Test Report

FCC Part15 Subpart E

Product Name	:	AC1750 Wireless Dual Band Gigabit Router
Model No.	:	Archer C7
FCC ID	:	TE7C7V2

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	:	Mar. 16, 2016
Test Date	:	Mar. 17, 2016~May. 16, 2016
Issued Date	:	Jun. 16, 2016
Report No.	:	1612064R-RF-US-P09V01
Report Version	:	V1.1

Test Report Certification

Issued Date : Jun. 16, 2016
Report No. : 1612064R-RF-US-P09V01

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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 C7
FCC ID	:	TE7C7V2
EUT Voltage	:	AC 100-240V, 50/60Hz
Brand Name	:	TP-LINK
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E: 2015 ANSI C63.4:2014; ANSI C63.10:2013; 789033 D02 General UNII Test Procedures New Rules v01r02 FCC 16-24-A1: 2016
Test Result	:	Complied
Performed Location	:	Quietek Corporation - Suzhou EMC Laboratory No.99 Hongye Rd., Suzhou Industrial Park, Suzhou,215006, Jiangsu, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392;

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Laboratory Information

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

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

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site :http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1612064R-RF-US-P09V01	V1.0	Initial Issued Report	May 27, 2016
1612064R-RF-US-P09V01	V1.1	Change the 26dB bandwidth data.	Jun. 16, 2016

1. General Information

1.1. EUT Description

Product Name	AC1750 Wireless Dual Band Gigabit Router						
Brand Name	TP-LINK						
Model No.	Archer C7						
EUT Voltage	AC 100-240V, 50/60Hz						
Test Voltage	120V/60Hz						
Type of Modulation	OFDM						
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps						
	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	☒	5150MHz~5250MHz	☐	Outdoor AP			
			☒	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	Dipole Antenna						
Antenna Manufacturer	TPlink						
Antenna Delivery	☐	1*TX+1*RX	☐	2*TX+2*RX	☒	3*TX+3*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	Dipole Antenna						

Antenna Gain				
Antenna Technology		Ant Gain	Directional Gain	
			For Power	For PSD
☒	CDD	Ant0: 4.1 Ant1: 4.1 Ant2: 4.1	4.1	8.87

1.3. Working Frequency of Each Channel:

802.11a/n/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
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	151	5755 MHz	159	5795 MHz
802.11ac(80MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	155	5775 MHz	N/A	N/A	N/A	N/A

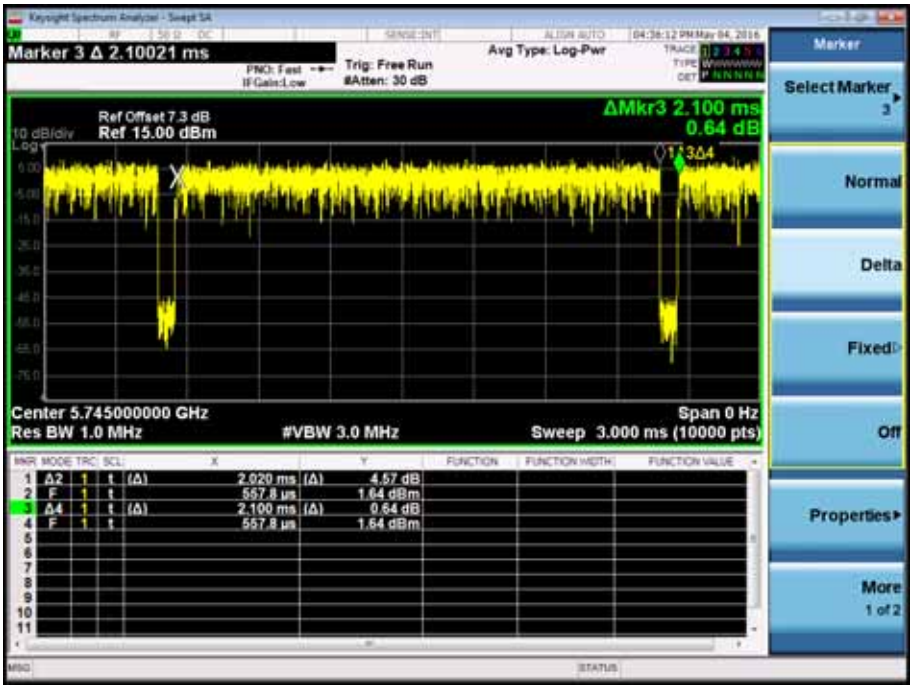
1.4. Power Parameter Value of the test software

Test Mode	Test Channel	Power Setting (With CDD)
802.11a	5180	19
	5220	20
	5240	20
	5745	18
	5785	18
	5825	19
802.11n(20MHz)	5180	18
	5220	20
	5240	20
	5745	18
	5785	18
	5825	19
802.11ac(20MHz)	5180	18
	5220	20
	5240	20
	5745	19
	5785	18
	5825	19
802.11n(40MHz)	5190	13
	5230	21
	5755	20
	5795	21
802.11ac(40MHz)	5190	13
	5230	22
	5755	21
	5795	22
802.11ac(80MHz)	5210	11
	5775	25

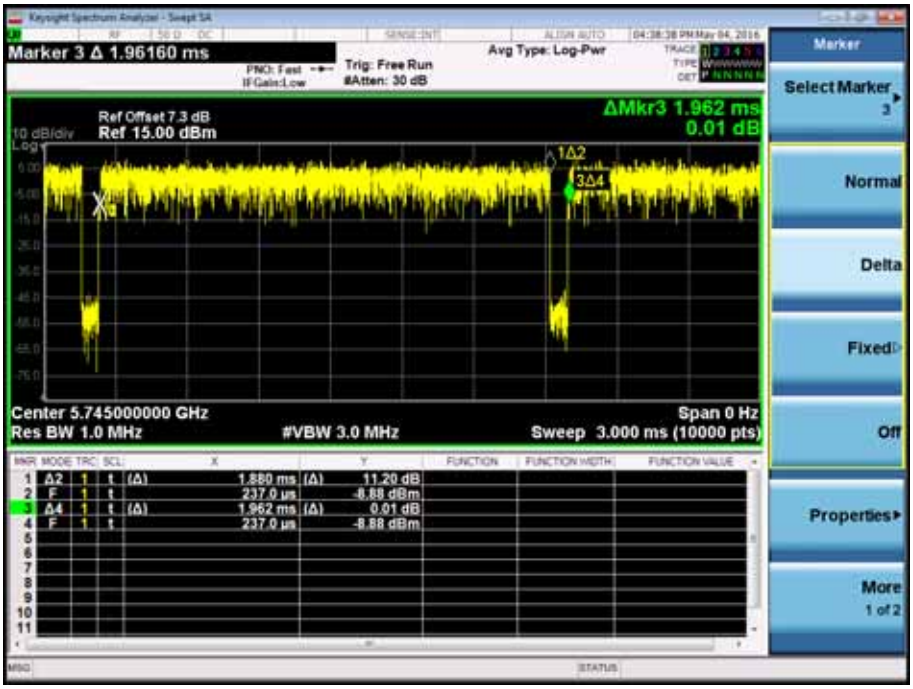
1.5. Duty Cycle

Test Mode	Duty Cycle
802.11a with CDD	96.19%
802.11n(20MHz) with CDD	95.82%
802.11n(40MHz) with CDD	92.79%
802.11ac(20MHz) with CDD	96.25%
802.11ac(40MHz) with CDD	92.79%
802.11ac(80MHz) with CDD	83.07%

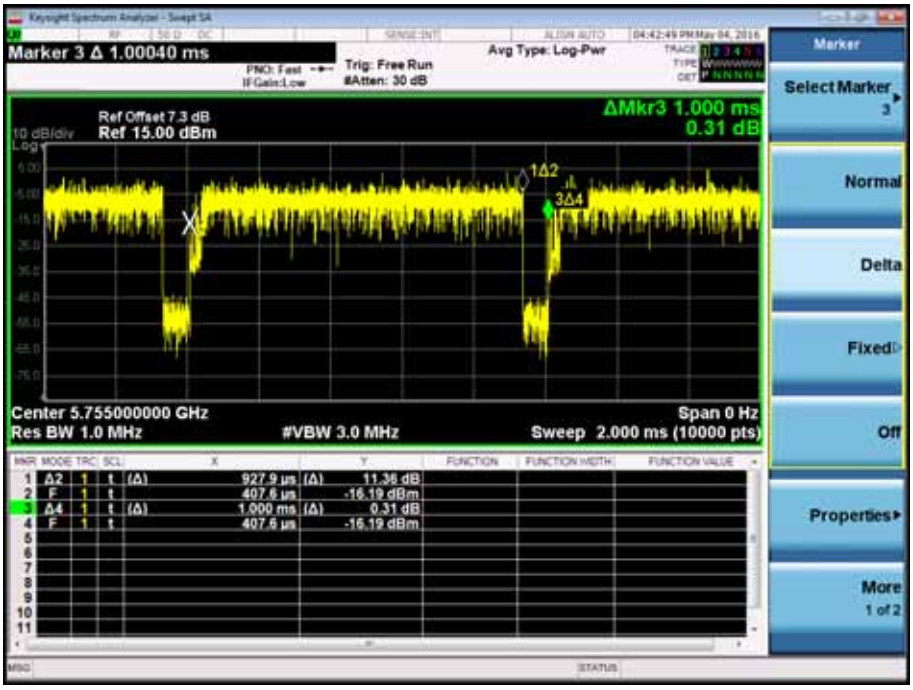
802.11a



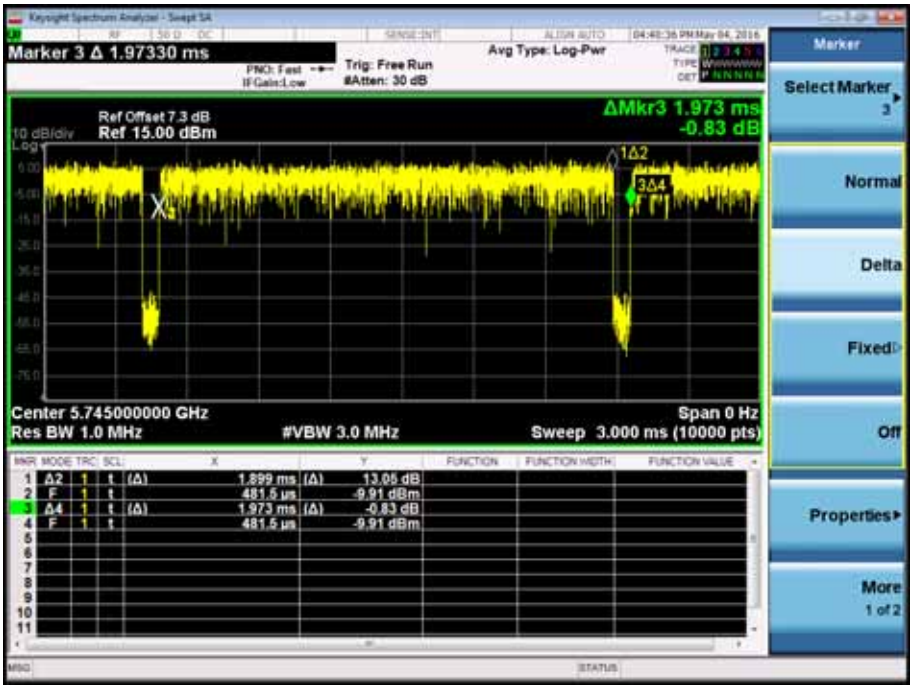
802.11n(20MHz)



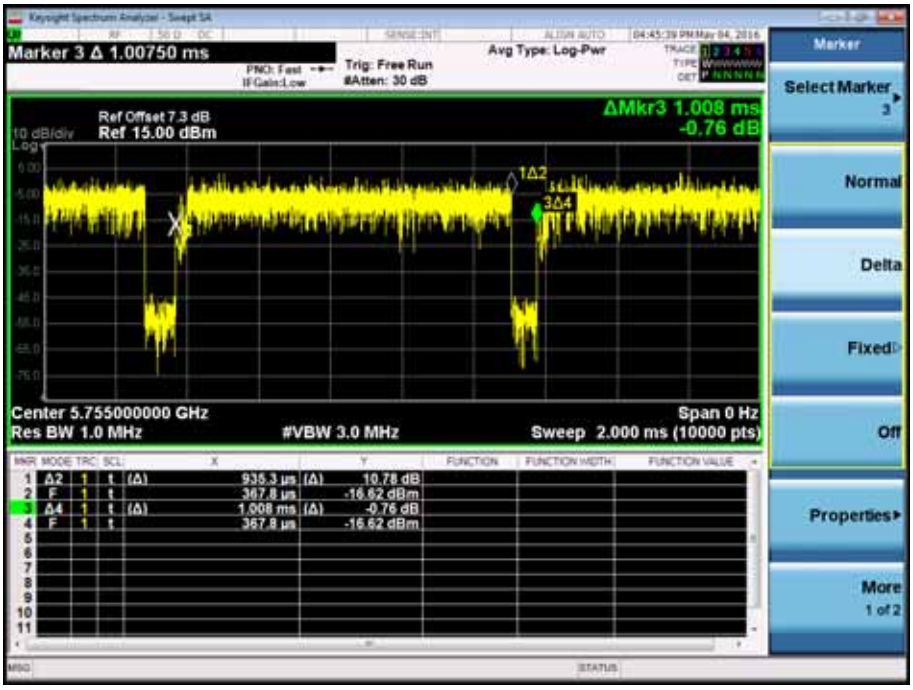
802.11n(40MHz)



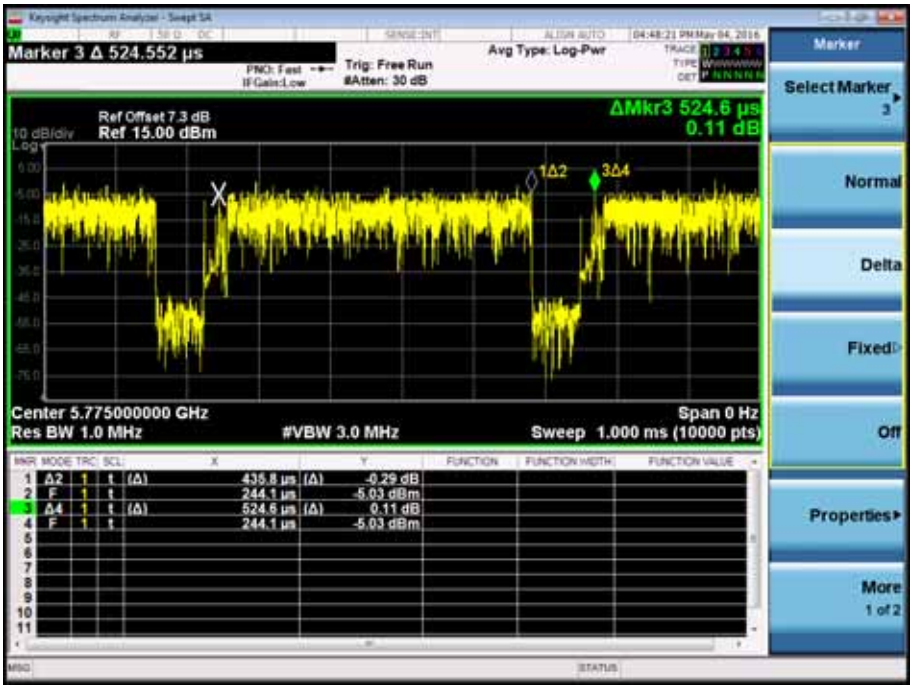
802.11ac(20MHz)



802.11ac(40MHz)



802.11ac(80MHz)



1.6. Mode of Operation

QuieTek 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 802.11a with CDD
Mode 2: Transmit by 802.11n(20MHz) with CDD
Mode 3: Transmit by 802.11n(40MHz) with CDD
Mode 4: Transmit by 802.11ac(20MHz) with CDD
Mode 5: Transmit by 802.11ac(40MHz) with CDD
Mode 6: Transmit by 802.11ac(80MHz) with CDD

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.

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

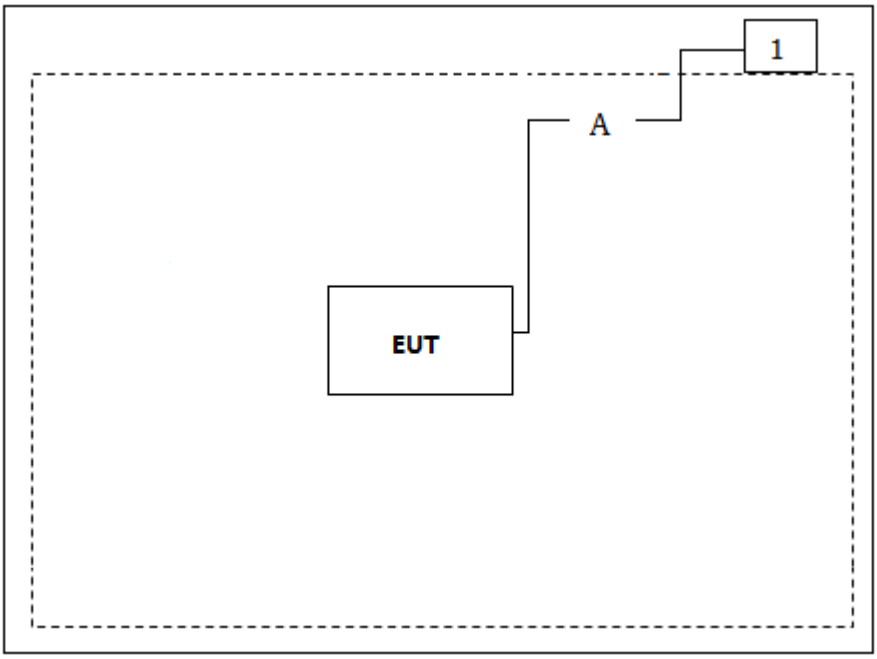
1.7. Tested System Details

The types for all equipments, 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
A	LAN cable	N/A	N/A	N/A	Non-shielded,1.5m
B	LAN cable	N/A	N/A	N/A	Non-shielded,10m

1.8. Configuration of Tested System

With CDD:

Connection Diagram


Signal Cable Type		Signal cable Description
A	LAN Cable	Non-shielded, 15m

1.9. EUT Exercise Software

With CDD:

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
26dB Emission Bandwidth	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	FCC 15.407(a)	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 Environment

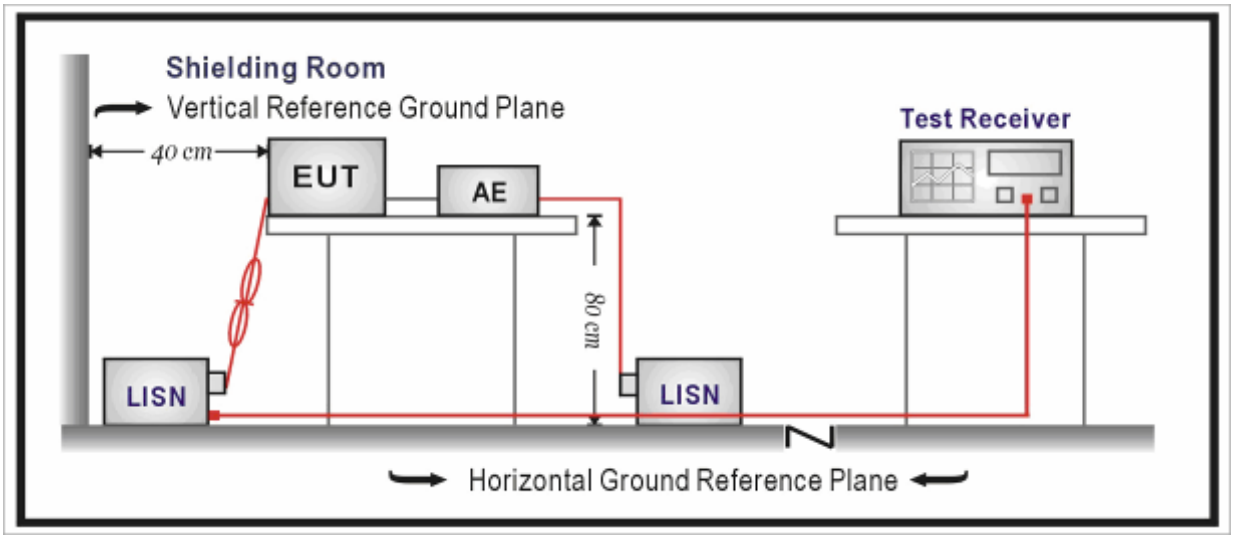
Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

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	100726	2016.03.29	2017.03.28
Two-Line V-Network	R&S	ENV216	100043	2016.03.29	2017.03.28
Two-Line V-Network	R&S	ENV216	100044	2015.09.17	2016.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2016.03.02	2017.03.01
50ohm Termination	SHX	TF2	07081401	2015.09.17	2016.09.16
Temperature/Humidity Meter	zhichen	ZC1-2	TR1-TH	2016.01.09	2017.01.08
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 (dBμV)	AV (dBμV)
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

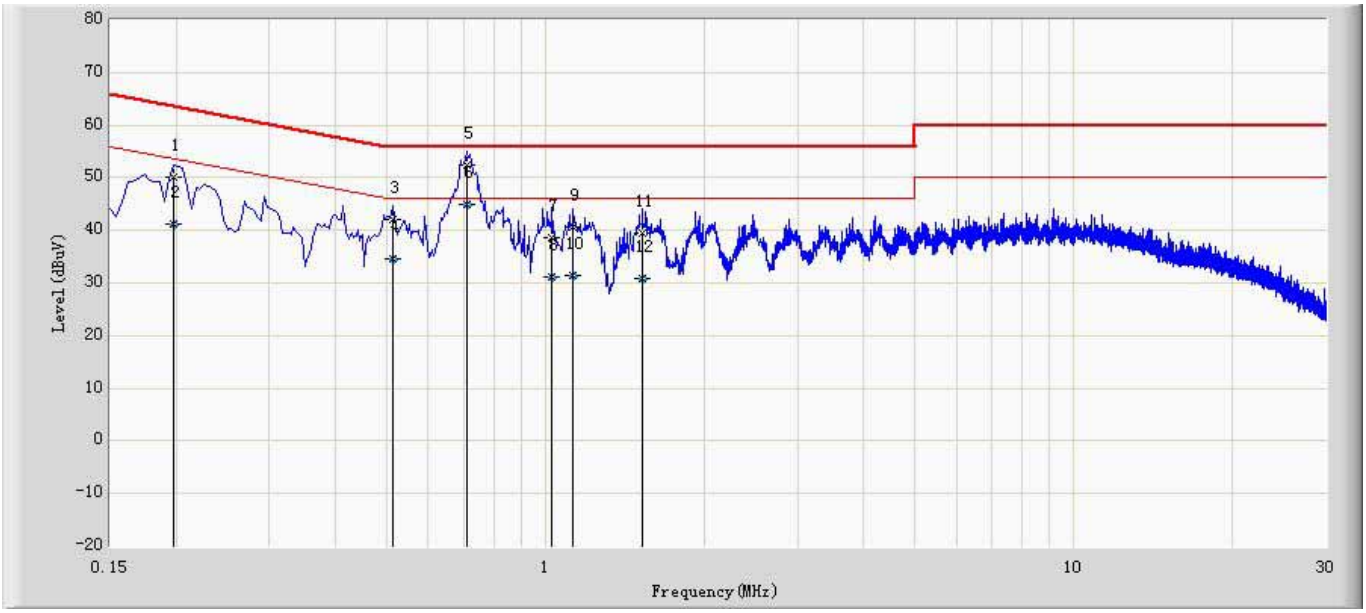
Test Method			
	References Rule	Chapter	Item
☒	ANSI C63.10-2013	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices
☒	ANSI C63.4-2014	7	AC power-line conducted emission measurements

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

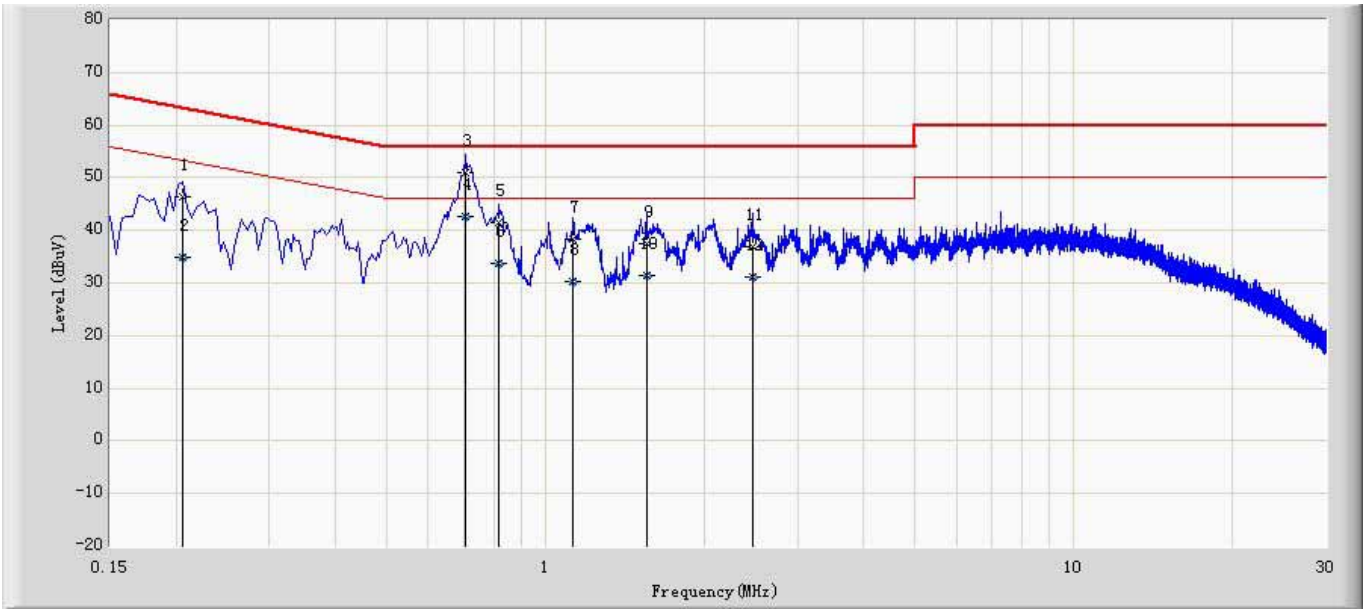
3.6. Test Result

Site: TR1	Time: 2016/01/28
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216-L1	Polarity: Line
EUT: AC1750 Wireless Dual Band Gigabit RouterAC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.198	50.006	40.296	-13.688	63.694	9.650	0.060	0.000	QP
2		0.198	41.147	31.437	-12.547	53.694	9.650	0.060	0.000	AV
3		0.514	41.939	32.239	-14.061	56.000	9.630	0.070	0.000	QP
4		0.514	34.675	24.975	-11.325	46.000	9.630	0.070	0.000	AV
5		0.710	52.535	42.845	-3.465	56.000	9.620	0.070	0.000	QP
6	*	0.710	44.843	35.153	-1.157	46.000	9.620	0.070	0.000	AV
7		1.030	38.730	29.020	-17.270	56.000	9.630	0.080	0.000	QP
8		1.030	31.113	21.403	-14.887	46.000	9.630	0.080	0.000	AV
9		1.130	40.769	31.059	-15.231	56.000	9.630	0.080	0.000	QP
10		1.130	31.410	21.700	-14.590	46.000	9.630	0.080	0.000	AV
11		1.526	39.588	29.858	-16.412	56.000	9.640	0.090	0.000	QP
12		1.526	30.995	21.265	-15.005	46.000	9.640	0.090	0.000	AV

Site: TR1	Time: 2016/01/28
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216-N	Polarity: Neutral
EUT: AC1750 Wireless Dual Band Gigabit RouterAC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.206	46.469	36.749	-16.896	63.365	9.660	0.060	0.000	QP
2		0.206	34.915	25.195	-18.450	53.365	9.660	0.060	0.000	AV
3		0.706	50.945	41.235	-5.055	56.000	9.640	0.070	0.000	QP
4	*	0.706	42.637	32.927	-3.363	46.000	9.640	0.070	0.000	AV
5		0.818	41.531	31.821	-14.469	56.000	9.640	0.070	0.000	QP
6		0.818	33.854	24.144	-12.146	46.000	9.640	0.070	0.000	AV
7		1.130	38.236	28.526	-17.764	56.000	9.630	0.080	0.000	QP
8		1.130	30.182	20.472	-15.818	46.000	9.630	0.080	0.000	AV
9		1.554	37.613	27.883	-18.387	56.000	9.640	0.090	0.000	QP
10		1.554	31.441	21.711	-14.559	46.000	9.640	0.090	0.000	AV
11		2.466	36.923	27.173	-19.077	56.000	9.640	0.110	0.000	QP
12		2.466	31.073	21.323	-14.927	46.000	9.640	0.110	0.000	AV

4. Radiated Emission

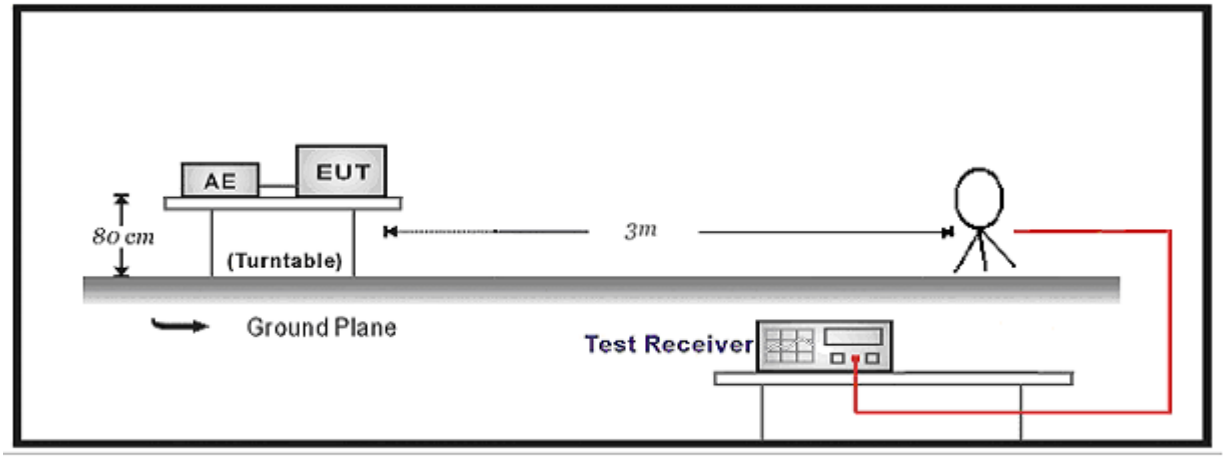
4.1. Test Equipment

Radiated Emission / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2016.03.29	2017.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2015.11.18	2016.11.17
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2015.10.16	2016.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2016.03.02	2017.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2016.01.09	2017.01.08

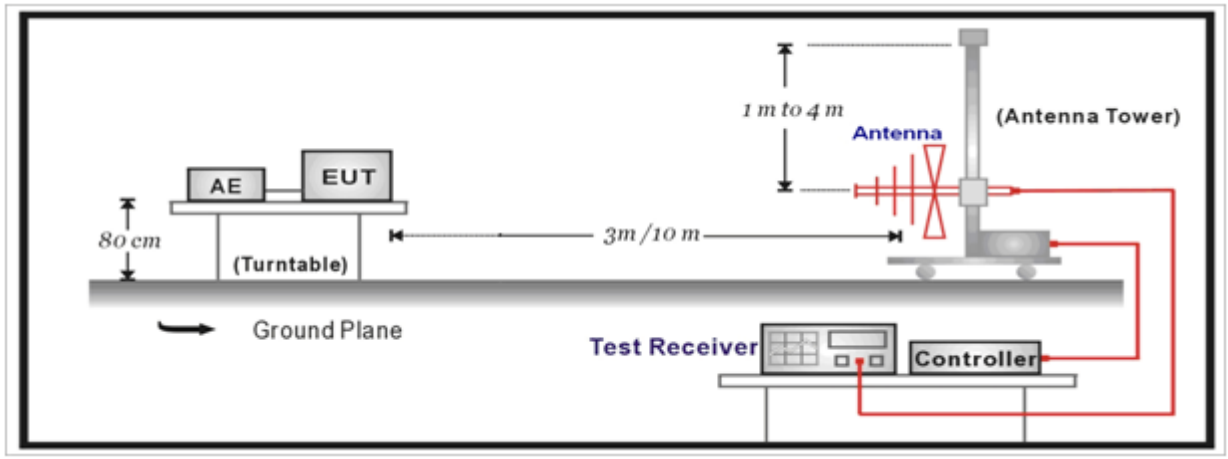
Radiated Emission / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.08	2017.01.07
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2015.11.25	2016.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.10	2016.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.09	2017.01.08
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

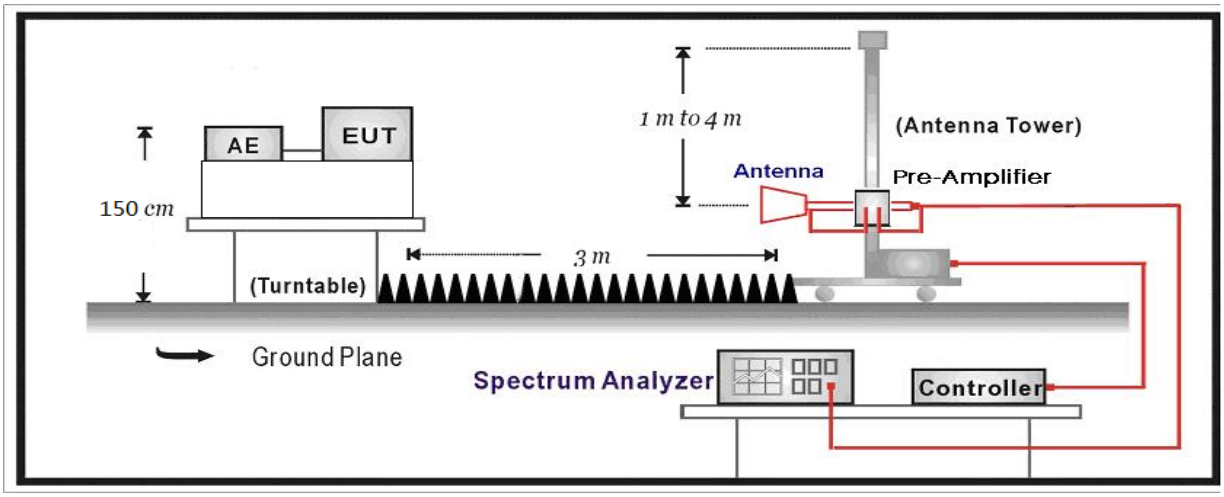
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



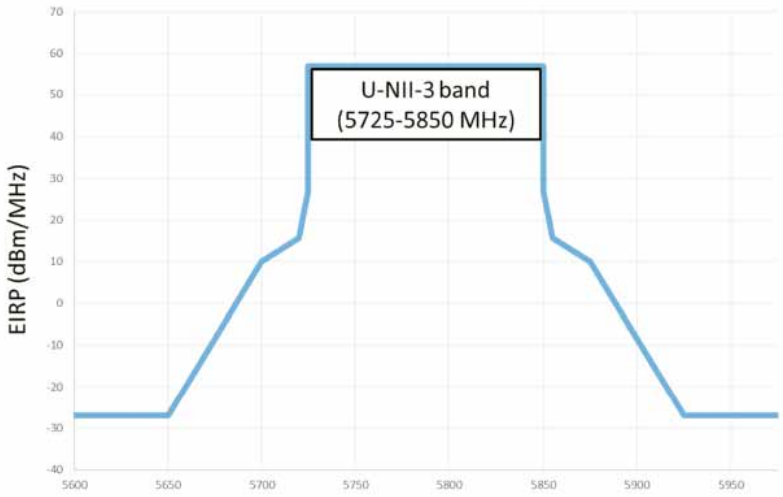
4.3. Limit

FCC Part 15 Subpart C Paragraph 15.209 (Restricted Band Emissions Limit)		
Frequency (MHz)	Distance (m)	Level (dB μV/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
FCC 16-24-A1		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	
5725 - 5825		

4.4. Test Procedure

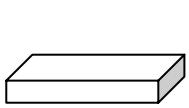
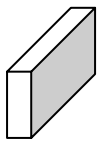
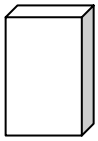
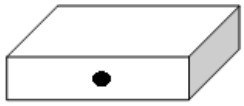
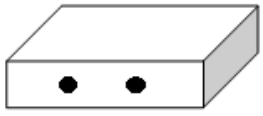
Test Method					
	References Rule			Chapter	Description
☐	ANSI C63.10			12.7.3	Emissions in non-restricted frequency bands
☒	ANSI C63.10			12.7.2	Emissions in restricted frequency bands
	☒	ANSI C63.10		12.7.5	Radiated emission measurements
	☒	ANSI C63.10		12.7.6	Procedure for peak unwanted emissions 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 D02v01r02			G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01r02			G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01r02		G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01r02		G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r02		G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
		☐	FCC KDB 789033 D02v01r02	G.6.c	Method AD (Average detection)—primary method
		☐	FCC KDB 789033 D02v01r02	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

4.5. Uncertainty

The measurement uncertainty above 1GHz is defined as ± 3.9 dB

below 1GHz is defined as ± 3.8 dB

4.6. EUT test Axis definition

<table>
<tr><td>Item</td><td colspan="4">Radiated Emission</td></tr>
<tr><td rowspan="4">Device Category</td><td>☐</td><td colspan="3">Outdoor AP</td></tr>
<tr><td>☒</td><td colspan="3">Indoor AP</td></tr>
<tr><td>☐</td><td colspan="3">Fixed position use</td></tr>
<tr><td>☐</td><td colspan="3">Mobile position use</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1-6</td></tr>
<tr><td rowspan="11">Test method</td><td>☒</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Worst Axis ☐</td><td>Worst Axis ☒</td><td>Worst Axis ☐</td></tr>
<tr><td>☐</td><td colspan="3">Conducted</td></tr>
<tr><td>☐</td><td colspan="3">Chain 0</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 0</td><td colspan="2">Chain 1</td></tr>
<tr><td rowspan="2"></td><td colspan="3">  </td></tr>
<tr><td>Worst Chain ☐</td><td colspan="2">Worst Chain ☐</td></tr>
<tr><td>☐</td><td>Chain 0</td><td>Chain 1</td><td>Chain 2</td></tr>
</table>

				
		Worst Chain ☐	Worst Chain ☐	Worst Chain ☐

4.7. Test Result

Mode1: Transmit by 802.11a with CDD									
Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measured Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
Ant 0+1+2	36	H	10360.0	33.5	15.3	48.8	54(Note3)	5.2	PK
		H	15540.0	24.5	22.3	46.8	54(Note3)	7.2	PK
		V	10360.0	33.3	15.3	48.6	54(Note3)	5.4	PK
		V	15540.0	23.7	22.3	46.0	54(Note3)	8.0	PK
	44	H	10401.0	32.3	18.7	51.0	54(Note3)	3.0	PK
		H	15594.0	21.4	27.5	48.9	54(Note3)	5.1	PK
		V	10401.0	32.4	18.7	51.1	54(Note3)	2.9	PK
		V	15603.0	19.9	27.5	47.4	54(Note3)	6.6	PK
	48	H	10486.0	33.0	17.2	50.2	54(Note3)	3.8	PK
		H	15720.0	20.5	26.4	46.9	54(Note3)	7.1	PK
		V	10486.0	33.0	17.2	50.2	54(Note3)	3.8	PK
		V	15720.0	21.0	26.4	47.4	54(Note3)	6.6	PK
	149	H	11490.0	32.3	21.3	53.6	54(Note3)	0.4	PK
		H	17235.0	28.0	25.7	53.7	54(Note3)	0.3	PK
		V	11490.0	43.0	21.3	64.3	74	9.7	PK
		V	11493.2	32.6	21.3	53.9	54	0.1	AV
		V	17235.0	27.4	25.7	53.1	54(Note3)	0.9	PK
	157	H	11570.0	31.3	22.1	53.4	54(Note3)	0.6	PK
		H	17355.0	27.8	25.3	53.1	54(Note3)	0.9	PK
		V	11570.0	40.7	22.2	62.9	74	11.1	PK
		V	11570.2	31.4	22.2	53.6	54	0.4	AV
		V	17355.0	27.5	25.3	52.8	54(Note3)	1.2	PK
	165	H	11650.0	30.9	23.0	53.9	54(Note3)	0.1	PK
		H	17475.0	28.2	25.3	53.5	54(Note3)	0.5	PK
		V	11650.0	40.8	23.0	63..8	74	10.2	PK
		V	11651.3	30.9	23.0	53.9	54	0.1	AV
		V	17475.0	28.3	25.3	53.6	54(Note3)	0.4	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode 2: Transmit by 802.11n(20MHz) with CDD									
Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measured Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
Ant 0+1+2	36	H	10360.0	31.9	15.3	47.2	54(Note3)	6.8	PK
		H	15540.0	24.8	22.3	47.1	54(Note3)	6.9	PK
		V	10360.0	32.8	15.3	48.1	54(Note3)	5.9	PK
		V	15540.0	24.7	22.3	47.0	54(Note3)	7.0	PK
	44	H	10401.0	30.9	18.7	49.6	54(Note3)	4.4	PK
		H	15594.0	21.6	27.5	49.1	54(Note3)	4.9	PK
		V	10401.0	33.4	18.7	52.1	54(Note3)	1.9	PK
		V	15603.0	20.0	27.5	47.5	54(Note3)	6.5	PK
	48	H	10486.0	33.2	17.2	50.4	54(Note3)	3.6	PK
		H	15720.0	21.3	26.4	47.7	54(Note3)	6.3	PK
		V	10486.0	33.2	17.2	50.4	54(Note3)	3.6	PK
		V	15720.0	20.9	26.4	47.3	54(Note3)	6.7	PK
	149	H	11490.0	32.5	21.3	53.8	54(Note3)	0.2	PK
		H	17235.0	27.1	25.7	52.8	54(Note3)	1.2	PK
		V	11490.0	45.5	21.3	66.8	74	7.2	PK
		V	11490.1	32.4	21.3	53.7	54	0.3	AV
		V	17235.0	26.2	25.7	51.9	54(Note3)	2.1	PK
	157	H	11570.0	31.6	22.1	53.7	54(Note3)	0.3	PK
		H	17355.0	28.5	25.3	53.8	54(Note3)	0.2	PK
		V	11570.0	39.8	22.1	61.9	74	12.1	PK
		V	11569.4	31.4	22.1	53.5	54	0.5	AV
		V	17355.0	27.5	25.3	52.8	54(Note3)	1.2	PK
	165	H	11650.0	30.8	23.0	53.8	54(Note3)	0.2	PK
		H	17475.0	28.2	25.3	53.5	54(Note3)	0.5	PK
		V	11650.0	41.3	23.0	64.3	74	9.7	PK
		V	11651.5	30.6	23.1	53.7	54	0.3	AV
		V	17475.0	27.6	25.3	52.9	54(Note3)	1.1	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode 3: Transmit by 802.11n(40MHz) with CDD									
Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measured Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0+1+2	38	H	10380.0	36.2	15.8	52.0	54(Note3)	2.0	PK
		H	15570.0	25.7	22.3	48.0	54(Note3)	6.0	PK
		V	10380.0	34.7	15.8	50.5	54(Note3)	3.5	PK
		V	15570.0	25.2	22.3	47.5	54(Note3)	6.5	PK
	46	H	10460.0	37.5	15.4	52.9	54(Note3)	1.1	PK
		H	15690.0	31.4	22.6	54.0	54(Note3)	0.0	PK
		V	10460.0	34.6	15.5	50.1	54(Note3)	3.9	PK
		V	15690.0	30.9	22.6	53.5	54(Note3)	0.5	PK
	151	H	11510.0	31.5	21.6	53.1	54(Note3)	0.9	PK
		H	17265.0	27.8	25.2	53.0	54(Note3)	1.0	PK
		V	11510.0	41.9	21.6	63.5	74	10.5	PK
		V	11511.5	31.9	21.6	53.5	54	0.5	AV
		V	17265.0	28.7	25.2	53.9	54(Note3)	0.1	PK
	159	H	11590.0	32.1	21.2	53.3	54(Note3)	0.7	PK
		H	17385.0	26.1	27.0	53.1	54(Note3)	0.9	PK
		V	11590.0	41.7	21.2	62.9	74	11.1	PK
		V	11588.5	32.4	21.3	53.7	54	0.3	AV
		V	17385.0	26.4	27.0	53.4	54(Note3)	0.6	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode 4: Transmit by 802.11ac(20MHz) with CDD									
Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measured Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
Ant 0+1+2	36	H	10360.0	32.8	15.3	48.1	54(Note3)	5.9	PK
		H	15540.0	25.8	22.3	48.1	54(Note3)	5.9	PK
		V	10360.0	33.9	15.3	49.2	54(Note3)	4.8	PK
		V	15540.0	25.0	22.3	47.3	54(Note3)	6.7	PK
	44	H	10401.0	30.8	18.7	49.5	54(Note3)	4.5	PK
		H	15594.0	22.3	27.5	49.8	54(Note3)	4.2	PK
		V	10401.0	34.1	18.7	52.8	54(Note3)	1.2	PK
		V	15603.0	20.9	27.5	48.4	54(Note3)	5.6	PK
	48	H	10486.0	34.3	17.2	51.5	54(Note3)	2.5	PK
		H	15720.0	21.3	26.4	47.7	54(Note3)	6.3	PK
		V	10486.0	33.6	17.2	50.8	54(Note3)	3.2	PK
		V	15720.0	21.3	26.4	47.7	54(Note3)	6.3	PK
	149	H	11490.0	31.8	21.3	53.1	54(Note3)	0.9	PK
		H	17235.0	27.6	25.7	53.3	54(Note3)	0.7	PK
		V	11490.0	44.6	21.3	65.9	74	8.1	PK
		V	11491.9	32.5	21.3	53.8	54	0.2	AV
		V	17235.0	27.2	25.7	53.9	54(Note3)	0.1	PK
	157	H	11570.0	31.5	22.1	53.6	54(Note3)	0.4	PK
		H	17355.0	28.6	25.3	53.9	54(Note3)	0.1	PK
		V	11570.0	42.0	22.1	64.1	74	9.9	PK
		V	11571.4	31.3	22.1	53.4	54	0.6	AV
		V	17355.0	28.1	25.3	53.4	54(Note3)	0.6	PK
	165	H	11650.0	30.4	23.0	53.4	54(Note3)	0.6	PK
		H	17475.0	26.4	25.3	51.7	54(Note3)	2.3	PK
		V	11650.0	34.3	23.0	57.3	74	16.7	PK
		V	11654.6	30.2	23.3	53.5	54	0.5	AV
		V	17475.0	26.8	25.3	52.1	54(Note3)	1.9	PK

1. Measure Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode5: Transmit by 802.11ac(40MHz) with CDD									
Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measured Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0+1+2	38	H	10380.0	32.8	15.8	48.6	54(Note3)	5.4	PK
		H	15570.0	23.7	22.3	46.0	54(Note3)	8.0	PK
		V	10380.0	32.0	15.8	47.8	54(Note3)	6.2	PK
		V	15570.0	23.8	22.3	46.1	54(Note3)	7.9	PK
	46	H	10460.0	35.0	15.4	50.4	54(Note3)	3.6	PK
		H	15690.0	29.1	22.6	51.7	54(Note3)	2.3	PK
		V	10460.0	32.6	15.5	48.1	54(Note3)	5.9	PK
		V	15690.0	29.9	22.6	52.5	54(Note3)	1.5	PK
	151	H	11540.0	29.5	22.0	51.5	54(Note3)	2.5	PK
		H	17265.0	25.2	25.2	50.4	54(Note3)	3.6	PK
		V	11490.0	37.2	21.3	58.5	74	15.5	PK
		V	11510.4	32.2	21.6	53.8	54	0.2	AV
		V	17265.0	27.0	25.2	52.2	54(Note3)	1.8	PK
	159	H	11590.0	32.7	21.2	53.9	54(Note3)	0.1	PK
		H	17385.0	24.3	27.0	51.3	54(Note3)	2.7	PK
		V	11590.0	41.3	21.2	62.5	74	11.5	PK
		V	11574.1	31.8	22.0	53.8	54	0.2	AV
		V	17385.0	26.9	27.0	53.9	54(Note3)	0.1	PK

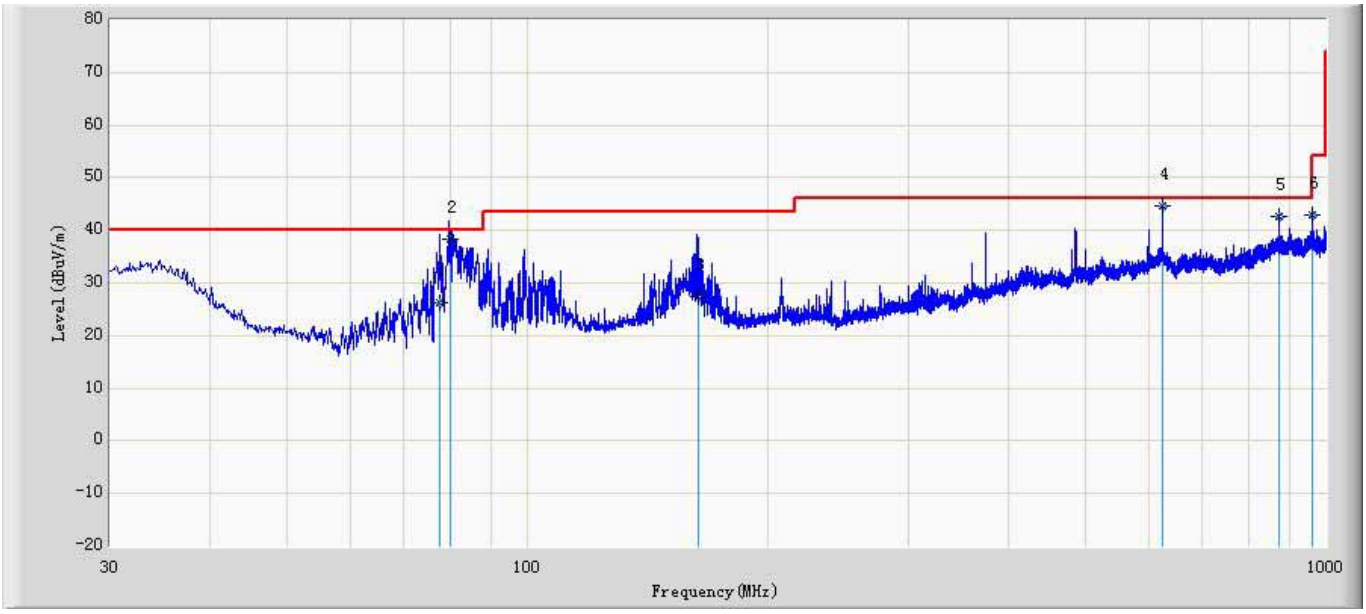
1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode6: Transmit by 802.11ac(80MHz) with CDD									
Chain	CH	Antenna Polarity	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	MeasuredLevel (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
Ant 0+1+2	42	H	10420.0	35.2	15.6	50.8	54(Note3)	3.2	PK
		H	15630.0	29.3	22.9	52.2	54(Note3)	1.8	PK
		V	10420.0	33.0	15.5	48.5	54(Note3)	5.5	PK
		V	15630.0	29.1	22.7	51.8	54(Note3)	2.2	PK
	155	H	11550.0	29.4	22.2	51.6	54(Note3)	2.4	PK
		H	17325.0	25.5	25.7	51.2	54(Note3)	2.8	PK
		V	11550.0	39.0	22.0	61.0	74	13.0	PK
		V	11556.8	28.5	22.3	50.8	54	3.2	AV
		V	17325.0	28.0	25.7	53.7	54(Note3)	0.3	PK

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

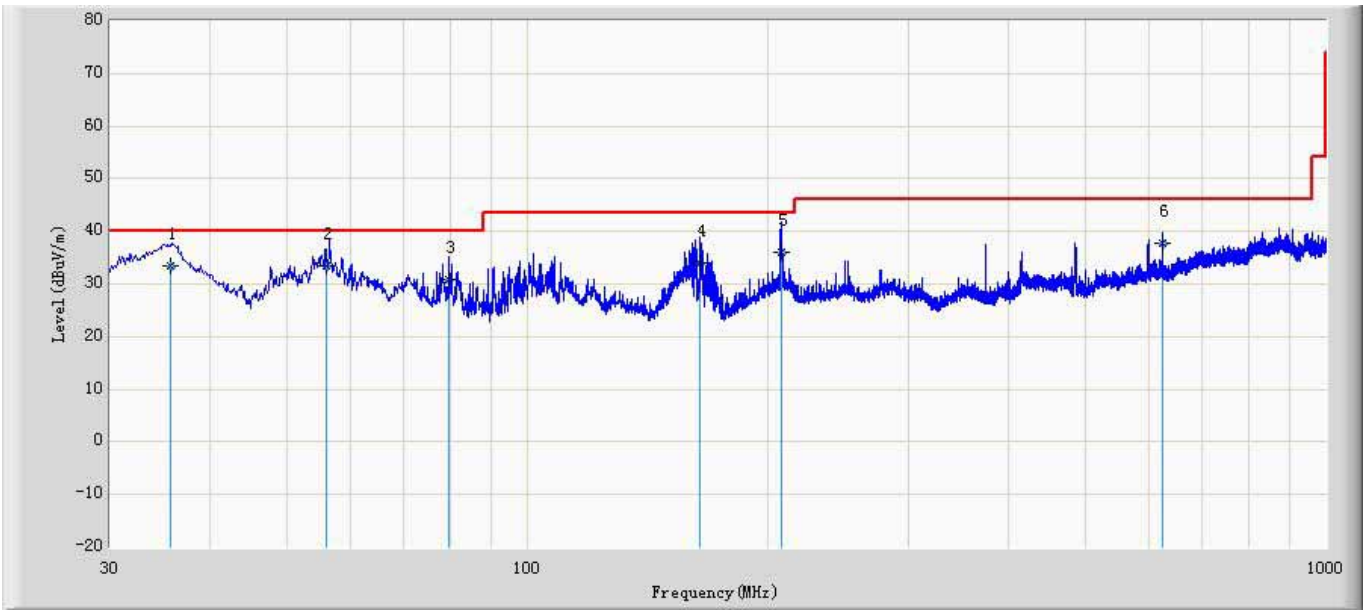
The worst case of Radiated Emission below 1GHz:

Site: AC3	Time: 2016/01/28
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: CB7_CBL6112_0726	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit RouterAC1750 Wireless Dual Band Gigabit Router	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		77.796	26.144	41.448	-13.856	40.000	6.846	0.950	23.100	200	336	QP
2		79.920	38.452	53.569	-1.548	40.000	7.023	0.960	23.100	199	360	QP
3		163.326	27.493	39.353	-16.007	43.500	9.800	1.384	23.044	100	360	QP
4	*	624.990	44.598	45.394	-1.402	46.000	19.000	2.740	22.536	138	360	QP
5		875.053	42.629	41.579	-3.371	46.000	20.450	3.260	22.660	100	312	QP
6		960.055	42.966	40.855	-11.034	54.000	20.981	3.420	22.290	100	29	QP

Site: AC3	Time: 2016/01/28
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: CB7_CBL6112_0726	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit RouterAC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1	



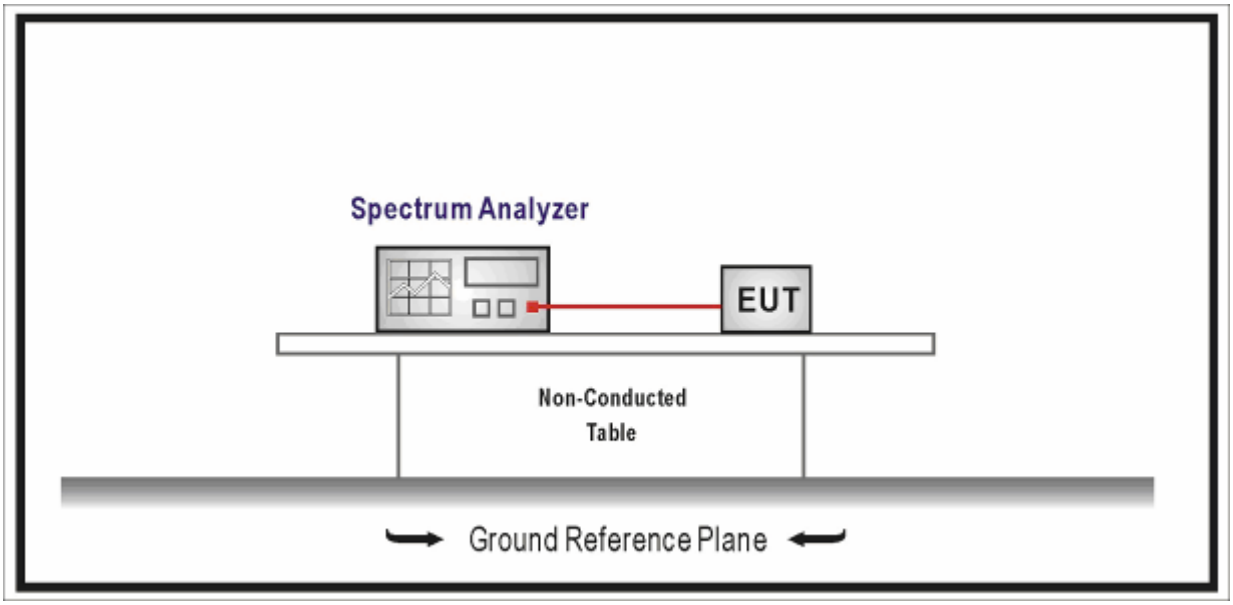
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1	*	35.792	33.519	40.609	-6.481	40.000	15.440	0.650	23.180	100	165	QP
2		56.014	33.484	48.524	-6.516	40.000	7.178	0.810	23.028	100	114	QP
3		79.569	30.976	46.140	-9.024	40.000	6.976	0.960	23.100	200	118	QP
4		164.381	33.899	45.791	-9.601	43.500	9.768	1.390	23.050	200	312	QP
5		208.312	36.062	48.443	-7.438	43.500	9.251	1.568	23.200	100	263	QP
6		625.223	37.763	38.557	-8.237	46.000	19.000	2.740	22.534	100	32	QP

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	2016.03.11	2017.03.10
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

5.2. Test Setup



5.3. Limit

N/A

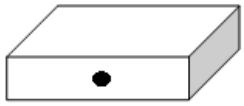
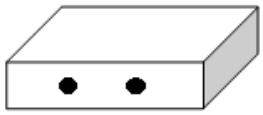
5.4. Test Procedure

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 D02v01r02	C	Bandwidth Measurement
	☒ FCC KDB 789033 D02v01r02	C.1	Emission Bandwidth (26dB)
	☒ FCC KDB 789033 D02v01r02	C.2	Minimum Emission Bandwidth for the band 5.725-5.85 GHz (6dB)
☒	FCC KDB 789033 D02v01r02	D	99 Percent Occupied Bandwidth

5.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

5.6. EUT test Axis definition

<table>
<tr><td>Item</td><td colspan="4">Occupied bandwidth</td></tr>
<tr><td rowspan="4">Device Category</td><td>☐</td><td colspan="3">Outdoor AP</td></tr>
<tr><td>☒</td><td colspan="3">Indoor AP</td></tr>
<tr><td>☐</td><td colspan="3">Fixed point-to-point AP</td></tr>
<tr><td>☐</td><td colspan="3">Mobile and Portable Client</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1 ~ Mode 6</td></tr>
<tr><td rowspan="9"></td><td>☒</td><td colspan="3">Conducted</td></tr>
<tr><td>☒</td><td colspan="3">Chain 0</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 0</td><td colspan="2">Chain 1</td></tr>
<tr><td rowspan="2"></td><td colspan="3">  </td></tr>
<tr><td>Worst Chain ☐</td><td colspan="2">Worst Chain ☐</td></tr>
<tr><td>☐</td><td>Chain 0</td><td>Chain 1</td><td>Chain 2</td></tr>
<tr><td rowspan="2"></td><td colspan="3">  </td></tr>
<tr><td>Worst Chain ☐</td><td>Worst Chain ☐</td><td>Worst Chain ☐</td></tr>
</table>

5.7. Test Result

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with CDD

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)			Higher Frequency (MHz)			Result
		Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	
36	5180	16.630	16.422	16.996	N/A	N/A	N/A	Pass
44	5220	24.401	24.450	24.471	N/A	N/A	N/A	Pass
48	5240	17.982	18.425	18.696	5248.991	5249.213	5249.348	Pass
149	5745	16.679	16.797	16.609	N/A	N/A	N/A	Pass
157	5785	16.661	16.310	16.663	N/A	N/A	N/A	Pass
165	5825	16.188	16.472	16.612	N/A	N/A	N/A	Pass

The worst case of Occupied Bandwidth in mode 1 as below:

Mode 1 CH44 (5220MHz) Ant 2

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			Result
		Ant0	Ant1	Ant2	
36	5180	22.62	23.58	24.02	Pass
44	5220	24.31	24.58	25.30	Pass
48	5240	23.40	25.01	24.56	Pass
149	5745	21.90	23.11	22.64	Pass
157	5785	22.12	23.21	23.58	Pass
165	5825	22.69	23.08	23.78	Pass
The worst case of Occupied Bandwidth in mode 1 as below:					
Mode 1 CH149 (5745MHz) Ant 0					

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n(20MHz) with CDD

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)			Higher Frequency (MHz)			Result
		Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	
36	5180	18.039	17.860	18.264	N/A	N/A	N/A	Pass
44	5220	23.851	23.930	23.821	N/A	N/A	N/A	Pass
48	5240	18.370	18.681	18.874	5249.185	5249.341	5249.437	Pass
149	5745	17.584	17.791	18.102	N/A	N/A	N/A	Pass
157	5785	17.571	17.802	17.824	N/A	N/A	N/A	Pass
165	5825	17.253	17.767	17.797	N/A	N/A	N/A	Pass

The worst case of Occupied Bandwidth in mode 2 as below:

Mode 2 CH44 (5220MHz) Ant 1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			Result
		Ant0	Ant1	Ant2	
36	5180	22.92	23.52	23.22	Pass
44	5220	24.83	25.88	25.82	Pass
48	5240	24.20	25.20	24.80	Pass
149	5745	23.02	23.89	23.58	Pass
157	5785	23.15	23.89	23.88	Pass
165	5825	23.25	24.02	24.52	Pass
The worst case of Occupied Bandwidth in mode 2 as below:					
Mode 2 CH149(5745MHz) Ant 0					

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(40MHz) with CDD

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)			Higher Frequency (MHz)			Result
		Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	
38	5190	35.666	36.418	35.576	N/A	N/A	N/A	Pass
46	5230	35.395	36.462	35.609	5247.698	5248.231	5247.805	Pass
151	5755	35.387	36.381	35.824	N/A	N/A	N/A	Pass
159	5795	35.668	36.360	36.146	N/A	N/A	N/A	Pass

The worst case of Occupied Bandwidth in mode 3 as below:

Mode 3 CH46 (5230MHz) Ant 1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			Result
		Ant0	Ant1	Ant2	
38	5190	44.35	45.28	45.88	Pass
46	5230	51.32	52.74	53.20	Pass
151	5755	49.01	50.21	51.08	Pass
159	5795	58.62	59.02	59.89	Pass
The worst case of Occupied Bandwidth in mode 3 as below:					
Mode 3 CH38(5190MHz) Ant 0					

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11ac(20MHz) with CDD

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)			Higher Frequency (MHz)			Result
		Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	
36	5180	22.32	22.01	22.23	17.773	17.483	17.733	N/A	N/A	N/A	Pass
44	5220	30.00	30.00	30.00	20.948	20.775	20.556	N/A	N/A	N/A	Pass
48	5240	30.00	30.00	30.00	18.721	18.611	18.360	5249.361	5249.306	5249.18	Pass
149	5745	22.49	22.25	22.18	17.796	17.597	17.764	N/A	N/A	N/A	Pass
157	5785	22.04	21.47	21.70	17.811	17.630	17.541	N/A	N/A	N/A	Pass
165	5825	22.60	22.21	22.53	17.723	17.452	17.847	N/A	N/A	N/A	Pass

The worst case of Occupied Bandwidth in mode 4 as below:

Mode 4 CH44 (5220MHz) Ant 0

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			Result
		Ant0	Ant1	Ant2	
36	5180	23.06	24.05	25.01	Pass
44	5220	24.42	25.02	24.88	Pass
48	5240	23.34	24.30	25.24	Pass
149	5745	23.62	24.70	25.77	Pass
157	5785	22.28	22.89	23.85	Pass
165	5825	23.63	24.70	25.02	Pass
The worst case of Occupied Bandwidth in mode 4 as below:					
Mode 4 CH157(5785MHz) Ant 0					

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 5: Transmit by 802.11ac(40MHz) with CDD

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)			Higher Frequency (MHz)			Result
		Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	
38	5190	43.10	43.49	42.25	35.879	36.505	36.041	N/A	N/A	N/A	Pass
46	5230	47.33	48.55	47.22	36.053	36.458	36.246	5248.027	5248.229	5248.123	Pass
151	5755	44.44	44.88	43.57	35.576	36.423	35.470	N/A	N/A	N/A	Pass
159	5795	51.50	52.44	51.77	35.549	36.586	36.282	N/A	N/A	N/A	Pass

The worst case of Occupied Bandwidth in mode 5 as below:

Mode 5 CH159 (5795MHz) Ant 1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			Result
		Ant0	Ant1	Ant2	
38	5190	43.49	43.89	44.05	Pass
46	5230	70.29	70.88	71.30	Pass
151	5755	69.72	70.21	69.98	Pass
159	5795	77.94	78.44	78.20	Pass
The worst case of Occupied Bandwidth in mode 5 as below:					
Mode 5 CH38(5190MHz) Ant 0					

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 6: Transmit by 802.11ac(80MHz) with CDD

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)			Higher Frequency (MHz)			Result
		Ant0	Ant1	Ant2	Ant0	Ant1	Ant2	
42	5210	75.286	75.165	75.811	5247.643	5247.583	5247.906	Pass
155	5775	90.128	90.032	90.371	N/A	N/A	N/A	Pass

The worst case of Occupied Bandwidth in mode 6 as below:

Mode 6 CH155 (5775MHz) Ant 2

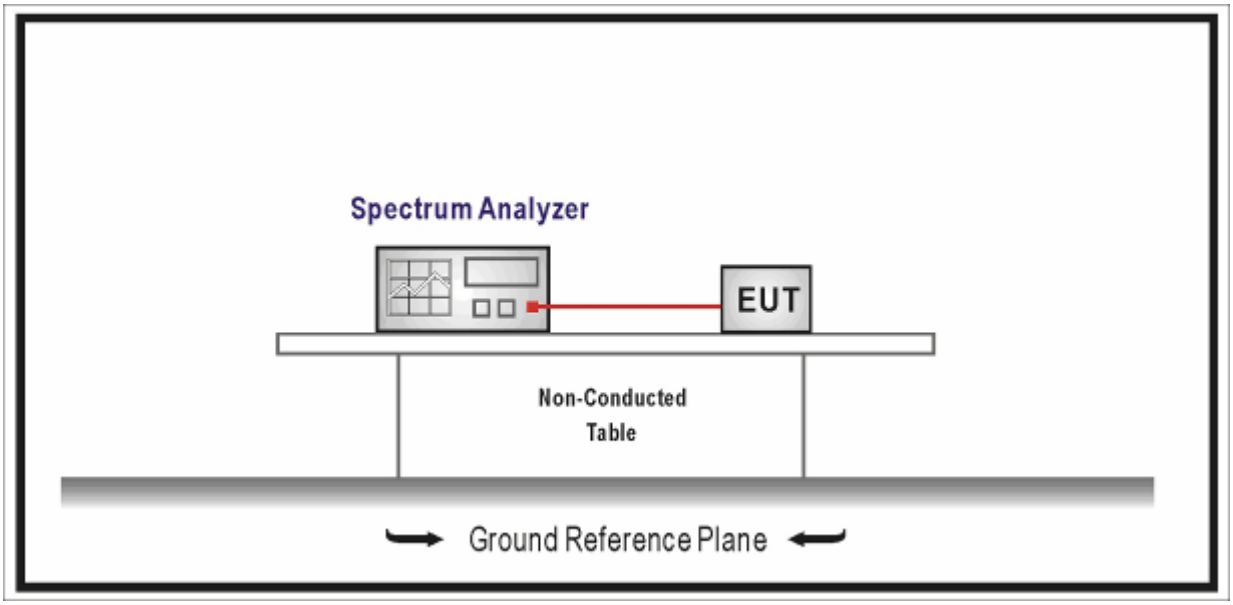
Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			Result
		Ant0	Ant1	Ant2	
42	5210	86.55	87.01	86.79	Pass
155	5775	204.4	205.05	204.89	Pass
The worst case of Occupied Bandwidth in mode 6 as below:					
Mode 6 CH42(5210MHz) Ant 0					

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	2016.03.11	2017.03.10
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

6.2. Test Setup



6.3. Limit

>500kHz

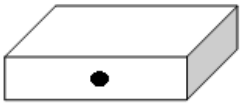
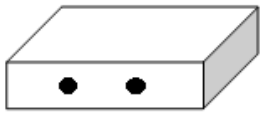
6.4. Test Procedure

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 D02v01r02	C	Bandwidth Measurement
	☐ FCC KDB 789033 D02v01r02	C.1	Emission Bandwidth (26dB)
	☒ FCC KDB 789033 D02v01r02	C.2	Minimum Emission Bandwidth for the band 5.725-5.85 GHz (6dB)
☐	FCC KDB 789033 D02v01r02	D	99 Percent Occupied Bandwidth

6.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

6.6. EUT test Axis definition

Item	Occupied bandwidth			
Device Category	☐	Outdoor AP		
	☒	Indoor AP		
	☐	Fixed point-to-point AP		
	☐	Mobile and Portable Client		
Test mode	Mode 1 ~ Mode 6			
	☒	Conducted		
	☒	Chain 0		
				
	☐	Chain 0	Chain 1	
				
		Worst Chain ☐	Worst Chain ☐	
	☐	Chain 0	Chain 1	Chain 2
				
		Worst Chain ☐	Worst Chain ☐	Worst Chain ☐

6.7. Test Result

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	6dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1~6

Mode	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)			Limit (kHz)	Result
			Ant0	Ant1	Ant2		
1	149	5745	16.80	16.65	16.42	>500	Pass
	157	5785	16.56	16.59	16.46		Pass
	165	5825	16.46	16.51	16.41		Pass
2	149	5745	17.72	17.89	17.65		Pass
	157	5785	17.53	17.65	17.66		Pass
	165	5825	18.33	18.17	17.61		Pass
3	151	5755	36.10	36.40	36.44		Pass
	159	5795	36.73	37.01	36.43		Pass
4	149	5745	18.02	17.98	17.64		Pass
	157	5785	17.73	17.75	17.67		Pass
	165	5825	18.10	17.53	17.61		Pass
5	151	5755	37.04	36.24	36.52		Pass
	159	5795	36.87	36.47	36.37		Pass
6	155	5775	75.47	75.40	75.86		Pass

The worst case of 6dB Bandwidth in CDD mode as below:

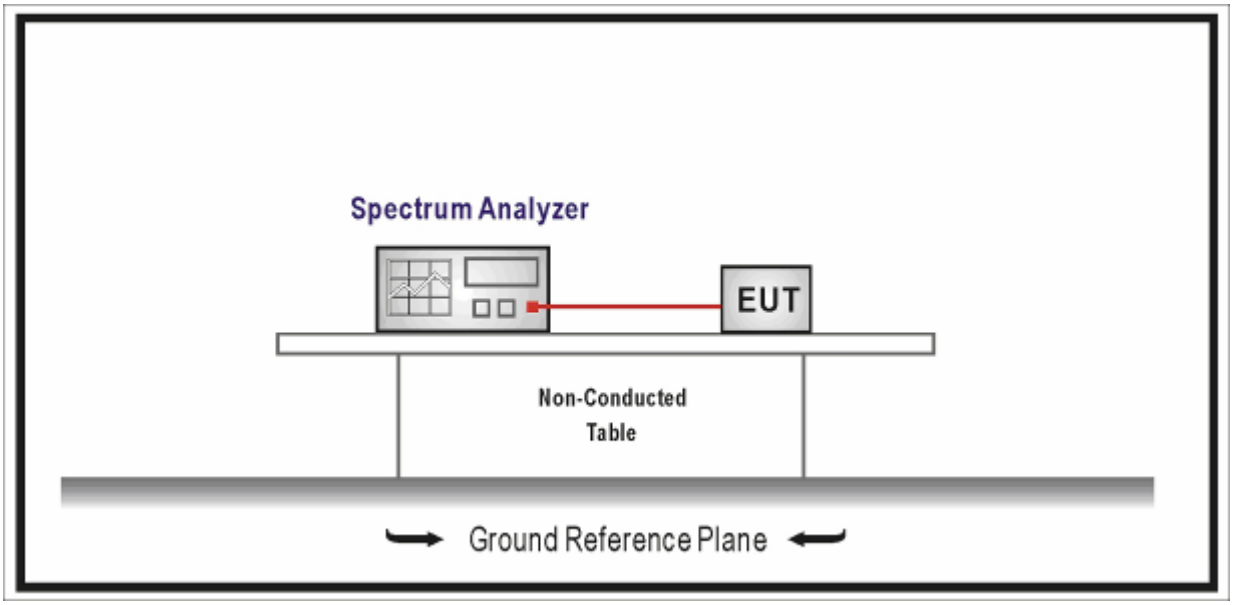
Mode 1 CH165 (5825MHz) Ant 2

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	N9010A	MY48030494	2016.03.11	2017.03.10
Power Sensor	Anritsu	MA2411B	0846014	2016.11.11	2016.11.10
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

7.2. Test Setup



7.3. Limit

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} ＞6dBi, then Pout≤30 - (G_{TX} - 6) and ≤125mW at any angle above 30 degrees
	☒	Indoor access point: the maximum conducted output power shall not exceed 1 W. If G_{TX} ＞6dBi, then Pout≤30 - (G_{TX} - 6)
	☐	Fixed point-to-point access points: the maximum conducted output power shall not exceed 1 W. If G_{TX}＞23dBi, then Pout≤30 - (G_{TX} - 23)
	☐	Mobile and portable client devices: the maximum conducted output power shall not exceed 250mW. If G_{TX}＞6dBi, then Pout≤24 - (G_{TX} - 6)
☐	For the 5.25-5.35 GHz: the maximum conducted output power shall not exceed 250mW or 11dBm+10 Log B, where B is the 26dB emission bandwidth in MHz. If G_{TX} ＞ 6dBi, then Pout ≤ (The lesser of 24 or 11dBm+10 Log B) - (GTX - 6)	
☐	For the 5.47-5.725 GHz: the maximum conducted output power shall not exceed 250mW or 11dBm+10 Log B, where B is the 26dB emission bandwidth in MHz. If G_{TX}＞6dBi, then Pout ≤ (The lesser of 24 or 11dBm+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 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
☐	FCC KDB 789033 D02v01r02			E	Maximum conducted output power
	☐	FCC KDB 789033 D02v01r02		E.2	Measurement using a Spectrum Analyzer or EMI Receiver (SA)
		☐	FCC KDB 789033 D02v01r02	E.2.b	Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep)
		☐	FCC KDB 789033 D02v01r02	E.2.c	Method SA-1 Alternative (RMS detection with slow sweep and EUT transmitting continuously at full power)
		☐	FCC KDB 789033 D02v01r02	E.2.d	Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction)
		☐	FCC KDB 789033 D02v01r02	E.2.e	Method SA-2 Alternative (RMS detection with slow sweep with each spectrum bin averaging across on and off times of the EUT transmissions, followed by duty cycle correction)

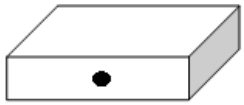
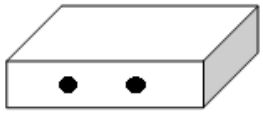
		☐	FCC KDB 789033 D02v01r02	E.2.f	Method SA-3 (RMS detection with max hold)
		☐	FCC KDB 789033 D02v01r02	E.2.g	Method SA-3 Alternative (Reduced VBW with max hold)
	☐	FCC KDB 789033 D02v01r02		E.3	Measurement using a Power Meter (PM)
		☐	FCC KDB 789033 D02v01r02	E.3.a	Method PM (Measurement using an RF average power meter)
		☐	FCC KDB 789033 D02v01r02	E.3.b	Method PM-G (Measurement using a gated RF average power meter)

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. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

7.6. EUT test Axis definition

Item	Power Output	
Device Category	☐	Outdoor AP
	☒	Indoor AP
	☐	Fixed point-to-point AP
	☐	Mobile and Portable Client
Test mode	Mode 1 ~ Mode 6	
	☒	Conducted
	☒	Chain 0
		
	☐	Chain 0 / Chain 1
		
	☐	Chain 0 / Chain 1 / Chain 2
		

7.7. Test Result

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with CDD

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)			Total Power (dBm)	FCC Limit (dBm)	Result
		Ant0	Ant1	Ant2			
36	5180	17.54	19.52	19.72	23.80	30.0	Pass
44	5220	19.64	20.72	20.59	25.11	30.0	Pass
48	5240	19.81	20.65	19.70	24.85	30.0	Pass
149	5745	16.45	18.82	18.05	22.65	30.0	Pass
157	5785	17.12	18.66	18.14	22.79	30.0	Pass
165	5825	18.63	19.94	19.38	24.12	30.0	Pass

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n(20MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)			Total Power (dBm)	FCC Limit (dBm)	Result
		Ant0	Ant1	Ant2			
36	5180	15.84	18.82	18.86	22.82	30.0	Pass
44	5220	20.41	21.06	20.83	25.55	30.0	Pass
48	5240	19.66	20.78	20.32	25.05	30.0	Pass
149	5745	16.41	18.55	18.03	22.53	30.0	Pass
157	5785	17.26	18.83	18.12	22.89	30.0	Pass
165	5825	18.89	19.84	19.01	24.04	30.0	Pass

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(40MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)			Total Power (dBm)	FCC Limit (dBm)	Result
		Ant0	Ant1	Ant2			
38	5190	10.51	12.24	12.47	16.59	30.0	Pass
46	5230	17.21	20.15	20.32	24.21	30.0	Pass
151	5755	18.34	19.86	19.49	24.05	30.0	Pass
159	5795	19.07	20.82	19.57	24.65	30.0	Pass

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11ac(20MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)			Total Power (dBm)	FCC Limit (dBm)	Result
		Ant0	Ant1	Ant2			
36	5180	15.74	18.25	18.98	22.63	30.0	Pass
44	5220	20.37	21.11	20.98	25.60	30.0	Pass
48	5240	19.57	20.87	20.17	25.01	30.0	Pass
149	5745	18.76	19.81	19.17	24.04	30.0	Pass
157	5785	17.36	18.84	18.29	22.98	30.0	Pass
165	5825	18.63	19.57	19.26	23.94	30.0	Pass

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 5: Transmit by 802.11ac(40MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)			Total Power (dBm)	FCC Limit (dBm)	Result
		Ant0	Ant1	Ant2			
38	5190	10.34	12.49	12.55	16.68	30.0	Pass
46	5230	17.68	20.36	20.87	24.62	30.0	Pass
151	5755	18.91	20.75	20.24	24.80	30.0	Pass
159	5795	19.54	21.26	20.51	25.26	30.0	Pass

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 6: Transmit by 802.11ac(80MHz) with CDD

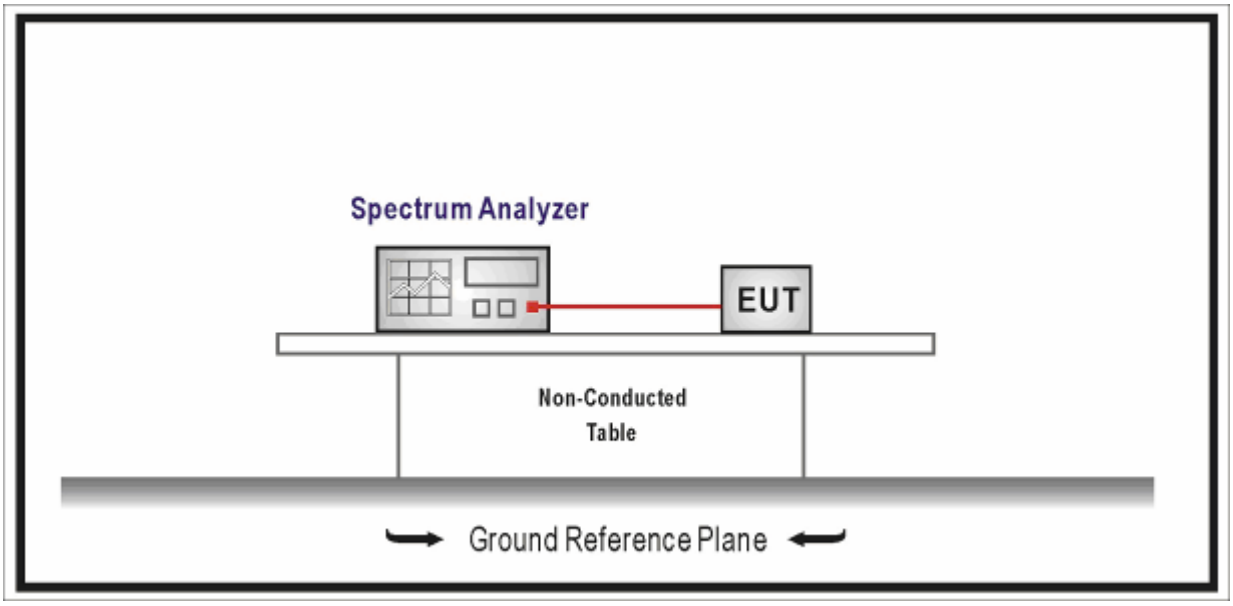
Channel No.	Frequency (MHz)	Measurement Power Output (dBm)			Total Power (dBm)	Duty Factor	FCC Limit (dBm)	Result
		Ant0	Ant1	Ant2				
42	5210	7.01	9.37	9.62	14.40	0.81	30.0	Pass
155	5775	20.45	21.91	21.62	26.95	0.81	30.0	Pass

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	2016.03.11	2017.03.10
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2016.04.10	2017.04.09
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

8.2. Test Setup



8.3. Limit

Fundamental emission output power Limit		
☒	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}＞6dBi, then Pout≤17 - (G_{TX} - 6)
	☒	Indoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If G_{TX}＞6dBi, then Pout≤17 - (G_{TX} - 6)
	☐	Fixed point-to-point access points: the maximum power spectral density shall not exceed 17 dBm/MHz. If G_{TX}＞23dBi, then Pout≤17 - (G_{TX} - 23)
	☐	Mobile and portable client devices: the maximum power spectral density shall not exceed 11 dBm/MHz. If G_{TX}＞6dBi, then Pout≤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}＞6dBi, then Pout≤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}＞6dBi, then Pout≤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}＞6dBi, then Pout≤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

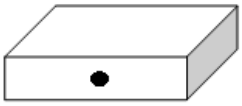
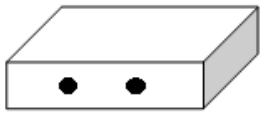
Fundamental emission output power Test Method			
	References Rule	Chapter	Description
☒	ANSI C63.10	12.5	Peak power spectral density
☒	FCC KDB 789033 D02v01r02	F	Maximum Power Spectral Density (PSD)

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. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

8.6. EUT test Axis definition

<table>
<tr><td>Item</td><td colspan="4">Peak power spectral density</td></tr>
<tr><td rowspan="4">Device Category</td><td>☐</td><td colspan="3">Outdoor AP</td></tr>
<tr><td>☒</td><td colspan="3">Indoor AP</td></tr>
<tr><td>☐</td><td colspan="3">Fixed point-to-point AP</td></tr>
<tr><td>☐</td><td colspan="3">Mobile and Portable Client</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1 ~ Mode 6</td></tr>
<tr><td rowspan="9"></td><td>☒</td><td colspan="3">Conducted</td></tr>
<tr><td>☒</td><td colspan="3">Chain 0</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 0</td><td colspan="2">Chain 1</td></tr>
<tr><td rowspan="2"></td><td colspan="3">  </td></tr>
<tr><td>Worst Chain ☐</td><td colspan="2">Worst Chain ☐</td></tr>
<tr><td>☐</td><td>Chain 0</td><td>Chain 1</td><td>Chain 2</td></tr>
<tr><td rowspan="2"></td><td colspan="3">  </td></tr>
<tr><td>Worst Chain ☐</td><td>Worst Chain ☐</td><td>Worst Chain ☐</td></tr>
</table>

8.7. Test Result

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with CDD

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2				
36	5180	7.58	9.05	8.43	0.17	13.34	14.13	Pass
44	5220	8.71	9.43	8.75	0.17	13.92	14.13	Pass
48	5240	8.94	9.59	8.94	0.17	14.11	14.13	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500kHz)			Duty Factor	Total PPSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
		Ant0	Ant1	Ant2				
149	5745	1.83	4.37	3.04	0.17	8.14	27.13	Pass
157	5785	0.14	2.41	1.27	0.17	6.31	27.13	Pass
165	5825	2.47	3.79	2.71	0.17	7.97	27.13	Pass

Test plot example:

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n(20MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2				
36	5180	5.89	7.06	6.82	0.18	11.57	14.13	Pass
44	5220	8.62	9.72	8.91	0.18	14.06	14.13	Pass
48	5240	8.60	9.41	8.90	0.18	13.93	14.13	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500kHz)			Duty Factor	Total PPSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
		Ant0	Ant1	Ant2				
149	5745	0.53	2.77	1.93	0.18	6.79	27.13	Pass
157	5785	0.16	2.00	1.04	0.18	6.08	27.13	Pass
165	5825	1.93	3.07	2.31	0.18	7.41	27.13	Pass

Test plot example:

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(40MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2				
38	5190	-2.36	-1.5	-1.73	0.32	3.24	14.13	Pass
46	5230	4.68	5.69	5.52	0.32	10.41	14.13	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500kHz)			Duty Factor	Total PPSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
		Ant0	Ant1	Ant2				
151	5755	1.23	3.24	2.32	0.32	7.43	27.13	Pass
159	5795	2.28	4.32	3.33	0.32	8.48	27.13	Pass

Test plot example:

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11ac(20MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2				
36	5180	5.91	7.08	6.78	0.17	11.56	14.13	Pass
44	5220	8.5	9.51	8.72	0.17	13.87	14.13	Pass
48	5240	8.54	9.60	9.01	0.17	14.01	14.13	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500kHz)			Duty Factor	Total PPSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
		Ant0	Ant1	Ant2				
149	5745	1.60	3.57	3.19	0.17	7.81	27.13	Pass
157	5785	0.34	2.32	1.32	0.17	6.34	27.13	Pass
165	5825	4.63	5.94	5.44	0.17	10.31	27.13	Pass

Test plot example:

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 5: Transmit by 802.11ac(40MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2				
38	5190	-2.24	-1.47	-1.27	0.32	3.45	14.13	Pass
46	5230	6.1	7.17	6.84	0.32	11.82	14.13	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500kHz)			Duty Factor	Total PPSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
		Ant0	Ant1	Ant2				
151	5755	2.06	4.26	2.97	0.32	8.28	27.13	Pass
159	5795	2.79	4.24	3.96	0.32	8.80	27.13	Pass

Test plot example:

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 6: Transmit by 802.11ac(80MHz) with CDD

Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)			Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2				
42	5210	-8.27	-7.69	-7.51	0.80	-2.24	14.13	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500kHz)			Duty Factor	Total PPSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
		Ant0	Ant1	Ant2				
155	5775	2.09	3.16	3.25	0.80	8.44	27.13	Pass

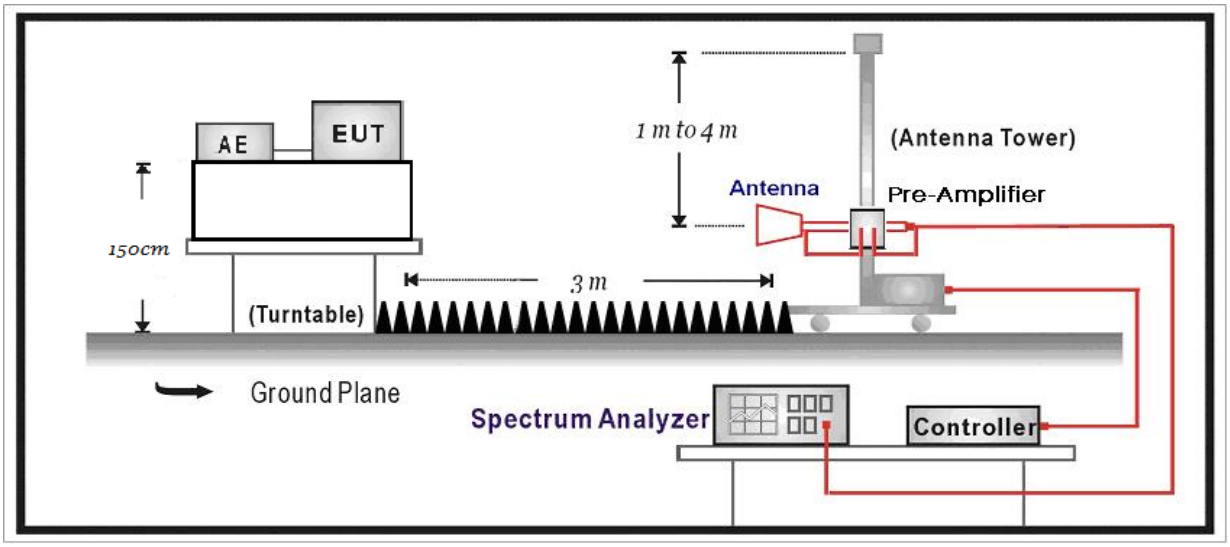
Test plot example:

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
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.11	2017.03.10
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.04	2017.05.03
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.04	2017.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2015.10.16	2016.10.15
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.08	2017.01.07
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.10	2016.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.09	2017.01.08
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

9.2. Test Setup



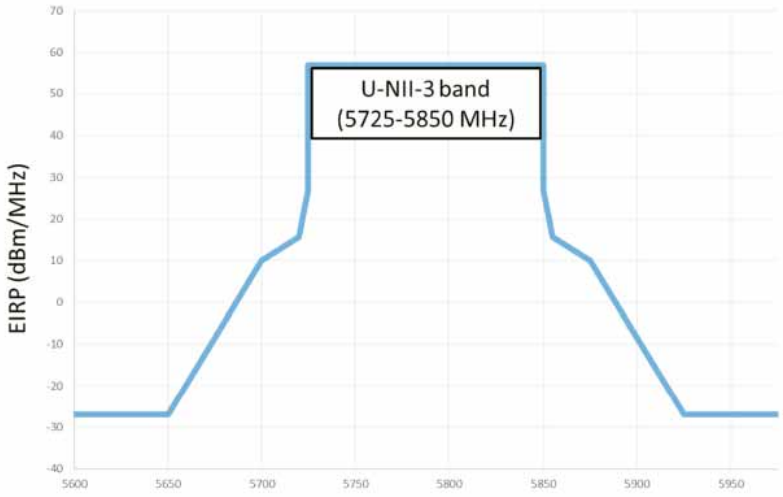
9.3. Limit

FCC Part 15 Subpart C Paragraph 15.209 (Restricted Band Emissions Limit)		
Frequency (MHz)	Distance (m)	Level (dBµV/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
FCC 16-24-A1		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	
5725 - 5825		

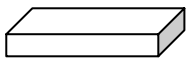
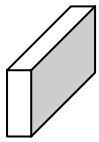
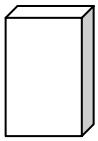
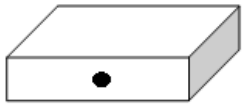
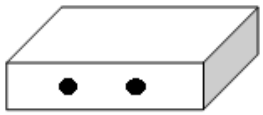
9.4. Test Procedure

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 D02v01r02		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01r02		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01r02	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01r02	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
		☐ FCC KDB 789033 D02v01r02	G.6.c	Method AD (Average detection)—primary method
		☒ FCC KDB 789033 D02v01r02	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

9.5. Uncertainty

The measurement uncertainty above 1GHz is defined as ± 3.9 dB

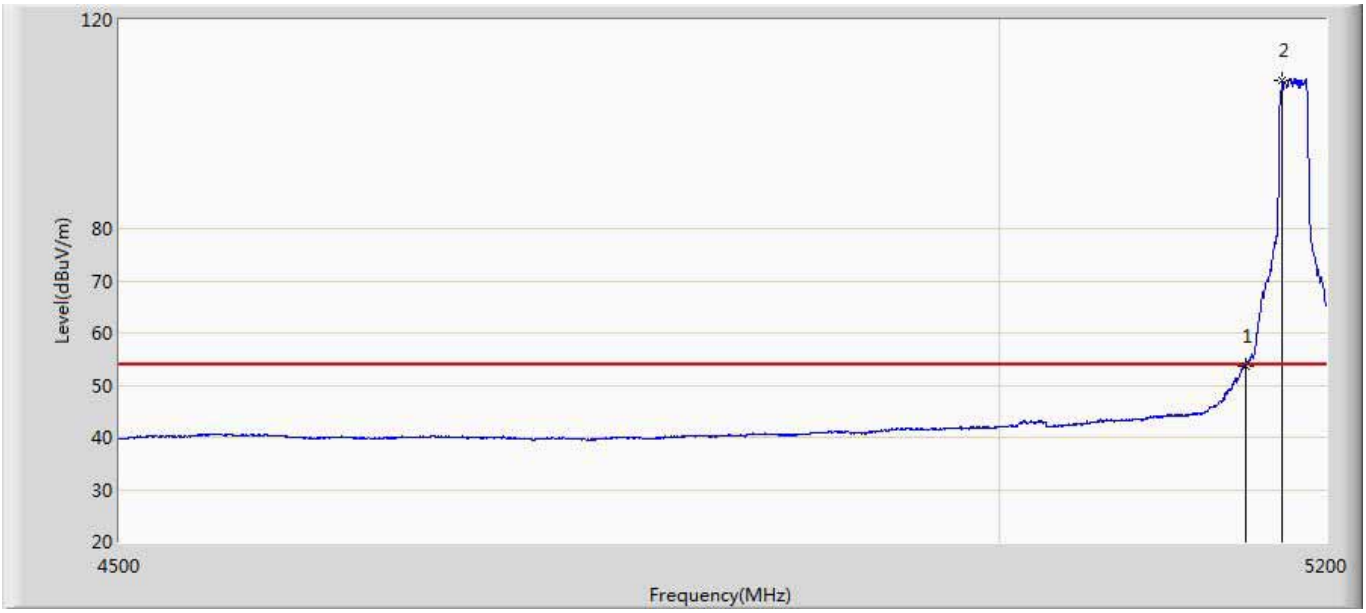
9.6. EUT test Axis definition

<table>
<tr><td>Item</td><td colspan="4">Emissions in non-restricted frequency bands</td></tr>
<tr><td rowspan="4">Device Category</td><td>☐</td><td colspan="3">Outdoor AP</td></tr>
<tr><td>☒</td><td colspan="3">Indoor AP</td></tr>
<tr><td>☐</td><td colspan="3">Fixed point-to-point AP</td></tr>
<tr><td>☐</td><td colspan="3">Mobile and Portable Client</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1-6</td></tr>
<tr><td rowspan="11">Test method</td><td>☒</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Worst Axis ☐</td><td>Worst Axis ☒</td><td>Worst Axis ☐</td></tr>
<tr><td>☐</td><td colspan="3">Conducted</td></tr>
<tr><td>☐</td><td colspan="3">Chain 0</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 0</td><td colspan="2">Chain 1</td></tr>
<tr><td rowspan="2"></td><td colspan="3">  </td></tr>
<tr><td>Worst Chain ☐</td><td colspan="2">Worst Chain ☐</td></tr>
<tr><td>☐</td><td>Chain 0</td><td>Chain 1</td><td>Chain 2</td></tr>
</table>

				
		Worst Chain ☐	Worst Chain ☐	Worst Chain ☐

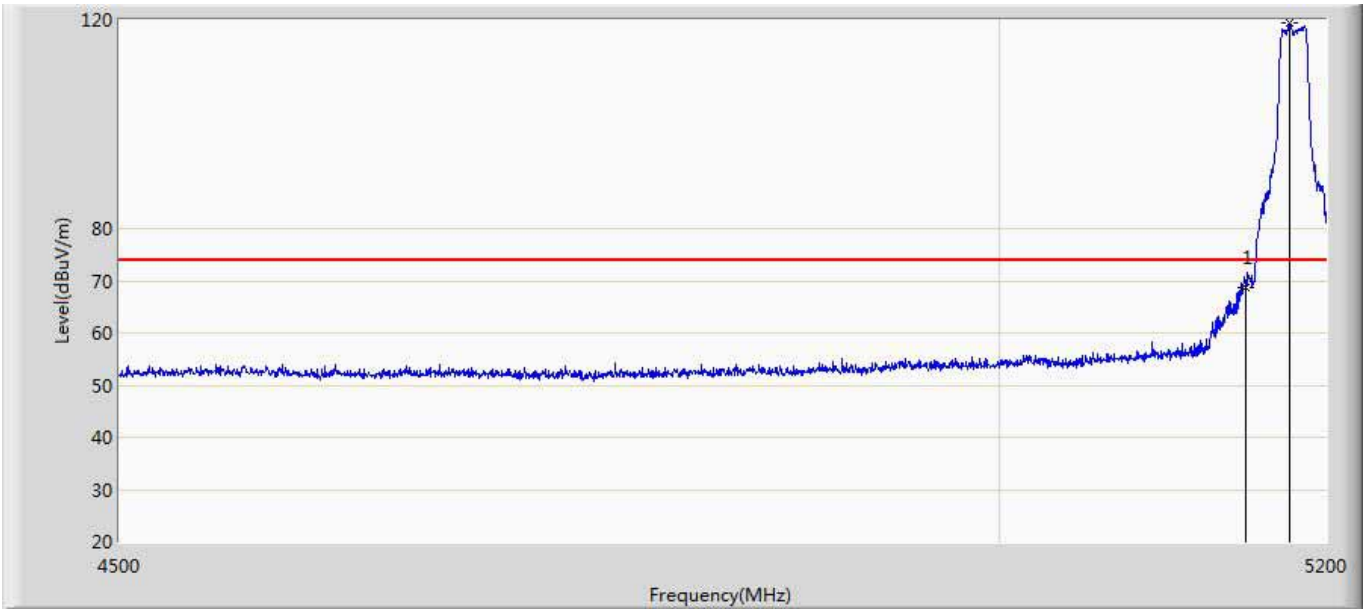
9.7. Test Result

Profile: 1612064R-C7	Page No.: 29
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 14:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5180Mhz by 802.11a	



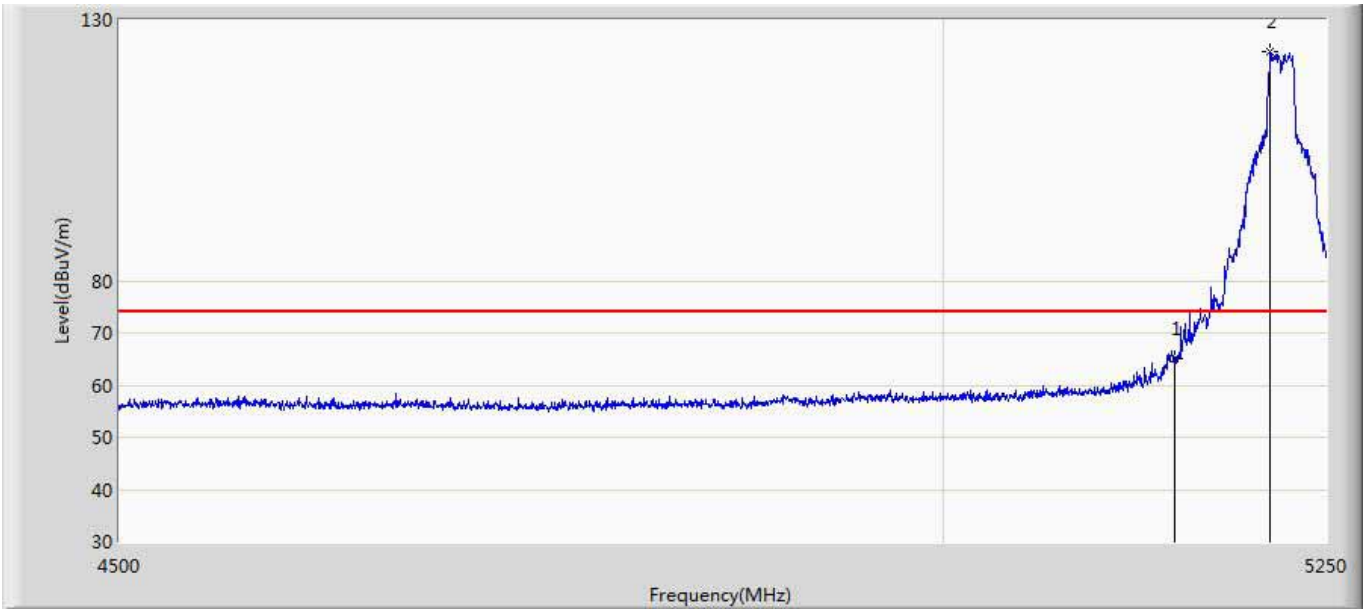
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.749	11.734	-0.251	54.000	42.015	AV
2	*	5173.050	108.461	66.316	54.461	54.000	42.145	AV

Profile: 1612064R-C7	Page No.: 30
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 14:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5180Mhz by 802.11a	



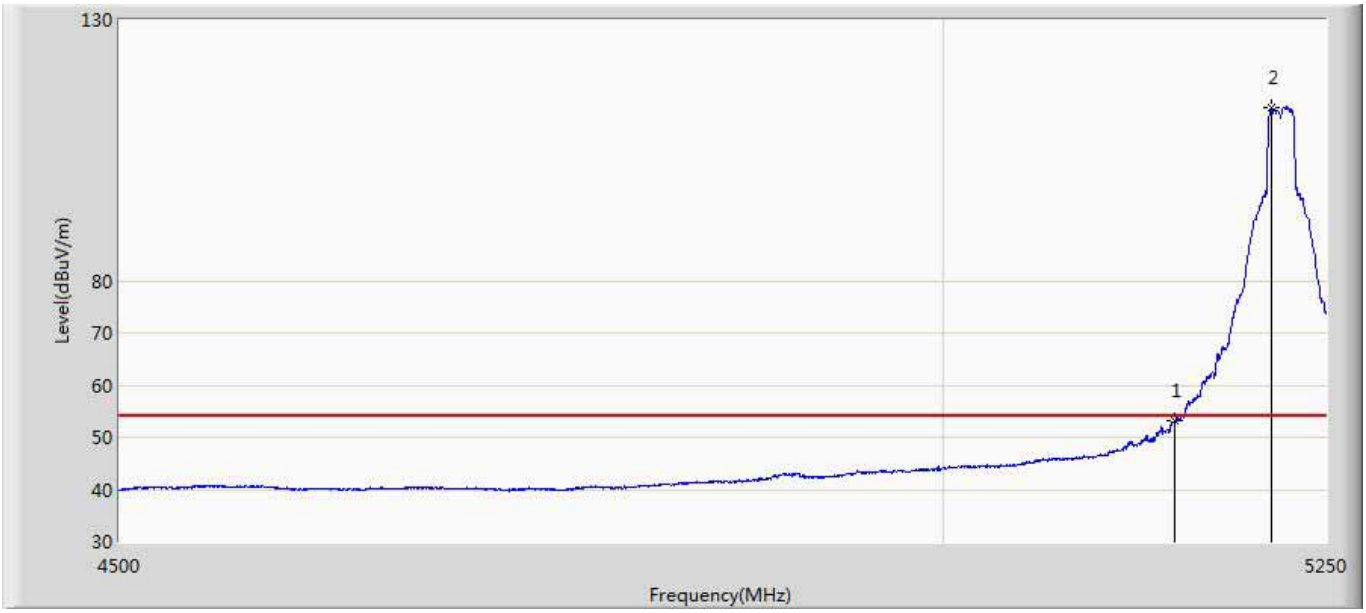
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	68.761	26.746	-5.239	74.000	42.015	PK
2	*	5177.250	119.377	77.232	45.377	74.000	42.145	PK

Profile: 1612064R-C7	Page No.: 31
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 14:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5220Mhz by 802.11a	



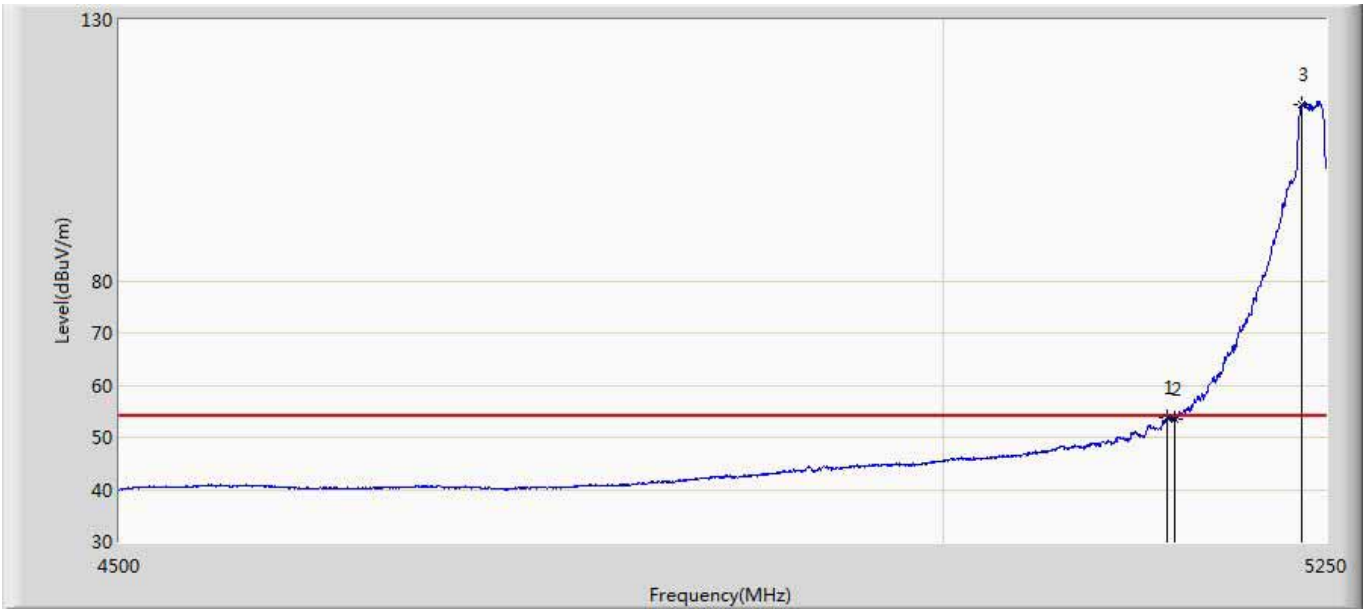
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	65.009	22.994	-8.991	74.000	42.015	PK
2	*	5212.875	123.879	81.886	49.879	74.000	41.993	PK

Profile: 1612064R-C7	Page No.: 32
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 14:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5220Mhz by 802.11a	



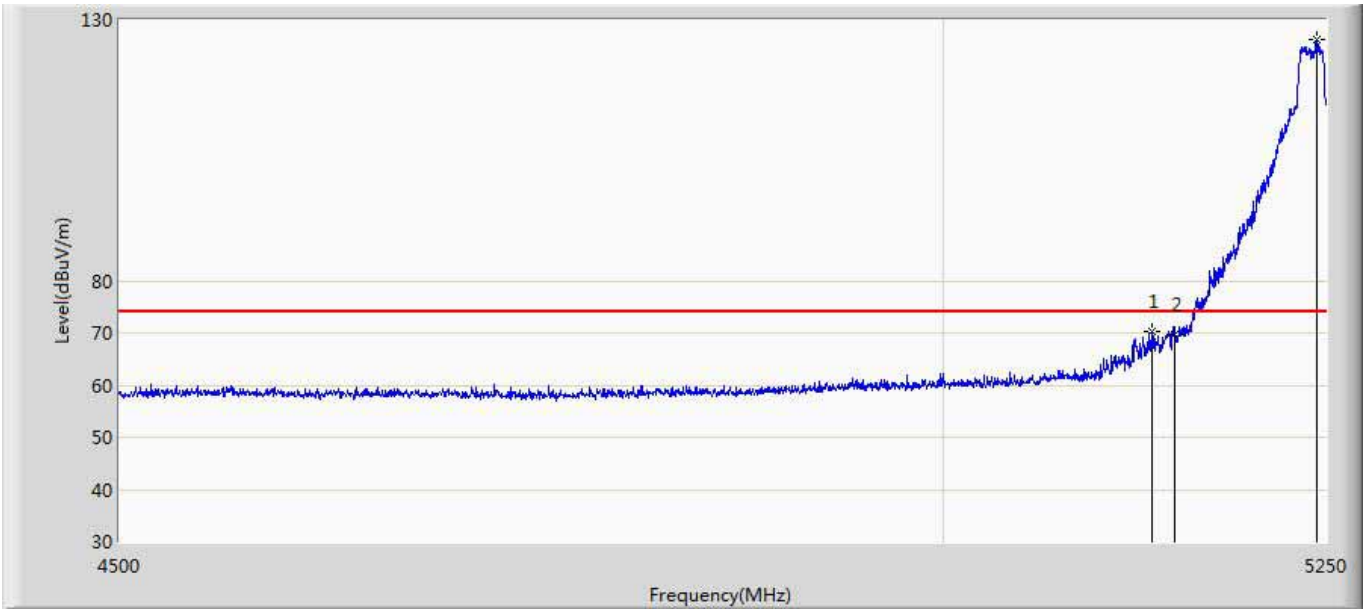
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.226	11.211	-0.774	54.000	42.015	AV
2	*	5213.625	113.203	71.213	59.203	54.000	41.991	AV

Profile: 1612064R-C7	Page No.: 33
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 14:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5240Mhz by 802.11a	



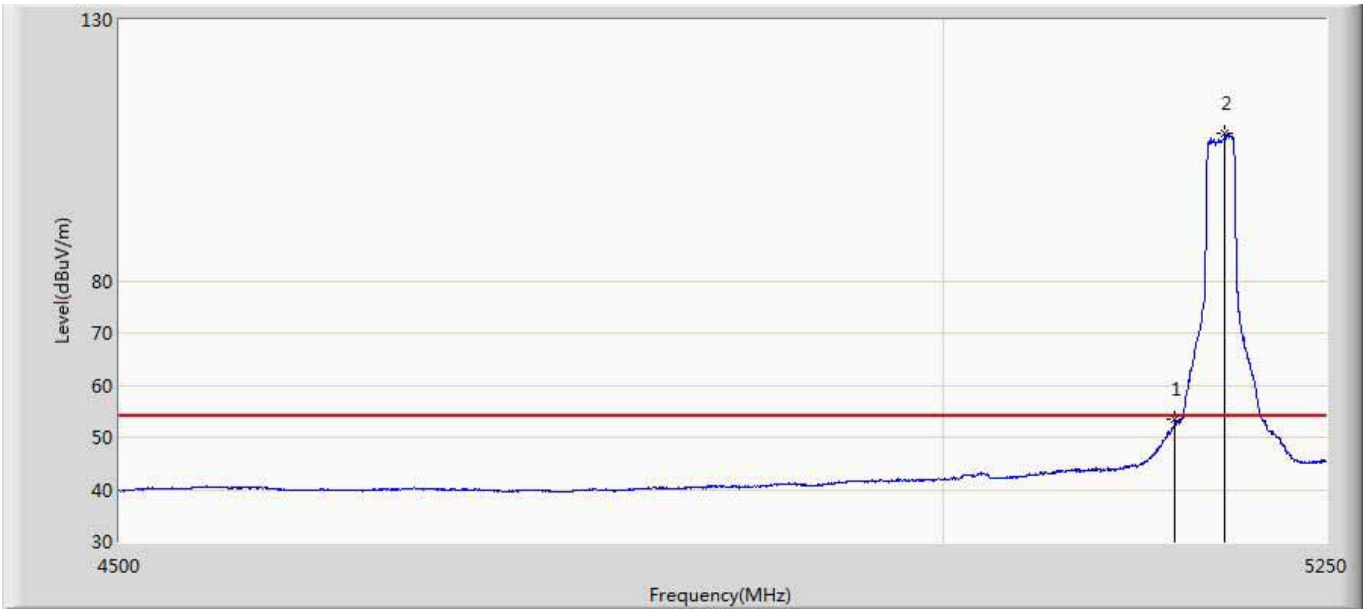
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5144.250	53.755	11.702	-0.245	54.000	42.052	AV
2		5150.000	53.412	11.397	-0.588	54.000	42.015	AV
3	*	5233.875	113.895	71.824	59.895	54.000	42.071	AV

Profile: 1612064R-C7	Page No.: 34
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 14:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5240Mhz by 802.11a	



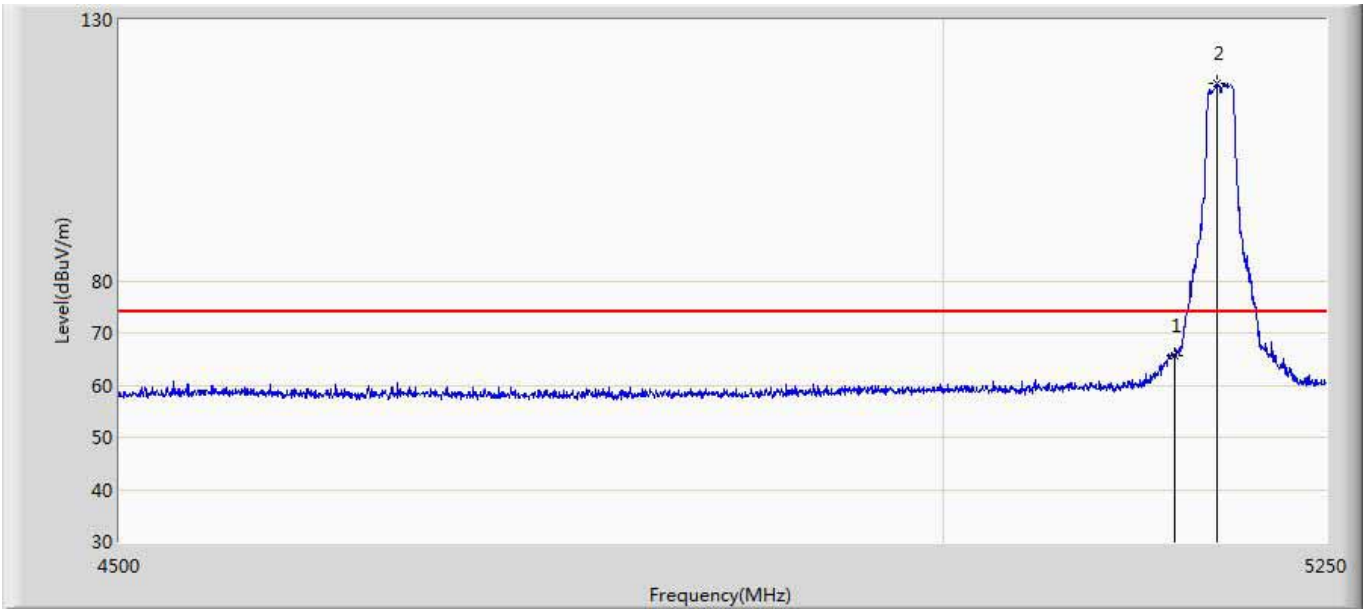
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5134.875	70.236	28.046	-3.764	74.000	42.190	PK
2		5150.000	69.594	27.579	-4.406	74.000	42.015	PK
3	*	5243.625	126.148	83.981	52.148	74.000	42.168	PK

Profile: 1612064R-C7	Page No.: 35
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5180Mhz by 802.11n20	



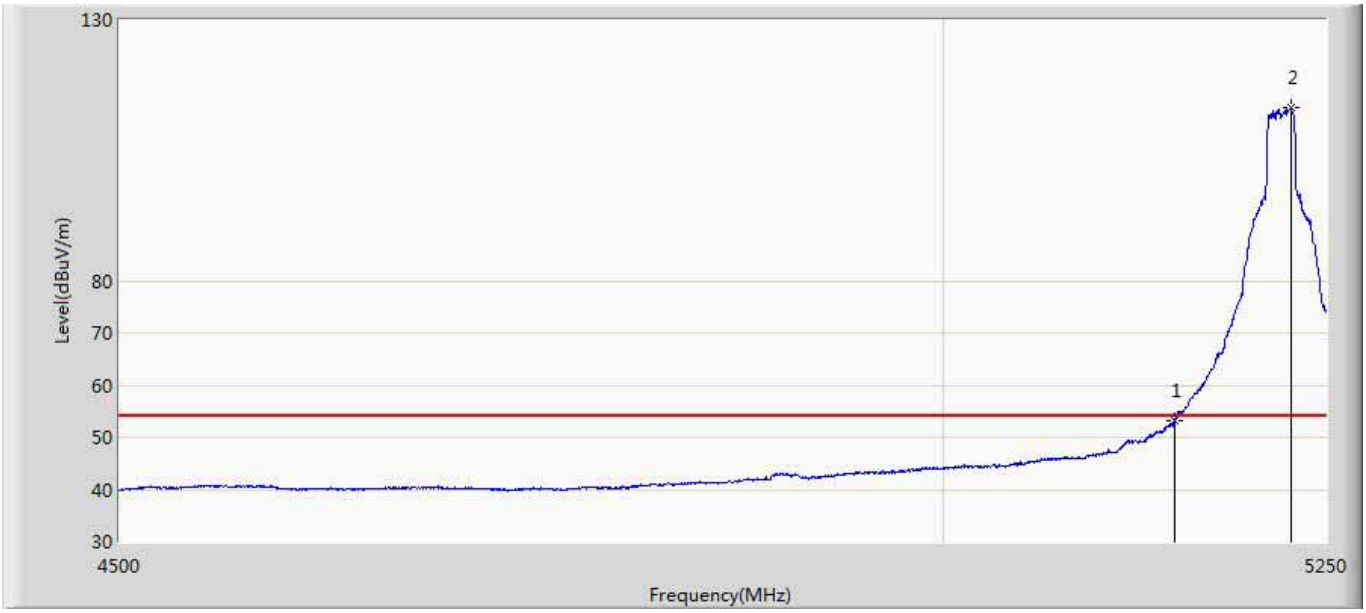
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.425	11.410	-0.575	54.000	42.015	AV
2	*	5182.875	108.177	66.037	54.177	54.000	42.140	AV

Profile: 1612064R-C7	Page No.: 36
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5180Mhz by 802.11n20	



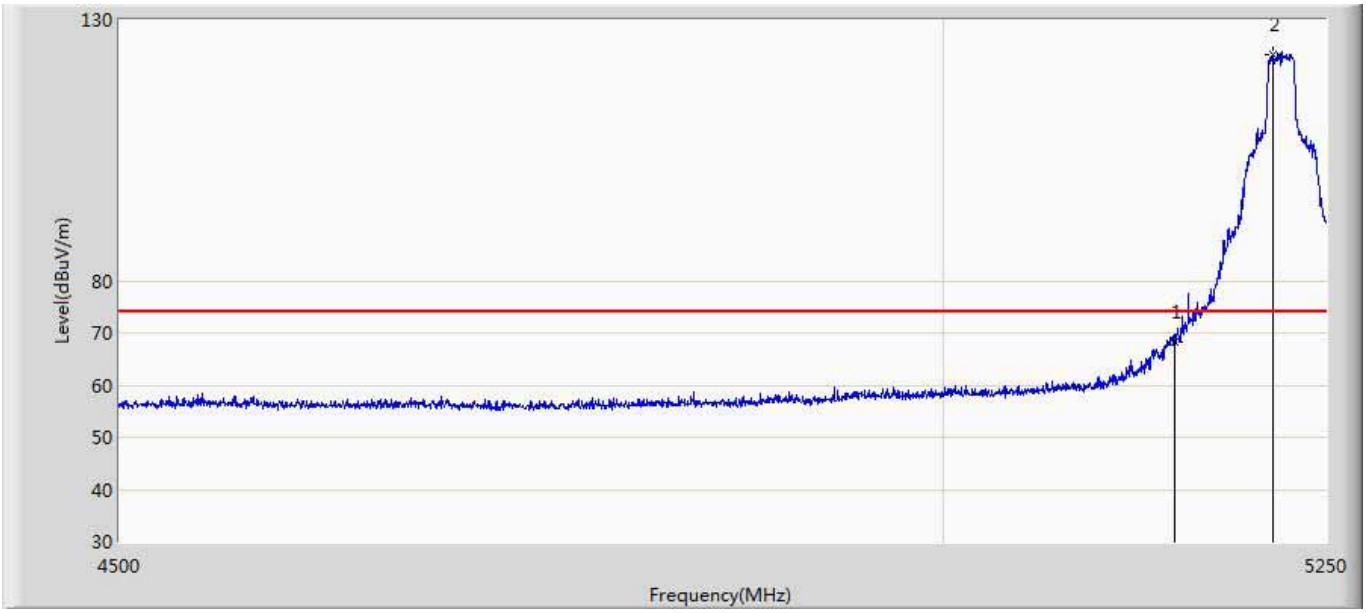
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	65.557	23.542	-8.443	74.000	42.015	PK
2	*	5177.625	117.854	75.709	43.854	74.000	42.146	PK

Profile: 1612064R-C7	Page No.: 37
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5220Mhz by 802.11n20	



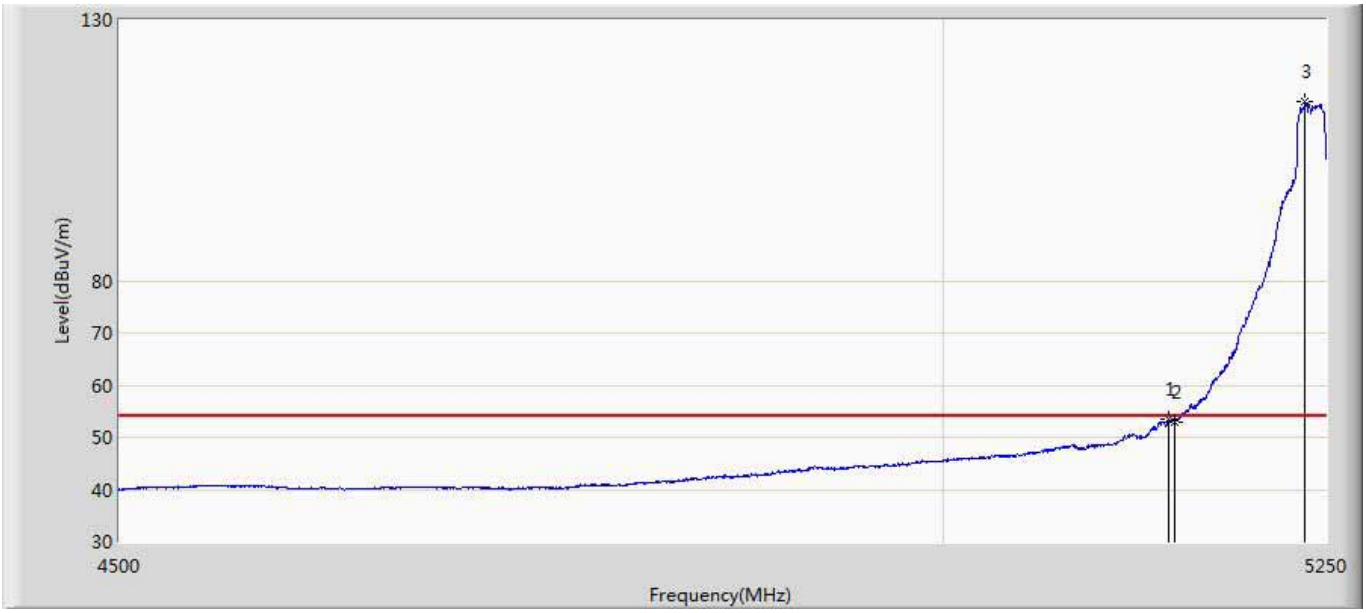
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.322	11.307	-0.678	54.000	42.015	AV
2	*	5226.375	113.125	71.094	59.125	54.000	42.031	AV

Profile: 1612064R-C7	Page No.: 38
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5220Mhz by 802.11n20	



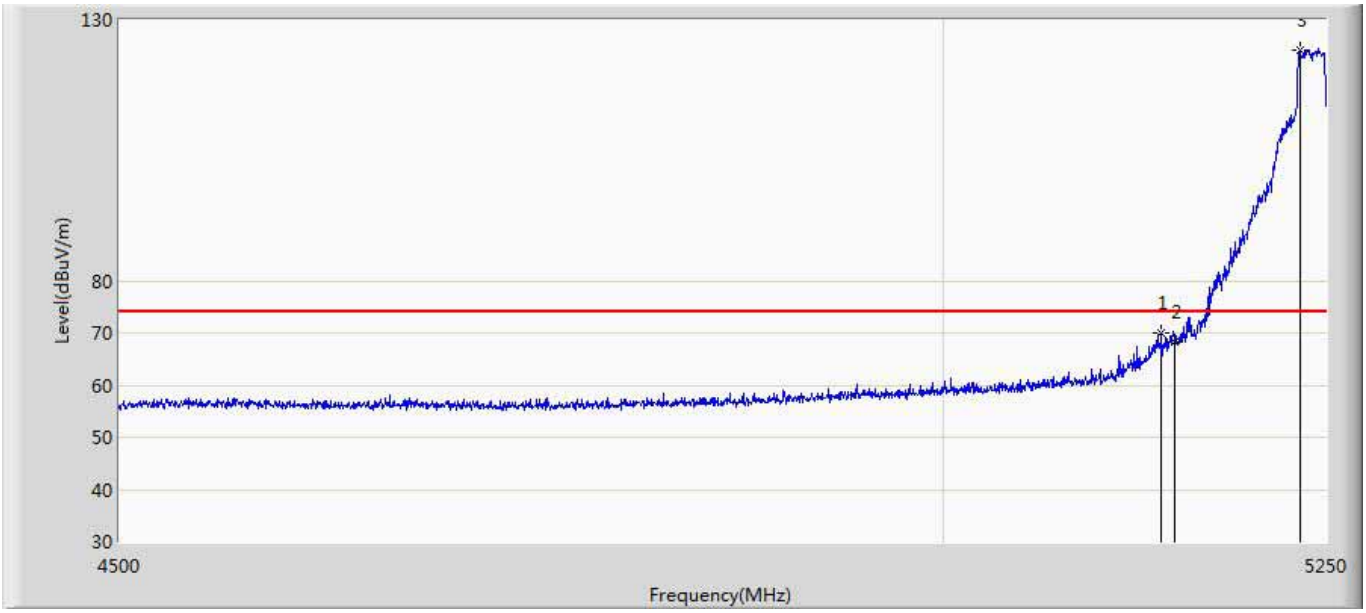
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	68.133	26.118	-5.867	74.000	42.015	PK
2	*	5214.375	123.471	81.483	49.471	74.000	41.987	PK

Profile: 1612064R-C7	Page No.: 39
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5240Mhz by 802.11n20	



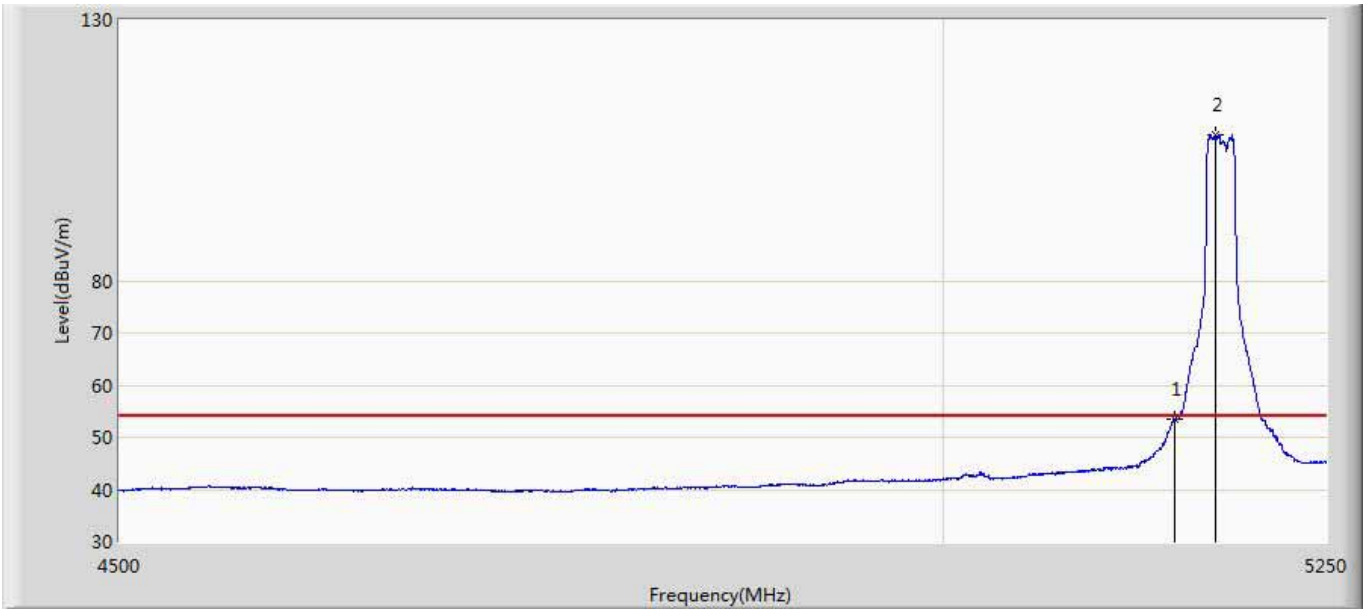
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5145.375	53.480	11.444	-0.520	54.000	42.036	AV
2		5150.000	52.850	10.835	-1.150	54.000	42.015	AV
3	*	5236.125	114.394	72.301	60.394	54.000	42.093	AV

Profile: 1612064R-C7	Page No.: 40
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5240Mhz by 802.11n20	



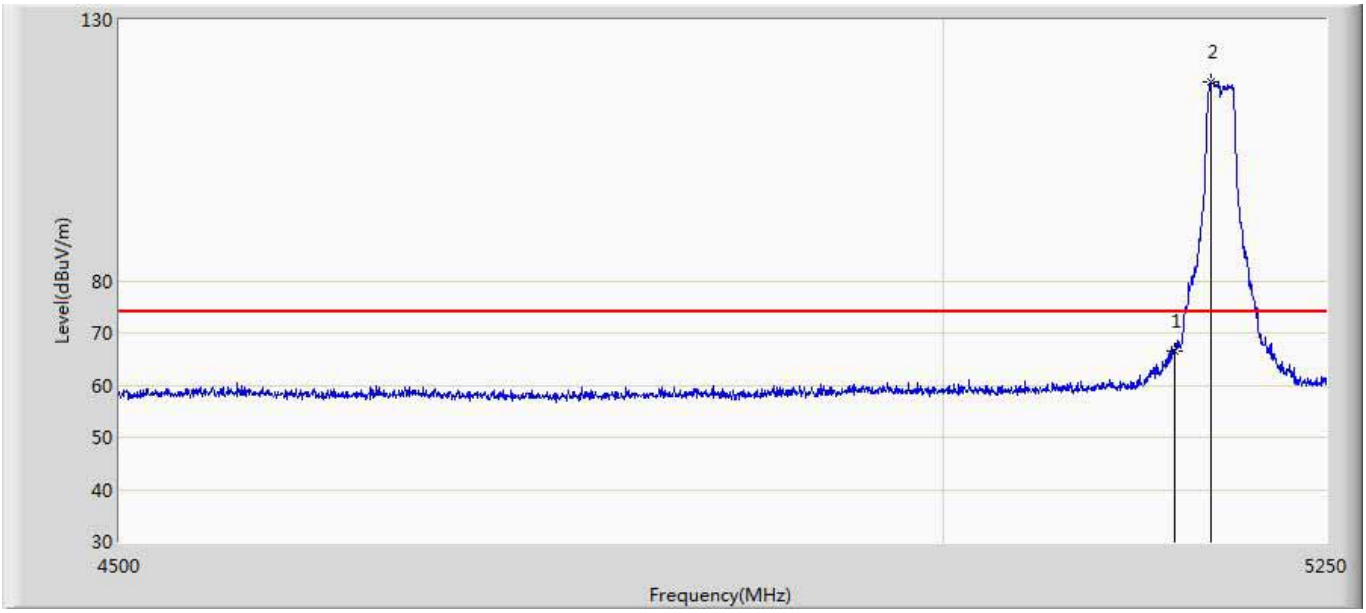
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5140.500	70.005	27.897	-3.995	74.000	42.108	PK
2		5150.000	68.336	26.321	-5.664	74.000	42.015	PK
3	*	5232.375	124.103	82.043	50.103	74.000	42.059	PK

Profile: 1612064R-C7	Page No.: 41
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5180Mhz by 802.11ac20	



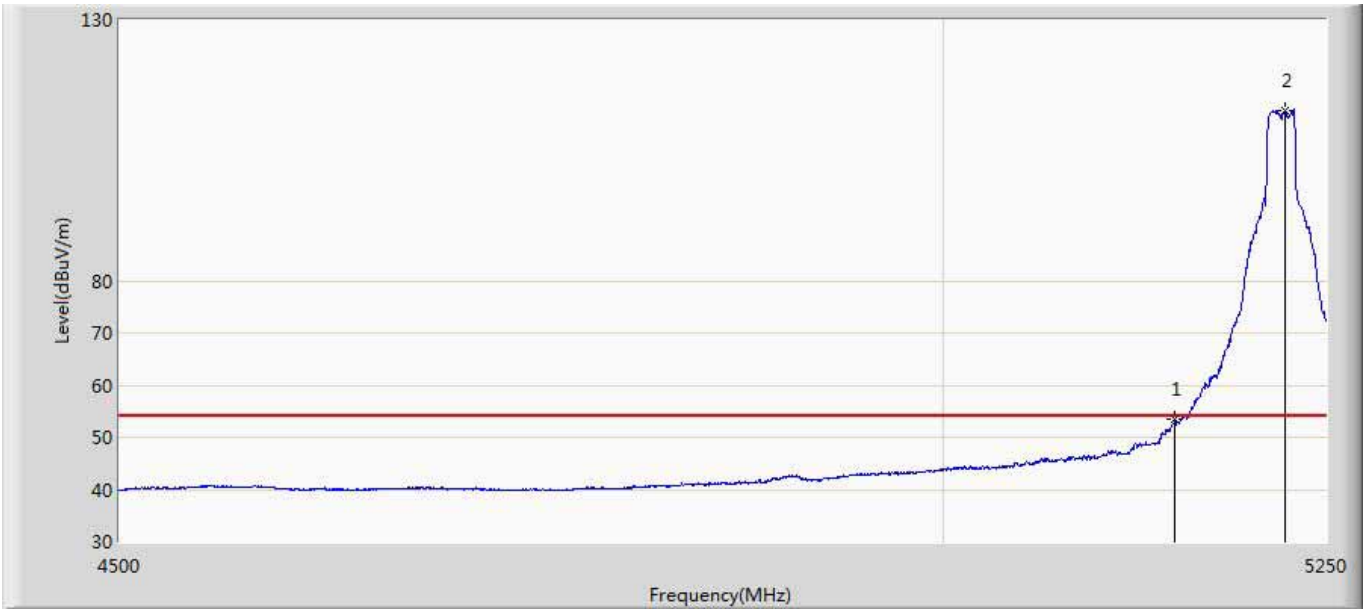
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.408	11.393	-0.592	54.000	42.015	AV
2	*	5176.125	108.001	65.856	54.001	54.000	42.145	AV

Profile: 1612064R-C7	Page No.: 42
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5180Mhz by 802.11ac20	



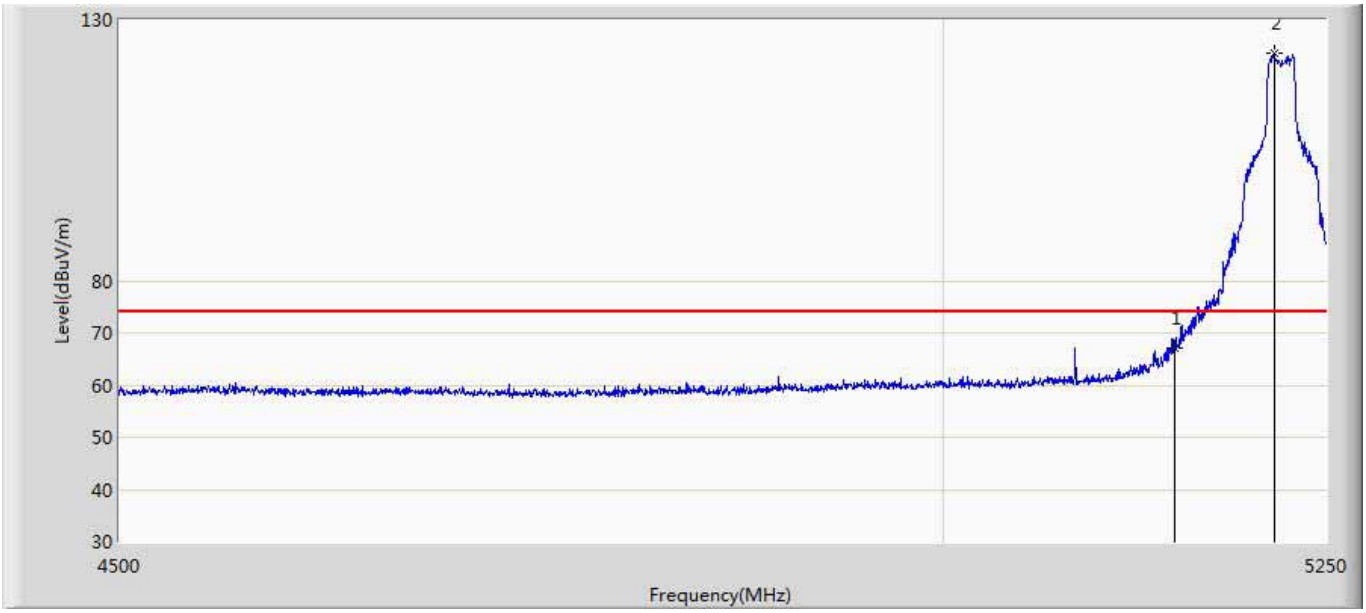
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	66.389	24.374	-7.611	74.000	42.015	PK
2	*	5173.500	118.052	75.907	44.052	74.000	42.146	PK

Profile: 1612064R-C7	Page No.: 43
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5220Mhz by 802.11ac20	



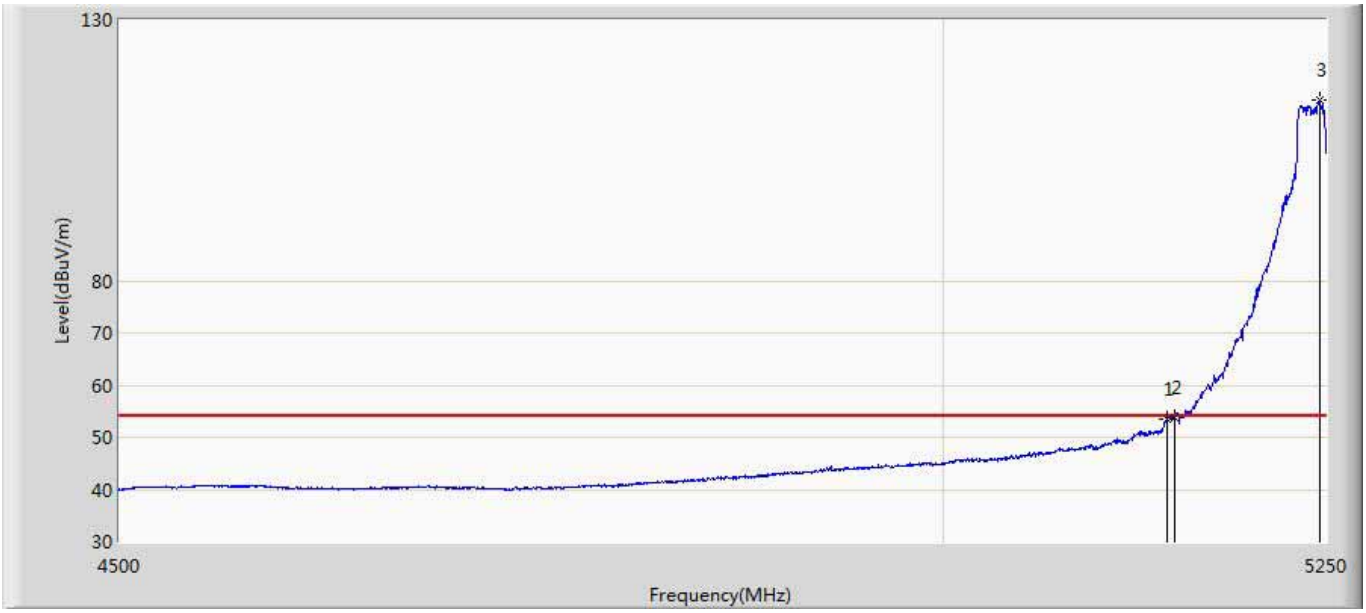
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.438	11.423	-0.562	54.000	42.015	AV
2	*	5222.250	112.565	70.553	58.565	54.000	42.012	AV

Profile: 1612064R-C7	Page No.: 44
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5220Mhz by 802.11ac20	



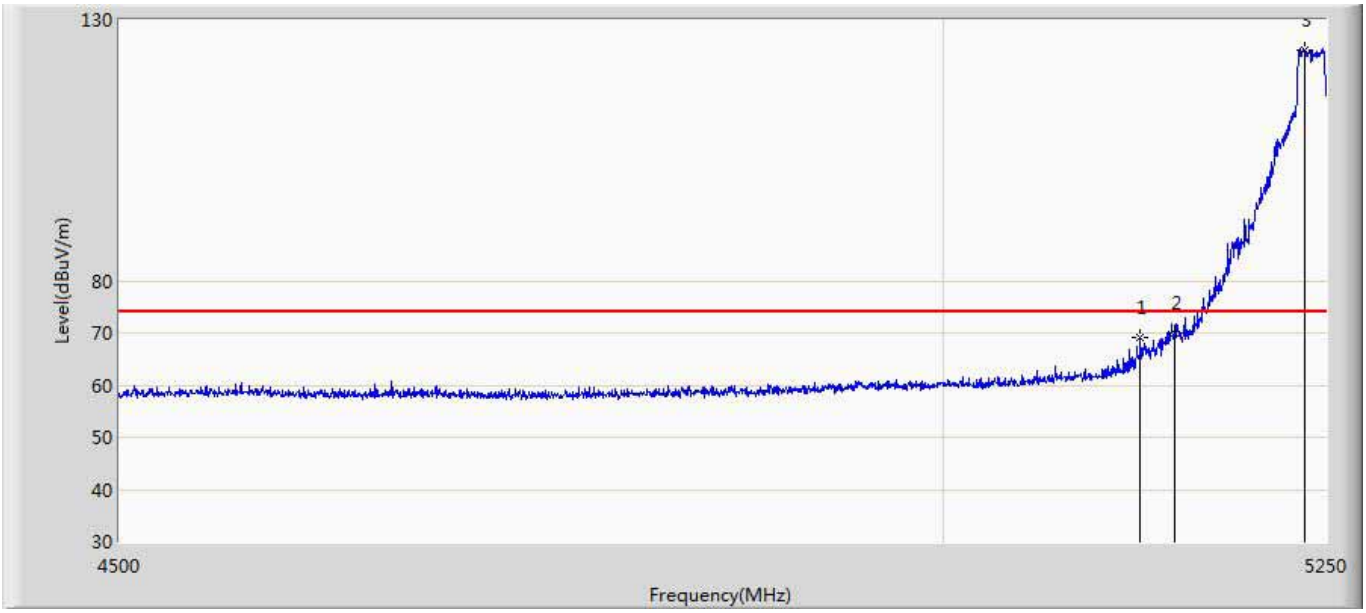
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	67.209	25.194	-6.791	74.000	42.015	PK
2	*	5215.500	123.485	81.501	49.485	74.000	41.984	PK

Profile: 1612064R-C7	Page No.: 45
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5240Mhz by 802.11ac20	



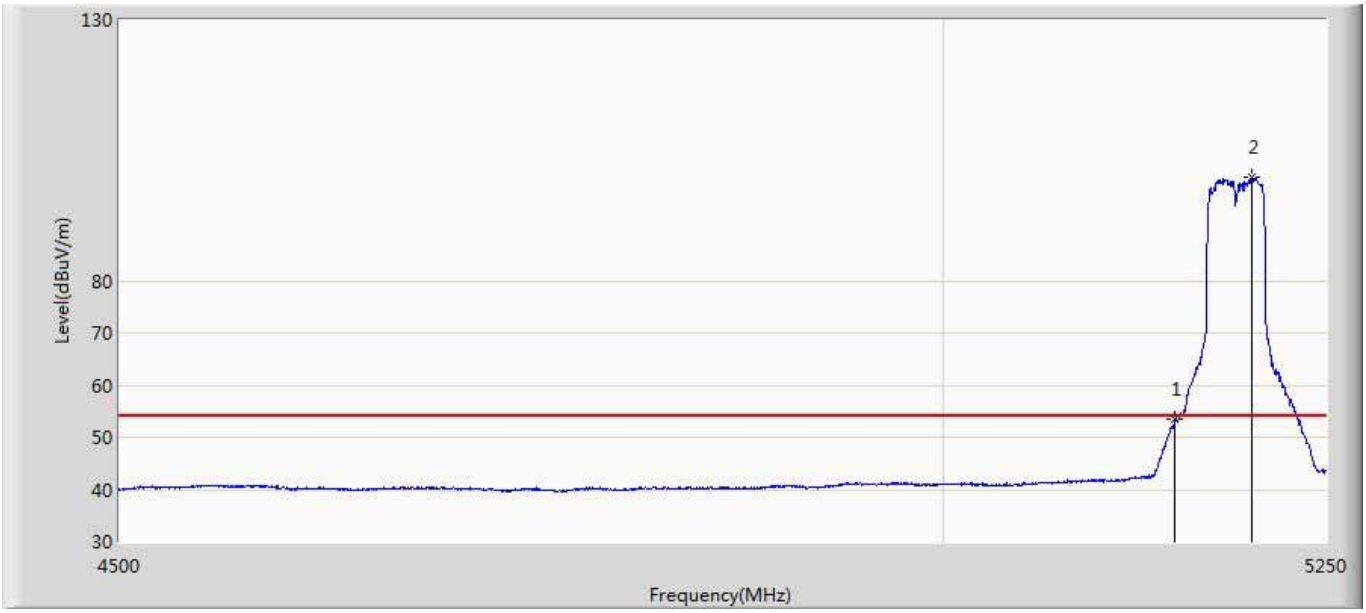
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5144.250	53.484	11.431	-0.516	54.000	42.052	AV
2		5150.000	53.871	11.856	-0.129	54.000	42.015	AV
3	*	5246.250	114.516	72.323	60.516	54.000	42.193	AV

Profile: 1612064R-C7	Page No.: 46
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5240Mhz by 802.11ac20	



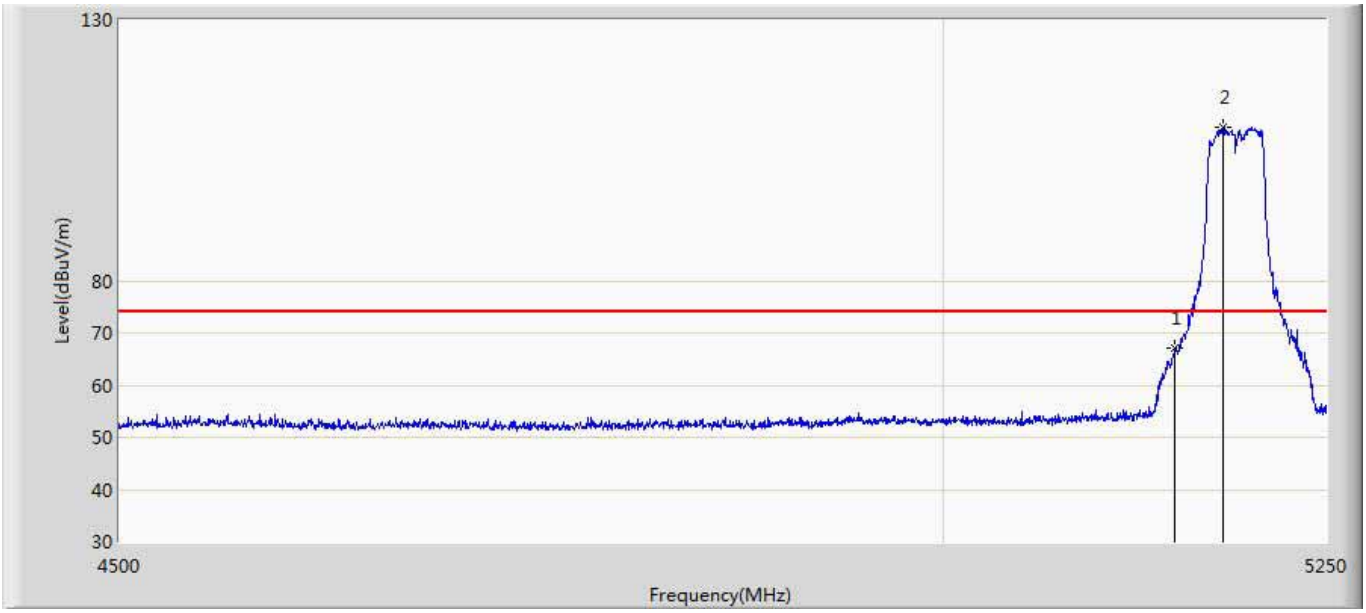
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5126.625	69.243	27.048	-4.757	74.000	42.195	PK
2		5150.000	69.864	27.849	-4.136	74.000	42.015	PK
3	*	5236.125	124.266	82.173	50.266	74.000	42.093	PK

Profile: 1612064R-C7	Page No.: 47
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 15:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5190Mhz by 802.11n40	



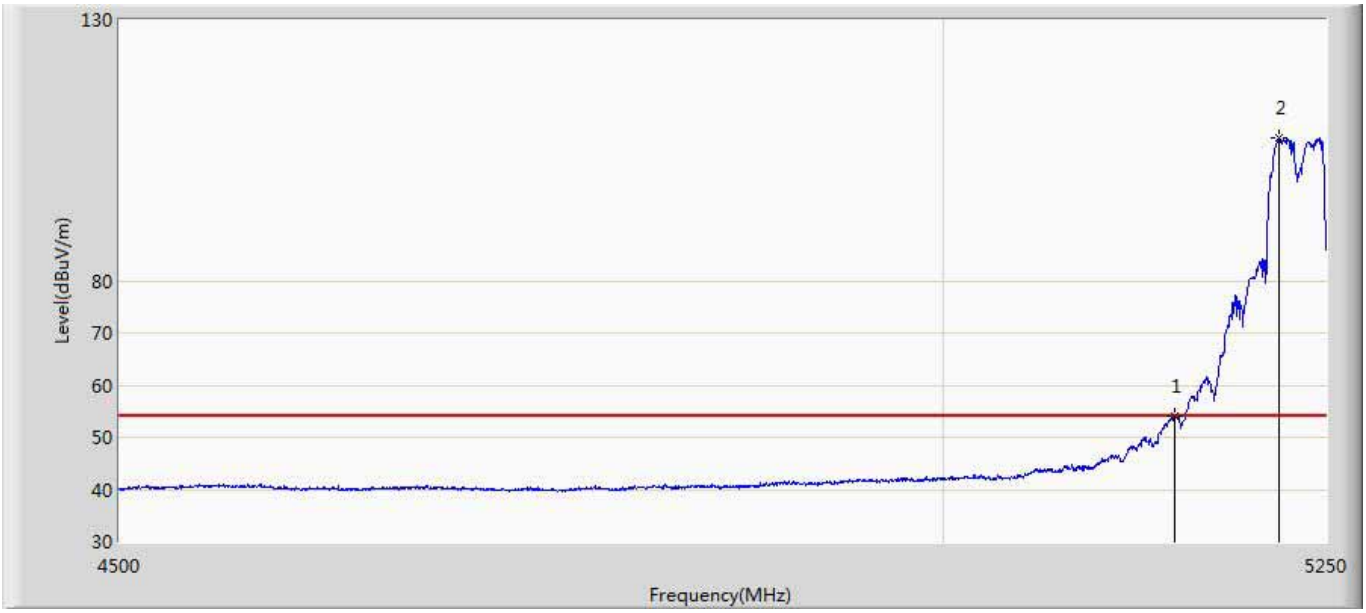
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.368	11.353	-0.632	54.000	42.015	AV
2	*	5200.875	99.913	57.883	45.913	54.000	42.031	AV

Profile: 1612064R-C7	Page No.: 48
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5190Mhz by 802.11n40	



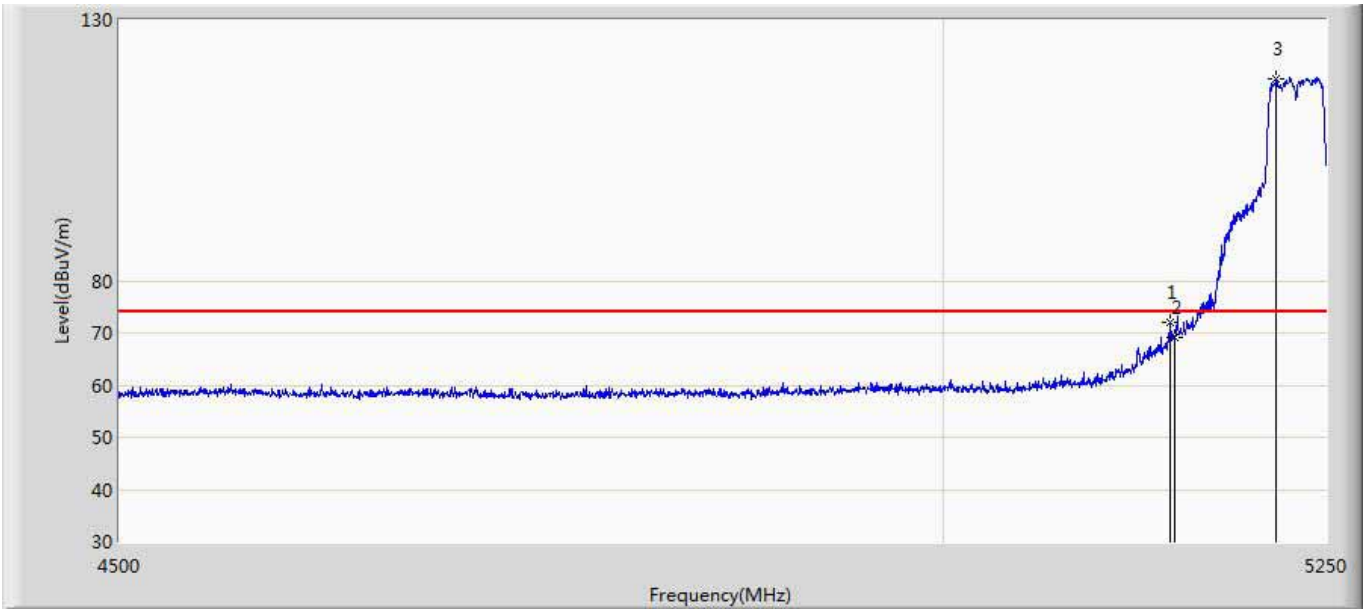
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	66.965	24.950	-7.035	74.000	42.015	PK
2	*	5181.375	109.548	67.403	35.548	74.000	42.145	PK

Profile: 1612064R-C7	Page No.: 49
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5230Mhz by 802.11n40	



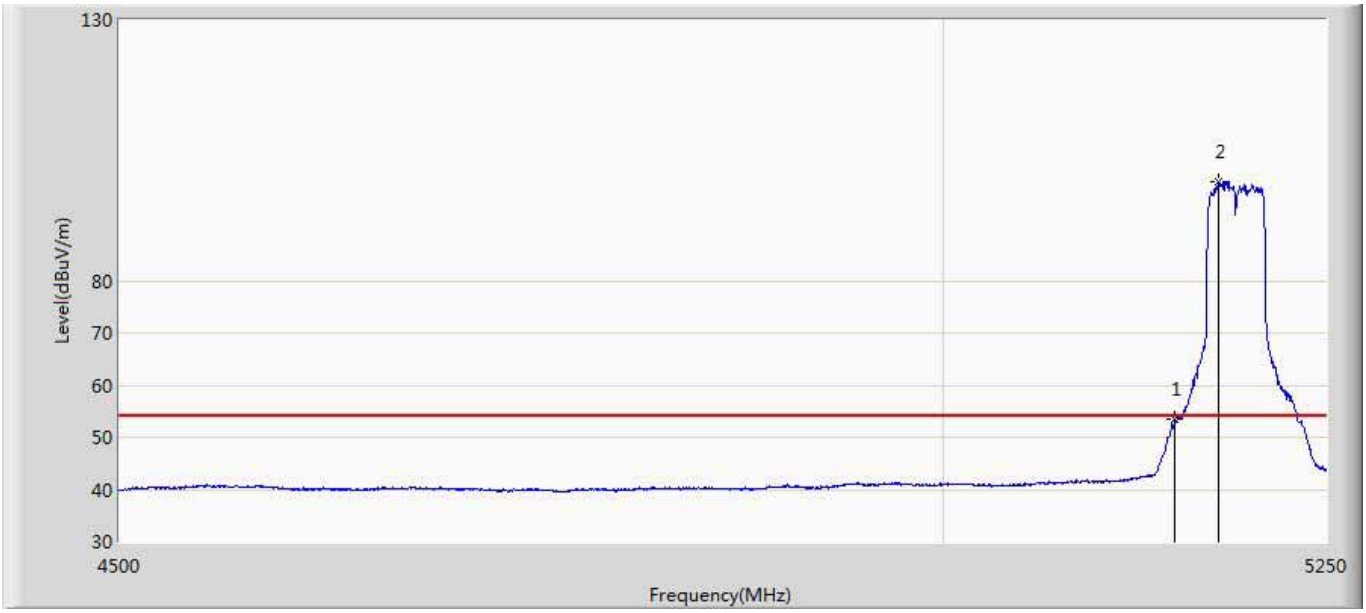
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.951	11.936	-0.049	54.000	42.015	AV
2	*	5218.500	107.369	65.375	53.369	54.000	41.994	AV

Profile: 1612064R-C7	Page No.: 50
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5230Mhz by 802.11n40	



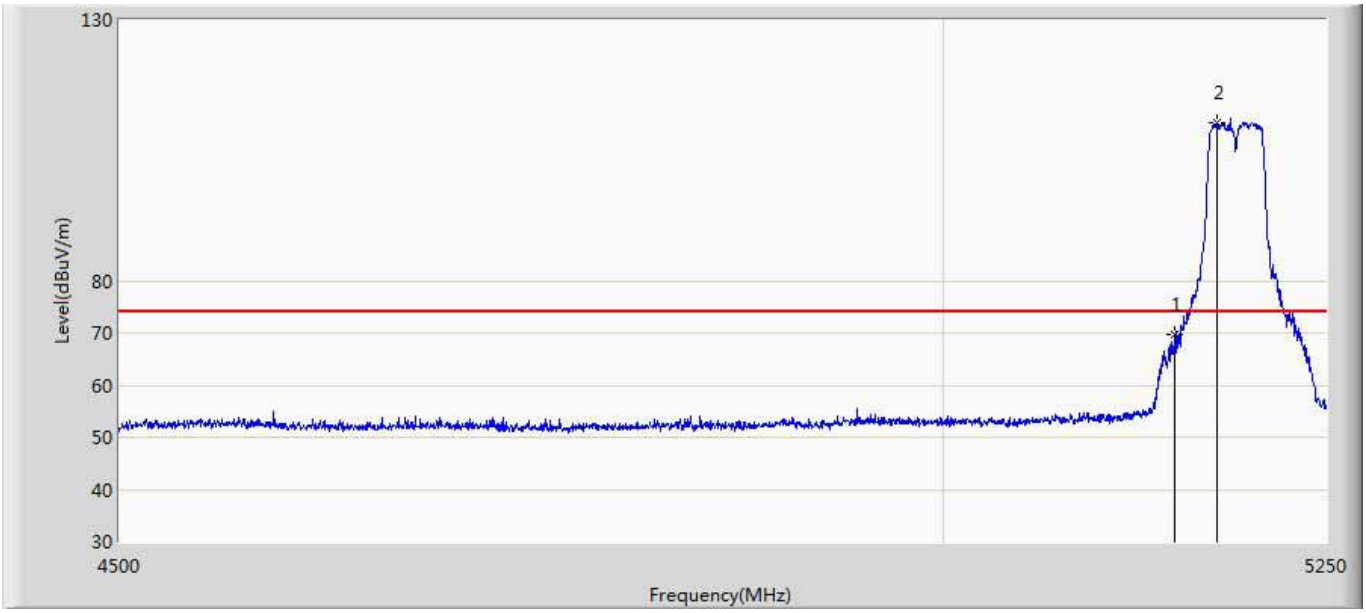
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5146.500	71.992	29.972	-2.008	74.000	42.020	PK
2		5150.000	69.099	27.084	-4.901	74.000	42.015	PK
3	*	5217.000	118.757	76.770	44.757	74.000	41.987	PK

Profile: 1612064R-C7	Page No.: 51
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5190Mhz by 802.11ac40	



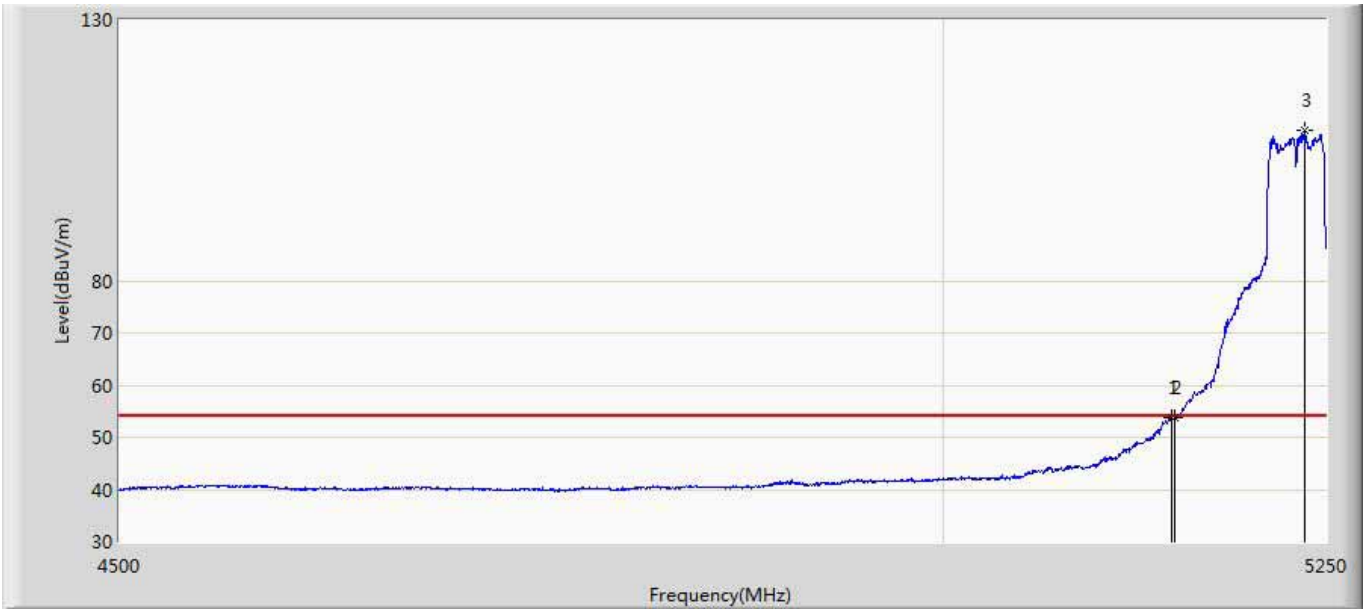
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.377	11.362	-0.623	54.000	42.015	AV
2	*	5178.750	98.853	56.708	44.853	54.000	42.146	AV

Profile: 1612064R-C7	Page No.: 52
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5190Mhz by 802.11ac40	



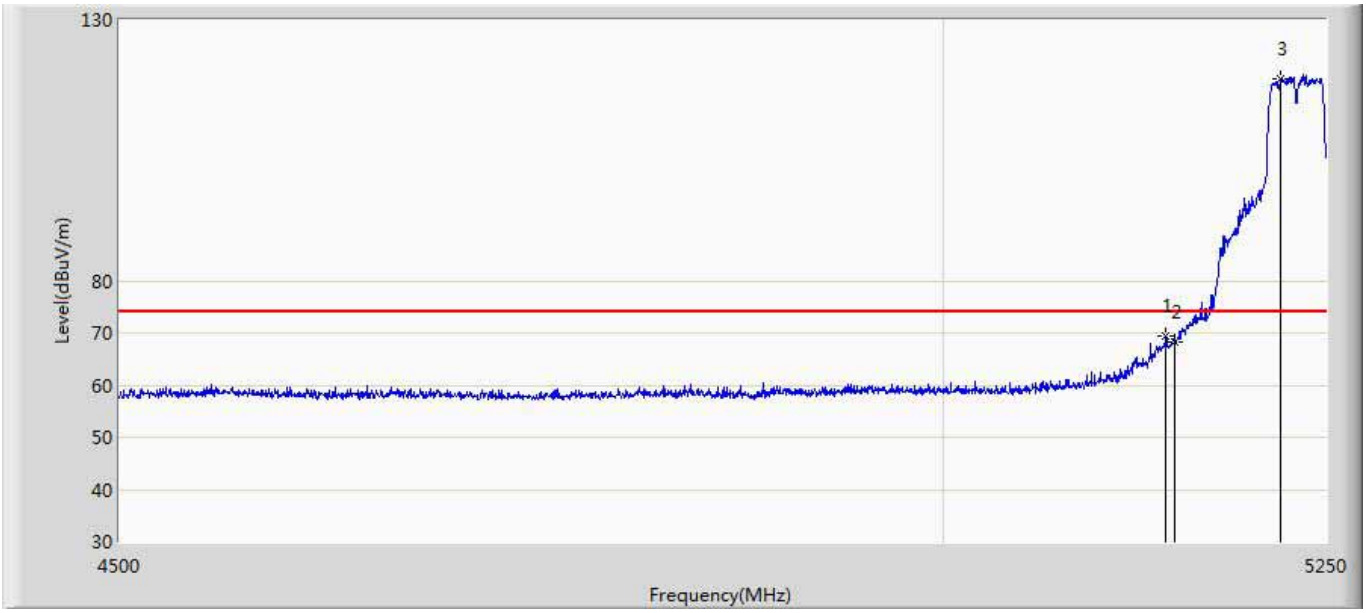
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	69.576	27.561	-4.424	74.000	42.015	PK
2	*	5177.625	110.369	68.224	36.369	74.000	42.146	PK

Profile: 1612064R-C7	Page No.: 53
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5230Mhz by 802.11ac40	



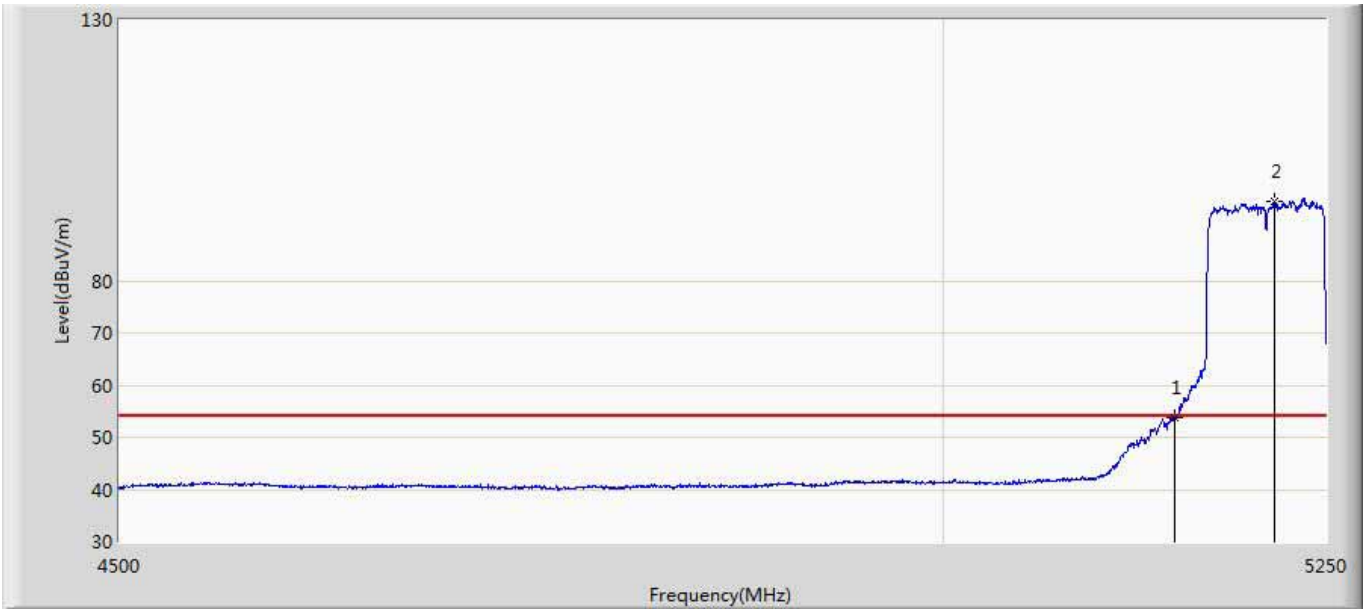
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5148.000	53.888	11.890	-0.112	54.000	41.998	AV
2		5150.000	53.750	11.735	-0.250	54.000	42.015	AV
3	*	5235.750	108.767	66.677	54.767	54.000	42.090	AV

Profile: 1612064R-C7	Page No.: 54
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5230Mhz by 802.11ac40	



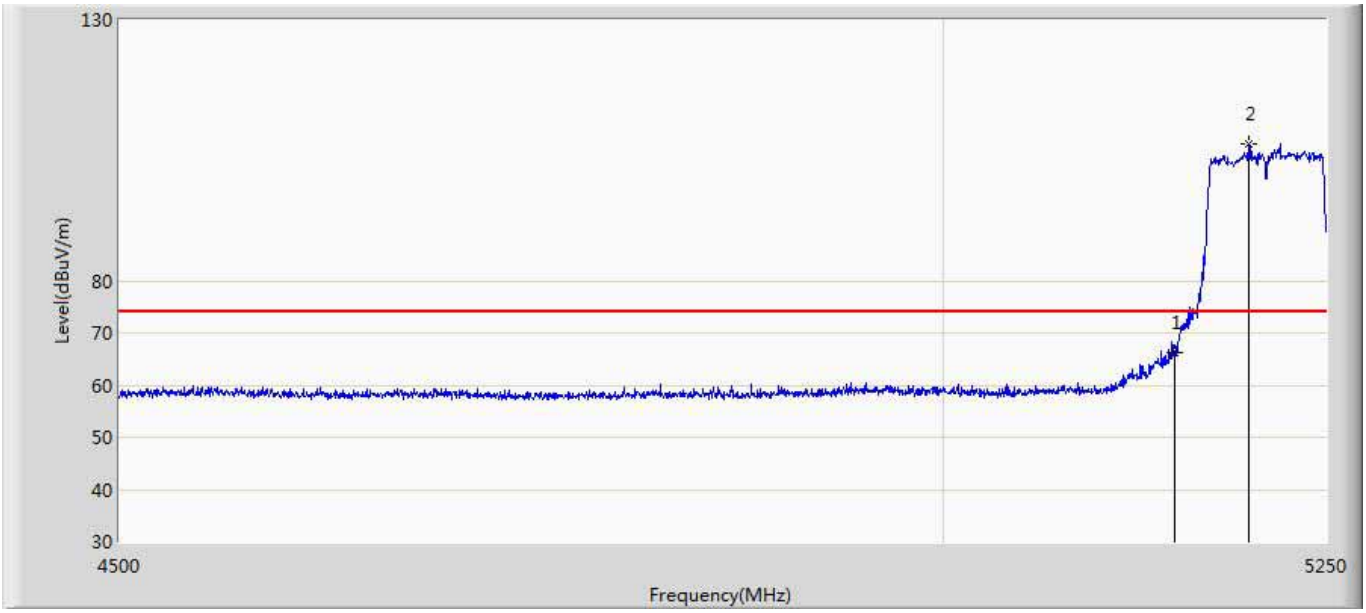
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5143.875	69.331	27.273	-4.669	74.000	42.058	PK
2		5150.000	68.175	26.160	-5.825	74.000	42.015	PK
3	*	5219.625	118.795	76.795	44.795	74.000	42.000	PK

Profile: 1612064R-C7	Page No.: 55
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 6:Transmit at CH5210Mhz by 802.11ac80	



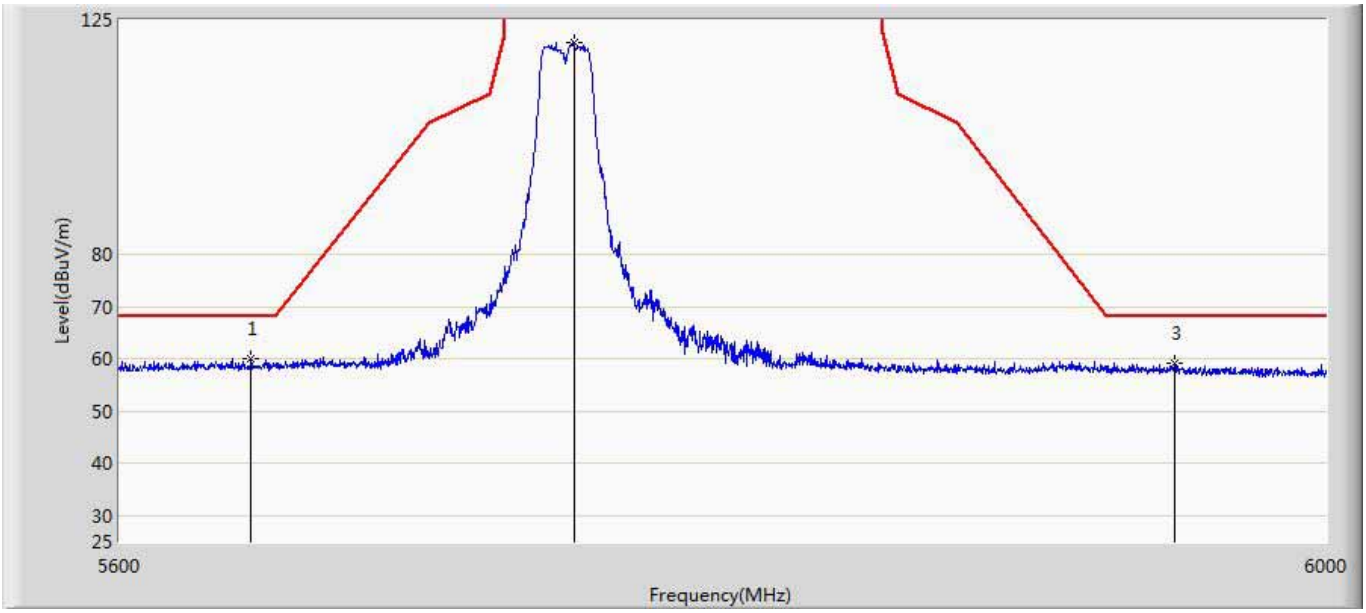
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.745	11.730	-0.255	54.000	42.015	AV
2	*	5215.500	95.202	53.218	41.202	54.000	41.984	AV

Profile: 1612064R-C7	Page No.: 56
Engineer: Jack	
Site: AC5	Time: 2016/04/06 - 16:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 6:Transmit at CH5210Mhz by 802.11ac80	



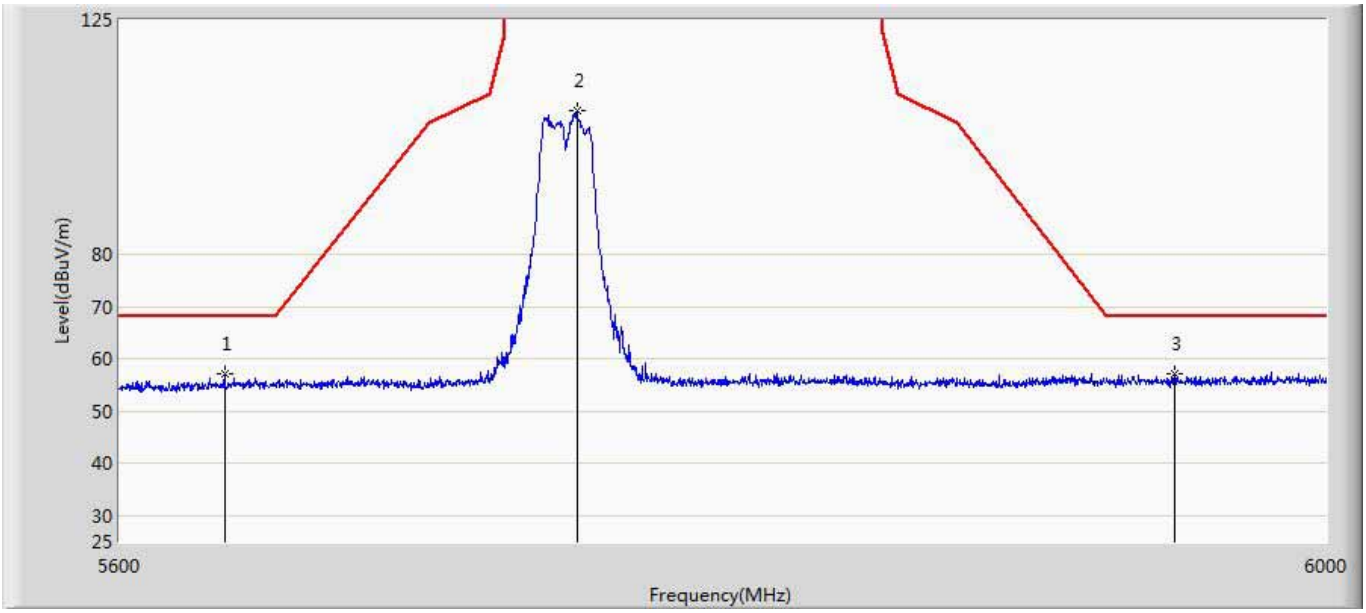
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	66.307	24.292	-7.693	74.000	42.015	PK
2	*	5199.000	106.303	64.267	32.303	74.000	42.036	PK

Profile: 1612064R-C7	Page No.: 153
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 14:34
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5745Mhz by 802.11a	



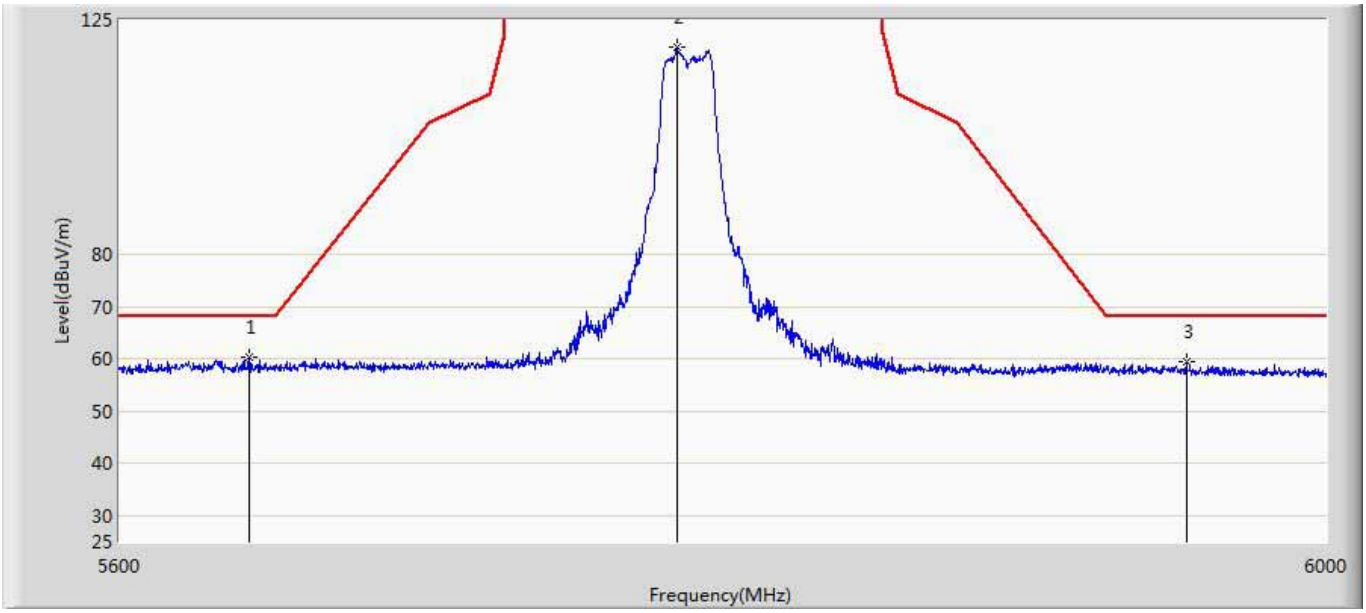
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5642.400	60.174	17.154	-8.126	68.300	43.020	PK
2		5747.600	120.569	77.283	-179.431	300.000	43.286	PK
3		5948.600	59.188	15.513	-9.112	68.300	43.675	PK

Profile: 1612064R-C7	Page No.: 154
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:03
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5745Mhz by 802.11a	



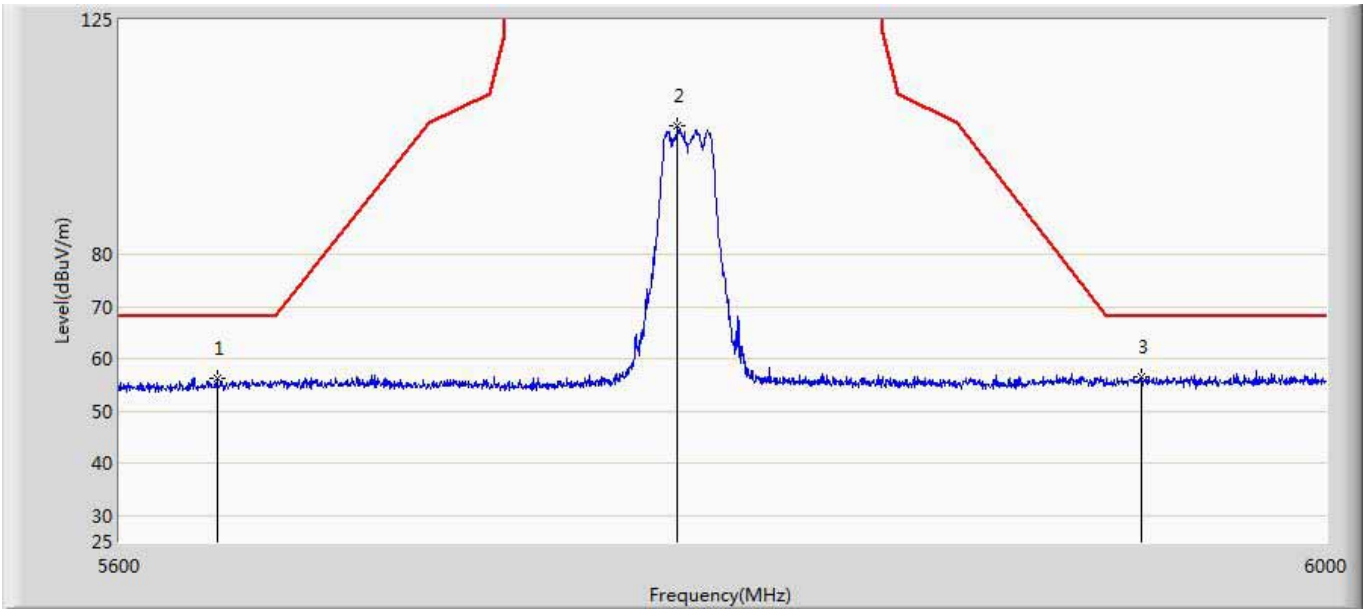
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5633.800	57.151	14.197	-11.149	68.300	42.953	PK
2		5748.600	107.624	64.341	-192.376	300.000	43.283	PK
3		5948.600	57.052	13.377	-11.248	68.300	43.675	PK

Profile: 1612064R-C7	Page No.: 155
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:04
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5785Mhz by 802.11a	



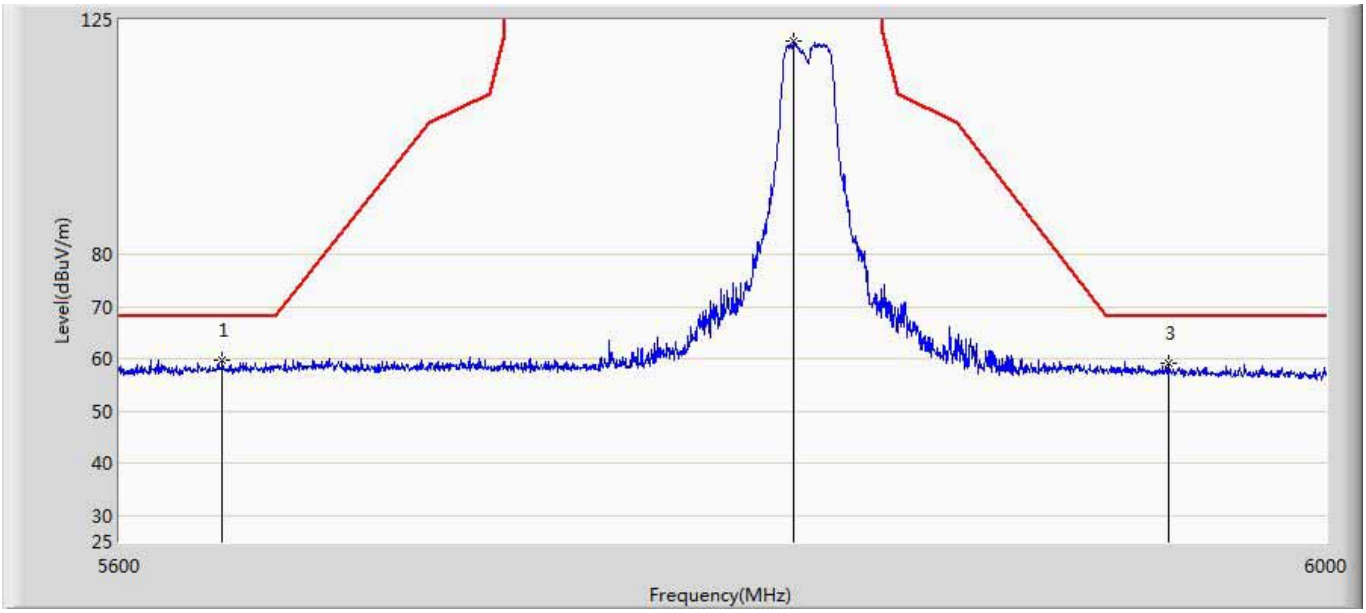
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5642.000	60.469	17.451	-7.831	68.300	43.017	PK
2		5781.600	119.865	76.539	-180.135	300.000	43.326	PK
3		5952.400	59.399	15.710	-8.901	68.300	43.689	PK

Profile: 1612064R-C7	Page No.: 156
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:08
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5785Mhz by 802.11a	



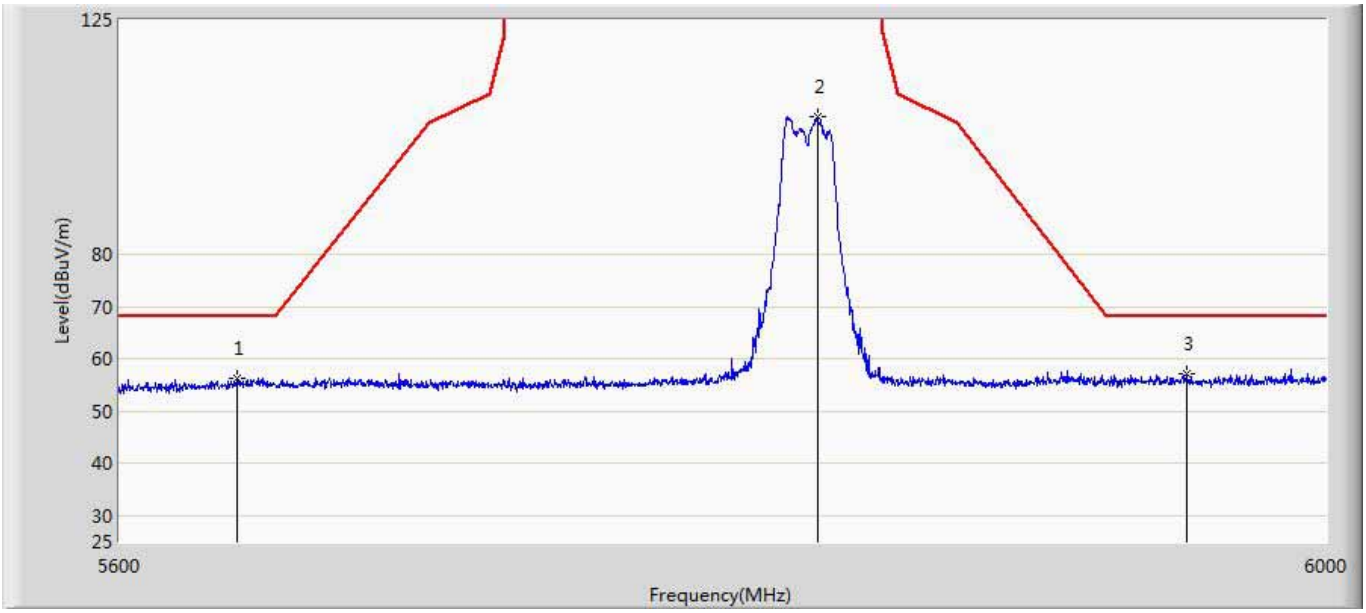
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5631.600	56.350	13.414	-11.950	68.300	42.936	PK
2		5781.600	104.578	61.252	-195.422	300.000	43.326	PK
3	*	5936.800	56.638	12.955	-11.662	68.300	43.683	PK

Profile: 1612064R-C7	Page No.: 157
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:10
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5825Mhz by 802.11a	



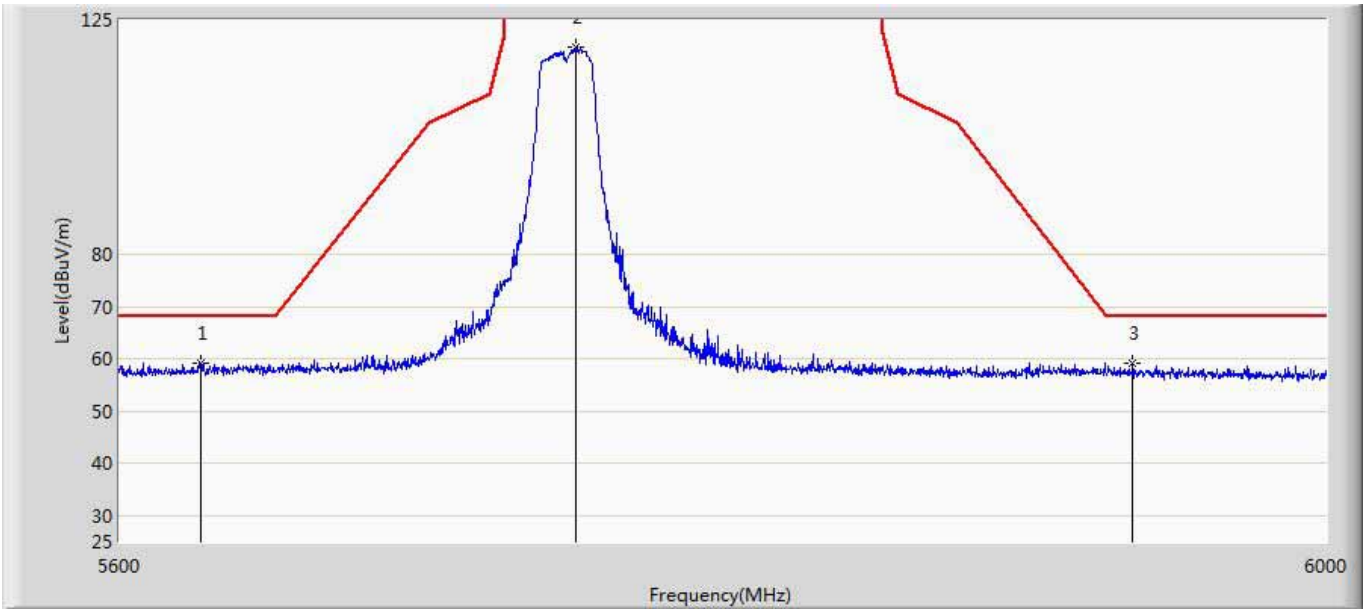
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5633.200	59.836	16.887	-8.464	68.300	42.948	PK
2		5820.400	120.923	77.531	-179.077	300.000	43.392	PK
3		5946.200	59.311	15.641	-8.989	68.300	43.670	PK

Profile: 1612064R-C7	Page No.: 158
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:12
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 1:Transmit at CH5825Mhz by 802.11a	



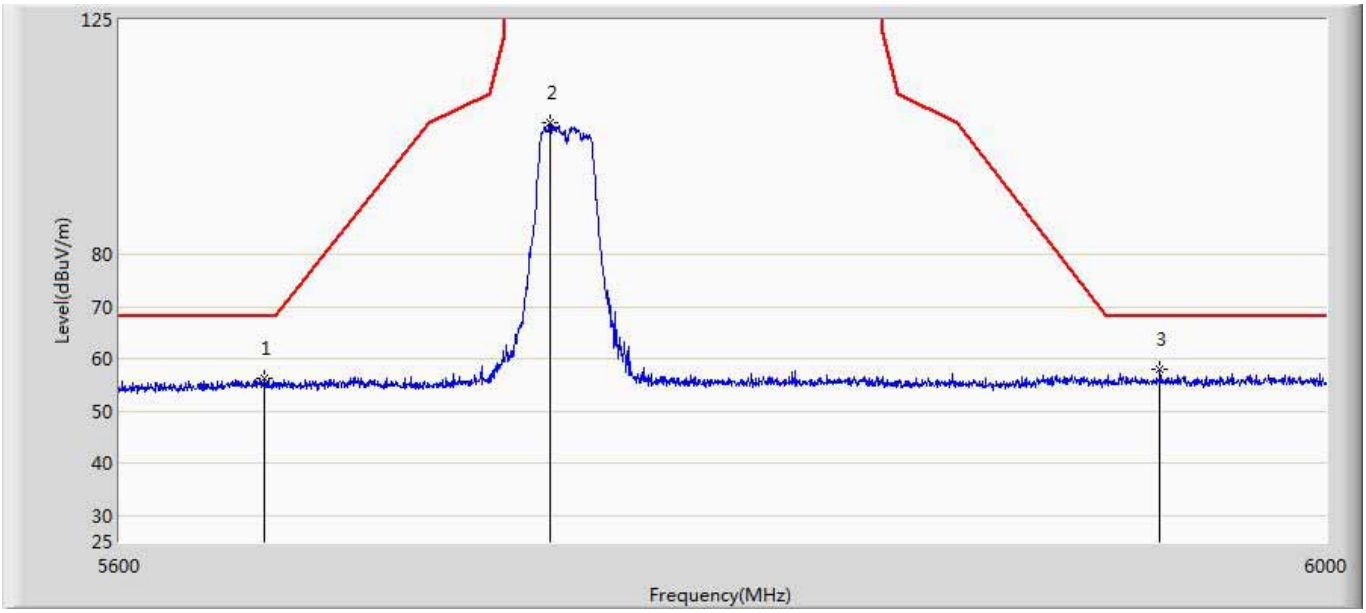
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5638.000	56.353	13.365	-11.947	68.300	42.988	PK
2		5828.000	106.572	63.162	-193.428	300.000	43.410	PK
3	*	5952.600	57.276	13.587	-11.024	68.300	43.689	PK

Profile: 1612064R-C7	Page No.: 159
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:14
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5745Mhz by 802.11n20	



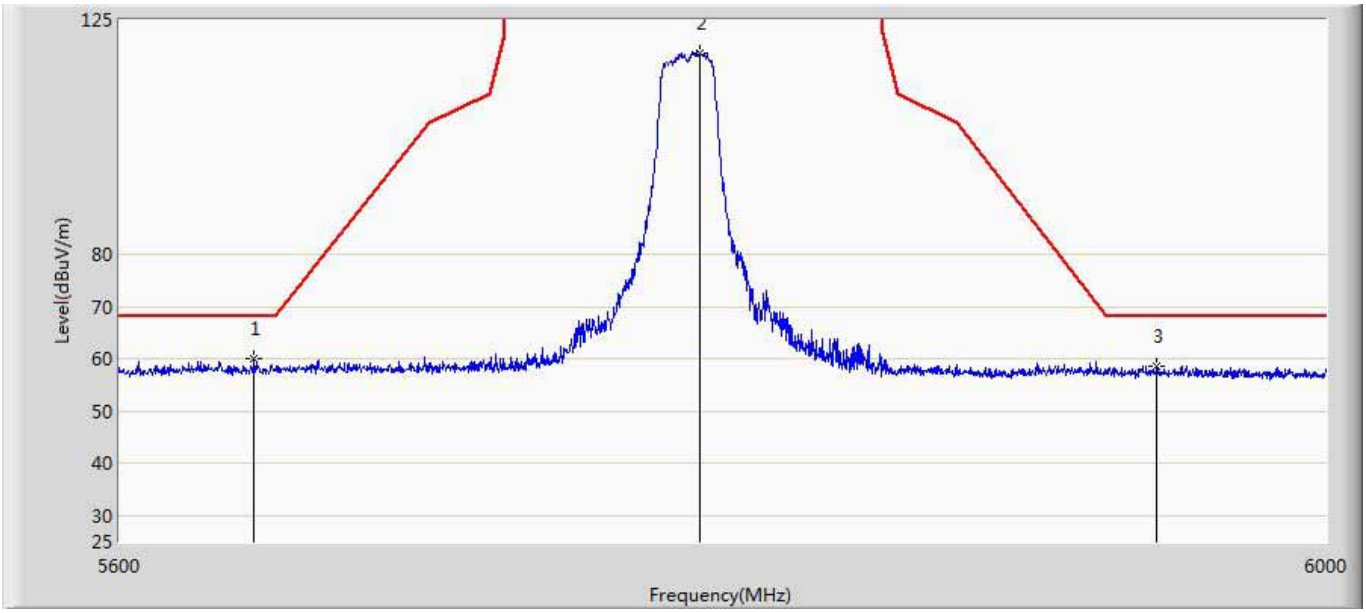
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5626.000	59.199	16.309	-9.101	68.300	42.891	PK
2		5748.000	119.822	76.537	-180.178	300.000	43.285	PK
3		5934.200	59.064	15.378	-9.236	68.300	43.687	PK

Profile: 1612064R-C7	Page No.: 160
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:18
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5745Mhz by 802.11n20	



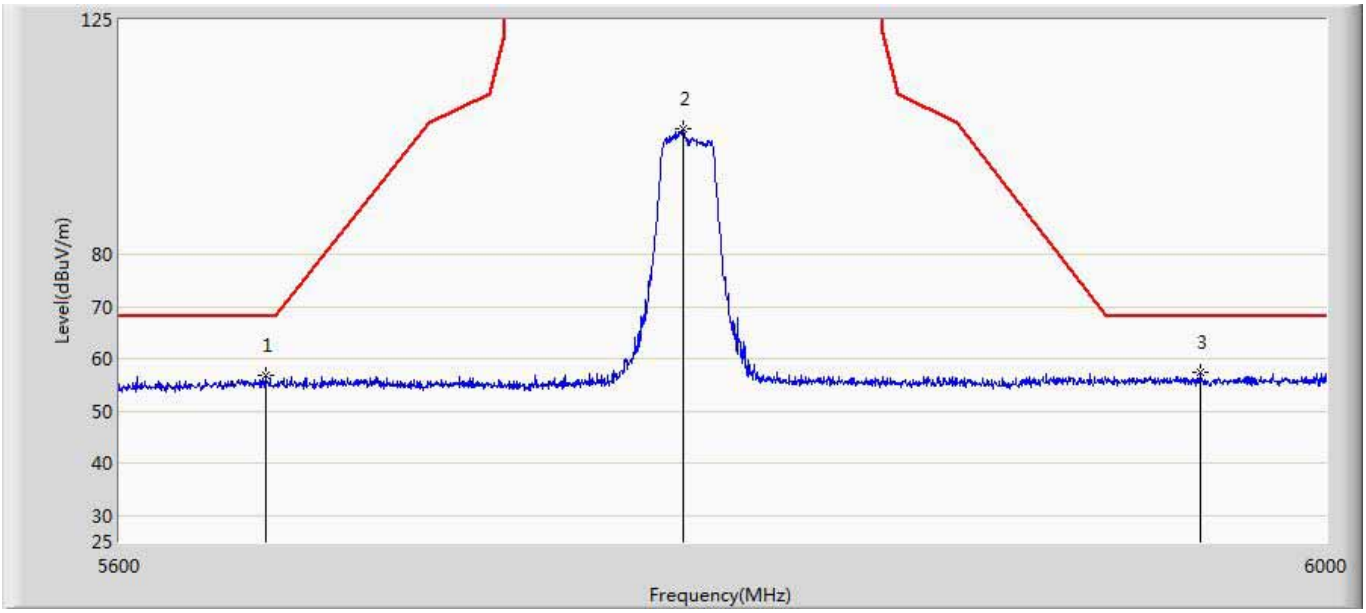
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5646.600	56.422	13.379	-11.878	68.300	43.043	PK
2		5739.600	105.409	62.114	-194.591	300.000	43.294	PK
3	*	5943.400	57.979	14.305	-10.321	68.300	43.674	PK

Profile: 1612064R-C7	Page No.: 161
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:20
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5785Mhz by 802.11n20	



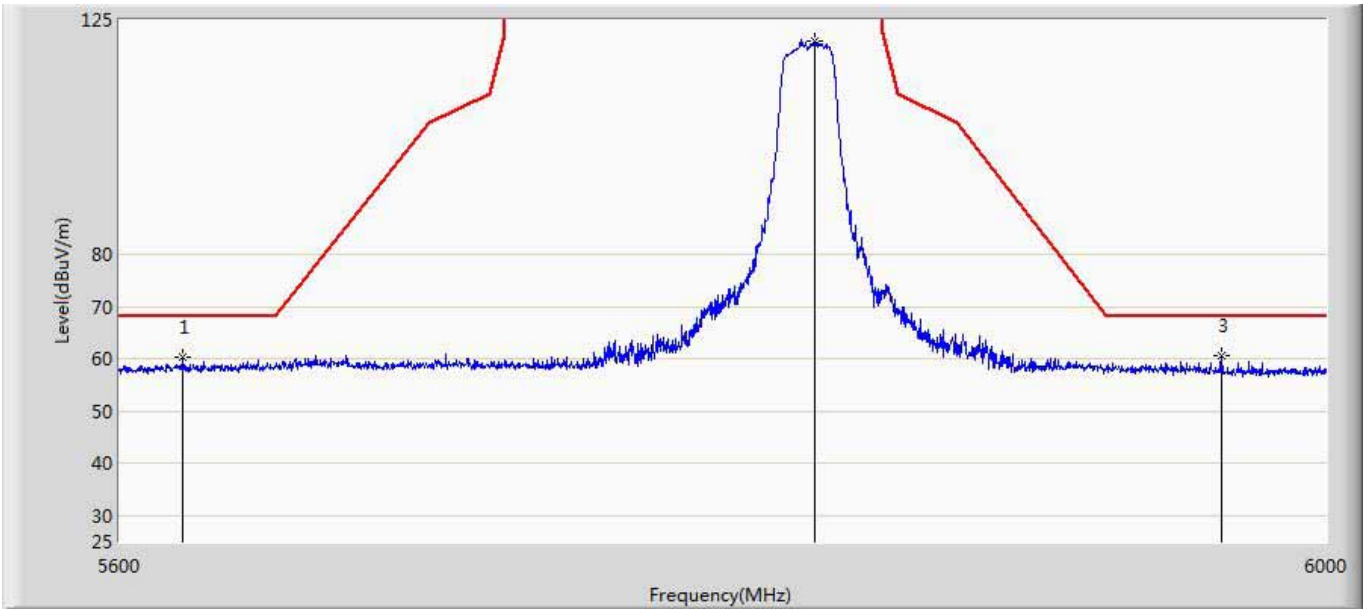
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5643.400	60.008	16.982	-8.292	68.300	43.025	PK
2		5788.800	118.641	75.338	-181.359	300.000	43.303	PK
3		5942.400	58.740	15.065	-9.560	68.300	43.676	PK

Profile: 1612064R-C7	Page No.: 162
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:22
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5785Mhz by 802.11n20	



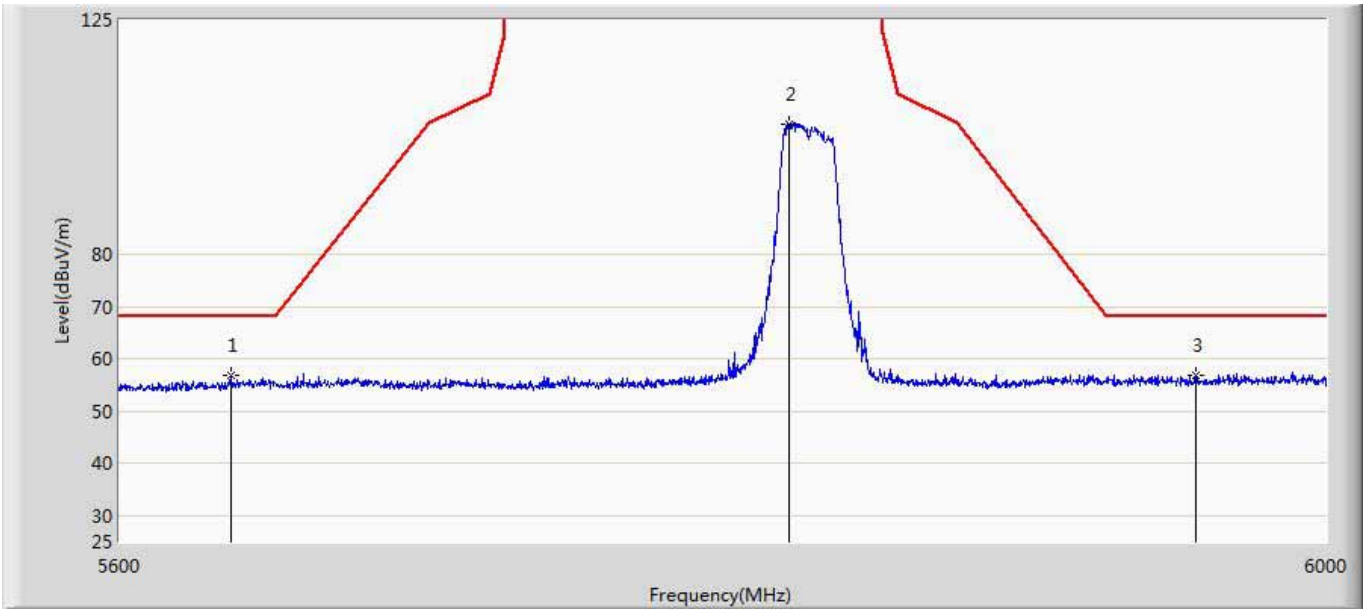
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5647.200	56.874	13.827	-11.426	68.300	43.047	PK
2		5783.400	104.097	60.777	-195.903	300.000	43.320	PK
3	*	5957.000	57.334	13.629	-10.966	68.300	43.705	PK

Profile: 1612064R-C7	Page No.: 163
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:24
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5825Mhz by 802.11n20	



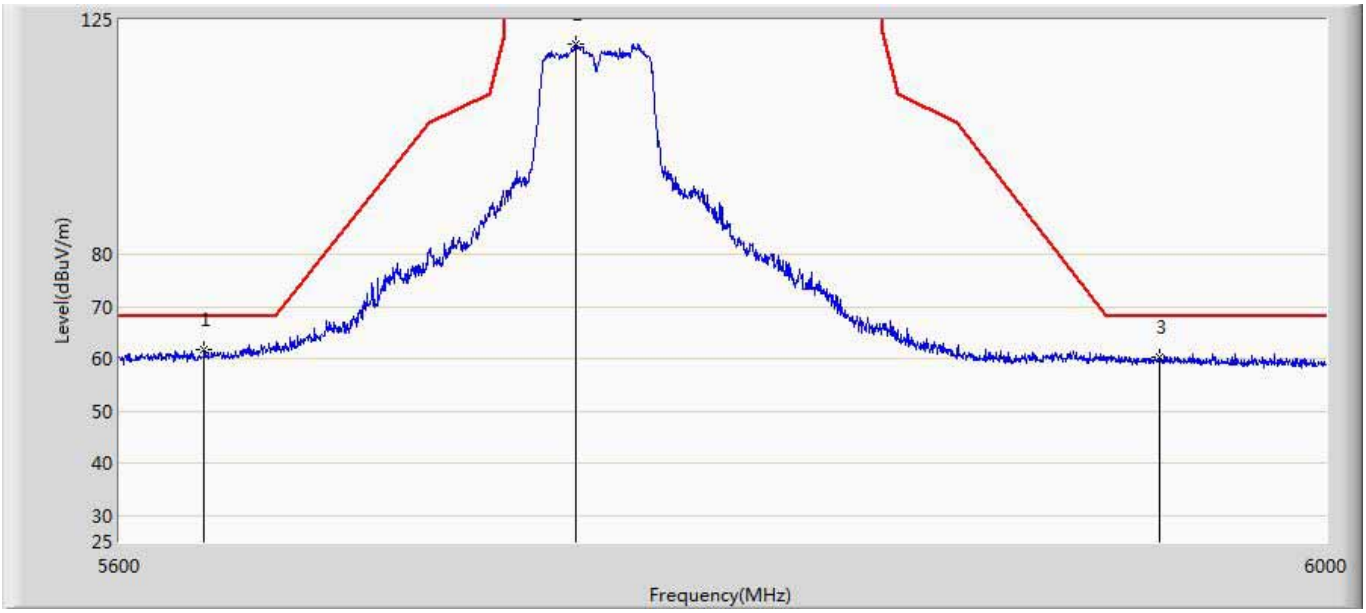
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5620.600	60.272	17.401	-8.028	68.300	42.870	PK
2		5827.400	120.853	77.445	-179.147	300.000	43.408	PK
3	*	5964.200	60.558	16.827	-7.742	68.300	43.731	PK

Profile: 1612064R-C7	Page No.: 164
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:27
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 2:Transmit at CH5825Mhz by 802.11n20	



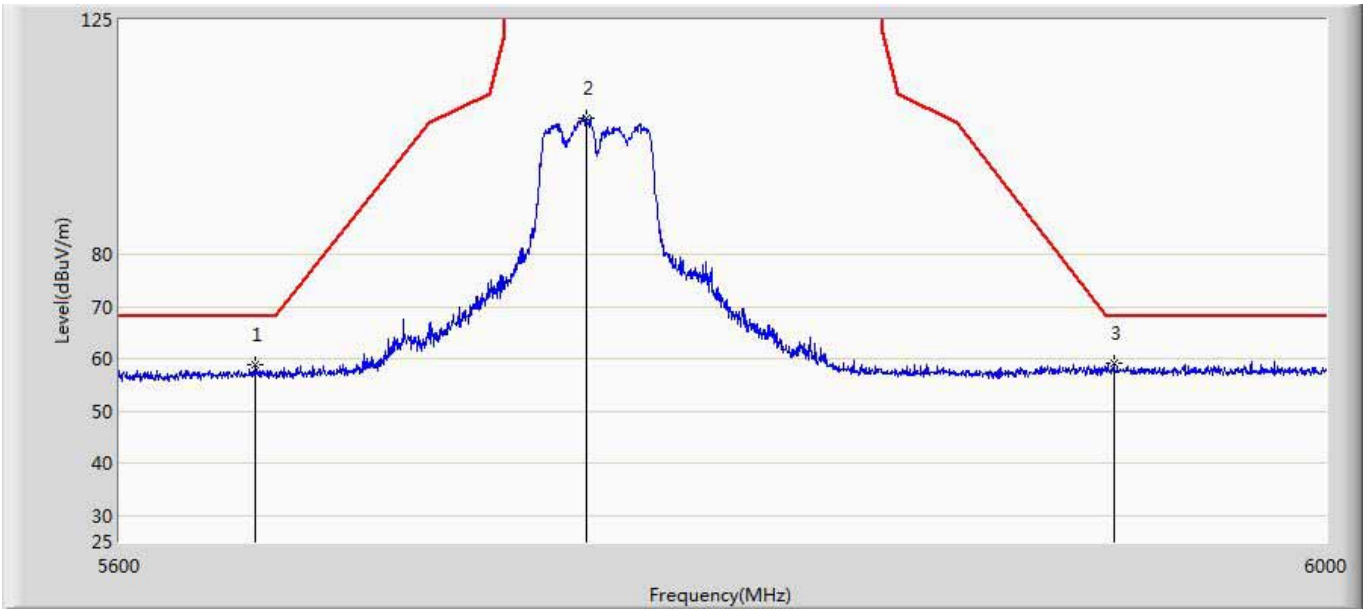
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5635.800	56.778	13.808	-11.522	68.300	42.970	PK
2		5818.600	105.118	61.730	-194.882	300.000	43.388	PK
3	*	5955.800	56.917	13.216	-11.383	68.300	43.700	PK

Profile: 1612064R-C7	Page No.: 165
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:29
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5755Mhz by 802.11n40	



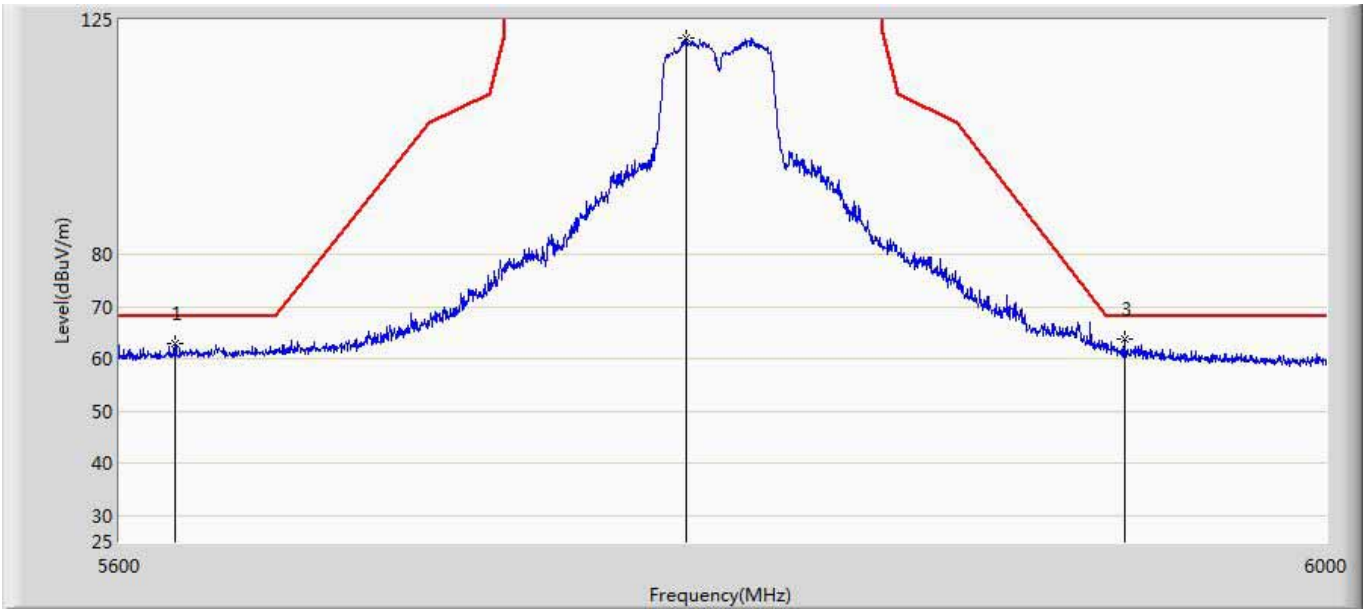
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5627.400	61.912	19.010	-6.388	68.300	42.902	PK
2		5748.000	120.384	77.099	-179.616	300.000	43.285	PK
3		5943.400	60.297	16.623	-8.003	68.300	43.674	PK

Profile: 1612064R-C7	Page No.: 166
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:33
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5755Mhz by 802.11n40	



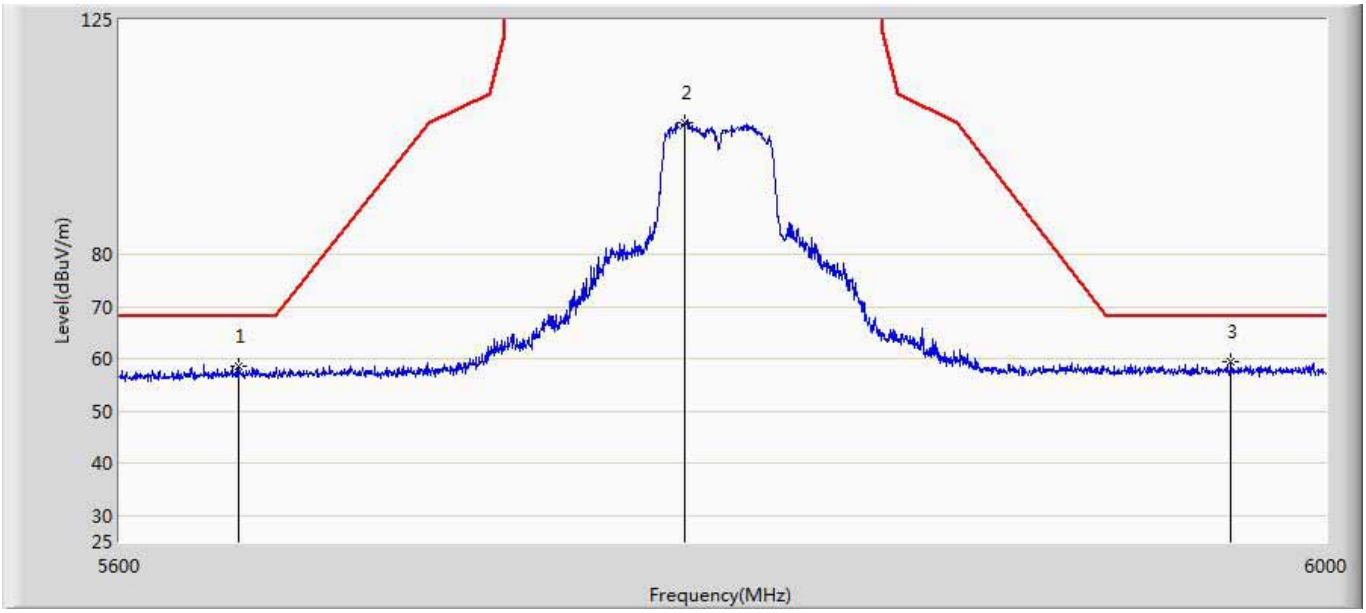
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5643.600	58.843	15.816	-9.457	68.300	43.027	PK
2		5751.600	106.259	62.987	-193.741	300.000	43.272	PK
3	*	5927.600	59.305	15.579	-8.995	68.300	43.726	PK

Profile: 1612064R-C7	Page No.: 167
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:35
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5795Mhz by 802.11n40	



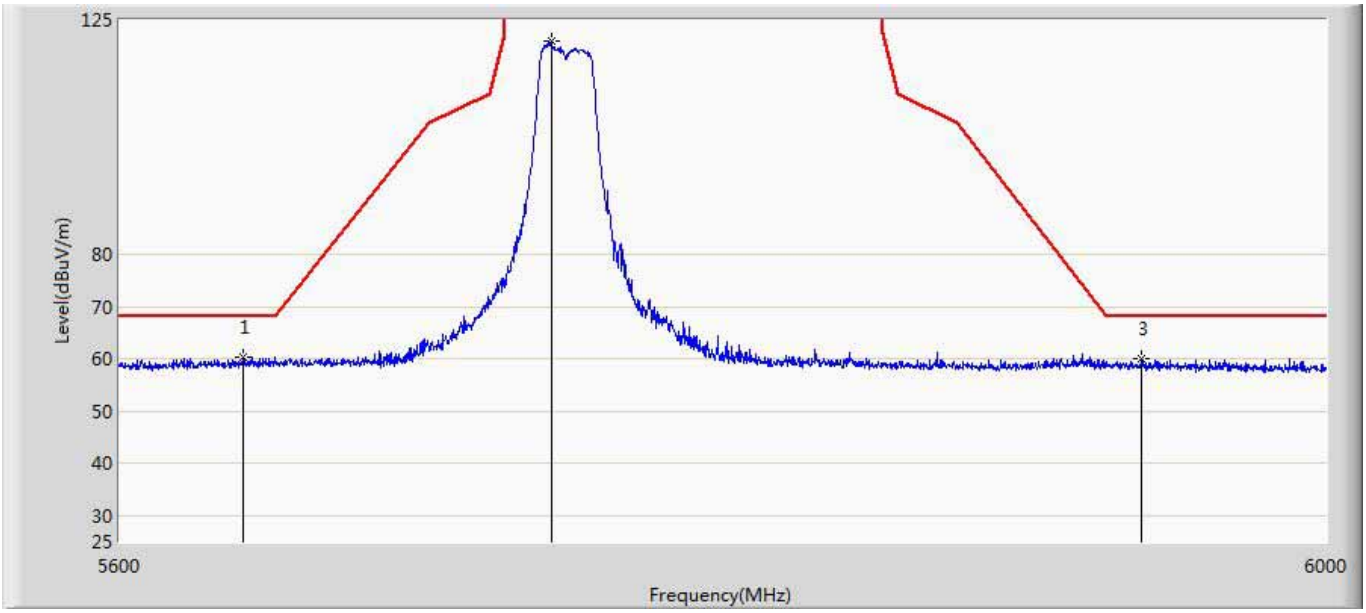
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5617.800	63.098	20.230	-5.202	68.300	42.867	PK
2		5784.400	121.577	78.260	-178.423	300.000	43.317	PK
3	*	5931.200	63.940	20.249	-4.360	68.300	43.691	PK

Profile: 1612064R-C7	Page No.: 168
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:37
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 3:Transmit at CH5795Mhz by 802.11n40	



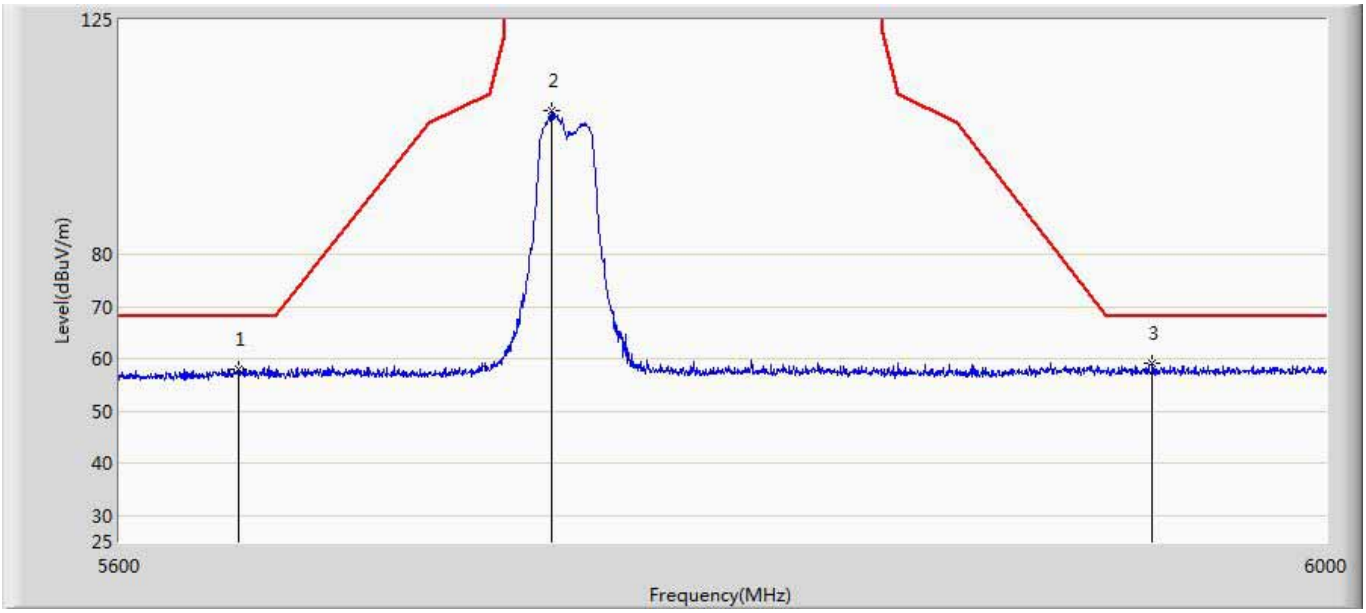
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5638.400	58.518	15.527	-9.782	68.300	42.991	PK
2		5784.000	105.358	62.040	-194.642	300.000	43.319	PK
3	*	5967.600	59.426	15.682	-8.874	68.300	43.744	PK

Profile: 1612064R-C7	Page No.: 169
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:39
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5745Mhz by 802.11ac20	



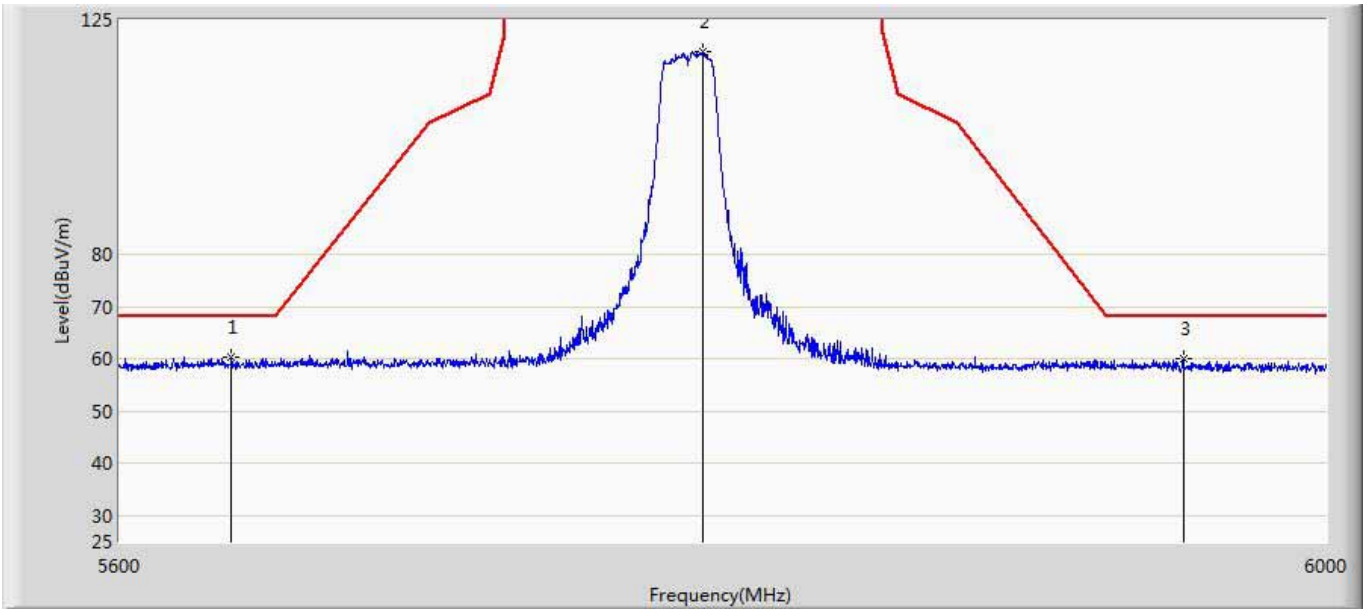
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5640.000	60.427	17.423	-7.873	68.300	43.005	PK
2		5740.000	121.057	77.761	-178.943	300.000	43.296	PK
3		5937.200	59.959	16.277	-8.341	68.300	43.682	PK

Profile: 1612064R-C7	Page No.: 170
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:40
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5745Mhz by 802.11ac20	



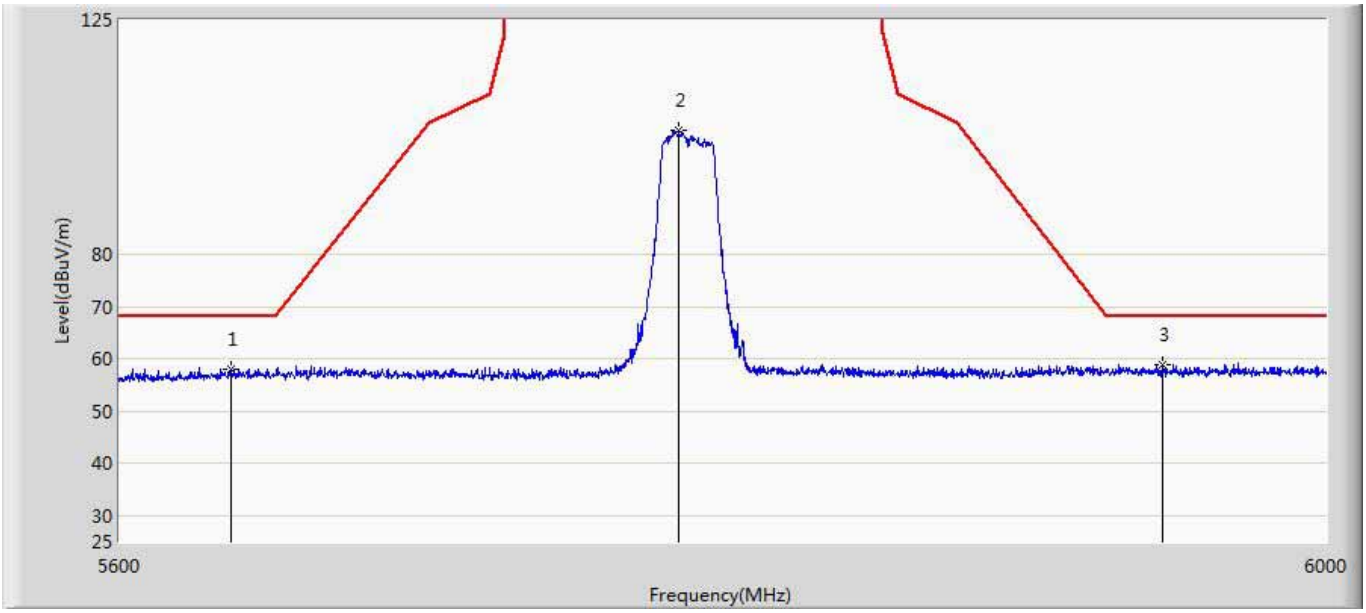
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5638.200	58.089	15.099	-10.211	68.300	42.989	PK
2		5740.000	107.667	64.371	-192.333	300.000	43.296	PK
3	*	5940.800	59.216	15.538	-9.084	68.300	43.677	PK

Profile: 1612064R-C7	Page No.: 171
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:42
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5785Mhz by 802.11ac20	



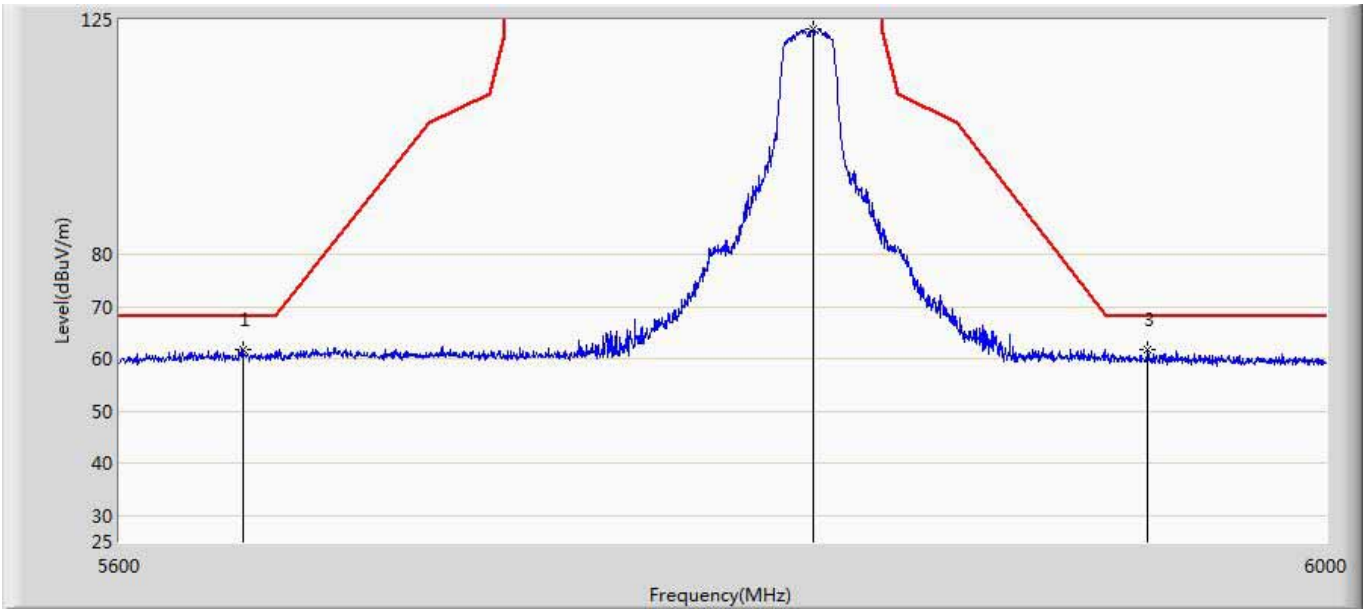
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5636.000	60.387	17.415	-7.913	68.300	42.971	PK
2		5789.800	118.796	75.496	-181.204	300.000	43.300	PK
3		5951.200	59.974	16.290	-8.326	68.300	43.684	PK

Profile: 1612064R-C7	Page No.: 172
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:44
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5785Mhz by 802.11ac20	



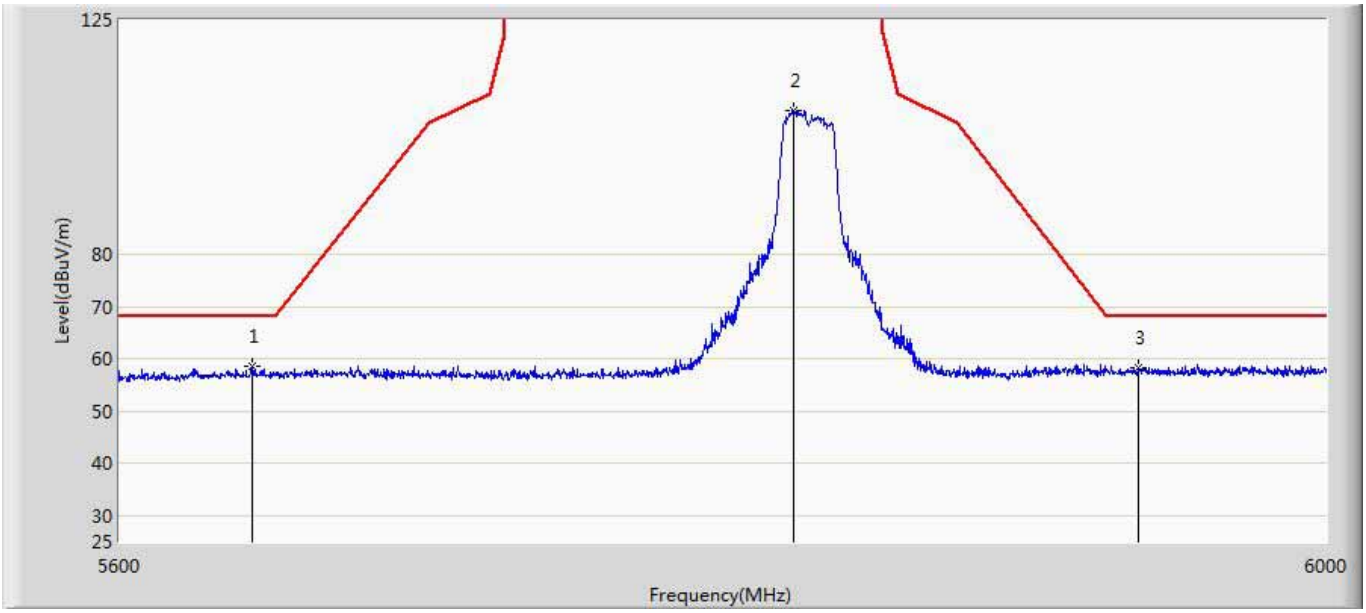
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5636.000	58.122	15.150	-10.178	68.300	42.971	PK
2		5782.000	103.789	60.464	-196.211	300.000	43.325	PK
3	*	5944.000	59.009	15.336	-9.291	68.300	43.673	PK

Profile: 1612064R-C7	Page No.: 173
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:46
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5825Mhz by 802.11ac20	



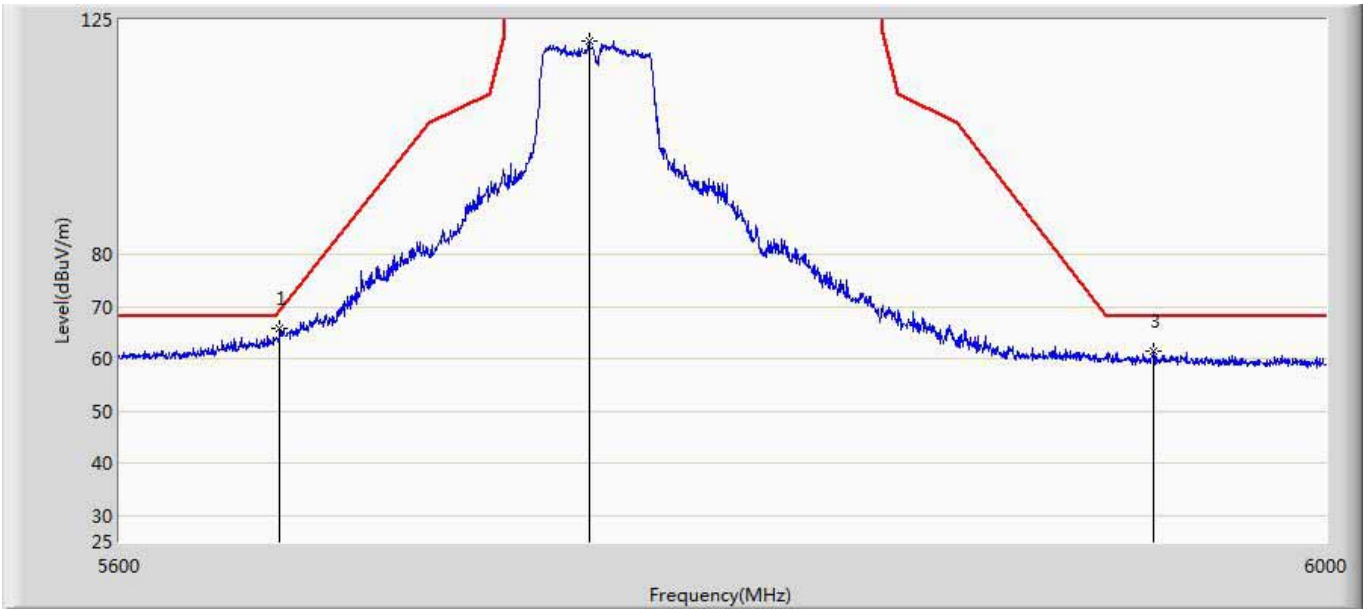
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5640.000	61.752	18.748	-6.548	68.300	43.005	PK
2		5826.600	123.342	79.936	-176.658	300.000	43.406	PK
3		5939.200	61.704	18.024	-6.596	68.300	43.680	PK

Profile: 1612064R-C7	Page No.: 174
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:48
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 4:Transmit at CH5825Mhz by 802.11ac20	



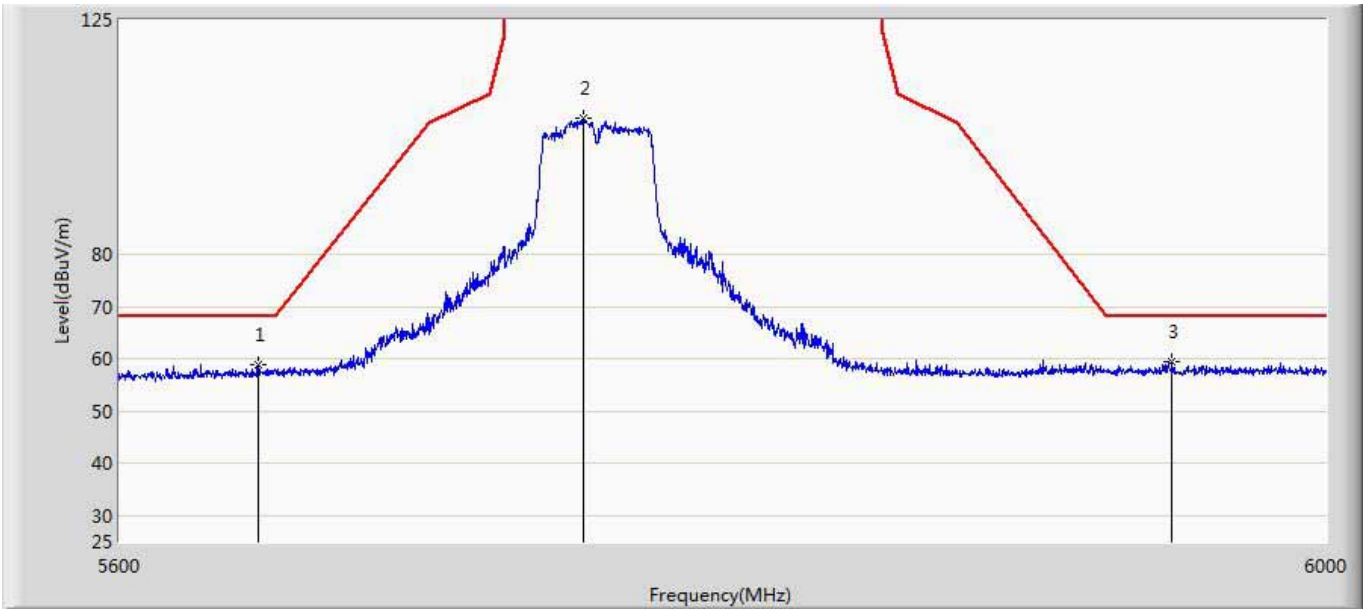
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5642.600	58.597	15.576	-9.703	68.300	43.021	PK
2		5820.400	107.467	64.075	-192.533	300.000	43.392	PK
3		5936.200	58.255	14.571	-10.045	68.300	43.684	PK

Profile: 1612064R-C7	Page No.: 175
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 15:50
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5755Mhz by 802.11ac40	



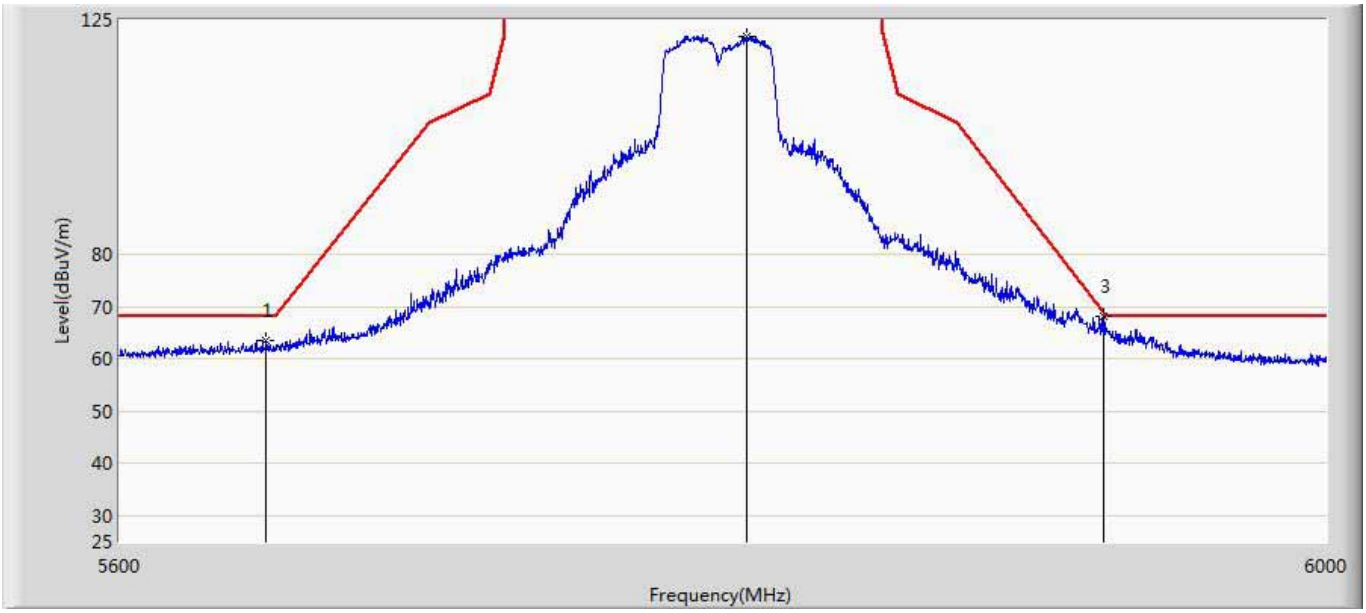
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5651.800	65.851	22.779	-3.787	69.638	43.072	PK
2		5752.400	120.848	77.579	-179.152	300.000	43.269	PK
3		5941.400	61.646	17.969	-6.654	68.300	43.677	PK

Profile: 1612064R-C7	Page No.: 176
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 16:01
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5755Mhz by 802.11ac40	



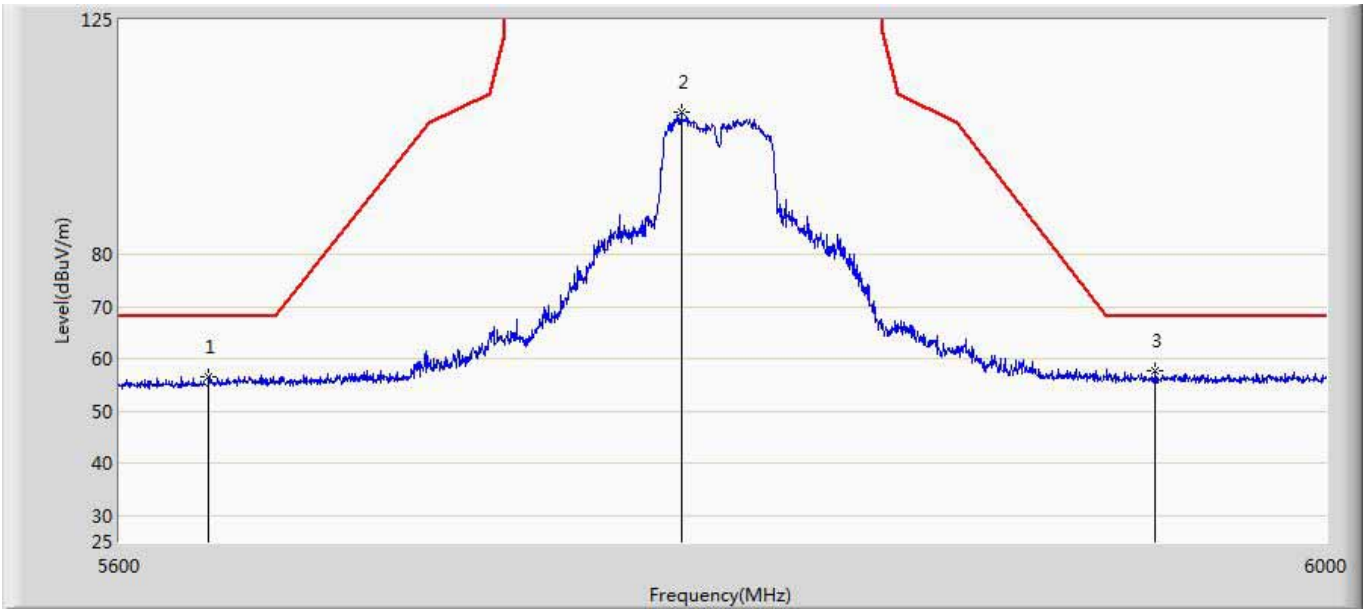
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5644.600	58.962	15.930	-9.338	68.300	43.032	PK
2		5750.800	106.146	62.871	-193.854	300.000	43.275	PK
3	*	5947.400	59.427	15.756	-8.873	68.300	43.671	PK

Profile: 1612064R-C7	Page No.: 177
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 16:13
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5795Mhz by 802.11ac40	



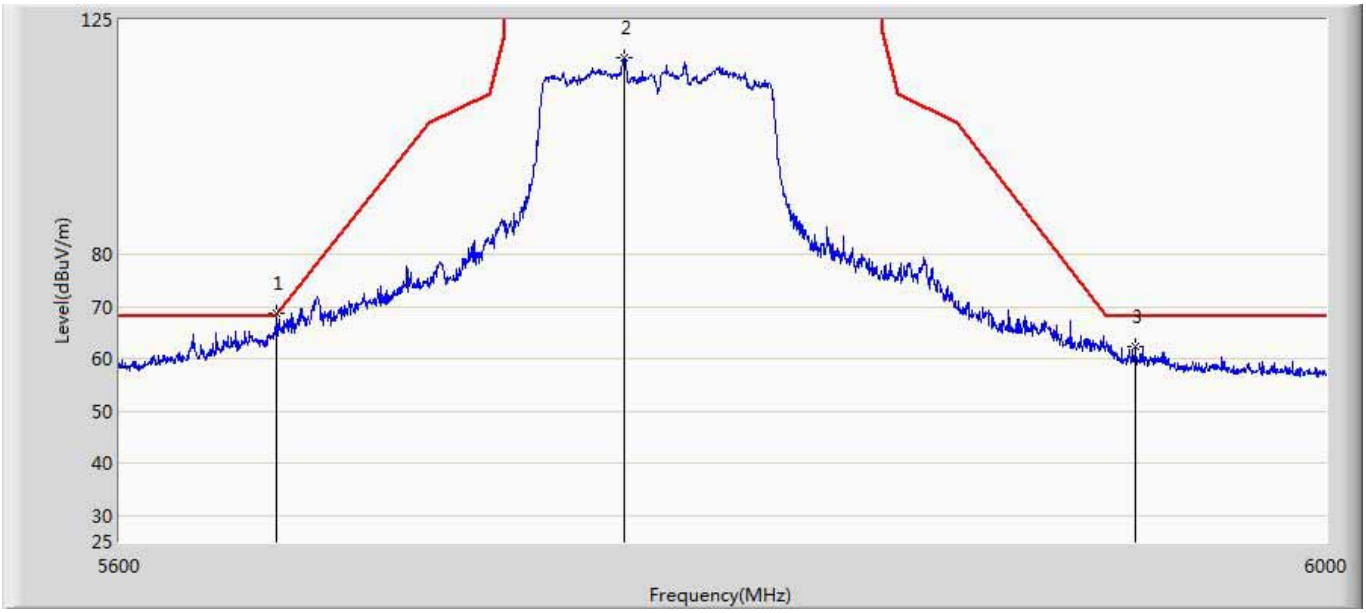
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5647.200	63.667	20.620	-4.633	68.300	43.047	PK
2		5804.400	121.896	78.558	-178.104	300.000	43.338	PK
3	*	5924.400	68.081	24.311	-0.661	68.742	43.770	PK

Profile: 1612064R-C7	Page No.: 178
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 16:14
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 5:Transmit at CH5795Mhz by 802.11ac40	



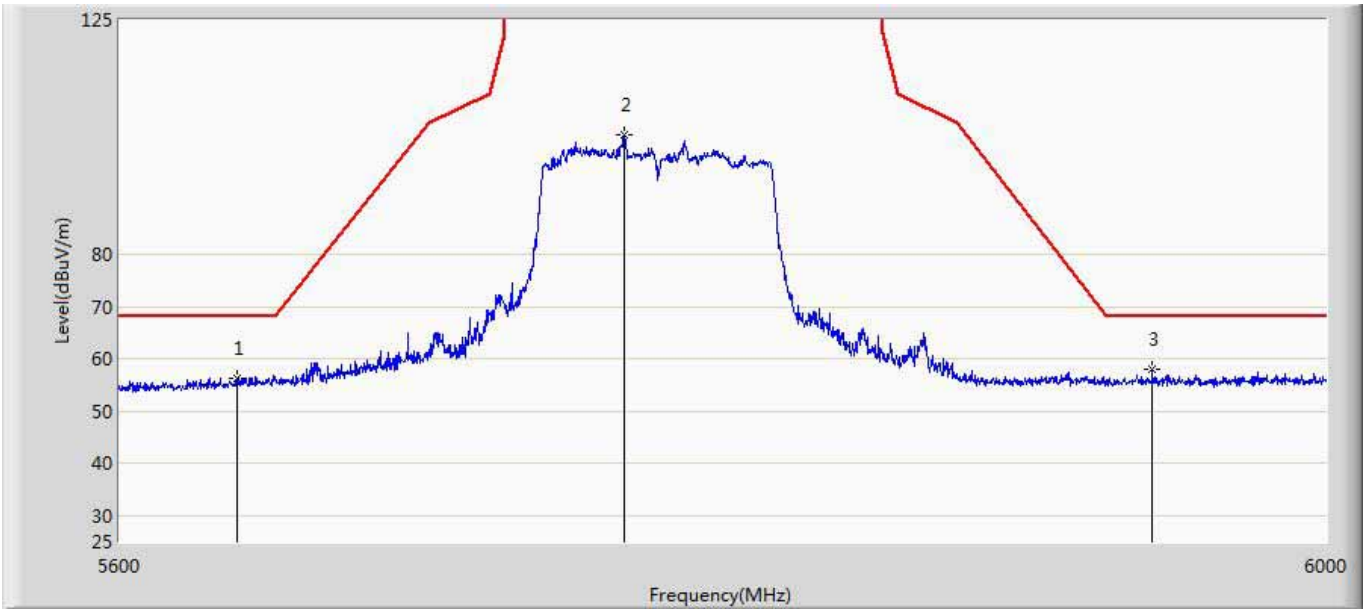
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5628.800	56.683	13.770	-11.617	68.300	42.913	PK
2		5783.000	107.247	63.925	-192.753	300.000	43.321	PK
3	*	5941.800	57.649	13.973	-10.651	68.300	43.676	PK

Profile: 1612064R-C7	Page No.: 179
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 16:17
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 6:Transmit at CH5775Mhz by 802.11ac80	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5650.800	68.837	25.771	-0.057	68.895	43.067	PK
2		5764.000	117.884	74.618	-182.116	300.000	43.266	PK
3		5935.200	62.525	18.840	-5.775	68.300	43.685	PK

Profile: 1612064R-C7	Page No.: 180
Engineer: Jack	
Site: AC5	Time: 2016/05/03 - 16:20
Limit: FCC-15.407 new new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: AC1750 Wireless Dual Band Gigabit Router	Power: AC 120V/60Hz
Note: Mode 6:Transmit at CH5775Mhz by 802.11ac80	



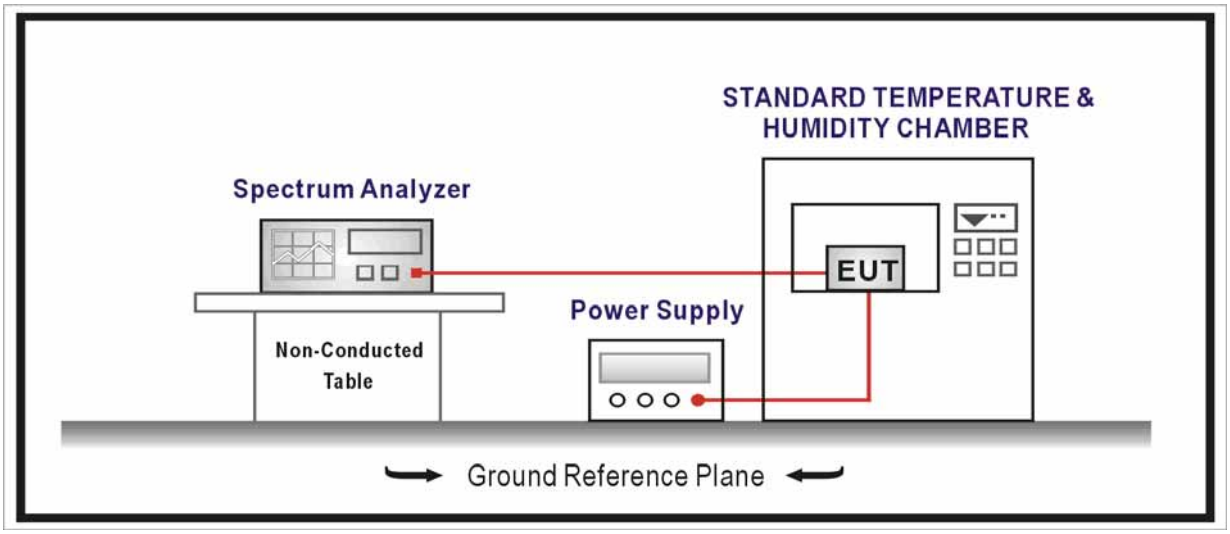
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5637.800	56.314	13.328	-11.986	68.300	42.987	PK
2		5764.000	103.064	59.798	-196.936	300.000	43.266	PK
3	*	5940.600	58.110	14.432	-10.190	68.300	43.678	PK

10. Frequency Stability

10.1. Test Equipment

Frequency Stability / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.08	2017.01.07
AC Power Supply	IDRC	CF-500TP	979422	2015.09.17	2016.09.16
DC Power Supply	IDRC	CD-035-020PR	977272	2015.09.17	2016.09.16
Programmable Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2016.01.08	2017.01.07
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2016.04.10	2017.04.09
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

10.2. Test Setup



10.3. Limit

Frequency Stability Limit	
UNII Devices	
☒	In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
IEEE Std. 802.11n-2009	
☒	The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25ppm maximum for the 2.4 GHz band.

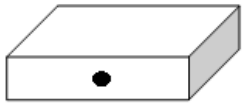
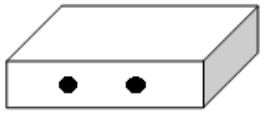
10.4. Test Procedure

Frequency Stability Test Method				
	References Rule		Chapter	Description
☒	ANSI C63.10		6.8	Frequency stability tests
	☒	ANSI C63.10	6.8.1	Frequency stability with respect to ambient temperature
	☒	ANSI C63.10	6.8.2	Frequency stability when varying supply voltage

10.5. Uncertainty

The measurement uncertainty is defined as ± 100 Hz

10.6. EUT test Axis definition

Item	Frequency Stability	
Device Category	☐	Outdoor AP
	☒	Indoor AP
	☐	Fixed point-to-point AP
	☐	Mobile and Portable Client
Test mode	Mode 1 ~ Mode 6	
	☒	Conducted
	☒	Chain 0
		
	☐	Chain 0 / Chain 1
		
	☐	Chain 0 / Chain 1 / Chain 2
		

10.7. Test Result

Product	:	AC1750 Wireless Dual Band Gigabit Router
Test Item	:	Frequency Stability
Test Site	:	TR-8
Test Mode	:	Carrier Transmit

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)
0	5200.000	208
10	5200.000	-112
20	5200.000	-85
30	5200.000	115
40	5200.000	97

Frequency Stability under Voltage

AC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)
102	5200.000	137
120	5200.000	101
138	5200.000	107

The End