RF Test Report

Applicant	:	Netgear Incorporated
Product Type	:	Netgear Mobile Hotspot
Trade Name	:	NETGEAR
Model Number	:	AC797S
Test Specification	:	FCC 47 CFR PART 15 SUBPART E ANSI C63.10:2013
Receive Date	:	Jul. 30, 2018
Test Period	:	Aug. 25 ~ Aug. 31, 2018
Issue Date	:	Sep. 21, 2018

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C)
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Taiwan Accreditation Foundation accreditation number: 1330
Test Firm MRA designation number: TW0010

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Sep. 05, 2018	Initial Issue	Janet Chao
01	Sep. 21, 2018	Revised Report Information	Janet Chao

Verification of Compliance

Issued Date: Sep. 21, 2018

Applicant	:	Netgear Incorporated
Product Type	:	Netgear Mobile Hotspot
Trade Name	:	NETGEAR
Model Number	:	AC797S
FCC ID	:	PY318300421
EUT Rated Voltage	:	DC 5.0 V, 1.0 A
Test Voltage	:	120 Vac / 60 Hz, 3.8 Vdc
Applicable Standard	:	FCC 47 CFR PART 15 SUBPART E ANSI C63.10:2013
Test Result	:	Complied
Performing Lab.	:	A Test Lab Techno Corp. No. 140-1, Changan Street, Bade District, Taoyuan City 33465, Taiwan (R.O.C) Tel：+86-3-2710188 / Fax：+86-3-2710190 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	:	Fly Lu	Reviewed By	: Eric Ou Yang
(Manager)		(Fly Lu)	(Testing Engineer)	(Eric Ou Yang)

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1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
FCC			
15.407(b)(6) 15.207	AC Power Conducted Emission	PASS	---
15.407(b) 15.205 / 15.209	Transmitter Radiated Emissions	PASS	---
15.407(a)	Maximum Conducted Output Power & Additional Rule For Outdoor Operation	PASS	---
15.407(a)	26dB RF Bandwidth	Reference	---
15.407(e)	6dB RF Bandwidth	PASS	-----
15.407(a)	Maximum Power Spectral Density	PASS	---
15.407(g)	Frequency Stability	PASS	---
15.407(c)	Automatically discontinue transmission	PASS	---
15.407(a) 15.203	Antenna Requirement	PASS	---

The test results of this report relate only to the tested sample(s) identified in this report.

Standard	Description
CFR47, Part 15, Subpart C	Intentional Radiators
CFR47, Part 15, Subpart E	Unlicensed National Information Infrastructure Devices
ANSI C63. 10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB789033: D02	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
KDB 662911 D01 v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)

1.2. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conducted Emission	9 kHz ~ 150 kHz	2.7
	150 kHz ~ 30 MHz	2.7
Radiated Emission	9 kHz ~ 30 MHz	1.7
	30 MHz ~ 1000 MHz	5.7
	1000 MHz ~ 18000 MHz	5.5
	18000 MHz ~ 26500 MHz	4.8
	26500 MHz ~ 40000 MHz	4.8
Conducted Output Power		+0.27 dB / -0.28 dB
RF Bandwidth		4.96 %
Power Spectral Density		+0.71 dB / -0.77 dB
Frequency Stability		+ 2.212 x 10-7 % / - 2.170 x 10-7
Duty Cycle		1.06 %
Time Occupancy		1.40 %

2 EUT Description

Applicant	Netgear Incorporated 350 East Plumeria Drive,San Jose, California, United States 95134			
Manufacturer	Netgear Inc. Suite 168 – 10760 Shellbridge Way, Richmond, BC Canada V6X 3H1			
Product Type	Netgear Mobile Hotspot			
Trade Name	NETGEAR			
Model No.	AC797S			
FCC ID	PY318300421			
IMEI Number	015253000000651			
Operate Frequency	Frequency Band		Frequency Range (MHz)	Number of Channels
	IEEE 802.11a	U-NII Band I	5180 – 5240	4
		U-NII Band III	5745 – 5825	5
	IEEE 802.11n 5GHz 20 MHz / IEEE 802.11ac 20 MHz	U-NII Band I	5180 – 5240	4
		U-NII Band III	5745 – 5825	5
	IEEE 802.11n 5GHz 40 MHz / IEEE 802.11ac 40 MHz	U-NII Band I	5190 – 5230	2
		U-NII Band III	5755 – 5795	2
	IEEE 802.11ac 80 MHz	U-NII Band I	5210	1
		U-NII Band III	5775	1
Modulation Type	OFDM			
Equipment Type	Master			
Antenna information	Type			Max. Gain (dBi)
	Chip Antenna			3.4
Antenna Delivery	Reference section 3.1			
Frequency stability specification	± 20 ppm			
Operate Temp. Range	0 ~ +55 ℃			

Frequency Band		RF Output Power (W)
IEEE 802.11a	U-NII Band I	0.017
	U-NII Band III	0.017
IEEE 802.11ac 20 MHz	U-NII Band I	0.018
	U-NII Band III	0.018
IEEE 802.11ac 40 MHz	U-NII Band I	0.018
	U-NII Band III	0.018
IEEE 802.11ac 80 MHz	U-NII Band I	0.010
	U-NII Band III	0.019

Equipment Type		
Outdoor access point	point-to-point	---
	point-to-multipoint	V
Indoor access point		---
Fixed point-to-point access points		---
Client devices		---

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 802.11a Continuous TX mode
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode
Mode 5: IEEE 802.11ac 80 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.

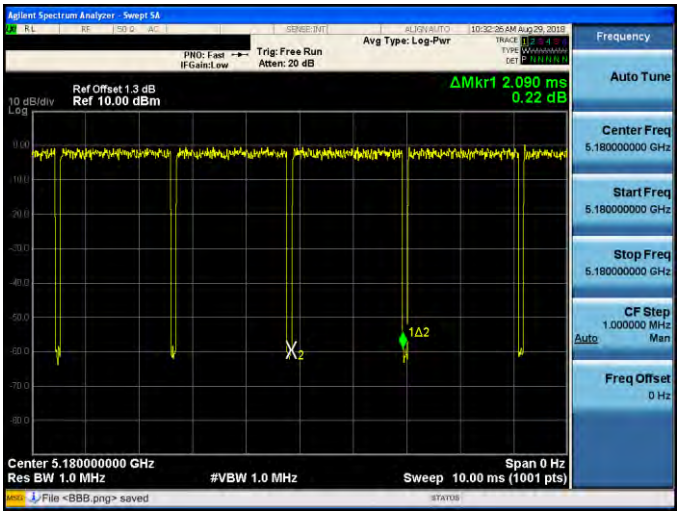
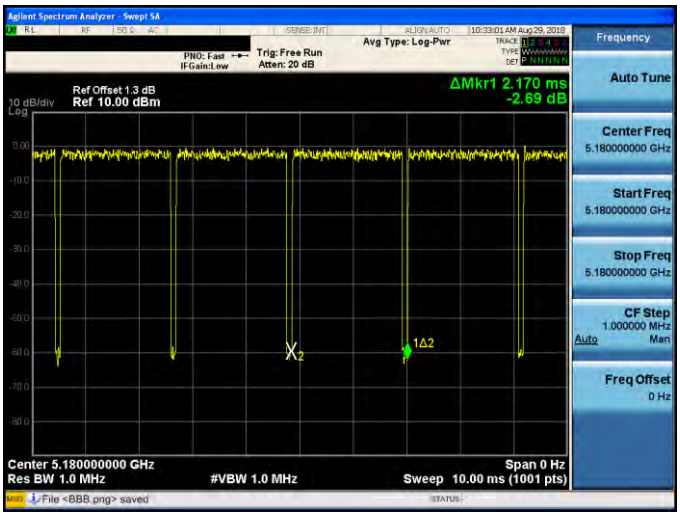
Test Mode	ANT-0	ANT-1	ANT-0+1
Mode 2	V	V	V
Mode 3	V	V	V
Mode 4	V	V	V
Mode 5	V	V	V

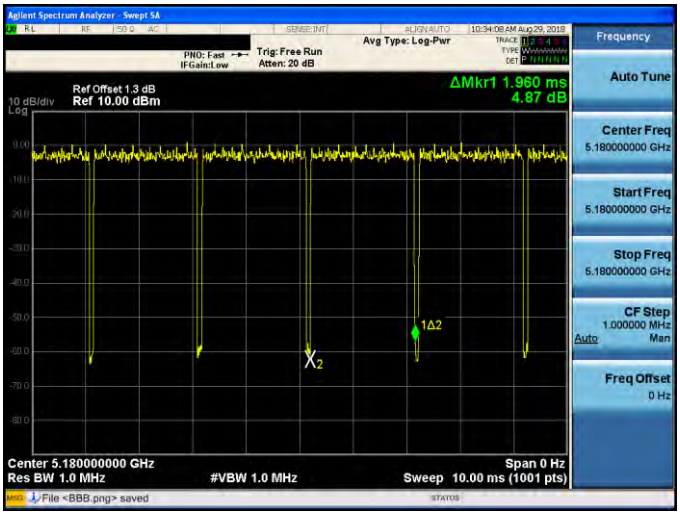
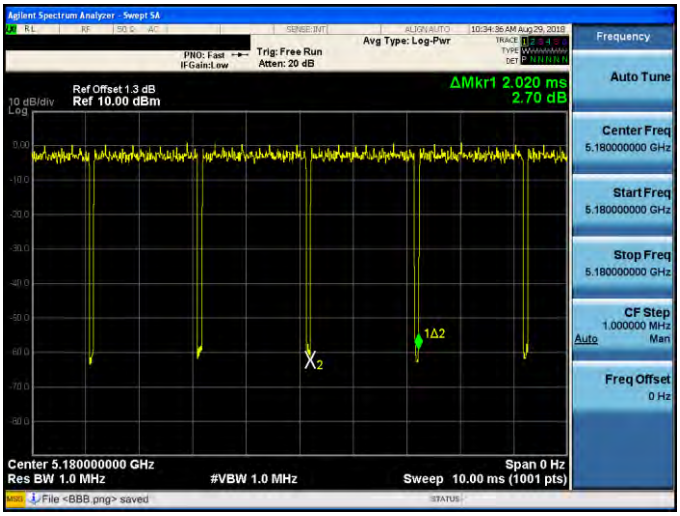
Test Mode	Antenna Delivery	Data Rate	Band	Test Channel
Mode 2	2TX (CDD)	6M	U-NII Band I	36, 40, 44, 48
			U-NII Band III	149, 153, 157, 161, 165
Mode 3	2TX (MIMO-STBC)	13M	U-NII Band I	36, 40, 44, 48
			U-NII Band III	149, 153, 157, 161, 165
Mode 4	2TX (MIMO-STBC)	27M	U-NII Band I	38, 46
			U-NII Band III	151,159
Mode 5	2TX (MIMO-STBC)	58.6M	U-NII Band I	42
			U-NII Band III	155

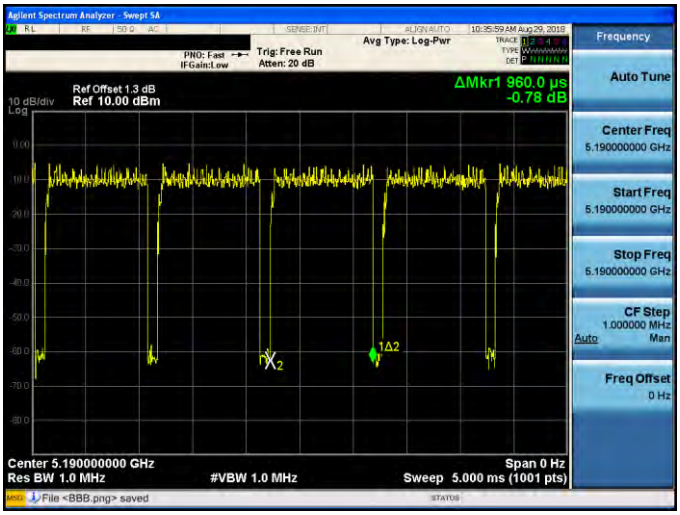
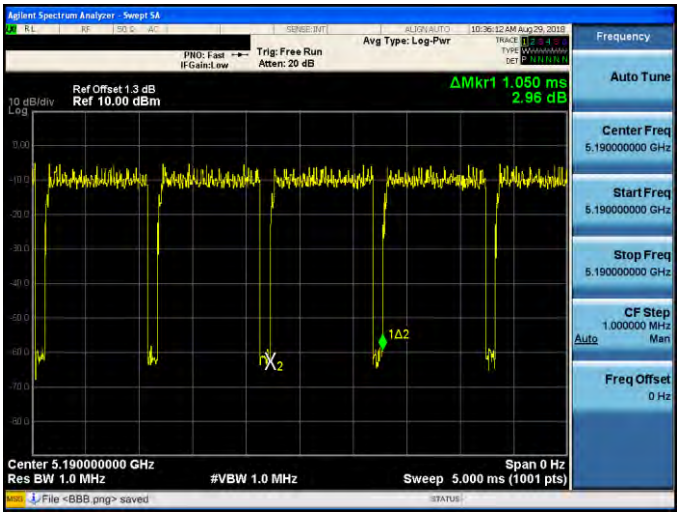
Duty cycle

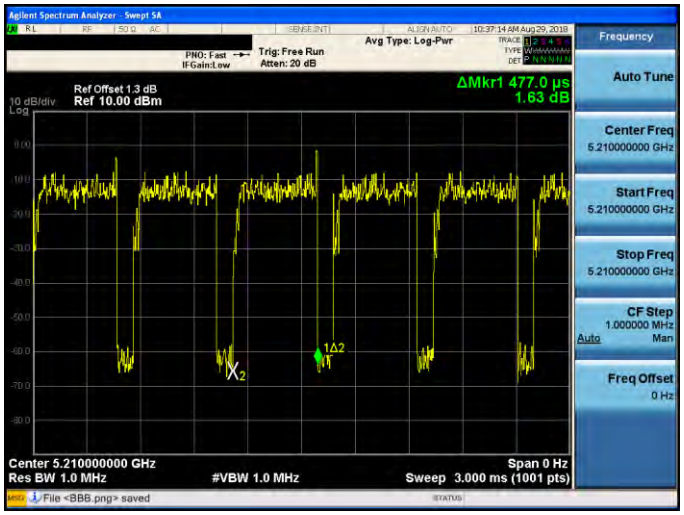
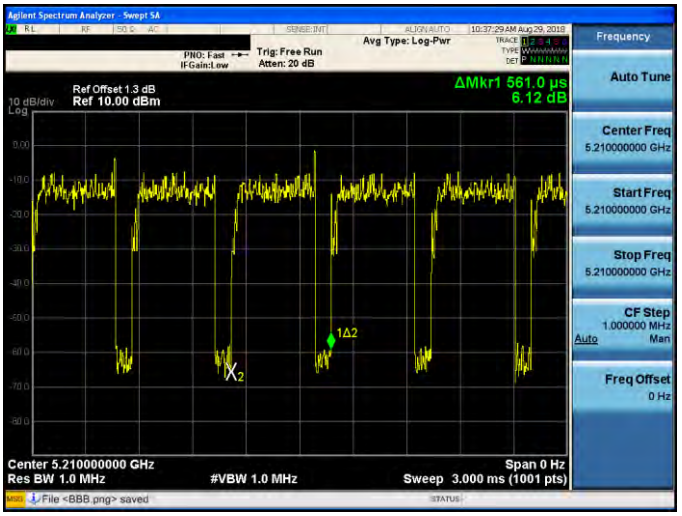
Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 2	5180.0	2.090	2.170	0.963	0.163	0.478
Mode 3	5180.0	1.960	2.020	0.970	0.131	0.510
Mode 4	5190.0	0.960	1.050	0.914	0.389	1.042
Mode 5	5210.0	0.477	0.561	0.850	0.704	2.096

Duty Cycle Graphs

Mode 2: IEEE 802.11a Continuous TX mode	
On time	
On+off time	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode	
On time	
On+off time	

Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode	
On time	
On+off time	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode	
On time	
On+off time	

3.2. EUT Test Step

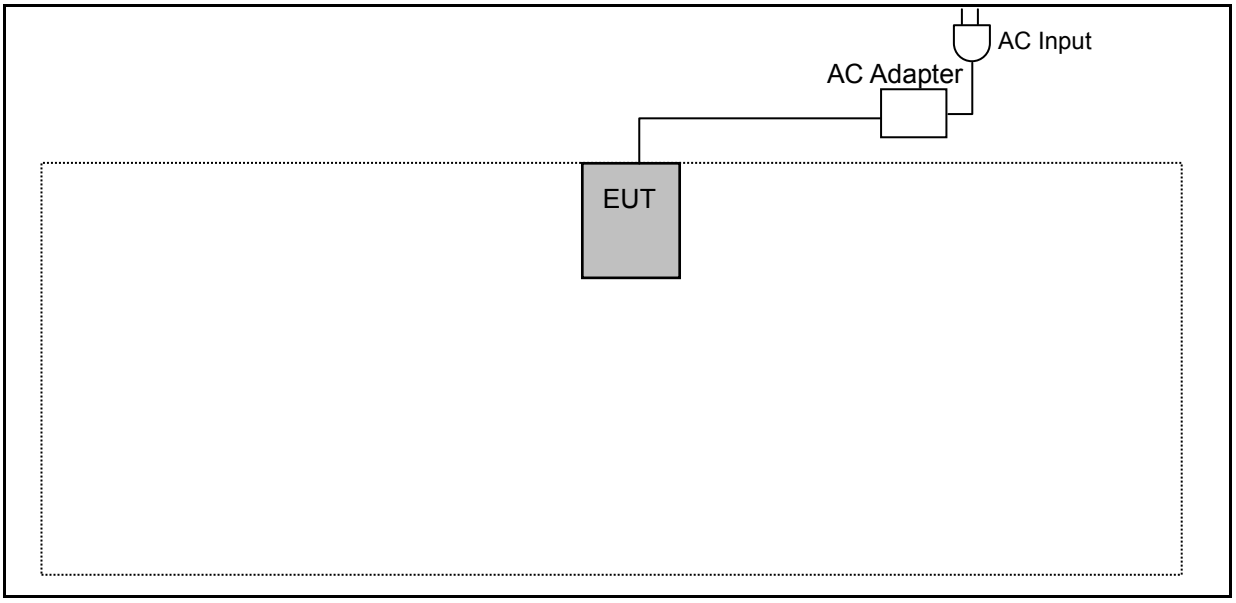
The EUT is operated in the engineering mode to fix the TX frequency for the purposes of measurement. According to its specifications, the EUT must comply with the requirements of Section 15.407 under the FCC Rules Part 15 Subpart E.

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

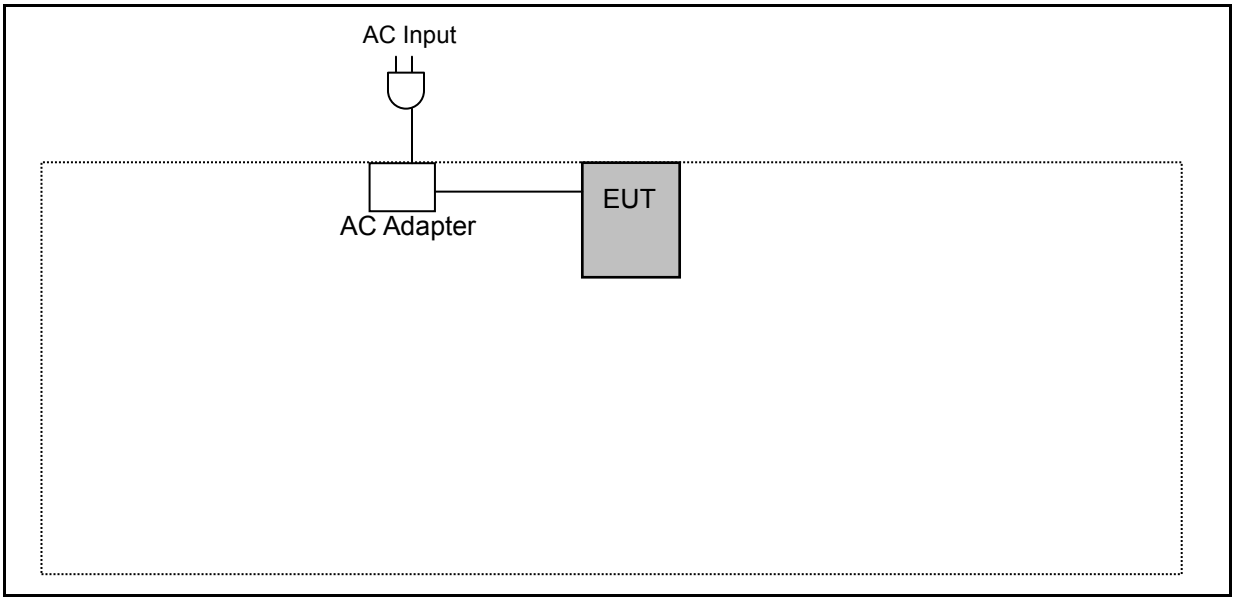
Measurement Software	
1	EZ-EMC Ver. ATL-03A1-1
2	EZ-EMC Ver ATL-ITC-3A1-1

3.3. Configuration of Test System Details

Conducted Emission



Radiated Emission



Devices Description					
Product		Manufacturer	Model Number	Serial Number	Power Cord
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3.4. Test Instruments

For Conducted Emission

Test Period: Aug. 30, 2018

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Test Receiver	R&S	ESCI	100367	05/21/2018	1 year
LISN	R&S	ENV216	101040	04/11/2018	1 year
LISN	R&S	ENV216	101041	03/23/2018	1 year
RF Cable	Woken	00100D1380194M	TE-02-03	05/17/2018	1 year

For Radiated Emissions

Test Period: Aug. 25 ~ Aug. 28, 2018

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
EXA Signal Analyzer (10 Hz~44 GHz)	Keysight	N9010A	MY52221312	01/15/2018	1 year
Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02237	10/16/2017	1 year
Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	01/10/2018	1 year
Broadband Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	416	10/26/2017	1 year
Horn Antenna (1~18 GHz)	ETS-Lindgren	3117	00128055	09/27/2017	1 year
Horn Antenna (18~40 GHz)	ETS	3116	86467	09/19/2017	1 year
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	03/13/2018	1 year
RF Cable	EMCI	EMC104-N-N-6000	TE01-1	02/20/2018	1 year
Microwave Cable	EMCI	EMC104-SM-SM-13000	170814	10/31/2017	1 year
Microwave Cable	EMCI	EMC102-KM-KM-14000	151001	02/20/2018	1 year

For Conducted
Test Period: Aug. 29 ~ Aug. 31, 2018

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Power Sensor	Agilent	N1921A	MY45241957	12/07/2017	1 year
Power Meter	Agilent	N1911A	MY45101619	12/07/2017	1 year
Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	09/21/2017	1 year
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	04/16/2018	1 year

3.5. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

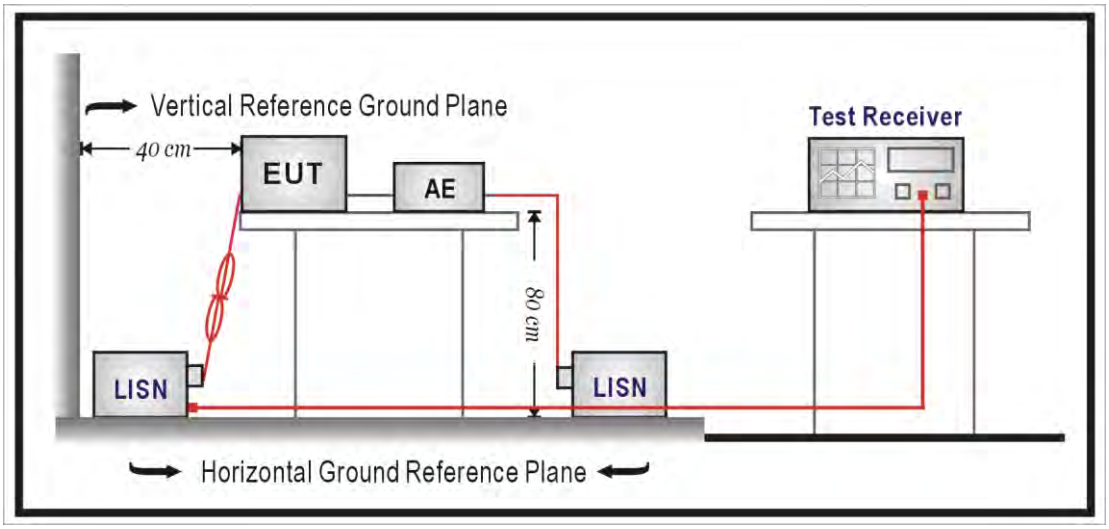
4 Measurement Procedure

4.1. AC Power 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 Ω // 50 uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50 Ω // 50 uH 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 40cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12mm 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 1m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4m. All of interconnecting cables that hang closer than 40cm 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 0.1m. 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. Transmitter Radiated Emissions Measurement

■ **Limit**

(1)Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(a)For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(b)For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(c)For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(d)For transmitters operating in the 5.725-5.85 GHz band:

(i)All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2)Limits of Radiated Emission Measurement

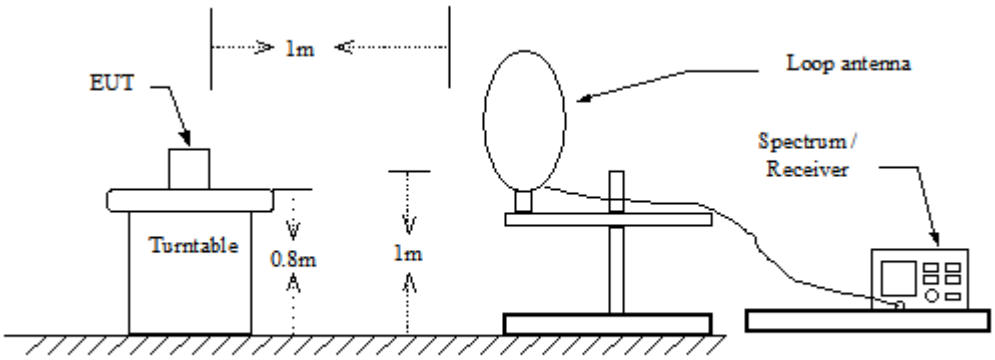
Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequency Range (MHz)	Field Strength (microvolts/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	10	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

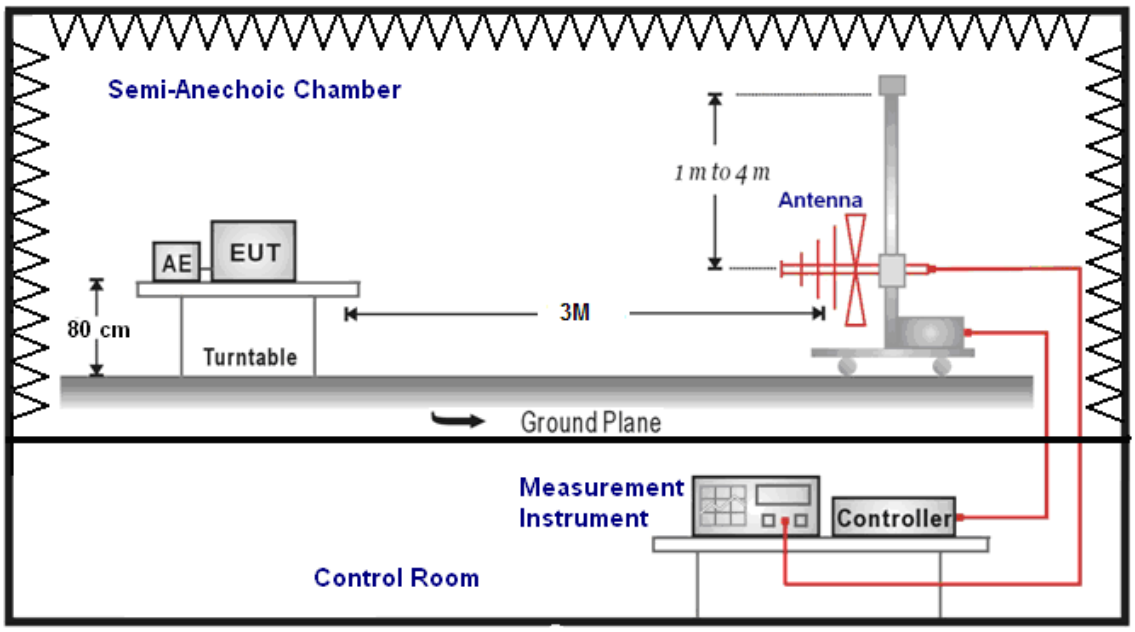
Note: 1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

■ **Setup**

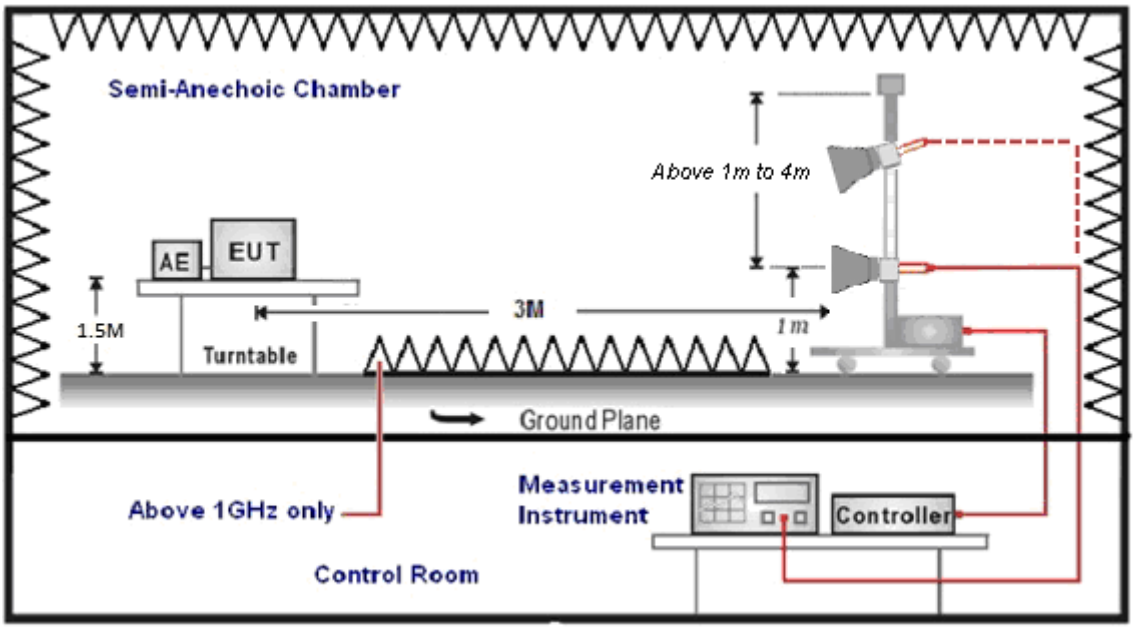
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz


Semi-Anechoic Chamber
Above 1m to 4m
AE
EUT
1.5M
3M
1m
Turntable
Ground Plane
Above 1GHz only
Measurement
Instrument
Controller
Control Room

■ **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(below 1 GHz use 0.8m turntable / above 1 GHz use 1.5m turntable), 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 40 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 restricted 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.

For out of band 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.

A nonconductive material surrounded the EUT to supporting the EUT for standing on tree 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 Trilog-Broadband Antenna at 3 Meter and the ETS-Lindgren Double-Ridged Waveguide Horn antnna Schwarzbeck Mess-Elektronik Broadband Horn Antenna was used in frequencies 1 – 40 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 (20dB/decade).

For testing above 1 GHz, the emission level of the EUT in peak mode was 20dB 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 colts 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) 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) 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

Measuring Instruments and setting

The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40 GHz
RBW/VBW(Emission in restricted band)	1 MHz / 3 MHz for Peak 1 MHz / (1/T) for Average
RBW/VBW(Emission in non-restricted band)	1 MHz / 3 MHz for Peak

4.3. Maximum Conducted Output Power Measurement & Additional Rule For Outdoor Operation

■ **Limit**

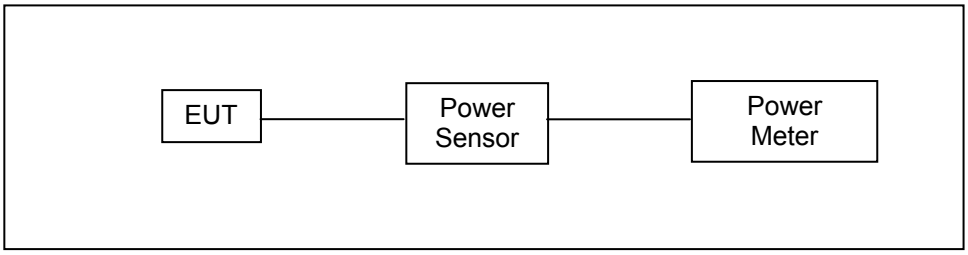
Frequency Range (MHz)	FCC Maximum Conducted Output Power Limit	Max_EIRP at any elevation angle > 30° form horizon
	Master	Outdoor AP Operation
5.150 ~ 5.250 GHz	The lesser of 1W (30dBm)	< 125 mW(21 dBm)
5.725 ~ 5.850 GHz	The lesser of 1W (30dBm)	NA

According FCC KDB 662911 D01 v02r01 – for power measurements on IEEE802.11 devices,

IEEE 802.11a / IEEE 802.11ac 20 MHz / IEEE 802.11ac 40 MHz / IEEE 802.11ac 80 MHz

＊ CDD/MIMO-STBC Directional Gain = Antenna Gain = 3.4 dBi < 6dBi

■ **Test Setup**



■ **Test Procedure**

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v02r01, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices
Section (E) Maximum Conducted Output Power
3. Measurement using a Power Meter (PM)
b) Method PM-G (Measurement using a gated RF average power meter)

EIRP evaluation according to 789033 D02 General UNII Test Procedures New Rules v02r01 H.(1)(b)
Antenna measurement results such as antenna report presentation.
H. Measurement of emission at elevation angle higher than 30° from horizon
1. For fixed infrastructure, not electrically or mechanically steerable beam antenna

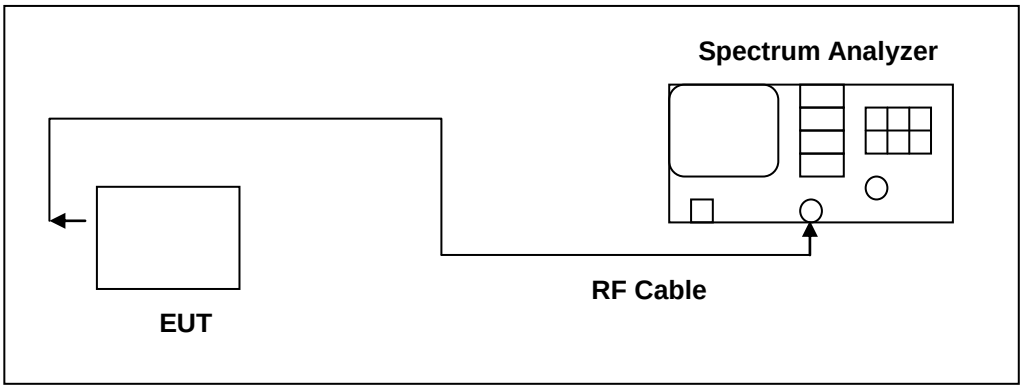
b) If elevation plane radiation pattern is not available, but the antenna type (such as dipole omnidirectional, Yagi, parabolic, or sector antenna) has symmetrical elevation plane pattern referenced at main beam and all lobes on the main beam elevation plane have highest gains, then the following measurement method is acceptable to determine compliance:

(i) Determine the device’ s intended mounting elevation angle referenced to the horizon.
(ii) Rotate EUT antenna by 90° around the main beam axis in horizontal position to transform measurement in elevation angle into azimuth angle and define 0° reference angle based on device’ s intended mounting elevation angle.
(iii) Move test antenna along the horizontal arc, or rotate the turn table with EUT antenna placed at the center, between 30° and 90° relative to the 0° reference angle, and then continuing down from 90° to 30° on the other side of the pattern, while maintaining the test antenna pointing with constant distance to the EUT antenna and search for the spot which
has the highest measured emission. Both horizontal and vertical polarization shall be investigated to find out the maximum radiated emission level.
Note: Moving of test antenna along the horizontal arc, or rotating the turn table, shall be performed in angular step size as small as possible, but not larger than 3°.
(iv) Calculate the EIRP based on the highest measured emission and compare to the limit of 125 mW to determine compliance.
(v) The antenna pattern measurements should be included in the filing.

4.4. 26dB RF Bandwidth Measurement

N/A

■ **Test Setup**



■ **Test Procedure**

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v02r01, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	>26 dB Bandwidth
RBW	Approximately 1 % of the emission bandwidth
VBW	VBW > RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

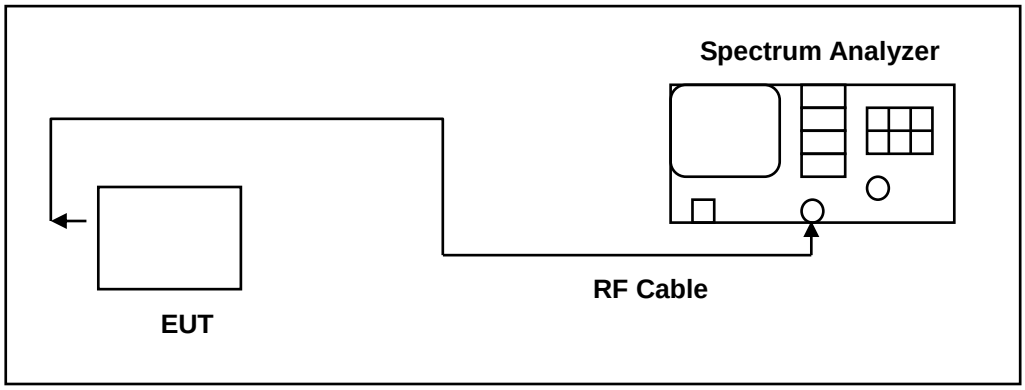
4.5. 6dB RF Bandwidth Measurement

■ **Limit**

6dB RF Bandwidth

Systems using digital modulation techniques may operate in the 5725~5850MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

■ **Test Setup**



■ **Test Procedure**

6dB RF Bandwidth

The EUT tested to UNII test procedure of KDB789033 D02 v02r01 for compliance to FCC 47CFR 15.407 requirements.

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW 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.

4.6. Maximum Power Spectral Density Measurement

■ **Limit**

Conducted power spectral density

Frequency Range (MHz)	FCC Limit
	Master
5.150 ~ 5.250 GHz	17 dBm/MHz
5.725 ~ 5.850 GHz	30 dBm/500 kHz

According FCC KDB 662911 D01 v02r01 – for power spectral density measurements on IEEE802.11 devices,

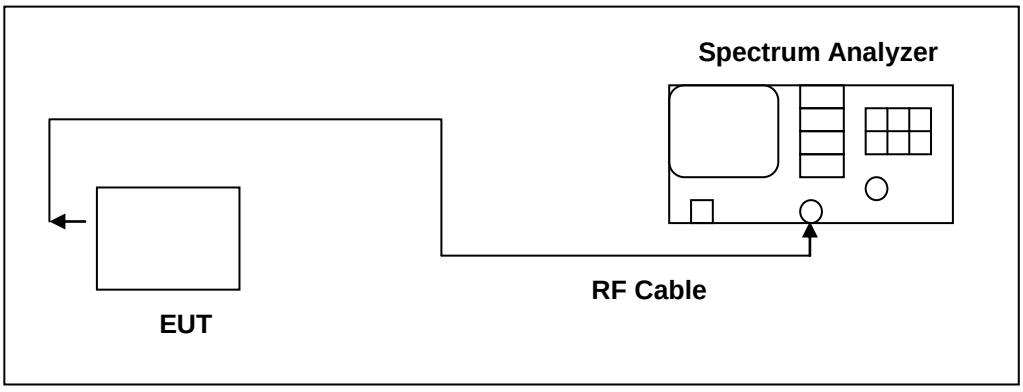
IEEE 802.11a

∗ CDD mode：Directional Gain = 10*log{[10^(G1/20)+10^(G2/20)+…+10^(Gn/20)]^2/NANT} = 6.41 dBi > 6dBi
CDD mode power limit shall be reduced = 17 – 0.41 = 16.59 dBm/MHz (5.150 ~ 5.250 GHz)
CDD mode power limit shall be reduced = 30 – 0.41 = 29.59 dBm/500 kHz (5.725 ~ 5.850 GHz)

IEEE 802.11ac 20 MHz / IEEE 802.11ac 40 MHz / IEEE 802.11ac 80 MHz

∗ MIMO-STBC mode：Directional Gain = Antenna Gain = 3.4 dBi < 6dBi

■ **Test Setup**



■ **Test Procedure**

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v02r01, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

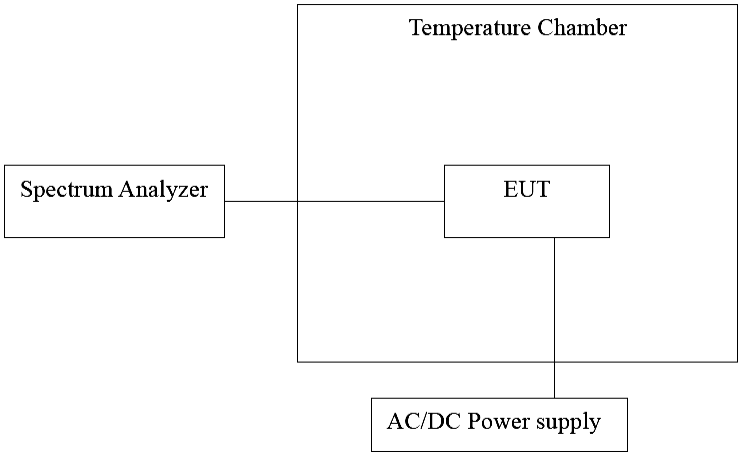
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1 MHz (5725 ~ 5850 MHz use 100 kHz)
VBW	3 MHz (5725 ~ 5850 MHz use 300 kHz)
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times
Note: If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/100kHz) to the measured result.	

4.7. Frequency Stability Measurement

■ **Limit**

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

■ **Test Setup**



■ **Test Procedure**

1. The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.8. Automatically discontinue transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

■ **Declare**

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

4.9. Antenna Requirement

■ **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 15.407 (a), 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 Connector Construction**

See section 2 – antenna information.

■ **Directional Gain Calculated**

For Maximum Conducted Output Power

Operate Freq. Band		Directional Gain (dBi)
IEEE 802.11a	U-NII Band I	3.4
	U-NII Band III	3.4
IEEE 802.11ac 20MHz	U-NII Band I	3.4
	U-NII Band III	3.4
IEEE 802.11ac 40MHz	U-NII Band I	3.4
	U-NII Band III	3.4
IEEE 802.11ac 80MHz	U-NII Band I	3.4
	U-NII Band III	3.4

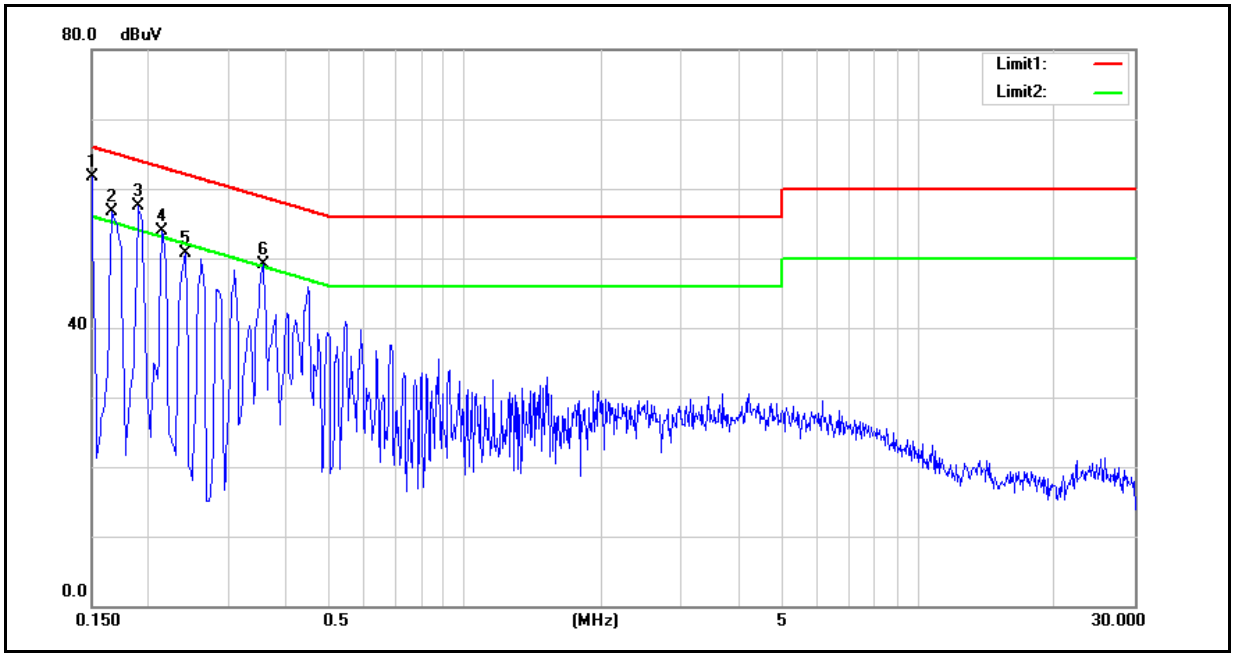
For Maximum Power Density

Operate Freq. Band		Directional Gain (dBi)
IEEE 802.11a	U-NII Band I	6.41
	U-NII Band III	6.41
IEEE 802.11ac 20MHz	U-NII Band I	3.4
	U-NII Band III	3.4
IEEE 802.11ac 40MHz	U-NII Band I	3.4
	U-NII Band III	3.4
IEEE 802.11ac 80MHz	U-NII Band I	3.4
	U-NII Band III	3.4

5 Test Results

5.1. AC Power Conducted Emission Measurement

Standard:	FCC Part 15.407	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode:	Mode 1	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Description:	AC Adapter: AD2083329		

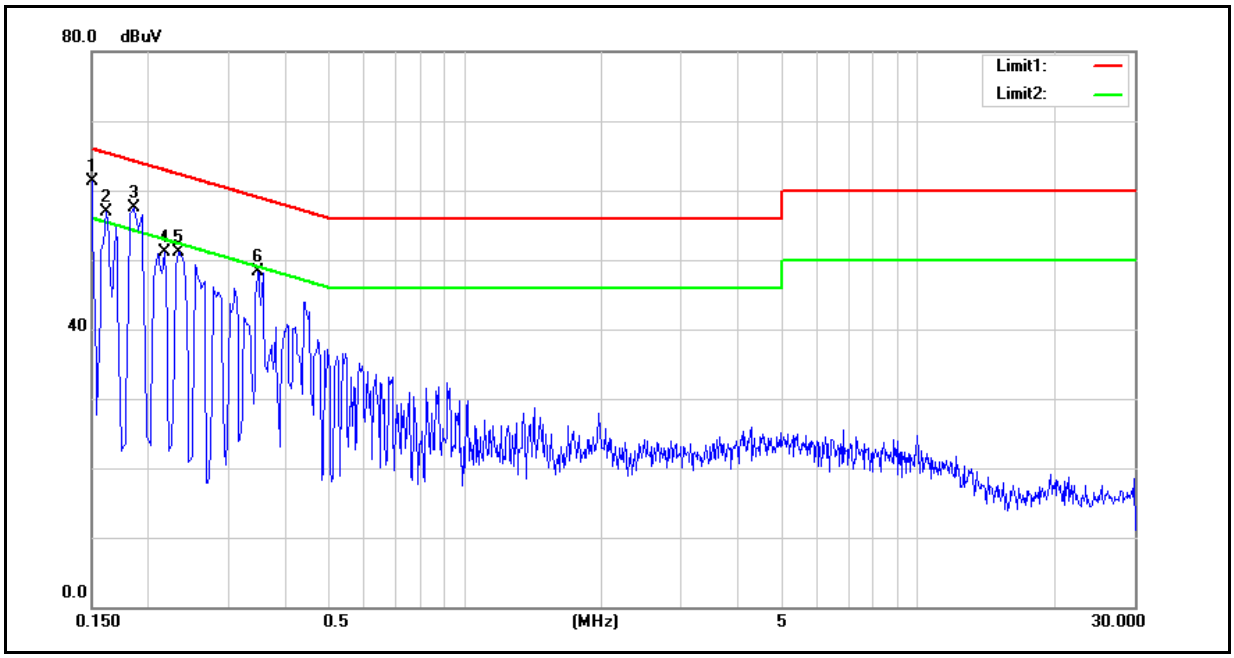


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	48.36	33.42	9.59	57.95	43.01	66.00	56.00	-8.05	-12.99	Pass
2	0.1660	44.40	28.07	9.60	54.00	37.67	65.16	55.16	-11.16	-17.49	Pass
3	0.1900	43.58	28.63	9.60	53.18	38.23	64.04	54.04	-10.86	-15.81	Pass
4	0.2140	40.41	24.89	9.60	50.01	34.49	63.05	53.05	-13.04	-18.56	Pass
5	0.2420	37.12	22.57	9.60	46.72	32.17	62.03	52.03	-15.31	-19.86	Pass
6	0.3580	34.52	23.45	9.60	44.12	33.05	58.77	48.77	-14.65	-15.72	Pass

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

Standard:	FCC Part 15.407	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode:	Mode 1	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Description:	AC Adapter: AD2083329		

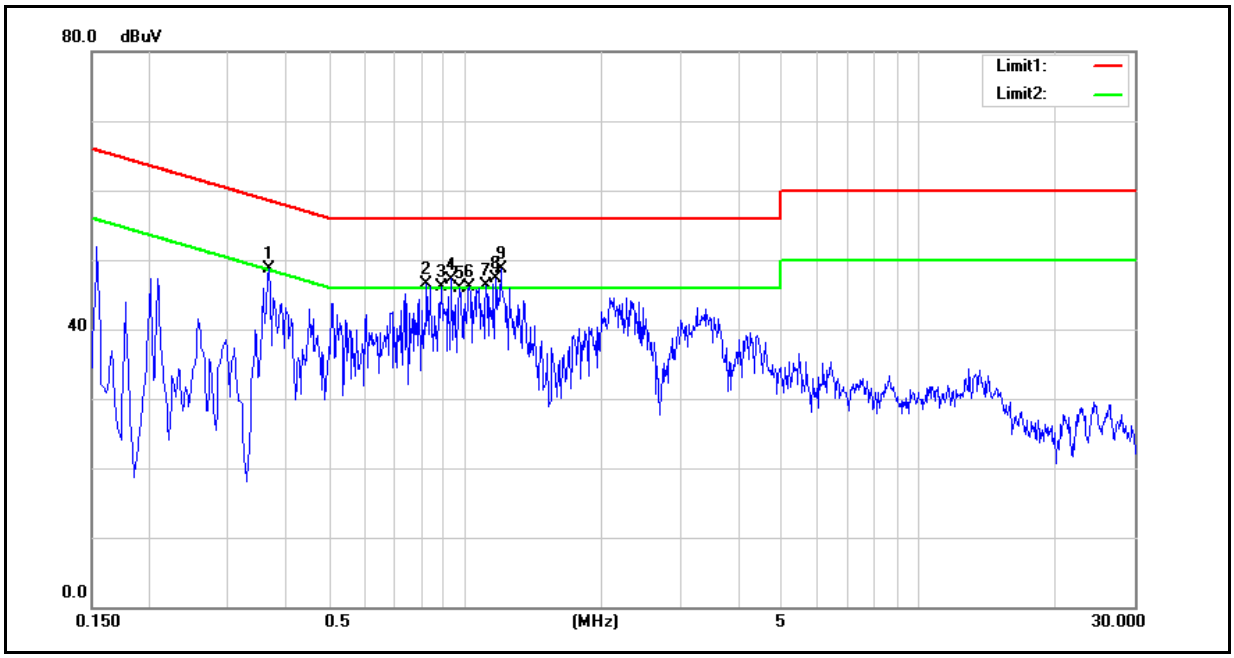


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	47.69	32.74	9.70	57.39	42.44	66.00	56.00	-8.61	-13.56	Pass
2	0.1620	44.45	27.64	9.71	54.16	37.35	65.36	55.36	-11.20	-18.01	Pass
3	0.1860	43.57	28.14	9.70	53.27	37.84	64.21	54.21	-10.94	-16.37	Pass
4	0.2180	38.28	23.60	9.70	47.98	33.30	62.89	52.89	-14.91	-19.59	Pass
5	0.2340	37.57	22.52	9.70	47.27	32.22	62.31	52.31	-15.04	-20.09	Pass
6	0.3500	32.72	18.57	9.70	42.42	28.27	58.96	48.96	-16.54	-20.69	Pass

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

Standard:	FCC Part 15.407	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode:	Mode 1	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Description:	AC Adapter: 2ACS005B		

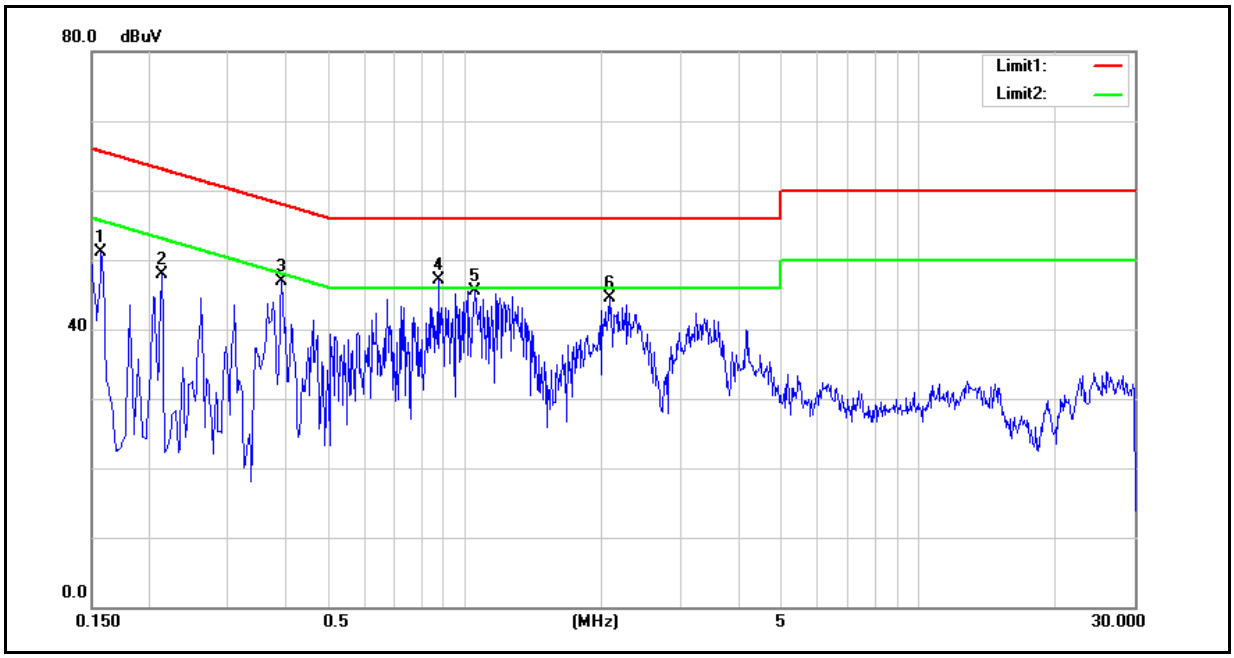


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.3700	36.37	25.34	9.60	45.97	34.94	58.50	48.50	-12.53	-13.56	Pass
2	0.8260	31.53	23.10	9.62	41.15	32.72	56.00	46.00	-14.85	-13.28	Pass
3	0.8860	31.82	23.42	9.63	41.45	33.05	56.00	46.00	-14.55	-12.95	Pass
4	0.9340	32.82	23.80	9.63	42.45	33.43	56.00	46.00	-13.55	-12.57	Pass
5	0.9700	33.00	23.02	9.63	42.63	32.65	56.00	46.00	-13.37	-13.35	Pass
6	1.0260	33.03	23.68	9.63	42.66	33.31	56.00	46.00	-13.34	-12.69	Pass
7	1.1140	32.60	23.32	9.63	42.23	32.95	56.00	46.00	-13.77	-13.05	Pass
8	1.1660	33.14	23.31	9.63	42.77	32.94	56.00	46.00	-13.23	-13.06	Pass
9	1.2020	32.45	23.51	9.64	42.09	33.15	56.00	46.00	-13.91	-12.85	Pass

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

Standard:	FCC Part 15.407	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode:	Mode 1	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Description:	AC Adapter: 2ACS005B		



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1580	34.00	17.57	9.71	43.71	27.28	65.57	55.57	-21.86	-28.29	Pass
2	0.2140	29.21	12.74	9.70	38.91	22.44	63.05	53.05	-24.14	-30.61	Pass
3	0.3940	30.28	18.98	9.71	39.99	28.69	57.98	47.98	-17.99	-19.29	Pass
4	0.8740	30.12	20.95	9.72	39.84	30.67	56.00	46.00	-16.16	-15.33	Pass
5	1.0500	31.32	21.80	9.73	41.05	31.53	56.00	46.00	-14.95	-14.47	Pass
6	2.0780	28.77	19.46	9.77	38.54	29.23	56.00	46.00	-17.46	-16.77	Pass

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

5.2. Transmitter Radiated Emissions Measurement

Below 1 GHz

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Test Mode:	Mode 1	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Description:	AC Adapter: AD2083329		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
191.9900	41.53	-7.64	33.89	43.50	-9.61	QP	H
232.7300	39.57	-6.66	32.91	46.00	-13.09	QP	H
296.7500	41.82	-3.79	38.03	46.00	-7.97	QP	H
399.5700	38.95	-1.79	37.16	46.00	-8.84	QP	H
493.6600	34.69	0.08	34.77	46.00	-11.23	QP	H
776.9000	30.73	5.92	36.65	46.00	-9.35	QP	H
72.6800	42.23	-9.16	33.07	40.00	-6.93	QP	V
120.2100	42.29	-8.29	34.00	43.50	-9.50	QP	V
233.7000	37.75	-6.59	31.16	46.00	-14.84	QP	V
322.9400	37.43	-3.34	34.09	46.00	-11.91	QP	V
580.9600	31.58	1.94	33.52	46.00	-12.48	QP	V
775.9300	31.21	5.92	37.13	46.00	-8.87	QP	V

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Test Mode:	Mode 1	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Description:	AC Adapter: 2ACS005B		

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
168.7100	43.78	-5.64	38.14	43.50	-5.36	QP	H
257.9500	45.82	-5.35	40.47	46.00	-5.53	QP	H
332.6400	42.08	-3.18	38.90	46.00	-7.10	QP	H
399.5700	40.75	-1.79	38.96	46.00	-7.04	QP	H
516.9400	37.19	0.45	37.64	46.00	-8.36	QP	H
866.1400	29.14	7.41	36.55	46.00	-9.45	QP	H
168.7100	41.72	-5.64	36.08	43.50	-7.42	QP	V
258.9200	45.10	-5.31	39.79	46.00	-6.21	QP	V
400.5400	37.92	-1.77	36.15	46.00	-9.85	QP	V
477.1700	35.09	-0.09	35.00	46.00	-11.00	QP	V
515.9700	41.31	0.44	41.75	46.00	-4.25	QP	V
737.1300	30.21	5.21	35.42	46.00	-10.58	QP	V

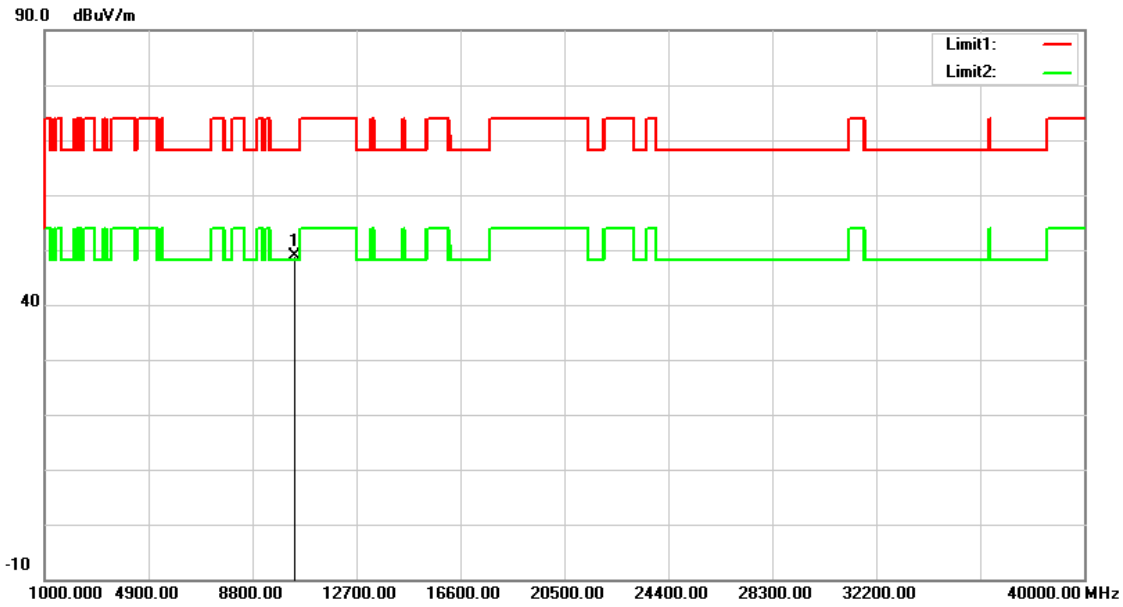
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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.

Above 1 GHz

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



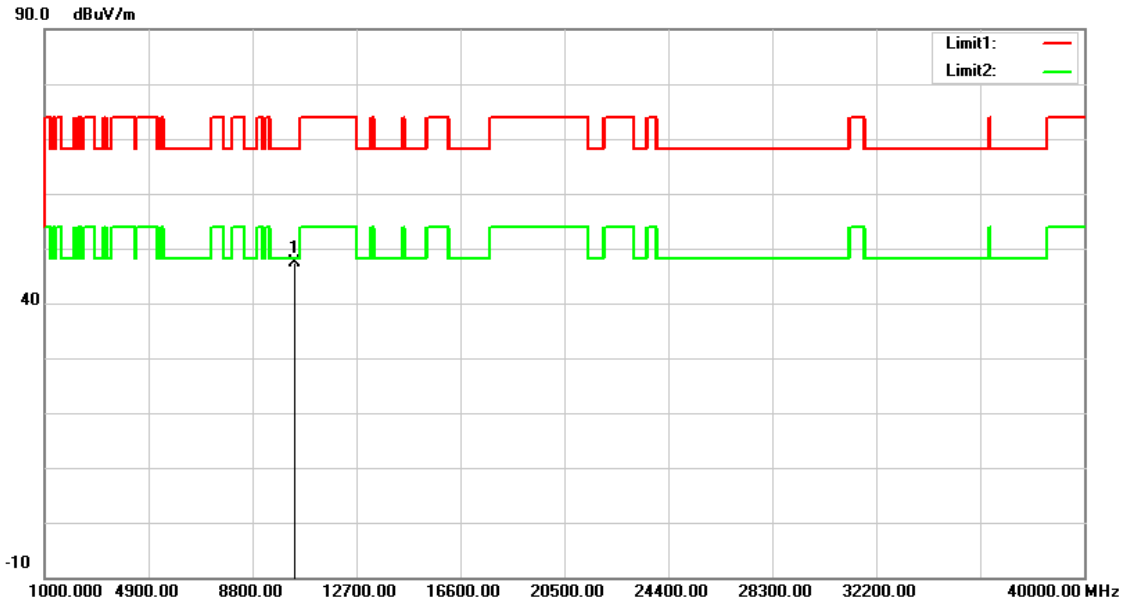
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10360.000	31.74	17.07	48.81	68.20	-19.39	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



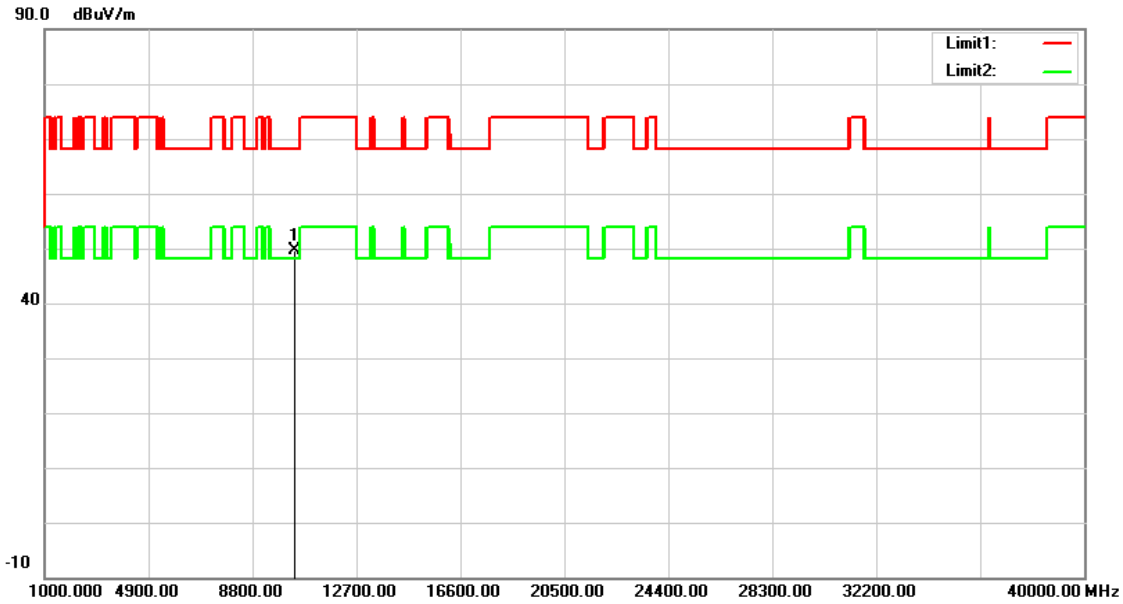
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10360.000	30.24	17.07	47.31	68.20	-20.89	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5200 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



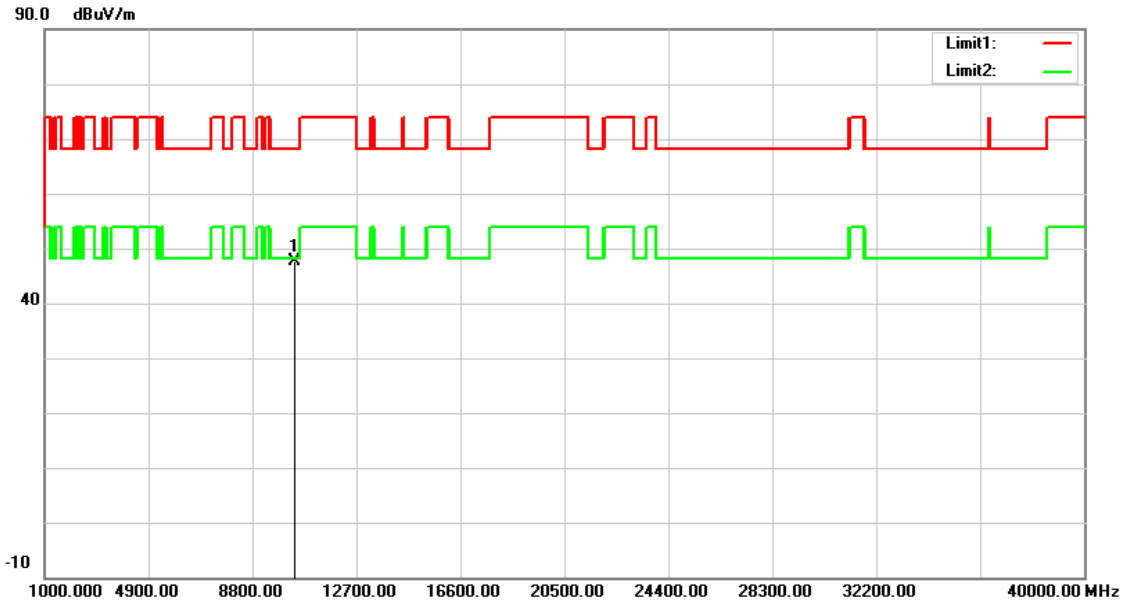
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10400.000	32.47	17.19	49.66	68.20	-18.54	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5200 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



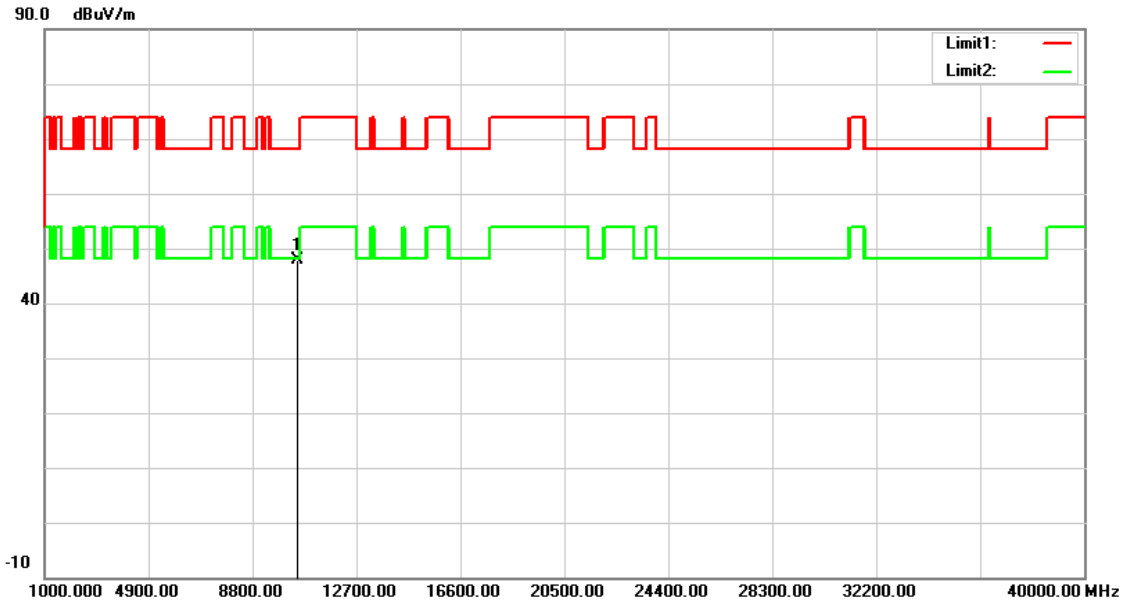
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10400.000	30.42	17.19	47.61	68.20	-20.59	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



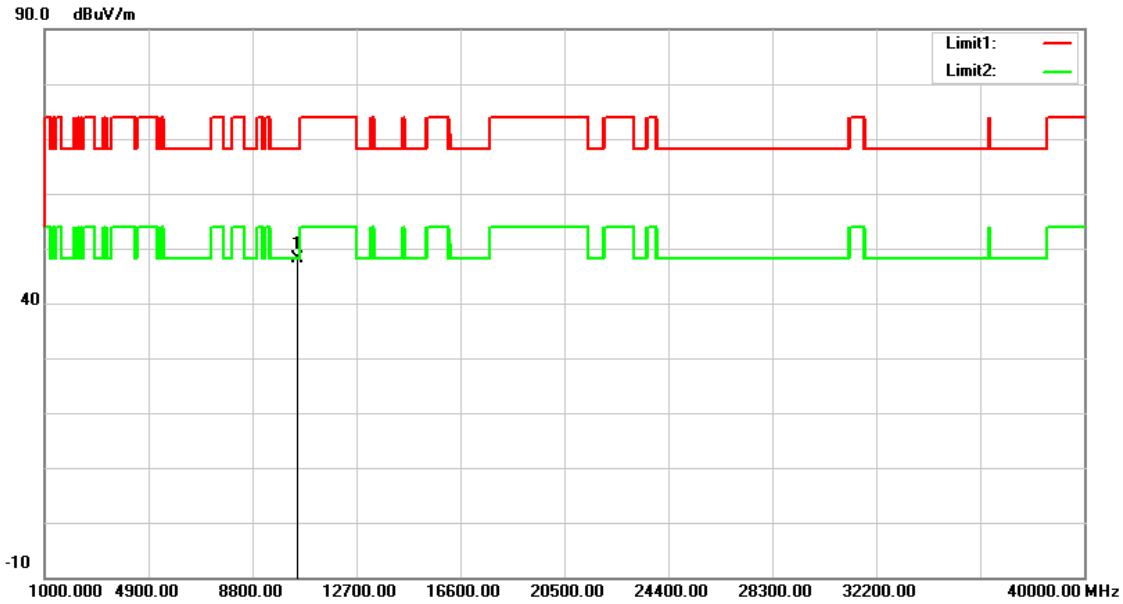
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10480.000	30.48	17.43	47.91	68.20	-20.29	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



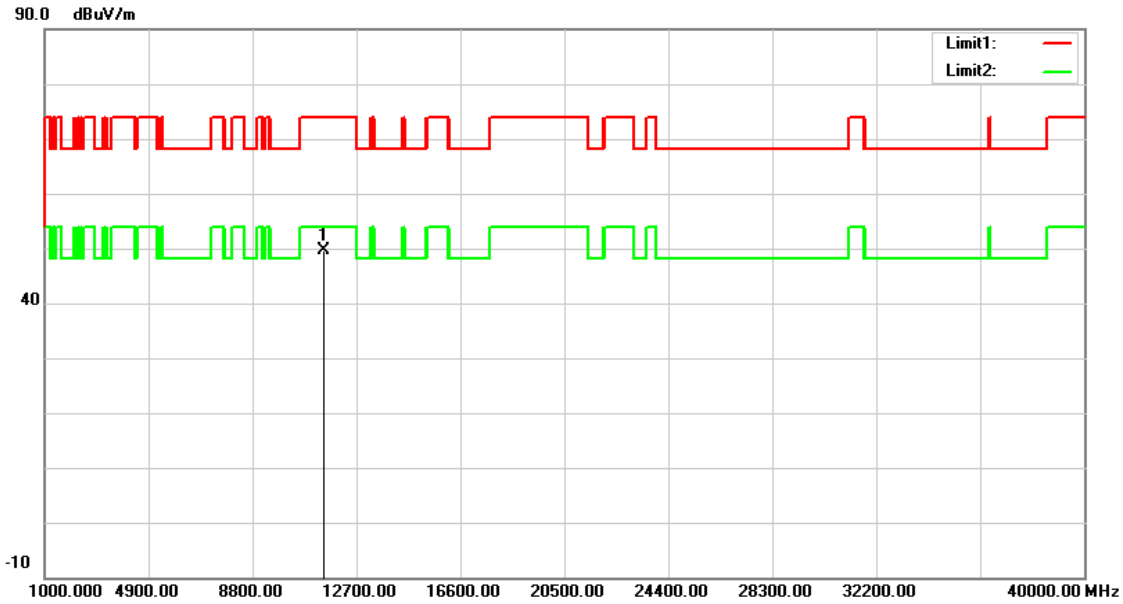
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10480.000	30.71	17.43	48.14	68.20	-20.06	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



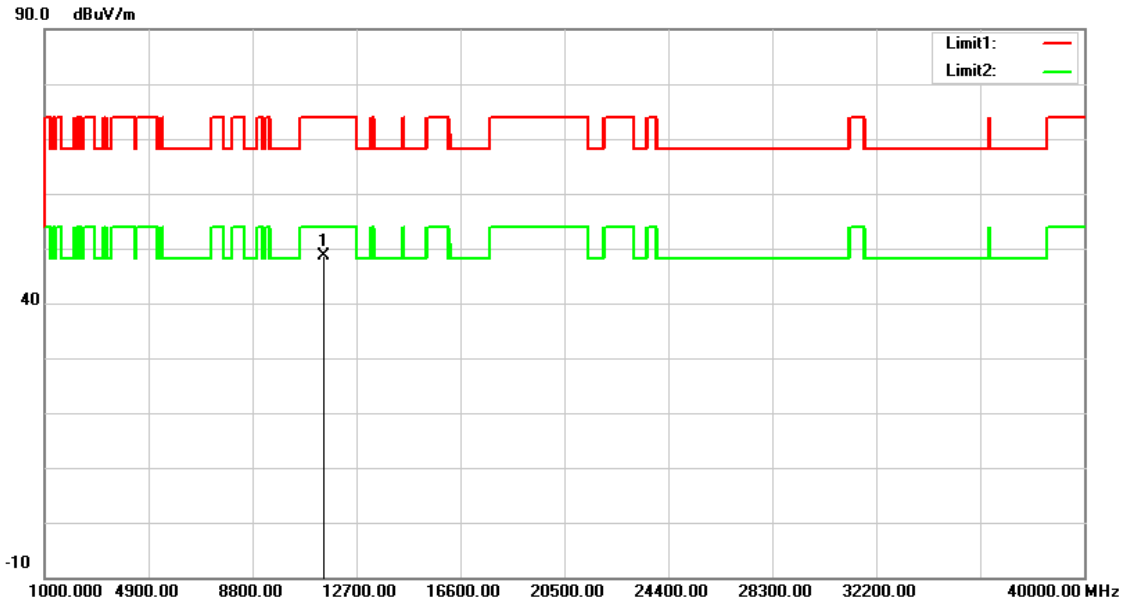
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11490.000	30.58	19.07	49.65	74.00	-24.35	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



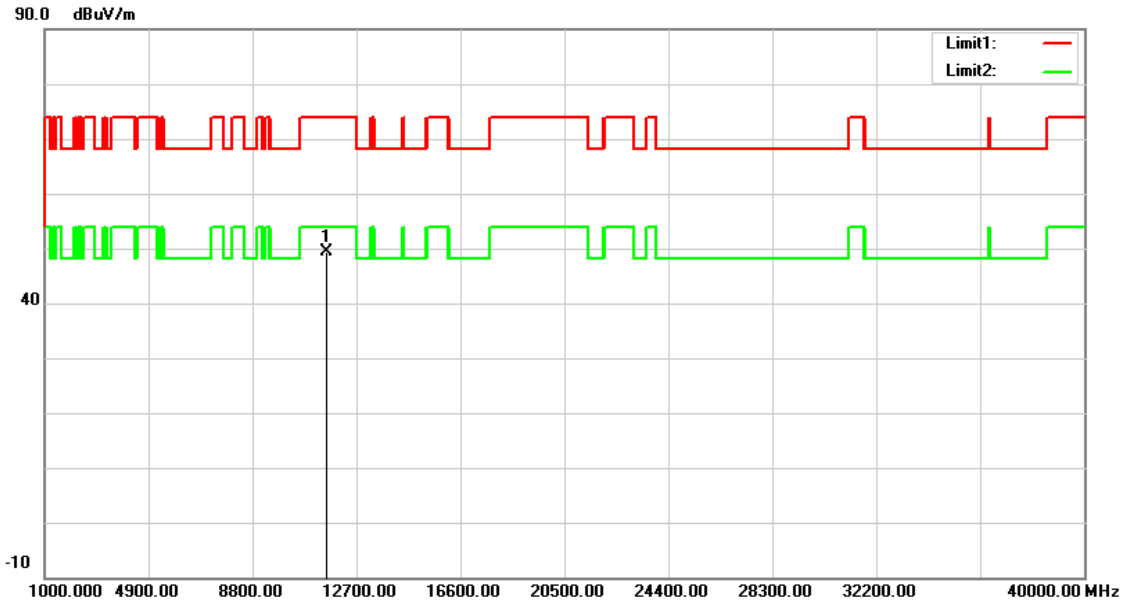
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11490.000	29.56	19.07	48.63	74.00	-25.37	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5785 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



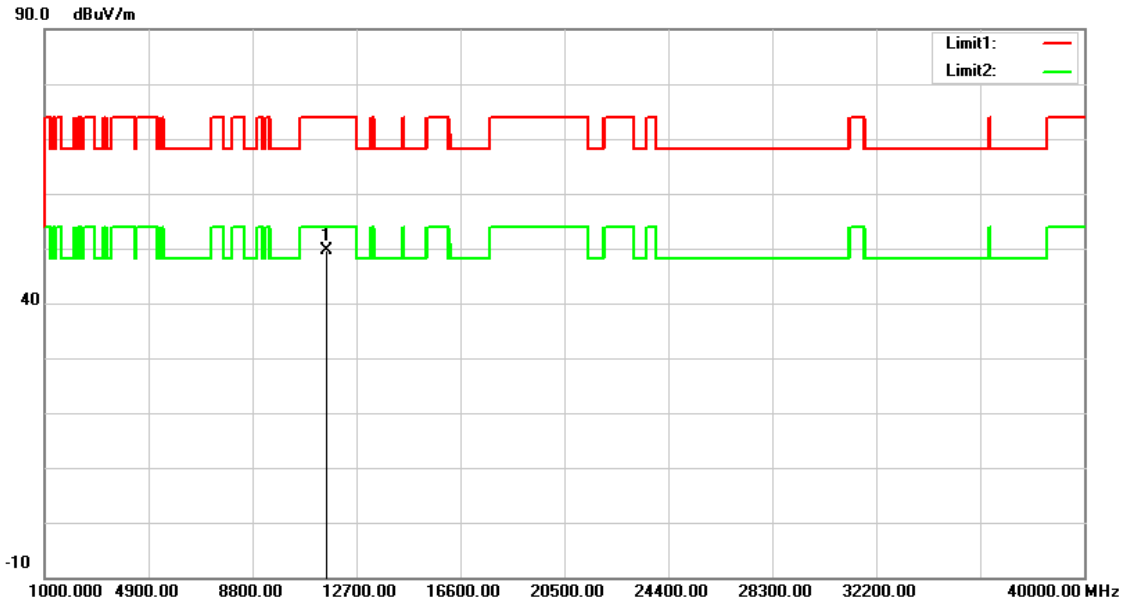
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11570.000	30.44	18.98	49.42	74.00	-24.58	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5785 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



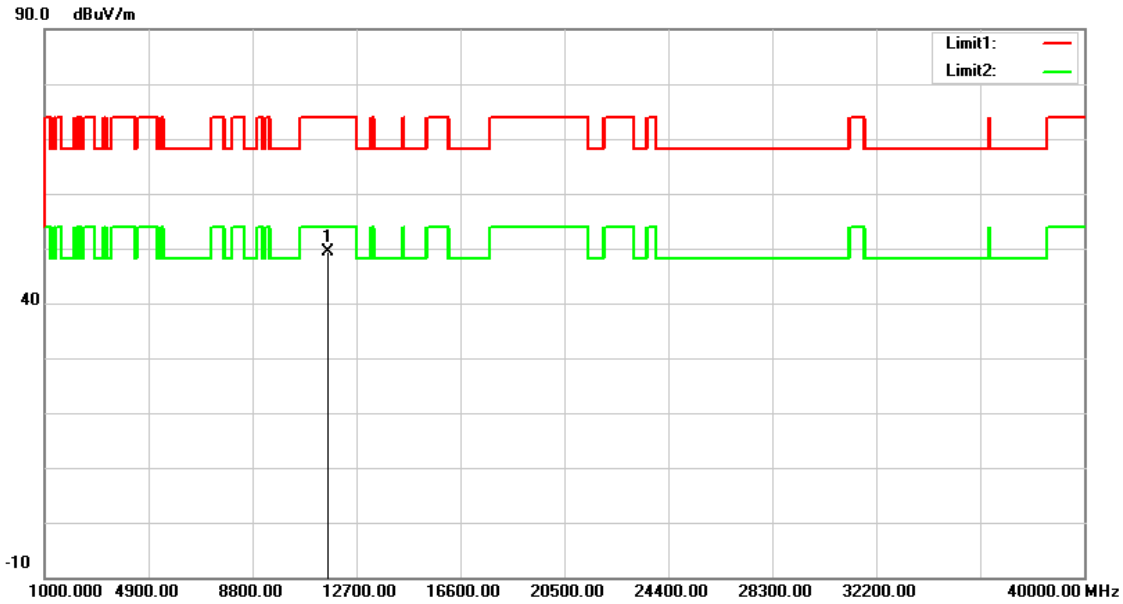
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11570.000	30.54	18.98	49.52	74.00	-24.48	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



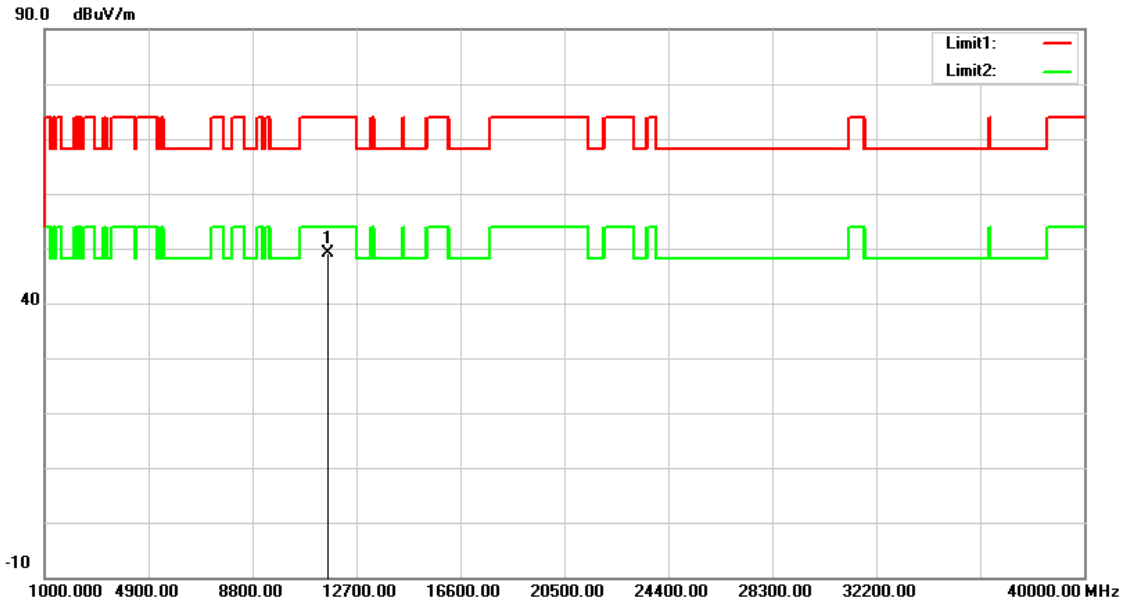
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11650.000	30.47	18.87	49.34	74.00	-24.66	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



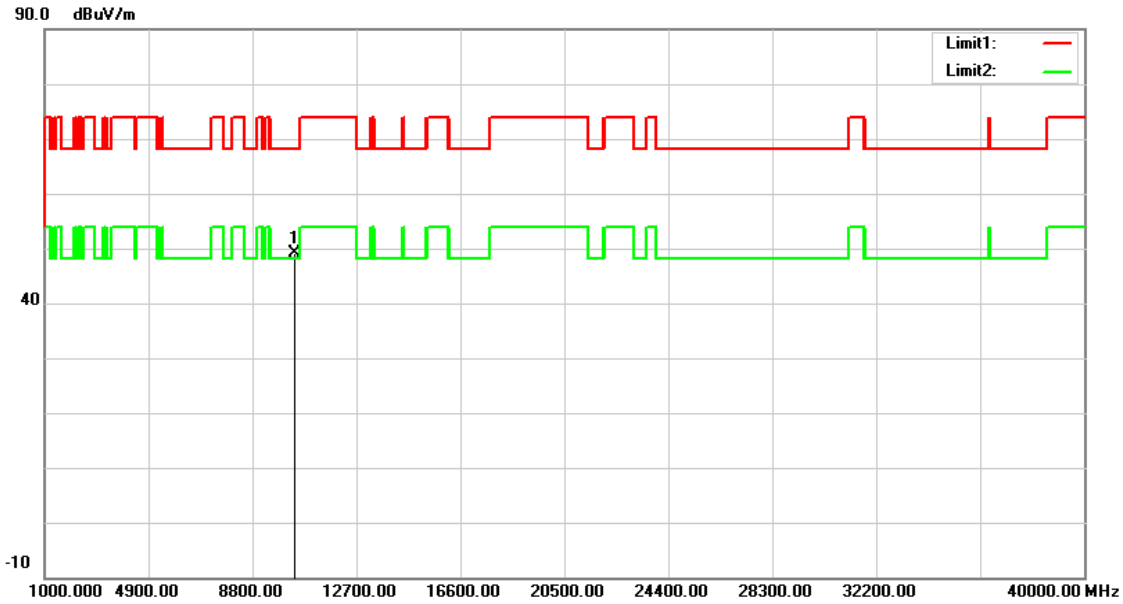
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11650.000	30.18	18.87	49.05	74.00	-24.95	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



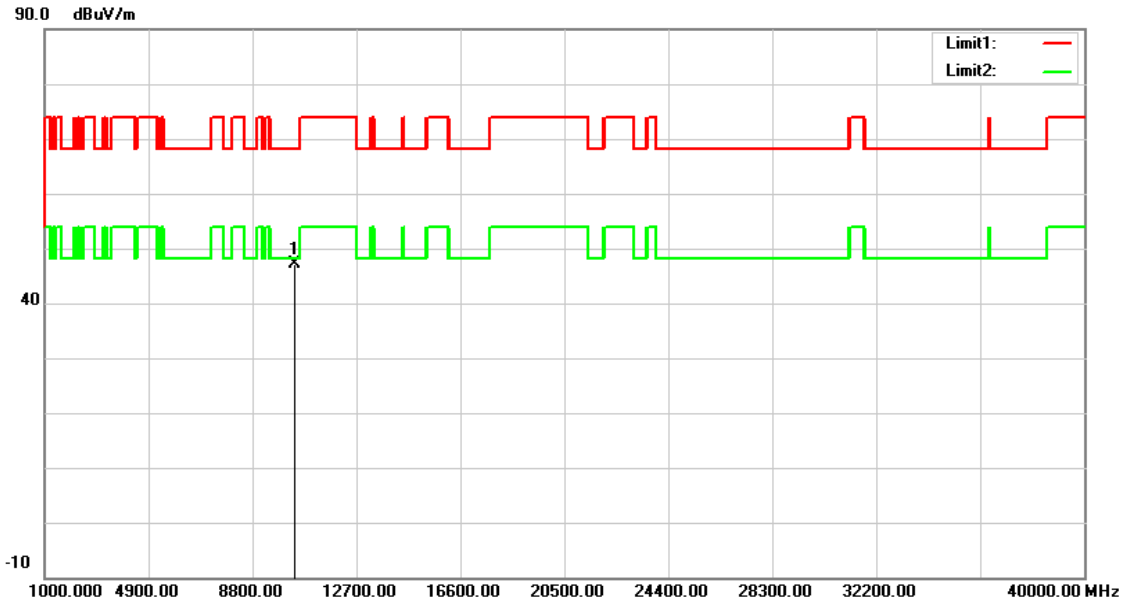
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10360.000	32.03	17.07	49.10	68.20	-19.10	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



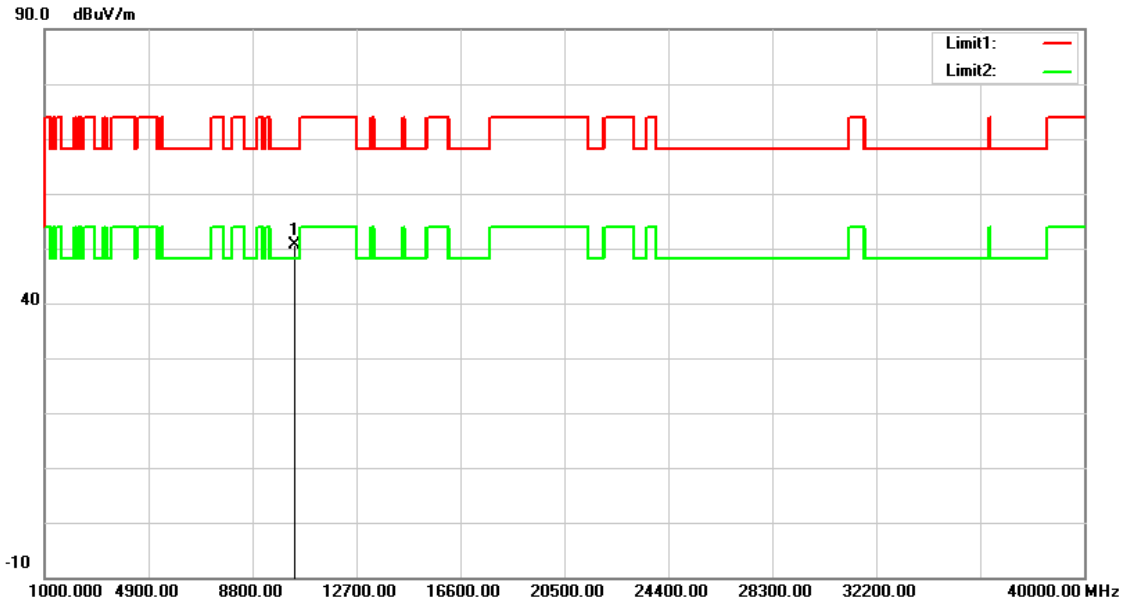
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10360.000	30.17	17.07	47.24	68.20	-20.96	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5200 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



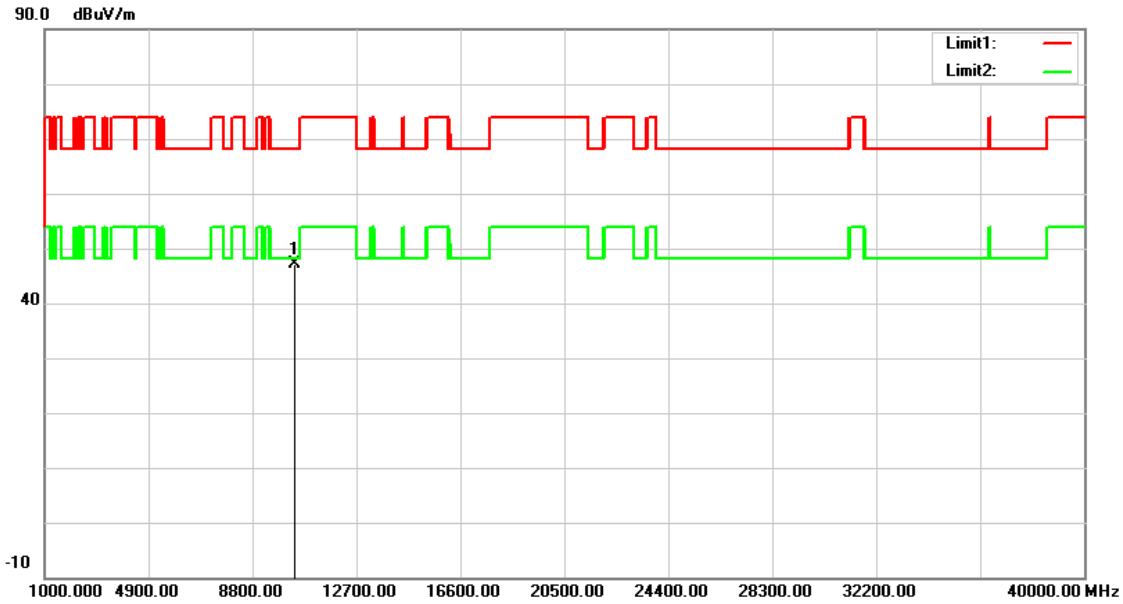
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10400.000	33.32	17.19	50.51	68.20	-17.69	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5200 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



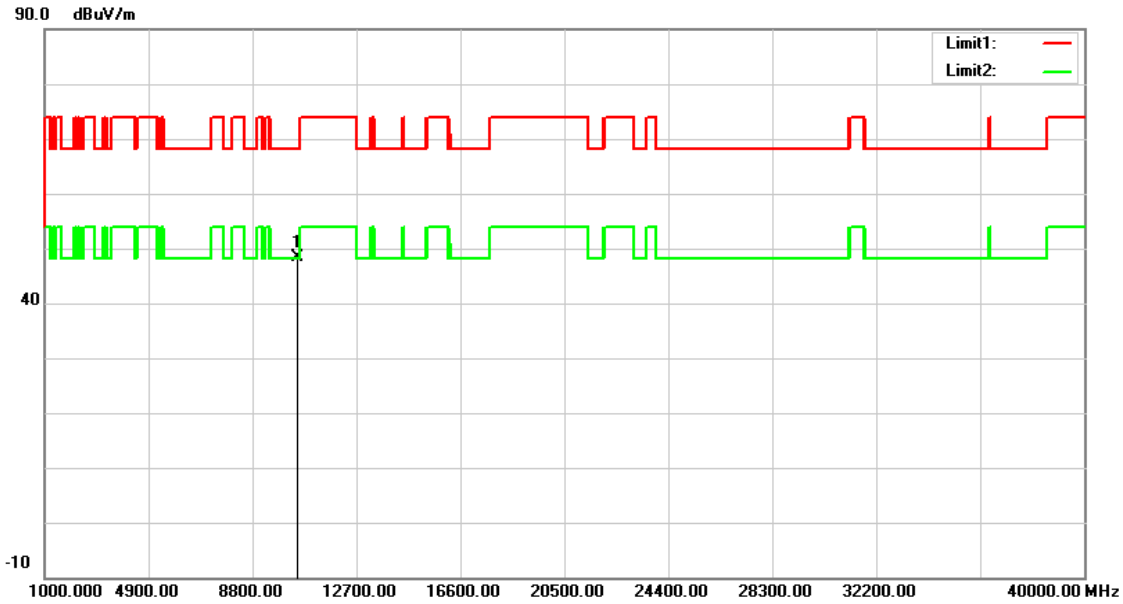
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10400.000	30.04	17.19	47.23	68.20	-20.97	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



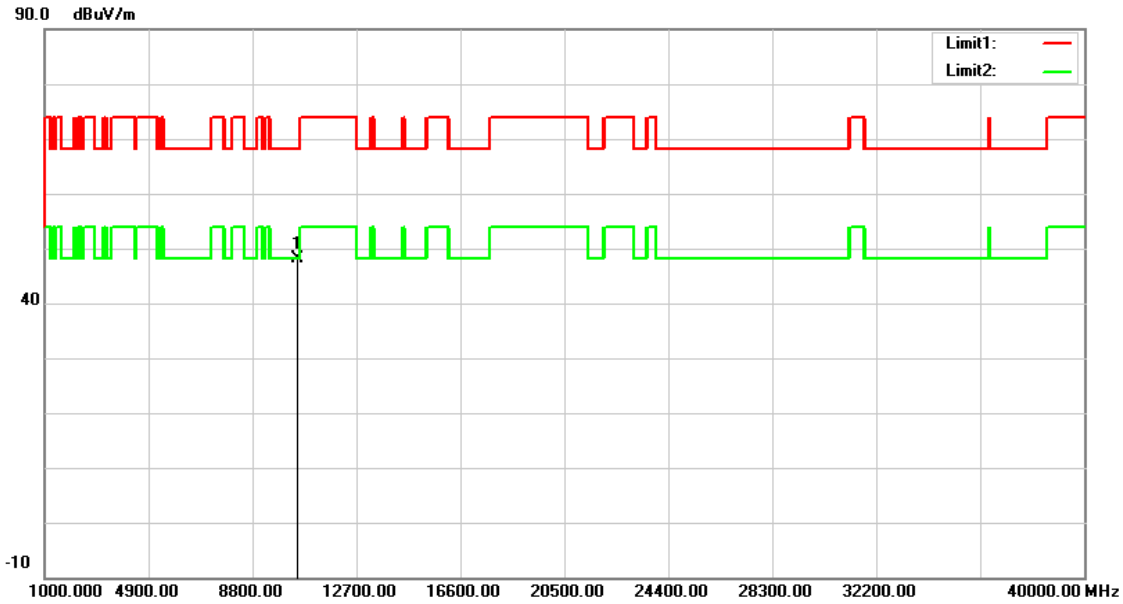
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10480.000	31.06	17.43	48.49	68.20	-19.71	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



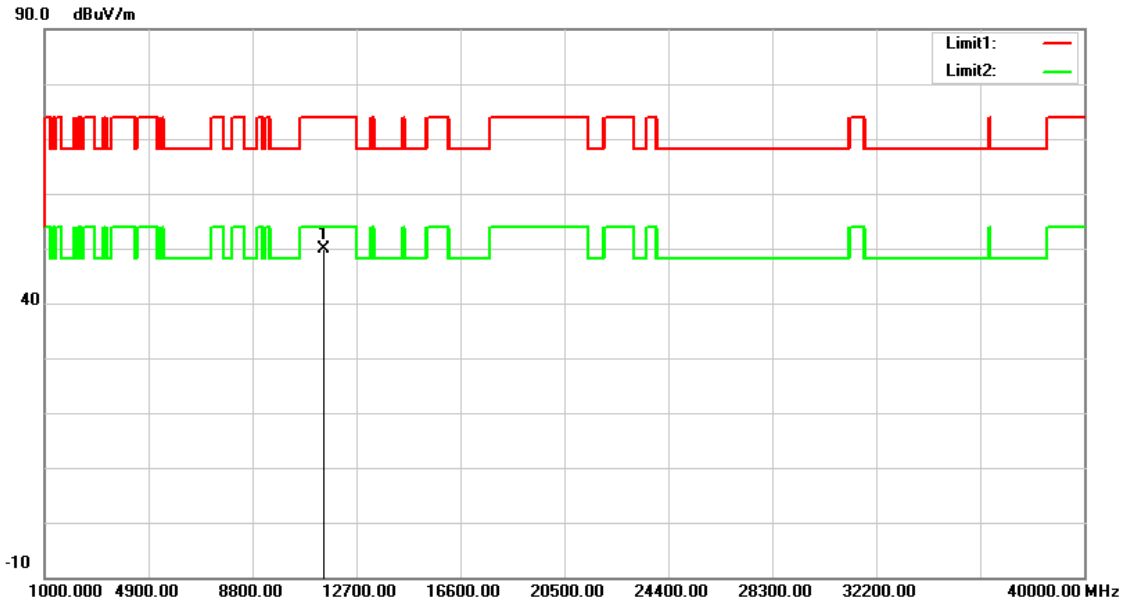
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10480.000	30.72	17.43	48.15	68.20	-20.05	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



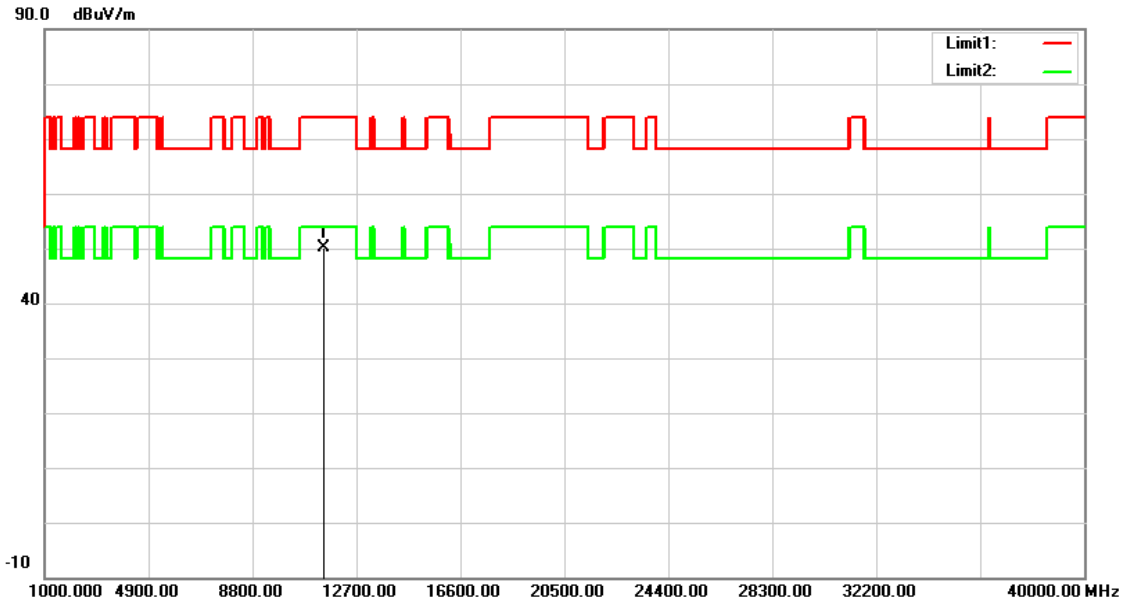
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11490.000	30.77	19.07	49.84	74.00	-24.16	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



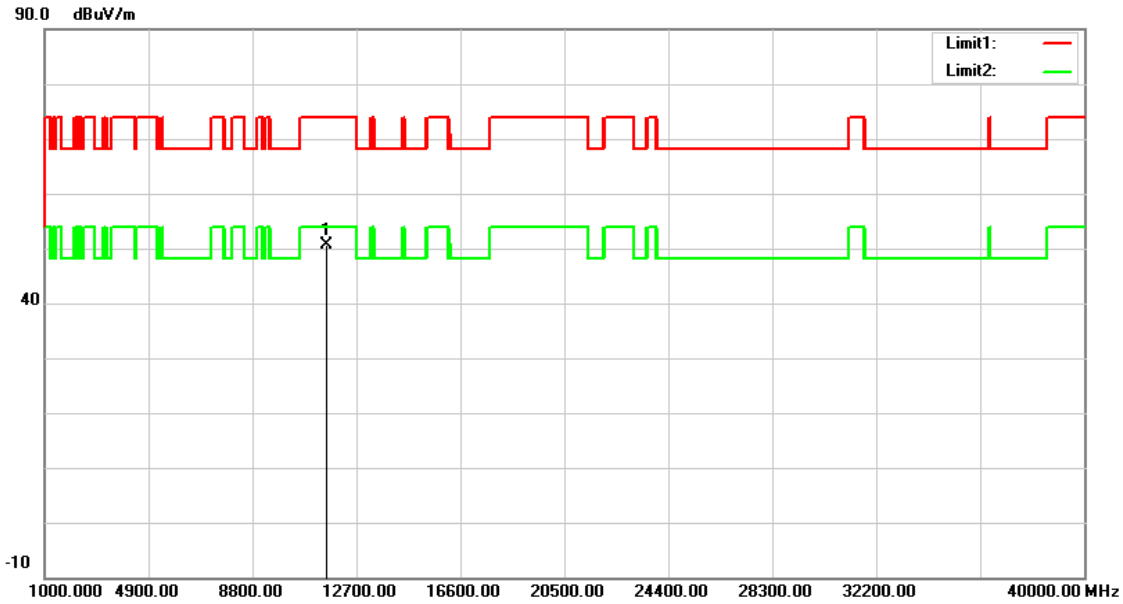
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11490.000	31.16	19.07	50.23	74.00	-23.77	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5785 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



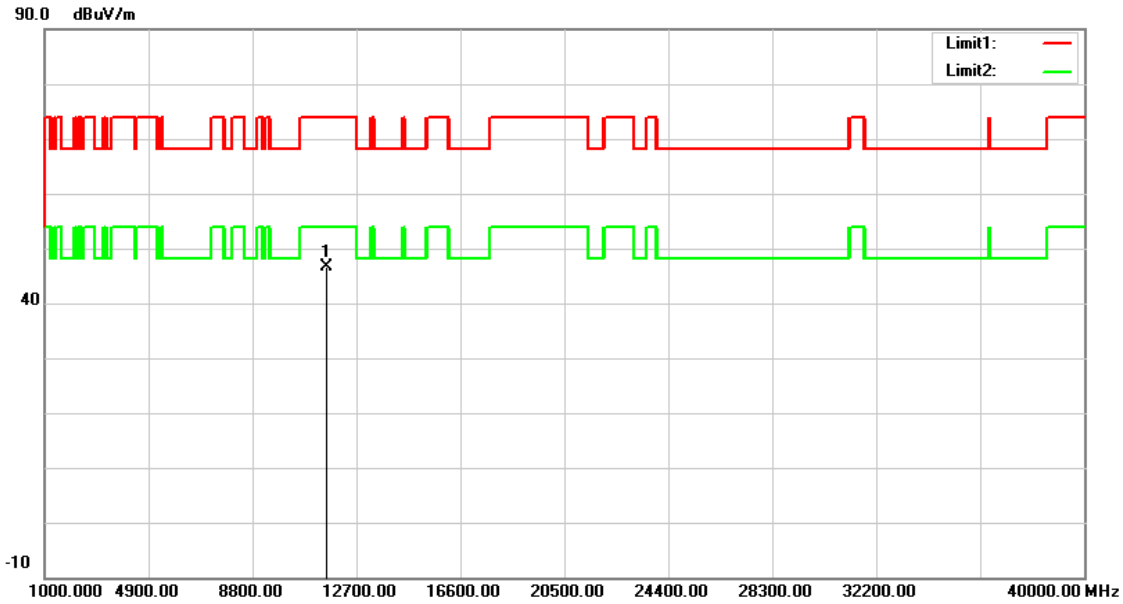
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11570.000	31.58	18.98	50.56	74.00	-23.44	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5785 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



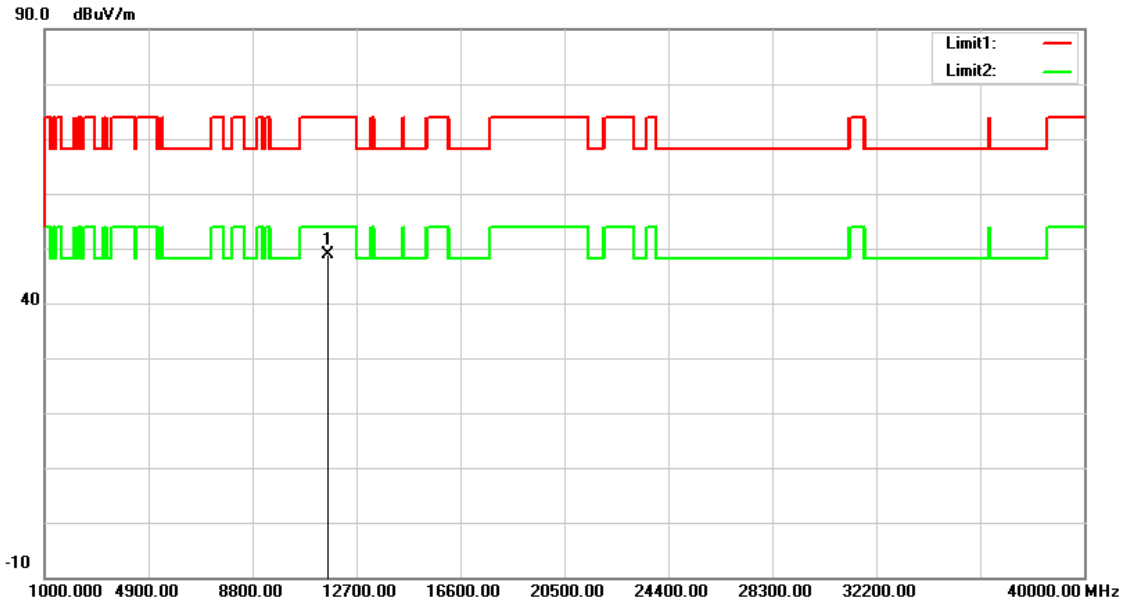
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11570.000	27.56	18.98	46.54	74.00	-27.46	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



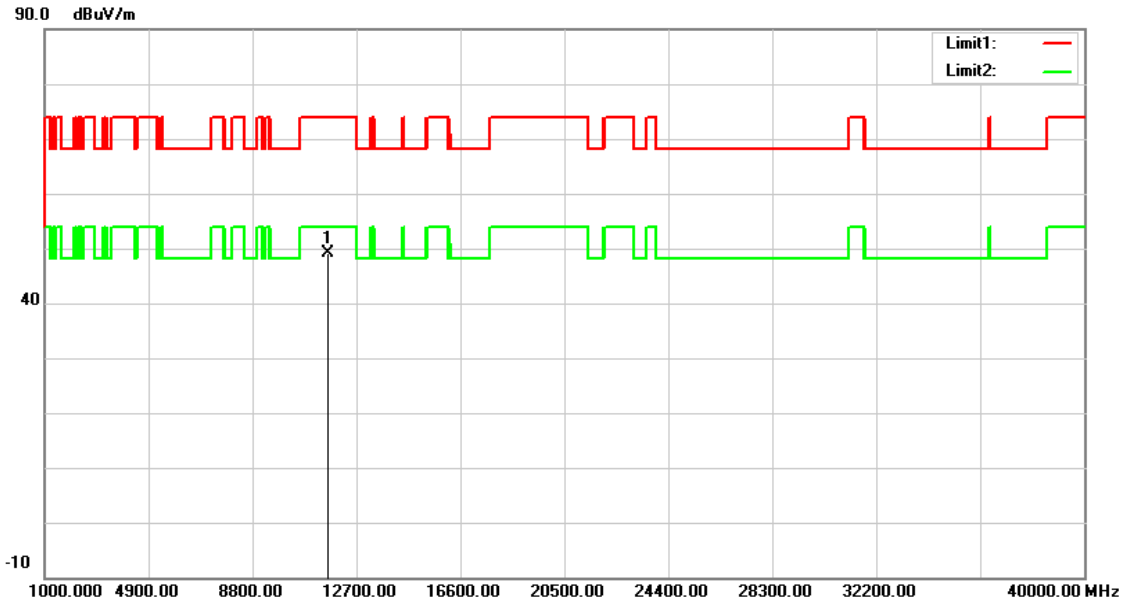
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11650.000	29.91	18.87	48.78	74.00	-25.22	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



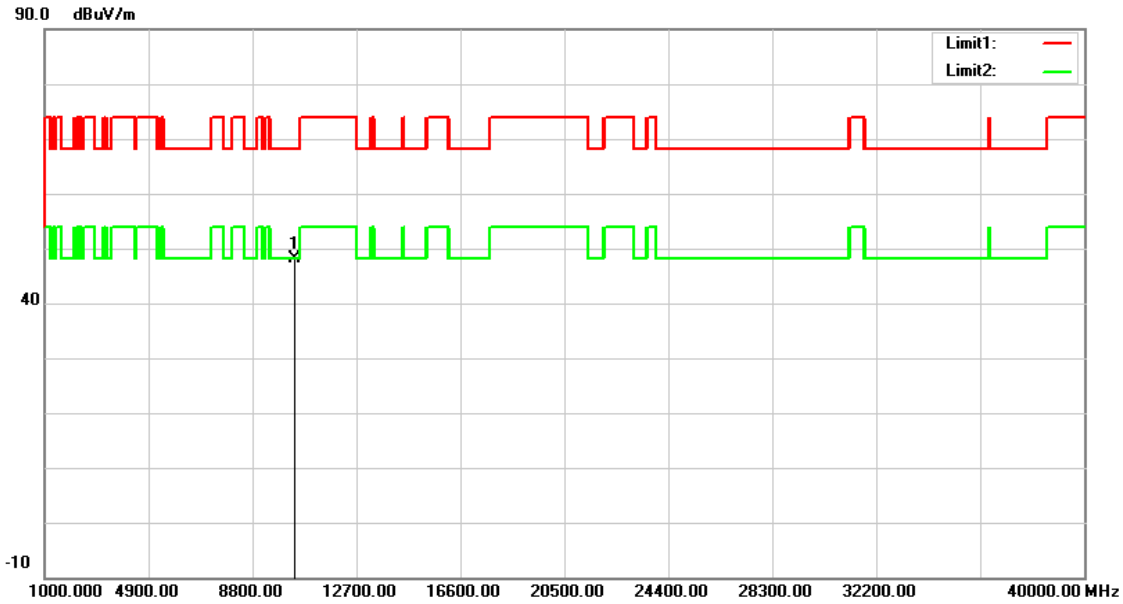
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11650.000	30.33	18.87	49.20	74.00	-24.80	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5190 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



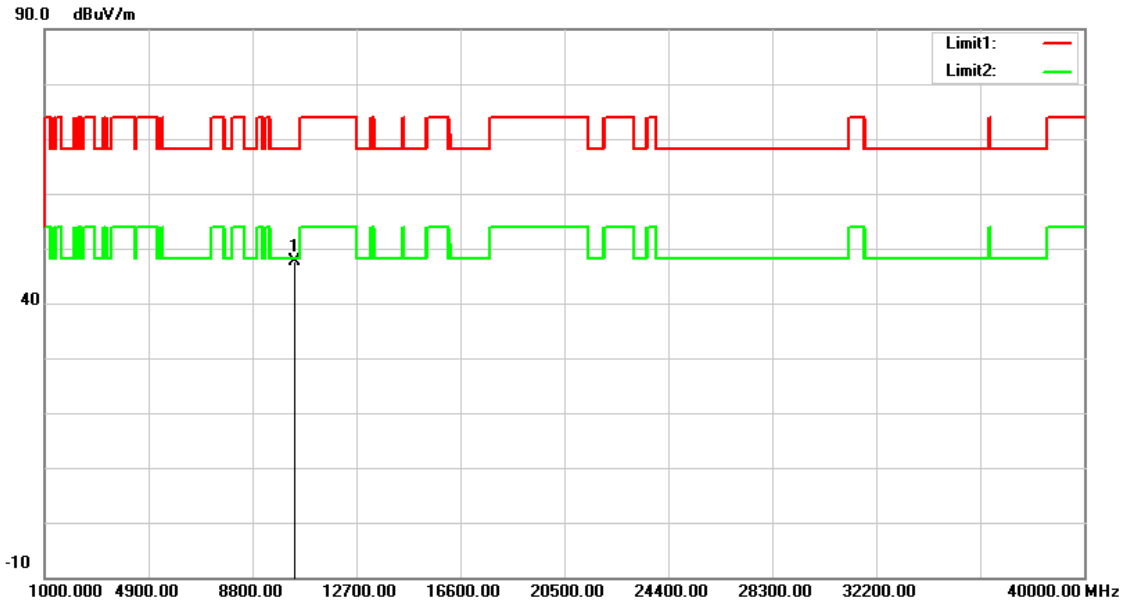
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10380.000	30.95	17.12	48.07	68.20	-20.13	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5190 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



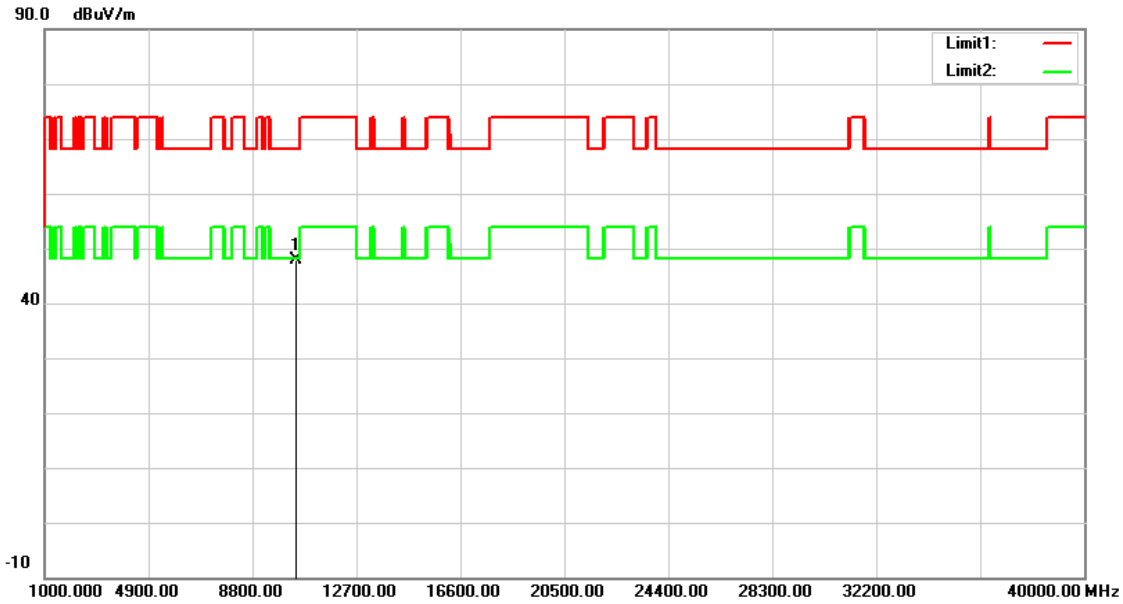
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10380.000	30.45	17.12	47.57	68.20	-20.63	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5230 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



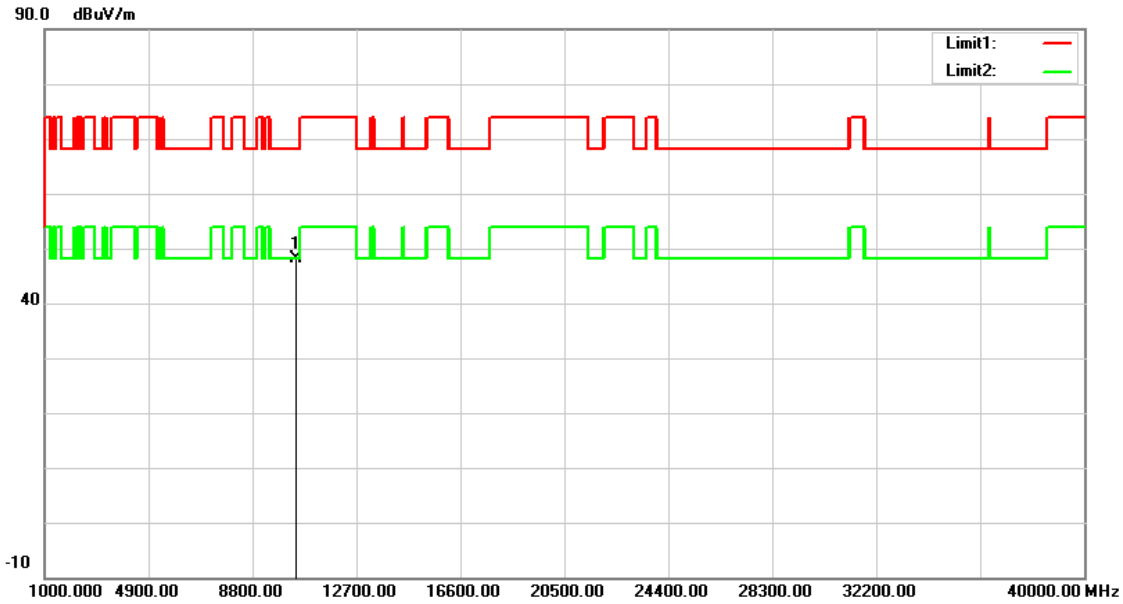
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10460.000	30.55	17.37	47.92	68.20	-20.28	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5230 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



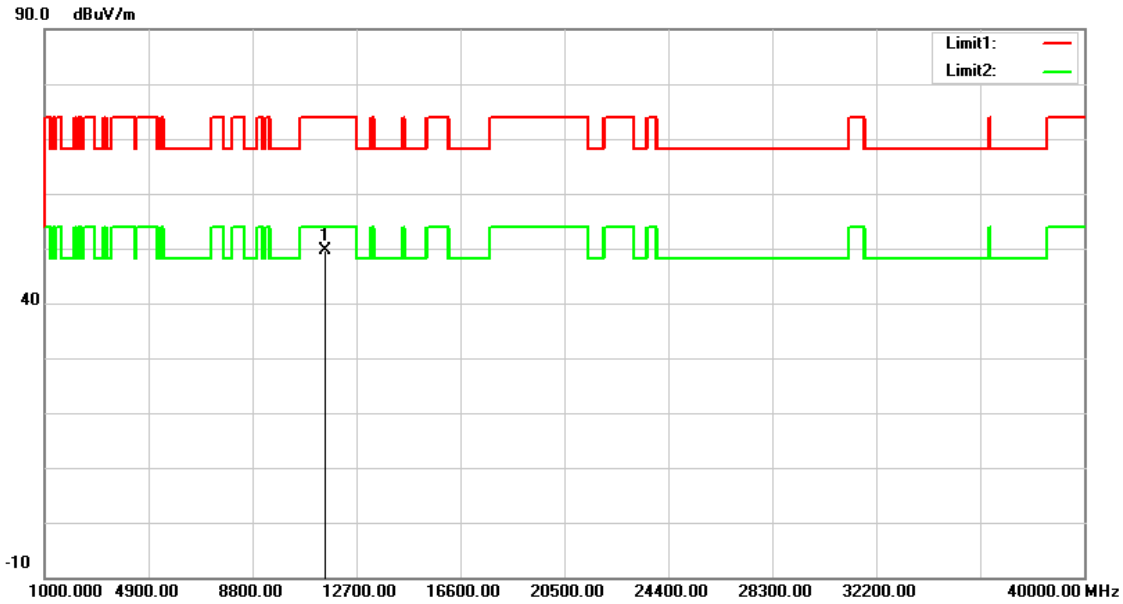
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10460.000	30.87	17.37	48.24	68.20	-19.96	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5755 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



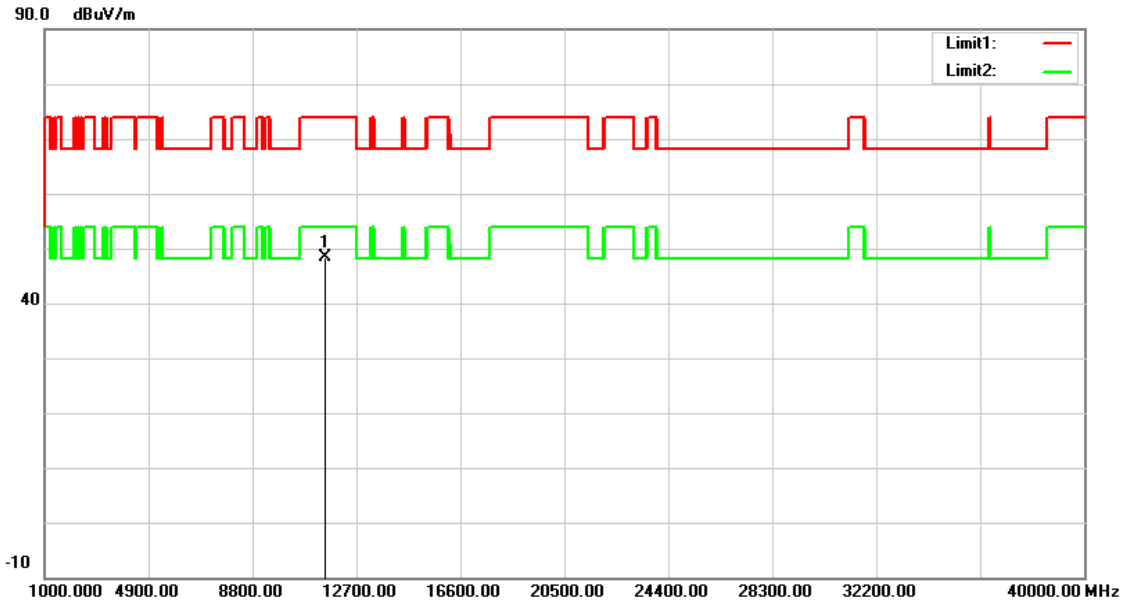
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11510.000	30.61	19.07	49.68	74.00	-24.32	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5755 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



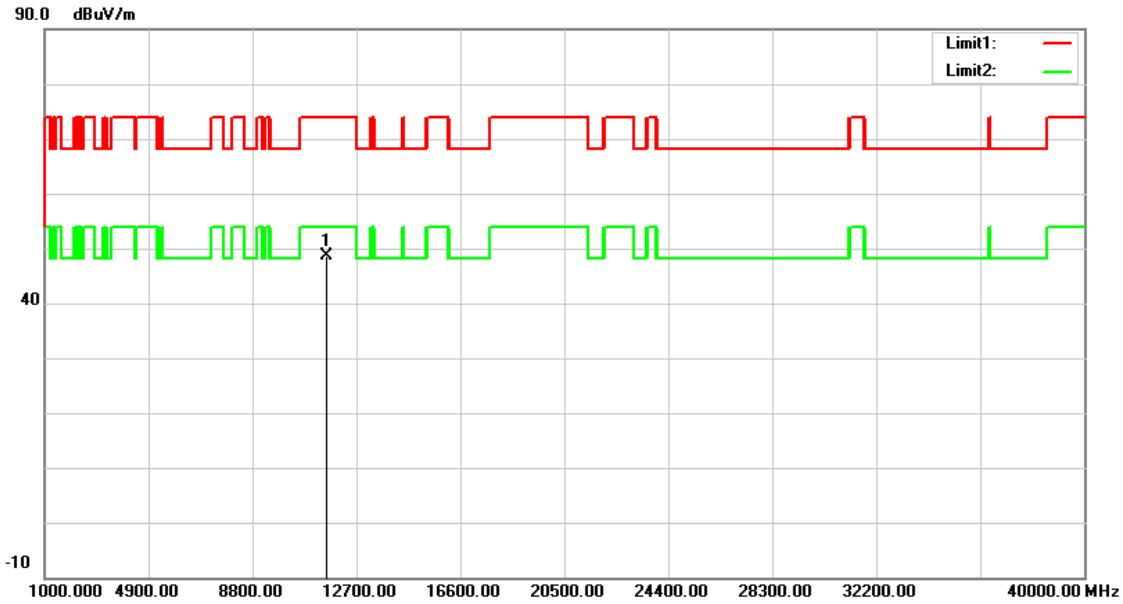
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11510.000	29.41	19.07	48.48	74.00	-25.52	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5795 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



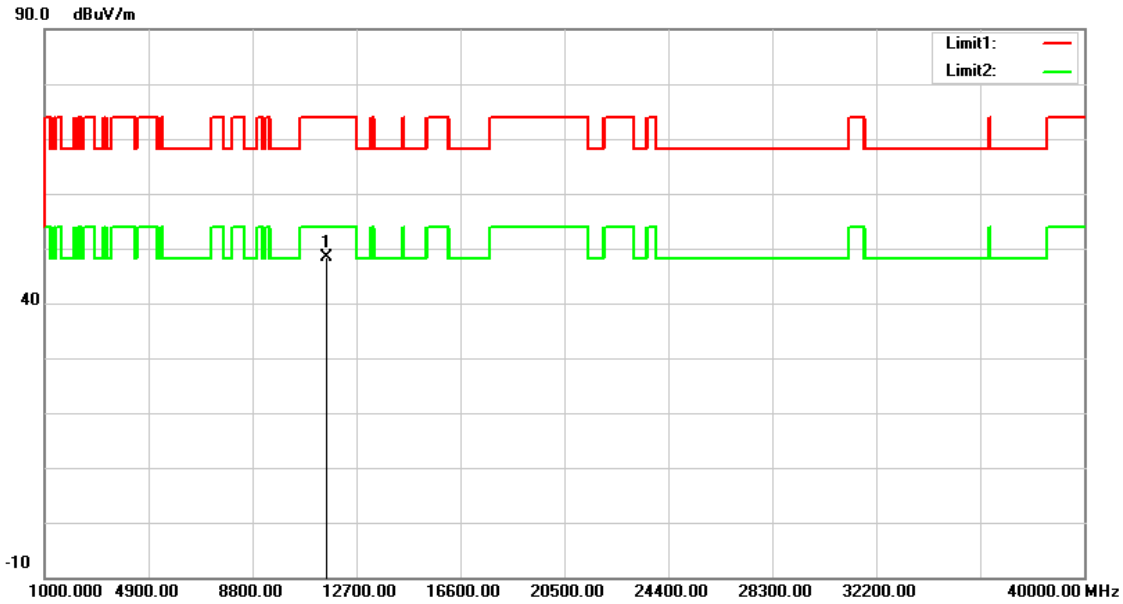
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11590.000	29.80	18.95	48.75	74.00	-25.25	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5795 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



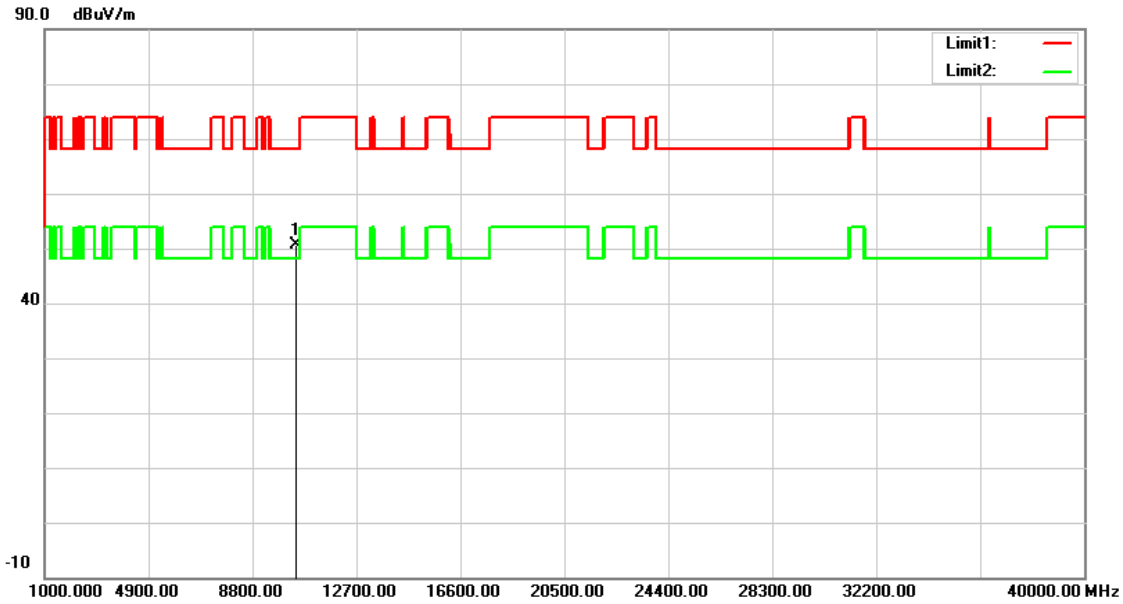
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11590.000	29.34	18.95	48.29	74.00	-25.71	peak

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 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5210 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



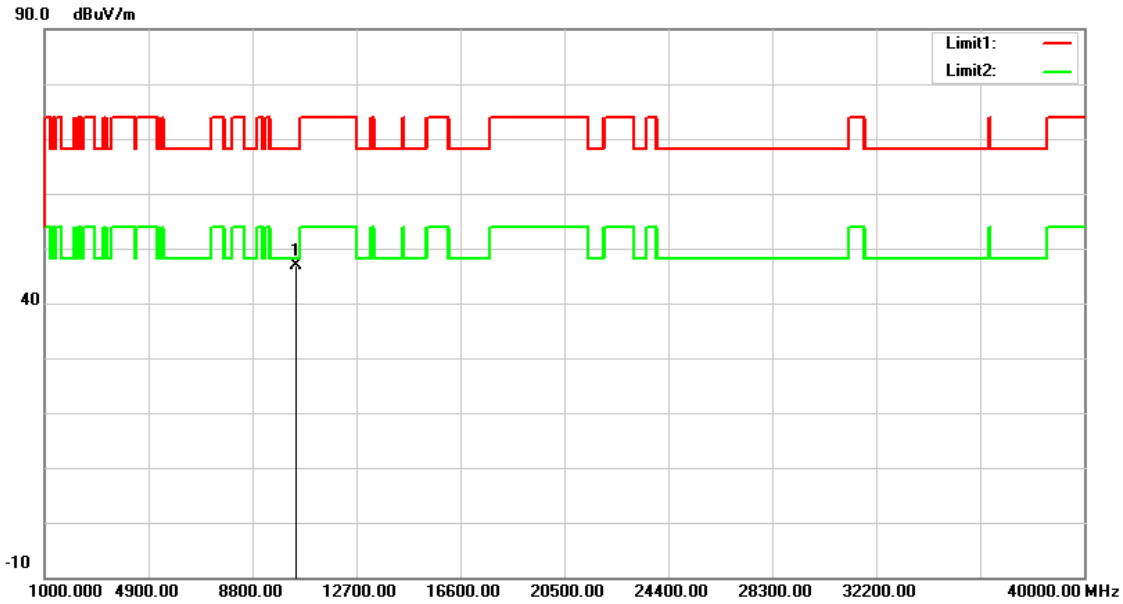
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10420.000	33.30	17.25	50.55	68.20	-17.65	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5210 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		



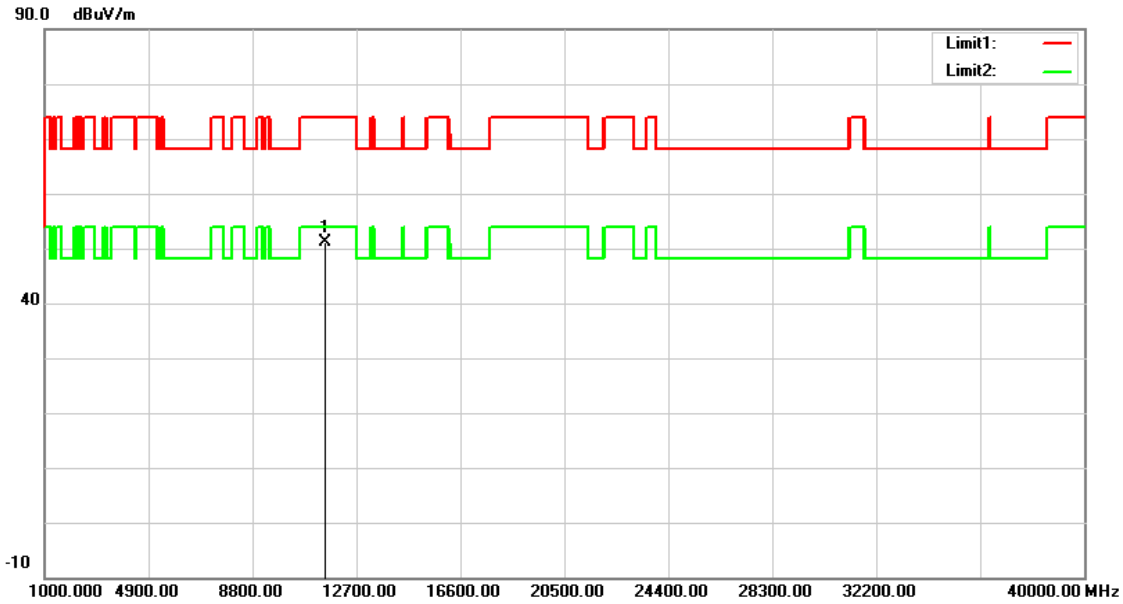
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10420.000	29.71	17.25	46.96	68.20	-21.24	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5775 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



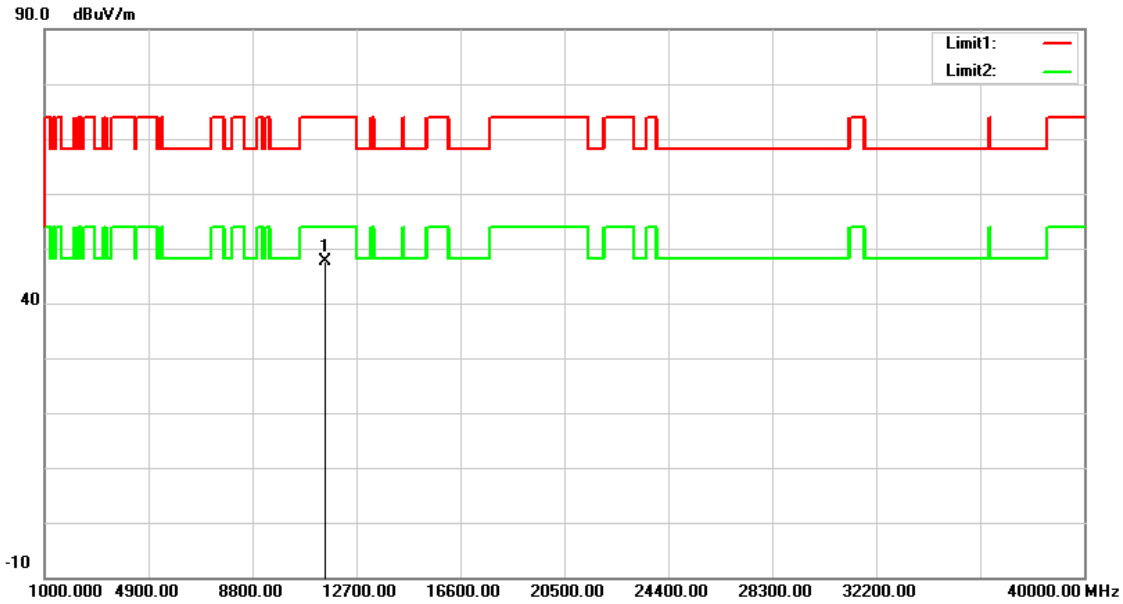
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11550.000	32.16	19.01	51.17	74.00	-22.83	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Frequency:	5775 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		



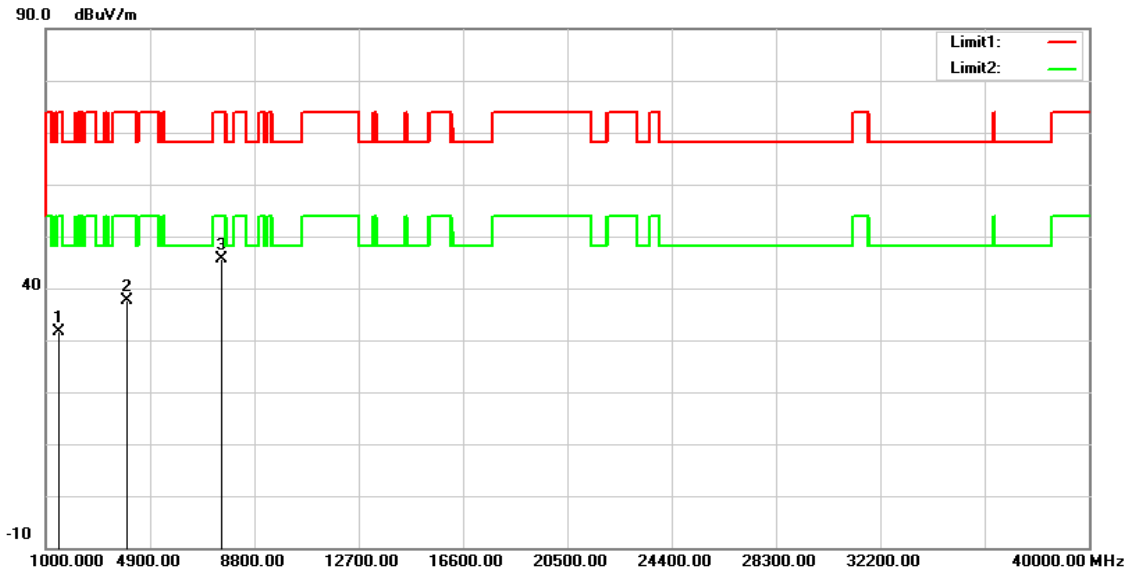
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11550.000	28.62	19.01	47.63	74.00	-26.37	peak

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:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Mode:	Simultaneous Transmitting (5 GHz WLAN+ WCDMA)	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Ant.Polar.:	Horizontal		



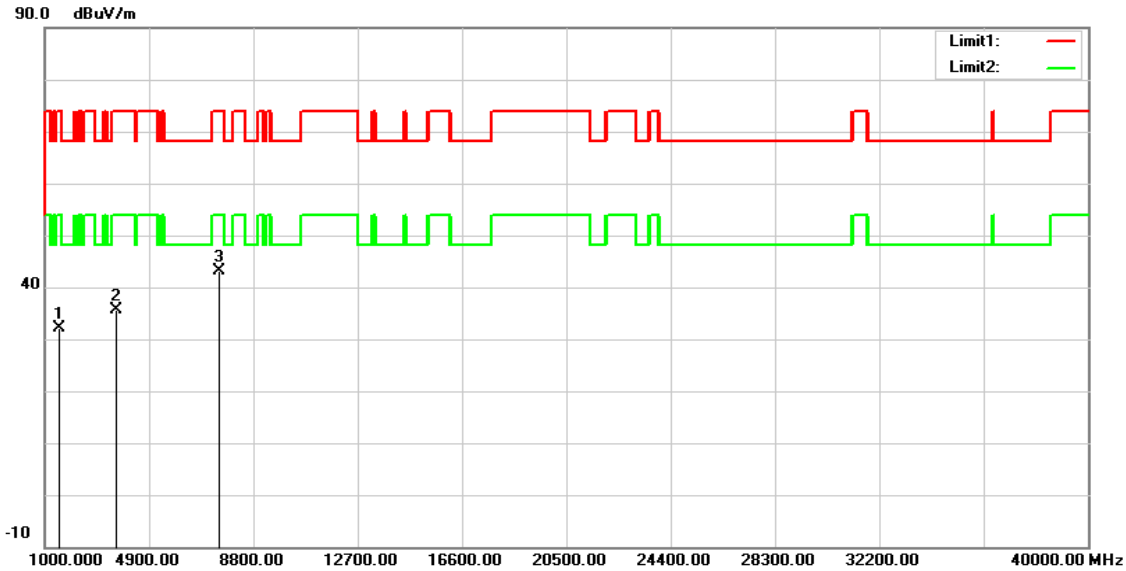
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1493.000	36.52	-4.97	31.55	74.00	-42.45	peak
2	4043.000	34.42	3.11	37.53	74.00	-36.47	peak
3	7562.000	32.90	12.83	45.73	74.00	-28.27	peak

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

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

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

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Mode:	Simultaneous Transmitting (5 GHz WLAN+ WCDMA)	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Ant.Polar.:	Vertical		



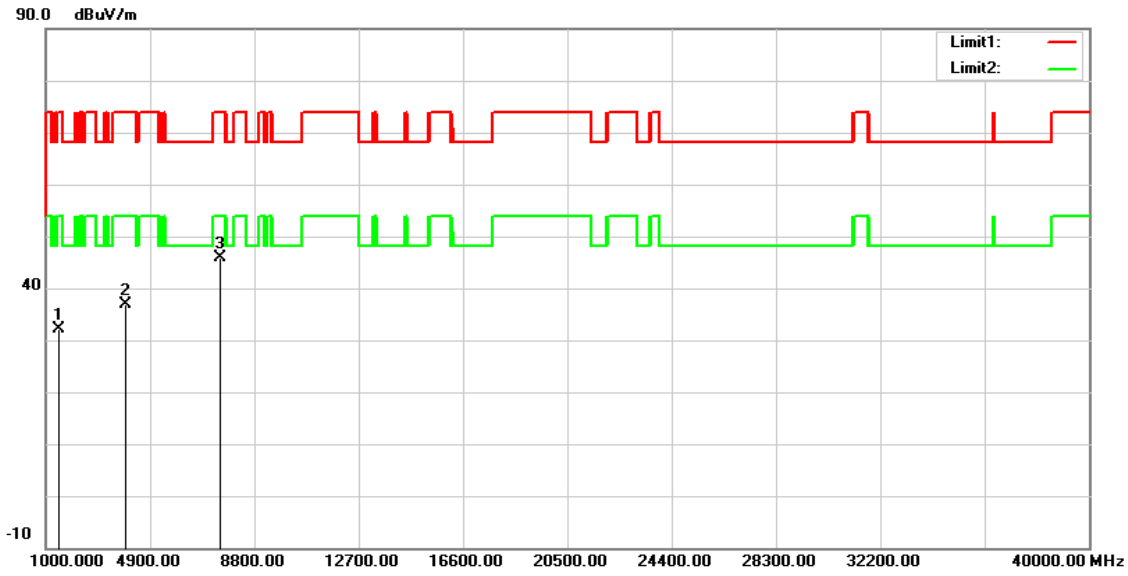
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1527.000	36.92	-4.82	32.10	74.00	-41.90	peak
2	3669.000	33.64	1.92	35.56	74.00	-38.44	peak
3	7545.000	30.36	12.80	43.16	74.00	-30.84	peak

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

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

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

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Mode:	Simultaneous Transmitting (5 GHz WLAN+ LTE)	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Ant.Polar.:	Horizontal		



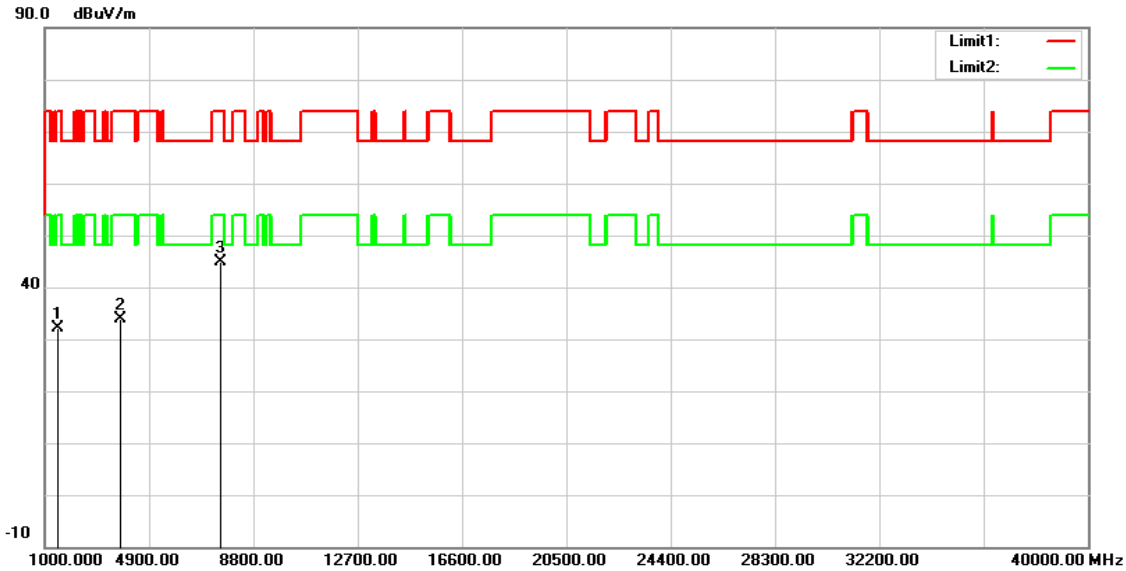
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1493.000	37.10	-4.97	32.13	74.00	-41.87	peak
2	3975.000	34.00	2.89	36.89	74.00	-37.11	peak
3	7494.000	33.12	12.71	45.83	74.00	-28.17	peak

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

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

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

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 120 V/60 Hz
Mode:	Simultaneous Transmitting (5 GHz WLAN+ LTE)	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1510.000	37.12	-4.90	32.22	74.00	-41.78	peak
2	3839.000	31.47	2.46	33.93	74.00	-40.07	peak
3	7562.000	32.16	12.83	44.99	74.00	-29.01	peak

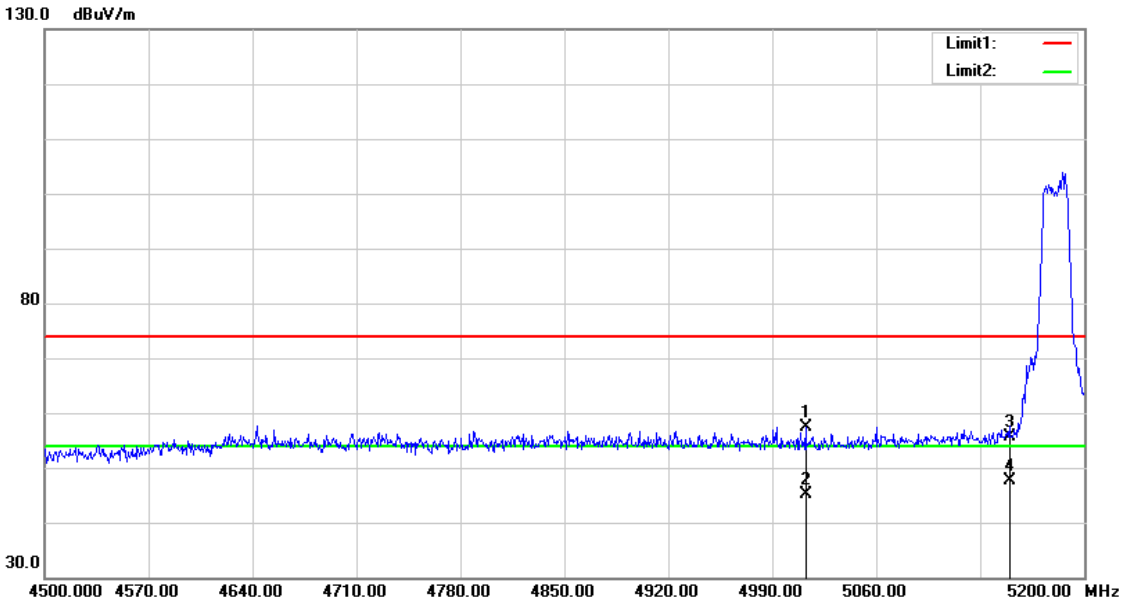
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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

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

Band Edge

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



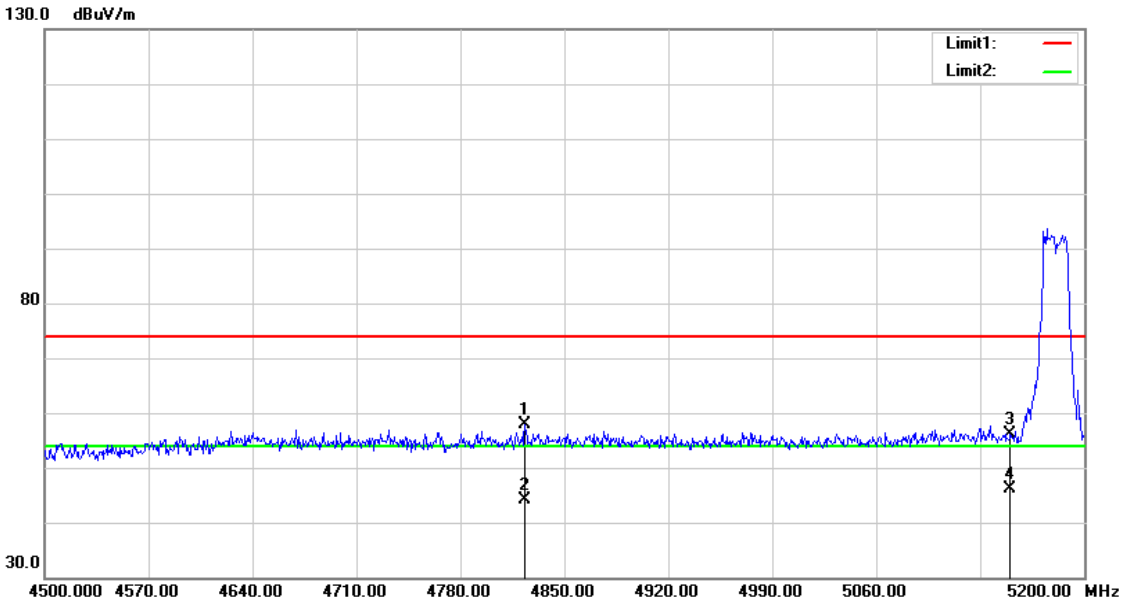
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5012.400	51.22	6.10	57.32	74.00	-16.68	peak
2	5012.400	39.03	6.10	45.13	54.00	-8.87	AVG
3	5150.000	49.35	6.34	55.69	74.00	-18.31	peak
4	5150.000	41.28	6.34	47.62	54.00	-6.38	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



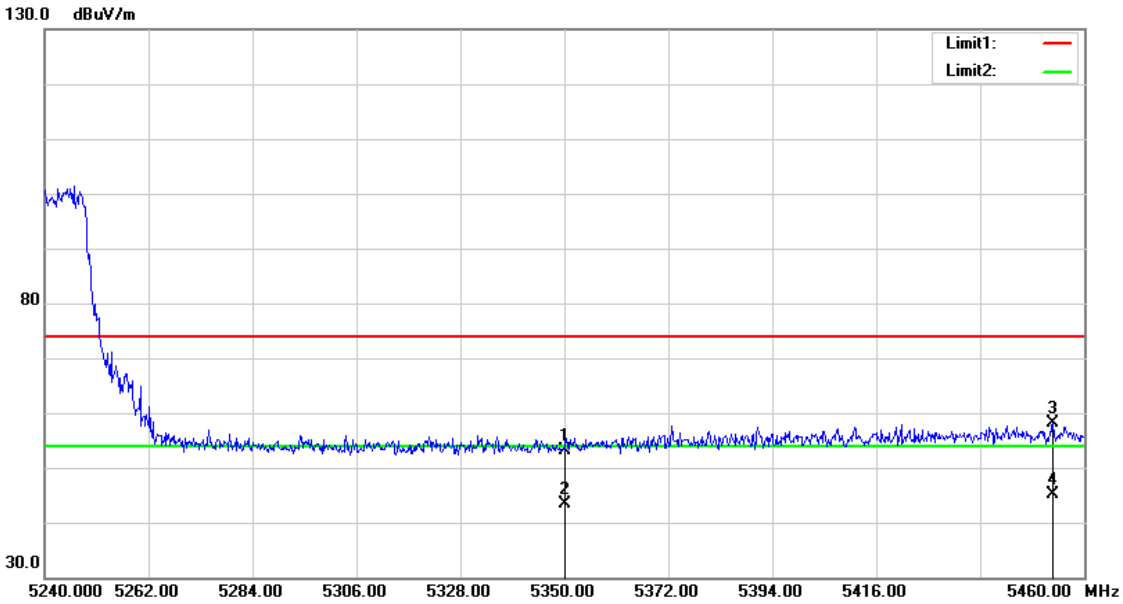
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4823.400	52.45	5.52	57.97	74.00	-16.03	peak
2	4823.400	38.56	5.52	44.08	54.00	-9.92	AVG
3	5150.000	49.86	6.34	56.20	74.00	-17.80	peak
4	5150.000	39.69	6.34	46.03	54.00	-7.97	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



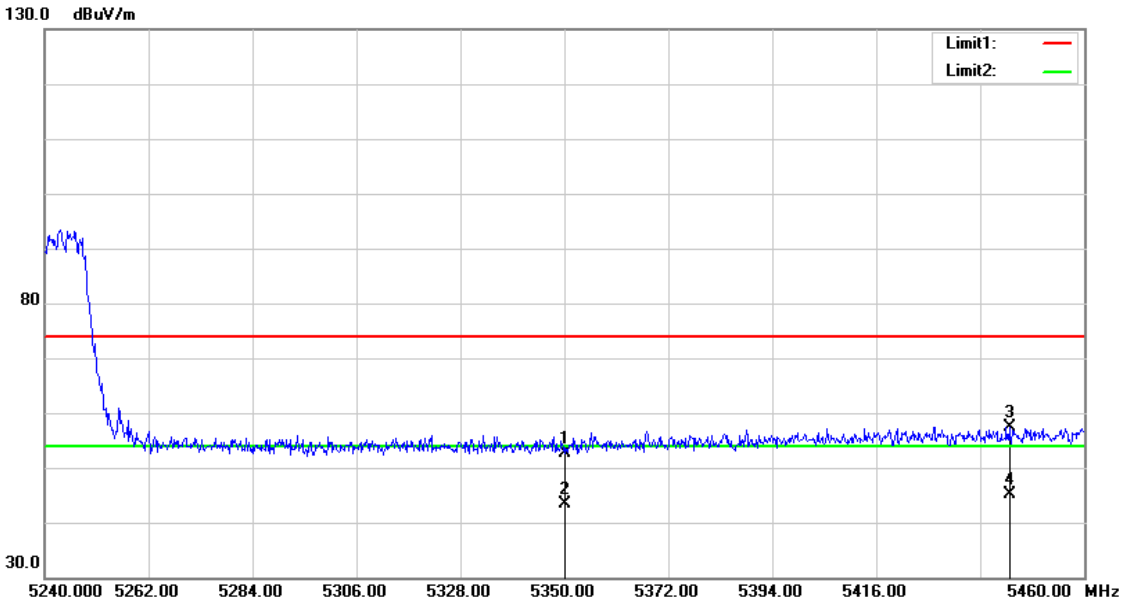
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	46.38	6.66	53.04	74.00	-20.96	peak
2	5350.000	36.66	6.66	43.32	54.00	-10.68	AVG
3	5453.400	51.18	6.83	58.01	74.00	-15.99	peak
4	5453.400	38.33	6.83	45.16	54.00	-8.84	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



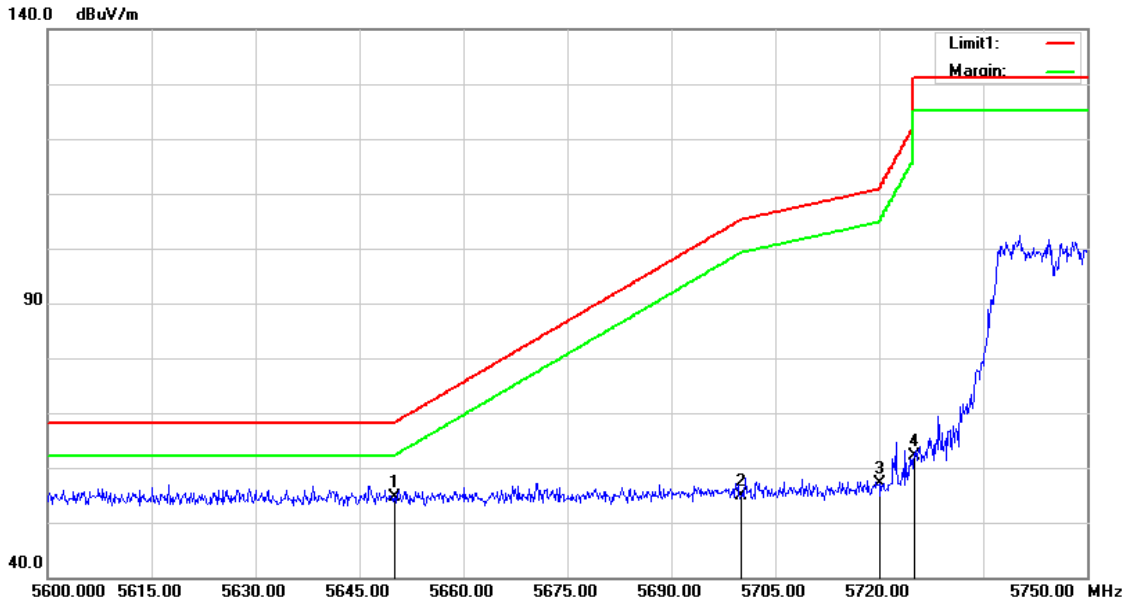
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	46.08	6.66	52.74	74.00	-21.26	peak
2	5350.000	36.68	6.66	43.34	54.00	-10.66	AVG
3	5444.160	50.69	6.81	57.50	74.00	-16.50	peak
4	5444.160	38.32	6.81	45.13	54.00	-8.87	AVG

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



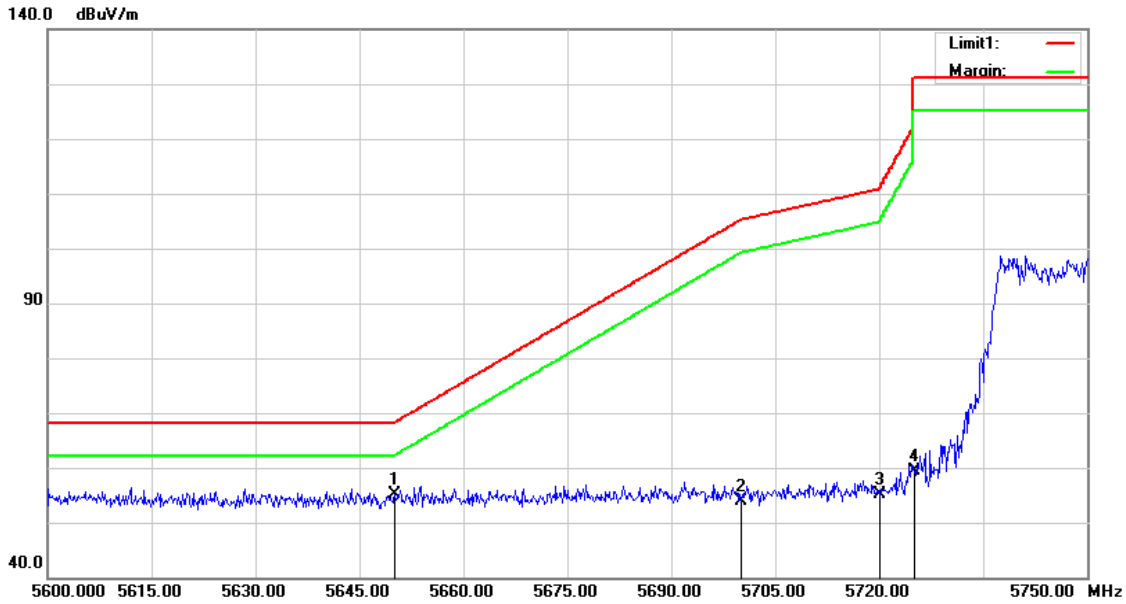
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	47.36	7.18	54.54	68.20	-13.66	peak
2	5700.000	47.61	7.27	54.88	105.20	-50.32	peak
3	5720.000	49.77	7.32	57.09	110.80	-53.71	peak
4	5725.000	54.71	7.33	62.04	122.20	-60.16	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



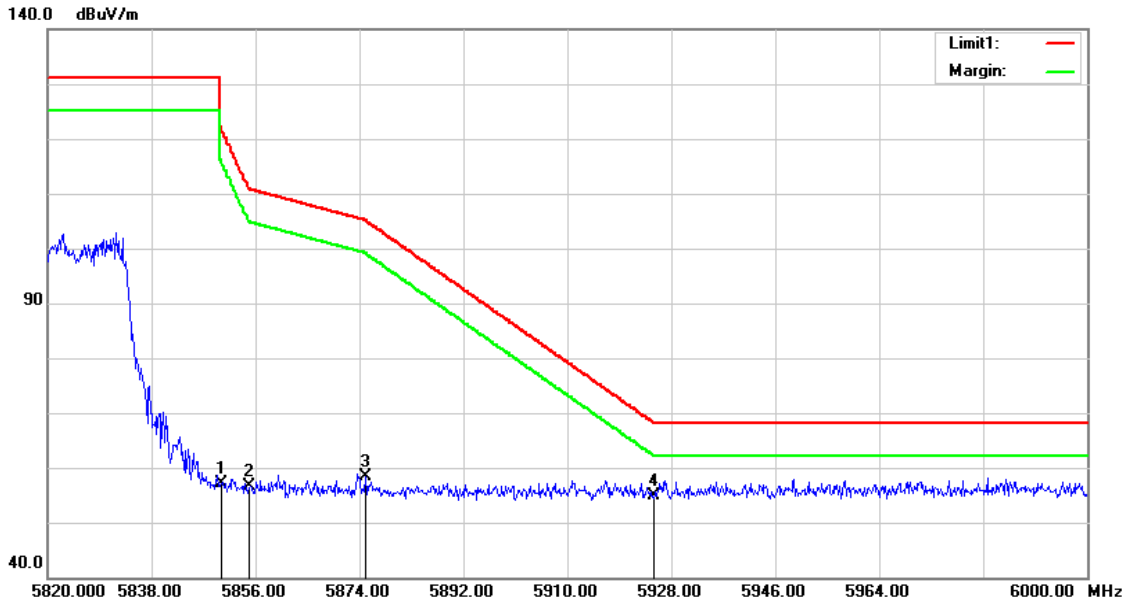
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	48.06	7.18	55.24	68.20	-12.96	peak
2	5700.000	46.70	7.27	53.97	105.20	-51.23	peak
3	5720.000	47.88	7.32	55.20	110.80	-55.60	peak
4	5725.000	51.94	7.33	59.27	122.20	-62.93	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



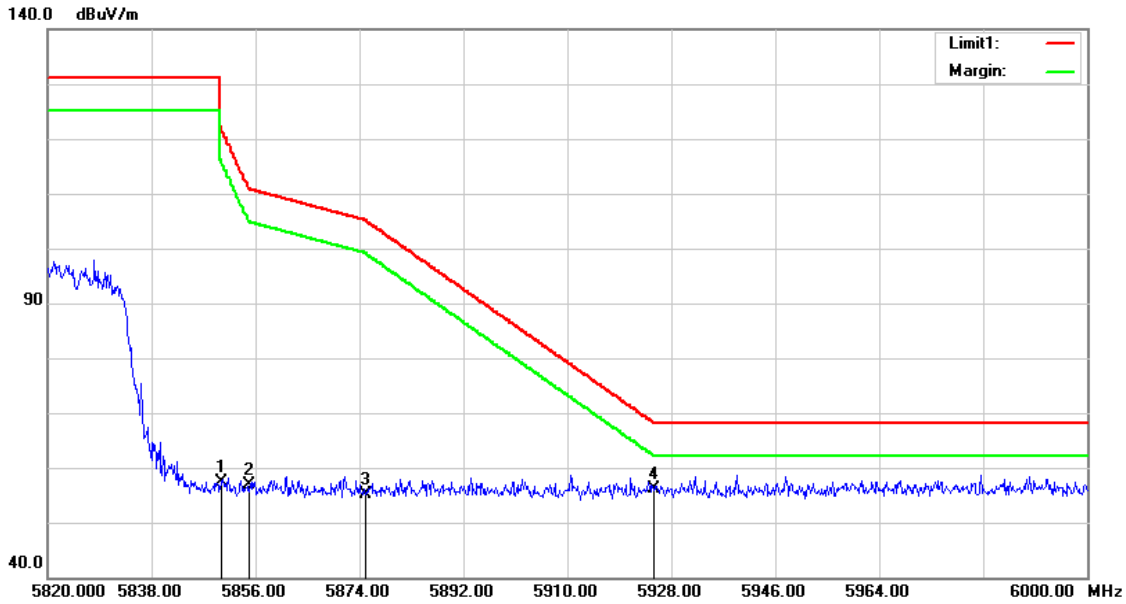
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	49.65	7.56	57.21	122.20	-64.99	peak
2	5855.000	48.94	7.57	56.51	110.80	-54.29	peak
3	5875.000	50.84	7.60	58.44	105.20	-46.76	peak
4	5925.000	47.19	7.70	54.89	68.20	-13.31	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



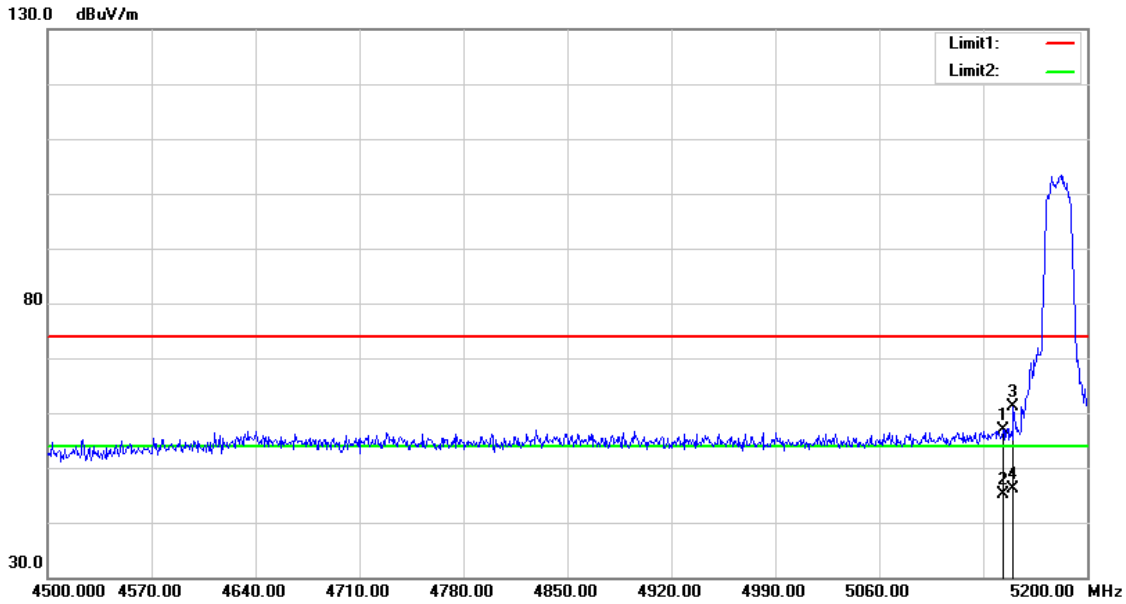
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	49.85	7.56	57.41	122.20	-64.79	peak
2	5855.000	49.43	7.57	57.00	110.80	-53.80	peak
3	5875.000	47.45	7.60	55.05	105.20	-50.15	peak
4	5925.000	48.42	7.70	56.12	68.20	-12.08	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



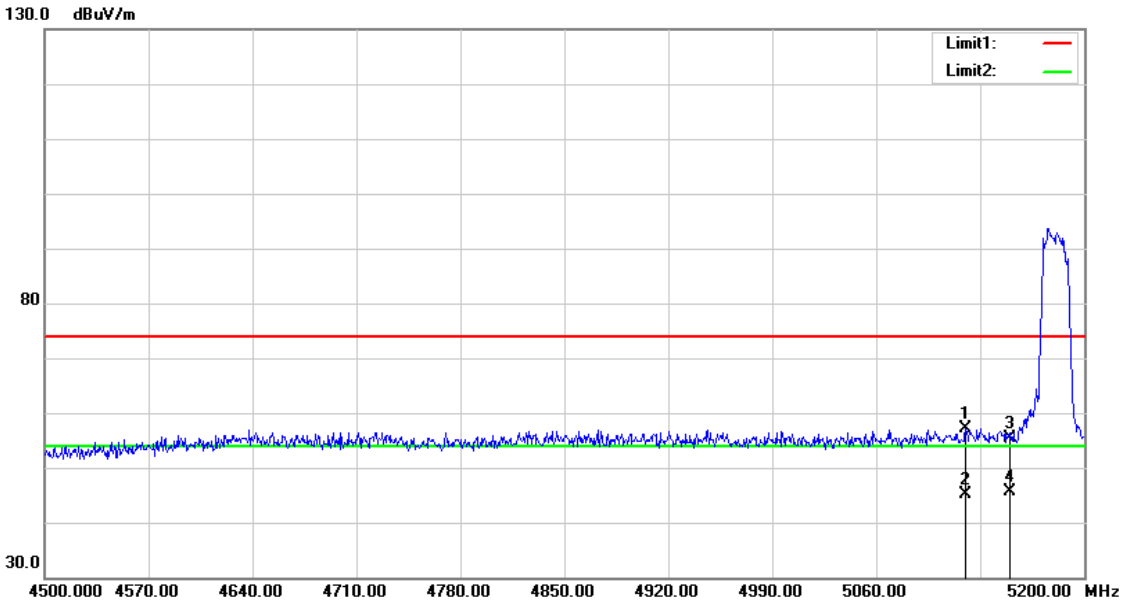
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5143.300	50.61	6.33	56.94	74.00	-17.06	peak
2	5143.300	38.69	6.33	45.02	54.00	-8.98	AVG
3	5150.000	54.85	6.34	61.19	74.00	-12.81	peak
4	5150.000	39.90	6.34	46.24	54.00	-7.76	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5180 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



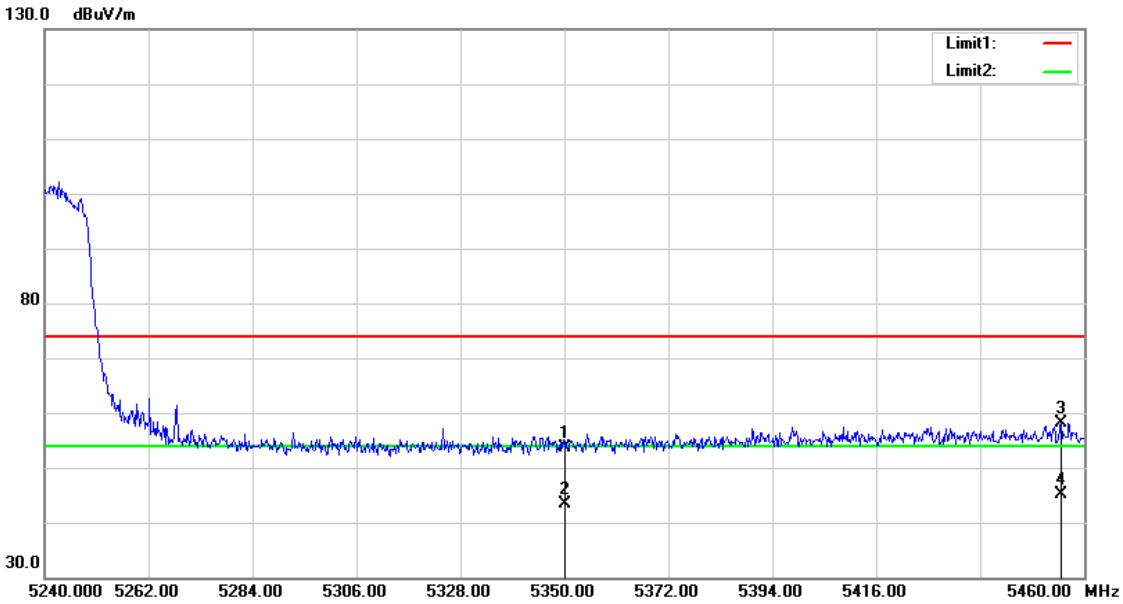
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5120.200	50.95	6.29	57.24	74.00	-16.76	peak
2	5120.200	38.96	6.29	45.25	54.00	-8.75	AVG
3	5150.000	49.02	6.34	55.36	74.00	-18.64	peak
4	5150.000	39.17	6.34	45.51	54.00	-8.49	AVG

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



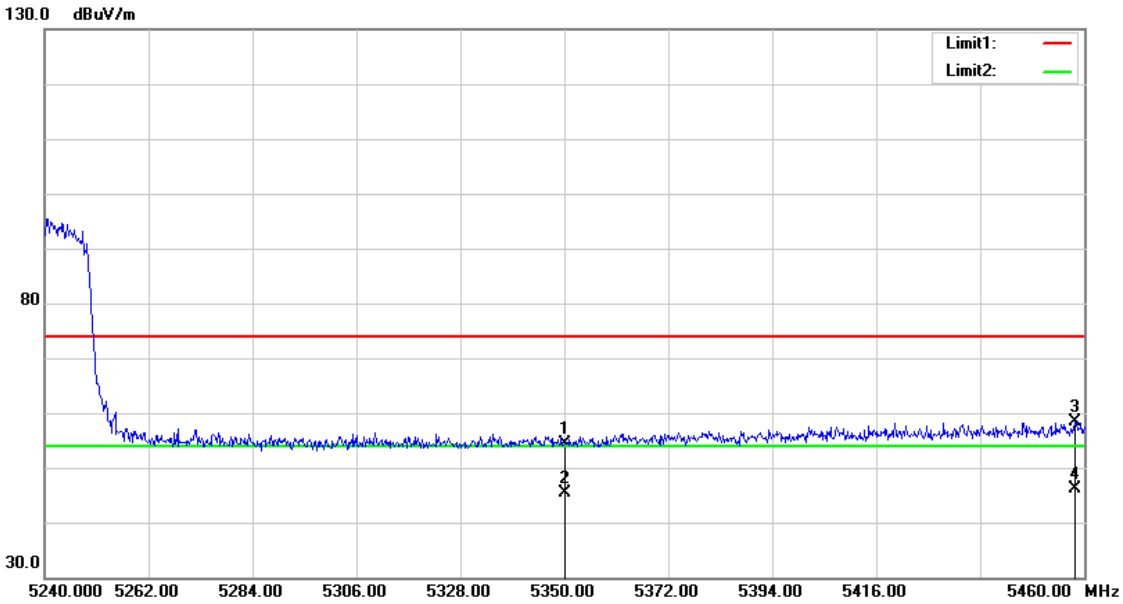
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	46.99	6.66	53.65	74.00	-20.35	peak
2	5350.000	36.63	6.66	43.29	54.00	-10.71	AVG
3	5455.160	51.29	6.83	58.12	74.00	-15.88	peak
4	5455.160	38.39	6.83	45.22	54.00	-8.78	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5240 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



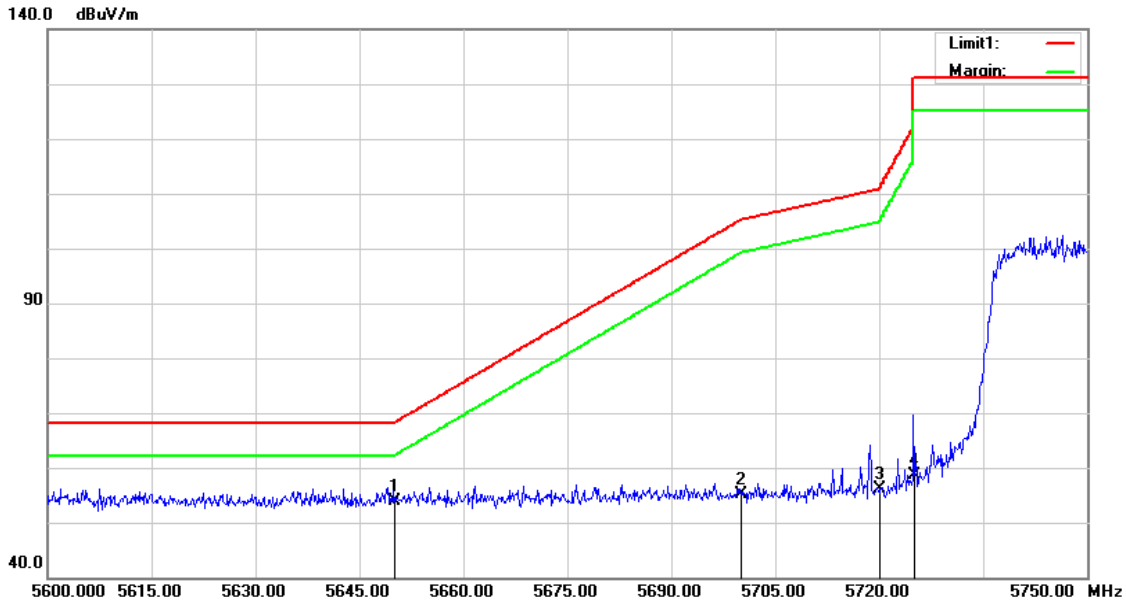
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	47.80	6.66	54.46	74.00	-19.54	peak
2	5350.000	38.74	6.66	45.40	54.00	-8.60	AVG
3	5458.020	51.60	6.83	58.43	74.00	-15.57	peak
4	5458.020	39.41	6.83	46.24	54.00	-7.76	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



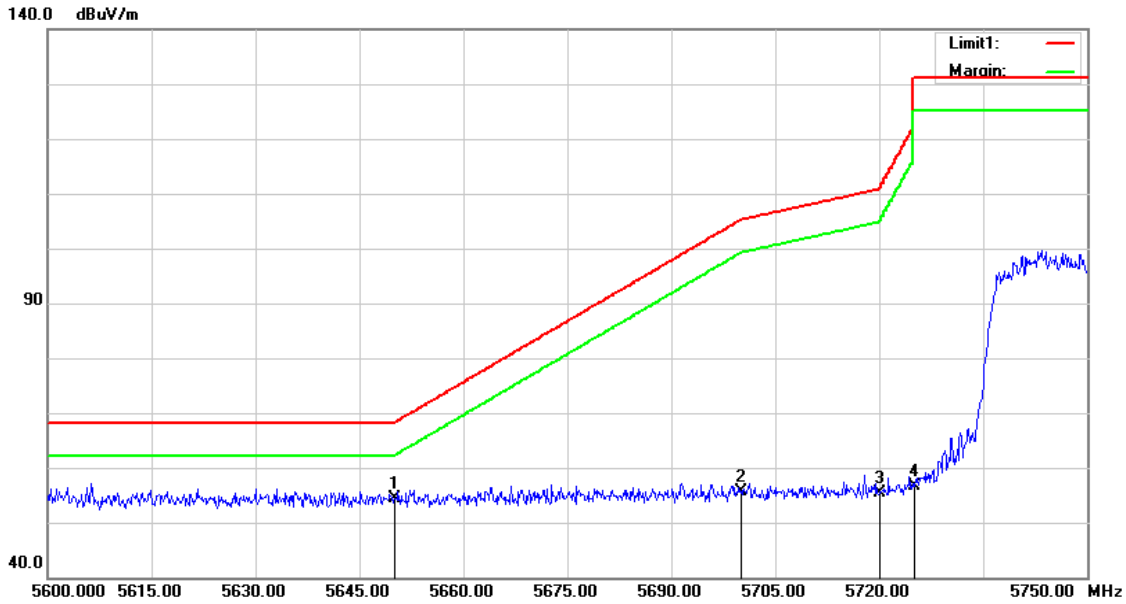
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	46.70	7.18	53.88	68.20	-14.32	peak
2	5700.000	47.84	7.27	55.11	105.20	-50.09	peak
3	5720.000	48.83	7.32	56.15	110.80	-54.65	peak
4	5725.000	51.24	7.33	58.57	122.20	-63.63	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5745 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



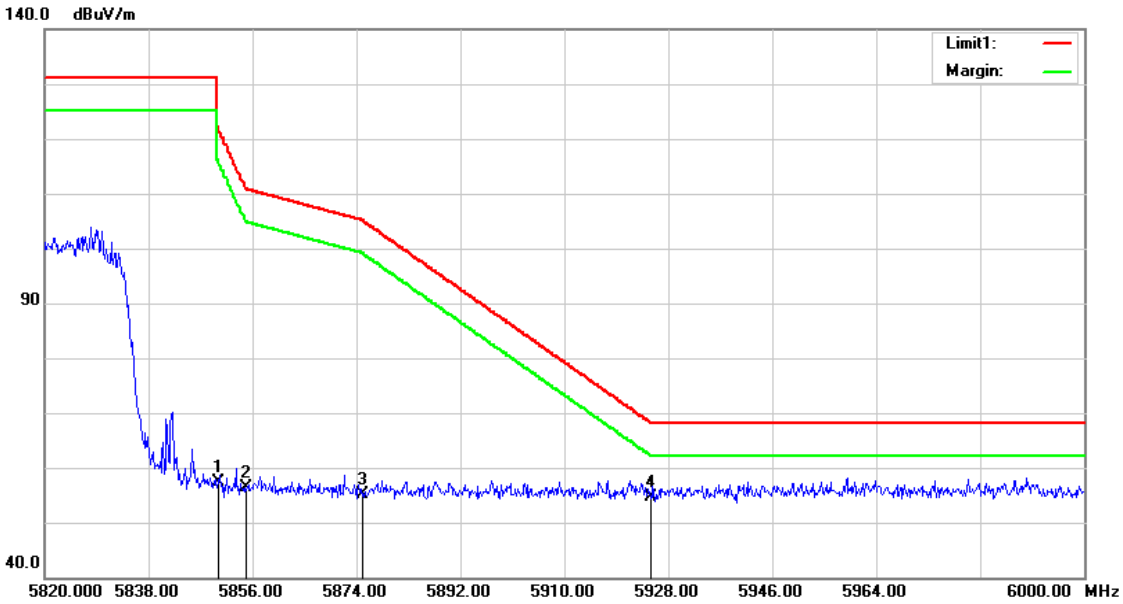
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	47.26	7.18	54.44	68.20	-13.76	peak
2	5700.000	48.41	7.27	55.68	105.20	-49.52	peak
3	5720.000	48.08	7.32	55.40	110.80	-55.40	peak
4	5725.000	49.24	7.33	56.57	122.20	-65.63	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



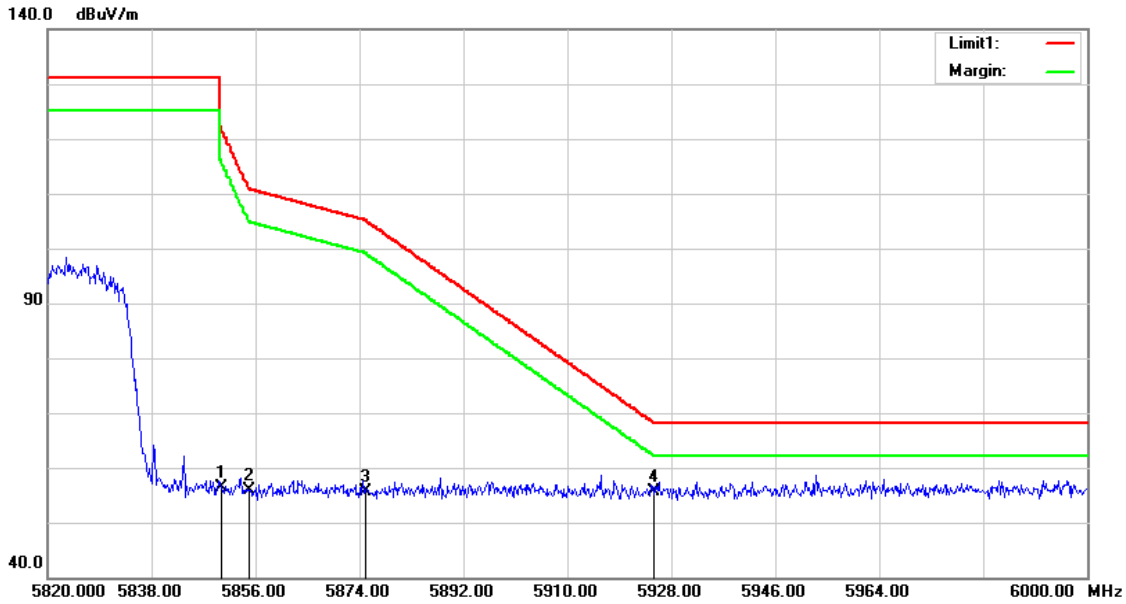
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	49.90	7.56	57.46	122.20	-64.74	peak
2	5855.000	48.81	7.57	56.38	110.80	-54.42	peak
3	5875.000	47.51	7.60	55.11	105.20	-50.09	peak
4	5925.000	46.99	7.70	54.69	68.20	-13.51	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5825 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



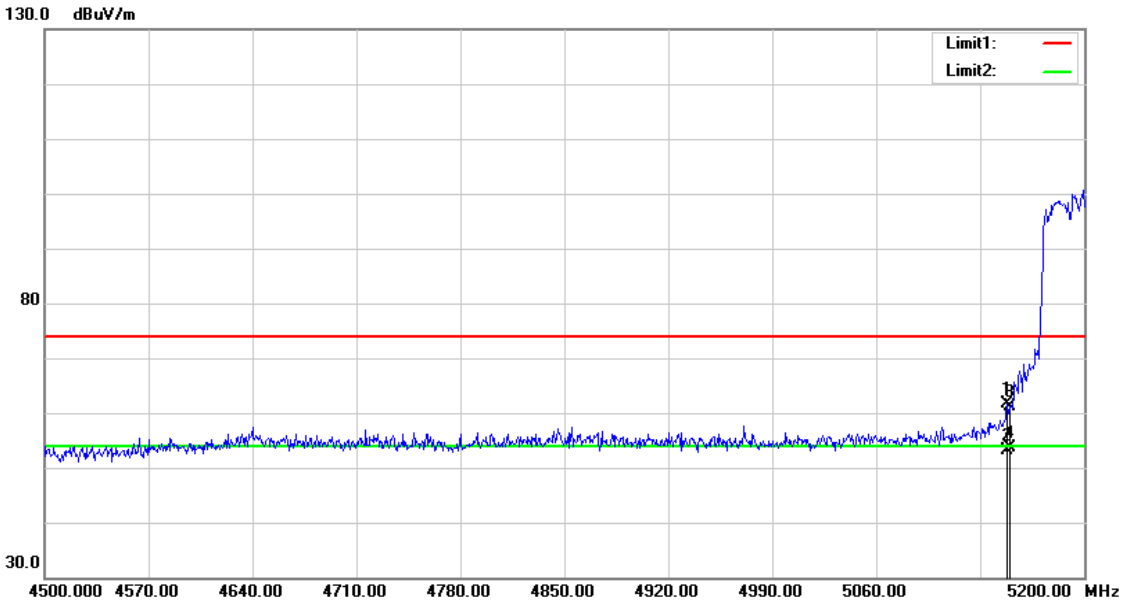
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	48.82	7.56	56.38	122.20	-65.82	peak
2	5855.000	48.40	7.57	55.97	110.80	-54.83	peak
3	5875.000	48.03	7.60	55.63	105.20	-49.57	peak
4	5925.000	47.96	7.70	55.66	68.20	-12.54	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5190 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



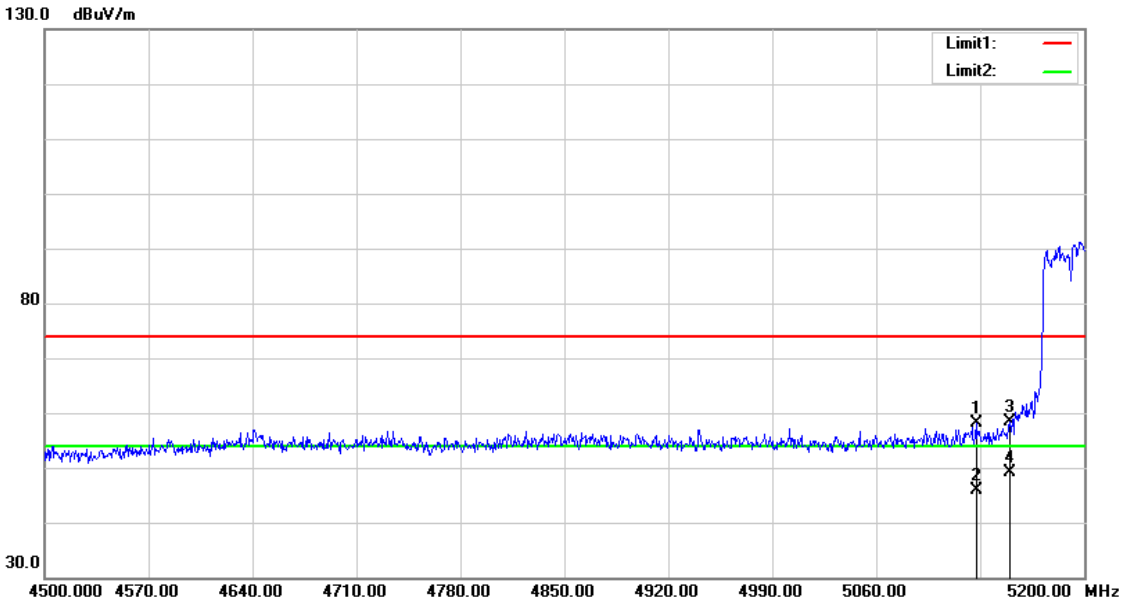
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5148.200	55.24	6.33	61.57	74.00	-12.43	peak
2	5148.200	46.86	6.33	53.19	54.00	-0.81	AVG
3	5150.000	54.78	6.34	61.12	74.00	-12.88	peak
4	5150.000	47.18	6.34	53.52	54.00	-0.48	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5190 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



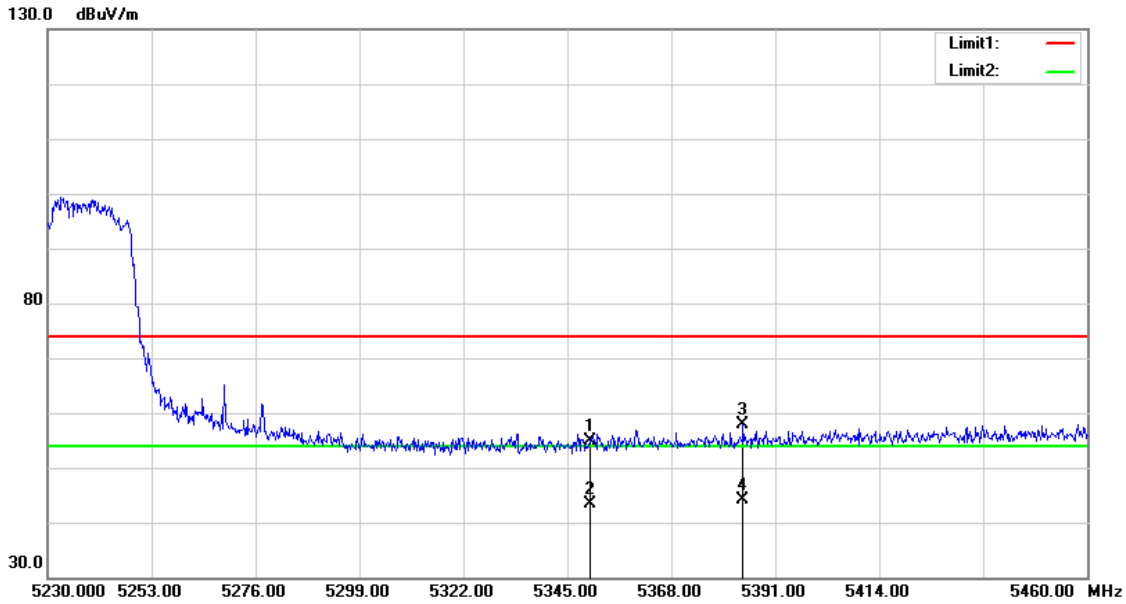
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5127.200	51.92	6.30	58.22	74.00	-15.78	peak
2	5127.200	39.52	6.30	45.82	54.00	-8.18	AVG
3	5150.000	51.95	6.34	58.29	74.00	-15.71	peak
4	5150.000	42.72	6.34	49.06	54.00	-4.94	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5230 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



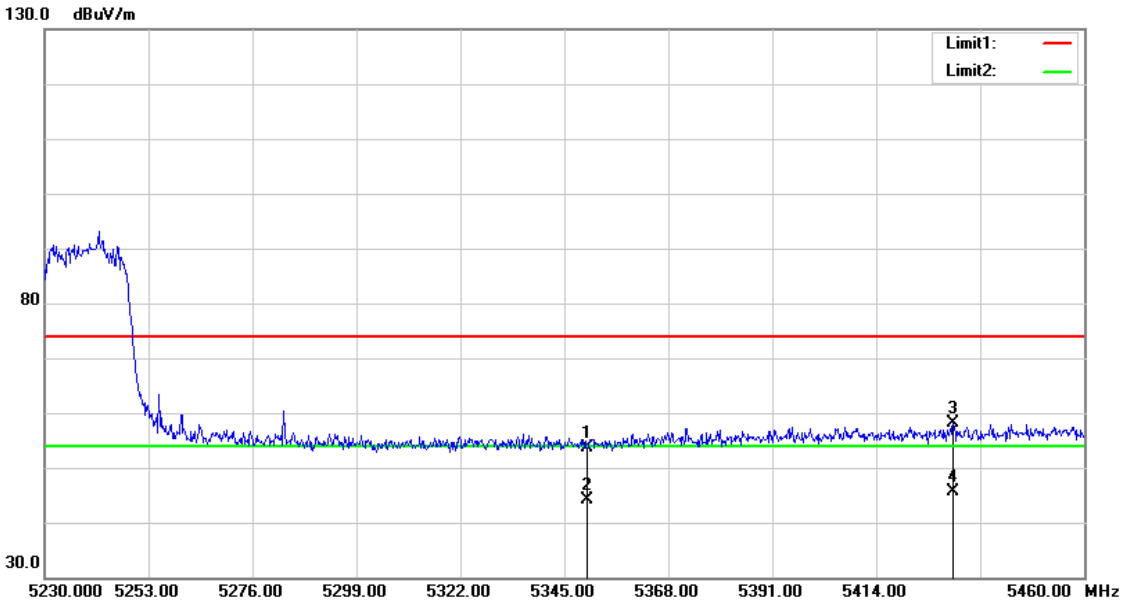
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	48.16	6.66	54.82	74.00	-19.18	peak
2	5350.000	36.62	6.66	43.28	54.00	-10.72	AVG
3	5383.870	51.07	6.71	57.78	74.00	-16.22	peak
4	5383.870	37.52	6.71	44.23	54.00	-9.77	AVG

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5230 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



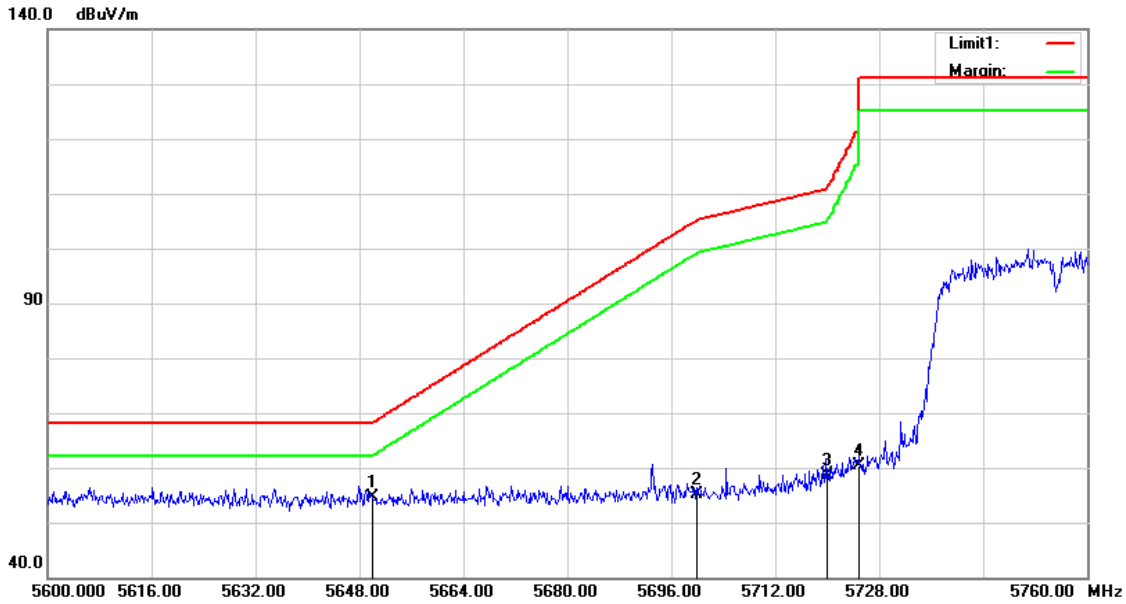
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.000	46.97	6.66	53.63	74.00	-20.37	peak
2	5350.000	37.54	6.66	44.20	54.00	-9.80	AVG
3	5431.020	51.34	6.79	58.13	74.00	-15.87	peak
4	5431.020	38.84	6.79	45.63	54.00	-8.37	AVG

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5755 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



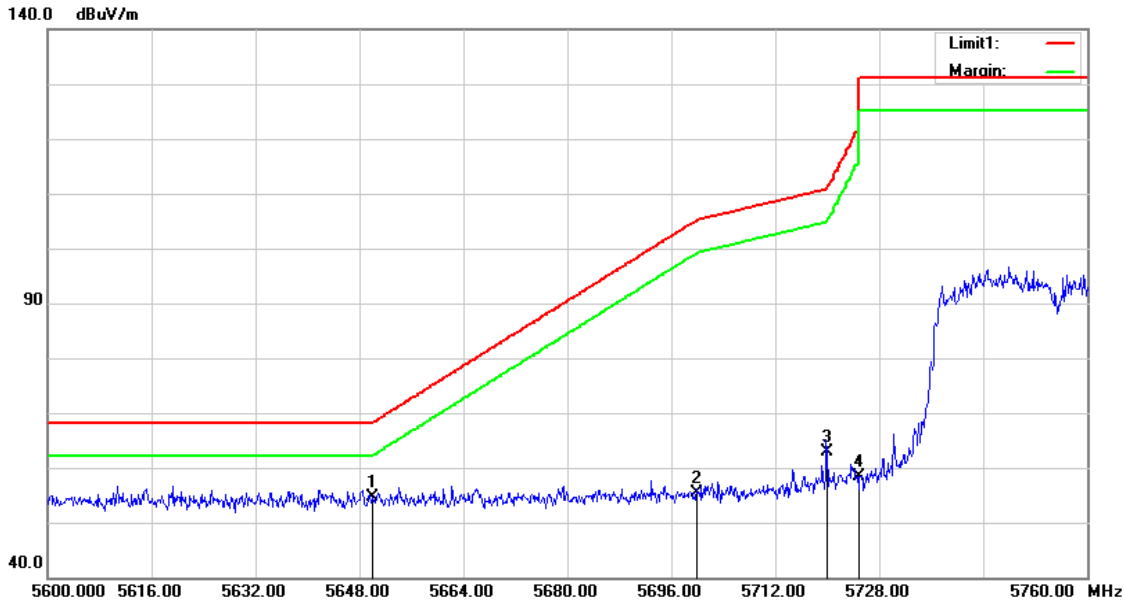
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	47.48	7.18	54.66	68.20	-13.54	peak
2	5700.000	47.90	7.27	55.17	105.20	-50.03	peak
3	5720.000	51.31	7.32	58.63	110.80	-52.17	peak
4	5725.000	52.94	7.33	60.27	122.20	-61.93	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5755 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



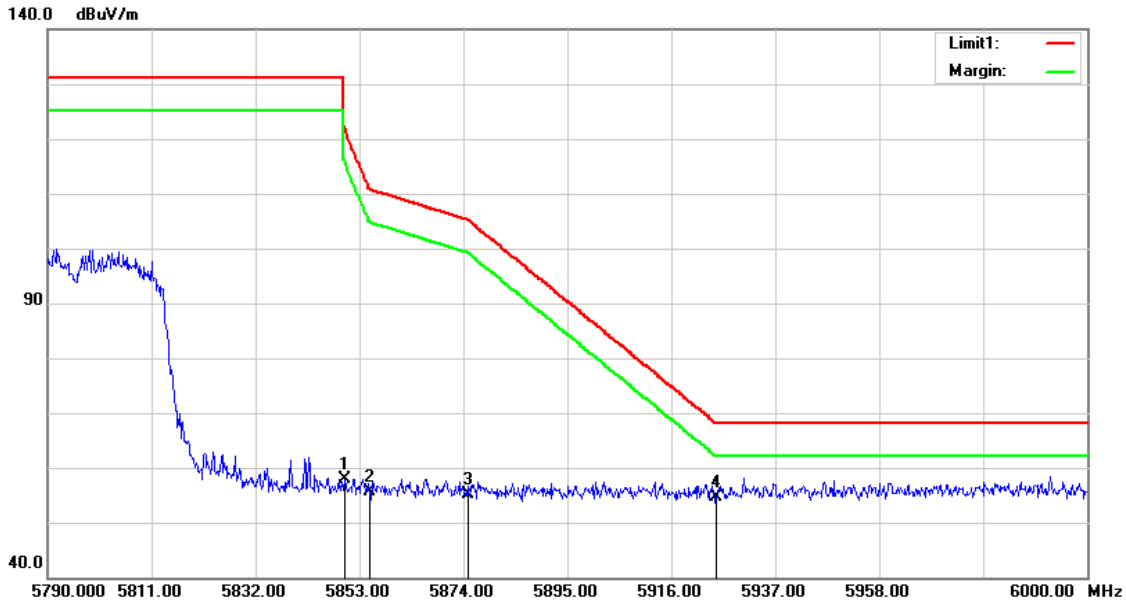
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	47.56	7.18	54.74	68.20	-13.46	peak
2	5700.000	48.04	7.27	55.31	105.20	-49.89	peak
3	5720.000	55.53	7.32	62.85	110.80	-47.95	peak
4	5725.000	51.02	7.33	58.35	122.20	-63.85	peak

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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5795 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



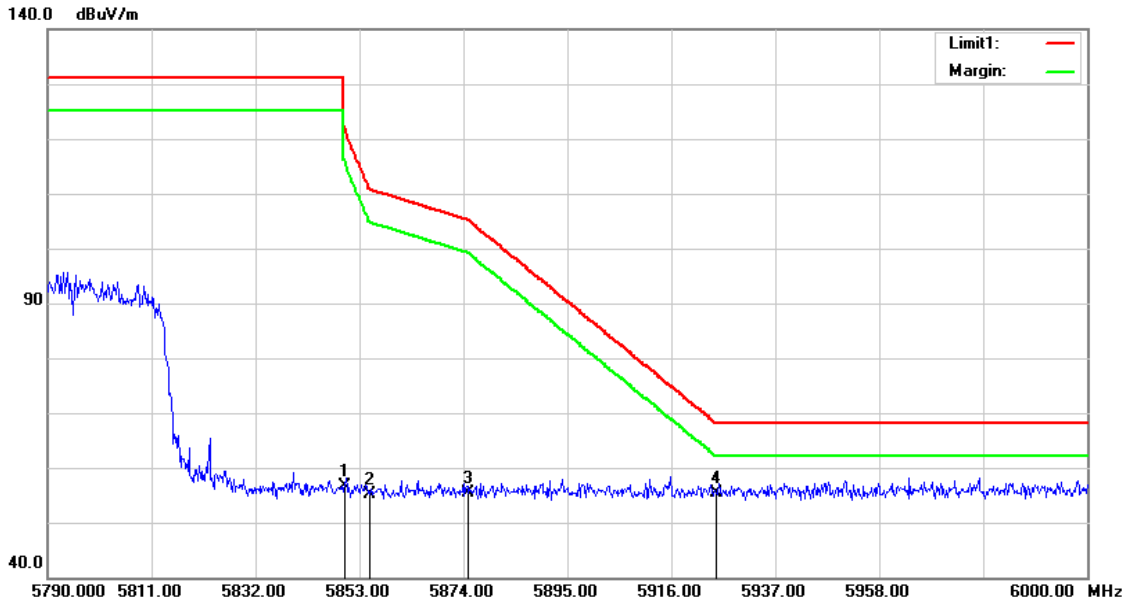
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	50.24	7.56	57.80	122.20	-64.40	peak
2	5855.000	48.05	7.57	55.62	110.80	-55.18	peak
3	5875.000	47.57	7.60	55.17	105.20	-50.03	peak
4	5925.000	46.95	7.70	54.65	68.20	-13.55	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5795 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



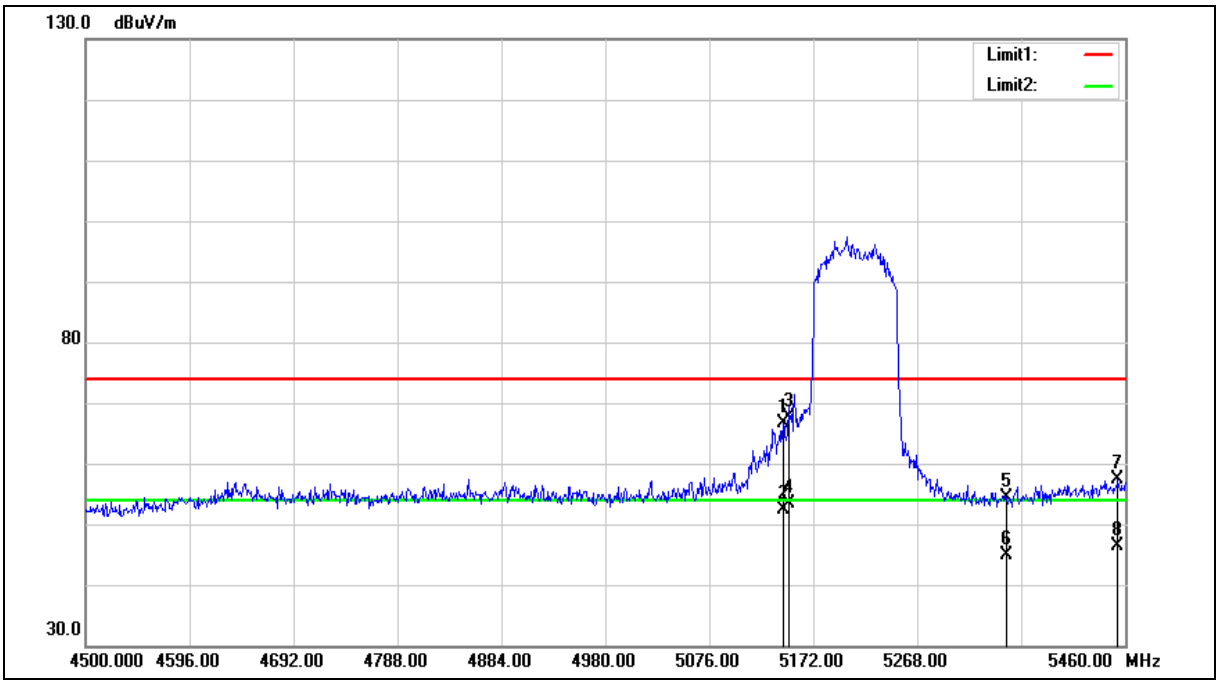
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	48.96	7.56	56.52	122.20	-65.68	peak
2	5855.000	47.56	7.57	55.13	110.80	-55.67	peak
3	5875.000	47.82	7.60	55.42	105.20	-49.78	peak
4	5925.000	47.80	7.70	55.50	68.20	-12.70	peak

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5210 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5210 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		

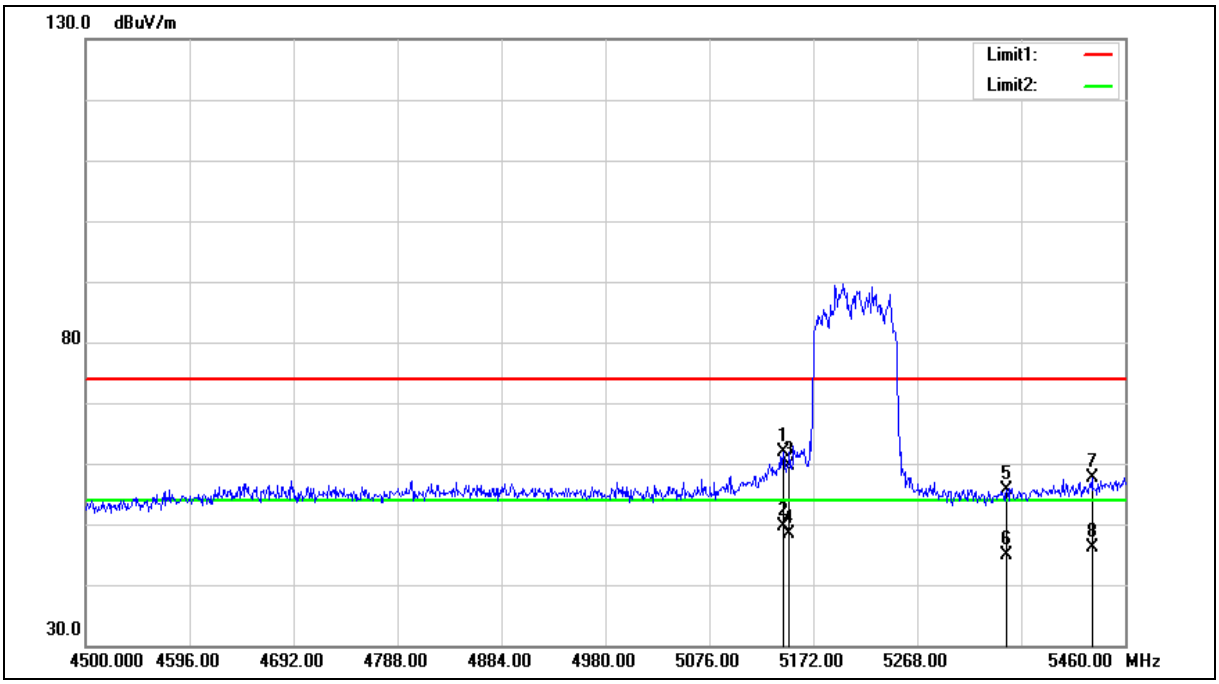
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5144.160	60.20	6.33	66.53	74.00	-7.47	peak
2	5144.160	46.07	6.33	52.40	54.00	-1.60	AVG
3	5150.000	61.27	6.34	67.61	74.00	-6.39	peak
4	5150.000	47.15	6.34	53.49	54.00	-0.51	AVG
5	5350.000	47.71	6.66	54.37	74.00	-19.63	peak
6	5350.000	38.10	6.66	44.76	54.00	-9.24	AVG
7	5453.280	50.46	6.82	57.28	74.00	-16.72	peak
8	5453.280	39.54	6.82	46.36	54.00	-7.64	AVG

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

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

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

Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5210 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		



Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5210 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		

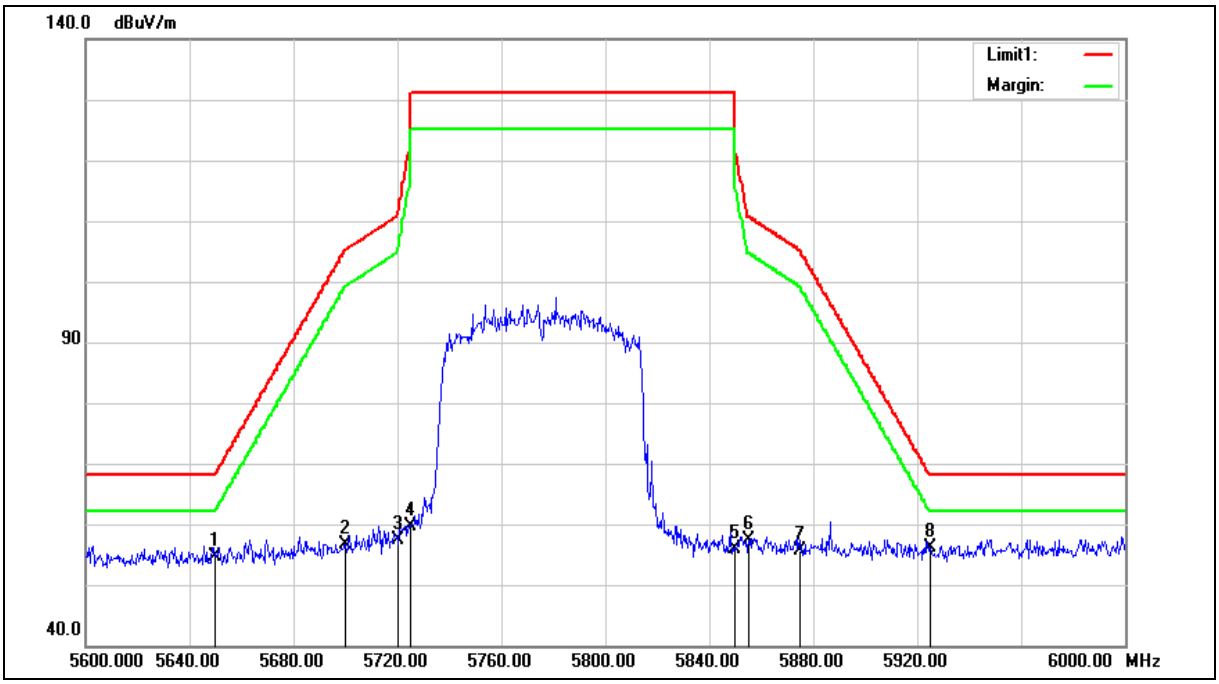
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5144.160	55.59	6.33	61.92	74.00	-12.08	peak
2	5144.160	43.36	6.33	49.69	54.00	-4.31	AVG
3	5150.000	53.27	6.34	59.61	74.00	-14.39	peak
4	5150.000	41.99	6.34	48.33	54.00	-5.67	AVG
5	5350.000	49.06	6.66	55.72	74.00	-18.28	peak
6	5350.000	38.17	6.66	44.83	54.00	-9.17	AVG
7	5429.280	50.92	6.79	57.71	74.00	-16.29	peak
8	5429.280	39.43	6.79	46.22	54.00	-7.78	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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5775 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		



Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5775 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Horizontal		

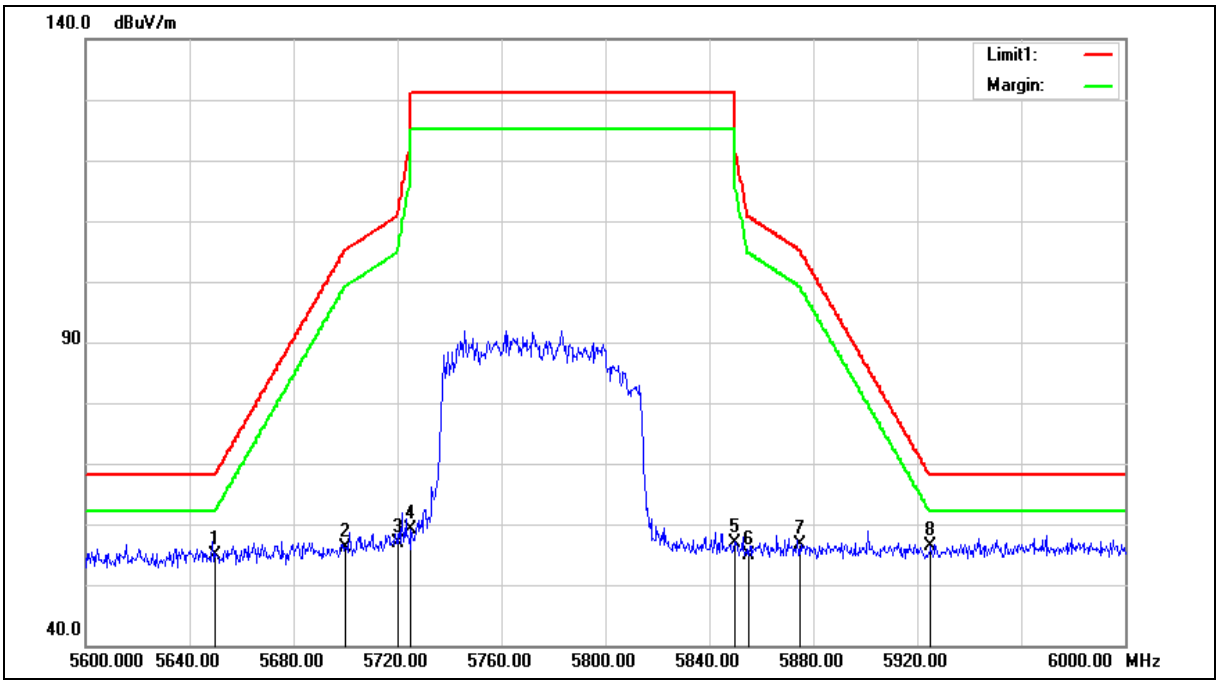
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5650.000	47.48	7.18	54.66	68.20	-13.54	peak
2	5700.000	49.28	7.27	56.55	105.20	-48.65	peak
3	5720.000	50.08	7.32	57.40	110.80	-53.40	peak
4	5725.000	52.28	7.33	59.61	122.20	-62.59	peak
5	5850.000	48.27	7.56	55.83	122.20	-66.37	peak
6	5855.000	49.85	7.57	57.42	110.80	-53.38	peak
7	5875.000	48.12	7.60	55.72	105.20	-49.48	peak
8	5925.000	48.37	7.70	56.07	68.20	-12.13	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 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5775 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
Mode:	Mode 5		
Ant.Polar.:	Vertical		



Standard:	FCC Part 15.407	Test Distance:	3 m
Test item:	Band edge	Power:	AC 120 V/60 Hz
Frequency:	5775 MHz	Temp.(℃)/Hum.(%RH):	26(℃)/60 %RH
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	5650.000	47.59	7.18	54.77	68.20	-13.43	peak
2	5700.000	48.76	7.27	56.03	105.20	-49.17	peak
3	5720.000	49.51	7.32	56.83	110.80	-53.97	peak
4	5725.000	51.68	7.33	59.01	122.20	-63.19	peak
5	5850.000	49.41	7.56	56.97	122.20	-65.23	peak
6	5855.000	47.34	7.57	54.91	110.80	-55.89	peak
7	5875.000	49.04	7.60	56.64	105.20	-48.56	peak
8	5925.000	48.75	7.70	56.45	68.20	-11.75	peak

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

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

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

5.3. Maximum Conducted Output Power Measurement & Additional Rule For Outdoor Operation

Test Mode		Mode 2: IEEE 802.11a Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5180	6M	9.12	0.008	9.19	0.008	12.17	0.016	≤ 30
5200		9.15	0.008	9.09	0.008	12.13	0.016	
5220		9.11	0.008	9.16	0.008	12.15	0.016	
5240		9.17	0.008	9.27	0.008	**12.23**	**0.017**	
5745		9.02	0.008	9.34	0.009	12.19	0.017	≤ 30
5765		9.05	0.008	9.38	0.009	12.23	0.017	
5785		9.03	0.008	9.44	0.009	12.25	0.017	
5805		9.01	0.008	9.38	0.009	12.21	0.017	
5825		9.14	0.008	9.40	0.009	**12.28**	**0.017**	
5180	54M	9.08	0.008	9.15	0.008	12.13	0.016	≤ 30
5200		9.11	0.008	9.02	0.008	12.08	0.016	
5220		9.05	0.008	9.13	0.008	12.10	0.016	
5240		9.14	0.008	9.20	0.008	12.18	0.017	
5745		8.98	0.008	9.25	0.008	12.13	0.016	≤ 30
5765		9.00	0.008	9.34	0.009	12.18	0.017	
5785		8.95	0.008	9.39	0.009	12.19	0.017	
5805		8.94	0.008	9.31	0.009	12.14	0.016	
5825		9.05	0.008	9.32	0.009	12.20	0.017	

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

Test Mode		Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5180	13M	9.41	0.009	9.46	0.009	12.45	0.018	≤ 30
5200		9.33	0.009	9.43	0.009	12.39	0.017	
5220		9.35	0.009	9.44	0.009	12.41	0.017	
5240		9.39	0.009	9.59	0.009	**12.50**	**0.018**	
5745		9.11	0.008	9.80	0.010	12.48	0.018	≤ 30
5765		9.19	0.008	9.85	0.010	12.54	0.018	
5785		9.32	0.009	9.91	0.010	**12.64**	**0.018**	
5805		9.31	0.009	9.87	0.010	12.61	0.018	
5825		9.36	0.009	9.89	0.010	12.64	0.018	
5180	173.4M	9.19	0.008	9.28	0.008	12.25	0.017	≤ 30
5200		9.16	0.008	9.21	0.008	12.20	0.017	
5220		9.13	0.008	9.26	0.008	12.21	0.017	
5240		9.21	0.008	9.41	0.009	12.32	0.017	
5745		8.93	0.008	9.63	0.009	12.30	0.017	≤ 30
5765		8.96	0.008	9.68	0.009	12.35	0.017	
5785		9.10	0.008	9.71	0.009	12.43	0.017	
5805		9.06	0.008	9.65	0.009	12.38	0.017	
5825		9.13	0.008	9.71	0.009	12.44	0.018	

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

Test Mode		Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5190	27M	8.44	0.007	8.52	0.007	11.49	0.014	≤ 30
5230		9.44	0.009	9.64	0.009	**12.55**	**0.018**	
5755		9.23	0.008	9.73	0.009	12.50	0.018	≤ 30
5795		9.33	0.009	9.85	0.010	**12.61**	**0.018**	
5190	400M	8.15	0.007	8.23	0.007	11.20	0.013	≤ 30
5230		9.19	0.008	9.35	0.009	12.28	0.017	
5755		8.89	0.008	9.36	0.009	12.14	0.016	≤ 30
5795		9.08	0.008	9.59	0.009	12.35	0.017	

Test Mode		Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5210	58.6M	6.74	0.005	6.91	0.005	**9.84**	**0.010**	≤ 30
5775		9.42	0.009	9.92	0.010	**12.69**	**0.019**	≤ 30
5210	866.6M	6.19	0.004	6.41	0.004	9.31	0.009	≤ 30
5775		8.91	0.008	9.38	0.009	12.16	0.016	≤ 30

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

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1 Max. Output Power (dBm)	Directional Gain (dBi)	Max_EIRP (dBm)	Max_EIRP (W)	FCC Limit (dBm)
5180	6M	12.17	3.4	15.57	0.036	< 21
5200		12.13	3.4	15.53	0.036	
5220		12.15	3.4	15.55	0.036	
5240		12.23	3.4	15.63	0.037	
5180	54M	12.13	3.4	15.53	0.036	< 21
5200		12.08	3.4	15.48	0.035	
5220		12.10	3.4	15.50	0.035	
5240		12.18	3.4	15.58	0.036	

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1 Max. Output Power (dBm)	Directional Gain (dBi)	Max_EIRP (dBm)	Max_EIRP (W)	FCC Limit (dBm)
5180	13M	12.45	3.4	15.85	0.038	< 21
5200		12.39	3.4	15.79	0.038	
5220		12.41	3.4	15.81	0.038	
5240		12.50	3.4	15.90	0.039	
5180	173.4M	12.25	3.4	15.65	0.037	< 21
5200		12.20	3.4	15.60	0.036	
5220		12.21	3.4	15.61	0.036	
5240		12.32	3.4	15.72	0.037	

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

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1 Max. Output Power (dBm)	Directional Gain (dBi)	Max_EIRP (dBm)	Max_EIRP (W)	FCC Limit (dBm)
5190	27M	11.49	3.4	14.89	0.031	< 21
5230		12.55	3.4	15.95	0.039	
5190	400M	11.20	3.4	14.60	0.029	< 21
5230		12.28	3.4	15.68	0.037	

Test Item		Max_EIRP at any elevation angle > 30° form horizon				
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1 Max. Output Power (dBm)	Directional Gain (dBi)	Max_EIRP (dBm)	Max_EIRP (W)	FCC Limit (dBm)
5210	58.6M	9.84	3.4	13.24	0.021	< 21
5210	866.6M	9.31	3.4	12.71	0.019	< 21

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

5.4. 26dB RF Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode	
Frequency (MHz)	Ant-0	Ant-1
5180	19.390	19.560
5200	19.090	19.630
5240	18.970	19.910

Test Mode	Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode	
Frequency (MHz)	Ant-0	Ant-1
5180	21.560	22.670
5200	20.510	20.680
5240	19.940	20.230

Test Mode	Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode	
Frequency (MHz)	Ant-0	Ant-1
5190	42.310	45.280
5230	41.400	45.910

Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode	
Frequency (MHz)	Ant-0	Ant-1
5210	82.230	80.660

■ **Test Graphs**

Mode 2: IEEE 802.11a Continuous TX mode_ Ant-0	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0	
5190 MHz	
5230 MHz	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ ANT-0	
5210 MHz	

Mode 2: IEEE 802.11a Continuous TX mode_ Ant-1	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ ANT-1	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-1	
5190 MHz	
5230 MHz	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ ANT-1	
5210 MHz	

5.5. 6dB RF Bandwidth Measurement

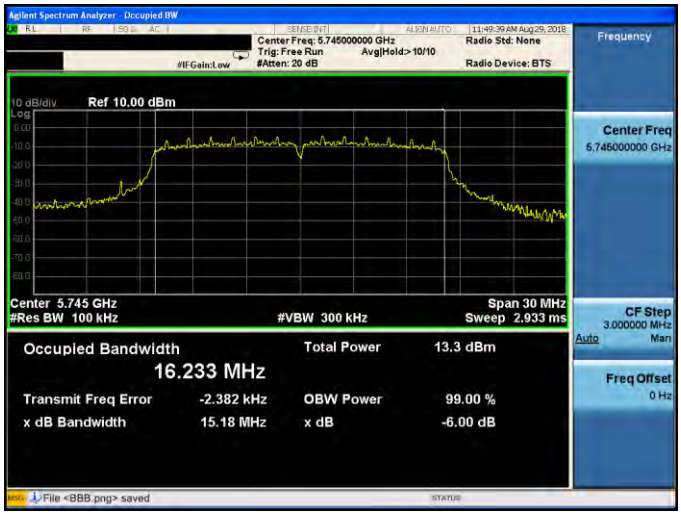
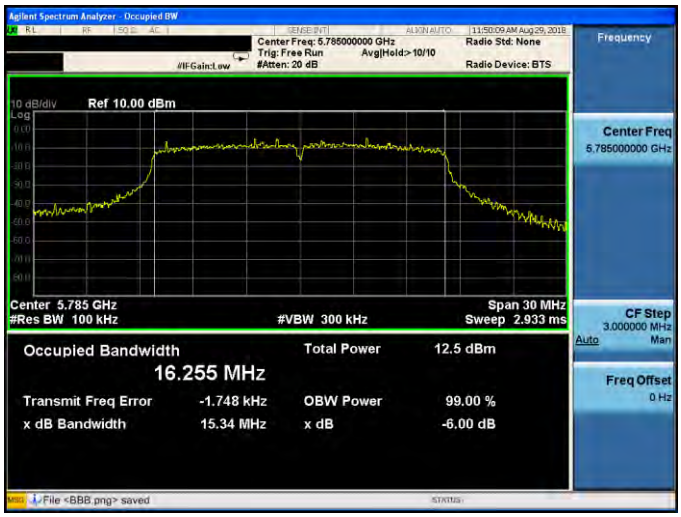
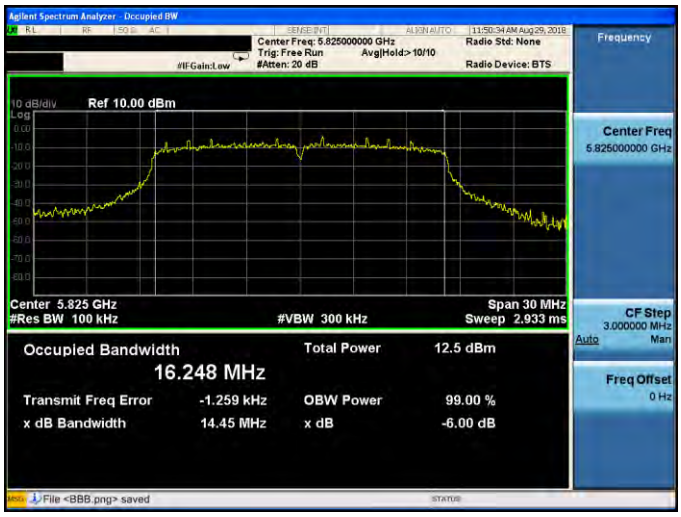
Test Mode	Mode 2: IEEE 802.11a Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5745	15180	15130	≥ 500
5785	15340	14450	≥ 500
5825	14450	15010	≥ 500

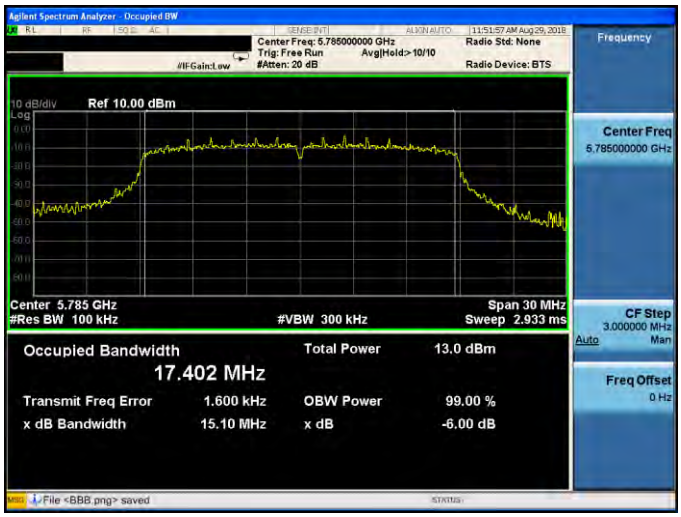
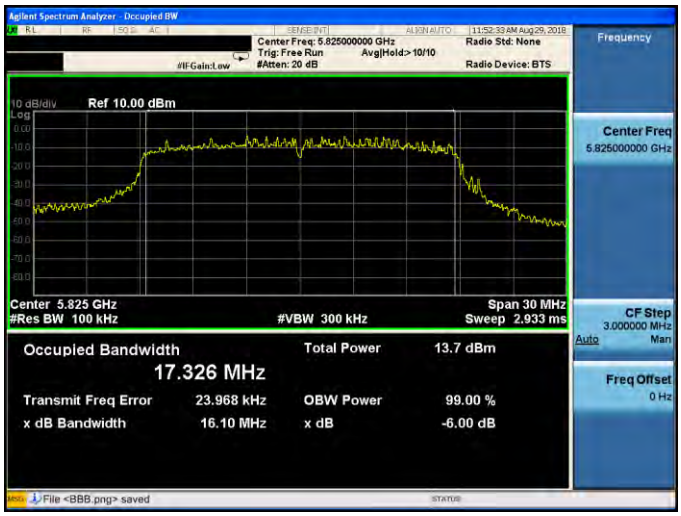
Test Mode	Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5745	15130	15080	≥ 500
5785	15100	15040	≥ 500
5825	16100	15440	≥ 500

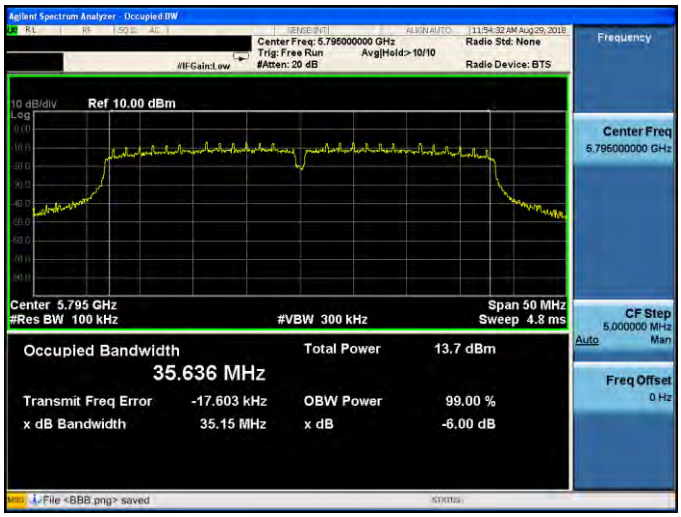
Test Mode	Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5755	33890	35140	≥ 500
5795	35150	35140	≥ 500

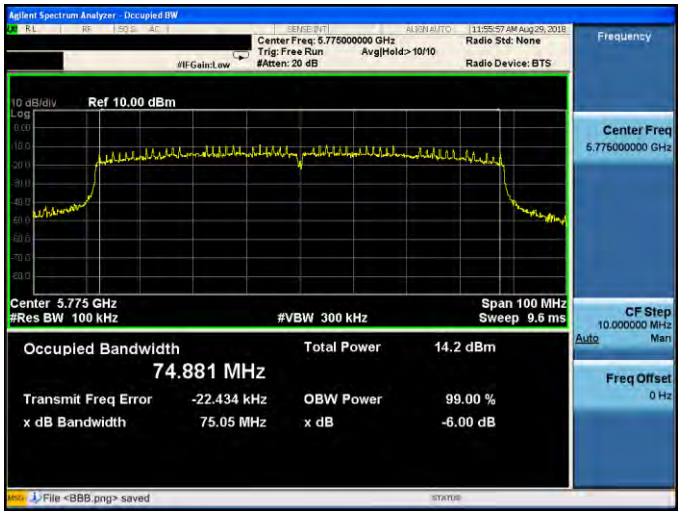
Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5775	75050	75060	≥ 500

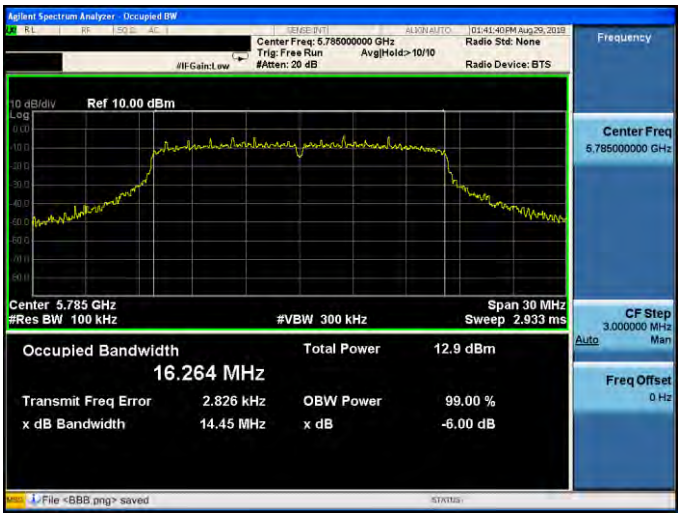
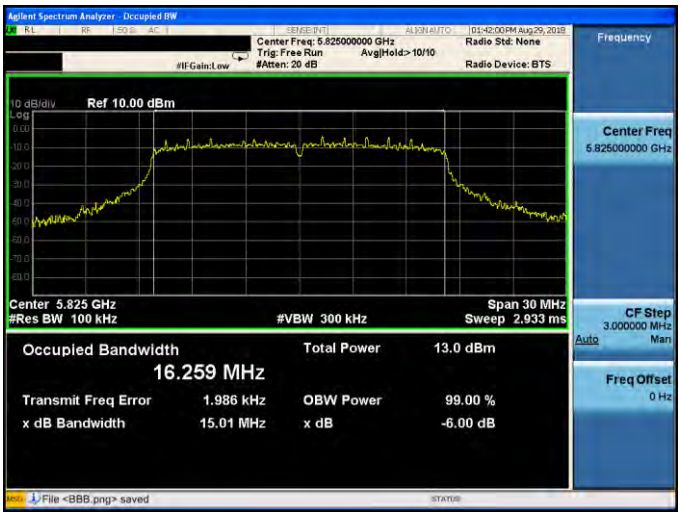
■ **Test Graphs**

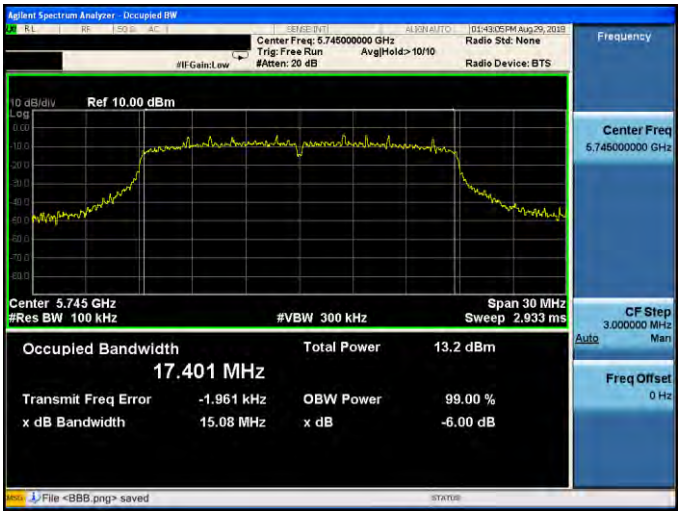
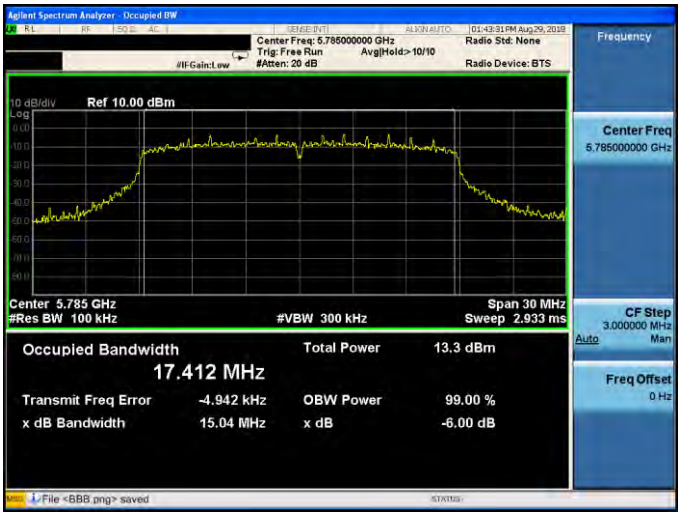
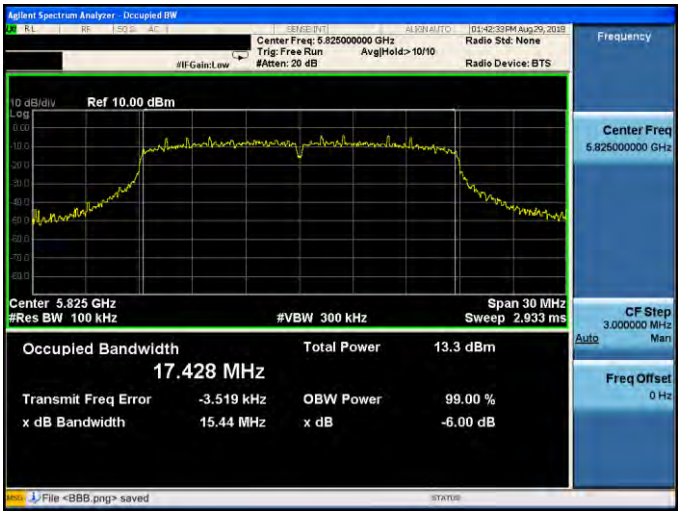
Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	

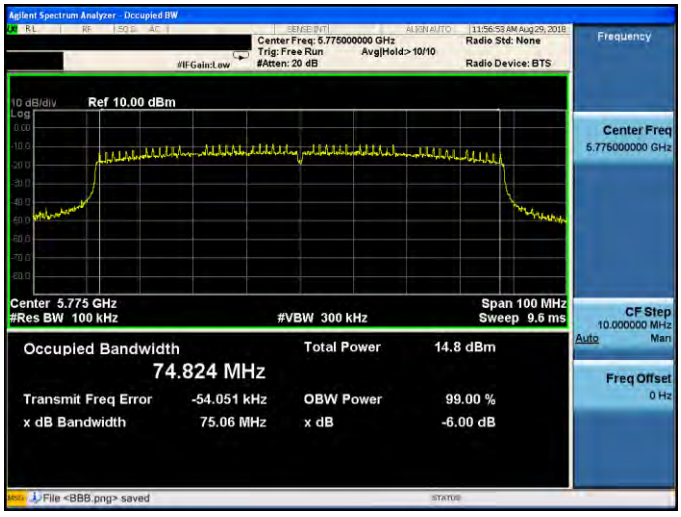
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0	
5755 MHz	
5795 MHz	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5775 MHz	

Mode 2: IEEE 802.11a Continuous TX mode_ANT-1	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1	
5755 MHz	
5795 MHz	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-1	
5775 MHz	

5.6. Maximum Power Spectral Density Measurement

Test Mode	Mode 2: IEEE 802.11a link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-4.818	0.163	-4.655	≤ 16.59
5200	-4.928	0.163	-4.765	
5240	-4.825	0.163	-4.662	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-4.737	0.163	-4.574	≤ 16.59
5200	-4.463	0.163	-4.300	
5240	-3.973	0.163	-3.810	
Power Spectral Density and E.I.R.P. Spectral Density				
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/MHz)			Limit (dBm/MHz)
5180	-1.604			≤ 16.59
5200	-1.516			
5240	-1.205			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 2: IEEE 802.11a link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-13.48	0.163	-6.33	≤ 29.59
5785	-13.65	0.163	-6.49	
5825	-13.92	0.163	-6.77	
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-13.70	0.163	-6.55	≤ 29.59
5785	-13.23	0.163	-6.08	
5825	-12.89	0.163	-5.74	
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/500KHz)			Limit (dBm/500KHz)
5745	-3.43			≤ 29.59
5785	-3.27			
5825	-3.21			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500k/100k)

Test Mode	Mode 3: IEEE 802.11ac 20 MHz link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-5.149	0.131	-5.018	≤ 17
5200	-4.920	0.131	-4.789	
5240	-4.609	0.131	-4.478	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	-4.840	0.131	-4.709	≤ 17
5200	-4.572	0.131	-4.441	
5240	-4.209	0.131	-4.078	
Power Spectral Density and E.I.R.P. Spectral Density				
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/MHz)			Limit (dBm/MHz)
5180	-1.850			≤ 17
5200	-1.601			
5240	-1.263			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 3: IEEE 802.11ac 20 MHz link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-13.82	0.131	-6.70	≤ 30
5785	-13.63	0.131	-6.50	
5825	-13.37	0.131	-6.25	
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-13.18	0.131	-6.06	≤ 30
5785	-12.95	0.131	-5.83	
5825	-12.98	0.131	-5.86	
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/500KHz)			Limit (dBm/500KHz)
5745	-3.36			≤ 30
5785	-3.14			
5825	-3.04			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500k/100k)

Test Mode	Mode 4: IEEE 802.11ac 40 MHz link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	-9.187	0.389	-8.798	≤ 17
5230	-7.605	0.389	-7.216	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	-9.070	0.389	-8.681	≤ 17
5230	-7.738	0.389	-7.349	
Power Spectral Density and E.I.R.P. Spectral Density				
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/MHz)			Limit (dBm/MHz)
5190	-5.729			≤ 17
5230	-4.272			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 4: IEEE 802.11ac 40 MHz link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5755	-16.81	0.389	-9.43	≤ 30
5795	-16.38	0.389	-9.00	
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5755	-16.52	0.389	-9.14	≤ 30
5795	-16.03	0.389	-8.65	
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/500KHz)			Limit (dBm/500KHz)
5755	-6.27			≤ 30
5795	-5.81			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500k/100k)

Test Mode	Mode 5: IEEE 802.11ac 80 MHz link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-14.304	0.704	-13.600	≤ 17
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-13.786	0.704	-13.082	≤ 17
Power Spectral Density and E.I.R.P. Spectral Density				
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/MHz)			Limit (dBm/MHz)
5210	-10.323			≤ 17

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

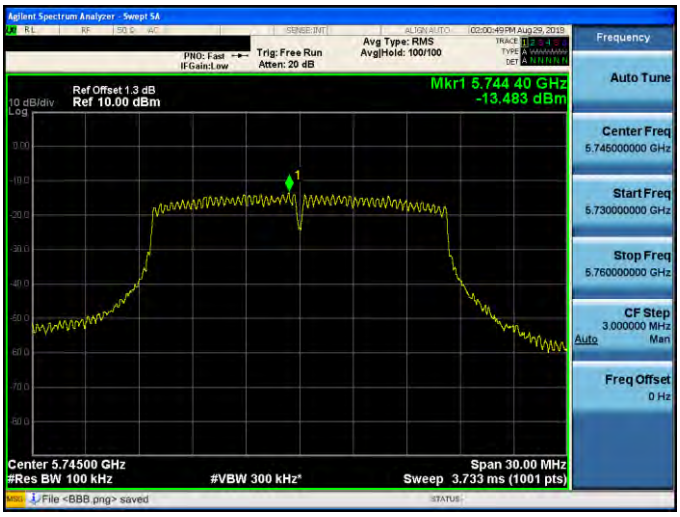
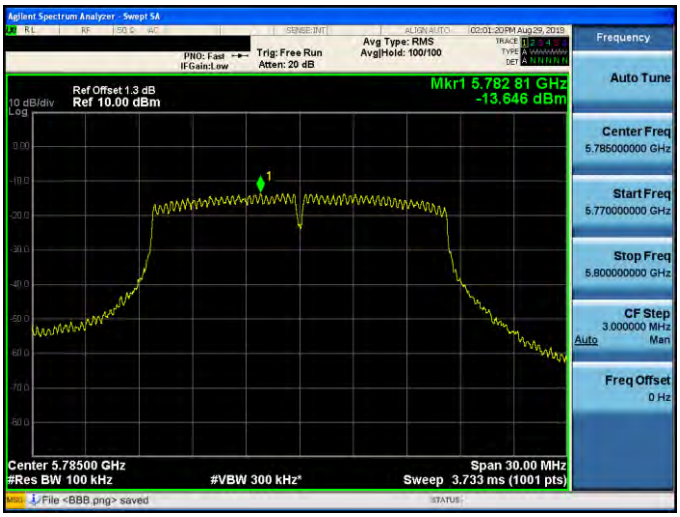
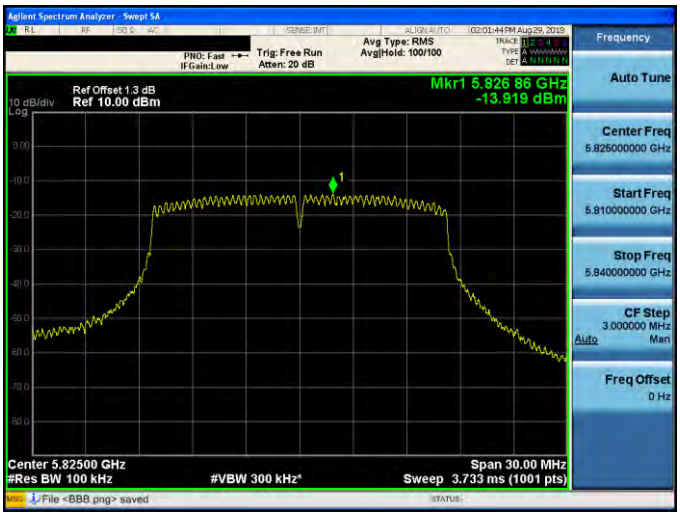
Test Mode	Mode 5: IEEE 802.11ac 80 MHz link mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5775	-20.31	0.704	-12.61	≤ 30
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5775	-19.51	0.704	-11.82	≤ 30
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/500KHz)			Limit (dBm/500KHz)
5775	-9.19			≤ 30

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

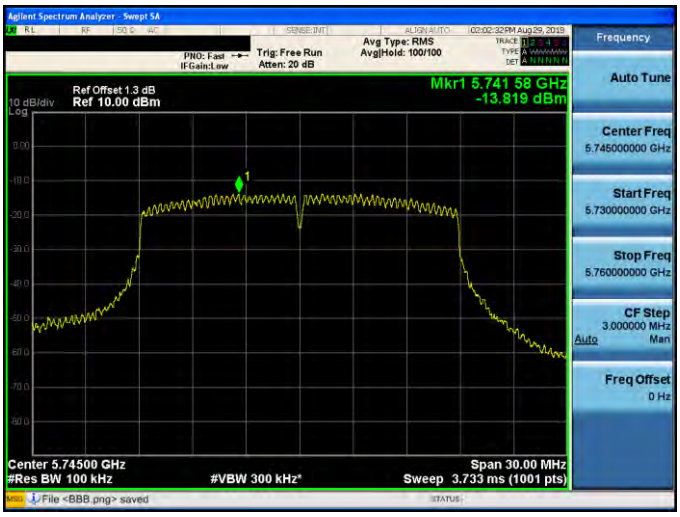
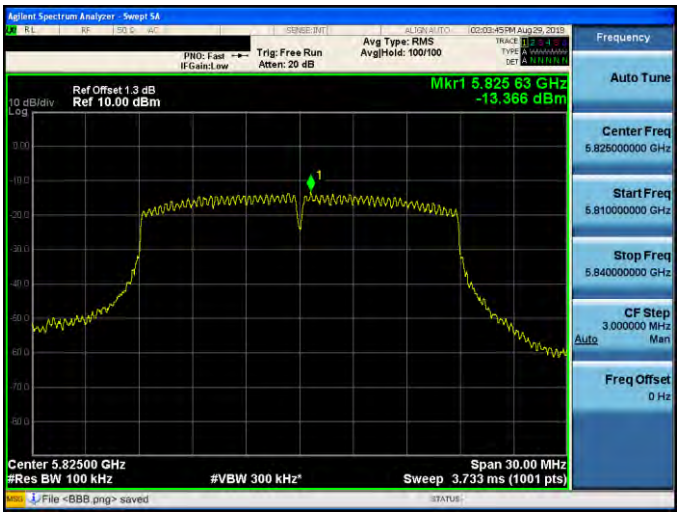
Conversion ratio = 10*Log(500k/100k)

■ **Test Graphs**

Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	

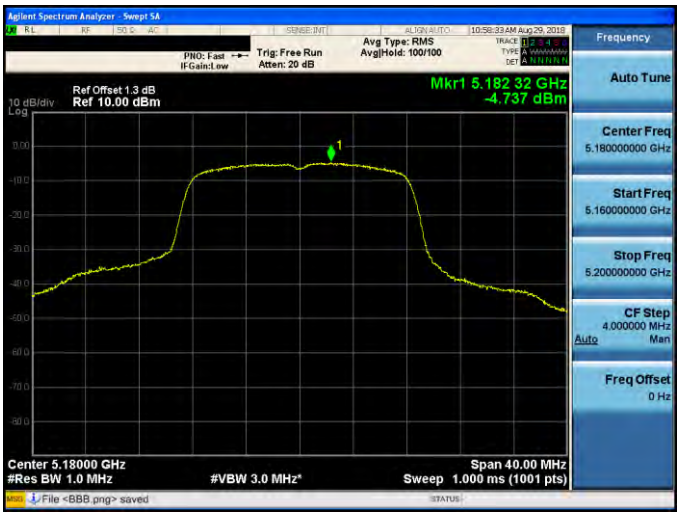
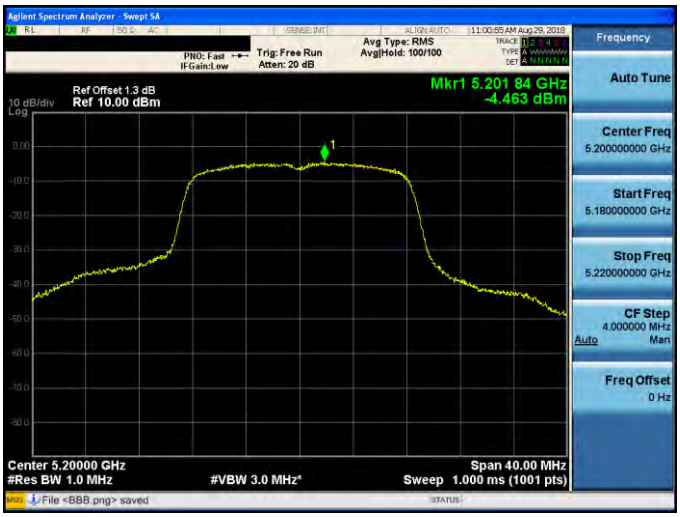
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	

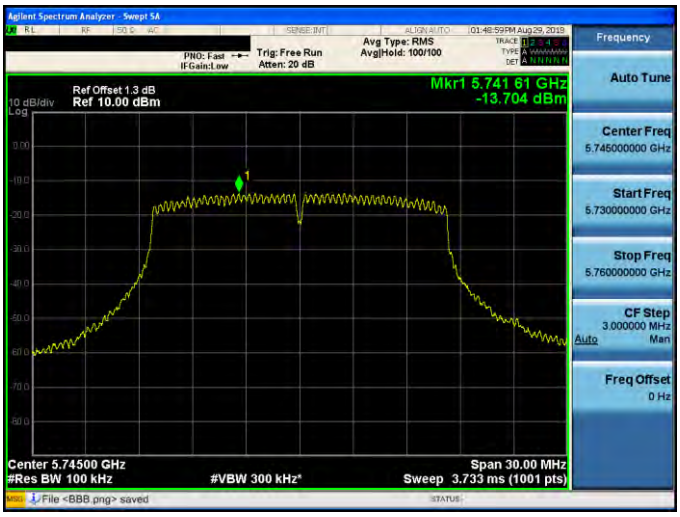
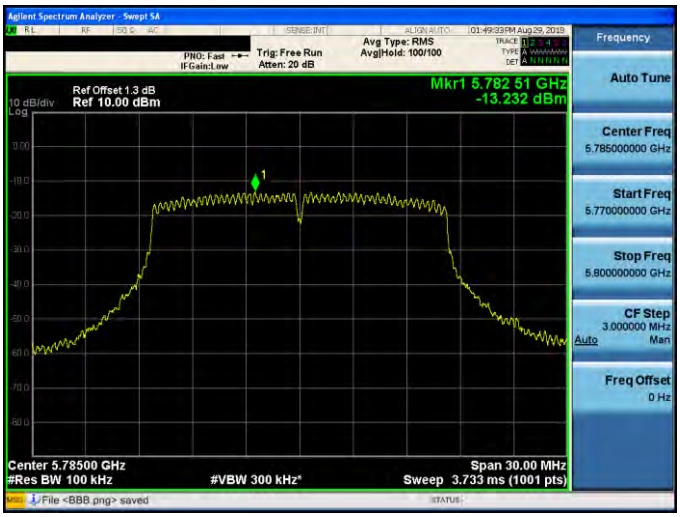
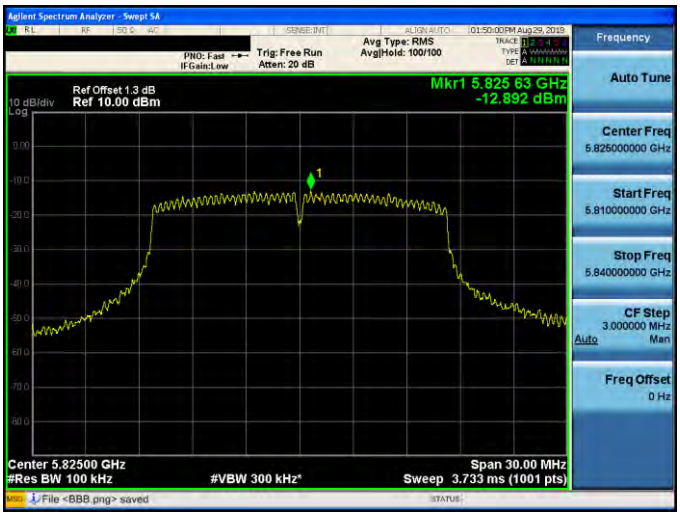
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0	
5190 MHz	
5230 MHz	

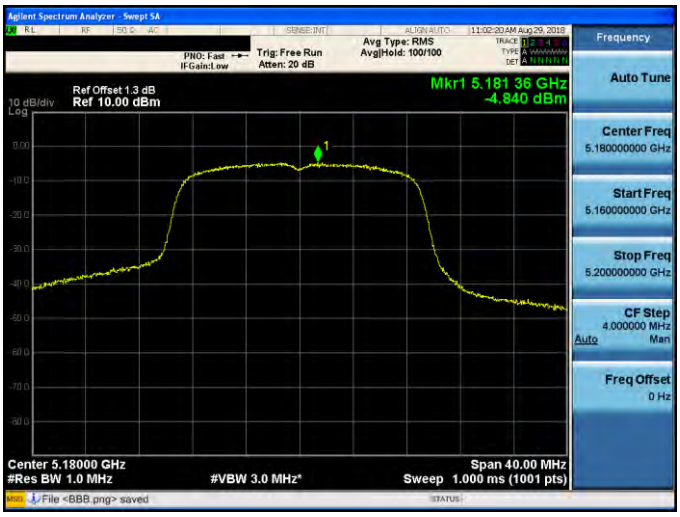
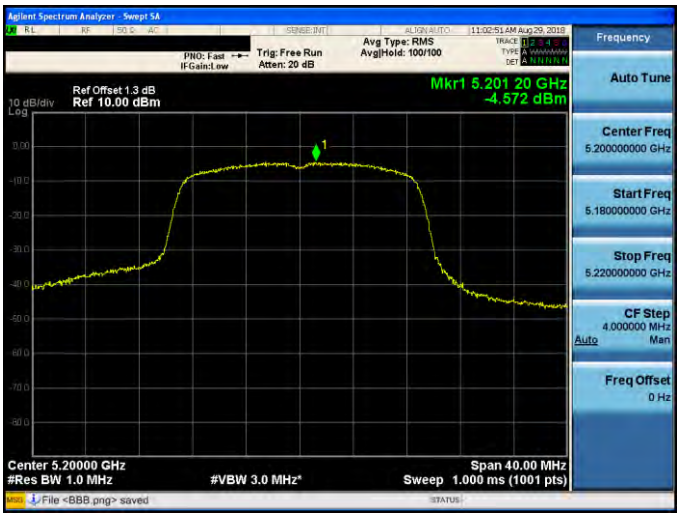
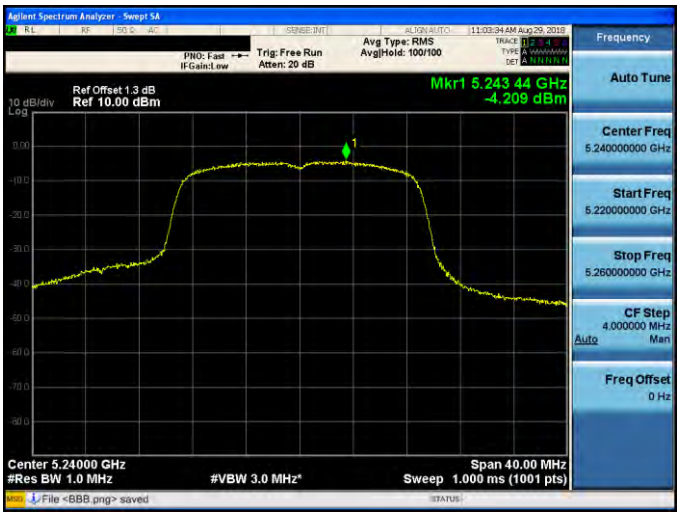
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0	
5755 MHz	
5795 MHz	

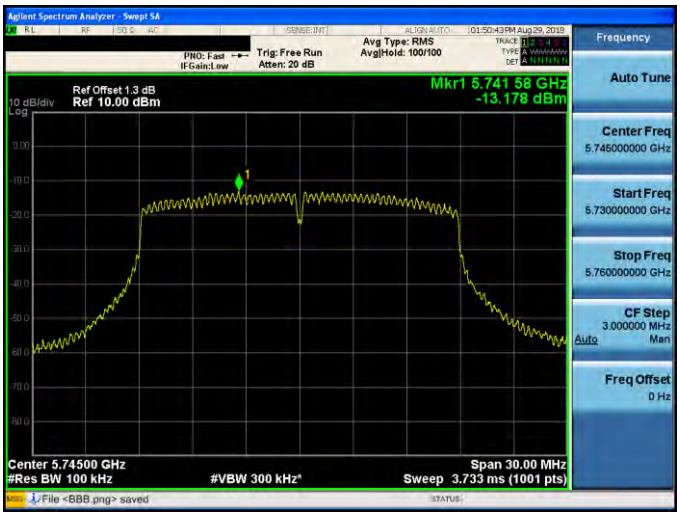
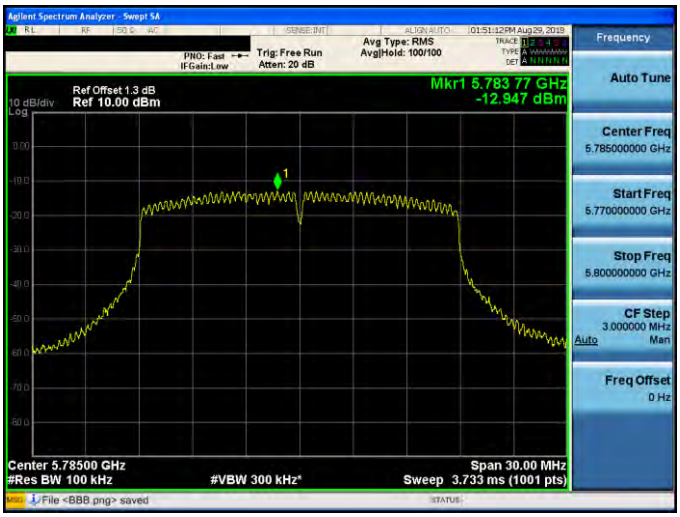
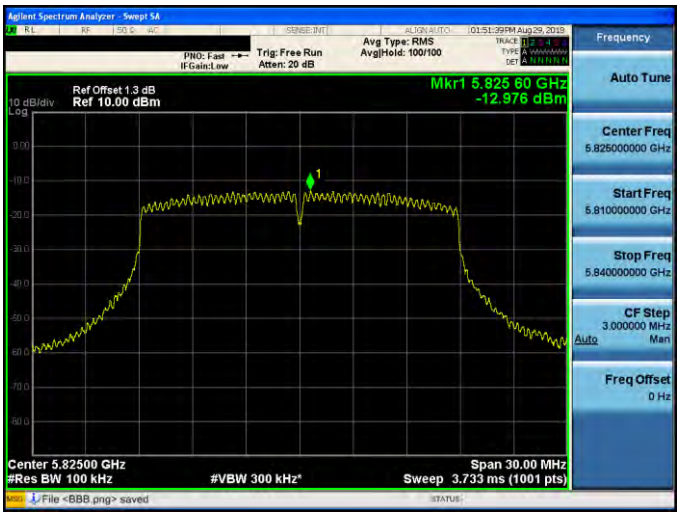
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0	
5210 MHz	

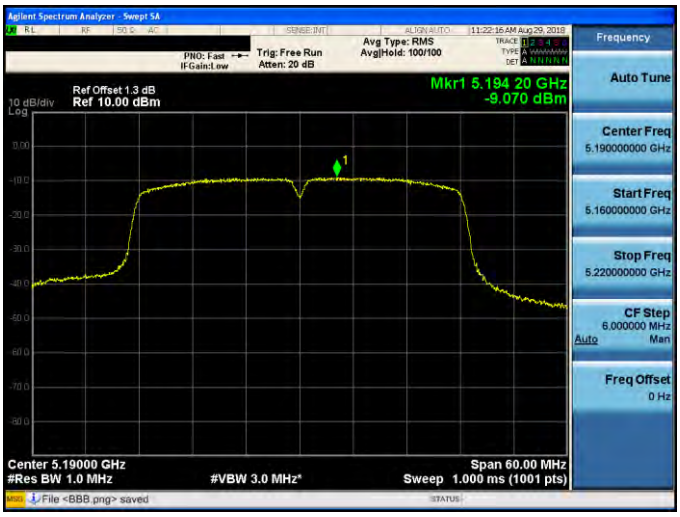
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0	
5775 MHz	

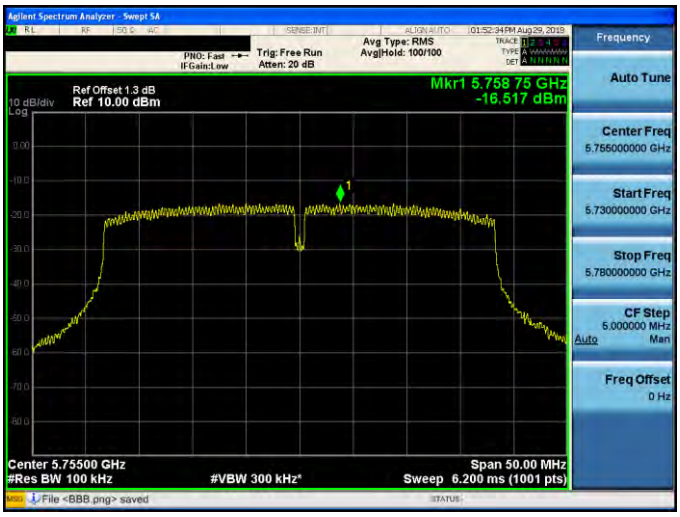
Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-1	
5190 MHz	
5230 MHz	

Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-1	
5755 MHz	
5795 MHz	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-1	
5210 MHz	

Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-1	
5775 MHz	

5.7. Frequency Stability Measurement

Temperature Variations

Frequency	Temp. (°C)	Voltage (Vdc)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	-30	3.8	5199.9498	-50200	-9.654	Pass
	-20		5199.9621	-37900	-7.288	Pass
	-10		5199.9691	-30900	-5.942	Pass
	0		5199.975	-25000	-4.808	Pass
	10		5199.9929	-7100	-1.365	Pass
	20		5199.9967	-3300	-0.635	Pass
	30		5200.0119	11900	2.288	Pass
	40		5200.0243	24300	4.673	Pass
	50		5200.0384	38400	7.385	Pass
5785 MHz	-30	3.8	5784.9496	-50400	-8.712	Pass
	-20		5784.9561	-43900	-7.589	Pass
	-10		5784.9736	-26400	-4.564	Pass
	0		5784.9818	-18200	-3.146	Pass
	10		5784.9872	-12800	-2.213	Pass
	20		5784.9959	-4100	-0.709	Pass
	30		5785.0137	13700	2.368	Pass
	40		5785.0268	26800	4.633	Pass
	50		5785.0311	31100	5.376	Pass

Voltage Variations

Frequency	Temp. (°C)	Voltage (Vdc)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	3.5	5199.9928	-7200	-1.385	Pass
		3.8	5199.9959	-4100	-0.788	Pass
		4.35	5200.0103	10300	1.981	Pass
5785 MHz	20	3.5	5784.989	-11000	-1.901	Pass
		3.8	5785.0007	700	0.121	Pass
		4.35	5785.0085	8500	1.469	Pass

Note: The manufacturer's frequency stability specification is better than 20 ppm.