

RF Test Report

Applicant : OpenPath Security, Inc.
Product Type : Single Door Controller
Trade Name : openpath
Model Number : OP-2ESH-POE
Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2013
Received Date : Dec. 27, 2019
Test Period : Jan. 22 ~ Feb. 03, 2020
Issued Date : Feb. 10, 2020

Issued by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

Test Firm MRA designation number: TW0010

Note:

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Revision History

Rev.	Issued Date	Revisions	Revised By
00	Feb. 10, 2020	Initial Issue	Yu Chiang

Verification of Compliance

Issued Date: Feb. 10, 2020

Applicant : OpenPath Security, Inc.
Product Type : Single Door Controller
Trade Name : openpath
Model Number : OP-2ESH-POE
FCC ID : 2APJV2ESH
EUT Rated Voltage : DC Input : DC 24/12 V, 1.1/2.2 A
PoE Input : DC 48 V, 0.55 A
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



(Manager)

(Fly Lu)



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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	----

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)
Conducted Emission	150 kHz ~ 30 MHz	2.68
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	

Decision Rule

- Uncertainty is not included.
- Uncertainty is included.



2 EUT Description

Applicant	OpenPath Security, Inc. 13428 Maxella Ave, #866, Marina Del Rey, CA 90292			
Manufacturer	OpenPath Security, Inc. 13428 Maxella Ave, #866, Marina Del Rey, CA 90292			
Product Type	Single Door Controller			
Trade Name	openpath			
Model Number	OP-2ESH-POE			
FCC ID	2APJV2ESH			
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 72.2 Mbps
Antenna information	Model Number		Type	Max. Gain (dBi)
	ALX19P-222AA3-00		Embedded Antenna	2.7
Antenna Delivery	See section 3.1			
Operate Temp. Range	0 ~ 50 °C			

Frequency Band	Max. RF Output Power (W)
IEEE 802.11b	0.279
IEEE 802.11g	0.139
IEEE 802.11n 2.4 GHz 20 MHz	0.139

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: 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 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 "X 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 2	V
Mode 3	V
Mode 4	V

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

Duty cycle

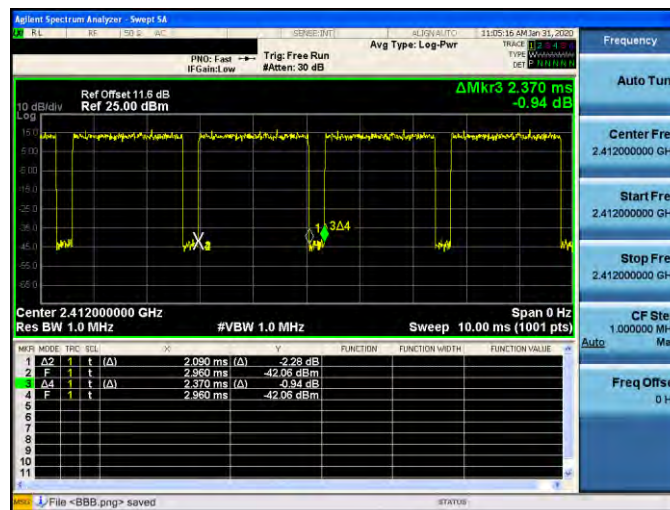
Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 2	2412.0	10.000	10.000	1.000	0.000	0.010
Mode 3	2412.0	2.090	2.370	0.882	0.546	0.478
Mode 4	2412.0	1.940	2.020	0.960	0.175	0.515

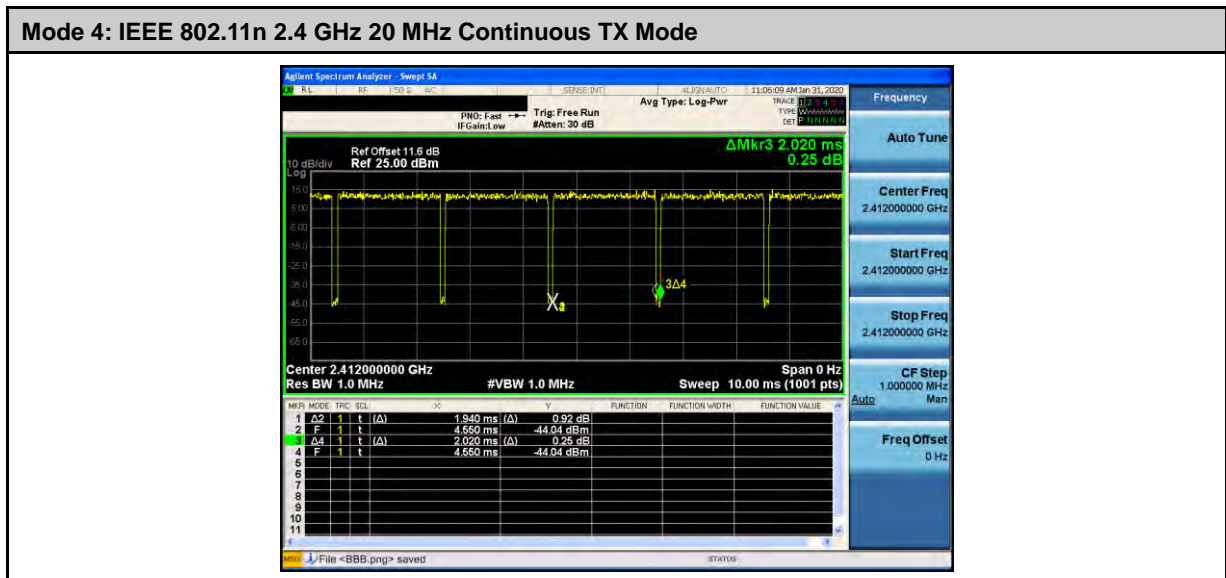
Duty Cycle Graphs

Mode 2: IEEE 802.11b Continuous TX Mode



Mode 3: IEEE 802.11g Continuous TX Mode





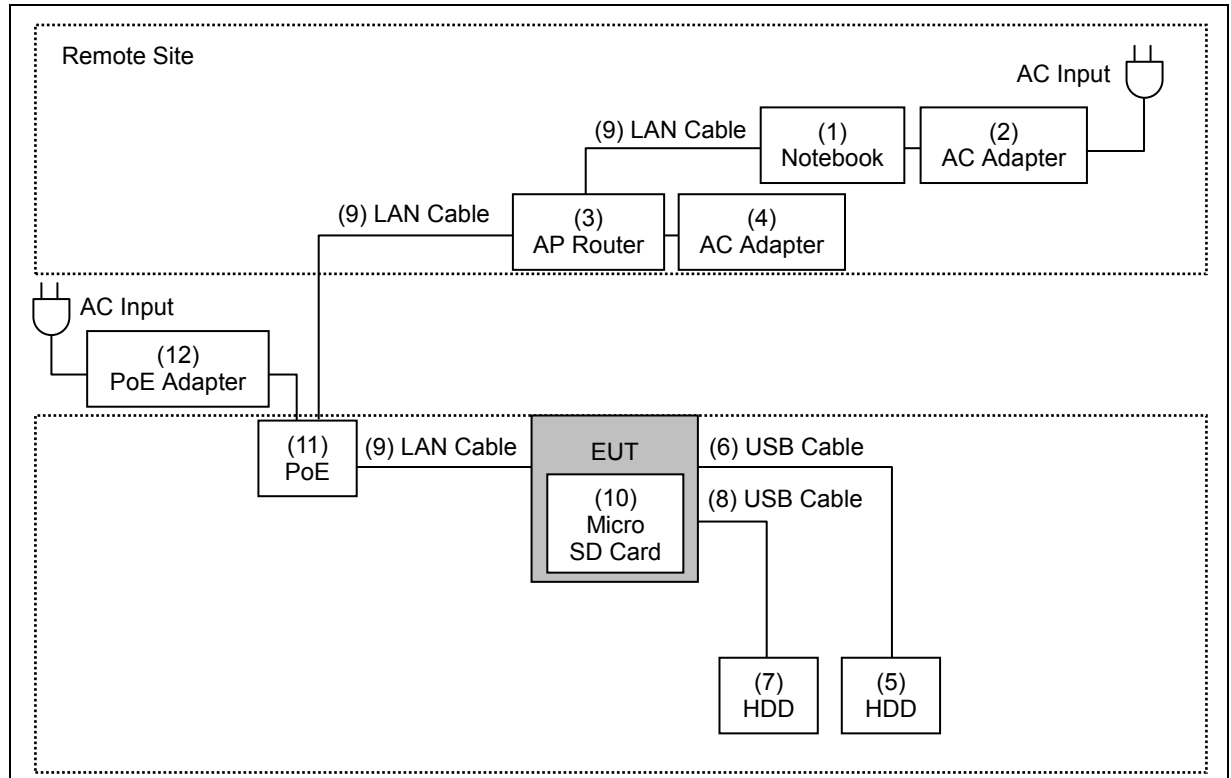
3.2. EUT Test Step

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.

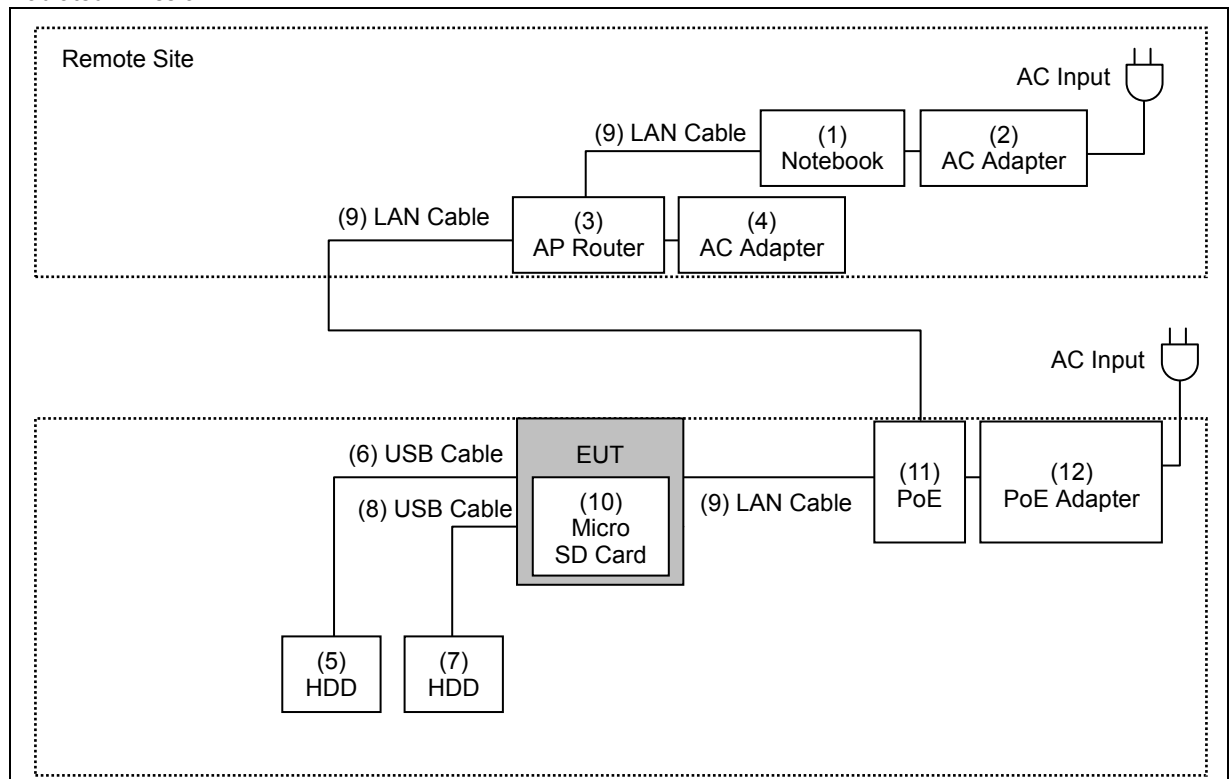
Measurement Software			
No.	Description	Software	Version
1	Conducted Emission	EZ EMC	1.1.4.3
2	Radiated Emission	EZ EMC	1.1.4.4

3.3. Configuration of Test System Details

Conducted Emission



Radiated Emission





Devices Description					
Product		Manufacturer	Model Number	Serial Number	Power Cord
(1)	Notebook	ASUS	P2430U	GANXCV04H86940A	---
(2)	AC Adapter	ASUS	ADP-65GD B	---	Non-Shielded, 0.8 m
(3)	AP Router	NETGEAR	R7800	4H726754008FC	---
(4)	AC Adapter	NETGEAR	2AAF042F	332-10622-01	Non-Shielded, 1.8 m
(5)	HDD	Transend	TS1TSJ25A3K-RU	E40246-0203	---
(6)	USB Cable	Transend	TS1TSJ25A3K-RU	E40246-0203	No-Shielded, 0.8 m
(7)	HDD	Transend	TS1TSJ25A3K-RU	E40246-0204	---
(8)	USB Cable	Transend	TS1TSJ25A3K-RU	E40246-0204	No-Shielded, 0.8 m
(9)	LAN Cable	HUAWEI	UL2464	---	---
(10)	Micro SD Card	Transcend	UHS-I U1	---	---
(11)	POE	EDIMAX	PE-1000IPB	---	---
(12)	POE Adapter	JUNCTION GLOBAL TECHNOLOGY CO., LTD	ZZU1588-060540	---	Non-Shielded, 1.5 m



3.4. Test Instruments

For Conducted Emission

Test Period: Feb. 03, 2020

Testing Engineer: Louis Shen

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Test Receiver	R&S	ESCI	100367	05/23/2019	1 year
LISN	R&S	ENV216	101040	04/03/2019	1 year
LISN	R&S	ENV216	101041	03/28/2019	1 year
RF Cable	Woken	00100D1380194M	TE-02-03	05/23/2019	1 year

For Radiated Emissions

Test Period: Jan. 22 ~ Jan. 23, 2020

Testing Engineer: Ricky Liu

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer (10 Hz~44 GHz)	Keysight	N9010A	MY52221312	01/13/2020	1 year
Pre Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02237	10/18/2019	1 year
Pre Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	01/15/2020	1 year
Pre Amplifier (26.5~40 GHz)	EMCI	EMC2654045	980028	08/23/2019	1 year
Broadband Antenna	Schwarzbeck	VULB9168	416	10/23/2019	1 year
Horn Antenna (1~18 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	08/22/2019	1 year
RF Cable	EMCI	EMC104-N-N-6000	TE01-1	02/20/2019	1 year
Microwave Cable	EMCI	EMC104-SM-SM-1 3000	170814	10/29/2019	1 year
Microwave Cable	EMCI	EMC102-KM-KM-1 4000	151001	02/20/2019	1 year

For Conducted

Test Period: Jan. 31, 2020

Testing Engineer: Negi Chiu

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	09/18/2019	1 year
Power Sensor	Anritsu	MA2411B	1126022	09/03/2019	1 year
Power Meter	Anritsu	ML2495A	1135009	09/03/2019	1 year



3.5. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	45-75
Barometric pressure (mbar)	860-1060	990-1005

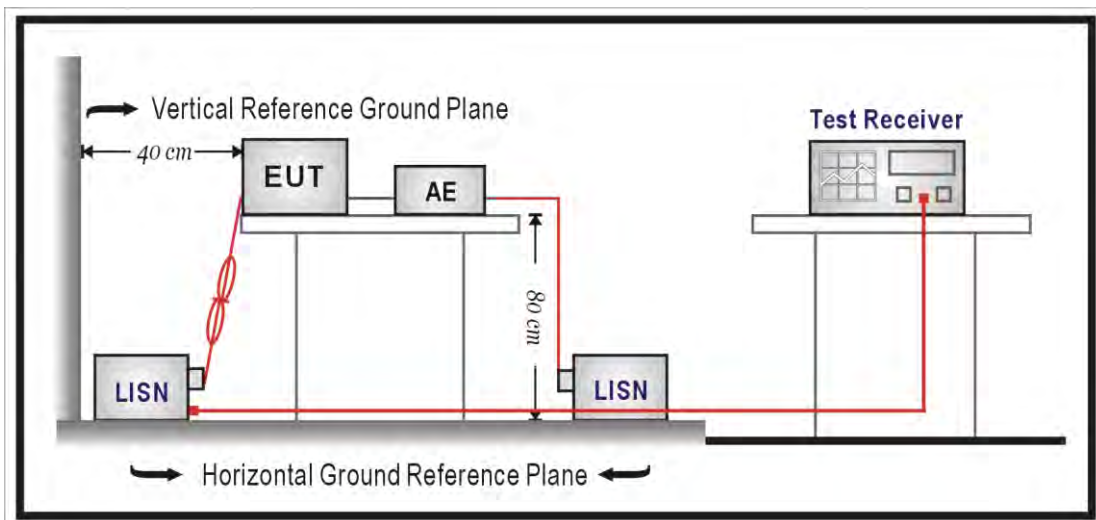
4 Measurement Procedure

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

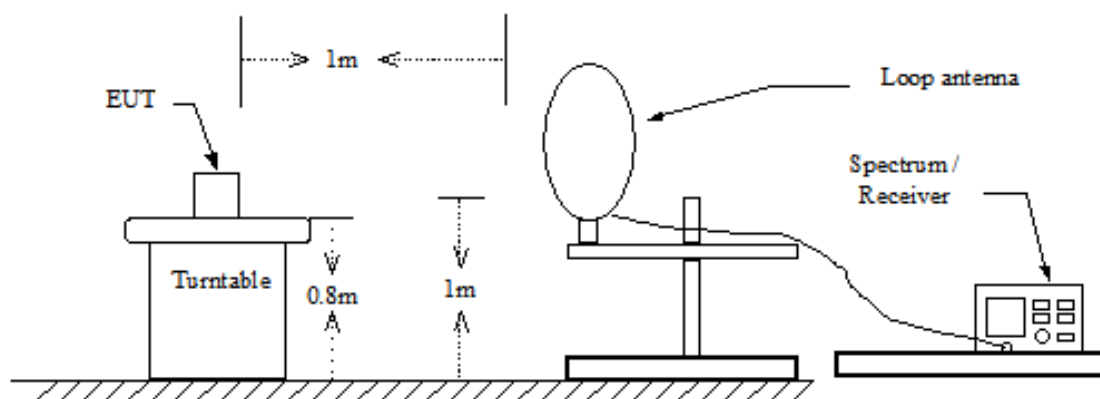
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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

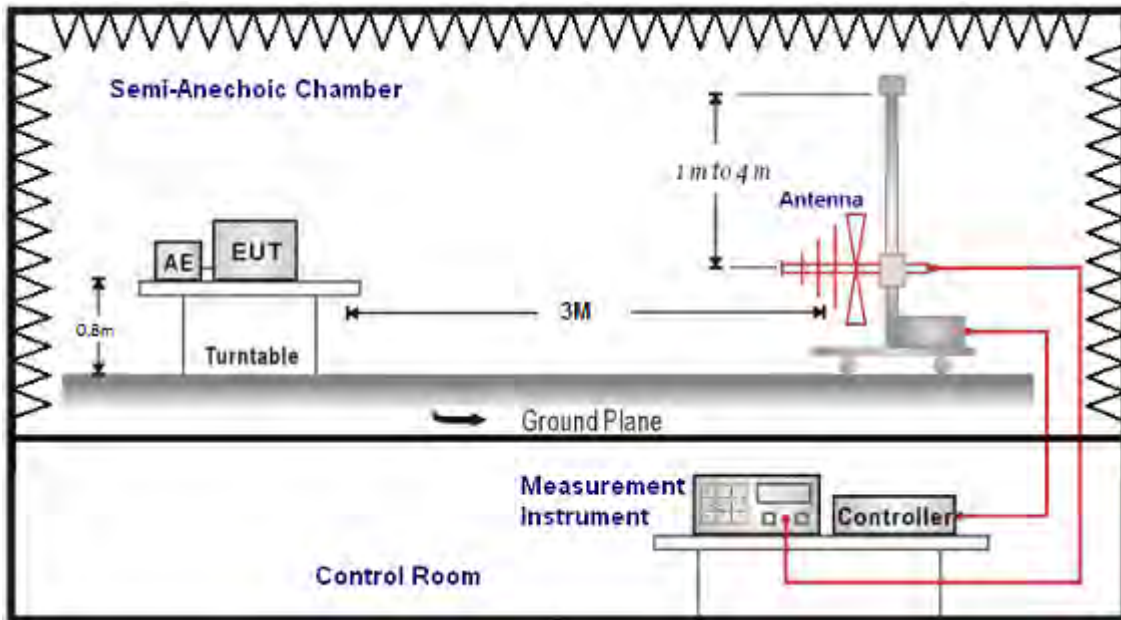
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this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

■ Setup

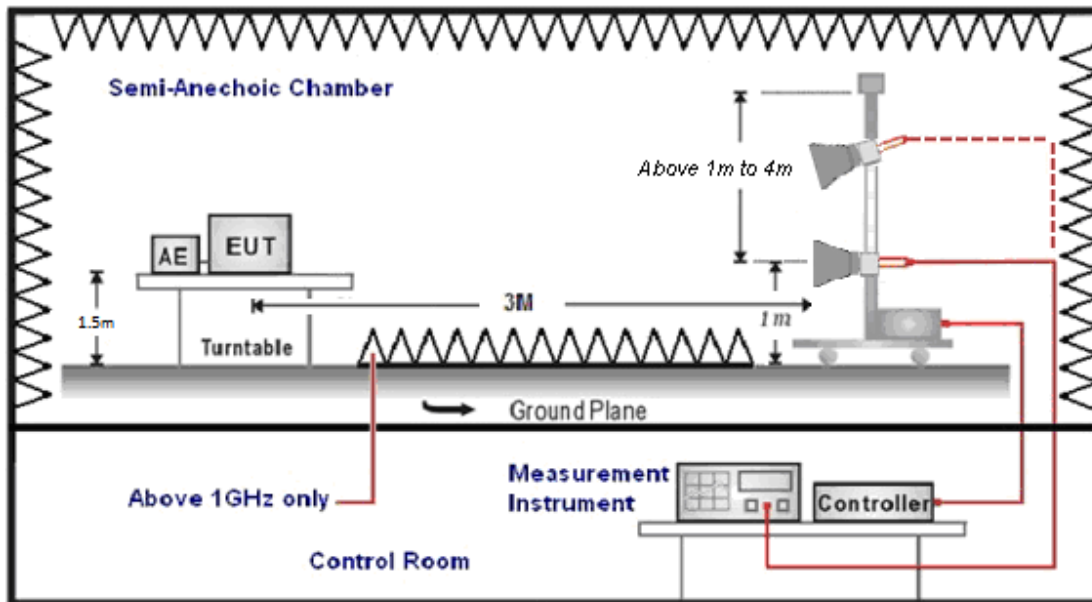
9 kHz ~ 30 MHz



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.

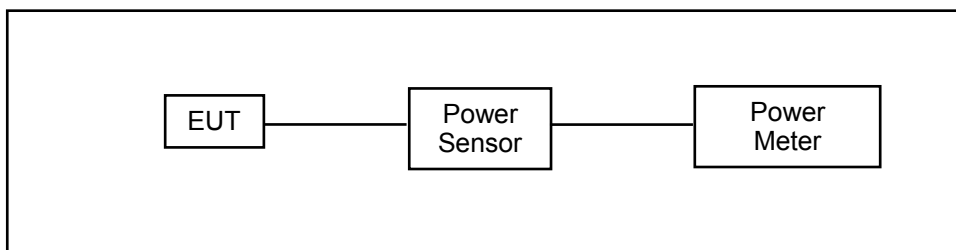
4.3. Maximum Conducted Output Power Measurement

■ 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.

■ Test Setup



■ Test Procedure

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

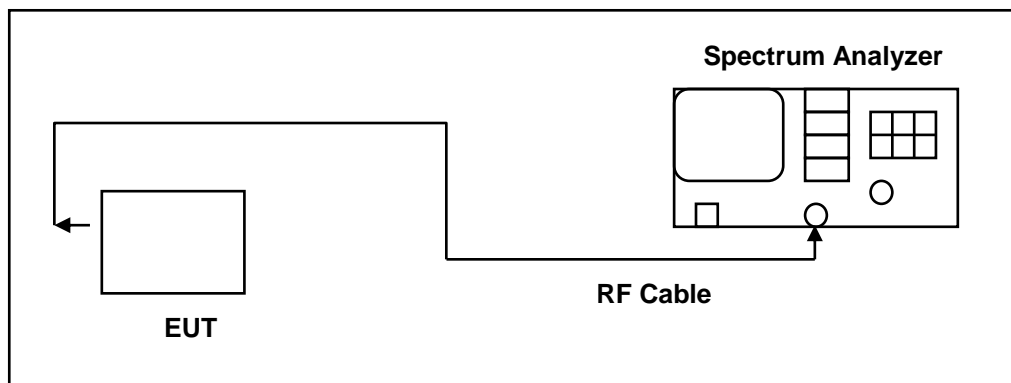
The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor.

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.

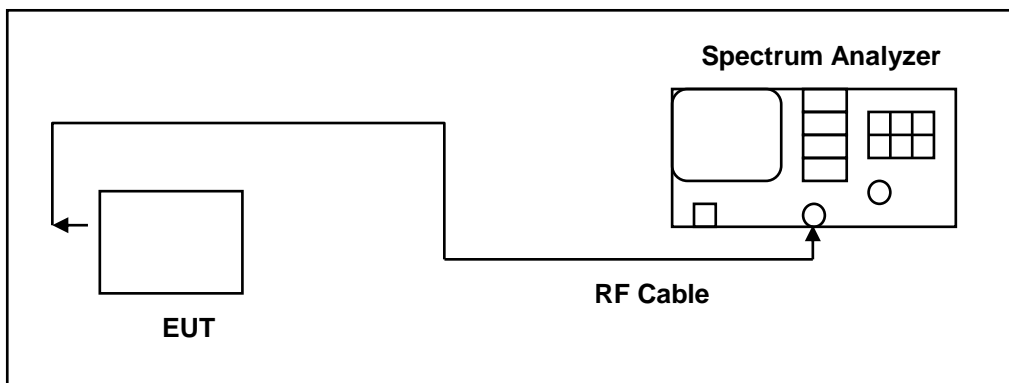
The test was performed at 3 channels (Channel low, middle, high)

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.

■ 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.

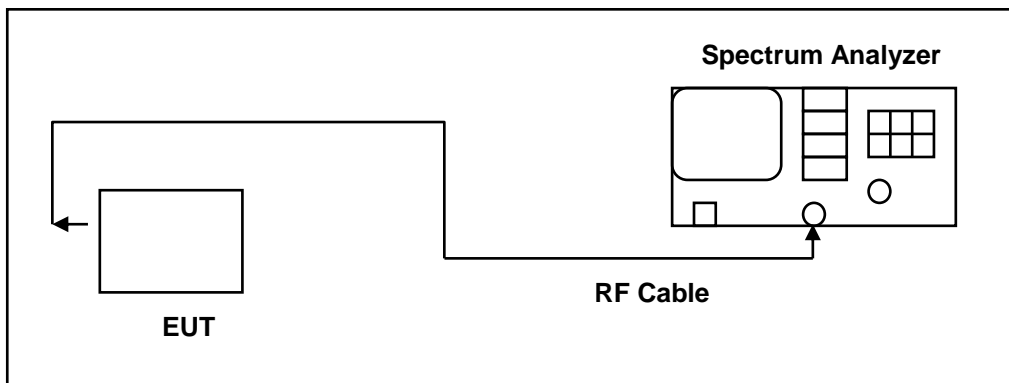
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
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 30 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 30 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

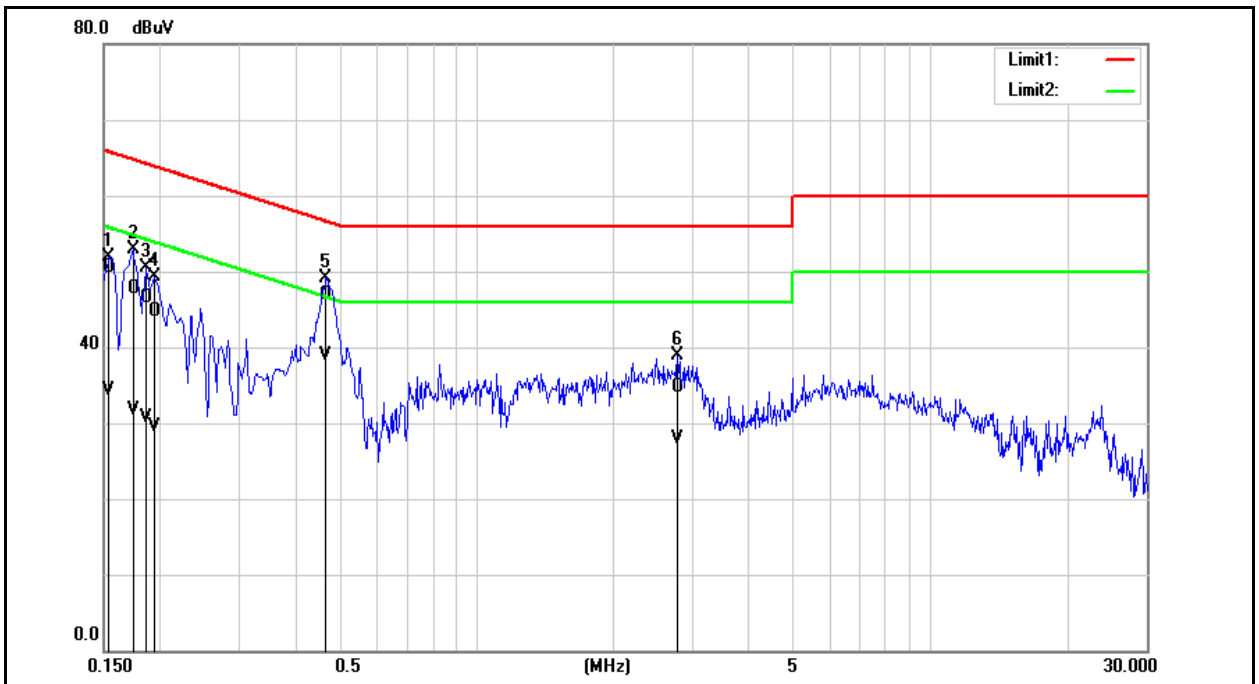
See section 2 – antenna information.



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	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Description:			

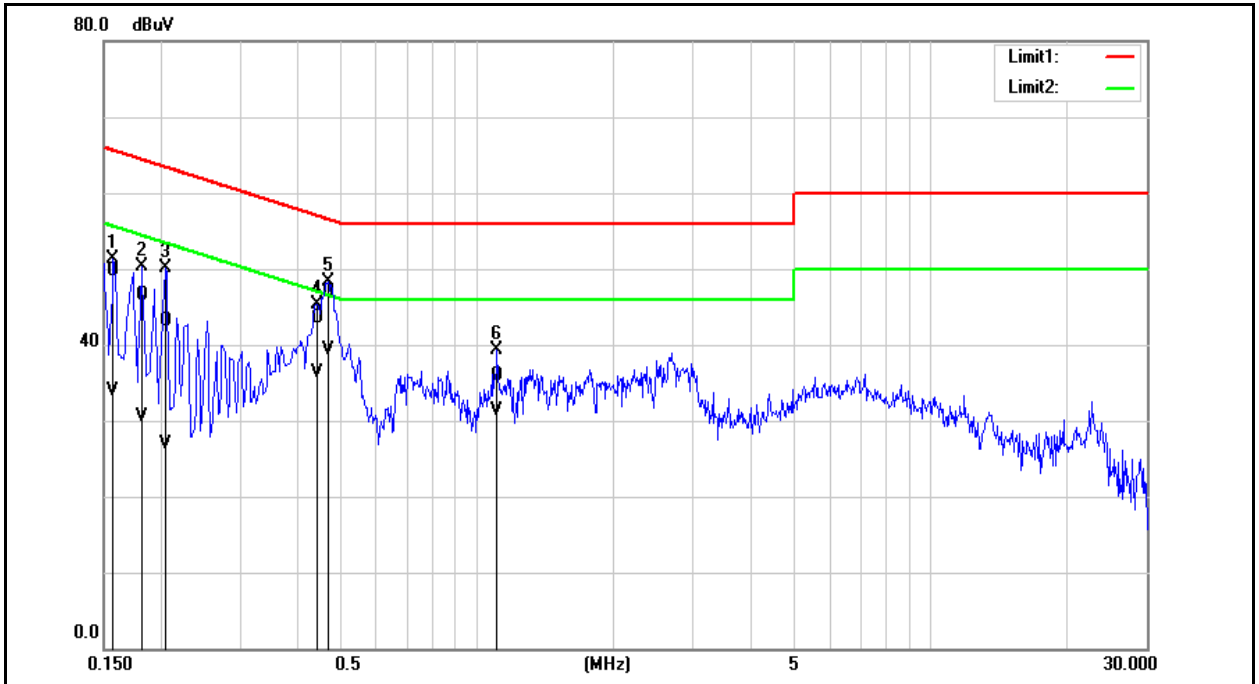


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1540	40.81	24.75	9.65	50.46	34.40	65.78	55.78	-15.32	-21.38	Pass
2	0.1740	38.13	22.07	9.65	47.78	31.72	64.77	54.77	-16.99	-23.05	Pass
3	0.1860	36.92	21.06	9.64	46.56	30.70	64.21	54.21	-17.65	-23.51	Pass
4	0.1940	35.06	19.82	9.64	44.70	29.46	63.86	53.86	-19.16	-24.40	Pass
5	0.4660	37.21	29.33	9.66	46.87	38.99	56.58	46.58	-9.71	-7.59	Pass
6	2.7700	24.92	18.07	9.74	34.66	27.81	56.00	46.00	-21.34	-18.19	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	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
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	0.1580	40.05	24.22	9.68	49.73	33.90	65.57	55.57	-15.84	-21.67	Pass
2	0.1820	36.80	20.89	9.67	46.47	30.56	64.39	54.39	-17.92	-23.83	Pass
3	0.2060	33.44	17.32	9.67	43.11	26.99	63.37	53.37	-20.26	-26.38	Pass
4	0.4460	33.86	26.54	9.69	43.55	36.23	56.95	46.95	-13.40	-10.72	Pass
5	0.4700	37.13	29.60	9.69	46.82	39.29	56.51	46.51	-9.69	-7.22	Pass
6	1.1060	26.17	21.54	9.70	35.87	31.24	56.00	46.00	-20.13	-14.76	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

ANT-0				
Test Mode	Frequency (MHz)	Data Rate	Average Output Power	
			Measurement Results	
			dBm	W
Mode 2	2412	1 M	20.49	0.112
	2437		24.45	0.279
	2462		19.28	0.085
Mode 3	2412	6 M	18.55	0.072
	2437		21.43	0.139
	2462		18.66	0.073
Mode 4	2412	6.5 M	16.96	0.050
	2437		21.42	0.139
	2462		16.81	0.048

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 2	2412	8607	≥ 500
	2437	9147	≥ 500
	2462	9088	≥ 500
Mode 3	2412	15810	≥ 500
	2437	15160	≥ 500
	2462	15230	≥ 500
Mode 4	2412	15250	≥ 500
	2437	16990	≥ 500
	2462	15200	≥ 500



■ Test Graphs

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz



2437 MHz



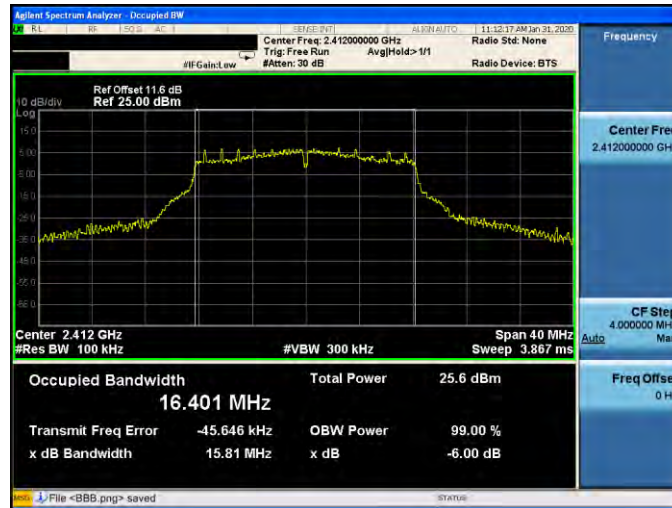
2462 MHz



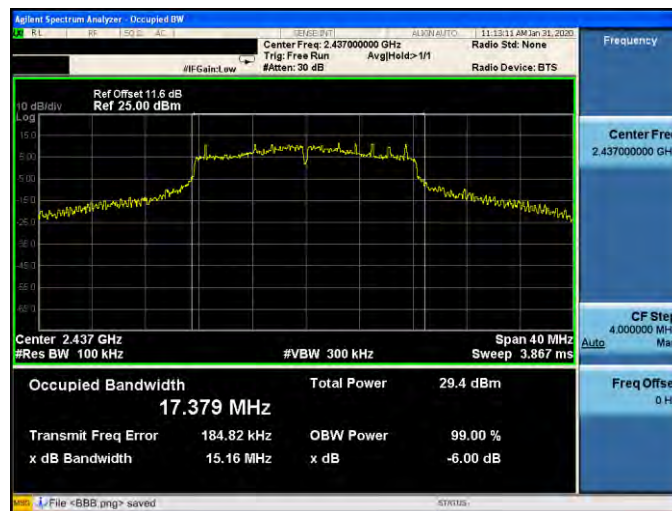


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



2437 MHz



2462 MHz





Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode_ANT-0

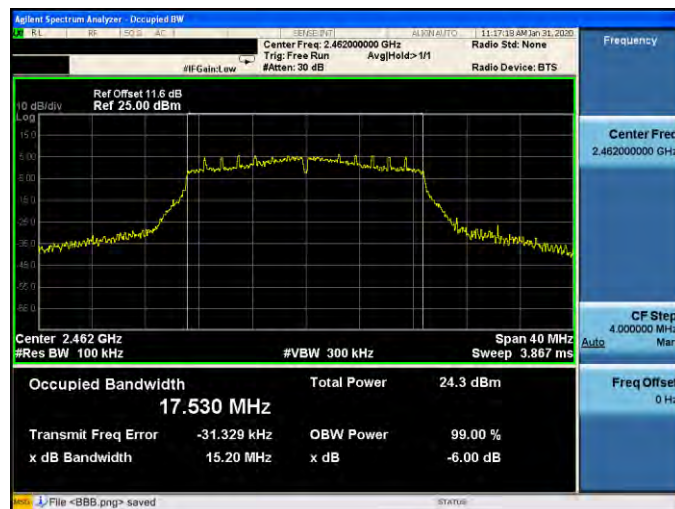
2412 MHz



2437 MHz



2462 MHz





Maximum Power Spectral Density Measurement

ANT-0			
Test Mode	Frequency (MHz)	Measurement (dBm/3 kHz)	Limit (dBm/ 3 kHz)
Mode 2	2412	-2.140	≤ 8
	2437	2.888	≤ 8
	2462	-2.690	≤ 8
Mode 3	2412	-3.752	≤ 8
	2437	-0.390	≤ 8
	2462	-3.435	≤ 8
Mode 4	2412	-6.027	≤ 8
	2437	-2.747	≤ 8
	2462	-6.059	≤ 8



Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz



2437 MHz



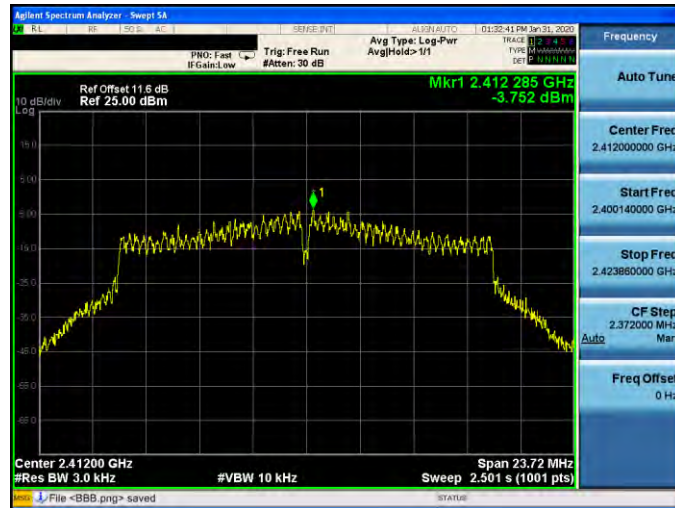
2462 MHz



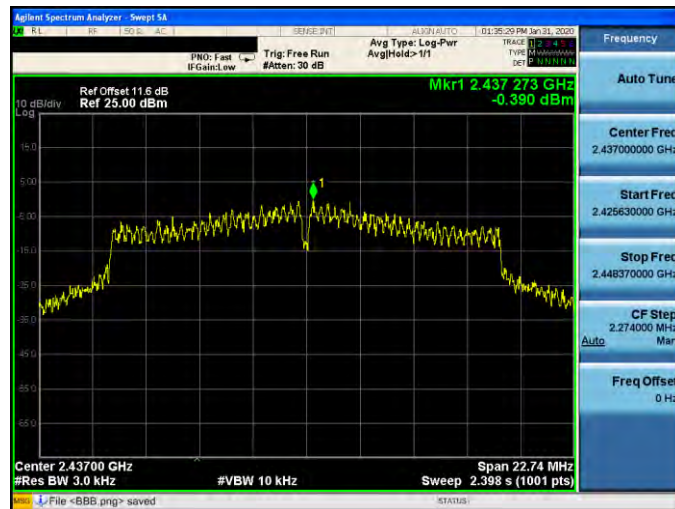


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

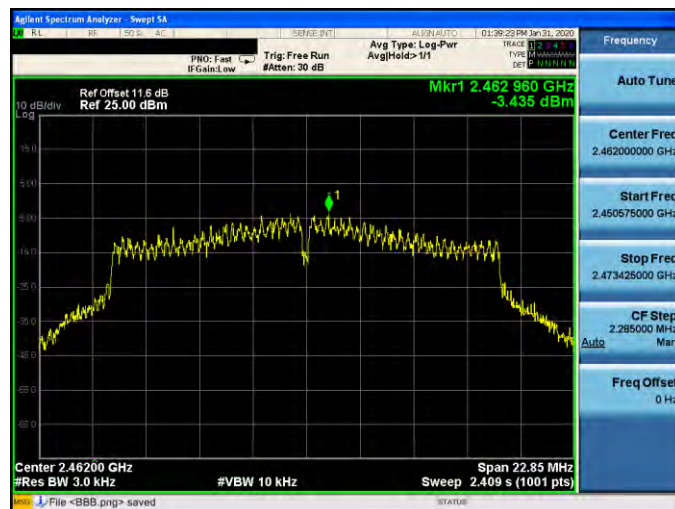
2412 MHz



2437 MHz



2462 MHz



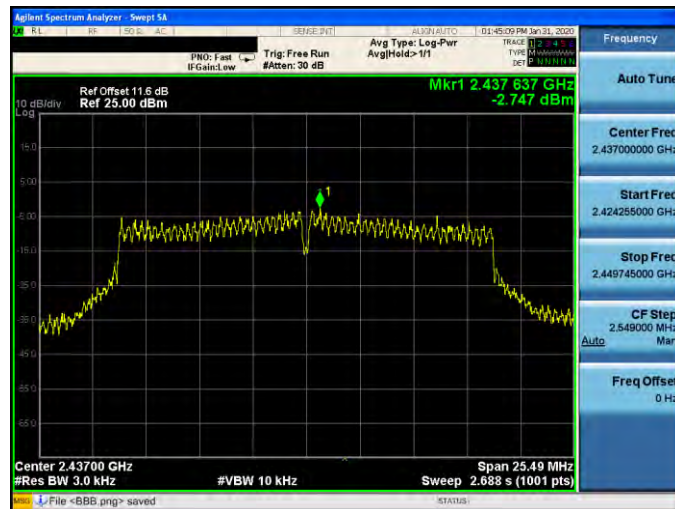


Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

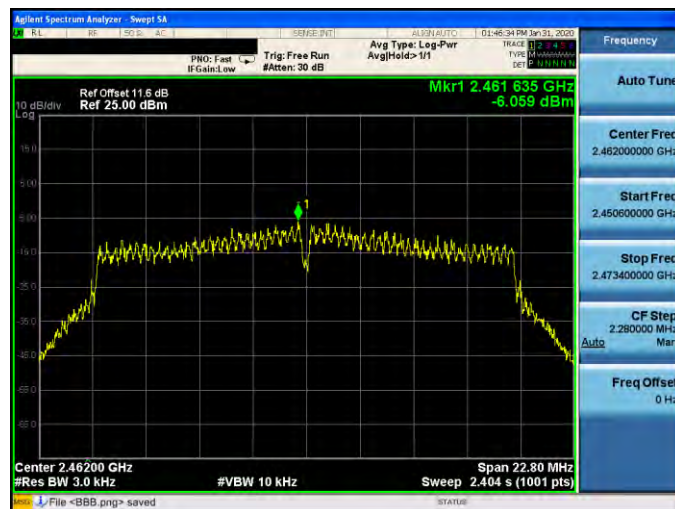
2412 MHz



2437 MHz



2462 MHz








Out of Band Conducted Emissions Measurement

■ Test Graphs

Reference level

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz	
2437 MHz	
2462 MHz	



Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



2437 MHz



2462 MHz





Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode _ANT-0

2412 MHz



2437 MHz



2462 MHz





Out of Band Conducted Emissions

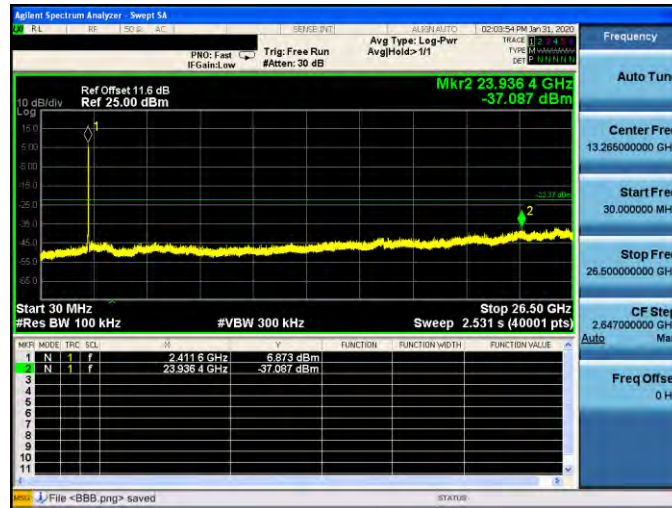
Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

<p>2412 MHz</p>	<p>Agilent Spectrum Analyzer - Sweep SA</p> <p>Ref Offset 11.6 dB Ref 25.00 dBm</p> <p>Mkr2 25.728 1 GHz -36.066 dBm</p> <p>Start 30 MHz #Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Stop 26.50 GHz Sweep 2.531 s (40001 pts)</p> <table border="1"> <thead> <tr> <th>MFR MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>-2.413 6 GHz</td> <td></td> <td></td> <td>11.958 dBm</td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>25.728 1 GHz</td> <td></td> <td></td> <td>-36.066 dBm</td> </tr> </tbody> </table>	MFR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	-2.413 6 GHz			11.958 dBm	2	N	1	f	25.728 1 GHz			-36.066 dBm
MFR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																		
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2	N	1	f	25.728 1 GHz			-36.066 dBm																		
<p>2437 MHz</p>	<p>Agilent Spectrum Analyzer - Sweep SA</p> <p>Ref Offset 11.6 dB Ref 25.00 dBm</p> <p>Mkr2 25.678 8 GHz -36.750 dBm</p> <p>Start 30 MHz #Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Stop 26.50 GHz Sweep 2.531 s (40001 pts)</p> <table border="1"> <thead> <tr> <th>MFR MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>-2.435 6 GHz</td> <td></td> <td></td> <td>15.143 dBm</td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>25.678 8 GHz</td> <td></td> <td></td> <td>-36.750 dBm</td> </tr> </tbody> </table>	MFR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	-2.435 6 GHz			15.143 dBm	2	N	1	f	25.678 8 GHz			-36.750 dBm
MFR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																		
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2	N	1	f	25.678 8 GHz			-36.750 dBm																		
<p>2462 MHz</p>	<p>Agilent Spectrum Analyzer - Sweep SA</p> <p>Ref Offset 11.6 dB Ref 25.00 dBm</p> <p>Mkr2 25.744 9 GHz -36.942 dBm</p> <p>Start 30 MHz #Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Stop 26.50 GHz Sweep 2.531 s (40001 pts)</p> <table border="1"> <thead> <tr> <th>MFR MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>-2.462 8 GHz</td> <td></td> <td></td> <td>10.809 dBm</td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>25.744 9 GHz</td> <td></td> <td></td> <td>-36.942 dBm</td> </tr> </tbody> </table>	MFR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	-2.462 8 GHz			10.809 dBm	2	N	1	f	25.744 9 GHz			-36.942 dBm
MFR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																		
1	N	1	f	-2.462 8 GHz			10.809 dBm																		
2	N	1	f	25.744 9 GHz			-36.942 dBm																		

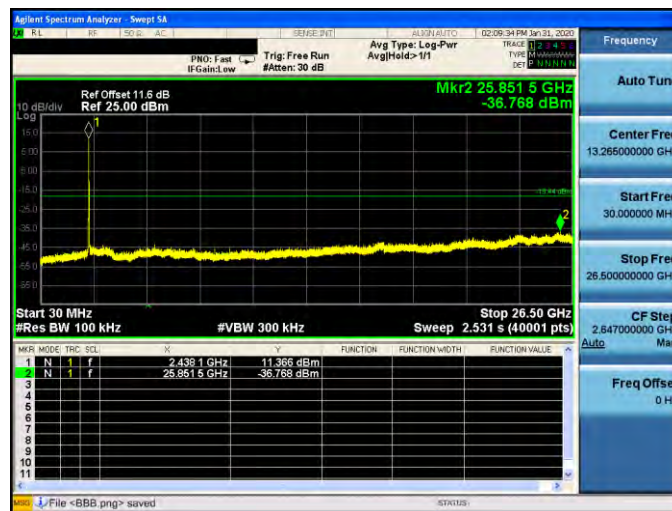


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

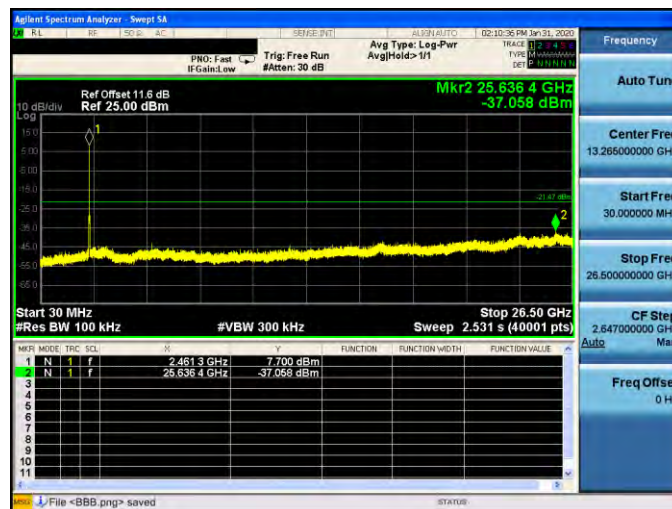
2412 MHz



2437 MHz



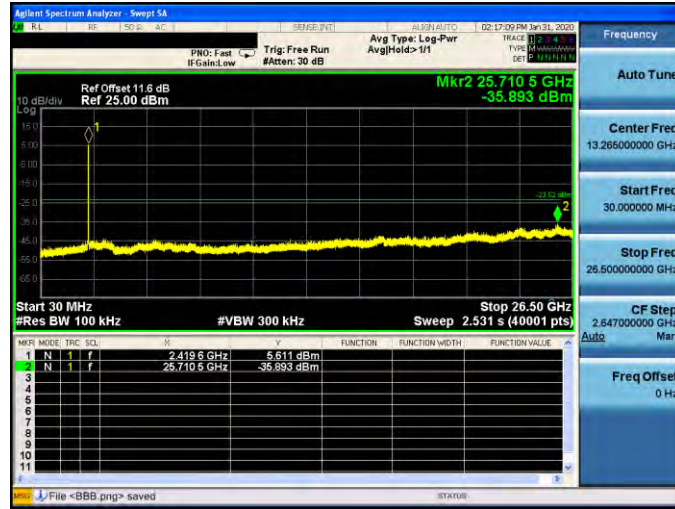
2462 MHz



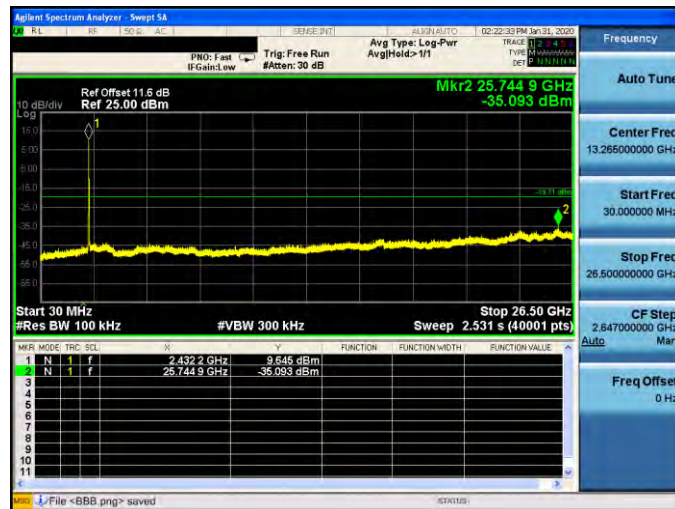


Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode_ANT-0

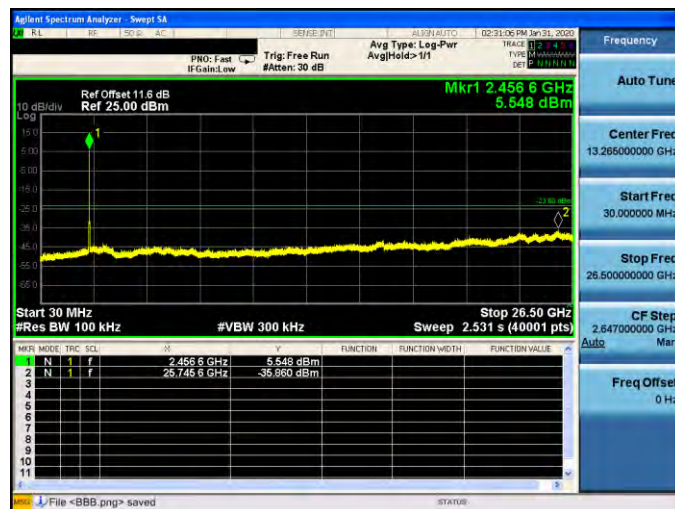
2412 MHz



2437 MHz



2462 MHz

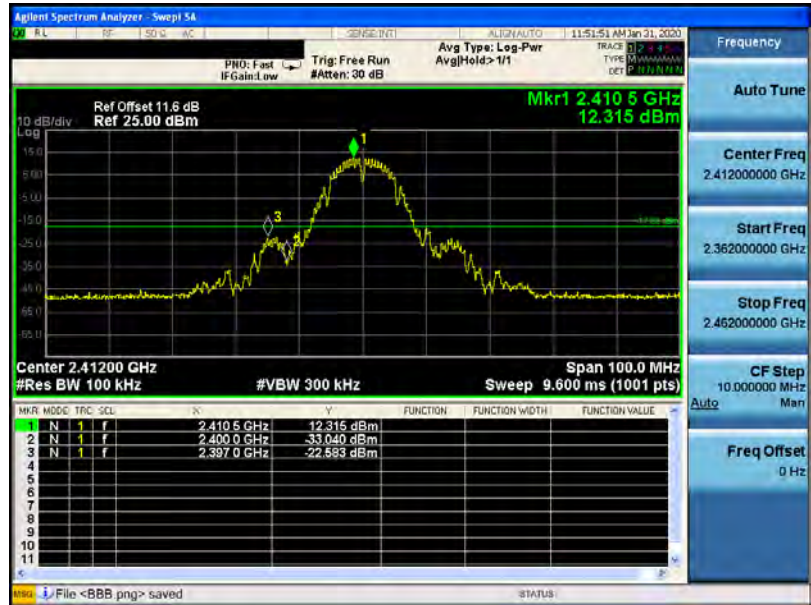




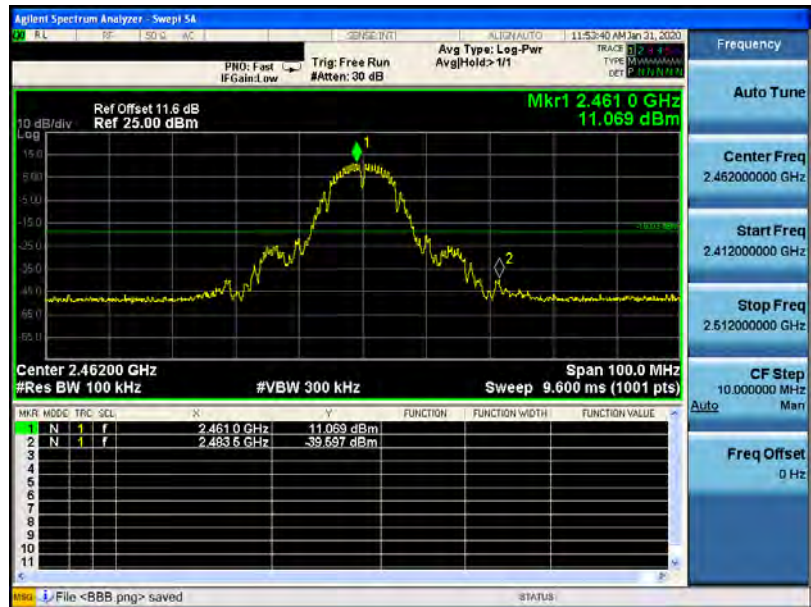
Conducted Band Edge

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz

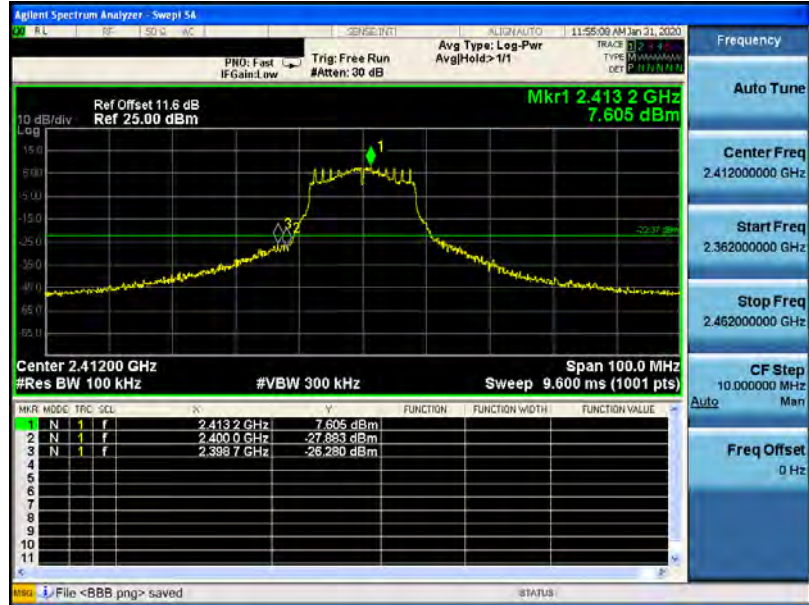


2462 MHz

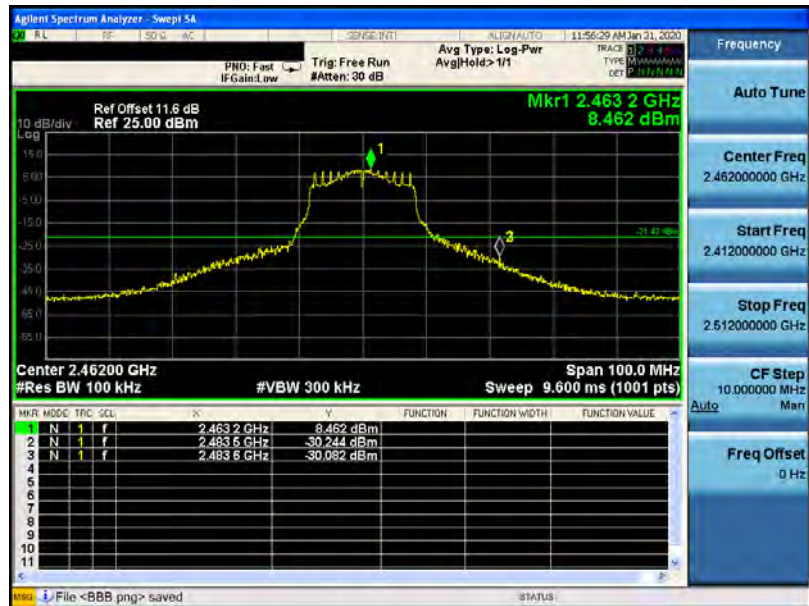


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz



2462 MHz



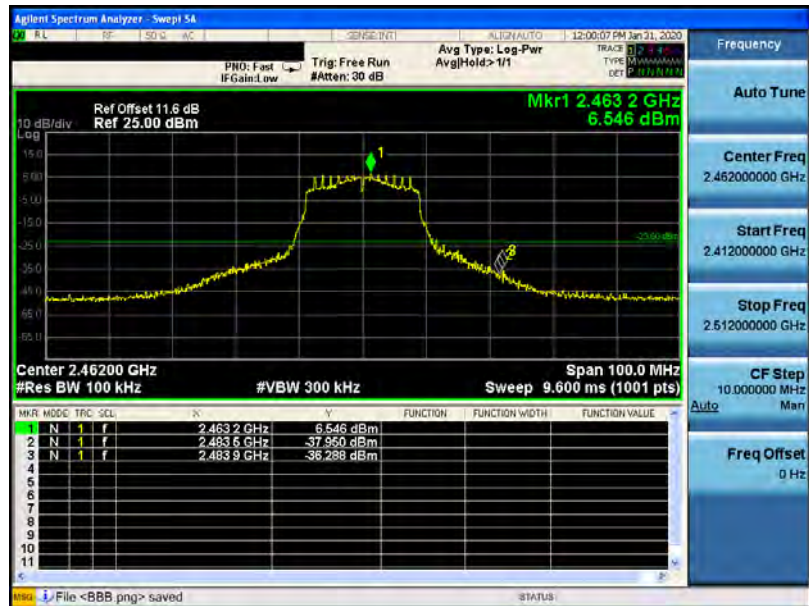


Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode ANT-0

2412 MHz



2462 MHz



Annex C. Radiated Emission Measurement

Below 1 GHz

Standard:		FCC Part 15.247		Test Distance:		3 m	
Test item:		Radiated Emission		Power:		AC 120 V/60 Hz	
Mode:		Mode 1		Temp.(°C)/Hum.(%RH):		25(°C)/60 %RH	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
250.1900	46.21	-6.18	40.03	46.00	-5.97	QP	H
375.3200	33.31	-2.70	30.61	46.00	-15.39	QP	H
517.9100	36.19	0.01	36.20	46.00	-9.80	QP	H
605.2100	38.18	2.31	40.49	46.00	-5.51	QP	H
875.8400	33.33	6.92	40.25	46.00	-5.75	QP	H
932.1000	32.45	8.38	40.83	46.00	-5.17	QP	H
250.1900	43.48	-6.18	37.30	46.00	-8.70	QP	V
491.7200	35.20	-0.48	34.72	46.00	-11.28	QP	V
517.9100	38.30	0.01	38.31	46.00	-7.69	QP	V
605.2100	38.54	2.31	40.85	46.00	-5.15	QP	V
770.1100	31.45	5.18	36.63	46.00	-9.37	QP	V
935.9800	31.45	8.48	39.93	46.00	-6.07	QP	V

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

Example: 40.03= -6.18+46.21

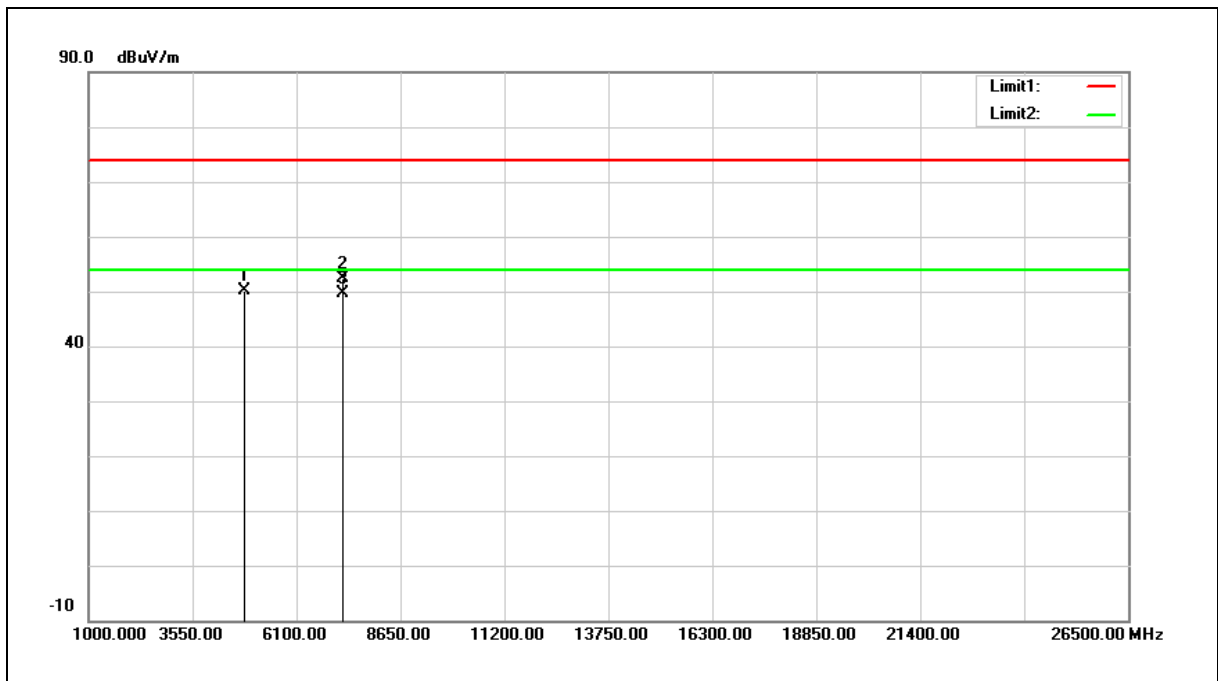
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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



Harmonic

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	44.27	5.88	50.15	74.00	-23.85	peak
2	7236.000	40.05	12.42	52.47	74.00	-21.53	peak
3	7236.000	37.12	12.42	49.54	54.00	-4.46	AVG

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

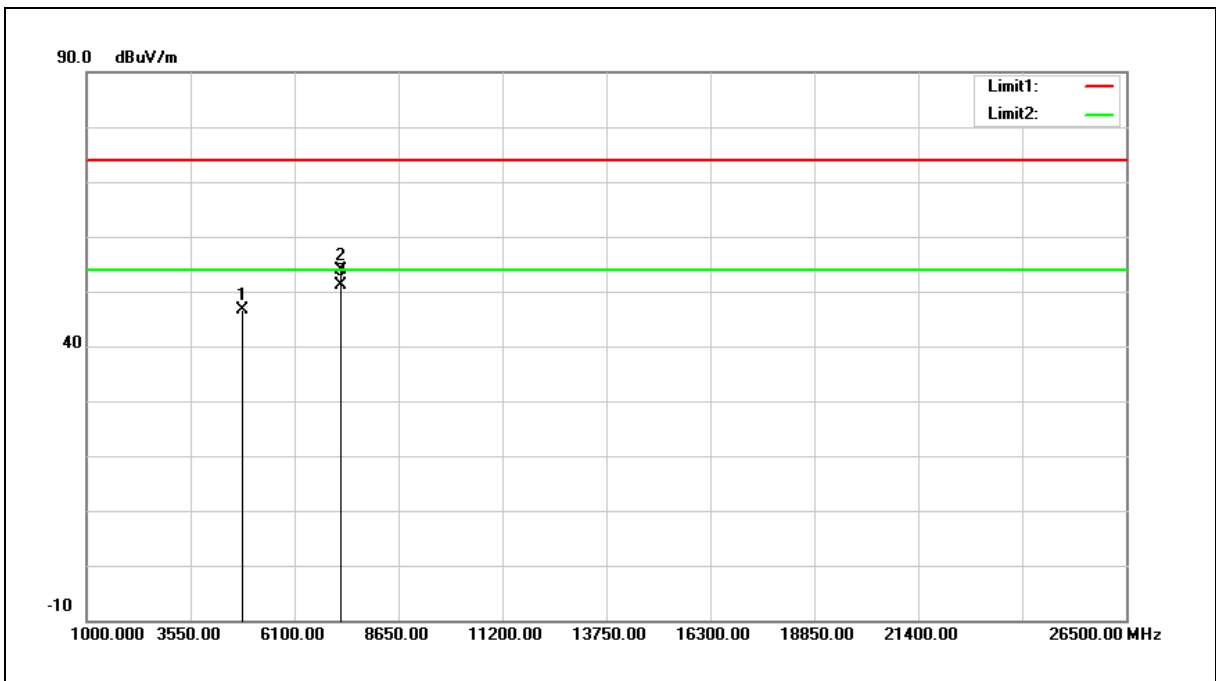
Example: 50.15= 5.88+44.27

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.



Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	40.72	5.88	46.60	74.00	-27.40	peak
2	7236.000	41.34	12.42	53.76	74.00	-20.24	peak
3	7236.000	38.60	12.42	51.02	54.00	-2.98	AVG

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

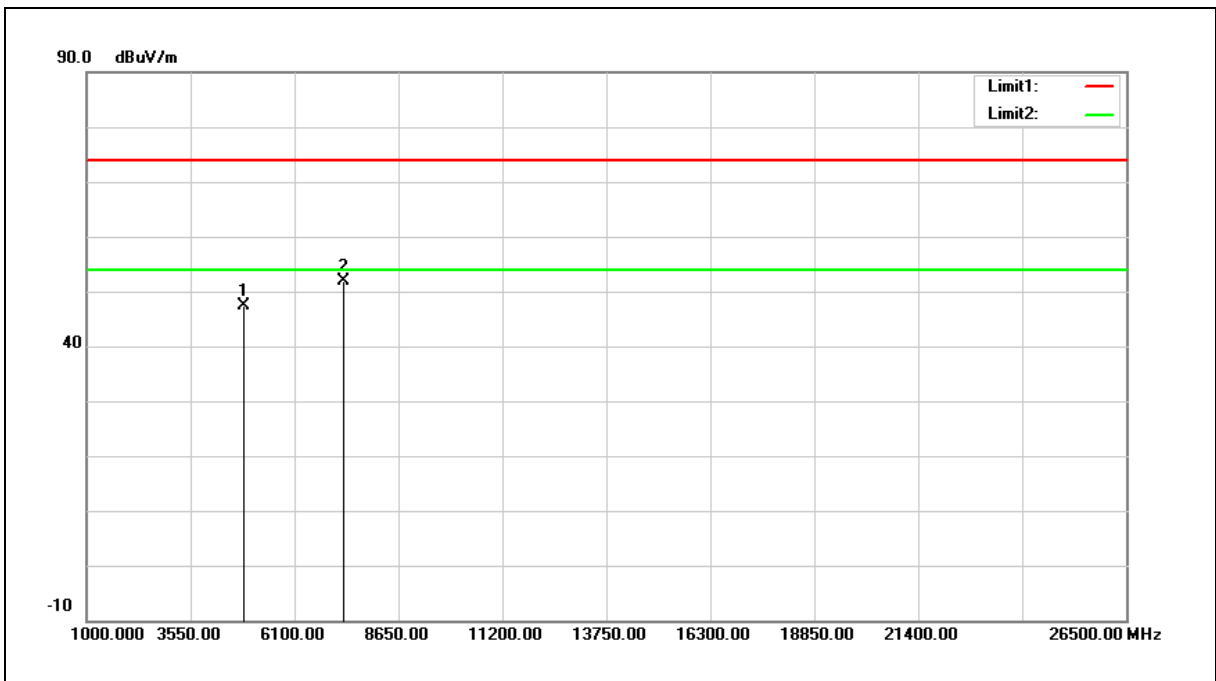
Example: 46.60= 5.88+40.72

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	41.46	6.03	47.49	74.00	-26.51	peak
2	7311.000	39.14	12.67	51.81	74.00	-22.19	peak

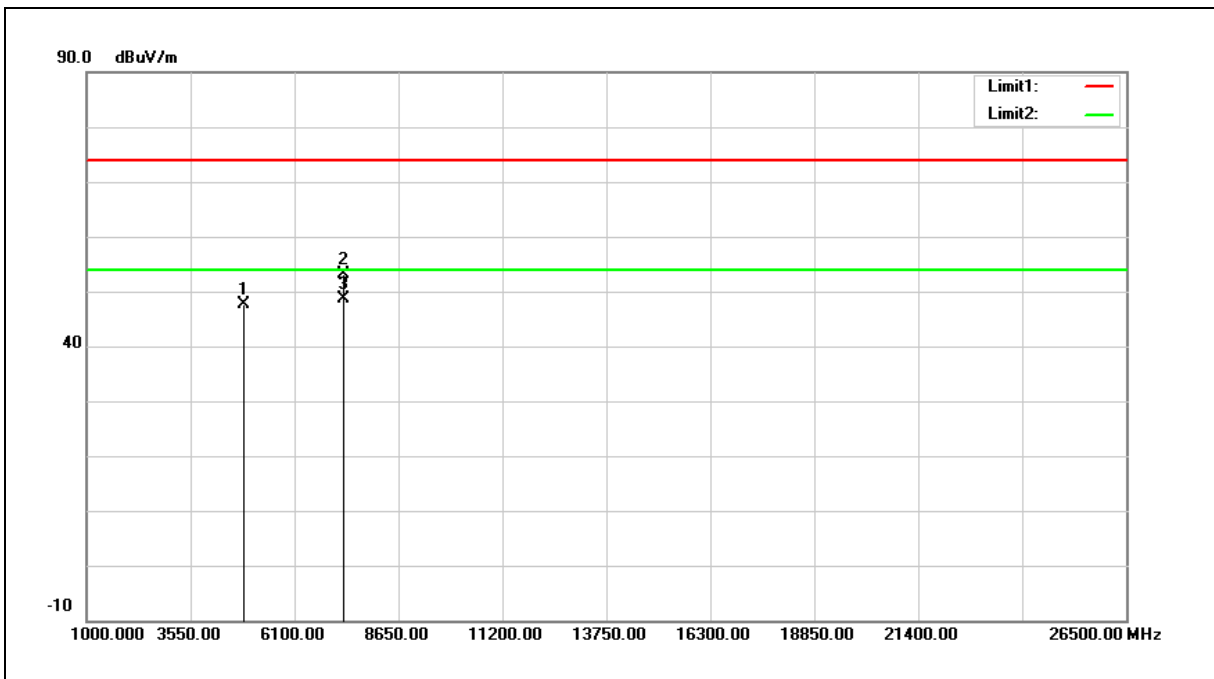
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	41.61	6.03	47.64	74.00	-26.36	peak
2	7311.000	40.58	12.67	53.25	74.00	-20.75	peak
3	7311.000	36.04	12.67	48.71	54.00	-5.29	AVG

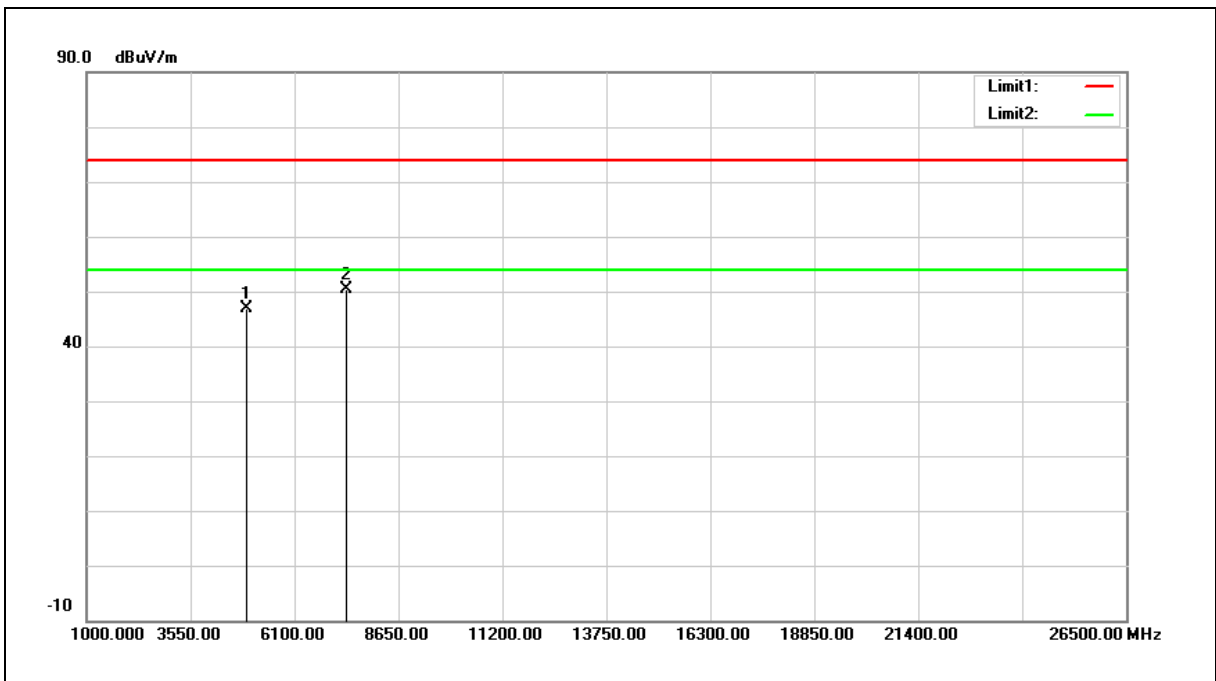
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

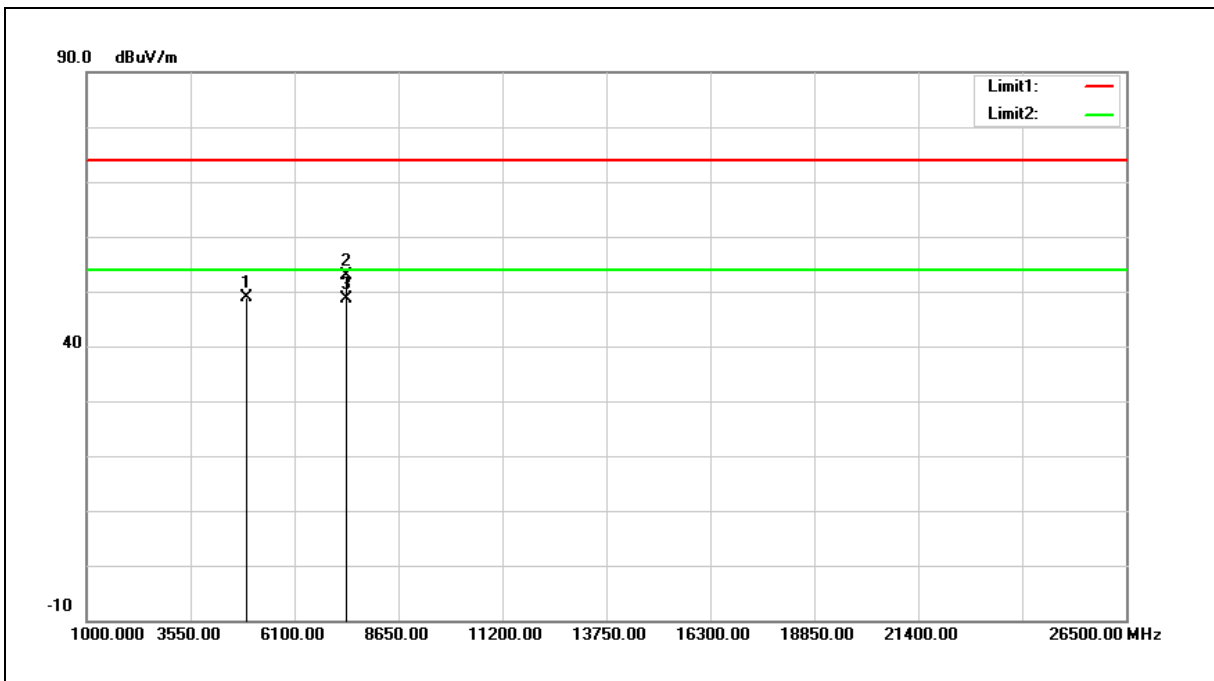


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	40.73	6.18	46.91	74.00	-27.09	peak
2	7386.000	37.35	12.93	50.28	74.00	-23.72	peak

- 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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	42.65	6.18	48.83	74.00	-25.17	peak
2	7386.000	39.90	12.93	52.83	74.00	-21.17	peak
3	7386.000	35.80	12.93	48.73	54.00	-5.27	AVG

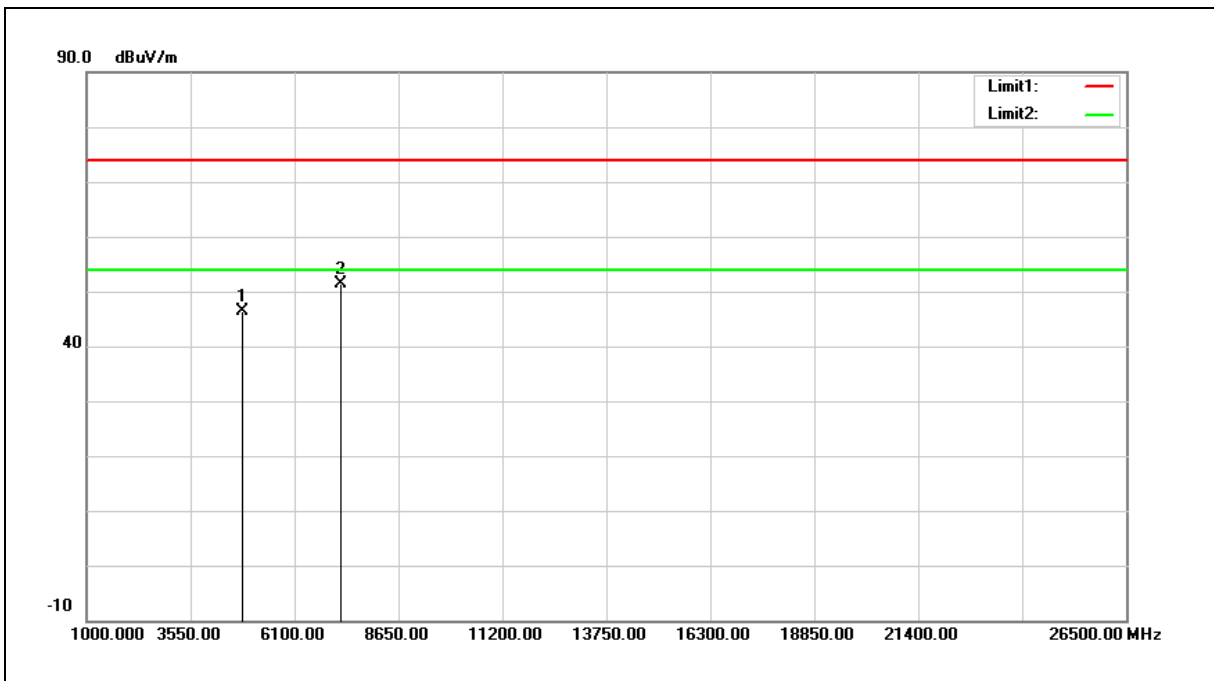
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	40.38	5.88	46.26	74.00	-27.74	peak
2	7236.000	38.92	12.42	51.34	74.00	-22.66	peak

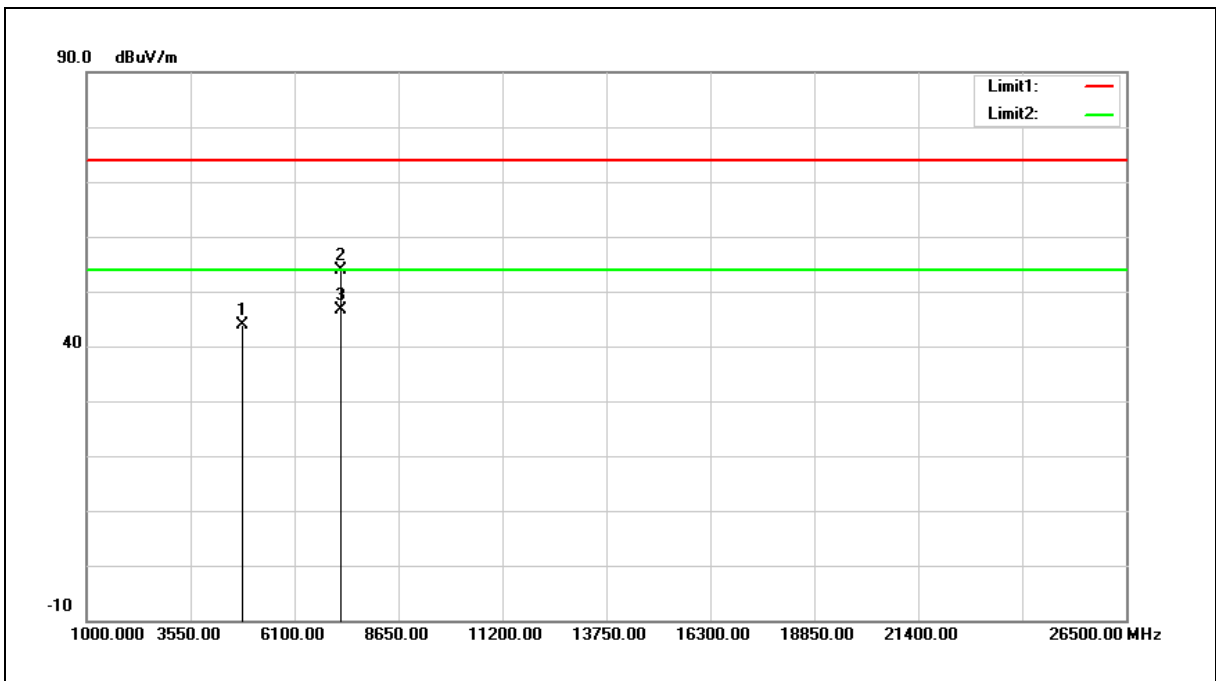
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

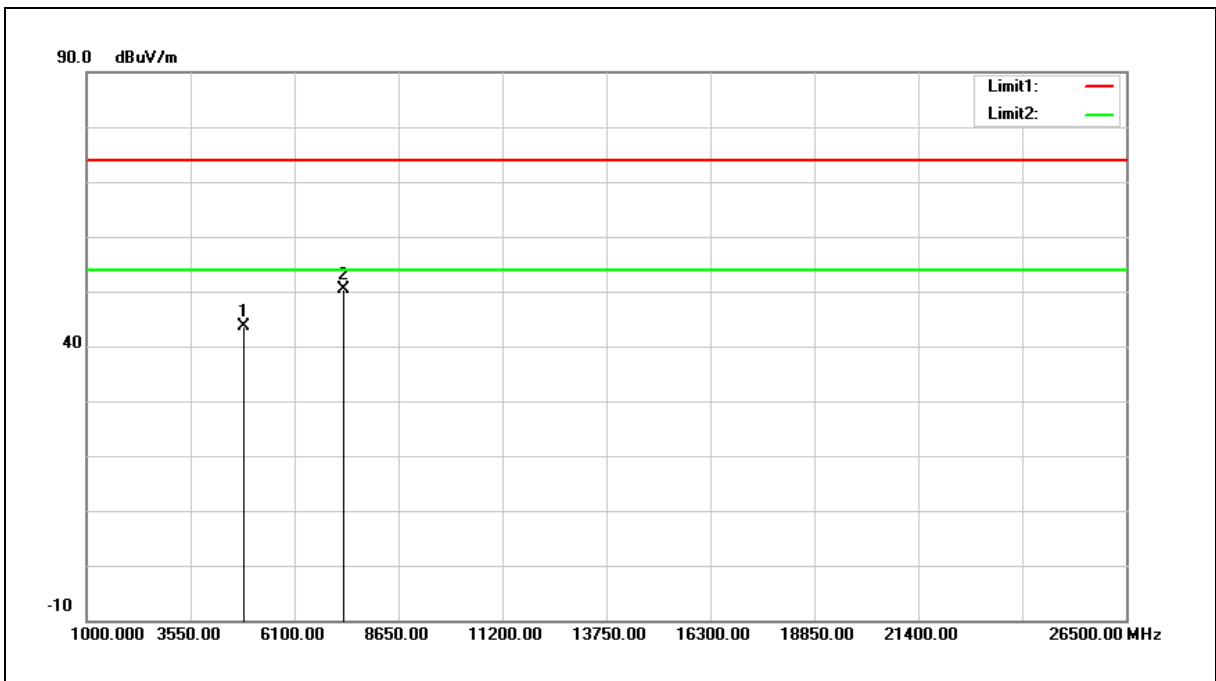


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	38.10	5.88	43.98	74.00	-30.02	peak
2	7236.000	41.43	12.42	53.85	74.00	-20.15	peak
3	7236.000	34.09	12.42	46.51	54.00	-7.49	AVG

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:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

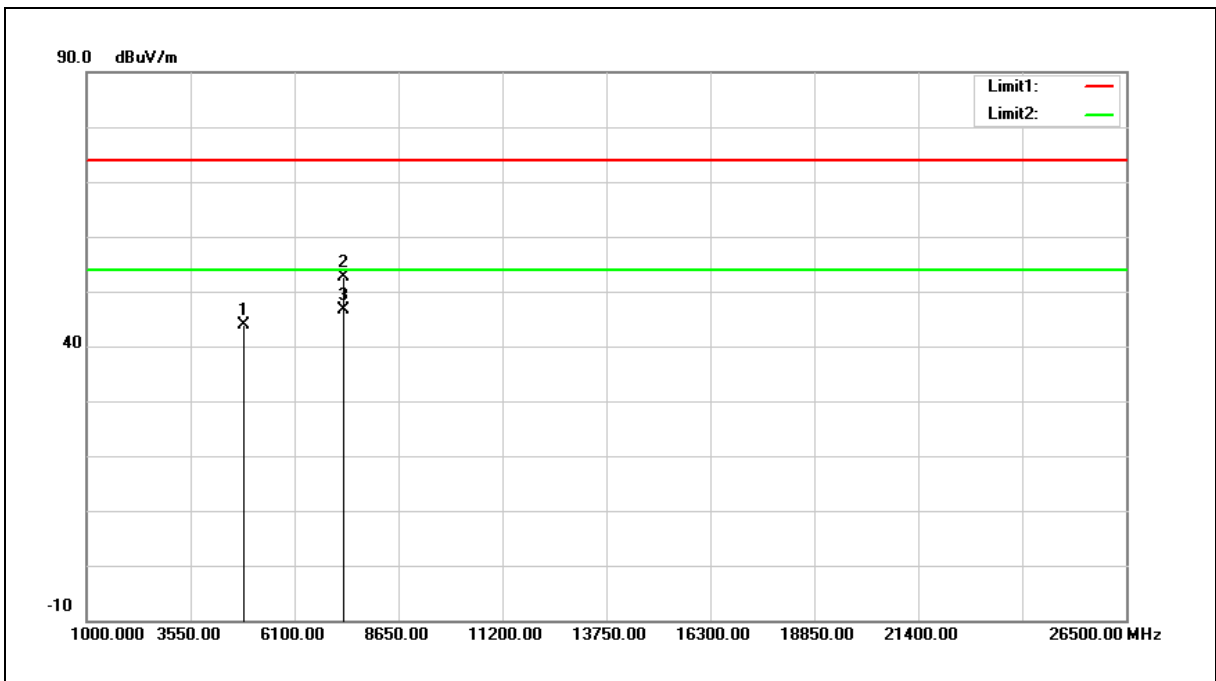


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	37.70	6.03	43.73	74.00	-30.27	peak
2	7311.000	37.63	12.67	50.30	74.00	-23.70	peak

- 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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	37.85	6.03	43.88	74.00	-30.12	peak
2	7311.000	39.93	12.67	52.60	74.00	-21.40	peak
3	7311.000	33.89	12.67	46.56	54.00	-7.44	AVG

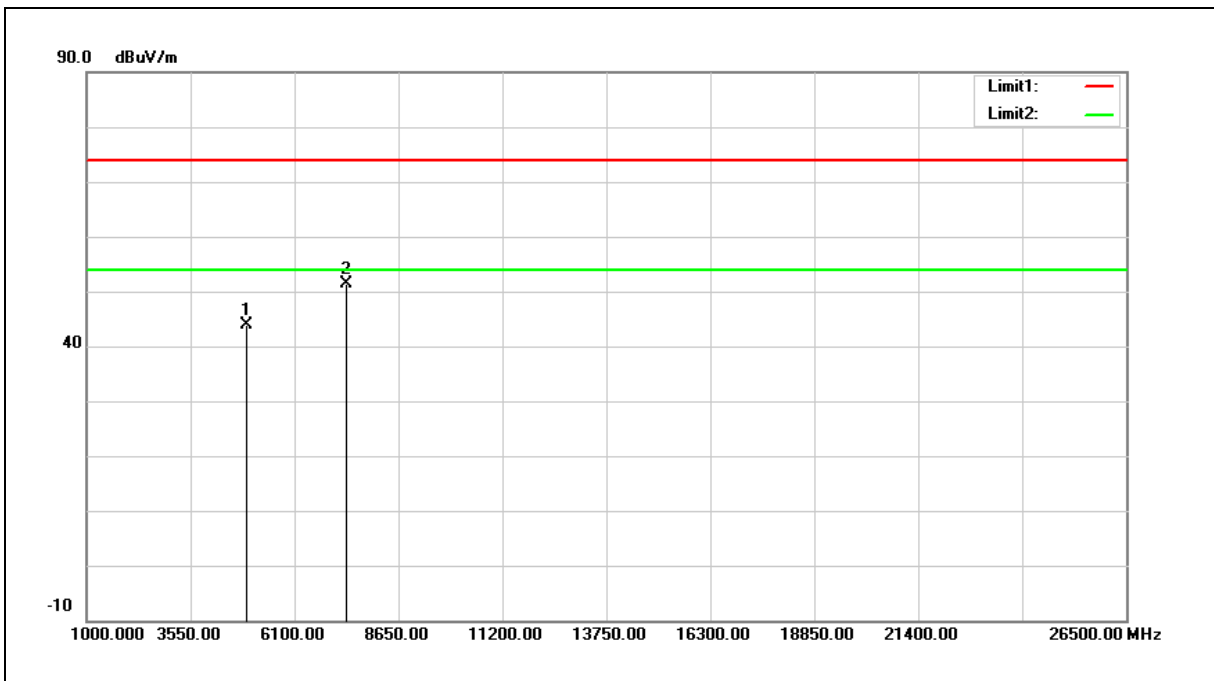
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

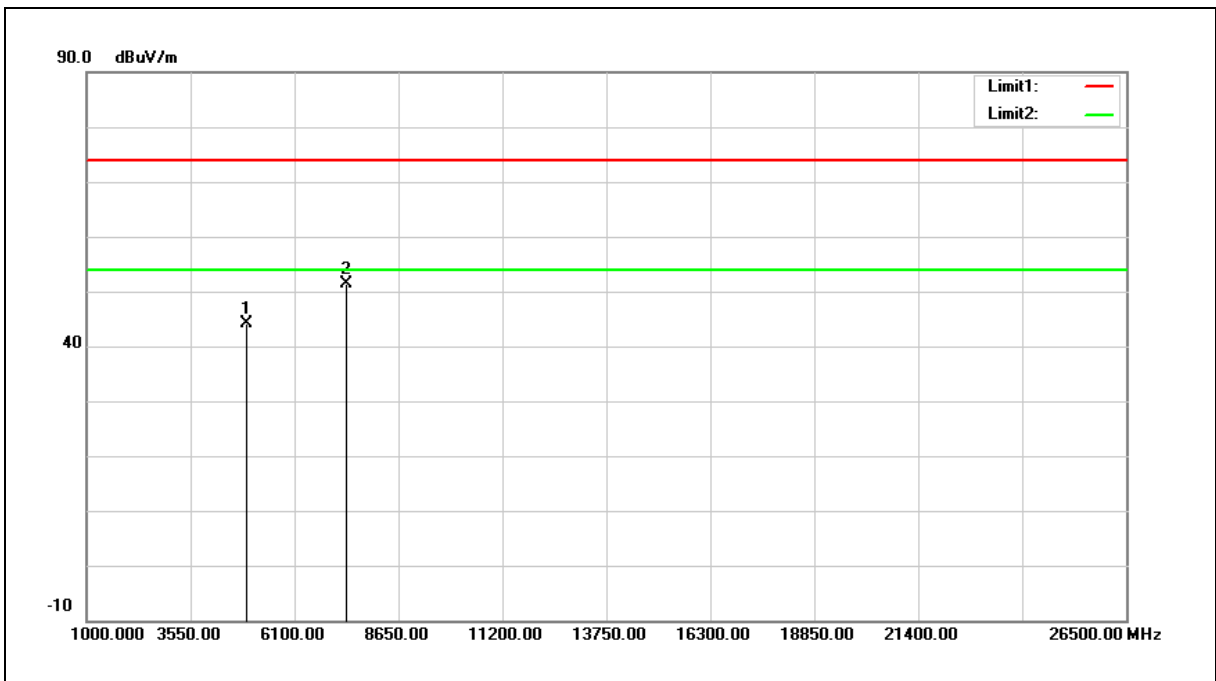


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	37.60	6.18	43.78	74.00	-30.22	peak
2	7386.000	38.52	12.93	51.45	74.00	-22.55	peak

- 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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	38.01	6.18	44.19	74.00	-29.81	peak
2	7386.000	38.42	12.93	51.35	74.00	-22.65	peak

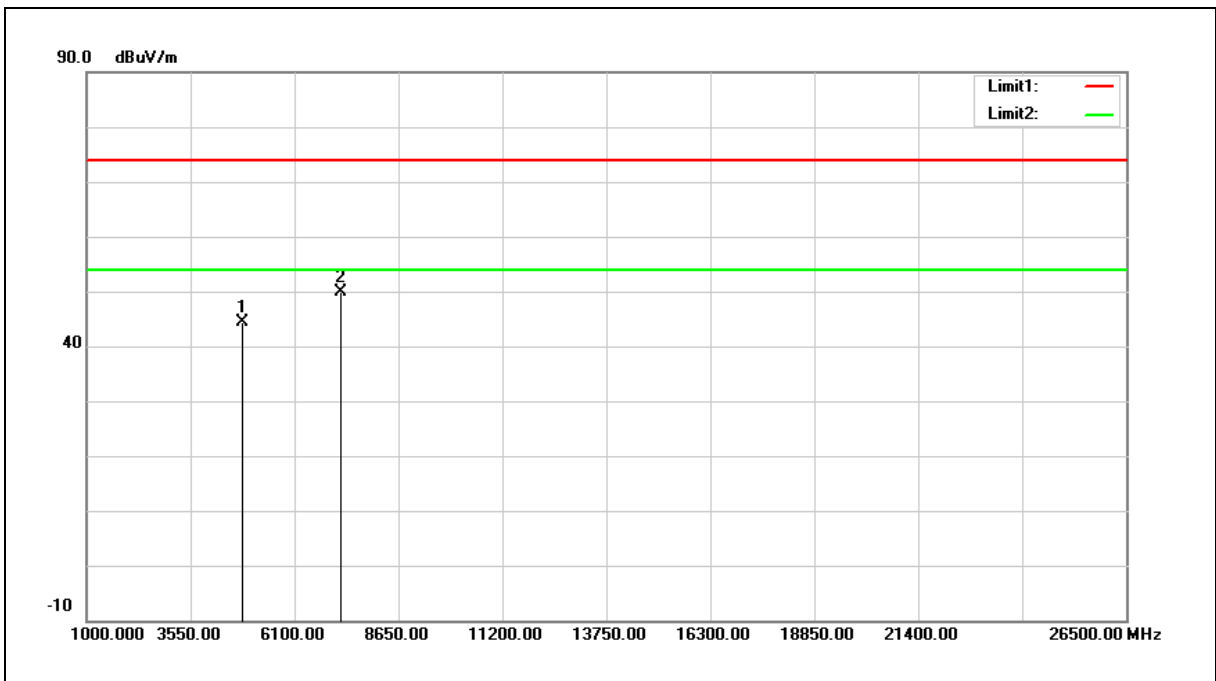
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

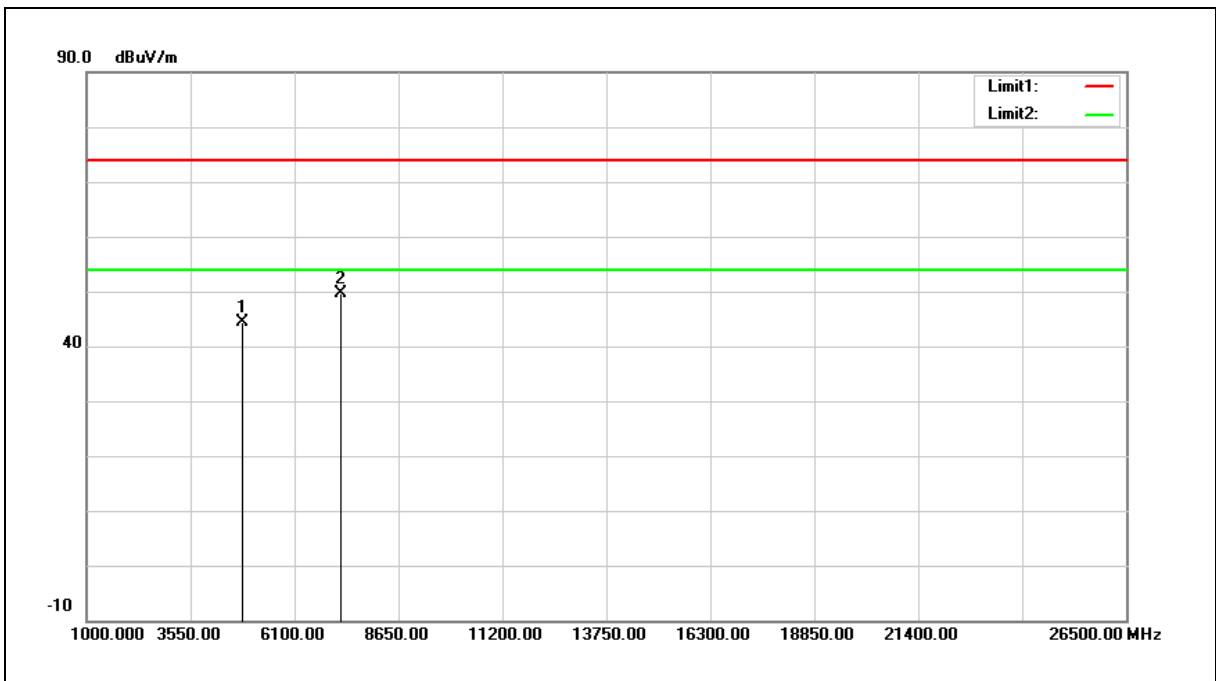


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	38.52	5.88	44.40	74.00	-29.60	peak
2	7236.000	37.39	12.42	49.81	74.00	-24.19	peak

- 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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	4824.000	38.41	5.88	44.29	74.00	-29.71	peak
2	7236.000	37.20	12.42	49.62	74.00	-24.38	peak

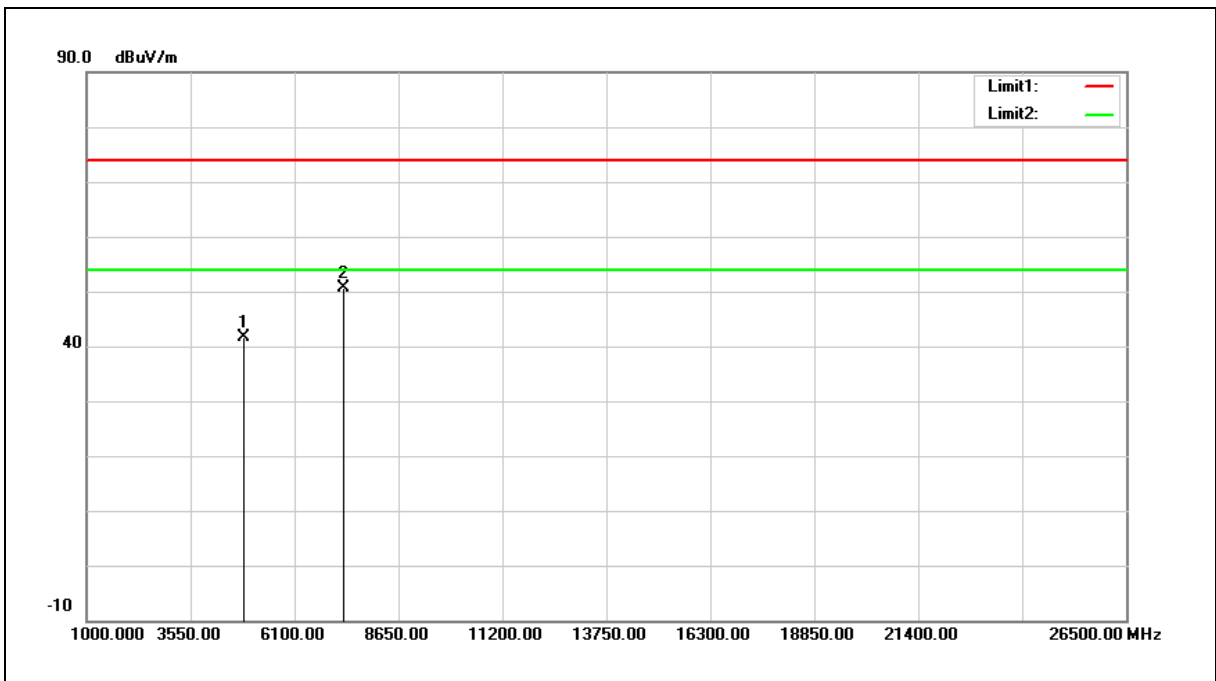
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	35.61	6.03	41.64	74.00	-32.36	peak
2	7311.000	38.00	12.67	50.67	74.00	-23.33	peak

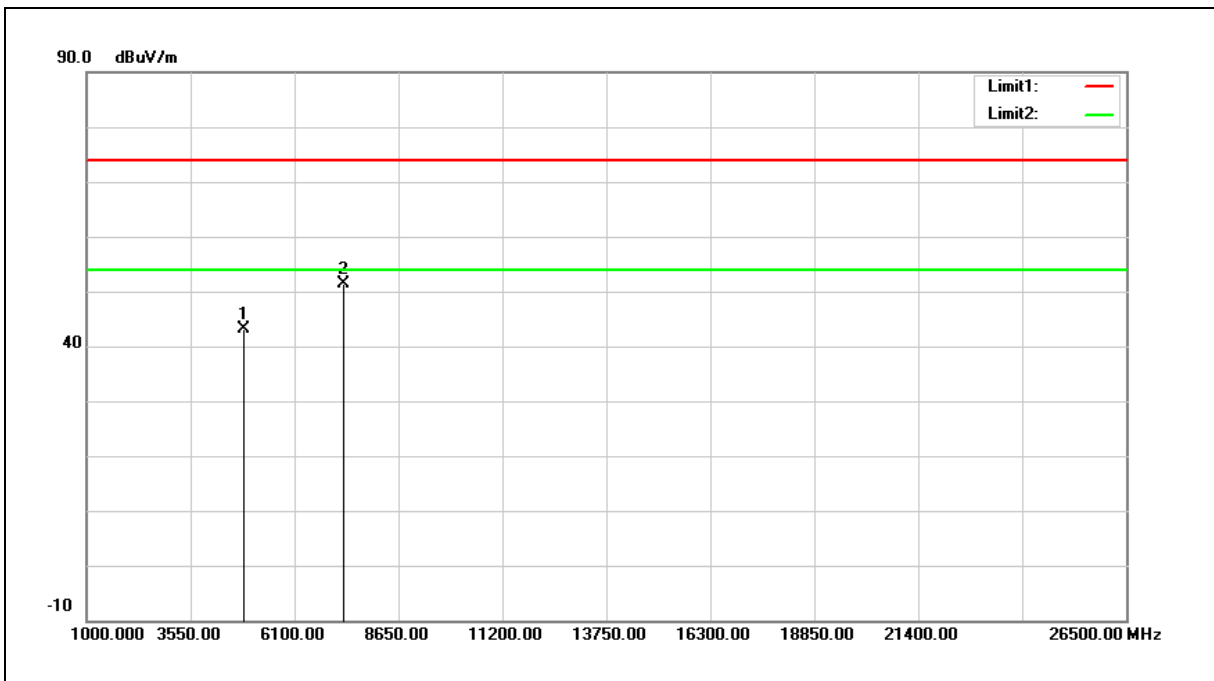
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

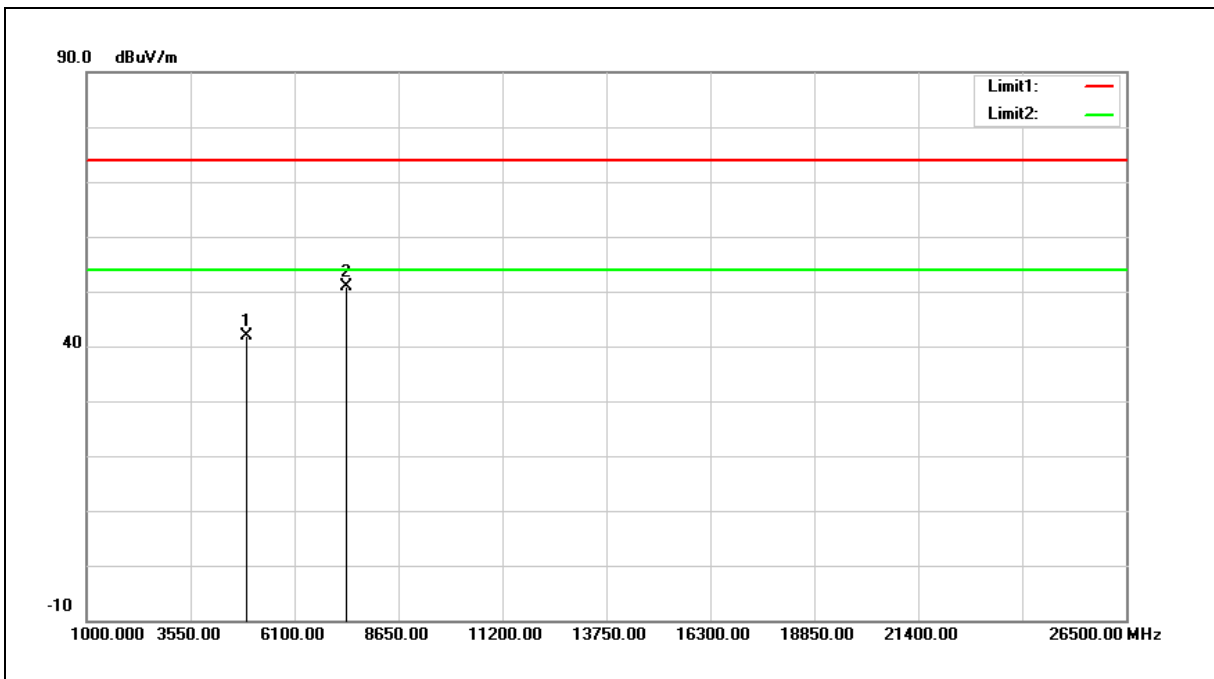


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	37.03	6.03	43.06	74.00	-30.94	peak
2	7311.000	38.69	12.67	51.36	74.00	-22.64	peak

- 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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

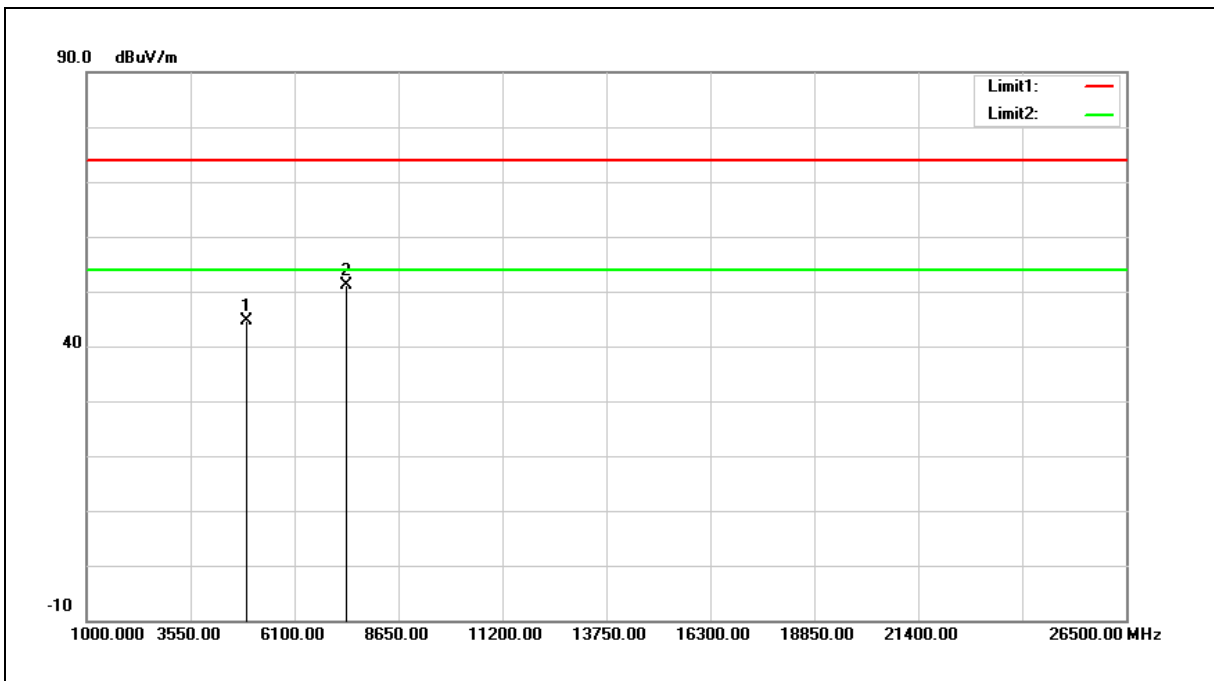


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	35.70	6.18	41.88	74.00	-32.12	peak
2	7386.000	37.91	12.93	50.84	74.00	-23.16	peak

- 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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

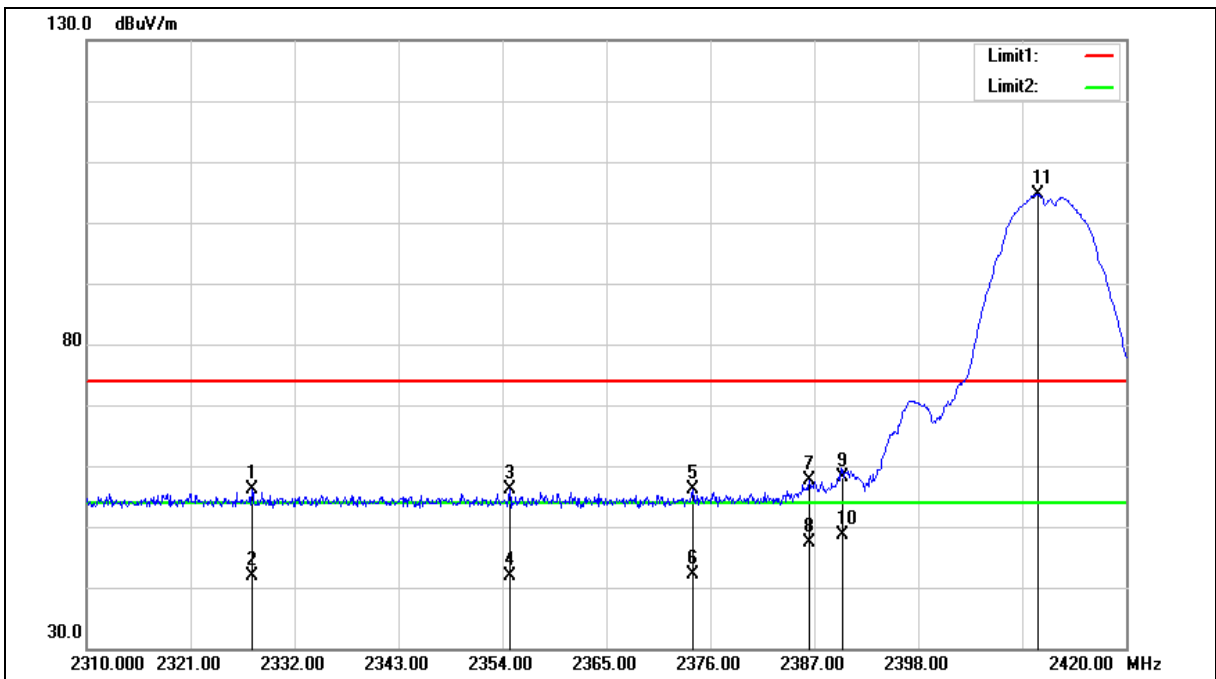


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	38.33	6.18	44.51	74.00	-29.49	peak
2	7386.000	38.20	12.93	51.13	74.00	-22.87	peak

- 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.

Band Edge

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2327.490	57.18	-1.14	56.04	74.00	-17.96	peak
2	2327.490	43.14	-1.14	42.00	54.00	-12.00	AVG
3	2354.770	57.18	-1.00	56.18	74.00	-17.82	peak
4	2354.770	42.85	-1.00	41.85	54.00	-12.15	AVG
5	2374.130	57.15	-0.91	56.24	74.00	-17.76	peak
6	2374.130	43.02	-0.91	42.11	54.00	-11.89	AVG
7	2386.450	58.37	-0.85	57.52	74.00	-16.48	peak
8	2386.450	48.29	-0.85	47.44	54.00	-6.56	AVG
9	2390.000	59.07	-0.82	58.25	74.00	-15.75	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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2390.000	49.35	-0.82	48.53	54.00	-5.47	AVG
11	2410.650	105.30	-0.72	104.58	--	--	peak

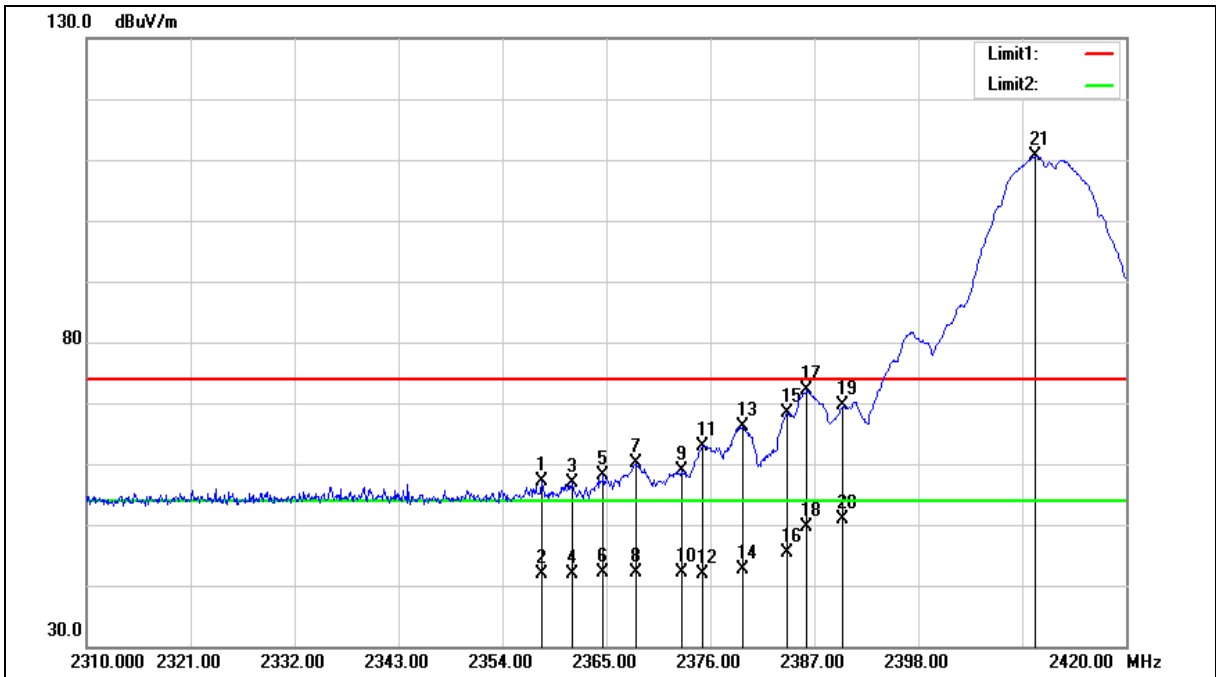
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2358.180	58.05	-0.99	57.06	74.00	-16.94	peak
2	2358.180	42.86	-0.99	41.87	54.00	-12.13	AVG
3	2361.370	57.77	-0.97	56.80	74.00	-17.20	peak
4	2361.370	42.90	-0.97	41.93	54.00	-12.07	AVG
5	2364.670	58.98	-0.96	58.02	74.00	-15.98	peak
6	2364.670	43.01	-0.96	42.05	54.00	-11.95	AVG
7	2368.080	60.98	-0.94	60.04	74.00	-13.96	peak
8	2368.080	43.16	-0.94	42.22	54.00	-11.78	AVG
9	2372.920	59.71	-0.91	58.80	74.00	-15.20	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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
10	2372.920	43.07	-0.91	42.16	54.00	-11.84	AVG
11	2375.230	63.87	-0.90	62.97	74.00	-11.03	peak
12	2375.230	42.81	-0.90	41.91	54.00	-12.09	AVG
13	2379.410	66.96	-0.88	66.08	74.00	-7.92	peak
14	2379.410	43.53	-0.88	42.65	54.00	-11.35	AVG
15	2384.140	69.27	-0.85	68.42	74.00	-5.58	peak
16	2384.140	46.17	-0.85	45.32	54.00	-8.68	AVG
17	2386.230	72.94	-0.85	72.09	74.00	-1.91	peak
18	2386.230	50.46	-0.85	49.61	54.00	-4.39	AVG
19	2390.000	70.36	-0.82	69.54	74.00	-4.46	peak
20	2390.000	51.63	-0.82	50.81	54.00	-3.19	AVG
21	2410.430	111.28	-0.72	110.56	--	--	peak

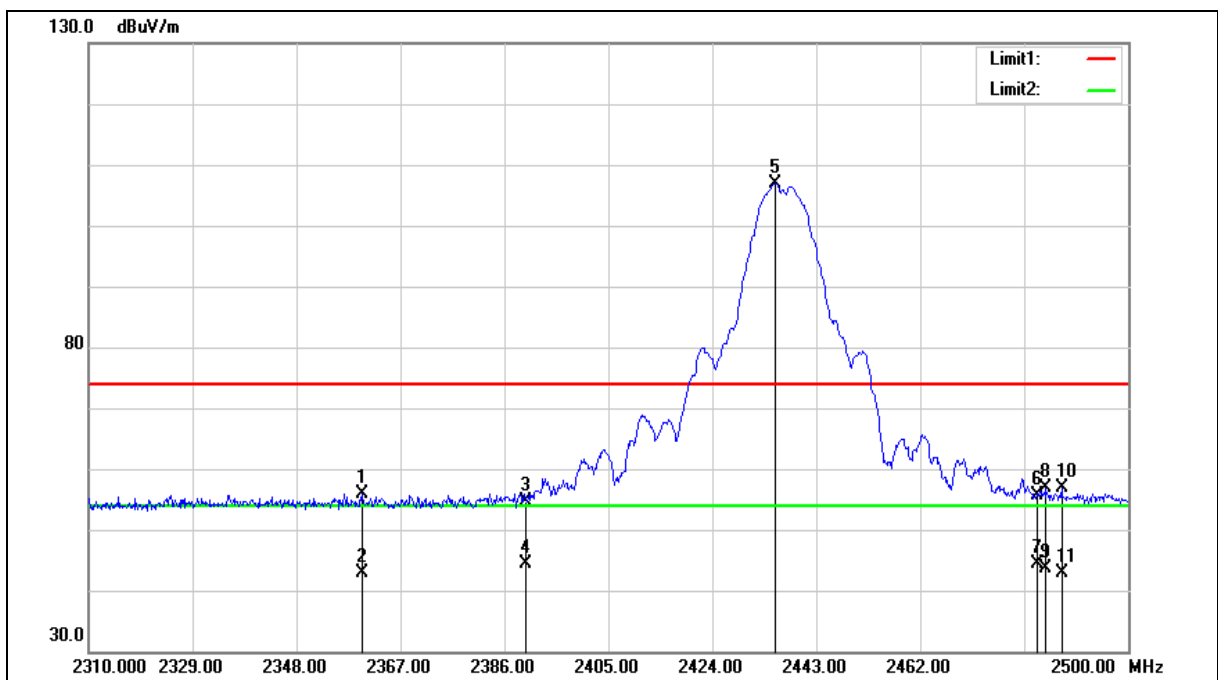
Note:1.Result (dBUV/m) = Correct Factor (dB/m) + Reading(dBUV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2359.970	56.99	-0.99	56.00	74.00	-18.00	peak
2	2359.970	43.89	-0.99	42.90	54.00	-11.10	AVG
3	2390.000	55.48	-0.82	54.66	74.00	-19.34	peak
4	2390.000	45.23	-0.82	44.41	54.00	-9.59	AVG
5	2435.400	107.50	-0.59	106.91	--	--	peak
6	2483.500	55.93	-0.35	55.58	74.00	-18.42	peak
7	2483.500	44.81	-0.35	44.46	54.00	-9.54	AVG
8	2484.990	57.20	-0.34	56.86	74.00	-17.14	peak
9	2484.990	44.03	-0.34	43.69	54.00	-10.31	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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2487.840	57.09	-0.32	56.77	74.00	-17.23	peak
11	2487.840	43.28	-0.32	42.96	54.00	-11.04	AVG

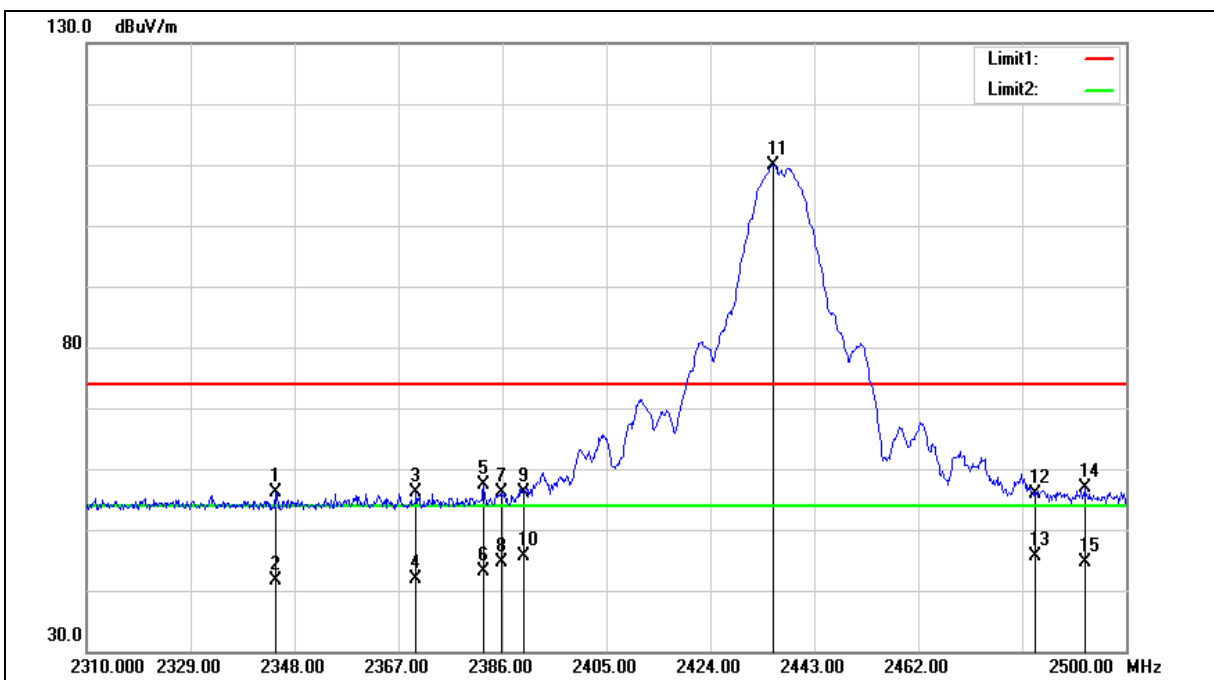
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2344.580	57.11	-1.05	56.06	74.00	-17.94	peak
2	2344.580	42.75	-1.05	41.70	54.00	-12.30	AVG
3	2370.230	57.01	-0.93	56.08	74.00	-17.92	peak
4	2370.230	42.74	-0.93	41.81	54.00	-12.19	AVG
5	2382.580	58.27	-0.87	57.40	74.00	-16.60	peak
6	2382.580	43.92	-0.87	43.05	54.00	-10.95	AVG
7	2385.810	57.00	-0.85	56.15	74.00	-17.85	peak
8	2385.810	45.60	-0.85	44.75	54.00	-9.25	AVG
9	2390.000	56.85	-0.82	56.03	74.00	-17.97	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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2390.000	46.49	-0.82	45.67	54.00	-8.33	AVG
11	2435.590	110.47	-0.59	109.88	--	--	peak
12	2483.500	56.34	-0.35	55.99	74.00	-18.01	peak
13	2483.500	45.86	-0.35	45.51	54.00	-8.49	AVG
14	2492.400	57.15	-0.30	56.85	74.00	-17.15	peak
15	2492.400	44.89	-0.30	44.59	54.00	-9.41	AVG

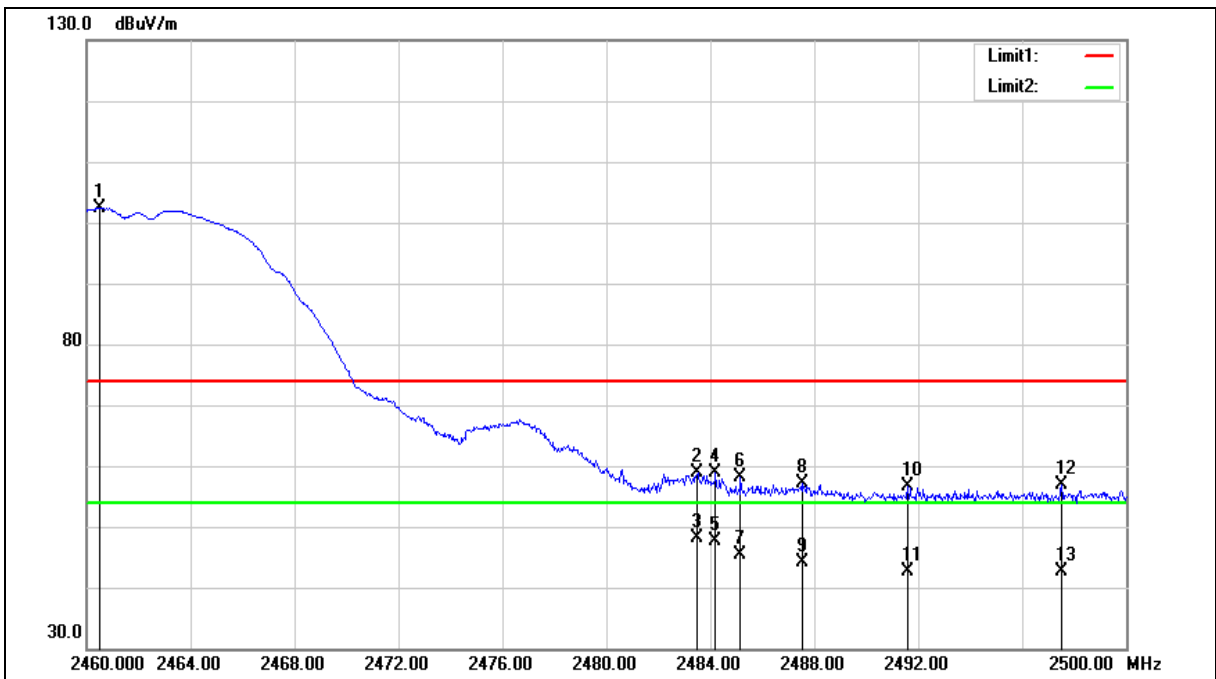
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2460.520	102.84	-0.46	102.38	--	--	peak
2	2483.500	59.11	-0.35	58.76	74.00	-15.24	peak
3	2483.500	48.58	-0.35	48.23	54.00	-5.77	AVG
4	2484.200	59.18	-0.34	58.84	74.00	-15.16	peak
5	2484.200	47.97	-0.34	47.63	54.00	-6.37	AVG
6	2485.160	58.35	-0.34	58.01	74.00	-15.99	peak
7	2485.160	45.65	-0.34	45.31	54.00	-8.69	AVG
8	2487.520	57.35	-0.32	57.03	74.00	-16.97	peak
9	2487.520	44.55	-0.32	44.23	54.00	-9.77	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2491.600	56.85	-0.30	56.55	74.00	-17.45	peak
11	2491.600	42.94	-0.30	42.64	54.00	-11.36	AVG
12	2497.520	57.13	-0.27	56.86	74.00	-17.14	peak
13	2497.520	42.99	-0.27	42.72	54.00	-11.28	AVG

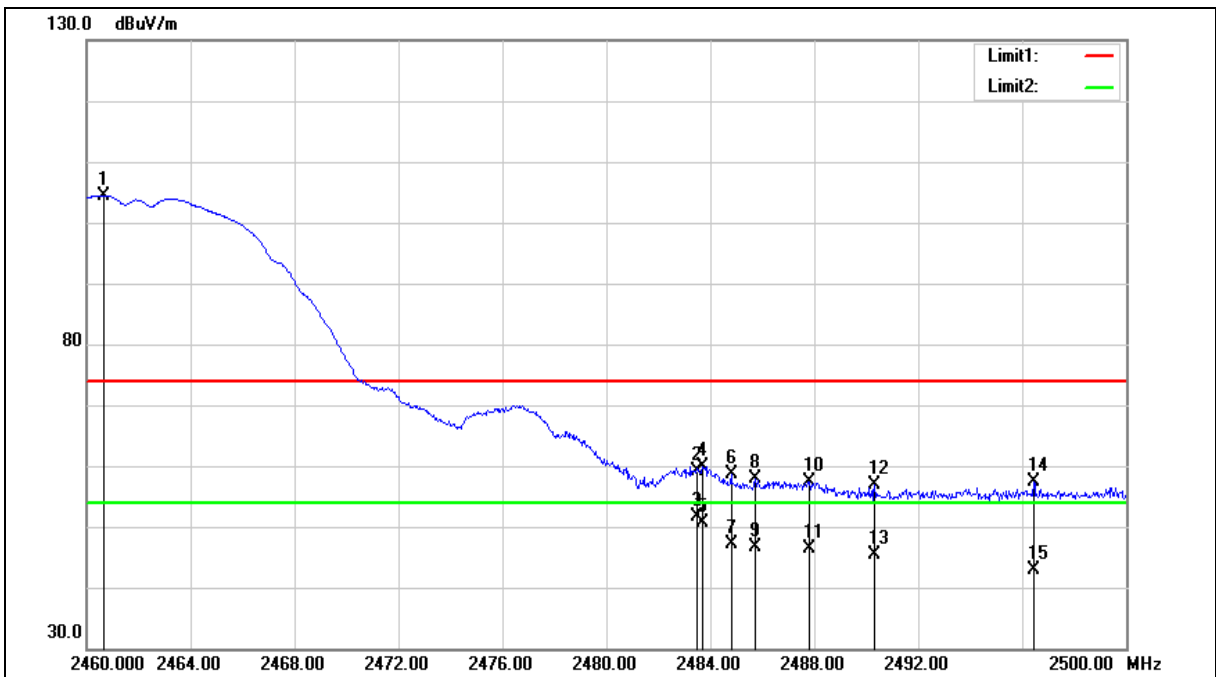
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2460.640	104.96	-0.46	104.50	--	--	peak
2	2483.500	59.45	-0.35	59.10	74.00	-14.90	peak
3	2483.500	52.08	-0.35	51.73	54.00	-2.27	AVG
4	2483.680	60.29	-0.35	59.94	74.00	-14.06	peak
5	2483.680	51.07	-0.35	50.72	54.00	-3.28	AVG
6	2484.800	59.03	-0.34	58.69	74.00	-15.31	peak
7	2484.800	47.45	-0.34	47.11	54.00	-6.89	AVG
8	2485.720	58.27	-0.34	57.93	74.00	-16.07	peak
9	2485.720	47.01	-0.34	46.67	54.00	-7.33	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2487.800	57.81	-0.32	57.49	74.00	-16.51	peak
11	2487.800	46.75	-0.32	46.43	54.00	-7.57	AVG
12	2490.320	57.08	-0.31	56.77	74.00	-17.23	peak
13	2490.320	45.66	-0.31	45.35	54.00	-8.65	AVG
14	2496.440	57.74	-0.28	57.46	74.00	-16.54	peak
15	2496.440	43.11	-0.28	42.83	54.00	-11.17	AVG

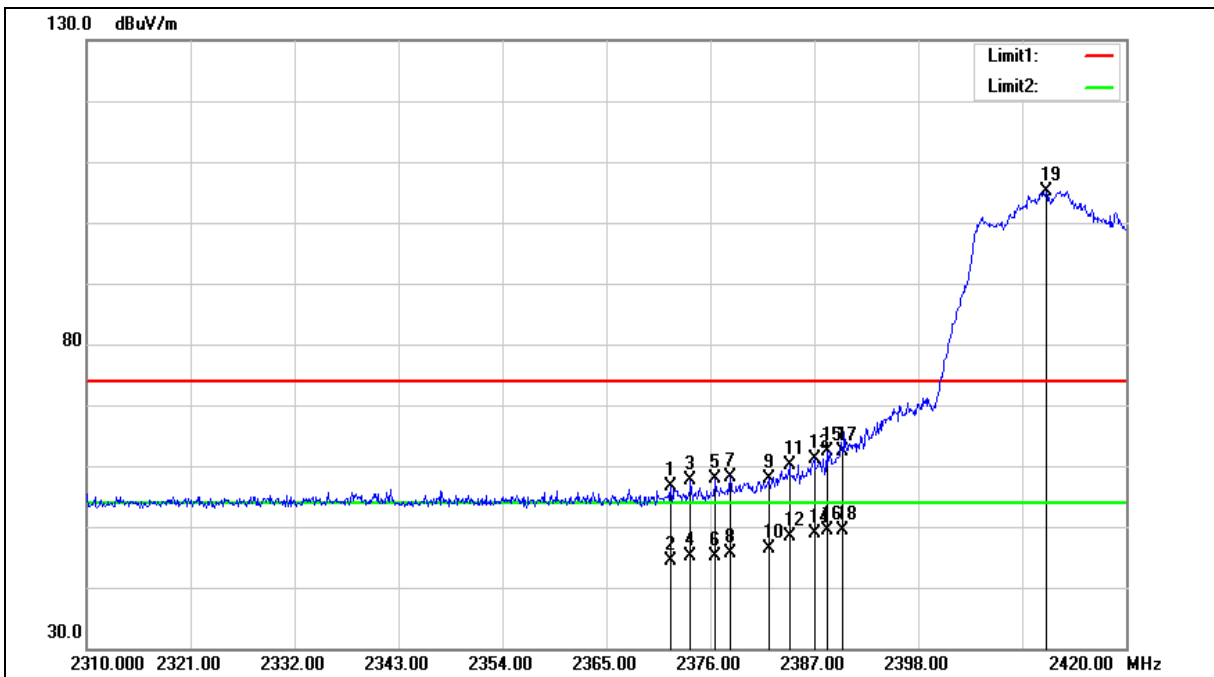
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2371.820	57.56	-0.93	56.63	74.00	-17.37	peak
2	2371.820	45.41	-0.93	44.48	54.00	-9.52	AVG
3	2373.910	58.59	-0.91	57.68	74.00	-16.32	peak
4	2373.910	46.03	-0.91	45.12	54.00	-8.88	AVG
5	2376.550	58.68	-0.90	57.78	74.00	-16.22	peak
6	2376.550	46.05	-0.90	45.15	54.00	-8.85	AVG
7	2378.090	58.90	-0.88	58.02	74.00	-15.98	peak
8	2378.090	46.45	-0.88	45.57	54.00	-8.43	AVG
9	2382.160	58.73	-0.87	57.86	74.00	-16.14	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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2382.160	47.23	-0.87	46.36	54.00	-7.64	AVG
11	2384.360	60.96	-0.85	60.11	74.00	-13.89	peak
12	2384.360	49.30	-0.85	48.45	54.00	-5.55	AVG
13	2387.000	61.93	-0.84	61.09	74.00	-12.91	peak
14	2387.000	49.74	-0.84	48.90	54.00	-5.10	AVG
15	2388.320	63.26	-0.84	62.42	74.00	-11.58	peak
16	2388.320	50.10	-0.84	49.26	54.00	-4.74	AVG
17	2390.000	63.24	-0.82	62.42	74.00	-11.58	peak
18	2390.000	50.08	-0.82	49.26	54.00	-4.74	AVG
19	2411.530	105.92	-0.72	105.20	--	--	peak

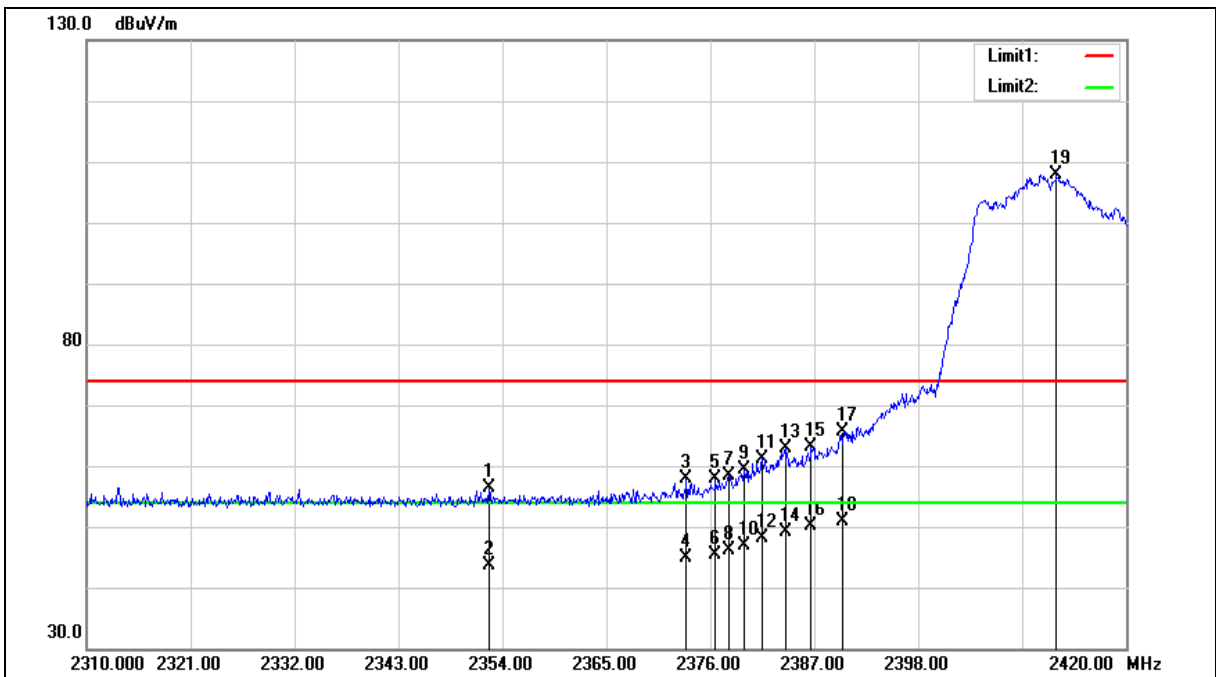
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2352.570	57.28	-1.01	56.27	74.00	-17.73	peak
2	2352.570	44.52	-1.01	43.51	54.00	-10.49	AVG
3	2373.470	58.78	-0.91	57.87	74.00	-16.13	peak
4	2373.470	45.84	-0.91	44.93	54.00	-9.07	AVG
5	2376.550	58.85	-0.90	57.95	74.00	-16.05	peak
6	2376.550	46.26	-0.90	45.36	54.00	-8.64	AVG
7	2377.980	59.26	-0.88	58.38	74.00	-15.62	peak
8	2377.980	47.05	-0.88	46.17	54.00	-7.83	AVG
9	2379.520	60.21	-0.88	59.33	74.00	-14.67	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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2379.520	47.73	-0.88	46.85	54.00	-7.15	AVG
11	2381.500	62.01	-0.87	61.14	74.00	-12.86	peak
12	2381.500	49.02	-0.87	48.15	54.00	-5.85	AVG
13	2383.920	63.66	-0.85	62.81	74.00	-11.19	peak
14	2383.920	49.96	-0.85	49.11	54.00	-4.89	AVG
15	2386.670	64.04	-0.85	63.19	74.00	-10.81	peak
16	2386.670	51.05	-0.85	50.20	54.00	-3.80	AVG
17	2390.000	66.44	-0.82	65.62	74.00	-8.38	peak
18	2390.000	51.75	-0.82	50.93	54.00	-3.07	AVG
19	2412.630	108.61	-0.71	107.90	--	--	peak

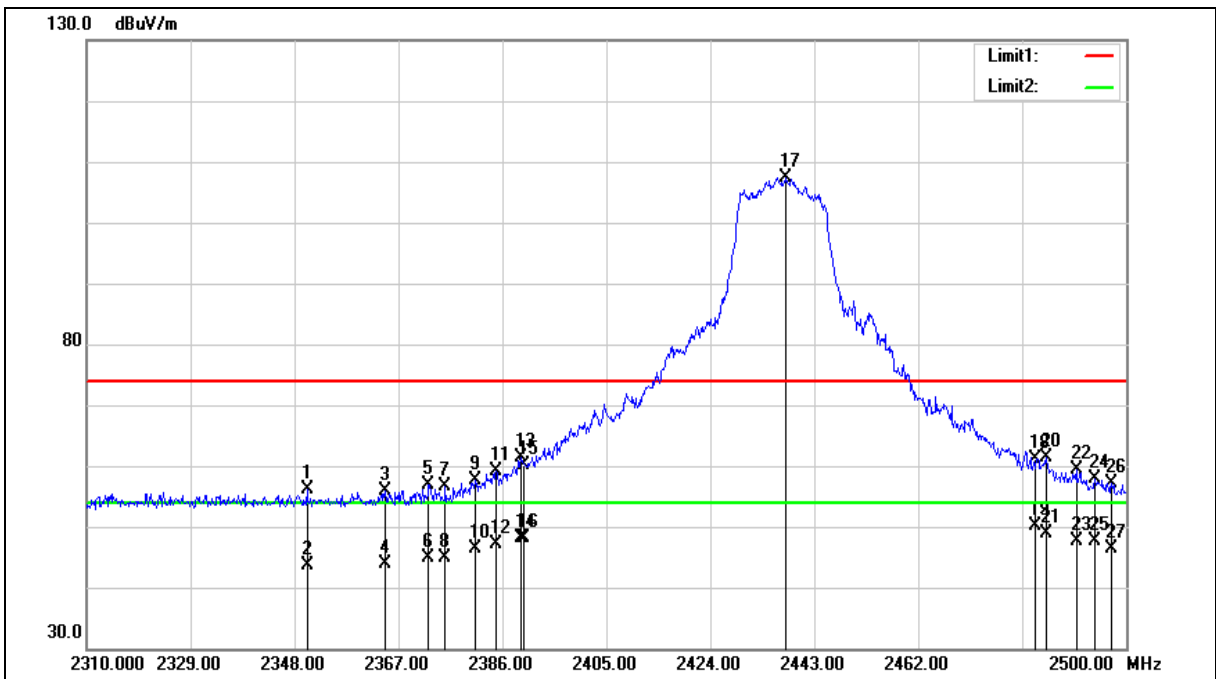
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2350.280	57.11	-1.02	56.09	74.00	-17.91	peak
2	2350.280	44.53	-1.02	43.51	54.00	-10.49	AVG
3	2364.530	56.87	-0.96	55.91	74.00	-18.09	peak
4	2364.530	44.76	-0.96	43.80	54.00	-10.20	AVG
5	2372.510	57.68	-0.91	56.77	74.00	-17.23	peak
6	2372.510	45.74	-0.91	44.83	54.00	-9.17	AVG
7	2375.550	57.62	-0.90	56.72	74.00	-17.28	peak
8	2375.550	45.71	-0.90	44.81	54.00	-9.19	AVG
9	2381.060	58.61	-0.87	57.74	74.00	-16.26	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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2381.060	47.24	-0.87	46.37	54.00	-7.63	AVG
11	2384.860	60.06	-0.85	59.21	74.00	-14.79	peak
12	2384.860	47.89	-0.85	47.04	54.00	-6.96	AVG
13	2389.420	62.27	-0.83	61.44	74.00	-12.56	peak
14	2389.420	48.90	-0.83	48.07	54.00	-5.93	AVG
15	2390.000	60.87	-0.82	60.05	74.00	-13.95	peak
16	2390.000	49.05	-0.82	48.23	54.00	-5.77	AVG
17	2437.870	108.06	-0.58	107.48	--	--	peak
18	2483.500	61.52	-0.35	61.17	74.00	-12.83	peak
19	2483.500	50.38	-0.35	50.03	54.00	-3.97	AVG
20	2485.370	61.77	-0.34	61.43	74.00	-12.57	peak
21	2485.370	49.28	-0.34	48.94	54.00	-5.06	AVG
22	2490.880	59.71	-0.31	59.40	74.00	-14.60	peak
23	2490.880	48.06	-0.31	47.75	54.00	-6.25	AVG
24	2494.300	58.25	-0.29	57.96	74.00	-16.04	peak
25	2494.300	47.92	-0.29	47.63	54.00	-6.37	AVG
26	2497.340	57.49	-0.27	57.22	74.00	-16.78	peak
27	2497.340	46.55	-0.27	46.28	54.00	-7.72	AVG

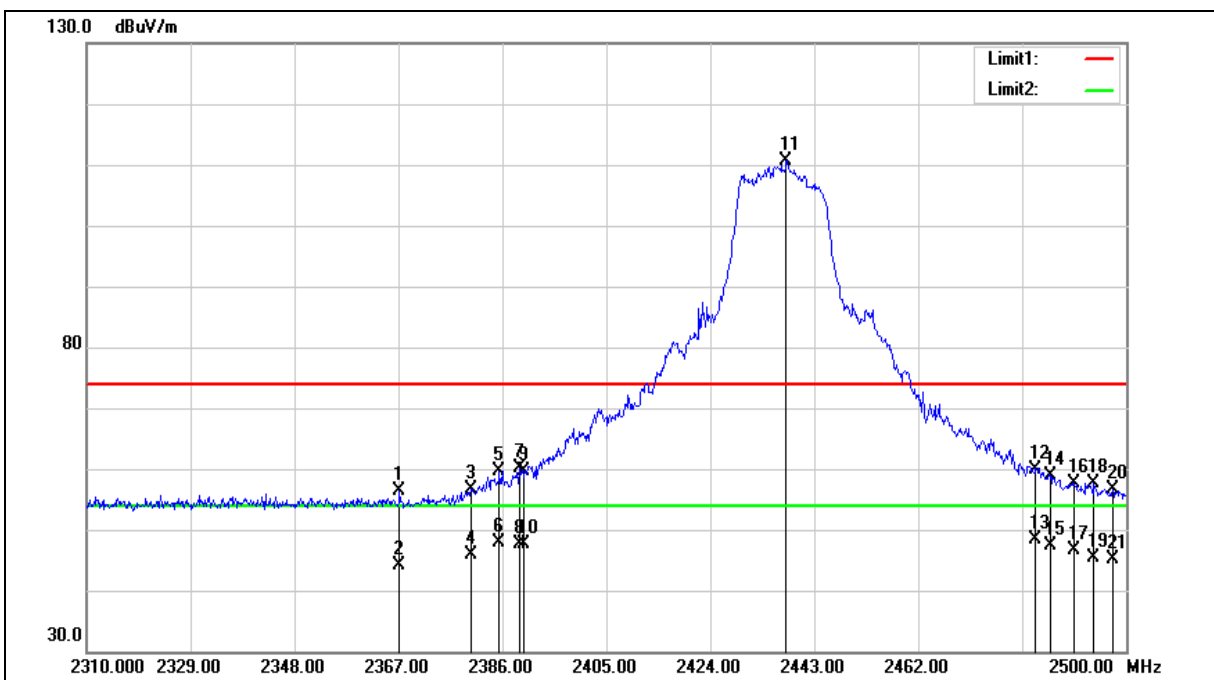
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2367.190	57.31	-0.94	56.37	74.00	-17.63	peak
2	2367.190	44.95	-0.94	44.01	54.00	-9.99	AVG
3	2380.300	57.55	-0.88	56.67	74.00	-17.33	peak
4	2380.300	46.84	-0.88	45.96	54.00	-8.04	AVG
5	2385.430	60.54	-0.85	59.69	74.00	-14.31	peak
6	2385.430	48.81	-0.85	47.96	54.00	-6.04	AVG
7	2389.230	61.07	-0.83	60.24	74.00	-13.76	peak
8	2389.230	48.55	-0.83	47.72	54.00	-6.28	AVG
9	2390.000	60.55	-0.82	59.73	74.00	-14.27	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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
10	2390.000	48.46	-0.82	47.64	54.00	-6.36	AVG
11	2437.870	111.16	-0.58	110.58	--	--	peak
12	2483.500	60.31	-0.35	59.96	74.00	-14.04	peak
13	2483.500	48.79	-0.35	48.44	54.00	-5.56	AVG
14	2486.130	59.22	-0.33	58.89	74.00	-15.11	peak
15	2486.130	47.76	-0.33	47.43	54.00	-6.57	AVG
16	2490.500	58.05	-0.31	57.74	74.00	-16.26	peak
17	2490.500	47.00	-0.31	46.69	54.00	-7.31	AVG
18	2494.110	57.88	-0.29	57.59	74.00	-16.41	peak
19	2494.110	45.67	-0.29	45.38	54.00	-8.62	AVG
20	2497.530	56.99	-0.27	56.72	74.00	-17.28	peak
21	2497.530	45.39	-0.27	45.12	54.00	-8.88	AVG

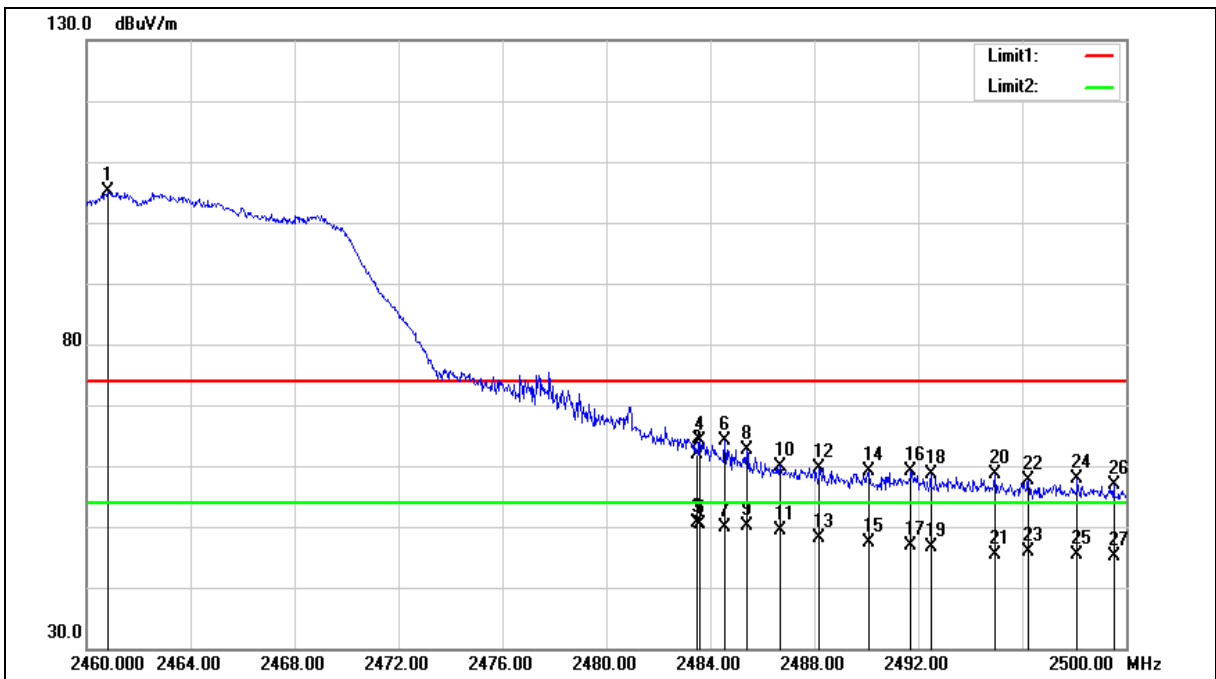
Note:1.Result (dBUV/m) = Correct Factor (dB/m) + Reading(dBUV).

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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2460.840	105.54	-0.46	105.08	--	--	peak
2	2483.500	62.19	-0.35	61.84	74.00	-12.16	peak
3	2483.500	50.94	-0.35	50.59	54.00	-3.41	AVG
4	2483.600	64.51	-0.35	64.16	74.00	-9.84	peak
5	2483.600	50.61	-0.35	50.26	54.00	-3.74	AVG
6	2484.560	64.49	-0.34	64.15	74.00	-9.85	peak
7	2484.560	50.30	-0.34	49.96	54.00	-4.04	AVG
8	2485.400	63.06	-0.34	62.72	74.00	-11.28	peak
9	2485.400	50.49	-0.34	50.15	54.00	-3.85	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

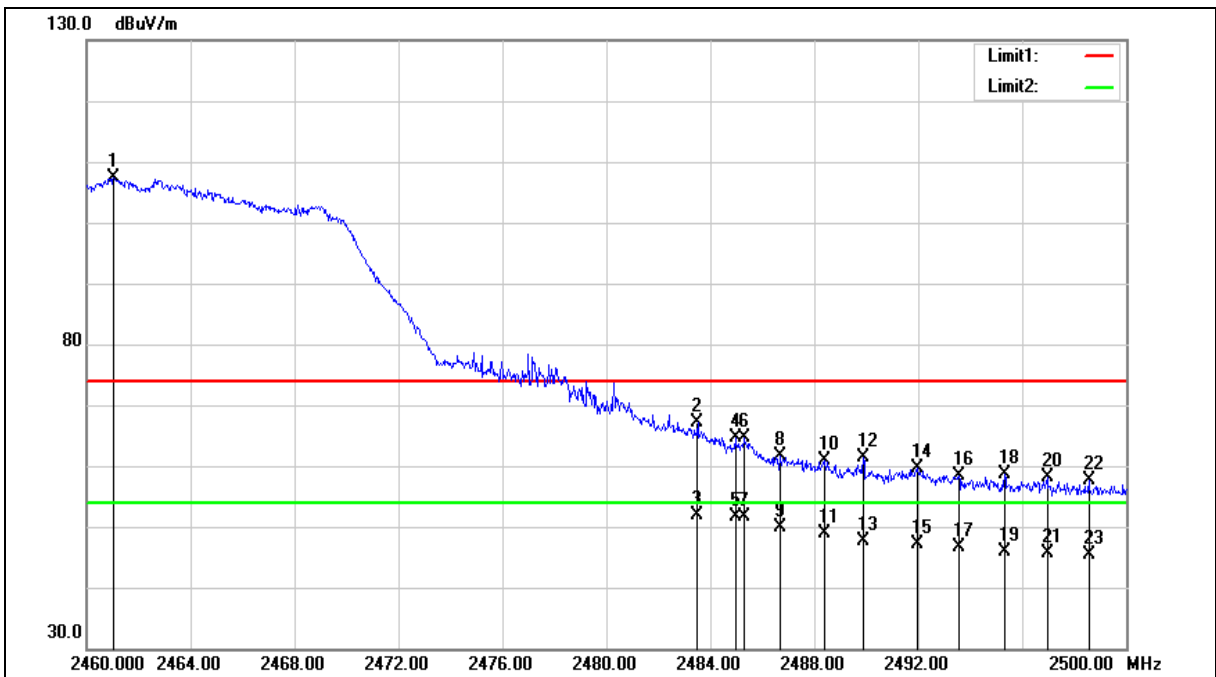
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2486.680	60.33	-0.33	60.00	74.00	-14.00	peak
11	2486.680	49.82	-0.33	49.49	54.00	-4.51	AVG
12	2488.200	60.00	-0.32	59.68	74.00	-14.32	peak
13	2488.200	48.51	-0.32	48.19	54.00	-5.81	AVG
14	2490.080	59.40	-0.31	59.09	74.00	-14.91	peak
15	2490.080	47.58	-0.31	47.27	54.00	-6.73	AVG
16	2491.720	59.39	-0.30	59.09	74.00	-14.91	peak
17	2491.720	47.14	-0.30	46.84	54.00	-7.16	AVG
18	2492.480	58.96	-0.30	58.66	74.00	-15.34	peak
19	2492.480	46.97	-0.30	46.67	54.00	-7.33	AVG
20	2494.960	58.84	-0.29	58.55	74.00	-15.45	peak
21	2494.960	45.73	-0.29	45.44	54.00	-8.56	AVG
22	2496.240	57.79	-0.28	57.51	74.00	-16.49	peak
23	2496.240	46.06	-0.28	45.78	54.00	-8.22	AVG
24	2498.120	58.03	-0.27	57.76	74.00	-16.24	peak
25	2498.120	45.56	-0.27	45.29	54.00	-8.71	AVG
26	2499.520	57.04	-0.26	56.78	74.00	-17.22	peak
27	2499.520	45.35	-0.26	45.09	54.00	-8.91	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2461.040	107.73	-0.46	107.27	--	--	peak
2	2483.500	67.47	-0.35	67.12	74.00	-6.88	peak
3	2483.500	52.14	-0.35	51.79	54.00	-2.21	AVG
4	2484.960	65.04	-0.34	64.70	74.00	-9.30	peak
5	2484.960	51.95	-0.34	51.61	54.00	-2.39	AVG
6	2485.320	64.99	-0.34	64.65	74.00	-9.35	peak
7	2485.320	51.89	-0.34	51.55	54.00	-2.45	AVG
8	2486.680	61.95	-0.33	61.62	74.00	-12.38	peak
9	2486.680	50.27	-0.33	49.94	54.00	-4.06	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
10	2488.400	61.25	-0.32	60.93	74.00	-13.07	peak
11	2488.400	49.15	-0.32	48.83	54.00	-5.17	AVG
12	2489.880	61.59	-0.31	61.28	74.00	-12.72	peak
13	2489.880	47.98	-0.31	47.67	54.00	-6.33	AVG
14	2491.960	59.94	-0.30	59.64	74.00	-14.36	peak
15	2491.960	47.35	-0.30	47.05	54.00	-6.95	AVG
16	2493.560	58.79	-0.29	58.50	74.00	-15.50	peak
17	2493.560	46.85	-0.29	46.56	54.00	-7.44	AVG
18	2495.320	58.82	-0.29	58.53	74.00	-15.47	peak
19	2495.320	46.18	-0.29	45.89	54.00	-8.11	AVG
20	2496.960	58.38	-0.28	58.10	74.00	-15.90	peak
21	2496.960	45.88	-0.28	45.60	54.00	-8.40	AVG
22	2498.560	57.93	-0.26	57.67	74.00	-16.33	peak
23	2498.560	45.58	-0.26	45.32	54.00	-8.68	AVG

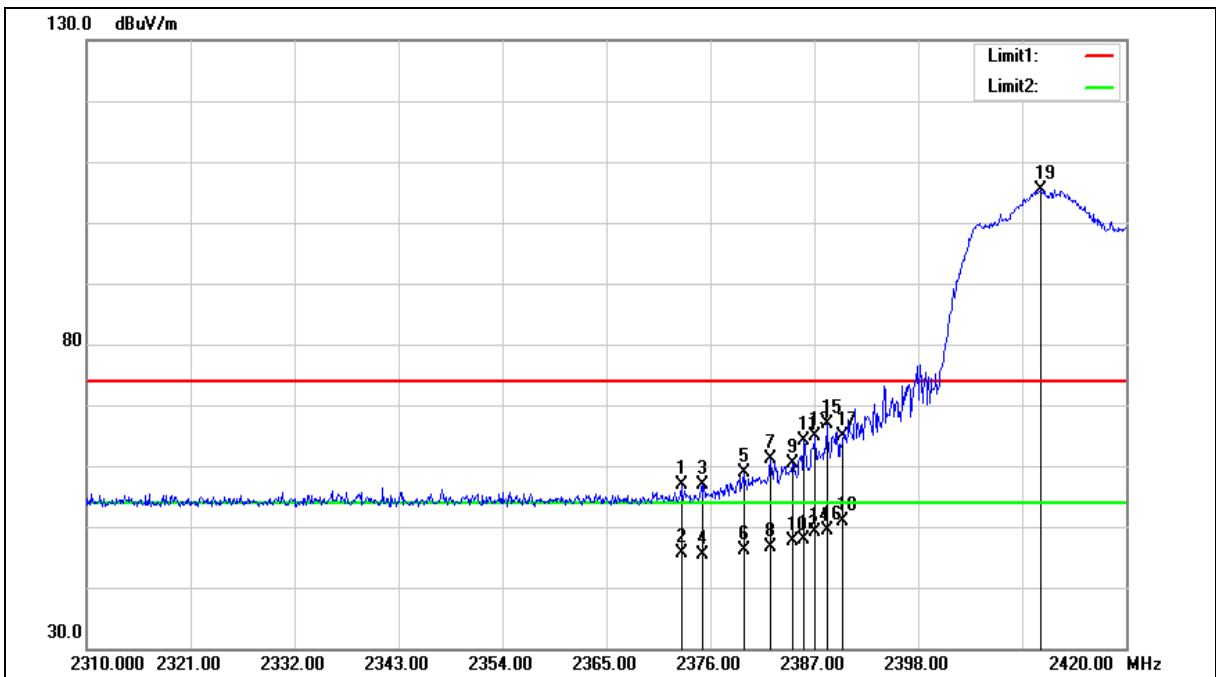
Note:1.Result (dBUV/m) = Correct Factor (dB/m) + Reading(dBUV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2372.920	57.79	-0.91	56.88	74.00	-17.12	peak
2	2372.920	46.44	-0.91	45.53	54.00	-8.47	AVG
3	2375.230	57.68	-0.90	56.78	74.00	-17.22	peak
4	2375.230	46.37	-0.90	45.47	54.00	-8.53	AVG
5	2379.520	59.75	-0.88	58.87	74.00	-15.13	peak
6	2379.520	46.93	-0.88	46.05	54.00	-7.95	AVG
7	2382.380	62.04	-0.87	61.17	74.00	-12.83	peak
8	2382.380	47.56	-0.87	46.69	54.00	-7.31	AVG
9	2384.690	61.26	-0.85	60.41	74.00	-13.59	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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2384.690	48.40	-0.85	47.55	54.00	-6.45	AVG
11	2385.900	64.98	-0.85	64.13	74.00	-9.87	peak
12	2385.900	48.70	-0.85	47.85	54.00	-6.15	AVG
13	2387.110	65.65	-0.84	64.81	74.00	-9.19	peak
14	2387.110	49.88	-0.84	49.04	54.00	-4.96	AVG
15	2388.320	67.73	-0.84	66.89	74.00	-7.11	peak
16	2388.320	50.29	-0.84	49.45	54.00	-4.55	AVG
17	2390.000	65.76	-0.82	64.94	74.00	-9.06	peak
18	2390.000	51.74	-0.82	50.92	54.00	-3.08	AVG
19	2410.980	106.06	-0.72	105.34	--	--	peak

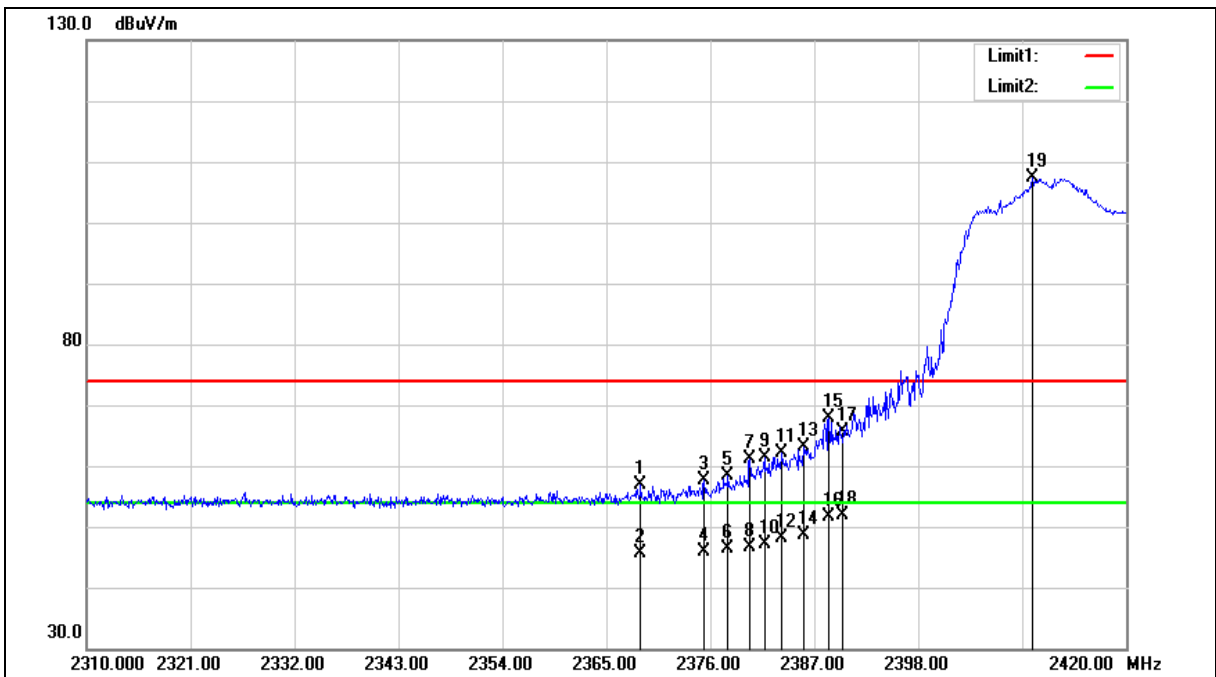
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2368.630	57.88	-0.94	56.94	74.00	-17.06	peak
2	2368.630	46.62	-0.94	45.68	54.00	-8.32	AVG
3	2375.340	58.42	-0.90	57.52	74.00	-16.48	peak
4	2375.340	46.70	-0.90	45.80	54.00	-8.20	AVG
5	2377.870	59.36	-0.89	58.47	74.00	-15.53	peak
6	2377.870	47.18	-0.89	46.29	54.00	-7.71	AVG
7	2380.180	62.10	-0.88	61.22	74.00	-12.78	peak
8	2380.180	47.50	-0.88	46.62	54.00	-7.38	AVG
9	2381.720	62.31	-0.87	61.44	74.00	-12.56	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	Power:	AC 110 V/60 Hz
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2381.720	48.02	-0.87	47.15	54.00	-6.85	AVG
11	2383.590	62.96	-0.86	62.10	74.00	-11.90	peak
12	2383.590	48.88	-0.86	48.02	54.00	-5.98	AVG
13	2385.900	63.86	-0.85	63.01	74.00	-10.99	peak
14	2385.900	49.60	-0.85	48.75	54.00	-5.25	AVG
15	2388.540	68.65	-0.84	67.81	74.00	-6.19	peak
16	2388.540	52.43	-0.84	51.59	54.00	-2.41	AVG
17	2390.000	66.40	-0.82	65.58	74.00	-8.42	peak
18	2390.000	52.58	-0.82	51.76	54.00	-2.24	AVG
19	2410.100	107.99	-0.73	107.26	--	--	peak

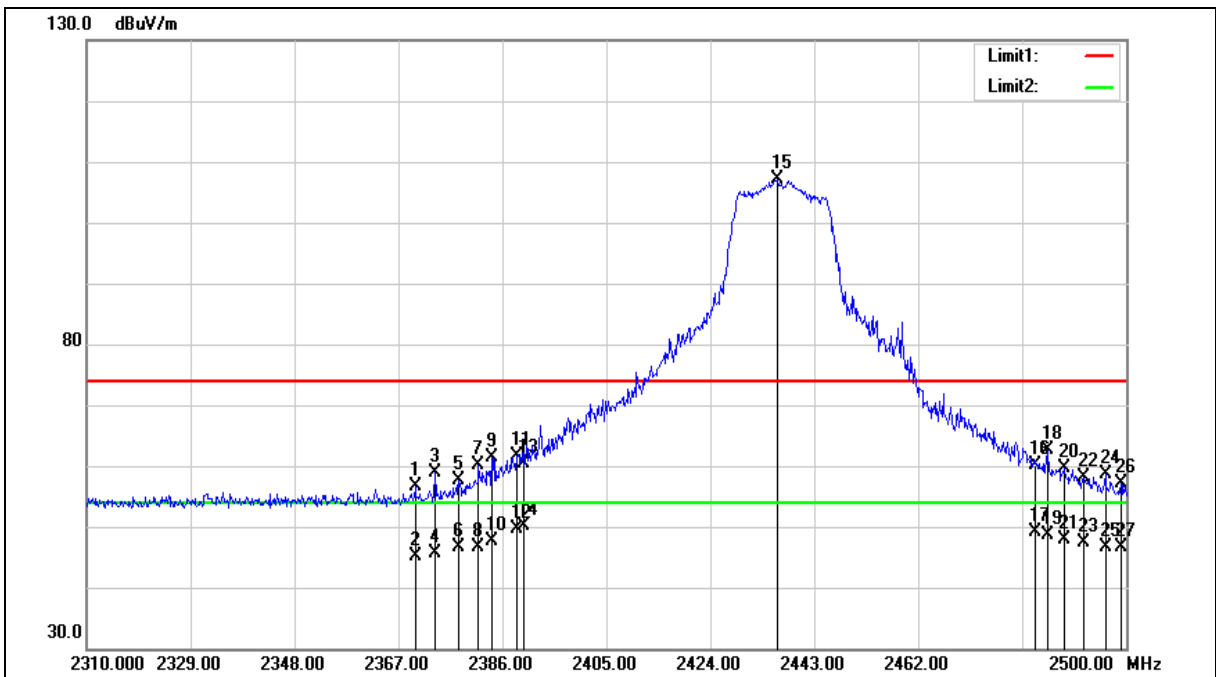
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2370.040	57.50	-0.93	56.57	74.00	-17.43	peak
2	2370.040	46.03	-0.93	45.10	54.00	-8.90	AVG
3	2373.650	59.79	-0.91	58.88	74.00	-15.12	peak
4	2373.650	46.63	-0.91	45.72	54.00	-8.28	AVG
5	2378.020	58.51	-0.88	57.63	74.00	-16.37	peak
6	2378.020	47.40	-0.88	46.52	54.00	-7.48	AVG
7	2381.630	61.08	-0.87	60.21	74.00	-13.79	peak
8	2381.630	47.62	-0.87	46.75	54.00	-7.25	AVG
9	2384.100	62.12	-0.85	61.27	74.00	-12.73	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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2384.100	48.57	-0.85	47.72	54.00	-6.28	AVG
11	2388.660	62.49	-0.84	61.65	74.00	-12.35	peak
12	2388.660	50.43	-0.84	49.59	54.00	-4.41	AVG
13	2390.000	61.15	-0.82	60.33	74.00	-13.67	peak
14	2390.000	50.94	-0.82	50.12	54.00	-3.88	AVG
15	2436.160	107.62	-0.59	107.03	--	--	peak
16	2483.500	60.59	-0.35	60.24	74.00	-13.76	peak
17	2483.500	49.58	-0.35	49.23	54.00	-4.77	AVG
18	2485.750	62.95	-0.34	62.61	74.00	-11.39	peak
19	2485.750	49.07	-0.34	48.73	54.00	-5.27	AVG
20	2488.790	60.00	-0.32	59.68	74.00	-14.32	peak
21	2488.790	48.26	-0.32	47.94	54.00	-6.06	AVG
22	2492.210	58.54	-0.30	58.24	74.00	-15.76	peak
23	2492.210	47.70	-0.30	47.40	54.00	-6.60	AVG
24	2496.200	58.94	-0.28	58.66	74.00	-15.34	peak
25	2496.200	47.03	-0.28	46.75	54.00	-7.25	AVG
26	2499.050	57.39	-0.26	57.13	74.00	-16.87	peak
27	2499.050	46.93	-0.26	46.67	54.00	-7.33	AVG

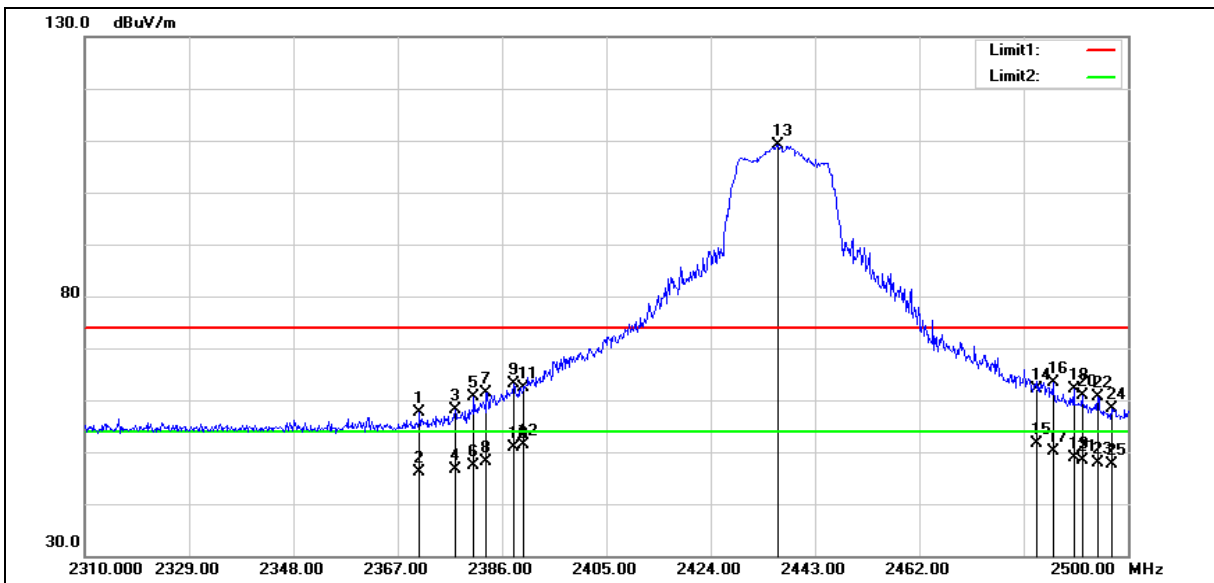
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2370.990	58.56	-0.93	57.63	74.00	-16.37	peak
2	2370.990	46.95	-0.93	46.02	54.00	-7.98	AVG
3	2377.450	58.92	-0.90	58.02	74.00	-15.98	peak
4	2377.450	47.53	-0.90	46.63	54.00	-7.37	AVG
5	2380.870	61.62	-0.88	60.74	74.00	-13.26	peak
6	2380.870	48.37	-0.88	47.49	54.00	-6.51	AVG
7	2383.150	62.28	-0.87	61.41	74.00	-12.59	peak
8	2383.150	49.10	-0.87	48.23	54.00	-5.77	AVG
9	2388.090	64.01	-0.84	63.17	74.00	-10.83	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:	Band edge	Power:	AC 110 V/60 Hz
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2388.090	51.67	-0.84	50.83	54.00	-3.17	AVG
11	2390.000	63.09	-0.82	62.27	74.00	-11.73	peak
12	2390.000	52.09	-0.82	51.27	54.00	-2.73	AVG
13	2436.160	109.80	-0.59	109.21	--	--	peak
14	2483.500	62.49	-0.35	62.14	74.00	-11.86	peak
15	2483.500	52.03	-0.35	51.68	54.00	-2.32	AVG
16	2486.320	63.59	-0.33	63.26	74.00	-10.74	peak
17	2486.320	50.46	-0.33	50.13	54.00	-3.87	AVG
18	2490.120	62.43	-0.31	62.12	74.00	-11.88	peak
19	2490.120	49.16	-0.31	48.85	54.00	-5.15	AVG
20	2491.640	61.11	-0.30	60.81	74.00	-13.19	peak
21	2491.640	48.62	-0.30	48.32	54.00	-5.68	AVG
22	2494.490	61.03	-0.29	60.74	74.00	-13.26	peak
23	2494.490	48.17	-0.29	47.88	54.00	-6.12	AVG
24	2496.960	58.55	-0.28	58.27	74.00	-15.73	peak
25	2496.960	47.79	-0.28	47.51	54.00	-6.49	AVG

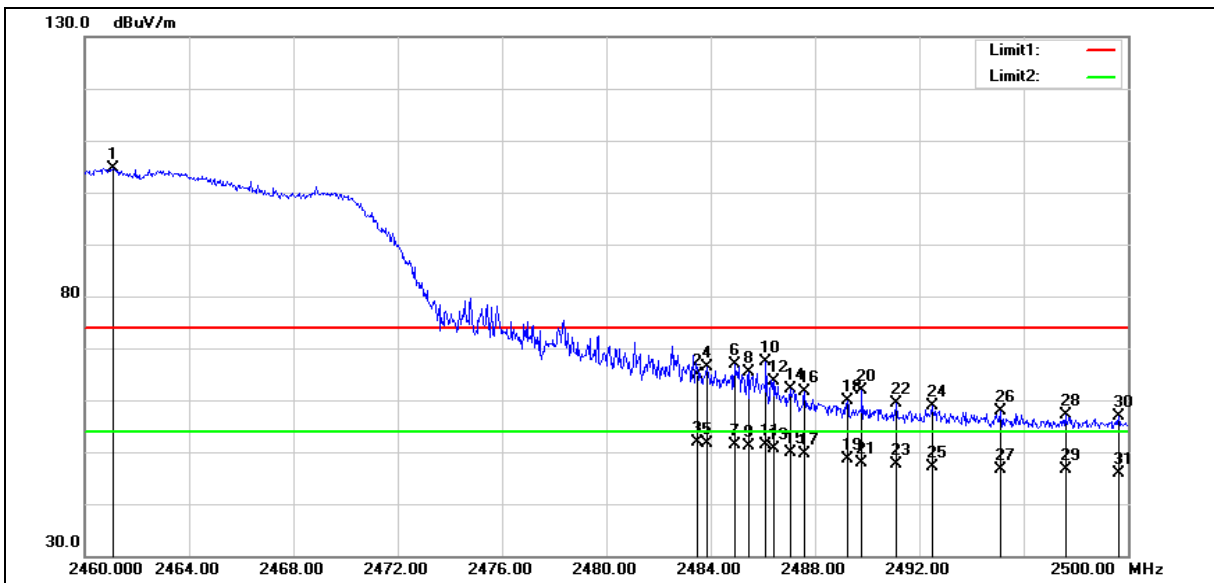
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2461.080	105.03	-0.46	104.57	--	--	peak
2	2483.500	65.12	-0.35	64.77	74.00	-9.23	peak
3	2483.500	52.14	-0.35	51.79	54.00	-2.21	AVG
4	2483.840	66.80	-0.34	66.46	74.00	-7.54	peak
5	2483.840	51.89	-0.34	51.55	54.00	-2.45	AVG
6	2484.920	67.16	-0.34	66.82	74.00	-7.18	peak
7	2484.920	51.70	-0.34	51.36	54.00	-2.64	AVG
8	2485.440	65.74	-0.34	65.40	74.00	-8.60	peak
9	2485.440	51.57	-0.34	51.23	54.00	-2.77	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10	2486.120	67.70	-0.33	67.37	74.00	-6.63	peak
11	2486.120	51.61	-0.33	51.28	54.00	-2.72	AVG
12	2486.440	64.01	-0.33	63.68	74.00	-10.32	peak
13	2486.440	50.92	-0.33	50.59	54.00	-3.41	AVG
14	2487.040	62.54	-0.32	62.22	74.00	-11.78	peak
15	2487.040	50.24	-0.32	49.92	54.00	-4.08	AVG
16	2487.600	62.05	-0.32	61.73	74.00	-12.27	peak
17	2487.600	49.92	-0.32	49.60	54.00	-4.40	AVG
18	2489.240	60.11	-0.32	59.79	74.00	-14.21	peak
19	2489.240	48.94	-0.32	48.62	54.00	-5.38	AVG
20	2489.800	62.18	-0.31	61.87	74.00	-12.13	peak
21	2489.800	48.24	-0.31	47.93	54.00	-6.07	AVG
22	2491.120	59.65	-0.31	59.34	74.00	-14.66	peak
23	2491.120	48.06	-0.31	47.75	54.00	-6.25	AVG
24	2492.480	59.10	-0.30	58.80	74.00	-15.20	peak
25	2492.480	47.38	-0.30	47.08	54.00	-6.92	AVG
26	2495.120	58.09	-0.29	57.80	74.00	-16.20	peak
27	2495.120	47.03	-0.29	46.74	54.00	-7.26	AVG
28	2497.600	57.48	-0.27	57.21	74.00	-16.79	peak
29	2497.600	46.86	-0.27	46.59	54.00	-7.41	AVG
30	2499.640	57.06	-0.26	56.80	74.00	-17.20	peak
31	2499.640	46.08	-0.26	45.82	54.00	-8.18	AVG

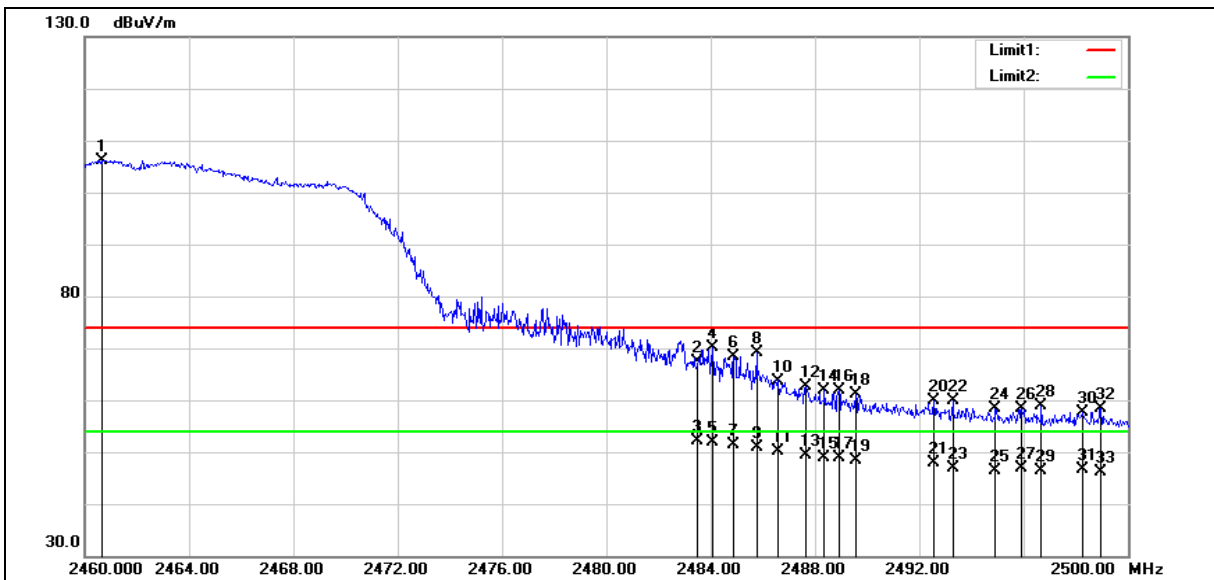
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
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	2460.640	106.65	-0.46	106.19	--	--	peak
2	2483.500	67.63	-0.35	67.28	74.00	-6.72	peak
3	2483.500	52.39	-0.35	52.04	54.00	-1.96	AVG
4	2484.080	70.53	-0.34	70.19	74.00	-3.81	peak
5	2484.080	52.20	-0.34	51.86	54.00	-2.14	AVG
6	2484.880	68.62	-0.34	68.28	74.00	-5.72	peak
7	2484.880	51.84	-0.34	51.50	54.00	-2.50	AVG
8	2485.760	69.48	-0.34	69.14	74.00	-4.86	peak
9	2485.760	51.12	-0.34	50.78	54.00	-3.22	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	Power:	AC 110 V/60 Hz
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	25(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
10	2486.600	63.96	-0.33	63.63	74.00	-10.37	peak
11	2486.600	50.52	-0.33	50.19	54.00	-3.81	AVG
12	2487.640	62.88	-0.32	62.56	74.00	-11.44	peak
13	2487.640	49.75	-0.32	49.43	54.00	-4.57	AVG
14	2488.360	62.29	-0.32	61.97	74.00	-12.03	peak
15	2488.360	49.12	-0.32	48.80	54.00	-5.20	AVG
16	2488.920	62.19	-0.32	61.87	74.00	-12.13	peak
17	2488.920	49.20	-0.32	48.88	54.00	-5.12	AVG
18	2489.560	61.54	-0.32	61.22	74.00	-12.78	peak
19	2489.560	48.75	-0.32	48.43	54.00	-5.57	AVG
20	2492.560	60.20	-0.30	59.90	74.00	-14.10	peak
21	2492.560	48.11	-0.30	47.81	54.00	-6.19	AVG
22	2493.280	60.08	-0.29	59.79	74.00	-14.21	peak
23	2493.280	47.26	-0.29	46.97	54.00	-7.03	AVG
24	2494.920	58.71	-0.29	58.42	74.00	-15.58	peak
25	2494.920	46.79	-0.29	46.50	54.00	-7.50	AVG
26	2495.920	58.56	-0.28	58.28	74.00	-15.72	peak
27	2495.920	47.05	-0.28	46.77	54.00	-7.23	AVG
28	2496.680	59.05	-0.28	58.77	74.00	-15.23	peak
29	2496.680	46.68	-0.28	46.40	54.00	-7.60	AVG
30	2498.240	57.98	-0.27	57.71	74.00	-16.29	peak
31	2498.240	46.82	-0.27	46.55	54.00	-7.45	AVG
32	2498.960	58.72	-0.26	58.46	74.00	-15.54	peak
33	2498.960	46.35	-0.26	46.09	54.00	-7.91	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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