

Test Report

FCC Part15 Subpart C

Product Name : AC1900 High Gain Wireless Dual Band USB Adapter
Model No. : Archer T9UH
FCC ID : TE7T9UH

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 : Aug. 01, 2016
Test Date : Sep. 14, 2016~ Sep. 26, 2016
Issued Date : Sep. 30, 2016
Report No. : 1682009R-RF-US-P06V01
Report Version : V1.3

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 Quietek Corporation.

Test Report Certification

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and Technology Park, Shennan Rd, Nanshan, Shenzhen,
China
Model No. : Archer T9UH
FCC ID : TE7T9UH
EUT Voltage : DC 5V
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 : Quietek 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 :

Kathy Feng

(Adm. Specialist: Kathy Feng)

Reviewed By :

Jack Zhang

(Senior Engineer: Jack Zhang)

Approved By :

Harry Zhao

(Engineering Manager : Harry Zhao)

Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	:	BSMI, NCC, TAF
USA	:	FCC
Japan	:	VCCI
China	:	CNAS

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/english/about/certificates.aspx?bval=5>
The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory :

No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

Suzhou Testing Laboratory :

No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1682009R-RF-US-P06V01	V1.0	Initial Issued Report	Sep. 27, 2016
1682009R-RF-US-P06V01	V1.1	Modified the data rate on page7 & added the note description on page128	Sep. 30, 2016
1682009R-RF-US-P06V01	V1.2	Modified the Directional gain.	Sep. 30, 2016
1682009R-RF-US-P06V01	V1.3	Modified some typos.	Sep. 30, 2016

1. General Information

1.1. EUT Description

Product Name	AC1900 High Gain Wireless Dual Band USB Adapter
Brand Name	TP-LINK
Model No.	Archer T9UH
EUT Voltage	DC 5V
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 400 Mbps for 2.4GHz Tx
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.	N/A											
Antenna manufacturer	TP-LINK											
Antenna Delivery	☒ 1*TX+1*RX	☐ 2*TX+2*RX	☒ 2*TX+3*RX									
Antenna technology	☒ SISO ☐ MIMO <table border="1" style="margin-left: 20px;"> <tr> <td>☒</td> <td>Basic</td> </tr> <tr> <td>☐</td> <td>CDD</td> </tr> <tr> <td>☐</td> <td>Beam-forming</td> </tr> </table>				☒	Basic	☐	CDD	☐	Beam-forming		
☒	Basic											
☐	CDD											
☐	Beam-forming											
Antenna Type	☐ External <table border="1" style="margin-left: 20px;"> <tr> <td>☐</td> <td>Dipole</td> </tr> </table> ☒ Internal <table border="1" style="margin-left: 20px;"> <tr> <td>☒</td> <td>PIFA</td> </tr> <tr> <td>☐</td> <td>PCB</td> </tr> <tr> <td>☐</td> <td>Ceramic Chip Antenna</td> </tr> </table>				☐	Dipole	☒	PIFA	☐	PCB	☐	Ceramic Chip Antenna
☐	Dipole											
☒	PIFA											
☐	PCB											
☐	Ceramic Chip Antenna											
Antenna Gain	3.0dBi for each antenna											
Directional Gain	3.0dBi											

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)

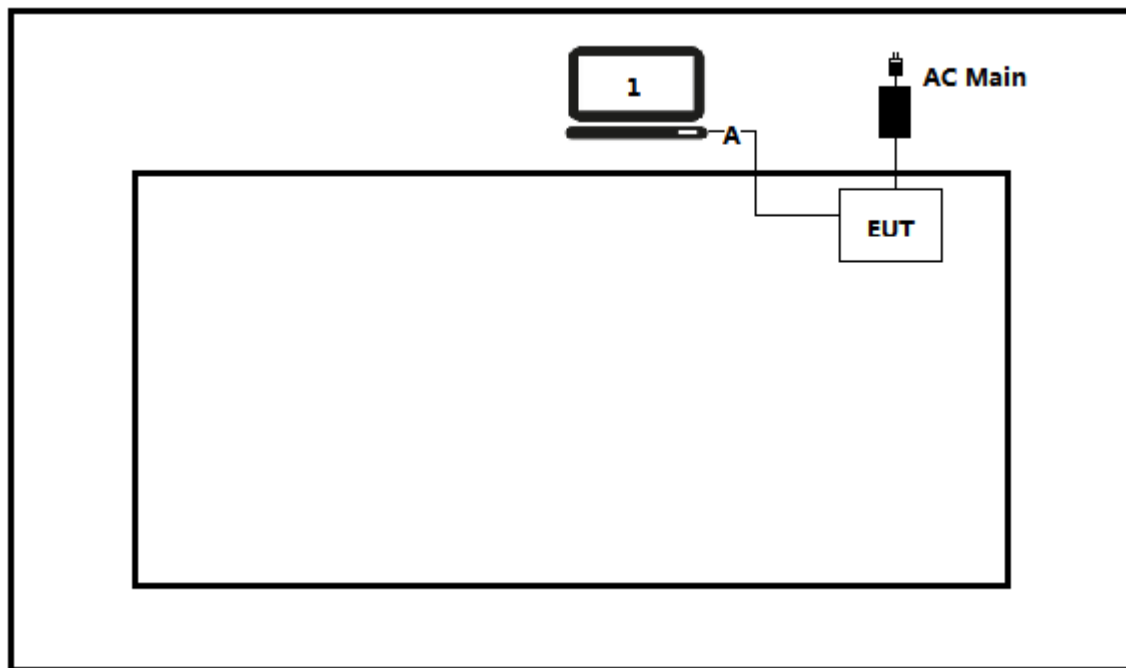
1.5. Tested System Details

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

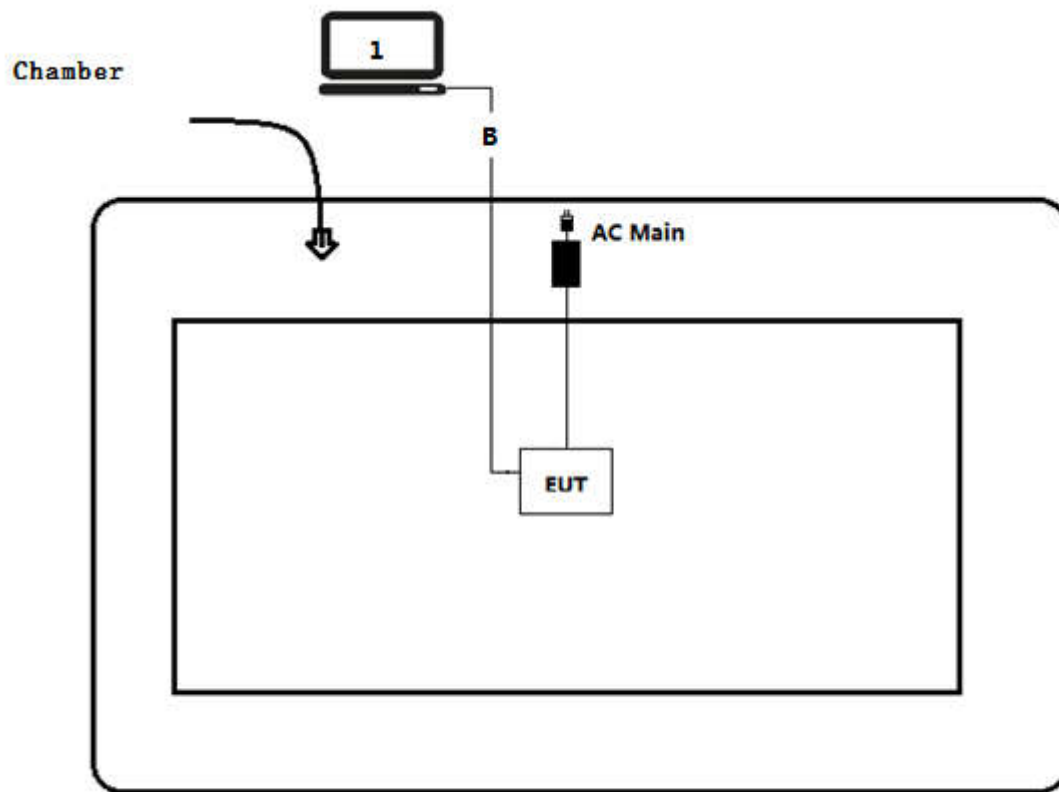
No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	Think pad x220	SUA0600195	Non-shielded
A	USB cable	N/A	N/A	N/A	Non-shielded, 1.5m
B	USB cable	N/A	N/A	N/A	Non-shielded, 10m

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)	$\geq 30\text{dBc}$	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)	$\geq 500\text{kHz}$	PASS
Fundamental emission output power	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(b)(3)	$\leq 30\text{dBm}$	PASS
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(e)	$\leq 8\text{dBm/3kHz}$	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	Power setting			
Modulation Mode	Test Frequency	Ant 1	Ant 2	Ant1+2
802.11b	2412	32	33	-
	2437	31	32	-
	2462	31	32	-
802.11g	2412	37	41	-
	2437	37	40	-
	2462	37	39	-
802.11n(20MHz)	2412	-	-	36
	2437	-	-	36
	2462	-	-	36
802.11n(40MHz)	2422	-	-	36
	2437	-	-	37
	2452	-	-	36

Test Mode	Ant 1	Ant 2	Ant 1+2
802.11b	√	√	×
802.11g	√	√	×
802.11n(20MHz)	×	×	√
802.11n(40MHz)	×	×	√

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	$\pm 1.27\text{dB}$

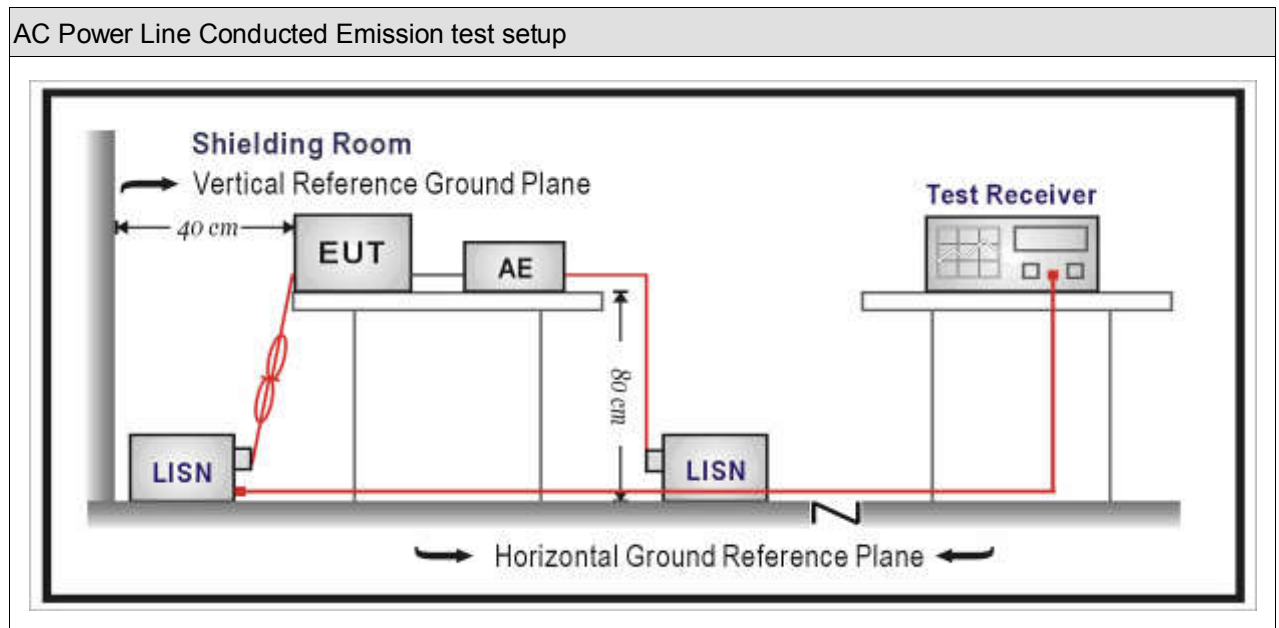
3. AC Power Line Conducted Emission

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	100906	2016.03.05	2017.03.05
Two-Line V-Network	R&S	ENV 216	101189	2016.07.16	2017.07.16
Two-Line V-Network	R&S	ENV 216	101044	2015.09.16	2017.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
50ohm Termination	SHX	TF2	07081402	2015.09.16	2017.09.16
Temperature/Humidity Meter	Zhichen	ZC1-2	TR1-TH	2016.01.05	2017.01.05

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

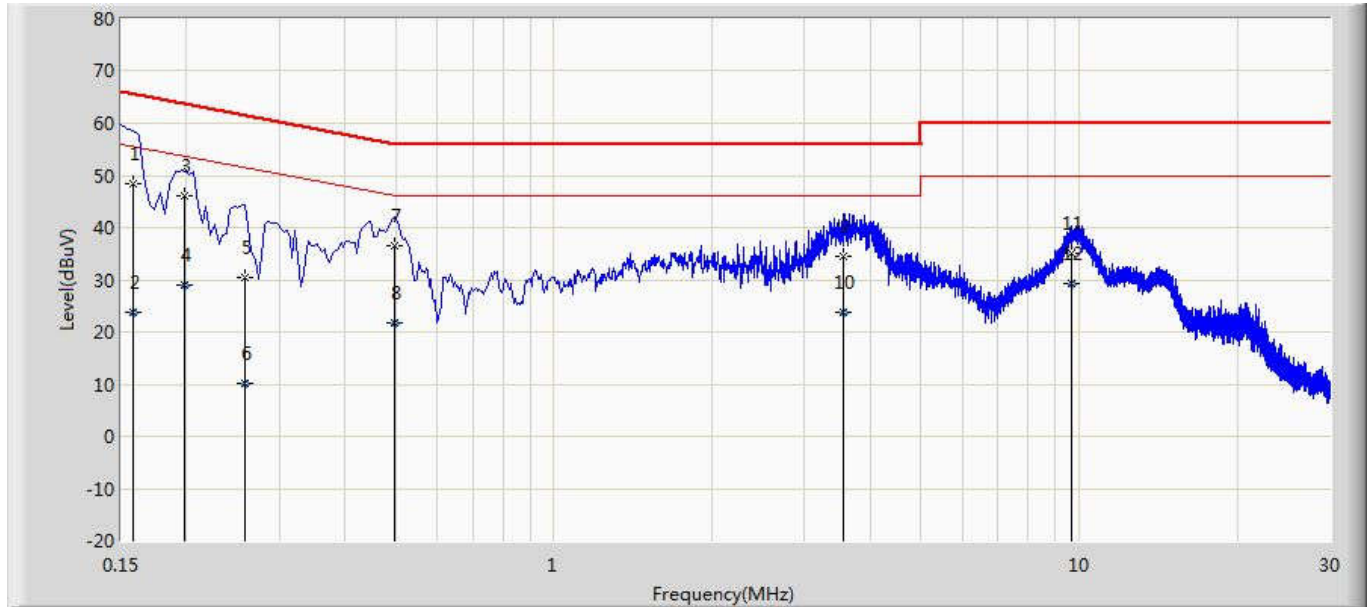
Frequency of Emission (MHz)	Conducted Limit	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Note 1: The lower limit shall apply at the transition frequencies.		
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5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

3.4. Test Procedure

Test Method			
	References Rule	Chapter	Item
☒	ANSI C63.10-2013	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices
☒	ANSI C63.4-2014	7	AC power-line conducted emission measurements

3.5. Test Result

Site: TR1	Time: 2016/08/08
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216-L1	Polarity: Line
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1	

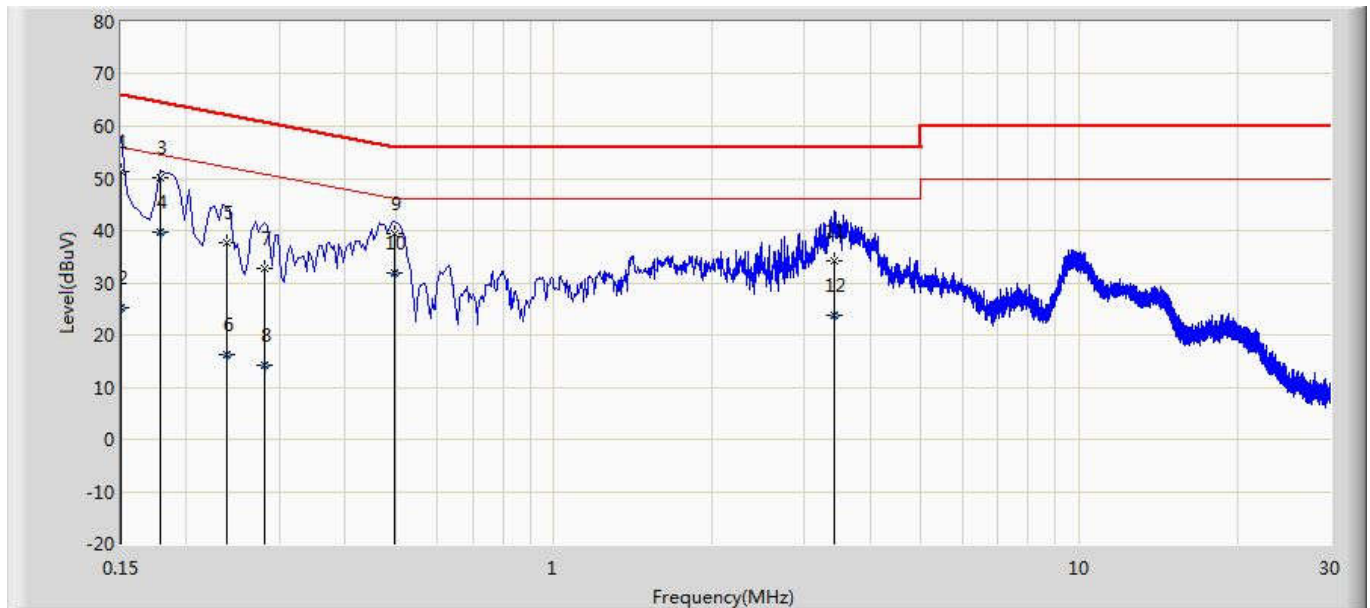


No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1	*	0.158	48.442	38.711	-17.126	65.568	9.671	0.060	0.000	QP
2		0.158	23.633	13.902	-31.935	55.568	9.671	0.060	0.000	AV
3		0.198	46.221	36.511	-17.473	63.694	9.650	0.060	0.000	QP
4		0.198	28.988	19.278	-24.706	53.694	9.650	0.060	0.000	AV
5		0.258	30.421	20.714	-31.075	61.496	9.647	0.060	0.000	QP
6		0.258	10.140	0.433	-41.356	51.496	9.647	0.060	0.000	AV
7		0.498	36.454	26.754	-19.579	56.033	9.630	0.070	0.000	QP
8		0.498	21.607	11.907	-24.426	46.033	9.630	0.070	0.000	AV
9		3.554	34.468	24.678	-21.532	56.000	9.660	0.130	0.000	QP
10		3.554	23.659	13.869	-22.341	46.000	9.660	0.130	0.000	AV
11		9.682	34.968	24.978	-25.032	60.000	9.730	0.260	0.000	QP
12		9.682	29.400	19.410	-20.600	50.000	9.730	0.260	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: 2016/08/08
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216-N	Polarity: Neutral
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.150	51.231	41.495	-14.769	66.000	9.676	0.060	0.000	QP
2		0.150	25.079	15.343	-30.921	56.000	9.676	0.060	0.000	AV
3		0.178	50.265	40.541	-14.313	64.578	9.664	0.060	0.000	QP
4		0.178	39.570	29.846	-15.008	54.578	9.664	0.060	0.000	AV
5		0.238	37.568	27.848	-24.598	62.166	9.660	0.060	0.000	QP
6		0.238	16.256	6.536	-35.910	52.166	9.660	0.060	0.000	AV
7		0.282	32.726	23.016	-28.031	60.757	9.650	0.060	0.000	QP
8		0.282	14.244	4.534	-36.513	50.757	9.650	0.060	0.000	AV
9		0.498	39.296	29.596	-16.737	56.033	9.630	0.070	0.000	QP
10	*	0.498	31.952	22.252	-14.081	46.033	9.630	0.070	0.000	AV
11		3.418	34.296	24.516	-21.704	56.000	9.650	0.130	0.000	QP
12		3.418	23.795	14.015	-22.205	46.000	9.650	0.130	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

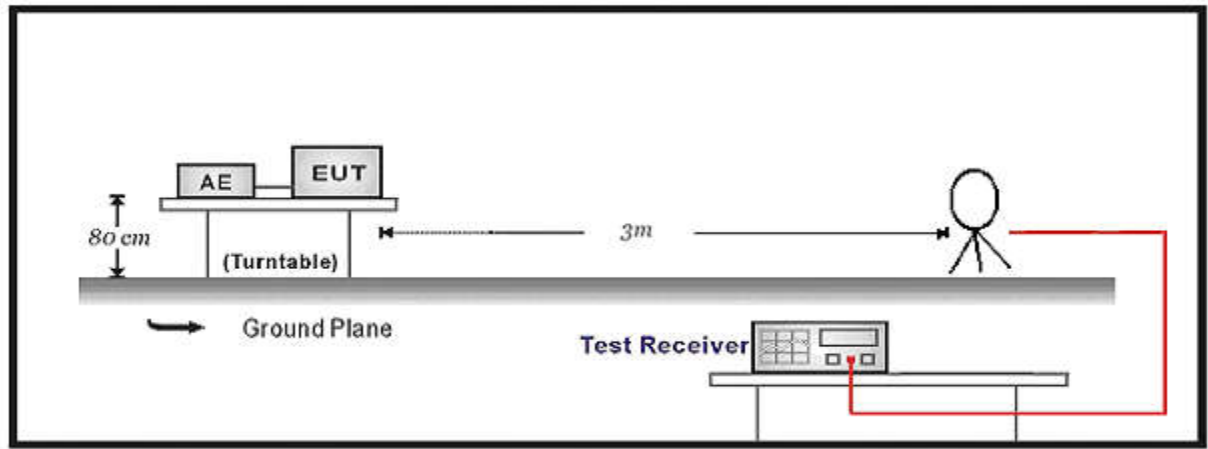
4.1. Test Equipment

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	2015.11.16	2016.11.17
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2015.10.16	2016.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2016.03.02	2017.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2016.01.04	2017.01.03
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

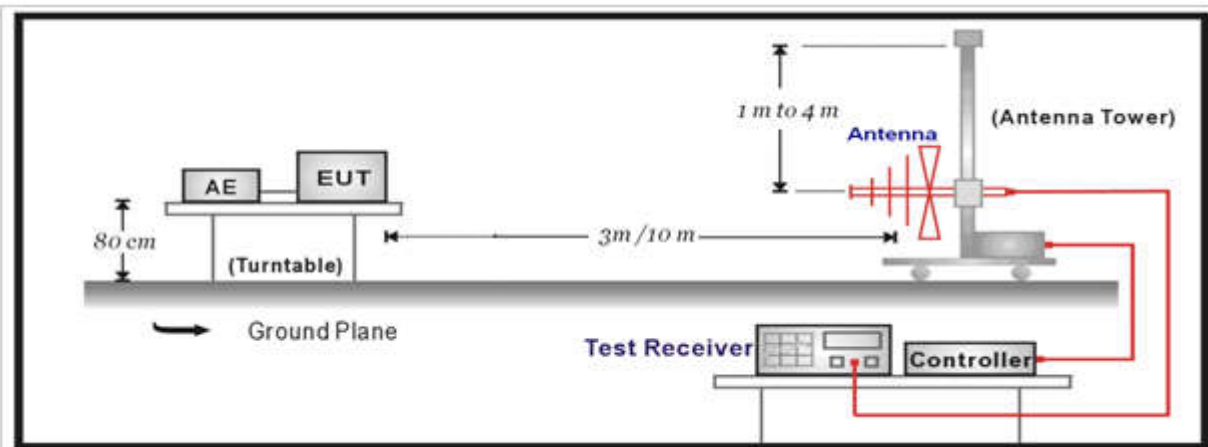
Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.04	2017.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2015.11.25	2016.11.24
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	2016.01.04	2017.01.03
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

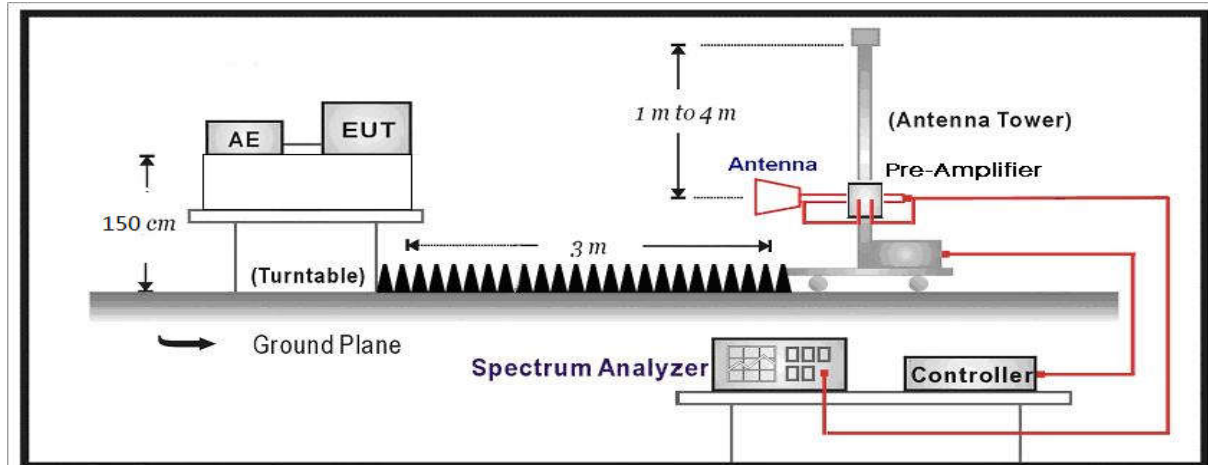
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

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)

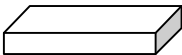
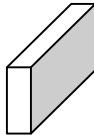
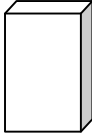
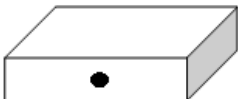
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed 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
☐	ANSI C63.10		11.11	Emissions in non-restricted frequency bands
	☐	ANSI C63.10	11.11.2	Reference level measurement
	☐	ANSI C63.10	11.11.3	Emission level measurement
☒	ANSI C63.10		11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10	11.12.1	Radiated emission measurements
	☒	ANSI C63.10	11.12.2.7	Radiated spurious emission test
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
		ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
		ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	☐	ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
		ANSI C63.10	11.12.2.4	Peak power measurement procedure
		ANSI C63.10	11.12.2.5	Average power measurement procedures
	☐	ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
		ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
		☒	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	☐	Fixed position use		
	☒	Mobile position use		
Test mode	Mode 1~4			
Test method	☒	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☒
	☐	Conducted		
	☐	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

4.6. Test Result

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Mode	: Mode 1	Test Site	: AC-5
Test Date	: 2016.09.22		

Antenna #1

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4824.0	53.7	-7.7	46.0	54(note3)	8.0	PK
	H	7236.0	49.3	-4.5	44.8	54(note3)	9.2	PK
	H	9648.0	46.0	-1.0	45.0	54(note3)	9.0	PK
	V	4824.0	51.3	-7.7	43.6	54(note3)	10.4	PK
	V	7236.0	50.1	-4.5	45.6	54(note3)	8.4	PK
	V	9648.0	43.7	-1.0	42.7	54(note3)	11.3	PK
6	H	4874.0	53.0	-7.5	45.5	54(note3)	8.5	PK
	H	7311.0	50.4	-4.3	46.1	54(note3)	7.9	PK
	H	9748.0	47.7	-1.5	46.2	54(note3)	7.8	PK
	V	4874.0	53.6	-7.5	46.1	54(note3)	7.9	PK
	V	7311.0	48.9	-4.3	44.6	54(note3)	9.4	PK
	V	9748.0	46.0	-1.5	44.5	54(note3)	9.5	PK
11	H	4924.0	51.8	-7.7	44.1	54(note3)	9.9	PK
	H	7386.0	49.3	-3.9	45.4	54(note3)	8.6	PK
	H	9848.0	46.9	-1.2	45.7	54(note3)	8.3	PK
	V	4924.0	53.8	-7.7	46.1	54(note3)	7.9	PK
	V	7386.0	47.2	-3.9	43.3	54(note3)	10.7	PK
	V	9848.0	44.6	-1.2	43.4	54(note3)	10.6	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 6dB 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 for average testing, see Clause 6.6.

Antenna #2

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4824.0	52.6	-7.7	44.9	54(note3)	9.1	PK
	H	7236.0	48.3	-4.5	43.8	54(note3)	10.2	PK
	H	9648.0	45.7	-1.0	44.7	54(note3)	9.3	PK
	V	4824.0	50.0	-7.7	42.3	54(note3)	11.7	PK
	V	7236.0	49.5	-4.5	45.0	54(note3)	9.0	PK
	V	9648.0	43.0	-1.0	42.0	54(note3)	12.0	PK
6	H	4874.0	52.5	-7.5	45.0	54(note3)	9.0	PK
	H	7311.0	49.8	-4.3	45.5	54(note3)	8.5	PK
	H	9748.0	46.7	-1.5	45.2	54(note3)	8.8	PK
	V	4874.0	52.5	-7.5	45.0	54(note3)	9.0	PK
	V	7311.0	47.9	-4.3	43.6	54(note3)	10.4	PK
	V	9748.0	45.0	-1.5	43.5	54(note3)	10.5	PK
11	H	4924.0	50.5	-7.7	42.8	54(note3)	11.2	PK
	H	7386.0	48.9	-3.9	45.0	54(note3)	9.0	PK
	H	9848.0	46.4	-1.2	45.2	54(note3)	8.8	PK
	V	4924.0	53.0	-7.7	45.3	54(note3)	8.7	PK
	V	7386.0	46.0	-3.9	42.1	54(note3)	11.9	PK
	V	9848.0	43.5	-1.2	42.3	54(note3)	11.7	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 6dB 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 for average testing, see Clause 6.6.

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Site	: Mode 2	Test Site	: AC-5
Test Date	: 2016.09.22		

Antenna #1

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4824.0	50.7	-7.7	43.0	54(note3)	11.0	PK
	H	7236.0	48.0	-4.5	43.5	54(note3)	10.5	PK
	H	9648.0	44.8	-1.0	43.8	54(note3)	10.2	PK
	V	4824.0	49.0	-7.7	41.3	54(note3)	12.7	PK
	V	7236.0	48.5	-4.5	44.0	54(note3)	10.0	PK
	V	9648.0	42.6	-1.0	41.6	54(note3)	12.4	PK
6	H	4874.0	51.5	-7.5	44.0	54(note3)	10.0	PK
	H	7311.0	46.9	-4.3	42.6	54(note3)	11.4	PK
	H	9748.0	44.8	-1.5	43.3	54(note3)	10.7	Pk
	V	4874.0	50.5	-7.5	43.0	54(note3)	11.0	PK
	V	7311.0	47.0	-4.3	42.7	54(note3)	11.3	PK
	V	9748.0	44.2	-1.5	42.7	54(note3)	11.3	PK
11	H	4924.0	50.0	-7.7	42.3	54(note3)	11.7	PK
	H	7386.0	46.8	-3.9	42.9	54(note3)	11.1	PK
	H	9848.0	45.1	-1.2	43.9	54(note3)	10.1	PK
	V	4924.0	51.4	-7.7	43.7	54(note3)	10.3	PK
	V	7386.0	44.9	-3.9	41.0	54(note3)	13.0	PK
	V	9848.0	42.6	-1.2	41.4	54(note3)	12.6	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 6dB 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 for average testing, see Clause 6.6.

Antenna #2

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4824.0	50.1	-7.7	42.4	54(note3)	11.6	PK
	H	7236.0	47.6	-4.5	43.1	54(note3)	10.9	PK
	H	9648.0	45.0	-1.0	44.0	54(note3)	10.0	PK
	V	4824.0	49.0	-7.7	41.3	54(note3)	12.7	PK
	V	7236.0	48.6	-4.5	44.1	54(note3)	9.9	PK
	V	9648.0	42.4	-1.0	41.4	54(note3)	12.6	PK
6	H	4874.0	51.3	-7.5	43.8	54(note3)	10.2	PK
	H	7311.0	46.9	-4.3	42.6	54(note3)	11.4	PK
	H	9748.0	44.7	-1.5	43.2	54(note3)	10.8	PK
	V	4874.0	49.8	-7.5	42.3	54(note3)	11.7	PK
	V	7311.0	46.3	-4.3	42.0	54(note3)	12.0	PK
	V	9748.0	44.1	-1.5	42.6	54(note3)	11.4	PK
11	H	4924.0	50.1	-7.7	42.4	54(note3)	11.6	PK
	H	7386.0	46.9	-3.9	43.0	54(note3)	11.0	PK
	H	9848.0	45.0	-1.2	43.8	54(note3)	10.2	PK
	V	4924.0	50.9	-7.7	43.2	54(note3)	10.8	PK
	V	7386.0	44.3	-3.9	40.4	54(note3)	13.6	PK
	V	9848.0	42.8	-1.2	41.6	54(note3)	12.4	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 6dB 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 for average testing, see Clause 6.6.

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Site	: Mode 3	Test Site	: AC-5
Test Date	: 2016.09.22		

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4824.0	51.0	-7.7	43.3	54(note3)	10.7	PK
	H	7236.0	49.2	-4.5	44.7	54(note3)	9.3	PK
	H	9648.0	46.5	-1.0	45.5	54(note3)	8.5	PK
	V	4824.0	50.1	-7.7	42.4	54(note3)	11.6	PK
	V	7236.0	50.1	-4.5	45.6	54(note3)	8.4	PK
	V	9648.0	43.3	-1.0	42.3	54(note3)	11.7	PK
6	H	4874.0	52.8	-7.5	45.3	54(note3)	8.7	PK
	H	7311.0	48.4	-4.3	44.1	54(note3)	9.9	PK
	H	9748.0	45.7	-1.5	44.2	54(note3)	9.8	PK
	V	4874.0	51.2	-7.5	43.7	54(note3)	10.3	PK
	V	7311.0	47.8	-4.3	43.5	54(note3)	10.5	PK
	V	9748.0	45.1	-1.5	43.6	54(note3)	10.4	PK
11	H	4924.0	51.5	-7.7	43.8	54(note3)	10.2	PK
	H	7386.0	48.3	-3.9	44.4	54(note3)	9.6	PK
	H	9848.0	45.8	-1.2	44.6	54(note3)	9.4	PK
	V	4924.0	51.8	-7.7	44.1	54(note3)	9.9	PK
	V	7386.0	45.7	-3.9	41.8	54(note3)	12.2	PK
	V	9848.0	44.5	-1.2	43.3	54(note3)	10.7	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 6dB 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 for average testing, see Clause 6.6.

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Site	: Mode 4	Test Site	: AC-5
Test Date	: 2016.09.22		

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
3	H	4844.0	49.7	-7.7	42.0	54(note3)	12.0	PK
	H	7266.0	49.3	-4.2	45.1	54(note3)	8.9	PK
	H	9688.0	45.4	-0.6	44.8	54(note3)	9.2	PK
	V	4844.0	50.1	-7.7	42.4	54(note3)	11.6	PK
	V	7266.0	49.0	-4.2	44.8	54(note3)	9.2	PK
	V	9688.0	45.7	-0.6	45.1	54(note3)	8.9	PK
6	H	4874.0	49.5	-7.5	42.0	54(note3)	12.0	PK
	H	7311.0	49.0	-4.3	44.7	54(note3)	9.3	PK
	H	9748.0	47.2	-1.5	45.7	54(note3)	8.3	PK
	V	4874.0	50.9	-7.5	43.4	54(note3)	10.6	PK
	V	7311.0	50.3	-4.3	46.0	54(note3)	8.0	PK
	V	9748.0	45.6	-1.5	44.1	54(note3)	9.9	PK
9	H	4904.0	49.1	-7.5	41.6	54(note3)	12.4	PK
	H	7356.0	49.1	-4.3	44.8	54(note3)	9.2	PK
	H	9808.0	45.8	-1.0	44.8	54(note3)	9.2	PK
	V	4904.0	50.4	-7.5	42.9	54(note3)	11.1	PK
	V	7356.0	49.0	-4.3	44.7	54(note3)	9.3	PK
	V	9808.0	46.3	-1.0	45.3	54(note3)	8.7	PK

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

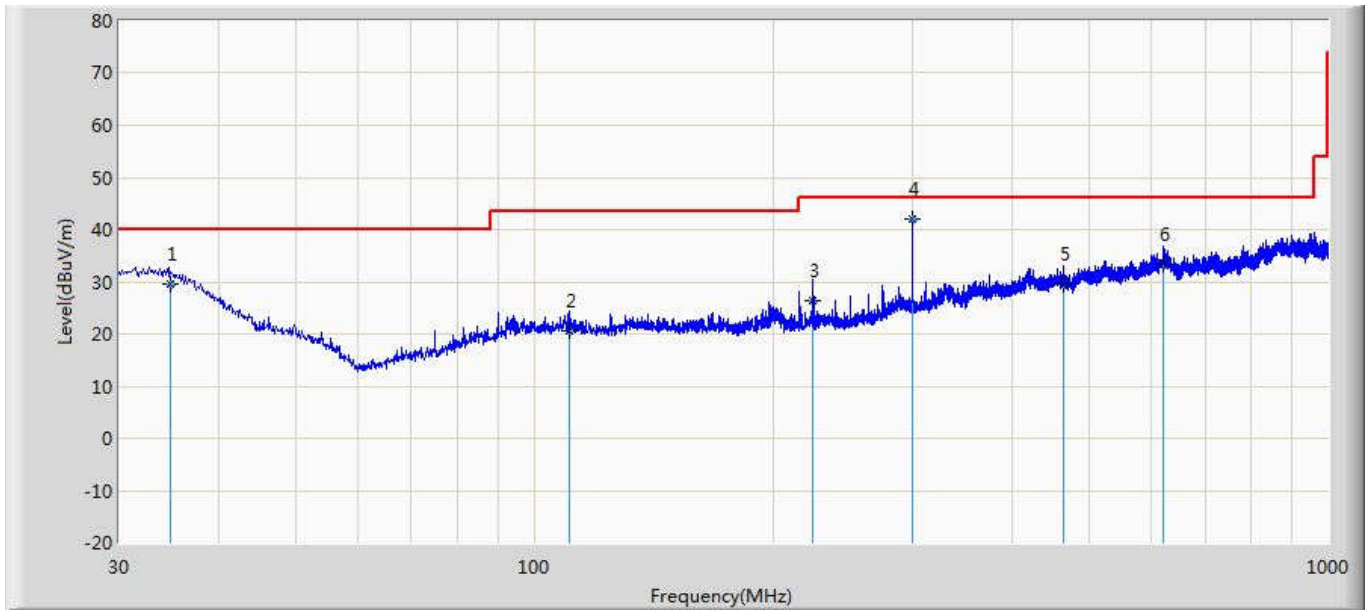
Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

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 for average testing, see Clause 6.6.

The worst case of Radiated Emission below 1GHz:

Site: AC3	Time: 2016/08/08
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1	

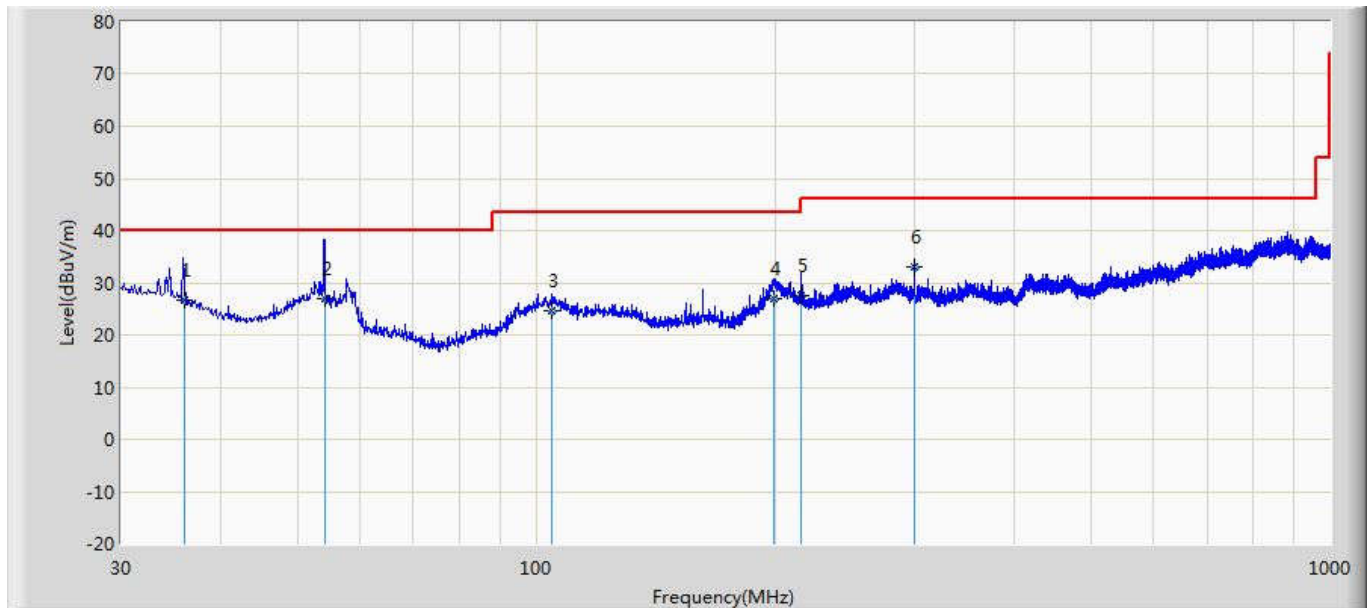


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		34.873	29.451	36.007	-10.549	40.000	15.974	0.640	23.170	100	131	QP
2		110.653	20.680	30.553	-22.820	43.500	12.126	1.140	23.139	100	260	QP
3		224.363	26.443	38.337	-19.557	46.000	9.736	1.620	23.250	200	330	QP
4	*	299.473	42.093	49.801	-3.907	46.000	13.384	1.860	22.952	100	88	QP
5		465.226	29.510	32.687	-16.490	46.000	17.243	2.350	22.770	200	280	QP
6		620.783	33.293	34.152	-12.707	46.000	19.000	2.730	22.589	100	360	QP

Note:

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

Site: AC3	Time: 2016/08/08
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1	



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		36.013	26.807	34.027	-13.193	40.000	15.312	0.652	23.184	100	95	QP
2		54.133	26.817	41.540	-13.183	40.000	7.498	0.799	23.020	100	360	QP
3		104.626	24.524	35.012	-18.976	43.500	11.563	1.109	23.160	100	110	QP
4		198.963	26.994	39.166	-16.506	43.500	9.468	1.532	23.172	200	119	QP
5		215.986	27.641	40.019	-15.859	43.500	9.260	1.590	23.227	100	245	QP
6	*	299.687	33.070	40.769	-12.930	46.000	13.391	1.860	22.950	200	305	QP

Note:

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

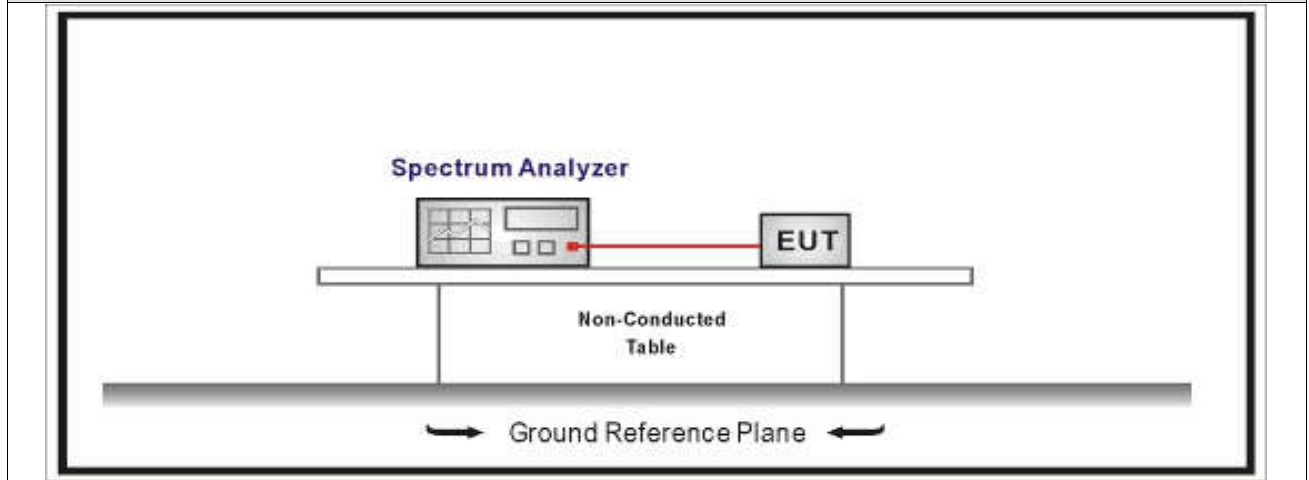
5. Emissions in non-restricted frequency bands

5.1. Test Equipment

Occupied Bandwidth / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.02.04	2017.02.04
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2016.04.09	2017.04.09
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2016.04.09	2017.04.09
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.10
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

5.2. Test Setup

Occupied Bandwidth test setup:



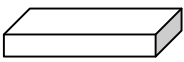
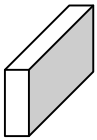
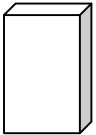
5.3. Limit

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
☒	ANSI C63.10		11.11	Emissions in non-restricted frequency bands
	☒	ANSI C63.10	11.11.2	Reference level measurement
	☒	ANSI C63.10	11.11.3	Emission level measurement
☐	ANSI C63.10		11.12	Emissions in restricted frequency bands
	☐	ANSI C63.10	11.12.1	Radiated emission measurements
	☐	ANSI C63.10	11.12.2.7	Radiated spurious emission test
☐	ANSI C63.10		6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
☐	ANSI C63.10		6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
☒	ANSI C63.10		6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	☒	ANSI C63.10	11.12.2	Antenna-port conducted measurements
	☐	ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	☐	ANSI C63.10	11.12.2.4	Peak power measurement procedure
	☒	ANSI C63.10	11.12.2.5	Average power measurement procedures
	☐	ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	☐	ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	☐	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	☐	Fixed position use		
	☒	Mobile position use		
Test mode	Mode 1 ~ Mode 4			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☒	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

5.6. Test Result

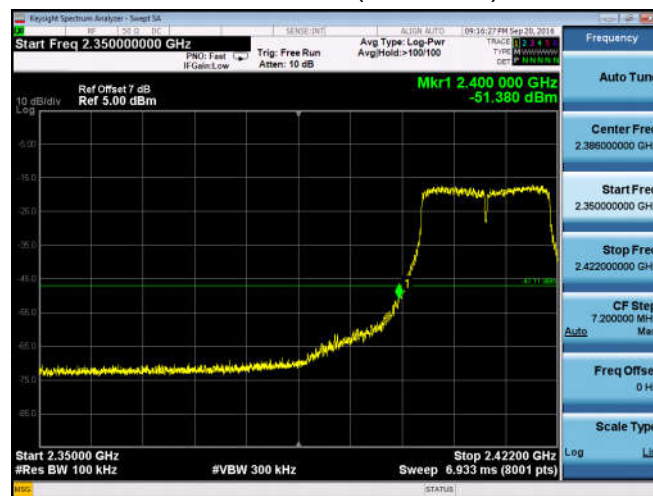
Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Mode	: Mode1~4	Test Site	: TR8
Test Date	: 2016.09.22		

Antenna #1

Mode	Channel	Test Frequency (MHz)	In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	01	2412	-12.200	2400	-50.188	37.988	>30	Pass
1	11	2462	-10.580	2483.5	-69.241	58.661	>30	Pass
2	01	2412	-15.880	2400	-48.464	32.584	>30	Pass
2	11	2462	-13.990	2483.5	-61.411	47.421	>30	Pass
3	01	2412	-17.110	2400	-51.380	34.270	>30	Pass
3	11	2462	-14.230	2483.5	-57.483	43.253	>30	Pass
4	03	2422	-15.750	2400	-61.207	45.457	>30	Pass
4	09	2452	-18.080	2483.5	-58.261	40.181	>30	Pass

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

Mode 2 CH01(2412MHz)

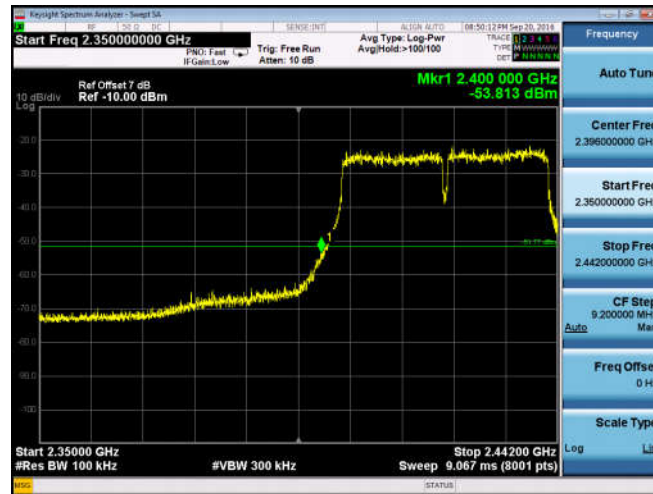


Antenna #2

Mode	Channel	Test Frequency (MHz)	In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	01	2412	-17.550	2400	-57.732	40.182	>30	Pass
1	11	2462	-17.120	2483.5	-71.794	54.674	>30	Pass
2	01	2412	-23.110	2400	-55.688	32.578	>30	Pass
2	11	2462	-20.100	2483.5	-68.662	48.562	>30	Pass
3	01	2412	-20.500	2400	-55.188	34.688	>30	Pass
3	11	2462	-17.940	2483.5	-67.658	49.718	>30	Pass
4	03	2422	-21.770	2400	-53.813	32.043	>30	Pass
4	09	2452	-21.880	2483.5	-67.363	45.483	>30	Pass

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

Mode 4 CH01(2422MHz)



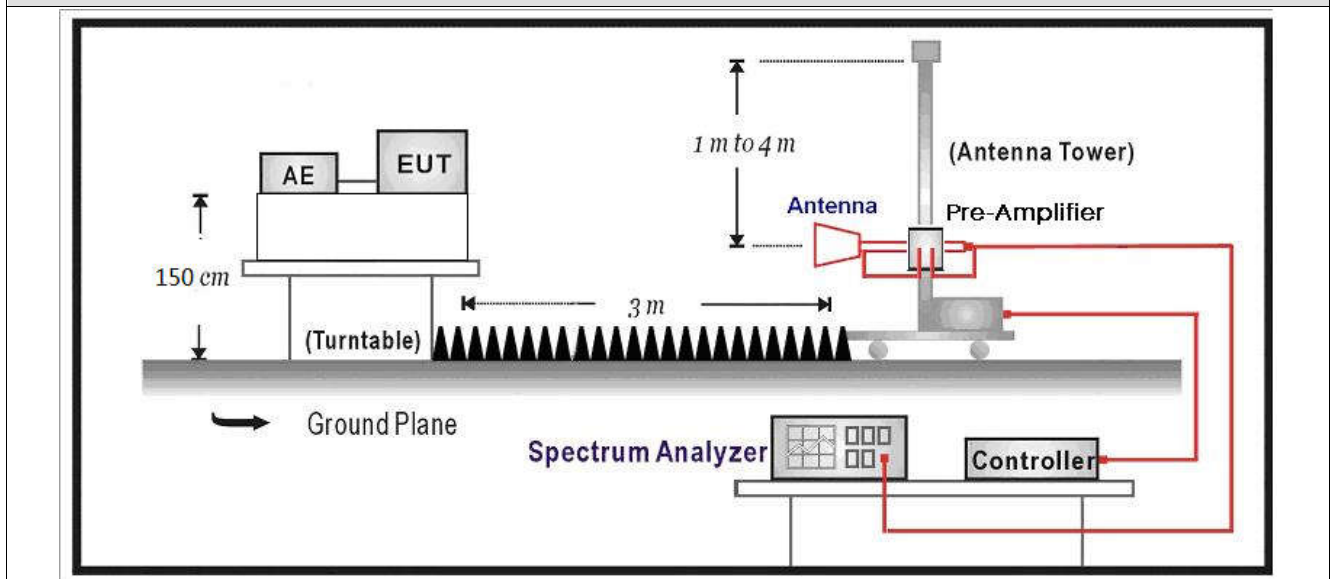
6. Radiated Emission Band Edge

6.1. Test Equipment

Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Receiver	Agilent	N9038A	MY51210196	2016.07.16	2017.07.16
Pre-Amplifier	Miteq	NSP1800-25	1364185	2016.05.03	2017.05.03
DRG Horn Antenna	ETS-Lindgren	3117	00167055	2016.07.12	2017.07.12
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.09.18	2017.09.18
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.02.28	2017.02.28
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.02.28	2017.02.28
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.05	2017.01.05
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

6.2. Test Setup

Above 1GHz Test Setup:



6.3. Limit

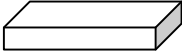
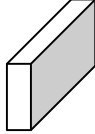
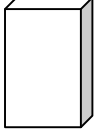
Band edge Limit				
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

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

6.4. Test Procedure

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

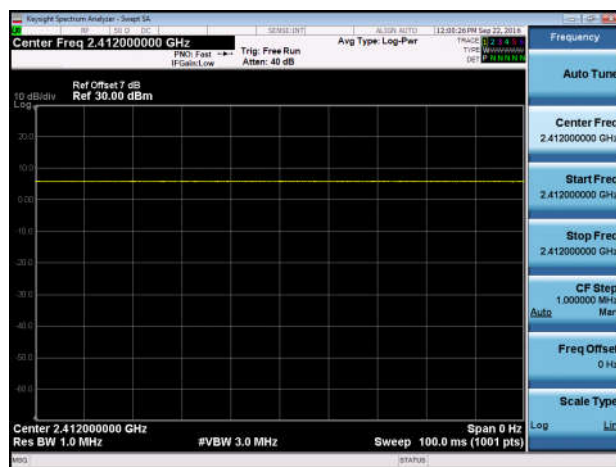
6.5. EUT test definition

Item	Emissions in non-restricted frequency bands			
Device Category	☐	Fixed position use		
	☒	Mobile position use		
Test mode	Mode 1~4			
Test method	☒	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☒
	☐	Conducted		
	☐	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

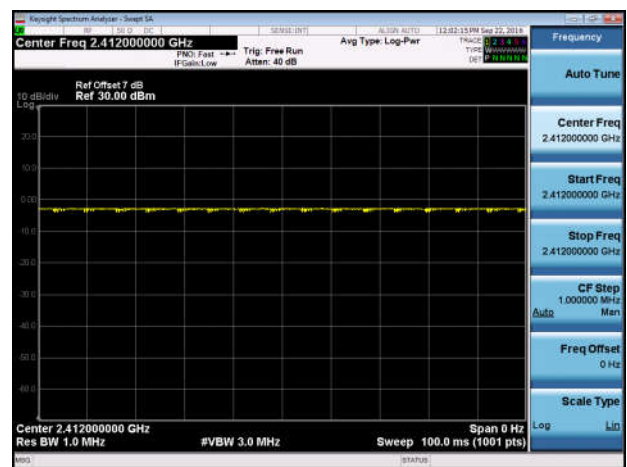
6.6. Duty Cycle

Test Mode	Tx On (ms)	Tx Off (ms)	VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle (%)
802.11b	--	--	10	--	100
802.11g	--	--	10	--	100
802.11n(20MHz)	--	--	10	--	100
802.11n(40MHz)	--	--	10	--	100

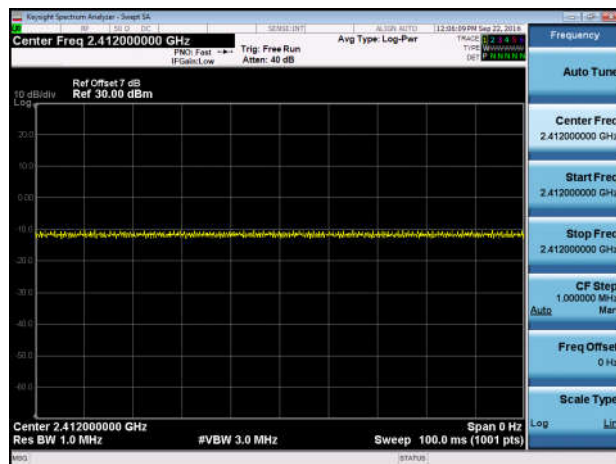
802.11b



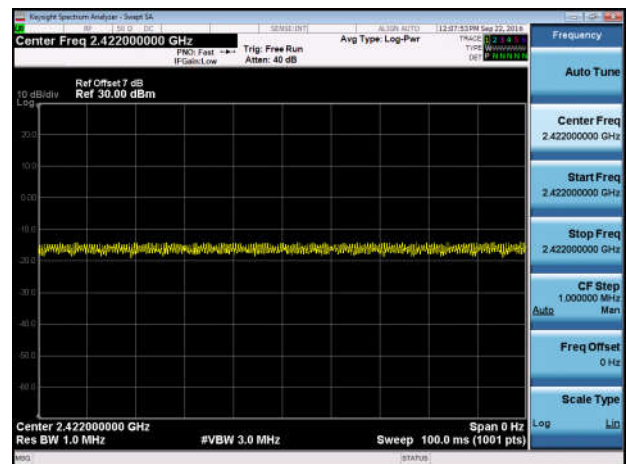
802.11g



802.11n(20MHz)

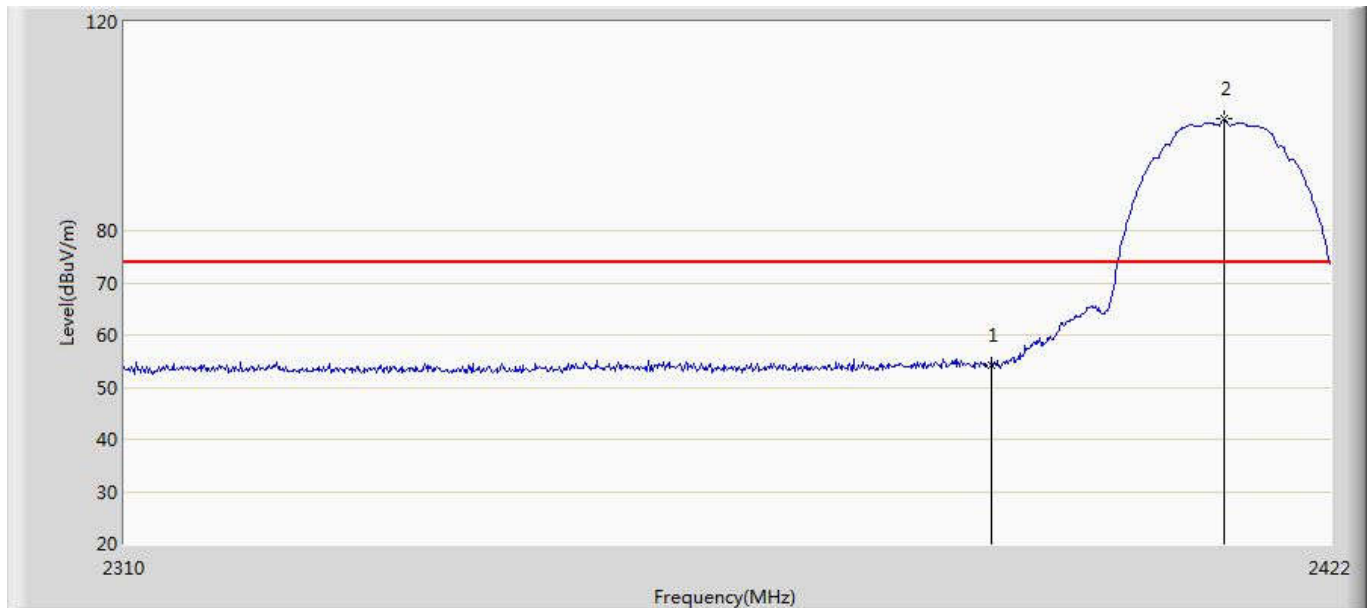


802.11n(40MHz)



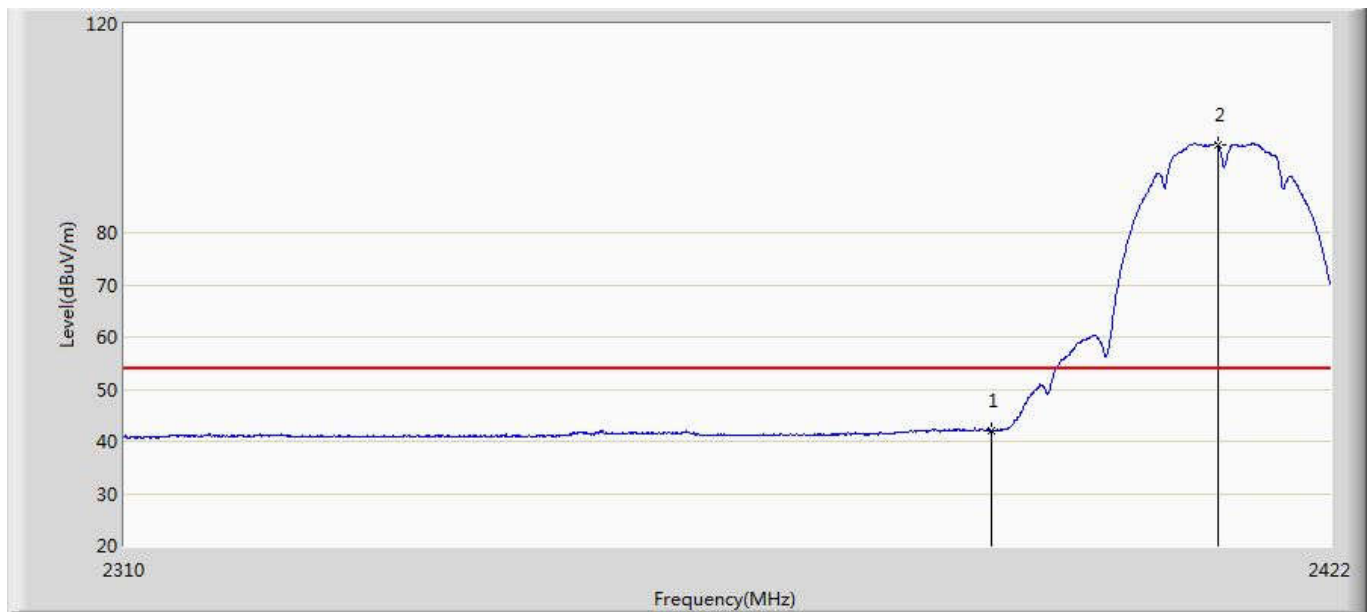
6.7. Test Result

Profile: 1682009R	Page No.: 1
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 09:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 1	



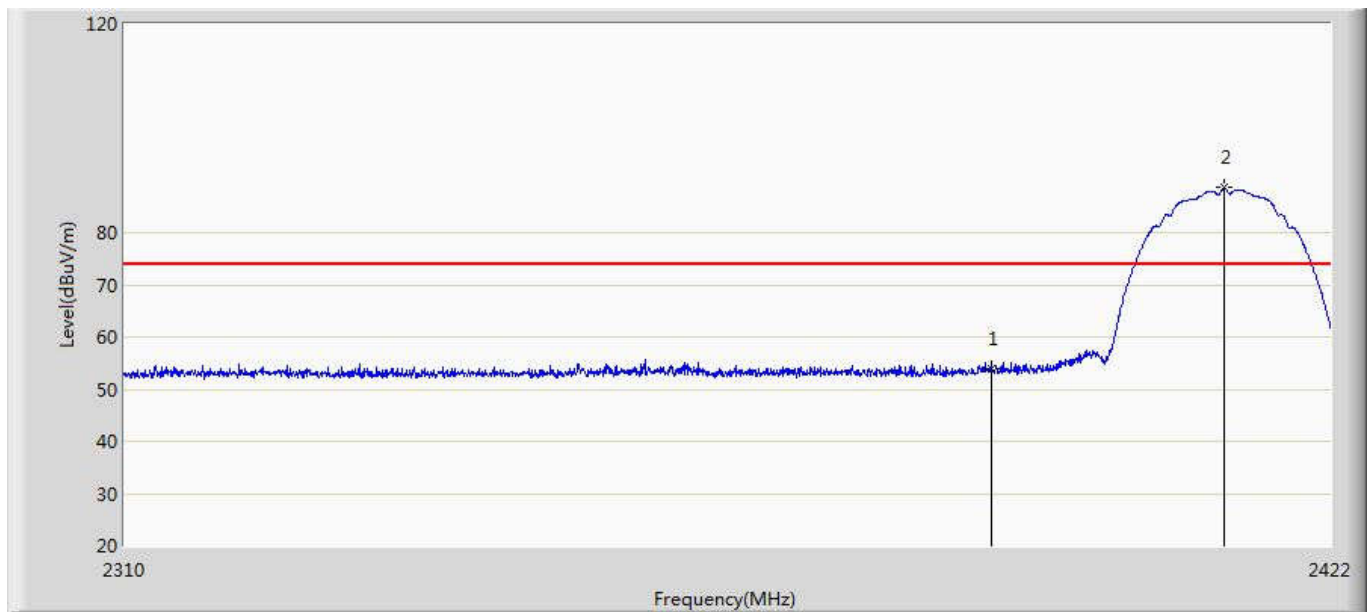
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.335	18.653	-19.665	74.000	35.682	PK
2	*	2411.920	101.541	65.800	N/A	N/A	35.741	PK

Profile: 1682009R	Page No.: 2
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 1	



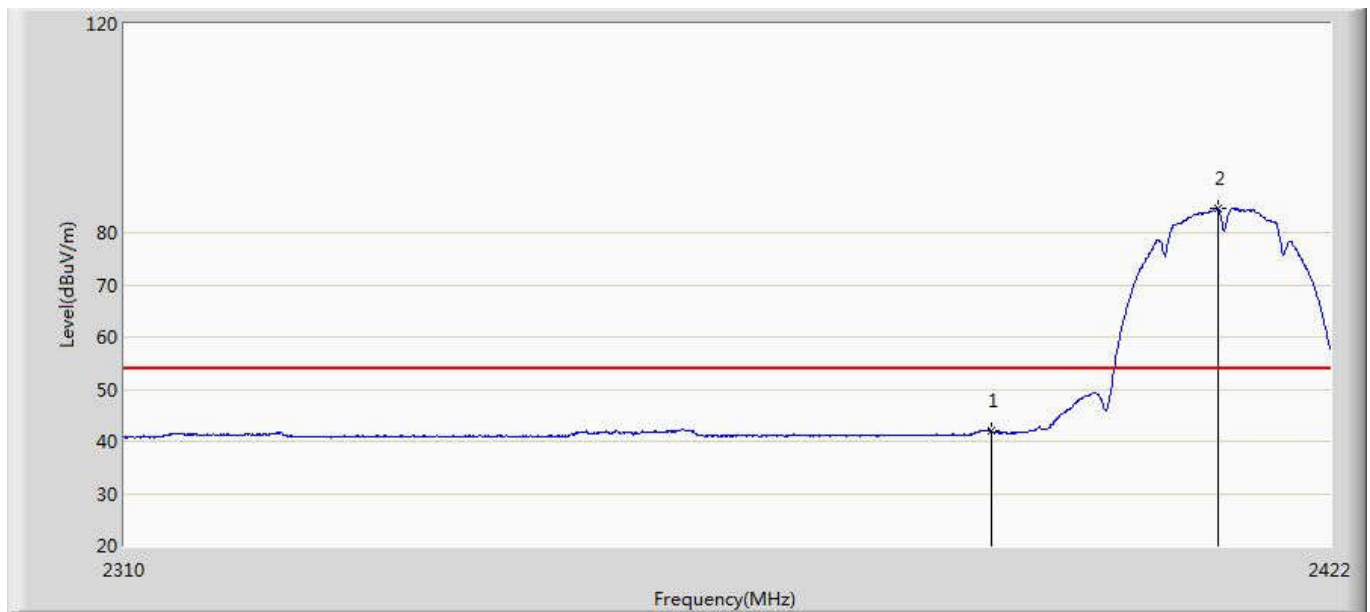
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.120	6.438	-11.880	54.000	35.682	AV
2	*	2411.360	96.916	61.177	N/A	N/A	35.738	AV

Profile: 1682009R	Page No.: 3
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 1	



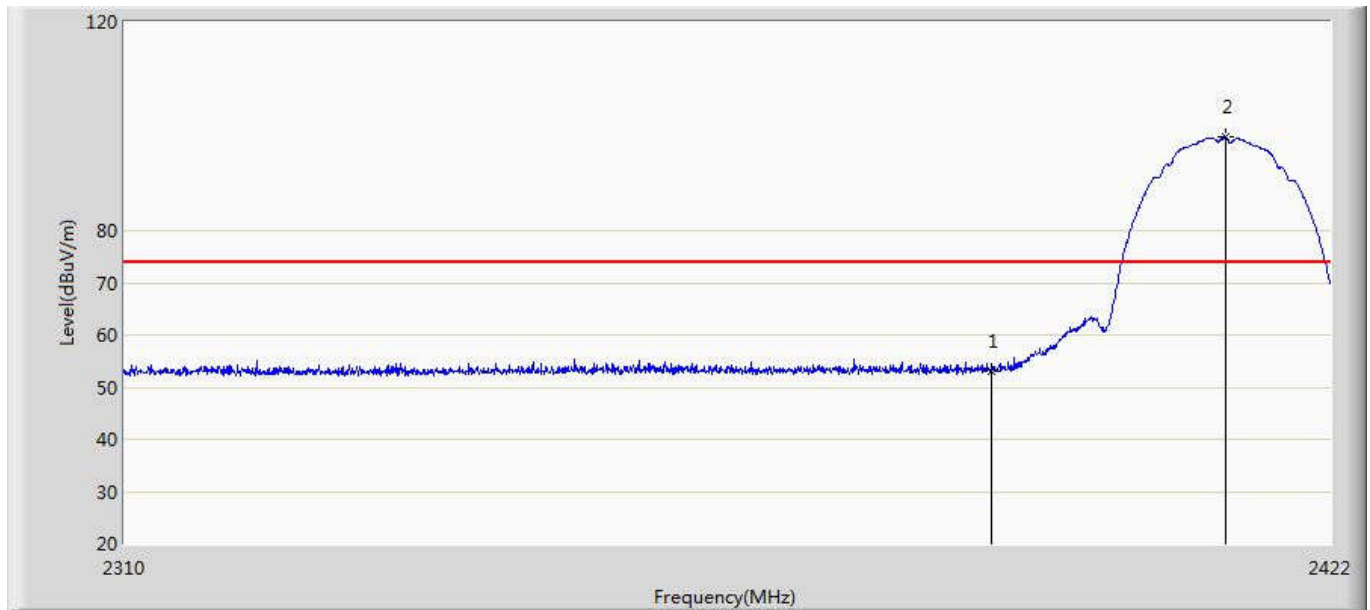
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.930	18.248	-20.070	74.000	35.682	PK
2	*	2411.976	88.567	52.826	N/A	N/A	35.741	PK

Profile: 1682009R	Page No.: 4
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 1	



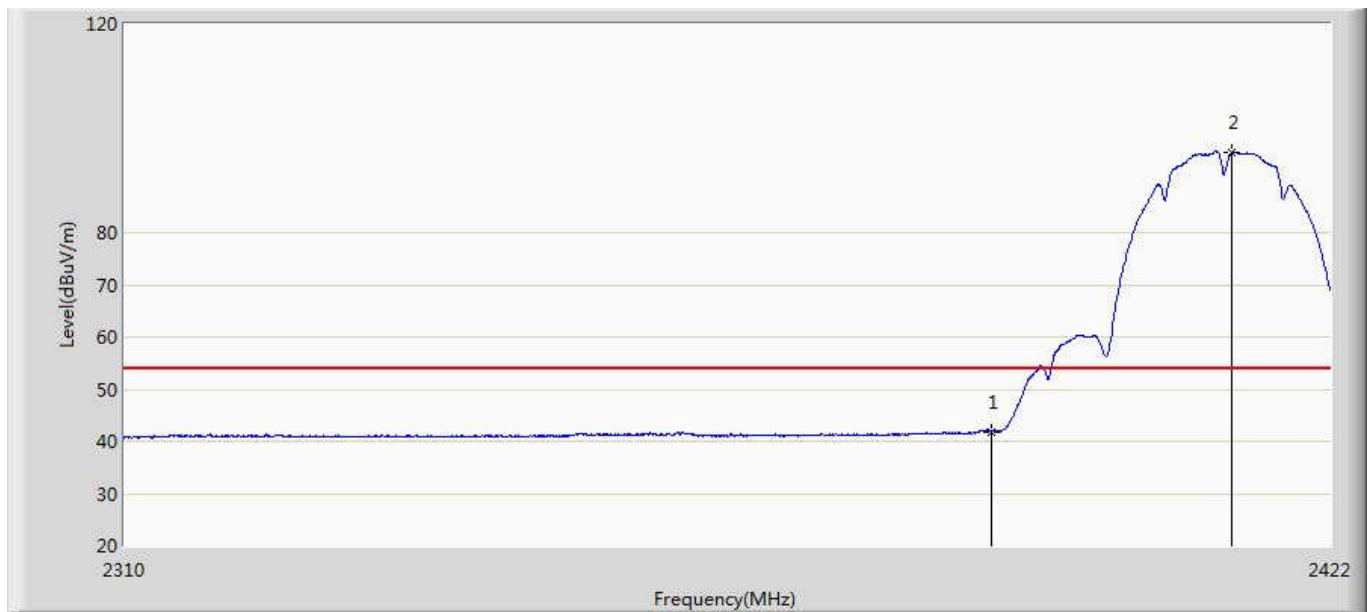
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.885	6.203	-12.115	54.000	35.682	AV
2	*	2411.360	84.603	48.864	N/A	N/A	35.738	AV

Profile: 1682009R	Page No.: 5
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 2	



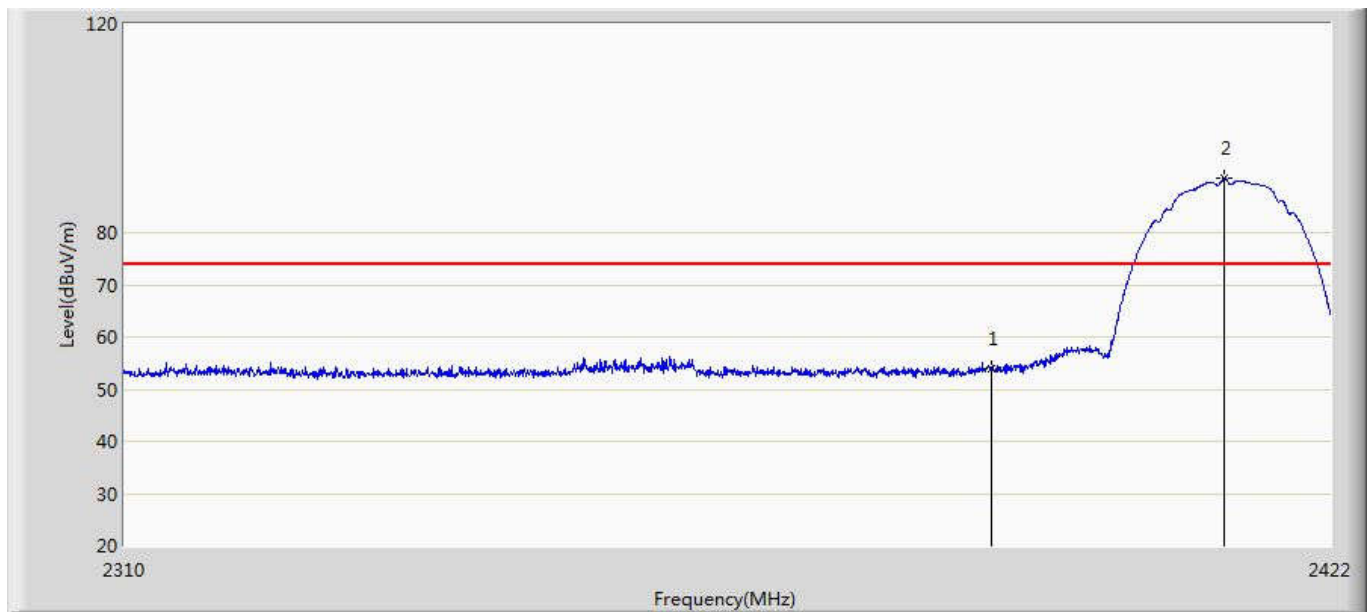
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.185	17.503	-20.815	74.000	35.682	PK
2	*	2412.088	97.894	62.152	N/A	N/A	35.741	PK

Profile: 1682009R	Page No.: 6
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 2	



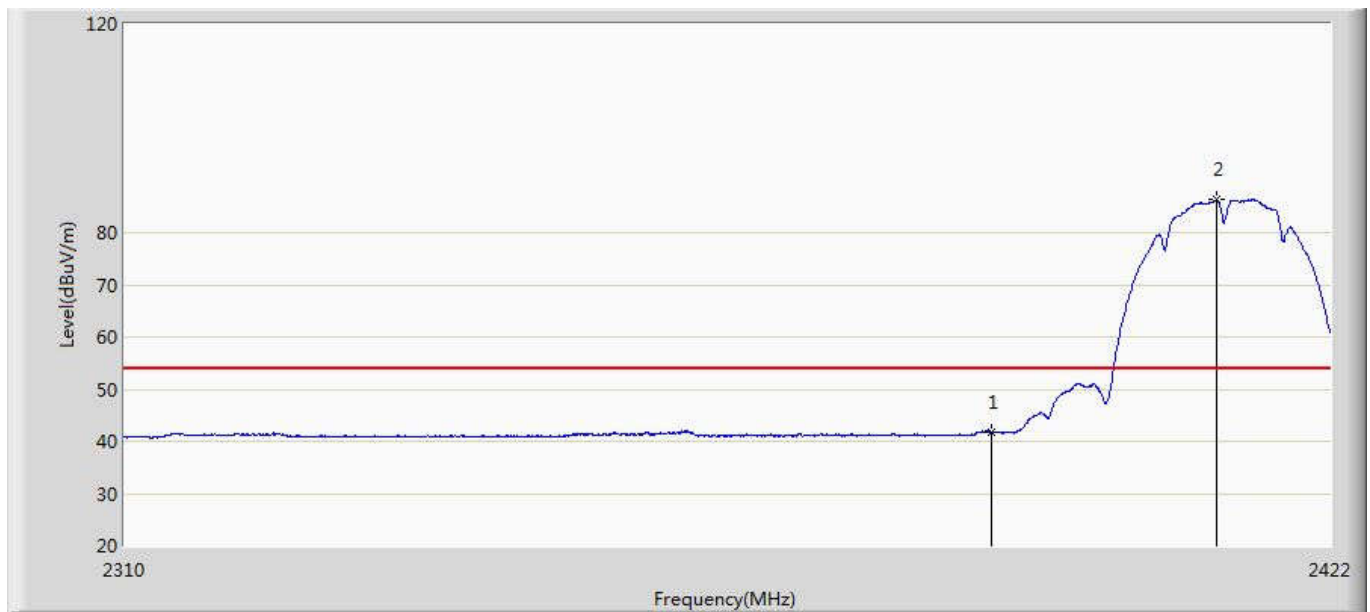
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.876	6.194	-12.124	54.000	35.682	AV
2	*	2412.648	95.330	59.586	N/A	N/A	35.744	AV

Profile: 1682009R	Page No.: 7
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 2	



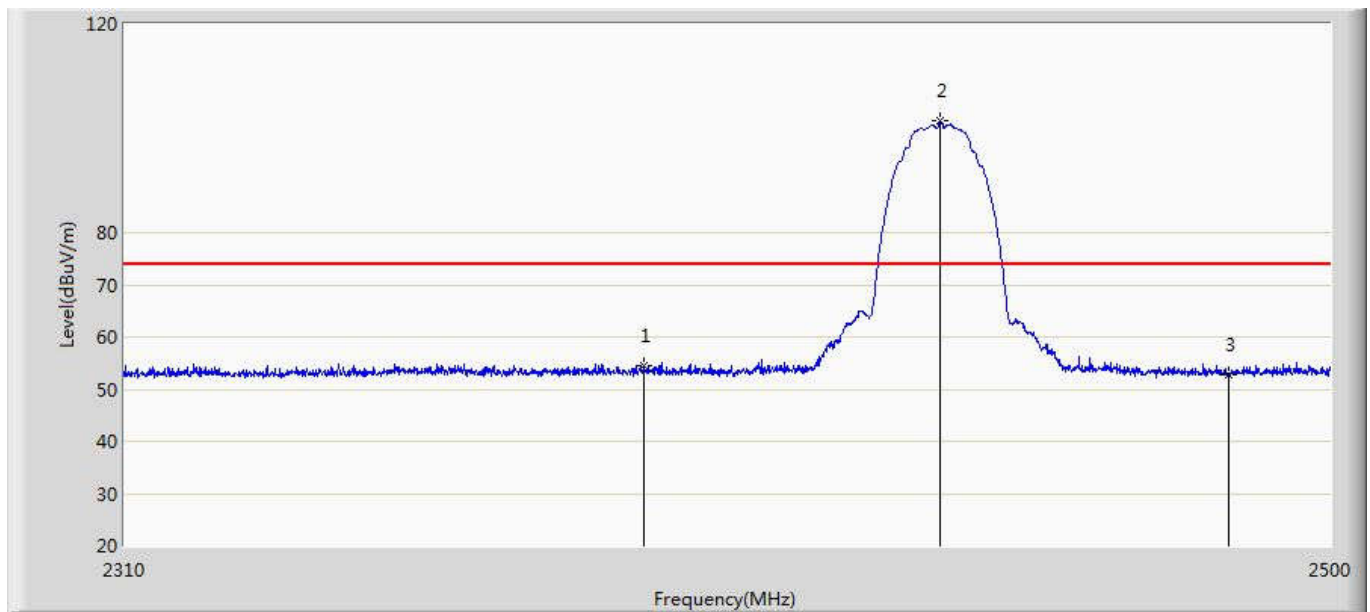
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.789	18.107	-20.211	74.000	35.682	PK
2	*	2411.920	90.458	54.717	N/A	N/A	35.741	PK

Profile: 1682009R	Page No.: 8
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 b with antenna 2	



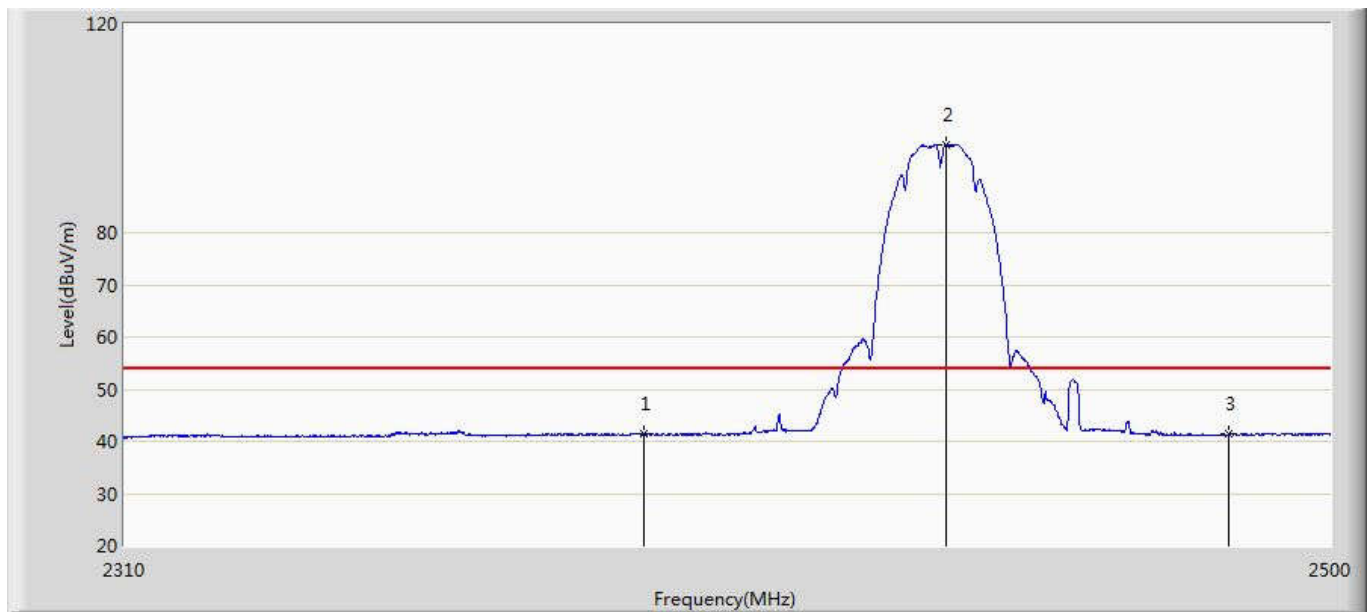
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.827	6.145	-12.173	54.000	35.682	AV
2	*	2411.248	86.321	50.583	N/A	N/A	35.738	AV

Profile: 1682009R	Page No.: 9
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 1	



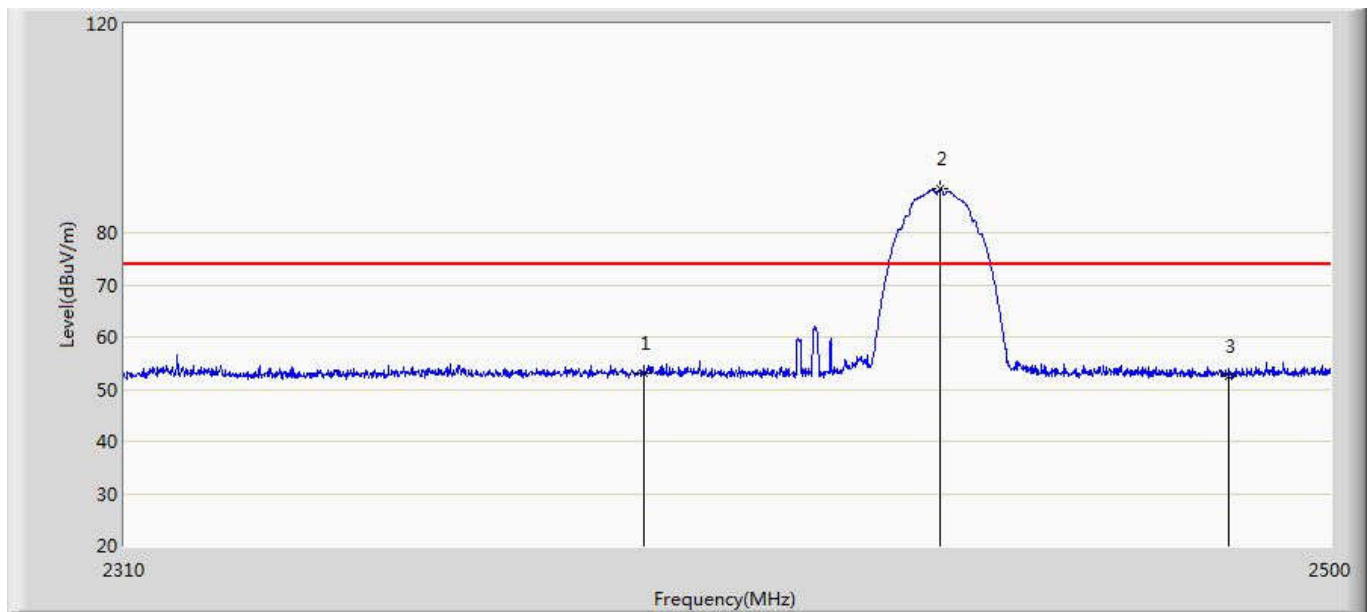
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.393	18.711	-19.607	74.000	35.682	PK
2	*	2437.015	101.520	65.714	N/A	N/A	35.806	PK
3		2483.500	52.730	16.838	-21.270	74.000	35.891	PK

Profile: 1682009R	Page No.: 10
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 1	



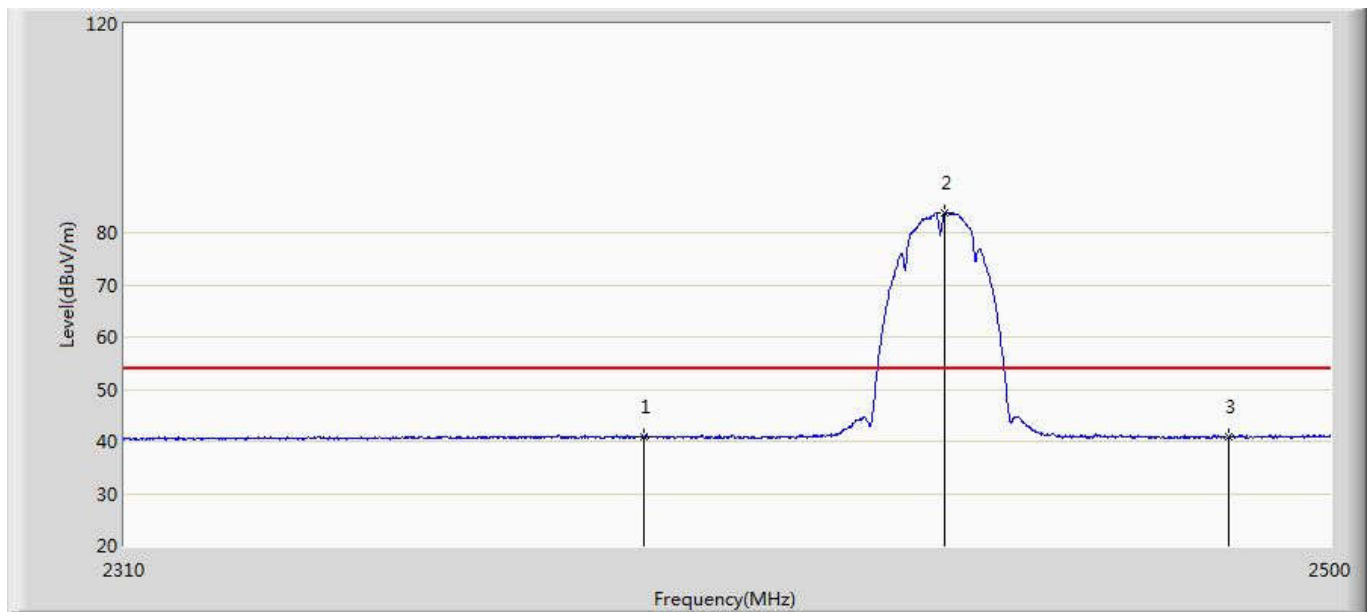
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.406	5.724	-12.594	54.000	35.682	AV
2	*	2437.870	96.797	60.991	N/A	N/A	35.806	AV
3		2483.500	41.310	5.418	-12.690	54.000	35.891	AV

Profile: 1682009R	Page No.: 11
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 1	



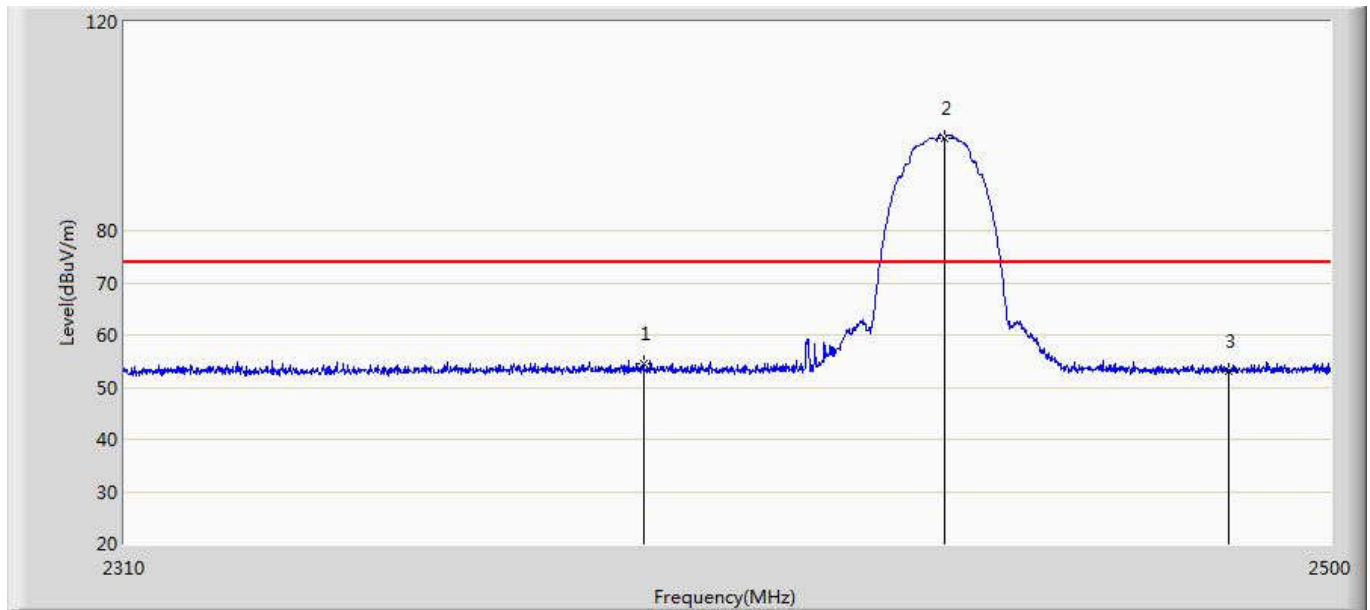
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.908	17.226	-21.092	74.000	35.682	PK
2	*	2437.015	88.357	52.551	N/A	N/A	35.806	PK
3		2483.500	52.533	16.641	-21.467	74.000	35.891	PK

Profile: 1682009R	Page No.: 12
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 1	



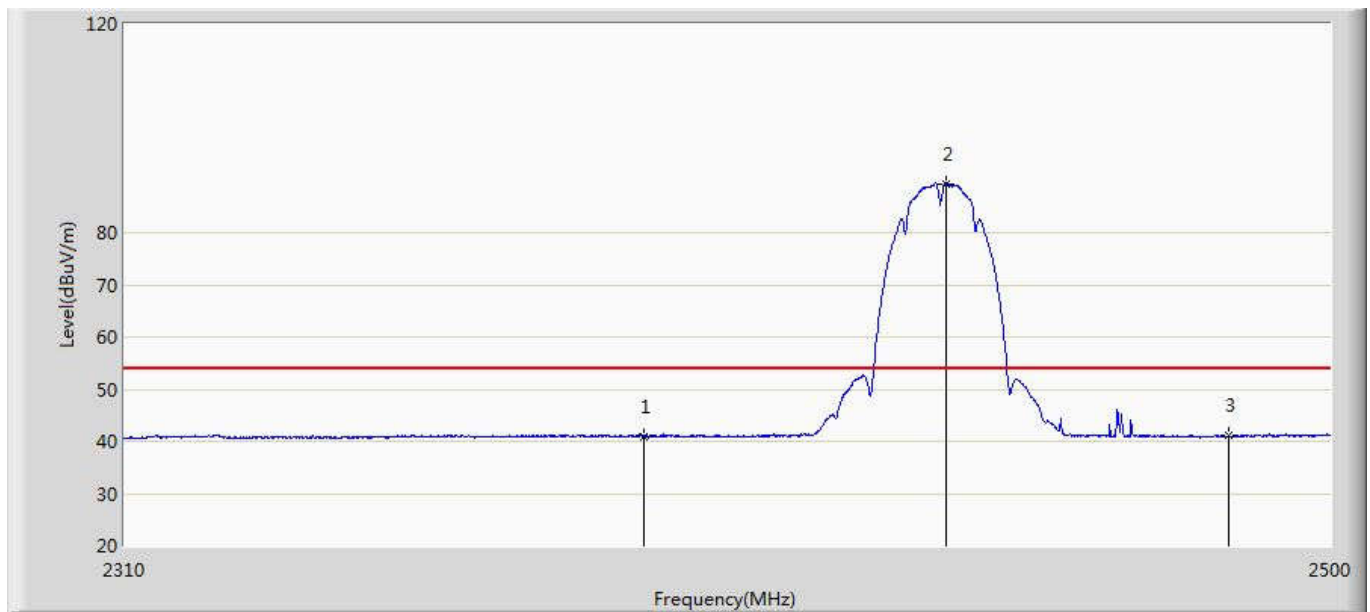
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.776	5.094	-13.224	54.000	35.682	AV
2	*	2437.680	83.879	48.073	N/A	N/A	35.806	AV
3		2483.500	40.736	4.844	-13.264	54.000	35.891	AV

Profile: 1682009R	Page No.: 13
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 2	



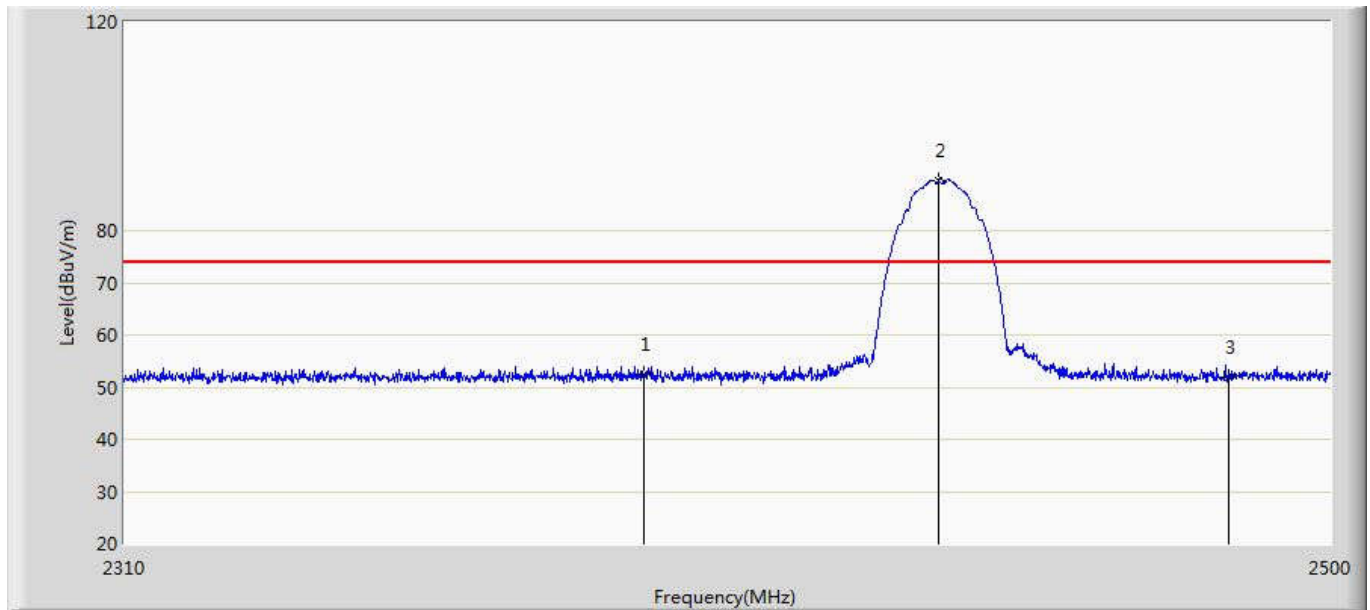
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.586	18.904	-19.414	74.000	35.682	PK
2	*	2437.703	97.747	61.941	N/A	N/A	35.805	PK
3		2483.500	53.061	17.169	-20.939	74.000	35.891	PK

Profile: 1682009R	Page No.: 14
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 2	



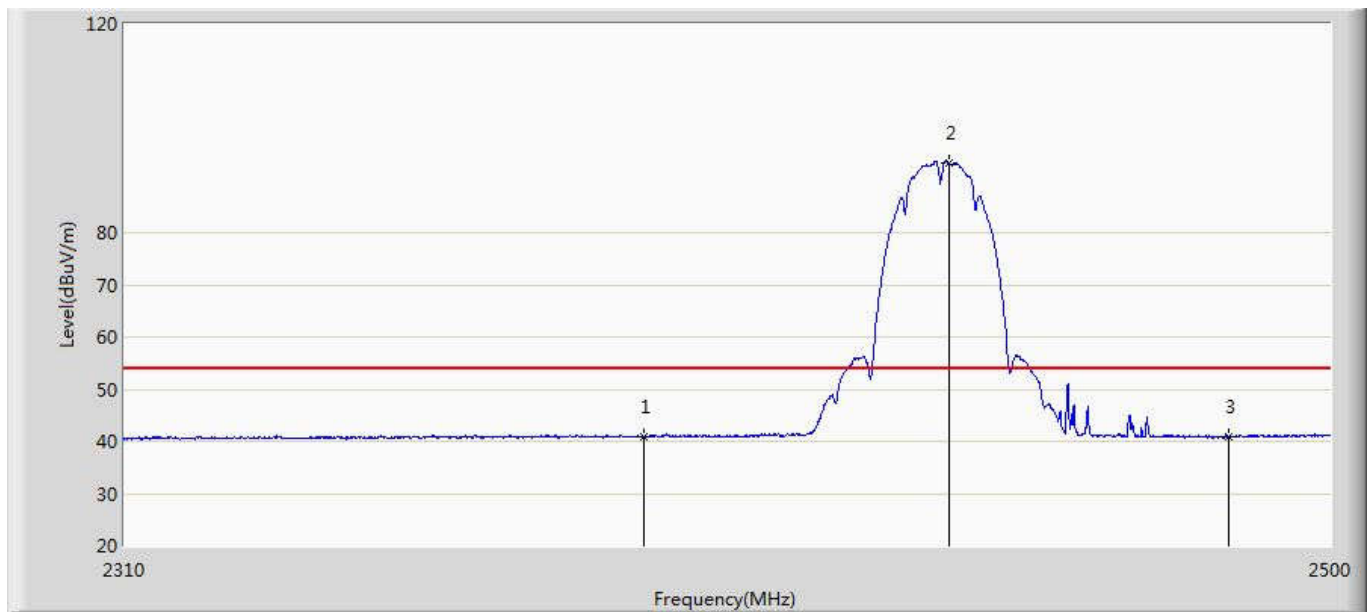
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.892	5.210	-13.108	54.000	35.682	AV
2	*	2437.870	89.381	53.575	N/A	N/A	35.806	AV
3		2483.500	41.018	5.126	-12.982	54.000	35.891	AV

Profile: 1682009R	Page No.: 15
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 2	



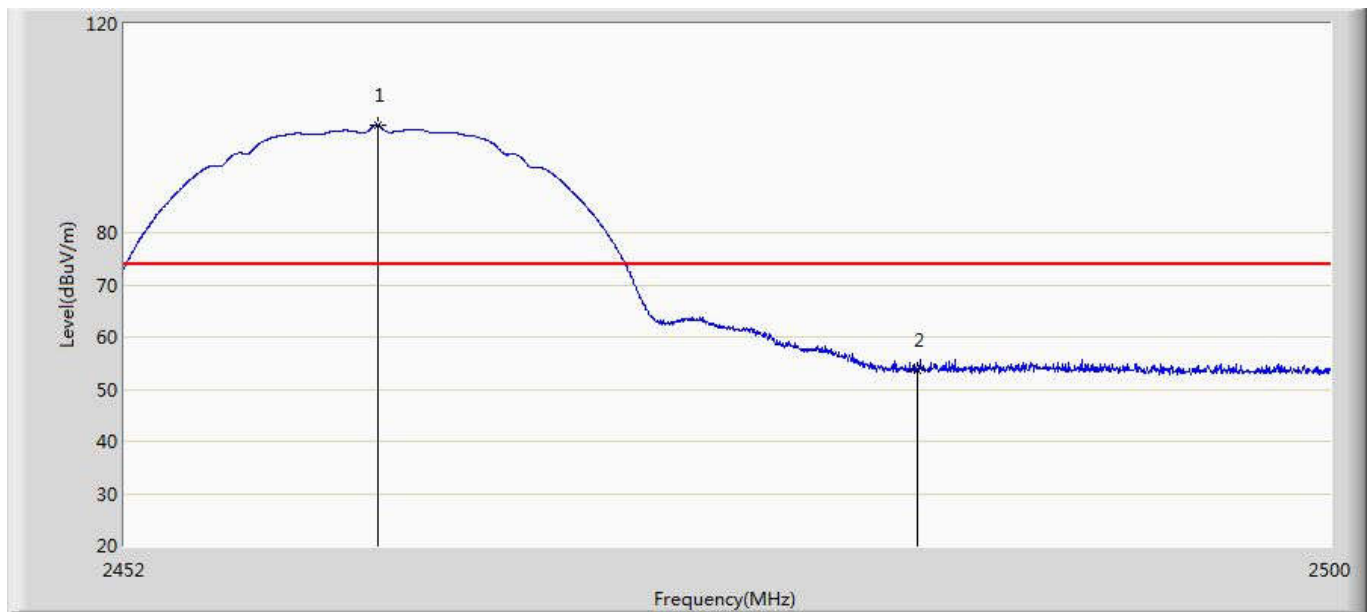
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.333	16.651	-21.667	74.000	35.682	PK
2	*	2436.730	89.662	53.856	N/A	N/A	35.806	PK
3		2483.500	51.949	16.057	-22.051	74.000	35.891	PK

Profile: 1682009R	Page No.: 16
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 b with antenna 2	



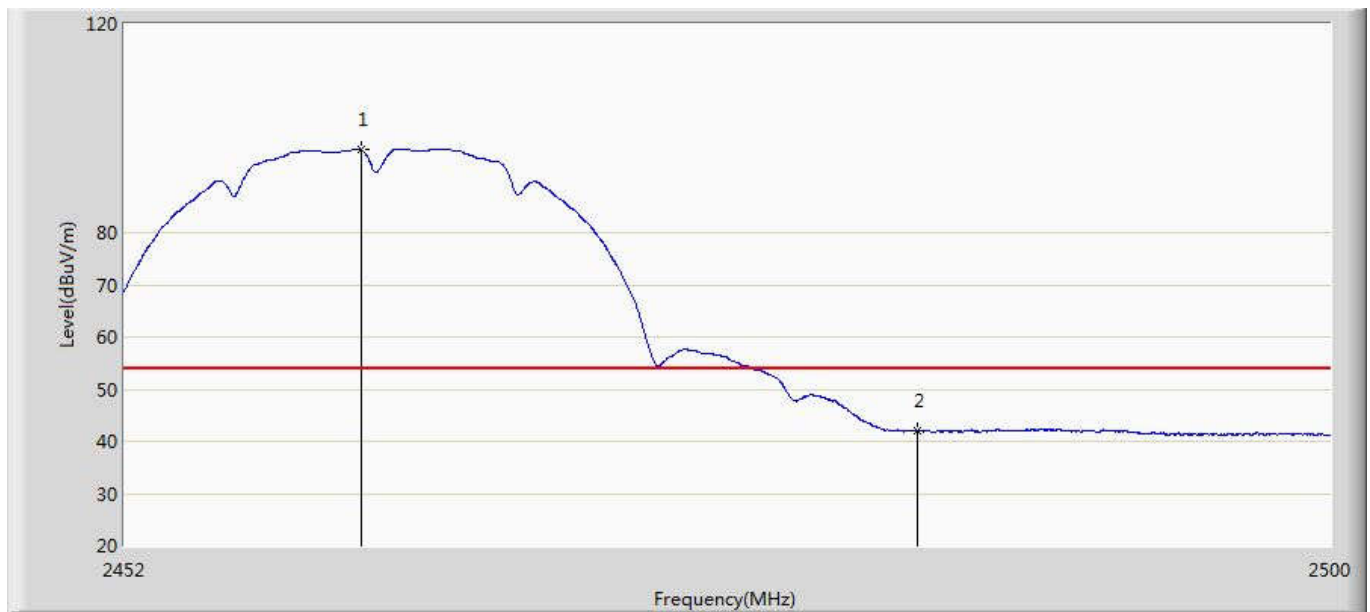
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.912	5.230	-13.088	54.000	35.682	AV
2	*	2438.250	93.393	57.587	N/A	N/A	35.806	AV
3		2483.500	40.774	4.882	-13.226	54.000	35.891	AV

Profile: 1682009R	Page No.: 17
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 1	



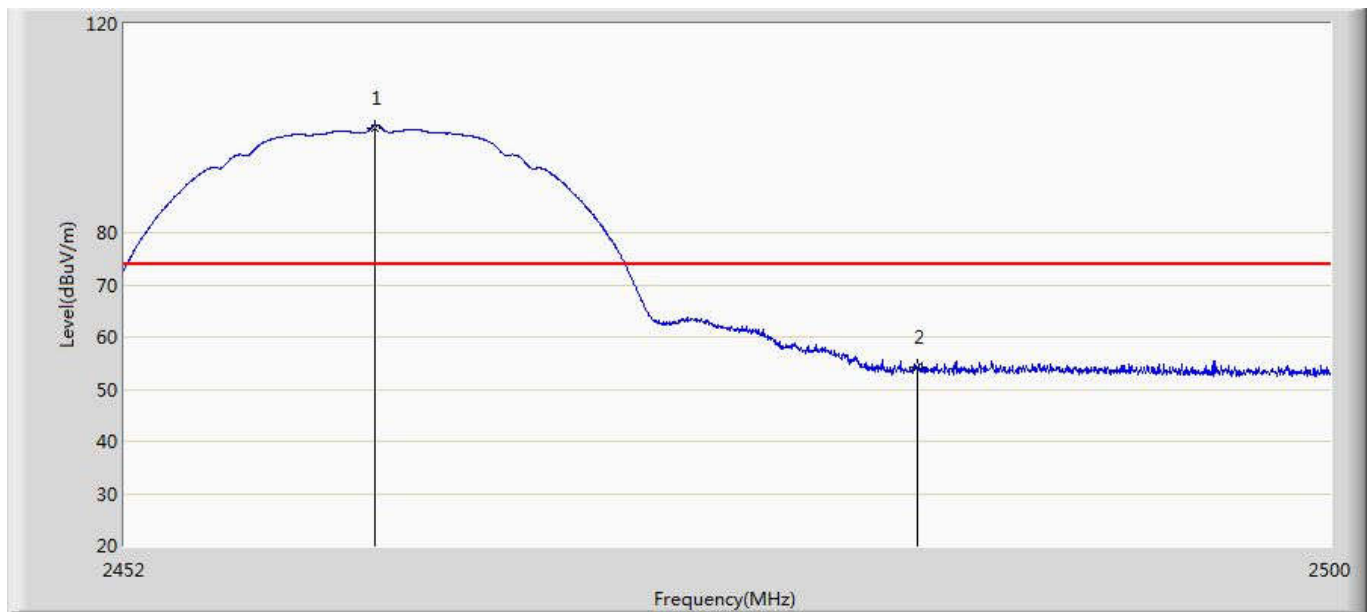
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.032	100.620	64.742	N/A	N/A	35.878	PK
2		2483.500	53.699	17.807	-20.301	74.000	35.891	PK

Profile: 1682009R	Page No.: 18
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 1	



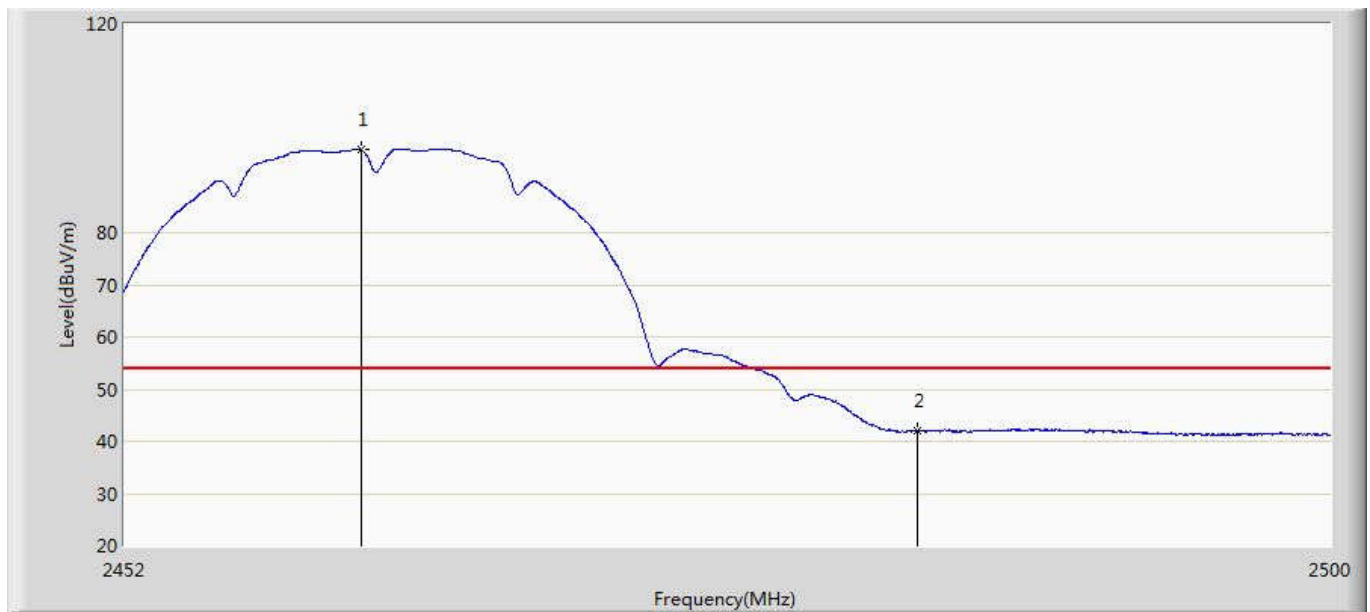
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.360	95.952	60.077	N/A	N/A	35.875	AV
2		2483.500	41.989	6.097	-12.011	54.000	35.891	AV

Profile: 1682009R	Page No.: 19
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 1	



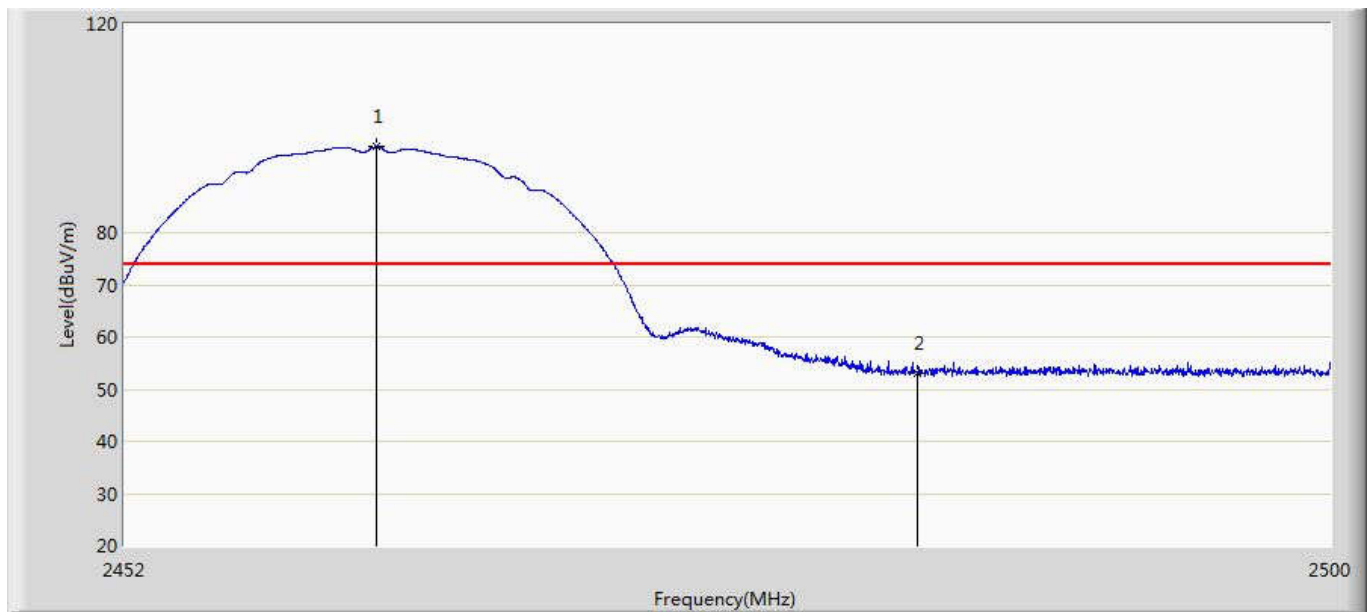
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.936	100.088	64.210	N/A	N/A	35.878	PK
2		2483.500	54.184	18.292	-19.816	74.000	35.891	PK

Profile: 1682009R	Page No.: 20
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 10:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 1	



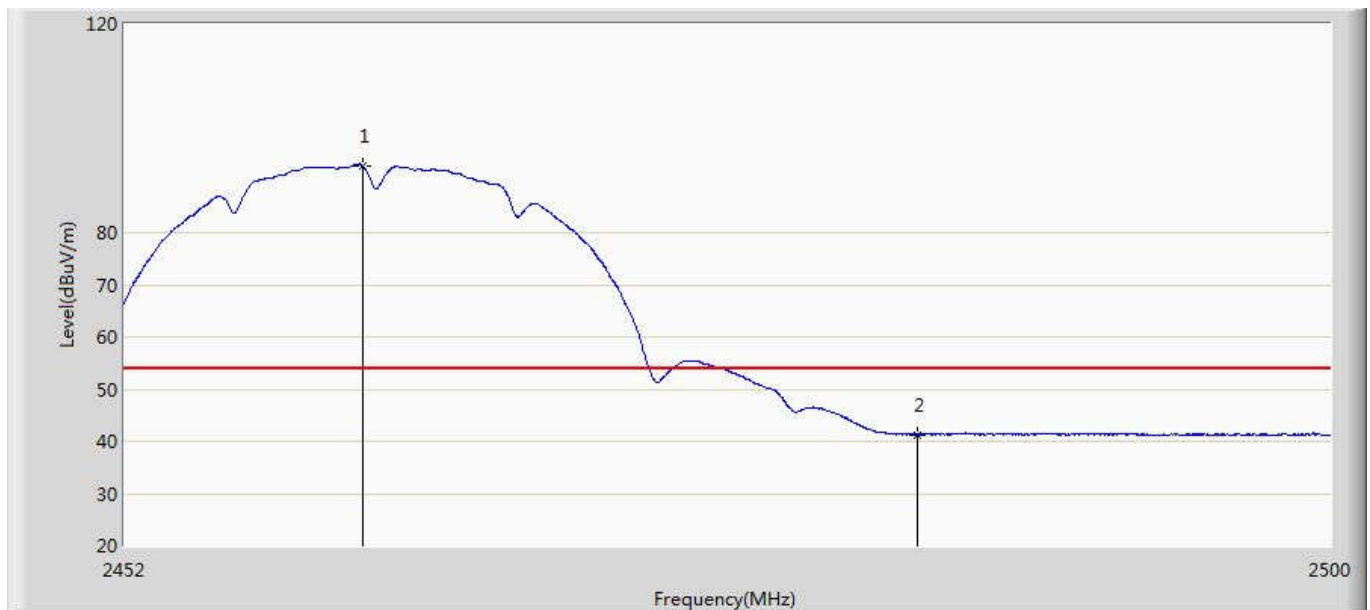
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.360	95.948	60.073	N/A	N/A	35.875	AV
2		2483.500	42.138	6.246	-11.862	54.000	35.891	AV

Profile: 1682009R	Page No.: 21
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 2	



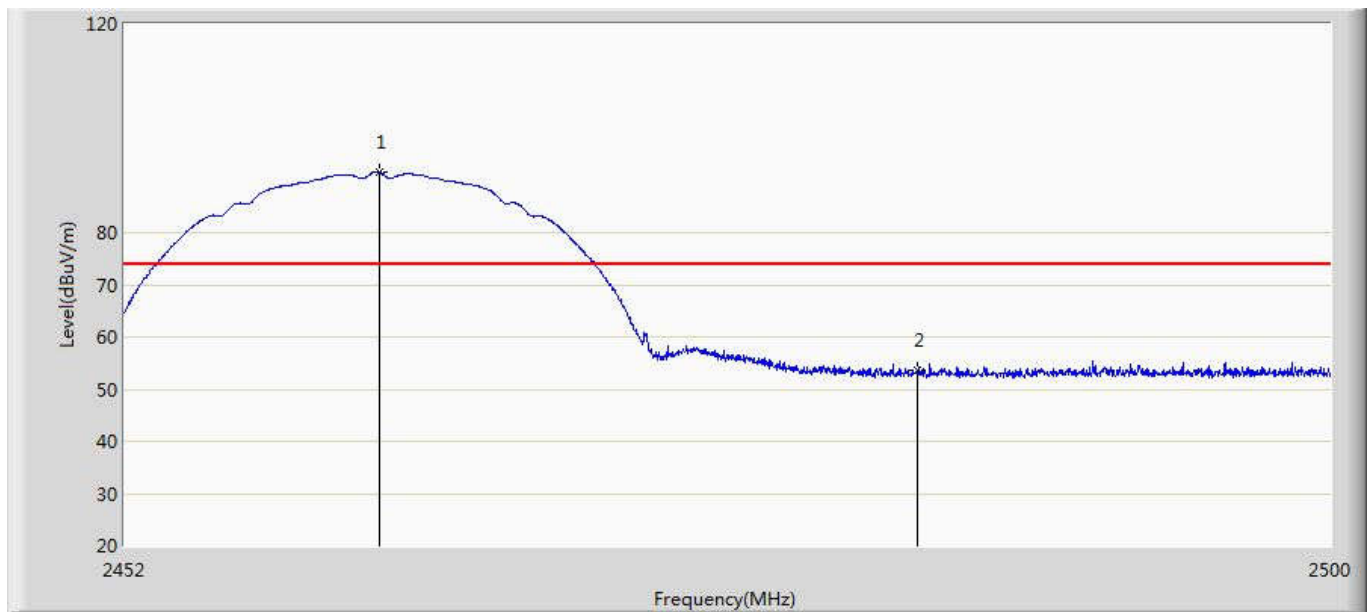
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.960	96.426	60.548	N/A	N/A	35.878	PK
2		2483.500	53.146	17.254	-20.854	74.000	35.891	PK

Profile: 1682009R	Page No.: 22
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 2	



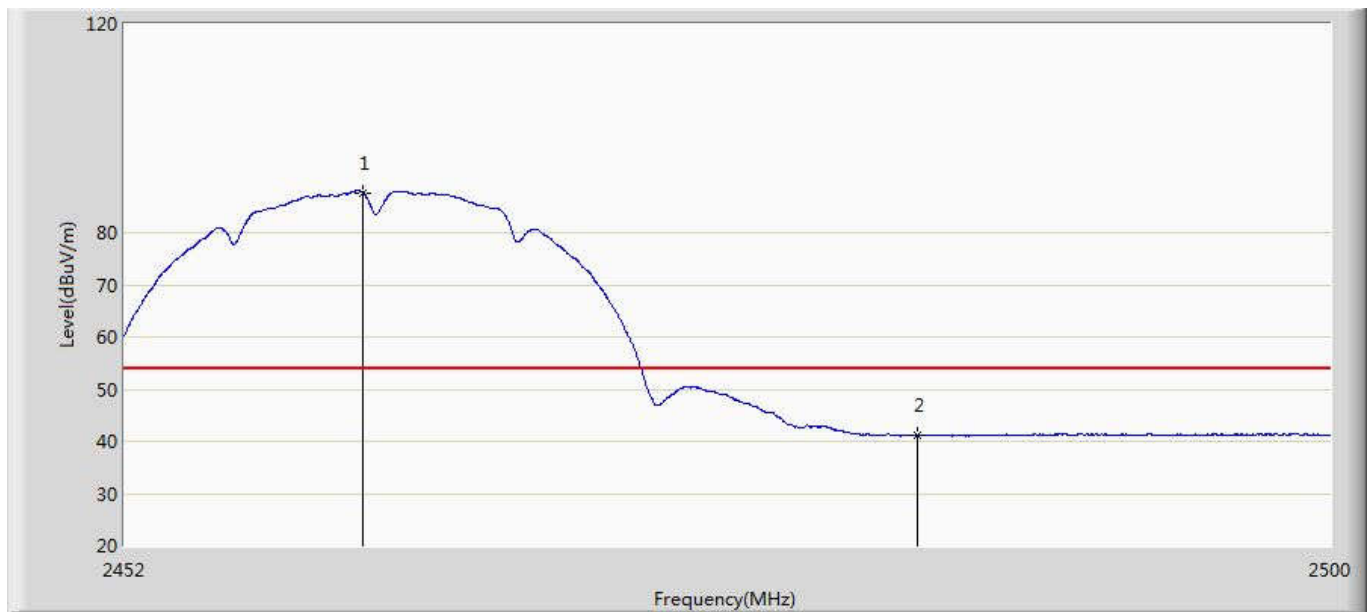
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.432	92.672	56.796	N/A	N/A	35.875	AV
2		2483.500	41.261	5.369	-12.739	54.000	35.891	AV

Profile: 1682009R	Page No.: 23
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 2	



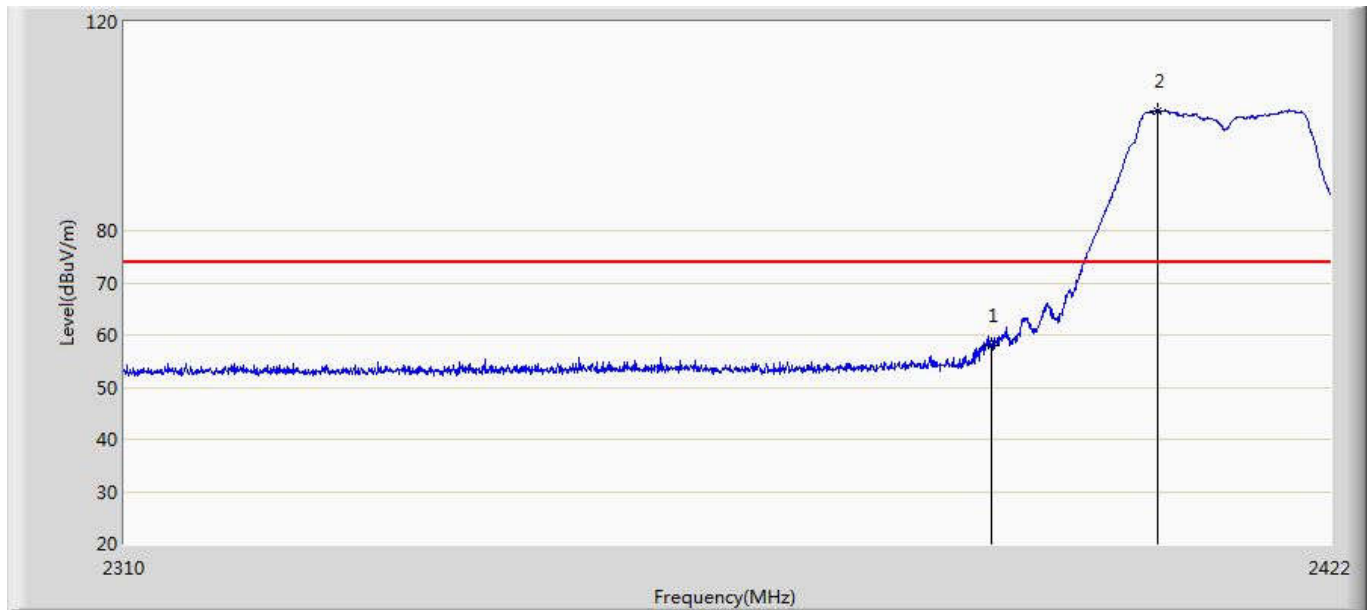
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.104	91.490	55.612	N/A	N/A	35.878	PK
2		2483.500	53.567	17.675	-20.433	74.000	35.891	PK

Profile: 1682009R	Page No.: 24
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 b with antenna 2	



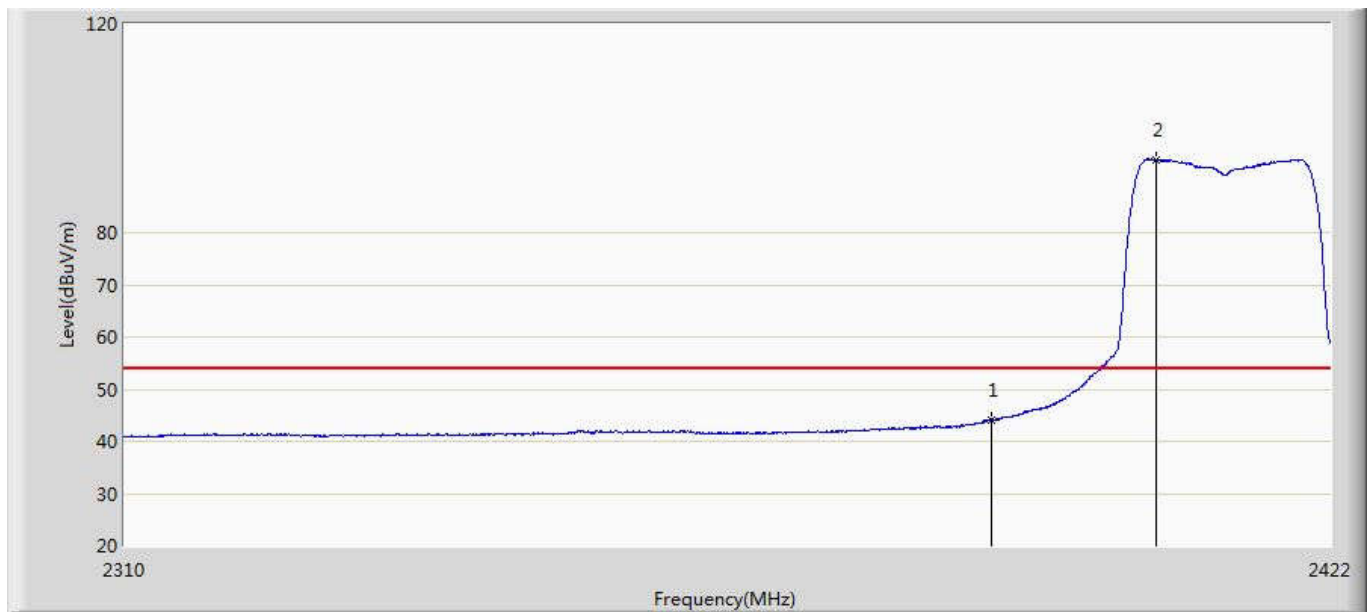
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.432	87.610	51.734	N/A	N/A	35.875	AV
2		2483.500	41.069	5.177	-12.931	54.000	35.891	AV

Profile: 1682009R	Page No.: 25
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 1	



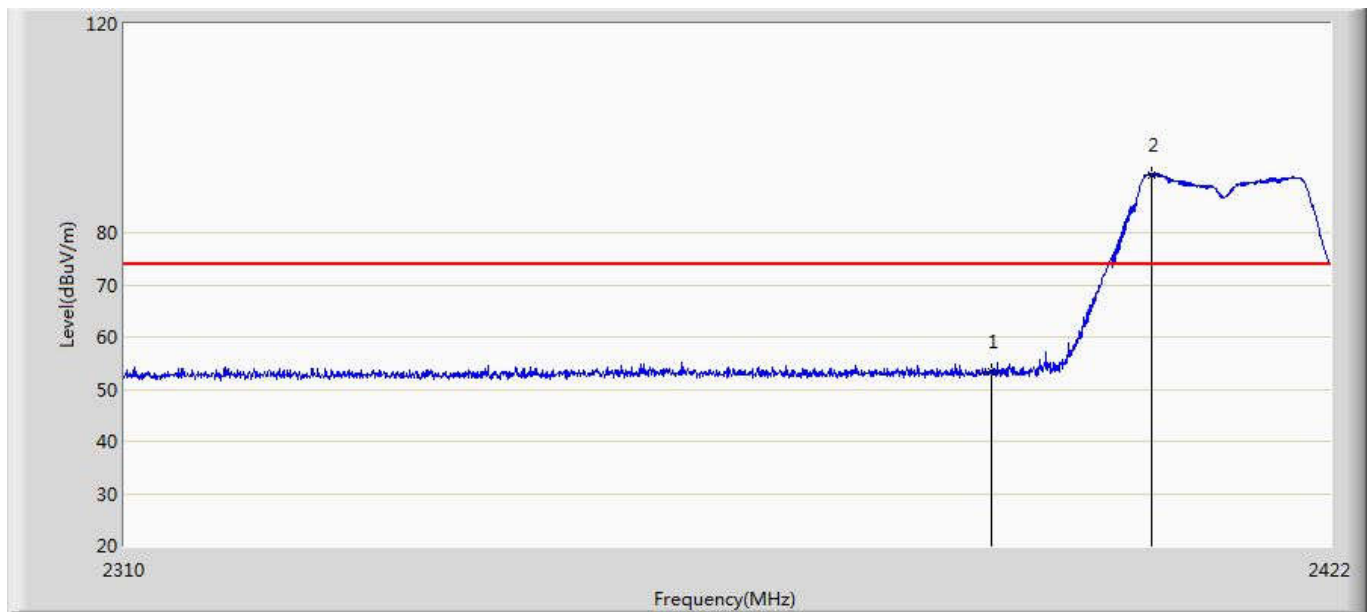
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.997	22.315	-16.003	74.000	35.682	PK
2	*	2405.648	102.944	67.221	N/A	N/A	35.723	PK

Profile: 1682009R	Page No.: 26
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 1	



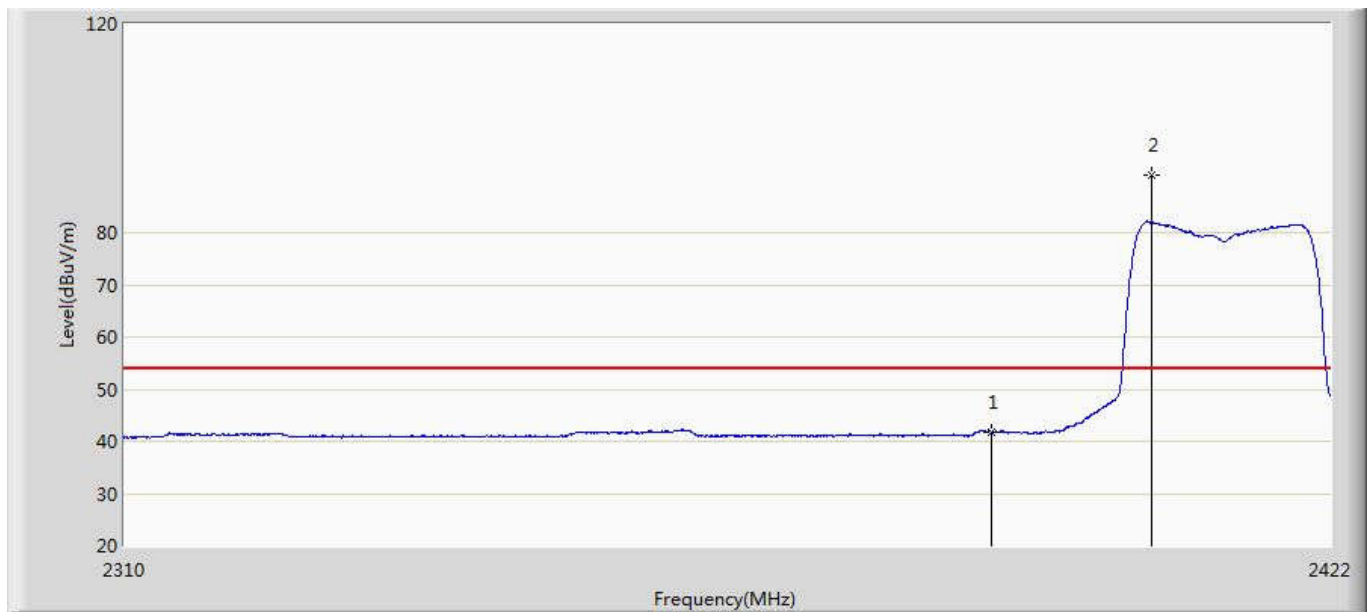
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.090	8.408	-9.910	54.000	35.682	AV
2	*	2405.480	93.992	58.270	N/A	N/A	35.723	AV

Profile: 1682009R	Page No.: 27
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 1	



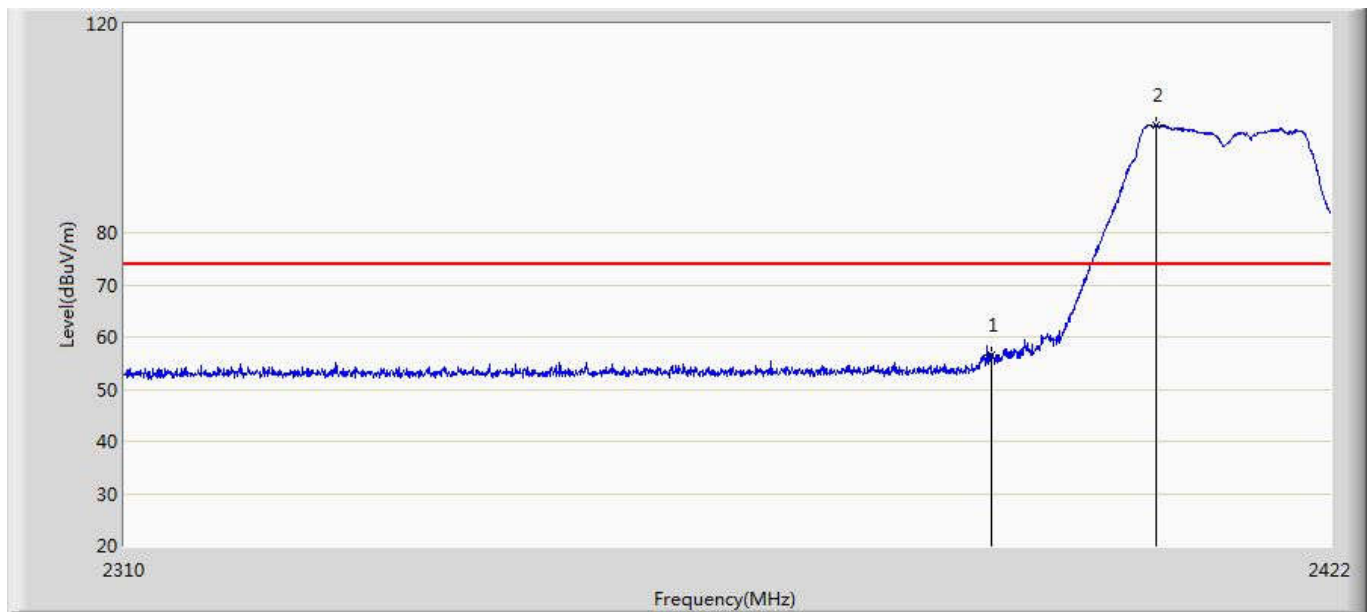
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.432	17.750	-20.568	74.000	35.682	PK
2	*	2405.144	91.086	55.365	N/A	N/A	35.721	PK

Profile: 1682009R	Page No.: 28
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 1	



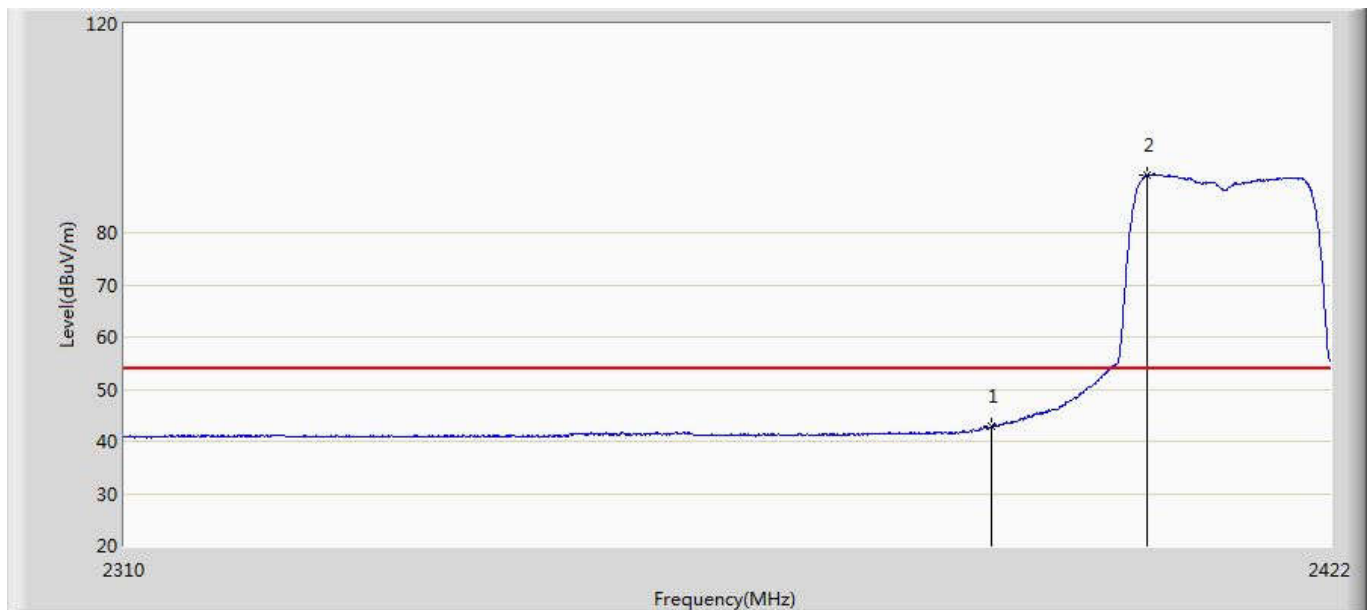
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.779	6.097	-12.221	54.000	35.682	AV
2	*	2405.144	91.086	55.365	N/A	N/A	35.721	AV

Profile: 1682009R	Page No.: 29
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 2	



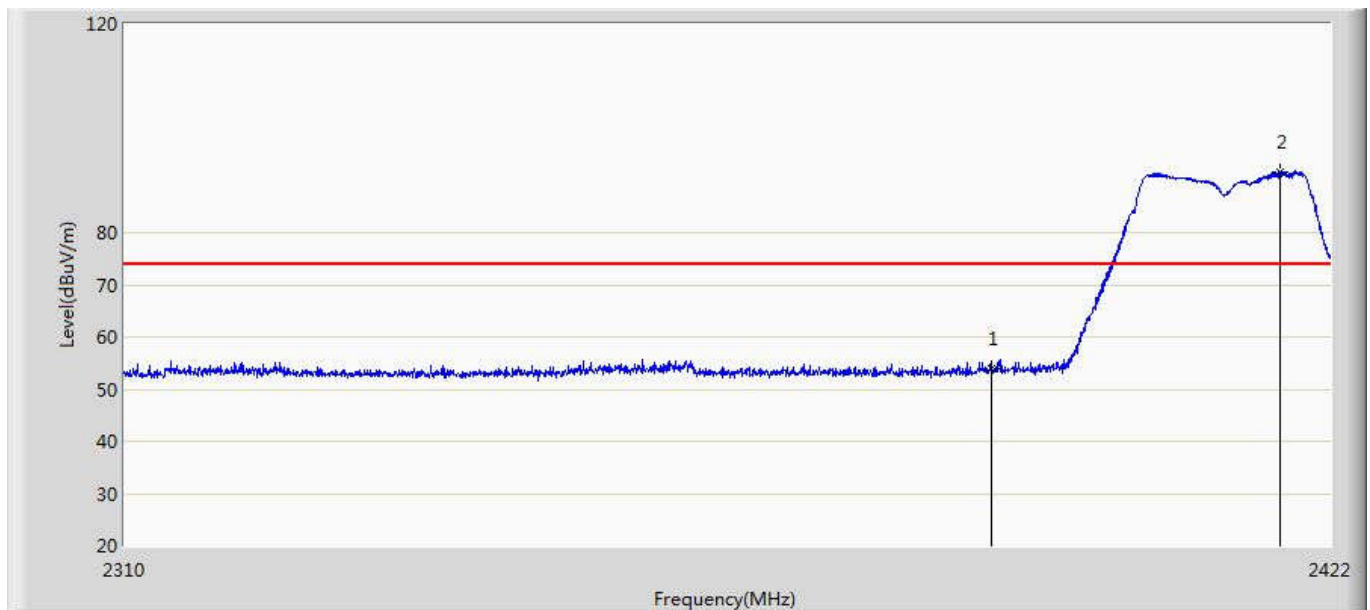
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	56.470	20.788	-17.530	74.000	35.682	PK
2	*	2405.480	100.593	64.871	N/A	N/A	35.723	PK

Profile: 1682009R	Page No.: 30
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 2	



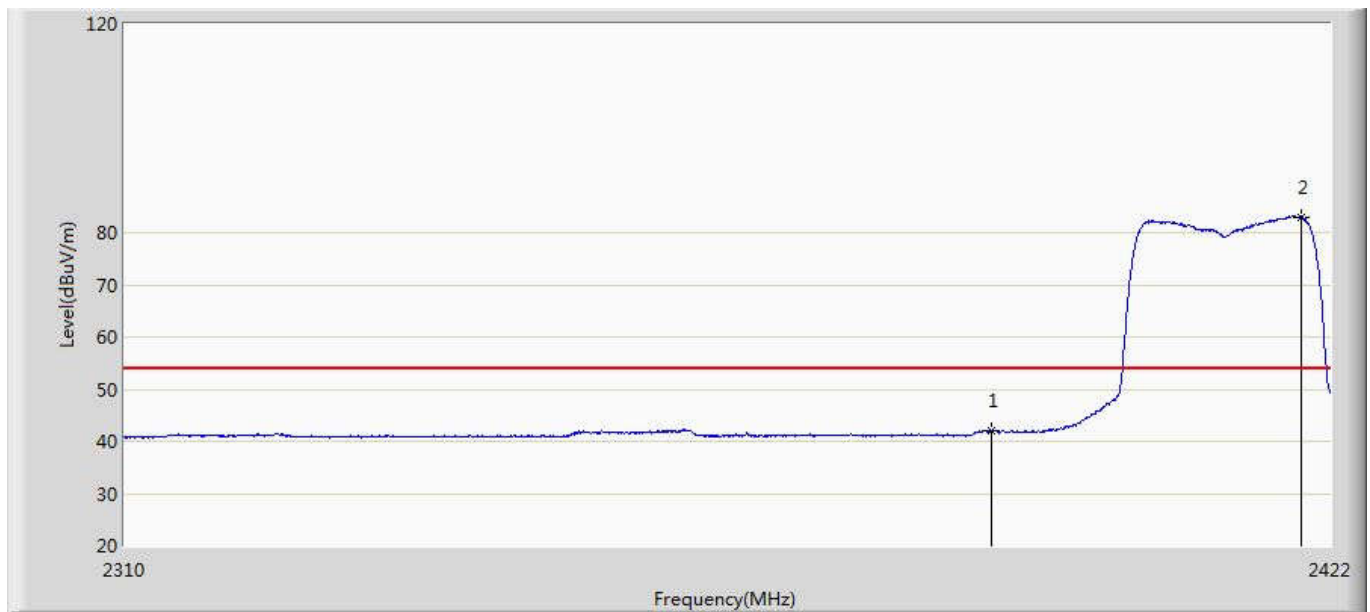
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.802	7.120	-11.198	54.000	35.682	AV
2	*	2404.640	91.035	55.315	N/A	N/A	35.720	AV

Profile: 1682009R	Page No.: 31
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 2	



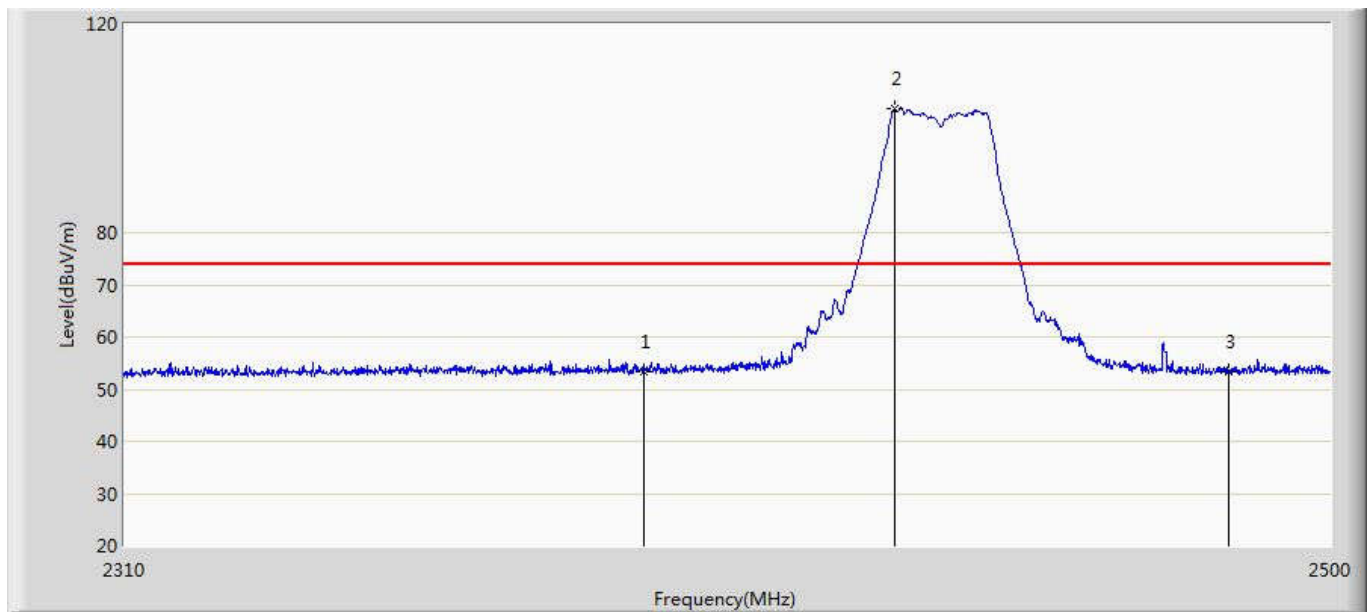
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.951	18.269	-20.049	74.000	35.682	PK
2	*	2417.296	91.621	55.857	N/A	N/A	35.764	PK

Profile: 1682009R	Page No.: 32
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 g with antenna 2	



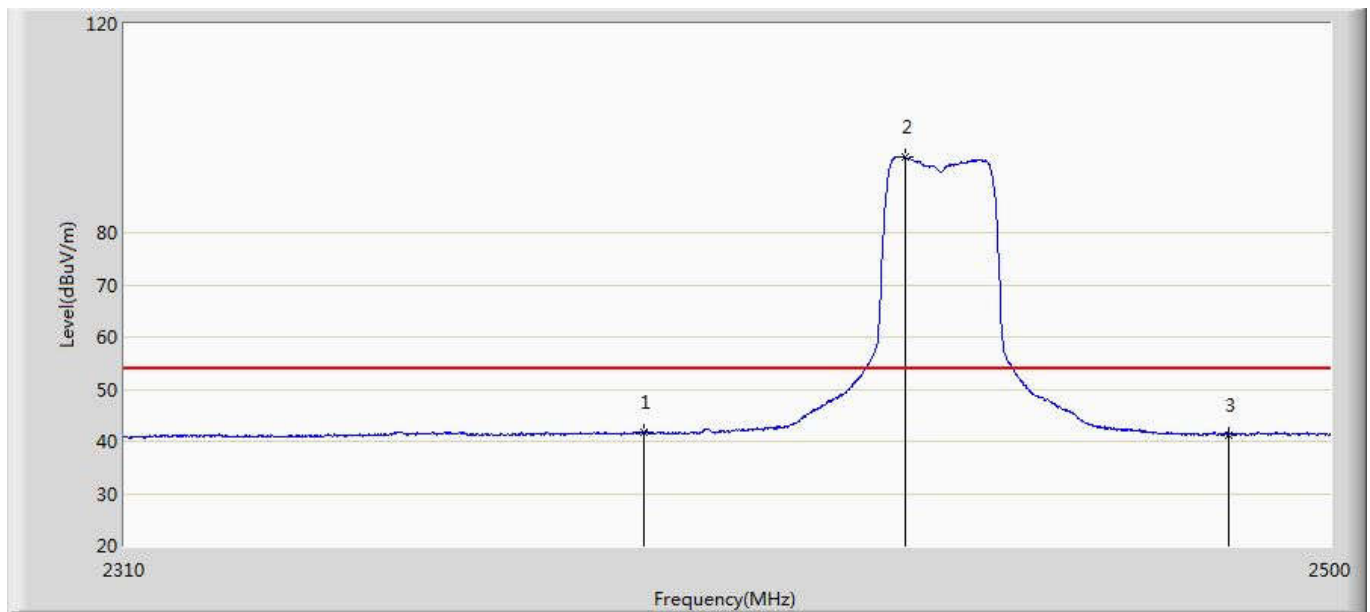
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.014	6.332	-11.986	54.000	35.682	AV
2	*	2419.256	82.959	47.187	N/A	N/A	35.772	AV

Profile: 1682009R	Page No.: 33
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 1	



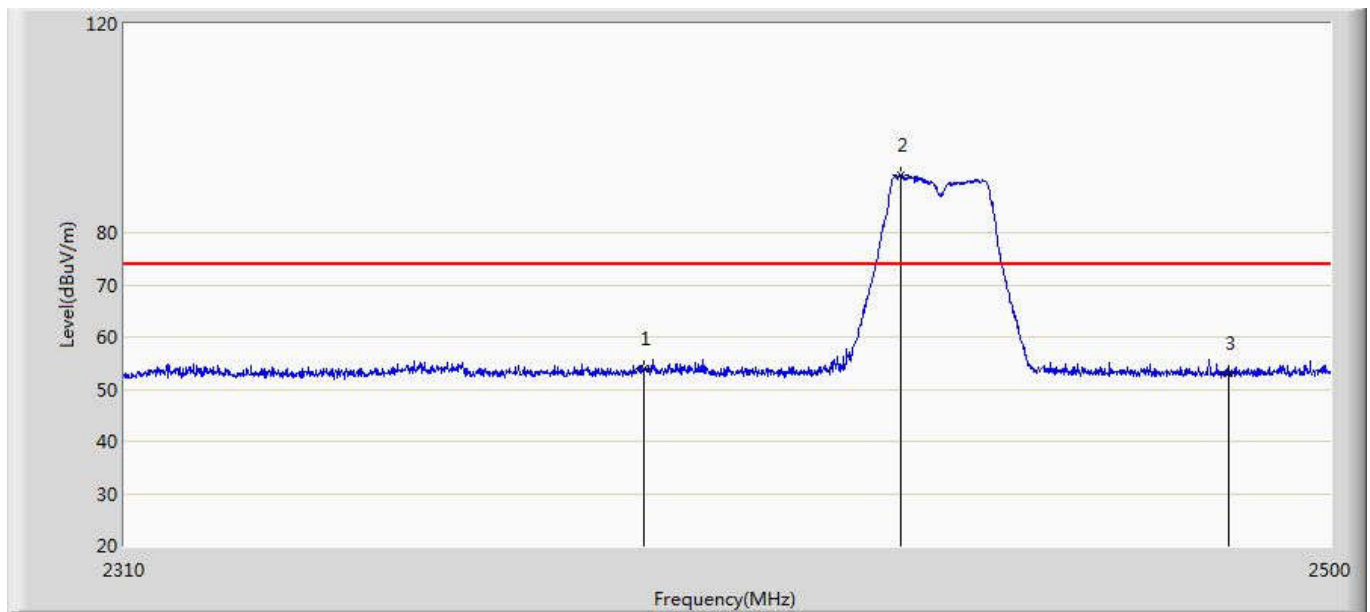
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.261	17.579	-20.739	74.000	35.682	PK
2	*	2429.700	103.699	67.891	N/A	N/A	35.808	PK
3		2483.500	53.217	17.325	-20.783	74.000	35.891	PK

Profile: 1682009R	Page No.: 34
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 1	



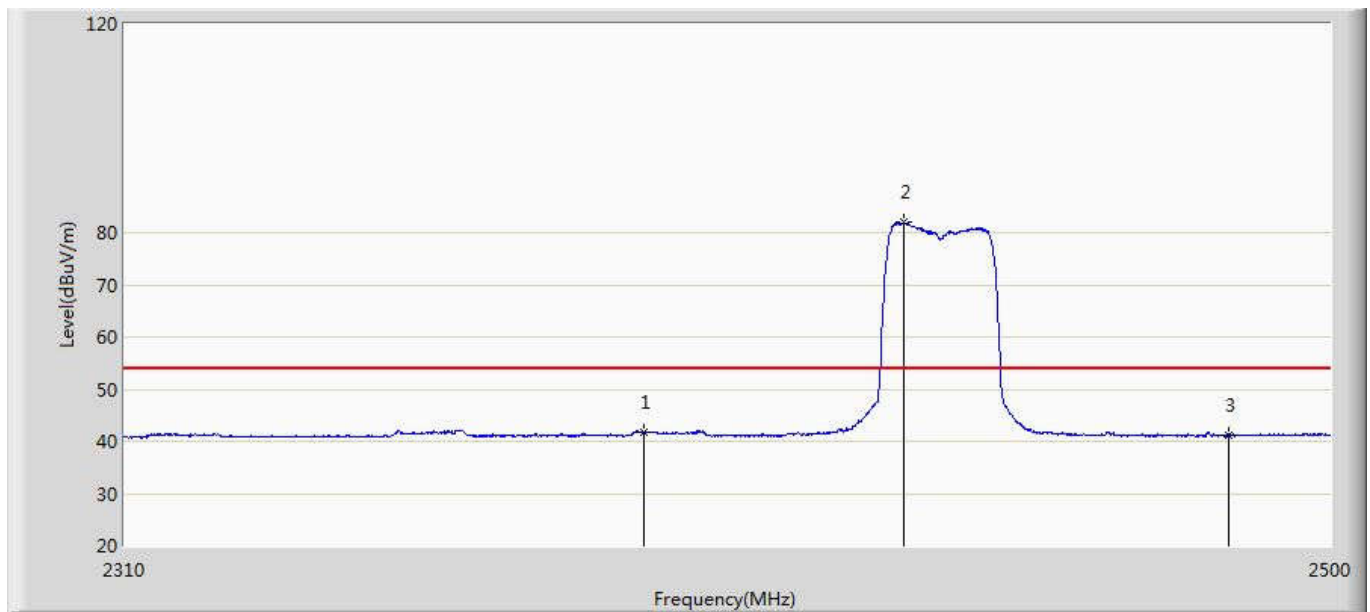
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.672	5.990	-12.328	54.000	35.682	AV
2	*	2431.315	94.545	58.737	N/A	N/A	35.808	AV
3		2483.500	41.288	5.396	-12.712	54.000	35.891	AV

Profile: 1682009R	Page No.: 35
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 1	



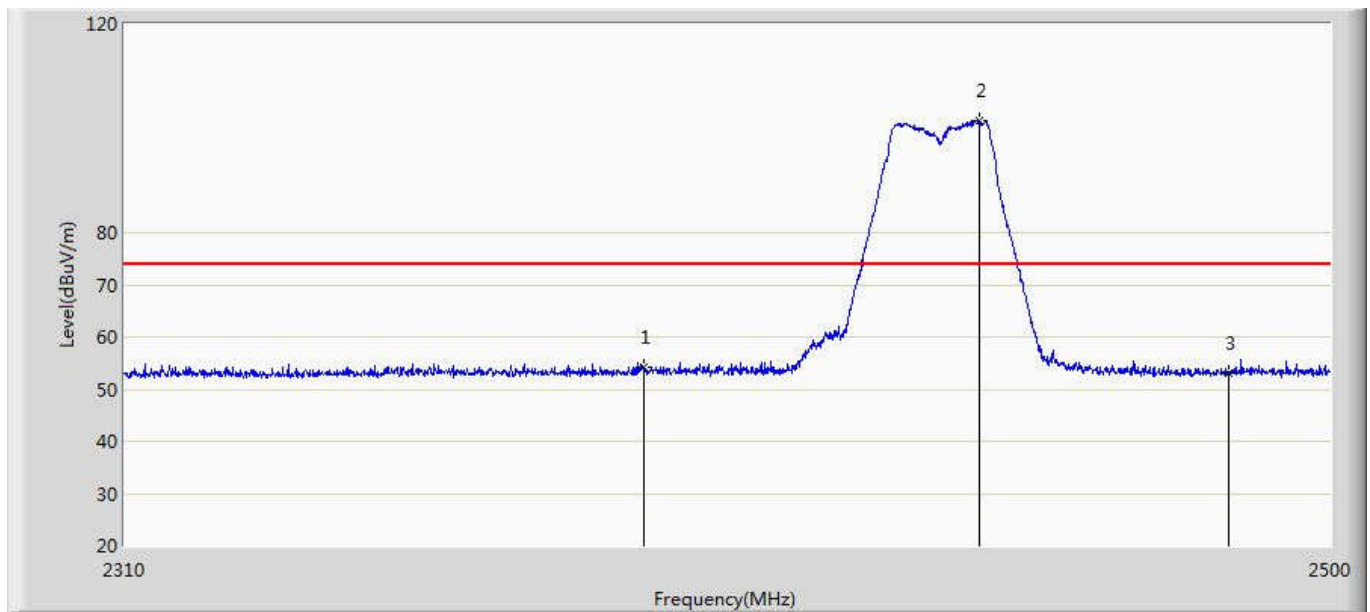
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.902	18.220	-20.098	74.000	35.682	PK
2	*	2430.650	91.023	55.215	N/A	N/A	35.808	PK
3		2483.500	53.061	17.169	-20.939	74.000	35.891	PK

Profile: 1682009R	Page No.: 36
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 1	



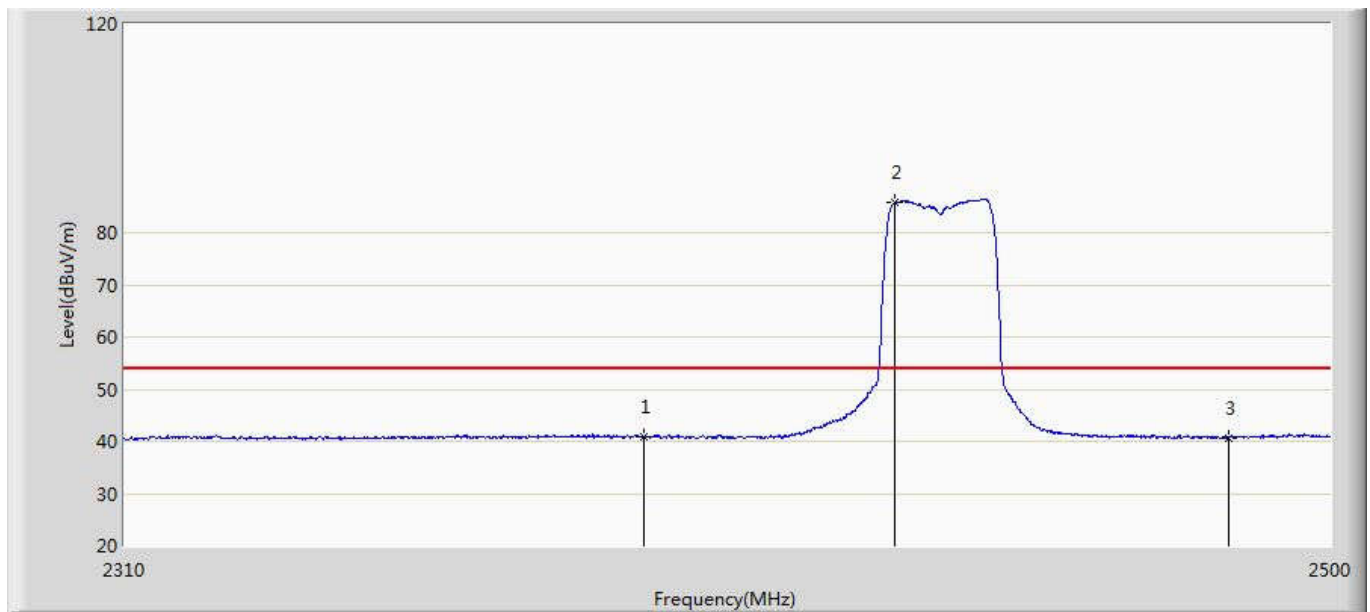
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.614	5.932	-12.386	54.000	35.682	AV
2	*	2431.125	82.014	46.206	N/A	N/A	35.808	AV
3		2483.500	41.254	5.362	-12.746	54.000	35.891	AV

Profile: 1682009R	Page No.: 37
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 2	



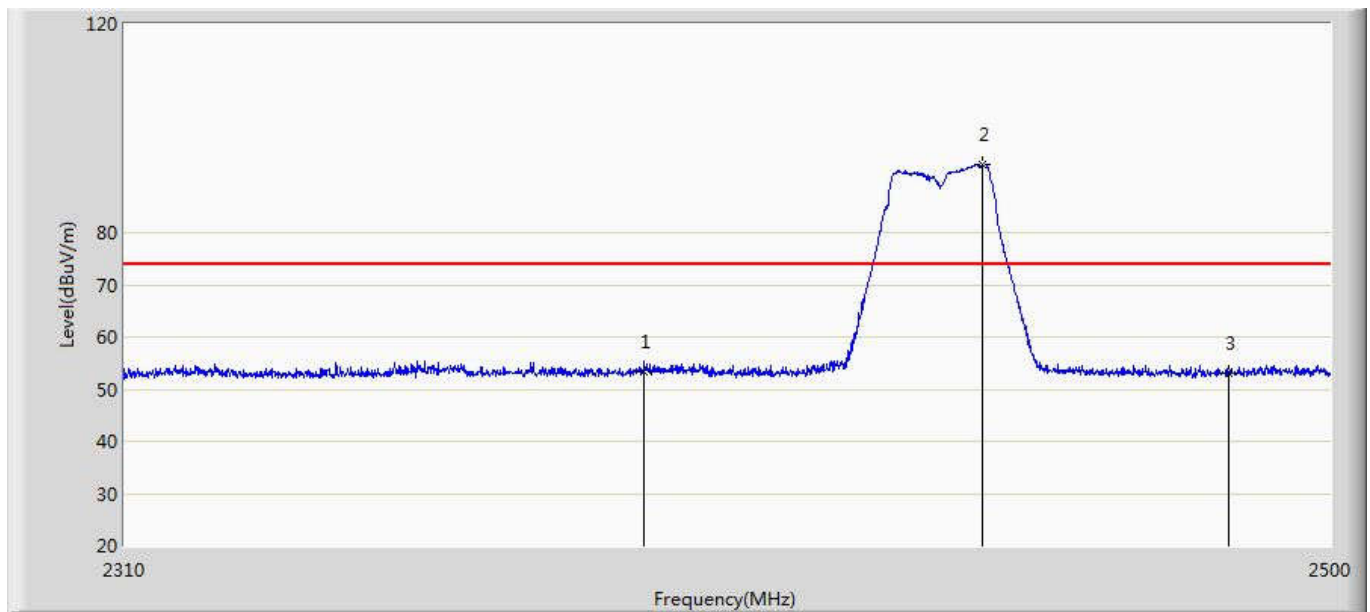
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.111	18.429	-19.889	74.000	35.682	PK
2	*	2443.095	101.391	65.587	N/A	N/A	35.805	PK
3		2483.500	53.087	17.195	-20.913	74.000	35.891	PK

Profile: 1682009R	Page No.: 38
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 2	



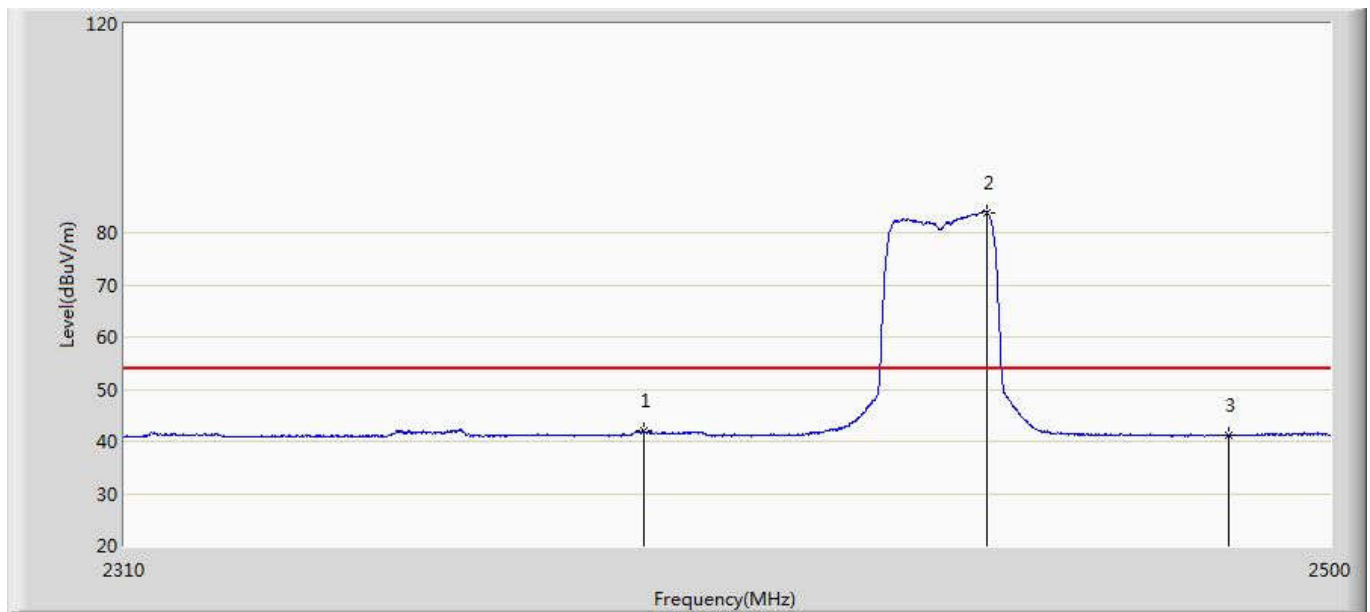
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.849	5.167	-13.151	54.000	35.682	AV
2	*	2429.605	85.774	49.966	N/A	N/A	35.808	AV
3		2483.500	40.646	4.754	-13.354	54.000	35.891	AV

Profile: 1682009R	Page No.: 39
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 2	



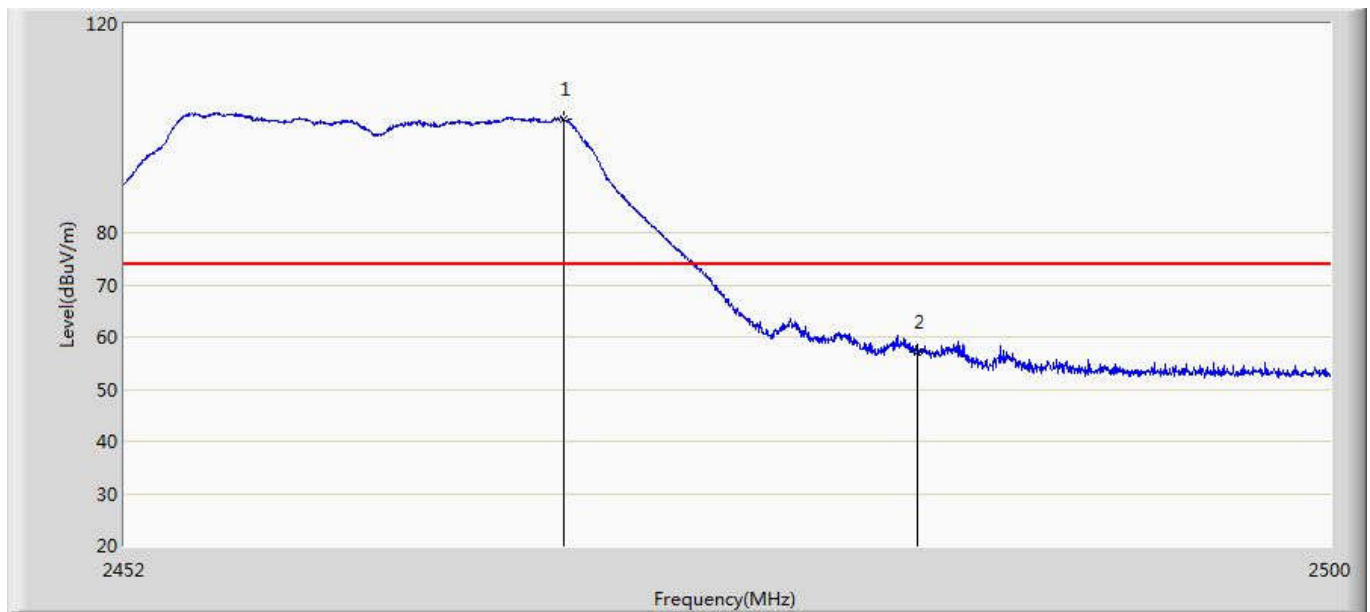
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.376	17.694	-20.624	74.000	35.682	PK
2	*	2443.760	93.173	57.369	N/A	N/A	35.805	PK
3		2483.500	52.956	17.064	-21.044	74.000	35.891	PK

Profile: 1682009R	Page No.: 40
Engineer: Scott	
Site: AC5	Time: 2016/09/19 - 11:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 g with antenna 2	



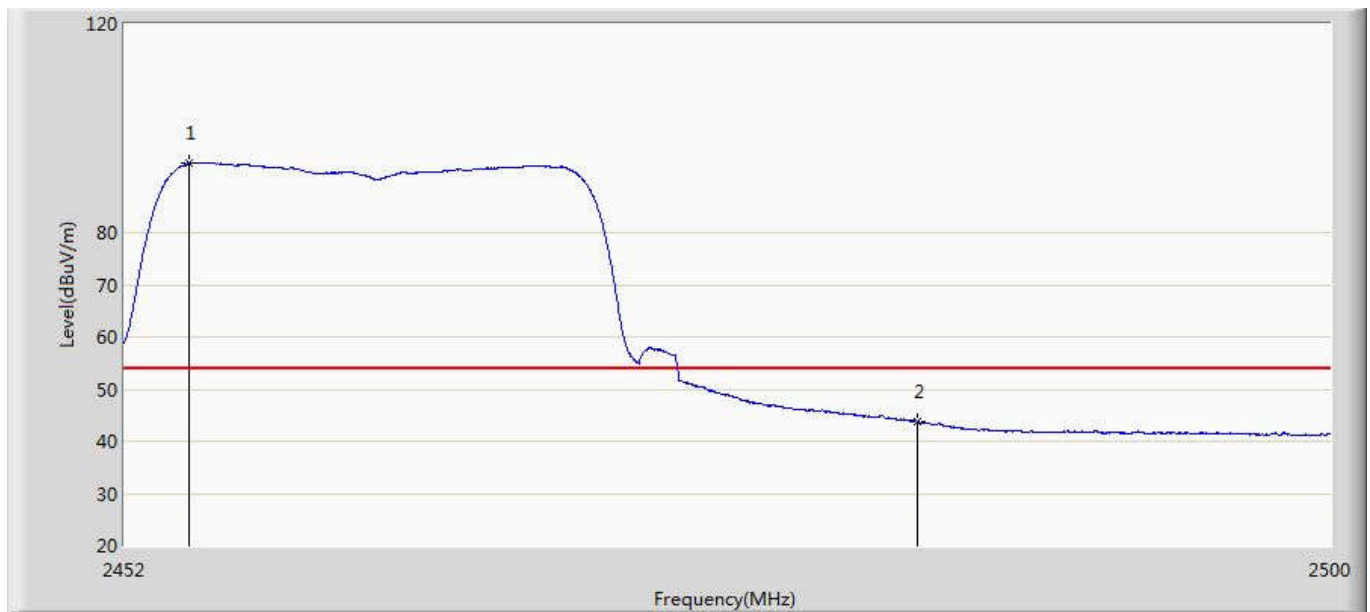
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.940	6.258	-12.060	54.000	35.682	AV
2	*	2444.520	83.913	48.109	N/A	N/A	35.804	AV
3		2483.500	41.199	5.307	-12.801	54.000	35.891	AV

Profile: 1682009R	Page No.: 41
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 1	



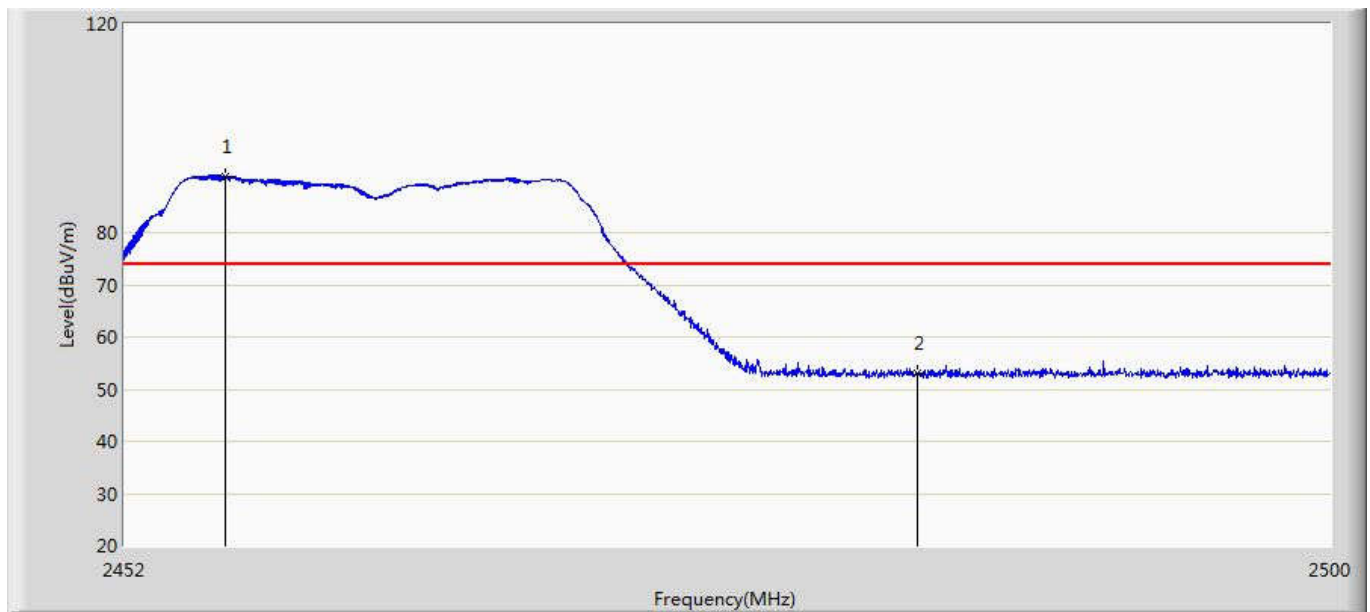
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2469.400	101.871	66.001	N/A	N/A	35.870	PK
2		2483.500	56.967	21.075	-17.033	74.000	35.891	PK

Profile: 1682009R	Page No.: 42
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 1	



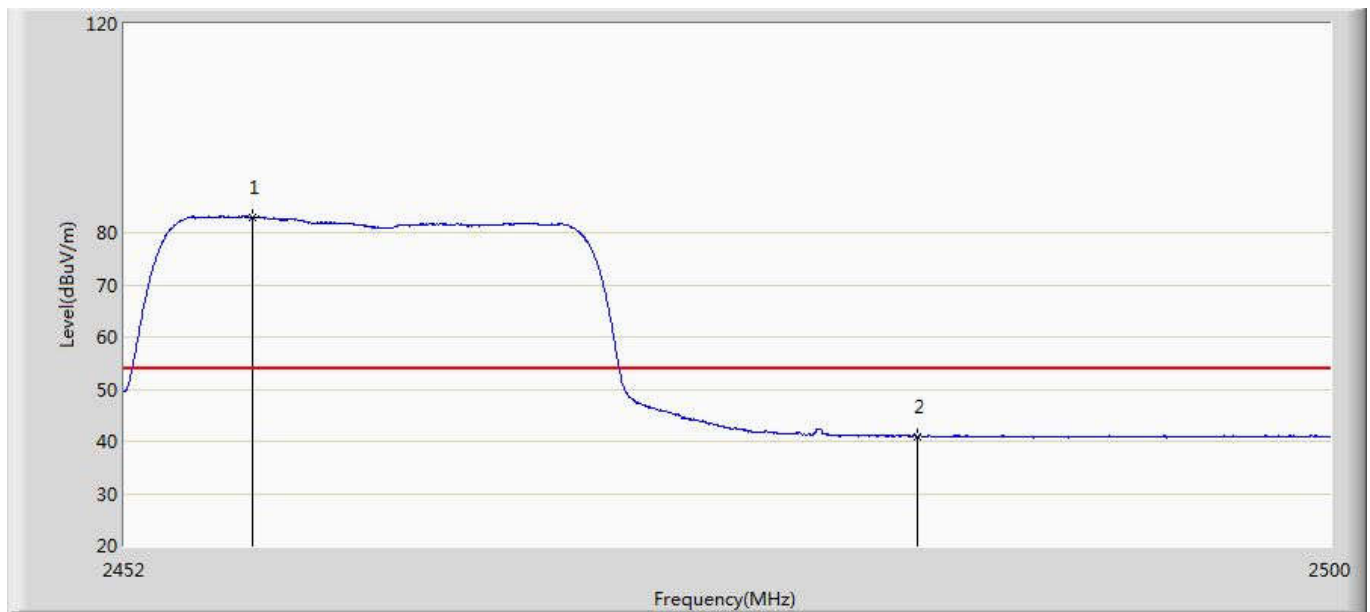
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.568	93.295	57.449	N/A	N/A	35.846	AV
2		2483.500	43.709	7.817	-10.291	54.000	35.891	AV

Profile: 1682009R	Page No.: 43
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 1	



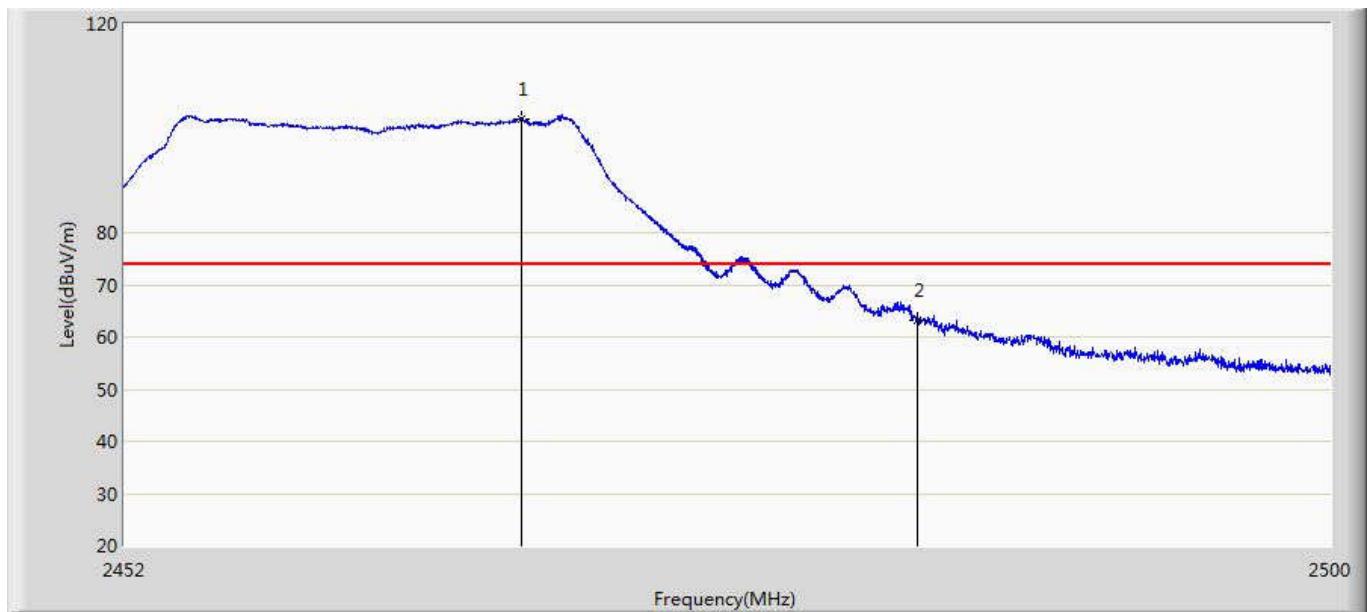
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.008	90.797	54.945	N/A	N/A	35.852	PK
2		2483.500	53.036	17.144	-20.964	74.000	35.891	PK

Profile: 1682009R	Page No.: 44
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 1	



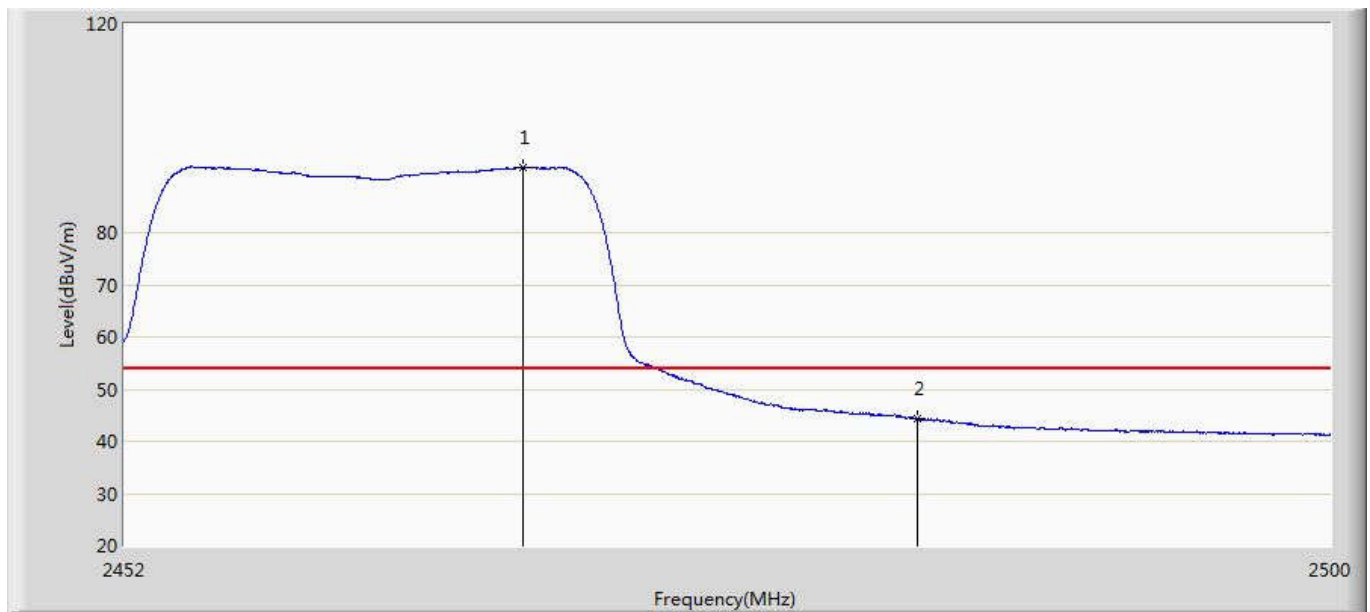
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.040	83.016	47.159	N/A	N/A	35.856	AV
2		2483.500	40.995	5.103	-13.005	54.000	35.891	AV

Profile: 1682009R	Page No.: 45
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 2	



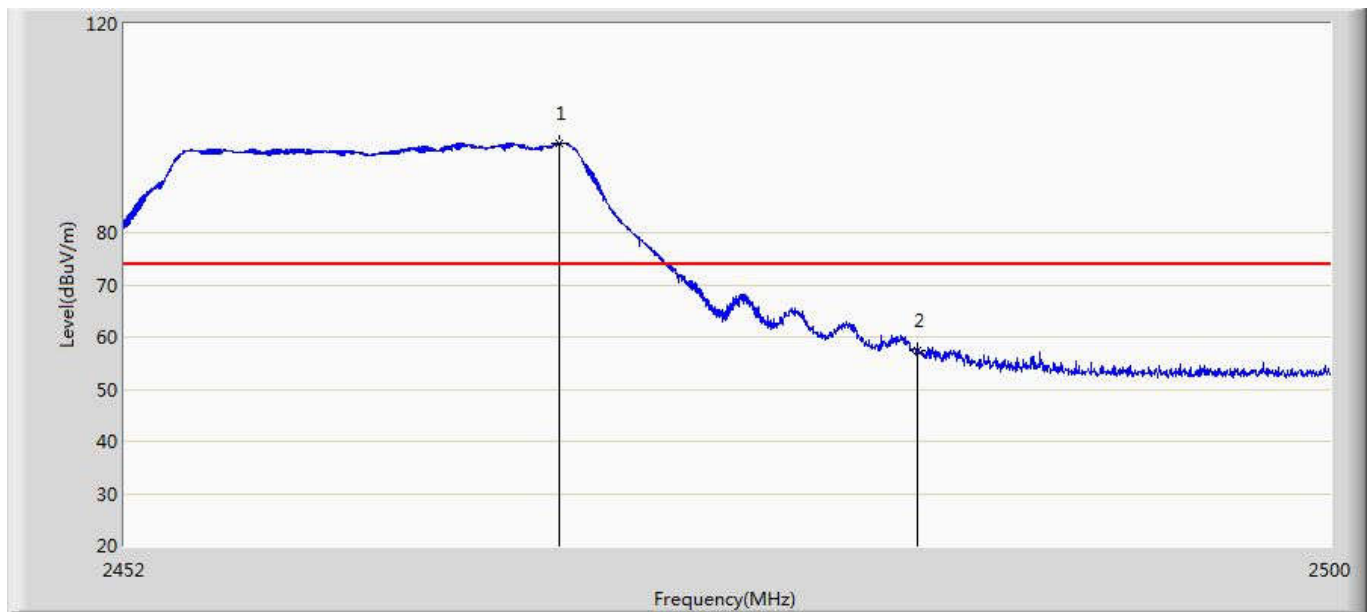
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.744	101.879	66.007	N/A	N/A	35.872	PK
2		2483.500	63.090	27.198	-10.910	74.000	35.891	PK

Profile: 1682009R	Page No.: 46
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 2	



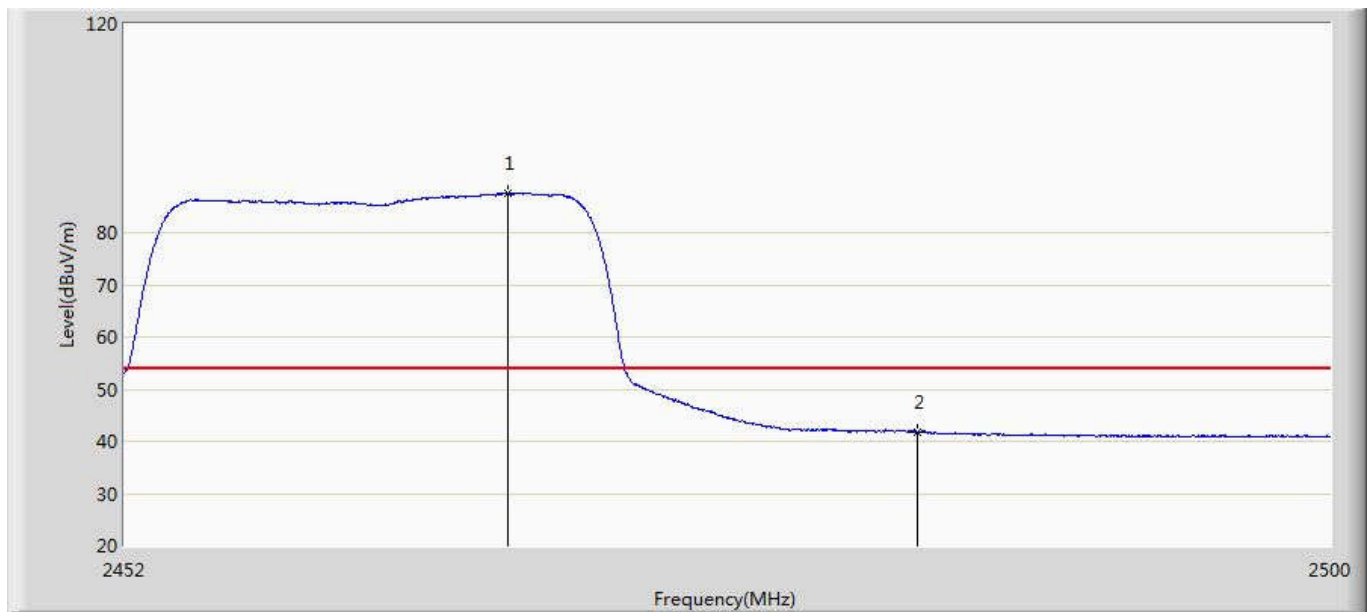
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.792	92.480	56.608	N/A	N/A	35.872	AV
2		2483.500	44.336	8.444	-9.664	54.000	35.891	AV

Profile: 1682009R	Page No.: 47
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 2	



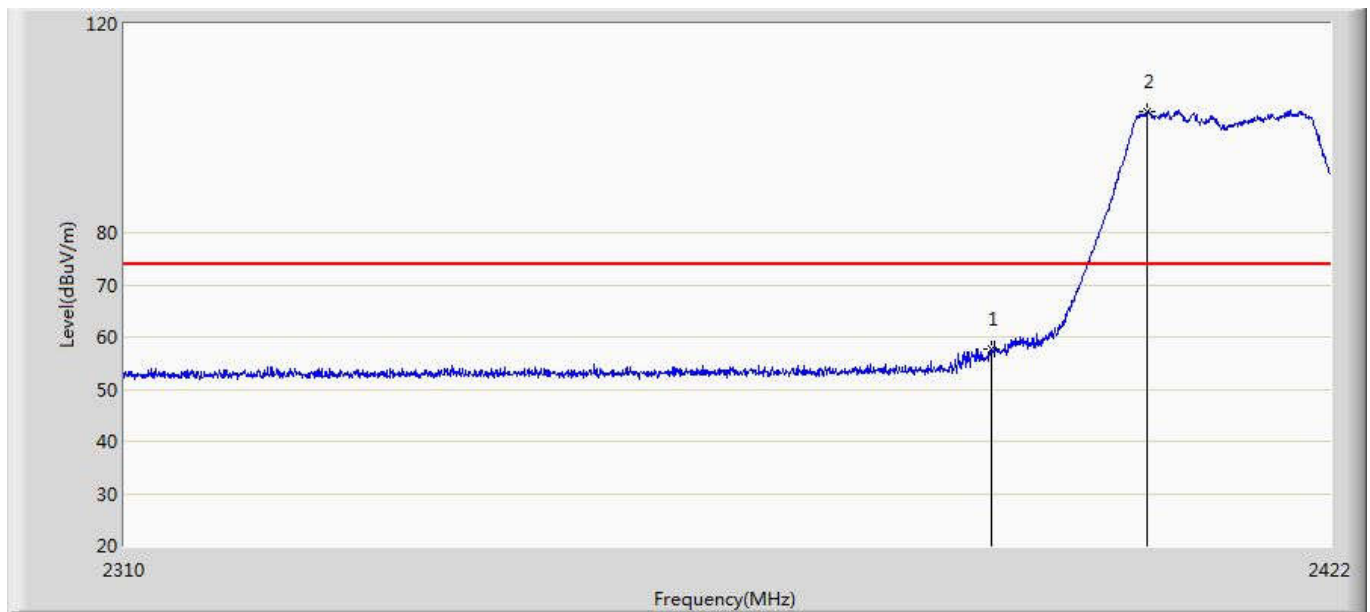
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2469.208	97.210	61.340	N/A	N/A	35.870	PK
2		2483.500	57.372	21.480	-16.628	74.000	35.891	PK

Profile: 1682009R	Page No.: 48
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 g with antenna 2	



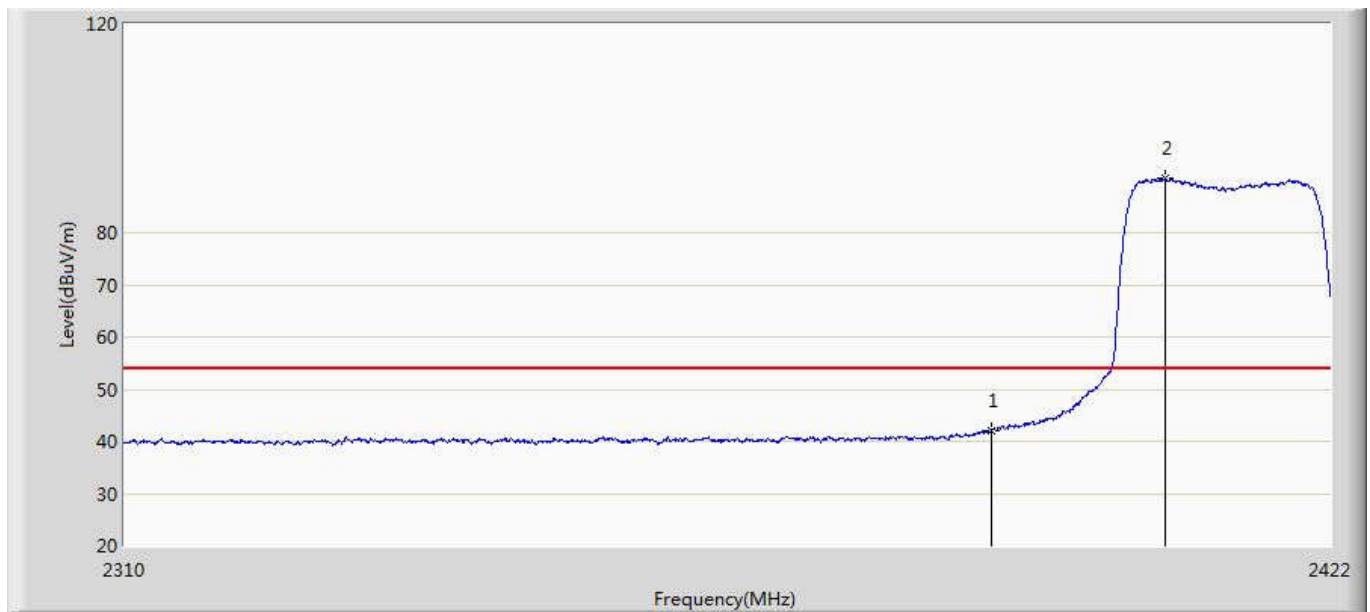
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.192	87.547	51.675	N/A	N/A	35.872	AV
2		2483.500	41.786	5.894	-12.214	54.000	35.891	AV

Profile: 1682009R	Page No.: 49
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 n(20MHz) with antenna 1+2	



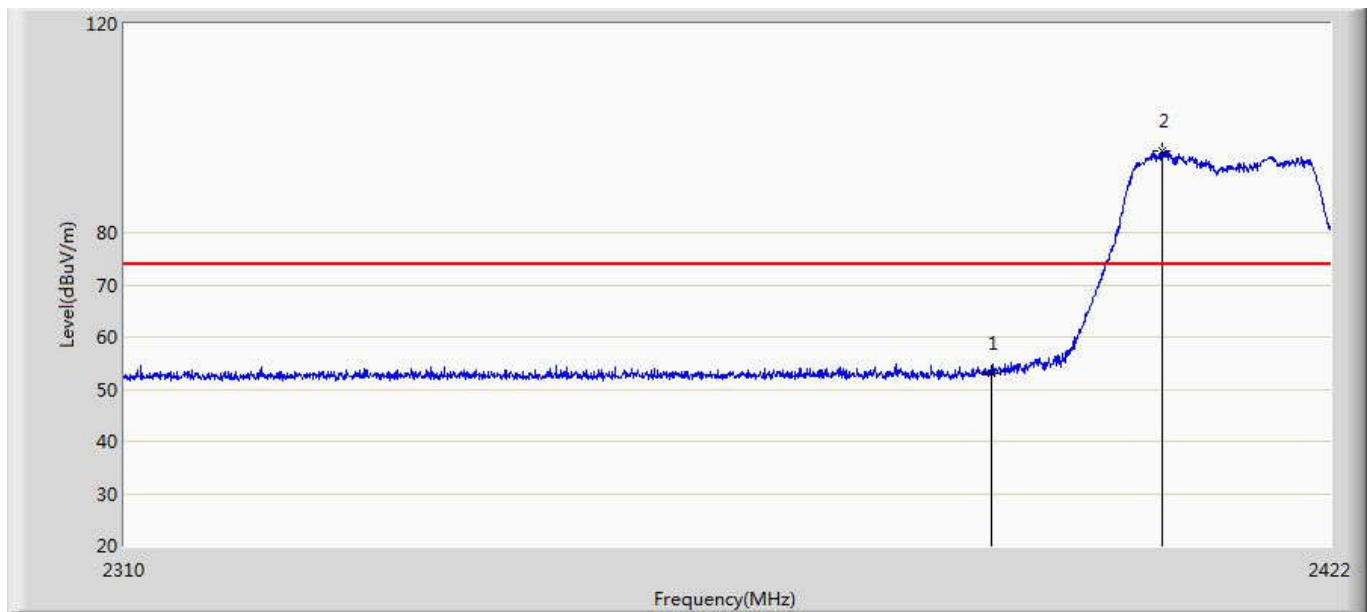
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.550	21.868	-16.450	74.000	35.682	PK
2	*	2404.640	103.184	67.464	N/A	N/A	35.720	PK

Profile: 1682009R	Page No.: 50
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 n(20MHz) with antenna 1+2	



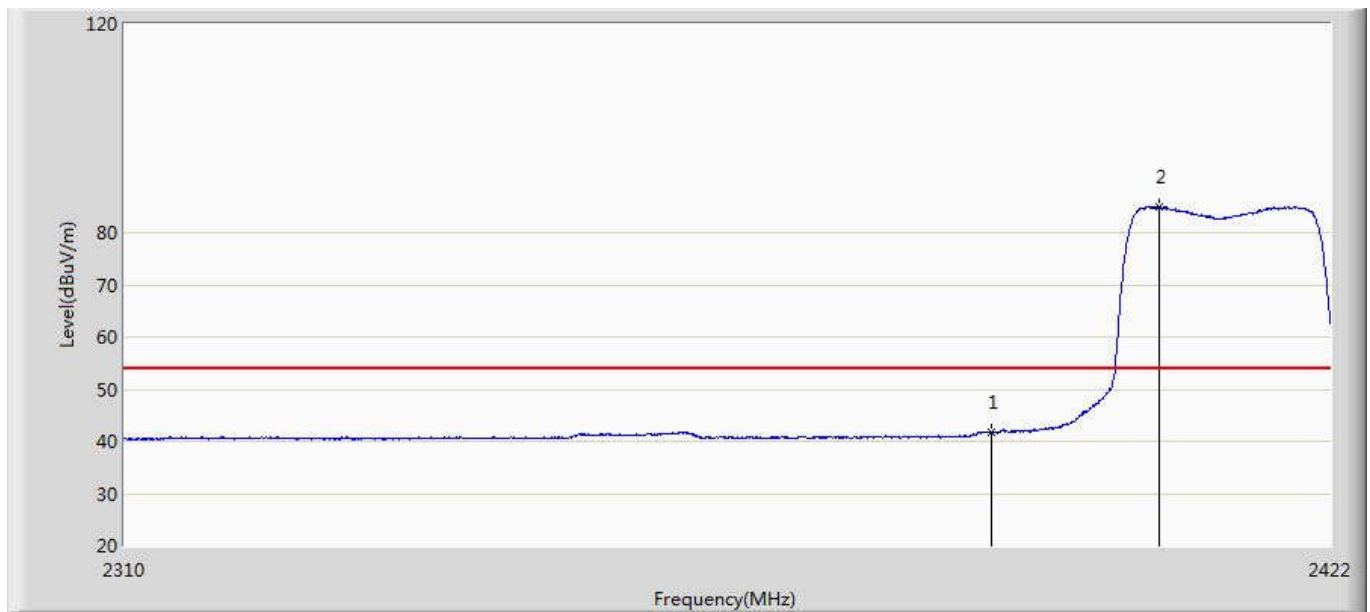
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.106	6.424	-11.894	54.000	35.682	AV
2	*	2406.320	90.376	54.652	N/A	N/A	35.724	AV

Profile: 1682009R	Page No.: 51
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 n(20MHz) with antenna 1+2	



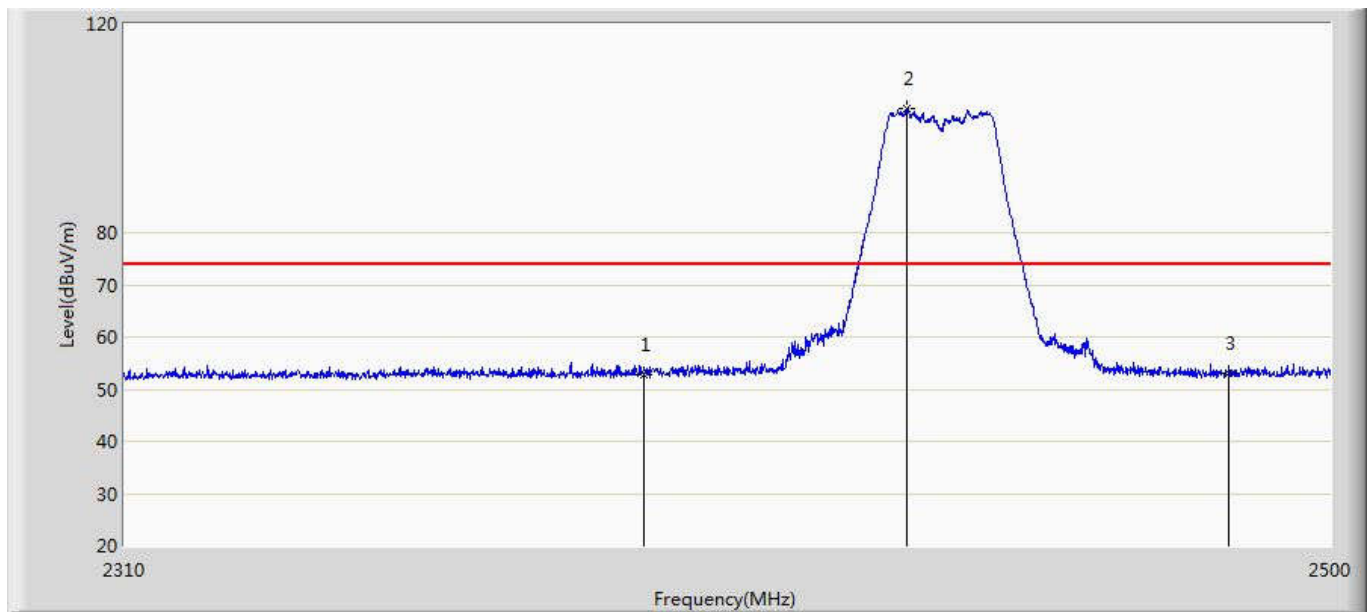
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.176	17.494	-20.824	74.000	35.682	PK
2	*	2406.096	95.565	59.841	N/A	N/A	35.724	PK

Profile: 1682009R	Page No.: 52
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 20:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2412Mhz by 802.11 n(20MHz) with antenna 1+2	



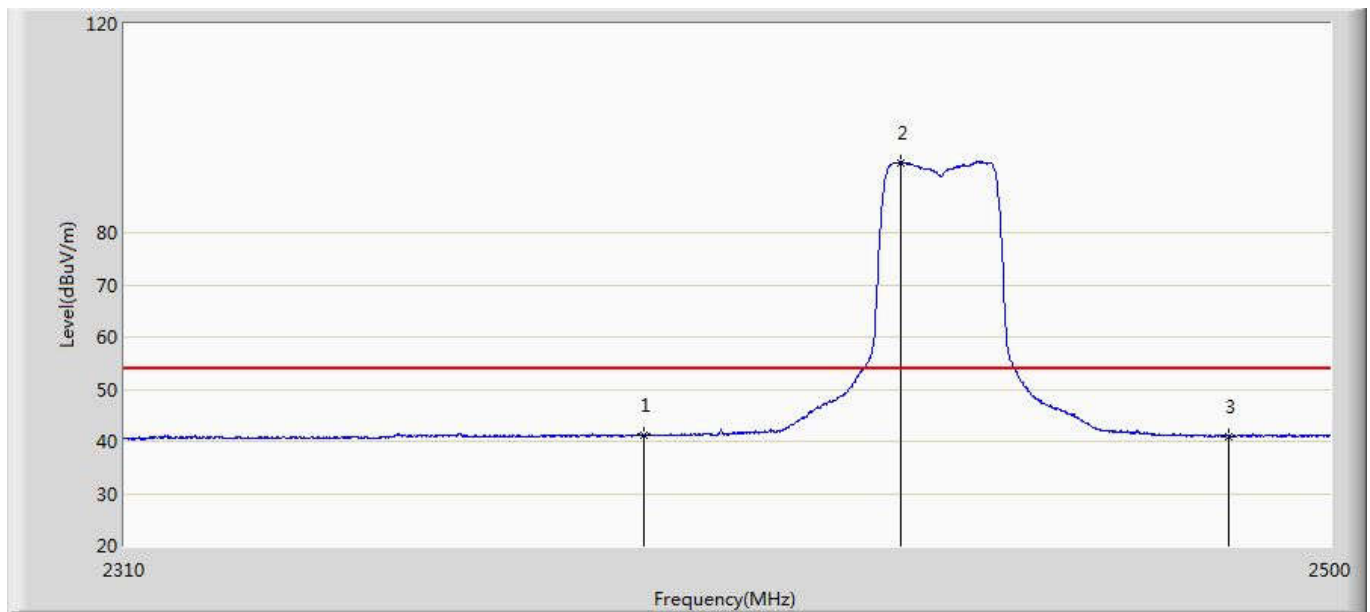
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.697	6.015	-12.303	54.000	35.682	AV
2	*	2405.816	84.873	49.150	N/A	N/A	35.723	AV

Profile: 1682009R	Page No.: 53
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(20MHz) with antenna 1+2	



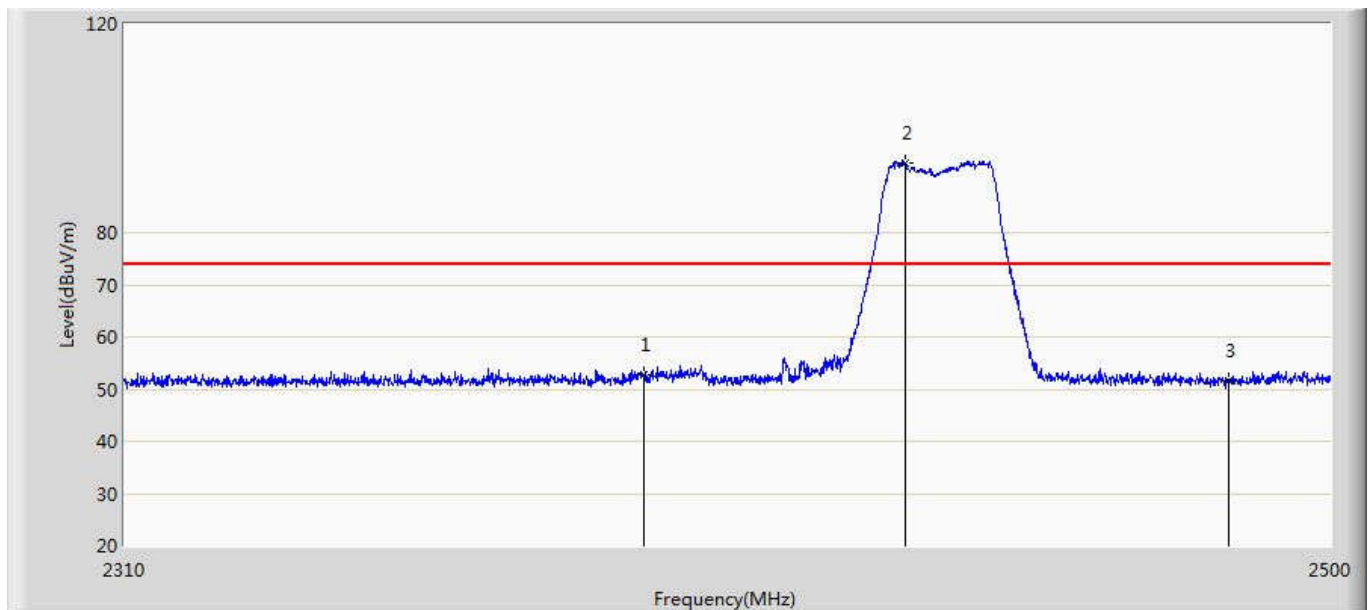
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.744	17.062	-21.256	74.000	35.682	PK
2	*	2431.695	103.859	68.051	N/A	N/A	35.807	PK
3		2483.500	53.083	17.191	-20.917	74.000	35.891	PK

Profile: 1682009R	Page No.: 54
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(20MHz) with antenna 1+2	



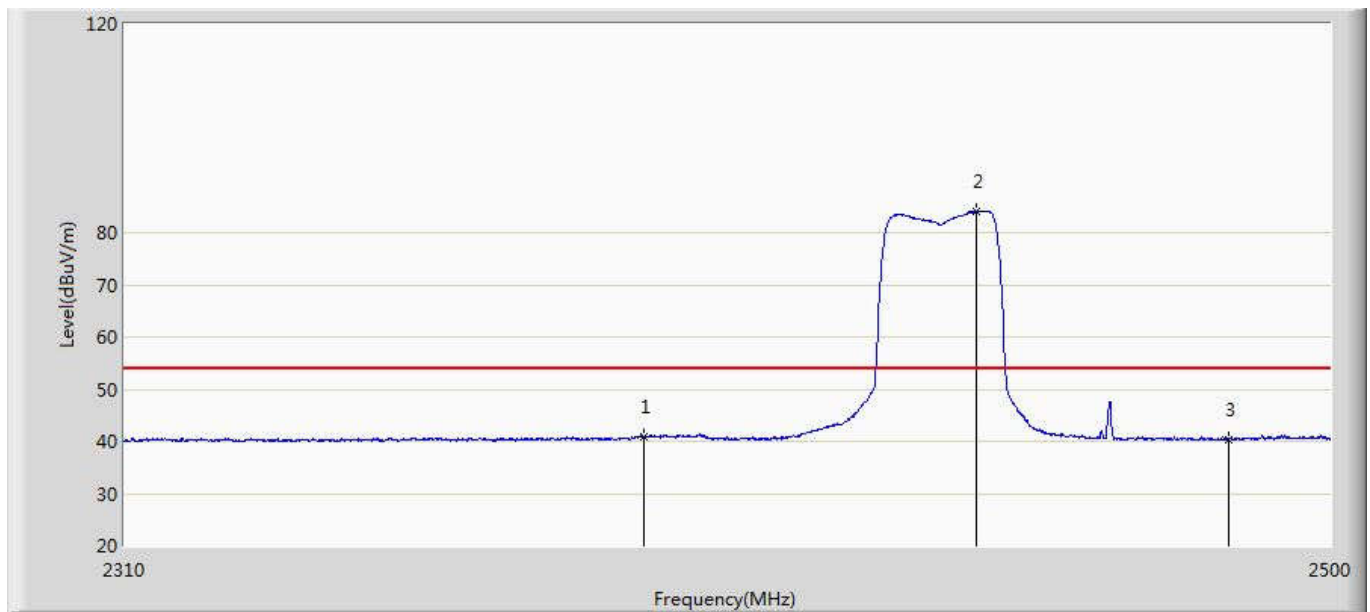
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.093	5.411	-12.907	54.000	35.682	AV
2	*	2430.650	93.468	57.660	N/A	N/A	35.808	AV
3		2483.500	40.996	5.104	-13.004	54.000	35.891	AV

Profile: 1682009R	Page No.: 55
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(20MHz) with antenna 1+2	



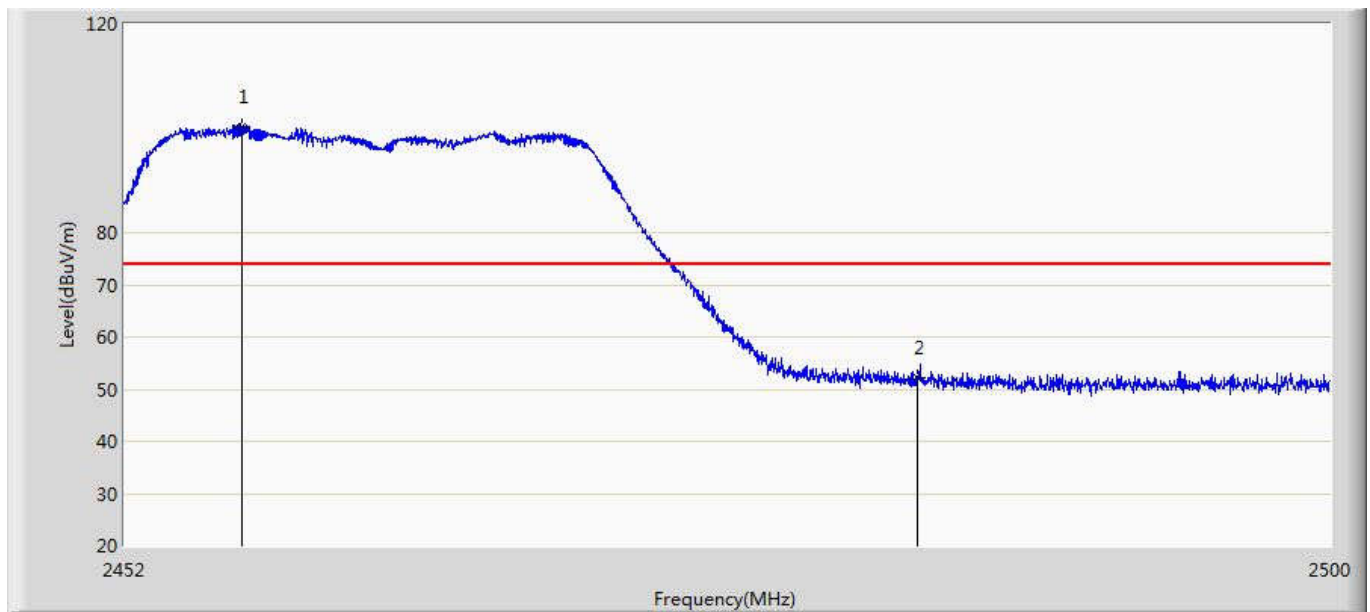
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.714	17.032	-21.286	74.000	35.682	PK
2	*	2431.315	93.463	57.655	N/A	N/A	35.808	PK
3		2483.500	51.670	15.778	-22.330	74.000	35.891	PK

Profile: 1682009R	Page No.: 56
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(20MHz) with antenna 1+2	



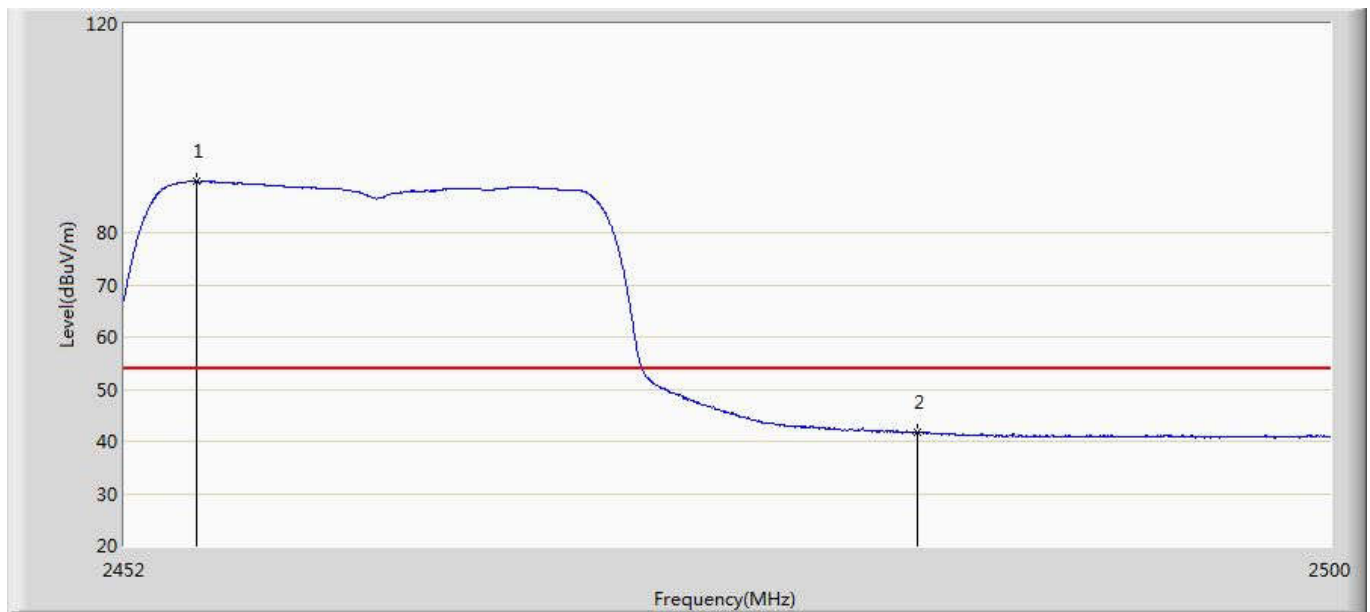
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.884	5.202	-13.116	54.000	35.682	AV
2	*	2442.715	84.144	48.339	N/A	N/A	35.804	AV
3		2483.500	40.410	4.518	-13.590	54.000	35.891	AV

Profile: 1682009R	Page No.: 57
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 n(20MHz) with antenna 1+2	



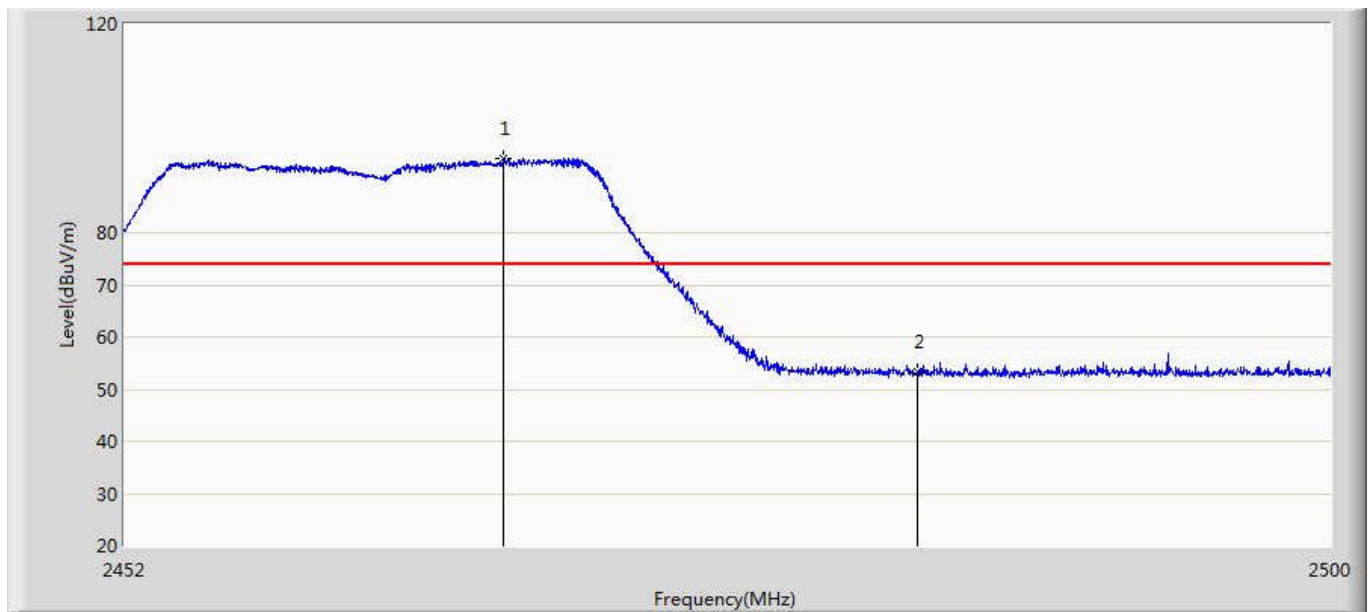
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.656	100.297	64.442	N/A	N/A	35.855	PK
2		2483.500	52.260	16.368	-21.740	74.000	35.891	PK

Profile: 1682009R	Page No.: 58
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 n(20MHz) with antenna 1+2	



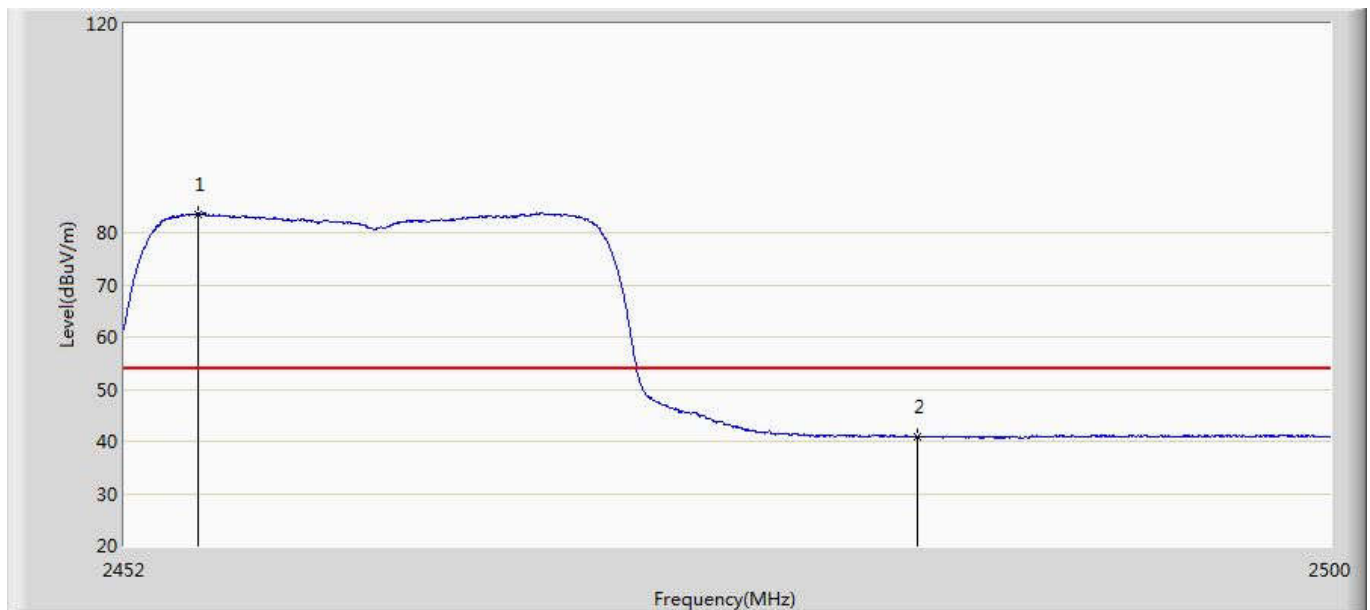
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.880	89.757	53.910	N/A	N/A	35.848	AV
2		2483.500	41.643	5.751	-12.357	54.000	35.891	AV

Profile: 1682009R	Page No.: 59
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 n(20MHz) with antenna 1+2	



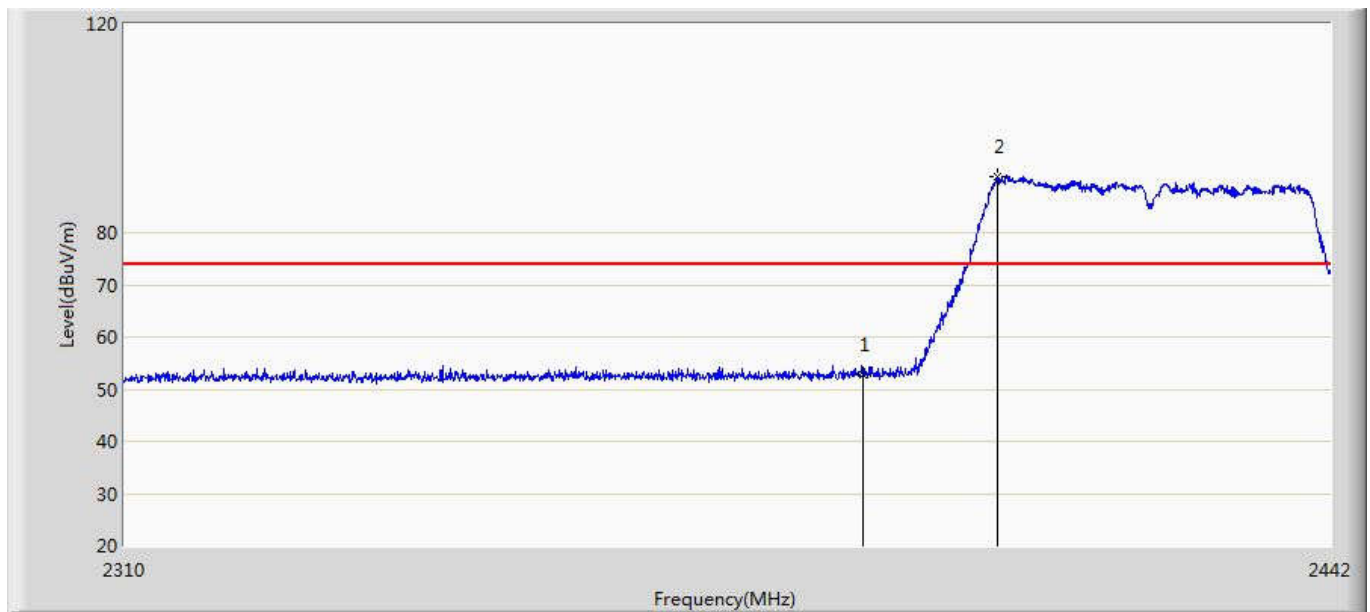
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.000	94.078	58.205	N/A	N/A	35.872	PK
2		2483.500	53.356	17.464	-20.644	74.000	35.891	PK

Profile: 1682009R	Page No.: 60
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2462Mhz by 802.11 n(20MHz) with antenna 1+2	



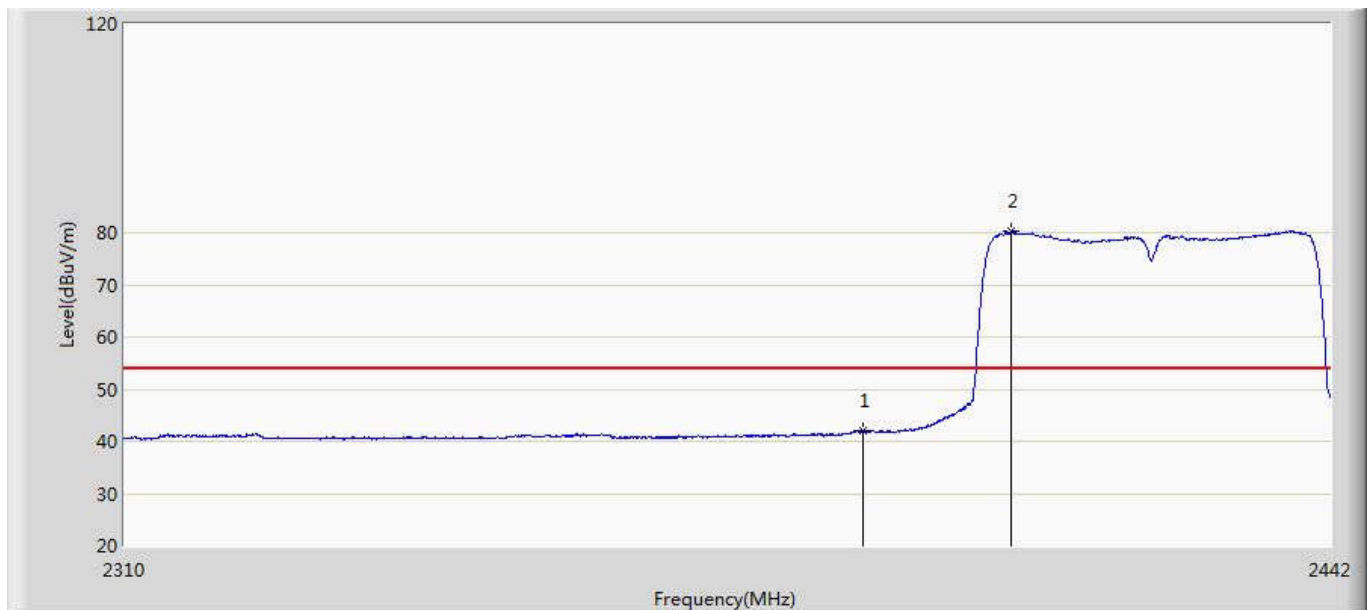
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.904	83.531	47.684	N/A	N/A	35.848	AV
2		2483.500	40.886	4.994	-13.114	54.000	35.891	AV

Profile: 1682009R	Page No.: 61
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2422Mhz by 802.11 n(40MHz) with antenna 1+2	



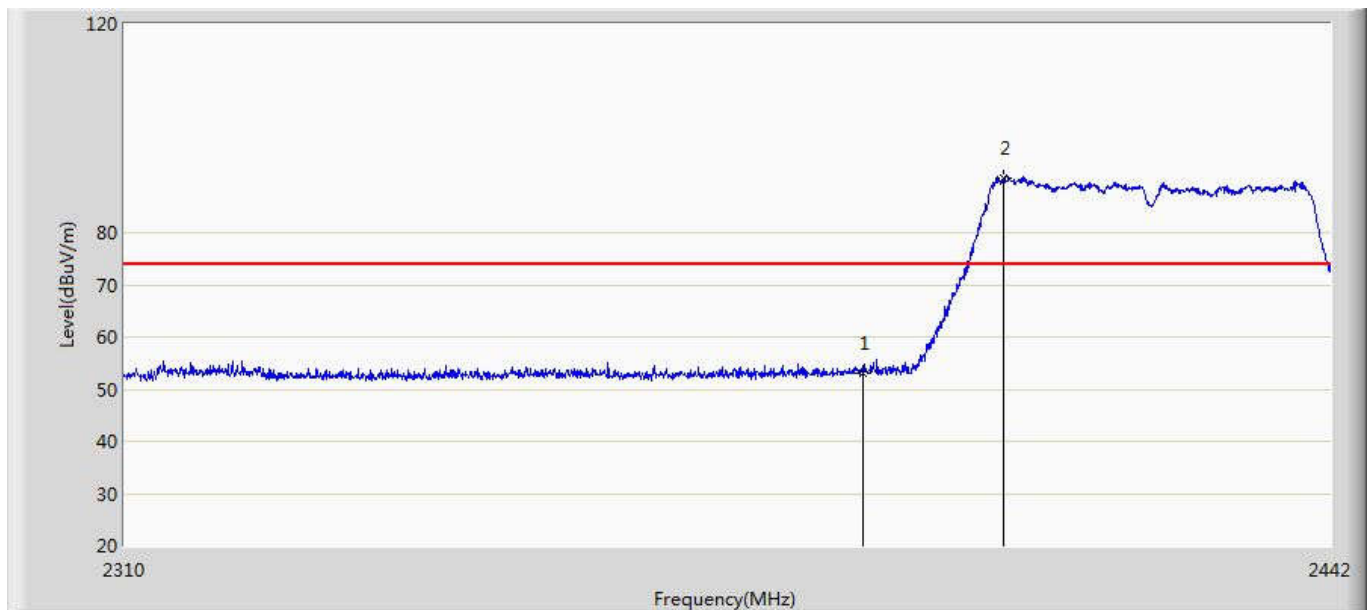
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.836	17.154	-21.164	74.000	35.682	PK
2	*	2404.842	90.742	55.022	N/A	N/A	35.721	PK

Profile: 1682009R	Page No.: 62
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2422Mhz by 802.11 n(40MHz) with antenna 1+2	



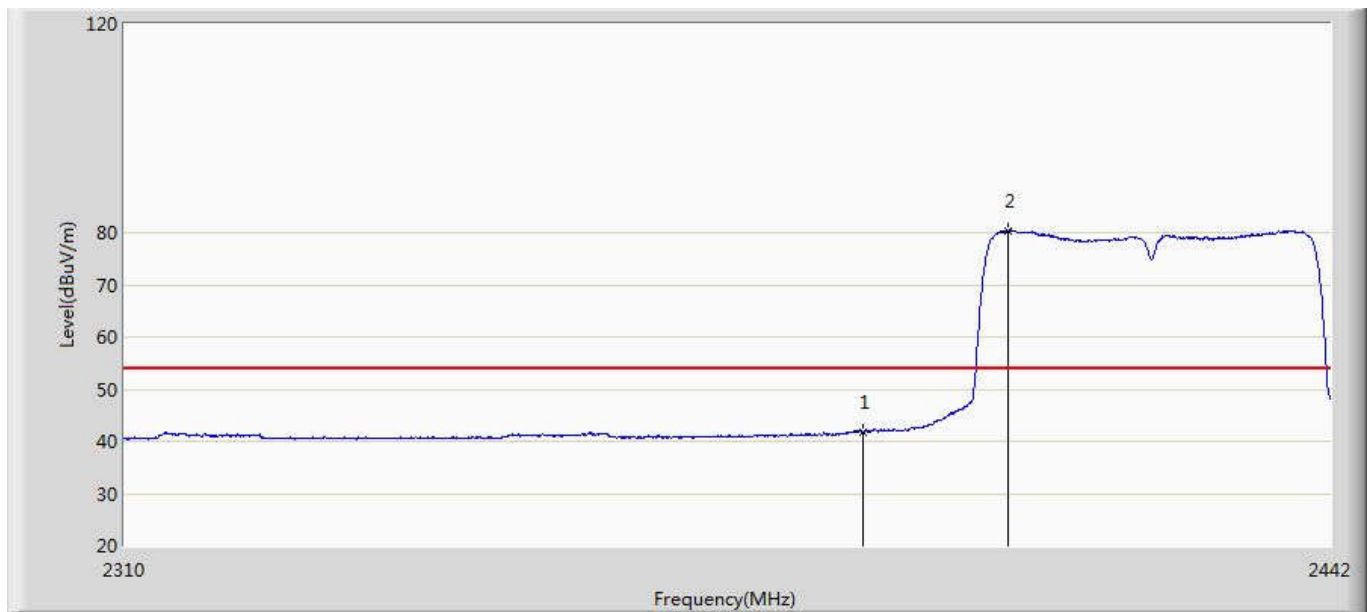
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.929	6.247	-12.071	54.000	35.682	AV
2	*	2406.360	80.245	44.520	N/A	N/A	35.725	AV

Profile: 1682009R	Page No.: 63
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2422Mhz by 802.11 n(40MHz) with antenna 1+2	



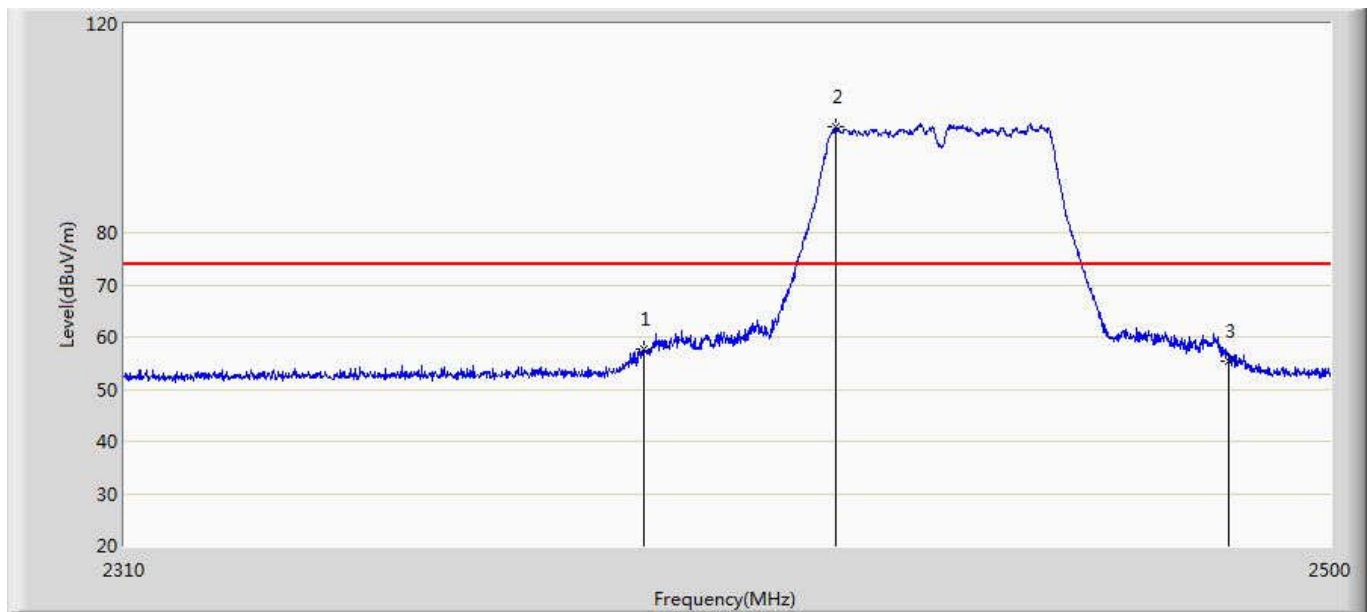
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.141	17.459	-20.859	74.000	35.682	PK
2	*	2405.502	90.456	54.734	N/A	N/A	35.723	PK

Profile: 1682009R	Page No.: 64
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2422Mhz by 802.11 n(40MHz) with antenna 1+2	



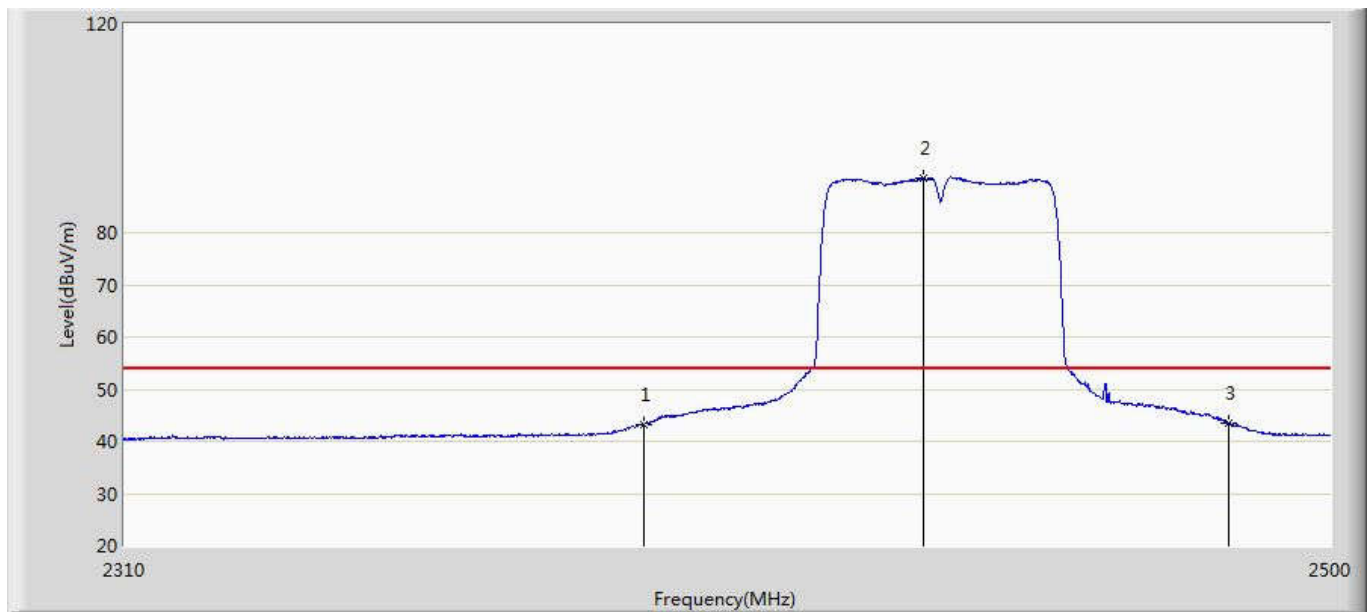
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.805	6.123	-12.195	54.000	35.682	AV
2	*	2406.096	80.310	44.586	N/A	N/A	35.724	AV

Profile: 1682009R	Page No.: 65
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(40MHz) with antenna 1+2	



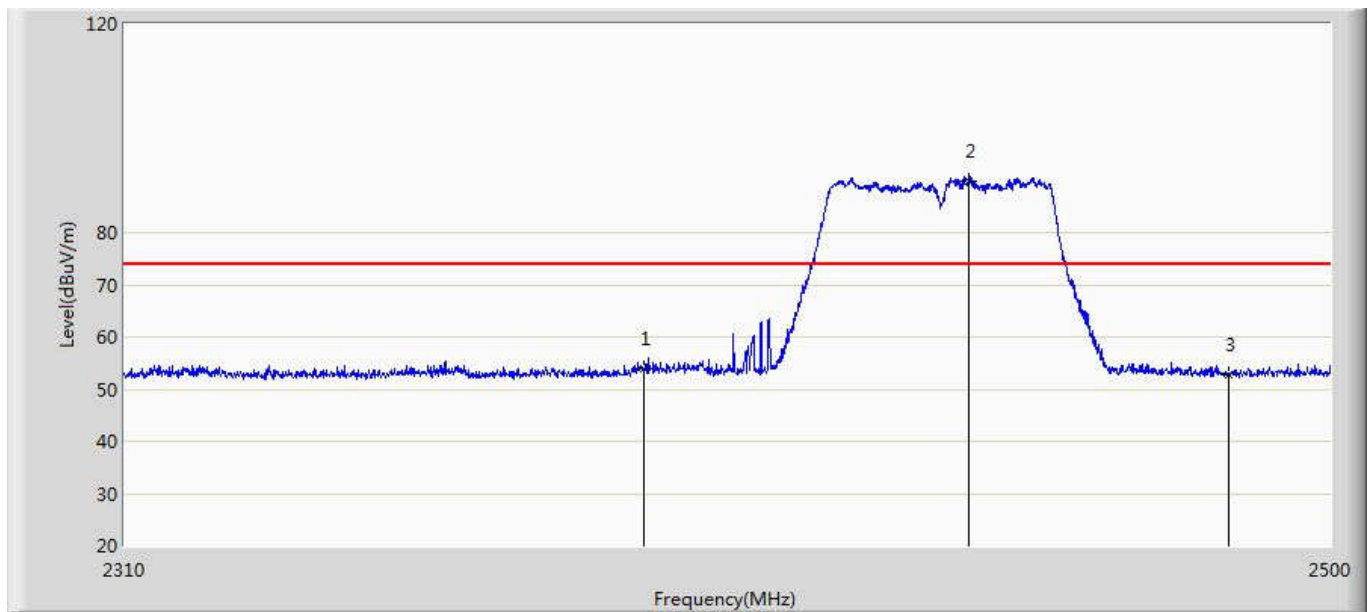
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.567	21.885	-16.433	74.000	35.682	PK
2	*	2420.295	100.346	64.570	N/A	N/A	35.776	PK
3		2483.500	55.293	19.401	-18.707	74.000	35.891	PK

Profile: 1682009R	Page No.: 66
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(40MHz) with antenna 1+2	



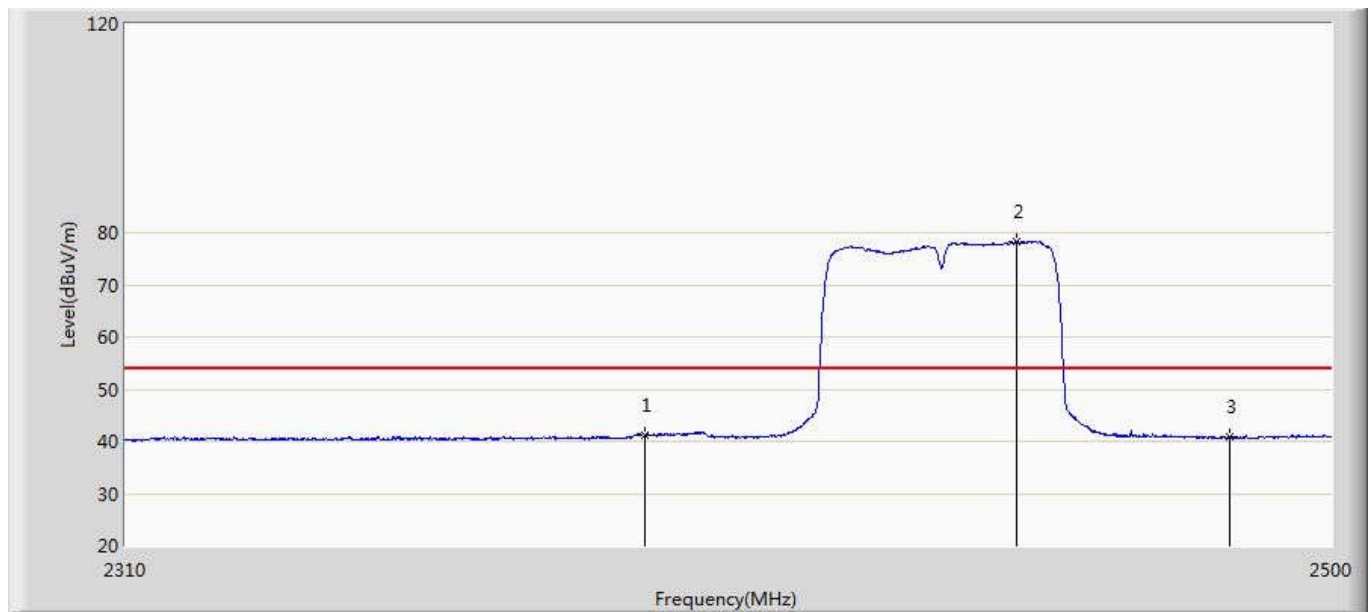
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.258	7.576	-10.742	54.000	35.682	AV
2	*	2434.260	90.530	54.723	N/A	N/A	35.806	AV
3		2483.500	43.425	7.533	-10.575	54.000	35.891	AV

Profile: 1682009R	Page No.: 67
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(40MHz) with antenna 1+2	



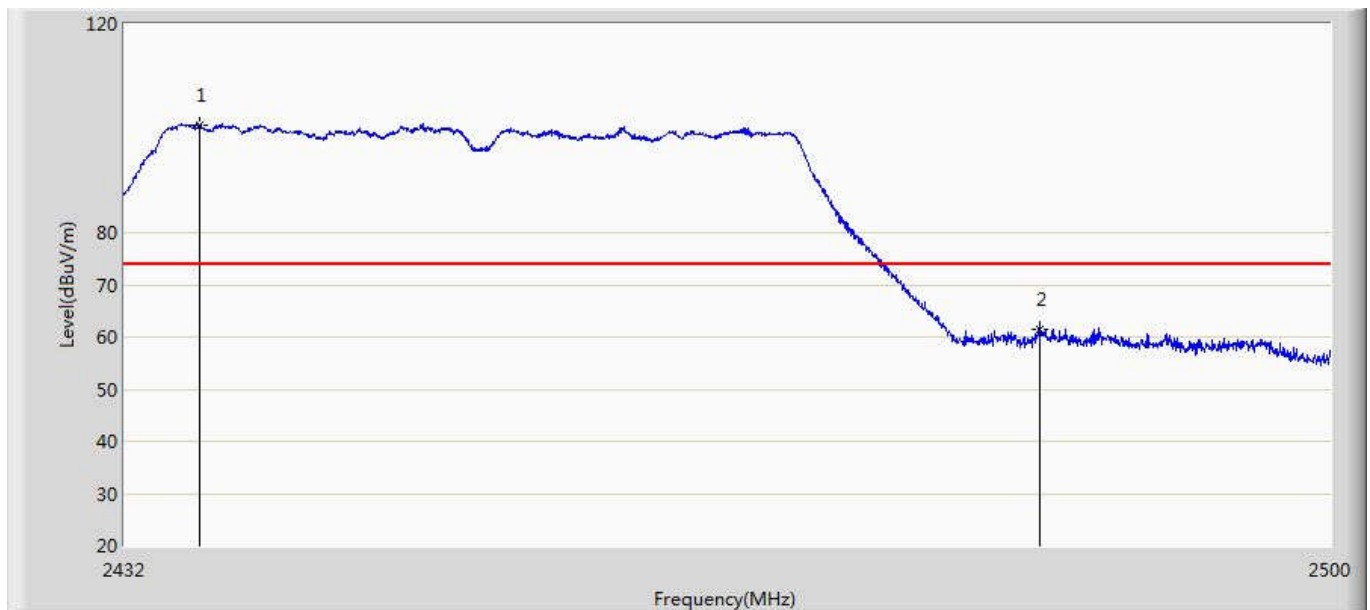
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.968	18.286	-20.032	74.000	35.682	PK
2	*	2441.480	89.929	54.124	N/A	N/A	35.805	PK
3		2483.500	52.858	16.966	-21.142	74.000	35.891	PK

Profile: 1682009R	Page No.: 68
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2437Mhz by 802.11 n(40MHz) with antenna 1+2	



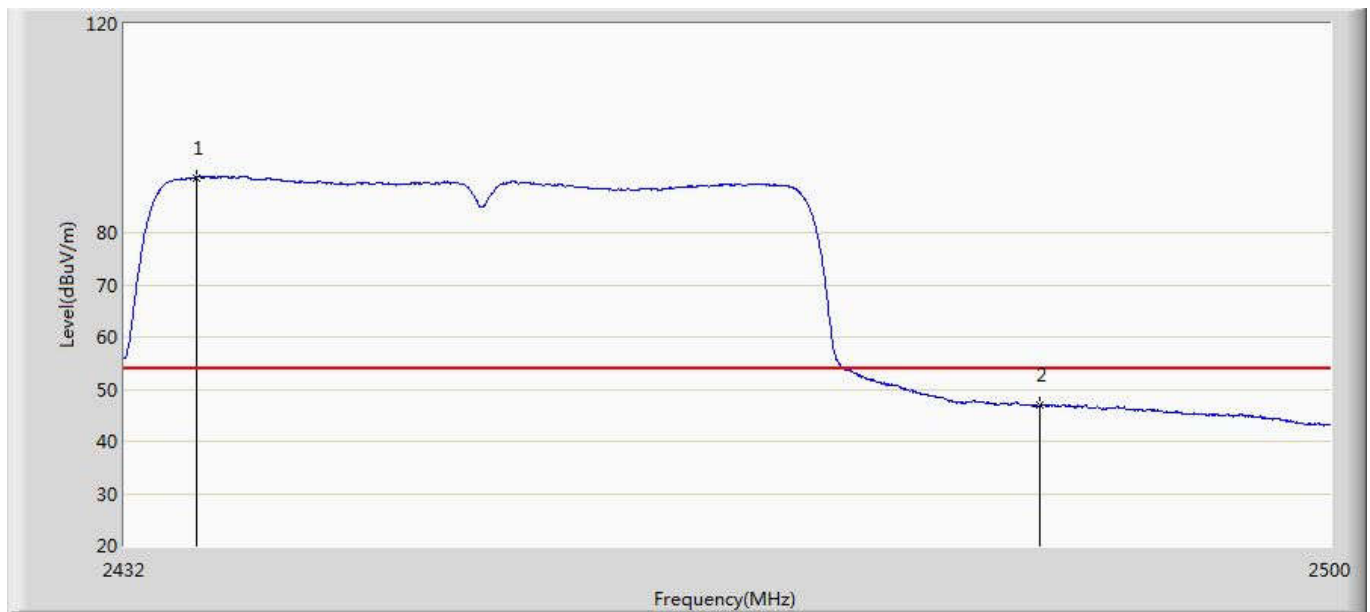
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.282	5.600	-12.718	54.000	35.682	AV
2	*	2449.080	78.231	42.409	N/A	N/A	35.822	AV
3		2483.500	40.780	4.888	-13.220	54.000	35.891	AV

Profile: 1682009R	Page No.: 69
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2452Mhz by 802.11 n(40MHz) with antenna 1+2	



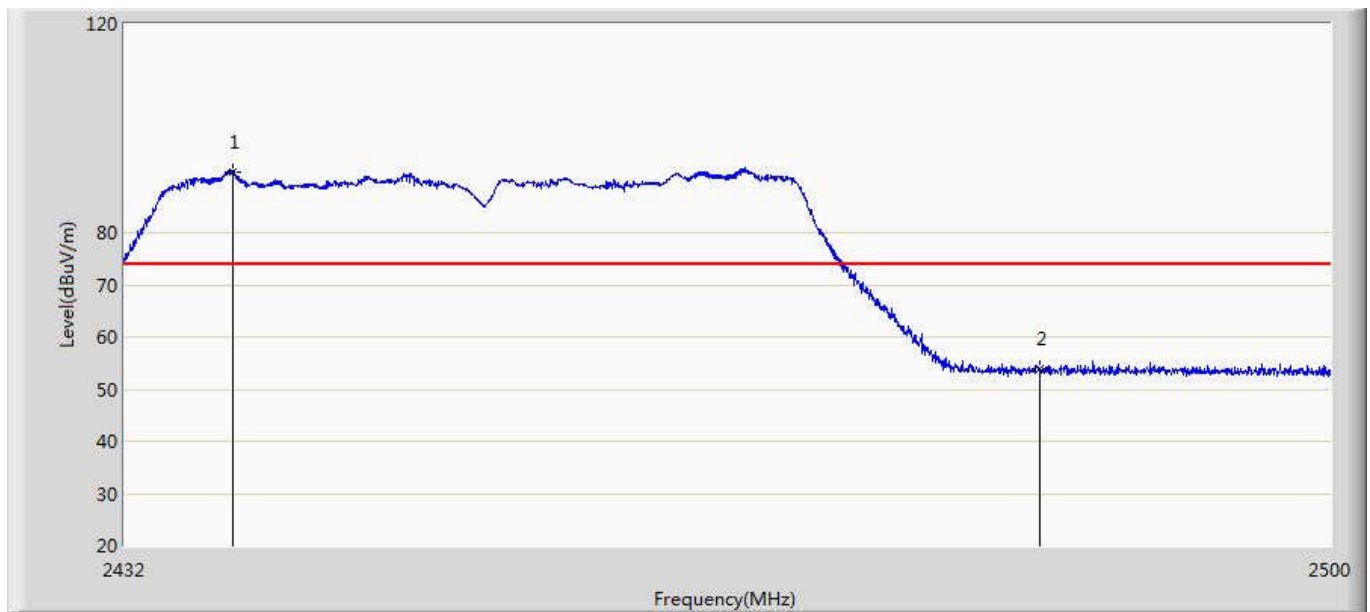
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2436.182	100.643	64.837	N/A	N/A	35.807	PK
2		2483.500	61.544	25.652	-12.456	74.000	35.891	PK

Profile: 1682009R	Page No.: 70
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2452Mhz by 802.11 n(40MHz) with antenna 1+2	



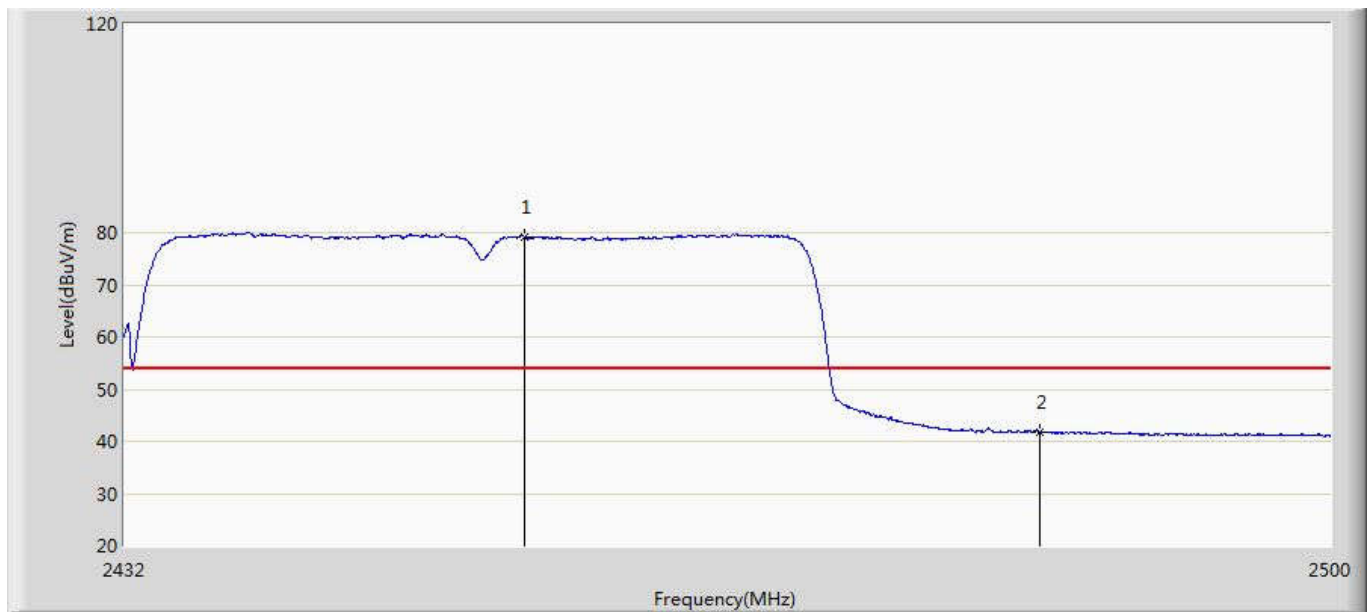
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2436.046	90.564	54.758	N/A	N/A	35.806	AV
2		2483.500	46.985	11.093	-7.015	54.000	35.891	AV

Profile: 1682009R	Page No.: 71
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2452Mhz by 802.11 n(40MHz) with antenna 1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2438.086	91.725	55.919	N/A	N/A	35.806	PK
2		2483.500	53.770	17.878	-20.230	74.000	35.891	PK

Profile: 1682009R	Page No.: 72
Engineer: Scott	
Site: AC5	Time: 2016/09/20 - 21:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AV 120V/60Hz
Note: Mode 1:Transmit at CH2452Mhz by 802.11 n(40MHz) with antenna 1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.406	79.228	43.383	N/A	N/A	35.845	AV
2		2483.500	41.691	5.799	-12.309	54.000	35.891	AV

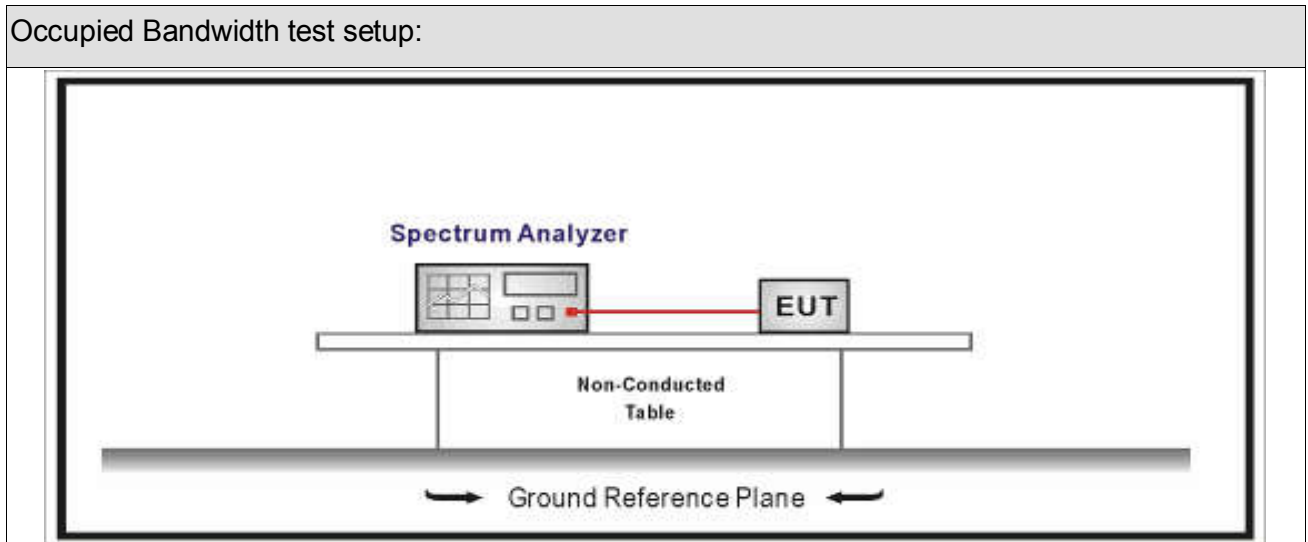
7. Occupied Bandwidth

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	2017.02.04
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2016.04.09	2017.04.09
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2016.04.09	2017.04.09
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.10

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

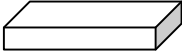
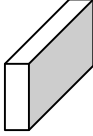
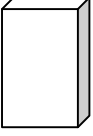
Occupied Bandwidth

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
☒	ANSI C63.10		11.8	DTS bandwidth
	☐	ANSI C63.10	11.8.1	Option 1
	☒	ANSI C63.10	11.8.2	Option 2

7.5. EUT test definition

Item	Occupied Bandwidth			
Device Category	☐	Fixed position use		
	☒	Mobile position use		
Test mode	Mode 1~4			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☒	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

7.6. Test Result

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Mode	: Mode1~4	Test Site	: TR8
Test Date	: 2016.09.22		

Antenna #1

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	6dB Occupied Bandwidth (MHz)	Limit (kHz)	Result
1	01	2412	15.382	11.100	>500	Pass
1	06	2437	15.226	10.130	>500	Pass
1	11	2462	15.226	10.140	>500	Pass
2	01	2412	16.523	16.600	>500	Pass
2	06	2437	16.514	16.580	>500	Pass
2	11	2462	16.491	16.580	>500	Pass
3	01	2412	17.679	17.810	>500	Pass
3	06	2437	17.679	17.810	>500	Pass
3	11	2462	17.683	17.820	>500	Pass
4	03	2422	35.215	35.560	>500	Pass
4	06	2437	36.212	35.540	>500	Pass
4	09	2452	35.225	35.580	>500	Pass

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

Mode 1 CH06 (2437MHz)



Antenna #2

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	6dB Occupied Bandwidth (MHz)	Limit (kHz)	Result
1	01	2412	15.561	11.110	>500	Pass
1	06	2437	15.491	10.140	>500	Pass
1	11	2462	15.368	10.140	>500	Pass
2	01	2412	16.532	16.570	>500	Pass
2	06	2437	16.543	16.590	>500	Pass
2	11	2462	16.523	16.600	>500	Pass
3	01	2412	17.715	17.710	>500	Pass
3	06	2437	17.682	17.730	>500	Pass
3	11	2462	17.671	17.730	>500	Pass
4	03	2422	35.301	36.430	>500	Pass
4	06	2437	36.287	36.490	>500	Pass
4	09	2452	35.249	36.480	>500	Pass

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

Mode 1 CH06 (2437MHz)



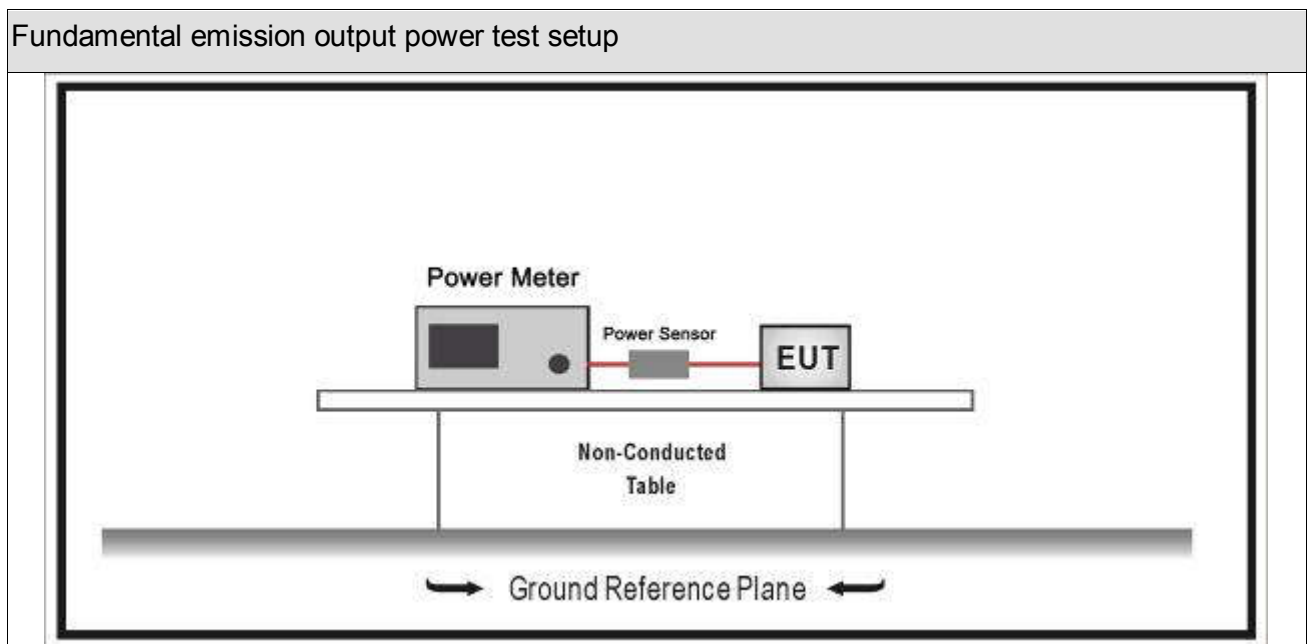
8. Fundamental emission output power

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	2016.01.04	2017.01.04
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.02.04	2017.02.04
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2015.10.14	2016.10.14
Power Sensor	Anritsu	MA2411B	0846014	2015.10.14	2016.10.14
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2016.04.10	2017.04.10

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

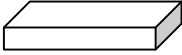
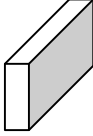
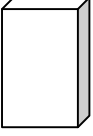
Fundamental emission output power Limit		
☒	$G_{TX} \leq 6\text{dBi}$	$P_{out} \leq 30\text{dBm}$
☐	$G_{TX} > 6\text{dBi}$	
☐	Non-Fix point-point	$P_{out} \leq 30 - (G_{TX} - 6)$
☐	Fix point-point	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
☐	Point-to-multipoint	$P_{out} \leq 30 - (G_{TX} - 6)$
☐	Overlap Beams	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
☐	Aggregate power transmitted simultaneously on all beams	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
☐	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	
☒	ANSI C63.10			11.9	Fundamental emission output power	
	☐	ANSI C63.10		11.9.1	Maximum peak conducted output power	
		☐	ANSI C63.10	11.9.1.1	RBW ≥ DTS bandwidth	
		☐	ANSI C63.10	11.9.1.2	Integrated band power method	
		☐	ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method	
	☒	ANSI C63.10		11.9.2	Maximum conducted (average) output power	
		☐	ANSI C63.10		11.9.2.2	Measurement using a spectrum analyzer (SA)
			☐	ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle≥98%)
			☐	ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle≥98%)
			☐	ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle≤98%)
			☐	ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle≤98%)
			☐	ANSI C63.10	11.9.2.2.4	Method AVGSA-3
			☐	ANSI C63.10	11.9.2.2.5	Method AVGSA-3A
		☒	ANSI C63.10		11.9.2.3	Measurement using a power meter (PM)
			☐	ANSI C63.10	11.9.2.3.1	Method AVGPM
			☒	ANSI C63.10	11.9.2.3.2	Method AVGPM-G

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
☒	KDB 662911		F2)a)	Basic methodology with NANT transmit antennas
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☒	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas with NANT = 2.
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☐	KDB 662911		F2)d)	Sectorized antenna systems.
	☐	KDB 662911	F2)d) (i)	transmit signals are correlated
	☐	KDB 662911	F2)d) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)e)	Spatial Multiplexing
	☐	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☐	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☐	KDB 662911	F2)f) (i)	Antennas have the same gain
	☐	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☐	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	☐	Fixed position use		
	☒	Mobile position use		
Test mode	Mode 1~4			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☒	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

8.6. Test Result

Product Name	:	AC1900 High Gain Wireless Dual Band USB Adapter	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~4	Test Site	:	TR8
Test Date	:	2016.09.24			

Mode	Channel	Test Frequency (MHz)	Average Power Output (dBm)		Total power(dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 1	Ant 2				
1	01	2412	14.82	14.36	N/A	3.0	30	Pass
1	06	2437	14.93	14.49	N/A	3.0	30	Pass
1	11	2462	14.75	14.32	N/A	3.0	30	Pass
2	01	2412	14.16	15.29	N/A	3.0	30	Pass
2	06	2437	14.54	15.32	N/A	3.0	30	Pass
2	11	2462	14.42	15.22	N/A	3.0	30	Pass
3	01	2412	13.71	13.48	16.61	3.0	30	Pass
3	06	2437	13.83	13.54	16.70	3.0	30	Pass
3	11	2462	13.58	13.52	16.56	3.0	30	Pass
4	03	2422	12.92	12.74	15.84	3.0	30	Pass
4	06	2437	12.97	12.89	15.94	3.0	30	Pass
4	09	2452	12.93	12.84	15.90	3.0	30	Pass

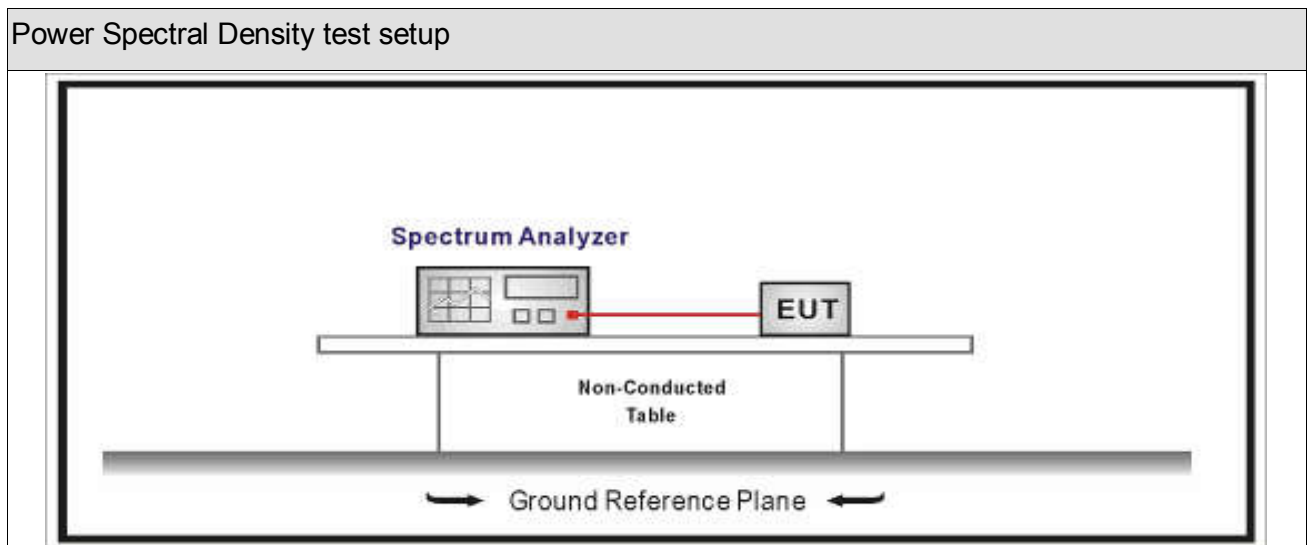
Note: The power of 802.11n for 400Mbps rate is less than the power at lower rate, so test was performed in lower rate.

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	2017.02.04
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2016.04.09	2017.04.09
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2016.04.09	2017.04.09
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.10
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

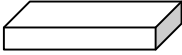
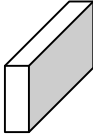
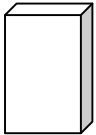
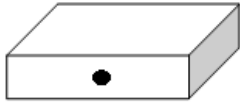
Power Spectral Density Limit
Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$

9.4. Test Procedure

Power Spectral Density Test Method				
	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
	☒	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	☐	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle $\geq$ 98%)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq$ 98%)
	☐	ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle $<$ 98%)
	☐	ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle $<$ 98%)
	☐	ANSI C63.10	11.10.7	Method AVGPSD-3
	☐	ANSI C63.10	11.10.8	Method AVGPSD-3A

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
☒	KDB 662911		F2)a)	Basic methodology with NANT transmit antennas
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☒	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas with NANT = 2.
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☐	KDB 662911		F2)d)	Sectorized antenna systems.
	☐	KDB 662911	F2)d) (i)	transmit signals are correlated
	☐	KDB 662911	F2)d) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)e)	Spatial Multiplexing
	☐	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☐	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☐	KDB 662911	F2)f) (i)	Antennas have the same gain
	☐	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☐	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	☐	Fixed position use		
	☒	Mobile position use		
Test mode	Mode 1~4			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☒	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

9.6. Test Result

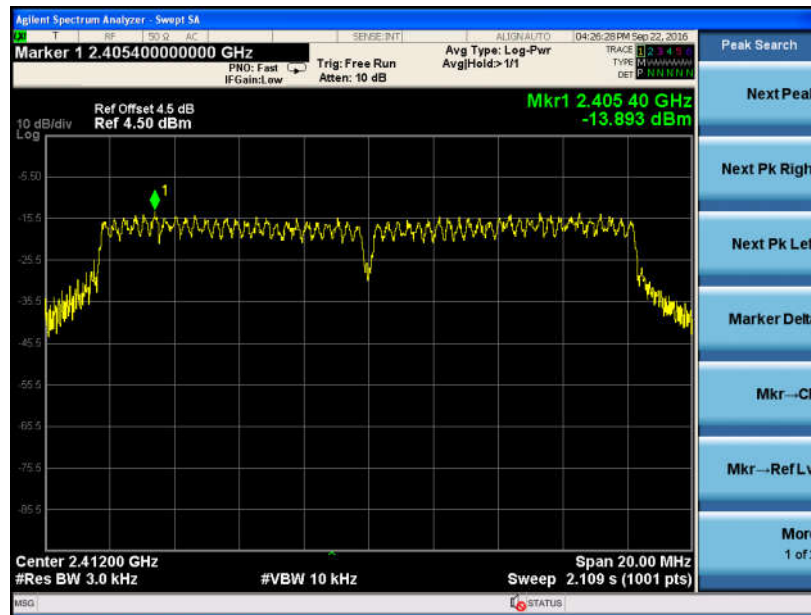
Product Name	:	AC1900 High Gain Wireless Dual Band USB Adapter	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~2	Test Site	:	TR8
Test Date	:	2016.09.22			

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)		Directional Gain (dBi)	Limit (dBm/3kHz)	Result
			Antenna #1	Antenna #2			
1	01	2412	-16.909	-17.787	3.0	8.0	Pass
1	06	2437	-16.593	-16.976	3.0	8.0	Pass
1	11	2462	-16.450	-16.703	3.0	8.0	Pass
2	01	2412	-15.175	-13.893	3.0	8.0	Pass
2	06	2437	-14.796	-13.925	3.0	8.0	Pass
2	11	2462	-14.608	-14.138	3.0	8.0	Pass

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Mode	: Mode3~4	Test Site	: TR8
Test Date	: 2016.09.22		

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Directional Gain (dBi)	Limit (dBm/3kHz)	Result
			Antenna #1	Antenna #2				
3	01	2412	-15.298	-15.985	-12.618	3.0	8.0	Pass
3	06	2437	-14.546	-16.158	-12.267	3.0	8.0	Pass
3	11	2462	-14.971	-15.550	-12.241	3.0	8.0	Pass
4	03	2422	-17.584	-19.157	-15.289	3.0	8.0	Pass
4	06	2437	-16.689	-19.099	-14.719	3.0	8.0	Pass
4	09	2452	-16.500	-18.585	-14.408	3.0	8.0	Pass

Mode 2 CH01(2412MHz)



The End