

RF Test Report

Applicant : D-Link Corporation
Product Type : 2K Outdoor Wi-Fi Camera
Trade Name : D-Link
Model Number : DCS-8302LH
Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2013
Received Date : Jan. 03, 2022
Test Period : Jan. 15, 2022
Issued Date : Jan. 28, 2022

Issued by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 334025, Taiwan (R.O.C.)
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Taiwan Accreditation Foundation accreditation number: 1330
Frequency Range : 9 kHz to 40 GHz
Test Firm MRA designation number: TW0010

Note:

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

Revision History

Rev.	Issued Date	Revisions	Revised By
00	Jan. 24, 2022	Initial Issue	Snow Wang
01	Jan. 28, 2022	Update Trade Name (P.1/3/7)	Snow Wang

Verification of Compliance

Applicant : D-Link Corporation

Product Type : 2K Outdoor Wi-Fi Camera

Trade Name : D-Link

Model Number : DCS-8302LH

FCC ID : KA2CS8302LHB1

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

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
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Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>

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

Approved By :

(Kai Yu Yang)

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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	-----

Decision Rule

- ☒ Uncertainty is not included.
- ☐ Uncertainty is included.

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

1.2. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conducted Emission	150 kHz ~ 30 MHz	2.7 dB
Radiated Emission	9 kHz ~ 30 MHz	2.2 dB
	30 MHz ~ 1000 MHz	5.1 dB
	1000 MHz ~ 18000 MHz	5.2 dB
	18000 MHz ~ 26500 MHz	4.6 dB
	26500 MHz ~ 40000 MHz	4.6 dB
Conducted Output Power	1.1 dB	
RF Bandwidth	4.7 %	
Power Spectral Density	1.1 dB	

2 EUT Description

Applicant	D-Link Corporation 14420 Myford Road Suite 100 Irvine California United States 92606			
Product Type	2K Outdoor Wi-Fi Camera			
Trade Name	D-Link			
Model Number	DCS-8302LH			
FCC ID	KA2CS8302LHB1			
Operate Freq. Band	Frequency Range (MHz)	Modulation	Channel Bandwidth	Data Rate 400 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
IEEE 802.11n 2.4 GHz 40 MHz	2422 ~ 2452	OFDM	40 MHz	Up to 150 Mbps
Antenna information	Type		Max. Gain (dBi)	
	IFA Antenna		2.01	
Antenna Delivery	Reference section 3.1			
Operate Temp. Range	-20 ~ +45 ℃			
EUT Power Rating	DC 12 V, 1.0 A			

Frequency Band	Max. RF Output Power (W)
IEEE 802.11b	0.130
IEEE 802.11g	0.371
IEEE 802.11n 2.4 GHz 20 MHz	0.332
IEEE 802.11n 2.4 GHz 40 MHz	0.328

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
Mode 5: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode

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

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

By preliminary testing and verifying three axis (X, 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
Mode 5	V

Test Mode	Antenna Delivery	Data Rate (Mbps)	Test Channel
Mode 2	1TX	1	1, 6, 11
Mode 3	1TX	6	1, 6, 11
Mode 4	1TX	6.5	1, 6, 11
Mode 5	1TX	13.5	3, 6, 9

Duty cycle

Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 2	2412	12.520	12.560	0.997	0.014	0.010
Mode 3	2412	2.080	2.230	0.933	0.302	0.481
Mode 4	2412	1.936	2.072	0.934	0.295	0.517
Mode 5	2422	0.952	1.108	0.859	0.659	1.050

Duty Cycle Graphs

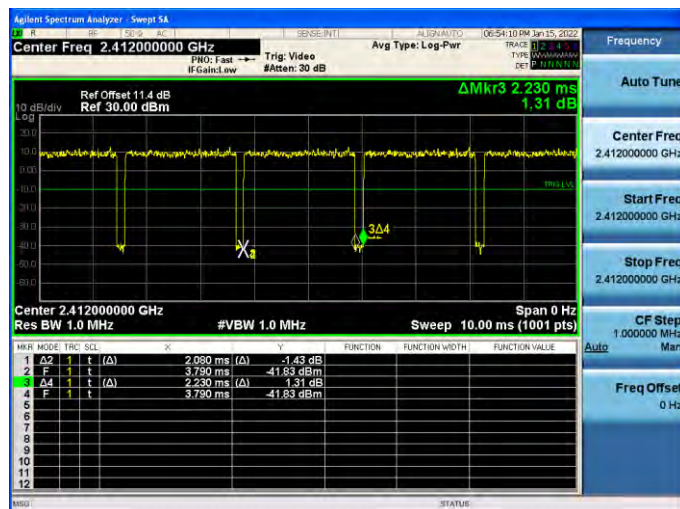
Mode 2: IEEE 802.11b Continuous TX mode

On+off time



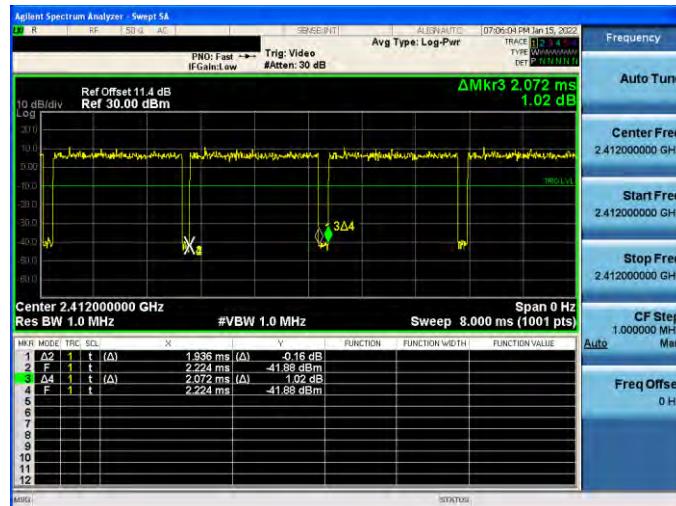
Mode 3: IEEE 802.11g Continuous TX mode

On+off time



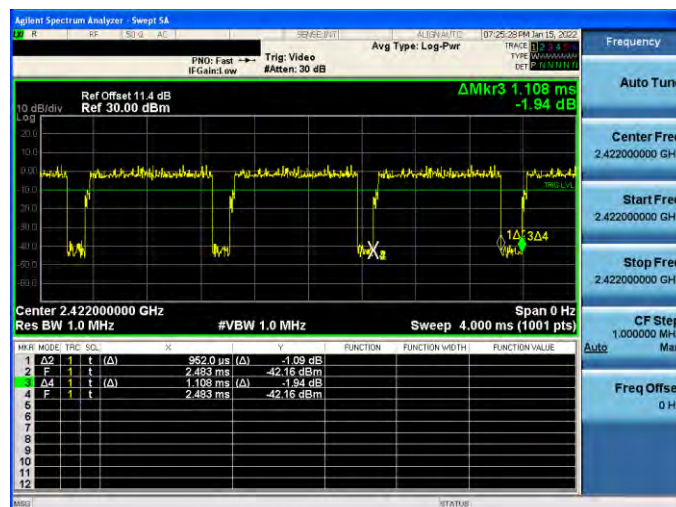
Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode

On+off time



Mode 5: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode

On+off time

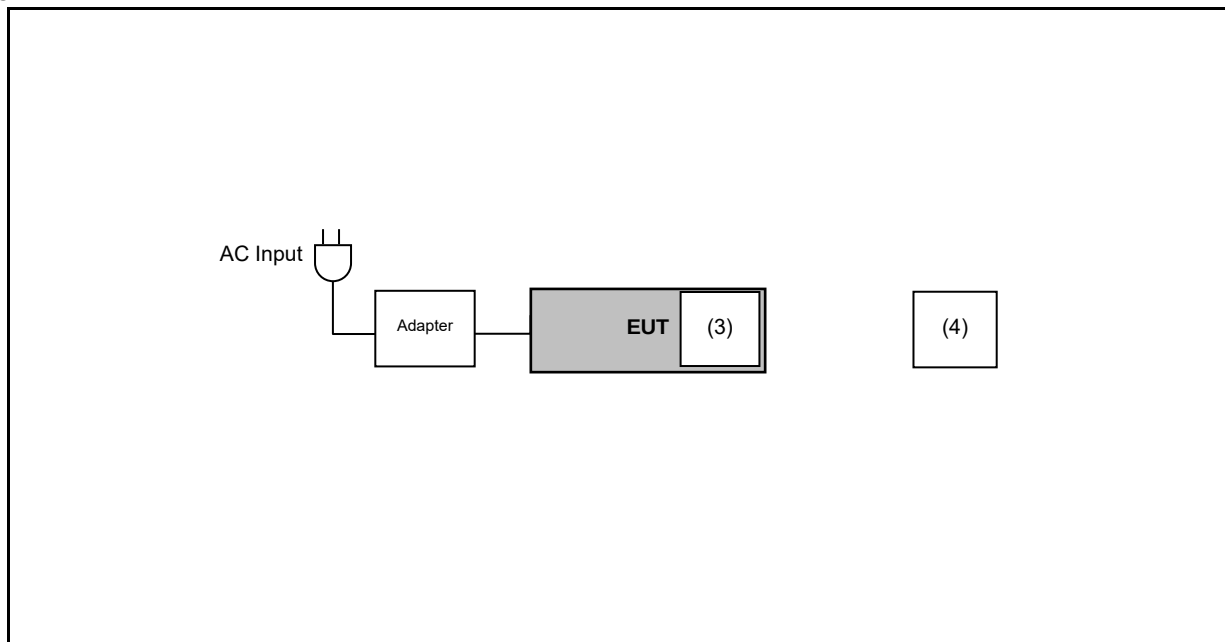


3.2. EUT Test Step

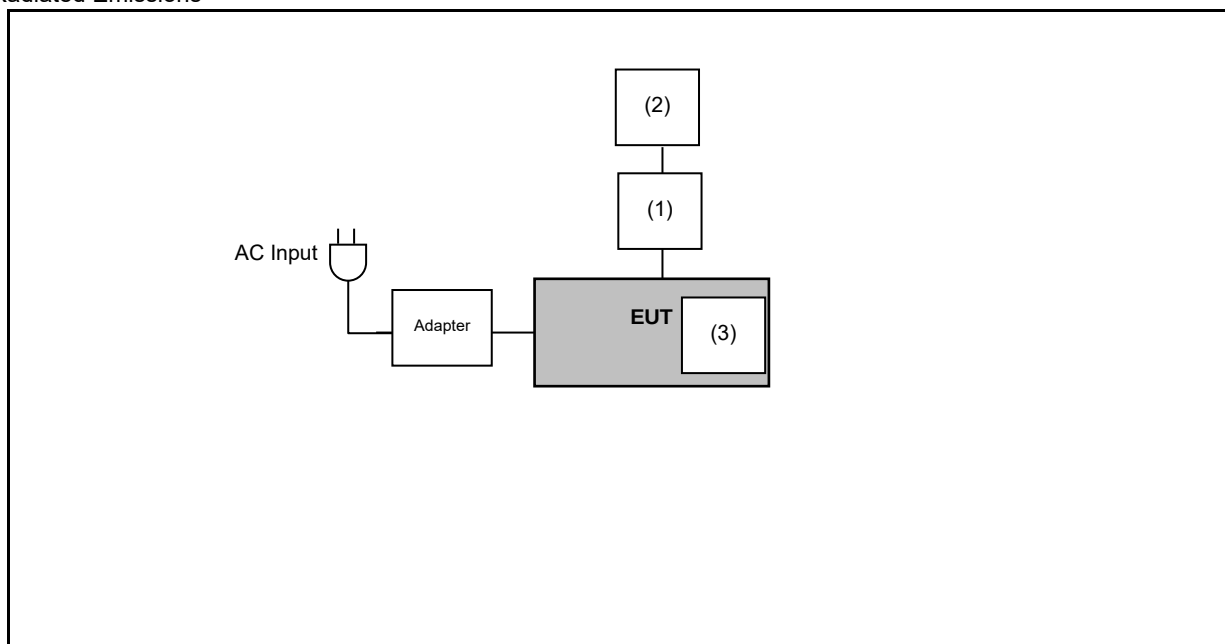
1.	Setup the EUT shown on “Configuration of Test System Details”.
2.	Turn on the power of all equipment.
3.	Turn on TX function.
4.	EUT run test program.

3.3. Configuration of Test System Details

Conducted Emissions



Radiated Emissions



Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Fixture	Central District	CP2102	---	---
(2)	Notebook	ASUS	P1448U	---	---
(3)	Micro SD Card	Transcend	9153BA 8G 07DS1	---	---
(4)	Access Point	ASUS	RT-AX88U	---	---

3.4. Test Instruments

For Conducted Emission

Test Period: Jan. 15, 2022

Testing Engineer: Chi Chang

Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Test Receiver	R&S	ESCI	100367	May 21, 2021	1 year
☐	Test Receiver	R&S	ESCI	100722	Nov. 02, 2021	1 year
☐	Test Receiver	R&S	ESCI	101000	Nov. 26, 2021	1 year
☒	LISN	R&S	ENV216	101040	Mar. 29, 2021	1 year
☒	LISN	R&S	ENV216	101041	Apr. 08, 2021	1 year
☒	RF Cable	Woken	00100D1380194M	TE-02-03	May 28, 2021	1 year
☒	Software	EZ EMC	1.1.4.3	N/A	N.C.R.	---

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

For Conducted

Test Period: Jan. 15, 2022

Testing Engineer: Louis Shen

Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☐	Power Sensor	Anritsu	MA2411B	1126022	Sep. 03, 2021	1 year
☐	Power Meter	Anritsu	ML2495A	1135009	Sep. 03, 2021	1 year
☒	Power Sensor	Agilent	N1921A	MY45241957	Dec. 06, 2021	1 year
☒	Power Meter	Agilent	N1911A	MY45101619	Dec. 06, 2021	1 year
☐	Spectrum Analyzer (10 Hz~26.5 GHz)	Keysight	N9010B	MY59071418	Mar. 17, 2021	1 year
☒	Spectrum Analyzer (9 kHz~26.5 GHz)	Agilent	N9010A	MY48030518	Jul. 23, 2021	1 year
☐	Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	Sep. 09, 2021	1 year
☐	Spectrum Analyzer (3 Hz~50 GHz)	Agilent	N9030A	MY53120541	Jan. 05, 2022	1 year
☐	Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	Mar. 30, 2021	1 year
☐	Signal Generator	Keysight	N5182B	MY53052569	Apr. 20, 2021	1 year
☐	Signal Generator	Keysight	N5182BX07	MY59360221	Apr. 20, 2021	1 year
☐	Bluetooth Tester	R&S	CBT	100350	Mar. 17, 2021	2 years
☐	Wireless Connectivity Tester	R&S	CMW270	102208	Jun. 02, 2021	1 year
☐	Power Supply	KEITHLEY	2303	4045290	Feb. 01, 2021	1 year
☐	RF Communication Test Set	HP	8920A	3344A03297	Aug. 10, 2021	1 year

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

For Radiated Emissions
Test Period: Jan. 15, 2022
Testing Engineer: Louis Shen

Radiation test sites		Semi Anechoic Room				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Spectrum Analyzer (10 Hz~44 GHz)	Keysight	N9010A	MY52221312	Jan. 13, 2022	1 year
☐	Spectrum Analyzer (3 Hz~50 GHz)	Agilent	N9030A	MY53120541	Jan. 05, 2022	1 year
☐	Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	Jan. 15, 2021	1 year
☒	Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A10961	Jul. 06, 2021	1 year
☐	Amplifier (1 GHz~26.5 GHz)	Agilent	8449B	3008A02237	Oct. 21, 2021	1 year
☒	Pre Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02455	Jul. 12, 2021	1 year
☐	Preamplifier (1 GHz~26.5 GHz)	EMCI	EMC012645SE	980289	Jan. 15, 2021	1 year
☐	Preamplifier (26.5 GHz~40 GHz)	EMCI	EMC2654045	980028	Aug. 19, 2021	1 year
☒	Loop Antenna (9 kHz~30 MHz)	COM-POWER CORPORATION	AL-130	121014	Apr. 07, 2021	1 year
☐	Trilog Broadband Antenna (30 kHz~1 GHz)	Schwarzbeck Mess-Elektronik	VULB9168	01146	Jul. 19, 2021	1 year
☒	Trilog Broadband Antenna (30 kHz~1 GHz)	Schwarzbeck Mess-Elektronik	VULB9168	416	Nov. 17, 2021	1 year
☐	Broadband Horn Antenna (1 GHz~18 GHz)	Schwarzbeck Mess-Elektronik	9120D	02207	Jul. 09, 2021	1 year
☒	Broadband Horn Antenna (1 GHz~18 GHz)	Schwarzbeck Mess-Elektronik	9120D	9120D-550	Aug. 24, 2021	1 year
☒	Broadband Horn Antenna (18 GHz~40 GHz)	Schwarzbeck Mess-Elektronik	9170	9170-320	Aug. 24, 2021	1 year
☐	Horn Antenna (18 GHz~40 GHz)	ETS	3116	00086467	Dec. 03, 2021	1 year
☒	Microwave Cable	EMCI	EMC104-SM-SM-13000	170814	Feb. 19, 2021	1 year
☒	Microwave Cable	SUHNER	suflex104	313229/4	Feb. 19, 2021	1 year
☒	Microwave Cable	EMCI	EMC102-KM-KM-14000	151001	Feb. 19, 2021	1 year
☐	RF Cable (30-1000 MHz)	EMCI	EMC104-N-N-2000	TE01-2	Feb. 19, 2021	1 year

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

Radiation test sites		Semi Anechoic Room				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☐	RF Cable (30-1000 MHz)	EMCI	EMC104-N-N-6000	TE01-1	Feb. 19, 2021	1 year
☐	RF Cable (30-1000 MHz)	EMCI	EMC 106-SM-NM-1000	171219 (TE01-3)	Feb. 19, 2021	1 year
☐	Bluetooth Tester	R&S	CBT	100350	Mar. 17, 2021	2 years
☐	Wireless Connectivity Tester	R&S	CMW270	102208	Jun. 02, 2021	1 year
☐	Power Supply	KEITHLEY	2303	4045290	Feb. 01, 2021	1 year
☒	Software	EZ EMC	1.1.4.4	N/A	N.C.R.	---

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

3.5. Test Site Environment

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

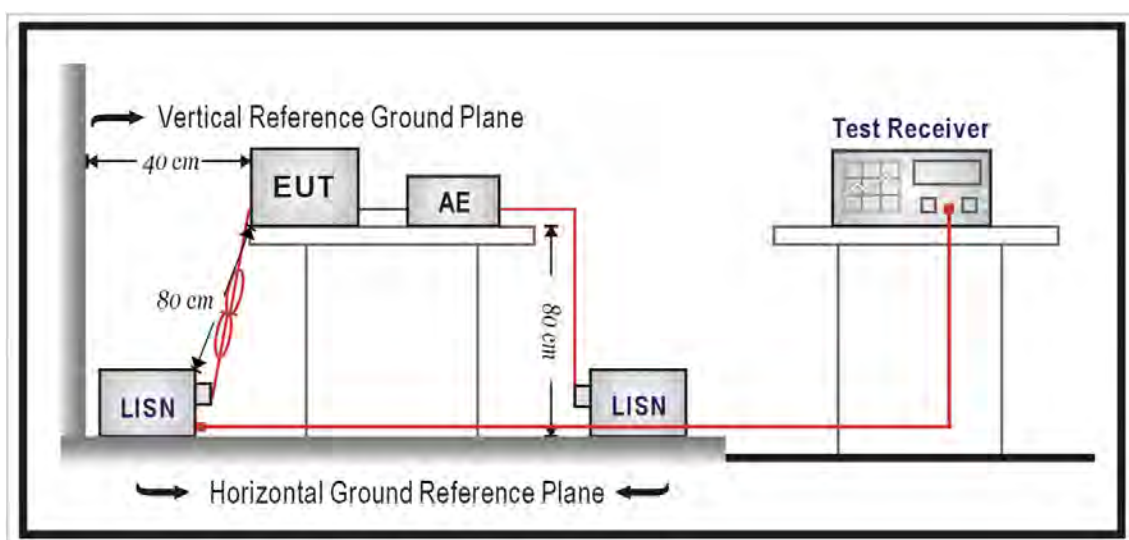
4 Measurement Procedure

4.1. AC Power Line Conducted Emission Measurement

■ Limit

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

■ Test Setup



■ Test Procedure

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

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

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

The AMN shall be placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8 m from the AMN. If the mains power cable is longer than 1 m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4 m. All of interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1 m. All 50 Ω ports of the LISN shall be resistively terminated into 50 Ω 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

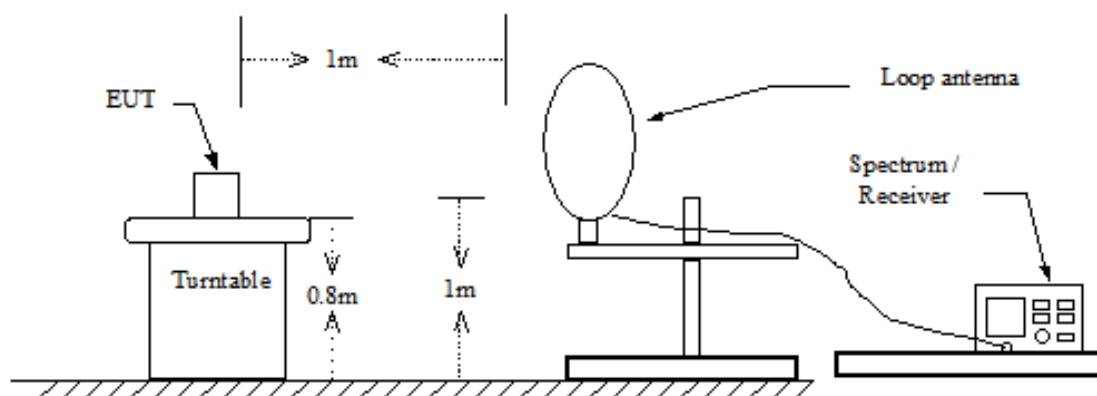
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ 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

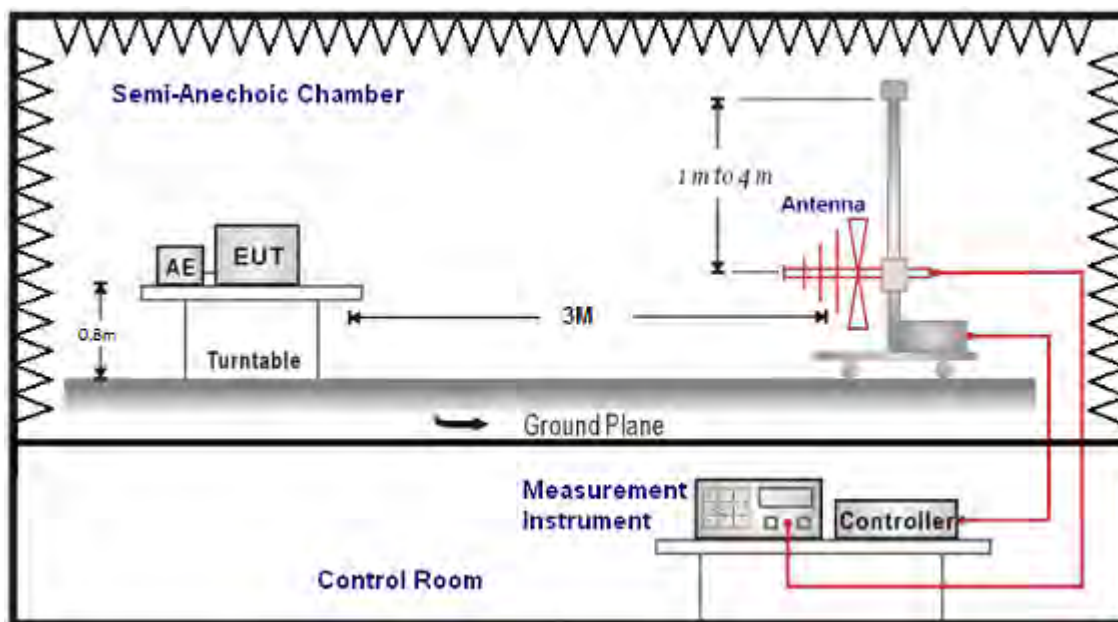
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this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

■ Setup

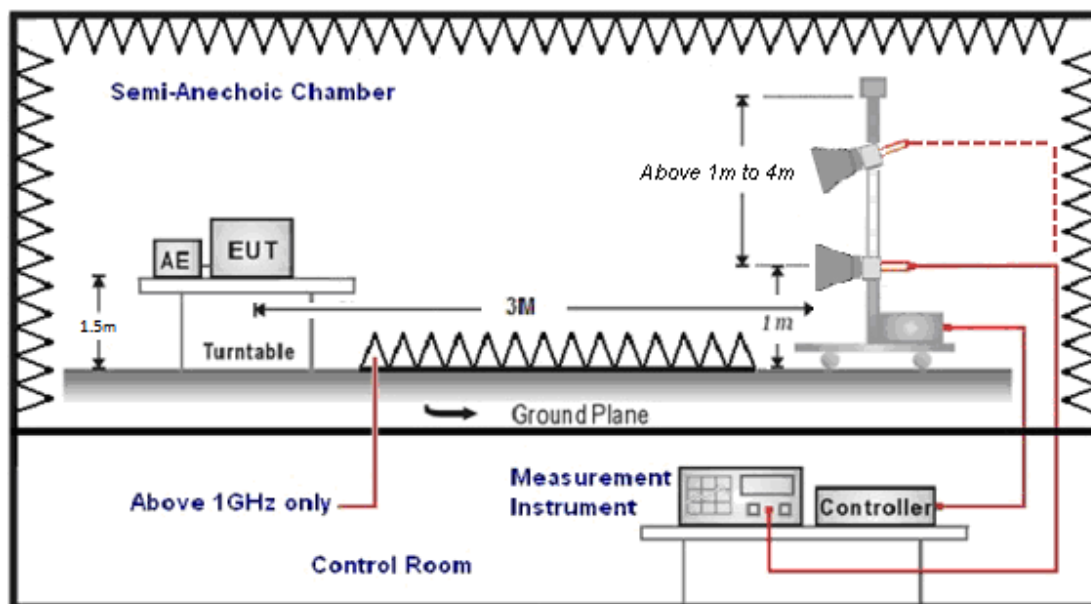
9 kHz ~ 30 MHz



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 is 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.

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

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

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

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.

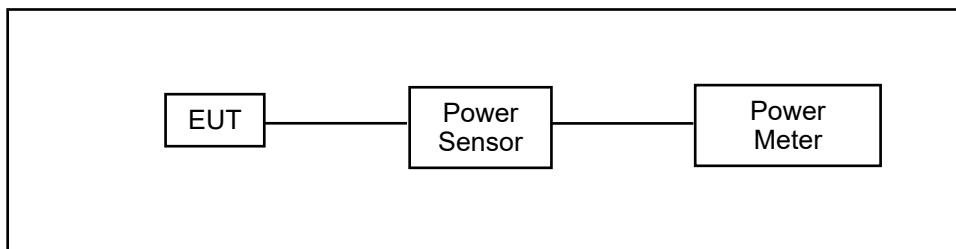
4.3. Maximum Conducted Output Power Measurement

■ 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.

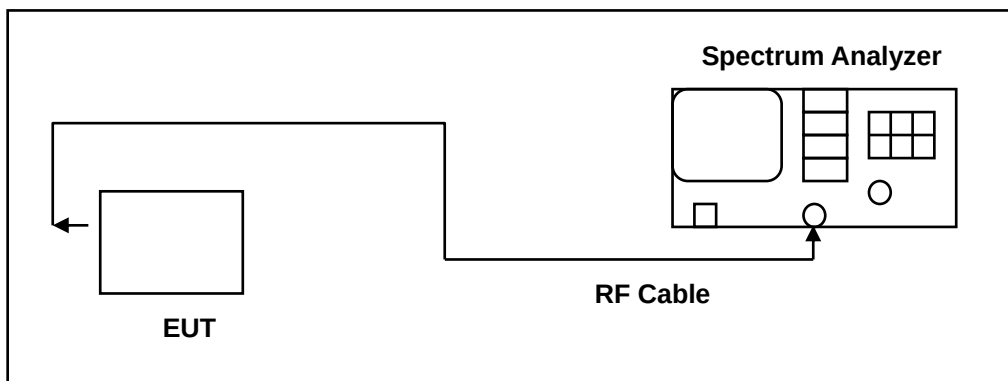
The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor.

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.

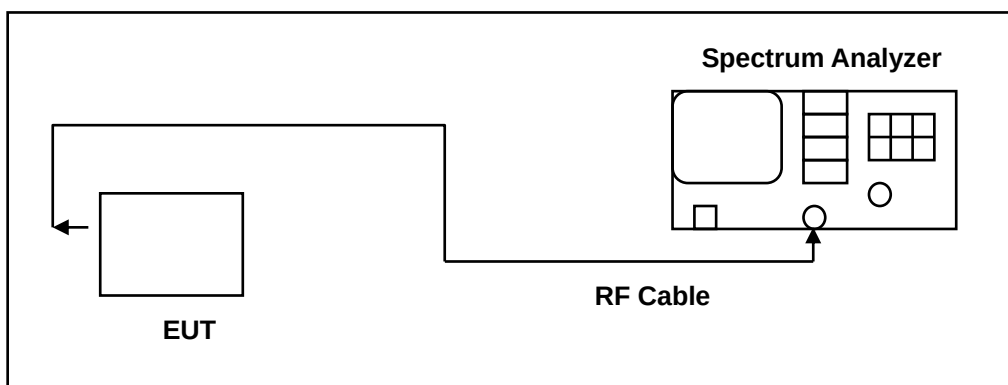
The test was performed at 3 channels (Channel low, middle, high)

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.

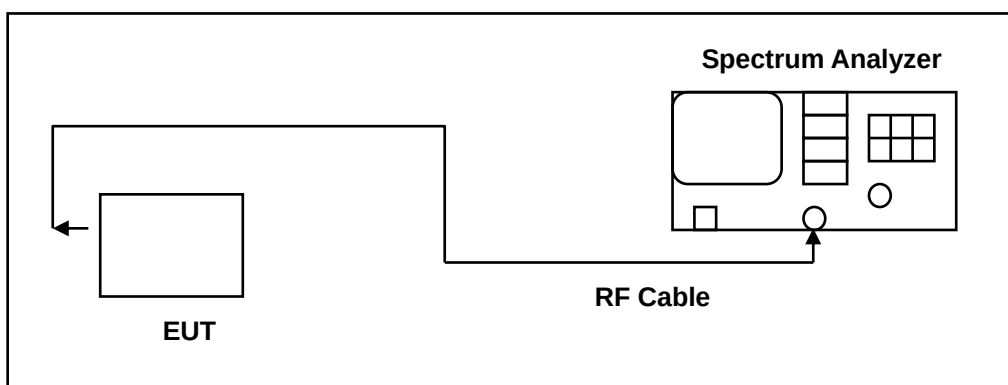
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

■ Test Setup



■ Test Procedure

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

4.7. Antenna Measurement

■ Limit

For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

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

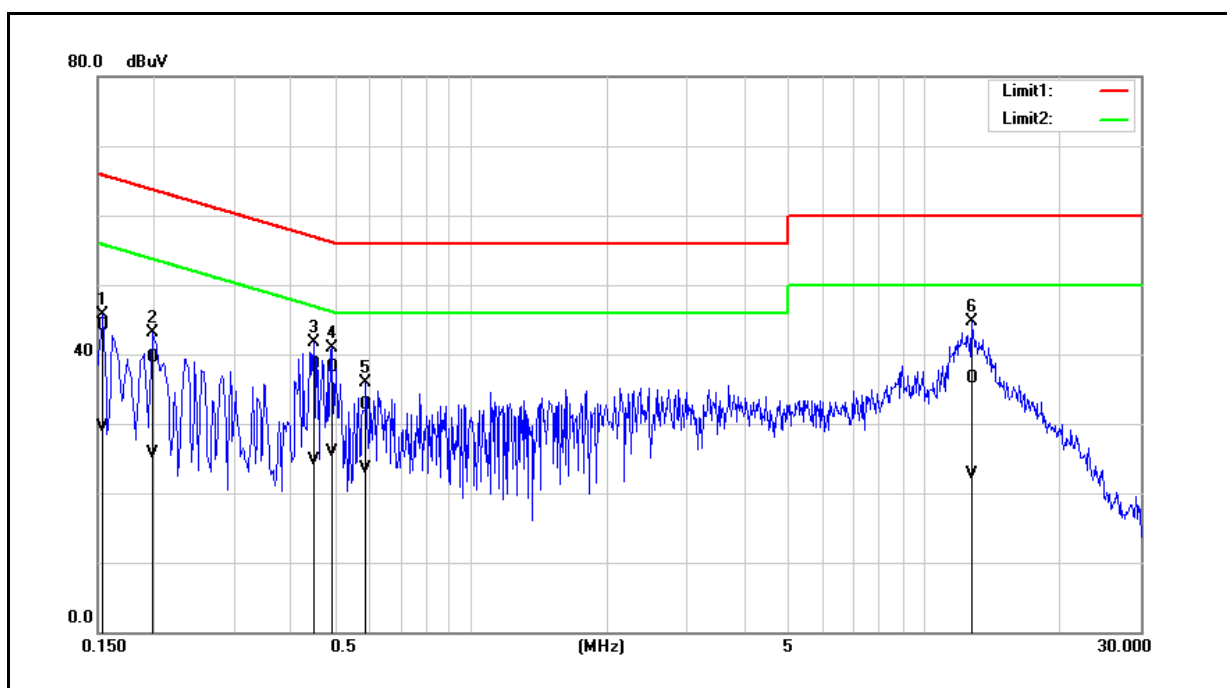
■ Antenna Description

See section 2 – antenna information.

5 Test Results

5.1 Conducted Emission

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

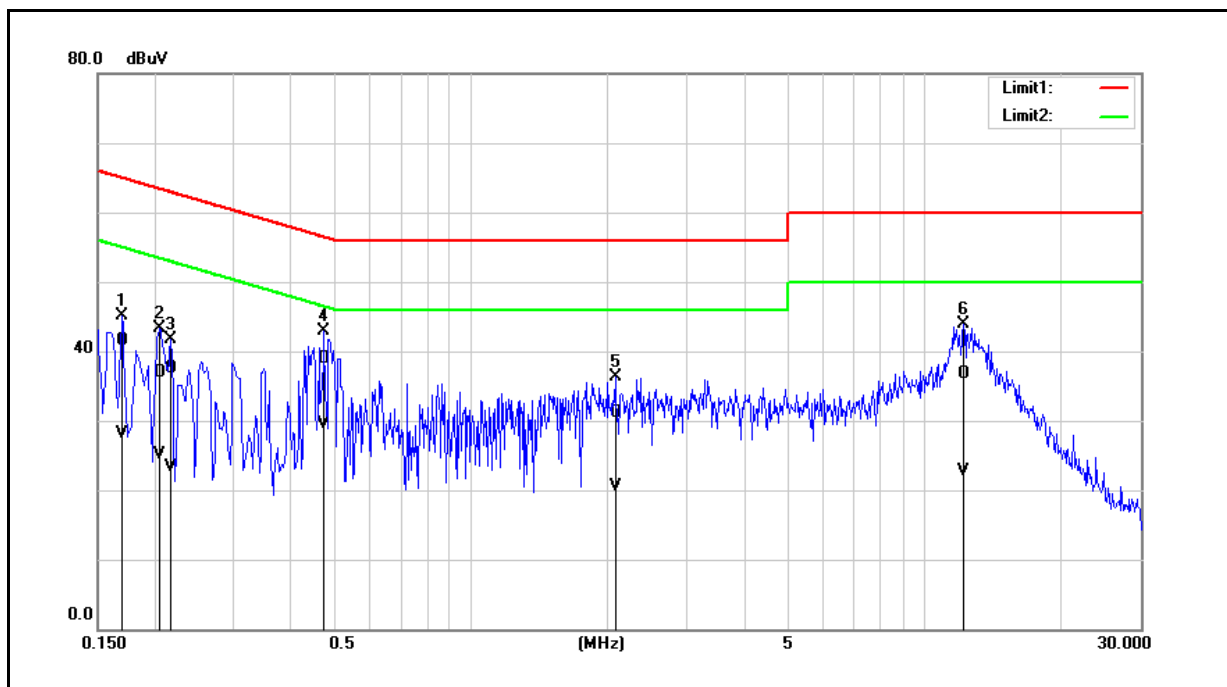


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1540	34.32	19.82	9.74	44.06	29.56	65.78	55.78	-21.72	-26.22	Pass
2	0.1980	29.74	16.04	9.74	39.48	25.78	63.69	53.69	-24.21	-27.91	Pass
3	0.4500	28.79	14.96	9.74	38.53	24.70	56.88	46.88	-18.35	-22.18	Pass
4	0.4940	28.44	16.12	9.74	38.18	25.86	56.10	46.10	-17.92	-20.24	Pass
5	0.5860	22.89	13.70	9.74	32.63	23.44	56.00	46.00	-23.37	-22.56	Pass
6	12.7700	26.52	12.65	10.00	36.52	22.65	60.00	50.00	-23.48	-27.35	Pass

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

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

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



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1700	31.67	18.31	9.74	41.41	28.05	64.96	54.96	-23.55	-26.91	Pass
2	0.2060	27.25	15.31	9.73	36.98	25.04	63.37	53.37	-26.39	-28.33	Pass
3	0.2180	27.69	13.56	9.73	37.42	23.29	62.89	52.89	-25.47	-29.60	Pass
4	0.4740	29.14	19.69	9.73	38.87	29.42	56.44	46.44	-17.57	-17.02	Pass
5	2.0780	21.32	10.80	9.80	31.12	20.60	56.00	46.00	-24.88	-25.40	Pass
6	12.2500	26.66	12.61	10.04	36.70	22.65	60.00	50.00	-23.30	-27.35	Pass

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

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

5.2 Conducted Test Results

Maximum Conducted Output Power Measurement

ANT-0			
Test Mode	Frequency (MHz)	RF Power setting in Test Software	Test Software Version
Mode 2	2412	43.0	Putty
	2437	42.0	
	2462	43.0	
Mode 3	2412	48.0	
	2437	48.0	
	2462	47.0	
Mode 4	2412	47.0	
	2437	47.0	
	2462	45.0	
Mode 5	2422	41.0	
	2437	48.0	
	2452	48.0	

ANT-0							
Test Mode	Frequency (MHz)	Data Rate	Average Output Power		Peak Output Power		
			Measurement Results		Measurement Results		Limit
			(dBm)	(W)	(dBm)	(W)	(W)
Mode 2	2412	1 M	18.85	0.077	21.14	0.130	≤ 1
	2437		18.20	0.066	20.93	0.124	≤ 1
	2462		18.31	0.068	20.78	0.120	≤ 1
Mode 3	2412	6 M	17.00	0.050	25.69	0.371	≤ 1
	2437		16.70	0.047	25.23	0.333	≤ 1
	2462		16.63	0.046	25.15	0.327	≤ 1
Mode 4	2412	6.5 M	16.33	0.043	25.21	0.332	≤ 1
	2437		16.49	0.045	25.01	0.317	≤ 1
	2462		15.70	0.037	24.41	0.276	≤ 1
Mode 5	2422	13.5 M	13.45	0.022	22.28	0.169	≤ 1
	2437		17.15	0.052	25.12	0.325	≤ 1
	2452		17.17	0.052	25.16	0.328	≤ 1

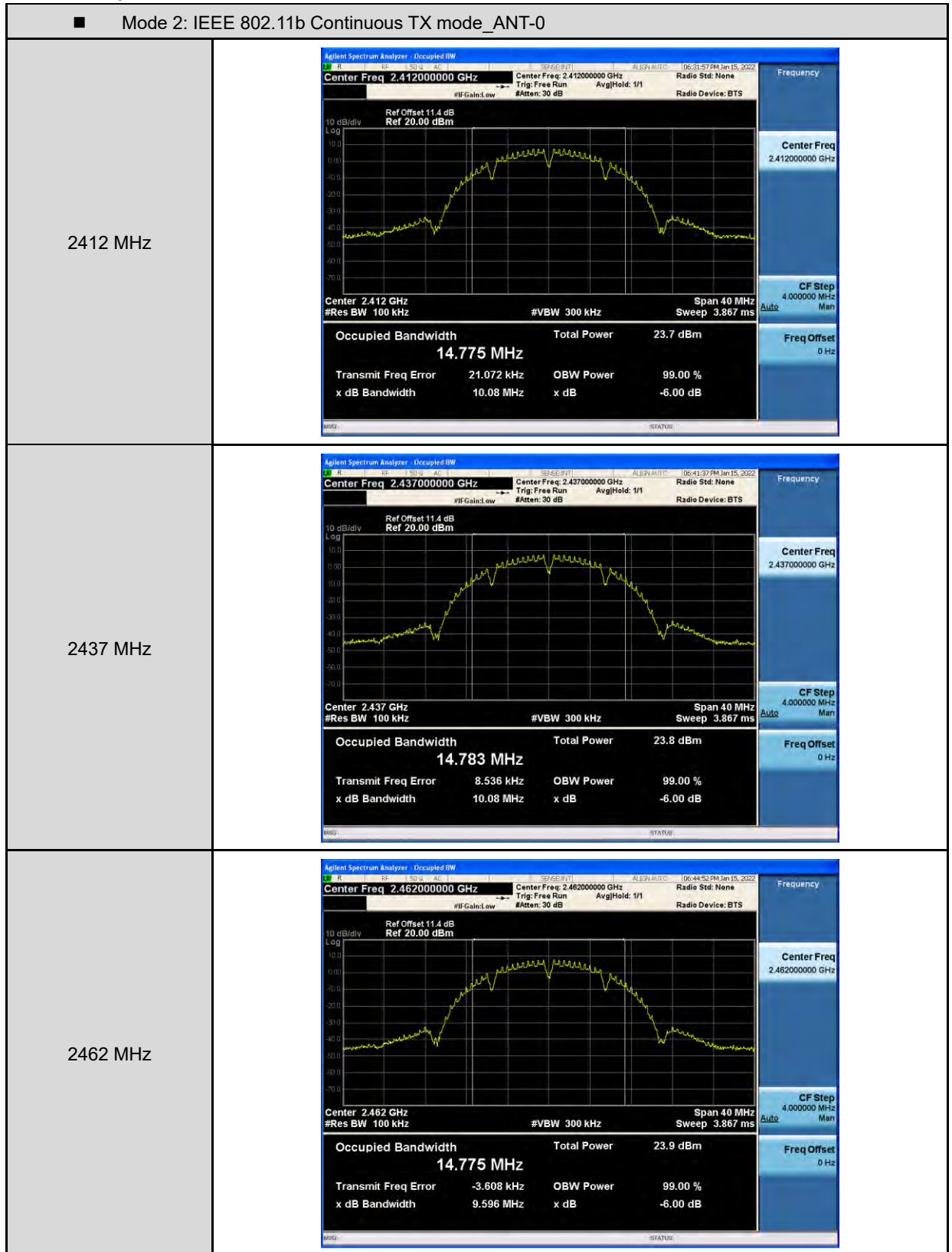
Note: The relevant measured result has the offset with cable loss already.

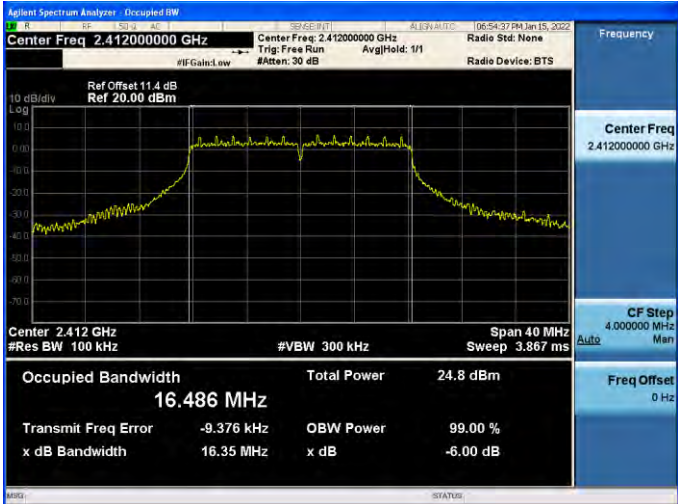
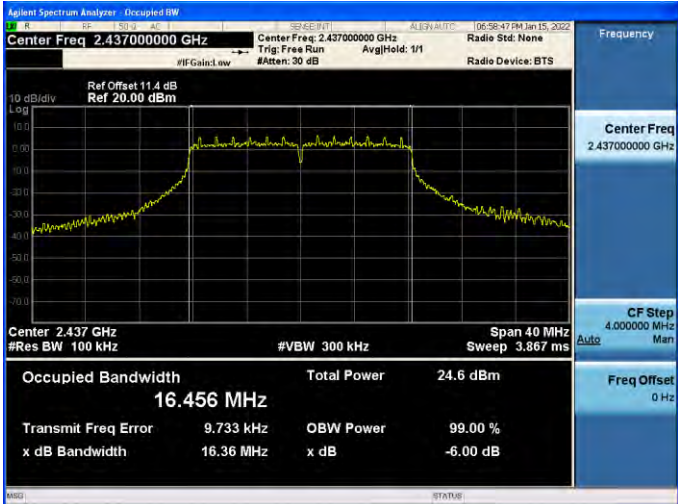
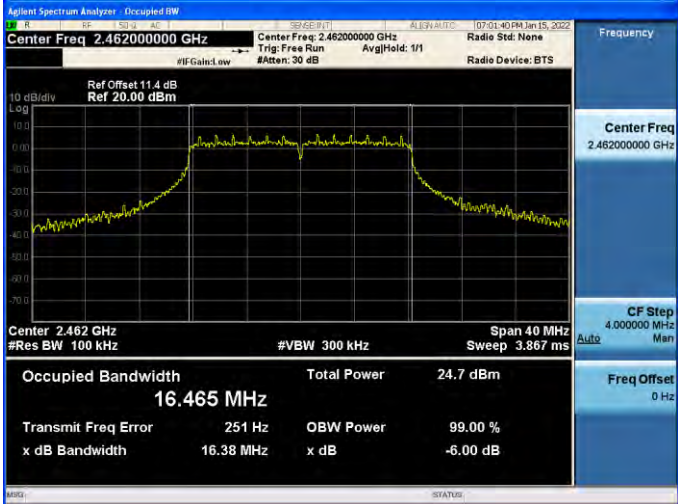
6 dB RF Bandwidth Measurement

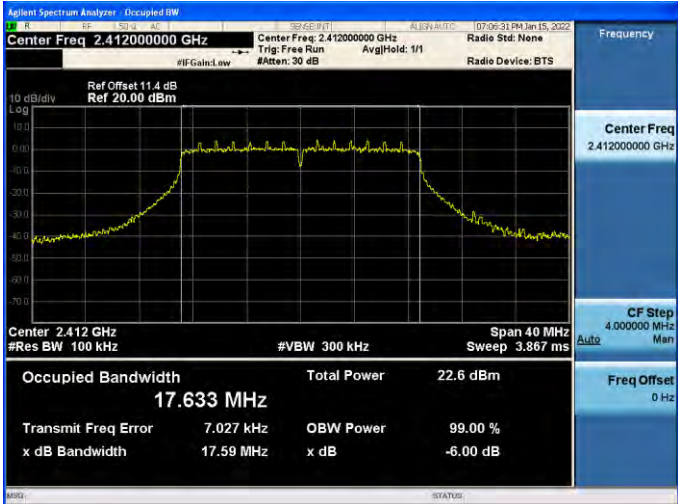
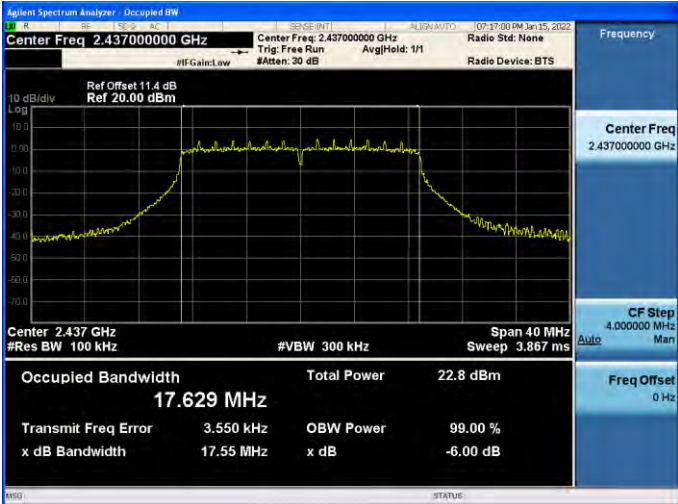
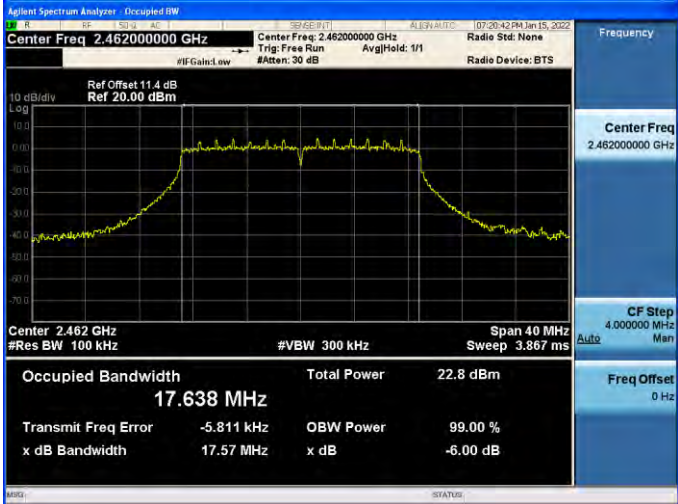
ANT-0			
Test Mode	Frequency (MHz)	Measurement (kHz)	Limit (kHz)
Mode 2	2412	10082	≥ 500
	2437	10080	≥ 500
	2462	9596	≥ 500
Mode 3	2412	16350	≥ 500
	2437	16360	≥ 500
	2462	16380	≥ 500
Mode 4	2412	17590	≥ 500
	2437	17550	≥ 500
	2462	17570	≥ 500
Mode 5	2422	35440	≥ 500
	2437	35250	≥ 500
	2452	35250	≥ 500

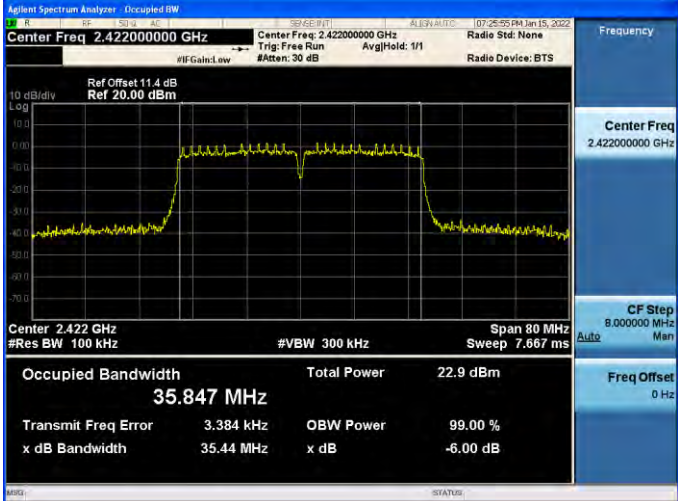
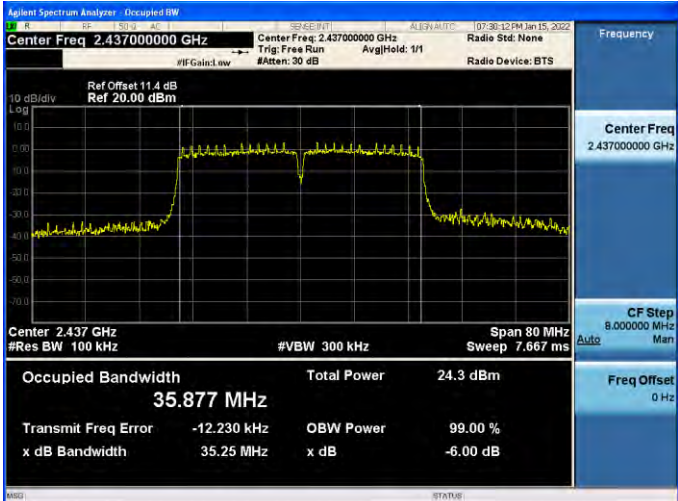
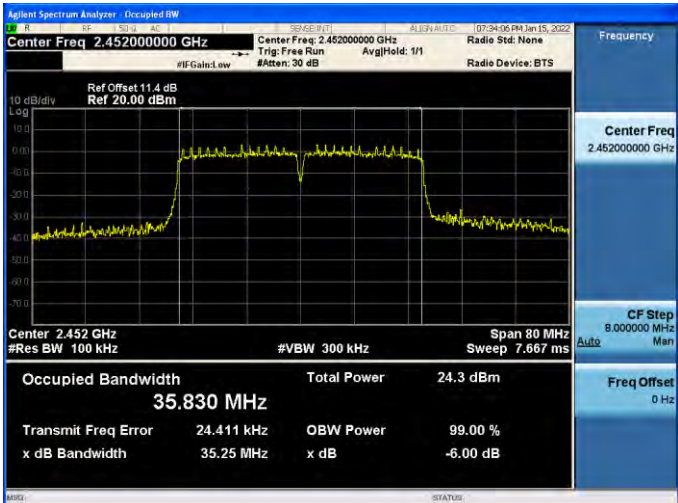
Test Graphs

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0



Mode 3: IEEE 802.11g Continuous TX mode_ANT-0	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Ref Offset: 11.4 dB Ref: 20.00 dBm Center Freq: 2.412000000 GHz Trig: Free Run Ave/Hold: 1/1 Radio Std: None Radio Device: BTS Center: 2.412 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 16.486 MHz Total Power: 24.8 dBm Transmit Freq Error: -9.376 kHz OBW Power: 99.00 % x dB Bandwidth: 16.35 MHz x dB: -6.00 dB Frequency: Center Freq: 2.412000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
2437 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.437000000 GHz Ref Offset: 11.4 dB Ref: 20.00 dBm Center Freq: 2.437000000 GHz Trig: Free Run Ave/Hold: 1/1 Radio Std: None Radio Device: BTS Center: 2.437 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 16.456 MHz Total Power: 24.6 dBm Transmit Freq Error: 9.733 kHz OBW Power: 99.00 % x dB Bandwidth: 16.36 MHz x dB: -6.00 dB Frequency: Center Freq: 2.437000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
2462 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.462000000 GHz Ref Offset: 11.4 dB Ref: 20.00 dBm Center Freq: 2.462000000 GHz Trig: Free Run Ave/Hold: 1/1 Radio Std: None Radio Device: BTS Center: 2.462 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 16.465 MHz Total Power: 24.7 dBm Transmit Freq Error: 251 Hz OBW Power: 99.00 % x dB Bandwidth: 16.38 MHz x dB: -6.00 dB Frequency: Center Freq: 2.462000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz

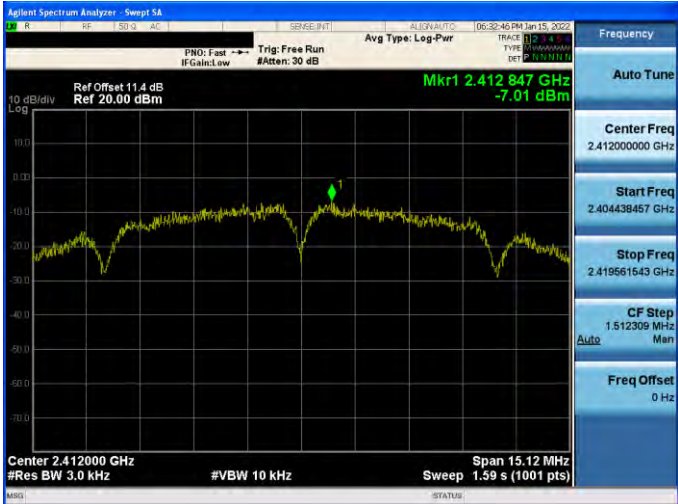
Mode 4: IEEE 802.11n 2.4 GHz 20 MHz link mode _ANT-0	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Ref Offset: 11.4 dB Ref: 20.00 dBm Center Freq: 2.412000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Center: 2.412 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 17.633 MHz Total Power: 22.6 dBm Transmit Freq Error: 7.027 kHz OBW Power: 99.00 % x dB Bandwidth: 17.59 MHz x dB: -6.00 dB Frequency: Center Freq 2.412000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
2437 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.437000000 GHz Ref Offset: 11.4 dB Ref: 20.00 dBm Center Freq: 2.437000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Center: 2.437 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 17.629 MHz Total Power: 22.8 dBm Transmit Freq Error: 3.550 kHz OBW Power: 99.00 % x dB Bandwidth: 17.55 MHz x dB: -6.00 dB Frequency: Center Freq 2.437000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
2462 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.462000000 GHz Ref Offset: 11.4 dB Ref: 20.00 dBm Center Freq: 2.462000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Center: 2.462 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 17.638 MHz Total Power: 22.8 dBm Transmit Freq Error: -5.811 kHz OBW Power: 99.00 % x dB Bandwidth: 17.57 MHz x dB: -6.00 dB Frequency: Center Freq 2.462000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz

Mode 5: IEEE 802.11n 2.4 GHz 40 MHz link mode _ANT-0	
2422 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.422000000 GHz Ref Offset 11.4 dB Ref 20.00 dBm Center Freq 2.422000000 GHz Trig: Free Run #Att: 30 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS 10 dB/div Log Center 2.422 GHz #Res BW 100 kHz #VBW 300 kHz Span 80 MHz Sweep 7.667 ms Occupied Bandwidth 35.847 MHz Total Power 22.9 dBm Transmit Freq Error 3.384 kHz OBW Power 99.00 % x dB Bandwidth 35.44 MHz x dB -6.00 dB Frequency Center Freq 2.422000000 GHz CF Step 8.000000 MHz Auto Freq Offset 0 Hz
2437 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Ref Offset 11.4 dB Ref 20.00 dBm Center Freq 2.437000000 GHz Trig: Free Run #Att: 30 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS 10 dB/div Log Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 80 MHz Sweep 7.667 ms Occupied Bandwidth 35.877 MHz Total Power 24.3 dBm Transmit Freq Error -12.230 kHz OBW Power 99.00 % x dB Bandwidth 35.25 MHz x dB -6.00 dB Frequency Center Freq 2.437000000 GHz CF Step 8.000000 MHz Auto Freq Offset 0 Hz
2452 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.452000000 GHz Ref Offset 11.4 dB Ref 20.00 dBm Center Freq 2.452000000 GHz Trig: Free Run #Att: 30 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS 10 dB/div Log Center 2.452 GHz #Res BW 100 kHz #VBW 300 kHz Span 80 MHz Sweep 7.667 ms Occupied Bandwidth 35.830 MHz Total Power 24.3 dBm Transmit Freq Error 24.411 kHz OBW Power 99.00 % x dB Bandwidth 35.25 MHz x dB -6.00 dB Frequency Center Freq 2.452000000 GHz CF Step 8.000000 MHz Auto Freq Offset 0 Hz

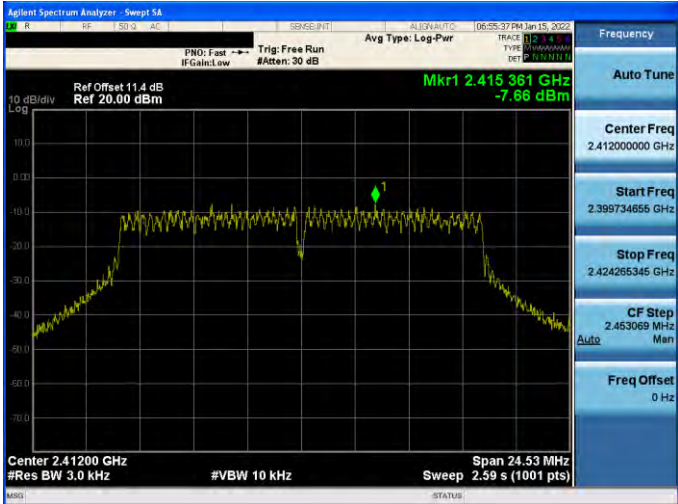
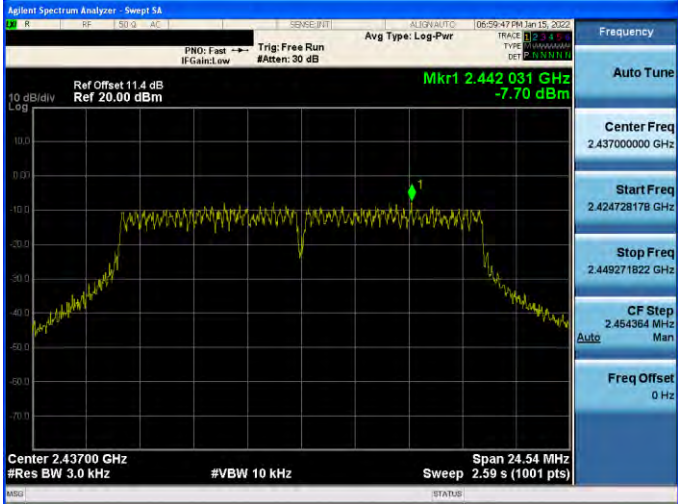
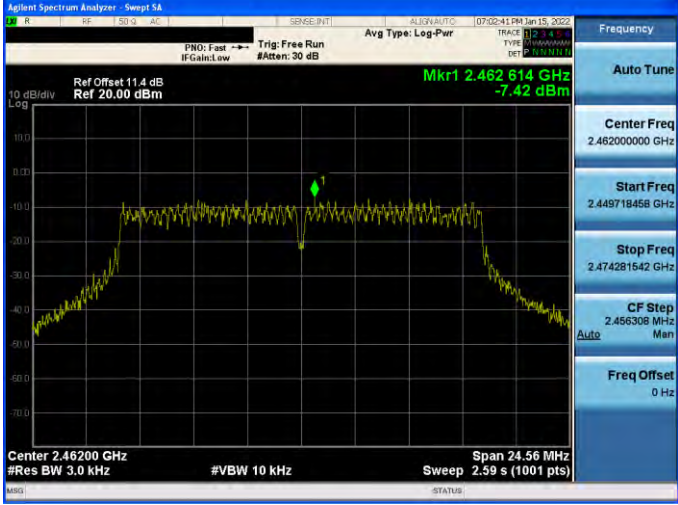
Maximum Power Spectral Density Measurement

ANT-0			
Test Mode	Frequency (MHz)	Measurement (dBm/3 kHz)	Limit (dBm/ 3 kHz)
Mode 2	2412	-7.010	≤ 8
	2437	-6.710	≤ 8
	2462	-6.170	≤ 8
Mode 3	2412	-7.660	≤ 8
	2437	-7.700	≤ 8
	2462	-7.420	≤ 8
Mode 4	2412	-9.020	≤ 8
	2437	-9.630	≤ 8
	2462	-10.160	≤ 8
Mode 5	2422	-12.860	≤ 8
	2437	-13.240	≤ 8
	2452	-12.290	≤ 8

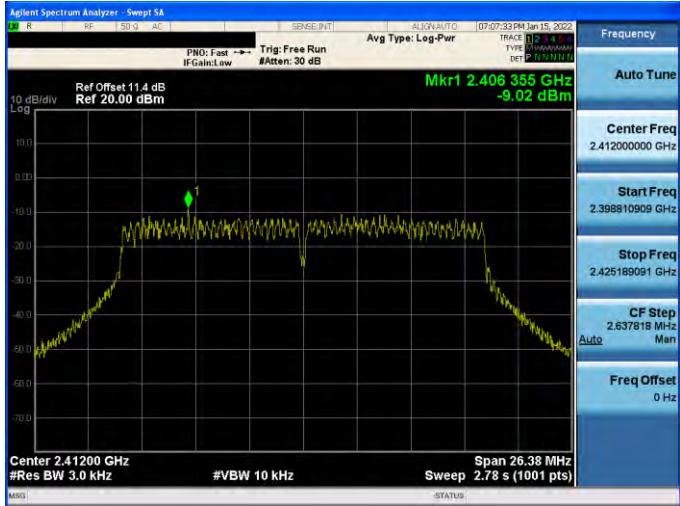
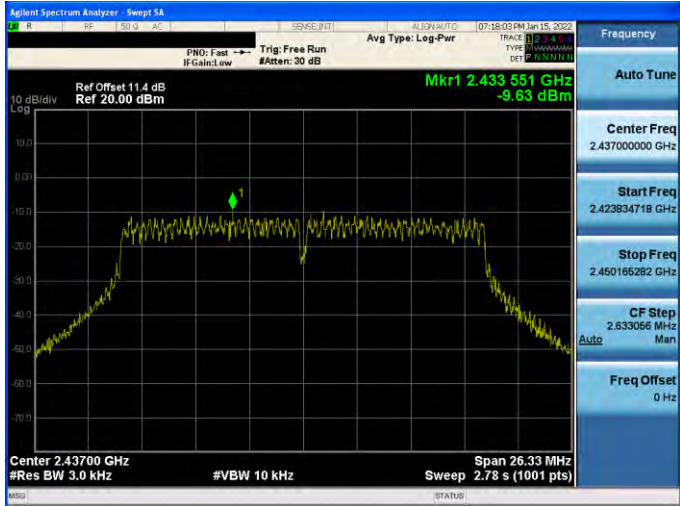
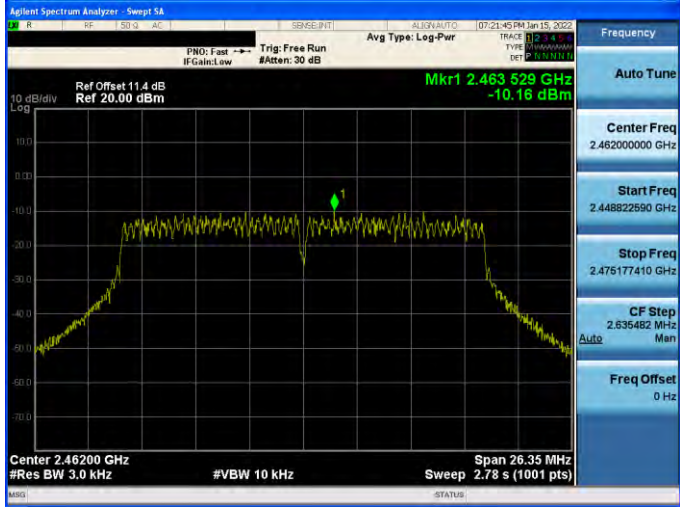
Mode 2: IEEE 802.11b Continuous TX mode _ANT-0

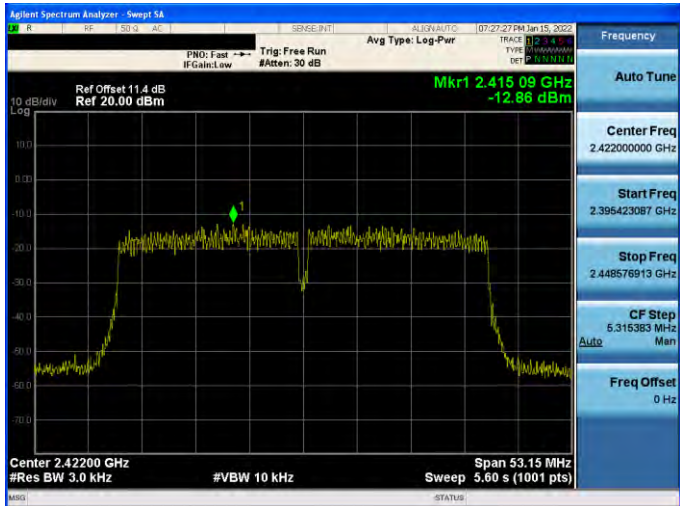
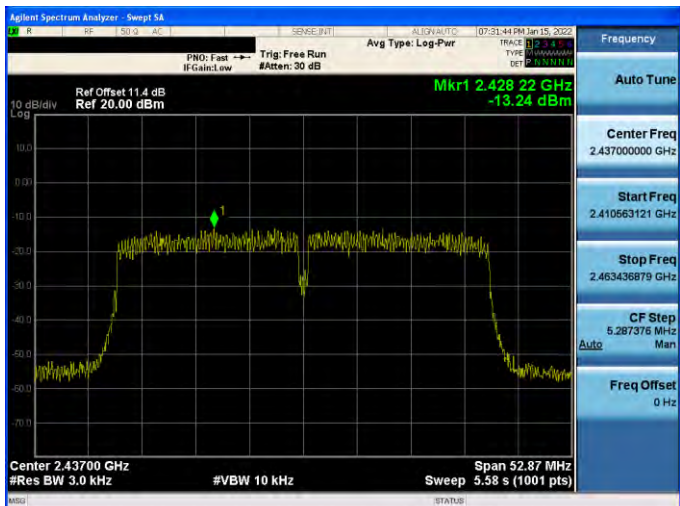
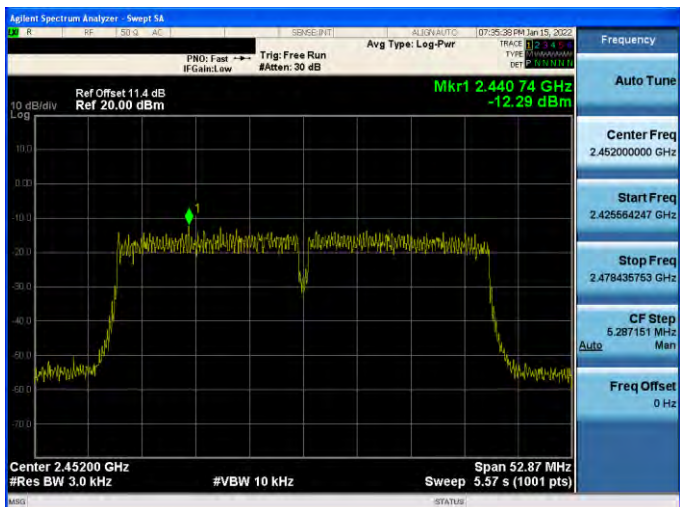
2412 MHz	
2437 MHz	
2462 MHz	

Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz	 Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 2.415 361 GHz -7.66 dBm Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 2.59 s (1001 pts) Frequency Auto Tune Center Freq 2.41200000 GHz Start Freq 2.399734655 GHz Stop Freq 2.424265345 GHz CF Step 2.453069 MHz Man Freq Offset 0 Hz
2437 MHz	 Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 2.442 031 GHz -7.70 dBm Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 2.59 s (1001 pts) Frequency Auto Tune Center Freq 2.437000000 GHz Start Freq 2.424728178 GHz Stop Freq 2.449271822 GHz CF Step 2.454364 MHz Man Freq Offset 0 Hz
2462 MHz	 Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 2.462 614 GHz -7.42 dBm Center 2.46200 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 2.59 s (1001 pts) Frequency Auto Tune Center Freq 2.462000000 GHz Start Freq 2.449718456 GHz Stop Freq 2.474281542 GHz CF Step 2.456308 MHz Man Freq Offset 0 Hz

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

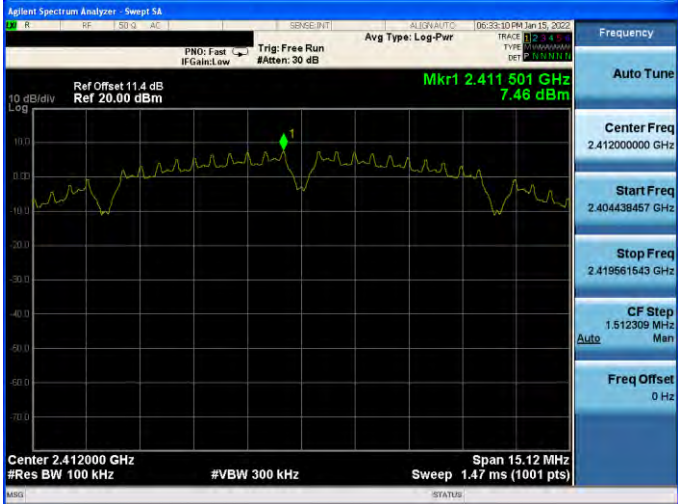
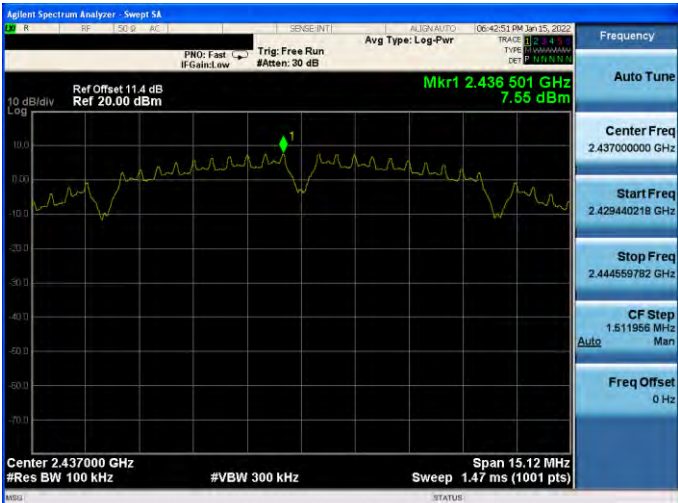
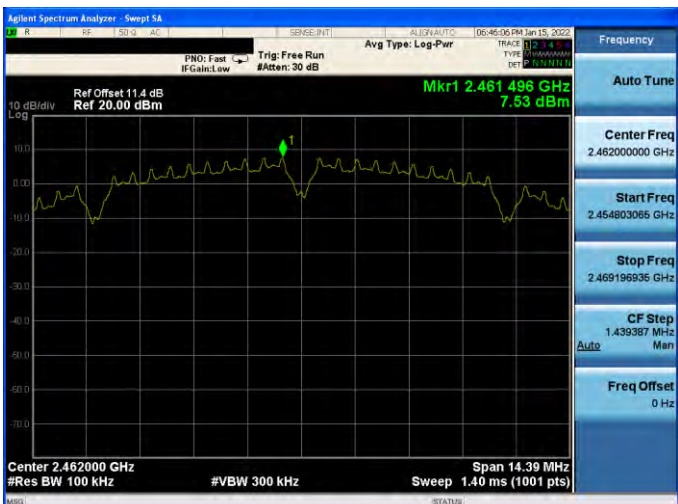
2412 MHz	
2437 MHz	
2462 MHz	

Mode 5: IEEE 802.11n 2.4 GHz 40 MHz link mode _ANT-0	
2422 MHz	
2437 MHz	
2452 MHz	

Out of Band Conducted Emissions Measurement

■ Test Graphs

Reference level

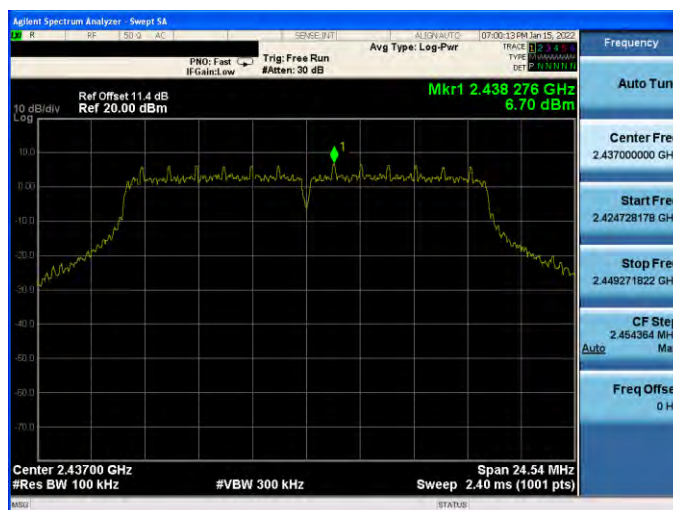
Mode 2: IEEE 802.11b Continuous TX mode_ANT-0	
2412 MHz	
2437 MHz	
2462 MHz	

Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

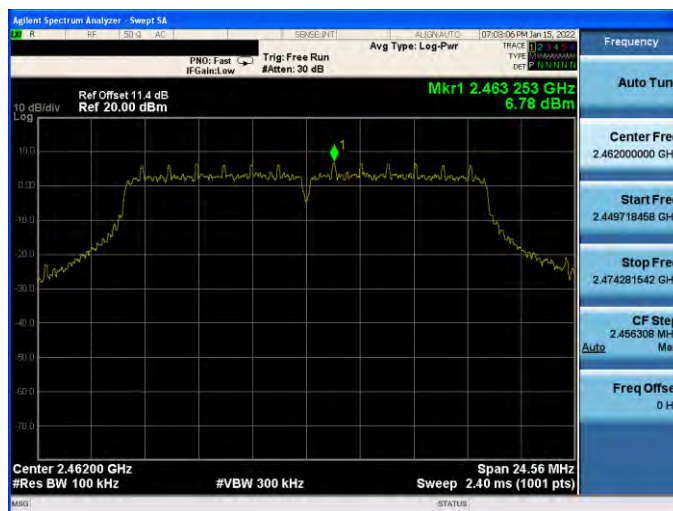
2412 MHz



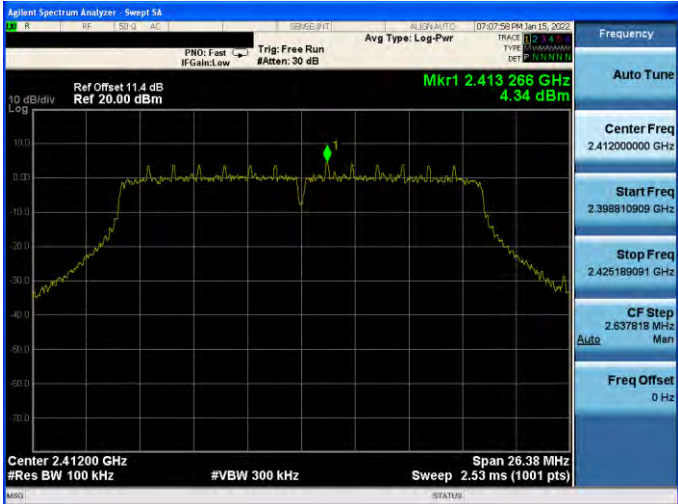
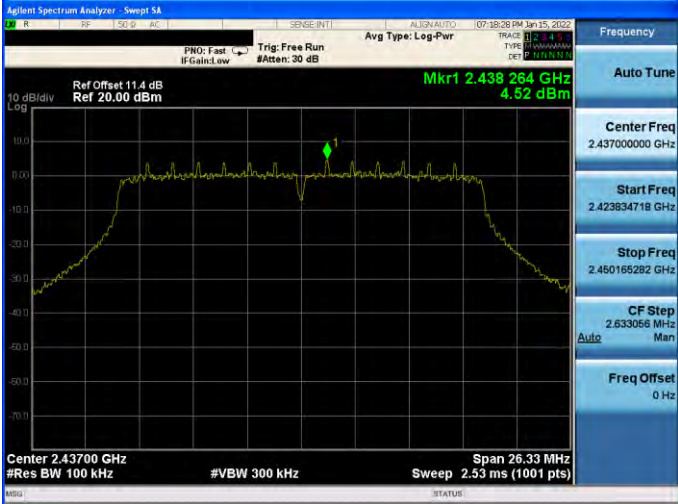
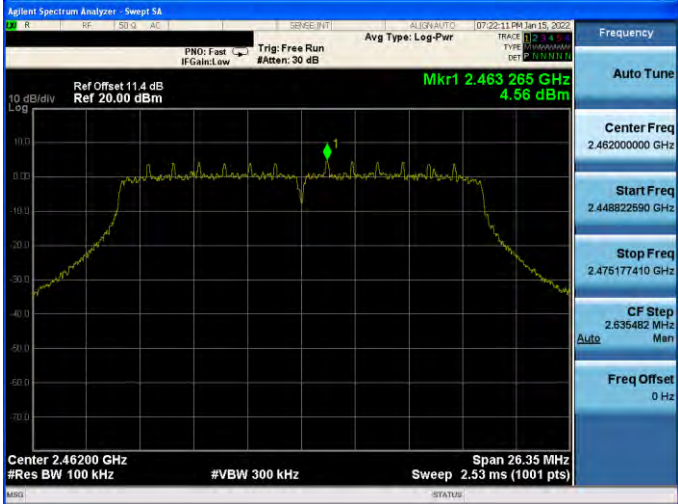
2437 MHz



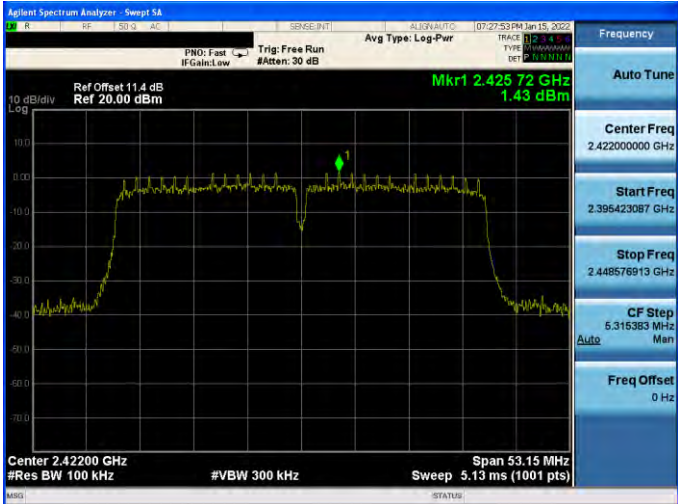
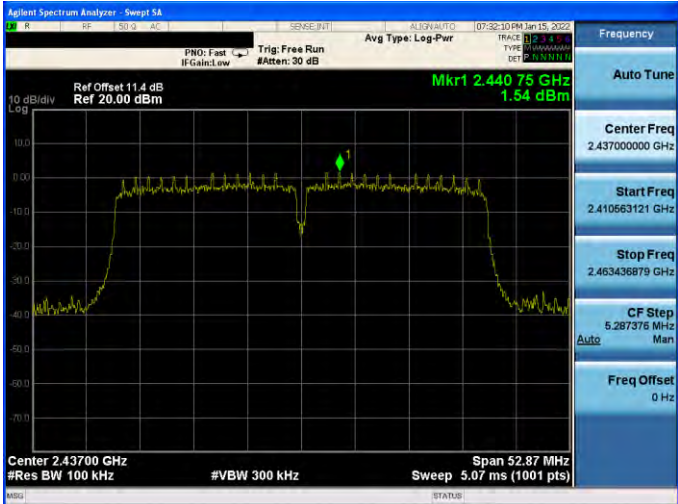
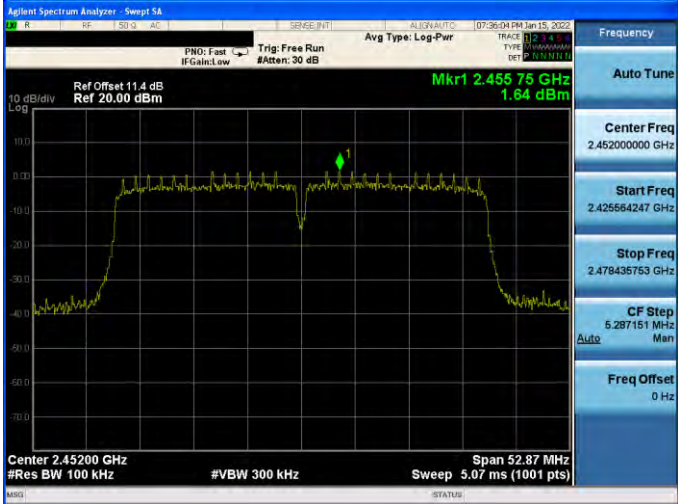
2462 MHz



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

2412 MHz	 Agilent Spectrum Analyzer - Sweep 5A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 2.413 266 GHz 4.34 dBm Center 2.41200 GHz #Res BW 100 kHz #VBW 300 kHz Span 26.38 MHz Sweep 2.53 ms (1001 pts) Frequency Auto Tune Center Freq 2.41200000 GHz Start Freq 2.398810909 GHz Stop Freq 2.425189091 GHz CF Step 2.637818 MHz Auto Man Freq Offset 0 Hz
2437 MHz	 Agilent Spectrum Analyzer - Sweep 5A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 2.438 264 GHz 4.52 dBm Center 2.43700 GHz #Res BW 100 kHz #VBW 300 kHz Span 26.33 MHz Sweep 2.53 ms (1001 pts) Frequency Auto Tune Center Freq 2.437000000 GHz Start Freq 2.423834718 GHz Stop Freq 2.450165282 GHz CF Step 2.633058 MHz Auto Man Freq Offset 0 Hz
2462 MHz	 Agilent Spectrum Analyzer - Sweep 5A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 2.463 265 GHz 4.56 dBm Center 2.46200 GHz #Res BW 100 kHz #VBW 300 kHz Span 26.35 MHz Sweep 2.53 ms (1001 pts) Frequency Auto Tune Center Freq 2.462000000 GHz Start Freq 2.448822590 GHz Stop Freq 2.475177410 GHz CF Step 2.635482 MHz Auto Man Freq Offset 0 Hz

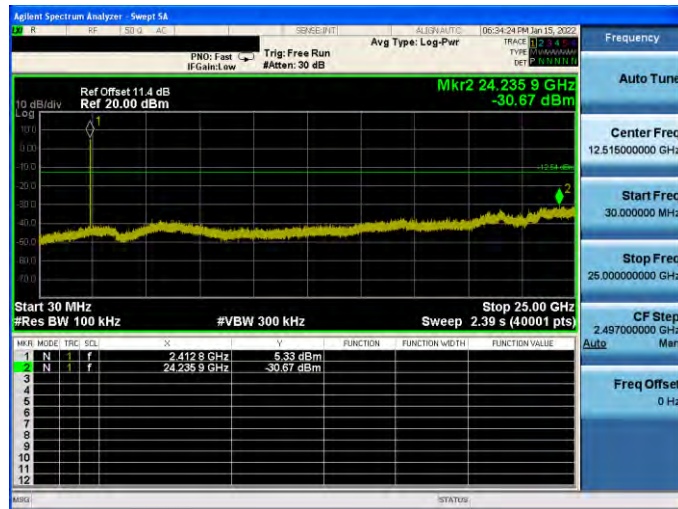
Mode 5: IEEE 802.11n 2.4 GHz 40 MHz link mode _ANT-0

2422 MHz	
2437 MHz	
2452 MHz	

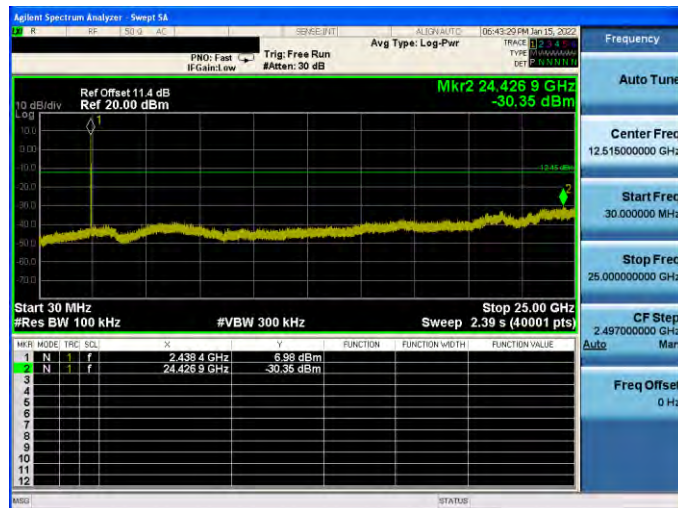
Out of Band Conducted Emissions

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

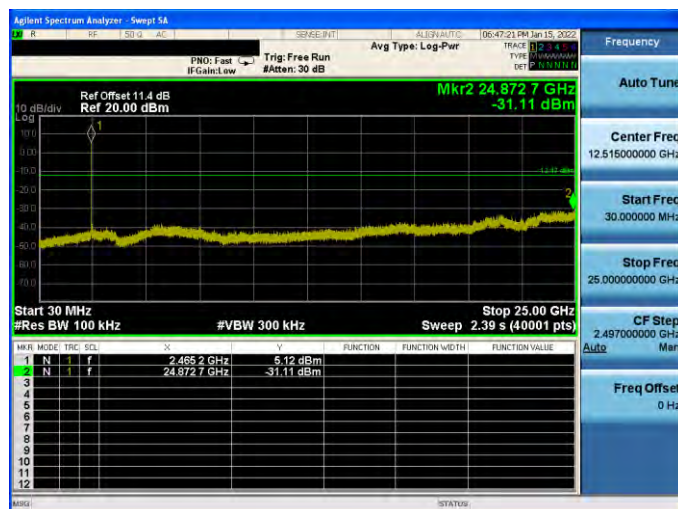
2412 MHz



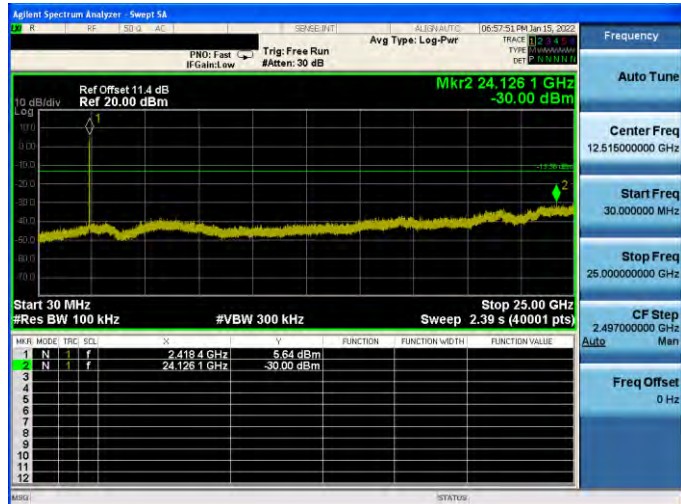
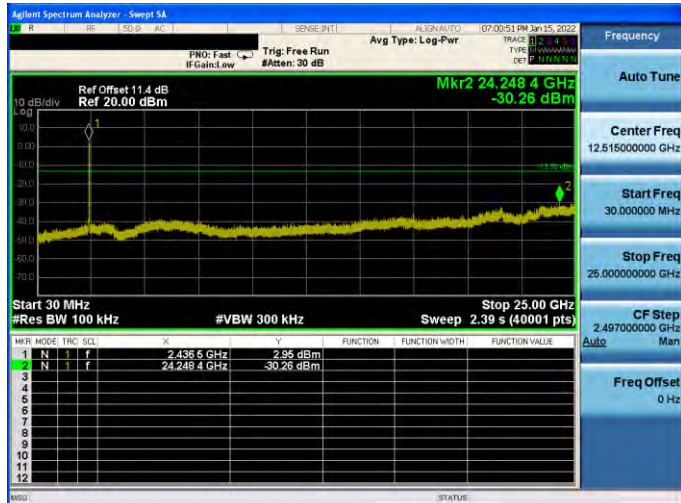
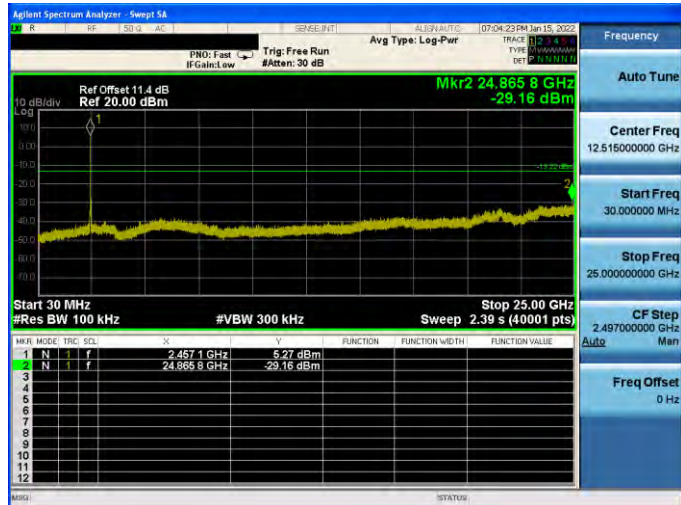
2437 MHz



2462 MHz



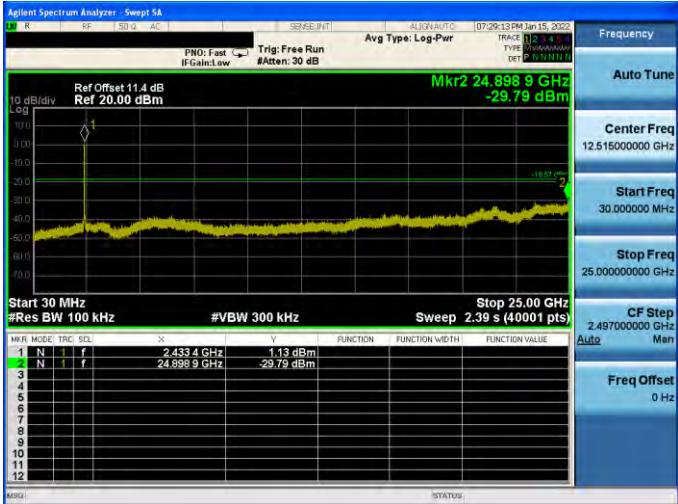
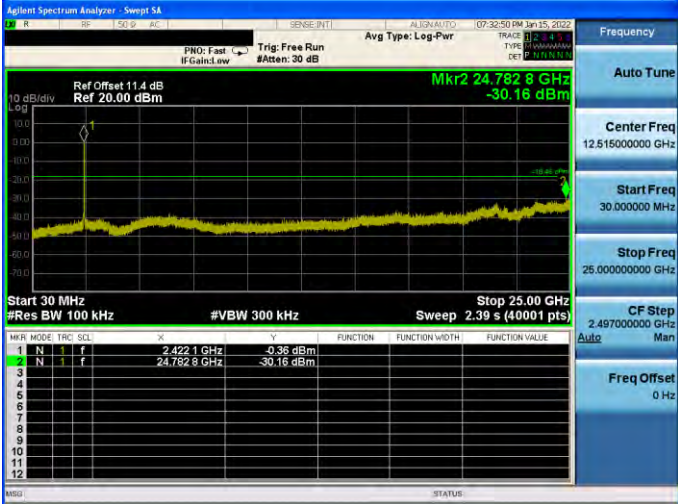
Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz	
2437 MHz	
2462 MHz	

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

2412 MHz	Agilent Spectrum Analyzer - Sweep 5A RF 1 50.0 AC SENSE: [INT] ALE: [AUTO] 07:59:17 PM Jan 15, 2022 PRN: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Ref Offset 11.4 dB Ref 20.00 dBm Mkr2 24.862 7 GHz -30.05 dBm 10 dB/div Log 1 2 Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.39 s (40001 pts) Stop 25.00 GHz <table><tr><th>MKR</th><th>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><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>24.862 7 GHz</td><td>3.32 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>24.862 7 GHz</td><td>-30.05 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>12</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 12.515000000 GHz Start Freq 30.0000000 MHz Stop Freq 25.000000000 GHz CF Step 2.497000000 GHz Auto Man Freq Offset 0 Hz STATUS	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	24.862 7 GHz	3.32 dBm				2	N	1	f	24.862 7 GHz	-30.05 dBm				3									4									5									6									7									8									9									10									11									12								
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2437 MHz	Agilent Spectrum Analyzer - Sweep 5A RF 1 50.0 AC SENSE: [INT] ALE: [AUTO] 07:59:07 PM Jan 15, 2022 PRN: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Ref Offset 11.4 dB Ref 20.00 dBm Mkr2 23.503 0 GHz -30.58 dBm 10 dB/div Log 1 2 Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.39 s (40001 pts) Stop 25.00 GHz <table><tr><th>MKR</th><th>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><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>24.346 GHz</td><td>3.78 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>23.503 0 GHz</td><td>-30.58 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>12</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 12.515000000 GHz Start Freq 30.000000 MHz Stop Freq 25.000000000 GHz CF Step 2.497000000 GHz Auto Man Freq Offset 0 Hz STATUS	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	24.346 GHz	3.78 dBm				2	N	1	f	23.503 0 GHz	-30.58 dBm				3									4									5									6									7									8									9									10									11									12								
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2462 MHz	Agilent Spectrum Analyzer - Sweep 5A RF 1 50.0 AC SENSE: [INT] ALE: [AUTO] 07:23:30 PM Jan 15, 2022 PRN: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Ref Offset 11.4 dB Ref 20.00 dBm Mkr2 24.757 8 GHz -30.48 dBm 10 dB/div Log 1 2 Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.39 s (40001 pts) Stop 25.00 GHz <table><tr><th>MKR</th><th>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><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>24.683 GHz</td><td>1.01 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>24.757 8 GHz</td><td>-30.48 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>12</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 12.515000000 GHz Start Freq 30.000000 MHz Stop Freq 25.000000000 GHz CF Step 2.497000000 GHz Auto Man Freq Offset 0 Hz STATUS	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	24.683 GHz	1.01 dBm				2	N	1	f	24.757 8 GHz	-30.48 dBm				3									4									5									6									7									8									9									10									11									12								
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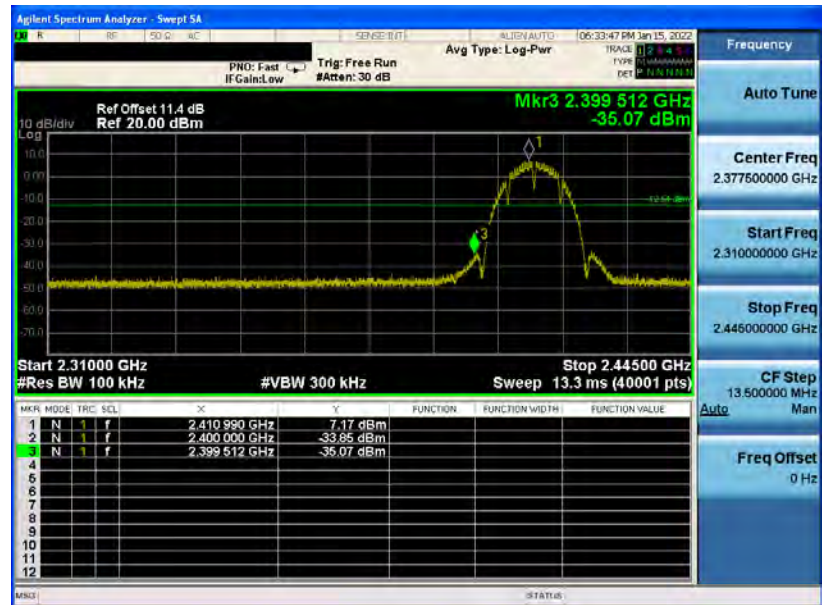
Mode 5: IEEE 802.11n 2.4 GHz 40 MHz link mode _ANT-0

2422 MHz	
2437 MHz	
2452 MHz	

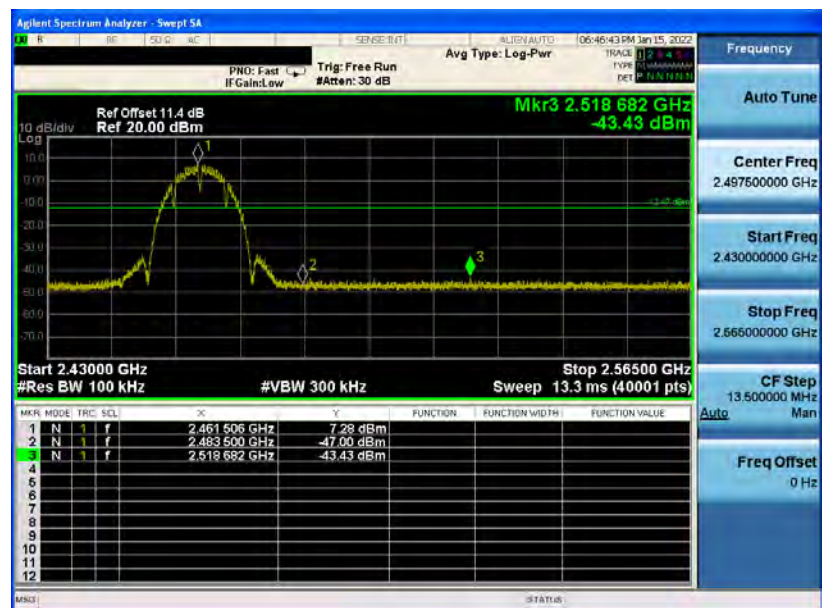
Conducted Band Edge

Mode 2: IEEE 802.11b Continuous TX mode_ANT-0

2412 MHz

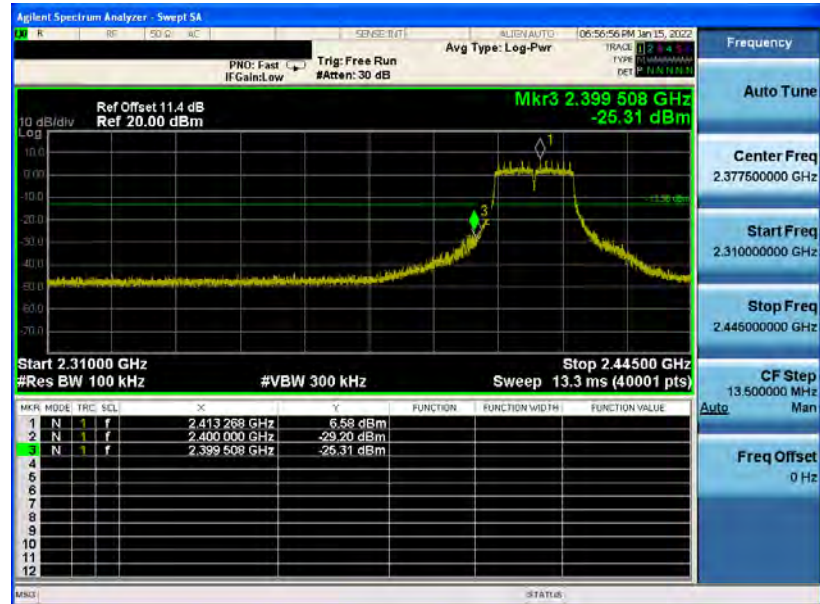


2462 MHz

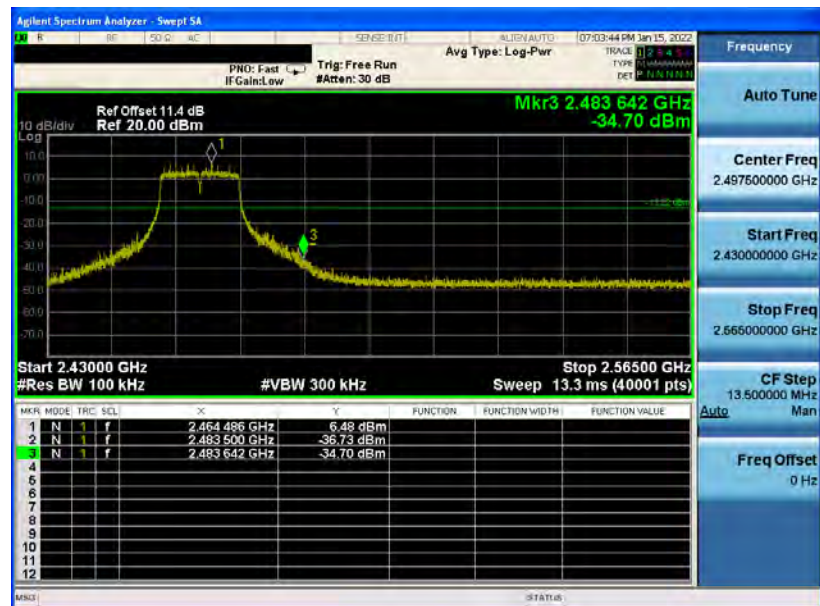


Mode 3: IEEE 802.11g Continuous TX mode_ANT-0

2412 MHz

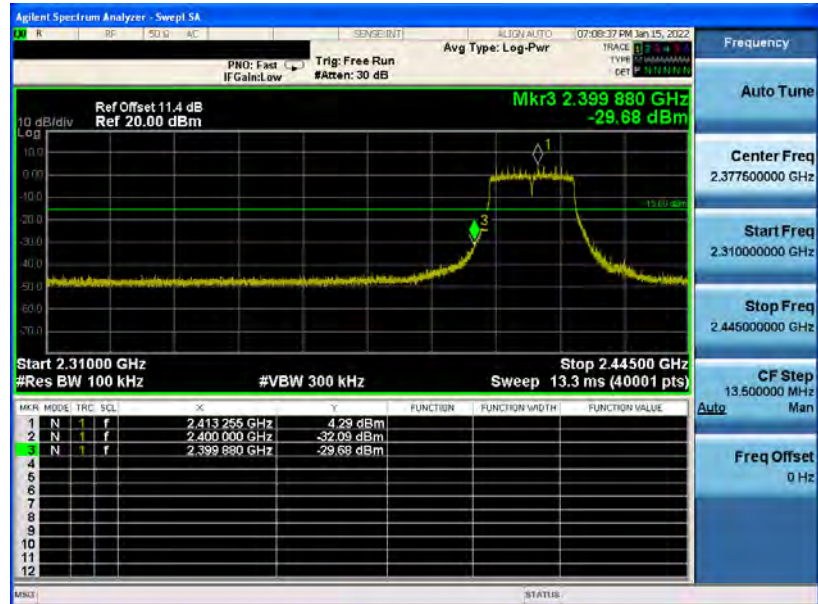


2462 MHz

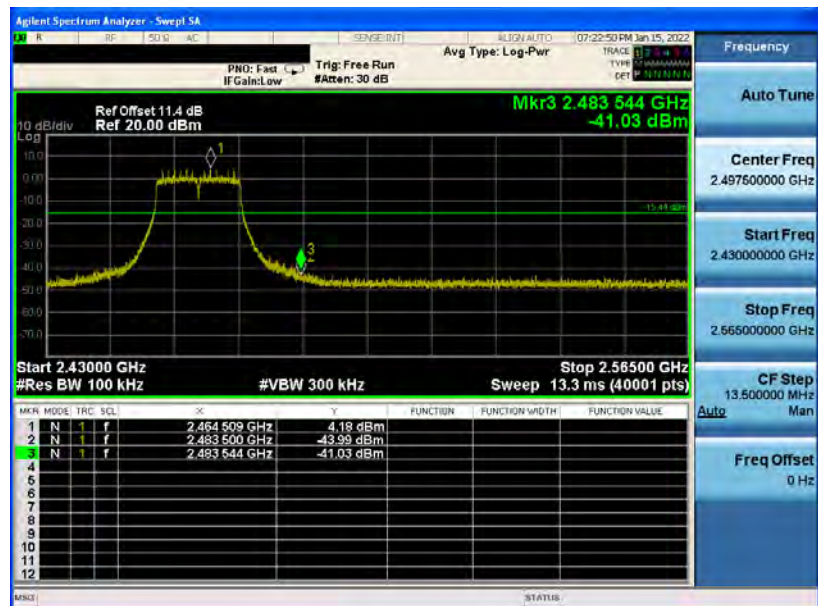


Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX mode_ANT-0

2412 MHz

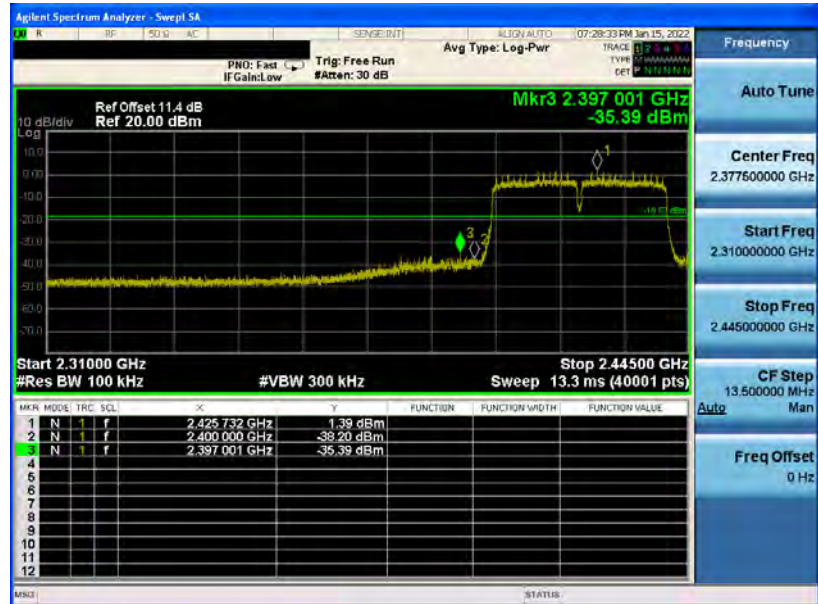


2462 MHz

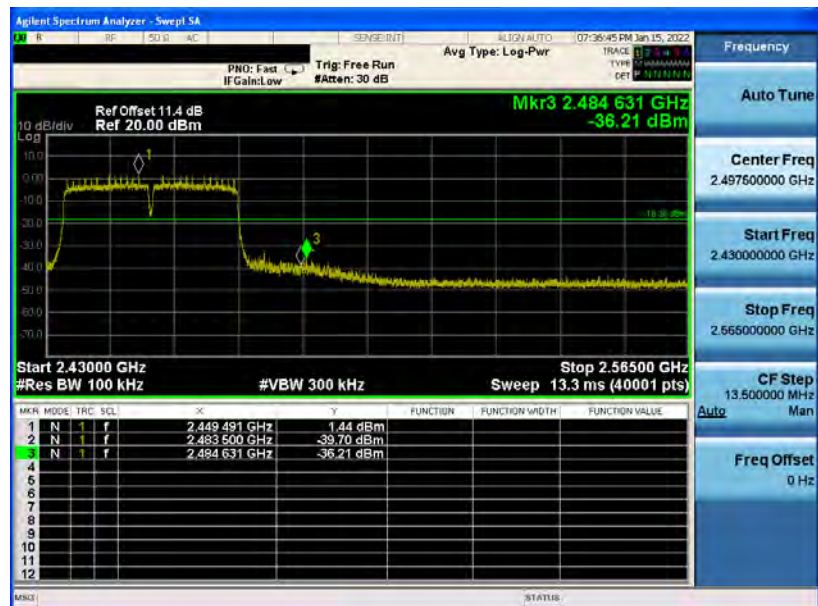


Mode 5: IEEE 802.11n 2.4 GHz 40 MHz Continuous TX mode_ANT-0

2422 MHz



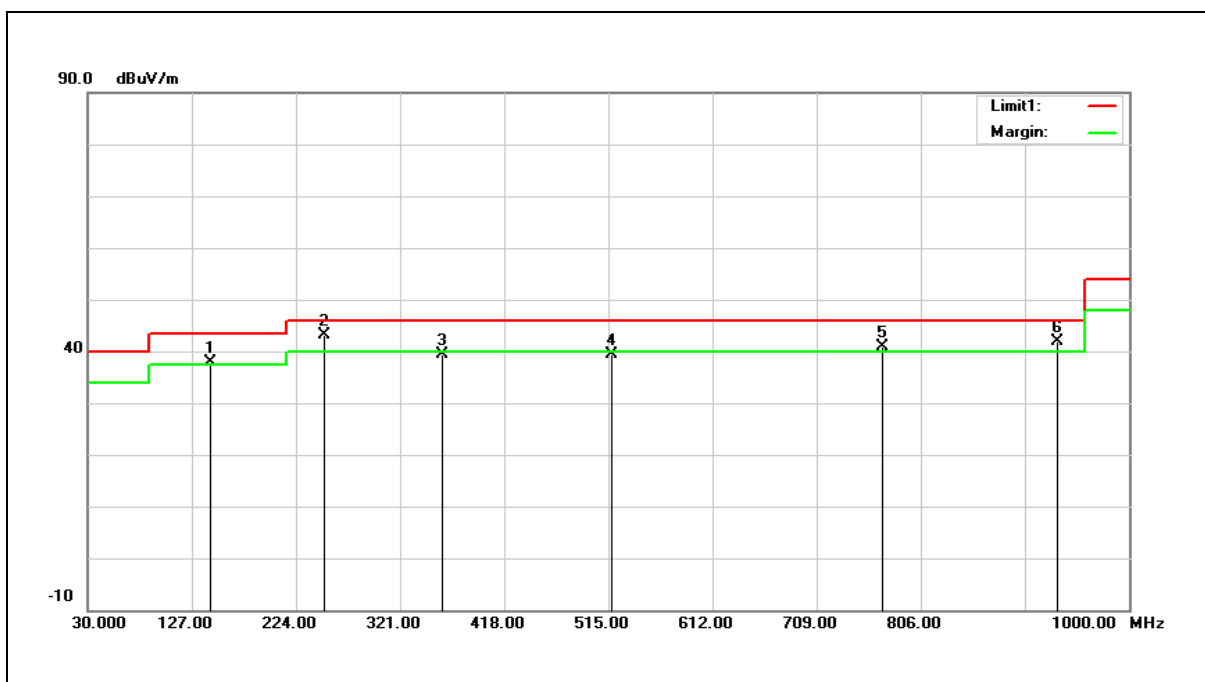
2452 MHz



5.3 Radiated Emission Measurement

Below 1 GHz

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Radiated Emission		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



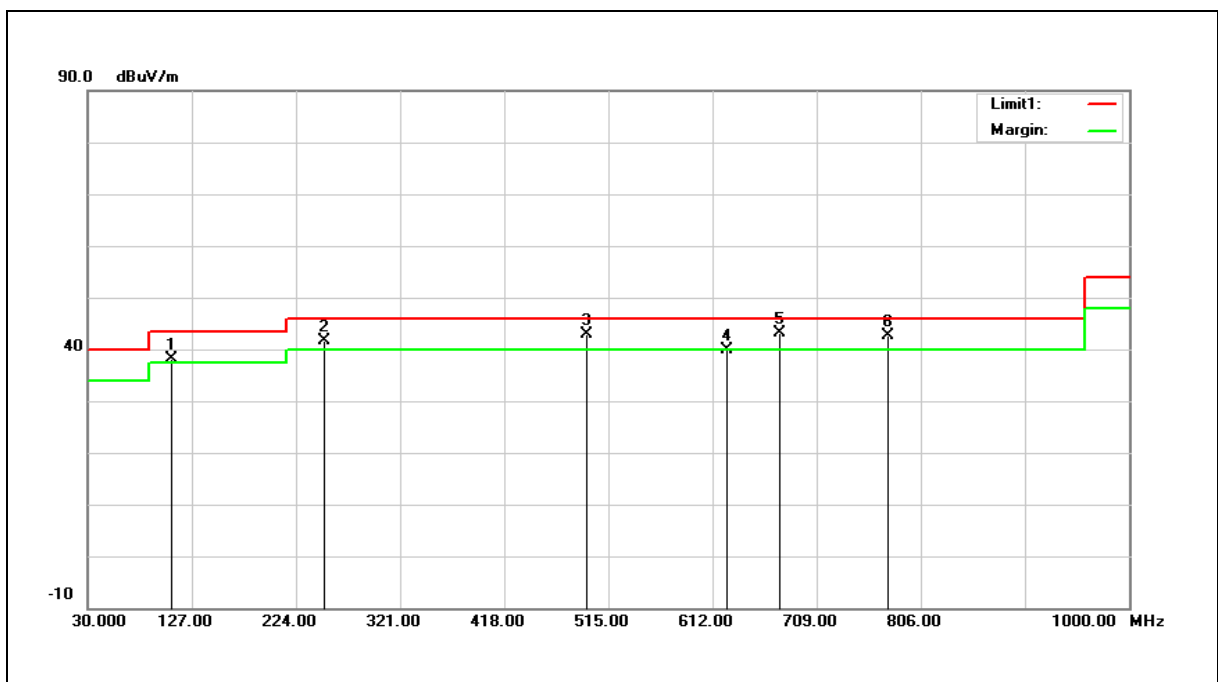
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	144.4600	43.83	-5.88	37.95	43.50	-5.55	QP
2	250.1900	49.07	-6.03	43.04	46.00	-2.96	QP
3	360.7700	43.06	-3.66	39.40	46.00	-6.60	QP
4	517.9100	39.25	0.02	39.27	46.00	-6.73	QP
5	770.1100	35.50	5.47	40.97	46.00	-5.03	QP
6	933.0700	33.27	8.62	41.89	46.00	-4.11	QP

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:	Radiated Emission		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	108.5700	47.69	-9.47	38.22	43.50	-5.28	QP
2	250.1900	47.62	-6.03	41.59	46.00	-4.41	QP
3	494.6300	43.38	-0.53	42.85	46.00	-3.15	QP
4	625.5800	37.29	2.56	39.85	46.00	-6.15	QP
5	675.0500	39.77	3.33	43.10	46.00	-2.90	QP
6	774.9600	37.19	5.53	42.72	46.00	-3.28	QP

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

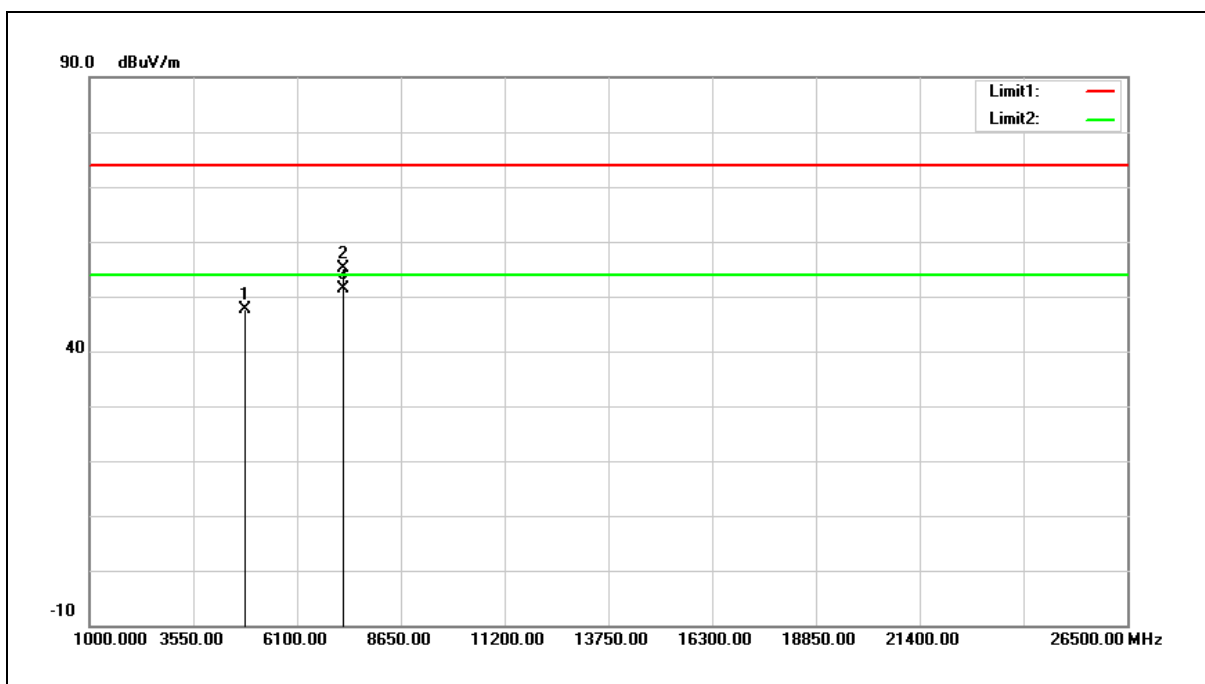
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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

Harmonic

Above 1 GHz

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



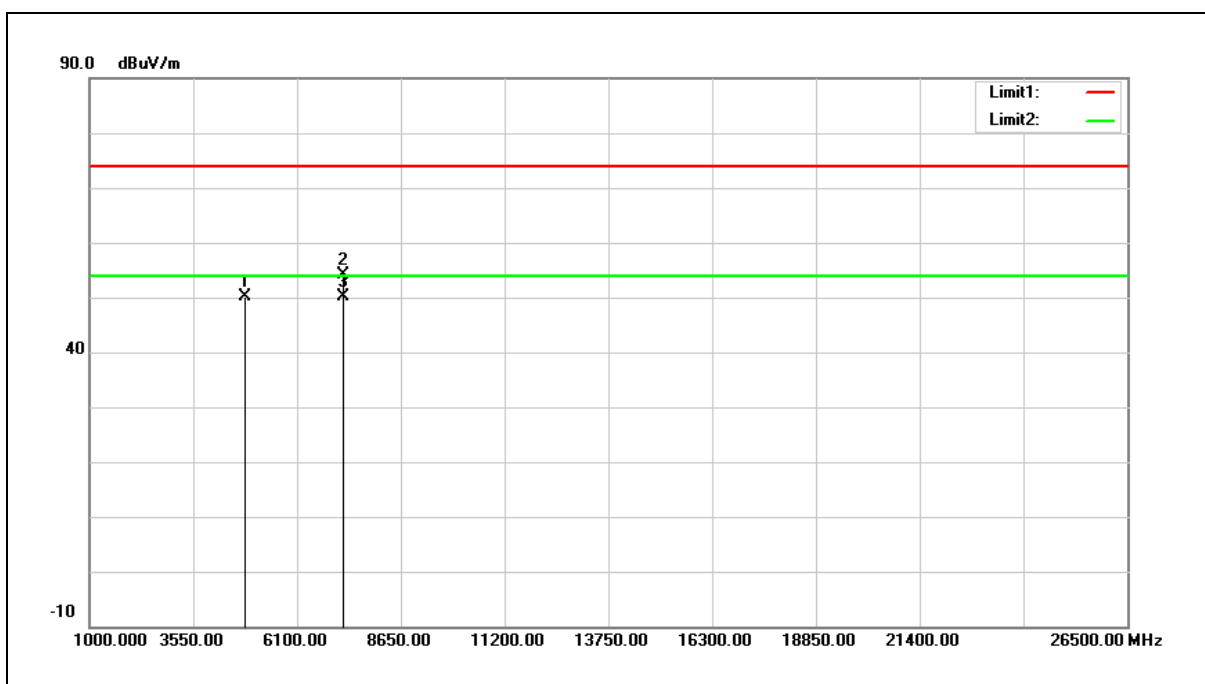
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	42.58	5.07	47.65	54.00	-6.35	AVG
2	7236.000	42.82	12.25	55.07	74.00	-18.93	peak
3	7236.000	39.17	12.25	51.42	54.00	-2.58	AVG

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

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

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

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



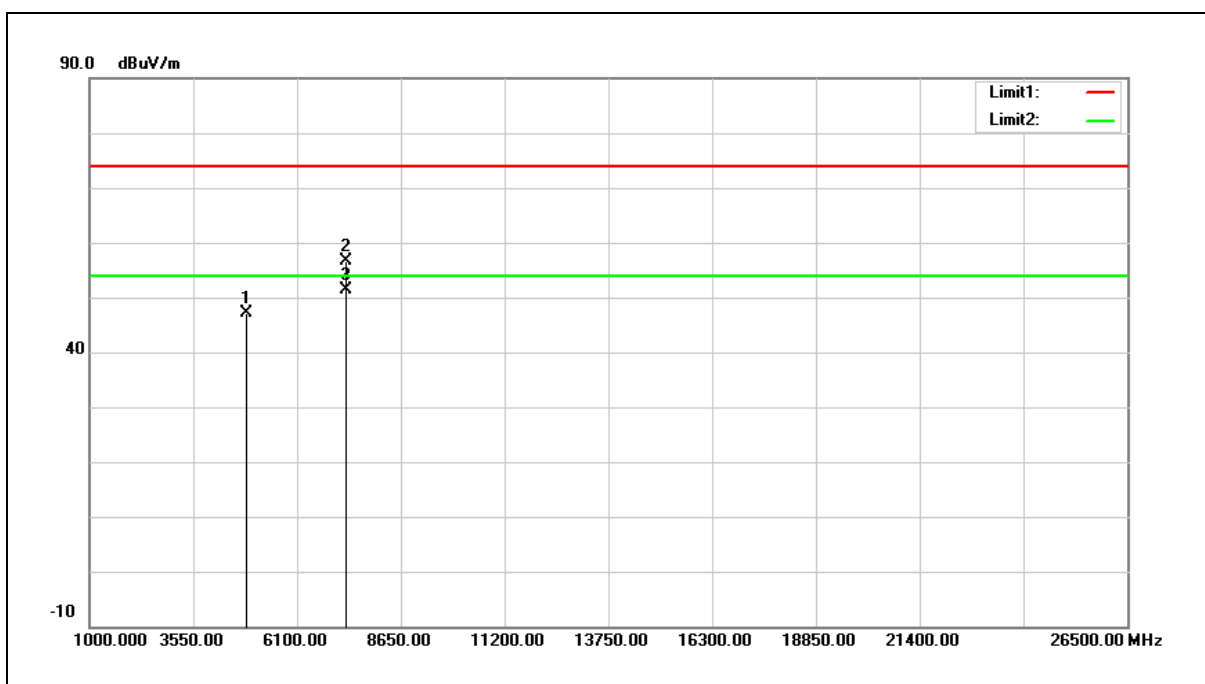
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	44.94	5.07	50.01	74.00	-23.99	peak
2	7236.000	41.93	12.25	54.18	74.00	-19.82	peak
3	7236.000	37.78	12.25	50.03	54.00	-3.97	AVG

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

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

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

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



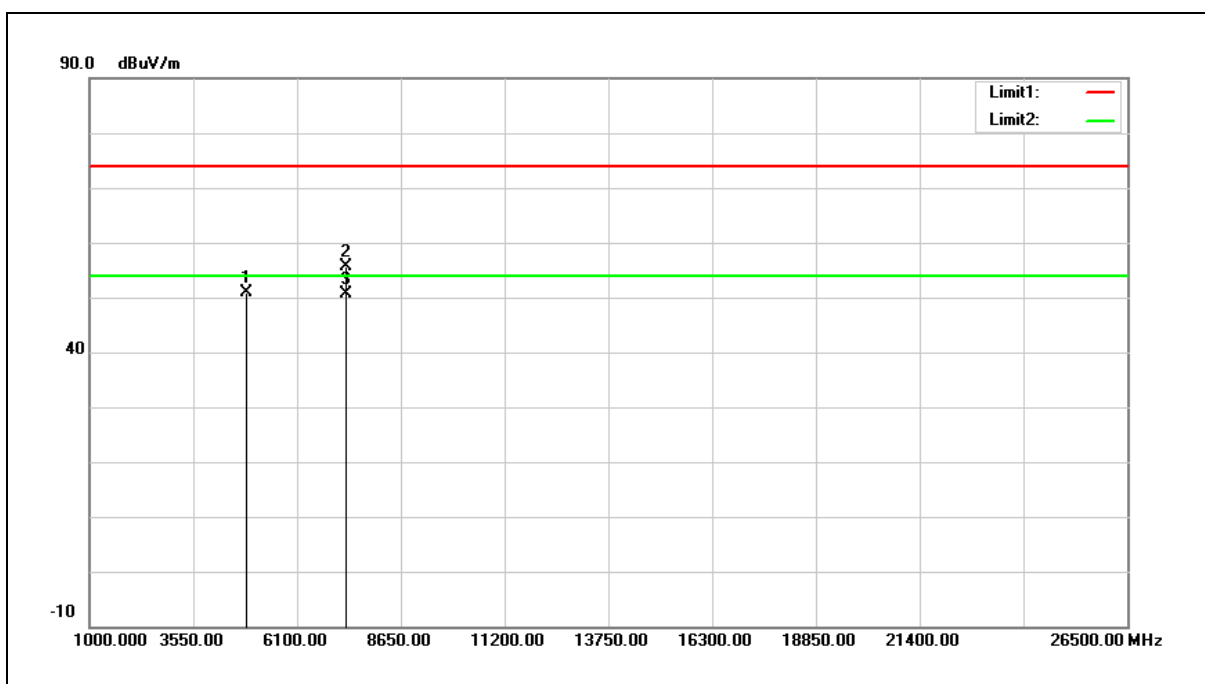
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	41.96	5.23	47.19	74.00	-26.81	peak
2	7311.000	44.32	12.38	56.70	74.00	-17.30	peak
3	7311.000	38.96	12.38	51.34	54.00	-2.66	AVG

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

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

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

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



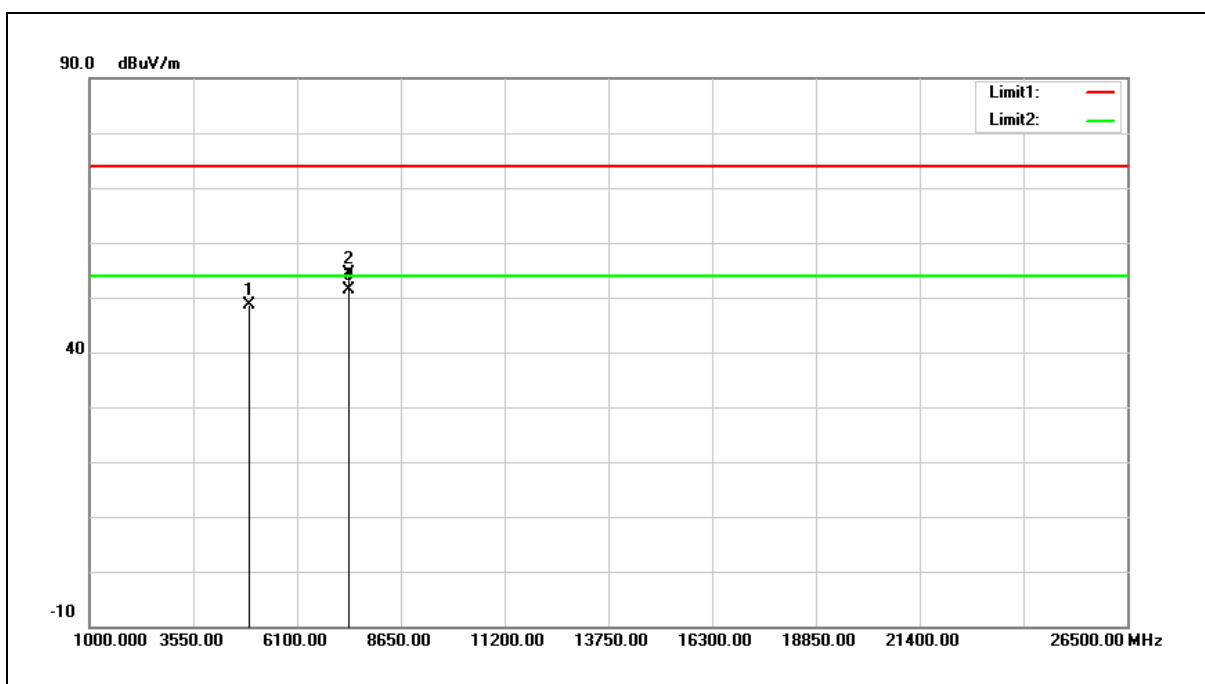
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	45.54	5.23	50.77	74.00	-23.23	peak
2	7311.000	43.22	12.38	55.60	74.00	-18.40	peak
3	7311.000	38.34	12.38	50.72	54.00	-3.28	AVG

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



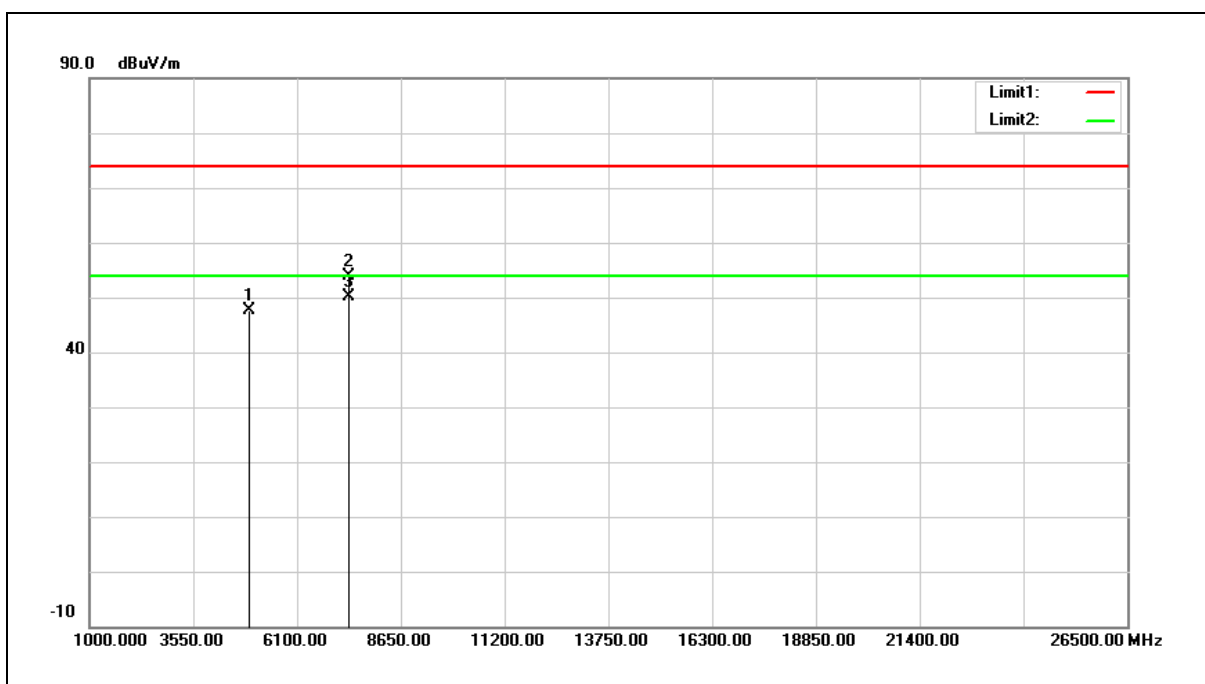
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	43.21	5.39	48.60	74.00	-25.40	peak
2	7386.000	41.97	12.53	54.50	74.00	-19.50	peak
3	7386.000	38.89	12.53	51.42	54.00	-2.58	AVG

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

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

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

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



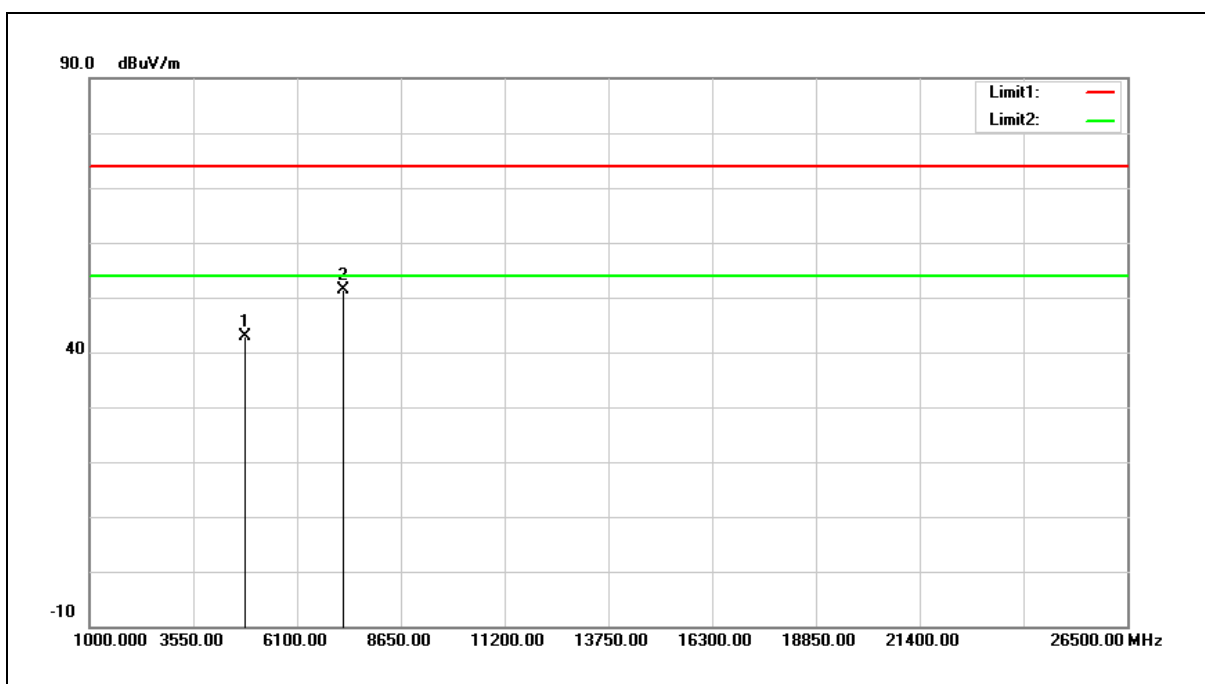
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	42.16	5.39	47.55	74.00	-26.45	peak
2	7386.000	41.37	12.53	53.90	74.00	-20.10	peak
3	7386.000	37.72	12.53	50.25	54.00	-3.75	AVG

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

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

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

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



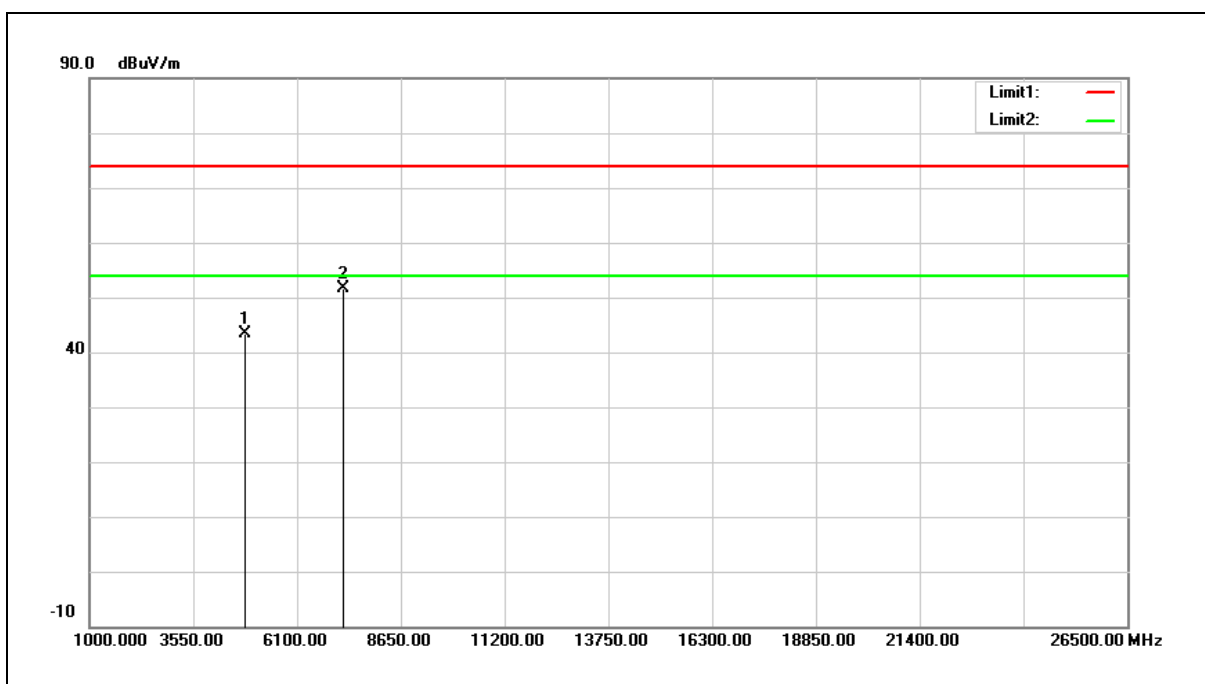
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	37.81	5.07	42.88	74.00	-31.12	peak
2	7236.000	39.07	12.25	51.32	74.00	-22.68	peak

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

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

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

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



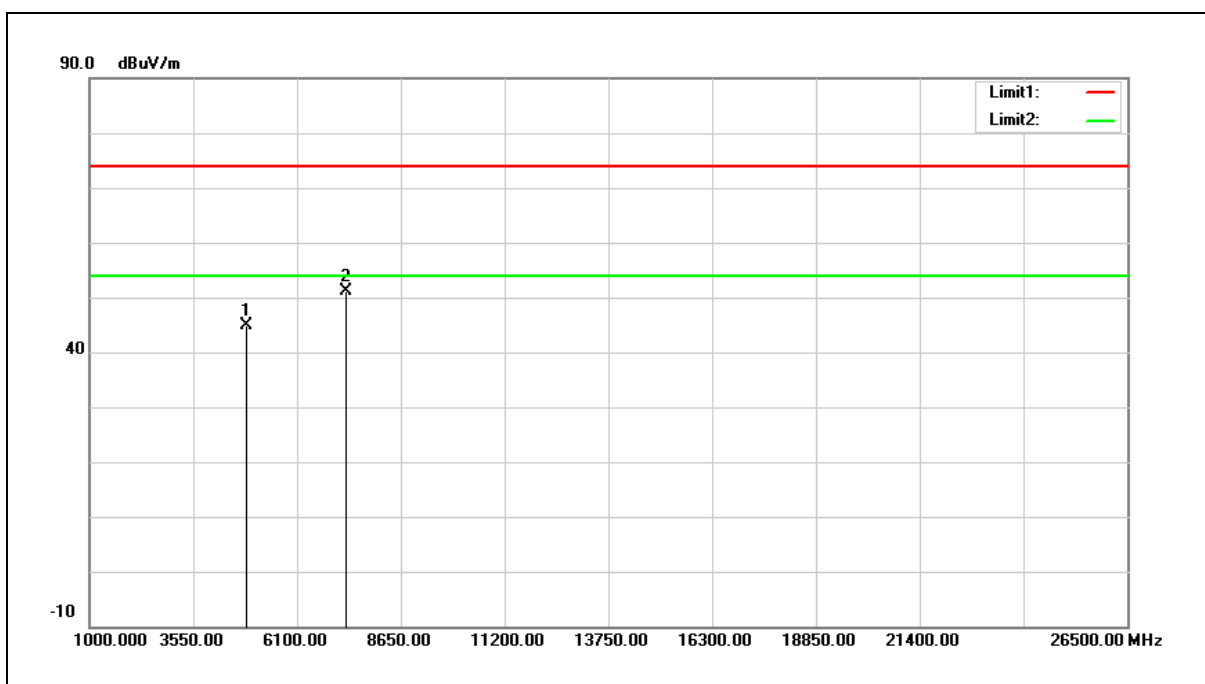
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	38.27	5.07	43.34	74.00	-30.66	peak
2	7236.000	39.27	12.25	51.52	74.00	-22.48	peak

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

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

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

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



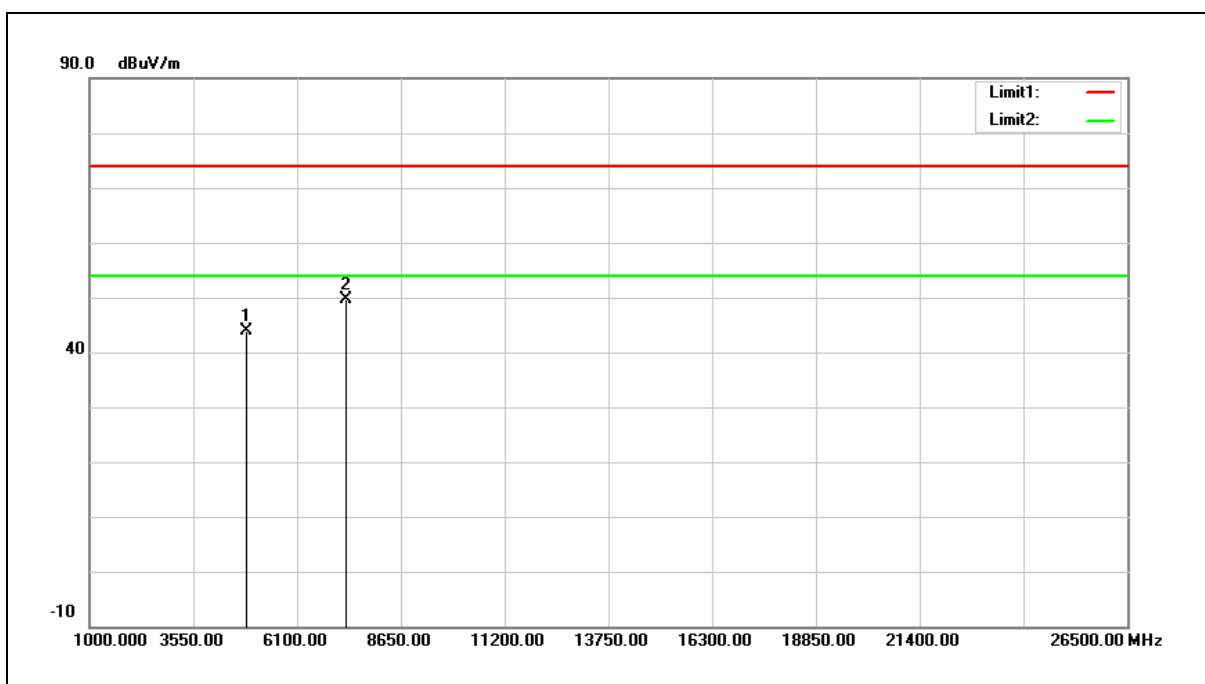
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	39.66	5.23	44.89	74.00	-29.11	peak
2	7311.000	38.71	12.38	51.09	74.00	-22.91	peak

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

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

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

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



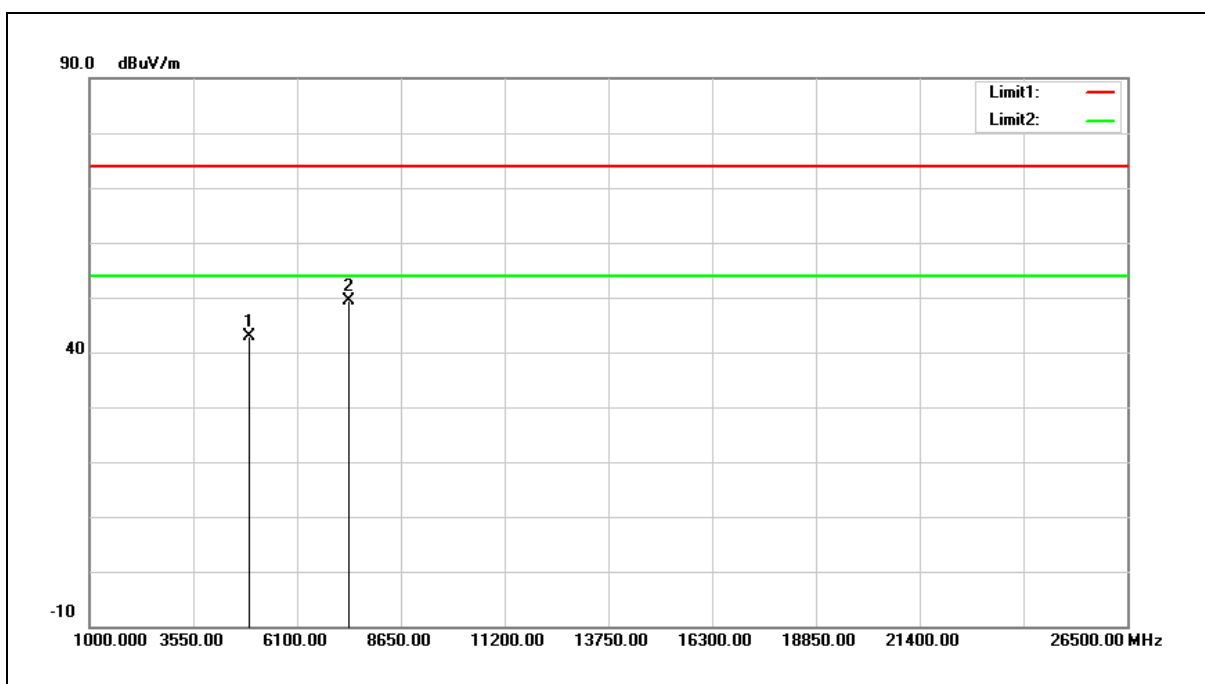
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	38.54	5.23	43.77	74.00	-30.23	peak
2	7311.000	37.30	12.38	49.68	74.00	-24.32	peak

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

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

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

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



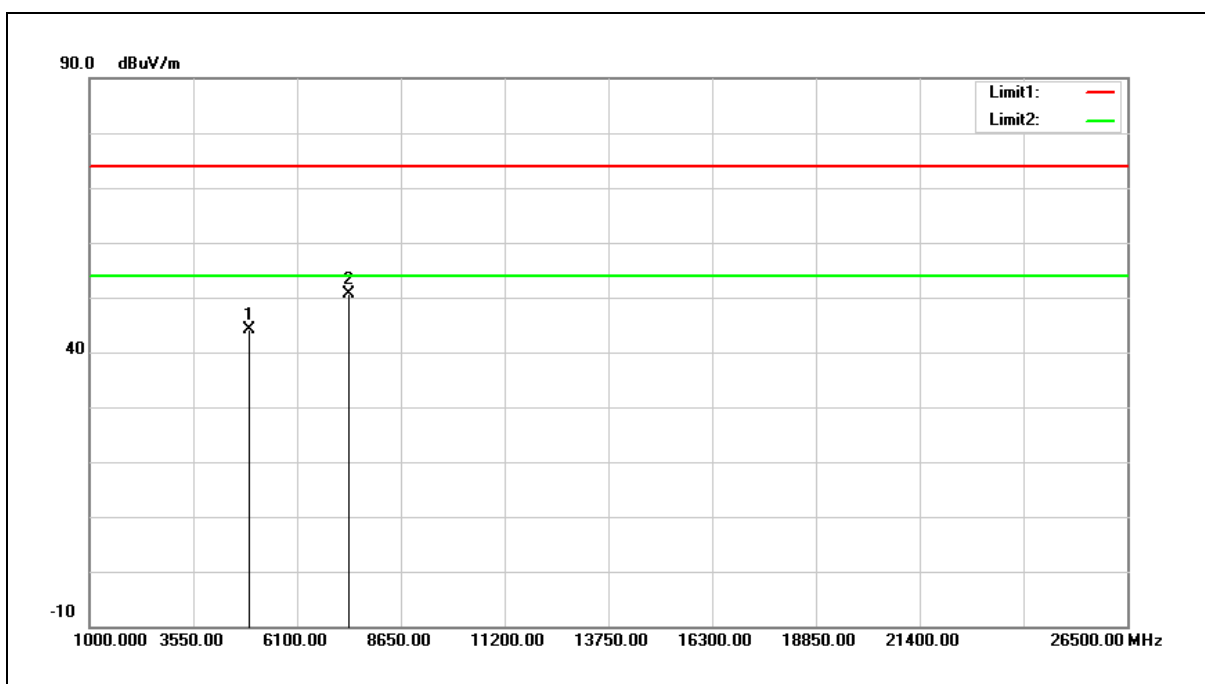
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	37.43	5.39	42.82	74.00	-31.18	peak
2	7386.000	36.79	12.53	49.32	74.00	-24.68	peak

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

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

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

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



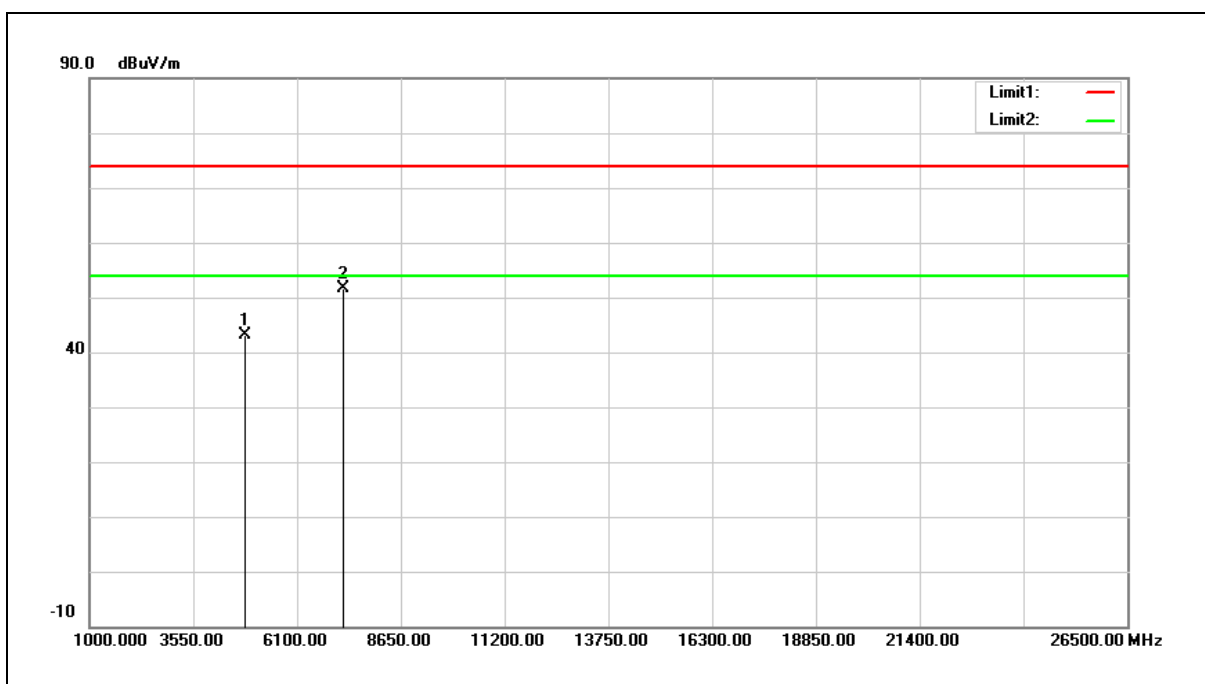
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	38.84	5.39	44.23	74.00	-29.77	peak
2	7386.000	37.98	12.53	50.51	74.00	-23.49	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



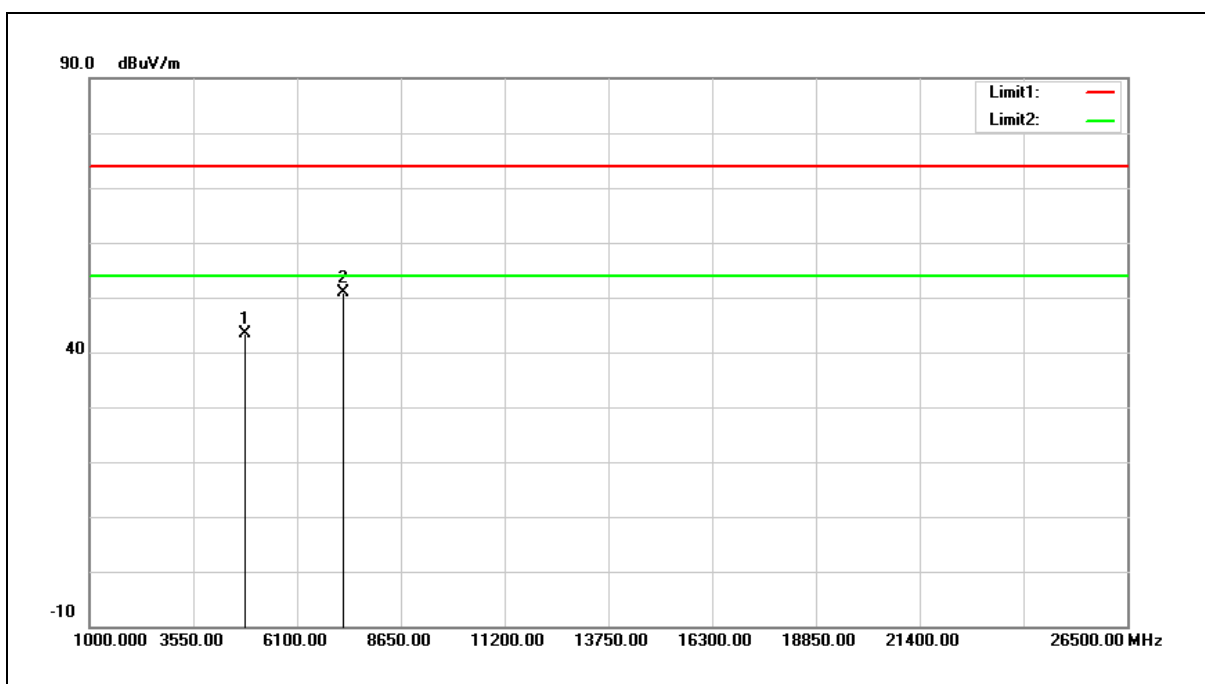
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	38.05	5.07	43.12	74.00	-30.88	peak
2	7236.000	39.46	12.25	51.71	74.00	-22.29	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



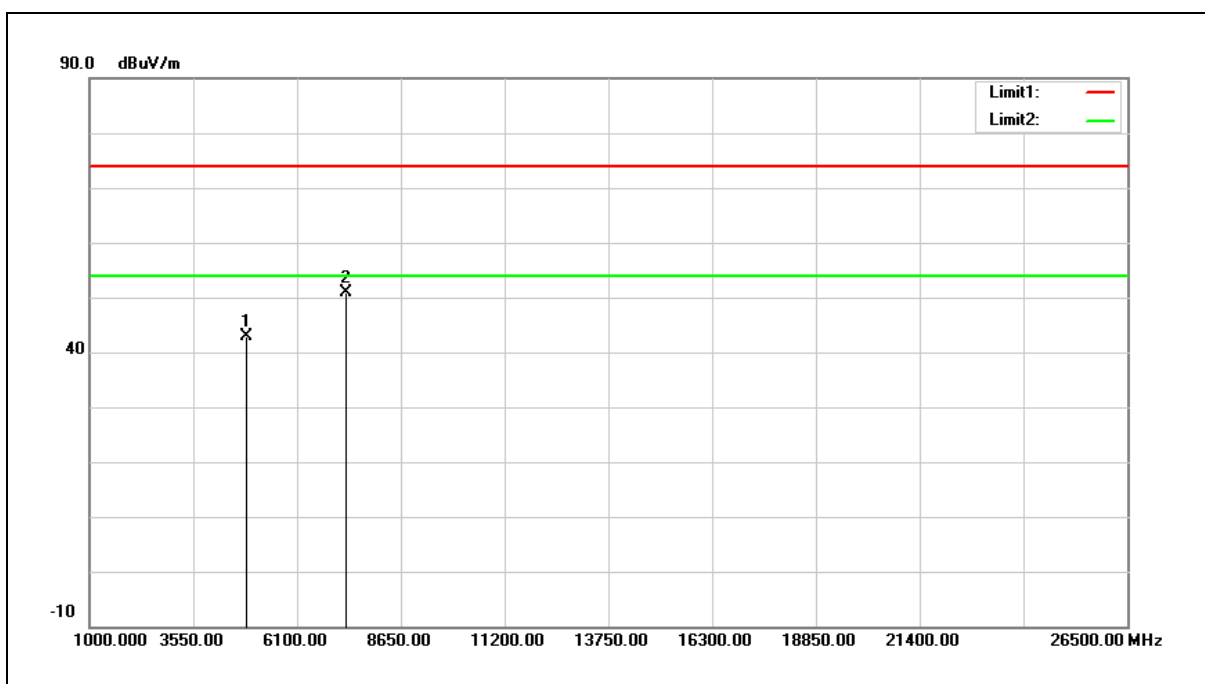
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	38.34	5.07	43.41	74.00	-30.59	peak
2	7236.000	38.68	12.25	50.93	74.00	-23.07	peak

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

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

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

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



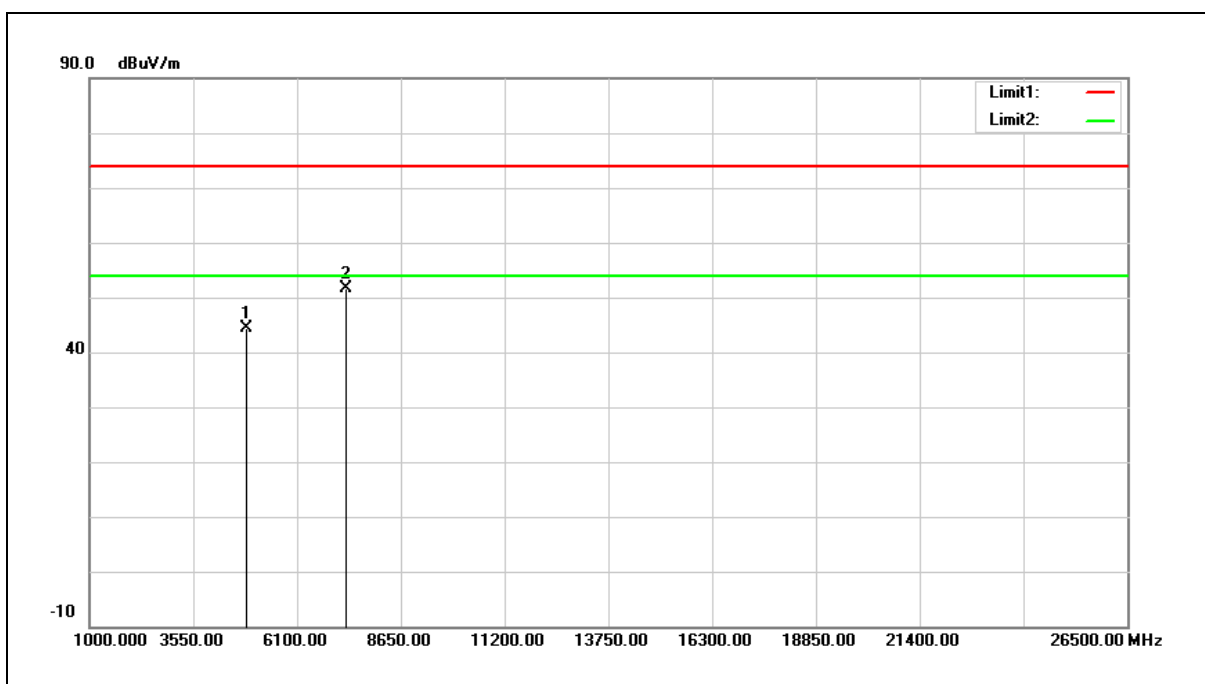
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	37.76	5.23	42.99	74.00	-31.01	peak
2	7311.000	38.58	12.38	50.96	74.00	-23.04	peak

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

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

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

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



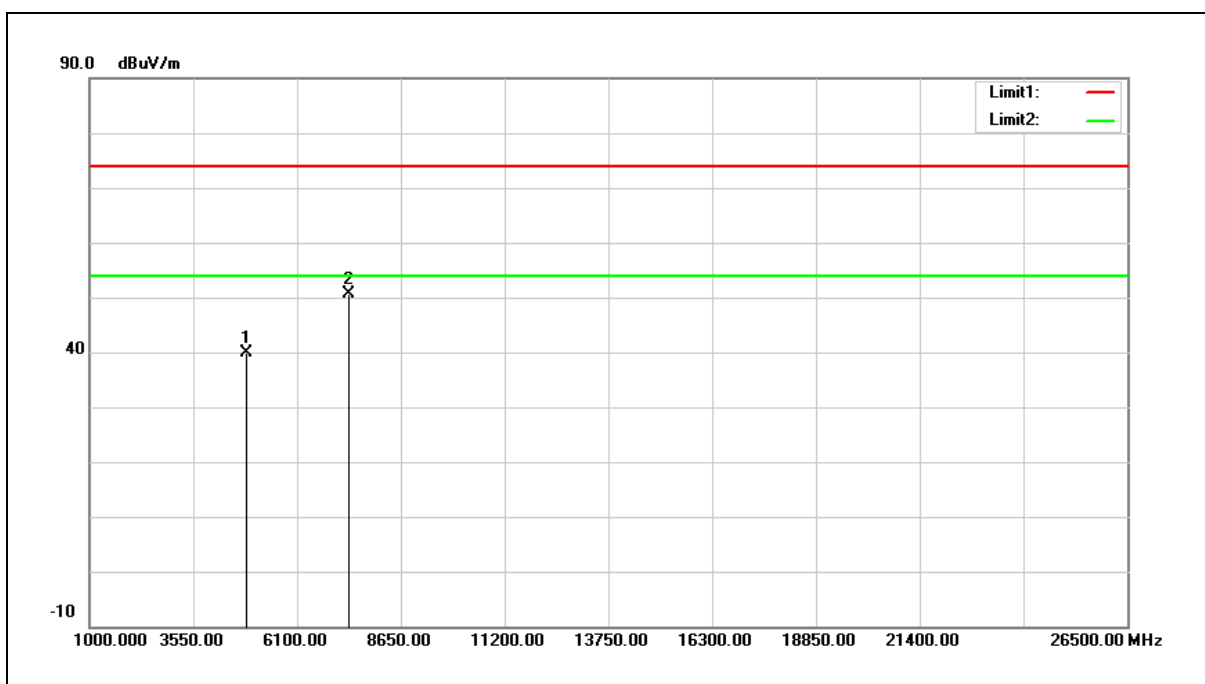
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	39.26	5.23	44.49	74.00	-29.51	peak
2	7311.000	39.19	12.38	51.57	74.00	-22.43	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



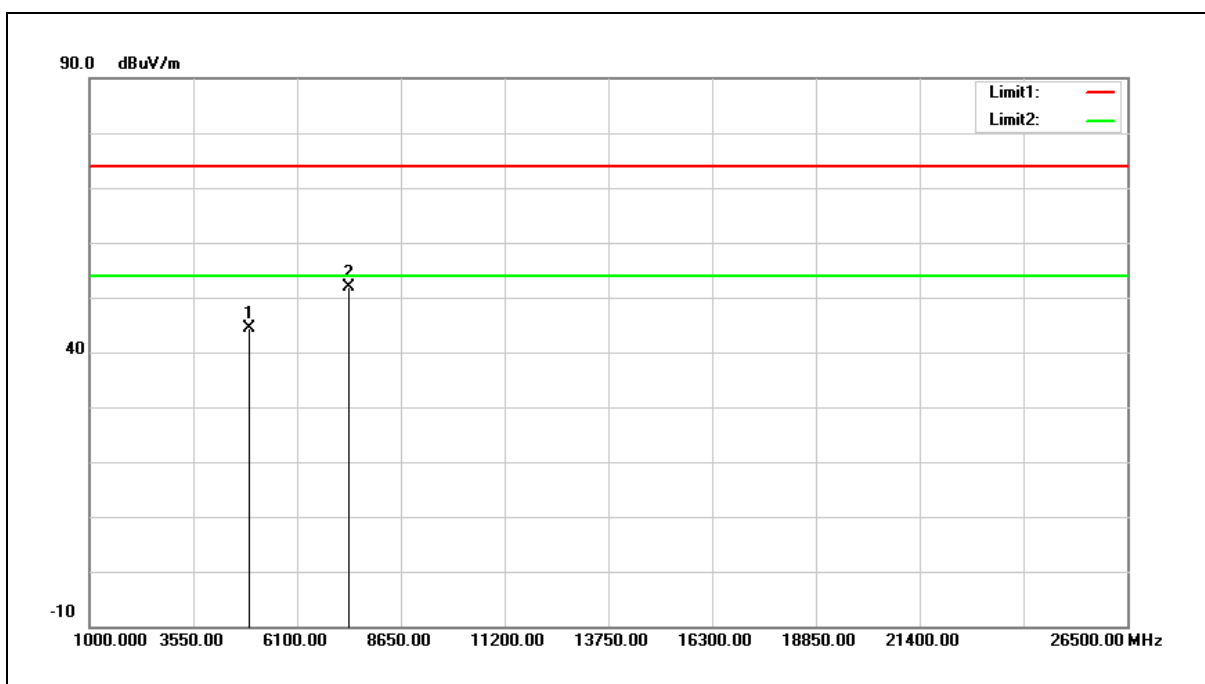
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	34.61	5.36	39.97	74.00	-34.03	peak
2	7386.000	38.10	12.53	50.63	74.00	-23.37	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2462 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



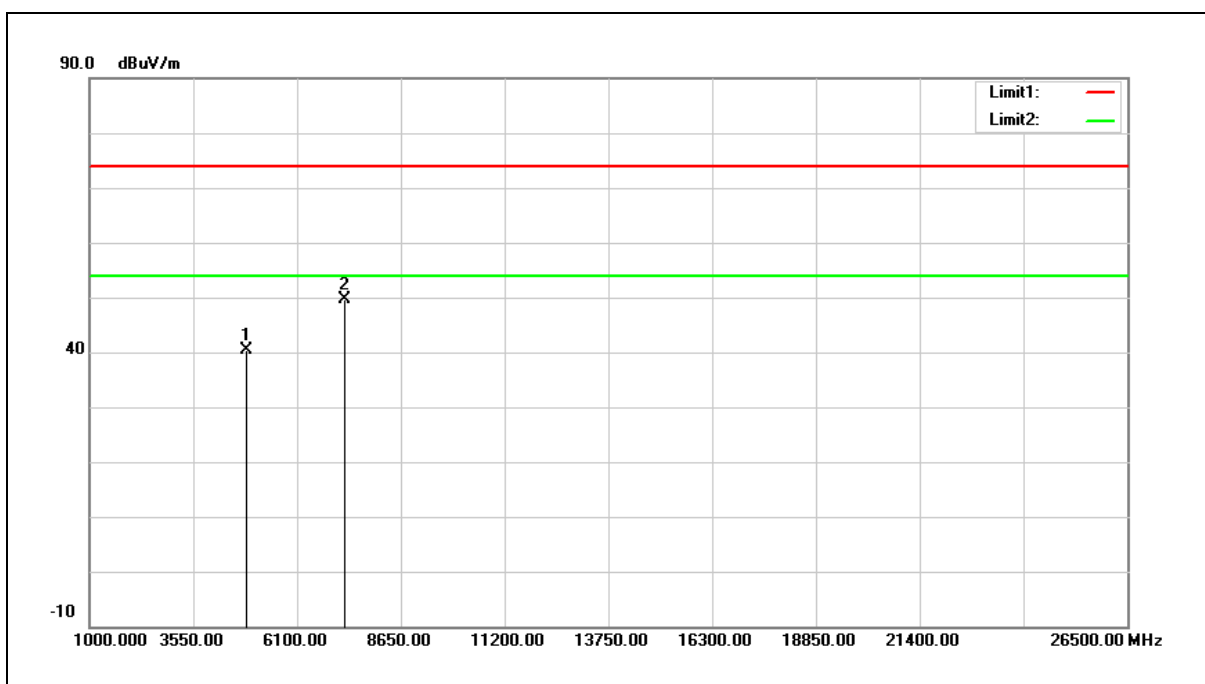
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	39.01	5.39	44.40	74.00	-29.60	peak
2	7386.000	39.32	12.53	51.85	74.00	-22.15	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2422 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



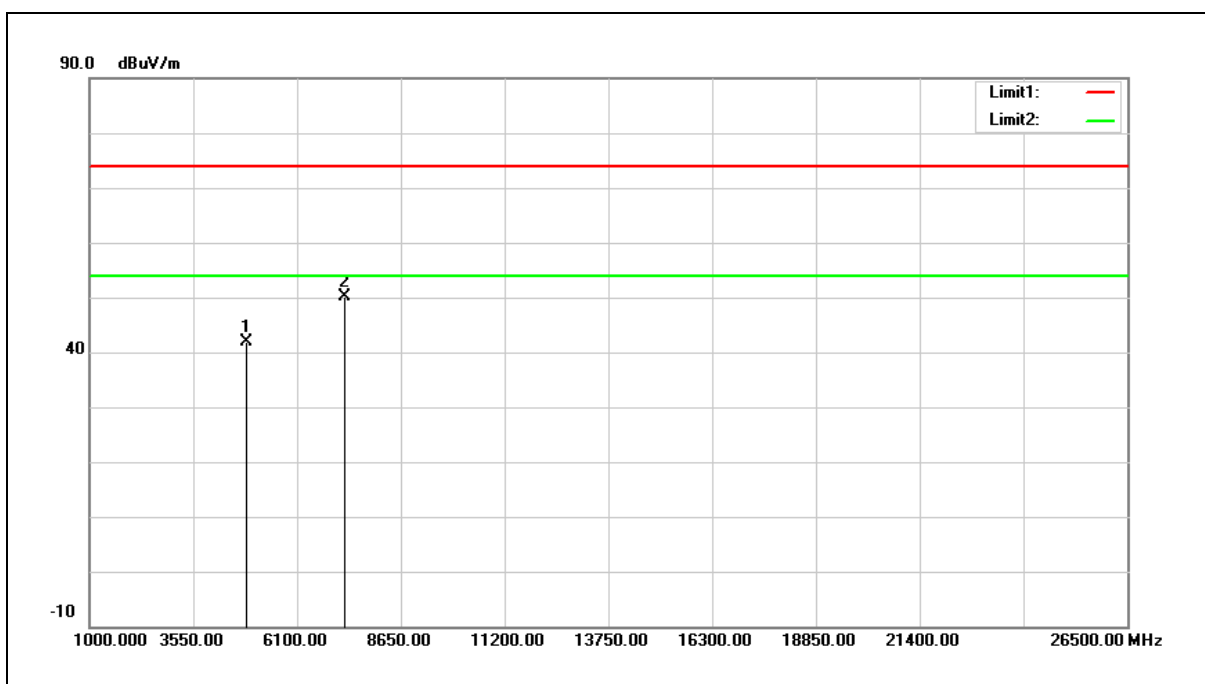
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	35.21	5.13	40.34	74.00	-33.66	peak
2	7266.000	37.26	12.31	49.57	74.00	-24.43	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2422 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



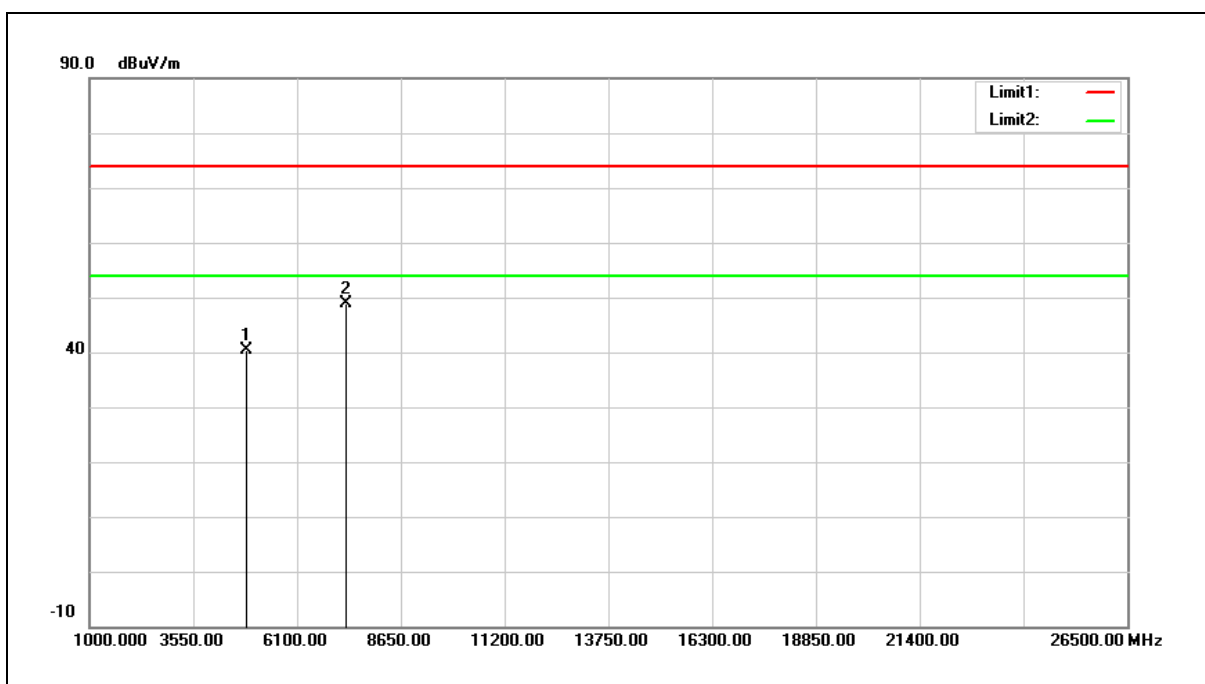
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.000	36.76	5.13	41.89	74.00	-32.11	peak
2	7266.000	37.84	12.31	50.15	74.00	-23.85	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



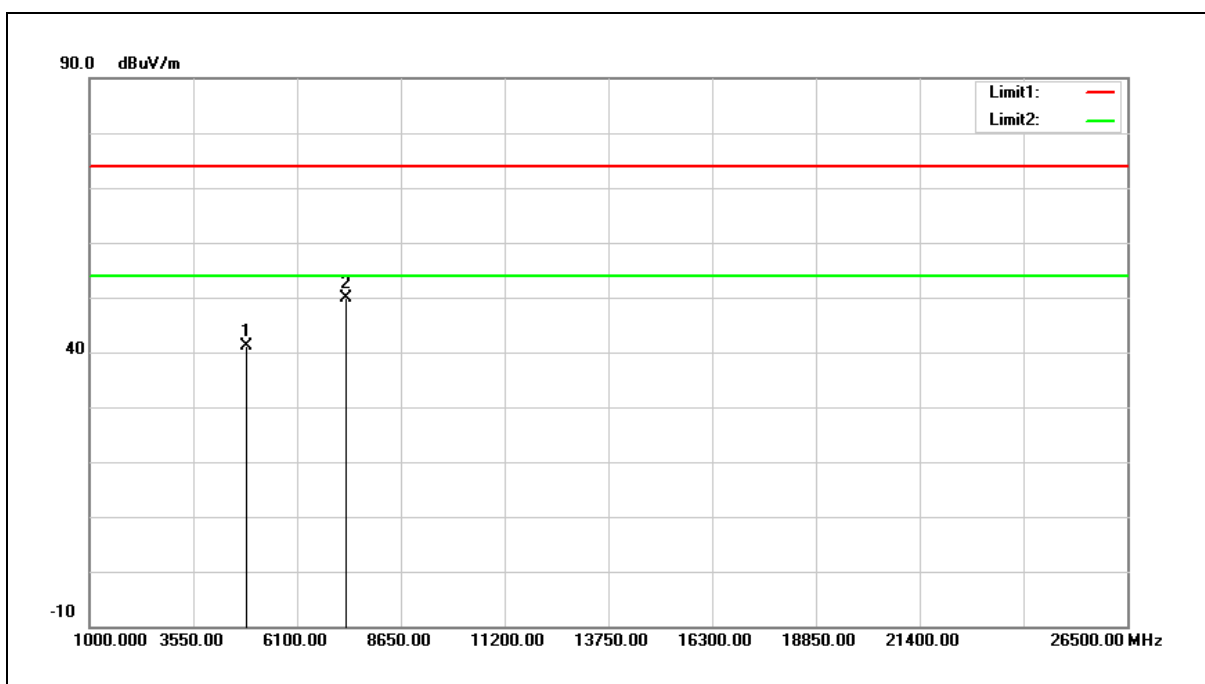
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	35.26	5.23	40.49	74.00	-33.51	peak
2	7311.000	36.50	12.38	48.88	74.00	-25.12	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2437 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



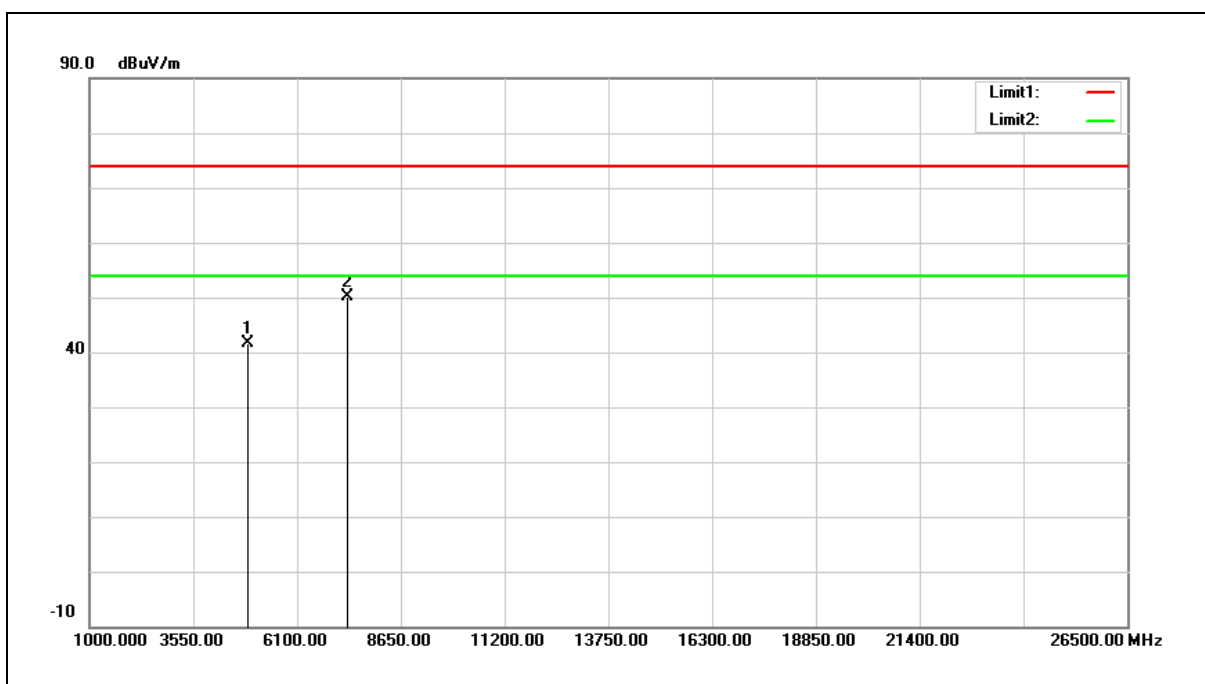
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	35.96	5.23	41.19	74.00	-32.81	peak
2	7311.000	37.43	12.38	49.81	74.00	-24.19	peak

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		
Frequency:	2452 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



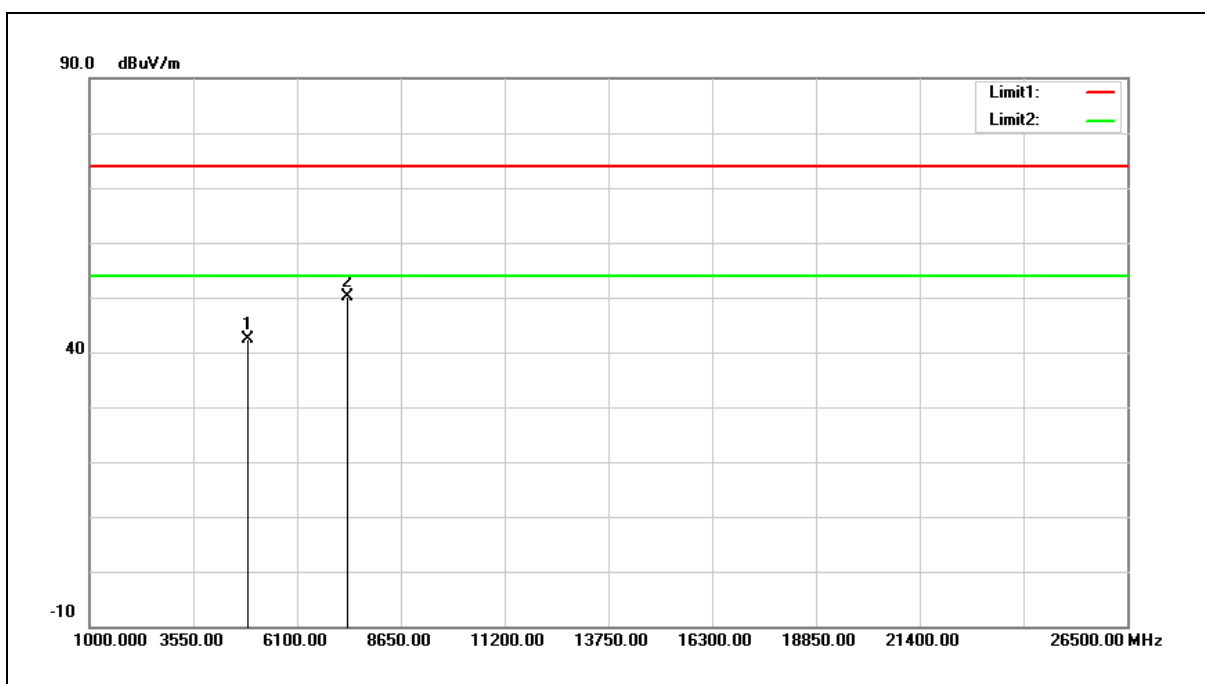
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	36.28	5.33	41.61	74.00	-32.39	peak
2	7356.000	37.58	12.46	50.04	74.00	-23.96	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Harmonic		
Frequency:	2452 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4904.000	37.14	5.33	42.47	74.00	-31.53	peak
2	7356.000	37.65	12.46	50.11	74.00	-23.89	peak

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

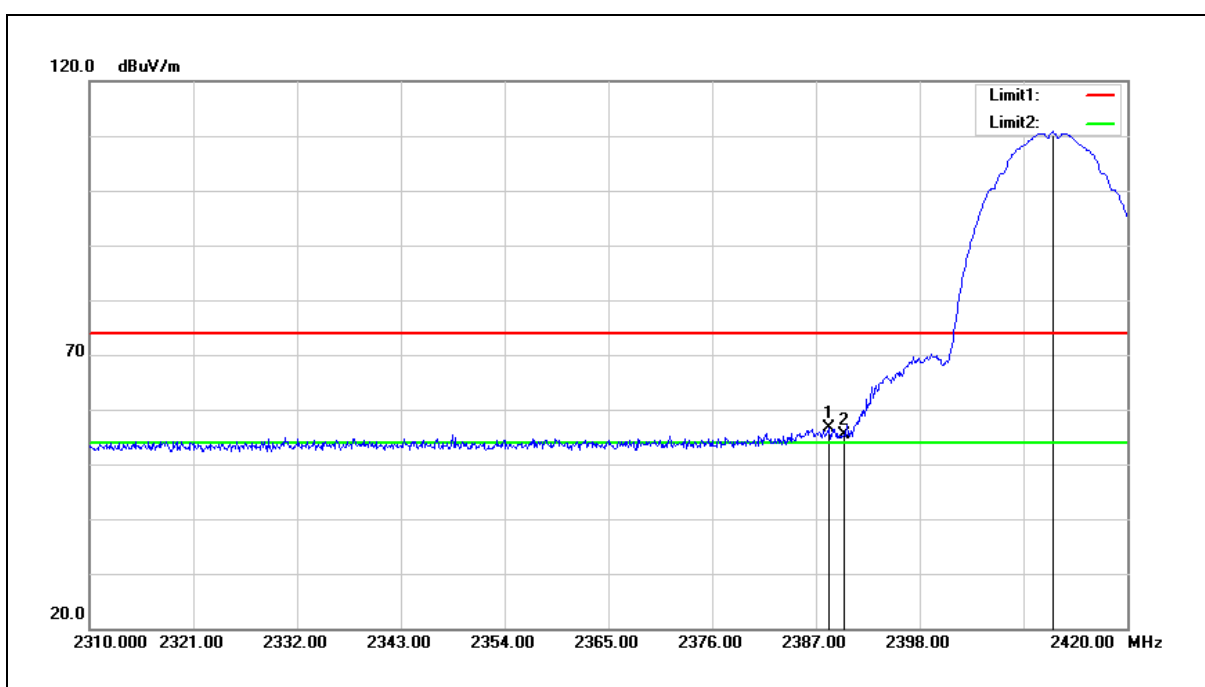
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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

Band Edge

Peak

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



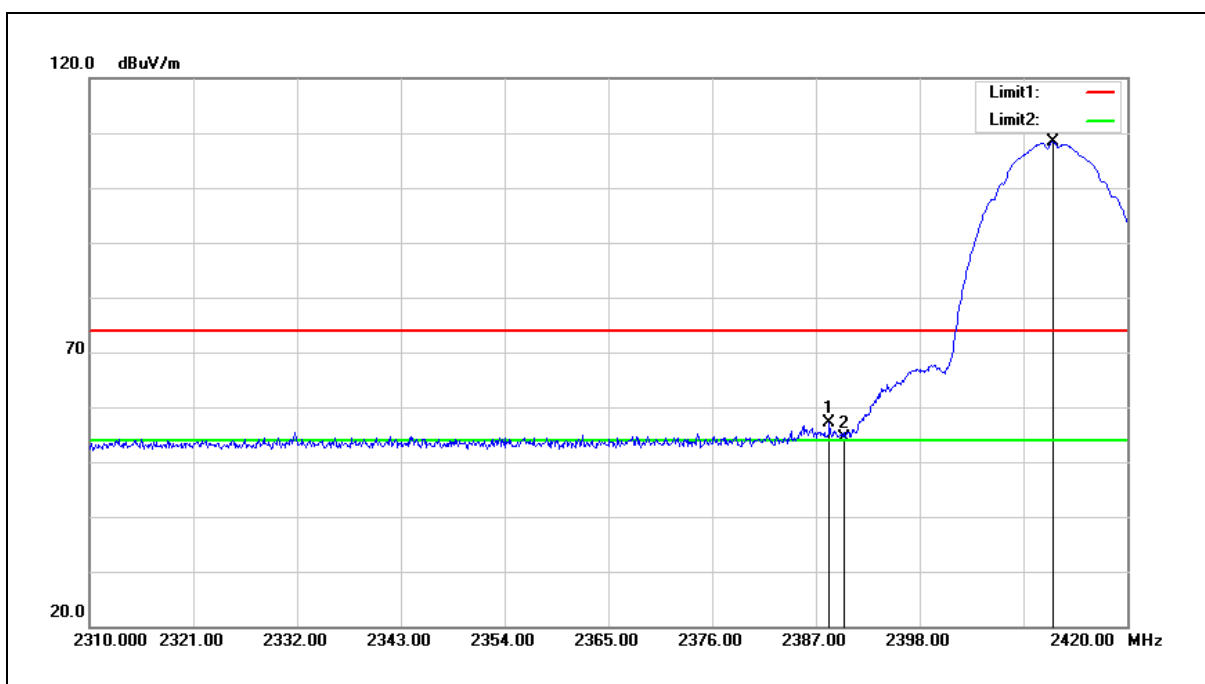
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.430	58.82	-2.28	56.54	74.00	-17.46	peak
2	2390.000	57.68	-2.28	55.40	74.00	-18.60	peak
3	2412.080	113.09	-2.19	110.90	74.00	36.90	peak

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

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

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

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



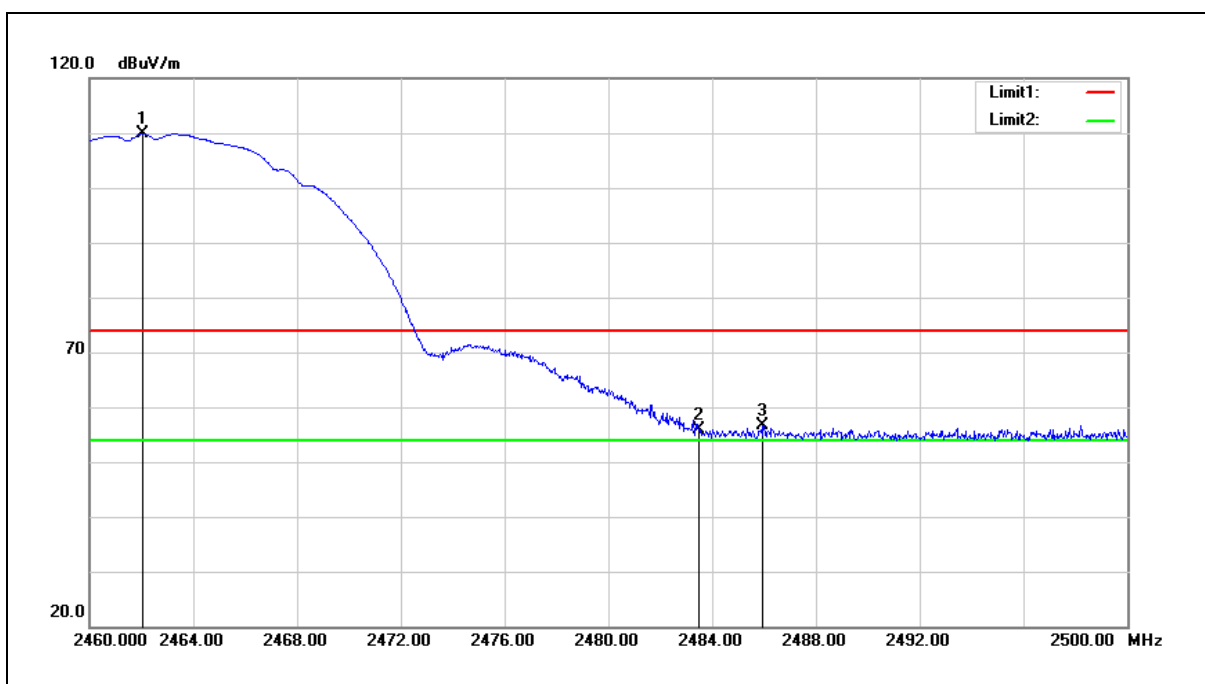
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.430	59.36	-2.28	57.08	74.00	-16.92	peak
2	2390.000	56.56	-2.28	54.28	74.00	-19.72	peak
3	2412.080	110.64	-2.19	108.45	74.00	34.45	peak

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

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

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

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



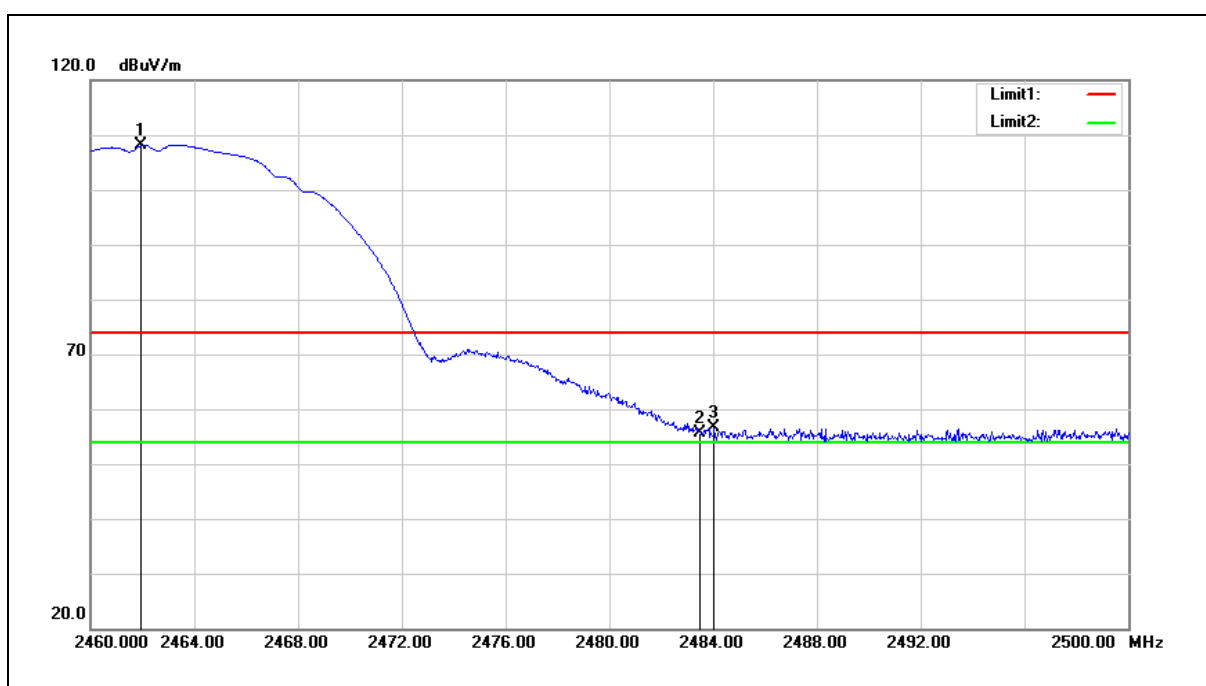
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2462.040	111.94	-1.99	109.95	74.00	35.95	peak
2	2483.500	57.87	-1.89	55.98	74.00	-18.02	peak
3	2485.960	58.48	-1.88	56.60	74.00	-17.40	peak

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

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

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

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



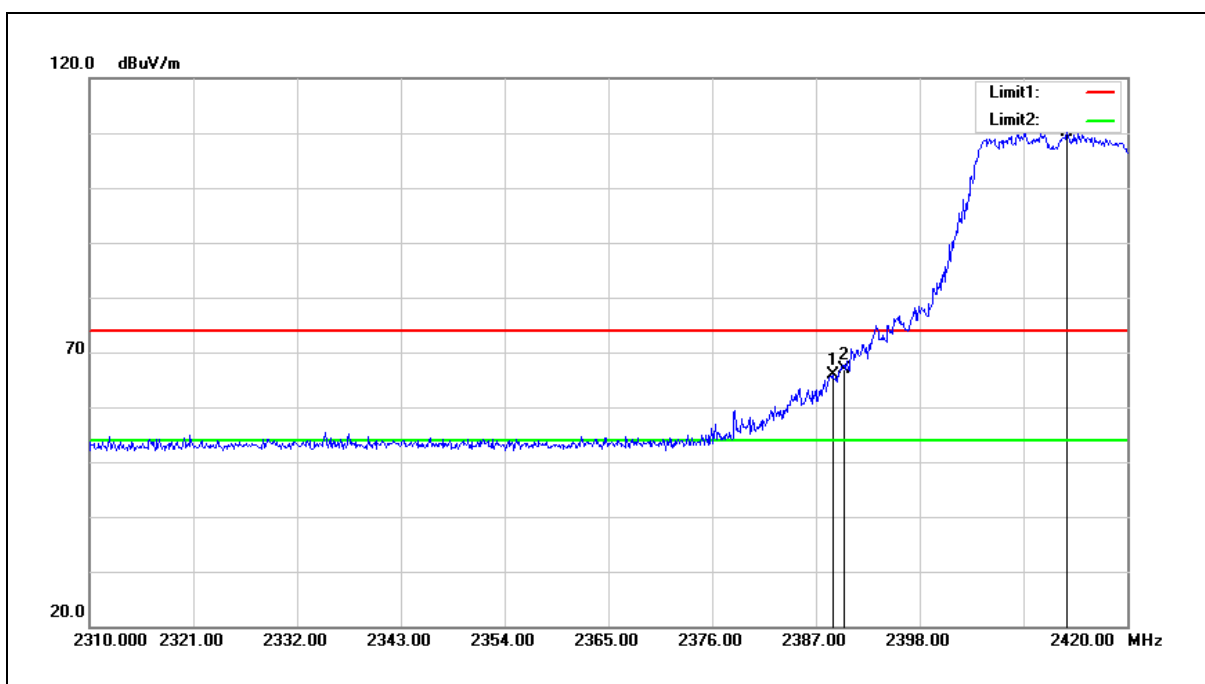
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2461.960	110.21	-1.99	108.22	74.00	34.22	peak
2	2483.500	57.49	-1.89	55.60	74.00	-18.40	peak
3	2484.040	58.54	-1.88	56.66	74.00	-17.34	peak

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		
Frequency:	2412 MHz		
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



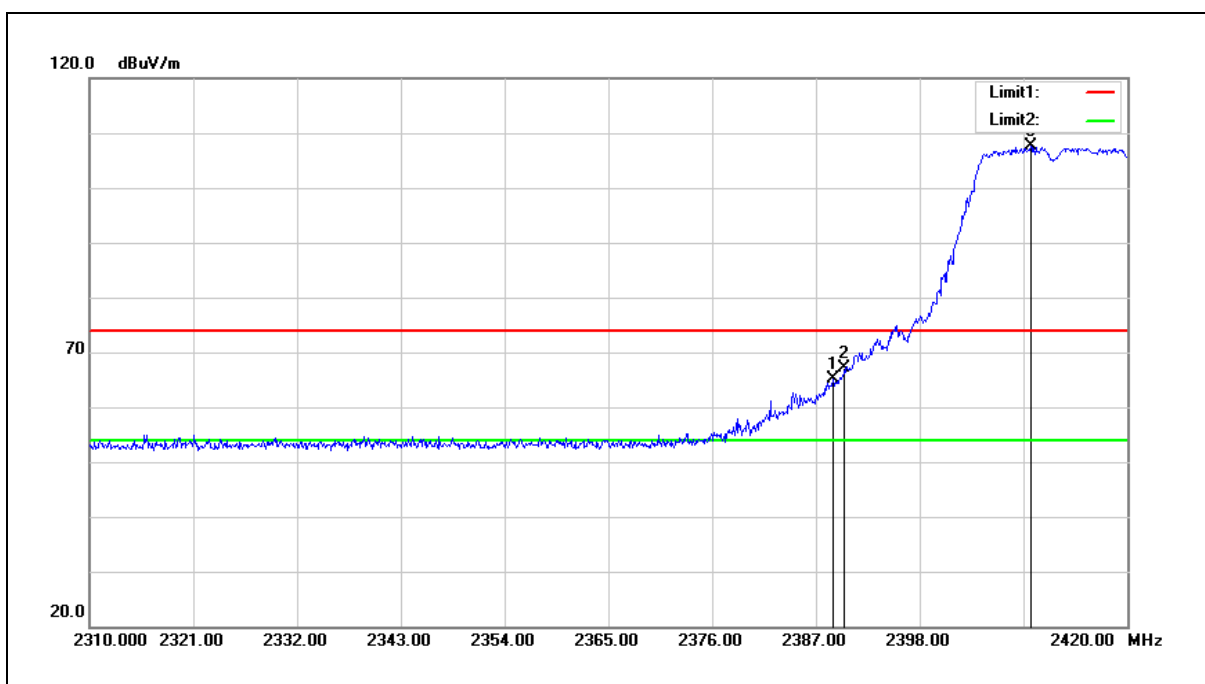
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.760	68.26	-2.28	65.98	74.00	-8.02	peak
2	2390.000	69.24	-2.28	66.96	74.00	-7.04	peak
3	2413.620	112.27	-2.18	110.09	74.00	36.09	peak

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

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

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

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



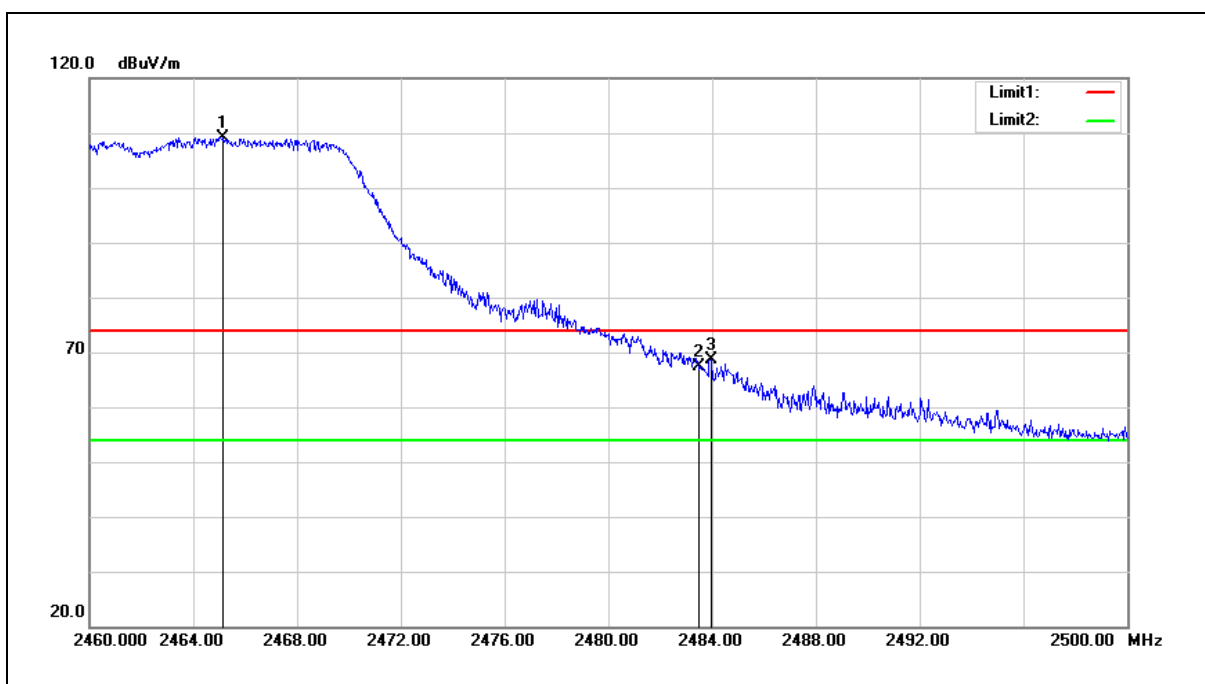
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.870	67.43	-2.28	65.15	74.00	-8.85	peak
2	2390.000	69.40	-2.28	67.12	74.00	-6.88	peak
3	2409.770	109.73	-2.19	107.54	74.00	33.54	peak

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

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

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

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



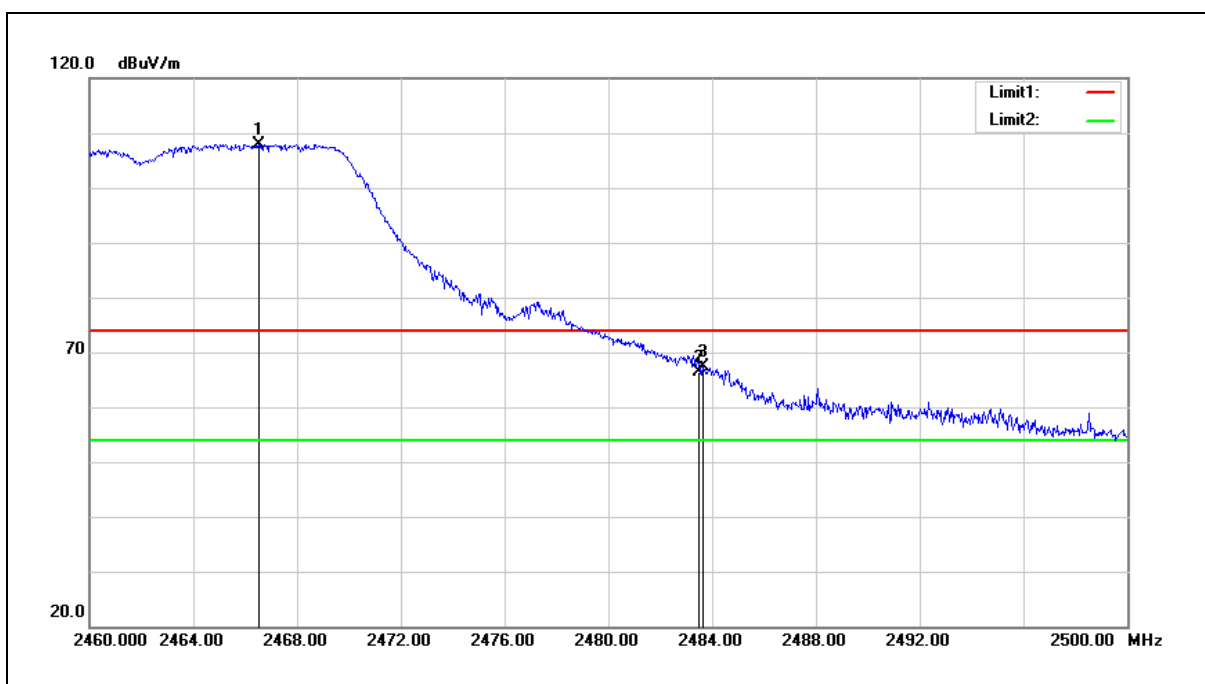
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2465.120	111.12	-1.97	109.15	74.00	35.15	peak
2	2483.500	69.35	-1.89	67.46	74.00	-6.54	peak
3	2483.960	70.48	-1.88	68.60	74.00	-5.40	peak

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

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

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

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



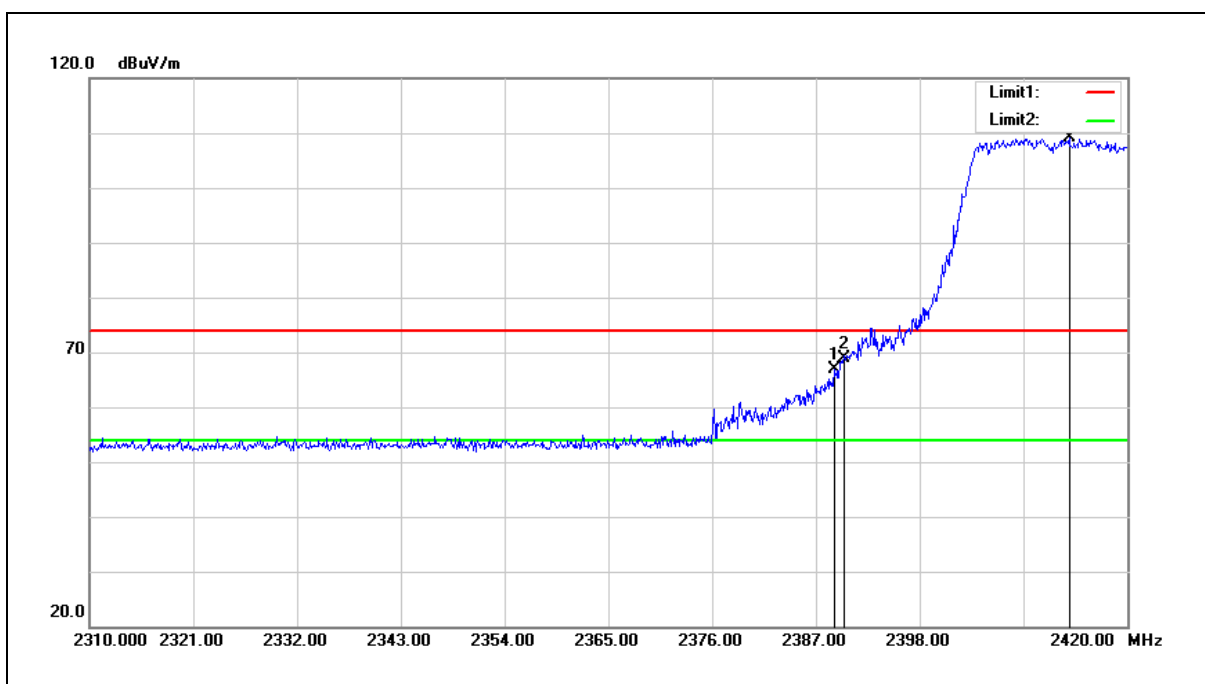
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2466.520	109.83	-1.96	107.87	74.00	33.87	peak
2	2483.500	68.17	-1.89	66.28	74.00	-7.72	peak
3	2483.640	69.16	-1.89	67.27	74.00	-6.73	peak

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		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



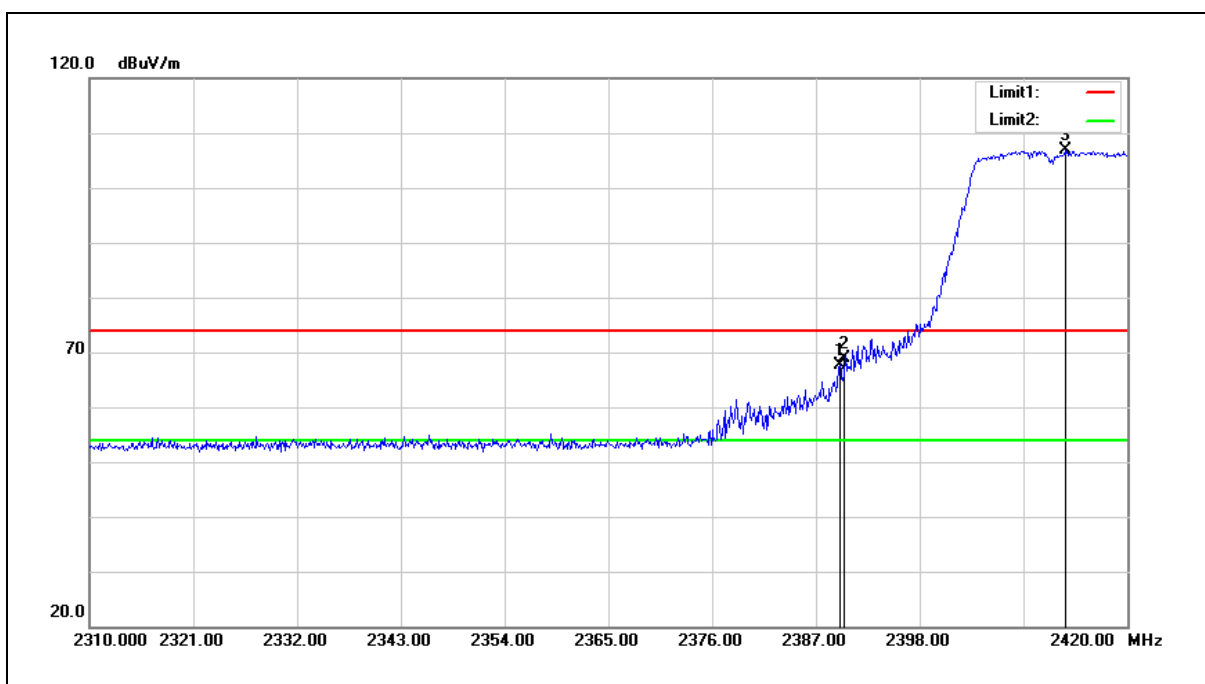
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.980	69.28	-2.28	67.00	74.00	-7.00	peak
2	2390.000	71.10	-2.28	68.82	74.00	-5.18	peak
3	2413.840	111.23	-2.18	109.05	74.00	35.05	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



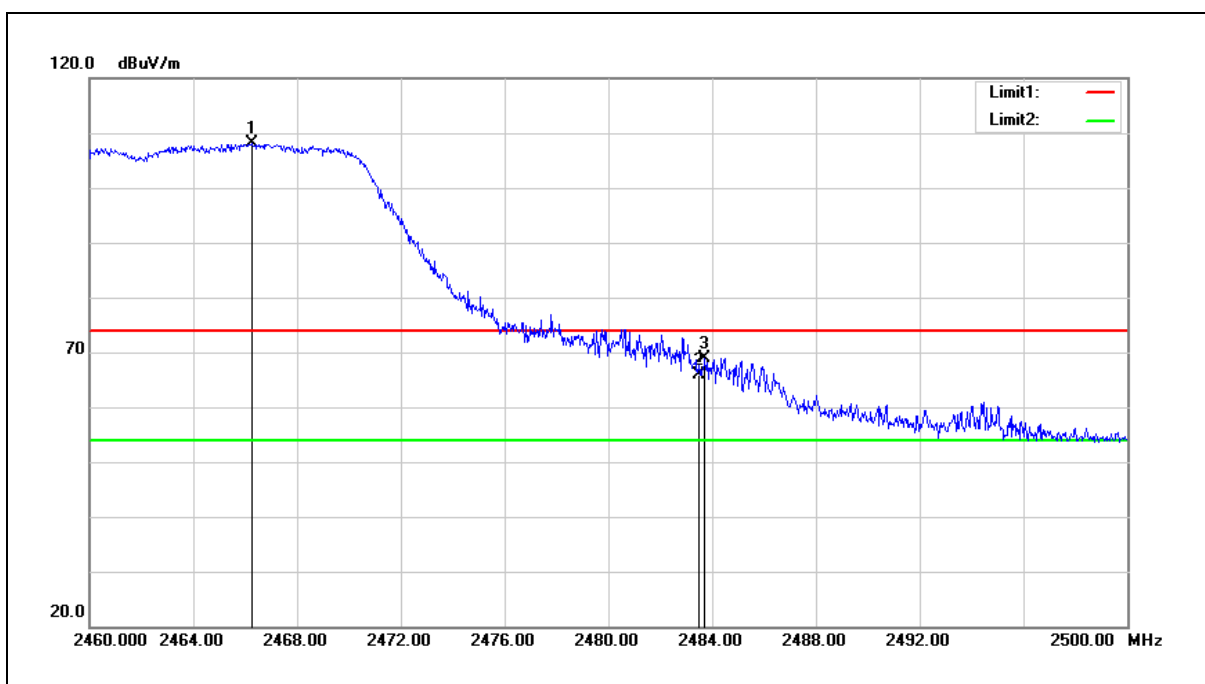
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.530	70.01	-2.28	67.73	74.00	-6.27	peak
2	2390.000	71.07	-2.28	68.79	74.00	-5.21	peak
3	2413.400	108.97	-2.18	106.79	74.00	32.79	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



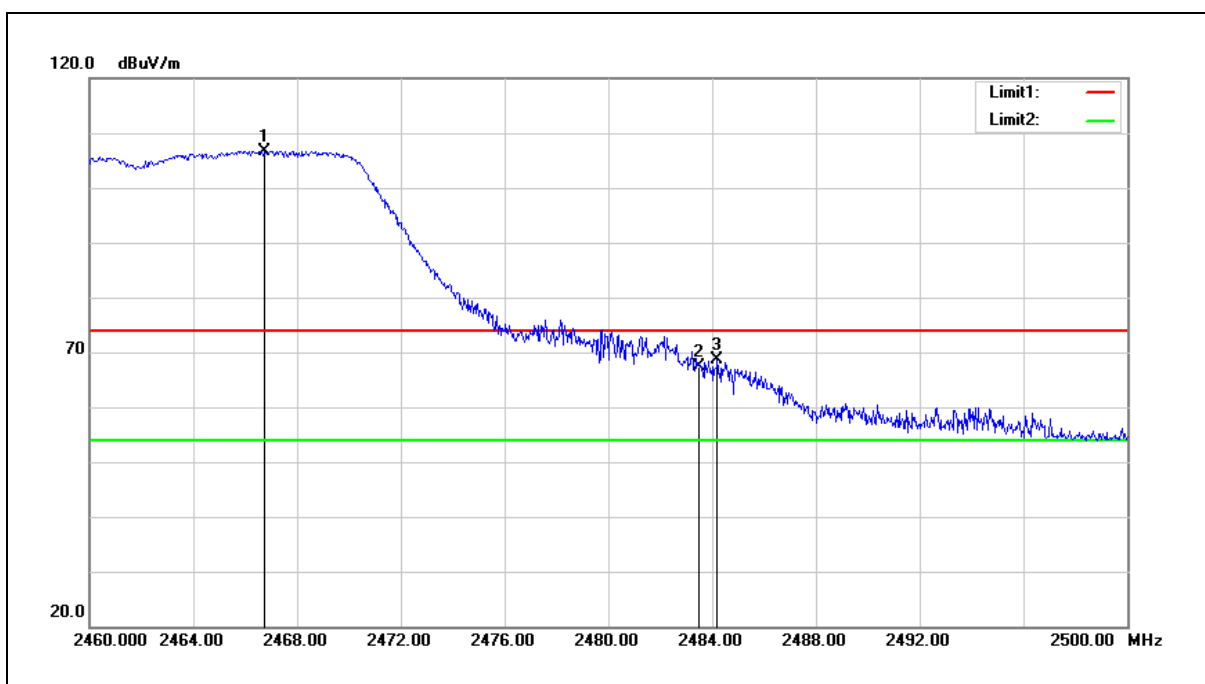
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2466.280	109.97	-1.96	108.01	74.00	34.01	peak
2	2483.500	67.83	-1.89	65.94	74.00	-8.06	peak
3	2483.720	70.83	-1.89	68.94	74.00	-5.06	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



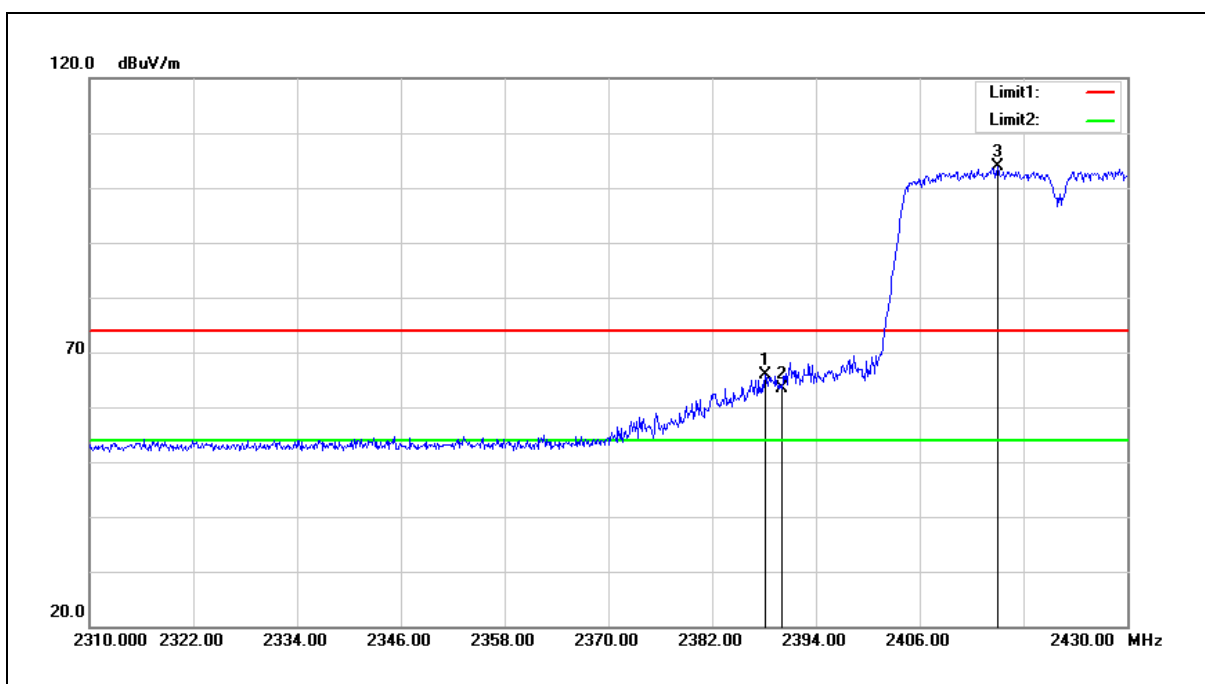
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2466.760	108.69	-1.96	106.73	74.00	32.73	peak
2	2483.500	69.36	-1.89	67.47	74.00	-6.53	peak
3	2484.200	70.56	-1.88	68.68	74.00	-5.32	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



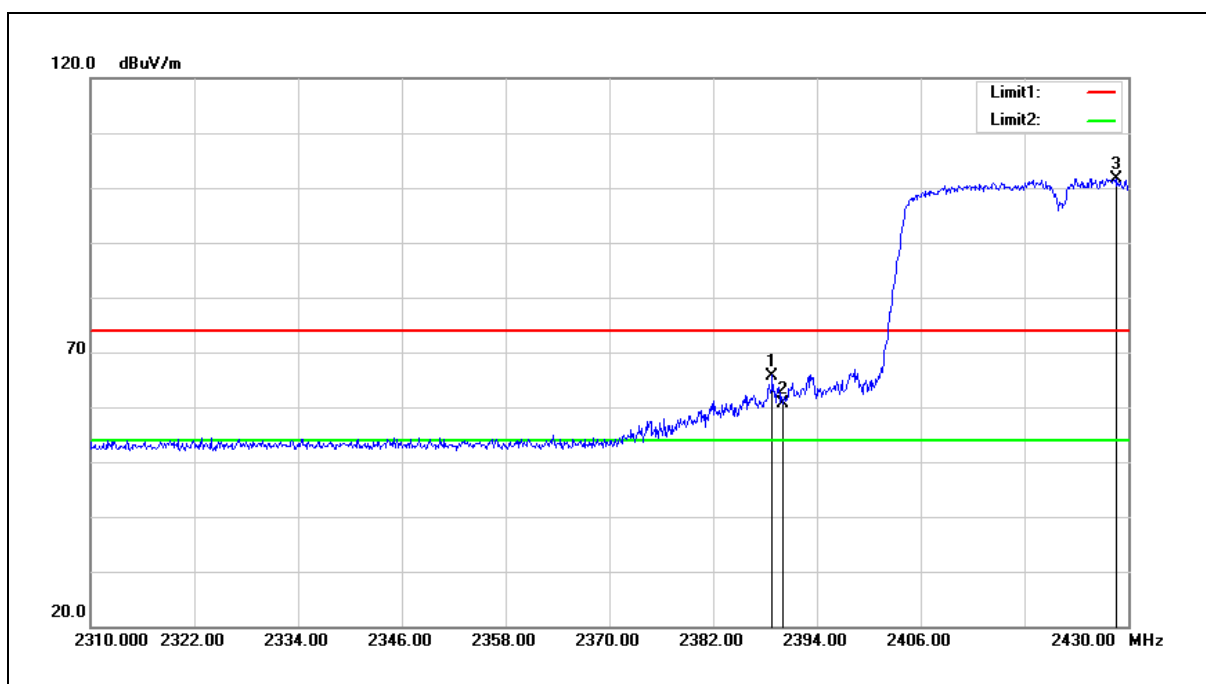
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.120	68.19	-2.28	65.91	74.00	-8.09	peak
2	2390.000	65.70	-2.28	63.42	74.00	-10.58	peak
3	2415.000	106.02	-2.17	103.85	74.00	29.85	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



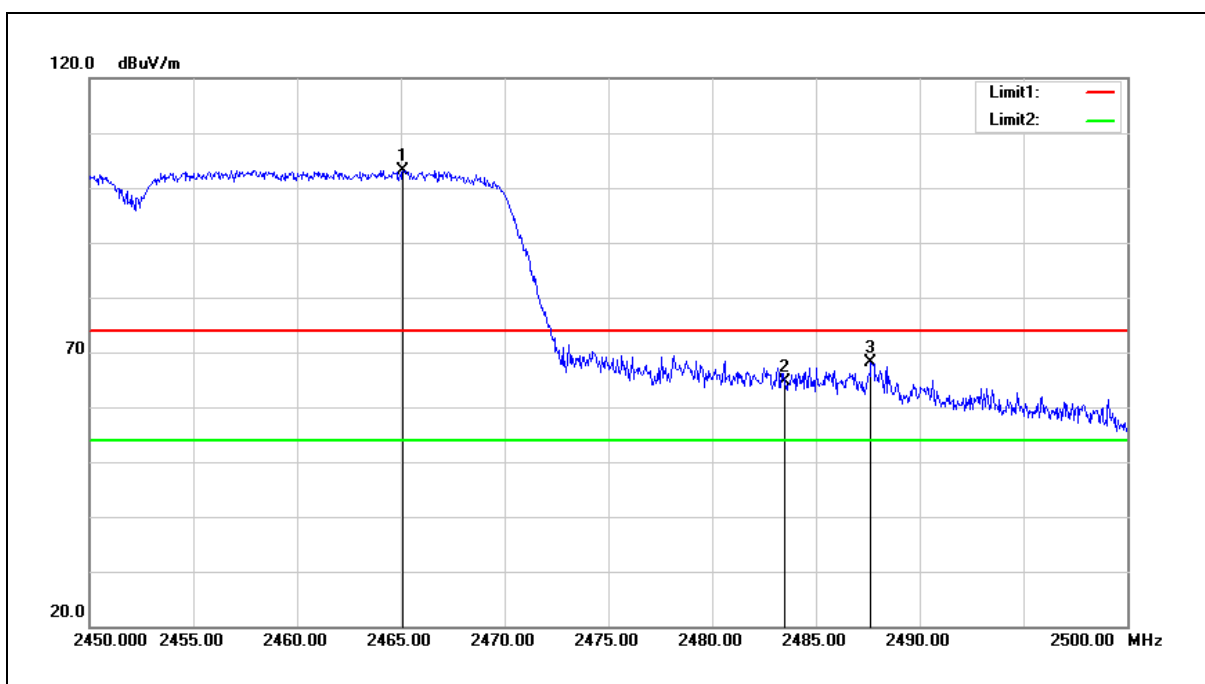
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.840	68.03	-2.28	65.75	74.00	-8.25	peak
2	2390.000	62.90	-2.28	60.62	74.00	-13.38	peak
3	2428.560	103.82	-2.11	101.71	74.00	27.71	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



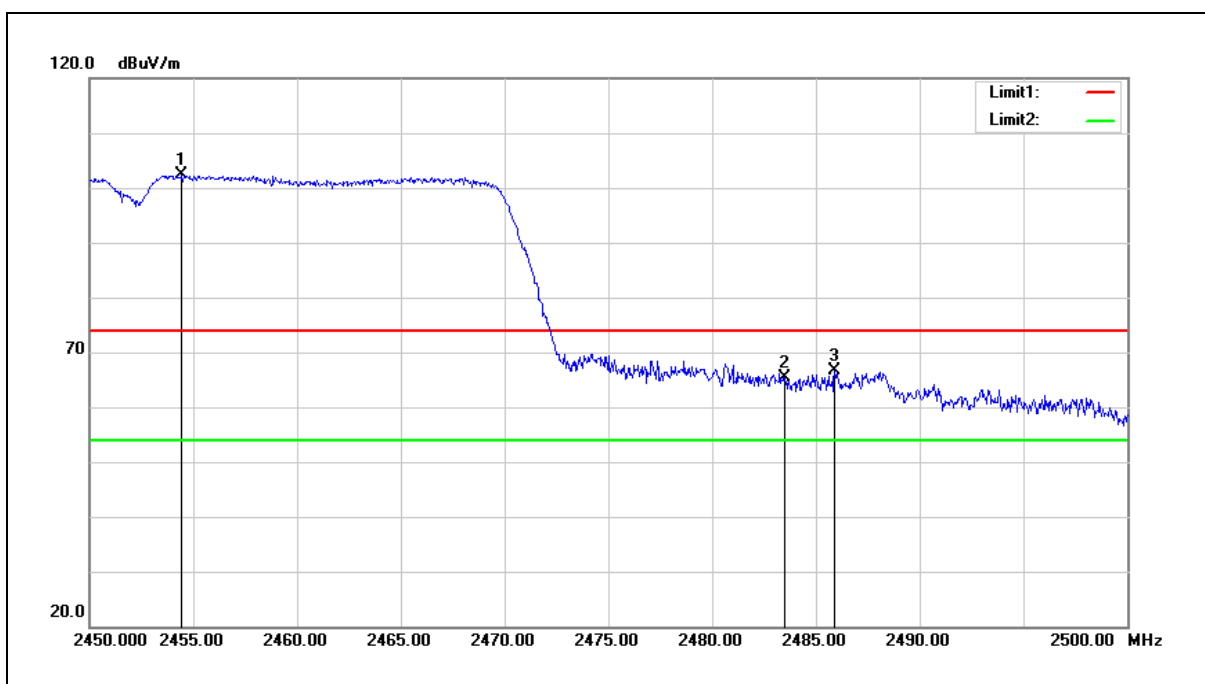
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2465.100	105.20	-1.97	103.23	74.00	29.23	peak
2	2483.500	66.50	-1.89	64.61	74.00	-9.39	peak
3	2487.650	70.02	-1.87	68.15	74.00	-5.85	peak

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2454.450	104.40	-2.02	102.38	74.00	28.38	peak
2	2483.500	67.30	-1.89	65.41	74.00	-8.59	peak
3	2485.900	68.60	-1.88	66.72	74.00	-7.28	peak

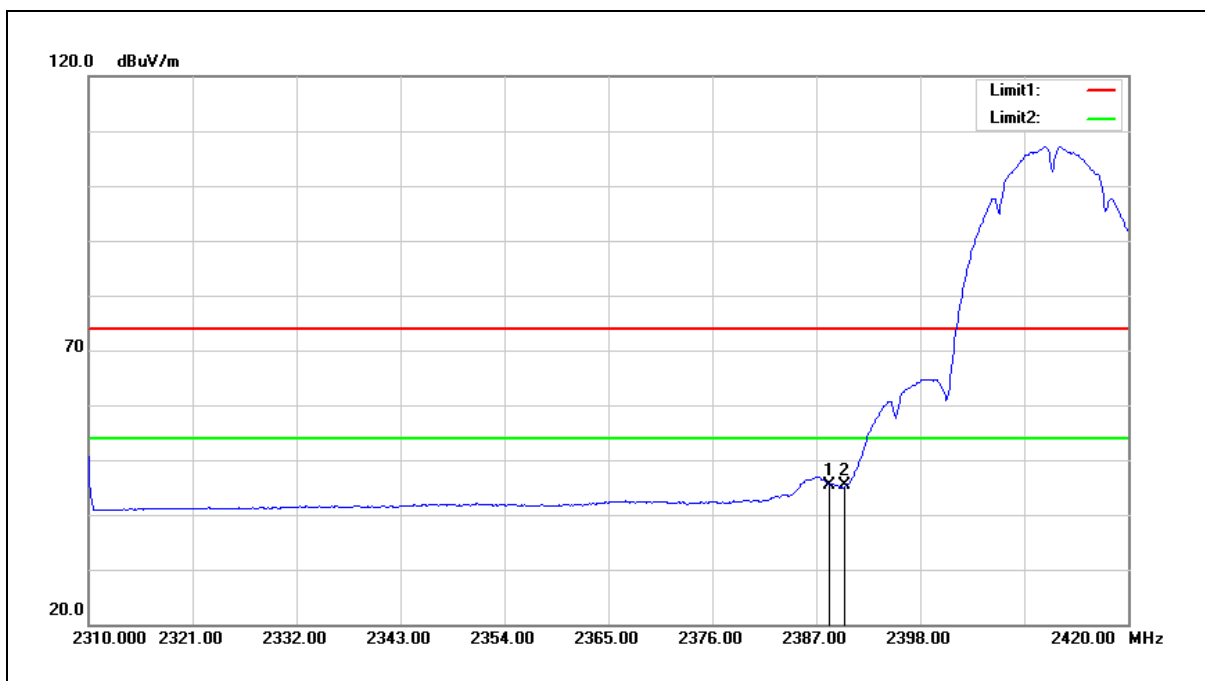
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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

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

Average

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



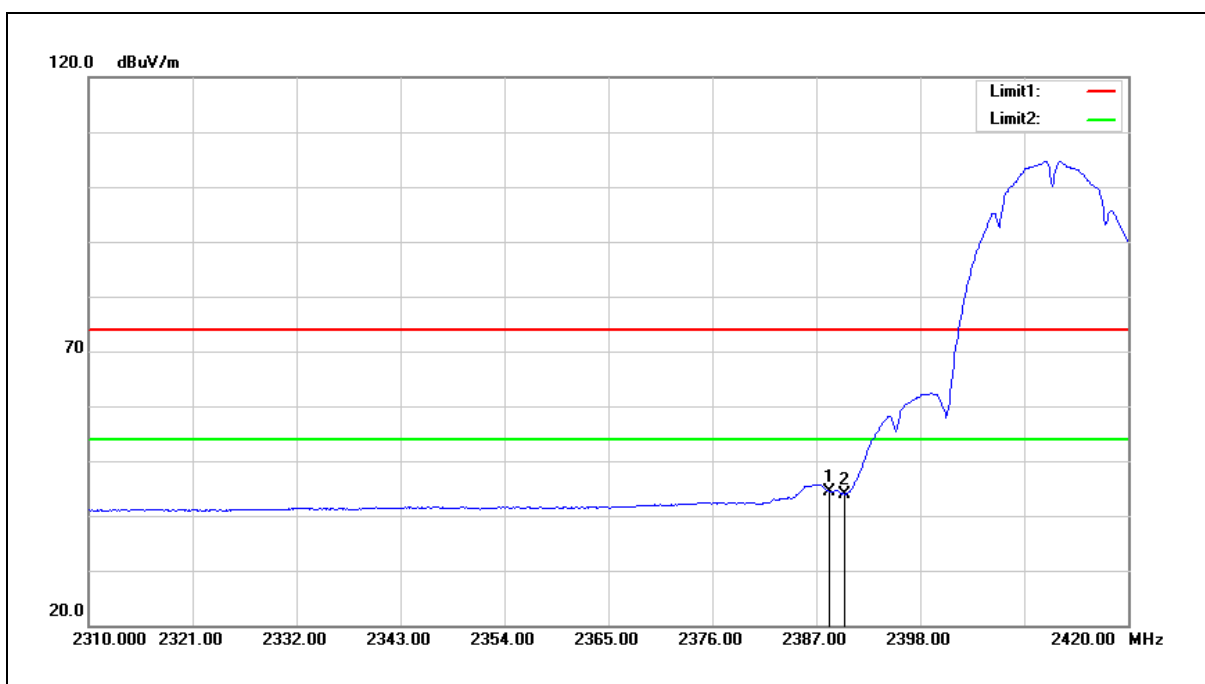
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.430	47.73	-2.28	45.45	54.00	-8.55	AVG
2	2390.000	47.58	-2.28	45.30	54.00	-8.70	AVG

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

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

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

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



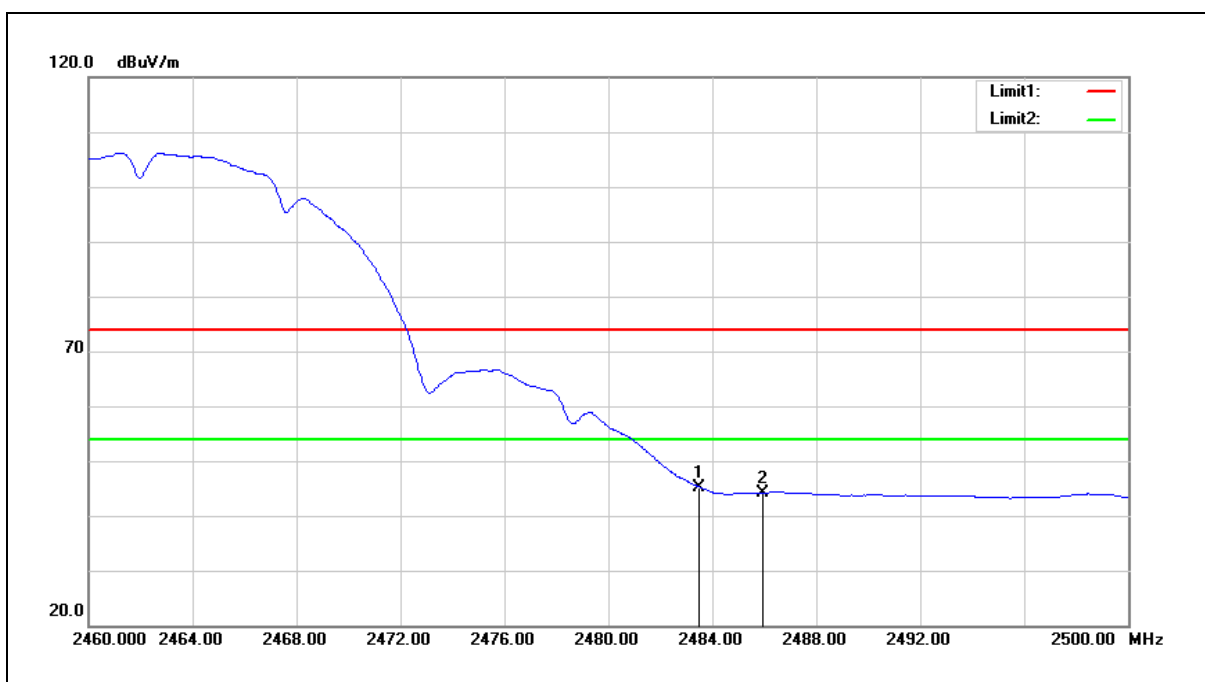
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.430	46.69	-2.28	44.41	54.00	-9.59	AVG
2	2390.000	46.24	-2.28	43.96	54.00	-10.04	AVG

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		
Frequency:	2462 MHz		
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



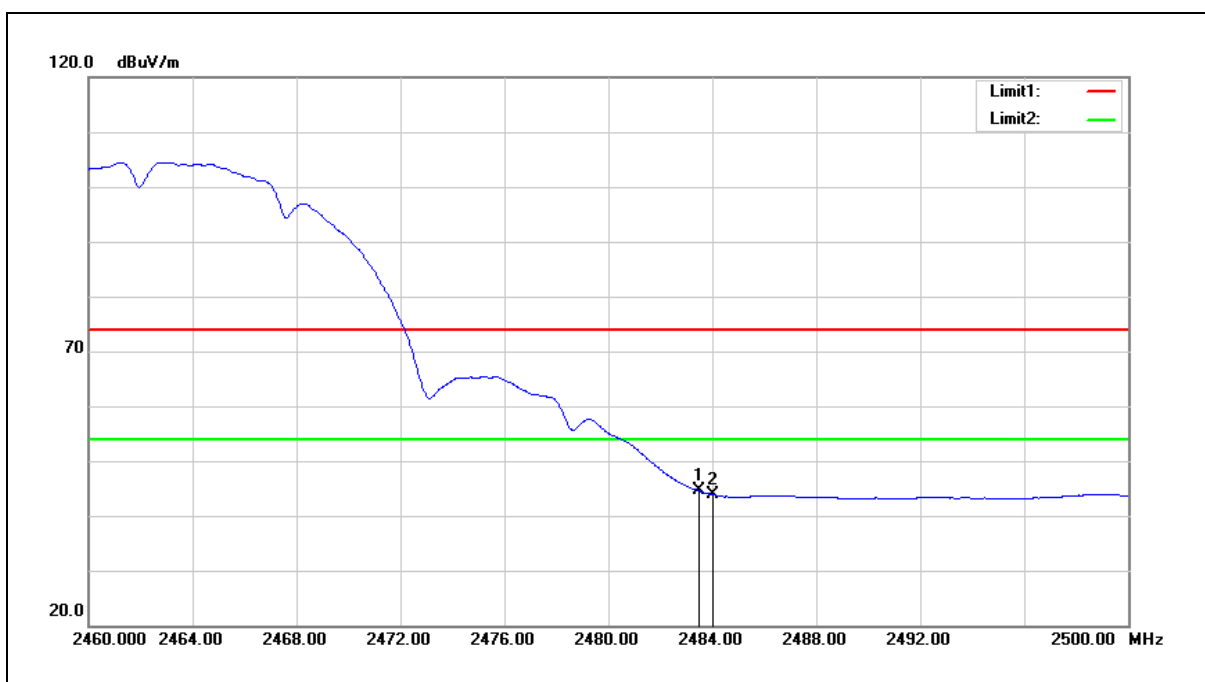
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	47.09	-1.89	45.20	54.00	-8.80	AVG
2	2485.960	46.09	-1.88	44.21	54.00	-9.79	AVG

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

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

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

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



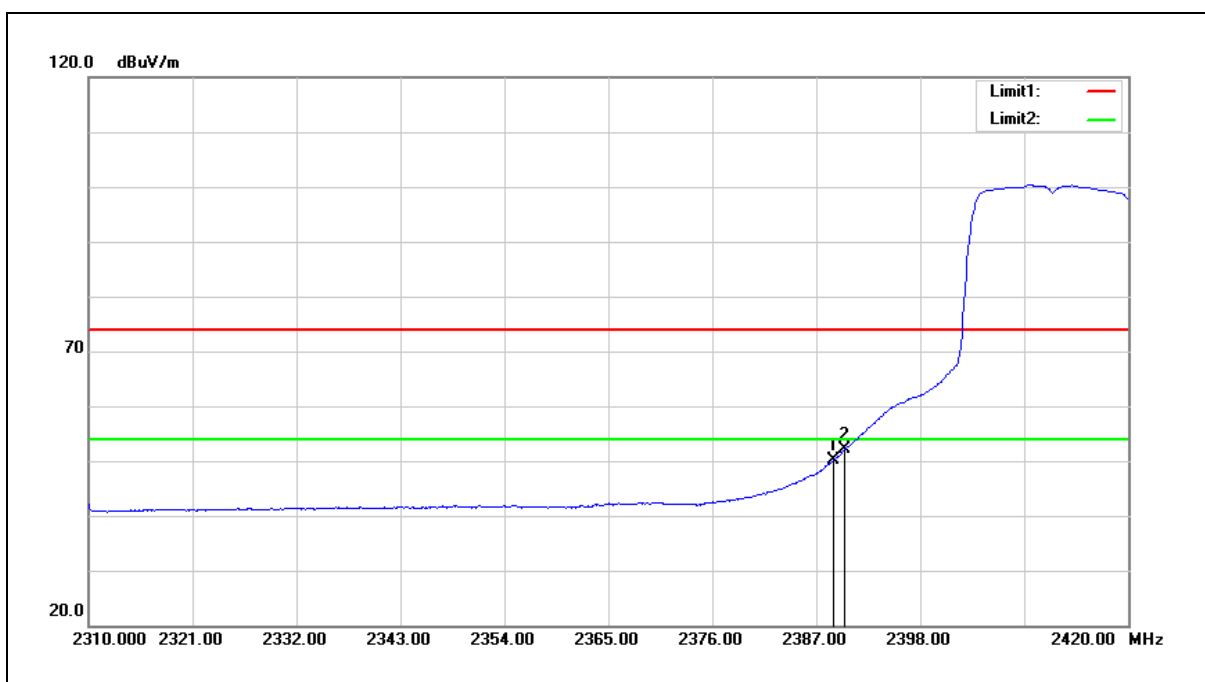
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	46.47	-1.89	44.58	54.00	-9.42	AVG
2	2484.040	45.73	-1.88	43.85	54.00	-10.15	AVG

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

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

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

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



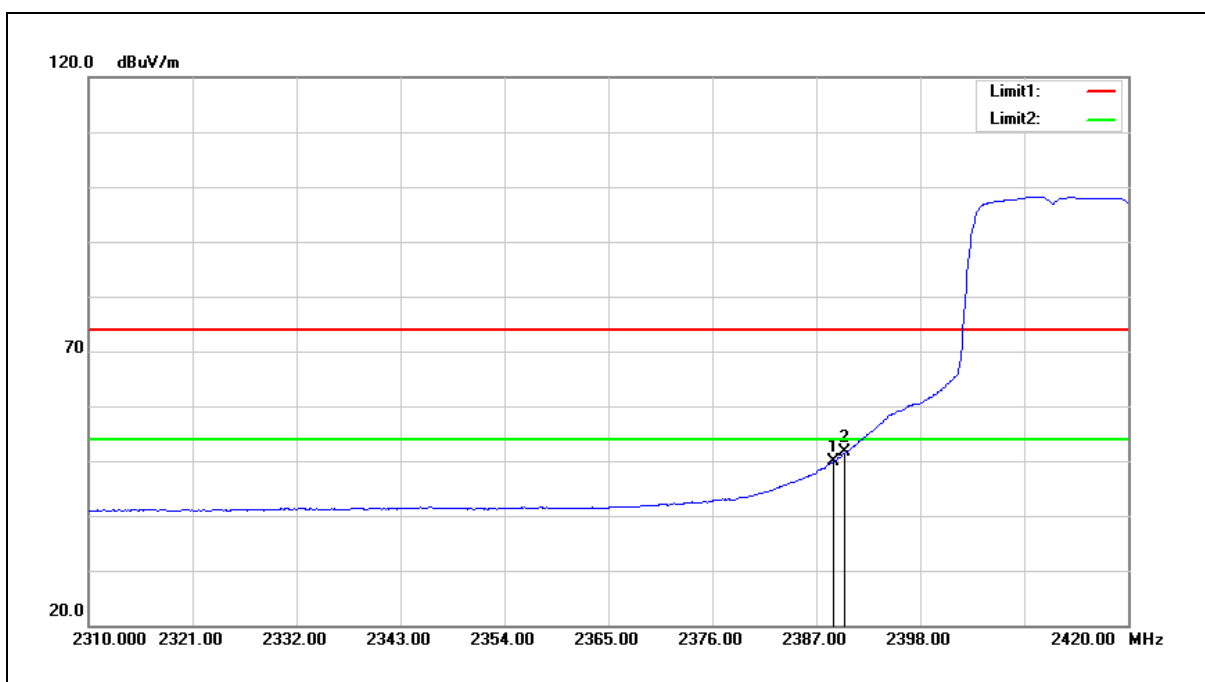
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.760	52.44	-2.28	50.16	54.00	-3.84	AVG
2	2390.000	54.51	-2.28	52.23	54.00	-1.77	AVG

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

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

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

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



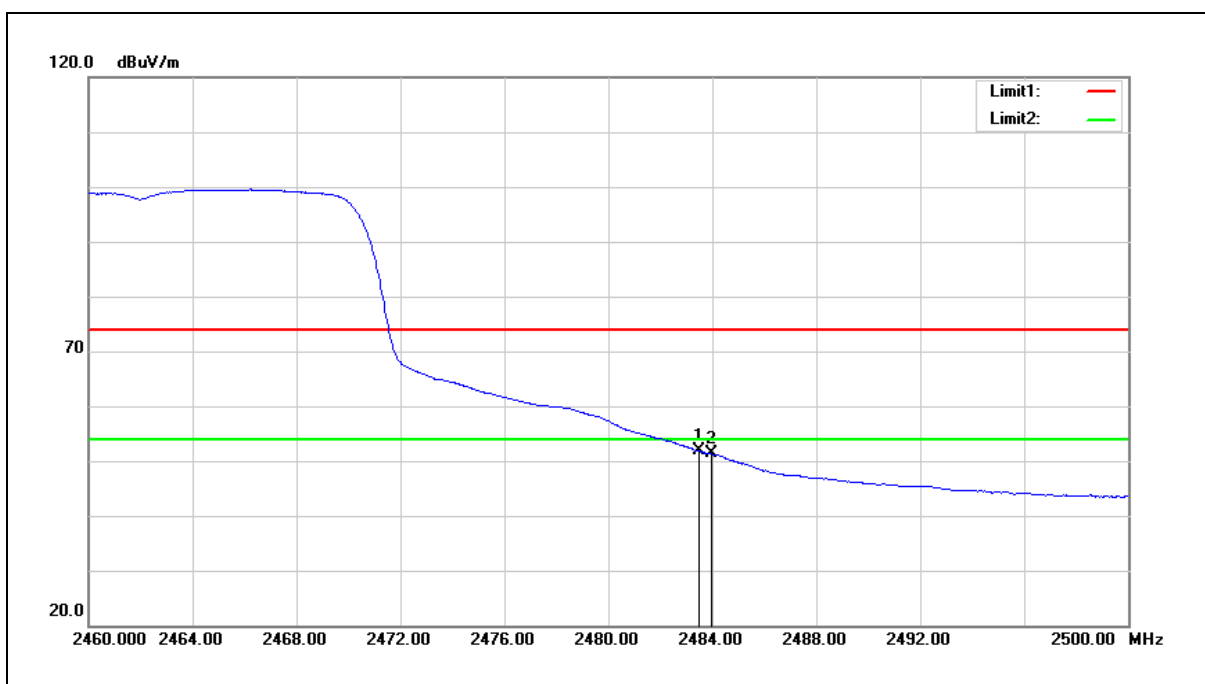
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.870	52.19	-2.28	49.91	54.00	-4.09	AVG
2	2390.000	53.90	-2.28	51.62	54.00	-2.38	AVG

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

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

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

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



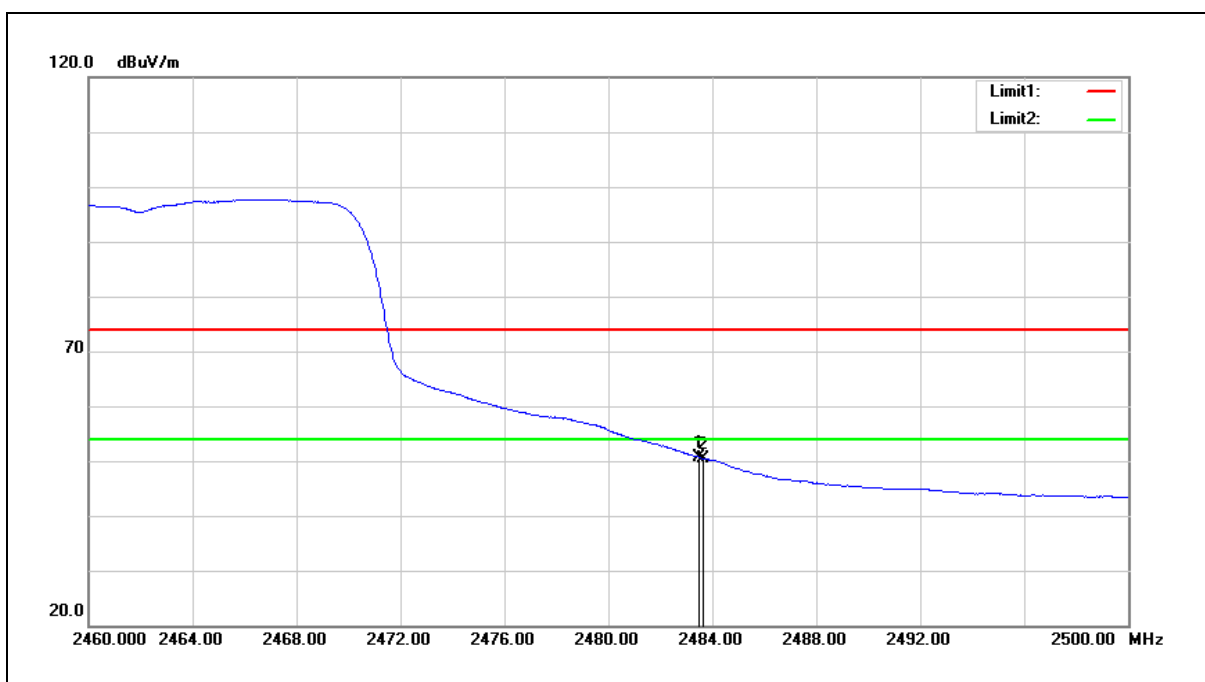
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	53.69	-1.89	51.80	54.00	-2.20	AVG
2	2483.960	53.18	-1.88	51.30	54.00	-2.70	AVG

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

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

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

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



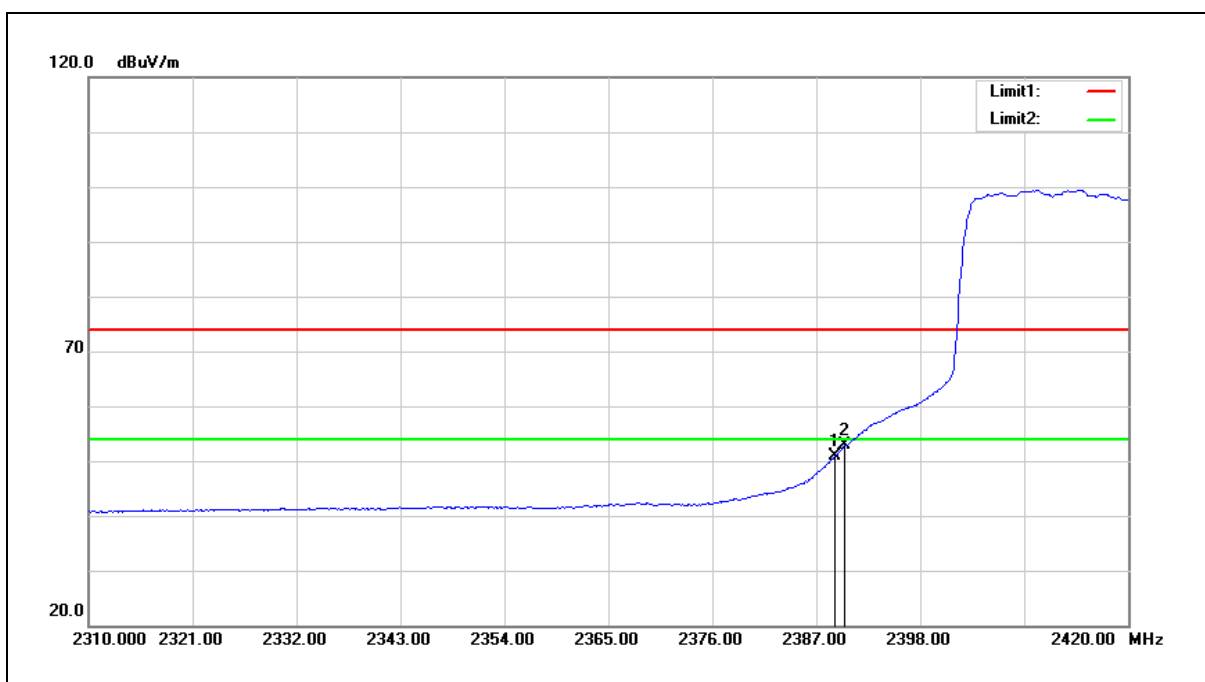
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	52.49	-1.89	50.60	54.00	-3.40	AVG
2	2483.640	52.30	-1.89	50.41	54.00	-3.59	AVG

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



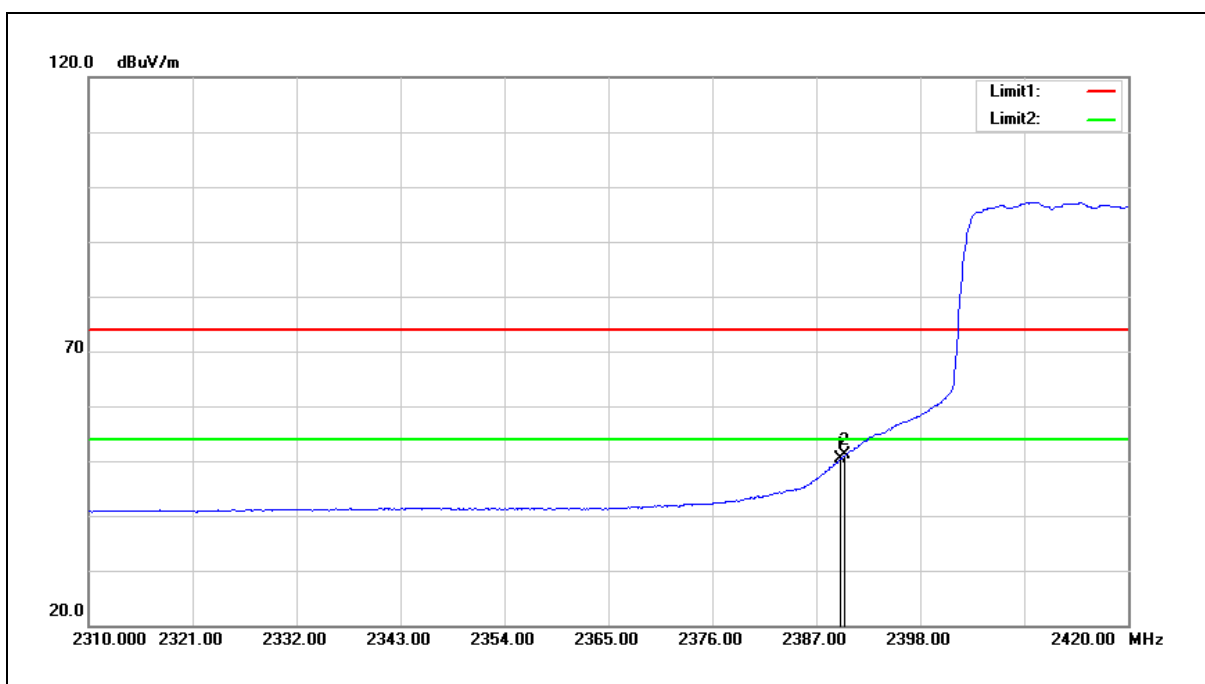
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.980	53.24	-2.28	50.96	54.00	-3.04	AVG
2	2390.000	55.11	-2.28	52.83	54.00	-1.17	AVG

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		
Frequency:	2412 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



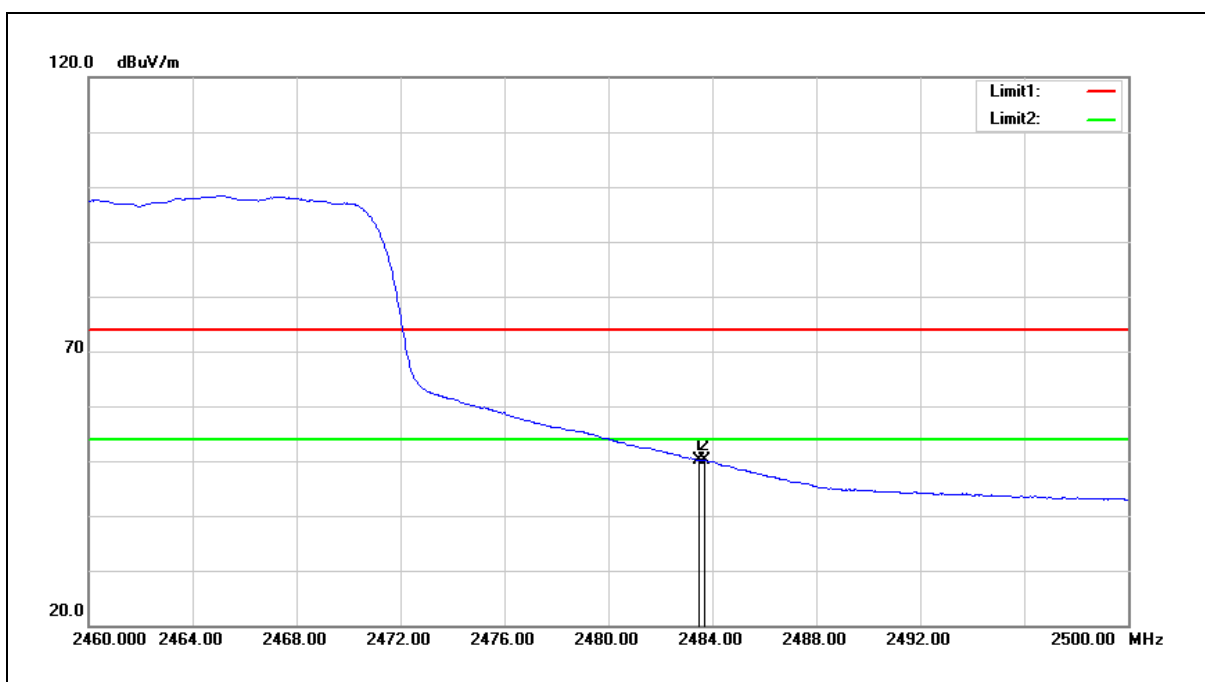
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.530	52.55	-2.28	50.27	54.00	-3.73	AVG
2	2390.000	53.40	-2.28	51.12	54.00	-2.88	AVG

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		
Frequency:	2462 MHz		
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



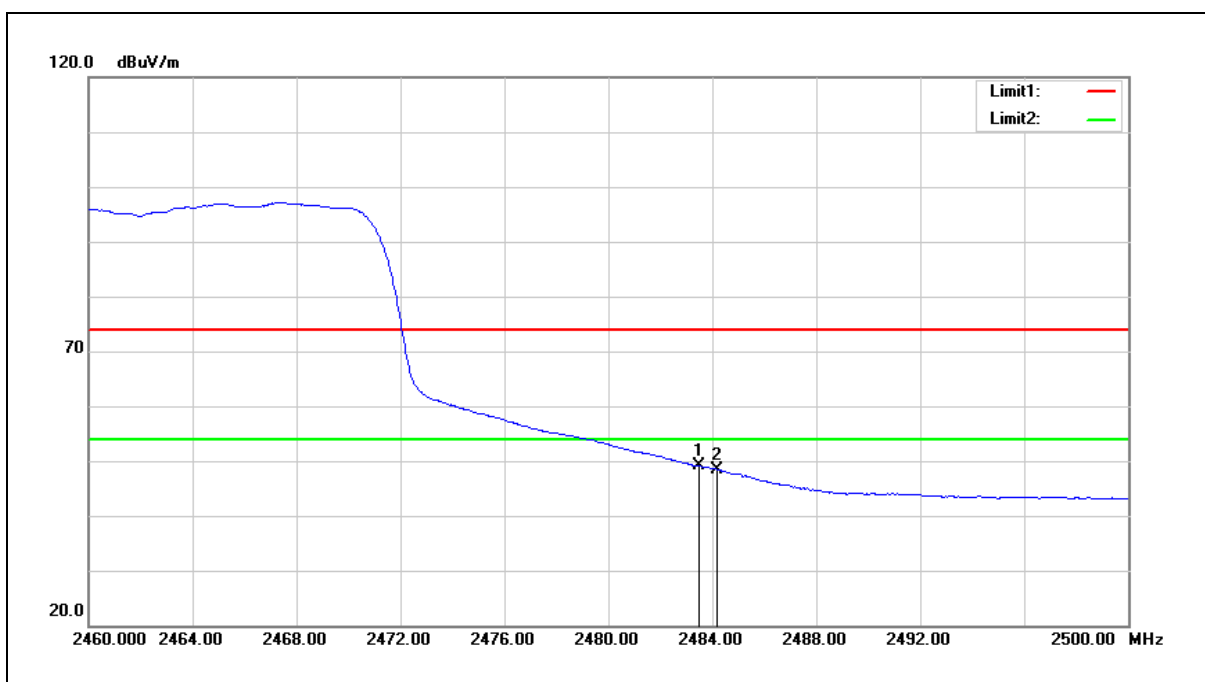
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	52.04	-1.89	50.15	54.00	-3.85	AVG
2	2483.720	51.93	-1.89	50.04	54.00	-3.96	AVG

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2462 MHz		
Mode:	Mode 4		
Ant.Polar.:	Vertical		



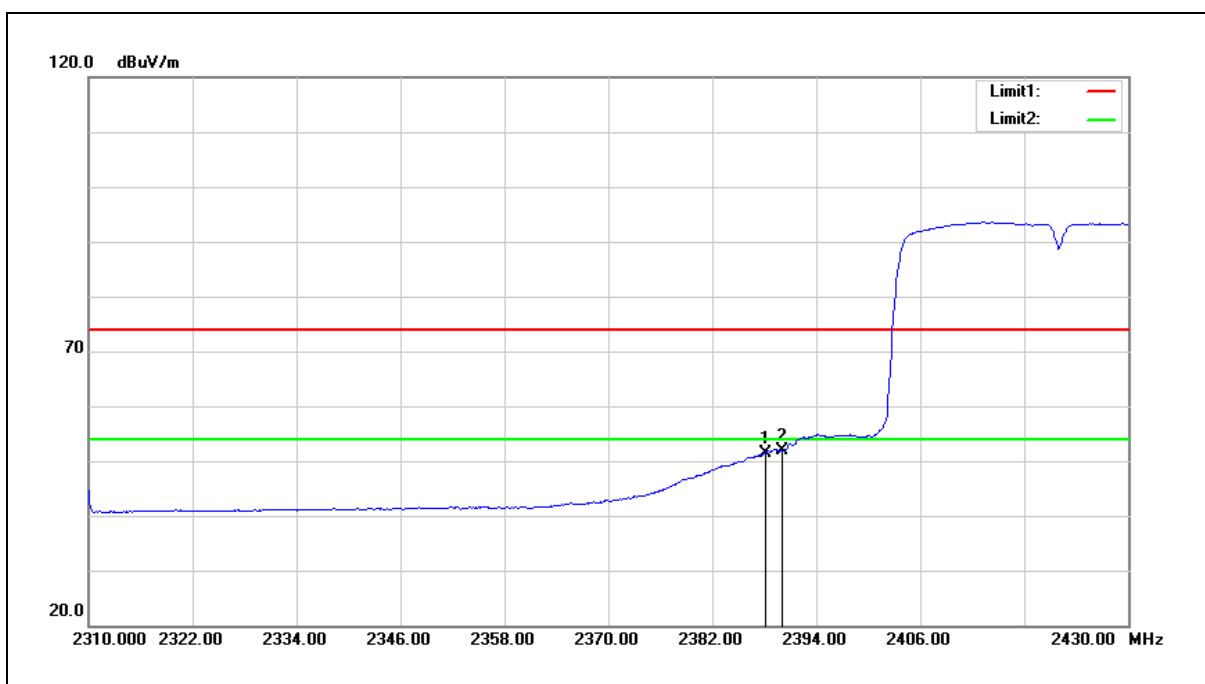
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	50.90	-1.89	49.01	54.00	-4.99	AVG
2	2484.200	50.26	-1.88	48.38	54.00	-5.62	AVG

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2422 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



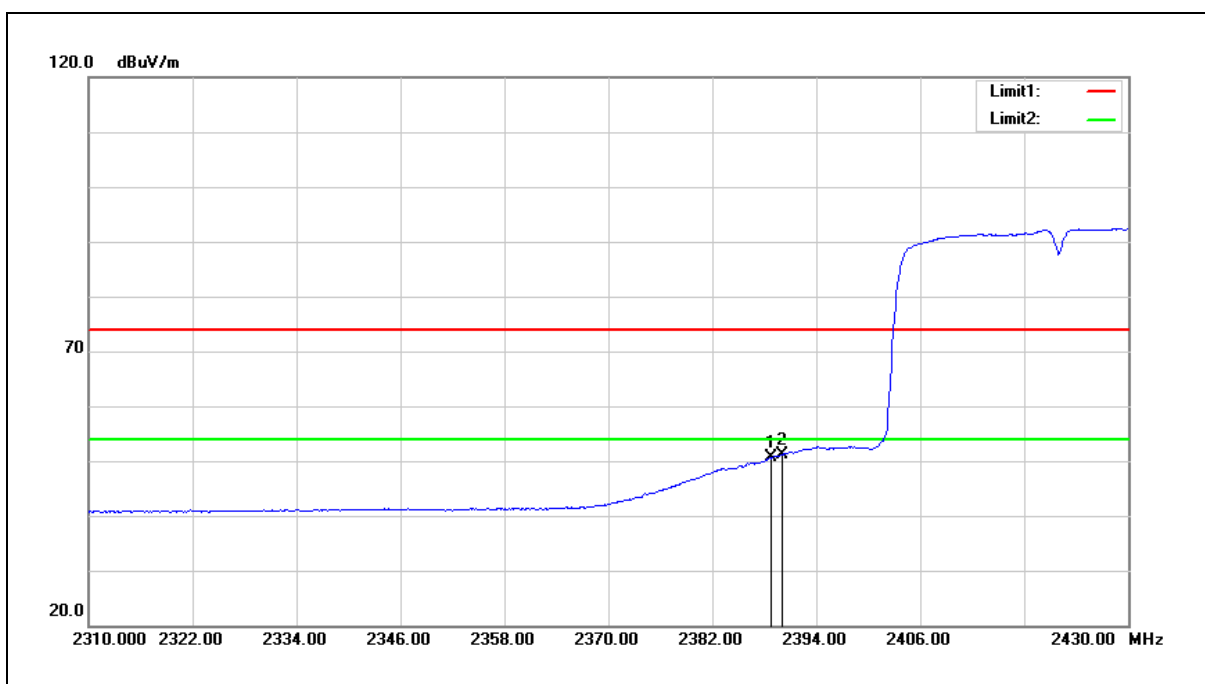
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.120	53.72	-2.28	51.44	54.00	-2.56	AVG
2	2390.000	54.11	-2.28	51.83	54.00	-2.17	AVG

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		
Frequency:	2422 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



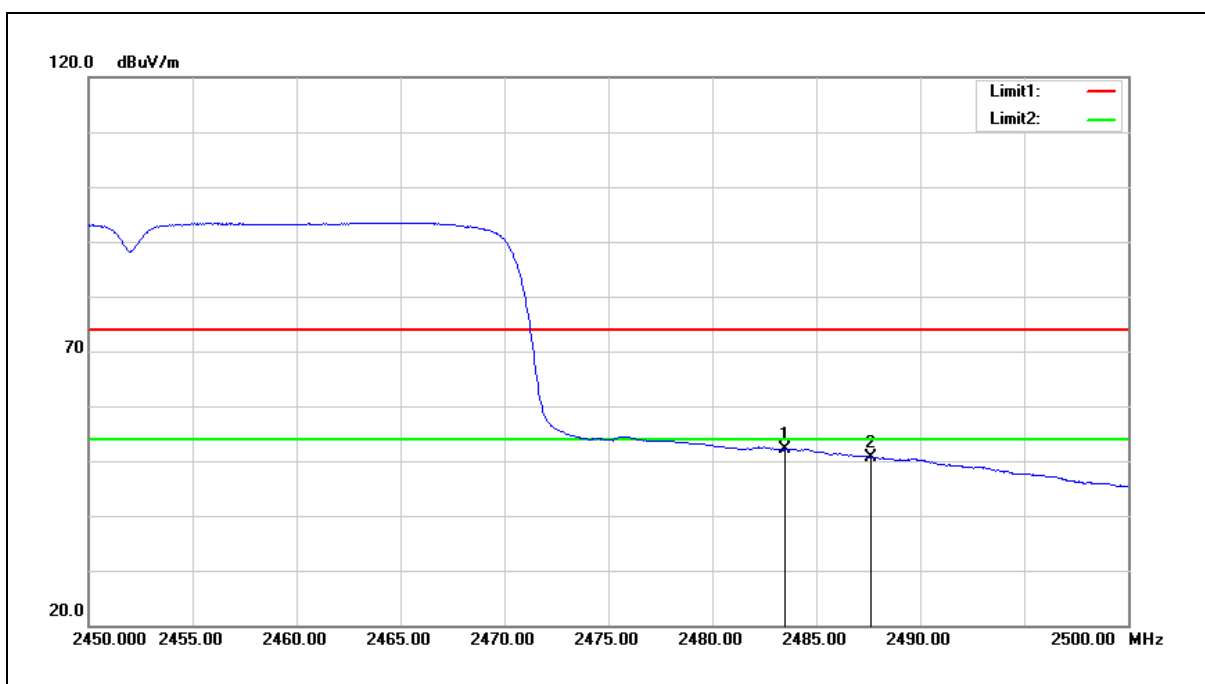
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.840	52.83	-2.28	50.55	54.00	-3.45	AVG
2	2390.000	53.45	-2.28	51.17	54.00	-2.83	AVG

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



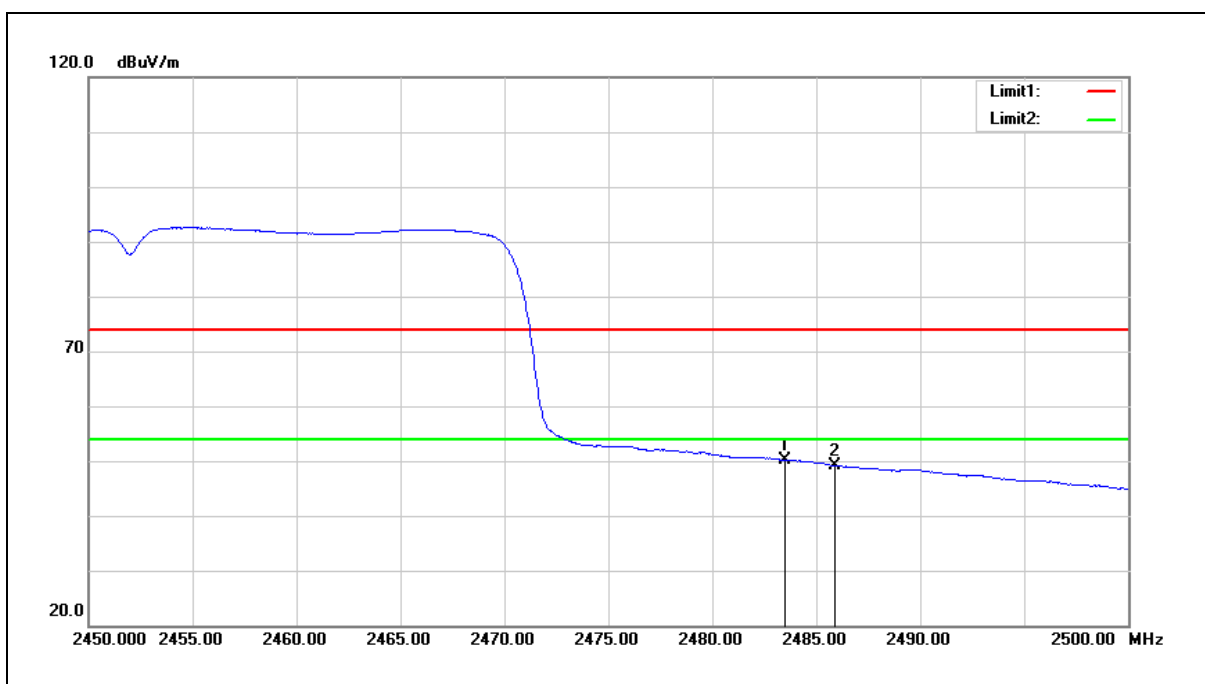
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	53.95	-1.89	52.06	54.00	-1.94	AVG
2	2487.650	52.46	-1.87	50.59	54.00	-3.41	AVG

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

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

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

Standard:	FCC Part 15.247	Test Distance:	3 m
Test item:	Band edge		
Frequency:	2452 MHz		
Mode:	Mode 5		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	51.98	-1.89	50.09	54.00	-3.91	AVG
2	2485.900	50.99	-1.88	49.11	54.00	-4.89	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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