



C2PC Test Report

FCC Part15 Subpart E

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 (floors 1,3,4,5) and 28 (floors1-4)
Central Science and Technology Park,Shennan Rd,
Nanshan, Shenzhen, China

Date of Receipt : Sep. 04th, 2017

Test Date : Sep. 04th, 2017~ Sep. 12th, 2017

Issued Date : Nov. 14th, 2017

Report No. : 1792001R-RF-US-P09V01

Report Version : V1.2

Note: This report was based on Dekra report (Report No.1682009R), the EUT only add beamforming mode and without any change between the original certification. So each testing item of beamforming mode was tested for compliance.

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 A2LA, TAF or any agency of the government.

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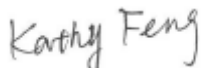
Test Report Certification

Issued Date : Nov.14th, 2017

Report No. : 1792001R-RF-US-P09V01



Product Name : AC1900 High Gain Wireless Dual Band USB Adapter
Applicant : TP-Link Technologies Co., Ltd.
Address : Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer : TP-Link Technologies Co., Ltd.
Address : Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science 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 E
ANSI C63.10:2013;
789033 D02 General UNII Test Procedures New Rules v01r04
KDB 662911 D01 Multiple Transmitter Output v02r01
Test Result : Complied
Performed Location : DEKRA Testing & Certification (Suzhou) Co., Ltd.
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FCC Registration Number: CN1199

Documented By : 
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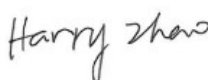
Approved By : 
(Engineering Manager: Harry Zhao)

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1792001R-RF-US-P09V01	V1.0	Initial Issued Report	Sep. 13th, 2017
1792001R-RF-US-P09V01	V1.1	1.Add antenna testing for radiated test 2.Modified Power setting	Nov. 09th, 2017
1792001R-RF-US-P09V01	V1.2	1.Modified duty cycle 2.Delete C63.4 - 2014	Nov. 14th, 2017

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					
Type of Modulation	OFDM					
Data Rate	802.11n: up to 450Mbps					
	802.11ac: up to 1.3Gbps					
Channel Control	Auto					
Transmit modes	☐	802.11a	☒	802.11n(20MHz)	☒	802.11n(40MHz)
	☒	802.11ac(20MHz)	☒	802.11ac(40MHz)	☒	802.11ac(80MHz)
Support Bands	☐		☐	Outdoor AP		
	☒	5150MHz~5250MHz	☐	Indoor AP		
			☐	Fixed point-to-point AP		
			☒	Mobile and Portable Client		
	☒	5250MHz~5350MHz				
	☒	5470MHz~5725MHz	☐	With TDWR Channels		
			☒	Without TDWR Channels		
	☒	5725MHz~5850MHz				

1.2. Antenna information

Antenna Model No.	N/A					
Antenna Manufacturer	tp-link					
Antenna Delivery	☐	1*TX+1*RX	☐	2*TX+2*RX	☒	3*TX+4*RX
Antenna Technology	☐	SISO				
	☒	MIMO	☐	Basic methodology with NANT transmit antennas		
			☐	Sectorized antenna systems		
			☐	Cross-polarized antennas		
			☐	Unequal antenna gains, with equal transmit powers		
			☒	Spatial Multiplexing		
			☐	Cyclic Delay Diversity (CDD)		
Antenna Type	PIFA Antenna					
Antenna Gain						
Antenna Technology	Ant Gain (dBi)			Directional Gain (dBi)		
				For Power	For PSD	
☒ Spatial Multiplexing	Ant1: 4 Ant2: 4 Ant3: 4			8.77	8.77	

1.3. Working Frequency of Each Channel:

802.11n/ac(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
52	5260MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500MHz	104	5520 MHz	108	5540 MHz	112	5550 MHz
116	5580MHz	132	5660 MHz	136	5680 MHz	140	5700 MHz
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825MHz	N/A	N/A	N/A	N/A	N/A	N/A
802.11n/ac(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz	62	5310 MHz
102	5510 MHz	110	5550 MHz	134	5670 MHz	151	5755 MHz
159	5795 MHz	N/A	N/A	N/A	N/A	N/A	N/A
802.11ac(80MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530MHz	155	5775 MHz

1.4. Mode of Operation

DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by 802.11n(20MHz) with Beamforming
Mode 2: Transmit by 802.11n(40MHz) with Beamforming
Mode 3: Transmit by 802.11ac(20MHz) with Beamforming
Mode 4: Transmit by 802.11ac(40MHz) with Beamforming
Mode 5: Transmit by 802.11ac(80MHz) with Beamforming

Note 1: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

Note 2: For portable device, radiated tests was verified over X, Y, Z axis, and shown the worst case on this report.

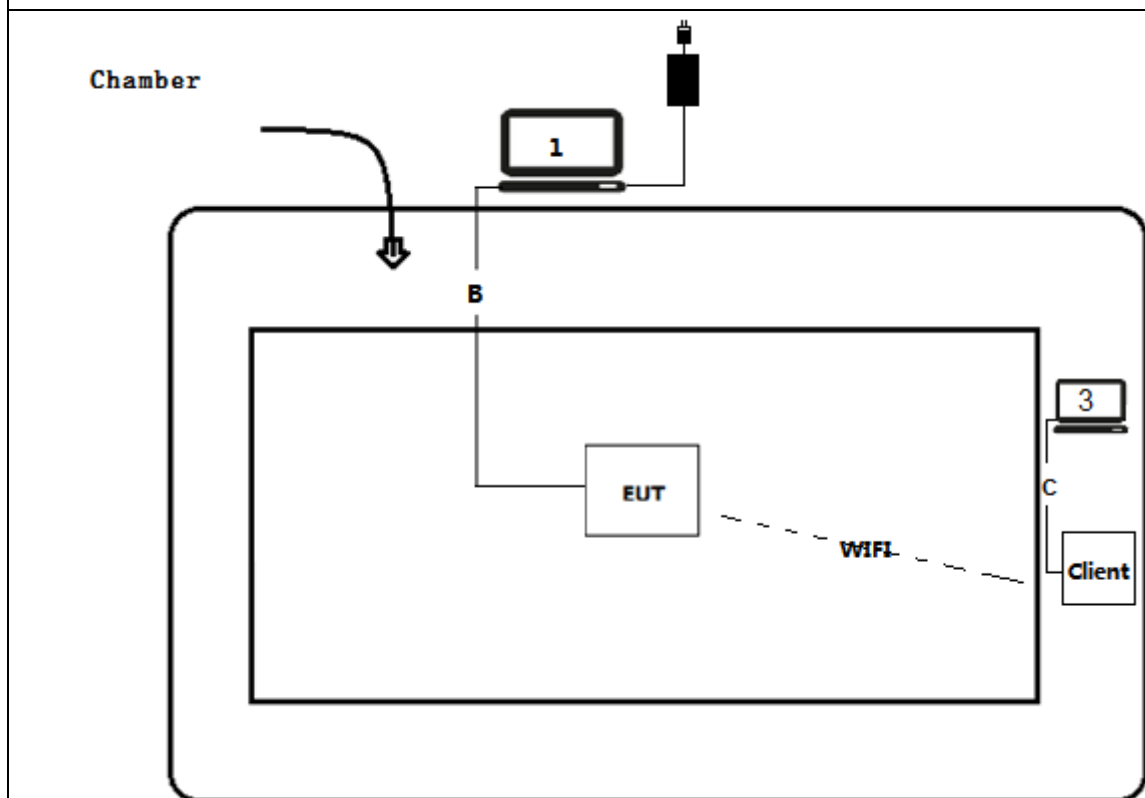
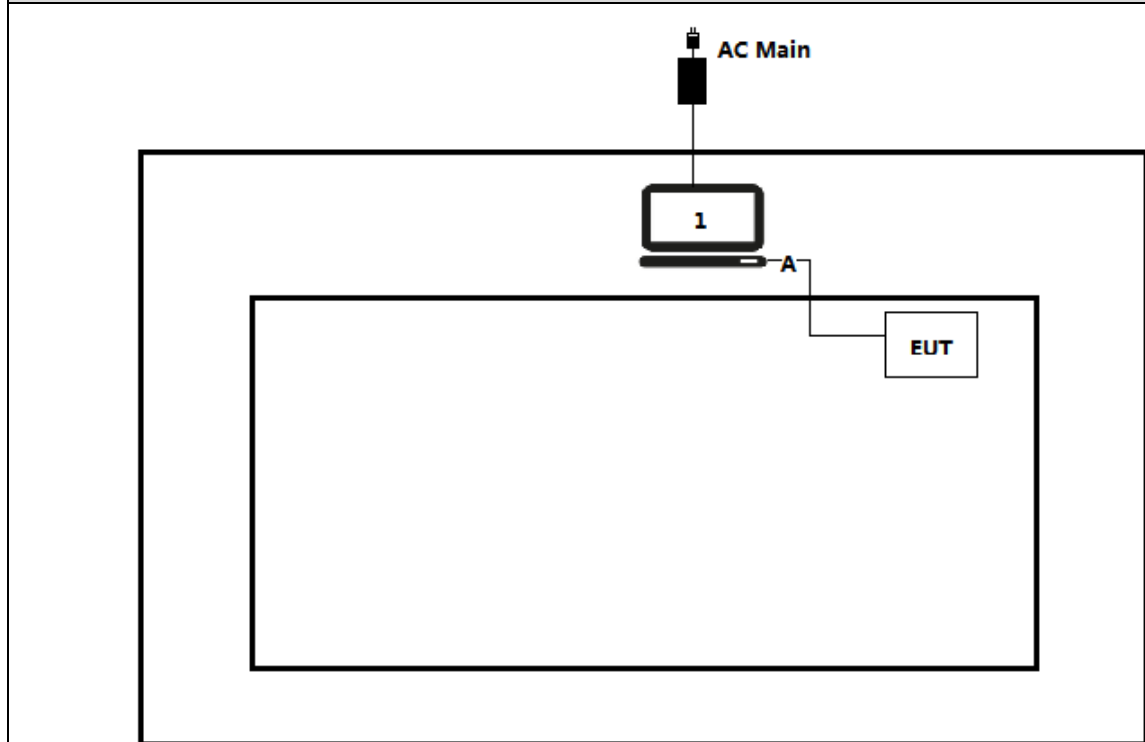
1.5. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	Think pad x220	SUA0600195	Non-shielded

1.6. Configuration of Tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	USB Cable	shielded, 15m

B	USB Cable	shielded, 15m
C	LAN Cable	Non-shielded, 1.5m

1.7. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Input RF commands, and set the test mode and channel, then press OK to start to continue transmit or receive.

2. Technical Test

2.1. Summary of Test Result

- ☒ No deviations from the test standards
☐ Deviations from the test standards as below description:

Performed Test Item	Normative References	Limit	Result
Conducted Emission	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.207	FCC 15.207	PASS
Radiated Emission	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.209	FCC 15.209	PASS
Emission bandwidth and occupied bandwidth	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	FCC 15.407(e)	PASS
6dB Emission Bandwidth	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	FCC 15.407(e)	PASS
Power Output	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	FCC 15.407(a)	PASS
Peak Power Spectral Density	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	FCC 15.407(a)	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.205, 15.407(b)	FCC 15.407(b)	PASS
Frequency Stability	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(g)	Within the band	PASS

2.2. Test Frequency configuration:

Modulation Mode	Channel	Frequency	Channel	Frequency	Channel	Frequency
802.11n(20MHz)/ac(20MHz)	36	5180MHz	44	5220MHz	48	5240MHz
	52	5260MHz	60	5300MHz	64	5320MHz
	100	5500MHz	116	5580MHz	132	5700MHz
	149	5745MHz	157	5785MHz	165	5825MHz
802.11n(40MHz)/ac(40MHz)	38	5190MHz	46	5230MHz	54	5270MHz
	62	5310MHz	102	5510MHz	110	5550MHz
	134	5670MHz	151	5755MHz	159	5795MHz
802.11ac(80MHz)	42	5210MHz	58	5290MHz	106	5530MHz
	155	5775MHz	N/A	N/A	N/A	N/A

2.3. Power Parameter Value of the test software

Test Mode	Frequency	Power Setting		
		Ant 1	Ant 2	Ant 3
802.11n(20MHz)with Beamforming	5180	22	29	1F
	5220	22	29	1F
	5240	22	29	1F
	5260	24	28	21
	5300	24	28	21
	5320	24	28	21
	5500	23	29	20
	5580	23	29	20
	5700	23	29	20
	5745	26	27	28
	5785	26	27	28
	5825	26	27	28
802.11n(40MHz) with Beamforming	5190	22	29	1F
	5230	22	29	1F
	5270	24	28	21
	5310	24	28	21
	5510	23	29	20
	5550	23	29	20
	5670	23	29	20
	5755	26	27	28
	5795	26	27	28

802.11ac(20MHz) with Beamforming	5180	22	29	1F
	5220	22	29	1F
	5240	22	29	1F
	5260	24	28	21
	5300	24	28	21
	5320	24	28	21
	5500	23	29	20
	5580	23	29	20
	5700	23	29	20
	5745	26	27	28
	5785	26	27	28
	5825	26	27	28
802.11ac(40MHz) with Beamforming	5190	22	29	1F
	5230	22	29	1F
	5270	24	28	21
	5310	24	28	21
	5510	23	29	20
	5550	23	29	20
	5670	23	29	20
	5755	26	27	28
	5795	26	27	28
802.11ac(80MHz) with Beamforming	5210	22	29	1F
	5290	24	28	21
	5530	23	29	20
	5775	26	27	28
Note: In 802.11a mode, it is based on SISO technology, so each antenna is transmitted individually, but for other mode, they are based on MIMO technology, so each antenna is transmitted simultaneously.				

2.4. Power vs Data Rate

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)						
		802.11b	802.11g	802.11a	20MHz Bandwidth		40MHz Bandwidth	
					800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6	6.5	7.2	13.5	15.0
1	1	2	9	9	13.0	14.4	27.0	30.0
2	1	5.5	12	12	19.5	21.7	40.5	45.0
3	1	11	18	18	26.0	28.9	54.0	60.0
4	1	---	24	24	39.0	43.3	81.0	90.0
5	1	---	36	36	52.0	57.8	108.0	120.0
6	1	---	48	48	58.5	65.0	121.5	135.0
7	1	---	54	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
16	3	---	---	---	19.5	21.6	40.5	45
17	3	---	---	---	39	43.2	81	90
18	3	---	---	---	58.5	65.1	121.5	135
19	3	---	---	---	78	86.7	162	180
20	3	---	---	---	117	129.9	243	270
21	3	---	---	---	156	173.4	324	360
22	3	---	---	---	175.5	195	364.5	405
23	3	---	---	---	195	216.6	405	450

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

2: The EUT supports three spatial streams.

Spatial Streams (Note1)	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)							
				20MHz		40MHz		80MHz		160MHz	
				Guard Interval		Guard Interval		Guard Interval		Guard Interval	
				800ns	400ns	800ns	400ns	800ns	400ns	800ns	400ns
1	0	BPSK	1/2	6.5	7.2	13.5	15	29.3	32.5	58.5	65
	1	QPSK	1/2	13	14.4	27	30	58.5	65	117	130
	2	QPSK	3/4	19.5	21.7	40.5	45	87.8	97.5	175.5	195
	3	16-QAM	1/2	26	28.9	54	60	117	130	234	260
	4	16-QAM	3/4	39	43.3	81	90	175.5	195	351	390
	5	64-QAM	2/3	52	57.8	108	120	234	260	468	520
	6	64-QAM	3/4	58.5	65	121.5	135	263.3	292.5	526.5	585
	7	64-QAM	5/6	65	72.2	135	150	292.5	325	585	650
	8	256-QAM	3/4	78	86.7	162	180	351	390	702	780
	9	256-QAM	5/6	N/A	N/A	180	200	390	433.3	780	866.7
2	0	BPSK	1/2	13	14.4	27	30	58.6	65	117	130
	1	QPSK	1/2	26	28.8	54	60	117	130	234	260
	2	QPSK	3/4	39	43.4	81	90	175.6	195	351	390
	3	16-QAM	1/2	52	57.8	108	120	234	260	468	520
	4	16-QAM	3/4	78	86.6	162	180	351	390	702	780
	5	64-QAM	2/3	104	115.6	216	240	468	520	936	1040
	6	64-QAM	3/4	117	130	243	270	526.6	585	1053	1170
	7	64-QAM	5/6	130	144.4	270	300	585	650	1170	1300
	8	256-QAM	3/4	156	173.4	324	360	702	780	1404	1560
	9	256-QAM	5/6	N/A	N/A	360	400	780	866.6	1560	1733.4
3	0	BPSK	1/2	19.5	21.6	40.5	45	87.9	97.5	175.5	195
	1	QPSK	1/2	39	43.2	81	90	175.5	195	351	390
	2	QPSK	3/4	58.5	65.1	121.5	135	263.4	292.5	526.5	585
	3	16-QAM	1/2	78	86.7	162	180	351	390	702	780
	4	16-QAM	3/4	117	129.9	243	270	526.5	585	1053	1170
	5	64-QAM	2/3	156	173.4	324	360	702	780	1404	1560
	6	64-QAM	3/4	175.5	195	364.5	405	789.9	877.5	1579.5	1755
	7	64-QAM	5/6	195	216.6	405	450	877.5	975	1755	1950
	8	256-QAM	3/4	234	260.1	486	540	1053	1170	2106	2340
	9	256-QAM	5/6	N/A	N/A	540	600	1170	1299.9	2340	2600.1

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

2: The EUT supports three spatial streams.

2.5. Duty Cycle

Test Mode	Tx On (ms)	Tx Off (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
802.11n(20MHz)	--	--	10Hz	--	100%
802.11n(40MHz)	--	--	10Hz	--	100%
802.11ac(20MHz)	--	--	10Hz	--	100%
802.11ac(40MHz)	--	--	10Hz	--	100%
802.11ac(80MHz)	--	--	10Hz	--	100%

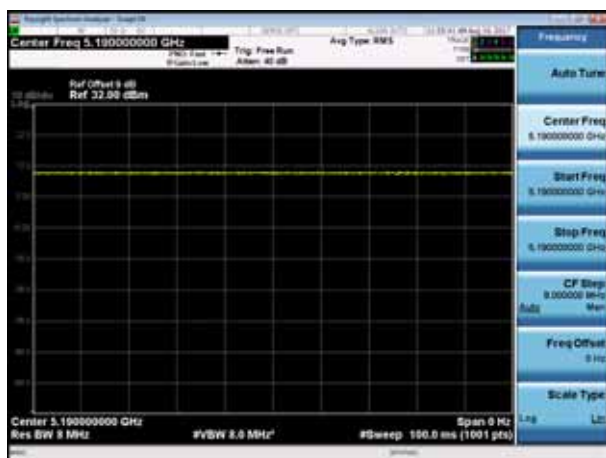
Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Note 2: According to KDB 789033 , when test for Radiated Emission Band Edge and Radiated Emission,VBW $\geq 1/T$ will be used.

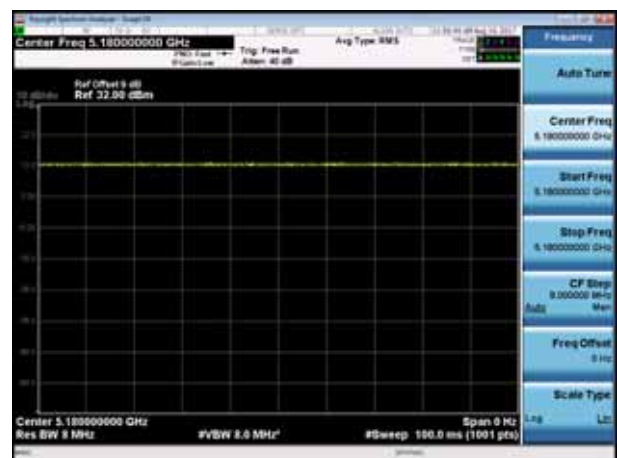
802.11n(20MHz)



802.11n(40MHz)



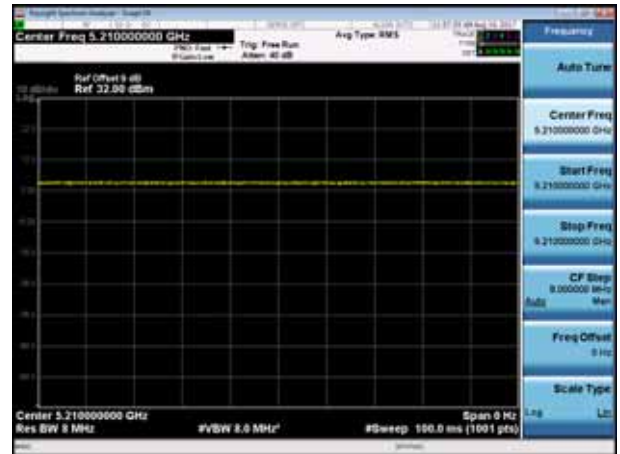
802.11ac(20MHz)



802.11ac(40MHz)



802.11ac(80MHz)



2.6. 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

2.7. 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	$\pm 1.27\text{dB}$
Frequency Stability	$\pm 100\text{ Hz}$

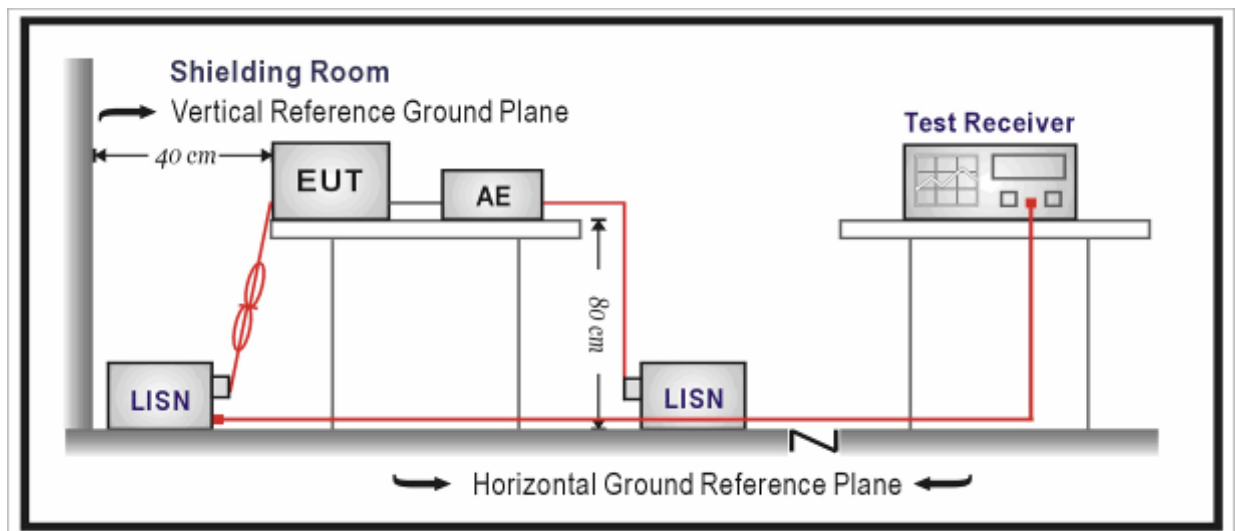
3. Conducted Emission

3.1. Test Equipment

Conducted Emission / TR-1					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100906	2017.03.05	2018.03.05
Two-Line V-Network	R&S	ENV 216	101189	2017.06.16	2018.07.16
Two-Line V-Network	R&S	ENV 216	101044	2016.09.16	2017.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
50ohm Termination	SHX	TF2	07081402	2016.09.16	2017.09.16
Temperature/Humidity Meter	Zhichen	ZC1-2	TR1-TH	2017.01.05	2018.01.05

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 (MHz)	QP (dB μ V)	AV (dB μ V)
0.15 - 0.50	66 – 56	56 – 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

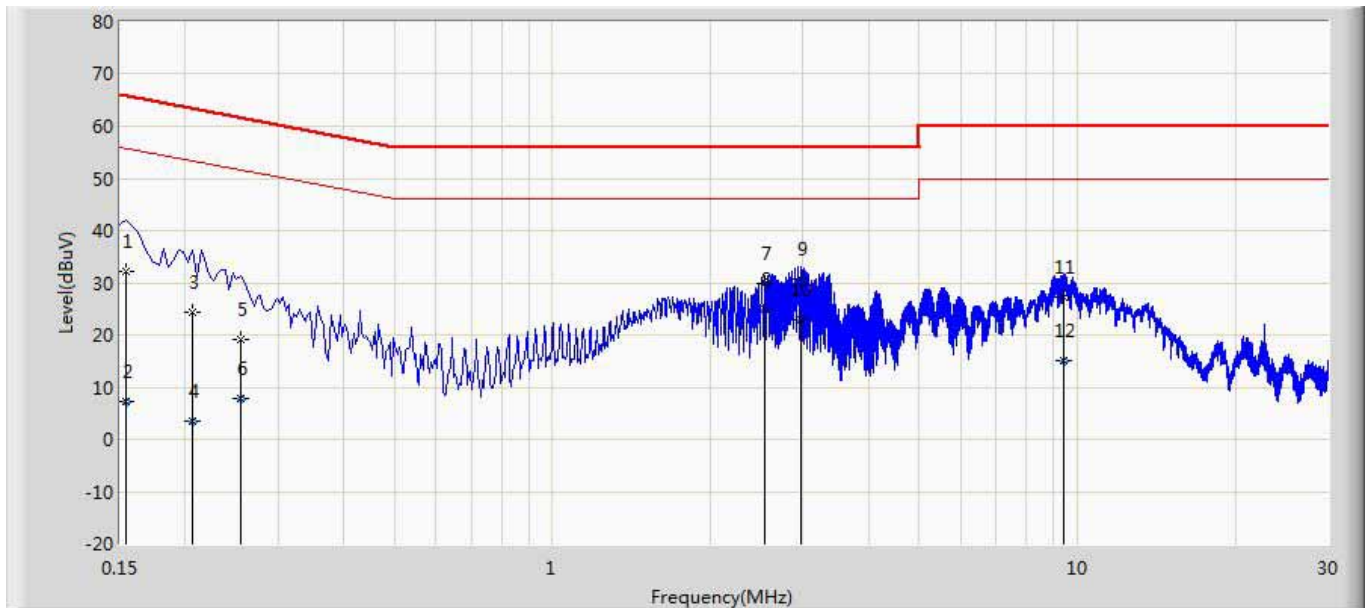
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

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

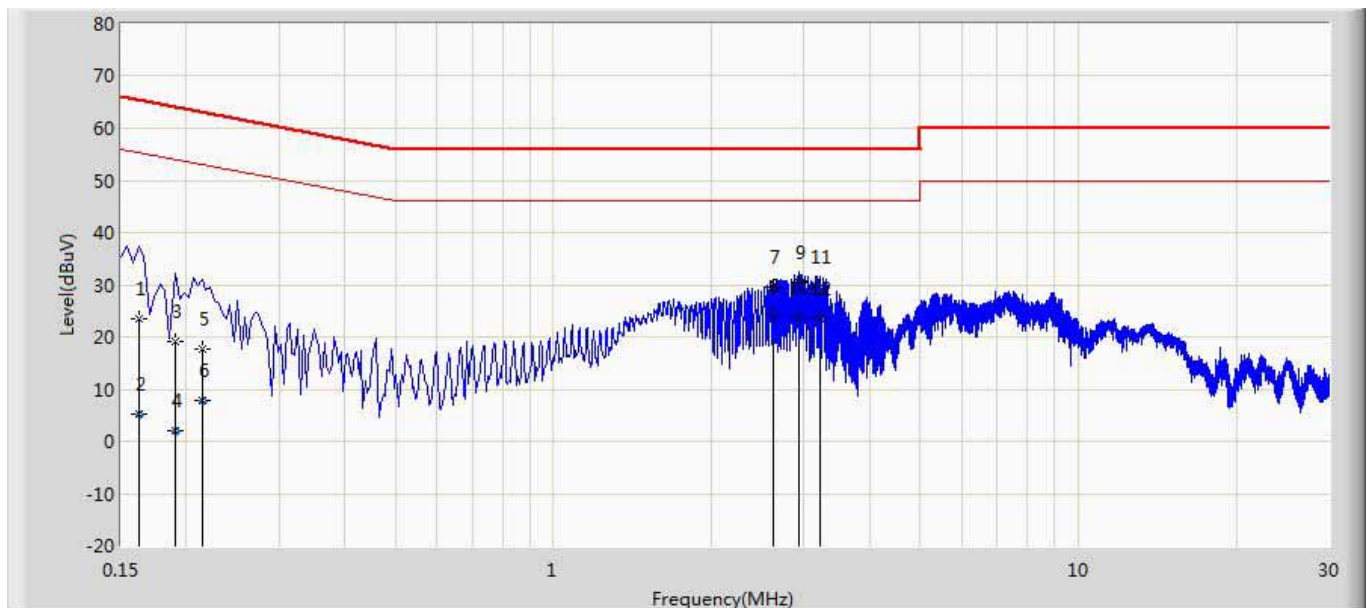
3.5. Test Result

Engineer: Eric	
Site: TR1	Time: 2017/09/07 - 10:52
Limit: FCC_Part15.207_CE_AC Power	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.154	32.163	22.529	-33.618	65.781	9.634	QP
2		0.154	7.105	-2.530	-48.677	55.781	9.634	AV
3		0.206	24.407	14.777	-38.958	63.365	9.630	QP
4		0.206	3.366	-6.264	-49.999	53.365	9.630	AV
5		0.254	19.059	9.428	-42.566	61.625	9.631	QP
6		0.254	7.709	-1.923	-43.916	51.625	9.631	AV
7		2.542	29.774	20.055	-26.226	56.000	9.719	QP
8	*	2.542	25.025	15.306	-20.975	46.000	9.719	AV
9		2.966	30.778	21.044	-25.222	56.000	9.734	QP
10		2.966	22.998	13.264	-23.002	46.000	9.734	AV
11		9.438	27.385	17.433	-32.615	60.000	9.952	QP
12		9.438	15.052	5.100	-34.948	50.000	9.952	AV

Engineer: Eric	
Site: TR1	Time: 2017/09/07 - 10:58
Limit: FCC_Part15.207_CE_AC Power	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.162	23.351	13.732	-42.010	65.361	9.619	QP
2		0.162	5.158	-4.461	-50.202	55.361	9.619	AV
3		0.190	19.058	9.431	-44.979	64.037	9.626	QP
4		0.190	2.047	-7.579	-51.989	54.037	9.626	AV
5		0.214	17.585	7.957	-45.464	63.049	9.628	QP
6		0.214	7.961	-1.667	-45.088	53.049	9.628	AV
7		2.626	29.612	19.893	-26.388	56.000	9.719	QP
8	*	2.626	24.002	14.282	-21.998	46.000	9.719	AV
9		2.942	30.543	20.813	-25.457	56.000	9.730	QP
10		2.942	23.863	14.133	-22.137	46.000	9.730	AV
11		3.222	29.602	19.863	-26.398	56.000	9.739	QP
12		3.222	23.376	13.637	-22.624	46.000	9.739	AV

4. Radiated Emission

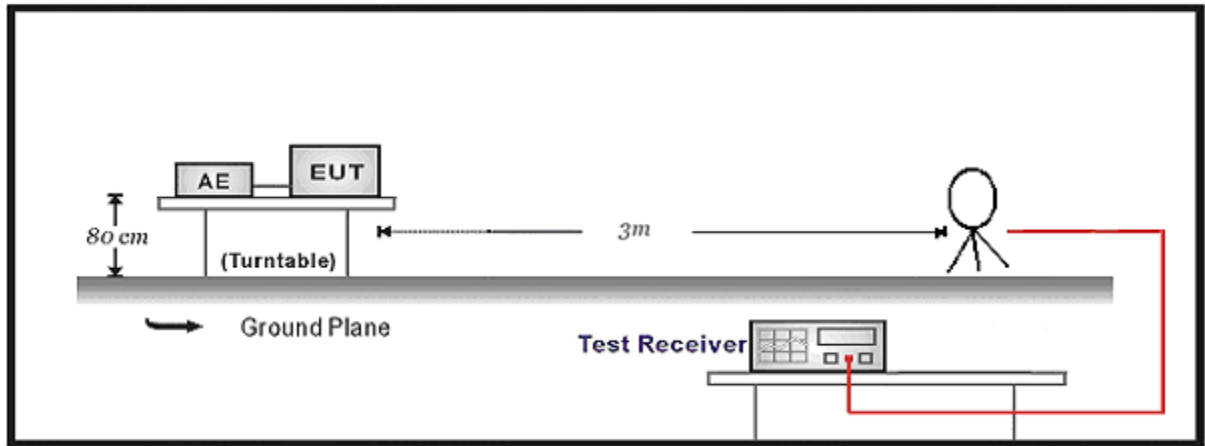
4.1. Test Equipment

Radiated Emission / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2017.03.29	2018.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2016.11.16	2017.11.17
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2016.10.16	2017.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2017.03.02	2018.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2017.01.04	2018.01.03

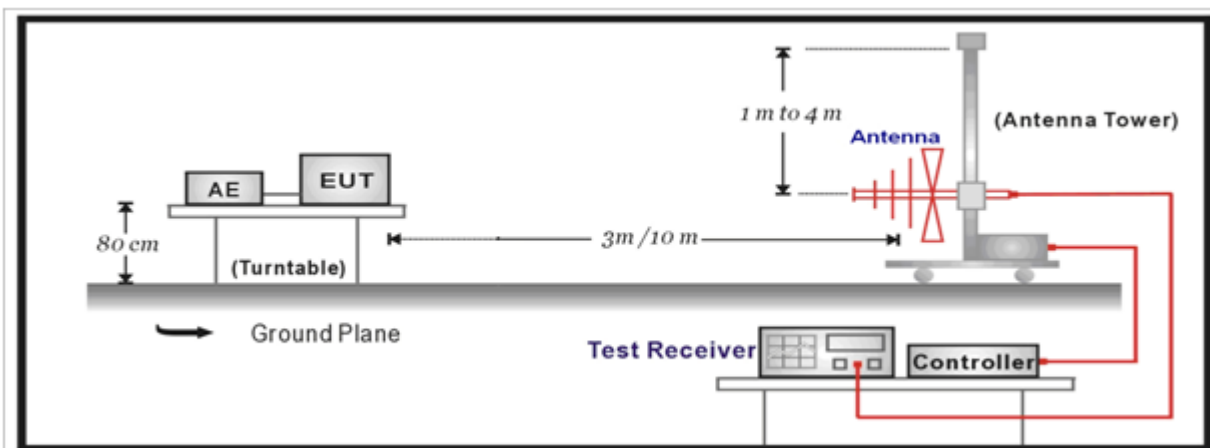
Radiated Emission / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2017.01.04	2018.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2017.05.06	2018.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2017.05.06	2018.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2017.01.22	2018.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.11.25	2017.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2017.03.02	2018.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2017.03.02	2018.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2017.03.02	2018.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2017.06.10	2018.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2017.01.04	2018.01.03
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

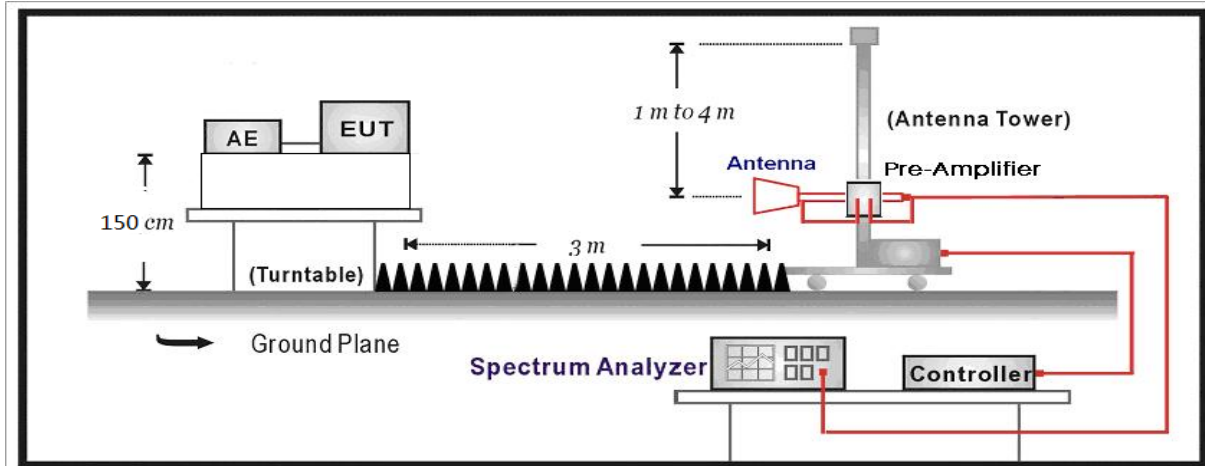
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



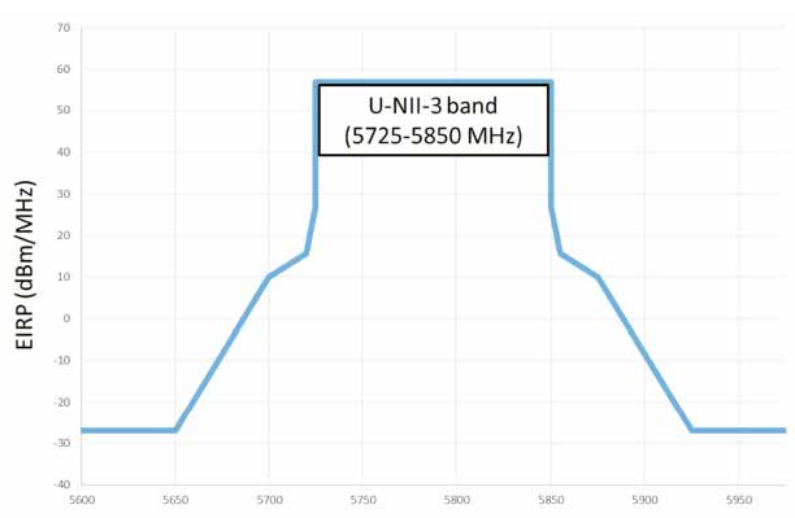
4.3. Limit

FCC Part 15 Subpart C Paragraph 15.209 (Restricted Band Emissions Limit)		
Frequency (MHz)	Distance (m)	Level (dB μ V/m)
0.009-0.490	300	2400/F(kHz)
0.490-1.705	30	24000/F(kHz)
1.705-30.0	30	30
30-88	3	100**
88-216	3	150**
216-960	3	200**
Above 960	3	500

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).

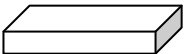
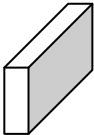
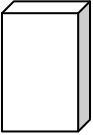
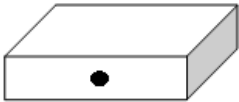
FCC Part 15 Subpart C Paragraph 15.205 (Restricted Band)			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	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			

FCC Part 15 Subpart C Paragraph 15.407(5)(b) (Unrestricted Band Emissions Limit)		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dB μ V/m)
5150 - 5250	-27	68.3
5250 - 5350	-27	68.3
5470 - 5725	-27	68.3
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	
5725 - 5850	 U-NII-3 band (5725-5850 MHz)	

4.4. Test Procedure

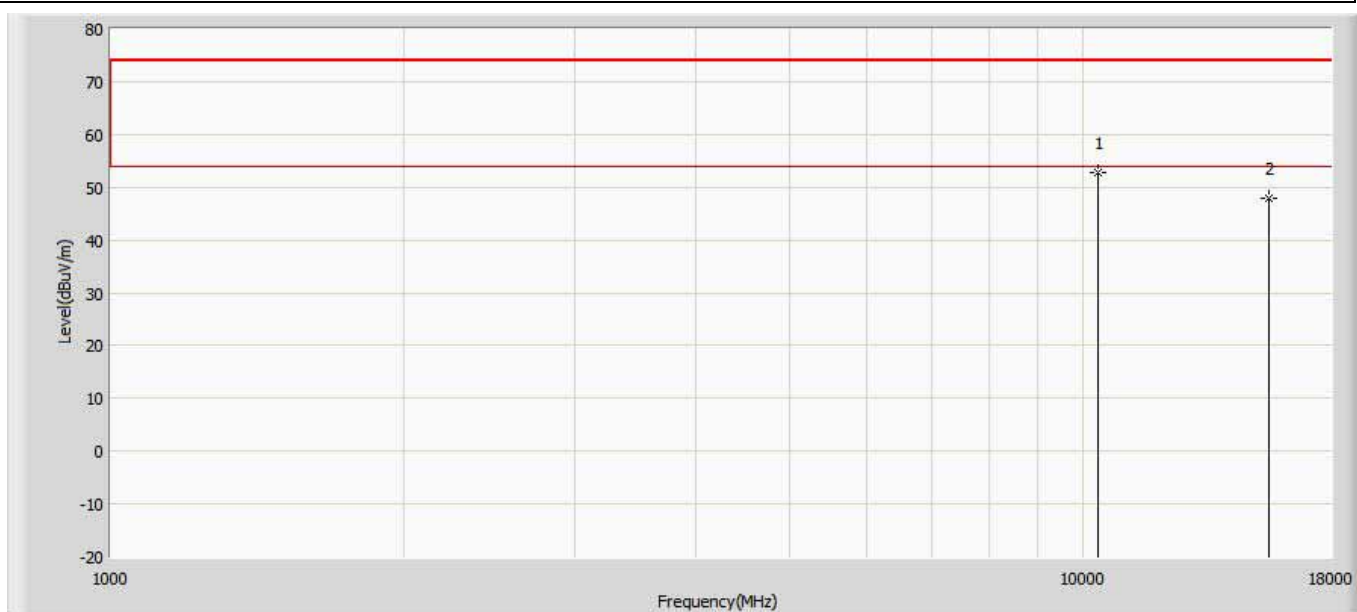
Test Method				
	References Rule		Chapter	Description
☐	ANSI C63.10		12.7.3	Emissions in non-restricted frequency bands
☒	ANSI C63.10		12.7.2	Emissions in restricted frequency bands
	☒	ANSI C63.10	12.7.5	Radiated emission measurements
	☒	ANSI C63.10	12.7.6	Procedure for peak unwanted emissions measurements above 1000 MHz
	☒	ANSI C63.10	12.7.7	Procedures for average unwanted emissions measurements above 1000 MHz
	☐	ANSI C63.10	12.7.7.2	Method AD (average detection)—primary method
	☒	ANSI C63.10	12.7.7.3	Method VB-A (Alternative)
	☒	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
☐	FCC KDB 789033 D02v01r04		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01r04		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01r04	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01r04	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r04	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r04	G.6.c	Method AD (Average detection)—primary method
	☐	FCC KDB 789033 D02v01r04	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

4.5. EUT test Axis definition

Item	Radiated Emission			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Client use		
Test mode	Mode 1-5			
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
				

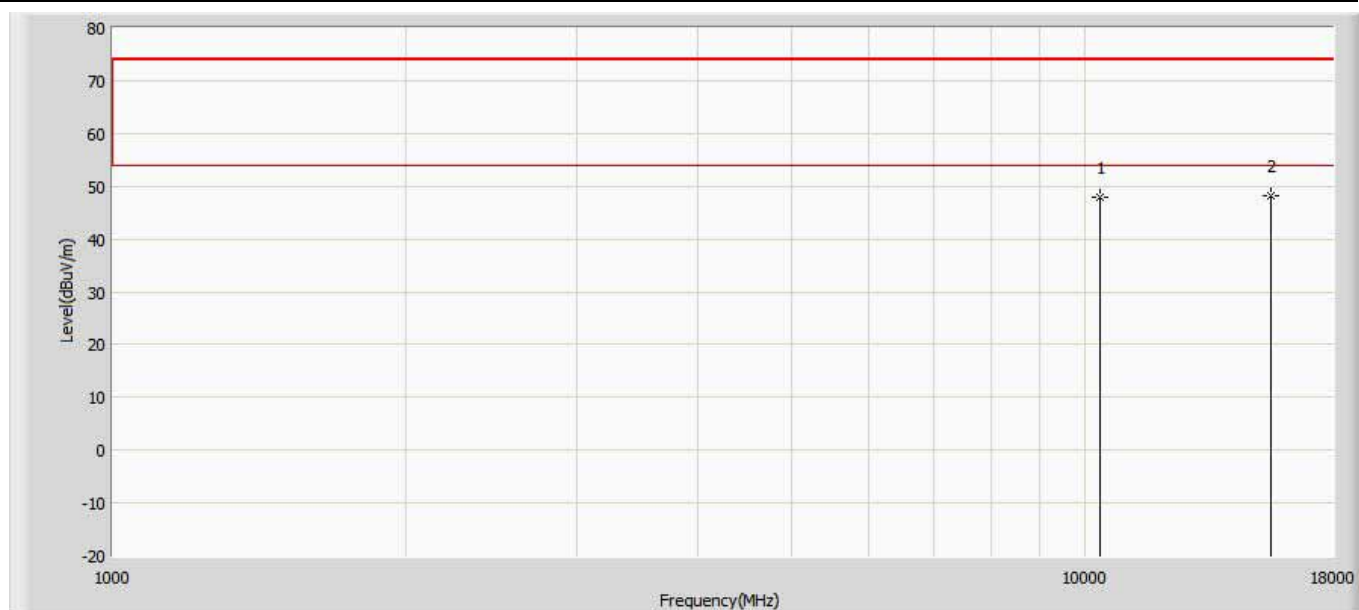
4.6. Test Result

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:51
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5180MHz by 802.11n20 Ant1+2+3	



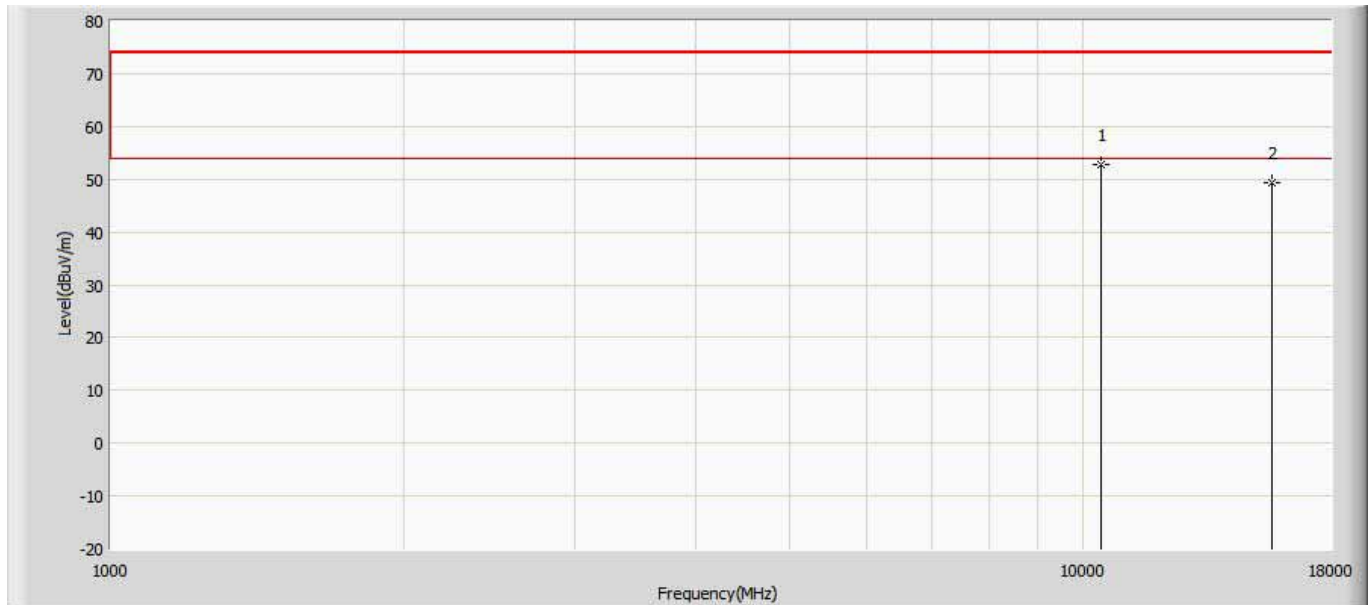
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10358.500	52.841	54.031	-21.159	74.000	-1.190	PK
2		15540.000	47.767	45.387	-26.233	74.000	2.380	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5180MHz by 802.11n20 Ant1+2+3	



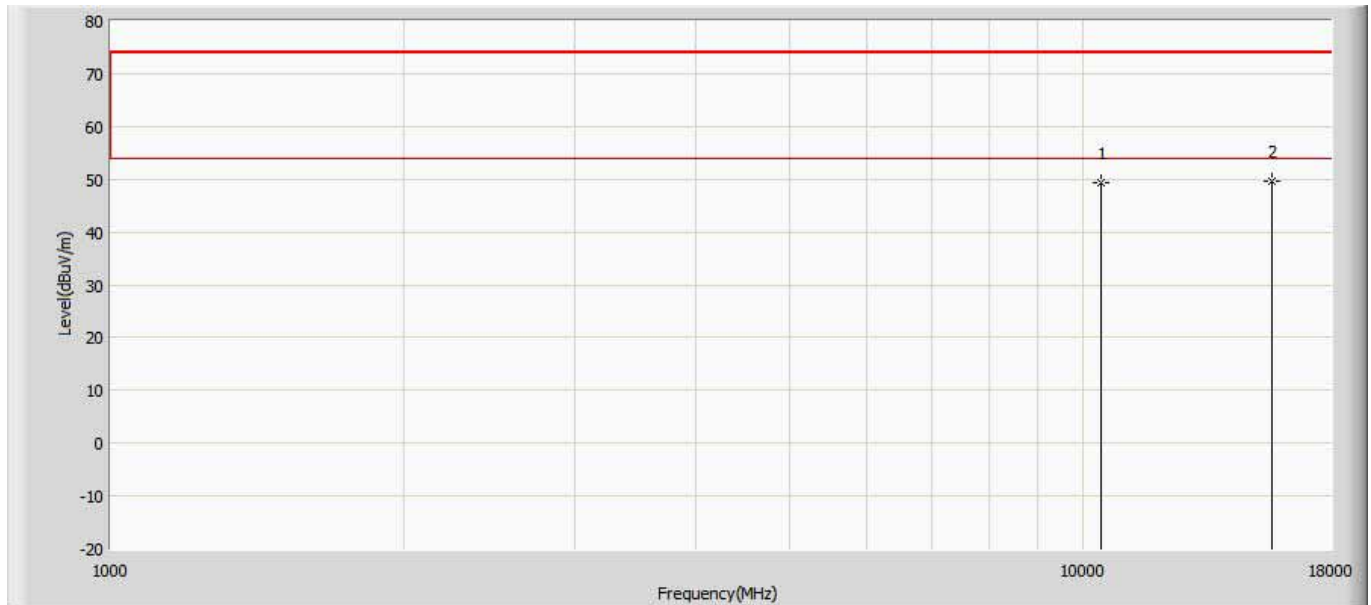
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10360.000	47.858	48.912	-26.142	74.000	-1.054	PK
2	*	15540.000	48.160	45.780	-25.840	74.000	2.380	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5220MHz by 802.11n20 Ant1+2+3	



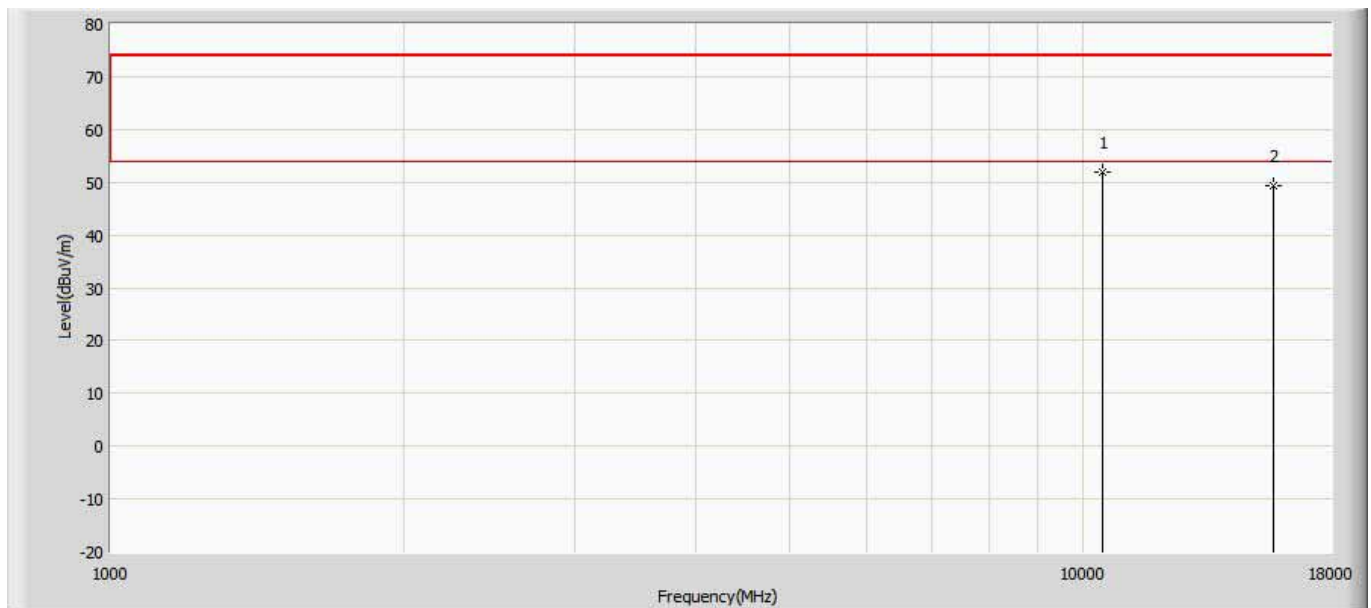
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10443.500	52.757	53.177	-21.243	74.000	-0.420	PK
2		15660.000	49.312	44.922	-24.688	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5220MHz by 802.11n20 Ant1+2+3	



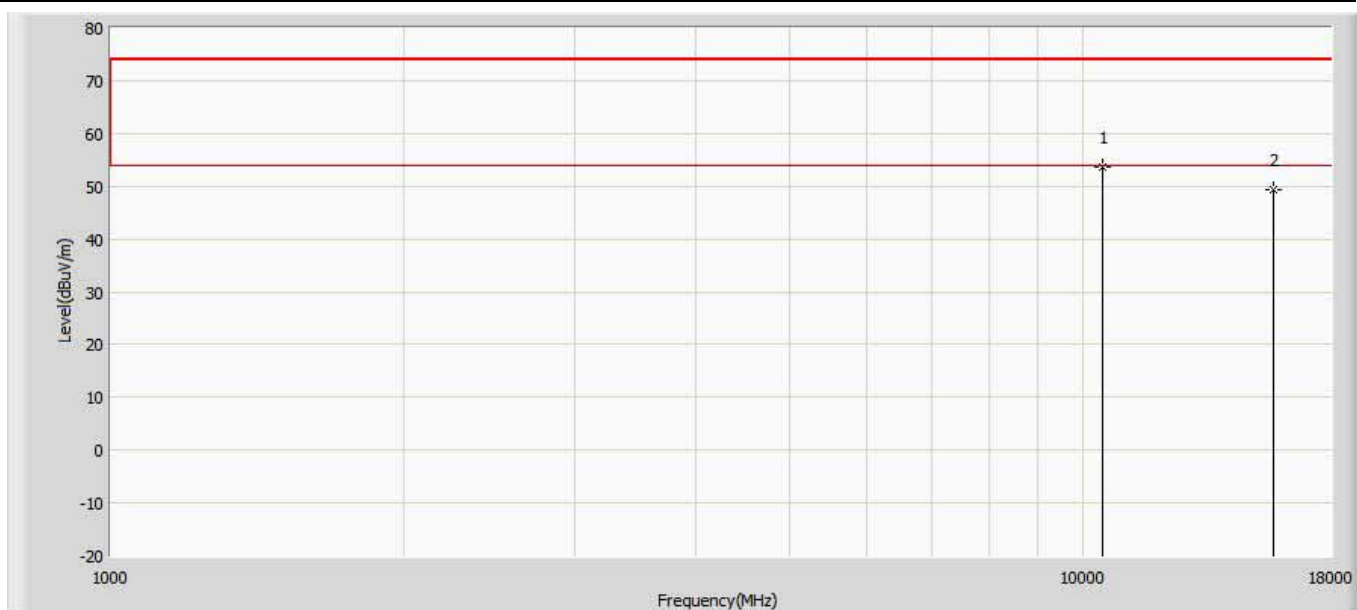
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10440.000	49.365	49.785	-24.635	74.000	-0.420	PK
2	*	15660.000	49.633	45.243	-24.367	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5240MHz by 802.11n20 Ant1+2+3	



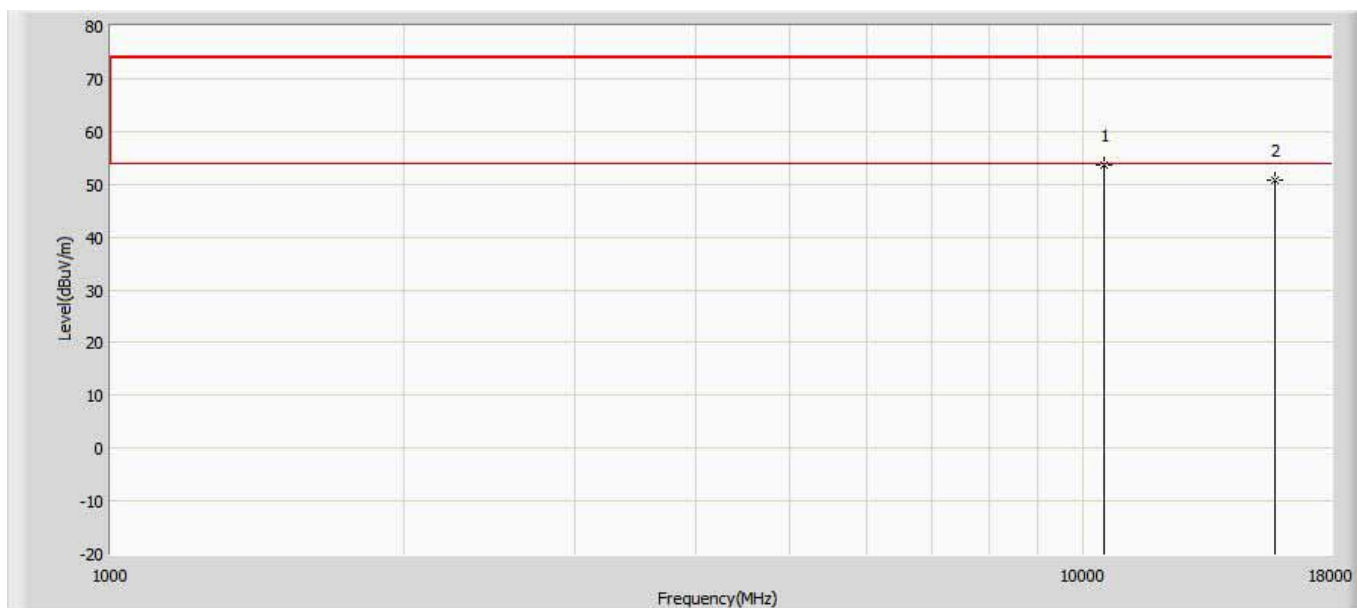
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10477.500	51.931	52.351	-22.069	74.000	-0.420	PK
2		15720.000	49.381	44.991	-24.619	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5240MHz by 802.11n20 Ant1+2+3	



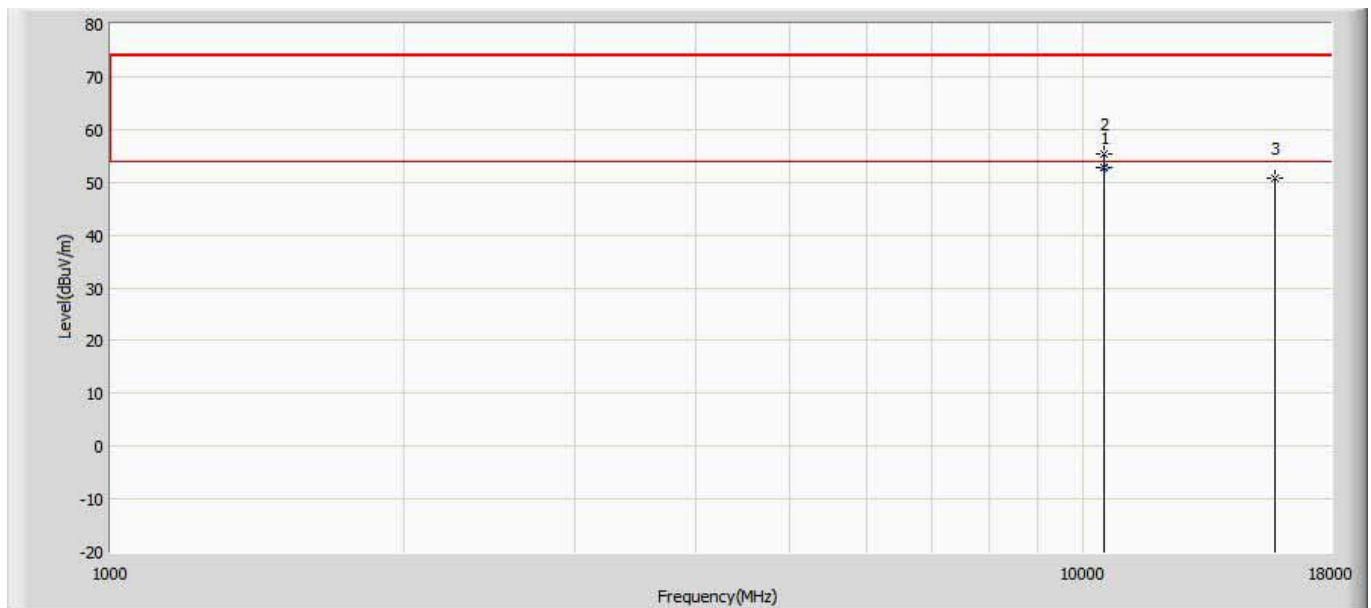
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10477.500	53.645	54.065	-20.355	74.000	-0.420	PK
2		15720.000	49.331	44.941	-24.669	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5260MHz by 802.11n20 Ant1+2+3	



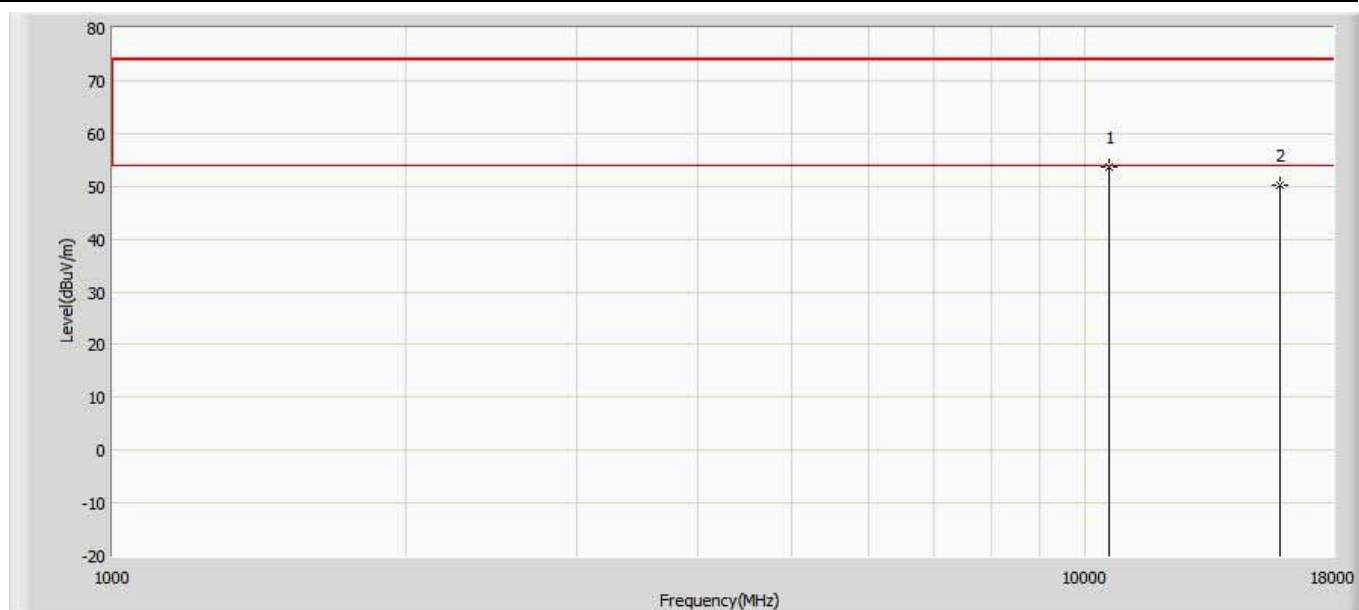
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10520.000	53.604	54.024	-20.396	74.000	-0.420	PK
2		15780.000	50.653	46.263	-23.347	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5260MHz by 802.11n20 Ant1+2+3	



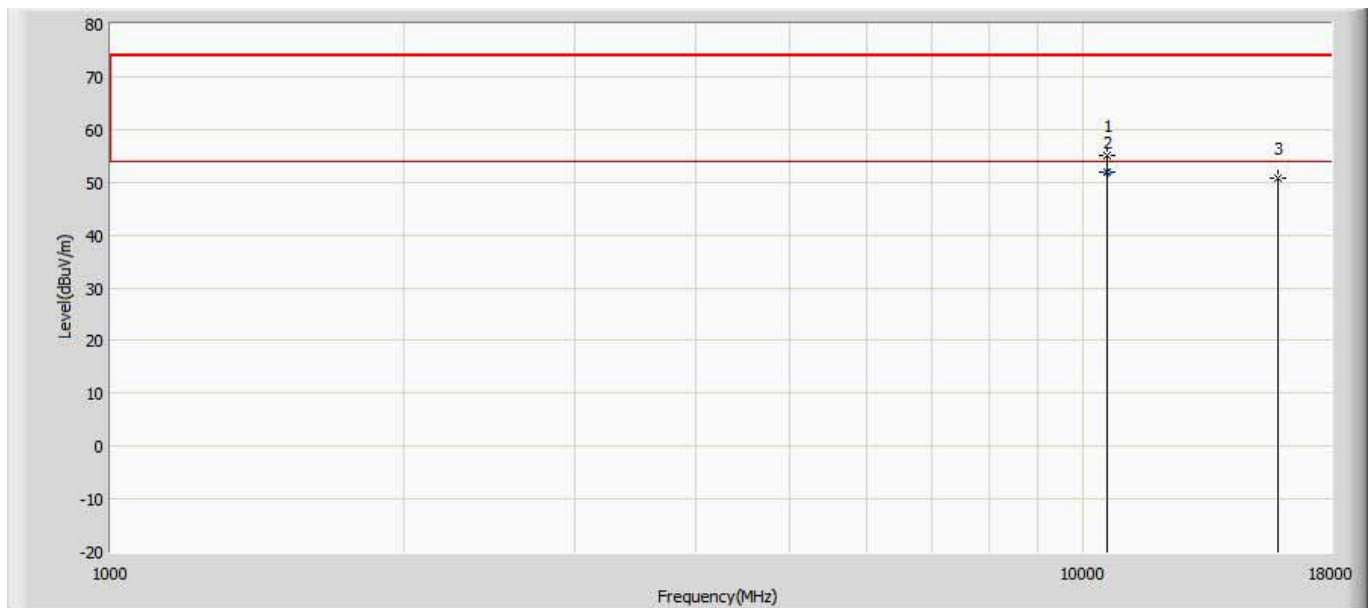
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10519.970	52.830	53.250	-1.170	54.000	-0.420	AV
2		10520.000	55.434	55.854	-18.566	74.000	-0.420	PK
3		15780.000	50.689	46.299	-23.311	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5300MHz by 802.11n20 Ant1+2+3	



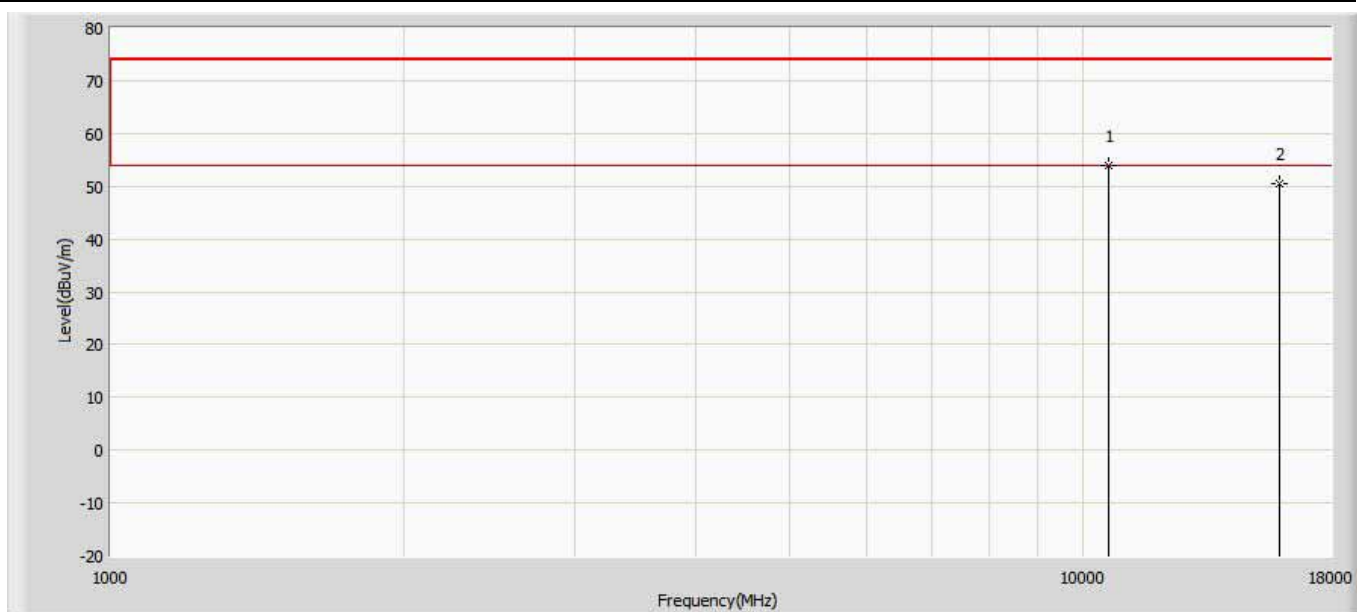
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10596.500	53.568	53.988	-20.432	74.000	-0.420	PK
2		15900.000	50.161	45.771	-23.839	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:52
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5300MHz by 802.11n20 Ant1+2+3	



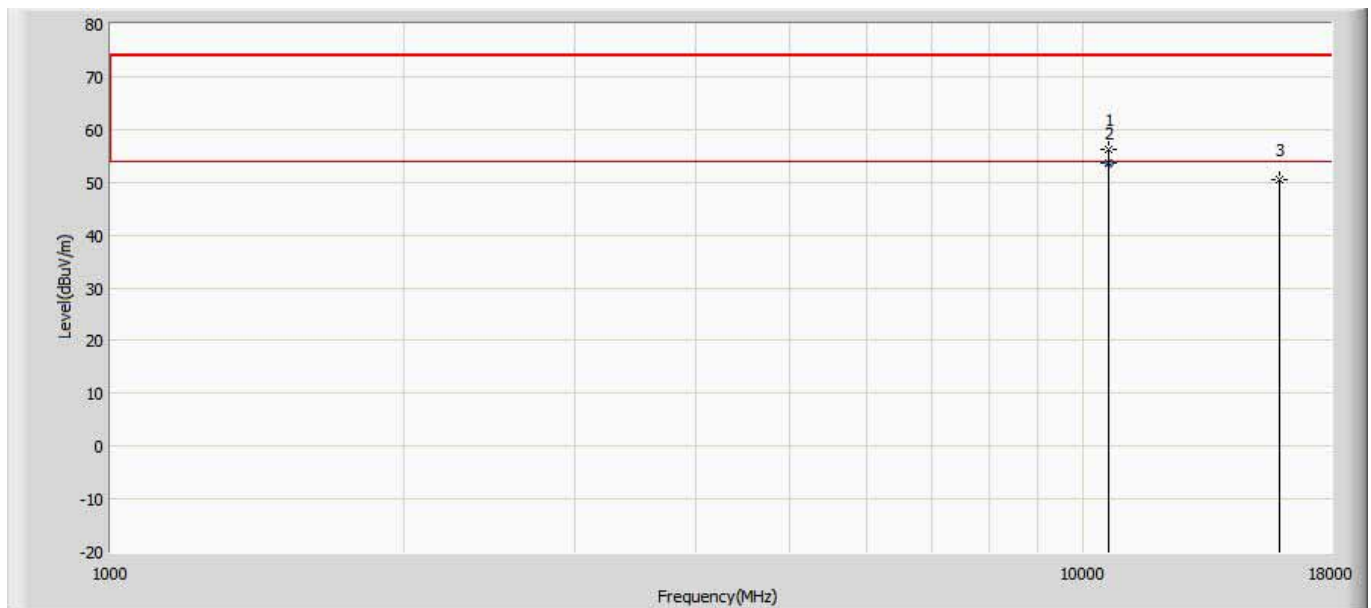
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10596.500	55.102	55.522	-18.898	74.000	-0.420	PK
2	*	10596.980	51.890	52.310	-2.110	54.000	-0.420	AV
3		15900.000	50.727	46.337	-23.273	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5320MHz by 802.11n20 Ant1+2+3	



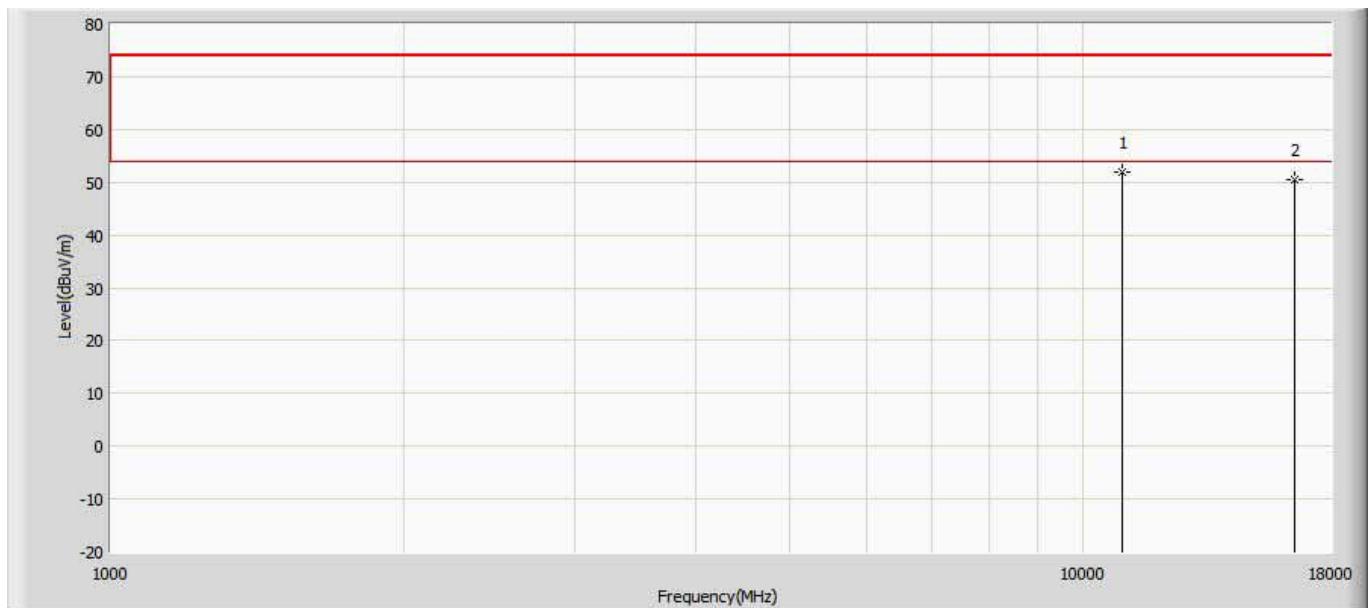
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10639.000	53.968	54.388	-20.032	74.000	-0.420	PK
2		15960.000	50.629	46.239	-23.371	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5320MHz by 802.11n20 Ant1+2+3	



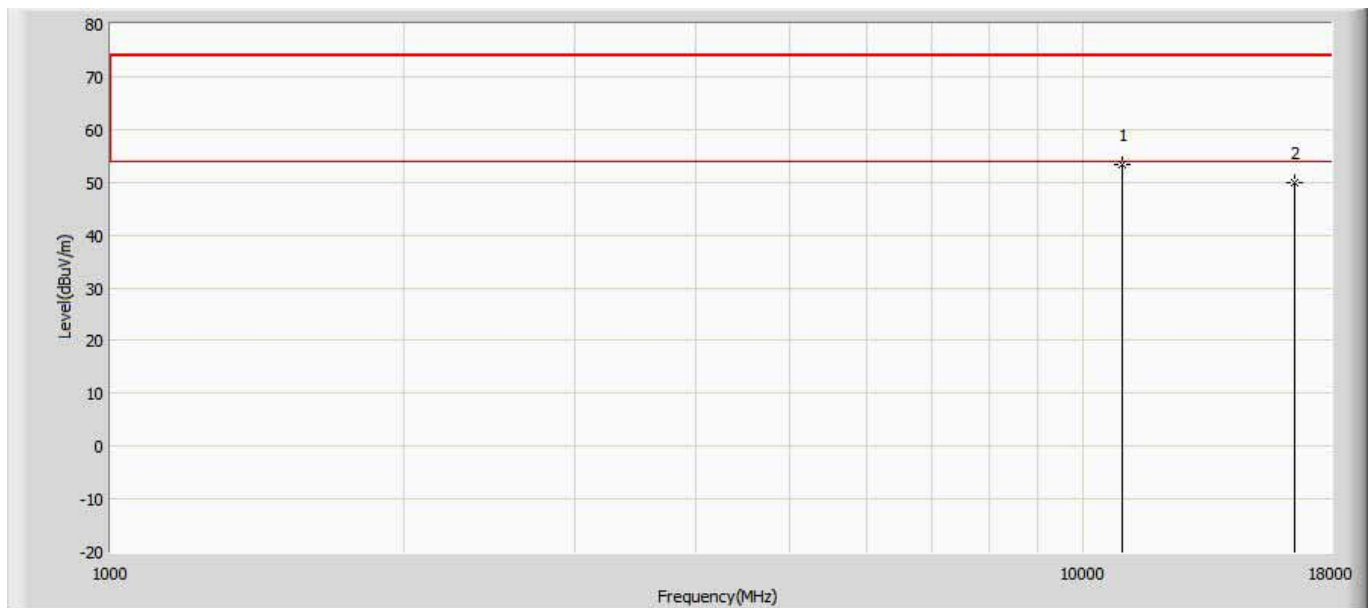
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10639.000	56.147	56.567	-17.853	74.000	-0.420	PK
2	*	10640.000	53.552	53.972	-0.448	54.000	-0.420	AV
3		15960.000	50.582	46.192	-23.418	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5500MHz by 802.11n20 Ant1+2+3	



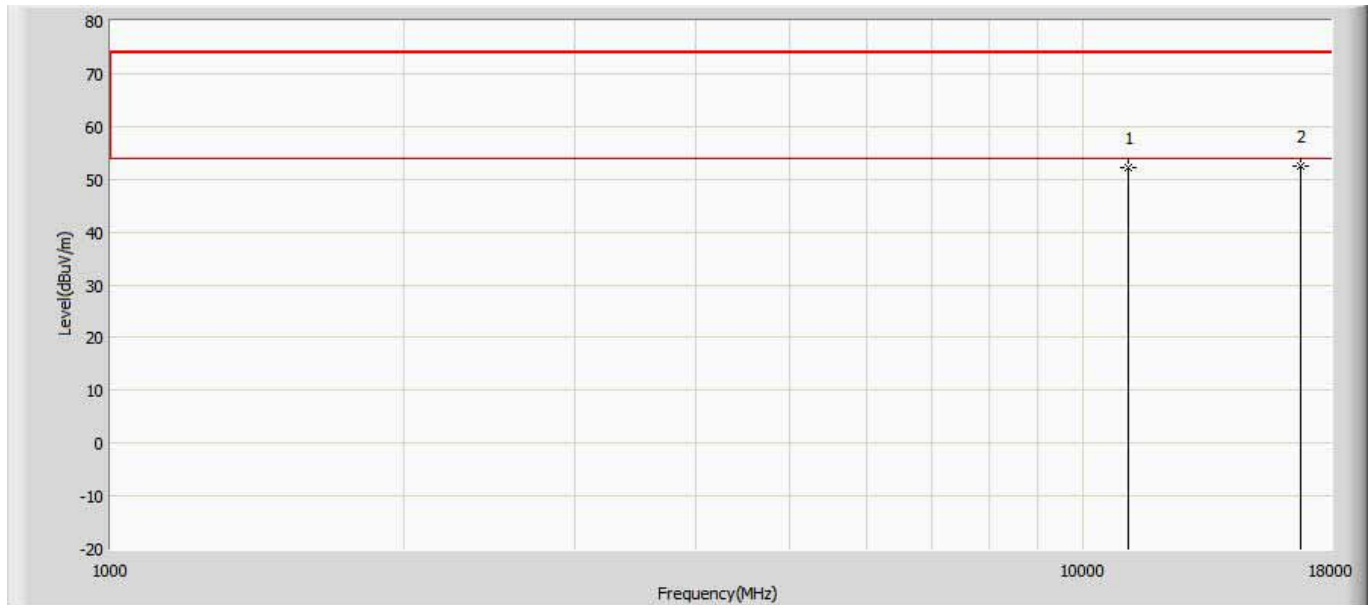
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10996.000	51.782	51.662	-22.218	74.000	0.120	PK
2		16500.000	50.553	45.313	-23.447	74.000	5.240	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5500MHz by 802.11n20 Ant1+2+3	



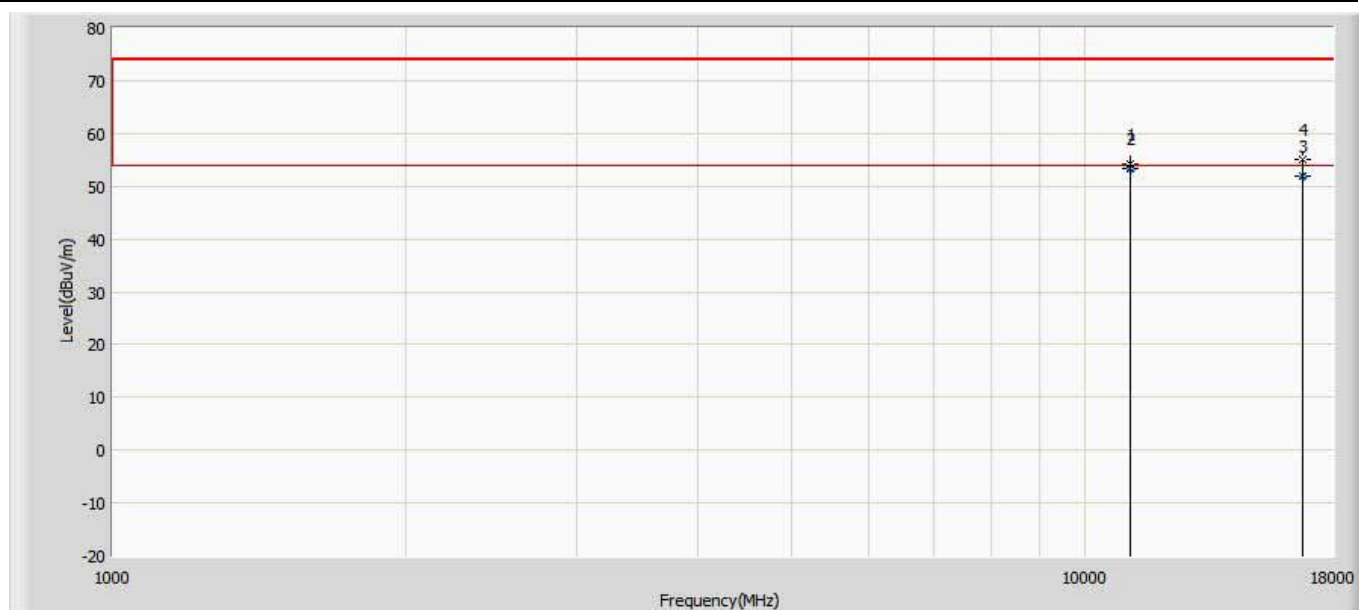
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10996.000	53.210	53.090	-20.790	74.000	0.120	PK
2		16500.000	49.978	44.738	-24.022	74.000	5.240	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5580MHz by 802.11n20 Ant1+2+3	



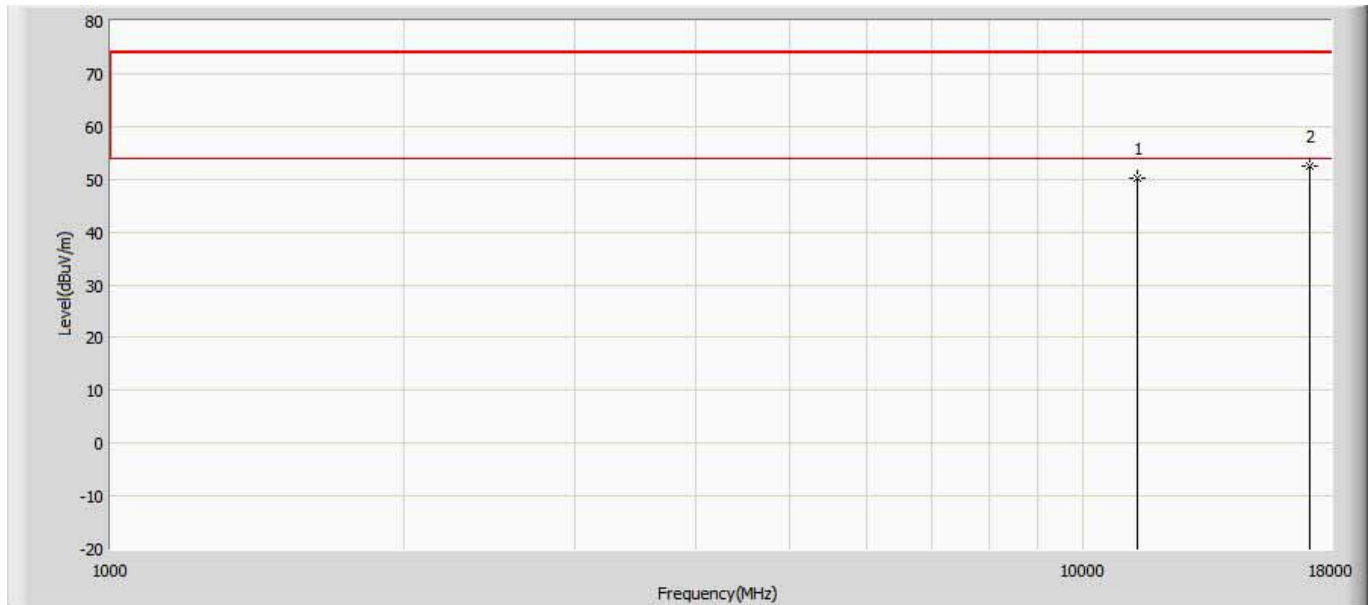
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11157.500	52.257	52.137	-21.743	74.000	0.120	PK
2	*	16740.000	52.458	47.068	-21.542	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5580MHz by 802.11n20 Ant1+2+3	



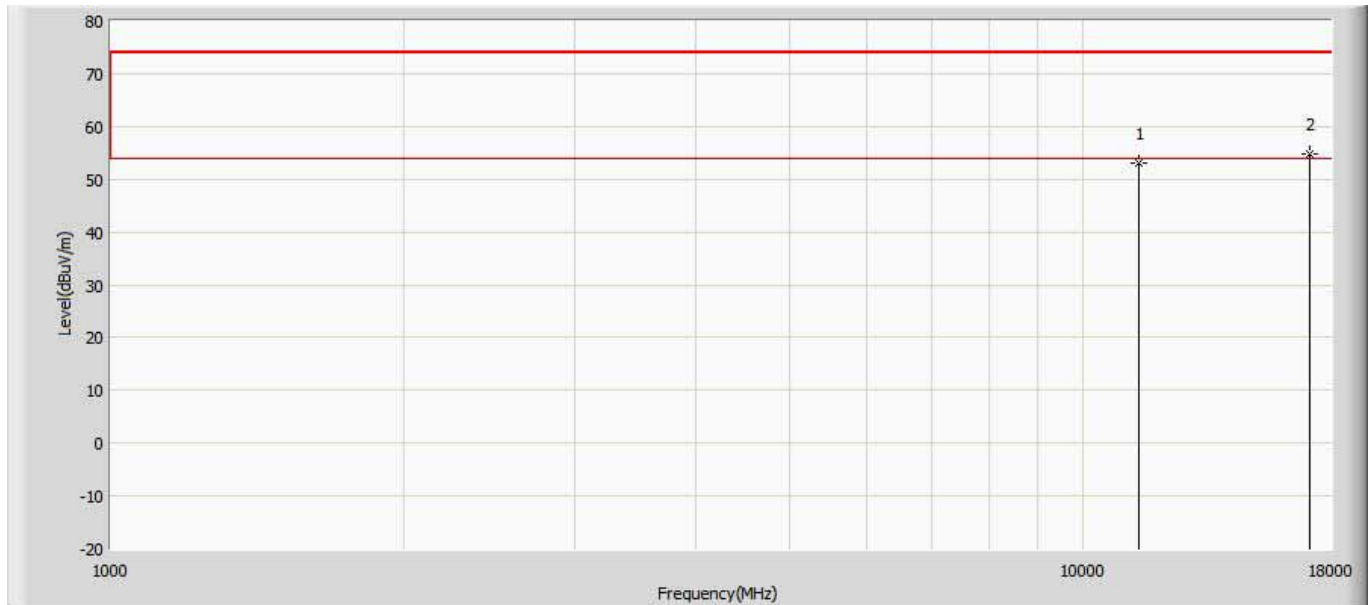
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11157.500	54.215	54.095	-19.785	74.000	0.120	PK
2	*	11158.060	53.330	53.210	-0.670	54.000	0.120	AV
3		16739.350	51.910	46.520	-2.090	54.000	5.390	AV
4		16740.000	55.119	49.729	-18.881	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5700MHz by 802.11n20 Ant1+2+3	



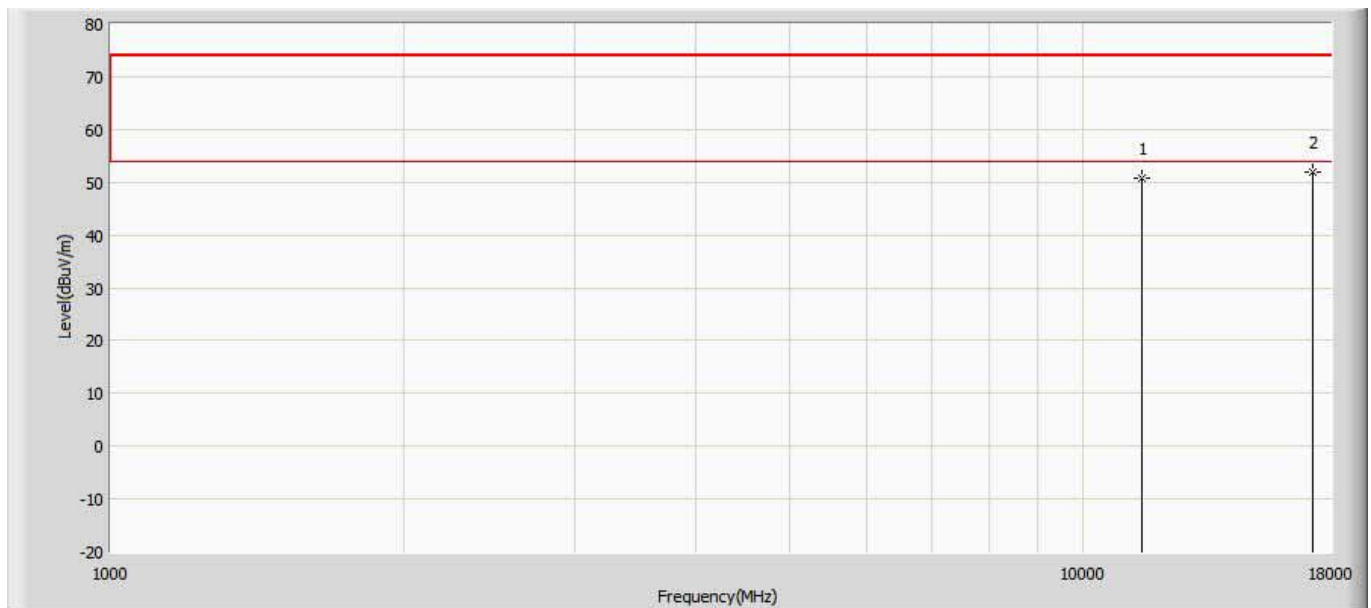
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11395.500	50.343	51.333	-23.657	74.000	-0.990	PK
2	*	17100.000	52.433	47.133	-21.567	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5700MHz by 802.11n20 Ant1+2+3	



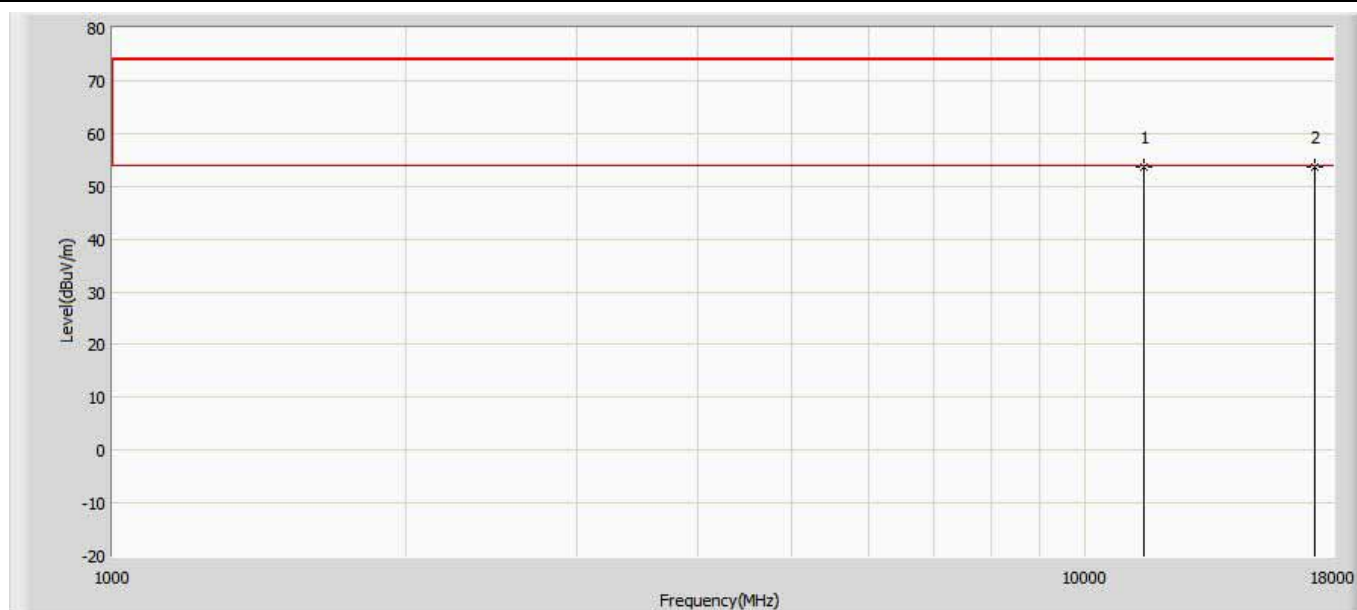
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11404.000	52.941	53.931	-21.059	74.000	-0.990	PK
2	*	17100.000	54.793	49.493	-19.207	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5745MHz by 802.11n20 Ant1+2+3	



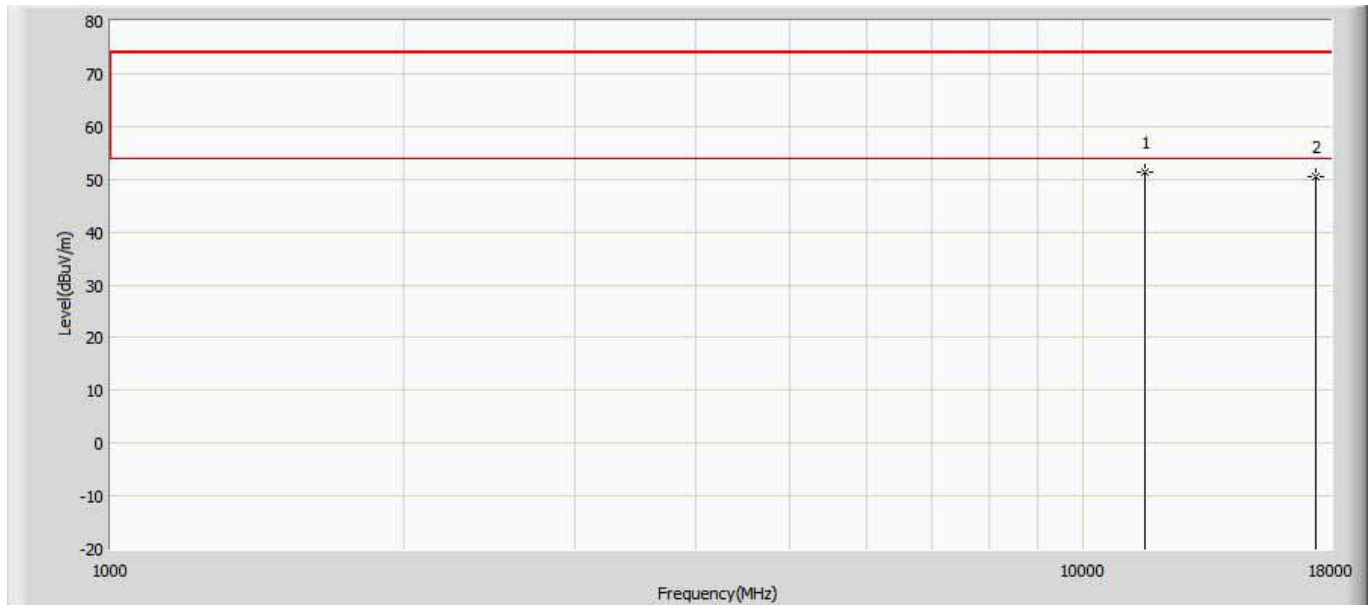
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11489.000	50.731	51.721	-23.269	74.000	-0.990	PK
2	*	17235.000	51.887	46.587	-22.113	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:53
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5745MHz by 802.11n20 Ant1+2+3	



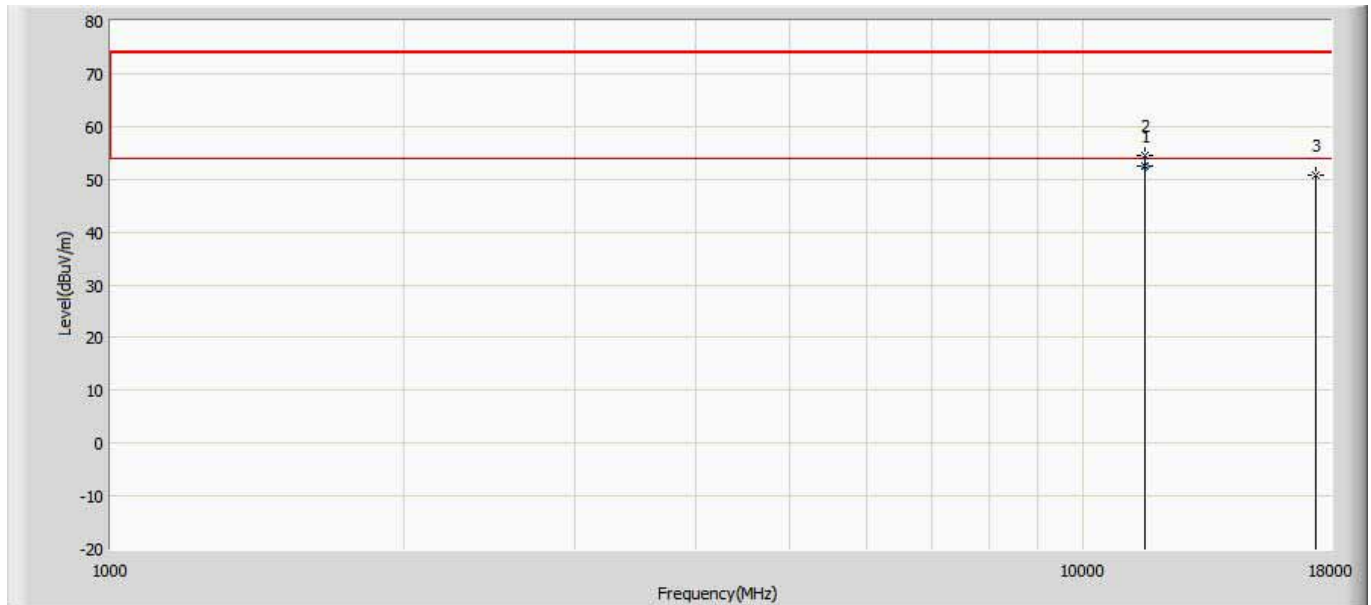
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11489.000	53.610	54.600	-20.390	74.000	-0.990	PK
2	*	17235.000	53.649	48.349	-20.351	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5785MHz by 802.11n20 Ant1+2+3	



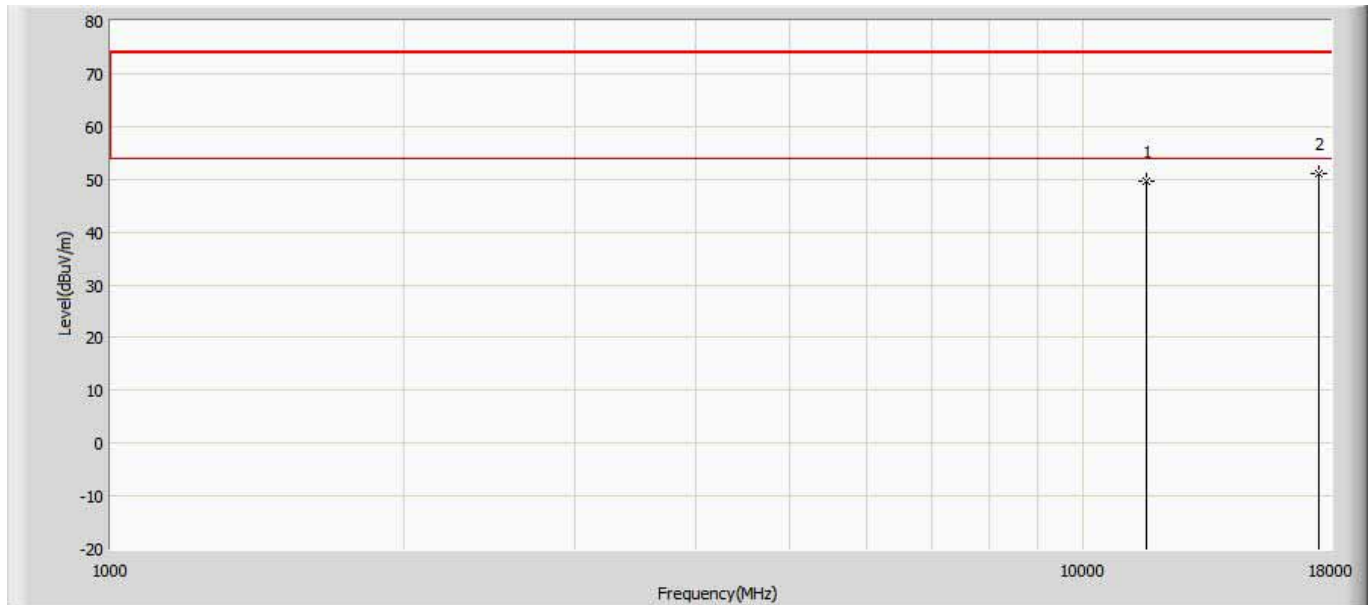
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11574.000	51.217	52.207	-22.783	74.000	-0.990	PK
2		17355.000	50.405	45.105	-23.595	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5785MHz by 802.11n20 Ant1+2+3	



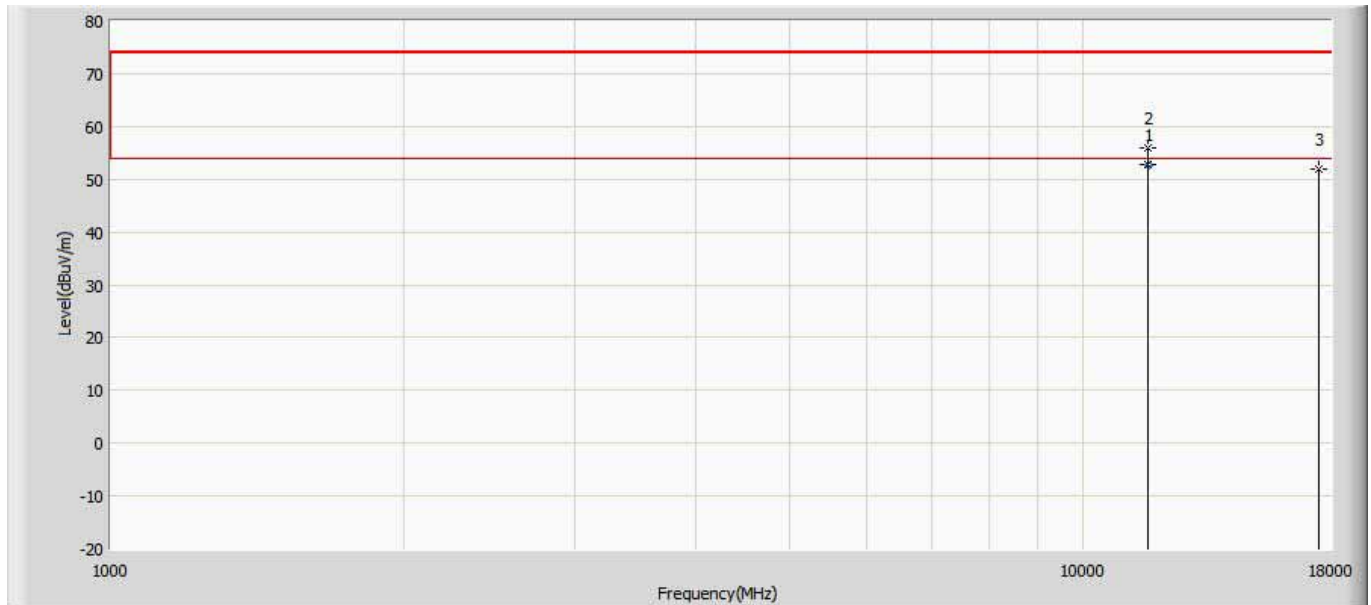
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11573.860	52.350	53.340	-1.650	54.000	-0.990	AV
2		11574.000	54.600	55.590	-19.400	74.000	-0.990	PK
3		17355.000	50.859	45.559	-23.141	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5825MHz by 802.11n20 Ant1+2+3	



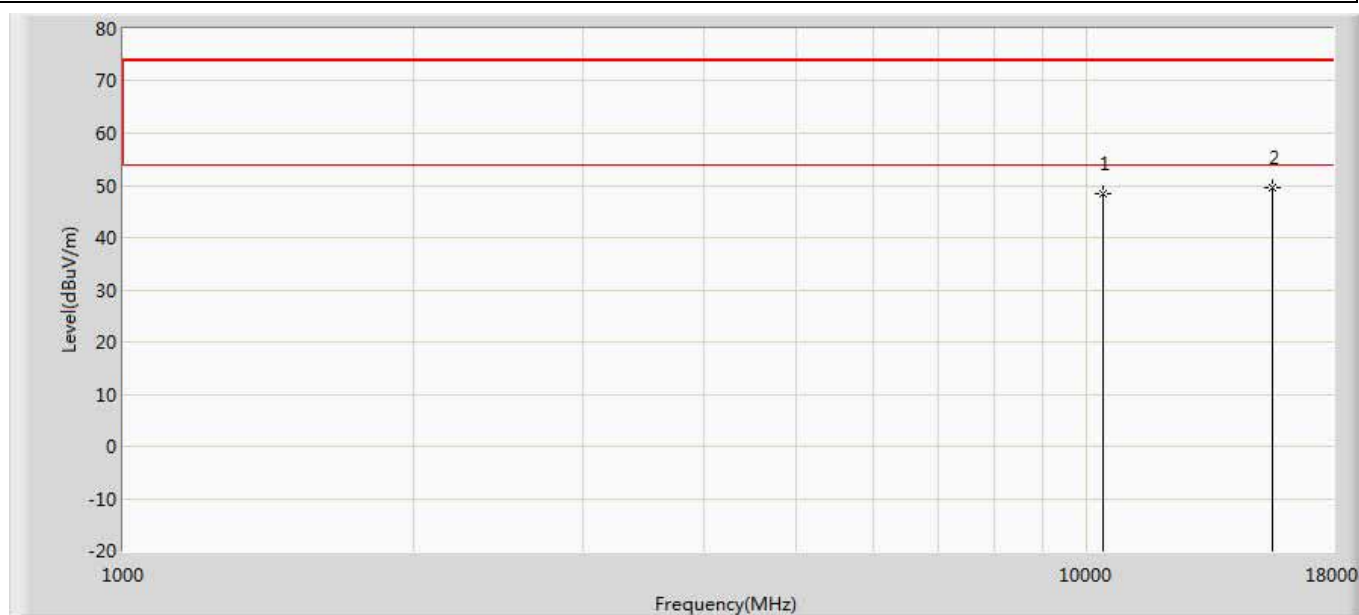
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11642.000	49.622	50.612	-24.378	74.000	-0.990	PK
2	*	17475.000	51.088	45.788	-22.912	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 1:Transmit at 5825MHz by 802.11n20 Ant1+2+3	



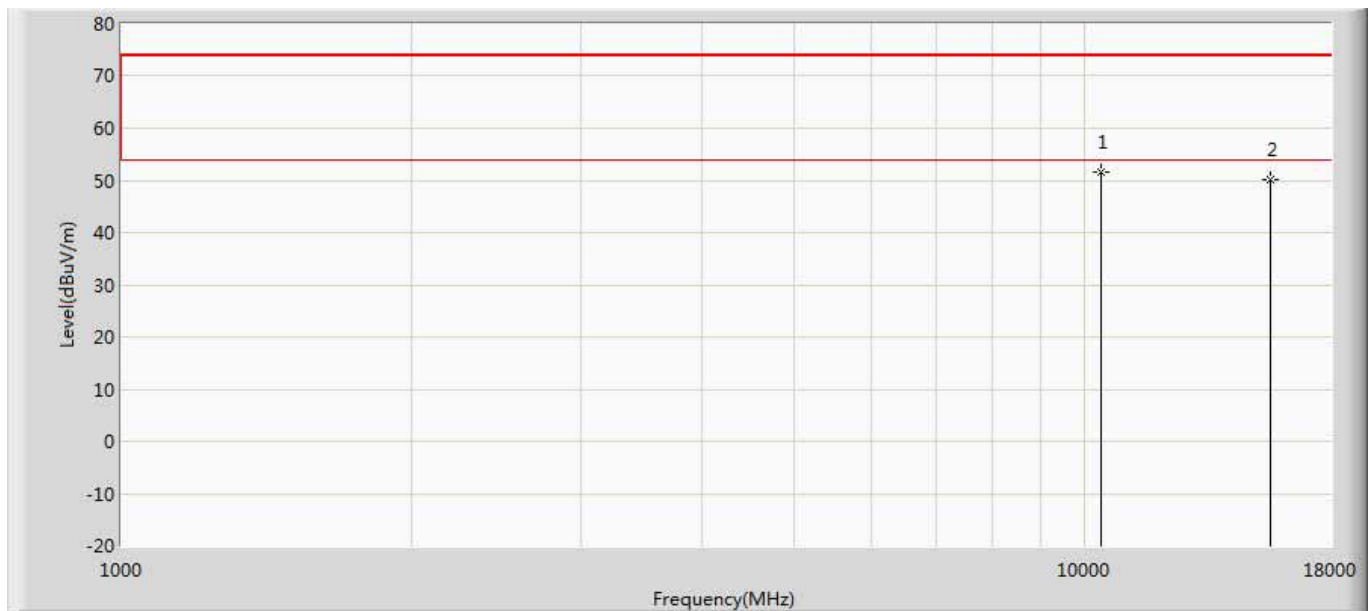
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11650.180	52.680	53.670	-1.320	54.000	-0.990	AV
2		11650.500	55.892	56.882	-18.108	74.000	-0.990	PK
3		17475.000	51.888	46.588	-22.112	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:48
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5190MHz by 11n40 Ant1+2+3	



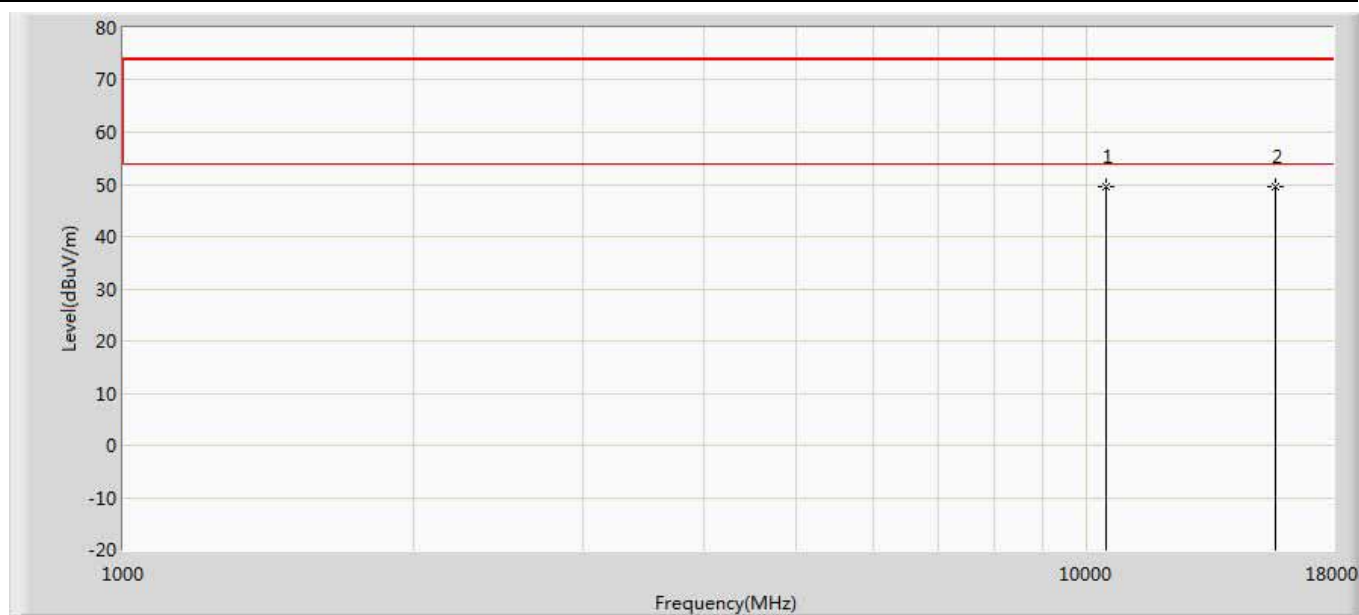
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10384.000	48.325	41.845	-25.675	74.000	6.480	PK
2	*	15570.000	49.651	35.222	-24.349	74.000	14.429	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:49
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5190MHz by 11n40 Ant1+2+3	



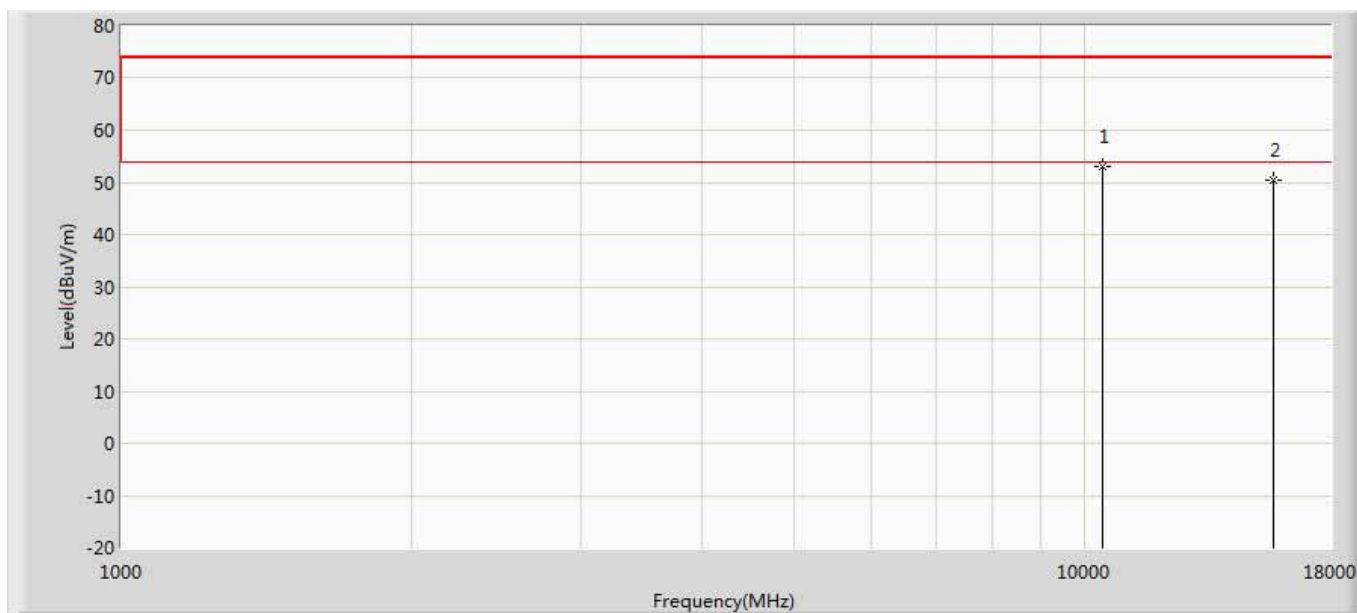
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10384.000	51.613	45.133	-22.387	74.000	6.480	PK
2		15570.000	50.022	35.593	-23.978	74.000	14.429	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 2:Transmit at 5230MHz by 11n40 Ant1+2+3	



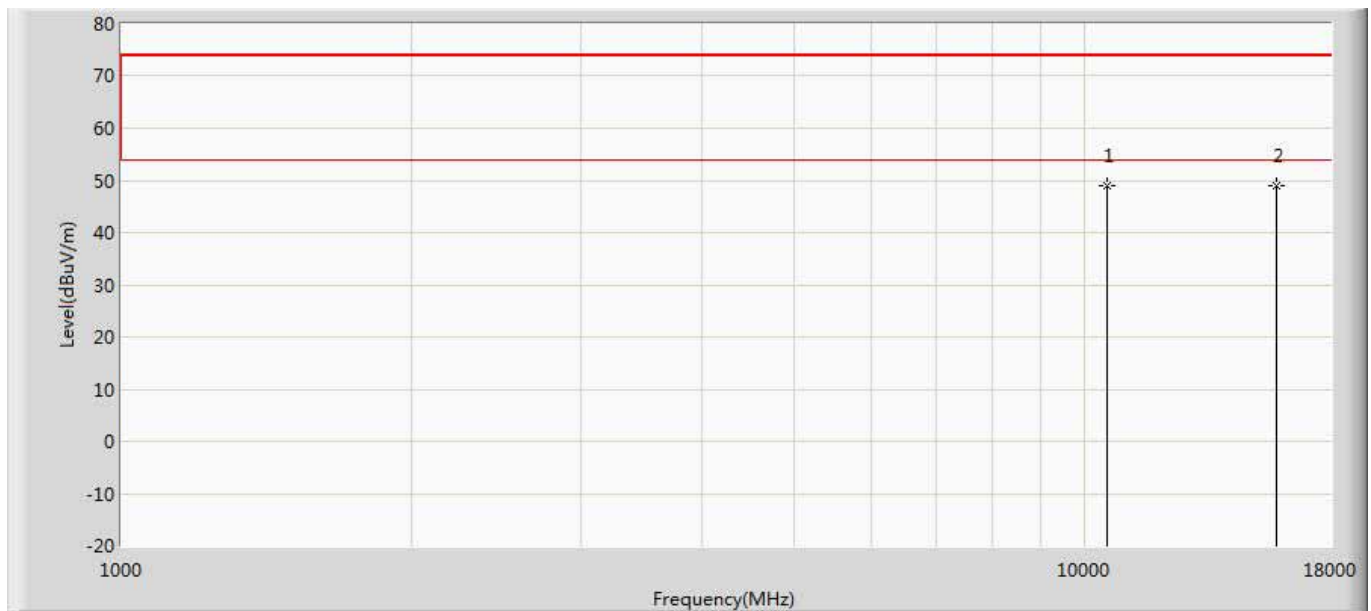
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10460.500	49.524	43.286	-24.476	74.000	6.237	PK
2	*	15690.000	49.629	35.191	-24.371	74.000	14.438	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:49
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5230MHz by 11n40 Ant1+2+3	



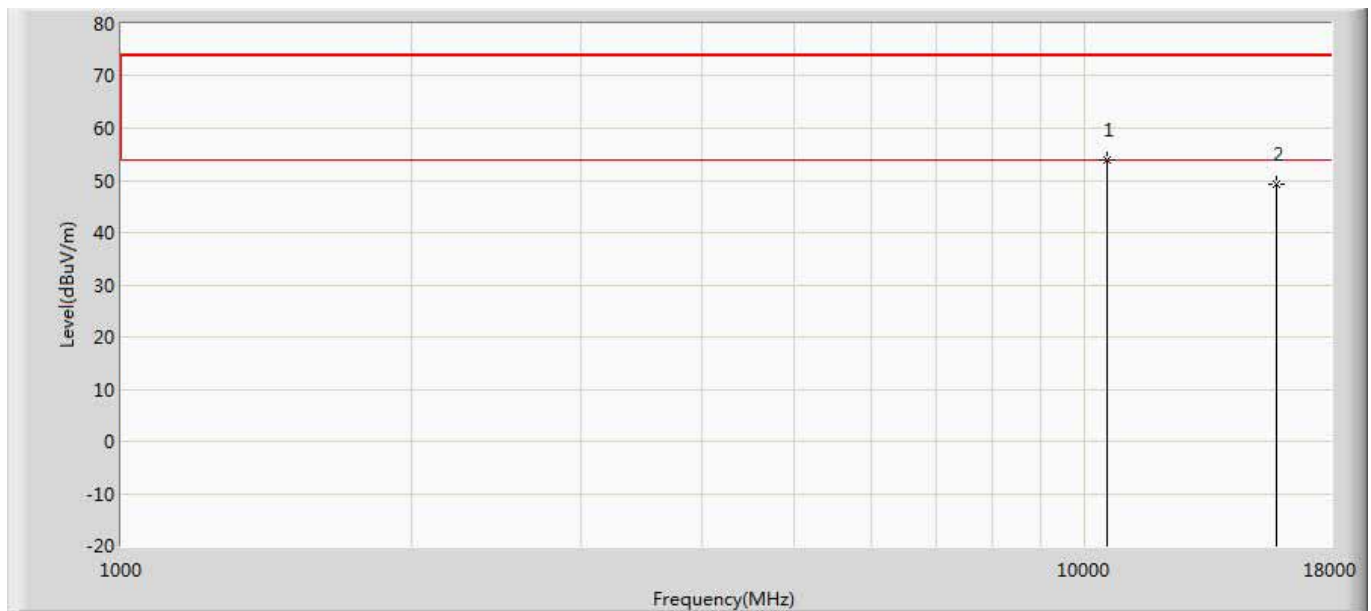
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10443.500	53.130	46.965	-20.870	74.000	6.166	PK
2		15690.000	50.291	35.853	-23.709	74.000	14.438	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 2:Transmit at 5270MHz by 11n40 Ant1+2+3	



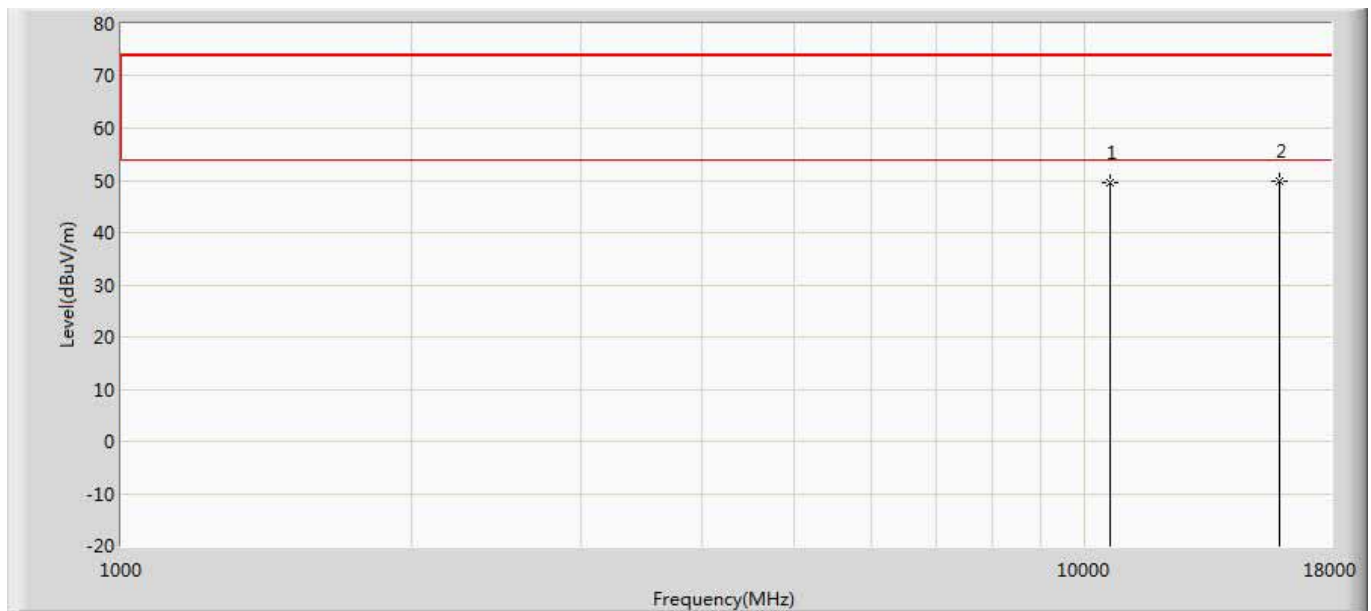
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10537.000	49.006	41.727	-24.994	74.000	7.279	PK
2		15810.000	48.929	34.609	-25.071	74.000	14.320	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:49
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5270MHz by 11n40 Ant1+2+3	



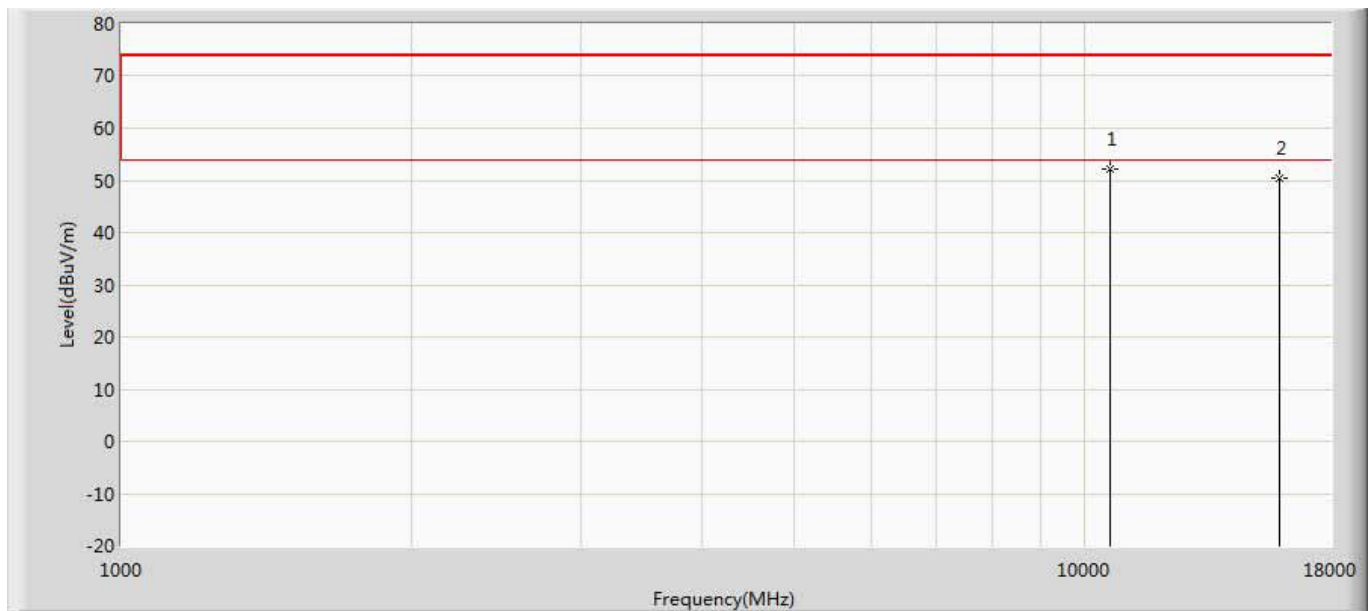
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10537.000	53.854	46.575	-20.146	74.000	7.279	PK
2		15810.000	49.331	35.011	-24.669	74.000	14.320	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5310MHz by 11n40 Ant1+2+3	



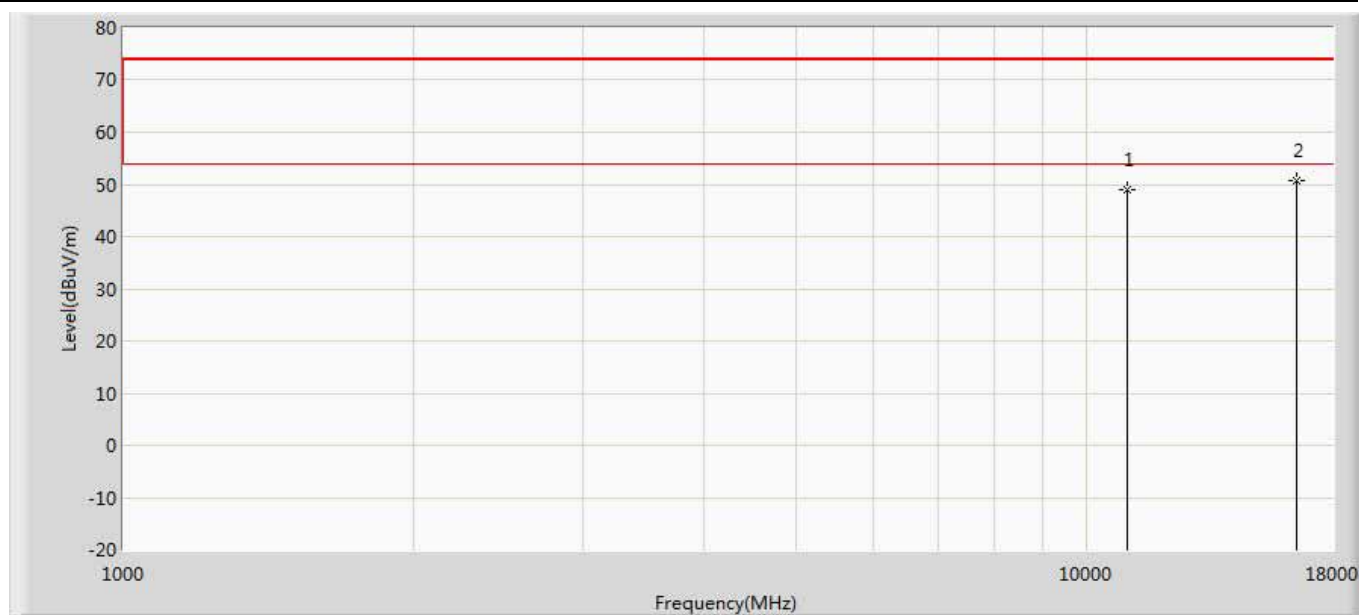
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10605.000	49.670	42.265	-24.330	74.000	7.405	PK
2	*	15930.000	49.807	34.596	-24.193	74.000	15.211	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5310MHz by 11n40 Ant1+2+3	



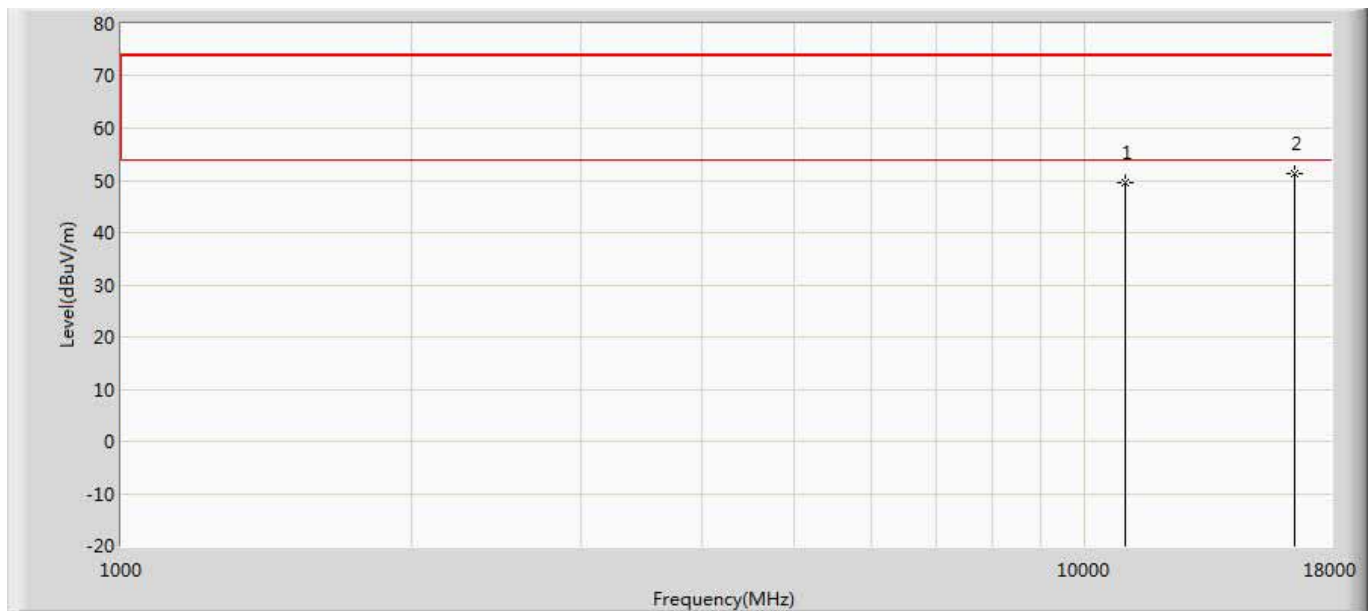
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10622.000	52.083	45.664	-21.917	74.000	6.419	PK
2		15930.000	50.543	35.332	-23.457	74.000	15.211	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5510MHz by 11n40 Ant1+2+3	



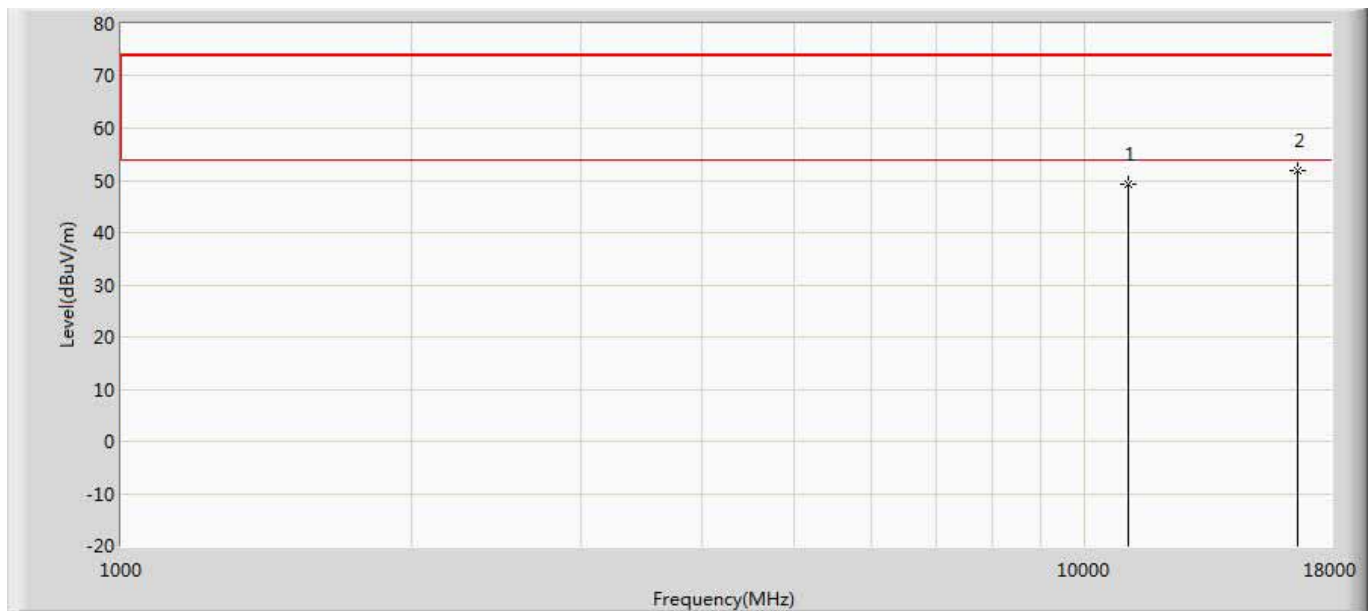
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11021.500	48.968	41.085	-25.032	74.000	7.883	PK
2	*	16530.000	50.594	34.634	-23.406	74.000	15.960	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5510MHz by 11n40 Ant1+2+3	



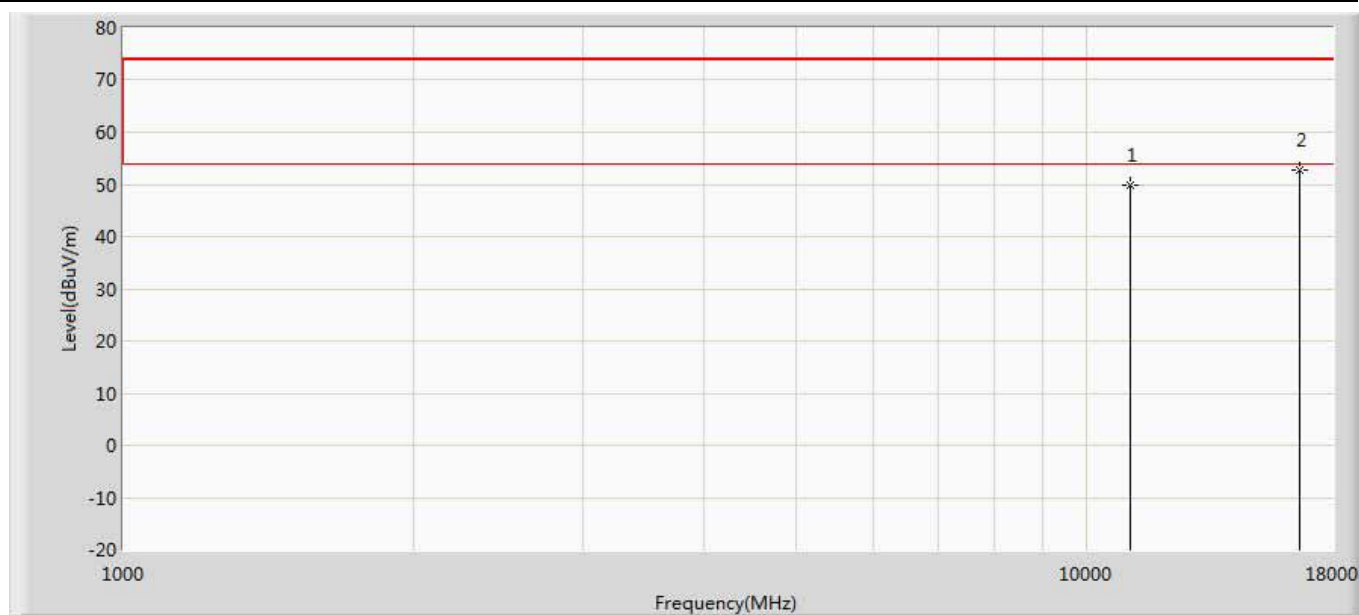
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11021.500	49.538	41.655	-24.462	74.000	7.883	PK
2	*	16530.000	51.250	35.290	-22.750	74.000	15.960	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5550MHz by 11n40 Ant1+2+3	



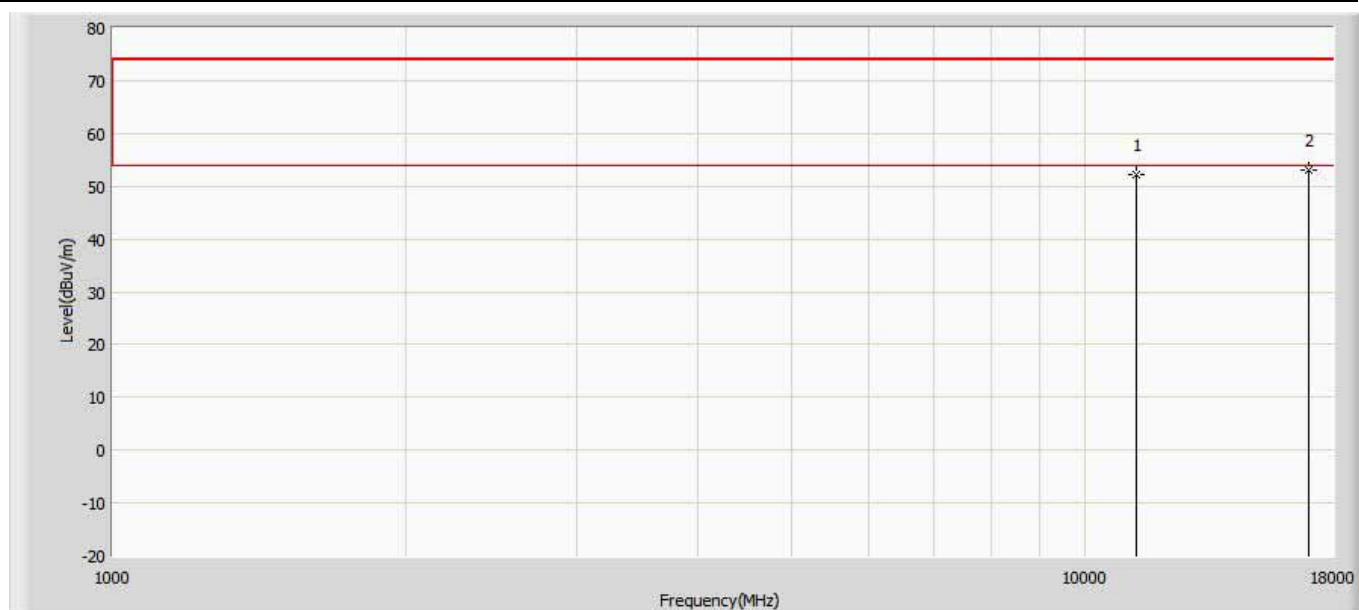
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11098.000	49.161	40.535	-24.839	74.000	8.626	PK
2	*	16650.000	51.872	35.440	-22.128	74.000	16.432	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5550MHz by 11n40 Ant1+2+3	



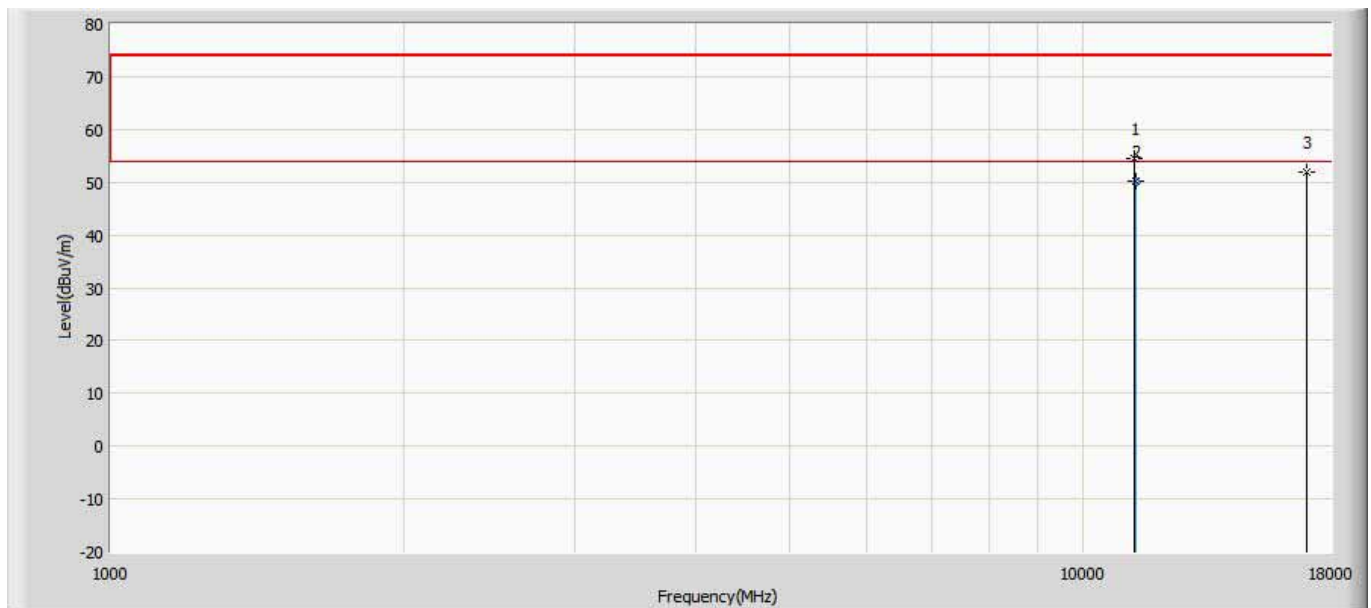
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11098.000	49.941	41.315	-24.059	74.000	8.626	PK
2	*	16650.000	52.690	36.258	-21.310	74.000	16.432	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/07 - 16:16
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5670MHz by 802.11n40 Ant1+2+3	



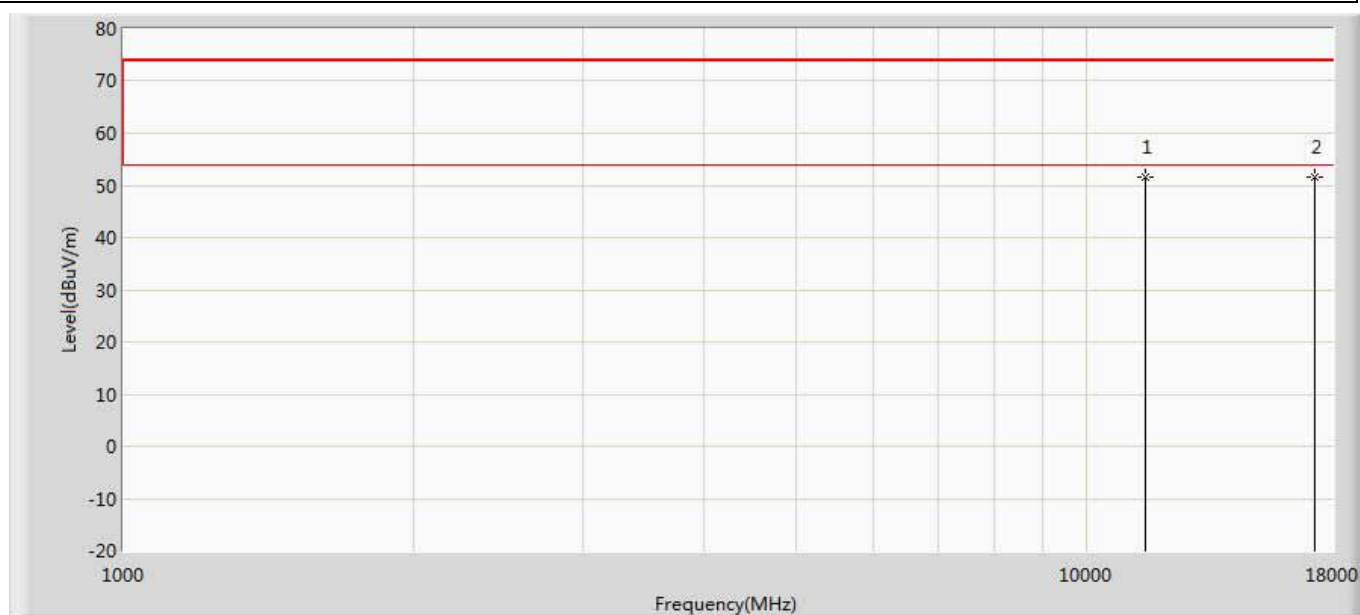
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11319.000	52.246	52.126	-21.754	74.000	0.120	PK
2	*	17010.000	53.203	47.813	-20.797	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/07 - 16:16
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5670MHz by 802.11n40 Ant1+2+3	



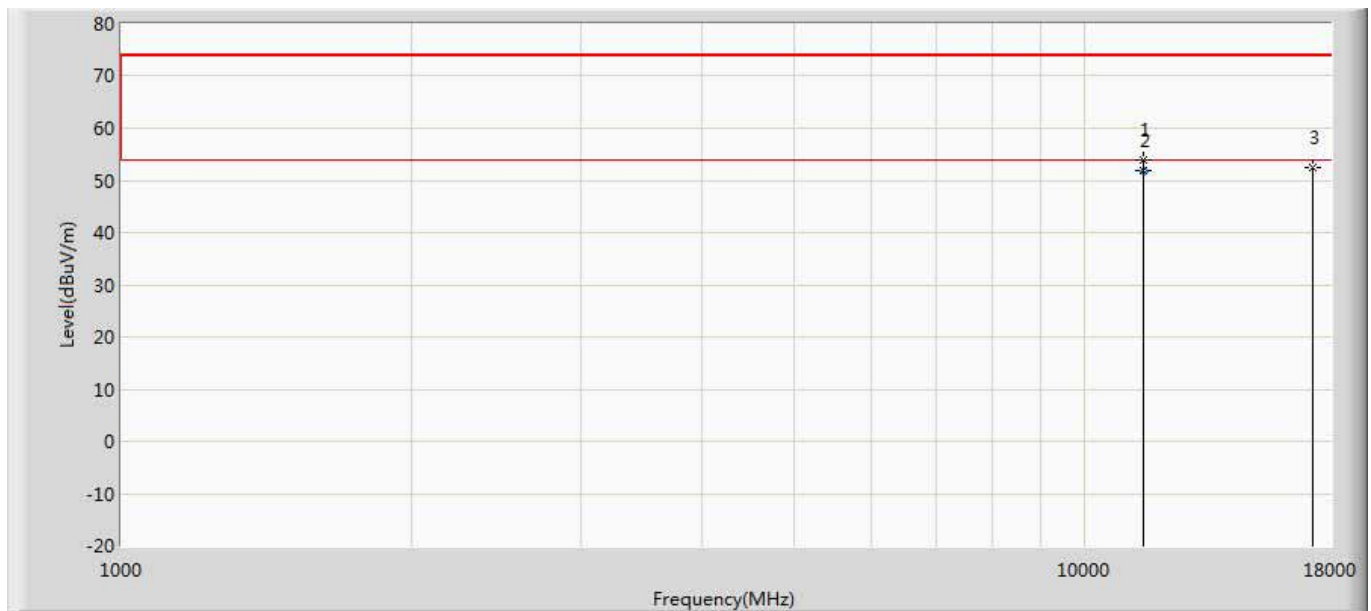
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11319.000	54.479	54.359	-19.521	74.000	0.120	PK
2	*	11320.560	50.130	50.010	-3.870	54.000	0.120	AV
3		17010.000	51.960	46.570	-22.040	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5755MHz by 11n40 Ant1+2+3	



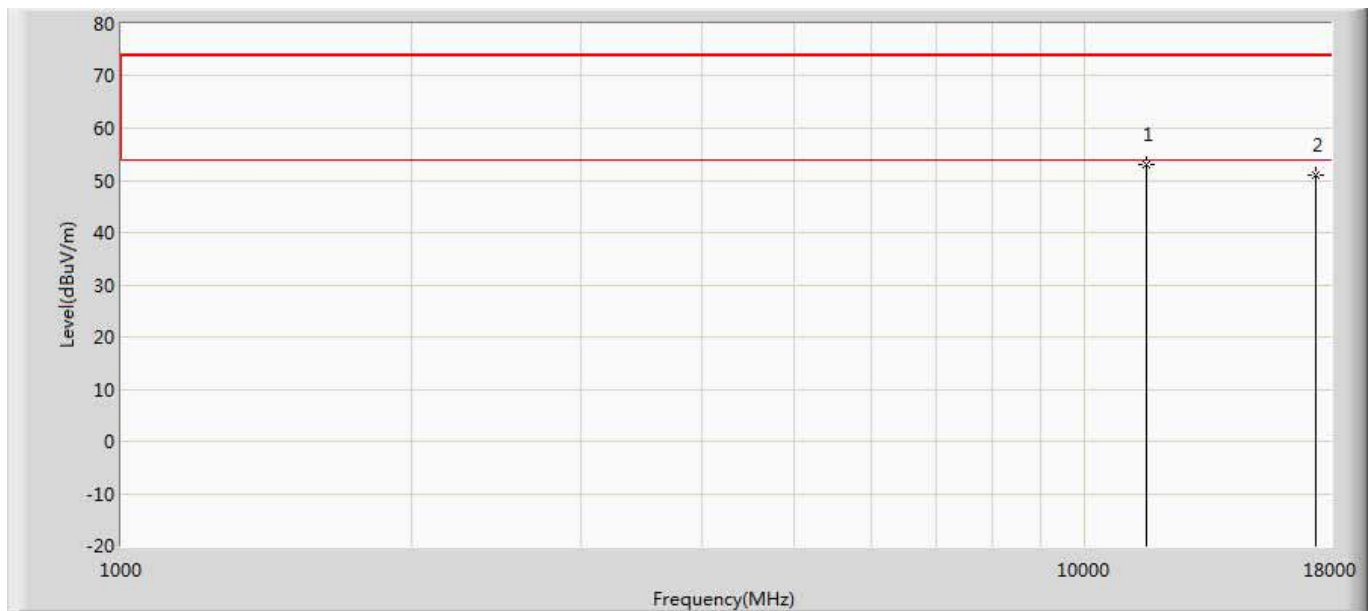
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11506.000	51.616	41.740	-22.384	74.000	9.876	PK
2	*	17265.000	51.674	34.694	-22.326	74.000	16.980	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5755MHz by 11n40 Ant1+2+3	



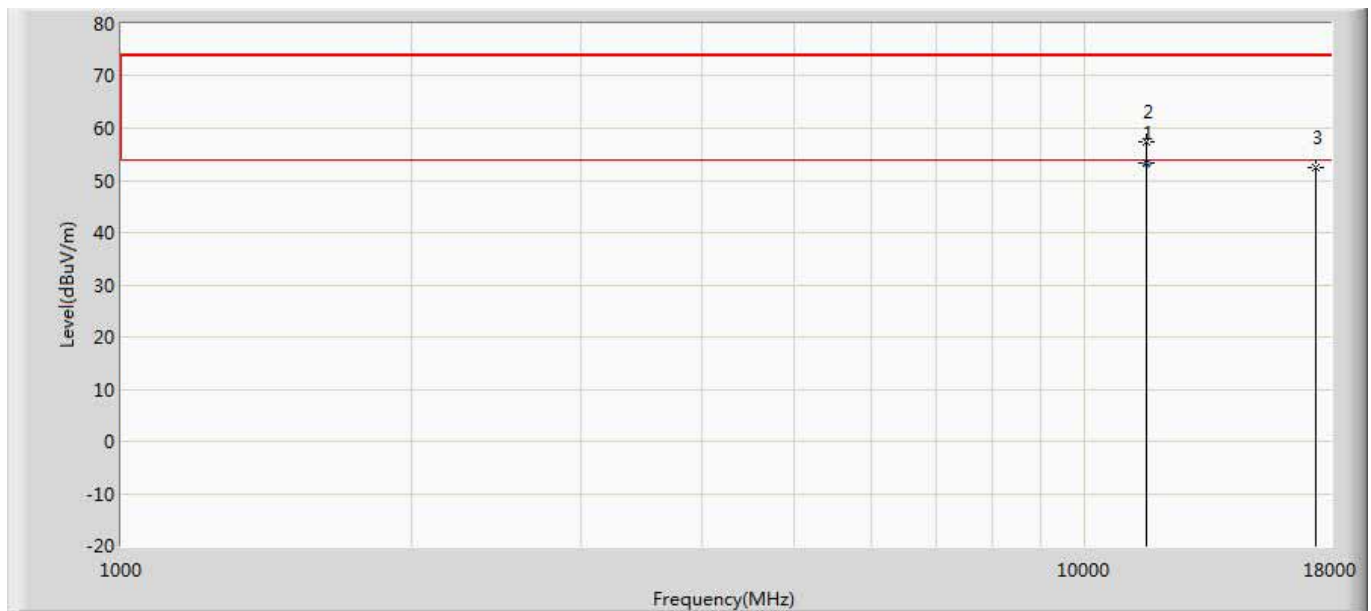
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11506.000	54.026	44.150	-19.974	74.000	9.876	PK
2	*	11506.510	51.961	42.110	-2.039	54.000	9.851	AV
3		17265.000	52.346	35.366	-21.654	74.000	16.980	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5795MHz by 11n40 Ant1+2+3	



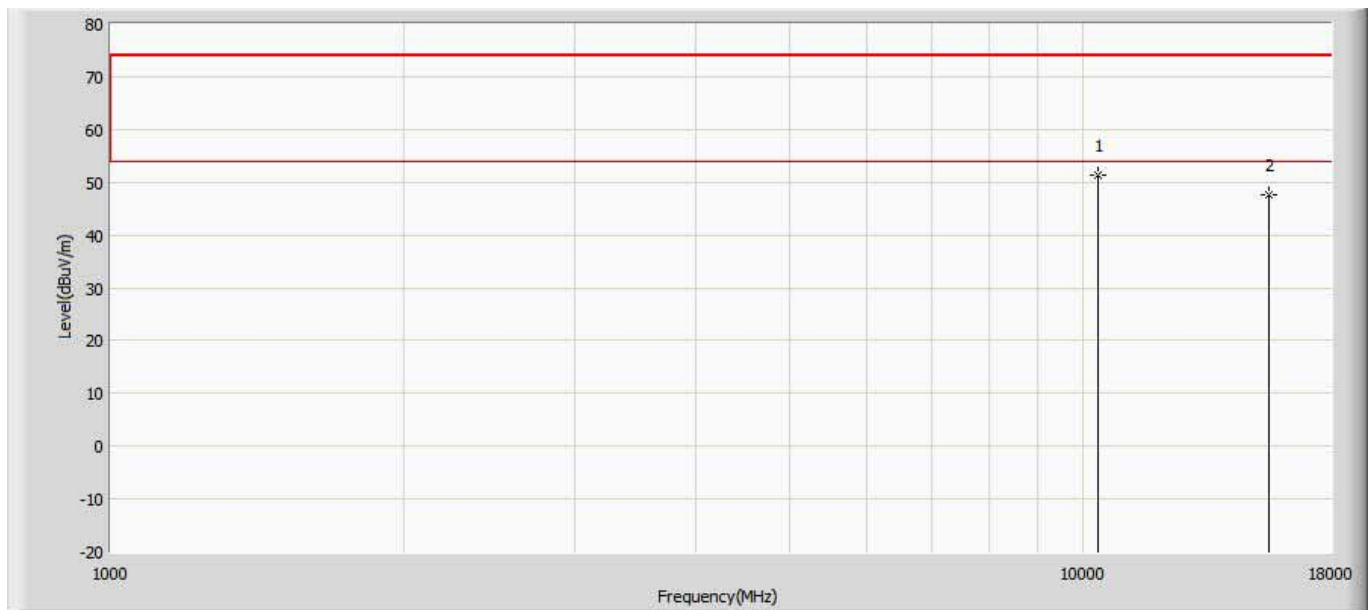
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11591.000	53.044	42.491	-20.956	74.000	10.553	PK
2		17385.000	51.069	34.748	-22.931	74.000	16.322	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 2:Transmit at 5795MHz by 11n40 Ant1+2+3	



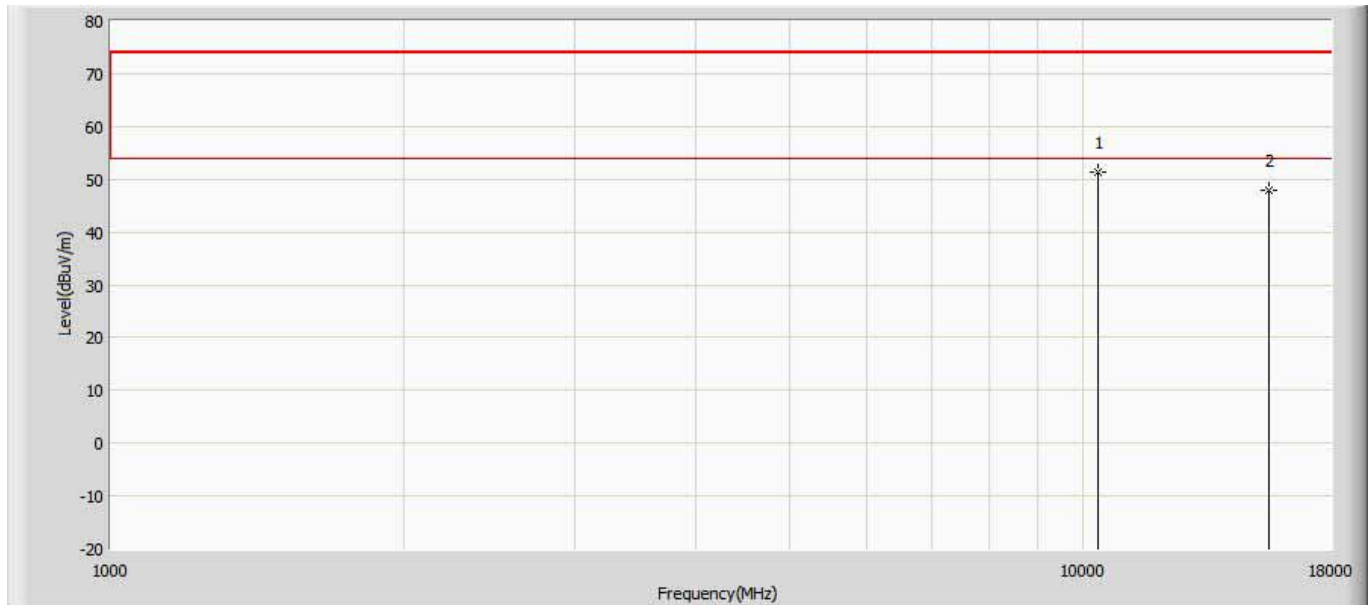
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11589.850	53.374	42.890	-0.626	54.000	10.483	AV
2		11591.000	57.343	46.790	-16.657	74.000	10.553	PK
3		17385.000	52.413	36.092	-21.587	74.000	16.322	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5180MHz by 802.11ac20 Ant1+2+3	



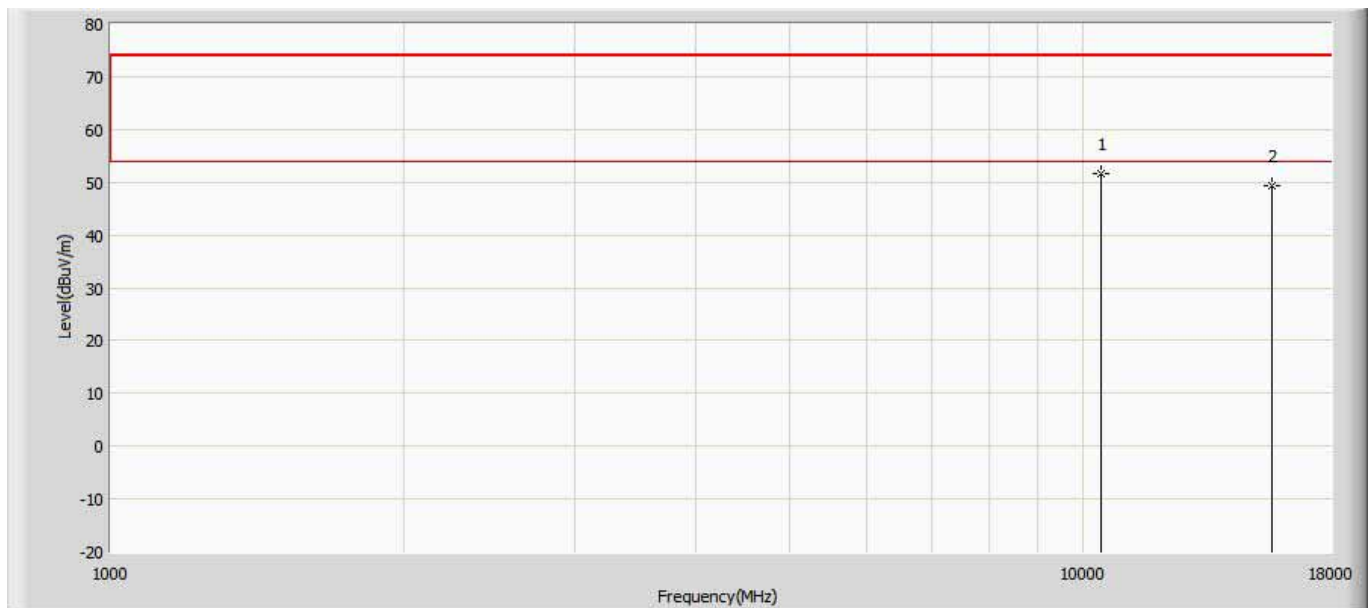
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10358.500	51.381	52.571	-22.619	74.000	-1.190	PK
2		15540.000	47.578	45.198	-26.422	74.000	2.380	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5180MHz by 802.11ac20 Ant1+2+3	



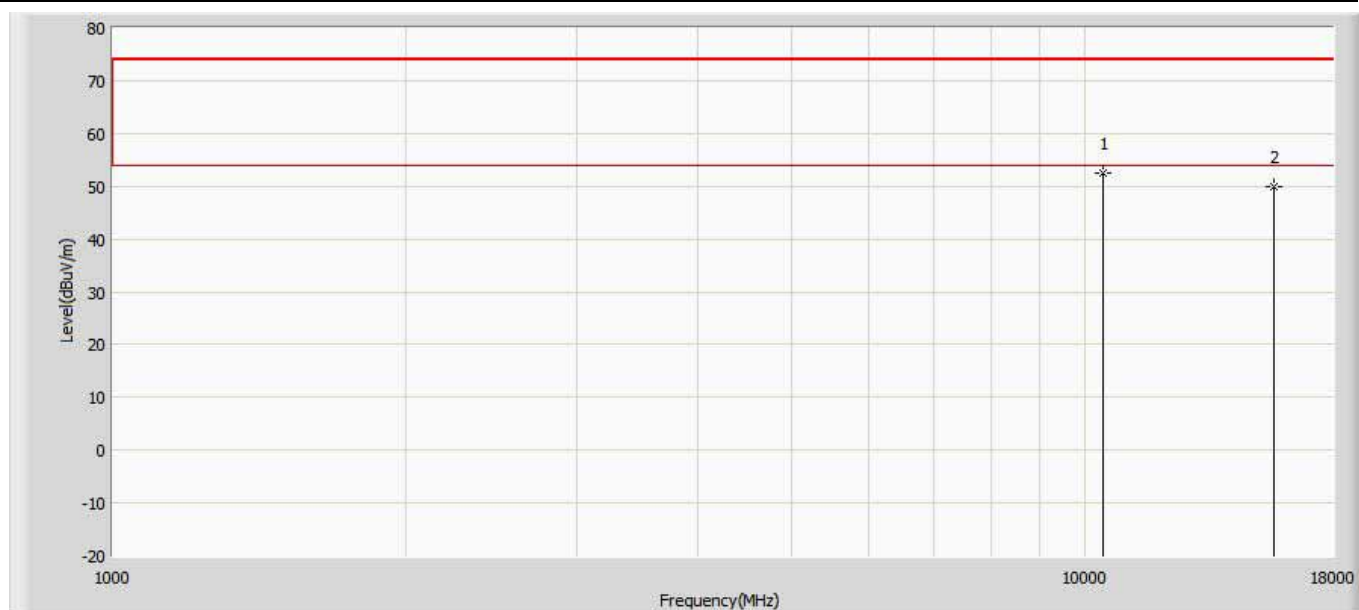
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10358.500	51.239	52.429	-22.761	74.000	-1.190	PK
2		15540.000	47.980	45.600	-26.020	74.000	2.380	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5220MHz by 802.11ac20 Ant1+2+3	



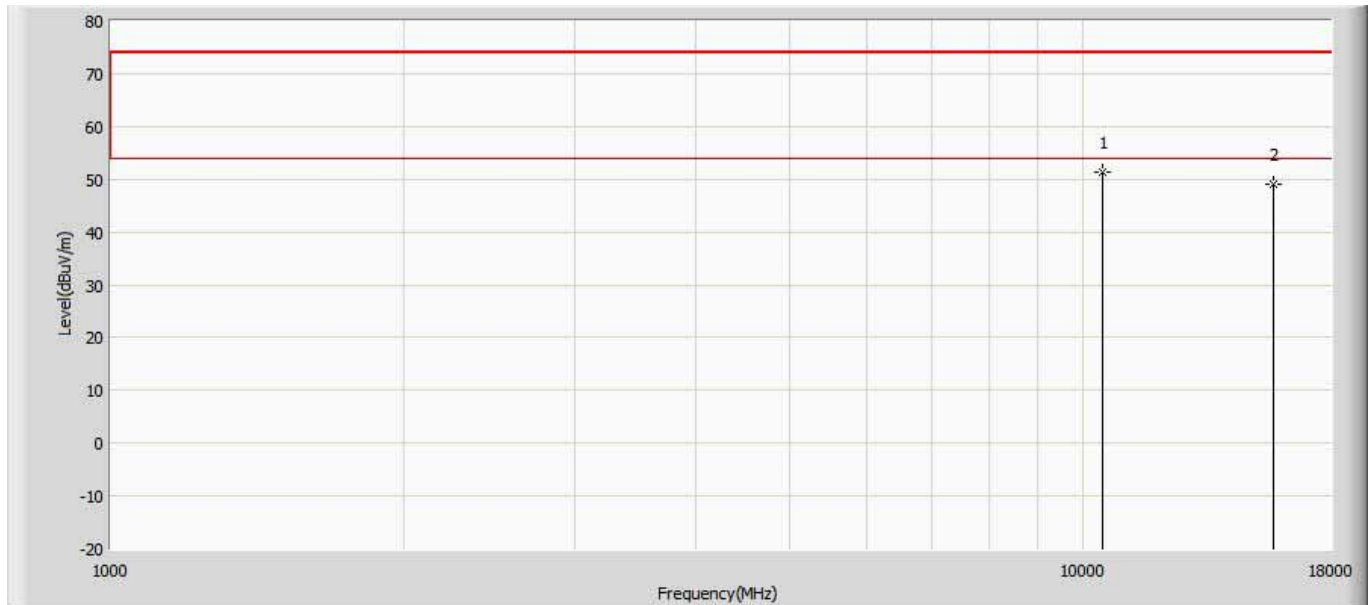
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10443.500	51.537	51.957	-22.463	74.000	-0.420	PK
2		15660.000	49.453	45.063	-24.547	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5220MHz by 802.11ac20 Ant1+2+3	



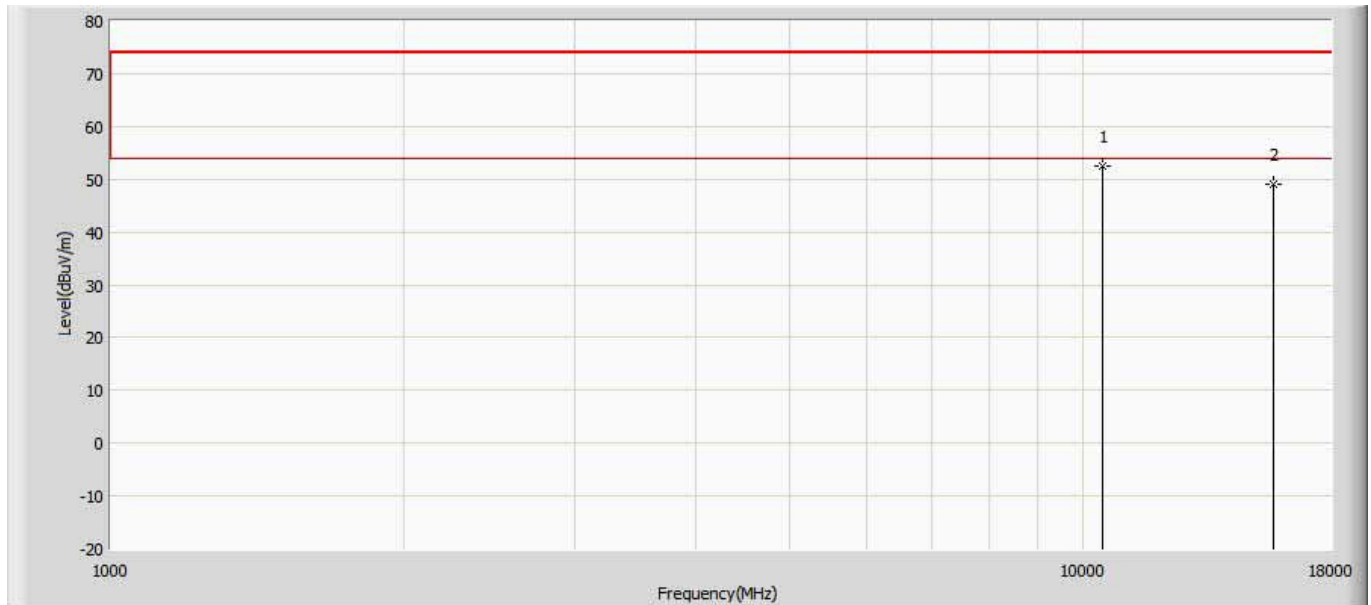
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10443.500	52.509	52.929	-21.491	74.000	-0.420	PK
2		15660.000	49.773	45.383	-24.227	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5240MHz by 802.11ac20 Ant1+2+3	



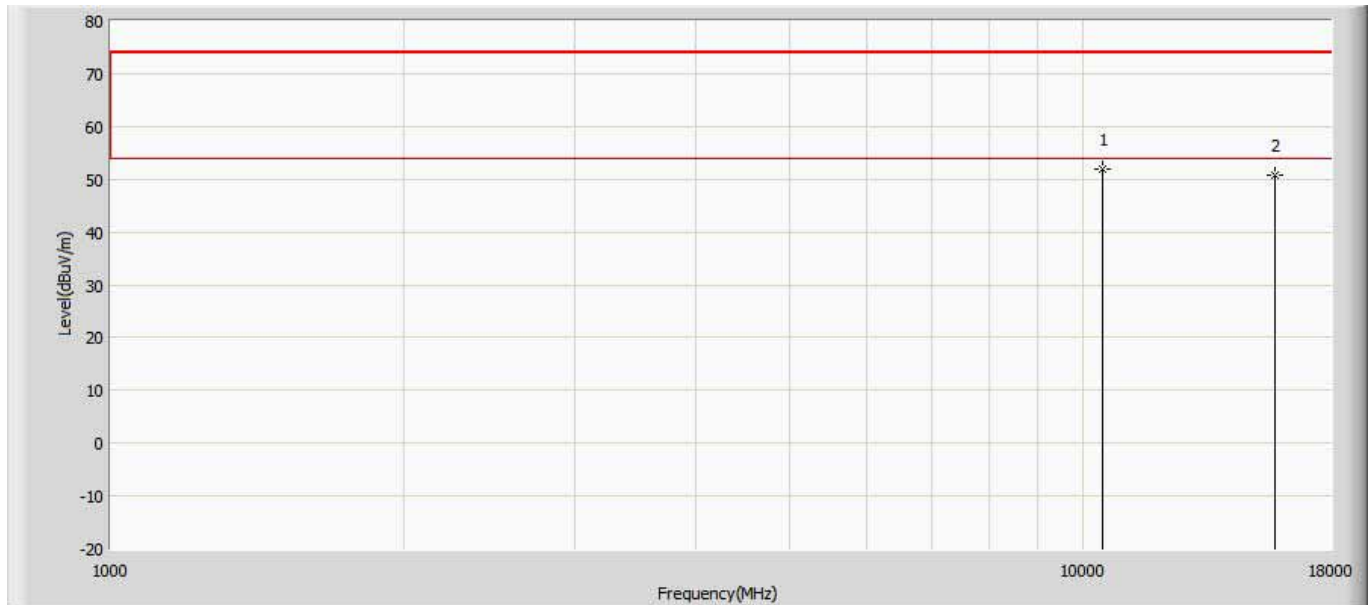
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10477.500	51.275	51.695	-22.725	74.000	-0.420	PK
2		15720.000	48.945	44.555	-25.055	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:54
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5240MHz by 802.11ac20 Ant1+2+3	



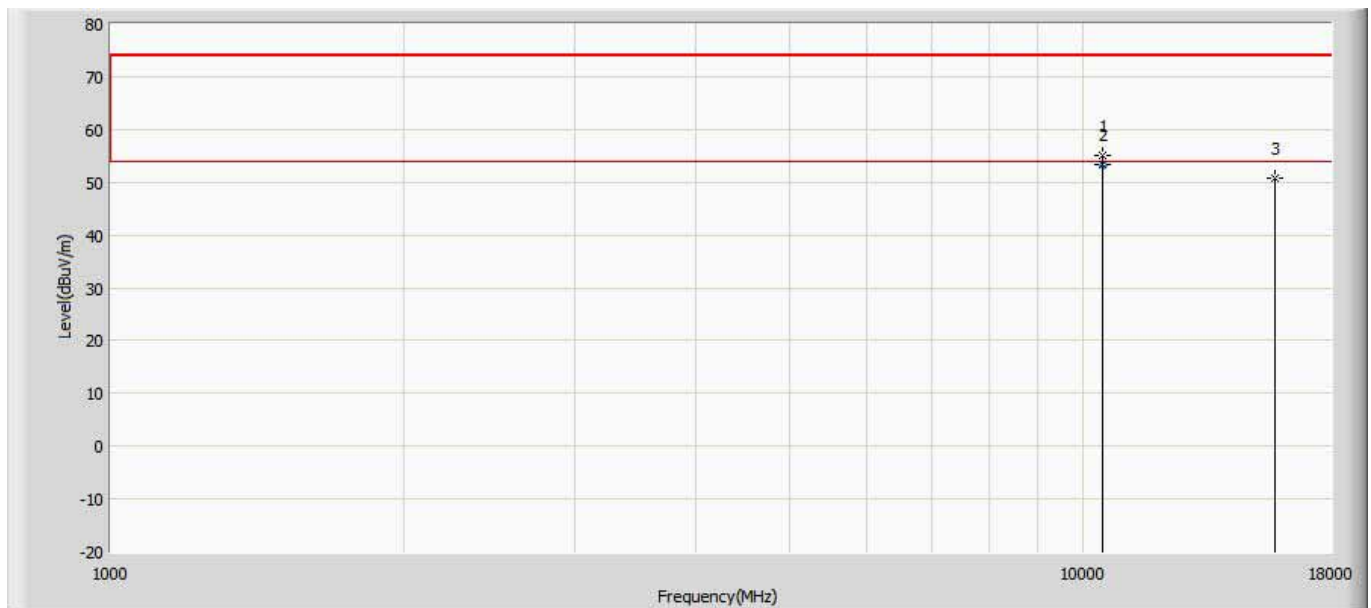
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10477.500	52.487	52.907	-21.513	74.000	-0.420	PK
2		15720.000	49.126	44.736	-24.874	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5260MHz by 802.11ac20 Ant1+2+3	



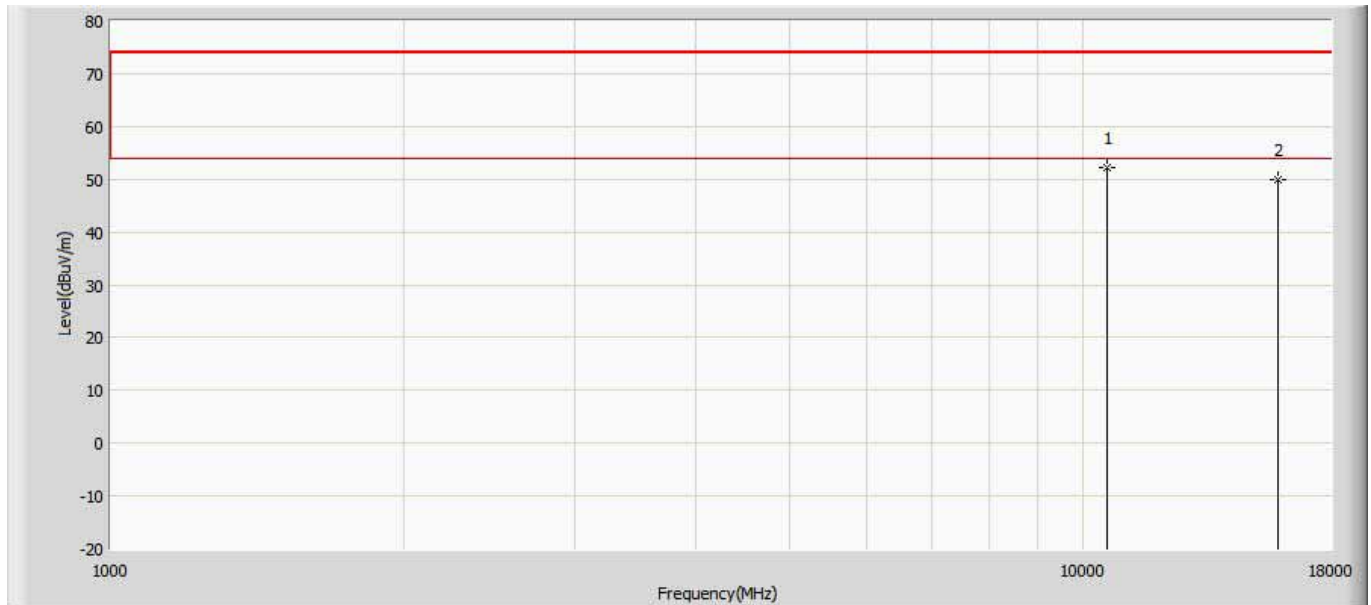
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10477.500	52.048	52.468	-21.952	74.000	-0.420	PK
2		15780.000	50.753	46.363	-23.247	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5260MHz by 802.11ac20 Ant1+2+3	



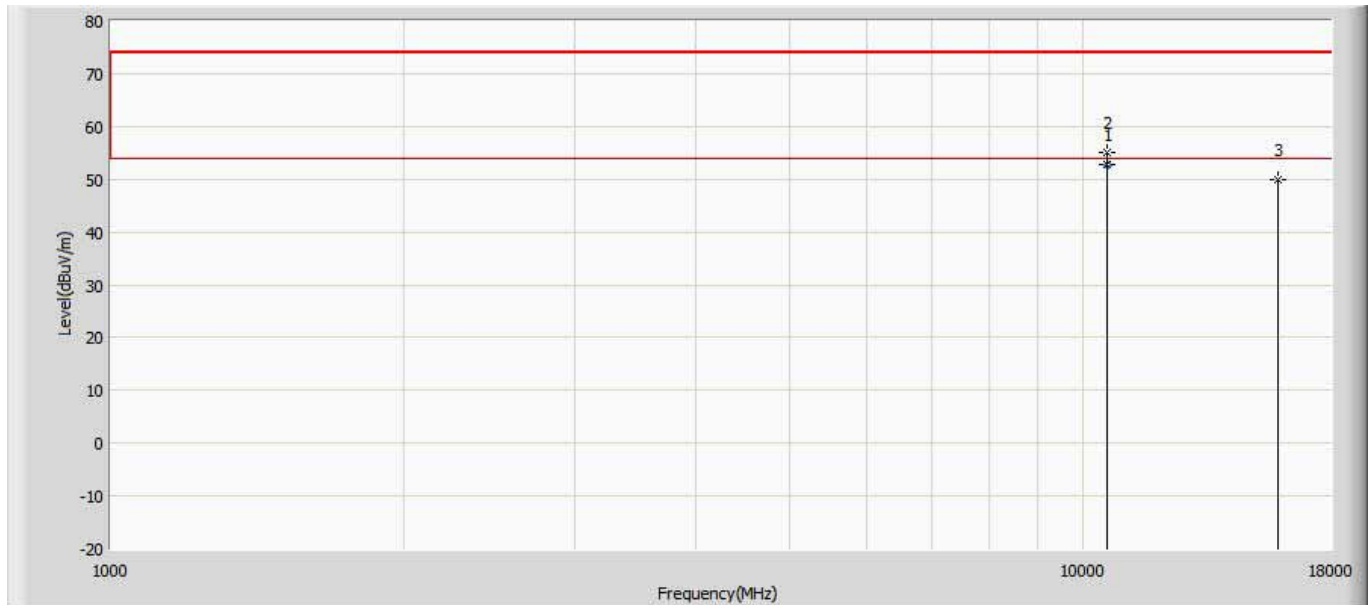
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10477.500	55.156	55.576	-18.844	74.000	-0.420	PK
2	*	10478.640	53.260	53.680	-0.740	54.000	-0.420	AV
3		15780.000	50.893	46.503	-23.107	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5300MHz by 802.11ac20 Ant1+2+3	



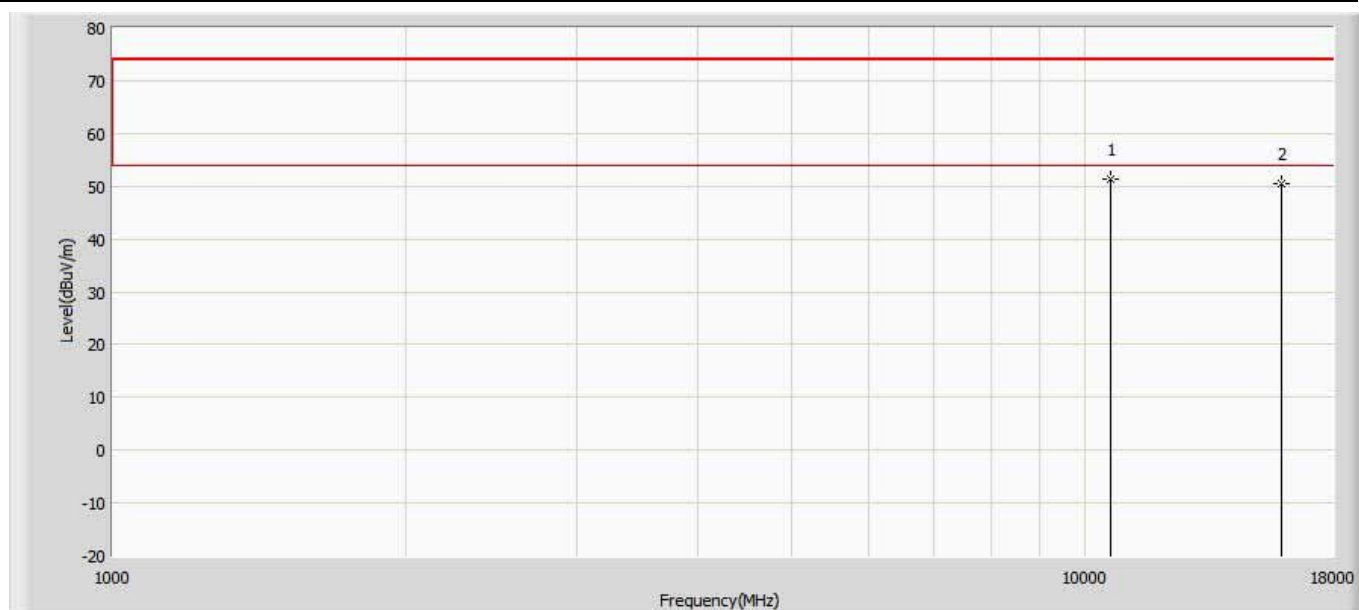
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10596.500	52.073	52.493	-21.927	74.000	-0.420	PK
2		15900.000	50.008	45.618	-23.992	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5300MHz by 802.11ac20 Ant1+2+3	



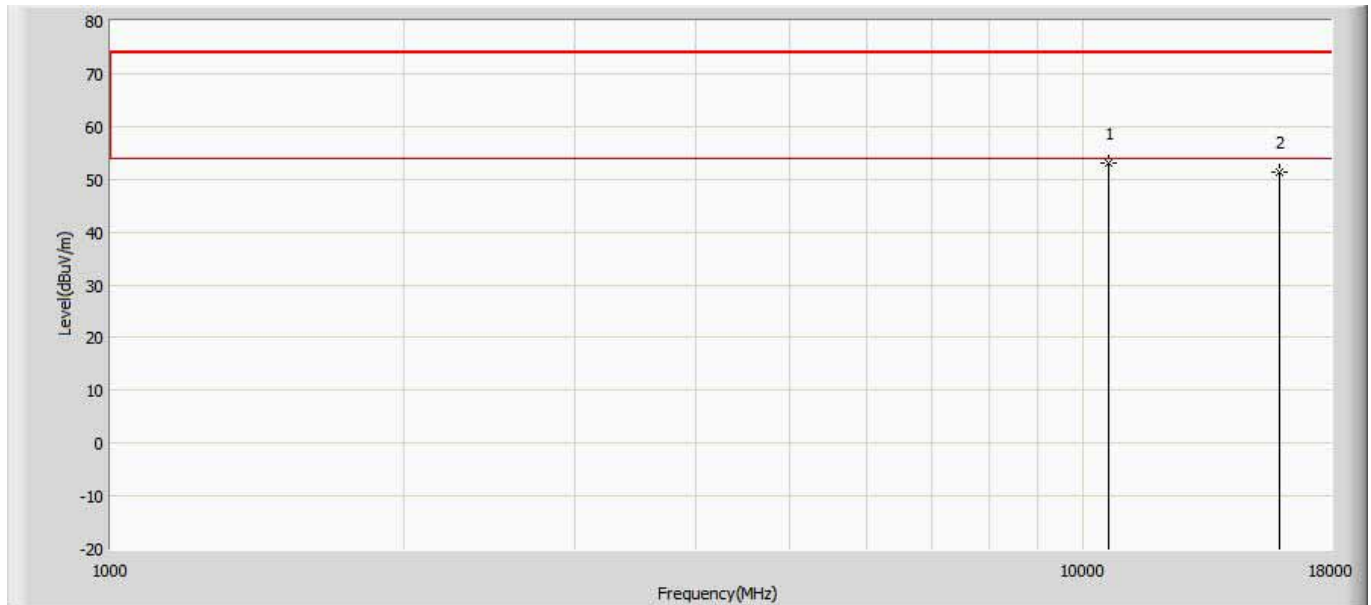
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10596.200	52.790	53.210	-1.210	54.000	-0.420	AV
2		10596.500	55.079	55.499	-18.921	74.000	-0.420	PK
3		15900.000	49.886	45.496	-24.114	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5320MHz by 802.11ac20 Ant1+2+3	



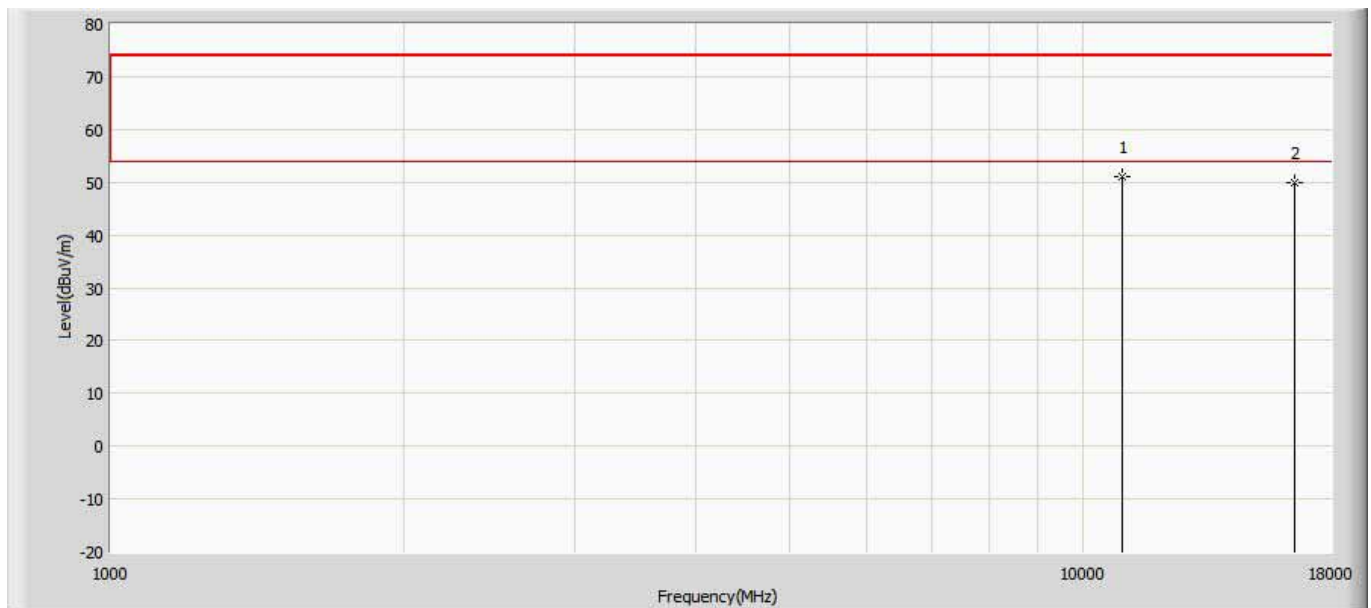
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10639.000	51.409	51.829	-22.591	74.000	-0.420	PK
2		15960.000	50.460	46.070	-23.540	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5320MHz by 802.11ac20 Ant1+2+3	



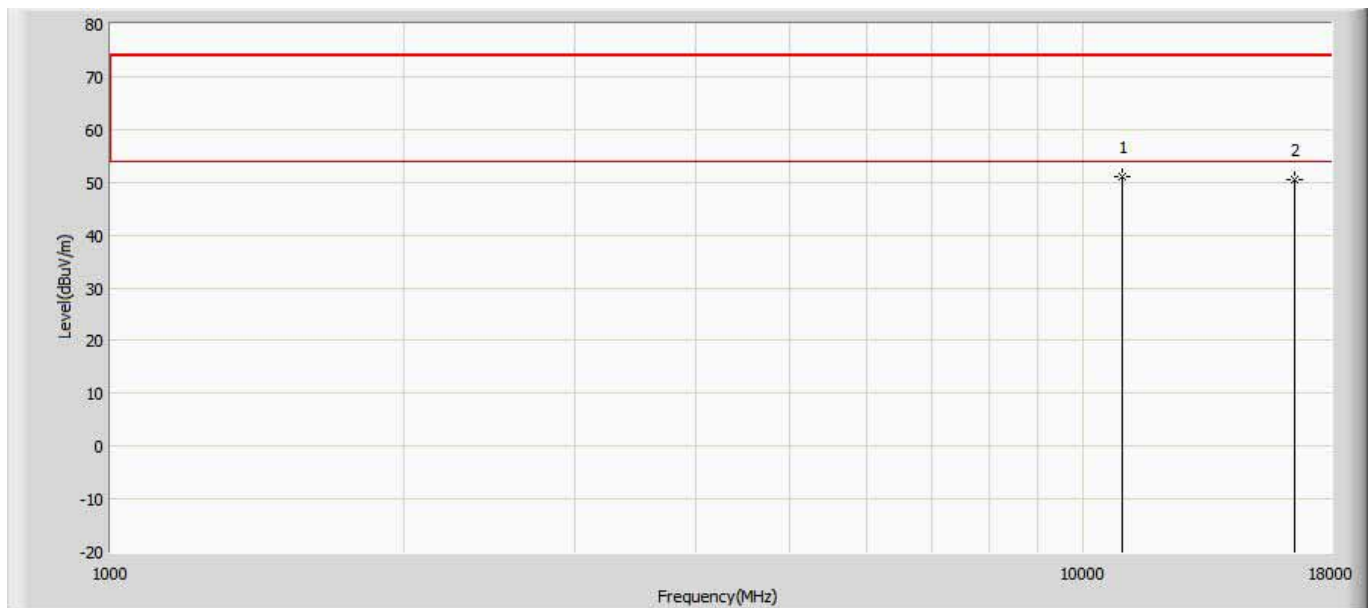
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10639.000	53.113	53.533	-20.887	74.000	-0.420	PK
2		15960.000	51.342	46.952	-22.658	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5500MHz by 802.11ac20 Ant1+2+3	



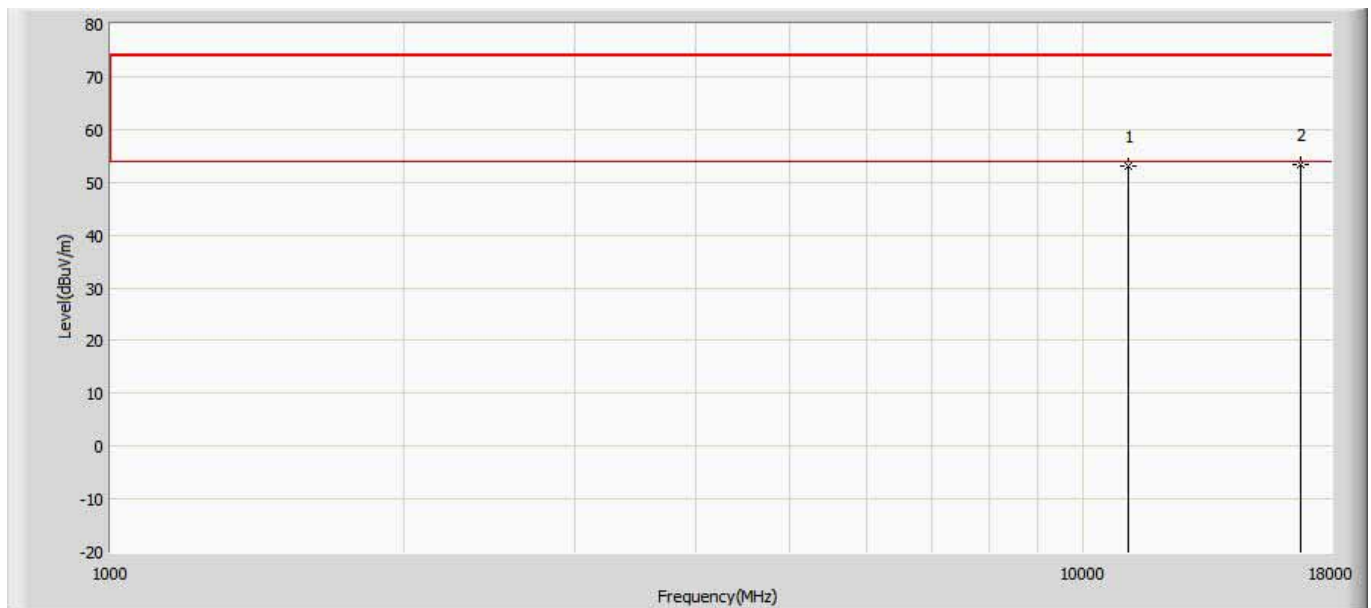
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10996.000	50.988	50.868	-23.012	74.000	0.120	PK
2		16500.000	49.825	44.585	-24.175	74.000	5.240	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5500MHz by 802.11ac20 Ant1+2+3	



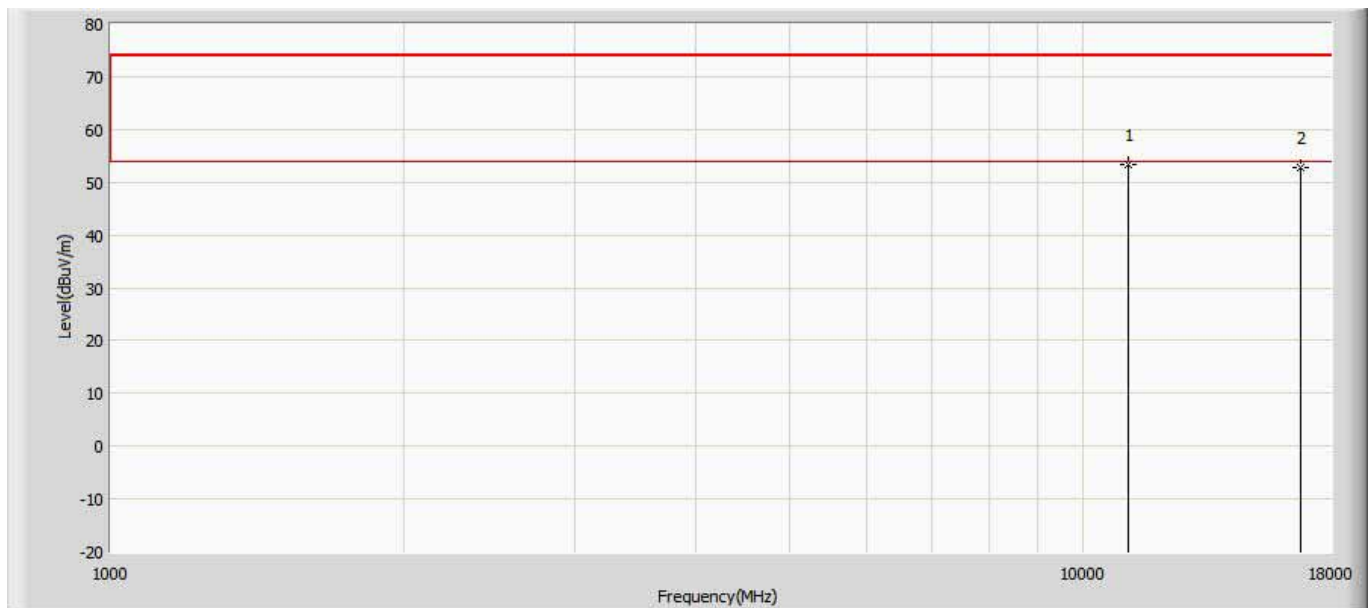
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10996.000	50.962	50.842	-23.038	74.000	0.120	PK
2		16500.000	50.379	45.139	-23.621	74.000	5.240	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5580MHz by 802.11ac20 Ant1+2+3	



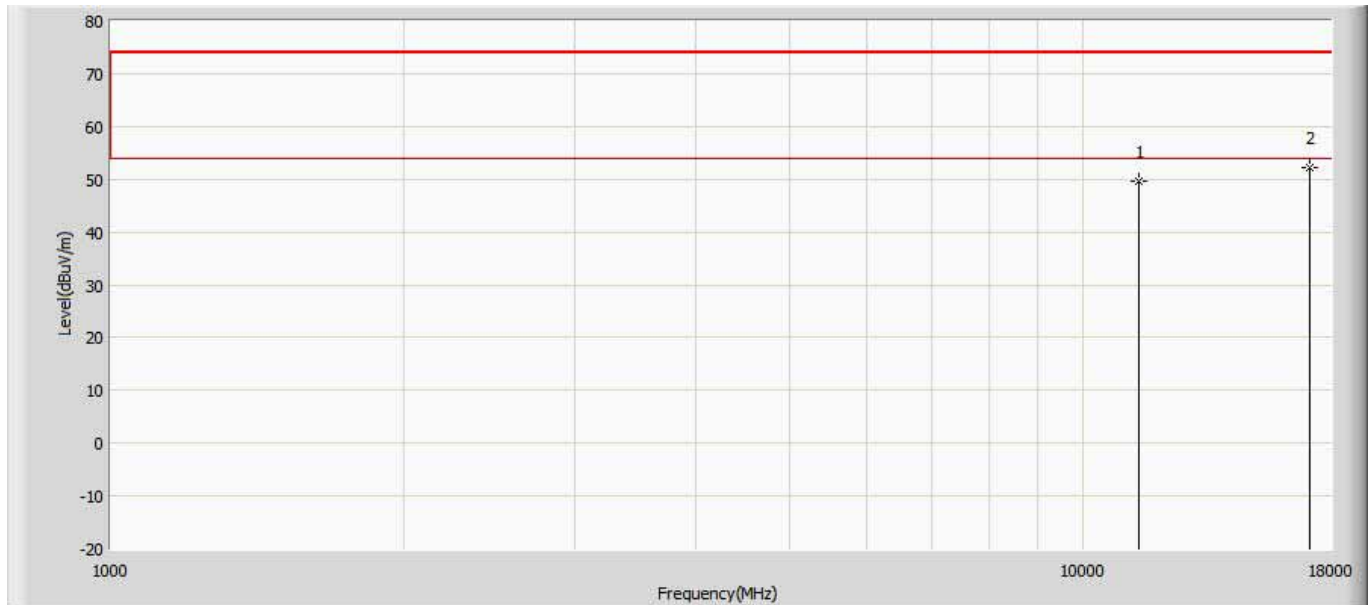
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11157.500	53.006	52.886	-20.994	74.000	0.120	PK
2	*	16740.000	53.389	47.999	-20.611	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5580MHz by 802.11ac20 Ant1+2+3	



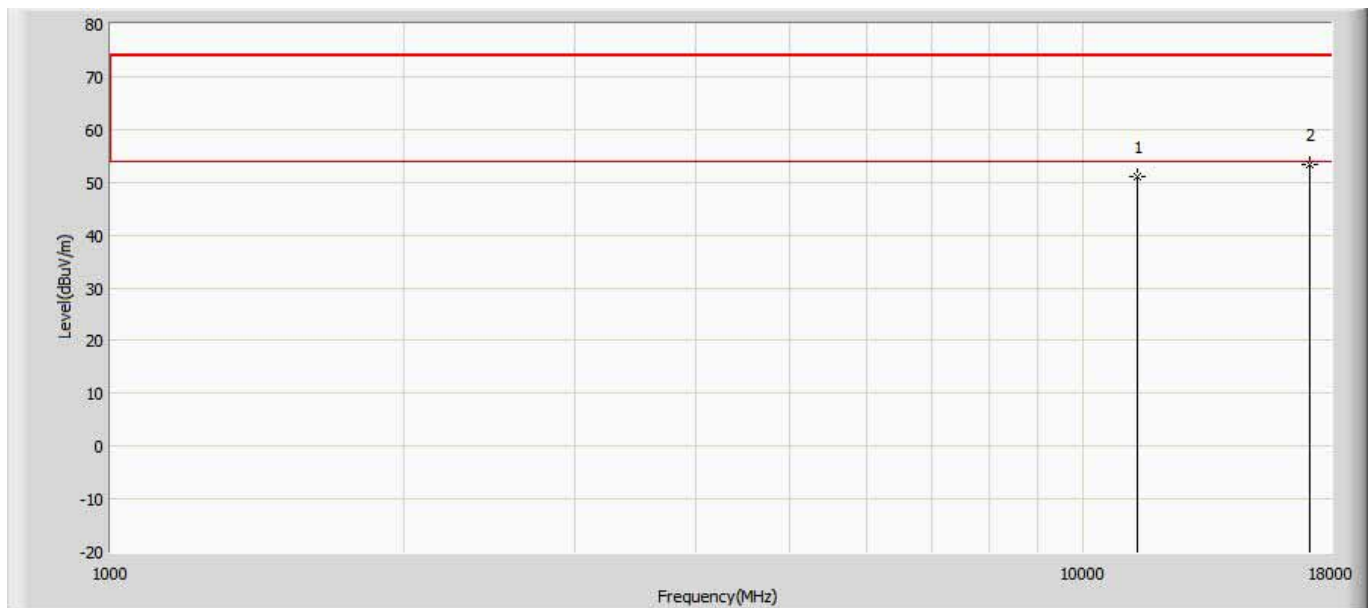
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11157.500	53.255	53.135	-20.745	74.000	0.120	PK
2		16740.000	52.754	47.364	-21.246	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5700MHz by 802.11ac20 Ant1+2+3	



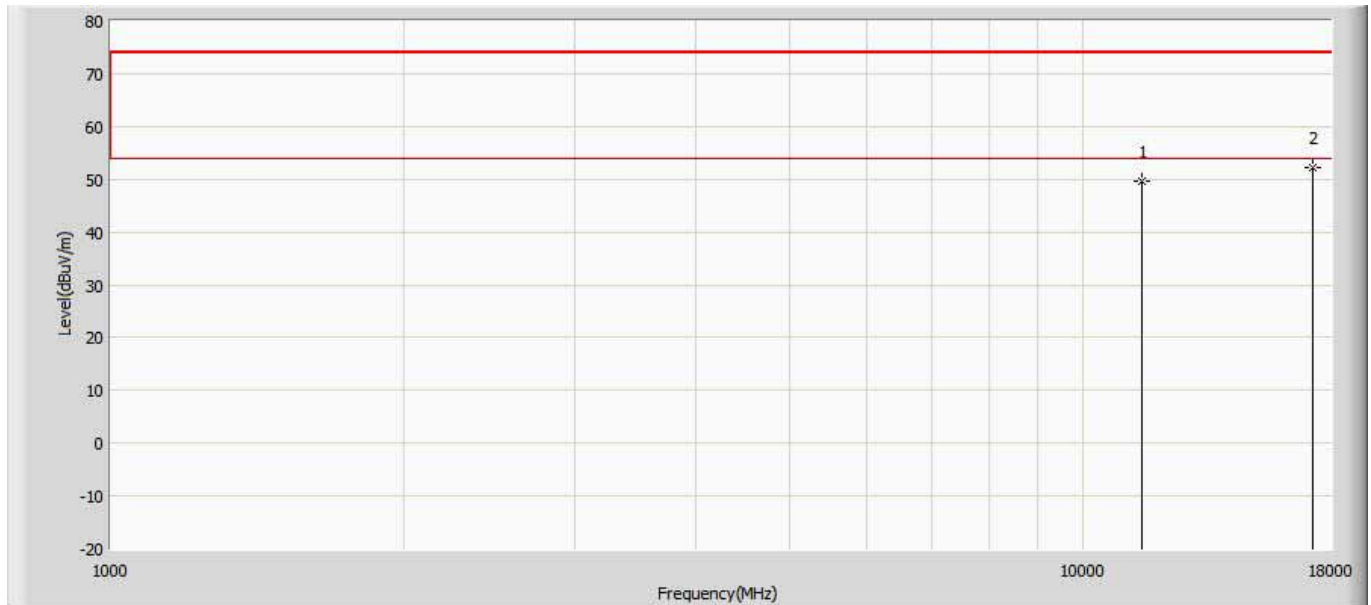
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11404.000	49.741	50.731	-24.259	74.000	-0.990	PK
2	*	17100.000	52.144	46.844	-21.856	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:55
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5700MHz by 802.11ac20 Ant1+2+3	



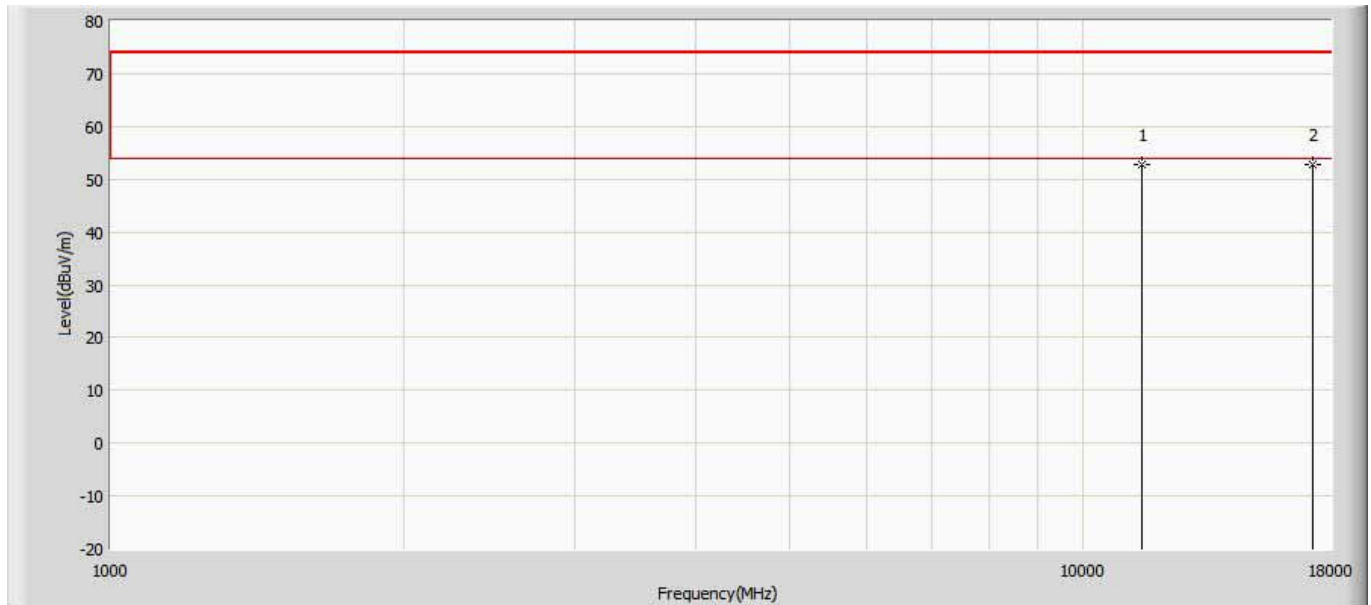
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11395.500	51.052	52.042	-22.948	74.000	-0.990	PK
2	*	17100.000	53.258	47.958	-20.742	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5745MHz by 802.11ac20 Ant1+2+3	



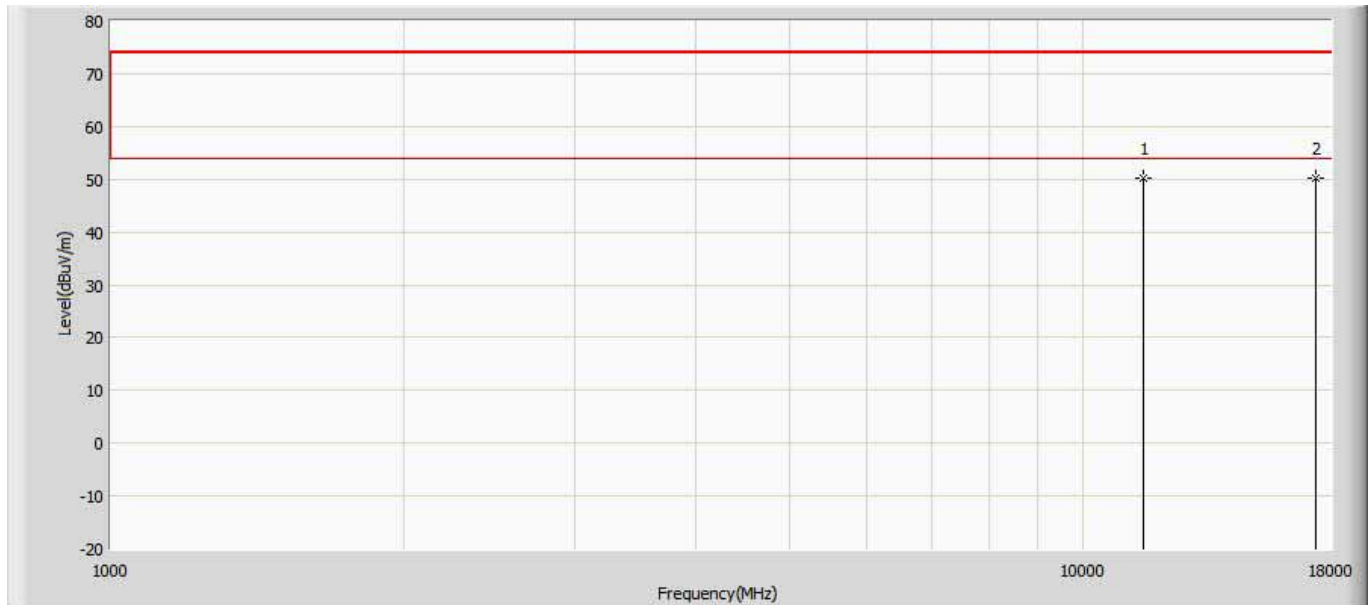
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11489.000	49.521	50.511	-24.479	74.000	-0.990	PK
2	*	17235.000	52.257	46.957	-21.743	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5745MHz by 802.11ac20 Ant1+2+3	



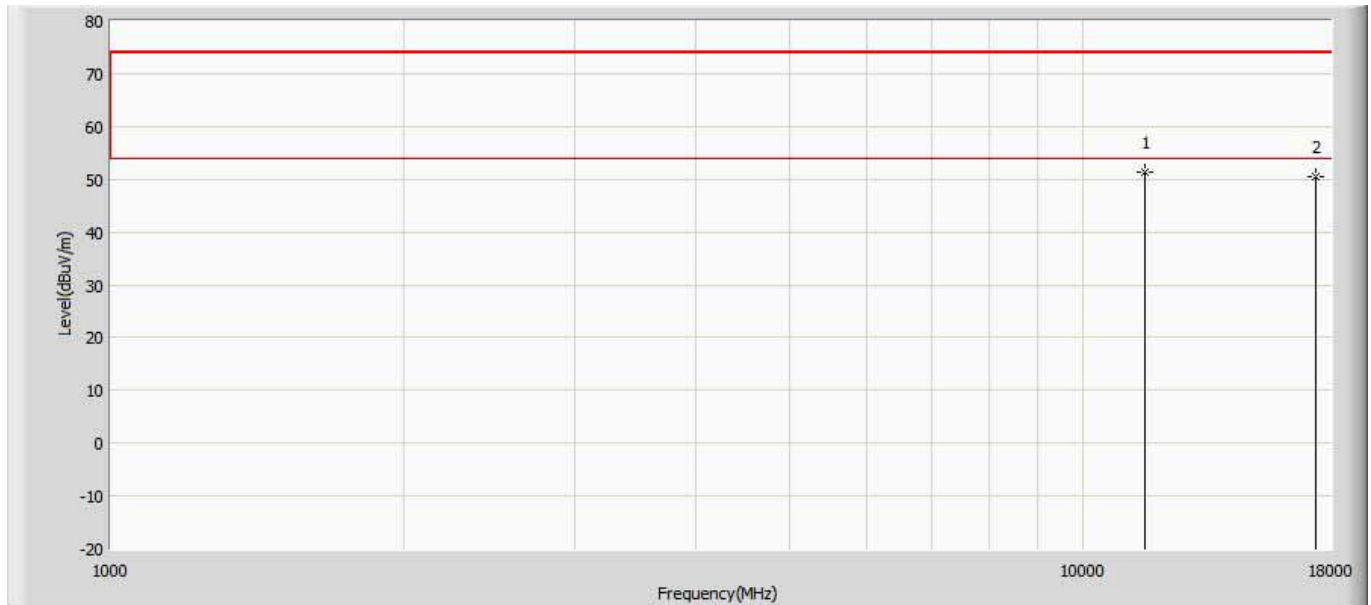
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11489.000	52.661	53.651	-21.339	74.000	-0.990	PK
2		17235.000	52.647	47.347	-21.353	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5785MHz by 802.11ac20 Ant1+2+3	



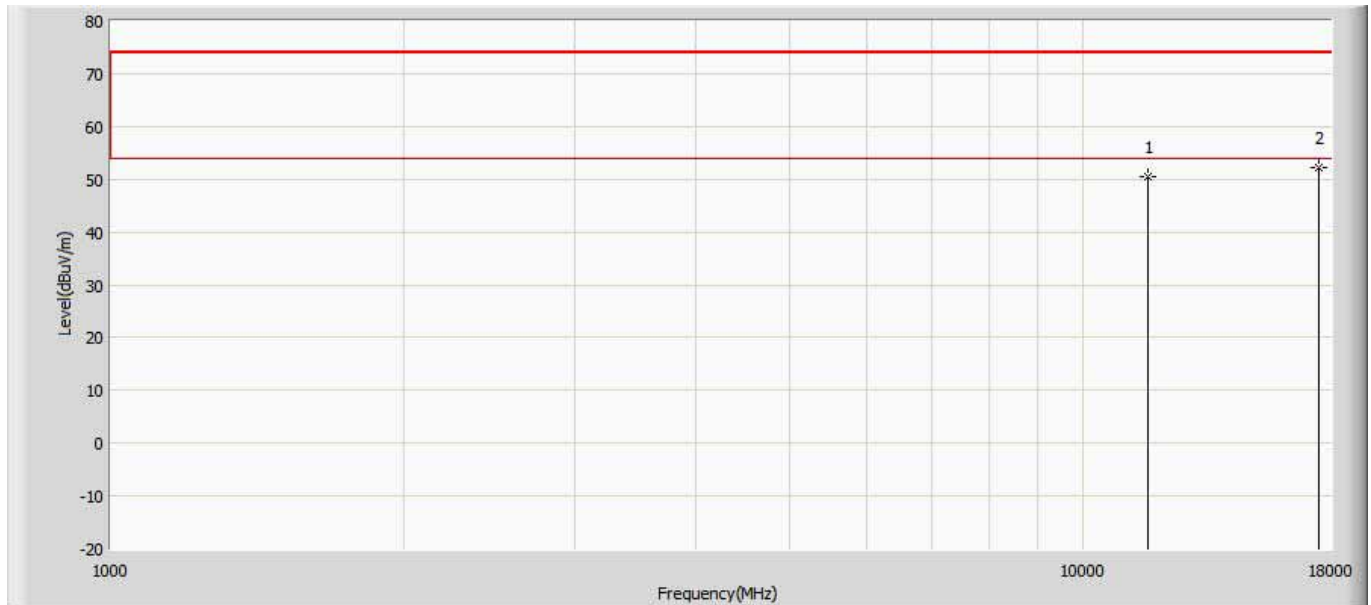
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11557.000	50.177	51.167	-23.823	74.000	-0.990	PK
2		17355.000	50.156	44.856	-23.844	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5785MHz by 802.11ac20 Ant1+2+3	



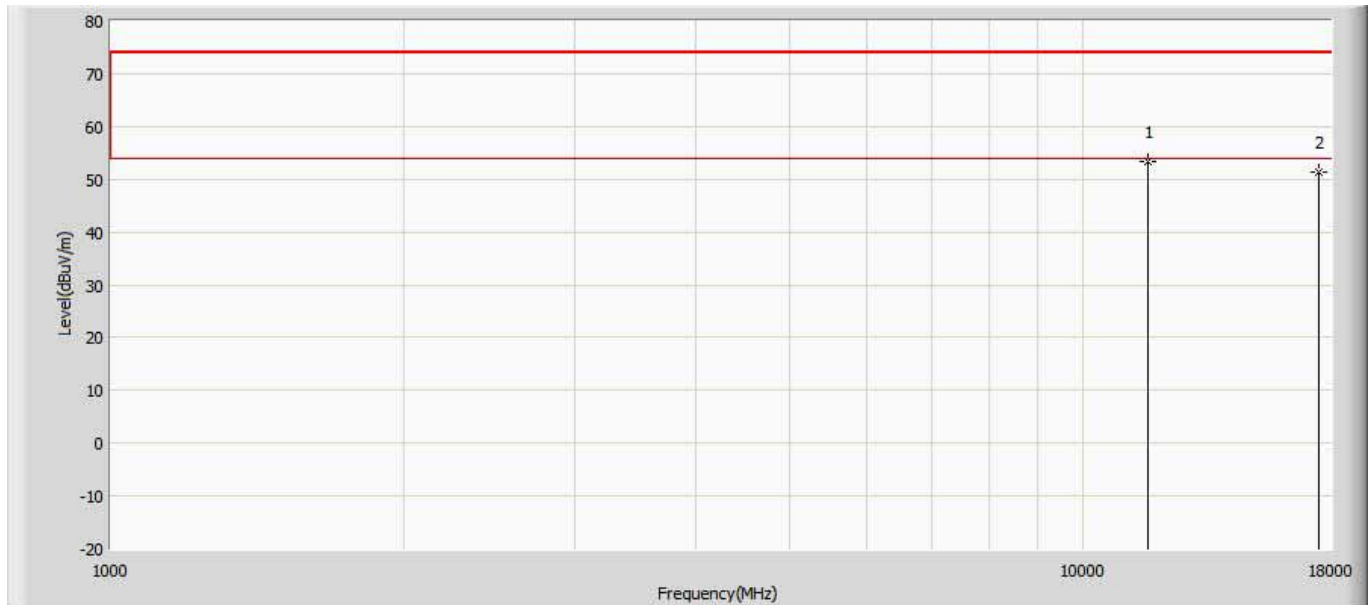
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11574.000	51.213	52.203	-22.787	74.000	-0.990	PK
2		17355.000	50.478	45.178	-23.522	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5825MHz by 802.11ac20 Ant1+2+3	



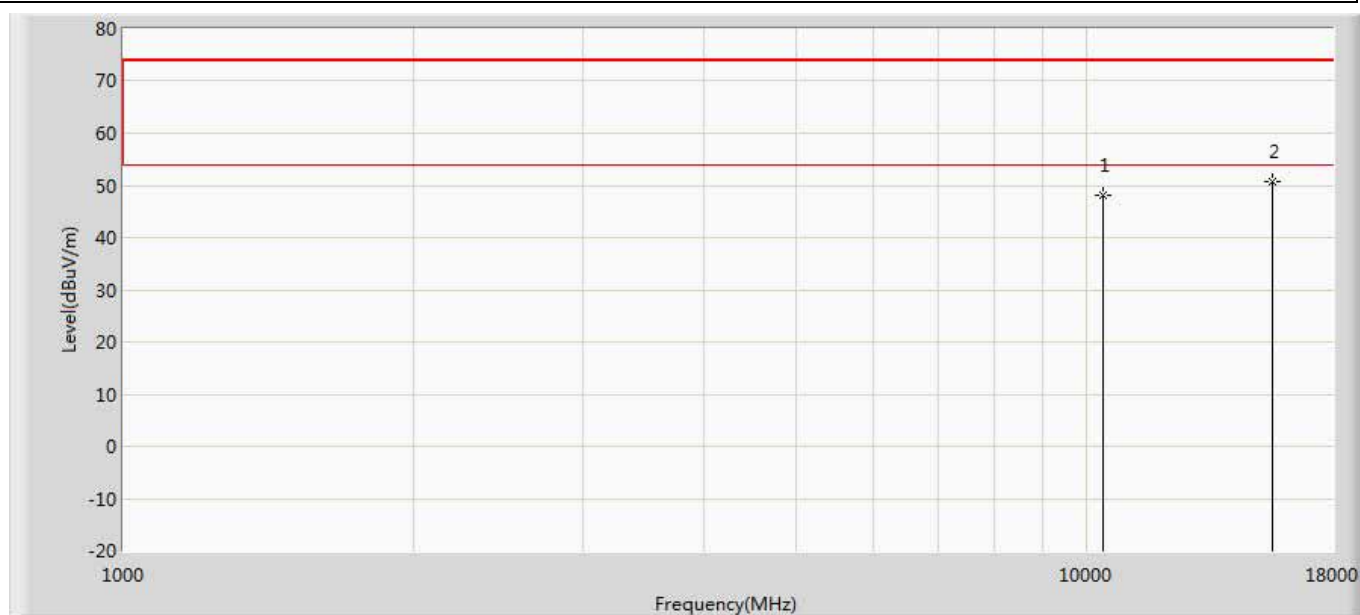
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11650.500	50.357	51.347	-23.643	74.000	-0.990	PK
2	*	17475.000	52.157	46.857	-21.843	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 3:Transmit at 5825MHz by 802.11ac20 Ant1+2+3	



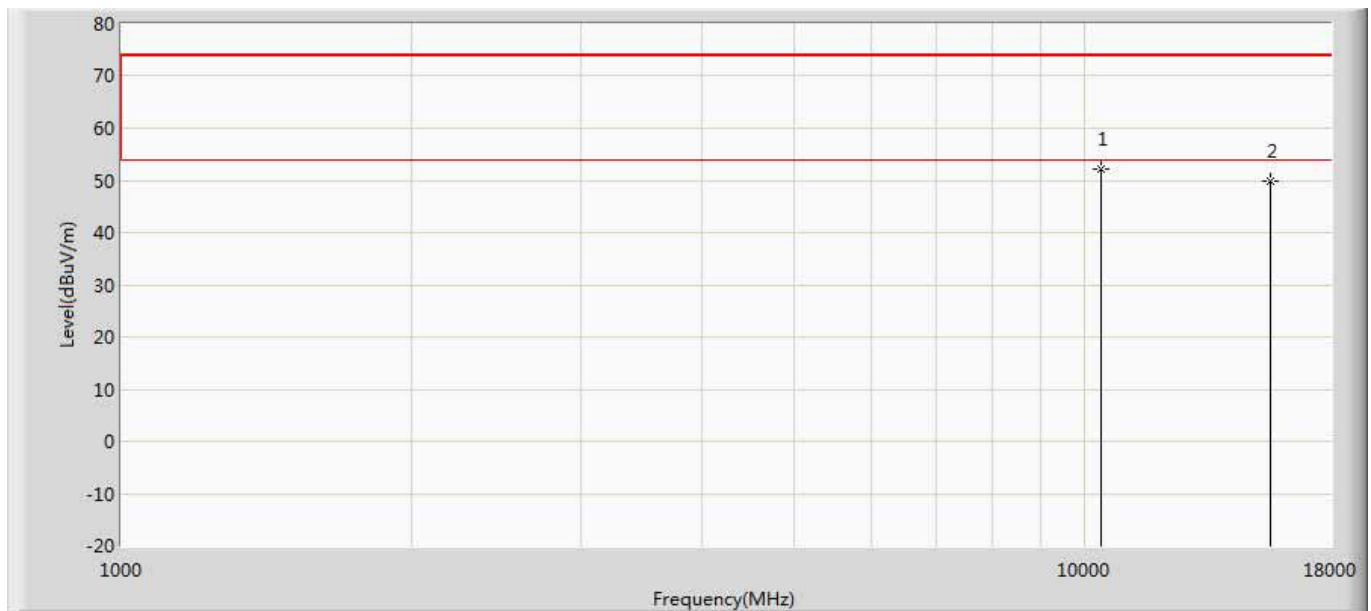
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11659.000	53.386	54.376	-20.614	74.000	-0.990	PK
2		17475.000	51.389	46.089	-22.611	74.000	5.300	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:50
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5190MHz by 11ac40 Ant1+2+3	



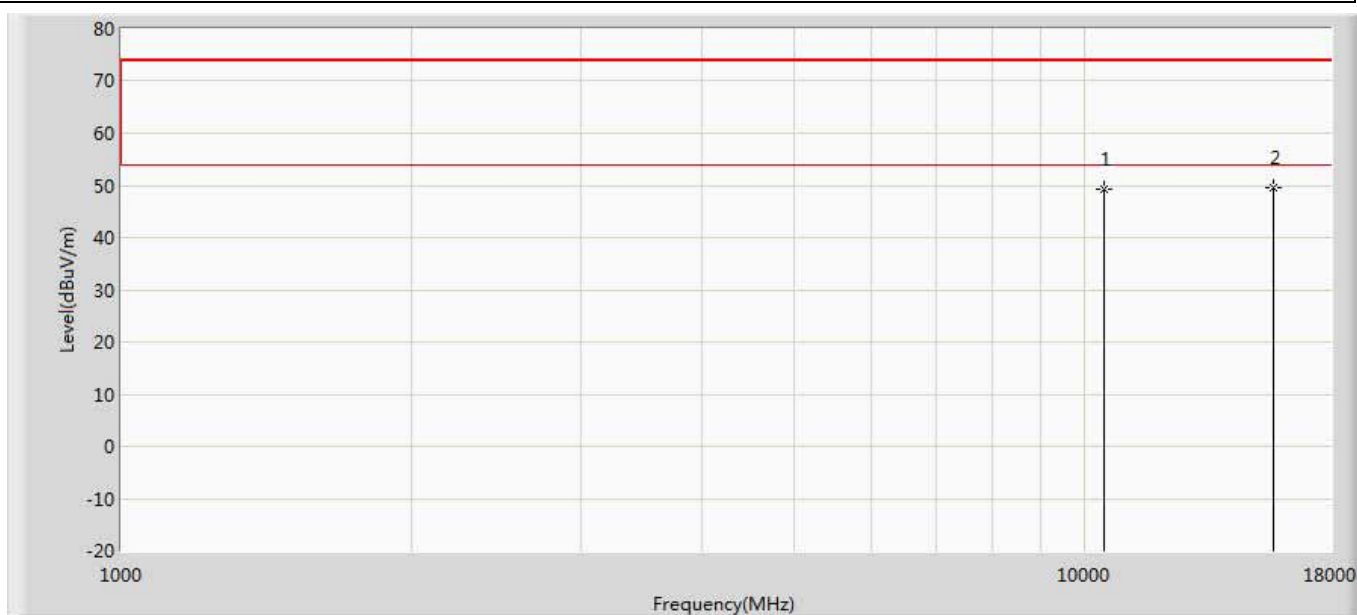
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10384.000	48.195	41.715	-25.805	74.000	6.480	PK
2	*	15570.000	50.799	36.370	-23.201	74.000	14.429	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 4:Transmit at 5190MHz by 11ac40 Ant1+2+3	



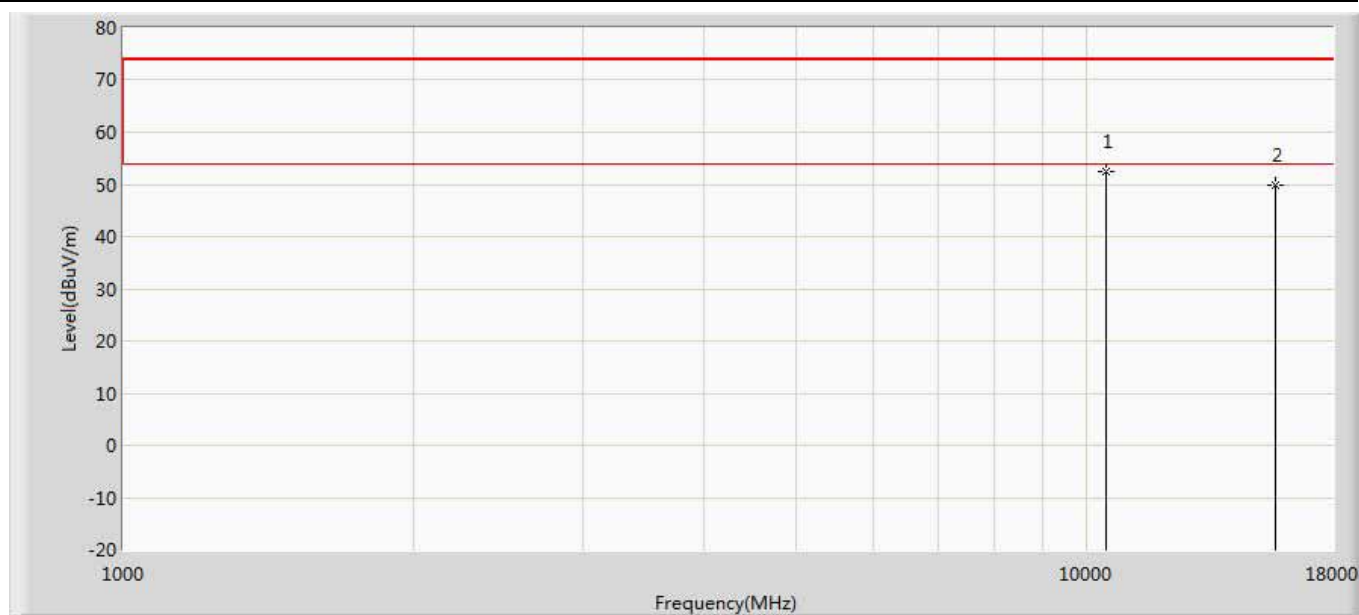
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10375.500	52.179	45.534	-21.821	74.000	6.645	PK
2		15570.000	49.984	35.555	-24.016	74.000	14.429	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:51
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5230MHz by 11ac40 Ant1+2+3	



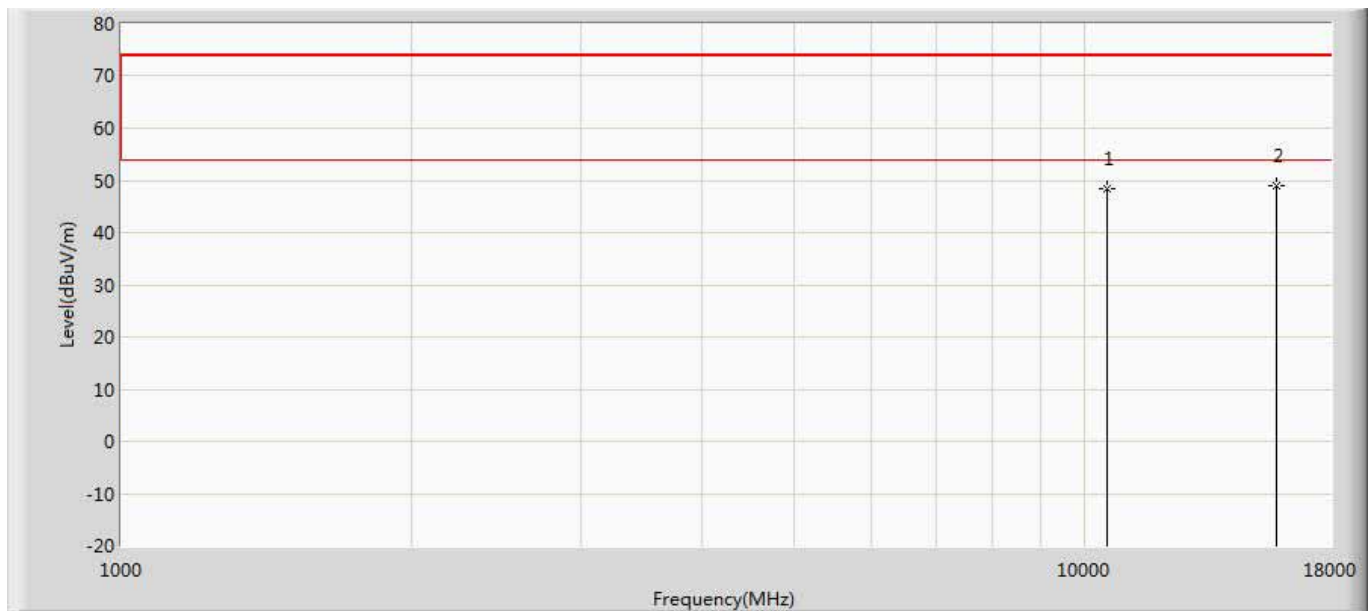
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10460.500	49.178	42.940	-24.822	74.000	6.237	PK
2	*	15690.000	49.642	35.204	-24.358	74.000	14.438	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 4:Transmit at 5230MHz by 11ac40 Ant1+2+3	



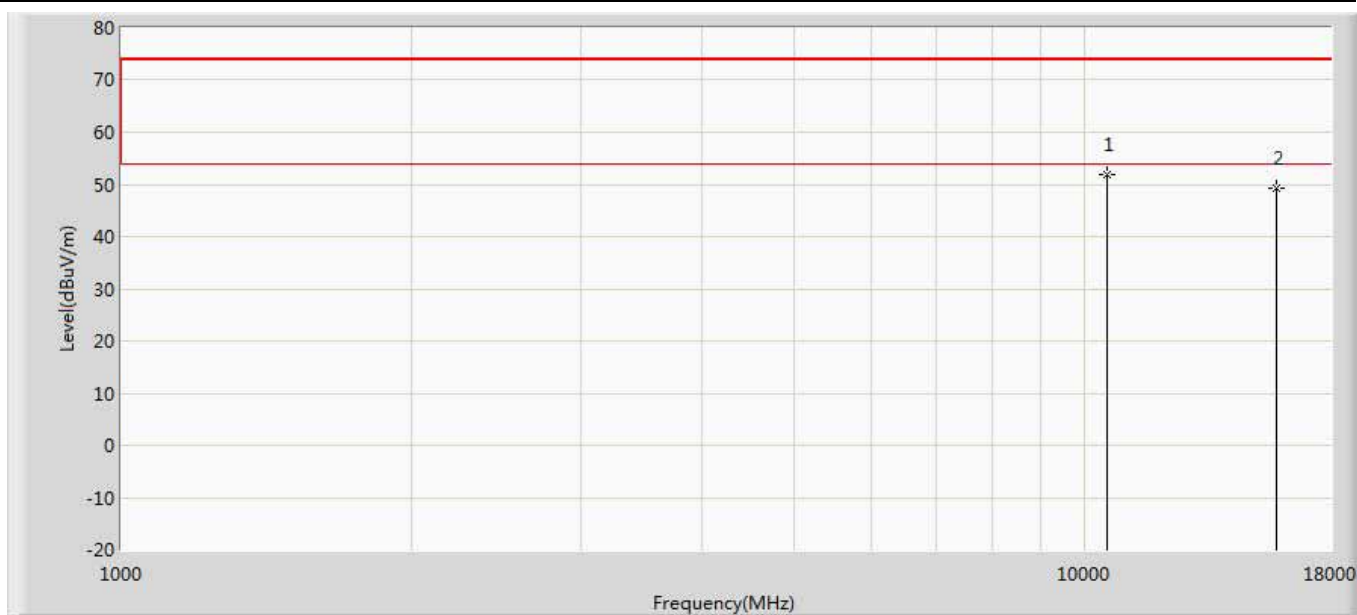
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10460.500	52.581	46.343	-21.419	74.000	6.237	PK
2		15690.000	49.864	35.426	-24.136	74.000	14.438	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:51
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5270MHz by 11ac40 Ant1+2+3	



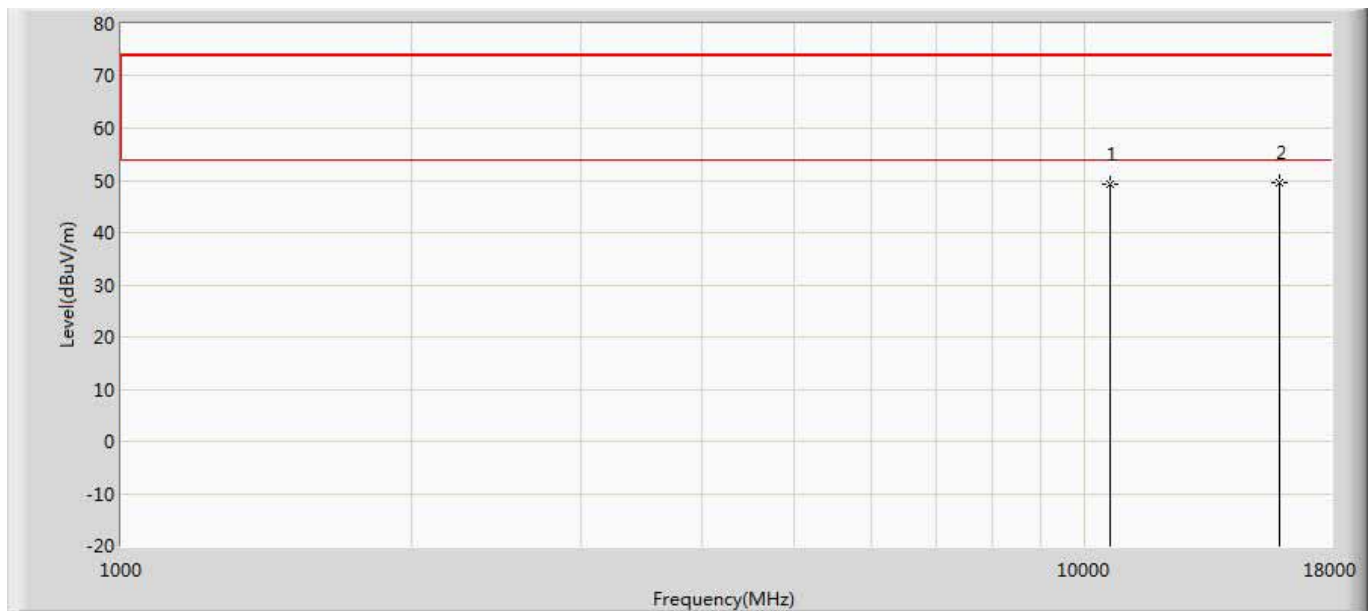
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10537.000	48.453	41.174	-25.547	74.000	7.279	PK
2	*	15810.000	49.001	34.681	-24.999	74.000	14.320	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 4:Transmit at 5270MHz by 11ac40 Ant1+2+3	



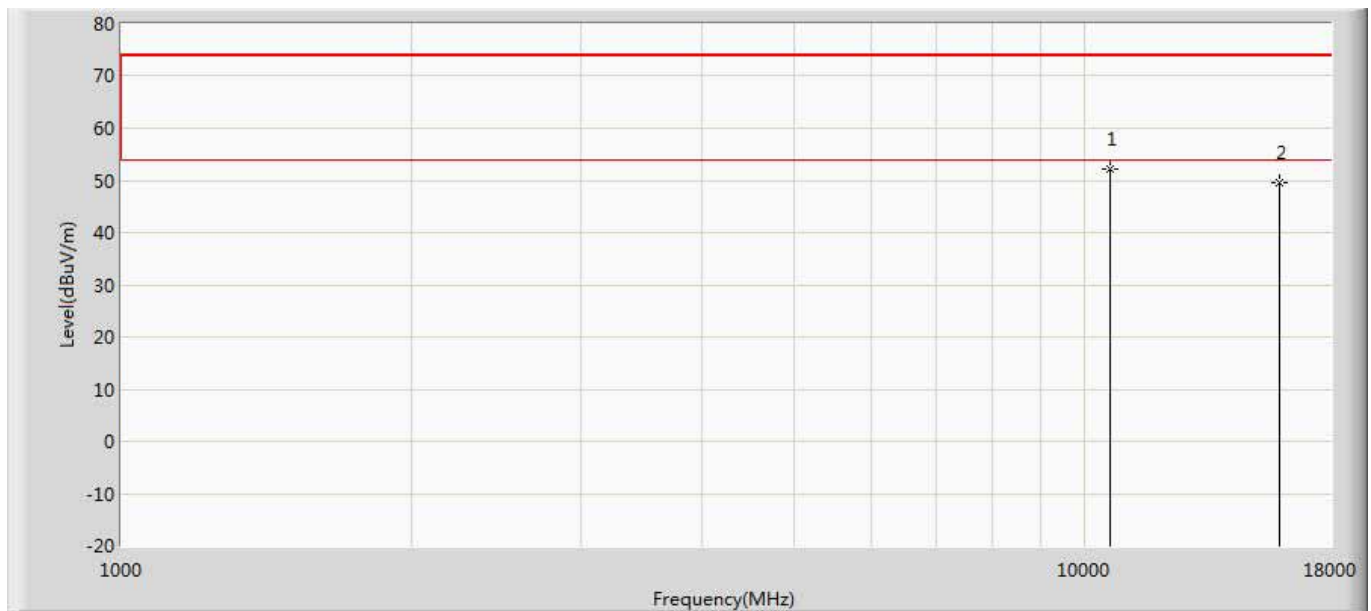
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10537.000	51.888	44.609	-22.112	74.000	7.279	PK
2		15810.000	49.366	35.046	-24.634	74.000	14.320	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:51
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5310MHz by 11ac40 Ant1+2+3	



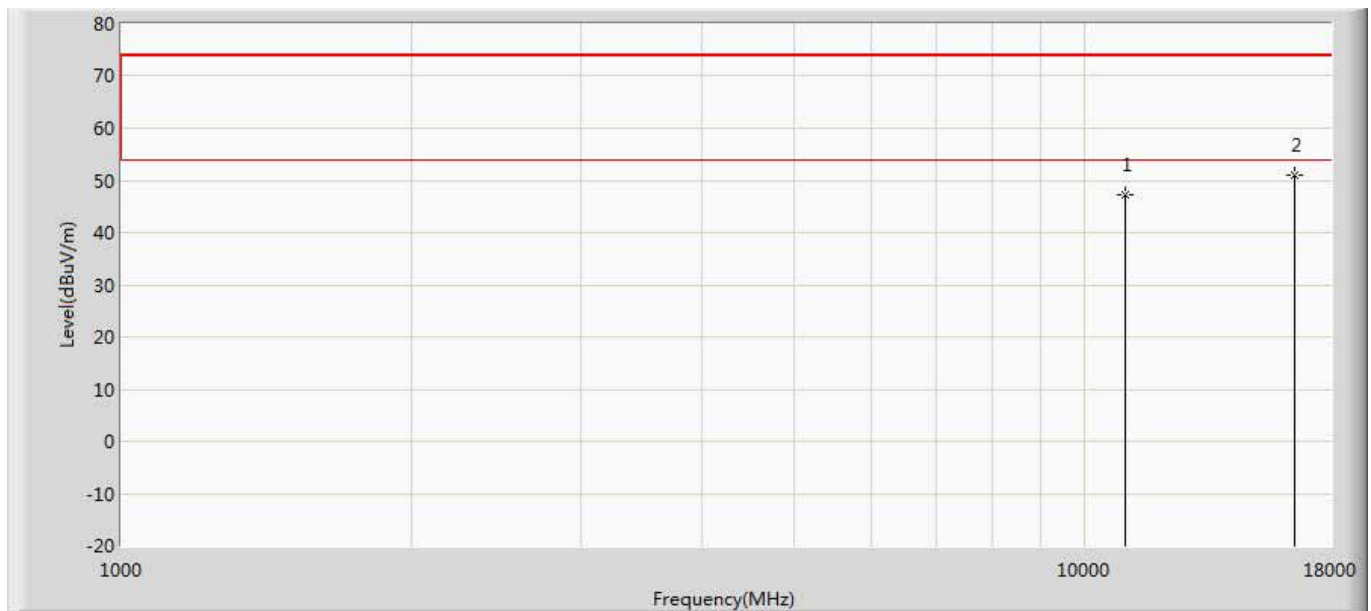
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		10622.000	49.215	42.796	-24.785	74.000	6.419	PK
2	*	15930.000	49.522	34.311	-24.478	74.000	15.211	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 4:Transmit at 5310MHz by 11ac40 Ant1+2+3	



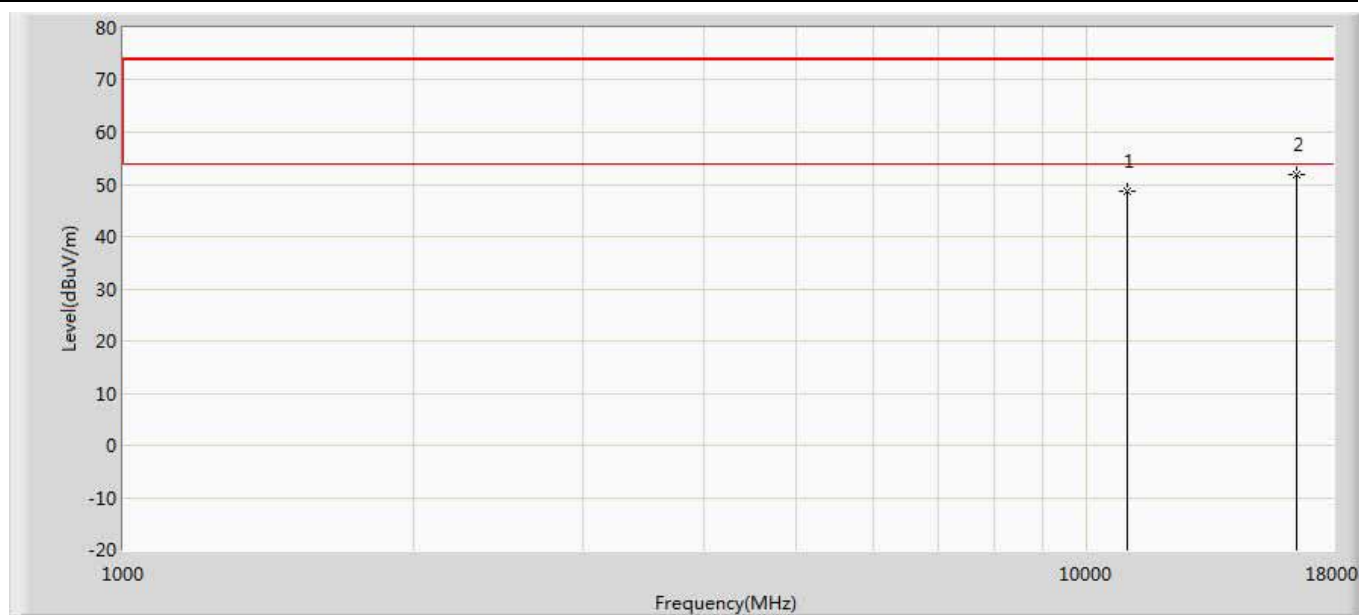
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10622.000	52.286	45.867	-21.714	74.000	6.419	PK
2		15930.000	49.600	34.389	-24.400	74.000	15.211	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:51
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5510MHz by 11ac40 Ant1+2+3	



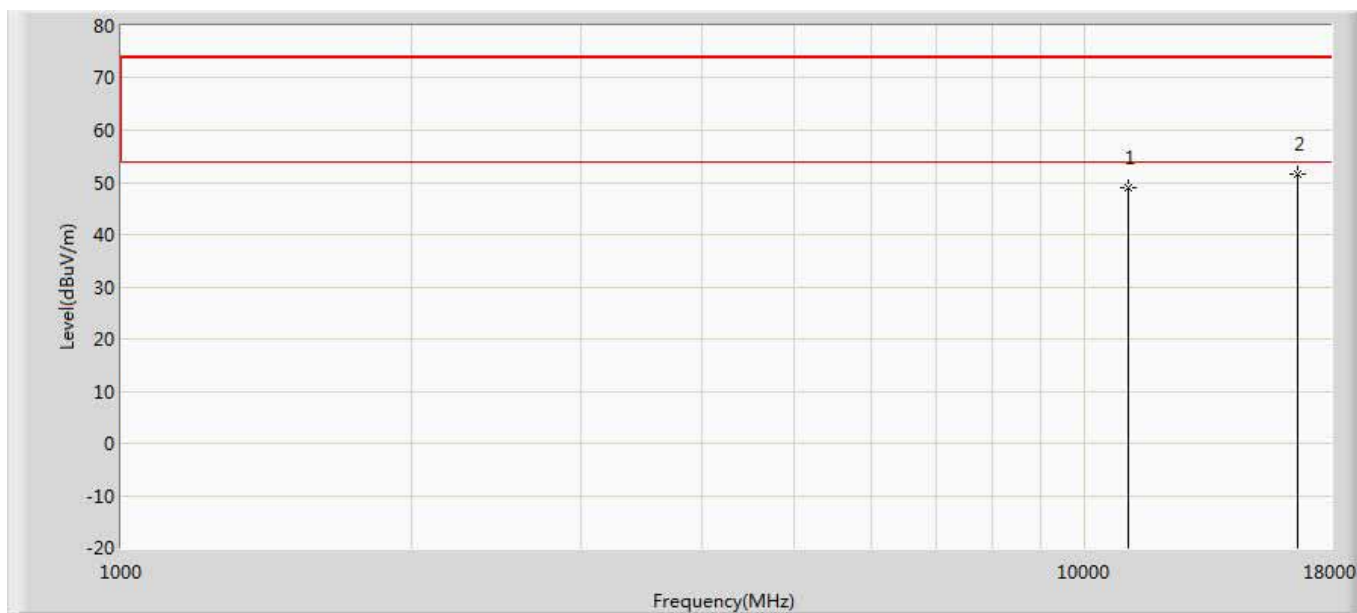
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11020.000	47.362	39.304	-26.638	74.000	8.058	PK
2	*	16530.000	51.111	35.151	-22.889	74.000	15.960	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 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: AC 120V/60Hz
Note: Mode 4:Transmit at 5510MHz by 11ac40 Ant1+2+3	



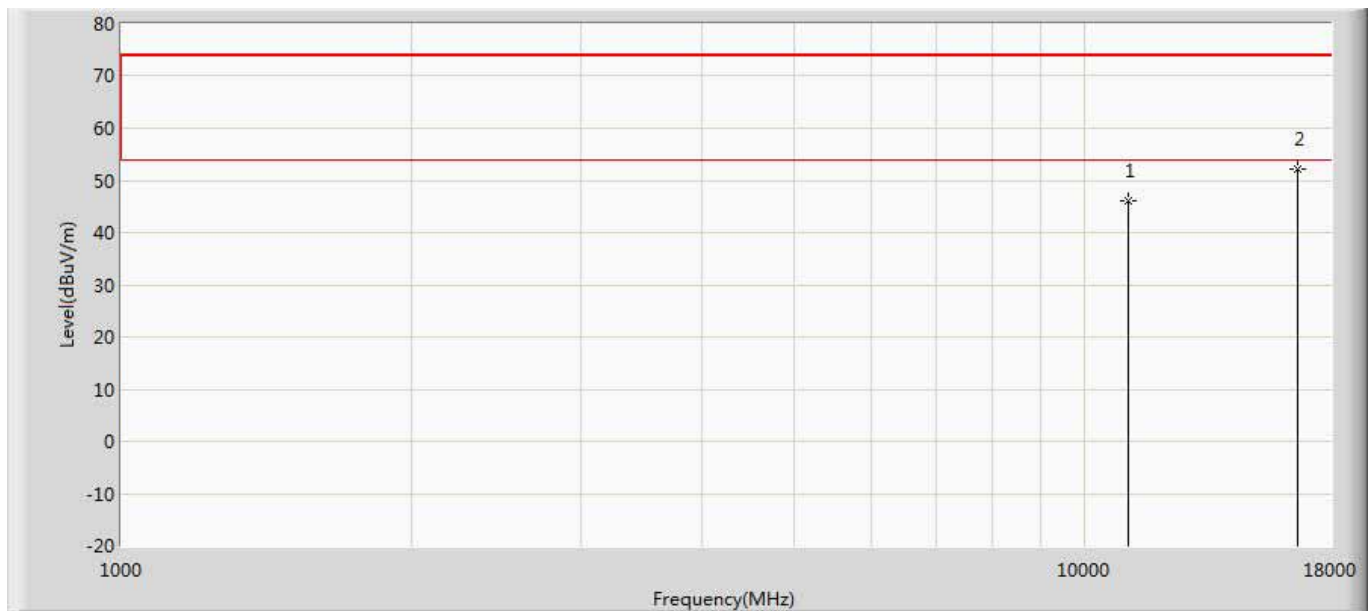
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11021.500	48.601	40.718	-25.399	74.000	7.883	PK
2	*	16530.000	51.891	35.931	-22.109	74.000	15.960	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:51
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5550MHz by 11ac40 Ant1+2+3	



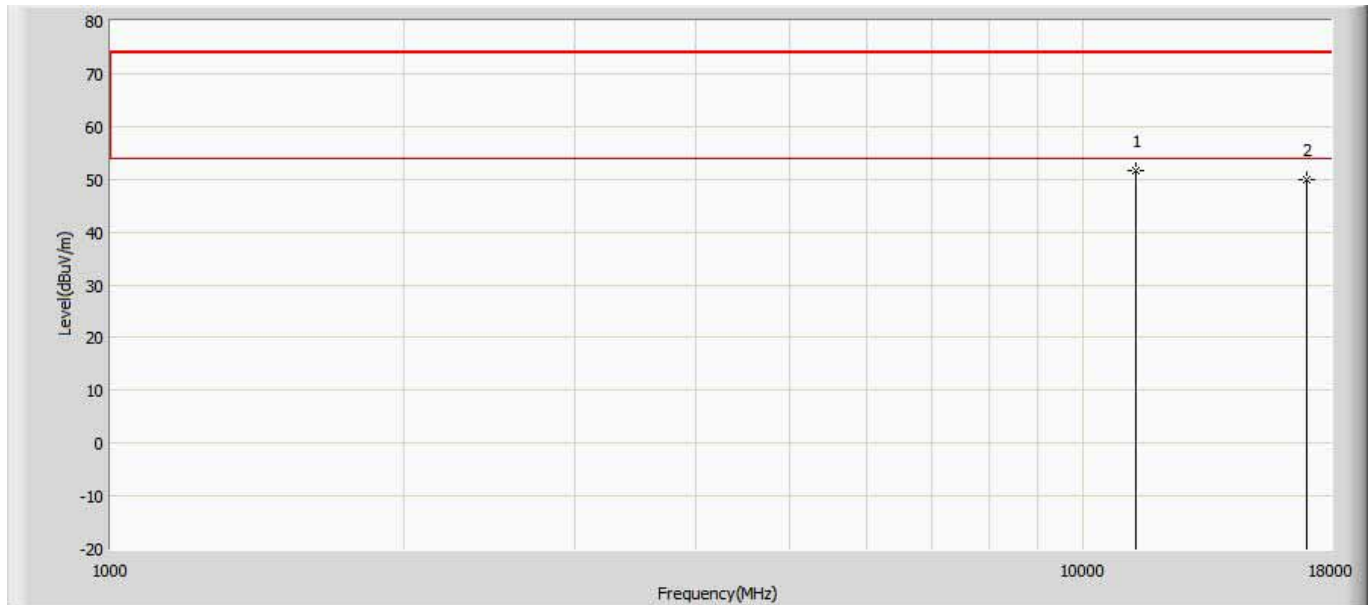
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11098.000	48.902	40.276	-25.098	74.000	8.626	PK
2	*	16650.000	51.711	35.279	-22.289	74.000	16.432	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:52
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5550MHz by 11ac40 Ant1+2+3	



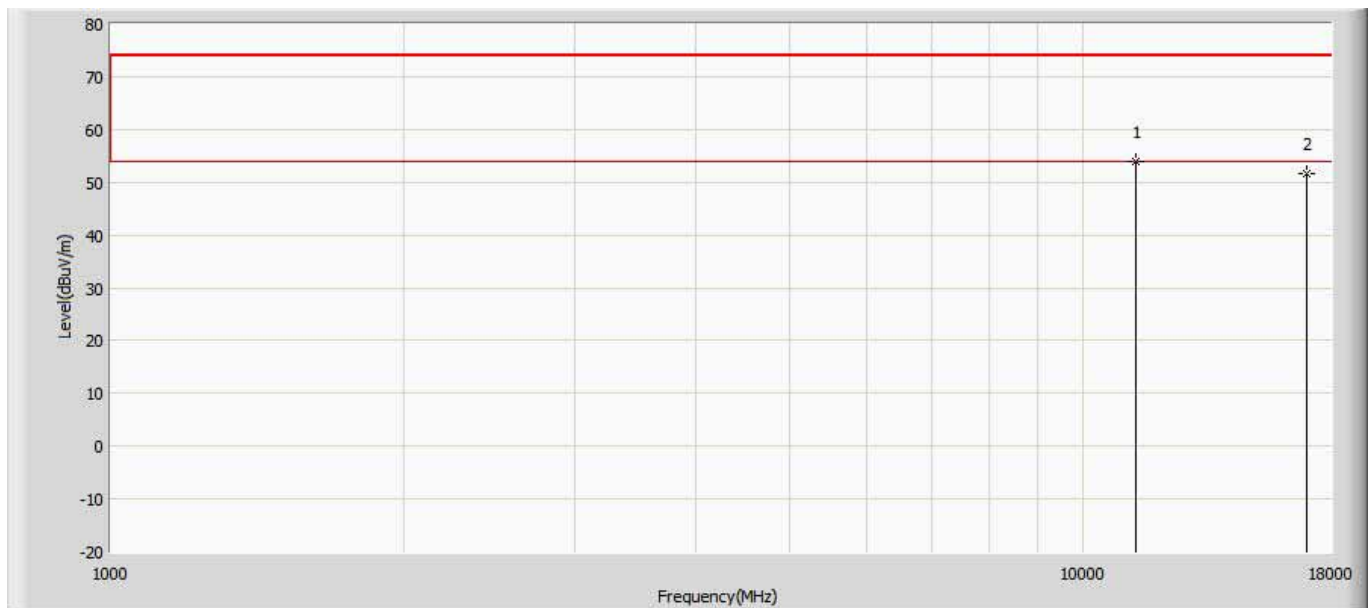
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11100.000	45.987	37.429	-28.013	74.000	8.558	PK
2	*	16650.000	52.154	35.722	-21.846	74.000	16.432	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/07 - 16:17
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5670MHz by 802.11ac40 Ant1+2+3	



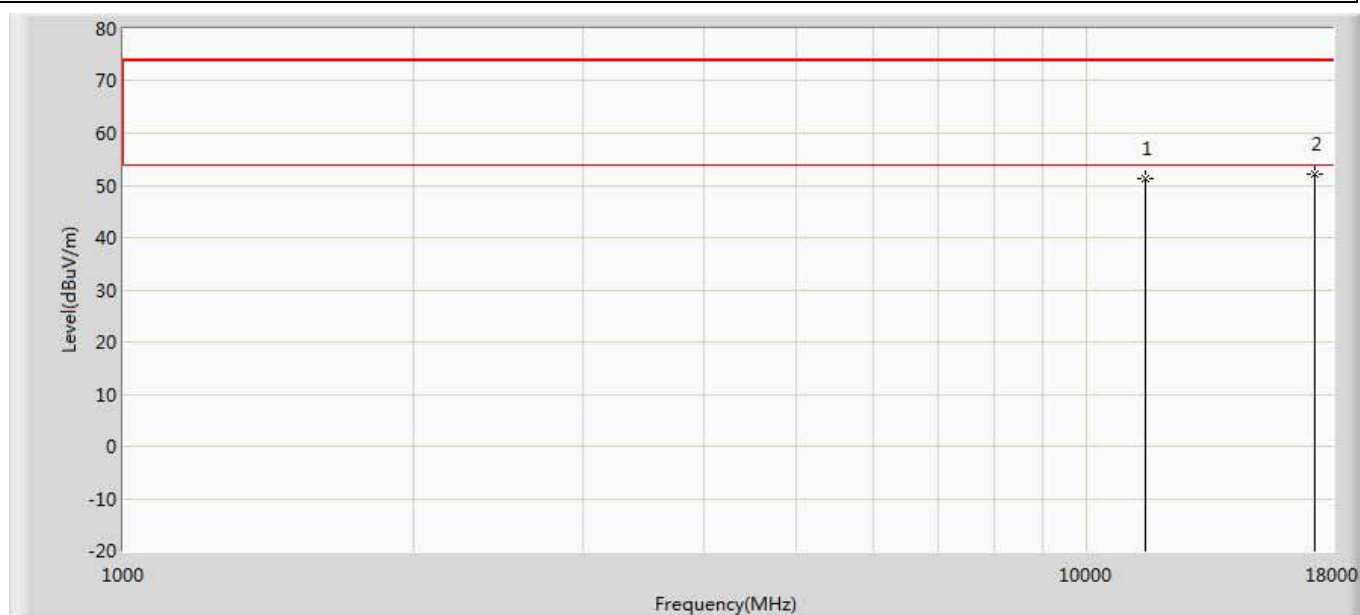
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11336.000	51.719	51.599	-22.281	74.000	0.120	PK
2		17010.000	49.798	44.408	-24.202	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/07 - 16:17
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5670MHz by 802.11ac40 Ant1+2+3	



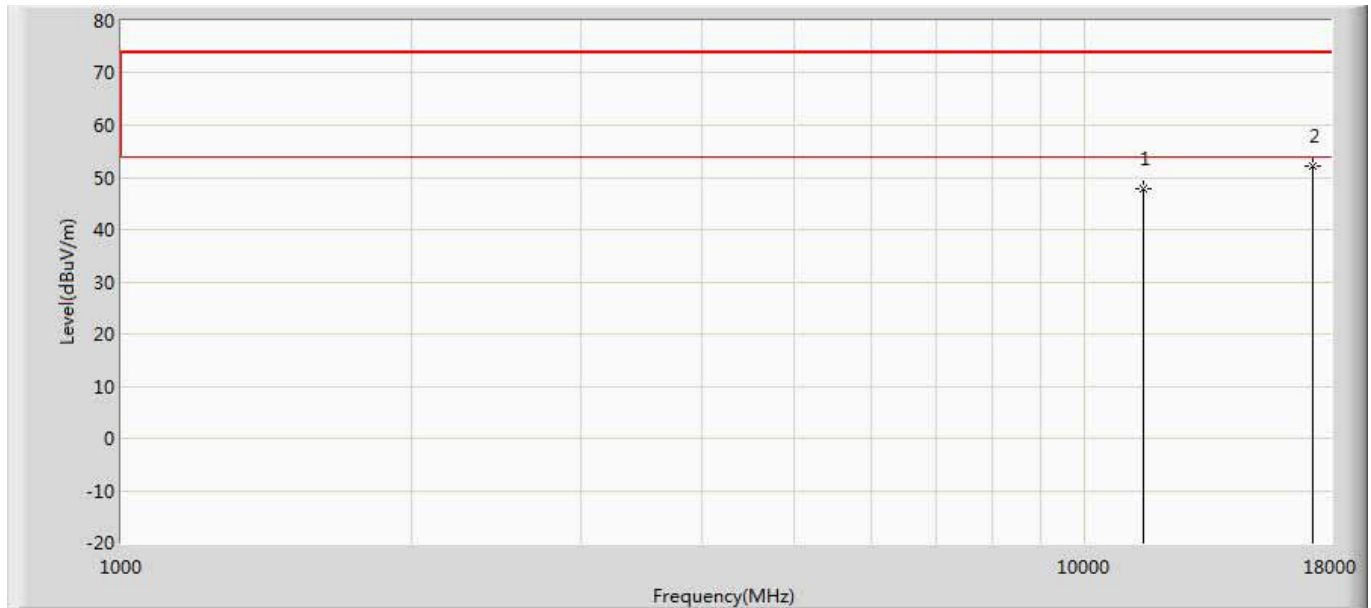
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11336.000	53.810	53.690	-20.190	74.000	0.120	PK
2		17010.000	51.667	46.277	-22.333	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:52
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5755MHz by 11ac40 Ant1+2+3	



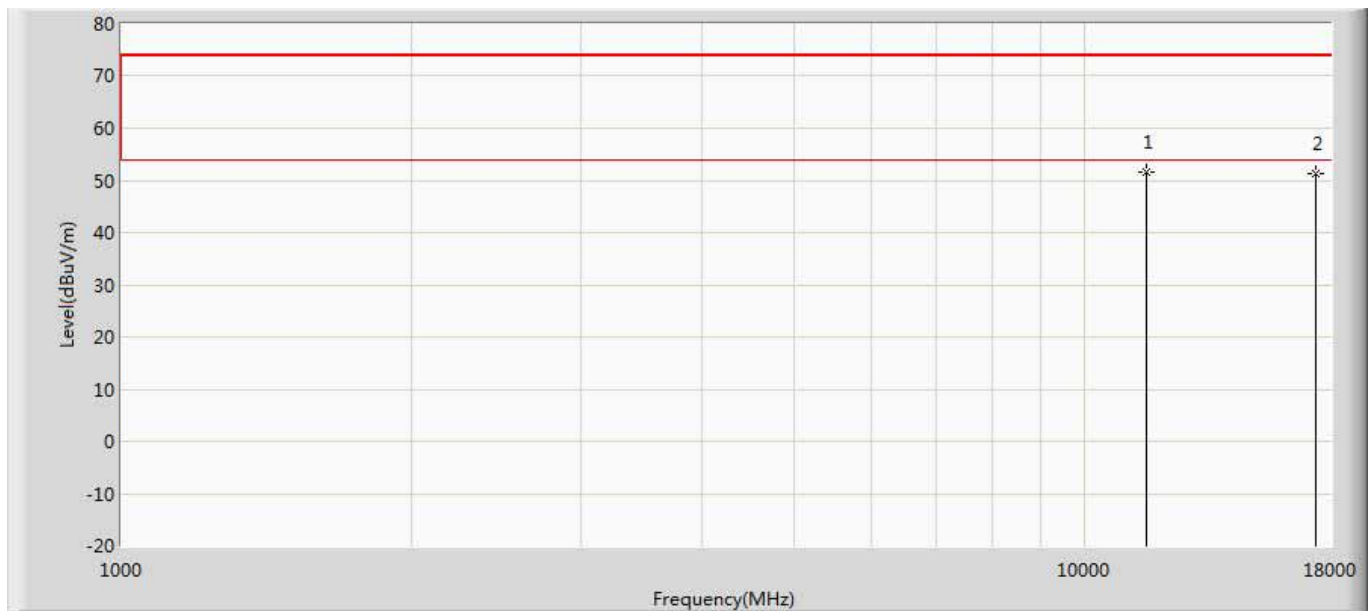
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11506.000	51.193	41.317	-22.807	74.000	9.876	PK
2	*	17265.000	52.219	35.239	-21.781	74.000	16.980	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:52
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5755MHz by 11ac40 Ant1+2+3	



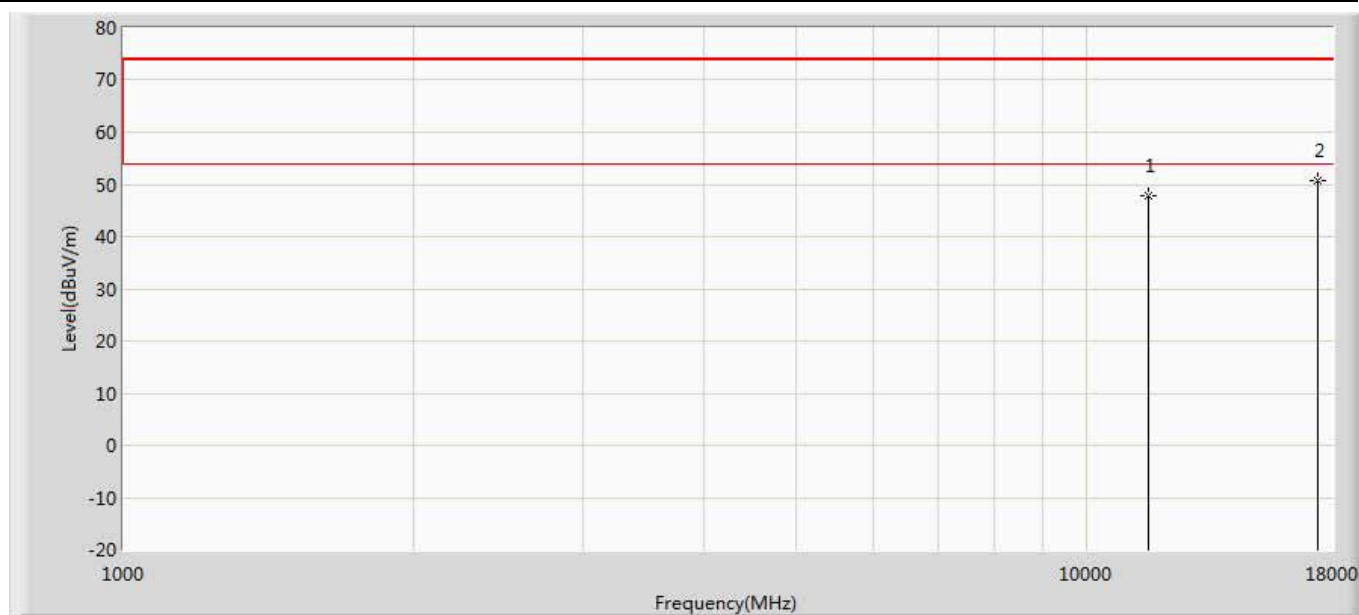
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11510.000	47.790	38.113	-26.210	74.000	9.677	PK
2	*	17265.000	52.258	35.278	-21.742	74.000	16.980	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:52
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5795MHz by 11ac40 Ant1+2+3	



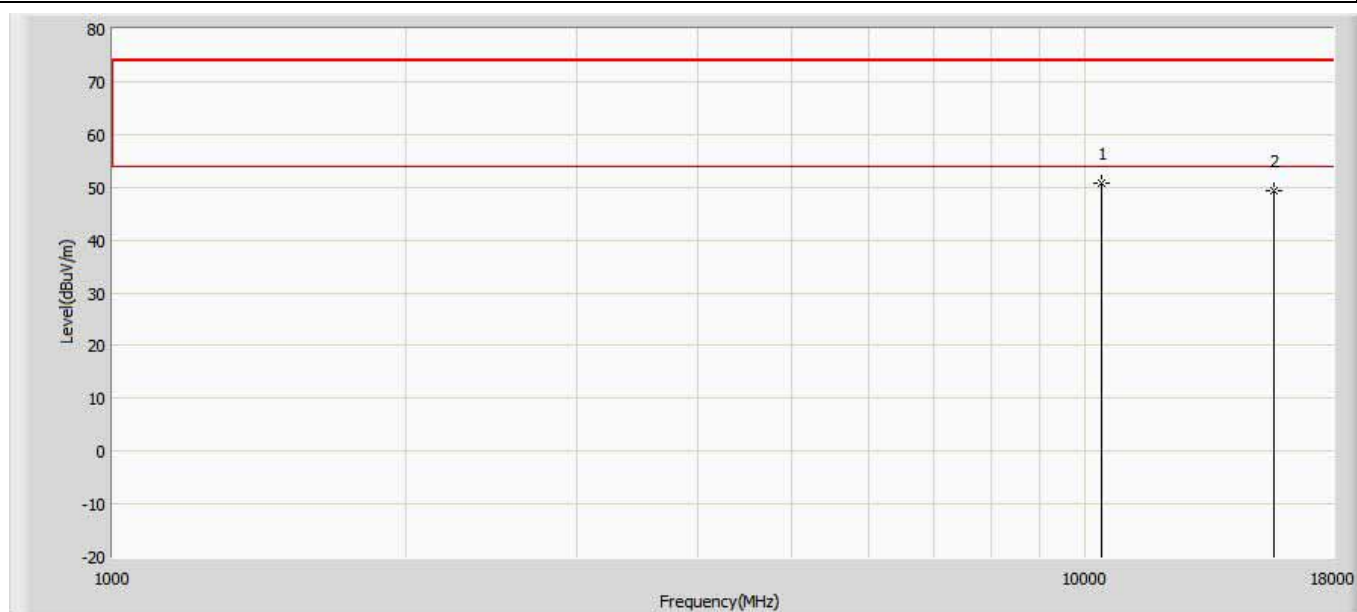
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11582.500	51.716	41.672	-22.284	74.000	10.044	PK
2		17385.000	51.185	34.864	-22.815	74.000	16.322	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 11:52
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: AC 120V/60Hz
Note: Mode 4:Transmit at 5795MHz by 11ac40 Ant1+2+3	



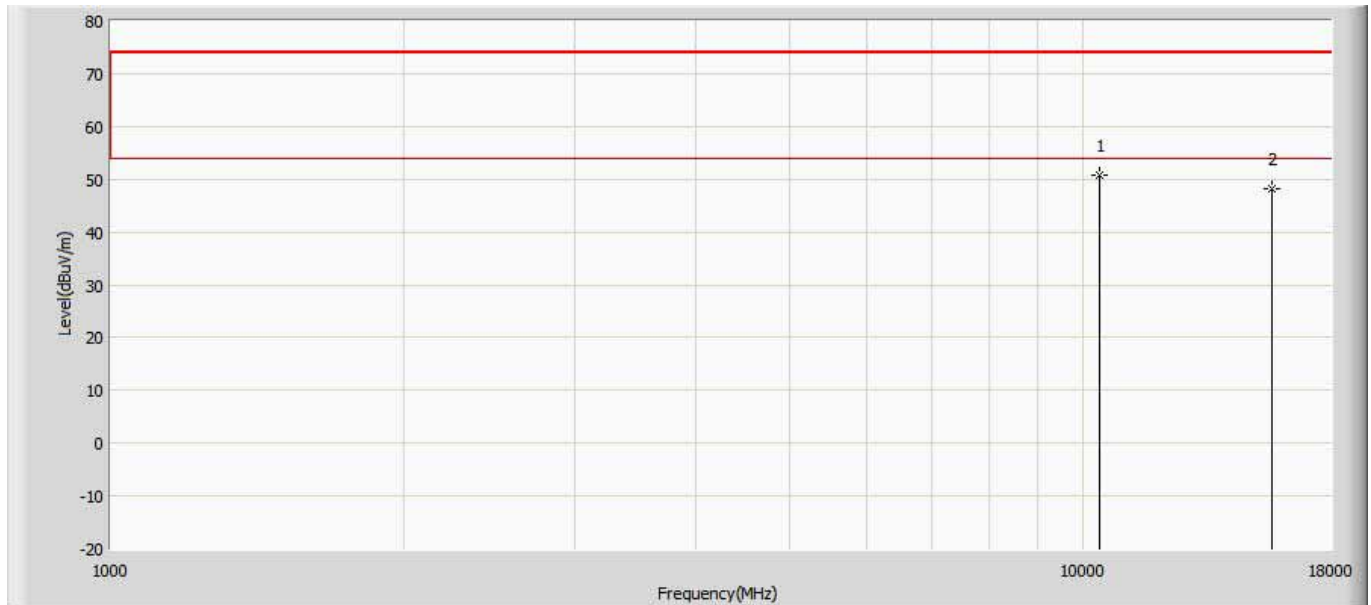
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11590.000	47.865	37.372	-26.135	74.000	10.492	PK
2	*	17385.000	50.801	34.480	-23.199	74.000	16.322	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5210MHz by 802.11ac80 Ant1+2+3	



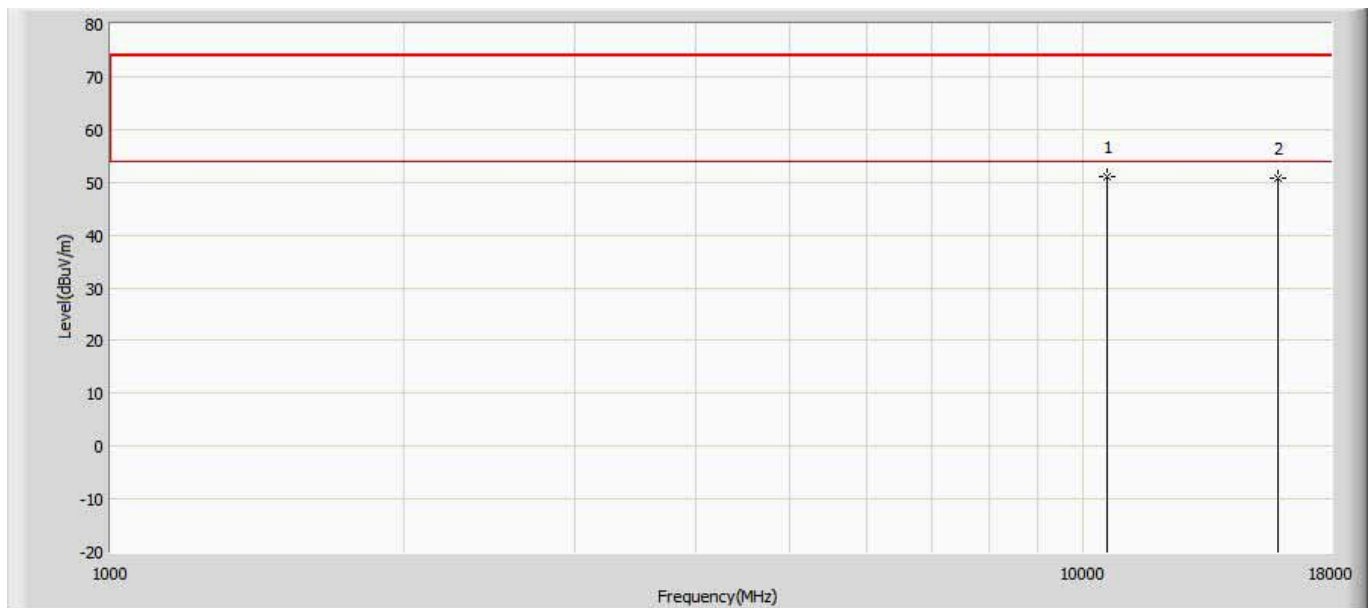
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10418.000	50.781	51.201	-23.219	74.000	-0.420	PK
2		15630.000	49.436	45.874	-24.564	74.000	3.562	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5210MHz by 802.11ac80 Ant1+2+3	



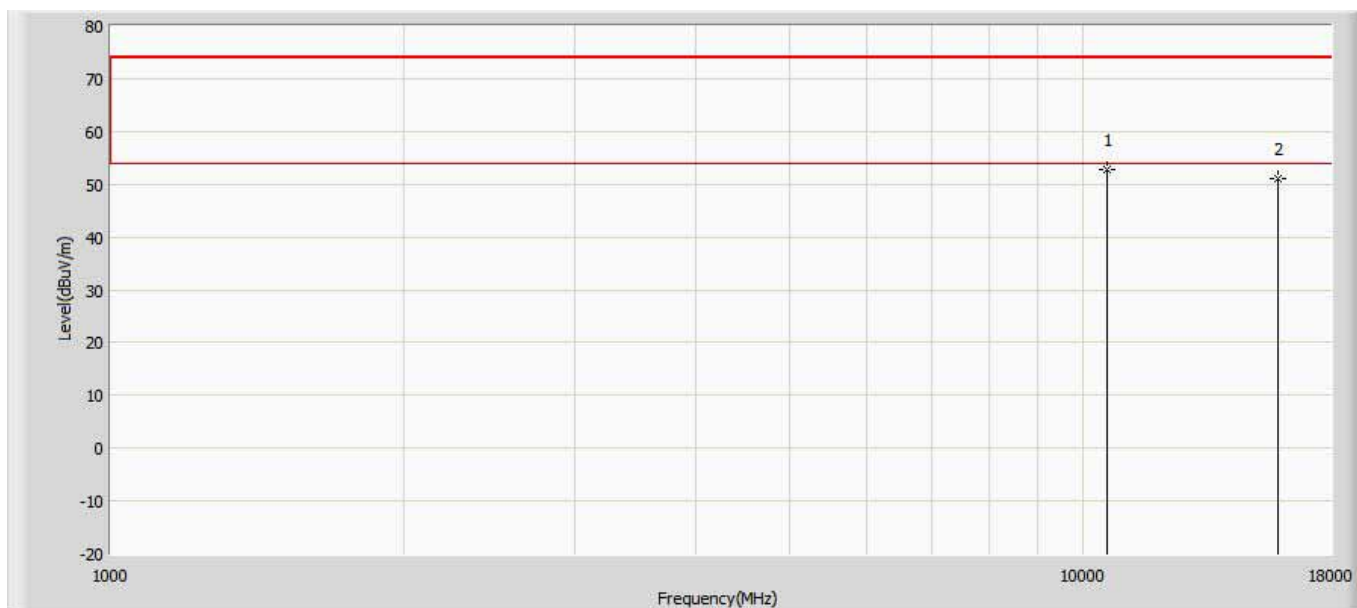
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10418.000	50.647	51.067	-23.353	74.000	-0.420	PK
2		15630.000	48.184	44.622	-25.816	74.000	3.562	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5290MHz by 802.11ac80 Ant1+2+3 Ant1+2+3	



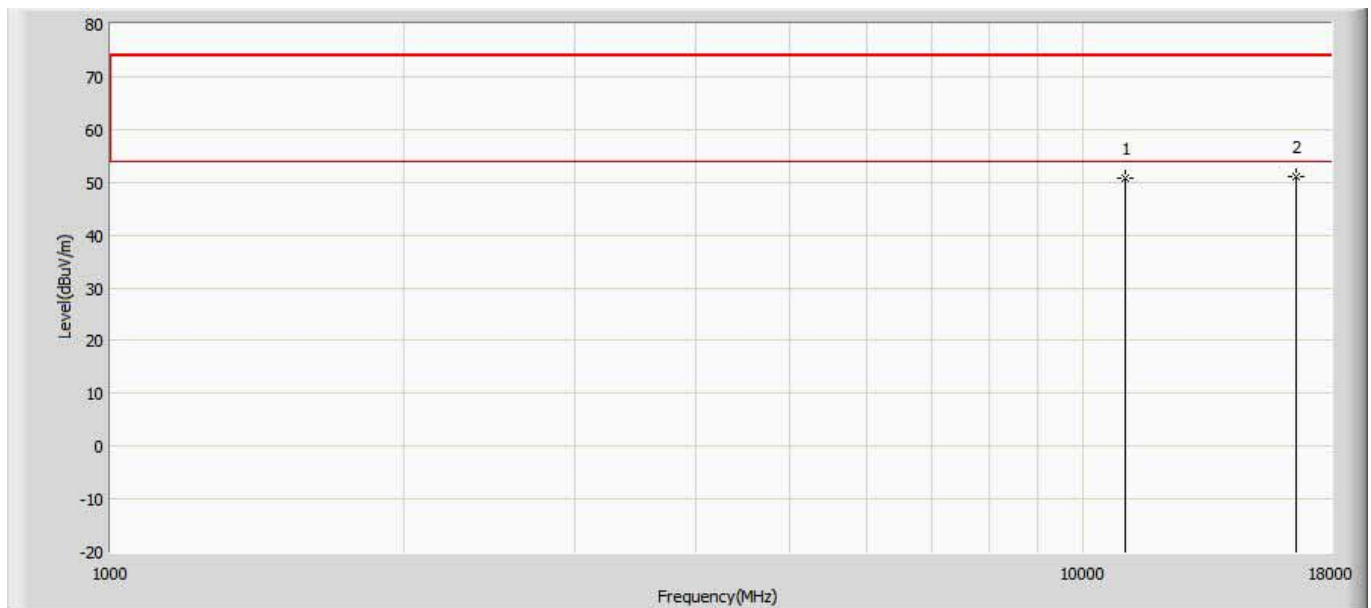
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10579.500	50.959	51.379	-23.041	74.000	-0.420	PK
2		15870.000	50.900	46.510	-23.100	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:56
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5290MHz by 802.11ac80 Ant1+2+3 Ant1+2+3	



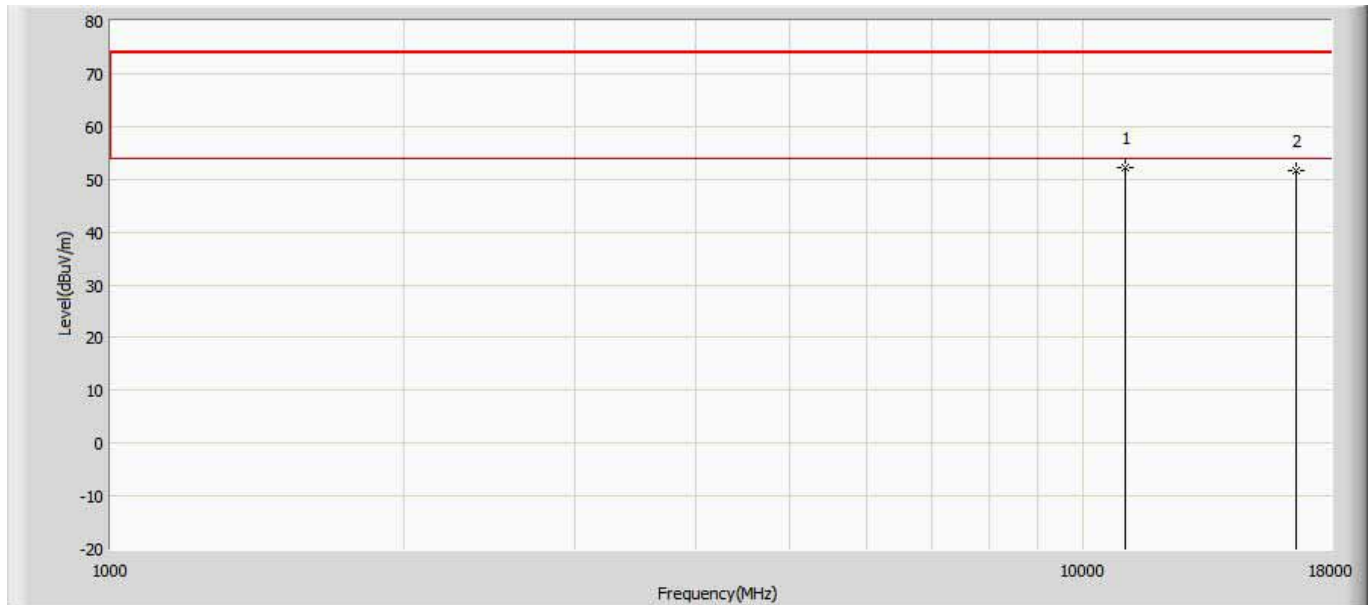
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	10579.500	52.774	53.194	-21.226	74.000	-0.420	PK
2		15870.000	51.115	46.725	-22.885	74.000	4.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:57
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5530MHz by 802.11ac80 Ant1+2+3	



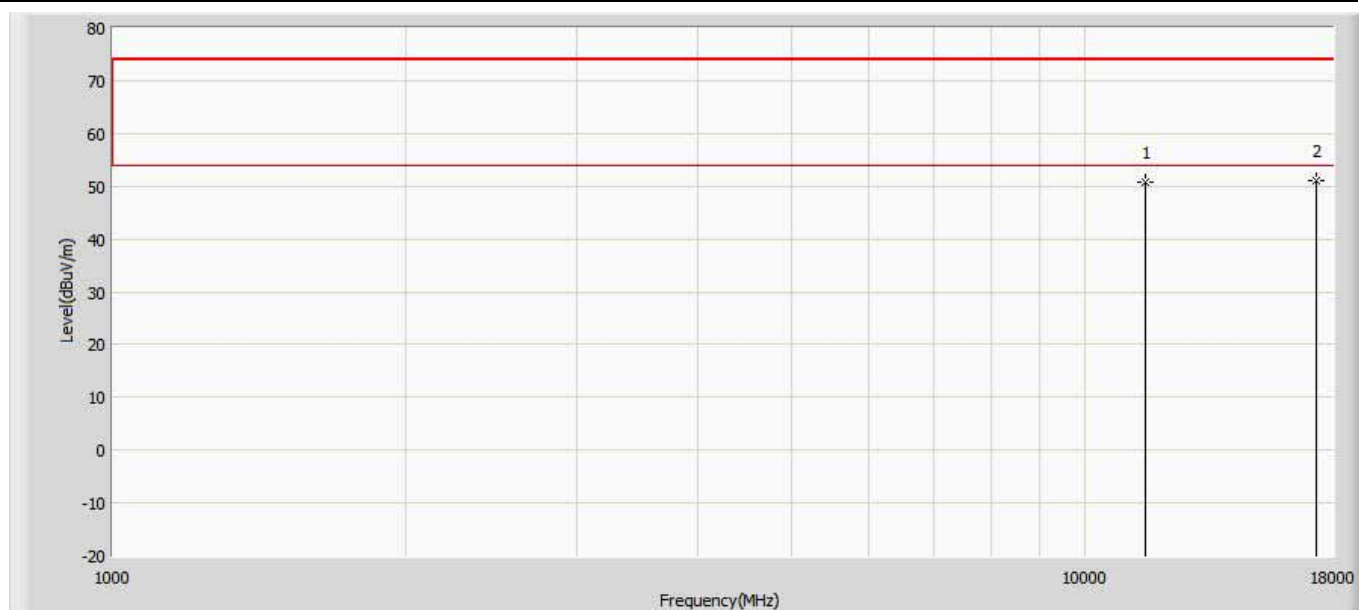
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11055.500	50.701	50.581	-23.299	74.000	0.120	PK
2	*	16590.000	50.994	45.604	-23.006	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:57
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5530MHz by 802.11ac80 Ant1+2+3	



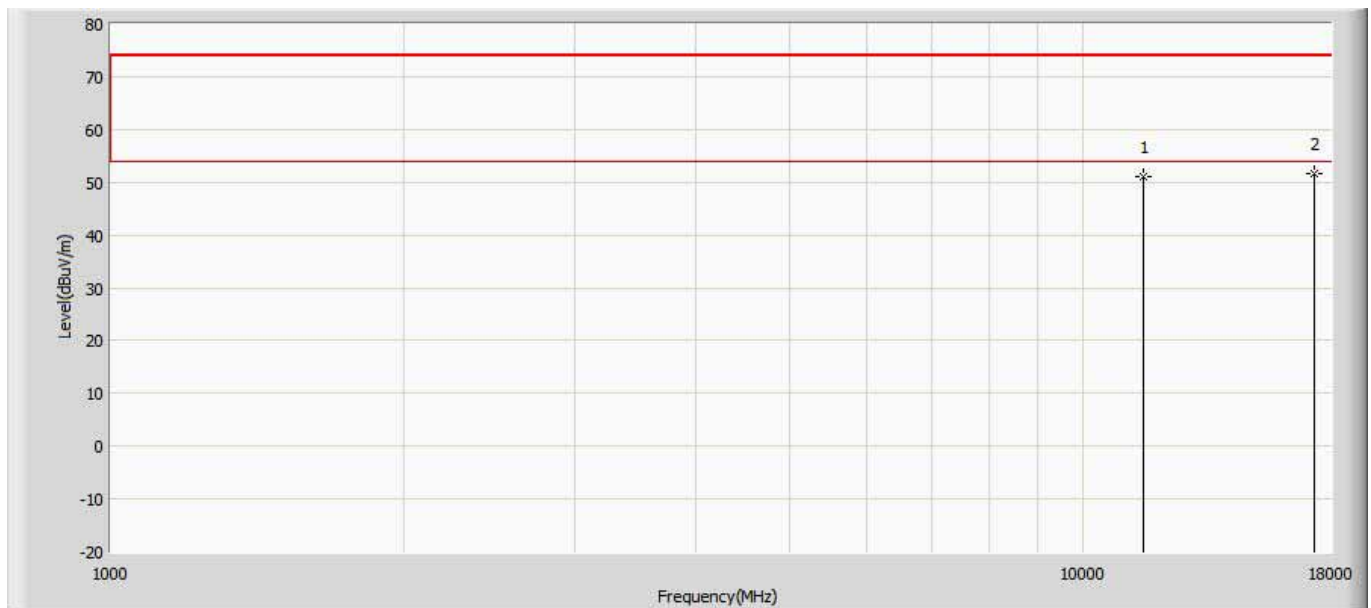
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	11064.000	52.192	52.072	-21.808	74.000	0.120	PK
2		16590.000	51.630	46.240	-22.370	74.000	5.390	PK

Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:57
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: AC 120V/60Hz
Note: Mode 5:Transmit at 5775MHz by 802.11ac80 Ant1+2+3	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11548.500	50.862	51.852	-23.138	74.000	-0.990	PK
2	*	17325.000	51.169	45.869	-22.831	74.000	5.300	PK

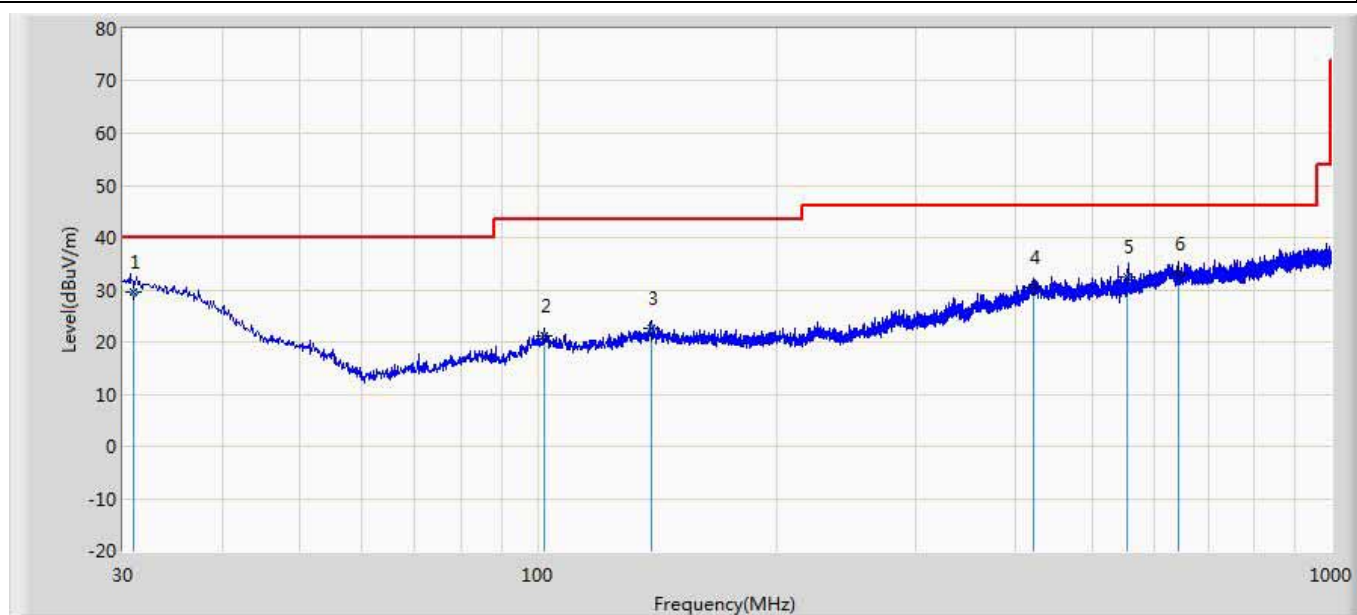
Engineer: Eric	
Site:AC5	Time: 2017/09/05 - 15:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 5:Transmit at 5775MHz by 802.11ac80 Ant1+2+3	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		11548.500	50.979	51.969	-23.021	74.000	-0.990	PK
2	*	17325.000	51.561	46.261	-22.439	74.000	5.300	PK

The worst case of Radiated Emission below 1GHz:

Engineer: Eric	
Site: AC3	Time: 2017/09/07
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	

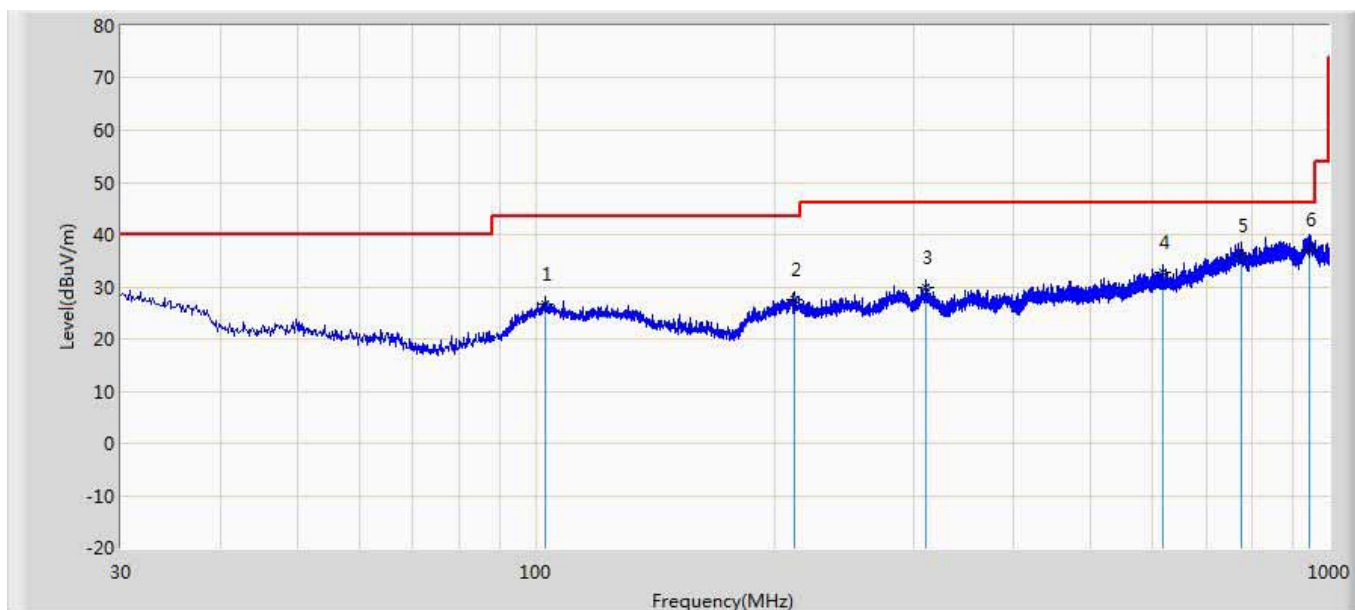


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1	*	30.885	29.693	2.243	-10.307	40.000	20.990	6.460	0.000	200	110	QP
2		101.746	21.105	4.417	-22.395	43.500	9.822	6.866	0.000	200	152	QP
3		138.896	22.616	4.937	-20.884	43.500	10.650	7.029	0.000	102	360	QP
4		421.597	30.544	3.335	-15.456	46.000	19.249	7.961	0.000	100	289	QP
5		554.521	32.507	5.328	-13.493	46.000	18.868	8.312	0.000	170	360	QP
6		642.135	33.094	4.384	-12.906	46.000	20.178	8.532	0.000	127	360	QP

Note:

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

Engineer: Eric	
Site: AC3	Time: 2017/09/07
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		102.934	26.759	4.688	-16.741	43.500	15.204	6.868	0.000	100	110	QP
2		211.556	27.599	4.368	-15.901	43.500	15.908	7.323	0.000	100	28	QP
3		310.002	29.895	4.476	-16.105	46.000	17.771	7.648	0.000	100	8	QP
4		618.597	32.732	5.364	-13.268	46.000	18.889	8.480	0.000	100	100	QP
5		774.356	36.080	3.754	-9.920	46.000	23.496	8.830	0.000	100	350	QP
6	*	946.126	37.034	2.426	-8.966	46.000	25.409	9.199	0.000	200	145	QP

Note:

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

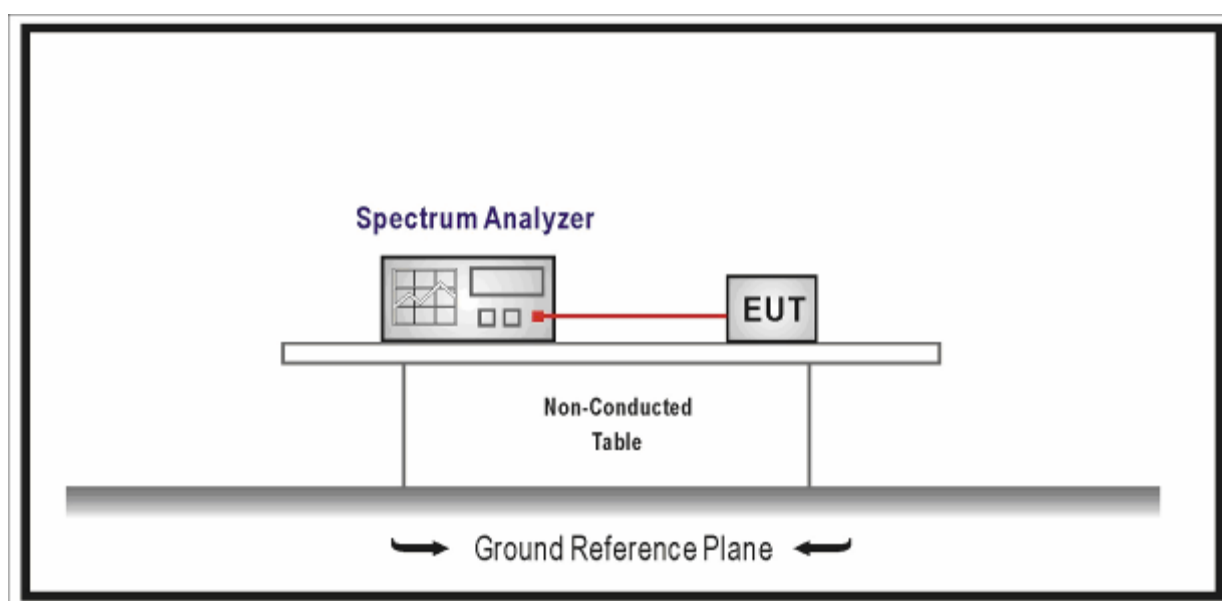
5. Emission bandwidth and occupied bandwidth

5.1. Test Equipment

Emission bandwidth and occupied bandwidth / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2017.02.04	2018.02.04
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2017.04.09	2018.04.09
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2017.04.09	2018.04.09
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2017.04.10	2018.04.10

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

5.2. Test Setup



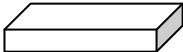
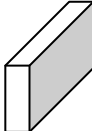
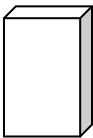
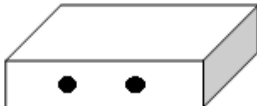
5.3. Limit

N/A

5.4. Test Procedure

Test Method			
	References Rule	Chapter	Description
☐	ANSI C63.10	12.4	Emission bandwidth and occupied bandwidth
	☐ ANSI C63.10	12.4.1	Emission bandwidth (26dB)
	☐ ANSI C63.10	12.4.2	Occupied bandwidth (99%)
☒	FCC KDB 789033 D02v01r04	C	Bandwidth Measurement
	☒ FCC KDB 789033 D02v01r04	C.1	Emission Bandwidth (26dB)
	☐ FCC KDB 789033 D02v01r04	C.2	Minimum Emission Bandwidth for the band 5.725-5.85 GHz (6dB)
☒	FCC KDB 789033 D02v01r04	D	99 Percent Occupied Bandwidth

5.5. EUT test Axis definition

Item	Occupied bandwidth			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Client use		
Test mode	Mode 1-5			
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	:	Mode 1~5	Test Site	:	TR8
Test Date	:	2017.09.07			

Mode 1: Transmit by 802.11n(20MHz) with Beamforming					
Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Lower/Higher Frequency (MHz)	Result
		Ant1(Worst Data)	Ant1(Worst Data)	Ant1(Worst Data)	
36	5180	21.41	17.799	5171.10	Pass
44	5220	21.25	17.813	N/A	Pass
48	5240	21.73	17.840	5248.91	Pass
52	5260	23.62	17.814	N/A	Pass
60	5300	21.69	17.800	N/A	Pass
64	5320	21.59	17.739	N/A	Pass
100	5500	21.32	17.773	N/A	Pass
116	5580	21.59	17.828	N/A	Pass
140	5700	21.80	17.790	N/A	Pass
149	5745	22.50	17.779	N/A	Pass
157	5785	26.52	17.841	N/A	Pass
165	5825	27.91	17.933	N/A	Pass

Mode 2: Transmit by 802.11n(40MHz) with Beamforming

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Lower/Higher Frequency (MHz)	Result
		Ant1(Worst Data)	Ant1(Worst Data)	Ant1(Worst Data)	
38	5190	41.97	36.308	5208.15	Pass
46	5230	41.05	36.238	5248.12	Pass
54	5270	42.45	36.308	N/A	Pass
62	5310	41.35	36.235	N/A	Pass
102	5510	41.64	36.260	N/A	Pass
110	5550	42.05	36.400	N/A	Pass
134	5670	48.58	36.281	N/A	Pass
151	5755	42.48	36.383	N/A	Pass
159	5795	45.44	36.448	N/A	Pass

Mode 3: Transmit by 802.11ac(20MHz) with Beamforming

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Lower/Higher Frequency (MHz)	Result
		Ant1(Worst Data)	Ant1(Worst Data)	Ant1(Worst Data)	
36	5180	21.78	17.799	5188.90	Pass
44	5220	21.27	17.802	N/A	Pass
48	5240	21.62	17.813	5248.91	Pass
52	5260	26.76	17.906	N/A	Pass
60	5300	21.43	17.825	N/A	Pass
64	5320	21.76	17.781	N/A	Pass
100	5500	21.35	17.761	N/A	Pass
116	5580	21.51	17.842	N/A	Pass
140	5700	21.77	17.776	N/A	Pass
149	5745	22.21	17.830	N/A	Pass
157	5785	28.66	17.811	N/A	Pass
165	5825	26.76	17.906	N/A	Pass

Mode 4: Transmit by 802.11ac(40MHz) with Beamforming					
Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Lower/Higher Frequency (MHz)	Result
		Ant1(Worst Data)	Ant1(Worst Data)	Ant1(Worst Data)	
38	5190	42.03	36.304	5208.15	Pass
46	5230	41.58	36.315	5248.16	Pass
54	5270	41.48	36.247	N/A	Pass
62	5310	41.86	36.241	N/A	Pass
102	5510	41.77	36.235	N/A	Pass
110	5550	41.07	36.283	N/A	Pass
134	5670	57.87	36.373	N/A	Pass
151	5755	41.39	36.337	N/A	Pass
159	5795	50.16	36.342	N/A	Pass

Mode 5: Transmit by 802.11ac(80MHz) with Beamforming

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Lower/Higher Frequency (MHz)	Result
		Ant1(Worst Data)	Ant1(Worst Data)	Ant1(Worst Data)	
42	5210	79.92	75.077	5172.46/5247.54	Pass
58	5290	80.86	75.174	N/A	Pass
106	5530	79.09	73.079	N/A	Pass
155	5775	80.88	75.216	N/A	Pass

The worst case of Occupied Bandwidth as below:

Mode 1: CH48(5240MHz) Ant 1



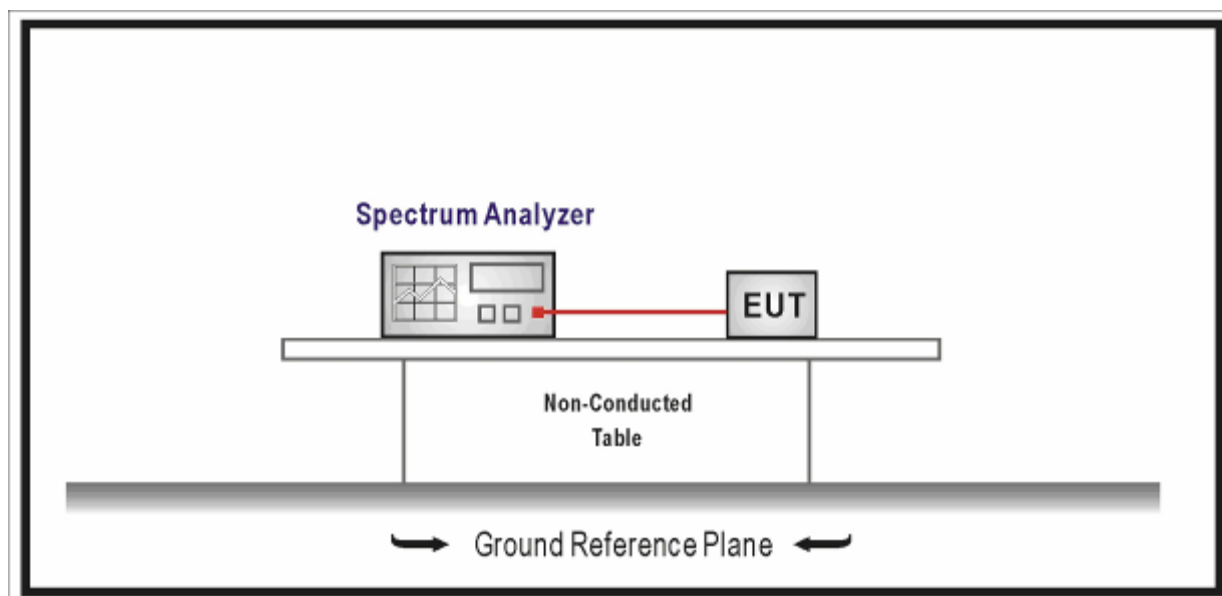
6. 6dB bandwidth

6.1. Test Equipment

Emission bandwidth and occupied bandwidth / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2017.02.04	2018.02.04
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2017.04.09	2018.04.09
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2017.04.09	2018.04.09
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2017.04.10	2018.04.10

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

6.2. Test Setup



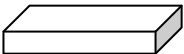
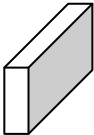
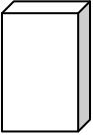
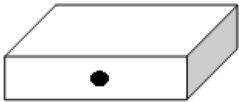
6.3. Limit

>500kHz

6.4. Test Procedure

Test Method			
	References Rule	Chapter	Description
☐	ANSI C63.10	12.4	Emission bandwidth and occupied bandwidth
	☐ ANSI C63.10	12.4.1	Emission bandwidth (26dB)
	☐ ANSI C63.10	12.4.2	Occupied bandwidth (99%)
☒	FCC KDB 789033 D02v01r04	C	Bandwidth Measurement
	☐ FCC KDB 789033 D02v01r04	C.1	Emission Bandwidth (26dB)
	☒ FCC KDB 789033 D02v01r04	C.2	Minimum Emission Bandwidth for the band 5.725-5.85 GHz (6dB)
☐	FCC KDB 789033 D02v01r04	D	99 Percent Occupied Bandwidth

6.5. EUT test Axis definition

Item	6dB bandwidth			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Client use		
Test mode	Mode 1-5			
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. Test Result

Product Name	: AC1900 High Gain Wireless Dual Band USB Adapter	Power	: AC 120V/60Hz
Test Mode	: Mode 1~5	Test Site	: TR8
Test Date	: 2017.09.05		

Mode 1: Transmit by 802.11n(20MHz) with Beamforming				
Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
		Ant1(Worst Data)		
149	5745	19.69	>500	Pass
157	5785	21.26		Pass
165	5825	21.60		Pass
Mode 2: Transmit by 802.11n(40MHz) with Beamforming				
Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
		Ant1(Worst Data)		
151	5755	39.33	>500	Pass
159	5795	38.95		Pass
Mode 3: Transmit by 802.11ac(20MHz) with Beamforming				
Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
		Ant1(Worst Data)		
149	5745	20.34	>500	Pass
157	5785	20.26		Pass
165	5825	21.43		Pass

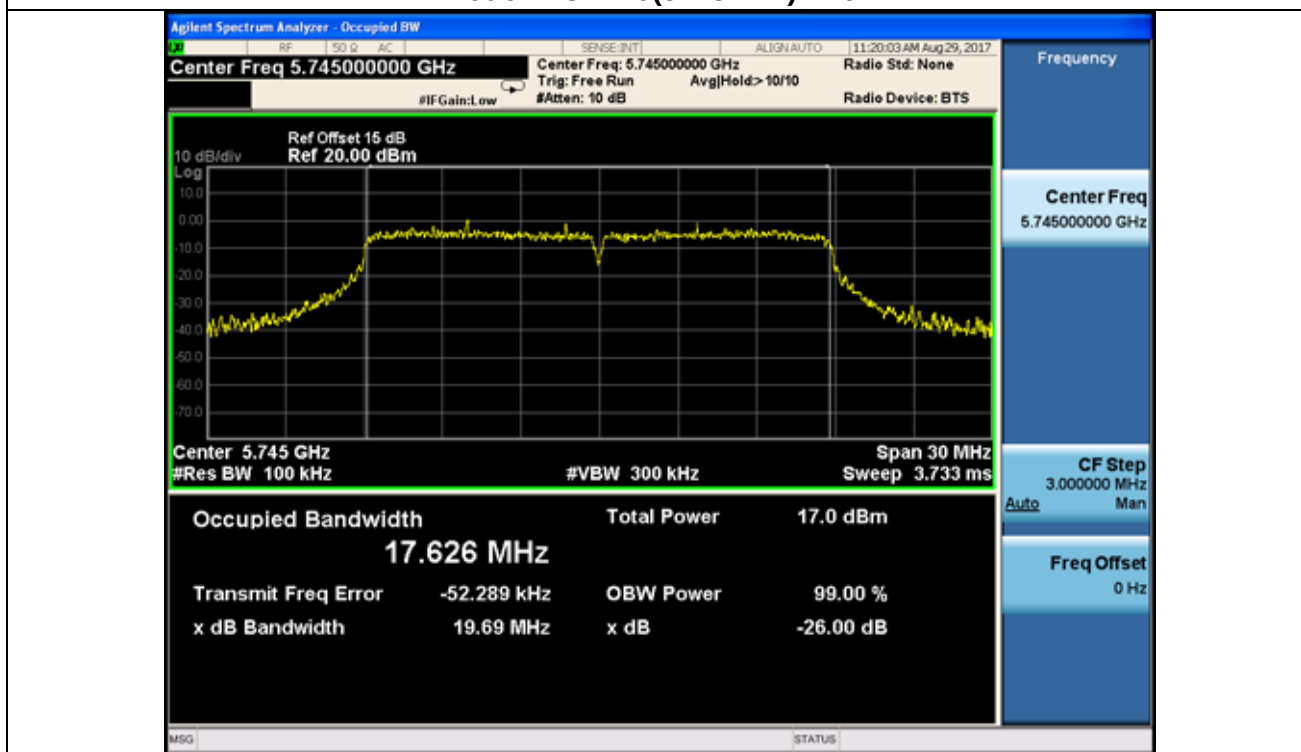
Mode 4: Transmit by 802.11ac(40MHz) with Beamforming

Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
		Ant1(Worst Data)		
151	5755	39.68	>500	Pass
159	5795	39.02		Pass

Mode 5: Transmit by 802.11ac(80MHz) with Beamforming

Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
		Ant1(Worst Data)		
155	5775	77.60	>500	Pass

The worst case of 6dB Bandwidth as below:

Mode 1: CH149(5745MHz) Ant 1

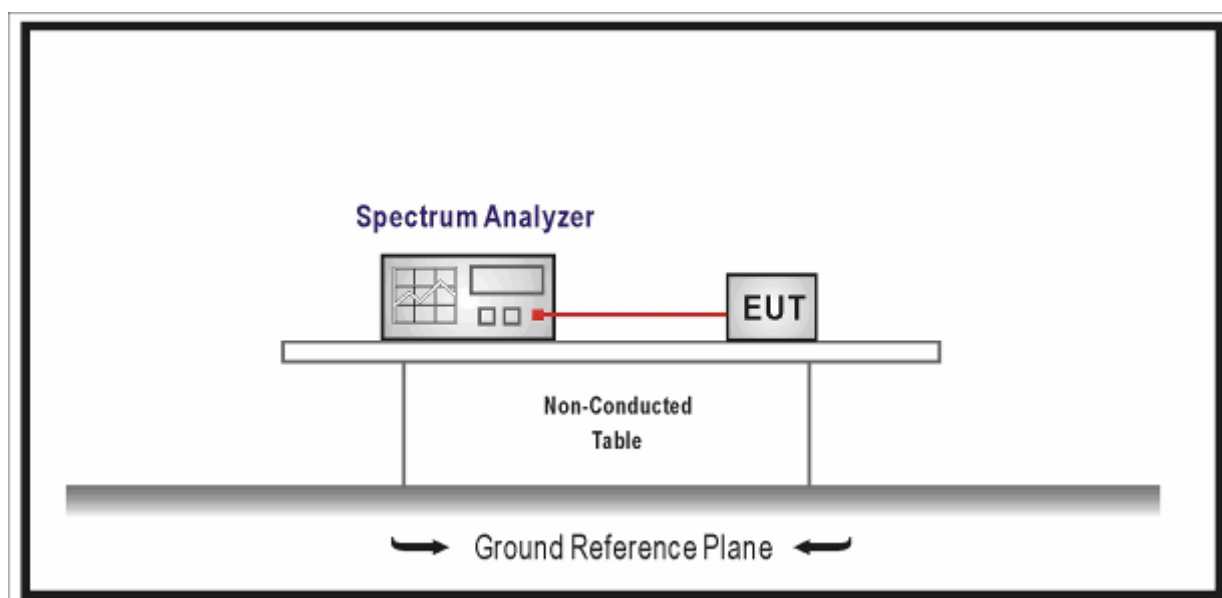
7. Power Output

7.1. Test Equipment

Power Output / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2017.01.04	2018.01.04
Spectrum Analyzer	Agilent	N9010A	MY48030494	2017.02.04	2018.02.04
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2016.10.14	2017.10.14
Power Sensor	Anritsu	MA2411B	0846014	2016.10.14	2017.10.14
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2017.04.10	2018.04.10

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

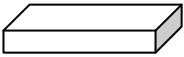
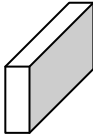
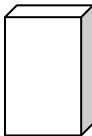
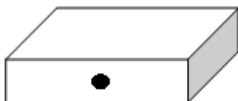
Fundamental emission output power Limit	
☒	For the band 5.15-5.25 GHz
☐	Outdoor access point: the maximum conducted output power shall not exceed 1 W. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 30 - (G_{TX} - 6)$ and $\leq 125\text{mW}$ at any angle above 30 degrees
☐	Indoor access point: the maximum conducted output power shall not exceed 1 W. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 30 - (G_{TX} - 6)$
☐	Fixed point-to-point access points: the maximum conducted output power shall not exceed 1 W. If $G_{TX} > 23\text{dBi}$, then $P_{out} \leq 30 - (G_{TX} - 23)$
☒	Mobile and portable client devices: the maximum conducted output power shall not exceed 250mW. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 24 - (G_{TX} - 6)$
☒	For the band 5.25-5.35 GHz:
☒	the maximum conducted output power shall not exceed 250mW or $11\text{dBm} + 10 \log B$, where B is the 26dB emission bandwidth in MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq (\text{The lesser of } 24 \text{ or } 11\text{dBm} + 10 \log B - (G_{TX} - 6))$
☒	For the 5.47-5.725 GHz:
☒	the maximum conducted output power shall not exceed 250mW or $11\text{dBm} + 10 \log B$, where B is the 26dB emission bandwidth in MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq (\text{The lesser of } 24 \text{ or } 11\text{dBm} + 10 \log B - (G_{TX} - 6))$
☒	For the band 5.725-5.85 GHz:
☒	Point-to-multipoint systems (P2M): the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6 \text{ dBi}$, then $P_{out} = 30 - (G_{TX} - 6)$
☐	Point-to-point systems (P2P): the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W
Note 1 : G_{TX} directional gain of transmitting antennas.	
Note 2 : P_{out} is maximum peak conducted output power .	

7.4. Test Procedure

Fundamental emission output power Test Method					
	References Rule		Chapter	Description	
☒	ANSI C63.10		12.3	Maximum conducted output power	
	☒	ANSI C63.10		12.3.2	Maximum conducted output power measurement using a spectrum analyzer (SA) or EMI receiver
		☐	ANSI C63.10	12.3.2.2	Method SA-1
		☐	ANSI C63.10	12.3.2.3	Method SA-1A (alternative)
		☒	ANSI C63.10	12.3.2.4	Method SA-2
		☐	ANSI C63.10	12.3.2.5	Method SA-2A (alternative)
		☐	ANSI C63.10	12.3.2.6	Method SA-3
		☐	ANSI C63.10	12.3.2.7	Method SA-3A (alternative)
	☒	ANSI C63.10		12.3.3	Maximum conducted output power using a power meter
		☐	ANSI C63.10	12.3.3.1	Method PM
		☒	ANSI C63.10	12.3.3.2	Method PM-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

7.5. EUT test Axis definition

Item	Power Output			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Client use		
Test mode	Mode 1-5			
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	:	Mode 1~5	Test Site	:	TR8
Test Date	:	2017.09.05			

Mode 1: Transmit by 802.11n(20MHz) with Beamforming							
Channel No.	Frequency (MHz)	Measurement Power (dBm)			Total Power (dBm)	Limit (dBm)	Result
		Ant1	Ant2	Ant3			
CH36	5180	11.22	11.27	11.19	16.00	21.23	Pass
CH44	5220	11.26	11.33	11.14	16.02	21.23	Pass
CH48	5240	11.17	11.28	11.16	15.97	21.23	Pass
CH52	5260	11.24	11.29	11.17	16.00	21.23	Pass
CH60	5300	11.19	11.28	11.18	15.99	21.23	Pass
CH64	5320	11.25	11.34	11.16	16.02	21.23	Pass
CH100	5500	11.22	11.29	11.15	15.99	21.23	Pass
CH116	5580	11.19	11.25	11.16	15.97	21.23	Pass
CH140	5700	11.18	11.26	11.14	15.96	21.23	Pass
CH149	5745	12.58	12.62	12.65	17.39	27.23	Pass
CH157	5785	12.63	12.67	12.71	17.44	27.23	Pass
CH165	5825	12.64	12.61	12.61	17.39	27.23	Pass

Note1: The lowest 26dB bandwidth was used for calculate the power limit according to the formate $(11+10*\text{Log}B)$ for 5250~5725MHz of 802.11n(20MHz)/ac(20MHz). The level is 24.27dBm which is higher than 24dBm, so 24dbm was used for 5250~5725MHz of 802.11n(20MHz)/ac(20MHz) power limit.

2: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 2: Transmit by 802.11n(40MHz) with Beamforming							
Channel No.	Frequency (MHz)	Measurement Power (dBm)			Total Power (dBm)	Limit (dBm)	Result
		Ant1	Ant2	Ant3			
CH38	5190	11.63	11.69	11.61	16.41	21.23	Pass
CH46	5230	11.64	11.78	11.72	16.48	21.23	Pass
CH54	5270	11.58	11.46	11.47	16.27	21.23	Pass
CH62	5310	11.27	11.36	11.23	16.06	21.23	Pass
CH102	5510	11.31	11.34	11.27	16.08	21.23	Pass
CH110	5550	11.26	11.42	11.24	16.08	21.23	Pass
CH134	5670	11.25	11.34	11.22	16.04	21.23	Pass
CH151	5755	12.53	12.64	12.61	17.36	27.23	Pass
CH159	5795	12.58	12.66	12.67	17.41	27.23	Pass

Note1: The lowest 26dB bandwidth was used for calculate the power limit according to the format $(11+10*\log B)$ for 5250~5725MHz of 802.11n(40MHz)/ac(40MHz)/ac(80MHz). The level is higher than 24dBm, so 24dBm was used for 5250~5725MHz of 802.11n(40MHz)/ac(40MHz)/ac(80MHz) power limit.

2: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 3: Transmit by 802.11ac(20MHz) with Beamforming							
Channel No.	Frequency (MHz)	Measurement Power (dBm)			Total Power (dBm)	Limit (dBm)	Result
		Ant1	Ant2	Ant3			
CH36	5180	11.21	11.28	11.16	15.99	21.23	Pass
CH40	5200	11.16	11.25	11.15	15.96	21.23	Pass
CH48	5240	11.17	11.26	11.11	15.95	21.23	Pass
CH52	5260	11.22	11.27	11.17	15.99	21.23	Pass
CH60	5300	11.13	11.2	11.08	15.91	21.23	Pass
CH64	5320	11.22	11.31	11.19	16.01	21.23	Pass
CH100	5500	11.18	11.26	11.13	15.96	21.23	Pass
CH116	5580	11.21	11.3	11.1	15.98	21.23	Pass
CH140	5700	11.14	11.23	11.12	15.93	21.23	Pass
CH149	5745	12.61	12.66	12.71	17.43	27.23	Pass
CH157	5785	12.69	12.75	12.78	17.51	27.23	Pass
CH165	5825	12.65	12.68	12.7	17.45	27.23	Pass

Note1: The lowest 26dB bandwidth was used for calculate the power limit according to the formate $(11+10*\text{Log}B)$ for 5250~5725MHz of 802.11n(20MHz)/ac(20MHz). The level is 24.27dBm which is higher than 24dBm, so 24dbm was used for 5250~5725MHz of 802.11n(20MHz)/ac(20MHz) power limit.

2: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 4: Transmit by 802.11ac(40MHz) with Beamforming

Channel No.	Frequency (MHz)	Measurement Power (dBm)			Total Power (dBm)	Limit (dBm)	Result
		Ant1	Ant2	Ant3			
CH38	5190	11.61	11.72	11.53	16.39	21.23	Pass
CH46	5230	11.69	11.76	11.64	16.47	21.23	Pass
CH54	5270	11.55	11.66	11.47	16.33	21.23	Pass
CH62	5310	11.24	11.38	11.2	16.05	21.23	Pass
CH102	5510	11.3	11.36	11.23	16.07	21.23	Pass
CH110	5550	11.22	11.36	11.19	16.03	21.23	Pass
CH134	5670	11.27	11.33	11.25	16.05	21.23	Pass
CH151	5755	12.47	12.61	12.56	17.32	27.23	Pass
CH159	5795	12.54	12.62	12.65	17.37	27.23	Pass

Note1: The lowest 26dB bandwidth was used for calculate the power limit according to the format $(11+10*\text{Log}B)$ for 5250~5725MHz of 802.11n(40MHz)/ac(40MHz)/ac(80MHz). The level is higher than 24dBm, so 24dBm was used for 5250~5725MHz of 802.11n(40MHz)/ac(40MHz)/ac(80MHz) power limit.

2: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 5: Transmit by 802.11ac(80MHz) with Beamforming

Channel No.	Frequency (MHz)	Measurement Power (dBm)			Total Power (dBm)	Limit (dBm)	Result
		Ant1	Ant2	Ant3			
CH42	5210	11.57	11.83	11.54	16.42	21.23	Pass
CH58	5290	11.63	11.74	11.52	16.40	21.23	Pass
CH106	5530	11.15	11.08	11.11	15.88	21.23	Pass
CH155	5775	12.50	12.57	12.64	17.34	27.23	Pass

Note1: The lowest 26dB bandwidth was used for calculate the power limit according to the formate $(11+10*\text{LogB})$ for 5250~5725MHz of 802.11n(40MHz)/ac(40MHz)/ac(80MHz). The level is higher than 24dBm, so 24dBm was used for 5250~5725MHz of 802.11n(40MHz)/ac(40MHz)/ac(80MHz) power limit.

2: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

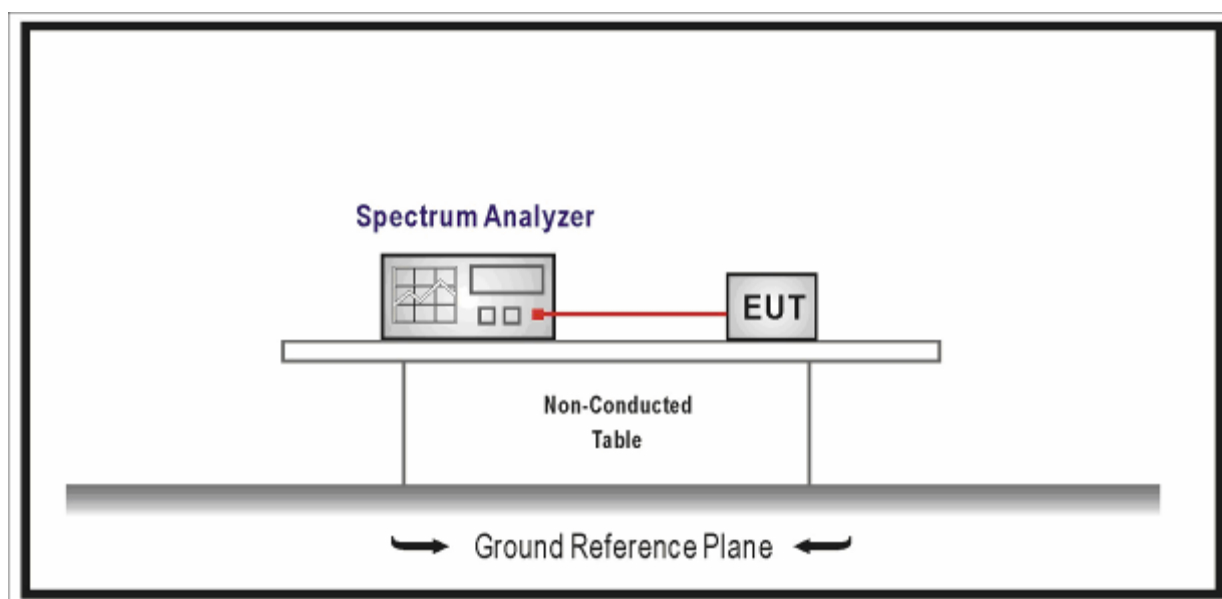
8. Peak Power Spectral Density

8.1. Test Equipment

Peak Power Spectral Density / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2017.02.04	2018.02.04
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2017.04.09	2018.04.09
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2017.04.09	2018.04.09
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2017.04.10	2018.04.10

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

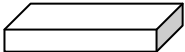
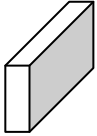
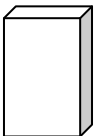
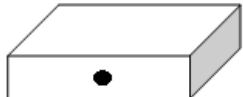
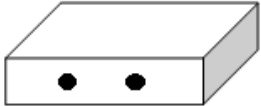
Fundamental emission output power Limit	
☒	For the band 5.15-5.25 GHz
☐	Outdoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 17 - (G_{TX} - 6)$
☐	Indoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 17 - (G_{TX} - 6)$
☐	Fixed point-to-point access points: the maximum power spectral density shall not exceed 17 dBm/MHz. If $G_{TX} > 23\text{dBi}$, then $P_{out} \leq 17 - (G_{TX} - 23)$
☒	Mobile and portable client devices: the maximum power spectral density shall not exceed 11 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 11 - (G_{TX} - 6)$
☒	For the 5.25-5.35 GHz:
☒	The maximum power spectral density shall not exceed 11 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 11 - (G_{TX} - 6)$
☒	For the 5.47-5.725 GHz:
☒	The maximum power spectral density shall not exceed 11 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 11 - (G_{TX} - 6)$
☒	For the band 5.725-5.85 GHz:
☒	The maximum power spectral density shall not exceed 30 dBm/500KHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 30 - (G_{TX} - 6)$
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	12.5	Peak power spectral density
☒	FCC KDB 789033 D02v01r04	F	Maximum Power Spectral Density (PSD)

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 Axis definition

Item	Peak power spectral density			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Client use		
Test mode	Mode 1-5			
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	:	Mode 1~5	Test Site	:	TR8
Test Date	:	2017.09.05			

Mode 1: Transmit by 802.11n(20MHz) with Beamforming							
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3			
CH36	5180	-0.926	0.809	1.166	5.21	8.23	Pass
CH44	5220	0.343	-0.808	0.241	4.73	8.23	Pass
CH48	5240	1.252	0.884	0.429	5.64	8.23	Pass
CH52	5260	3.124	2.708	2.726	7.63	8.23	Pass
CH60	5300	3.338	3.046	3.106	7.94	8.23	Pass
CH64	5320	2.834	2.731	3.257	7.72	8.23	Pass
CH100	5500	2.828	2.698	2.657	7.50	8.23	Pass
CH116	5580	3.373	3.280	3.507	8.16	8.23	Pass
CH140	5700	2.711	3.045	3.138	7.74	8.23	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)			Total PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3			
CH149	5745	-1.475	-0.962	-1.307	3.53	27.23	Pass
CH157	5785	-0.571	-1.124	-1.009	3.88	27.23	Pass
CH165	5825	-1.222	-1.805	-1.413	3.30	27.23	Pass

Note: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 2: Transmit by 802.11n(40MHz) with Beamforming							
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3			
CH38	5190	-2.081	-2.198	-1.818	2.74	8.23	Pass
CH46	5230	-1.710	-1.733	-1.689	3.06	8.23	Pass
CH54	5270	-1.522	-1.305	-1.877	3.21	8.23	Pass
CH62	5310	-1.843	-1.323	-1.349	3.27	8.23	Pass
CH102	5510	-1.248	-1.608	-1.764	3.24	8.23	Pass
CH110	5550	-1.310	-1.532	-1.527	3.32	8.23	Pass
CH134	5670	-2.506	-2.310	-1.966	2.52	8.23	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)			Total PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3			
CH151	5755	-4.829	-4.744	-5.137	-0.13	27.23	Pass
CH159	5795	-4.730	-4.647	-4.819	0.04	27.23	Pass

Note: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 3: Transmit by 802.11ac(20MHz) with Beamforming							
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3			
CH36	5180	0.737	1.050	0.902	5.67	8.23	Pass
CH44	5220	1.002	0.674	0.407	5.47	8.23	Pass
CH48	5240	0.864	0.755	0.752	5.56	8.23	Pass
CH52	5260	2.118	1.621	1.724	6.60	8.23	Pass
CH60	5300	2.216	2.067	2.088	6.90	8.23	Pass
CH64	5320	1.910	1.666	1.694	6.53	8.23	Pass
CH100	5500	1.816	1.486	1.474	6.37	8.23	Pass
CH116	5580	2.053	1.649	1.710	6.58	8.23	Pass
CH140	5700	2.205	1.852	1.733	6.71	8.23	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)			Total PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3			
CH149	5745	-3.061	-2.549	-2.917	1.93	27.23	Pass
CH157	5785	-2.234	-2.543	-2.831	2.24	27.23	Pass
CH165	5825	-2.233	-2.326	-2.494	2.42	27.23	Pass

Note: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

Mode 4: Transmit by 802.11ac(40MHz) with Beamforming

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3			
CH38	5190	-3.143	-2.674	-2.766	1.91	8.23	Pass
CH46	5230	-2.932	-2.995	-3.355	1.68	8.23	Pass
CH54	5270	-1.823	-1.500	-1.819	3.06	8.23	Pass
CH62	5310	-1.454	-1.482	-1.671	3.24	8.23	Pass
CH102	5510	-1.654	-1.736	-1.818	3.04	8.23	Pass
CH110	5550	-1.783	-2.238	-1.889	2.81	8.23	Pass
CH134	5670	-2.534	-2.178	-2.469	2.38	8.23	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)			Total PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3			
CH151	5755	-4.062	-4.021	-3.977	0.75	27.23	Pass
CH159	5795	-3.969	-4.362	-3.964	0.68	27.23	Pass

Note: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

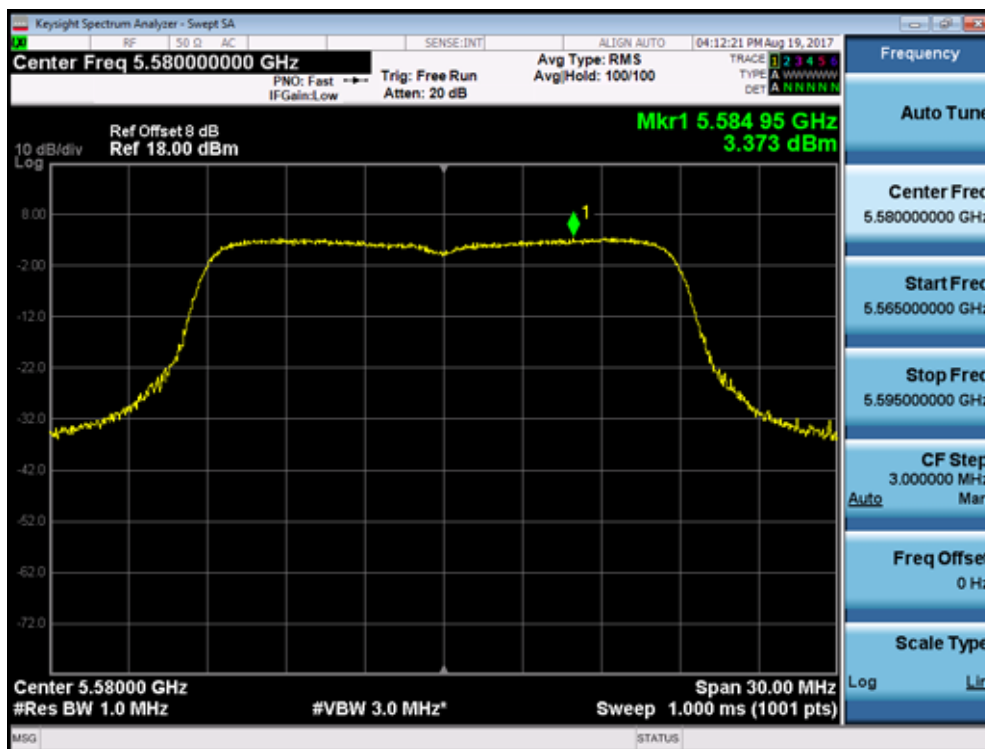
Mode 5: Transmit by 802.11ac(80MHz) with Beamforming

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3			
CH42	5210	-5.077	-6.328	-5.338	-0.78	8.23	Pass
CH58	5290	-5.695	-5.971	-5.732	-1.03	8.23	Pass
CH106	5530	-5.822	-5.717	-6.112	-1.11	8.23	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)			Total PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3			
CH155	5775	-6.300	-6.670	-6.442	-1.70	27.23	Pass

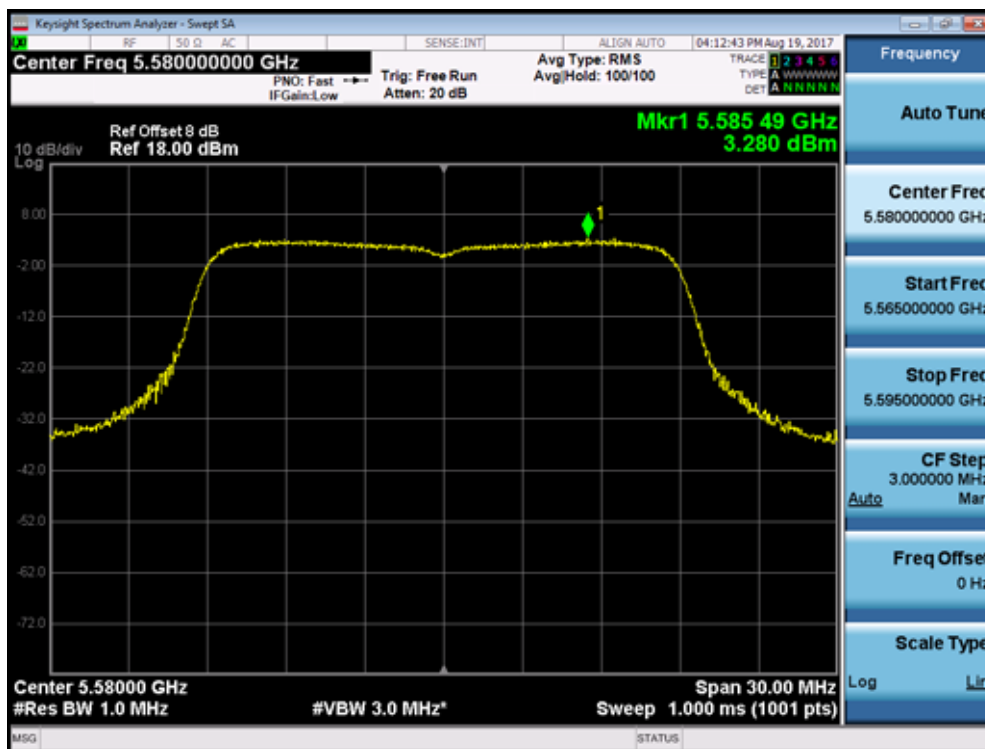
Note: The directional gain is 8.77dBi, so all conducted limit should minus 2.77dB.

The worst case of 6dB Bandwidth as below:

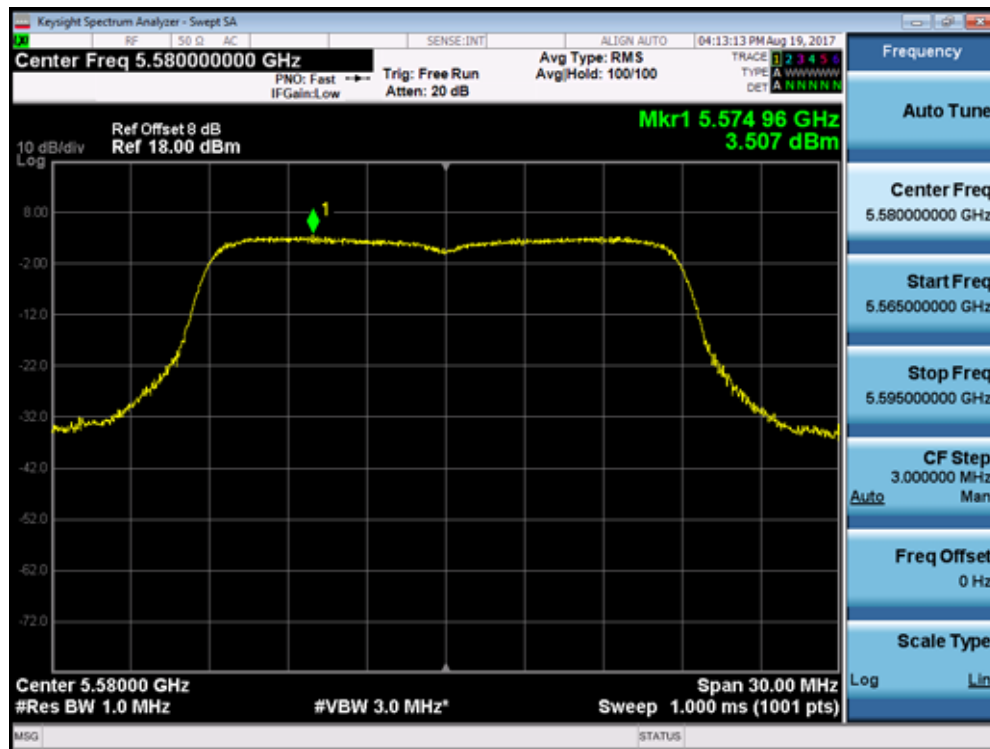
Mode 1 CH116 (5580MHz) Ant 1



Mode 1 CH116 (5580MHz) Ant 2



Mode 1 CH116 (5580MHz) Ant 3



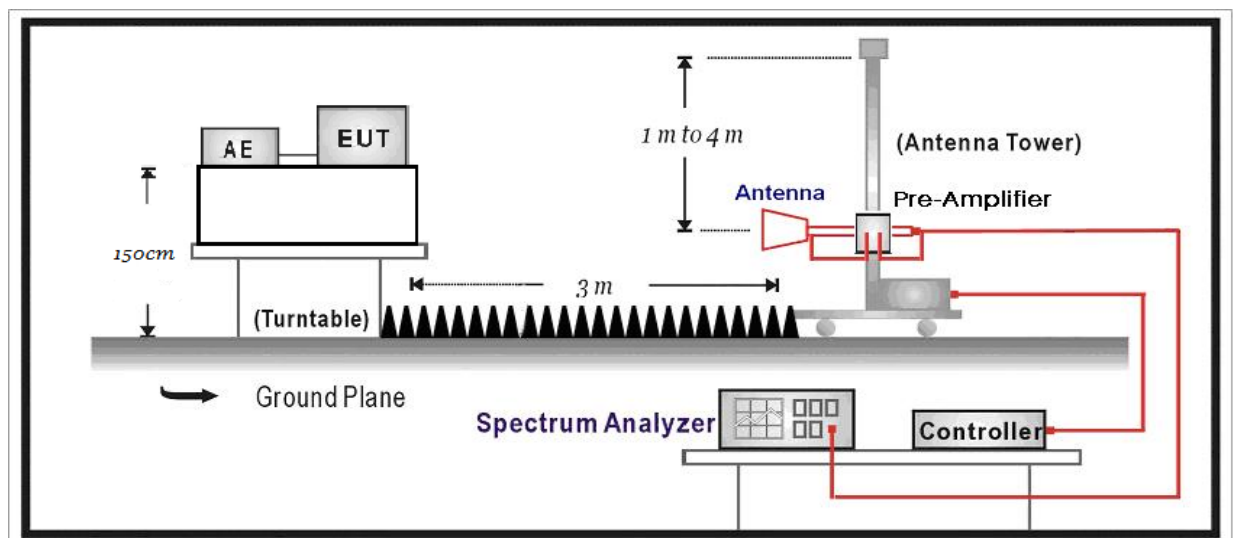
9. Radiated Emission Band Edge

9.1. Test Equipment

Radiated Emission Band Edge / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Receiver	Agilent	N9038A	MY51210196	2017.07.16	2018.07.16
Pre-Amplifier	Miteq	NSP1800-25	1364185	2017.05.03	2018.05.03
DRG Horn Antenna	ETS-Lindgren	3117	00167055	2017.07.12	2018.07.12
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.09.18	2017.09.18
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2017.02.28	2018.02.28
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2017.02.28	2018.02.28
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2017.01.05	2018.01.05

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

9.2. Test Setup



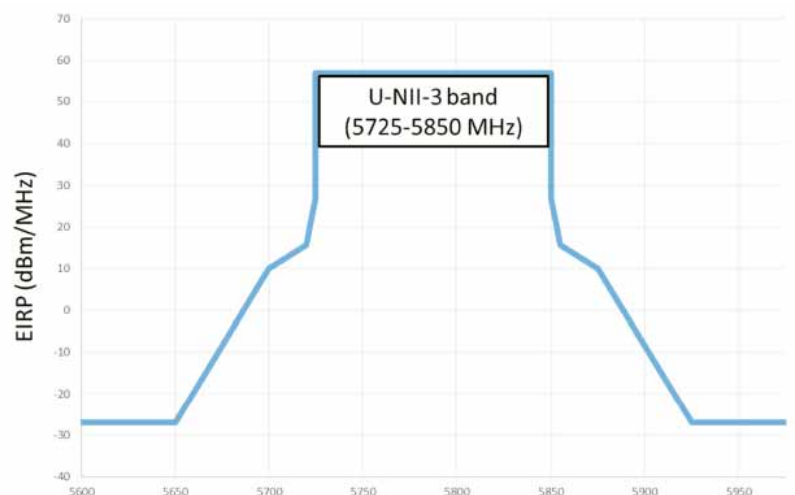
9.3. Limit

FCC Part 15 Subpart C Paragraph 15.209 (Restricted Band Emissions Limit)		
Frequency (MHz)	Distance (m)	Level (dB μ V/m)
0.009-0.490	300	2400/F(kHz)
0.490-1.705	30	24000/F(kHz)
1.705-30.0	30	30
30-88	3	100**
88-216	3	150**
216-960	3	200**
Above 960	3	500

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).

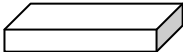
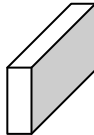
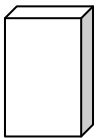
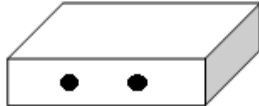
FCC Part 15 Subpart C Paragraph 15.205 (Restricted Band)			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	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			

FCC Part 15 Subpart C Paragraph 15.407(5)(b) (Unrestricted Band Emissions Limit)		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dB μ V/m)
5150 - 5250	-27	68.3
5250 - 5350	-27	68.3
5470 - 5725	-27	68.3
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	
5725 - 5850	 U-NII-3 band (5725-5850 MHz)	

9.4. Test Procedure

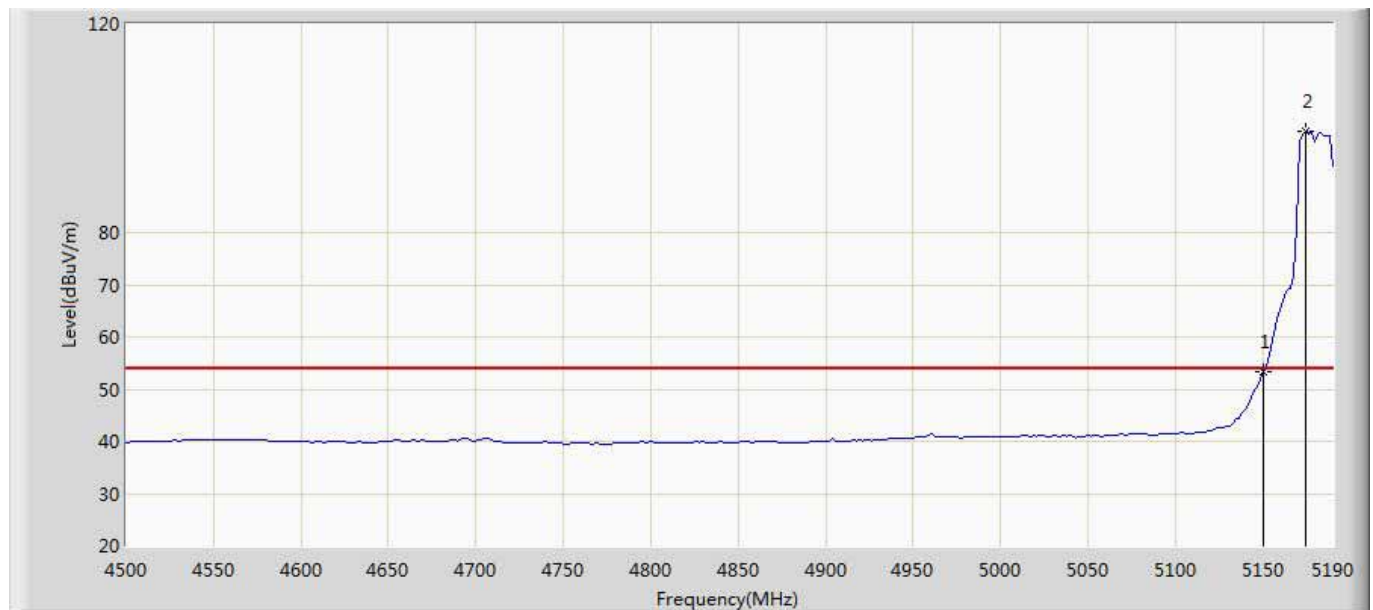
Test Method				
	References Rule		Chapter	Description
☐	ANSI C63.10		12.7.3	Emissions in non-restricted frequency bands
☒	ANSI C63.10		12.7.2	Emissions in restricted frequency bands
	☒	ANSI C63.10	12.7.5	Radiated emission measurements
	☒	ANSI C63.10	12.7.6	Procedure for peak unwanted emissions measurements above 1000 MHz
	☒	ANSI C63.10	12.7.7	Procedures for average unwanted emissions measurements above 1000 MHz
	☐	ANSI C63.10	12.7.7.2	Method AD (average detection)—primary method
	☒	ANSI C63.10	12.7.7.3	Method VB-A (Alternative)
	☒	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
☐	FCC KDB 789033 D02v01r04		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01r04		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01r04	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01r04	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r04	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r04	G.6.c	Method AD (Average detection)—primary method
	☐	FCC KDB 789033 D02v01r04	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

9.5. EUT test Axis definition

Item	Peak power spectral density			
Device Category	☐	Indoor use		
	☐	Outdoor use		
	☐	Fix position use		
	☒	Client use		
Test mode	Mode 1-5			
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
				

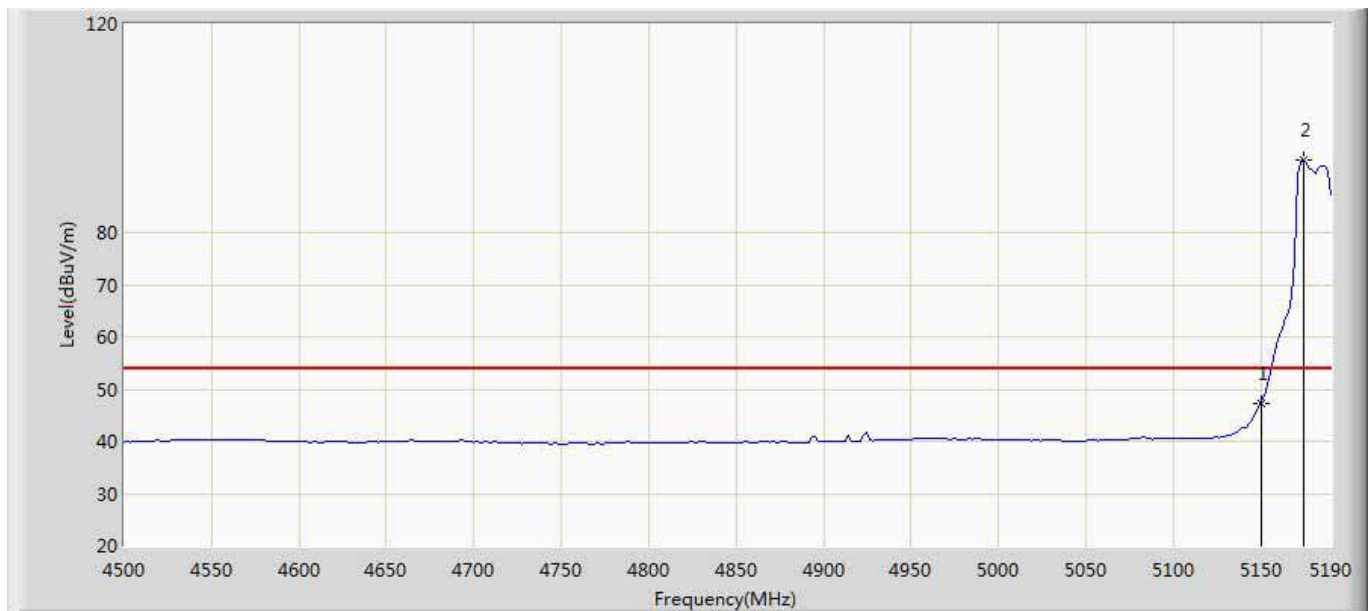
9.6. Test Result

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 13:12
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: AC 120V/60Hz
Note: Mode 1:Transmit 5180MHz by 11n20 Ant1+2+3	



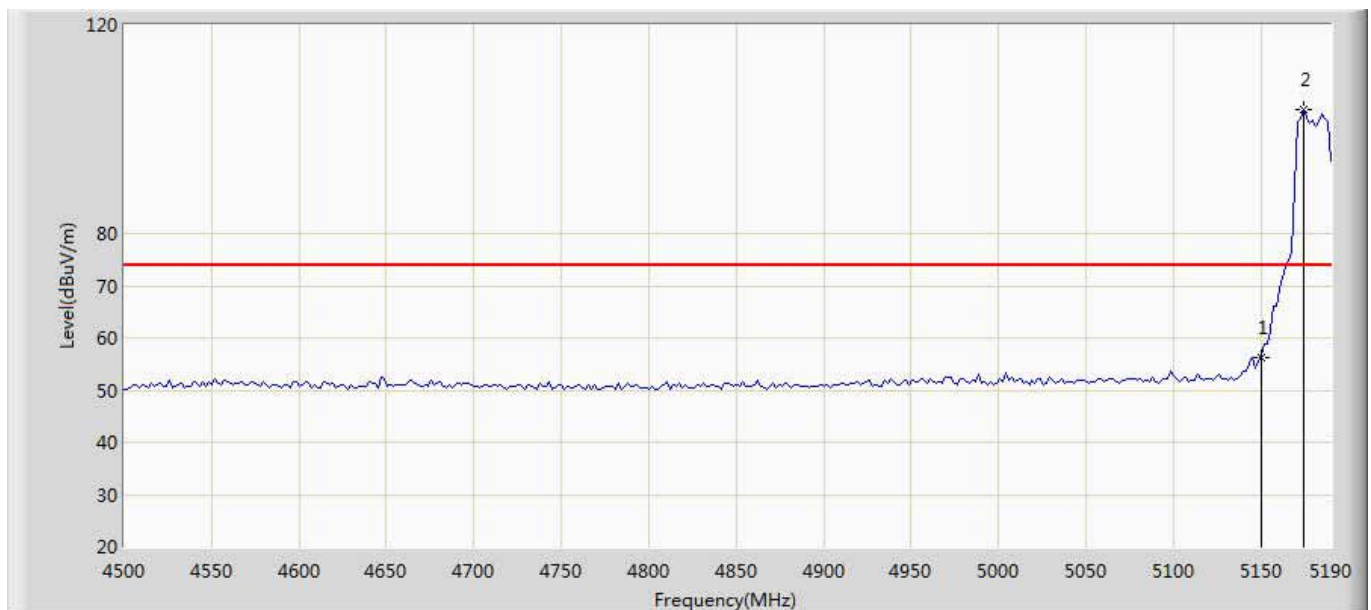
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.363	13.829	-0.637	54.000	39.534	AV
2	*	5174.475	99.385	59.773	45.385	54.000	39.612	AV

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 13:35
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: AC 120V/60Hz
Note: Mode 1:Transmit 5180MHz by 11n20 Ant1+2+3	



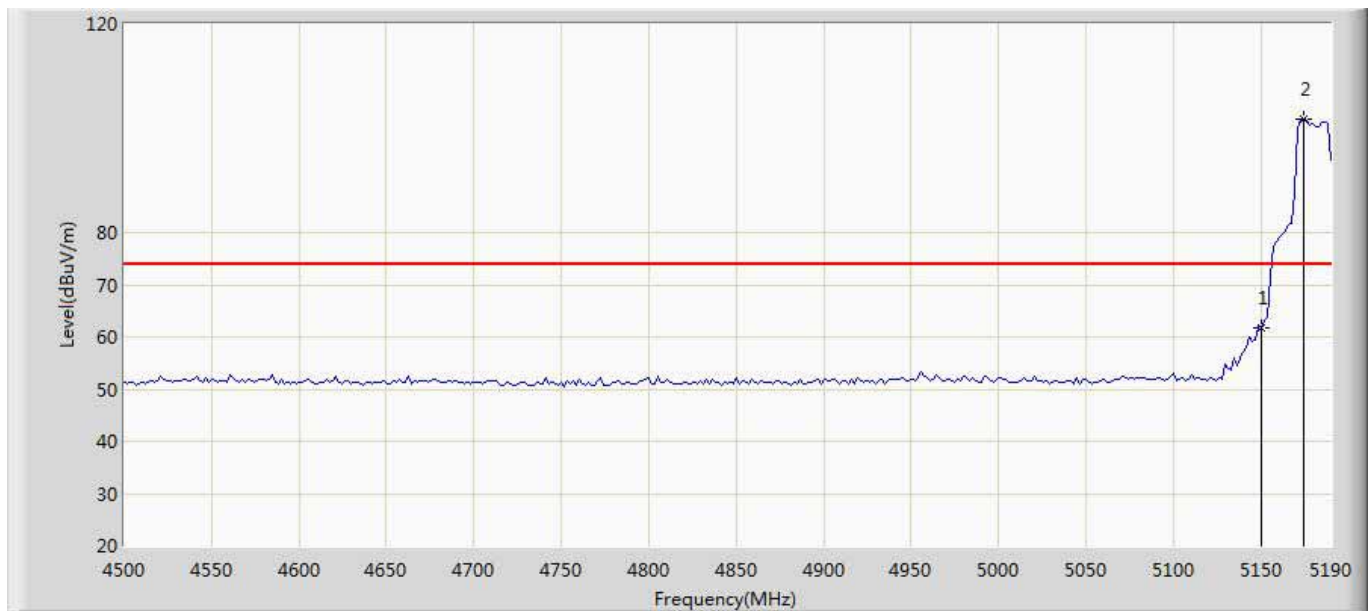
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	47.228	7.694	-6.772	54.000	39.534	AV
2	*	5174.475	93.861	54.249	39.861	54.000	39.612	AV

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 14:45
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: AC 120V/60Hz
Note: Mode 1:Transmit 5180MHz by 11n20 Ant1+2+3	



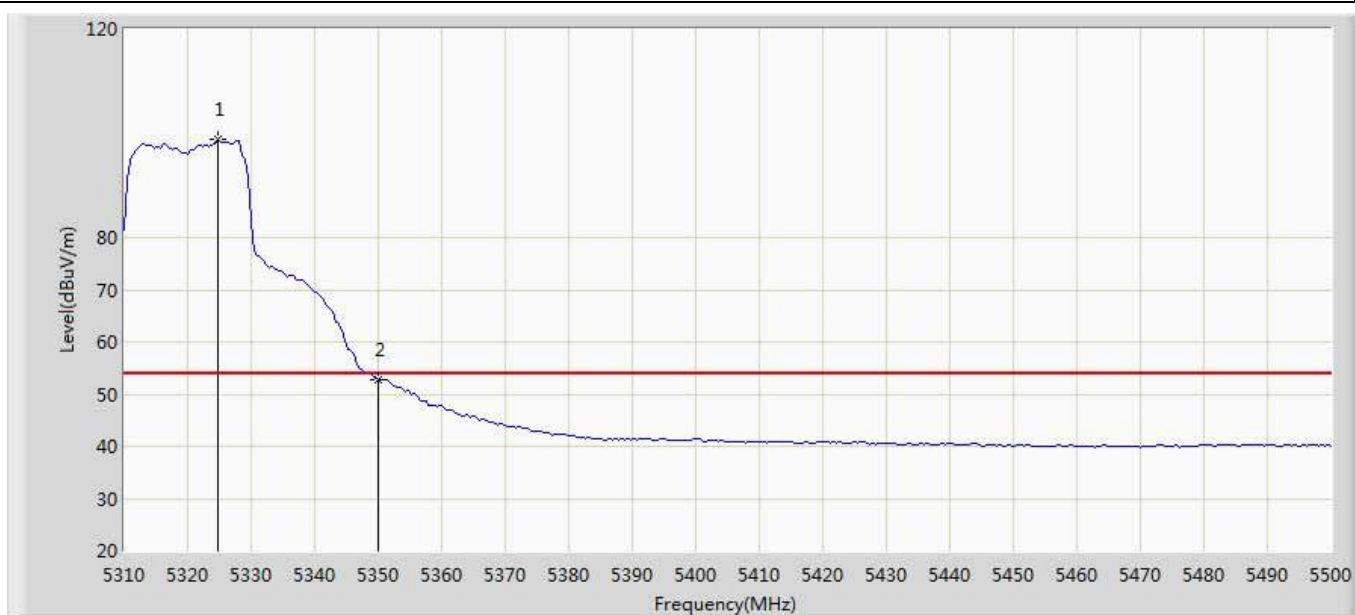
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	56.265	16.731	-17.735	74.000	39.534	PK
2	*	5174.475	103.772	64.160	29.772	74.000	39.612	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 14:38
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: AC 120V/60Hz
Note: Mode 1:Transmit 5180MHz by 11n20 Ant1+2+3	



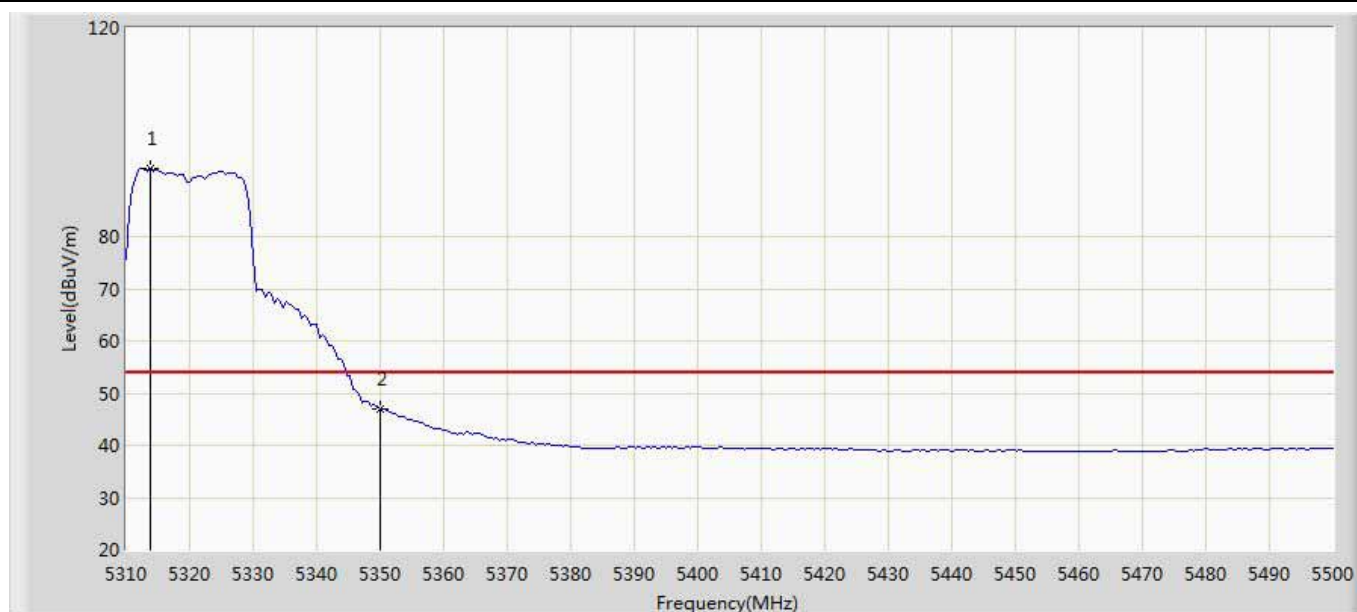
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	61.861	22.327	-12.139	74.000	39.534	PK
2	*	5174.475	101.746	62.134	27.746	74.000	39.612	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 15:11
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: AC 120V/60Hz
Note: Mode 1:Transmit 5320MHz by 11n20 Ant1+2+3	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5324.725	98.742	58.834	44.742	54.000	39.908	AV
2		5350.000	52.755	12.884	-1.245	54.000	39.871	AV

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 15:41
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: AC 120V/60Hz
Note: Mode 1:Transmit 5320MHz by 11n20 Ant1+2+3	



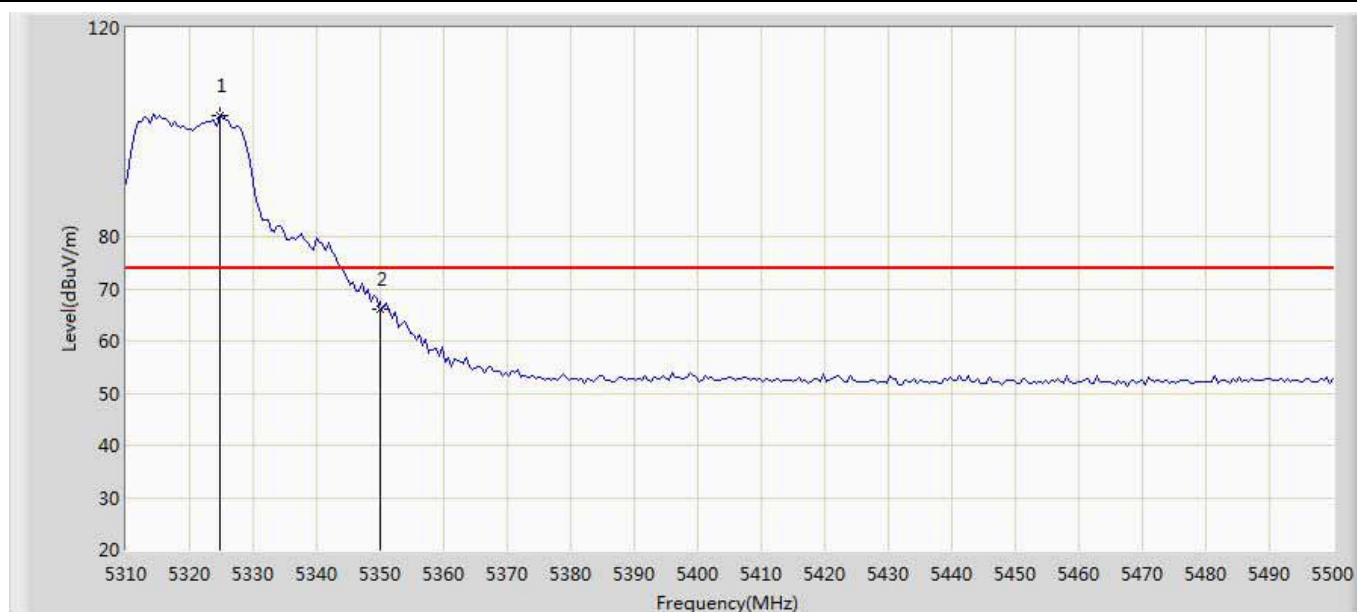
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5313.800	92.910	53.003	38.910	54.000	39.908	AV
2		5350.000	46.980	7.109	-7.020	54.000	39.871	AV

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 15:46
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: AC 120V/60Hz
Note: Mode 1:Transmit 5320MHz by 11n20 Ant1+2+3	



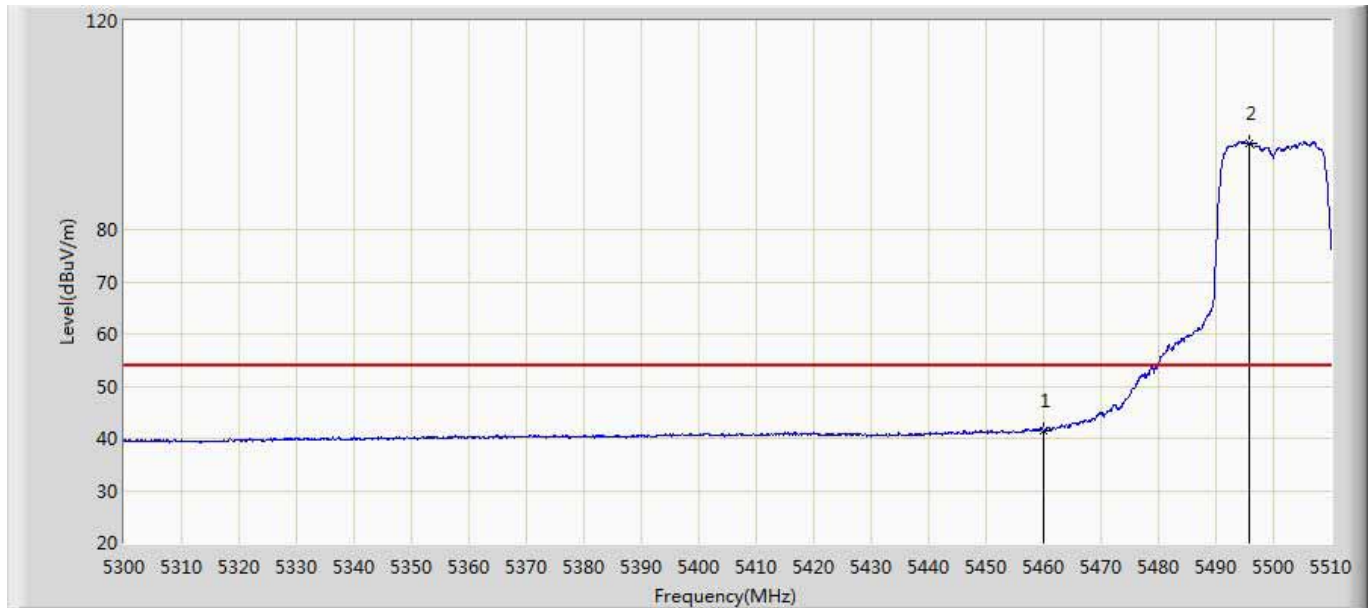
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5326.150	108.188	68.286	34.188	74.000	39.902	PK
2		5350.000	71.691	31.820	-2.309	74.000	39.871	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 15:43
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: AC 120V/60Hz
Note: Mode 1:Transmit 5320MHz by 11n20 Ant1+2+3	



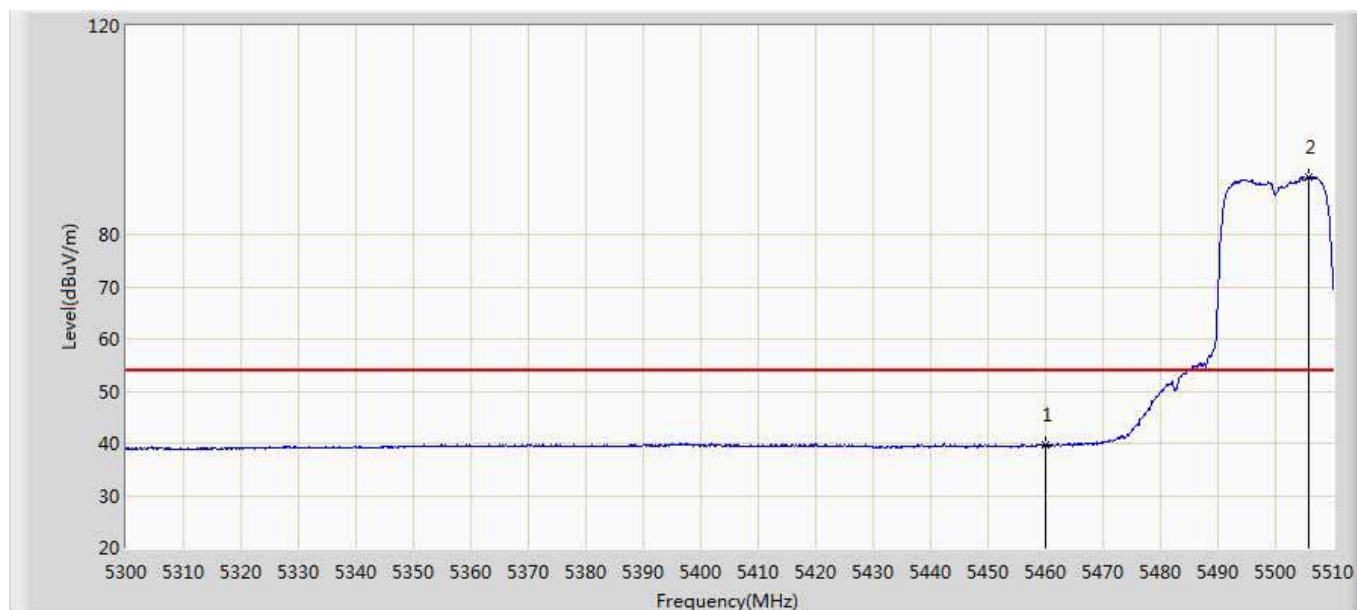
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5324.725	103.217	63.309	29.217	74.000	39.908	PK
2		5350.000	65.951	26.080	-8.049	74.000	39.871	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 09:14
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: AC 120V/60Hz
Note: Mode 1:Transmit 5500MHz by 11n20 Ant1+2+3	



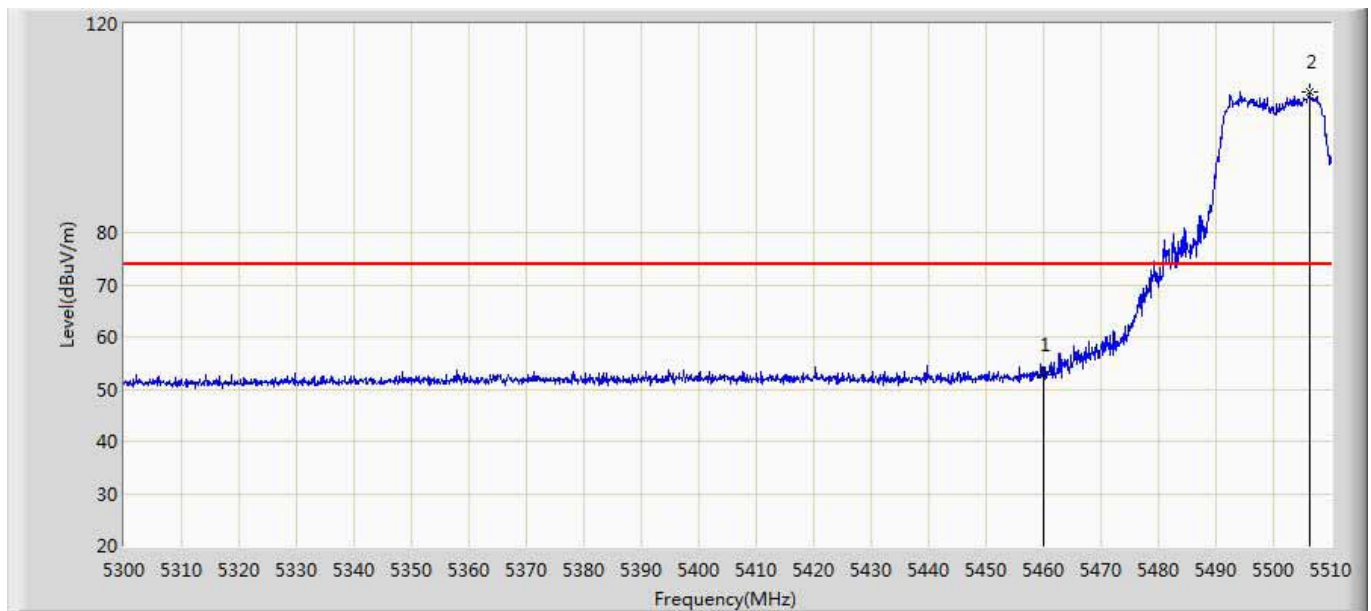
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	41.440	1.406	-12.560	54.000	40.034	AV
2	*	5495.825	96.600	56.463	42.600	54.000	40.137	AV

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 16:03
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: AC 120V/60Hz
Note: Mode 1:Transmit 5500MHz by 11n20 Ant1+2+3	



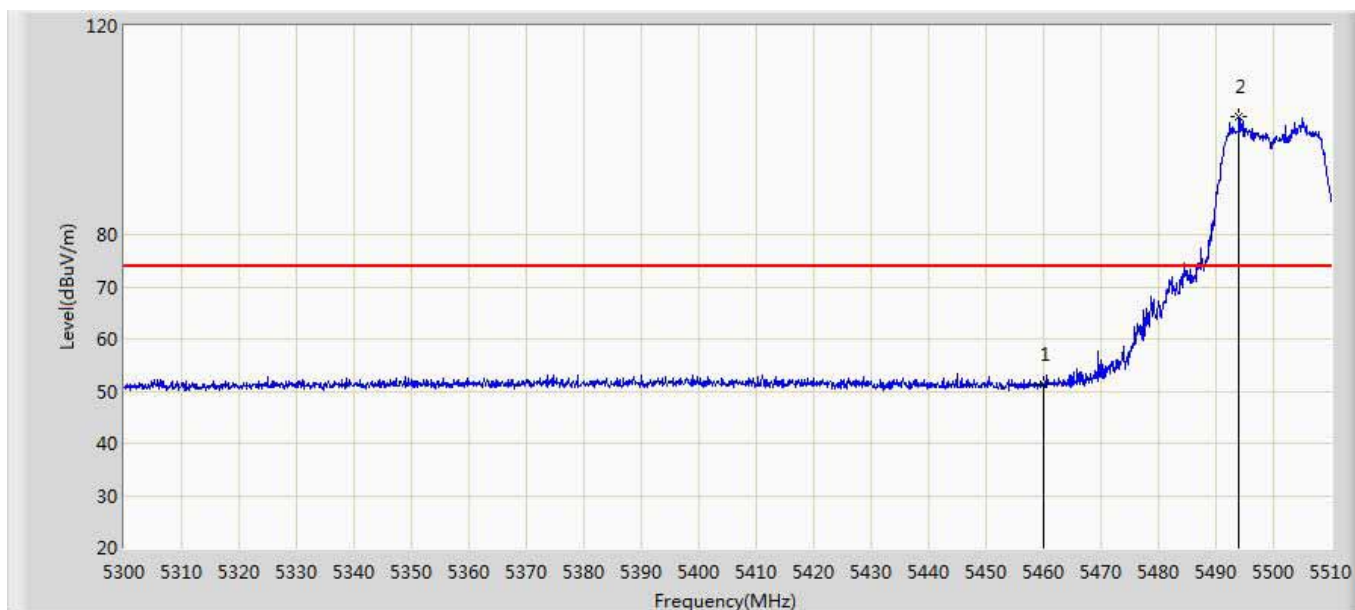
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	39.604	-0.430	-14.396	54.000	40.034	AV
2	*	5505.695	90.986	50.874	36.986	54.000	40.112	AV

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 09:16
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: AC 120V/60Hz
Note: Mode 1:Transmit 5500MHz by 11n20 Ant1+2+3	



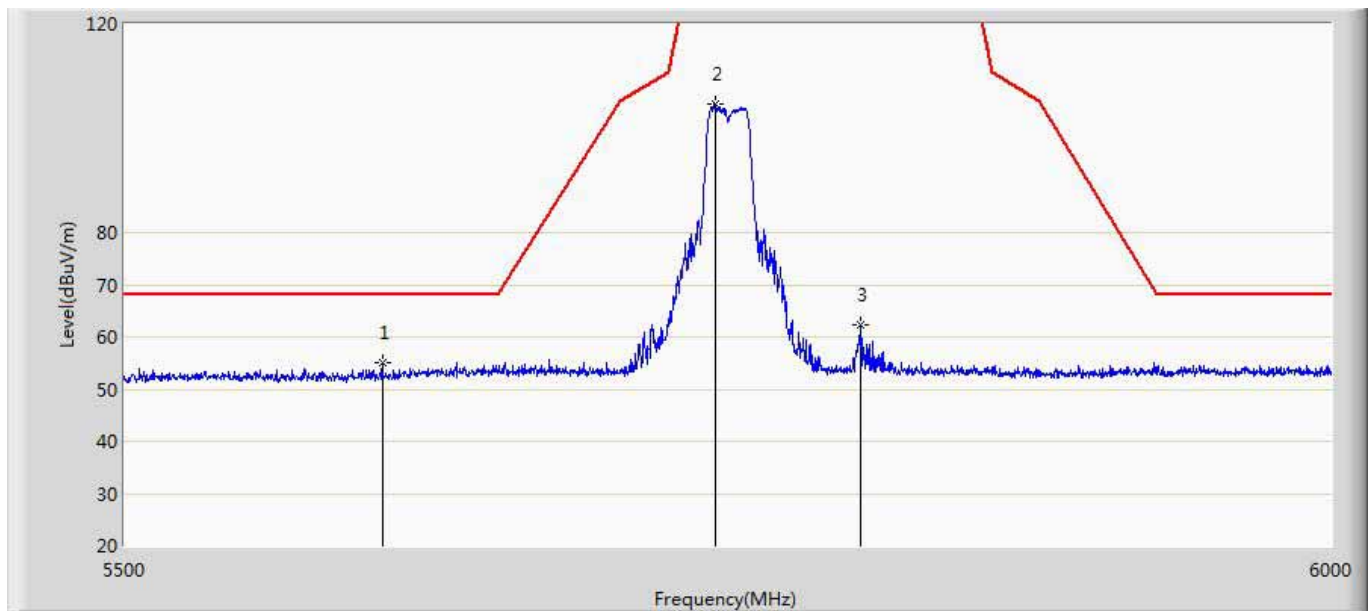
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	52.891	12.857	-21.109	74.000	40.034	PK
2	*	5506.325	106.895	66.782	32.895	74.000	40.113	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 09:18
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: AC 120V/60Hz
Note: Mode 1:Transmit 5500MHz by 11n20 Ant1+2+3	



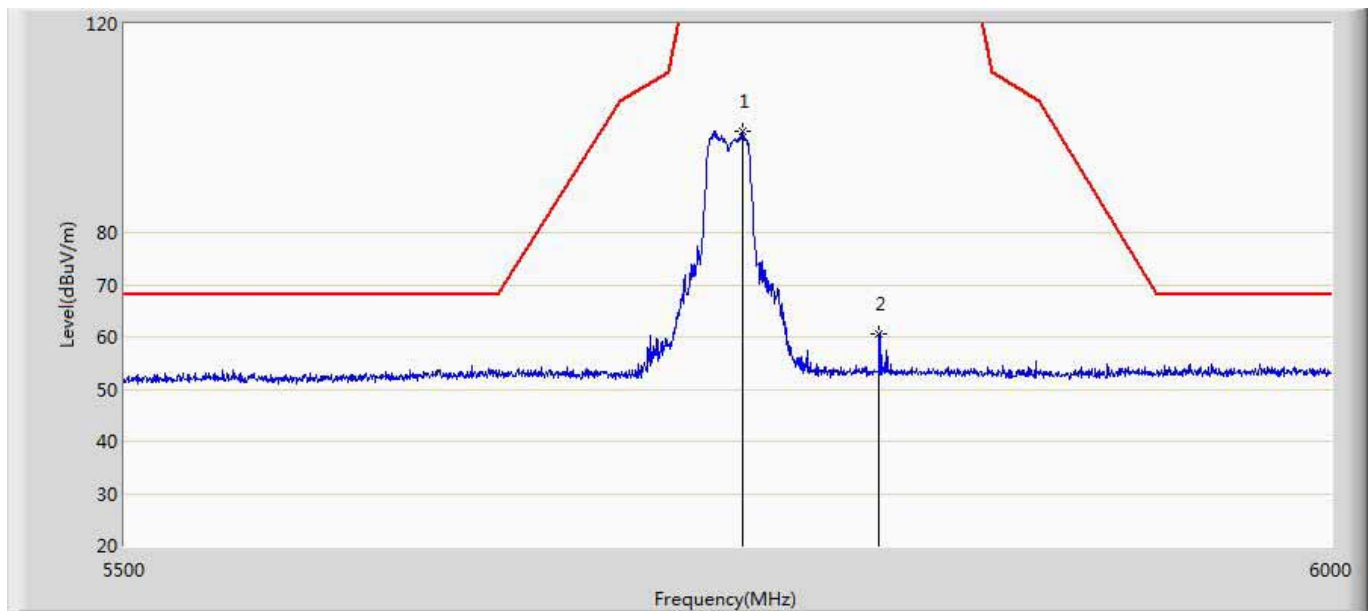
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5460.000	51.304	11.270	-22.696	74.000	40.034	PK
2	*	5494.040	102.510	62.368	28.510	74.000	40.143	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 18:53
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1:Transmit 5745MHz by 11n20 Ant1+2+3	



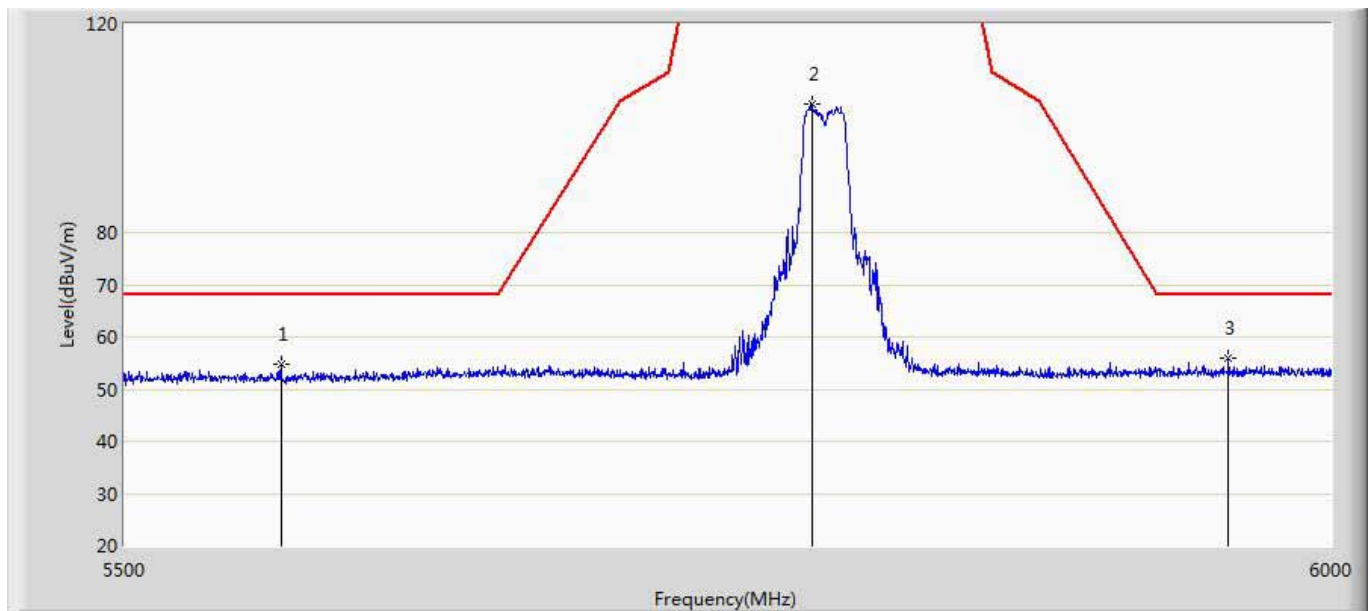
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5603.250	55.079	14.777	-13.121	68.200	40.302	PK
2		5739.500	104.781	64.215	-17.419	122.200	40.566	PK
3		5800.000	62.210	21.441	-59.990	122.200	40.769	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 18:57
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1:Transmit 5745MHz by 11n20 Ant1+2+3	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5751.000	99.462	58.862	-22.738	122.200	40.600	PK
2		5807.750	60.672	19.899	-61.528	122.200	40.773	PK

Engineer: Eric	
Site: AC5	Time: 2017/09/08 - 18:59
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1900 High Gain Wireless Dual Band USB Adapter	Power: AC 120V/60Hz
Note: Mode 1:Transmit 5785MHz by 11n20 Ant1+2+3	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5562.500	54.768	14.568	-13.432	68.200	40.200	PK
2		5779.750	104.685	64.014	-17.515	122.200	40.671	PK
3	*	5956.000	55.809	14.783	-12.391	68.200	41.026	PK