Test Report

FCC Part15 Subpart C

Product Name	:	Ring Bridge
Model No.	:	5B01S8
FCC ID	:	2AEUPBHARB001

Applicant	:	Ring, LLC..
Address	:	1523 26th St, Santa Monica, CA 90404

Date of Receipt	:	Dec. 21, 2018
Test Date	:	Dec. 21, 2018 ~ Dec. 26, 2018
Issued Date	:	Jan. 03, 2019
Report No.	:	18C2098R-RF-US-P06V01
Report Version	:	V1.1

Test Report Certification

Issued Date : Jan. 04, 2019
Report No. : 18C2098R-RF-US-P06V01

Product Name	:	Ring Bridge
Applicant	:	Ring, LLC..
Address	:	1523 26th St, Santa Monica, CA 90404
Manufacturer	:	Ring, LLC..
Address	:	1523 26th St, Santa Monica, CA 90404
Model No.	:	5B01S8
FCC ID	:	2AEUPBHARB001
EUT Voltage	:	DC 5V
Test Voltage	:	AC 120V/60Hz
Brand Name	:	ring
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C KDB 558074 D01v05 ANSI C63.10:2013
Test Result	:	Complied
Performed Location	:	DEKRA Testing and Certification (Suzhou) Co., Ltd. No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Designation Number: CN1199

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Reviewed By : Frank he
(Senior Project Manager: Frank He)

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(Engineer Supervisor: Jack Zhang)

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History of This Test Report

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18C2098R-RF-US-P06V01	V1.0	Initial Issued Report	Jan. 03, 2019
18C2098R-RF-US-P06V01	V1.1	1) Page 15, add power setting table 2) Page 53~54, add simultaneously transmit data.	Jan. 04, 2019

1. General Information

1.1. EUT Description

Product Name	Ring Bridge
Brand Name	ring
Model No.	5B01S8
EUT Voltage	DC 5V
Frequency Range	For 2.4GHz Band 802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz
Channel Number	For 2.4GHz Band 802.11b/g/n(20MHz): 11 802.11n(40MHz): 7
Type of Modulation	802.11b: DSSS-DBPSK, DQPSK, CCK
	802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM,
Data Rate	802.11b: 1/2/5.5/11 Mbps
	802.11g: 6/9/12/18/24/36/48/54 Mbps
	802.11n: up to 150 Mbps
Channel Control	Auto

1.2. Working Frequency of Each Channel:

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

1.3. Antenna information

Model No.	N/A							
Antenna manufacturer	N/A							
Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX	☐	4*TX+4*RX
Antenna technology	☒	SISO						
	☐	MIMO	☐	Basic				
			☐	CDD				
			☐	Sectorized				
			☐	Beam-forming				
Antenna Type	☐	External	☐	Dipole				
			☐	Sectorized				
	☒	Internal	☐	PIFA				
			☐	PCB				
			☐	Ceramic Chip Antenna				
			☒	Metal plate type F antenna				
Antenna Gain	1.8dBi							

1.4. Mode of Operation

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

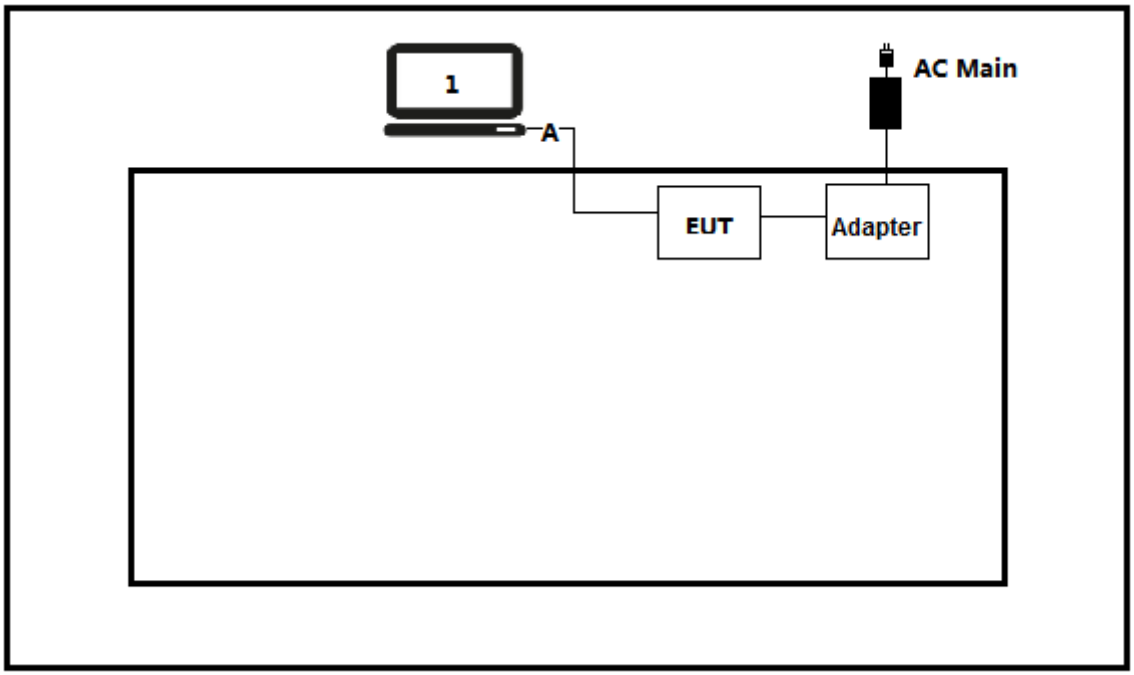
1.5. Tested System Details

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

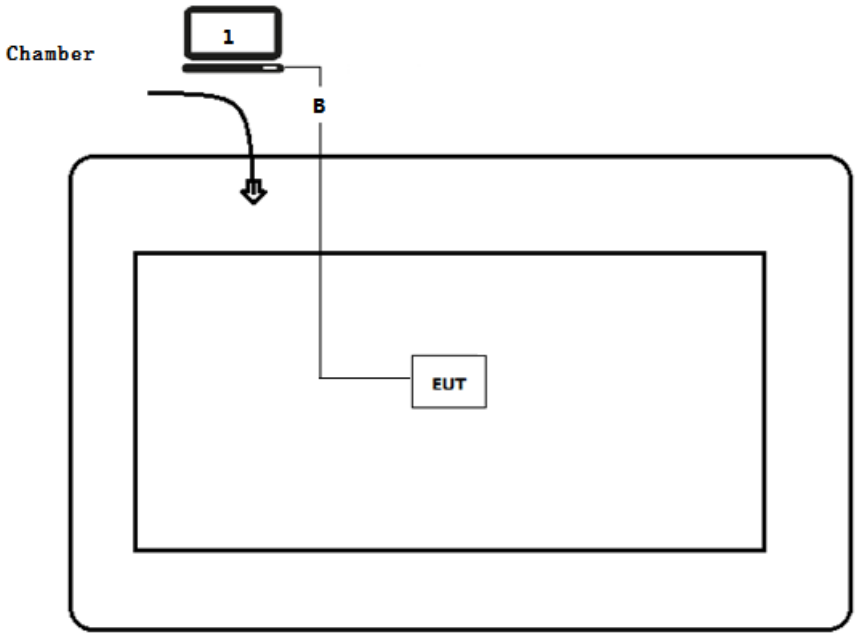
No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	Think pad x220	SUA0600195	Non-shielded
A	USB cable	N/A	N/A	N/A	Shielded, 0.5m
B	USB cable	N/A	N/A	N/A	Shielded, 5m

1.6. Configuration of Tested System

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



1.7. EUT Exercise Software

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

2. Technical Test

2.2. Summary of Test Result

Performed Test Item	Normative References	Limit	Result
AC Power Line Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: Section 15.207	FCC 15.207	PASS
Emissions in restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: Section 15.209	FCC 15.209	PASS
Emissions in non-restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(d)	⩾20dBc	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 15.247(d)	FCC 15.209	PASS
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(a)(2)	⩾500kHz	PASS
Fundamental emission output power	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(b)(3)	⩽30dBm	PASS
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(e)	⩽8dBm/3kHz	PASS
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C: Section 15.203	FCC 15.203	PASS

2.3. Test Frequency configuration:

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

2.4. Power vs Data Rate

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)					
		802.11b	802.11g	20MHz Bandwidth		40MHz Bandwidth	
				800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6.5	7.2	13.5	15.0
1	1	2	9	13.0	14.4	27.0	30.0
2	1	5.5	12	19.5	21.7	40.5	45.0
3	1	11	18	26.0	28.9	54.0	60.0
4	1	---	24	39.0	43.3	81.0	90.0
5	1	---	36	52.0	57.8	108.0	120.0
6	1	---	48	58.5	65.0	121.5	135.0
7	1	---	54	65.0	72.2	135.0	150.0

Note1: The blue form is the maximum power data rate.

2.5. Power Setting

Test mode	Channel	Frequency	Power Setting
802.11b	1	2412MHz	8.5
	2	2417MHz	10
	3	2422MHz	10
	4	2427MHz	10
	5	2432MHz	10
	6	2437MHz	13
	11	2462MHz	14
802.11g	1	2412MHz	11
	6	2437MHz	14
	11	2462MHz	14
802.11n(20MHz)	1	2412MHz	11
	6	2437MHz	13.5
	11	2462MHz	13.5
802.11n(40MHz)	3	2422MHz	9.5
	6	2437MHz	12
	9	2452MHz	12

Note: For 802.11g/n20/n40 Mode, the power setting of channel 1 ~5 are the same.

2.6. Test Environment

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

2.7. Measurement Uncertainty

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

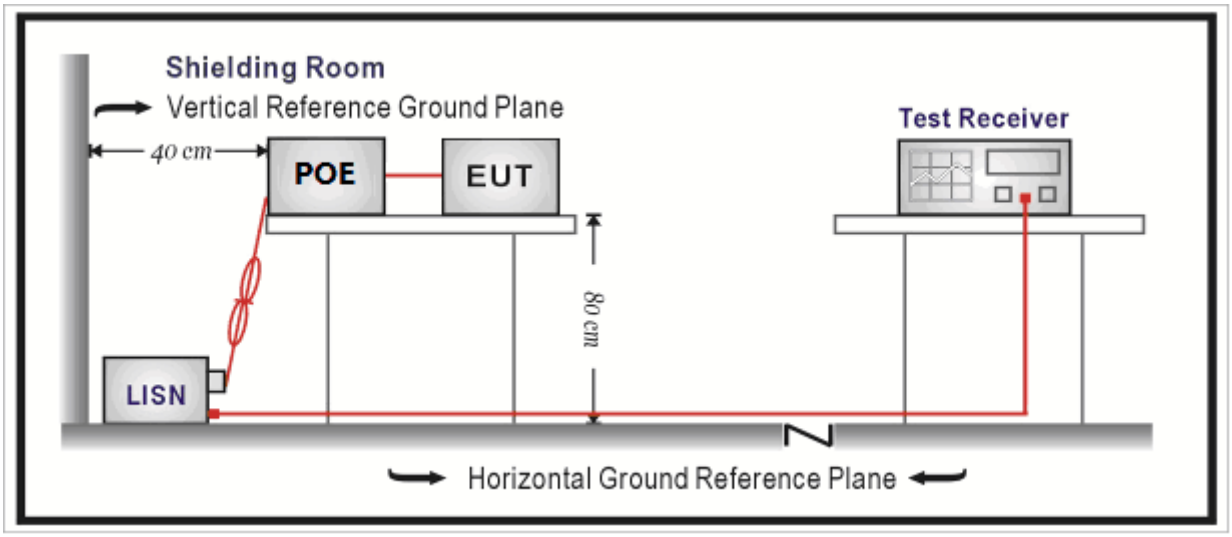
3. AC Power Line Conducted Emission

3.1. Test Equipment

AC Power Line Conducted Emission / TR-1					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100726	2018.03.29	2019.03.28
Two-Line V-Network	R&S	ENV216	100043	2018.03.29	2019.03.28
Two-Line V-Network	R&S	ENV216	100044	2018.09.17	2019.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2018.03.02	2019.03.01
50ohm Termination	SHX	TF2	07081401	2018.09.17	2019.09.16
Temperature/Humidity Meter	zhichen	ZC1-2	TR1-TH	2018.01.04	2019.01.03
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

3.2. Test Setup

AC Power Line Conducted Emission test setup



3.3. Limit

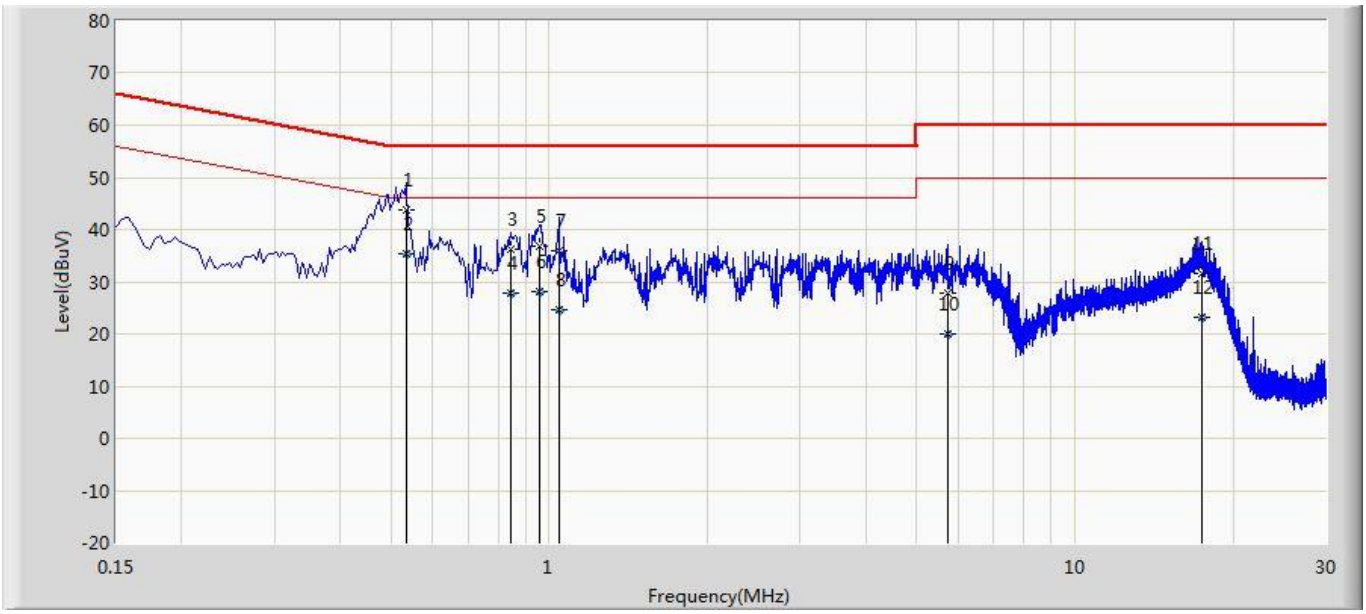
Frequency of Emission (MHz)	Conducted Limit	
	Quasi-peak (dBμV)	Average(dBμV)
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

3.4. Test Procedure

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

3.5. Test Result

Engineer: Nero	
Site: TR1	Time: 2018/12/21
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1	



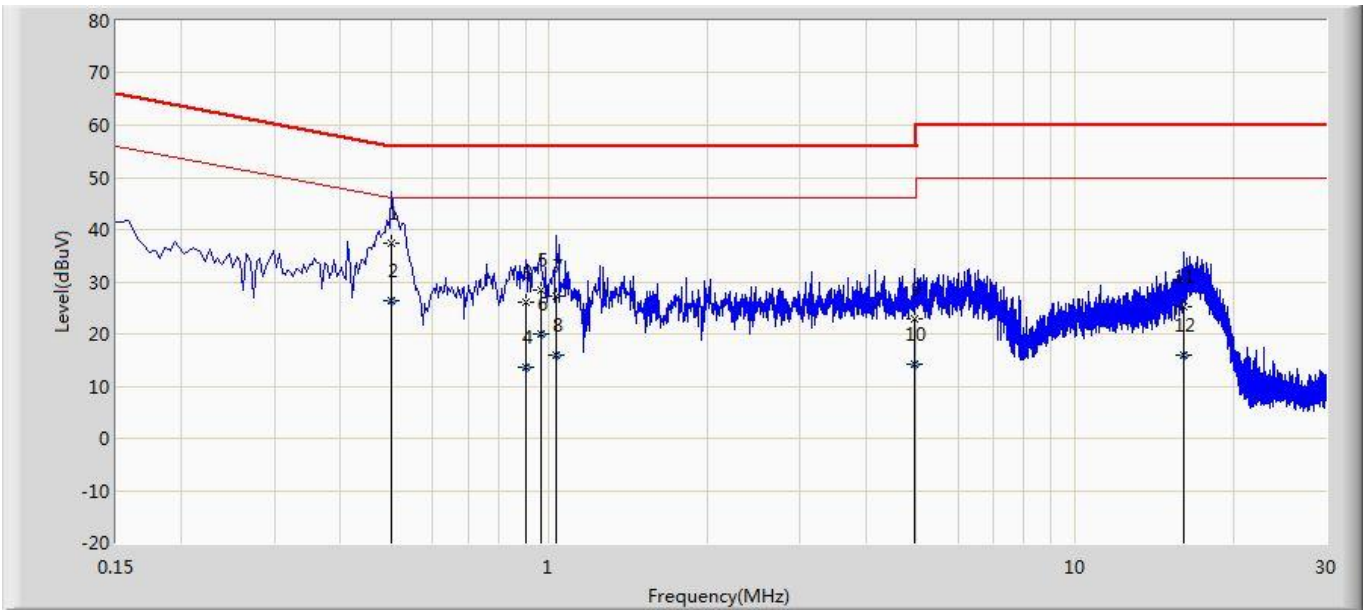
No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.534	43.710	34.066	-12.290	56.000	9.600	0.044	0.000	QP
2	*	0.534	35.370	25.726	-10.630	46.000	9.600	0.044	0.000	AV
3		0.846	36.098	26.439	-19.902	56.000	9.605	0.054	0.000	QP
4		0.846	27.784	18.125	-18.216	46.000	9.605	0.054	0.000	AV
5		0.958	36.906	27.238	-19.094	56.000	9.609	0.059	0.000	QP
6		0.958	28.130	18.462	-17.870	46.000	9.609	0.059	0.000	AV
7		1.042	35.870	26.198	-20.130	56.000	9.610	0.061	0.000	QP
8		1.042	24.560	14.889	-21.440	46.000	9.610	0.061	0.000	AV
9		5.726	27.897	18.070	-32.103	60.000	9.675	0.152	0.000	QP
10		5.726	19.927	10.100	-30.073	50.000	9.675	0.152	0.000	AV
11		17.470	31.707	21.420	-28.293	60.000	10.018	0.269	0.000	QP
12		17.470	23.076	12.788	-26.924	50.000	10.018	0.269	0.000	AV

Note:

1. " * ", means this data is the worst emission level.

2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Nero	
Site: TR1	Time: 2018/12/21
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1	*	0.502	37.400	27.765	-18.600	56.000	9.590	0.044	0.000	QP
2		0.502	26.459	16.824	-19.541	46.000	9.590	0.044	0.000	AV
3		0.902	26.182	16.536	-29.818	56.000	9.590	0.056	0.000	QP
4		0.902	13.603	3.957	-32.397	46.000	9.590	0.056	0.000	AV
5		0.962	28.520	18.871	-27.480	56.000	9.590	0.059	0.000	QP
6		0.962	19.991	10.342	-26.009	46.000	9.590	0.059	0.000	AV
7		1.030	27.288	17.636	-28.712	56.000	9.591	0.062	0.000	QP
8		1.030	15.869	6.217	-30.131	46.000	9.591	0.062	0.000	AV
9		4.954	22.835	13.044	-33.165	56.000	9.649	0.142	0.000	QP
10		4.954	14.130	4.339	-31.870	46.000	9.649	0.142	0.000	AV
11		16.134	25.284	15.016	-34.716	60.000	10.010	0.258	0.000	QP
12		16.134	15.848	5.580	-34.152	50.000	10.010	0.258	0.000	AV

Note:

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

4. Emissions in restricted frequency bands

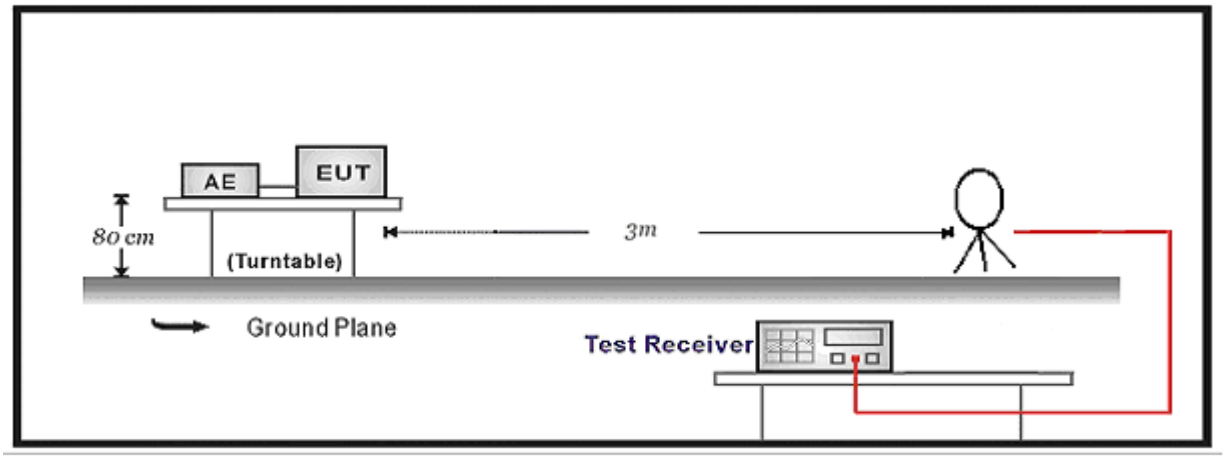
4.1. Test Equipment

Radiated Emission(Below 1GHz) / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2018.03.29	2019.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2018.11.16	2019.11.15
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2018.10.16	2019.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2018.03.02	2019.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2019.01.02	2020.01.01
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

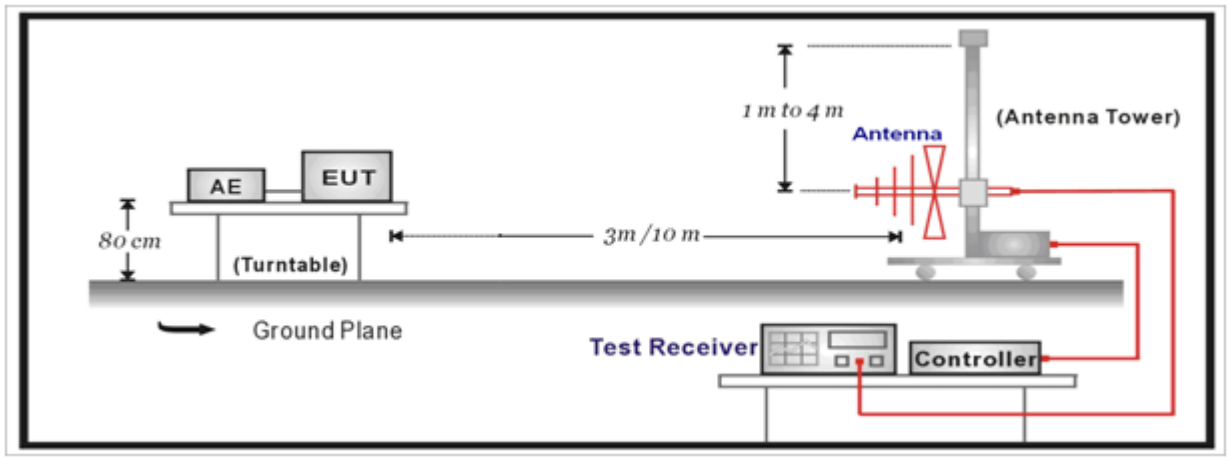
Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2019.01.02	2020.01.01
Preamplifier	Miteq	NSP1800-25	1364185	2018.05.06	2019.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2018.05.06	2019.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2018.01.22	2019.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2018.11.25	2019.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2018.03.02	2019.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2018.06.10	2019.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.01.02	2020.01.01
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

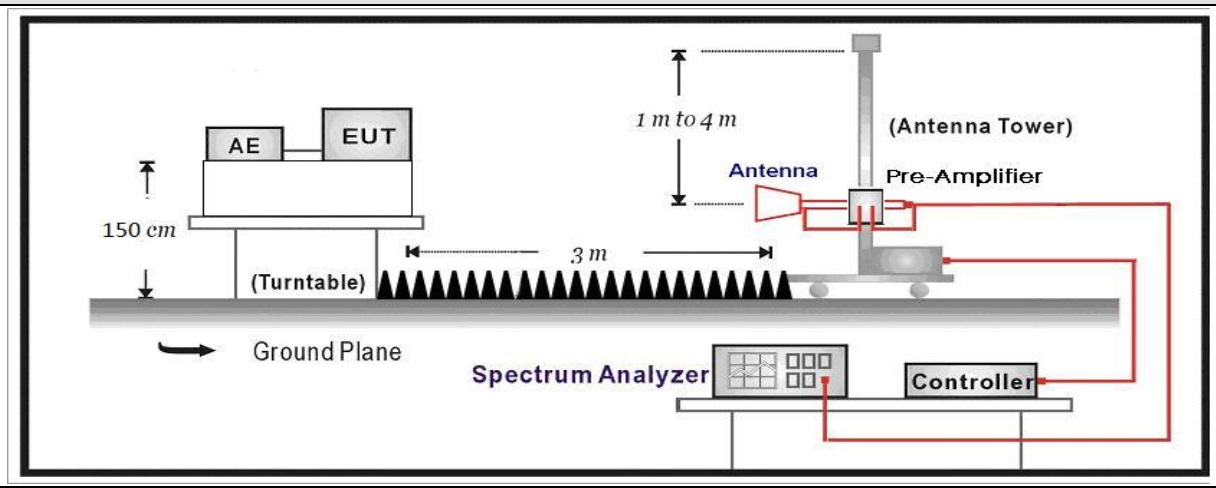
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

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

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

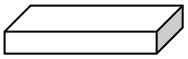
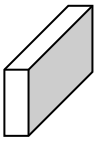
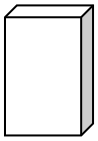
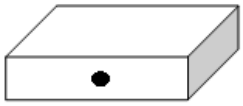
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed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

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

4.4. Test Procedure

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

4.5. EUT test Axis definition

<table>
<tr><th>Item</th><th colspan="4">Emissions in restricted frequency bands</th></tr>
<tr><td rowspan="3">Device Category</td><td>☐</td><td colspan="3">Fixed point-to-point</td></tr>
<tr><td>☐</td><td colspan="3">Emit multiple directional beams, simultaneously or sequentially</td></tr>
<tr><td>☒</td><td colspan="3">Other cases</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1~4</td></tr>
<tr><td rowspan="13">Test method</td><td>☒</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Worst Axis ☒</td><td>Worst Axis ☐</td><td>Worst Axis ☐</td></tr>
<tr><td>☐</td><td colspan="3">Conducted</td></tr>
<tr><td>☐</td><td colspan="3">Chain 1</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
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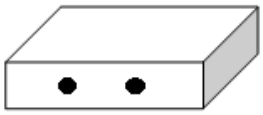
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
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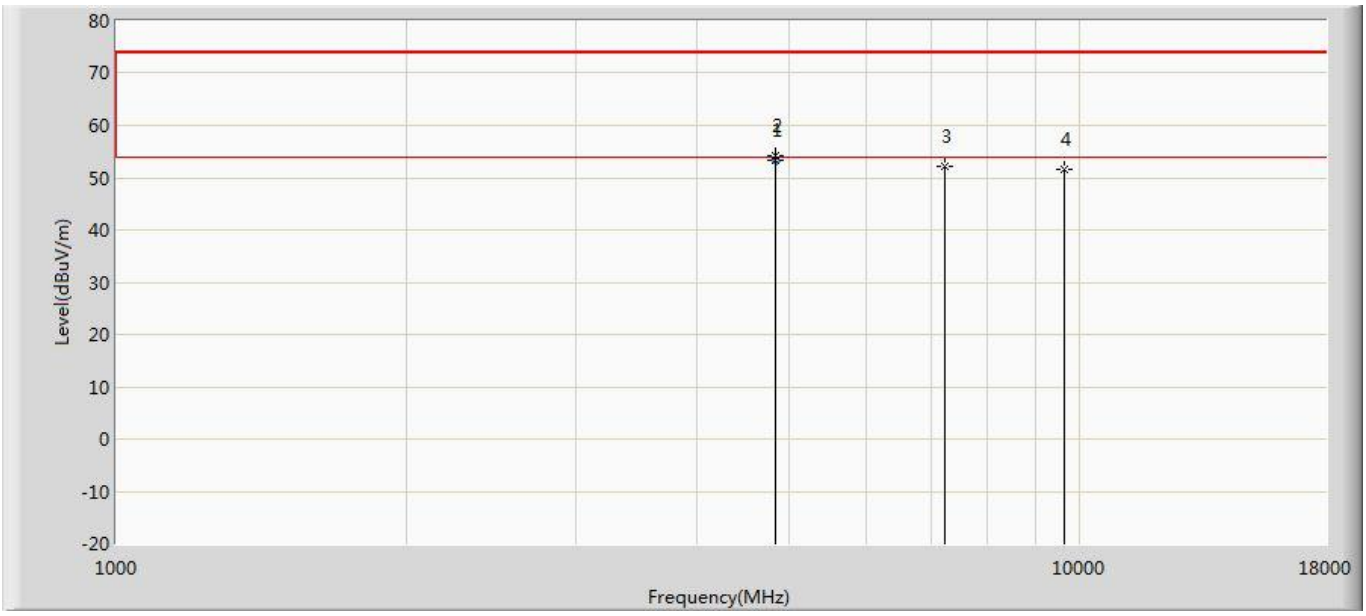
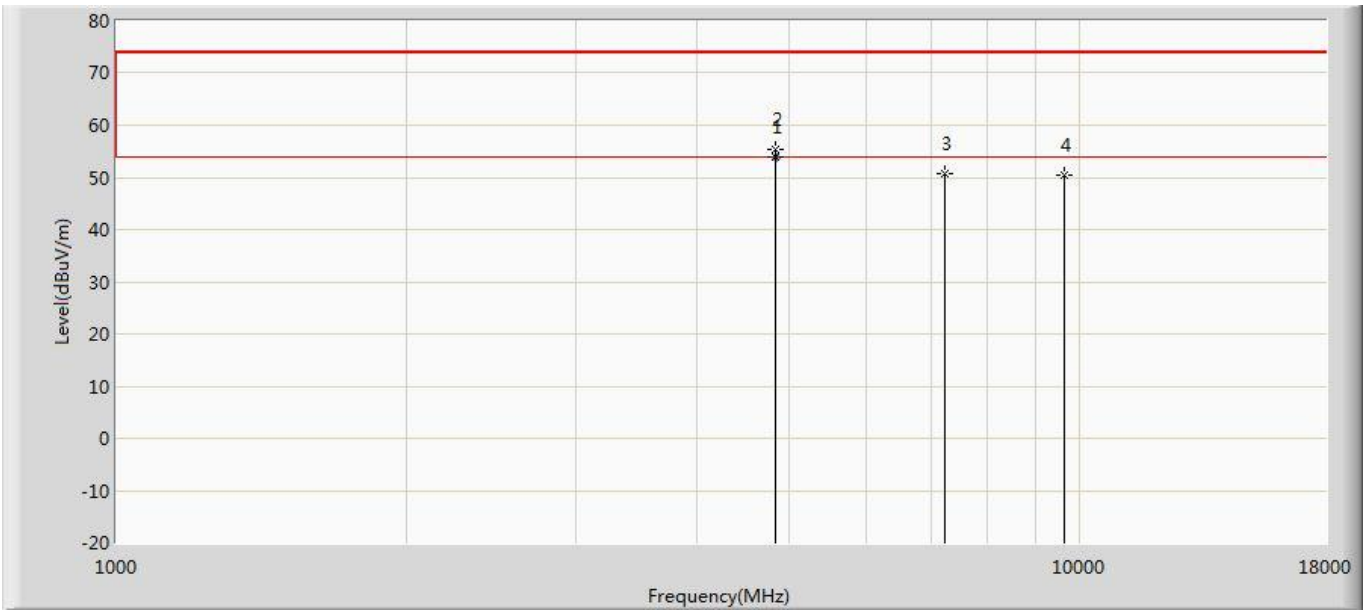
4.6. Test Result

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2412MHz by 802.11b	



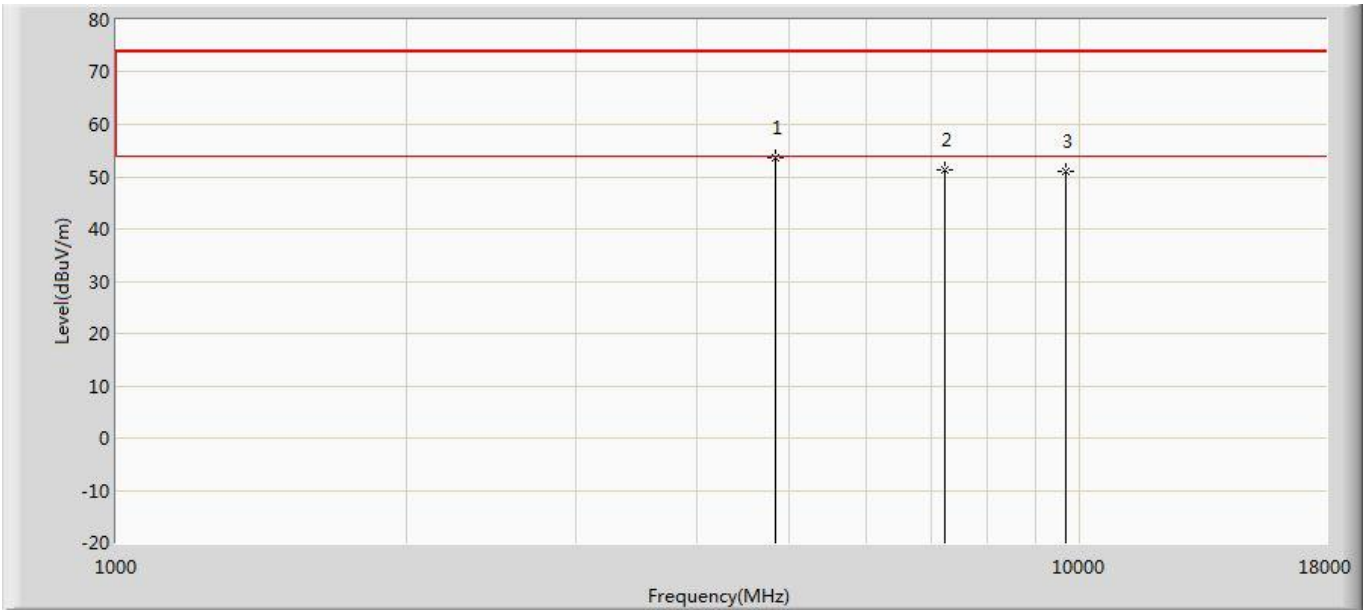
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4823.980	53.418	48.463	-0.582	54.000	4.956	AV
2		4824.000	54.172	49.217	-19.828	74.000	4.955	PK
3		7236.000	52.082	42.937	-21.918	74.000	9.144	PK
4		9648.000	51.684	40.297	-22.316	74.000	11.388	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2412MHz by 802.11b	



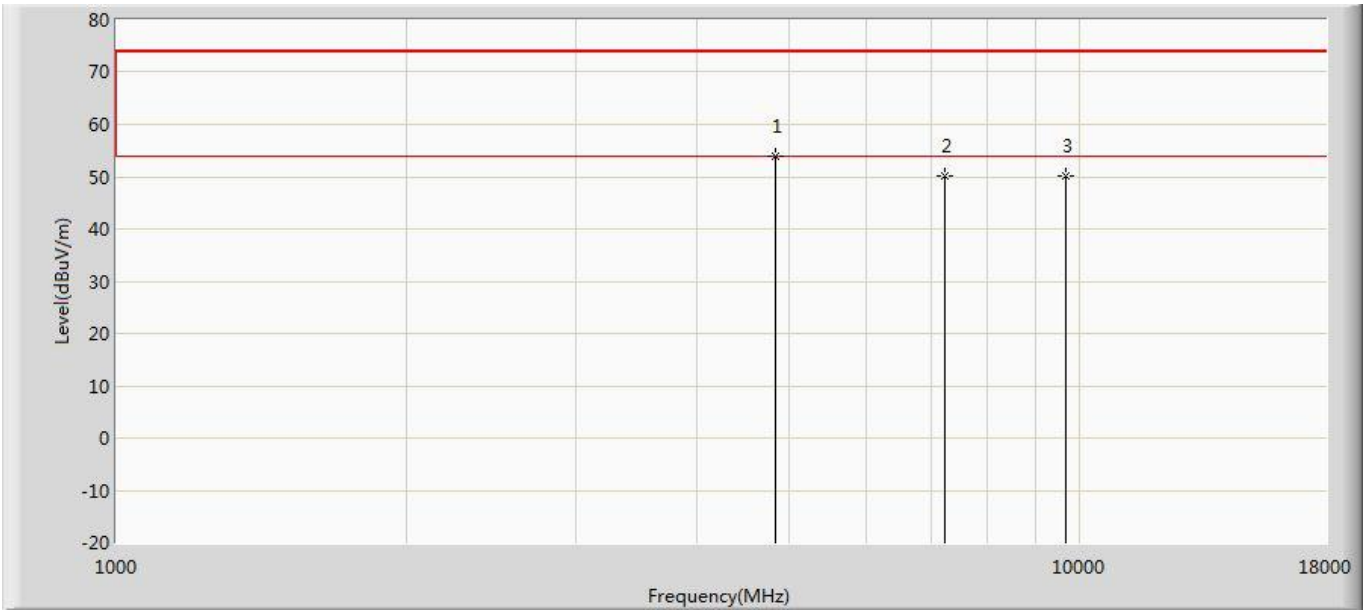
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4823.900	53.975	49.020	-0.025	54.000	4.955	AV
2		4824.000	55.413	50.458	-18.587	74.000	4.955	PK
3		7236.000	50.610	41.465	-23.390	74.000	9.144	PK
4		9648.000	50.406	39.019	-23.594	74.000	11.388	PK

Profile: 18C2098R	Page No.: 5
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2417MHz by 802.11B	



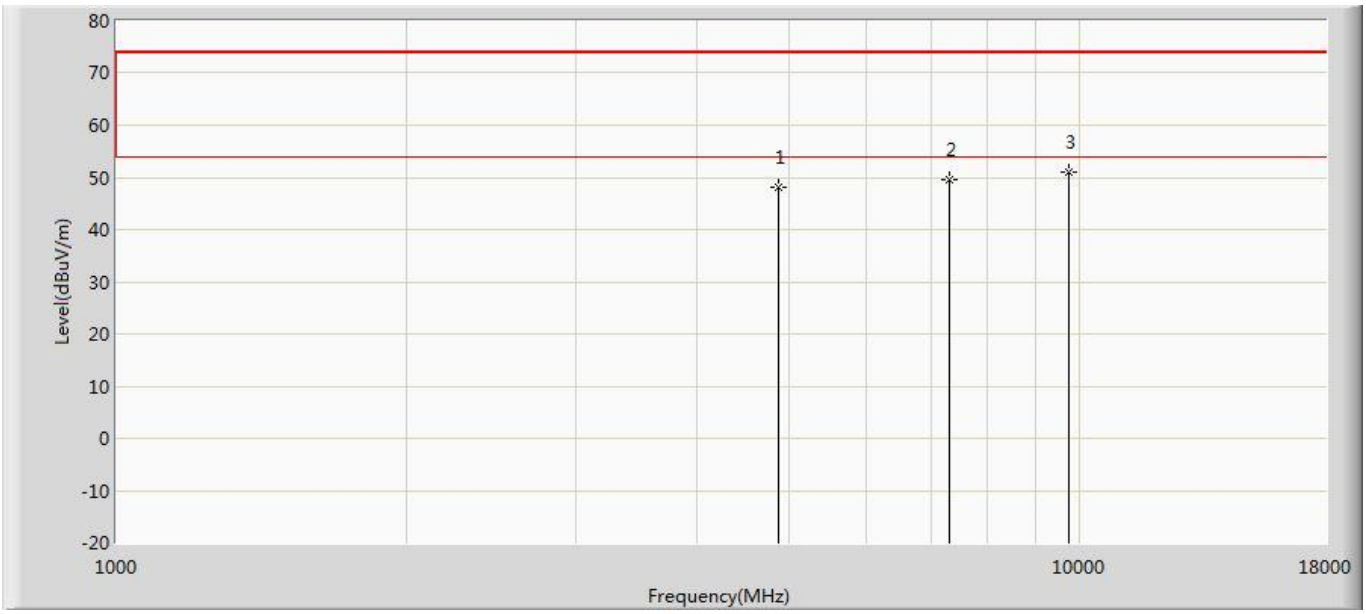
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4834.000	53.546	55.033	-20.454	74.000	-1.487	PK
2		7251.000	51.266	49.449	-22.734	74.000	1.817	PK
3		9668.000	51.028	45.389	-22.972	74.000	5.640	PK

Profile: 18C2098R	Page No.: 6
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2417MHz by 802.11B	



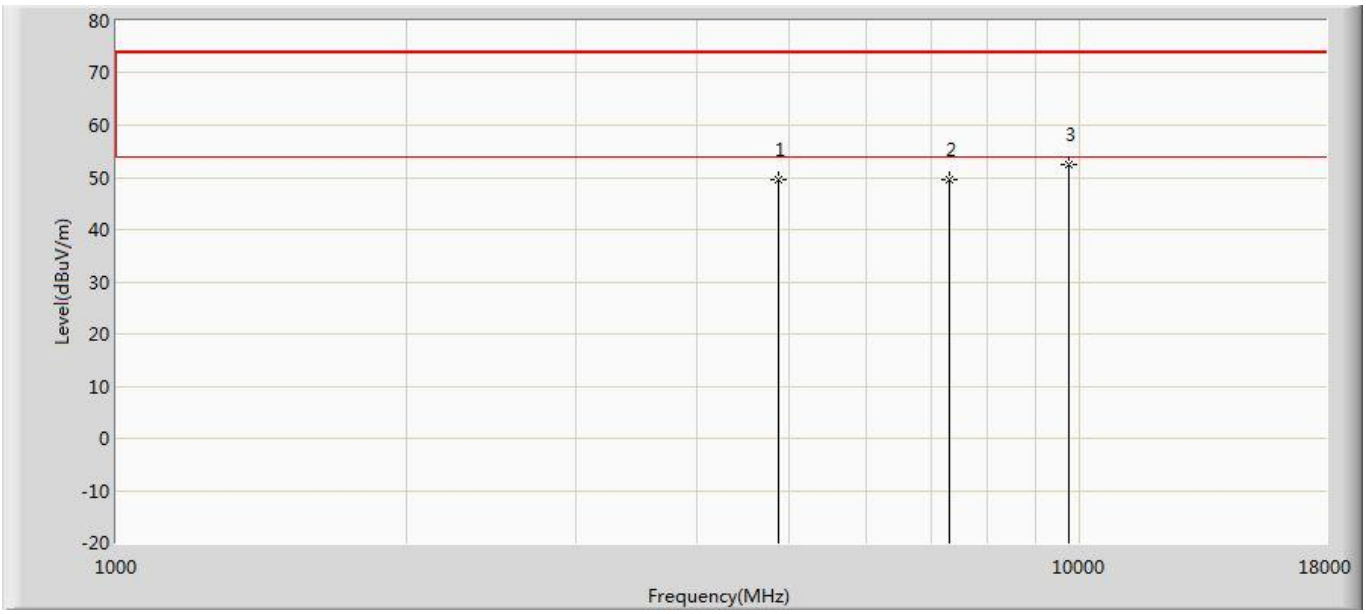
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4834.000	53.866	55.353	-20.134	74.000	-1.487	PK
2		7251.000	50.216	48.399	-23.784	74.000	1.817	PK
3		9668.000	50.144	44.505	-23.856	74.000	5.640	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2437MHz by 802.11b	



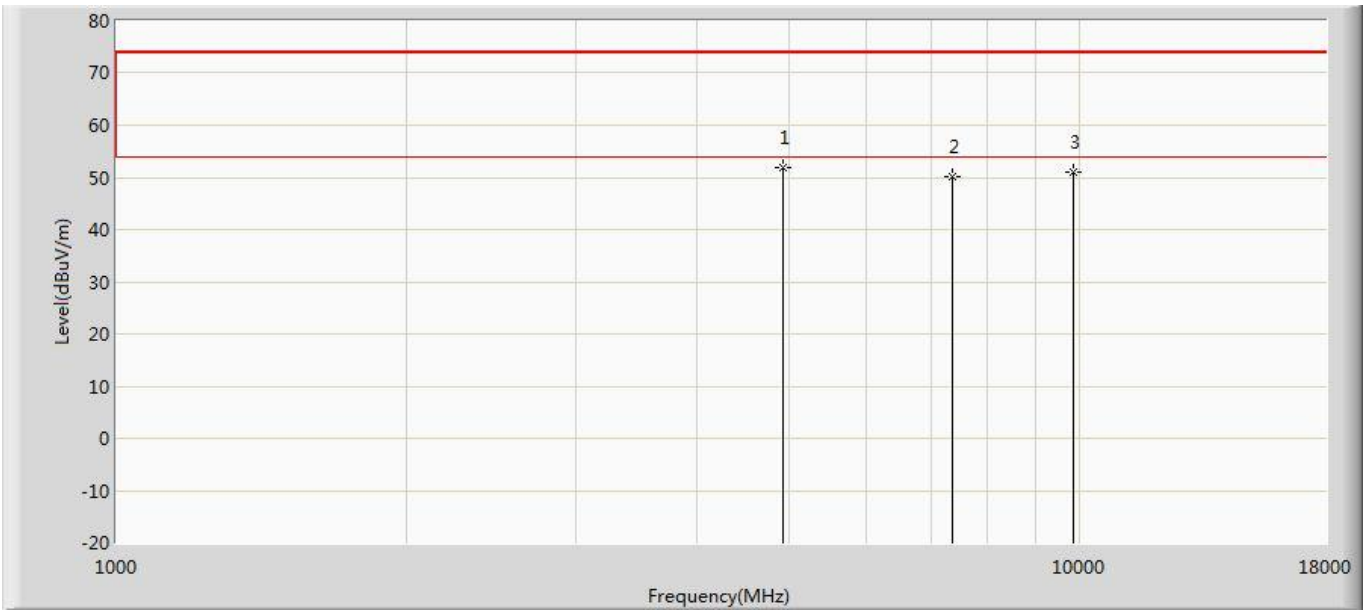
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	48.187	43.003	-25.813	74.000	5.184	PK
2		7311.000	49.422	40.464	-24.578	74.000	8.959	PK
3	*	9748.000	50.919	39.353	-23.081	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2437MHz by 802.11b	



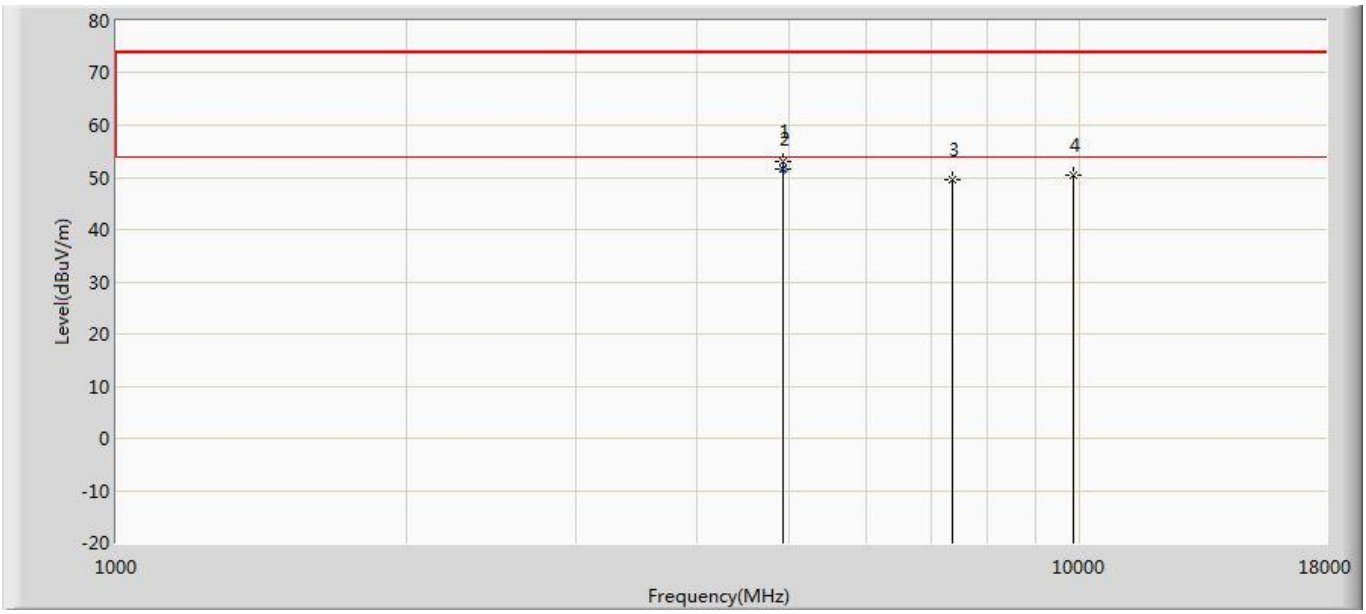
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	49.421	44.237	-24.579	74.000	5.184	PK
2		7311.000	49.612	40.654	-24.388	74.000	8.959	PK
3	*	9748.000	52.376	40.810	-21.624	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2462MHz by 802.11b	



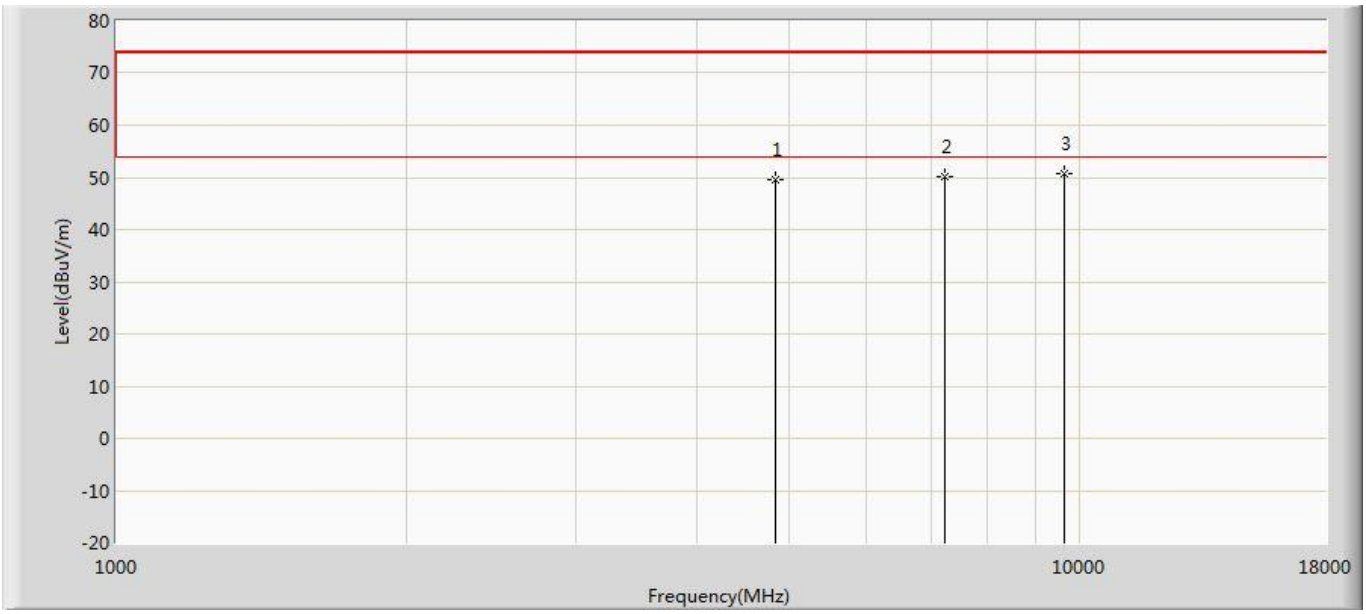
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4924.000	51.770	46.496	-22.230	74.000	5.274	PK
2		7386.000	50.203	41.439	-23.797	74.000	8.764	PK
3		9848.000	51.148	39.214	-22.852	74.000	11.934	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2462MHz by 802.11b	



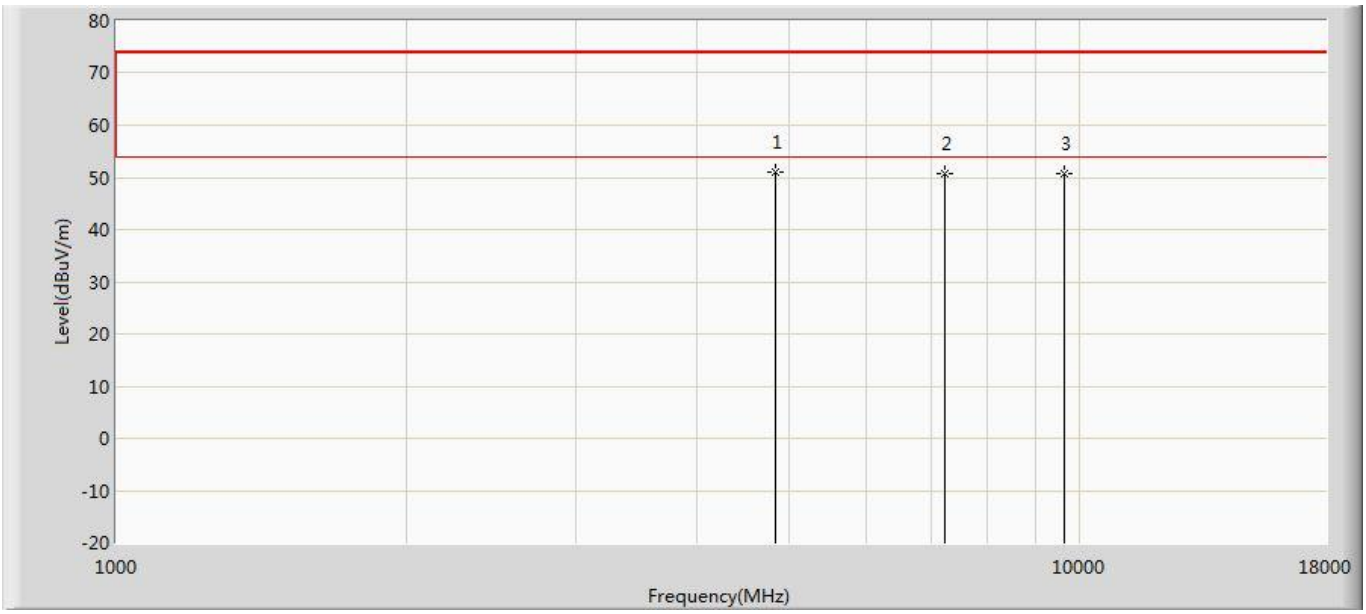
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	52.926	47.652	-21.074	74.000	5.274	PK
2	*	4924.020	51.604	46.330	-2.396	54.000	5.274	AV
3		7386.000	49.624	40.860	-24.376	74.000	8.764	PK
4		9848.000	50.364	38.430	-23.636	74.000	11.934	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2412MHz by 802.11g	



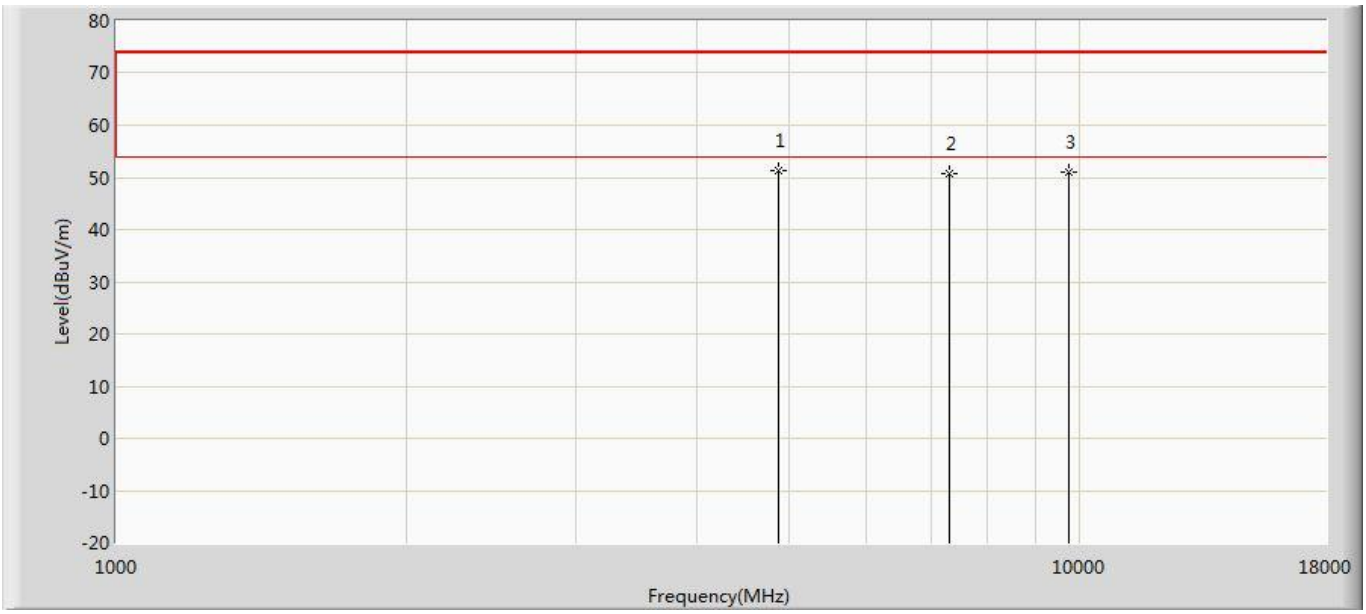
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	49.577	44.622	-24.423	74.000	4.955	PK
2		7236.000	50.067	40.922	-23.933	74.000	9.144	PK
3	*	9648.000	50.753	39.366	-23.247	74.000	11.388	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2412MHz by 802.11g	



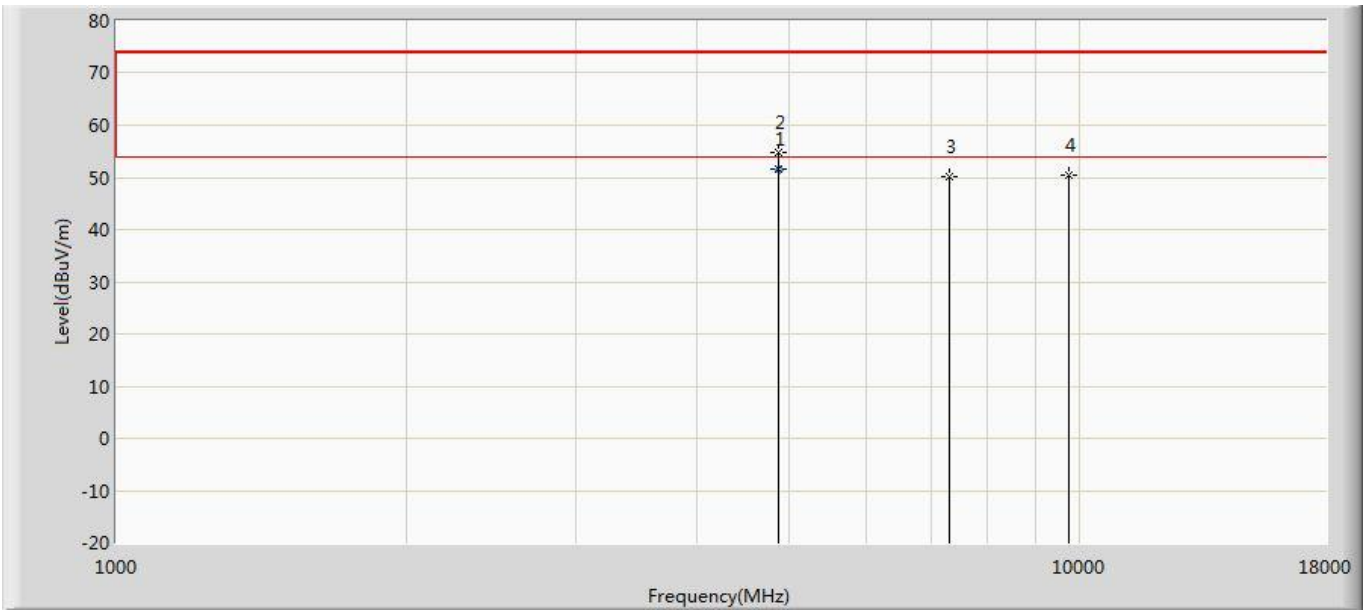
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4824.000	51.012	46.057	-22.988	74.000	4.955	PK
2		7236.000	50.629	41.484	-23.371	74.000	9.144	PK
3		9648.000	50.864	39.477	-23.136	74.000	11.388	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2437MHz by 802.11g	



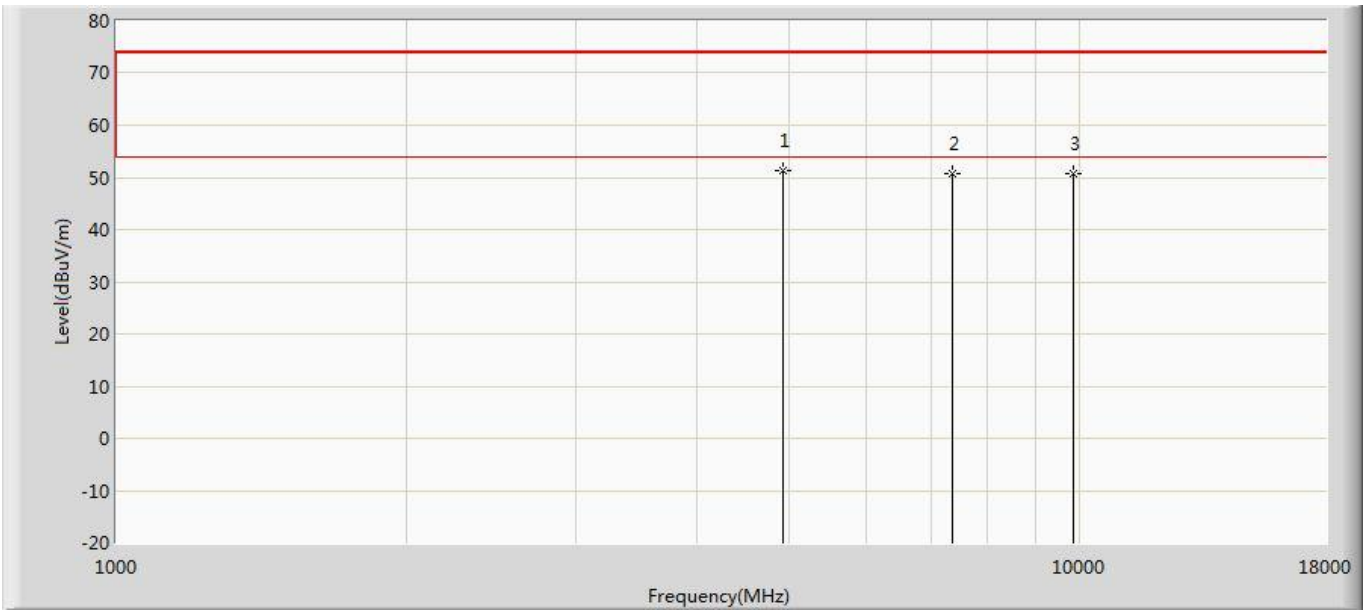
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4874.000	51.395	46.211	-22.605	74.000	5.184	PK
2		7311.000	50.600	41.642	-23.400	74.000	8.959	PK
3		9748.000	51.016	39.450	-22.984	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2437MHz by 802.11g	



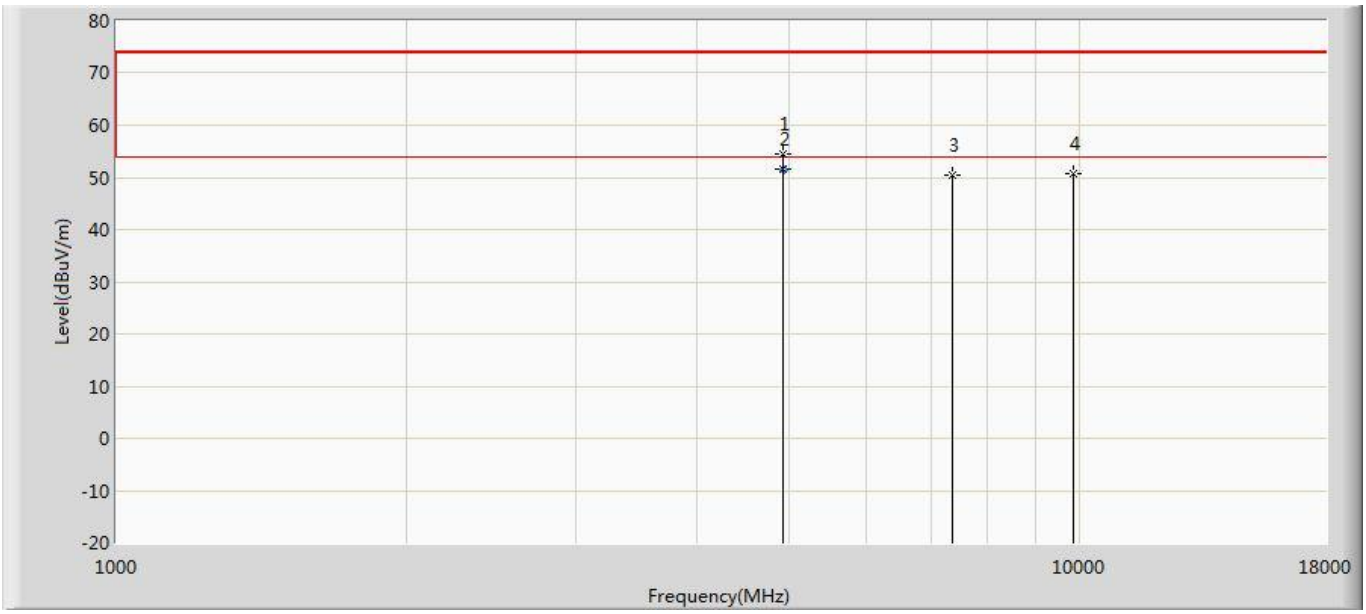
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4873.890	51.532	46.350	-2.468	54.000	5.183	AV
2		4874.000	54.643	49.459	-19.357	74.000	5.184	PK
3		7311.000	50.219	41.261	-23.781	74.000	8.959	PK
4		9748.000	50.334	38.768	-23.666	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2462MHz by 802.11g	



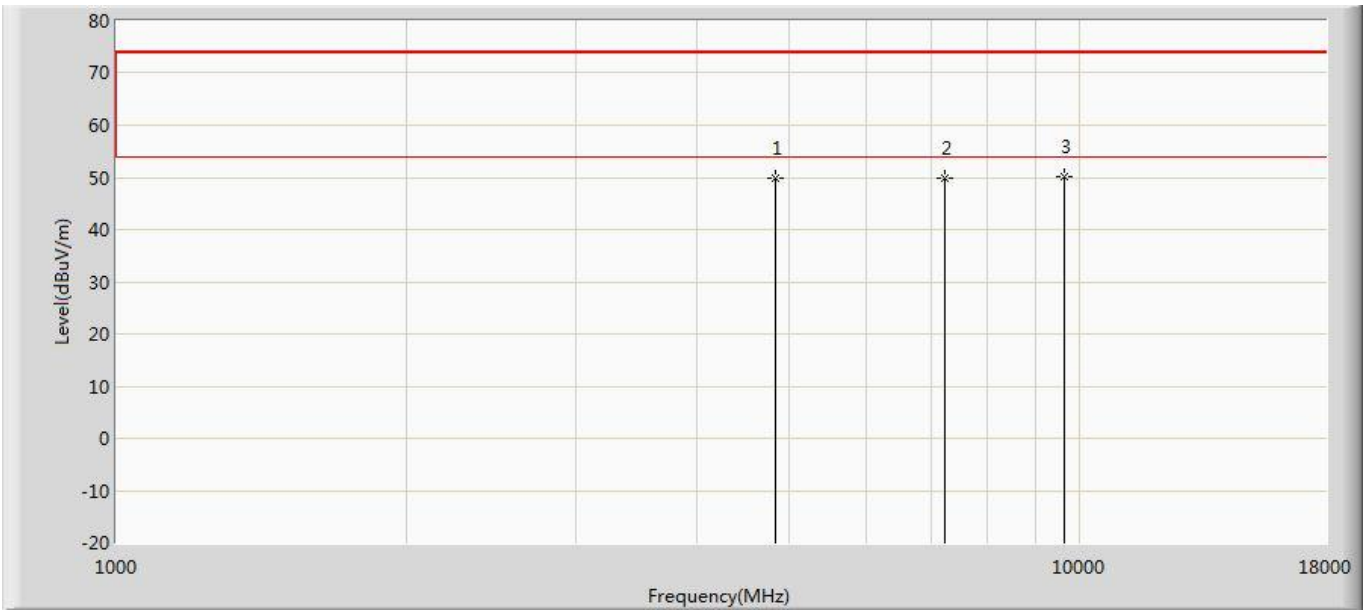
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4924.000	51.219	45.945	-22.781	74.000	5.274	PK
2		7386.000	50.590	41.826	-23.410	74.000	8.764	PK
3		9848.000	50.752	38.818	-23.248	74.000	11.934	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2462MHz by 802.11g	



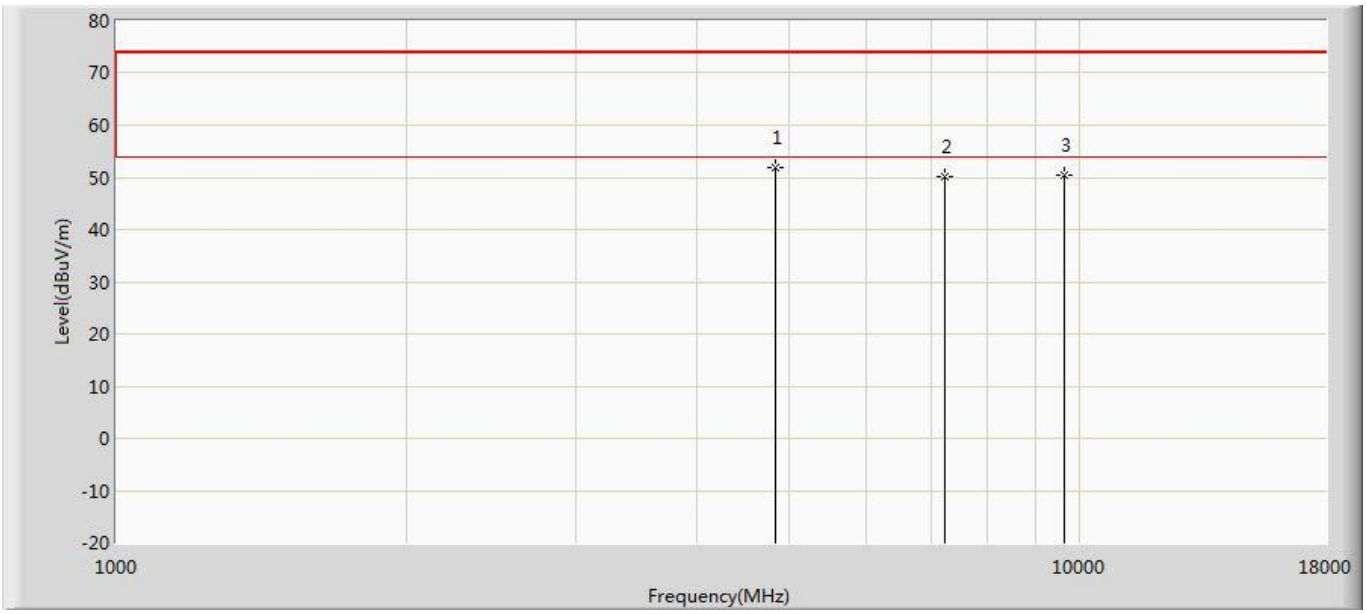
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	54.403	49.129	-19.597	74.000	5.274	PK
2	*	4924.130	51.655	46.380	-2.345	54.000	5.274	AV
3		7386.000	50.547	41.783	-23.453	74.000	8.764	PK
4		9848.000	50.609	38.675	-23.391	74.000	11.934	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2412MHz by 802.11n20	



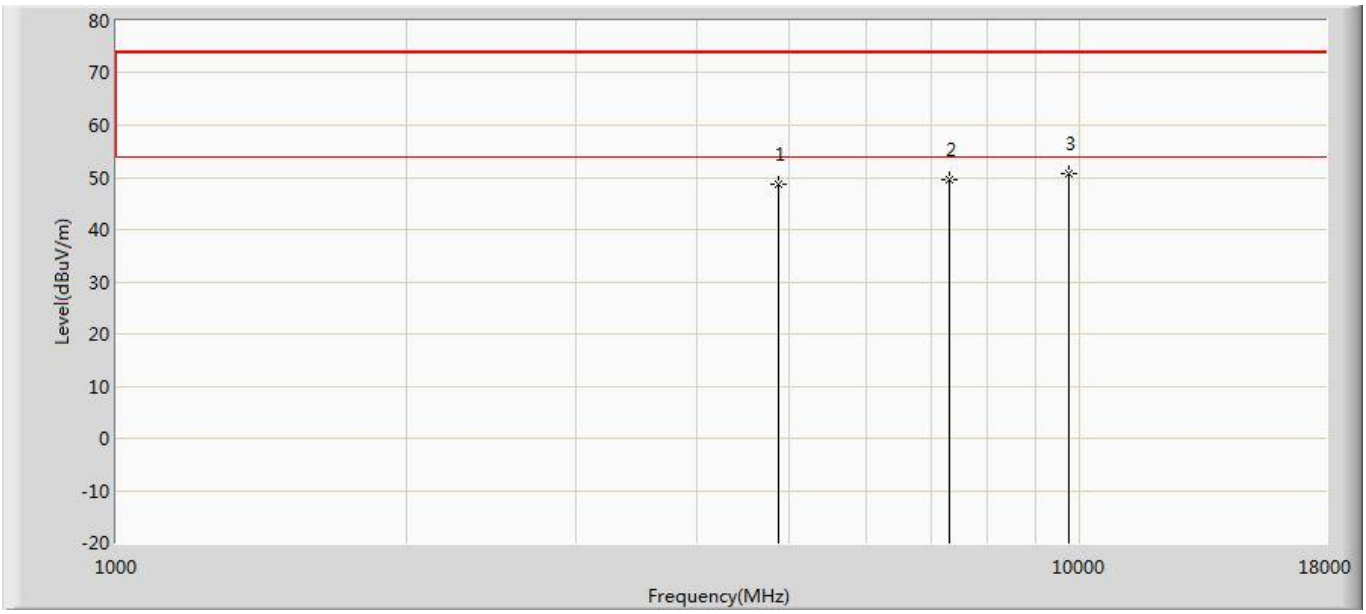
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	49.929	44.974	-24.071	74.000	4.955	PK
2		7236.000	49.771	40.626	-24.229	74.000	9.144	PK
3	*	9648.000	50.083	38.696	-23.917	74.000	11.388	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2412MHz by 802.11n20	



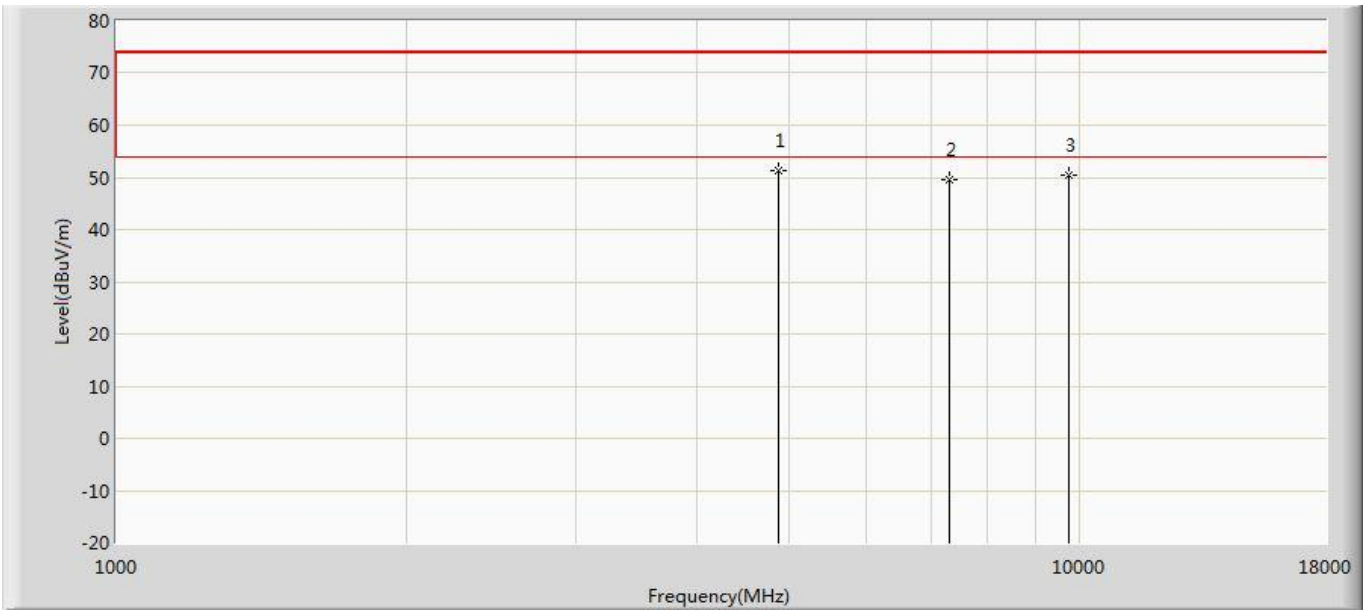
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4824.000	51.911	46.956	-22.089	74.000	4.955	PK
2		7236.000	50.069	40.924	-23.931	74.000	9.144	PK
3		9648.000	50.434	39.047	-23.566	74.000	11.388	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2437MHz by 802.11n20	



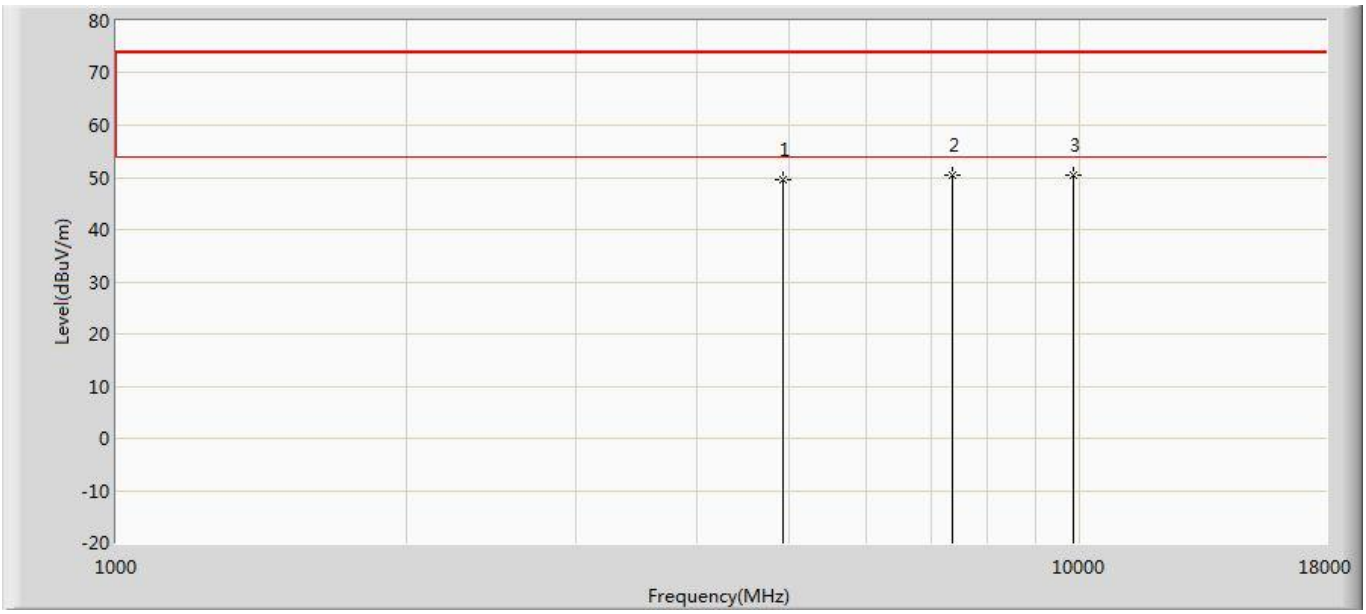
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	48.821	43.637	-25.179	74.000	5.184	PK
2		7311.000	49.470	40.512	-24.530	74.000	8.959	PK
3	*	9748.000	50.785	39.219	-23.215	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2437MHz by 802.11n20	



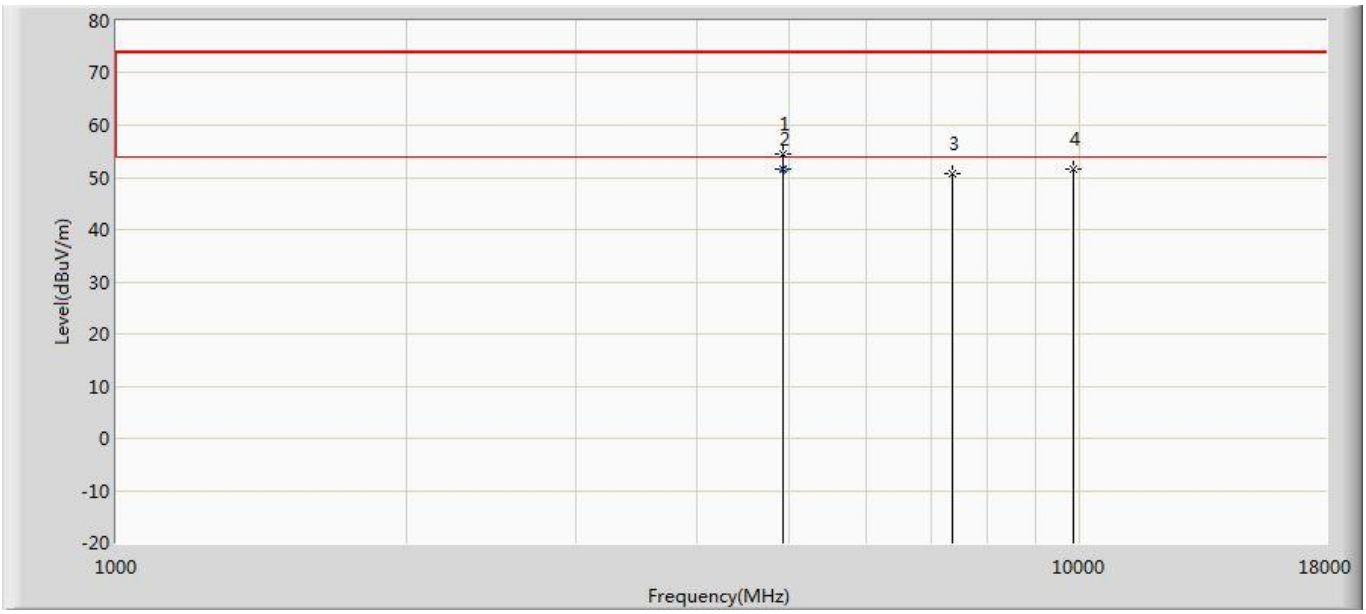
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4874.000	51.371	46.187	-22.629	74.000	5.184	PK
2		7311.000	49.592	40.634	-24.408	74.000	8.959	PK
3		9748.000	50.418	38.852	-23.582	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2462MHz by 802.11n20	



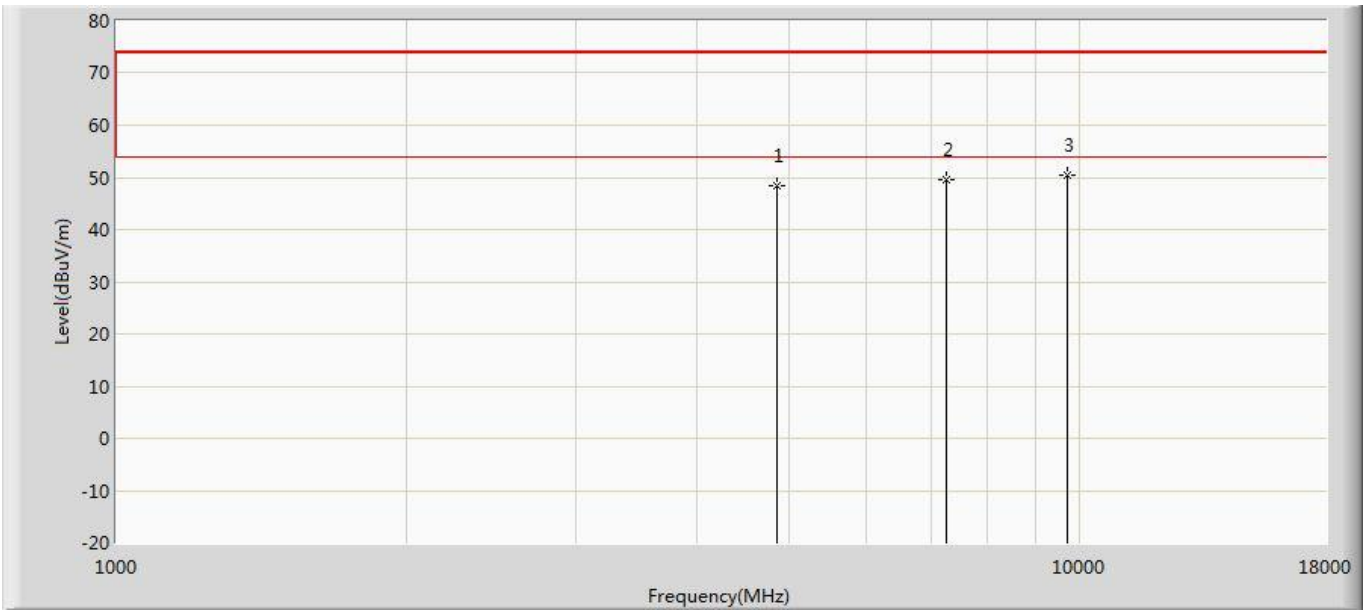
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	49.675	44.401	-24.325	74.000	5.274	PK
2		7386.000	50.331	41.567	-23.669	74.000	8.764	PK
3	*	9848.000	50.515	38.581	-23.485	74.000	11.934	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2462MHz by 802.11n20	



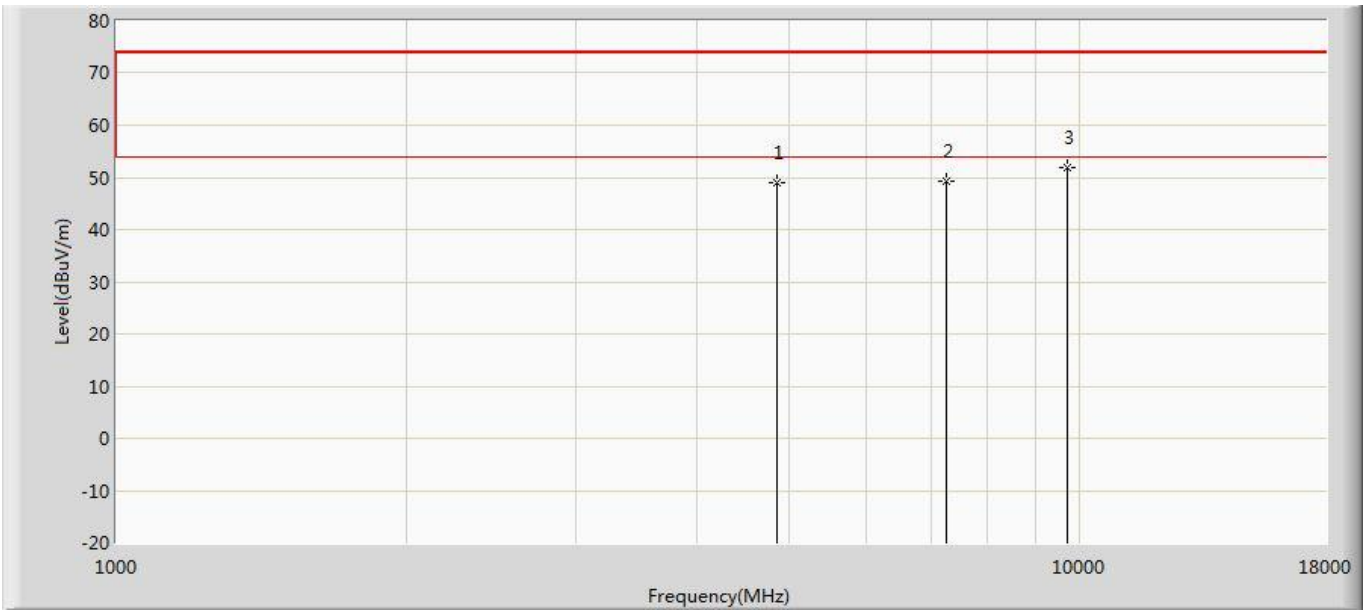
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	54.637	49.363	-19.363	74.000	5.274	PK
2	*	4924.210	51.455	46.180	-2.545	54.000	5.275	AV
3		7386.000	50.687	41.923	-23.313	74.000	8.764	PK
4		9848.000	51.684	39.750	-22.316	74.000	11.934	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2422MHz by 802.11n40	



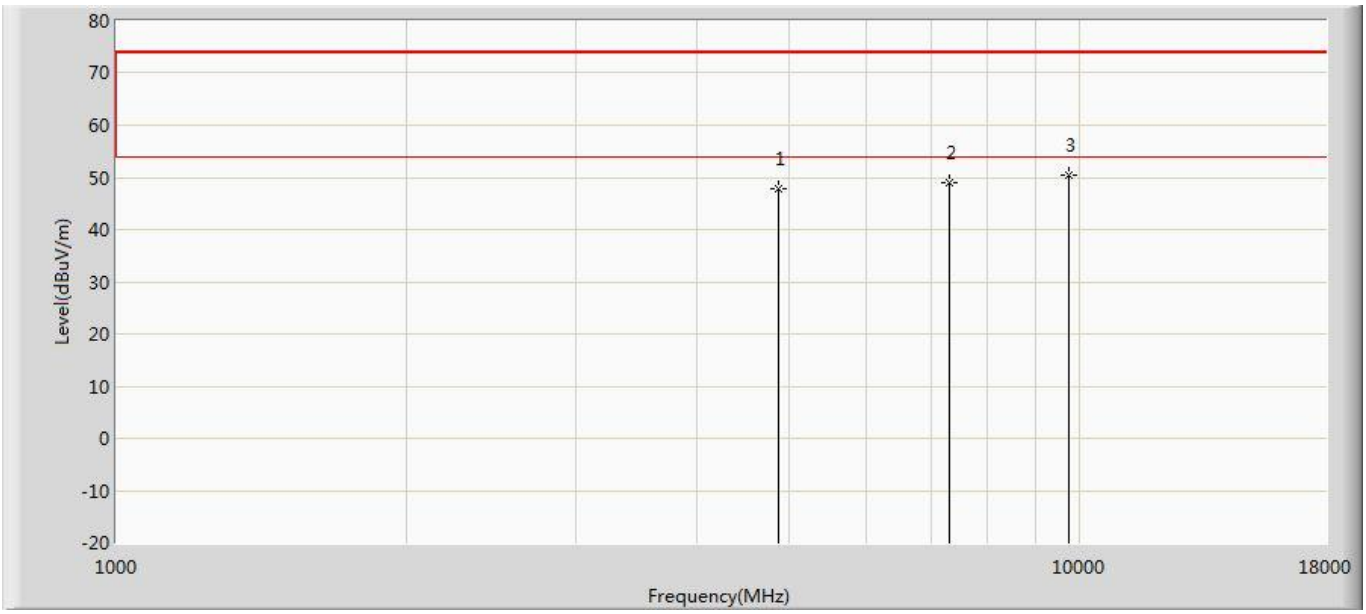
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4844.000	48.267	43.156	-25.733	74.000	5.111	PK
2		7266.000	49.500	40.550	-24.500	74.000	8.950	PK
3	*	9688.000	50.481	38.553	-23.519	74.000	11.927	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2422MHz by 802.11n40	



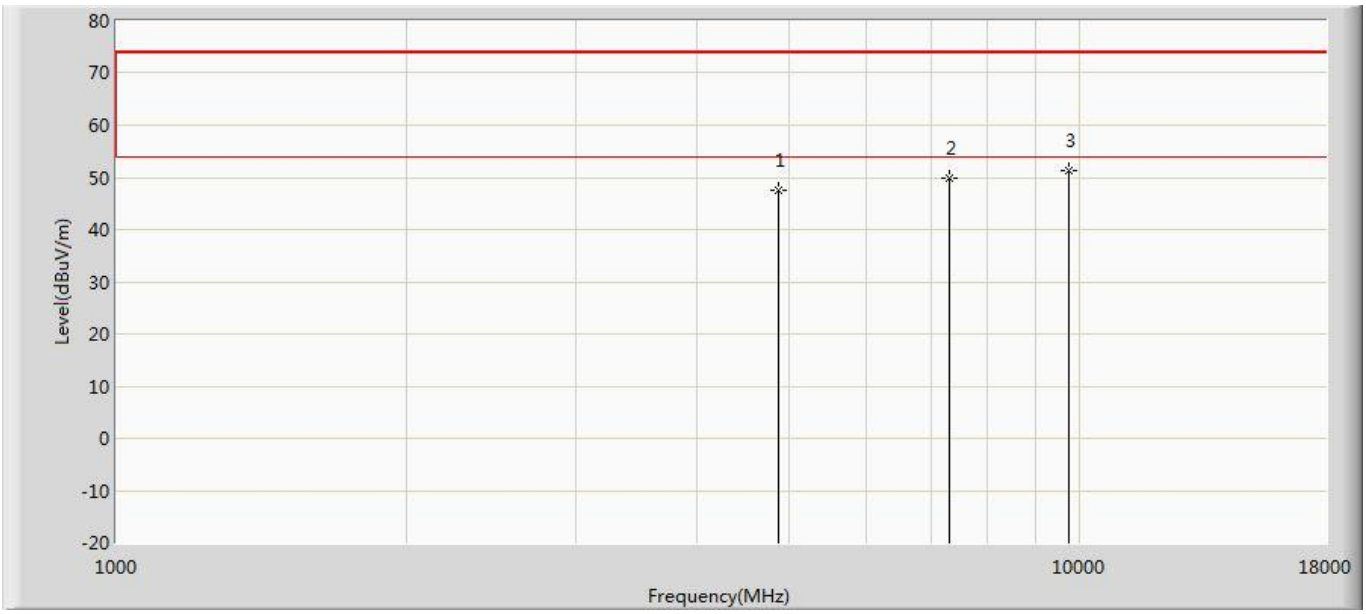
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4844.000	48.858	43.747	-25.142	74.000	5.111	PK
2		7266.000	49.300	40.350	-24.700	74.000	8.950	PK
3	*	9688.000	51.754	39.826	-22.246	74.000	11.927	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2437MHz by 802.11n40	



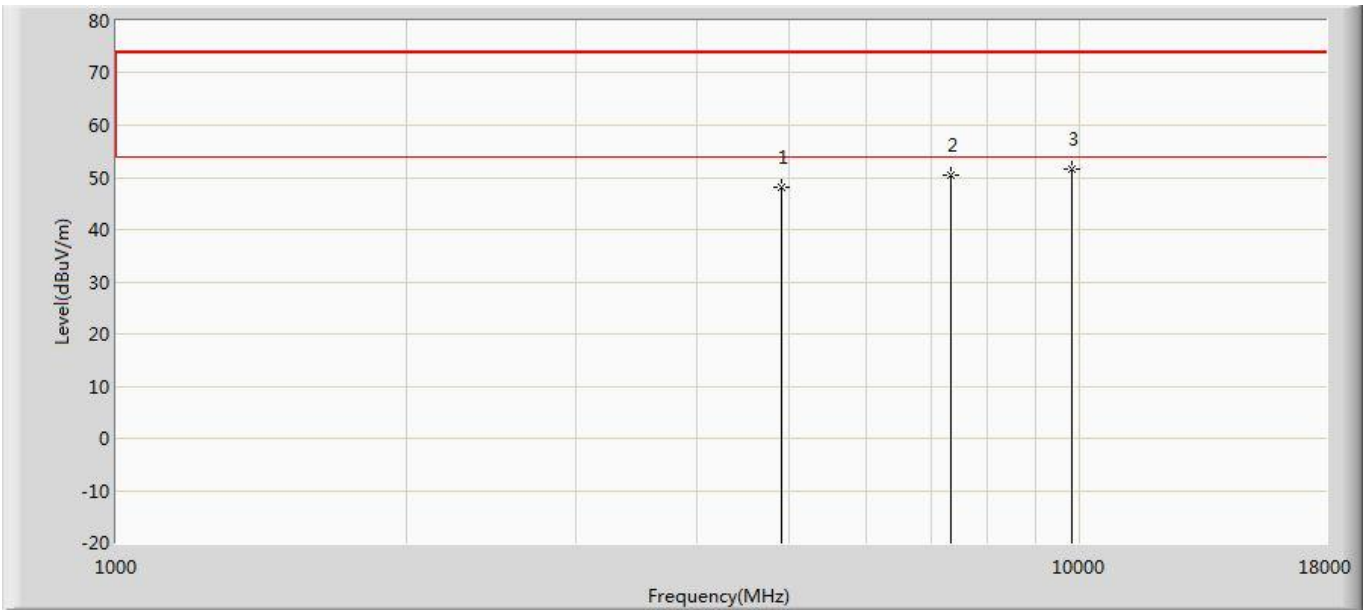
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	47.691	42.507	-26.309	74.000	5.184	PK
2		7311.000	49.112	40.154	-24.888	74.000	8.959	PK
3	*	9748.000	50.472	38.906	-23.528	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2437MHz by 802.11n40	



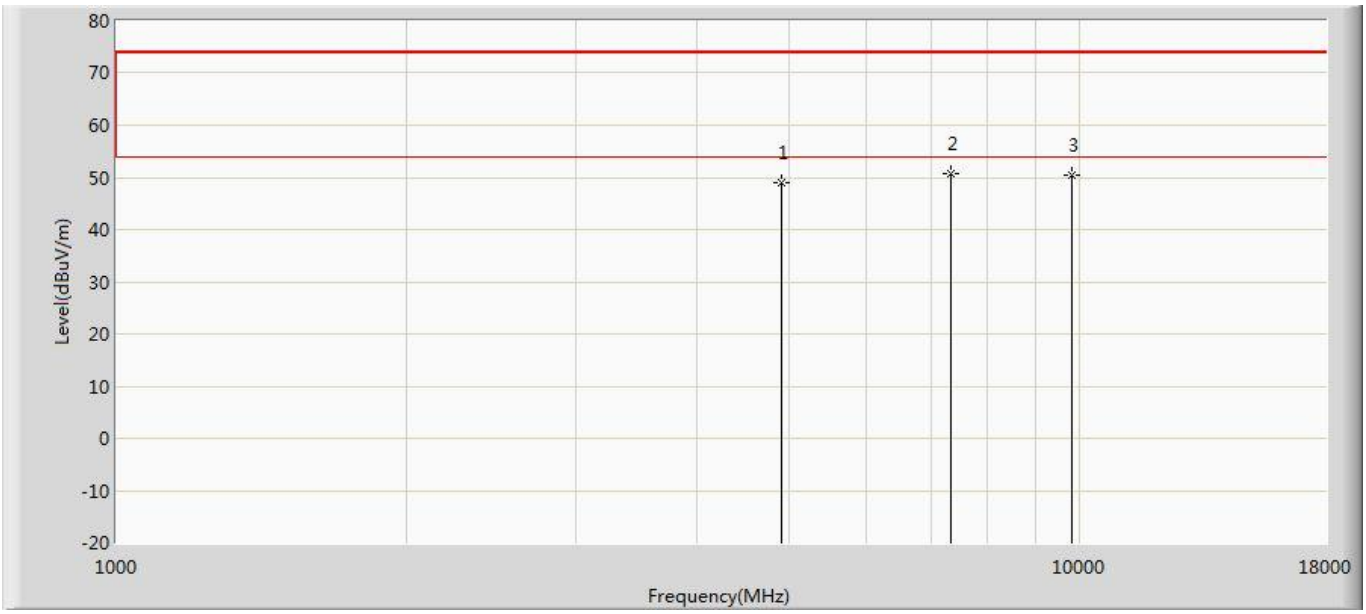
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	47.671	42.487	-26.329	74.000	5.184	PK
2		7311.000	49.742	40.784	-24.258	74.000	8.959	PK
3	*	9748.000	51.167	39.601	-22.833	74.000	11.565	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2452MHz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4904.000	48.081	42.870	-25.919	74.000	5.211	PK
2		7356.000	50.354	40.872	-23.646	74.000	9.482	PK
3	*	9808.000	51.511	40.235	-22.489	74.000	11.276	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/22 - 00:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2452MHz by 802.11n40	



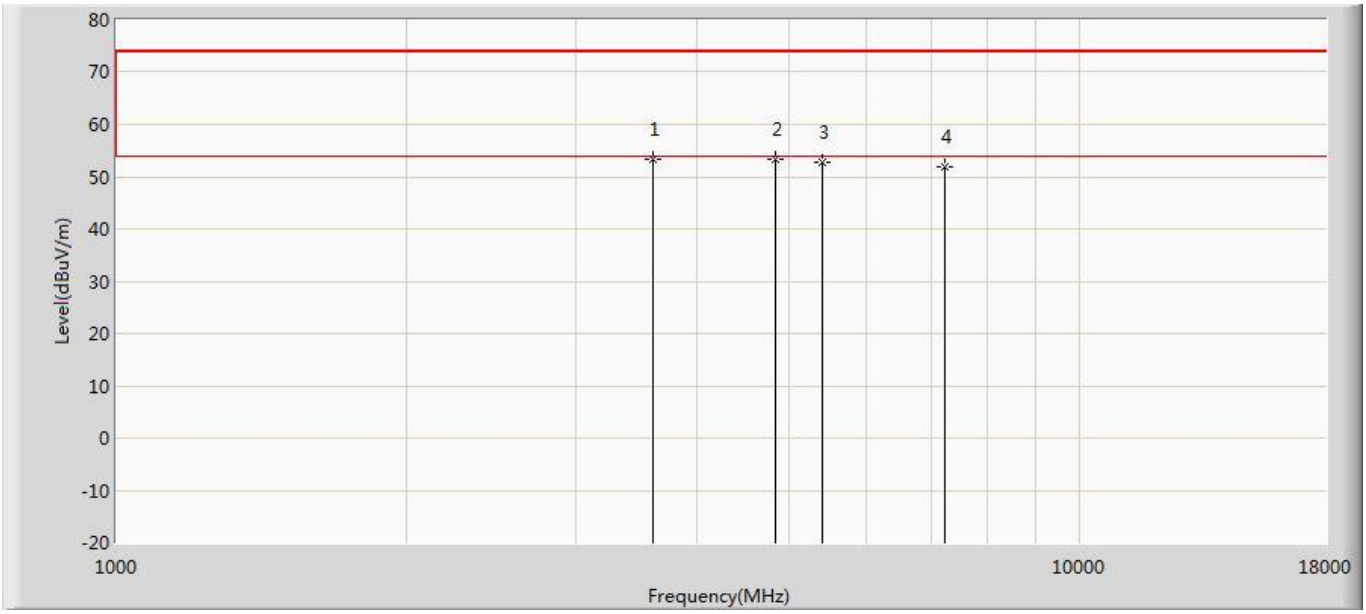
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4904.000	49.055	43.844	-24.945	74.000	5.211	PK
2	*	7356.000	50.679	41.197	-23.321	74.000	9.482	PK
3		9808.000	50.469	39.193	-23.531	74.000	11.276	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB 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. As the radiated emission was performed, so conducted emission was not tested.

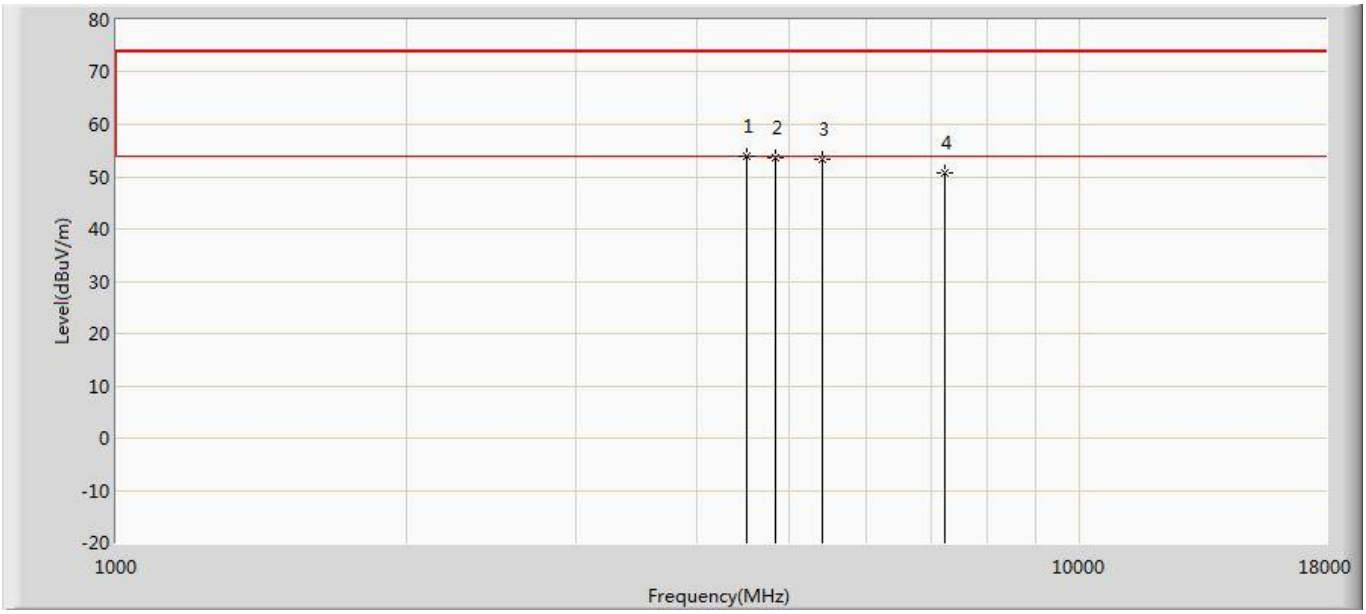
The worst case of simultaneously transmit

Profile: 18C2098R	Page No.: 7
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode: simultaneously transmit(WIFI+LoRa)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	3609.500	53.256	57.364	-20.744	74.000	-4.107	PK
2		4824.000	53.198	54.730	-20.802	74.000	-1.532	PK
3		5411.500	52.688	53.041	-21.312	74.000	-0.353	PK
4		7236.000	52.006	50.182	-21.994	74.000	1.824	PK

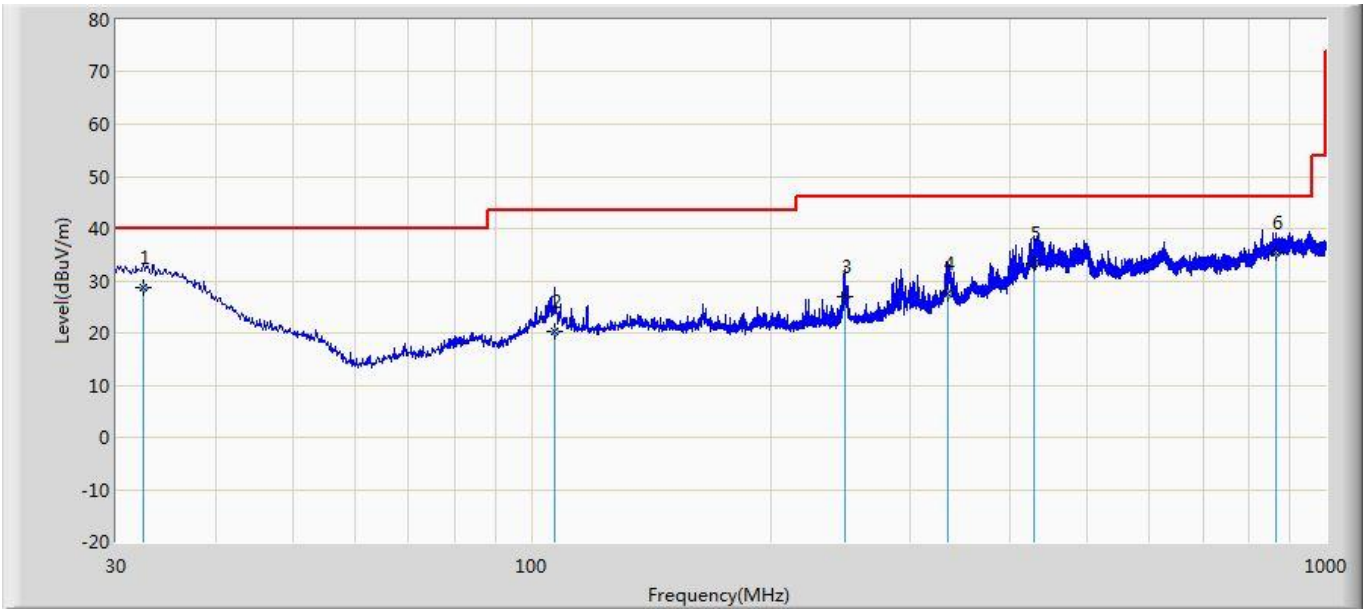
Profile: 18C2098R	Page No.: 8
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode: simultaneously transmit(WIFI+LoRa)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4510.130	53.886	55.714	-20.114	74.000	-1.828	PK
2		4824.000	53.698	55.230	-20.302	74.000	-1.532	PK
3		5411.500	53.326	53.679	-20.674	74.000	-0.353	PK
4		7236.000	50.656	48.832	-23.344	74.000	1.824	PK

The worst case of Radiated Emission below 1GHz:

Engineer: Leon	
Site: AC2	Time: 2018/12/21
Limit: FCC_Part15.209_RE(3m)_ClassB	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1	



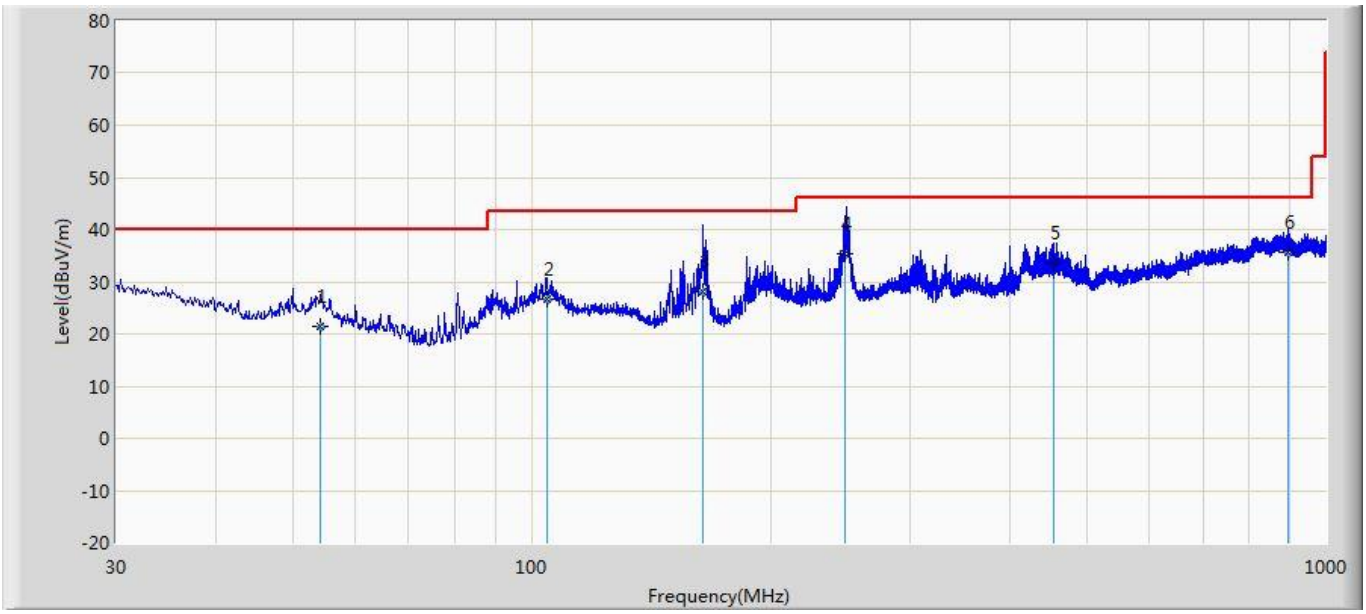
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		32.425	28.578	1.200	-11.422	40.000	20.733	6.645	0.000	300	208	QP
2		106.874	20.345	3.600	-23.155	43.500	9.824	6.921	0.000	400	138	QP
3		248.250	26.911	8.900	-19.089	46.000	10.450	7.561	0.000	200	0	QP
4		334.823	27.520	4.600	-18.480	46.000	15.185	7.735	0.000	100	324	QP
5		429.034	33.398	6.800	-12.602	46.000	18.622	7.975	0.000	300	316	QP
6	*	865.898	35.290	2.300	-10.710	46.000	23.822	9.168	0.000	300	151	QP

Note:

1. " * ", means this data is the worst emission level.

2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Leon	
Site: AC2	Time: 2018/12/21
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		54.250	21.468	3.600	-18.532	40.000	11.250	6.618	0.000	100	32	QP
2		104.569	26.692	4.300	-16.808	43.500	15.487	6.905	0.000	100	340	QP
3		164.466	28.216	8.600	-15.284	43.500	12.355	7.261	0.000	100	32	QP
4		248.405	35.333	10.900	-10.667	46.000	16.871	7.562	0.000	100	74	QP
5		455.224	33.569	7.500	-12.431	46.000	18.070	7.999	0.000	300	180	QP
6	*	895.846	35.538	1.900	-10.462	46.000	24.399	9.240	0.000	200	309	QP

Note:

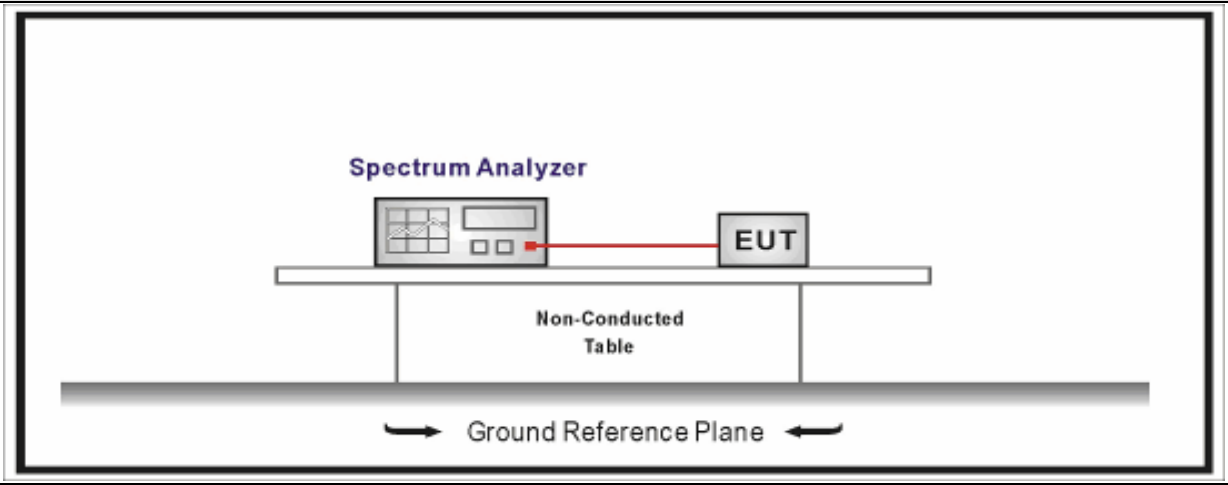
1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

5. Emissions in non-restricted frequency bands

5.1. Test Equipment

Emissions in non-restricted frequency bands / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2018.04.09	2019.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2018.04.09	2019.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2018.04.10	2019.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

5.2. Test Setup

Emissions in non-restricted frequency bands


5.3. Limit

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

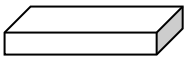
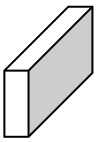
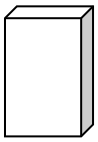
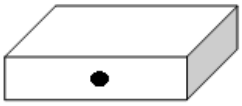
Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

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

5.4. Test Procedure

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

5.5. EUT test Axis definition

<table>
<tr><th>Item</th><th colspan="4">Emissions in non-restricted frequency bands</th></tr>
<tr><td rowspan="3">Device Category</td><td>☐</td><td colspan="3">Fixed point-to-point</td></tr>
<tr><td>☐</td><td colspan="3">Emit multiple directional beams, simultaneously or sequentially</td></tr>
<tr><td>☒</td><td colspan="3">Other cases</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1 ~ 4</td></tr>
<tr><td rowspan="11">Test method</td><td>☐</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Worst Axis ☐</td><td>Worst Axis ☐</td><td>Worst Axis ☐</td></tr>
<tr><td>☒</td><td colspan="3">Conducted</td></tr>
<tr><td>☒</td><td colspan="3">Chain 1</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
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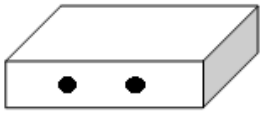
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
</table>

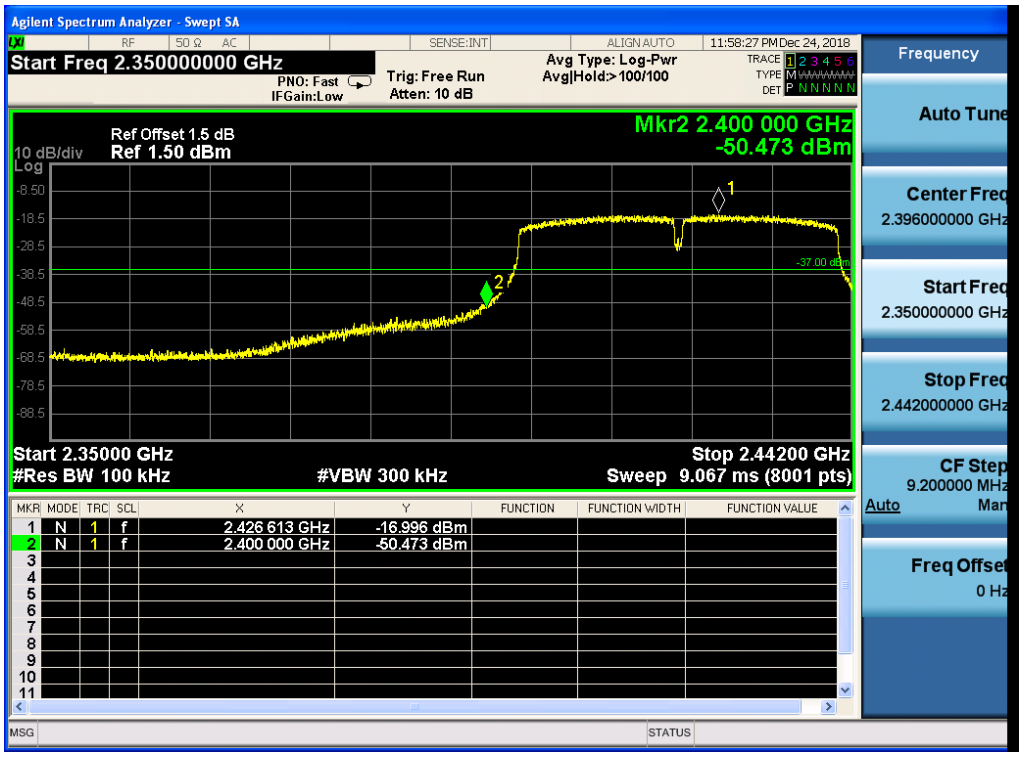
5.6. Test Result

Product Name	:	Ring Bridge	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~4	Test Site	:	TR8
Test Date	:	2018.12.24	Test Engineer	:	Damon

Mode	Channel	Test Frequency (MHz)	Maximum In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	01	2412	-10.664	2400	-64.775	54.111	>20	Pass
1	11	2462	-3.960	2500	-62.279	58.319	>20	Pass
2	01	2412	-11.827	2400	-46.361	34.534	>20	Pass
2	11	2462	-3.920	2500	-59.510	55.59	>20	Pass
3	01	2412	-13.705	2400	-47.425	33.72	>20	Pass
3	11	2462	-8.008	2500	-60.415	52.407	>20	Pass
4	03	2422	-16.996	2400	-50.473	33.477	>20	Pass
4	09	2452	-14.336	2500	-63.685	49.349	>20	Pass

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

Mode 4 CH03(2422MHz)

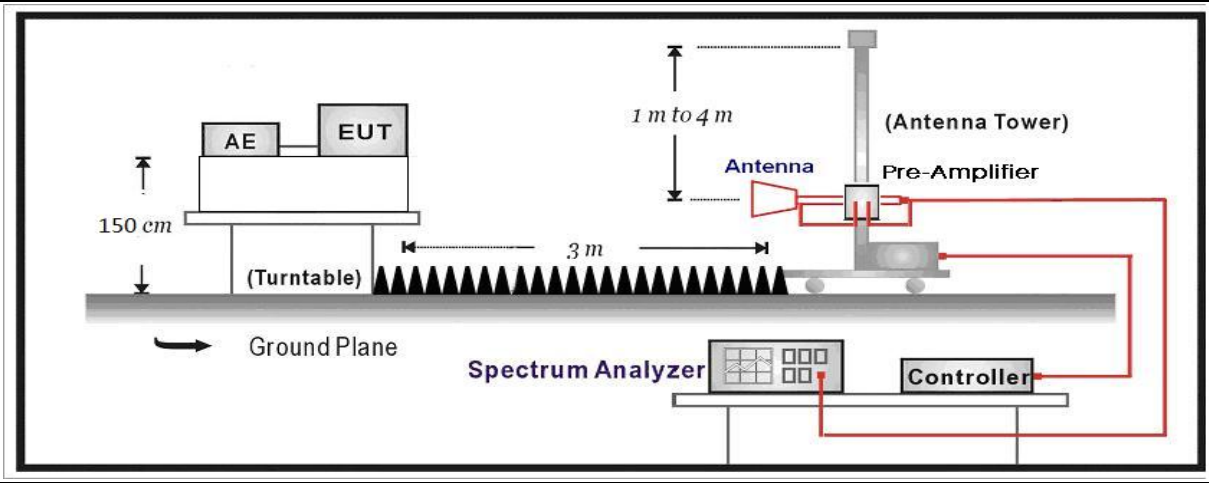


6. Radiated Emission Band Edge

6.1. Test Equipment

Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2019.01.02	2020.01.01
Preamplifier	Miteq	NSP1800-25	1364185	2018.05.06	2019.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2018.05.06	2019.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2018.01.22	2019.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2018.11.25	2019.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2018.03.02	2019.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2018.06.10	2019.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.01.02	2020.01.01
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

6.2. Test Setup

Radiated Emission Band Edge


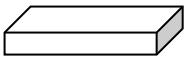
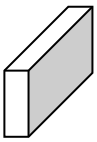
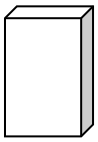
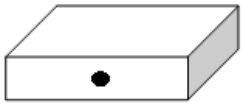
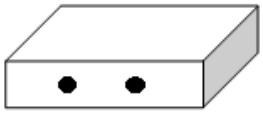
6.3. Limit

Band edge Limit				
Frequency bands (MHz)	Detector	Limit (dBμV/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3
Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.				

6.4. Test Procedure

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

6.5. EUT test definition

<table>
<tr><th>Item</th><th colspan="4">Conducted Band Edge</th></tr>
<tr><td rowspan="3">Device Category</td><td>☐</td><td colspan="3">Fixed point-to-point</td></tr>
<tr><td>☐</td><td colspan="3">Emit multiple directional beams, simultaneously or sequentially</td></tr>
<tr><td>☒</td><td colspan="3">Other cases</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1~4</td></tr>
<tr><td rowspan="13">Test method</td><td>☒</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Worst Axis ☒</td><td>Worst Axis ☐</td><td>Worst Axis ☐</td></tr>
<tr><td>☐</td><td colspan="3">Conducted</td></tr>
<tr><td>☐</td><td colspan="3">Chain 1</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td colspan="2">Chain 2</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
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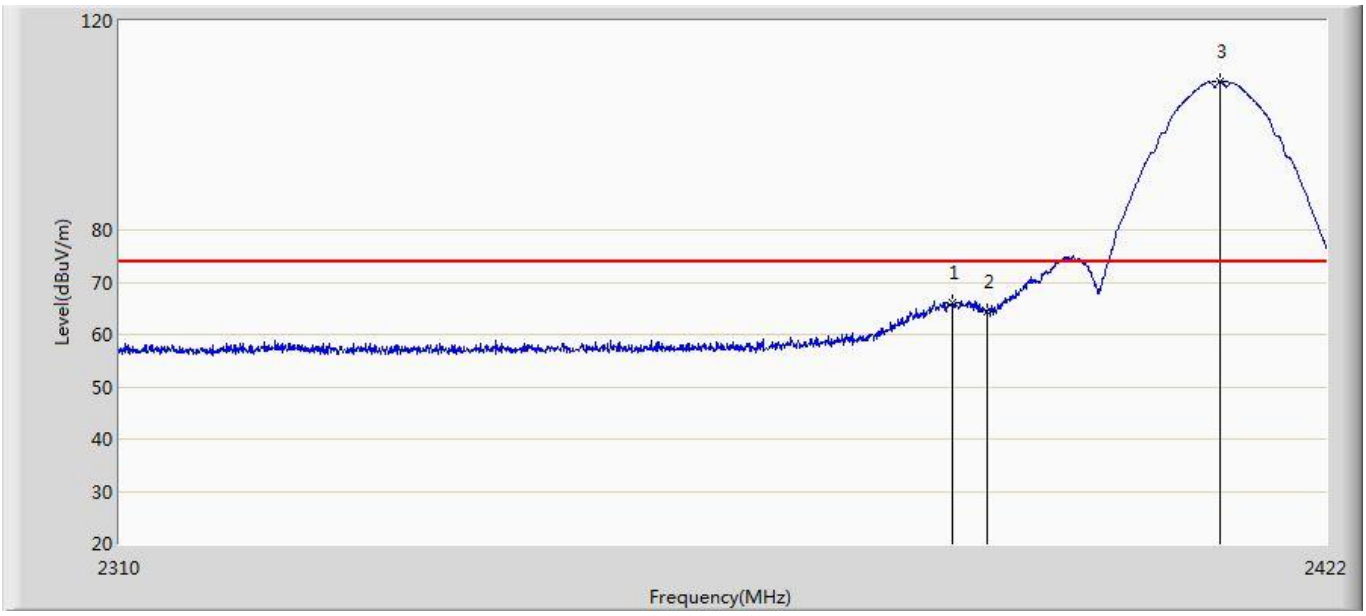
6.6. Duty Cycle

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

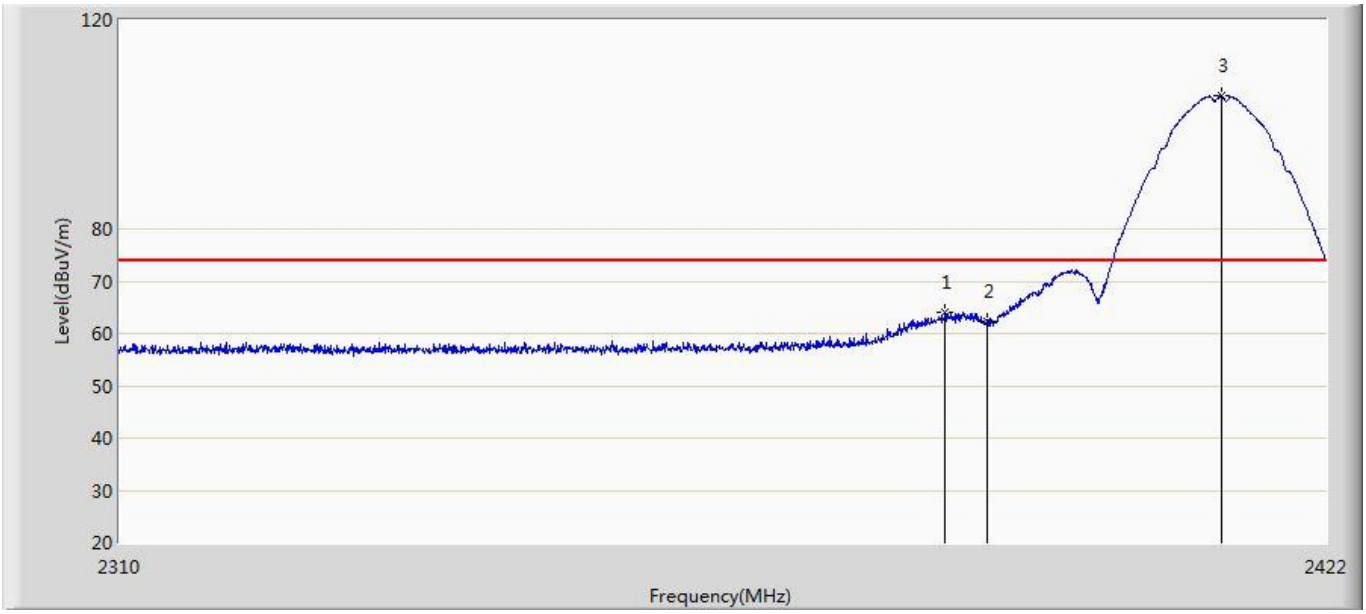
6.7. Test Result

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 18:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2412MHz by 802.11b	



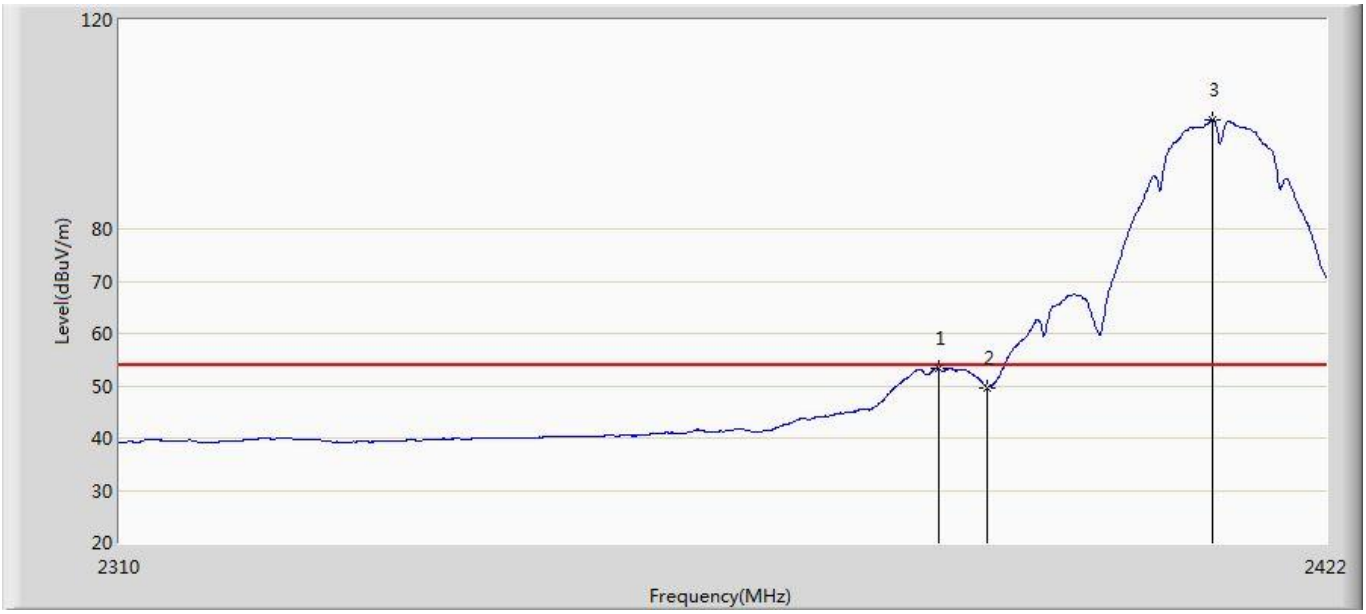
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.776	66.228	30.553	-7.772	74.000	35.675	PK
2		2390.000	64.395	28.713	-9.605	74.000	35.682	PK
3	*	2411.920	108.426	72.685	34.426	74.000	35.741	PK

Profile: 18C2098R	Page No.: 2
Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 18:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2412MHz by 802.11b	



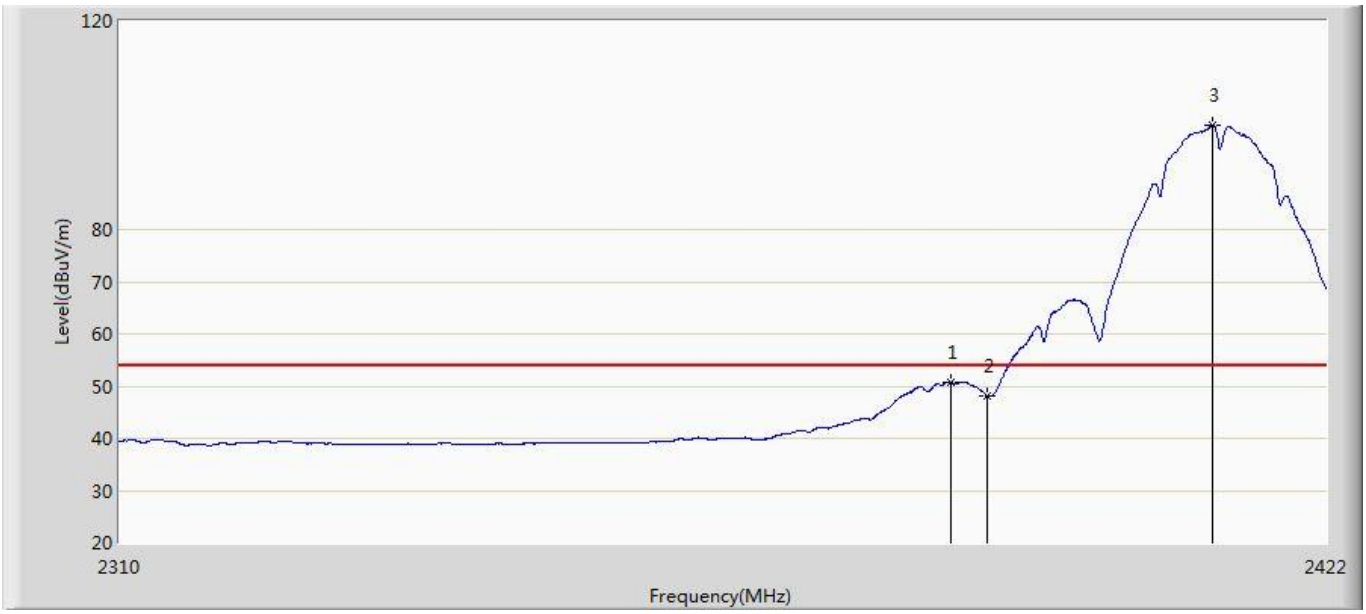
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.104	63.996	28.323	-10.004	74.000	35.673	PK
2		2390.000	62.441	26.759	-11.559	74.000	35.682	PK
3	*	2412.088	105.454	69.712	31.454	74.000	35.741	PK

Profile: 18C2098R	Page No.: 3
Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 18:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2412MHz by 802.11b	



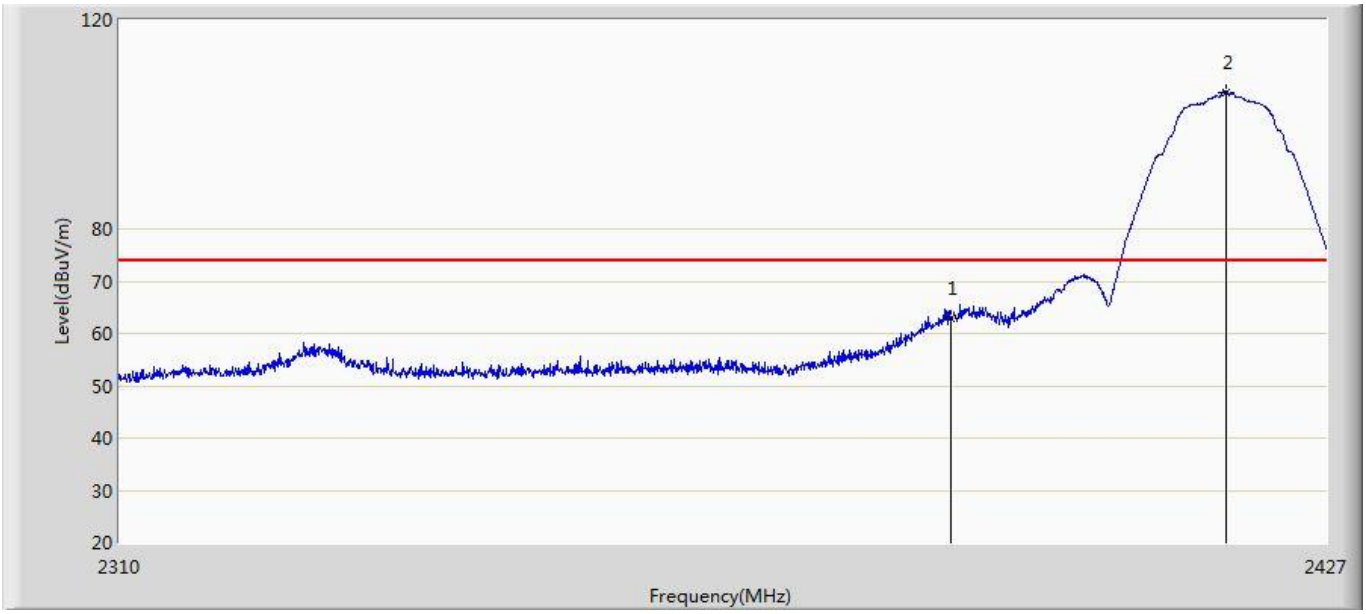
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2385.432	53.219	17.547	-0.781	54.000	35.671	AV
2		2390.000	49.701	14.019	-4.299	54.000	35.682	AV
3	*	2411.192	101.000	65.262	47.000	54.000	35.738	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 18:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2412MHz by 802.11b	



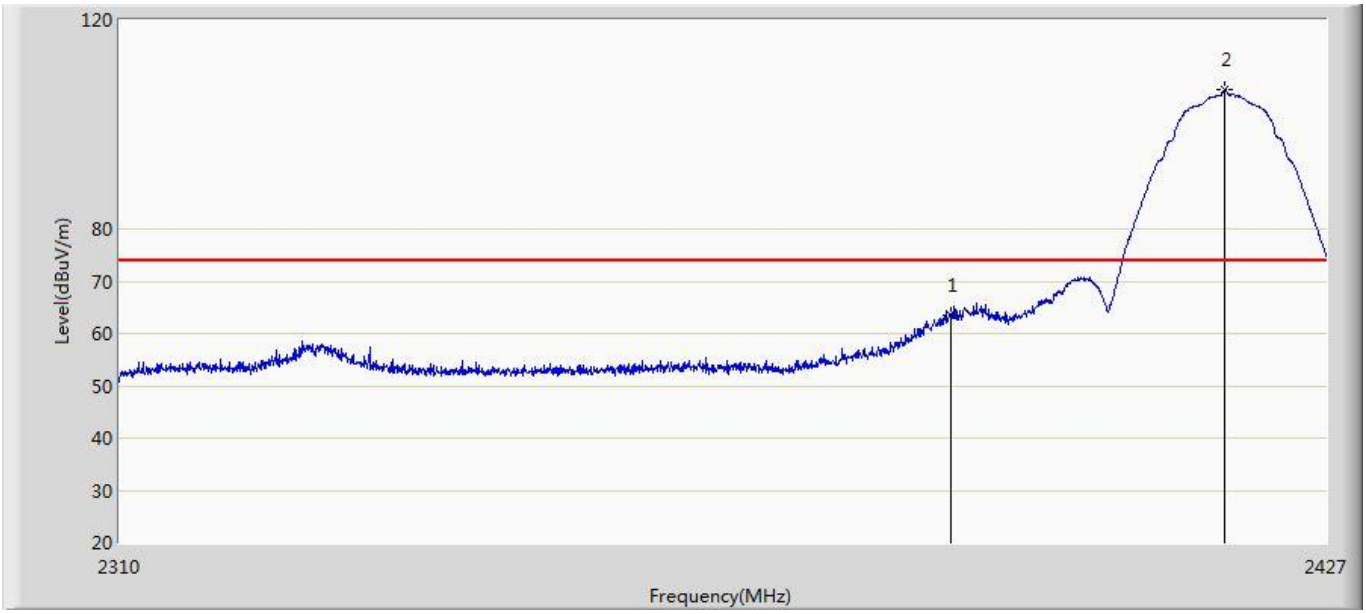
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.664	50.705	15.031	-3.295	54.000	35.674	AV
2		2390.000	48.140	12.458	-5.860	54.000	35.682	AV
3	*	2411.192	100.139	64.401	46.139	54.000	35.738	AV

Profile: 18C2098R	Page No.: 2
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2417MHz by 802.11B	



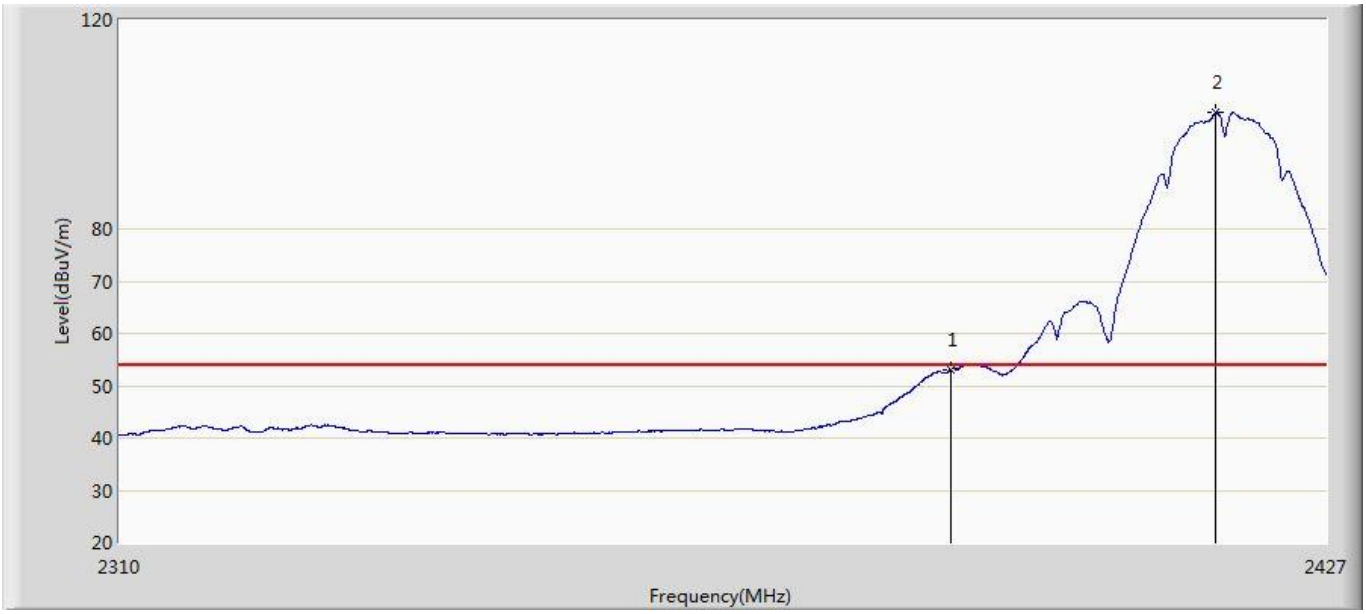
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	62.955	27.273	-11.045	74.000	35.682	PK
2	*	2417.114	106.221	70.458	32.221	74.000	35.763	PK

Profile: 18C2098R	Page No.: 4
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2417MHz by 802.11B	



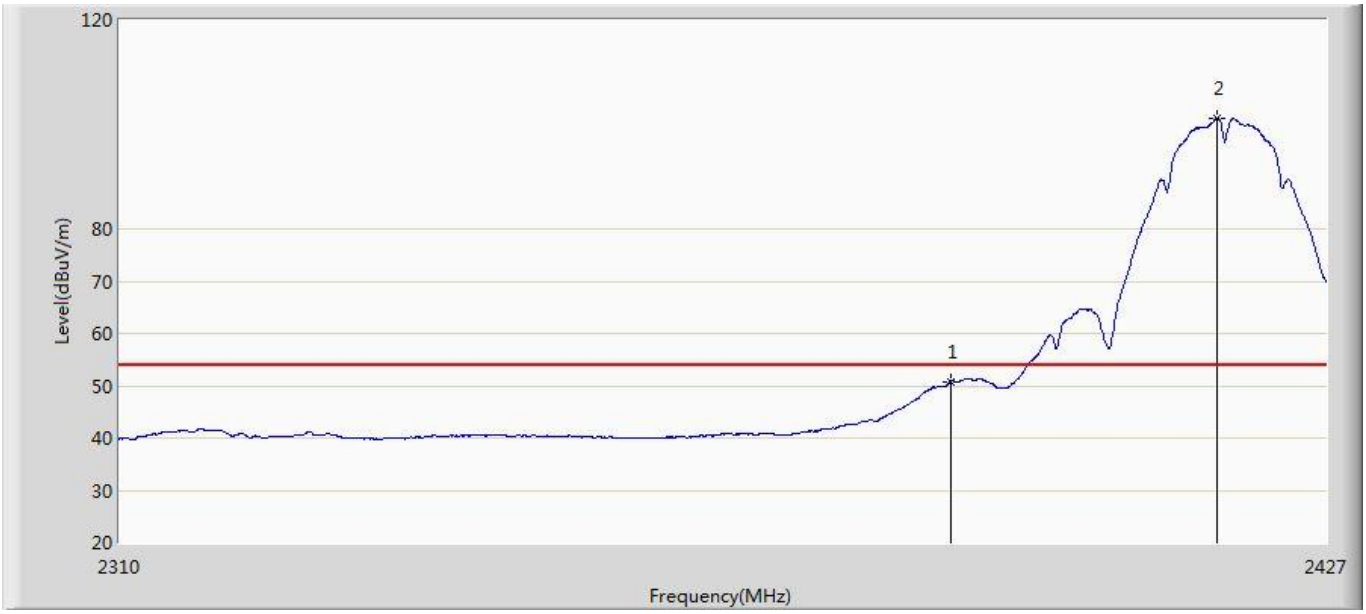
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	63.535	27.853	-10.465	74.000	35.682	PK
2	*	2416.997	106.612	70.850	32.612	74.000	35.762	PK

Profile: 18C2098R	Page No.: 3
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2417MHz by 802.11B	



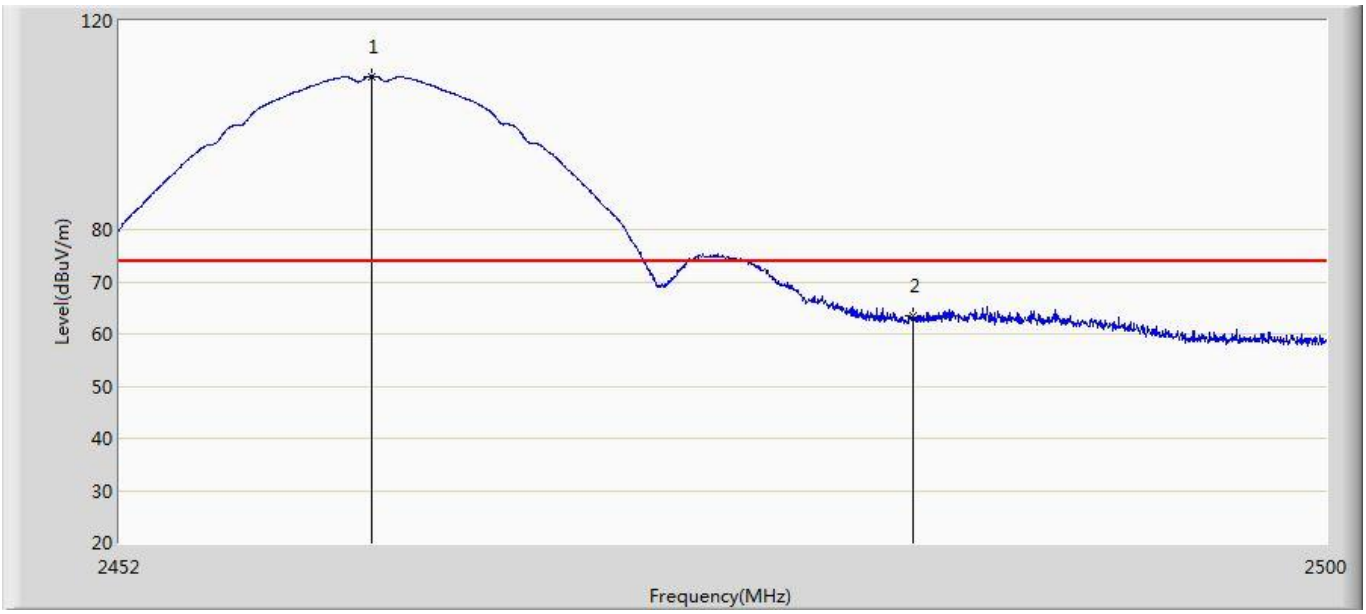
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.096	17.414	-0.904	54.000	35.682	AV
2	*	2416.061	102.186	66.428	48.186	54.000	35.758	AV

Profile: 18C2098R	Page No.: 1
Engineer: Tommie	
Site: AC5	Time: 2019/01/04 - 22:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2417MHz by 802.11B	



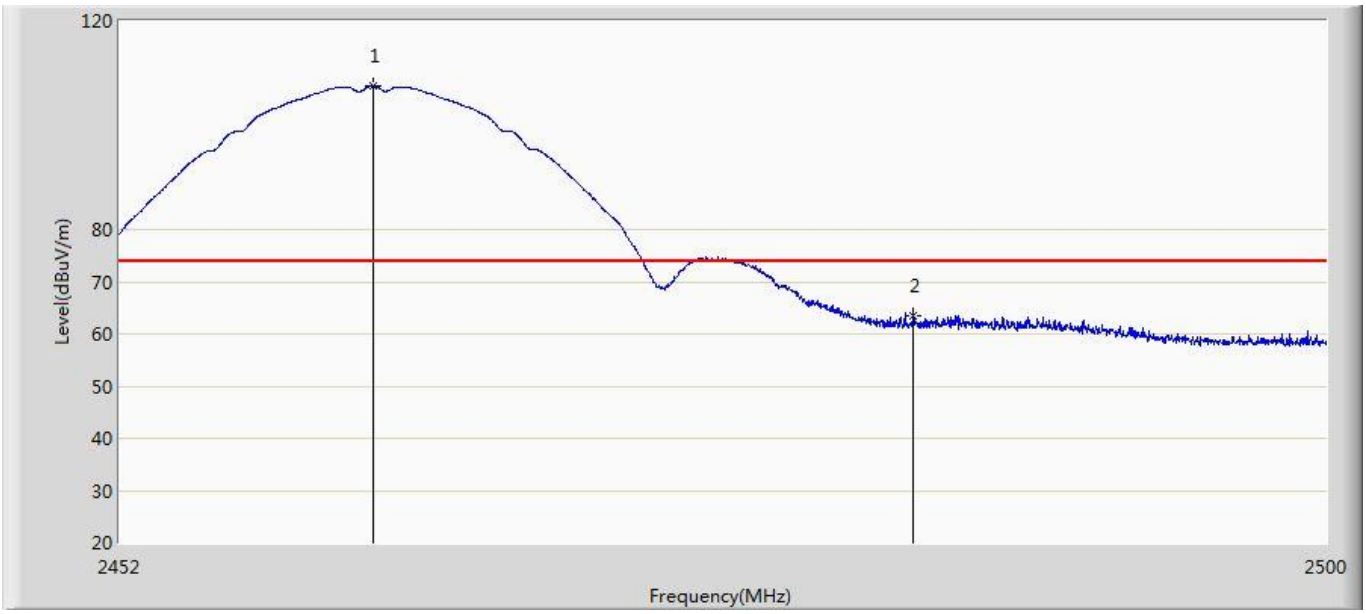
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.722	15.040	-3.278	54.000	35.682	AV
2	*	2416.177	101.216	65.457	47.216	54.000	35.759	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 19:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2462MHz by 802.11b	



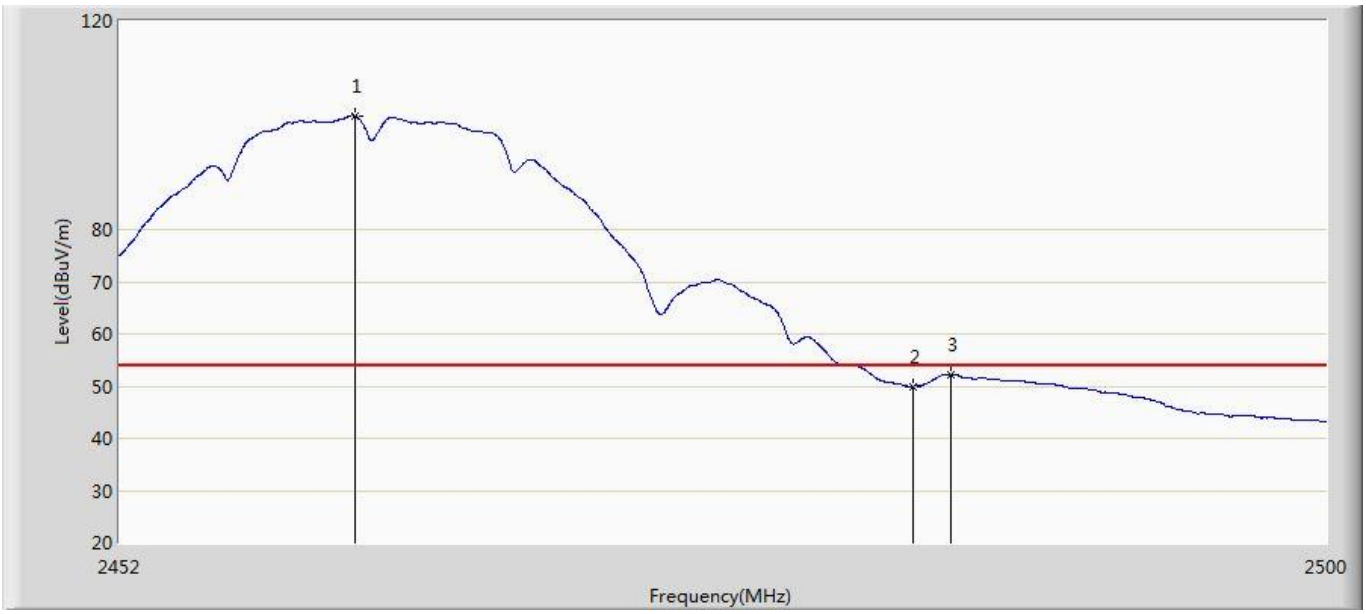
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.960	109.410	73.532	35.410	74.000	35.878	PK
2		2483.500	63.339	27.447	-10.661	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2462MHz by 802.11b	



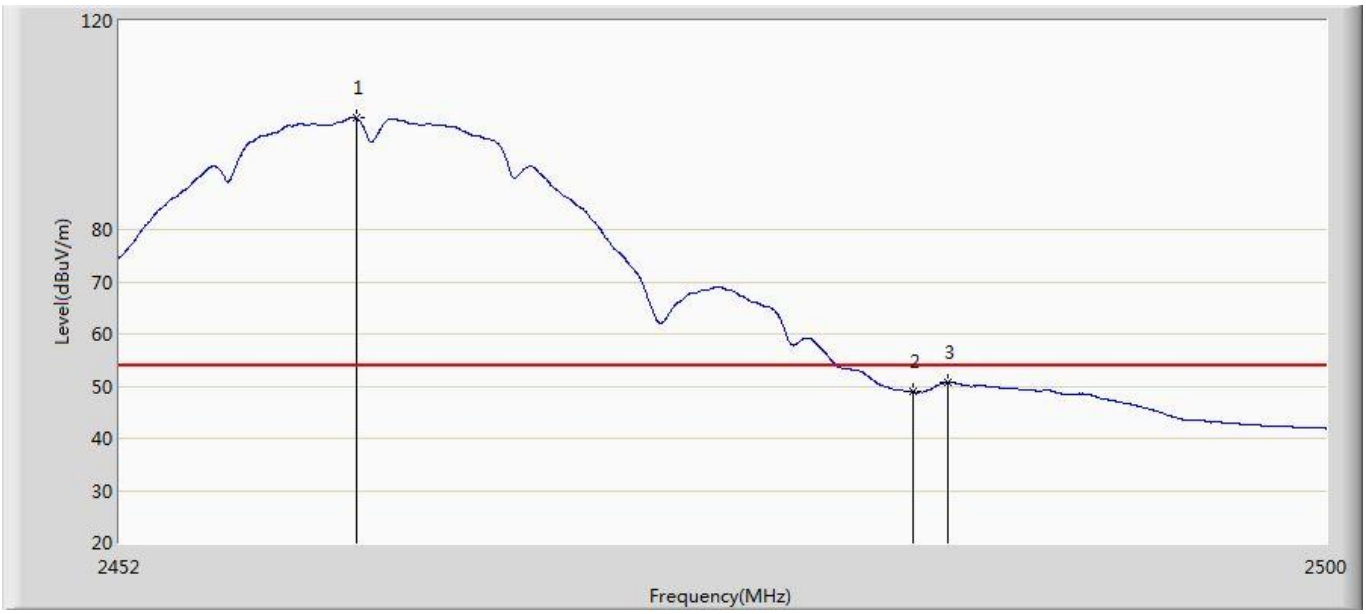
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.032	107.478	71.600	33.478	74.000	35.878	PK
2		2483.500	63.365	27.473	-10.635	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2462MHz by 802.11b	



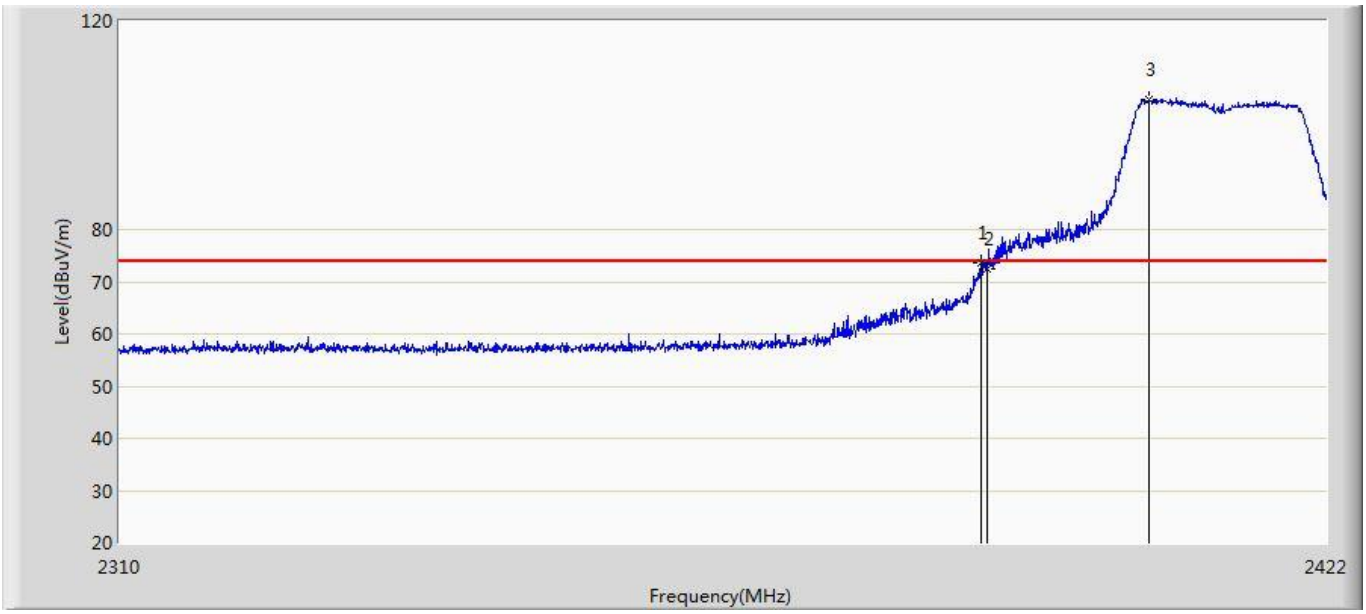
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.288	101.856	65.981	47.856	54.000	35.875	AV
2		2483.500	49.999	14.107	-4.001	54.000	35.891	AV
3		2485.000	52.299	16.397	-1.701	54.000	35.902	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode1:Transimit at 2462MHz by 802.11b	



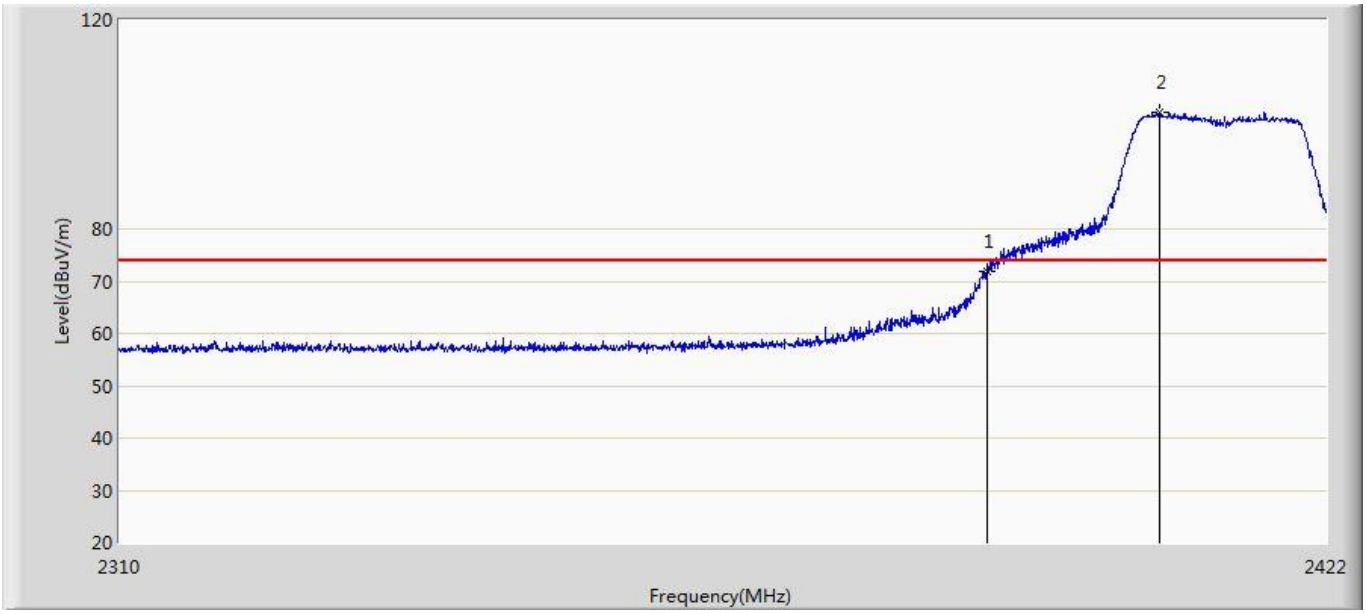
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.360	101.314	65.439	47.314	54.000	35.875	AV
2		2483.500	48.850	12.958	-5.150	54.000	35.891	AV
3		2484.856	50.721	14.820	-3.279	54.000	35.902	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2412MHz by 802.11g	



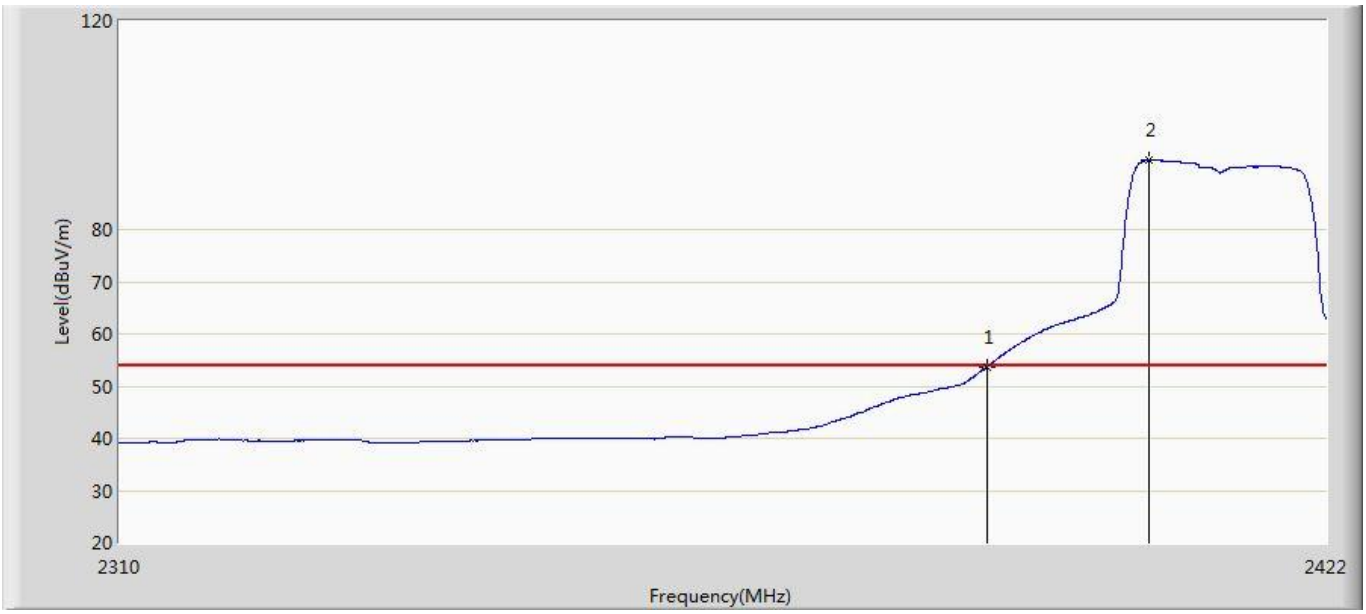
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2389.464	73.606	37.925	-0.394	74.000	35.680	PK
2		2390.000	72.535	36.853	-1.465	74.000	35.682	PK
3	*	2405.256	104.966	69.244	30.966	74.000	35.721	PK

Profile: 18C2098R	Page No.: 10
Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2412MHz by 802.11g	



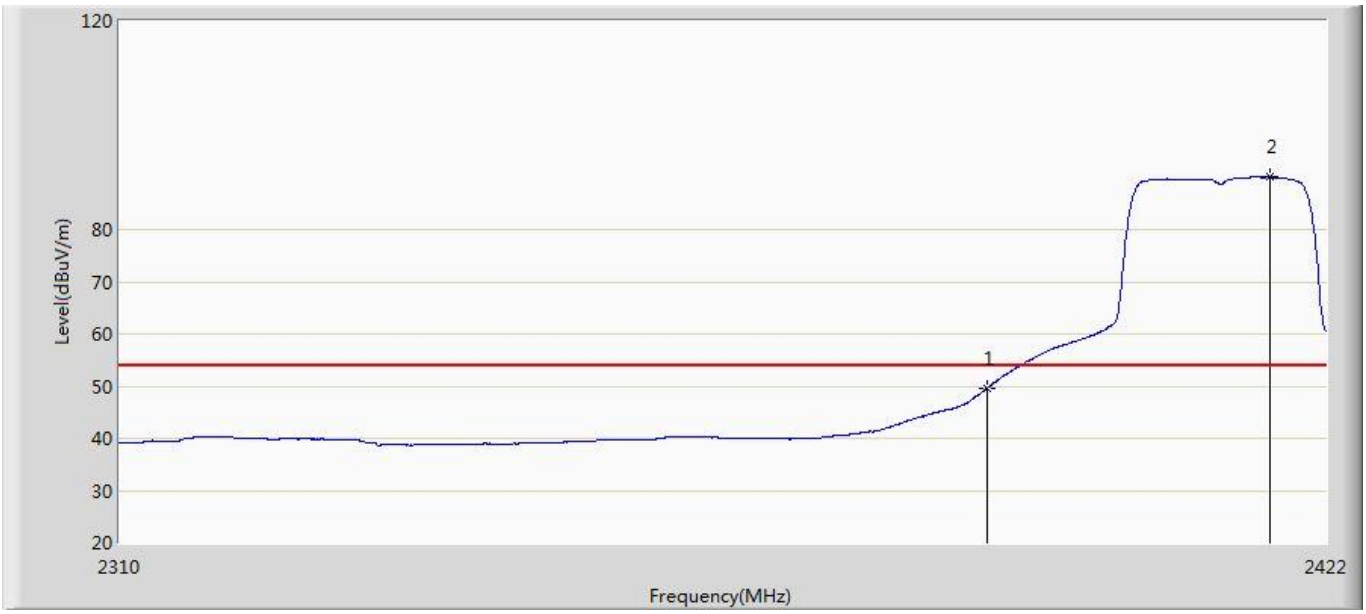
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	72.017	36.335	-1.983	74.000	35.682	PK
2	*	2406.208	102.265	66.541	28.265	74.000	35.724	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2412MHz by 802.11g	



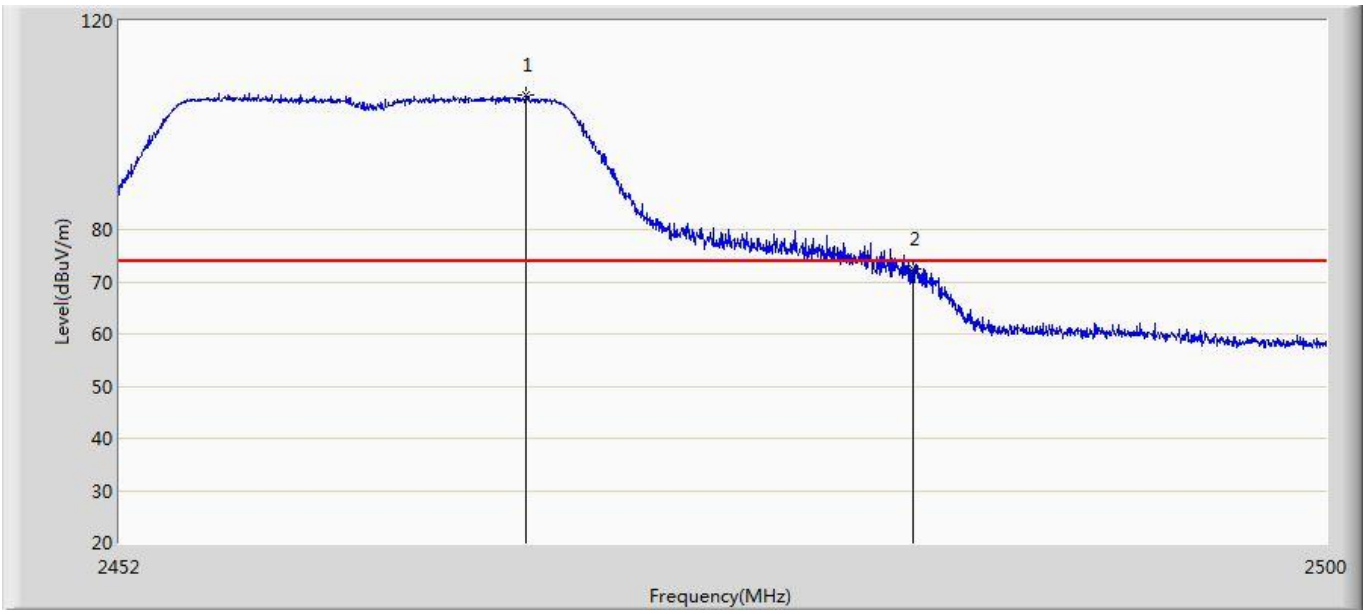
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.673	17.991	-0.327	54.000	35.682	AV
2	*	2405.312	93.236	57.514	39.236	54.000	35.721	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2412MHz by 802.11g	



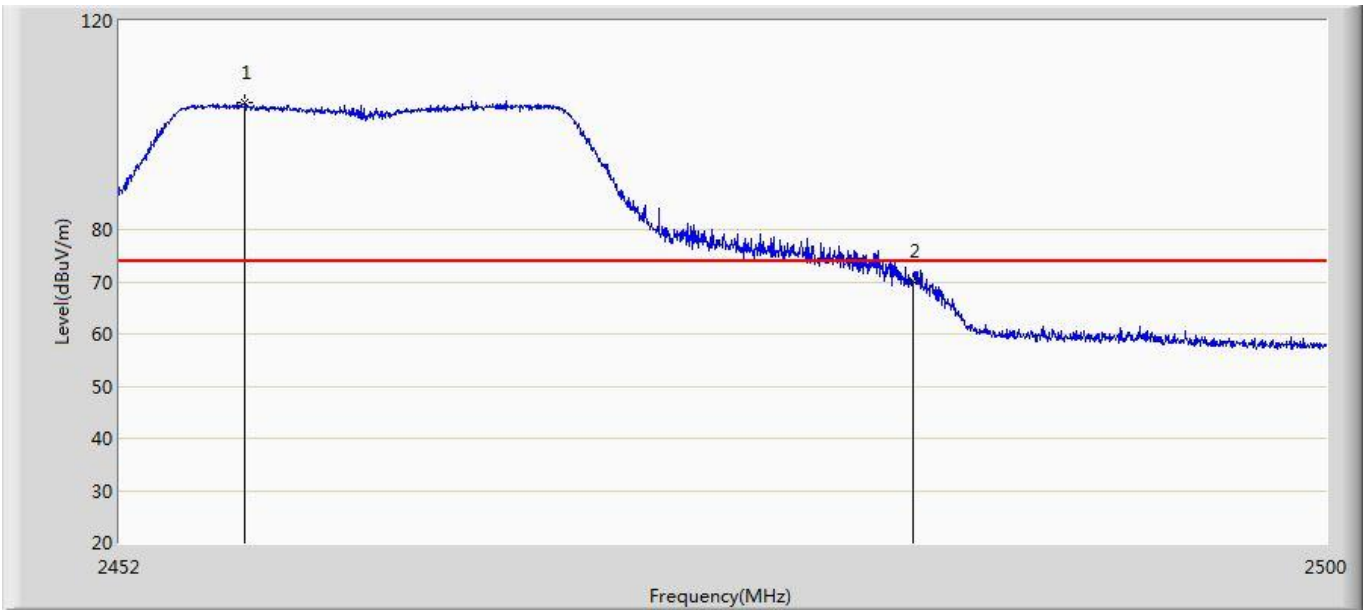
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.566	13.884	-4.434	54.000	35.682	AV
2	*	2416.736	90.044	54.283	36.044	54.000	35.761	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2462MHz by 802.11g	



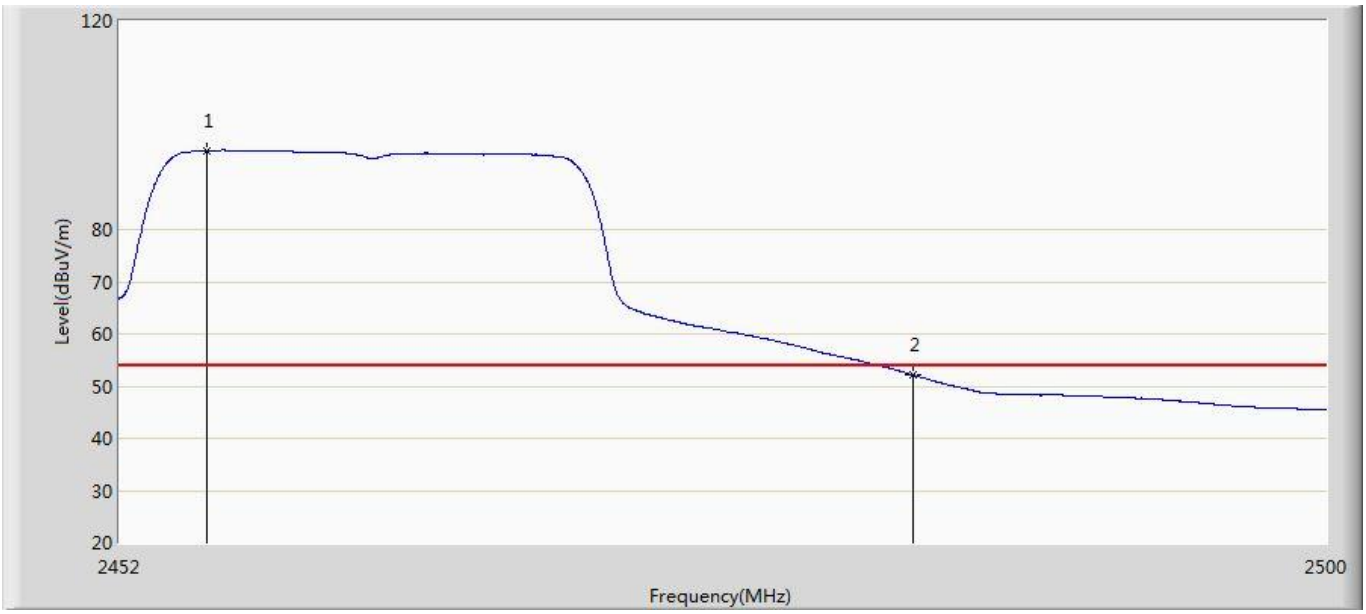
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.056	105.896	70.025	31.896	74.000	35.871	PK
2		2483.500	72.447	36.555	-1.553	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2462MHz by 802.11g	



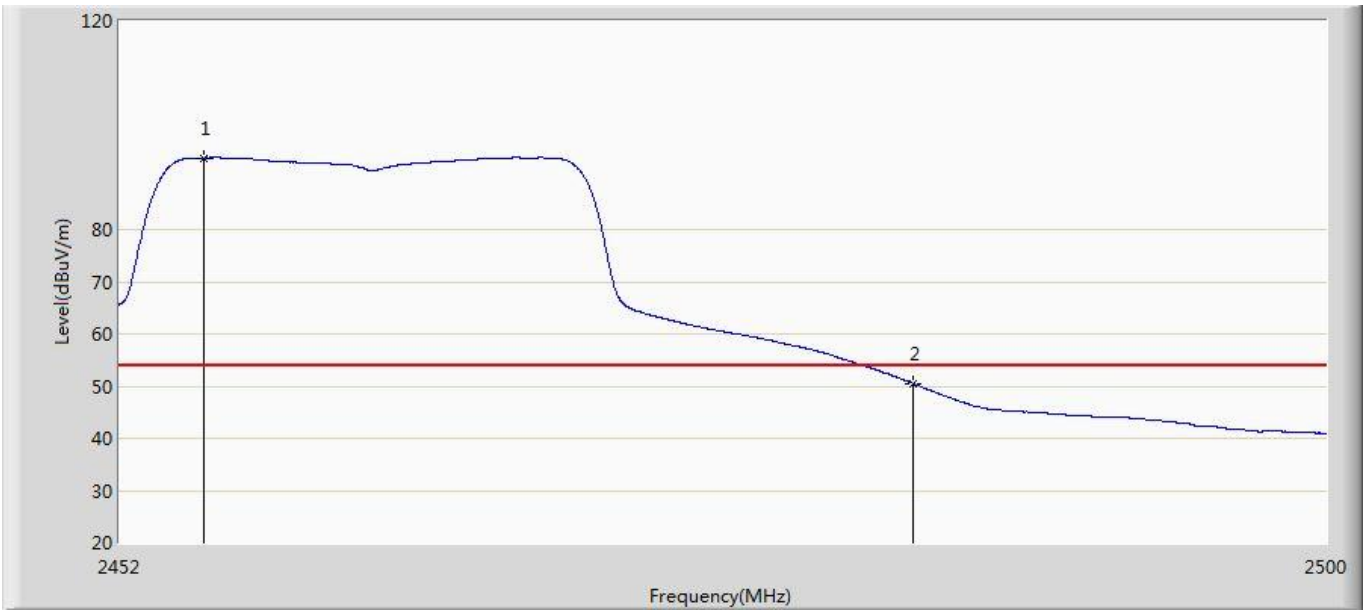
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.944	104.476	68.620	30.476	74.000	35.856	PK
2		2483.500	70.227	34.335	-3.773	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2462MHz by 802.11g	



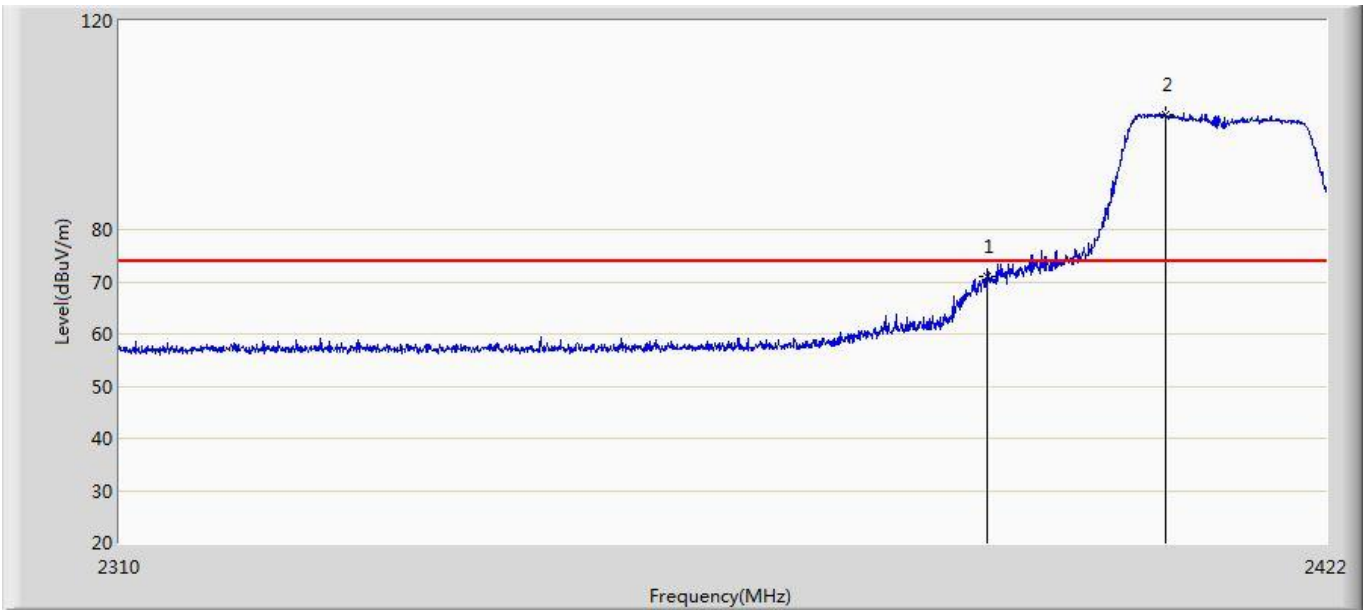
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2455.480	95.143	59.293	41.143	54.000	35.849	AV
2		2483.500	52.047	16.155	-1.953	54.000	35.891	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 20:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode2:Transimit at 2462MHz by 802.11g	



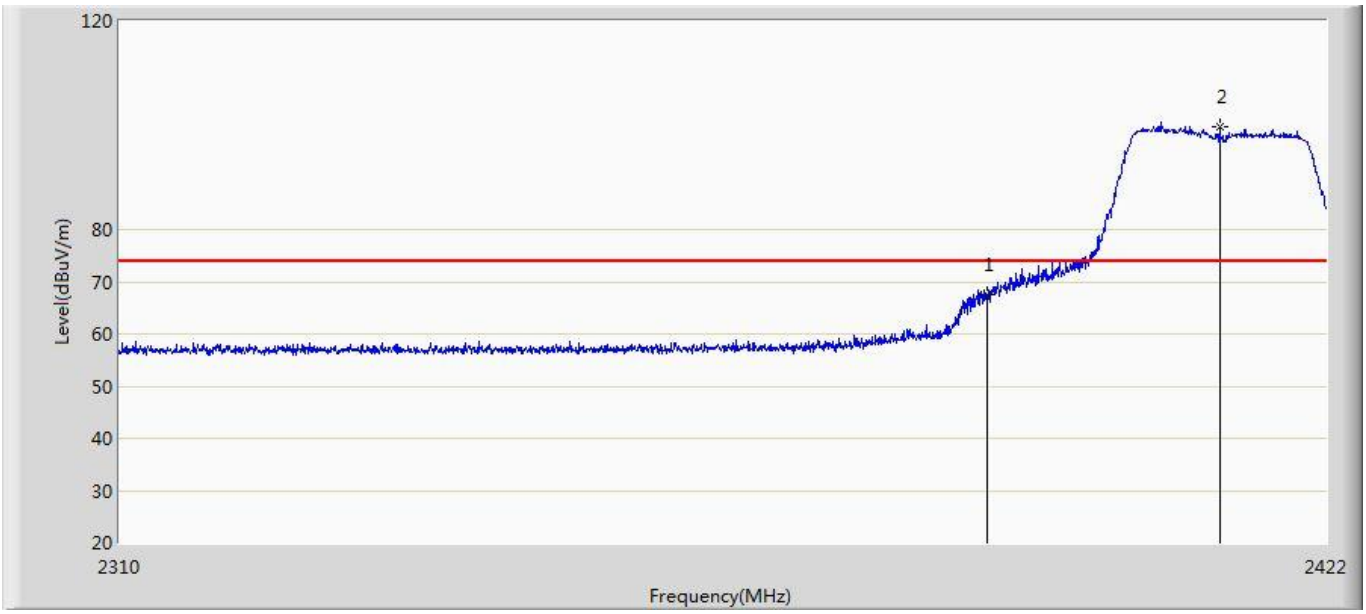
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2455.312	93.761	57.912	39.761	54.000	35.849	AV
2		2483.500	50.495	14.603	-3.505	54.000	35.891	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2412MHz by 802.11n20	



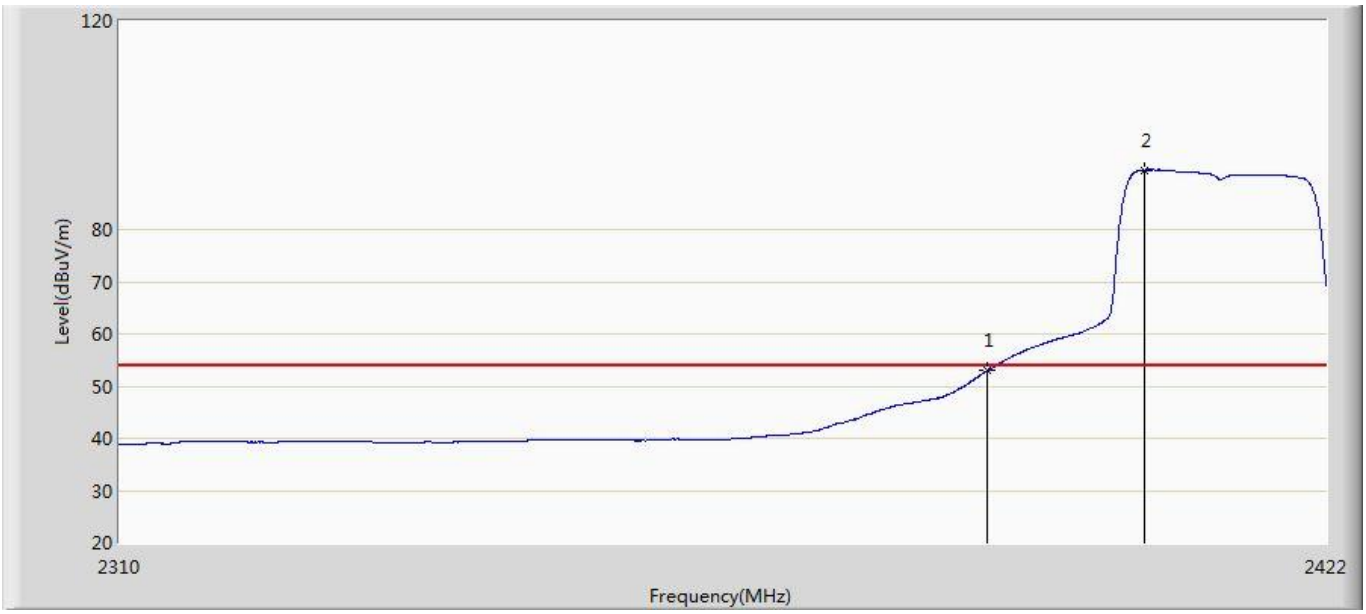
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	70.940	35.258	-3.060	74.000	35.682	PK
2	*	2406.768	102.166	66.440	28.166	74.000	35.726	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2412MHz by 802.11n20	



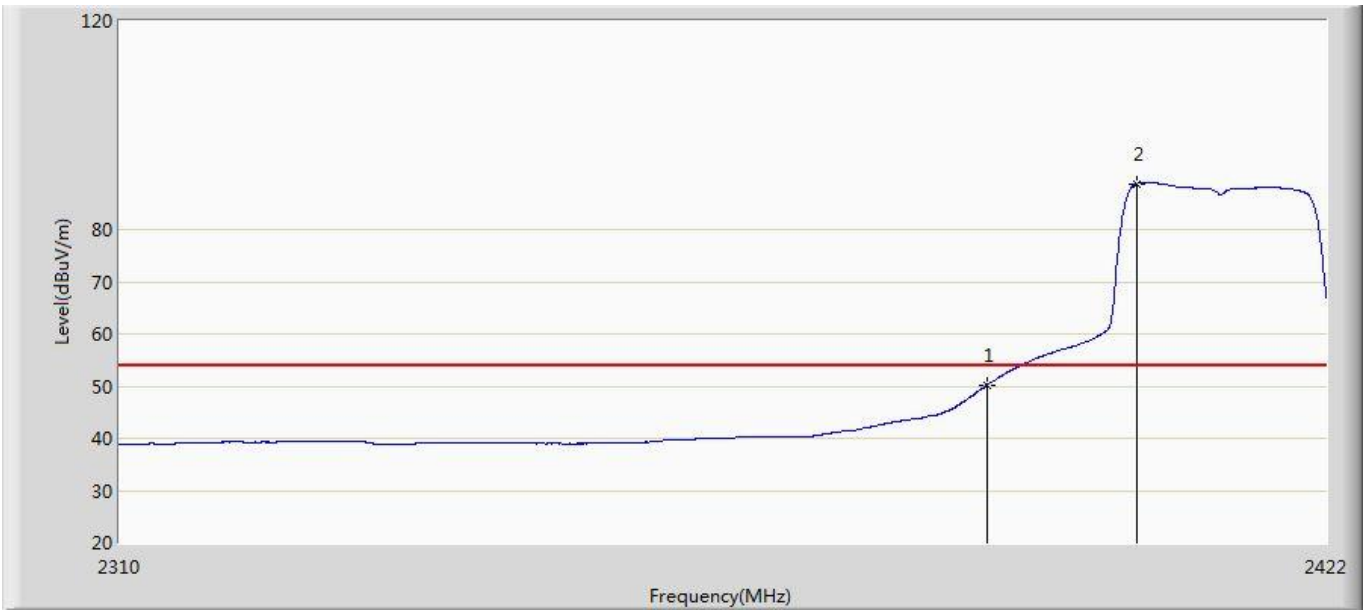
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	67.437	31.755	-6.563	74.000	35.682	PK
2	*	2411.920	99.711	63.970	25.711	74.000	35.741	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2412MHz by 802.11n20	



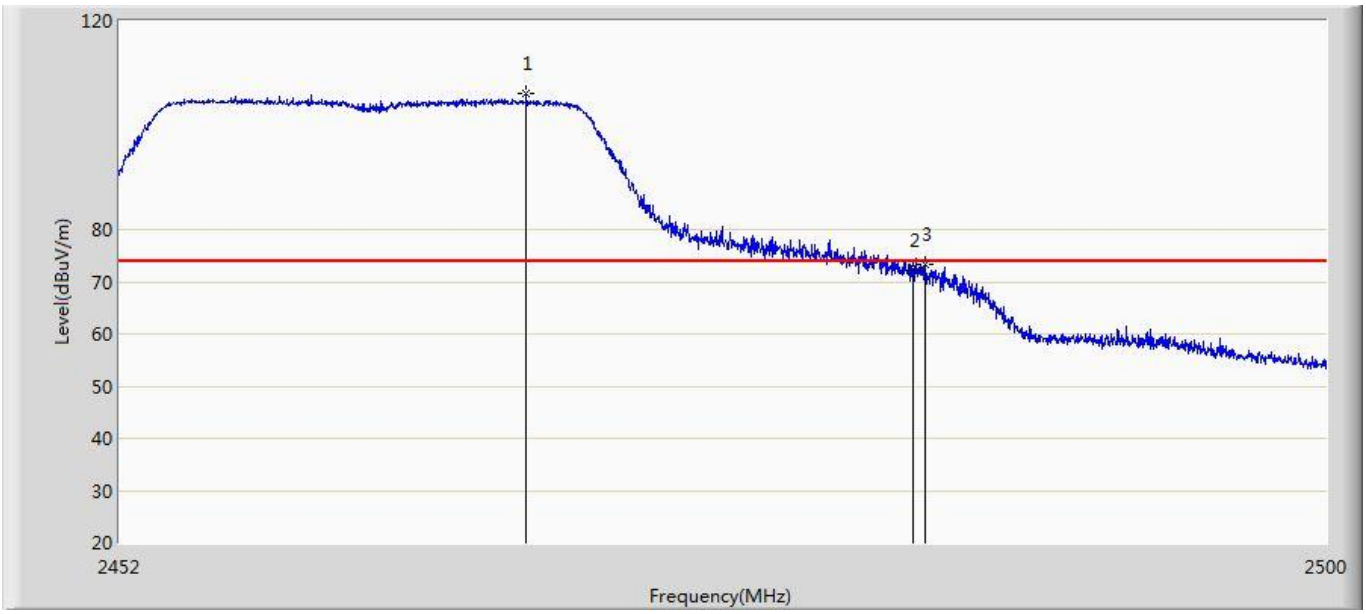
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.928	17.246	-1.072	54.000	35.682	AV
2	*	2404.752	91.341	55.621	37.341	54.000	35.721	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2412MHz by 802.11n20	



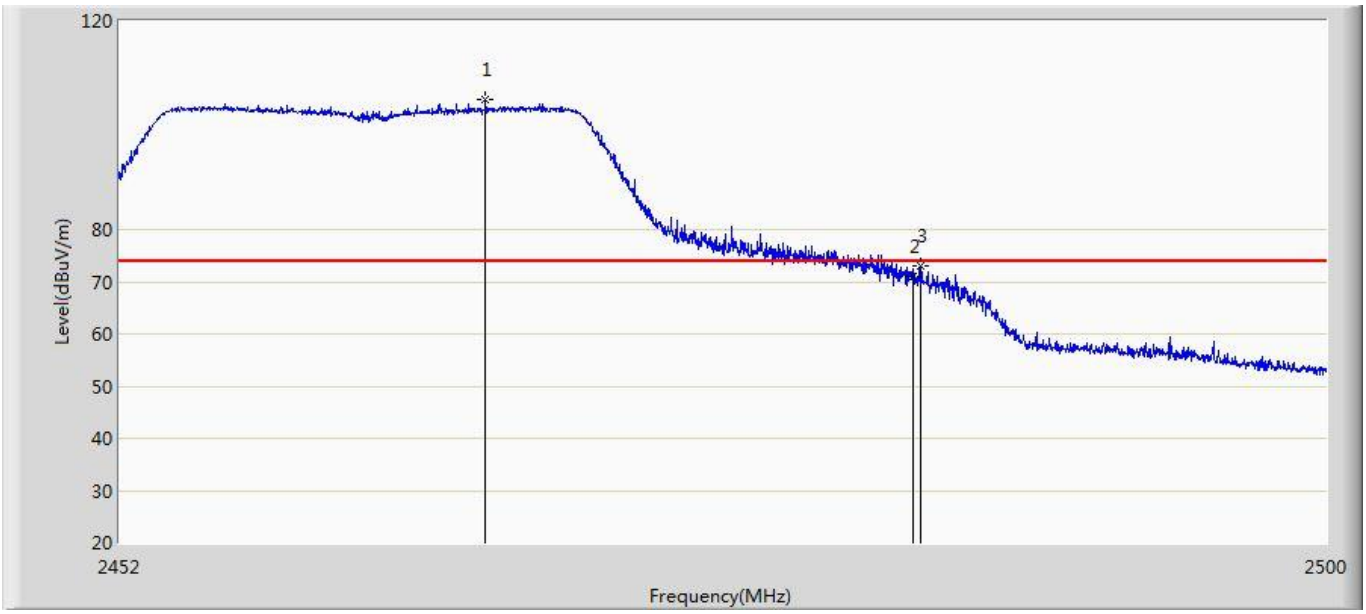
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.223	14.541	-3.777	54.000	35.682	AV
2	*	2404.080	88.788	53.070	34.788	54.000	35.718	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2462MHz by 802.11n20	



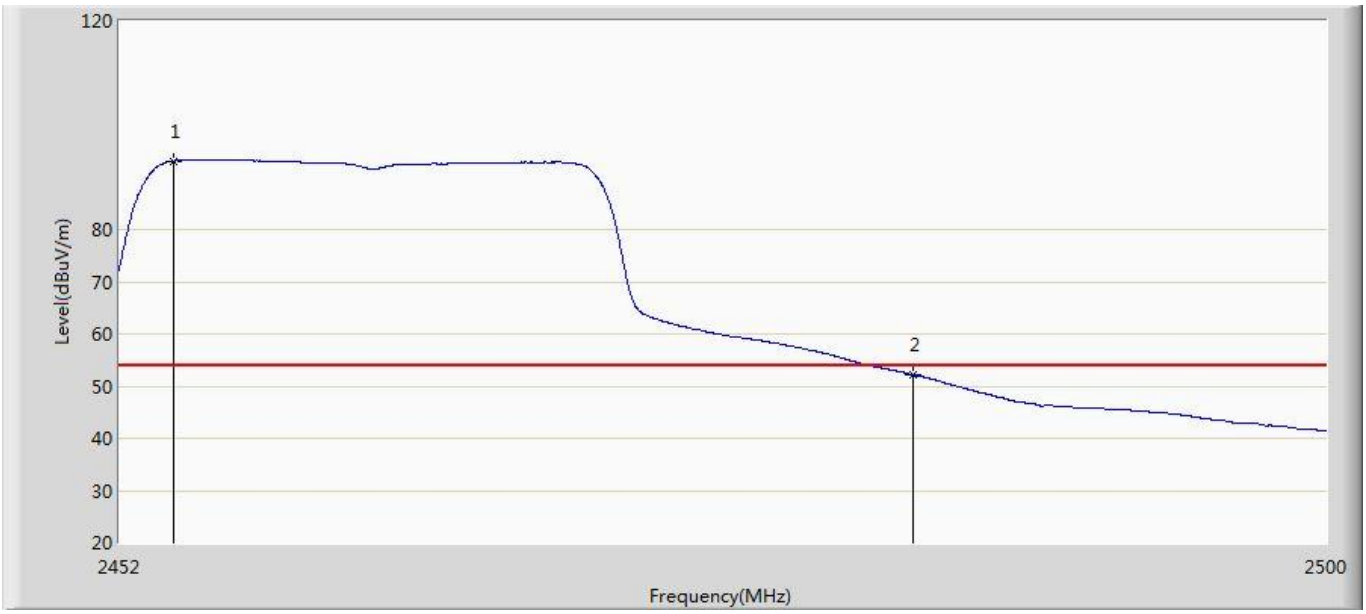
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.080	106.056	70.185	32.056	74.000	35.872	PK
2		2483.500	72.178	36.286	-1.822	74.000	35.891	PK
3		2483.968	73.400	37.505	-0.600	74.000	35.895	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2462MHz by 802.11n20	



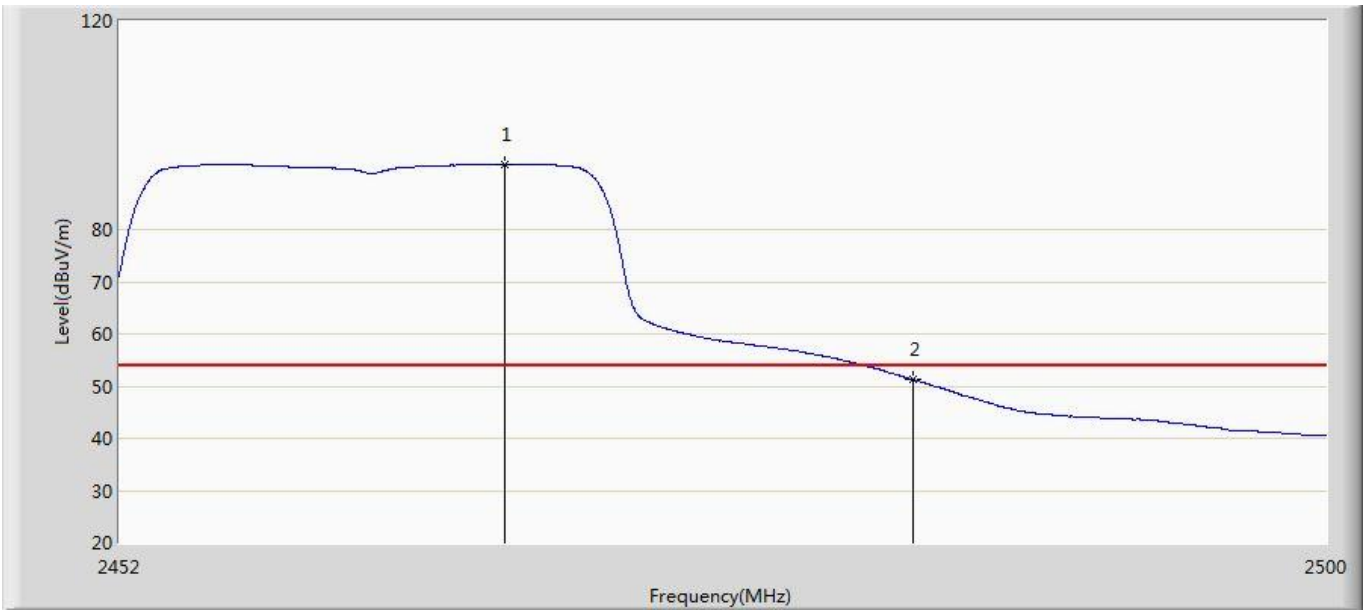
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.472	104.842	68.969	30.842	74.000	35.874	PK
2		2483.500	70.897	35.005	-3.103	74.000	35.891	PK
3		2483.800	73.091	37.197	-0.909	74.000	35.894	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2462MHz by 802.11n20	



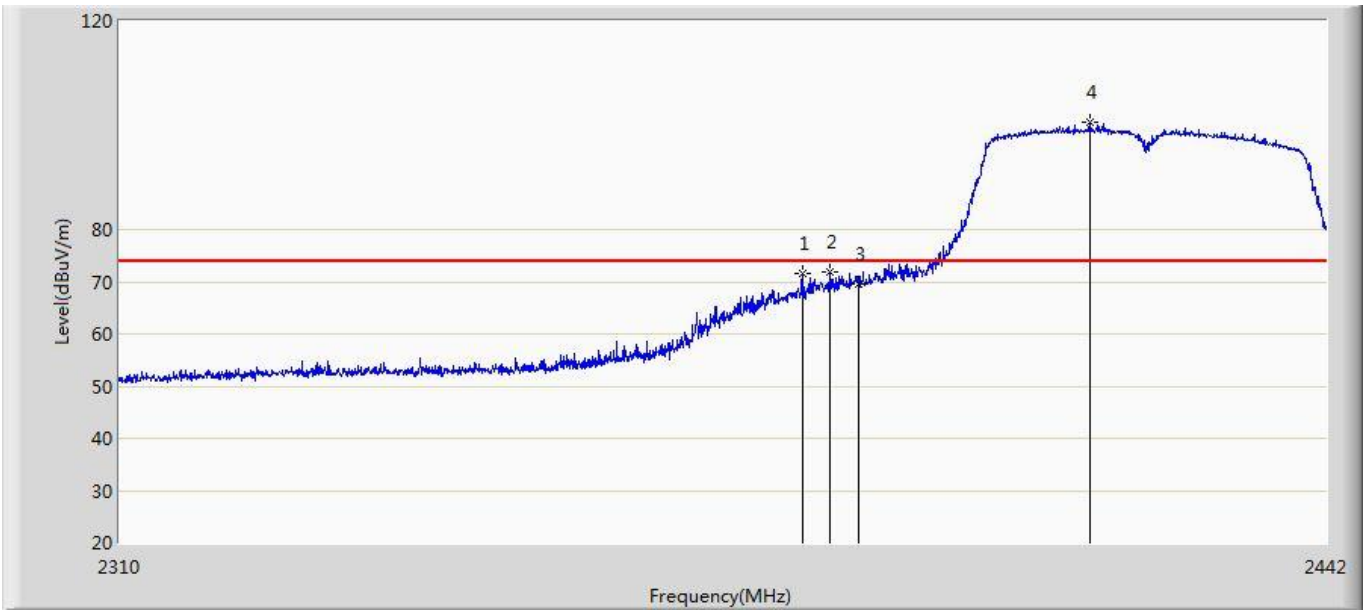
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2454.160	93.139	57.295	39.139	54.000	35.844	AV
2		2483.500	52.135	16.243	-1.865	54.000	35.891	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode3:Transimit at 2462MHz by 802.11n20	



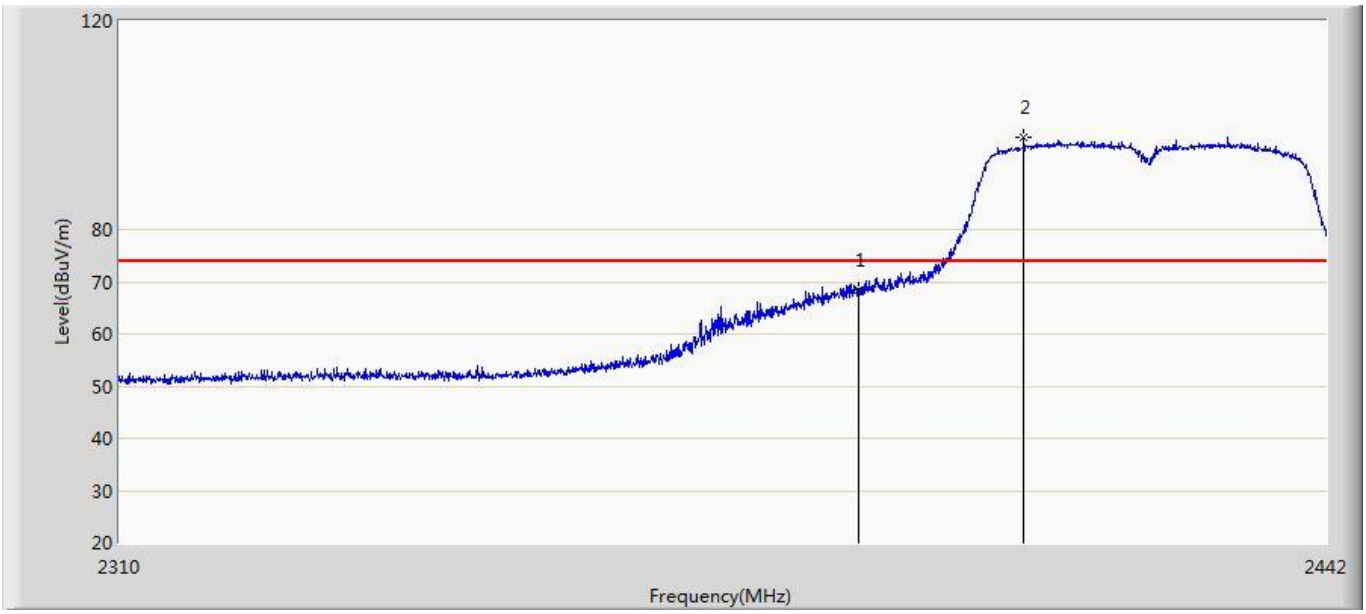
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.264	92.519	56.647	38.519	54.000	35.873	AV
2		2483.500	51.210	15.318	-2.790	54.000	35.891	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2422MHz by 802.11n40	



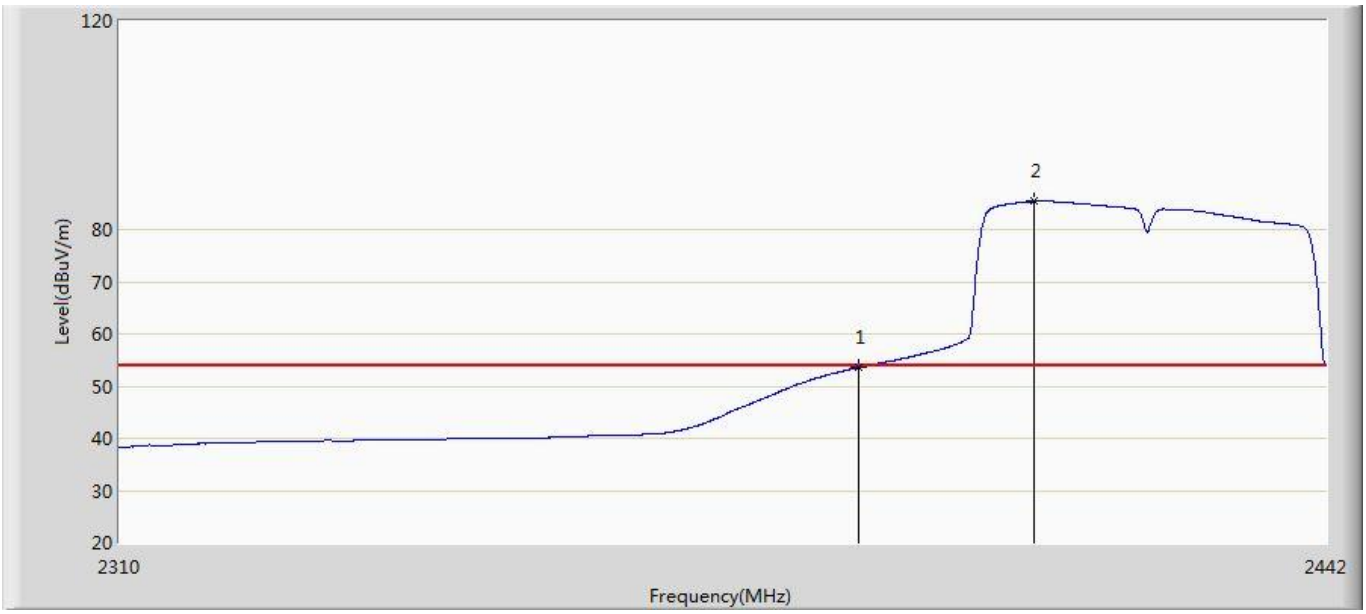
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2383.920	71.588	35.920	-2.412	74.000	35.669	PK
2		2386.890	71.851	36.176	-2.149	74.000	35.675	PK
3		2390.000	69.637	33.955	-4.363	74.000	35.682	PK
4	*	2415.666	100.574	64.817	26.574	74.000	35.757	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2422MHz by 802.11n40	



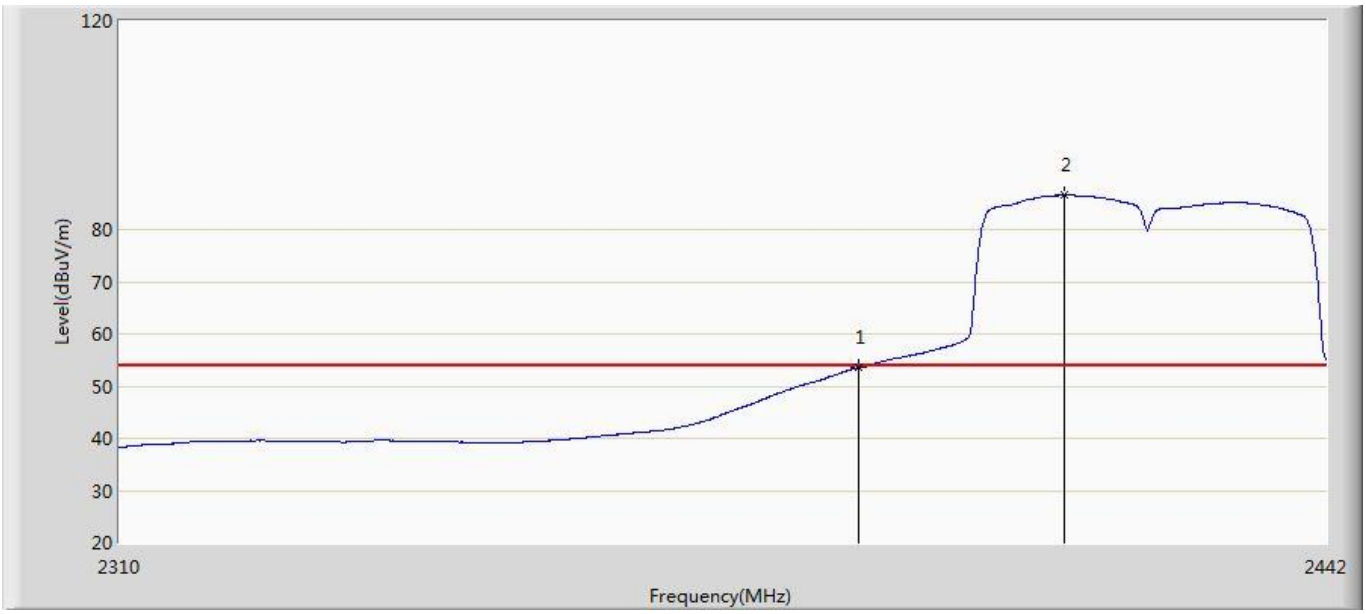
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	68.441	32.759	-5.559	74.000	35.682	PK
2	*	2408.274	97.593	61.863	23.593	74.000	35.730	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2422MHz by 802.11n40	



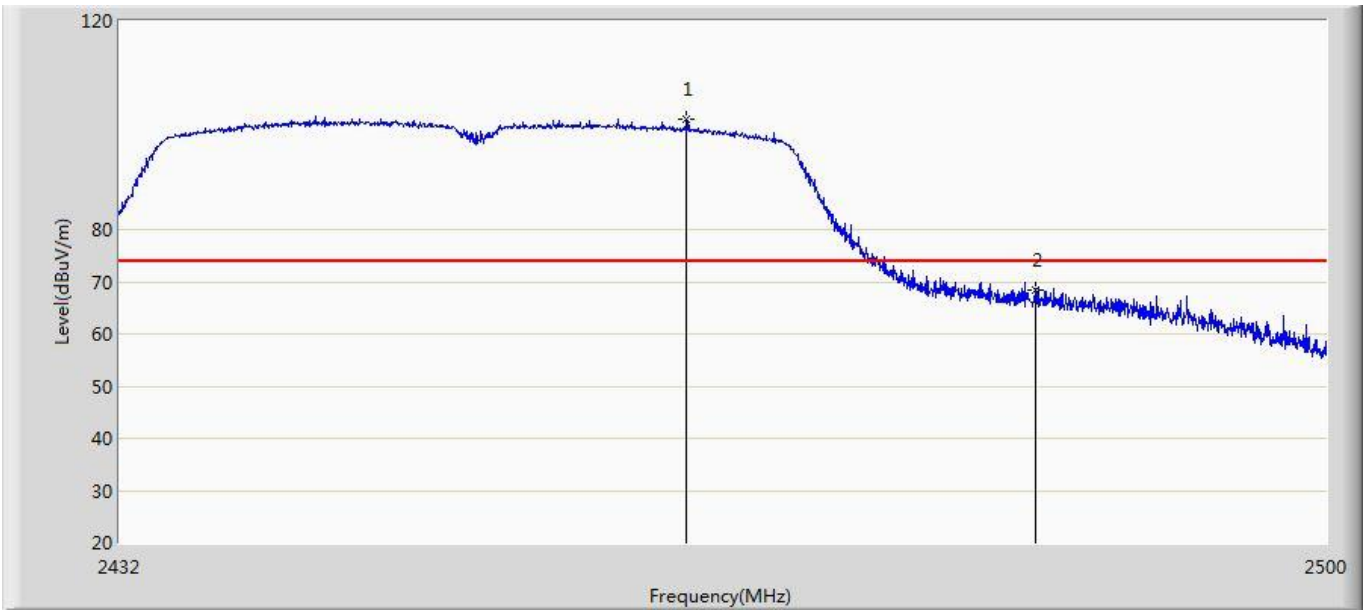
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.623	17.941	-0.377	54.000	35.682	AV
2	*	2409.462	85.415	49.682	31.415	54.000	35.733	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2422MHz by 802.11n40	



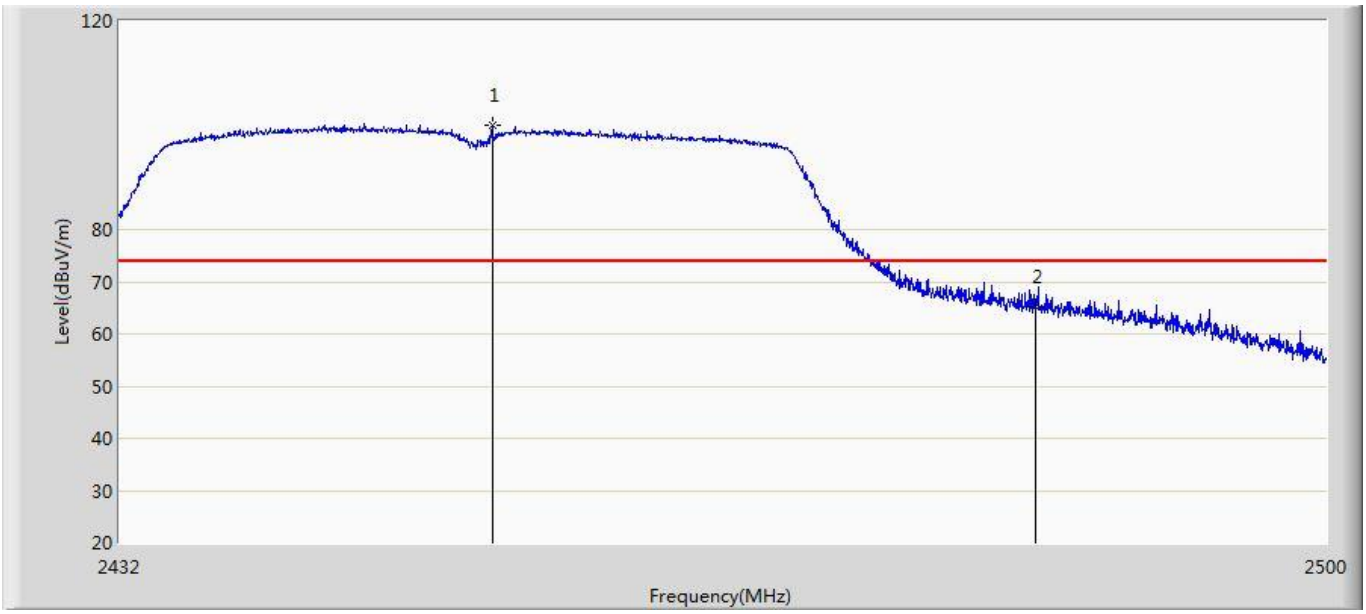
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.556	17.874	-0.444	54.000	35.682	AV
2	*	2412.828	86.550	50.805	32.550	54.000	35.745	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 21:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2452MHz by 802.11n40	



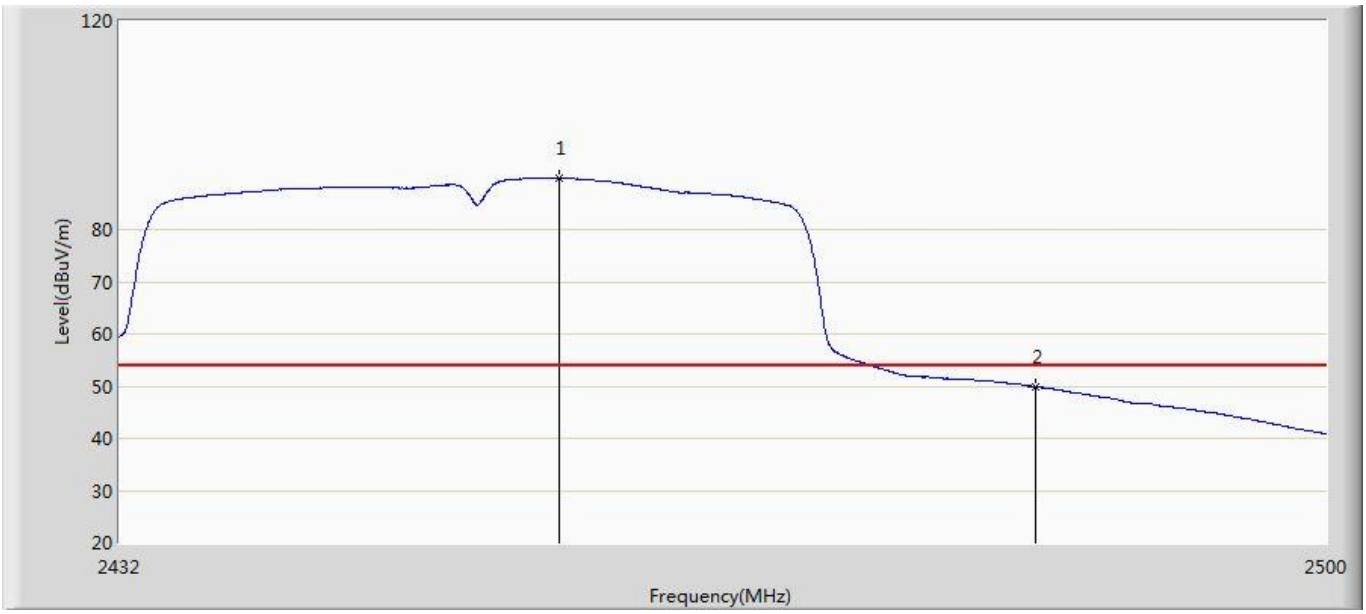
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.722	101.018	65.142	27.018	74.000	35.876	PK
2		2483.500	68.483	32.591	-5.517	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 22:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2452MHz by 802.11n40	



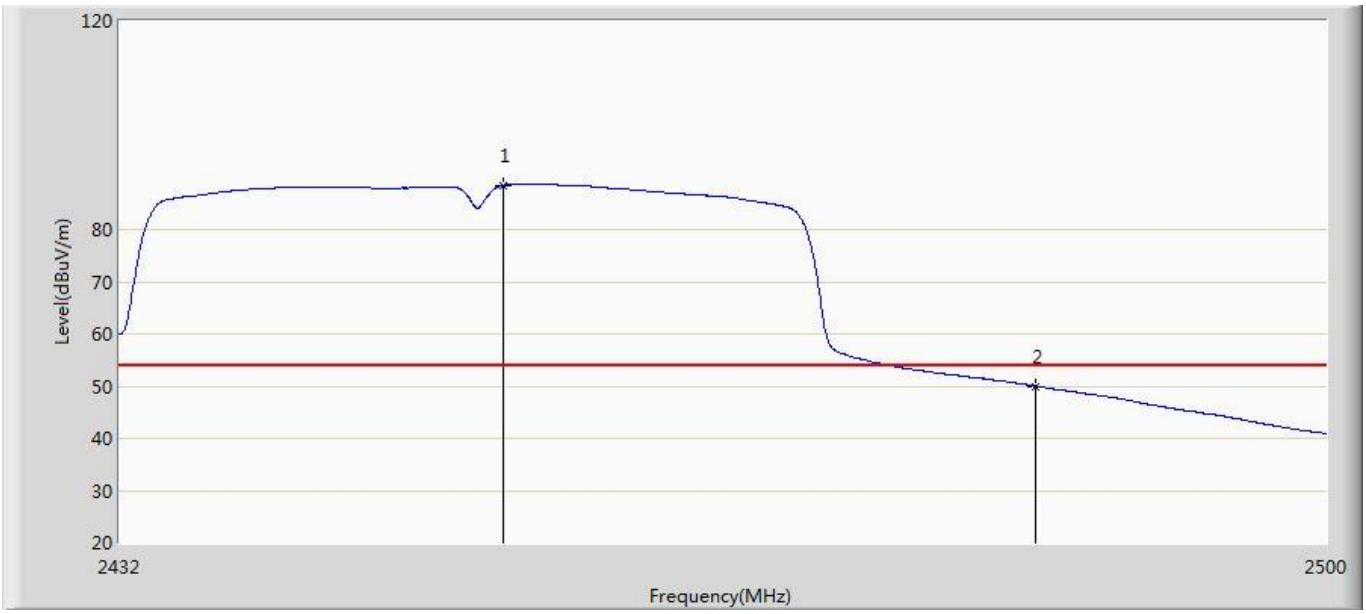
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2452.808	100.020	64.182	26.020	74.000	35.838	PK
2		2483.500	65.229	29.337	-8.771	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 22:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2452MHz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.548	89.839	53.985	35.839	54.000	35.855	AV
2		2483.500	49.858	13.966	-4.142	54.000	35.891	AV

Engineer: Pawn	
Site: AC5	Time: 2018/12/21 - 22:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring Bridge	Power: AC 120V/60Hz
Note: Mode4:Transimit at 2452MHz by 802.11n40	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2453.420	88.498	52.657	34.498	54.000	35.841	AV
2		2483.500	49.991	14.099	-4.009	54.000	35.891	AV

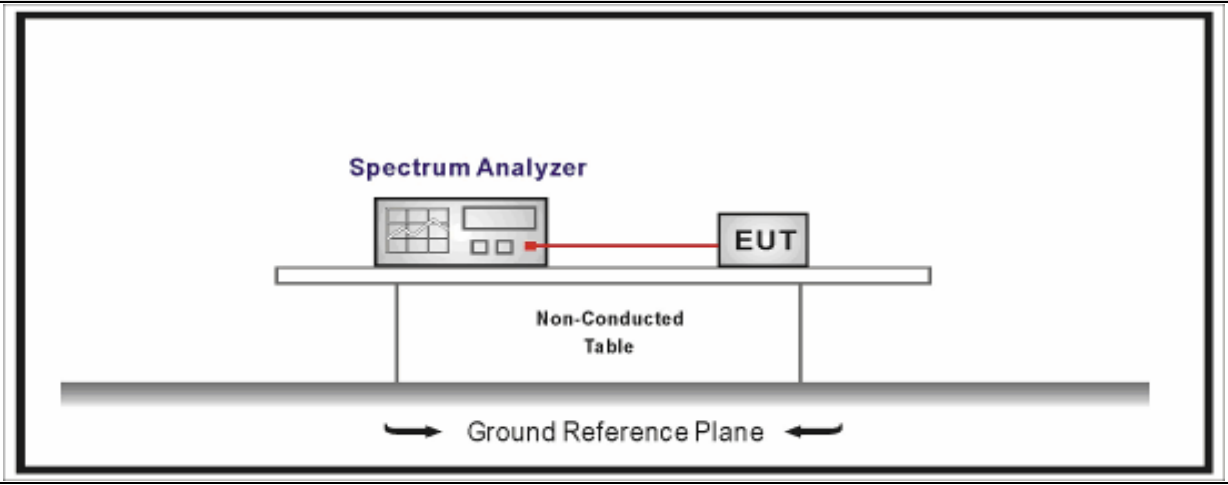
7. Occupied Bandwidth

7.1. Test Equipment

Occupied Bandwidth / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2018.04.09	2019.04.08
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2018.04.09	2019.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2018.04.10	2019.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

7.2. Test Setup

Occupied Bandwidth test setup:



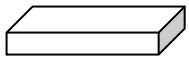
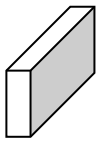
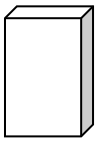
7.3. Limit

Occupied Bandwidth
Systems using digital modulation techniques operate in the2400-2483.5 MHz .The minimum 6 dB bandwidth shall be at least 500 kHz

7.4. Test Procedure

Test Method				
	Reference Rule		Chapter	Description
☒	ANSI C63.10		11.8	DTS bandwidth
	☐	ANSI C63.10	11.8.1	Option 1
	☒	ANSI C63.10	11.8.2	Option 2

7.5. EUT test definition

<table>
<tr><th>Item</th><th colspan="4">Occupied Bandwidth</th></tr>
<tr><td rowspan="3">Device Category</td><td>☐</td><td colspan="3">Fixed point-to-point</td></tr>
<tr><td>☐</td><td colspan="3">Emit multiple directional beams, simultaneously or sequentially</td></tr>
<tr><td>☒</td><td colspan="3">Other cases</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1~4</td></tr>
<tr><td rowspan="11">Test method</td><td>☐</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
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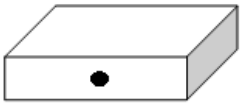
<tr><td></td><td colspan="3">  </td></tr>
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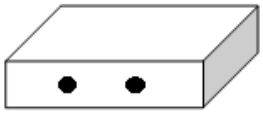
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
</table>

7.6. Test Result

Product Name	:	Ring Bridge	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~4	Test Site	:	TR8
Test Date	:	2018.12.24	Test Engineer	:	Damon

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	6dB Occupied Bandwidth (MHz)	Limit (kHz)	Result
1	01	2412	11.893	7.106	>500	Pass
1	06	2437	12.054	6.630	>500	Pass
1	11	2462	12.110	7.102	>500	Pass
2	01	2412	16.458	16.59	>500	Pass
2	06	2437	16.475	16.57	>500	Pass
2	11	2462	16.474	16.56	>500	Pass
3	01	2412	17.662	17.81	>500	Pass
3	06	2437	17.656	17.81	>500	Pass
3	11	2462	17.655	17.80	>500	Pass
4	03	2422	35.922	36.39	>500	Pass
4	06	2437	35.896	36.33	>500	Pass
4	09	2452	35.911	36.37	>500	Pass

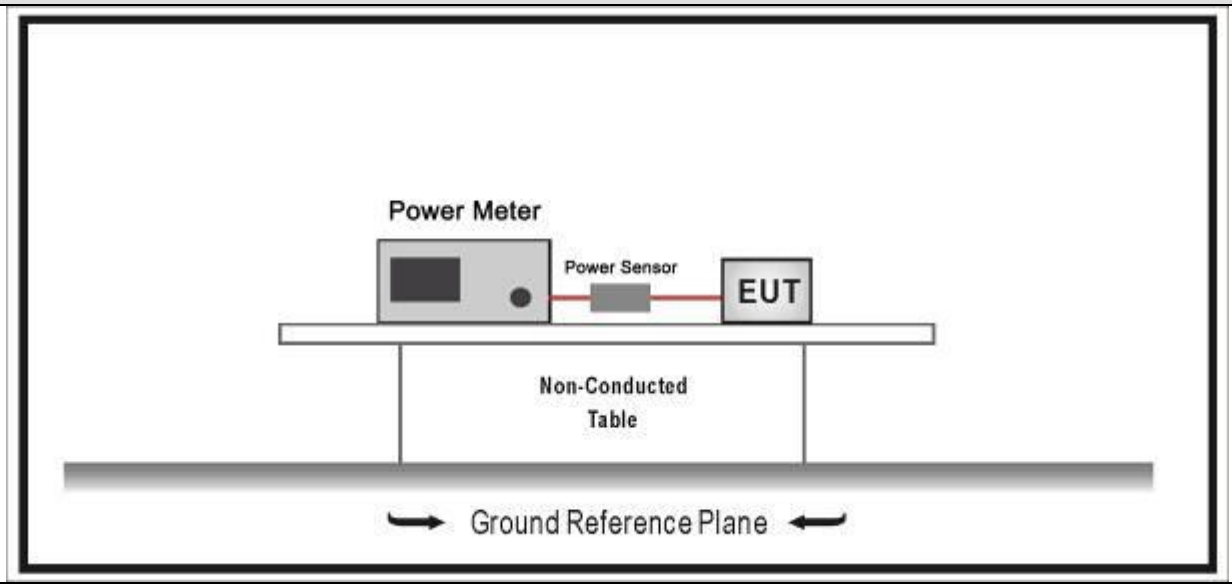
8. Fundamental emission output power

8.1. Test Equipment

Fundamental emission output power/ TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2018.01.04	2019.01.03
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2018.10.14	2019.10.13
Power Sensor	Anritsu	MA2411B	0846014	2018.10.14	2019.10.13
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2018.04.10	2019.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

8.2. Test Setup

Fundamental emission output power test setup



8.3. Limit

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

8.4. Test Procedure

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

8.5. EUT test definition

<table>
<tr><th>Item</th><th colspan="4">Fundamental emission output power</th></tr>
<tr><td rowspan="3">Device Category</td><td>☐</td><td colspan="3">Fixed point-to-point</td></tr>
<tr><td>☐</td><td colspan="3">Emit multiple directional beams, simultaneously or sequentially</td></tr>
<tr><td>☒</td><td colspan="3">Other cases</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1~4</td></tr>
<tr><td rowspan="12">Test method</td><td>☐</td><td colspan="3">Radiated</td></tr>
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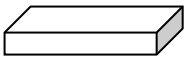
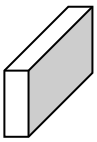
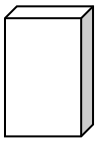
<tr><td>  </td><td>  </td><td>  </td></tr>
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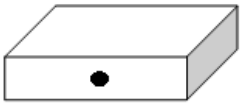
<tr><td></td><td colspan="3">  </td></tr>
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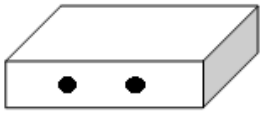
<tr><td></td><td colspan="3">  </td></tr>
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</table>

8.6. Test Result

Product Name	:	Ring Bridge	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~4	Test Site	:	TR8
Test Date	:	2018.12.25	Test Engineer	:	Pawn

Mode	Channel	Test Frequency (MHz)	Peak Power Output (dBm)	Limit (dBm)	Result
1	01	2412	8.43	30	Pass
1	02	2417	10.22	30	Pass
1	06	2437	13.34	30	Pass
1	11	2462	13.42	30	Pass
2	01	2412	10.76	30	Pass
2	06	2437	13.55	30	Pass
2	11	2462	13.14	30	Pass
3	01	2412	11.42	30	Pass
3	06	2437	12.53	30	Pass
3	11	2462	13.12	30	Pass
4	03	2422	9.62	30	Pass
4	06	2437	12.73	30	Pass
4	09	2452	13.32	30	Pass

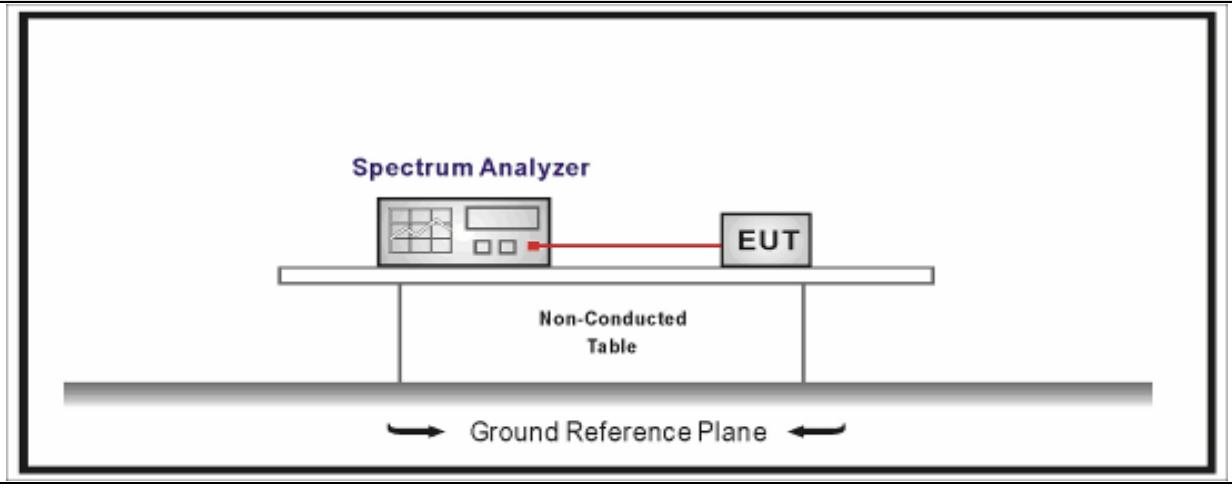
9. Power Spectral Density

9.1. Test Equipment

Power Spectral Density / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2018.04.09	2019.04.08
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2018.04.09	2019.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2018.04.10	2019.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

9.2. Test Setup

Power Spectral Density test setup



9.3. Limit

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

9.4. Test Procedure

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

9.5. EUT test definition

<table>
<tr><th>Item</th><th colspan="4">Power Spectral Density Test Method</th></tr>
<tr><td rowspan="3">Device Category</td><td>☐</td><td colspan="3">Fixed point-to-point</td></tr>
<tr><td>☐</td><td colspan="3">Emit multiple directional beams, simultaneously or sequentially</td></tr>
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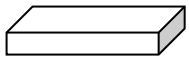
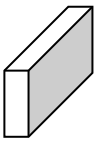
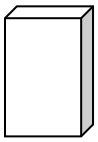
<tr><td>  </td><td>  </td><td>  </td></tr>
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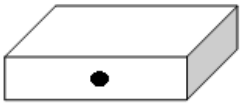
<tr><td></td><td colspan="3">  </td></tr>
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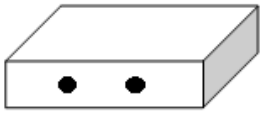
<tr><td></td><td colspan="3">  </td></tr>
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</table>

9.6. Test Result

Product Name	:	Ring Bridge	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~4	Test Site	:	TR8
Test Date	:	2018.12.24	Test Engineer	:	Damon

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	01	2412	-24.059	-24.059	8.0	Pass
1	06	2437	-20.889	-20.889	8.0	Pass
1	11	2462	-19.062	-19.062	8.0	Pass
2	01	2412	-26.135	-26.135	8.0	Pass
2	06	2437	-22.148	-22.148	8.0	Pass
2	11	2462	-21.277	-21.277	8.0	Pass
3	01	2412	-25.143	-25.143	8.0	Pass
3	06	2437	-22.730	-22.730	8.0	Pass
3	11	2462	-22.282	-22.282	8.0	Pass
4	03	2422	-30.072	-30.072	8.0	Pass
4	06	2437	-25.909	-25.909	8.0	Pass
4	09	2452	-26.420	-26.420	8.0	Pass

Mode 1 CH11(2462MHz)

10. Antenna Requirement

10.1. Limit

Antenna Requirement Limit
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

10.2. Antenna Connector Construction

Antenna Connector Construction	
☒	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☐	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document "Internal Photograph" to show the antenna connector.	

The End