



Test Report

FCC Part15 Subpart C & RSS-247 Issue 2

Product Name : LED lamp
Model No. : 9290022267
FCC ID : 2AGBW9290022267X
IC : 20812-2267X

Applicant : Signify (China) Investment Co., Ltd.
Address : Building no.9, Lane 888, Tianlin Road,
Minhang District, Shanghai 200233, China

Date of Receipt : July. 30, 2019
Test Date : July. 31, 2019~ Aug. 21, 2019
Issued Date : Sep. 24, 2019
Report No. : 1972174R-RF-US-P06V02
Report Version : V1.1

The test results presented in this report relate only to the object tested.

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The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to calculate the uncertainty associated with the measurement result.

This report is not used for social proof in China (or Mainland China) market.

Test Report Certification

Issued Date: Sep. 24, 2019

Report No. : 1972174R-RF-US-P06V02



Product Name : LED lamp
Applicant : Signify (China) Investment Co., Ltd.
Address : Building no.9, Lane 888, Tianlin Road, Minhang District,
Shanghai 200233, China
Manufacturer : Signify (China) Investment Co., Ltd.
Address : Building no.9, Lane 888, Tianlin Road, Minhang District,
Shanghai 200233, China
Model No. : 9290022267
FCC ID : 2AGBW9290022267X
IC : 20812-2267X
EUT Voltage : 110-130 Vac, 50-60 Hz, 7.5W
Test Voltage : AC120V/60Hz
Brand Name : PHILIPS
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C;
ANSI C63.10:2013;
KDB 558074 D01v05r02;
RSS-Gen Issue 5 / RSS-247 Issue 2
Test Result : Complied
Performed Location : DEKRA Testing & 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;
ISED CAB identifier: CN0040

Documented By :



(Adm. Specialist: Kitty Li)

Reviewed By :



(Senior Project Manager: Frank He)

Approved By :



(Engineering Supervisor: Jack Zhang)

TABLE OF CONTENTS

Description	Page
1. General Information	6
1.1. EUT Description	6
1.2. Working Frequency of Each Channel:	7
1.3. Antenna information	7
1.4. Mode of Operation	8
1.5. Tested System Details	8
1.6. Configuration of Tested System	9
1.7. EUT Exercise Software	10
2. Technical Test	11
2.1. Summary of Test Result	11
2.2. Test Frequency configuration:	13
2.3. Test Environment	14
2.4. Measurement Uncertainty	14
3. AC Power Line Conducted Emission	15
3.1. Test Equipment	15
3.2. Test Setup	15
3.3. Limit	16
3.4. Test Procedure	16
3.5. Test Result	17
4. Emissions in restricted frequency bands	19
4.1. Test Equipment	19
4.2. Test Setup	20
4.3. Limit	21
4.4. Test Procedure	24
4.5. EUT test Axis definition	25
4.6. Test Result	26
5. Emissions in non-restricted frequency bands	74
5.1. Test Equipment	76
5.2. Test Setup	76
5.3. Limit	77
5.4. Test Procedure	78
5.5. EUT test Axis definition	79
5.6. Test Result	80
6. Radiated Emission Band Edge	82
6.1. Test Equipment	82
6.2. Test Setup	83
6.3. Limit	83

6.4.	Test Procedure	84
6.5.	EUT test definition	85
6.6.	Duty Cycle	86
6.7.	Test Result.....	90
7.	Occupied Bandwidth.....	154
7.1.	Test Equipment.....	154
7.2.	Test Setup.....	154
7.3.	Limit.....	155
7.4.	Test Procedure	155
7.5.	EUT test definition	156
7.6.	Test Result.....	157
8.	Fundamental emission output power	173
8.1.	Test Equipment.....	173
8.2.	Test Setup.....	173
8.3.	Limit.....	174
8.4.	Test Procedure	175
8.5.	EUT test definition	176
8.6.	Test Result.....	177
9.	Power Spectral Density	179
9.1.	Test Equipment.....	179
9.2.	Test Setup.....	179
9.3.	Limit.....	179
9.4.	Test Procedure	180
9.5.	EUT test definition	181
9.6.	Test Result.....	182
10.	Antenna Requirement.....	184
10.1.	Limit.....	184
10.2.	Antenna Connector Construction.....	184

History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1972174R-RF-US-P06V02	V1.0	Initial Issued Report	Sep. 03, 2019
1972174R-RF-US-P06V02	V1.1	Added 99% bandwidth of LE mode.	Sep. 24, 2019

1. General Information

1.1. EUT Description

Product Name	LED lamp				
Model No.	9290022267				
EUT Voltage	110-130 Vac, 50-60 Hz, 7.5W				
Test Voltage	AC 120V/60Hz				
Bluetooth Specification	V5.0				
Frequency Range	2402- 2480 MHz				
Channel Number	V5.0: 40				
Channel Separation	V5.0: 2MHz				
Type of Modulation	V5.0: GFSK				
PHYs	☒	LE 1M	☒	LE 2M	☒ LE Coded S=2/8
Data Rate	☒	1Mbit/s	☒	2Mbit/s	☒ 500/125 Kbit/s
Antenna Type	Reference to Antenna List				
Peak Antenna Gain	Reference to Antenna List				

Note 1: We have evaluated both modes of LE 1M, LE 2M and LE coded, the power of LE 1M mode is higher than other mode, the test data of both modes is showed in the report with test items power and bandwidth; the test data of worse mode is showed with other test items.

Note 2: LED lamp supports two kinds of Crystal oscillator (murata/ Diodes), there is not any change in RF design, circuitry or construction for this device, including RF parameters (antenna, software, firmware and hardware versions, power, frequency ranges, etc.), so only power, spurious emission and band-edge were tested for different crystal oscillator, the test data of worse mode is showed with other test items.

1.2. Working Frequency of Each Channel:

Bluetooth Working Frequency of Each Channel: (For V5.0)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz	03	2408 MHz
04	2410 MHz	05	2412 MHz	06	2414 MHz	07	2416 MHz
08	2418 MHz	09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz	15	2432 MHz
16	2434 MHz	17	2436 MHz	18	2438 MHz	19	2440 MHz
20	2442 MHz	21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz	27	2456 MHz
28	2458 MHz	29	2460 MHz	30	2462 MHz	31	2464 MHz
32	2466 MHz	33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz	39	2480 MHz

1.3. Antenna information

Antenna manufacturer	N/A					
Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX
Antenna technology	☒	SISO				
	☐	MIMO	☐	Basic		
			☐	CDD		
			☐	Beam-forming		
Antenna Type	☐	External	☐	Dipole		
	☒	Internal	☐	PIFA		
			☒	PCB		
			☐	Ceramic Chip Antenna		
			☐	Stamping Antenna		
			☐	Metal plate type F antenna		
			☐	Monopole antenna		
Antenna Gain	0.5dBi					

1.4. Mode of Operation

Test Mode
Mode 1: Transmit-1Mbps(GFSK_LE 1M)
Mode 2: Transmit-2Mbps(GFSK_LE 2M)
Mode 3: Transmit-125Kbps(GFSK_LE Coded)
Mode 4: Transmit-500Kbps(GFSK_LE Coded)

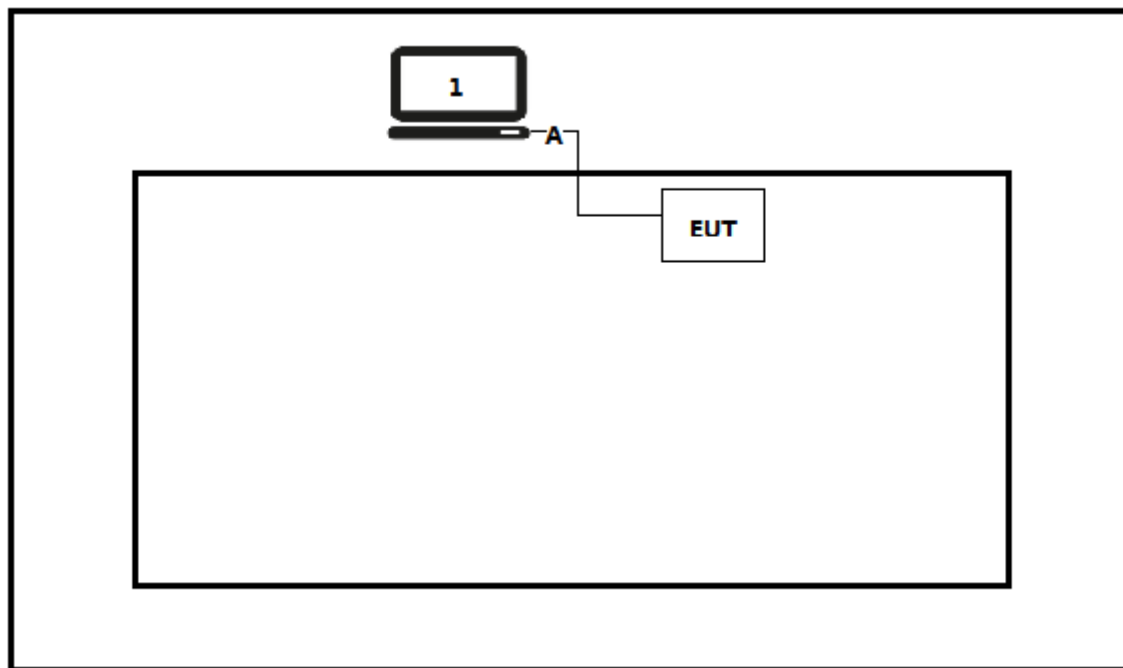
1.5. Tested System Details

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

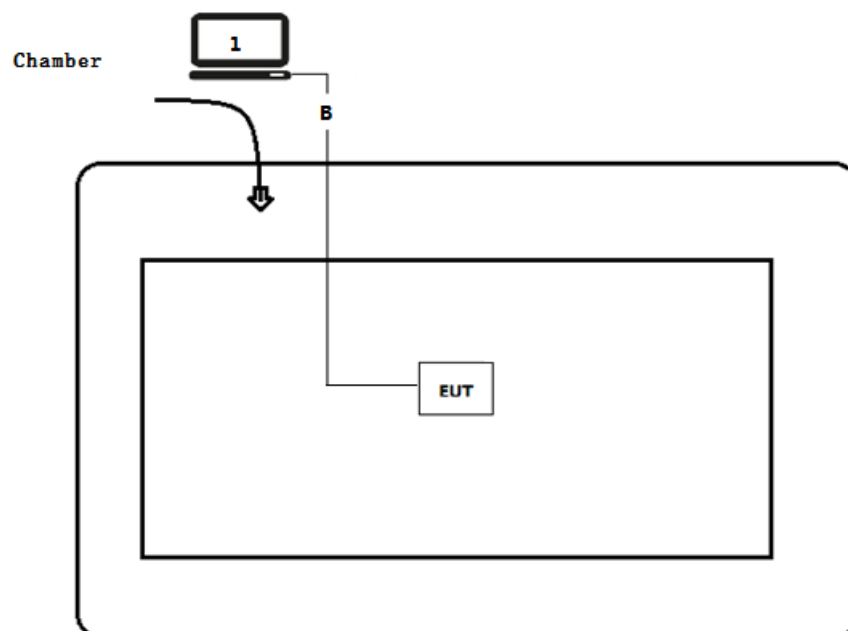
No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Think Pad	2526	LV-A3285	Power by adapter
A	Control cable	N/A	N/A	N/A	Shielded,0.5m
B	Control cable	N/A	N/A	N/A	Shielded,10m

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 all equipment.
3	Run RF software [HueApprobation Tool], and set the test mode and channel, then press OK to start to continue transmit.

2. Technical Test

2.1. Summary of Test Result

For FCC

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)	$\geq 20\text{dBc}$	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)	$\geq 500\text{kHz}$	PASS
Fundamental emission output power	FCC CFR Title 47 Part 15 Subpart C Section 15.247(b)(3)	$\leq 30\text{dBm}$	PASS
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C Section 15.247(e)	$\leq 8\text{dBm}/3\text{kHz}$	PASS
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C Section 15.203	FCC 15.203	PASS

For ISED

Performed Test Item	Normative References	Limit	Result
AC Power Line Conducted Emission	RSS-Gen Issue 5 Section 8.8	RSS-Gen	PASS
Emissions in restricted frequency bands	RSS-Gen Issue 5 Section 8.10	RSS-Gen	PASS
Emissions in non-restricted frequency bands	RSS-247 Issue 2 Section 5.5	$\geq 20\text{dBc}$	PASS
Radiated Emission Band Edge	RSS-Gen Issue 5 Section 8.10	RSS-Gen	PASS
Occupied Bandwidth	RSS-Gen Issue 5 Section 6.7	$\geq 500\text{kHz}$	PASS
Fundamental emission output power	RSS-247 Issue 2 Section 5.4(d)	$\leq 30\text{dBm}$	PASS
Power Spectral Density	RSS-247 Issue 2 Section 5.2(b)	$\leq 8\text{dBm}/3\text{kHz}$	PASS
Antenna Requirement	RSS-Gen Issue 5 Section 6.8	RSS-Gen Issue 5	PASS

2.2. Test Frequency configuration:

Modulation Mode	Channel	Frequency	Channel	Frequency	Channel	Frequency
Mode1~3	00	2402 MHz	19	2440 MHz	39	2480MHz

2.3. 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

2.4. 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	$\pm 1.27\text{dB}$

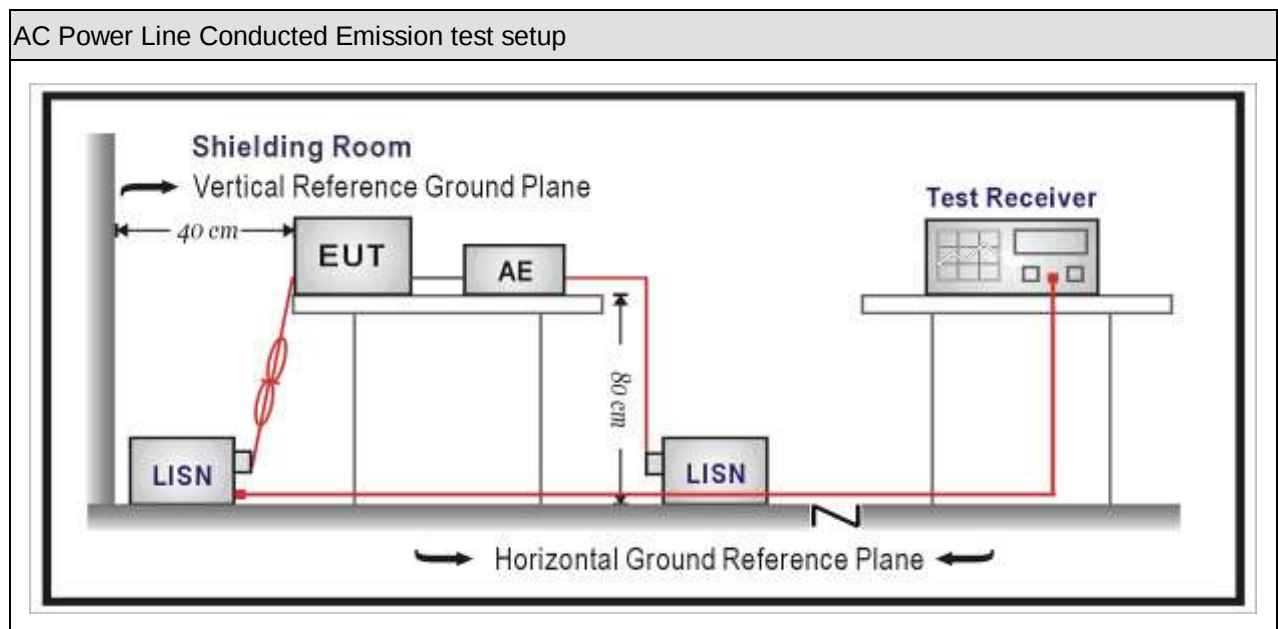
3. AC Power Line Conducted Emission

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	100906	2019.03.05	2020.03.04
Two-Line V-Network	R&S	ENV 216	101189	2019.07.16	2020.07.15
Two-Line V-Network	R&S	ENV 216	101044	2018.09.16	2019.09.15
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
50ohm Termination	SHX	TF2	07081402	2018.09.16	2019.09.15
Temperature/Humidity Meter	Zhichen	ZC1-2	TR1-TH	2019.01.04	2020.01.03
Quietek EMI V3(test software)	Quietek	N/A	N/A	N/A	N/A

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

3.2. Test Setup



3.3. Limit

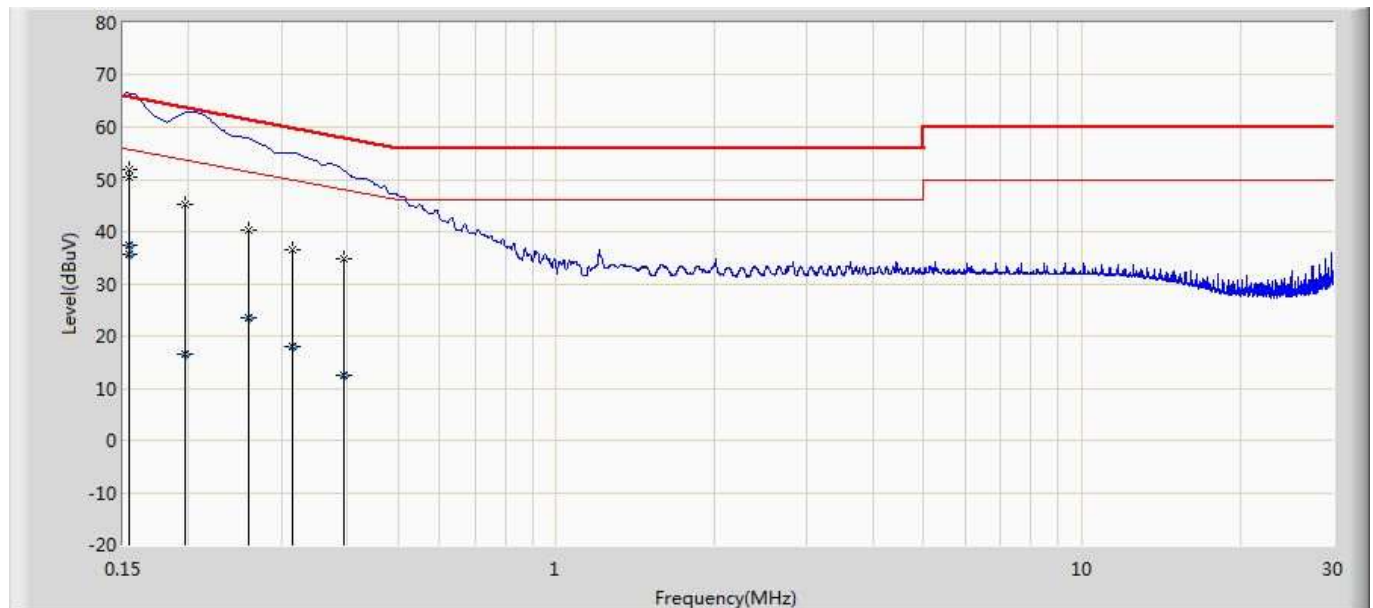
Frequency of Emission (MHz)	Conducted Limit	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Note 1: The lower limit shall apply at the transition frequencies.		
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5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

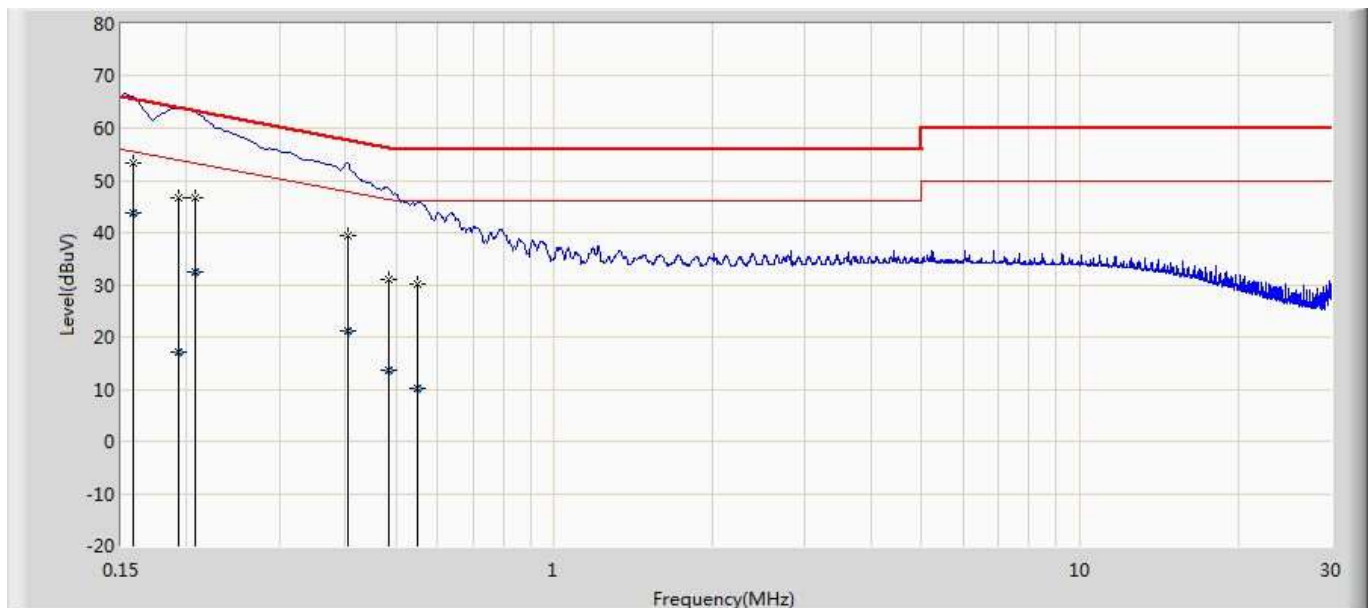
3.5. Test Result

Engineer: Xu Jun	
Site: TR1	Time: 2019/08/20 - 11:10
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: LED LAMP	Power: AC 120V/60Hz
Note: Mode 1:Transmit by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1	*	0.154	51.765	42.151	-13.989	65.754	9.615	QP
2		0.154	50.569	40.955	-15.224	65.793	9.615	QP
3		0.154	37.402	27.788	-18.352	55.754	9.615	AV
4		0.154	35.525	25.911	-20.268	55.793	9.615	AV
5		0.197	45.329	35.701	-18.397	63.726	9.628	QP
6		0.197	16.465	6.837	-37.261	53.726	9.628	AV
7		0.260	40.344	30.715	-21.079	61.423	9.630	QP
8		0.260	23.582	13.952	-27.842	51.423	9.630	AV
9		0.314	36.607	26.979	-23.251	59.857	9.628	QP
10		0.314	18.006	8.379	-31.851	49.857	9.628	AV
11		0.395	34.645	25.012	-23.308	57.953	9.633	QP
12		0.395	12.524	2.892	-35.428	47.953	9.633	AV

Engineer: Xu Jun	
Site: TR1	Time: 2019/08/20 - 23:33
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line
EUT: LED LAMP	Power: AC 120V/60Hz
Note: Mode 1:Transmit by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.158	53.394	43.764	-12.193	65.587	9.630	QP
2	*	0.158	43.667	34.036	-11.920	55.587	9.630	AV
3		0.193	46.769	37.139	-17.148	63.917	9.630	QP
4		0.193	17.009	7.379	-36.908	53.917	9.630	AV
5		0.208	46.624	36.990	-16.641	63.265	9.634	QP
6		0.208	32.329	22.695	-20.936	53.265	9.634	AV
7		0.404	39.479	29.839	-18.287	57.766	9.639	QP
8		0.404	21.059	11.419	-26.707	47.766	9.639	AV
9		0.483	31.135	21.493	-25.152	56.287	9.642	QP
10		0.483	13.633	3.990	-32.655	46.287	9.642	AV
11		0.550	30.034	20.386	-25.966	56.000	9.647	QP
12		0.550	10.051	0.403	-35.949	46.000	9.647	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

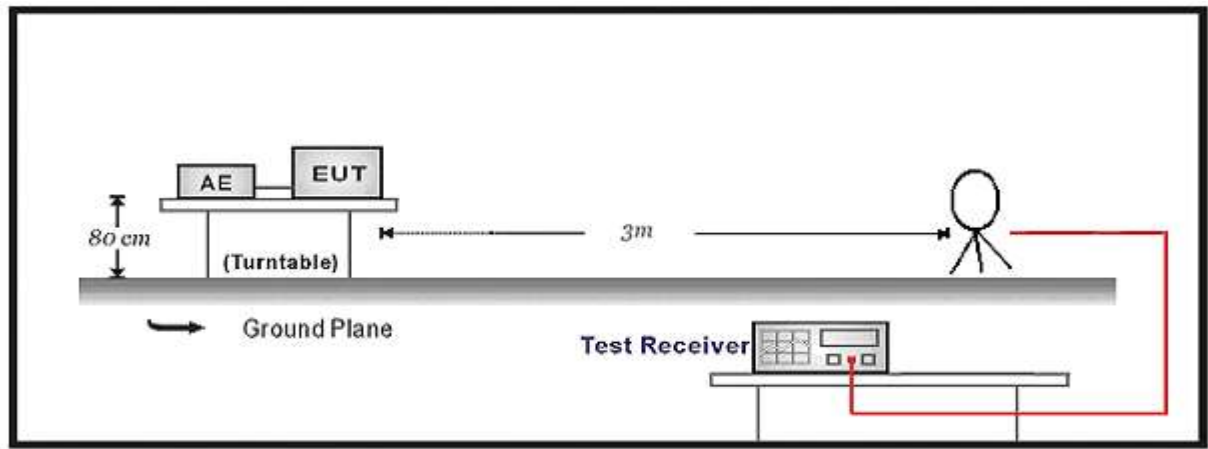
4.1. Test Equipment

Radiated Emission(Below 1GHz) / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2019.03.29	2020.03.28
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	2019.03.02	2020.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2019.01.03	2020.01.02
Quietek EMI V3(test software)	Quietek	N/A	N/A	N/A	N/A
Note: All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

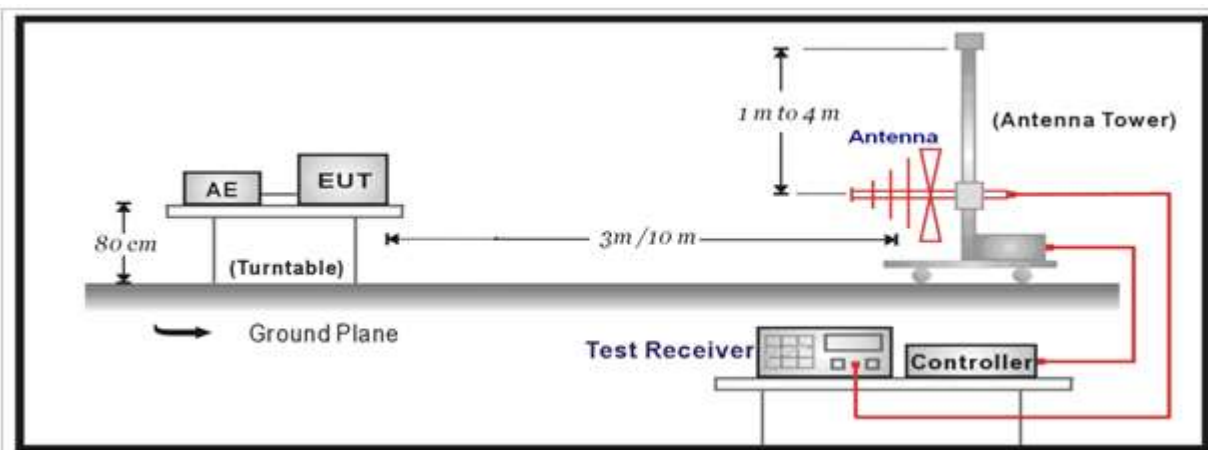
Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2019.01.04	2020.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2019.05.06	2020.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2019.05.06	2020.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2019.01.22	2020.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2018.11.25	2019.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2019.03.02	2020.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2019.03.02	2020.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2019.03.02	2020.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2019.06.10	2020.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.01.04	2020.01.03
Quietek EMI V3(test software)	Quietek	N/A	N/A	N/A	N/A
Note: All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

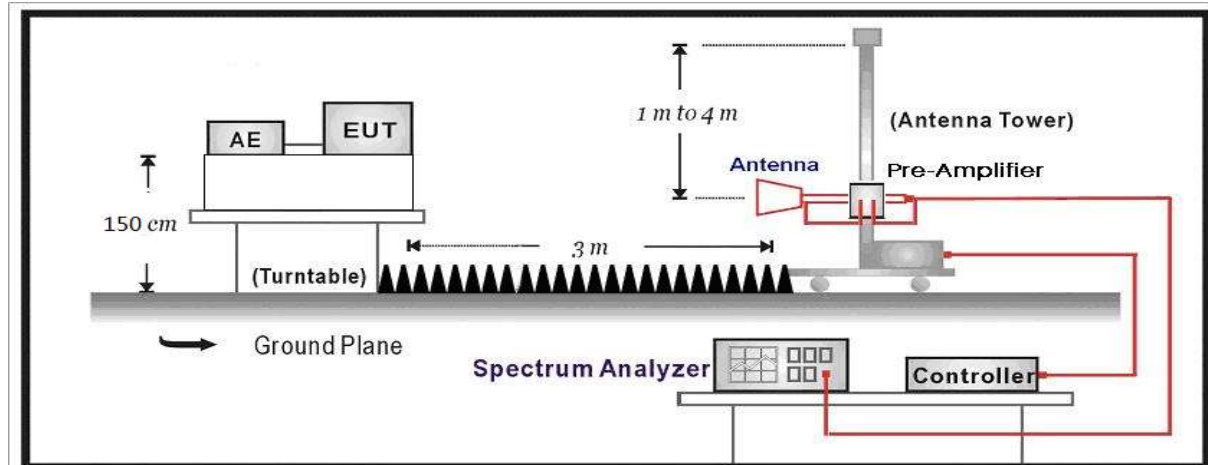
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

For FCC

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			

For ISD:**Table 7 – Restricted frequency bands***

MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 - 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138	--	

* Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

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)

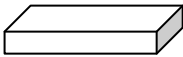
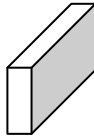
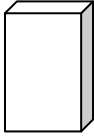
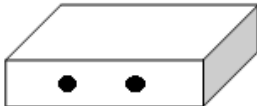
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed 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).

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	11.12.2.3	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

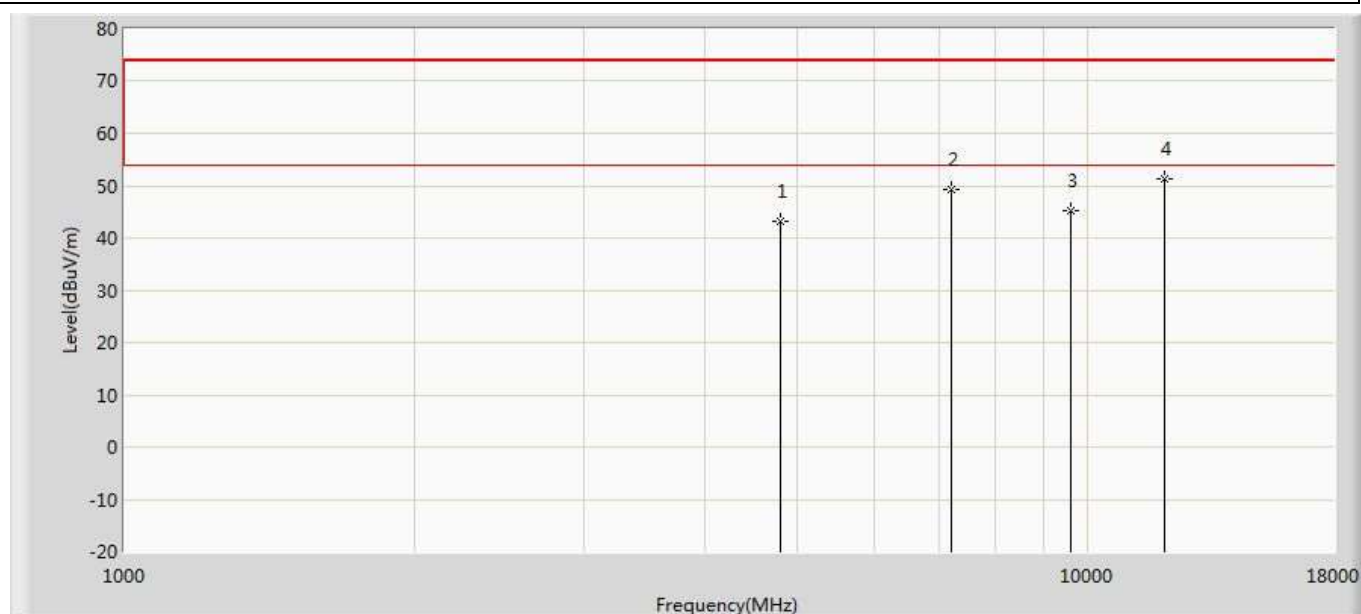
4.5. EUT test Axis definition

Item	Emissions in restricted frequency bands			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1~3			
Test method	☒	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☒	Worst Axis ☐	Worst Axis ☐
	☐	Conducted		
	☐	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

4.6. Test Result

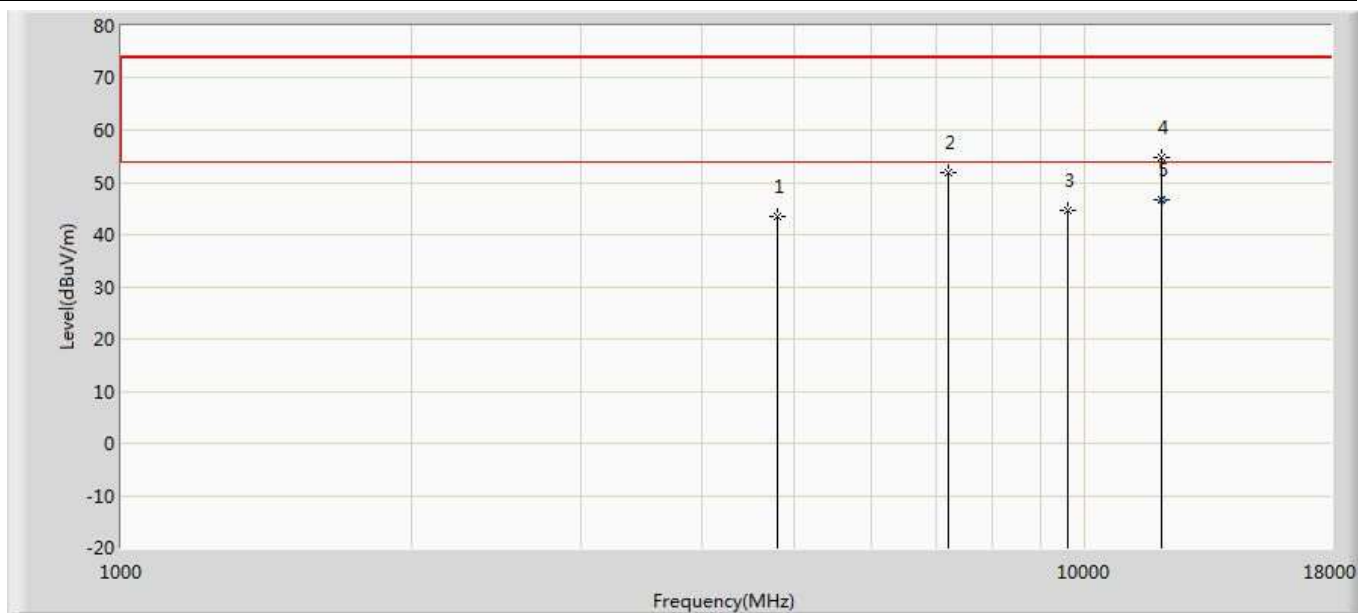
Muruta:

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



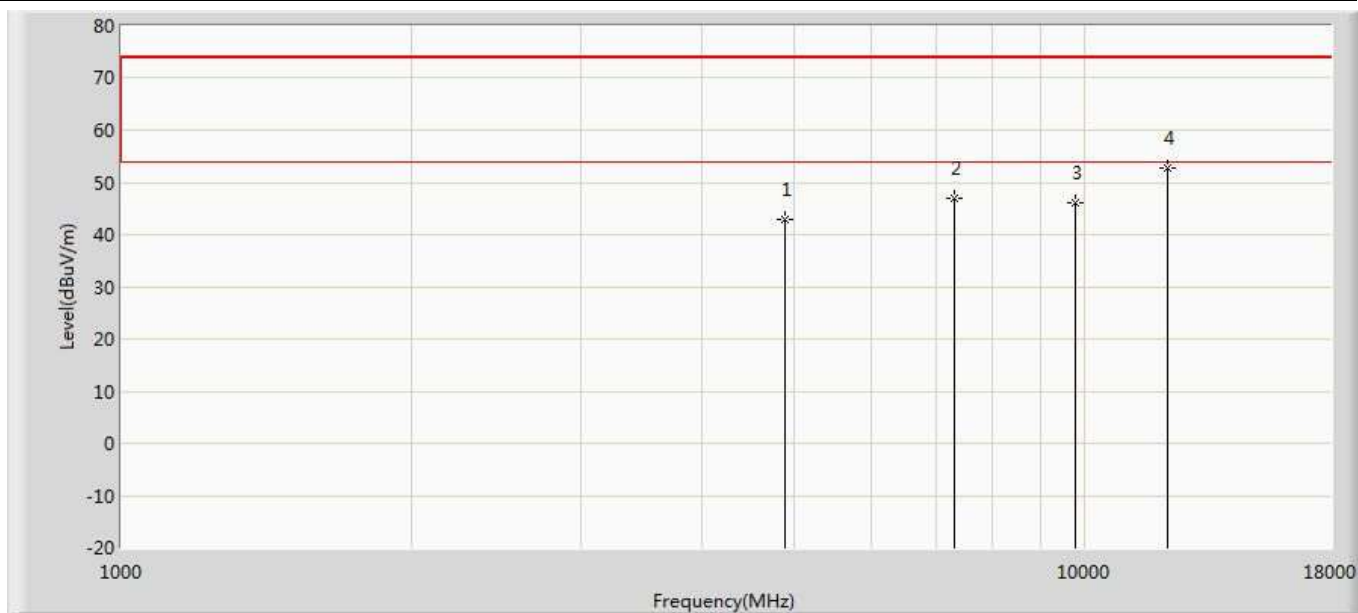
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.083	38.566	-30.917	74.000	4.517	PK
2		7206.000	49.194	41.647	-24.806	74.000	7.547	PK
3		9608.000	45.102	35.920	-28.898	74.000	9.182	PK
4	*	12010.000	51.161	36.608	-22.839	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



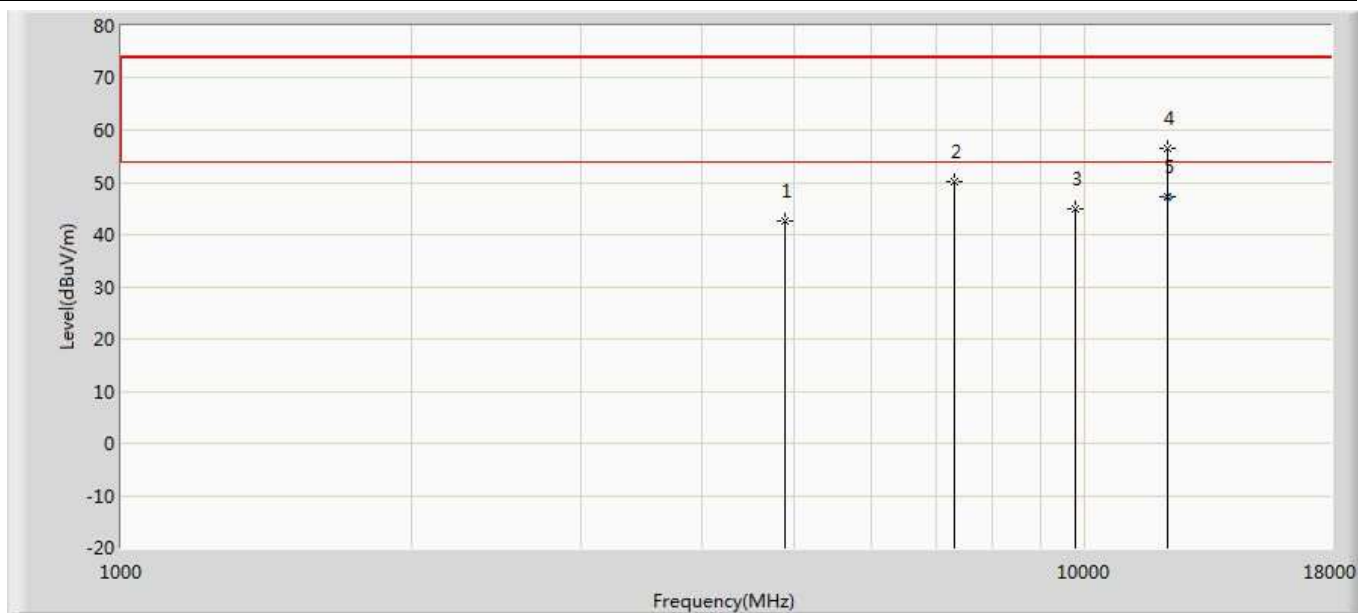
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.550	39.033	-30.450	74.000	4.517	PK
2		7206.000	51.888	44.341	-22.112	74.000	7.547	PK
3		9608.000	44.586	35.404	-29.414	74.000	9.182	PK
4		12010.000	54.919	40.366	-19.081	74.000	14.553	PK
5	*	12010.000	46.527	31.974	-7.473	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



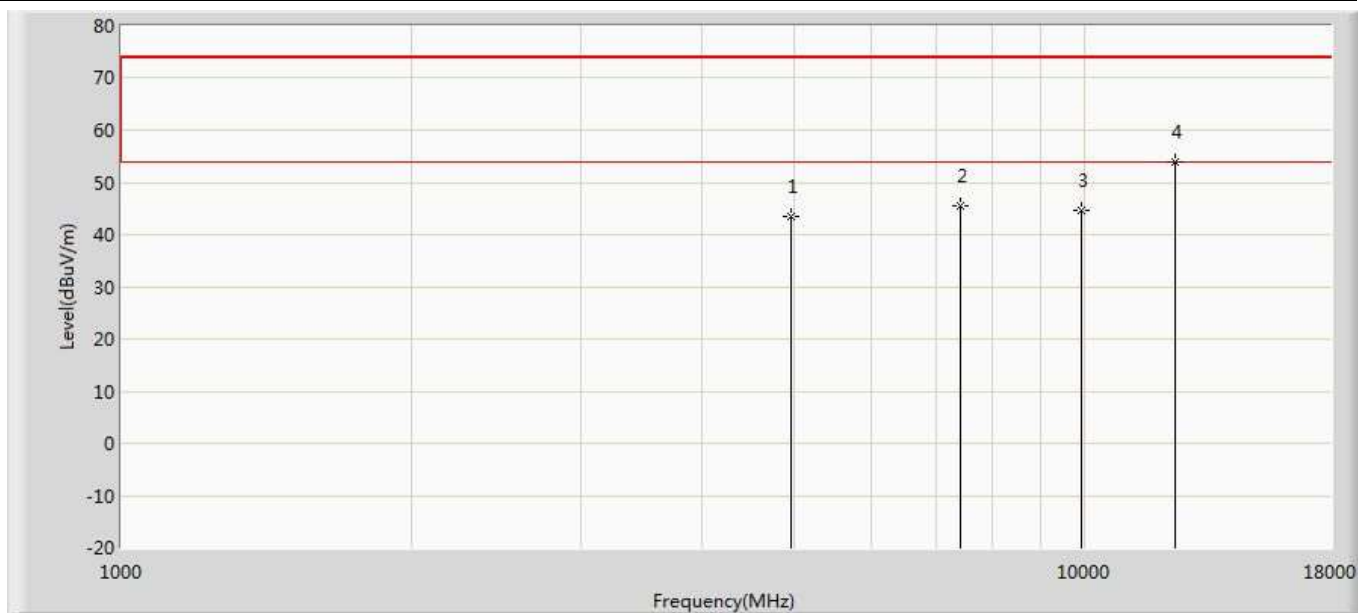
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.018	38.232	-30.982	74.000	4.786	PK
2		7320.000	47.042	39.380	-26.958	74.000	7.663	PK
3		9760.000	46.052	36.192	-27.948	74.000	9.860	PK
4	*	12200.000	52.855	37.503	-21.145	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



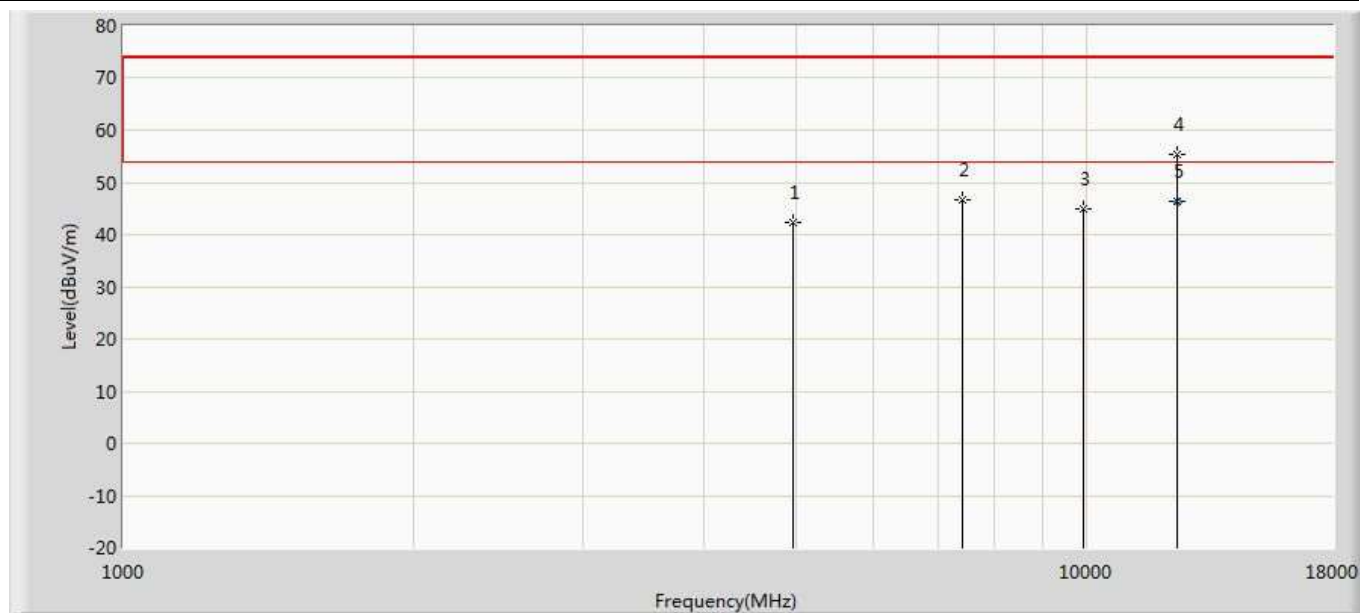
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.738	37.952	-31.262	74.000	4.786	PK
2		7320.000	50.141	42.479	-23.859	74.000	7.663	PK
3		9760.000	44.840	34.980	-29.160	74.000	9.860	PK
4		12200.000	56.660	41.308	-17.340	74.000	15.351	PK
5	*	12200.000	47.102	31.750	-6.898	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



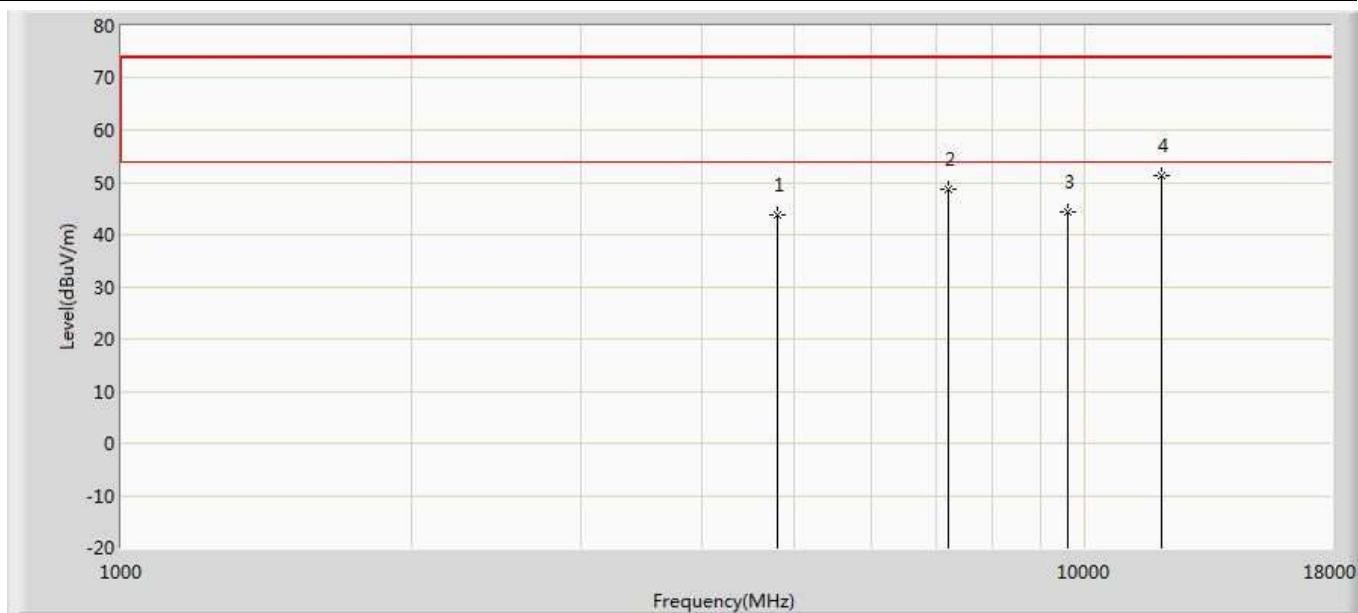
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	43.470	38.550	-30.530	74.000	4.920	PK
2		7440.000	45.428	37.713	-28.572	74.000	7.715	PK
3		9920.000	44.703	34.756	-29.297	74.000	9.946	PK
4	*	12400.000	53.947	37.948	-20.053	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



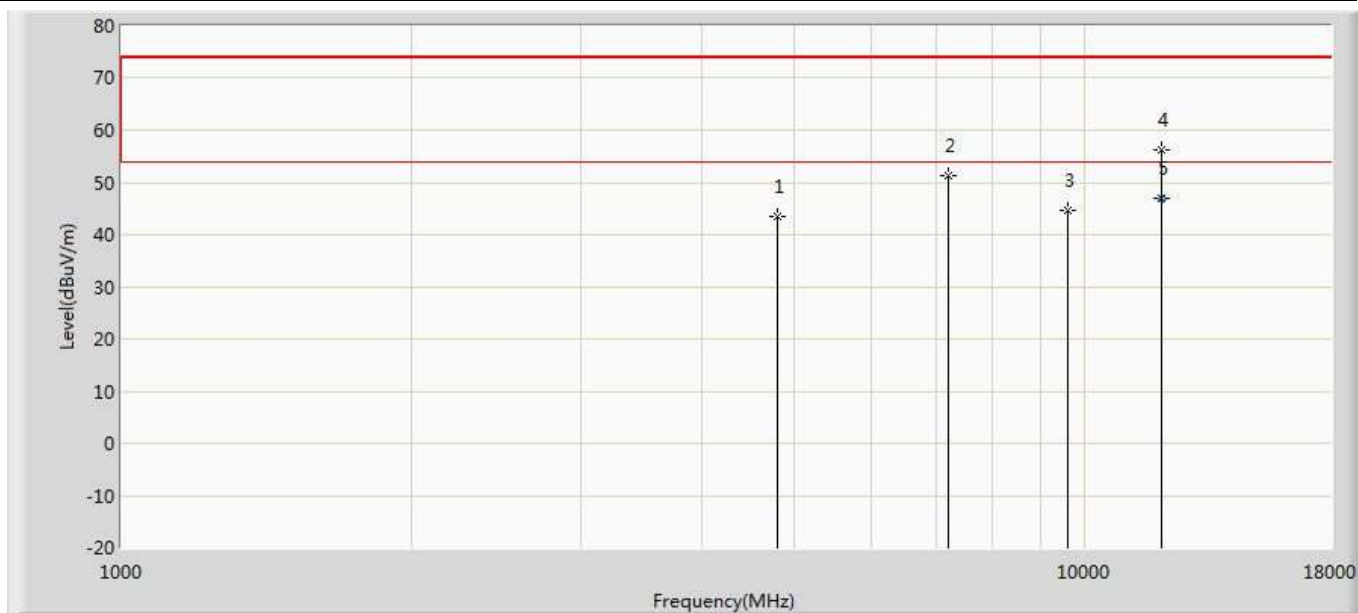
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.382	37.462	-31.618	74.000	4.920	PK
2		7440.000	46.565	38.850	-27.435	74.000	7.715	PK
3		9920.000	44.876	34.929	-29.124	74.000	9.946	PK
4		12400.000	55.433	39.434	-18.567	74.000	15.999	PK
5	*	12400.000	46.414	30.415	-7.586	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



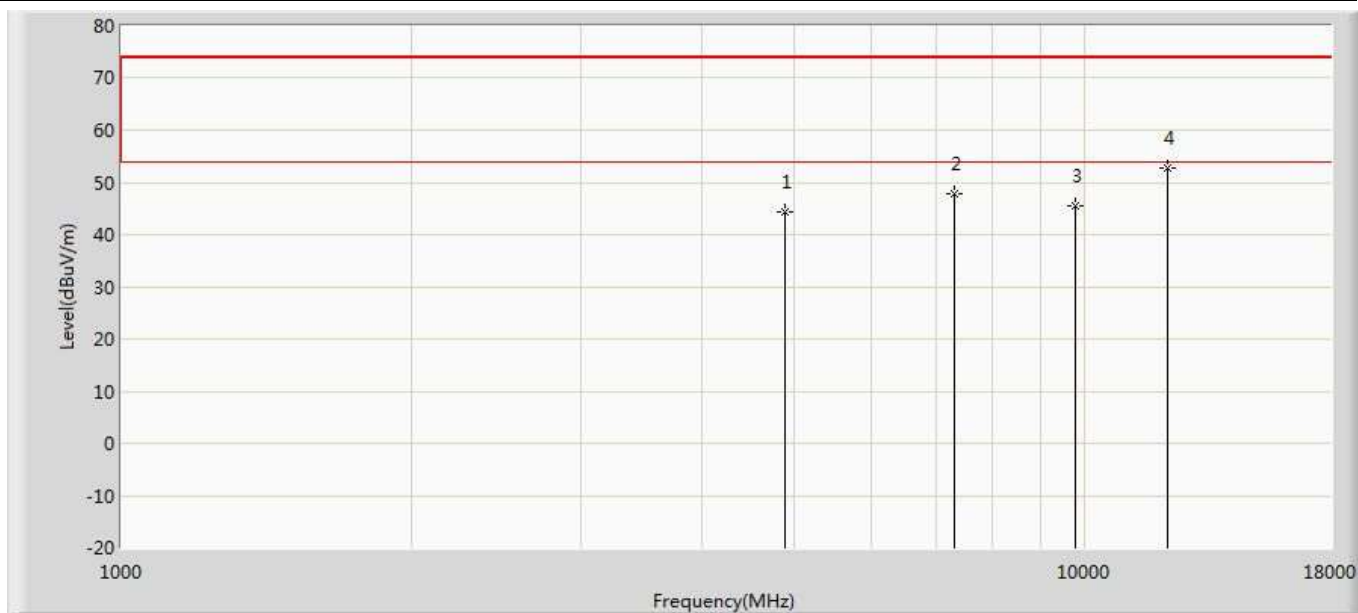
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.646	39.129	-30.354	74.000	4.517	PK
2		7206.000	48.603	41.056	-25.397	74.000	7.547	PK
3		9608.000	44.388	35.206	-29.612	74.000	9.182	PK
4	*	12010.000	51.313	36.760	-22.687	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



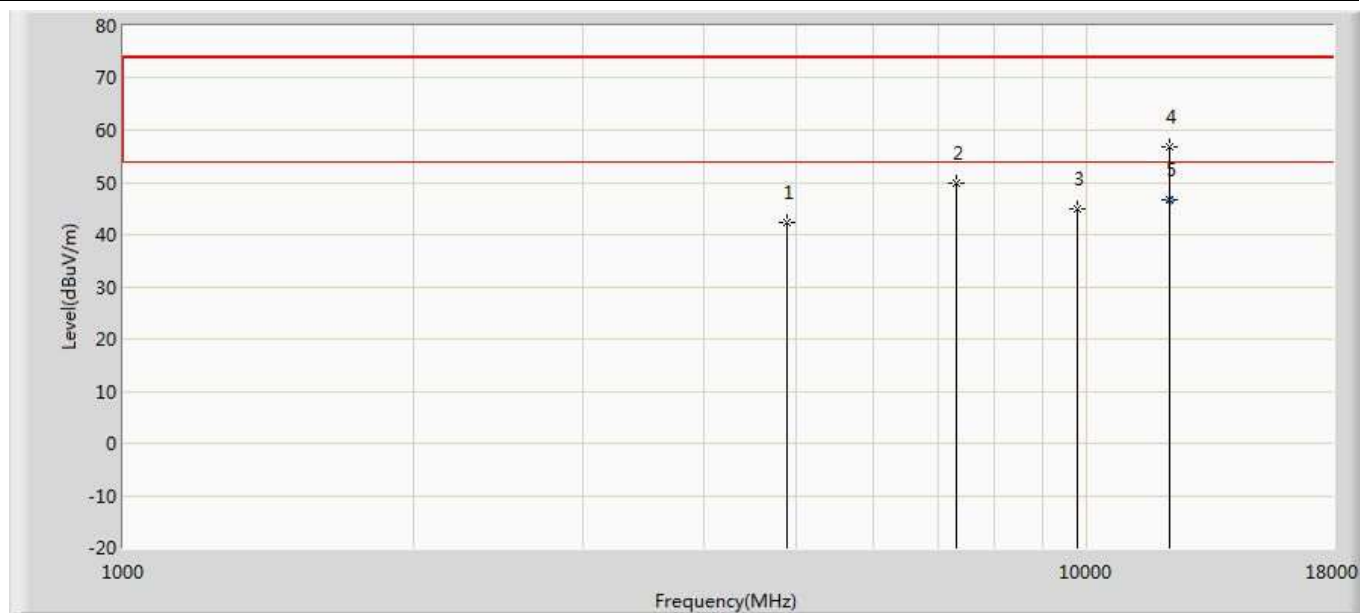
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.385	38.868	-30.615	74.000	4.517	PK
2		7206.000	51.280	43.733	-22.720	74.000	7.547	PK
3		9608.000	44.606	35.424	-29.394	74.000	9.182	PK
4		12010.000	56.295	41.742	-17.705	74.000	14.553	PK
5	*	12010.000	47.035	32.482	-6.965	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps	



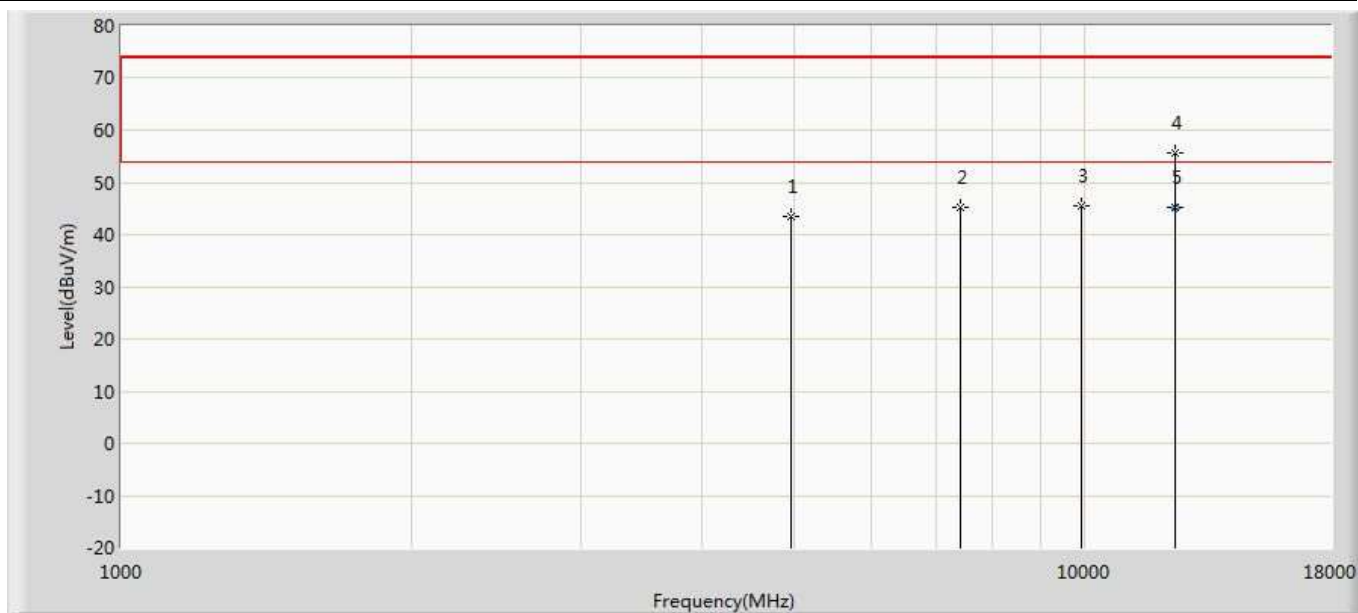
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	44.410	39.624	-29.590	74.000	4.786	PK
2		7320.000	47.971	40.309	-26.029	74.000	7.663	PK
3		9760.000	45.410	35.550	-28.590	74.000	9.860	PK
4	*	12200.000	52.694	37.342	-21.306	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps	



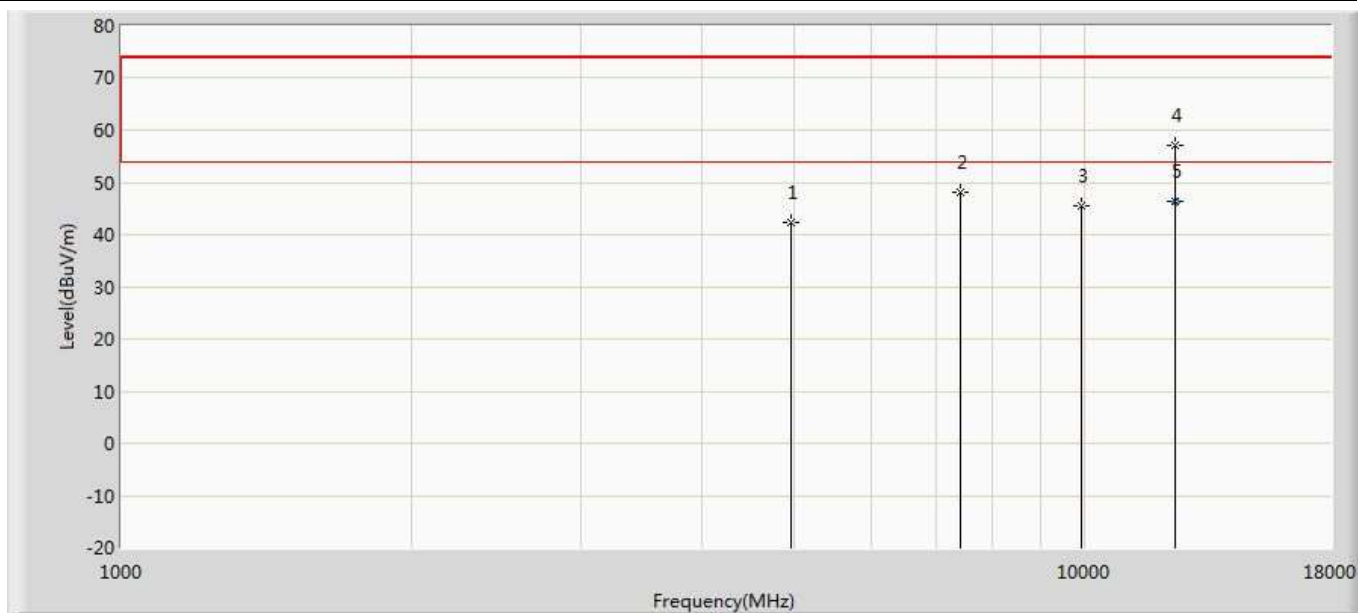
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.458	37.672	-31.542	74.000	4.786	PK
2		7320.000	49.714	42.052	-24.286	74.000	7.663	PK
3		9760.000	45.021	35.161	-28.979	74.000	9.860	PK
4		12200.000	56.793	41.441	-17.207	74.000	15.351	PK
5	*	12200.000	46.659	31.307	-7.341	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



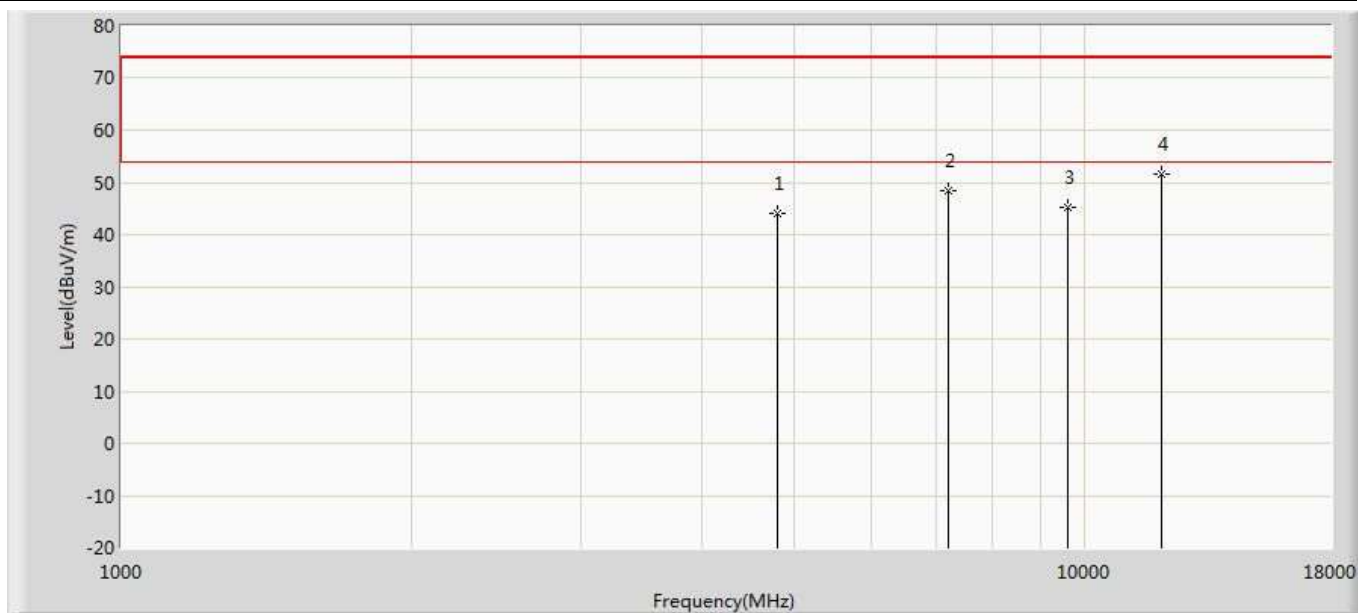
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	43.336	38.416	-30.664	74.000	4.920	PK
2		7440.000	45.285	37.570	-28.715	74.000	7.715	PK
3		9920.000	45.534	35.587	-28.466	74.000	9.946	PK
4		12400.000	55.589	39.590	-18.411	74.000	15.999	PK
5	*	12400.000	45.139	29.140	-8.861	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



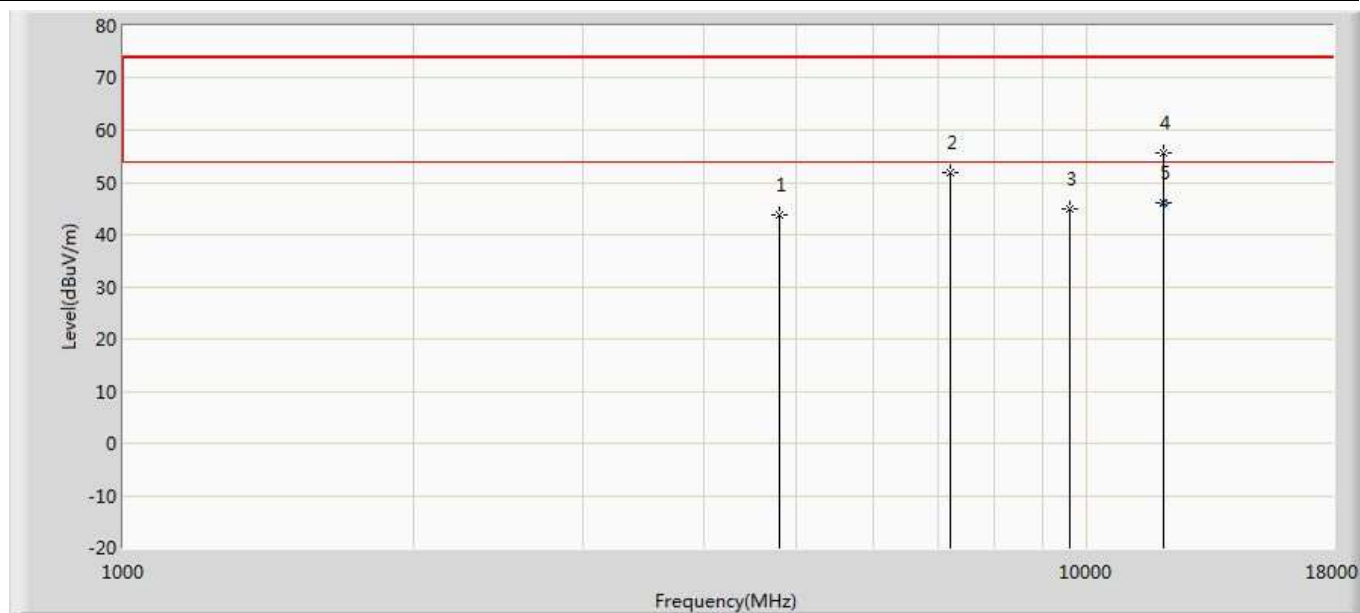
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.284	37.364	-31.716	74.000	4.920	PK
2		7440.000	48.032	40.317	-25.968	74.000	7.715	PK
3		9920.000	45.420	35.473	-28.580	74.000	9.946	PK
4		12400.000	56.990	40.991	-17.010	74.000	15.999	PK
5	*	12400.000	46.438	30.439	-7.562	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



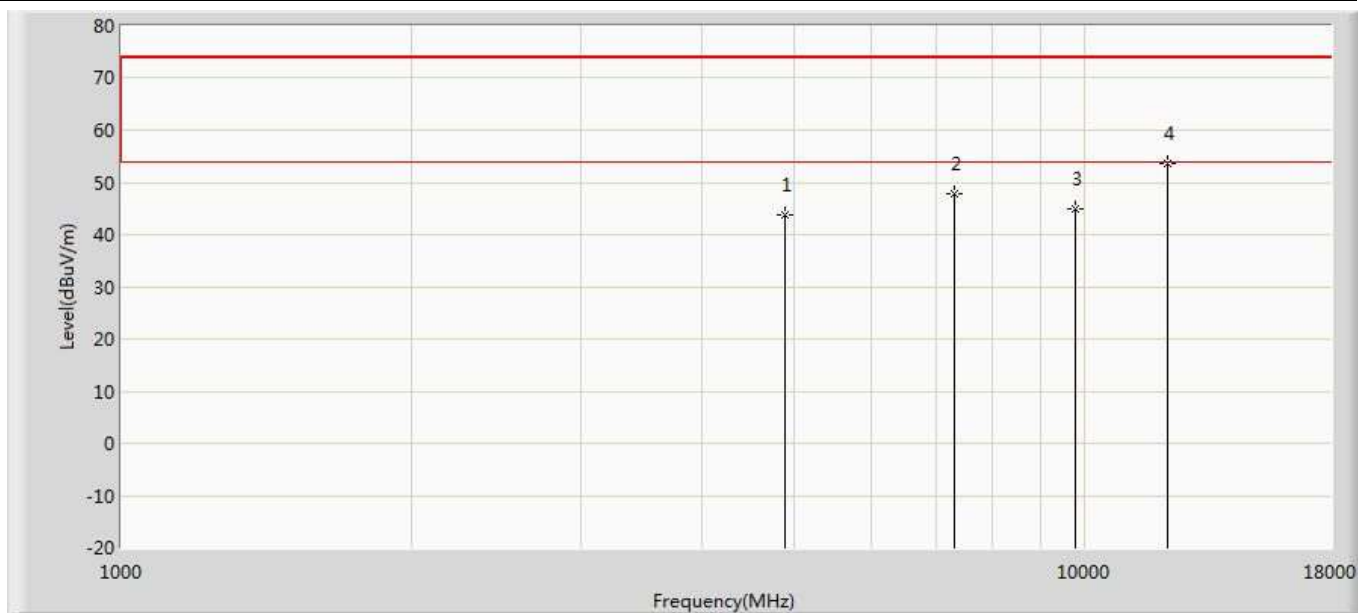
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.944	39.427	-30.056	74.000	4.517	PK
2		7206.000	48.344	40.797	-25.656	74.000	7.547	PK
3		9608.000	45.145	35.963	-28.855	74.000	9.182	PK
4	*	12010.000	51.587	37.034	-22.413	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



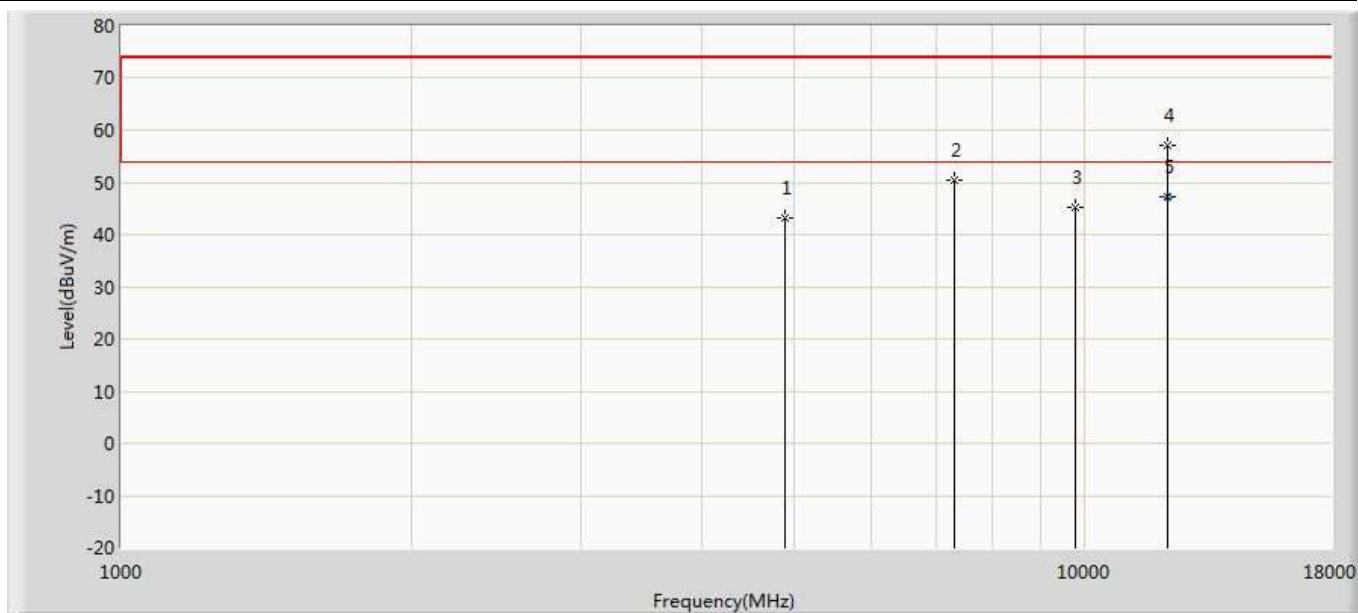
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.844	39.327	-30.156	74.000	4.517	PK
2		7206.000	51.745	44.198	-22.255	74.000	7.547	PK
3		9608.000	45.062	35.880	-28.938	74.000	9.182	PK
4		12010.000	55.548	40.995	-18.452	74.000	14.553	PK
5	*	12010.000	46.151	31.598	-7.849	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded (S=2)	



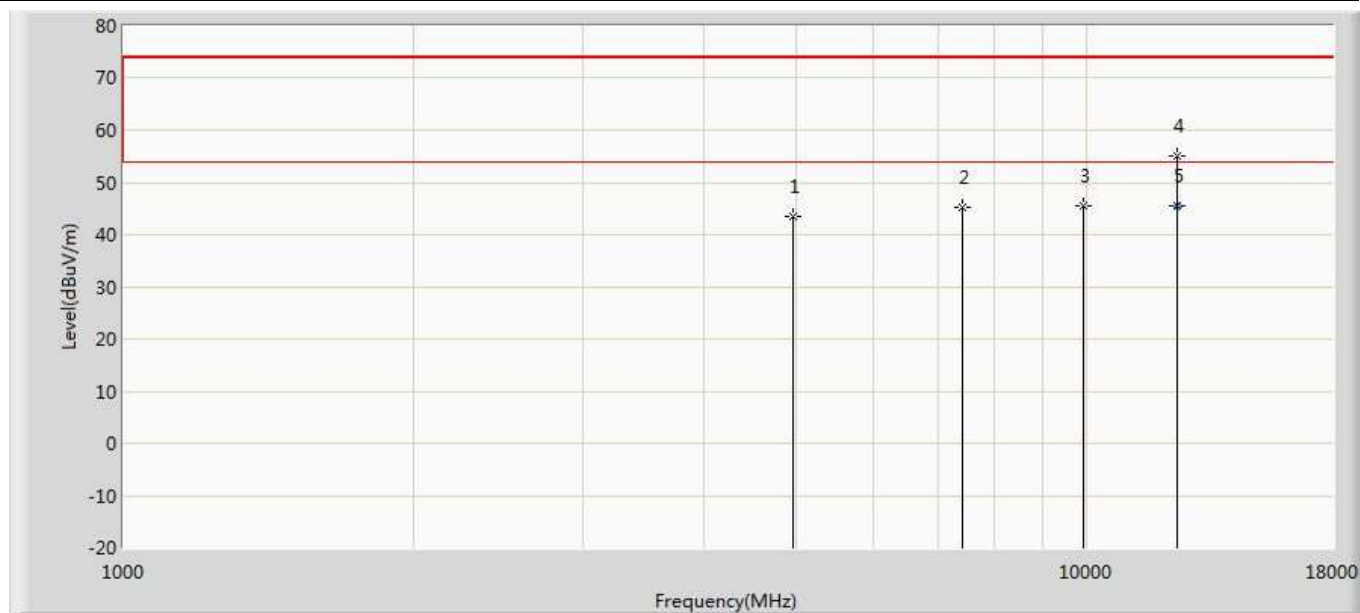
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.831	39.045	-30.169	74.000	4.786	PK
2		7320.000	47.822	40.160	-26.178	74.000	7.663	PK
3		9760.000	44.893	35.033	-29.107	74.000	9.860	PK
4	*	12200.000	53.516	38.164	-20.484	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded (S=2)	



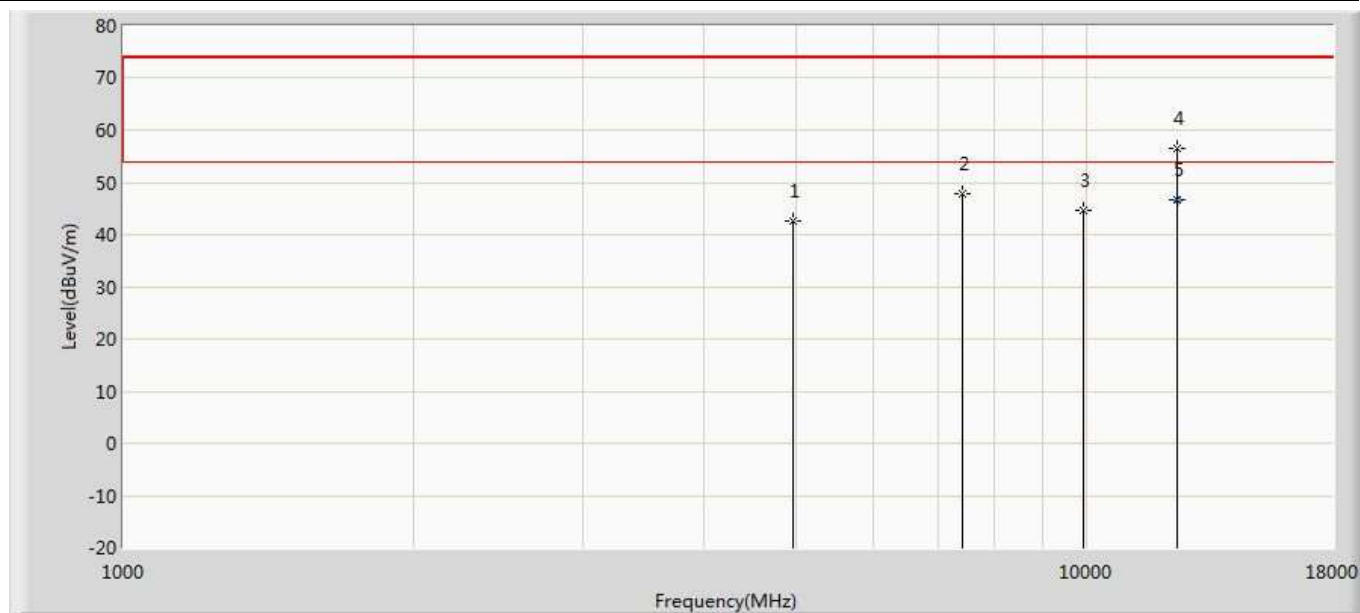
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.177	38.391	-30.823	74.000	4.786	PK
2		7320.000	50.398	42.736	-23.602	74.000	7.663	PK
3		9760.000	45.125	35.265	-28.875	74.000	9.860	PK
4		12200.000	57.233	41.881	-16.767	74.000	15.351	PK
5	*	12200.000	47.153	31.801	-6.847	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



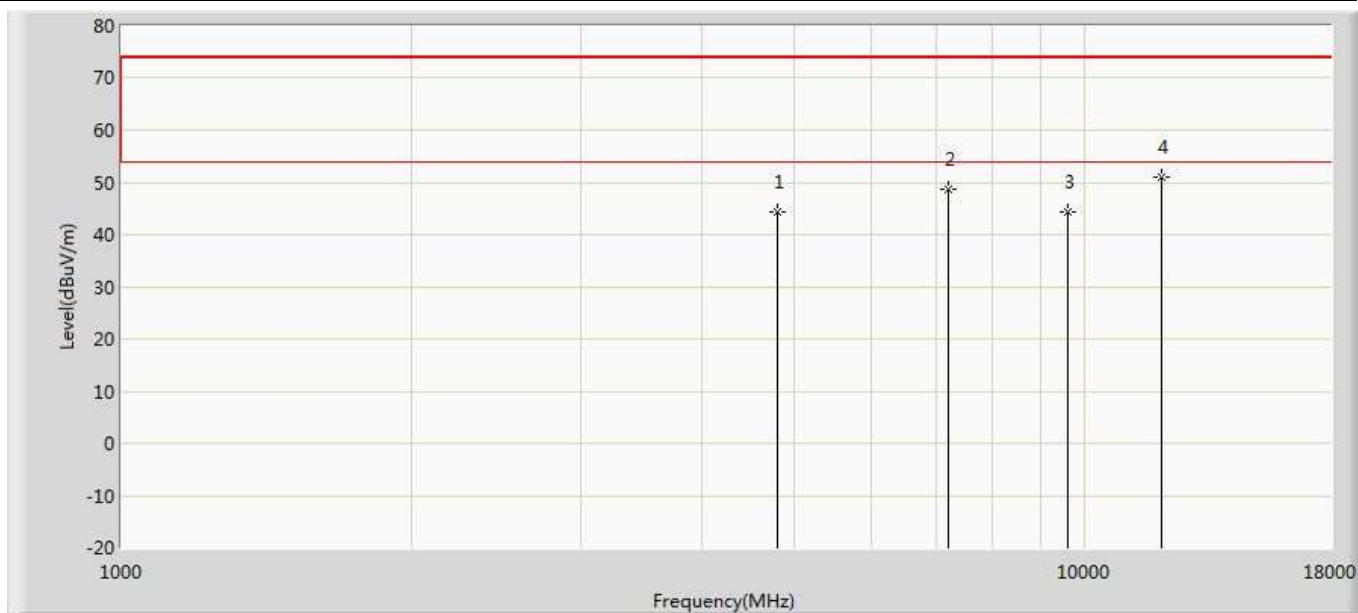
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	43.398	38.478	-30.602	74.000	4.920	PK
2		7440.000	45.204	37.489	-28.796	74.000	7.715	PK
3		9920.000	45.429	35.482	-28.571	74.000	9.946	PK
4		12400.000	54.983	38.984	-19.017	74.000	15.999	PK
5	*	12400.000	45.431	29.432	-8.569	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



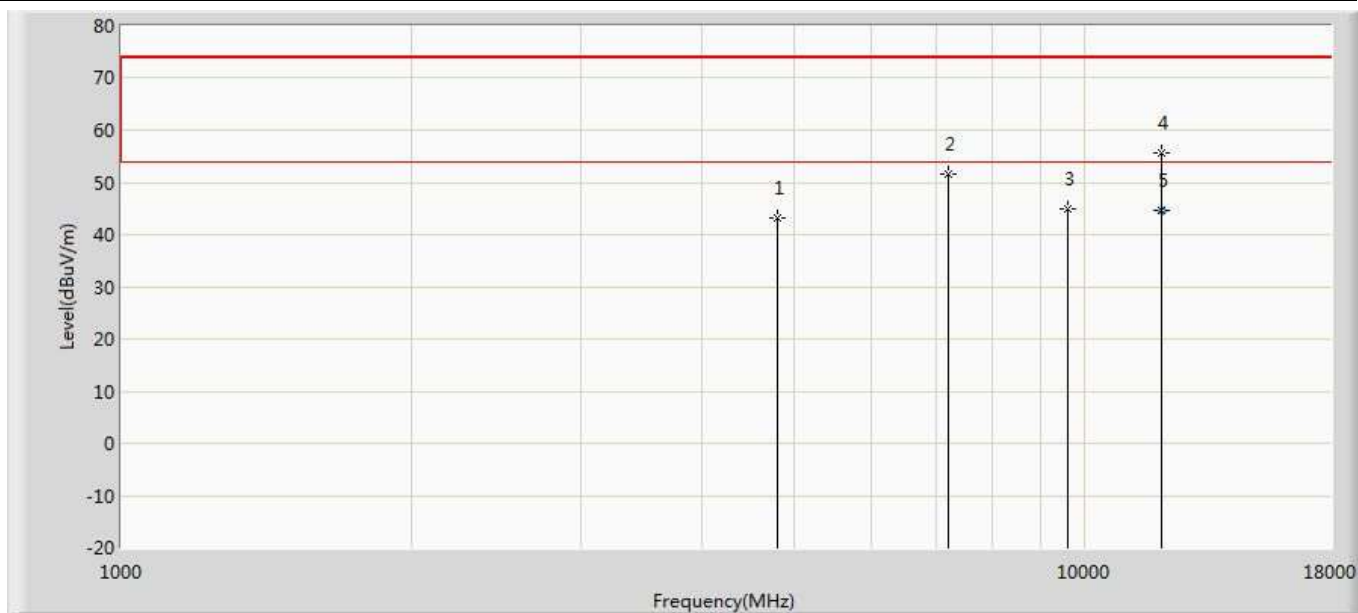
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.679	37.759	-31.321	74.000	4.920	PK
2		7440.000	47.686	39.971	-26.314	74.000	7.715	PK
3		9920.000	44.600	34.653	-29.400	74.000	9.946	PK
4		12400.000	56.592	40.593	-17.408	74.000	15.999	PK
5	*	12400.000	46.714	30.715	-7.286	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



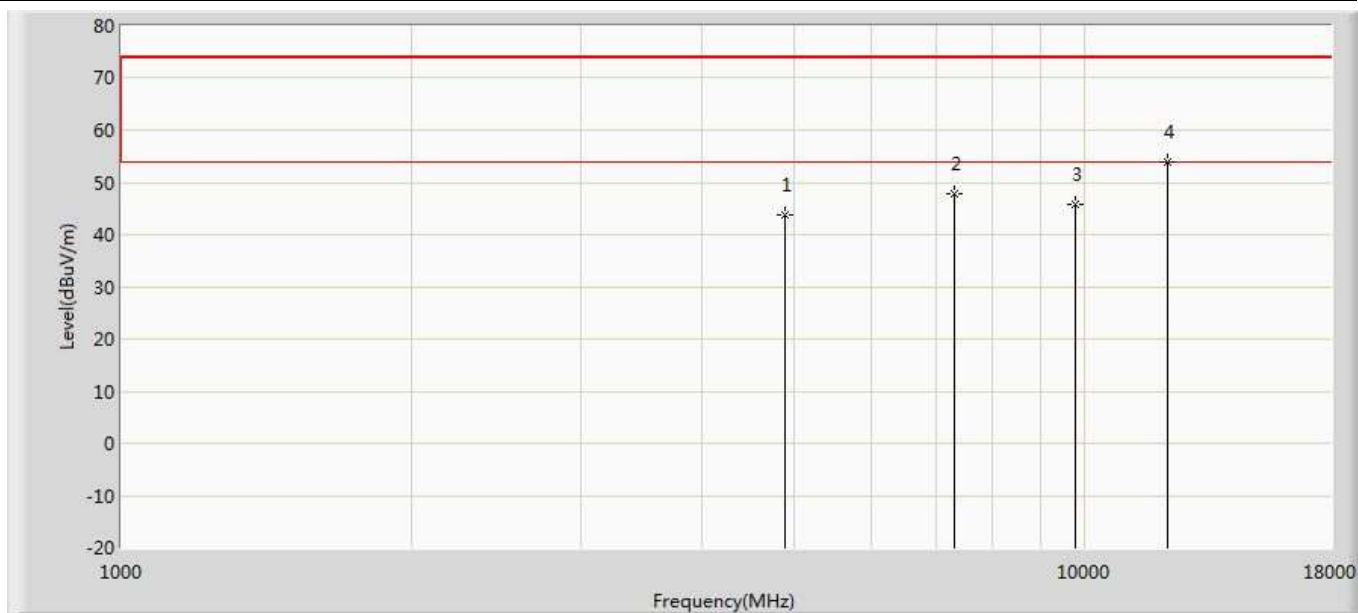
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	44.248	39.731	-29.752	74.000	4.517	PK
2		7206.000	48.618	41.071	-25.382	74.000	7.547	PK
3		9608.000	44.459	35.277	-29.541	74.000	9.182	PK
4	*	12010.000	50.955	36.402	-23.045	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



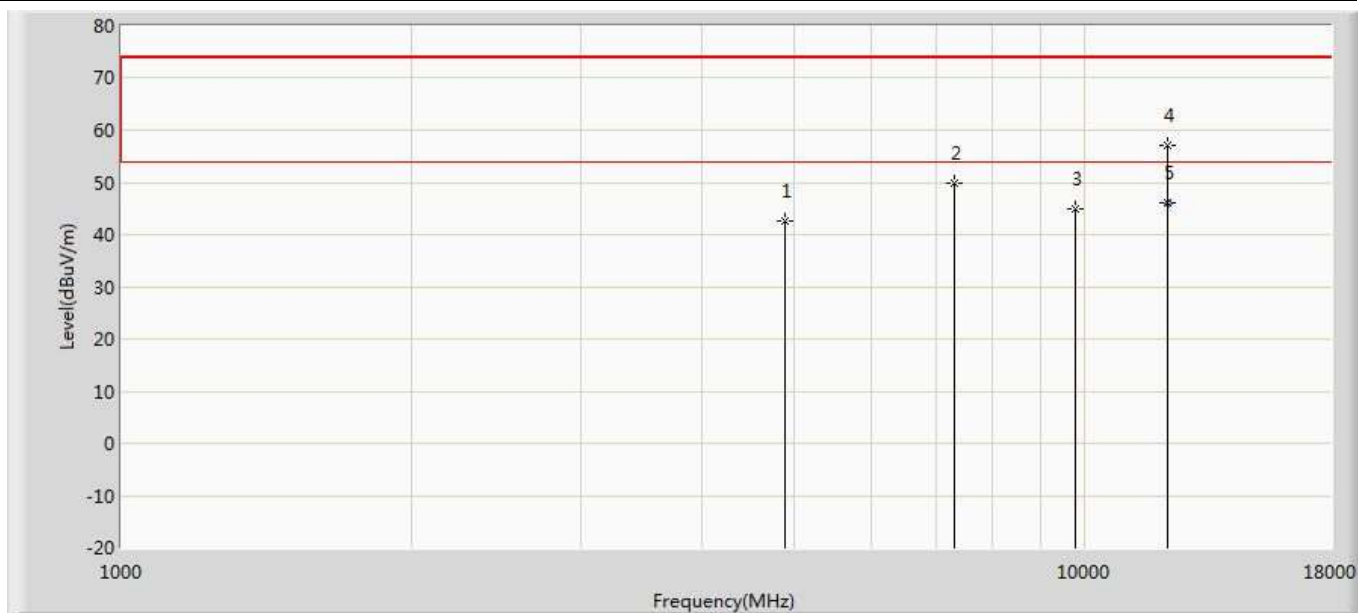
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.139	38.622	-30.861	74.000	4.517	PK
2		7206.000	51.471	43.924	-22.529	74.000	7.547	PK
3		9608.000	44.789	35.607	-29.211	74.000	9.182	PK
4		12010.000	55.654	41.101	-18.346	74.000	14.553	PK
5	*	12010.000	44.768	30.215	-9.232	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded (S=8)	



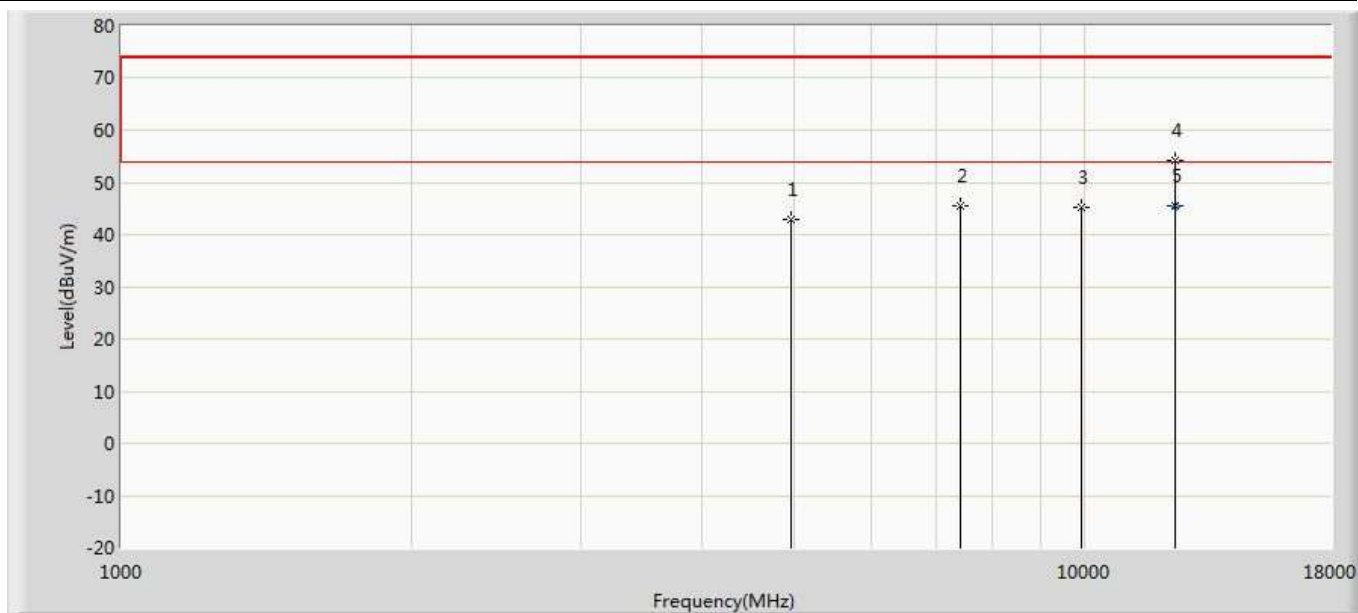
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.780	38.994	-30.220	74.000	4.786	PK
2		7320.000	47.808	40.146	-26.192	74.000	7.663	PK
3		9760.000	45.893	36.033	-28.107	74.000	9.860	PK
4	*	12200.000	53.819	38.467	-20.181	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded (S=8)	



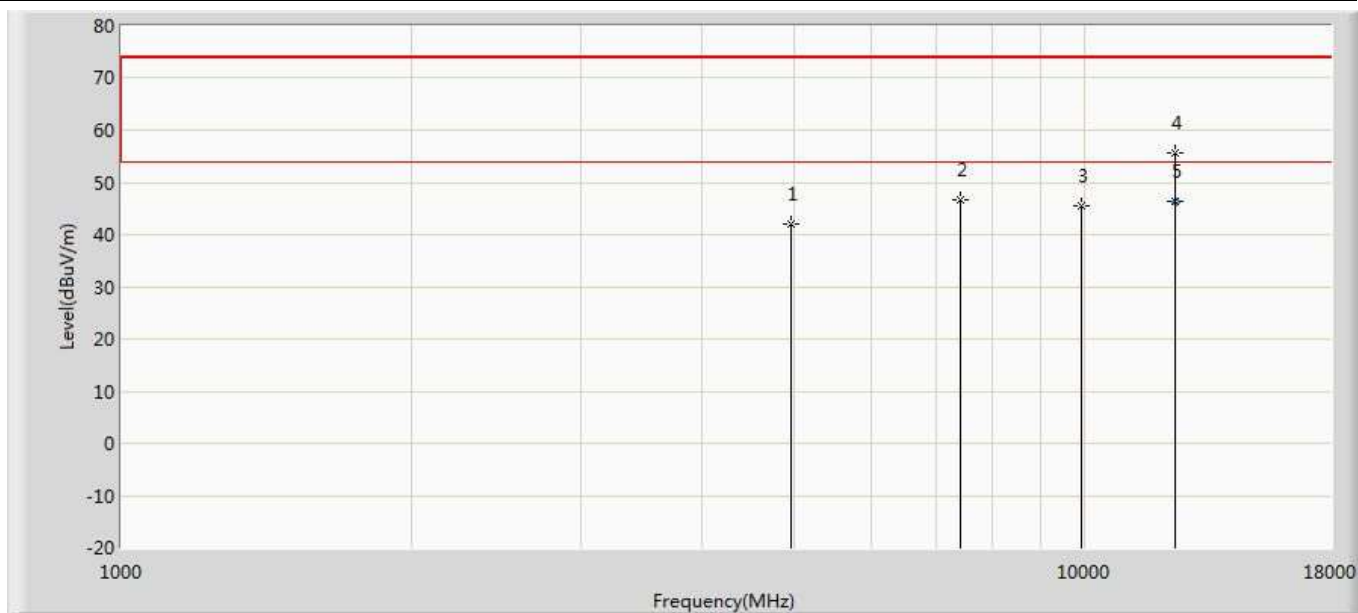
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.645	37.859	-31.355	74.000	4.786	PK
2		7320.000	49.915	42.253	-24.085	74.000	7.663	PK
3		9760.000	44.905	35.045	-29.095	74.000	9.860	PK
4		12200.000	56.957	41.605	-17.043	74.000	15.351	PK
5	*	12200.000	46.164	30.812	-7.836	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.940	38.020	-31.060	74.000	4.920	PK
2		7440.000	45.374	37.659	-28.626	74.000	7.715	PK
3		9920.000	45.318	35.371	-28.682	74.000	9.946	PK
4		12400.000	54.253	38.254	-19.747	74.000	15.999	PK
5	*	12400.000	45.528	29.529	-8.472	54.000	15.999	AV

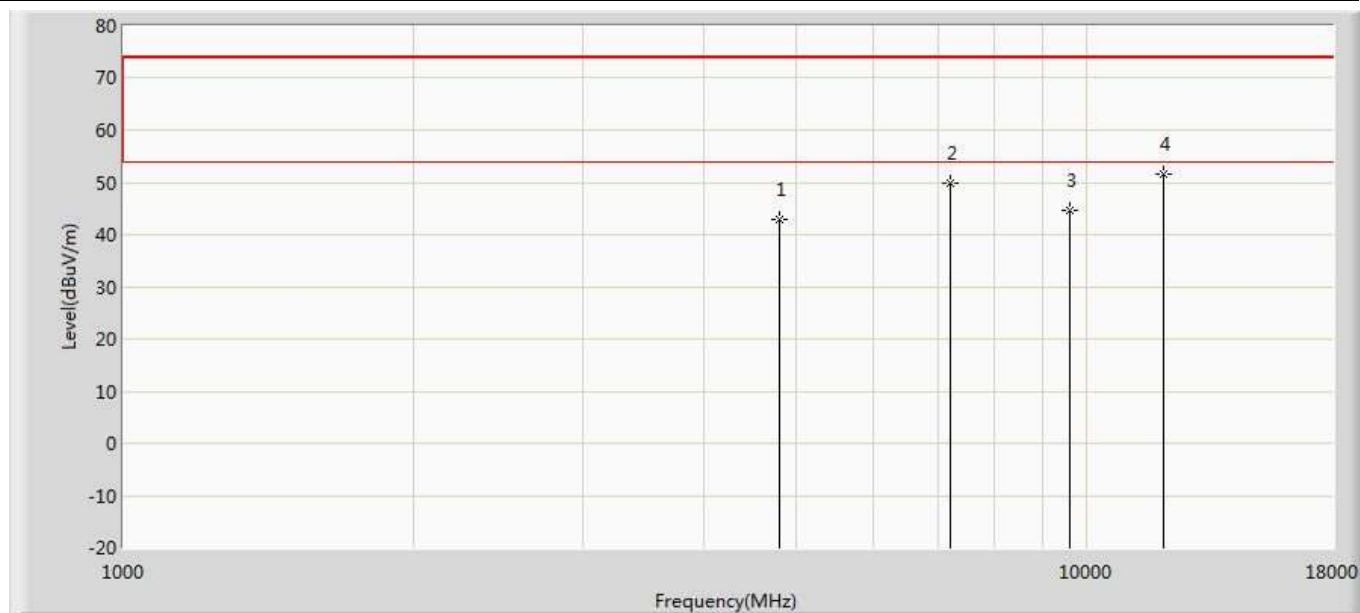
Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 15:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.004	37.084	-31.996	74.000	4.920	PK
2		7440.000	46.555	38.840	-27.445	74.000	7.715	PK
3		9920.000	45.533	35.586	-28.467	74.000	9.946	PK
4		12400.000	55.576	39.577	-18.424	74.000	15.999	PK
5	*	12400.000	46.417	30.418	-7.583	54.000	15.999	AV

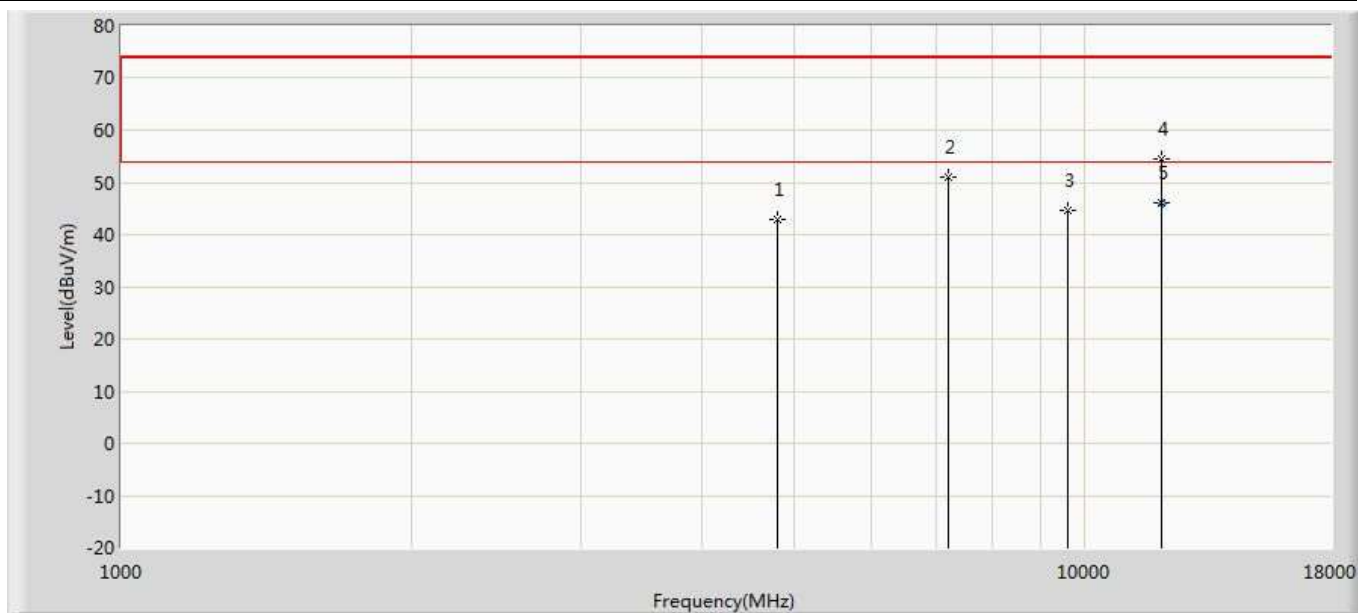
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Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



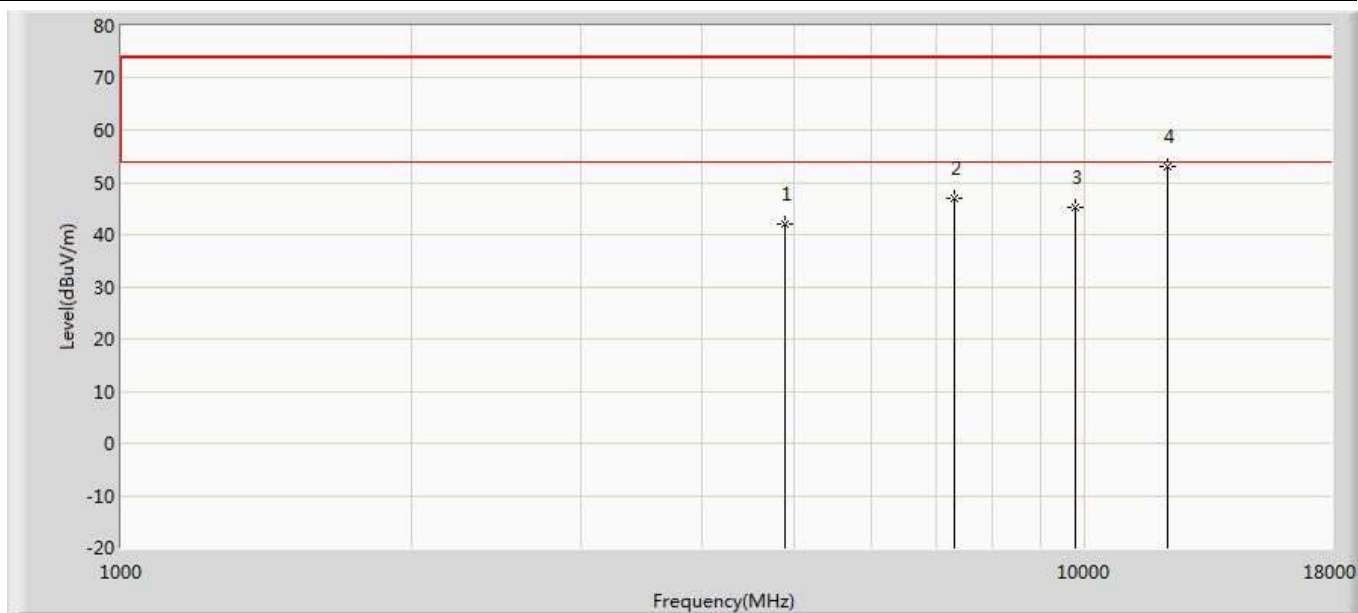
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.976	38.459	-31.024	74.000	4.517	PK
2		7206.000	49.807	42.260	-24.193	74.000	7.547	PK
3		9608.000	44.507	35.325	-29.493	74.000	9.182	PK
4	*	12010.000	51.556	37.003	-22.444	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



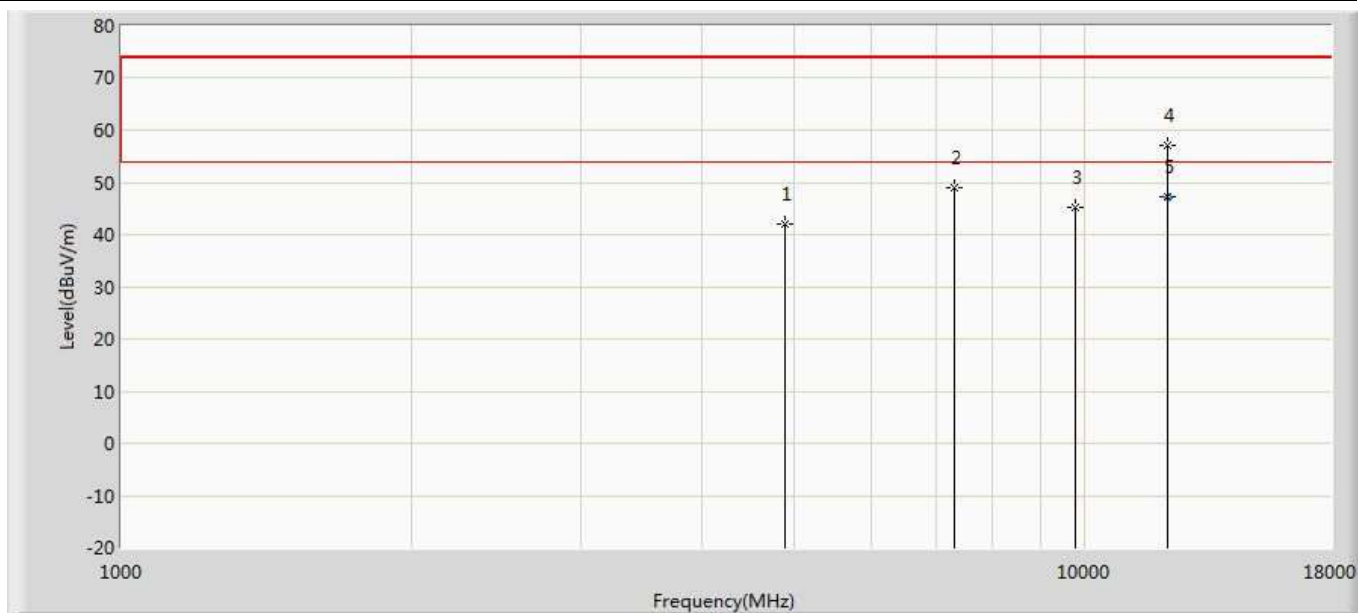
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.851	38.334	-31.149	74.000	4.517	PK
2		7206.000	50.977	43.430	-23.023	74.000	7.547	PK
3		9608.000	44.612	35.430	-29.388	74.000	9.182	PK
4		12010.000	54.478	39.925	-19.522	74.000	14.553	PK
5	*	12010.000	46.190	31.637	-7.810	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



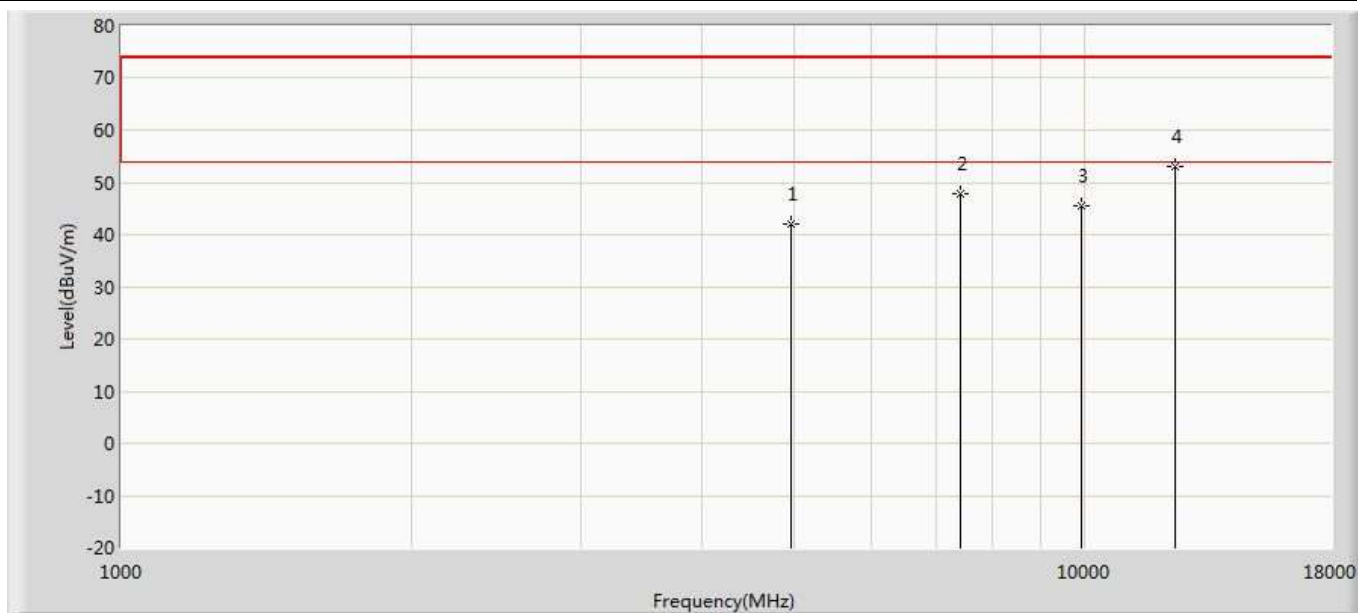
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.170	37.384	-31.830	74.000	4.786	PK
2		7320.000	46.986	39.324	-27.014	74.000	7.663	PK
3		9760.000	45.141	35.281	-28.859	74.000	9.860	PK
4	*	12200.000	52.981	37.629	-21.019	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



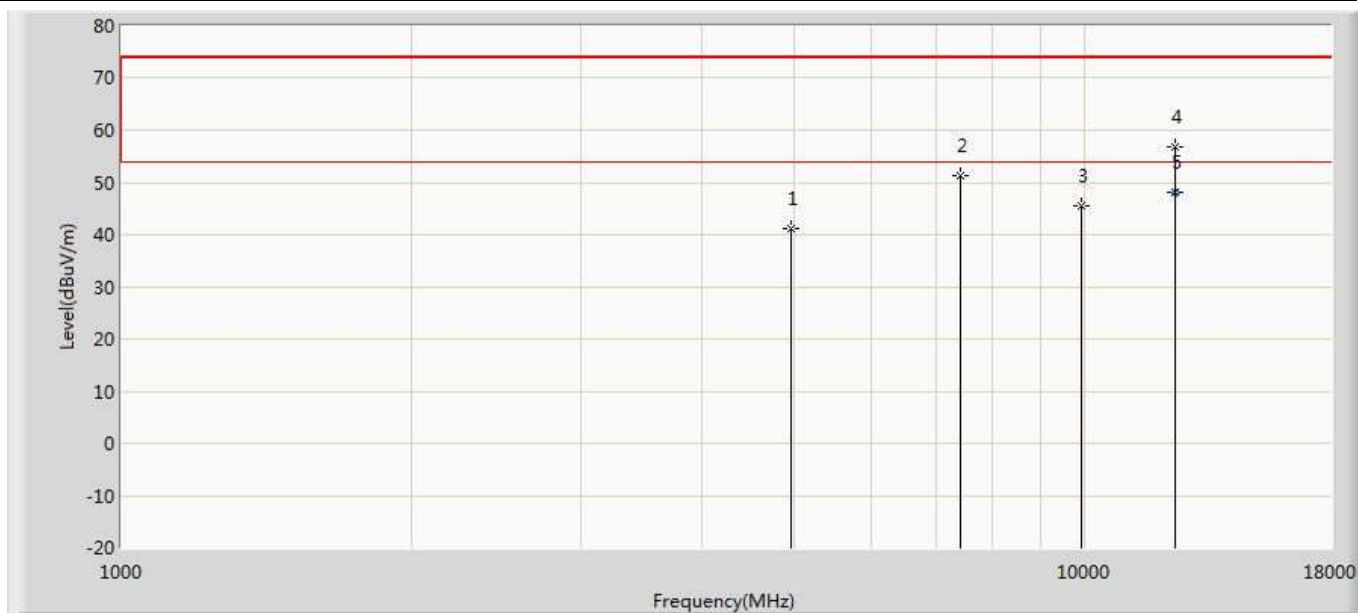
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.040	37.254	-31.960	74.000	4.786	PK
2		7320.000	49.092	41.430	-24.908	74.000	7.663	PK
3		9760.000	45.171	35.311	-28.829	74.000	9.860	PK
4		12200.000	57.132	41.780	-16.868	74.000	15.351	PK
5	*	12200.000	47.294	31.942	-6.706	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



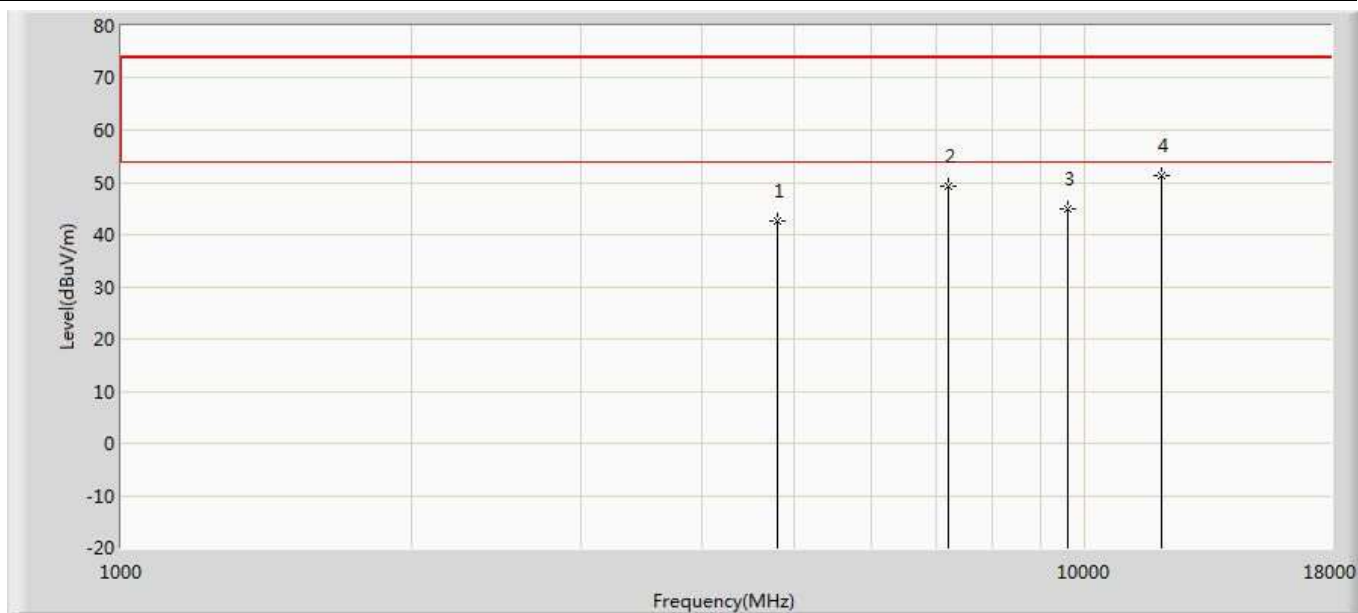
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.069	37.149	-31.931	74.000	4.920	PK
2		7440.000	47.966	40.251	-26.034	74.000	7.715	PK
3		9920.000	45.438	35.491	-28.562	74.000	9.946	PK
4	*	12400.000	53.105	37.106	-20.895	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



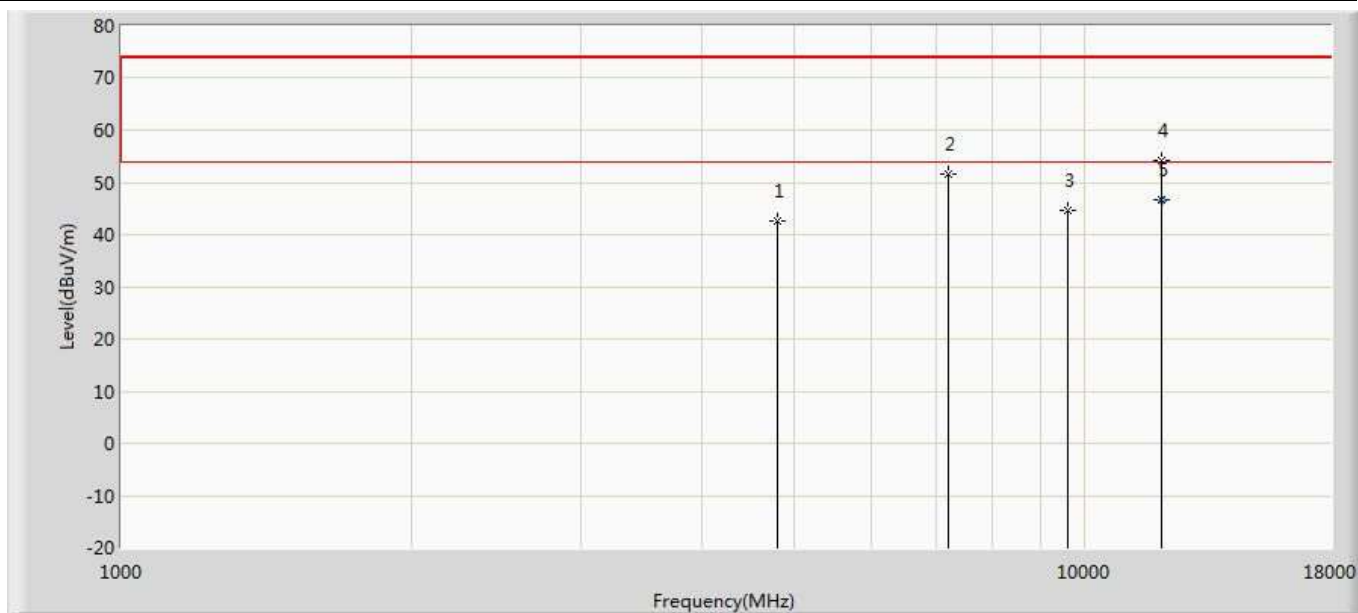
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.096	36.176	-32.904	74.000	4.920	PK
2		7440.000	51.236	43.521	-22.764	74.000	7.715	PK
3		9920.000	45.571	35.624	-28.429	74.000	9.946	PK
4		12400.000	56.930	40.931	-17.070	74.000	15.999	PK
5	*	12400.000	48.141	32.142	-5.859	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



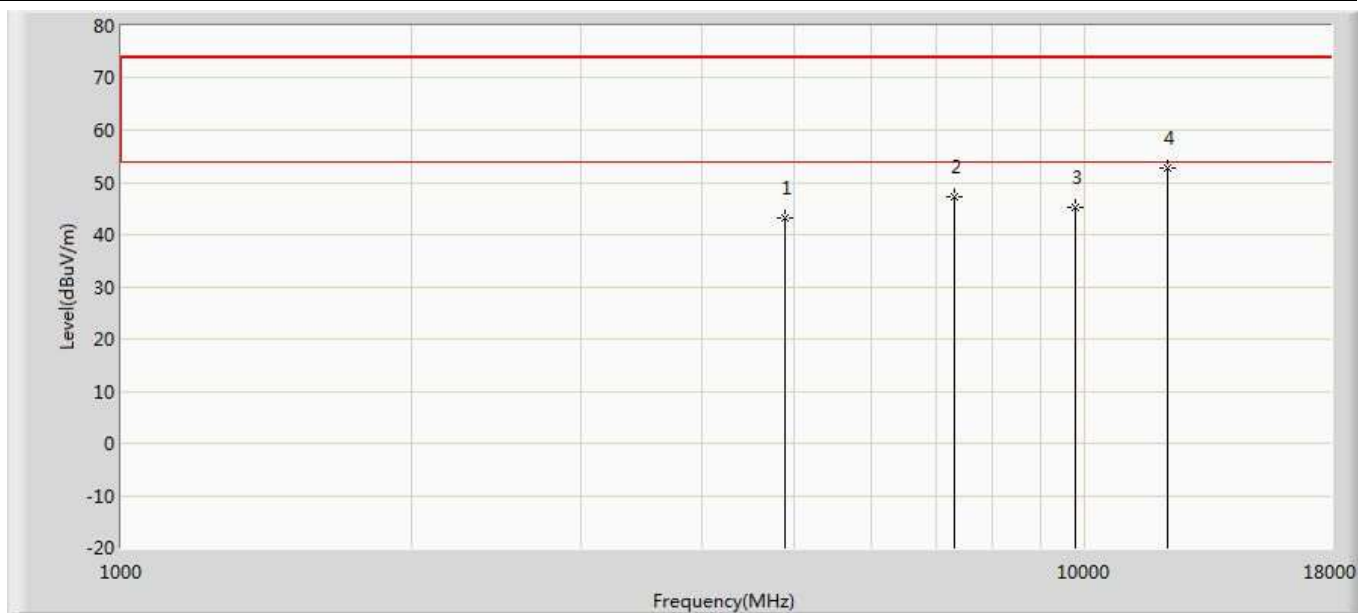
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.518	38.001	-31.482	74.000	4.517	PK
2		7206.000	49.289	41.742	-24.711	74.000	7.547	PK
3		9608.000	45.031	35.849	-28.969	74.000	9.182	PK
4	*	12010.000	51.254	36.701	-22.746	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



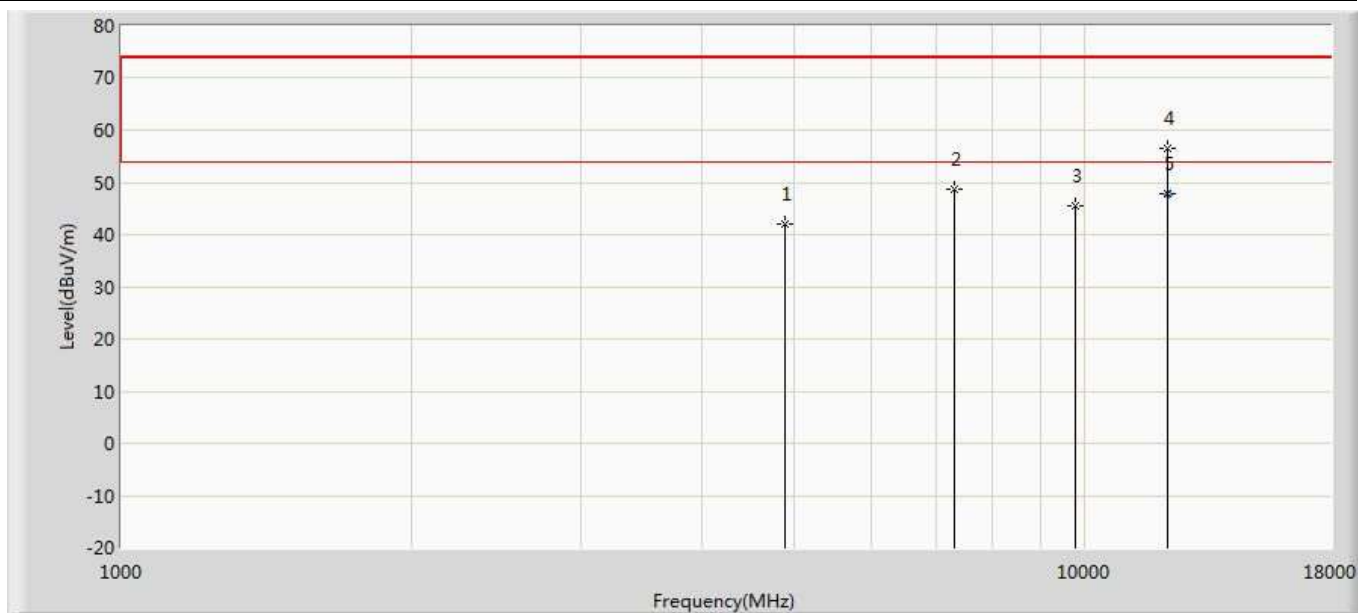
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.465	37.948	-31.535	74.000	4.517	PK
2		7206.000	51.496	43.949	-22.504	74.000	7.547	PK
3		9608.000	44.584	35.402	-29.416	74.000	9.182	PK
4		12010.000	54.324	39.771	-19.676	74.000	14.553	PK
5	*	12010.000	46.598	32.045	-7.402	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps	



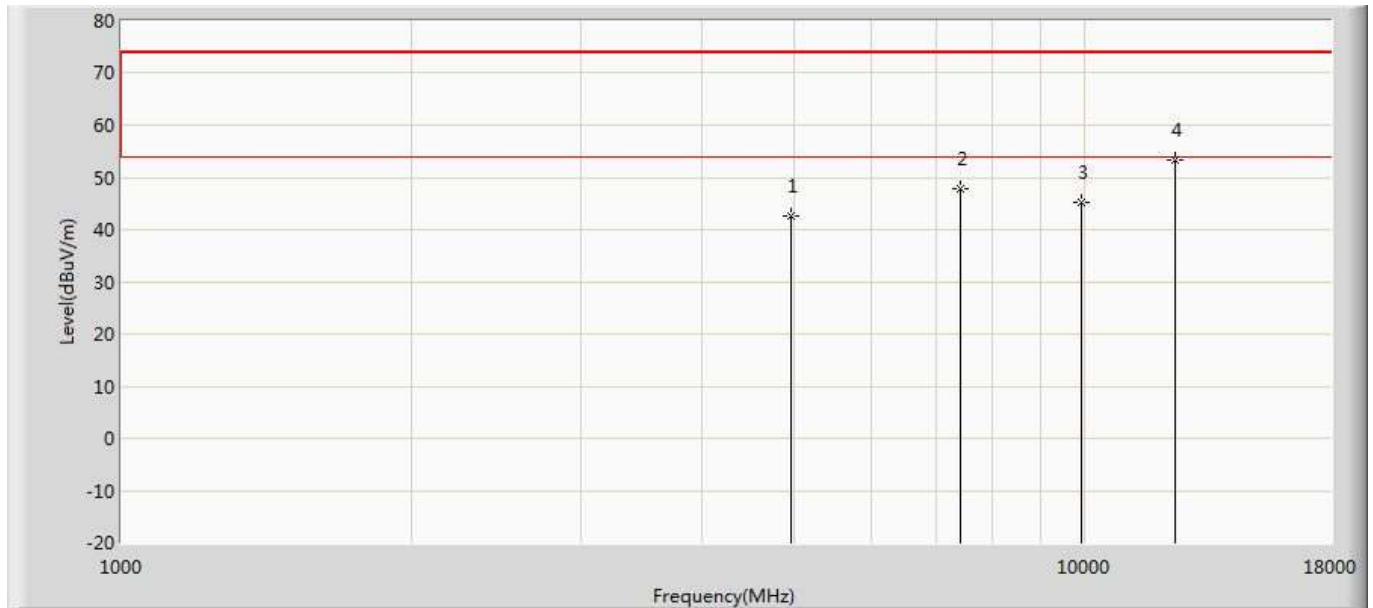
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.054	38.268	-30.946	74.000	4.786	PK
2		7320.000	47.314	39.652	-26.686	74.000	7.663	PK
3		9760.000	45.140	35.280	-28.860	74.000	9.860	PK
4	*	12200.000	52.879	37.527	-21.121	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps	



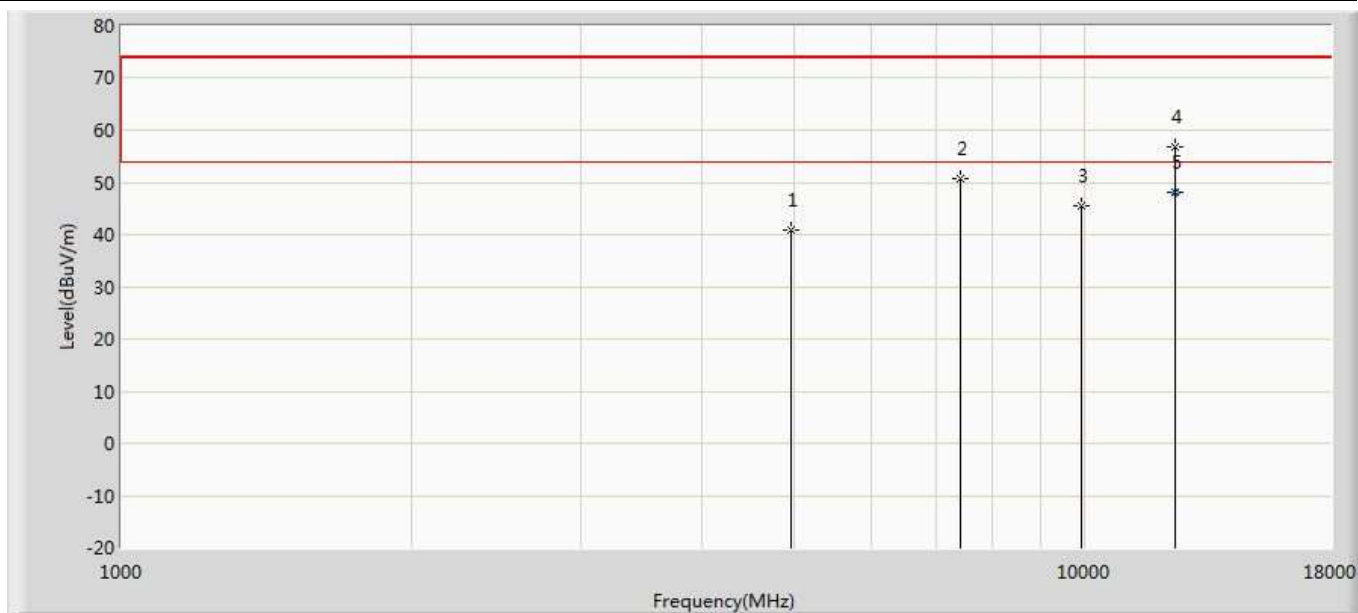
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.155	37.369	-31.845	74.000	4.786	PK
2		7320.000	48.604	40.942	-25.396	74.000	7.663	PK
3		9760.000	45.428	35.568	-28.572	74.000	9.860	PK
4		12200.000	56.633	41.281	-17.367	74.000	15.351	PK
5	*	12200.000	47.804	32.452	-6.196	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



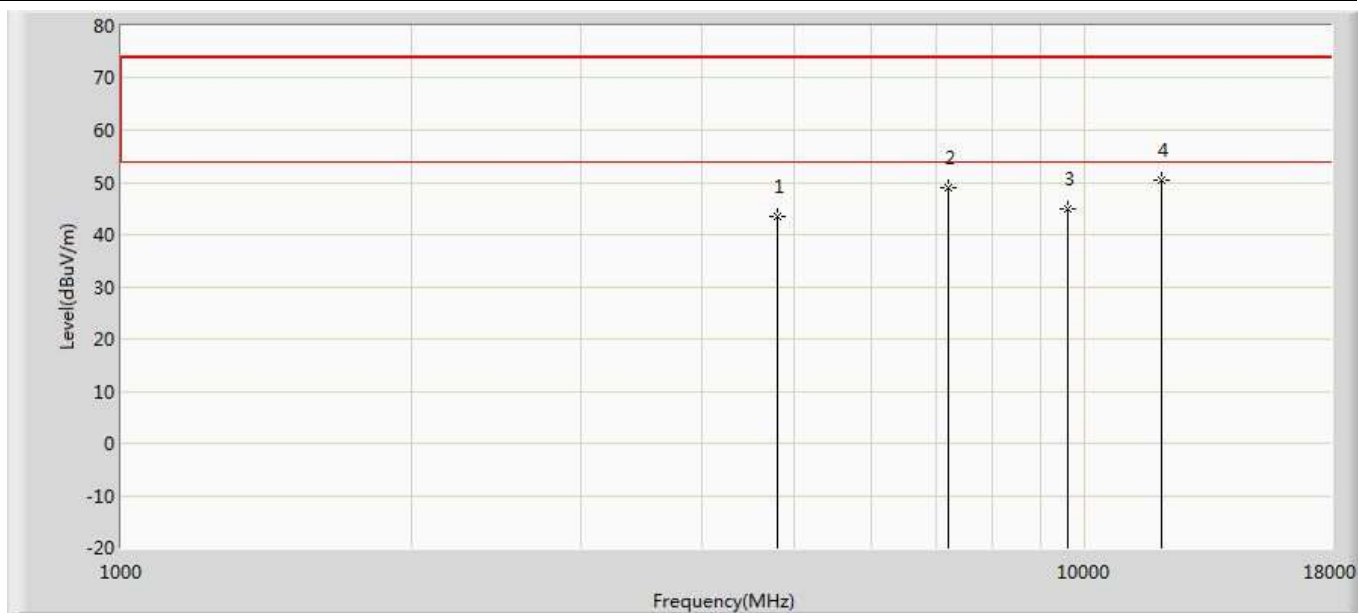
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.511	37.591	-31.489	74.000	4.920	PK
2		7440.000	47.960	40.245	-26.040	74.000	7.715	PK
3		9920.000	45.340	35.393	-28.660	74.000	9.946	PK
4	*	12400.000	53.252	37.253	-20.748	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



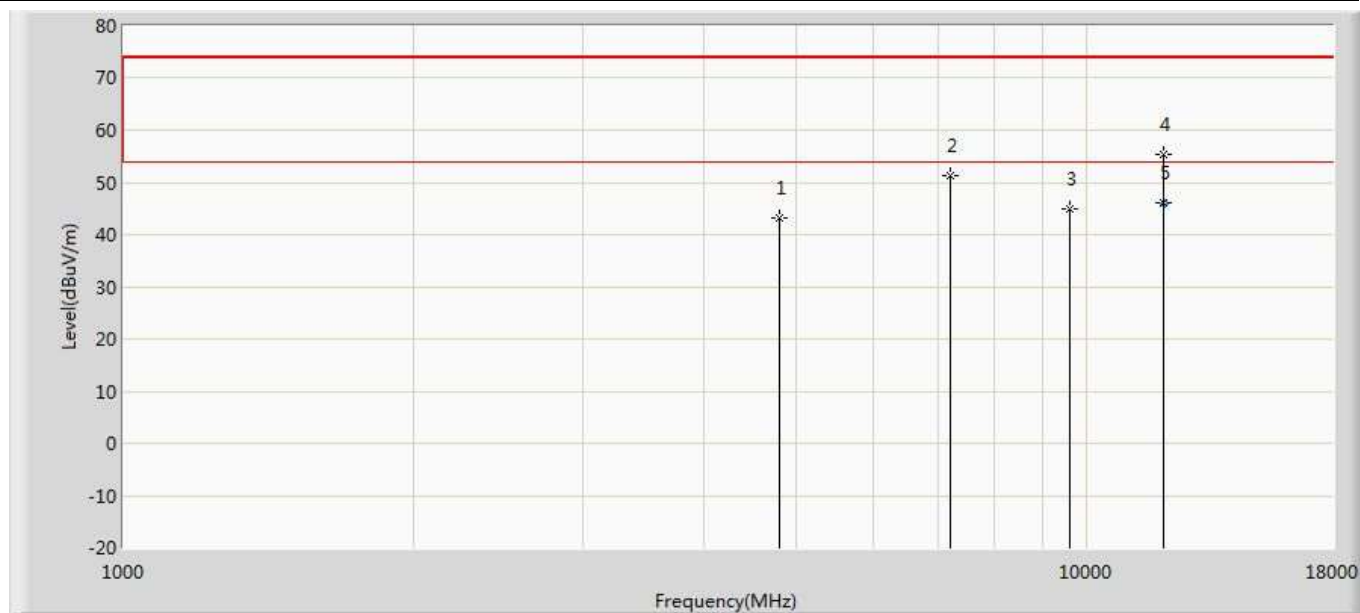
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.935	36.015	-33.065	74.000	4.920	PK
2		7440.000	50.866	43.151	-23.134	74.000	7.715	PK
3		9920.000	45.496	35.549	-28.504	74.000	9.946	PK
4		12400.000	56.844	40.845	-17.156	74.000	15.999	PK
5	*	12400.000	48.067	32.068	-5.933	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



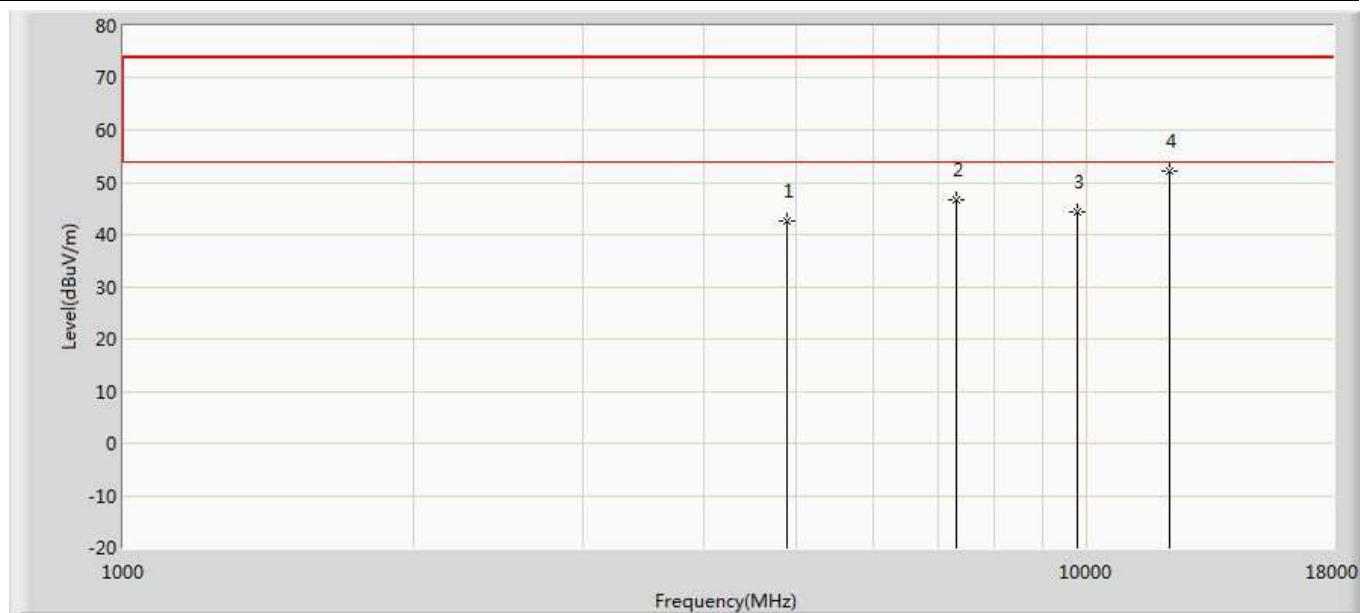
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.396	38.879	-30.604	74.000	4.517	PK
2		7206.000	49.128	41.581	-24.872	74.000	7.547	PK
3		9608.000	44.944	35.762	-29.056	74.000	9.182	PK
4	*	12010.000	50.548	35.995	-23.452	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



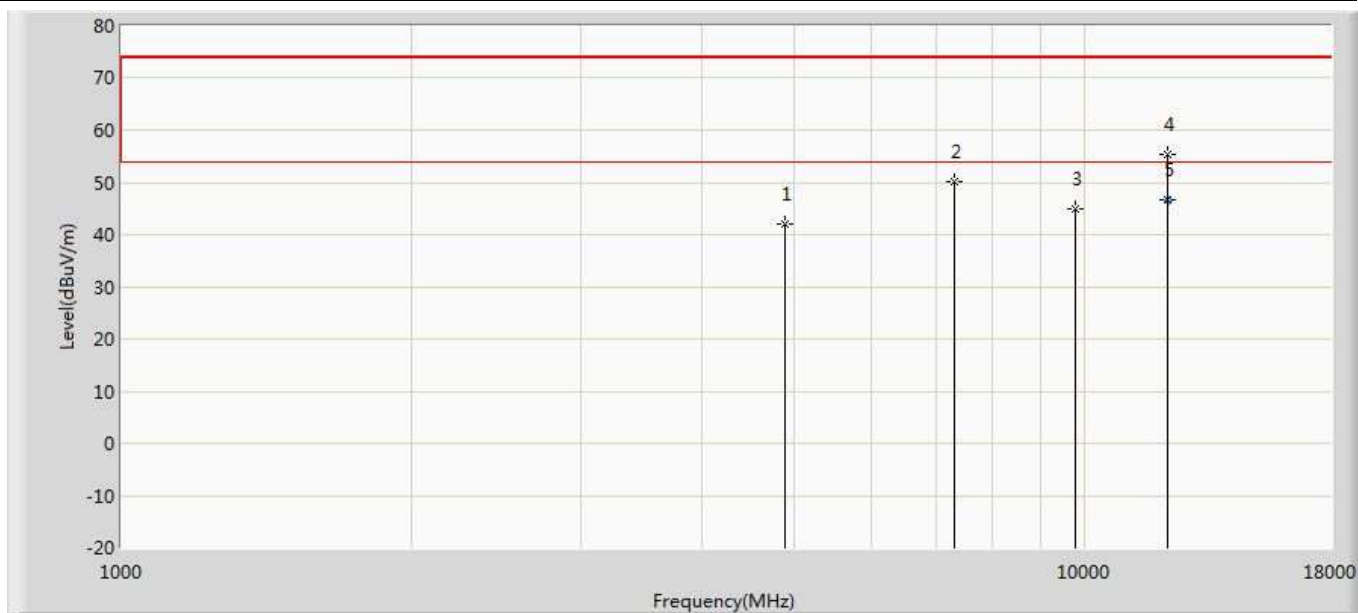
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.164	38.647	-30.836	74.000	4.517	PK
2		7206.000	51.313	43.766	-22.687	74.000	7.547	PK
3		9608.000	44.876	35.694	-29.124	74.000	9.182	PK
4		12010.000	55.236	40.683	-18.764	74.000	14.553	PK
5	*	12010.000	46.100	31.547	-7.900	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded (S=2)	



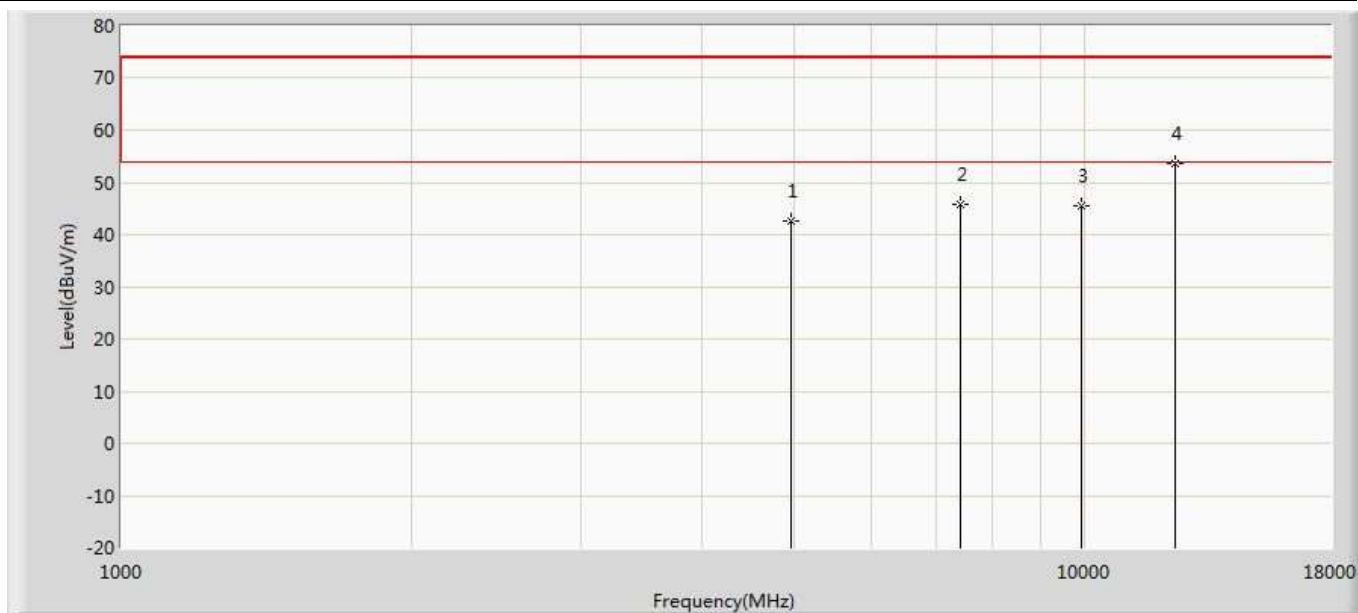
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.620	37.834	-31.380	74.000	4.786	PK
2		7320.000	46.760	39.098	-27.240	74.000	7.663	PK
3		9760.000	44.221	34.361	-29.779	74.000	9.860	PK
4	*	12200.000	52.057	36.705	-21.943	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded (S=2)	



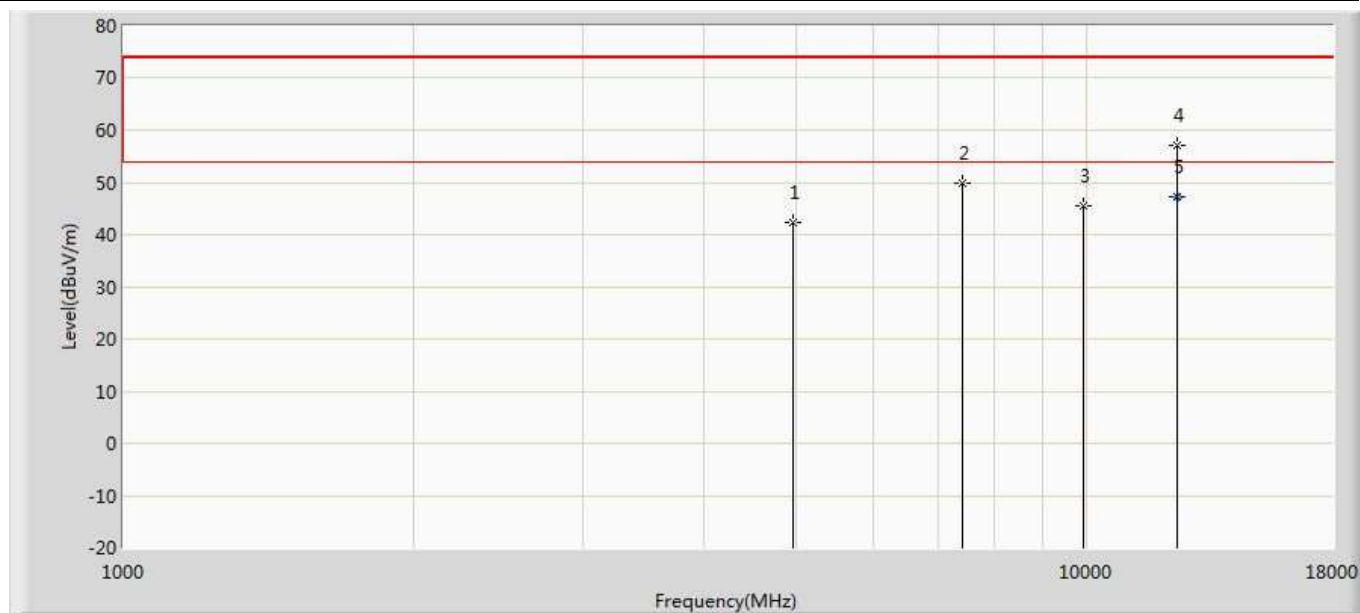
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.050	37.264	-31.950	74.000	4.786	PK
2		7320.000	50.205	42.543	-23.795	74.000	7.663	PK
3		9760.000	44.867	35.007	-29.133	74.000	9.860	PK
4		12200.000	55.325	39.973	-18.675	74.000	15.351	PK
5	*	12200.000	46.773	31.421	-7.227	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



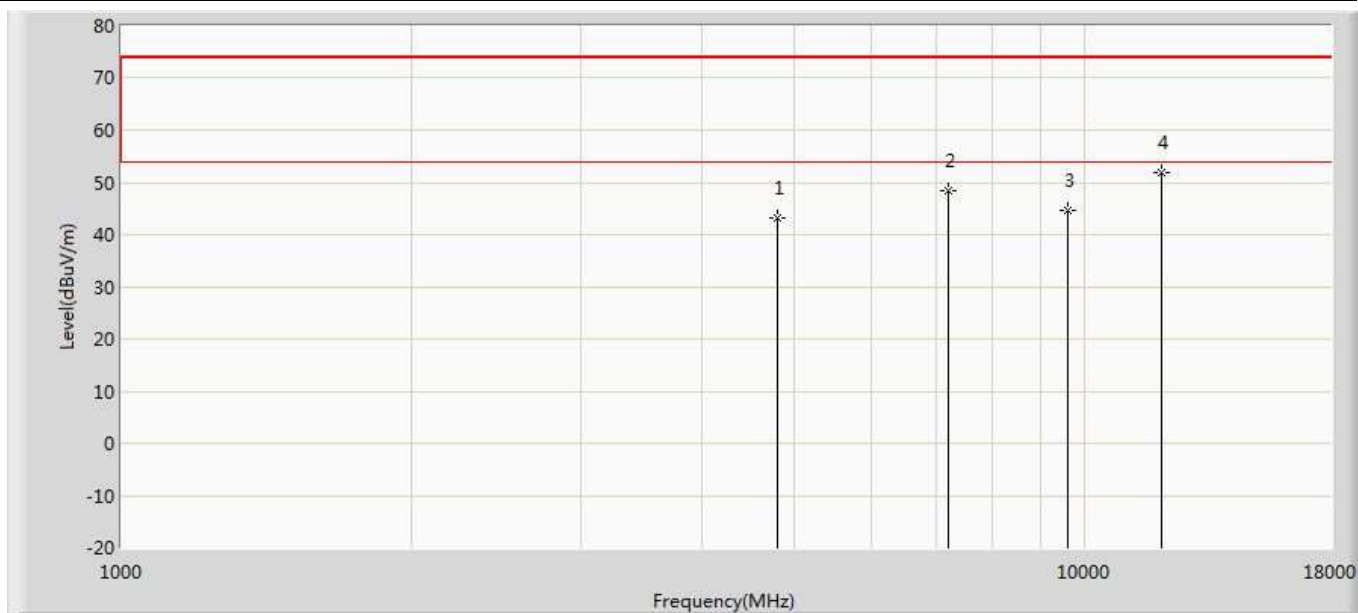
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.661	37.741	-31.339	74.000	4.920	PK
2		7440.000	45.673	37.958	-28.327	74.000	7.715	PK
3		9920.000	45.423	35.476	-28.577	74.000	9.946	PK
4	*	12400.000	53.620	37.621	-20.380	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



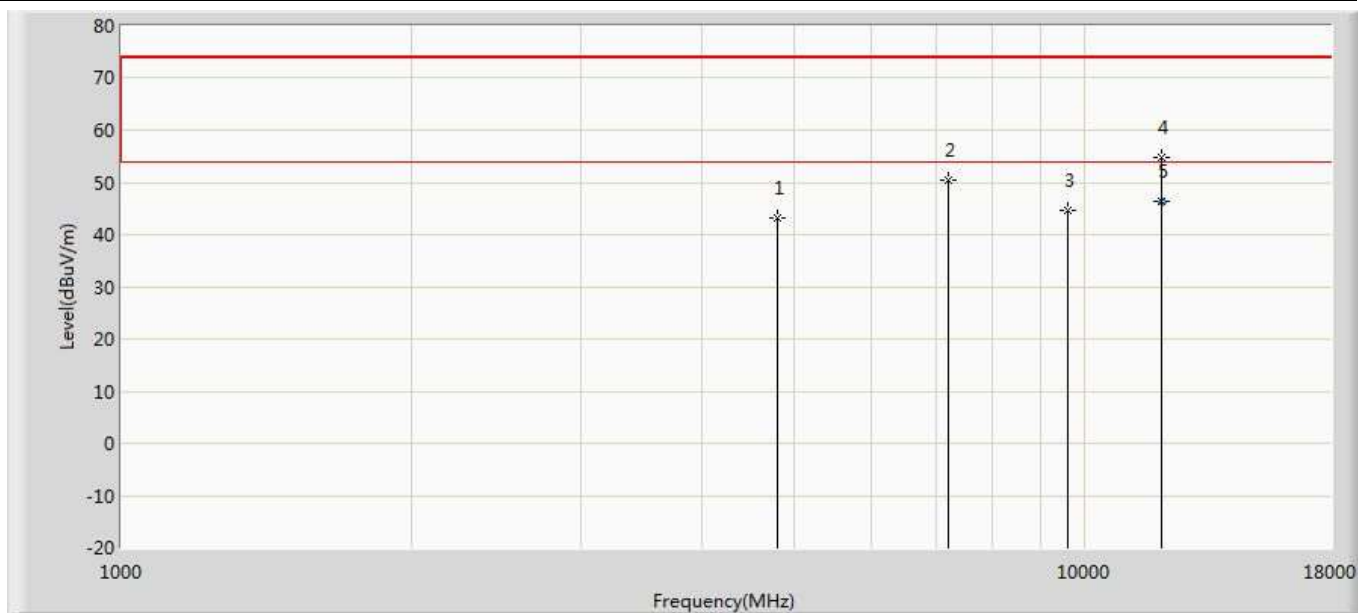
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.220	37.300	-31.780	74.000	4.920	PK
2		7440.000	49.869	42.154	-24.131	74.000	7.715	PK
3		9920.000	45.433	35.486	-28.567	74.000	9.946	PK
4		12400.000	57.213	41.214	-16.787	74.000	15.999	PK
5	*	12400.000	47.247	31.248	-6.753	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



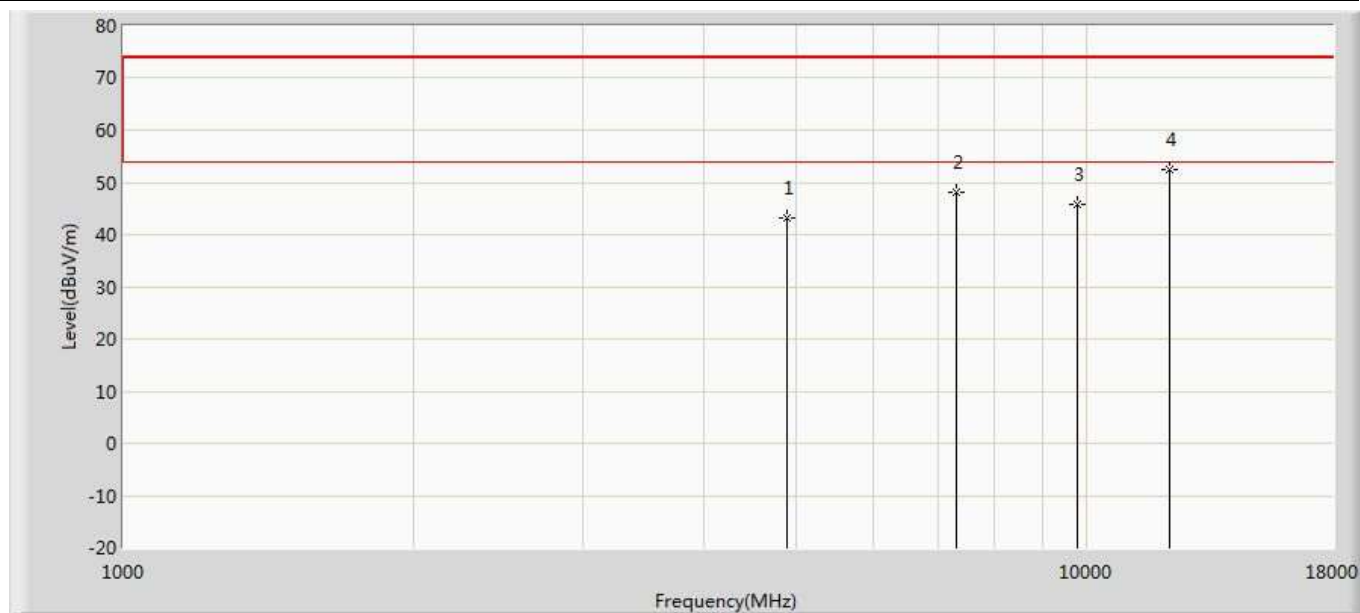
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.150	38.633	-30.850	74.000	4.517	PK
2		7206.000	48.265	40.718	-25.735	74.000	7.547	PK
3		9608.000	44.557	35.375	-29.443	74.000	9.182	PK
4	*	12010.000	51.806	37.253	-22.194	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



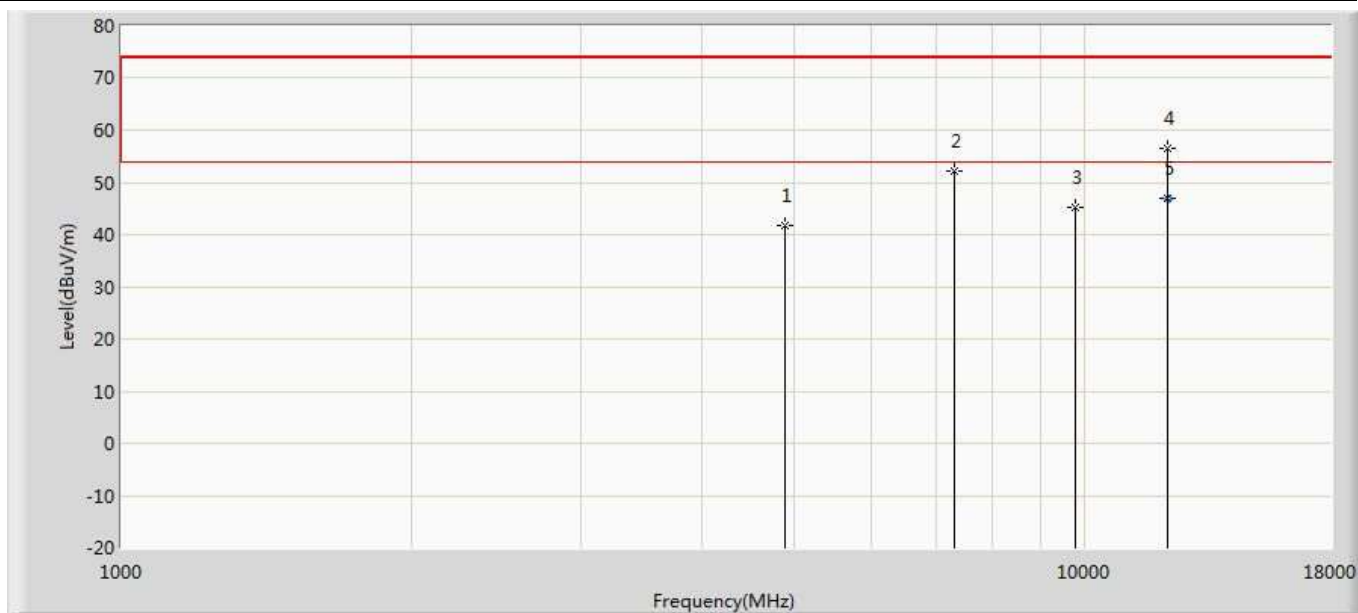
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.106	38.589	-30.894	74.000	4.517	PK
2		7206.000	50.333	42.786	-23.667	74.000	7.547	PK
3		9608.000	44.498	35.316	-29.502	74.000	9.182	PK
4		12010.000	54.764	40.211	-19.236	74.000	14.553	PK
5	*	12010.000	46.476	31.923	-7.524	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded (S=8)	



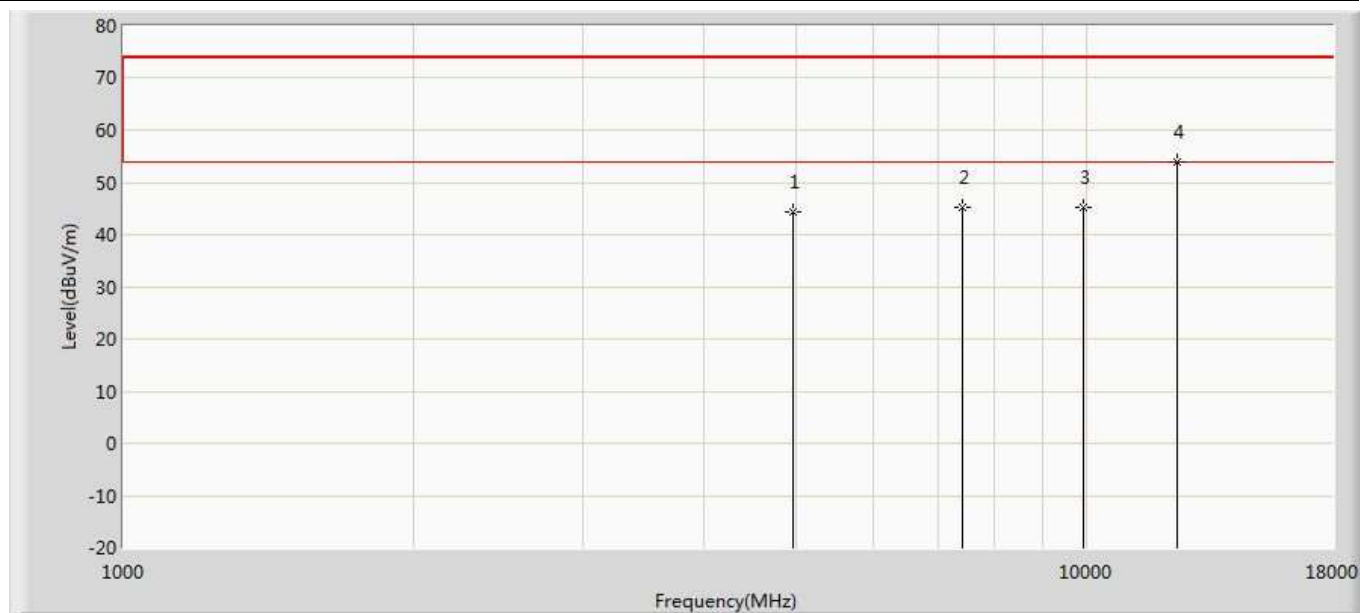
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.299	38.513	-30.701	74.000	4.786	PK
2		7320.000	47.975	40.313	-26.025	74.000	7.663	PK
3		9760.000	45.875	36.015	-28.125	74.000	9.860	PK
4	*	12200.000	52.462	37.110	-21.538	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded (S=8)	



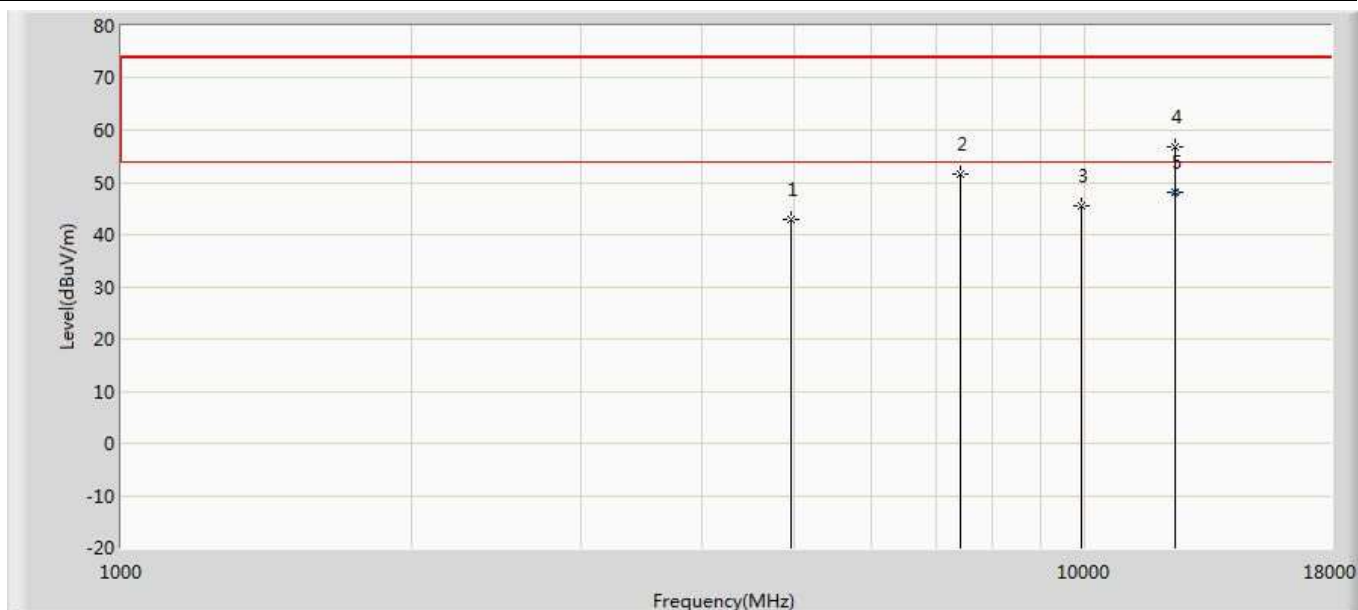
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.754	36.968	-32.246	74.000	4.786	PK
2		7320.000	52.210	44.548	-21.790	74.000	7.663	PK
3		9760.000	45.206	35.346	-28.794	74.000	9.860	PK
4		12200.000	56.597	41.245	-17.403	74.000	15.351	PK
5	*	12200.000	47.101	31.749	-6.899	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	44.241	39.321	-29.759	74.000	4.920	PK
2		7440.000	45.238	37.523	-28.762	74.000	7.715	PK
3		9920.000	45.215	35.268	-28.785	74.000	9.946	PK
4	*	12400.000	53.862	37.863	-20.138	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



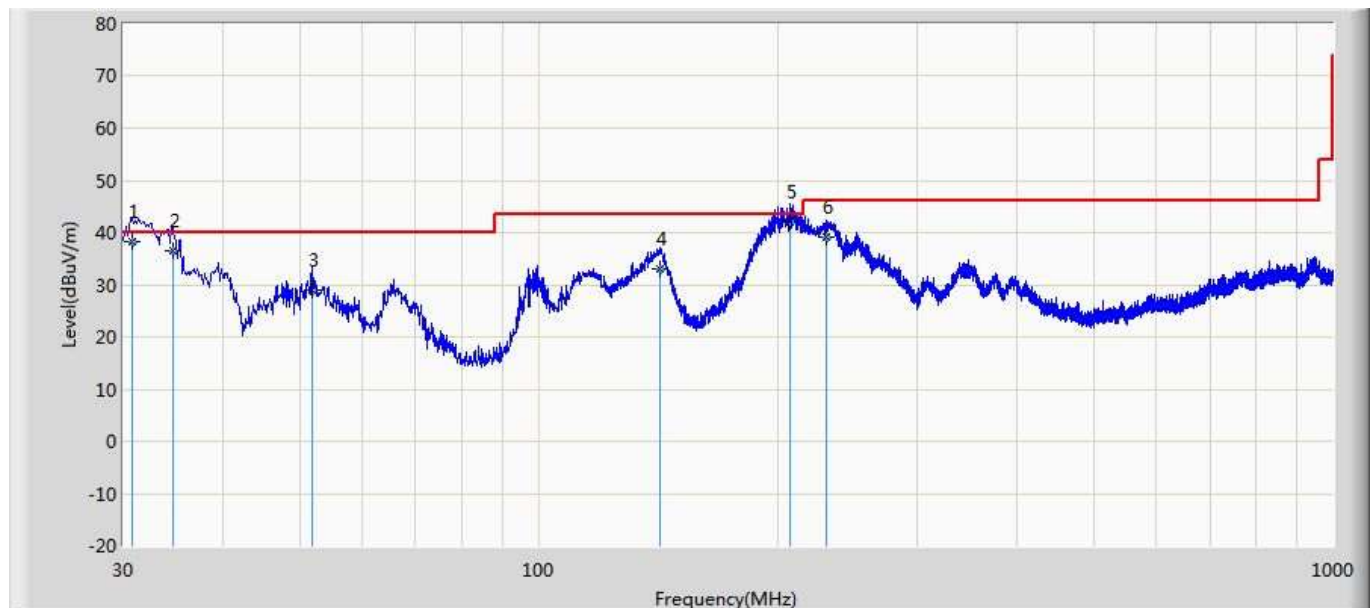
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.873	37.953	-31.127	74.000	4.920	PK
2		7440.000	51.590	43.875	-22.410	74.000	7.715	PK
3		9920.000	45.457	35.510	-28.543	74.000	9.946	PK
4		12400.000	56.823	40.824	-17.177	74.000	15.999	PK
5	*	12400.000	48.044	32.045	-5.956	54.000	15.999	AV

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.
5. We have evaluated each mode, shown in the report is BLE mode which is worst data.

The worst case of Radiated Emission below 1GHz:

Engineer: Simon	
Site: AC3	Time: 2019/08/20 - 20:51
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		30.849	38.193	14.361	-1.807	40.000	23.832	100	296	QP
2		34.607	36.486	13.864	-3.514	40.000	22.622	106	271	QP
3		51.825	29.093	11.327	-10.907	40.000	17.765	115	309	QP
4		141.914	32.945	13.746	-10.555	43.500	19.199	132	52	QP
5	*	207.389	41.893	18.667	-1.607	43.500	23.226	110	243	QP
6		230.062	39.112	16.877	-6.888	46.000	22.235	126	37	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Simon	
Site: AC3	Time: 2019/08/20 - 20:54
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		30.485	23.050	-4.637	-16.950	40.000	27.687	103	168	QP
2		35.456	22.710	-2.967	-17.290	40.000	25.676	102	225	QP
3		140.459	26.716	9.047	-16.784	43.500	17.669	118	207	QP
4	*	197.446	41.278	23.624	-2.222	43.500	17.654	104	252	QP
5		206.783	39.158	21.637	-4.342	43.500	17.521	136	341	QP
6		333.731	36.451	13.451	-9.549	46.000	23.000	111	218	QP

Note:

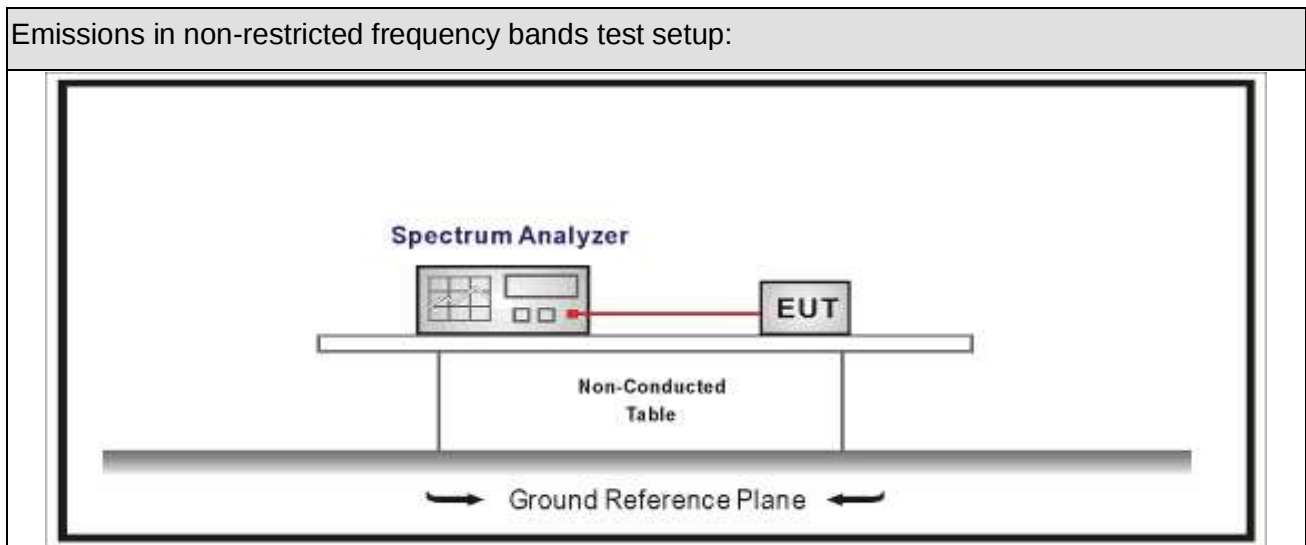
1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

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	2019.02.04	2020.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2019.04.09	2020.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2019.04.09	2020.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2019.04.10	2020.04.09
Note: All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

5.2. Test Setup



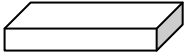
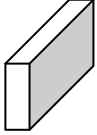
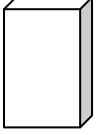
5.3. Limit

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

Item	Emissions in non-restricted frequency bands			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1-3			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

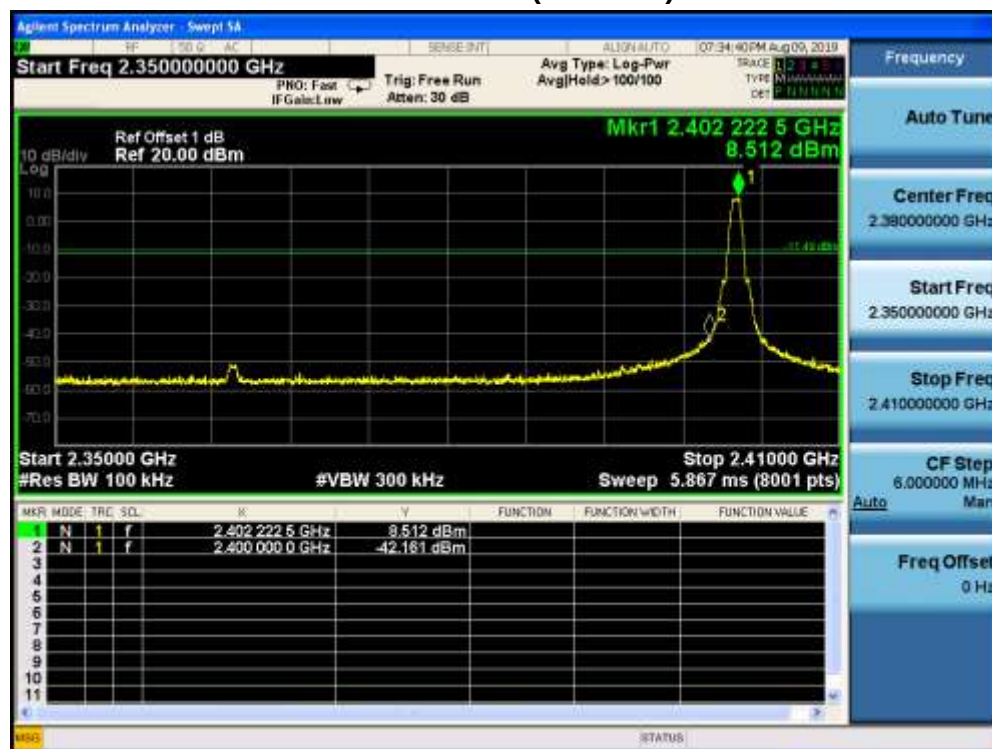
5.6. Test Result

Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 1	Test Site	: TR-8
Test Date	: 2019.08.15	Test Engineer	: Simon

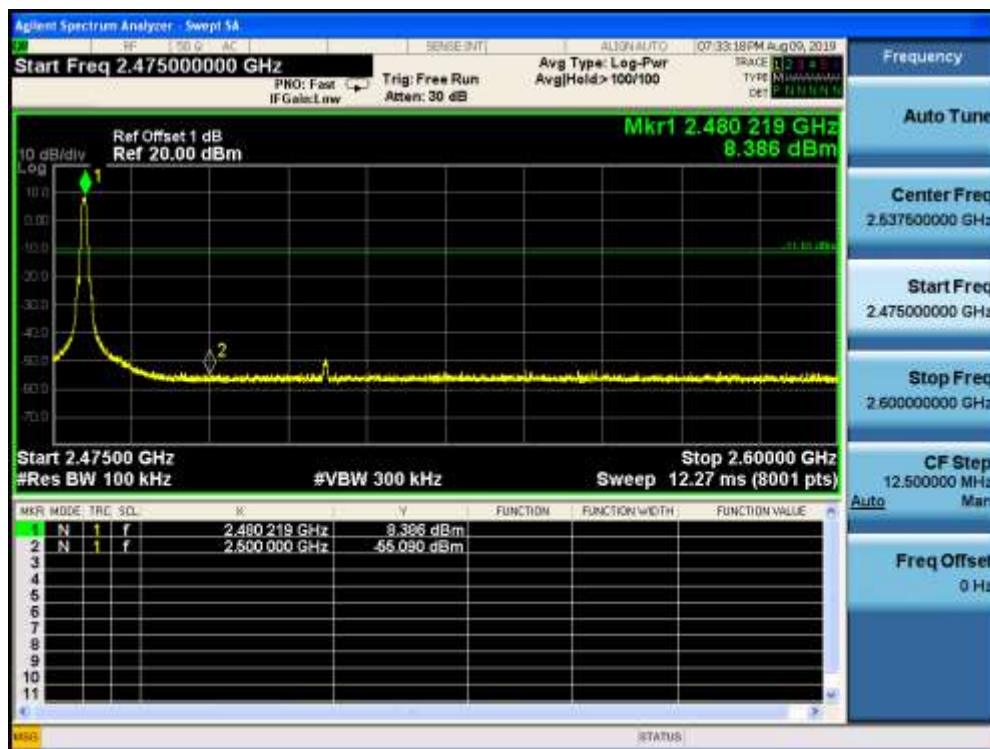
Mode	Channel	Test Frequency (MHz)	In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	00	2402	8.512	2400.00	-42.161	50.673	>20	Pass
1	39	2480	8.386	2500.00	-55.090	63.476	>20	Pass

Note : We have evaluated each mode ,shown in the report is BLE mode which is the worst data.

Mode 1 CH00 (2402MHz)



Mode 1 CH39 (2480MHz)



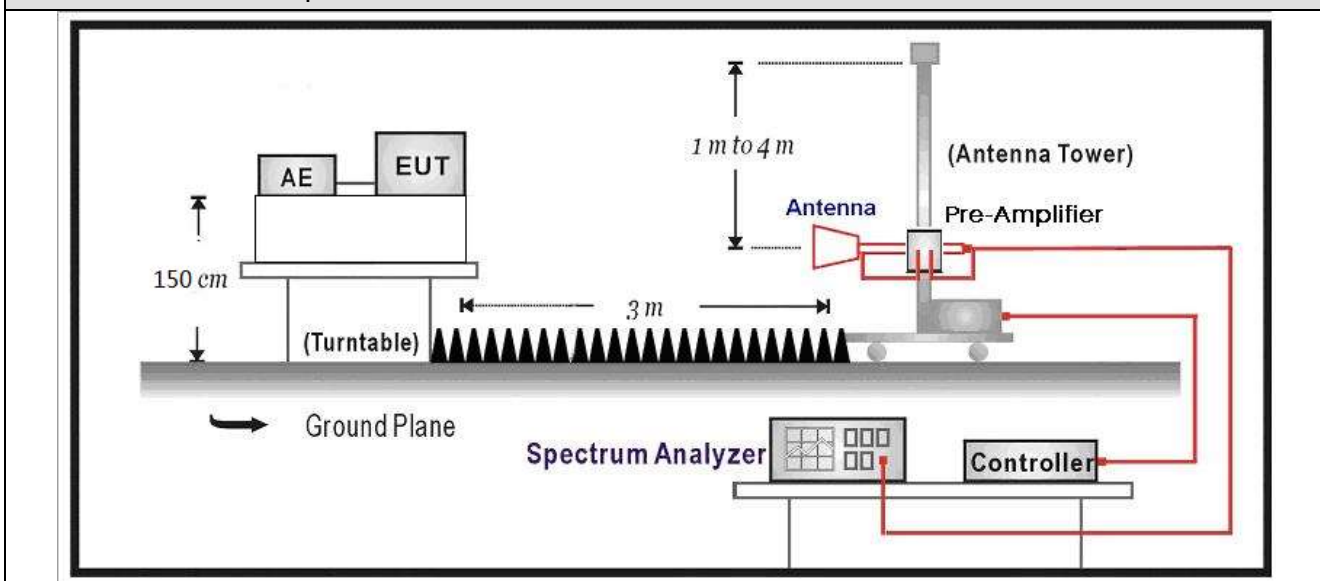
6. Radiated Emission Band Edge

6.1. Test Equipment

Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Receiver	Agilent	N9038A	MY51210196	2019.07.16	2020.07.15
Pre-Amplifier	Miteq	NSP1800-25	1364185	2019.05.03	2020.05.02
DRG Horn Antenna	ETS-Lindgren	3117	00167055	2019.07.12	2020.07.11
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2018.09.18	2019.09.17
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2019.02.28	2020.02.27
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2019.02.28	2020.02.27
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.01.05	2020.01.04

6.2. Test Setup

Above 1GHz Test Setup:



6.3. Limit

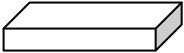
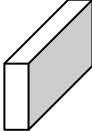
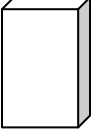
Band edge Limit				
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

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

6.4. Test Procedure

Test Method						
	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	11.12.2.3	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

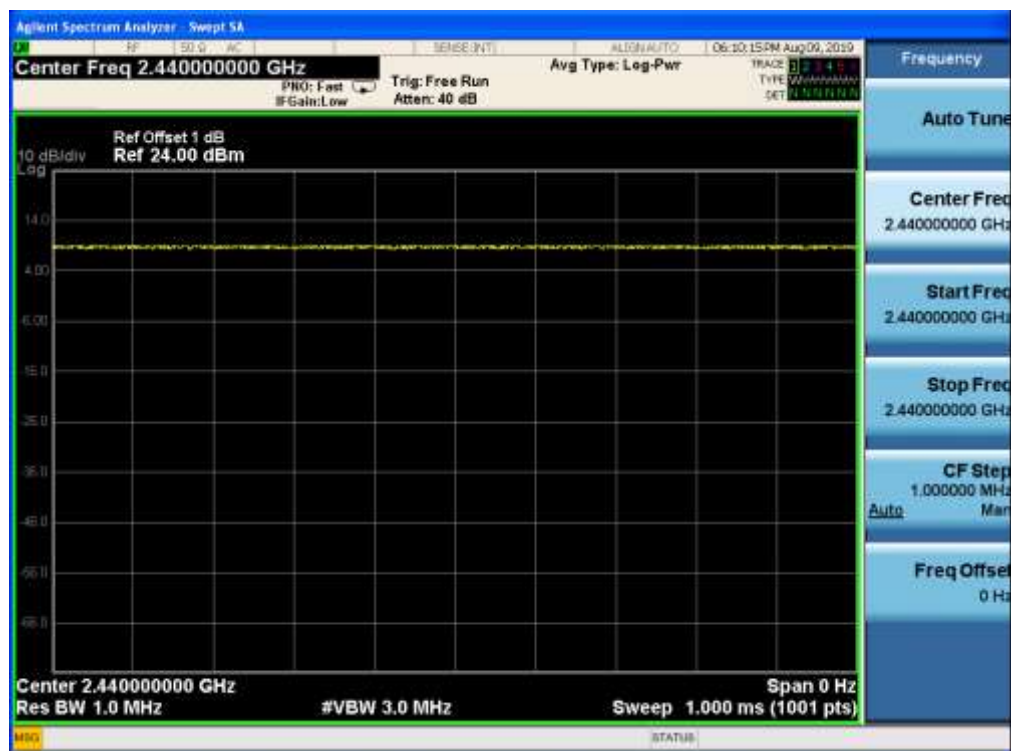
6.5. EUT test definition

Item	Radiated Emission Band Edge			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1~3			
Test method	☒	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☒	Worst Axis ☐	Worst Axis ☐
	☐	Conducted		
	☐	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

6.6. Duty Cycle

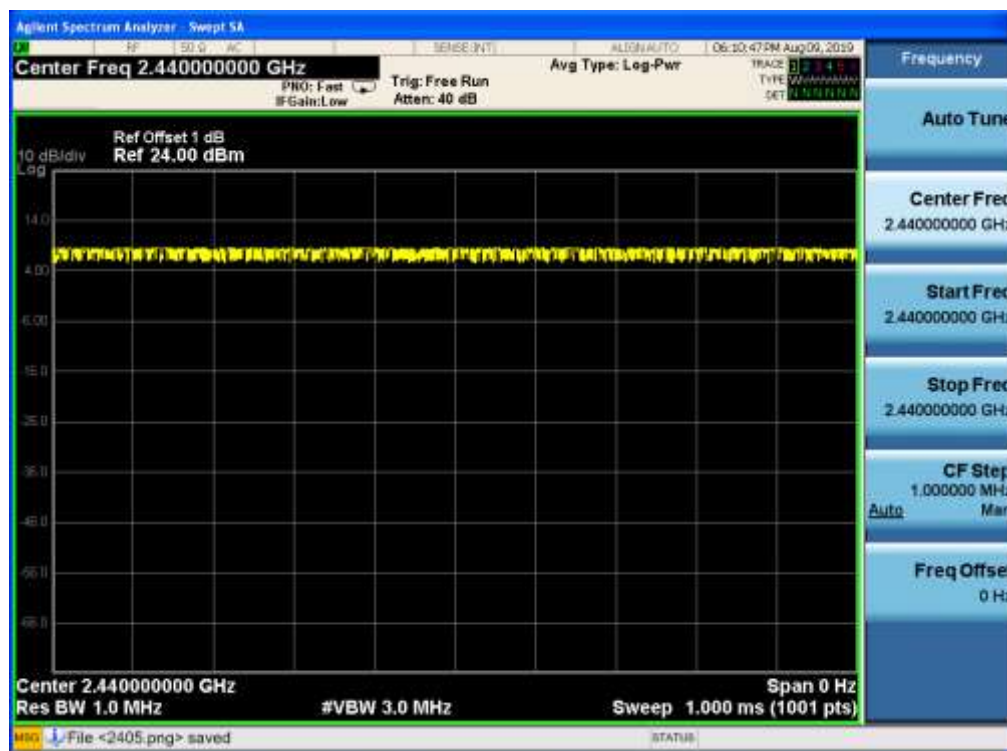
Test Mode	Tx On (ms)	Tx Off (ms)	Reduced VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 1	N/A	N/A	10	N/A	100%

Mode 1



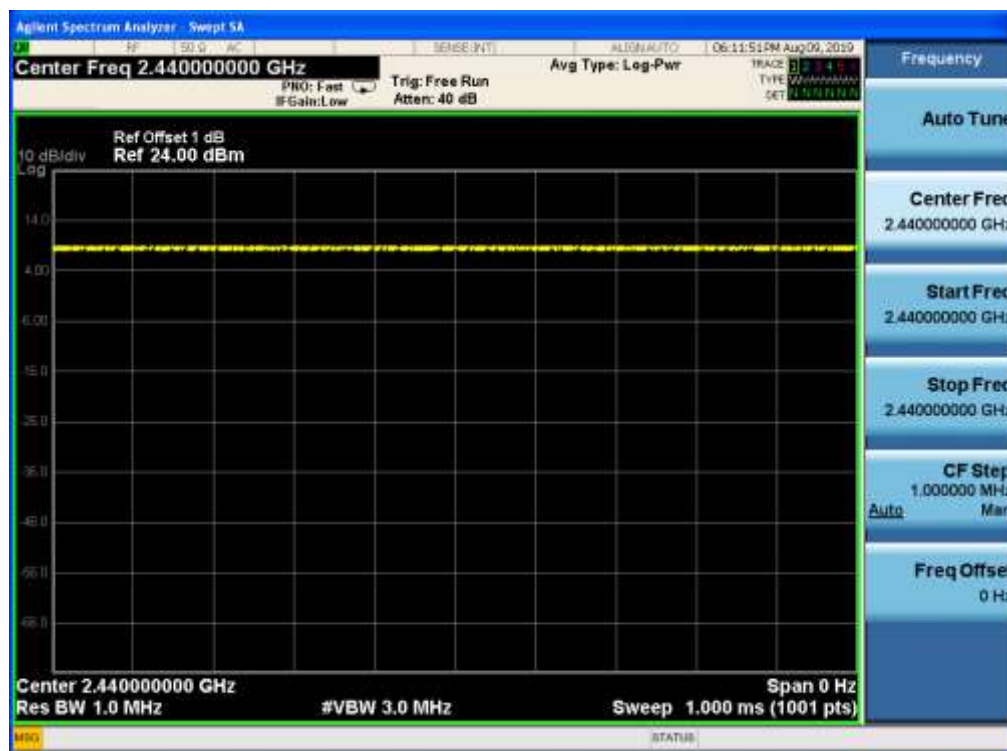
Test Mode	Tx On (ms)	Tx Off (ms)	Reduced VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 2	N/A	N/A	10	N/A	100%

Mode 2



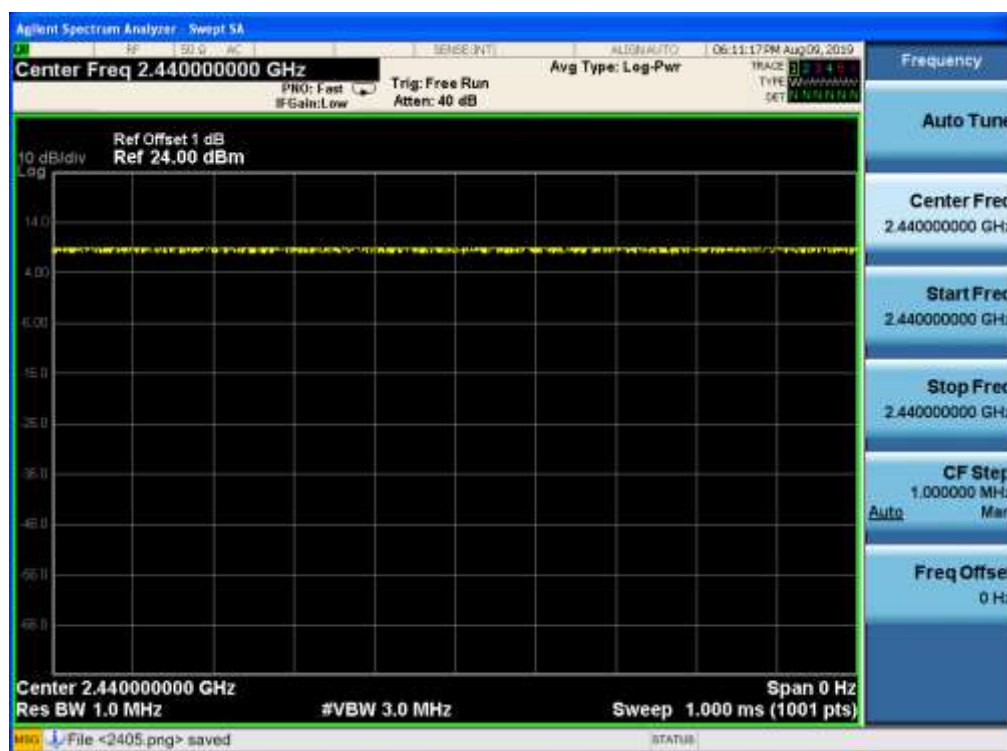
Test Mode	Tx On (ms)	Tx Off (ms)	Reduced VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 3	N/A	N/A	10	N/A	100%

Mode 3



Test Mode	Tx On (ms)	Tx Off (ms)	Reduced VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 4	N/A	N/A	10	N/A	100%

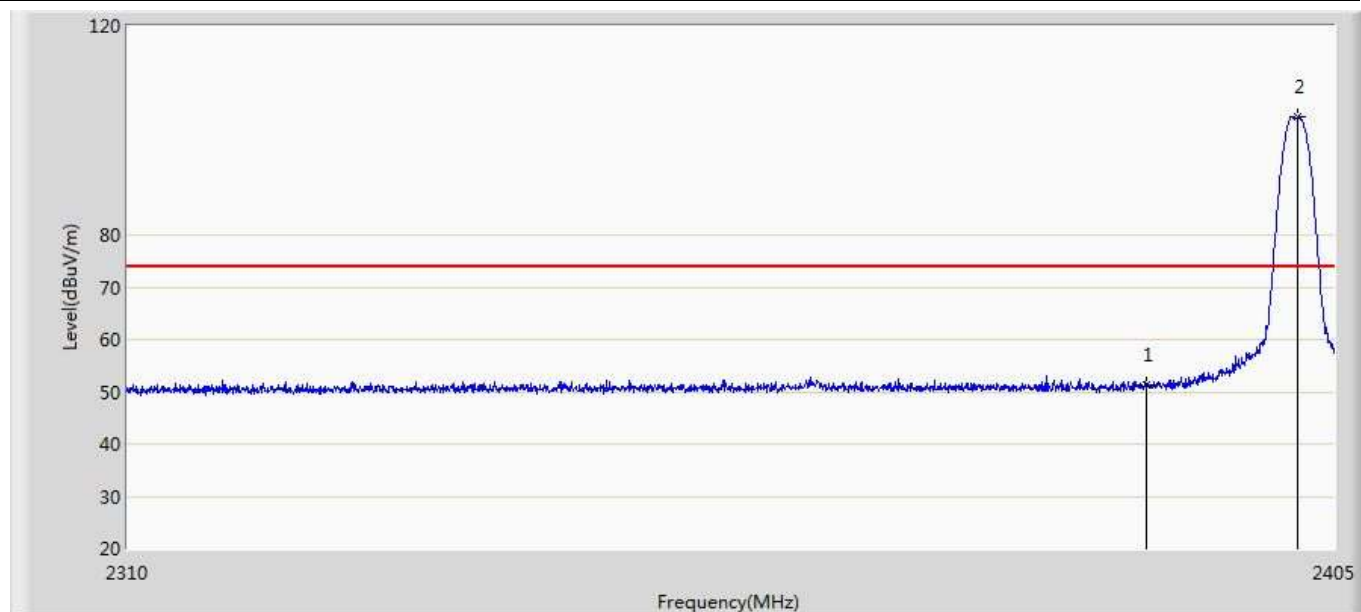
Mode 4



6.7. Test Result

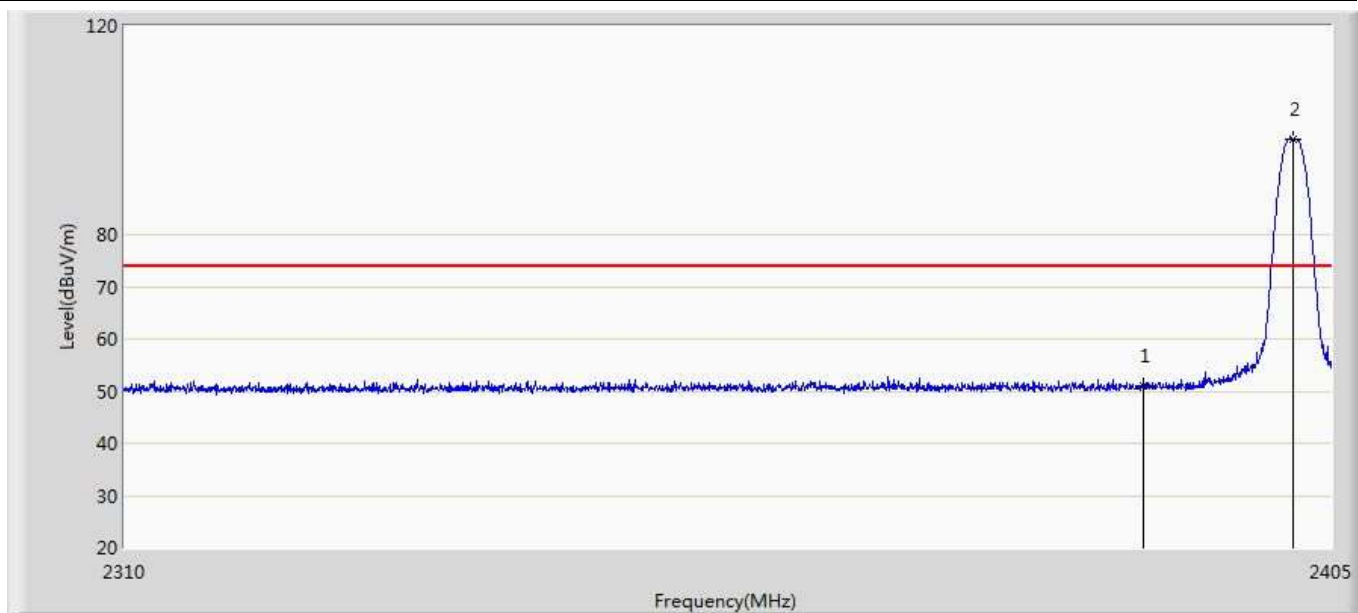
Muruta:

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



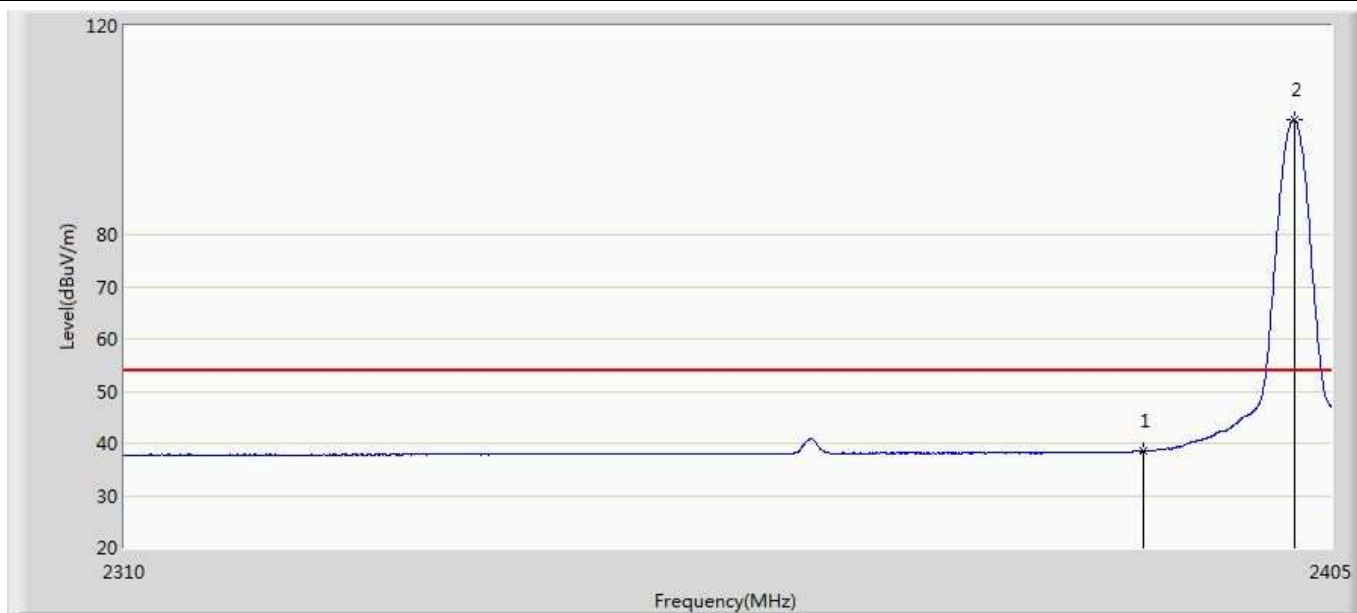
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.253	15.571	-22.747	74.000	35.682	PK
2	*	2402.103	102.477	66.764	28.477	74.000	35.713	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



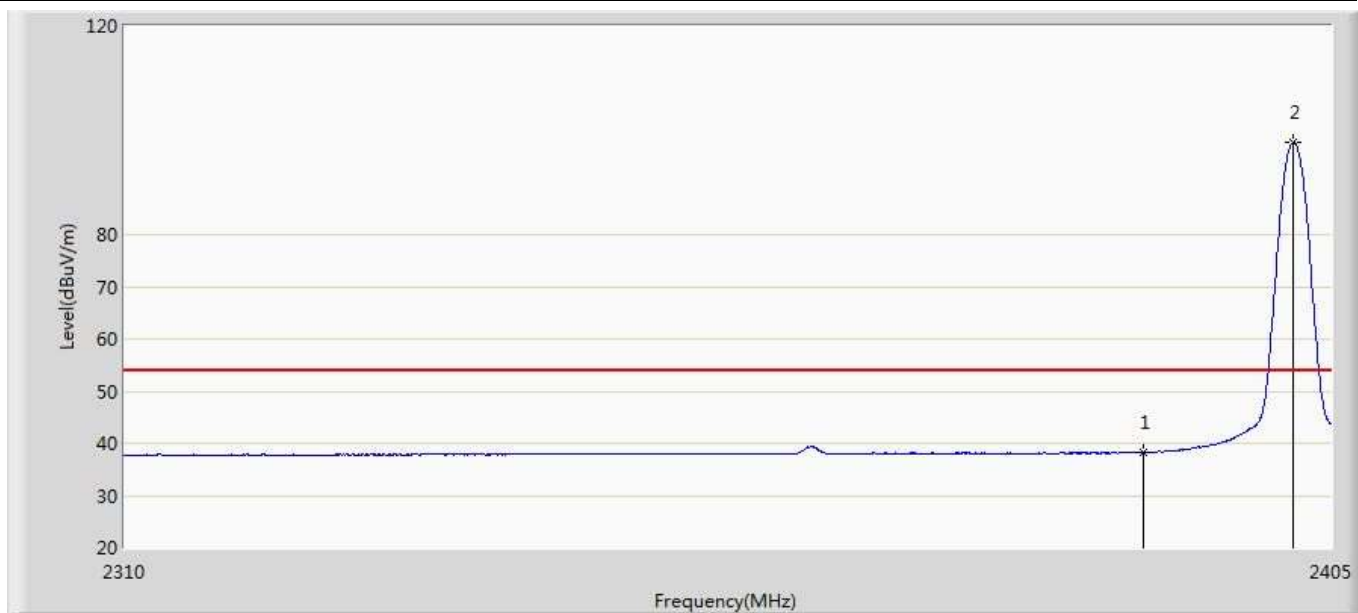
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.950	15.268	-23.050	74.000	35.682	PK
2	*	2401.913	98.288	62.576	24.288	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



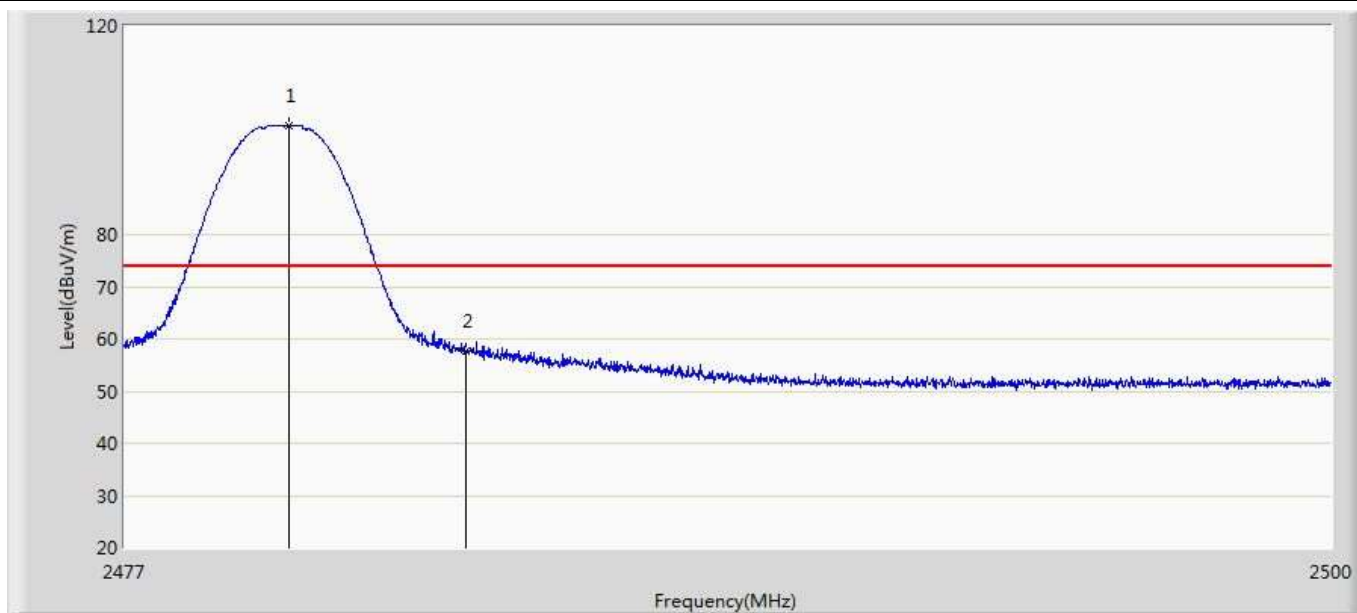
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.451	2.769	-15.549	54.000	35.682	AV
2	*	2402.055	101.889	66.176	47.889	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



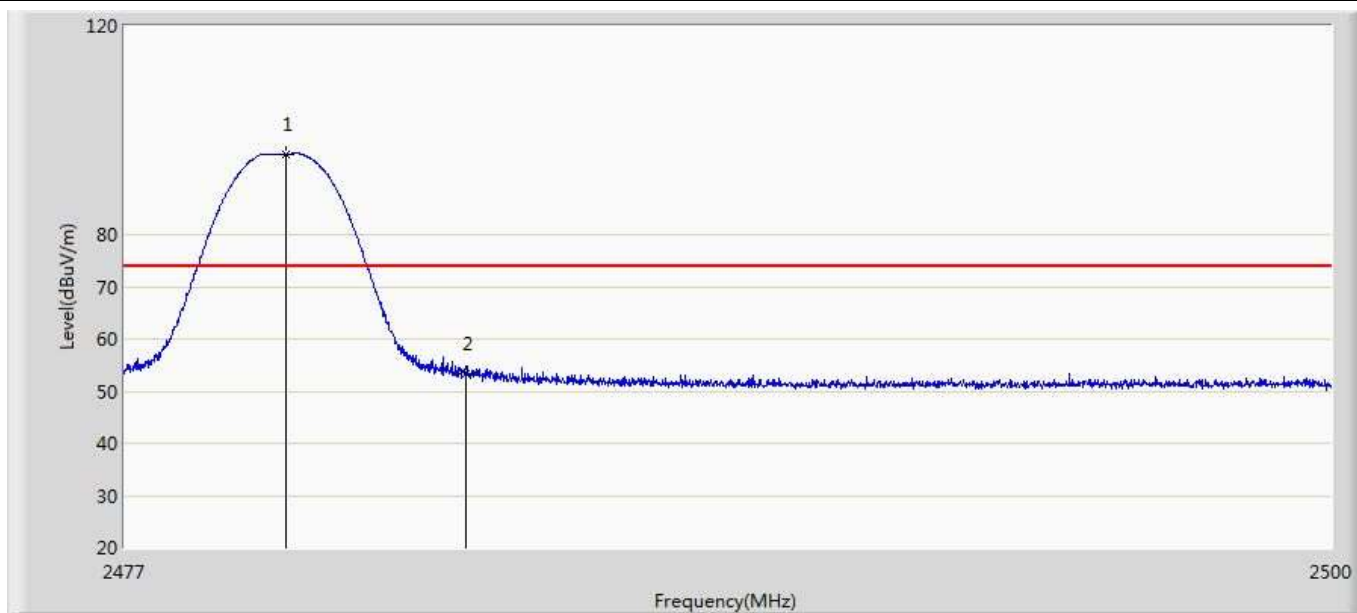
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.220	2.538	-15.780	54.000	35.682	AV
2	*	2401.913	97.541	61.829	43.541	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



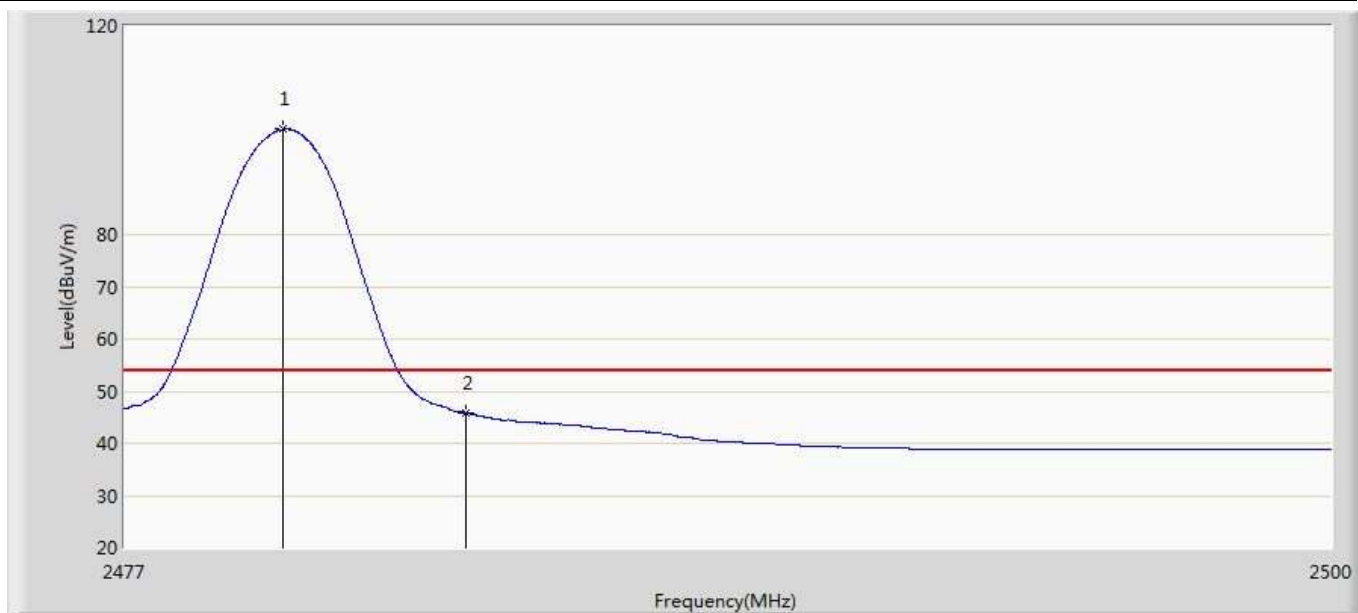
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	100.935	65.068	26.935	74.000	35.867	PK
2		2483.500	57.565	21.673	-16.435	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 13:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



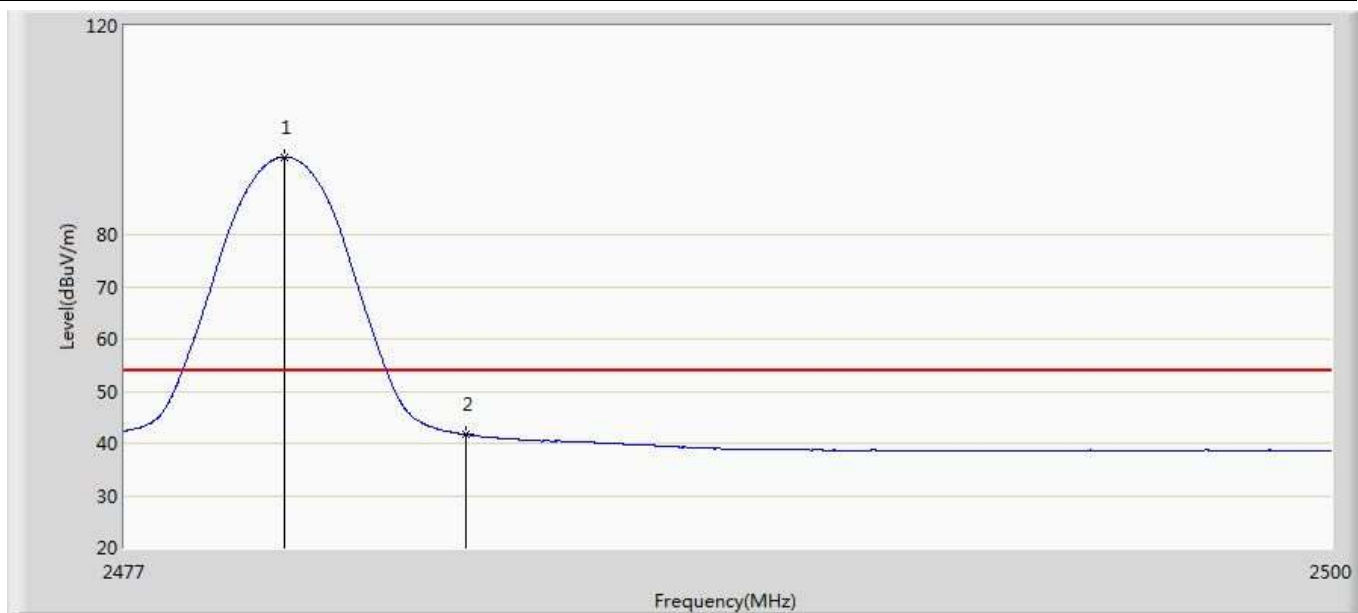
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.071	95.320	59.453	21.320	74.000	35.867	PK
2		2483.500	53.215	17.323	-20.785	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



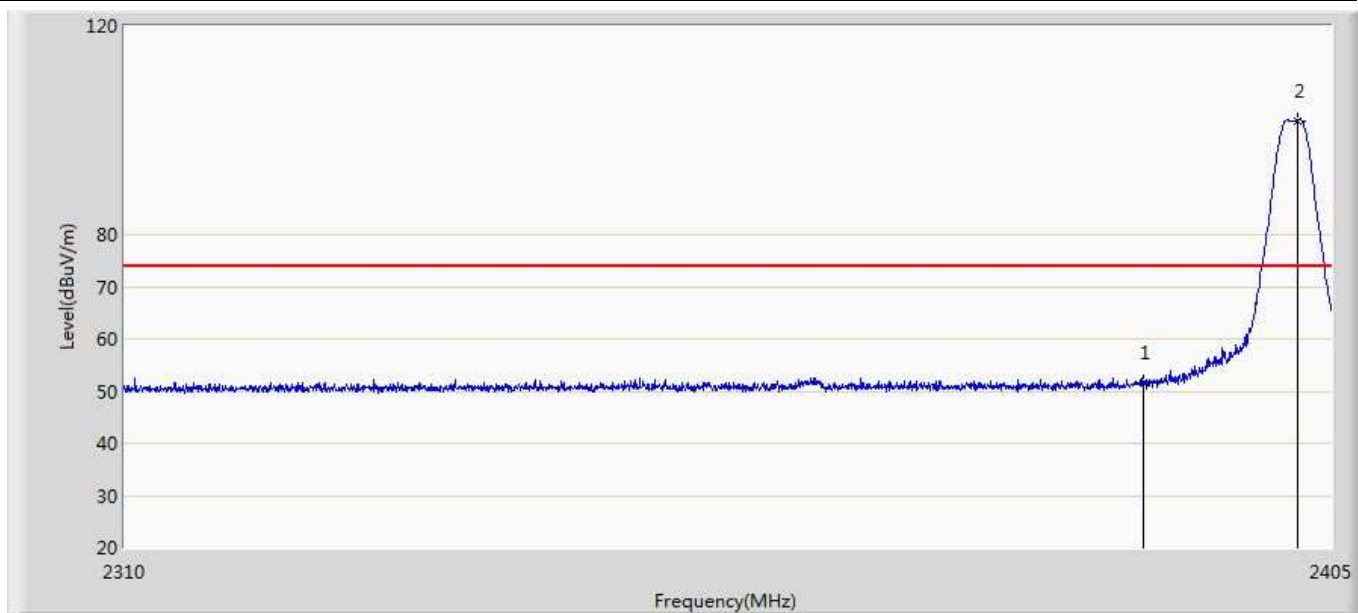
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.001	100.145	64.279	46.145	54.000	35.866	AV
2		2483.500	45.763	9.871	-8.237	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



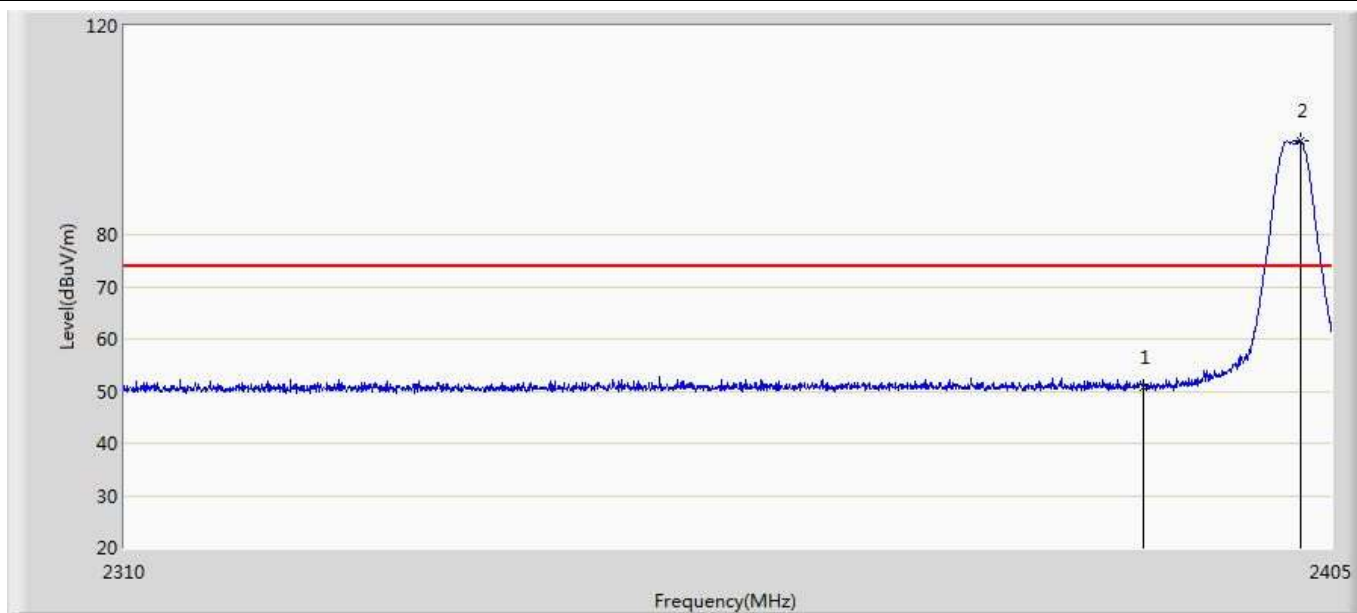
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.036	94.857	58.990	40.857	54.000	35.866	AV
2		2483.500	41.742	5.850	-12.258	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



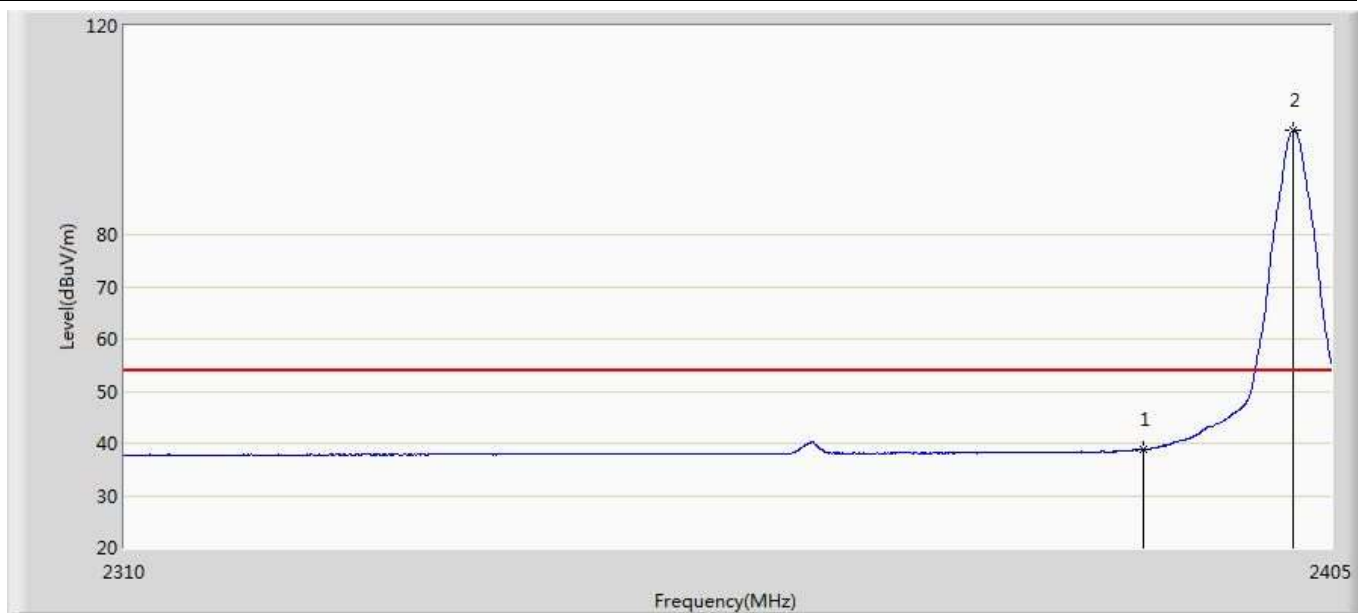
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.551	15.869	-22.449	74.000	35.682	PK
2	*	2402.292	101.883	66.170	27.883	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



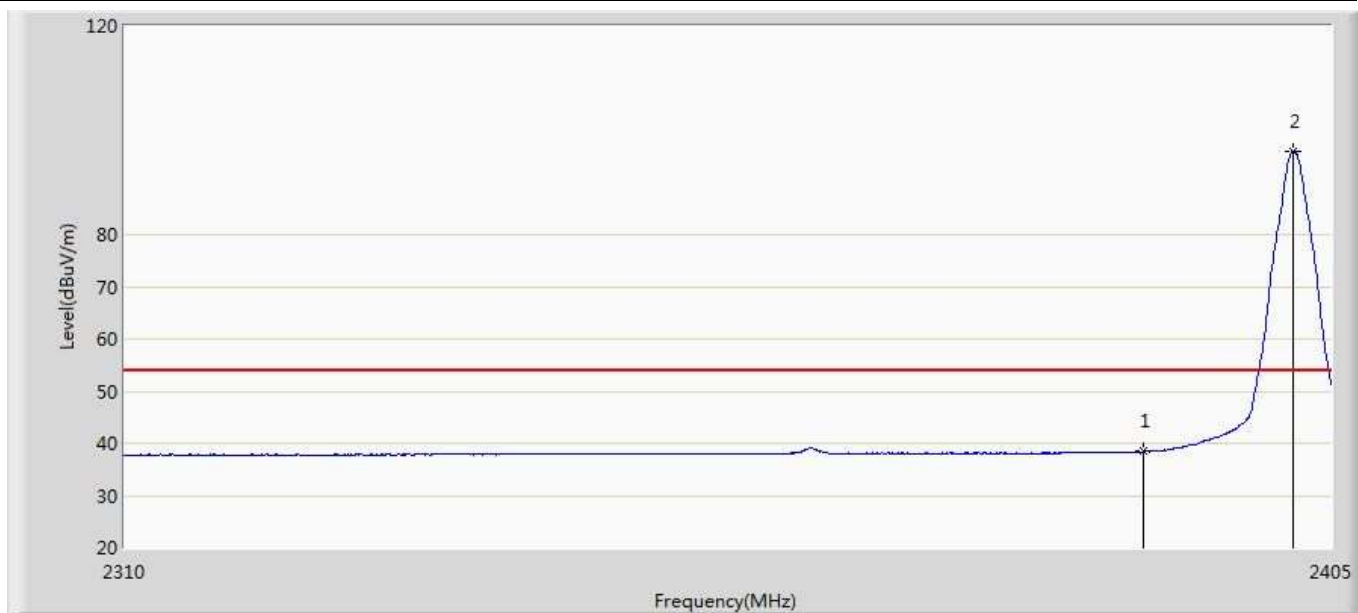
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.860	15.178	-23.140	74.000	35.682	PK
2	*	2402.530	97.833	62.119	23.833	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



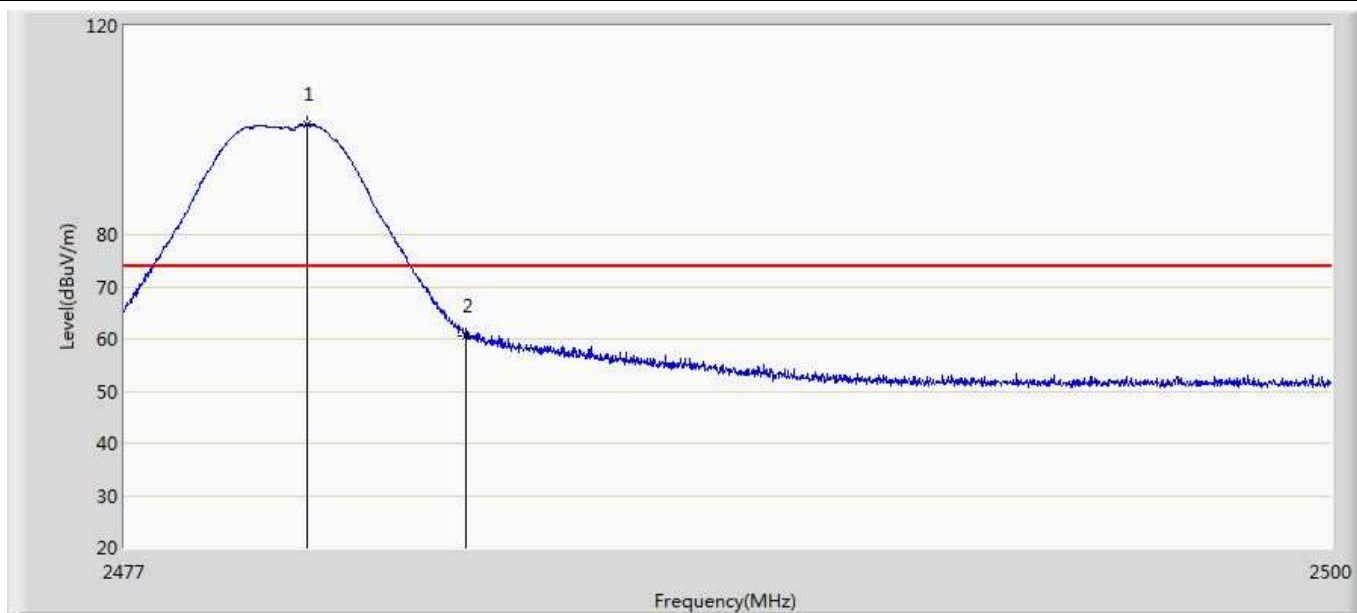
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.876	3.194	-15.124	54.000	35.682	AV
2	*	2401.960	100.005	64.292	46.005	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



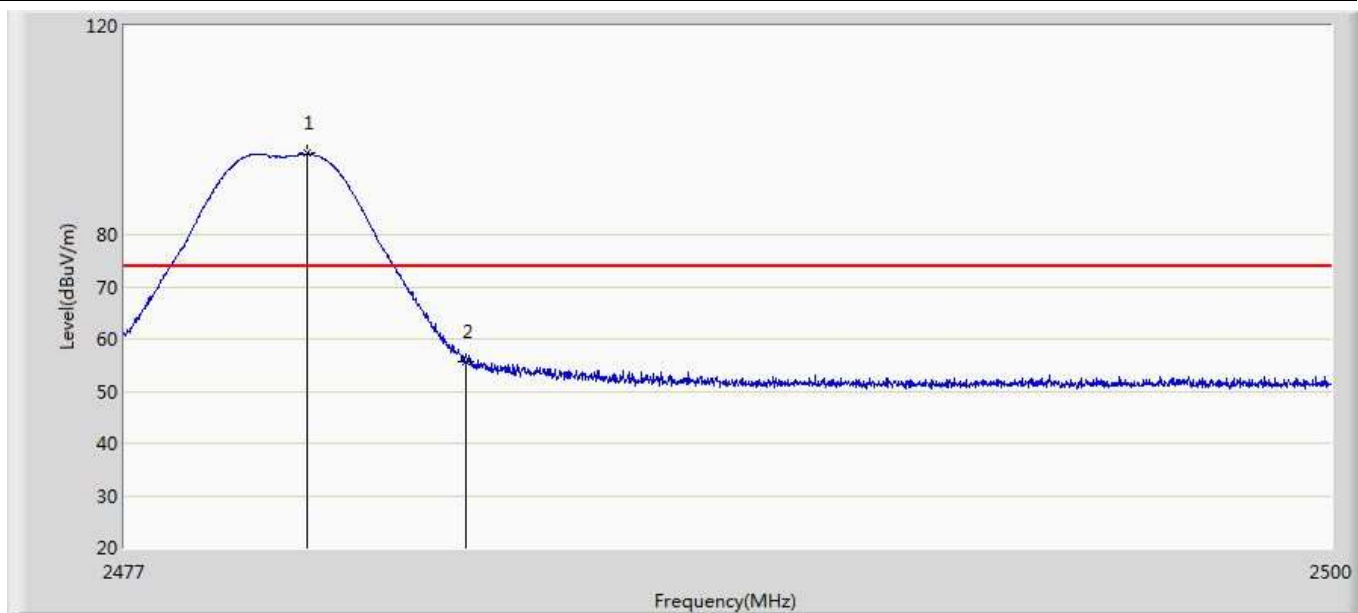
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.415	2.733	-15.585	54.000	35.682	AV
2	*	2401.913	95.948	60.236	41.948	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



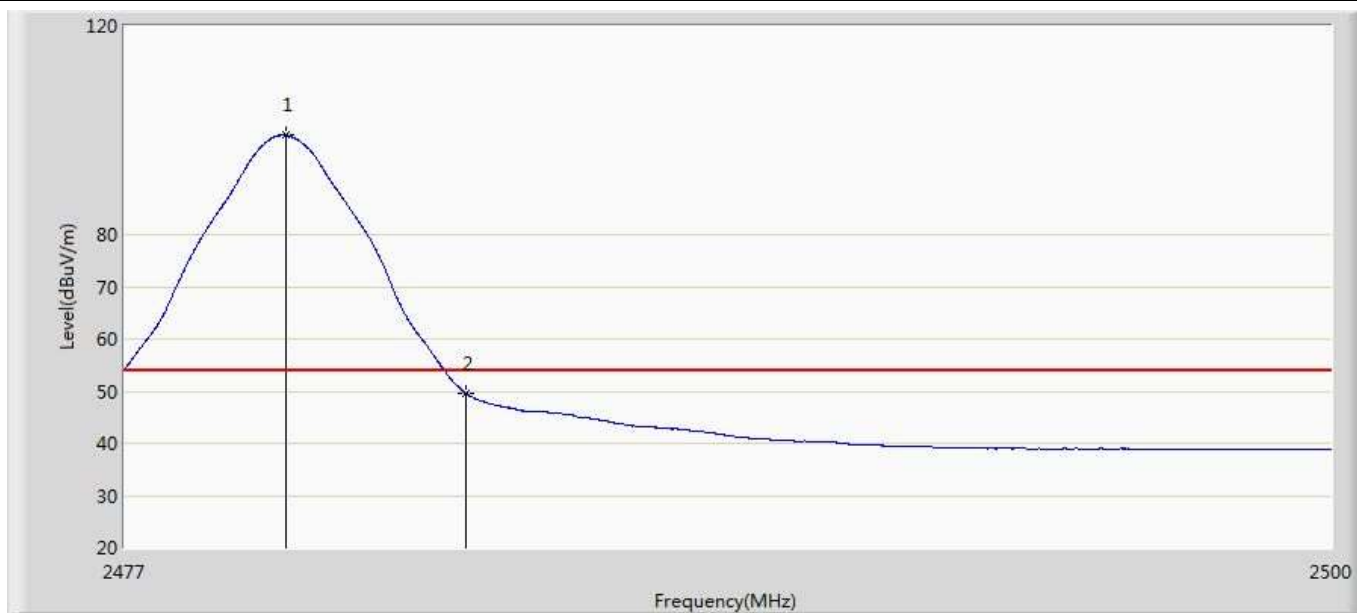
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.461	101.016	65.146	27.016	74.000	35.870	PK
2		2483.500	60.626	24.734	-13.374	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



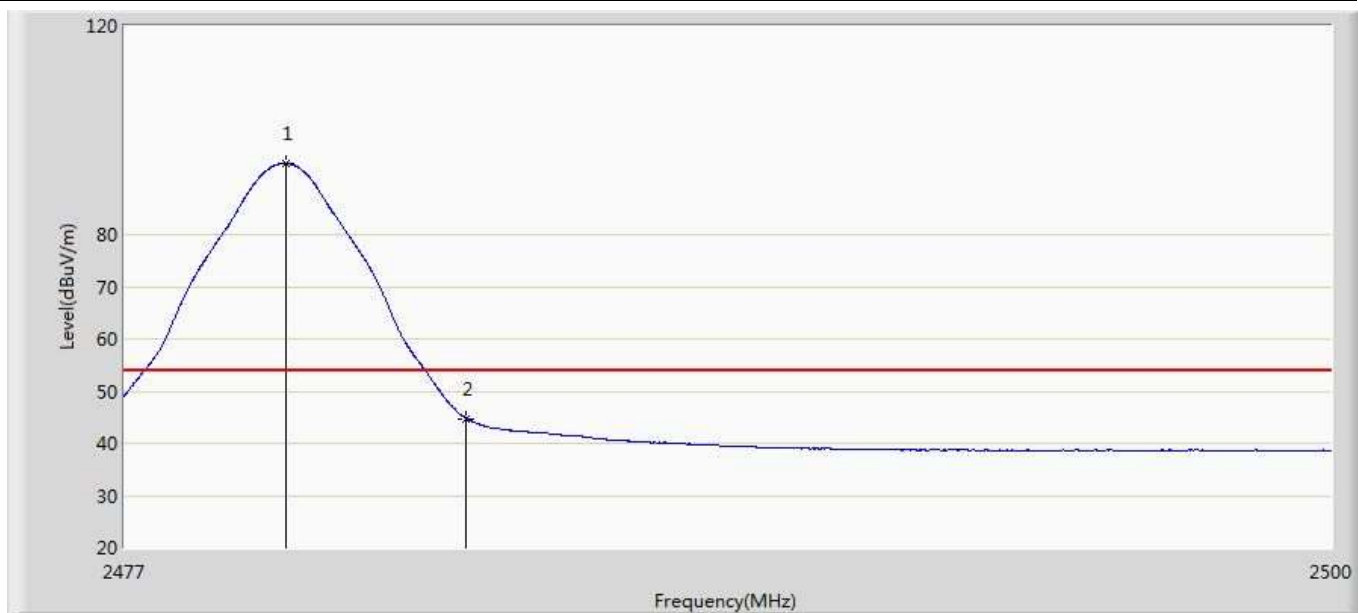
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.461	95.522	59.652	21.522	74.000	35.870	PK
2		2483.500	55.659	19.767	-18.341	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



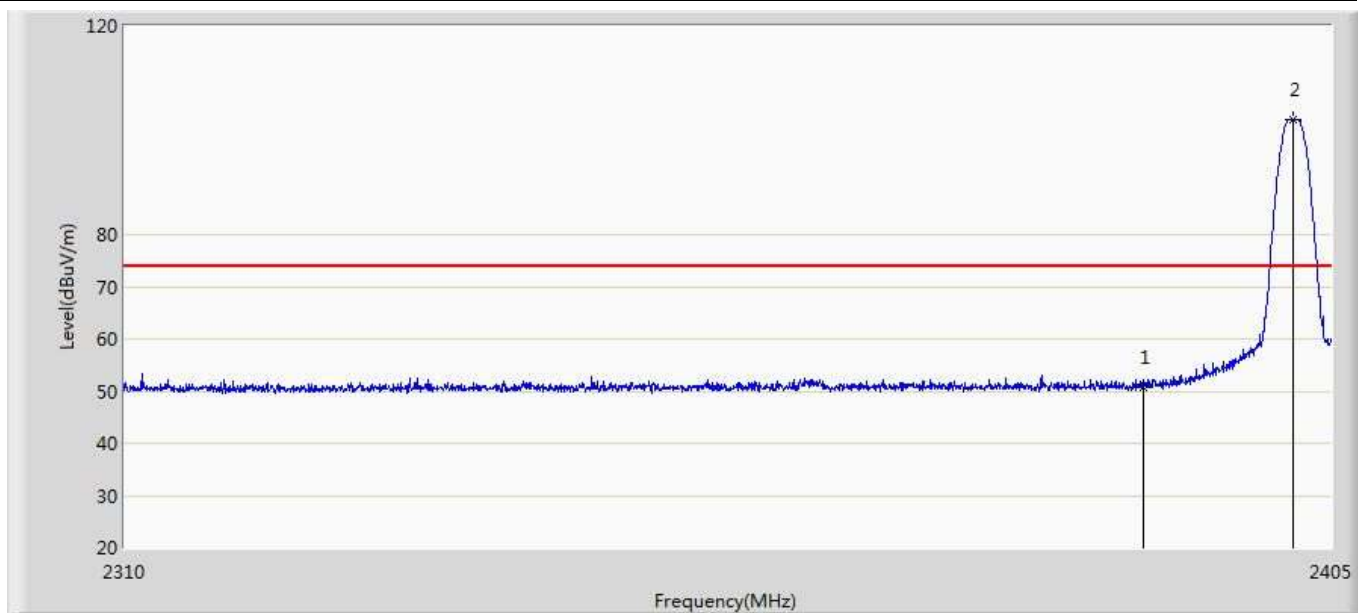
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.071	99.040	63.173	45.040	54.000	35.867	AV
2		2483.500	49.564	13.672	-4.436	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



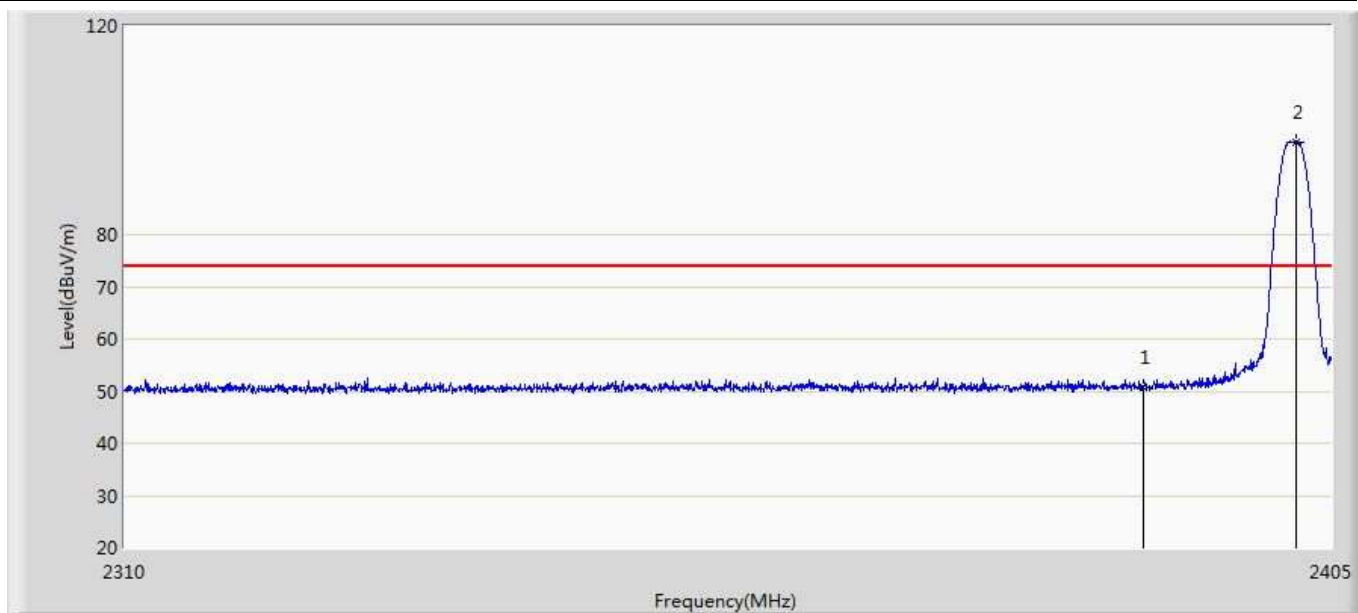
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.071	93.628	57.761	39.628	54.000	35.867	AV
2		2483.500	44.747	8.855	-9.253	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



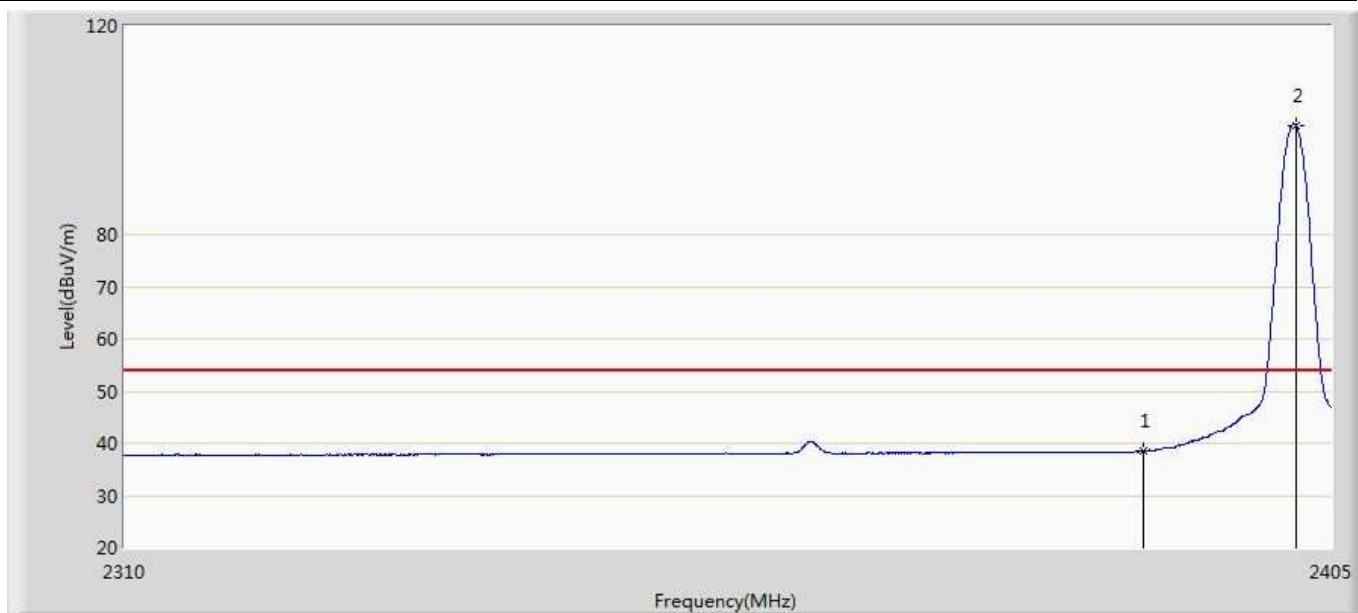
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.823	15.141	-23.177	74.000	35.682	PK
2	*	2401.913	101.951	66.239	27.951	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



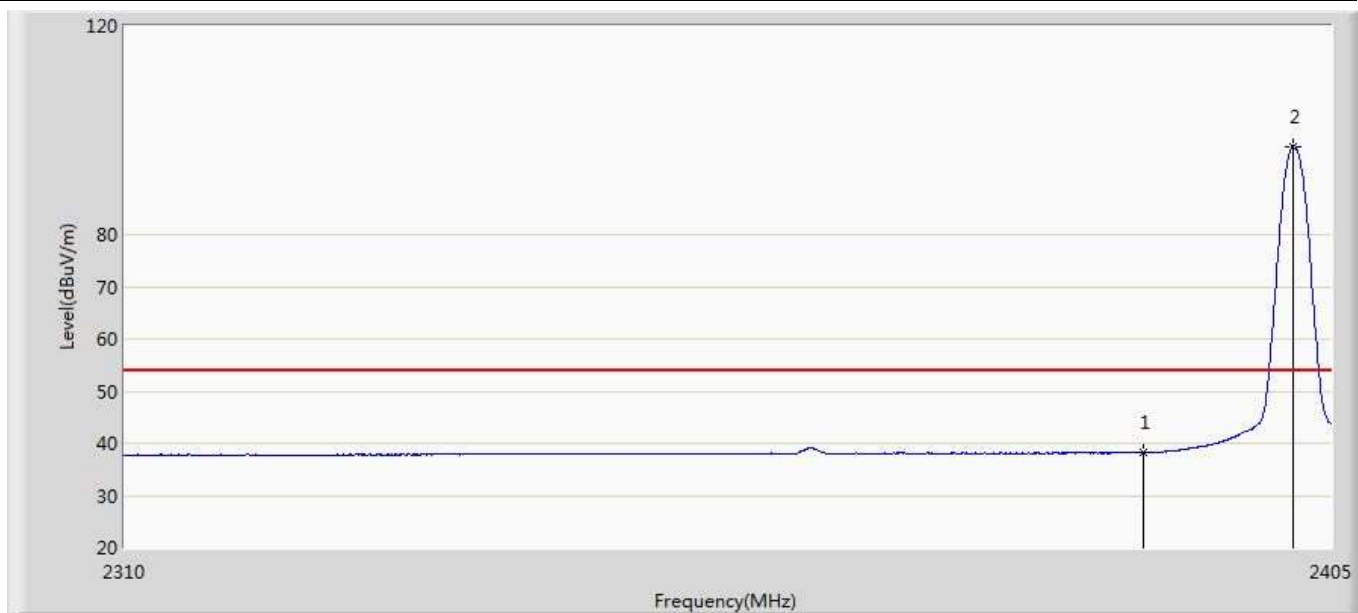
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.668	14.986	-23.332	74.000	35.682	PK
2	*	2402.198	97.806	62.093	23.806	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



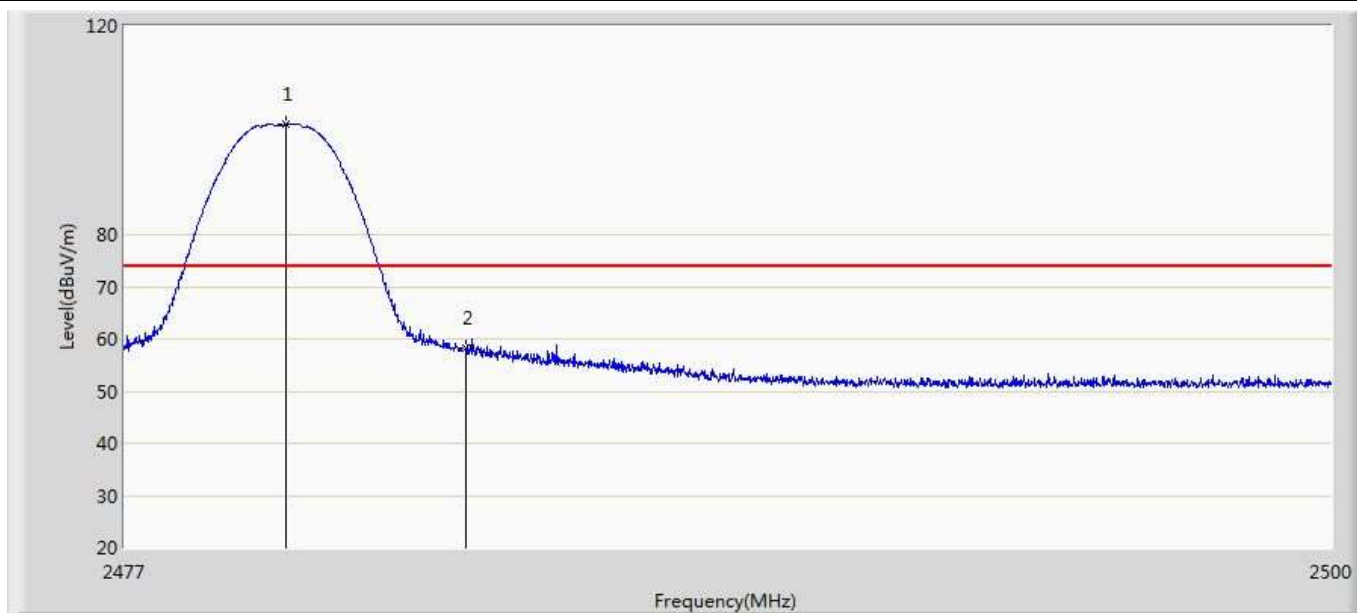
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.532	2.850	-15.468	54.000	35.682	AV
2	*	2402.198	100.970	65.257	46.970	54.000	35.714	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 12:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



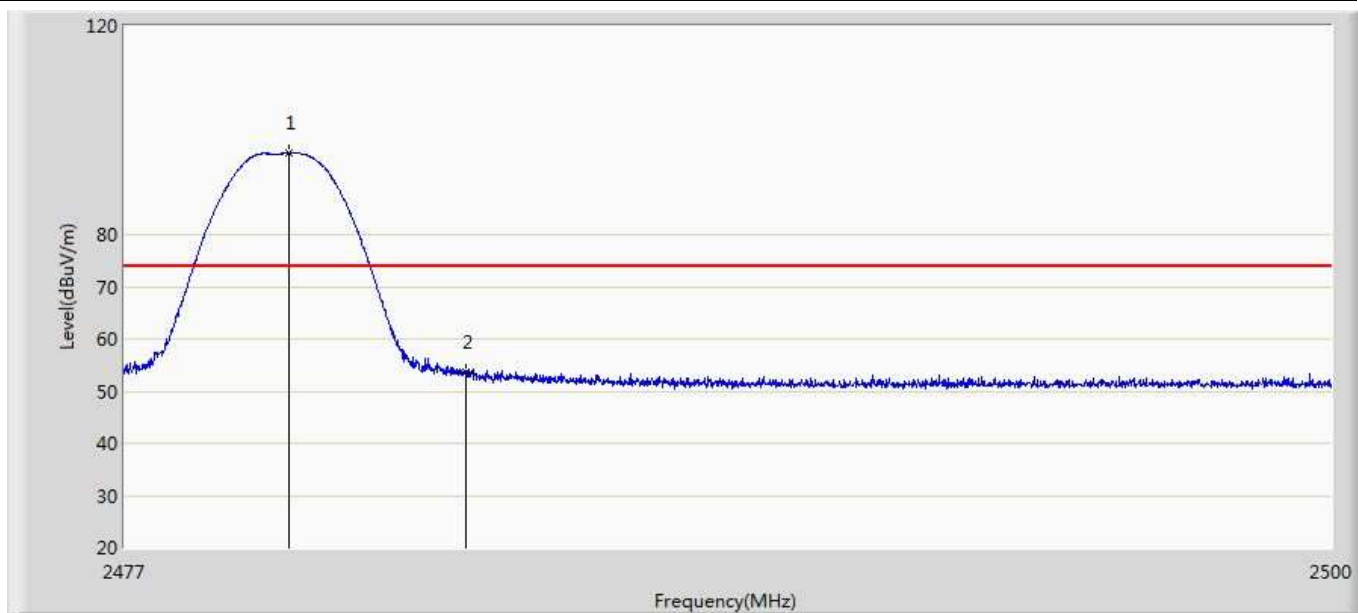
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.216	2.534	-15.784	54.000	35.682	AV
2	*	2401.913	96.873	61.161	42.873	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



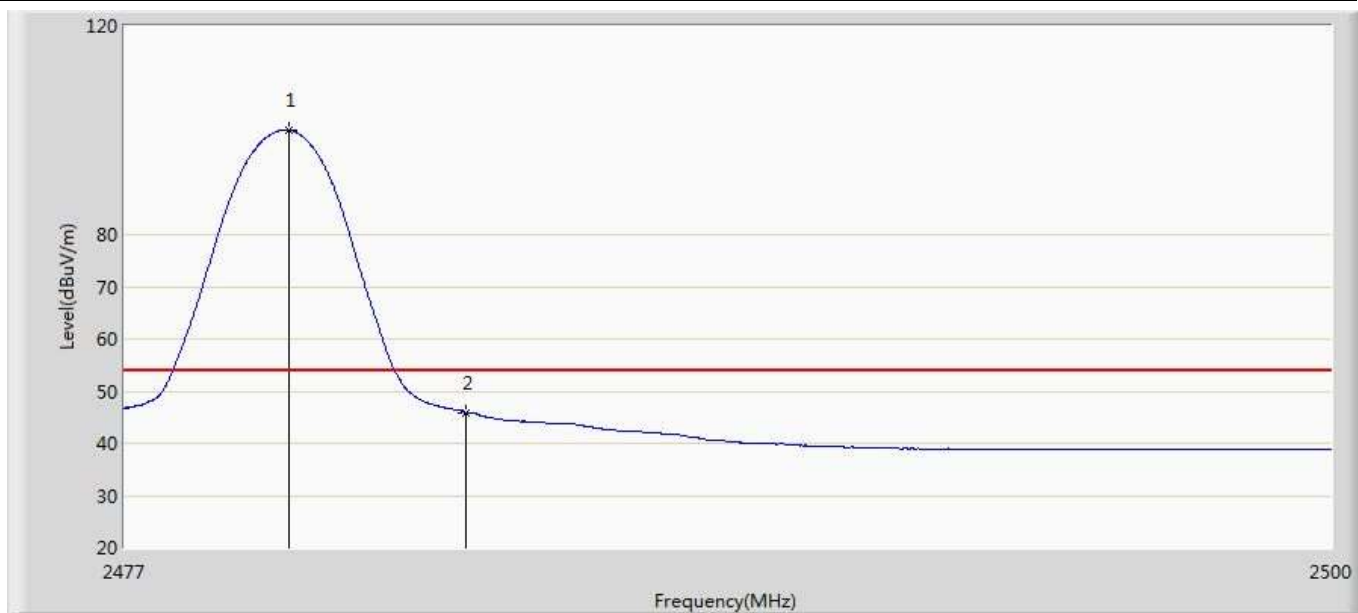
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.071	101.028	65.161	27.028	74.000	35.867	PK
2		2483.500	58.206	22.314	-15.794	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



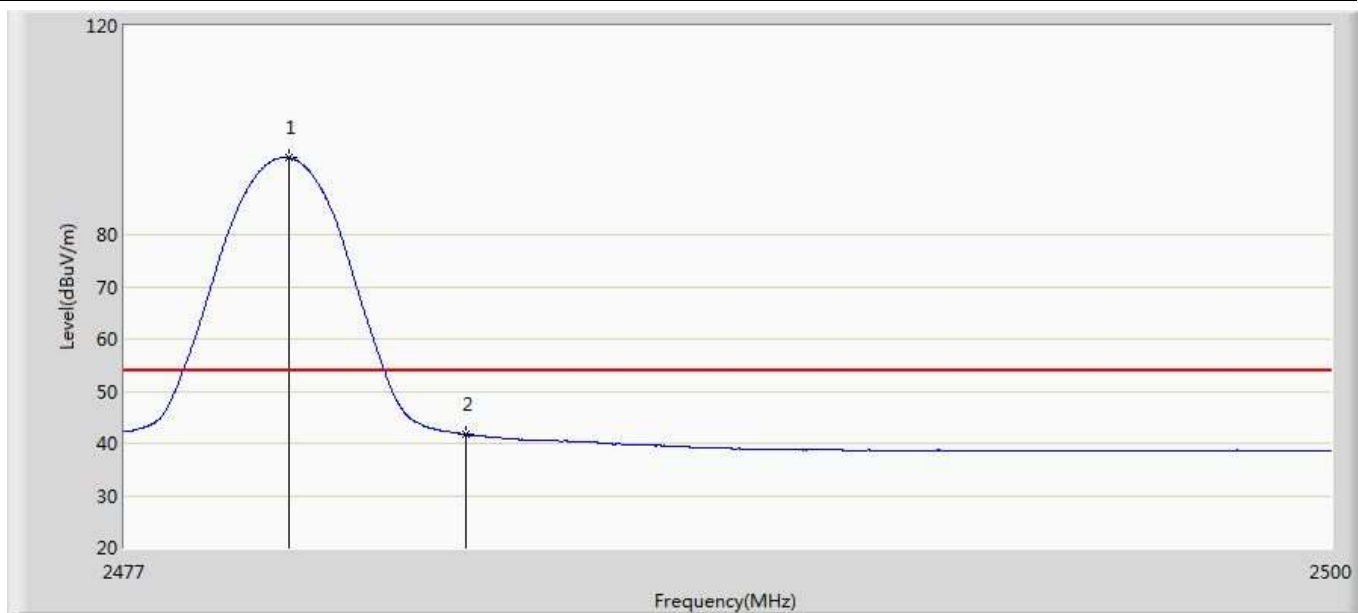
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	95.624	59.757	21.624	74.000	35.867	PK
2		2483.500	53.645	17.753	-20.355	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



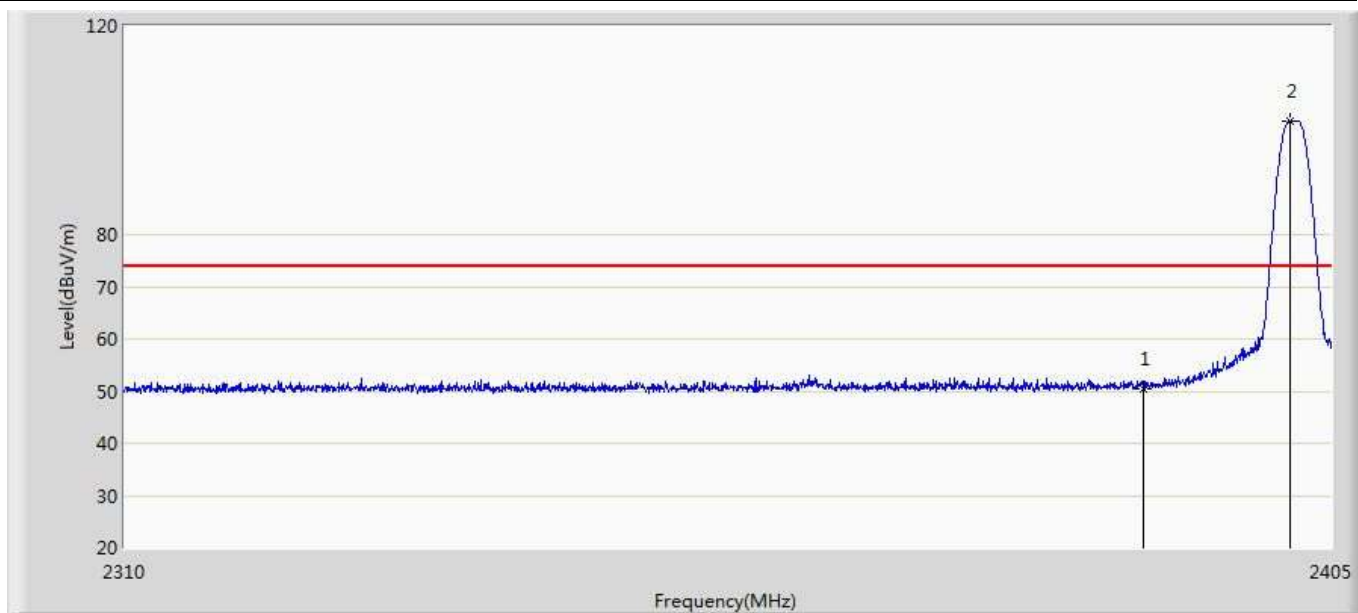
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	100.026	64.159	46.026	54.000	35.867	AV
2		2483.500	45.821	9.929	-8.179	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



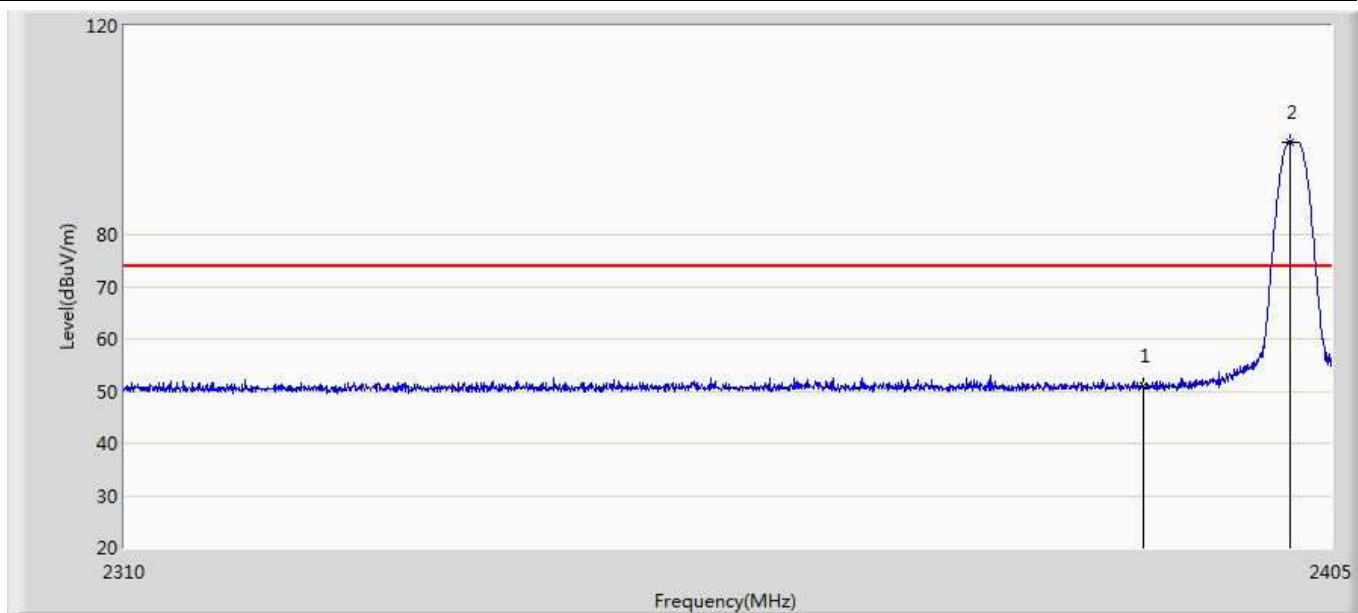
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	94.699	58.832	40.699	54.000	35.867	AV
2		2483.500	41.634	5.742	-12.366	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 13:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



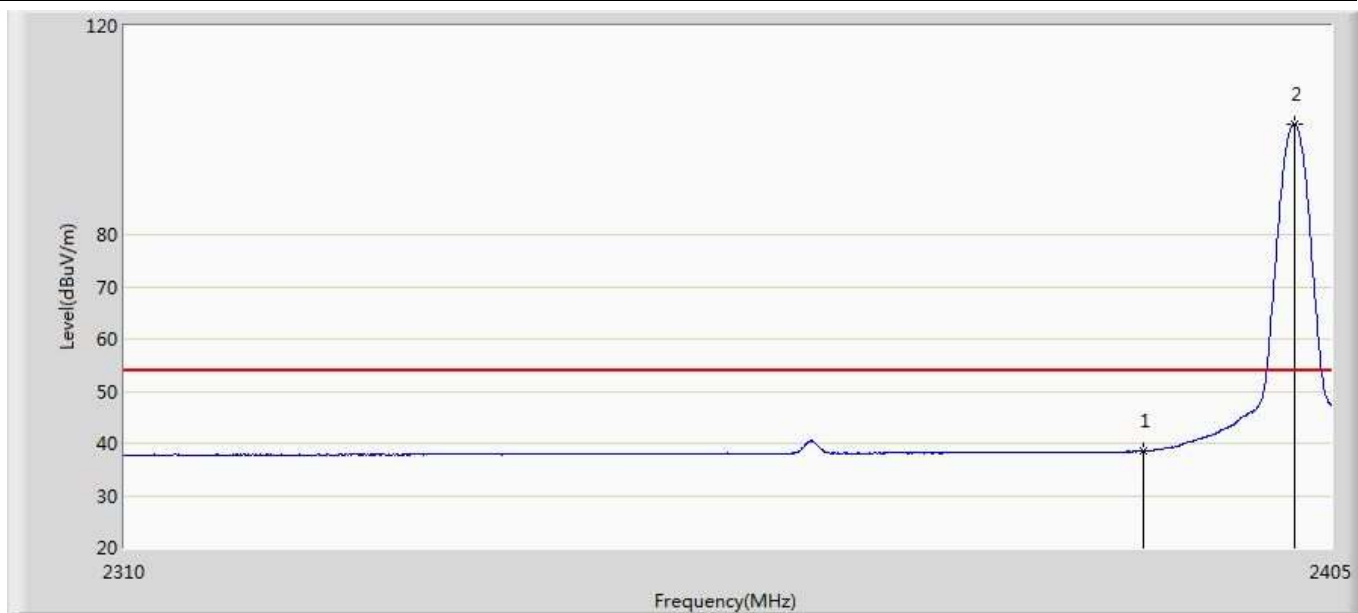
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.555	14.873	-23.445	74.000	35.682	PK
2	*	2401.770	101.827	66.115	27.827	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 13:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



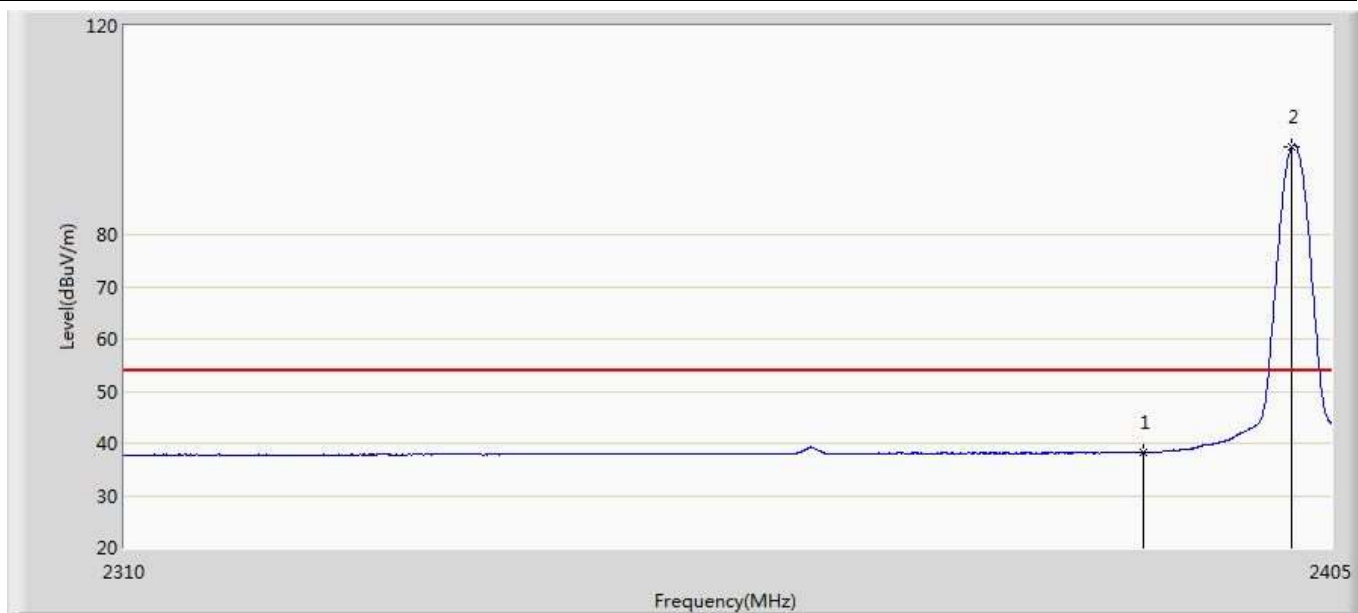
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.082	15.400	-22.918	74.000	35.682	PK
2	*	2401.770	97.817	62.105	23.817	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 13:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



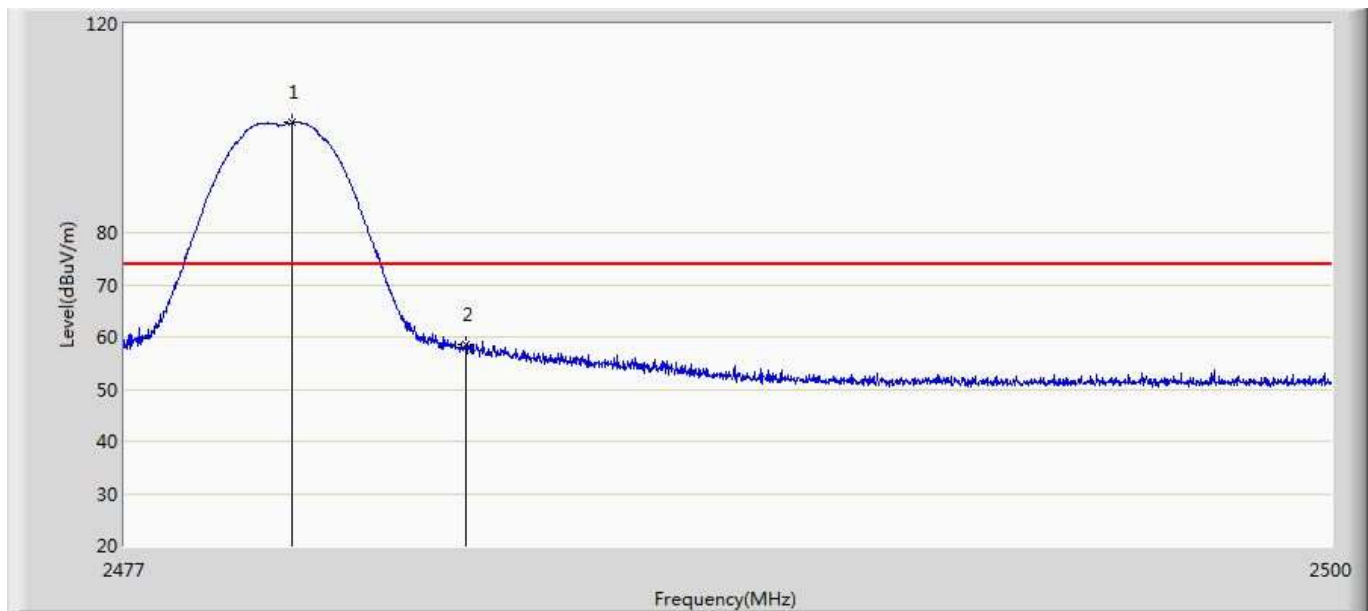
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.585	2.903	-15.415	54.000	35.682	AV
2	*	2402.055	101.279	65.566	47.279	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 13:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



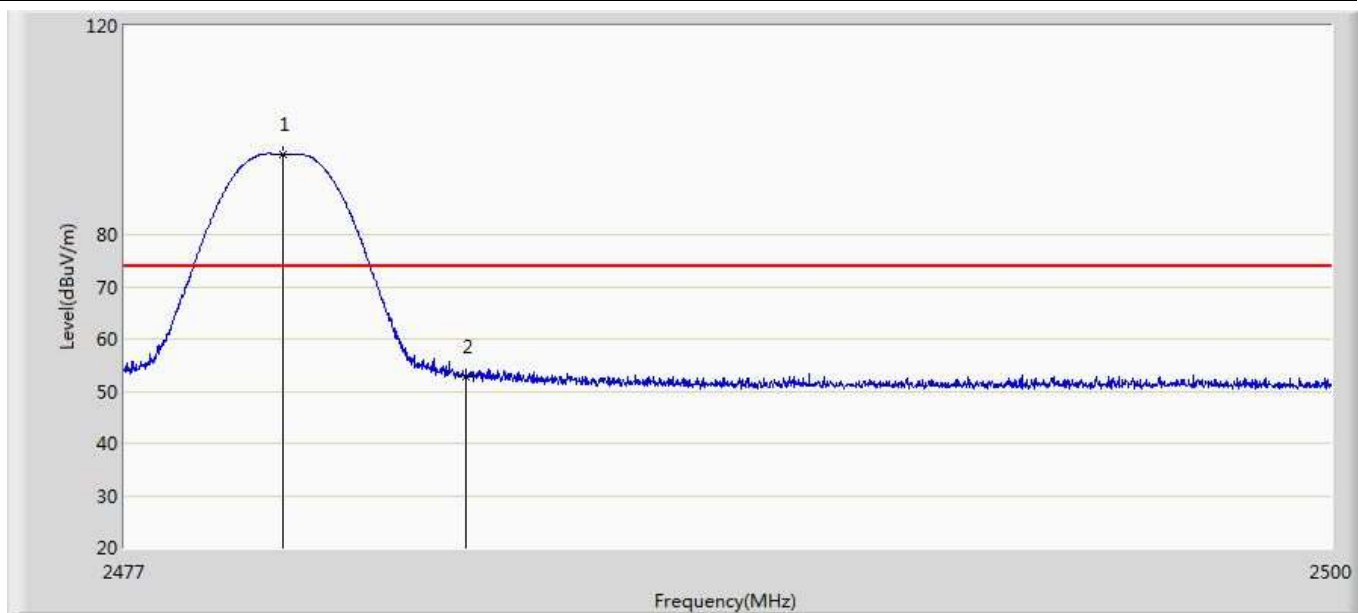
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.343	2.661	-15.657	54.000	35.682	AV
2	*	2401.865	96.876	61.164	42.876	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



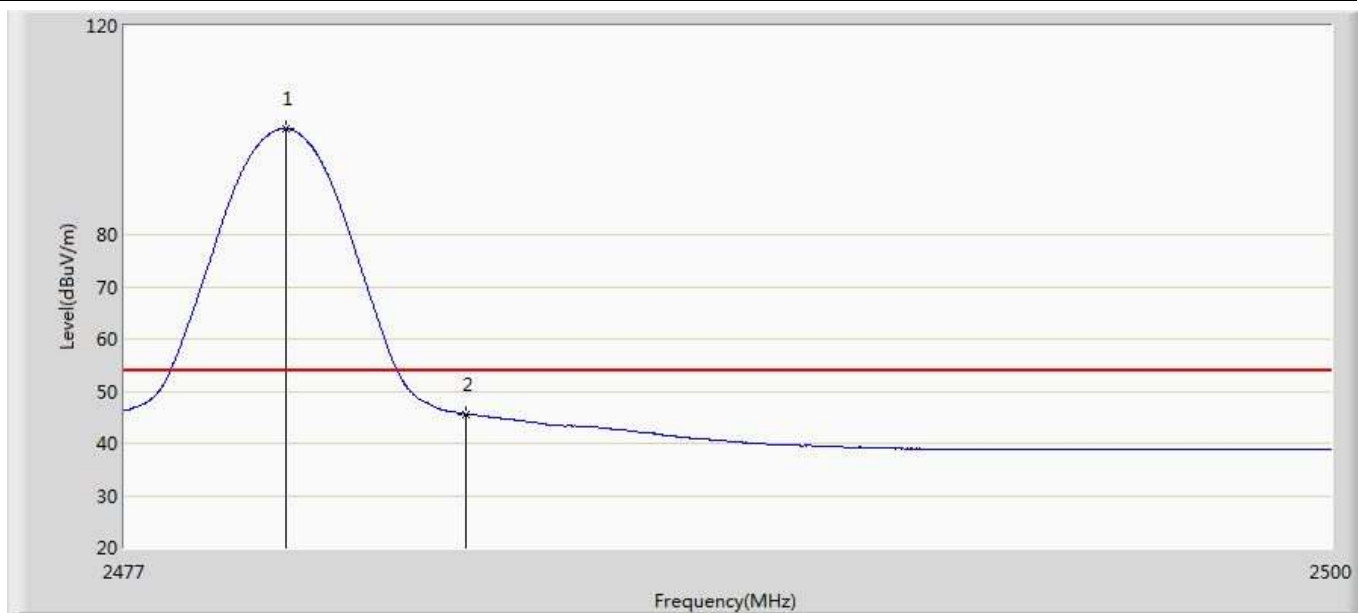
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.174	101.021	65.153	27.021	74.000	35.867	PK
2		2483.500	58.479	22.587	-15.521	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



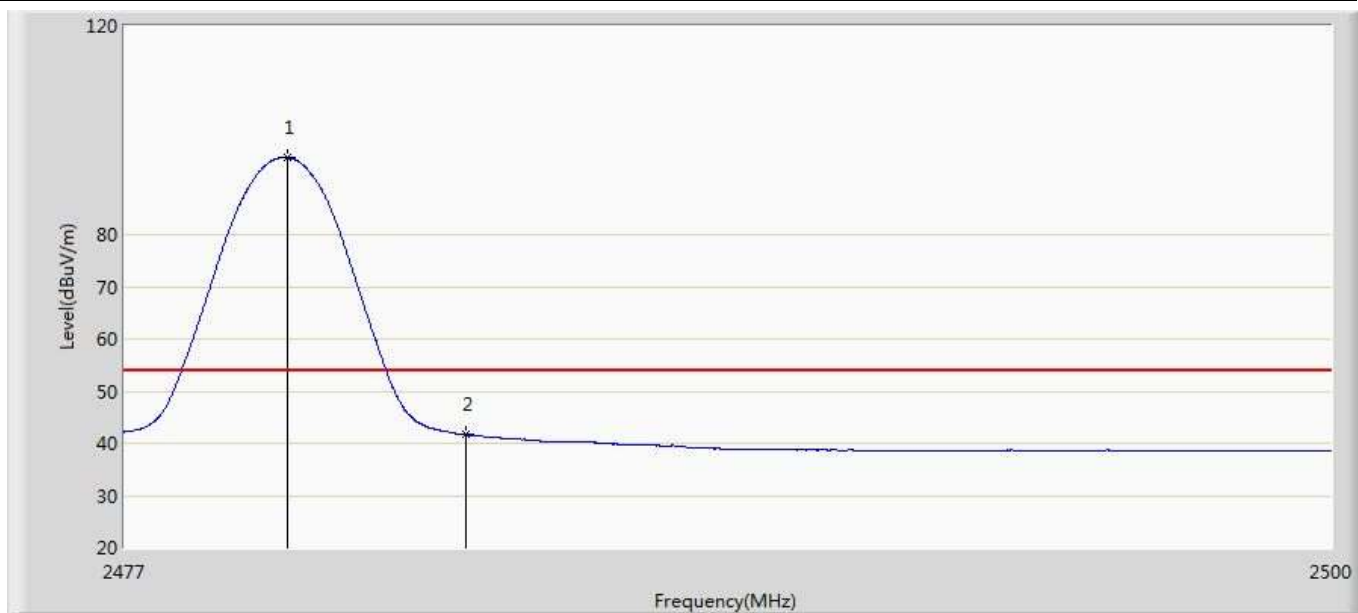
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.001	95.388	59.522	21.388	74.000	35.866	PK
2		2483.500	52.760	16.868	-21.240	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.059	100.280	64.413	46.280	54.000	35.867	AV
2		2483.500	45.637	9.745	-8.363	54.000	35.891	AV

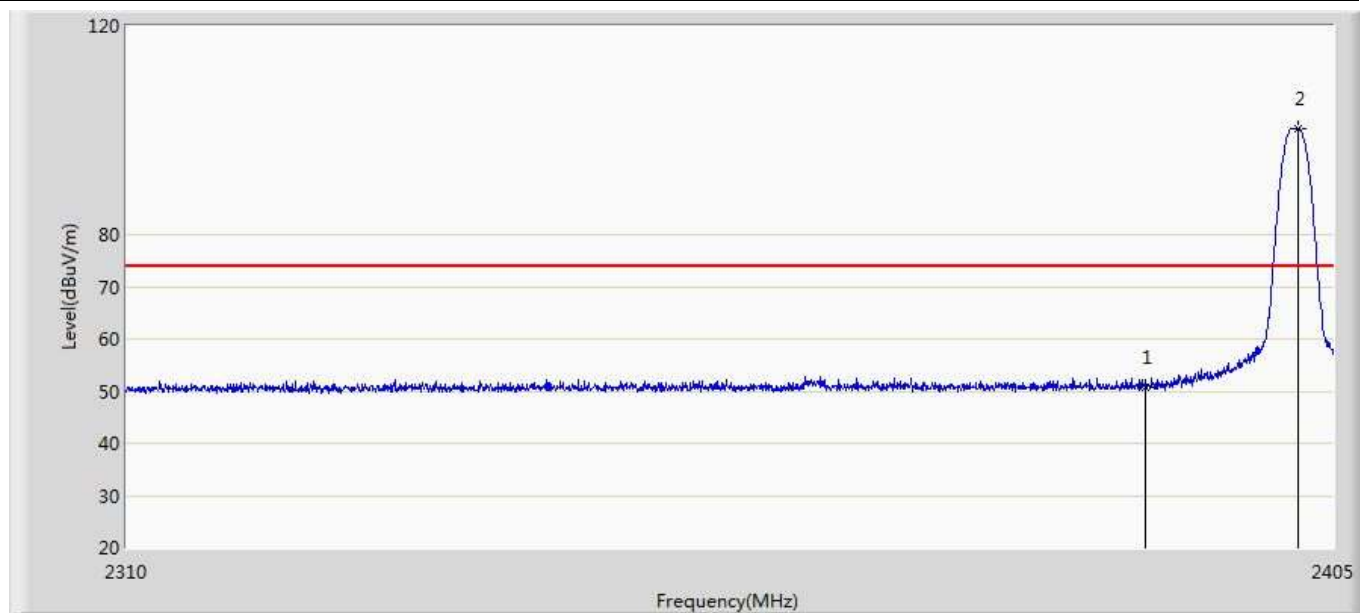
Engineer: Tongben	
Site: AC5	Time: 2019/08/17 - 14:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.105	94.762	58.895	40.762	54.000	35.867	AV
2		2483.500	41.662	5.770	-12.338	54.000	35.891	AV

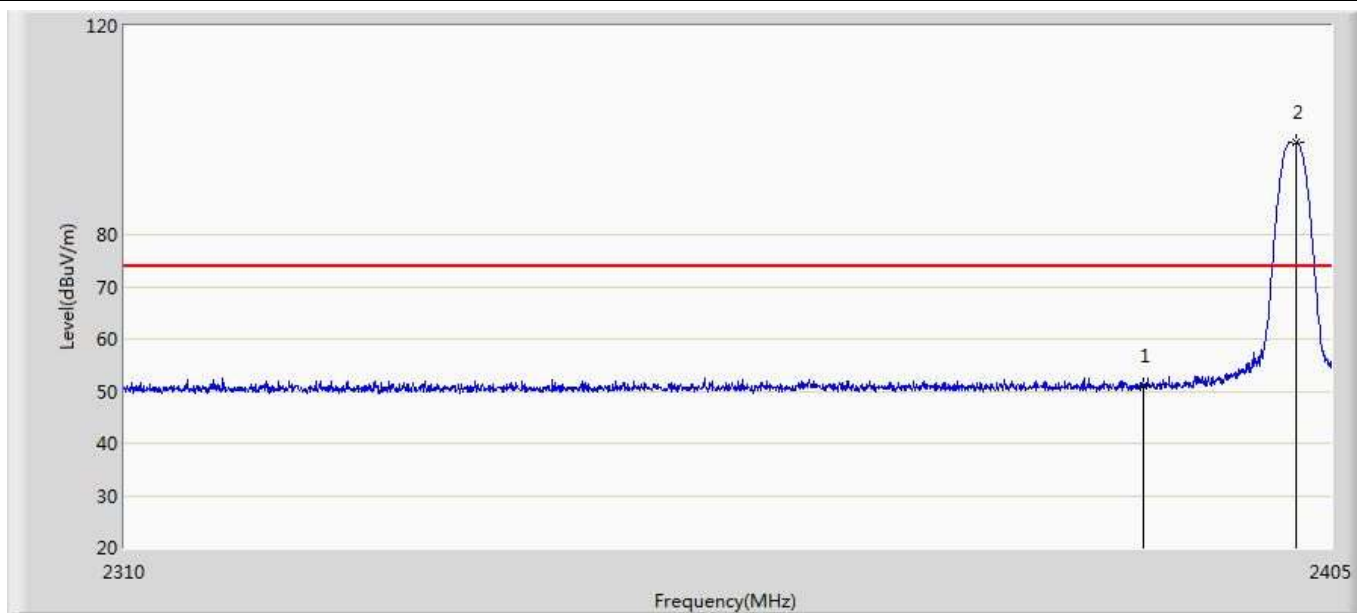
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Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



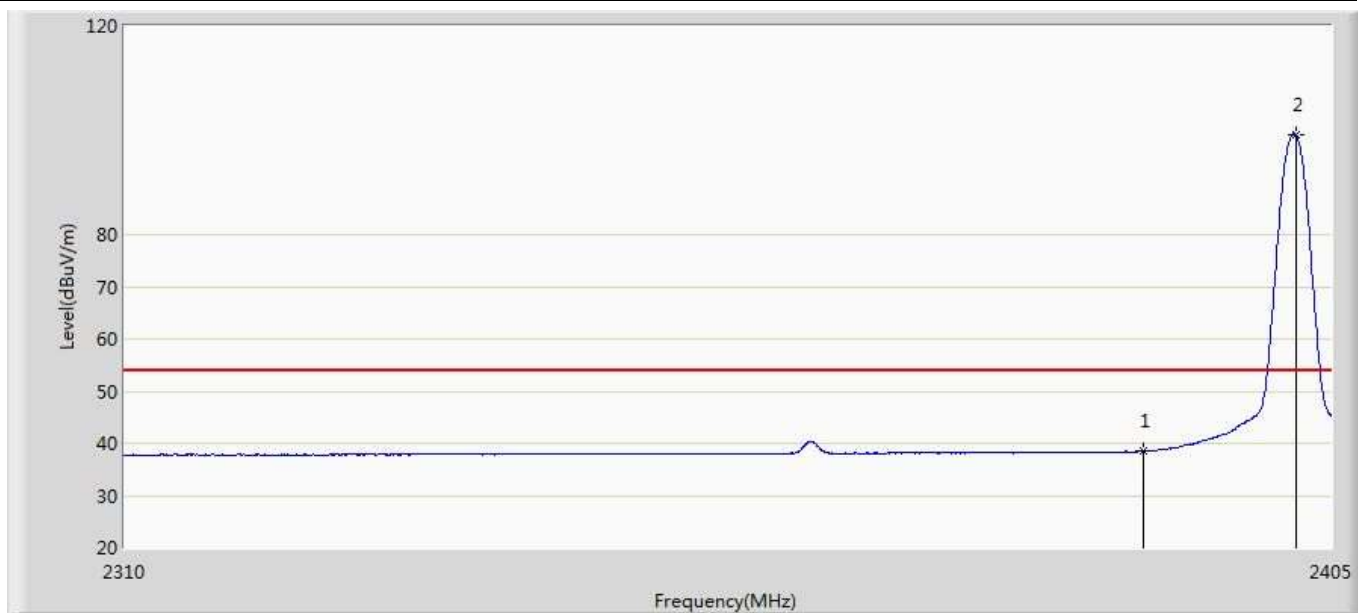
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.694	15.012	-23.306	74.000	35.682	PK
2	*	2402.150	100.309	64.596	26.309	74.000	35.713	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



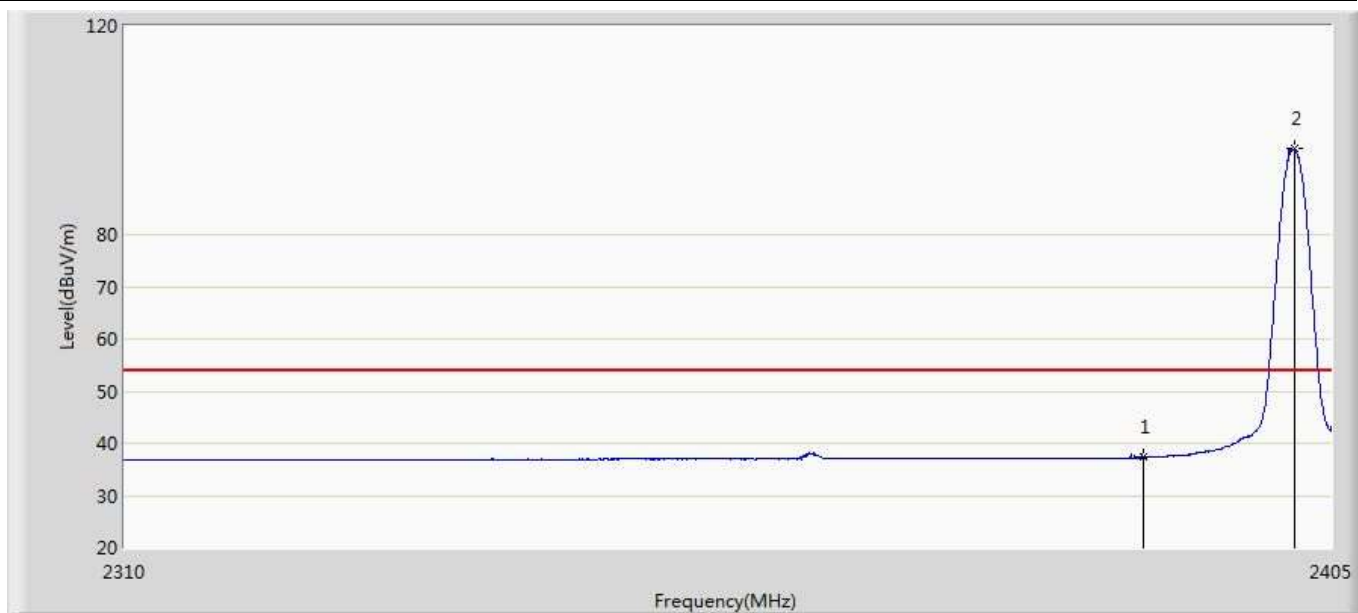
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.085	15.403	-22.915	74.000	35.682	PK
2	*	2402.198	97.558	61.845	23.558	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



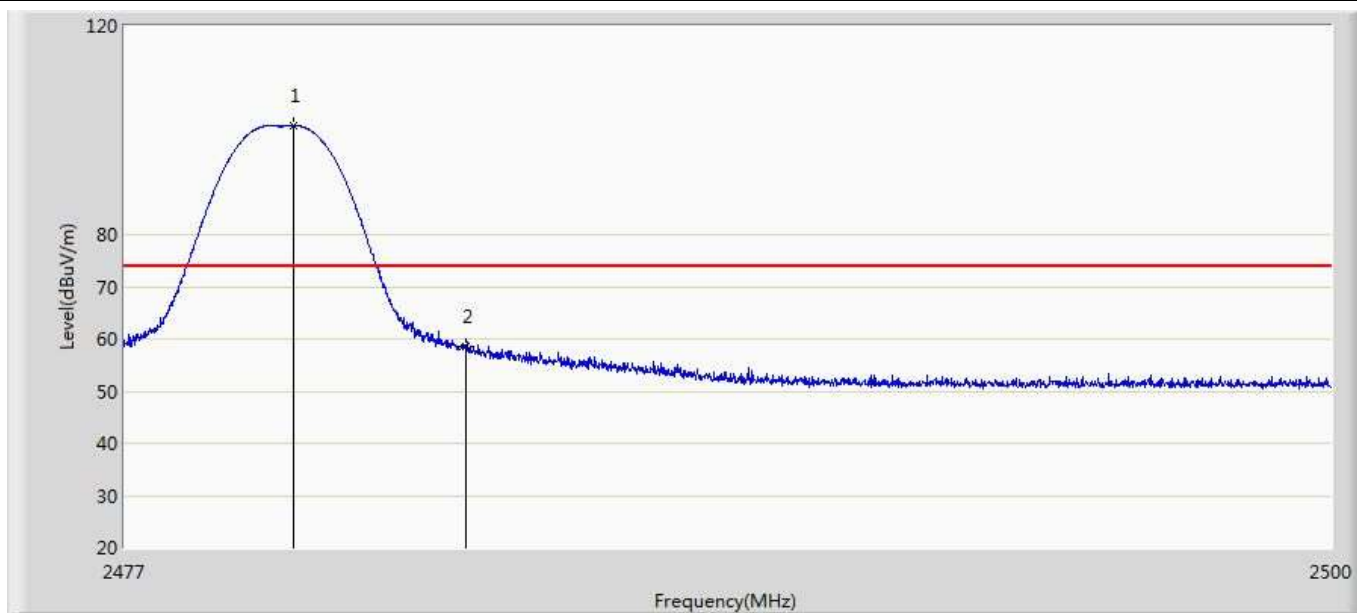
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.555	2.873	-15.445	54.000	35.682	AV
2	*	2402.198	99.060	63.347	45.060	54.000	35.714	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



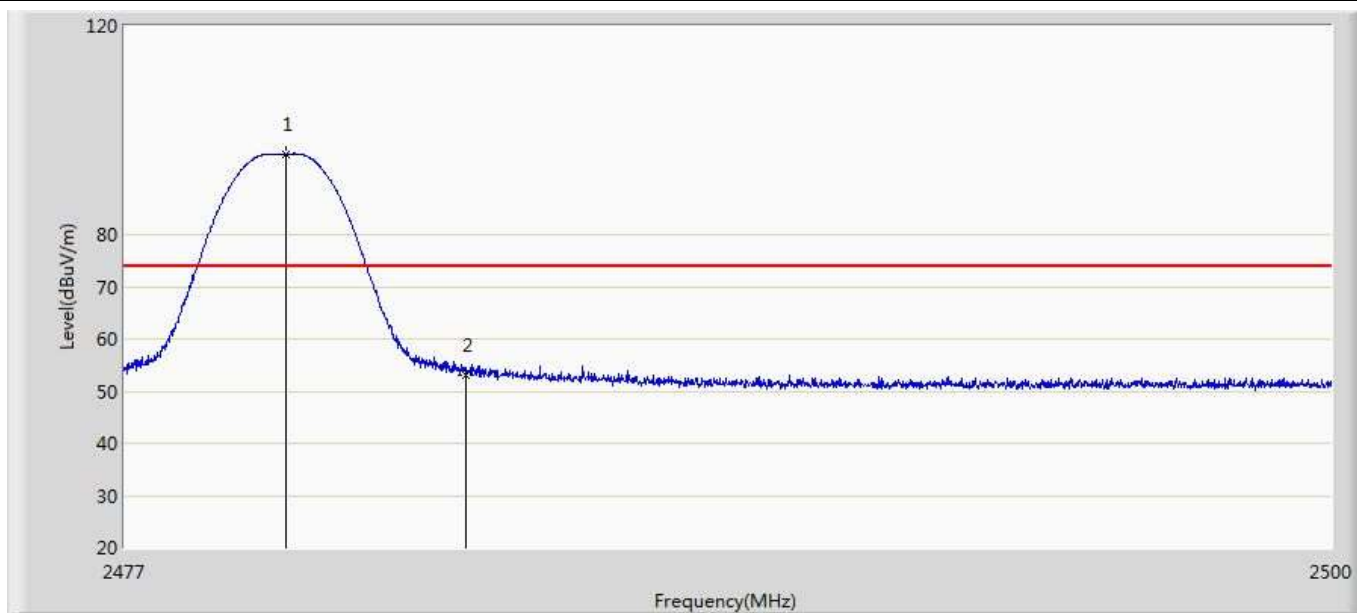
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.451	1.769	-16.549	54.000	35.682	AV
2	*	2402.055	96.651	60.938	42.651	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



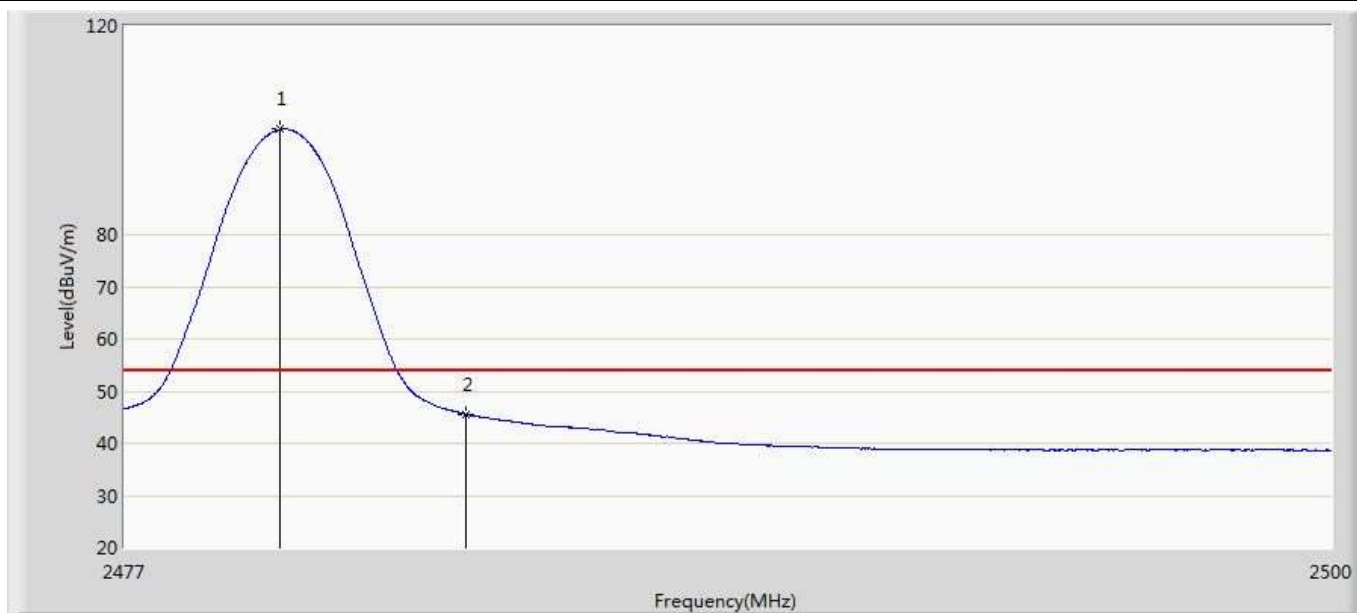
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.220	100.853	64.985	26.853	74.000	35.868	PK
2		2483.500	58.556	22.664	-15.444	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



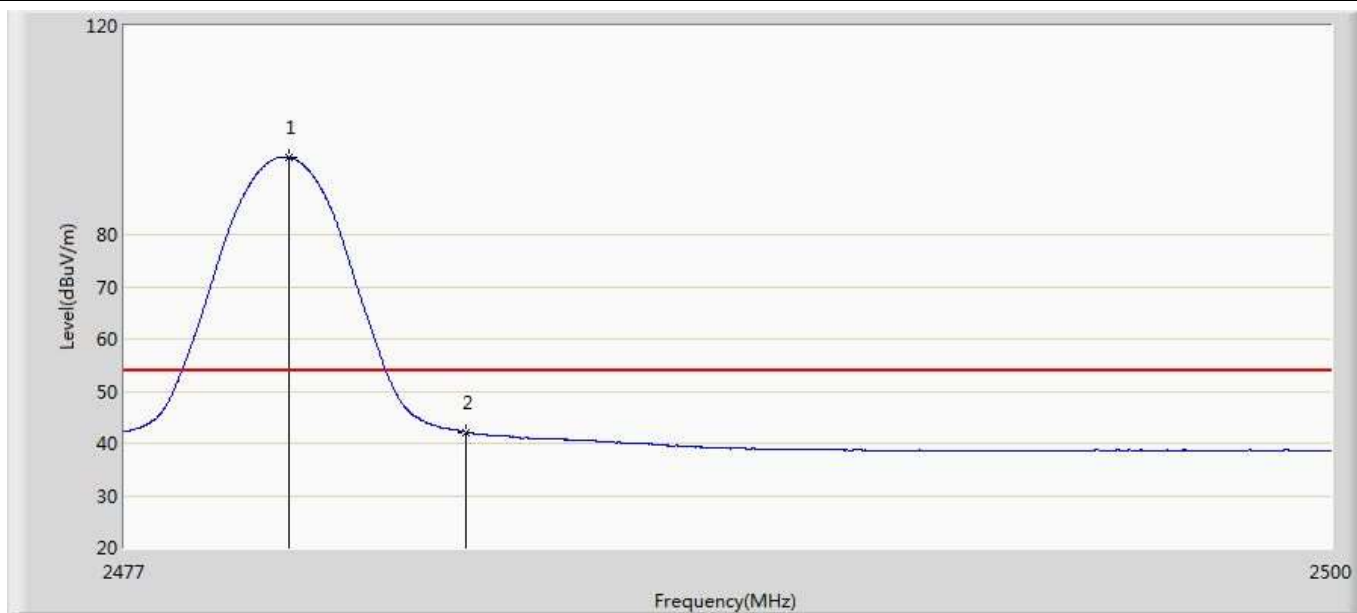
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.071	95.373	59.506	21.373	74.000	35.867	PK
2		2483.500	53.133	17.241	-20.867	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



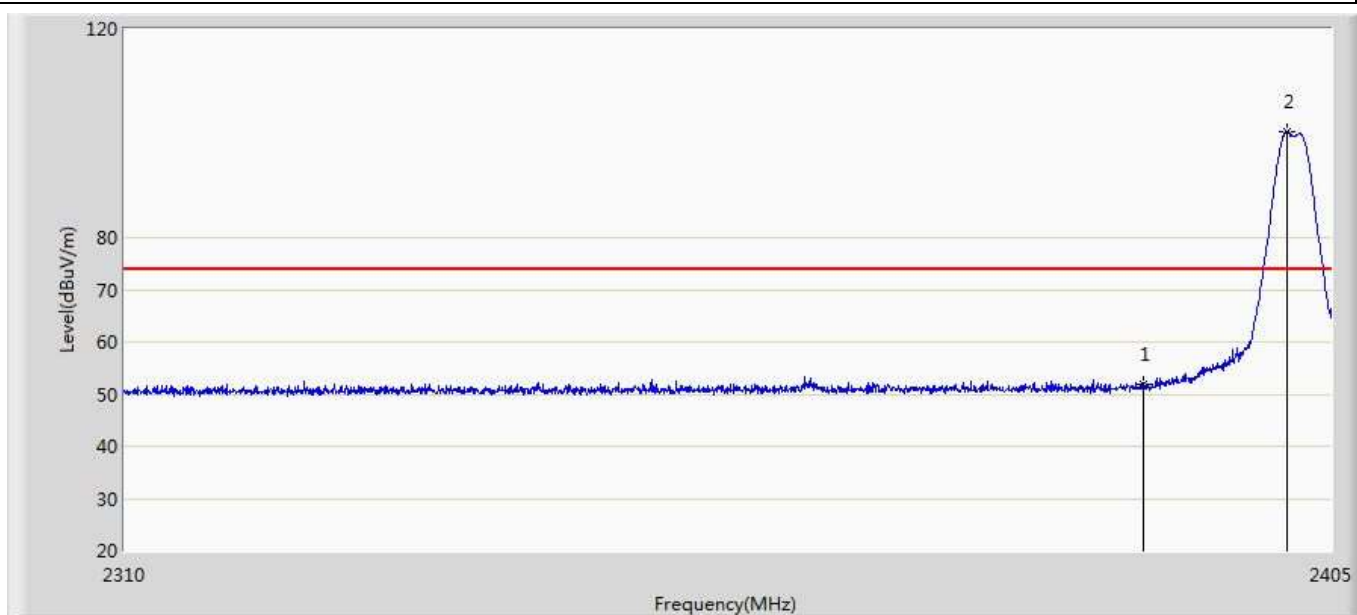
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.967	100.149	64.283	46.149	54.000	35.866	AV
2		2483.500	45.540	9.648	-8.460	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



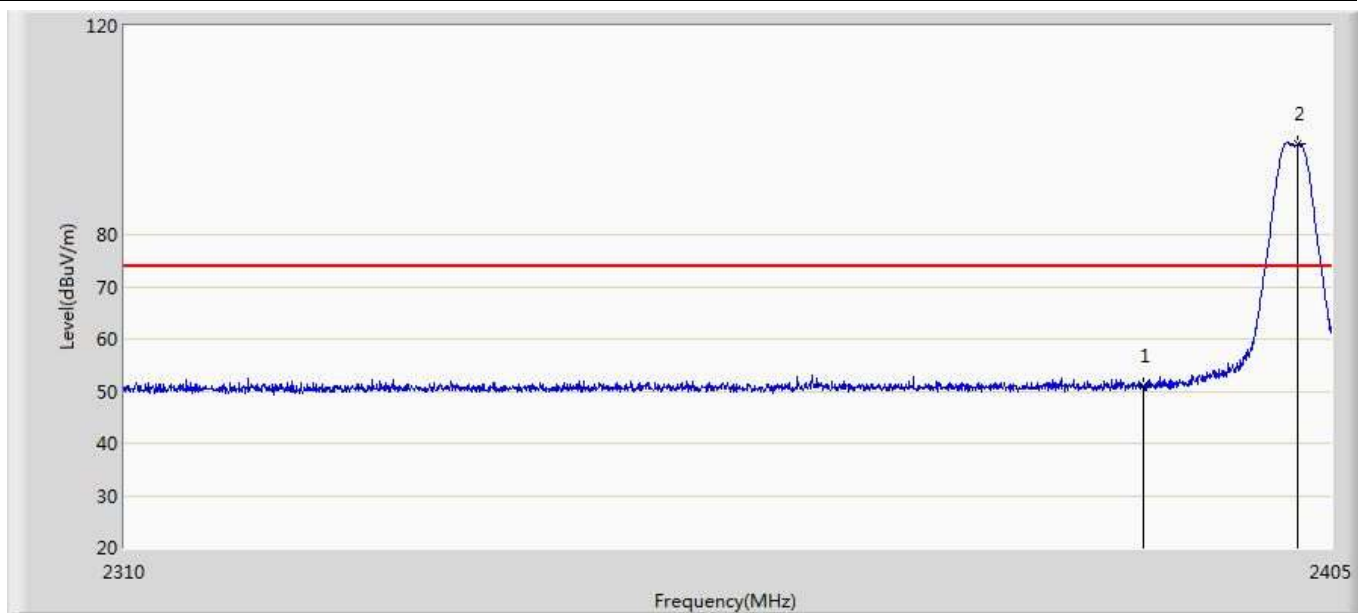
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	94.791	58.924	40.791	54.000	35.867	AV
2		2483.500	42.115	6.223	-11.885	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



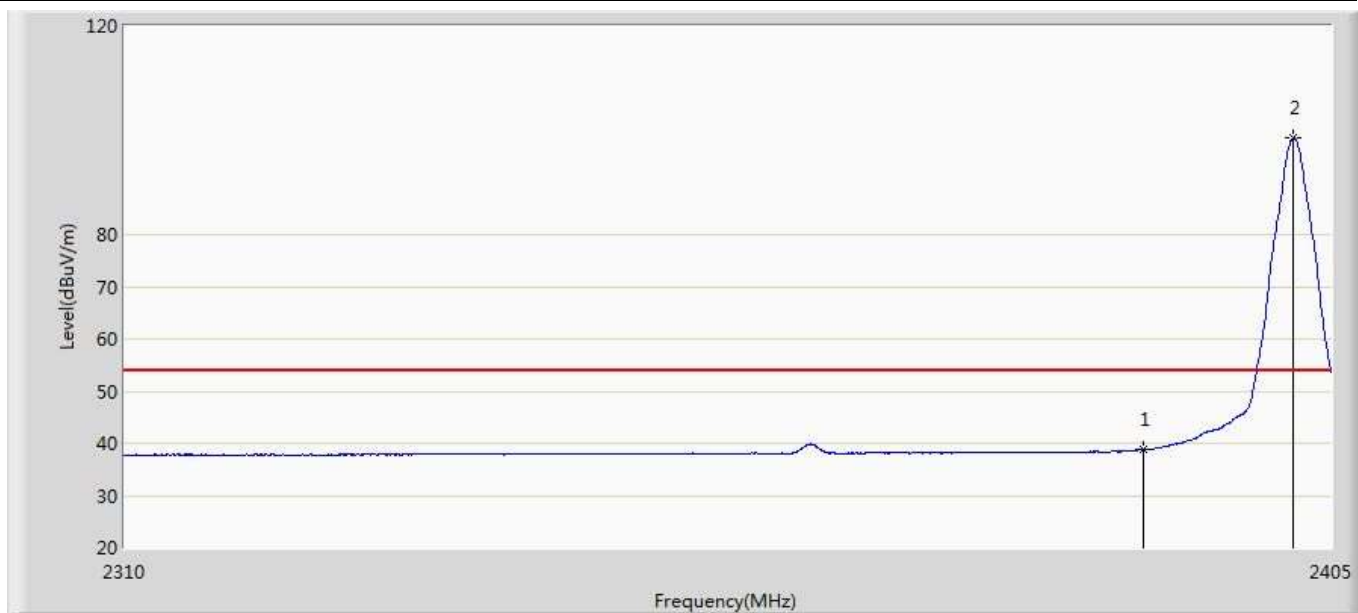
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.885	16.203	-22.115	74.000	35.682	PK
2	*	2401.485	100.309	64.598	26.309	74.000	35.711	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



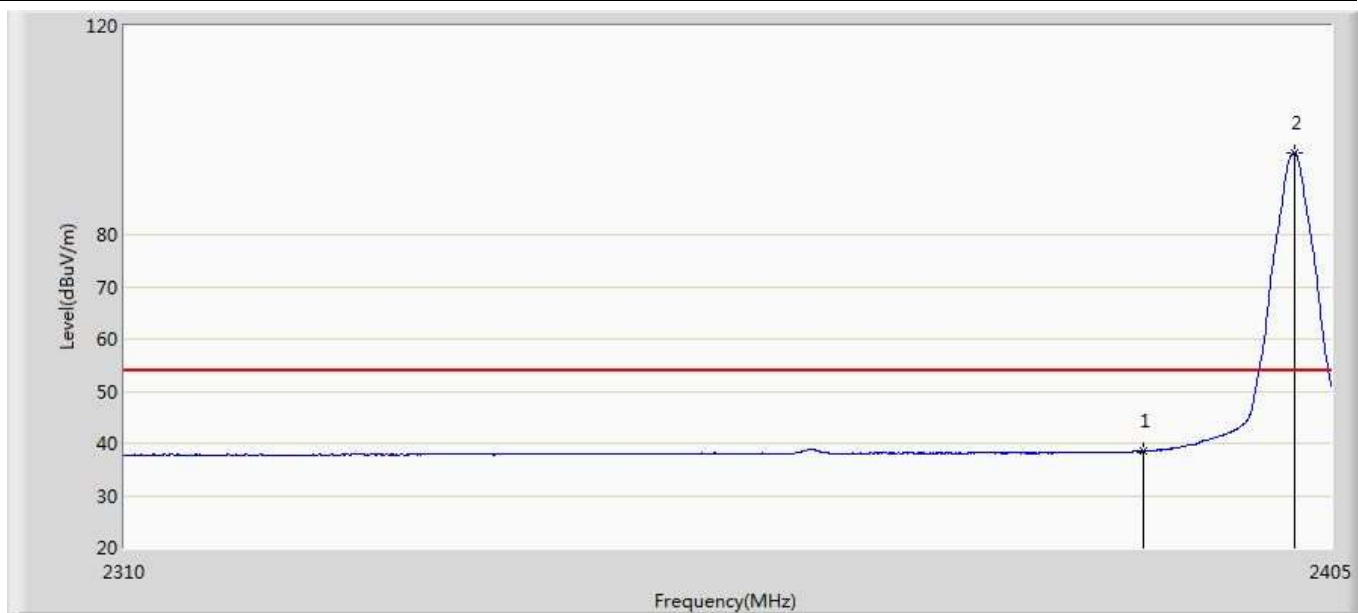
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.945	15.263	-23.055	74.000	35.682	PK
2	*	2402.387	97.490	61.776	23.490	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



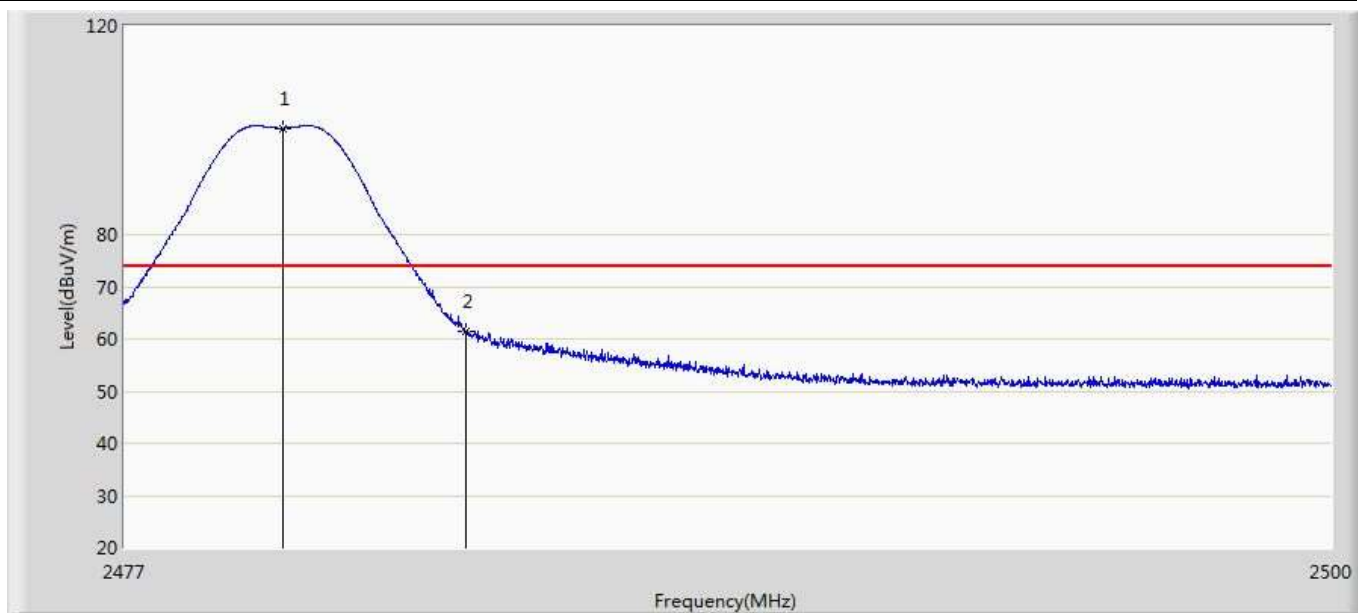
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.807	3.125	-15.193	54.000	35.682	AV
2	*	2402.008	98.425	62.712	44.425	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



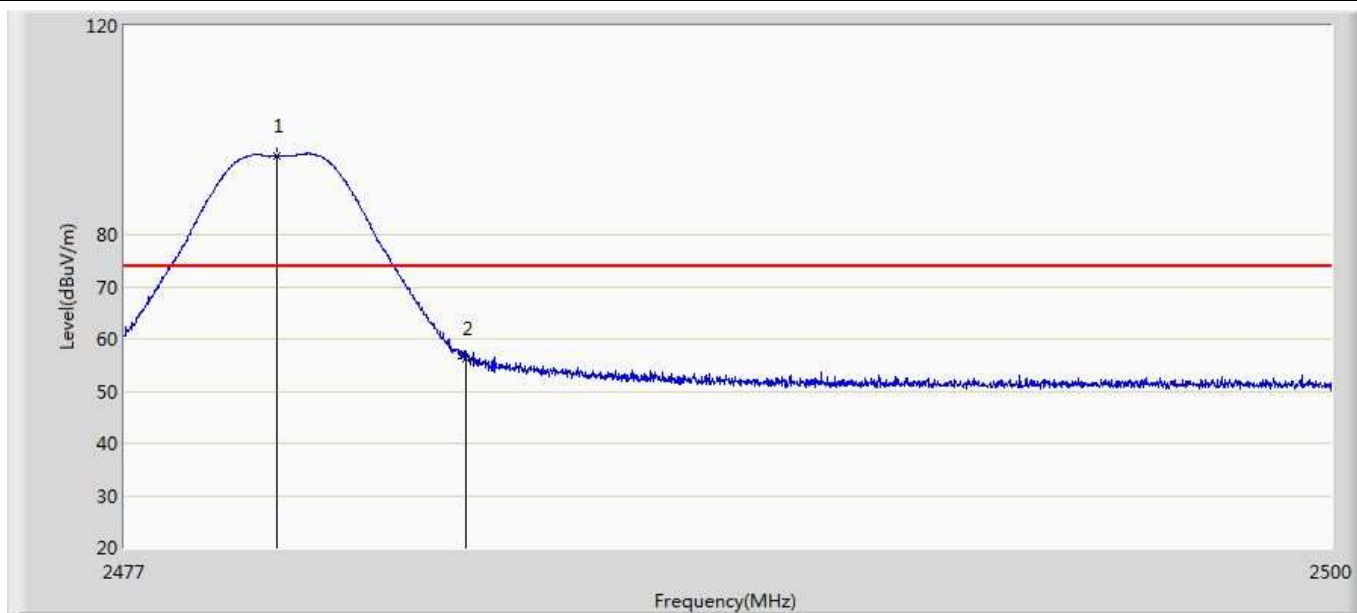
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.491	2.809	-15.509	54.000	35.682	AV
2	*	2402.055	95.696	59.983	41.696	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



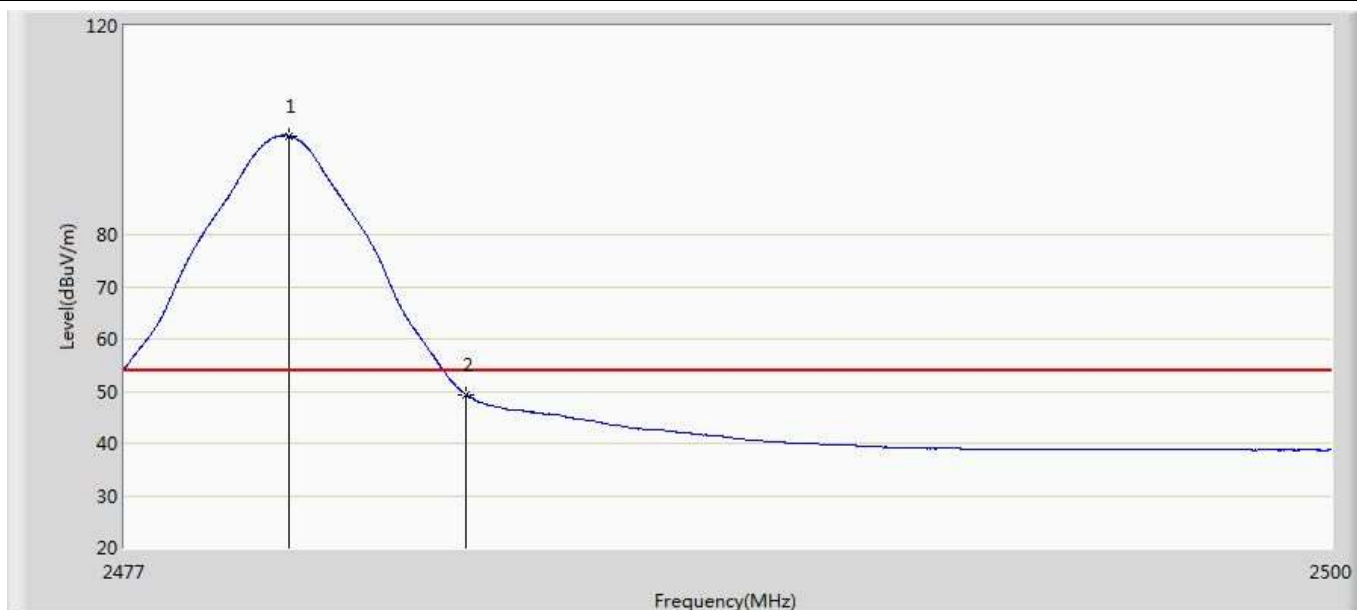
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.001	100.374	64.508	26.374	74.000	35.866	PK
2		2483.500	61.587	25.695	-12.413	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



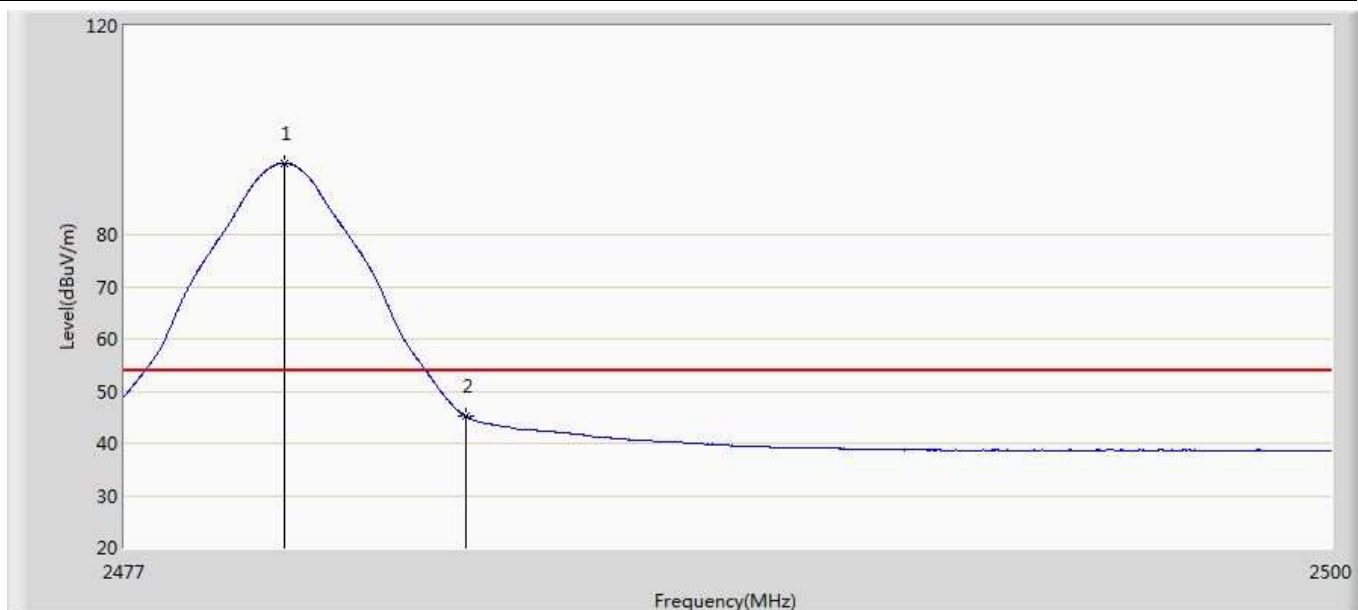
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.886	95.097	59.231	21.097	74.000	35.865	PK
2		2483.500	56.118	20.226	-17.882	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



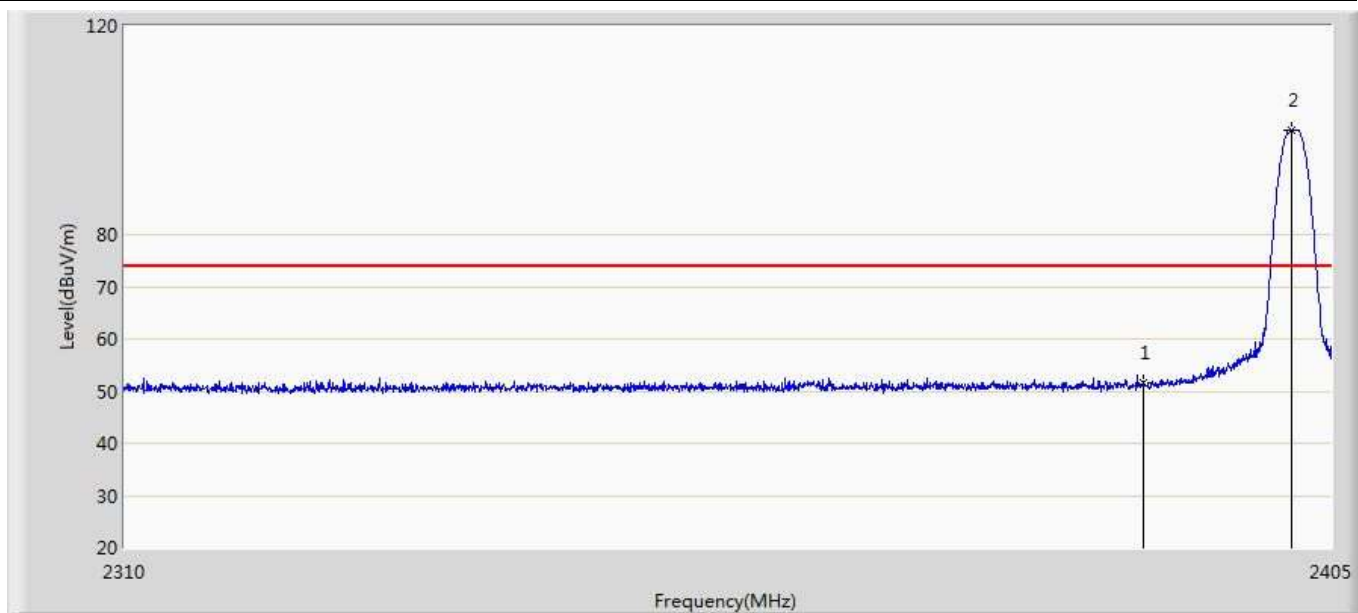
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	98.887	63.020	44.887	54.000	35.867	AV
2		2483.500	49.286	13.394	-4.714	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



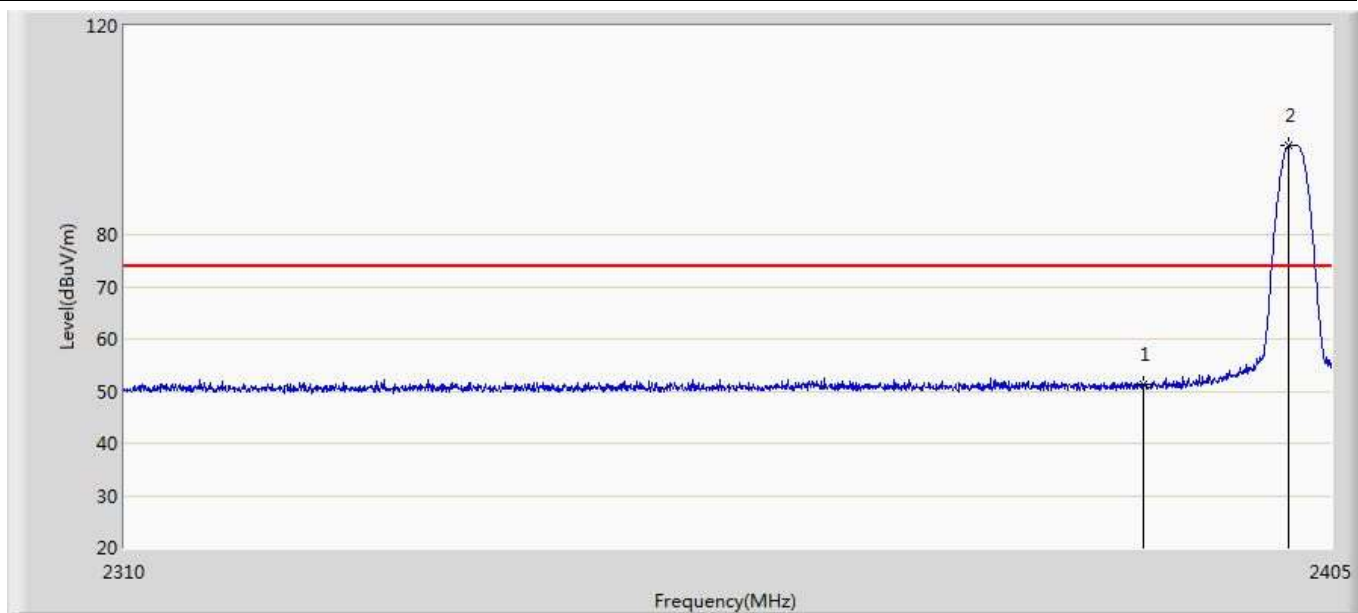
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.036	93.631	57.764	39.631	54.000	35.866	AV
2		2483.500	45.166	9.274	-8.834	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



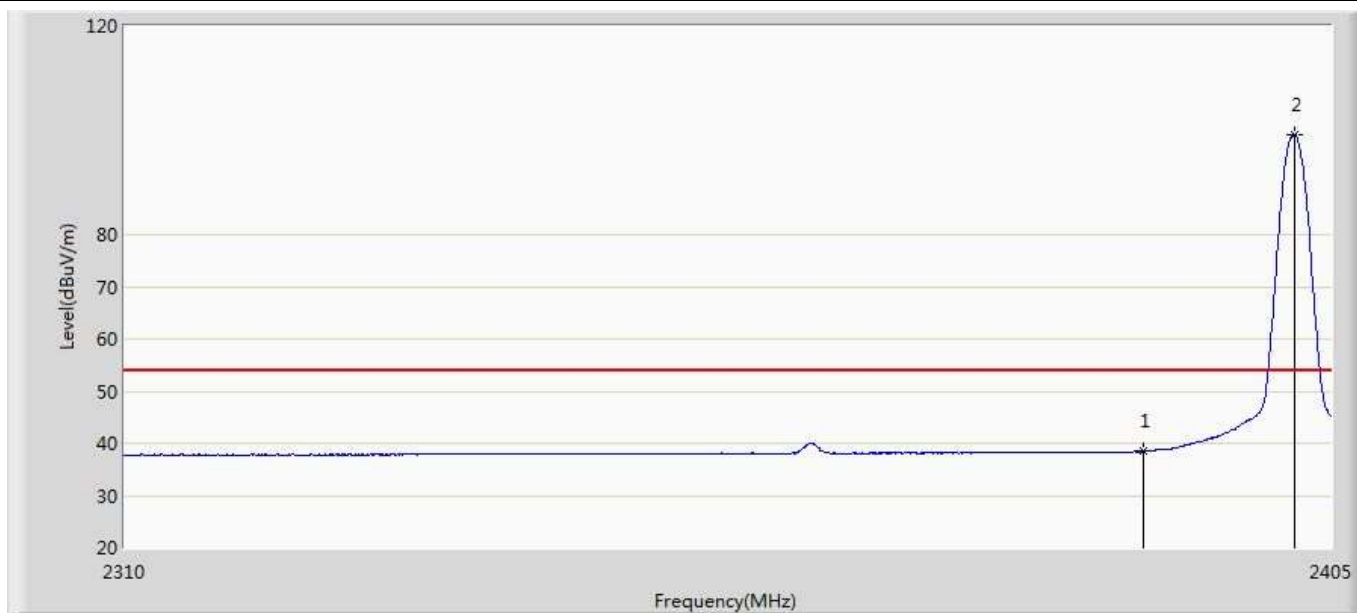
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.719	16.037	-22.281	74.000	35.682	PK
2	*	2401.817	99.989	64.277	25.989	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



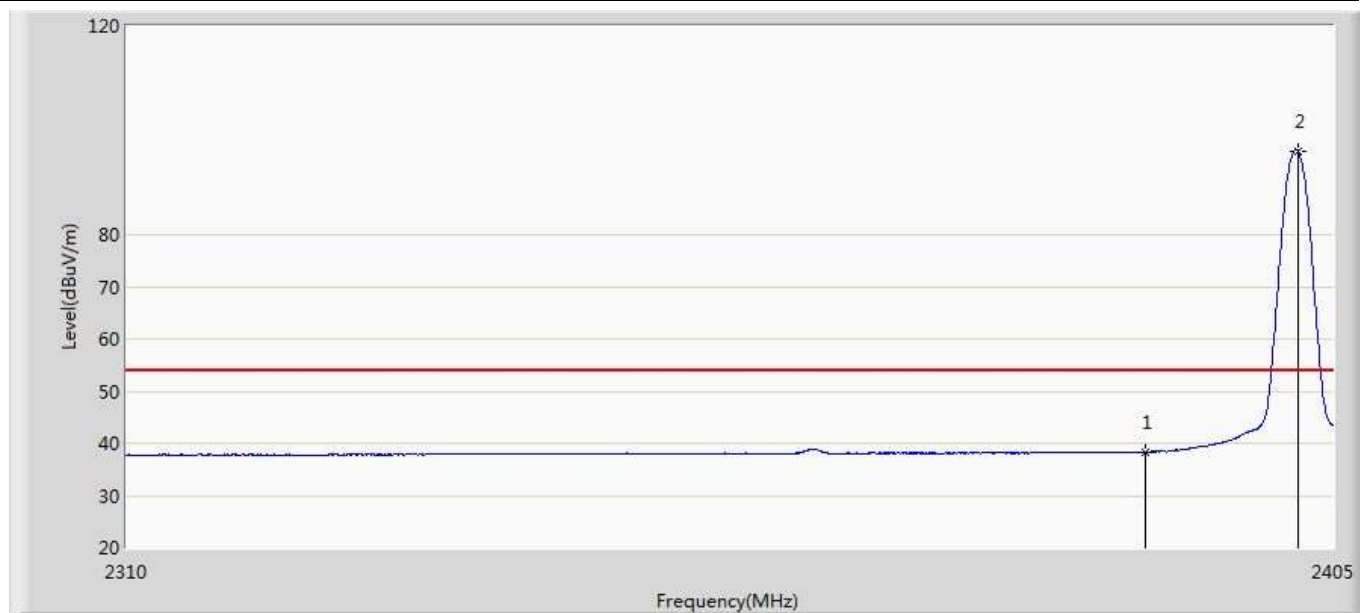
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.203	15.521	-22.797	74.000	35.682	PK
2	*	2401.627	97.128	61.416	23.128	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



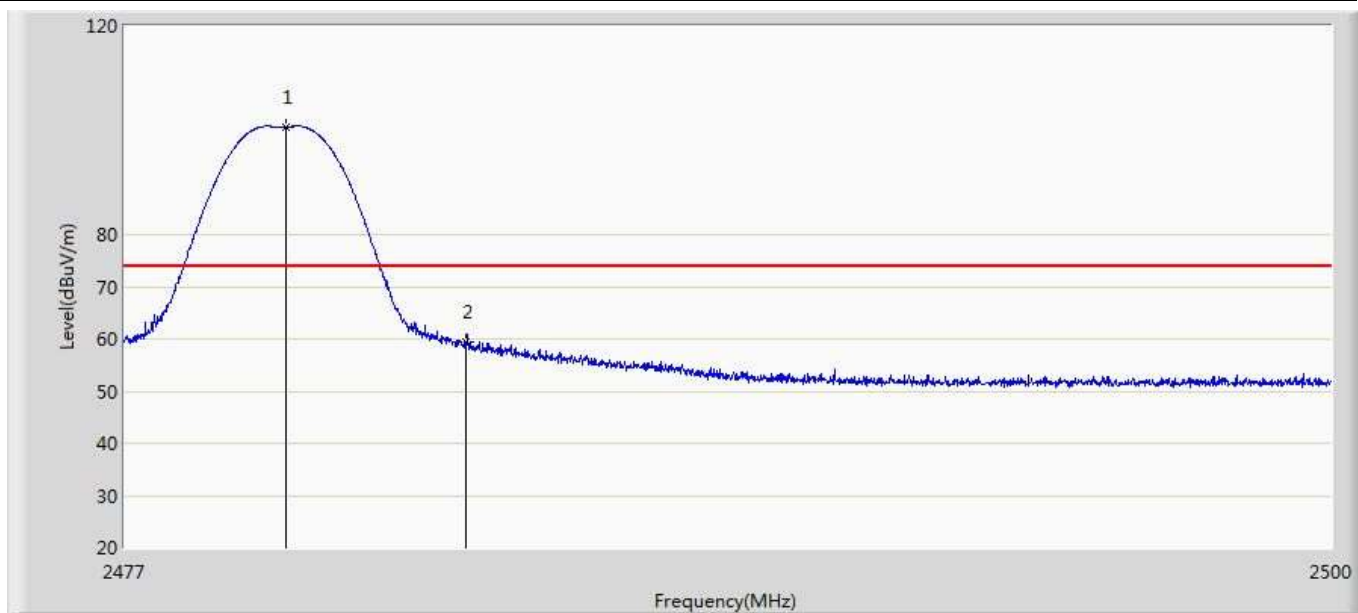
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.488	2.806	-15.512	54.000	35.682	AV
2	*	2402.055	99.267	63.554	45.267	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded (S=2)	



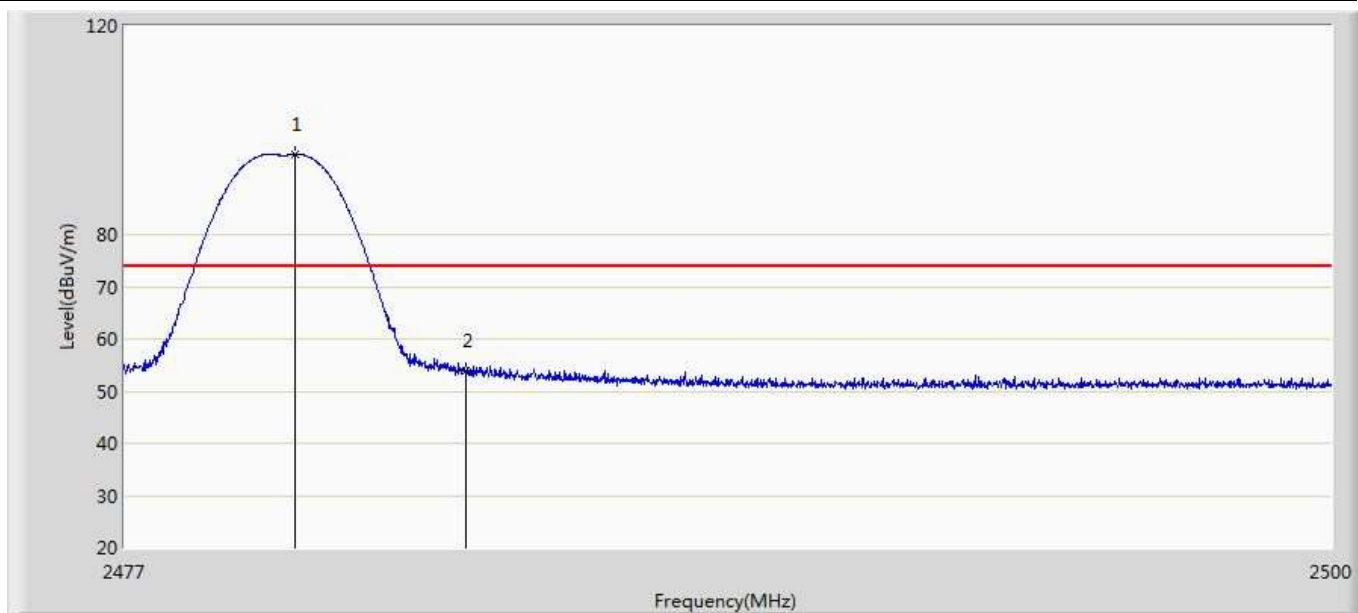
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.292	2.610	-15.708	54.000	35.682	AV
2	*	2402.198	96.012	60.299	42.012	54.000	35.714	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



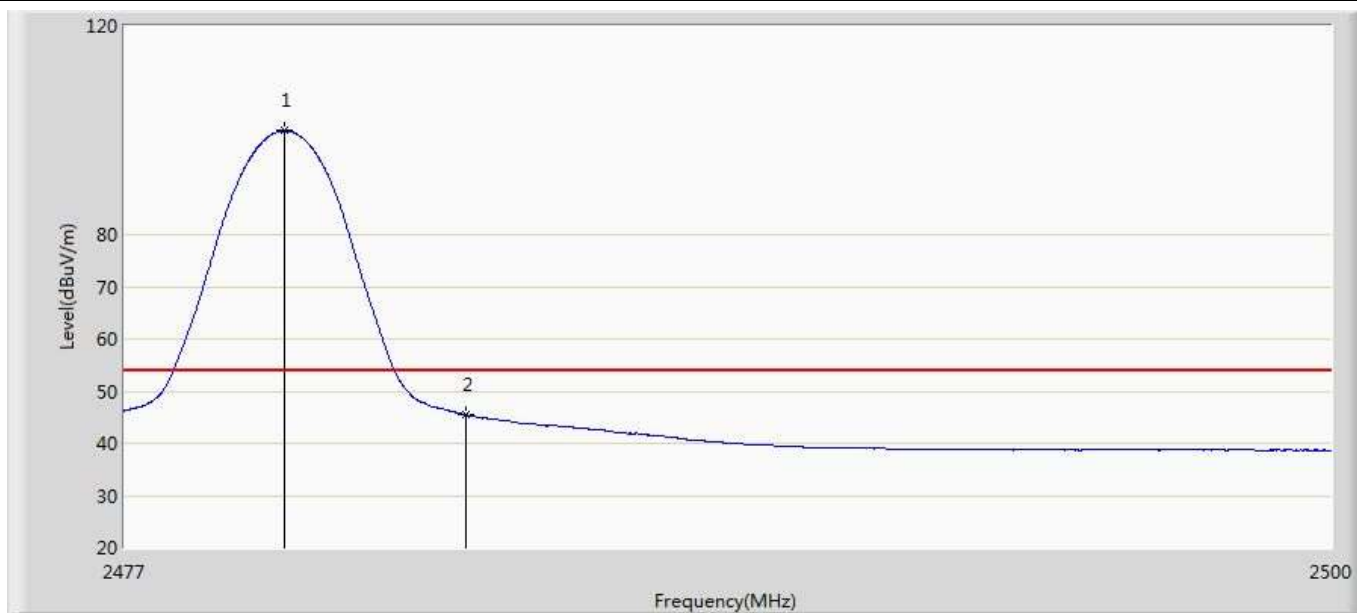
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.071	100.649	64.782	26.649	74.000	35.867	PK
2		2483.500	59.338	23.446	-14.662	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



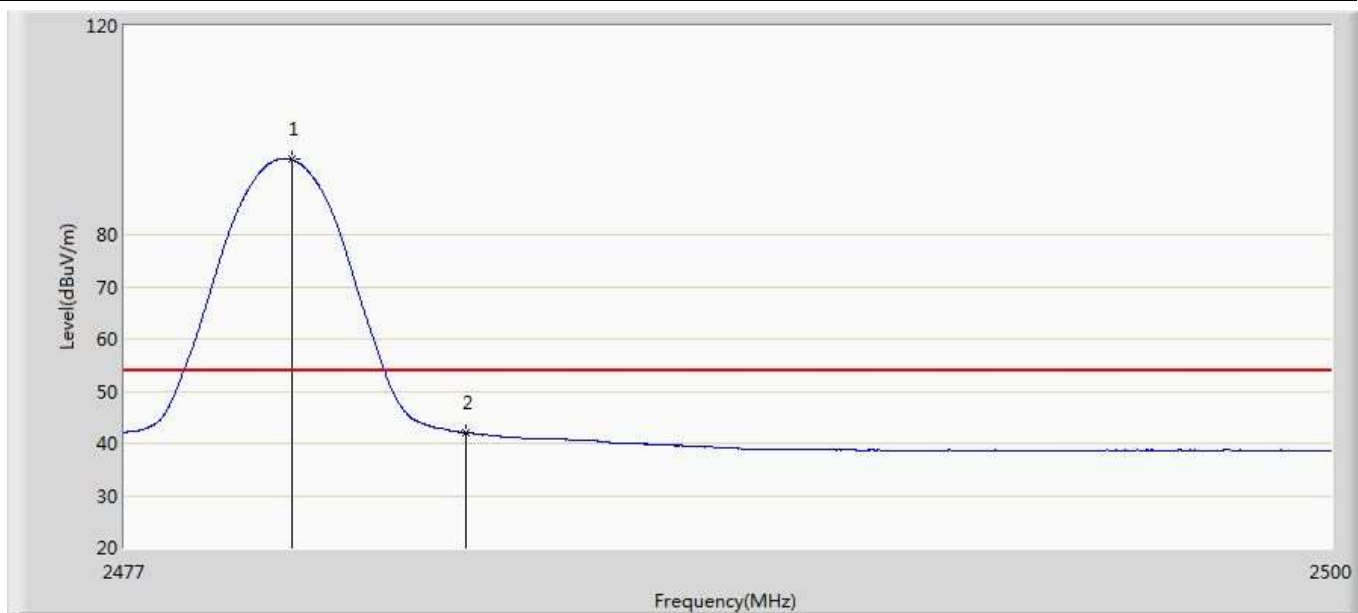
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.231	95.316	59.448	21.316	74.000	35.868	PK
2		2483.500	53.890	17.998	-20.110	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



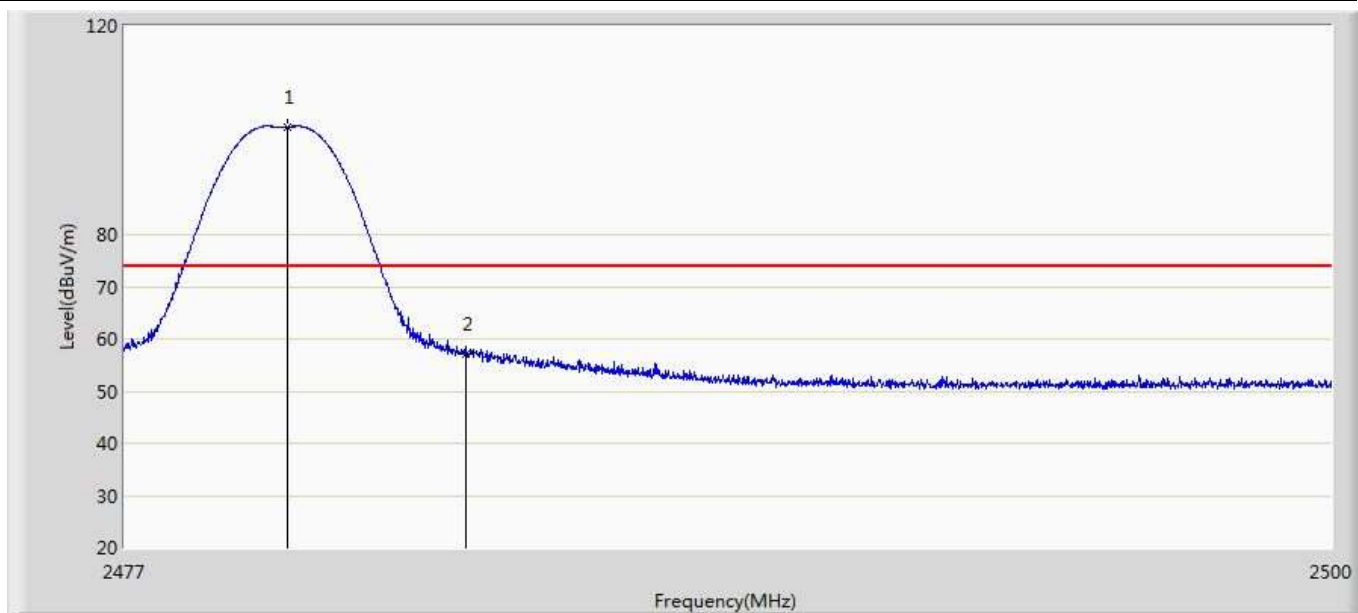
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.036	99.885	64.018	45.885	54.000	35.866	AV
2		2483.500	45.439	9.547	-8.561	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 22:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded (S=2)	



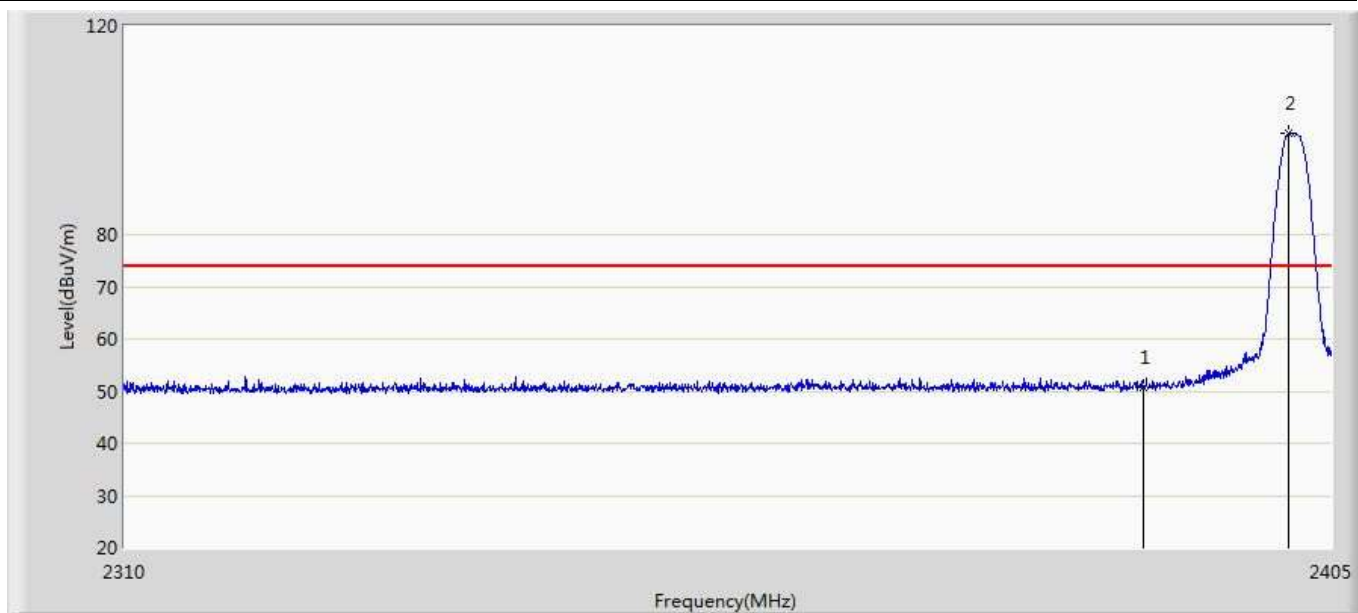
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.174	94.403	58.535	40.403	54.000	35.867	AV
2		2483.500	41.964	6.072	-12.036	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



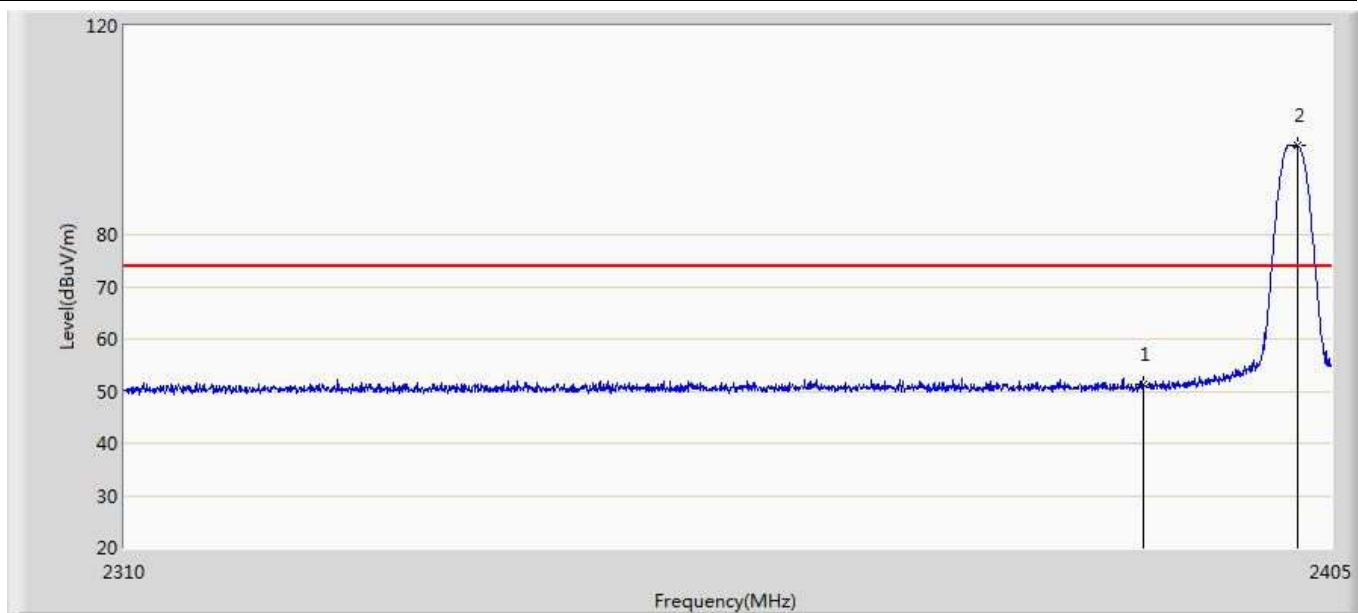
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.105	100.679	64.812	26.679	74.000	35.867	PK
2		2483.500	57.095	21.203	-16.905	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



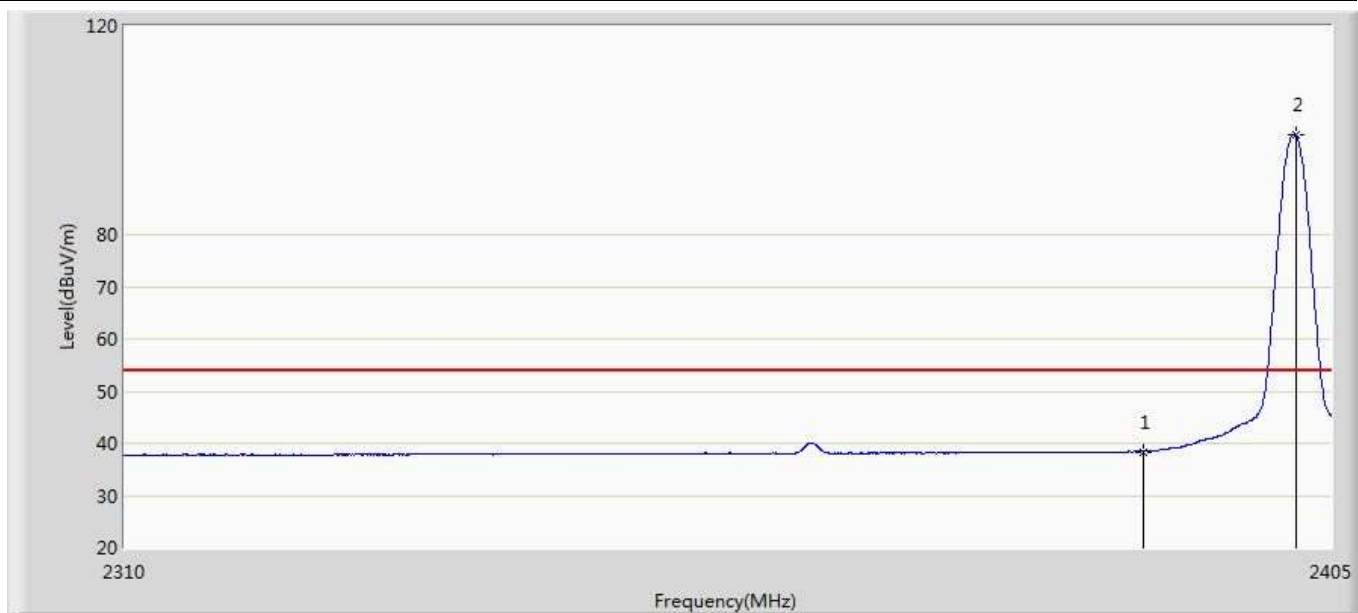
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.625	14.943	-23.375	74.000	35.682	PK
2	*	2401.627	99.408	63.696	25.408	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



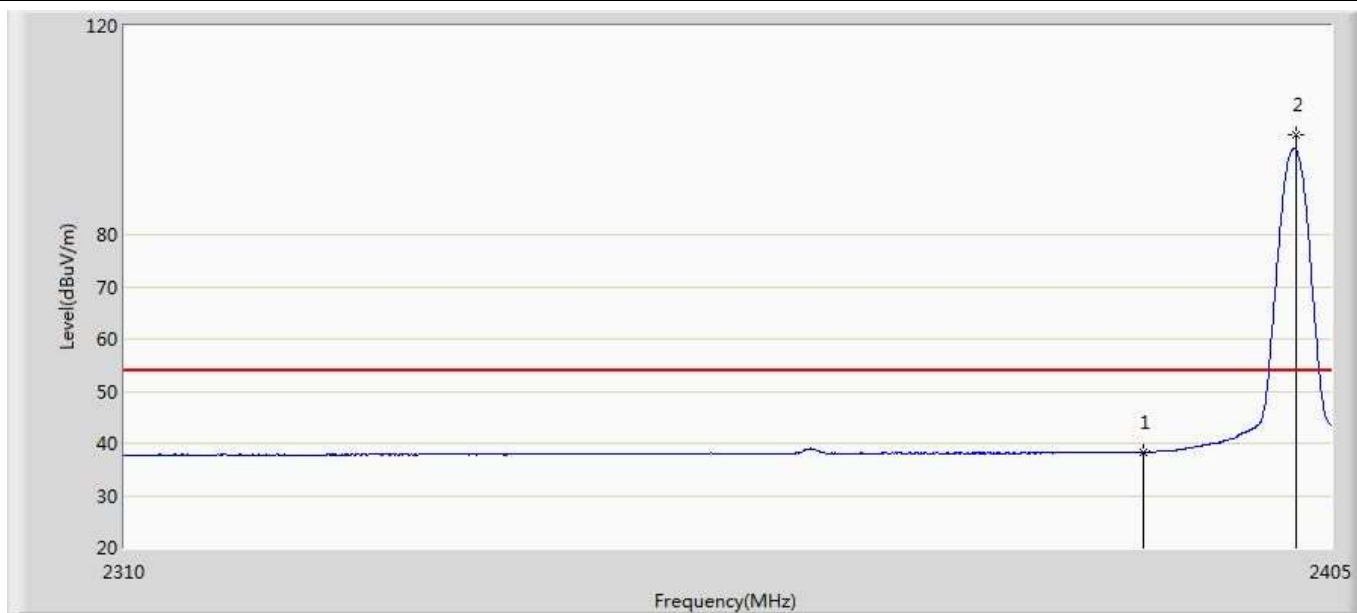
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.209	15.527	-22.791	74.000	35.682	PK
2	*	2402.387	96.973	61.259	22.973	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



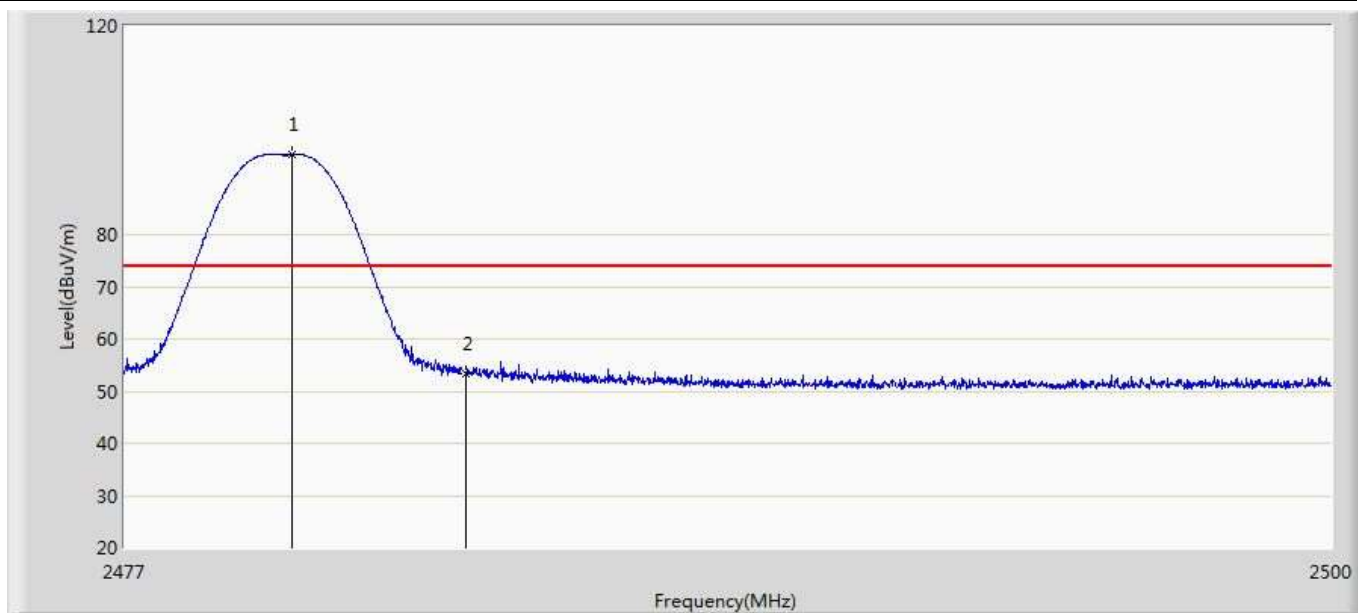
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.404	2.722	-15.596	54.000	35.682	AV
2	*	2402.198	99.062	63.349	45.062	54.000	35.714	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 21:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded (S=8)	



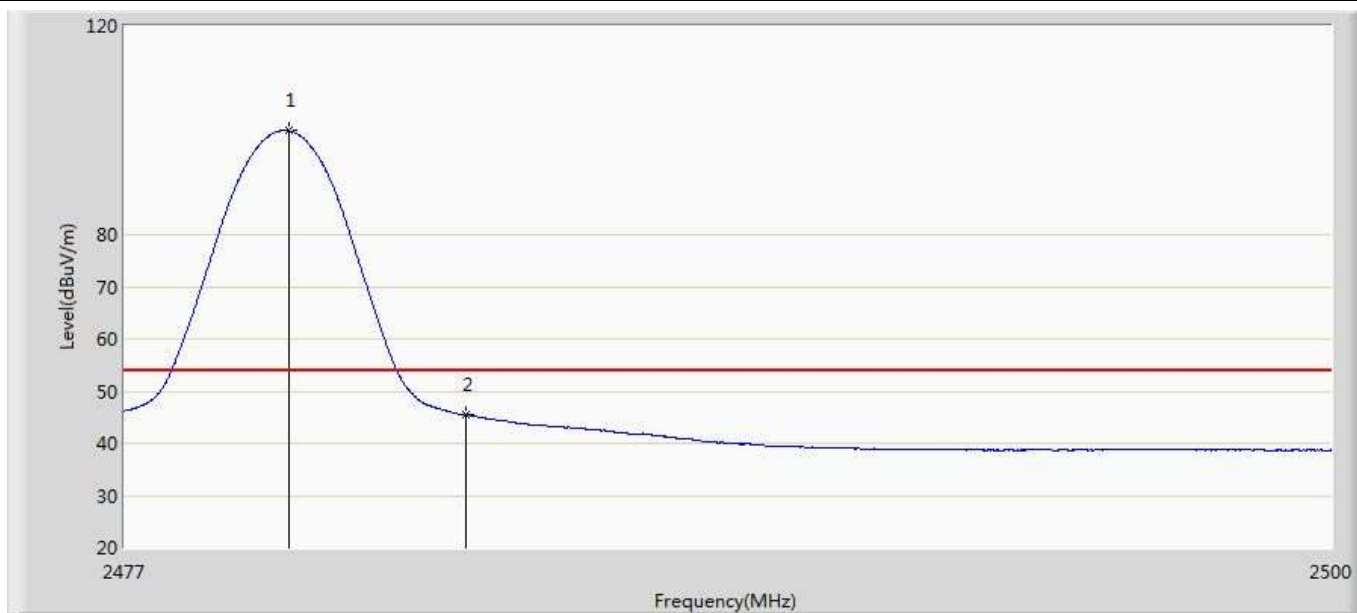
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.387	2.705	-15.613	54.000	35.682	AV
2	*	2402.198	99.062	63.349	45.062	54.000	35.714	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



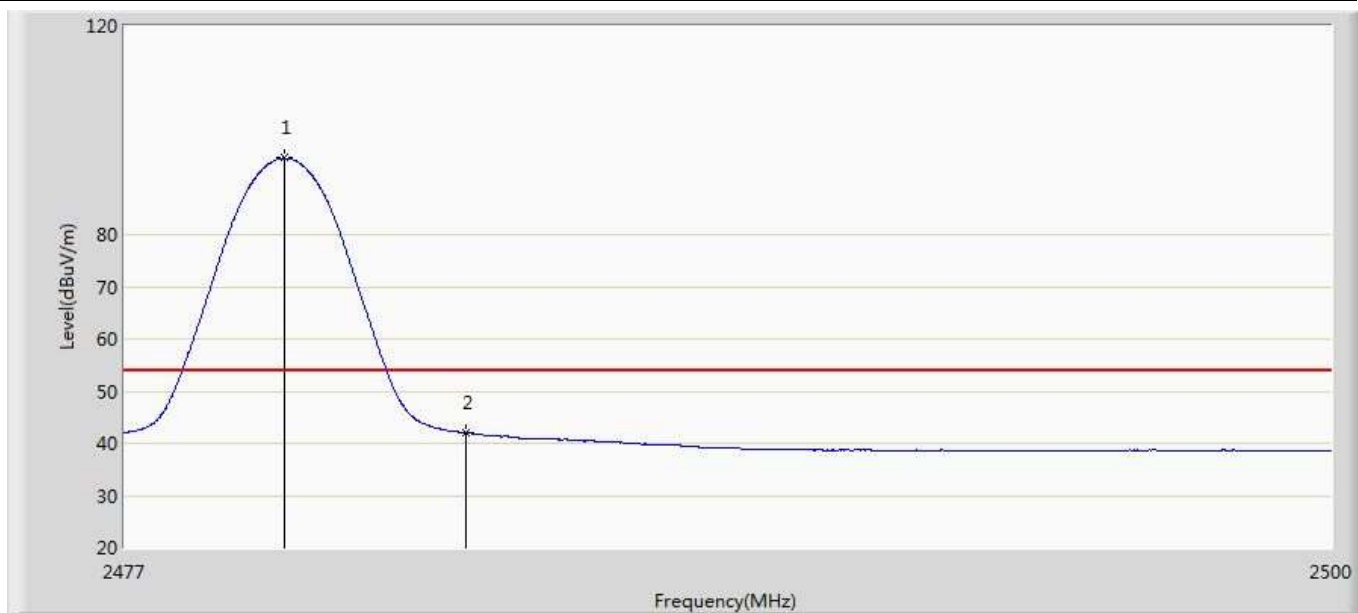
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.186	95.318	59.450	21.318	74.000	35.867	PK
2		2483.500	53.237	17.345	-20.763	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.139	99.858	63.991	45.858	54.000	35.867	AV
2		2483.500	45.431	9.539	-8.569	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 23:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



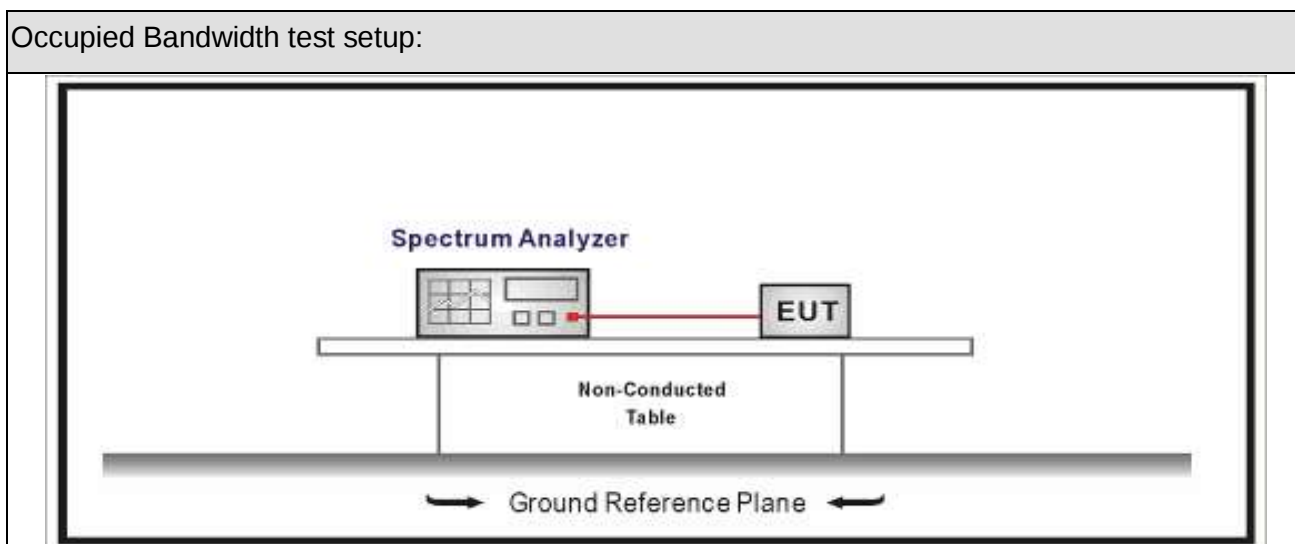
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.036	94.644	58.777	40.644	54.000	35.866	AV
2		2483.500	41.957	6.065	-12.043	54.000	35.891	AV

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	2019.02.04	2020.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2019.04.09	2020.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2019.04.09	2020.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2019.04.10	2020.04.09
Note: All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

7.2. Test Setup



7.3. Limit

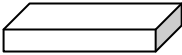
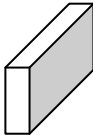
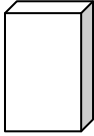
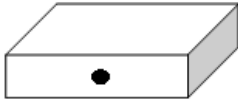
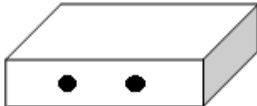
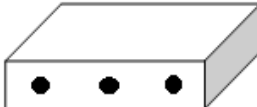
Occupied Bandwidth

Systems using digital modulation techniques operate in the 2400-2483.5 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

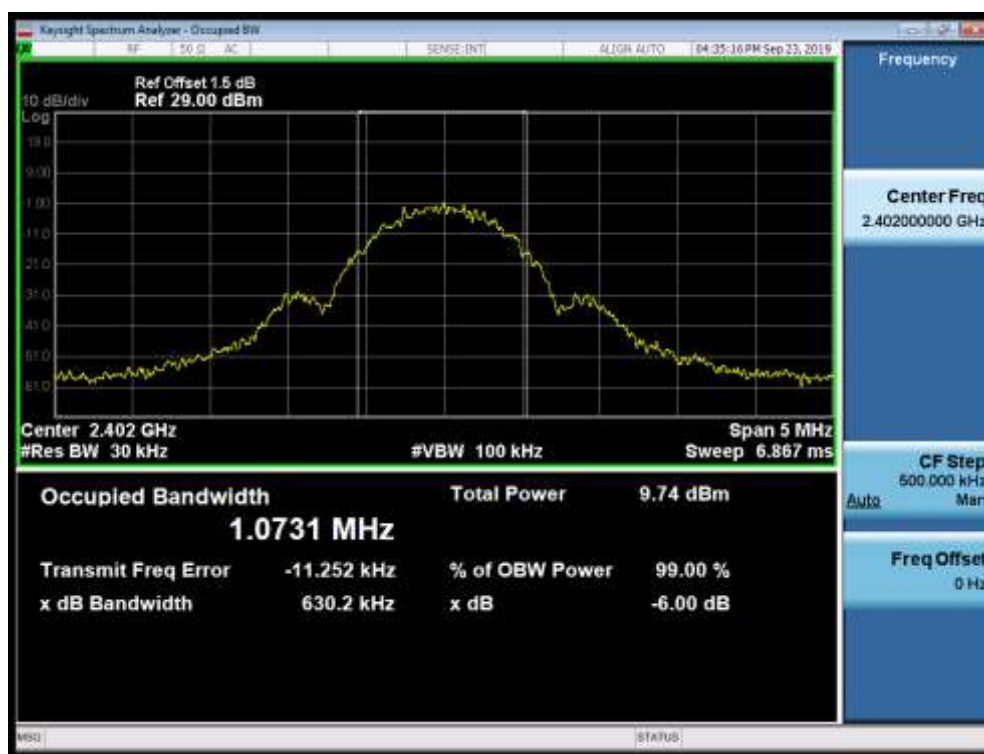
Item	Occupied Bandwidth			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1-3			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

7.6. Test Result

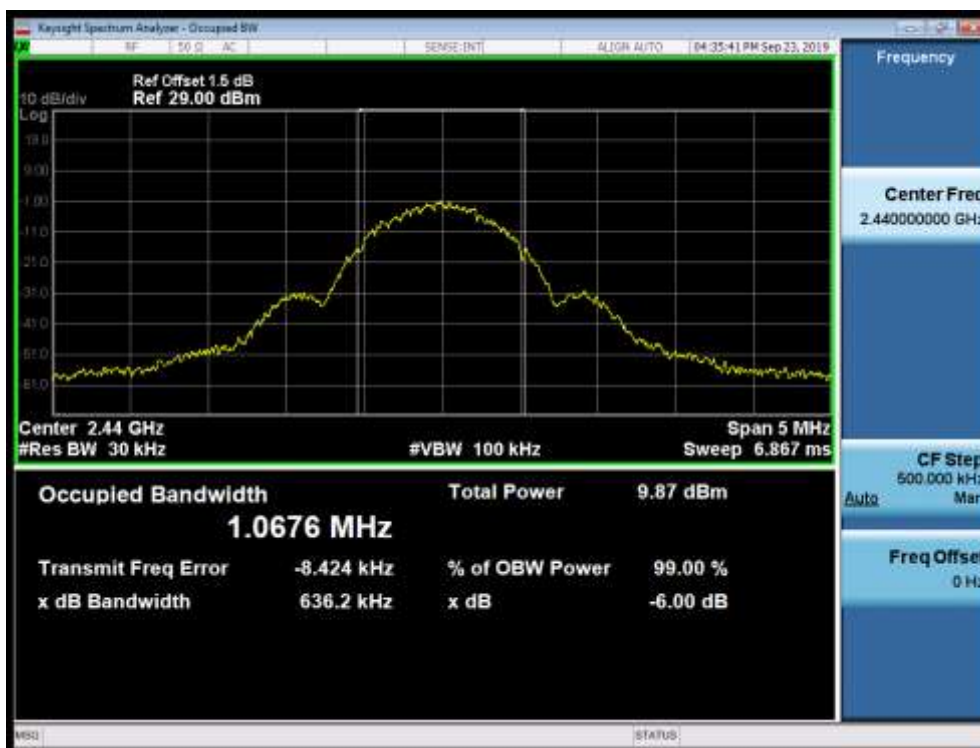
Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 1	Test Site	: TR-8
Test Date	: 2019.08.19	Test Engineer	: Simon

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	00	2402	1073.1	>500	Pass
1	19	2440	1067.6	>500	Pass
1	39	2480	1064.4	>500	Pass

Mode 1 CH00 (2402MHz)



Mode 1 CH19 (2440MHz)



Mode 1 CH39 (2480MHz)



Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	00	2402	696.0	>500	Pass
1	19	2440	688.5	>500	Pass
1	39	2480	682.7	>500	Pass

Mode 1 CH00 (2402MHz)



Mode 1 CH19 (2440MHz)



Mode 1 CH39 (2480MHz)



Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 2	Test Site	: TR-8
Test Date	: 2019.08.19	Test Engineer	: Simon

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
2	00	2402	2171.5	>500	Pass
2	19	2440	2171.5	>500	Pass
2	39	2480	2176.0	>500	Pass

Mode 2 CH00 (2402MHz)



Mode 2 CH19 (2440MHz)



Mode 2 CH39 (2480MHz)



Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
2	00	2402	1380	>500	Pass
2	19	2440	1379	>500	Pass
2	39	2480	1377	>500	Pass

Mode 2 CH00 (2402MHz)



Mode 2 CH19 (2440MHz)



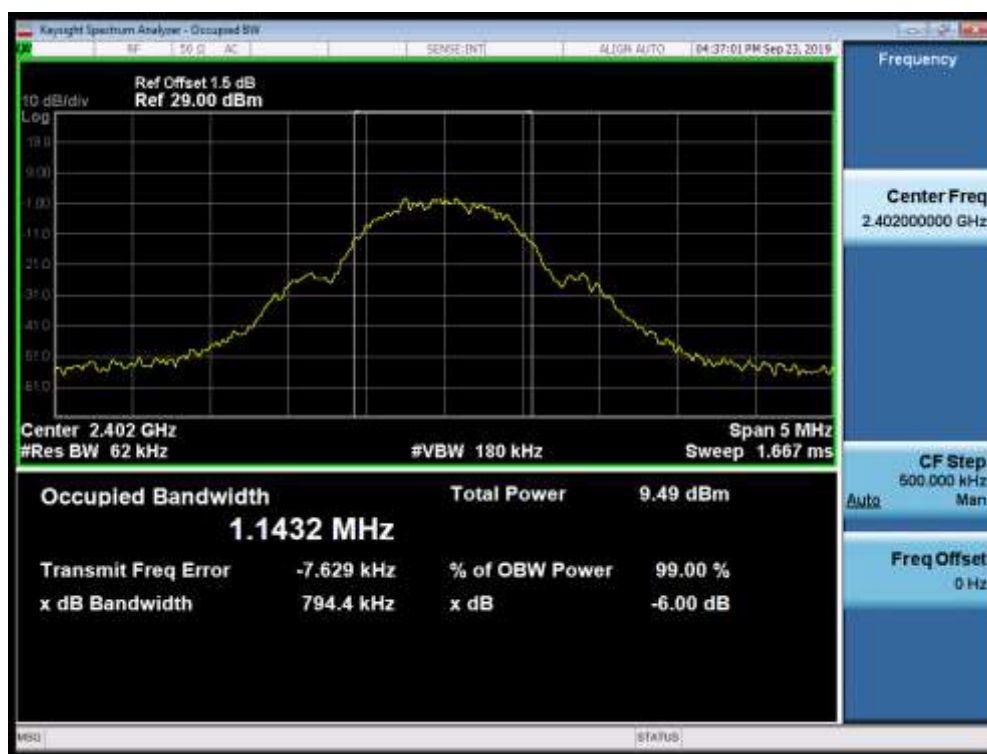
Mode 2 CH39 (2480MHz)



Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 3	Test Site	: TR-8
Test Date	: 2019.08.19	Test Engineer	: Simon

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
3	00	2402	1143.2	>500	Pass
3	19	2440	1135.4	>500	Pass
3	39	2480	1132.9	>500	Pass

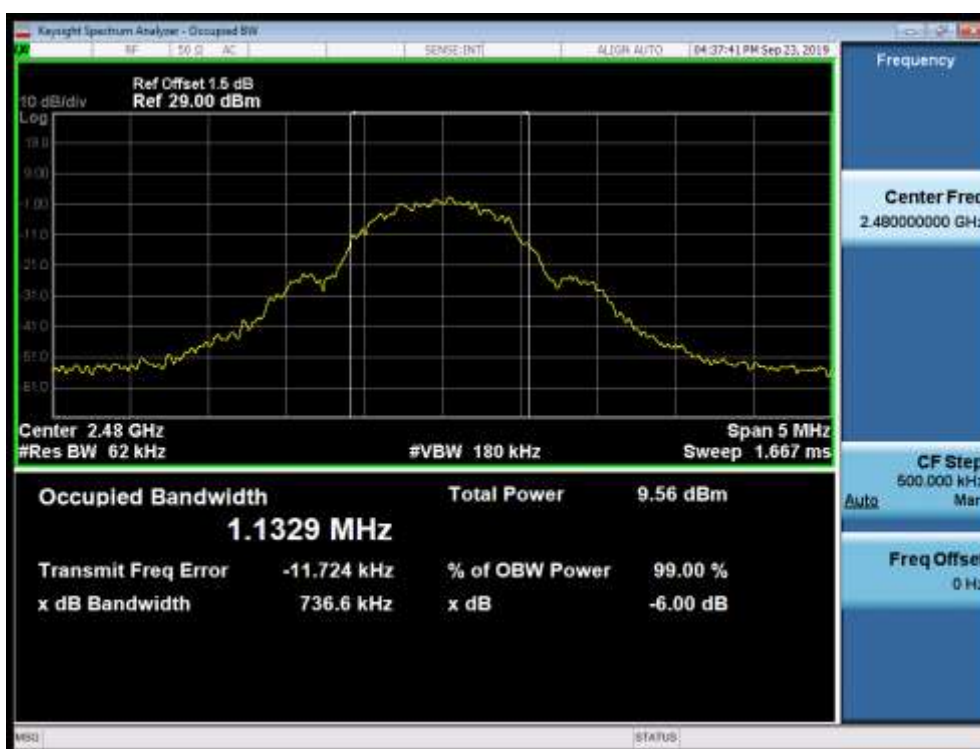
Mode 3 CH00 (2402MHz)



Mode 3 CH19 (2440MHz)



Mode 3 CH39 (2480MHz)



Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
3	00	2402	737.2	>500	Pass
3	19	2440	735.1	>500	Pass
3	39	2480	735.9	>500	Pass

Mode 3 CH00 (2402MHz)



Mode 3 CH19 (2440MHz)



Mode 3 CH39 (2480MHz)



Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 4	Test Site	: TR-8
Test Date	: 2019.08.19	Test Engineer	: Simon

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
4	00	2402	1111.6	>500	Pass
4	19	2440	1122.0	>500	Pass
4	39	2480	1129.1	>500	Pass

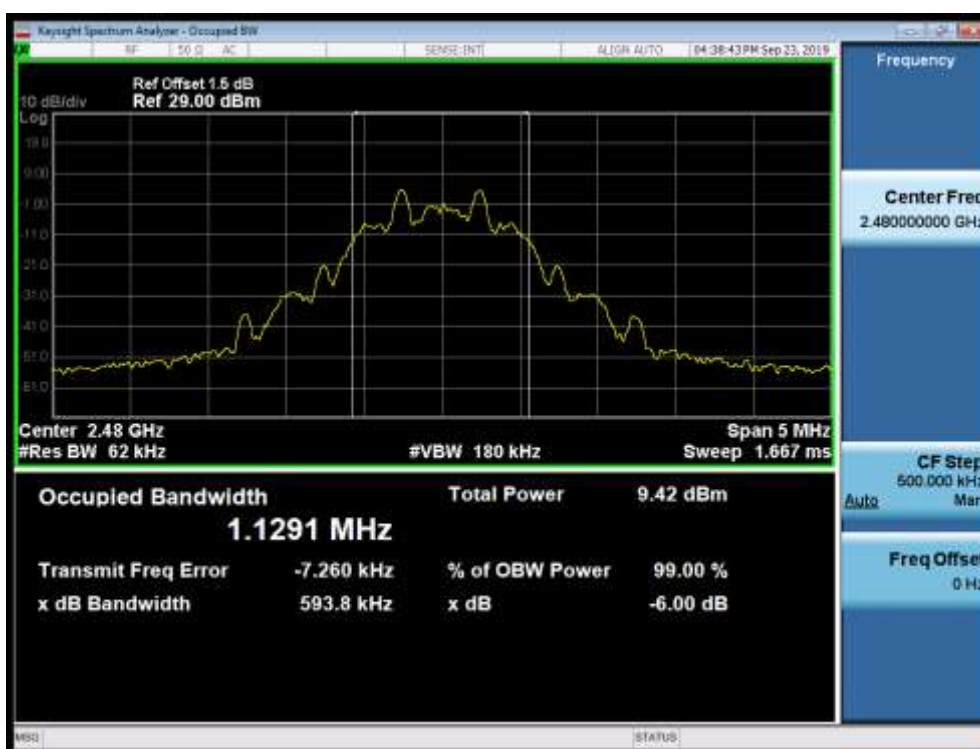
Mode 4 CH00 (2402MHz)



Mode 4 CH19 (2440MHz)



Mode 4 CH39 (2480MHz)



Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
4	00	2402	783.2	>500	Pass
4	19	2440	780.2	>500	Pass
4	39	2480	779.4	>500	Pass

Mode 4 CH00 (2402MHz)



Mode 4 CH19 (2440MHz)



Mode 4 CH39 (2480MHz)

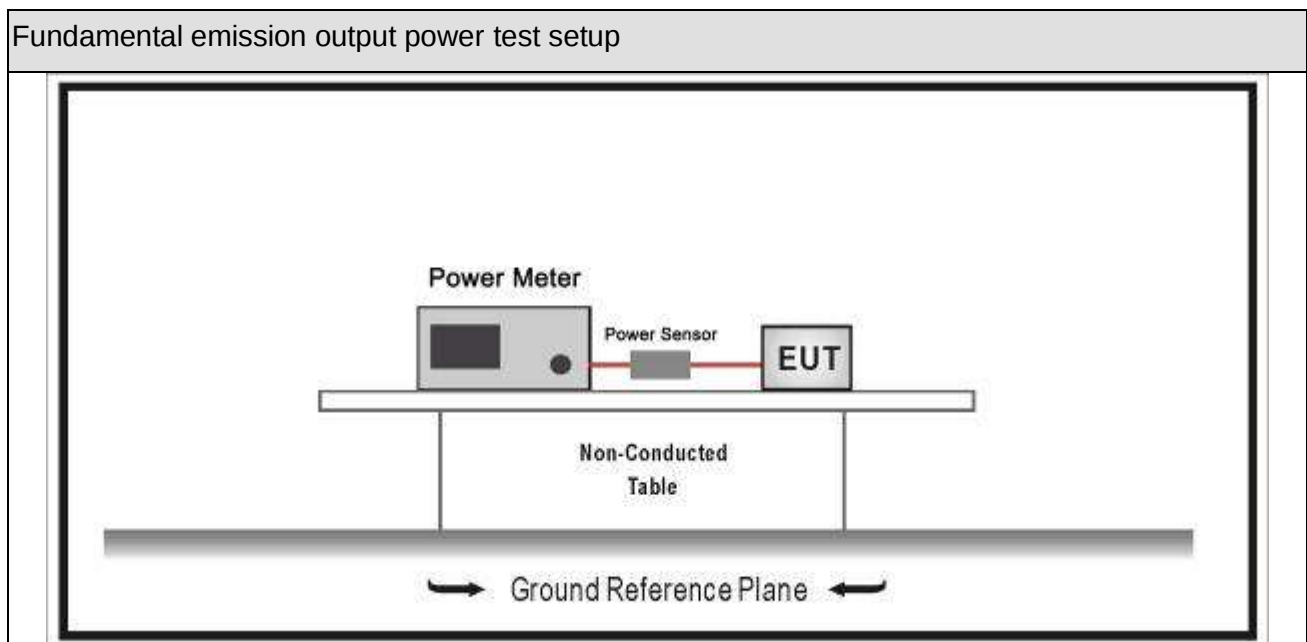


8. Fundamental emission output power

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	2019.01.04	2020.01.03
Spectrum Analyzer	Agilent	N9010A	MY48030494	2019.01.04	2020.01.03
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	2019.04.10	2020.04.09
Note: All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

8.2. Test Setup



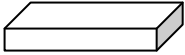
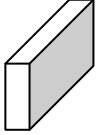
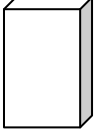
8.3. Limit

Fundamental emission output power Limit			
☒	$G_{TX} < 6\text{dBi}$		$P_{out} \leq 30\text{dBm}$
☐	$G_{TX} > 6\text{dBi}$		
	☐	Non-Fix point-point	$P_{out} \leq 30 - (G_{TX} - 6)$
	☐	Fix point-point	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
	☐	Point-to-multipoint	$P_{out} \leq 30 - (G_{TX} - 6)$
	☐	Overlap Beams	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
	☐	Aggregate power transmitted simultaneously on all beams	$P_{out} \leq 30 - [(G_{TX} - 6)]/3$
	☐	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 .			

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

Item	Fundamental emission output power			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1~3			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

8.6. Test Result

Murata:

Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 1-4	Test Site	: TR-8
Test Date	: 2019.08.16	Test Engineer	: Simon

Mode	Channel	Test Frequency (MHz)	Measurement Power Output (dBm)	Limit (dBm)	Result
Mode 1	00	2402	9.09	30	Pass
	19	2440	9.13	30	Pass
	39	2480	8.97	30	Pass
Mode 2	00	2402	9.16	30	Pass
	19	2440	9.24	30	Pass
	39	2480	9.07	30	Pass
Mode 3	00	2402	8.99	30	Pass
	19	2440	9.05	30	Pass
	39	2480	8.90	30	Pass
Mode 4	00	2402	9.04	30	Pass
	19	2440	9.13	30	Pass
	39	2480	8.93	30	Pass

Diodes:

Product Name	:	LED lamp	Test Voltage	:	AC 120V/60Hz
Test Mode	:	Mode 1-4	Test Site	:	TR-8
Test Date	:	2019.08.16	Test Engineer	:	Simon

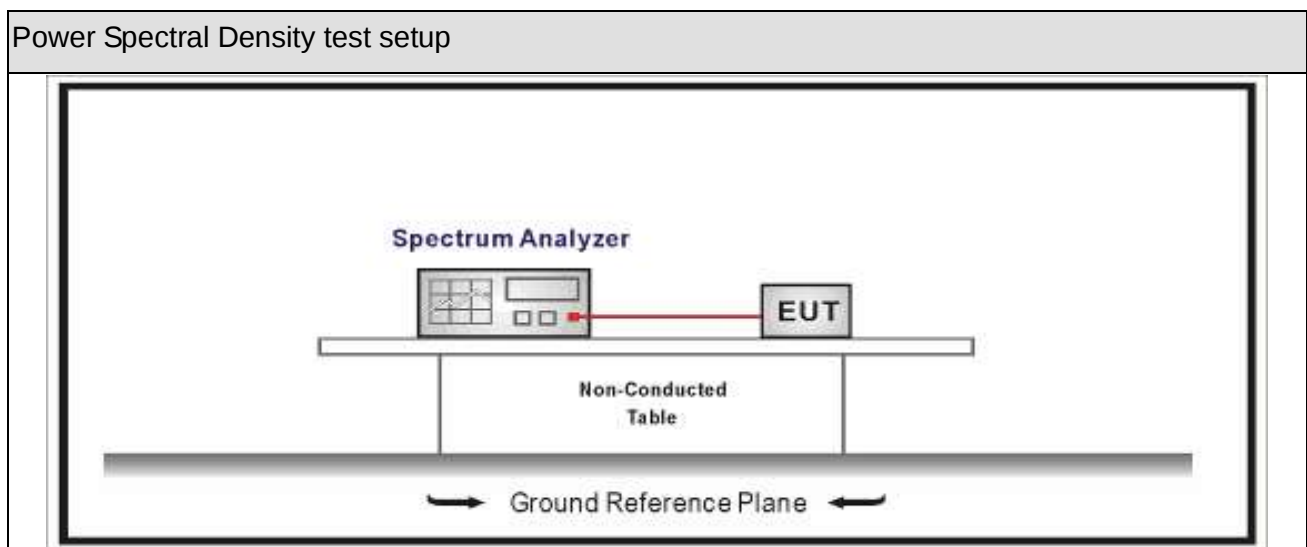
Mode	Channel	Test Frequency (MHz)	Measurement Power Output (dBm)	Limit (dBm)	Result
Mode 1	00	2402	9.14	30	Pass
	19	2440	9.23	30	Pass
	39	2480	9.07	30	Pass
Mode 2	00	2402	9.26	30	Pass
	19	2440	9.31	30	Pass
	39	2480	9.09	30	Pass
Mode 3	00	2402	9.07	30	Pass
	19	2440	9.16	30	Pass
	39	2480	8.89	30	Pass
Mode 4	00	2402	9.14	30	Pass
	19	2440	9.18	30	Pass
	39	2480	8.99	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	2019.02.04	2020.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2019.04.09	2020.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2019.04.09	2020.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2019.04.10	2020.04.09
Note: All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

9.2. Test Setup



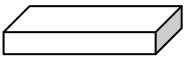
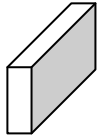
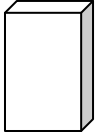
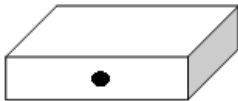
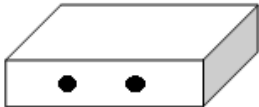
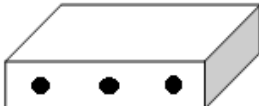
9.3. Limit

Power Spectral Density Limit
Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$

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 $\geq$ 98%)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq$ 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

Item	Power Spectral Density Test Method			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3
				

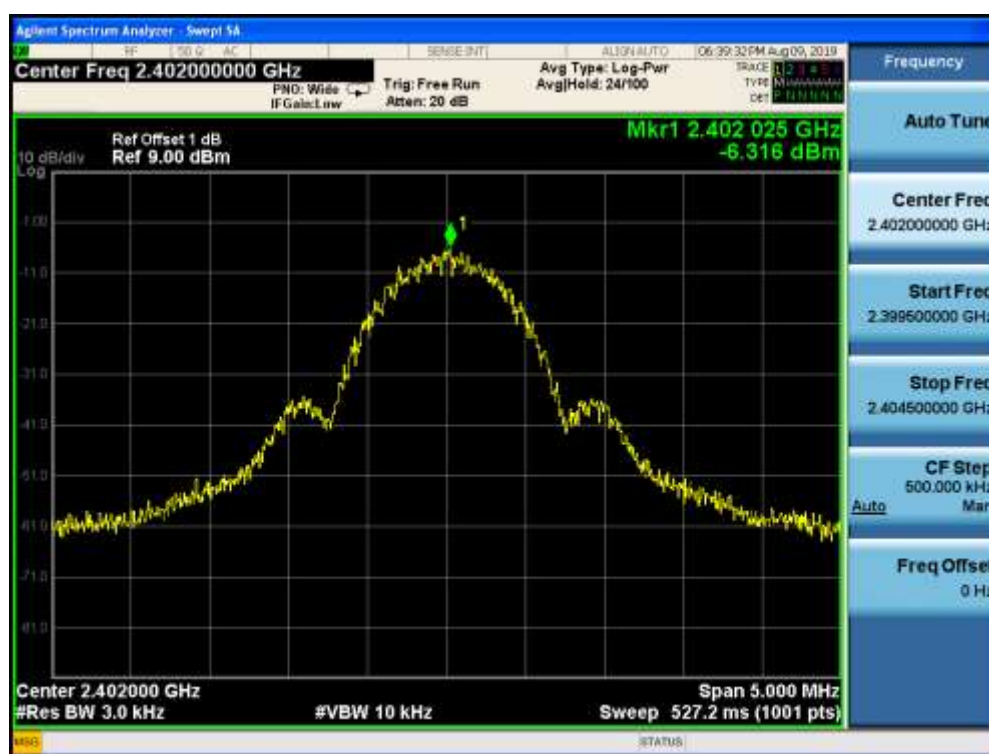
9.6. Test Result

Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 1	Test Site	: TR-8
Test Date	: 2019.08.16	Test Engineer	: Simon

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	00	2402	-6.316	-6.316	8	Pass
1	19	2440	-6.481	-6.481	8	Pass
1	39	2480	-6.197	-6.197	8	Pass

Note : We have evaluated mode, shown in the report is BLE mode which is the worst data.

Mode 1 CH00(2402MHz)



Mode 1 CH18(2440MHz)**Mode 1 CH39(2480MHz)**

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 _____