



中国认可
国际互认
检测
TESTING
CNAS L5



Test Report

FCC Part15 Subpart C (Class II Permissive Change)

Product Name : Virtual Reality Controller

Model No. : B0-S8A526053-BZ

FCC ID : 2AI3GS8A526053

Applicant : Pico Technology Inc.

Address : 20th Floor, Shining Tower, No.35 Xueyuan Road,
HaiDian District, Beijing, The People ' s Republic of
China

Date of Receipt : Jul. 18, 2016

Test Date : Jul. 18, 2016~Aug. 17, 2016

Issued Date : Aug. 23, 2016

Report No. : 1672084R-RF-US-P06V01

Report Version : V1.0

Note : This report is based on ADT No. RF140808E04, it changes the MIMO Antenna to SISO Antenna, we re-evaluate the items are bandedge, radiated emission, and output power.

The test results relate only to the samples tested.

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

This report must not be used to claim product endorsement by CNAS,TAF or any agency of the government.





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Test Report Certification

Issued Date : Aug. 23, 2016

Report No. : 1672084R-RF-US-P06V01



Product Name : Virtual Reality Controller
Applicant : Pico Technology Inc.
Address : 20th Floor, Shining Tower, No.35 Xueyuan Road, HaiDian District, Beijing, The People ' s Republic of China
Manufacturer : Pico Technology Inc.
Address : 20th Floor, Shining Tower, No.35 Xueyuan Road, HaiDian District, Beijing, The People ' s Republic of China
Model No. : B0-S8A526053-BZ
FCC ID : 2AI3GS8A526053
EUT Voltage : DC 5V or 9V
Brand Name : 
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2015
ANSI C63.4:2014;
ANSI C63.10:2013;
KDB 558074 D01v03r05
Test Result : Complied
Performed Location : Quietek Corporation - Suzhou EMC Laboratory
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
FCC Registration Number: 800392
Documented By : 
(Adm. Specialist: Kathy Feng)
Reviewed By : 
(Senior Engineer: Jack Zhang)
Approved By : 
(Engineering Manager: Harry Zhao)

Laboratory Information

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

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

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

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1672084R-RF-US-P06V01	V1.0	Initial Issued Report	Aug. 23, 2016

1. General Information

1.1. EUT Description

Product Name	Virtual Reality Controller
Brand Name	
Model No.	B0-S8A526053-BZ
EUT Voltage	DC 5V or 9V
Frequency Range	For 2.4GHz Band 802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz
Channel Number	For 2.4GHz Band 802.11b/g/n(20MHz): 11 802.11n(40MHz): 7
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM
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 802.11ac: up to 433.3 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.	AA077					
Antenna manufacturer	Unictron					
Antenna Delivery	<input checked="" type="checkbox"/>	1*TX+1*RX	<input type="checkbox"/>	2*TX+2*RX	<input type="checkbox"/>	3*TX+3*RX
Antenna technology	<input checked="" type="checkbox"/>	SISO				
	<input type="checkbox"/>	MIMO	<input type="checkbox"/>	Basic		
			<input type="checkbox"/>	CDD		
			<input type="checkbox"/>	Beam-forming		
Antenna Type	<input type="checkbox"/>	External	<input type="checkbox"/>	Dipole		
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA		
			<input type="checkbox"/>	PCB		
			<input checked="" type="checkbox"/>	Ceramic Chip Antenna		
			<input type="checkbox"/>	Metal plate type F antenna		
Antenna Gain	1.4dBi					

1.4. Mode of Operation

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

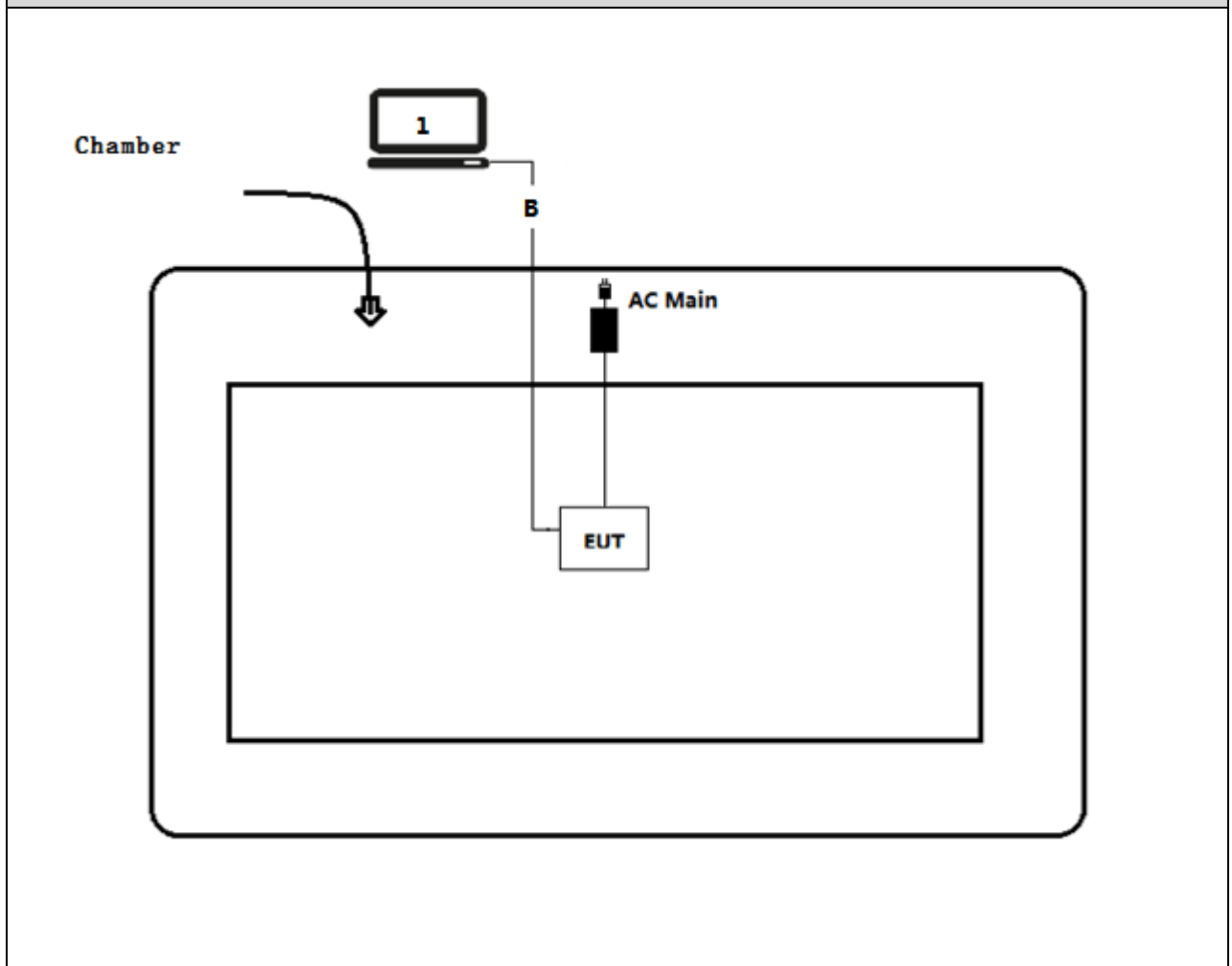
1.5. Tested System Details

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

No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	Think pad x220	SUA0600195	Non-shielded
B	USB cable	N/A	N/A	N/A	shielded,3m

1.6. Configuration of Tested System

Test setup Diagram- Radiated Emission



2. Technical Test

2.1. Summary of Test Result

Performed Test Item	Normative References	Limit	Result
Emissions in restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.209	FCC 15.209	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2015 15.247(d)	FCC 15.209	PASS
Fundamental emission output power	FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(b)(3)	30dBm	PASS

2.2. Test Frequency configuration:

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

2.3. Power setting parameter

Test Software	Cart	
Modulation Mode	Test Frequency	Ant 0
802.11b	2412	15
	2437	15
	2462	15
802.11g	2412	14
	2437	14.5
	2462	14
802.11n(20MHz)	2412	14
	2437	19
	2462	13
802.11n(40MHz)	2422	11
	2437	13
	2452	9

2.4. Power vs Data Rate

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)						
		802.11b	802.11g	802.11a	20MHz Bandwidth		40MHz Bandwidth	
					800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6	6.5	7.2	13.5	15.0
1	1	2	9	9	13.0	14.4	27.0	30.0
2	1	5.5	12	12	19.5	21.7	40.5	45.0
3	1	11	18	18	26.0	28.9	54.0	60.0
4	1	---	24	24	39.0	43.3	81.0	90.0
5	1	---	36	36	52.0	57.8	108.0	120.0
6	1	---	48	48	58.5	65.0	121.5	135.0
7	1	---	54	54	65.0	72.2	135.0	150.0
8	2	---	---	---	13.0	14.4	27.0	30.0
9	2	---	---	---	26.0	28.9	54.0	60.0
10	2	---	---	---	39.0	43.3	81.0	90.0
11	2	---	---	---	52.0	57.8	108.0	120.0
12	2	---	---	---	78.0	86.7	162.0	180.0
13	2	---	---	---	104.0	115.6	216.0	240.0
14	2	---	---	---	117.0	130.0	243.0	270.0
15	2	---	---	---	130.0	144.0	270.0	300.0

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

2.5. Test Environment

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

2.6. Measurement Uncertainty

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

3. Emissions in restricted frequency bands

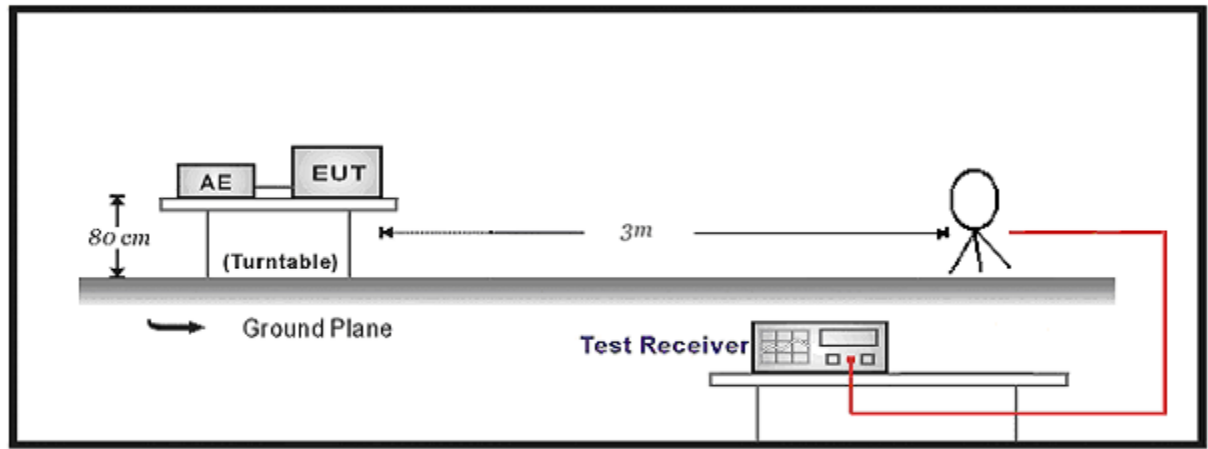
3.1. Test Equipment

Emissions in restricted frequency bands/ AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2016.03.29	2017.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2015.11.16	2016.11.17
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2015.10.16	2016.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2016.03.02	2017.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2016.01.04	2017.01.03
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

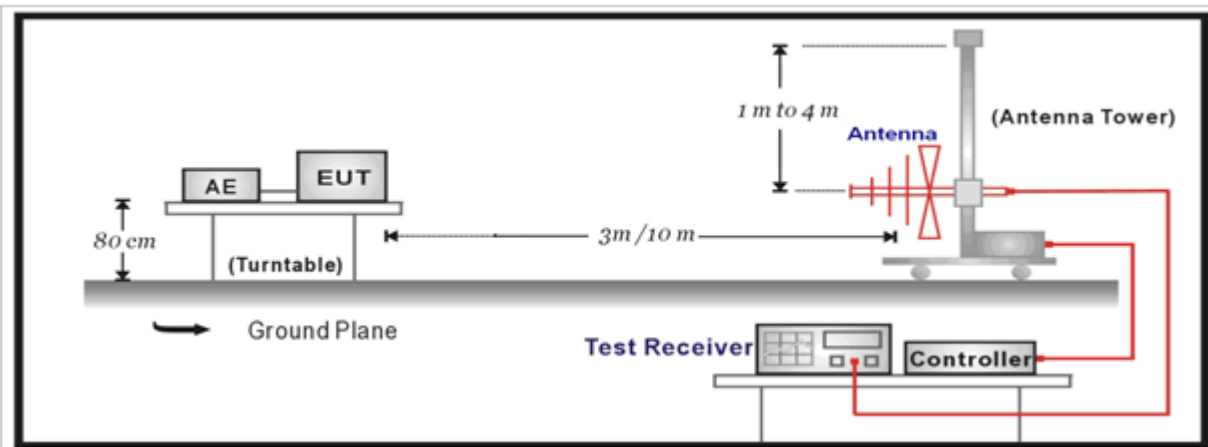
Emissions in restricted frequency bands / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.04	2017.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	Quietek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2015.11.25	2016.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2016.07.16	2017.07.16
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.04	2017.01.03
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

3.2. Test Setup

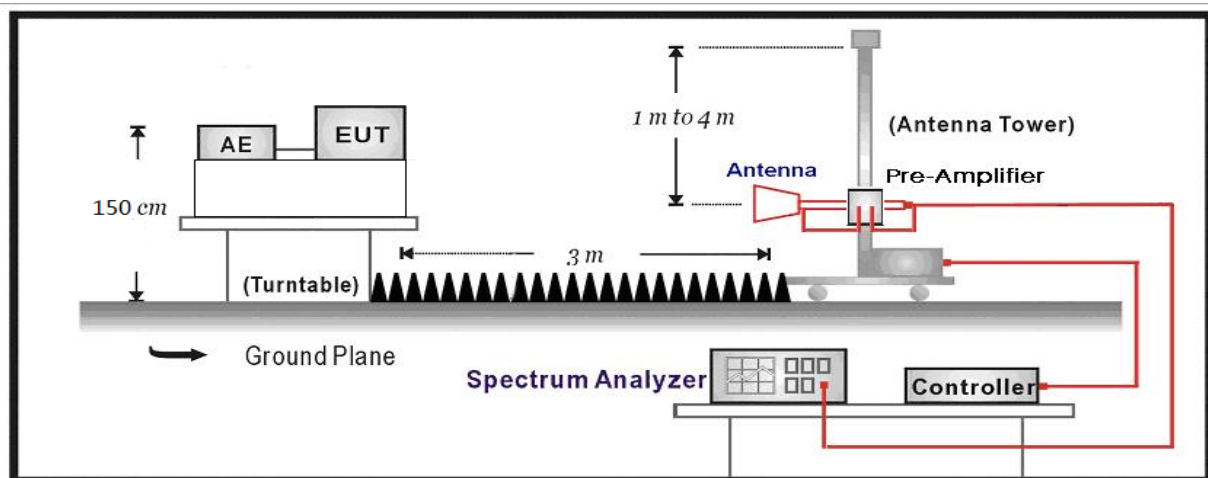
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



3.3. Limit

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

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


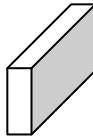
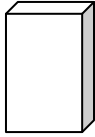


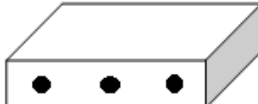
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed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

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

3.4. Test Procedure

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

3.5. EUT test Axis definition

Item	Radiated Emission			
Device Category	<input checked="" type="checkbox"/>	Indoor use		
	<input type="checkbox"/>	Outdoor use		
	<input type="checkbox"/>	Fix position use		
	<input type="checkbox"/>	Mobile position use		
Test mode	Mode 1-4			
Test method	<input checked="" type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input checked="" type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

3.6. Test Result

Product Name	:	Virtual Reality Controller	Power	:	AC 120V/60Hz
Test Mode	:	Mode 1	Test Site	:	AC-5

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4825.00	44.44	5.40	49.84	54(note3)	-4.16	PK
	H	7236.00	34.26	9.70	43.96	54(note3)	-10.04	PK
	H	9648.00	32.69	12.56	45.25	54(note3)	-8.75	PK
	V	4816.50	45.82	5.50	51.32	54(note3)	-2.68	PK
	V	7236.00	34.21	9.70	43.91	54(note3)	-10.09	PK
	V	9648.00	32.63	12.56	45.19	54(note3)	-8.81	PK
6	H	4876.00	48.94	5.56	54.50	74	-19.5	PK
	H	4874.00	46.37	5.54	51.91	54	-2.09	AV
	H	7311.00	34.69	9.46	44.15	54(note3)	-9.85	PK
	H	9748.00	33.08	12.84	45.92	54(note3)	-8.08	PK
	V	4876.00	48.43	5.56	53.99	54(note3)	-0.01	PK
	V	7311.00	35.03	9.46	44.49	54(note3)	-9.51	PK
	V	9748.00	33.84	12.84	46.68	54(note3)	-7.32	PK
11	H	4927.00	42.74	5.75	48.49	54(note3)	-5.51	PK
	H	7386.00	34.13	9.28	43.41	54(note3)	-10.59	PK
	H	9848.00	31.60	13.01	44.61	54(note3)	-9.39	PK
	V	4927.00	43.31	5.75	49.06	54(note3)	-4.94	PK
	V	7386.00	35.07	9.28	44.35	54(note3)	-9.65	PK
	V	9848.00	31.21	13.01	44.22	54(note3)	-9.78	PK

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

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

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting for average testing, see Clause 4.6.

Product Name	:	Virtual Reality Controller	Power	:	AC 120V/60Hz
Test Site	:	Mode 2	Test Site	:	AC-5

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4825.00	44.44	5.40	49.84	54(note3)	-4.16	PK
	H	7236.00	34.26	9.70	43.96	54(note3)	-10.04	PK
	H	9648.00	32.69	12.56	45.25	54(note3)	-8.75	PK
	V	4816.50	45.82	5.50	51.32	54(note3)	-2.68	PK
	V	7236.00	34.21	9.70	43.91	54(note3)	-10.09	PK
	V	9648.00	32.63	12.56	45.19	54(note3)	-8.81	PK
6	H	4876.00	48.94	5.56	54.50	74	-19.5	PK
	H	4874.00	46.37	5.54	51.91	54	-2.09	AV
	H	7311.00	34.69	9.46	44.15	54(note3)	-9.85	PK
	H	9748.00	33.08	12.84	45.92	54(note3)	-8.08	PK
	V	4876.00	48.43	5.56	53.99	54(note3)	-0.01	PK
	V	7311.00	35.03	9.46	44.49	54(note3)	-9.51	PK
	V	9748.00	33.84	12.84	46.68	54(note3)	-7.32	PK
11	H	4927.00	42.74	5.75	48.49	54(note3)	-5.51	PK
	H	7386.00	34.13	9.28	43.41	54(note3)	-10.59	PK
	H	9848.00	31.60	13.01	44.61	54(note3)	-9.39	PK
	V	4927.00	43.31	5.75	49.06	54(note3)	-4.94	PK
	V	7386.00	35.07	9.28	44.35	54(note3)	-9.65	PK
	V	9848.00	31.21	13.01	44.22	54(note3)	-9.78	PK

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

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

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting for average testing, see Clause 4.6.

Product Name	:	Virtual Reality Controller	Power	:	AC 120V/60Hz
Test Site	:	Mode 3	Test Site	:	AC-5

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	H	4825.00	45.90	5.39	51.29	54(note3)	-2.71	PK
	H	7236.00	34.59	9.70	44.29	54(note3)	-9.71	PK
	H	9648.00	32.91	12.56	45.47	54(note3)	-8.53	PK
	V	4825.00	43.92	5.39	49.31	54(note3)	-4.69	PK
	V	7236.00	34.78	9.71	44.49	54(note3)	-9.51	PK
	V	9648.00	33.05	12.56	45.61	54(note3)	-8.39	PK
6	H	4867.50	48.65	5.50	54.15	74	-19.85	PK
	H	4874.00	41.24	5.54	46.78	54	-7.22	AV
	H	7311.00	34.19	9.46	43.65	54(note3)	-10.35	PK
	H	9748.00	32.86	12.83	45.69	54(note3)	-8.31	PK
	V	4876.00	49.29	5.56	54.85	74	-19.15	PK
	V	4874.00	39.74	5.54	45.28	54	-28.72	AV
	V	7311.00	34.79	9.46	44.25	54(note3)	-29.75	PK
	V	9748.00	32.48	12.83	45.31	54(note3)	-28.69	PK
11	H	4927.00	43.78	5.76	49.54	54(note3)	-24.46	PK
	H	7386.00	34.90	9.28	44.18	54(note3)	-29.82	PK
	H	9848.00	30.90	13.01	43.91	54(note3)	-30.09	PK
	V	4918.50	44.16	5.73	49.89	54(note3)	-24.11	PK
	V	7386.00	35.43	9.27	44.70	54(note3)	-29.30	PK
	V	9848.00	31.14	13.02	44.16	54(note3)	-29.84	PK

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

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

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting for average testing, see Clause 4.6.

Product Name	:	Virtual Reality Controller	Power	:	AC 120V/60Hz
Test Site	:	Mode 4	Test Site	:	AC-5

CH	Antenna Polarity	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measured Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
3	H	4844.00	38.46	5.69	44.15	54(note3)	-9.85	PK
	H	7266.00	34.02	9.52	43.54	54(note3)	-10.46	PK
	H	9688.00	32.52	12.82	45.34	54(note3)	-8.66	PK
	V	4844.00	37.96	5.69	43.65	54(note3)	-10.35	PK
	V	7266.00	34.57	9.53	44.10	54(note3)	-9.90	PK
	V	9688.00	33.21	12.82	46.03	54(note3)	-7.97	PK
6	H	4874.00	39.59	5.54	45.13	54(note3)	-8.87	PK
	H	7311.00	34.90	9.46	44.36	54(note3)	-9.64	PK
	H	9748.00	33.17	12.84	46.01	54(note3)	-7.99	PK
	V	4874.00	39.73	5.54	45.27	54(note3)	-8.73	PK
	V	7311.00	34.85	9.47	44.32	54(note3)	-9.68	PK
	V	9748.00	32.42	12.84	45.26	54(note3)	-8.74	PK
9	H	4874.00	37.81	5.71	43.52	54(note3)	-10.48	PK
	H	4904.00	34.66	9.99	44.65	54(note3)	-9.35	PK
	H	7356.00	32.30	12.24	44.54	54(note3)	-9.46	PK
	V	9808.00	37.62	5.71	43.33	54(note3)	-10.67	PK
	V	4904.00	34.54	9.99	44.53	54(note3)	-9.47	PK
	V	7356.00	31.41	12.24	43.65	54(note3)	-10.35	PK

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

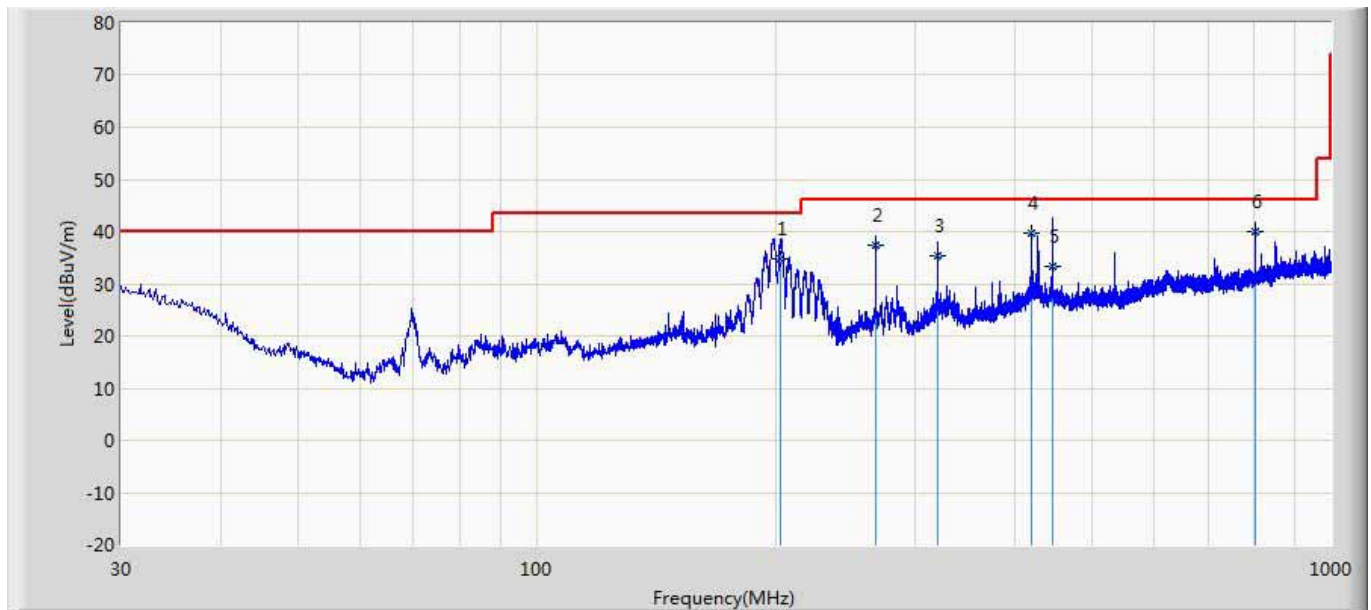
Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The VBW setting for average testing, see Clause 4.6.

The worst case of Radiated Emission below 1GHz:

Site: AC2	Time: 2016/08/18
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: CB7_CBL6112_0726	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1	

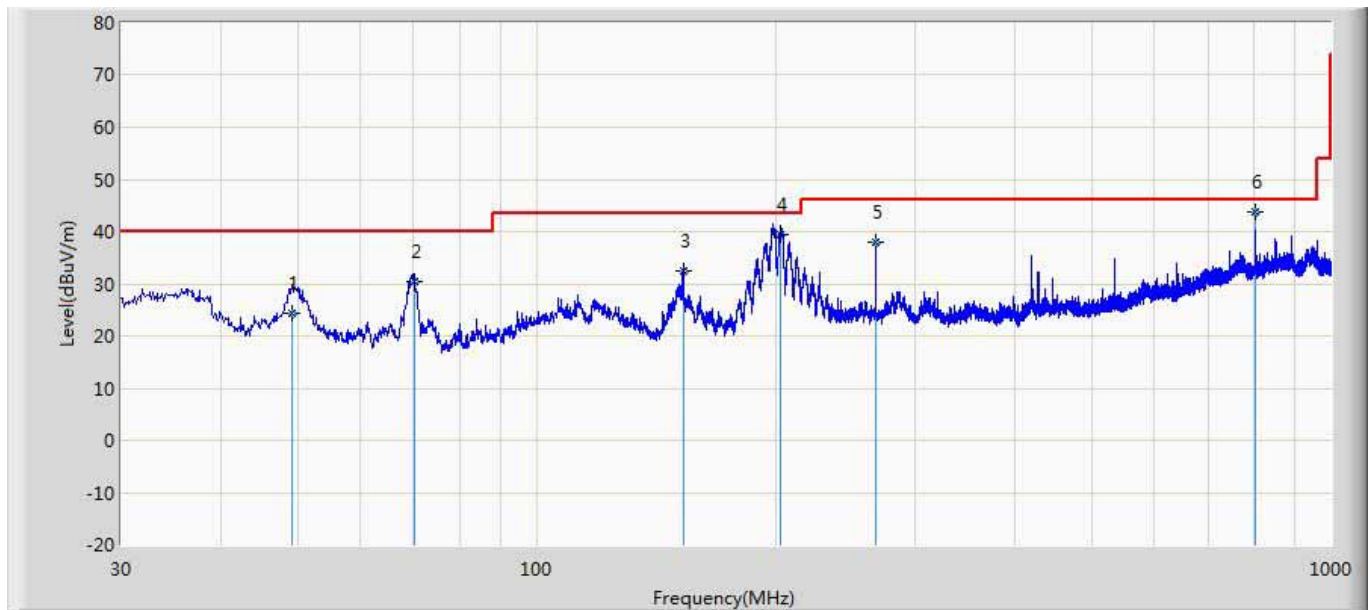


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		203.197	34.728	46.964	-8.772	43.500	9.404	1.550	23.190	100	360	QP
2		267.610	37.463	45.794	-8.537	46.000	13.110	1.760	23.200	100	50	QP
3		319.497	35.222	42.339	-10.778	46.000	13.907	1.930	22.955	100	278	QP
4		420.532	39.635	43.894	-6.365	46.000	16.411	2.260	22.930	100	355	QP
5		445.988	33.476	37.046	-12.524	46.000	16.920	2.310	22.800	100	145	QP
6	*	802.790	39.935	39.109	-6.065	46.000	20.023	3.120	22.317	200	250	QP

Note:

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

Site: AC2	Time: 2016/08/18
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: CB7_CBL6112_0726	Polarity: Vertical
EUT: Virtual Reality Controller	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		49.184	24.372	38.165	-15.628	40.000	8.526	0.768	23.087	100	44	QP
2		70.064	30.322	46.173	-9.678	40.000	6.319	0.900	23.070	200	316	QP
3		152.937	32.373	43.716	-11.127	43.500	10.324	1.340	23.007	100	337	QP
4		203.025	39.335	51.566	-4.165	43.500	9.409	1.550	23.190	100	154	QP
5		267.599	37.952	46.281	-8.048	46.000	13.112	1.759	23.201	100	59	QP
6	*	802.793	43.629	42.803	-2.371	46.000	20.023	3.120	22.317	100	27	QP

Note:

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

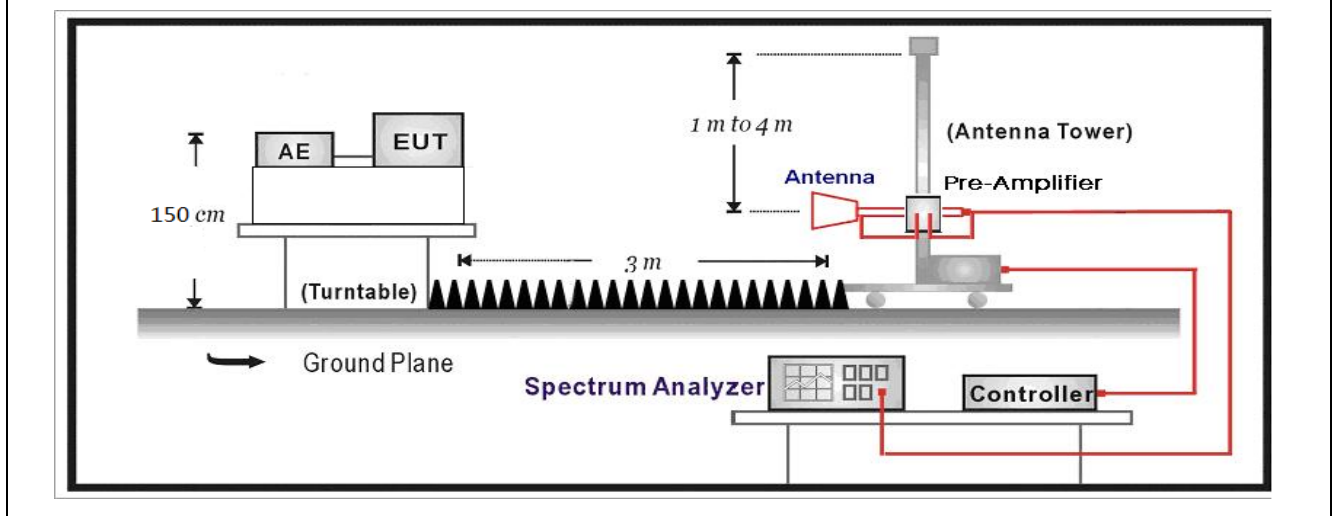
4. Radiated Emission Band Edge

4.1. Test Equipment

Radiated Emission Band Edge/ AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.04	2017.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.06	2017.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.06	2017.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2016.01.22	2017.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2015.11.25	2016.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.02	2017.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.03.02	2017.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.10	2016.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2016.01.04	2017.01.03
Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

Above 1GHz Test Setup:



4.3. Limit

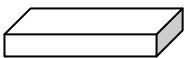
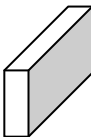
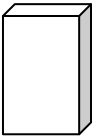
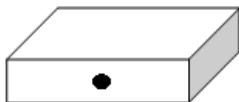

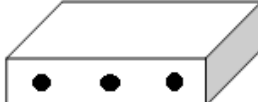
Band edge Limit				
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

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

4.4. Test Procedure

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

Item	Radiated Emission Band Edge			
Device Category	<input checked="" type="checkbox"/>	Indoor use		
	<input type="checkbox"/>	Outdoor use		
	<input type="checkbox"/>	Fix position use		
	<input type="checkbox"/>	Mobile position use		
Test mode	Mode 1-4			
Test method	<input checked="" type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input checked="" type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input type="checkbox"/>	Chain 0	Chain 1	
				
	<input type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

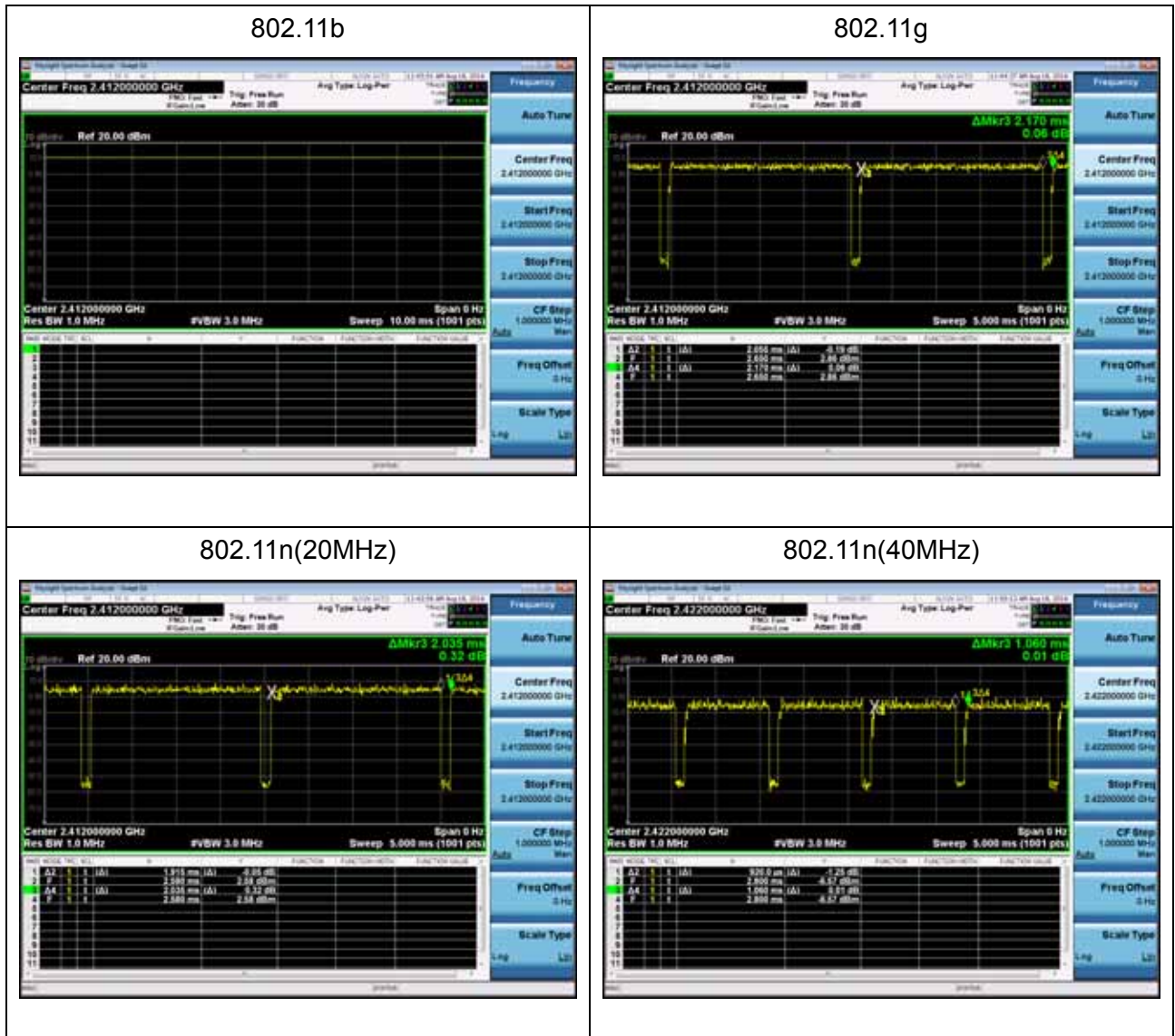
4.6. Duty Cycle

CDD mode:

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	2.06	0.11	485Hz	2.17	94.93%
802.11n(20MHz)	1.92	0.12	520Hz	2.04	94.11%
802.11n(40MHz)	0.92	0.14	1086Hz	1.06	86.79%

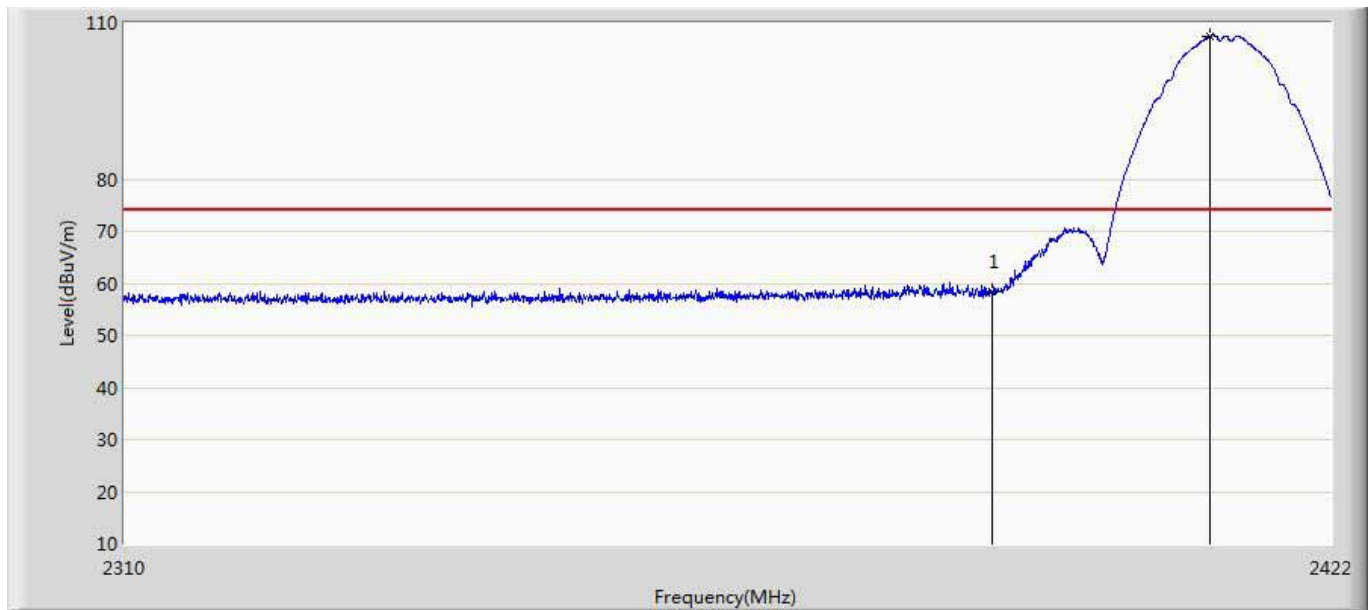
Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Note 2: According to KDB 558074 , when test for Radiated Emission Band Edge and Radiated Emission, VBW = 1/T will be used.



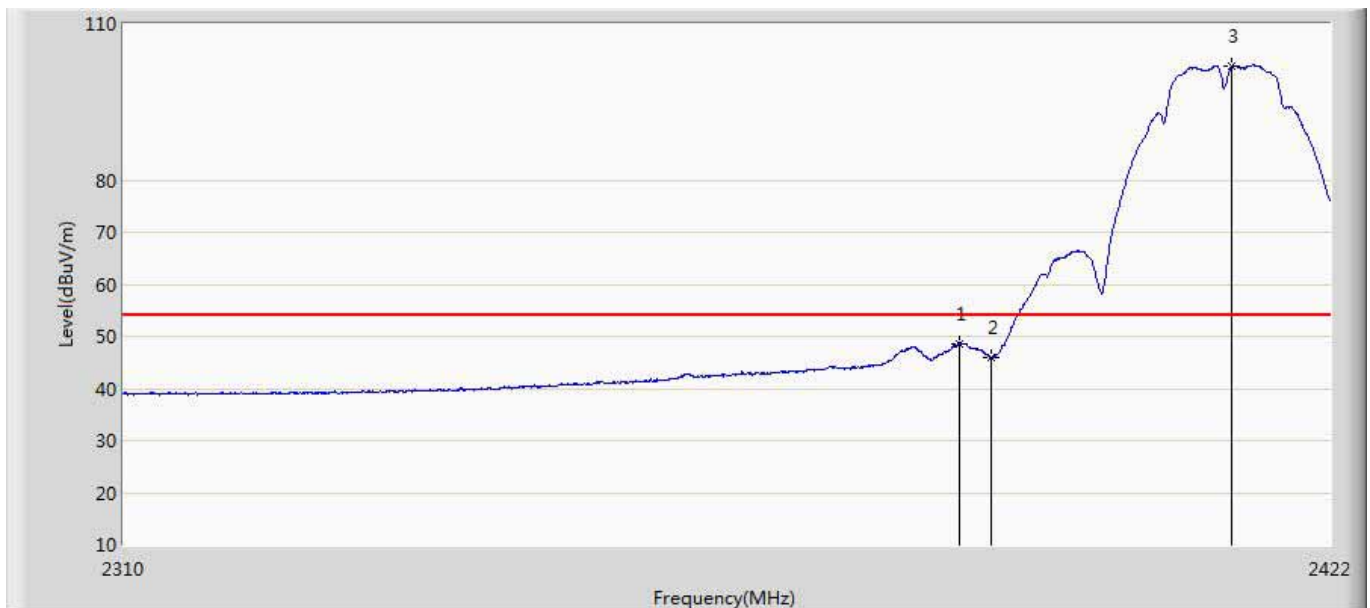
4.7. Test Result

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b	



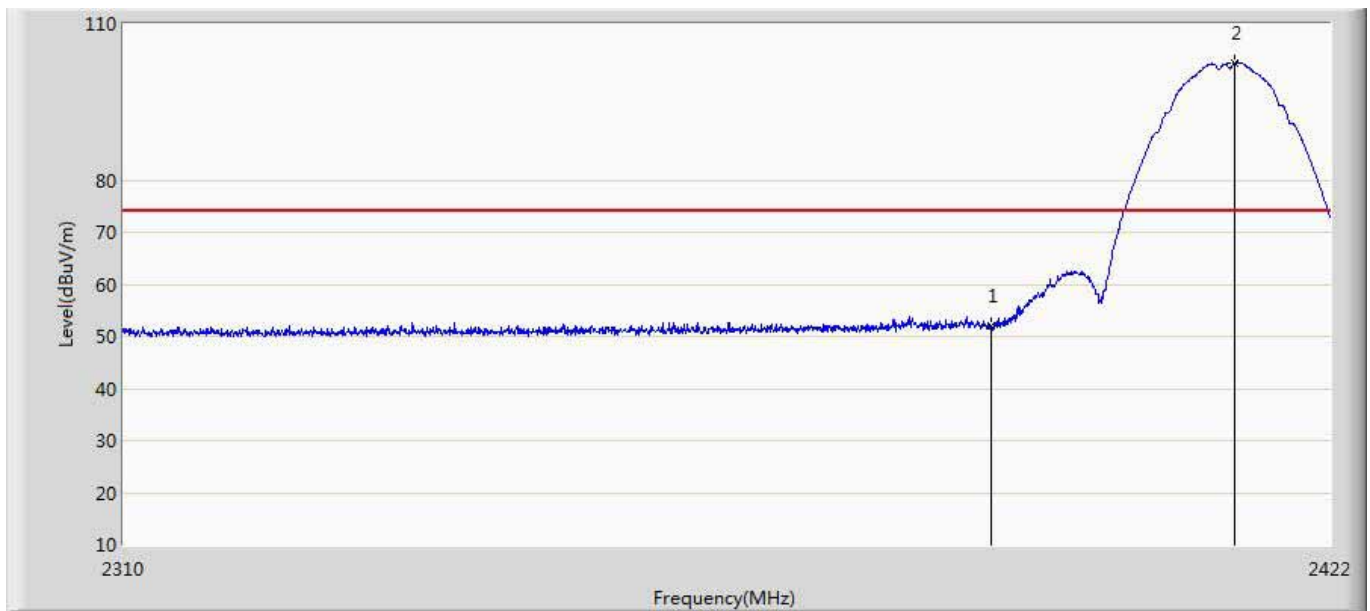
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	58.301	22.215	-15.699	74.000	36.086	PK
2	*	2410.464	107.428	71.271	33.428	74.000	36.157	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b	



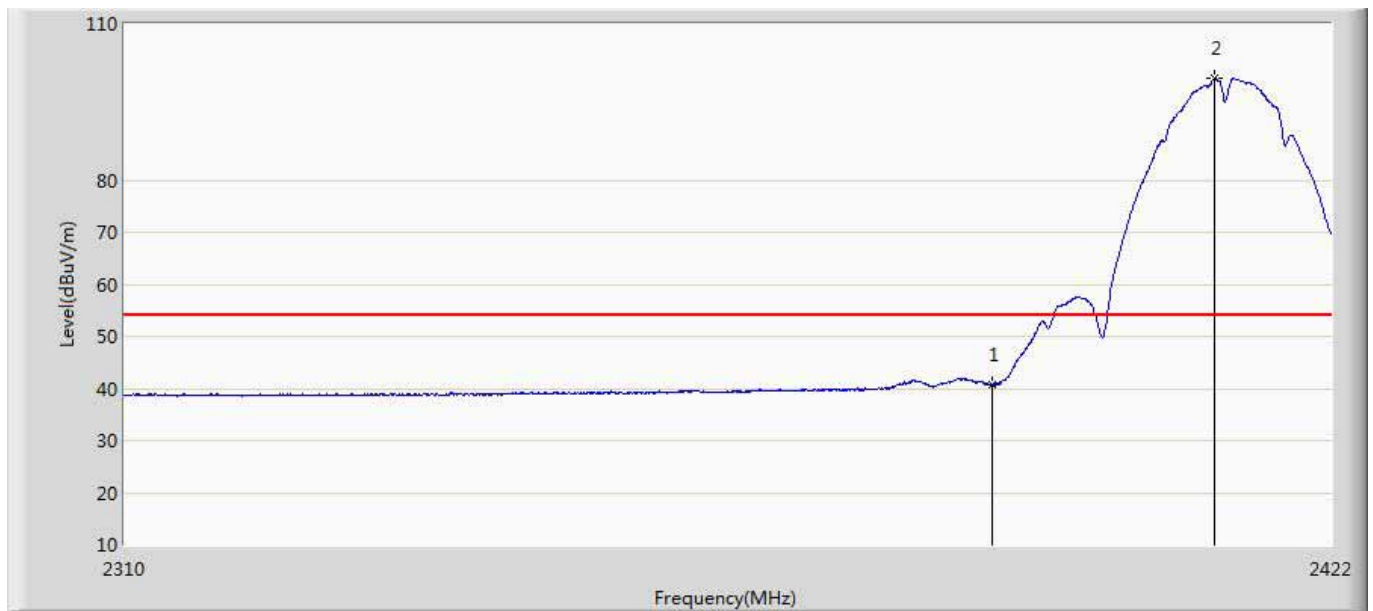
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2387.056	48.691	12.610	-5.309	54.000	36.080	AV
2		2390.000	45.990	9.904	-8.010	54.000	36.086	AV
3	*	2412.704	101.854	65.694	47.854	54.000	36.159	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b	



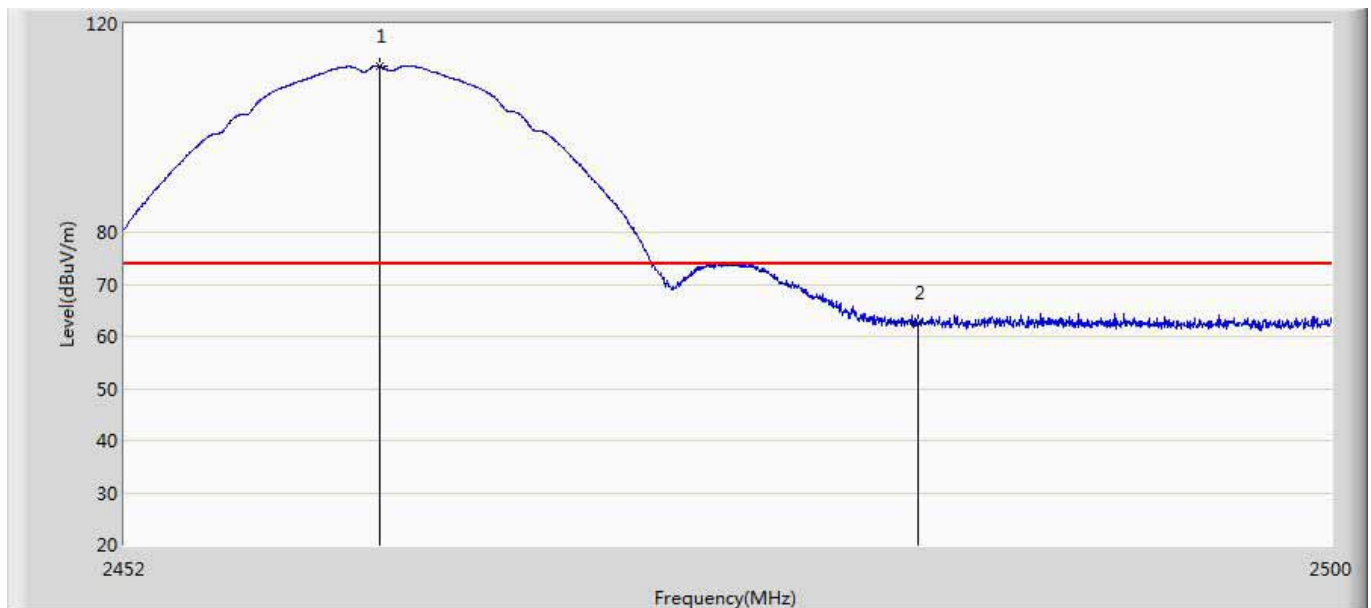
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.931	15.845	-22.069	74.000	36.086	PK
2	*	2412.928	102.465	66.305	28.465	74.000	36.159	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b	



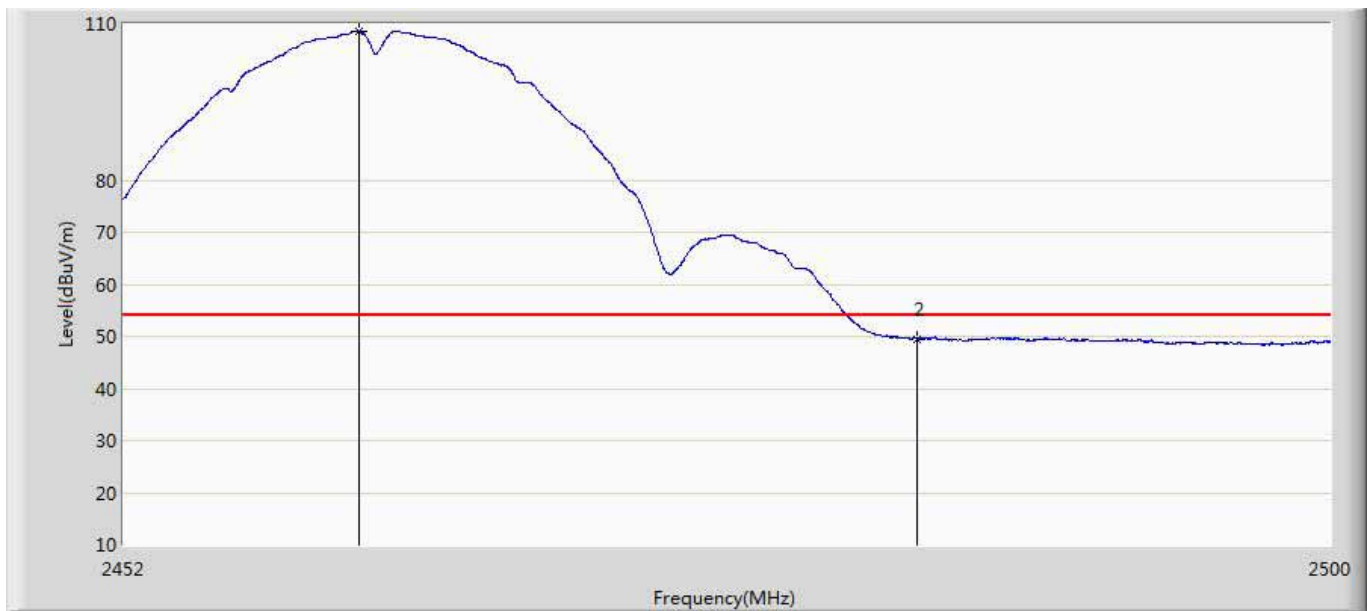
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.709	4.623	-13.291	54.000	36.086	AV
2	*	2411.024	99.489	63.330	45.489	54.000	36.159	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b	



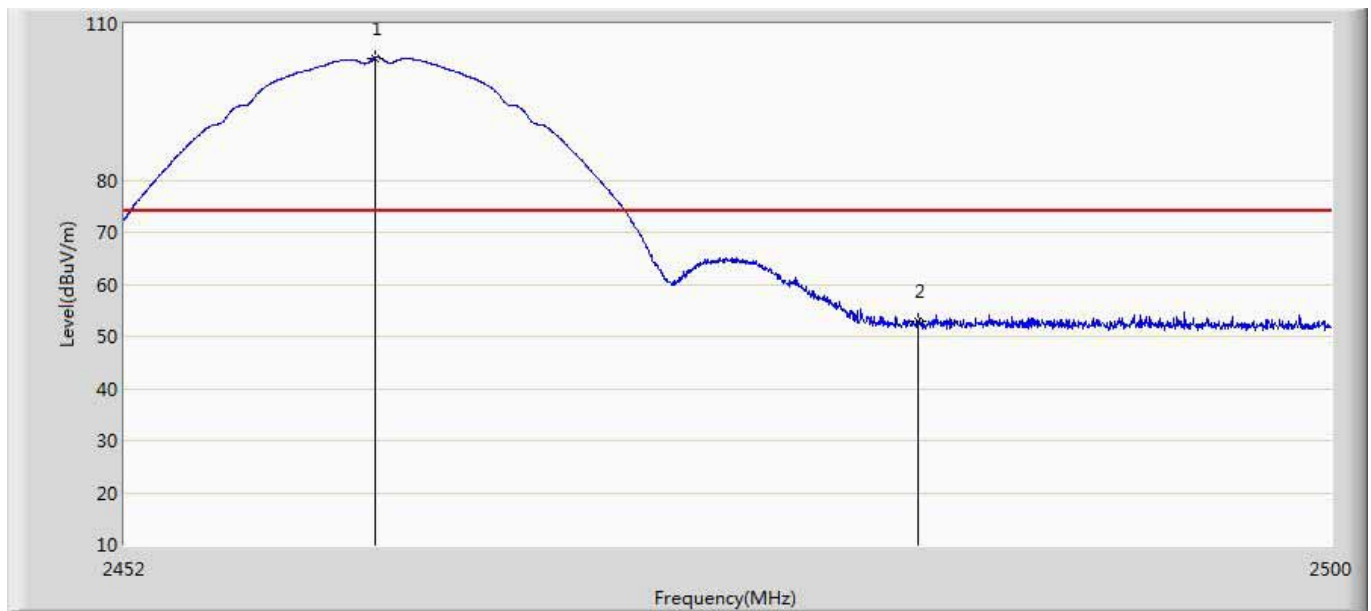
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.104	111.871	75.659	37.871	74.000	36.212	PK
2		2483.500	62.522	26.260	-11.478	74.000	36.261	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b	



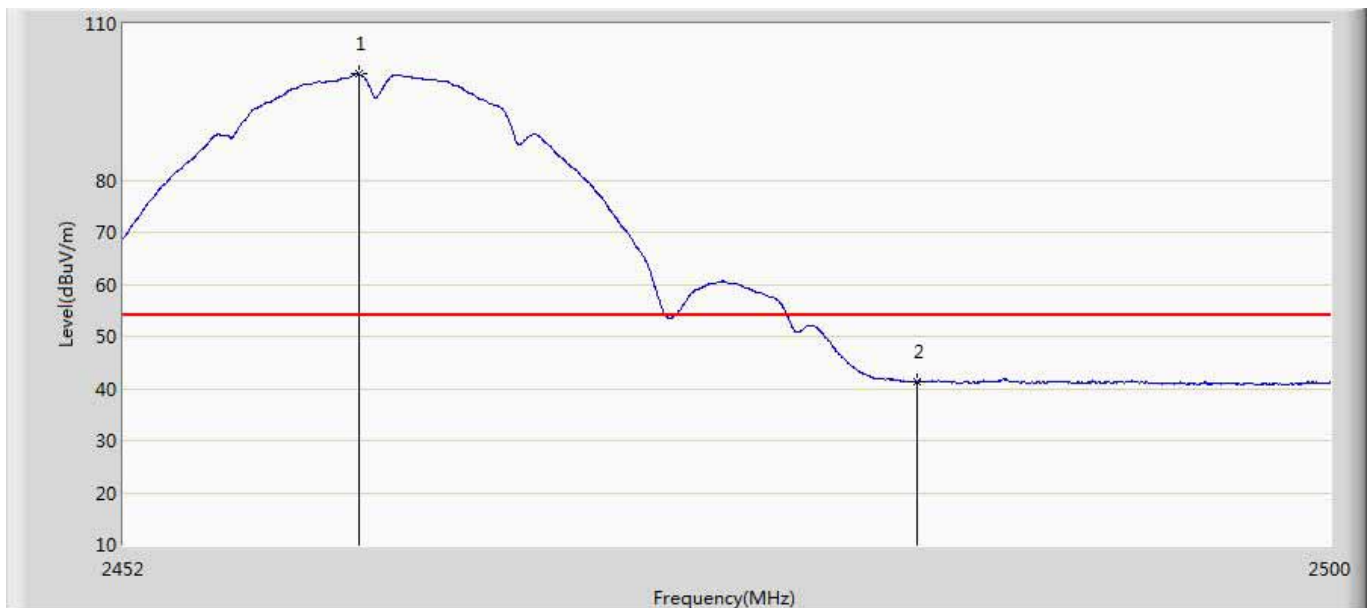
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.288	108.671	72.459	54.671	54.000	36.212	AV
2		2483.500	49.520	13.259	-4.480	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b	



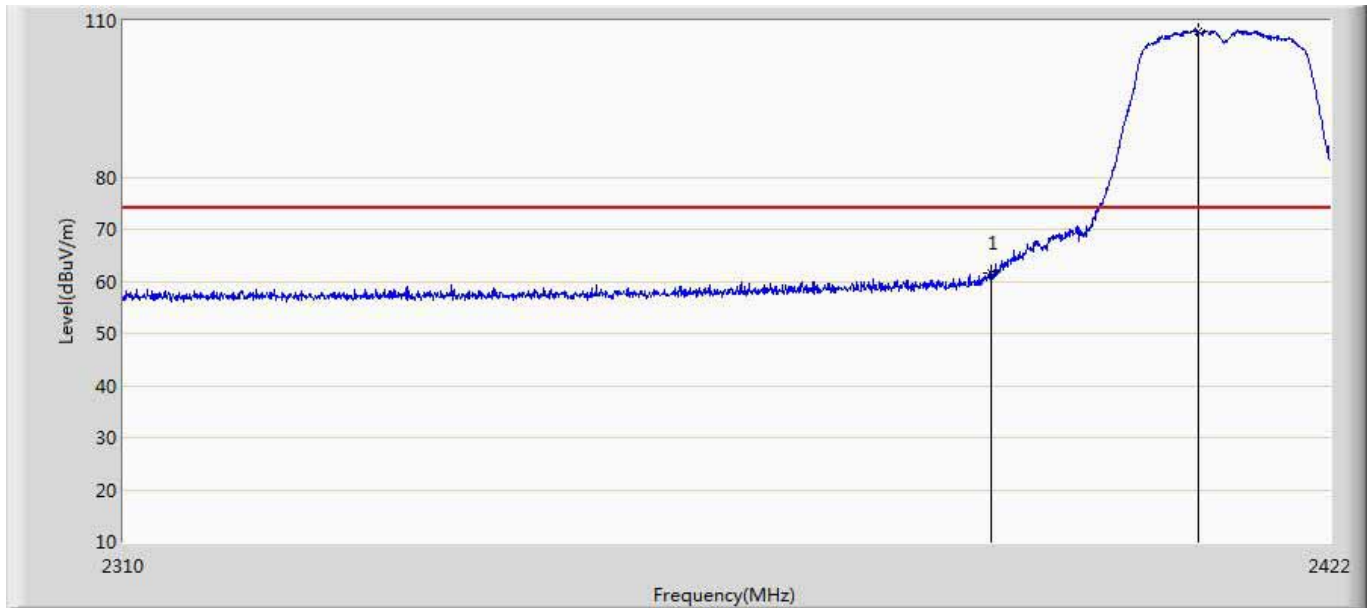
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.888	103.413	67.201	29.413	74.000	36.212	PK
2		2483.500	52.799	16.538	-21.201	74.000	36.261	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b	



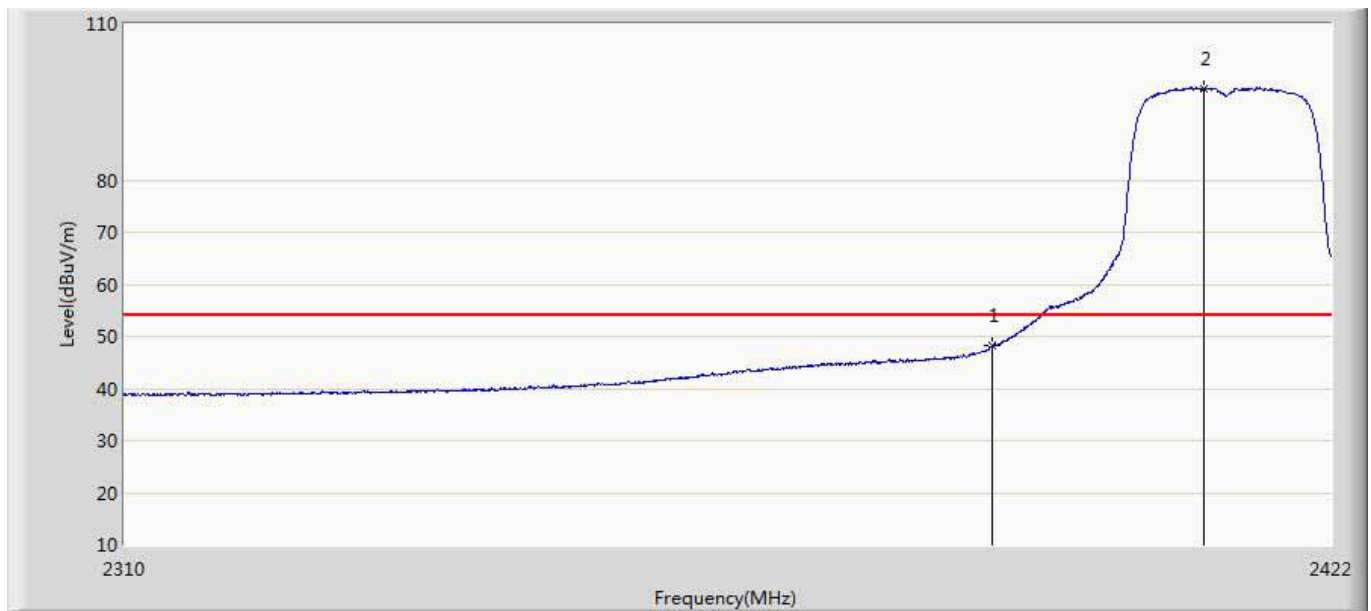
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.288	100.321	64.109	46.321	54.000	36.212	AV
2		2483.500	41.344	5.083	-12.656	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 15:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g	



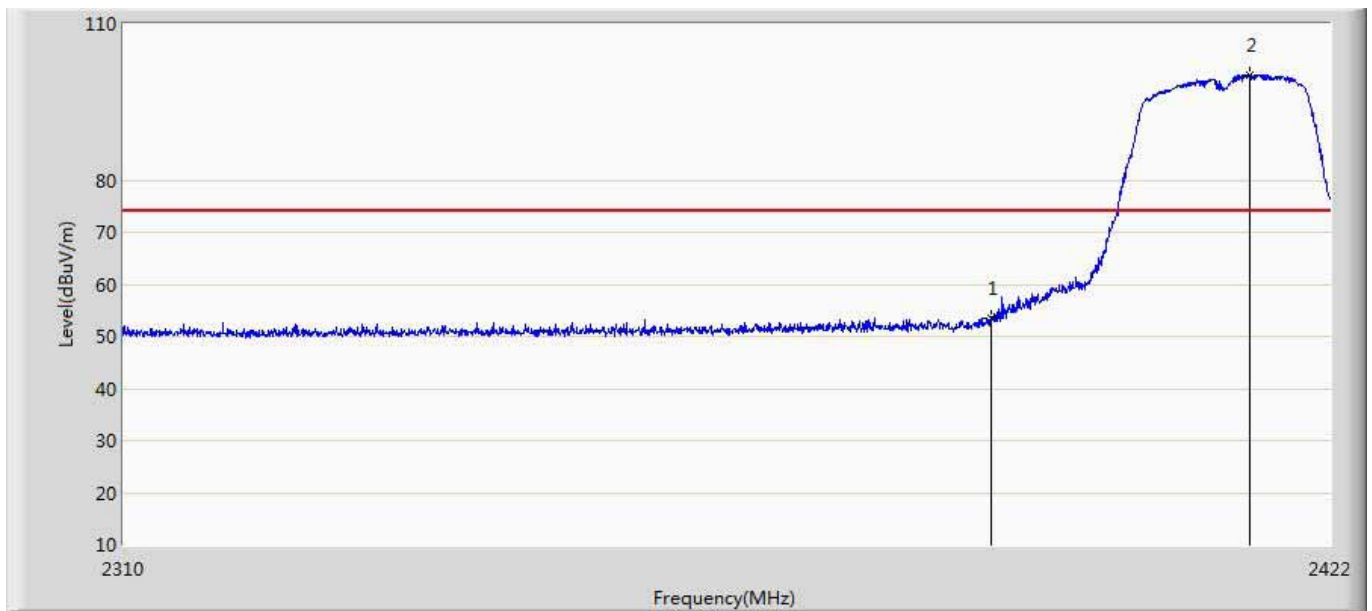
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	61.668	25.582	-12.332	74.000	36.086	PK
2	*	2409.568	108.092	71.938	34.092	74.000	36.153	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g	



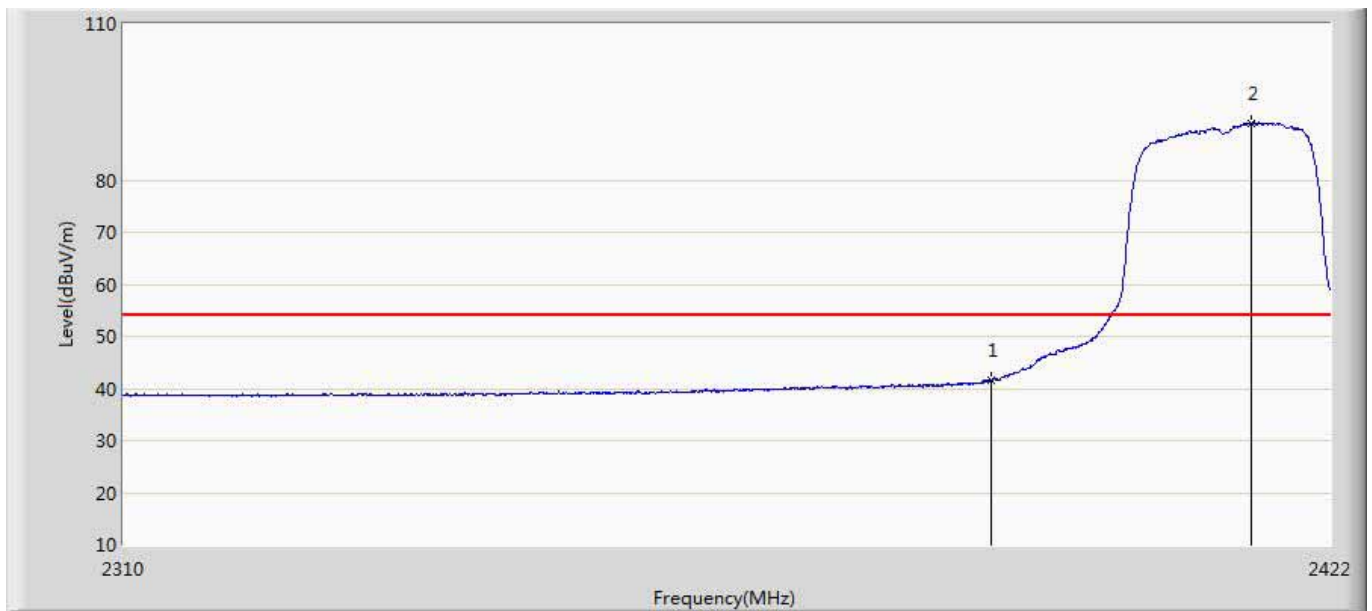
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.126	12.040	-5.874	54.000	36.086	AV
2	*	2409.960	97.472	61.317	43.472	54.000	36.155	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g	



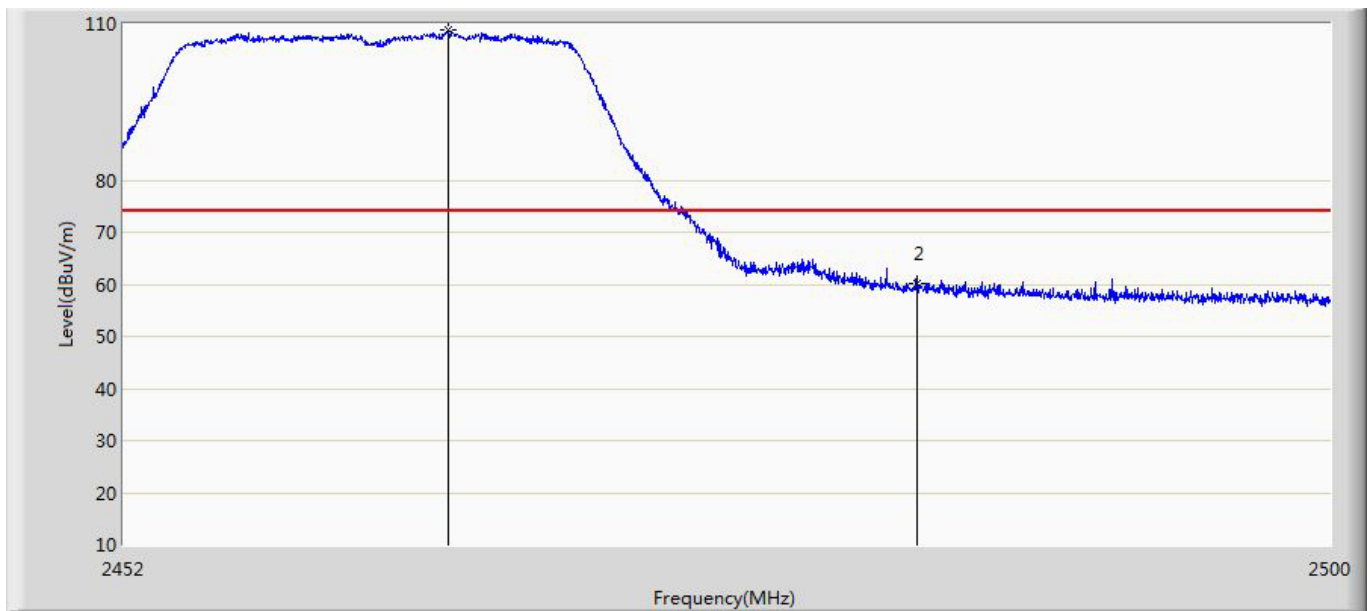
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.552	17.466	-20.448	74.000	36.086	PK
2	*	2414.328	100.278	64.118	26.278	74.000	36.160	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g	



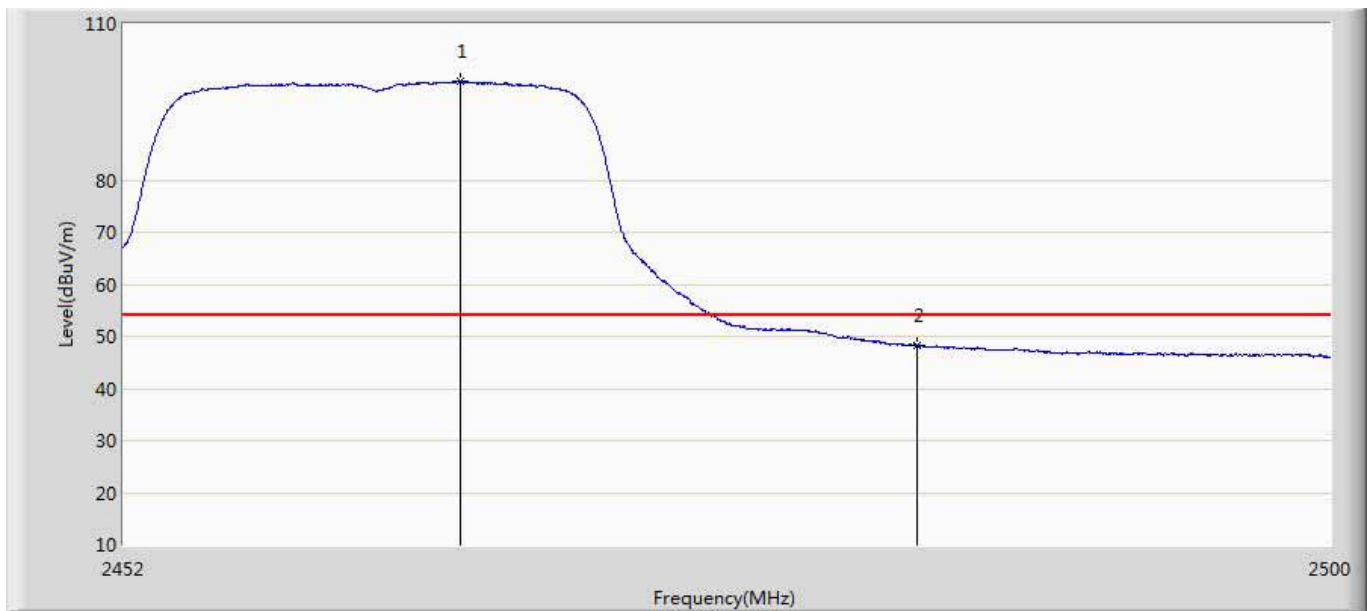
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.468	5.382	-12.532	54.000	36.086	AV
2	*	2414.496	90.940	54.780	36.940	54.000	36.160	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g	



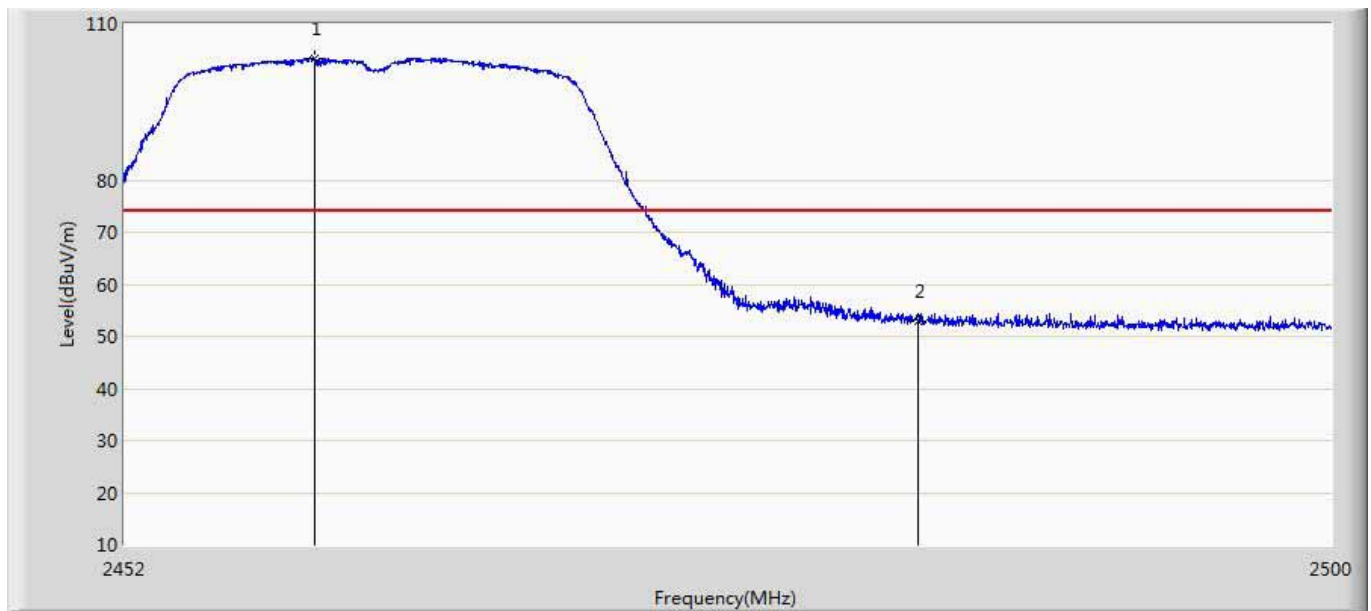
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.840	108.711	72.493	34.711	74.000	36.219	PK
2		2483.500	60.067	23.806	-13.933	74.000	36.261	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g	



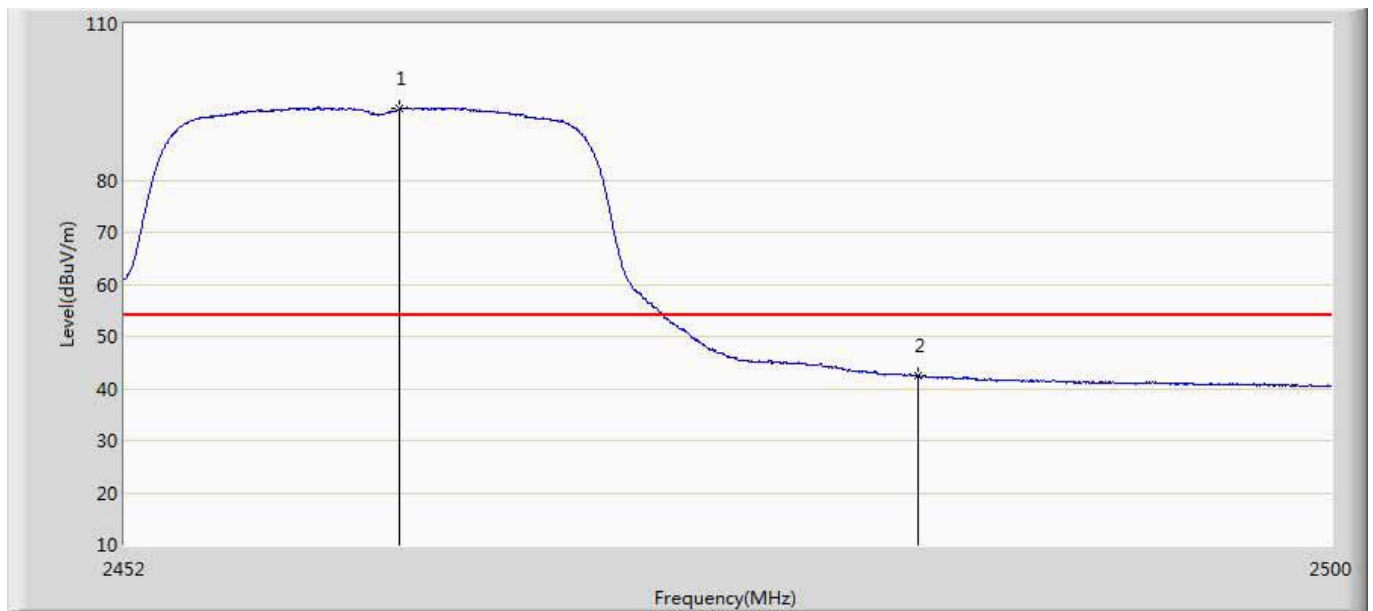
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2465.344	99.002	62.783	45.002	54.000	36.219	AV
2		2483.500	48.240	11.979	-5.760	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g	



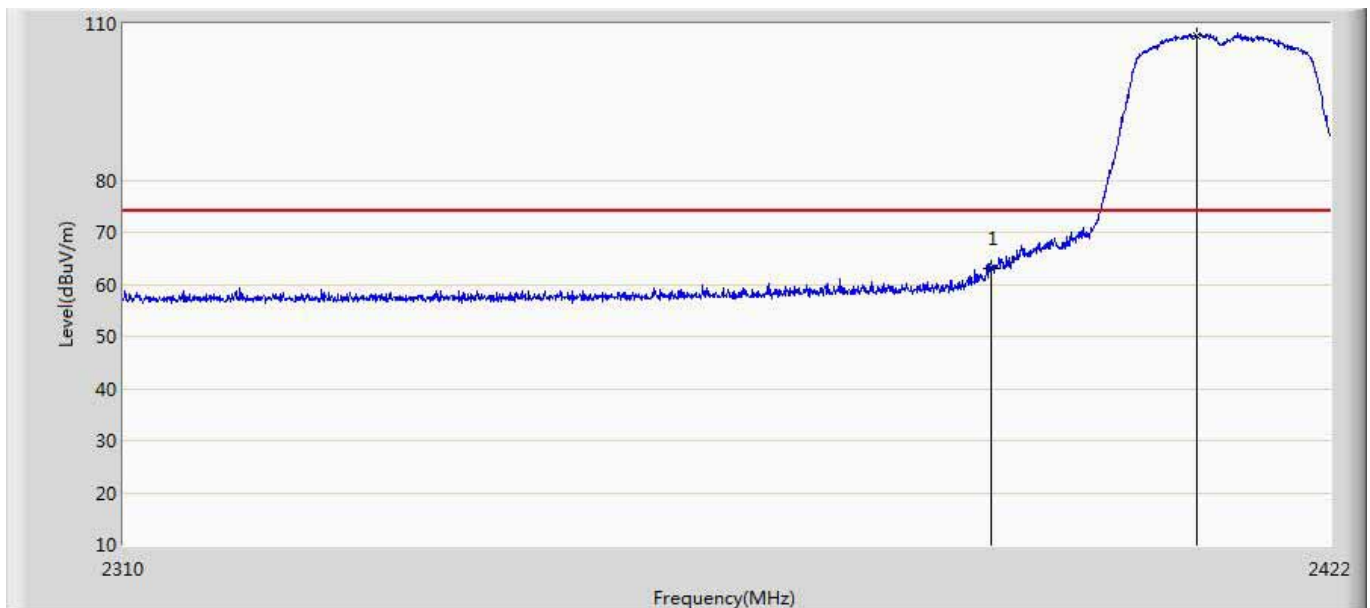
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2459.536	103.412	67.199	29.412	74.000	36.213	PK
2		2483.500	52.928	16.667	-21.072	74.000	36.261	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g	



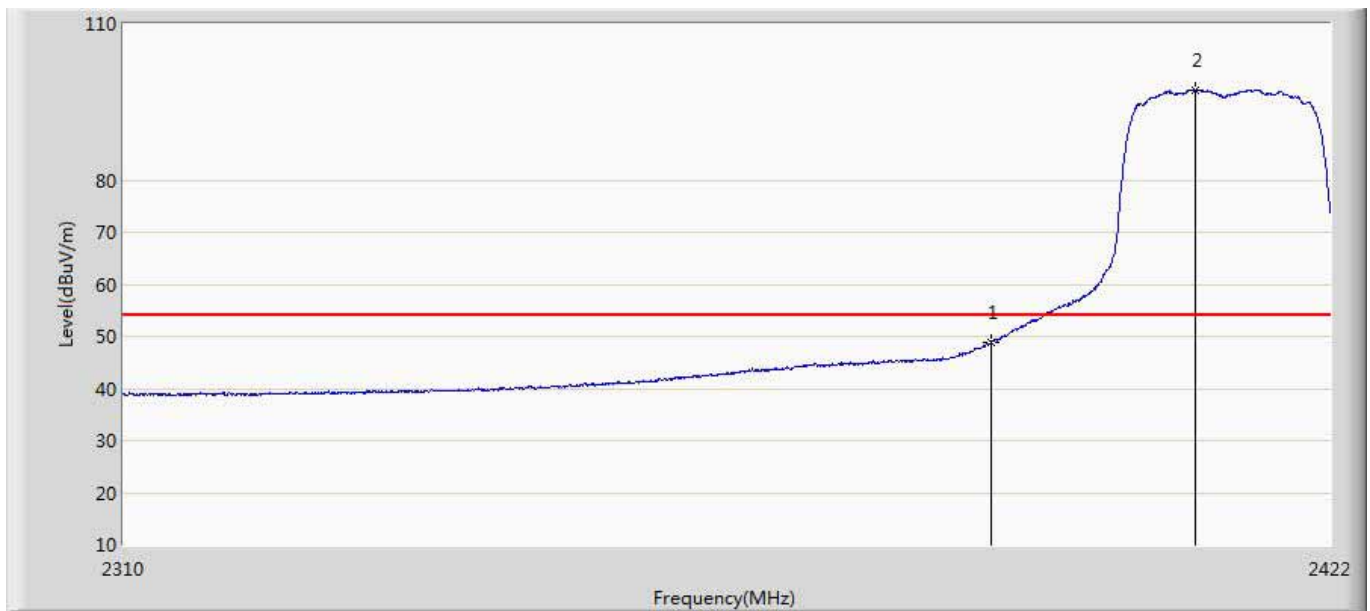
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.872	93.732	57.518	39.732	54.000	36.214	AV
2		2483.500	42.502	6.240	-11.498	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20	



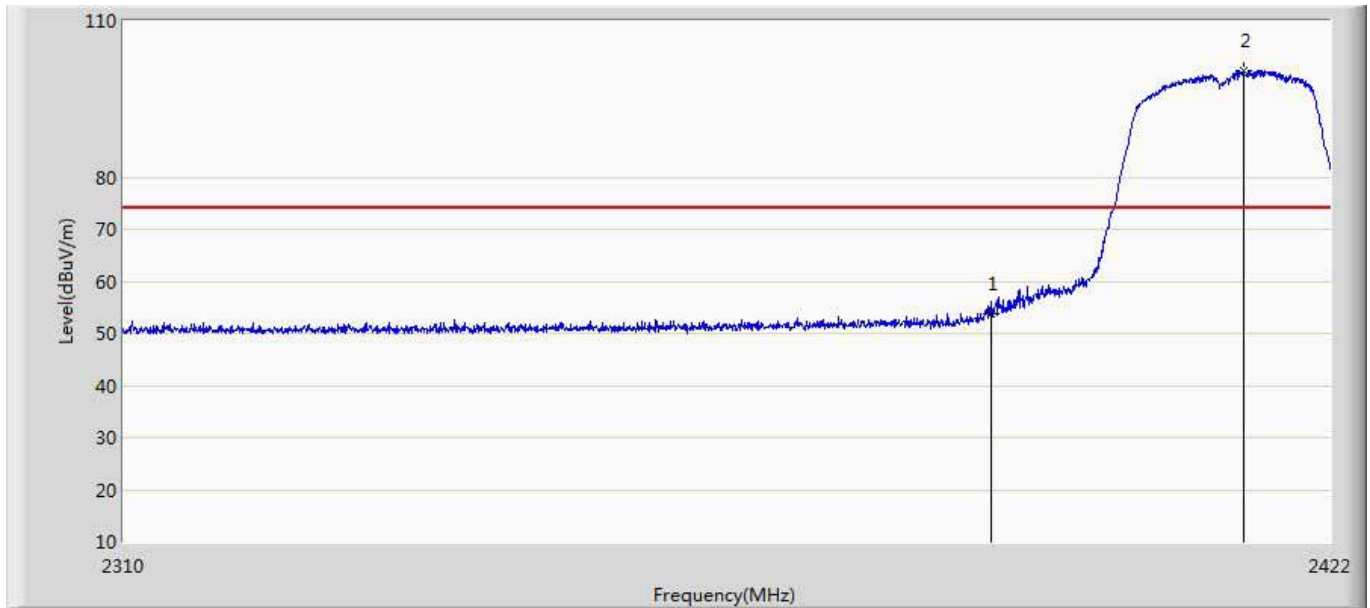
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	63.052	26.966	-10.948	74.000	36.086	PK
2	*	2409.344	107.762	71.609	33.762	74.000	36.153	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20	



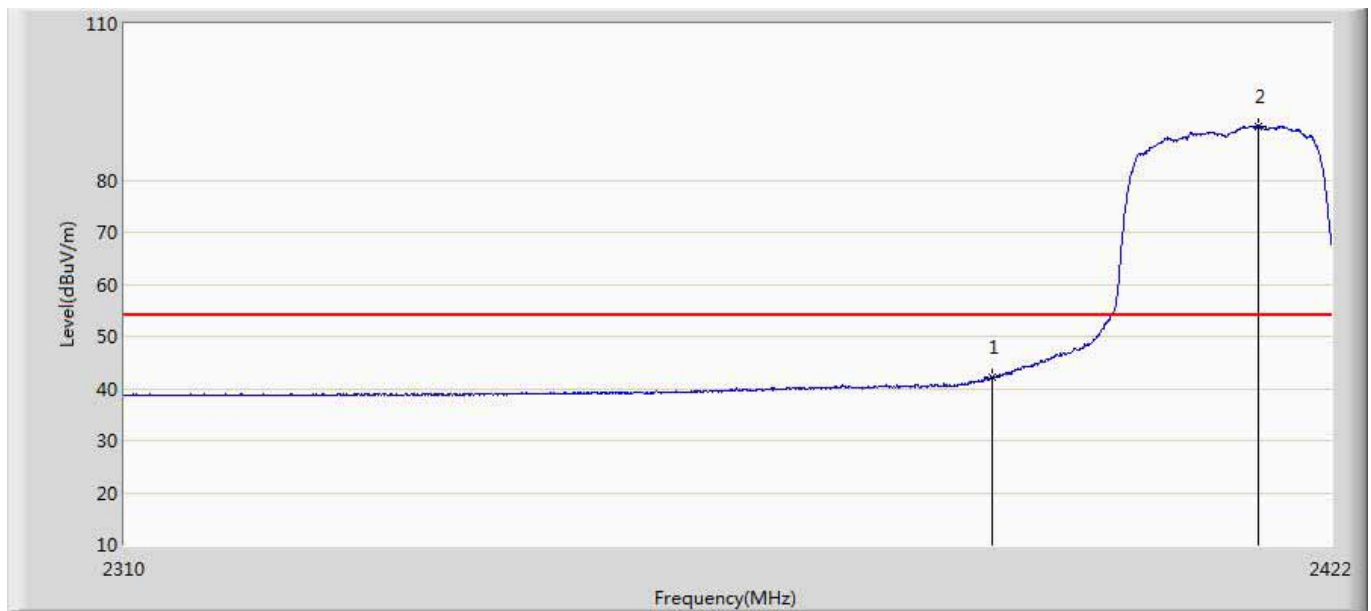
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.890	12.804	-5.110	54.000	36.086	AV
2	*	2409.232	97.212	61.060	43.212	54.000	36.152	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20	



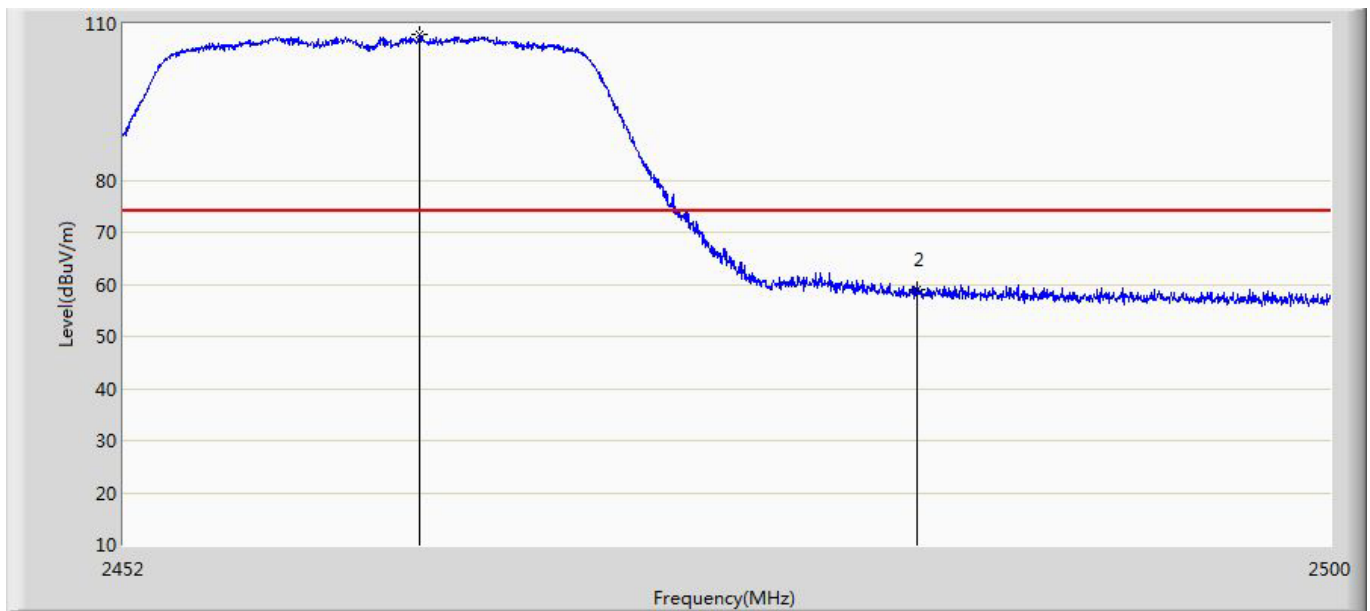
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.639	17.553	-20.361	74.000	36.086	PK
2	*	2413.824	100.344	64.184	26.344	74.000	36.160	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20	



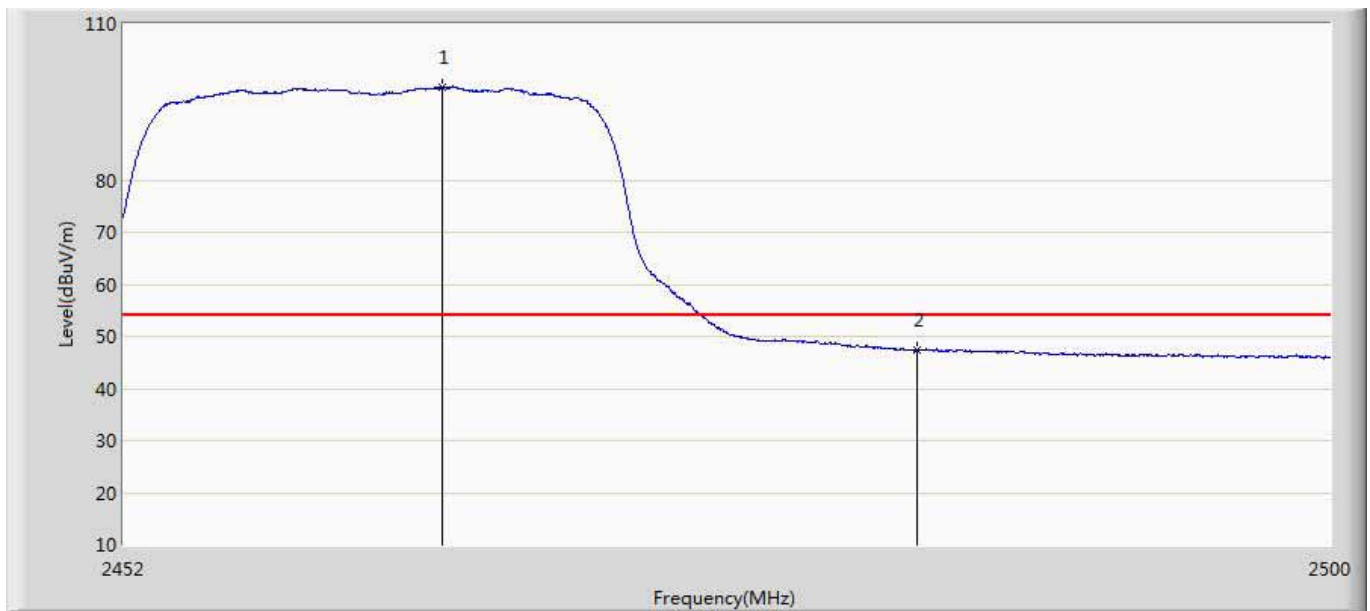
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.051	5.965	-11.949	54.000	36.086	AV
2	*	2415.056	90.404	54.244	36.404	54.000	36.160	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20	



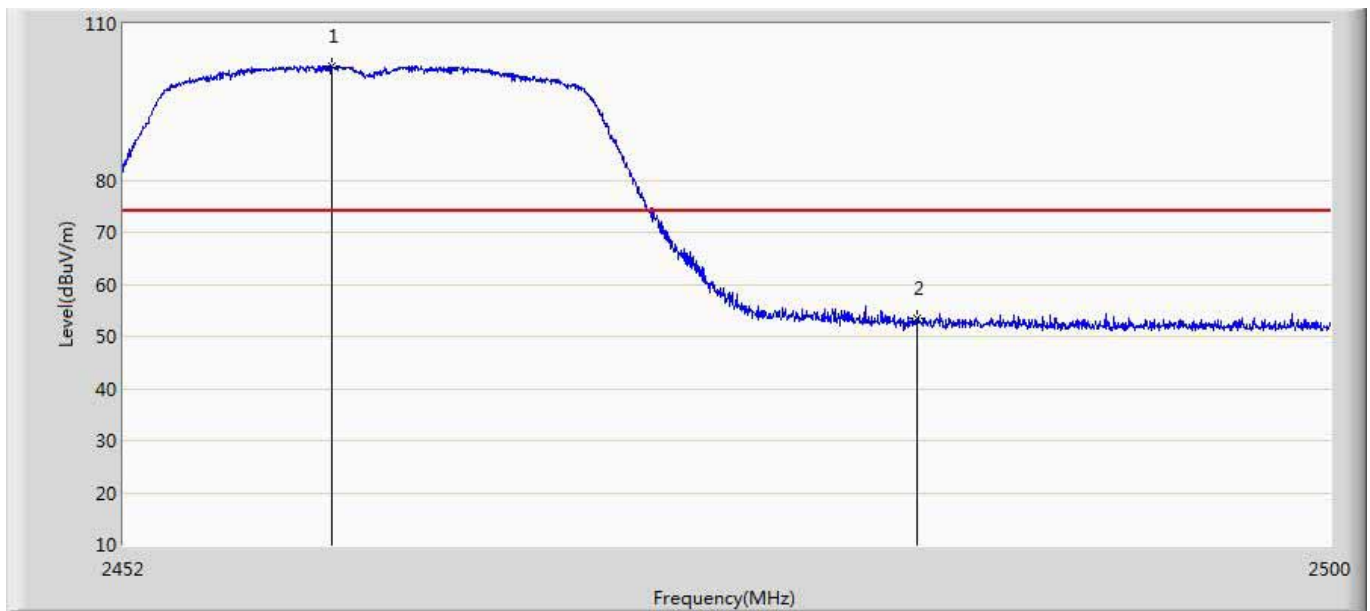
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.688	107.840	71.624	33.840	74.000	36.215	PK
2		2483.500	58.944	22.683	-15.056	74.000	36.261	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20	



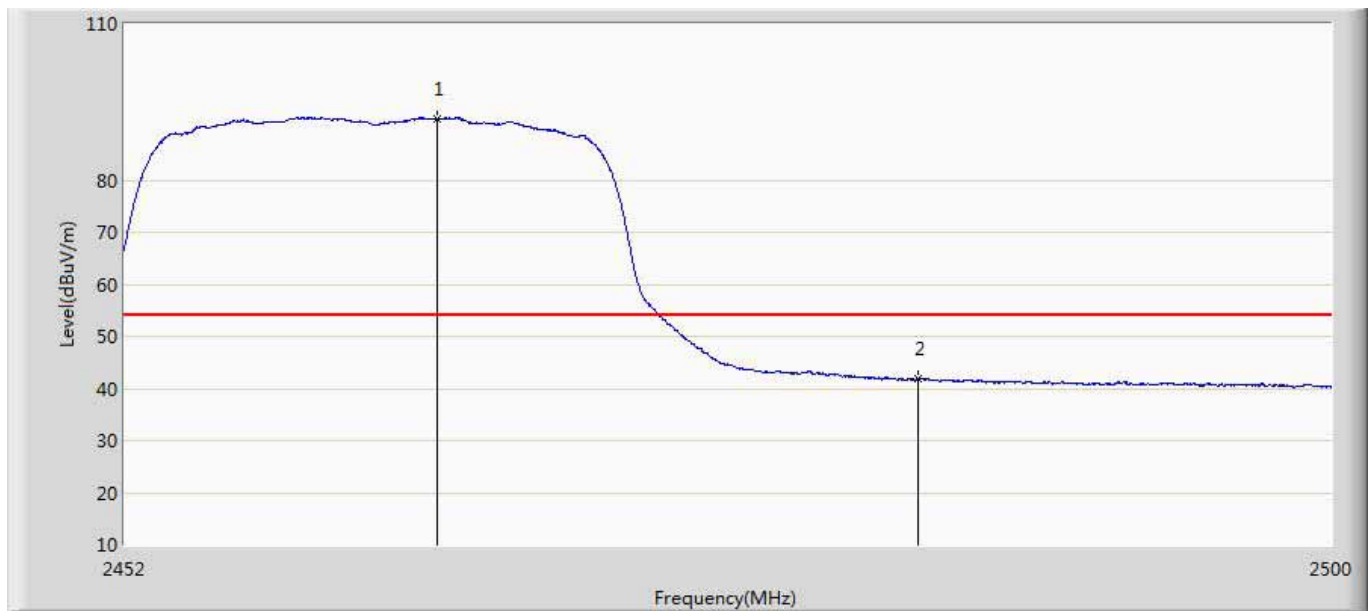
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.576	97.850	61.633	43.850	54.000	36.217	AV
2		2483.500	47.287	11.026	-6.713	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20	



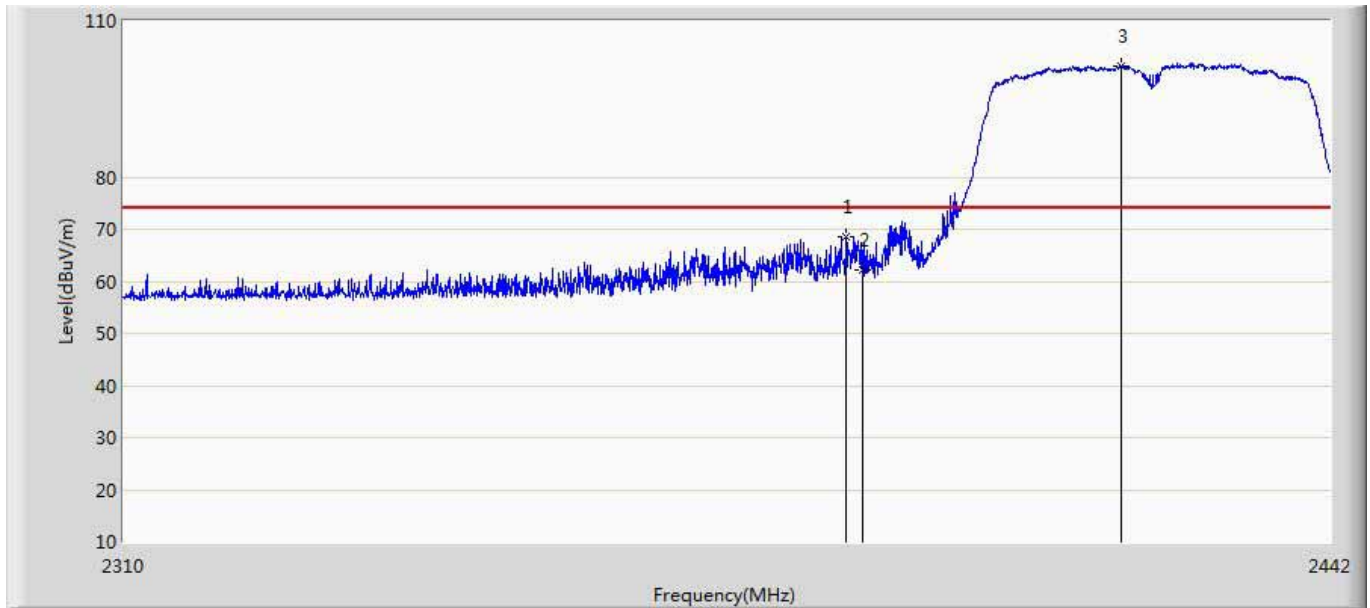
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2460.256	101.892	65.679	27.892	74.000	36.213	PK
2		2483.500	53.382	17.120	-20.618	74.000	36.261	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20	



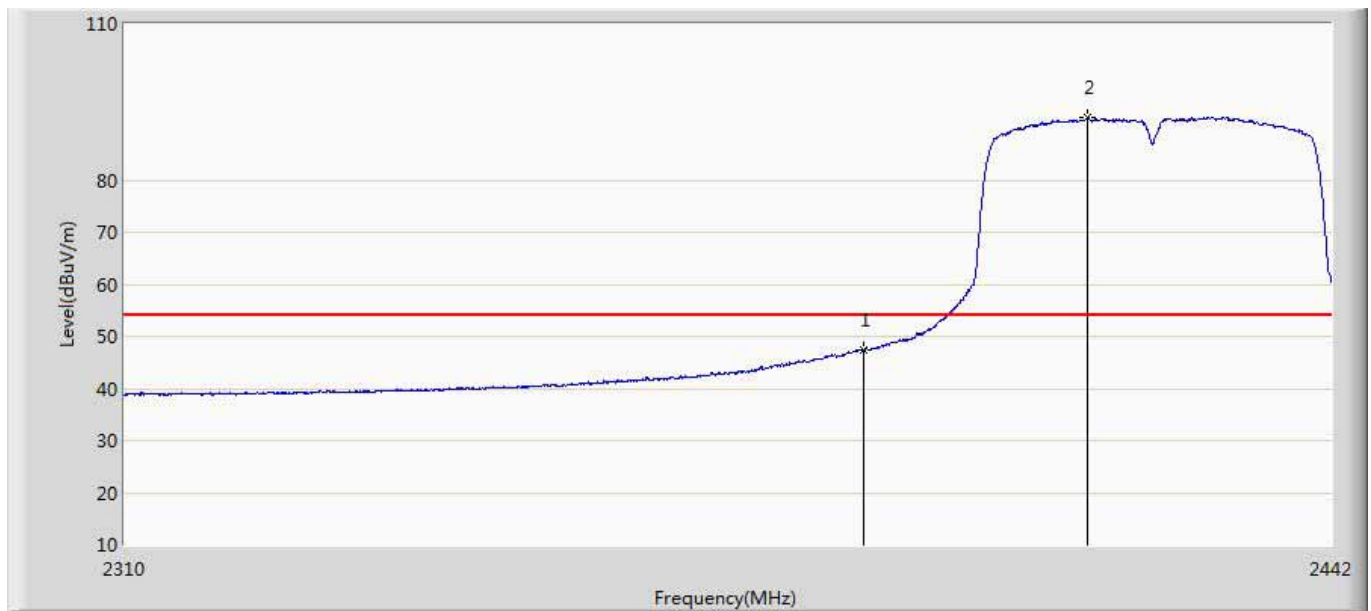
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.336	91.838	55.621	37.838	54.000	36.217	AV
2		2483.500	41.785	5.524	-12.215	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2422MHz by 802.11n40	



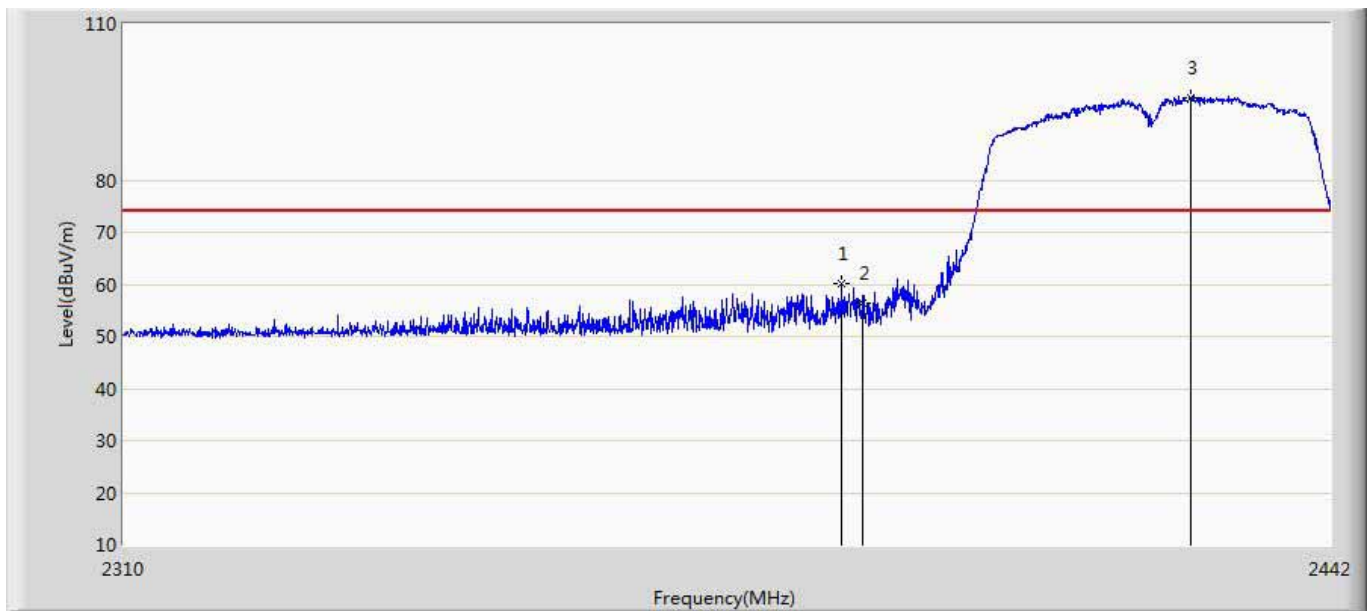
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2388.210	68.626	32.543	-5.374	74.000	36.083	PK
2		2390.000	62.116	26.030	-11.884	74.000	36.086	PK
3	*	2418.702	101.408	65.246	27.408	74.000	36.162	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2422MHz by 802.11n40	



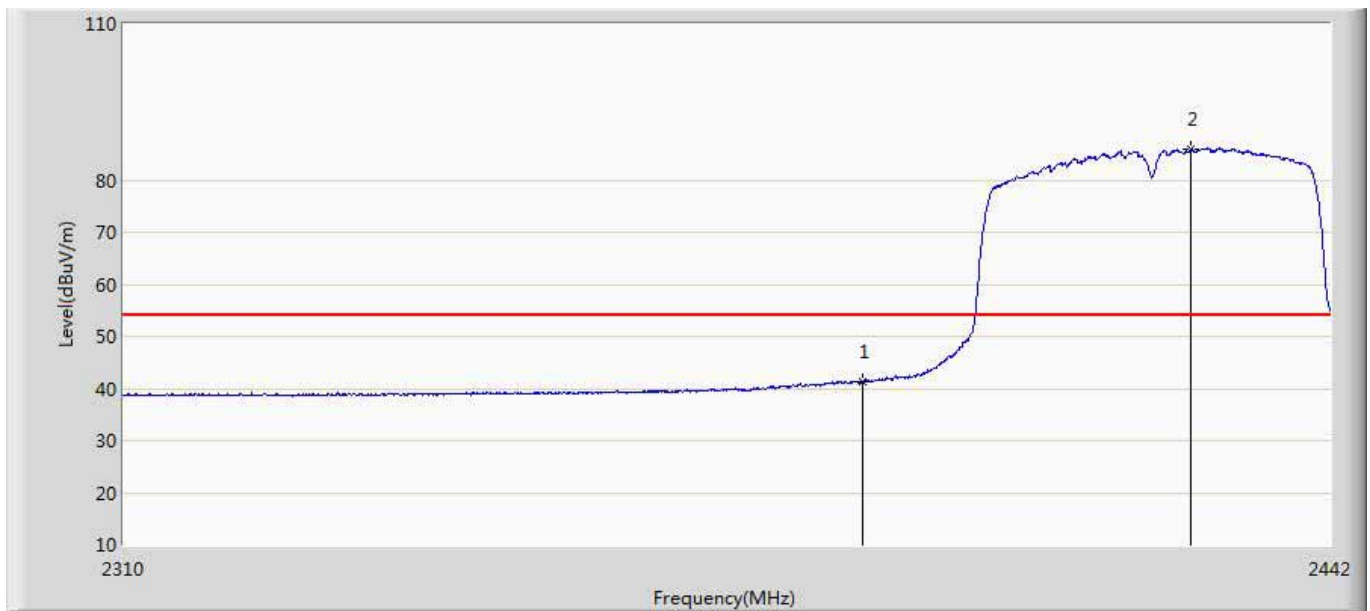
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	47.468	11.382	-6.532	54.000	36.086	AV
2	*	2414.742	91.921	55.761	37.921	54.000	36.161	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2422MHz by 802.11n40	



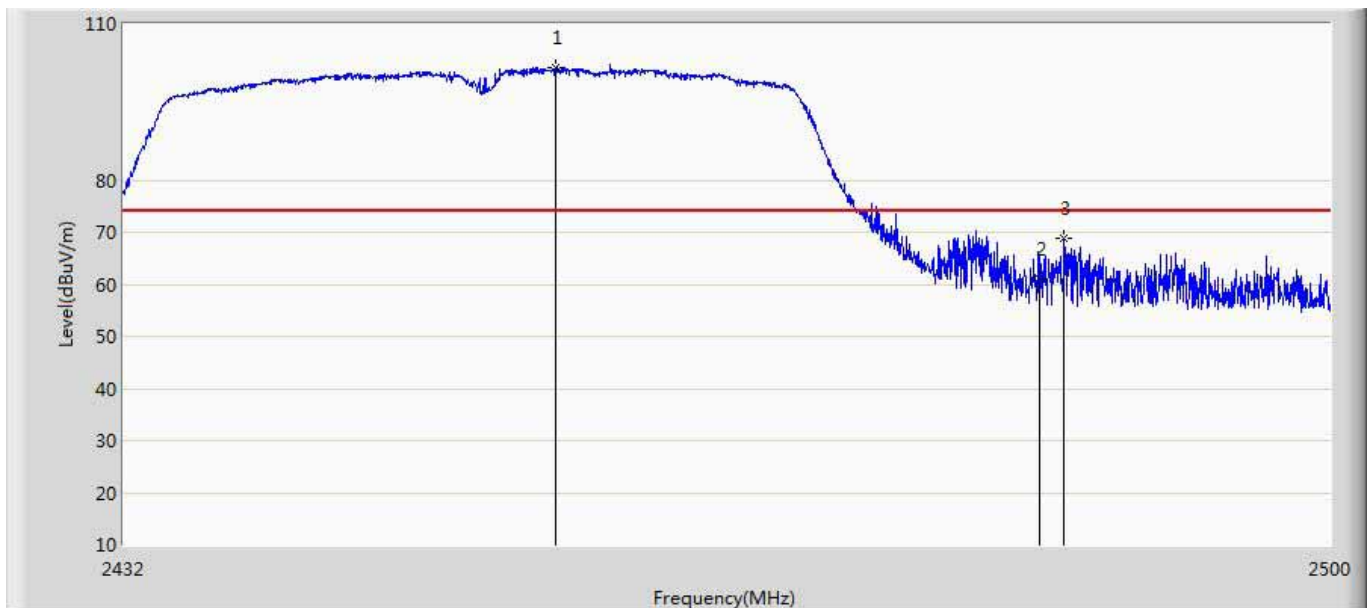
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2387.748	60.211	24.129	-13.789	74.000	36.082	PK
2		2390.000	56.431	20.345	-17.569	74.000	36.086	PK
3	*	2426.358	95.916	59.752	21.916	74.000	36.164	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 16:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2422MHz by 802.11n40	



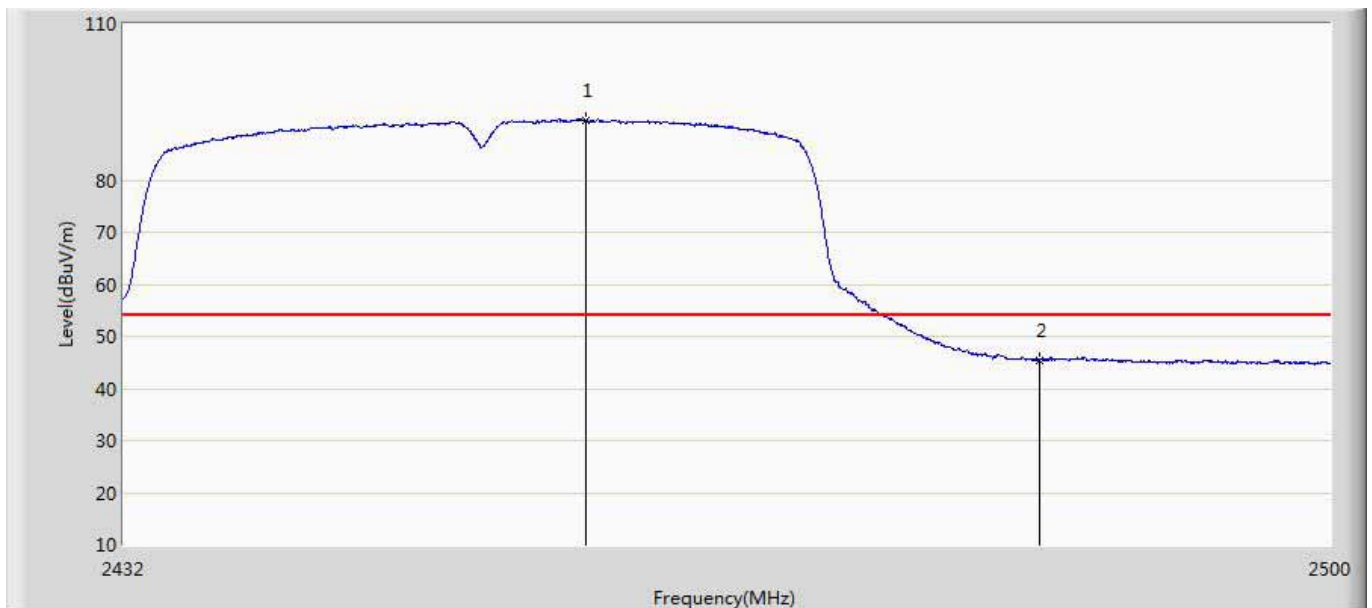
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.274	5.188	-12.726	54.000	36.086	AV
2	*	2426.424	86.067	49.903	32.067	54.000	36.164	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 17:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2452MHz by 802.11n40	



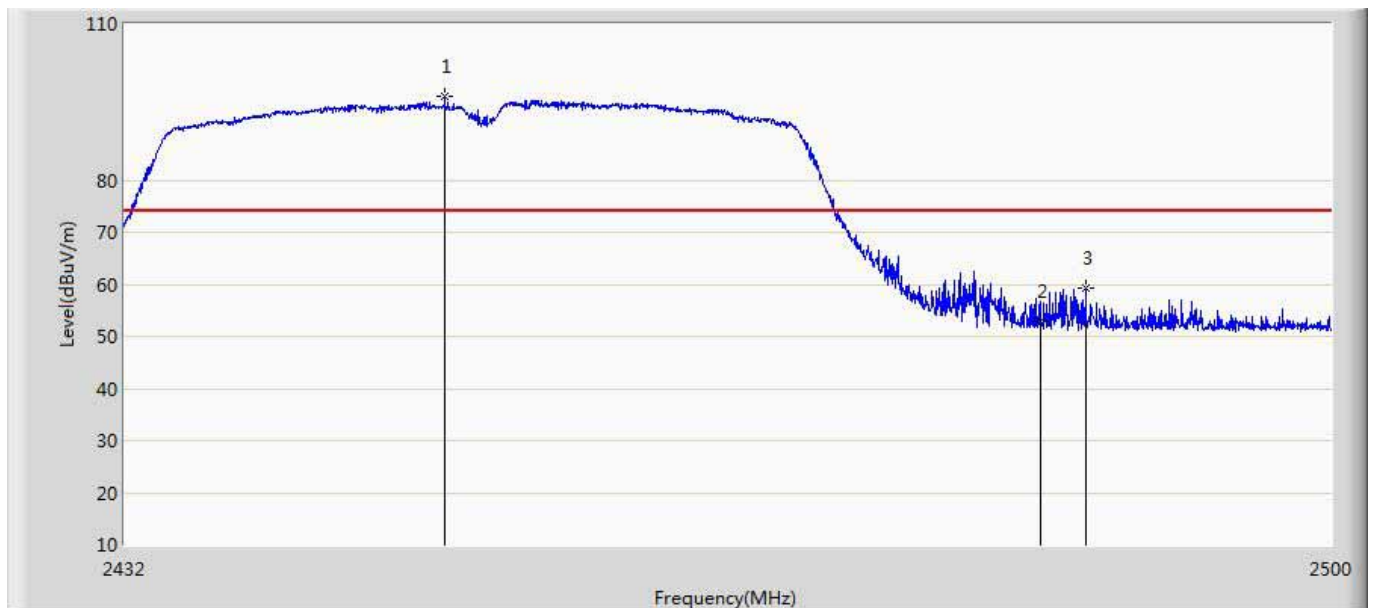
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.140	101.566	65.351	27.566	74.000	36.215	PK
2		2483.500	61.005	24.744	-12.995	74.000	36.261	PK
3		2484.870	68.878	32.612	-5.122	74.000	36.266	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 17:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2452MHz by 802.11n40	



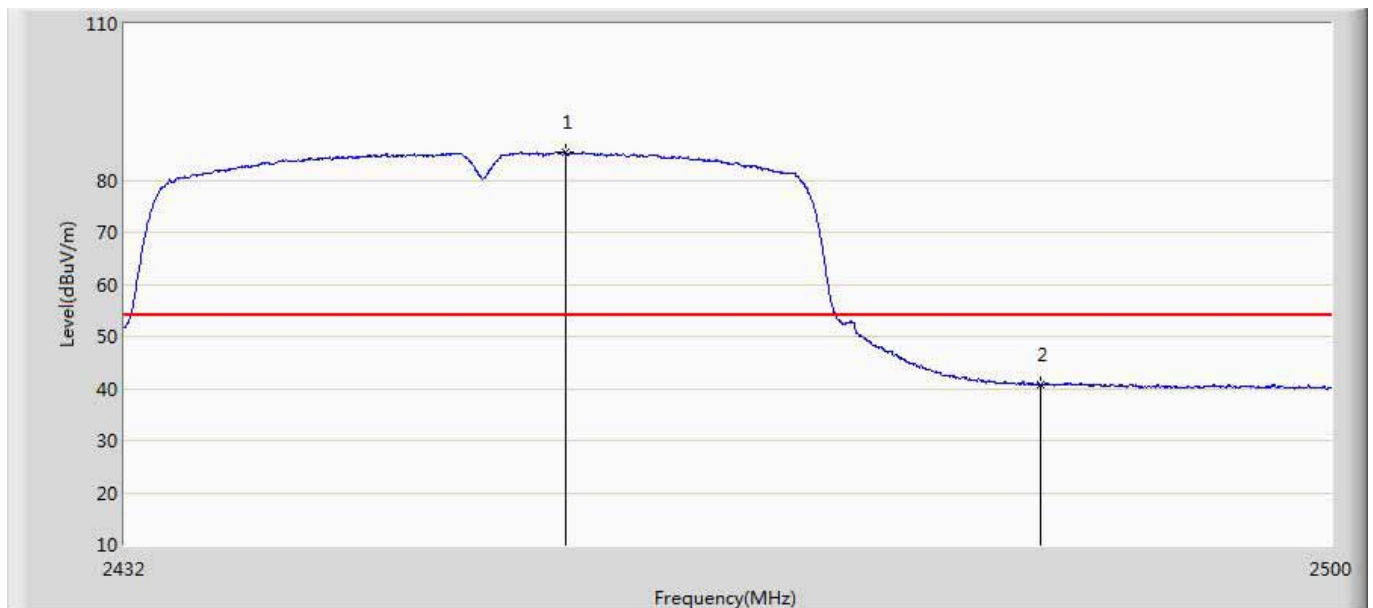
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.840	91.548	55.334	37.548	54.000	36.214	AV
2		2483.500	45.477	9.216	-8.523	54.000	36.261	AV

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 17:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit 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	*	2449.884	95.995	59.777	21.995	74.000	36.218	PK
2		2483.500	52.800	16.539	-21.200	74.000	36.261	PK
3		2486.026	59.361	23.092	-14.639	74.000	36.269	PK

Engineer: Simon	
Site: AC5	Time: 2016/07/30 - 17:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Virtual Reality Controller	Power: AC 120V/60Hz
Note: Mode 4:Transmit 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	*	2456.650	85.323	49.108	31.323	54.000	36.215	AV
2		2483.500	40.709	4.448	-13.291	54.000	36.261	AV

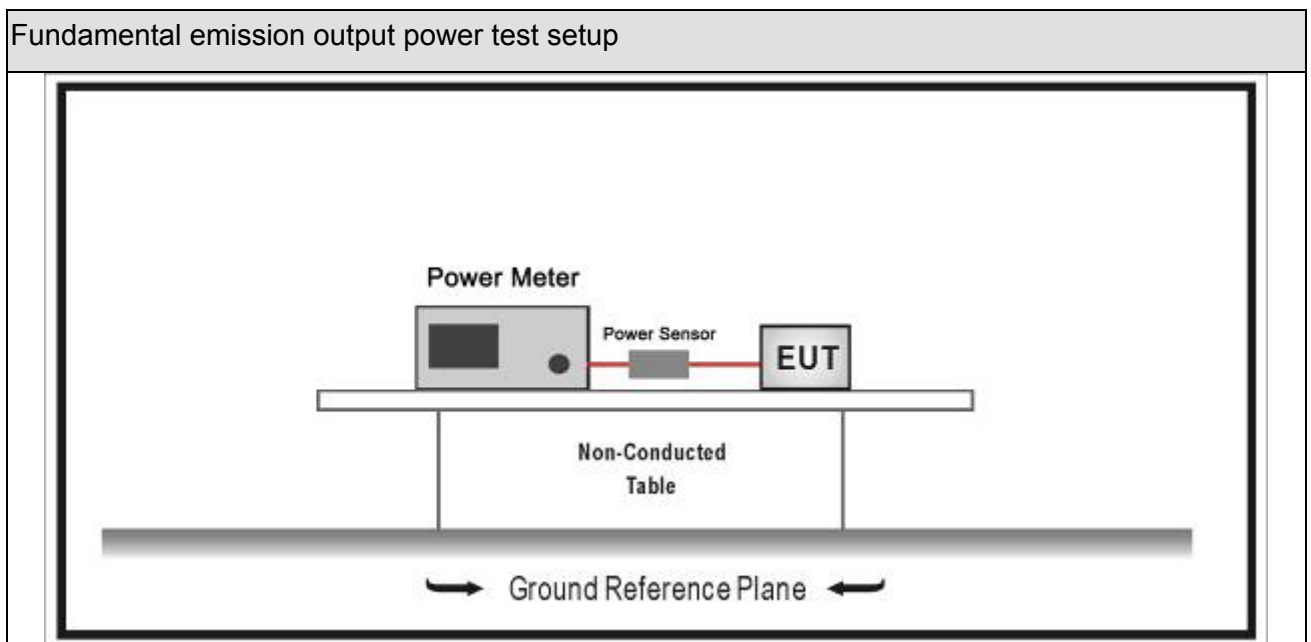
5. Fundamental emission output power

5.1. Test Equipment

Fundamental emission output power/ TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2016.01.04	2017.01.03
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.11	2017.03.10
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2015.11.11	2016.11.10
Power Sensor	Anritsu	MA2411B	0846014	2015.11.11	2016.11.10
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2016.04.10	2017.04.09

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

5.2. Test Setup



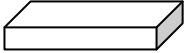
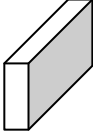
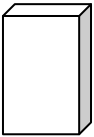


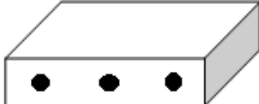
5.3. Limit

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

5.4. Test Procedure

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

5.5. EUT test definition

Item	Fundamental emission output power			
Device Category	<input checked="" type="checkbox"/>	Indoor use		
	<input type="checkbox"/>	Outdoor use		
	<input type="checkbox"/>	Fix position use		
	<input type="checkbox"/>	Mobile position use		
Test mode	Mode 1-4			
Test method	<input type="checkbox"/>	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>	Worst Axis <input type="checkbox"/>
	<input checked="" type="checkbox"/>	Conducted		
	<input type="checkbox"/>	Chain 0		
				
	<input type="checkbox"/>	Chain 0	Chain 1	
				
	<input checked="" type="checkbox"/>	Chain 0	Chain 1	Chain 2
				

5.6. Test Result

Product Name	:	Virtual Reality Controller	Test Power	:	AC 120V/60Hz
Test Site	:	TR8			

Mode	Channel	Test Frequency (MHz)	Measurement Power Output (dBm)	Antenna Gain (dBi)	Limit (dBm)	Result
1	01	2412	16.84	1.4	30	Pass
1	06	2437	16.91	1.4	30	Pass
1	11	2462	17.02	1.4	30	Pass
2	01	2412	19.87	1.4	30	Pass
2	06	2437	19.52	1.4	30	Pass
2	11	2462	19.59	1.4	30	Pass
3	01	2412	19.28	1.4	30	Pass
3	06	2437	23.82	1.4	30	Pass
3	11	2462	18.86	1.4	30	Pass
4	03	2422	17.43	1.4	30	Pass
4	06	2437	19.02	1.4	30	Pass
4	09	2452	15.03	1.4	30	Pass

_____ The End _____