

Test Report

FCC Part15 Subpart E

Product Name : Wireless Router Motherboard
Model No. : DR344-NAS27
FCC ID : 2AG7VDR344-NAS27

Applicant : Wallys Communications Technologies Co.,Ltd
Address : Room 2723, Le Jia building,Jia Rui Xiang
No.8,Suzhou Industrial Park, Suzhou, P.R China

Date of Receipt : Jan. 26, 2016
Test Date : Jan. 26, 2016~ Mar. 03, 2016
Issued Date : Mar. 11, 2016
Report No. : 1612091R-RF-US-P09V01
Report Version : V1.2

The test results relate only to the samples tested.

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

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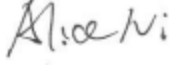
Test Report Certification

Issued Date : Mar. 11, 2016

Report No. : 1612091R-RF-US-P09V01



Product Name : Wireless Router Motherboard
Applicant : Wallys Communications Technologies Co.,Ltd
Address : Room 2723, Le Jia building,Jia Rui Xiang No.8,Suzhou
Industrial Park, Suzhou, P.R China
Manufacturer : Wallys Communications Technologies Co.,Ltd
Address : Room 2723, Le Jia building,Jia Rui Xiang No.8,Suzhou
Industrial Park, Suzhou, P.R China
Model No. : DR344-NAS27
FCC ID : 2AG7VDR344-NAS27
EUT Voltage : 48V
Brand Name : wallys
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 v01
Test Result : Complied
Performed Location : Quietek Corporation - Suzhou EMC Laboratory
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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/english/about/certificates.aspx?bval=5>
The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/index_en.aspx

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1612091R-RF-US-P09V01	V1.0	Initial Issued Report	Mar. 07, 2016
1612091R-RF-US-P09V01	V1.1	Update data on page 29, 30, 33, 34, 48, 67.	Mar. 10, 2016
1612091R-RF-US-P09V01	V1.2	Update EUT Description	Mar. 11, 2016

1. General Information

1.1. EUT Description

Product Name	Wireless Router Motherboard
Brand Name	wallys
Model No.	DR344-NAS27
EUT Voltage	48V
Frequency Range	For 5GHz Band 802.11a/n(20MHz): 5180~5240MHz, 5745~5825MHz 802.11n(40MHz): 5190~5230MHz, 5755~5795MHz
Channel Number	For 5GHz Band 802.11a/n(20MHz): 9 802.11n(40MHz): 4
Type of Modulation	802.11a/n: OFDM
Data Rate	802.11a: 6/9/12/18/24/36/48/54 Mbps 802.11n: up to 300 Mbps
Channel Control	Auto

1.2. Antenna information

Antenna Model	N/A					
Antenna Type	Dipole					
Antenna Manufacturer	N/A					
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 Gain	Antenna 0		8.56dBi			
	Antenna 1		8.56dBi			
	Antenna 0+1		11.57dBi			
Directional Gain	11.57dBi					

1.3. Working Frequency of Each Channel:

802.11a/n(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(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

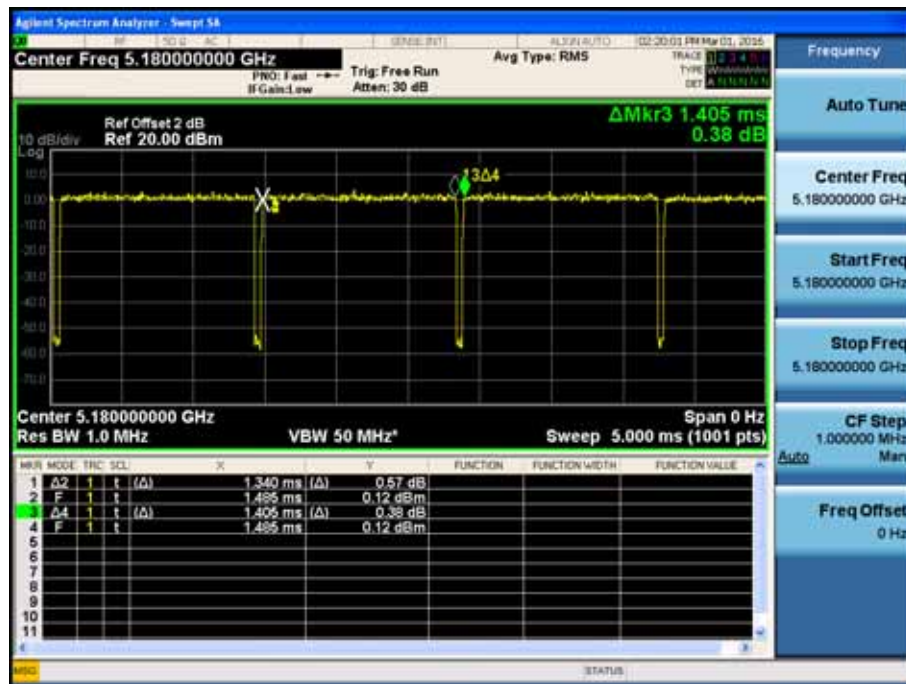
1.4. Power Parameter Value of the test software

Test Mode	Test Channel	Ant 0	Ant 1	Ant 0+1
802.11a	5180	20	17.5	12.5
	5200	19	17	12
	5240	18.5	17	12
	5745	19	19	18
	5785	19	19	18.5
	5825	19	19	18.5
802.11n(20MHz)	5180	20	17.5	13
	5200	19	17.5	12.5
	5240	19	18	12.5
	5745	19	19	17.5
	5785	19	19	18
	5825	19	19	18
802.11n(40MHz)	5190	20	19	15.5
	5230	20	19	15
	5755	15	15	11.5
	5795	18	18	18

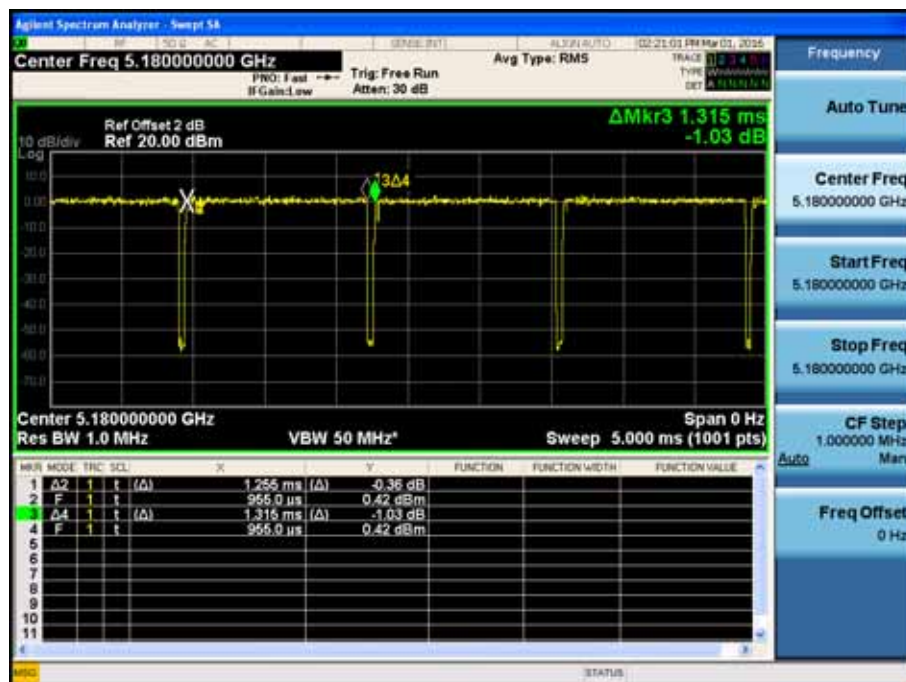
1.5. Duty Cycle

Test Mode	Tx On (ms)	Tx Off (ms)	VBW 1/T(KHz)	Tx On + Tx Off (ms)	Duty Cycle
802.11a	1.340	0.065	0.75	1.405	95.37%
802.11n(20MHz)	1.255	0.060	0.80	1.315	95.44%
802.11n(40MHz)	0.63	0.0333	1.59	0.6633	94.98%

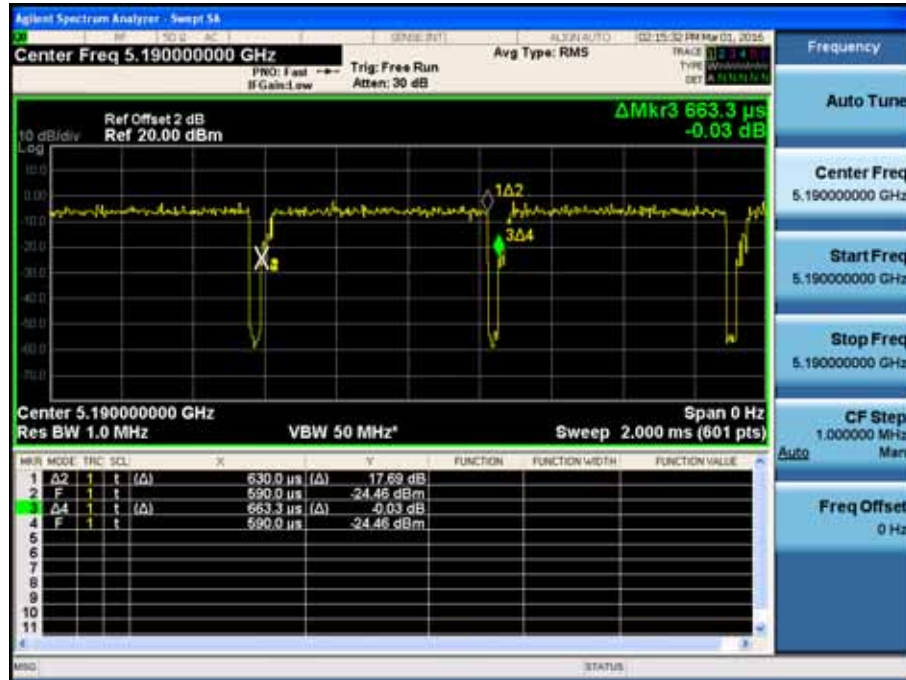
802.11a



802.11n(20MHz)



802.11n(40MHz)



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
Mode 2: Transmit by 802.11n(20MHz)
Mode 3: Transmit by 802.11n(40MHz)

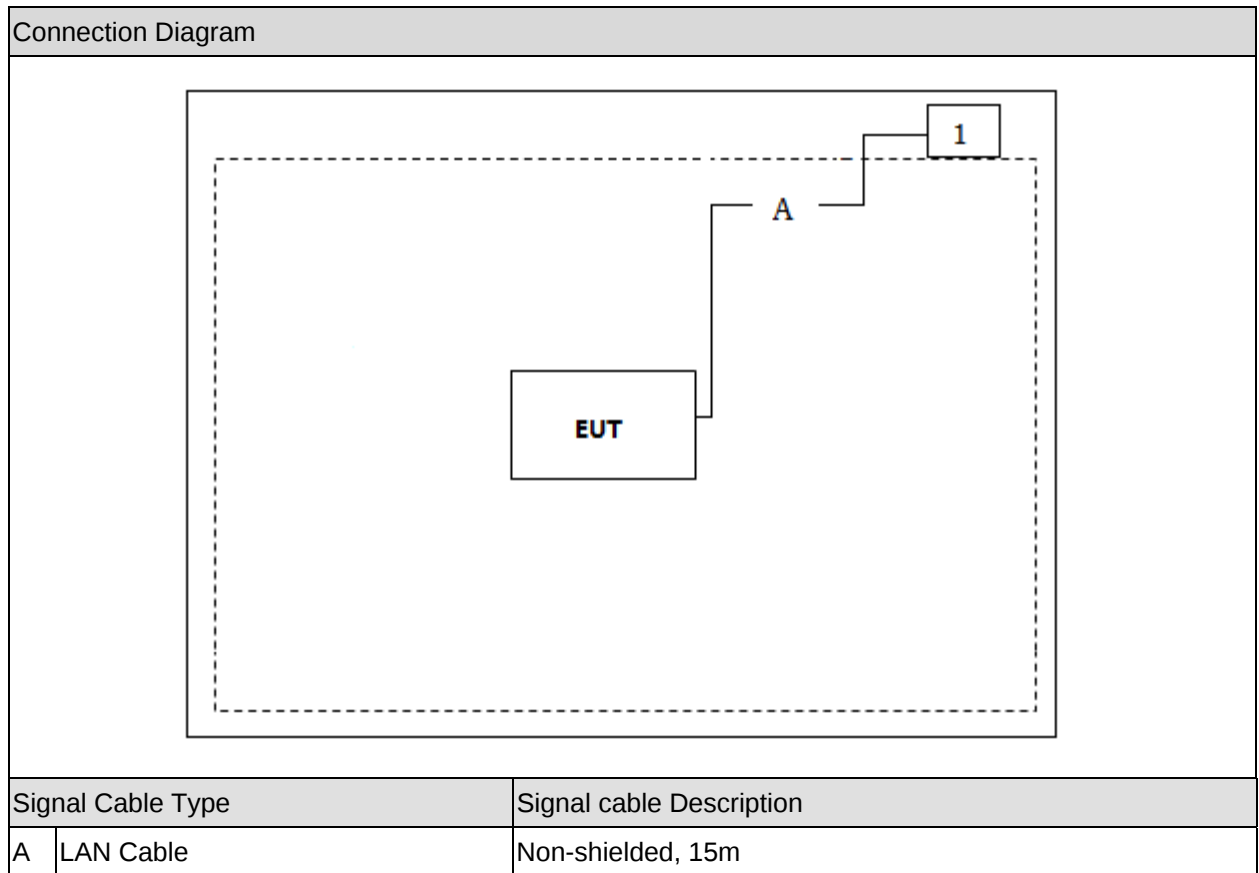
Note 1: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

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	Asus	N80V	8BN0AS226971468	None-shielded

1.8. Configuration of Tested System



1.9. EUT Exercise Software

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

2. Technical Test

2.1. Summary of Test Result

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

Performed Test Item	Normative References	Worst case mode	Limit	Result
Conducted Emission	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.207	802.11a(Ant0)	FCC 15.207	PASS
Radiated Emission	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.209	802.11a(Ant 0+1)	FCC 15.209	PASS
Emission bandwidth and occupied bandwidth	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	802.11a(Ant1)	≥500KHz	PASS
Power Output	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	802.11n(20MHz) (Ant 0+1)	FCC 15.407(a)	PASS
Peak Power Spectral Density	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(a)	802.11n(40MHz) (Ant 0+1)	FCC 15.407(a)	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.205, 15.407(b)	802.11n(40MHz) (Ant 1)	FCC 15.407(b)	PASS
Frequency Stability	FCC CFR Title 47 Part 15 Subpart E: 2015 Section 15.407(g)	30°C/5785MHz	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

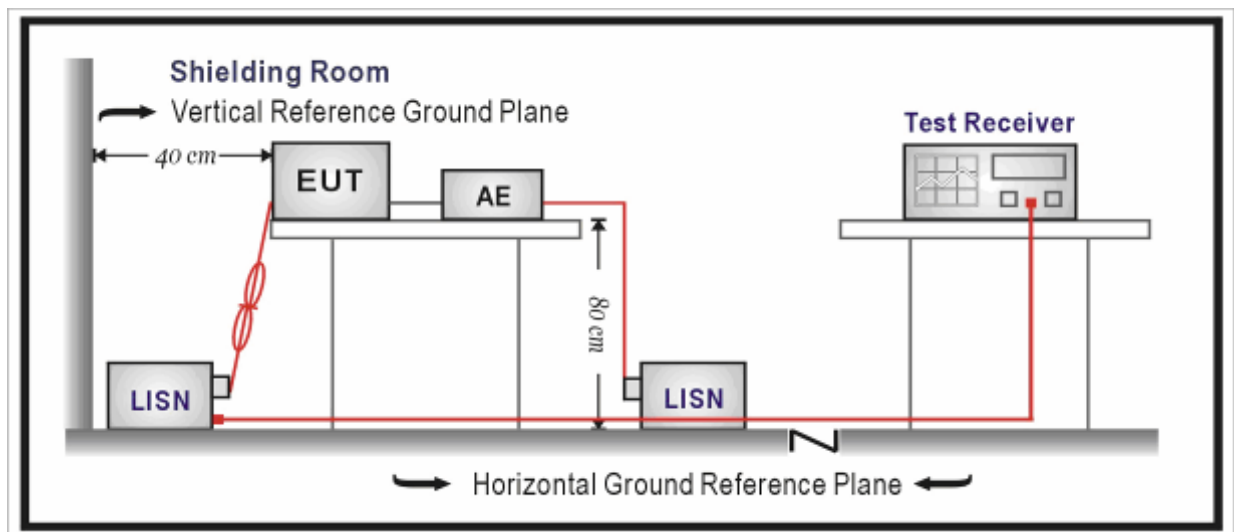
3. Conducted Emission

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	2015.03.29	2016.03.28
Two-Line V-Network	R&S	ENV216	100043	2015.03.29	2016.03.28
Two-Line V-Network	R&S	ENV216	100044	2015.09.17	2016.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2015.03.02	2017.03.01
50ohm Termination	SHX	TF2	07081401	2015.09.17	2016.09.16
Temperature/Humidity Meter	zhichen	ZC1-2	TR1-TH	2015.01.09	2017.01.04

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

3.2. Test Setup



3.3. Limit

Frequency (MHz)	QP (dB μ V)	AV (dB μ V)
0.15 - 0.50	66 – 56	56 – 46
0.50 - 5.0	56	46
5.0 - 30	60	50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

3.4. Test Procedure

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

3.5. Uncertainty

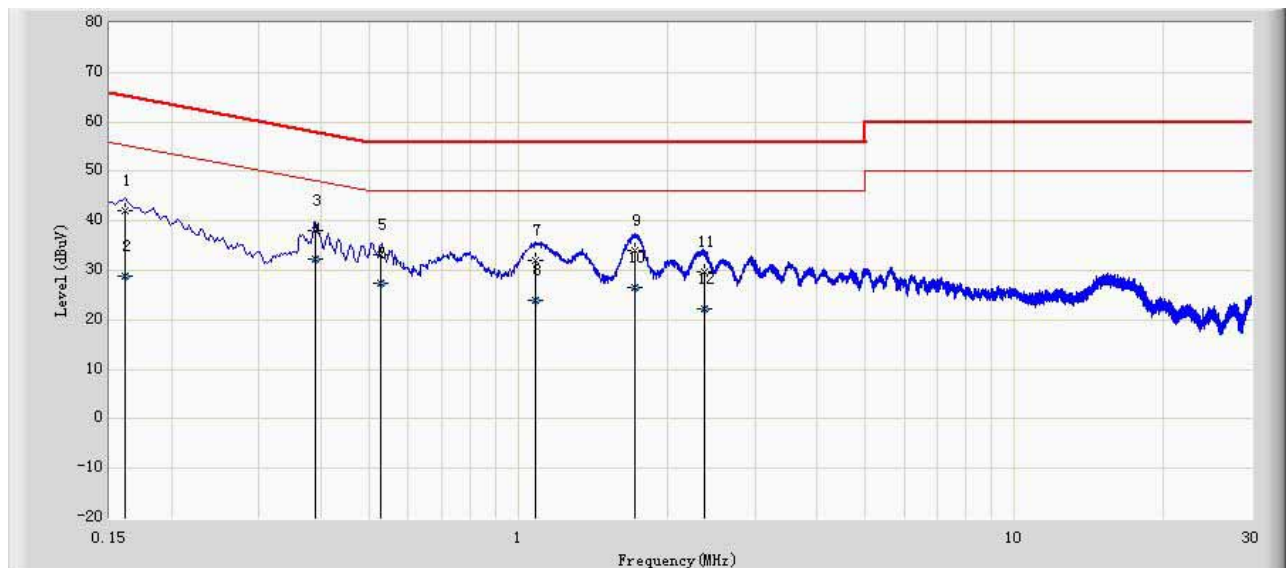
The measurement uncertainty is defined as ± 2.02 dB

3.6. Test Result

Product Name	: Wireless Router Motherboard	Polarity	: Line
Test Item	: AC Power Line Conducted Emission	Power	: AC 120V/60Hz
Test Site	: TR1	Test Mode	: Mode 1

No	Frequency (MHz)	Measure Level (dB μ V)	Reading Level (dB μ V)	Over Limit (dB)	Limit (dB μ V)	Probe (dB)	Cable (dB)	Type
1	0.161	42.173	32.327	-23.226	65.399	9.846	0.200	QP
2	0.161	28.738	18.892	-26.661	55.399	9.846	0.200	AV
3	0.389	38.008	28.123	-20.087	58.096	9.886	0.200	QP
4	0.389	32.169	22.283	-15.927	48.096	9.886	0.200	AV
5	0.528	33.213	23.313	-22.787	56.000	9.900	0.200	QP
6	0.528	27.331	17.431	-18.669	46.000	9.900	0.200	AV
7	1.086	32.023	22.217	-23.977	56.000	9.806	0.200	QP
8	1.086	23.905	14.099	-22.095	46.000	9.806	0.200	AV
9	1.718	33.882	24.091	-22.118	56.000	9.791	0.200	QP
10	1.718	26.482	16.691	-19.518	46.000	9.791	0.200	AV
11	2.377	29.672	19.871	-26.328	56.000	9.801	0.200	QP
12	2.377	22.350	12.549	-23.650	46.000	9.801	0.200	AV

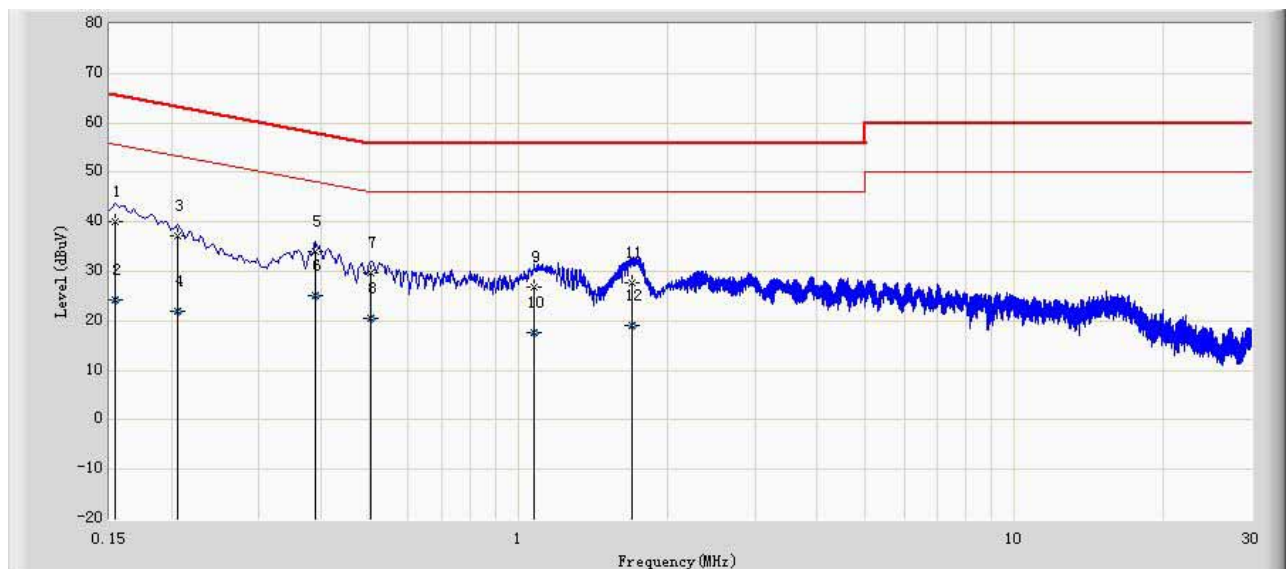
Polarity: Line



Product Name	: Wireless Router Motherboard	Polarity	: Neutral
Test Item	: AC Power Line Conducted Emission	Power	: AC 120V/60Hz
Test Site	: TR1	Test Mode	: Mode 1

No	Frequency (MHz)	Measure Level (dB μ V)	Reading Level (dB μ V)	Over Limit (dB)	Limit (dB μ V)	Probe (dB)	Cable (dB)	Type
1	0.154	40.135	30.151	-25.620	65.754	9.984	0.200	QP
2	0.154	24.240	14.256	-31.514	55.754	9.984	0.200	AV
3	0.206	37.166	27.250	-26.189	63.355	9.917	0.200	QP
4	0.206	21.887	11.971	-31.468	53.355	9.917	0.200	AV
5	0.391	33.882	23.886	-24.166	58.048	9.996	0.200	QP
6	0.391	25.047	15.051	-23.001	48.048	9.996	0.200	AV
7	0.505	29.847	19.799	-26.153	56.000	10.048	0.200	QP
8	0.505	20.583	10.535	-25.417	46.000	10.048	0.200	AV
9	1.075	26.891	16.859	-29.109	56.000	10.032	0.200	QP
10	1.075	17.640	7.608	-28.360	46.000	10.032	0.200	AV
11	1.700	27.754	17.781	-28.246	56.000	9.973	0.200	QP
12	1.700	19.070	9.097	-26.930	46.000	9.973	0.200	AV

Polarity: Neutral



4. Radiated Emission

4.1. Test Equipment

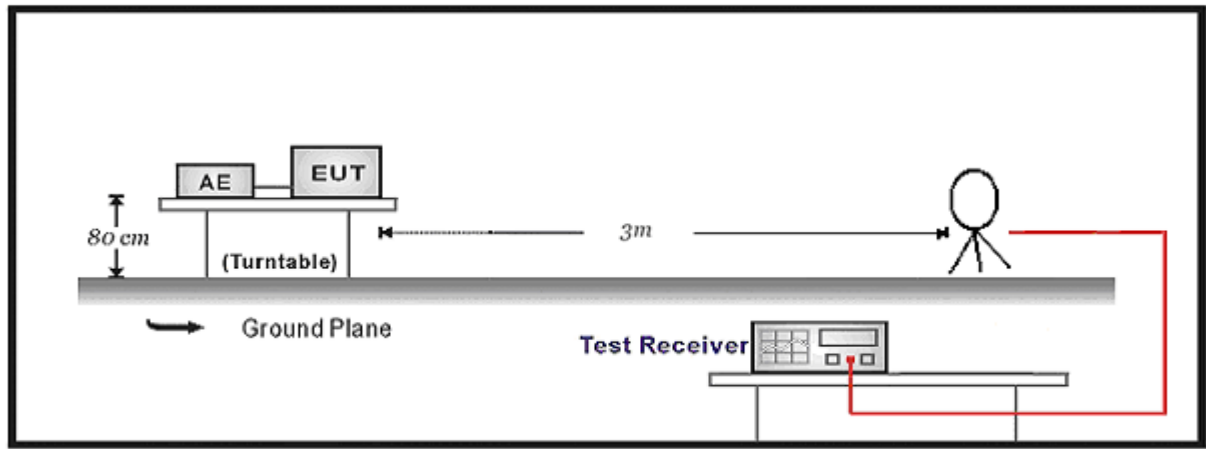
Radiated Emission / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2015.03.29	2016.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2015.11.18	2016.11.17
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2015.10.16	2016.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2015.03.02	2016.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2015.01.09	2017.01.04

Radiated Emission / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2015.01.08	2017.01.04
Preamplifier	Miteq	NSP1800-25	1364185	2015.05.06	2016.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2015.05.06	2016.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2015.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2015.11.25	2016.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2015.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2015.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2015.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.10	2016.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2015.01.09	2017.01.04

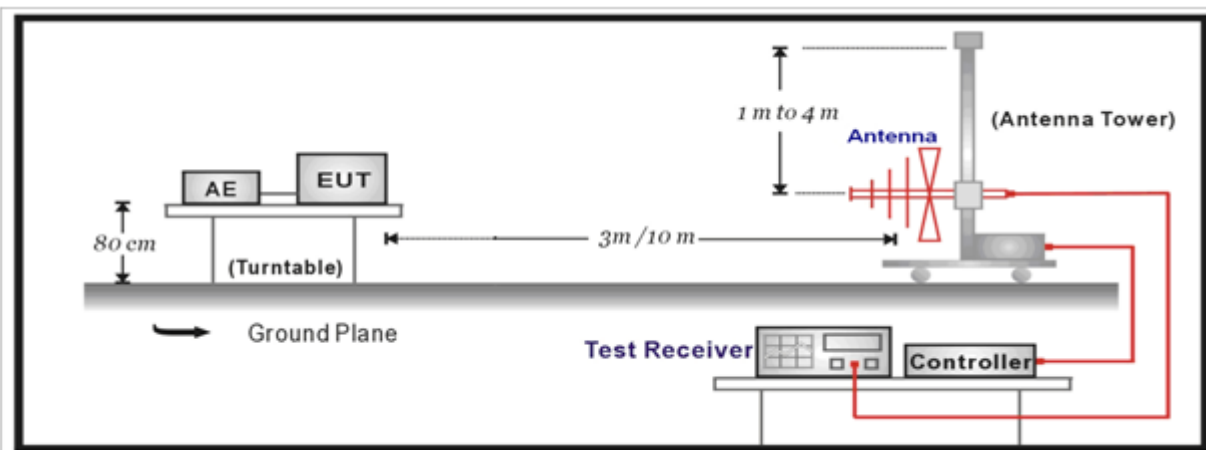
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

4.2. Test Setup

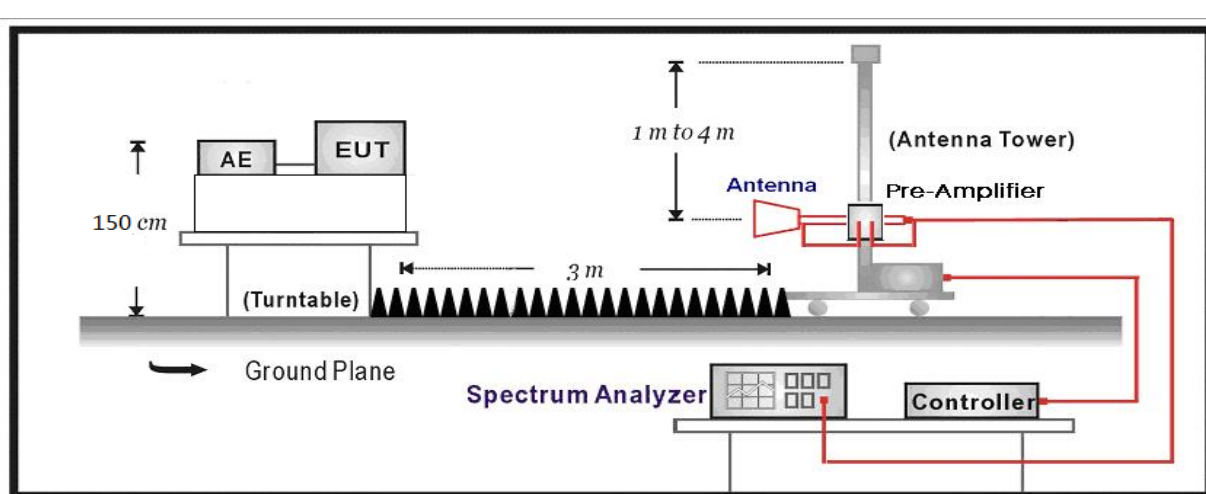
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

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

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

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

FCC Part 15 Subpart C Paragraph 15.205 (Restricted Band)			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4	3600 – 4400	
13.36 – 13.41			

FCC Part 15 Subpart C Paragraph 15.407(5)(b) (Unrestricted Band Emissions Limit)		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dB μ V/m)
5150 - 5250	-27	68.3
5250 - 5350	-27	68.3
5470 - 5725	-27	68.3
5725 - 5825	-27 [Note(1)]	68.3
	-17 [Note(2)]	78.3
Note1: Outside the frequency range 5715 - 5835MHz. Note2: Within the frequency range from the band edge to 10MHz below or above the band edge, 5715 – 5725MHz and 5825 - 5835MHz.		

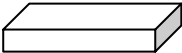
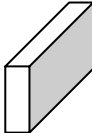
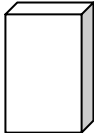
4.4. Test Procedure

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 D02v01		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01	G.6.c	Method AD (Average detection)—primary method
	☒	FCC KDB 789033 D02v01	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

Item	Radiated Emissions		
Device Category	☒	Fixed position use	
	☐	Mobile position use	
Test mode	Mode 1, Mode 2, Mode 3		
Axis	X Axis	Y Axis	Z Axis
			
Worst Axis	Worst Axis ☒	Worst Axis ☐	Worst Axis ☐

4.7. Test Result

Mode1: Transmit by 802.11a									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0	36	H	10360.0	26.8	15.4	42.2	54(Note3)	-11.8	PK
		V	10360.0	29.7	15.4	45.1	54(Note3)	-8.9	PK
		H	15540.0	16.9	22.4	39.2	54(Note3)	-14.8	PK
		V	15540.0	16.9	22.4	39.2	54(Note3)	-14.8	PK
	40	H	10400.0	26.9	16.4	43.3	54(Note3)	-10.7	PK
		V	10400.0	29.5	16.4	45.9	54(Note3)	-8.1	PK
		H	15600.0	19.9	24.1	44.0	54(Note3)	-10.0	PK
		V	15600.0	20.1	24.1	44.2	54(Note3)	-9.8	PK
	48	H	10480.0	26.7	15.5	42.2	54(Note3)	-11.8	PK
		V	10480.0	28.4	15.5	43.9	54(Note3)	-10.1	PK
		H	15720.0	19.0	23.1	42.1	54(Note3)	-11.9	PK
		V	15720.0	19.0	23.1	42.1	54(Note3)	-11.9	PK
	149	H	11490.0	27.4	19.1	46.5	54(Note3)	-7.5	PK
		V	11490.0	29.8	19.1	48.8	54(Note3)	-5.2	PK
		H	17235.0	22.5	24.2	46.8	54(Note3)	-7.2	PK
		V	17235.0	22.5	24.2	46.8	54(Note3)	-7.2	PK
	157	H	11565.5	31.5	18.5	50.0	54(Note3)	-4.0	PK
		V	11565.5	36.1	18.5	54.6	74	-19.4	AV
		V	11565.5	24.8	18.5	43.3	54	-10.7	PK
		H	17355.0	21.0	24.3	45.3	54(Note3)	-8.7	PK
		V	17355.0	22.5	24.3	46.8	54(Note3)	-7.2	PK
		H	11650.0	27.3	19.2	46.6	54(Note3)	-7.4	PK
	165	V	11642.0	31.7	19.5	51.2	54(Note3)	-2.8	PK
		H	17475.0	21.6	24.2	45.8	54(Note3)	-8.2	PK
		V	17475.0	23.2	24.2	47.4	54(Note3)	-6.6	PK
		H	17475.0	23.2	24.2	47.4	54(Note3)	-6.6	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.
- 4.VBW set up, please refer to clause 1.5

Mode1: Transmit by 802.11a									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 1	36	H	10360.0	27.3	15.4	42.7	54(Note3)	-11.3	PK
		V	10360.0	28.5	15.4	44.0	54(Note3)	-10.0	PK
		H	15540.0	16.2	22.4	38.6	54(Note3)	-15.4	PK
		V	15540.0	18.1	22.4	40.5	54(Note3)	-13.5	PK
	40	H	10400.0	26.0	16.4	42.4	54(Note3)	-11.6	PK
		V	10400.0	26.2	16.4	42.5	54(Note3)	-11.5	PK
		H	15600.0	20.3	24.1	44.4	54(Note3)	-9.6	PK
		V	15600.0	20.4	24.1	44.5	54(Note3)	-9.5	PK
	48	H	10480.0	26.7	15.5	42.2	54(Note3)	-11.8	PK
		V	10480.0	27.2	15.5	42.7	54(Note3)	-11.3	PK
		H	15720.0	18.8	23.1	41.9	54(Note3)	-12.1	PK
		V	15720.0	19.4	23.1	42.4	54(Note3)	-11.6	PK
	149	H	11490.0	31.4	19.1	50.5	54(Note3)	-3.5	PK
		V	11490.0	35.3	19.1	54.4	74	-17.6	PK
		V	11490.0	27.6	19.1	46.7	54	-7.3	AV
		H	17235.0	20.8	24.2	45.0	54(Note3)	-9.0	PK
		V	17235.0	22.1	24.2	46.3	54(Note3)	-7.7	PK
	157	H	11570.0	32.3	18.4	50.7	54(Note3)	-3.3	PK
		V	11570.0	33.4	18.4	51.8	54(Note3)	-2.2	PK
		H	17355.0	20.6	24.3	44.9	54(Note3)	-9.1	PK
		V	17355.0	20.7	24.3	45.0	54(Note3)	-9.0	PK
	165	H	11570.0	25.9	18.4	44.3	54(Note3)	-9.7	PK
		V	11570.0	26.3	18.4	44.7	54(Note3)	-9.3	PK
		H	17355.0	20.2	24.3	44.5	54(Note3)	-9.5	PK
		V	17355.0	21.4	24.3	45.7	54(Note3)	-8.3	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.
- 4.VBW set up, please refer to clause 1.5

Mode1: Transmit by 802.11a									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0+1	36	H	10360.0	30.3	15.4	45.7	54(Note3)	-8.3	PK
		V	10360.0	30.3	15.4	45.7	54(Note3)	-8.3	PK
		H	15540.0	13.3	22.4	35.7	54(Note3)	-18.3	PK
		V	15540.0	13.7	22.4	36.0	54(Note3)	-18.0	PK
	40	H	10400.0	27.5	16.4	43.8	54(Note3)	-10.2	PK
		V	10400.0	28.6	16.4	45.0	54(Note3)	-9.0	PK
		H	15600.0	14.9	24.1	39.0	54(Note3)	-15.0	PK
		V	15600.0	15.1	24.1	39.2	54(Note3)	-14.8	PK
	48	H	10480.0	27.9	15.5	43.4	54(Note3)	-10.6	PK
		V	10480.0	28.7	15.5	44.2	54(Note3)	-9.8	PK
		H	15720.0	17.3	23.1	40.4	54(Note3)	-13.6	PK
		V	15720.0	17.3	23.1	40.4	54(Note3)	-13.6	PK
	149	H	11489.0	30.9	19.1	50.0	54(Note3)	-4.0	PK
		V	11489.0	31.3	19.1	50.5	54(Note3)	-3.5	PK
		H	17235.0	22.0	24.2	46.3	54(Note3)	-7.7	PK
		V	17235.0	22.7	24.2	46.9	54(Note3)	-7.1	PK
	157	H	11565.5	29.5	18.5	48.0	54(Note3)	-6.0	PK
		V	11565.5	35.4	18.5	53.9	54(Note3)	-0.1	PK
		H	17355.0	16.3	24.3	40.6	54(Note3)	-13.4	PK
		V	17355.0	16.9	24.3	41.2	54(Note3)	-12.8	PK
	165	H	11650.5	27.7	19.2	46.9	54(Note3)	-7.1	PK
		V	11650.5	31.5	19.2	50.7	54(Note3)	-3.3	PK
		H	17475.0	21.2	24.2	45.4	54(Note3)	-8.6	PK
		V	17475.0	24.4	24.2	48.6	54(Note3)	-5.4	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.
- 4.VBW set up, please refer to clause 1.5

Mode 2: Transmit by 802.11n (20MHz)									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0	36	H	10360.0	26.9	15.4	42.3	54(Note3)	-11.7	PK
		V	10360.0	29.7	15.4	45.1	54(Note3)	-8.9	PK
		H	15540.0	17.5	22.4	39.9	54(Note3)	-14.1	PK
		V	15540.0	17.5	22.4	39.9	54(Note3)	-14.1	PK
	40	H	10400.0	26.0	16.4	42.4	54(Note3)	-11.6	PK
		V	10400.0	28.2	16.4	44.6	54(Note3)	-9.4	PK
		H	15600.0	18.9	24.1	43.0	54(Note3)	-11.0	PK
		V	15600.0	19.5	24.1	43.6	54(Note3)	-10.4	PK
	48	H	10480.0	28.5	15.5	44.0	54(Note3)	-10.0	PK
		V	10480.0	29.8	15.5	45.3	54(Note3)	-8.7	PK
		H	15720.0	19.1	23.1	42.1	54(Note3)	-11.9	PK
		V	15720.0	20.0	23.1	43.1	54(Note3)	-10.9	PK
	149	H	11490.0	28.3	19.1	47.3	54(Note3)	-6.7	PK
		V	11490.0	31.1	19.1	50.1	54(Note3)	-3.9	PK
		H	17235.0	21.8	24.2	46.0	54(Note3)	-8.0	PK
		V	17235.0	21.8	24.2	46.0	54(Note3)	-8.0	PK
	157	H	11570.0	30.8	18.4	49.2	54(Note3)	-4.8	PK
		V	11570.0	35.2	18.4	53.6	54(Note3)	-0.4	PK
		H	17355.0	21.4	24.3	45.6	54(Note3)	-8.4	PK
		V	17355.0	21.8	24.3	46.1	54(Note3)	-7.9	PK
	165	H	11650.0	29.0	19.2	48.2	54(Note3)	-5.8	PK
		V	11650.0	32.0	19.2	51.3	54(Note3)	-2.7	PK
		H	17475.0	21.9	24.2	46.2	54(Note3)	-7.8	PK
		V	17475.0	24.4	24.2	48.6	54(Note3)	-5.4	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.
- 4.VBW set up, please refer to clause 1.5

Mode 2: Transmit by 802.11n (20MHz)									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 1	36	H	10360.0	26.6	15.4	42.0	54(Note3)	-12.0	PK
		V	10360.0	29.4	15.4	44.8	54(Note3)	-9.2	PK
		H	15540.0	16.6	22.4	39.0	54(Note3)	-15.0	PK
		V	15540.0	17.4	22.4	39.8	54(Note3)	-14.2	PK
	40	H	10400.0	26.6	16.4	43.0	54(Note3)	-11.0	PK
		V	10400.0	27.3	16.4	43.6	54(Note3)	-10.4	PK
		H	15600.0	19.4	24.1	43.5	54(Note3)	-10.5	PK
		V	15600.0	20.5	24.1	44.6	54(Note3)	-9.4	PK
	48	H	10480.0	26.7	15.5	42.2	54(Note3)	-11.8	PK
		V	10480.0	27.1	15.5	42.6	54(Note3)	-11.4	PK
		H	15720.0	18.7	23.1	41.8	54(Note3)	-12.2	PK
		V	15720.0	19.4	23.1	42.5	54(Note3)	-11.5	PK
	149	H	11490.0	32.1	19.1	51.2	54(Note3)	-2.8	PK
		V	11490.0	33.8	19.1	52.9	54(Note3)	-1.1	PK
		H	17235.0	21.5	24.2	45.7	54(Note3)	-8.3	PK
		V	17235.0	21.8	24.2	46.0	54(Note3)	-8.0	PK
	157	H	11570.0	33.6	18.4	52.0	54(Note3)	-2.0	PK
		V	11570.0	35.8	18.4	54.2	74	-19.8	AV
		V	11570.0	29.4	18.4	47.8	54	-6.2	PK
		H	17355.0	20.5	24.3	44.8	54(Note3)	-9.2	PK
		V	17355.0	22.3	24.3	46.6	54(Note3)	-7.4	PK
		H	11650.0	30.9	19.2	50.1	54(Note3)	-3.9	PK
	165	V	11650.0	31.5	19.2	50.7	54(Note3)	-3.3	PK
		H	17475.0	22.5	24.2	46.8	54(Note3)	-7.2	PK
		V	17475.0	22.5	24.2	46.8	54(Note3)	-7.2	PK
		H	17475.0	22.5	24.2	46.8	54(Note3)	-7.2	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.
- 4.VBW set up, please refer to clause 1.5

Mode 2: Transmit by 802.11n (20MHz)									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0+1	36	H	10360.0	27.8	15.4	43.2	54(Note3)	-10.8	PK
		V	10360.0	28.7	15.4	44.2	54(Note3)	-9.8	PK
		H	15540.0	13.1	22.4	35.5	54(Note3)	-18.5	PK
		V	15540.0	13.5	22.4	35.9	54(Note3)	-18.1	PK
	40	H	10400.0	27.2	16.4	43.6	54(Note3)	-10.4	PK
		V	10400.0	29.2	16.4	45.6	54(Note3)	-8.4	PK
		H	15600.0	15.2	24.1	39.3	54(Note3)	-14.7	PK
		V	15600.0	15.3	24.1	39.4	54(Note3)	-14.6	PK
	48	H	10480.0	27.3	15.5	42.9	54(Note3)	-11.1	PK
		V	10480.0	29.5	15.5	45.0	54(Note3)	-9.0	PK
		H	15720.0	17.1	23.1	40.2	54(Note3)	-13.8	PK
		V	15720.0	17.1	23.1	40.2	54(Note3)	-13.8	PK
	149	H	11489.0	33.1	19.1	52.2	54(Note3)	-1.8	PK
		V	11489.0	33.1	19.1	52.2	54(Note3)	-1.8	PK
		H	17235.0	23.1	24.2	47.4	54(Note3)	-6.7	PK
		V	17235.0	23.1	24.2	47.4	54(Note3)	-6.7	PK
	157	H	11565.5	34.0	18.5	52.5	54(Note3)	-1.5	PK
		V	11565.5	34.0	18.5	52.5	54(Note3)	-1.5	PK
		H	17355.0	17.3	24.3	41.5	54(Note3)	-12.5	PK
		V	17355.0	17.3	24.3	41.5	54(Note3)	-12.5	PK
	165	H	11642.0	30.2	19.5	49.7	54(Note3)	-4.3	PK
		V	11642.0	34.7	19.5	54.2	74	-19.8	PK
		V	11642.0	23.8	19.5	43.3	54	-10.5	AV
		H	17475.0	22.3	24.2	46.5	54(Note3)	-7.5	PK
		V	17475.0	23.7	24.2	48.0	54(Note3)	-6.0	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.
- 4.VBW set up, please refer to clause 1.5

Mode3: Transmit by 802.11n(40MHz)									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0	38	H	10380.0	26.5	15.9	42.4	54(Note3)	-11.6	PK
		V	10380.0	27.6	15.9	43.5	54(Note3)	-10.6	PK
		H	15570.0	16.2	22.5	38.7	54(Note3)	-15.3	PK
		V	15570.0	16.2	22.5	38.7	54(Note3)	-15.3	PK
	46	H	10460.0	27.4	15.5	42.9	54(Note3)	-11.1	PK
		V	10460.0	29.7	15.5	45.2	54(Note3)	-8.8	PK
		H	15690.0	19.3	22.1	41.3	54(Note3)	-12.7	PK
		V	15690.0	20.5	22.1	42.5	54(Note3)	-11.5	PK
	151	H	11510.0	25.2	18.3	43.5	54(Note3)	-10.5	PK
		V	11510.0	25.2	18.3	43.5	54(Note3)	-10.5	PK
		H	17265.0	22.9	24.4	47.3	54(Note3)	-6.7	PK
		V	17265.0	23.2	24.4	47.6	54(Note3)	-6.4	PK
	159	H	11590.0	26.4	17.7	44.1	54(Note3)	-9.9	PK
		V	11590.0	26.6	17.7	44.3	54(Note3)	-9.7	PK
		H	17385.0	21.5	26.4	47.9	54(Note3)	-6.1	PK
		V	17385.0	21.9	26.4	48.3	54(Note3)	-5.7	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.									
4.VBW set up, please refer to clause 1.5									

Mode3: Transmit by 802.11n(40MHz)									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 1	38	H	10380.0	26.5	15.9	42.3	54(Note3)	-11.7	PK
		V	10380.0	27.0	15.9	42.9	54(Note3)	-11.1	PK
		H	15570.0	17.1	22.5	39.5	54(Note3)	-14.5	PK
		V	15570.0	17.3	22.5	39.8	54(Note3)	-14.2	PK
	46	H	10460.0	27.4	15.5	42.8	54(Note3)	-11.2	PK
		V	10460.0	27.6	15.5	43.1	54(Note3)	-10.9	PK
		H	15690.0	19.2	22.1	41.2	54(Note3)	-12.8	PK
		V	15690.0	19.3	22.1	41.3	54(Note3)	-12.7	PK
	151	H	11510.0	33.1	18.3	51.4	54(Note3)	-2.6	PK
		V	11510.0	35.3	18.3	53.6	54(Note3)	-0.4	PK
		H	17265.0	22.2	24.4	46.6	54(Note3)	-7.4	PK
		V	17265.0	23.6	24.4	48.0	54(Note3)	-6.0	PK
	159	H	11590.0	33.4	17.7	51.1	54(Note3)	-2.9	PK
		V	11590.0	34.5	17.7	52.1	54(Note3)	-1.9	PK
		H	17385.0	20.9	26.4	47.3	54(Note3)	-6.7	PK
		V	17385.0	21.8	26.4	48.2	54(Note3)	-5.8	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. 4.VBW set up, please refer to clause 1.5									

Mode3: Transmit by 802.11n(40MHz)									
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBμV/m)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
Ant 0+1	38	H	10380.0	27.8	15.9	43.6	54(Note3)	-10.4	PK
		V	10380.0	28.2	15.9	44.1	54(Note3)	-9.9	PK
		H	15570.0	13.7	22.5	36.1	54(Note3)	-17.9	PK
		V	15570.0	15.2	22.5	37.7	54(Note3)	-16.3	PK
	46	H	10460.0	27.5	15.5	43.0	54(Note3)	-11.0	PK
		V	10460.0	28.0	15.5	43.4	54(Note3)	-10.6	PK
		H	15690.0	17.6	22.1	39.7	54(Note3)	-14.3	PK
		V	15690.0	17.9	22.1	39.9	54(Note3)	-14.1	PK
	151	H	11510.0	25.2	18.3	43.5	54(Note3)	-10.5	PK
		V	11510.0	25.9	18.3	44.2	54(Note3)	-9.9	PK
		H	17265.0	22.2	24.4	46.6	54(Note3)	-7.4	PK
		V	17265.0	22.7	24.4	47.1	54(Note3)	-6.9	PK
	159	H	11590.0	26.8	17.7	44.5	54(Note3)	-9.5	PK
		V	11565.5	32.0	18.5	50.5	54(Note3)	-3.5	PK
		H	17385.0	20.1	26.4	46.5	54(Note3)	-7.5	PK
		V	17385.0	21.6	26.4	48.0	54(Note3)	-6.0	PK

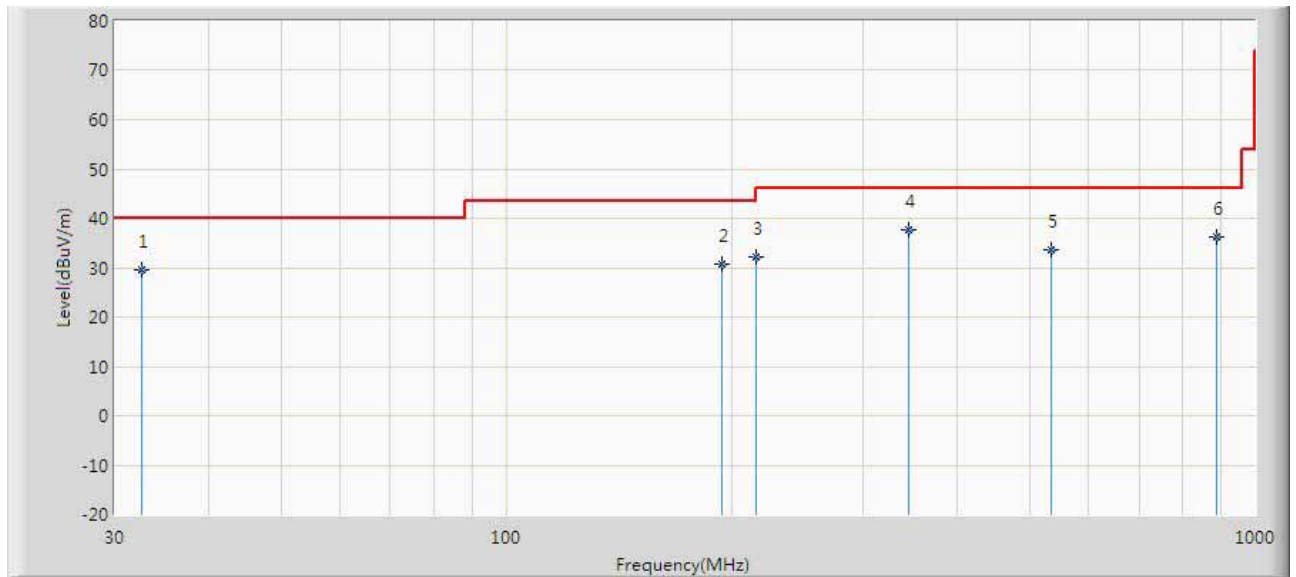
1. Measure Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~40GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
- 4.VBW set up, please refer to clause 1.5

The worst case of Radiated Emission below 1GHz:

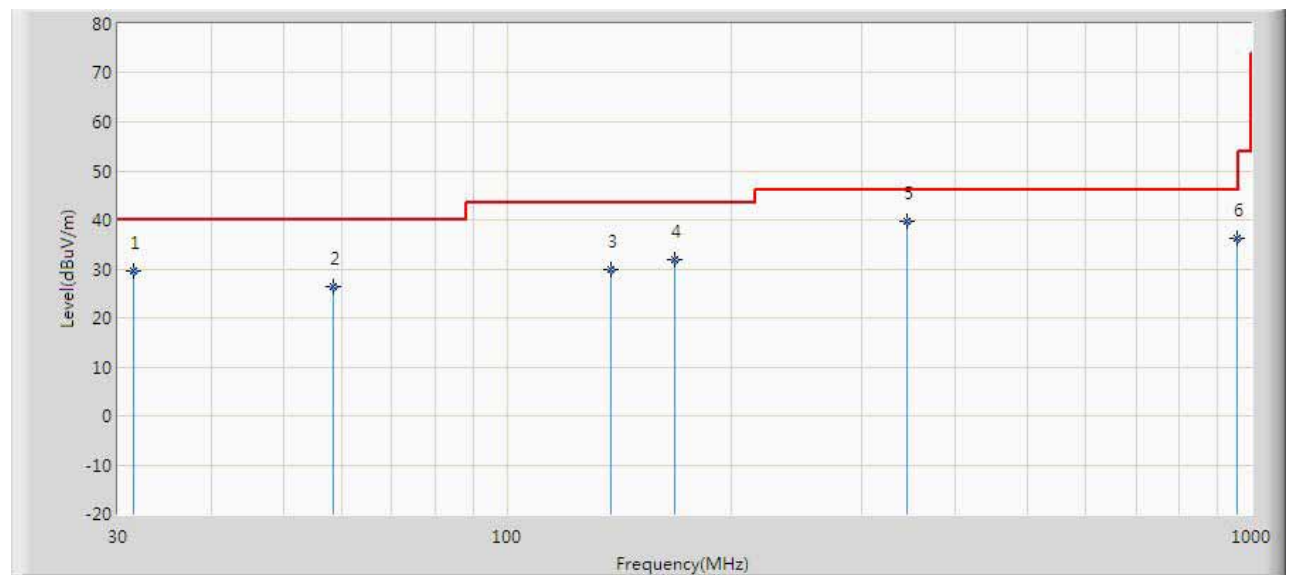
Chain	CH	Antenna	Frequency (MHz)	Reading Level (dB μ V/m)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
Ant 0+1	36	H	32.4	2.7	27.2	29.9	40.0	-10.1	QP
		H	193.3	13.3	17.5	30.8	43.5	-12.7	QP
		H	214.4	15.3	17.1	32.4	43.5	-11.1	QP
		H	342.1	15.6	22.0	37.6	46.0	-8.4	QP
		H	527.9	6.0	28.1	34.1	46.0	-11.9	QP
		H	879.4	3.9	32.2	36.1	46.0	-9.9	QP
		V	31.6	5.7	23.7	29.4	40.0	-10.6	QP
		V	58.4	10.0	16.6	26.6	40.0	-13.4	QP
		V	137.1	11.3	18.8	30.1	43.5	-13.4	QP
		V	167.3	12.5	19.2	31.7	43.5	-11.8	QP
		V	342.2	16.3	24.0	40.3	46.0	-5.7	QP
		V	948.0	3.6	32.9	36.5	46.0	-9.5	QP

Note 1: The worst data of Radiated Emission below 1GHz are as follows

Polarity: Horizontal



Polarity: Vertical



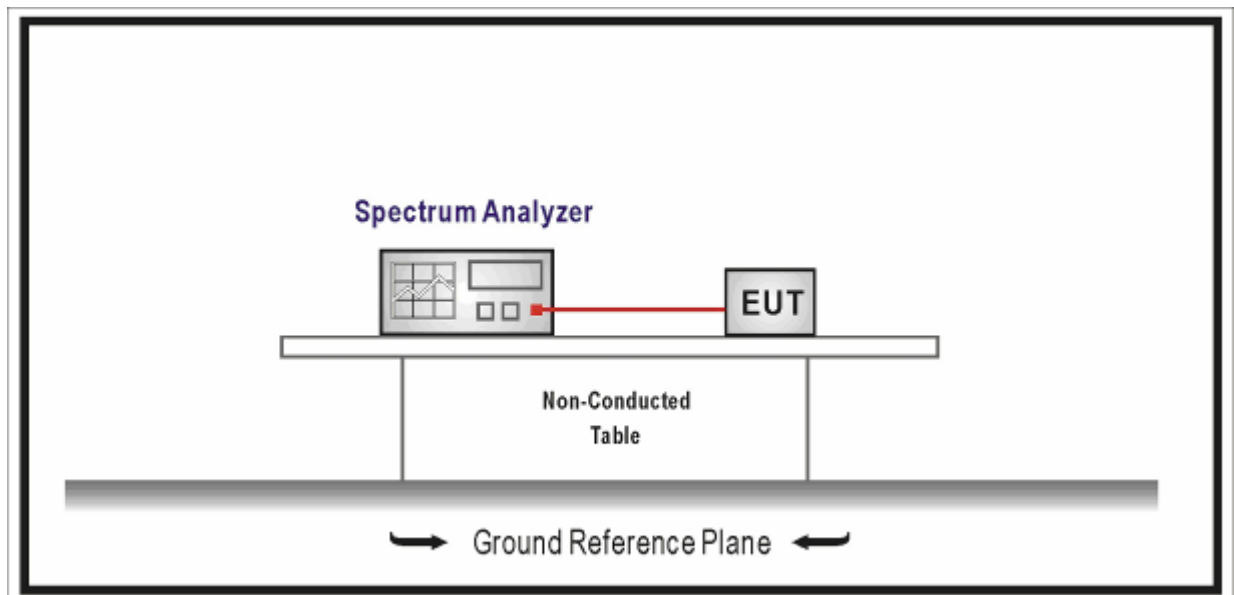
5. Emission bandwidth and occupied bandwidth

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	2015.03.11	2016.03.10
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2015.04.10	2016.04.09

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

The limit of 99% and 26dBm occupied bandwidth is not required.

6dB occupied bandwidth $\leq 500\text{KHz}$

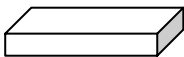
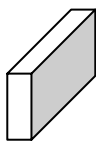
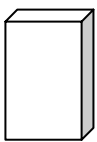
5.4. Test Procedure

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 D02v01		C	Bandwidth Measurement
	☒	FCC KDB 789033 D02v01	C.1	Emission Bandwidth (26dB)
	☒	FCC KDB 789033 D02v01	C.2	Minimum Emission Bandwidth for the band 5.725-5.85 GHz (6dB)
☒	FCC KDB 789033 D02v01		D	99 Percent Occupied Bandwidth

5.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

5.6. EUT test Axis definition

Item	Emission bandwidth and occupied bandwidth		
Device Category	☒	Fixed position use	
	☐	Mobile position use	
Test mode	Mode 1,Mode 2, Mode 3,Mode 4		
Axis	X Axis	Y Axis	Z Axis
			
Worst Axis	Worst Axis ☒	Worst Axis ☐	Worst Axis ☐

5.7. Test Result

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with Ant0

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
36	5180	22.12	N/A	16.705	N/A	N/A	N/A	N/A	Pass
40	5200	21.67	N/A	16.645	N/A	N/A	N/A	N/A	Pass
48	5240	21.09	N/A	16.636	N/A	N/A	N/A	N/A	Pass
149	5745	21.82	N/A	16.580	N/A	16.38	N/A	≥500kHz	Pass
157	5785	21.71	N/A	16.635	N/A	16.38	N/A	≥500kHz	Pass
165	5825	22.05	N/A	16.660	N/A	16.47	N/A	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with Ant1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
36	5180	N/A	22.19	N/A	16.605	N/A	N/A	N/A	Pass
40	5200	N/A	22.21	N/A	16.544	N/A	N/A	N/A	Pass
48	5240	N/A	21.65	N/A	16.554	N/A	N/A	N/A	Pass
149	5745	N/A	22.26	N/A	16.599	N/A	16.38	≥500kHz	Pass
157	5785	N/A	21.84	N/A	16.607	N/A	16.33	≥500kHz	Pass
165	5825	N/A	20.96	N/A	16.591	N/A	16.32	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with Ant0+1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
36	5180	21.39	21.64	16.570	16.596	N/A	N/A	N/A	Pass
40	5200	20.99	20.68	16.533	16.514	N/A	N/A	N/A	Pass
48	5240	21.56	20.61	16.448	16.469	N/A	N/A	N/A	Pass
149	5745	20.92	21.56	16.541	16.537	16.44	16.45	≥500kHz	Pass
157	5785	21.13	21.27	16.581	16.569	16.35	16.35	≥500kHz	Pass
165	5825	21.27	21.29	16.517	16.520	16.35	16.43	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) with Ant0

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
36	5180	22.84	N/A	17.783	N/A	N/A	N/A	N/A	Pass
40	5200	22.39	N/A	17.742	N/A	N/A	N/A	N/A	Pass
48	5240	23.09	N/A	17.745	N/A	N/A	N/A	N/A	Pass
149	5745	22.12	N/A	17.719	N/A	17.60	N/A	≥500kHz	Pass
157	5785	22.05	N/A	17.687	N/A	17.40	N/A	≥500kHz	Pass
165	5825	21.58	N/A	17.679	N/A	17.59	N/A	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) with Ant1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
36	5180	N/A	22.19	N/A	17.709	N/A	N/A	N/A	Pass
40	5200	N/A	22.03	N/A	17.714	N/A	N/A	N/A	Pass
48	5240	N/A	22.10	N/A	17.725	N/A	N/A	N/A	Pass
149	5745	N/A	22.20	N/A	17.722	N/A	17.55	≥500kHz	Pass
157	5785	N/A	21.80	N/A	17.680	N/A	17.55	≥500kHz	Pass
165	5825	N/A	22.03	N/A	17.710	N/A	17.55	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) with Ant0+1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
36	5180	22.24	21.96	17.724	17.701	N/A	N/A	N/A	Pass
40	5200	22.19	22.61	17.701	17.688	N/A	N/A	N/A	Pass
48	5240	21.08	21.31	17.562	17.548	N/A	N/A	N/A	Pass
149	5745	23.17	23.00	17.718	17.731	17.57	17.58	≥500kHz	Pass
157	5785	21.91	21.71	17.637	17.666	17.55	17.61	≥500kHz	Pass
165	5825	22.33	22.88	17.731	17.799	17.43	17.36	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) with Ant0

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
38	5190	46.57	N/A	36.438	N/A	N/A	N/A	N/A	Pass
46	5230	15.21	N/A	36.421	N/A	N/A	N/A	N/A	Pass
151	5755	46.23	N/A	36.467	N/A	36.34	N/A	≥500kHz	Pass
159	5795	47.42	N/A	36.407	N/A	36.17	N/A	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) with Ant1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
38	5190	N/A	44.54	N/A	36.363	N/A	N/A	N/A	Pass
46	5230	N/A	45.65	N/A	36.369	N/A	N/A	N/A	Pass
151	5755	N/A	44.91	N/A	36.356	N/A	36.32	≥500kHz	Pass
159	5795	N/A	45.33	N/A	36.387	N/A	36.01	≥500kHz	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) with Ant0+1

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB Occupied Bandwidth (MHz)		Limit	Result
		Ant0	Ant1	Ant0	Ant1	Ant0	Ant1		
38	5190	45.23	45.74	36.381	36.310	N/A	N/A	N/A	Pass
46	5230	43.86	44.06	36.234	36.122	N/A	N/A	N/A	Pass
151	5755	43.57	43.50	36.342	36.359	36.29	36.30	≥500kHz	Pass
159	5795	43.88	42.73	36.206	36.259	35.84	36.13	≥500kHz	Pass

Note: The worst data OB is as follows.

802.11a CH5825 Ant 1

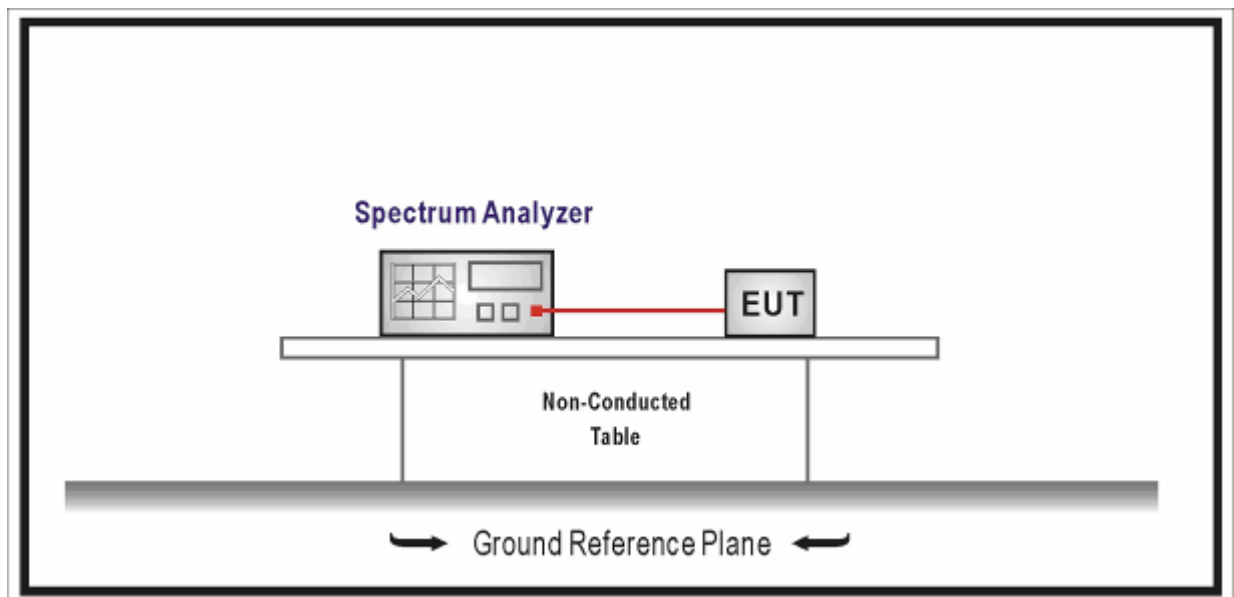


6. Power Output

6.1. Test Equipment

Power Output / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2015.03.11	2016.03.10
Power Sensor	Anritsu	MA2411B	0846014	2015.11.11	2016.11.10
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2015.04.10	2016.04.09
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

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

6.4. 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 D02v01		E	Maximum conducted output power	
	☐	ANSI C63.10		E.2	Measurement using a Spectrum Analyzer or EMI Receiver (SA)
		☐	ANSI C63.10	E.2.b	Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep)
		☐	ANSI C63.10	E.2.c	Method SA-1 Alternative (RMS detection with slow sweep and EUT transmitting continuously at full power)
		☐	ANSI C63.10	E.2.d	Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction)
		☐	ANSI C63.10	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)

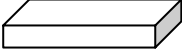
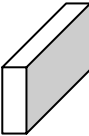
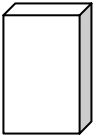
		☐	ANSI C63.10	E.2.f	Method SA-3 (RMS detection with max hold)
		☐	ANSI C63.10	E.2.g	Method SA-3 Alternative (Reduced VBW with max hold)
	☒	ANSI C63.10		E.3	Measurement using a Power Meter (PM)
		☐	ANSI C63.10	E.3.a	Method PM (Measurement using an RF average power meter)
		☒	ANSI C63.10	E.3.b	Method PM-G (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

6.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

6.6. EUT test Axis definition

Item	Power Output		
Device Category	☒	Fixed position use	
	☐	Mobile position use	
Test mode	Mode 1, Mode 2, Mode 3		
Axis	X Axis	Y Axis	Z Axis
			
Worse Axis			

6.7. Test Result

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with Ant 0

Channel No.	Frequency (MHz)	Power (dBm)	Directional Gain (dBi)	FCC Limit (dBm)	Result
36	5180	24.73	8.56	27.44	Pass
40	5200	24.11	8.56	27.44	Pass
48	5240	23.36	8.56	27.44	Pass
149	5745	26.02	8.56	27.44	Pass
157	5785	26.32	8.56	27.44	Pass
165	5825	26.35	8.56	27.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with Ant 1

Channel No.	Frequency (MHz)	Power (dBm)	Directional Gain (dBi)	FCC Limit (dBm)	Result
36	5180	24.48	8.56	27.44	Pass
40	5200	24.71	8.56	27.44	Pass
48	5240	24.76	8.56	27.44	Pass
149	5745	26.65	8.56	27.44	Pass
157	5785	26.91	8.56	27.44	Pass
165	5825	25.51	8.56	27.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a with Ant 0+1

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	DiretionalGain (dBi)	FCC Limit (dBm)	Result
		Ant 0	Ant 1				
36	5180	17.08	20.63	22.22	11.57	30.0	Pass
40	5200	16.83	20.01	21.72	11.57	30.0	Pass
48	5240	16.66	19.63	21.40	11.57	30.0	Pass
149	5745	26.52	26.64	29.59	11.57	30.0	Pass
157	5785	26.07	26.58	29.34	11.57	30.0	Pass
165	5825	27.02	25.41	29.30	11.57	30.0	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) with Ant 0

Channel No.	Frequency (MHz)	Power (dBm)	DiretionalGain (dBi)	FCC Limit (dBm)	Result
36	5180	24.76	8.56	27.44	Pass
40	5200	24.25	8.56	27.44	Pass
48	5240	24.58	8.56	27.44	Pass
149	5745	26.95	8.56	27.44	Pass
157	5785	26.73	8.56	27.44	Pass
165	5825	26.78	8.56	27.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) with Ant 1

Channel No.	Frequency (MHz)	Power (dBm)	Directional Gain (dBi)	FCC Limit (dBm)	Result
36	5180	24.28	8.56	27.44	Pass
40	5200	24.57	8.56	27.44	Pass
48	5240	25.01	8.56	27.44	Pass
149	5745	26.64	8.56	27.44	Pass
157	5785	26.92	8.56	27.44	Pass
165	5825	25.66	8.56	27.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) with Ant 0+1

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Directional Gain (dBi)	FCC Limit (dBm)	Result
		Ant 0	Ant 1				
36	5180	17.03	20.82	22.34	11.57	30.0	Pass
40	5200	16.83	20.88	22.32	11.57	30.0	Pass
48	5240	17.07	20.01	21.79	11.57	30.0	Pass
149	5745	26.23	26.53	29.39	11.57	30.0	Pass
157	5785	26.02	26.85	29.47	11.57	30.0	Pass
165	5825	27.26	25.02	29.29	11.57	30.0	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) with Ant 0

Channel No.	Frequency (MHz)	Power (dBm)	Directional Gain (dBi)	FCC Limit (dBm)	Result
38	5190	25.37	8.56	27.44	Pass
46	5230	25.55	8.56	27.44	Pass
151	5755	23.41	8.56	27.44	Pass
159	5795	26.33	8.56	27.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) with Ant 1

Channel No.	Frequency (MHz)	Power (dBm)	Directional Gain (dBi)	FCC Limit (dBm)	Result
38	5190	26.27	8.56	27.44	Pass
46	5230	26.67	8.56	27.44	Pass
151	5755	23.02	8.56	27.44	Pass
159	5795	25.71	8.56	27.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) with Ant 0+1

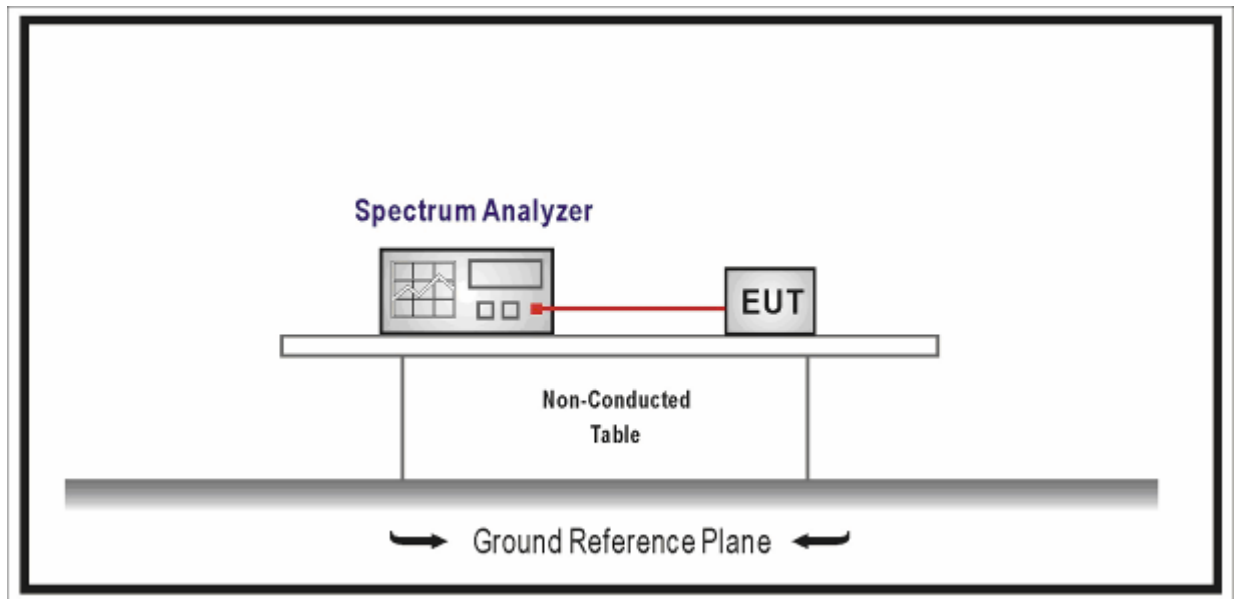
Channel No.	Frequency (MHz)	Measurement Power		Total Power (dBm)	DiretionalGain (dBi)	FCC Limit (dBm)	Result
		Output (dBm)					
		Ant 0	Ant 1				
38	5190	20.81	23.89	25.63	11.57	30.0	Pass
46	5230	20.95	23.14	25.19	11.57	30.0	Pass
151	5755	19.04	21.03	23.16	11.57	30.0	Pass
159	5795	27.07	25.71	29.45	11.57	30.0	Pass

7. Peak Power Spectral Density

7.1. Test Equipment

Peak Power Spectral Density / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2015.03.11	2016.03.10
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2015.04.10	2016.04.09
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

Peak Power Spectral Density Limit	
☒	For the band 5.15-5.25 GHz
☐	Outdoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 17 - (G_{TX} - 6)$
☒	Indoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 17 - (G_{TX} - 6)$
☐	Fixed point-to-point access points: the maximum power spectral density shall not exceed 17 dBm/MHz. If $G_{TX} > 23\text{dBi}$, then $P_{out} \leq 17 - (G_{TX} - 23)$
☐	Mobile and portable client devices: the maximum power spectral density shall not exceed 11 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 11 - (G_{TX} - 6)$
☐	For the 5.25-5.35 GHz: the maximum power spectral density shall not exceed 11 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 11 - (G_{TX} - 6)$
☐	For the 5.47-5.725 GHz: the maximum power spectral density shall not exceed 11 dBm/MHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 11 - (G_{TX} - 6)$
☒	For the band 5.725-5.85 GHz: the maximum power spectral density shall not exceed 30 dBm/500KHz. If $G_{TX} > 6\text{dBi}$, then $P_{out} \leq 30 - (G_{TX} - 6)$
Note 1 : G_{TX} directional gain of transmitting antennas.	
Note 2 : P_{out} is maximum peak conducted output power .	

7.4. Test Procedure

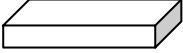
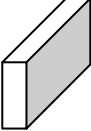
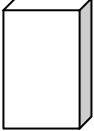
Peak Power Spectral Density Test Method			
	References Rule	Chapter	Description
☒	ANSI C63.10	12.5	Peak power spectral density
☒	FCC KDB 789033 D02v01	F	Maximum Power Spectral Density (PSD)

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

7.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

7.6. EUT test Axis definition

Item	Peak Power Spectral Density		
Device Category	☒	Fixed position use	
	☐	Mobile position use	
Test mode	Mode 1, Mode 2, Mode 3		
Axis	X Axis	Y Axis	Z Axis
			
Worse Axis			

7.7. Test Result

Product	:	Wireless Router Motherboard
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11a

Ant.	Channel No.	Frequency (MHz)	Measurement Power Output (dBm/MHz)		Duty Cycle (%)	Total PPSP (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
Ant 0	36	5180	7.32		0.45	7.77	8.56	14.44	Pass
	40	5200	7.00		0.45	7.45	8.56	14.44	Pass
	48	5240	7.43		0.45	7.88	8.56	14.44	Pass
	149	5745	5.79		0.45	6.24	8.56	27.44	Pass
	157	5785	6.25		0.45	6.70	8.56	27.44	Pass
	165	5825	7.32		0.45	7.77	8.56	27.44	Pass
Ant 1	36	5180	6.67		0.45	7.12	8.56	14.44	Pass
	40	5200	6.96		0.45	7.41	8.56	14.44	Pass
	48	5240	6.57		0.45	7.02	8.56	14.44	Pass
	149	5745	6.15		0.45	6.60	8.56	27.44	Pass
	157	5785	6.69		0.45	7.14	8.56	27.44	Pass
	165	5825	4.88		0.45	5.33	8.56	27.44	Pass
Ant 0+1	36	5180	-0.858	1.674	0.45	4.05	11.56	11.44	Pass
	40	5200	-1.341	1.385	0.45	3.69	11.56	11.44	Pass
	48	5240	-0.101	1.822	0.45	4.43	11.56	11.44	Pass
	149	5745	5.567	5.053	0.45	8.78	11.56	24.44	Pass
	157	5785	7.797	5.219	0.45	10.16	11.56	24.44	Pass
	165	5825	8.111	5.048	0.45	10.30	11.56	24.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11n(20MHz)

Ant.	Channel No.	Frequency (MHz)	Measurement Power Output (dBm/MHz)		Duty Cycle (%)	Total PPSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
Ant 0	36	5180	6.76		0.20	6.96	8.56	14.44	Pass
	40	5200	6.72		0.20	6.92	8.56	14.44	Pass
	48	5240	6.72		0.20	6.92	8.56	14.44	Pass
	149	5745	5.76		0.20	5.96	8.56	27.44	Pass
	157	5785	5.69		0.20	5.89	8.56	27.44	Pass
	165	5825	5.13		0.20	5.33	8.56	27.44	Pass
Ant 1	36	5180	6.512		0.20	6.71	8.56	14.44	Pass
	40	5200	6.708		0.20	6.91	8.56	14.44	Pass
	48	5240	6.935		0.20	7.14	8.56	14.44	Pass
	149	5745	6.039		0.20	6.24	8.56	27.44	Pass
	157	5785	6.332		0.20	6.53	8.56	27.44	Pass
	165	5825	4.401		0.20	4.60	8.56	27.44	Pass
Ant 0+1	36	5180	-0.899	2.260	0.20	4.17	11.56	11.44	Pass
	40	5200	-0.974	1.735	0.20	3.80	11.56	11.44	Pass
	48	5240	0.356	1.932	0.20	4.43	11.56	11.44	Pass
	149	5745	4.902	4.957	0.20	8.14	11.56	24.44	Pass
	157	5785	8.476	6.095	0.20	10.66	11.56	24.44	Pass
	165	5825	8.064	5.684	0.20	10.23	11.56	24.44	Pass

Product	:	Wireless Router Motherboard
Test Item	:	Peak Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(40MHz)

Ant.	Channel No.	Frequency (MHz)	Measurement Power Output (dBm/MHz)		Duty Cycle (%)	Total PPSP (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
Ant 0	38	5190	3.37		0.22	3.59	8.56	14.44	Pass
	46	5230	3.91		0.22	4.13	8.56	14.44	Pass
	151	5755	-1.55		0.22	-1.33	8.56	27.44	Pass
	159	5795	1.05		0.22	1.27	8.56	27.44	Pass
Ant 1	38	5190	5.83		0.22	6.05	8.56	14.44	Pass
	46	5230	5.61		0.22	5.83	8.56	14.44	Pass
	151	5755	-0.29		0.22	-0.07	8.56	27.44	Pass
	159	5795	2.53		0.22	2.75	8.56	27.44	Pass
Ant 0+1	38	5190	-0.243	2.345	0.22	4.47	11.56	11.44	Pass
	46	5230	0.499	2.165	0.22	4.64	11.56	11.44	Pass
	151	5755	-2.132	-4.105	0.22	0.22	11.56	11.44	Pass
	159	5795	5.833	4.049	0.22	8.26	11.56	24.44	Pass

Note: The worst PSD data is as follows.

802.11n(40MHz) CH5190 Ant 0+1
Ant 0



Ant 1



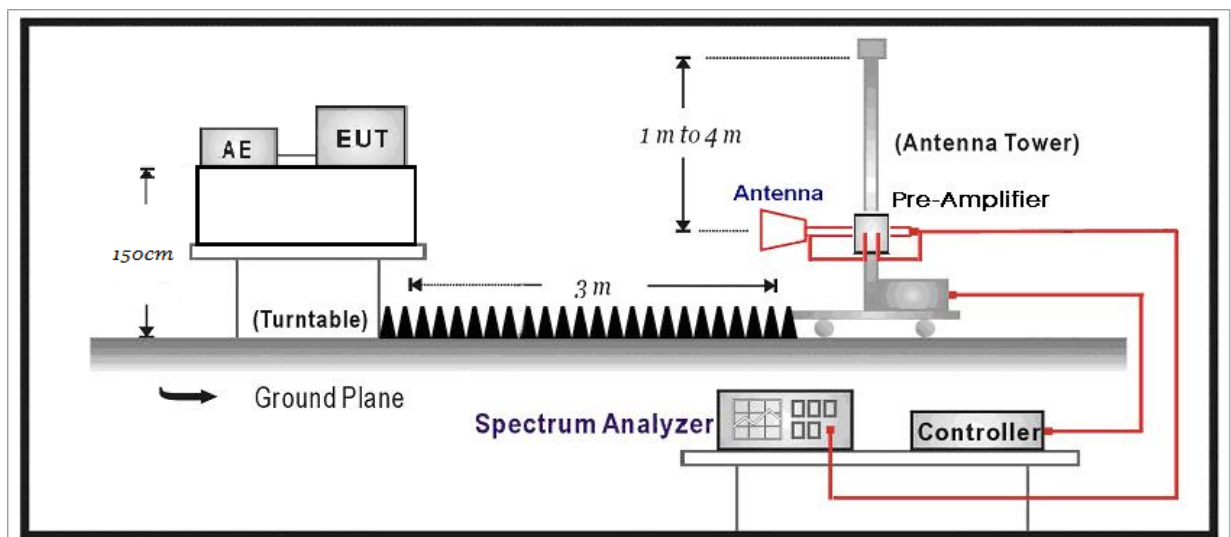
8. Radiated Emission Band Edge

8.1. Test Equipment

Radiated Emission Band Edge / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2015.03.11	2016.03.10
Preamplifier	Miteq	NSP1800-25	1364185	2015.05.04	2016.05.03
Preamplifier	QuieTek	AP-040G	CHM-0906001	2015.05.04	2016.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2015.10.16	2016.10.15
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.04	2017.01.03
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	2016.01.04	2017.01.03

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

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
5725 - 5825	-27 [Note(1)]	68.3
	-17 [Note(2)]	78.3
Note(1): Outside the frequency range 5715 - 5835MHz. Note(2): Within the frequency range from the band edge to 10MHz below or above the band edge, 5715 – 5725MHz and 5825 - 5835MHz.		

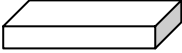
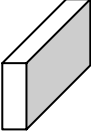
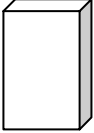
8.4. Test Procedure

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 D02v01		G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v01		G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v01	G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v01	G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01	G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v01	G.6.c	Method AD (Average detection)—primary method
	☒	FCC KDB 789033 D02v01	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

8.5. Uncertainty

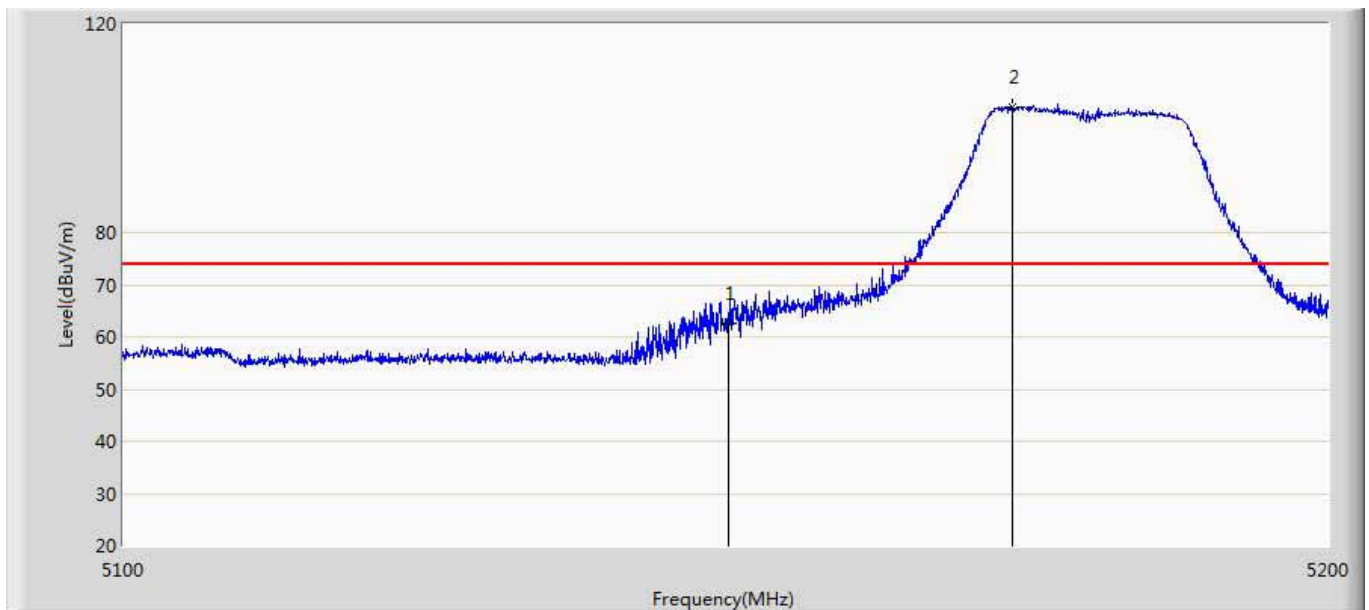
The measurement uncertainty above 1GHz is defined as ± 3.9 dB

8.6. EUT test Axis definition

Item	Radiated Emissions		
Device Category	☒	Fixed position use	
	☐	Mobile position use	
Test mode	Mode 1, Mode 2, Mode 3, Mode 4		
Axis	X Axis	Y Axis	Z Axis
			
Worse Axis	Worst Axis ☒	Worst Axis ☐	Worst Axis ☐

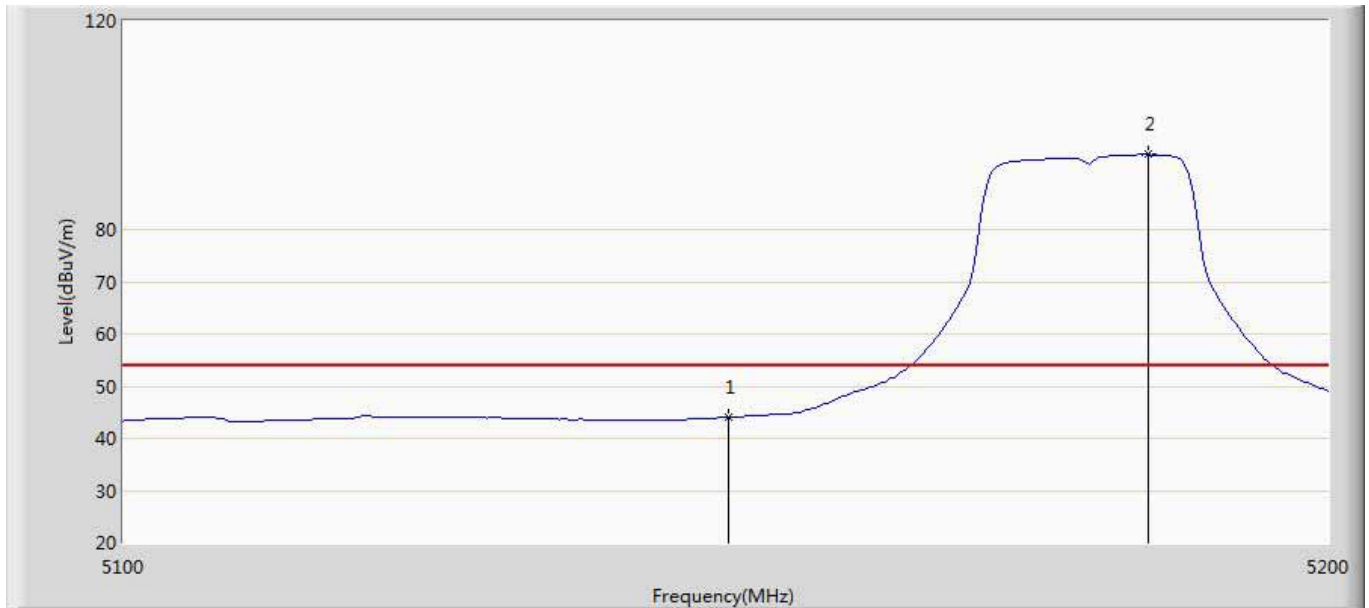
8.7. Test Result

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0	



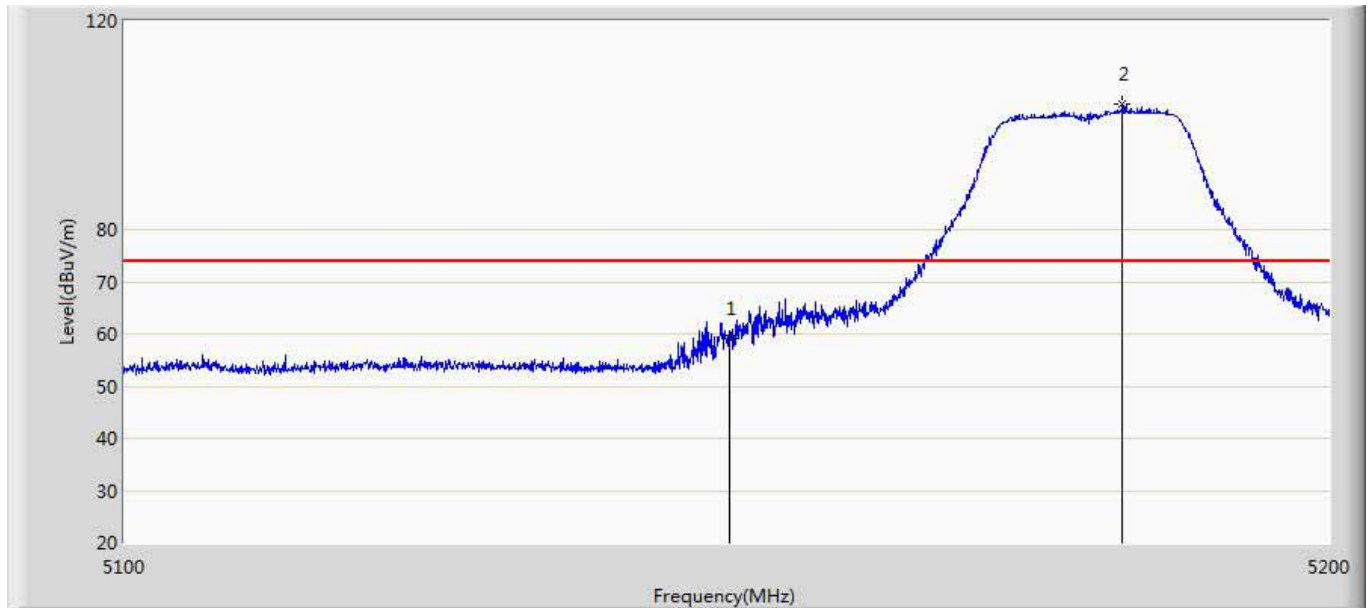
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	62.673	20.658	-11.327	74.000	42.015	PK
2	*	5173.650	104.170	62.025	N/A	N/A	42.146	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0	



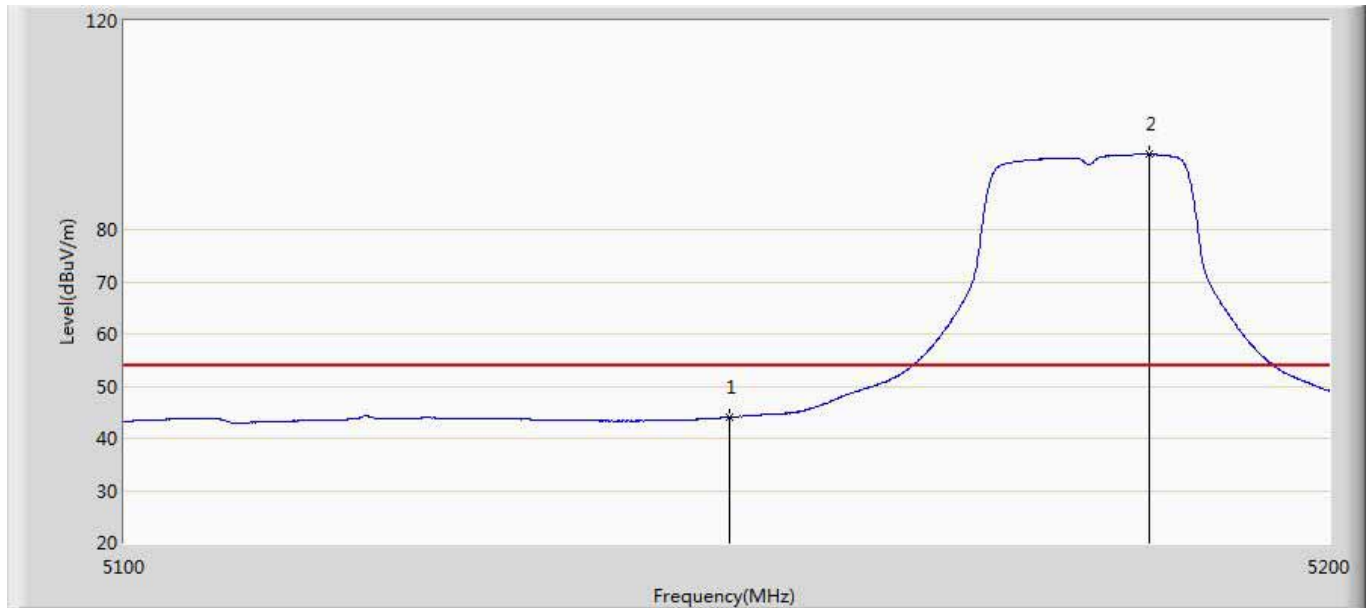
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	44.020	2.005	-9.980	54.000	42.015	AV
2	*	5185.000	94.363	52.237	N/A	N/A	42.126	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0	



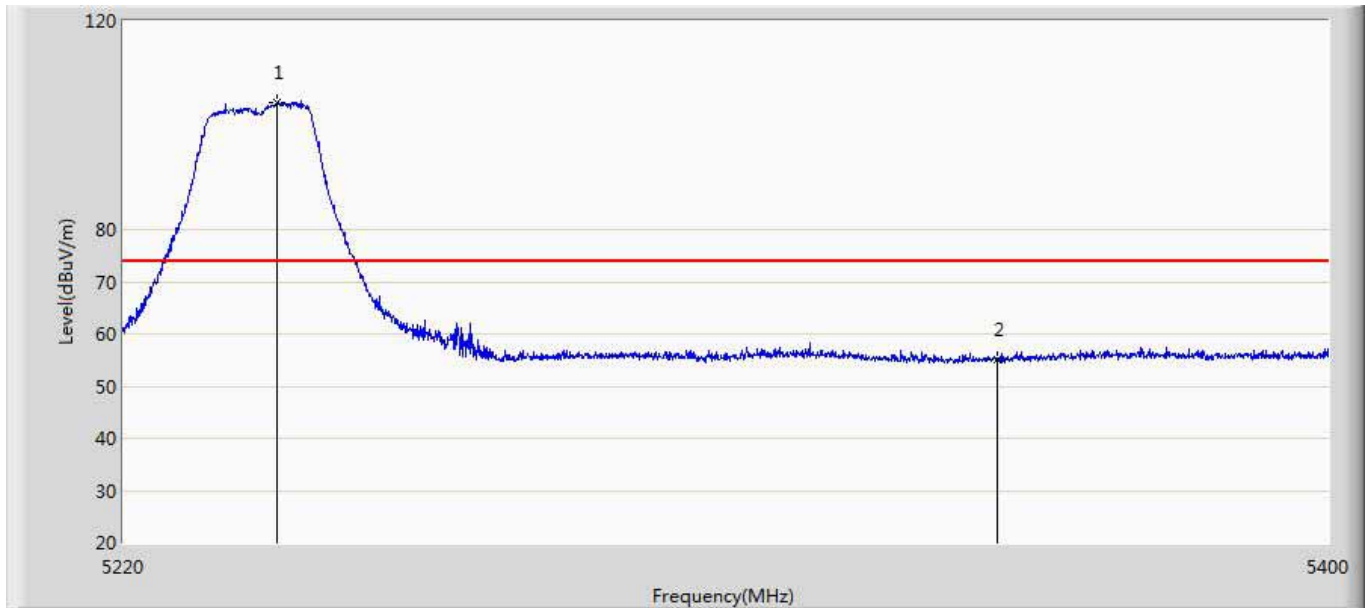
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	59.046	17.031	-14.954	74.000	42.015	PK
2	*	5182.700	104.163	62.022	N/A	N/A	42.141	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0	



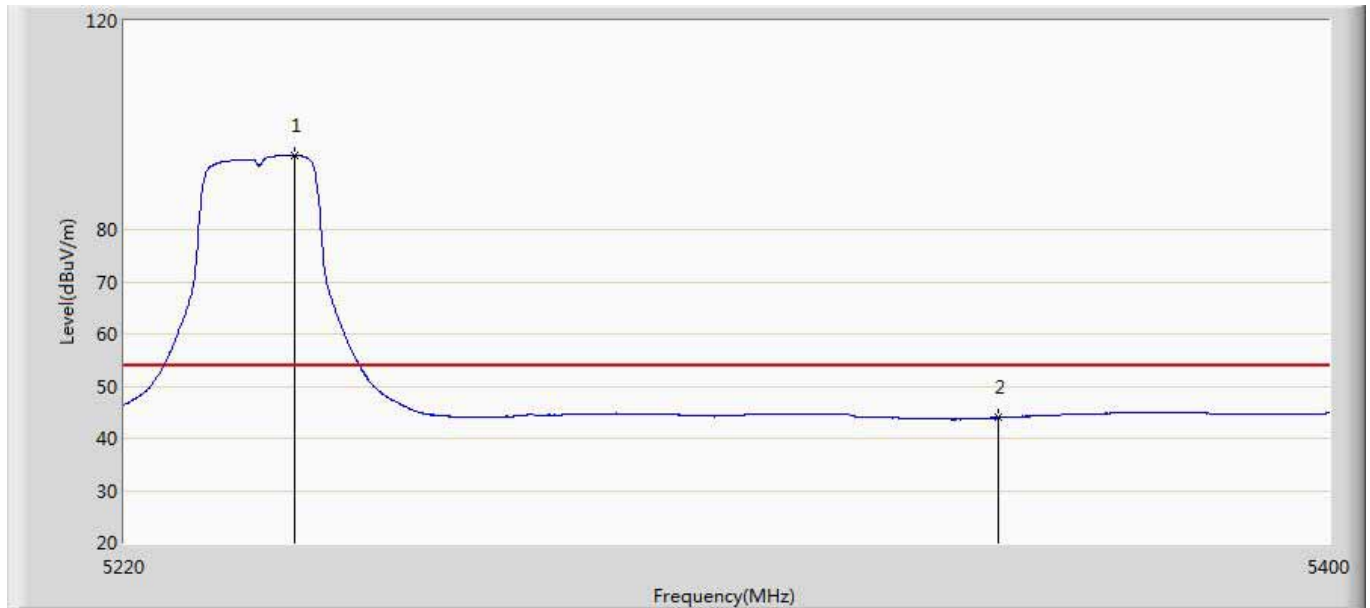
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	43.997	1.982	-10.003	54.000	42.015	AV
2	*	5184.950	94.408	52.282	N/A	N/A	42.126	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0	



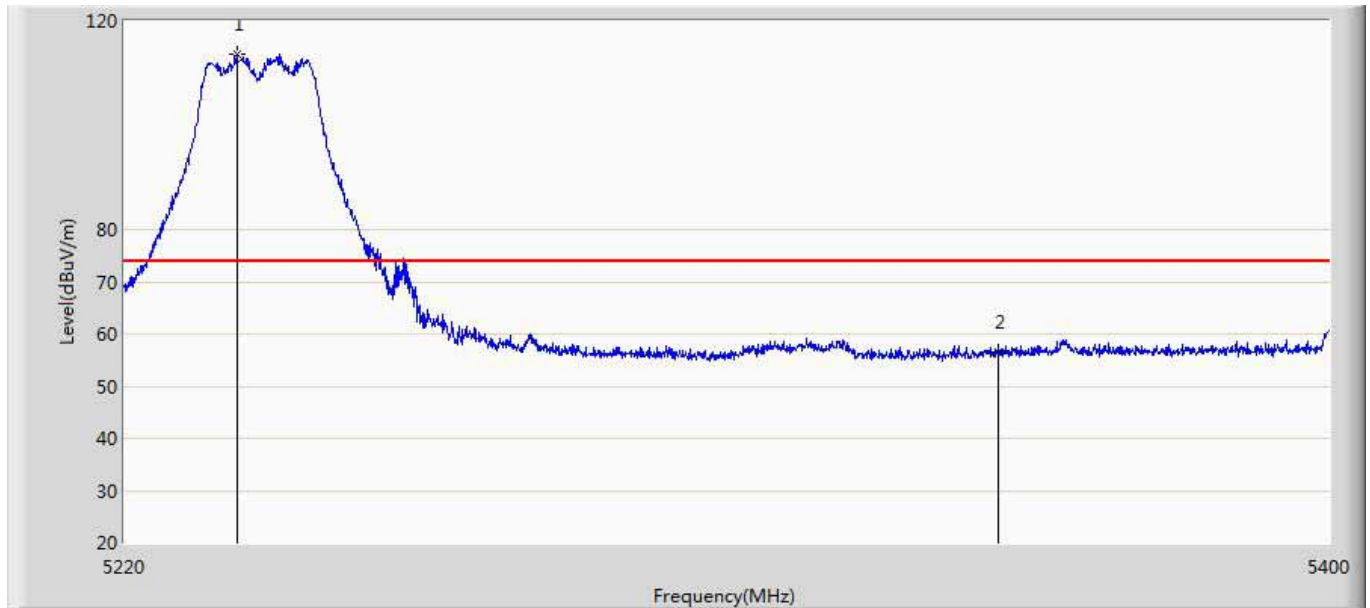
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5242.680	104.376	62.218	N/A	N/A	42.158	PK
2		5350.000	55.182	12.666	-18.818	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0	



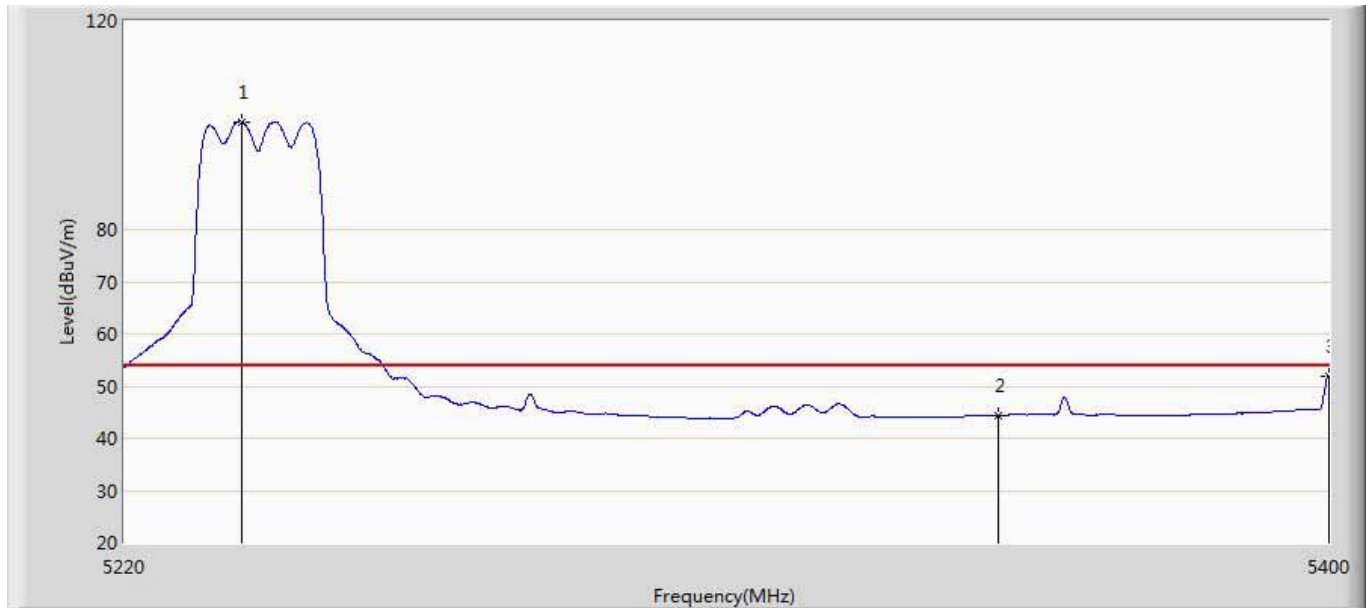
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5245.200	94.262	52.079	N/A	N/A	42.183	AV
2		5350.000	43.922	1.406	-10.078	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0	



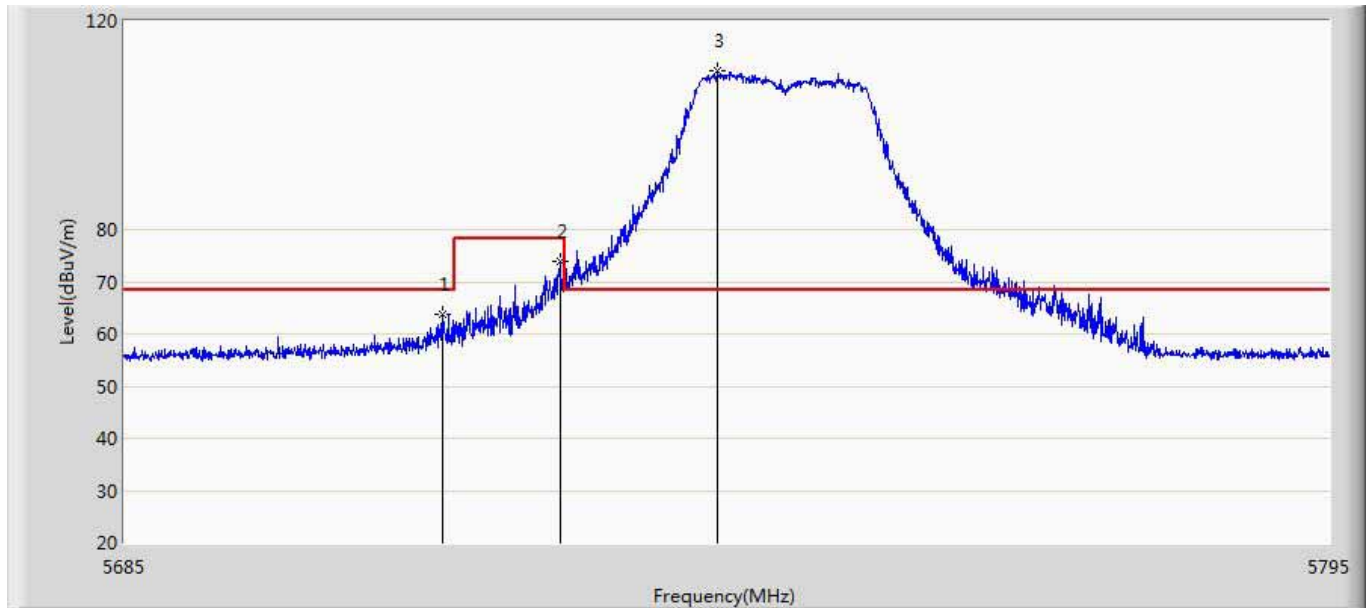
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5236.560	113.693	71.595	N/A	N/A	42.098	PK
2		5350.000	56.485	13.969	-17.515	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 13:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0+1	



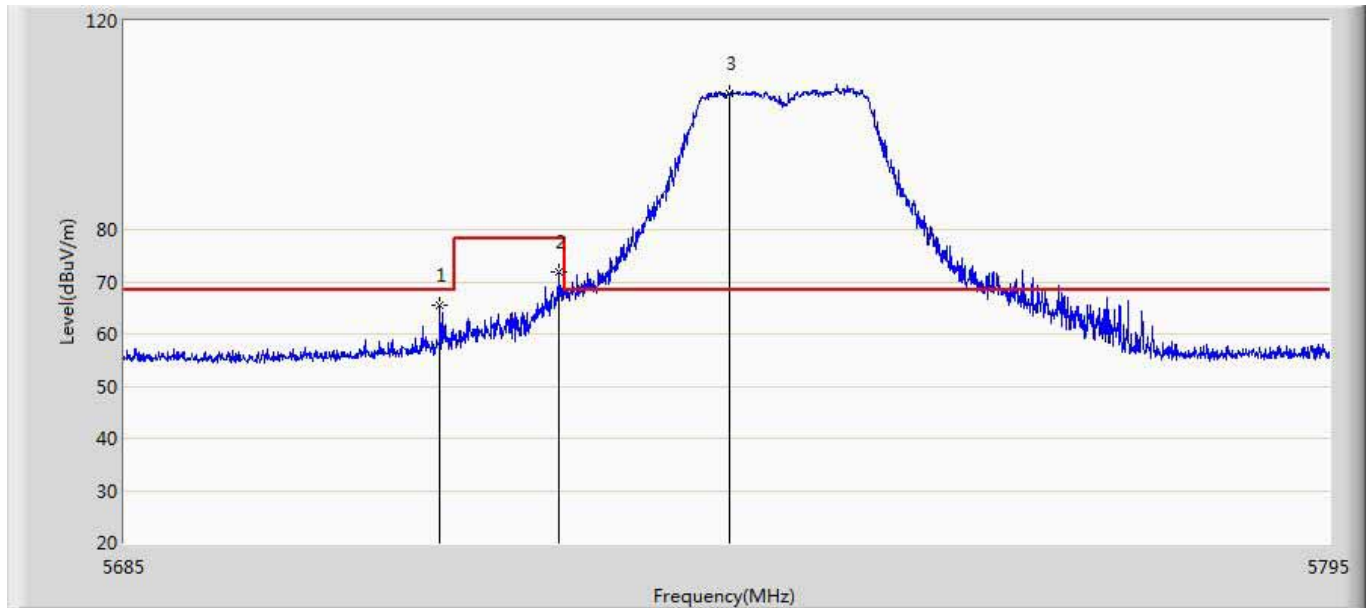
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5237.370	100.661	58.555	N/A	N/A	42.105	AV
2		5350.000	44.361	1.845	-9.639	54.000	42.516	AV
3		5399.910	51.886	9.468	-2.114	54.000	42.418	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:11
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5745Mhz by 802.11a with ant 0	



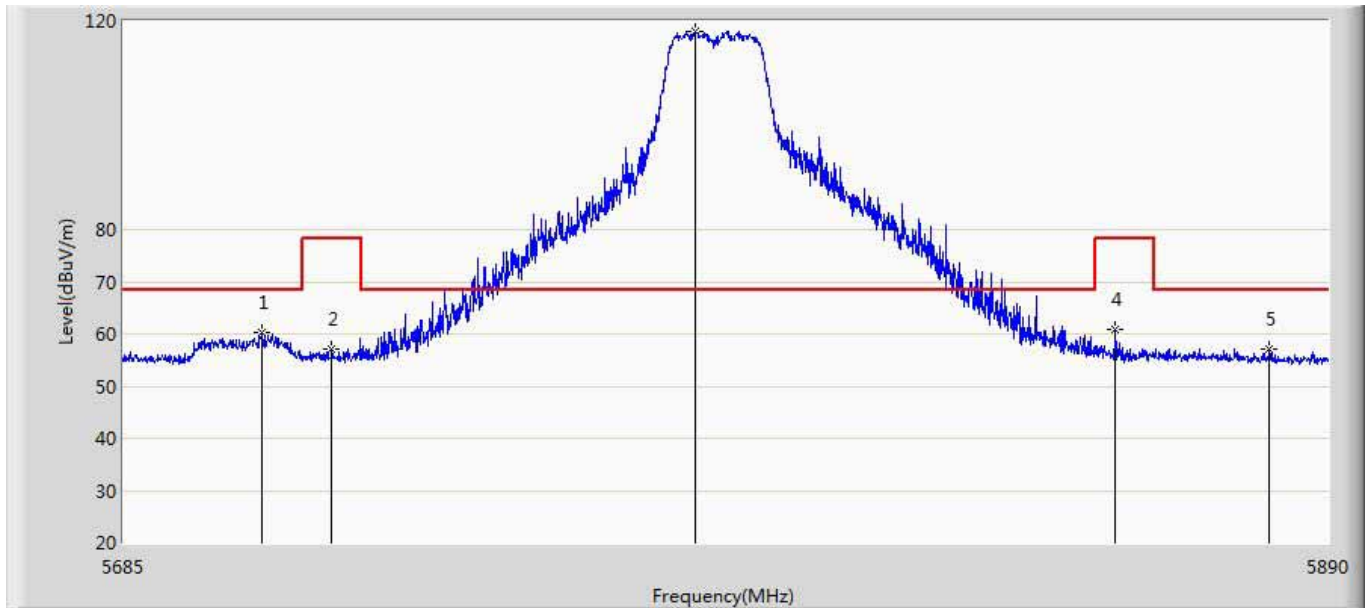
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5713.875	63.705	20.401	-4.595	68.300	43.304	PK
2		5724.545	73.934	30.666	-4.366	78.300	43.267	PK
3	*	5738.845	110.407	67.114	N/A	N/A	43.293	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:13
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5745Mhz by 802.11a with ant 0	



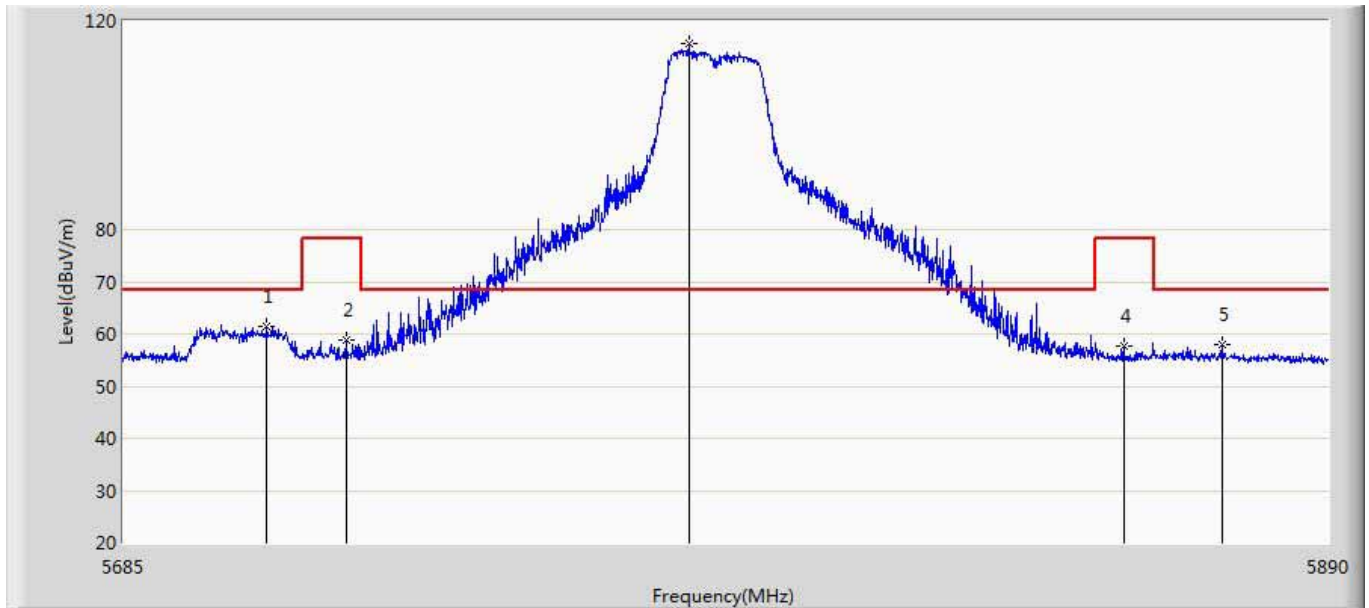
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5713.655	65.567	22.262	-2.733	68.300	43.304	PK
2		5724.435	71.864	28.596	-6.436	78.300	43.268	PK
3	*	5740.055	106.207	62.911	N/A	N/A	43.296	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:16
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5785Mhz by 802.11a with ant 0	



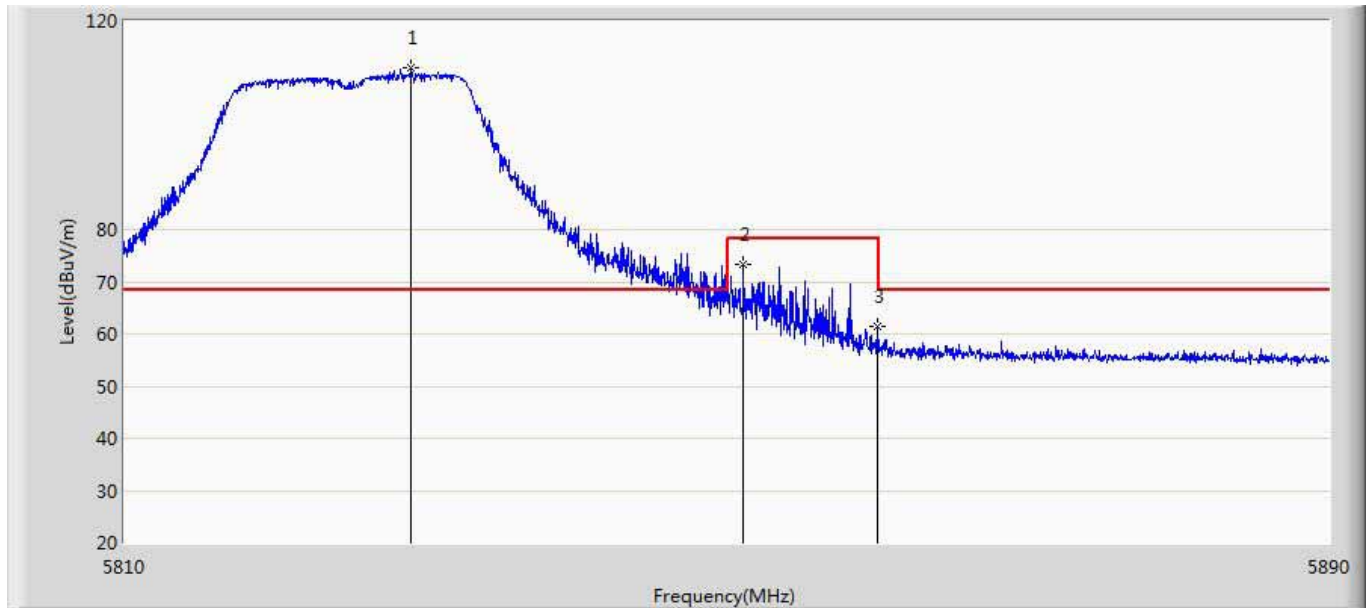
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5708.370	60.282	16.964	-8.018	68.300	43.318	PK
2		5719.953	57.155	13.872	-21.145	78.300	43.283	PK
3	*	5781.555	118.003	74.677	N/A	N/A	43.326	PK
4		5853.305	60.977	17.482	-17.323	78.300	43.495	PK
5		5879.853	57.150	13.539	-11.150	68.300	43.610	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:18
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5785Mhz by 802.11a with ant 0	



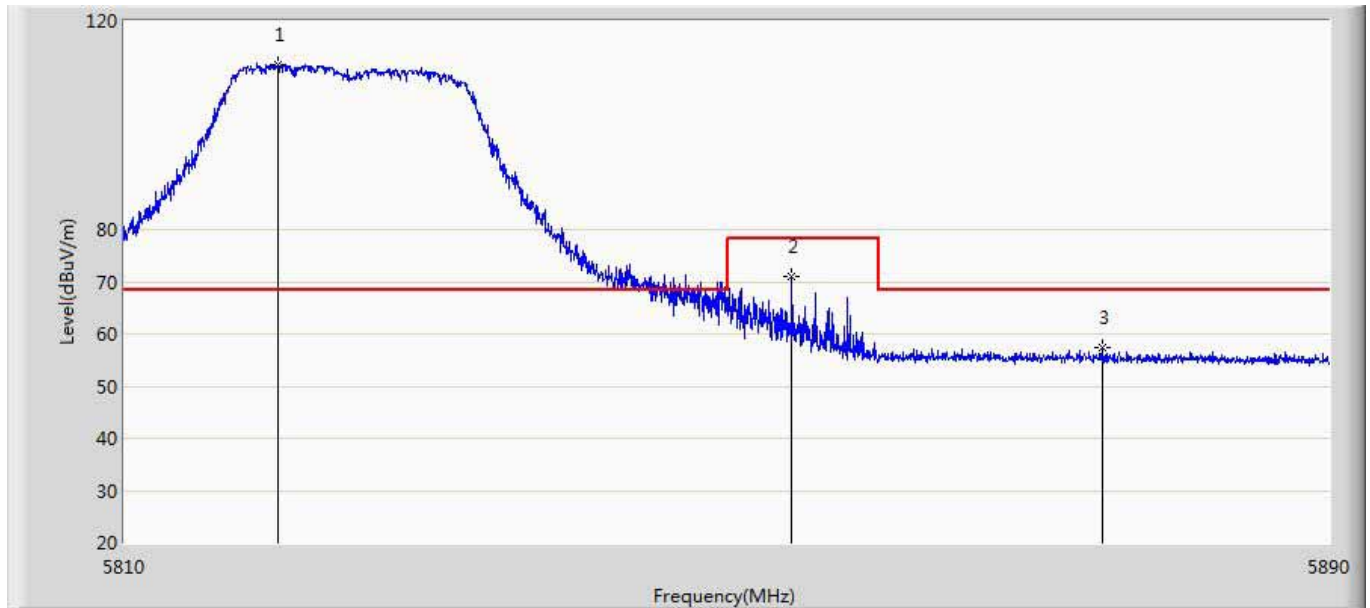
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5709.087	61.448	18.128	-6.852	68.300	43.320	PK
2		5722.413	58.971	15.696	-19.329	78.300	43.275	PK
3	*	5780.325	115.614	72.284	N/A	N/A	43.330	PK
4		5854.740	57.611	14.105	-20.689	78.300	43.506	PK
5		5871.652	57.896	14.305	-10.404	68.300	43.592	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:22
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5825Mhz by 802.11a with ant 0	



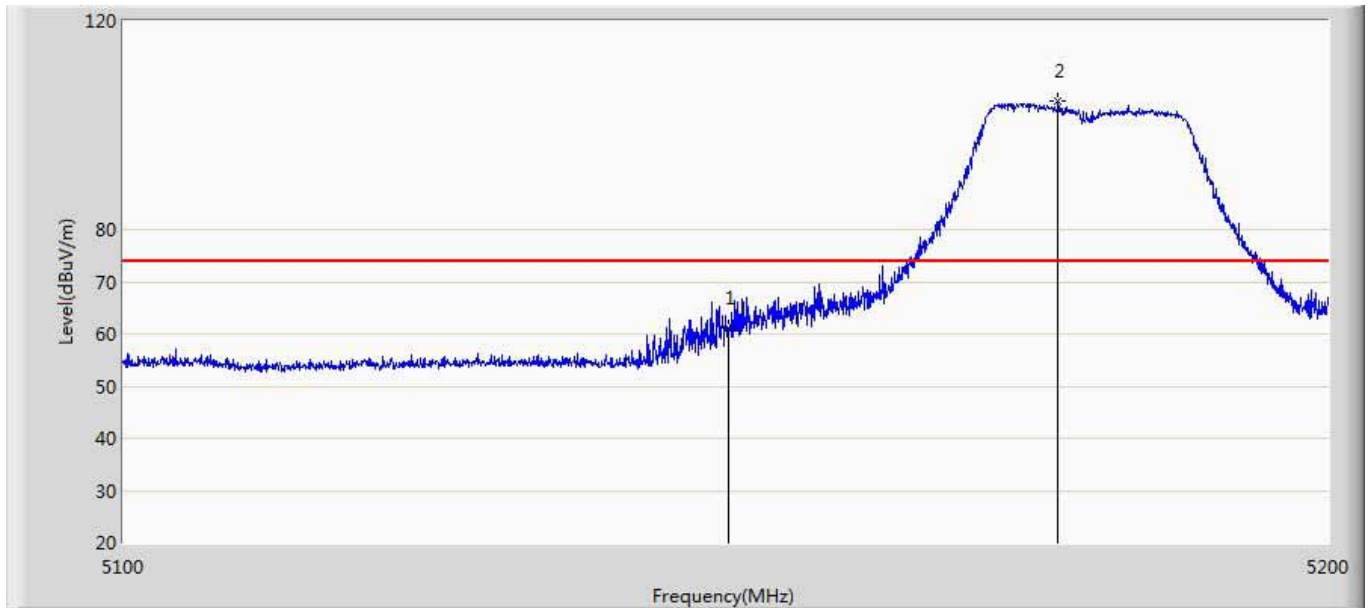
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5828.960	111.131	67.720	N/A	N/A	43.411	PK
2		5851.000	73.325	29.848	-4.975	78.300	43.476	PK
3		5859.920	61.504	17.959	-16.796	78.300	43.545	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:24
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5825Mhz by 802.11a with ant 0	



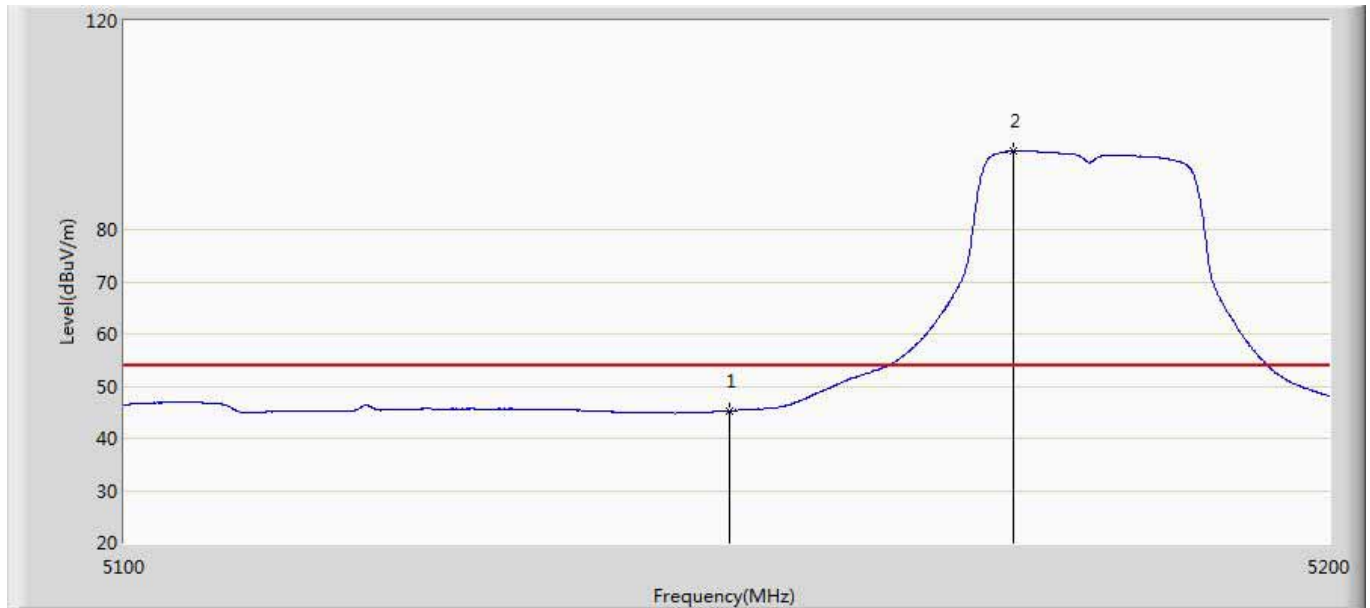
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5820.200	111.507	68.115	N/A	N/A	43.392	PK
2		5854.200	71.122	27.621	-7.178	78.300	43.501	PK
3		5874.840	57.310	13.709	-10.990	68.300	43.601	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11n20 with ant 0	



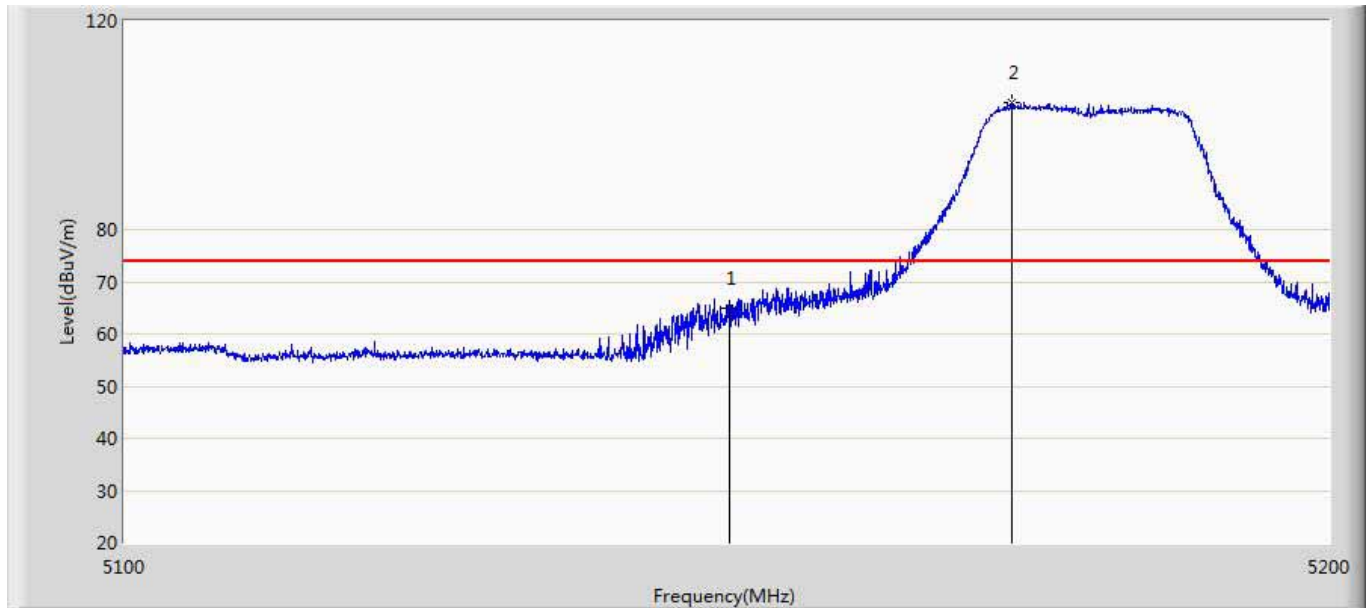
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	61.033	19.018	-12.967	74.000	42.015	PK
2	*	5177.450	104.652	62.507	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11n20 with ant 0	



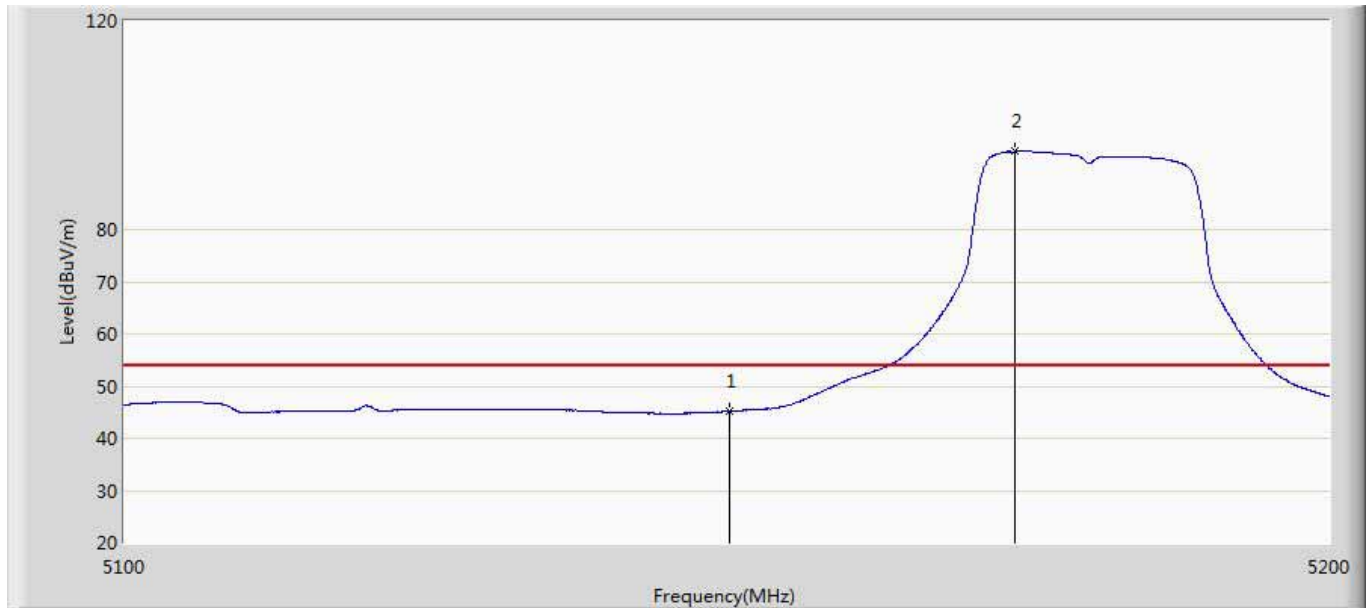
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	45.296	3.281	-8.704	54.000	42.015	AV
2	*	5173.600	95.011	52.866	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11n20 with ant 0	



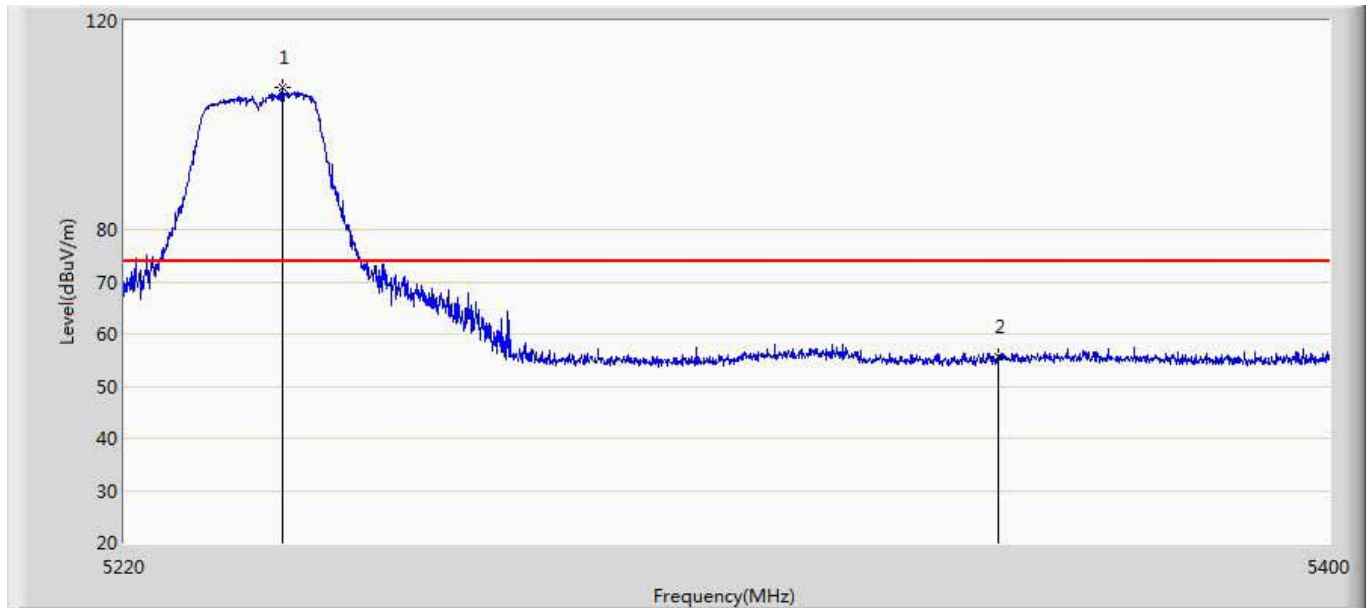
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	64.906	22.891	-9.094	74.000	42.015	PK
2	*	5173.450	104.299	62.154	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11n20 with ant 0	



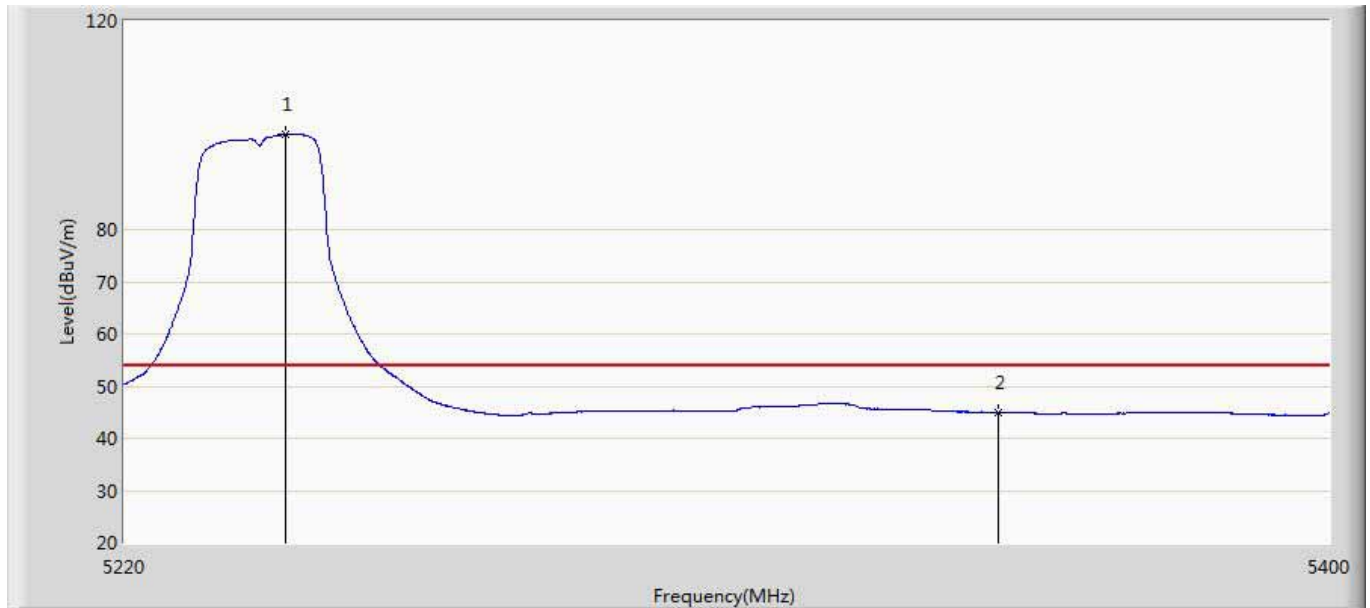
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	45.214	3.199	-8.786	54.000	42.015	AV
2	*	5173.800	94.946	52.801	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11n20 with ant 0	



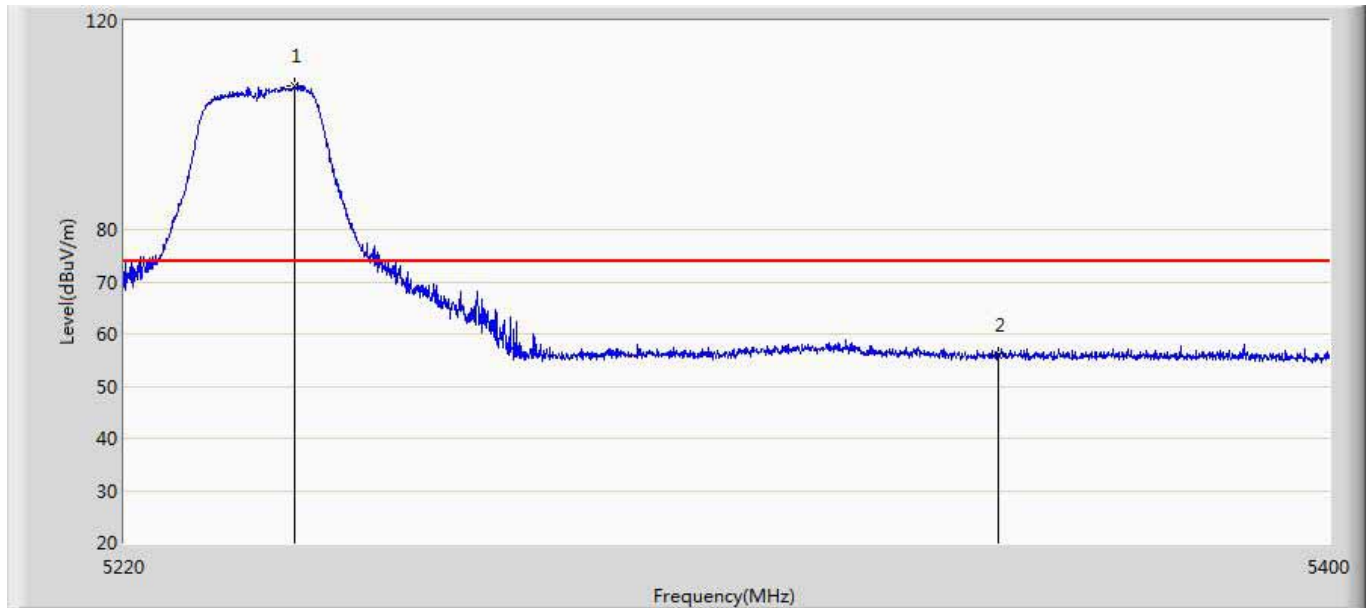
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5243.310	107.367	65.203	N/A	N/A	42.164	PK
2		5350.000	55.787	13.271	-18.213	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11n20 with ant 0	



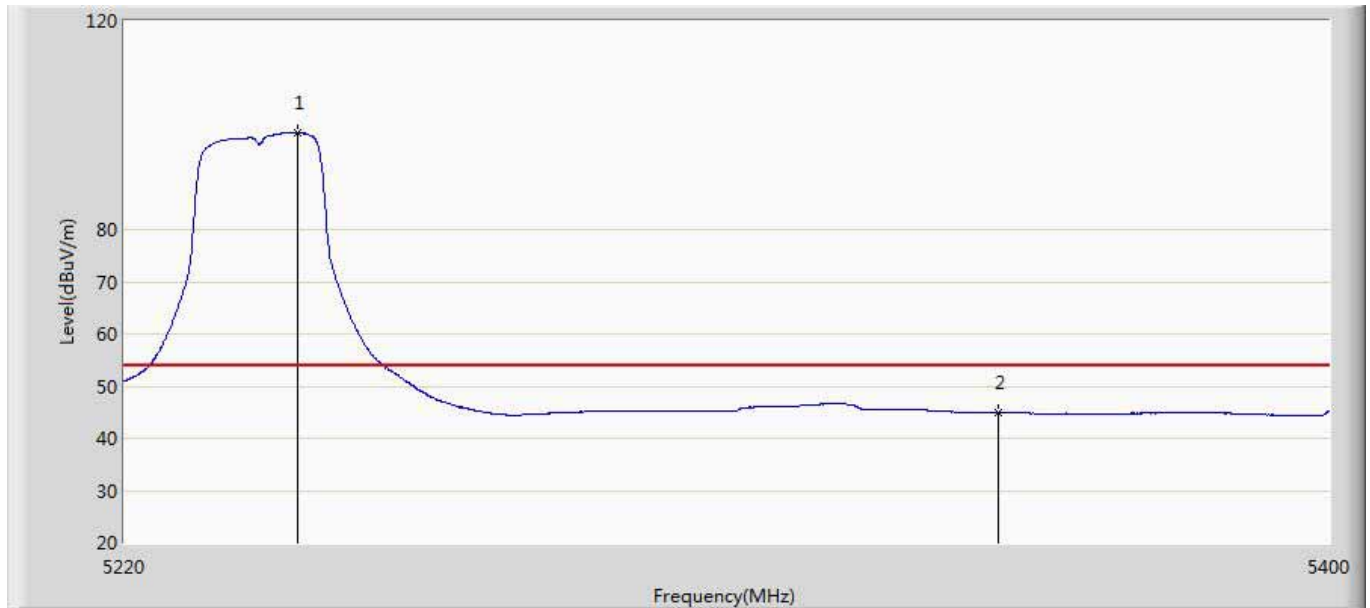
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5243.760	98.197	56.028	N/A	N/A	42.169	AV
2		5350.000	45.000	2.484	-9.000	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11n20 with ant 0	



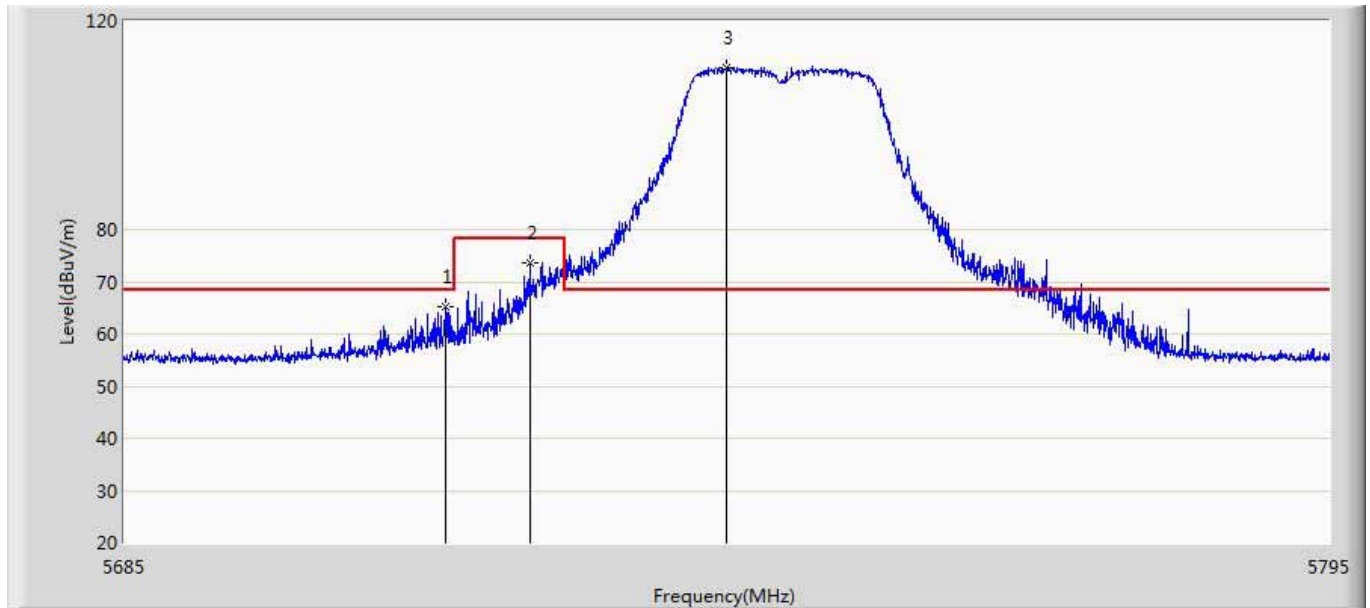
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5245.200	107.431	65.248	N/A	N/A	42.183	PK
2		5350.000	56.080	13.564	-17.920	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 14:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11n20 with ant 0	



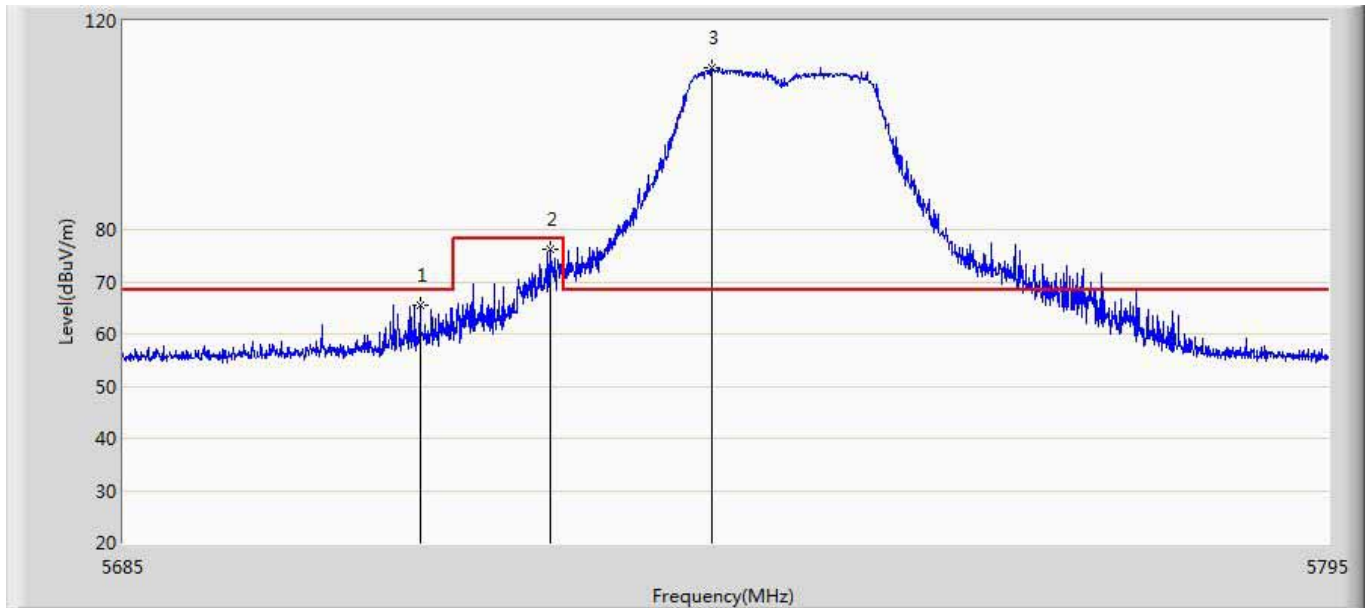
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5245.470	98.623	56.438	N/A	N/A	42.185	AV
2		5350.000	44.949	2.433	-9.051	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:16
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5745Mhz by 802.11n20 with ant 0	



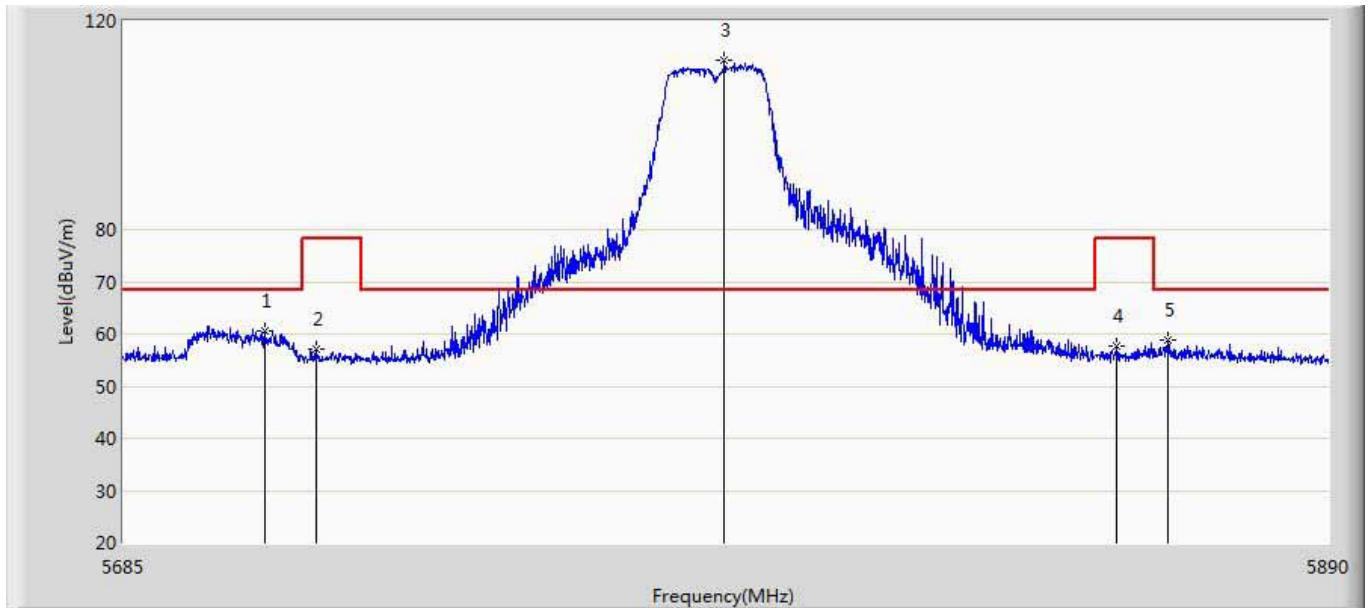
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5714.095	65.203	21.900	-3.097	68.300	43.303	PK
2		5721.795	73.682	30.405	-4.618	78.300	43.277	PK
3	*	5739.670	110.961	67.666	N/A	N/A	43.295	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:18
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5745Mhz by 802.11n20 with ant 0	



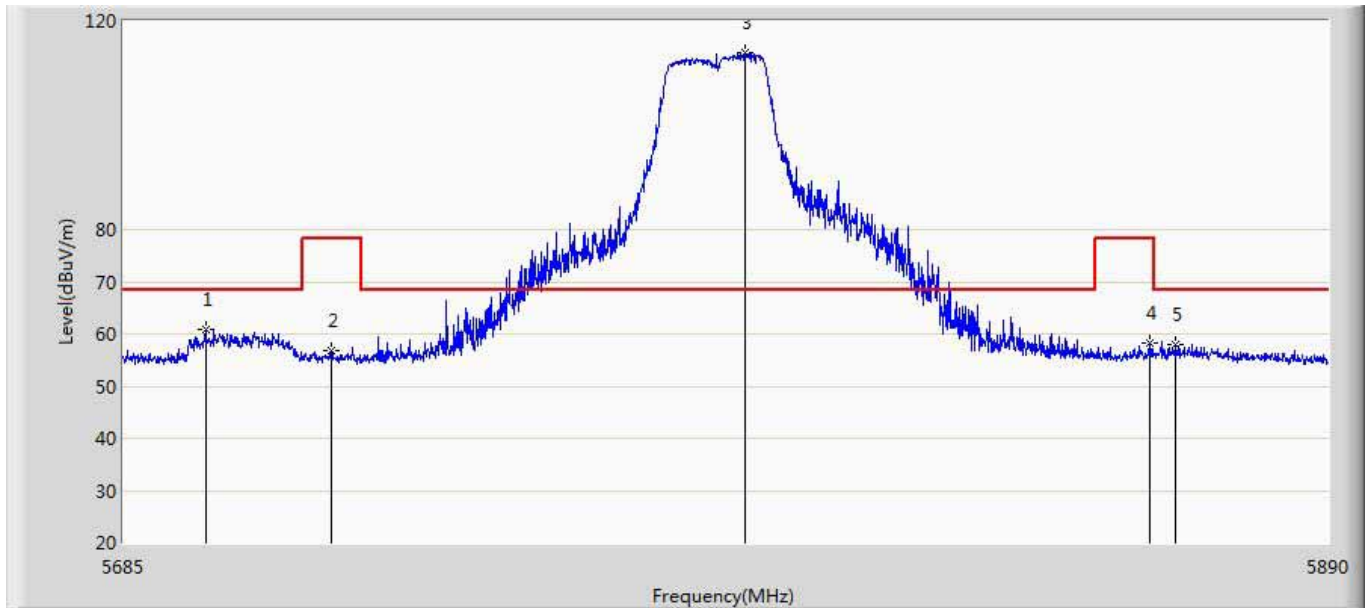
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5711.950	65.560	22.250	-2.740	68.300	43.310	PK
2		5723.830	76.104	32.834	-2.196	78.300	43.270	PK
3	*	5738.515	110.975	67.683	N/A	N/A	43.292	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:20
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5785Mhz by 802.11N20 with ant 0	



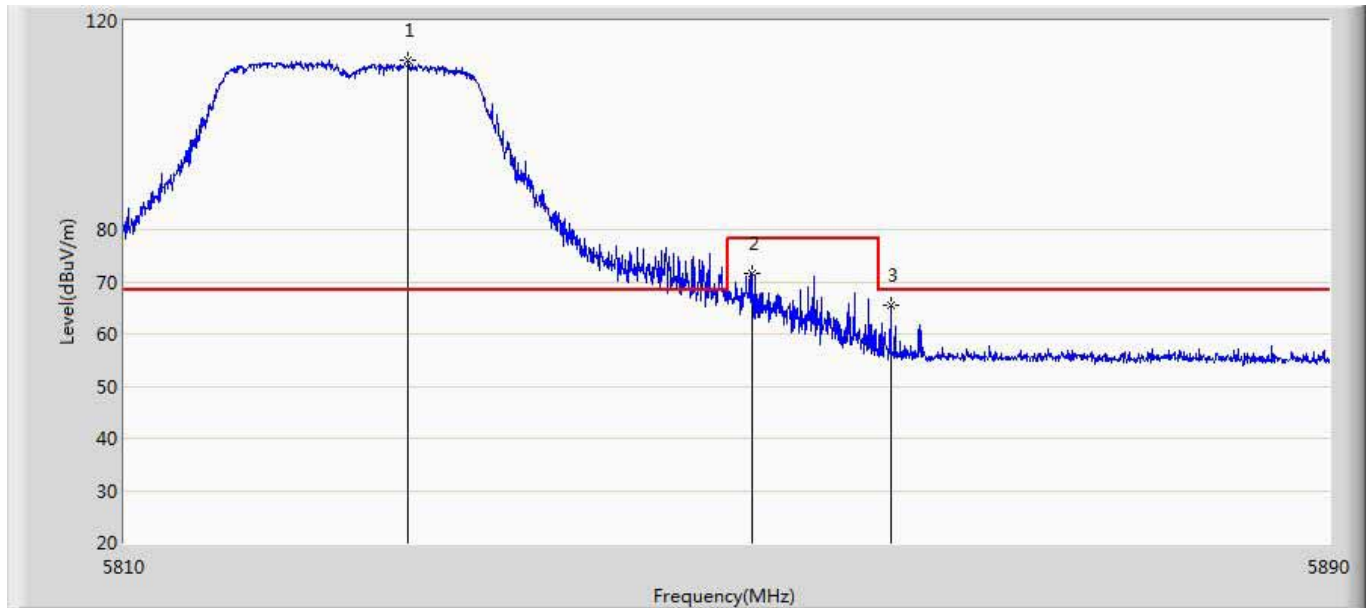
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5708.780	60.704	17.384	-7.596	68.300	43.320	PK
2		5717.288	56.987	13.695	-21.313	78.300	43.292	PK
3	*	5786.373	112.495	69.184	N/A	N/A	43.311	PK
4		5853.612	57.548	14.051	-20.752	78.300	43.497	PK
5		5862.428	58.794	15.231	-9.506	68.300	43.563	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:21
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5785Mhz by 802.11N20 with ant 0	



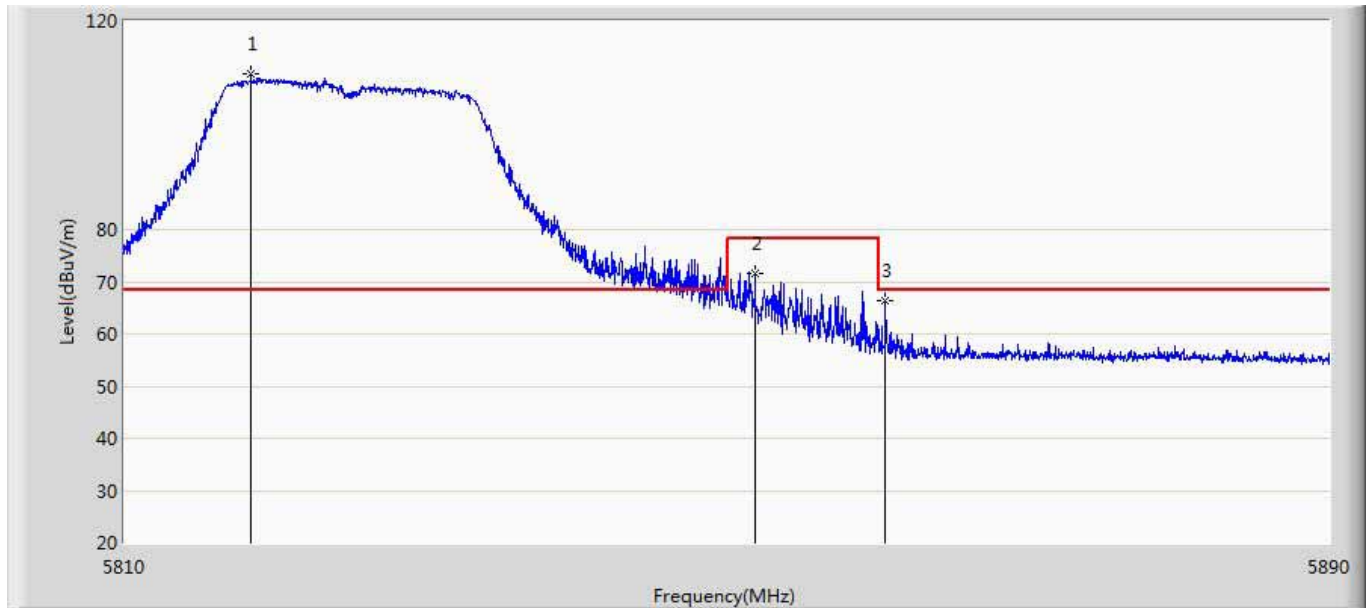
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5698.837	60.989	17.701	-7.311	68.300	43.289	PK
2		5720.055	56.697	13.414	-21.603	78.300	43.283	PK
3	*	5789.960	113.981	70.682	N/A	N/A	43.299	PK
4		5859.147	58.116	14.577	-20.184	78.300	43.539	PK
5		5863.760	57.855	14.288	-10.445	68.300	43.566	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:26
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5825Mhz by 802.11N20 with ant 0	



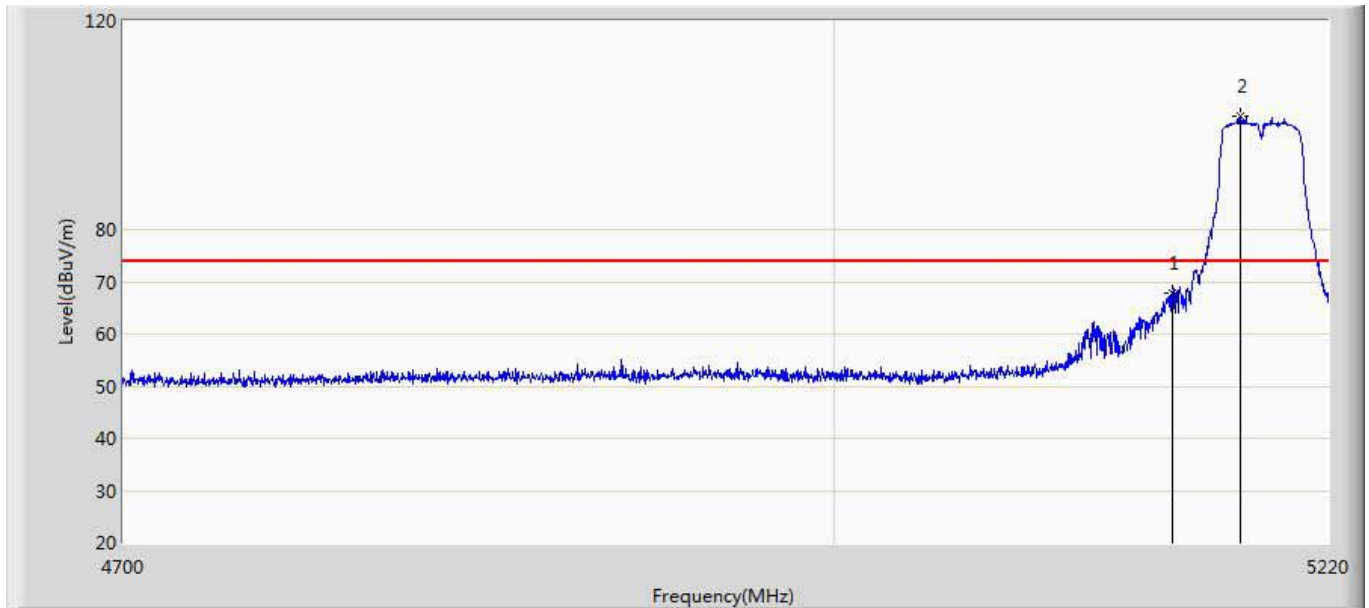
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5828.760	112.528	69.117	N/A	N/A	43.411	PK
2		5851.600	71.737	28.256	-6.563	78.300	43.481	PK
3		5860.760	65.586	22.034	-2.714	68.300	43.551	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:27
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5825Mhz by 802.11N20 with ant 0	



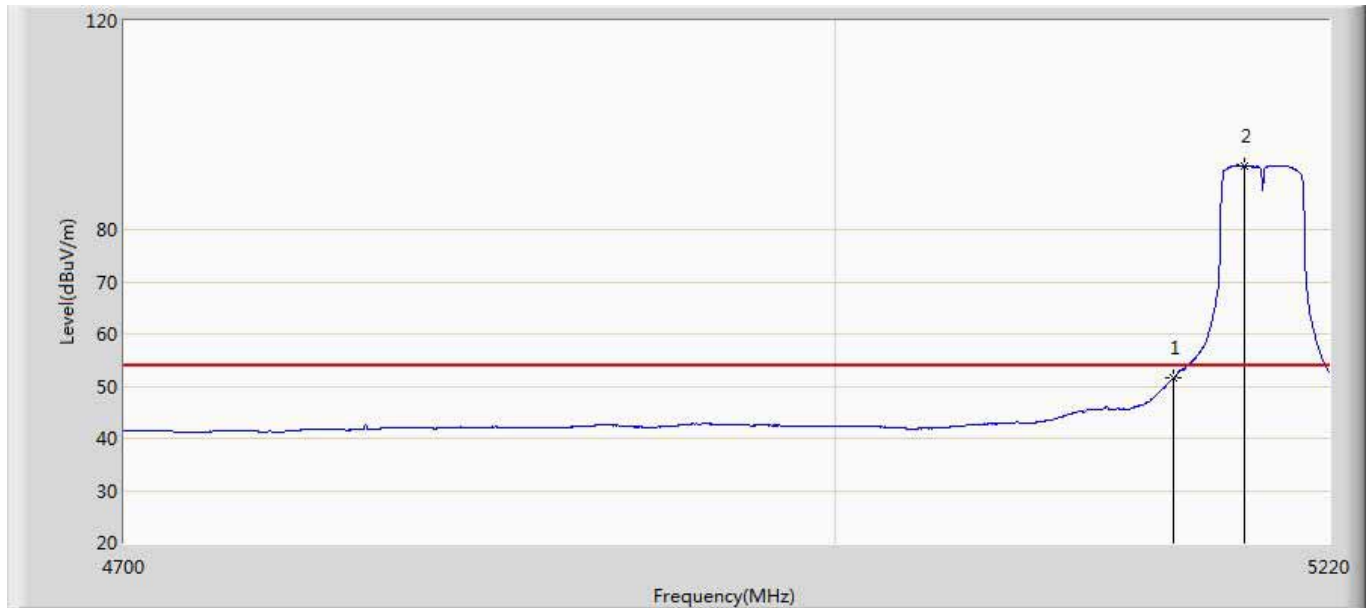
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5818.360	109.831	66.444	N/A	N/A	43.387	PK
2		5851.760	71.724	28.241	-6.576	78.300	43.483	PK
3		5860.400	66.468	22.919	-1.832	68.300	43.549	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0	



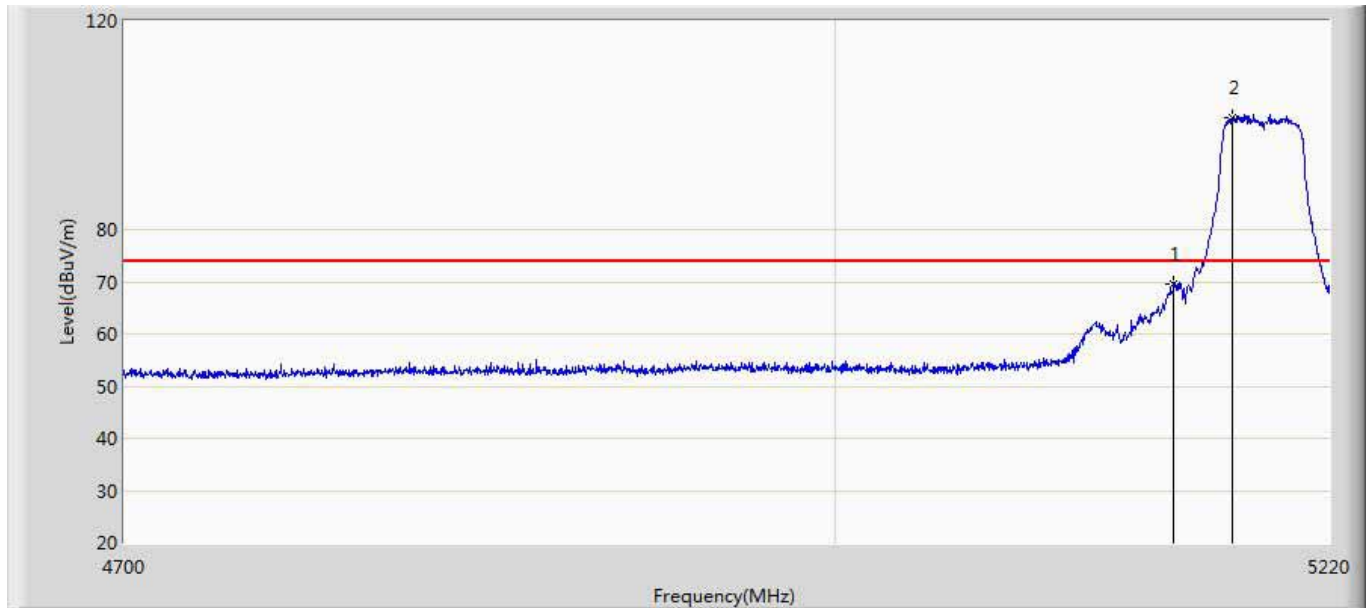
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	67.946	25.931	-6.054	74.000	42.015	PK
2	*	5180.480	101.606	59.461	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0	



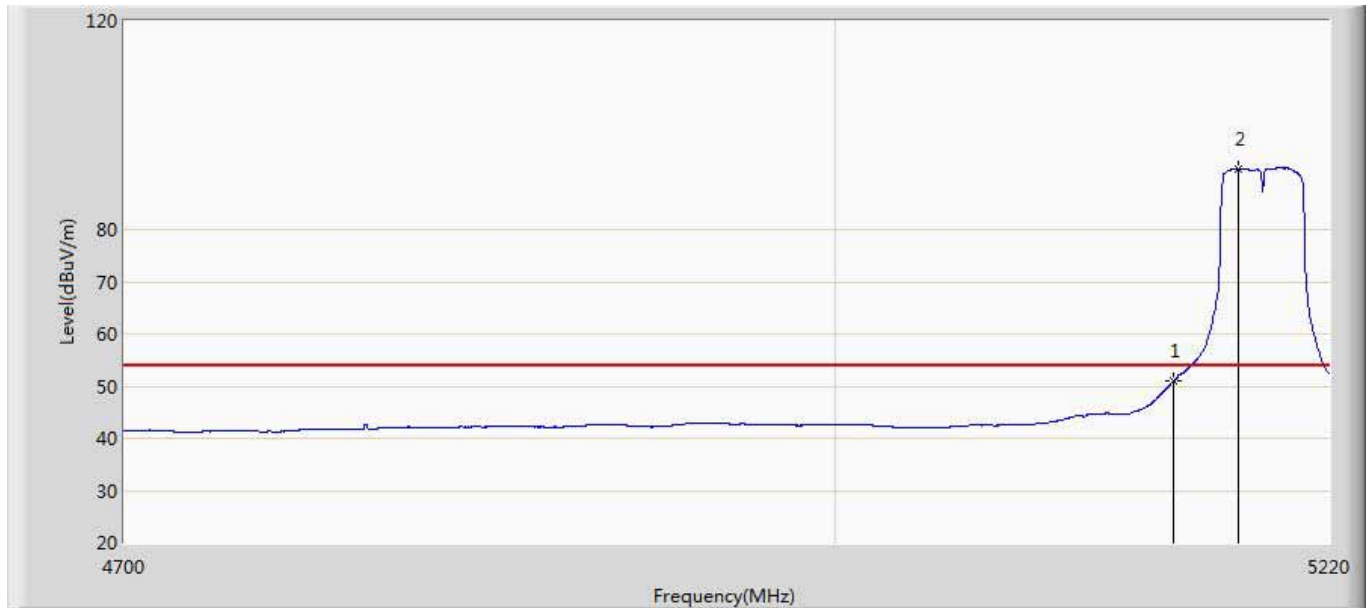
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	51.604	9.589	-2.396	54.000	42.015	AV
2	*	5182.040	92.256	50.111	N/A	N/A	42.145	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0	



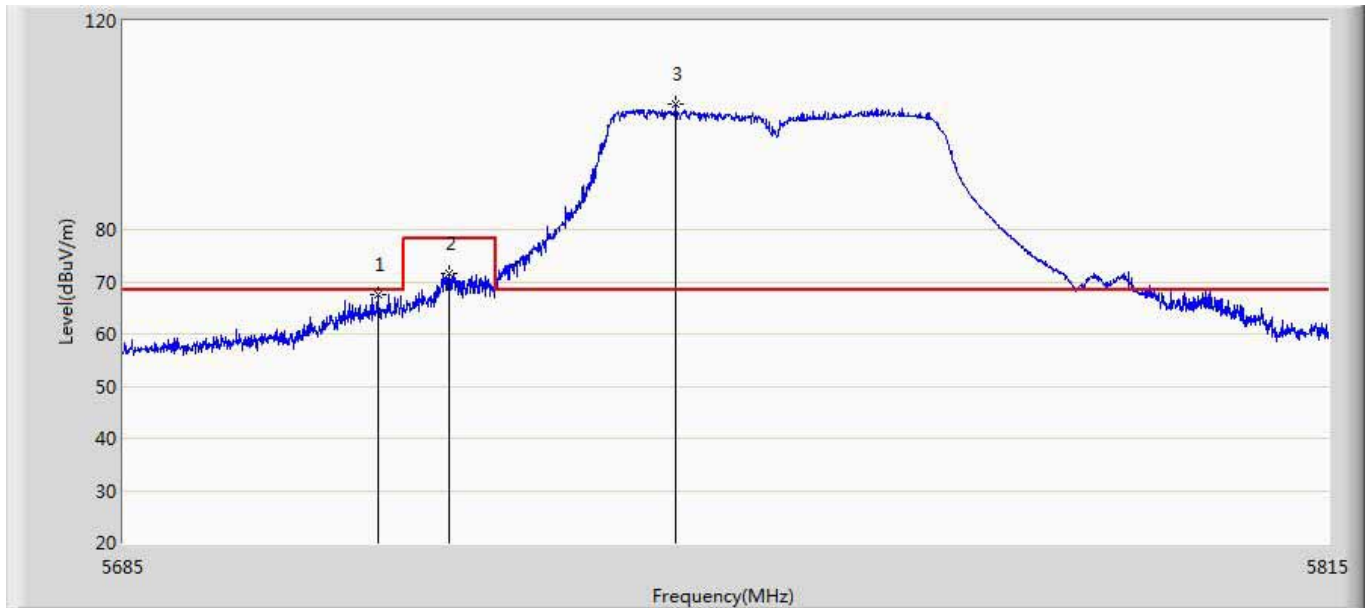
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	69.526	27.511	-4.474	74.000	42.015	PK
2	*	5176.320	101.551	59.406	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0	



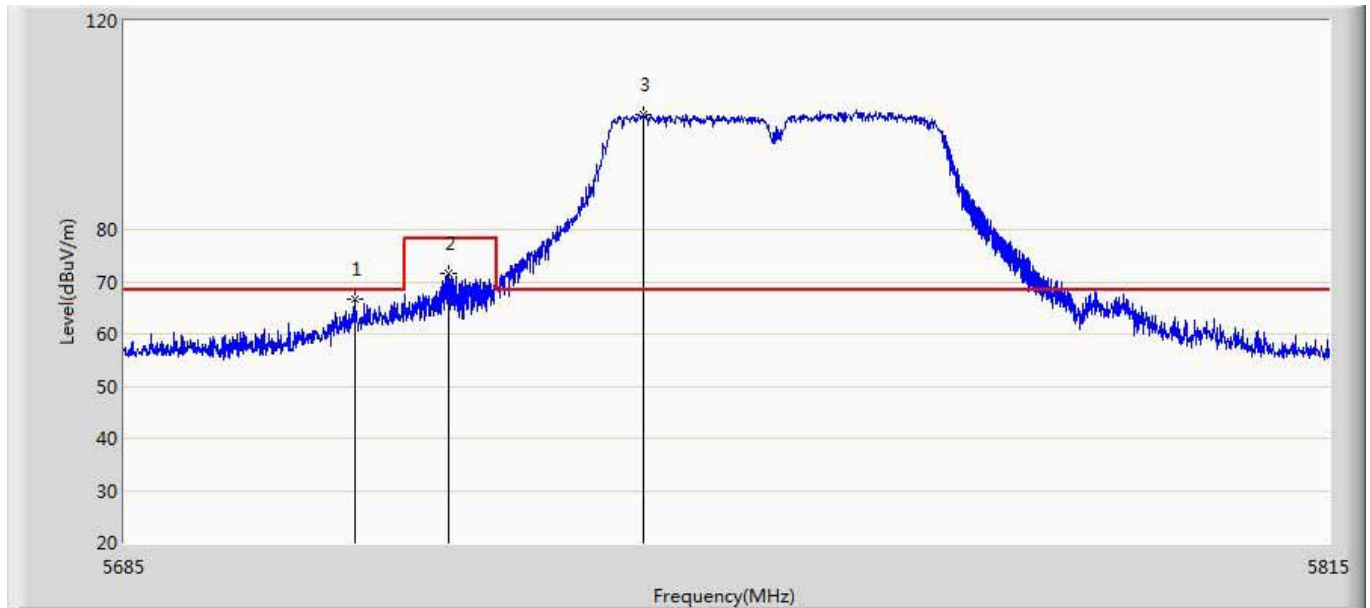
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	50.958	8.943	-3.042	54.000	42.015	AV
2	*	5178.660	91.691	49.546	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 15:59
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5755Mhz by 802.11N40 with ant 0	



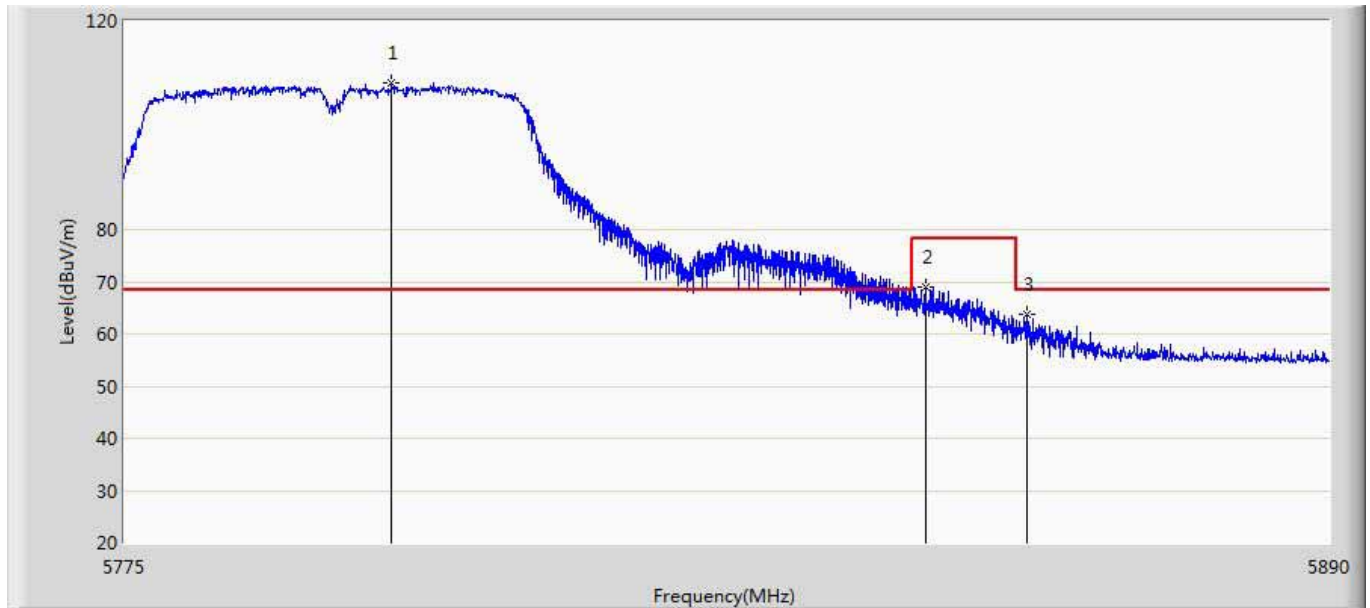
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5712.235	67.473	24.164	-0.827	68.300	43.309	PK
2		5719.840	71.531	28.247	-6.769	78.300	43.284	PK
3	*	5744.280	104.172	60.874	N/A	N/A	43.298	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:00
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5755Mhz by 802.11N40 with ant 0	



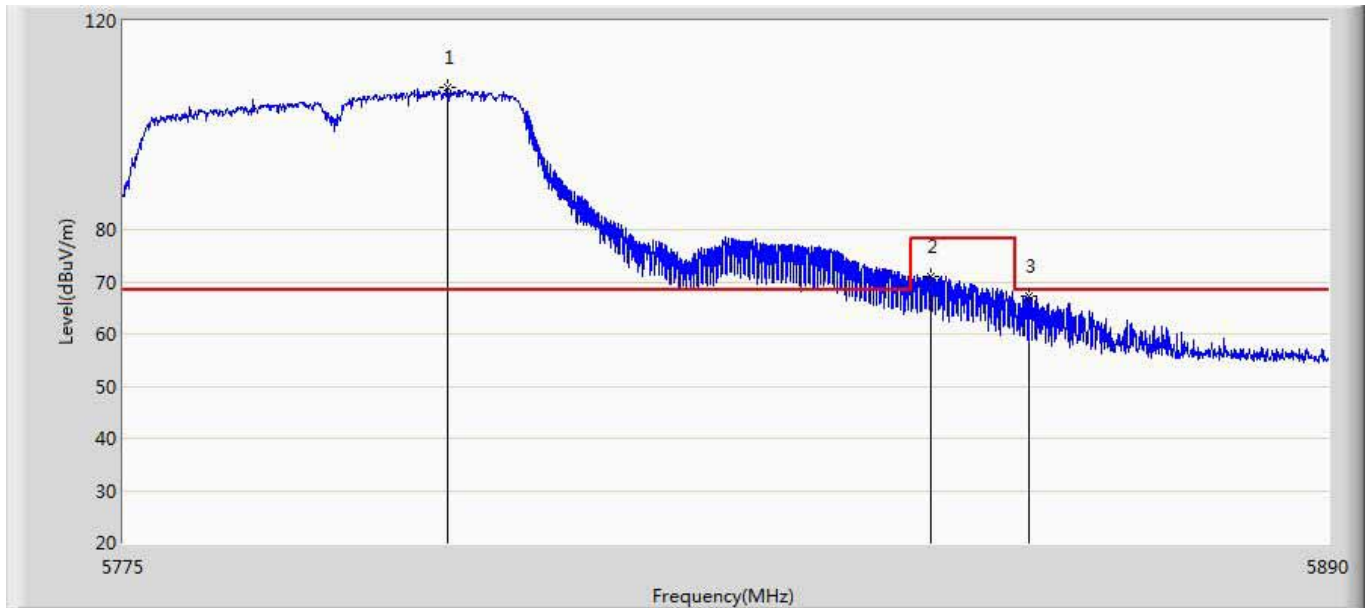
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5709.765	66.613	23.295	-1.687	68.300	43.318	PK
2		5719.775	71.656	28.372	-6.644	78.300	43.284	PK
3	*	5740.705	102.152	58.855	N/A	N/A	43.298	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:09
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5795Mhz by 802.11N40 with ant 0	



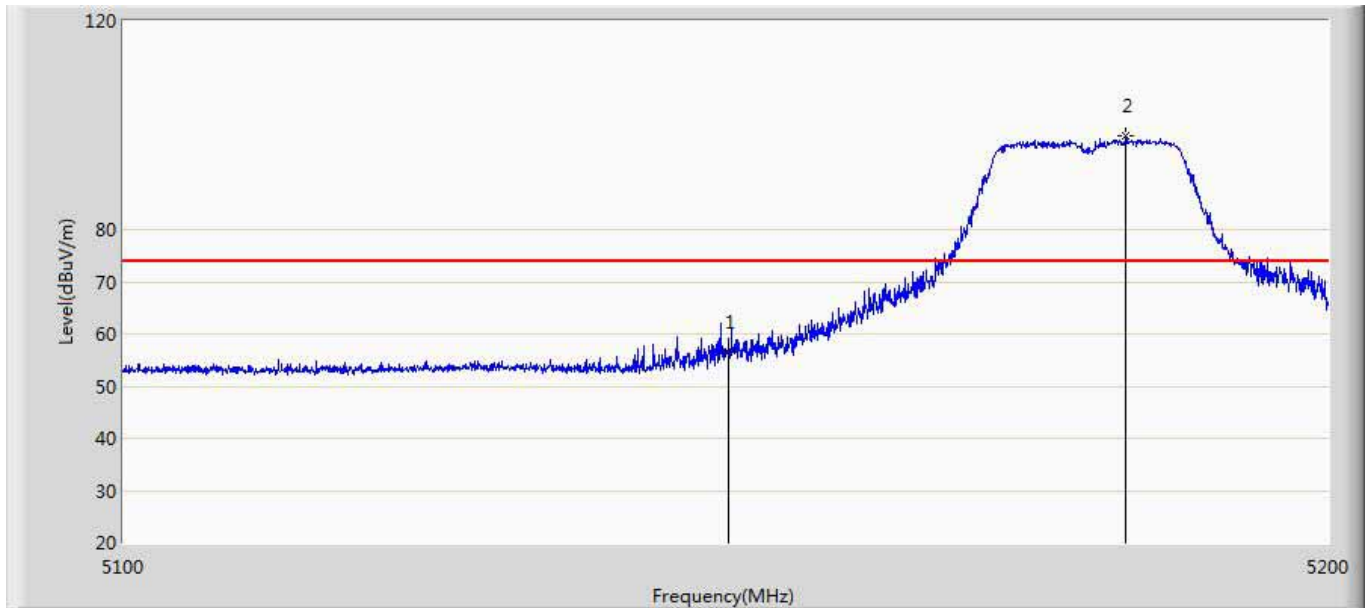
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5800.300	108.168	64.850	N/A	N/A	43.318	PK
2		5851.245	69.050	25.571	-9.250	78.300	43.479	PK
3		5861.020	63.707	20.153	-4.593	68.300	43.554	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:11
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5795Mhz by 802.11N40 with ant 0	



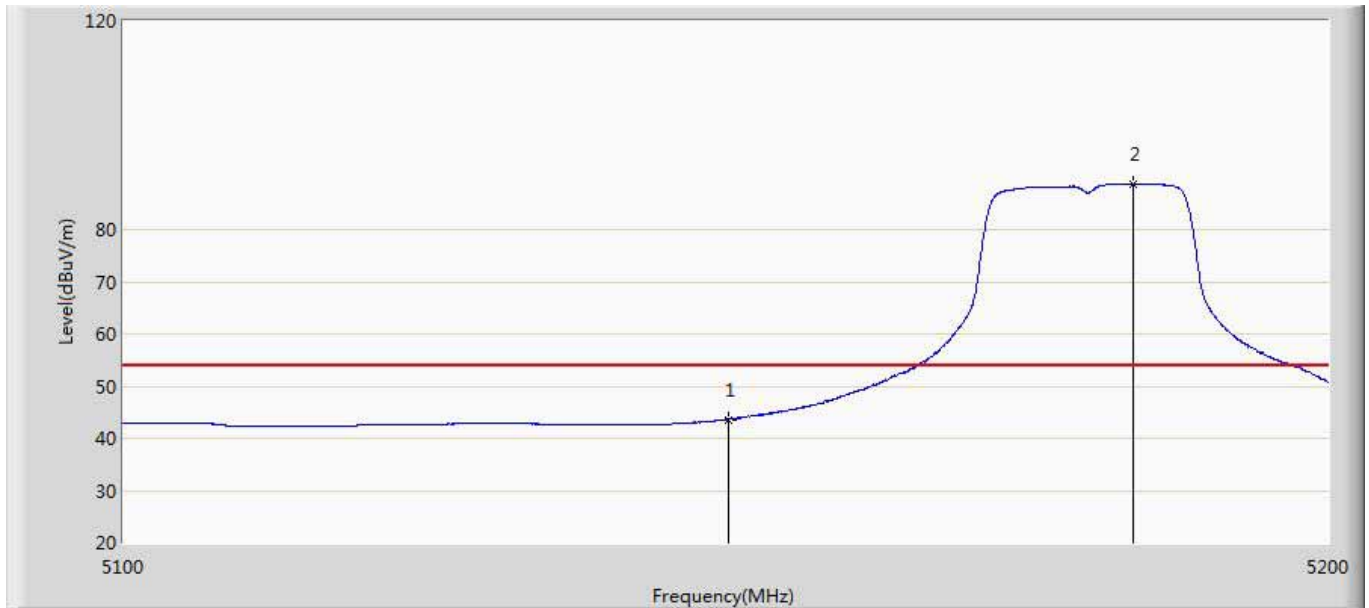
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5805.705	107.339	63.995	N/A	N/A	43.345	PK
2		5851.877	71.100	27.616	-7.200	78.300	43.484	PK
3		5861.192	67.339	23.784	-0.961	68.300	43.555	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 1	



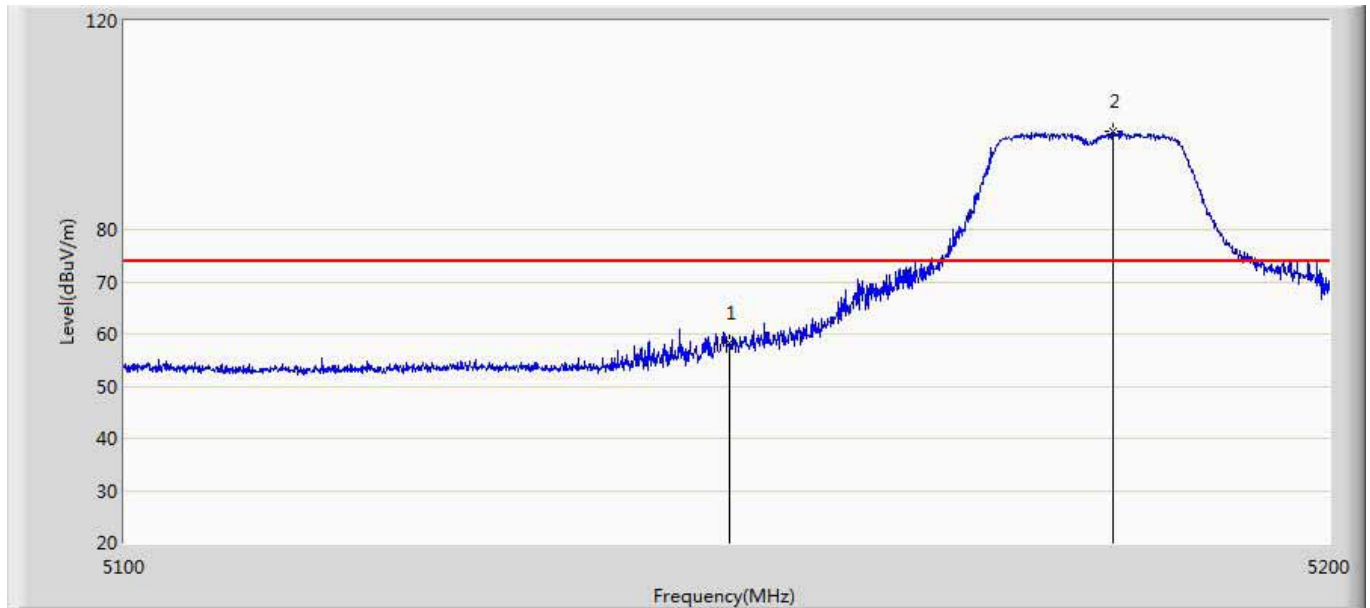
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	56.461	14.446	-17.539	74.000	42.015	PK
2	*	5183.100	98.093	55.955	N/A	N/A	42.138	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 1	



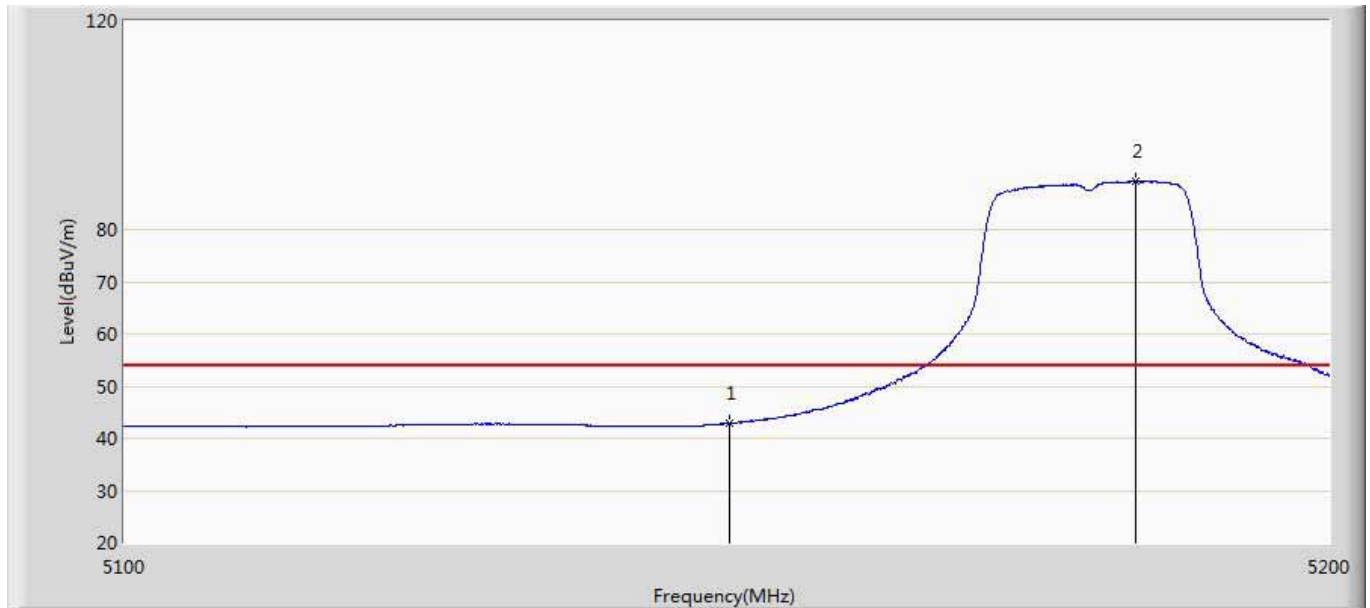
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	43.609	1.594	-10.391	54.000	42.015	AV
2	*	5183.700	88.802	46.668	N/A	N/A	42.135	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 1	



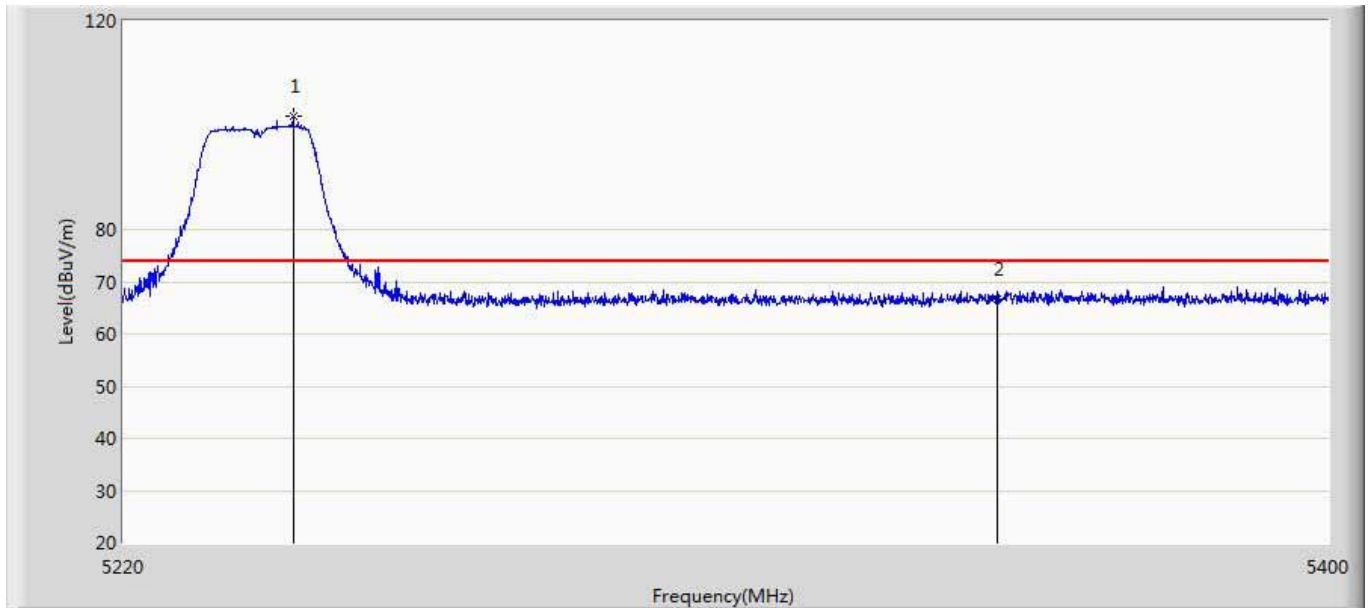
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	58.306	16.291	-15.694	74.000	42.015	PK
2	*	5181.950	98.885	56.740	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 1	



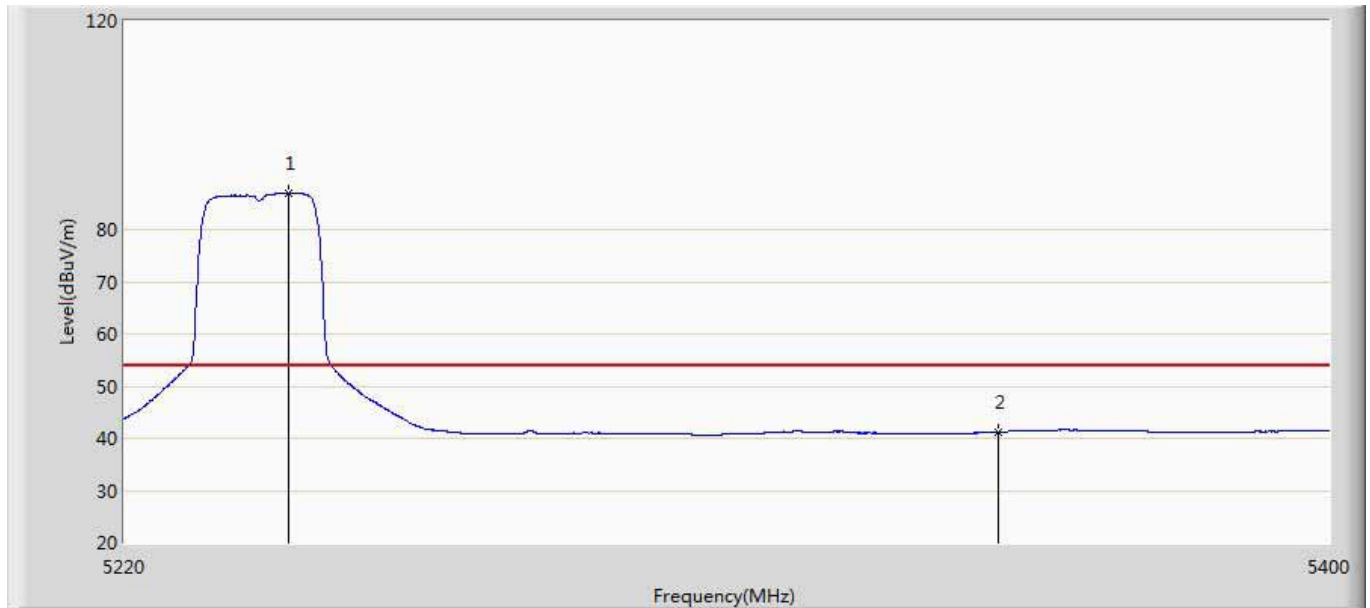
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	42.888	0.873	-11.112	54.000	42.015	AV
2	*	5183.850	89.156	47.023	N/A	N/A	42.134	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 1	



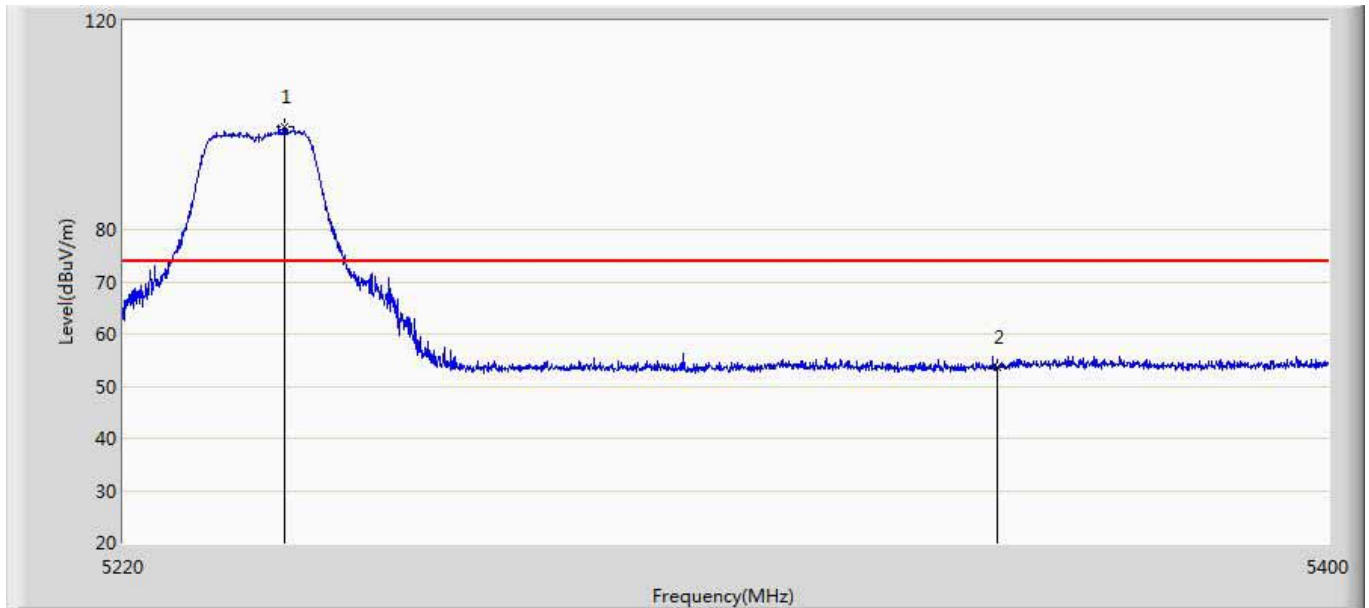
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5245.020	101.602	59.421	N/A	N/A	42.181	PK
2		5350.000	66.692	24.176	-7.308	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1: Transmit at channel 5240Mhz by 802.11a with ant 1	



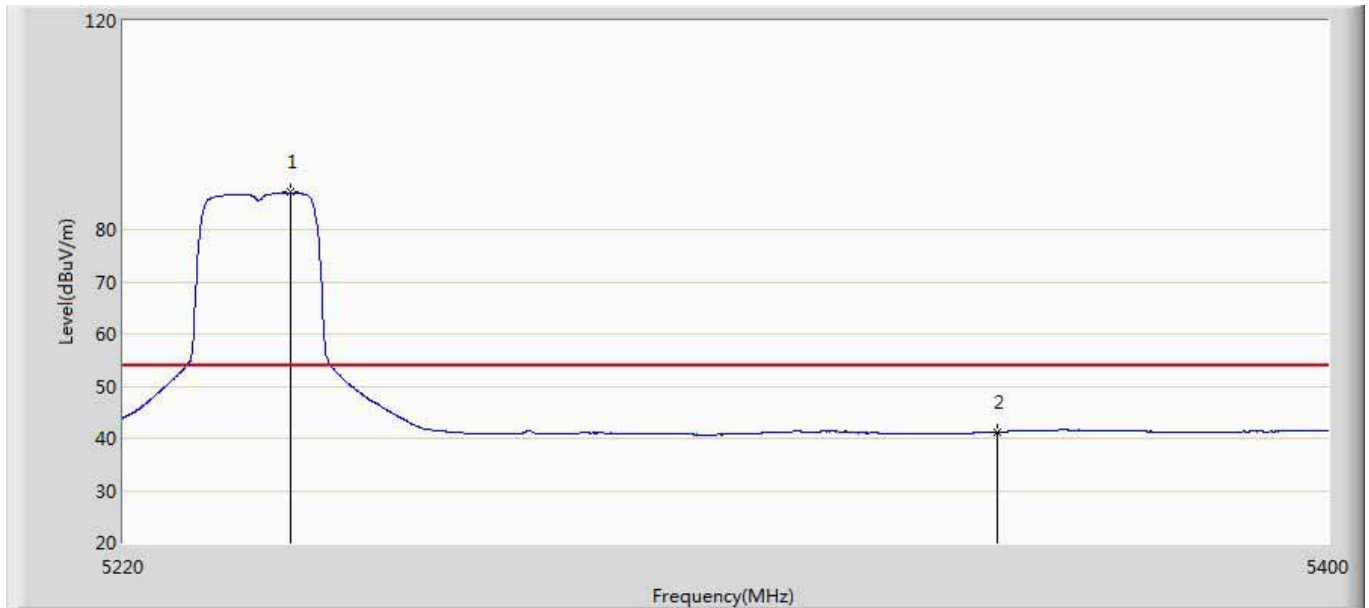
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5244.300	87.015	44.841	N/A	N/A	42.174	AV
2		5350.000	41.227	-1.289	-12.773	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 1	



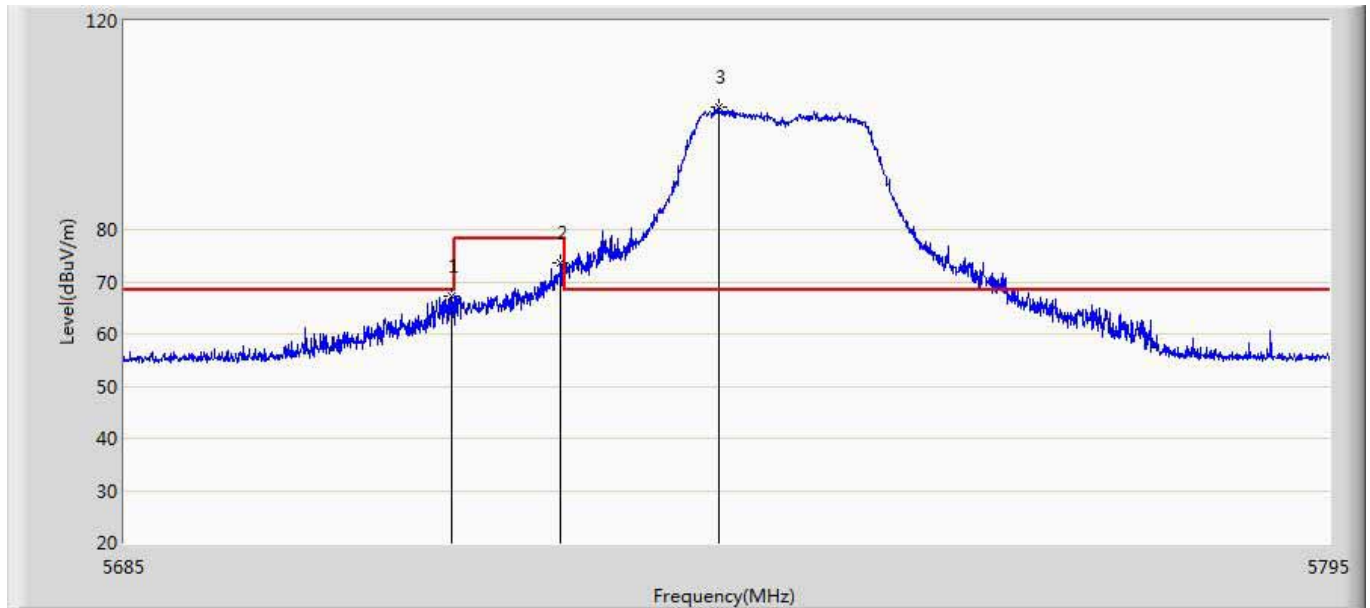
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5243.850	99.705	57.536	N/A	N/A	42.170	PK
2		5350.000	53.559	11.043	-20.441	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 1	



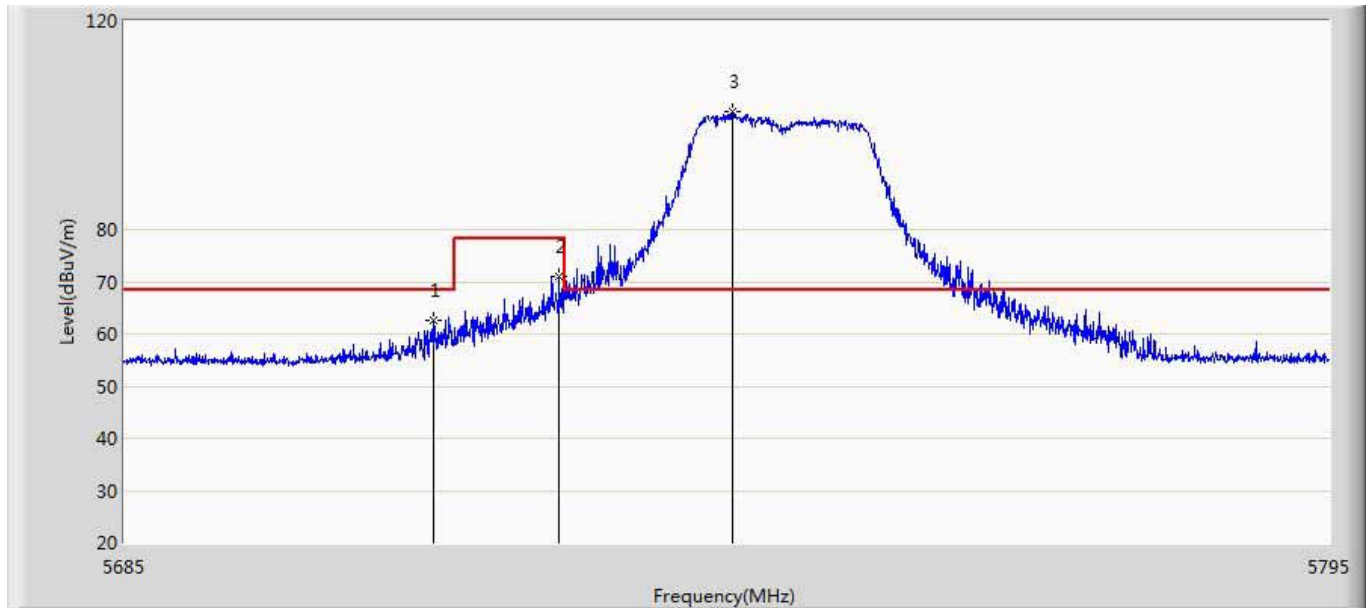
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5244.570	87.115	44.938	N/A	N/A	42.177	AV
2		5350.000	41.209	-1.307	-12.791	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:47
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5745Mhz by 802.11a with ant 1	



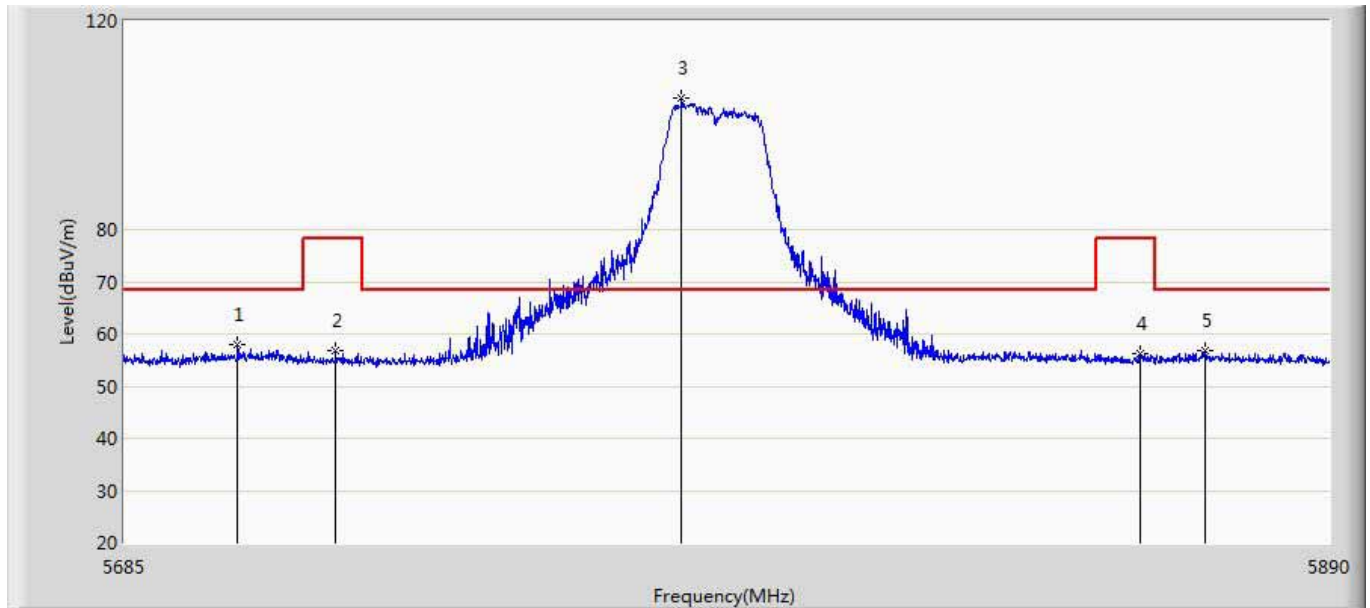
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5714.755	67.149	23.848	-1.151	68.300	43.301	PK
2		5724.600	73.676	30.409	-4.624	78.300	43.267	PK
3	*	5739.010	103.337	60.044	N/A	N/A	43.293	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:48
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5745Mhz by 802.11a with ant 1	



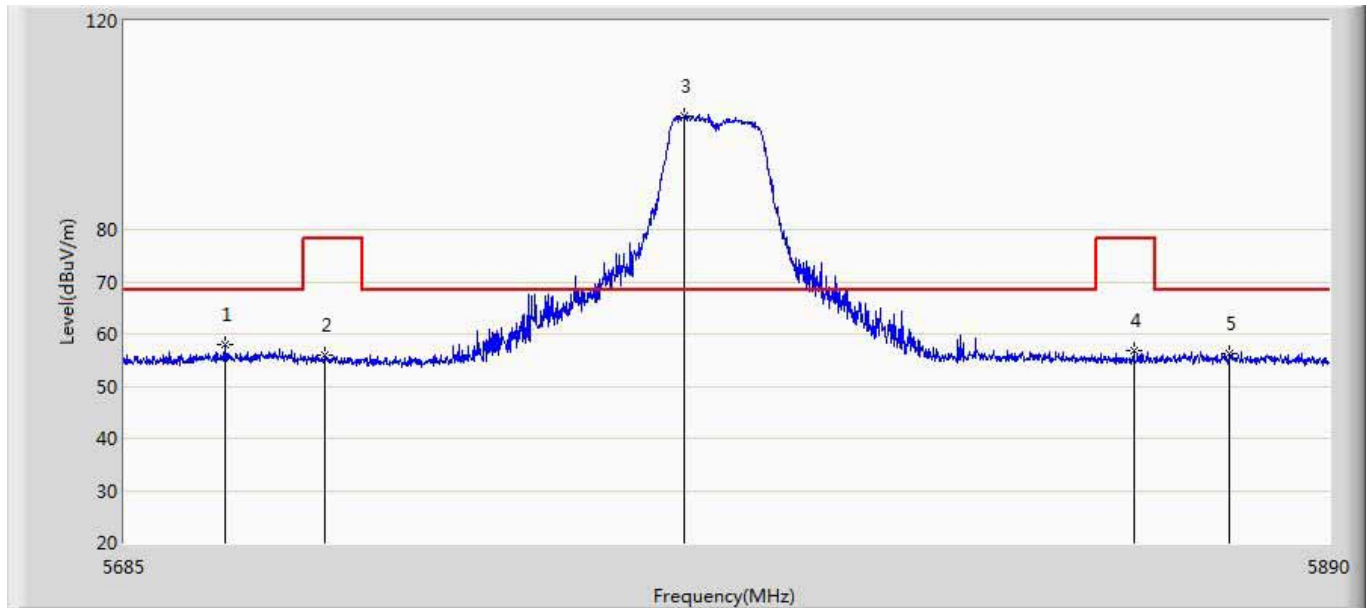
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5712.995	62.578	19.271	-5.722	68.300	43.306	PK
2		5724.490	70.967	27.699	-7.333	78.300	43.268	PK
3	*	5740.220	102.649	59.353	N/A	N/A	43.296	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:51
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1: Transmit at channel 5785Mhz by 802.11a with ant 0	



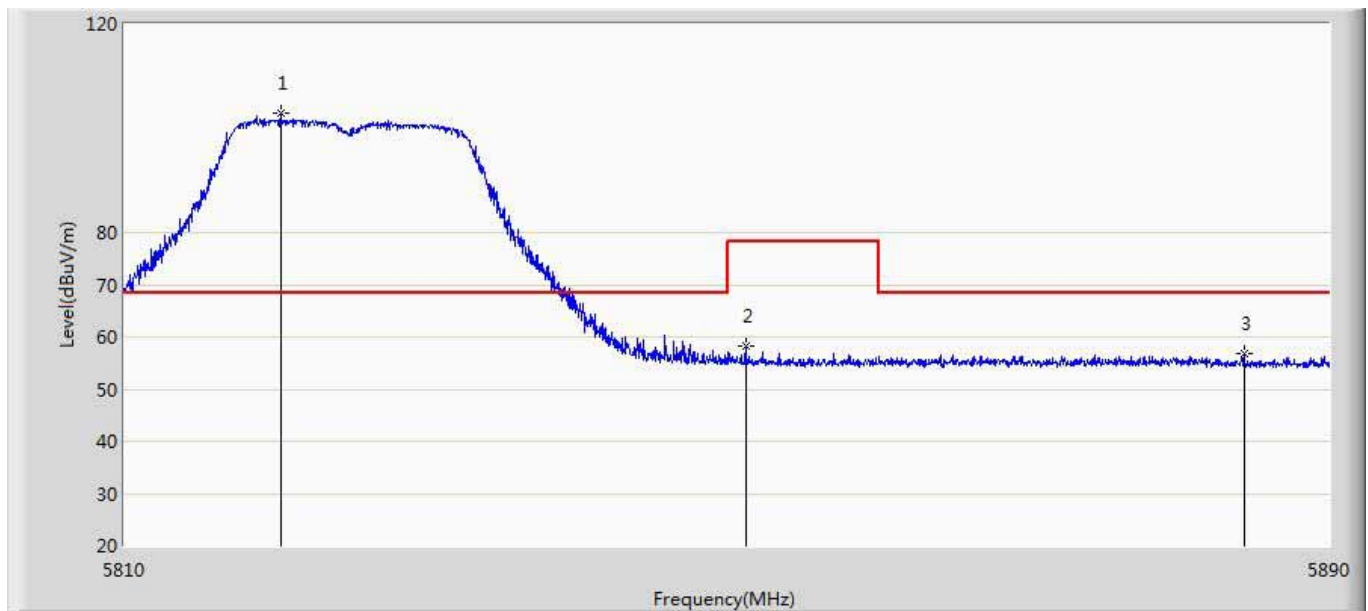
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5704.065	57.914	14.609	-10.386	68.300	43.305	PK
2		5720.465	56.707	13.426	-21.593	78.300	43.282	PK
3	*	5778.993	105.326	61.992	N/A	N/A	43.335	PK
4		5857.507	56.281	12.754	-22.019	78.300	43.527	PK
5		5868.475	56.683	13.102	-11.617	68.300	43.581	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:52
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1: Transmit at channel 5785Mhz by 802.11a with ant 0	



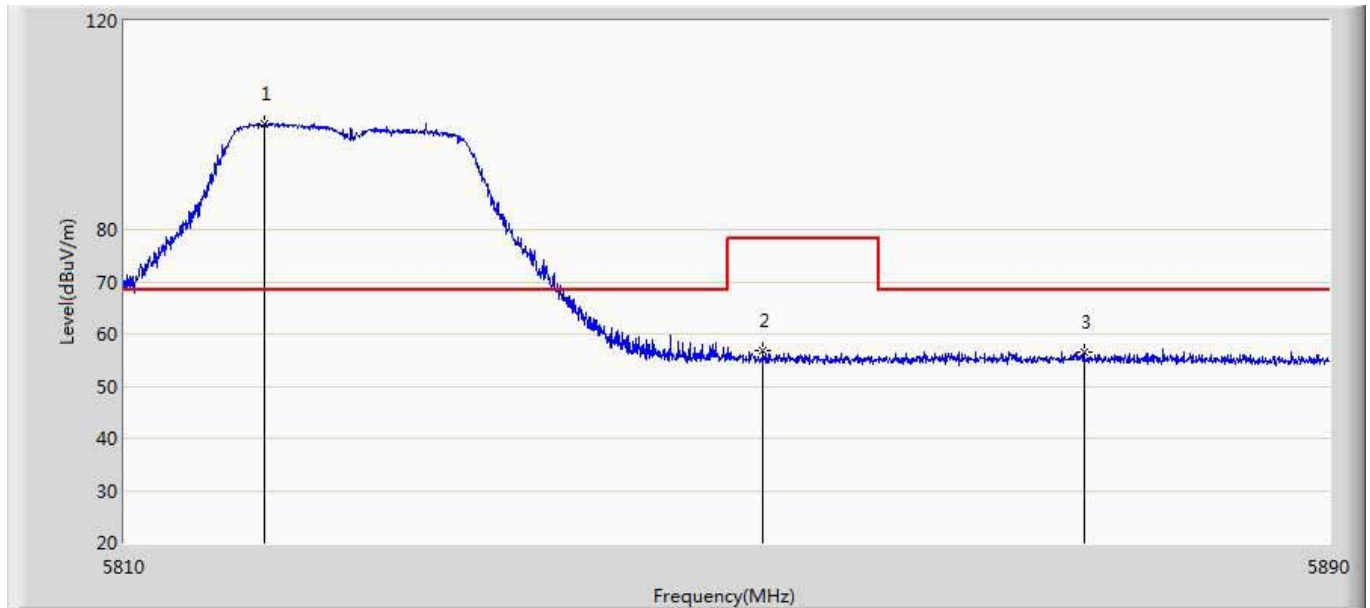
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5701.913	58.020	14.722	-10.280	68.300	43.298	PK
2		5718.620	56.055	12.767	-22.245	78.300	43.288	PK
3	*	5779.402	101.652	58.319	N/A	N/A	43.333	PK
4		5856.277	56.922	13.405	-21.378	78.300	43.517	PK
5		5872.780	56.269	12.674	-12.031	68.300	43.595	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:55
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5825Mhz by 802.11a with ant 1	



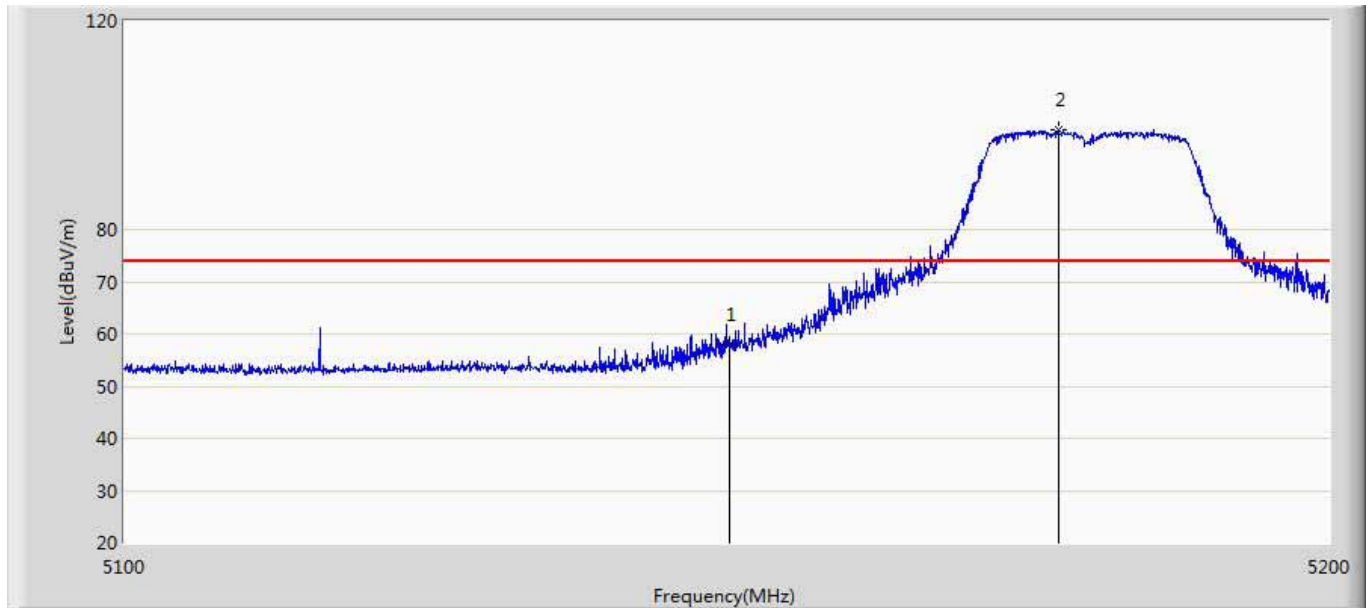
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5820.320	102.882	59.490	N/A	N/A	43.392	PK
2		5851.120	58.265	14.787	-20.035	78.300	43.478	PK
3		5884.320	56.815	13.223	-11.485	68.300	43.592	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:56
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5825Mhz by 802.11a with ant 1	



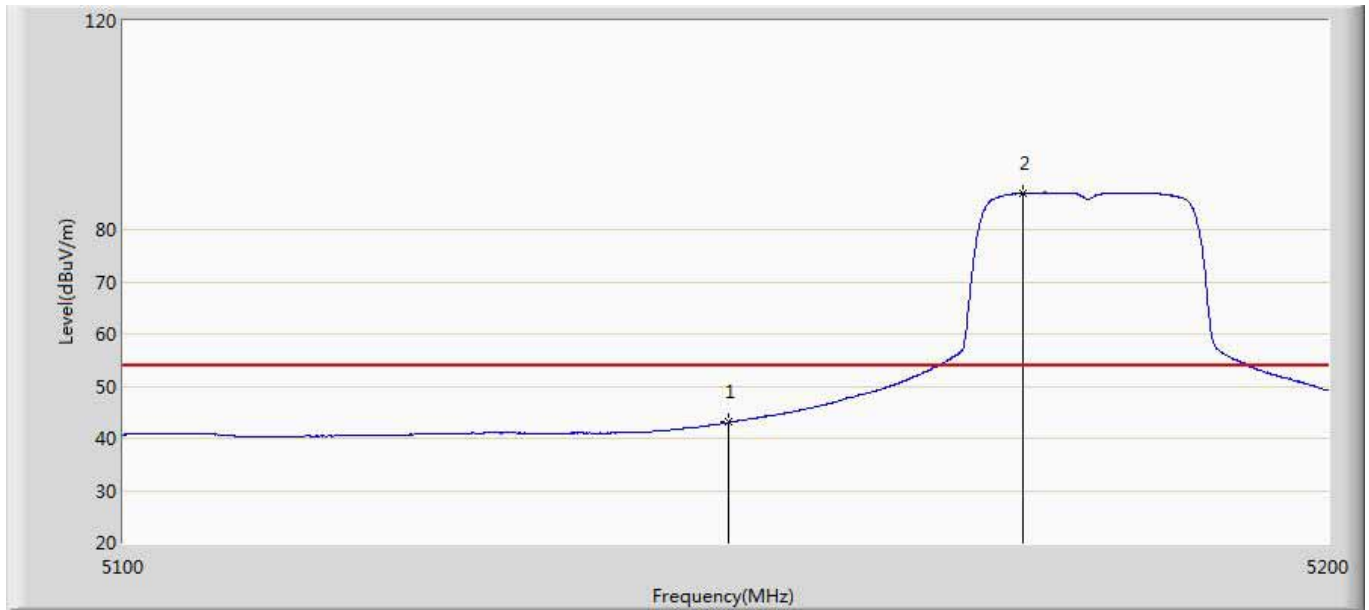
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5819.280	100.338	56.948	N/A	N/A	43.390	PK
2		5852.280	56.681	13.194	-21.619	78.300	43.486	PK
3		5873.680	56.559	12.961	-11.741	68.300	43.597	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 1	



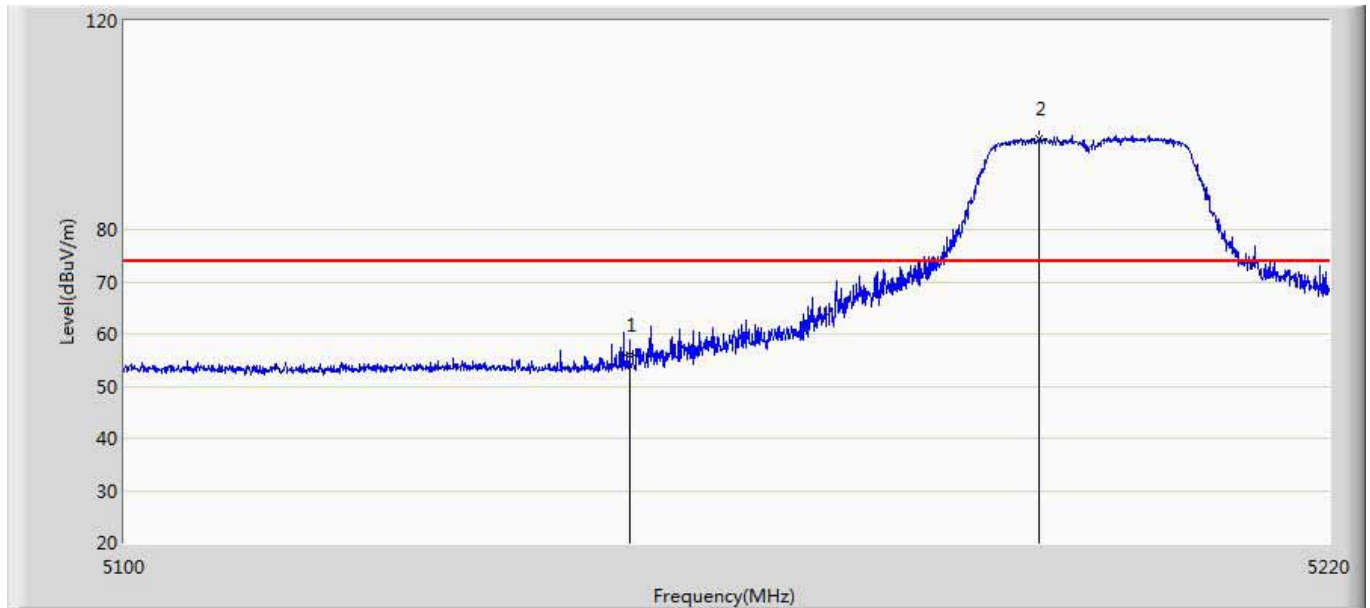
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	57.945	15.930	-16.055	74.000	42.015	PK
2	*	5177.400	99.181	57.036	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 16:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 1	



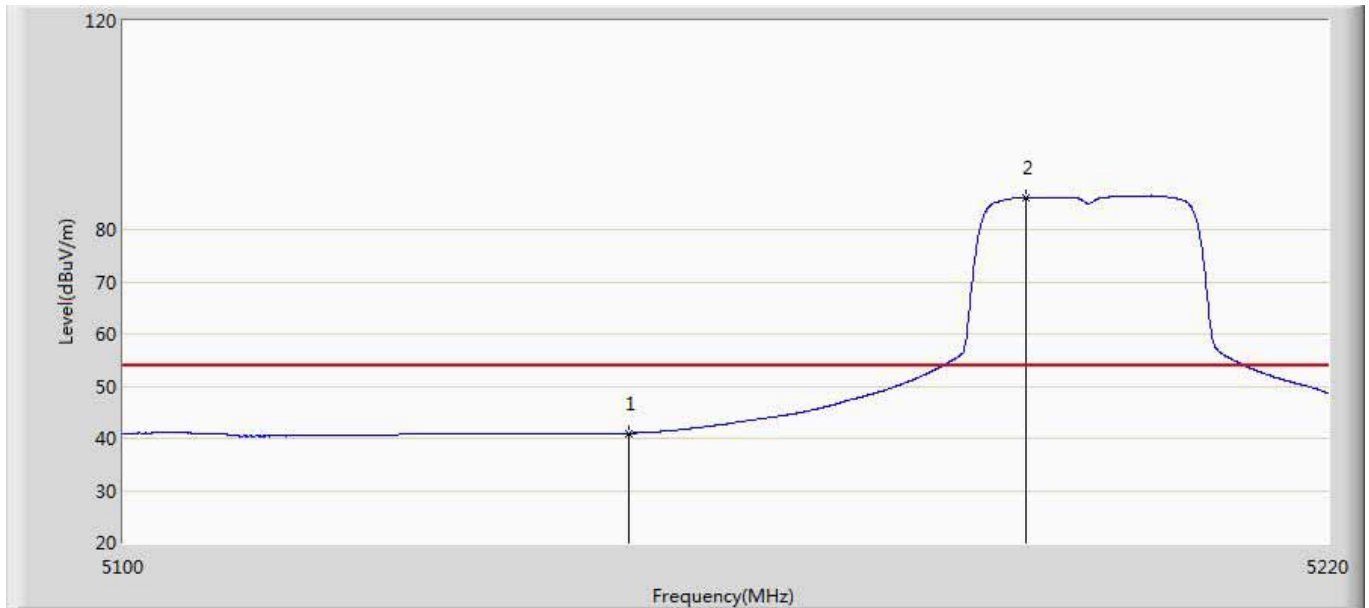
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	43.044	1.029	-10.956	54.000	42.015	AV
2	*	5174.500	86.949	44.804	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 1	



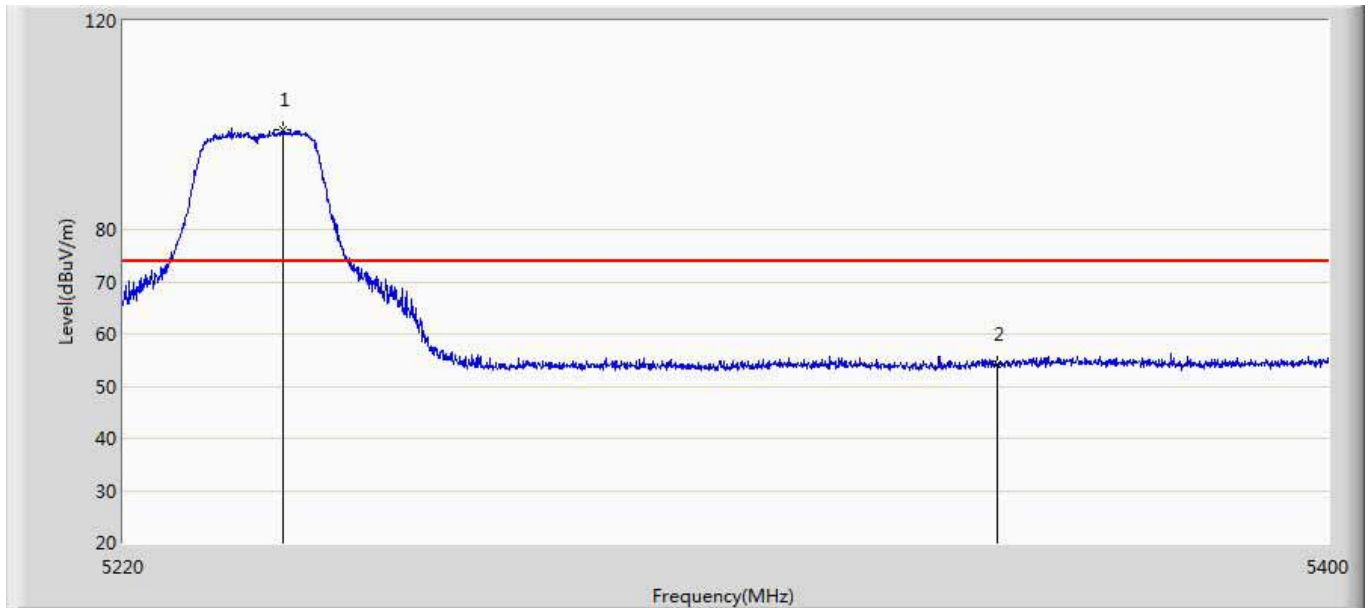
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	55.812	13.797	-18.188	74.000	42.015	PK
2	*	5190.900	97.353	55.265	N/A	N/A	42.088	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 1	



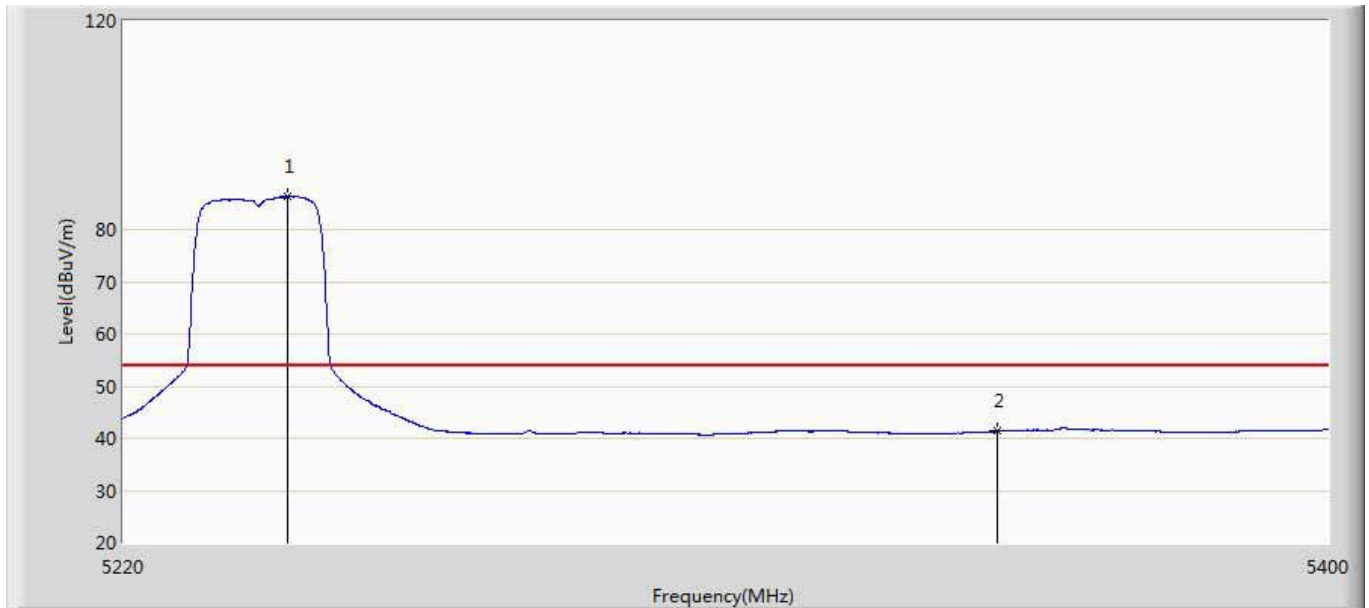
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	40.974	-1.041	-13.026	54.000	42.015	AV
2	*	5189.640	86.134	44.038	N/A	N/A	42.097	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 1	



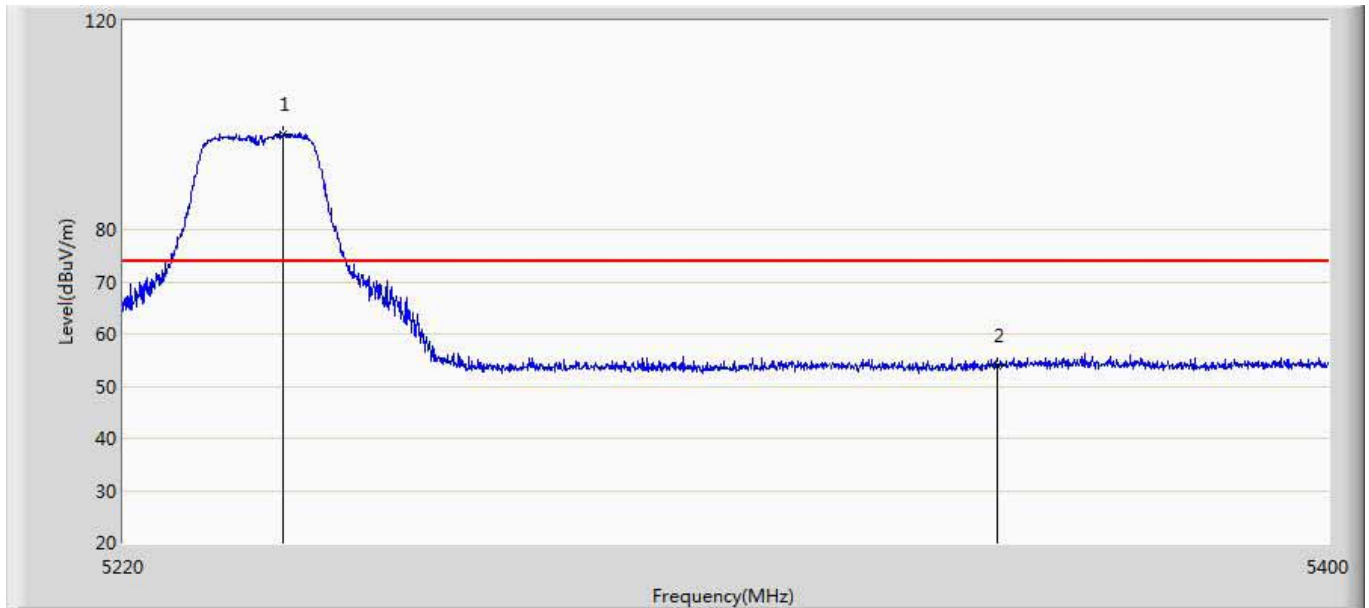
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5243.580	99.136	56.969	N/A	N/A	42.167	PK
2		5350.000	54.176	11.660	-19.824	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 1	



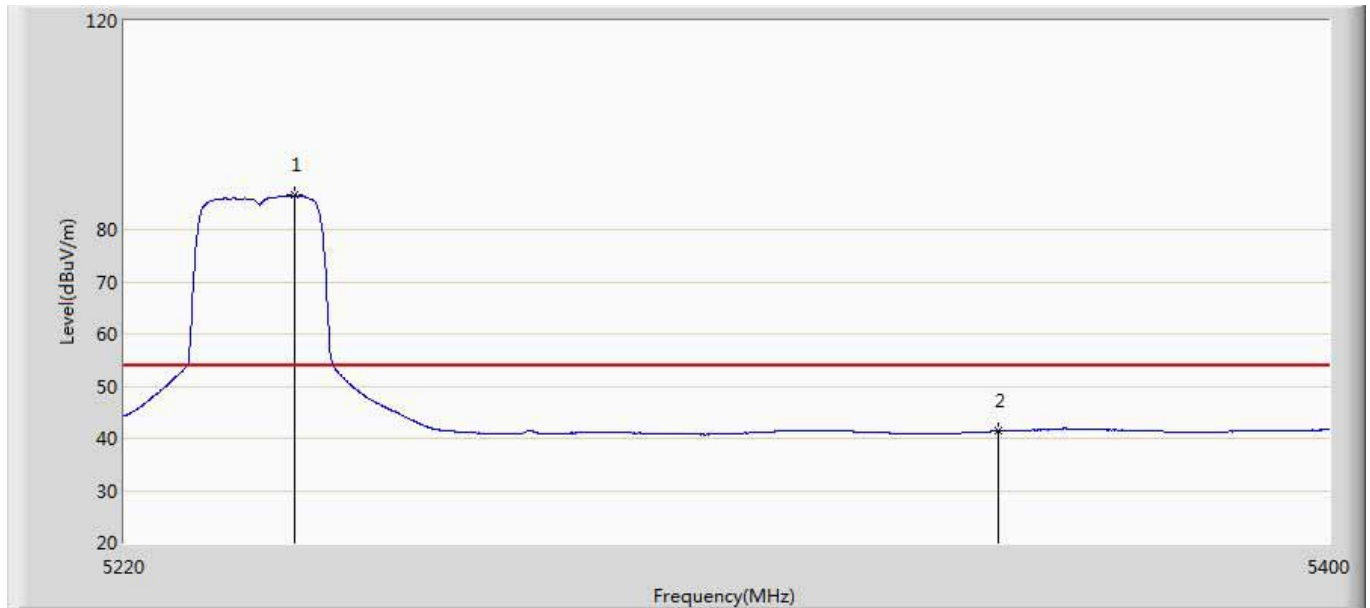
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5244.300	86.332	44.158	N/A	N/A	42.174	AV
2		5350.000	41.359	-1.157	-12.641	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 1	



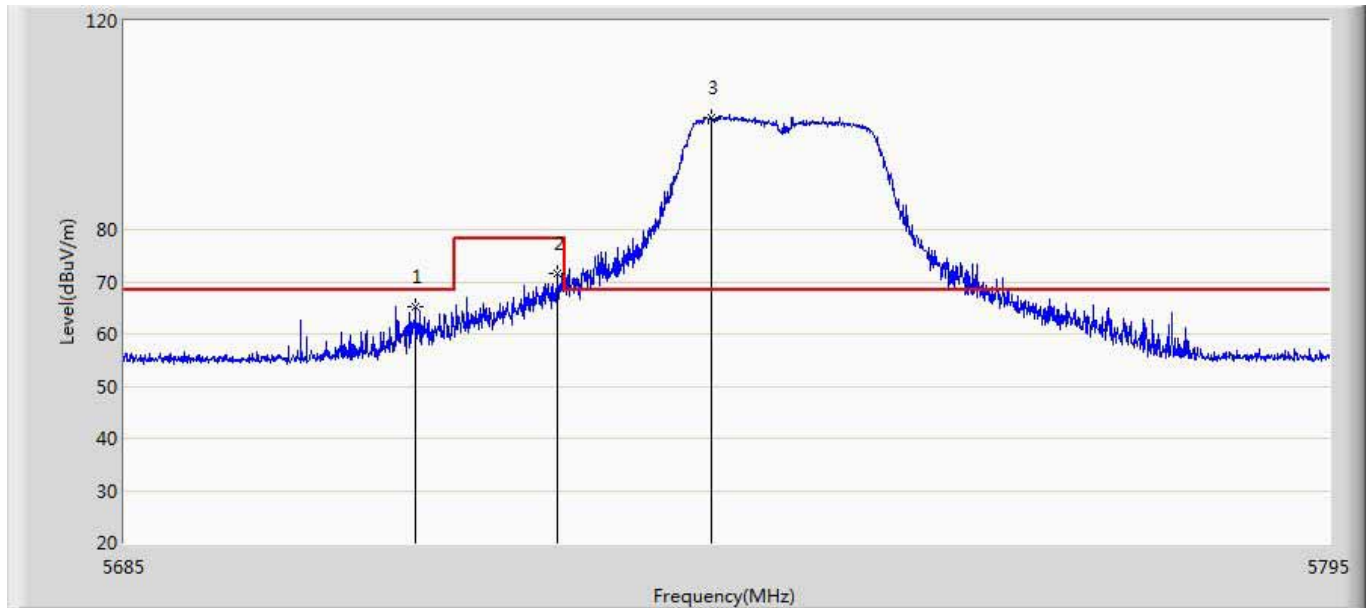
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5243.490	98.219	56.053	N/A	N/A	42.165	PK
2		5350.000	54.044	11.528	-19.956	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 1	



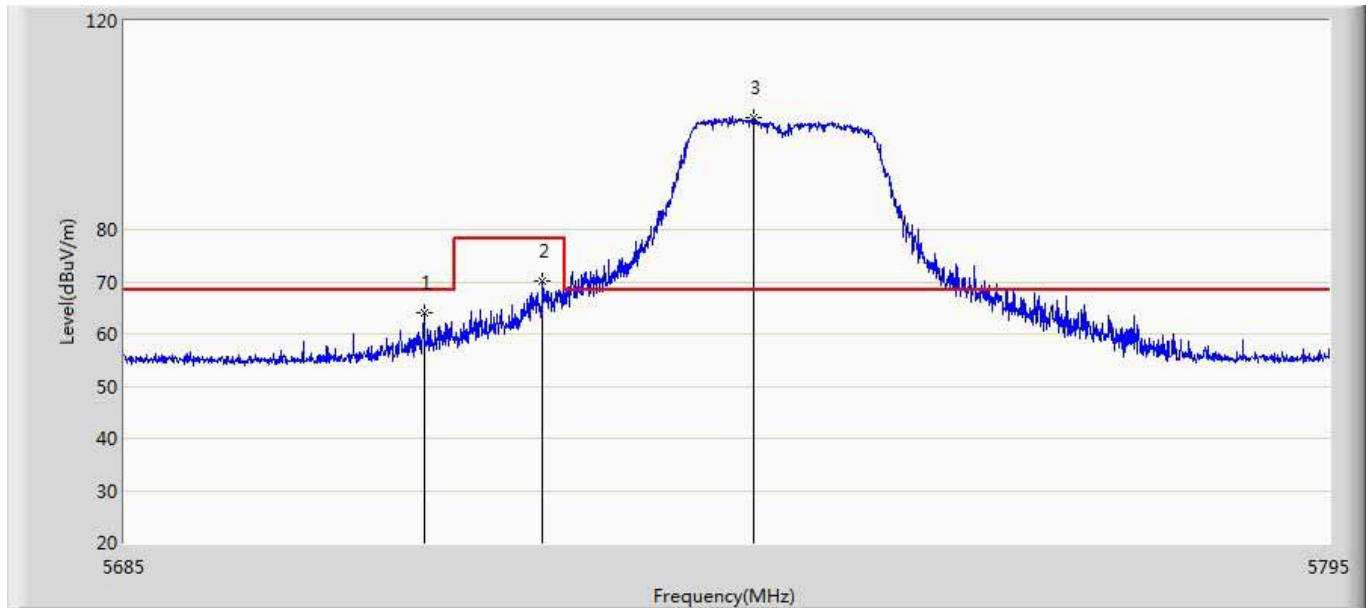
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5245.200	86.578	44.395	N/A	N/A	42.183	AV
2		5350.000	41.376	-1.140	-12.624	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:20
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5745Mhz by 802.11N20 with ant 1	



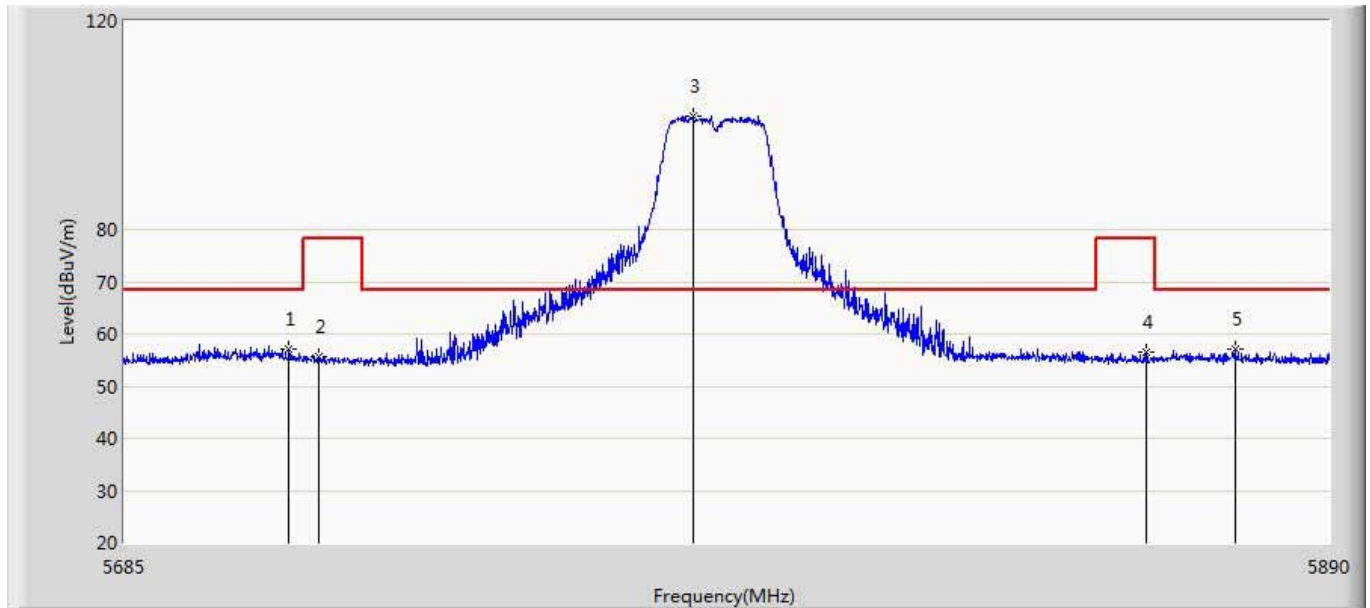
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5711.455	65.201	21.889	-3.099	68.300	43.312	PK
2		5724.270	71.649	28.381	-6.651	78.300	43.269	PK
3	*	5738.350	101.579	58.287	N/A	N/A	43.291	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:22
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5745Mhz by 802.11N20 with ant 1	



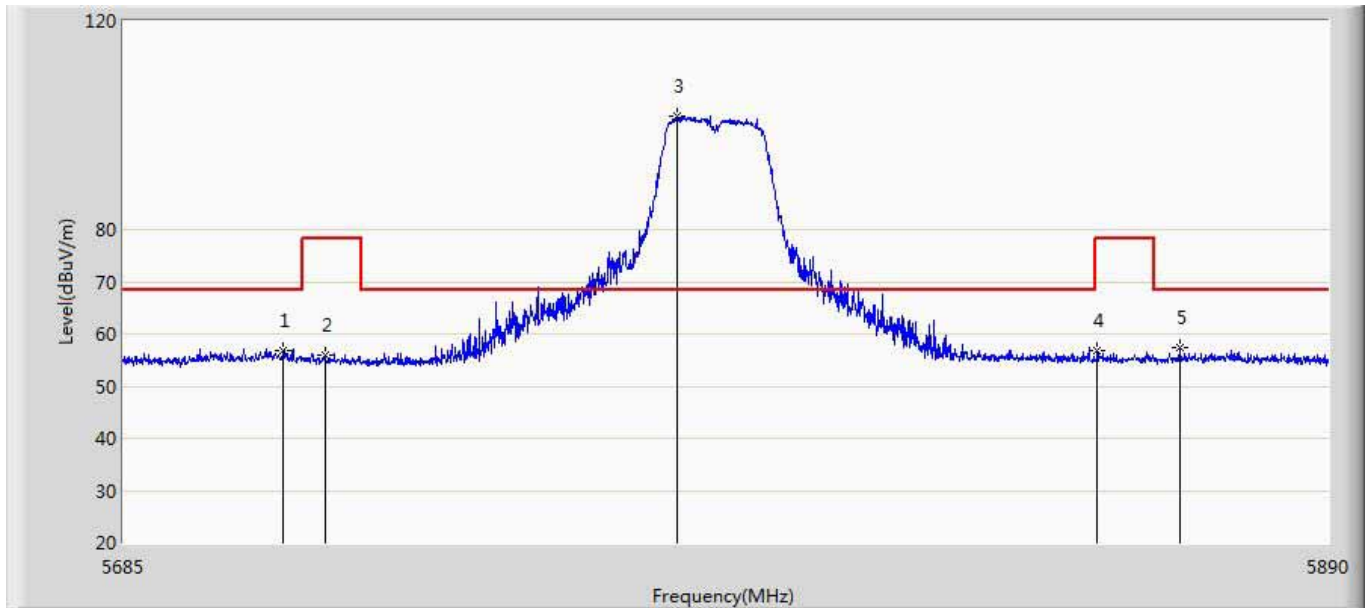
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5712.170	63.926	20.616	-4.374	68.300	43.309	PK
2		5723.005	70.052	26.779	-8.248	78.300	43.273	PK
3	*	5742.200	101.410	58.109	N/A	N/A	43.301	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:25
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5785Mhz by 802.11N20 with ant 1	



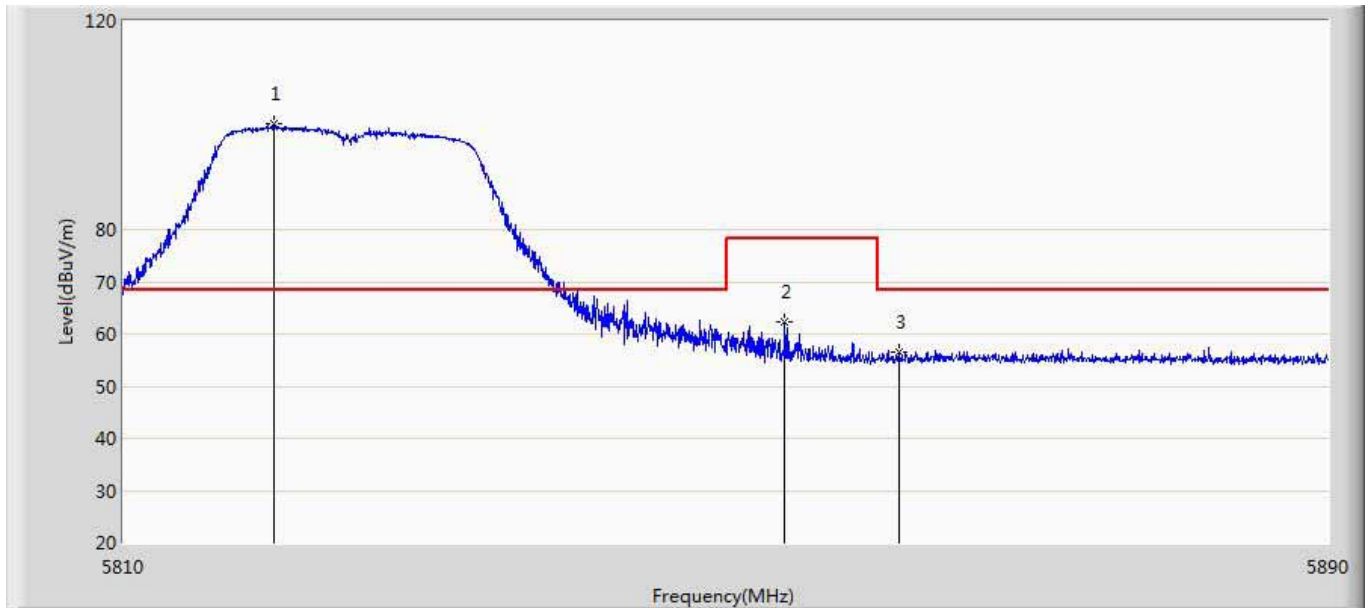
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5712.675	57.146	13.838	-11.154	68.300	43.308	PK
2		5717.697	55.714	12.423	-22.586	78.300	43.291	PK
3	*	5780.940	101.750	58.422	N/A	N/A	43.329	PK
4		5858.533	56.584	13.049	-21.716	78.300	43.535	PK
5		5873.703	57.241	13.643	-11.059	68.300	43.598	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:27
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5785Mhz by 802.11N20 with ant 1	



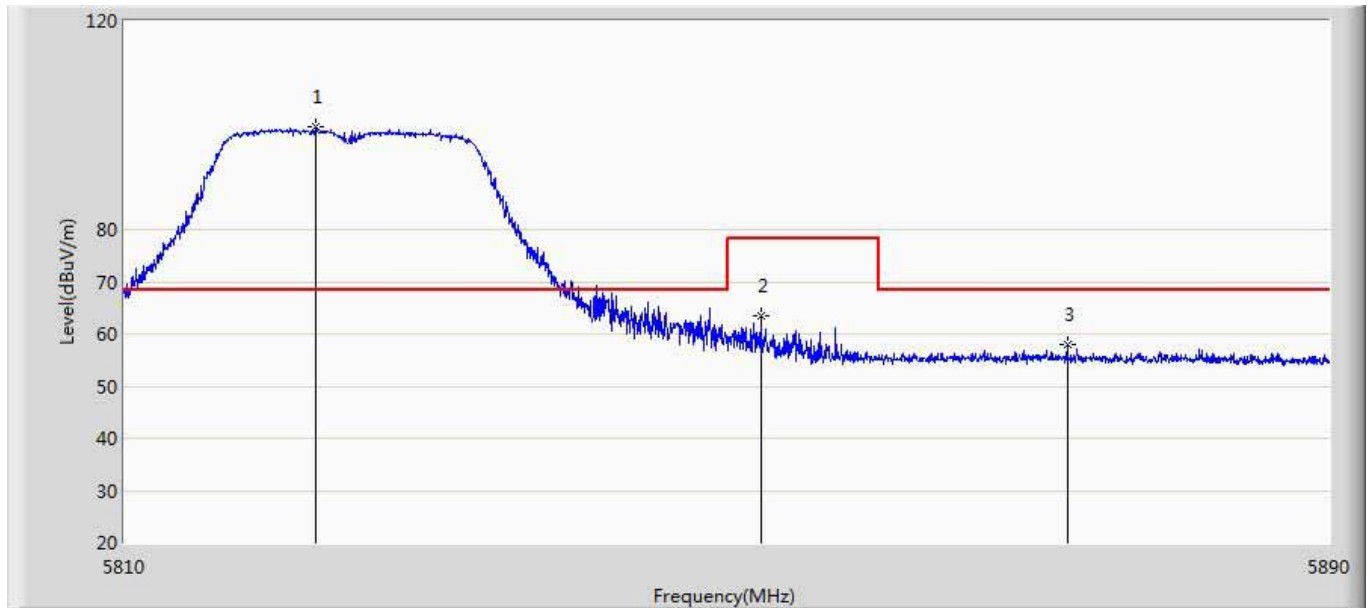
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5711.855	56.904	13.593	-11.396	68.300	43.311	PK
2		5718.825	56.043	12.756	-22.257	78.300	43.287	PK
3	*	5778.480	101.784	58.448	N/A	N/A	43.336	PK
4		5850.230	56.677	13.206	-21.623	78.300	43.471	PK
5		5864.375	57.448	13.879	-10.852	68.300	43.568	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:29
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5825Mhz by 802.11N20 with ant 1	



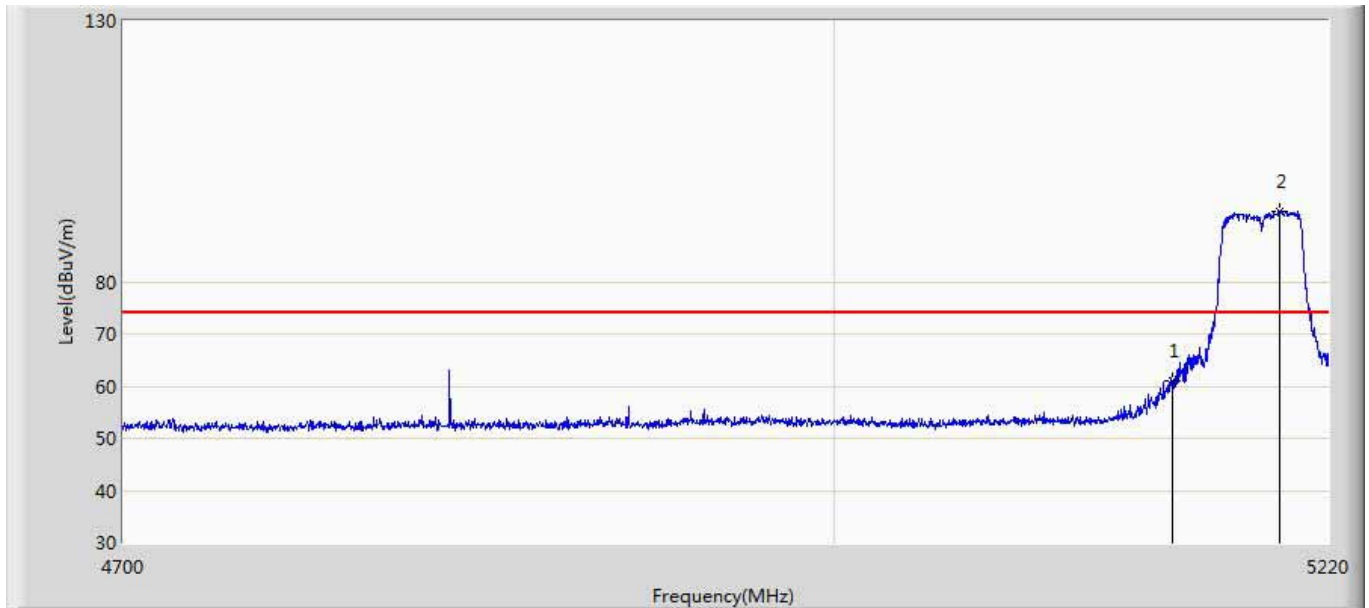
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5820.000	100.191	56.800	N/A	N/A	43.392	PK
2		5853.800	62.289	18.791	-16.011	78.300	43.498	PK
3		5861.400	56.551	12.994	-11.749	68.300	43.556	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 17:31
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5825Mhz by 802.11N20 with ant 1	



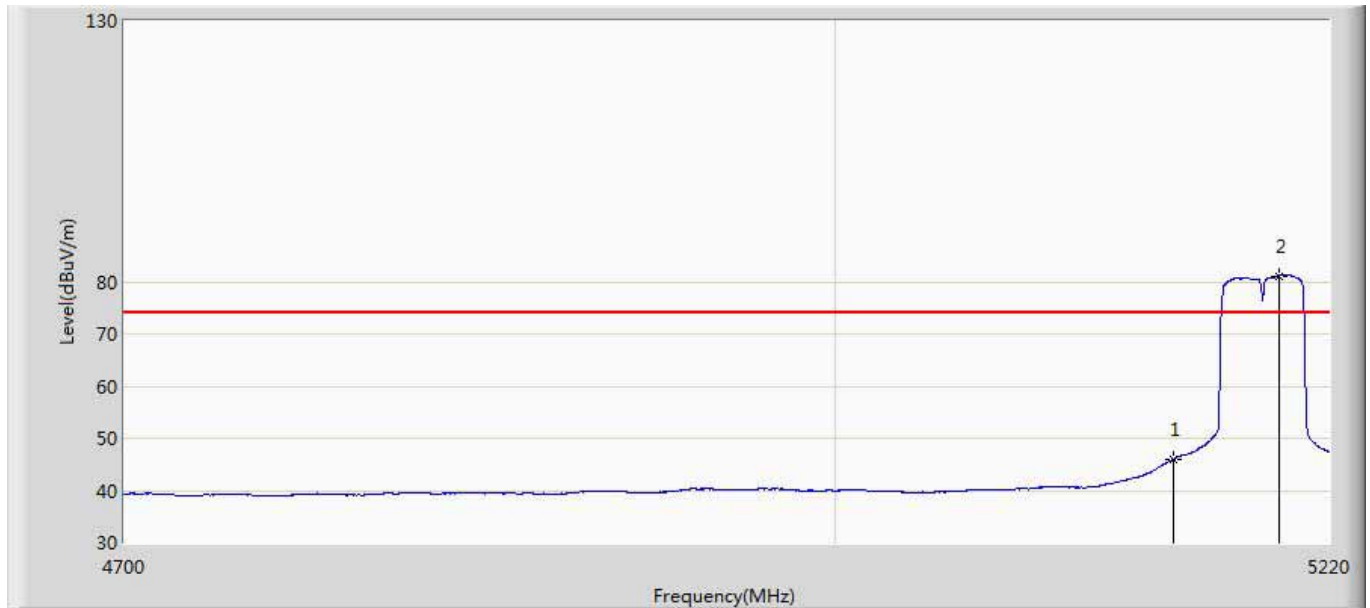
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5822.680	99.612	56.215	N/A	N/A	43.397	PK
2		5852.120	63.376	19.891	-14.924	78.300	43.485	PK
3		5872.520	57.943	14.349	-10.357	68.300	43.594	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 18:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 1	



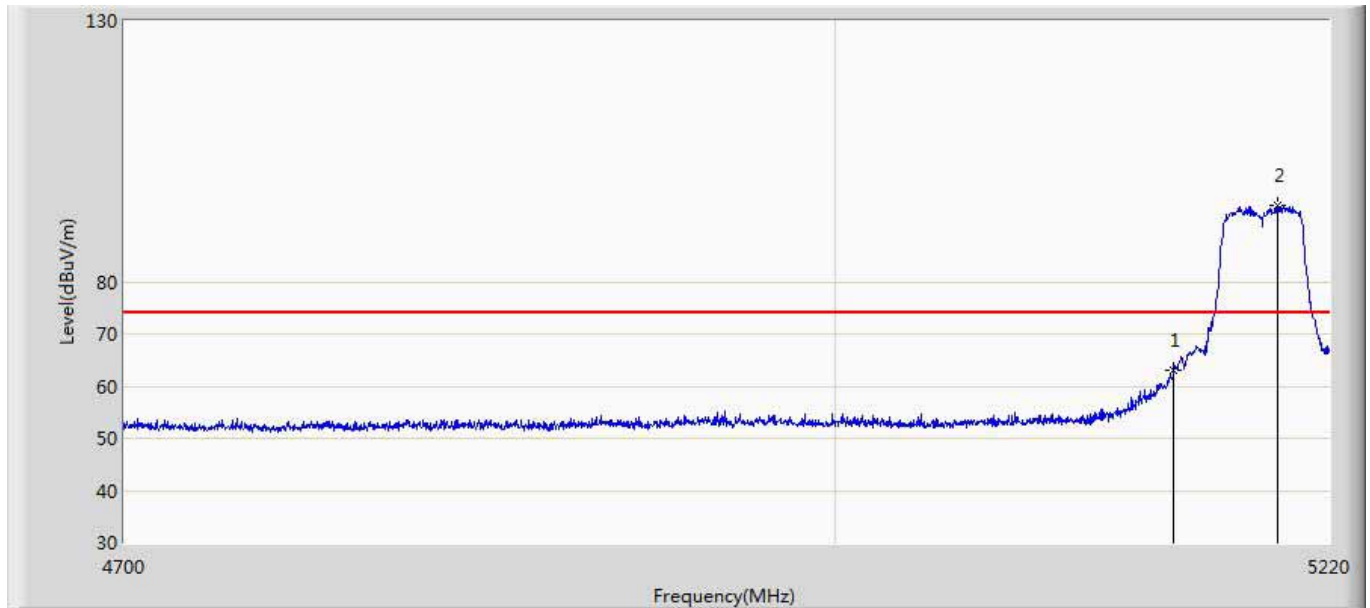
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	60.895	18.880	-13.105	74.000	42.015	PK
2	*	5198.160	93.510	51.468	N/A	N/A	42.042	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 18:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 1	



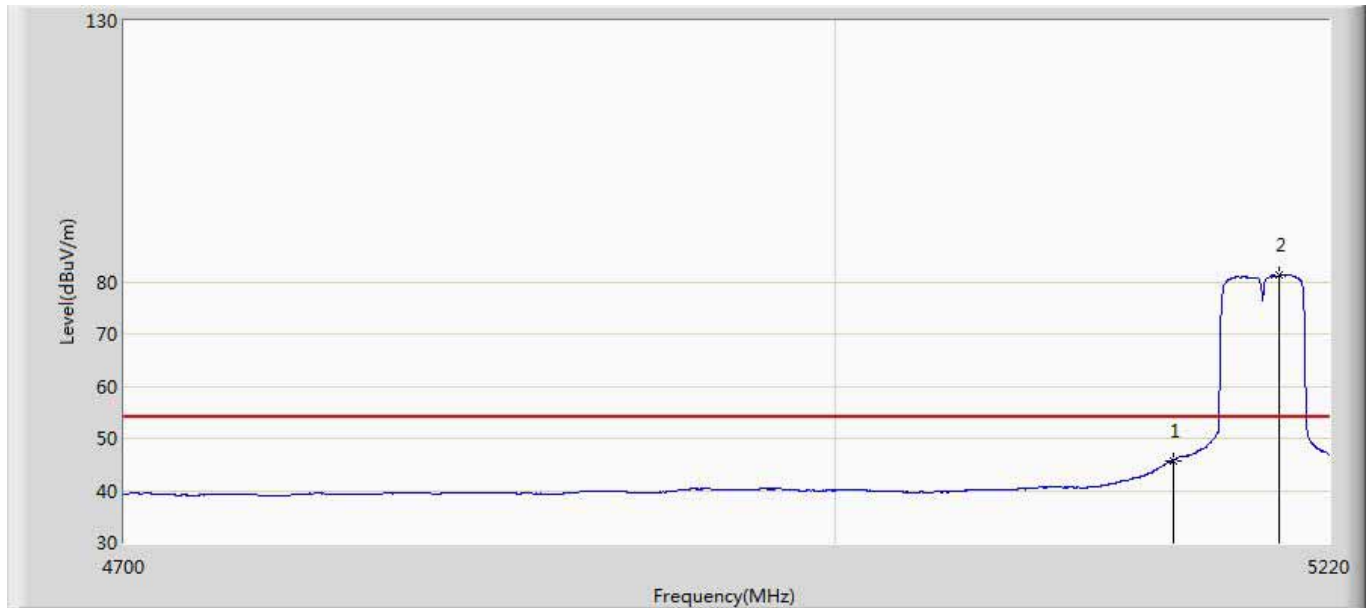
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	45.958	3.943	-28.042	74.000	42.015	PK
2	*	5197.380	81.117	39.070	N/A	N/A	42.046	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 18:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 1	



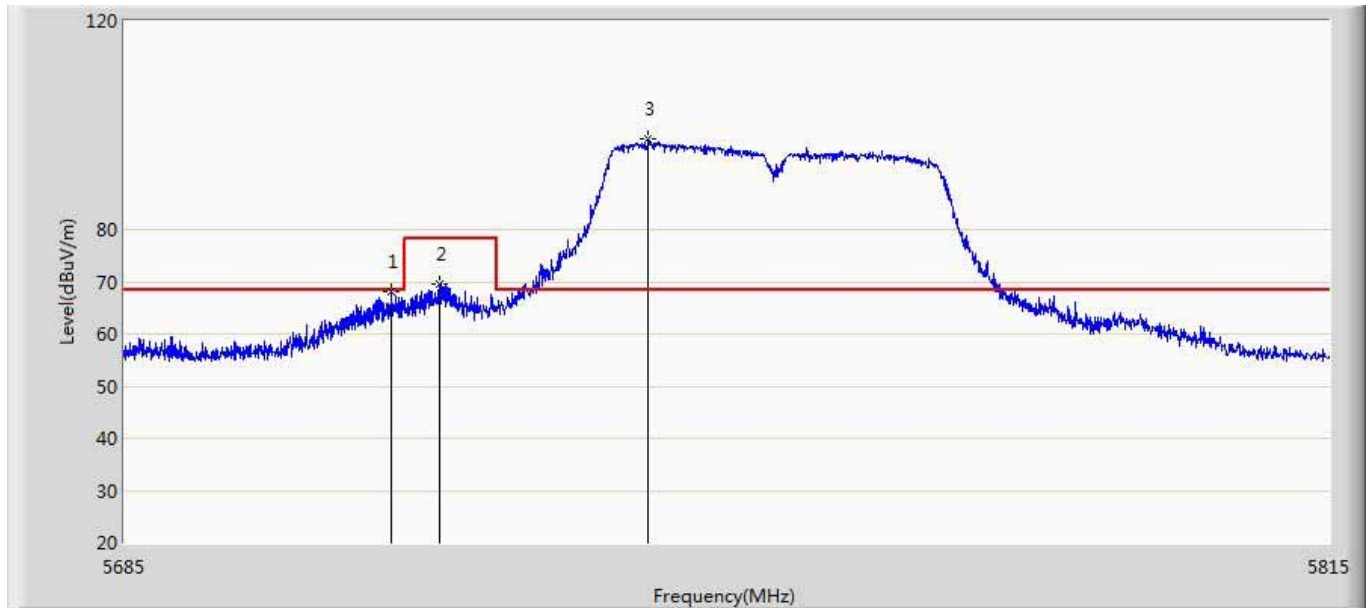
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	63.159	21.144	-10.841	74.000	42.015	PK
2	*	5196.860	94.604	52.554	N/A	N/A	42.050	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 18:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 1	



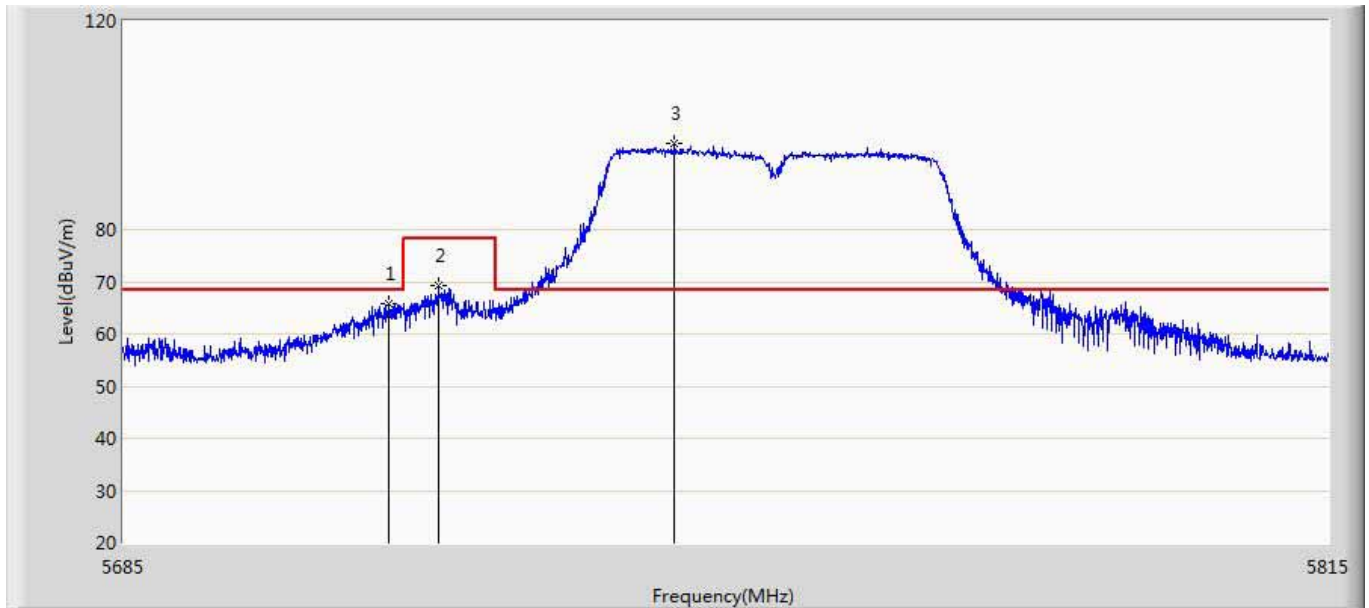
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	45.791	3.776	-8.209	54.000	42.015	AV
2	*	5197.380	81.243	39.196	N/A	N/A	42.046	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 18:58
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5755Mhz by 802.11N40 with ant 1	



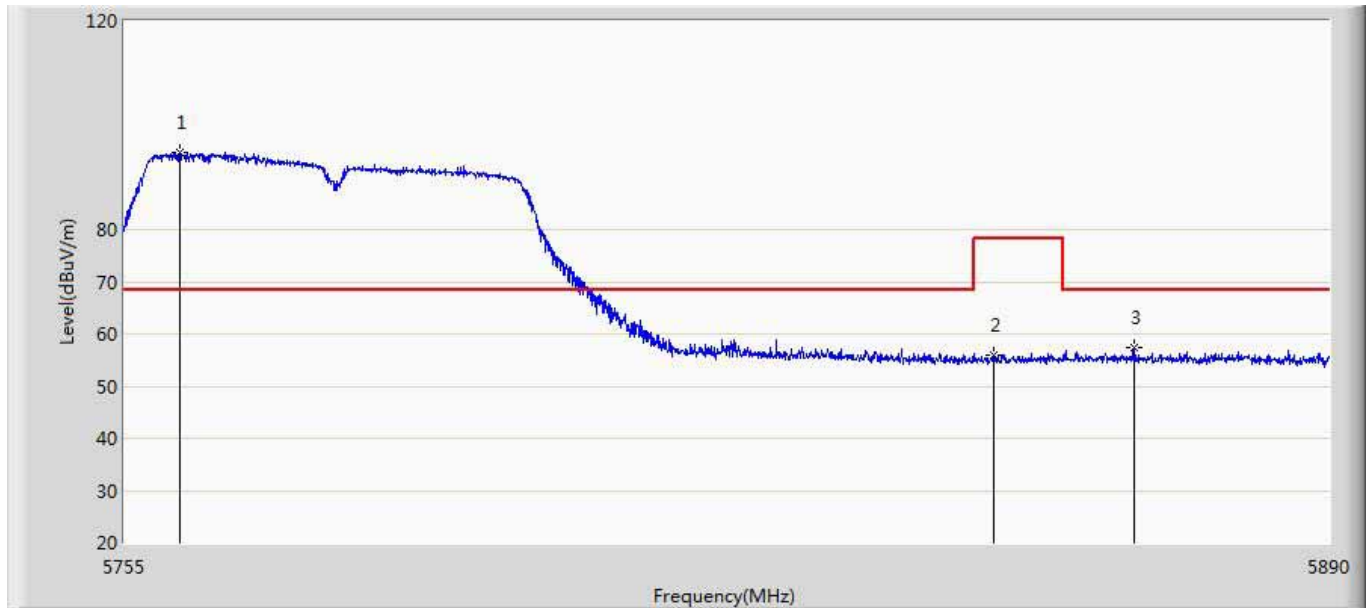
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5713.600	68.160	24.855	-0.140	68.300	43.305	PK
2		5718.735	69.517	26.230	-8.783	78.300	43.287	PK
3	*	5741.225	97.436	54.137	N/A	N/A	43.298	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 19:00
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5755Mhz by 802.11N40 with ant 1	



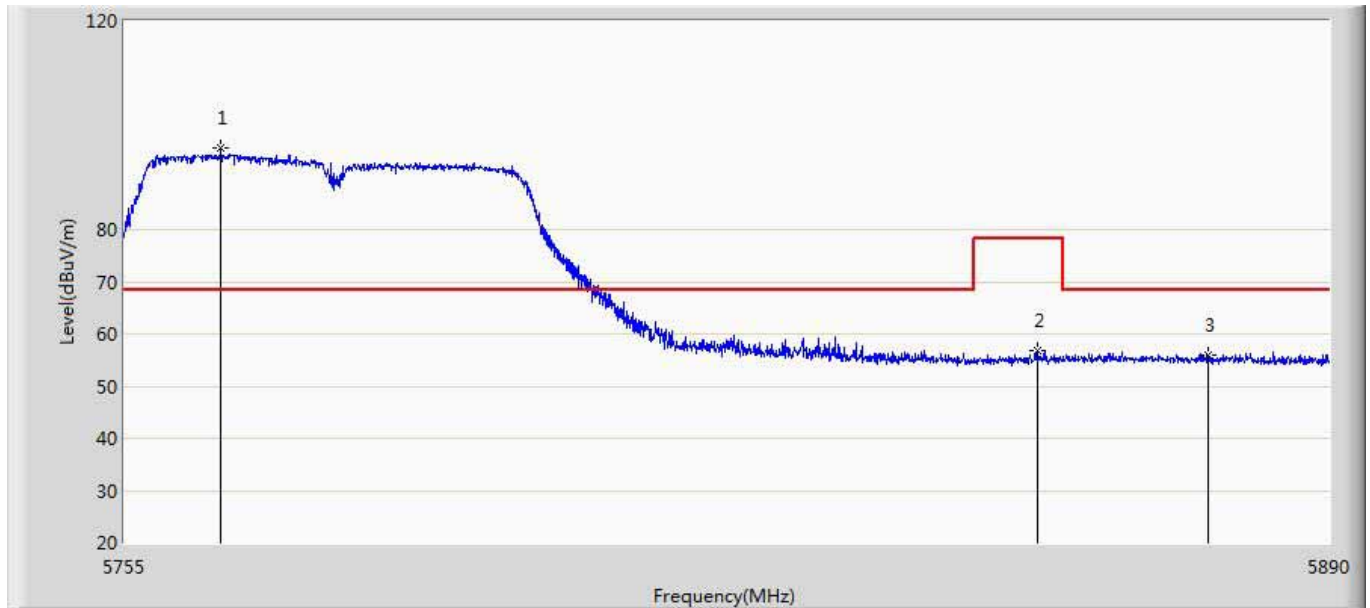
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5713.340	65.924	22.618	-2.376	68.300	43.306	PK
2		5718.735	69.193	25.906	-9.107	78.300	43.287	PK
3	*	5744.150	96.548	53.249	N/A	N/A	43.299	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 19:02
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5795Mhz by 802.11N40 with ant 1	



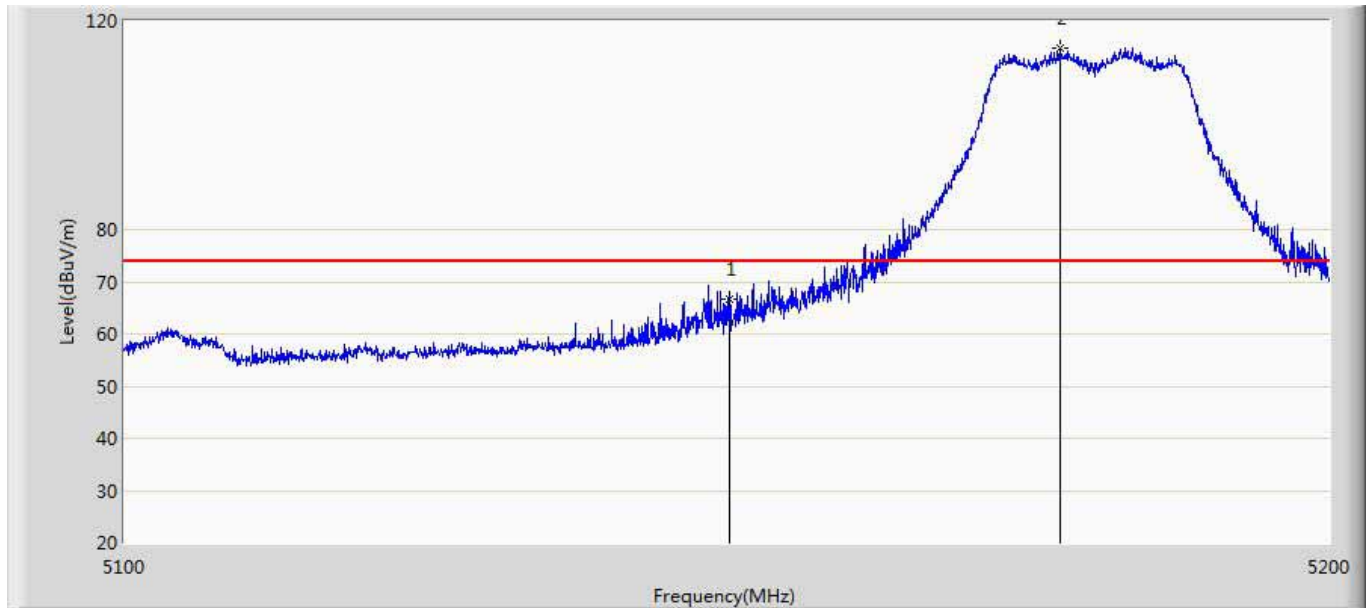
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5761.143	94.879	51.630	N/A	N/A	43.250	PK
2		5852.065	55.975	12.490	-22.325	78.300	43.485	PK
3		5867.995	57.278	13.698	-11.022	68.300	43.579	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/22 - 19:04
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5795Mhz by 802.11N40 with ant 1	



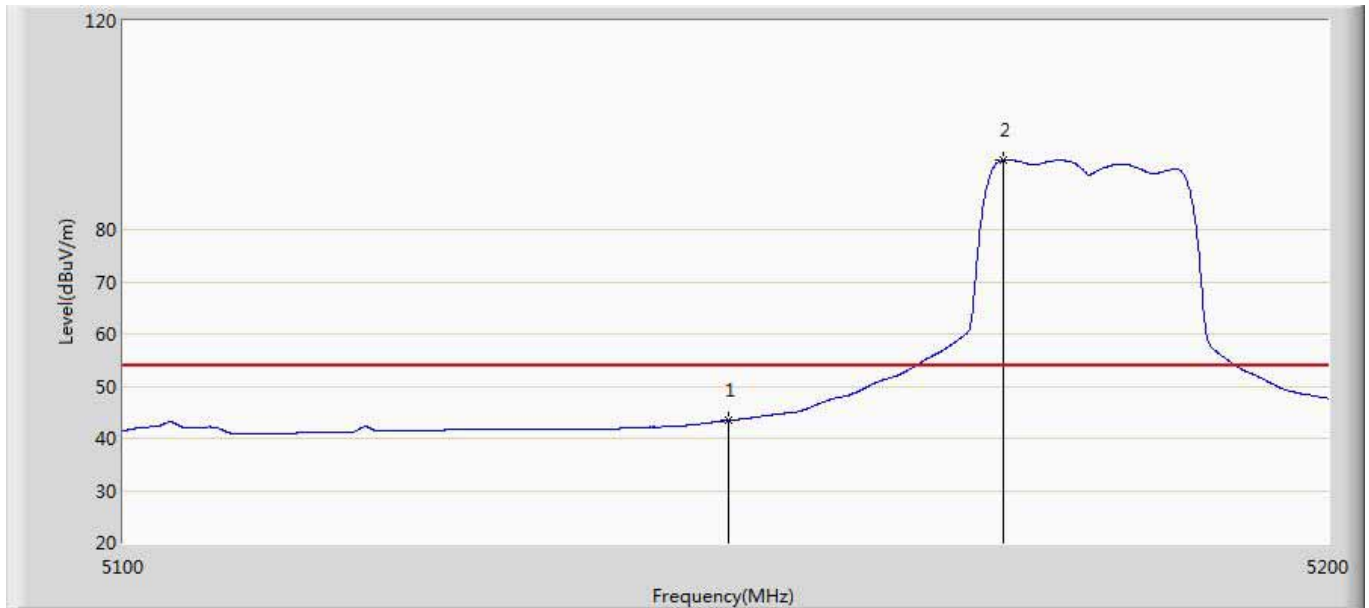
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5765.732	95.653	52.377	N/A	N/A	43.276	PK
2		5857.127	56.907	13.383	-21.393	78.300	43.524	PK
3		5876.365	55.895	12.289	-12.405	68.300	43.606	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 14:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0+1	



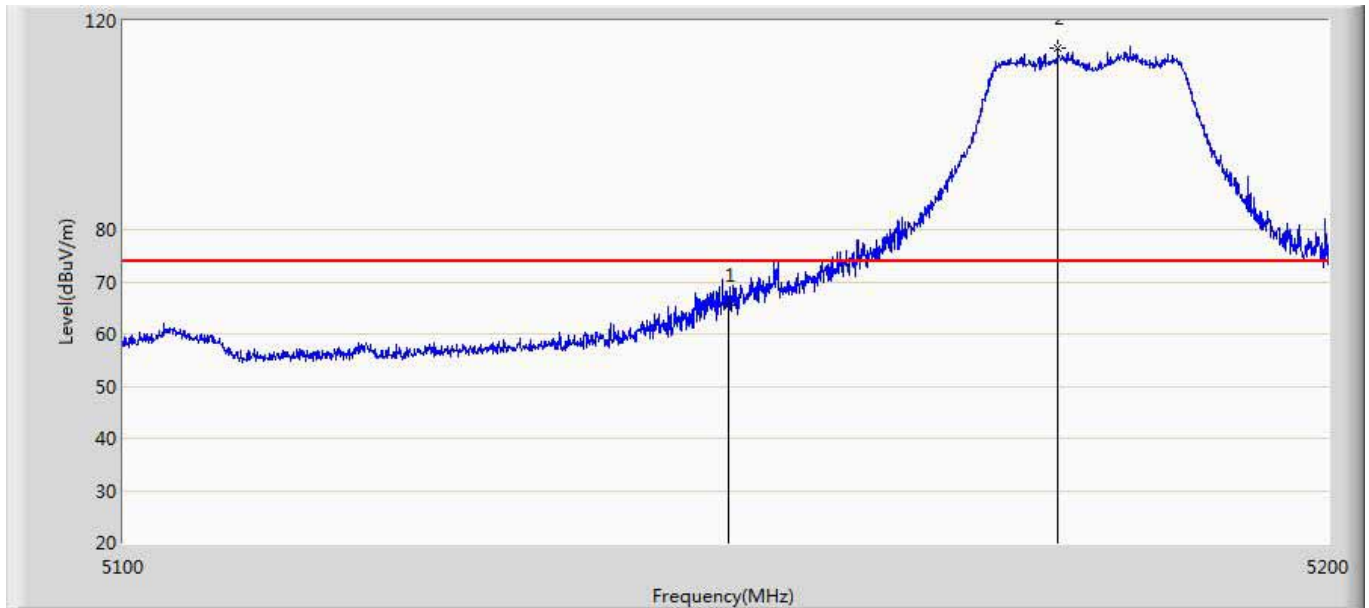
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	66.695	24.680	-7.305	74.000	42.015	PK
2	*	5177.500	114.836	72.691	N/A	N/A	42.146	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 14:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0+1	



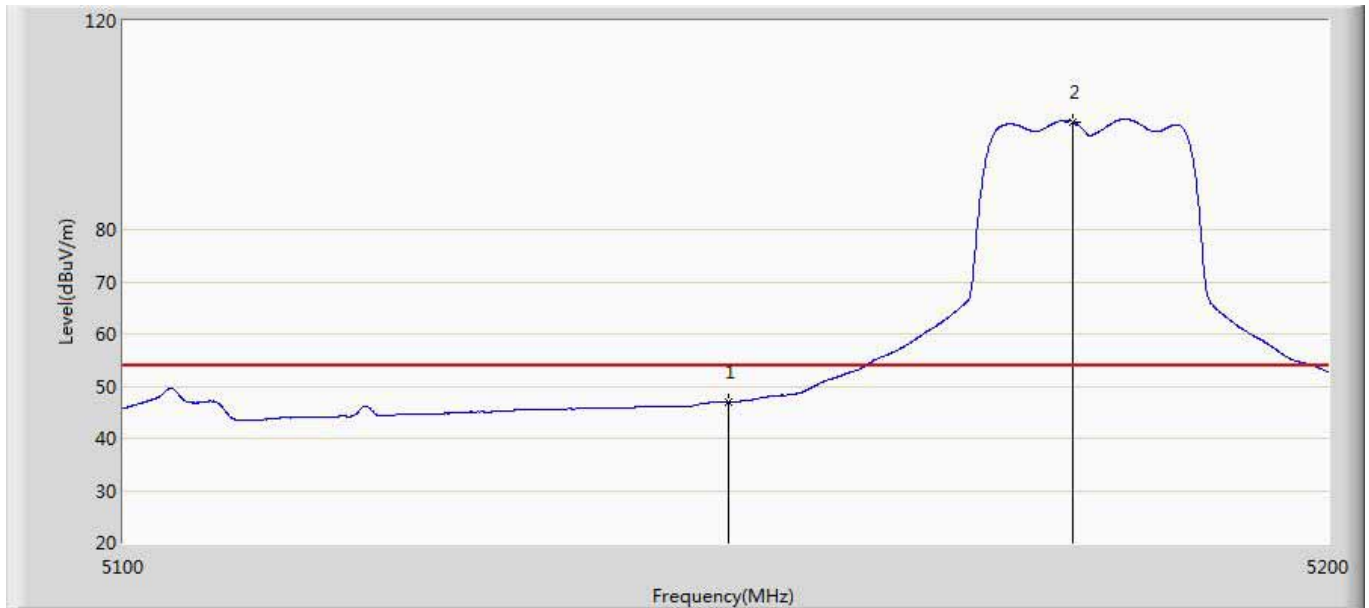
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	43.441	1.426	-10.559	54.000	42.015	AV
2	*	5172.850	93.307	51.162	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0+1	



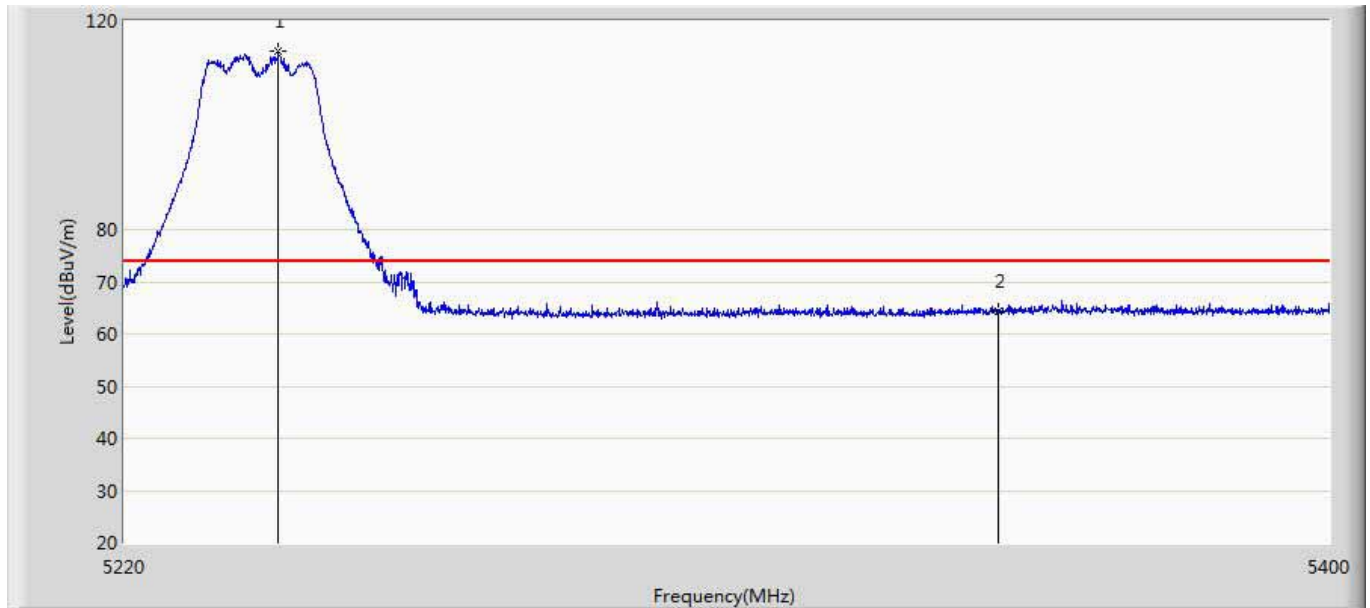
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	65.579	23.564	-8.421	74.000	42.015	PK
2	*	5177.400	114.686	72.541	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 14:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5180Mhz by 802.11a with ant 0+1	



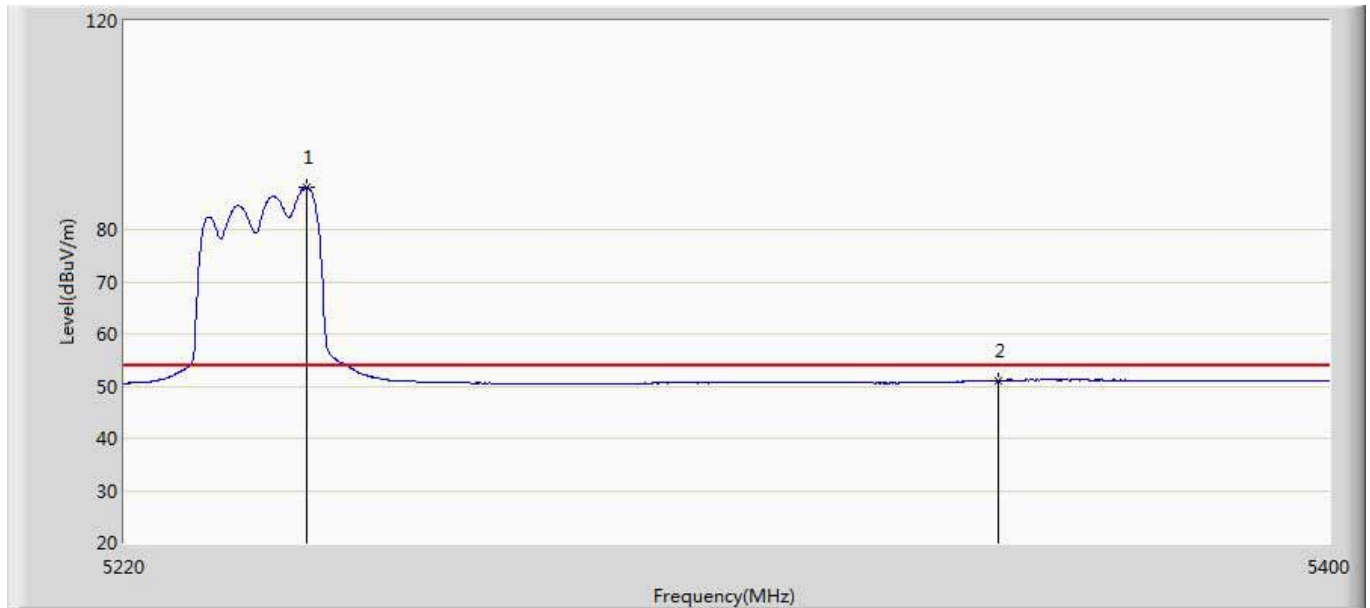
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	47.063	5.048	-6.937	54.000	42.015	AV
2	*	5178.650	100.670	58.525	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0+1	



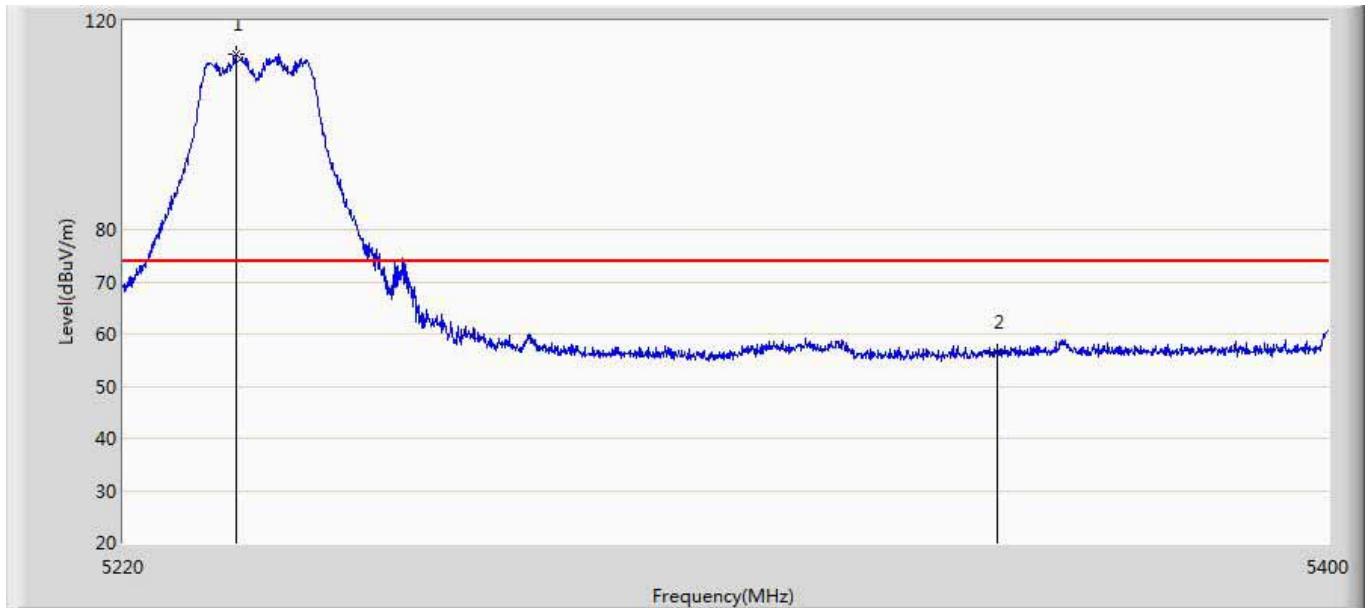
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5242.680	114.187	72.029	N/A	N/A	42.158	PK
2		5350.000	64.383	21.867	-9.617	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0+1	



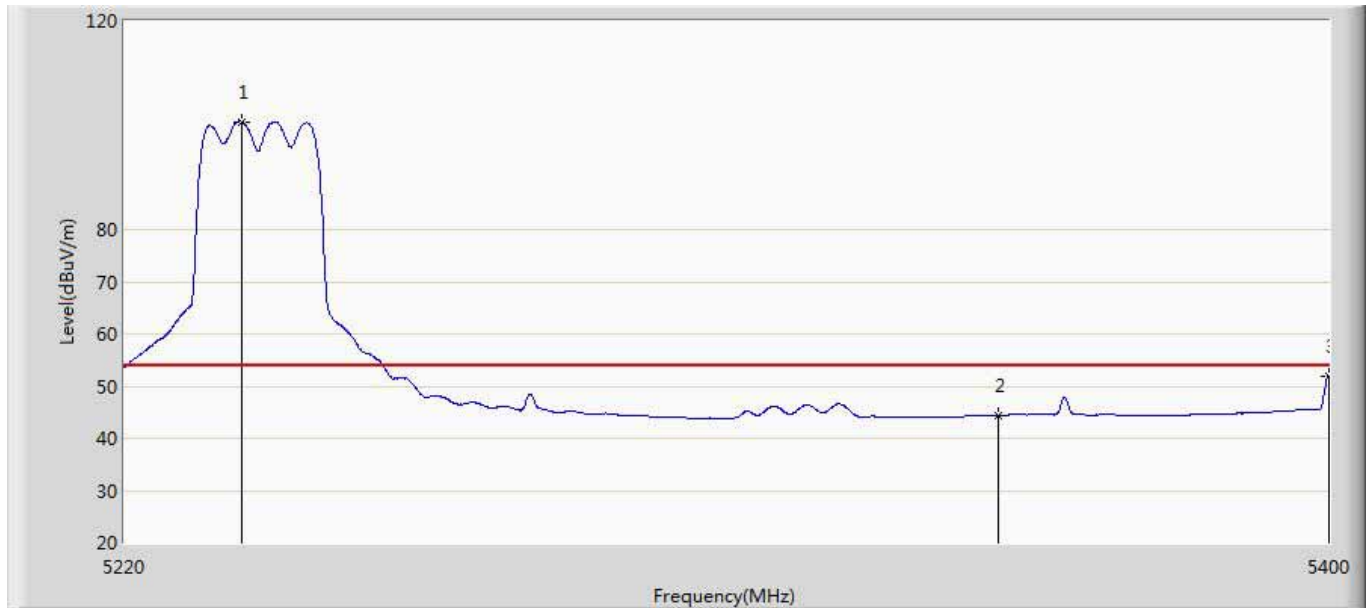
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5246.820	88.170	45.971	N/A	N/A	42.199	AV
2		5350.000	51.081	8.565	-2.919	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0+1	



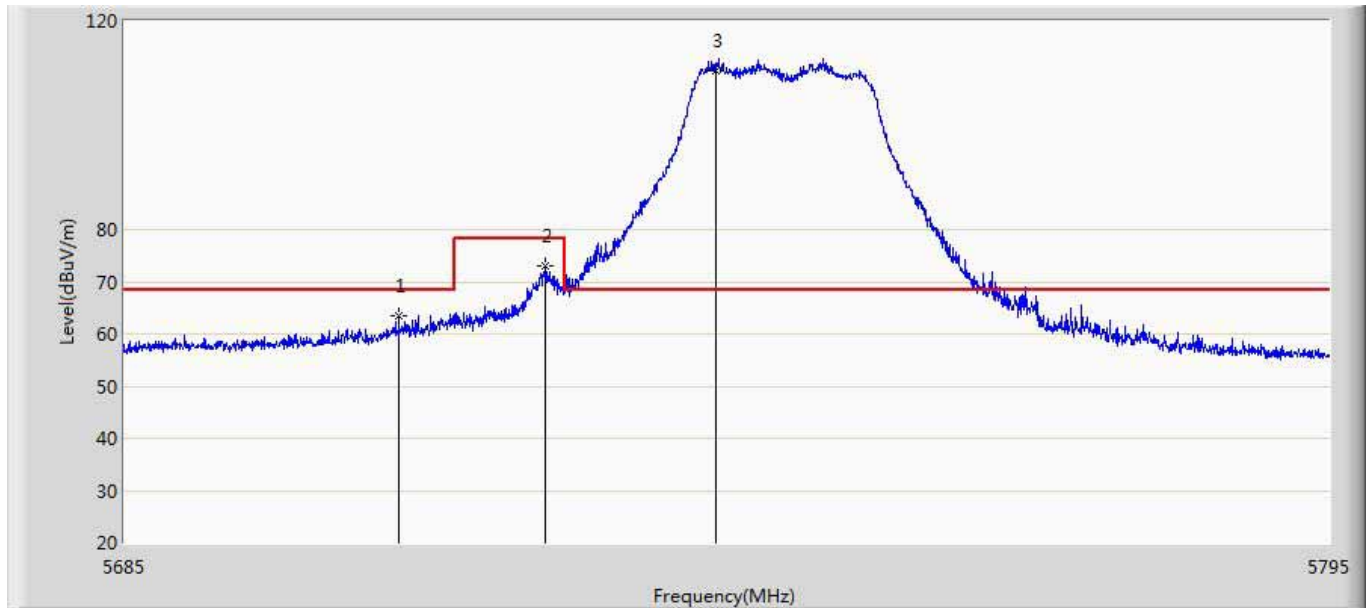
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5236.560	113.693	71.595	N/A	N/A	42.098	PK
2		5350.000	56.485	13.969	-17.515	74.000	42.516	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5240Mhz by 802.11a with ant 0+1	



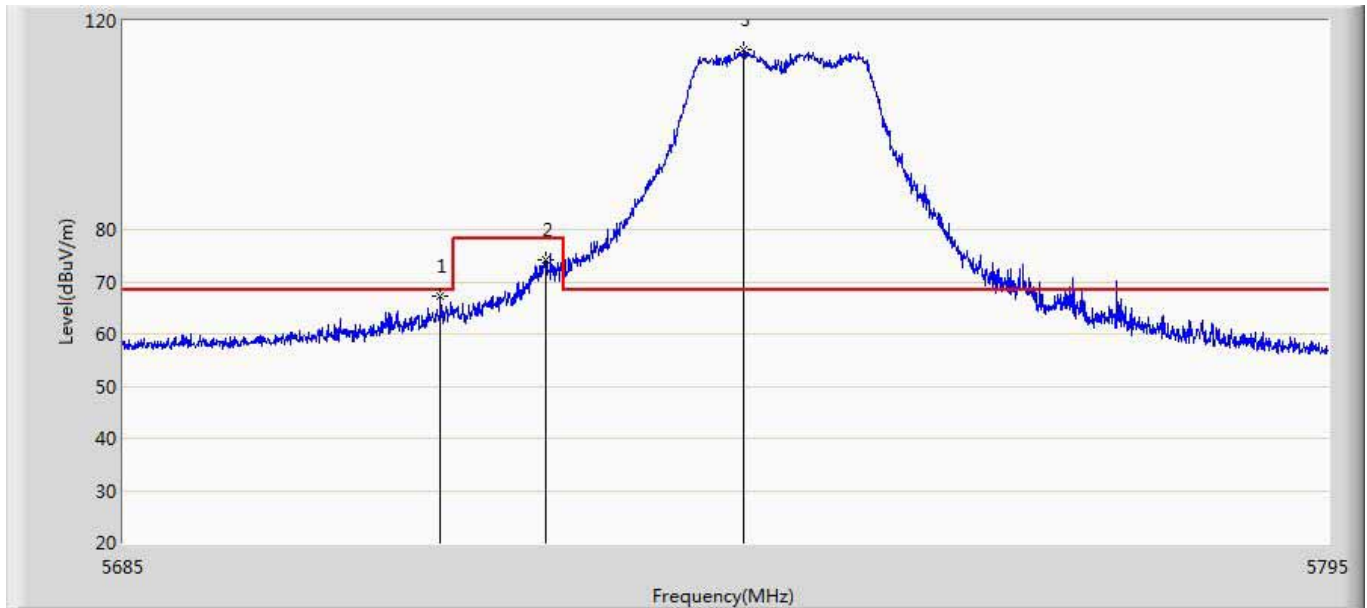
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5237.370	100.661	58.555	N/A	N/A	42.105	AV
2		5350.000	44.361	1.845	-9.639	54.000	42.516	AV
3		5399.910	51.886	9.468	-2.114	54.000	42.418	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:14
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5745Mhz by 802.11a with ant 0+1	



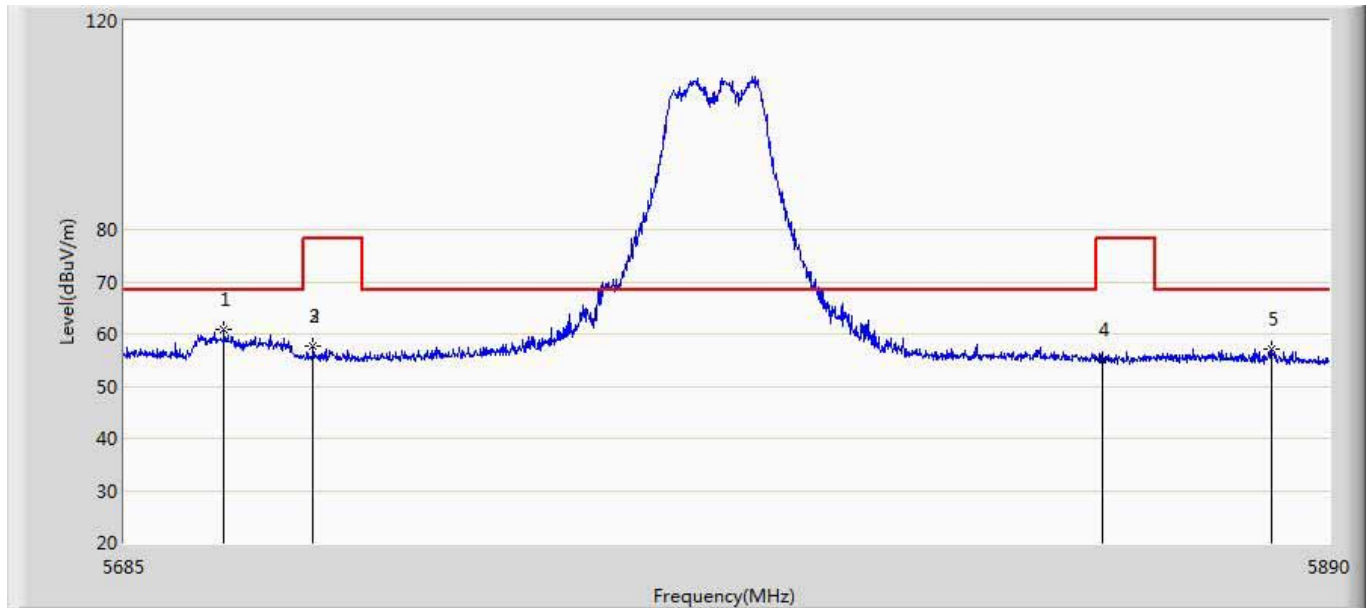
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5709.915	63.403	20.086	-4.897	68.300	43.317	PK
2		5723.170	73.165	29.893	-5.135	78.300	43.272	PK
3	*	5738.790	110.511	67.218	N/A	N/A	43.293	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:15
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5745Mhz by 802.11a with ant 0+1	



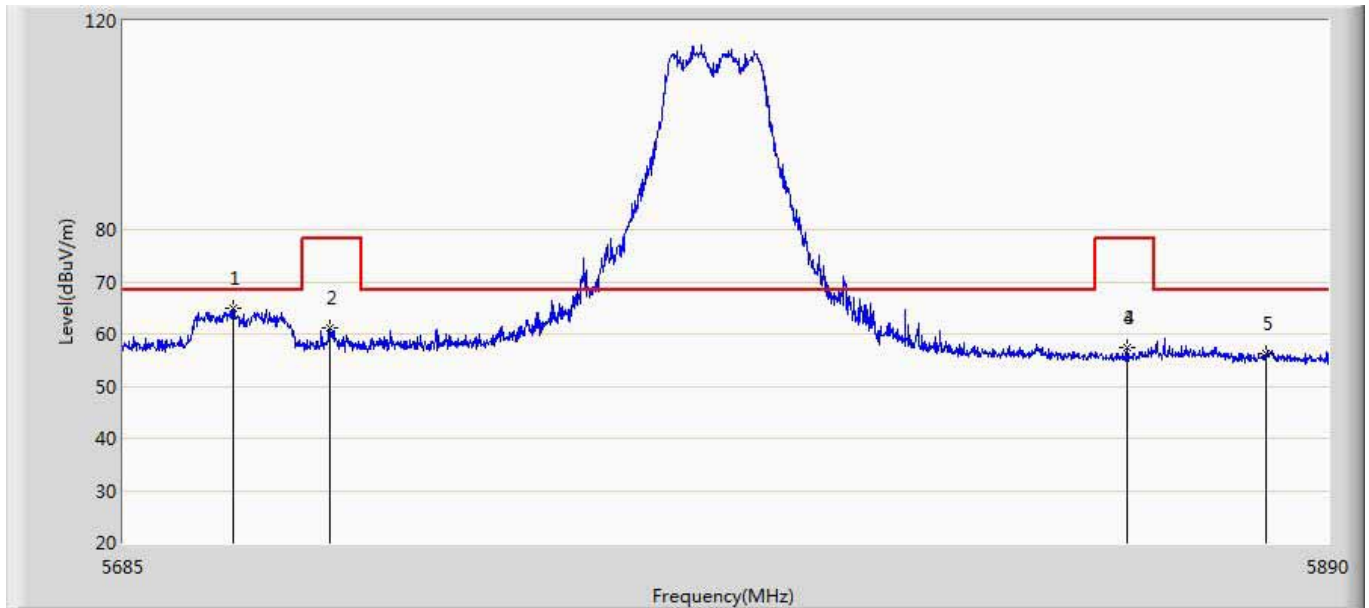
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5713.765	67.159	23.855	-1.141	68.300	43.304	PK
2		5723.390	74.243	30.972	-4.057	78.300	43.271	PK
3	*	5741.375	114.348	71.049	N/A	N/A	43.299	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:18
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5785Mhz by 802.11a with ant 0+1	



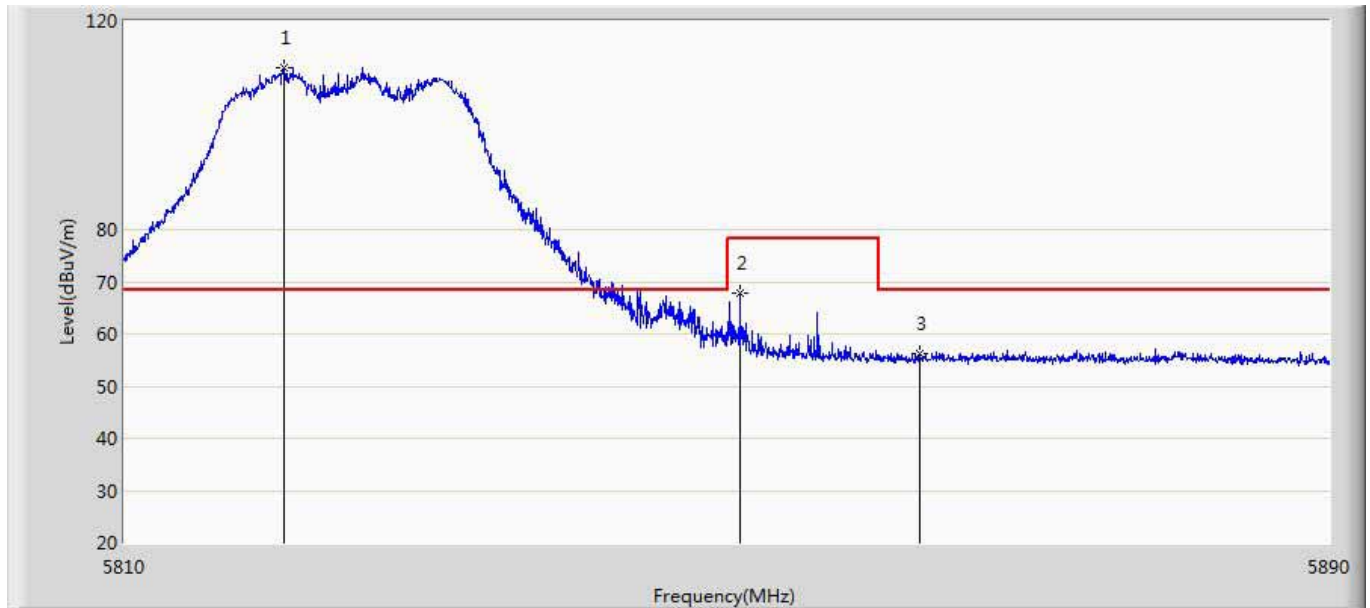
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5701.708	60.725	17.428	-7.575	68.300	43.298	PK
2		5716.672	57.732	14.438	-20.568	78.300	43.294	PK
3		5716.672	57.732	14.438	-20.568	78.300	43.294	PK
4		5850.845	55.088	11.612	-23.212	78.300	43.475	PK
5		5880.160	57.156	13.547	-11.144	68.300	43.610	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:21
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5785Mhz by 802.11a with ant 0+1	



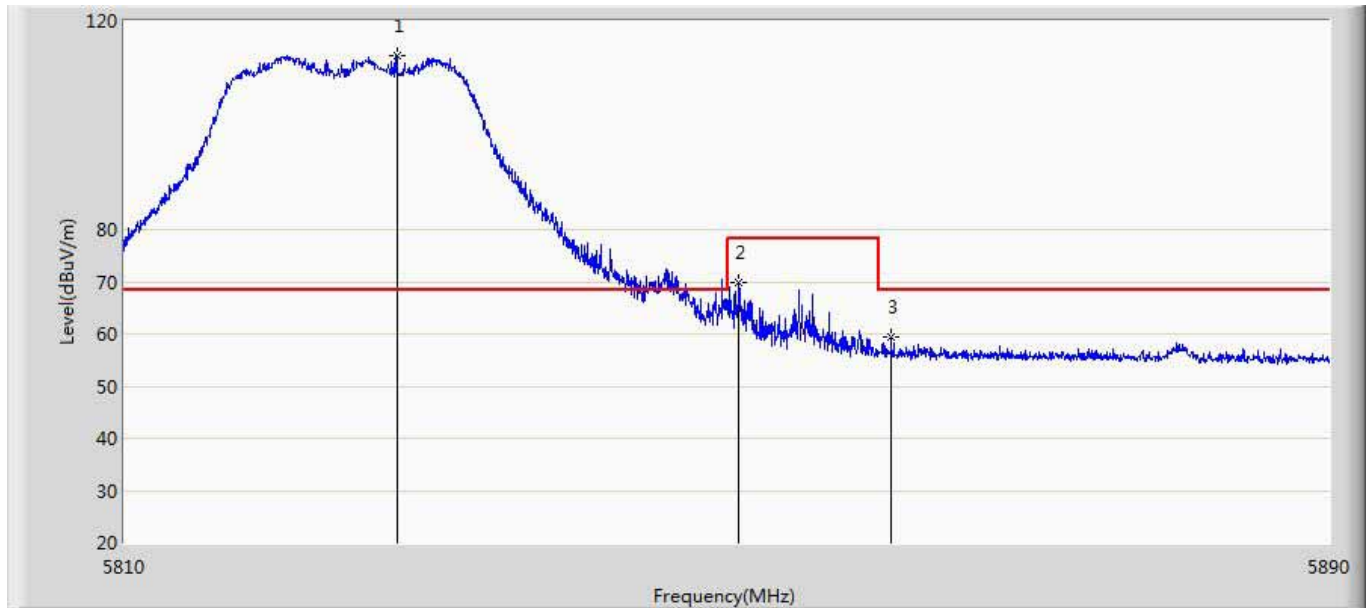
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5703.348	65.047	21.744	-3.253	68.300	43.303	PK
2		5719.748	61.065	17.781	-17.235	78.300	43.284	PK
3		5855.252	57.253	13.744	-21.047	78.300	43.509	PK
4		5855.252	57.253	13.744	-21.047	78.300	43.509	PK
5		5879.237	56.218	12.605	-12.082	68.300	43.613	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:23
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1: Transmit at channel 5825Mhz by 802.11a with ant 0+1	



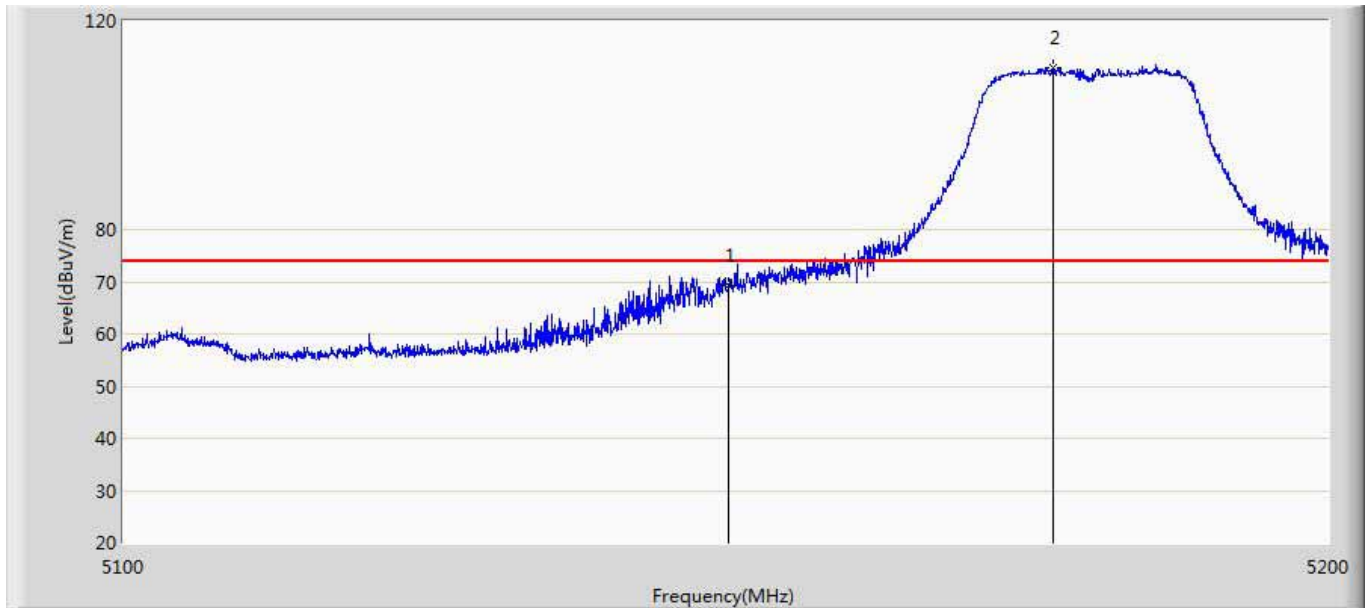
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5820.520	111.047	67.655	N/A	N/A	43.392	PK
2		5850.760	67.703	24.228	-10.597	78.300	43.475	PK
3		5862.680	56.352	12.789	-11.948	68.300	43.563	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:24
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 1:Transmit at channel 5825Mhz by 802.11a with ant 0+1	



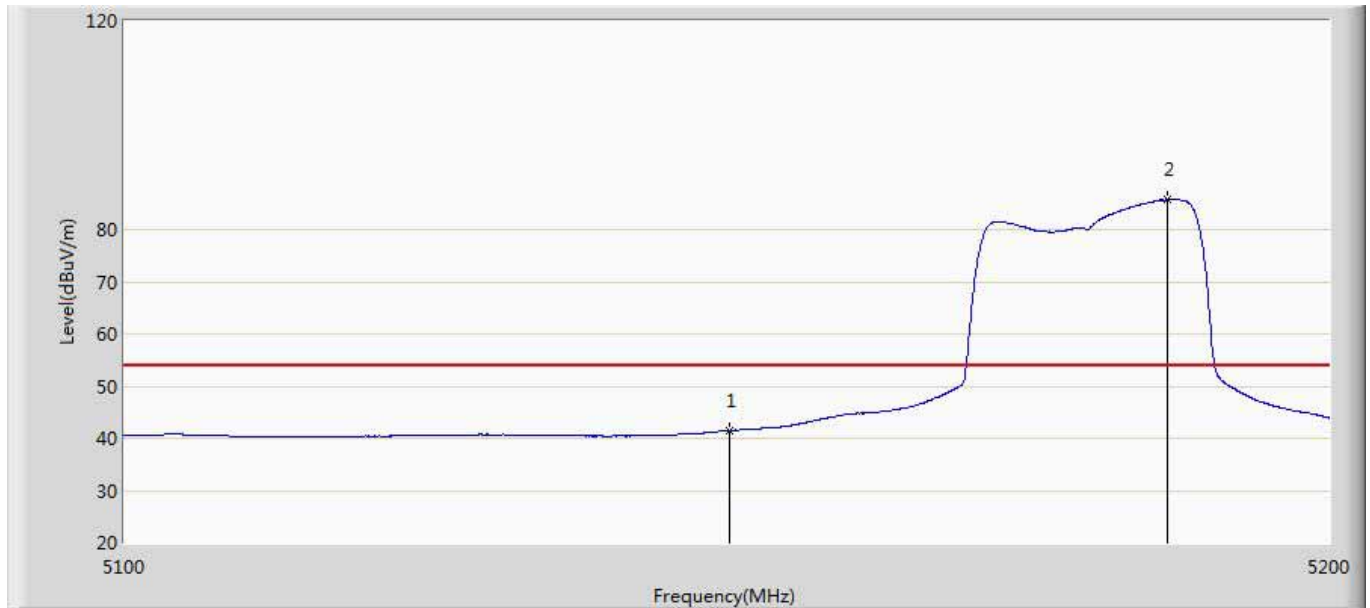
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5828.000	113.377	69.967	N/A	N/A	43.410	PK
2		5850.680	69.908	26.434	-8.392	78.300	43.474	PK
3		5860.800	59.351	15.799	-8.949	68.300	43.552	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 0+1	



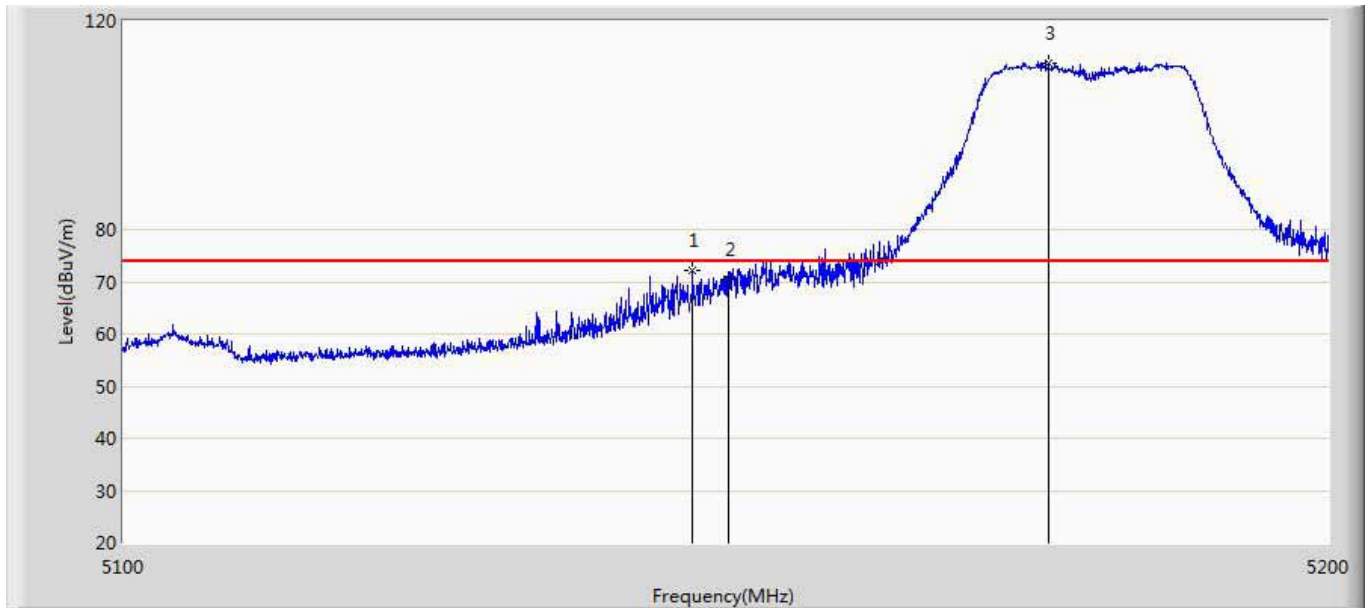
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	69.350	27.335	-4.650	74.000	42.015	PK
2	*	5177.050	110.925	68.780	N/A	N/A	42.145	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 0+1	



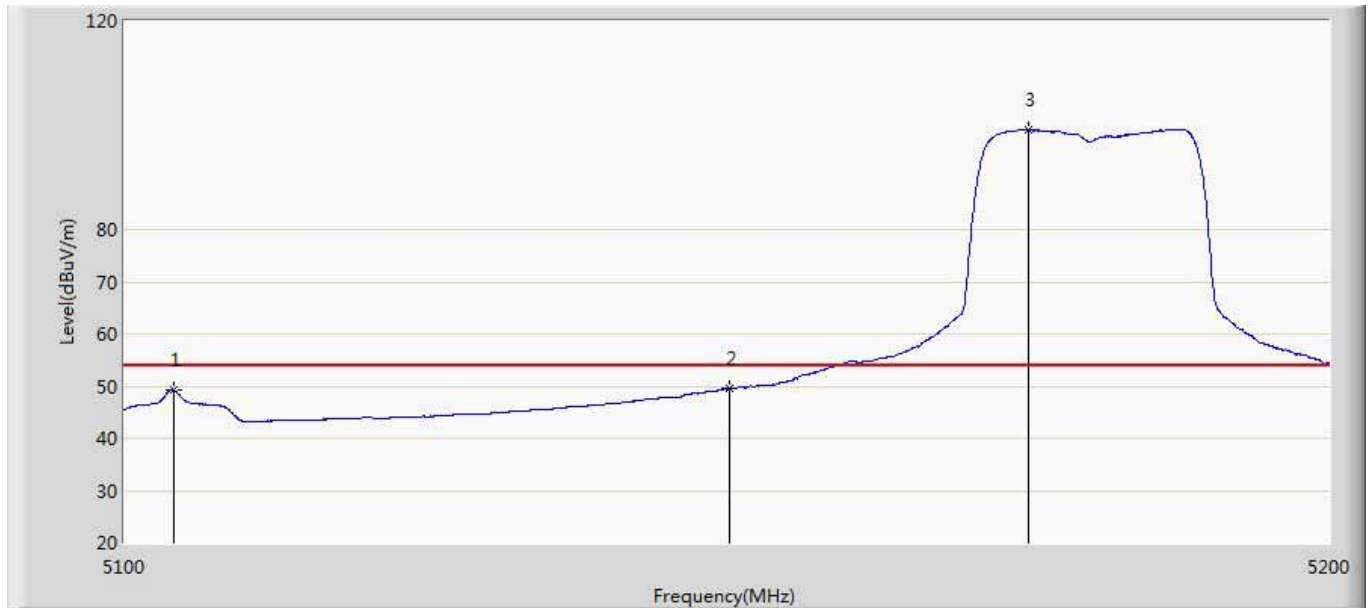
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	41.485	-0.530	-12.515	54.000	42.015	AV
2	*	5186.450	85.685	43.568	N/A	N/A	42.116	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 0+1	



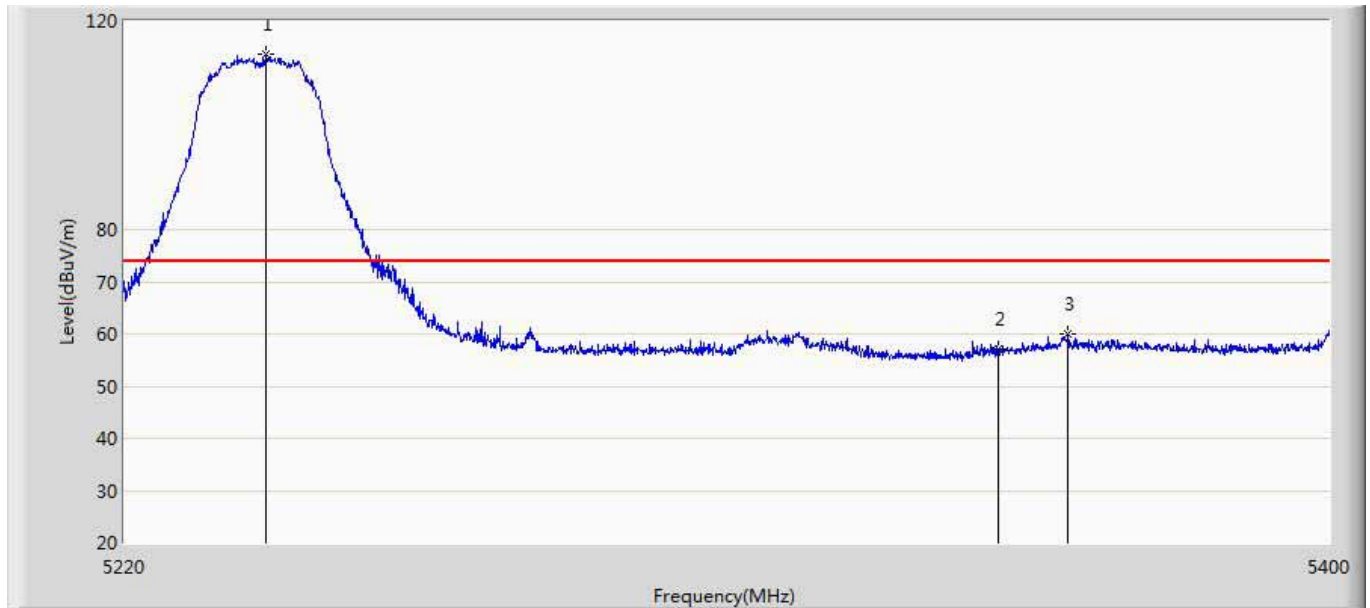
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5147.000	72.106	30.094	-1.894	74.000	42.012	PK
2		5150.000	70.560	28.545	-3.440	74.000	42.015	PK
3	*	5176.650	111.996	69.851	N/A	N/A	42.146	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5180Mhz by 802.11N20 with ant 0+1	



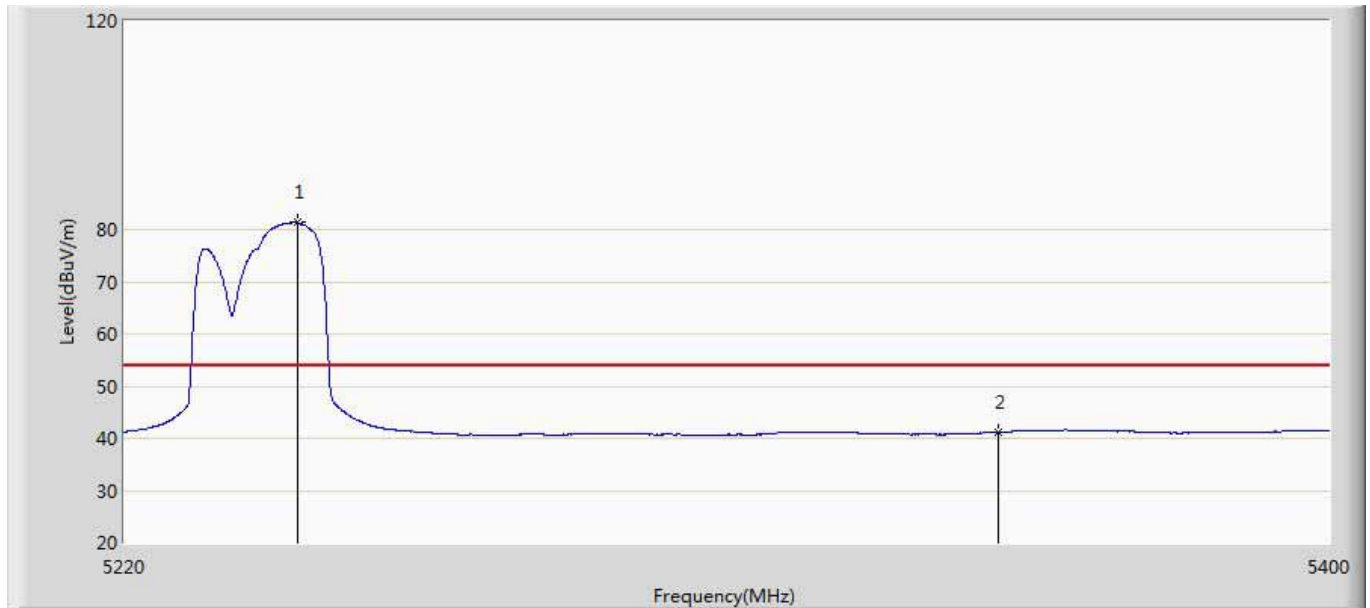
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5104.150	49.210	7.318	-4.790	54.000	41.892	AV
2		5150.000	49.437	7.422	-4.563	54.000	42.015	AV
3	*	5174.850	99.069	56.924	N/A	N/A	42.146	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 0+1	



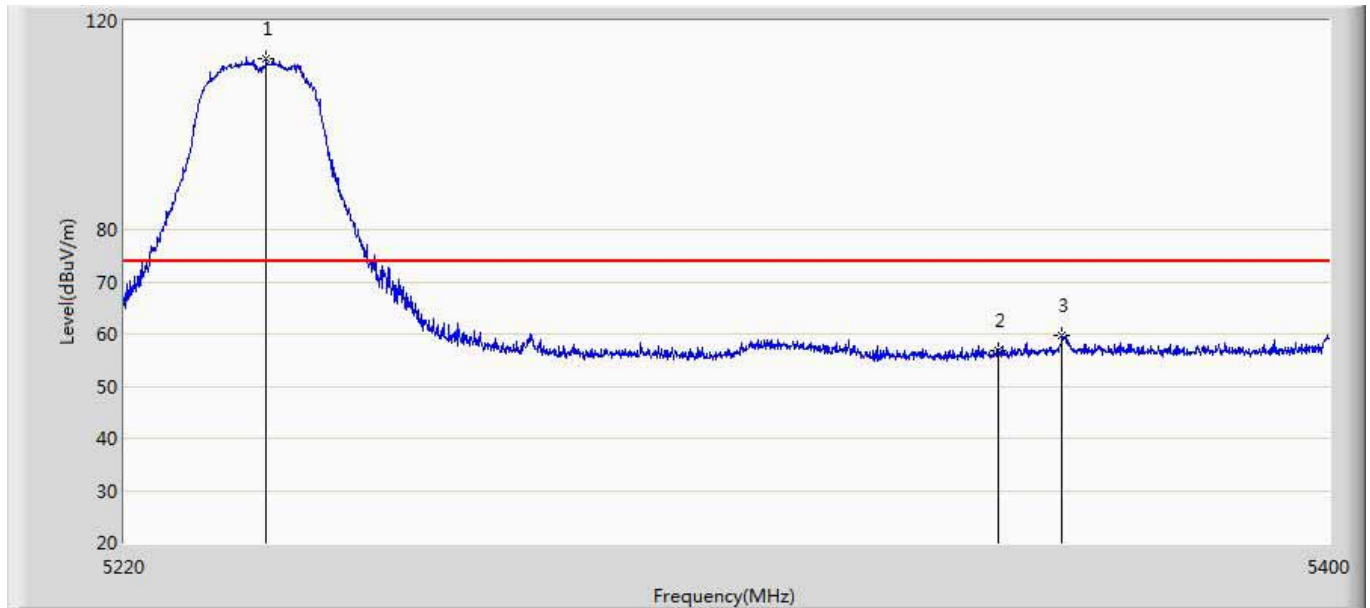
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5240.790	113.590	71.451	N/A	N/A	42.139	PK
2		5350.000	57.056	14.540	-16.944	74.000	42.516	PK
3		5360.490	59.938	17.420	-14.062	74.000	42.518	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 0+1	



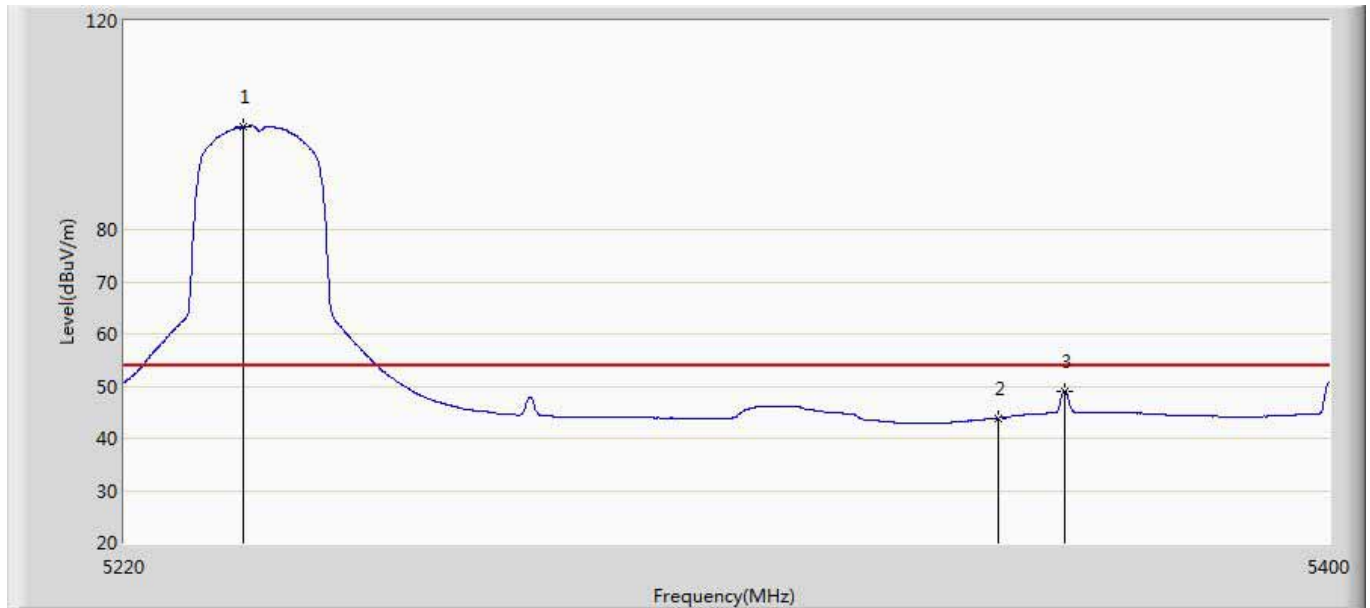
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5245.470	81.340	39.155	N/A	N/A	42.185	AV
2		5350.000	41.209	-1.307	-12.791	54.000	42.516	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 0+1	



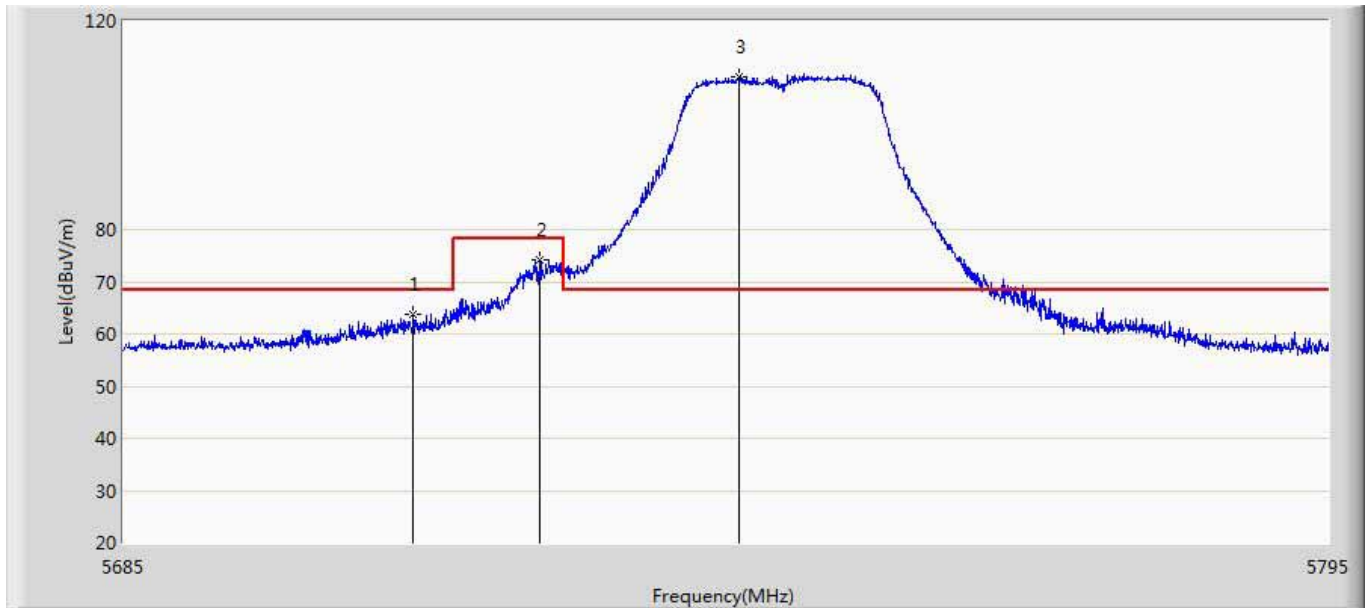
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5240.880	112.624	70.484	N/A	N/A	42.140	PK
2		5350.000	56.807	14.291	-17.193	74.000	42.516	PK
3		5359.590	59.681	17.158	-14.319	74.000	42.523	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5240Mhz by 802.11N20 with ant 0+1	



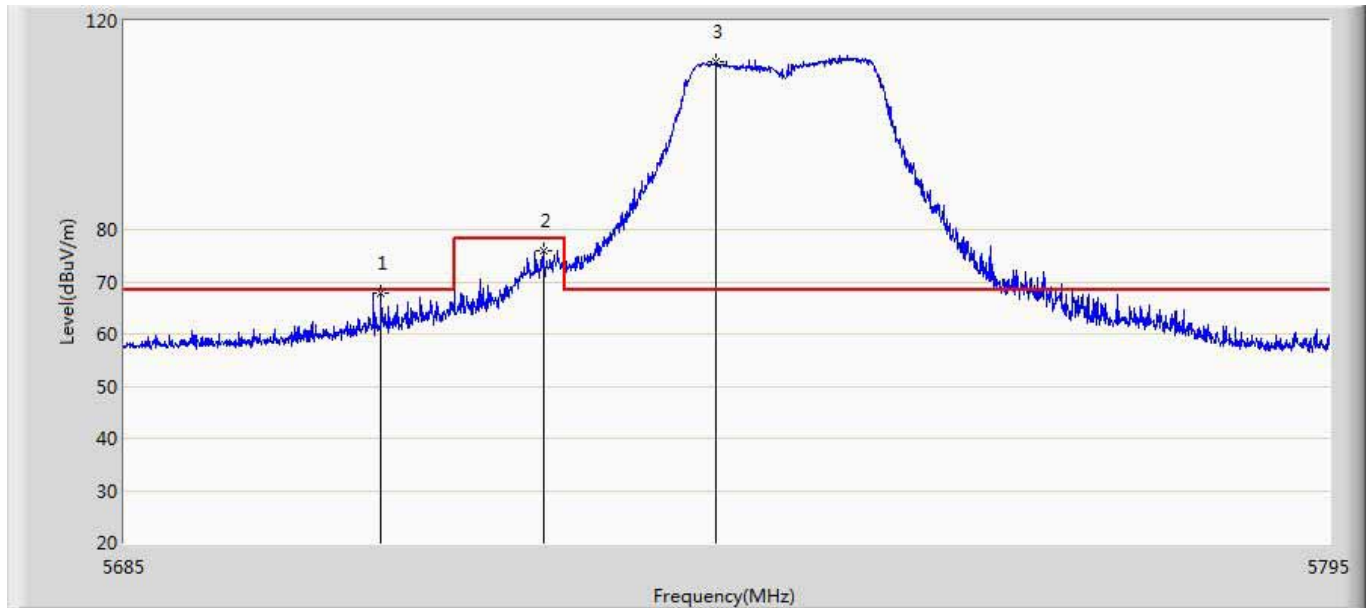
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5237.460	99.680	57.574	N/A	N/A	42.106	AV
2		5350.000	43.909	1.393	-10.091	54.000	42.516	AV
3		5359.950	49.075	6.554	-4.925	54.000	42.521	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:42
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5745Mhz by 802.11N20 with ant 0+1	



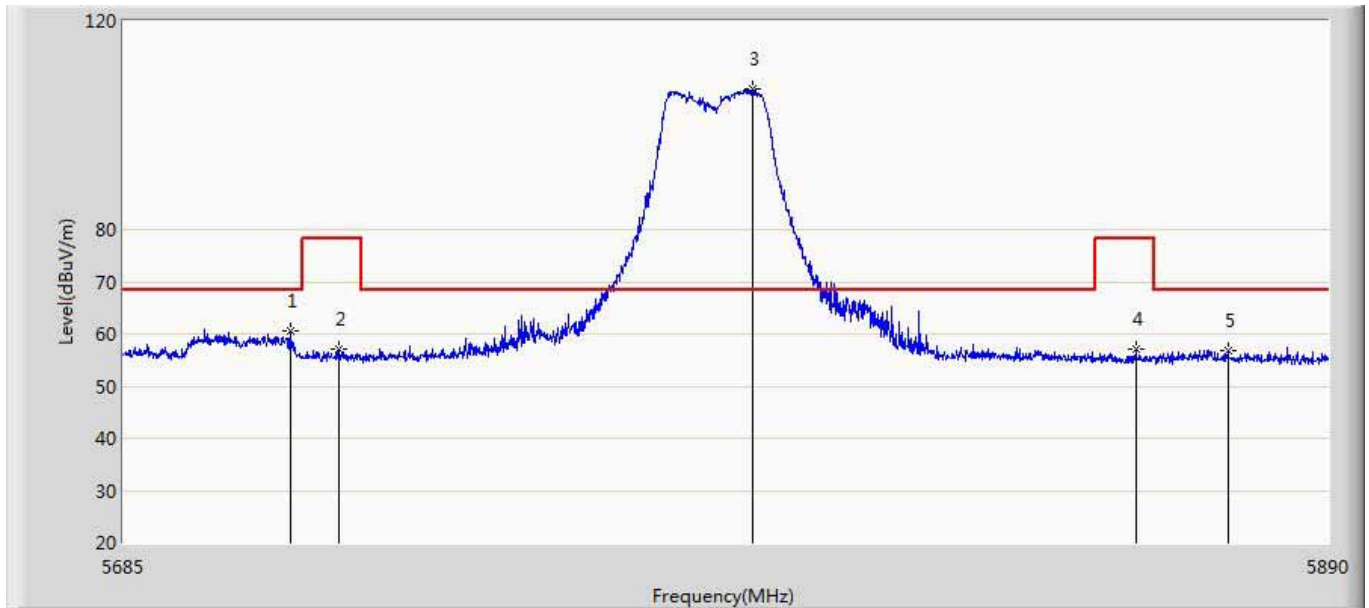
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5711.290	63.693	20.380	-4.607	68.300	43.312	PK
2		5722.785	74.234	30.961	-4.066	78.300	43.274	PK
3	*	5740.990	109.296	65.998	N/A	N/A	43.298	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:43
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5745Mhz by 802.11N20 with ant 0+1	



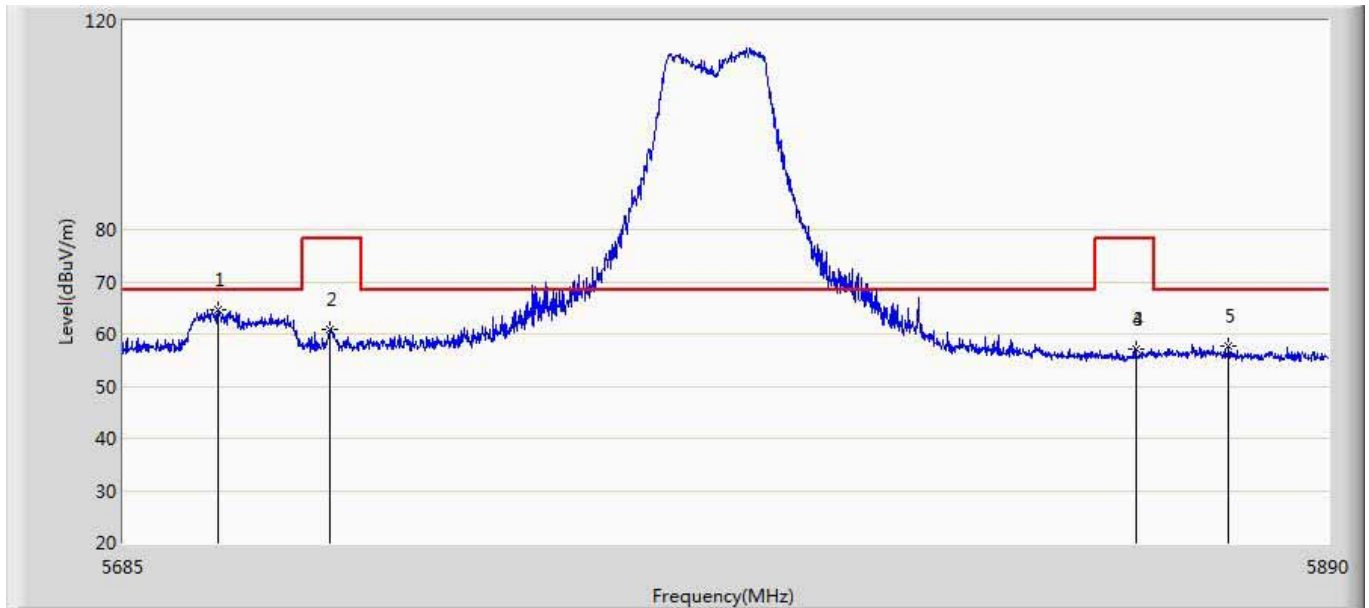
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5708.320	67.719	24.401	-0.581	68.300	43.318	PK
2		5723.060	76.064	32.791	-2.236	78.300	43.273	PK
3	*	5738.790	112.132	68.839	N/A	N/A	43.293	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:45
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5785Mhz by 802.11N20 with ant 0+1	



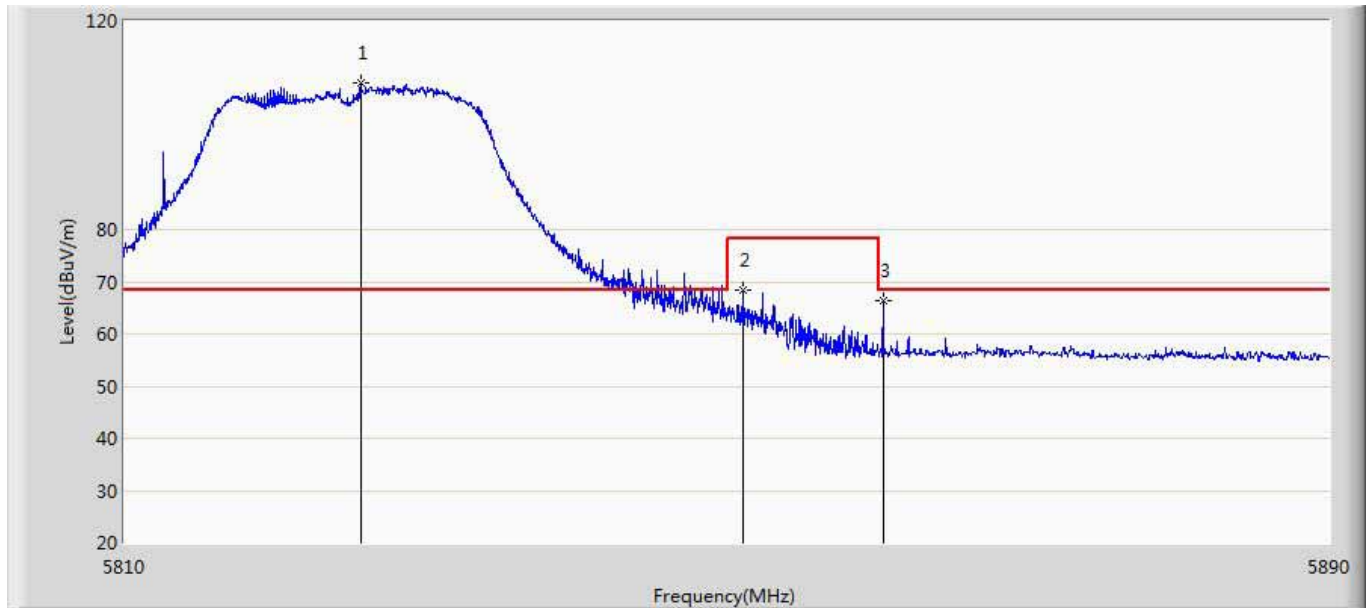
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5712.982	60.492	17.185	-7.808	68.300	43.306	PK
2		5721.285	57.014	13.735	-21.286	78.300	43.279	PK
3	*	5791.190	106.817	63.522	N/A	N/A	43.295	PK
4		5856.790	57.163	13.642	-21.137	78.300	43.522	PK
5		5872.678	56.913	13.319	-11.387	68.300	43.594	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:47
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5785Mhz by 802.11N20 with ant 0+1	



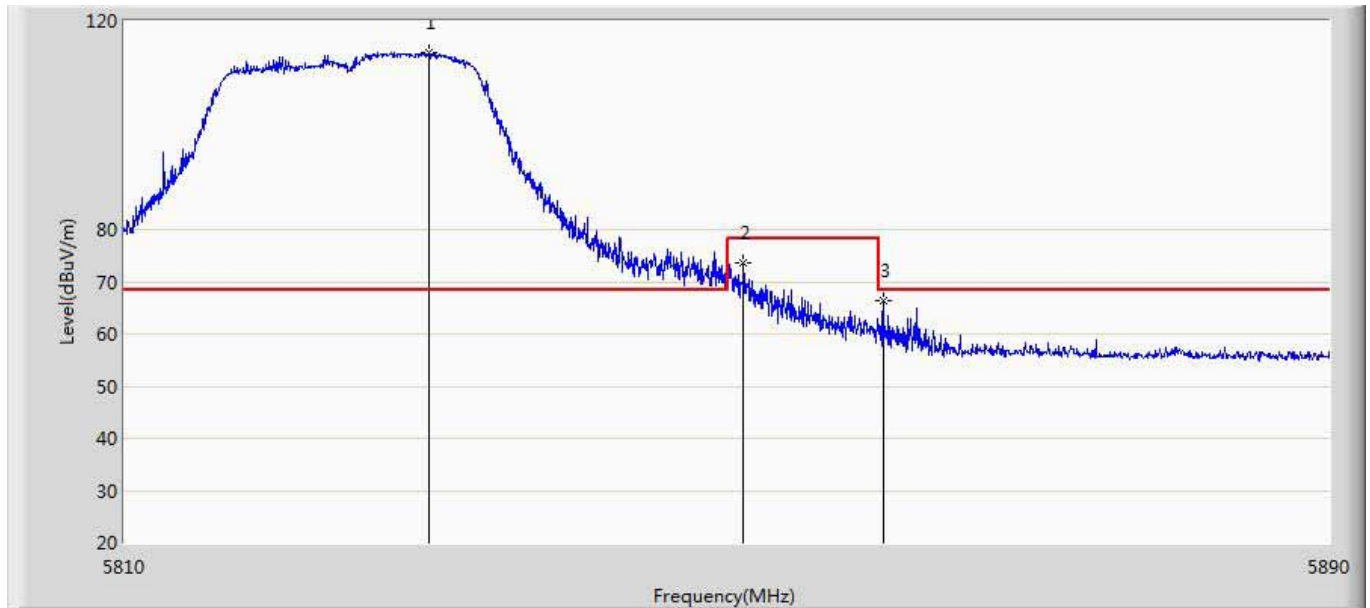
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5700.888	64.712	21.417	-3.588	68.300	43.295	PK
2		5719.748	60.880	17.596	-17.420	78.300	43.284	PK
3		5856.790	57.163	13.642	-21.137	78.300	43.522	PK
4		5856.790	57.163	13.642	-21.137	78.300	43.522	PK
5		5872.780	57.794	14.199	-10.506	68.300	43.595	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:49
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5825Mhz by 802.11N20 with ant 0+1	



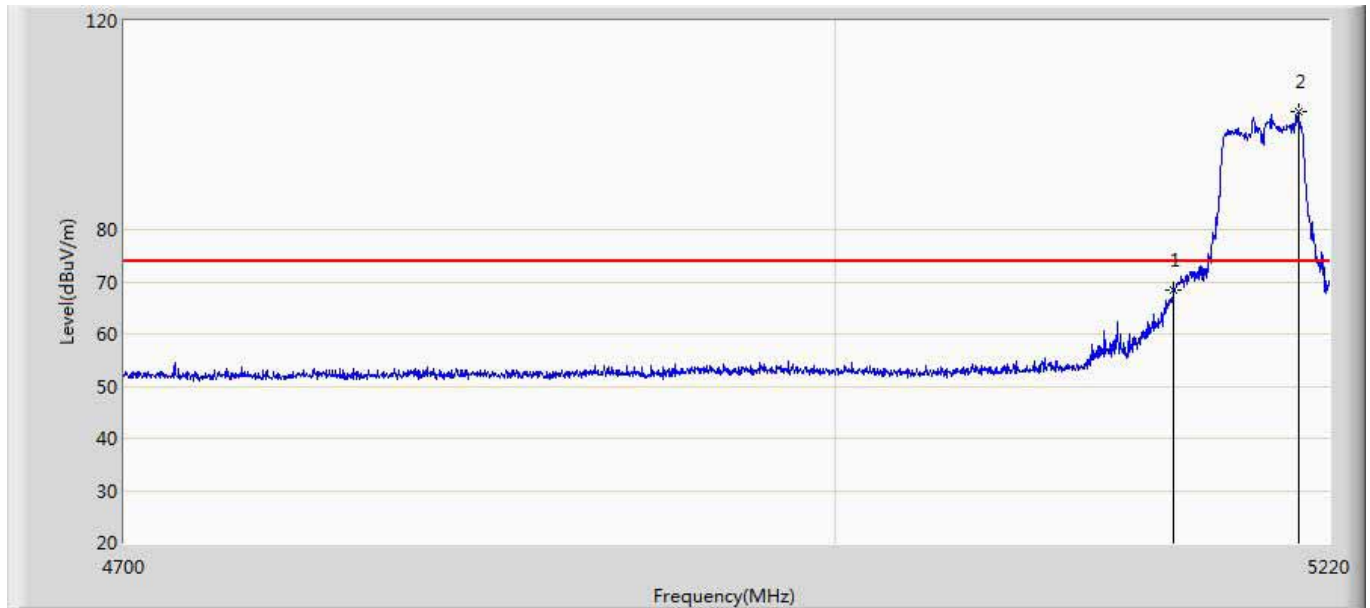
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5825.640	108.181	64.777	N/A	N/A	43.405	PK
2		5850.920	68.425	24.949	-9.875	78.300	43.476	PK
3		5860.280	66.504	22.956	-1.796	68.300	43.548	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:51
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 2:Transmit at channel 5825Mhz by 802.11N20 with ant 0+1	



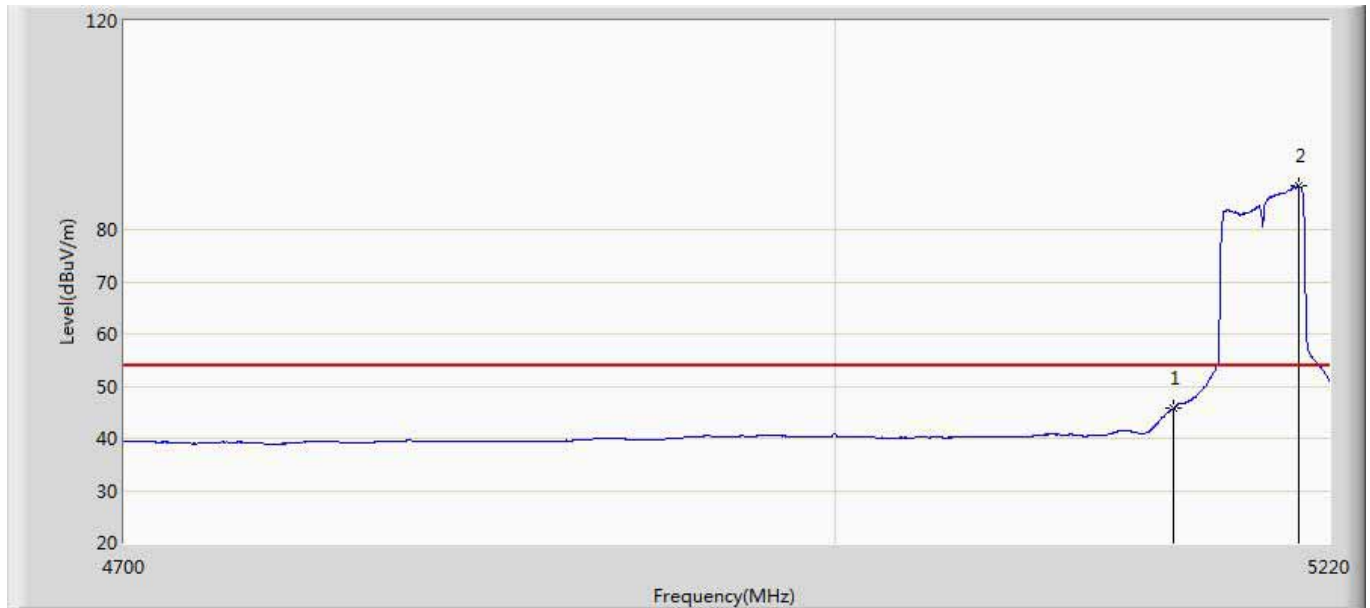
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5830.160	113.949	70.537	N/A	N/A	43.412	PK
2		5851.000	73.743	30.266	-4.557	78.300	43.476	PK
3		5860.280	66.504	22.956	-1.796	68.300	43.548	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0+1	



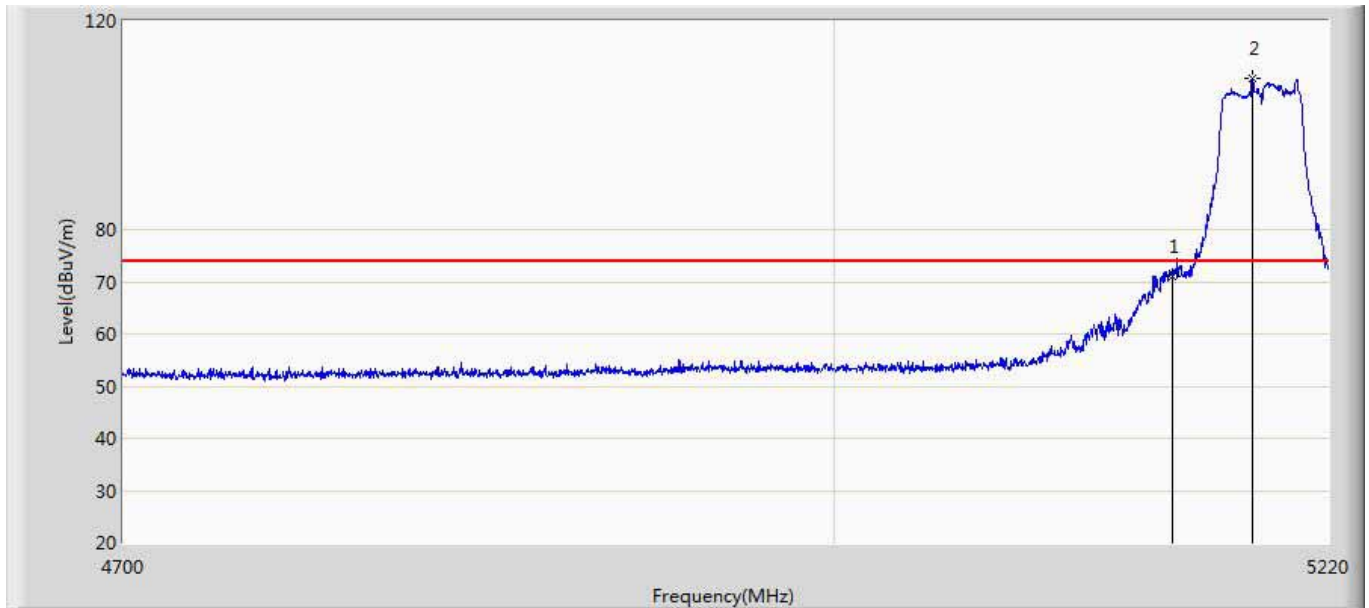
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	68.523	26.508	-5.477	74.000	42.015	PK
2	*	5205.960	102.721	60.707	N/A	N/A	42.014	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 15:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0+1	



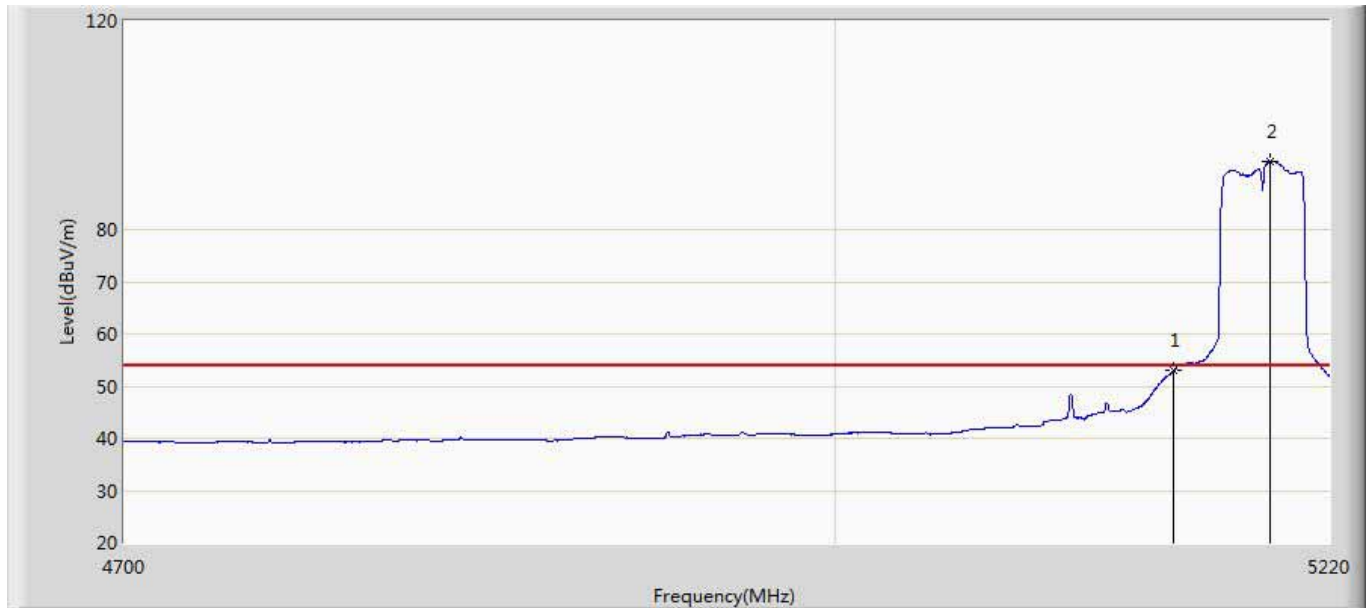
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	45.746	3.731	-8.254	54.000	42.015	AV
2	*	5205.960	88.319	46.305	N/A	N/A	42.014	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 16:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0+1	



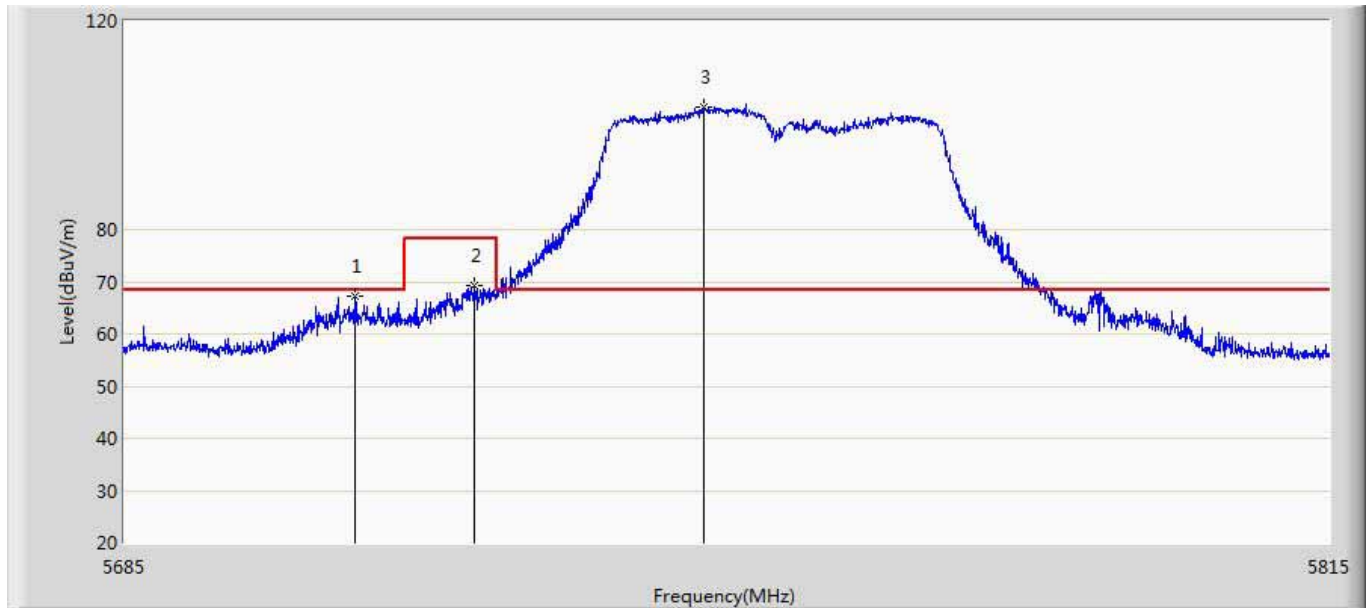
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	70.872	28.857	-3.128	74.000	42.015	PK
2	*	5185.940	109.115	66.995	N/A	N/A	42.120	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 16:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5190Mhz by 802.11N40 with ant 0+1	



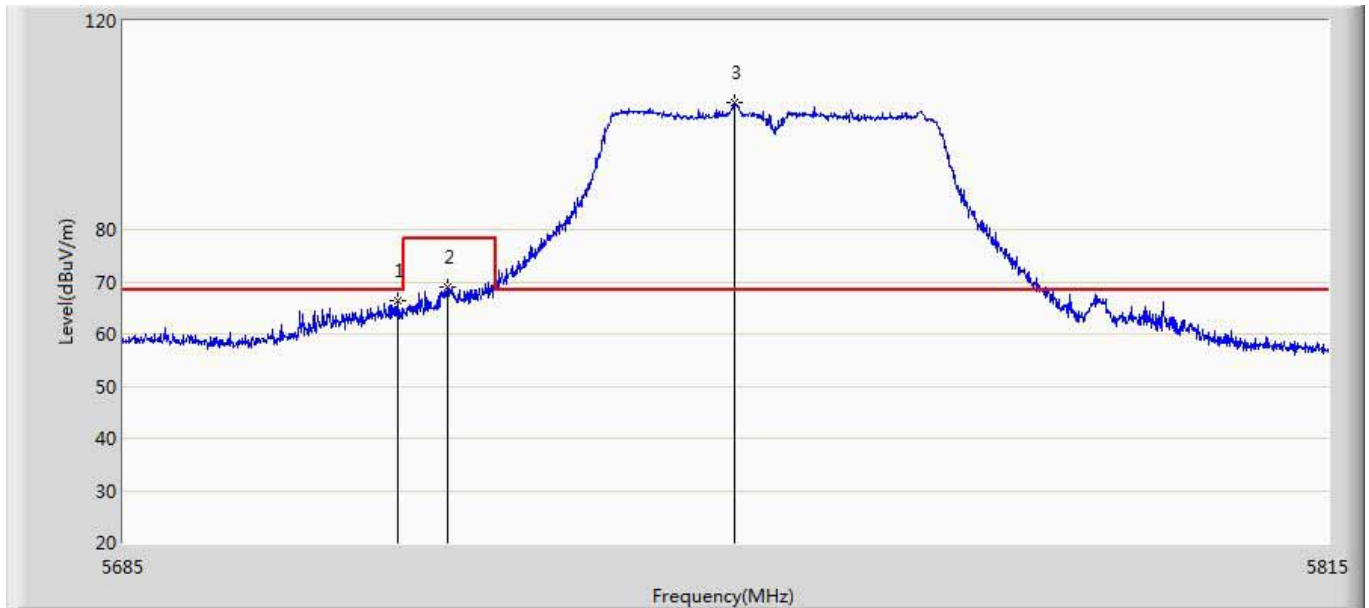
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	52.923	10.908	-1.077	54.000	42.015	AV
2	*	5193.220	93.040	50.967	N/A	N/A	42.073	AV

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 16:31
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5755Mhz by 802.11N40 with ant 1	



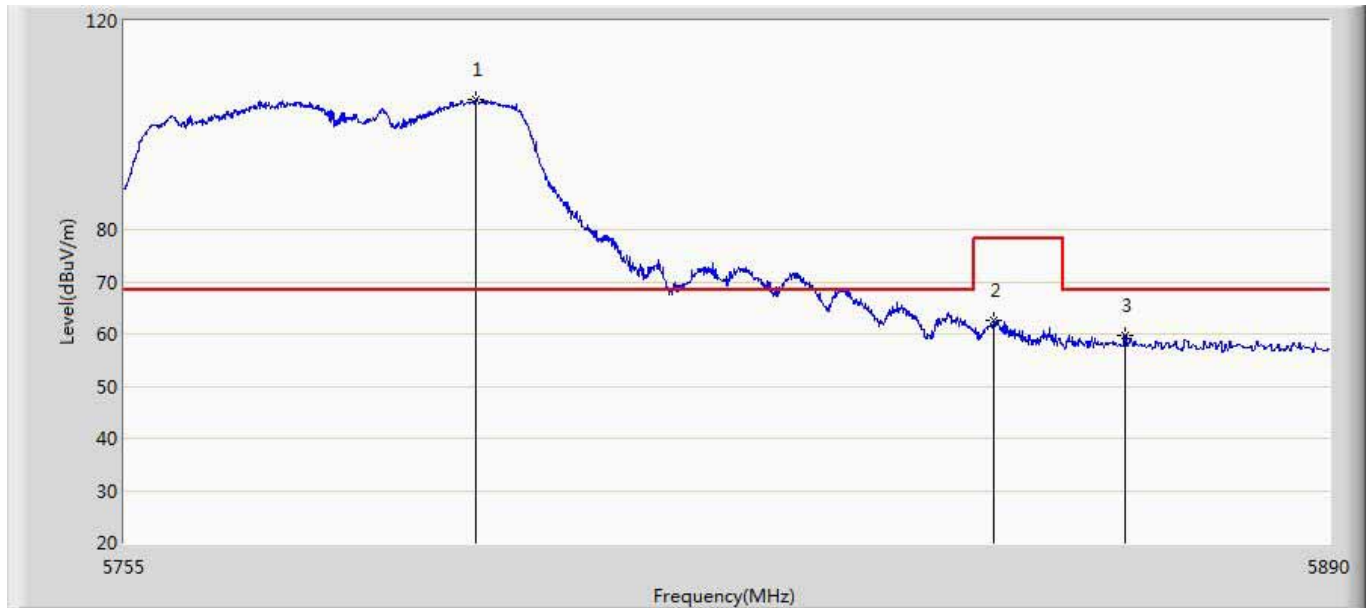
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5709.635	67.171	23.853	-1.129	68.300	43.318	PK
2		5722.505	69.318	26.044	-8.982	78.300	43.274	PK
3	*	5747.140	103.393	60.105	N/A	N/A	43.288	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 16:34
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5755Mhz by 802.11N40 with ant 1	



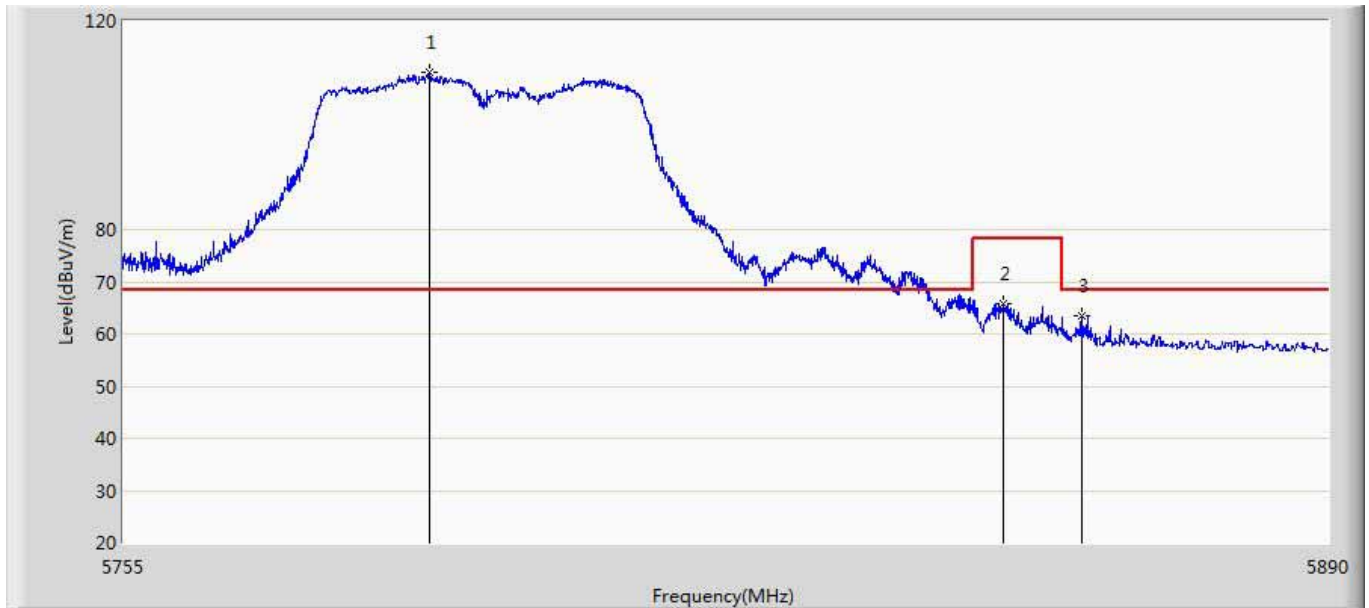
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5714.315	66.358	23.056	-1.942	68.300	43.302	PK
2		5719.775	69.007	25.723	-9.293	78.300	43.284	PK
3	*	5750.650	104.253	60.977	N/A	N/A	43.276	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 16:37
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5795Mhz by 802.11N40 with ant 0+1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5794.083	104.952	61.665	N/A	N/A	43.287	PK
2		5852.132	62.622	19.136	-15.678	78.300	43.485	PK
3		5866.915	59.761	16.184	-8.539	68.300	43.577	PK

Engineer: Cloud	
Site: AC5	Time: 2016/02/28 - 16:39
Limit: FCC-15.407 new	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Router Motherboard	Power: DC 48V
Note: Mode 3:Transmit at channel 5795Mhz by 802.11N40 with ant 0+1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5789.020	110.148	66.846	N/A	N/A	43.302	PK
2		5853.348	65.846	22.351	-12.454	78.300	43.495	PK
3		5862.123	63.420	19.858	-4.880	68.300	43.561	PK

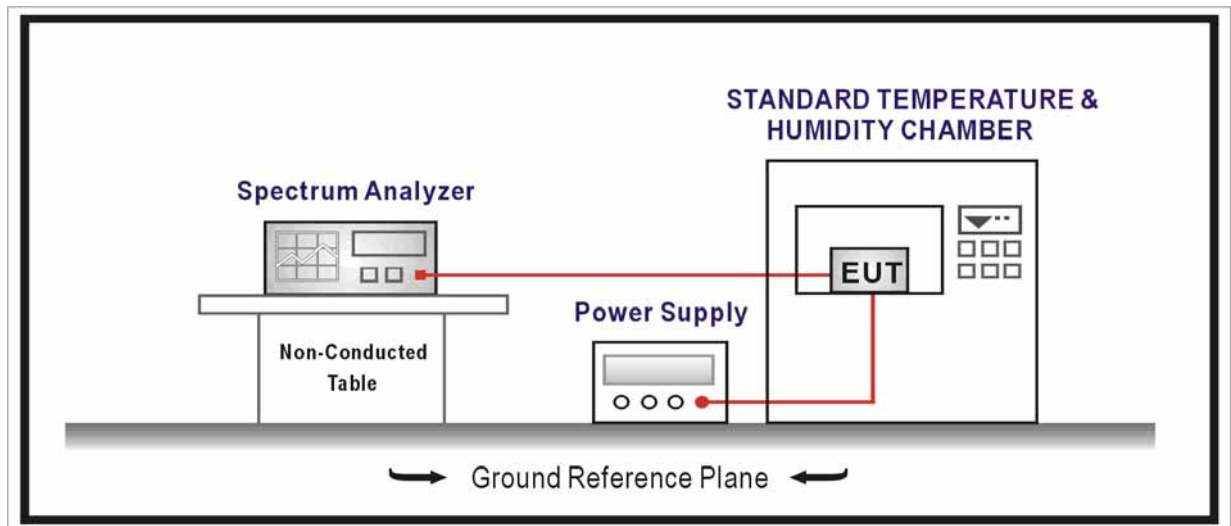
9. Frequency Stability

9.1. Test Equipment

Frequency Stability / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.04	2017.01.03
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	2016.01.04	2017.01.03
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2015.04.10	2016.04.09

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

9.2. Test Setup



9.3. Limit

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 ± 25 ppm maximum for the 2.4 GHz band.

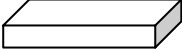
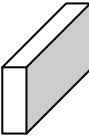
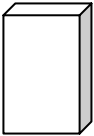
9.4. Test Procedure

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

9.5. Uncertainty

The measurement uncertainty is defined as ± 100 Hz

9.6. EUT test Axis definition

Item	Radiated Emissions		
Device Category	☒	Fixed position use	
	☐	Mobile position use	
Test mode	Mode 1,Mode 2, Mode 3,Mode 4		
Axis	X Axis	Y Axis	Z Axis
			
Worse Axis			

9.7. Test Result

Product	:	Wireless Router Motherboard
Test Item	:	Frequency Stability
Test Site	:	TR-8
Test Mode	:	Carrier Transmit

Frequency Stability under Temperature

Temperature Interval (°C)	Test Frequency (MHz)	Deviation (Hz)
-30	5200.000	171
-20	5200.000	-181
-10	5200.000	-132
0	5200.000	214
10	5200.000	-116
20	5200.000	-88
30	5200.000	118
40	5200.000	100
50	5200.000	-115
-30	5785.000	138
-20	5785.000	154
-10	5785.000	221
0	5785.000	136
10	5785.000	-80
20	5785.000	-70
30	5785.000	253
40	5785.000	187
50	5785.000	132

Frequency Stability under Voltage

AC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)
40.8	5200.000	141
48	5200.000	104
50.4	5200.000	109
40.8	5785.000	118
48	5785.000	121
50.4	5785.000	-153

— The End —