



中国认可
国际互认
检测
TESTING
CNAS L5313



DEKRA

Test Report

FCC Part15 Subpart C

Product Name : 300Mbps Wi-Fi Range Extender

Model No. : TL-WA855RE

FCC ID : TE7WA855REV2

Applicant : TP-Link Technologies Co., Ltd.

Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central
Science and Technology Park, Shennan Rd, Nanshan,
Shenzhen, China

Date of Receipt : Dec. 05, 2016

Test Date : Dec. 05, 2016~ Jan. 18, 2017

Issued Date : Jan. 28, 2017

Report No. : 16C2012R-RF-US-P06V01

Report Version : V1.1

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, CNAS or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd. Corporation.

Test Report Certification

Issued Date : Jan. 28, 2017
 Report No. : 16C2012R-RF-US-P06V01



Product Name : 300Mbps Wi-Fi Range Extender
 Applicant : TP-Link Technologies Co., Ltd.
 Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
 Manufacturer : TP-Link Technologies Co., Ltd.
 Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
 Model No. : TL-WA855RE
 FCC ID : TE7WA855REV2
 EUT Voltage : AC 100-240V,50/60Hz 0.3A
 Test Voltage : AC 120V/60Hz
 Brand Name : TP-Link
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart C
 ANSI C63.4:2014; ANSI C63.10:2013;
 KDB 558074 D01v03r05
 KDB 662911 D01 Multiple Transmitter Output v02r01
 Test Result : Complied
 Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.
 Corporation - Suzhou EMC Laboratory
 No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
 TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
 FCC Registration Number: 800392

Documented By : 

 (Adm. Specialist: Kitty Li)

Reviewed By : 

 (Senior Engineer: Jack Zhang)

Approved By : 

 (Engineering Manager: Harry Zhao)

TABLE OF CONTENTS

Description	Page
1. General Information	6
1.1. EUT Description	6
1.2. Working Frequency of Each Channel:	6
1.3. Antenna information	7
1.4. Mode of Operation	8
1.5. Tested System Details	8
1.6. Configuration of Tested System	9
2. Technical Test	11
2.1. Summary of Test Result	11
2.2. Test Frequency configuration:	11
2.3. Power setting parameter	12
2.4. Power vs Data Rate	13
2.5. Test Environment	14
2.6. Measurement Uncertainty	14
3. AC Power Line Conducted Emission	15
3.1. Test Equipment	15
3.2. Test Setup	15
3.3. Limit	16
3.4. Test Procedure	16
3.5. Test Result	17
4. Emissions in restricted frequency bands	19
4.1. Test Equipment	19
4.2. Test Setup	20
4.3. Limit	21
4.4. Test Procedure	23
4.5. EUT test Axis definition	24
4.6. Test Result	25
5. Emissions in non-restricted frequency bands	31
5.1. Test Equipment	31
5.2. Test Setup	32
5.3. Limit	33
5.4. Test Procedure	34
5.5. EUT test Axis definition	35
5.6. Test Result	36
6. Radiated Emission Band Edge	38
6.1. Test Equipment	38
6.2. Test Setup	39

6.3.	Limit.....	39
6.4.	Test Procedure	40
6.5.	EUT test definition	41
6.6.	Duty Cycle	42
6.7.	Test Result.....	43
7.	Occupied Bandwidth.....	43
7.1.	Test Equipment.....	131
7.2.	Test Setup.....	131
7.3.	Limit.....	132
7.4.	Test Procedure	132
7.5.	EUT test definition	133
7.6.	Test Result.....	134
8.	Fundamental emission output power	136
8.1.	Test Equipment.....	136
8.2.	Test Setup.....	136
8.3.	Limit.....	137
8.4.	Test Procedure	138
8.5.	EUT test definition	140
8.6.	Test Result.....	141
9.	Power Spectral Density	142
9.1.	Test Equipment.....	142
9.2.	Test Setup.....	142
9.3.	Limit.....	142
9.4.	Test Procedure	143
9.5.	EUT test definition	145
9.6.	Test Result.....	146

History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
16C2012R-RF-US-P06V01	V1.0	Initial Issued Report	Jan. 24, 2017
16C2012R-RF-US-P06V01	V1.1	Page 17,29 add channel and mode description.	Jan. 28, 2017

1. General Information

1.1. EUT Description

Product Name	300Mbps Wi-Fi Range Extender
Brand Name	TP-Link
Model No.	TL-WA855RE
EUT Voltage	AC 100-240V,50/60Hz 0.3A
Frequency Range	For 2.4GHz Band 802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz
Channel Number	For 2.4GHz Band 802.11b/g/n(20MHz): 11 802.11n(40MHz): 7
Type of Modulation	802.11b: DSSS 802.11g: OFDM
Data Rate	802.11g: 6/9/12/18/24/36/48/54 Mbps 802.11b: 1/2/5.5/11 Mbps 802.11n: up to 300 Mbps
Channel Control	Auto

1.2. Working Frequency of Each Channel:

802.11b/g/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	N/A	N/A
802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz	N/A	N/A

1.3. Antenna information

Model No.	TL-WA855RE					
Antenna manufacturer	TP-Link					
Antenna Delivery	<input type="checkbox"/>	1*TX+1*RX	<input checked="" type="checkbox"/>	2*TX+2*RX	<input type="checkbox"/>	3*TX+3*RX
Antenna technology	<input type="checkbox"/>	SISO				
	<input checked="" type="checkbox"/>	MIMO	<input type="checkbox"/>	Basic		
			<input checked="" type="checkbox"/>	CDD		
			<input type="checkbox"/>	Sectorized		
			<input type="checkbox"/>	Beam-forming		
Antenna Type	<input checked="" type="checkbox"/>	External	<input checked="" type="checkbox"/>	Dipole		
			<input type="checkbox"/>	Sectorized		
	<input type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA		
			<input type="checkbox"/>	PCB		
			<input type="checkbox"/>	Ceramic Chip Antenna		
			<input type="checkbox"/>	Metal plate type F antenna		
	Antenna Technology	Ant Gain (dBi)			Directional Gain (dBi)	
					For Power	For PSD
<input checked="" type="checkbox"/> CDD	Ant0:2 Ant1: 2			2	5	

1.4. Mode of Operation

Test Modes List
Mode 1: Transmit by 802.11b
Mode 2: Transmit by 802.11g
Mode 3: Transmit by 802.11n(20MHz)
Mode 4: Transmit by 802.11n(40MHz)

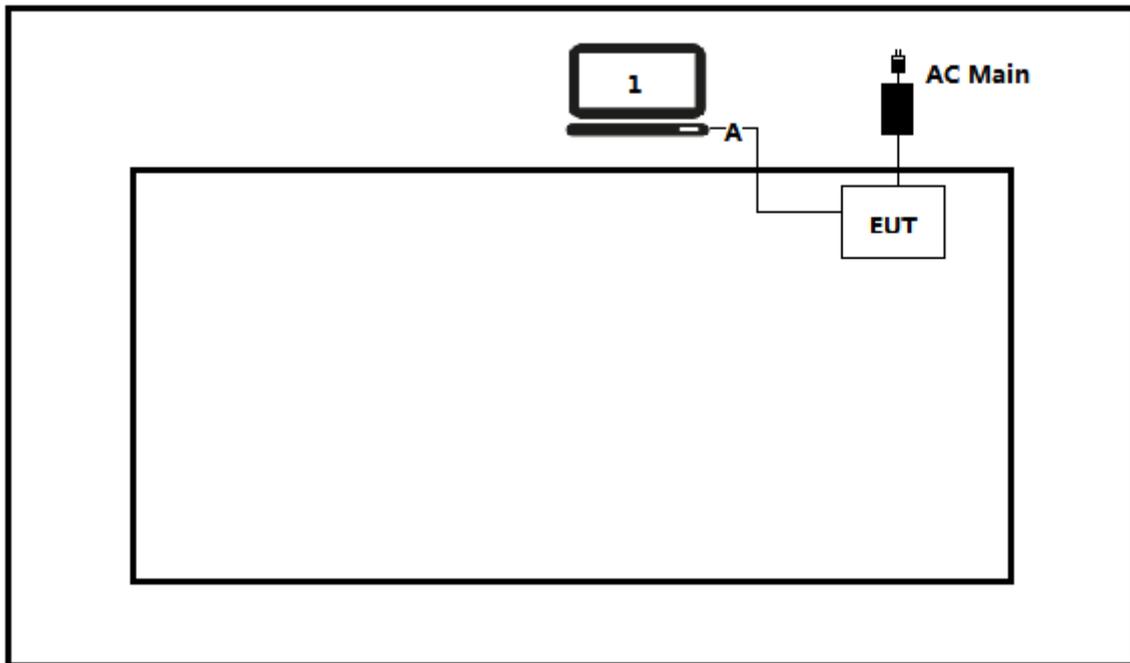
1.5. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

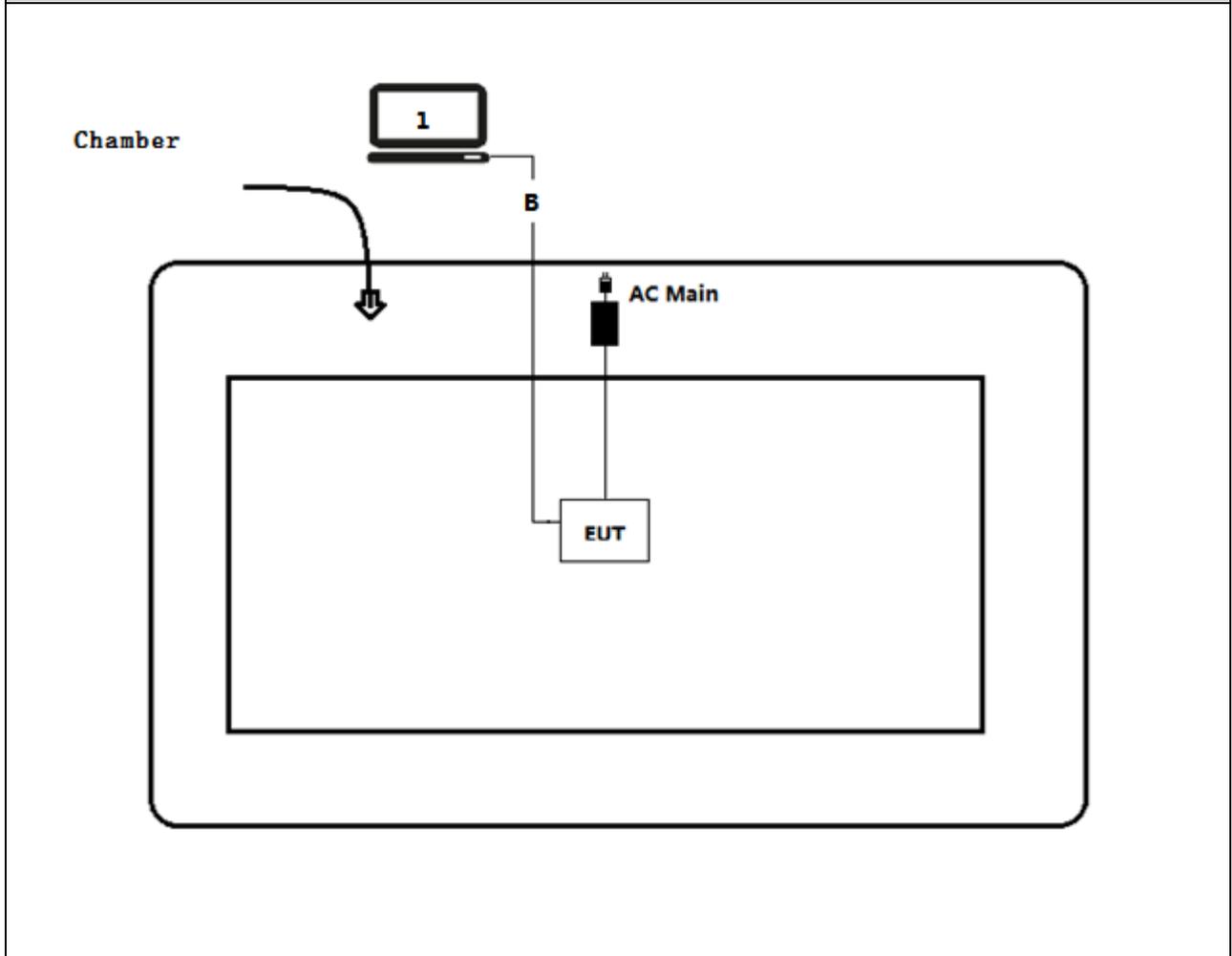
No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	Think pad x220	SUA0600195	Non-shielded
A	LAN cable	N/A	N/A	N/A	Non-shielded, 1.5m
B	LAN cable	N/A	N/A	N/A	Non-shielded, 10m

1.6. Configuration of Tested System

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



2. Technical Test

2.1. Summary of Test Result

Performed Test Item	Normative References	Limit	Result
AC Power Line Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.207	FCC 15.207	PASS
Emissions in restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.209	FCC 15.209	PASS
Emissions in non-restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(d)	30dBc	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2015 15.247(d)	FCC 15.209	PASS
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(a)(2)	500kHz	PASS
Fundamental emission output power	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(b)(3)	30dBm	PASS
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(e)	8dBm/3kHz	PASS
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.203	FCC 15.203	PASS
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.203	FCC 15.203	PASS

2.2. Test Frequency configuration:

Modulation Mode	Channel	Frequency	Channel	Frequency	Channel	Frequency
802.11b	01	2412 MHz	06	2437 MHz	11	2462MHz
802.11g	01	2412 MHz	06	2437 MHz	11	2462MHz
802.11n(20MHz)	01	2412 MHz	06	2437 MHz	11	2462MHz
802.11n(40MHz)	03	2422 MHz	06	2437 MHz	09	2452MHz

2.3. Power setting parameter

Test Software	QA Tool			
Modulation Mode	Test Frequency	Ant 0	Ant 1	Ant 0+1
802.11b	2412	N/A	N/A	23
	2437	N/A	N/A	29
	2462	N/A	N/A	21
802.11g	2412	N/A	N/A	1B
	2437	N/A	N/A	26
	2462	N/A	N/A	1C
802.11n(20MHz)	2412	N/A	N/A	1A
	2437	N/A	N/A	26
	2462	N/A	N/A	18
802.11n(40MHz)	2422	N/A	N/A	13
	2437	N/A	N/A	1C
	2452	N/A	N/A	12

2.4. Power vs Data Rate

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)						
		802.11b	802.11g		20MHz Bandwidth		40MHz Bandwidth	
					800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	---	6.5	7.2	13.5	15.0
1	1	2	9	---	13.0	14.4	27.0	30.0
2	1	5.5	12	---	19.5	21.7	40.5	45.0
3	1	11	18	---	26.0	28.9	54.0	60.0
4	1	---	24	---	39.0	43.3	81.0	90.0
5	1	---	36	---	52.0	57.8	108.0	120.0
6	1	---	48	---	58.5	65.0	121.5	135.0
7	1	---	54	---	65.0	72.2	135.0	150.0
8	2	---	---	---	13.0	14.4	27.0	30.0
9	2	---	---	---	26.0	28.9	54.0	60.0
10	2	---	---	---	39.0	43.3	81.0	90.0
11	2	---	---	---	52.0	57.8	108.0	120.0
12	2	---	---	---	78.0	86.7	162.0	180.0
13	2	---	---	---	104.0	115.6	216.0	240.0
14	2	---	---	---	117.0	130.0	243.0	270.0
15	2	---	---	---	130.0	144.0	270.0	300.0

Note 1 : The blue form is the maximum power data rate

Note 2 : The EUT has two spatial Streams

2.5. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

2.6. Measurement Uncertainty

Test Items	Uncertainty
AC Power Line Conducted Emission	$\pm 2.02\text{dB}$
Radiated Emission	Below 1GHz $\pm 3.8\text{ dB}$
	Above 1GHz $\pm 3.9\text{ dB}$
RF Antenna Port Conducted Emission	$\pm 1.27\text{dB}$
Radiated Emission Band Edge	$\pm 3.9\text{dB}$
Occupied Bandwidth	$\pm 1\text{kHz}$
Power Spectral Density	$\pm 1.27\text{dB}$

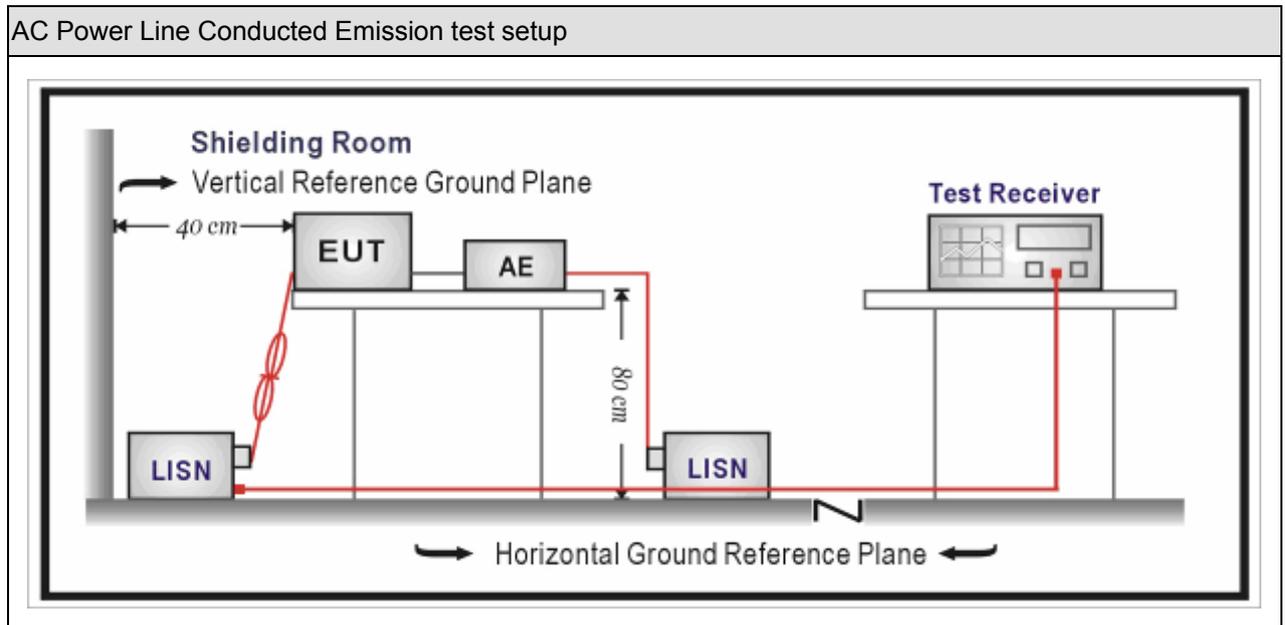
3. AC Power Line Conducted Emission

3.1. Test Equipment

AC Power Line Conducted Emission / TR-1					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100726	2016.03.29	2017.03.28
Two-Line V-Network	R&S	ENV216	100043	2016.03.29	2017.03.28
Two-Line V-Network	R&S	ENV216	100044	2016.09.16	2017.09.15
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2016.03.02	2017.03.01
50ohm Termination	SHX	TF2	07081401	2016.09.16	2017.09.15
Temperature/Humidity Meter	zhichen	ZC1-2	TR1-TH	2017.01.03	2018.01.02

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

3.2. Test Setup



3.3. Limit

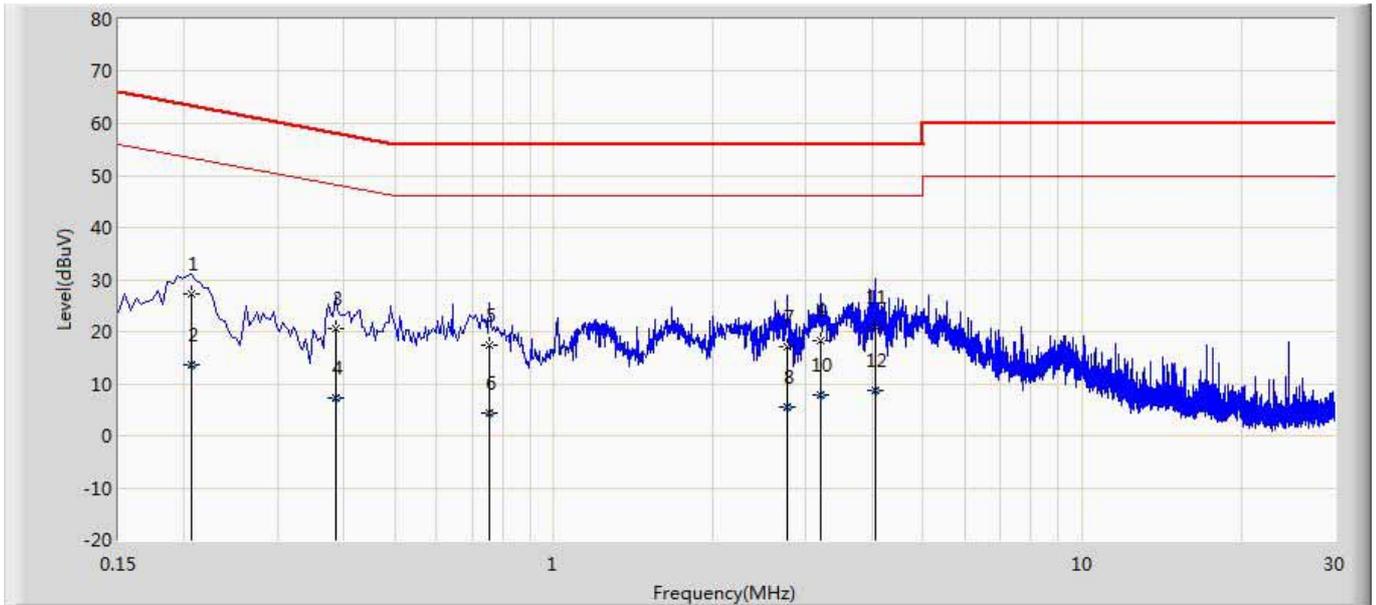
Frequency of Emission (MHz)	Conducted Limit	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Note 1: The lower limit shall apply at the transition frequencies.		
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

3.4. Test Procedure

Test Method			
	References Rule	Chapter	Item
<input checked="" type="checkbox"/>	ANSI C63.10-2013	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices
<input checked="" type="checkbox"/>	ANSI C63.4-2014	7	AC power-line conducted emission measurements

3.5. Test Result

Site: TR1	Time: 2016/12/19
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216-L1	Polarity: Line
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Transmit at channel 6 by 802.11b	

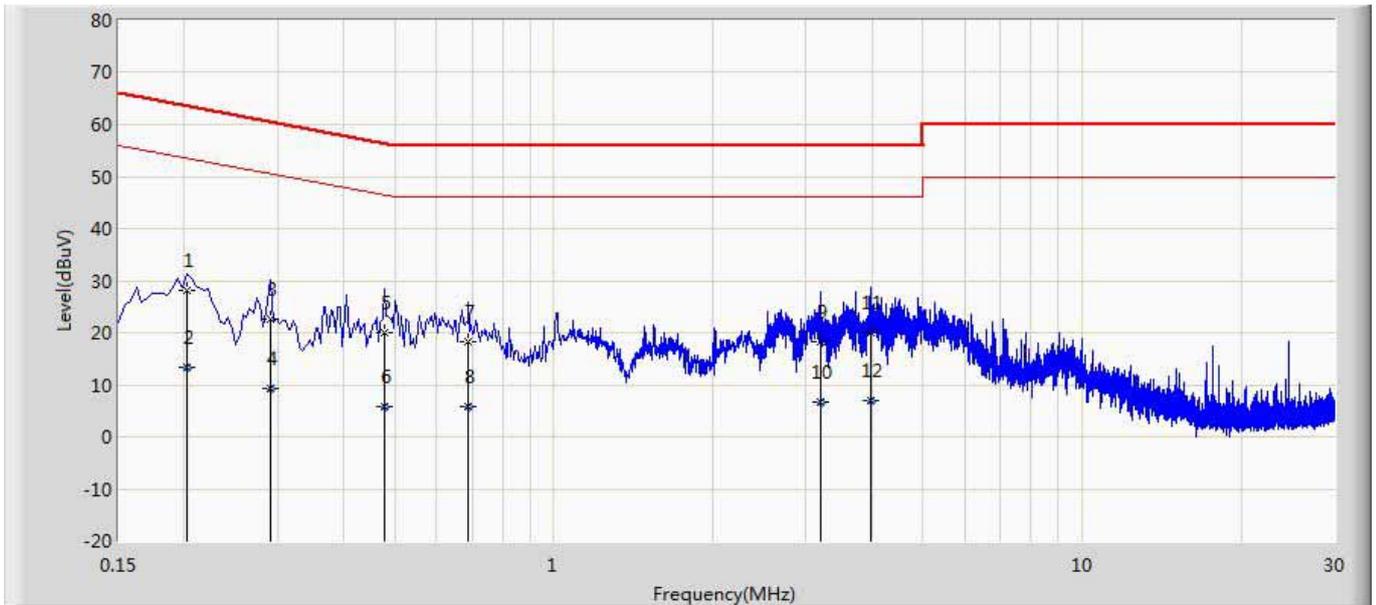


No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.206	27.265	17.555	-36.100	63.365	9.650	0.060	0.000	QP
2		0.206	13.480	3.770	-39.885	53.365	9.650	0.060	0.000	AV
3		0.386	20.605	10.905	-37.544	58.149	9.640	0.060	0.000	QP
4		0.386	7.323	-2.377	-40.826	48.149	9.640	0.060	0.000	AV
5		0.754	17.467	7.777	-38.533	56.000	9.620	0.070	0.000	QP
6		0.754	4.399	-5.291	-41.601	46.000	9.620	0.070	0.000	AV
7		2.762	17.220	7.460	-38.780	56.000	9.650	0.110	0.000	QP
8		2.762	5.608	-4.152	-40.392	46.000	9.650	0.110	0.000	AV
9		3.198	18.302	8.532	-37.698	56.000	9.650	0.120	0.000	QP
10		3.198	7.818	-1.952	-38.182	46.000	9.650	0.120	0.000	AV
11	*	4.050	21.004	11.204	-34.996	56.000	9.660	0.140	0.000	QP
12		4.050	8.811	-0.989	-37.189	46.000	9.660	0.140	0.000	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Site: TR1	Time: 2016/12/19
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216-N	Polarity: Neutral
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Transmit at channel 6 by 802.11b	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1	*	0.202	28.112	18.392	-35.416	63.528	9.660	0.060	0.000	QP
2		0.202	13.472	3.752	-40.056	53.528	9.660	0.060	0.000	AV
3		0.290	22.490	12.780	-38.034	60.524	9.650	0.060	0.000	QP
4		0.290	9.392	-0.318	-41.132	50.524	9.650	0.060	0.000	AV
5		0.478	20.137	10.437	-36.237	56.374	9.630	0.070	0.000	QP
6		0.478	5.916	-3.784	-40.458	46.374	9.630	0.070	0.000	AV
7		0.690	18.317	8.607	-37.683	56.000	9.640	0.070	0.000	QP
8		0.690	5.740	-3.970	-40.260	46.000	9.640	0.070	0.000	AV
9		3.190	18.329	8.559	-37.671	56.000	9.650	0.120	0.000	QP
10		3.190	6.539	-3.231	-39.461	46.000	9.650	0.120	0.000	AV
11		3.986	20.029	10.229	-35.971	56.000	9.660	0.140	0.000	QP
12		3.986	7.011	-2.789	-38.989	46.000	9.660	0.140	0.000	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

4. Emissions in restricted frequency bands

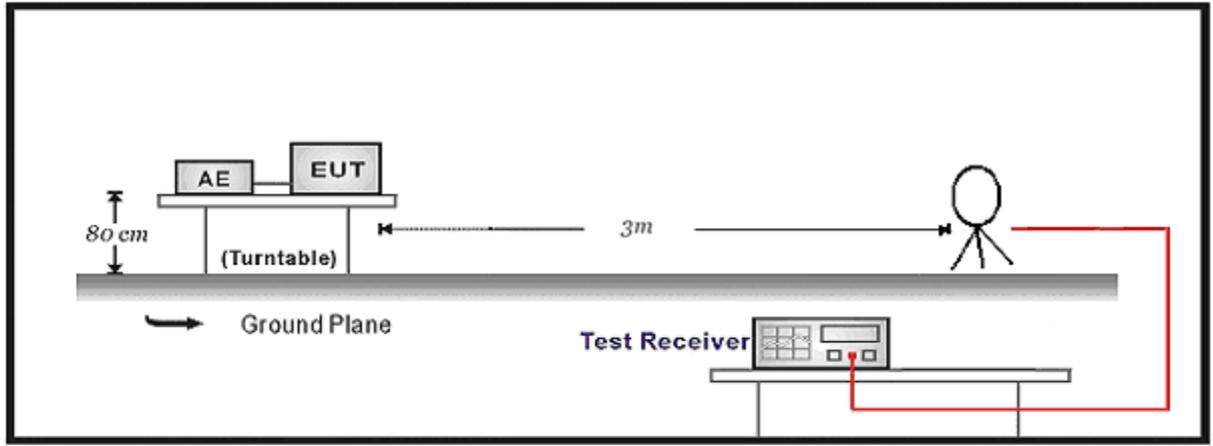
4.1. Test Equipment

Radiated Emission(Below 1GHz) / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2016.03.29	2017.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2016.11.16	2017.11.15
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2016.10.16	2017.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2016.03.02	2017.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2017.01.03	2018.01.02
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

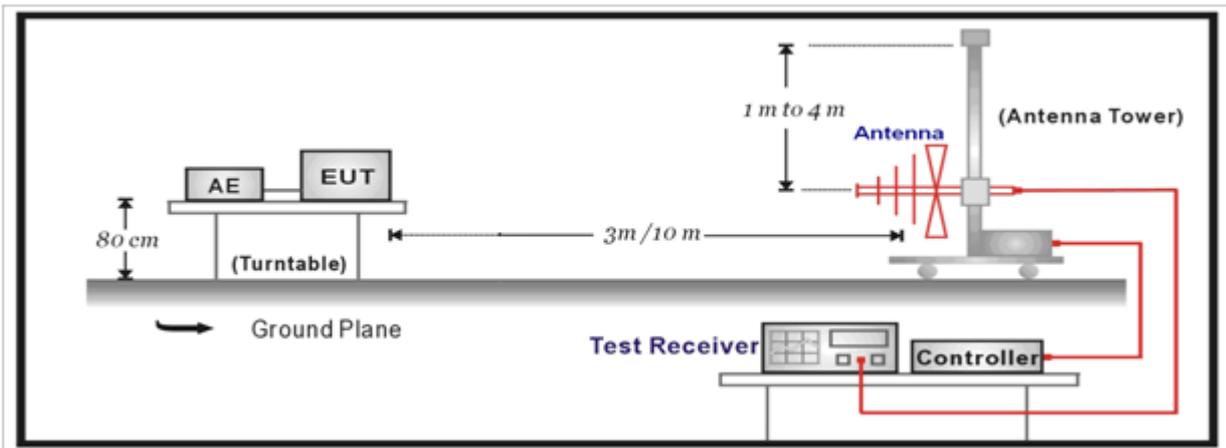
Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2017.01.03	2018.01.02
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	201.11.25	2017.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2016.06.10	2017.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2017.01.03	2018.01.02
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

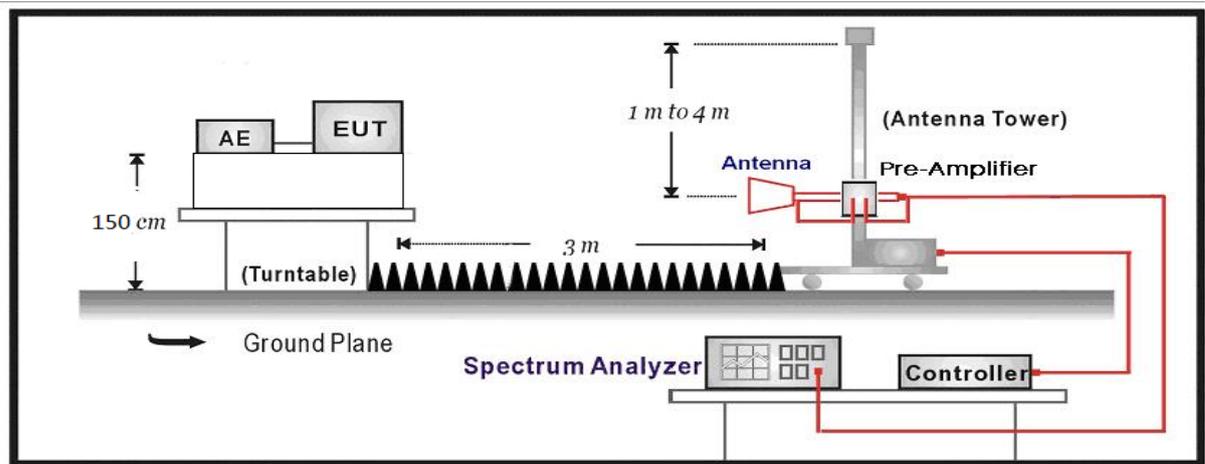
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

For FCC:

Restricted Bands of operation			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4	3600 – 4400	
13.36 – 13.41			

Restricted Band Emissions Limit			
Frequency (MHz)	Field strength (μ V/m)	Field strength (dB μ V/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300 _(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 _(Note 1)
1.705 - 30	30	29.5	30 _(Note 1)
30 - 88	100	40	3 _(Note 2)
88 - 216	150	43.5	3 _(Note 2)
216 - 960	200	46	3 _(Note 2)
Above 960	500	54	3 _(Note 2)

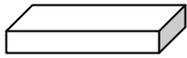
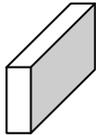
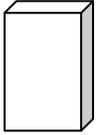
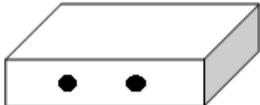
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.4. Test Procedure

Test Method			
	References Rule	Chapter	Description
<input type="checkbox"/>	ANSI C63.10	11.11	Emissions in non-restricted frequency bands
	<input type="checkbox"/> ANSI C63.10	11.11.2	Reference level measurement
	<input type="checkbox"/> ANSI C63.10	11.11.3	Emission level measurement
<input checked="" type="checkbox"/>	ANSI C63.10	11.12	Emissions in restricted frequency bands
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test
	<input checked="" type="checkbox"/> ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	<input checked="" type="checkbox"/> ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	<input checked="" type="checkbox"/> ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
<input type="checkbox"/>	ANSI C63.10	11.12.2	Antenna-port conducted measurements
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.4	Peak power measurement procedure
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.5	Average power measurement procedures
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

4.5. EUT test Axis definition

Item	Emissions in restricted frequency bands			
Device Category	<input type="checkbox"/>	Fixed point-to-point		
	<input type="checkbox"/>	Emit multiple directional beams, simultaneously or sequentially		
	<input checked="" type="checkbox"/>	Other cases		
Test mode	Mode 1~4			
Test method	<input checked="" type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input checked="" type="checkbox"/>
	<input type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 1		
				
	<input type="checkbox"/>	Chain 1	Chain 2	
				
	<input type="checkbox"/>	Chain 1	Chain 2	Chain 3
				

4.6. Test Result

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Mode	: Mode 1	Test Site	: AC-5
Test Date	: 2017.01.04		

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Over Limit (dB)	Detector
Ant 0+1	1	H	4824.000	50.201	-8.787	41.414	54(note3)	-12.586	PK
		H	7236.000	47.790	-5.557	42.233	54(note3)	-13.159	PK
		H	9648.000	45.163	-1.957	43.206	54(note3)	-11.767	PK
		V	4825.000	54.383	-8.780	45.602	54(note3)	-8.398	PK
		V	7236.000	47.633	-5.557	42.076	54(note3)	-13.159	PK
		V	9648.000	45.486	-1.957	43.529	54(note3)	-11.924	PK
	6	H	4874.000	51.455	-8.713	42.742	54(note3)	-11.258	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7311.000	47.622	-5.345	42.277	54(note3)	-11.723	PK
		V	4876.000	54.830	-8.686	46.144	54(note3)	-7.856	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7311.000	47.354	-5.345	42.009	54(note3)	-11.991	PK
	11	H	4924.000	49.923	-8.799	41.124	54(note3)	-12.876	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7386.000	47.324	-4.966	42.358	54(note3)	-11.642	PK
		V	4924.000	51.291	-8.799	42.492	54(note3)	-11.508	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7386.000	47.279	-4.966	42.313	54(note3)	-11.687	PK

Note: 1. Measure Level = Reading Level + Factor.

Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting, see Clause 6.6.

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Site	: Mode 2	Test Site	: AC-5
Test Date	: 2017.01.04		

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μV)	Factor (dB)	Measured Level (dB μV/m)	Limit (dB μV/m)	Over Limit (dB)	Detector
Ant 0+1	1	H	4824.000	49.942	-8.787	41.155	54(note3)	-12.845	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7236.000	47.292	-5.557	41.735	54(note3)	-12.265	PK
		V	4824.000	50.773	-8.787	41.986	54(note3)	-12.014	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7236.000	47.400	-5.557	41.843	54(note3)	-12.157	PK
	6	H	4874.000	49.463	-8.713	40.750	54(note3)	-13.250	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7311.000	47.264	-5.345	41.919	54(note3)	-12.081	PK
		V	4874.000	51.627	-8.713	42.914	54(note3)	-11.086	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7311.000	47.768	-5.345	42.423	54(note3)	-11.577	PK
	11	H	4924.000	49.220	-8.799	40.421	54(note3)	-13.579	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7386.000	46.493	-4.966	41.527	54(note3)	-12.473	PK
		V	4924.000	50.599	-8.799	41.800	54(note3)	-12.200	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7386.000	47.113	-4.966	42.147	54(note3)	-11.853	PK

Note: 1. Measure Level = Reading Level + Factor.

Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting, see Clause 6.6.

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Site	: Mode 3	Test Site	: AC-5
Test Date	: 2017.01.04		

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Over Limit (dB)	Detector
Ant 0+1	1	H	4824.000	48.612	-8.787	39.825	54(note3)	-14.175	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7236.000	46.903	-5.557	41.346	54(note3)	-12.654	PK
		V	4824.000	51.067	-8.787	42.280	54(note3)	-11.720	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7236.000	48.796	-5.557	43.239	54(note3)	-10.761	PK
	6	H	4874.000	49.709	-8.713	40.996	54(note3)	-13.004	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7311.000	47.244	-5.345	41.899	54(note3)	-12.101	PK
		V	4874.000	50.587	-8.713	41.874	54(note3)	-12.126	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7311.000	46.313	-5.345	40.968	54(note3)	-13.032	PK
	11	H	4924.000	49.482	-8.799	40.683	54(note3)	-13.317	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7386.000	47.168	-4.966	42.202	54(note3)	-11.798	PK
		V	4924.000	49.386	-8.799	40.587	54(note3)	-13.413	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7386.000	47.154	-4.966	42.188	54(note3)	-11.812	PK

Note: 1. Measure Level = Reading Level + Factor.

Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting, see Clause 6.6.

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Site	: Mode 4	Test Site	: AC-5
Test Date	: 2017.01.04		

Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Over Limit (dB)	Detector
Ant 0+1	3	H	4844.000	48.960	-8.856	40.105	54(note3)	-13.895	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7266.000	46.123	-5.274	40.848	54(note3)	-13.152	PK
		V	4844.000	48.821	-8.856	39.966	54(note3)	-14.034	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7266.000	46.842	-5.274	41.567	54(note3)	-12.433	PK
	6	H	4874.000	49.349	-8.713	40.636	54(note3)	-13.364	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7311.000	45.636	-5.345	40.291	54(note3)	-13.709	PK
		V	4874.000	49.371	-8.713	40.658	54(note3)	-13.342	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7311.000	46.523	-5.345	41.178	54(note3)	-12.822	PK
	9	H	4904.000	47.819	-8.761	39.057	54(note3)	-14.943	PK
		H	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		H	7356.000	46.416	-5.203	41.213	54(note3)	-12.787	PK
		V	4904.000	49.603	-8.761	40.841	54(note3)	-13.159	PK
		V	4904.000	49.112	-8.270	40.841	54(note3)	-13.159	PK
		V	7356.000	48.070	-5.203	42.867	54(note3)	-11.133	PK

Note: 1. Measure Level = Reading Level + Factor.

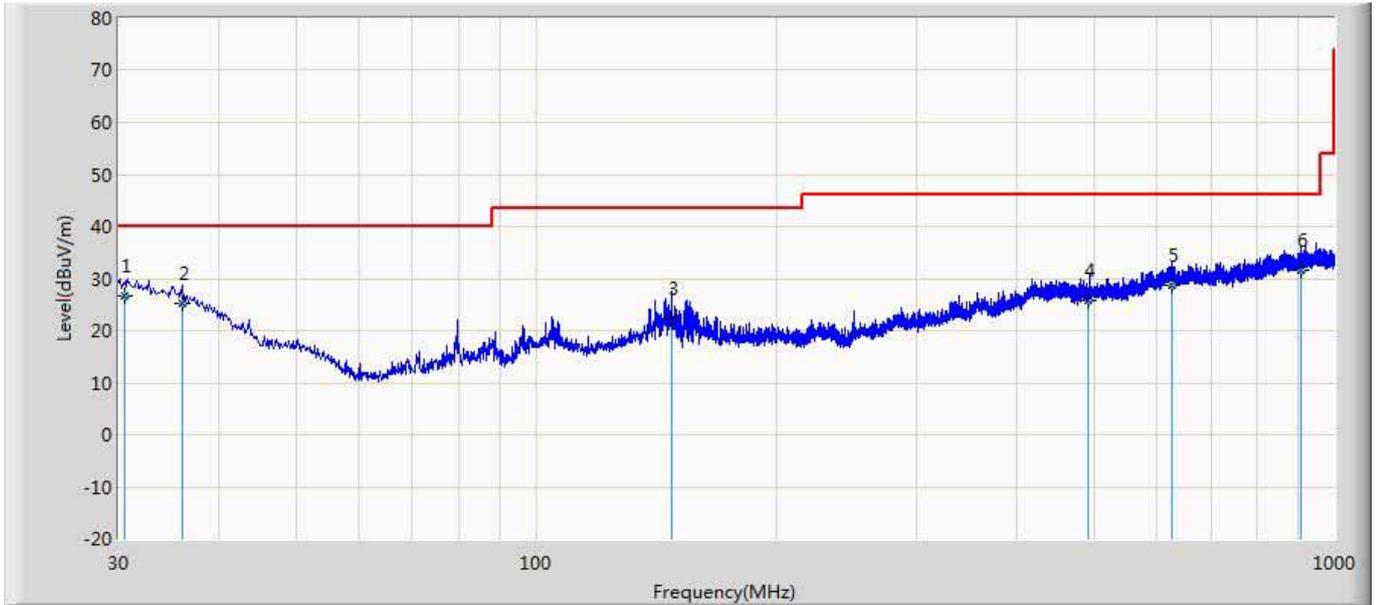
Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting, see Clause 6.6.

The worst case of Radiated Emission below 1GHz:

Site: AC2	Time: 2016/12/22
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_CBL6112_0726	Polarity: Horizontal
EUT: 300Mbps WI-FI Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Transmit at channel 6 by 802.11b	

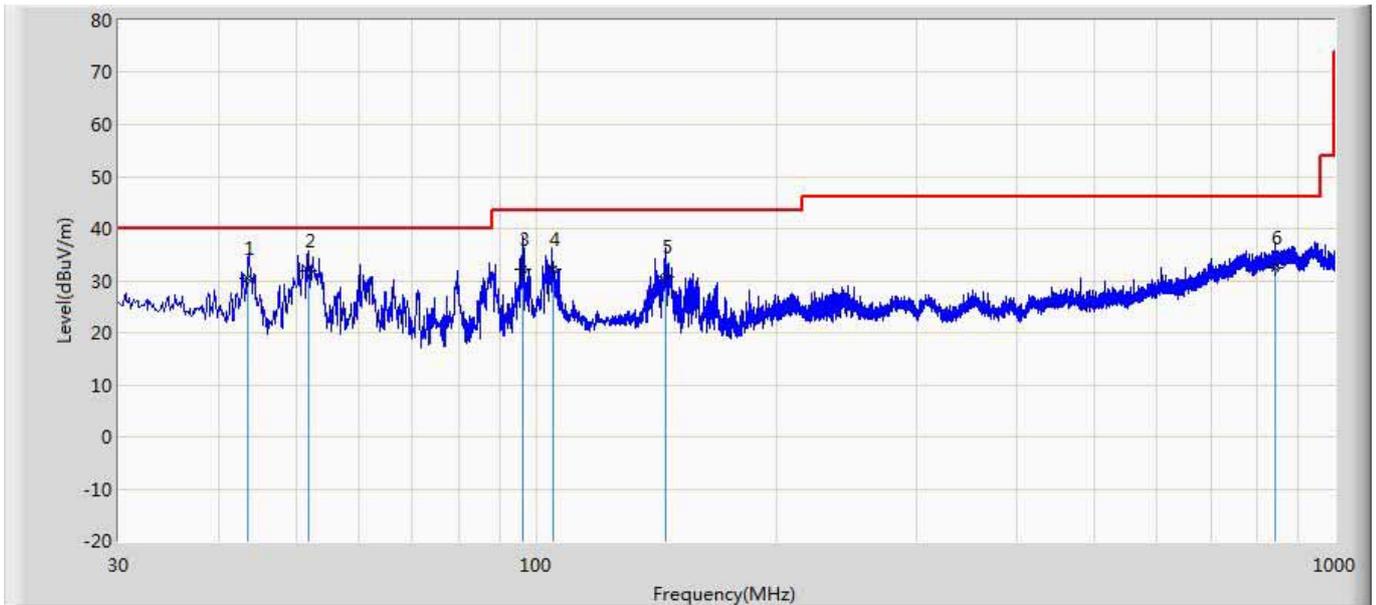


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1	*	30.565	26.557	30.571	-13.443	40.000	18.472	0.606	23.092	100	2	QP
2		36.065	25.098	32.348	-14.902	40.000	15.282	0.653	23.185	100	228	QP
3		148.095	22.371	33.446	-21.129	43.500	10.615	1.320	23.010	100	115	QP
4		492.651	25.742	28.410	-20.258	46.000	17.682	2.410	22.760	200	360	QP
5		624.621	28.589	29.389	-17.411	46.000	19.000	2.740	22.540	100	0	QP
6		906.127	31.608	30.495	-14.392	46.000	20.549	3.312	22.748	100	114	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Site: AC2	Time: 2016/12/22
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_CBL6112_0726	Polarity: Vertical
EUT: 300Mbps WI-FI Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Transmit at channel 6 by 802.11b	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		43.565	30.451	41.978	-9.549	40.000	11.003	0.720	23.250	200	219	QP
2	*	51.822	31.899	46.239	-8.101	40.000	7.890	0.785	23.015	100	225	QP
3		96.127	32.139	43.912	-11.361	43.500	10.325	1.062	23.160	100	125	QP
4		104.865	32.171	42.633	-11.329	43.500	11.587	1.110	23.158	200	103	QP
5		145.165	30.663	41.586	-12.837	43.500	10.790	1.307	23.020	200	236	QP
6		844.446	32.481	31.422	-13.519	46.000	20.355	3.200	22.496	200	360	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

5. Emissions in non-restricted frequency bands

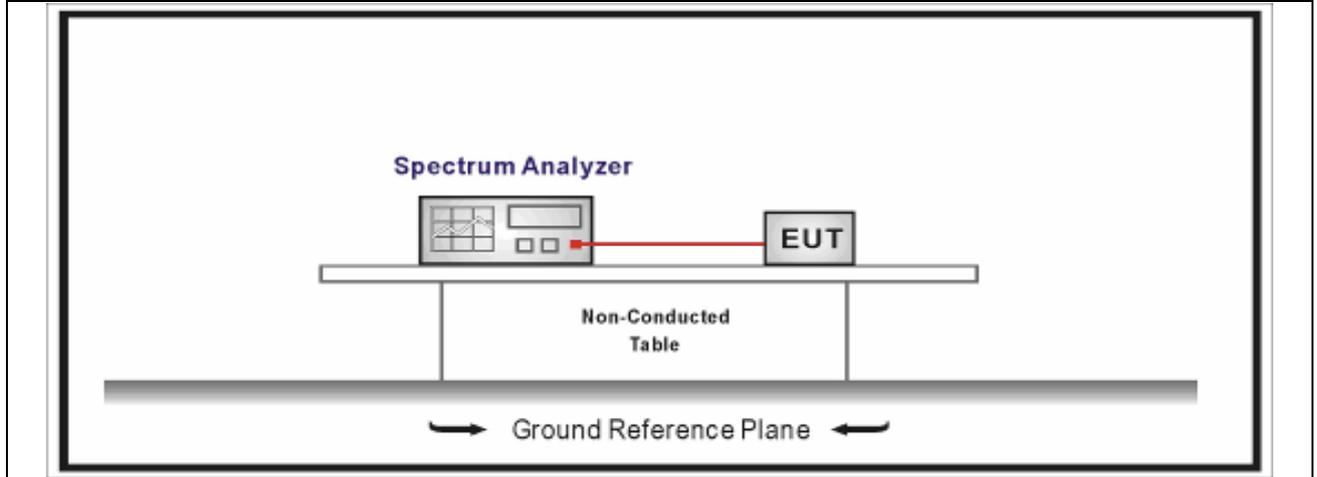
5.1. Test Equipment

Emissions in non-restricted frequency bands / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.02.04	2017.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2016.04.09	2017.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2016.04.09	2017.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

5.2. Test Setup

Emissions in non-restricted frequency bands



5.3. Limit

Un-Restricted Band Emissions Limit	
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30c(Note1)
RF Output power(PK detector)	20c(Note2)

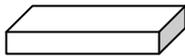
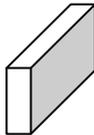
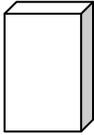
Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

5.4. Test Procedure

Test Method			
	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.11	Emissions in non-restricted frequency bands
	<input checked="" type="checkbox"/> ANSI C63.10	11.11.2	Reference level measurement
	<input checked="" type="checkbox"/> ANSI C63.10	11.11.3	Emission level measurement
<input type="checkbox"/>	ANSI C63.10	11.12	Emissions in restricted frequency bands
	<input type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements
	<input type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test
<input type="checkbox"/>	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
<input type="checkbox"/>	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
<input checked="" type="checkbox"/>	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2	Antenna-port conducted measurements
	<input type="checkbox"/> ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.4	Peak power measurement procedure
	<input type="checkbox"/> ANSI C63.10	11.12.2.5	Average power measurement procedures
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

5.5. EUT test Axis definition

Item	Emissions in non-restricted frequency bands			
Device Category	<input type="checkbox"/>	Fixed point-to-point		
	<input type="checkbox"/>	Emit multiple directional beams, simultaneously or sequentially		
	<input checked="" type="checkbox"/>	Other cases		
Test mode	Mode 1 ~ Mode 4			
Test method	<input type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input checked="" type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input checked="" type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

5.6. Test Result

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Mode	: Mode1~4	Test Site	: TR8
Test Date	: 2017.01.04		

Antenna #0

Mode	Channel	Test Frequency (MHz)	Maximum In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	01	2412	9.408	2400	-26.196	35.60	>30	Pass
1	11	2462	9.255	2483.5	-49.358	58.61	>30	Pass
2	01	2412	4.472	2400	-30.294	34.77	>30	Pass
2	11	2462	6.276	2483.5	-50.626	56.90	>30	Pass
3	01	2412	4.482	2400	-30.219	34.70	>30	Pass
3	11	2462	3.047	2483.5	-50.758	53.81	>30	Pass
4	03	2422	-0.272	2400	-39.670	39.40	>30	Pass
4	09	2452	-0.806	2483.5	-50.869	50.06	>30	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

Mode 3 CH01(2412MHz)



Antenna #1

Mode	Channel	Test Frequency (MHz)	Maximum In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	01	2412	10.867	2398.5	-20.453	31.32	>30	Pass
1	11	2462	8.661	2483.5	-48.470	57.13	>30	Pass
2	01	2412	4.962	2400	-28.420	33.38	>30	Pass
2	11	2462	6.101	2483.5	-49.318	55.42	>30	Pass
3	01	2412	5.012	2400	-29.032	34.04	>30	Pass
3	11	2462	3.796	2483.5	-51.662	55.46	>30	Pass
4	03	2422	-0.278	2400	-37.986	37.71	>30	Pass
4	09	2452	-1.283	2483.5	-52.731	51.45	>30	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

Mode 1 CH01(2412MHz)

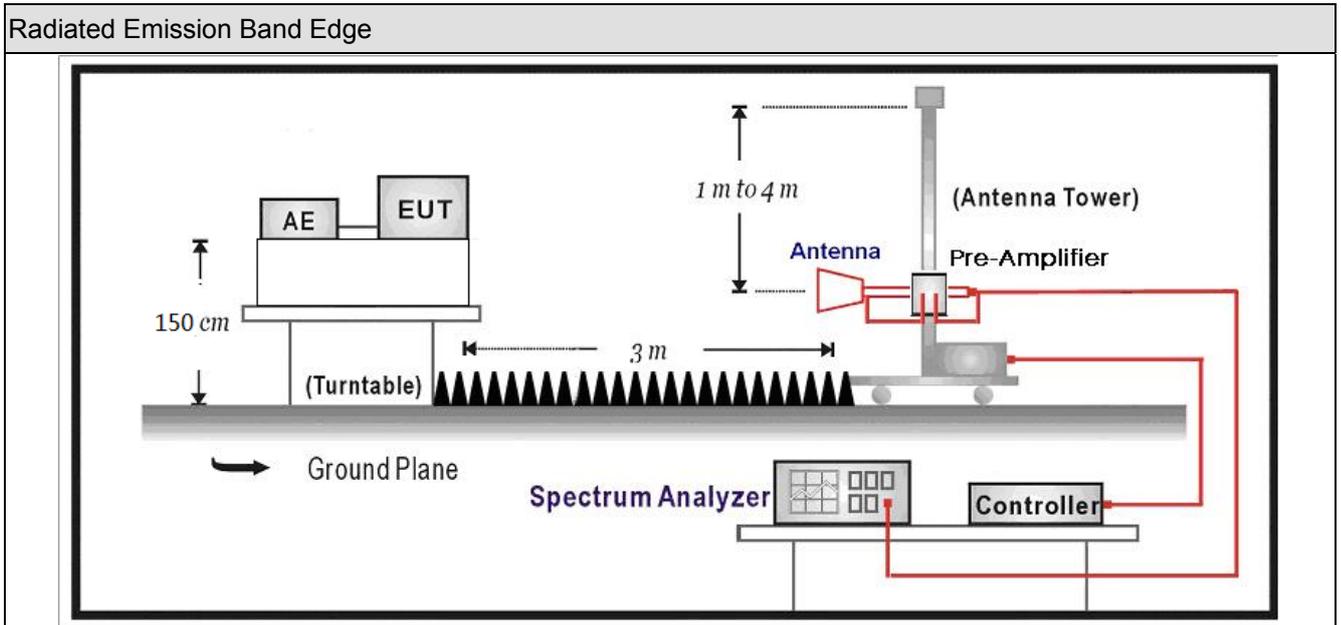


6. Radiated Emission Band Edge

6.1. Test Equipment

Radiated Emission Band Edge / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2017.01.03	2018.01.02
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	QuiTek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.11.25	2017.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2016.06.10	2017.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2017.01.03	2018.01.02
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

6.2. Test Setup



6.3. Limit

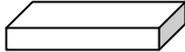
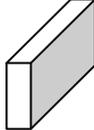
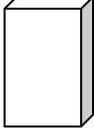
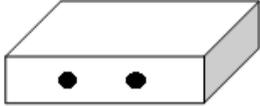
Band edge Limit				
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

6.4. Test Procedure

Radiated Emission Band Edge			
	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	6.10	Band-edge testing
	<input checked="" type="checkbox"/> ANSI C63.10	6.10.5	Restricted-band band-edge measurements
	<input type="checkbox"/> ANSI C63.10	6.10.6	Marker-delta method
<input checked="" type="checkbox"/>	ANSI C63.10	11.12	Emissions in restricted frequency bands
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test
<input type="checkbox"/>	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
<input type="checkbox"/>	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
<input checked="" type="checkbox"/>	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	<input type="checkbox"/> ANSI C63.10	11.12.2	Antenna-port conducted measurements
	<input type="checkbox"/> ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.4	Peak power measurement procedure
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.5	Average power measurement procedures
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

6.5. EUT test definition

Item	Radiated Emission Band Edge			
Device Category	<input type="checkbox"/>	Fixed point-to-point		
	<input type="checkbox"/>	Emit multiple directional beams, simultaneously or sequentially		
	<input checked="" type="checkbox"/>	Other cases		
Test mode	Mode 1~4			
Test method	<input checked="" type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input checked="" type="checkbox"/>
	<input type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

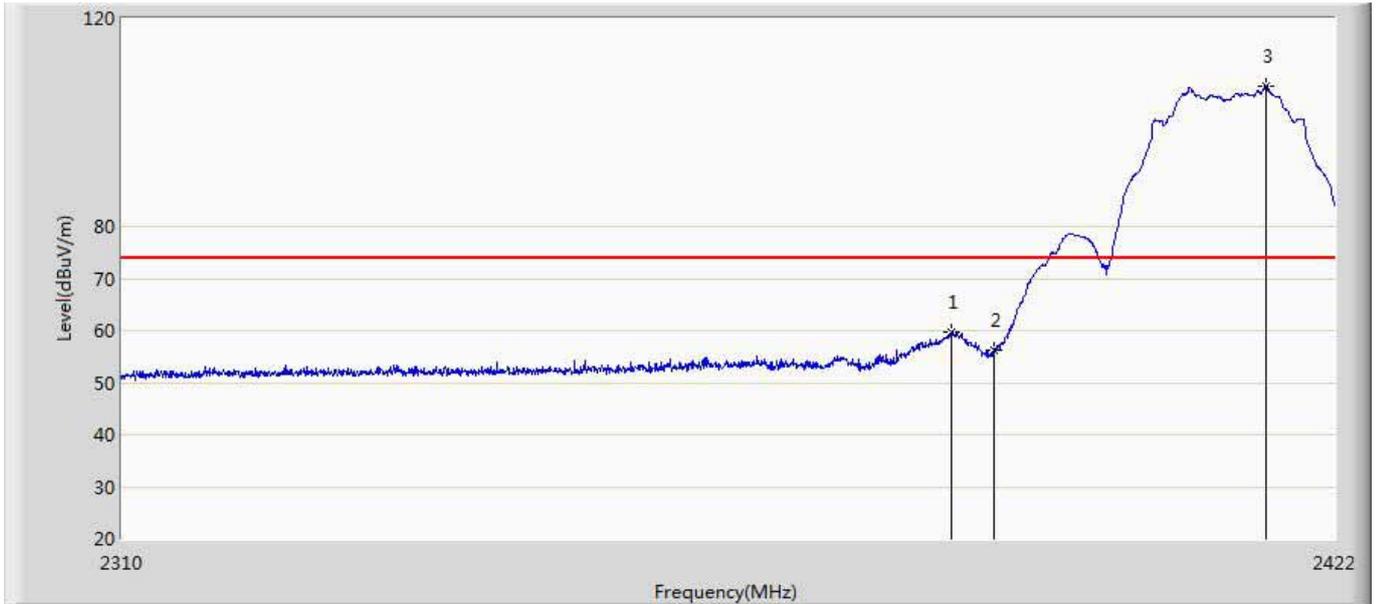
6.6. Duty Cycle

Test Mode	Tx On (ms)	Tx Off (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
802.11b	8.420	0.100	120Hz	8.520	98.83%
802.11g	1.388	0.128	750Hz	1.516	91.56%
802.11n(20MHz)	1.296	0.104	820Hz	1.400	92.57%
802.11n(40MHz)	0.628	0.148	1.6KHz	0.776	80.93%



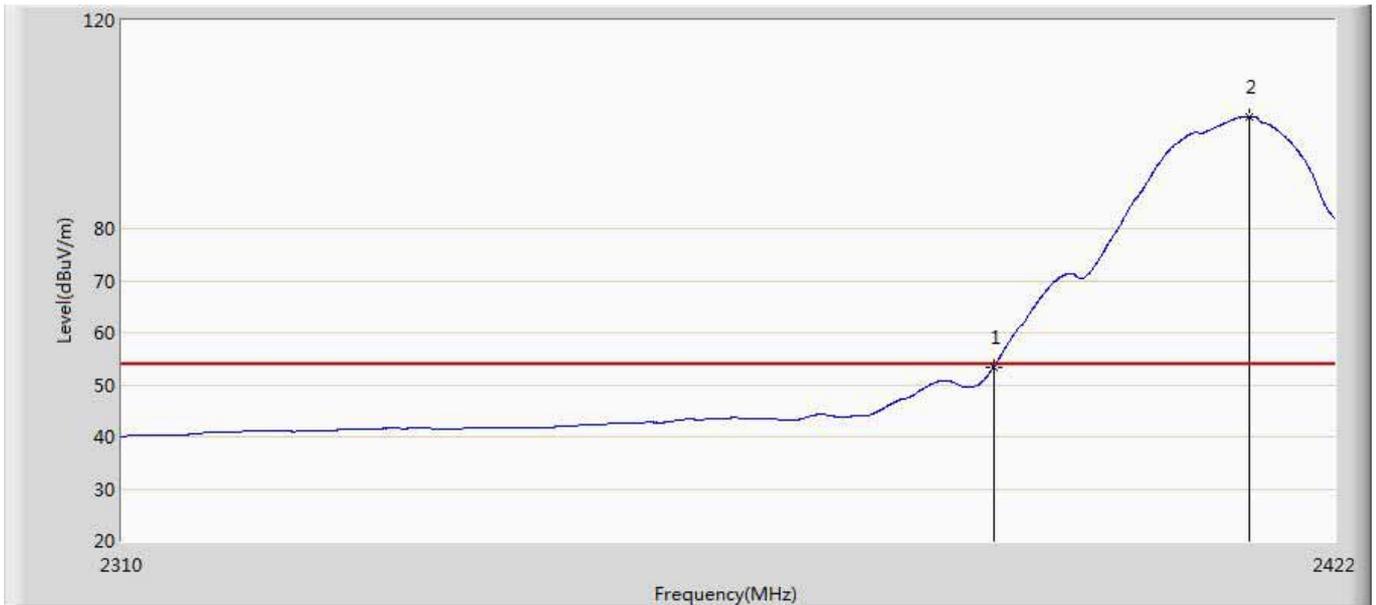
6.7. Test Result

Site: AC5	Time: 2017/01/08 - 16:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2412MHz by 802.11b	



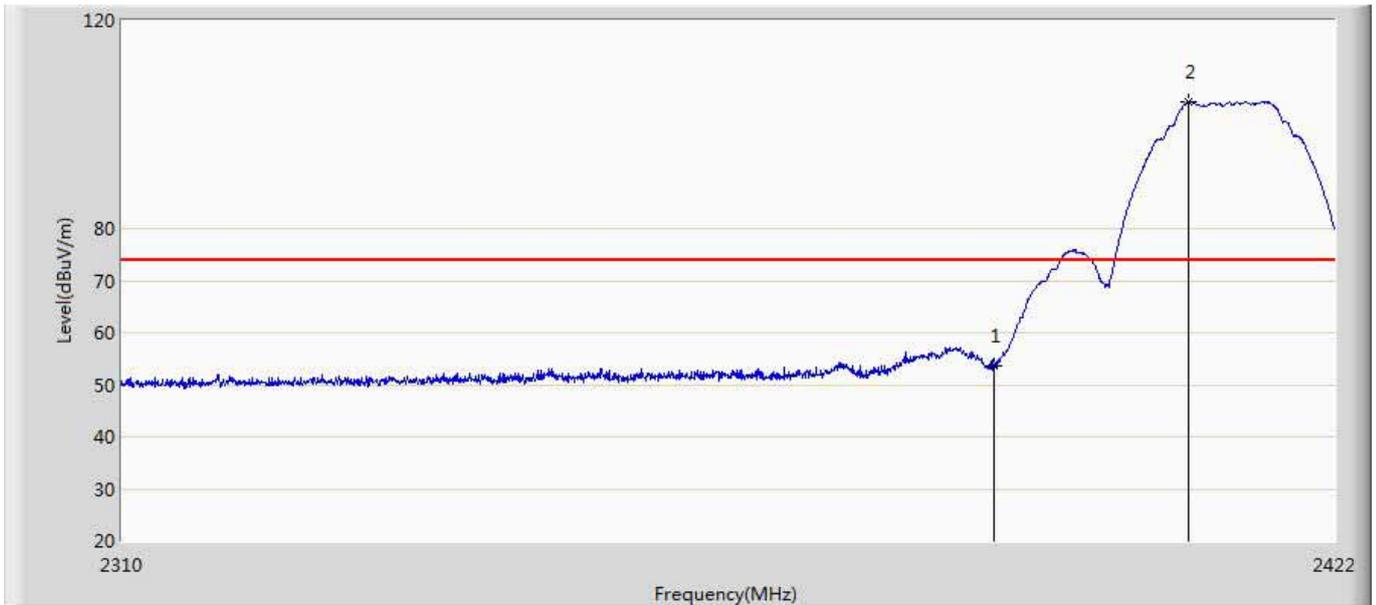
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2385.992	59.841	24.168	-14.159	74.000	35.673	PK
2		2390.000	56.211	20.529	-17.789	74.000	35.682	PK
3	*	2415.504	107.054	71.298	N/A	N/A	35.757	PK

Site: AC5	Time: 2017/01/08 - 16:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2412MHz by 802.11b	



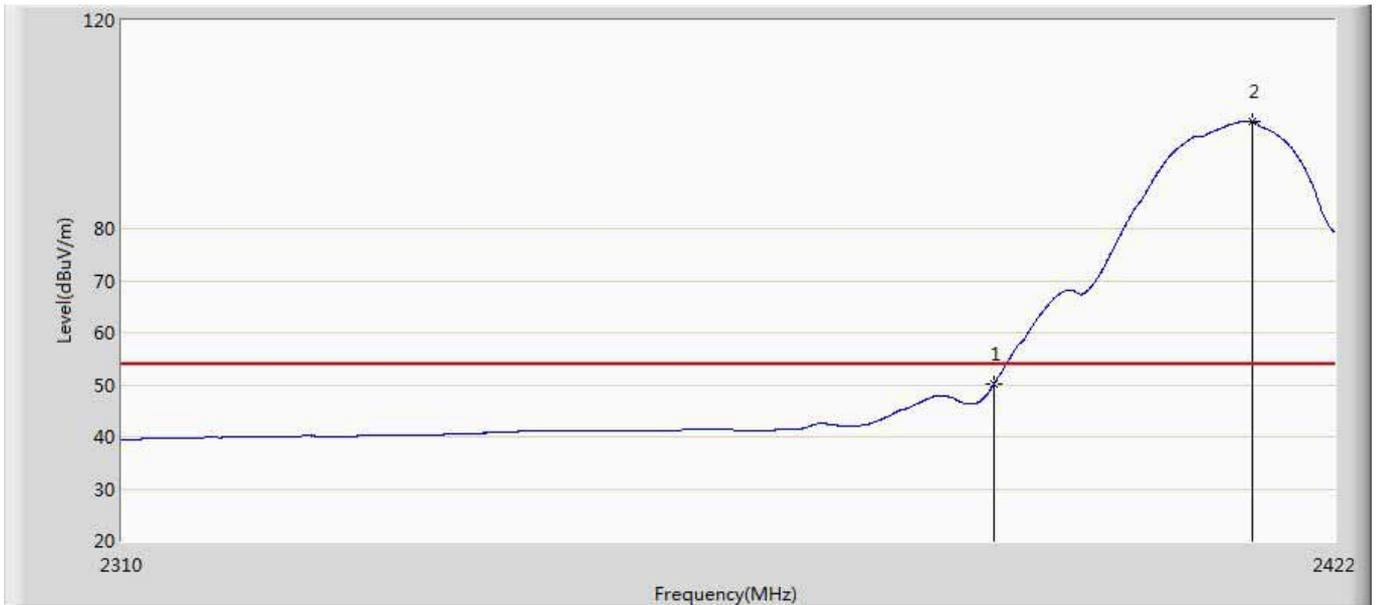
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.375	17.693	-0.625	54.000	35.682	AV
2	*	2413.936	101.540	65.790	N/A	N/A	35.750	AV

Site: AC5	Time: 2017/01/08 - 17:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2412MHz by 802.11b	



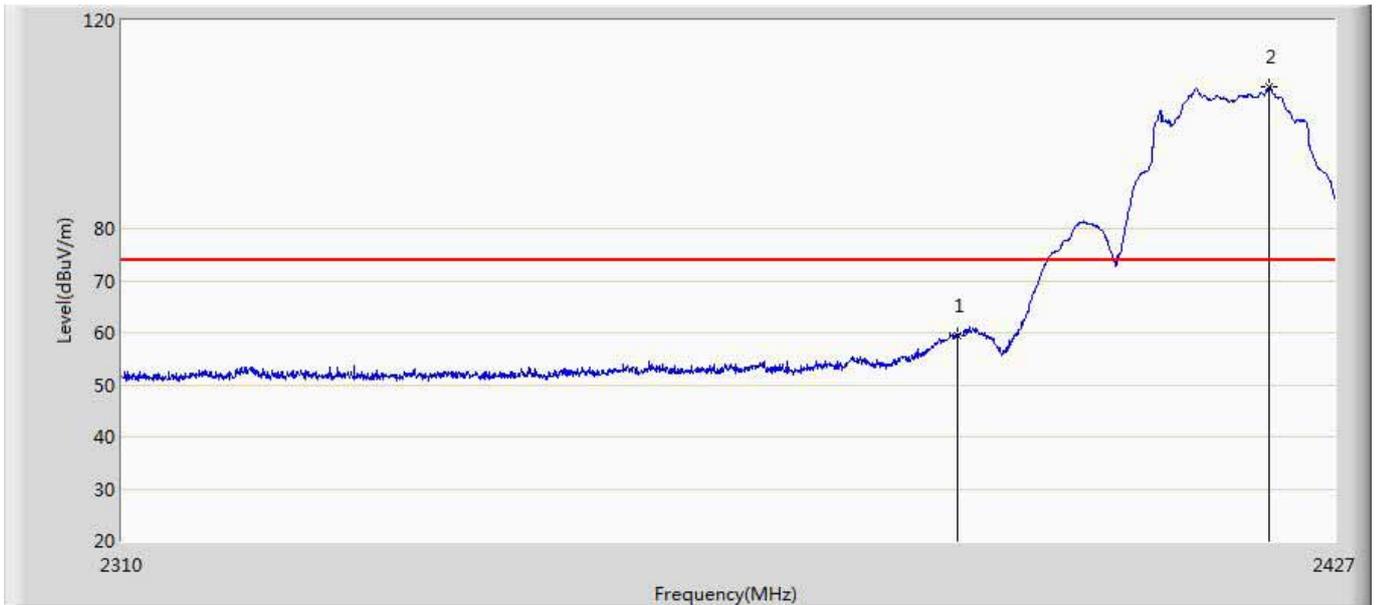
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.766	18.084	-20.234	74.000	35.682	PK
2	*	2408.224	104.336	68.606	N/A	N/A	35.730	PK

Site: AC5	Time: 2017/01/08 - 17:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2412MHz by 802.11b	



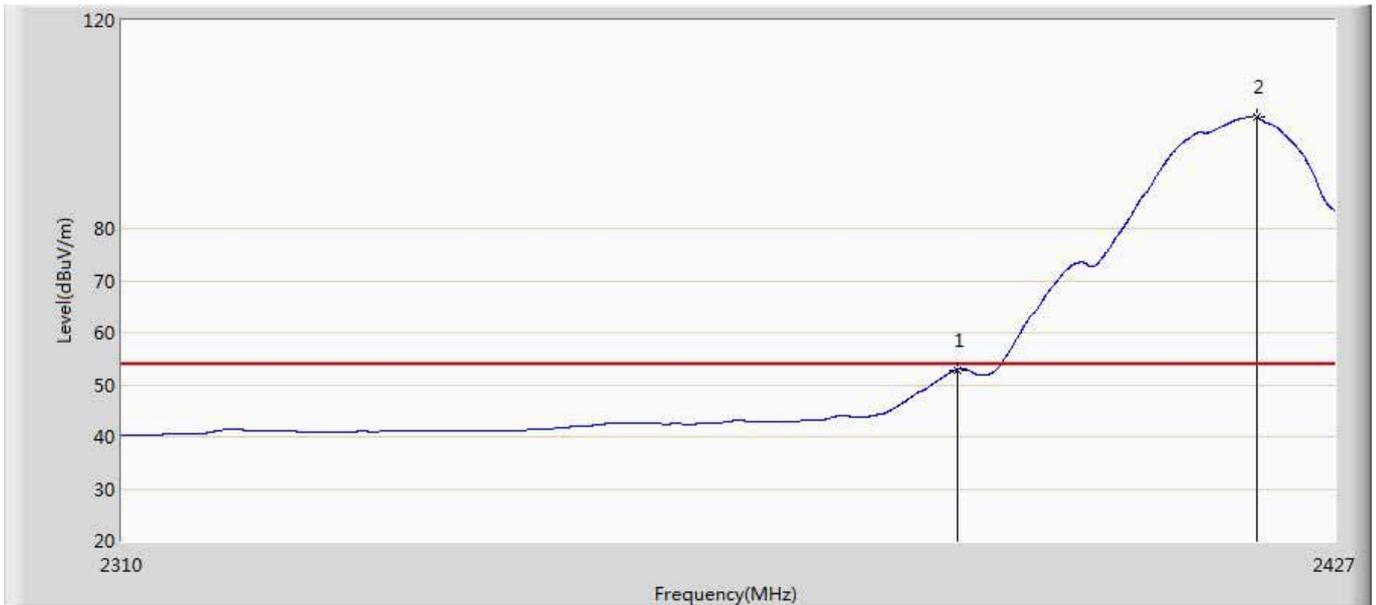
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.035	14.353	-3.965	54.000	35.682	AV
2	*	2414.216	100.637	64.886	N/A	N/A	35.751	AV

Site: AC5	Time: 2017/01/08 - 17:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2417MHz by 802.11b	



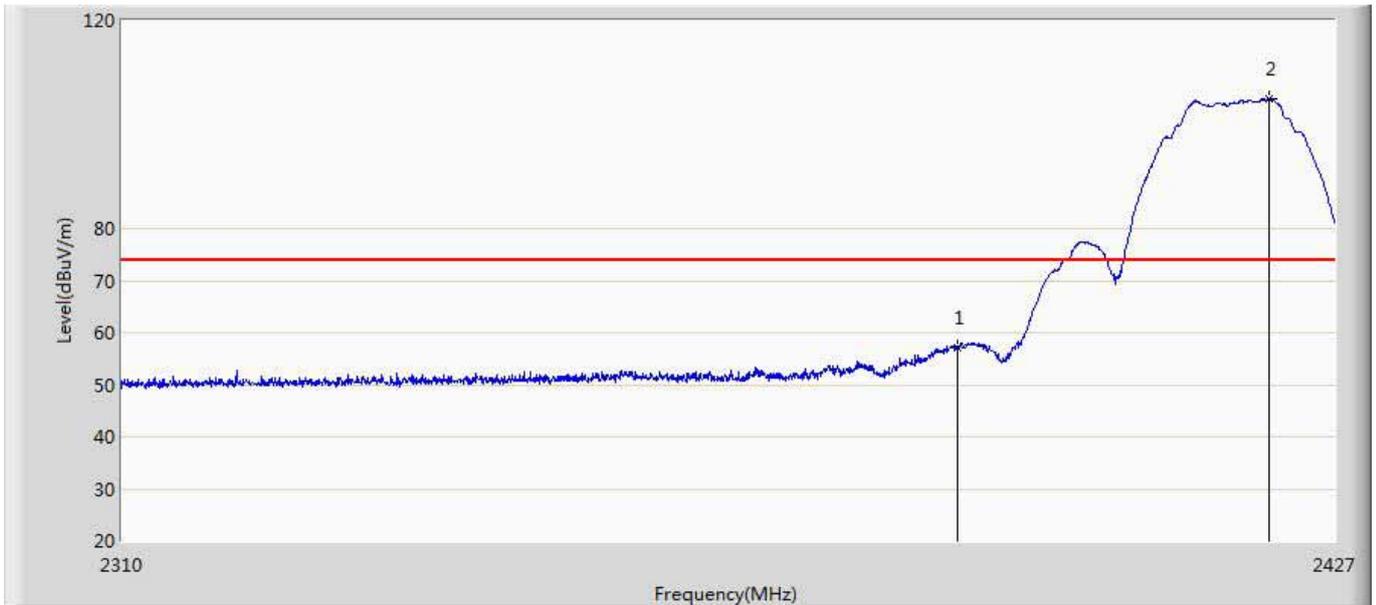
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	59.542	23.860	-14.458	74.000	35.682	PK
2	*	2420.565	107.222	71.445	N/A	N/A	35.778	PK

Site: AC5	Time: 2017/01/08 - 17:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2417MHz by 802.11b	



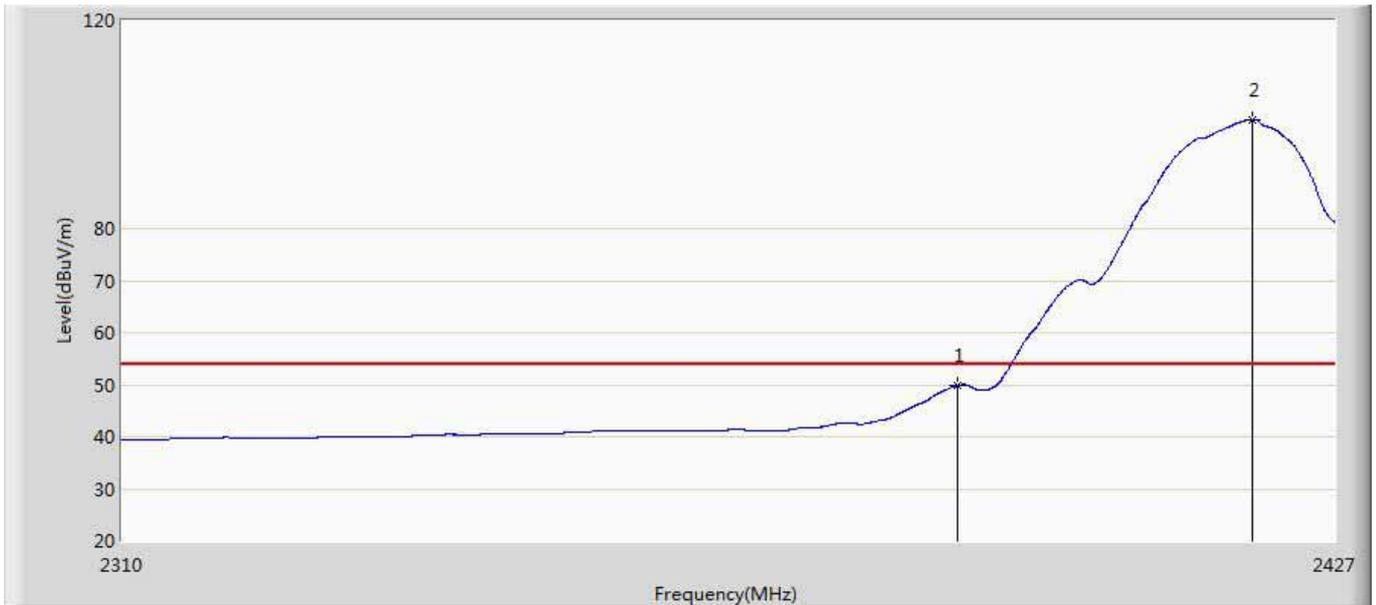
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.886	17.204	-1.114	54.000	35.682	AV
2	*	2419.278	101.585	65.813	N/A	N/A	35.772	AV

Site: AC5	Time: 2017/01/08 - 17:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2417MHz by 802.11b	



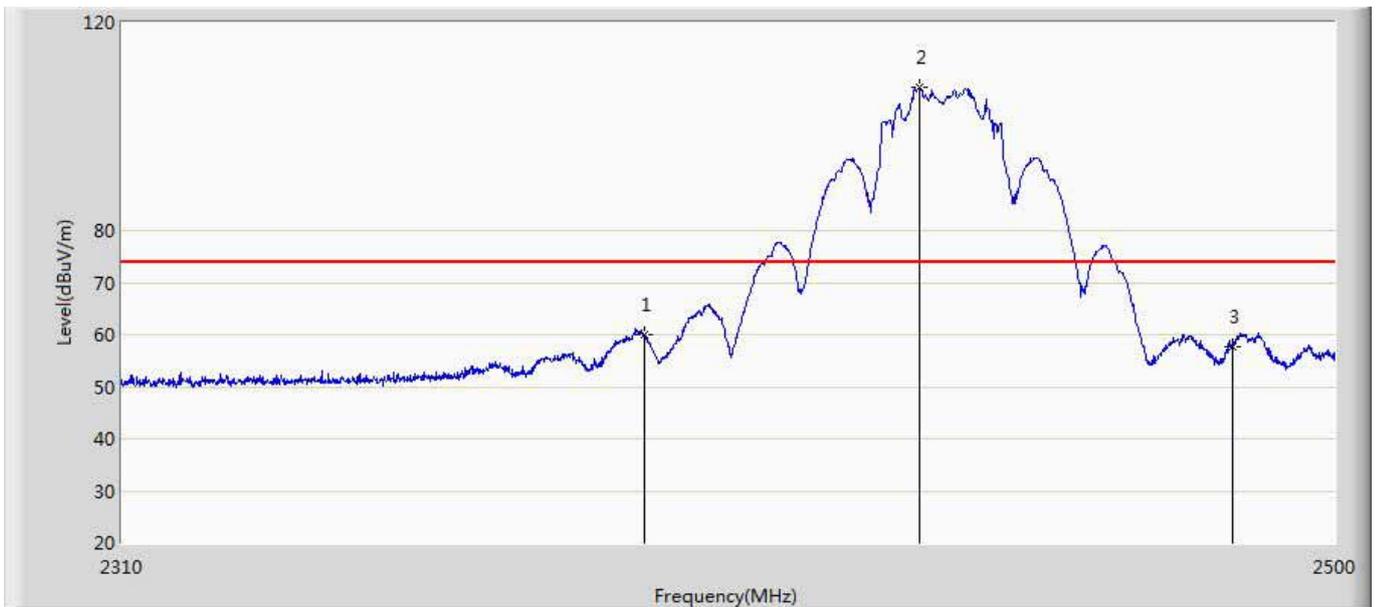
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.207	21.525	-16.793	74.000	35.682	PK
2	*	2420.565	104.943	69.166	N/A	N/A	35.778	PK

Site: AC5	Time: 2017/01/08 - 17:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2417MHz by 802.11b	



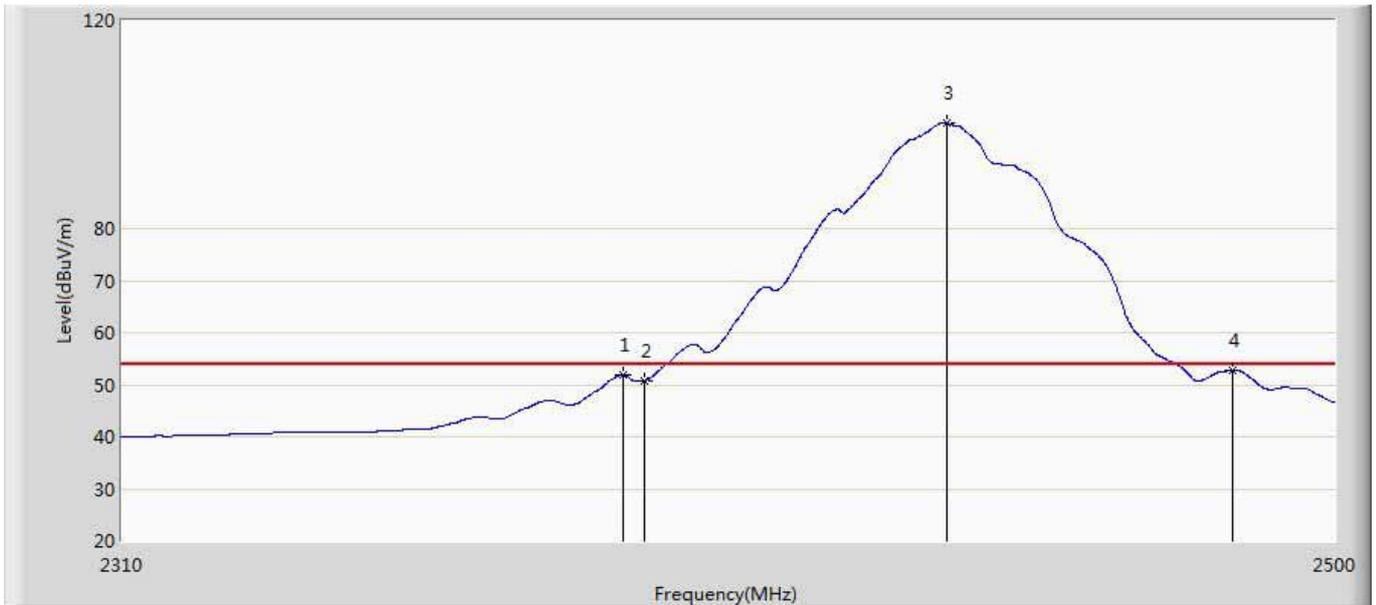
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.840	14.158	-4.160	54.000	35.682	AV
2	*	2418.868	100.808	65.038	N/A	N/A	35.771	AV

Site: AC5	Time: 2017/01/08 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2437MHz by 802.11b	



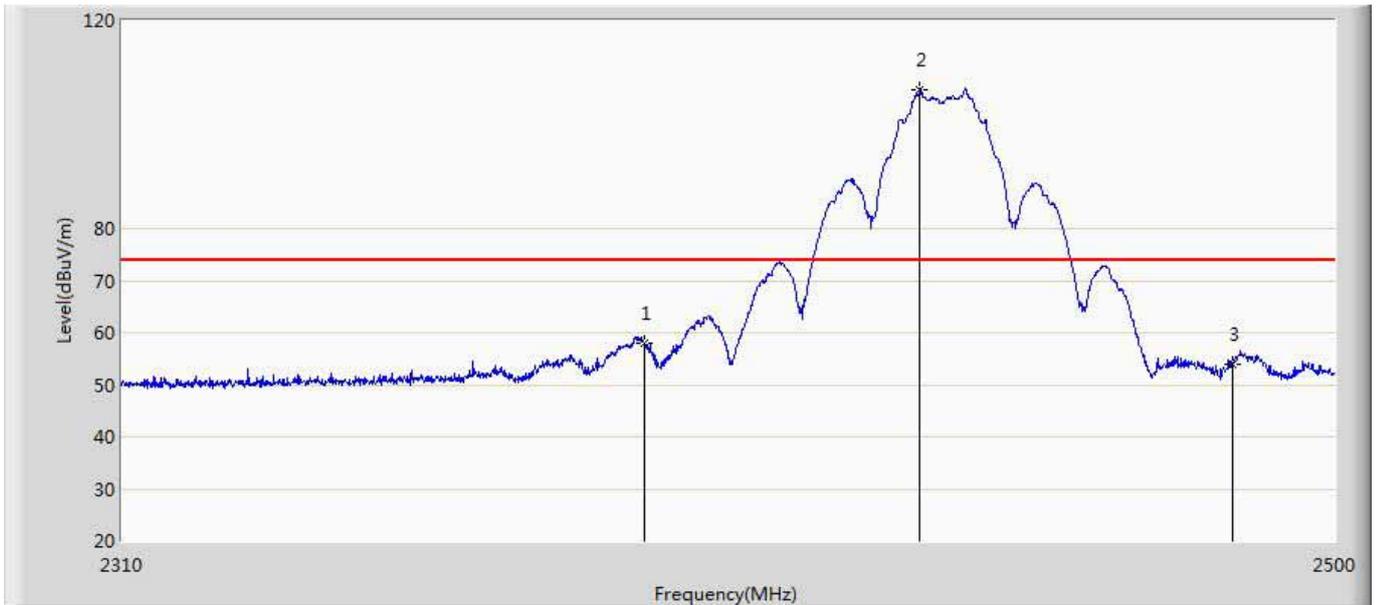
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	59.908	24.226	-14.092	74.000	35.682	PK
2	*	2433.405	107.426	71.619	N/A	N/A	35.807	PK
3		2483.500	57.810	21.918	-16.190	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 17:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2437MHz by 802.11b	



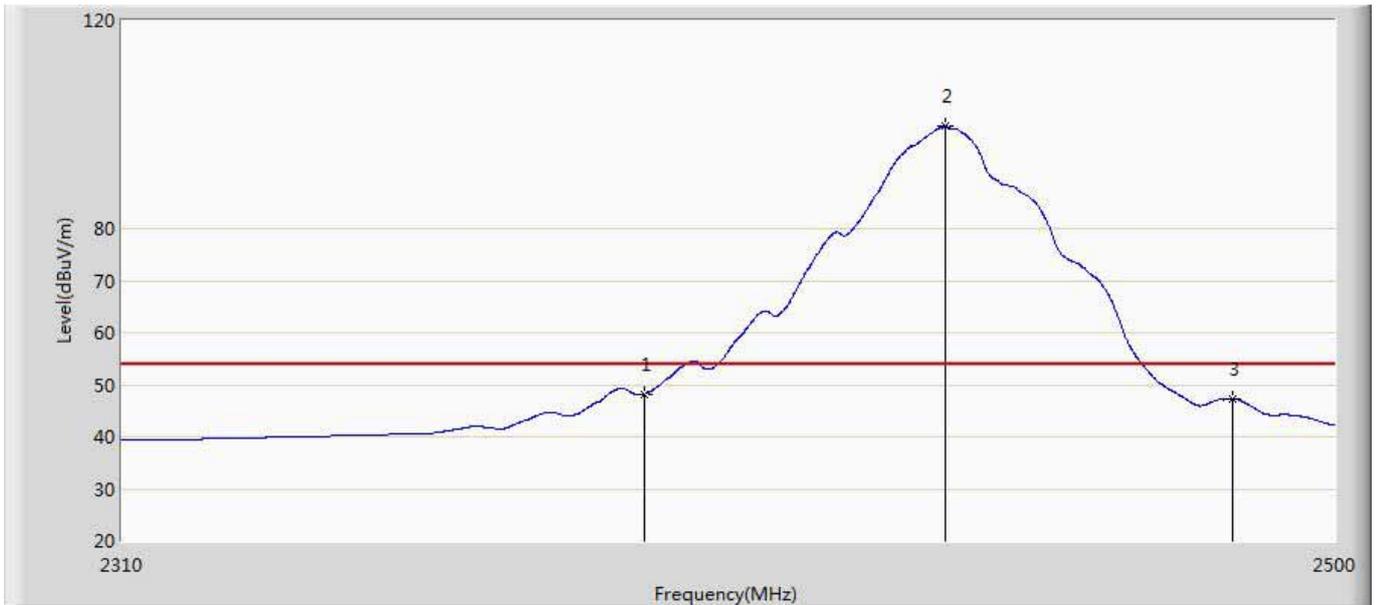
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.760	51.837	16.162	-2.163	54.000	35.675	AV
2		2390.000	50.722	15.040	-3.278	54.000	35.682	AV
3	*	2437.585	100.361	64.555	N/A	N/A	35.806	AV
4		2483.500	52.845	16.953	-1.155	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 17:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2437MHz by 802.11b	



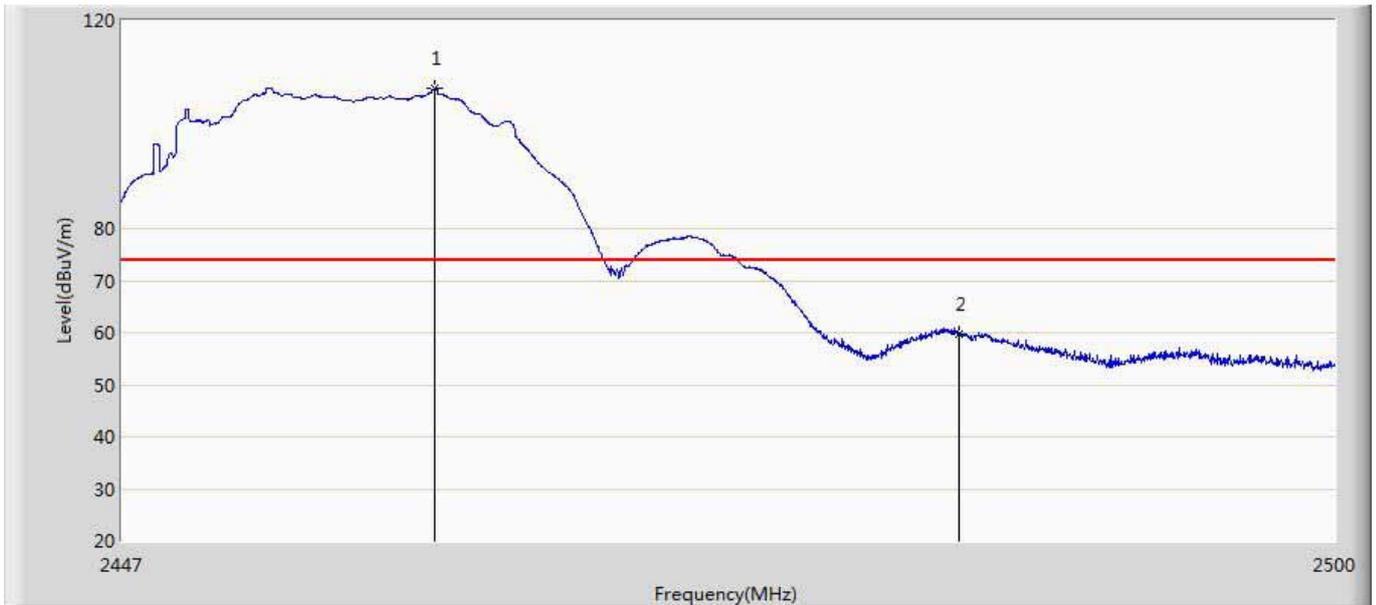
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.929	22.247	-16.071	74.000	35.682	PK
2	*	2433.405	106.805	70.998	N/A	N/A	35.807	PK
3		2483.500	53.857	17.965	-20.143	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 17:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2437MHz by 802.11b	



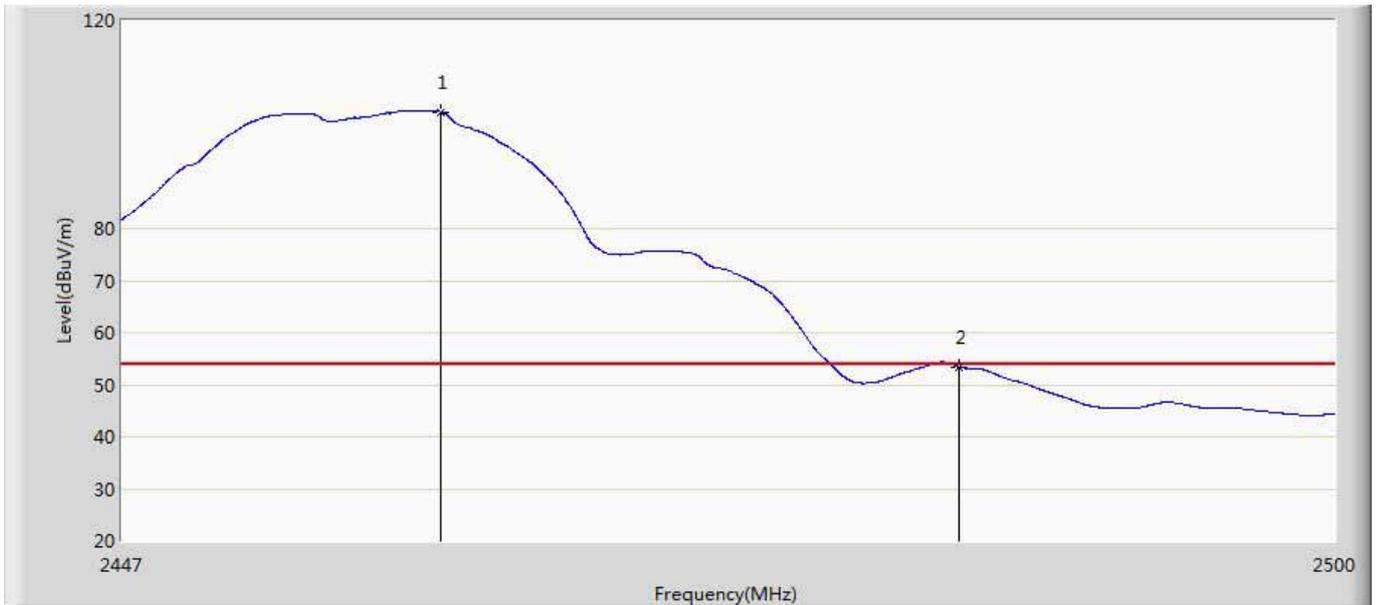
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.192	12.510	-5.808	54.000	35.682	AV
2	*	2437.300	99.617	63.811	N/A	N/A	35.806	AV
3		2483.500	47.270	11.378	-6.730	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 17:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2457MHz by 802.11b	



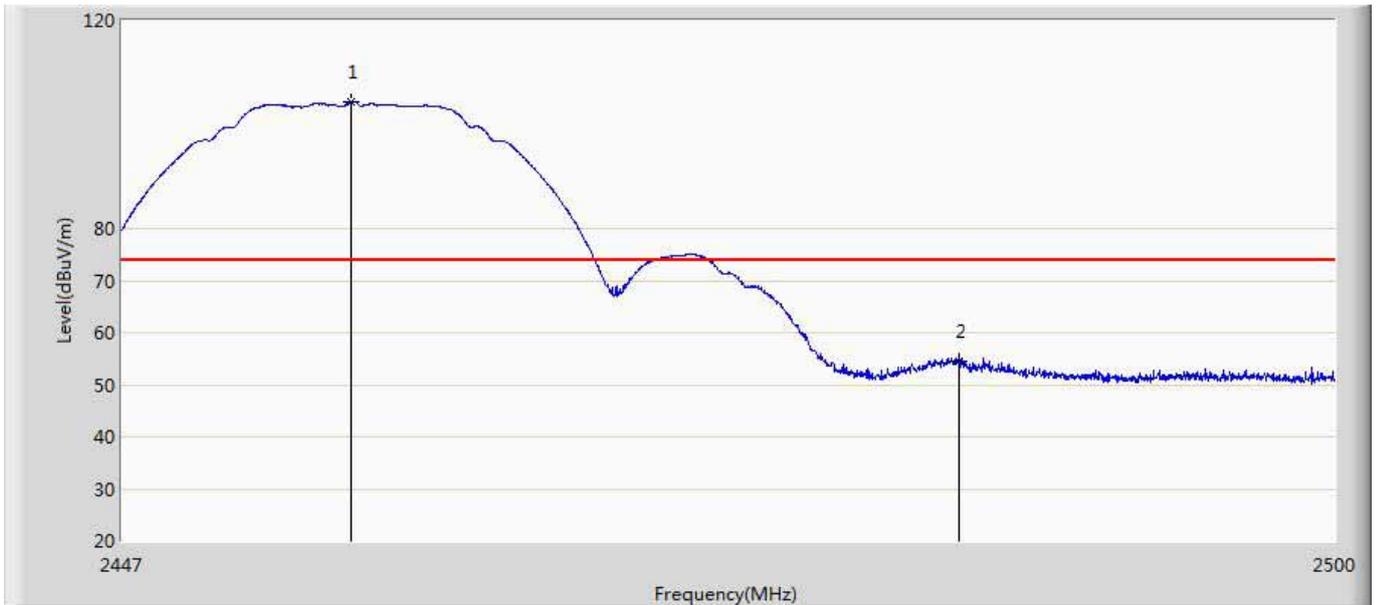
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2460.568	106.867	70.995	N/A	N/A	35.872	PK
2		2483.500	59.675	23.783	-14.325	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 17:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2457MHz by 802.11b	



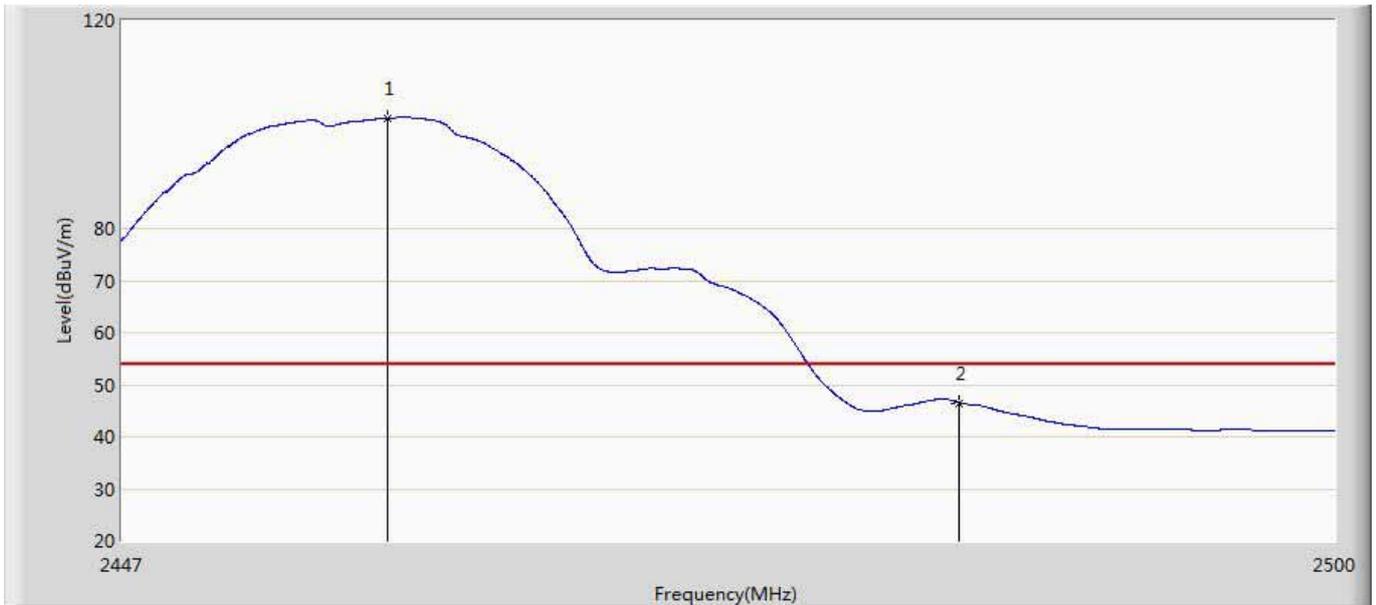
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2460.806	102.461	66.588	N/A	N/A	35.873	AV
2		2483.500	53.332	17.440	-0.668	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 17:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2457MHz by 802.11b	



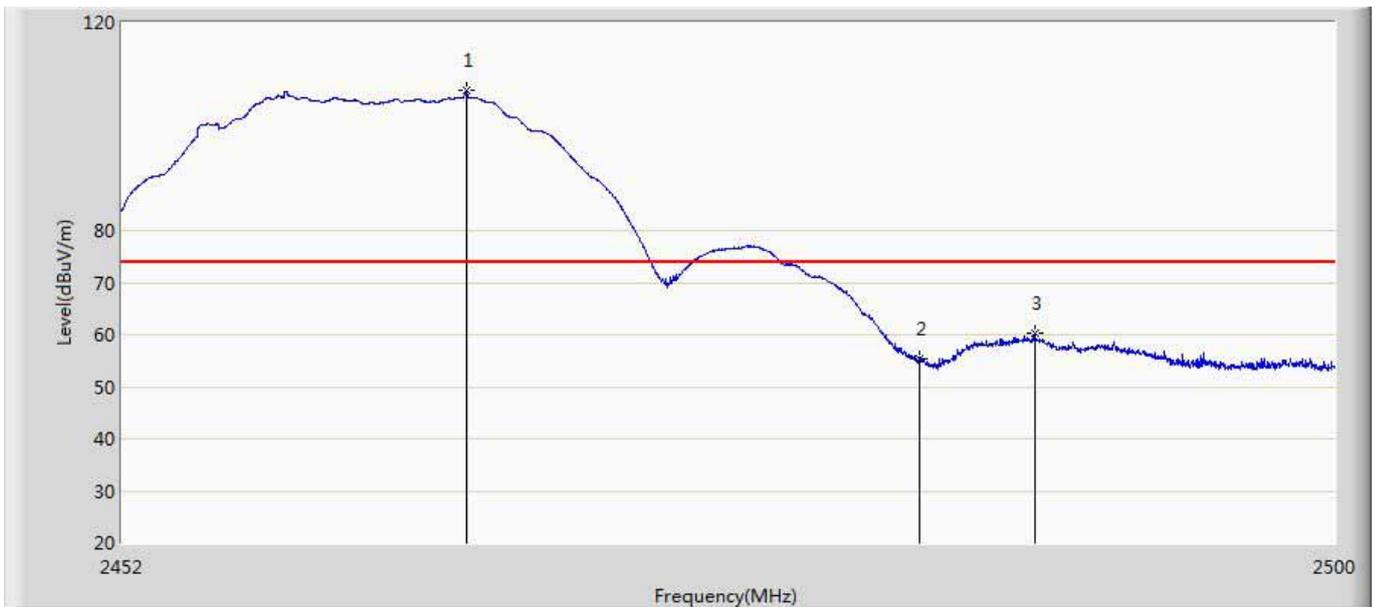
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.937	104.340	68.484	N/A	N/A	35.856	PK
2		2483.500	54.522	18.630	-19.478	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 17:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2457MHz by 802.11b	



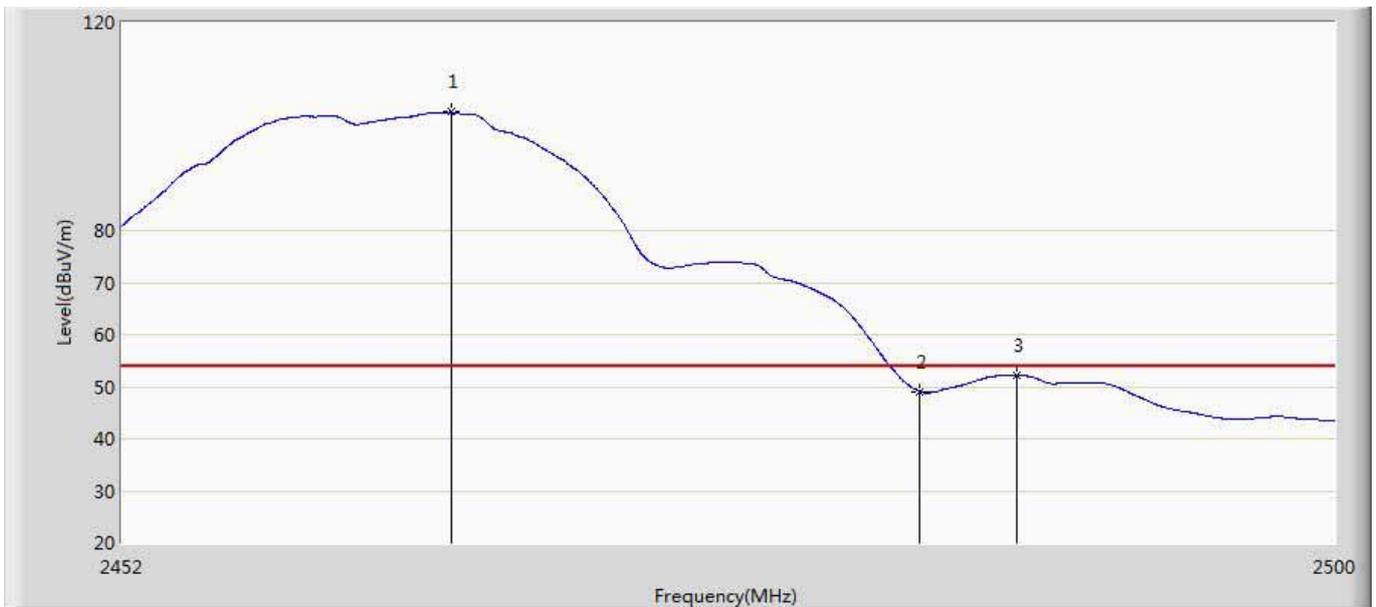
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2458.528	101.223	65.360	N/A	N/A	35.863	AV
2		2483.500	46.507	10.615	-7.493	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 18:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2462MHz by 802.11b	



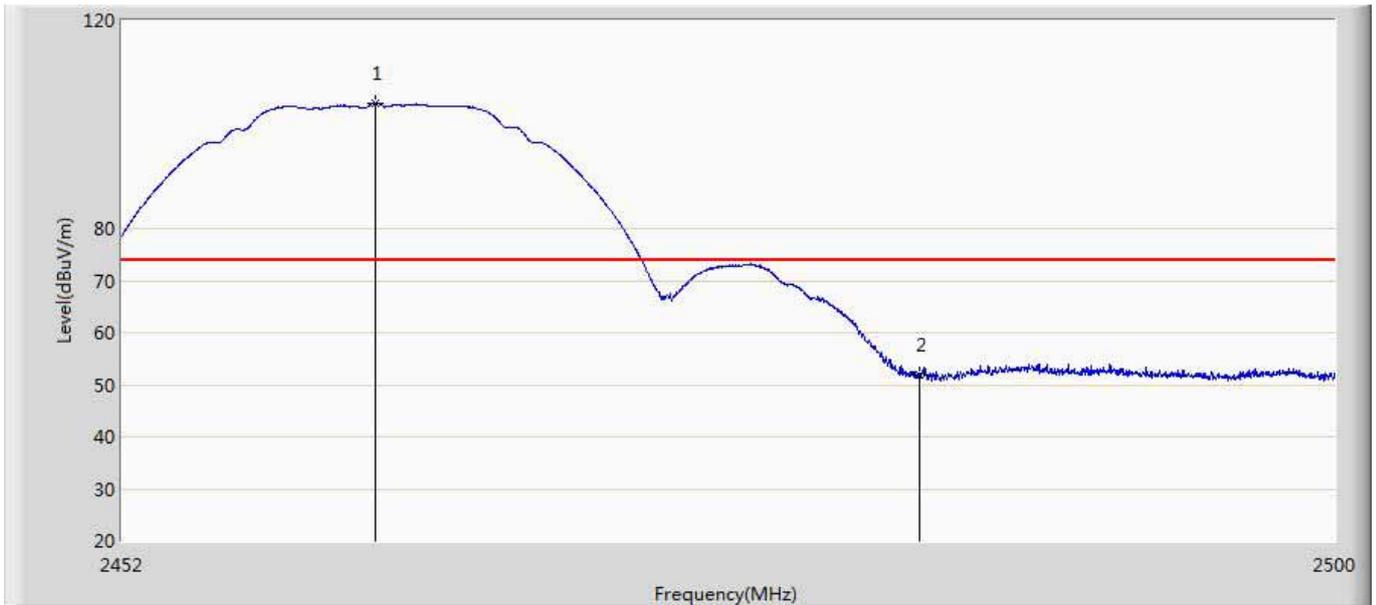
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2465.584	106.838	70.964	N/A	N/A	35.874	PK
2		2483.500	55.225	19.333	-18.775	74.000	35.891	PK
3		2488.048	60.185	24.260	-13.815	74.000	35.925	PK

Site: AC5	Time: 2017/01/08 - 17:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2462MHz by 802.11b	



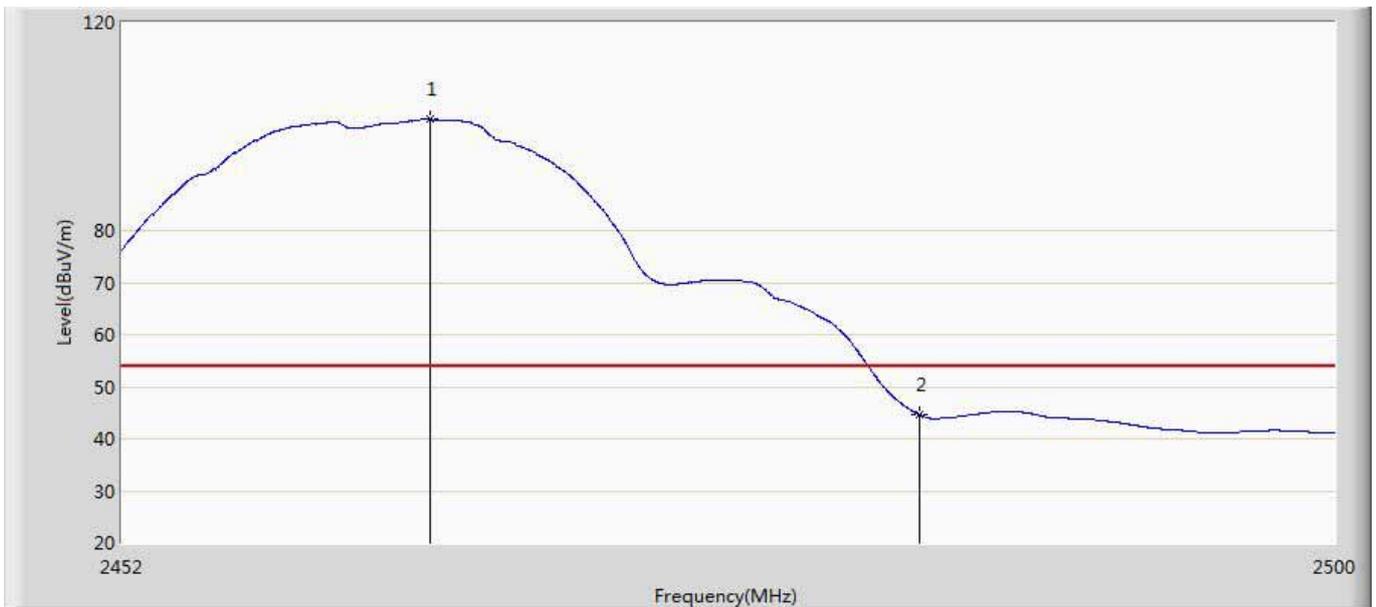
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.960	102.772	66.897	N/A	N/A	35.875	AV
2		2483.500	49.048	13.156	-4.952	54.000	35.891	AV
3		2487.328	52.176	16.257	-1.824	54.000	35.920	AV

Site: AC5	Time: 2017/01/08 - 18:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2462MHz by 802.11b	



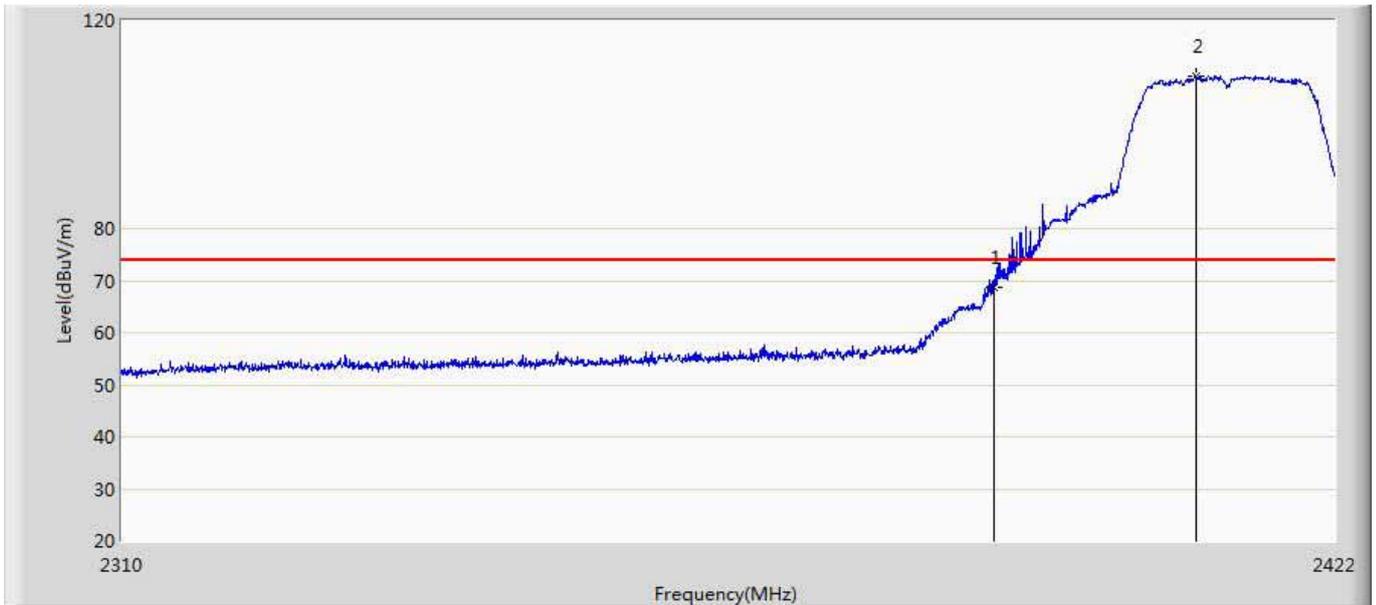
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.960	104.147	68.269	N/A	N/A	35.878	PK
2		2483.500	51.978	16.086	-22.022	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 18:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 1:Trandmit at 2462MHz by 802.11b	



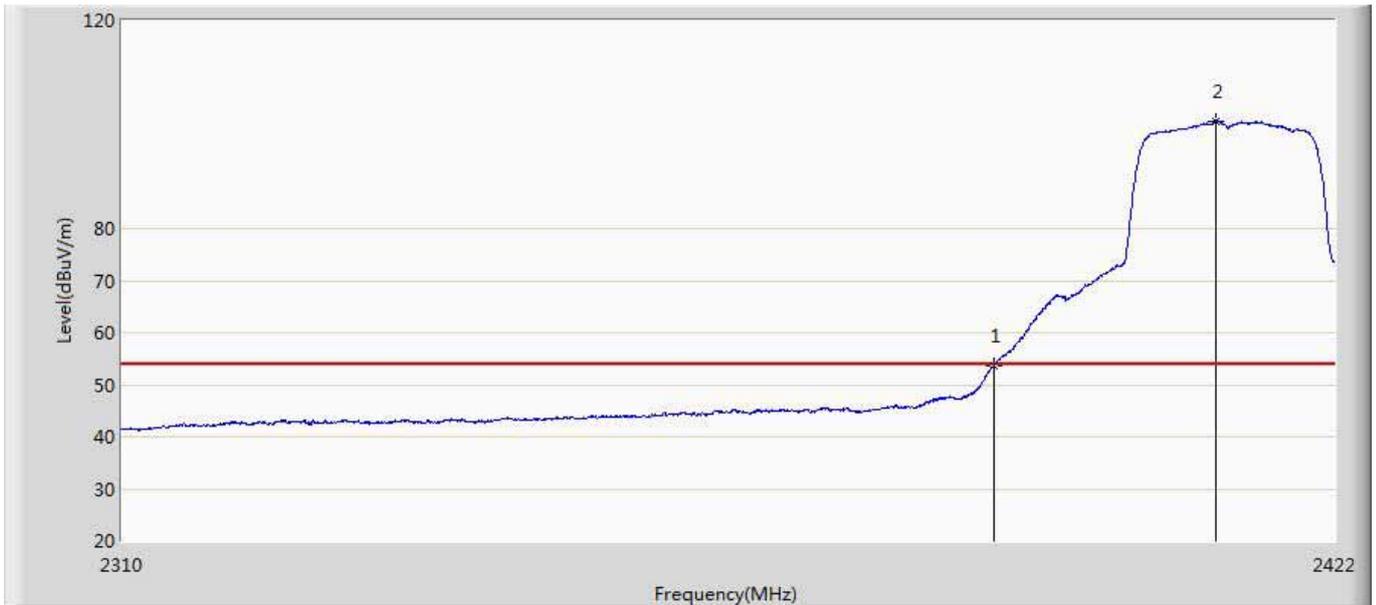
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.120	101.524	65.648	N/A	N/A	35.876	AV
2		2483.500	44.600	8.708	-9.400	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 15:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2412MHz by 802.11g	



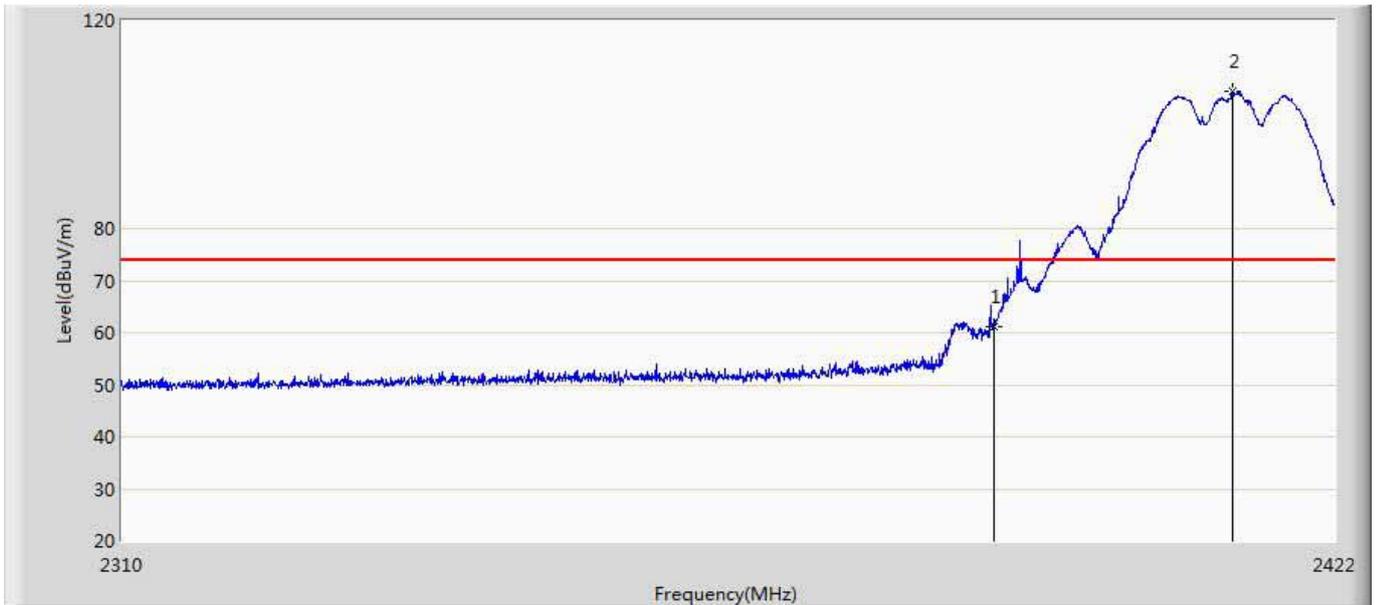
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	68.623	32.941	-5.377	74.000	35.682	PK
2	*	2408.896	109.383	73.652	N/A	N/A	35.732	PK

Site: AC5	Time: 2017/01/08 - 15:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2412MHz by 802.11g	



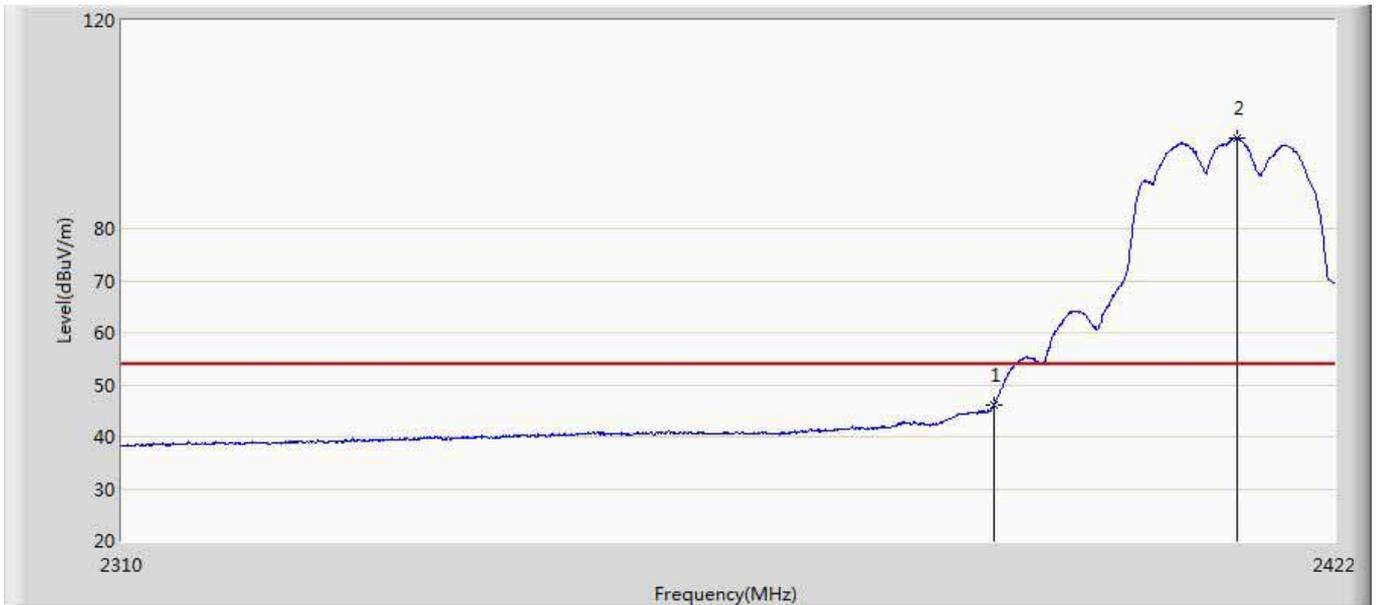
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.499	17.817	-0.501	54.000	35.682	AV
2	*	2410.856	100.719	64.982	N/A	N/A	35.737	AV

Site: AC5	Time: 2017/01/08 - 15:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2412MHz by 802.11g	



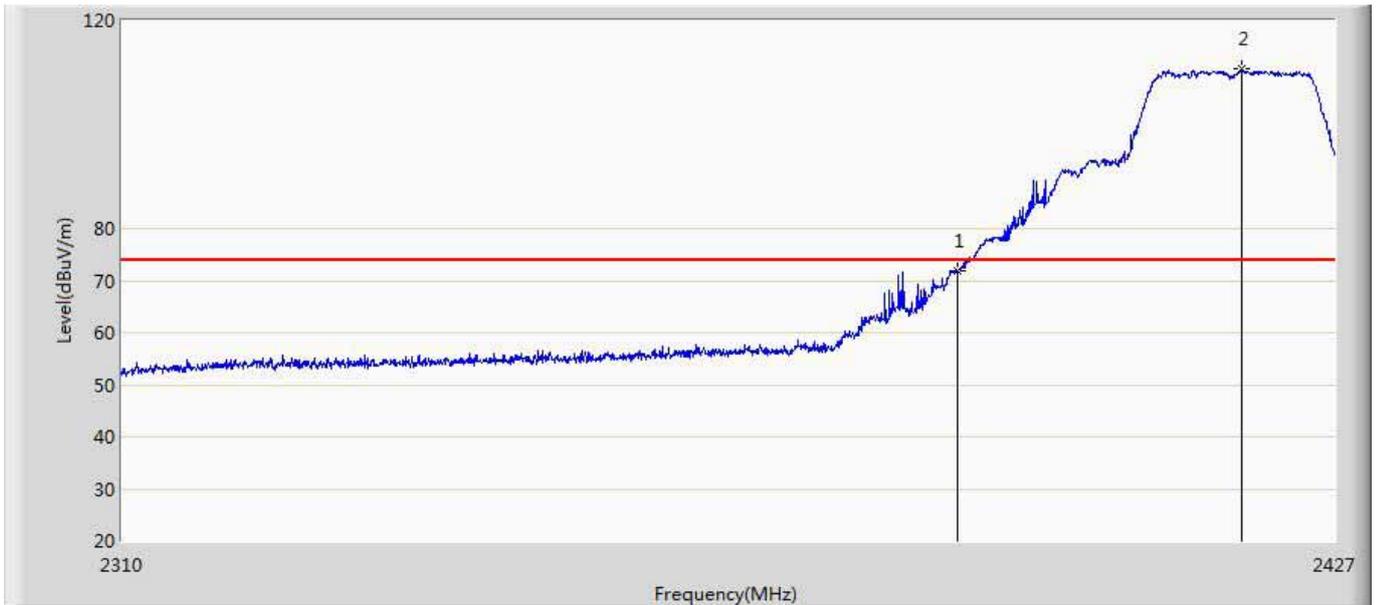
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	61.128	25.446	-12.872	74.000	35.682	PK
2	*	2412.368	106.497	70.754	N/A	N/A	35.743	PK

Site: AC5	Time: 2017/01/08 - 15:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2412MHz by 802.11g	



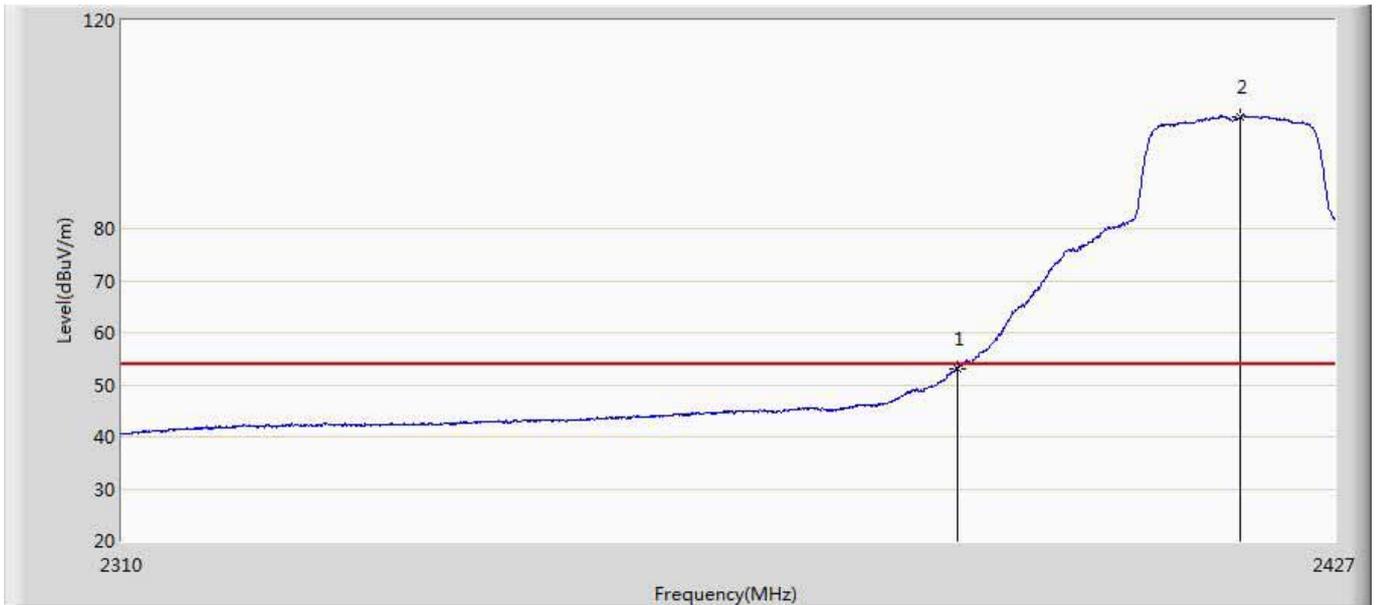
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	45.989	10.307	-8.011	54.000	35.682	AV
2	*	2412.872	97.503	61.758	N/A	N/A	35.745	AV

Site: AC5	Time: 2017/01/08 - 15:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2417MHz by 802.11g	



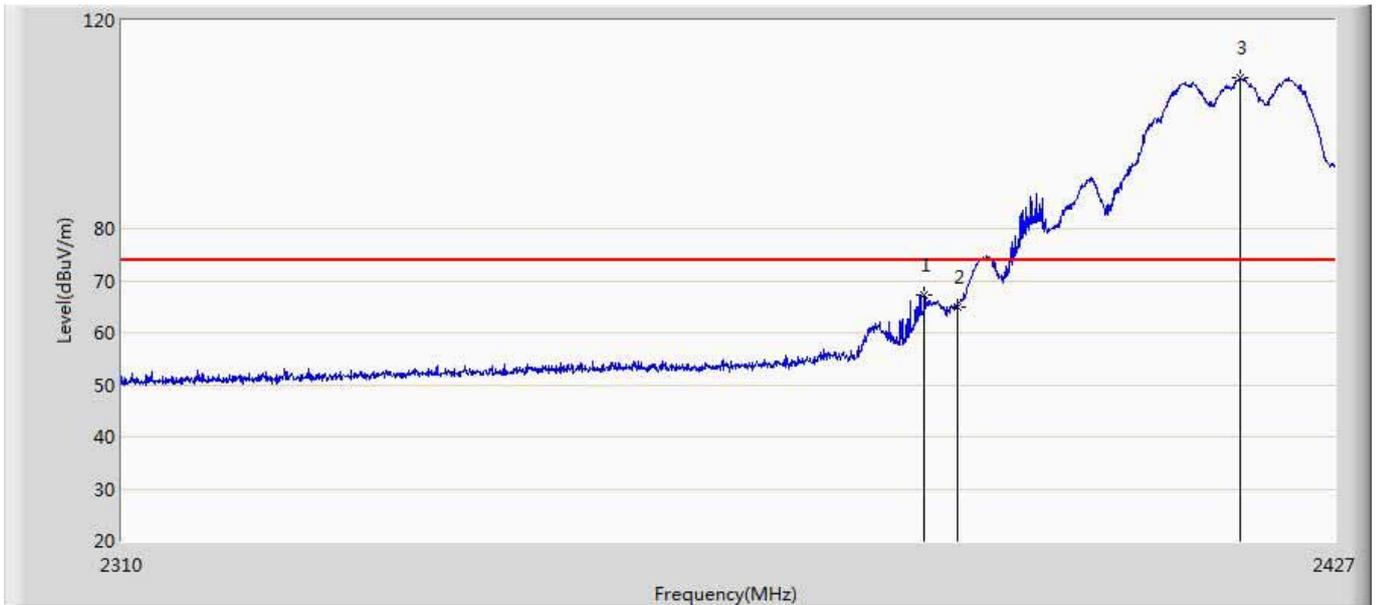
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	71.819	36.137	-2.181	74.000	35.682	PK
2	*	2417.874	110.648	74.882	N/A	N/A	35.766	PK

Site: AC5	Time: 2017/01/08 - 15:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2417MHz by 802.11g	



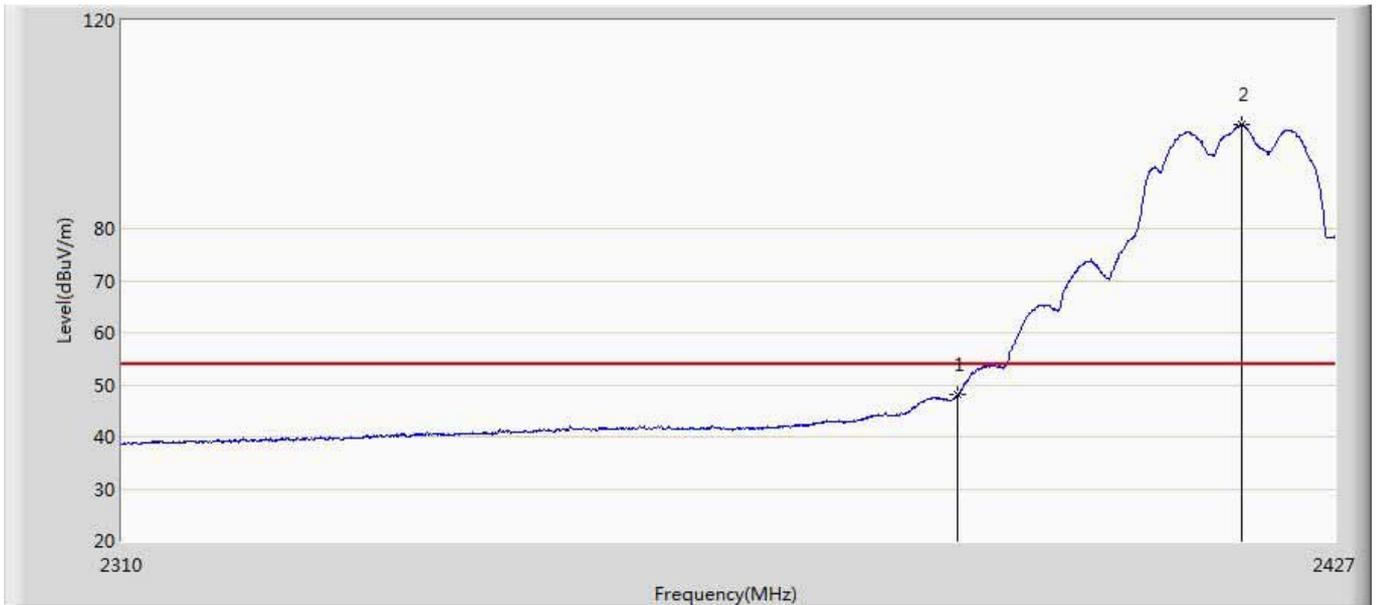
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.153	17.471	-0.847	54.000	35.682	AV
2	*	2417.698	101.548	65.783	N/A	N/A	35.765	AV

Site: AC5	Time: 2017/01/08 - 15:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2417MHz by 802.11g	



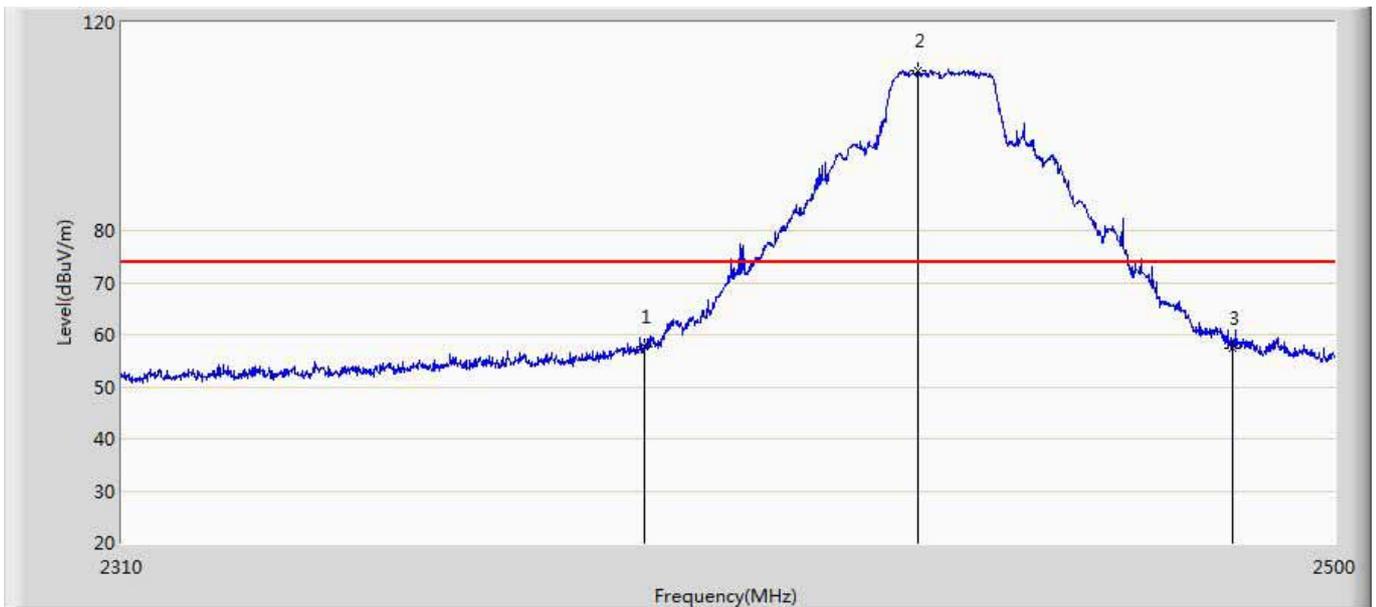
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.811	67.276	31.601	-6.724	74.000	35.675	PK
2		2390.000	64.962	29.280	-9.038	74.000	35.682	PK
3	*	2417.757	108.895	73.129	N/A	N/A	35.765	PK

Site: AC5	Time: 2017/01/08 - 16:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2417MHz by 802.11g	



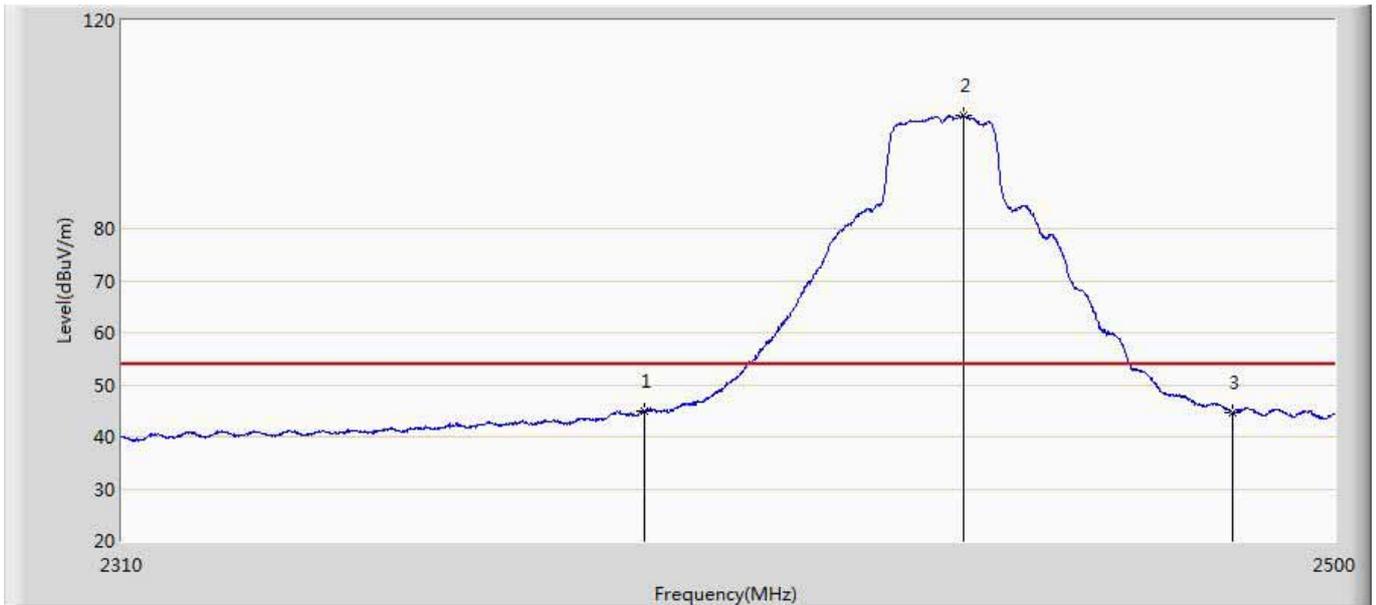
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.061	12.379	-5.939	54.000	35.682	AV
2	*	2417.815	99.991	64.225	N/A	N/A	35.765	AV

Site: AC5	Time: 2017/01/08 - 16:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2437MHz by 802.11g	



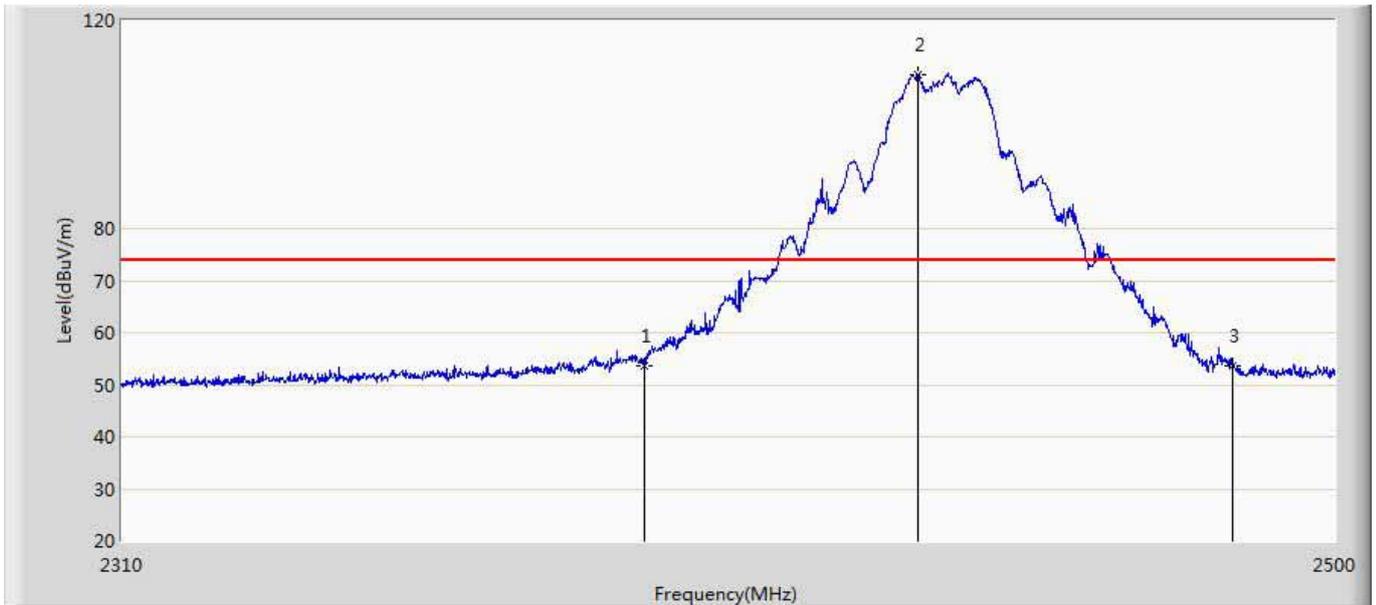
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.653	21.971	-16.347	74.000	35.682	PK
2	*	2433.025	110.866	75.059	N/A	N/A	35.807	PK
3		2483.500	57.381	21.489	-16.619	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 16:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2437MHz by 802.11g	



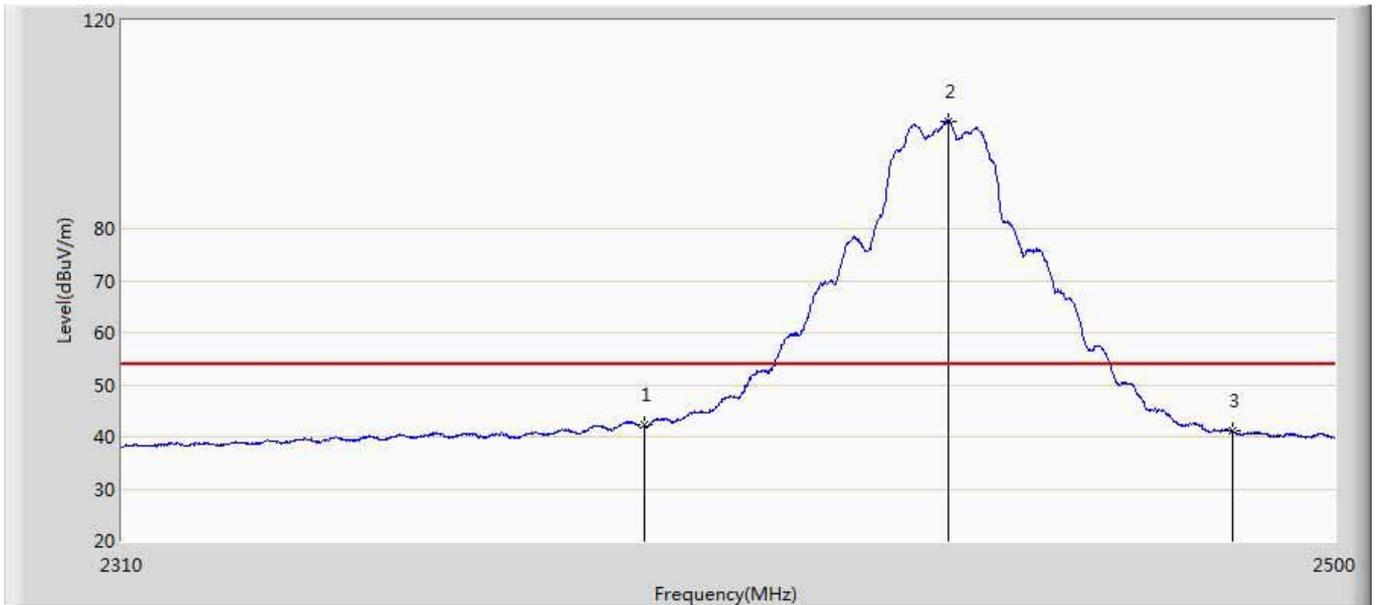
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.839	9.157	-9.161	54.000	35.682	AV
2	*	2440.340	101.697	65.892	N/A	N/A	35.806	AV
3		2483.500	44.633	8.741	-9.367	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 16:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2437MHz by 802.11g	



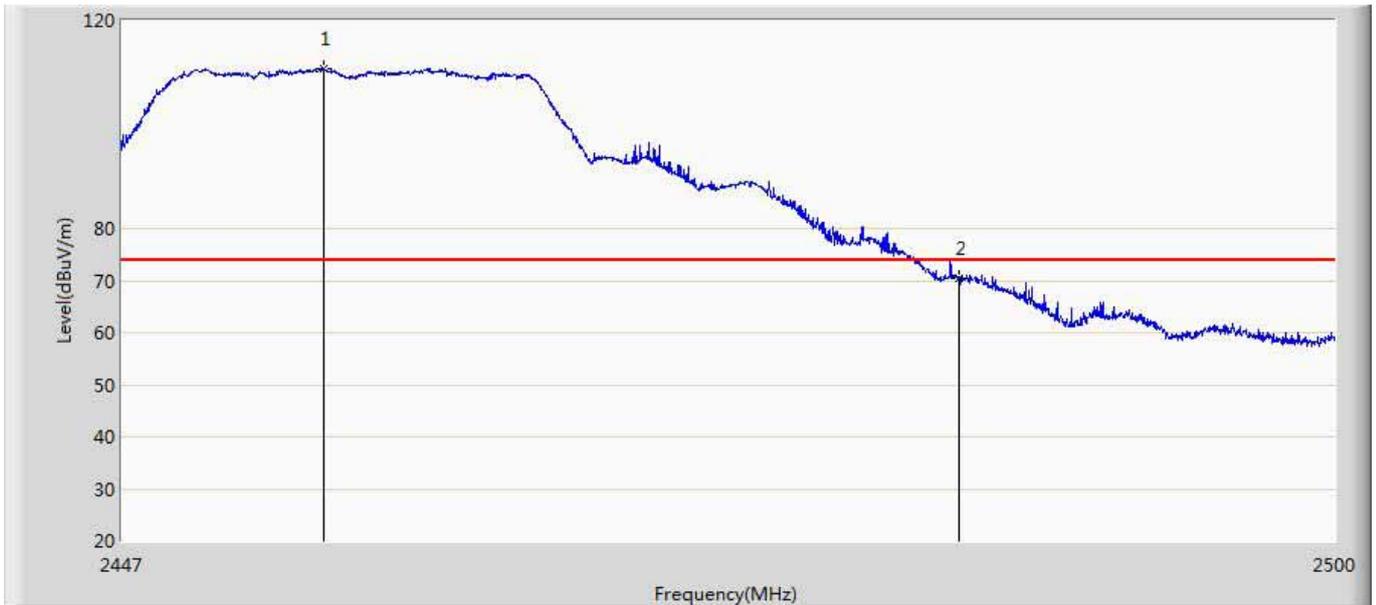
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.616	17.934	-20.384	74.000	35.682	PK
2	*	2433.025	109.666	73.859	N/A	N/A	35.807	PK
3		2483.500	53.728	17.836	-20.272	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 16:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2437MHz by 802.11g	



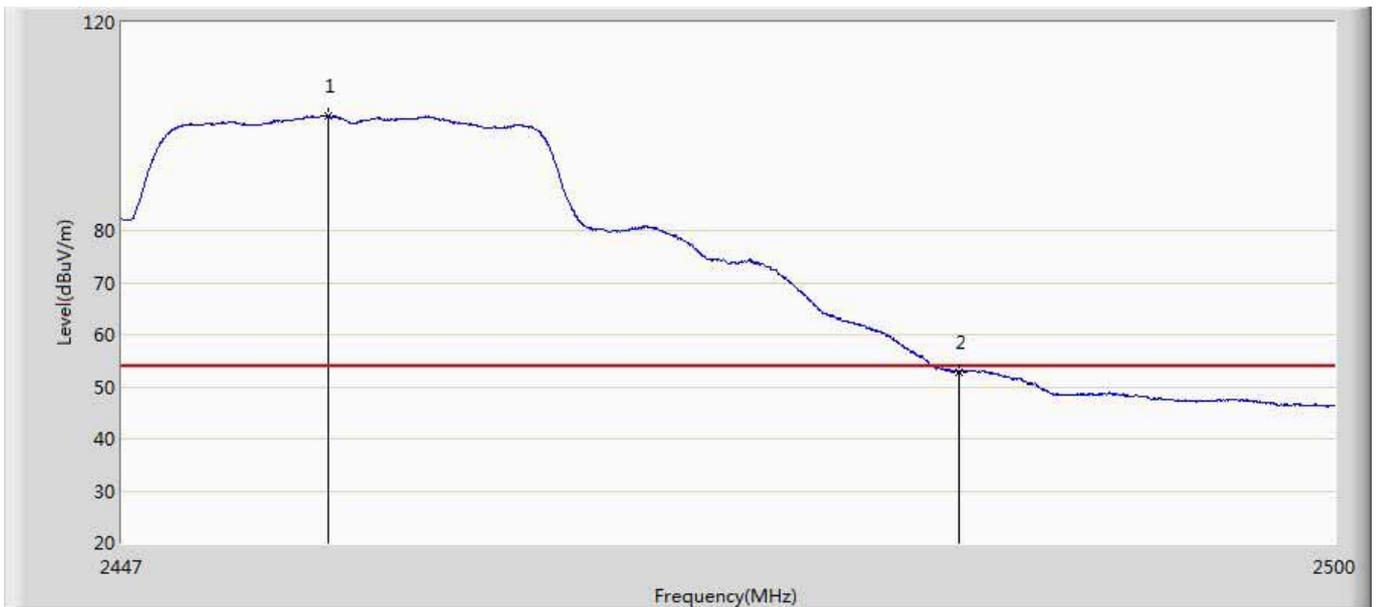
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.188	6.506	-11.812	54.000	35.682	AV
2	*	2437.870	100.718	64.912	N/A	N/A	35.806	AV
3		2483.500	41.098	5.206	-12.902	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 16:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2457MHz by 802.11g	



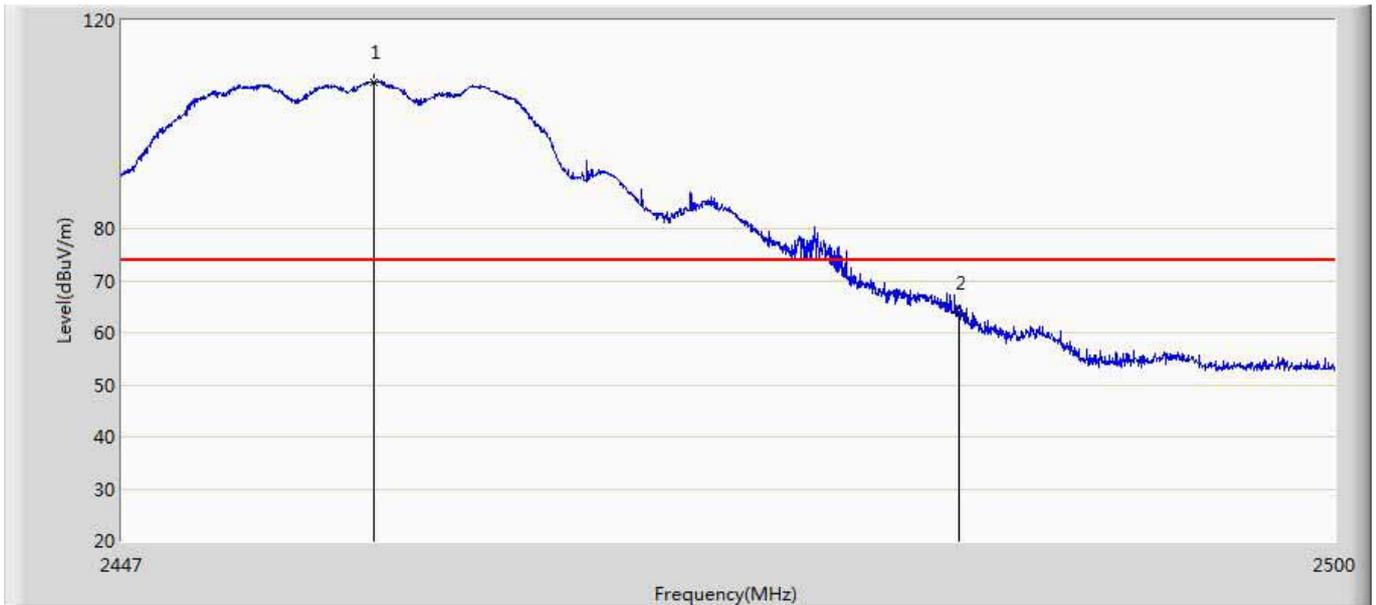
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2455.771	110.661	74.810	N/A	N/A	35.851	PK
2		2483.500	70.504	34.613	-3.496	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 16:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2457MHz by 802.11g	



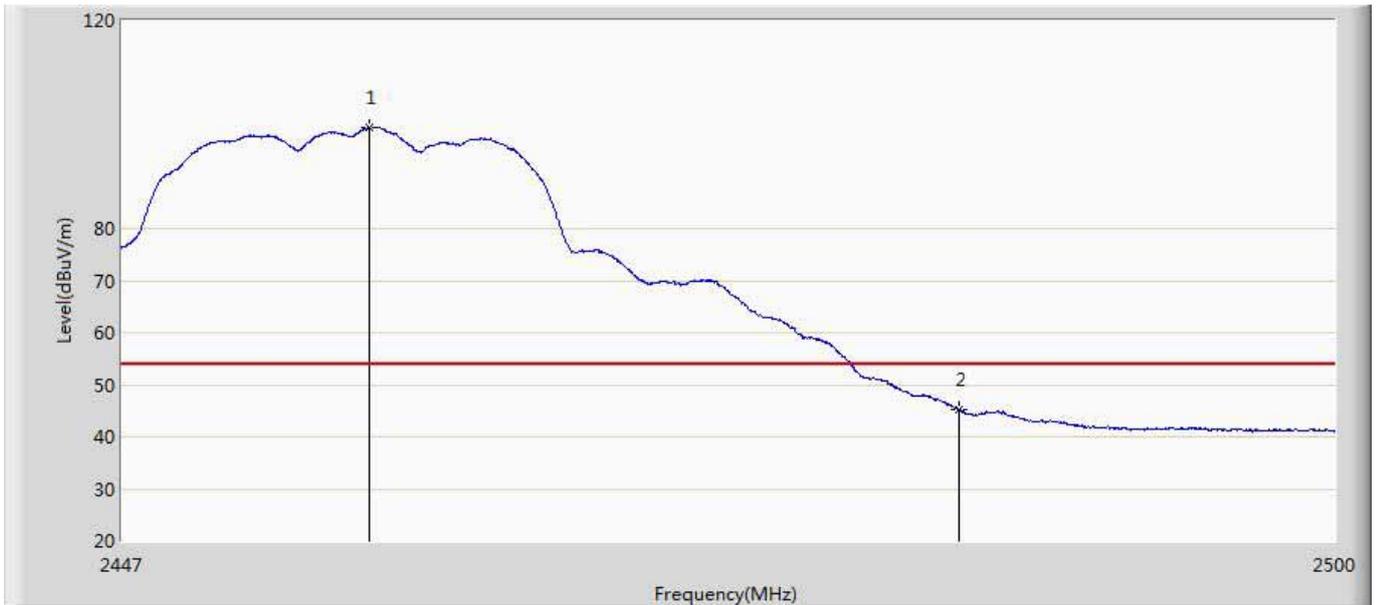
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2455.930	102.145	66.293	N/A	N/A	35.852	AV
2		2483.500	52.881	16.989	-1.119	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 16:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2457MHz by 802.11g	



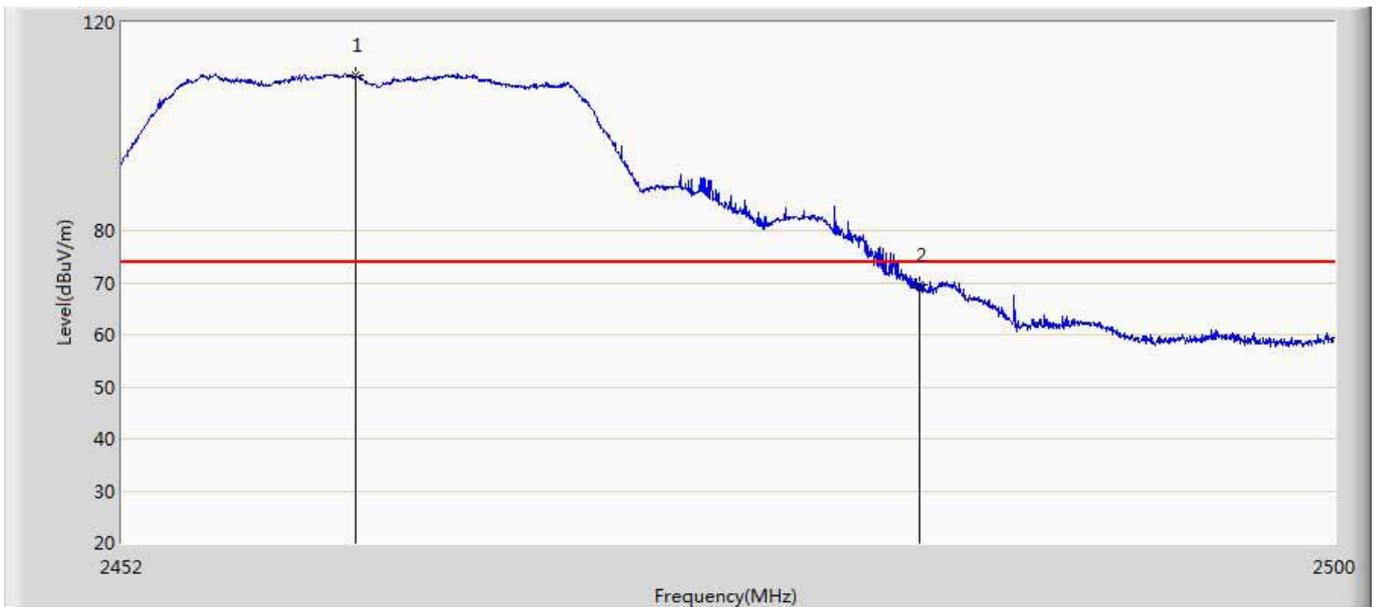
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.918	108.132	72.272	N/A	N/A	35.860	PK
2		2483.500	63.830	27.938	-10.170	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 16:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2457MHz by 802.11g	



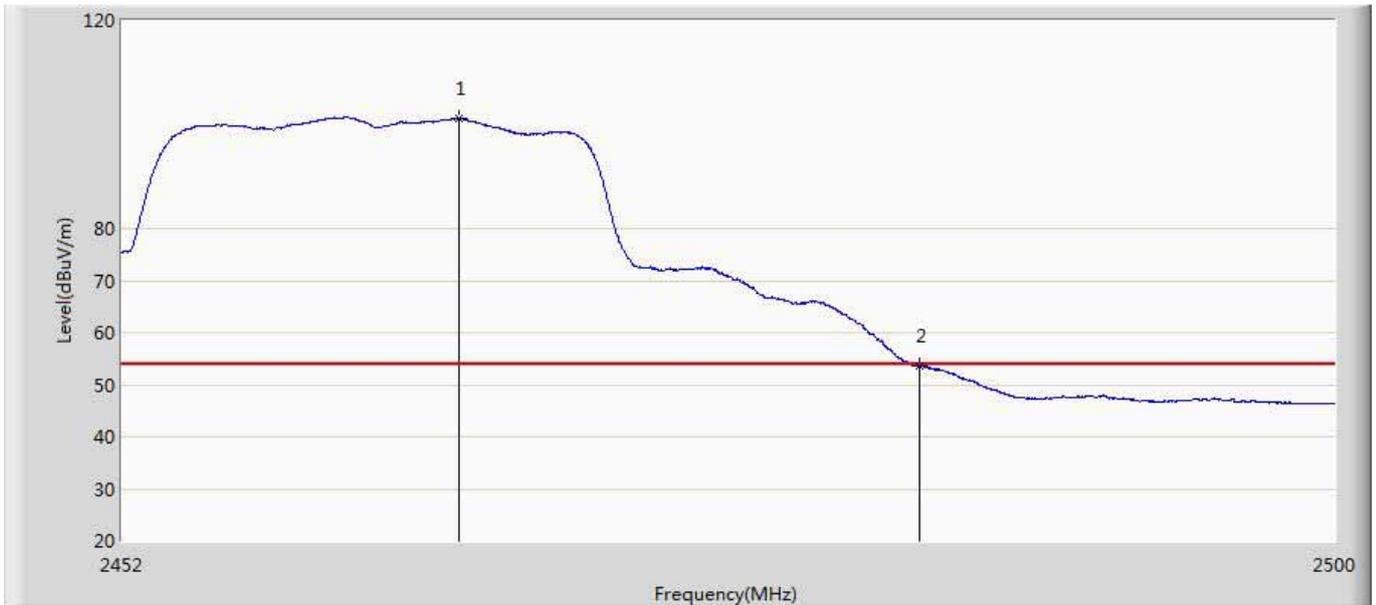
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.732	99.459	63.599	N/A	N/A	35.860	AV
2		2483.500	45.154	9.262	-8.846	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 16:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2462MHz by 802.11g	



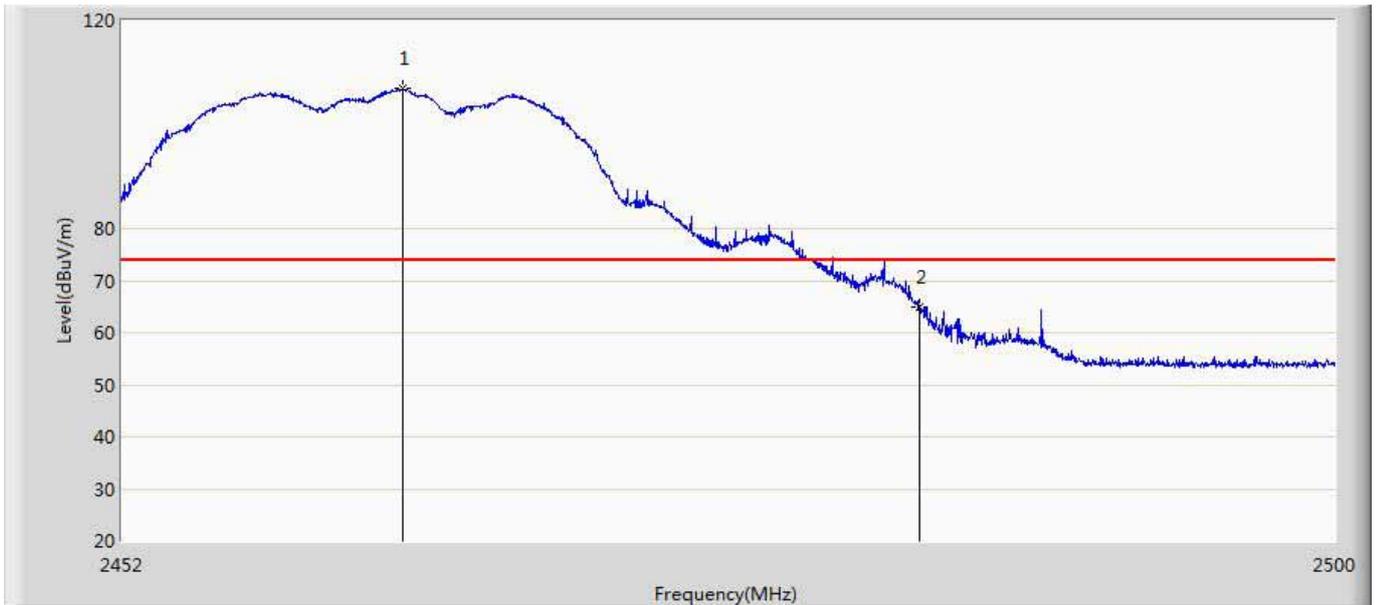
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.168	109.922	74.047	N/A	N/A	35.875	PK
2		2483.500	69.582	33.690	-4.418	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 16:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2462MHz by 802.11g	



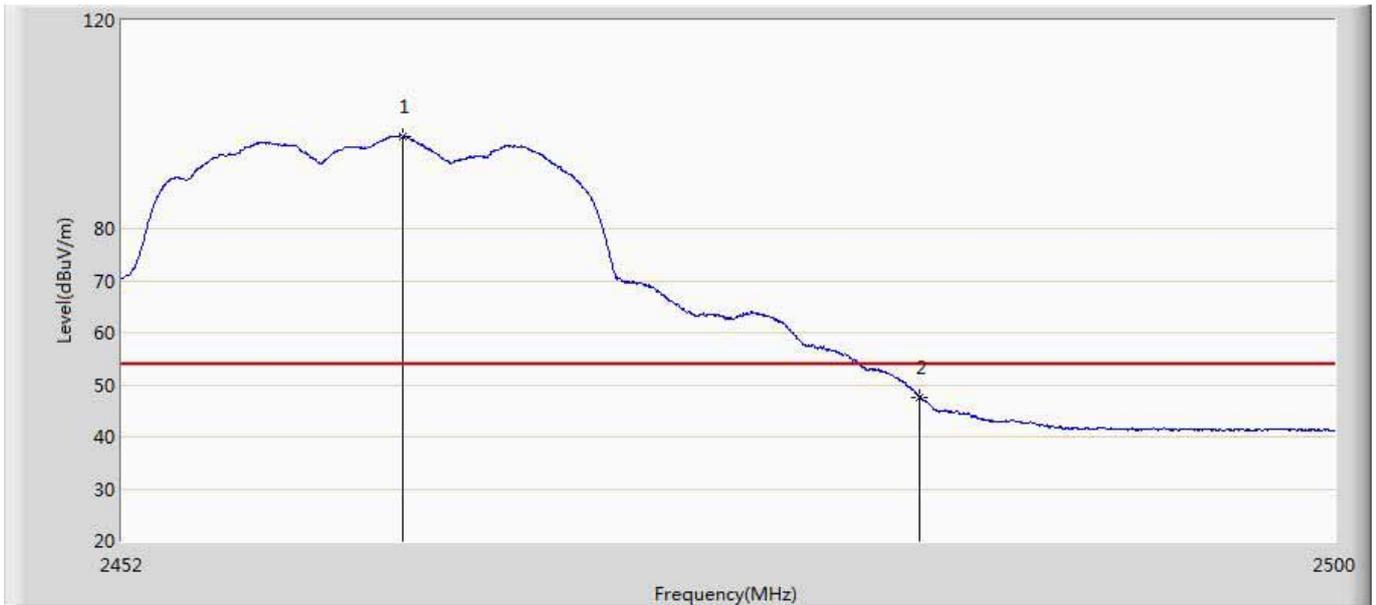
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2465.272	101.244	65.369	N/A	N/A	35.875	AV
2		2483.500	53.529	17.637	-0.471	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 16:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2462MHz by 802.11g	



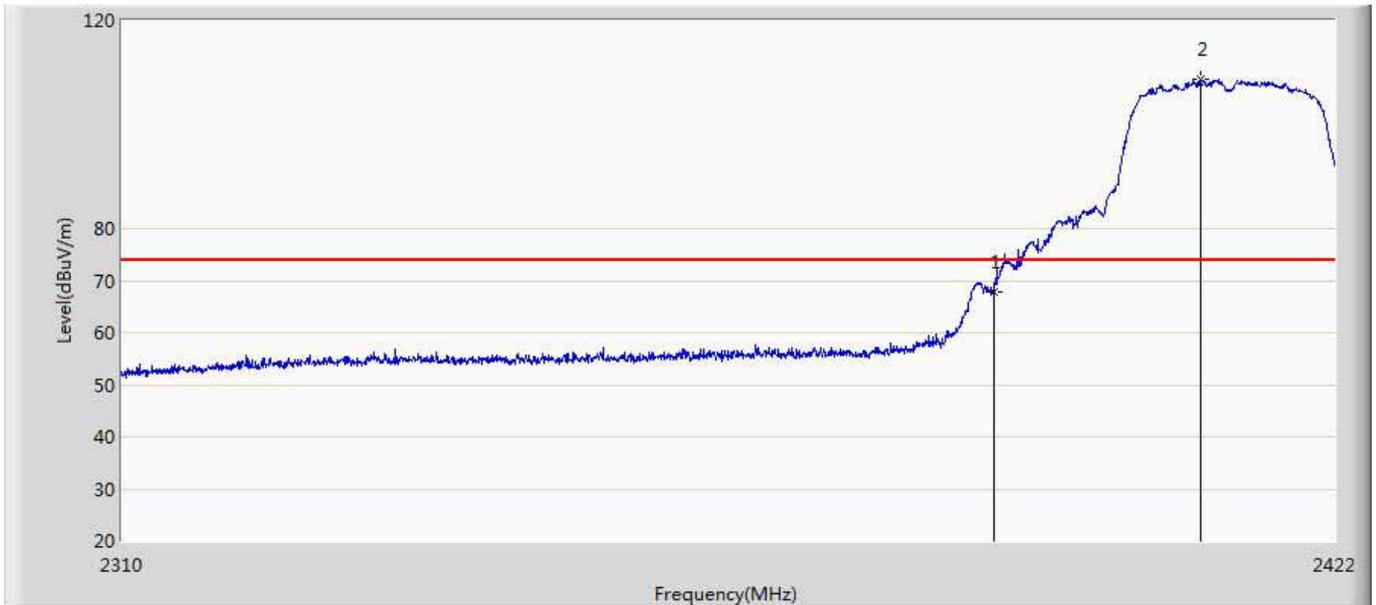
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.040	106.817	70.940	N/A	N/A	35.877	PK
2		2483.500	64.875	28.983	-9.125	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 16:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 2:Trandmit at 2462MHz by 802.11g	



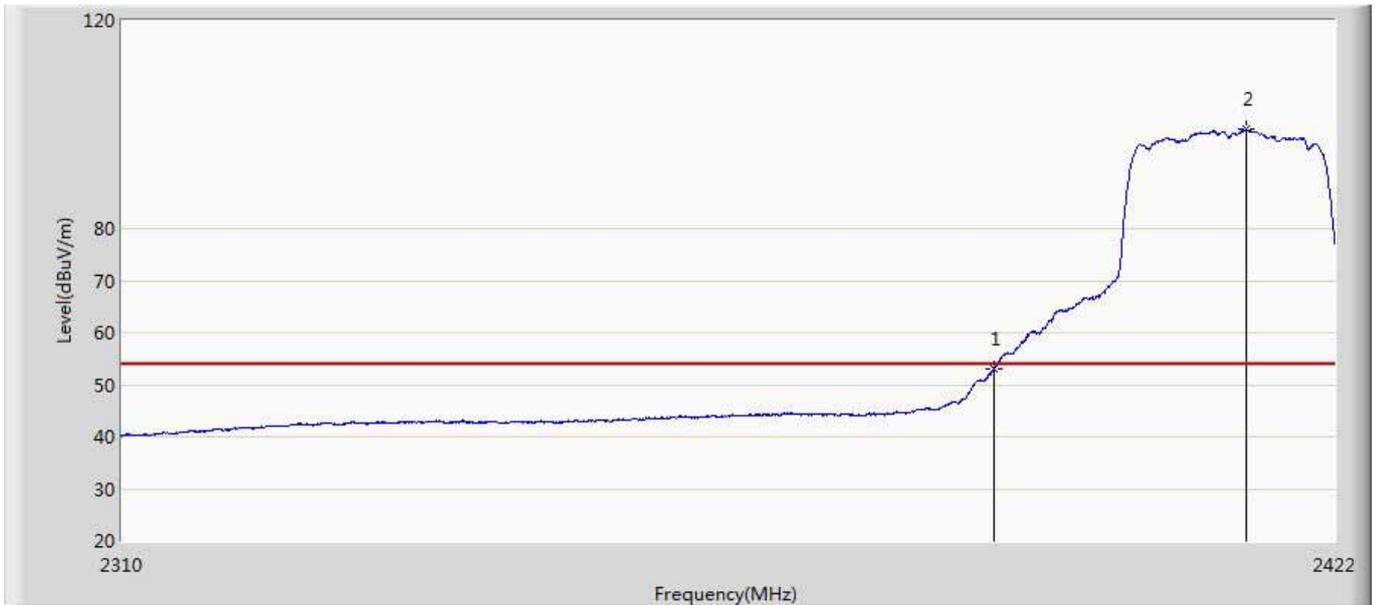
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.016	97.821	61.944	N/A	N/A	35.877	AV
2		2483.500	47.644	11.752	-6.356	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 13:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2412MHz by 802.11n20	



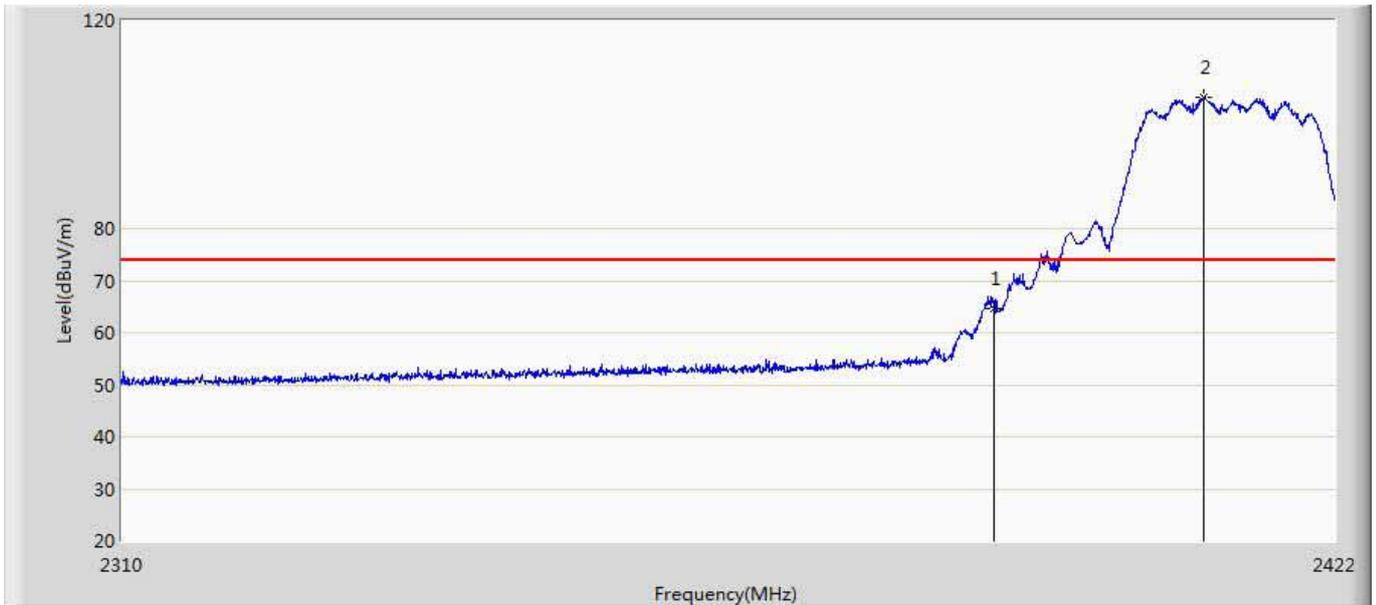
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	67.939	32.257	-6.061	74.000	35.682	PK
2	*	2409.400	108.715	72.982	N/A	N/A	35.733	PK

Site: AC5	Time: 2017/01/08 - 13:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2412MHz by 802.11n20	



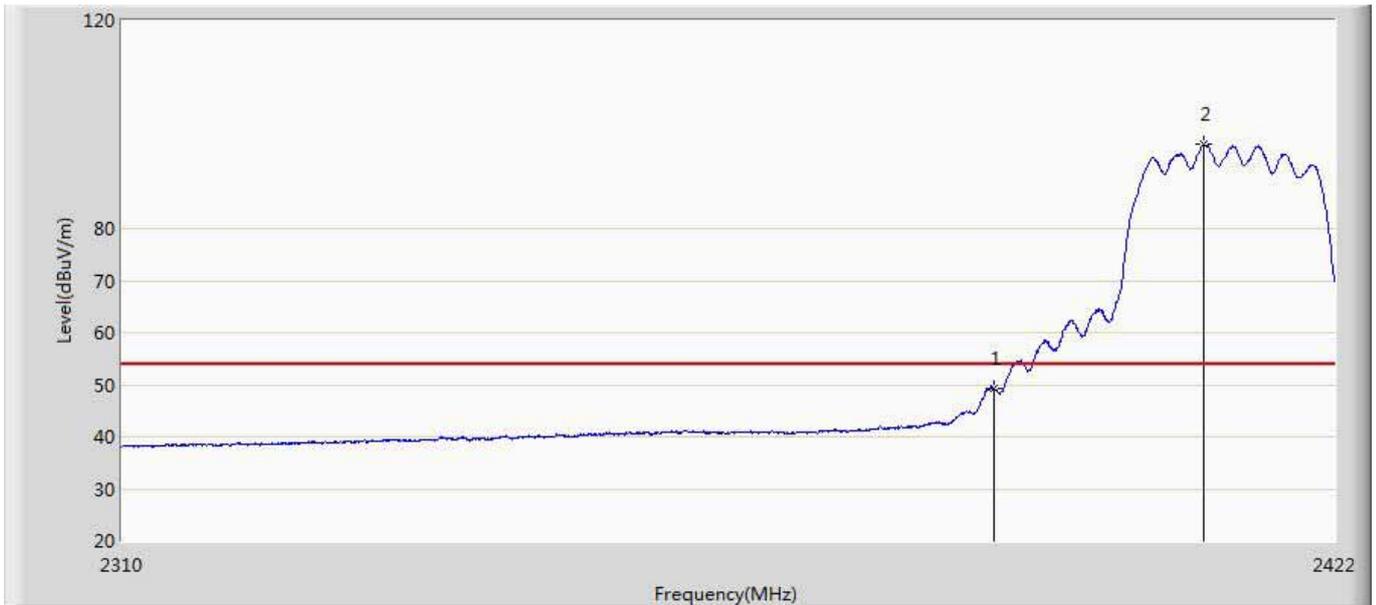
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.108	17.426	-0.892	54.000	35.682	AV
2	*	2413.712	99.049	63.300	N/A	N/A	35.748	AV

Site: AC5	Time: 2017/01/08 - 13:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2412MHz by 802.11n20	



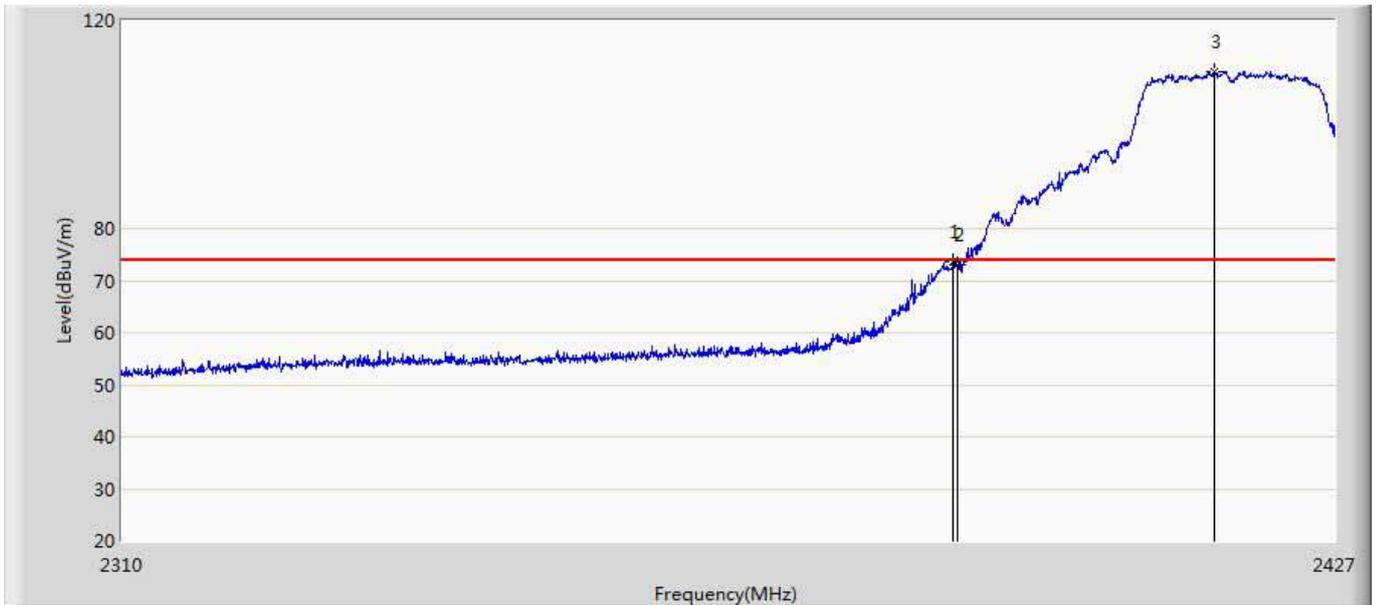
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	64.518	28.836	-9.482	74.000	35.682	PK
2	*	2409.624	105.272	69.539	N/A	N/A	35.733	PK

Site: AC5	Time: 2017/01/08 - 13:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2412MHz by 802.11n20	



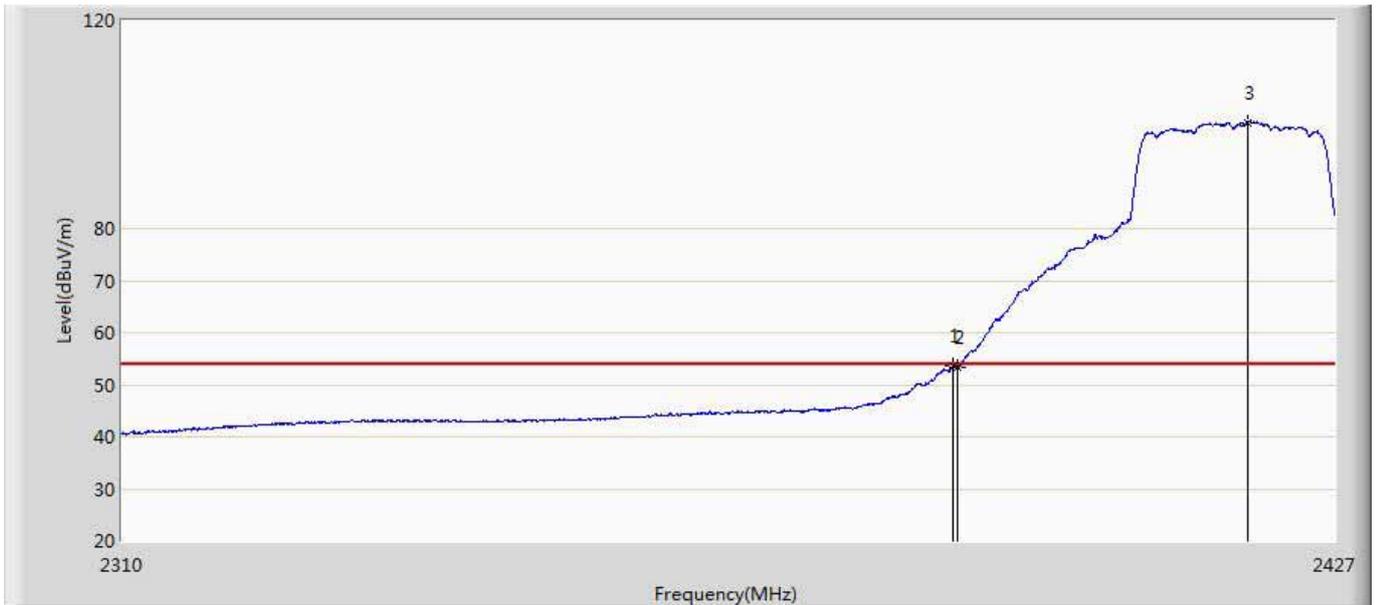
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.199	13.517	-4.801	54.000	35.682	AV
2	*	2409.736	96.252	60.518	N/A	N/A	35.734	AV

Site: AC5	Time: 2017/01/08 - 13:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2417MHz by 802.11n20	



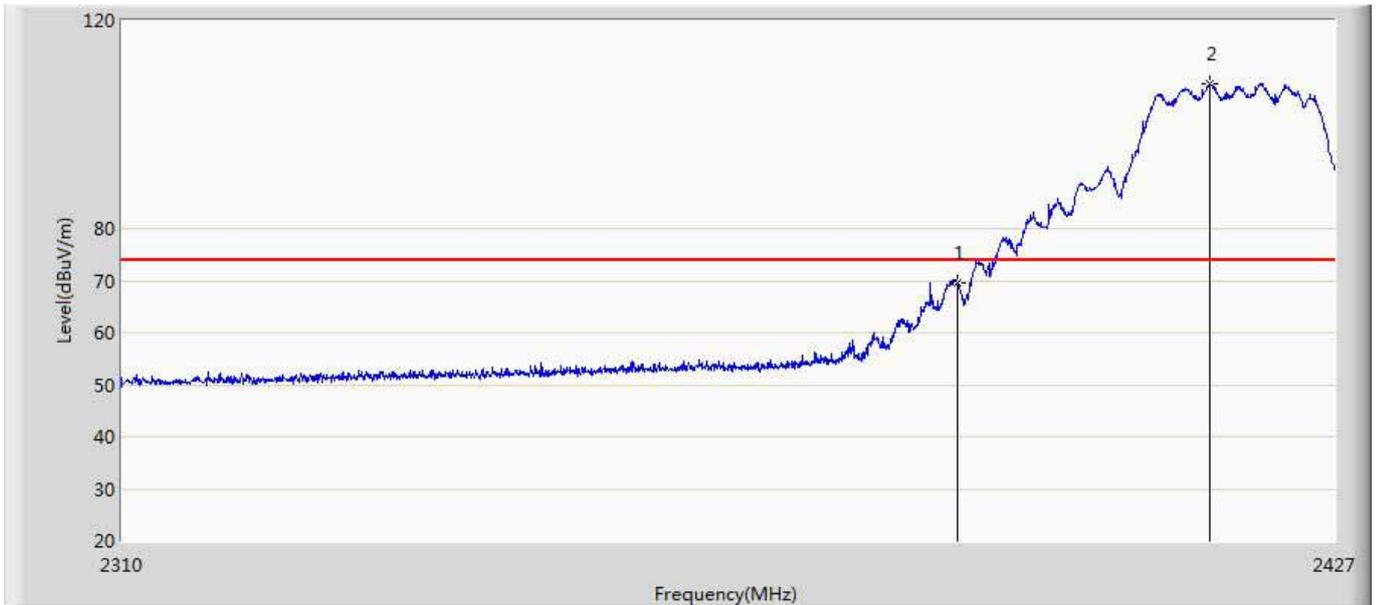
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2389.618	73.737	38.056	-0.263	74.000	35.681	PK
2		2390.000	72.963	37.281	-1.037	74.000	35.682	PK
3	*	2415.183	110.251	74.496	N/A	N/A	35.755	PK

Site: AC5	Time: 2017/01/08 - 13:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2417MHz by 802.11n20	



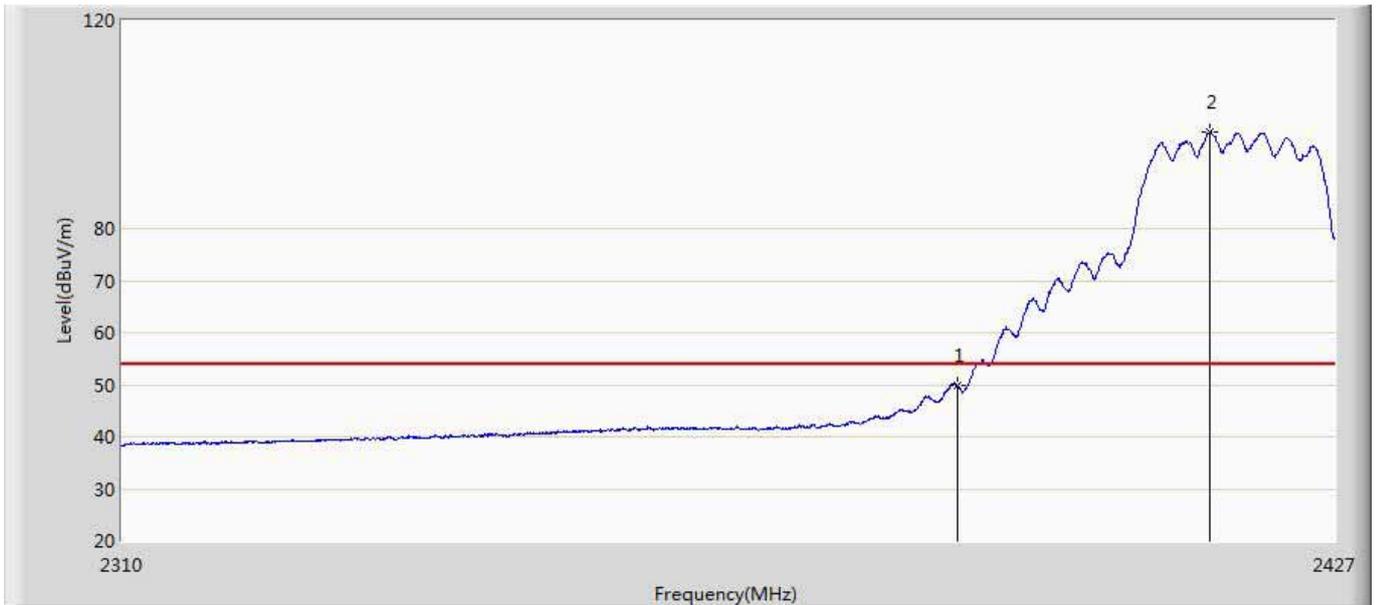
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2389.560	53.645	17.964	-0.355	54.000	35.681	AV
2		2390.000	53.330	17.648	-0.670	54.000	35.682	AV
3	*	2418.400	100.429	64.661	N/A	N/A	35.768	AV

Site: AC5	Time: 2017/01/08 - 13:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2417MHz by 802.11n20	



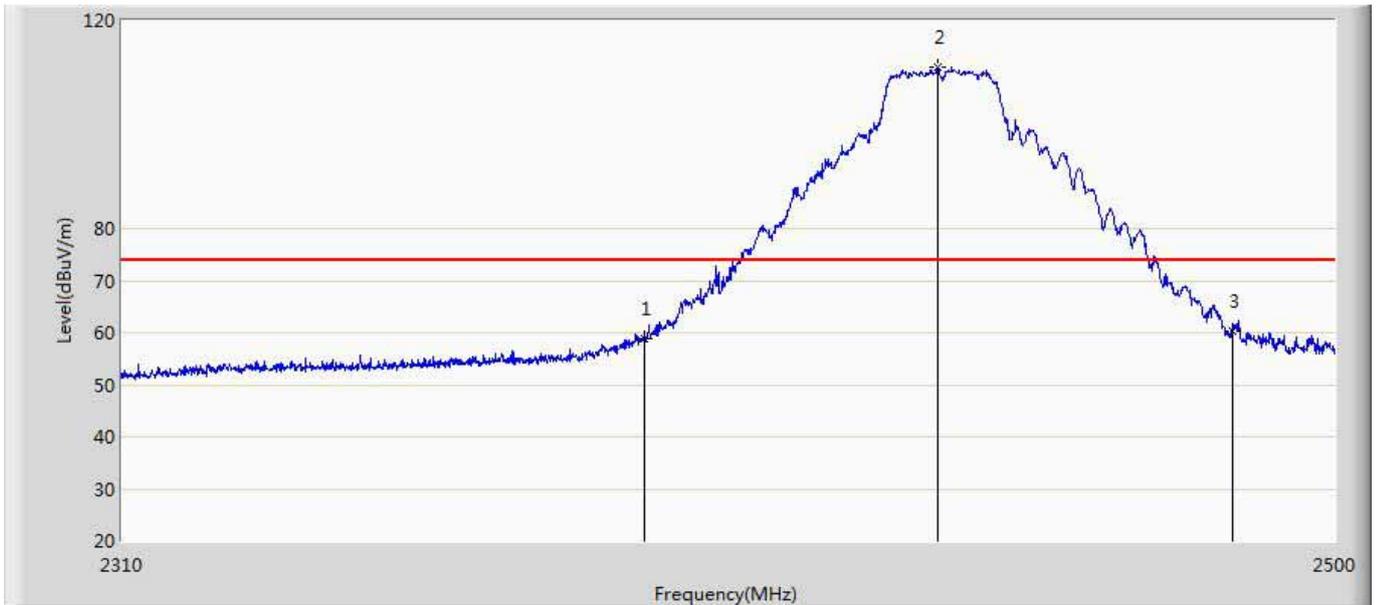
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	69.463	33.781	-4.537	74.000	35.682	PK
2	*	2414.715	107.814	72.061	N/A	N/A	35.753	PK

Site: AC5	Time: 2017/01/08 - 13:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2417MHz by 802.11n20	



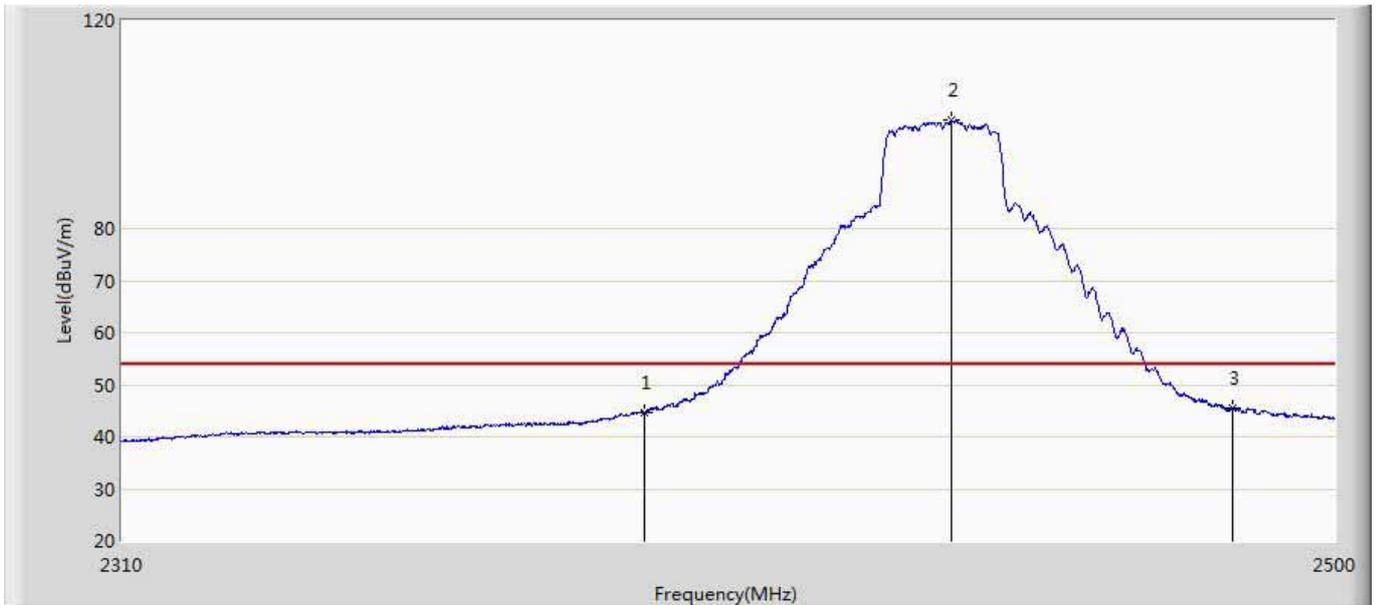
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.771	14.089	-4.229	54.000	35.682	AV
2	*	2414.773	98.465	62.712	N/A	N/A	35.753	AV

Site: AC5	Time: 2017/01/08 - 14:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2437MHz by 802.11n20	



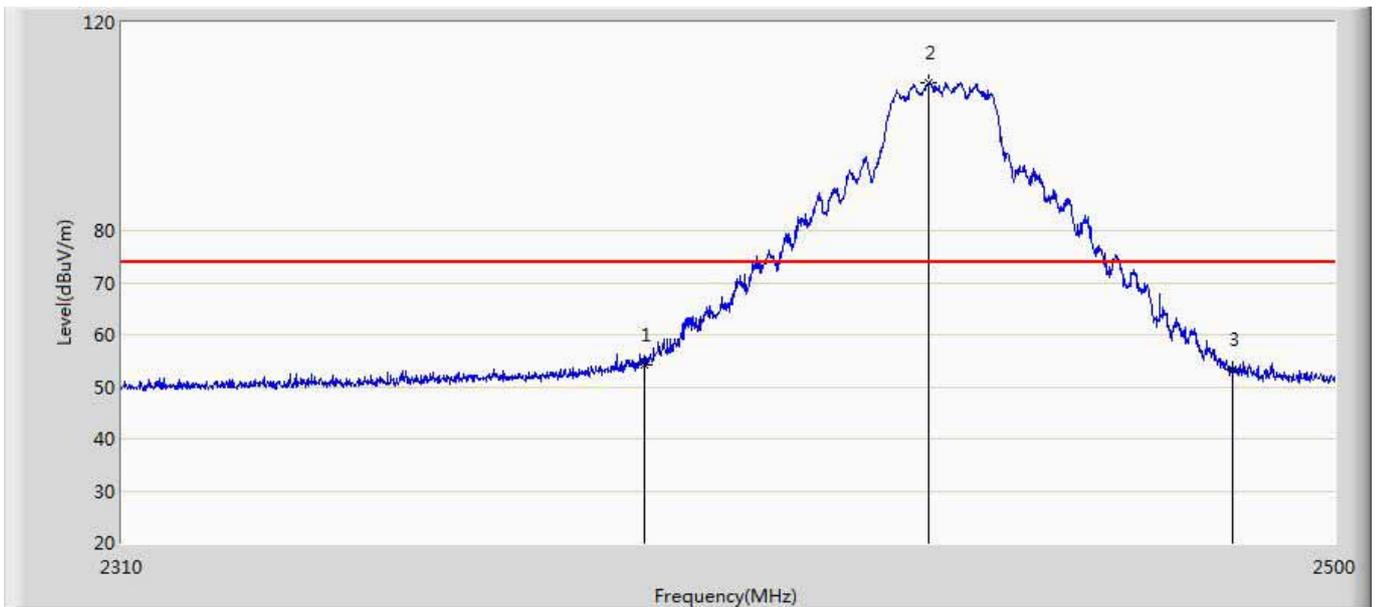
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	58.739	23.057	-15.261	74.000	35.682	PK
2	*	2436.255	110.948	75.142	N/A	N/A	35.807	PK
3		2483.500	60.253	24.361	-13.747	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 13:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2437MHz by 802.11n20	



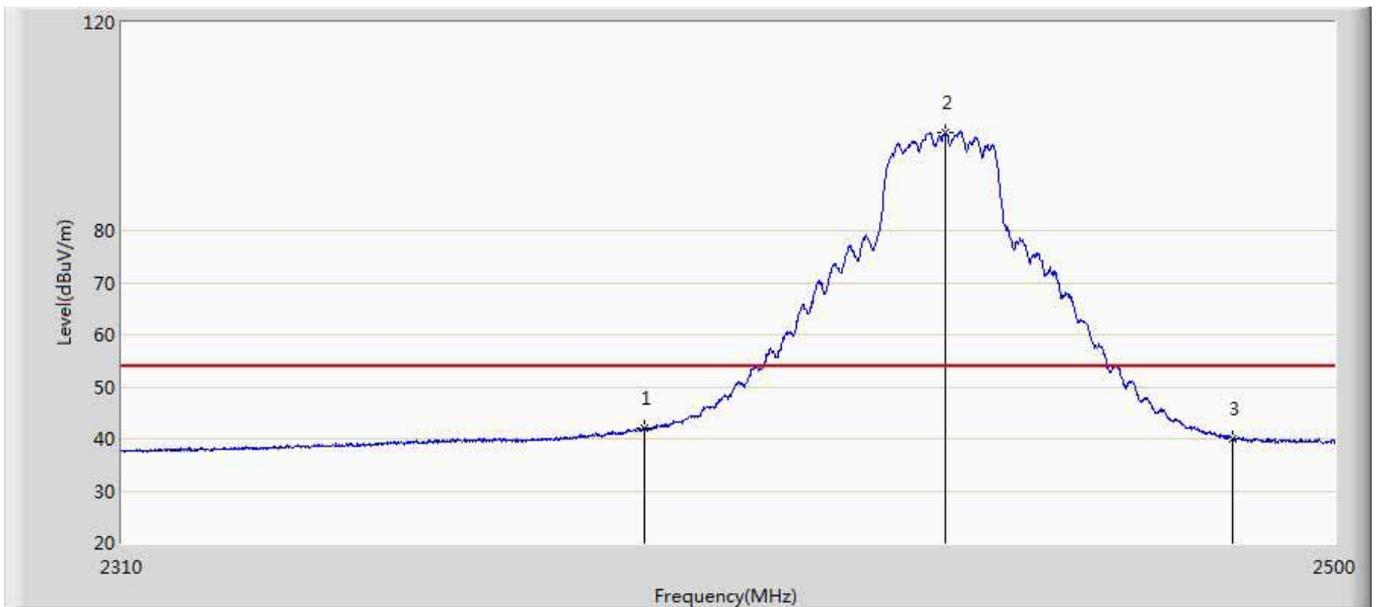
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.649	8.967	-9.351	54.000	35.682	AV
2	*	2438.345	100.783	64.977	N/A	N/A	35.806	AV
3		2483.500	45.510	9.618	-8.490	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 14:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2437MHz by 802.11n20	



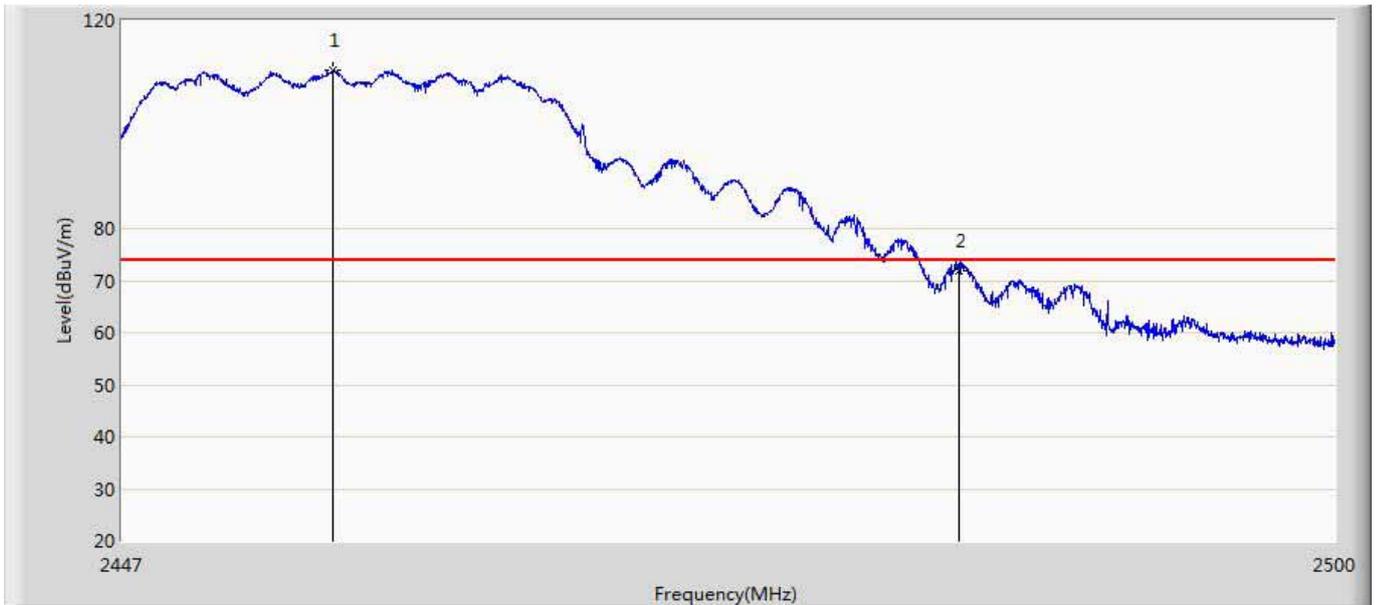
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.078	18.396	-19.922	74.000	35.682	PK
2	*	2434.735	108.365	72.558	N/A	N/A	35.807	PK
3		2483.500	53.208	17.316	-20.792	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 14:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2437MHz by 802.11n20	



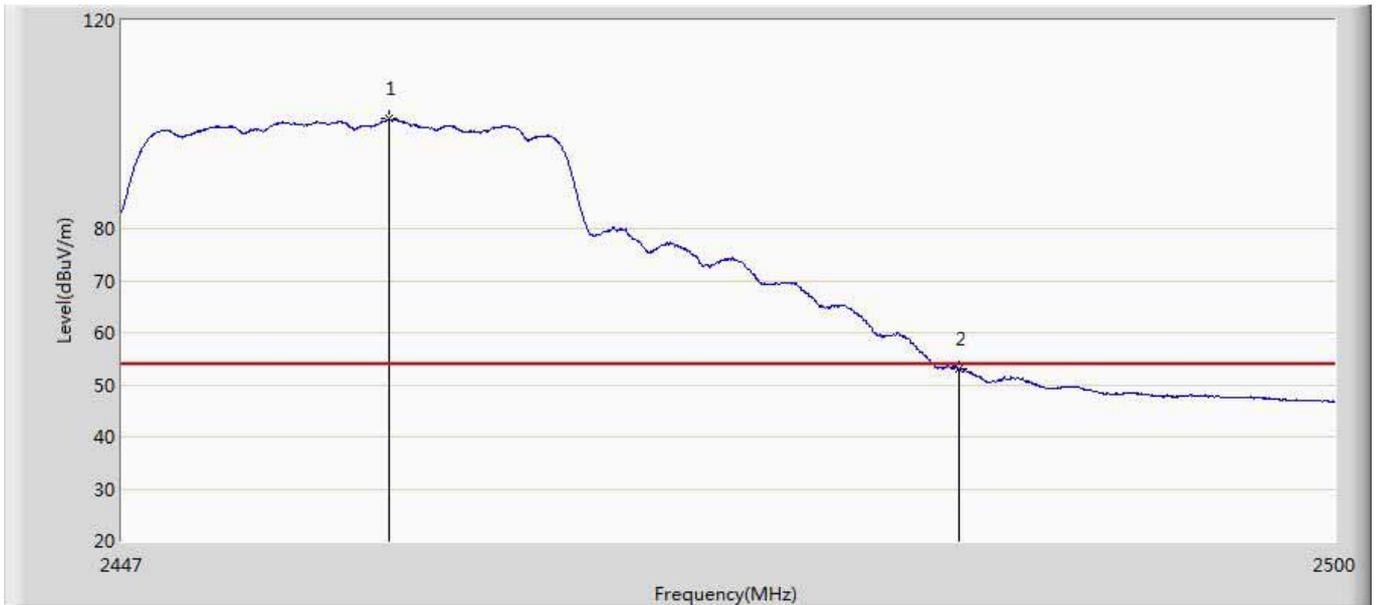
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.976	6.294	-12.024	54.000	35.682	AV
2	*	2437.490	98.733	62.927	N/A	N/A	35.806	AV
3		2483.500	39.990	4.098	-14.010	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2457MHz by 802.11n20	



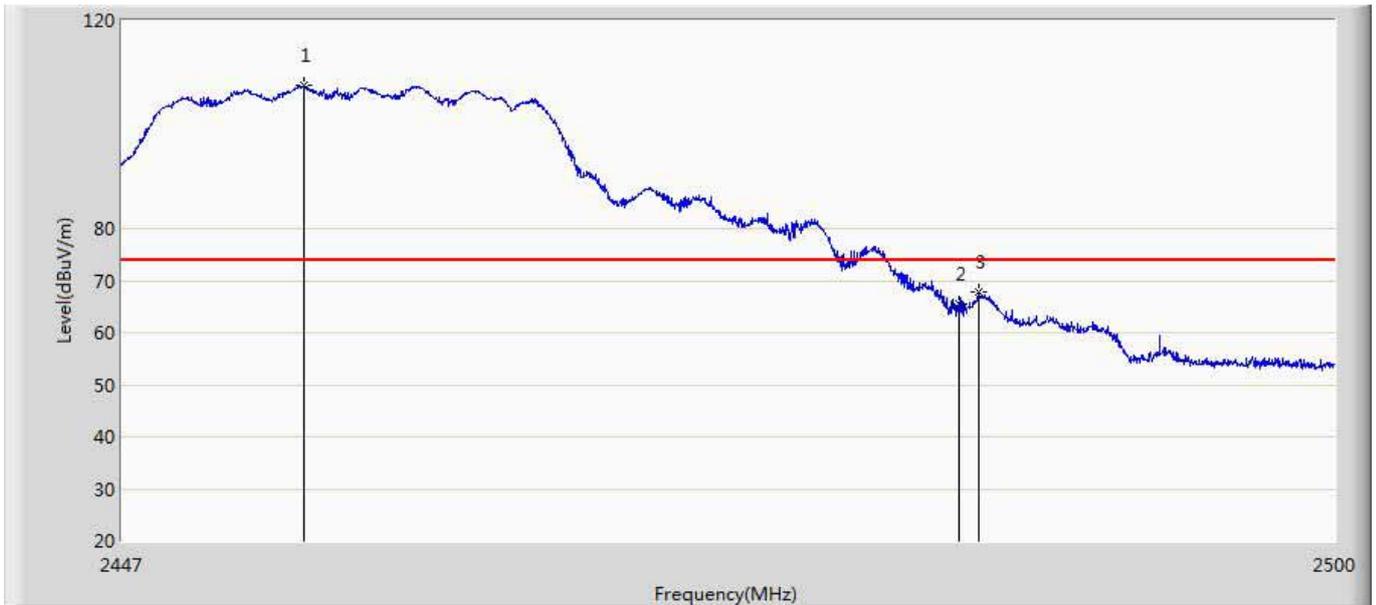
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.169	110.399	74.546	N/A	N/A	35.853	PK
2		2483.500	71.900	36.008	-2.100	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 14:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2457MHz by 802.11n20	



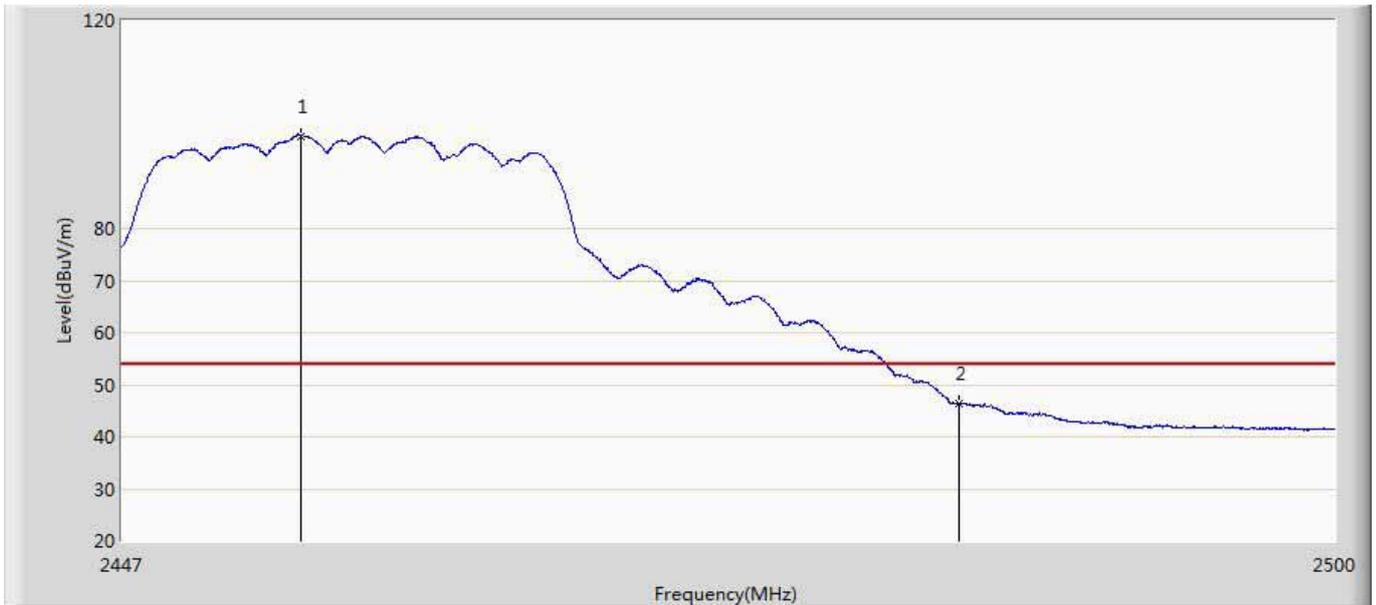
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2458.581	101.065	65.202	N/A	N/A	35.863	AV
2		2483.500	53.113	17.221	-0.887	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 15:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2457MHz by 802.11n20	



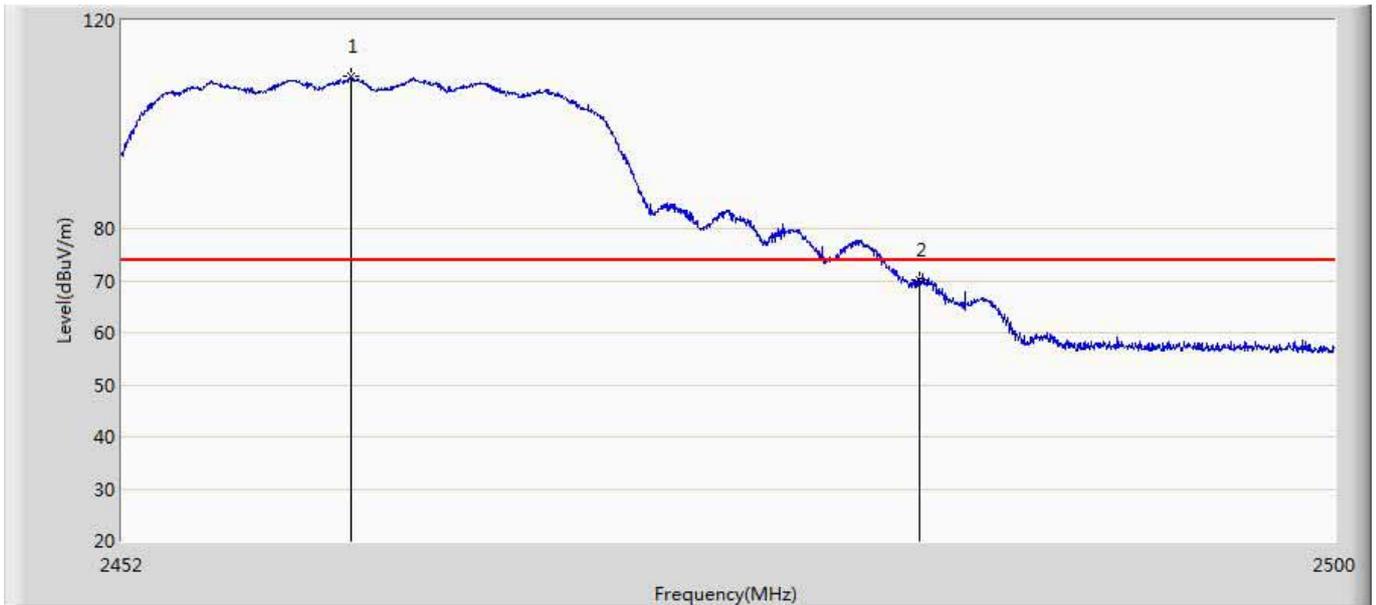
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.871	107.547	71.700	N/A	N/A	35.847	PK
2		2483.500	65.572	29.680	-8.428	74.000	35.891	PK
3		2484.312	67.682	31.784	-6.318	74.000	35.897	PK

Site: AC5	Time: 2017/01/08 - 15:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2457MHz by 802.11n20	



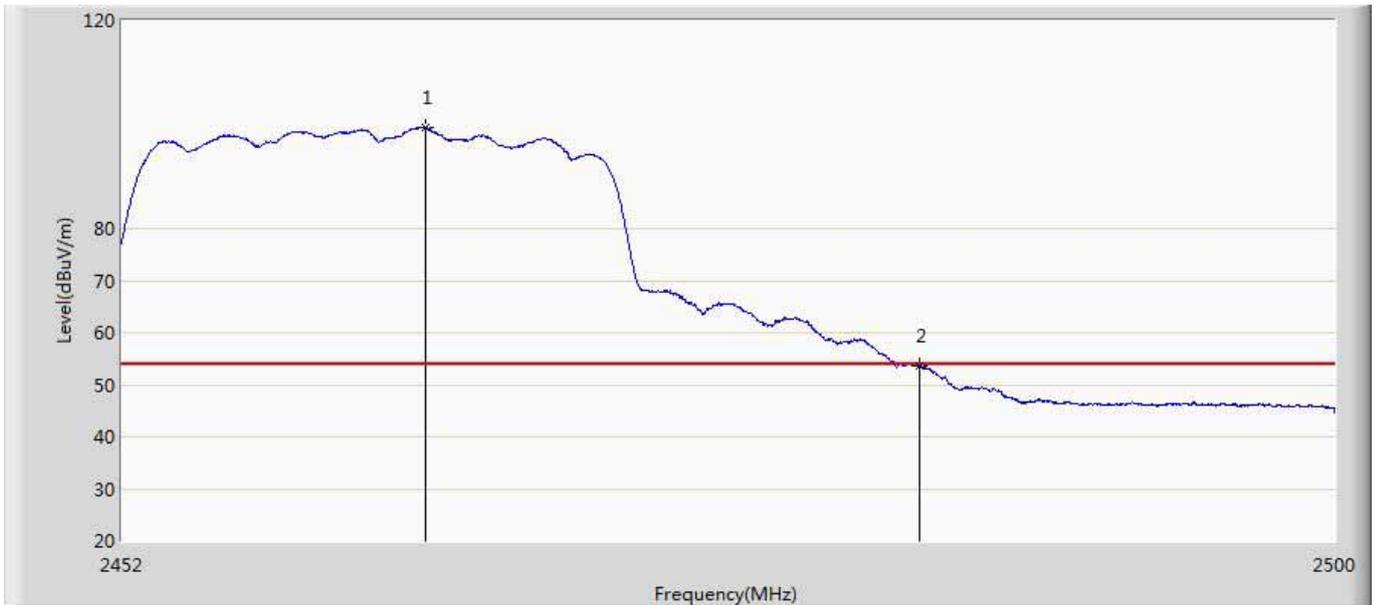
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.791	97.800	61.953	N/A	N/A	35.847	AV
2		2483.500	46.353	10.461	-7.647	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 15:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2462MHz by 802.11n20	



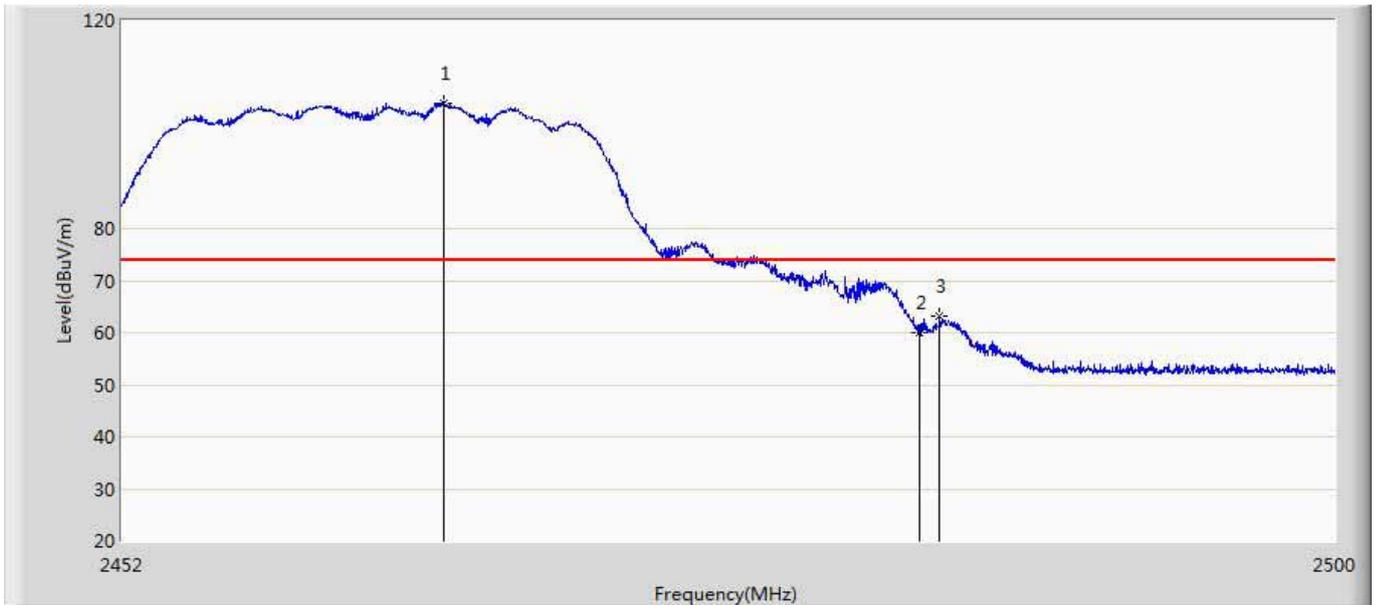
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.000	109.287	73.413	N/A	N/A	35.874	PK
2		2483.500	70.144	34.252	-3.856	74.000	35.891	PK

Site: AC5	Time: 2017/01/08 - 15:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2462MHz by 802.11n20	



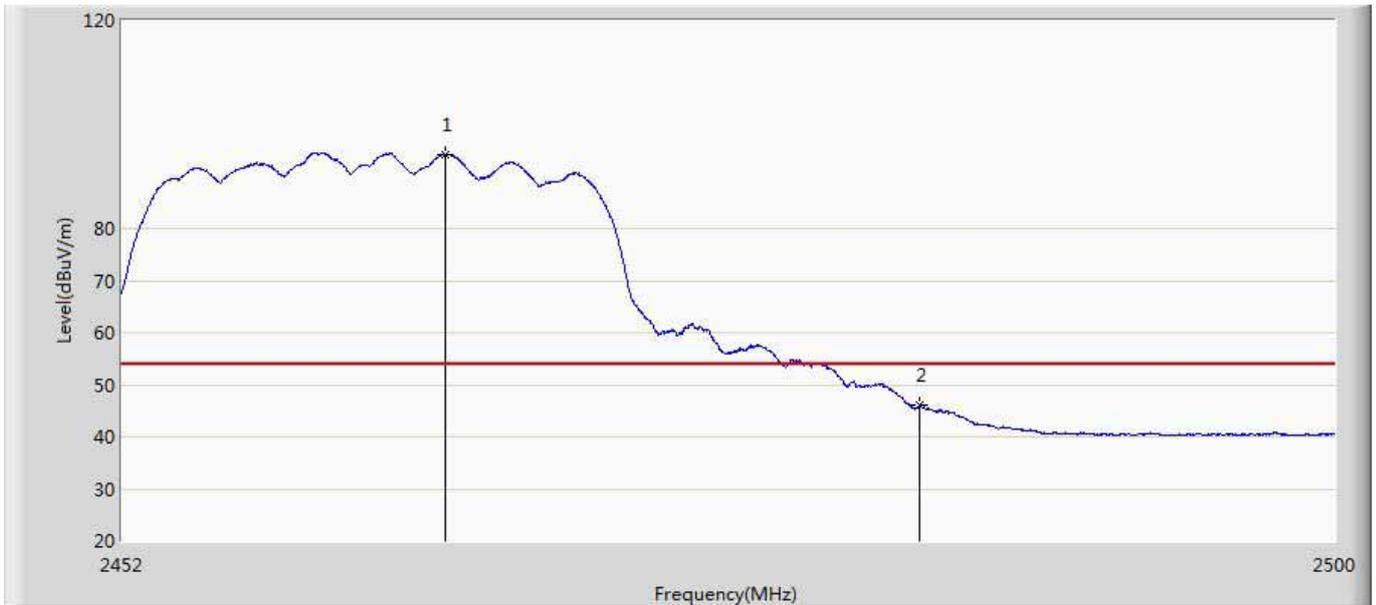
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.952	99.366	63.490	N/A	N/A	35.876	AV
2		2483.500	53.634	17.742	-0.366	54.000	35.891	AV

Site: AC5	Time: 2017/01/08 - 15:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2462MHz by 802.11n20	



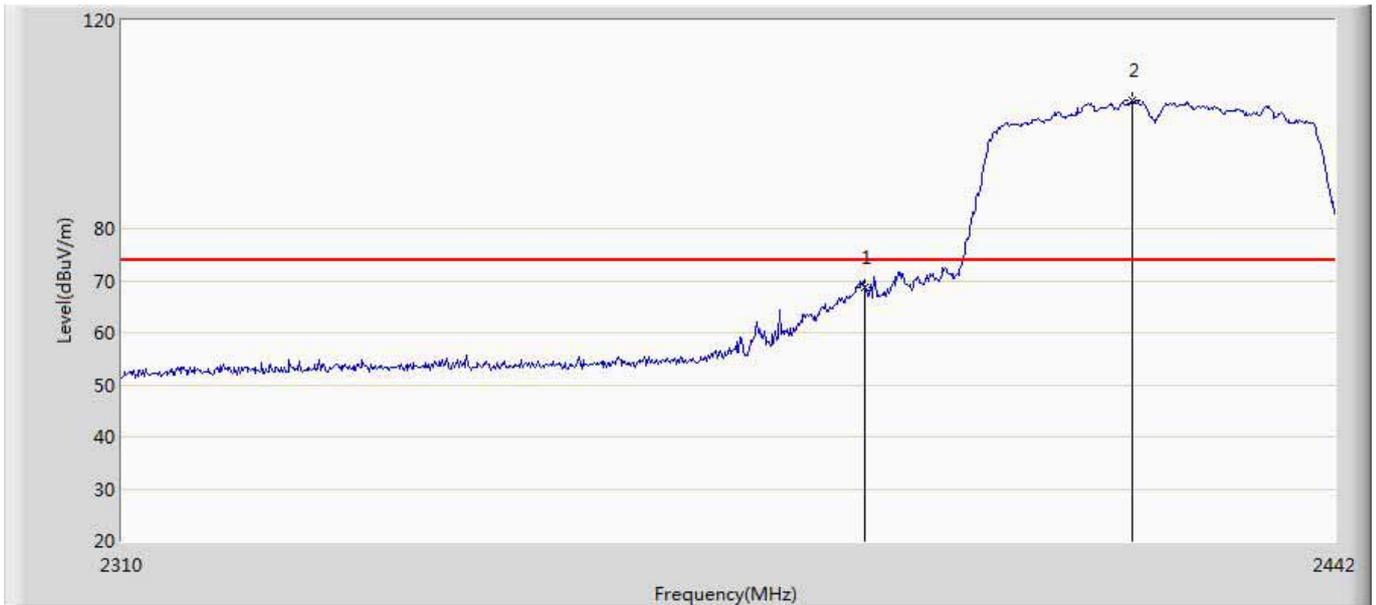
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.648	104.139	68.264	N/A	N/A	35.875	PK
2		2483.500	60.129	24.237	-13.871	74.000	35.891	PK
3		2484.280	63.145	27.248	-10.855	74.000	35.897	PK

Site: AC5	Time: 2017/01/08 - 15:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 3:Trandmit at 2462MHz by 802.11n20	



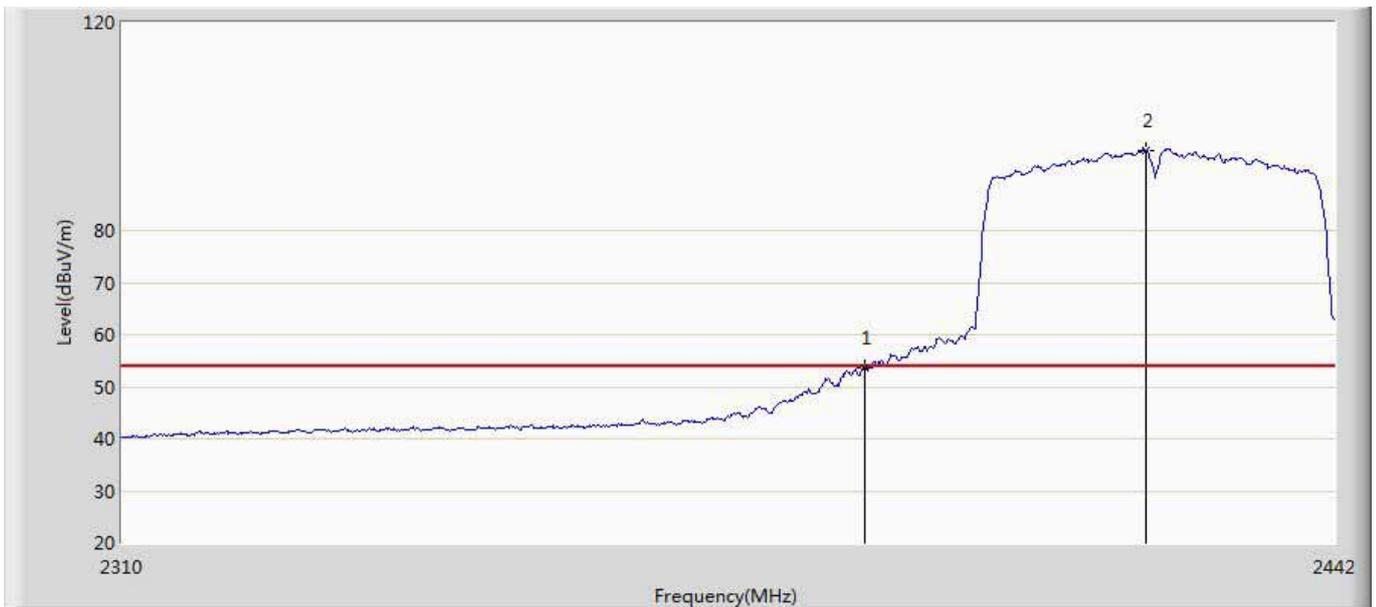
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.720	94.088	58.213	N/A	N/A	35.875	AV
2		2483.500	45.966	10.074	-8.034	54.000	35.891	AV

Site: AC5	Time: 2017/01/05 - 15:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2422MHz by 802.11n40	



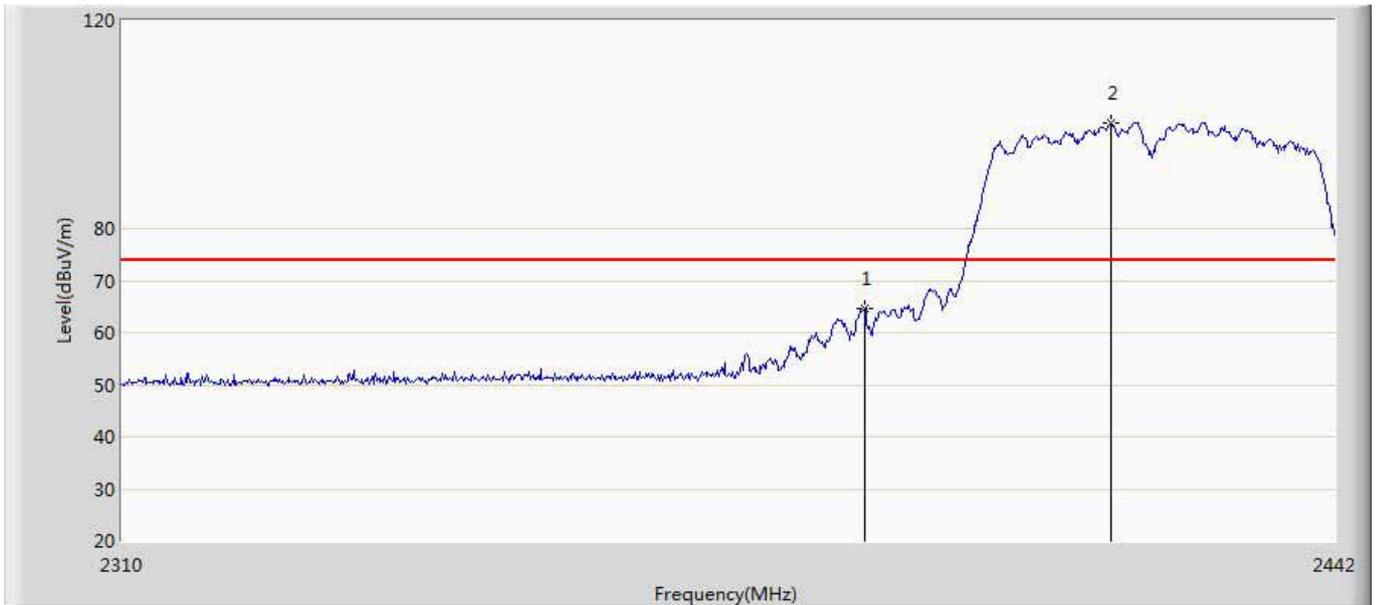
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	68.586	32.904	-5.414	74.000	35.682	PK
2	*	2419.560	104.695	68.922	N/A	N/A	35.774	PK

Site: AC5	Time: 2017/01/05 - 15:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2422MHz by 802.11n40	



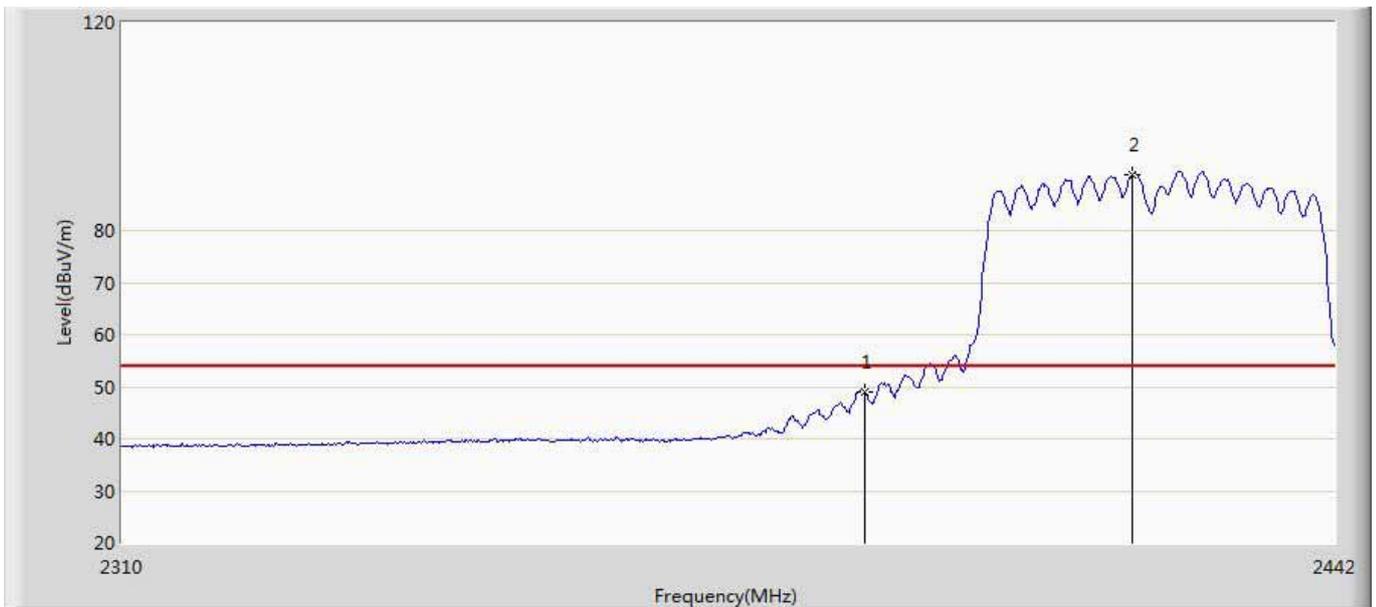
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.628	17.946	-0.372	54.000	35.682	AV
2	*	2421.012	95.477	59.698	N/A	N/A	35.779	AV

Site: AC5	Time: 2017/01/05 - 15:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2422MHz by 802.11n40	



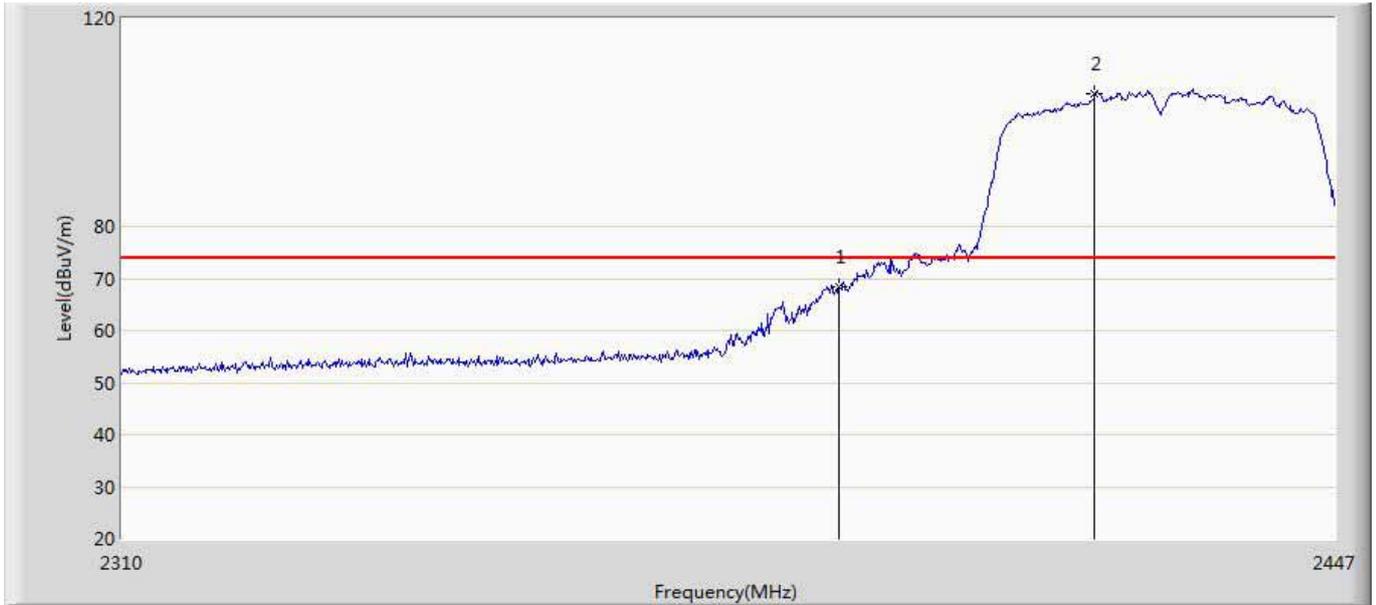
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	64.548	28.866	-9.452	74.000	35.682	PK
2	*	2417.184	100.227	64.464	N/A	N/A	35.764	PK

Site: AC5	Time: 2017/01/05 - 15:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2422MHz by 802.11n40	



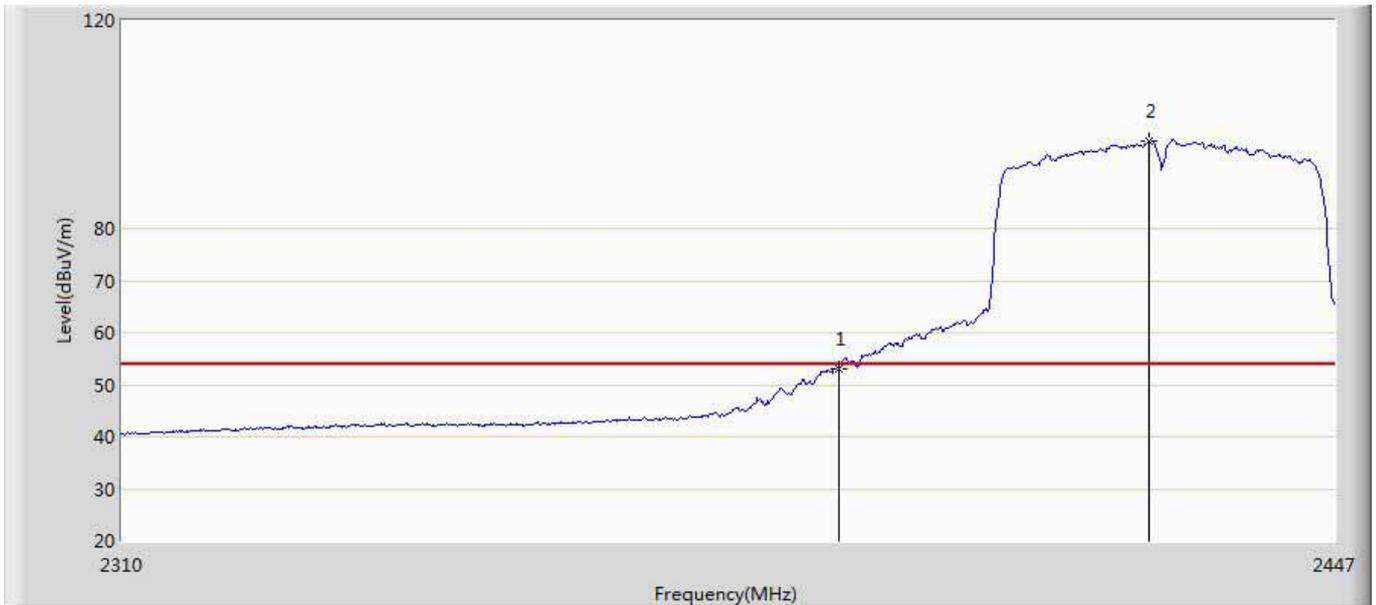
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.958	13.276	-5.042	54.000	35.682	AV
2	*	2419.560	90.782	55.009	N/A	N/A	35.774	AV

Site: AC5	Time: 2017/01/05 - 15:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2427MHz by 802.11n40	



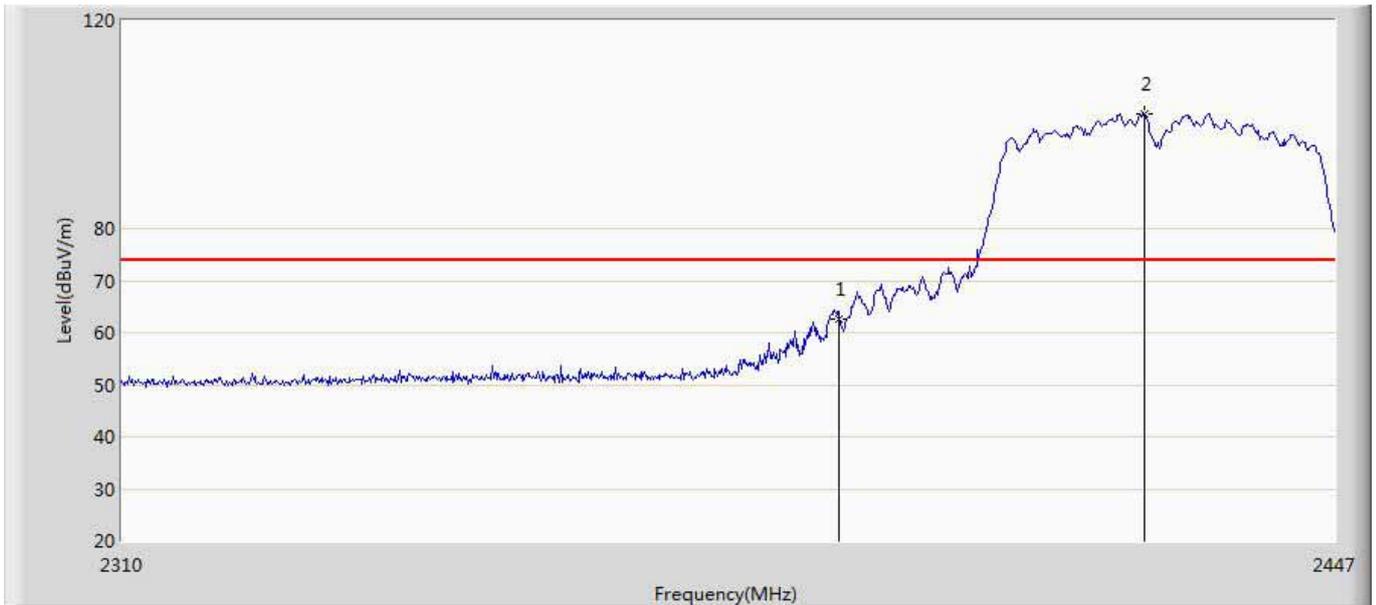
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	68.272	32.590	-5.728	74.000	35.682	PK
2	*	2419.326	105.575	69.803	N/A	N/A	35.772	PK

Site: AC5	Time: 2017/01/05 - 15:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2427MHz by 802.11n40	



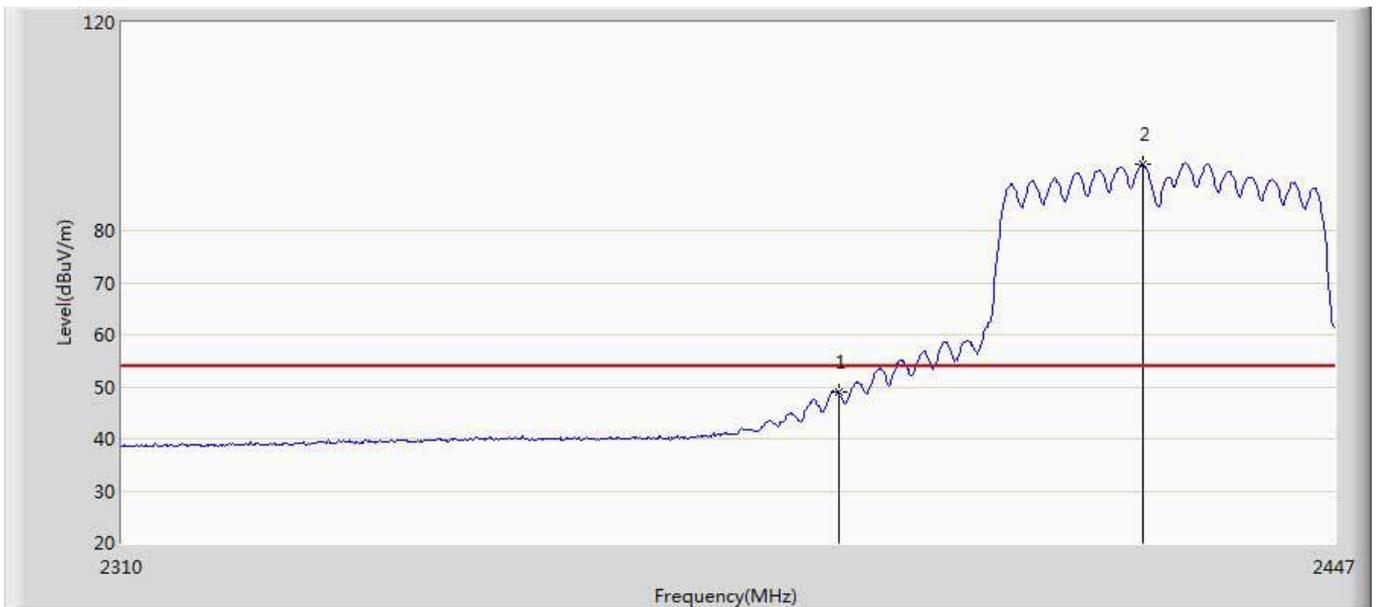
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.123	17.441	-0.877	54.000	35.682	AV
2	*	2425.628	96.892	61.093	N/A	N/A	35.798	AV

Site: AC5	Time: 2017/01/05 - 15:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2427MHz by 802.11n40	



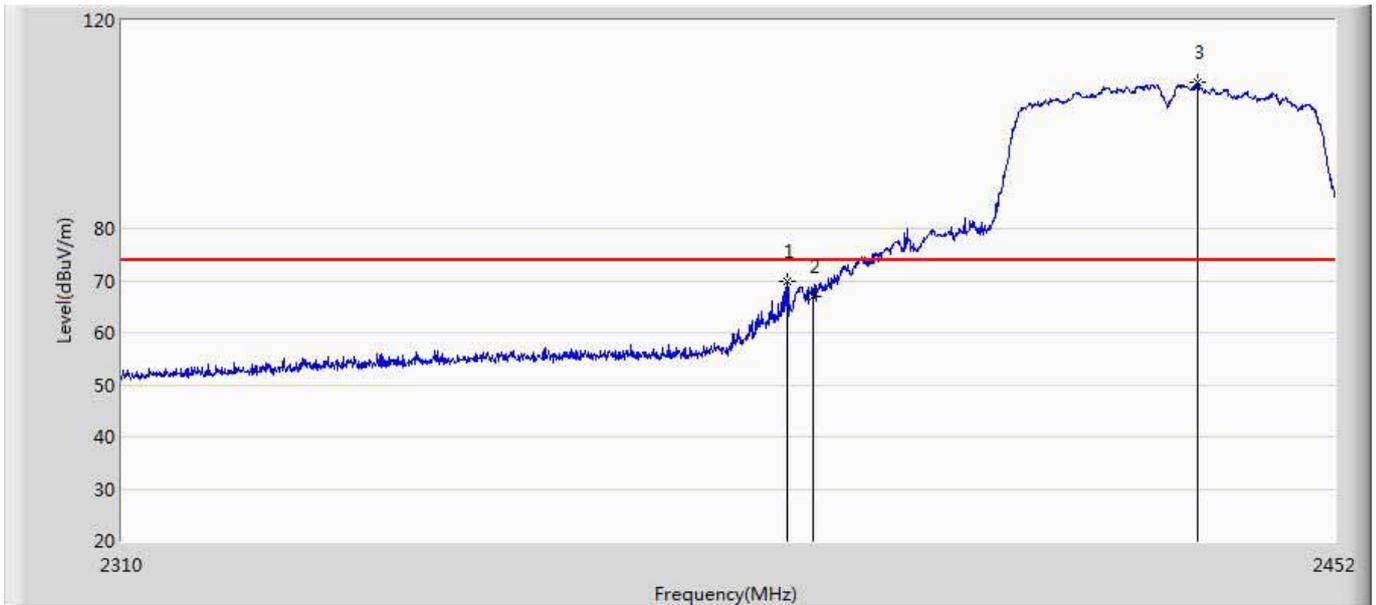
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	62.726	27.044	-11.274	74.000	35.682	PK
2	*	2424.943	102.156	66.360	N/A	N/A	35.795	PK

Site: AC5	Time: 2017/01/05 - 15:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2427MHz by 802.11n40	



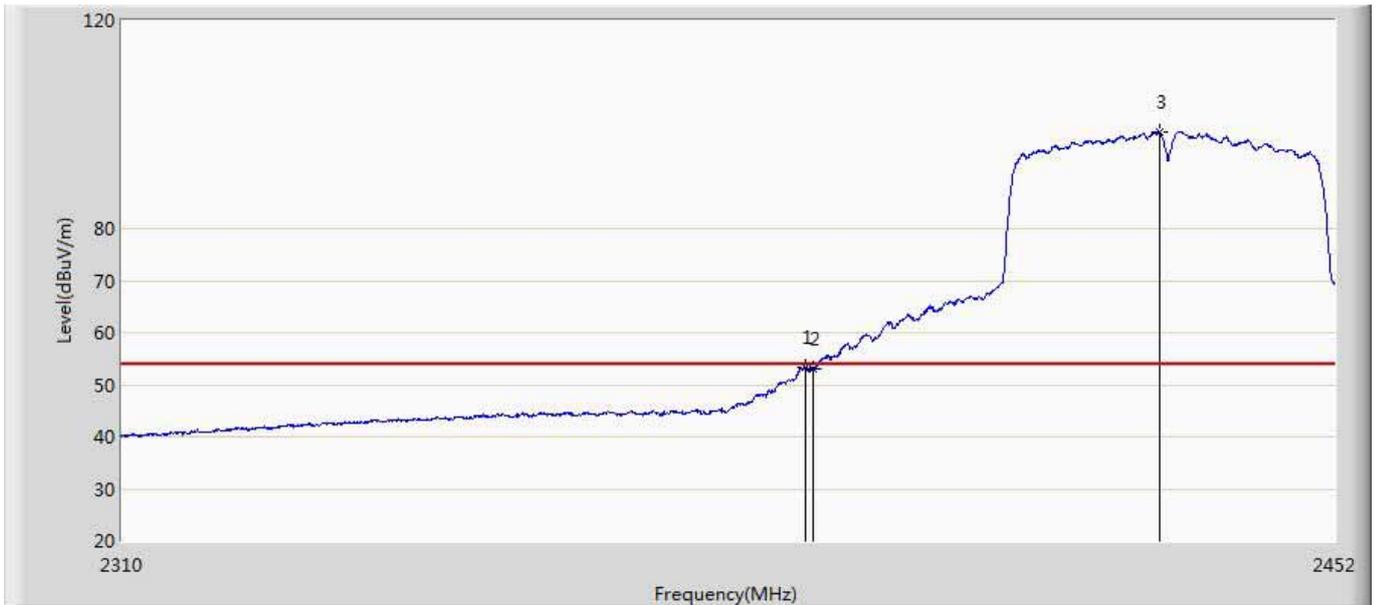
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.956	13.274	-5.044	54.000	35.682	AV
2	*	2424.806	92.644	56.849	N/A	N/A	35.795	AV

Site: AC5	Time: 2017/01/15 - 10:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2432MHz by 802.11n40	



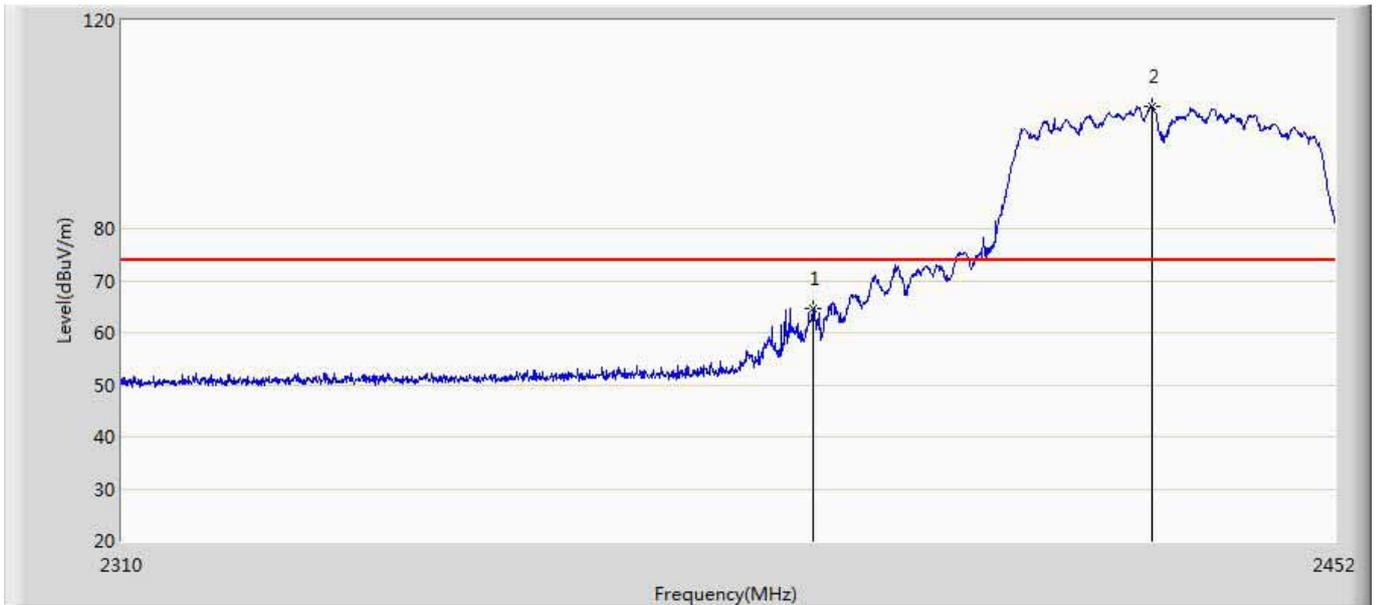
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.964	69.884	34.209	-4.116	74.000	35.675	PK
2		2390.000	66.865	31.183	-7.135	74.000	35.682	PK
3	*	2435.528	108.075	72.269	N/A	N/A	35.807	PK

Site: AC5	Time: 2017/01/15 - 10:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2432MHz by 802.11n40	



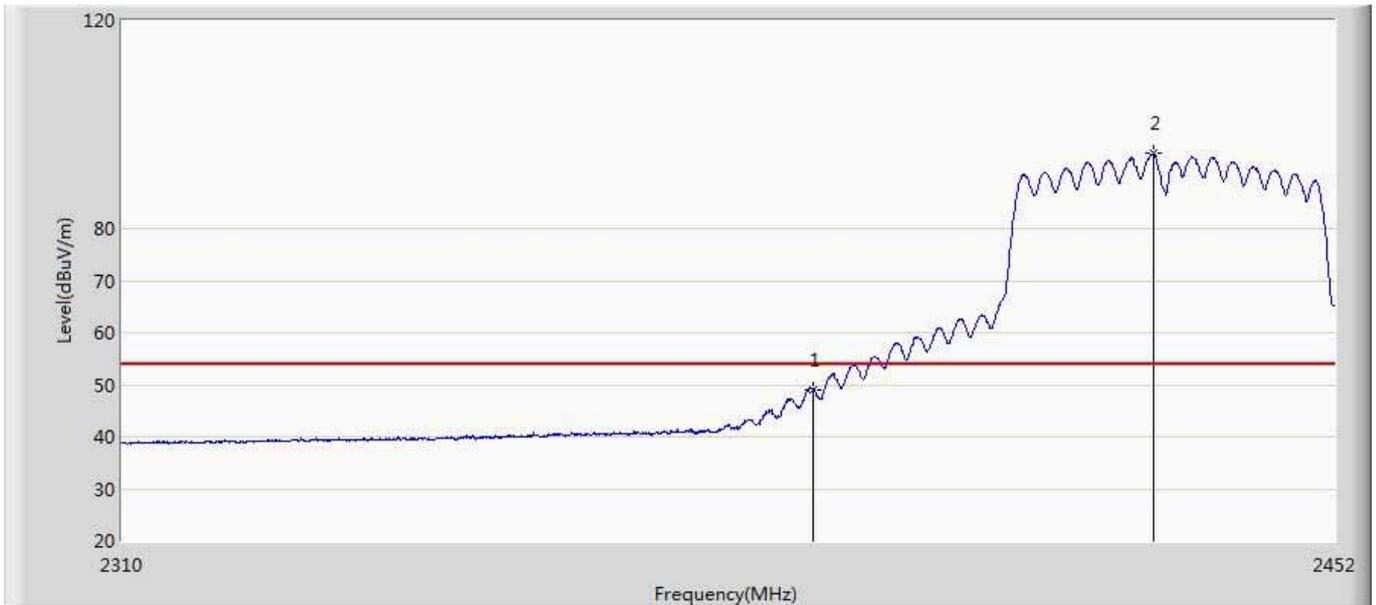
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2388.952	53.274	17.594	-0.726	54.000	35.680	AV
2		2390.000	52.979	17.297	-1.021	54.000	35.682	AV
3	*	2430.984	98.588	62.780	N/A	N/A	35.808	AV

Site: AC5	Time: 2017/01/15 - 10:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2432MHz by 802.11n40	



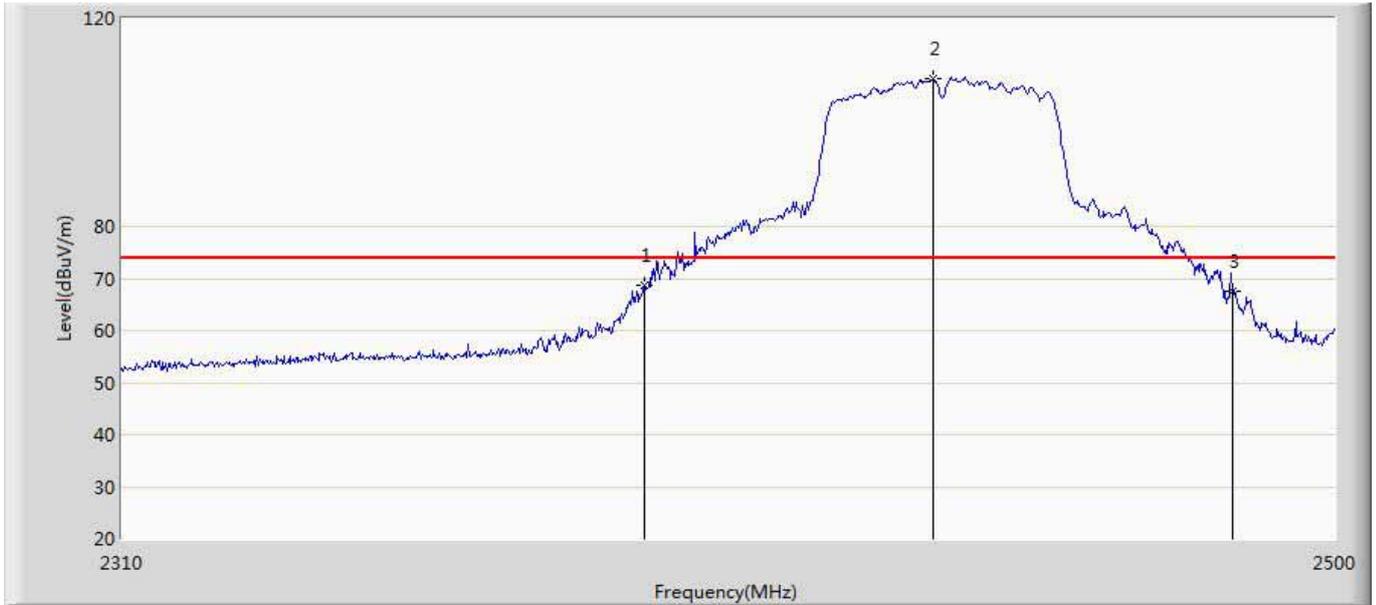
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	64.560	28.878	-9.440	74.000	35.682	PK
2	*	2430.061	103.517	67.709	N/A	N/A	35.808	PK

Site: AC5	Time: 2017/01/15 - 10:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2432MHz by 802.11n40	



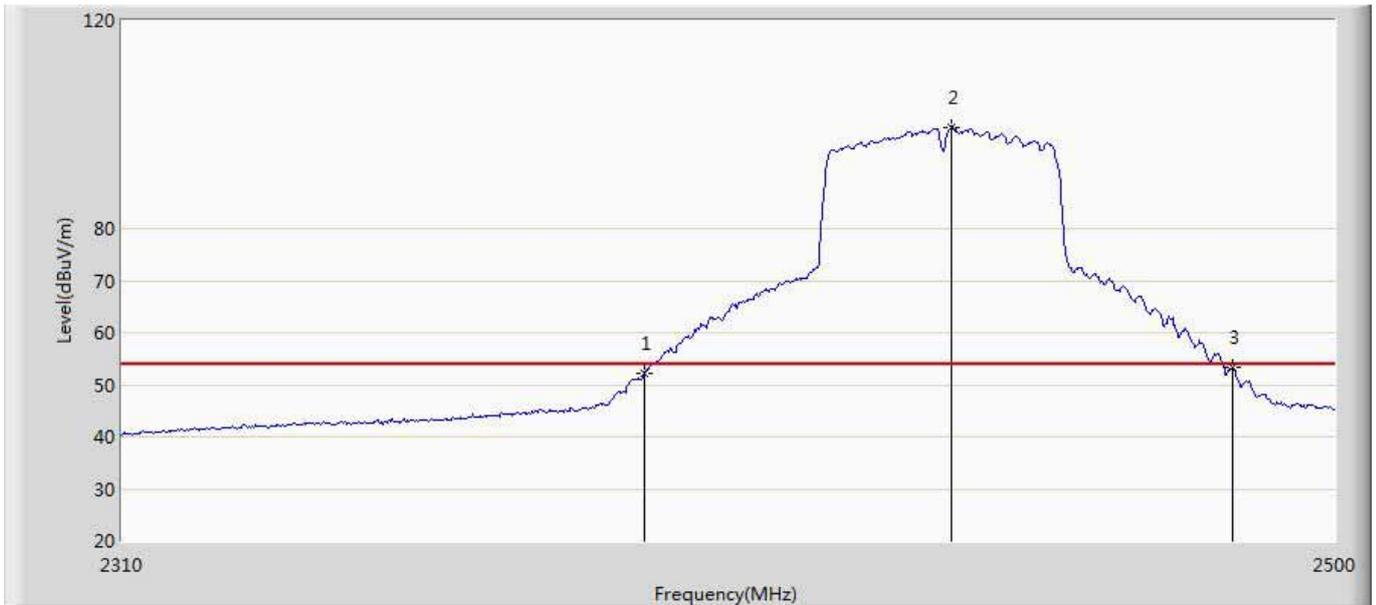
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.919	13.237	-5.081	54.000	35.682	AV
2	*	2430.203	94.374	58.566	N/A	N/A	35.808	AV

Site: AC5	Time: 2017/01/05 - 15:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2437MHz by 802.11n40	



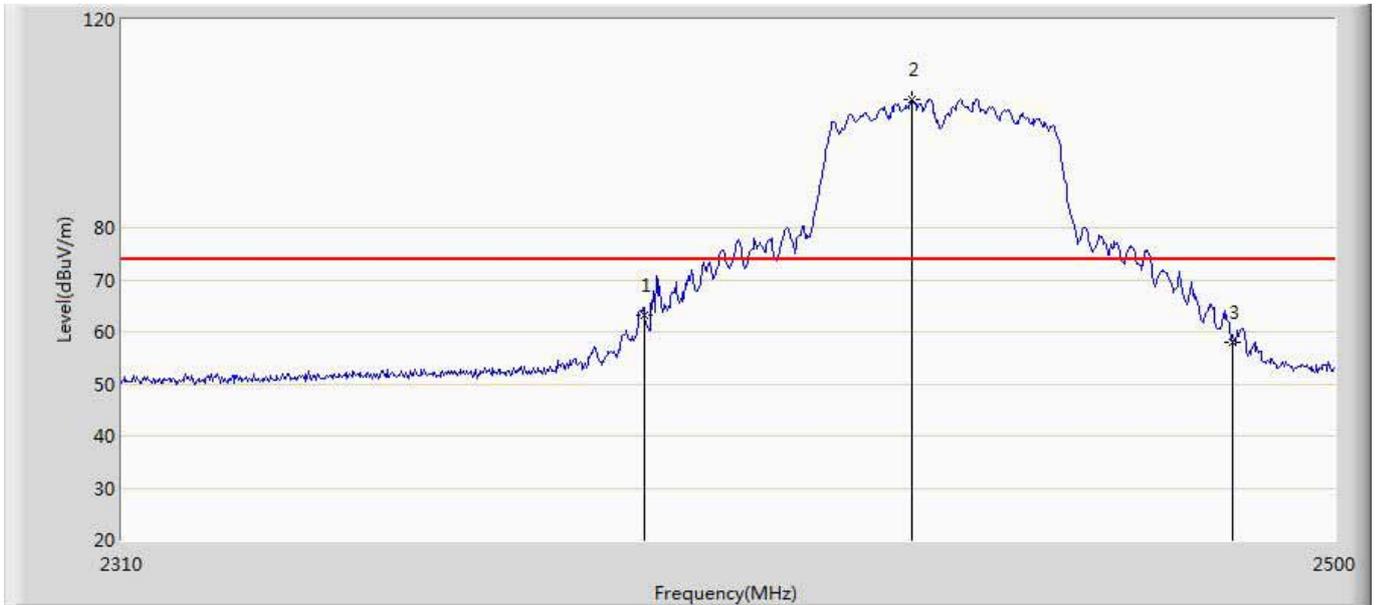
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	68.582	32.900	-5.418	74.000	35.682	PK
2	*	2435.590	108.465	72.659	N/A	N/A	35.807	PK
3		2483.500	67.637	31.745	-6.363	74.000	35.891	PK

Site: AC5	Time: 2017/01/05 - 15:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2437MHz by 802.11n40	



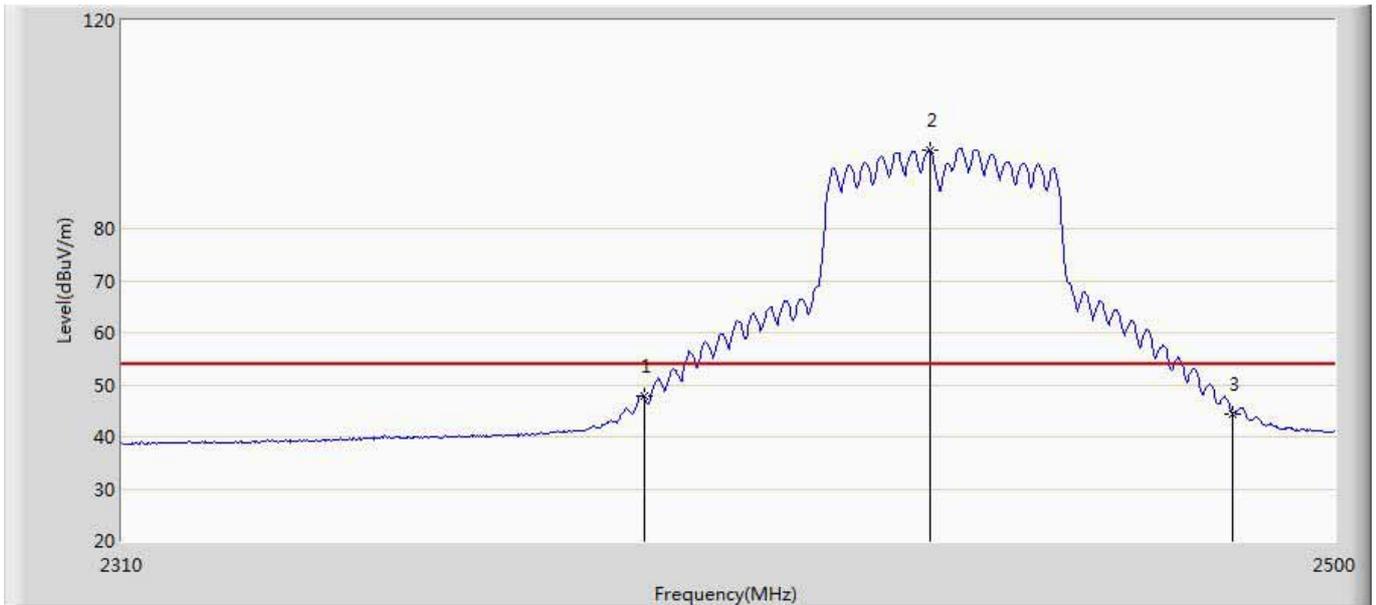
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.070	16.388	-1.930	54.000	35.682	AV
2	*	2438.250	99.536	63.730	N/A	N/A	35.806	AV
3		2483.500	53.320	17.428	-0.680	54.000	35.891	AV

Site: AC5	Time: 2017/01/05 - 15:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2437MHz by 802.11n40	



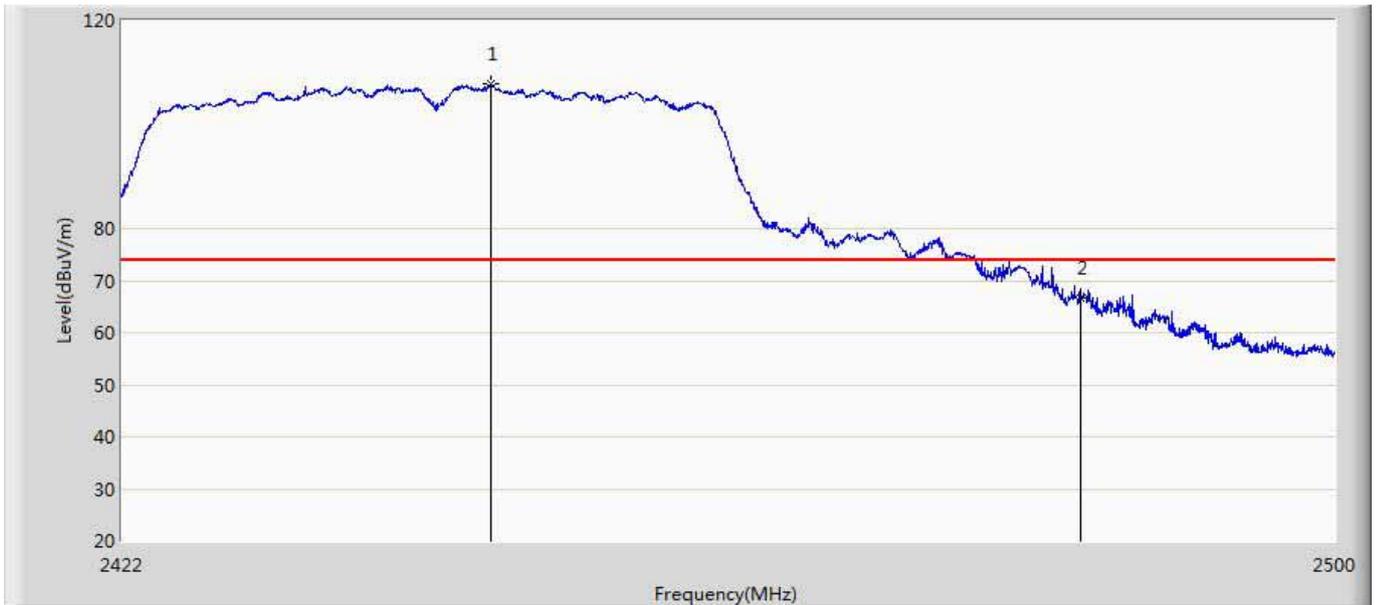
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	63.242	27.560	-10.758	74.000	35.682	PK
2	*	2432.170	104.656	68.849	N/A	N/A	35.807	PK
3		2483.500	58.010	22.118	-15.990	74.000	35.891	PK

Site: AC5	Time: 2017/01/05 - 16:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2437MHz by 802.11n40	



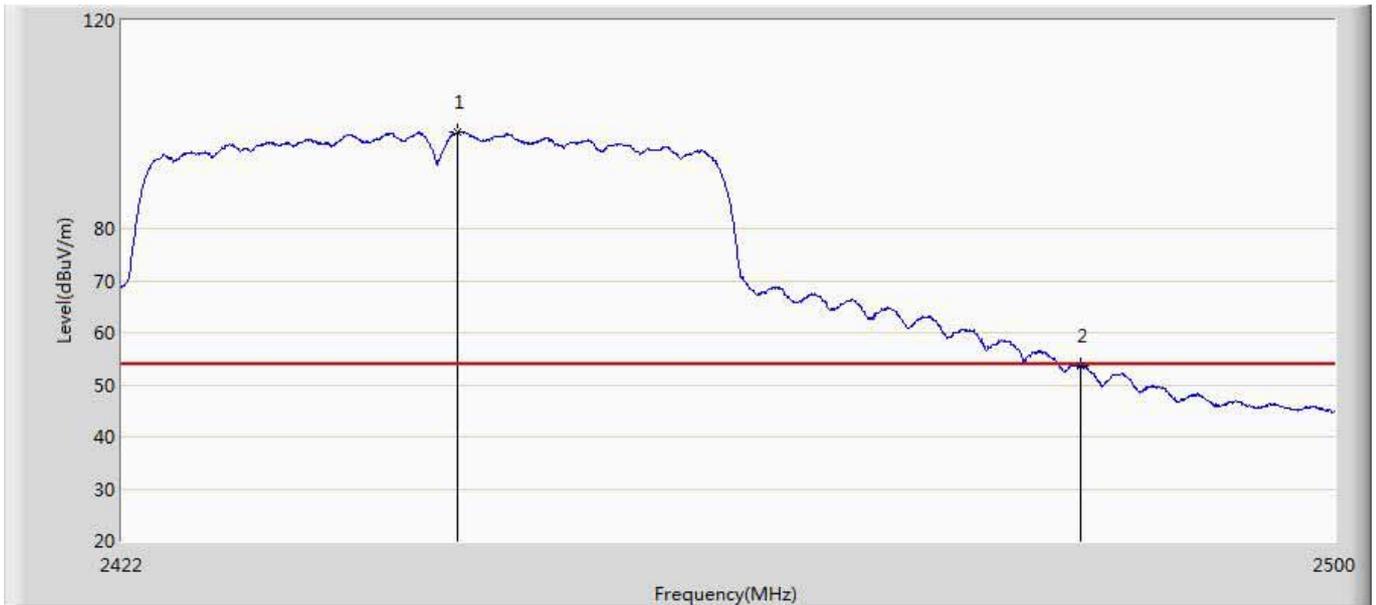
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	47.802	12.120	-6.198	54.000	35.682	AV
2	*	2435.020	95.084	59.277	N/A	N/A	35.806	AV
3		2483.500	44.428	8.536	-9.572	54.000	35.891	AV

Site: AC5	Time: 2017/01/15 - 10:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2442MHz by 802.11n40	



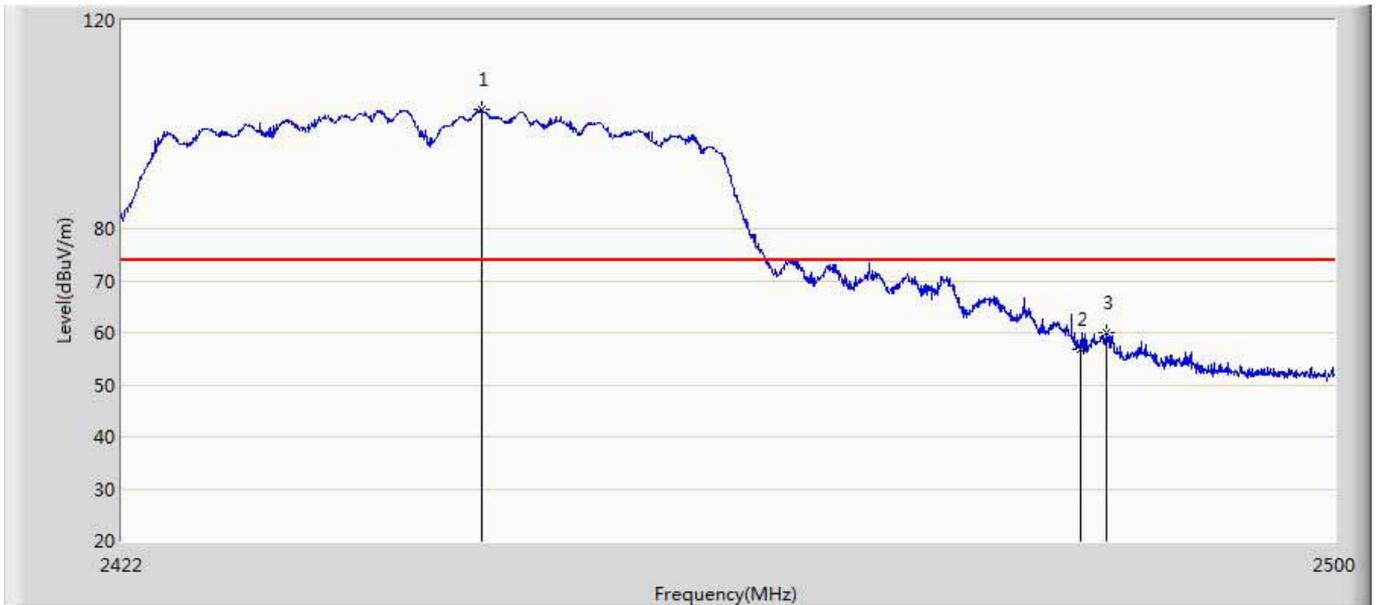
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2445.517	107.786	71.980	N/A	N/A	35.807	PK
2		2483.500	66.547	30.655	-7.453	74.000	35.891	PK

Site: AC5	Time: 2017/01/15 - 10:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2442MHz by 802.11n40	



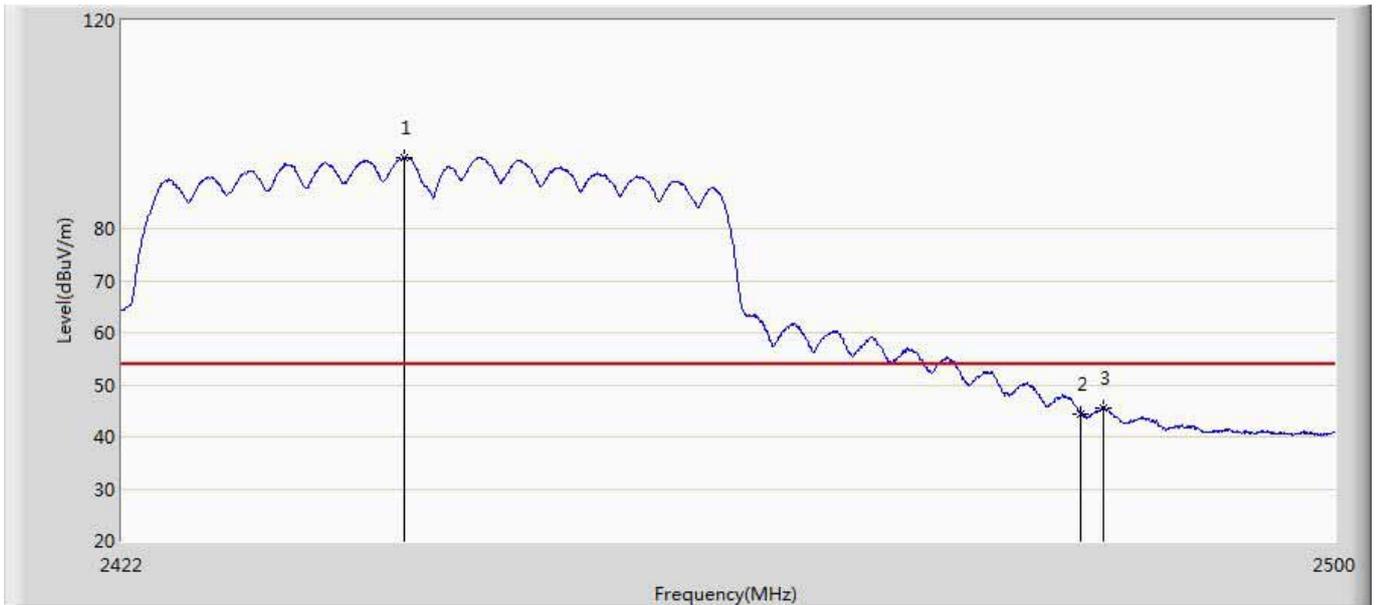
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2443.333	98.556	62.752	N/A	N/A	35.804	AV
2		2483.500	53.766	17.874	-0.234	54.000	35.891	AV

Site: AC5	Time: 2017/01/15 - 10:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2442MHz by 802.11n40	



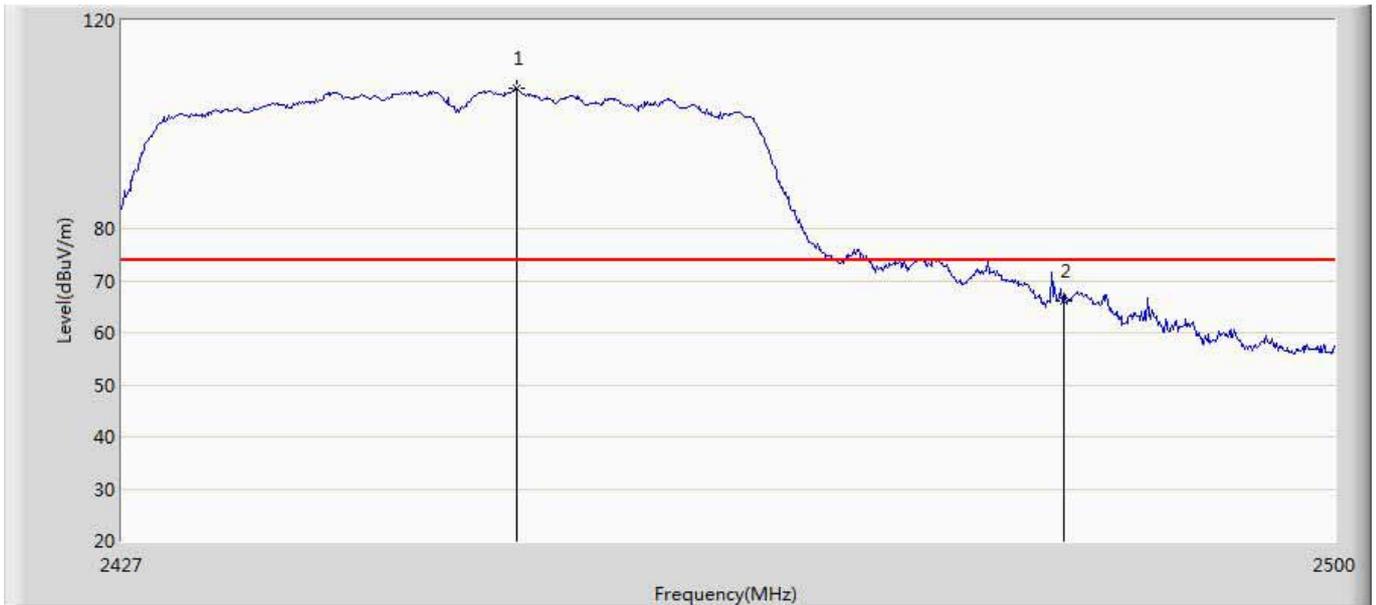
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2444.893	102.941	67.137	N/A	N/A	35.804	PK
2		2483.500	56.930	21.038	-17.070	74.000	35.891	PK
3		2485.180	60.055	24.151	-13.945	74.000	35.904	PK

Site: AC5	Time: 2017/01/15 - 10:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2442MHz by 802.11n40	



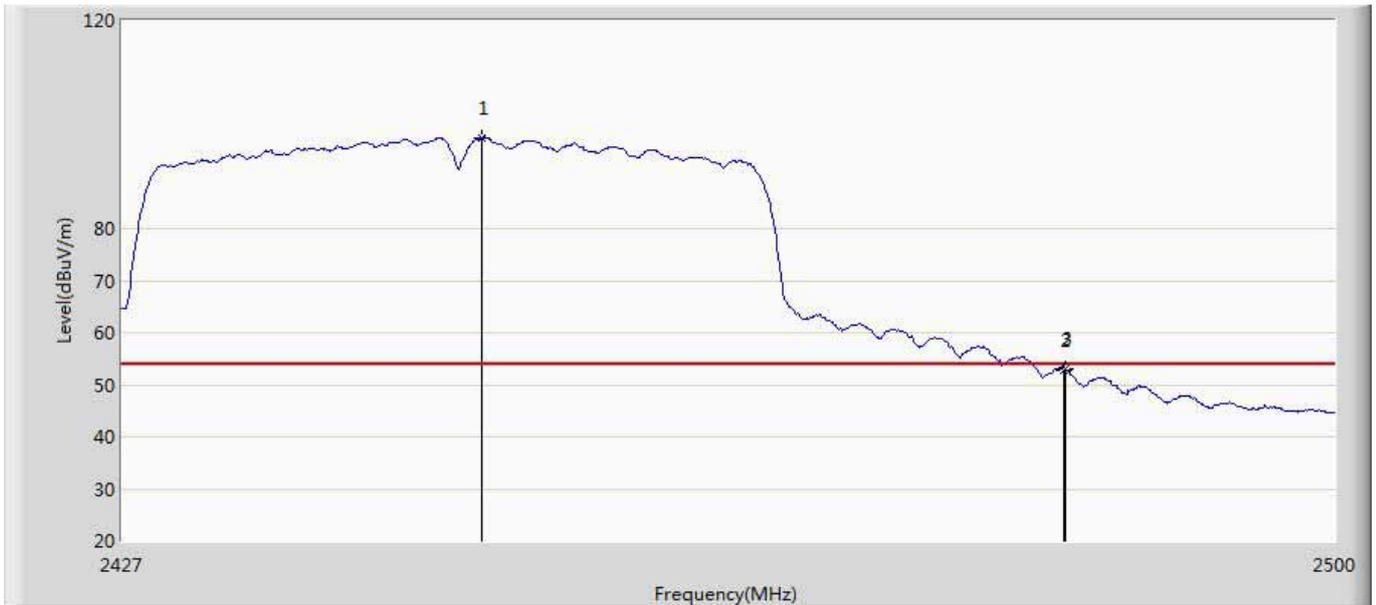
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2439.940	93.635	57.830	N/A	N/A	35.805	AV
2		2483.500	44.411	8.519	-9.589	54.000	35.891	AV
3		2484.985	45.637	9.735	-8.363	54.000	35.902	AV

Site: AC5	Time: 2017/01/05 - 16:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2447MHz by 802.11n40	



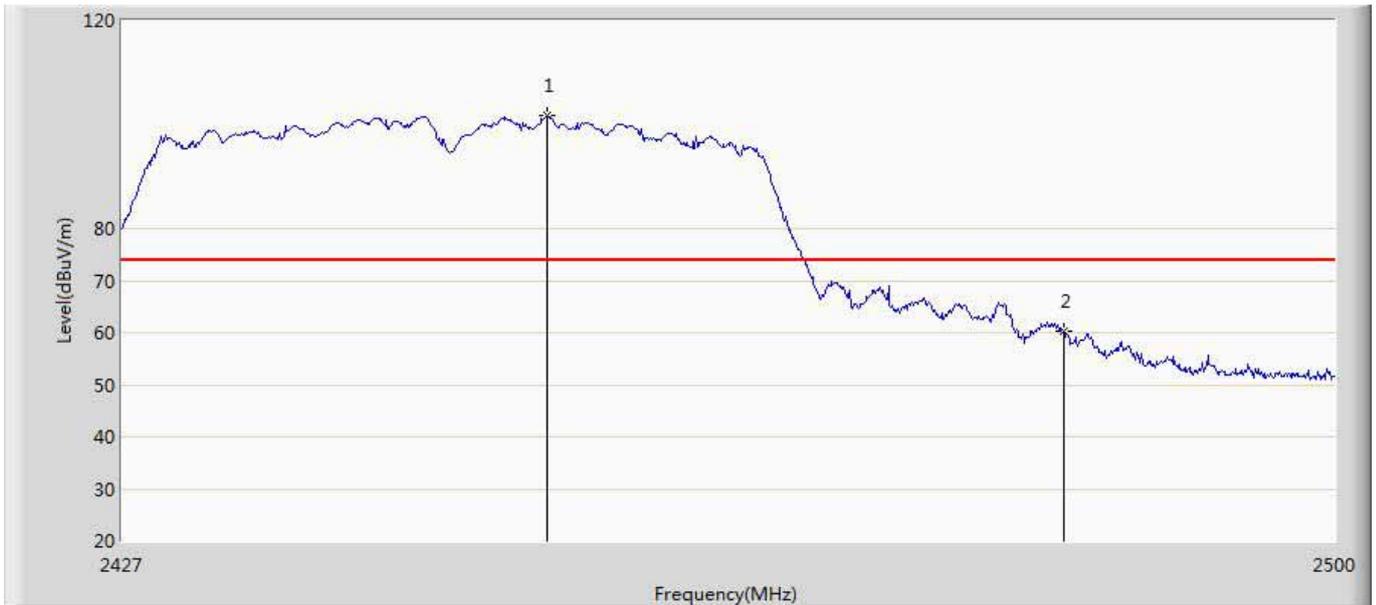
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2450.506	106.855	71.027	N/A	N/A	35.828	PK
2		2483.500	66.134	30.242	-7.866	74.000	35.891	PK

Site: AC5	Time: 2017/01/05 - 16:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2447MHz by 802.11n40	



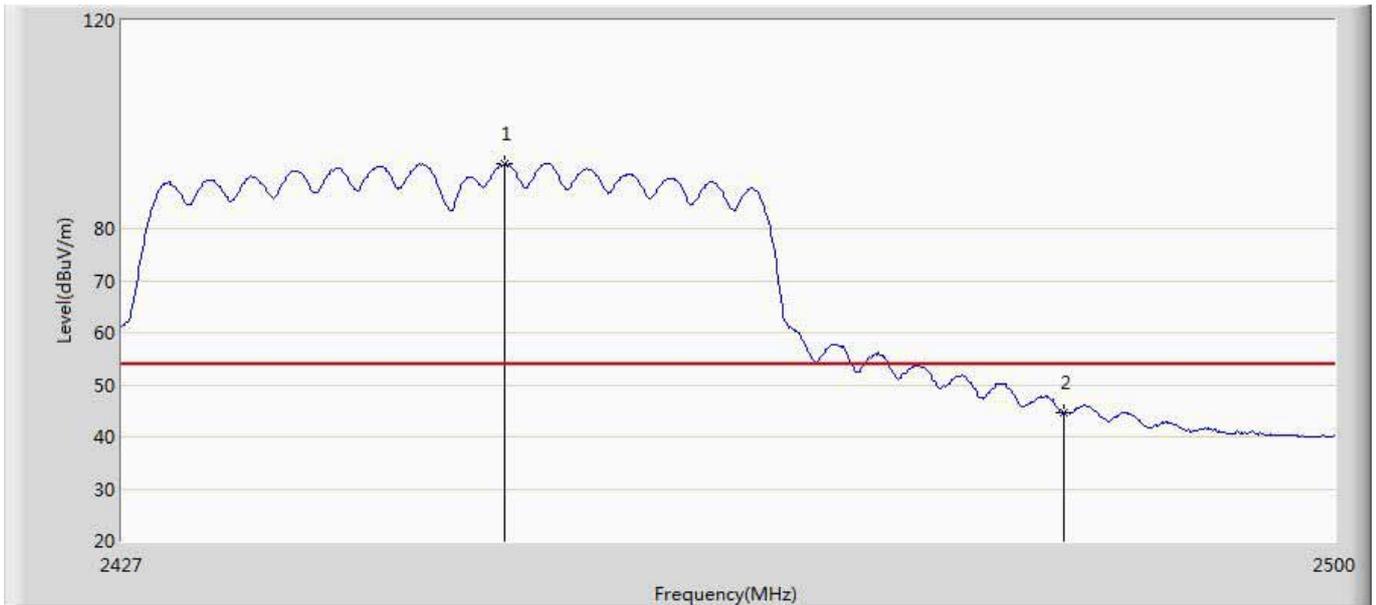
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2448.462	97.496	61.677	N/A	N/A	35.819	AV
2		2483.500	52.888	16.996	-1.112	54.000	35.891	AV
3		2483.648	53.116	17.223	-0.884	54.000	35.892	AV

Site: AC5	Time: 2017/01/05 - 16:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2447MHz by 802.11n40	



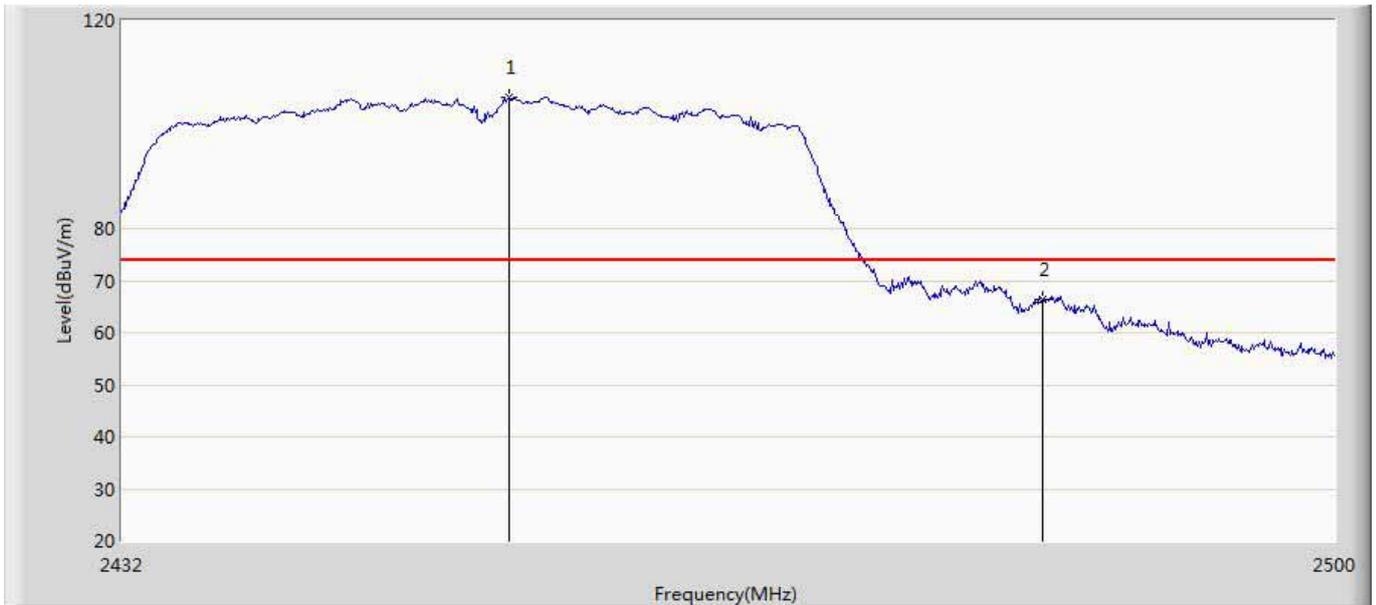
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2452.404	101.604	65.768	N/A	N/A	35.837	PK
2		2483.500	60.332	24.440	-13.668	74.000	35.891	PK

Site: AC5	Time: 2017/01/05 - 16:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2447MHz by 802.11n40	



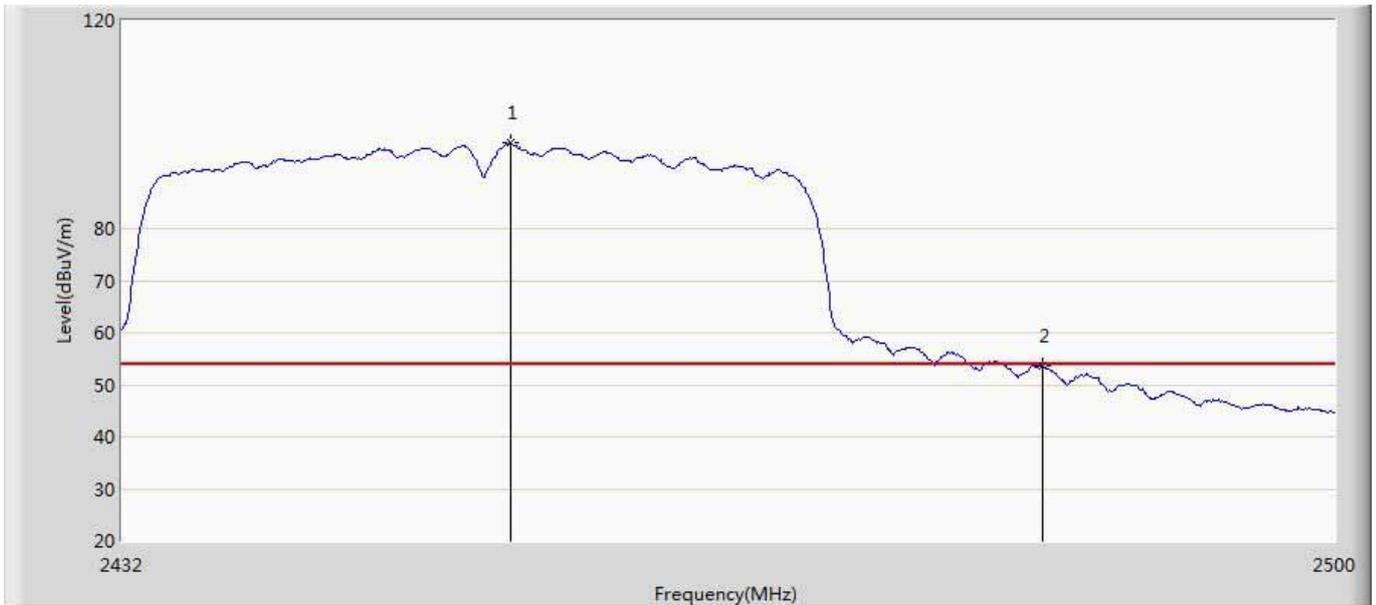
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2449.849	92.518	56.693	N/A	N/A	35.825	AV
2		2483.500	44.590	8.698	-9.410	54.000	35.891	AV

Site: AC5	Time: 2017/01/05 - 16:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2452MHz by 802.11n40	



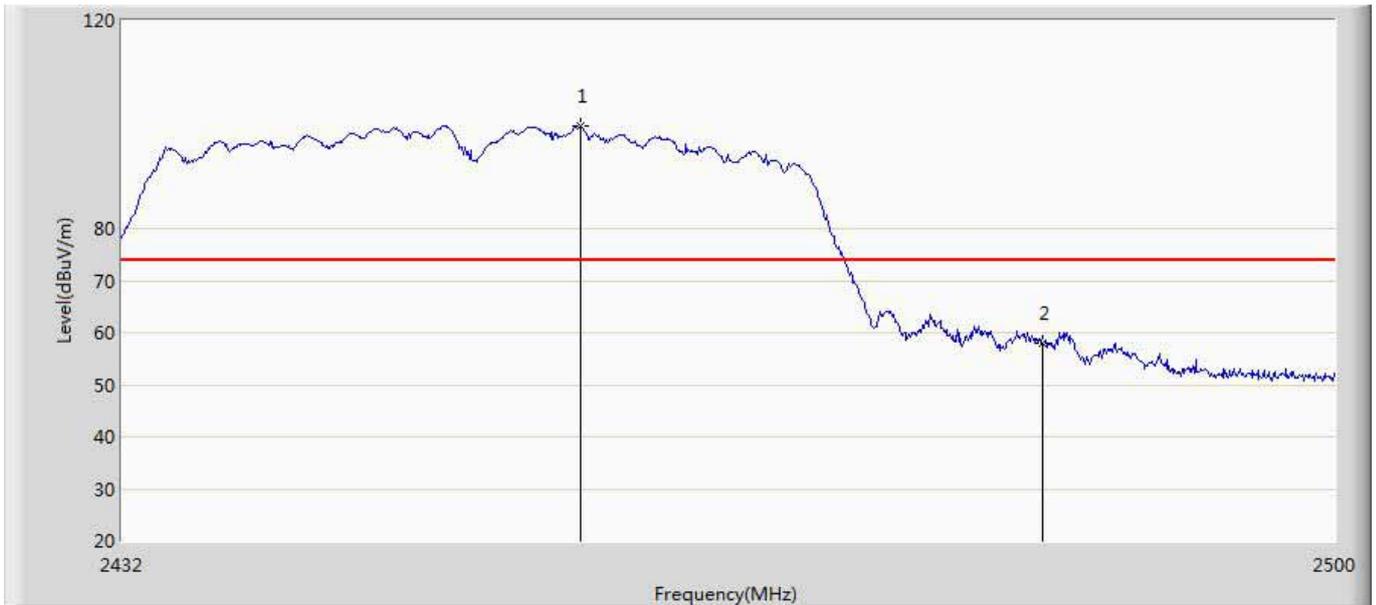
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2453.556	105.360	69.519	N/A	N/A	35.841	PK
2		2483.500	66.469	30.577	-7.531	74.000	35.891	PK

Site: AC5	Time: 2017/01/05 - 16:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2452MHz by 802.11n40	



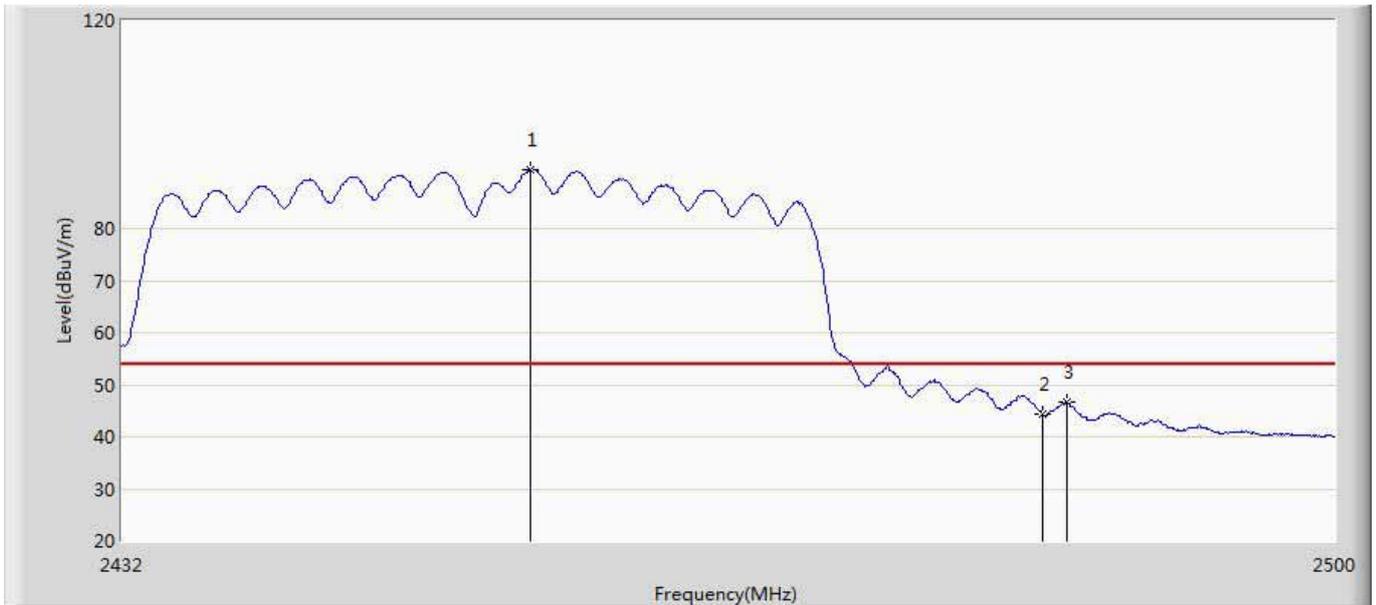
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2453.624	96.457	60.615	N/A	N/A	35.842	AV
2		2483.500	53.479	17.587	-0.521	54.000	35.891	AV

Site: AC5	Time: 2017/01/05 - 16:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2452MHz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.500	99.810	63.951	N/A	N/A	35.859	PK
2		2483.500	58.004	22.112	-15.996	74.000	35.891	PK

Site: AC5	Time: 2017/01/05 - 16:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: 300Mbps Wi-Fi Range Extender	Power: AC 120V/60Hz
Note: Mode 4:Trandmit at 2452MHz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.712	91.281	55.435	N/A	N/A	35.846	AV
2		2483.500	44.216	8.324	-9.784	54.000	35.891	AV
3		2484.836	46.614	10.713	-7.386	54.000	35.901	AV

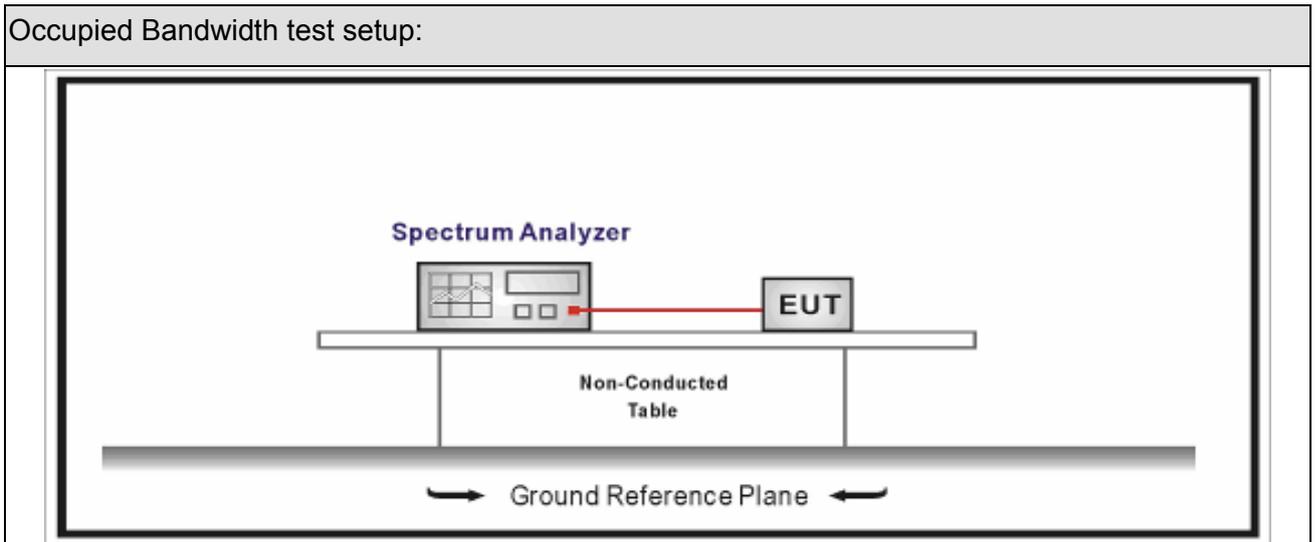
7. Occupied Bandwidth

7.1. Test Equipment

Occupied Bandwidth / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.02.04	2017.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2016.04.09	2017.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2016.04.09	2017.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

7.2. Test Setup



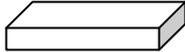
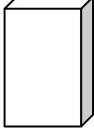
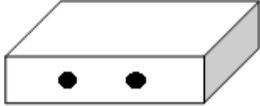
7.3. Limit

Occupied Bandwidth
Systems using digital modulation techniques operate in the 2400-2483.5 MHz. The minimum 6 dB bandwidth shall be at least 500 kHz

7.4. Test Procedure

Test Method			
	Reference Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.8	DTS bandwidth
	<input type="checkbox"/> ANSI C63.10	11.8.1	Option 1
	<input checked="" type="checkbox"/> ANSI C63.10	11.8.2	Option 2

7.5. EUT test definition

Item	Occupied Bandwidth			
Device Category	<input type="checkbox"/>	Fixed point-to-point		
	<input type="checkbox"/>	Emit multiple directional beams, simultaneously or sequentially		
	<input checked="" type="checkbox"/>	Other cases		
Test mode	Mode 1~4			
Test method	<input type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input checked="" type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input checked="" type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

7.6. Test Result

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Mode	: Mode1~4	Test Site	: TR8
Test Date	: 2017.01.04		

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit (kHz)	Result
			Ant 0	Ant 1	Ant 0	Ant 1		
1	01	2412	15.031	15.028	10.09	10.04	>500	Pass
1	06	2437	17.363	17.362	10.15	10.12	>500	Pass
1	11	2462	16.851	14.817	10.01	9.582	>500	Pass
2	01	2412	16.346	16.348	15.14	15.13	>500	Pass
2	06	2437	19.903	19.885	15.14	15.11	>500	Pass
2	11	2462	16.374	16.365	15.14	15.12	>500	Pass
3	01	2412	17.512	17.501	15.13	15.13	>500	Pass
3	06	2437	19.579	19.521	15.12	15.70	>500	Pass
3	11	2462	17.506	17.507	15.10	15.11	>500	Pass
4	03	2422	35.680	35.685	35.11	33.84	>500	Pass
4	06	2437	39.907	39.379	31.39	31.38	>500	Pass
4	09	2452	35.691	35.728	35.12	35.12	>500	Pass

Note : The worst case of Occupied Bandwidth as below in next page:

Mode 1 CH11 (2462MHz) Ant 0



Mode 1 CH11 (2462MHz) Ant 1



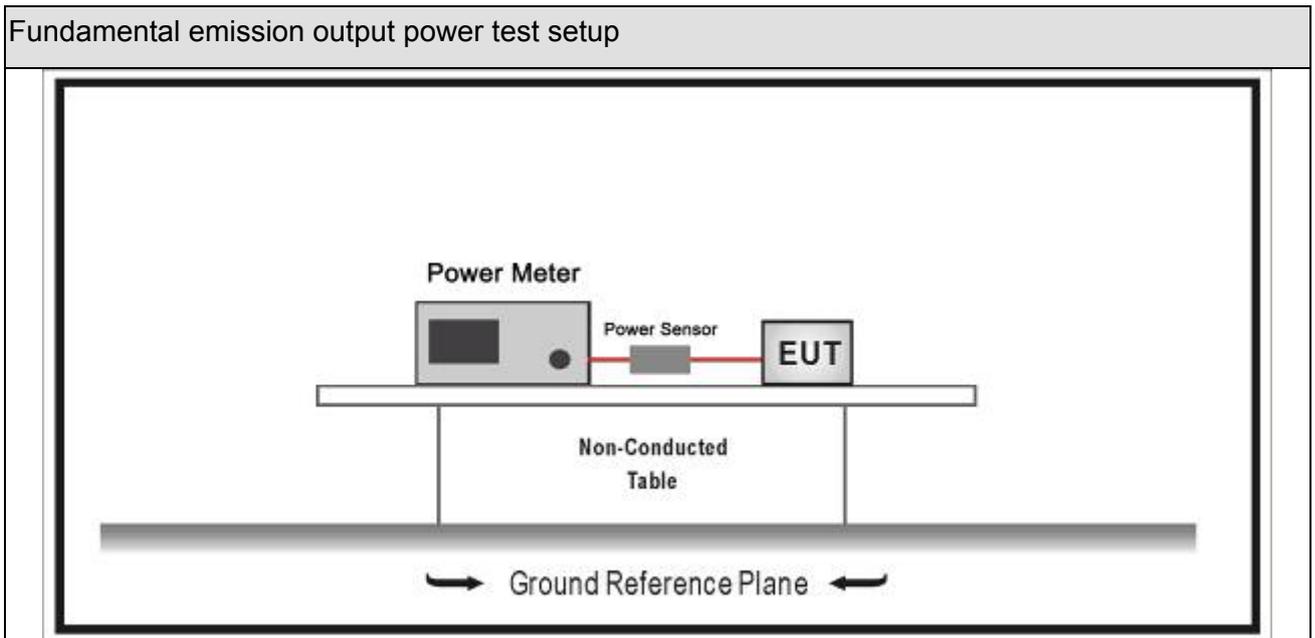
8. Fundamental emission output power

8.1. Test Equipment

Fundamental emission output power/ TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2017.01.03	2018.01.02
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.02.04	2017.02.03
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2016.10.14	2017.10.13
Power Sensor	Anritsu	MA2411B	0846014	2016.10.14	2017.10.13
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2016.04.10	2017.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

8.2. Test Setup



8.3. Limit

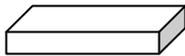
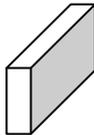
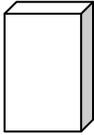
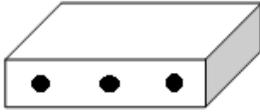
Fundamental emission output power Limit		
<input checked="" type="checkbox"/>	$G_{TX} < 6\text{dBi}$	$P_{out} \leq 30\text{dBm}$
<input type="checkbox"/>	$G_{TX} > 6\text{dBi}$	
<input checked="" type="checkbox"/>	Non-Fix point-point	$P_{out} \leq 30 - (G_{TX} - 6)$
<input type="checkbox"/>	Fix point-point	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
<input type="checkbox"/>	Point-to-multipoint	$P_{out} \leq 30 - (G_{TX} - 6)$
<input type="checkbox"/>	Overlap Beams	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
<input type="checkbox"/>	Aggregate power transmitted simultaneously on all beams	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
<input type="checkbox"/>	single directional beam	$P_{out} \leq 30 - [(G_{TX} - 6)]/3 + 8\text{dB}$
Note 1 : G_{TX} directional gain of transmitting antennas.		
Note 2 : P_{out} is maximum peak conducted output power .		

8.4. Test Procedure

Fundamental emission output power Test Method					
	References Rule		Chapter	Description	
<input checked="" type="checkbox"/>	ANSI C63.10		11.9	Fundamental emission output power	
<input type="checkbox"/>	ANSI C63.10		11.9.1	Maximum peak conducted output power	
	<input type="checkbox"/>	ANSI C63.10	11.9.1.1	RBW \geq DTS bandwidth	
	<input type="checkbox"/>	ANSI C63.10	11.9.1.2	Integrated band power method	
	<input type="checkbox"/>	ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method	
<input checked="" type="checkbox"/>	ANSI C63.10		11.9.2	Maximum conducted (average) output power	
	<input type="checkbox"/>	ANSI C63.10		11.9.2.2	Measurement using a spectrum analyzer (SA)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle 98%)	
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle 98%)	
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle 98%)	
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle 98%)	
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.4	Method AVGSA-3	
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.5	Method AVGSA-3A	
	<input checked="" type="checkbox"/>	ANSI C63.10		11.9.2.3	Measurement using a power meter (PM)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.3.1	Method AVGPM	
	<input checked="" type="checkbox"/>	ANSI C63.10	11.9.2.3.2	Method AVGPM-G	

Directional Gain Calculations for In-Band test method			
	References Rule	Chapter	Description
<input type="checkbox"/>	KDB 662911	F2)a)	Basic methodology with NANT transmit antennas
	<input type="checkbox"/> KDB 662911	F2)a) (i)	transmit signals are correlated
	<input type="checkbox"/> KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
<input type="checkbox"/>	KDB 662911	F2)b)	Sectorized antenna systems.
<input type="checkbox"/>	KDB 662911	F2)c)	Cross-polarized antennas
	<input type="checkbox"/> ANSI C63.10	F2)c) (i)	Cross-polarized antennas with NANT = 2.
	<input type="checkbox"/> ANSI C63.10	F2)c) (ii)	Multiple antennas
<input type="checkbox"/>	KDB 662911	F2)e)	Spatial stream
	<input type="checkbox"/> KDB 662911	F2)e) (i)	Antennas have the same gain
	<input type="checkbox"/> KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/> KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
<input checked="" type="checkbox"/>	KDB 662911	F2)f)	Cyclic Delay Diversity (CDD)
	<input checked="" type="checkbox"/> KDB 662911	F2)f) (i)	Antennas have the same gain
	<input type="checkbox"/> KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/> KDB 662911	F2)f) (ii)	Antenna have the different gain with more than one spatial stream

8.5. EUT test definition

Item	Fundamental emission output power			
Device Category	<input type="checkbox"/>	Fixed point-to-point		
	<input type="checkbox"/>	Emit multiple directional beams, simultaneously or sequentially		
	<input checked="" type="checkbox"/>	Other cases		
Test mode	Mode 1~4			
Test method	<input type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input checked="" type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input checked="" type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

8.6. Test Result

Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Mode	: Mode1~4	Test Site	: TR8
Test Date	: 2017.01.04		

Mode	Channel	Test Frequency (MHz)	Average Power Output (dBm)		Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 0	Ant 1				
1	01	2412	20.23	19.95	23.10	2	30	Pass
1	06	2437	23.15	22.87	26.02	2	30	Pass
1	11	2462	19.25	18.87	22.07	2	30	Pass
2	01	2412	16.17	15.84	19.02	2	30	Pass
2	06	2437	21.08	20.87	23.99	2	30	Pass
2	11	2462	16.62	16.37	19.51	2	30	Pass
3	01	2412	15.71	15.46	18.60	2	30	Pass
3	06	2437	21.04	20.78	23.92	2	30	Pass
3	11	2462	14.81	14.46	17.65	2	30	Pass
4	03	2422	12.14	11.83	15.00	2	30	Pass
4	06	2437	16.52	16.24	19.39	2	30	Pass
4	09	2452	11.54	11.22	14.39	2	30	Pass

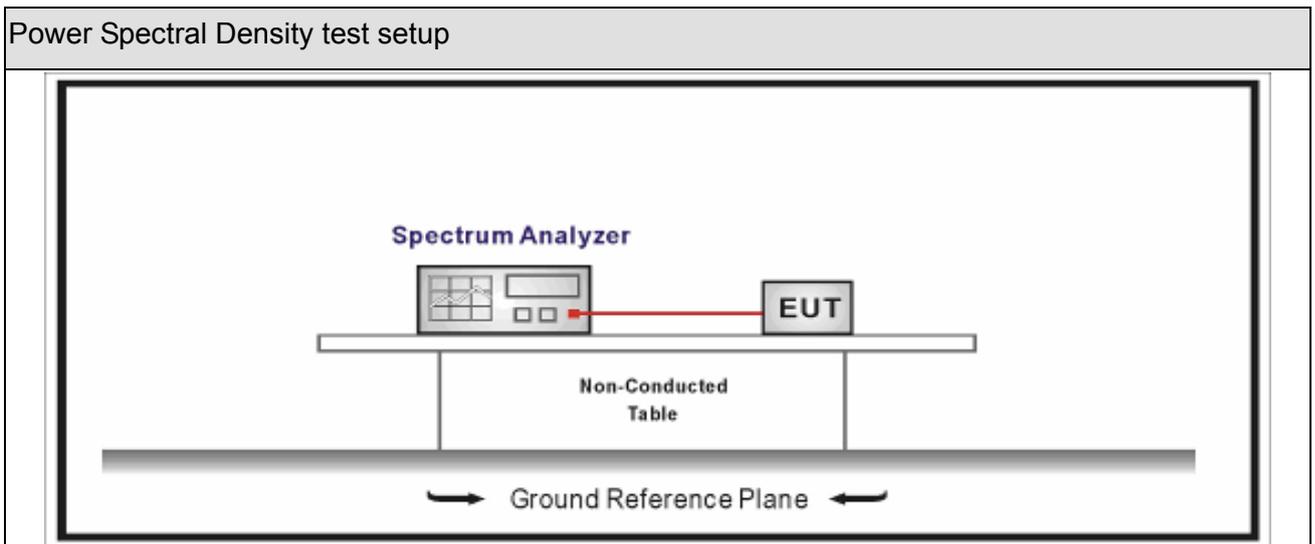
9. Power Spectral Density

9.1. Test Equipment

Power Spectral Density / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.02.04	2017.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2016.04.09	2017.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2016.04.09	2017.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

9.2. Test Setup



9.3. Limit

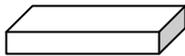
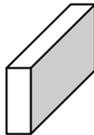
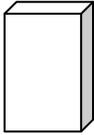
Power Spectral Density Limit
Power Spectral Density 8dBm/3kHz

9.4. Test Procedure

Power Spectral Density Test Method			
	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.10	Maximum power spectral density level in the fundamental emission
<input checked="" type="checkbox"/>	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
<input type="checkbox"/>	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle 98%)
<input type="checkbox"/>	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle 98%)
<input type="checkbox"/>	ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle < 98%)
<input type="checkbox"/>	ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle < 98%)
<input type="checkbox"/>	ANSI C63.10	11.10.7	Method AVGPSD-3
<input type="checkbox"/>	ANSI C63.10	11.10.8	Method AVGPSD-3A

Directional Gain Calculations for In-Band test method				
	Referred Rule		Chapter	Description
<input type="checkbox"/>	KDB 662911		F2)a)	Basic methodology with NANT transmit antennas
	<input type="checkbox"/>	KDB 662911	F2)a) (i)	transmit signals are correlated
	<input type="checkbox"/>	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
<input type="checkbox"/>	KDB 662911		F2)b)	Sectorized antenna systems.
<input type="checkbox"/>	KDB 662911		F2)c)	Cross-polarized antennas
	<input type="checkbox"/>	ANSI C63.10	F2)c) (i)	Cross-polarized antennas with NANT = 2.
	<input type="checkbox"/>	ANSI C63.10	F2)c) (ii)	Multiple antennas
<input type="checkbox"/>	KDB 662911		F2)e)	Spatial stream
	<input type="checkbox"/>	KDB 662911	F2)e) (i)	Antennas have the same gain
	<input type="checkbox"/>	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/>	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
<input checked="" type="checkbox"/>	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	<input checked="" type="checkbox"/>	KDB 662911	F2)f) (i)	Antennas have the same gain
	<input type="checkbox"/>	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/>	KDB 662911	F2)f) (ii)	Antenna have the different gain with more than one spatial stream

9.5. EUT test definition

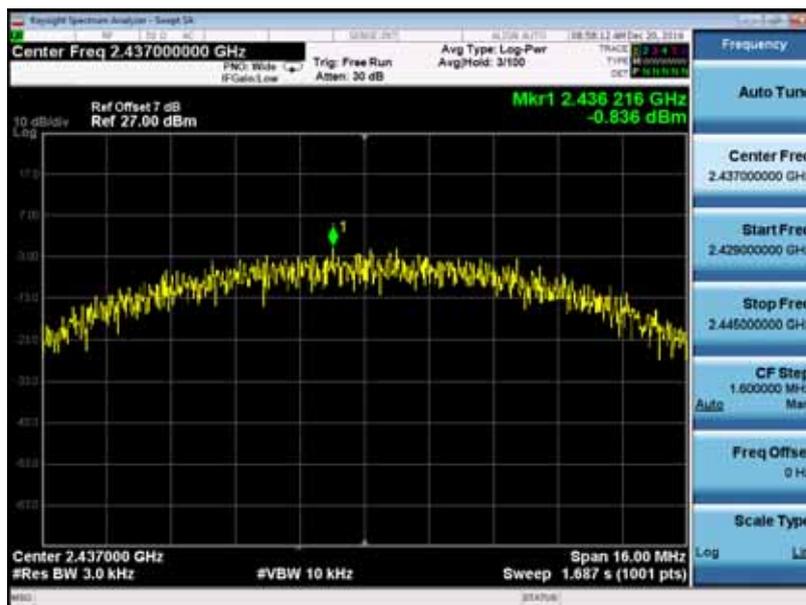
Item	Power Spectral Density Test Method			
Device Category	<input type="checkbox"/>	Fixed point-to-point		
	<input type="checkbox"/>	Emit multiple directional beams, simultaneously or sequentially		
	<input checked="" type="checkbox"/>	Other cases		
Test mode	Mode 1~4			
Test method	<input type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input checked="" type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input checked="" type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

9.6. Test Result

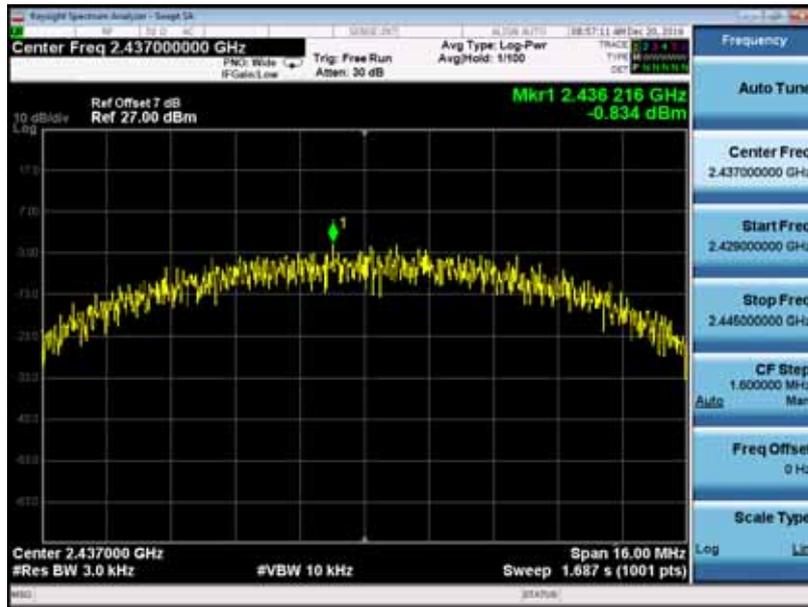
Product Name	: 300Mbps Wi-Fi Range Extender	Power	: AC 120V/60Hz
Test Mode	: Mode1~4	Test Site	: TR8
Test Date	: 2017.01.04		

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Directional Gain (dBi)	Limit (dBm/3kHz)	Result
			Ant 0	Ant 1				
1	01	2412	-3.559	-4.297	-0.90	5	8.0	Pass
1	06	2437	-0.836	-0.834	2.18	5	8.0	Pass
1	11	2462	-5.994	-5.635	-2.80	5	8.0	Pass
2	01	2412	-10.518	-12.837	-8.51	5	8.0	Pass
2	06	2437	-7.224	-6.834	-4.01	5	8.0	Pass
2	11	2462	-10.402	-11.335	-7.83	5	8.0	Pass
3	01	2412	-12.470	-13.404	-9.90	5	8.0	Pass
3	06	2437	-7.103	-7.231	-4.16	5	8.0	Pass
3	11	2462	-14.130	-15.477	-11.74	5	8.0	Pass
4	03	2422	-17.046	-16.320	-13.66	5	8.0	Pass
4	06	2437	-9.357	-8.543	-5.92	5	8.0	Pass
4	09	2452	-17.753	-18.848	-15.26	5	8.0	Pass

Mode 1 CH06(2437MHz) Ant 0



Mode 1 CH06(2437MHz) Ant 1



10. Antenna Requirement

10.1. Limit

Antenna Requirement Limit	
<p>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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.</p>	

10.2. Antenna Connector Construction

Antenna Connector Construction	
<input type="checkbox"/>	The use of a permanently attached antenna
<input type="checkbox"/>	The antenna use of a unique coupling to the intentional radiator
<input checked="" type="checkbox"/>	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document "Internal Photograph" to show the antenna connector.	

_____ The End _____