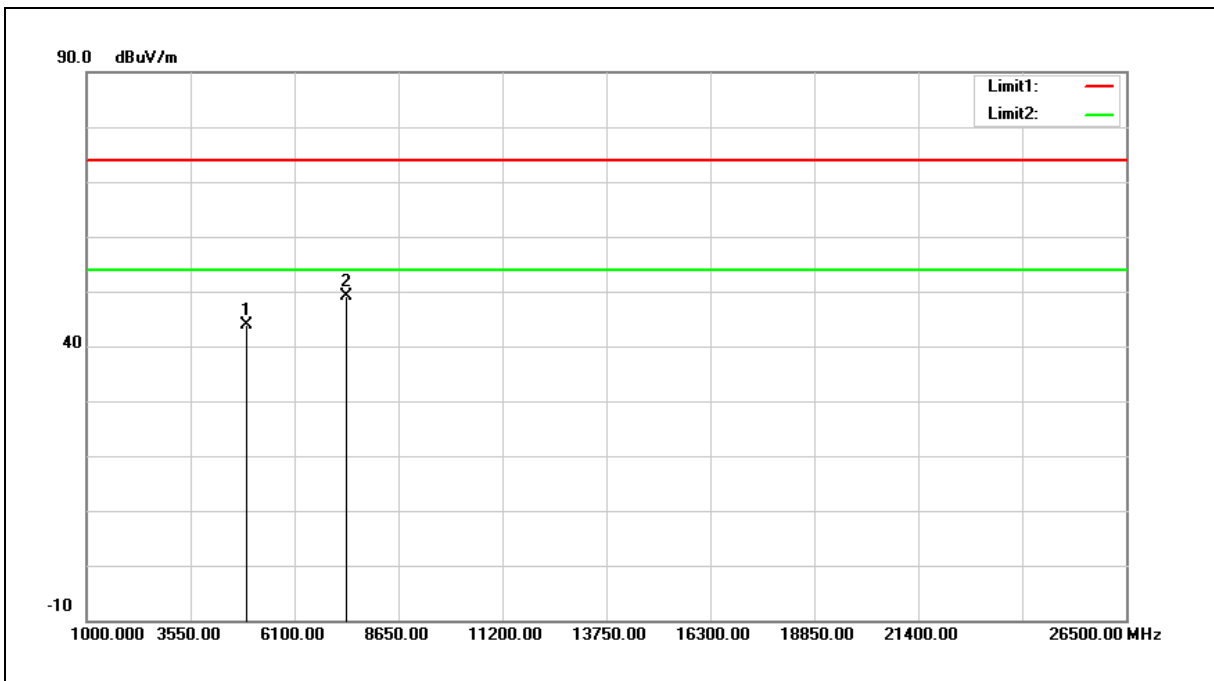
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		

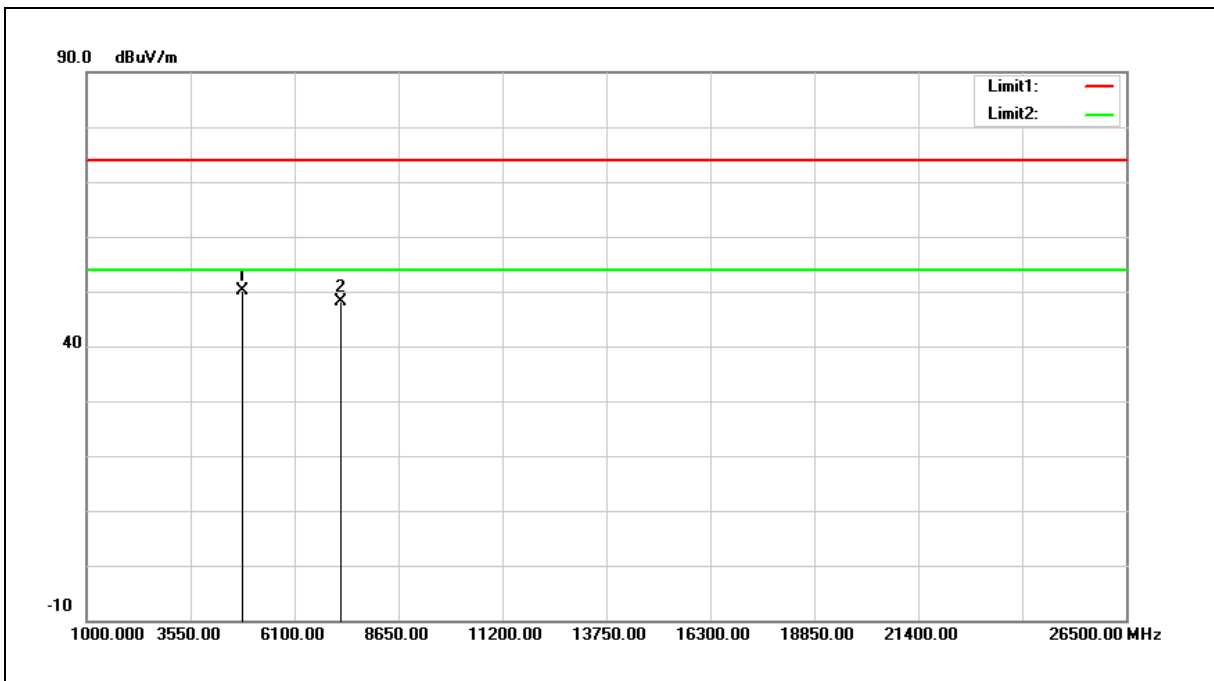


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	39.63	4.17	43.80	74.00	-30.20	peak
2	7386.000	38.67	10.40	49.07	74.00	-24.93	peak

- 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		

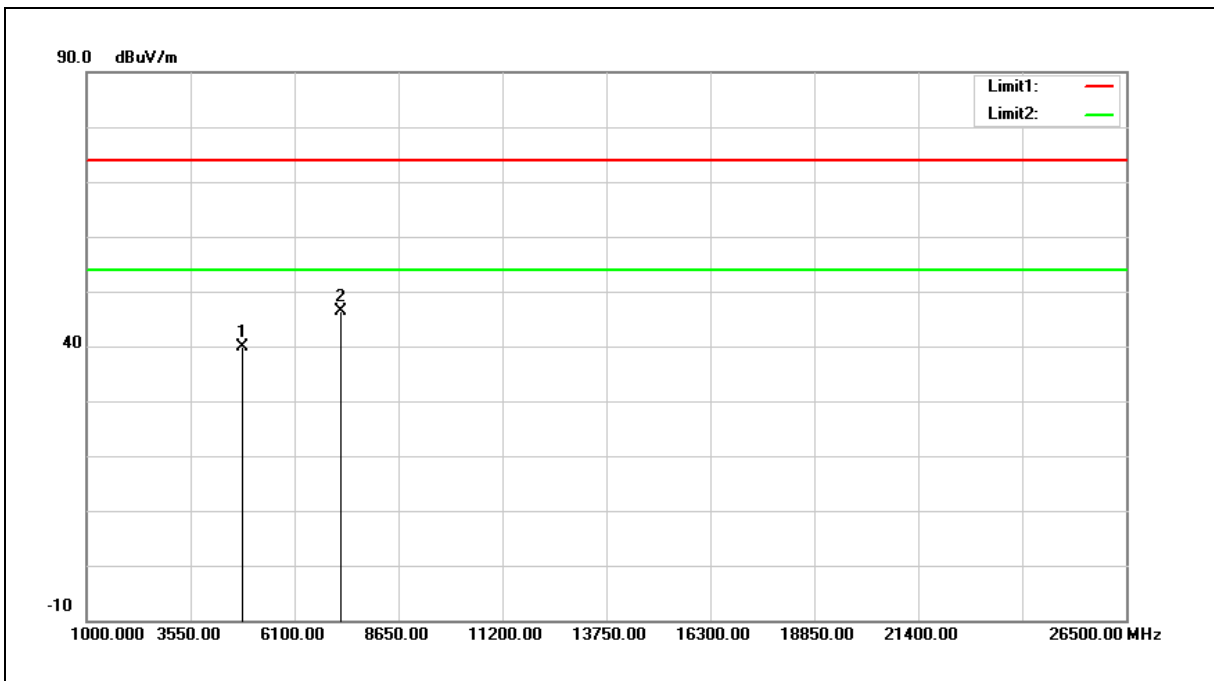


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	46.21	3.84	50.05	74.00	-23.95	peak
2	7236.000	38.27	9.86	48.13	74.00	-25.87	peak

- 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	36.11	3.84	39.95	74.00	-34.05	peak
2	7236.000	36.64	9.86	46.50	74.00	-27.50	peak

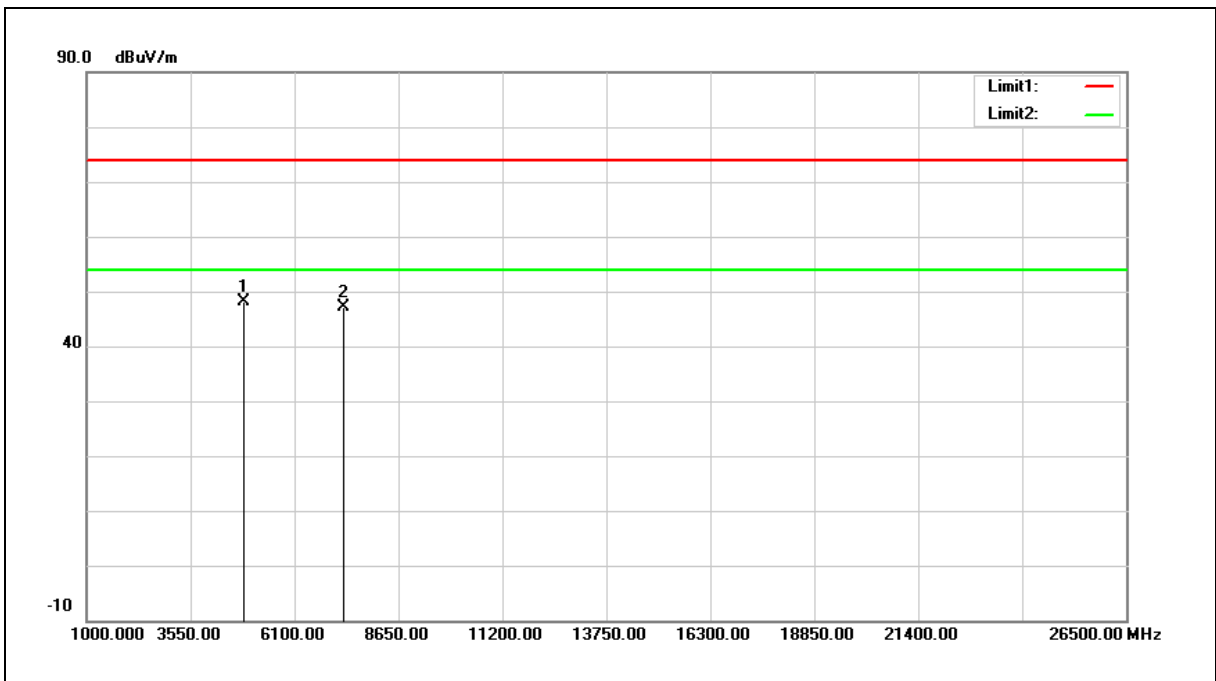
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

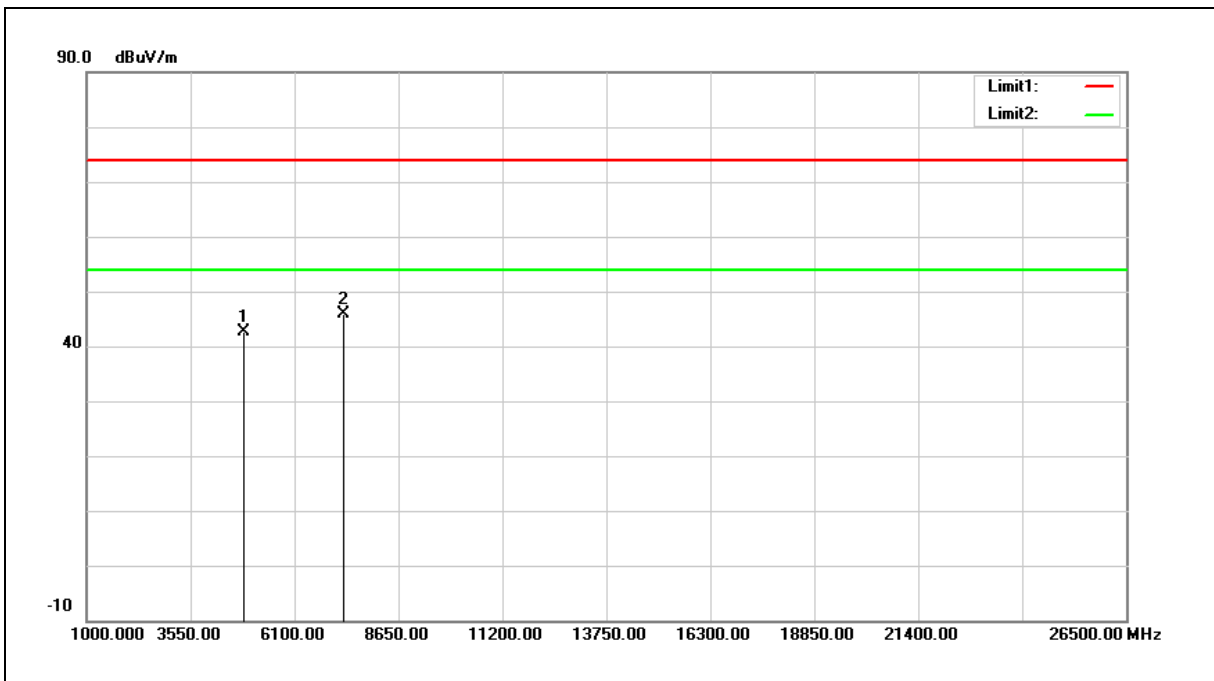


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	44.04	4.01	48.05	74.00	-25.95	peak
2	7311.000	37.08	10.13	47.21	74.00	-26.79	peak

- 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		

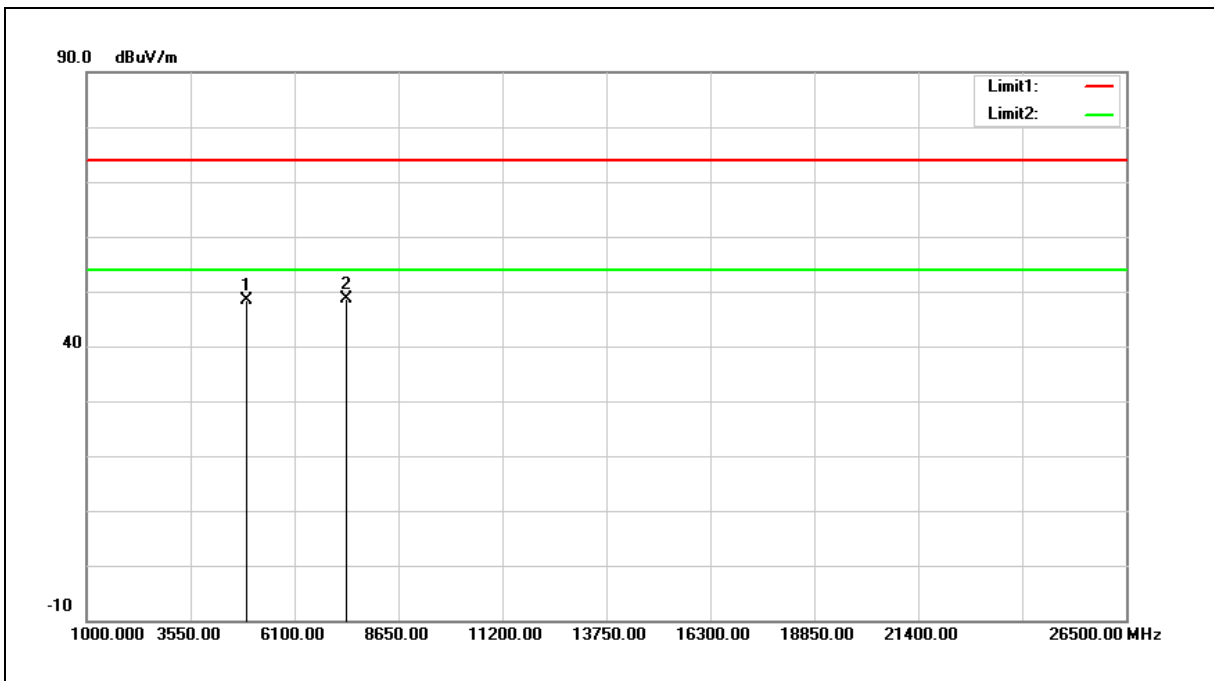


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	38.58	4.01	42.59	74.00	-31.41	peak
2	7311.000	35.85	10.13	45.98	74.00	-28.02	peak

- 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		

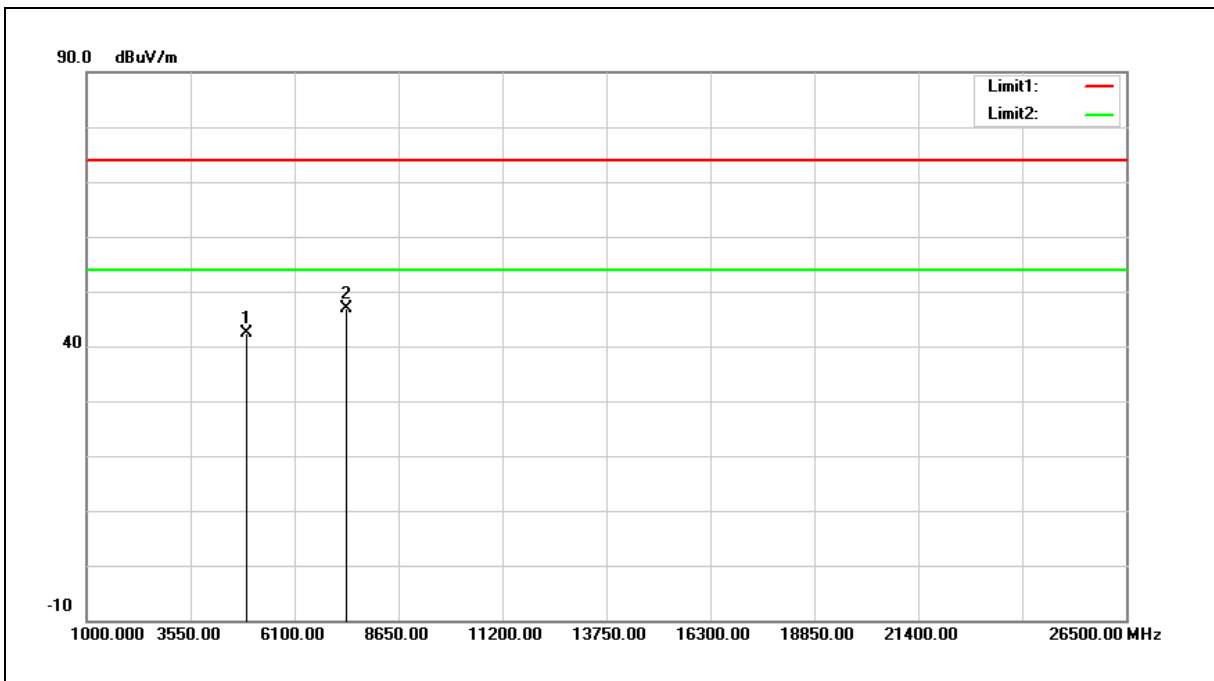


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	44.28	4.17	48.45	74.00	-25.55	peak
2	7386.000	38.22	10.40	48.62	74.00	-25.38	peak

- 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	38.16	4.17	42.33	74.00	-31.67	peak
2	7386.000	36.53	10.40	46.93	74.00	-27.07	peak

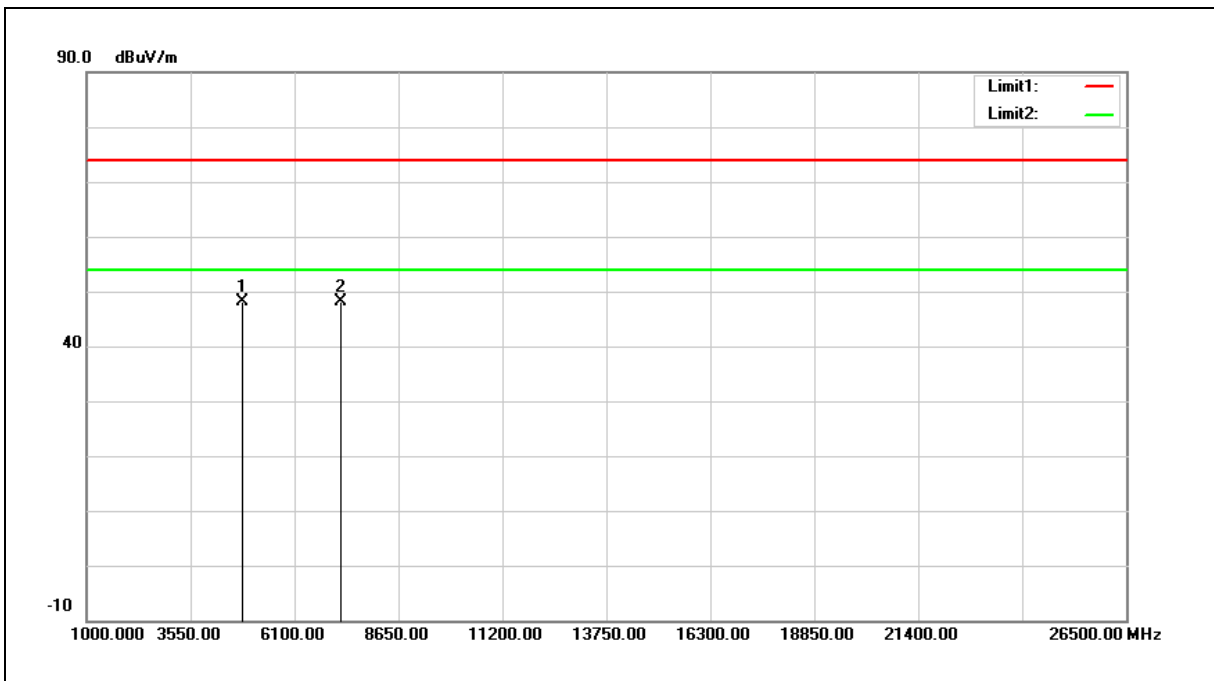
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 6		
Ant.Polar.:	Horizontal		

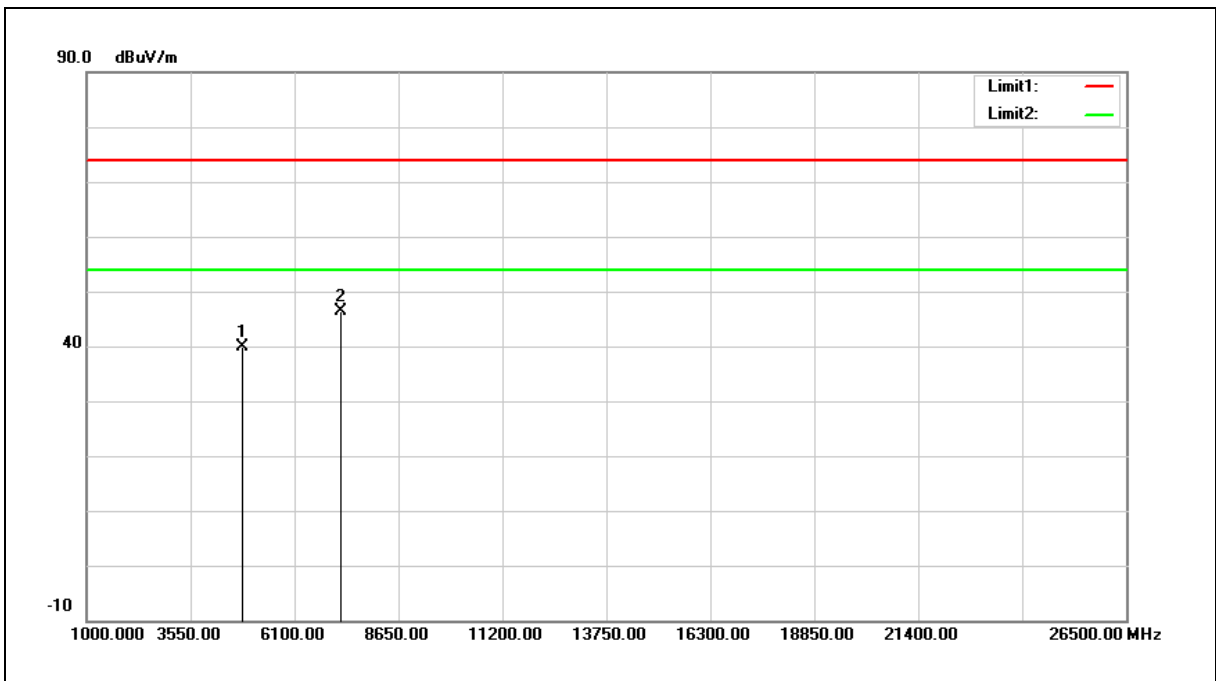


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	44.29	3.84	48.13	74.00	-25.87	peak
2	7236.000	38.29	9.86	48.15	74.00	-25.85	peak

- 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:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 6		
Ant.Polar.:	Vertical		

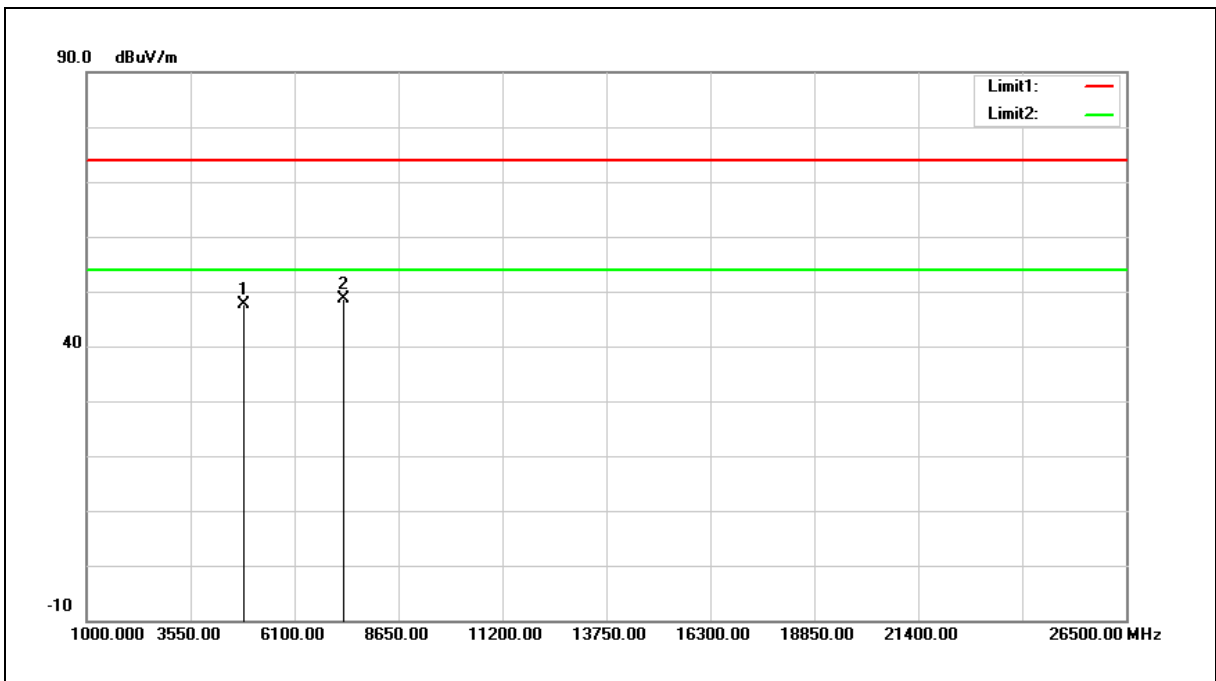


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	35.97	3.84	39.81	74.00	-34.19	peak
2	7236.000	36.46	9.86	46.32	74.00	-27.68	peak

- 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 6		
Ant.Polar.:	Horizontal		

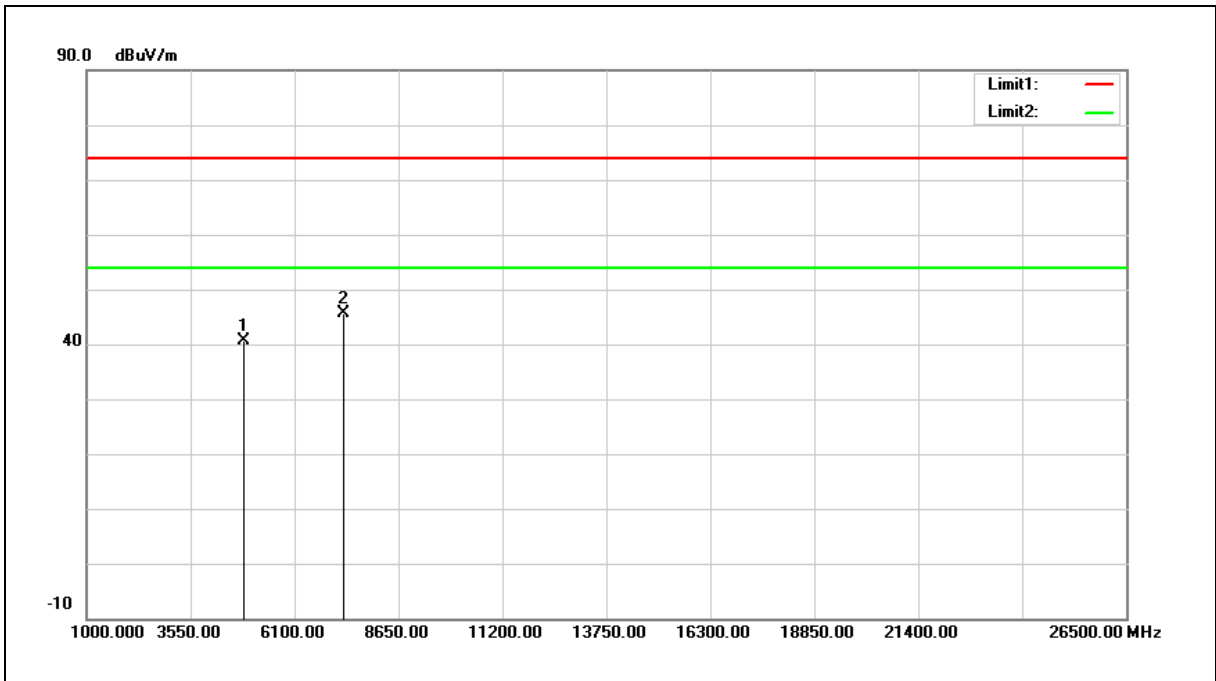


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	43.50	4.01	47.51	74.00	-26.49	peak
2	7311.000	38.42	10.13	48.55	74.00	-25.45	peak

- 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 6		
Ant.Polar.:	Vertical		

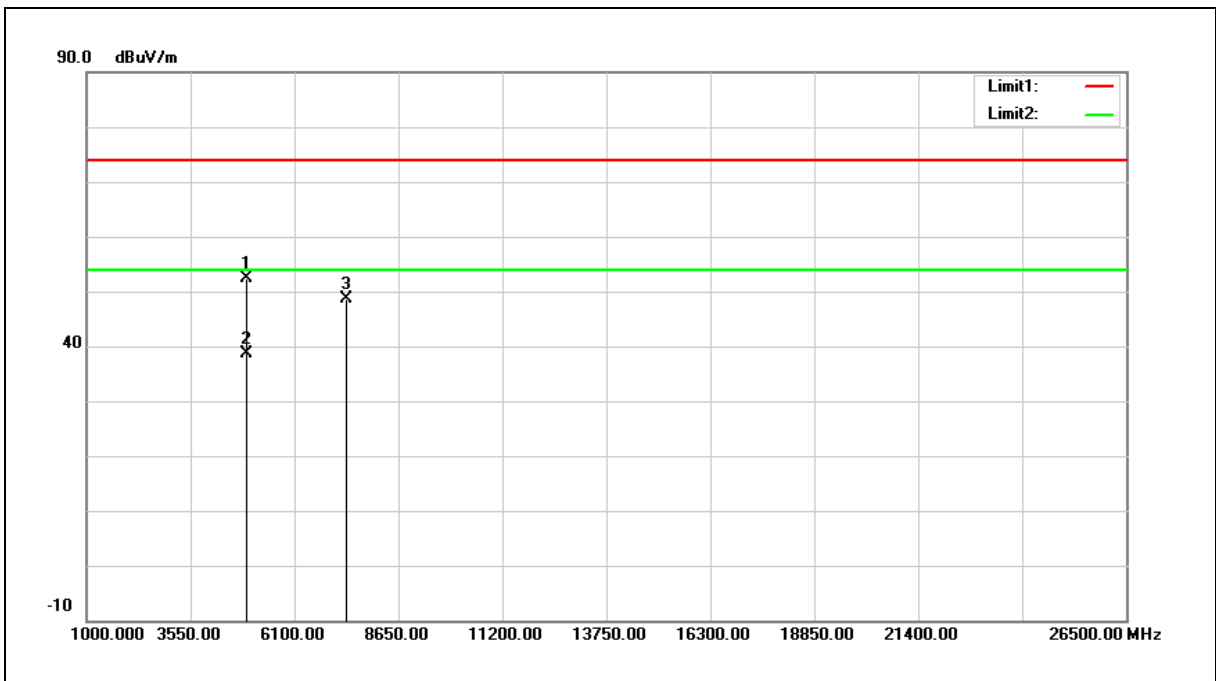


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	36.74	4.01	40.75	74.00	-33.25	peak
2	7311.000	35.59	10.13	45.72	74.00	-28.28	peak

- 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 6		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	48.23	4.17	52.40	74.00	-21.60	peak
2	4924.000	34.40	4.17	38.57	54.00	-15.43	AVG
3	7386.000	38.20	10.40	48.60	74.00	-25.40	peak

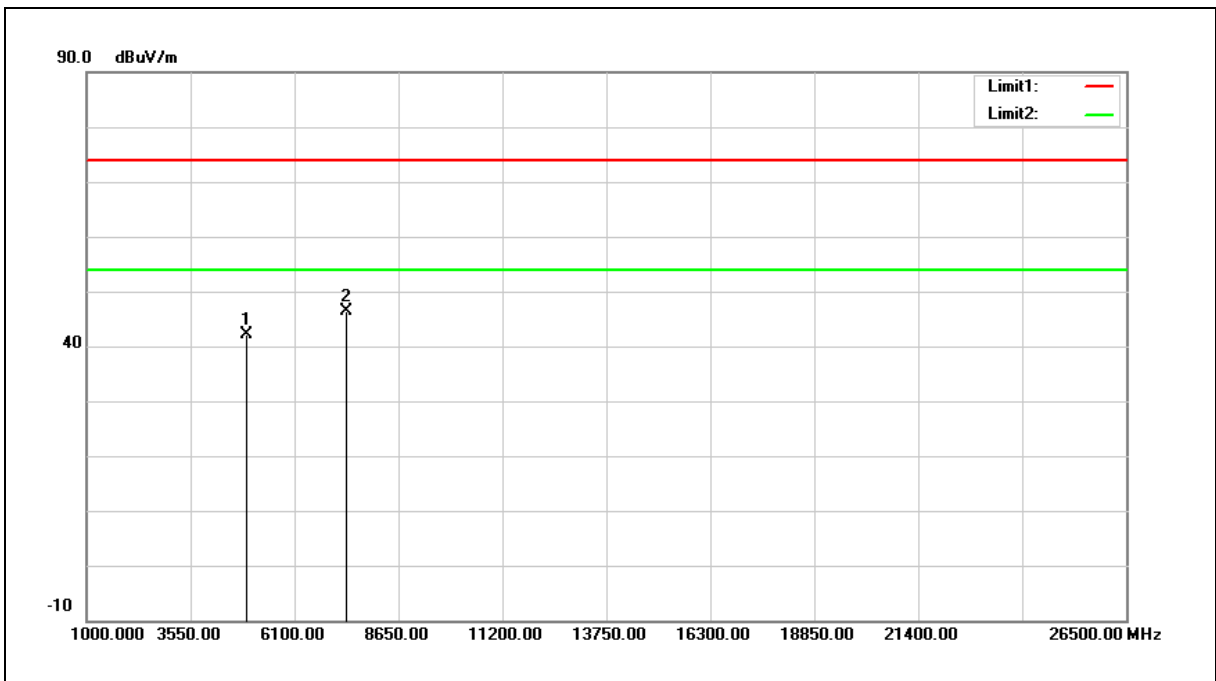
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	37.92	4.17	42.09	74.00	-31.91	peak
2	7386.000	36.00	10.40	46.40	74.00	-27.60	peak

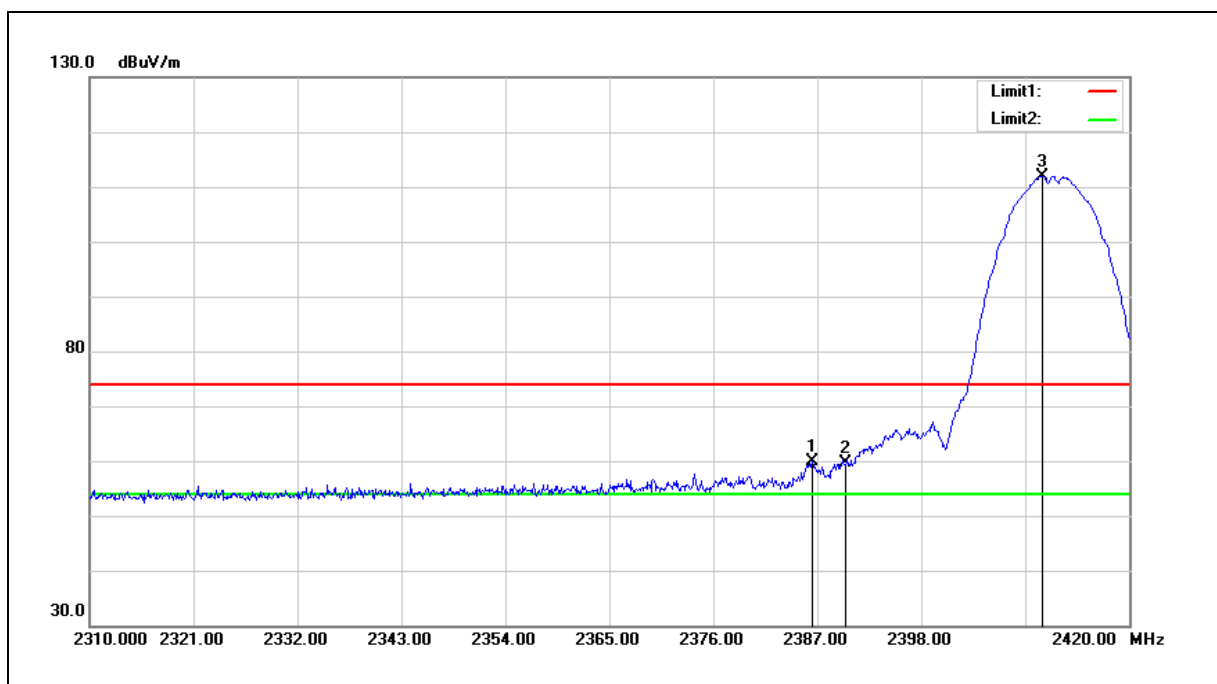
- Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).
 2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).
 3.When the peak results are less than average limit, so not need to evaluate the average.



Band Edge

Peak

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	2386.450	62.09	-2.30	59.79	74.00	-14.21	peak
2	2390.000	62.00	-2.28	59.72	74.00	-14.28	peak
3	2410.760	114.10	-2.20	111.90	--	--	peak

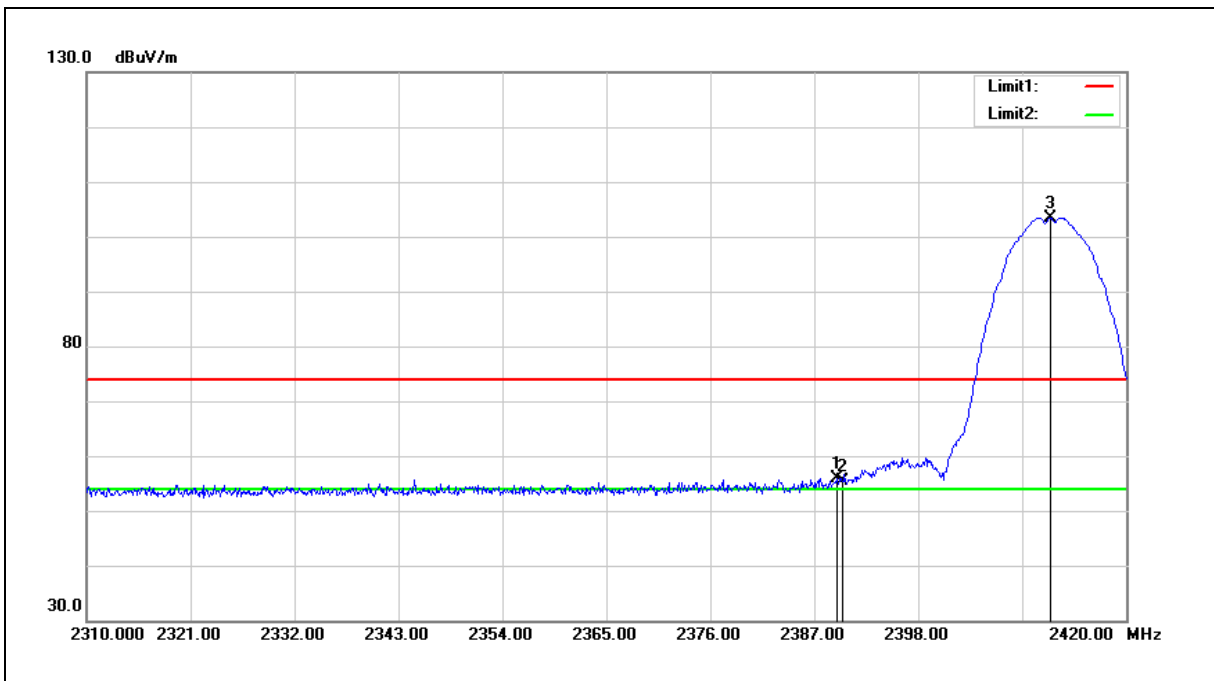
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 2		
Ant.Polar.:	Vertical		



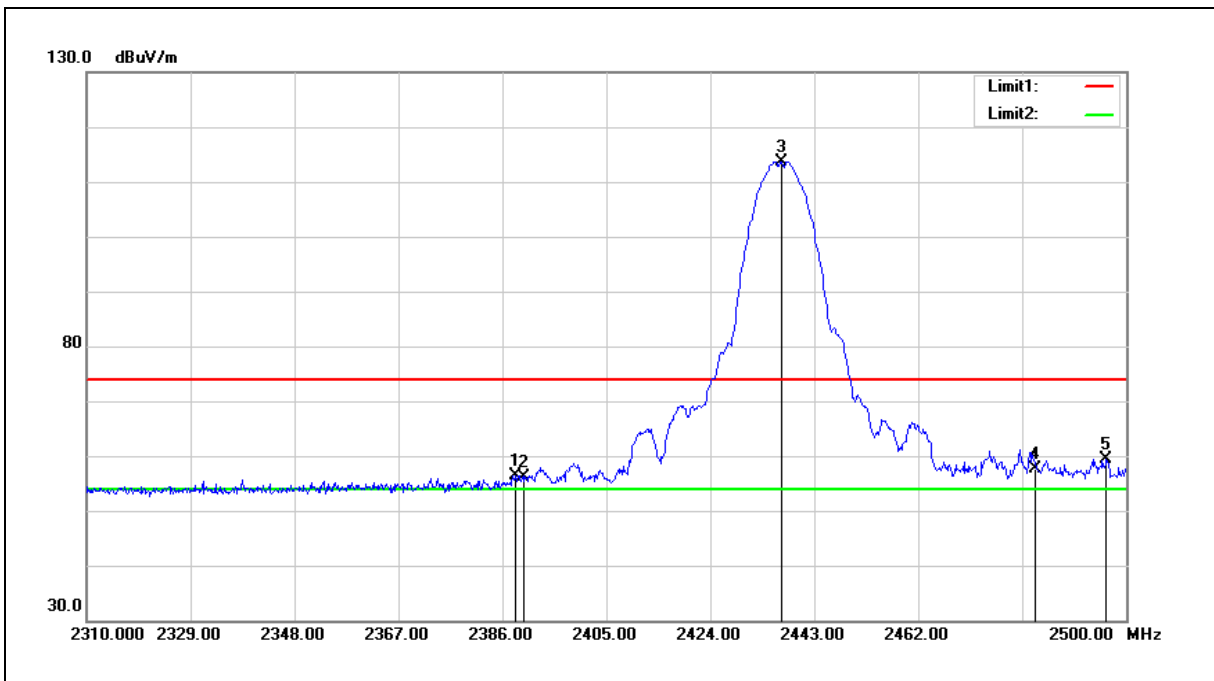
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.420	58.14	-2.28	55.86	74.00	-18.14	peak
2	2390.000	57.70	-2.28	55.42	74.00	-18.58	peak
3	2411.970	105.66	-2.20	103.46	--	--	peak

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:	2437 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



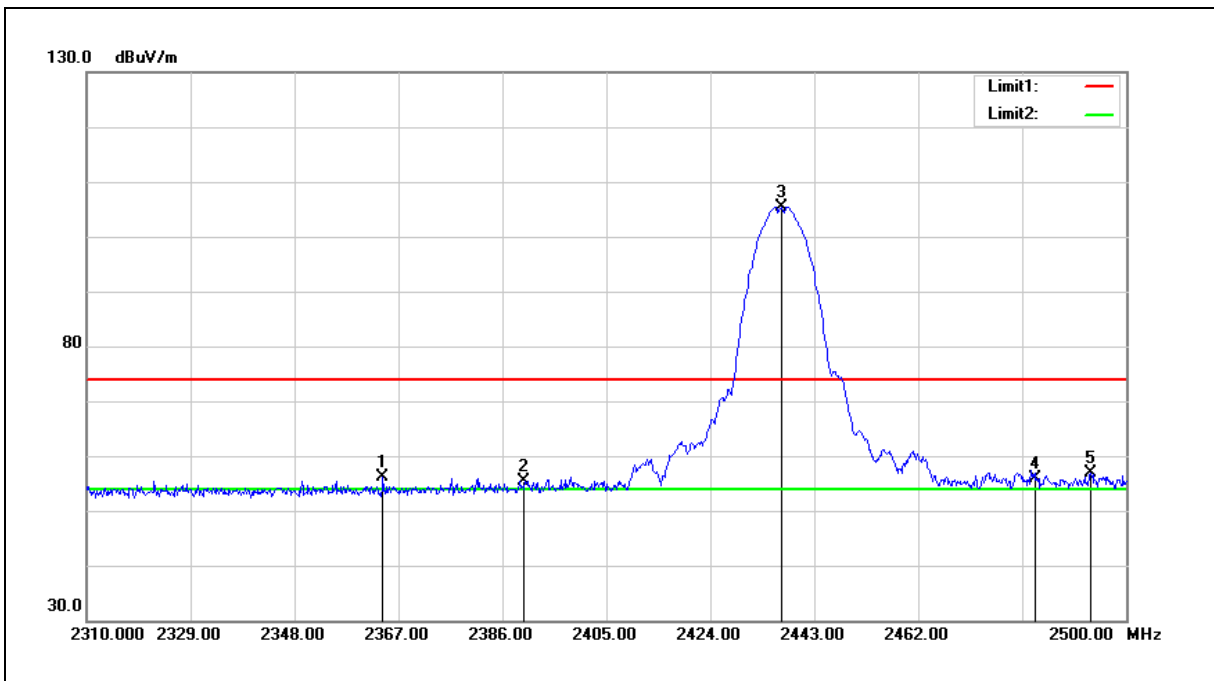
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.470	58.75	-2.28	56.47	74.00	-17.53	peak
2	2390.000	58.52	-2.28	56.24	74.00	-17.76	peak
3	2436.920	115.84	-2.11	113.73	--	--	peak
4	2483.500	59.67	-1.94	57.73	74.00	-16.27	peak
5	2496.390	61.28	-1.88	59.40	74.00	-14.60	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:	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	2364.150	58.55	-2.38	56.17	74.00	-17.83	peak
2	2390.000	57.60	-2.28	55.32	74.00	-18.68	peak
3	2436.920	107.53	-2.11	105.42	--	--	peak
4	2483.500	57.85	-1.94	55.91	74.00	-18.09	peak
5	2493.540	58.81	-1.90	56.91	74.00	-17.09	peak

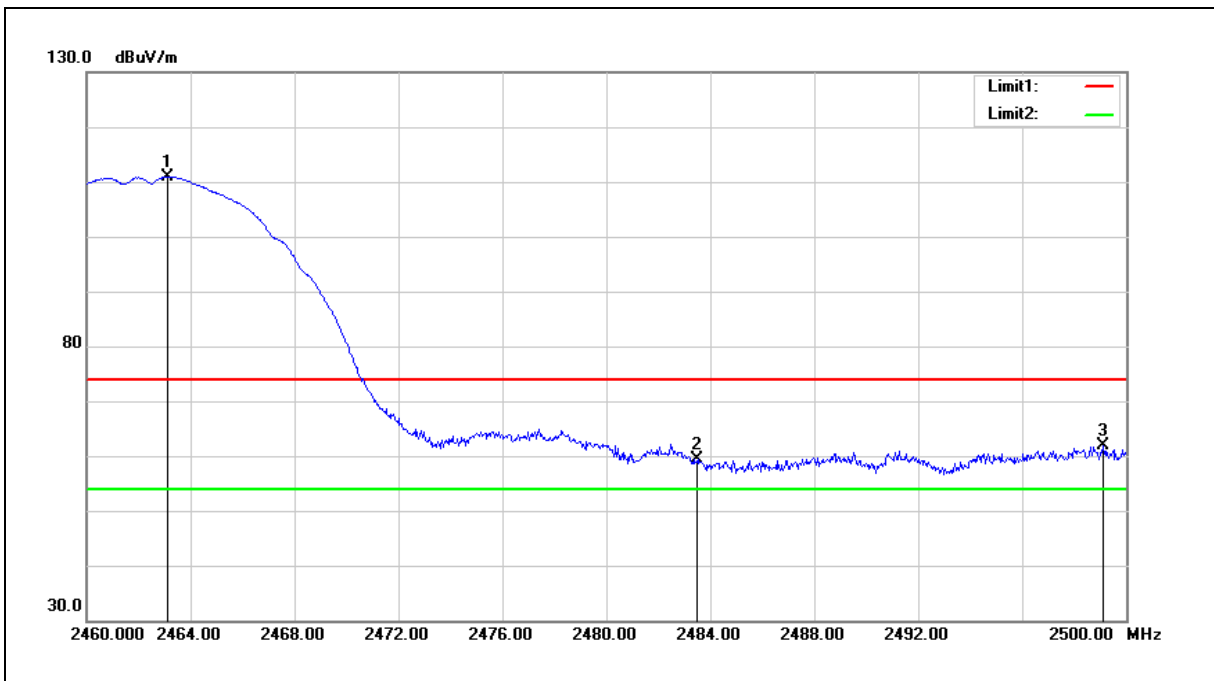
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.120	112.96	-2.00	110.96	--	--	peak
2	2483.500	61.43	-1.94	59.49	74.00	-14.51	peak
3	2499.120	63.85	-1.87	61.98	74.00	-12.02	peak

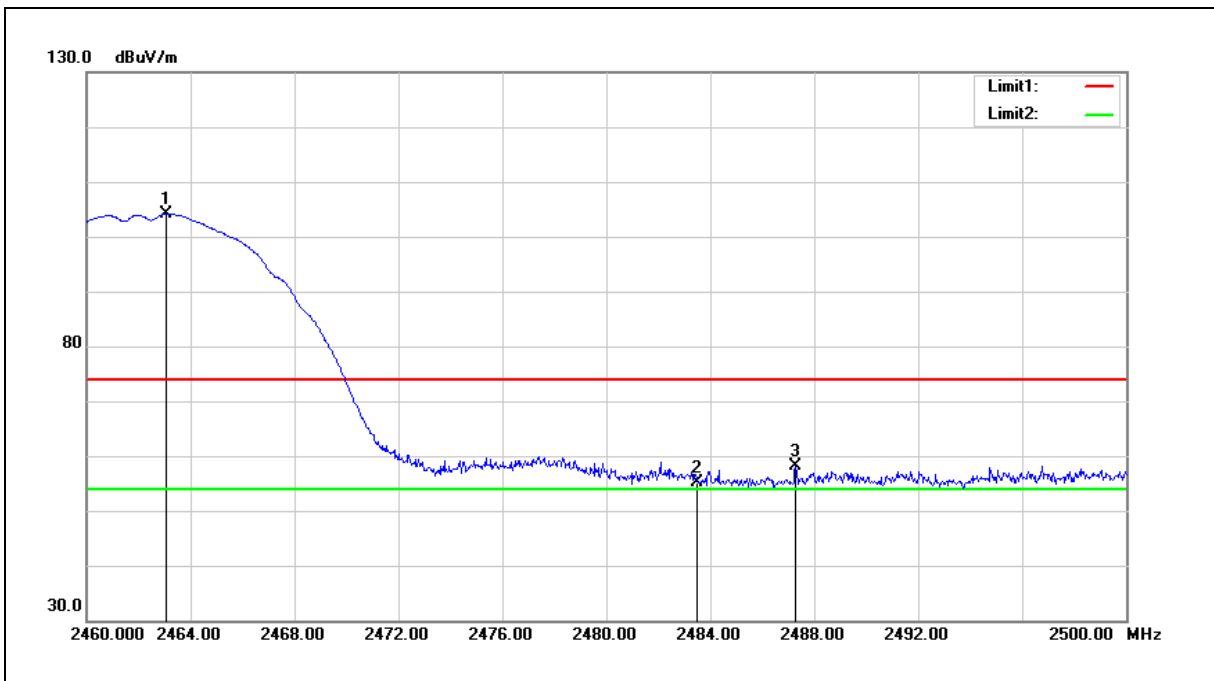
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.040	106.15	-2.00	104.15	--	--	peak
2	2483.500	57.17	-1.94	55.23	74.00	-18.77	peak
3	2487.280	60.07	-1.92	58.15	74.00	-15.85	peak

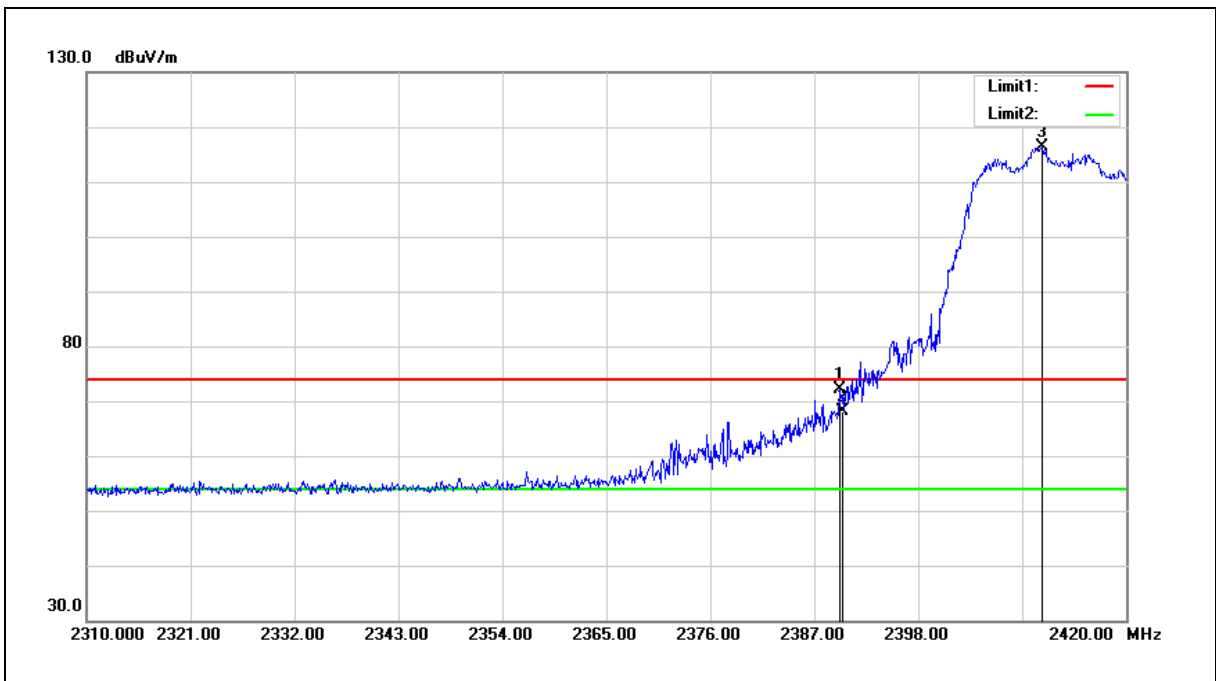
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	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	2389.750	74.41	-2.28	72.13	74.00	-1.87	peak
2	2390.000	70.52	-2.28	68.24	74.00	-5.76	peak
3	2411.090	118.68	-2.20	116.48	--	--	peak

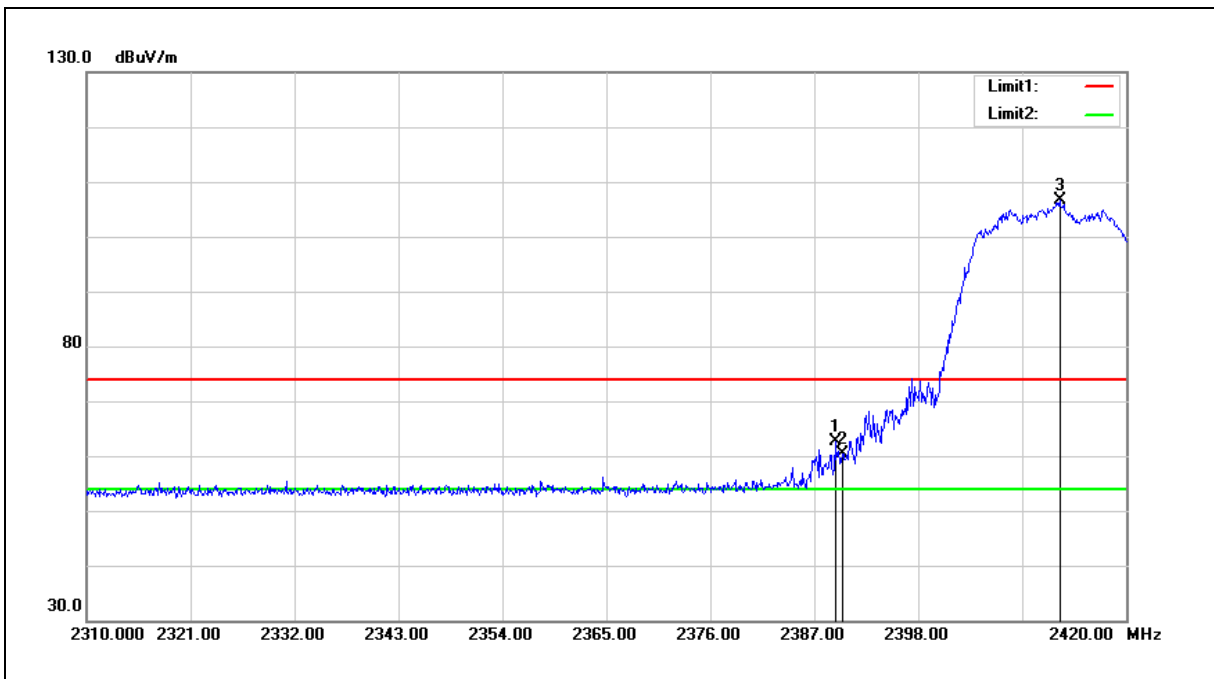
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	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	2389.200	64.84	-2.28	62.56	74.00	-11.44	peak
2	2390.000	62.75	-2.28	60.47	74.00	-13.53	peak
3	2412.960	108.76	-2.19	106.57	--	--	peak

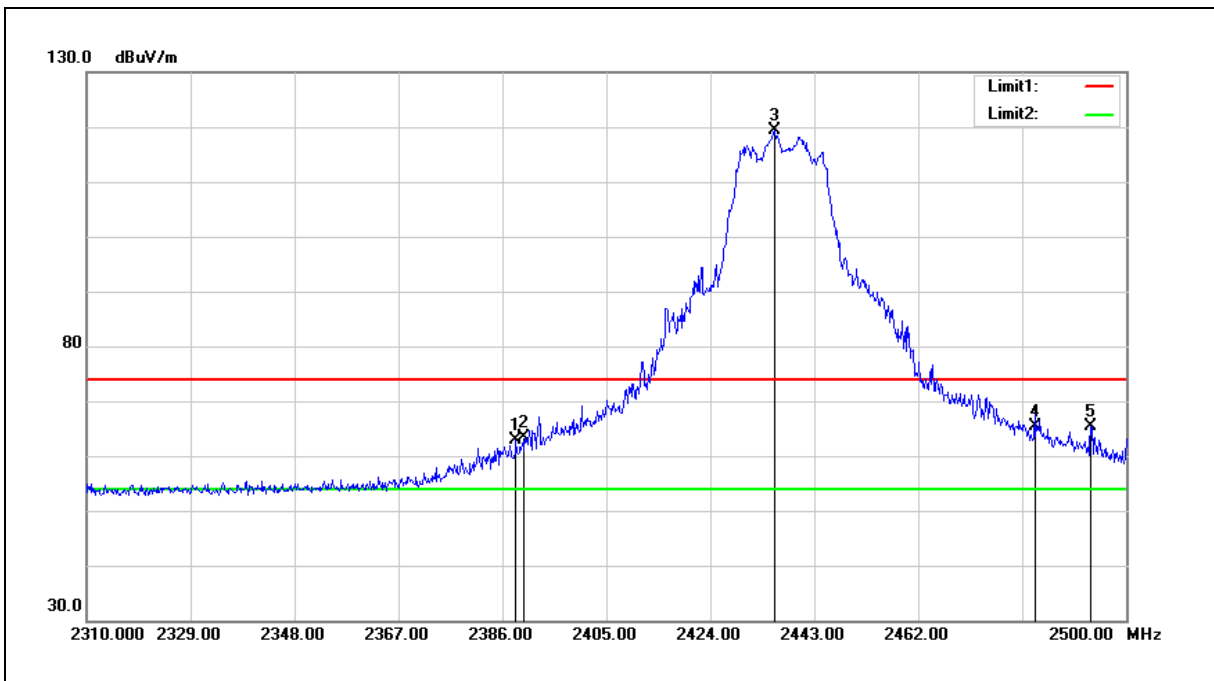
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Band edge		
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	2388.470	65.09	-2.28	62.81	74.00	-11.19	peak
2	2390.000	65.66	-2.28	63.38	74.00	-10.62	peak
3	2435.780	121.56	-2.11	119.45	--	--	peak
4	2483.500	67.44	-1.94	65.50	74.00	-8.50	peak
5	2493.540	67.19	-1.90	65.29	74.00	-8.71	peak

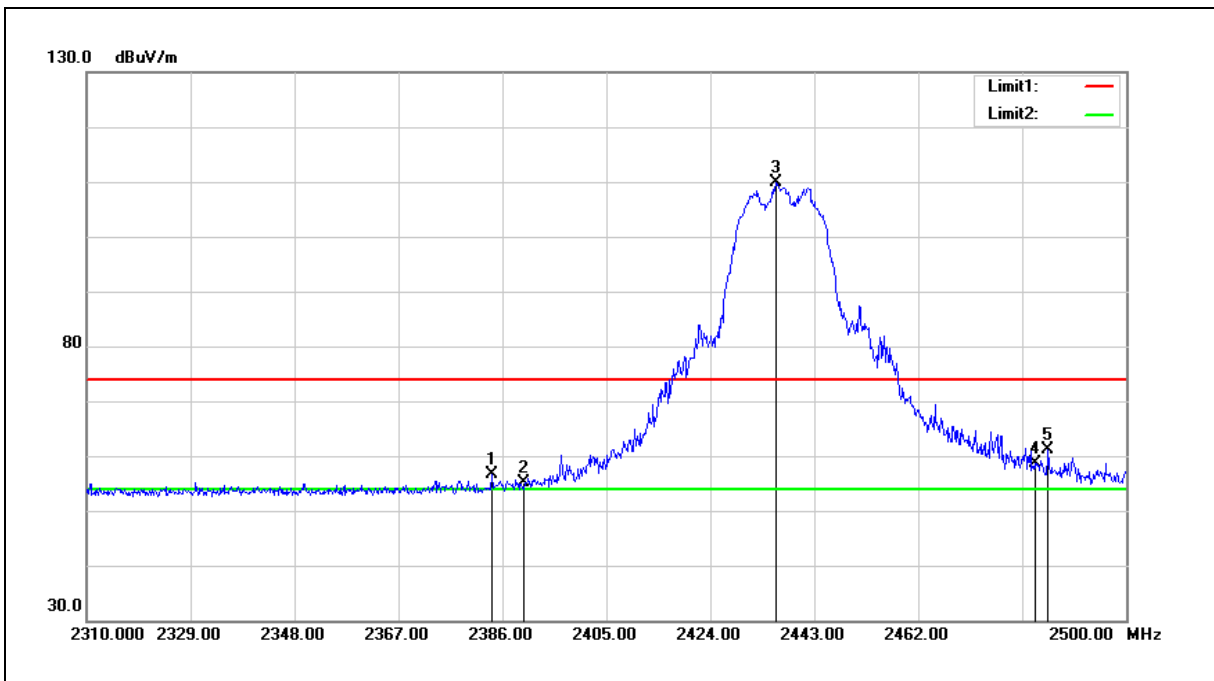
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	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	2384.100	58.88	-2.30	56.58	74.00	-17.42	peak
2	2390.000	57.42	-2.28	55.14	74.00	-18.86	peak
3	2435.970	111.95	-2.11	109.84	--	--	peak
4	2483.500	60.54	-1.94	58.60	74.00	-15.40	peak
5	2485.750	62.96	-1.92	61.04	74.00	-12.96	peak

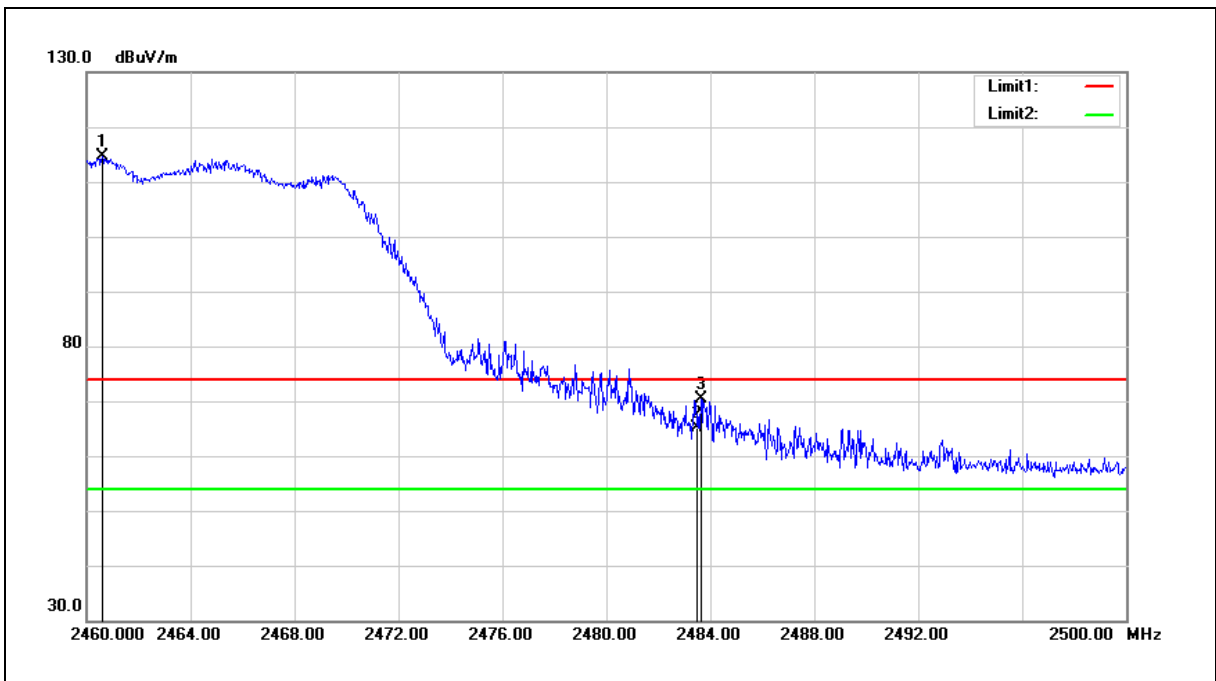
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.600	116.54	-2.02	114.52	--	--	peak
2	2483.500	67.08	-1.94	65.14	74.00	-8.86	peak
3	2483.640	72.36	-1.94	70.42	74.00	-3.58	peak

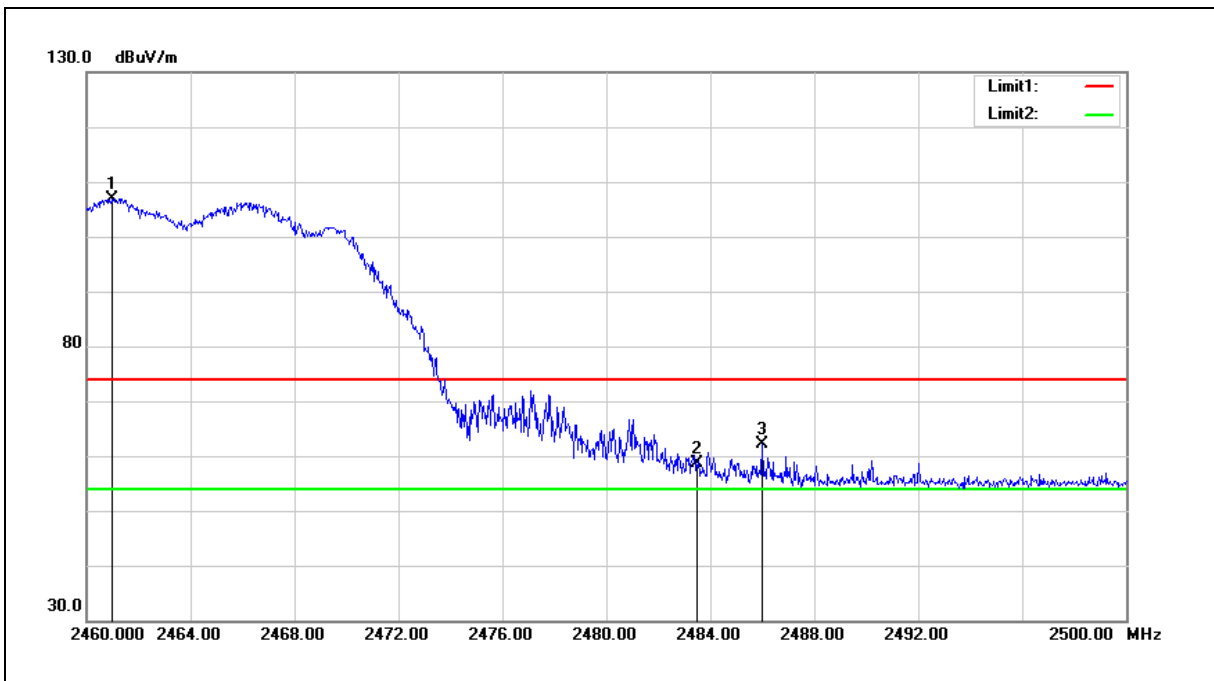
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	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	2460.960	108.93	-2.02	106.91	--	--	peak
2	2483.500	60.55	-1.94	58.61	74.00	-15.39	peak
3	2486.000	63.98	-1.92	62.06	74.00	-11.94	peak

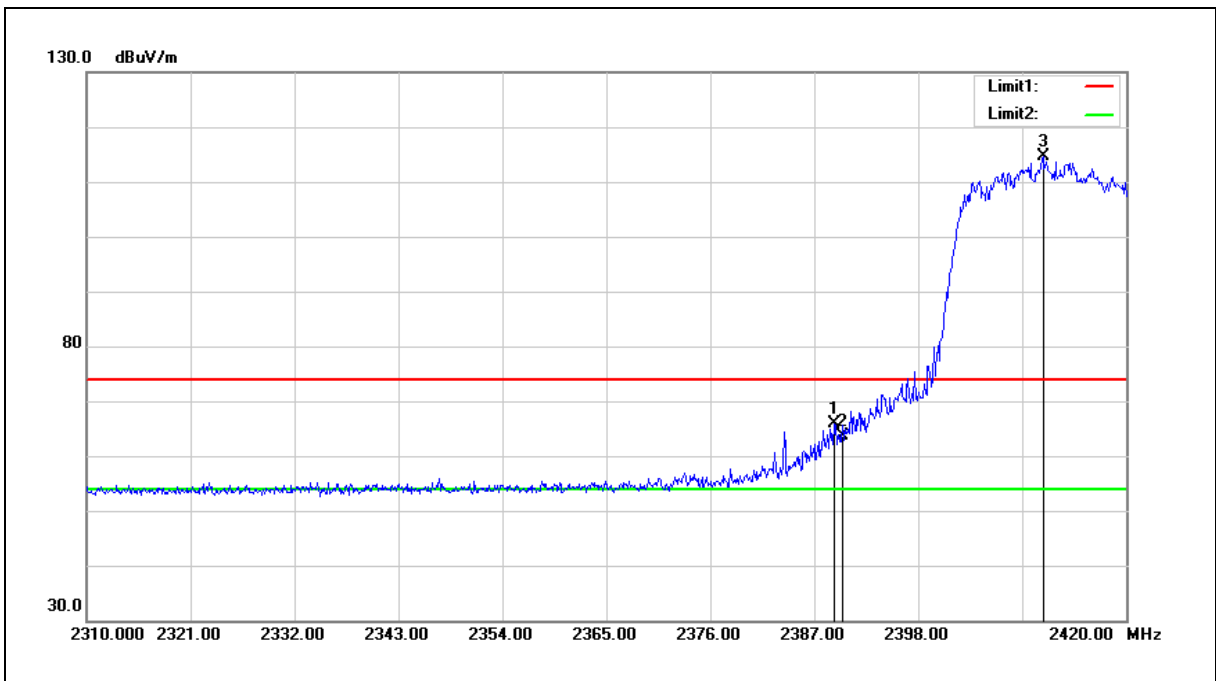
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 6		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.090	68.10	-2.28	65.82	74.00	-8.18	peak
2	2390.000	65.93	-2.28	63.65	74.00	-10.35	peak
3	2411.200	116.76	-2.20	114.56	--	--	peak

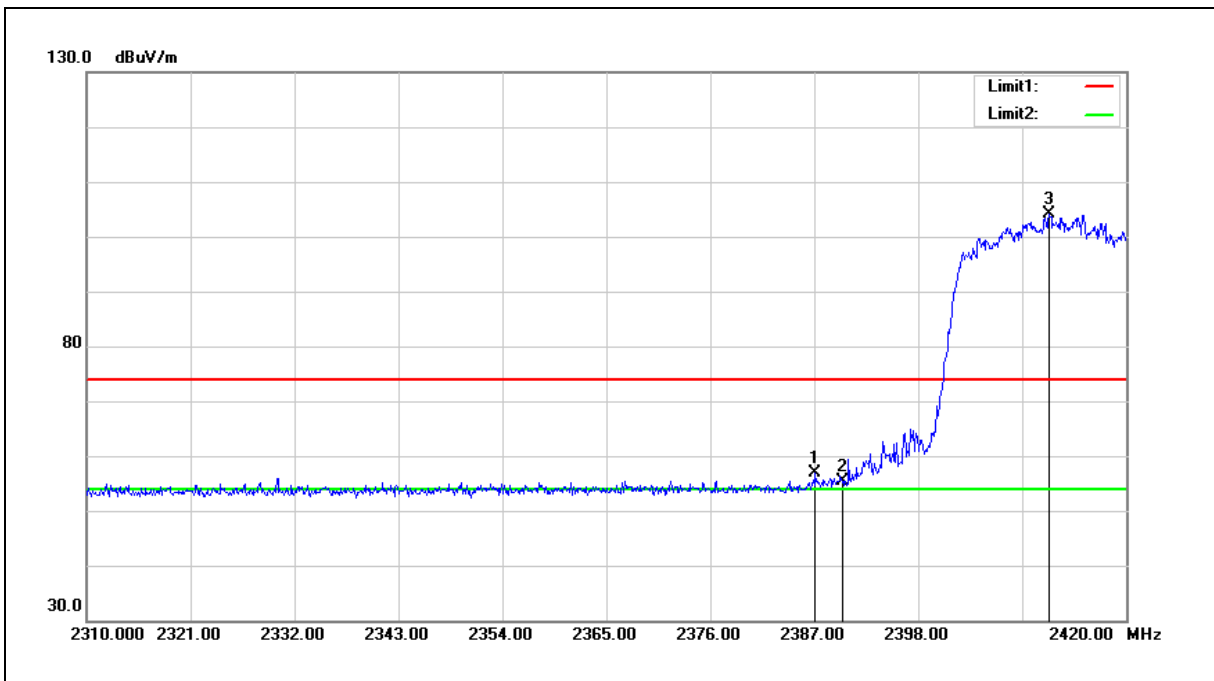
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.110	59.15	-2.30	56.85	74.00	-17.15	peak
2	2390.000	57.77	-2.28	55.49	74.00	-18.51	peak
3	2411.860	106.25	-2.20	104.05	--	--	peak

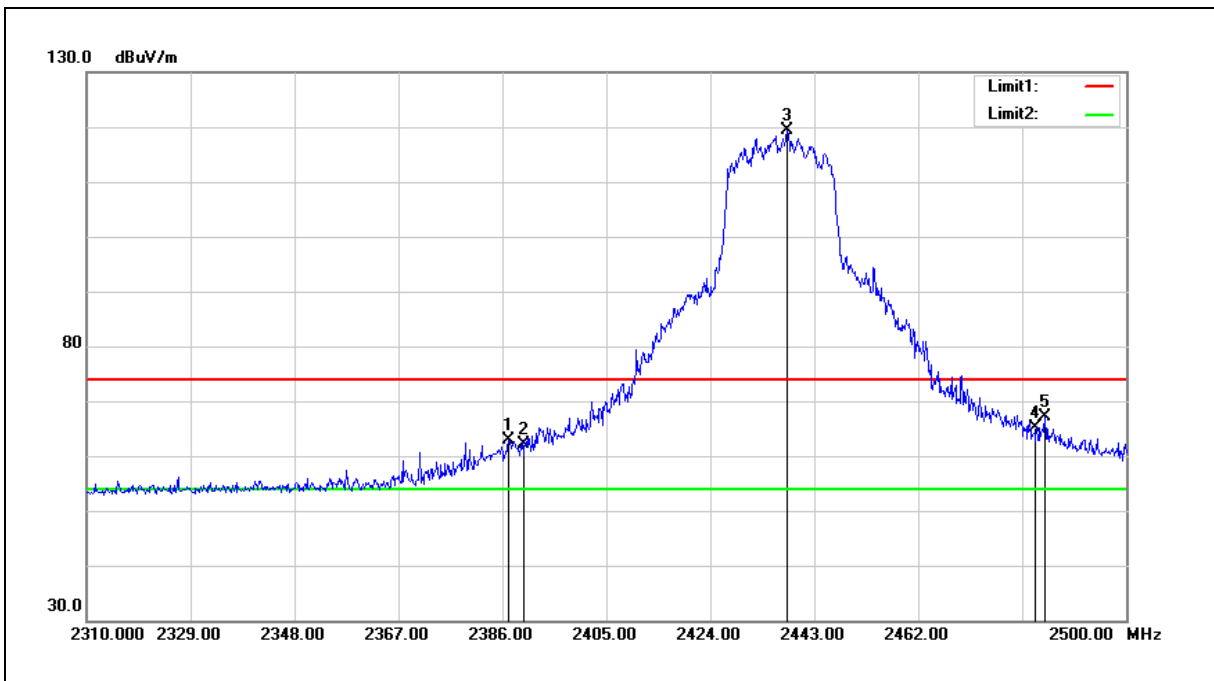
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2437 MHz		
Mode:	Mode 6		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.140	65.27	-2.30	62.97	74.00	-11.03	peak
2	2390.000	64.40	-2.28	62.12	74.00	-11.88	peak
3	2438.060	121.42	-2.10	119.32	--	--	peak
4	2483.500	66.98	-1.94	65.04	74.00	-8.96	peak
5	2485.180	69.17	-1.92	67.25	74.00	-6.75	peak

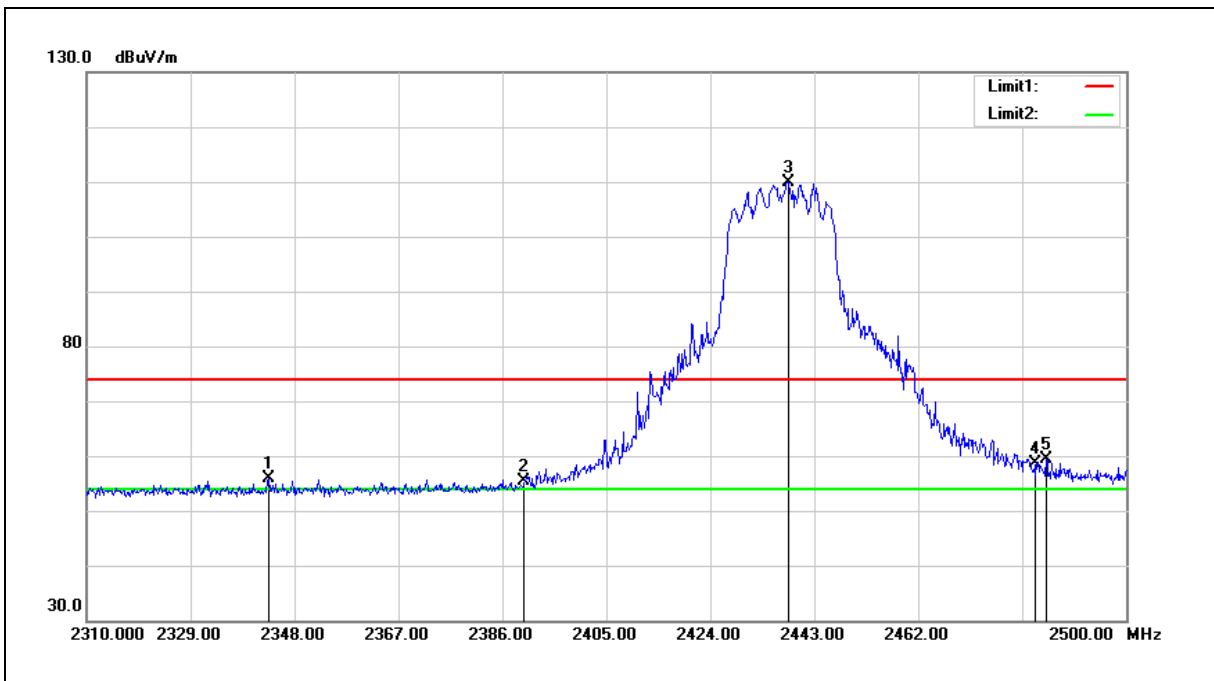
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Band edge		
Frequency:	2437 MHz		
Mode:	Mode 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2343.250	58.29	-2.45	55.84	74.00	-18.16	peak
2	2390.000	57.65	-2.28	55.37	74.00	-18.63	peak
3	2438.250	112.01	-2.10	109.91	--	--	peak
4	2483.500	60.57	-1.94	58.63	74.00	-15.37	peak
5	2485.370	61.26	-1.92	59.34	74.00	-14.66	peak

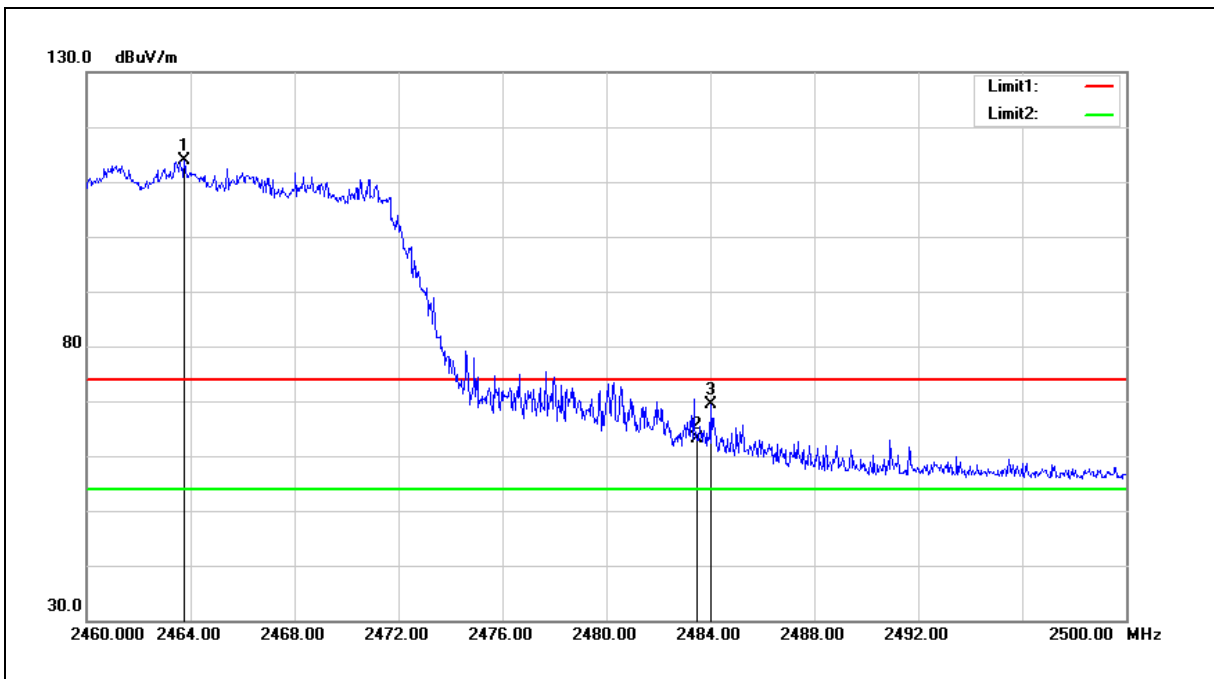
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 6		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.760	115.94	-2.00	113.94	--	--	peak
2	2483.500	65.16	-1.94	63.22	74.00	-10.78	peak
3	2484.000	71.31	-1.93	69.38	74.00	-4.62	peak

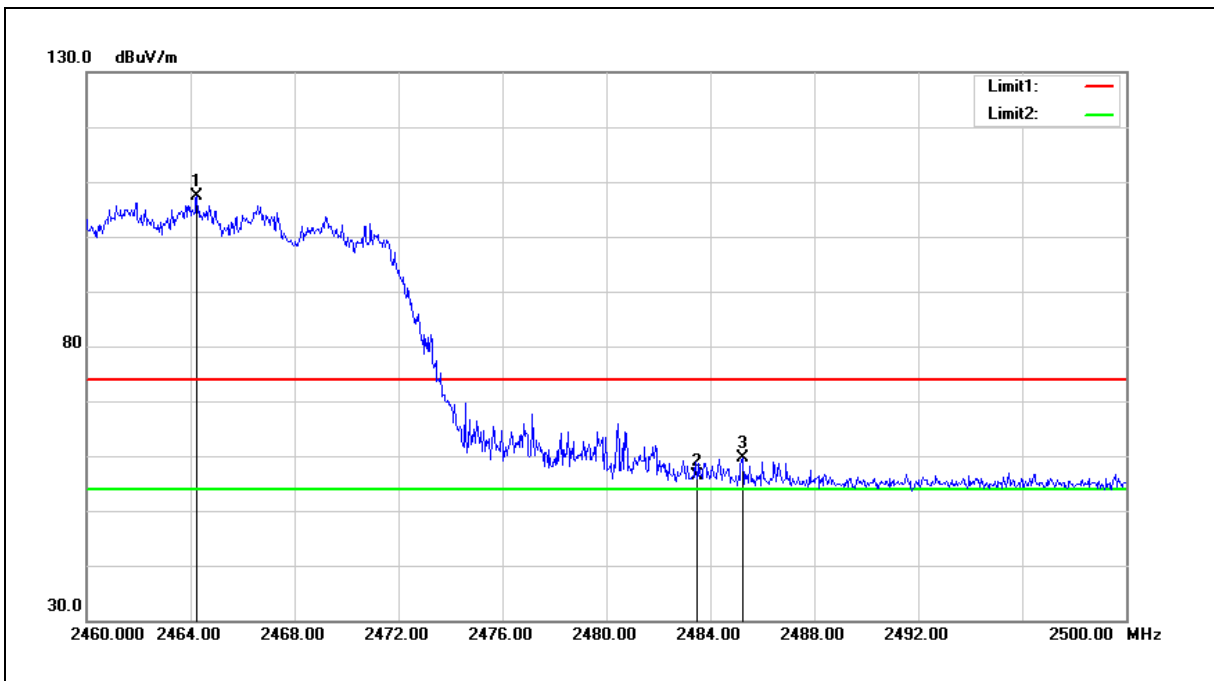
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2464.240	109.31	-2.00	107.31	--	--	peak
2	2483.500	58.21	-1.94	56.27	74.00	-17.73	peak
3	2485.240	61.55	-1.92	59.63	74.00	-14.37	peak

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

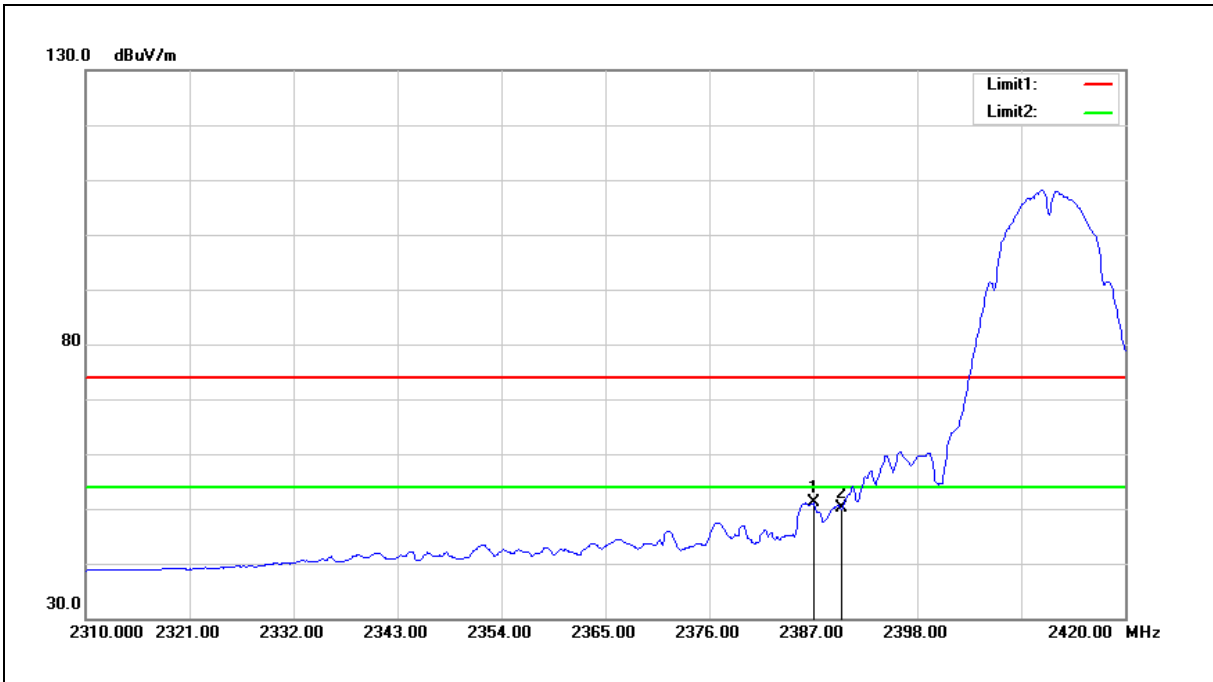
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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



Average

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	2387.110	53.36	-2.30	51.06	54.00	-2.94	AVG
2	2390.000	52.33	-2.28	50.05	54.00	-3.95	AVG

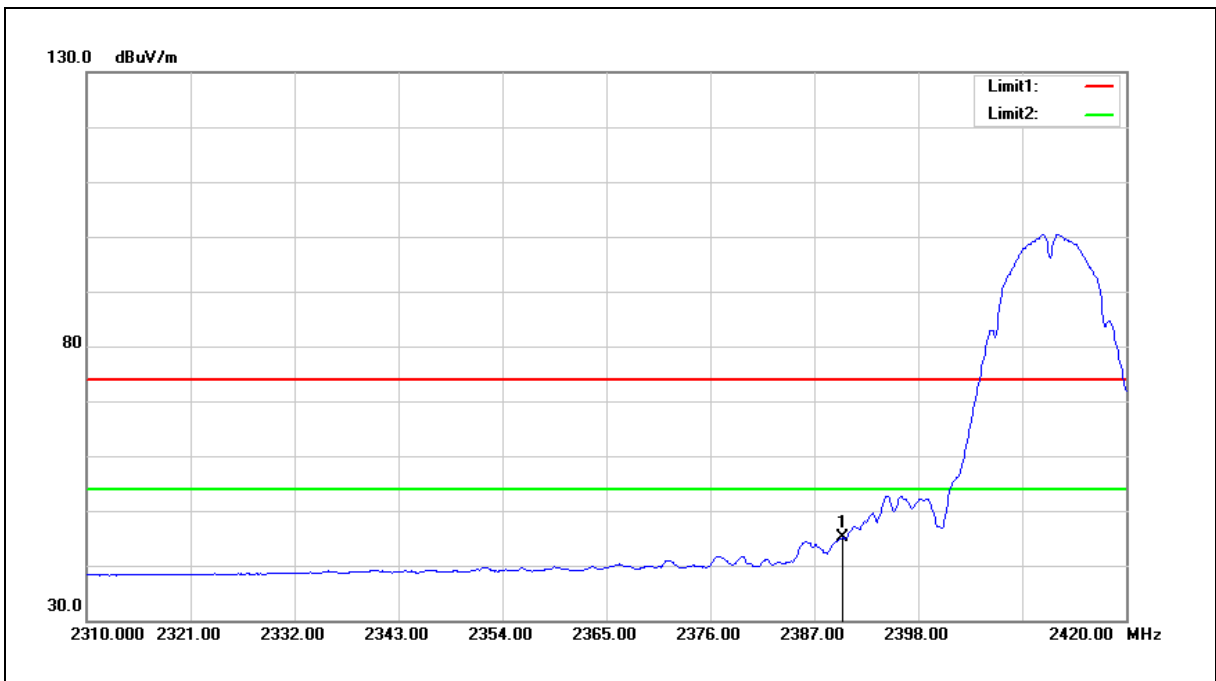
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	47.46	-2.28	45.18	54.00	-8.82	AVG

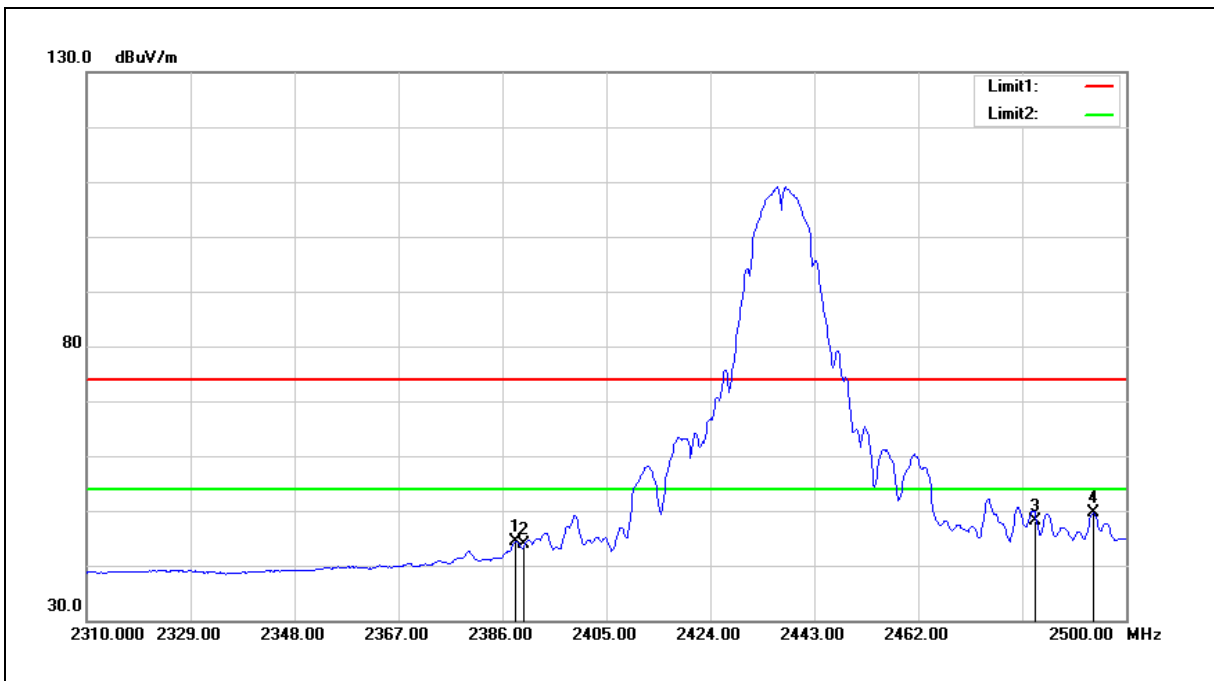
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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:	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	2388.470	46.67	-2.28	44.39	54.00	-9.61	AVG
2	2390.000	46.25	-2.28	43.97	54.00	-10.03	AVG
3	2483.500	50.18	-1.94	48.24	54.00	-5.76	AVG
4	2494.110	51.47	-1.90	49.57	54.00	-4.43	AVG

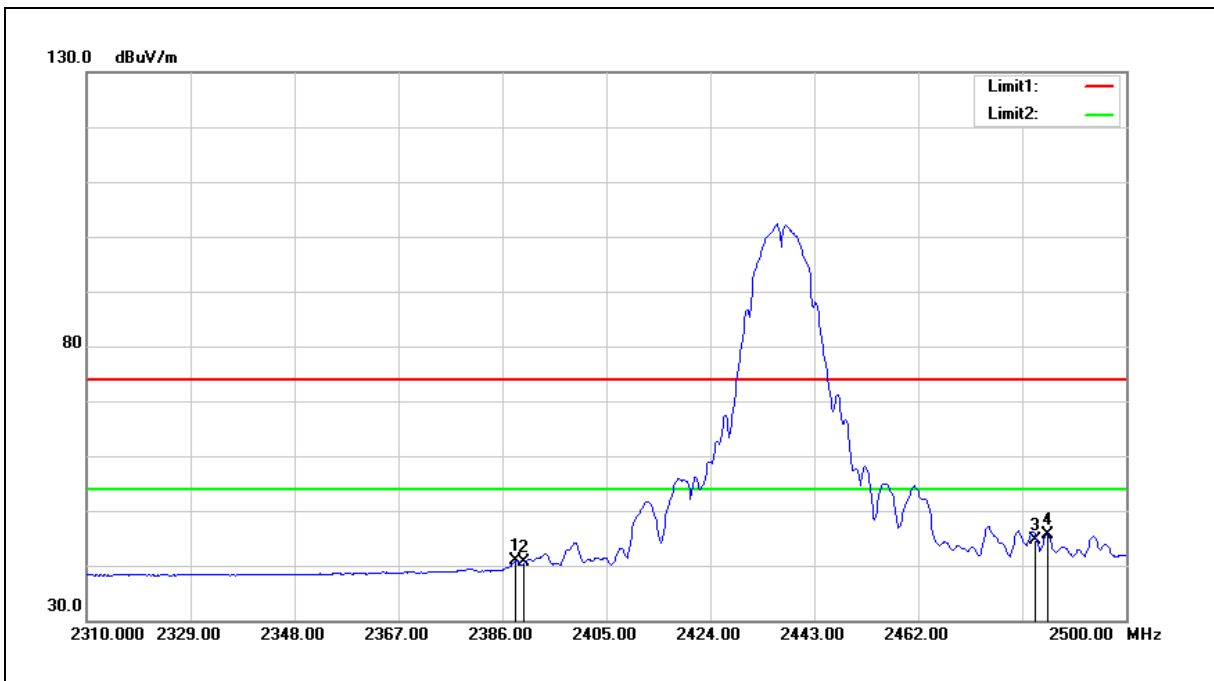
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	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	2388.470	43.11	-2.28	40.83	54.00	-13.17	AVG
2	2390.000	42.97	-2.28	40.69	54.00	-13.31	AVG
3	2483.500	46.59	-1.94	44.65	54.00	-9.35	AVG
4	2485.560	47.51	-1.92	45.59	54.00	-8.41	AVG

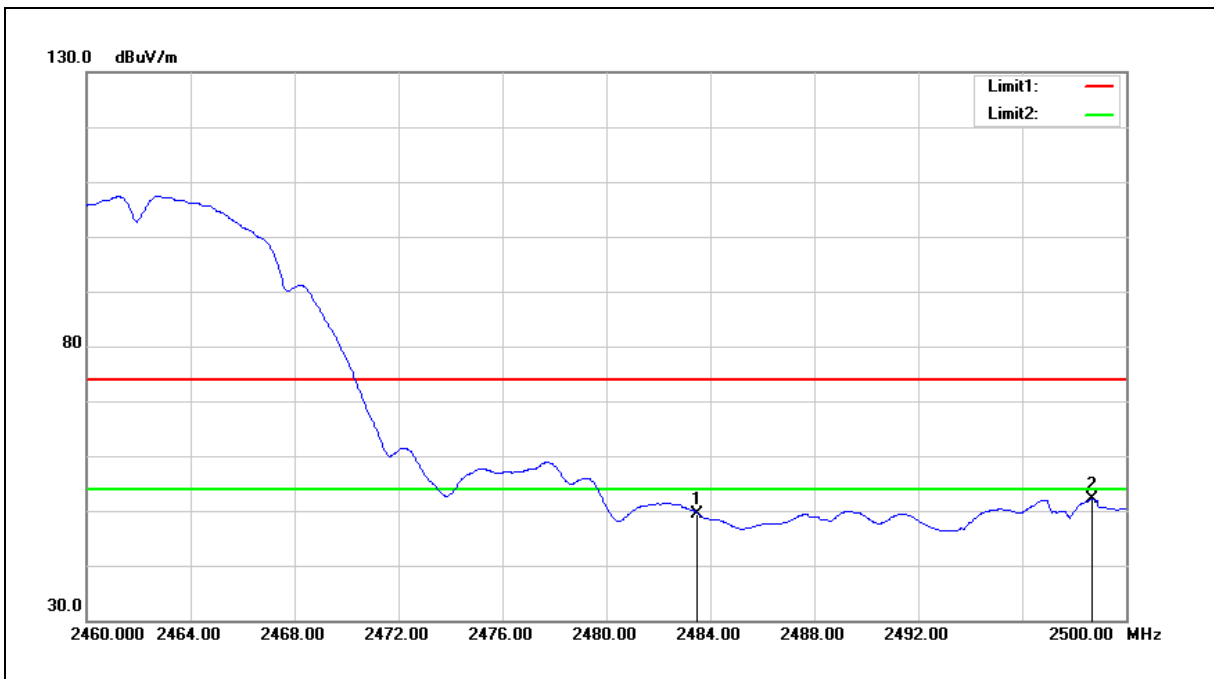
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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		

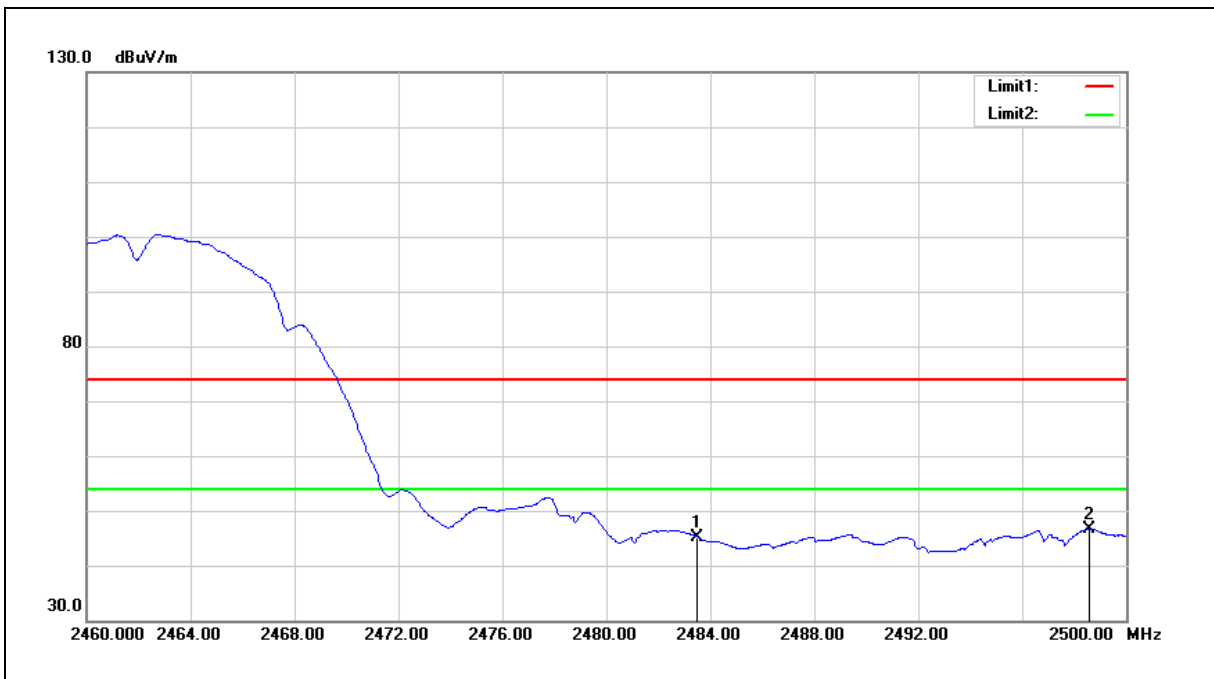


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	51.37	-1.94	49.43	54.00	-4.57	AVG
2	2498.680	53.95	-1.87	52.08	54.00	-1.92	AVG

- 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		

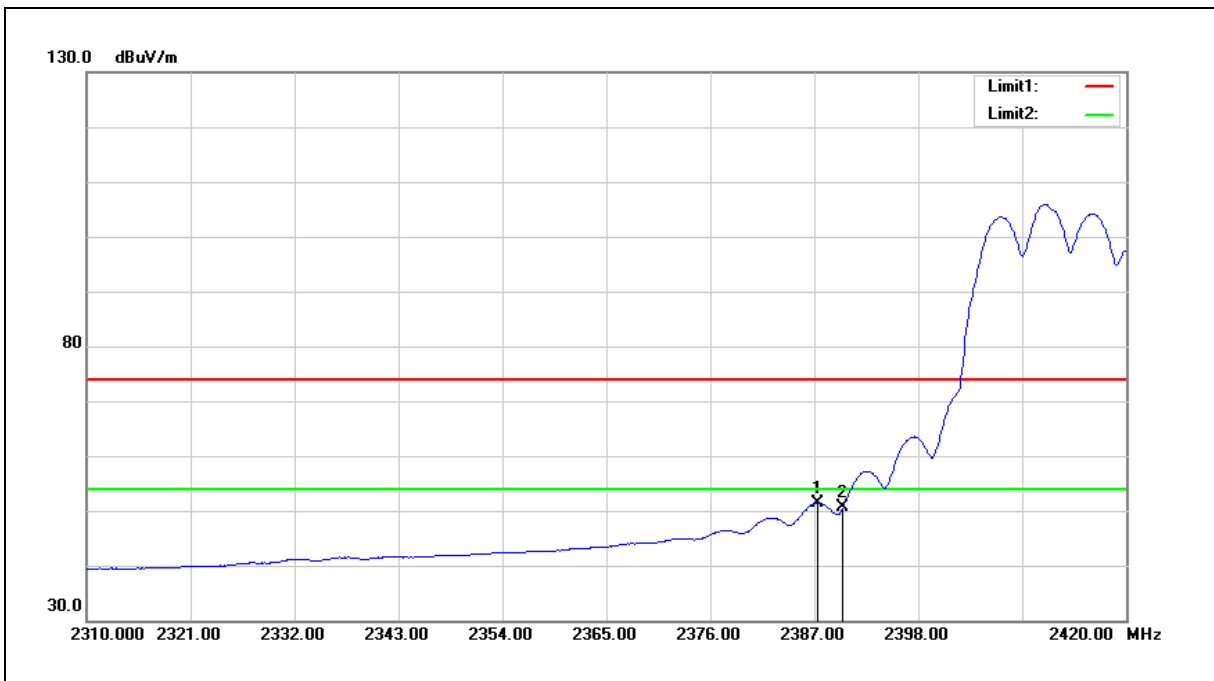


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	47.12	-1.94	45.18	54.00	-8.82	AVG
2	2498.560	48.52	-1.87	46.65	54.00	-7.35	AVG

- 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		

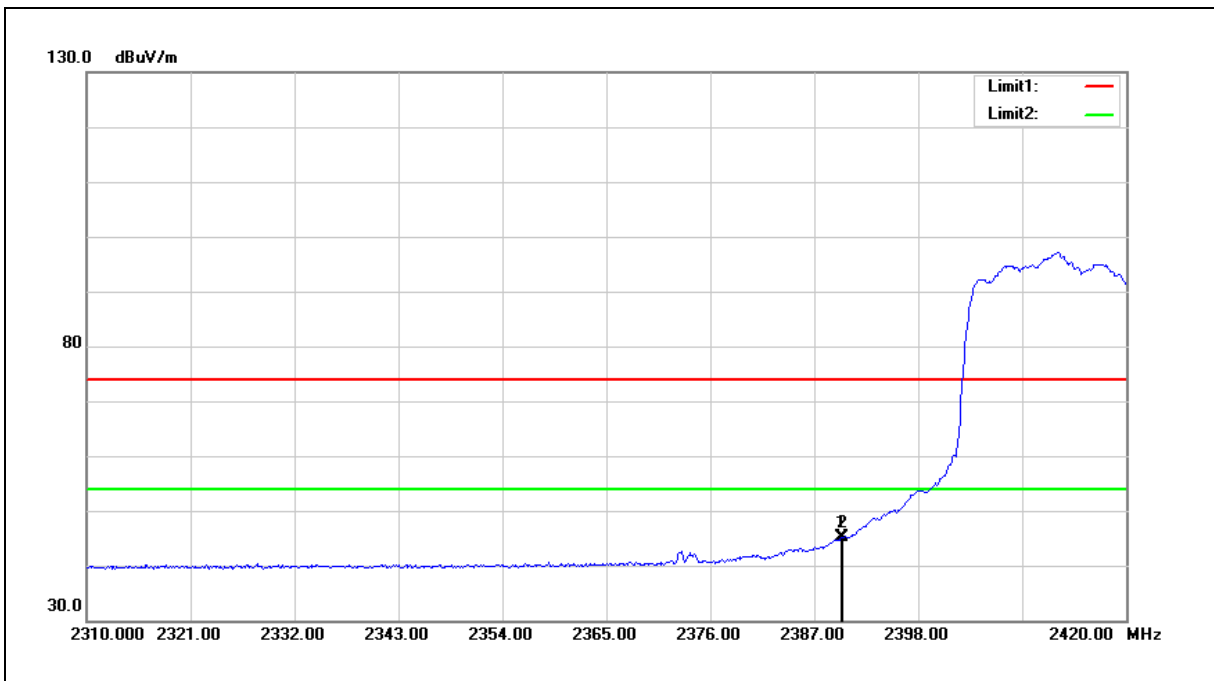


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.330	53.67	-2.30	51.37	54.00	-2.63	AVG
2	2390.000	52.94	-2.28	50.66	54.00	-3.34	AVG

- 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.:	Vertical		

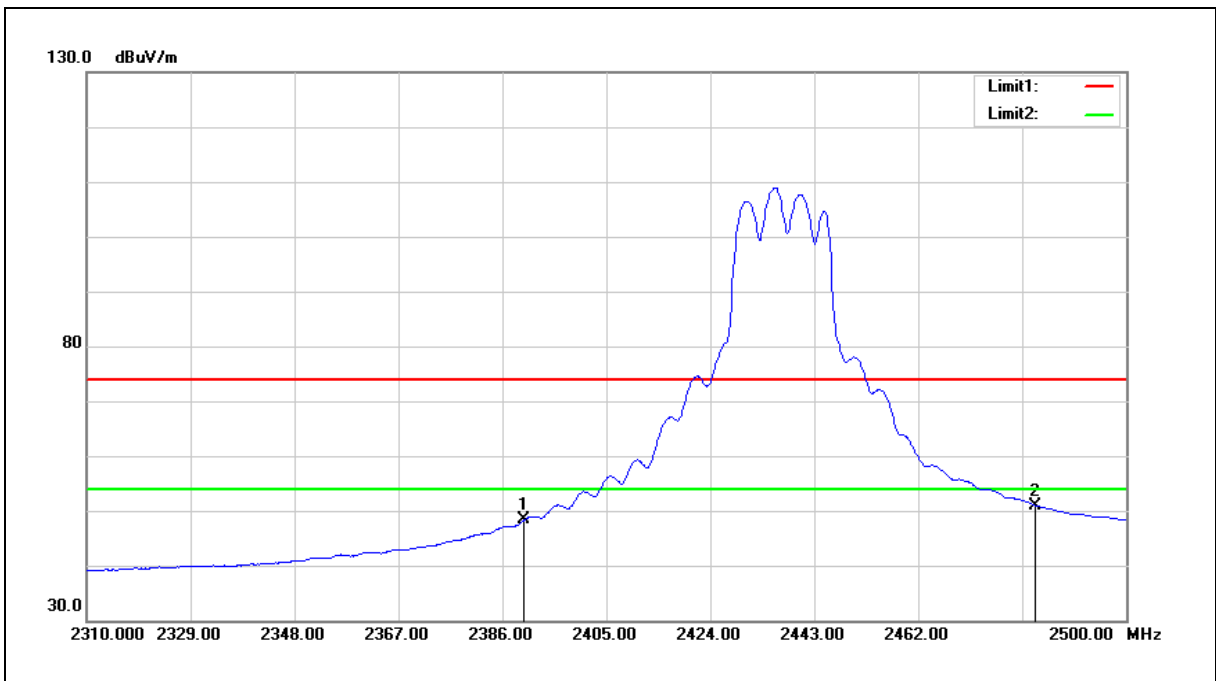


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.860	47.31	-2.28	45.03	54.00	-8.97	AVG
2	2390.000	47.38	-2.28	45.10	54.00	-8.90	AVG

- 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:	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	2390.000	50.67	-2.28	48.39	54.00	-5.61	AVG
2	2483.500	52.84	-1.94	50.90	54.00	-3.10	AVG

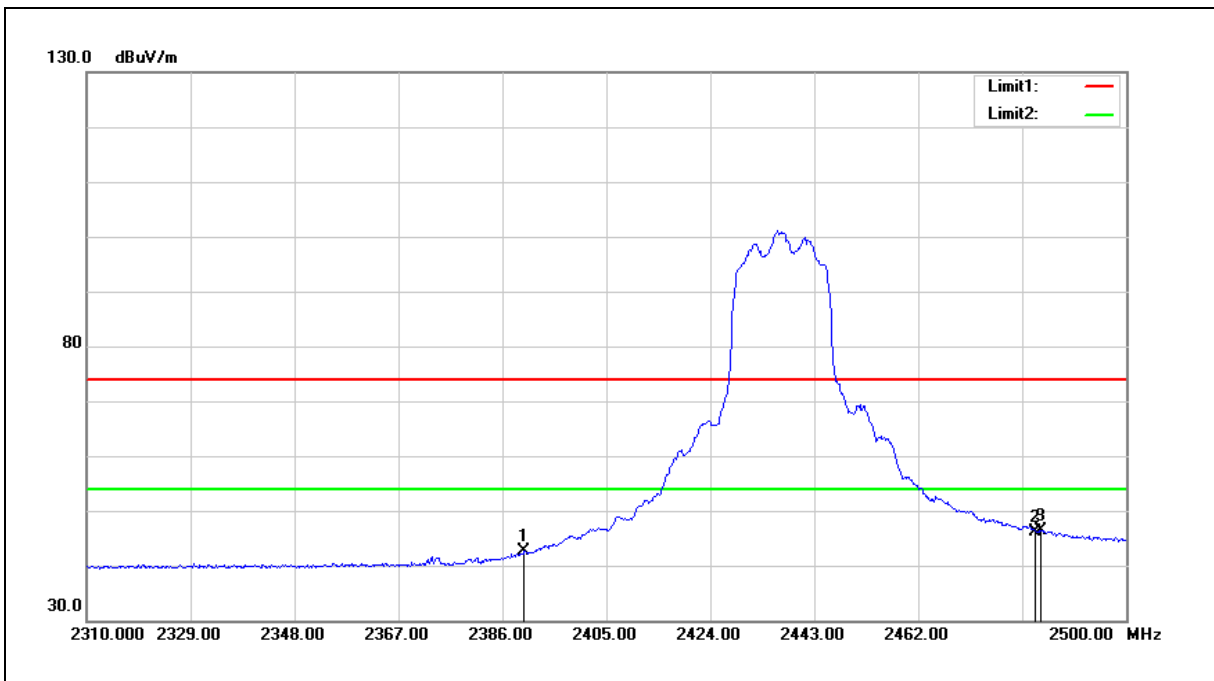
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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:	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	2390.000	44.87	-2.28	42.59	54.00	-11.41	AVG
2	2483.500	48.11	-1.94	46.17	54.00	-7.83	AVG
3	2484.420	48.29	-1.92	46.37	54.00	-7.63	AVG

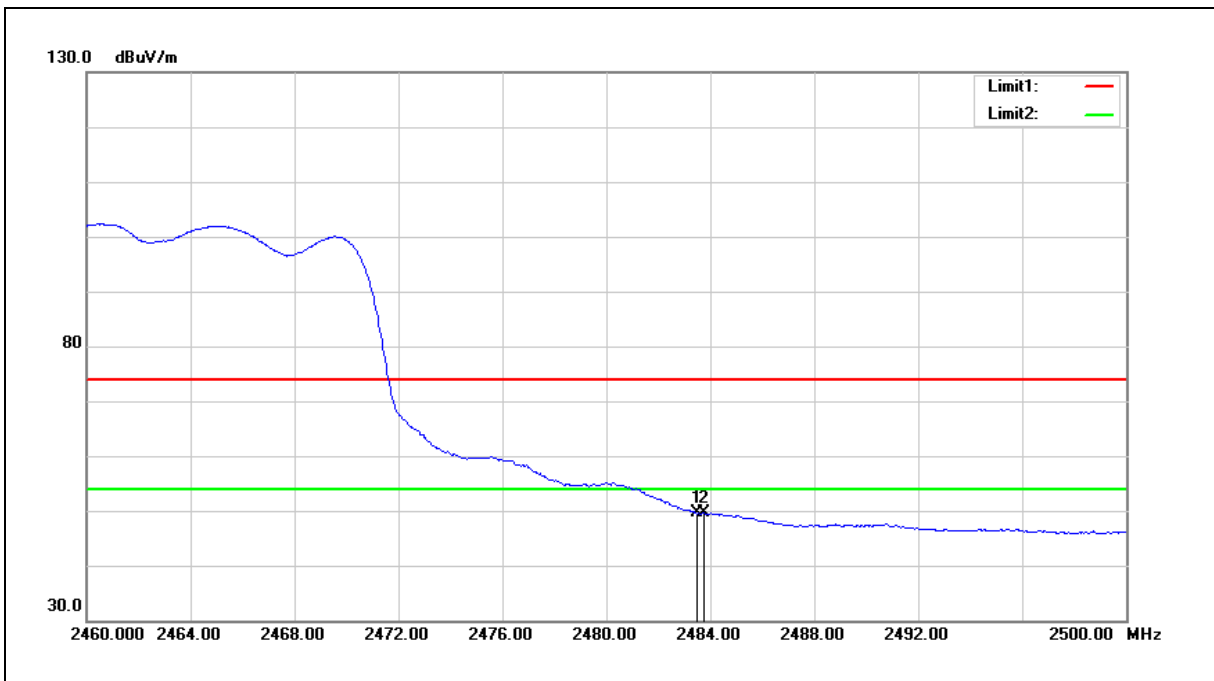
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	51.47	-1.94	49.53	54.00	-4.47	AVG
2	2483.760	51.59	-1.94	49.65	54.00	-4.35	AVG

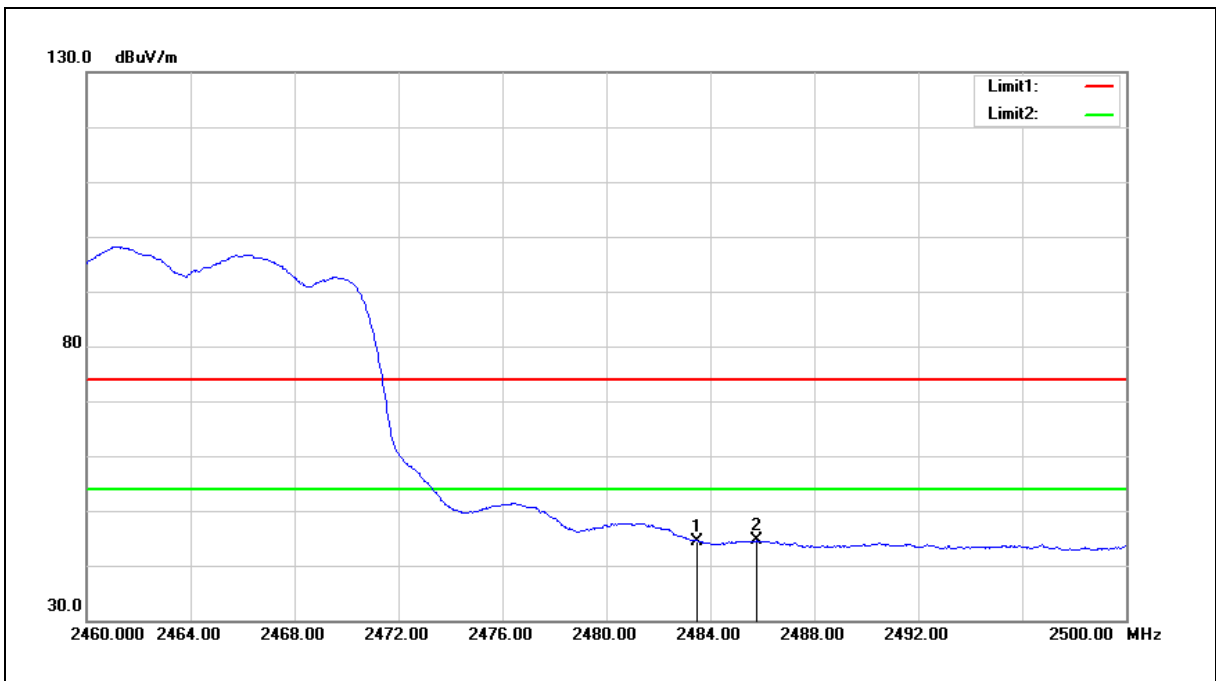
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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		

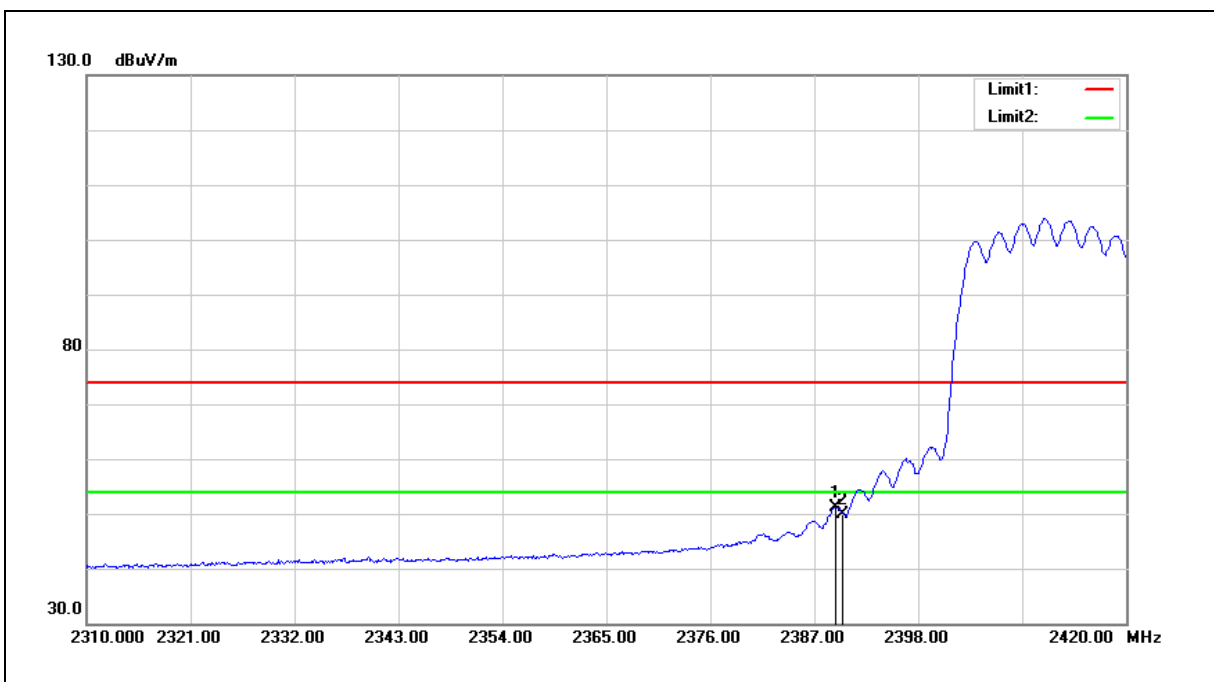


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	46.37	-1.94	44.43	54.00	-9.57	AVG
2	2485.760	46.43	-1.92	44.51	54.00	-9.49	AVG

- 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 6		
Ant.Polar.:	Horizontal		

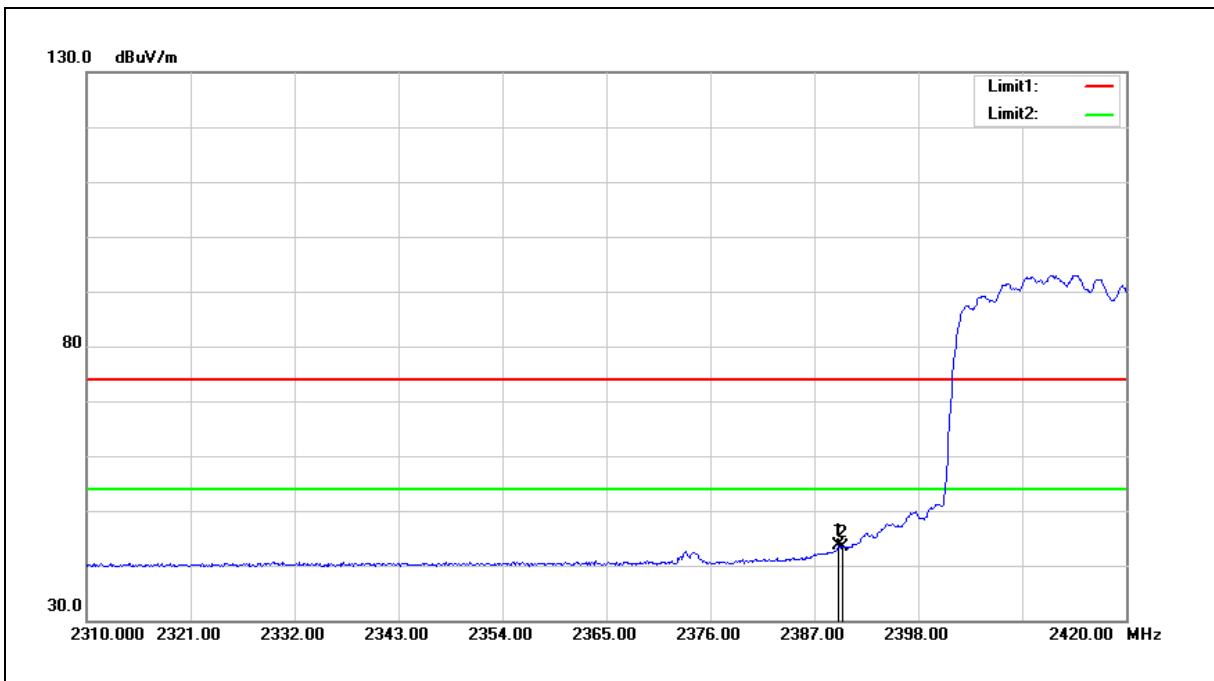


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.310	53.45	-2.28	51.17	54.00	-2.83	AVG
2	2390.000	52.28	-2.28	50.00	54.00	-4.00	AVG

- 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 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.530	45.81	-2.28	43.53	54.00	-10.47	AVG
2	2390.000	45.64	-2.28	43.36	54.00	-10.64	AVG

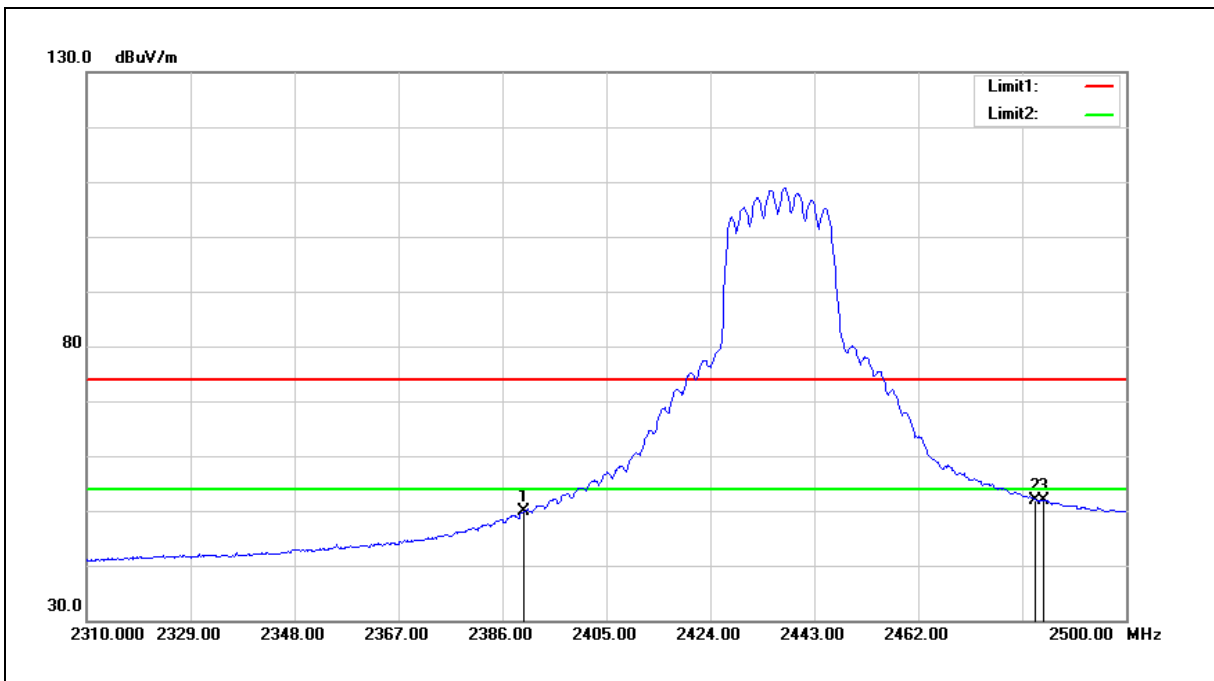
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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:	2437 MHz		
Mode:	Mode 6		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	52.09	-2.28	49.81	54.00	-4.19	AVG
2	2483.500	53.80	-1.94	51.86	54.00	-2.14	AVG
3	2484.800	53.92	-1.92	52.00	54.00	-2.00	AVG

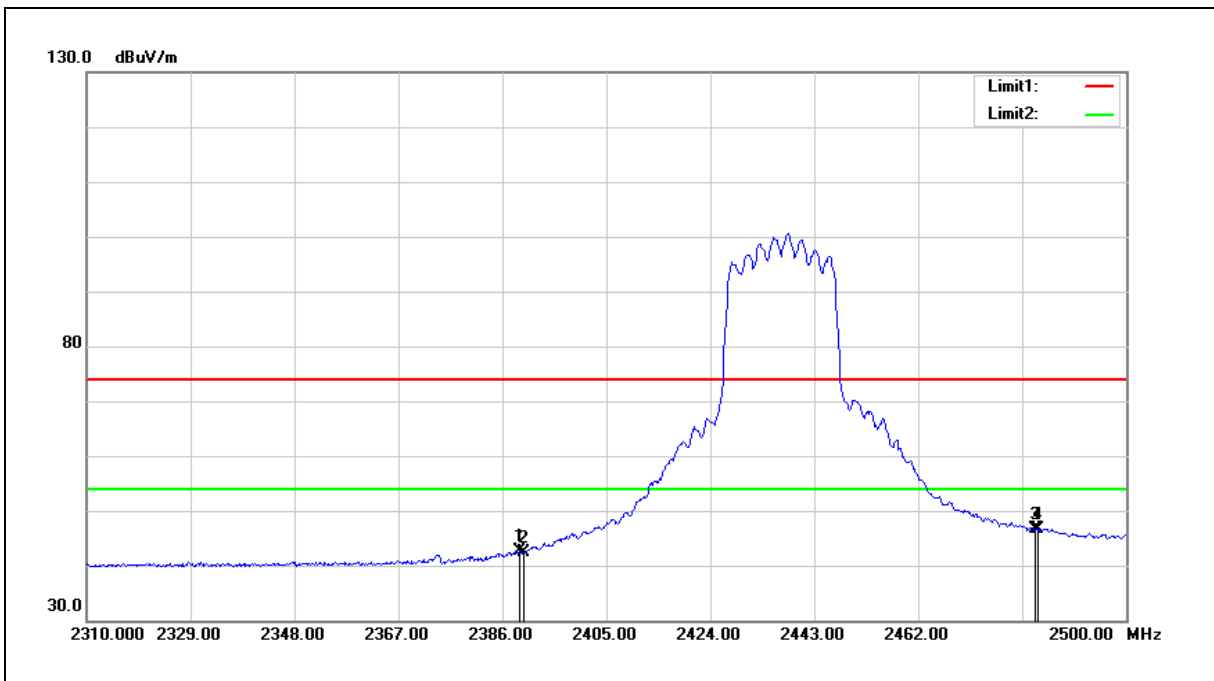
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	2437 MHz		
Mode:	Mode 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.040	44.95	-2.28	42.67	54.00	-11.33	AVG
2	2390.000	44.71	-2.28	42.43	54.00	-11.57	AVG
3	2483.500	48.63	-1.94	46.69	54.00	-7.31	AVG
4	2483.850	48.65	-1.94	46.71	54.00	-7.29	AVG

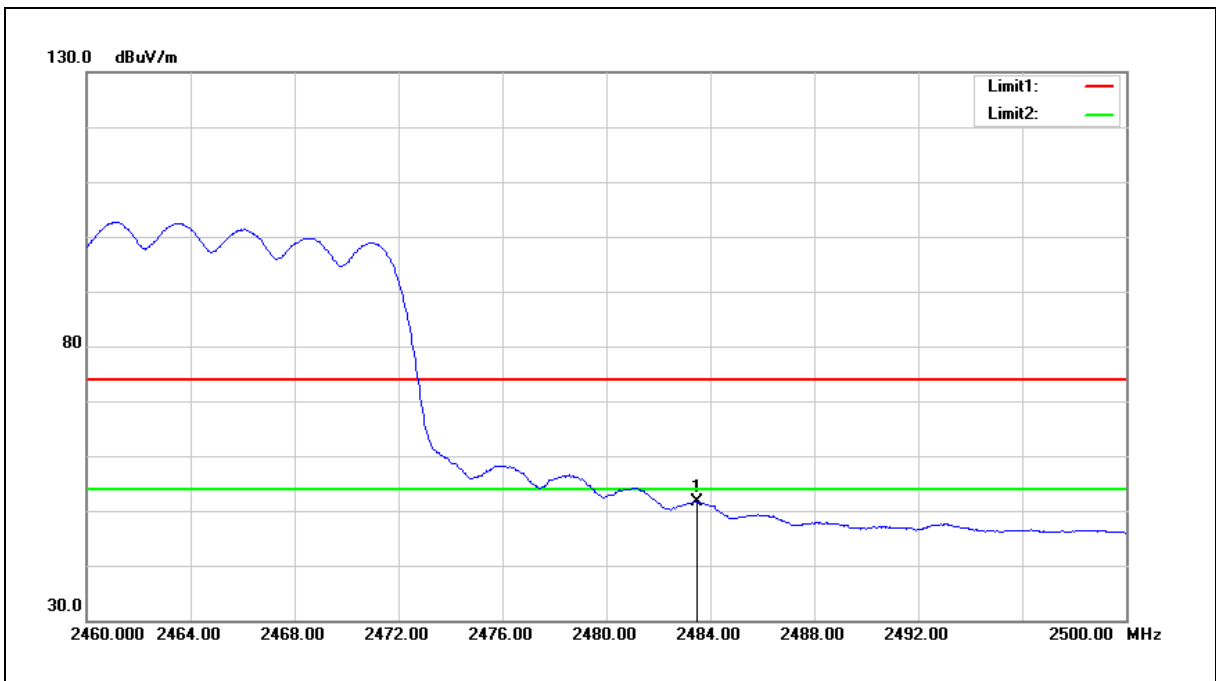
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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 6		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	53.53	-1.94	51.59	54.00	-2.41	AVG

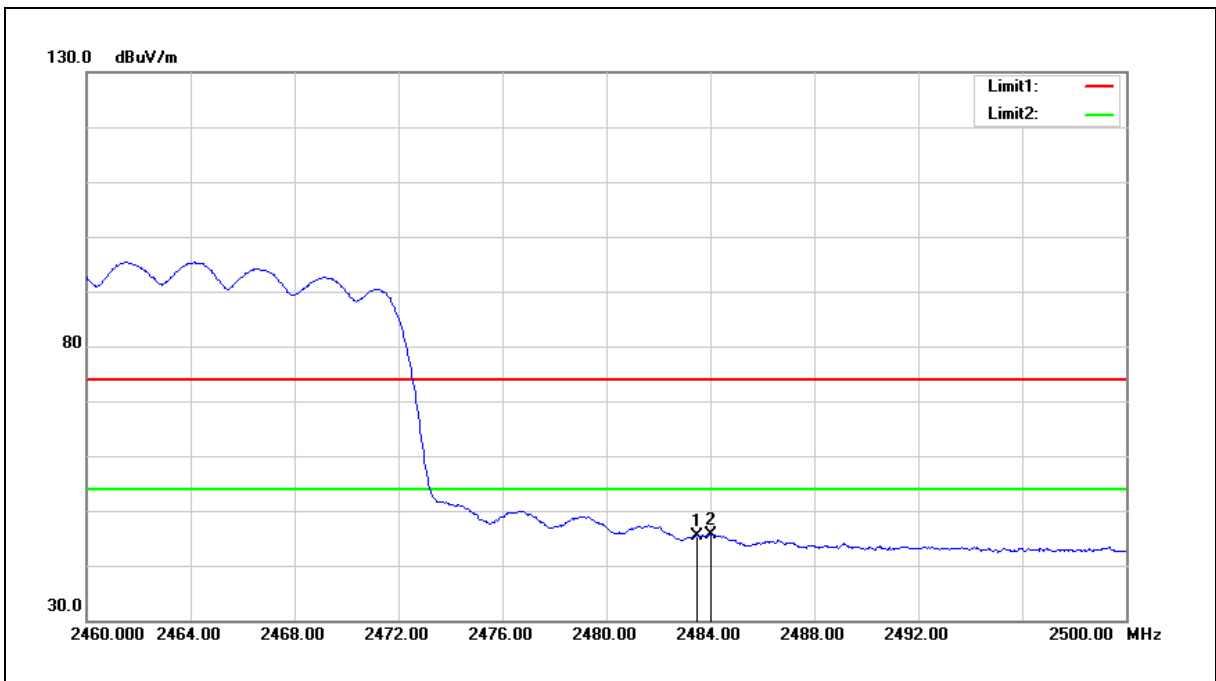
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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 6		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	47.21	-1.94	45.27	54.00	-8.73	AVG
2	2484.000	47.61	-1.93	45.68	54.00	-8.32	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.



6 EUT Photos

Please refer to the document number: 21-1180_FCC_External Photos and 21-1180_FCC_Internal Photos.

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