



Test Report

FCC Part15 Subpart C & RSS-247 Issue 2

Product Name : LED lamp
Model No. : 9290022266
FCC ID : 2AGBW9290022266X
IC : 20812-2266X

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. : 1972173R-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. : 1972173R-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. : 9290022266
FCC ID : 2AGBW9290022266X
IC : 20812-2266X
EUT Voltage : 110-130 Vac, 50-60 Hz, 9.5W
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)

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1972173R-RF-US-P06V02	V1.0	Initial Issued Report	Sep. 01, 2019
1972173R-RF-US-P06V02	V1.1	Add 99% bandwidth test for LE test.	Sep. 24, 2019

1. General Information

1.1. EUT Description

Product Name	LED lamp				
Model No.	9290022266				
EUT Voltage	110-130 Vac, 50-60 Hz, 9.5W				
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	-1.5dBi					

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)

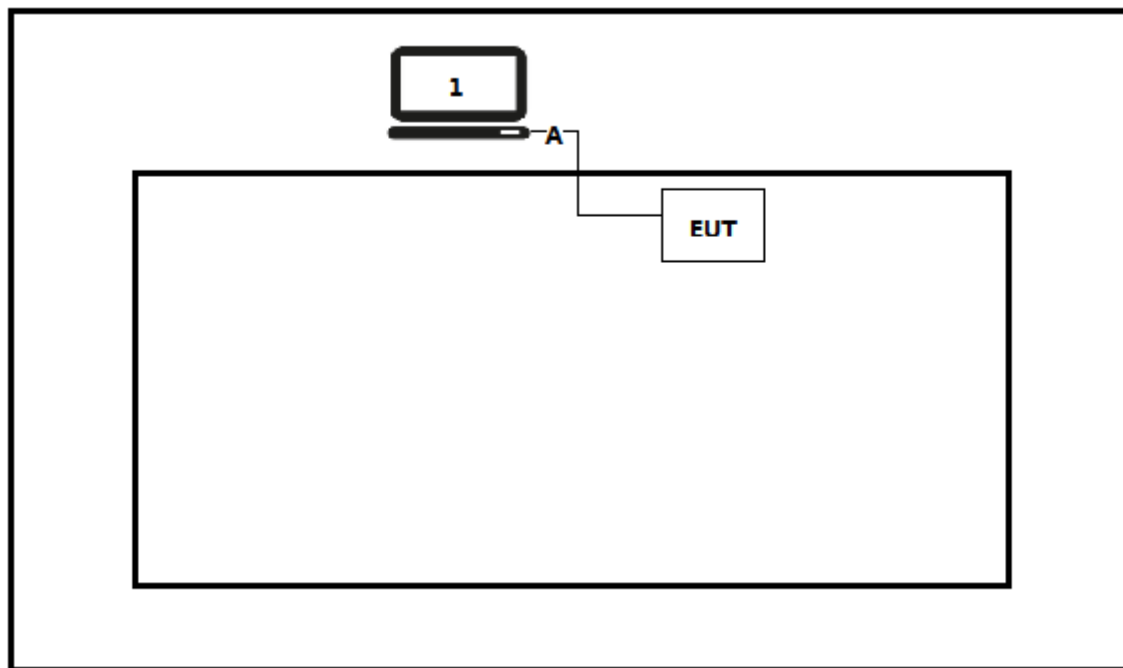
1.5. Tested System Details

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

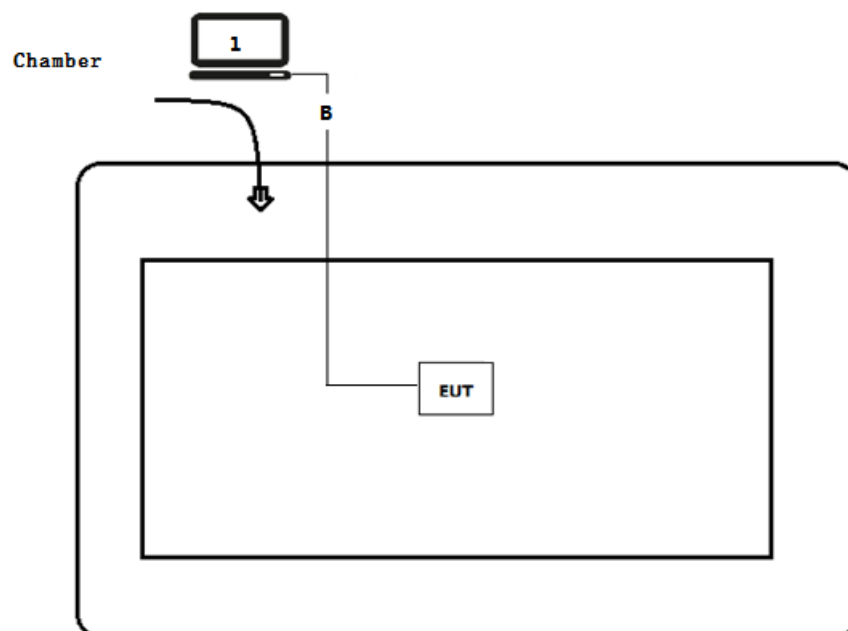
No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Think Pad	2526	LV-A3285	Power by adapter
A	Control cable	N/A	N/A	N/A	Shielded,0.5m
B	Control cable	N/A	N/A	N/A	Shielded,10m

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	$\pm 1.27\text{dB}$

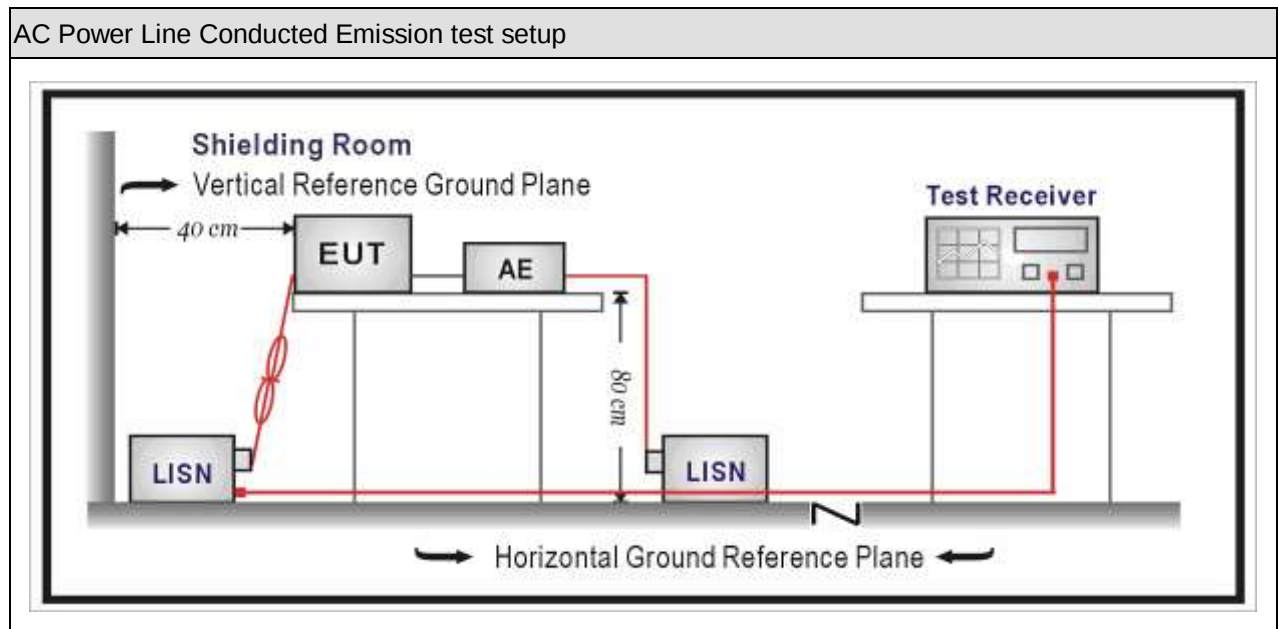
3. AC Power Line Conducted Emission

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

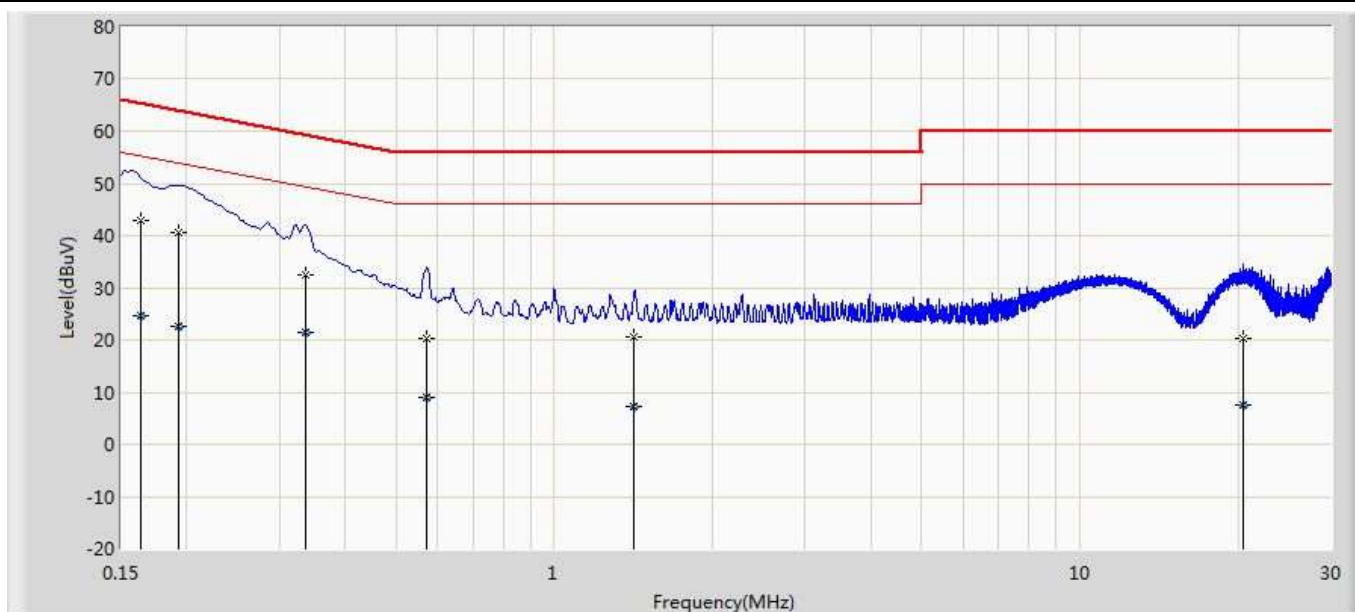
Frequency of Emission (MHz)	Conducted Limit	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Note 1: The lower limit shall apply at the transition frequencies.		
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5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

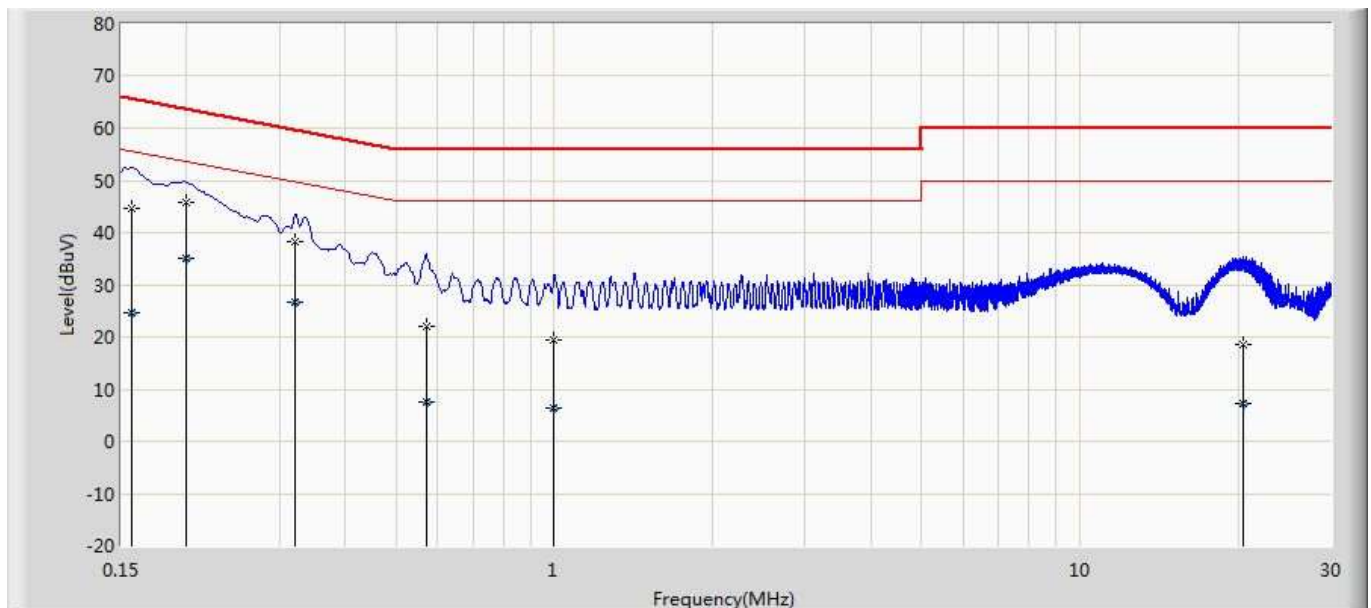
3.5. Test Result

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	*	0.163	43.030	33.415	-22.281	65.311	9.616	QP
2		0.163	24.649	15.033	-30.663	55.311	9.616	AV
3		0.193	40.503	30.876	-23.414	63.917	9.626	QP
4		0.193	22.615	12.989	-31.302	53.917	9.626	AV
5		0.337	32.494	22.866	-26.789	59.283	9.629	QP
6		0.337	21.444	11.815	-27.839	49.283	9.629	AV
7		0.573	20.253	10.618	-35.747	56.000	9.635	QP
8		0.573	8.911	-0.724	-37.089	46.000	9.635	AV
9		1.419	20.549	10.877	-35.451	56.000	9.672	QP
10		1.419	7.191	-2.481	-38.809	46.000	9.672	AV
11		20.441	20.376	9.854	-39.624	60.000	10.522	QP
12		20.441	7.651	-2.871	-42.349	50.000	10.522	AV

Engineer: Xu Jun	
Site: TR1	Time: 2019/08/20 - 23:07
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		0.157	44.702	35.071	-20.933	65.634	9.630	QP
2		0.157	24.564	14.934	-31.070	55.634	9.630	AV
3	*	0.200	45.798	36.166	-17.834	63.631	9.631	QP
4		0.200	34.973	25.342	-18.658	53.631	9.631	AV
5		0.321	38.250	28.617	-21.431	59.681	9.632	QP
6		0.321	26.585	16.952	-23.096	49.681	9.632	AV
7		0.571	21.986	12.342	-34.014	56.000	9.644	QP
8		0.571	7.674	-1.970	-38.326	46.000	9.644	AV
9		0.998	19.434	9.761	-36.566	56.000	9.673	QP
10		0.998	6.271	-3.402	-39.729	46.000	9.673	AV
11		20.487	18.686	8.214	-41.314	60.000	10.472	QP
12		20.487	7.255	-3.217	-42.745	50.000	10.472	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

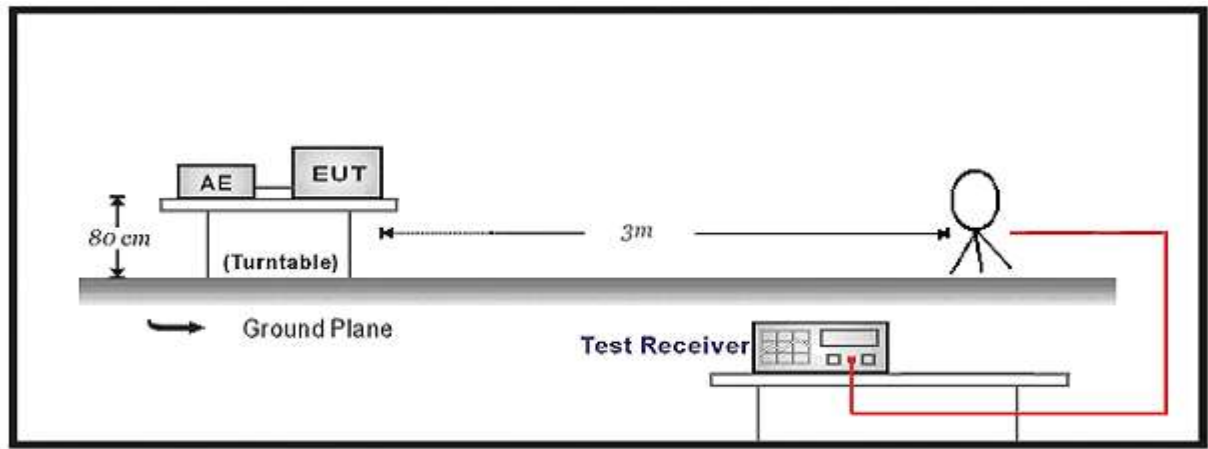
4.1. Test Equipment

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.					

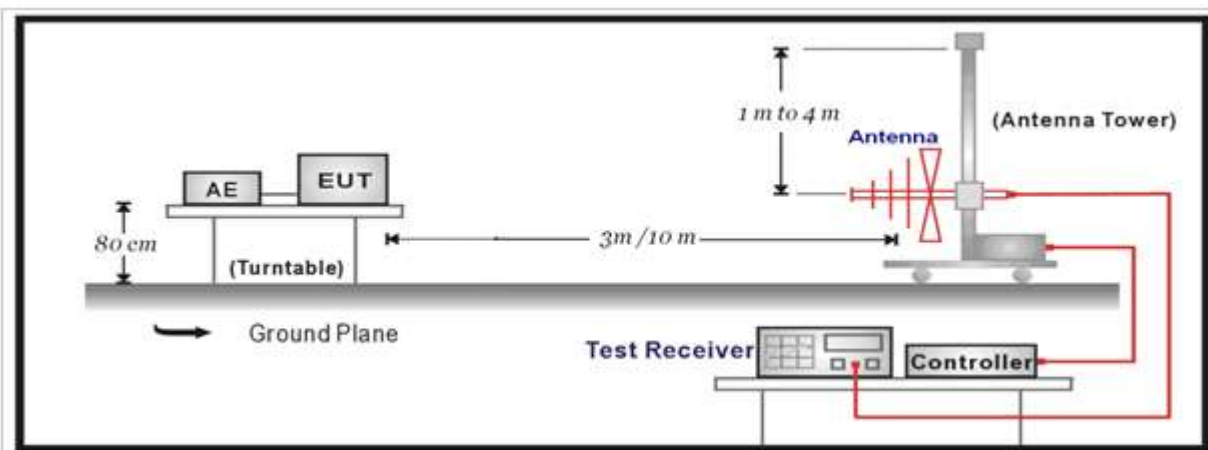
Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2019.01.04	2020.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2019.05.06	2020.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2019.05.06	2020.05.05
DRG 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

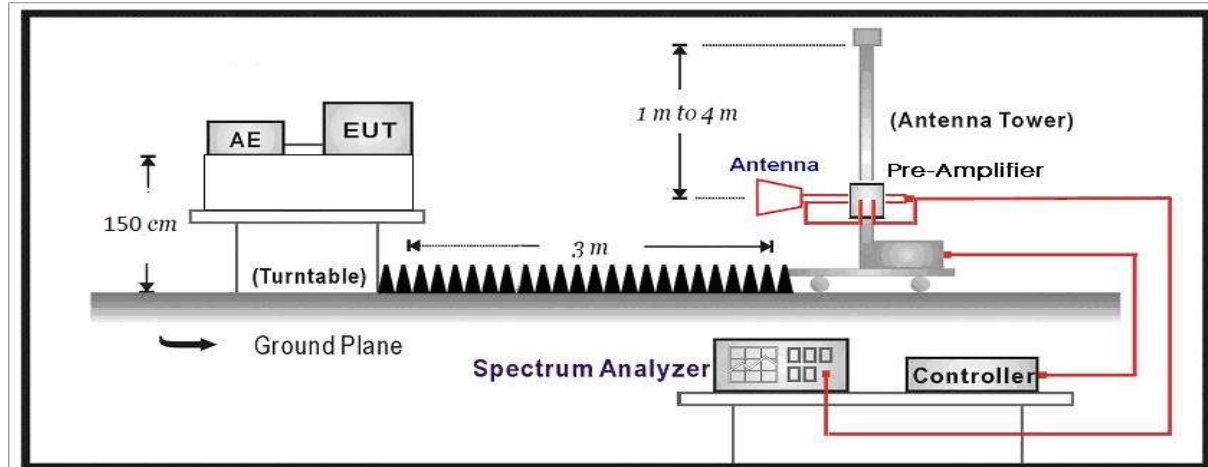
Below 30MHz Test Setup:



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)

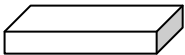
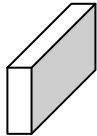
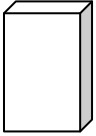
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed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

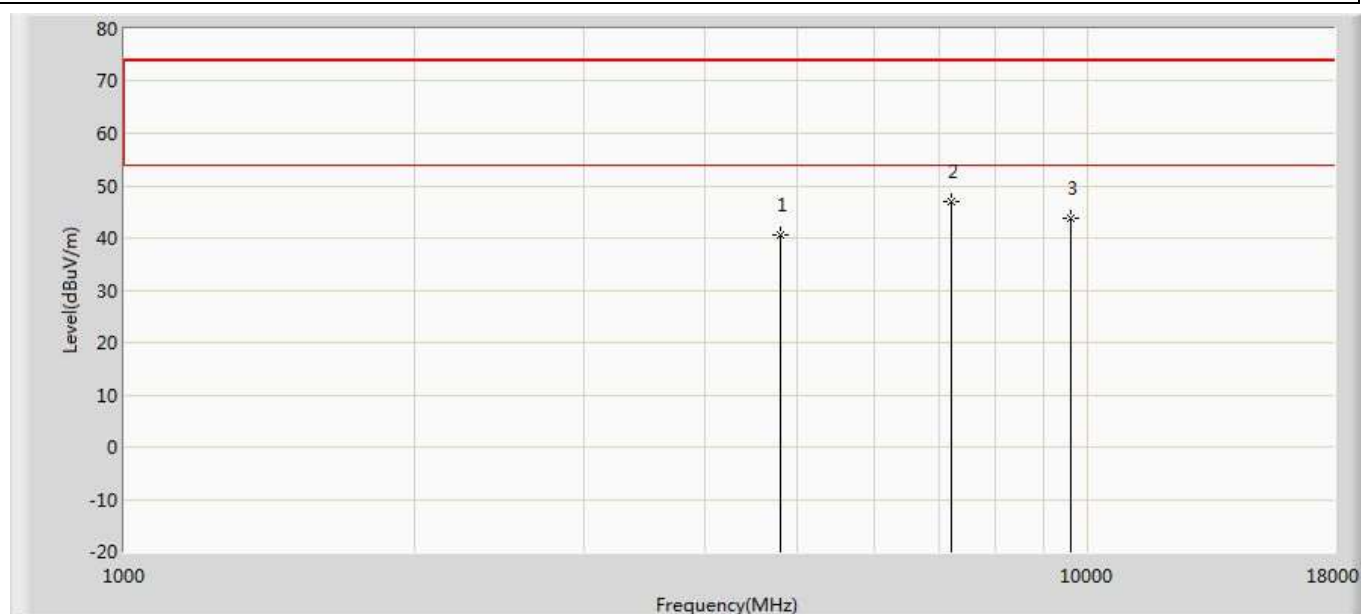
4.5. EUT test Axis definition

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

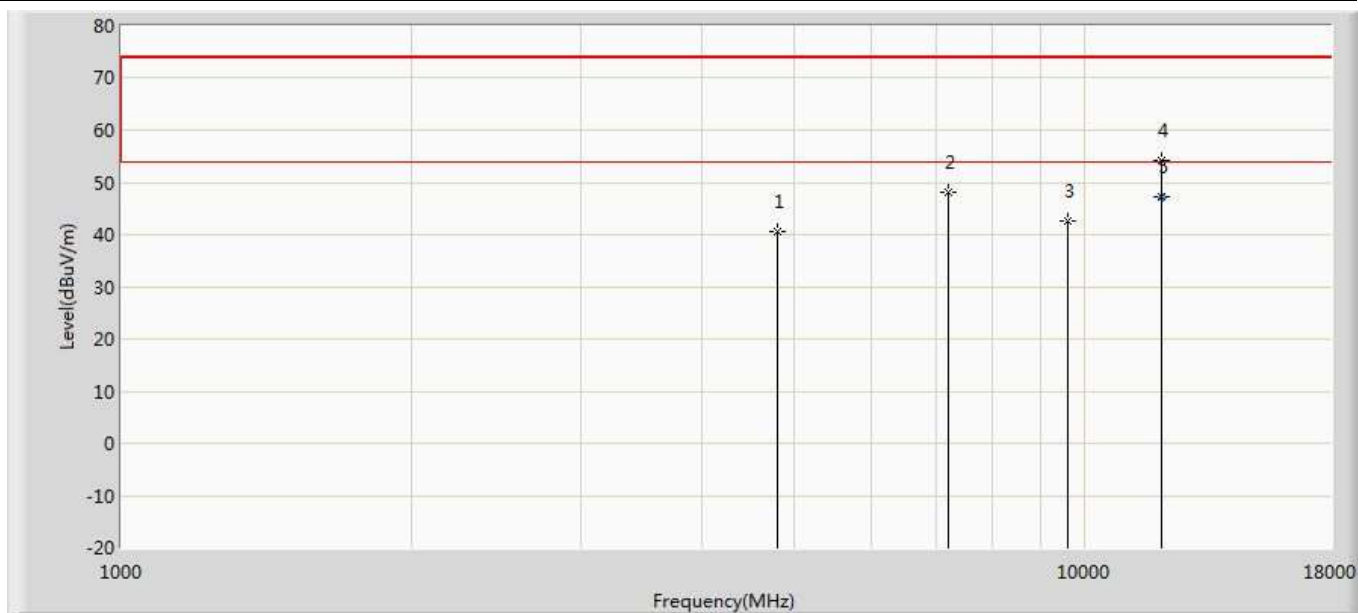
Muruta:

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:18
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	



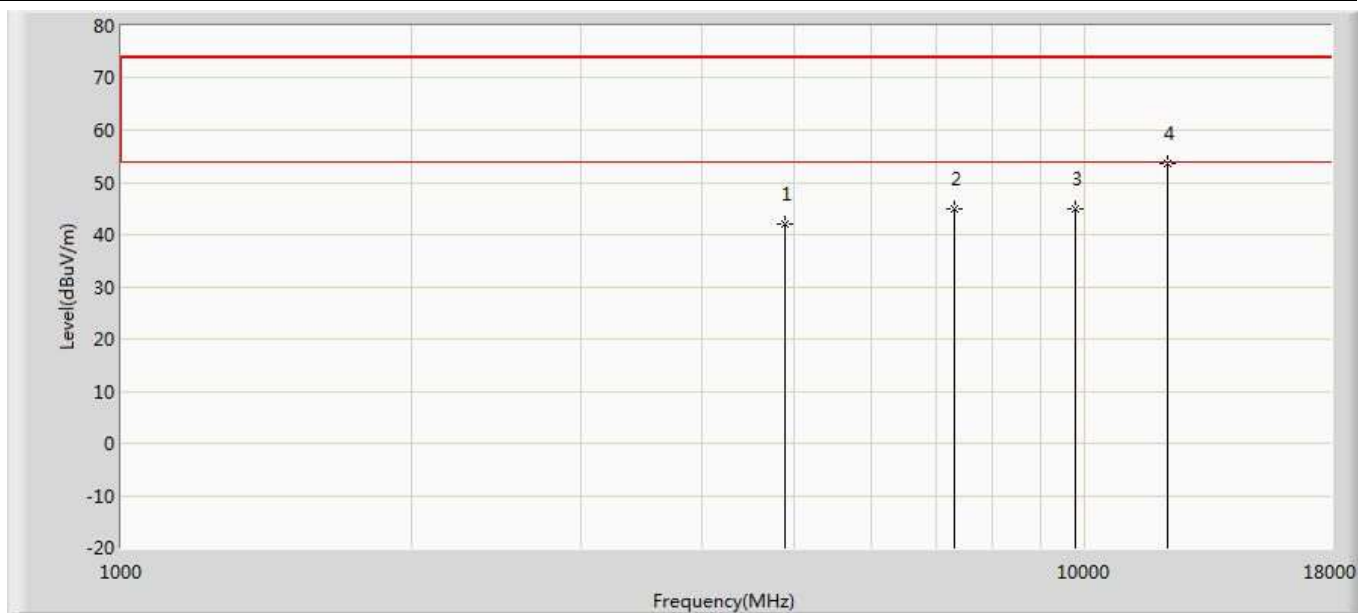
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.686	36.169	-33.314	74.000	4.517	PK
2	*	7206.000	46.977	39.430	-27.023	74.000	7.547	PK
3		9608.000	43.656	34.474	-30.344	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:18
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 1:Transmit at 2402MHz by LE_1Mbps	



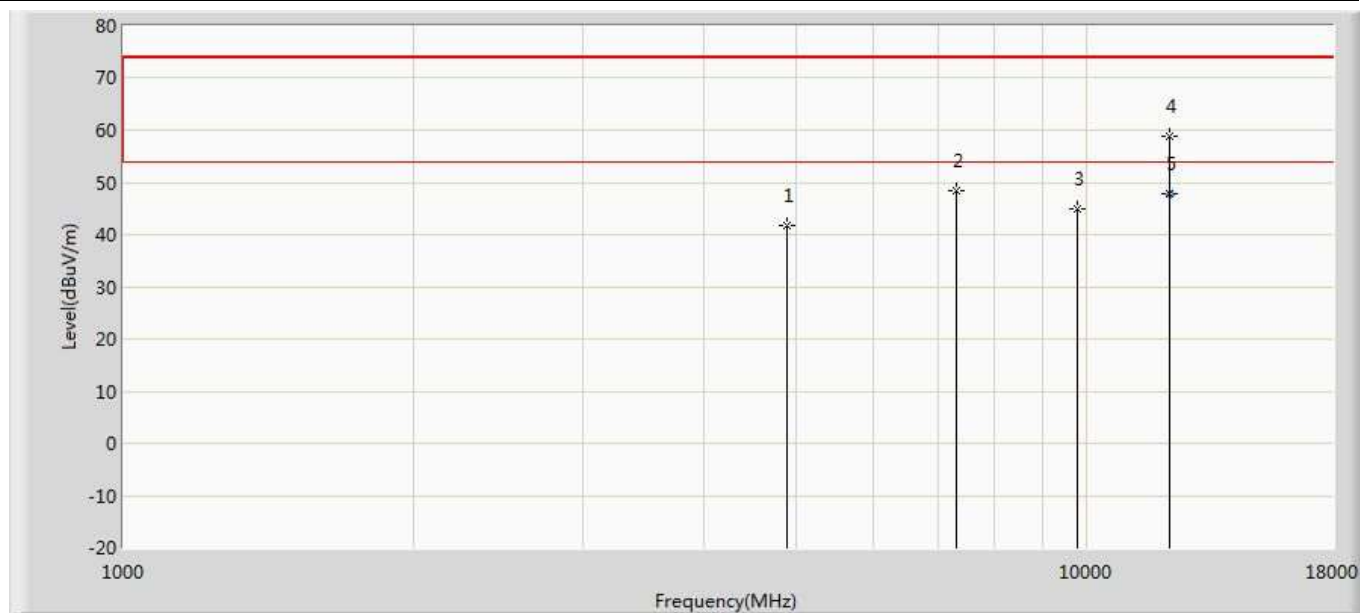
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.524	36.007	-33.476	74.000	4.517	PK
2		7206.000	48.127	40.580	-25.873	74.000	7.547	PK
3		9608.000	42.582	33.400	-31.418	74.000	9.182	PK
4		12010.000	54.058	39.505	-19.942	74.000	14.553	PK
5	*	12010.000	47.318	32.765	-6.682	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 1:Transmit at 2440MHz by LE_1Mbps	



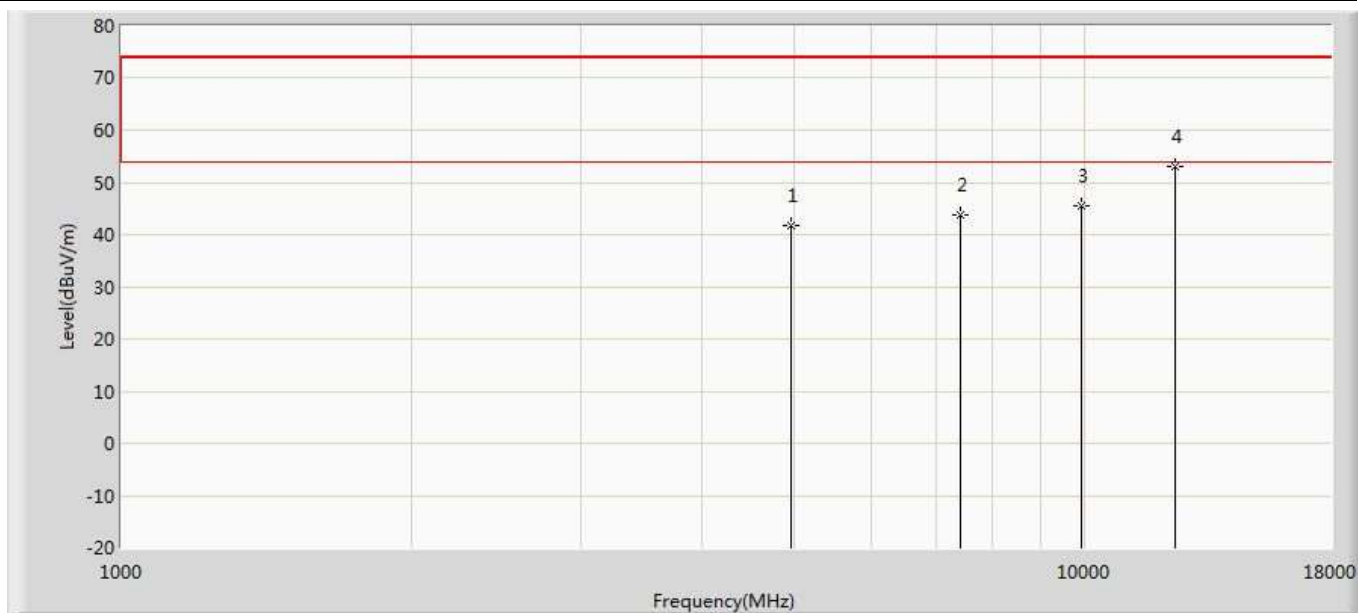
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.018	37.232	-31.982	74.000	4.786	PK
2		7320.000	44.940	37.278	-29.060	74.000	7.663	PK
3		9760.000	44.942	35.082	-29.058	74.000	9.860	PK
4	*	12200.000	53.594	38.242	-20.406	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 1:Transmit at 2440MHz by LE_1Mbps	



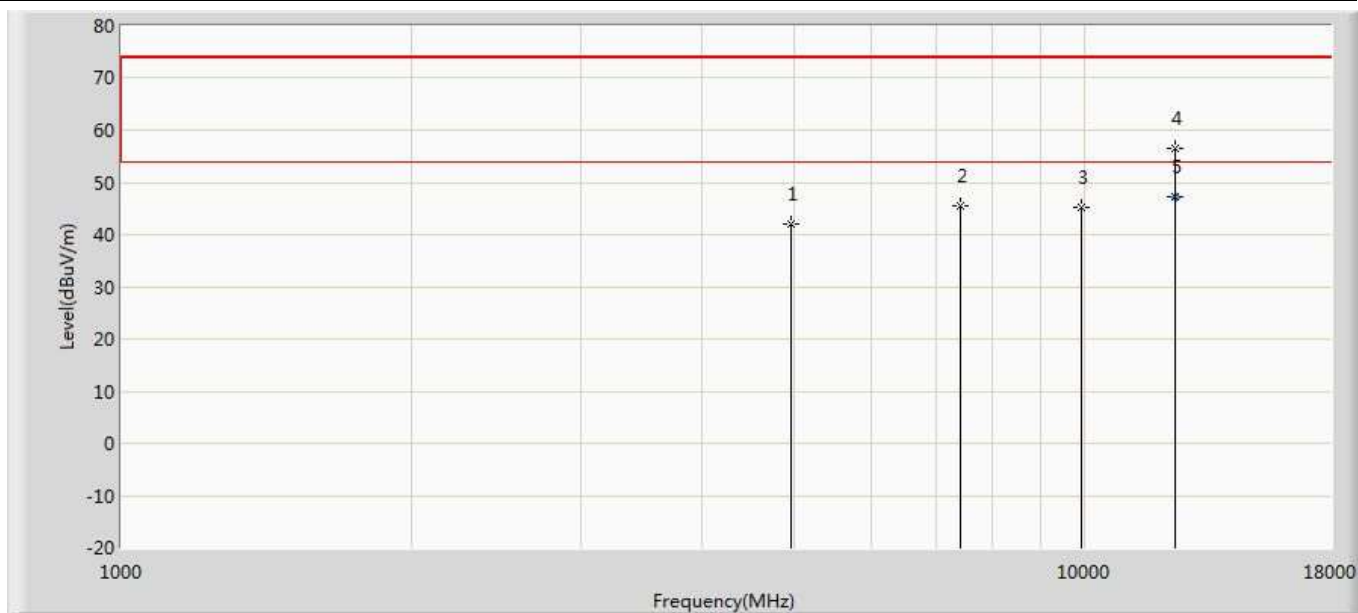
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.633	36.847	-32.367	74.000	4.786	PK
2		7320.000	48.324	40.662	-25.676	74.000	7.663	PK
3		9760.000	45.072	35.212	-28.928	74.000	9.860	PK
4		12200.000	58.827	43.475	-15.173	74.000	15.351	PK
5	*	12200.000	47.939	32.587	-6.061	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 1:Transmit at 2480MHz by LE_1Mbps	



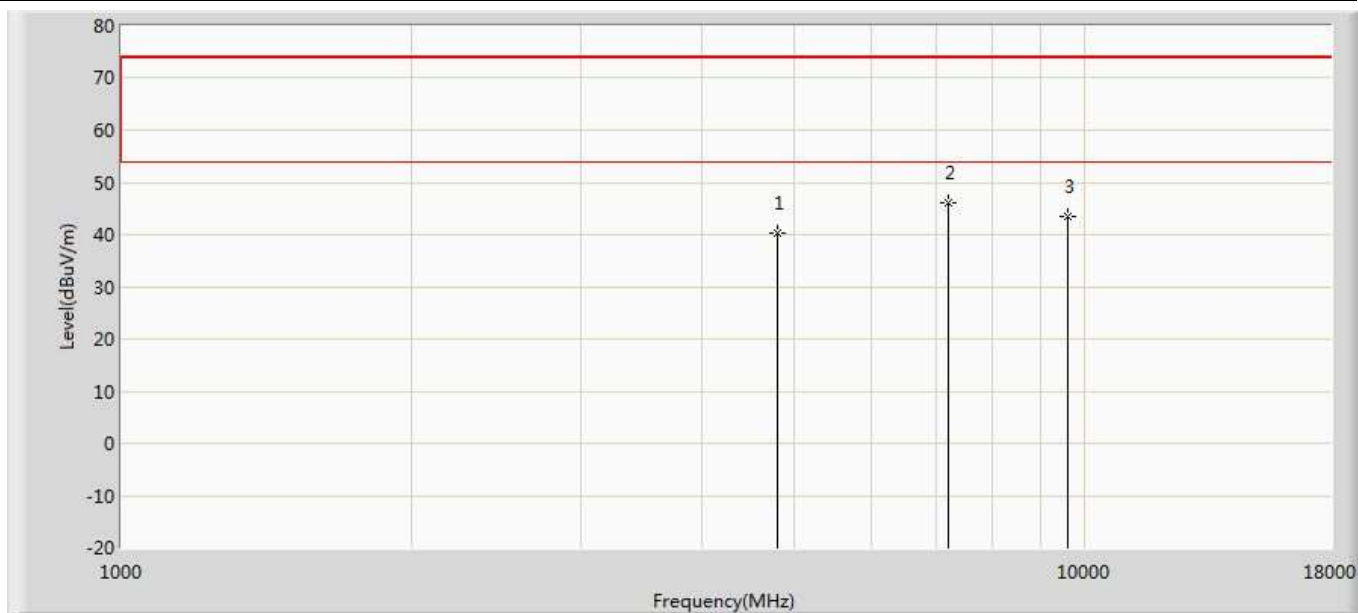
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.738	36.818	-32.262	74.000	4.920	PK
2		7440.000	43.912	36.197	-30.088	74.000	7.715	PK
3		9920.000	45.366	35.419	-28.634	74.000	9.946	PK
4	*	12400.000	52.961	36.962	-21.039	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 1:Transmit at 2480MHz by LE_1Mbps	



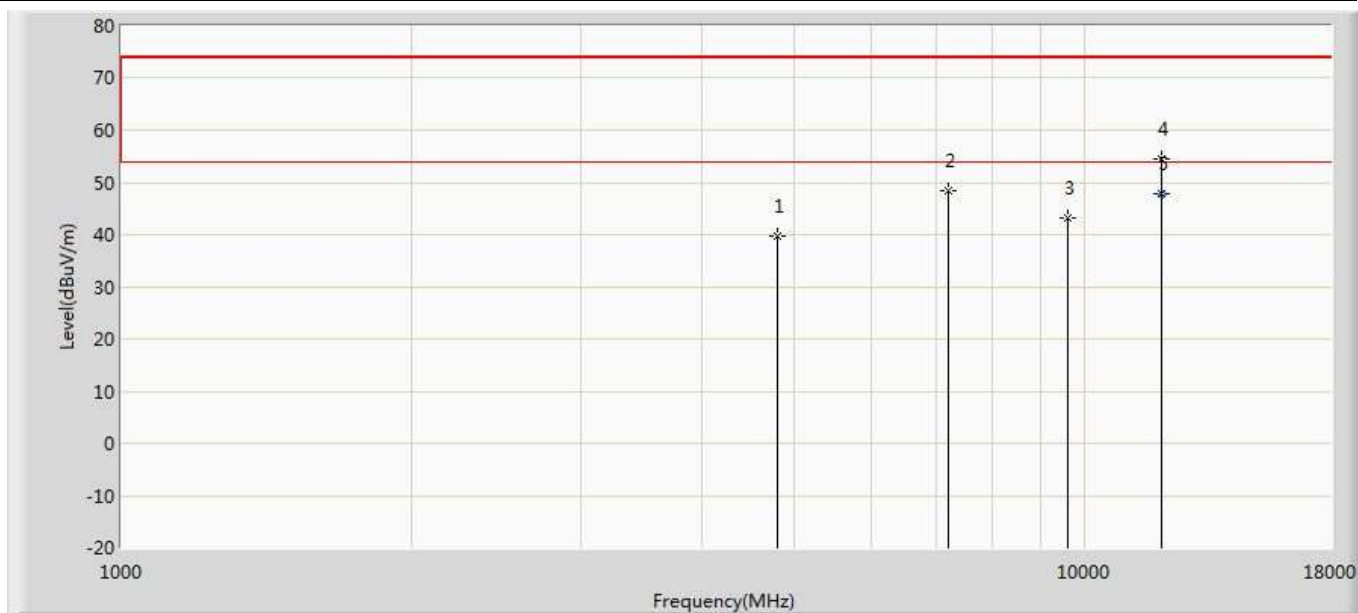
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.942	37.022	-32.058	74.000	4.920	PK
2		7440.000	45.424	37.709	-28.576	74.000	7.715	PK
3		9920.000	45.265	35.318	-28.735	74.000	9.946	PK
4		12400.000	56.512	40.513	-17.488	74.000	15.999	PK
5	*	12400.000	47.362	31.363	-6.638	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:18
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	



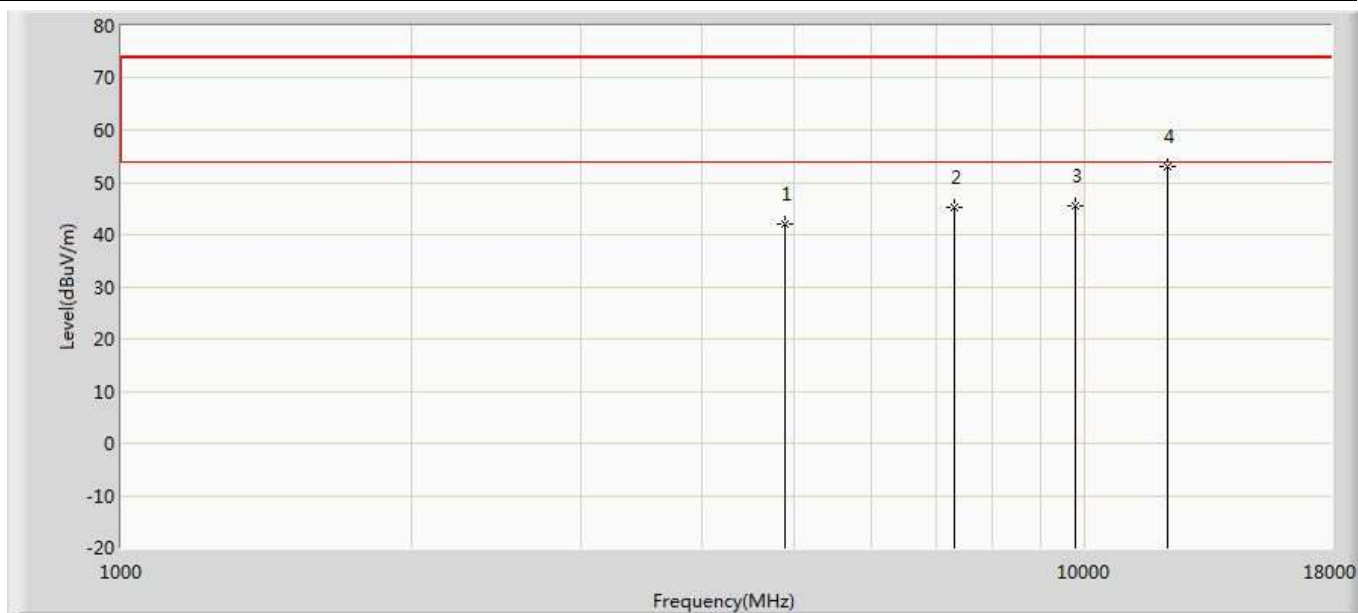
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.361	35.844	-33.639	74.000	4.517	PK
2	*	7206.000	45.944	38.397	-28.056	74.000	7.547	PK
3		9608.000	43.448	34.266	-30.552	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:18
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	



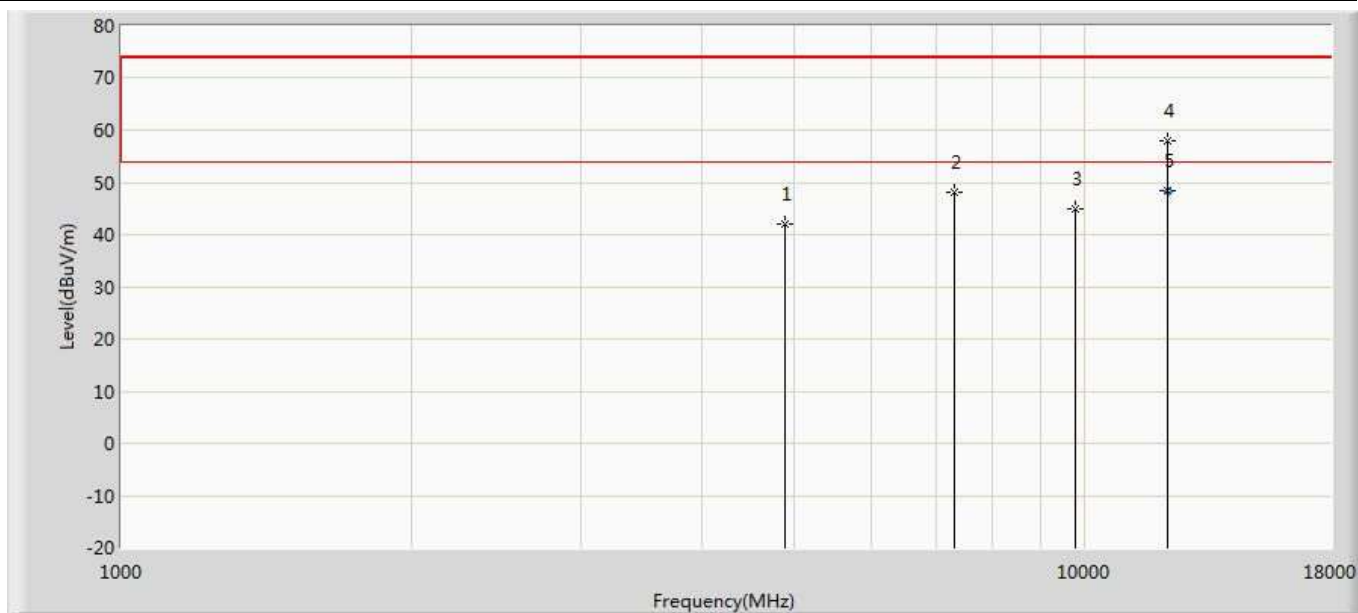
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	39.635	35.118	-34.365	74.000	4.517	PK
2		7206.000	48.346	40.799	-25.654	74.000	7.547	PK
3		9608.000	43.067	33.885	-30.933	74.000	9.182	PK
4		12010.000	54.348	39.795	-19.652	74.000	14.553	PK
5	*	12010.000	47.932	33.379	-6.068	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 2440MHz by LE_2Mbps	



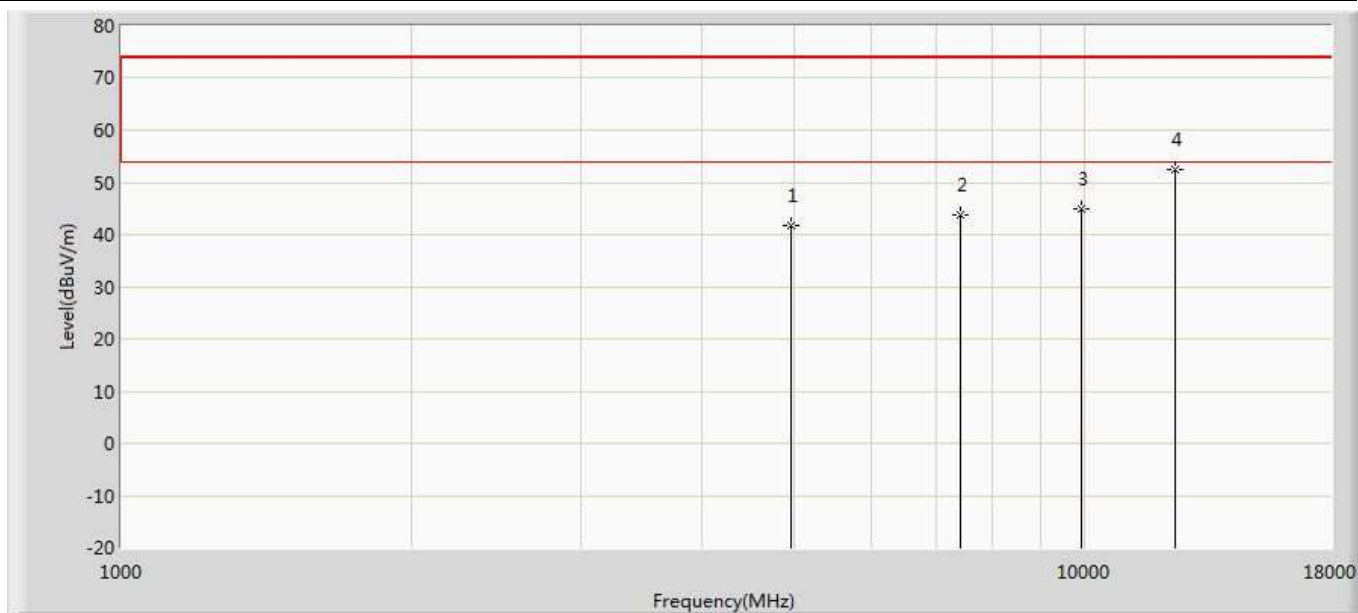
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.107	37.321	-31.893	74.000	4.786	PK
2		7320.000	45.282	37.620	-28.718	74.000	7.663	PK
3		9760.000	45.481	35.621	-28.519	74.000	9.860	PK
4	*	12200.000	52.937	37.585	-21.063	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 2:Transmit at 2440MHz by LE_2Mbps	



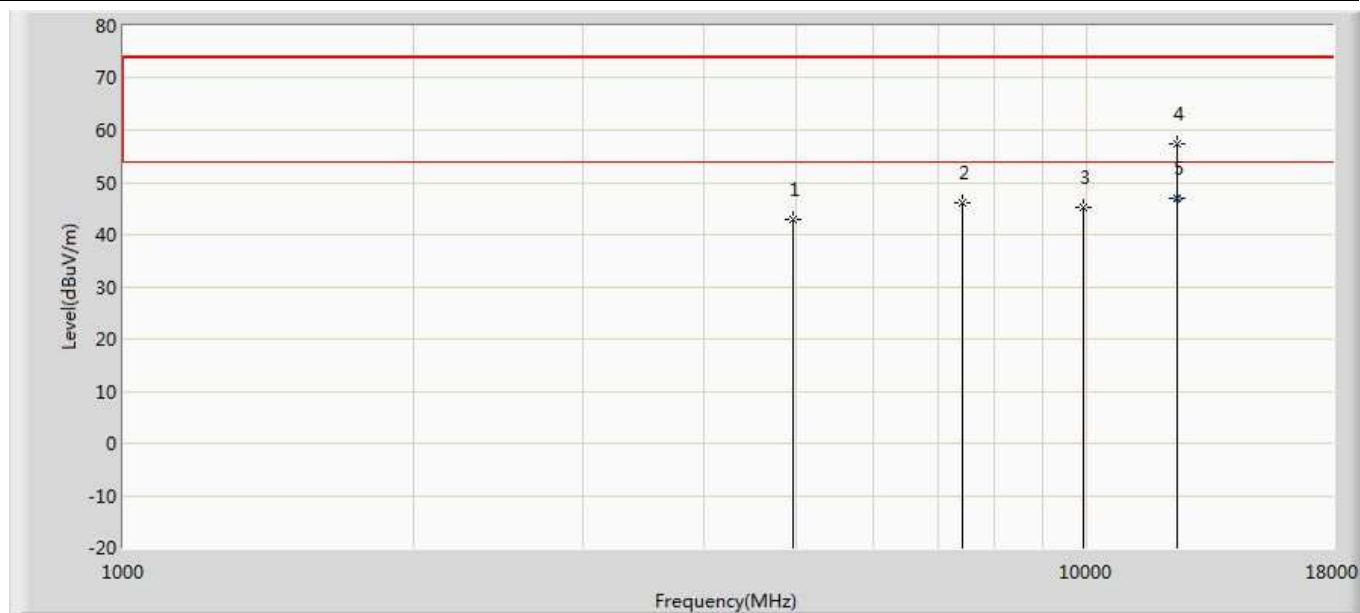
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.060	37.274	-31.940	74.000	4.786	PK
2		7320.000	48.025	40.363	-25.975	74.000	7.663	PK
3		9760.000	44.925	35.065	-29.075	74.000	9.860	PK
4		12200.000	57.903	42.551	-16.097	74.000	15.351	PK
5	*	12200.000	48.264	32.912	-5.736	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:20
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 2:Transmit at 2480MHz by LE_2Mbps	



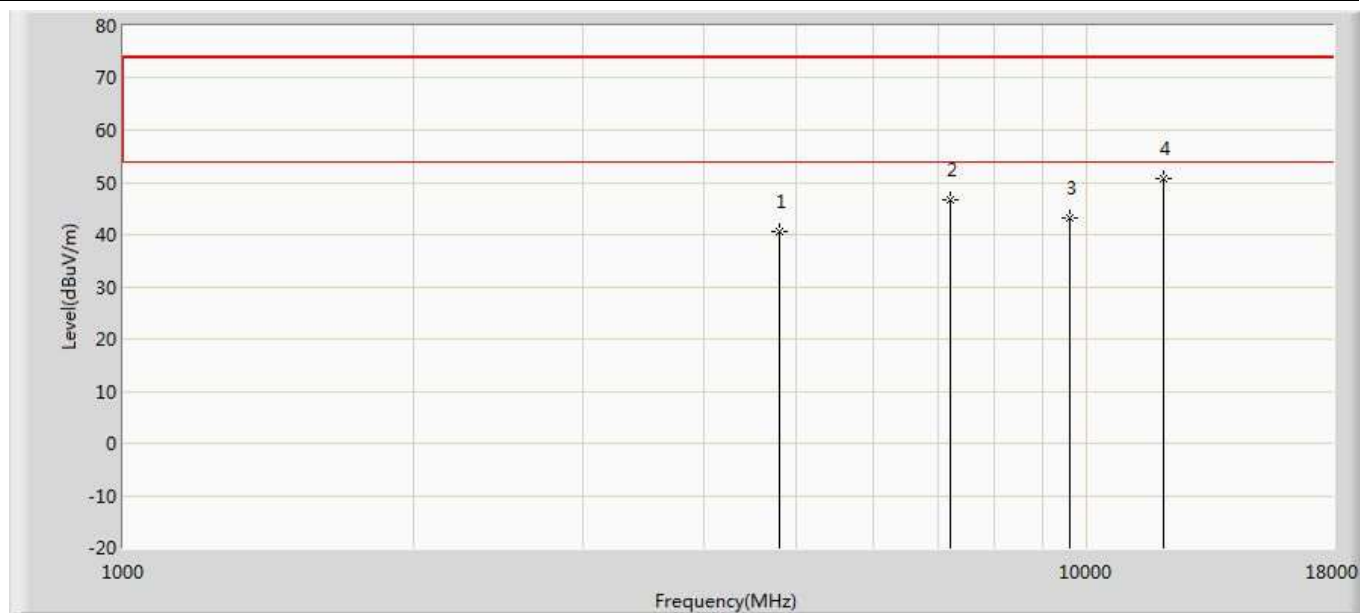
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.752	36.832	-32.248	74.000	4.920	PK
2		7440.000	43.864	36.149	-30.136	74.000	7.715	PK
3		9920.000	44.925	34.978	-29.075	74.000	9.946	PK
4	*	12400.000	52.413	36.414	-21.587	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:20
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	



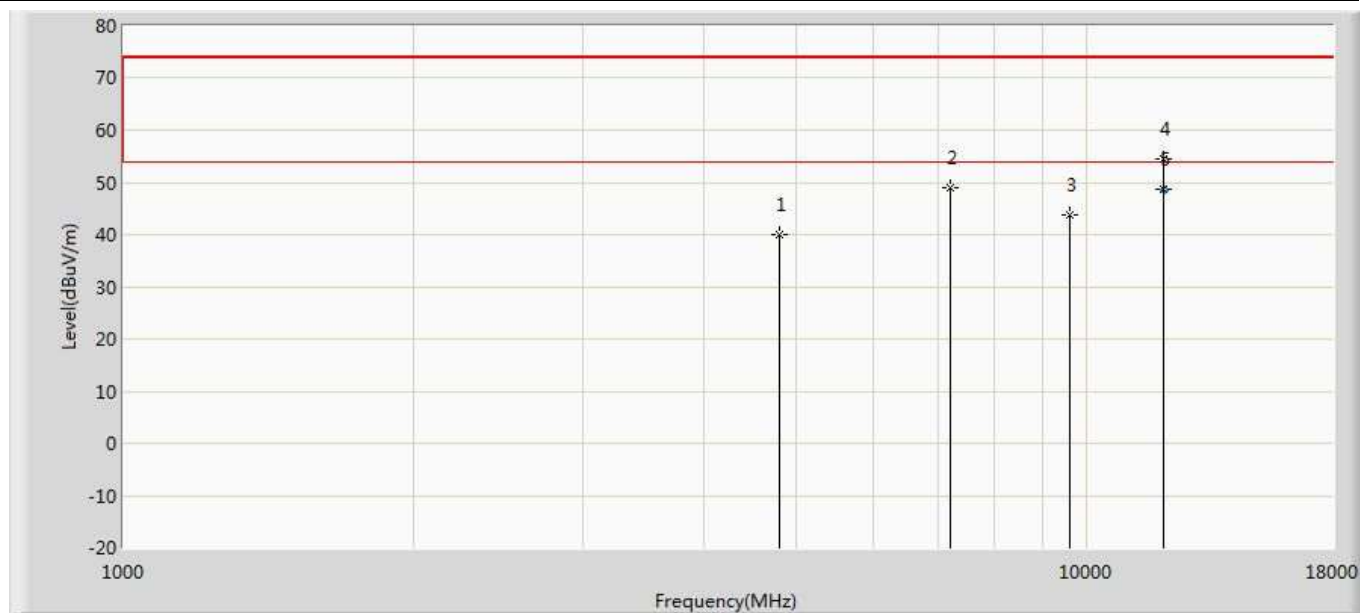
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.904	37.984	-31.096	74.000	4.920	PK
2		7440.000	46.187	38.472	-27.813	74.000	7.715	PK
3		9920.000	45.166	35.219	-28.834	74.000	9.946	PK
4		12400.000	57.340	41.341	-16.660	74.000	15.999	PK
5	*	12400.000	46.933	30.934	-7.067	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:18
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)	



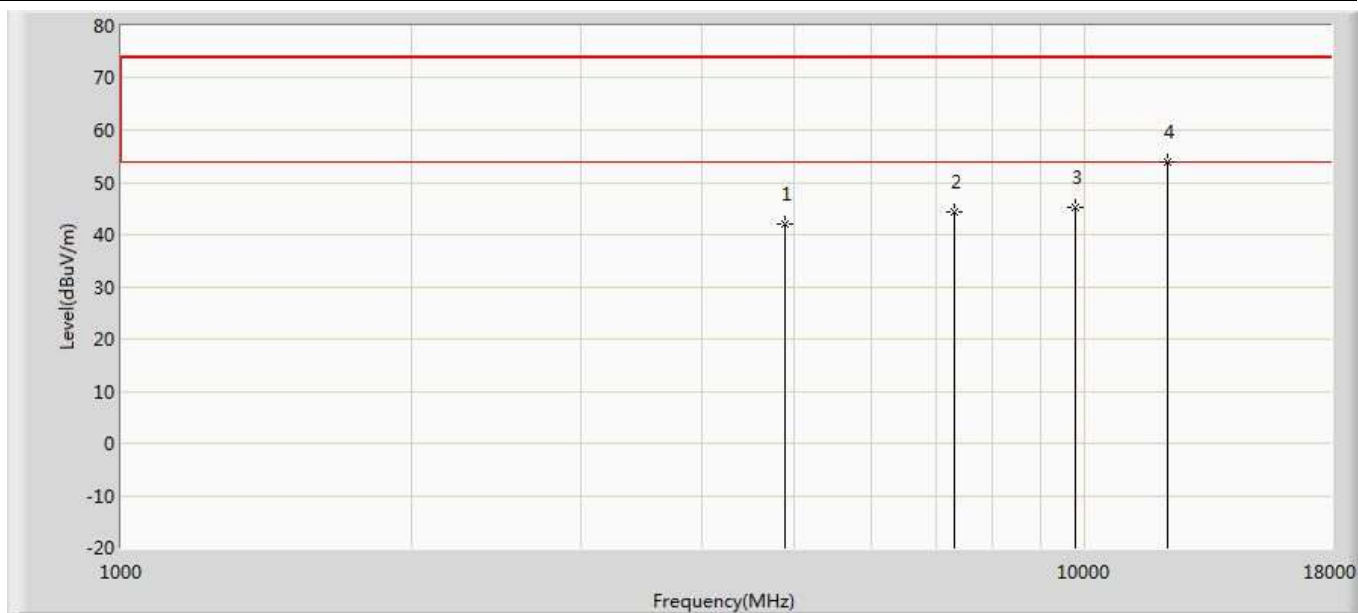
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.520	36.003	-33.480	74.000	4.517	PK
2		7206.000	46.675	39.128	-27.325	74.000	7.547	PK
3		9608.000	43.155	33.973	-30.845	74.000	9.182	PK
4	*	12010.000	50.672	36.119	-23.328	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:18
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 3:Transmit at 2402MHz by LE_Coded (S=2)	



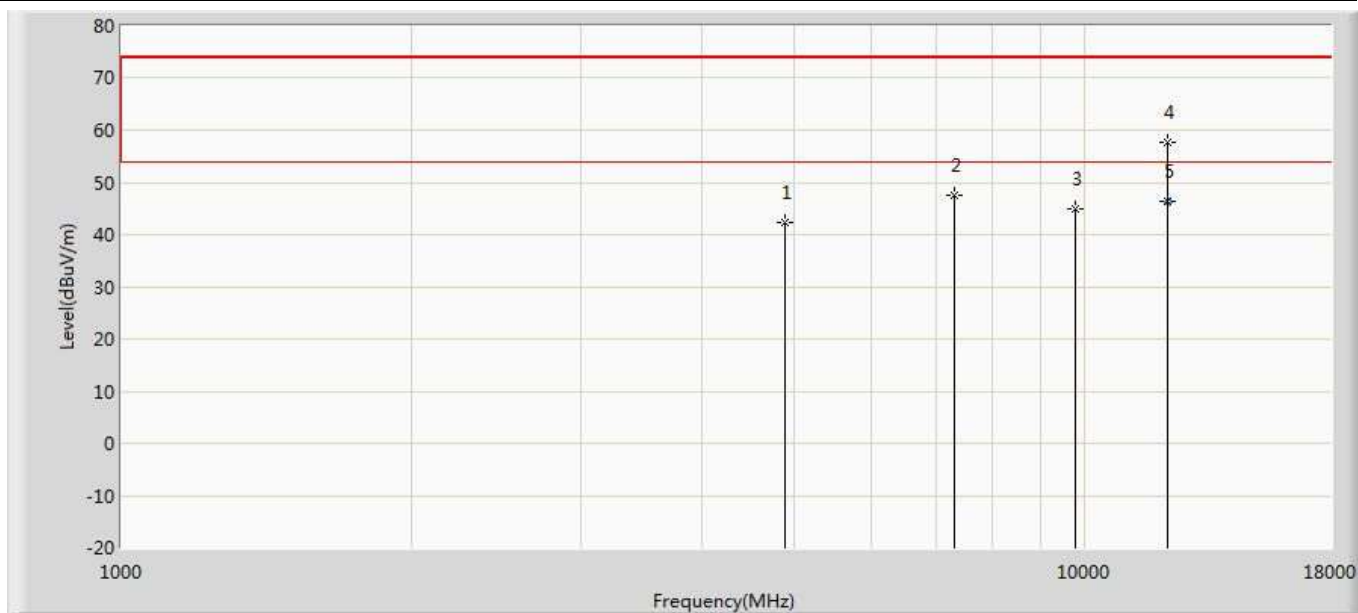
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.128	35.611	-33.872	74.000	4.517	PK
2		7206.000	48.850	41.303	-25.150	74.000	7.547	PK
3		9608.000	43.721	34.539	-30.279	74.000	9.182	PK
4		12010.000	54.396	39.843	-19.604	74.000	14.553	PK
5	*	12010.000	48.632	34.079	-5.368	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 3:Transmit at 2440MHz by LE_Coded (S=2)	



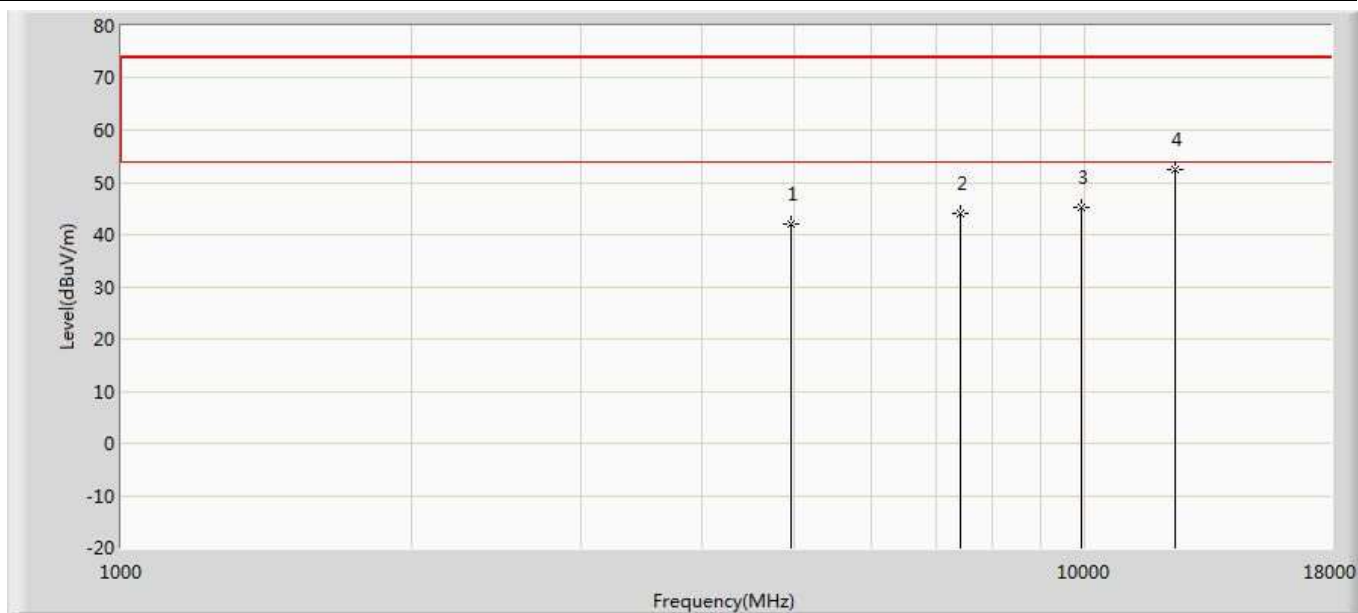
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.899	37.113	-32.101	74.000	4.786	PK
2		7320.000	44.454	36.792	-29.546	74.000	7.663	PK
3		9760.000	45.160	35.300	-28.840	74.000	9.860	PK
4	*	12200.000	53.872	38.520	-20.128	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 3:Transmit at 2440MHz by LE_Coded (S=2)	



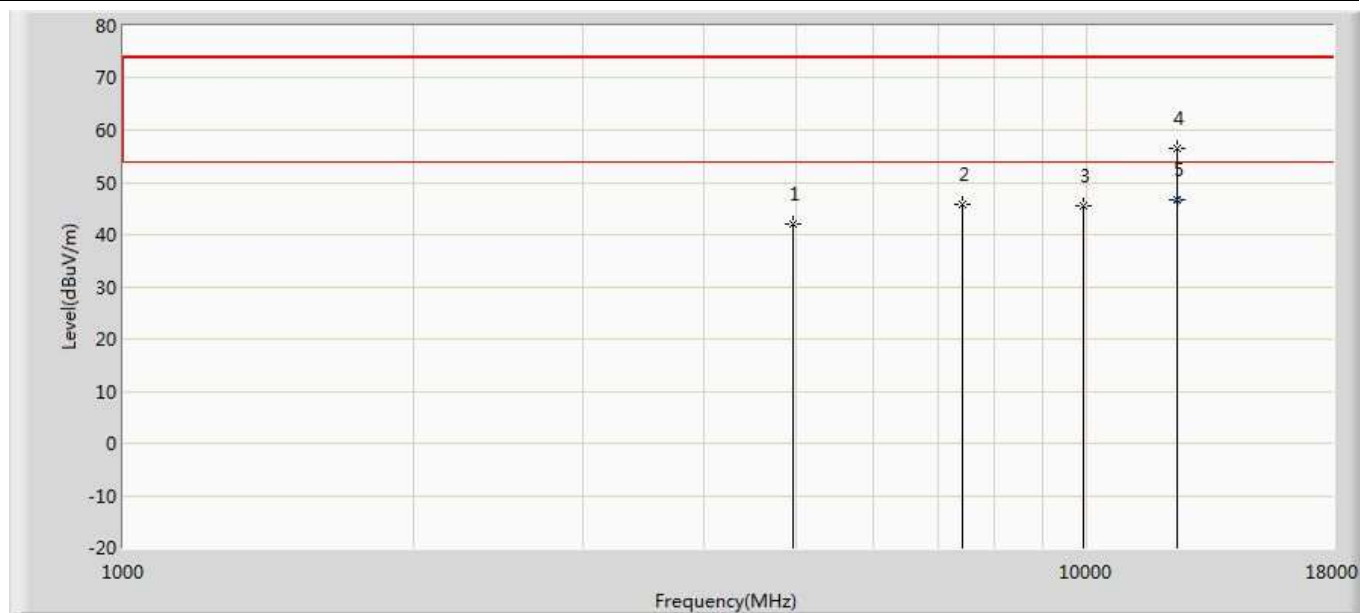
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.178	37.392	-31.822	74.000	4.786	PK
2		7320.000	47.475	39.813	-26.525	74.000	7.663	PK
3		9760.000	45.034	35.174	-28.966	74.000	9.860	PK
4		12200.000	57.696	42.344	-16.304	74.000	15.351	PK
5	*	12200.000	46.433	31.081	-7.567	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:20
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 3:Transmit at 2480MHz by LE_Coded (S=2)	



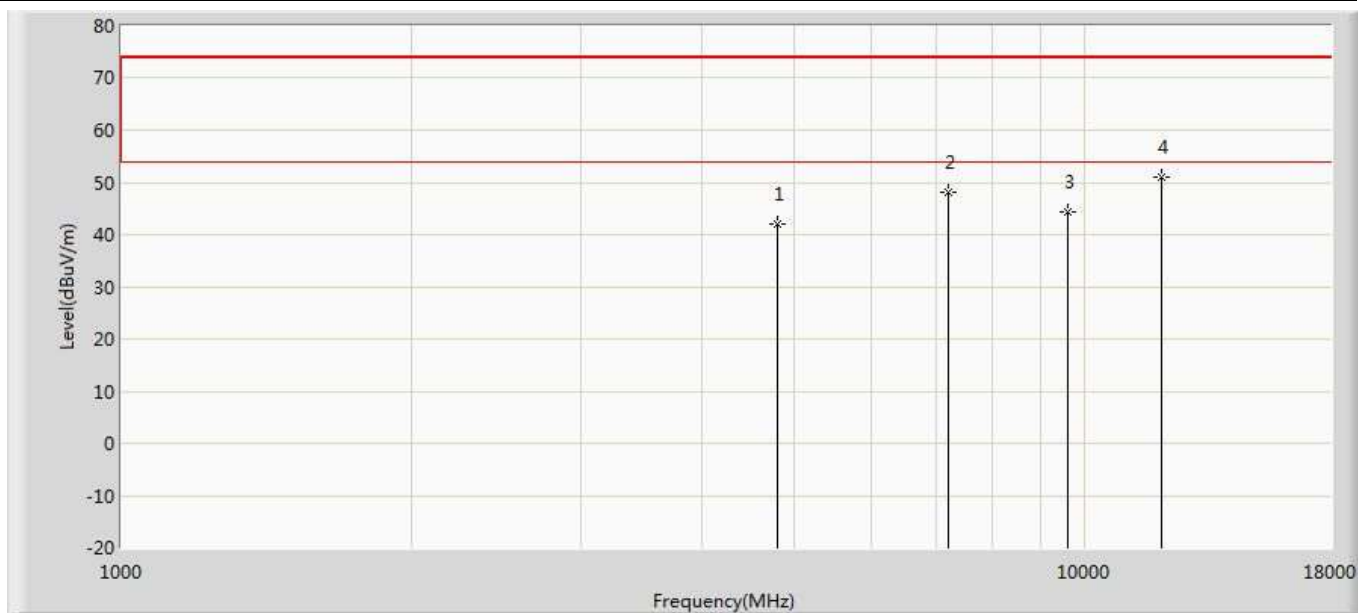
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1		4960.000	42.006	37.086	-31.994	74.000	4.920	PK
2		7440.000	43.924	36.209	-30.076	74.000	7.715	PK
3		9920.000	45.332	35.385	-28.668	74.000	9.946	PK
4	*	12400.000	52.599	36.600	-21.401	74.000	15.999	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:20
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)	



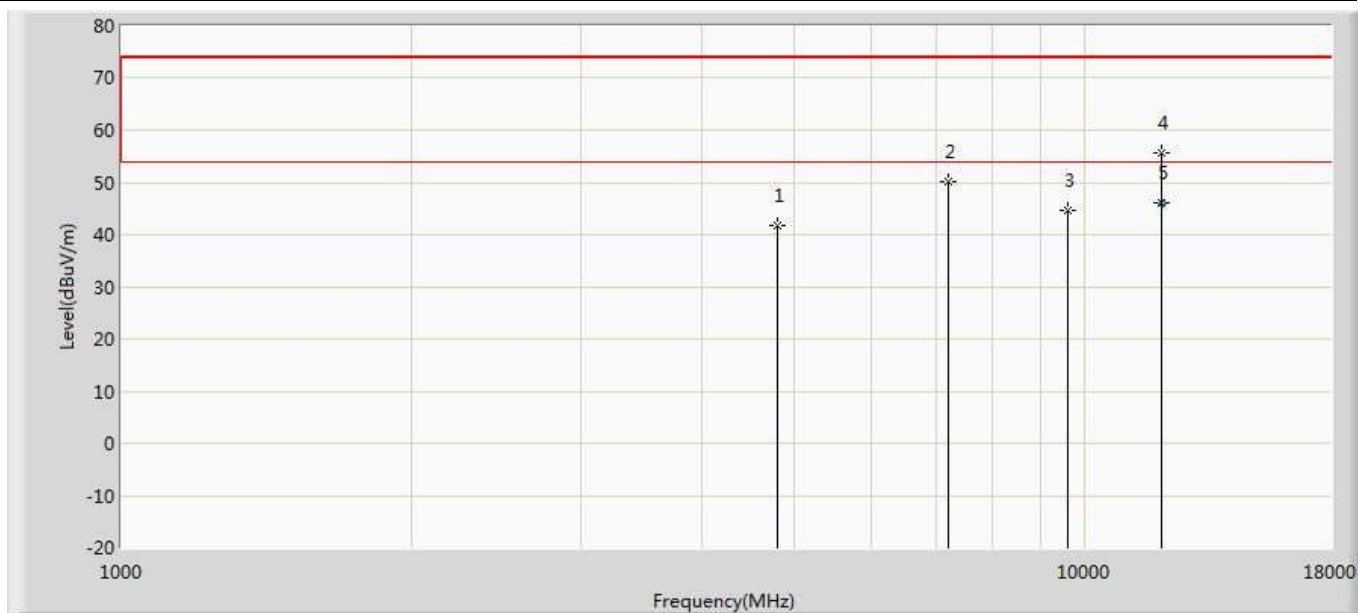
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.141	37.221	-31.859	74.000	4.920	PK
2		7440.000	45.843	38.128	-28.157	74.000	7.715	PK
3		9920.000	45.422	35.475	-28.578	74.000	9.946	PK
4		12400.000	56.526	40.527	-17.474	74.000	15.999	PK
5	*	12400.000	46.740	30.741	-7.260	54.000	15.999	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 4:Transmit at 2402MHz by LE_Coded (S=8)	



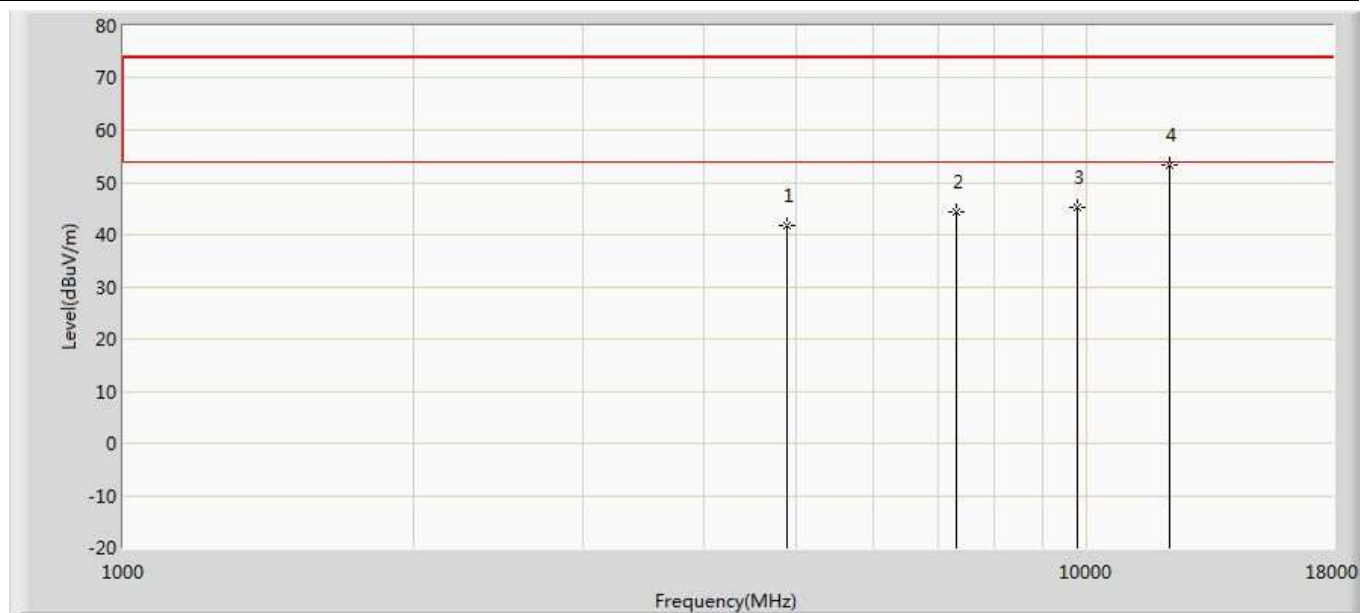
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.947	37.430	-32.053	74.000	4.517	PK
2		7206.000	48.081	40.534	-25.919	74.000	7.547	PK
3		9608.000	44.457	35.275	-29.543	74.000	9.182	PK
4	*	12010.000	51.035	36.482	-22.965	74.000	14.553	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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)	



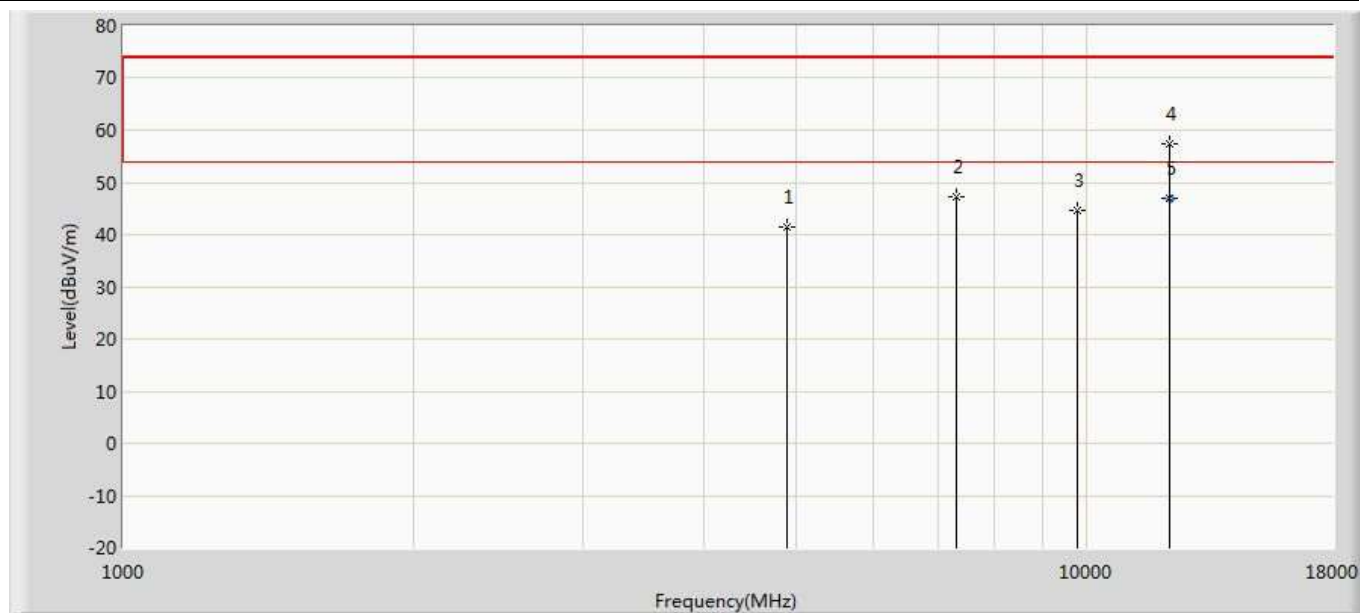
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.811	37.294	-32.189	74.000	4.517	PK
2		7206.000	50.043	42.496	-23.957	74.000	7.547	PK
3		9608.000	44.499	35.317	-29.501	74.000	9.182	PK
4		12010.000	55.761	41.208	-18.239	74.000	14.553	PK
5	*	12010.000	46.153	31.600	-7.847	54.000	14.553	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 4:Transmit at 2440MHz by LE_Coded (S=8)	



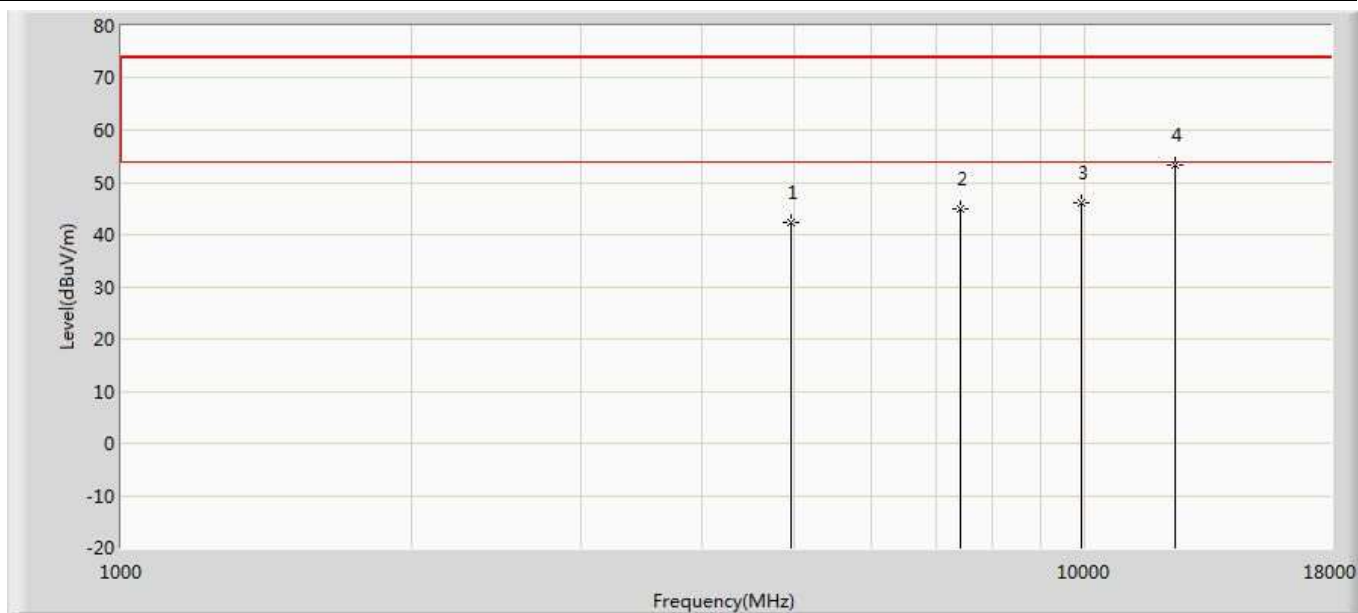
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.634	36.848	-32.366	74.000	4.786	PK
2		7320.000	44.286	36.624	-29.714	74.000	7.663	PK
3		9760.000	45.230	35.370	-28.770	74.000	9.860	PK
4	*	12200.000	53.463	38.111	-20.537	74.000	15.351	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:19
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 2440MHz by LE_Coded (S=8)	



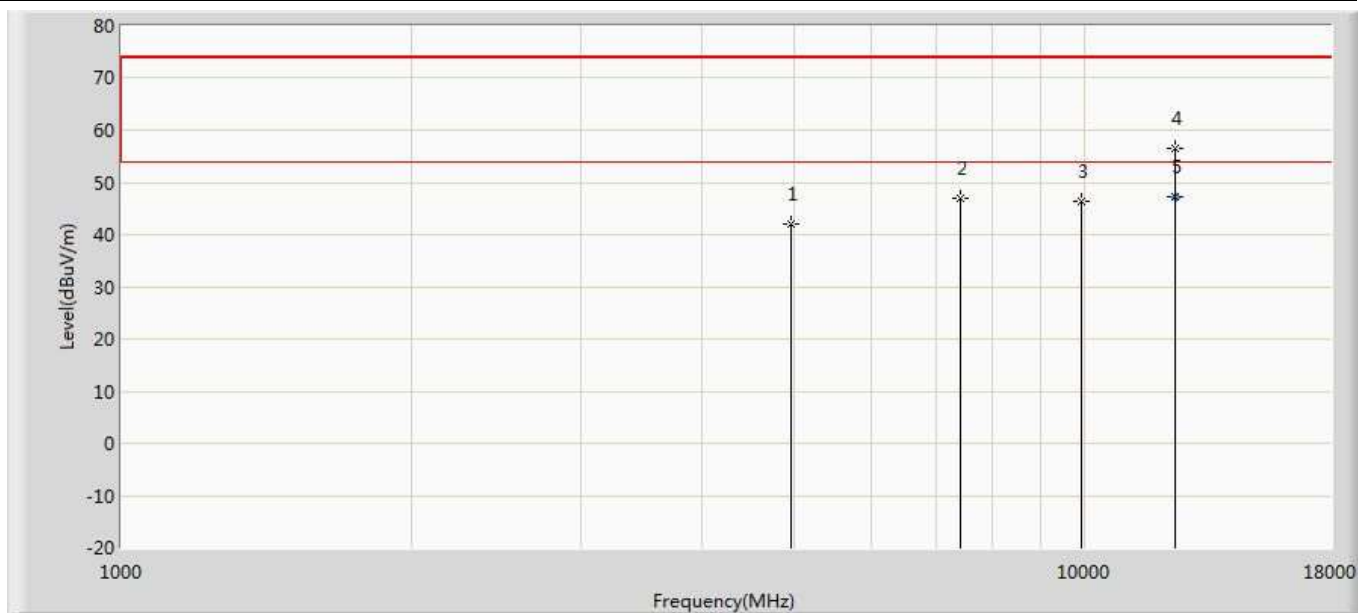
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.505	36.719	-32.495	74.000	4.786	PK
2		7320.000	47.308	39.646	-26.692	74.000	7.663	PK
3		9760.000	44.771	34.911	-29.229	74.000	9.860	PK
4		12200.000	57.428	42.076	-16.572	74.000	15.351	PK
5	*	12200.000	47.008	31.656	-6.992	54.000	15.351	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:20
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 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	42.239	37.319	-31.761	74.000	4.920	PK
2		7440.000	44.838	37.123	-29.162	74.000	7.715	PK
3		9920.000	45.978	36.031	-28.022	74.000	9.946	PK
4	*	12400.000	53.451	37.452	-20.549	74.000	15.999	PK

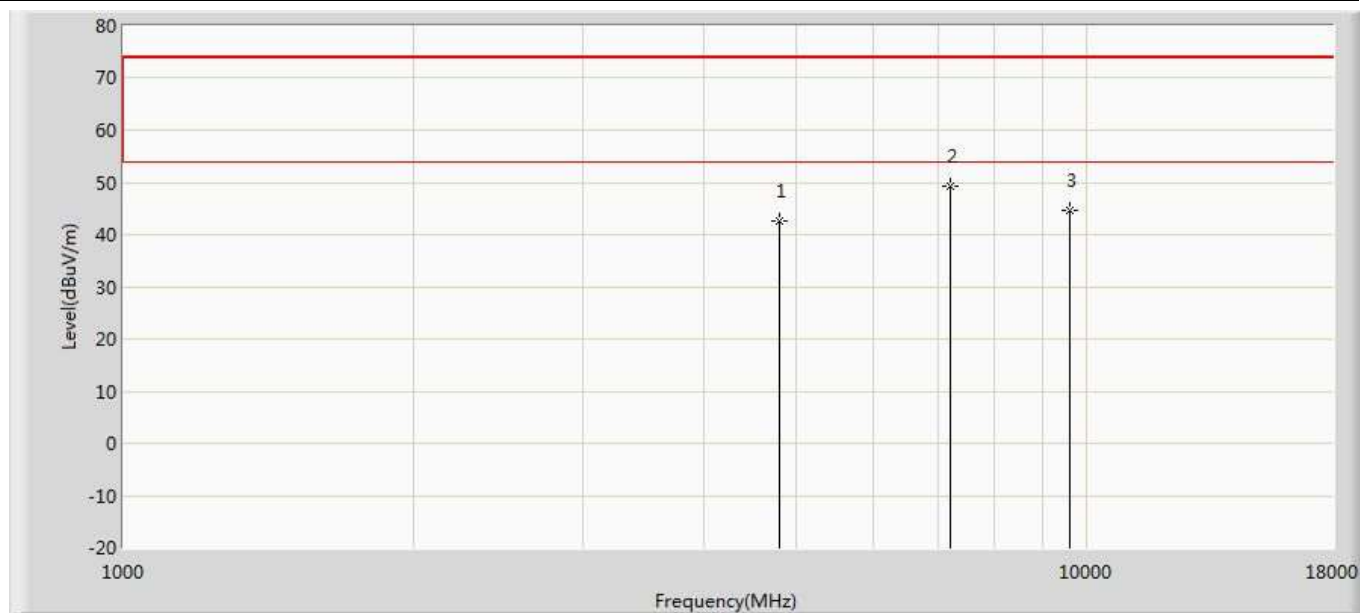
Engineer: Tongben	
Site: AC5	Time: 2019/08/20 - 19:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.144	37.224	-31.856	74.000	4.920	PK
2		7440.000	46.903	39.188	-27.097	74.000	7.715	PK
3		9920.000	46.387	36.440	-27.613	74.000	9.946	PK
4		12400.000	56.573	40.574	-17.427	74.000	15.999	PK
5	*	12400.000	47.284	31.285	-6.716	54.000	15.999	AV

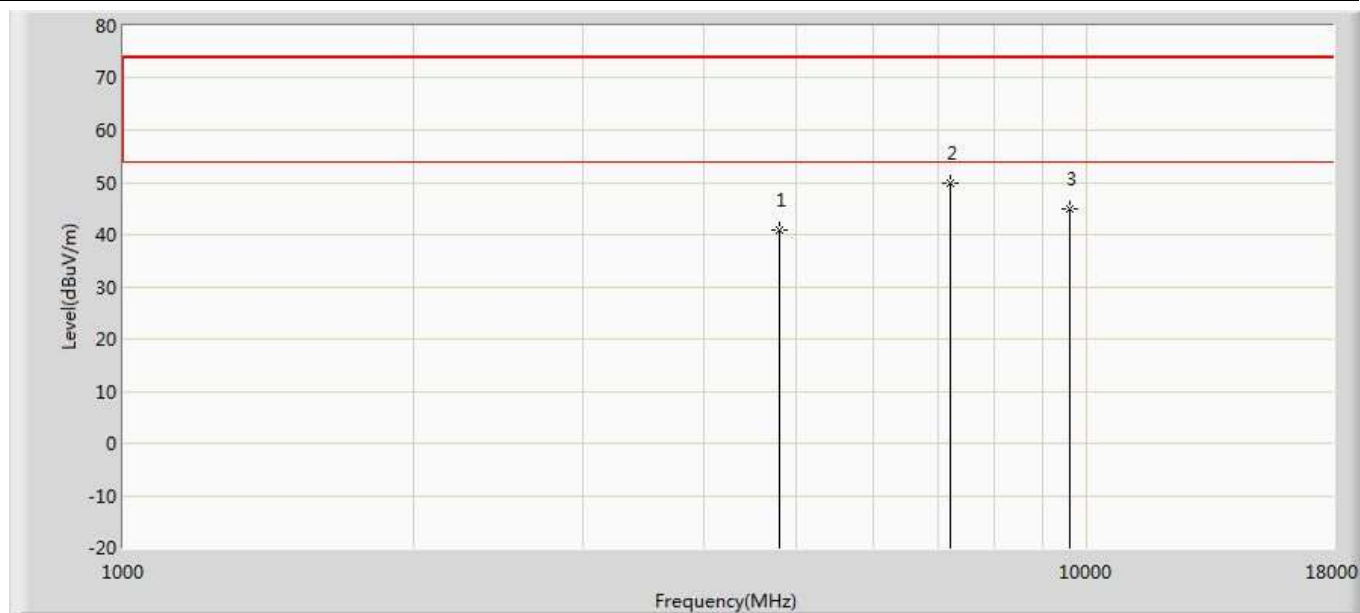
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Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



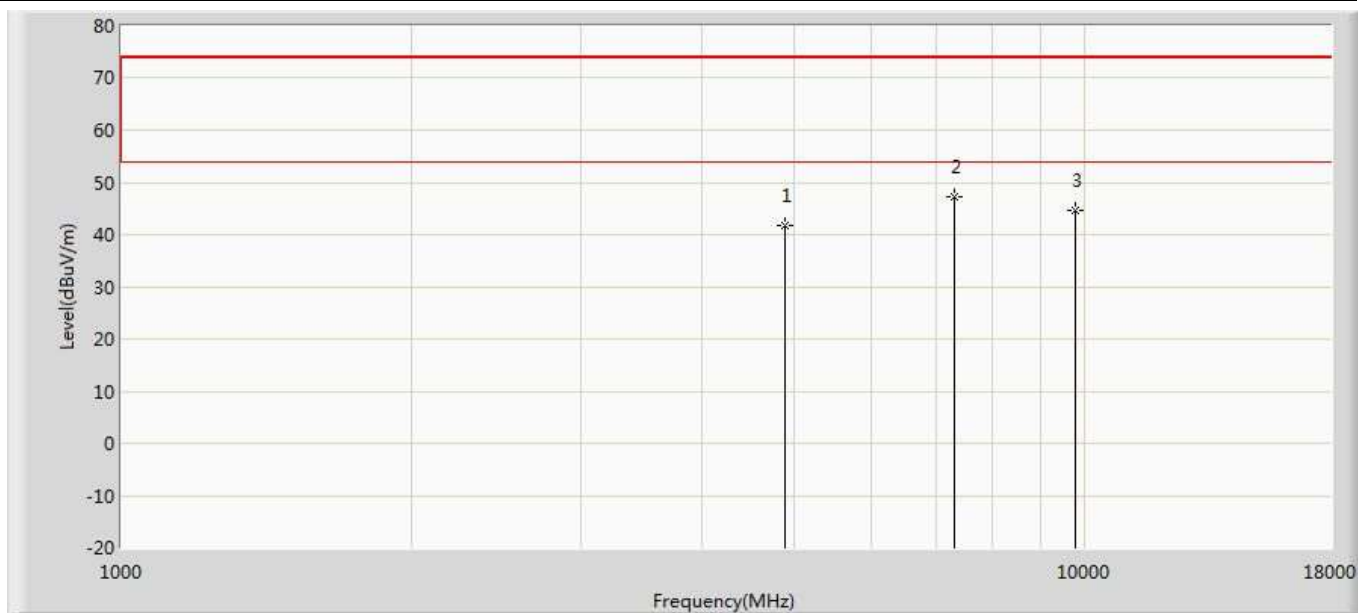
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.703	38.186	-31.297	74.000	4.517	PK
2	*	7206.000	49.232	41.685	-24.768	74.000	7.547	PK
3		9608.000	44.550	35.368	-29.450	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:21
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 1:Transmit at 2402MHz by LE_1Mbps	



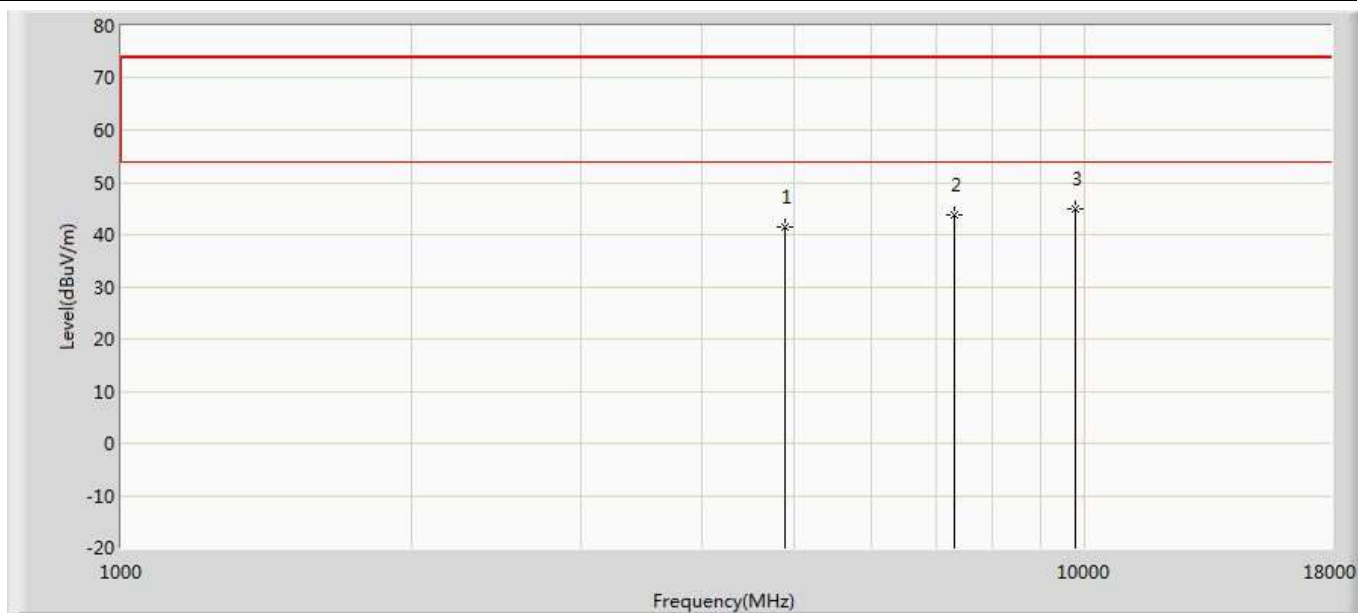
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.993	36.476	-33.007	74.000	4.517	PK
2	*	7206.000	49.852	42.305	-24.148	74.000	7.547	PK
3		9608.000	44.823	35.641	-29.177	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:21
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	



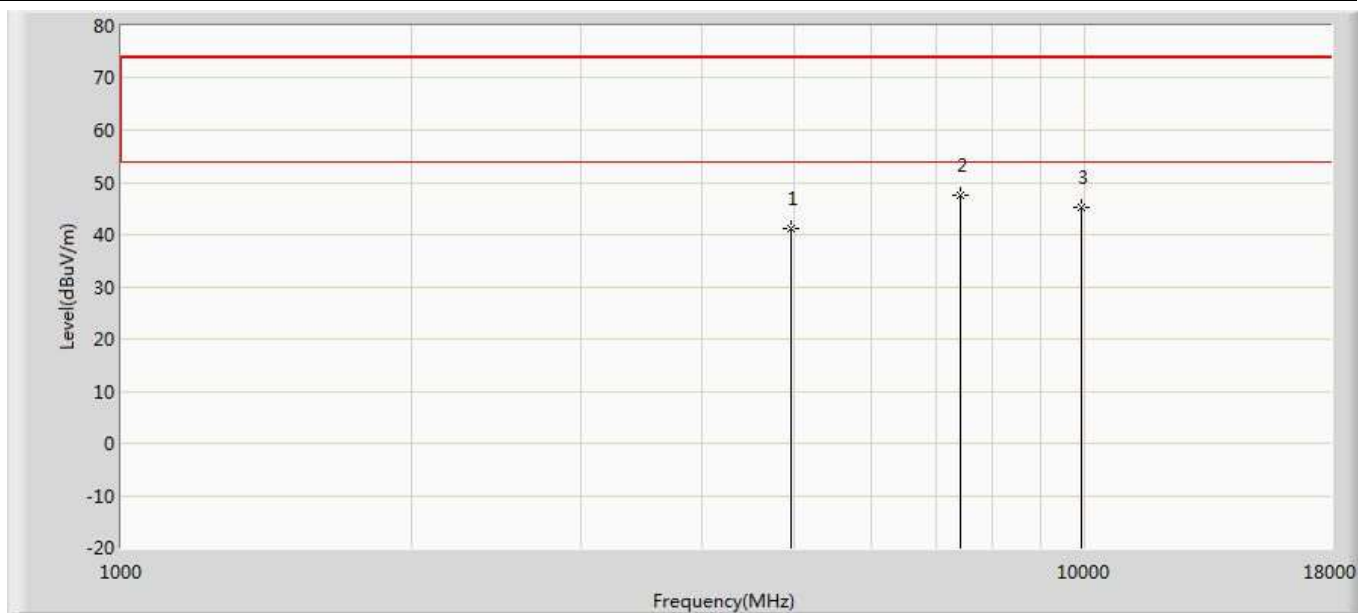
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.729	36.943	-32.271	74.000	4.786	PK
2	*	7320.000	47.204	39.542	-26.796	74.000	7.663	PK
3		9760.000	44.591	34.731	-29.409	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:21
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 1:Transmit at 2440MHz by LE_1Mbps	



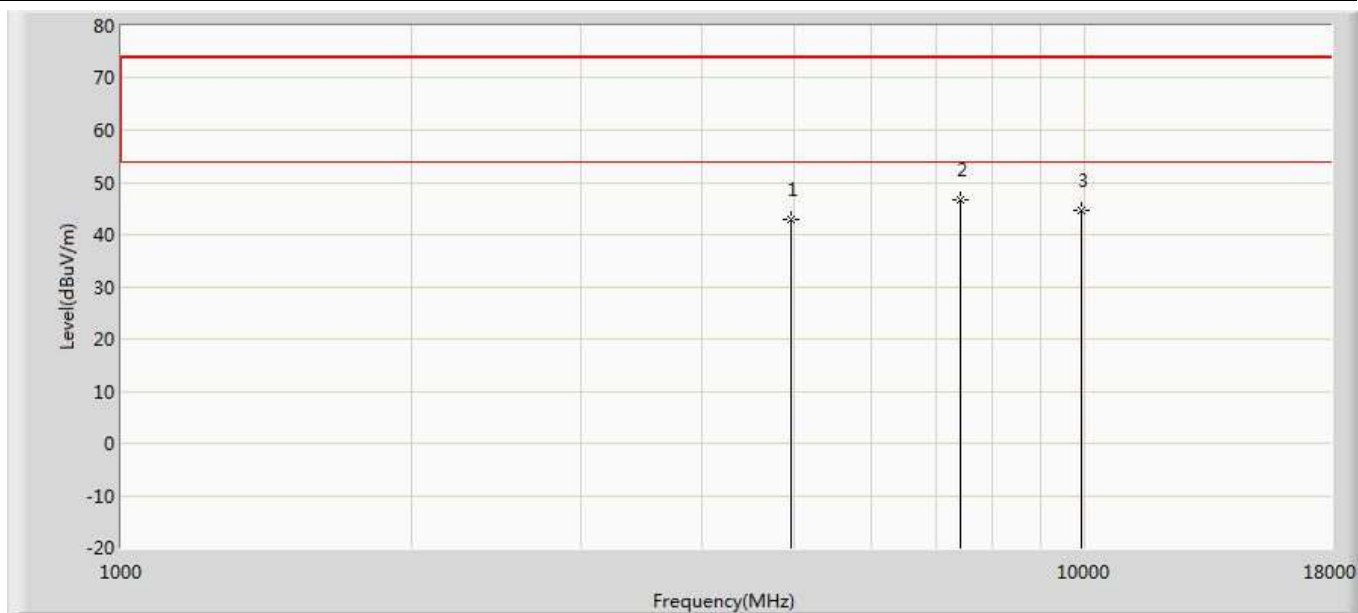
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.460	36.674	-32.540	74.000	4.786	PK
2		7320.000	43.727	36.065	-30.273	74.000	7.663	PK
3	*	9760.000	44.900	35.040	-29.100	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:21
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	



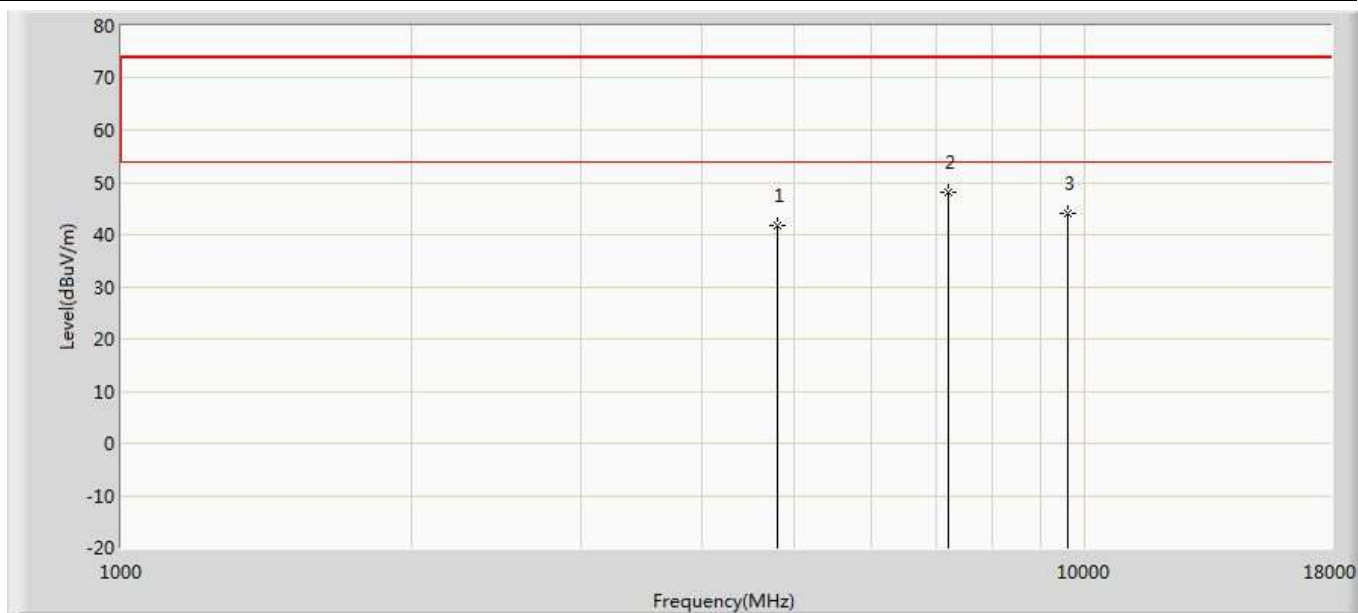
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.291	36.371	-32.709	74.000	4.920	PK
2	*	7440.000	47.462	39.747	-26.538	74.000	7.715	PK
3		9920.000	45.163	35.216	-28.837	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:21
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 1:Transmit at 2480MHz by LE_1Mbps	



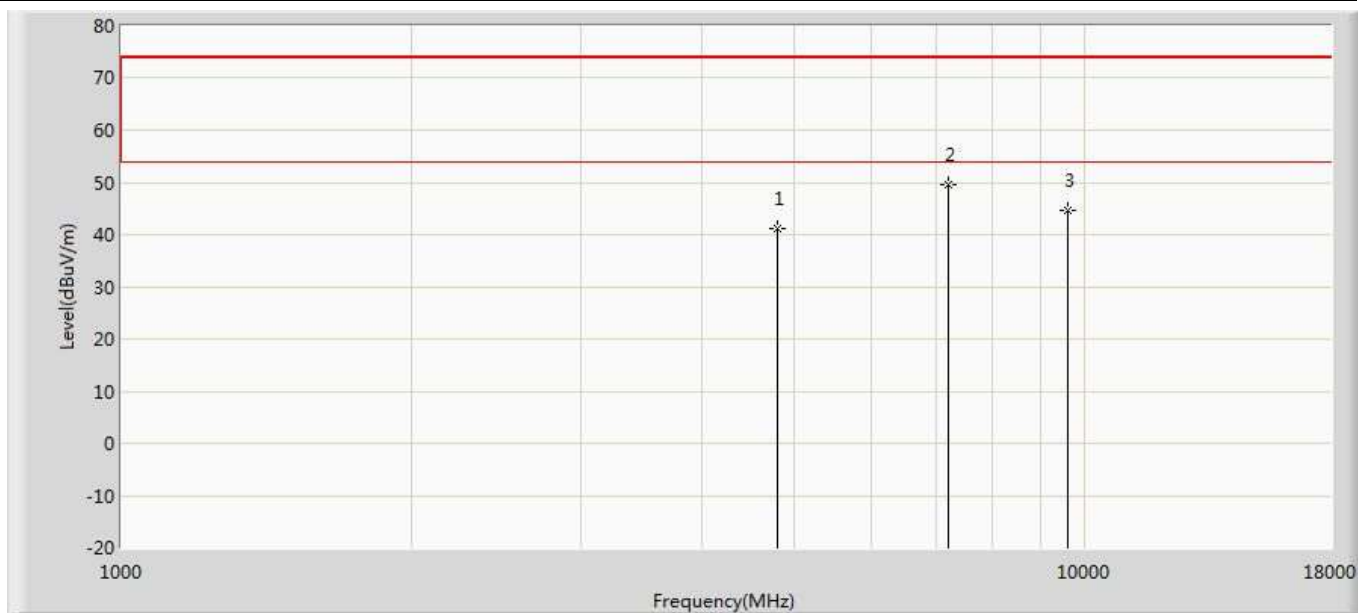
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.856	37.936	-31.144	74.000	4.920	PK
2	*	7440.000	46.737	39.022	-27.263	74.000	7.715	PK
3		9920.000	44.693	34.746	-29.307	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:22
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	



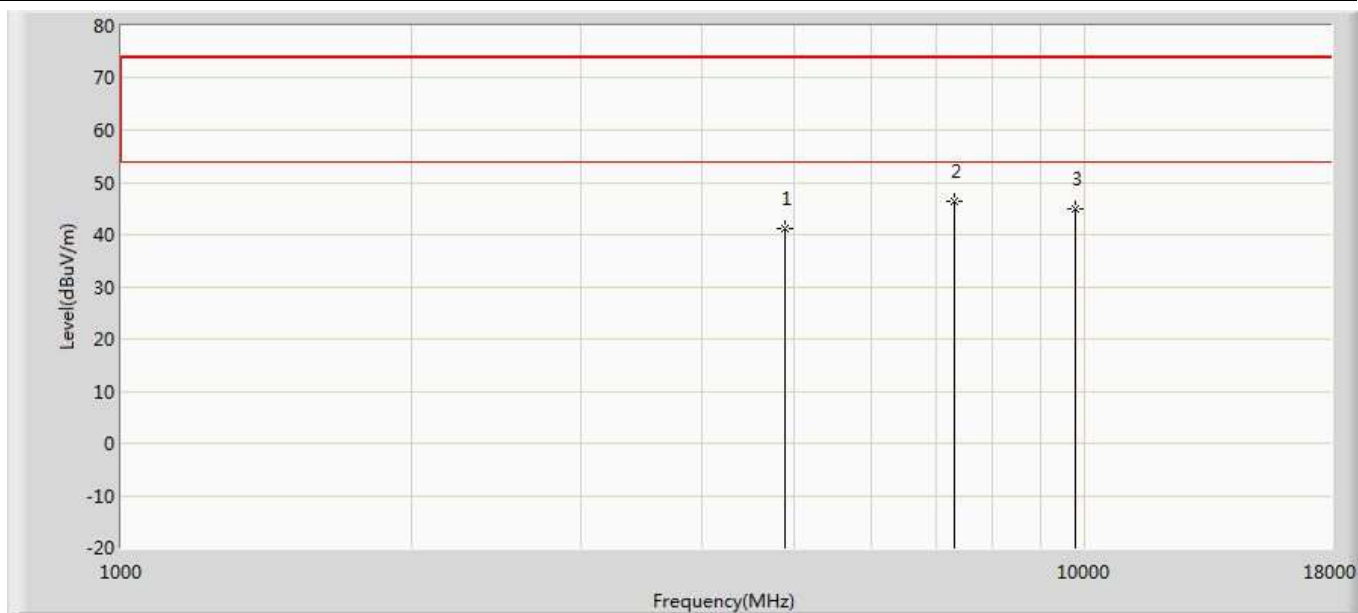
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.819	37.302	-32.181	74.000	4.517	PK
2	*	7206.000	48.222	40.675	-25.778	74.000	7.547	PK
3		9608.000	44.178	34.996	-29.822	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:22
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 2:Transmit at 2402MHz by LE_2Mbps	



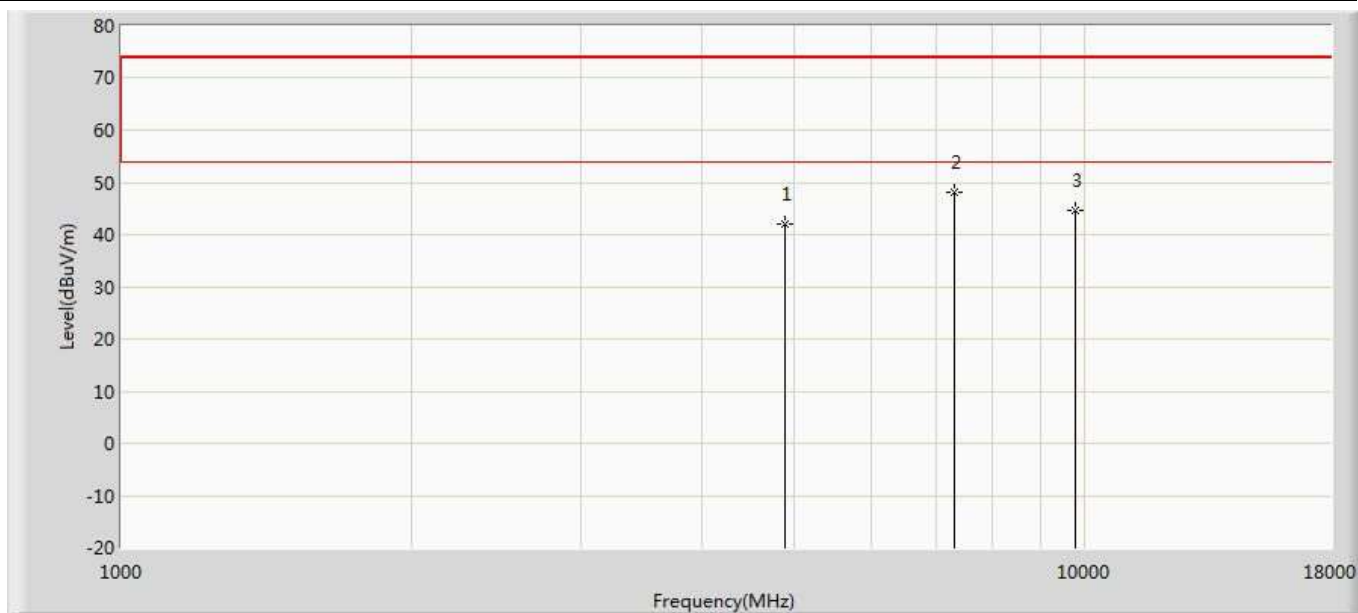
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.063	36.546	-32.937	74.000	4.517	PK
2	*	7206.000	49.426	41.879	-24.574	74.000	7.547	PK
3		9608.000	44.571	35.389	-29.429	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:22
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 2440MHz by LE_2Mbps	



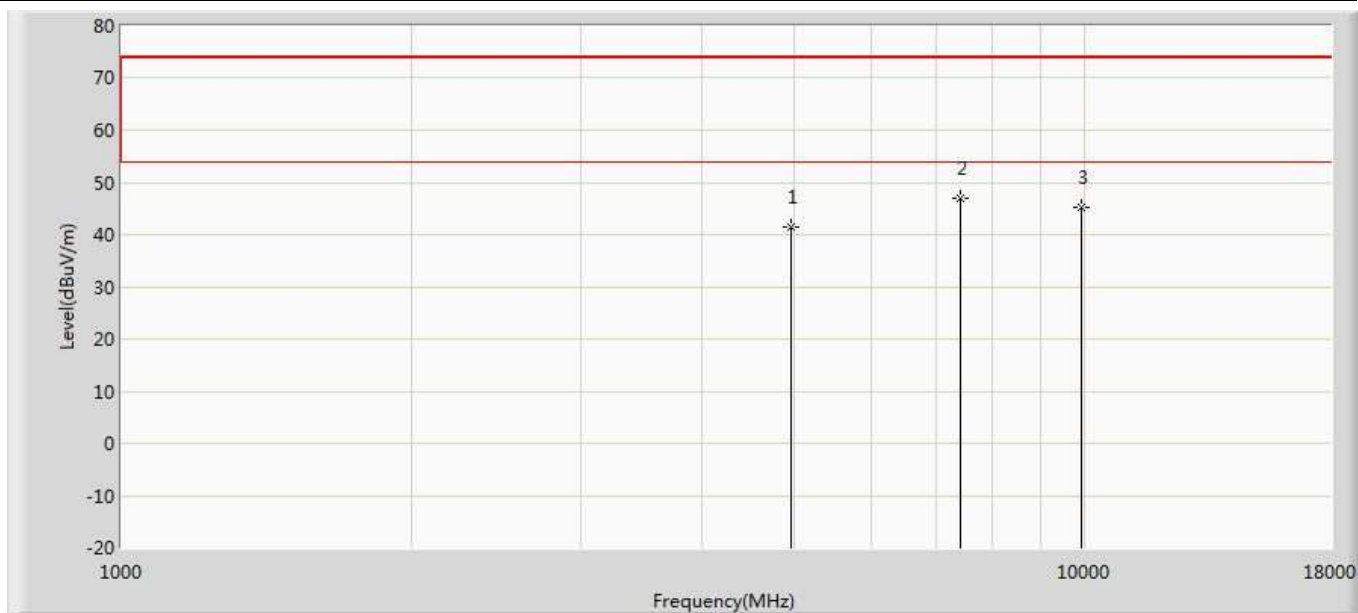
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.153	36.367	-32.847	74.000	4.786	PK
2	*	7320.000	46.435	38.773	-27.565	74.000	7.663	PK
3		9760.000	44.898	35.038	-29.102	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:22
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 2:Transmit at 2440MHz by LE_2Mbps	



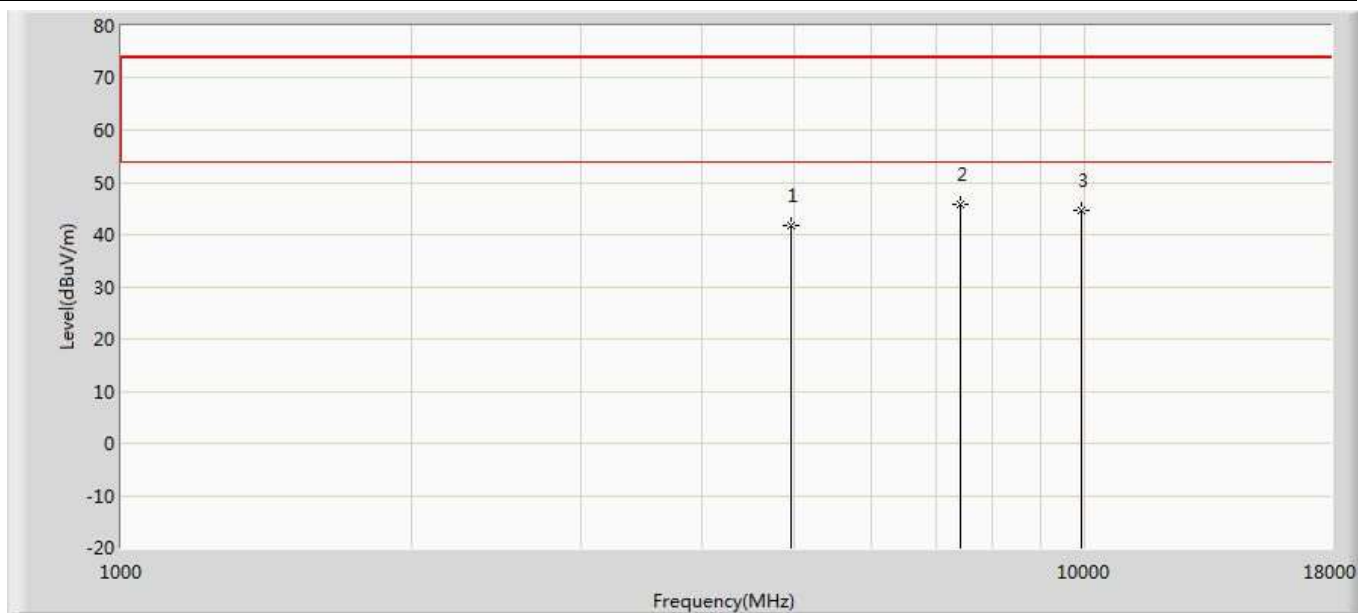
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.966	37.180	-32.034	74.000	4.786	PK
2	*	7320.000	48.187	40.525	-25.813	74.000	7.663	PK
3		9760.000	44.543	34.683	-29.457	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:22
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 2480MHz by LE_2Mbps	



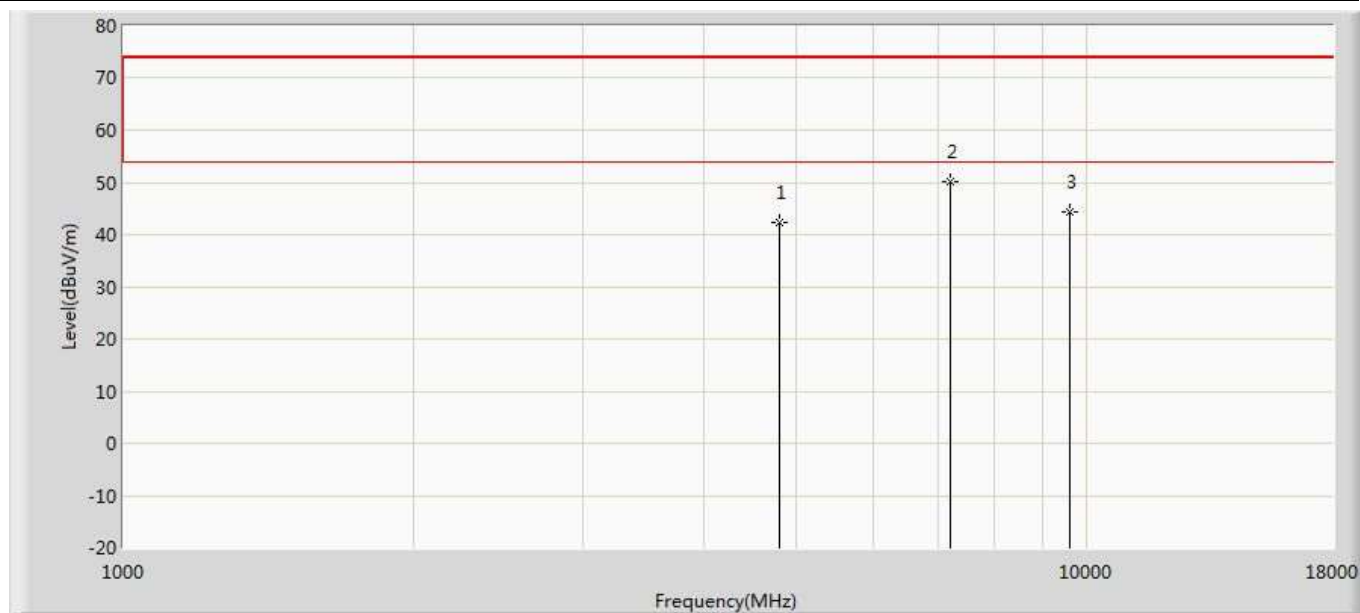
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.535	36.615	-32.465	74.000	4.920	PK
2	*	7440.000	47.072	39.357	-26.928	74.000	7.715	PK
3		9920.000	45.323	35.376	-28.677	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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 2480MHz by LE_2Mbps	



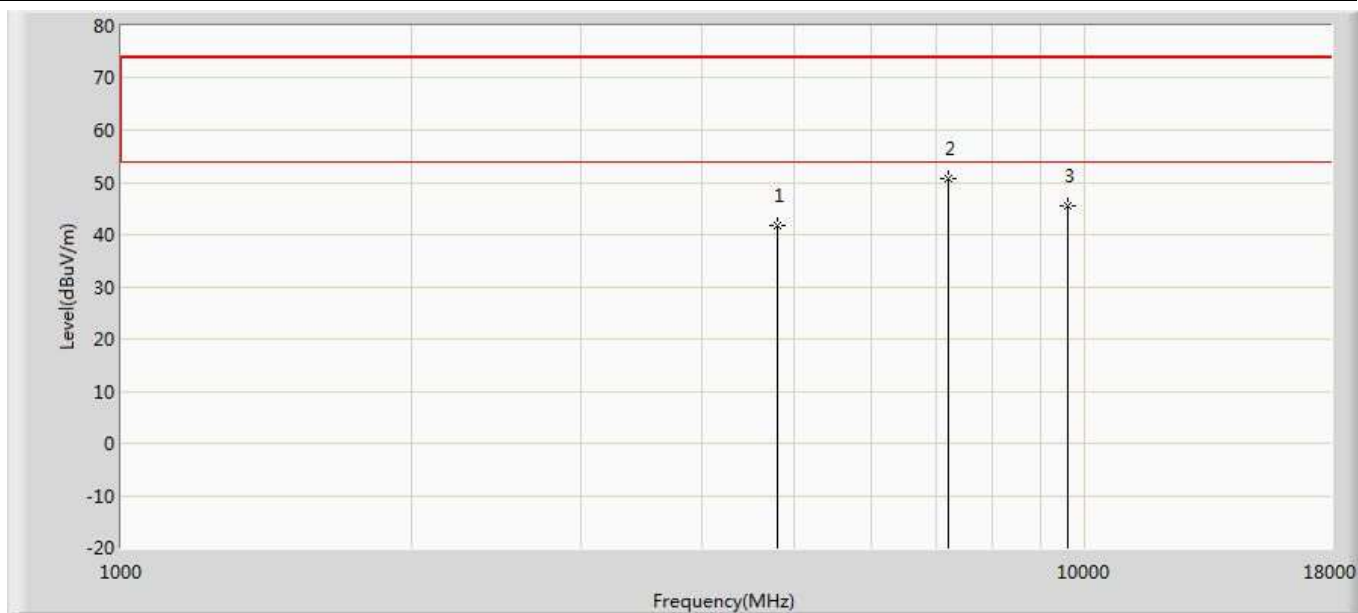
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.803	36.883	-32.197	74.000	4.920	PK
2	*	7440.000	45.849	38.134	-28.151	74.000	7.715	PK
3		9920.000	44.493	34.546	-29.507	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



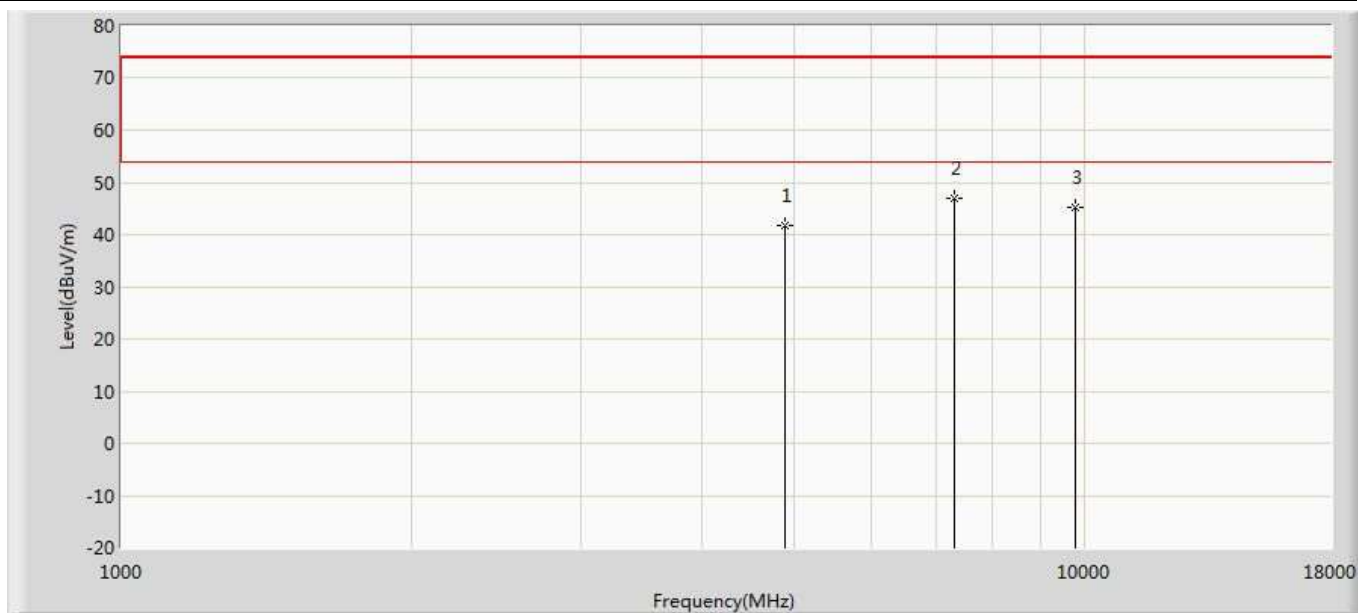
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.330	37.813	-31.670	74.000	4.517	PK
2	*	7206.000	50.007	42.460	-23.993	74.000	7.547	PK
3		9608.000	44.323	35.141	-29.677	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



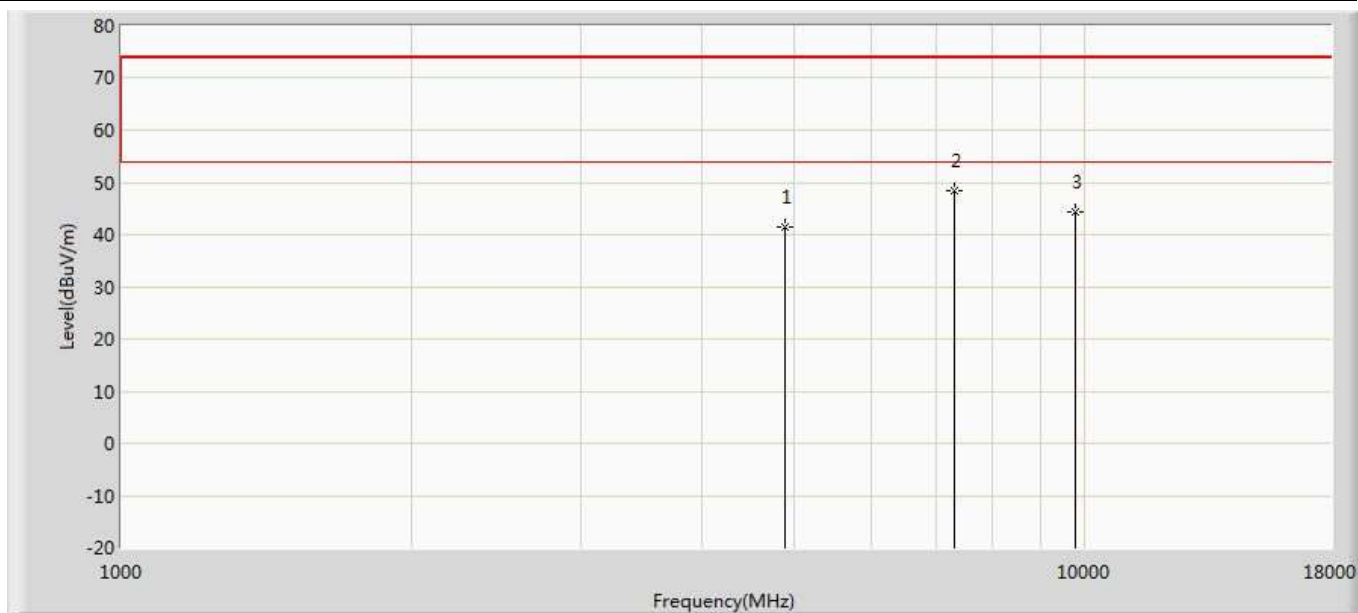
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.710	37.193	-32.290	74.000	4.517	PK
2	*	7206.000	50.851	43.304	-23.149	74.000	7.547	PK
3		9608.000	45.489	36.307	-28.511	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



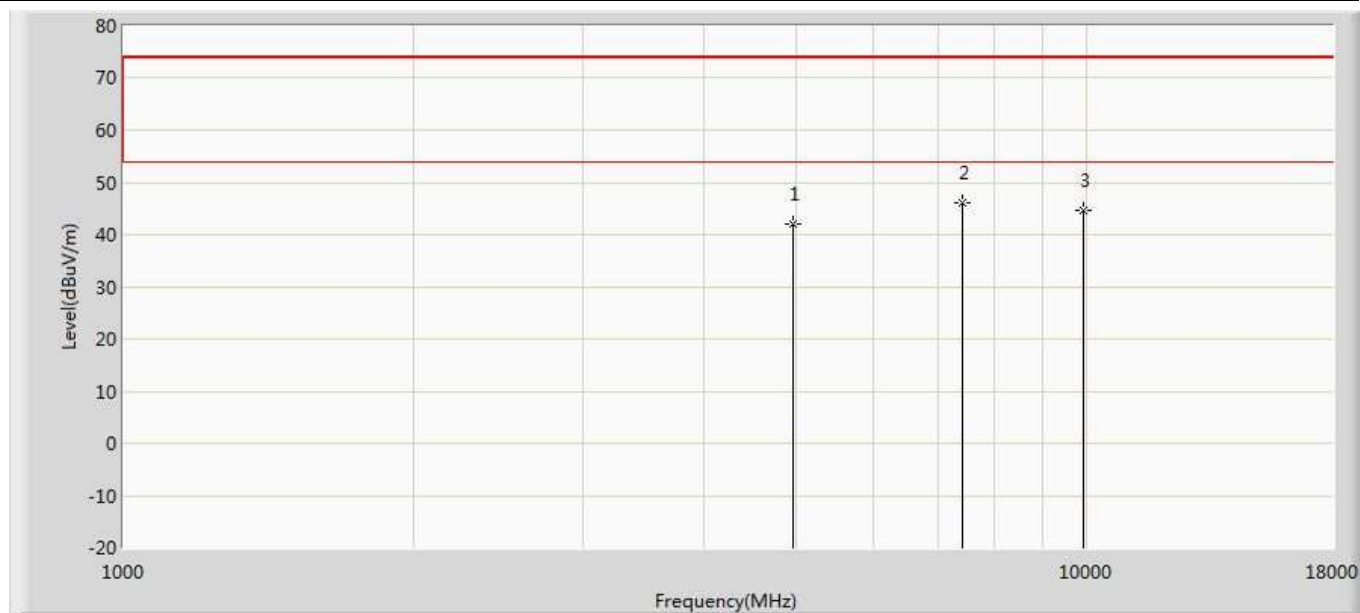
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.724	36.938	-32.276	74.000	4.786	PK
2	*	7320.000	46.893	39.231	-27.107	74.000	7.663	PK
3		9760.000	45.119	35.259	-28.881	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



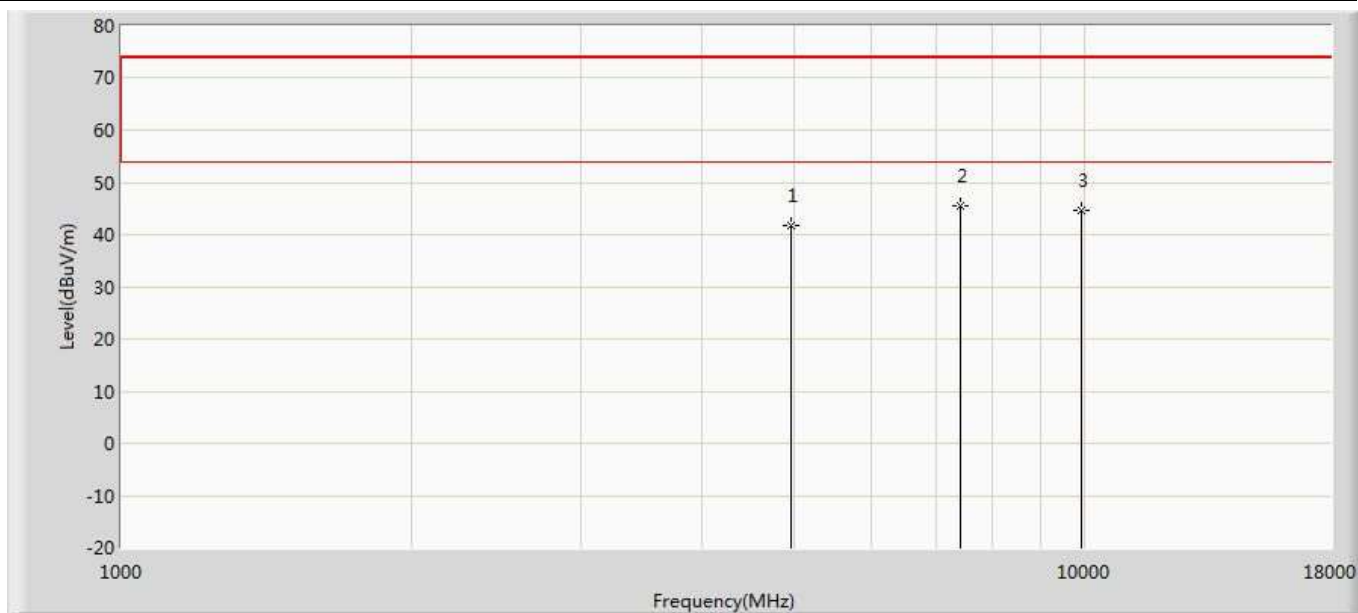
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.535	36.749	-32.465	74.000	4.786	PK
2	*	7320.000	48.324	40.662	-25.676	74.000	7.663	PK
3		9760.000	44.303	34.443	-29.697	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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 2480MHz by LE_Coded (S=2)	



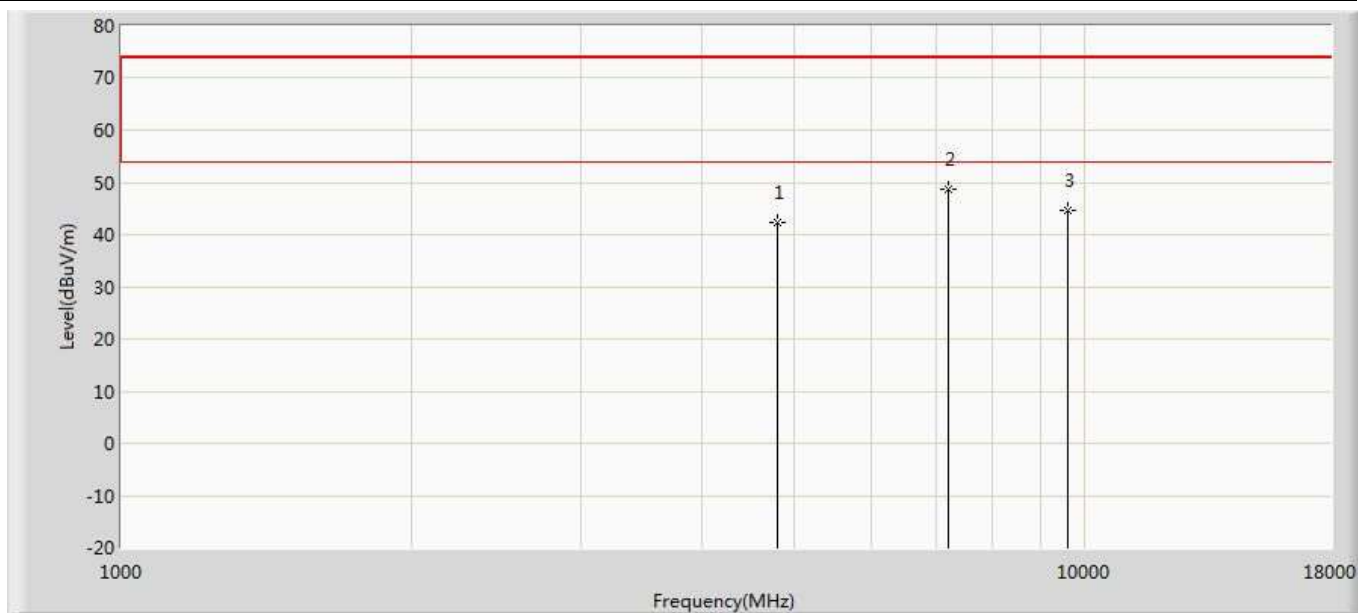
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.027	37.107	-31.973	74.000	4.920	PK
2	*	7440.000	46.194	38.479	-27.806	74.000	7.715	PK
3		9920.000	44.573	34.626	-29.427	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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 2480MHz by LE_Coded (S=2)	



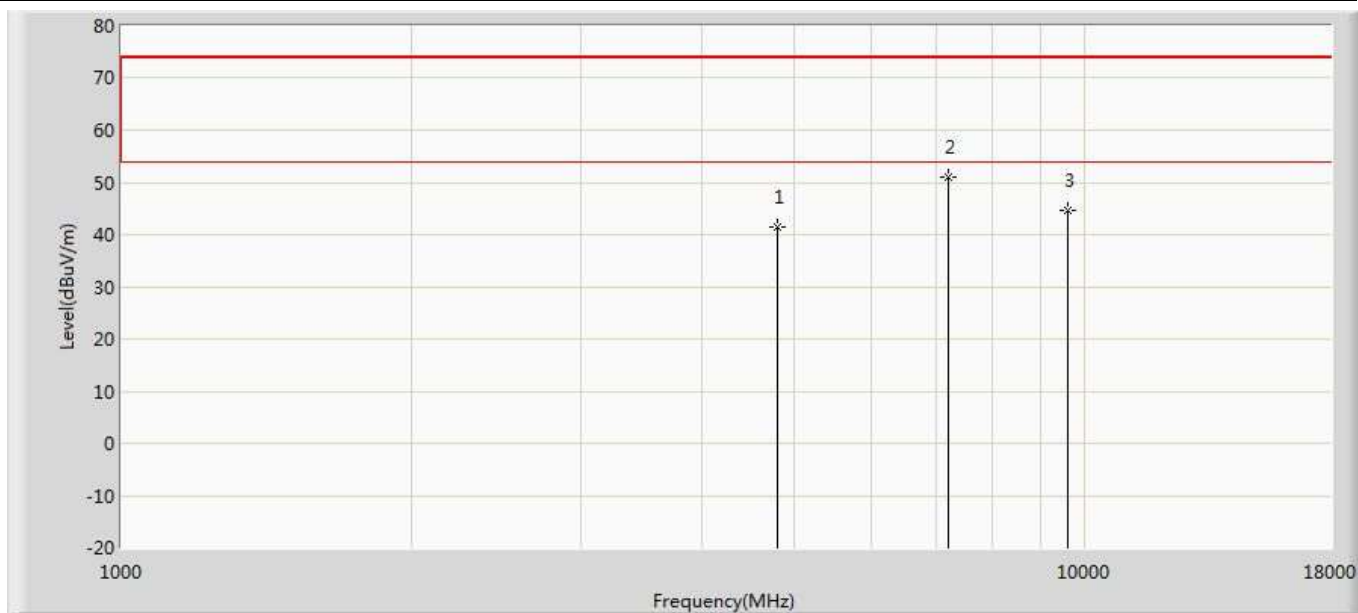
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.727	36.807	-32.273	74.000	4.920	PK
2	*	7440.000	45.541	37.826	-28.459	74.000	7.715	PK
3		9920.000	44.733	34.786	-29.267	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



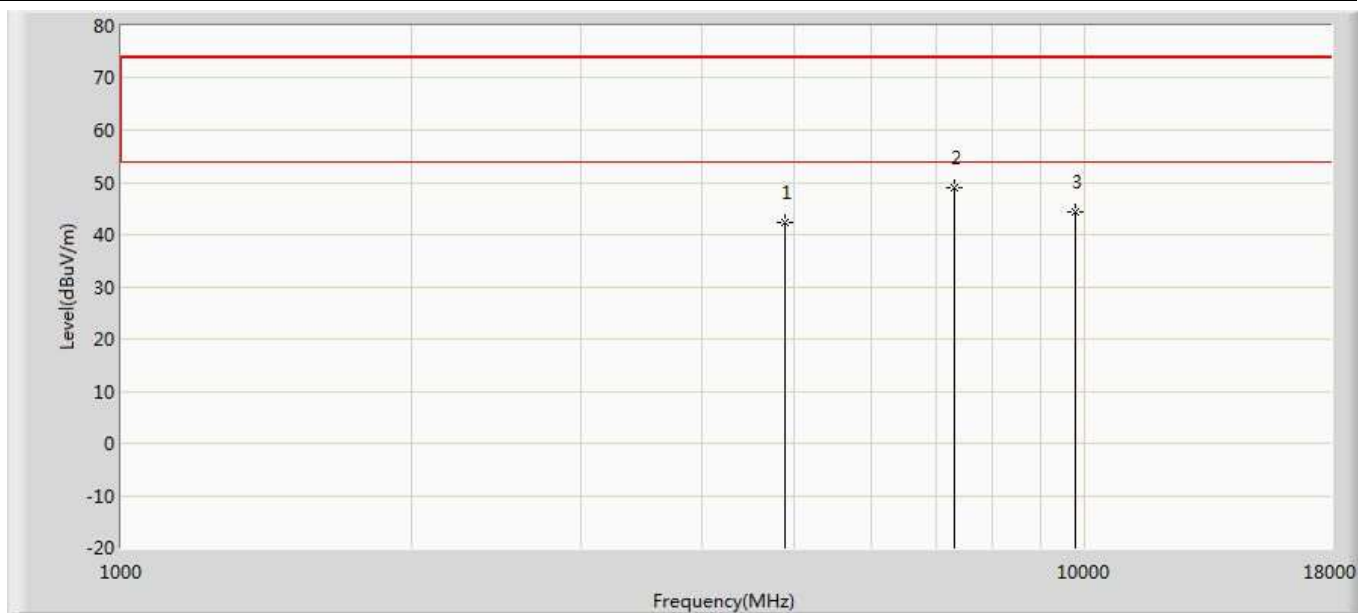
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.238	37.721	-31.762	74.000	4.517	PK
2	*	7206.000	48.698	41.151	-25.302	74.000	7.547	PK
3		9608.000	44.663	35.481	-29.337	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



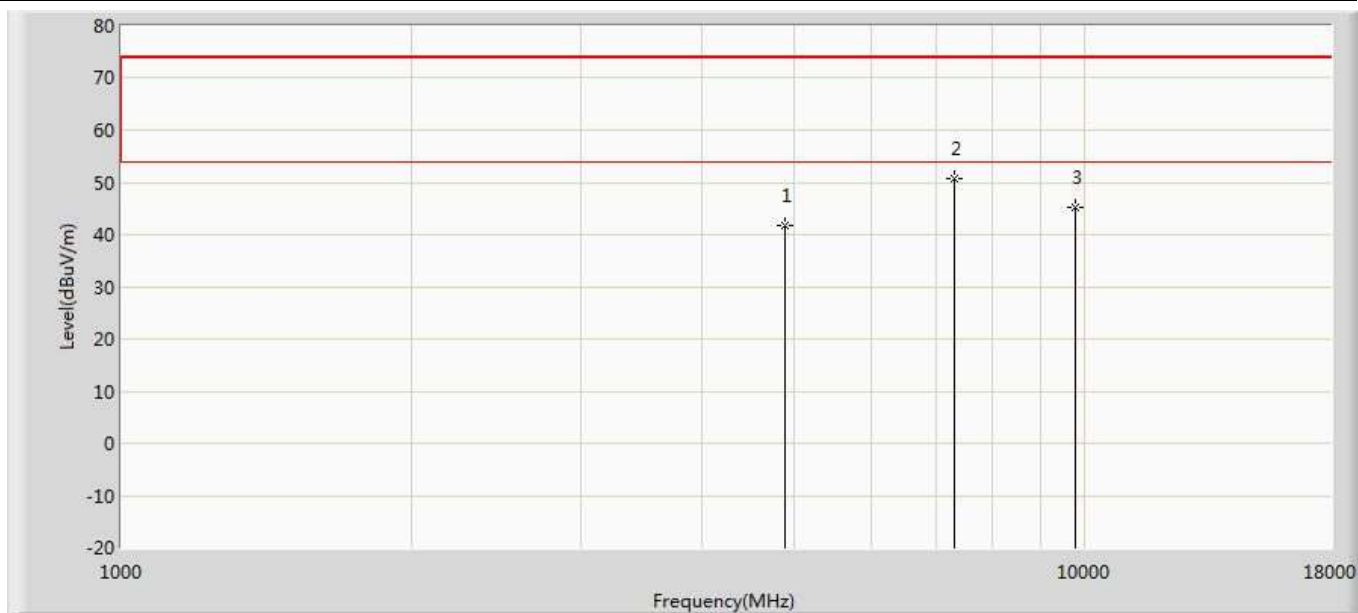
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.386	36.869	-32.614	74.000	4.517	PK
2	*	7206.000	50.926	43.379	-23.074	74.000	7.547	PK
3		9608.000	44.641	35.459	-29.359	74.000	9.182	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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)	



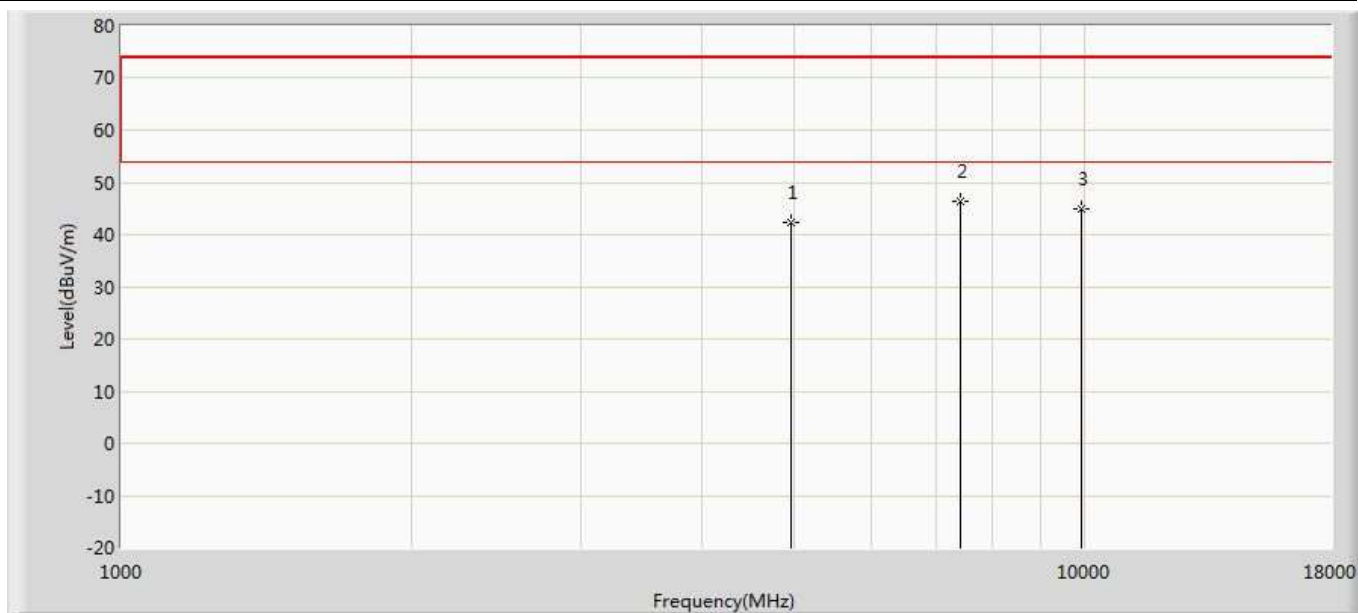
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.373	37.587	-31.627	74.000	4.786	PK
2	*	7320.000	48.970	41.308	-25.030	74.000	7.663	PK
3		9760.000	44.469	34.609	-29.531	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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 2440MHz by LE_Coded (S=8)	



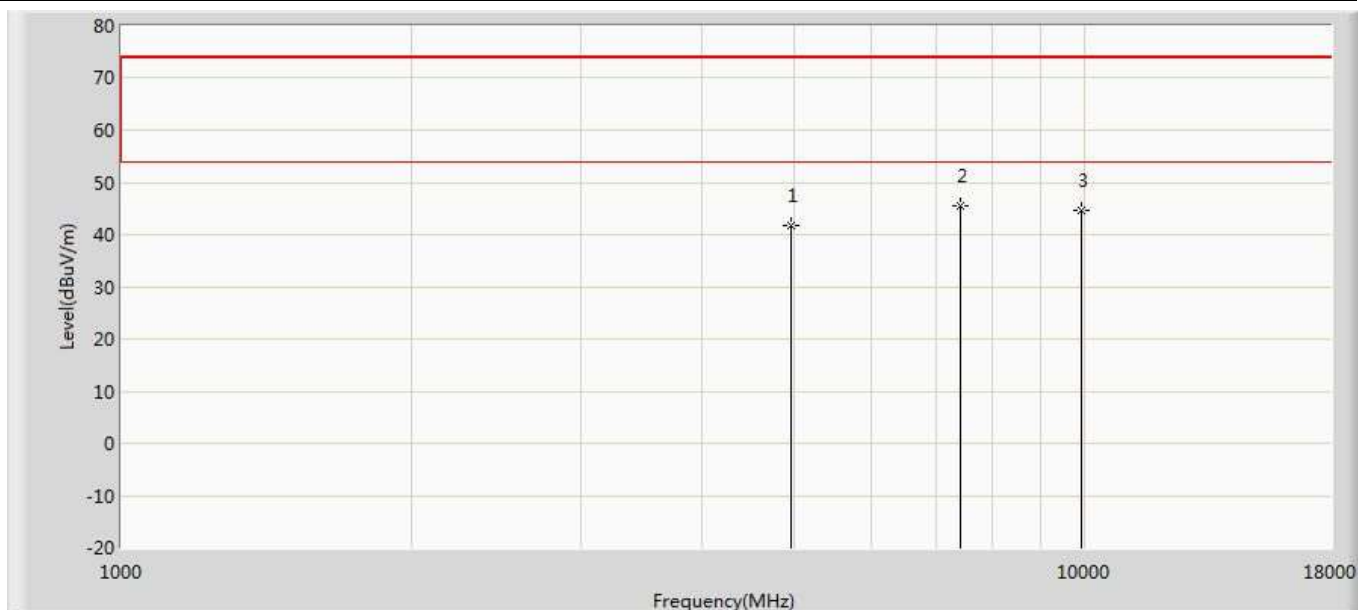
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.810	37.024	-32.190	74.000	4.786	PK
2	*	7320.000	50.715	43.053	-23.285	74.000	7.663	PK
3		9760.000	45.244	35.384	-28.756	74.000	9.860	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:23
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 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	42.317	37.397	-31.683	74.000	4.920	PK
2	*	7440.000	46.398	38.683	-27.602	74.000	7.715	PK
3		9920.000	44.864	34.917	-29.136	74.000	9.946	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:24
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)	



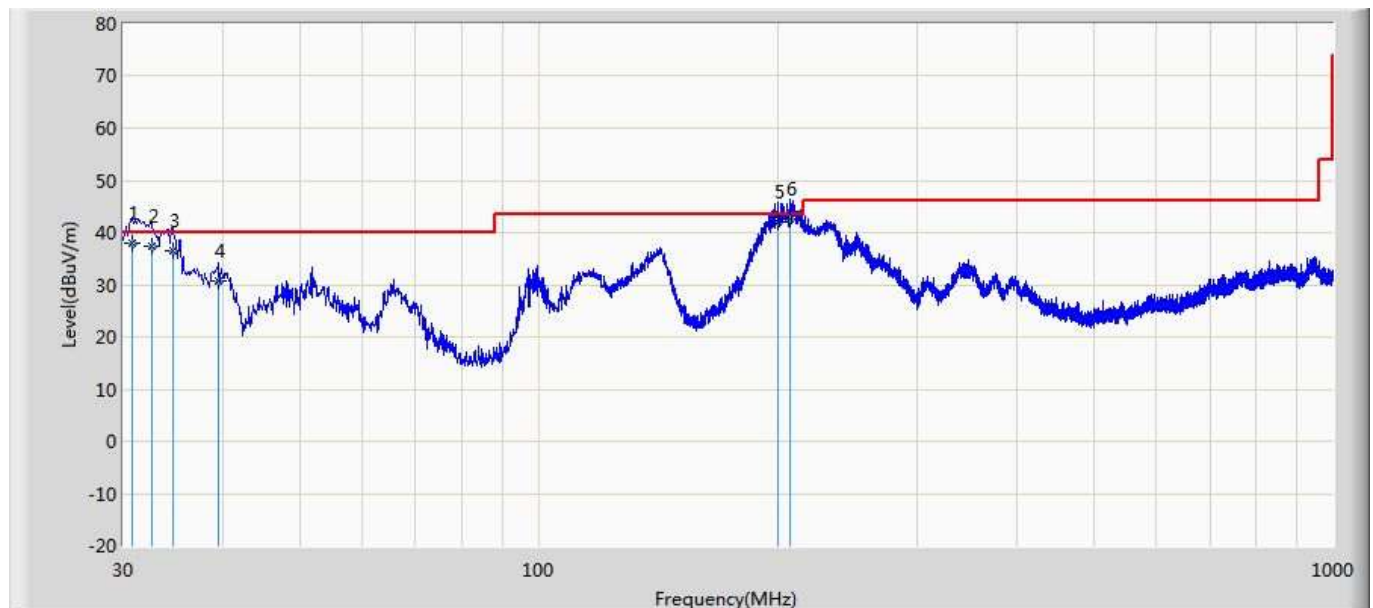
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.668	36.748	-32.332	74.000	4.920	PK
2	*	7440.000	45.385	37.670	-28.615	74.000	7.715	PK
3		9920.000	44.606	34.659	-29.394	74.000	9.946	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
4. As the radiated emission was performed, so conducted emission was not tested.
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: 2019/08/05 - 10:24
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	

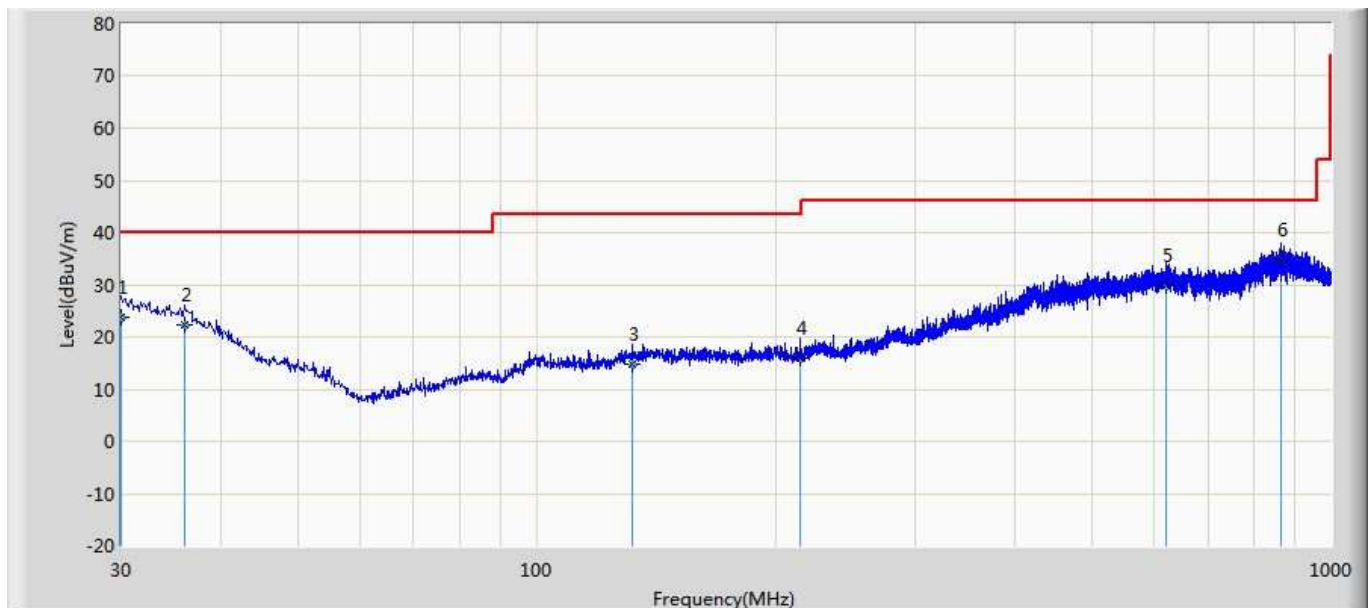


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		30.849	38.062	14.230	-1.938	40.000	23.832	105	234	QP
2		32.546	37.348	14.068	-2.652	40.000	23.280	100	148	QP
3		34.607	36.491	13.869	-3.509	40.000	22.622	102	304	QP
4		39.579	30.635	11.267	-9.365	40.000	19.368	108	56	QP
5		200.235	42.105	19.617	-1.395	43.500	22.488	115	42	QP
6	*	207.389	42.568	19.342	-0.932	43.500	23.226	100	226	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 - 20:06
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		30.000	23.907	-4.068	-16.093	40.000	27.975	101	16	QP
2		36.062	22.393	-3.167	-17.607	40.000	25.560	103	223	QP
3		131.850	14.721	-2.681	-28.779	43.500	17.402	100	317	QP
4		215.027	16.007	-1.246	-27.493	43.500	17.253	116	239	QP
5		620.730	29.866	0.264	-16.134	46.000	29.602	100	113	QP
6	*	864.321	34.867	3.056	-11.133	46.000	31.811	104	87	QP

Note:

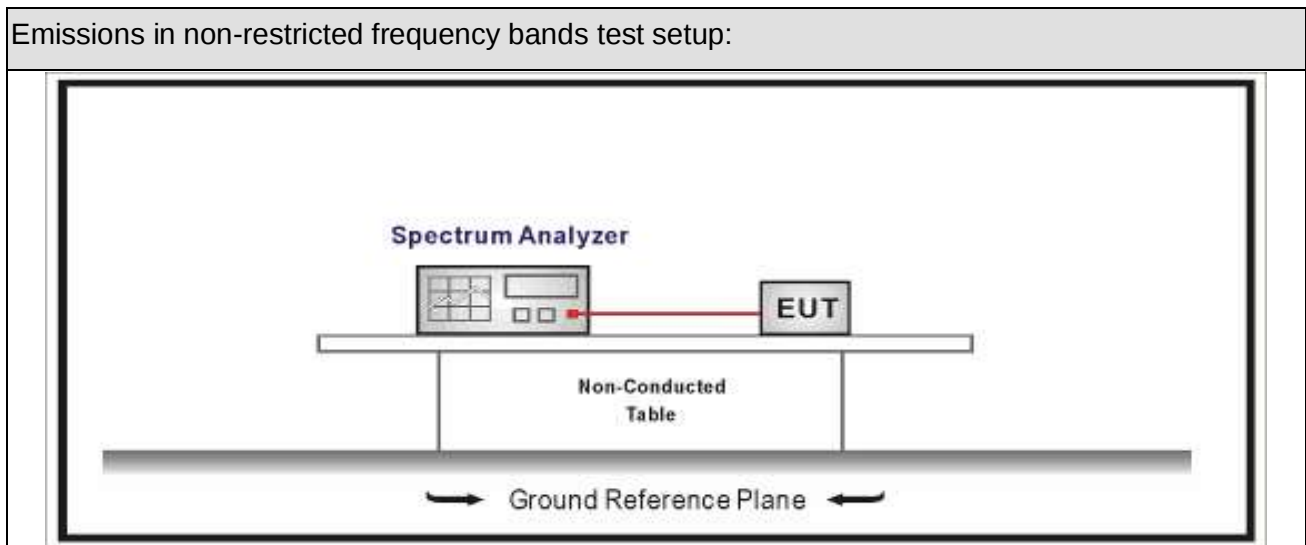
1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

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



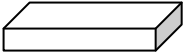
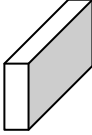
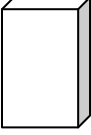
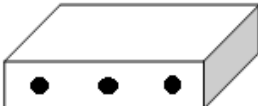
5.3. Limit

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
				

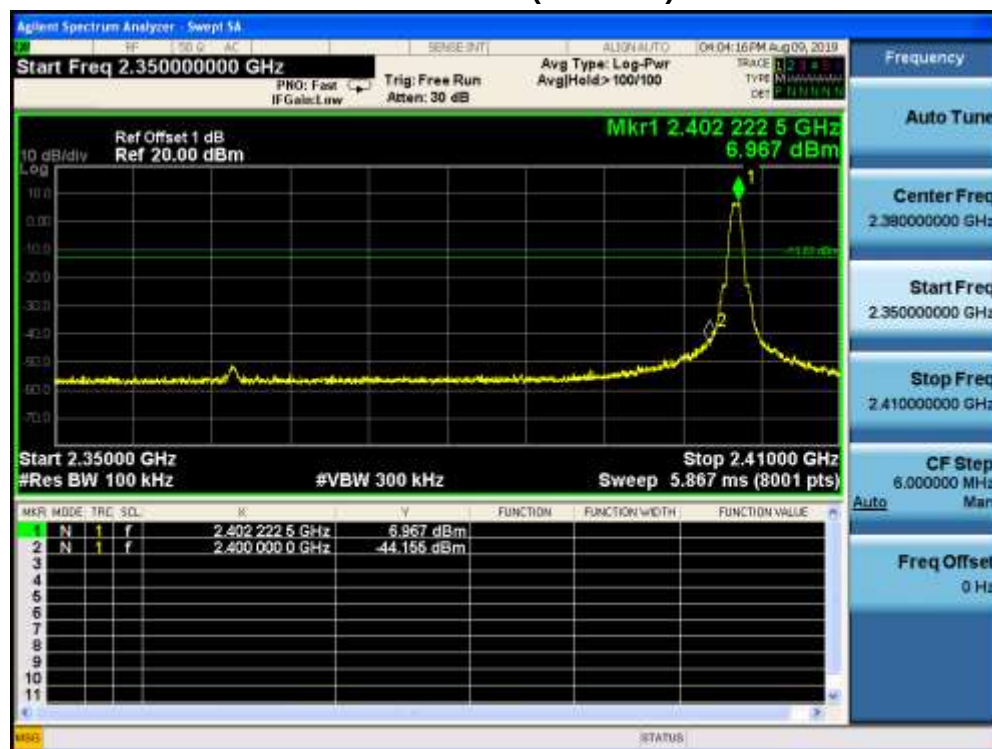
5.6. Test Result

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

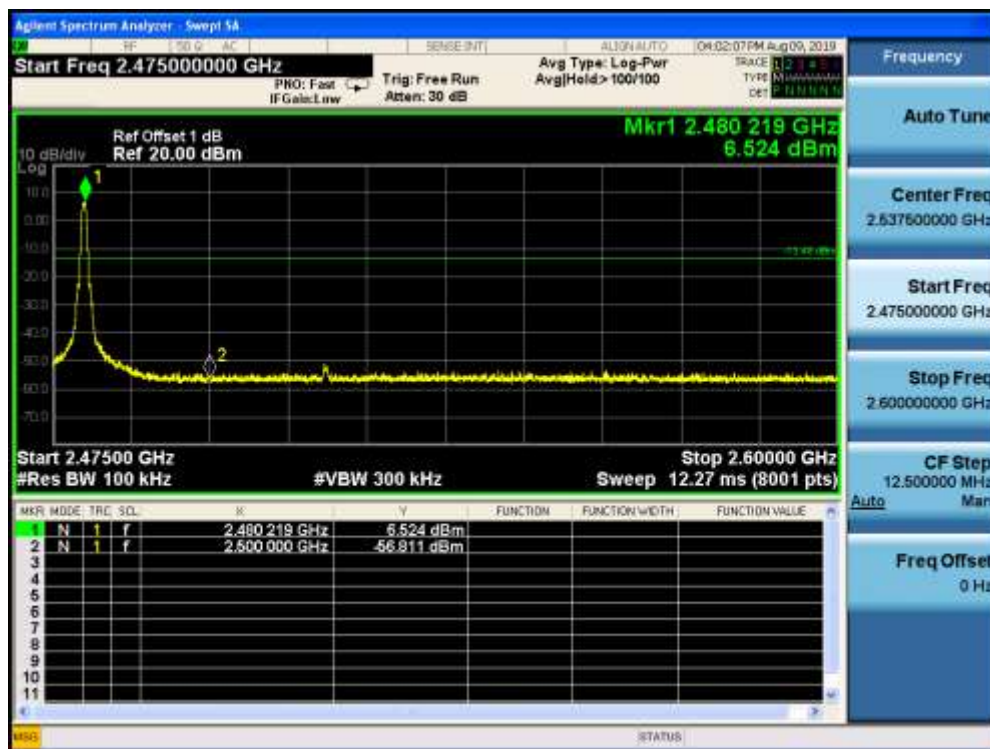
Mode	Channel	Test Frequency (MHz)	In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	00	2402	6.967	2400.00	-44.155	51.122	>20	Pass
1	39	2480	6.524	2500.00	-56.811	63.335	>20	Pass

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)



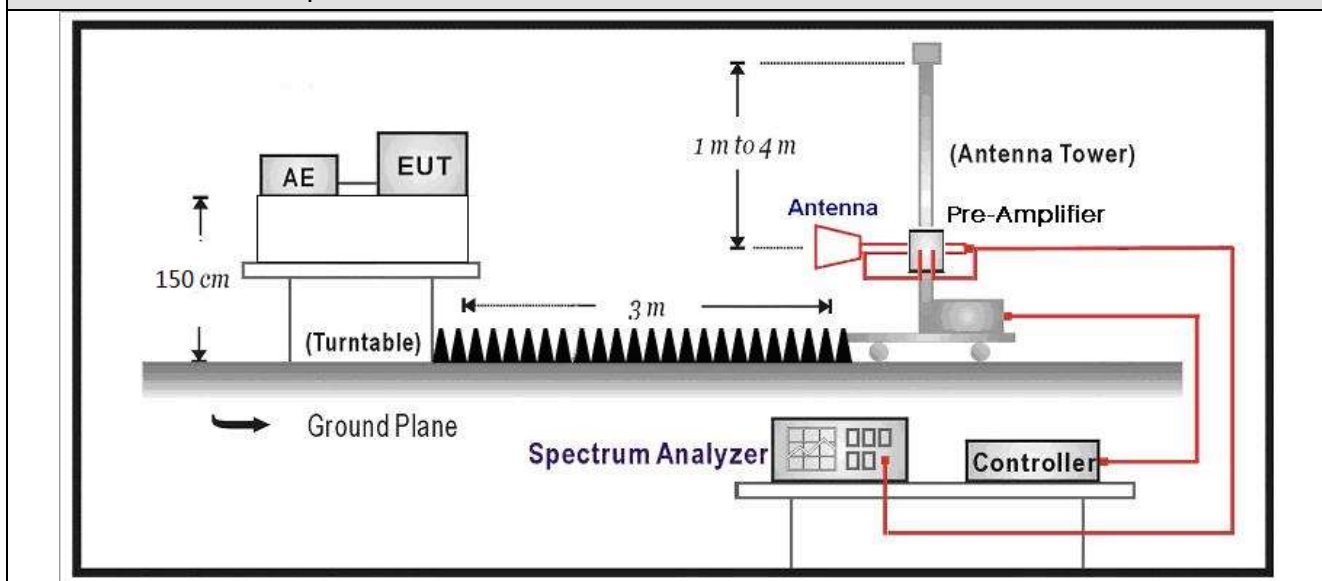
6. Radiated Emission Band Edge

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

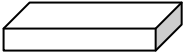
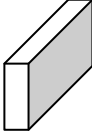
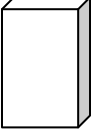
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

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

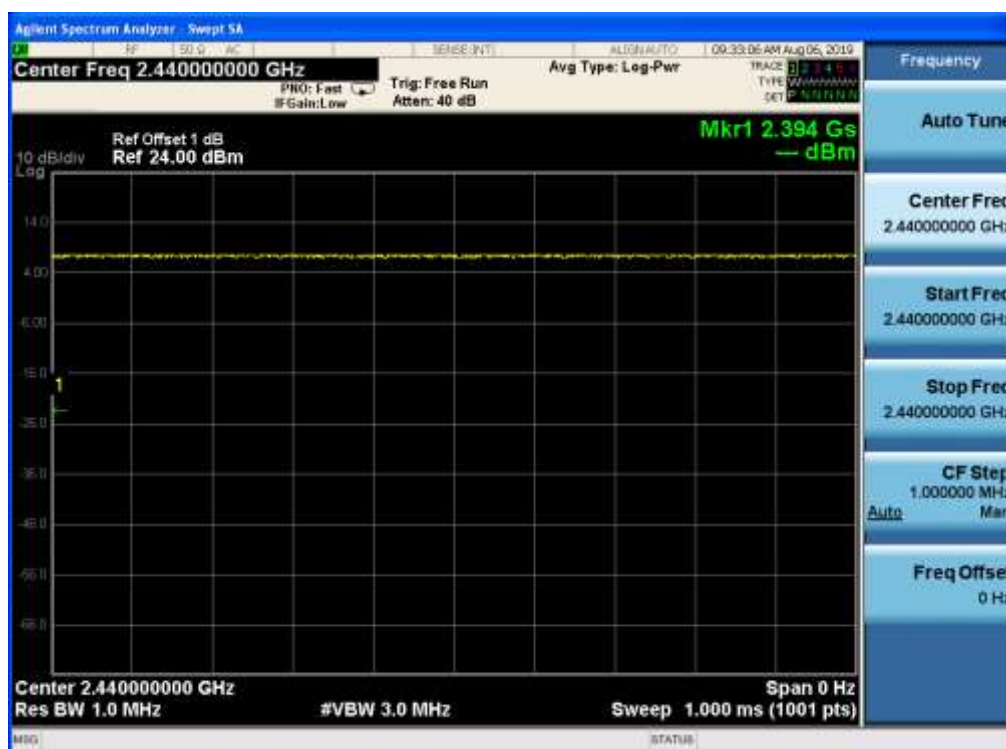
6.5. EUT test definition

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



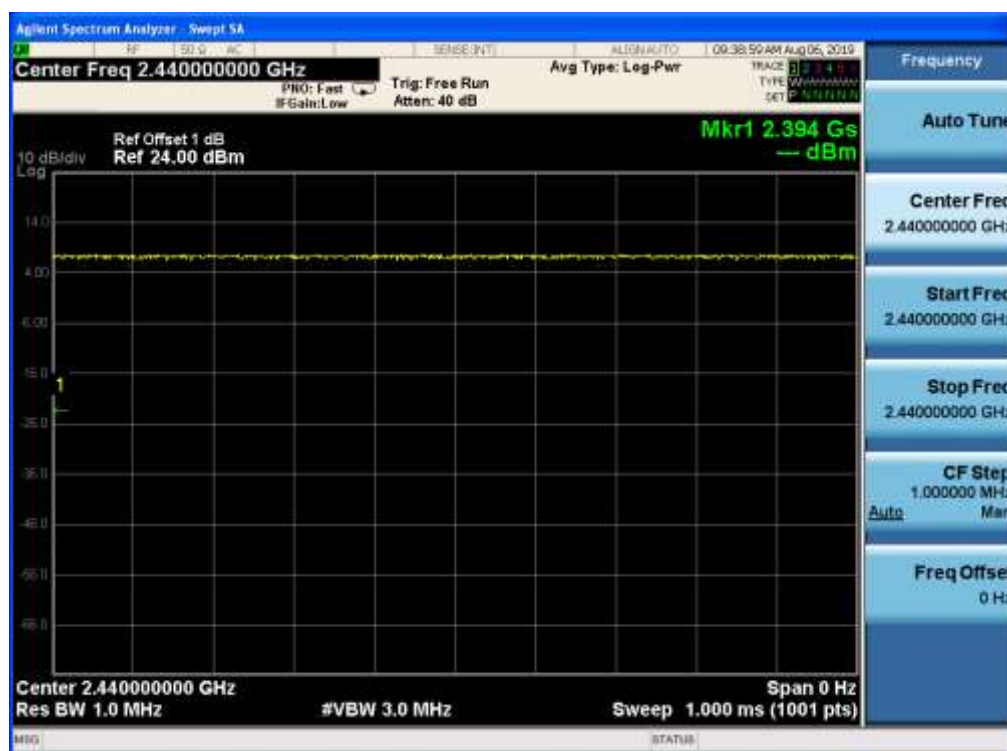
Test Mode	Tx On (ms)	Tx Off (ms)	Reduced VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 2	N/A	N/A	10	N/A	100%

Mode 2



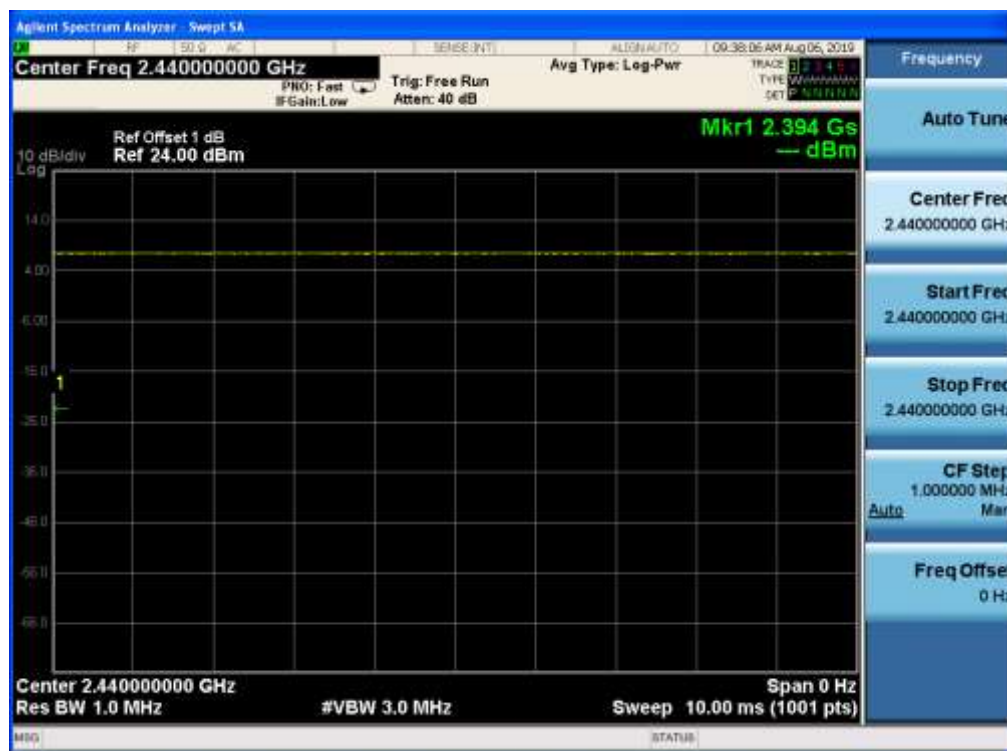
Test Mode	Tx On (ms)	Tx Off (ms)	Reduced VBW (Hz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 3	N/A	N/A	10	N/A	100%

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%

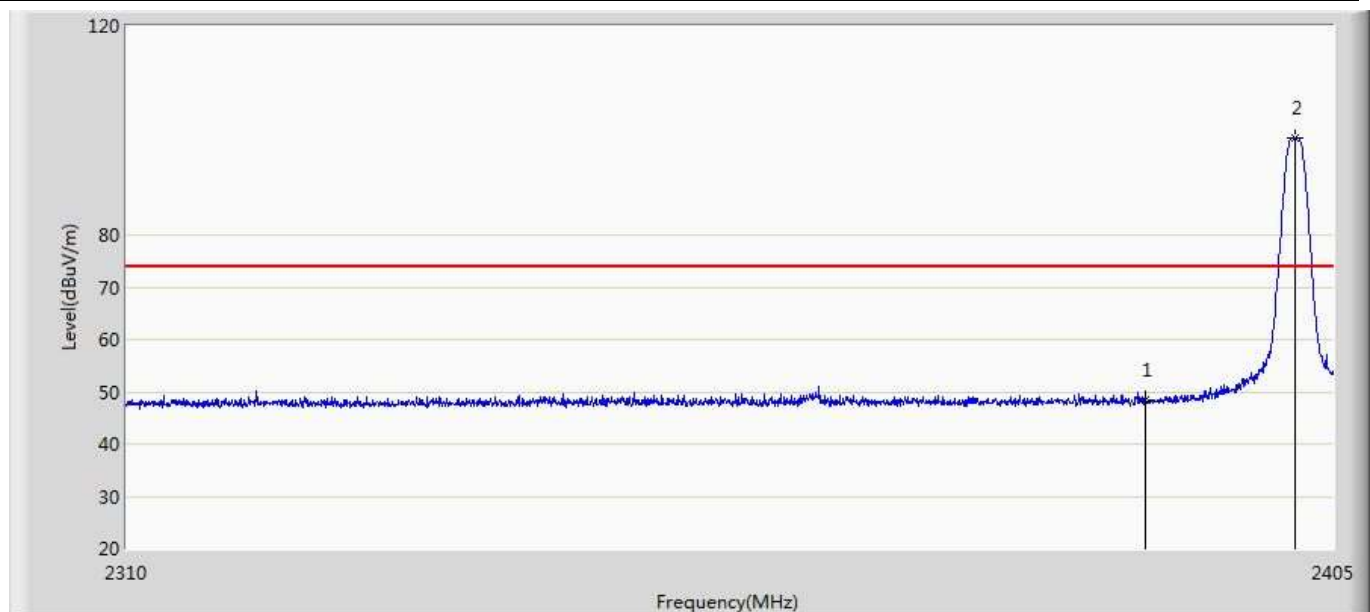
Mode 4



6.7. Test Result

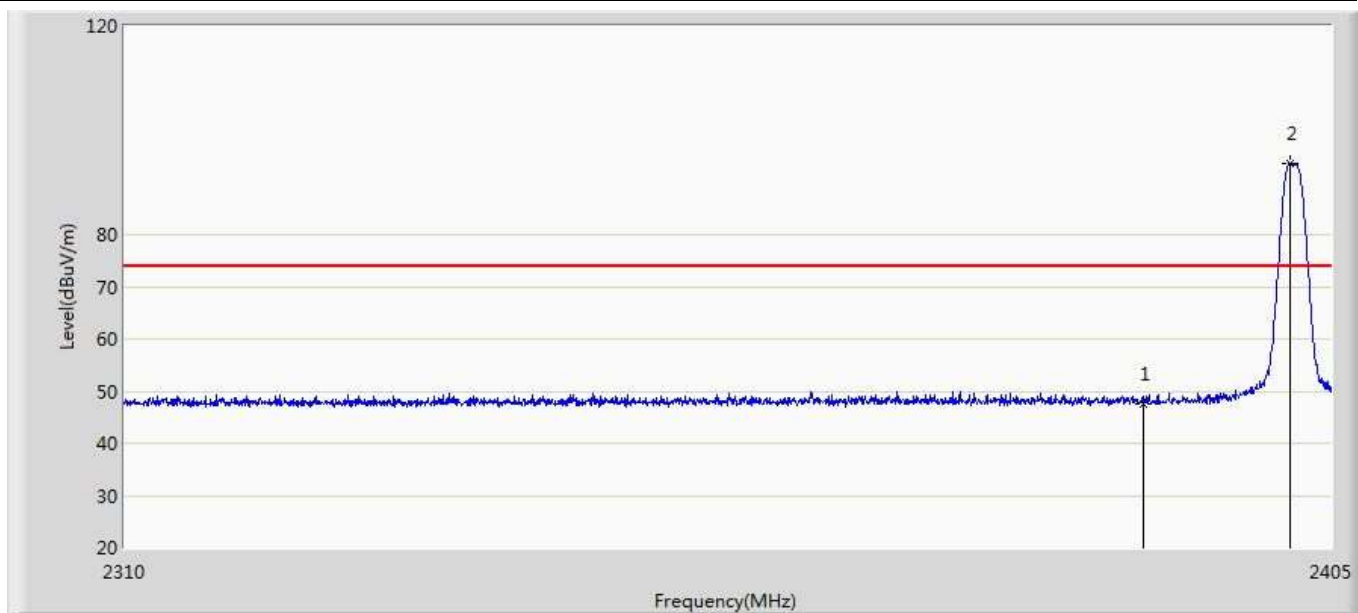
Muruta:

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 14:50
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	



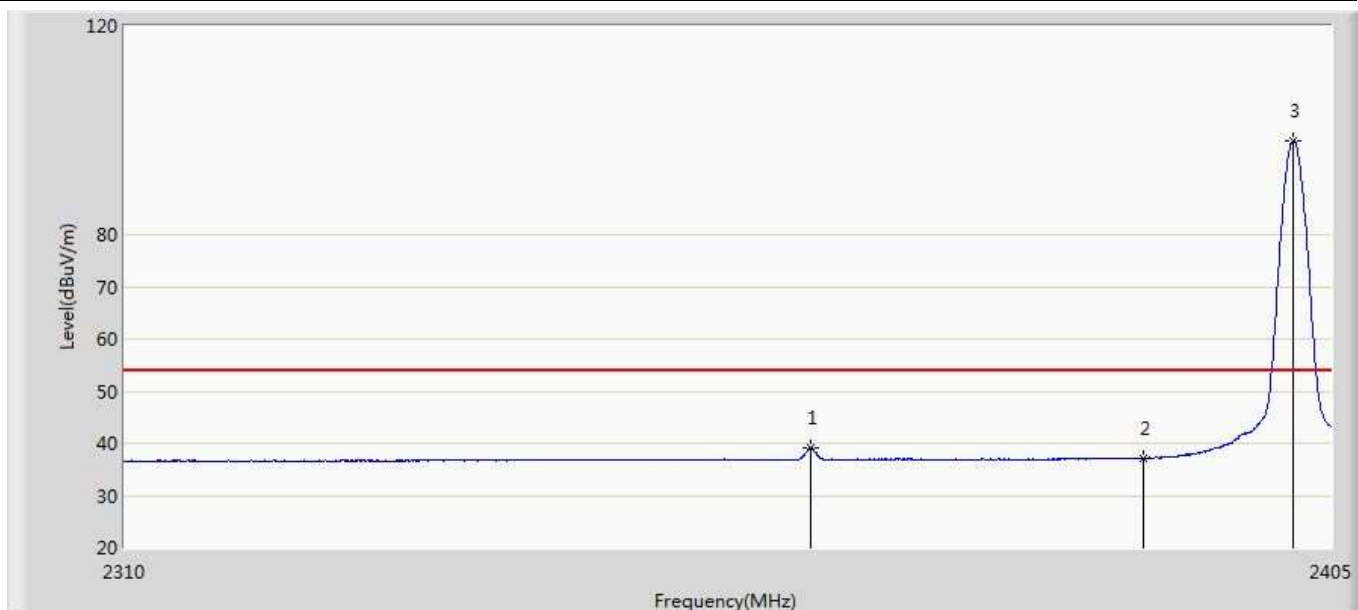
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.514	12.832	-25.486	74.000	35.682	PK
2	*	2401.913	98.481	62.769	24.481	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 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 1:Transmit at 2402MHz by LE_1Mbps	



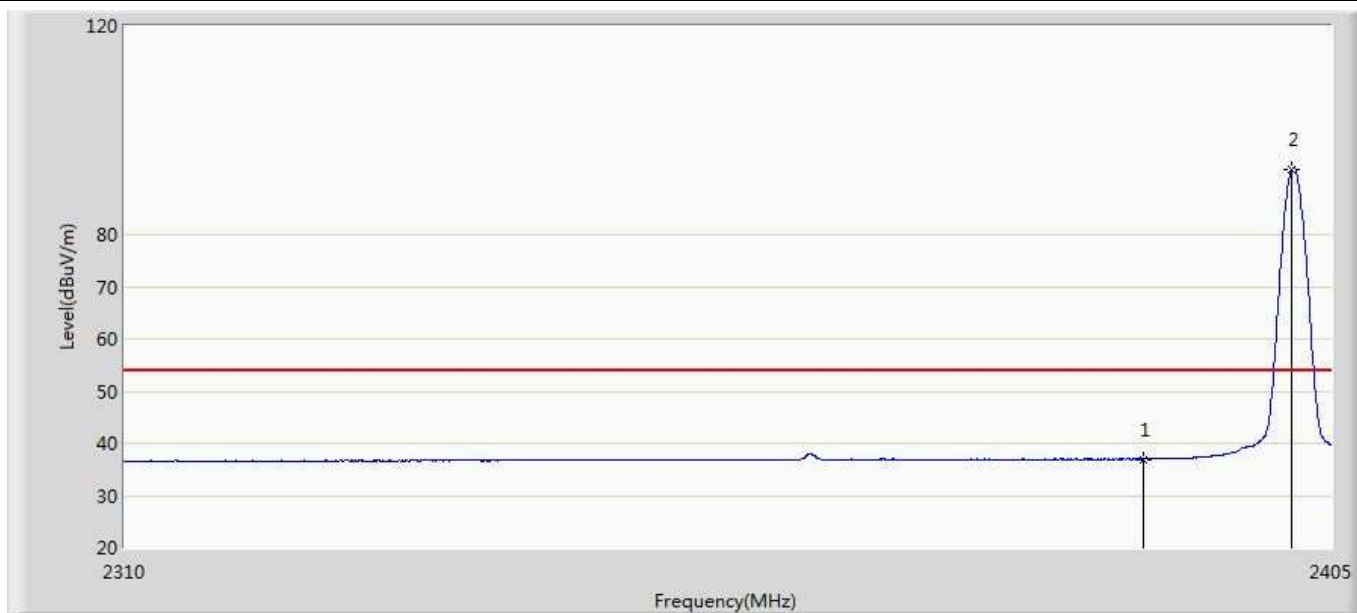
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	47.647	11.965	-26.353	74.000	35.682	PK
2	*	2401.770	93.763	58.051	19.763	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 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 1:Transmit at 2402MHz by LE_1Mbps	



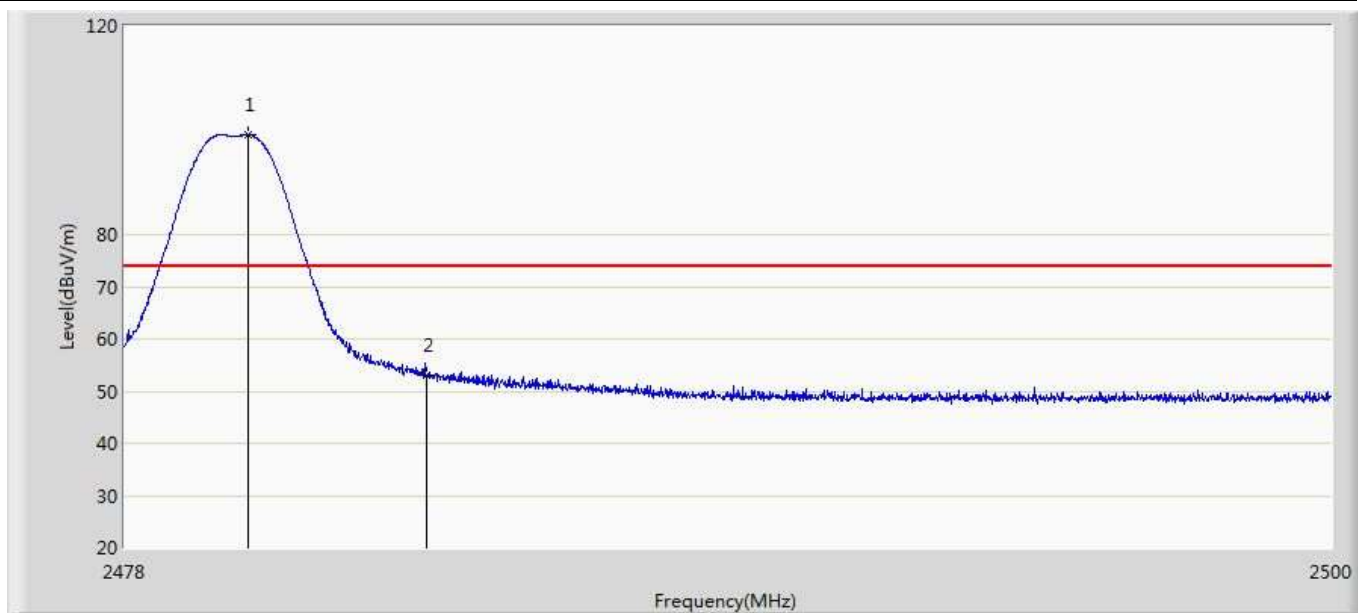
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	39.026	3.404	-14.974	54.000	35.622	AV
2		2390.000	37.113	1.431	-16.887	54.000	35.682	AV
3	*	2401.913	97.866	62.154	43.866	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:03
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 2402MHz by LE_1Mbps	



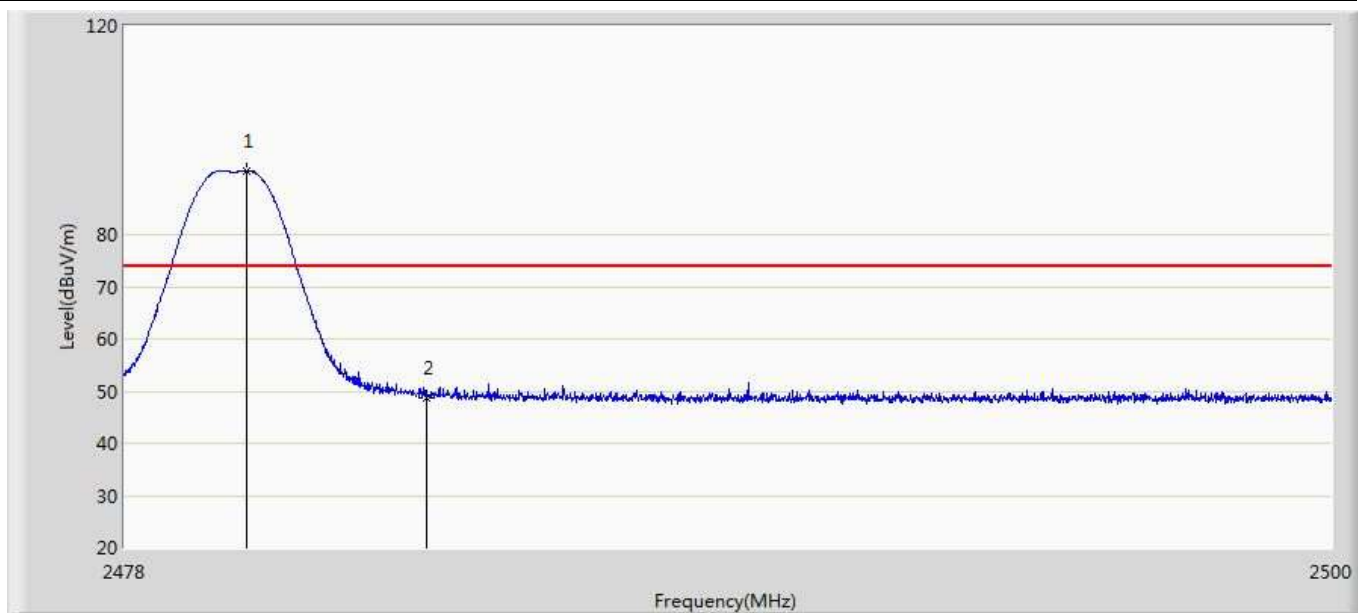
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	36.955	1.273	-17.045	54.000	35.682	AV
2	*	2401.865	92.566	56.854	38.566	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:35
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	



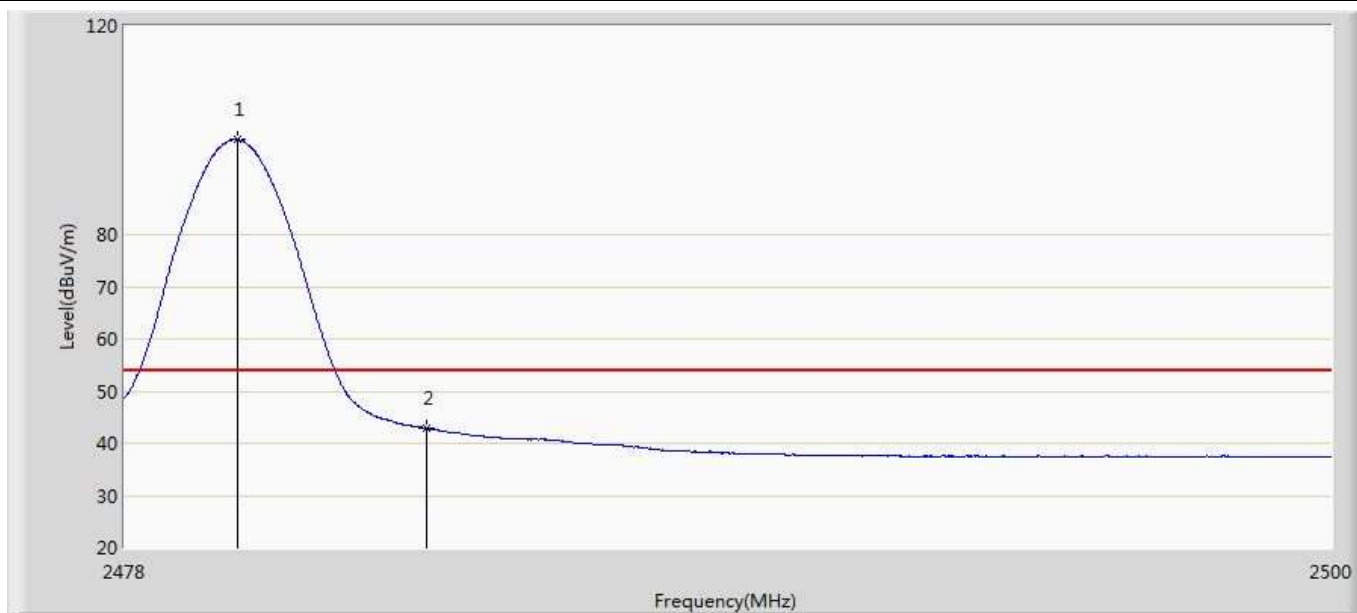
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.255	99.073	63.205	25.073	74.000	35.868	PK
2		2483.500	53.093	17.201	-20.907	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:38
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	



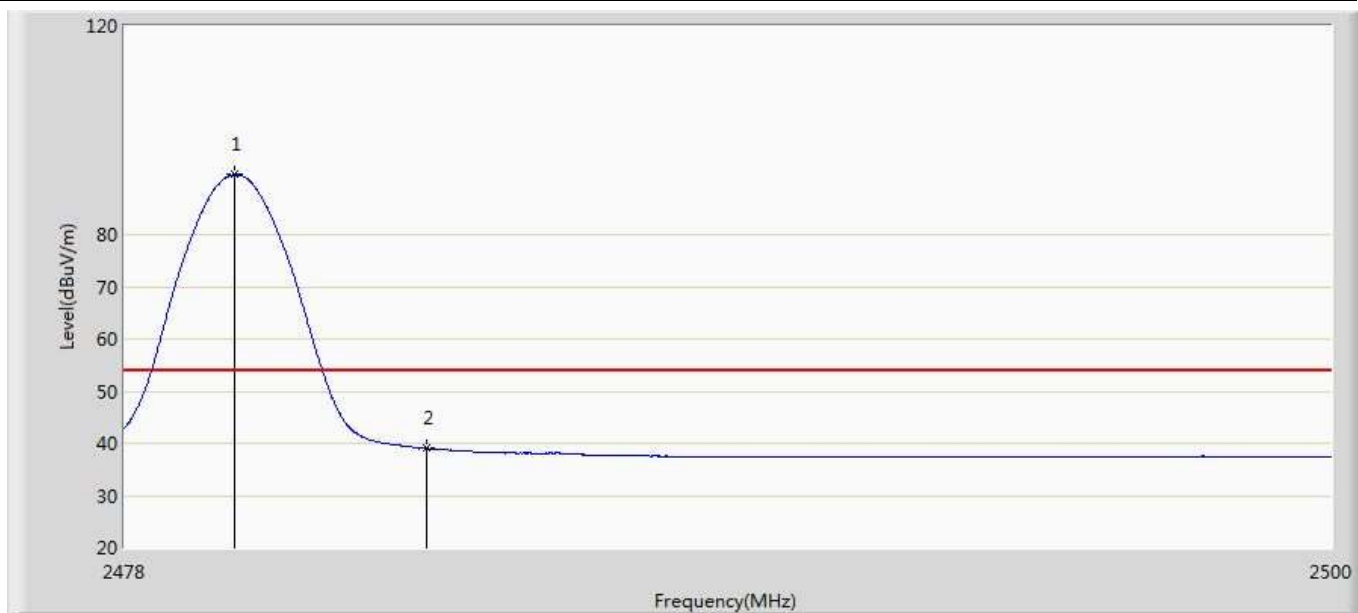
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.222	92.241	56.373	18.241	74.000	35.868	PK
2		2483.500	48.745	12.853	-25.255	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:40
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	



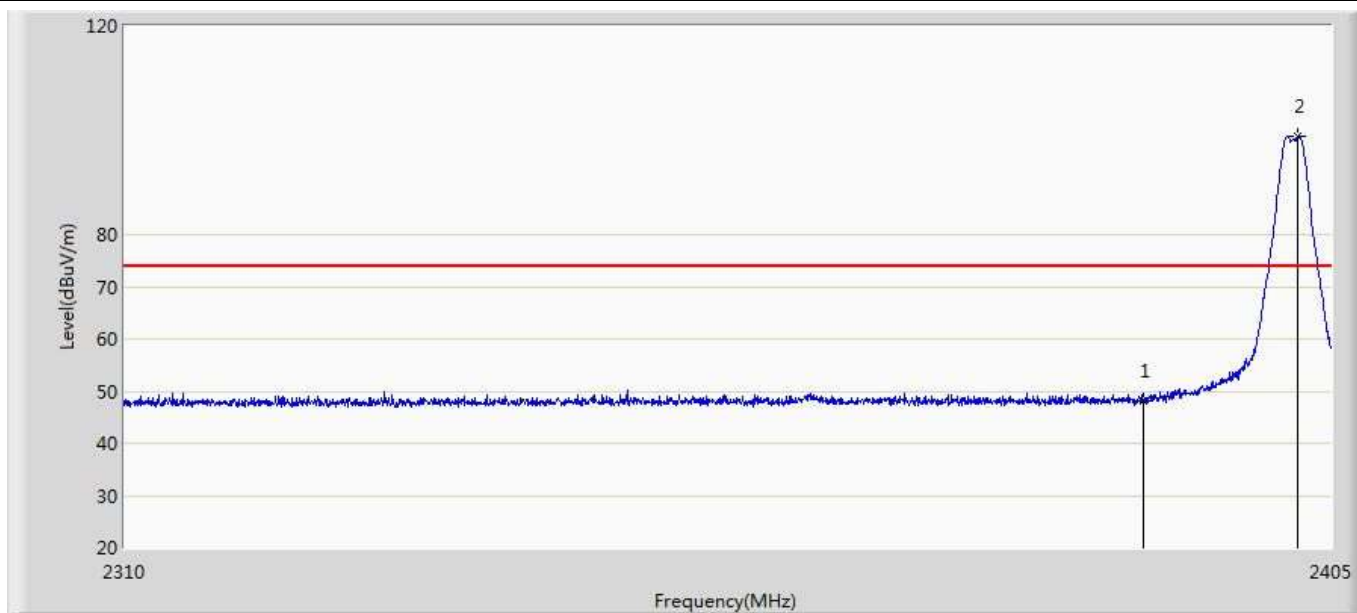
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	98.229	62.362	44.229	54.000	35.866	AV
2		2483.500	42.892	7.000	-11.108	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:42
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	



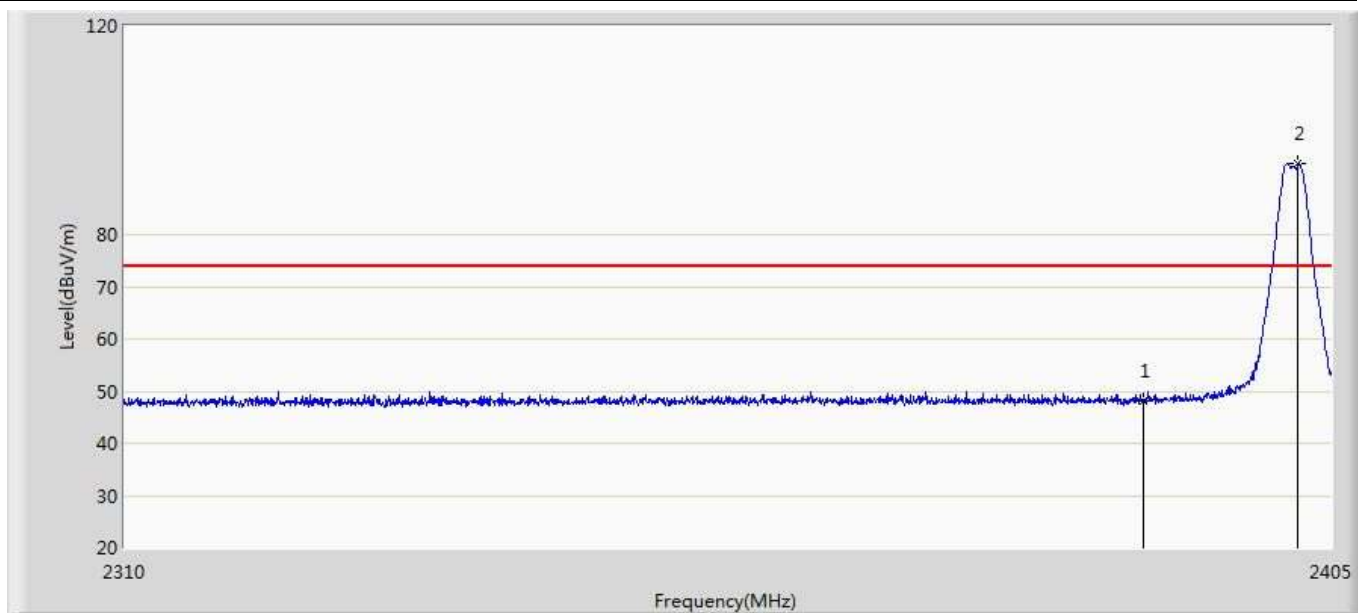
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	91.481	55.615	37.481	54.000	35.866	AV
2		2483.500	39.020	3.128	-14.980	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:06
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	



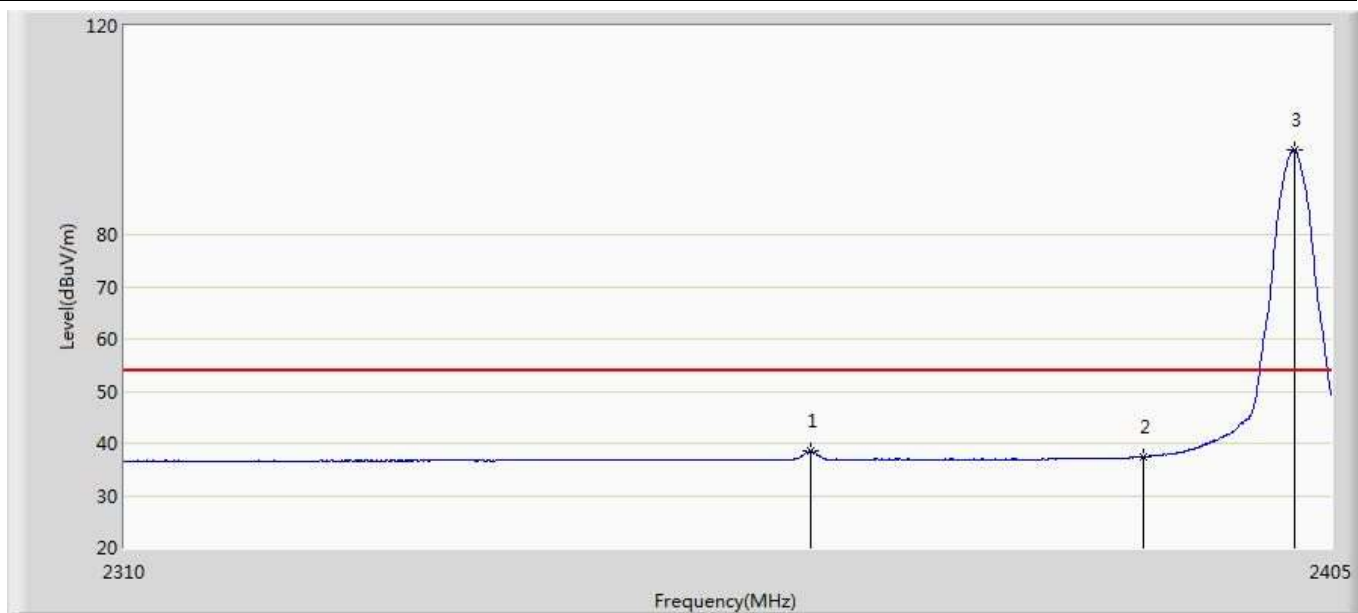
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.209	12.527	-25.791	74.000	35.682	PK
2	*	2402.387	98.799	63.085	24.799	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:08
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	



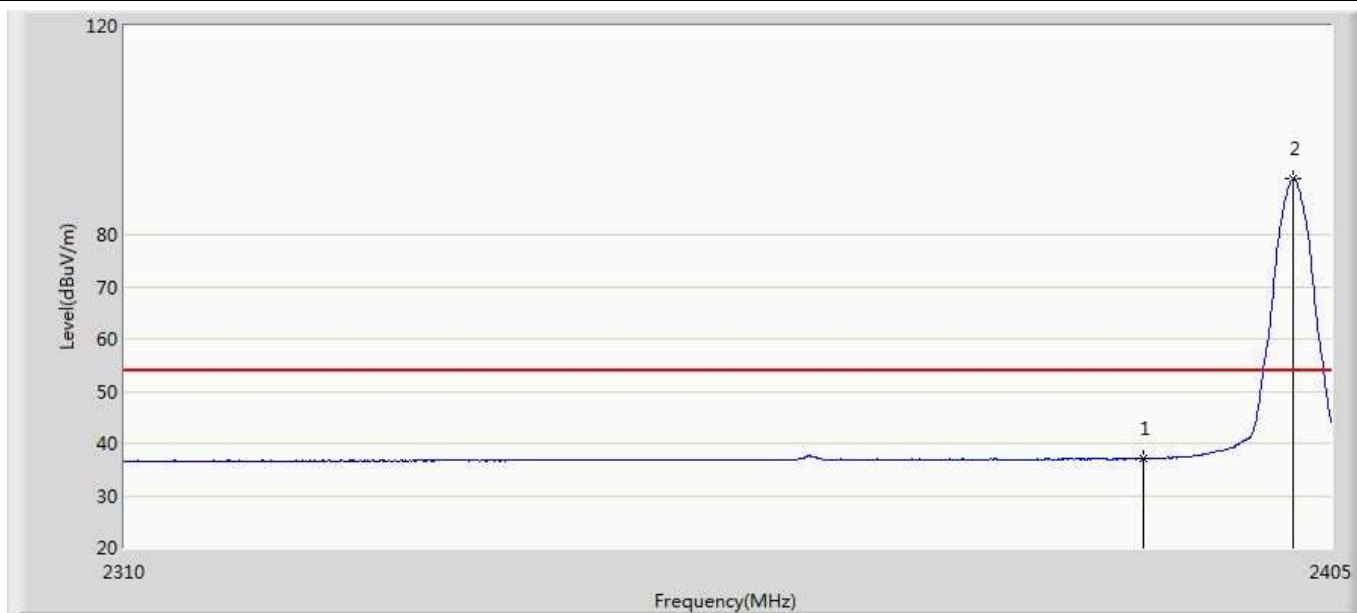
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.170	12.488	-25.830	74.000	35.682	PK
2	*	2402.387	93.490	57.776	19.490	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:10
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 2402MHz by LE_2Mbps	



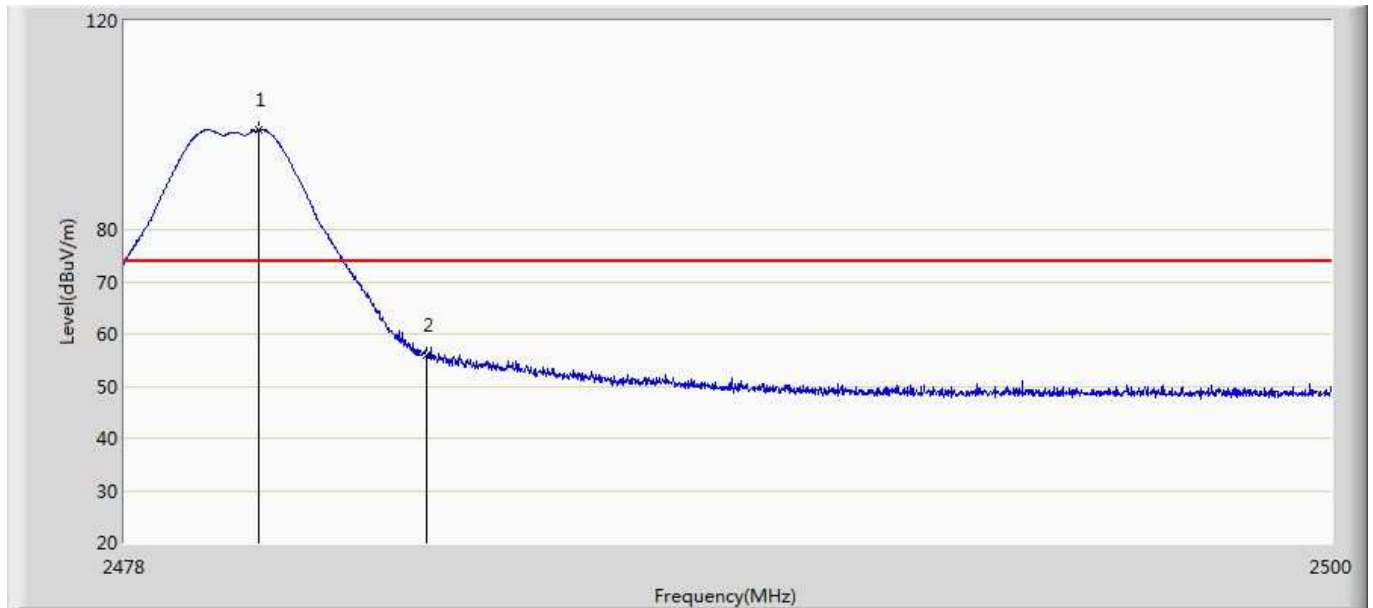
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	38.547	2.925	-15.453	54.000	35.622	AV
2		2390.000	37.340	1.658	-16.660	54.000	35.682	AV
3	*	2402.055	96.293	60.580	42.293	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:11
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 2402MHz by LE_2Mbps	



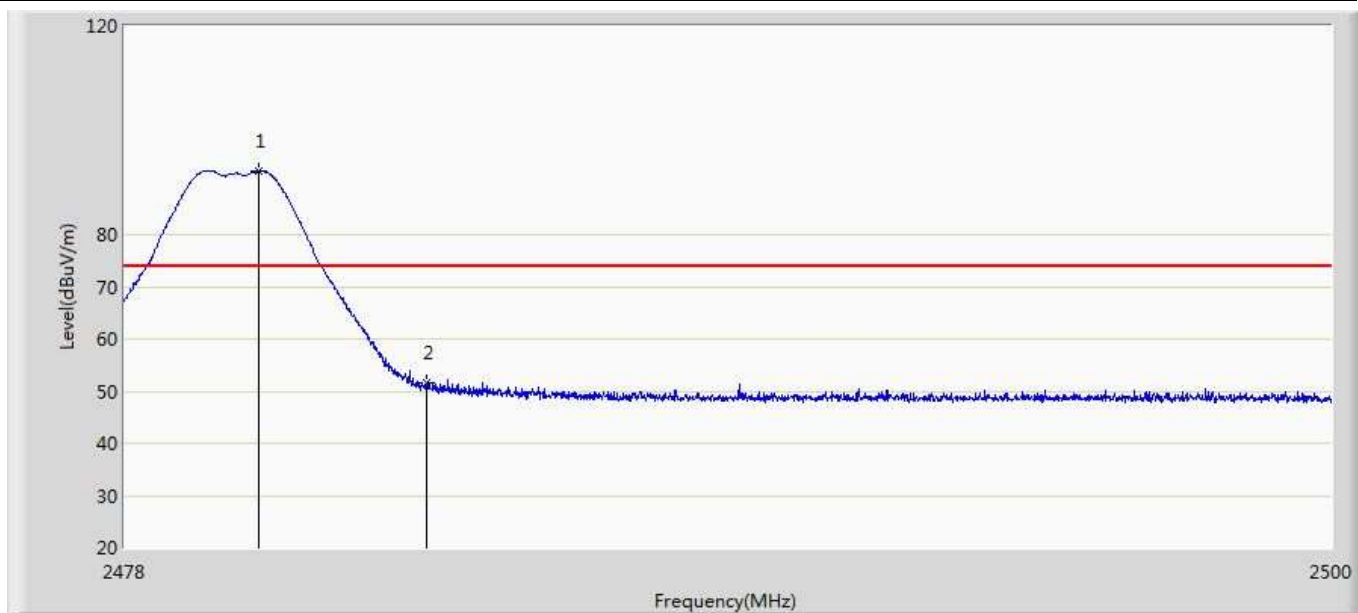
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.091	1.409	-16.909	54.000	35.682	AV
2	*	2401.913	90.671	54.959	36.671	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:44
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	



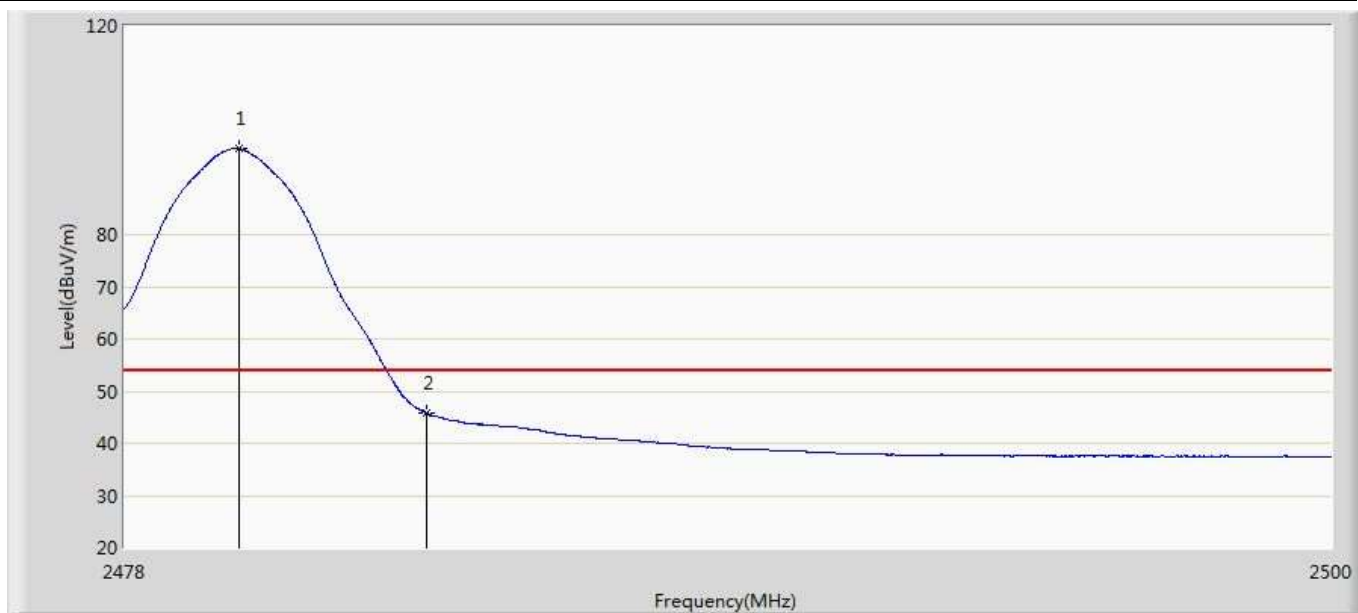
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.453	99.085	63.215	25.085	74.000	35.870	PK
2		2483.500	55.993	20.101	-18.007	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:47
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 2:Transmit at 2480MHz by LE_2Mbps	



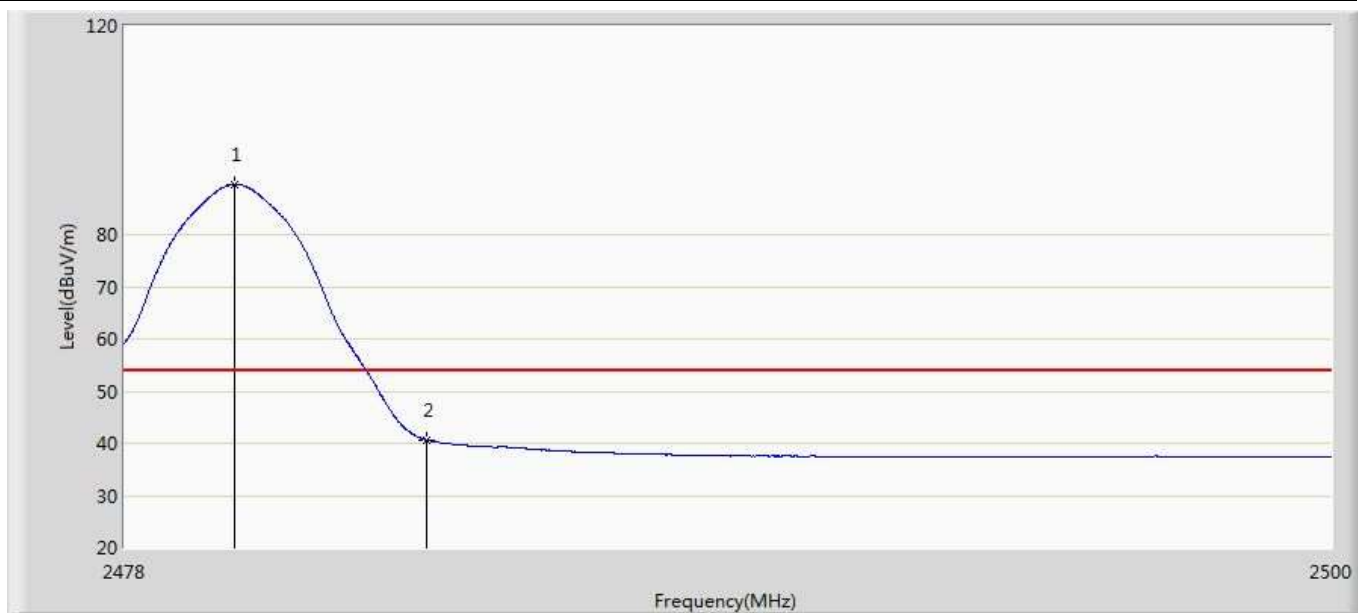
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.442	92.208	56.338	18.208	74.000	35.870	PK
2		2483.500	51.465	15.573	-22.535	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:49
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	



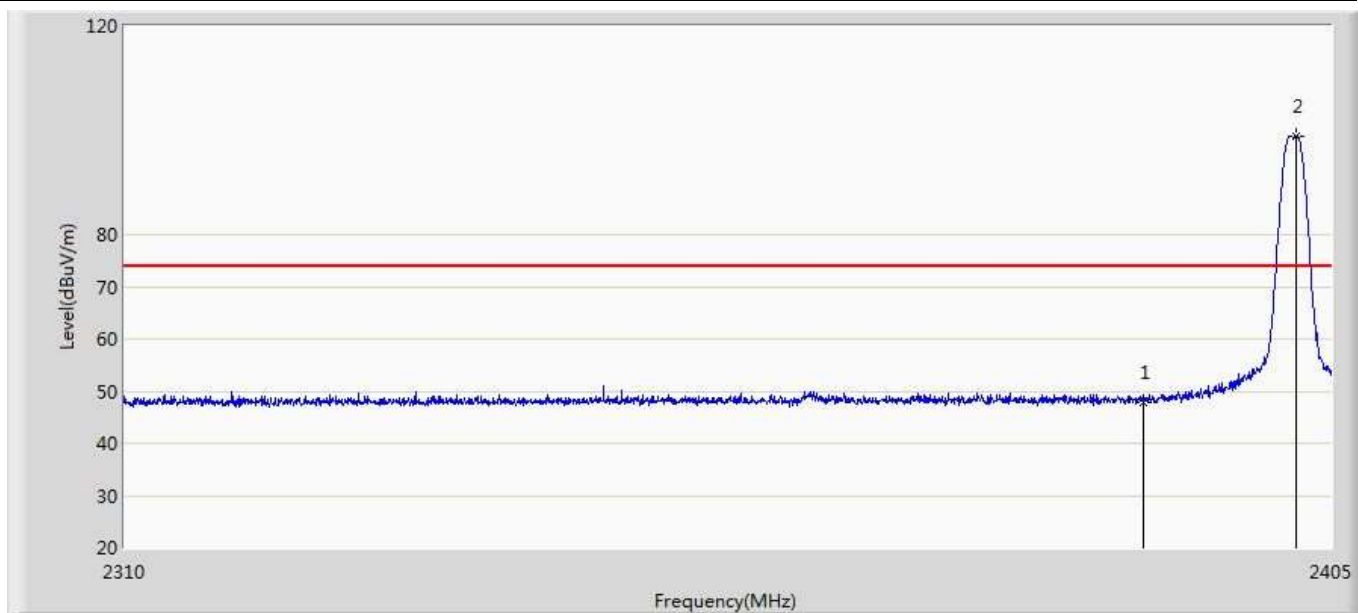
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.079	96.430	60.563	42.430	54.000	35.867	AV
2		2483.500	45.749	9.857	-8.251	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:51
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	



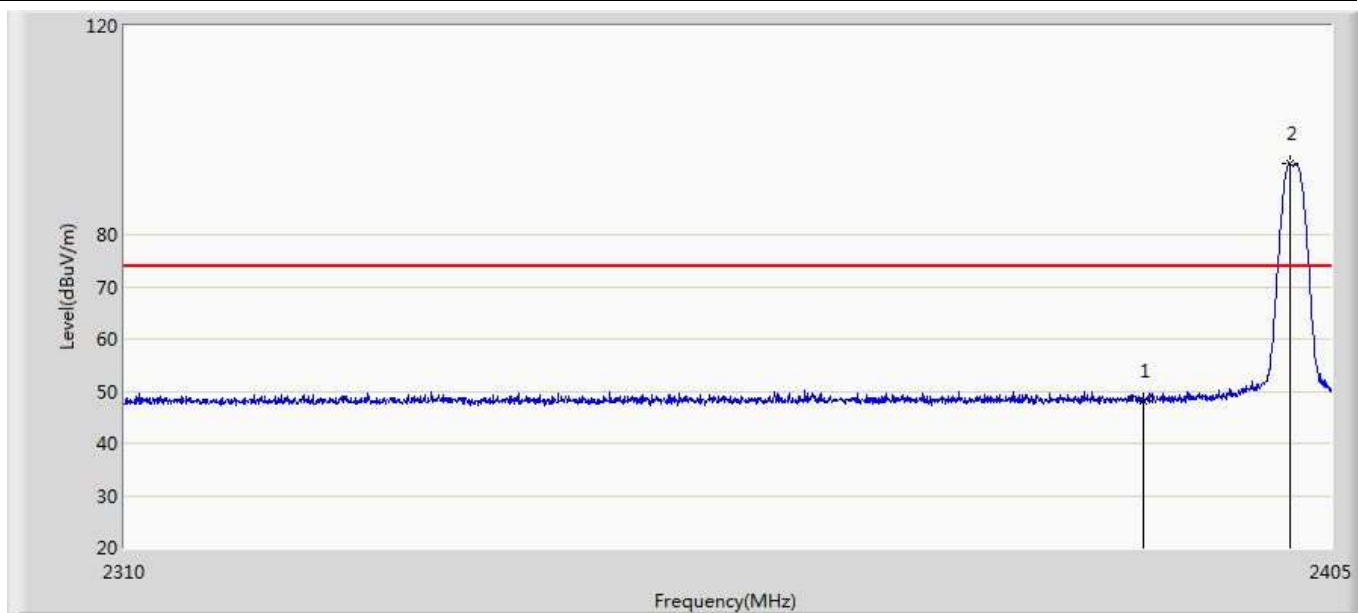
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	89.634	53.768	35.634	54.000	35.866	AV
2		2483.500	40.653	4.761	-13.347	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:13
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 3:Transmit at 2402MHz by LE_Coded (S=2)	



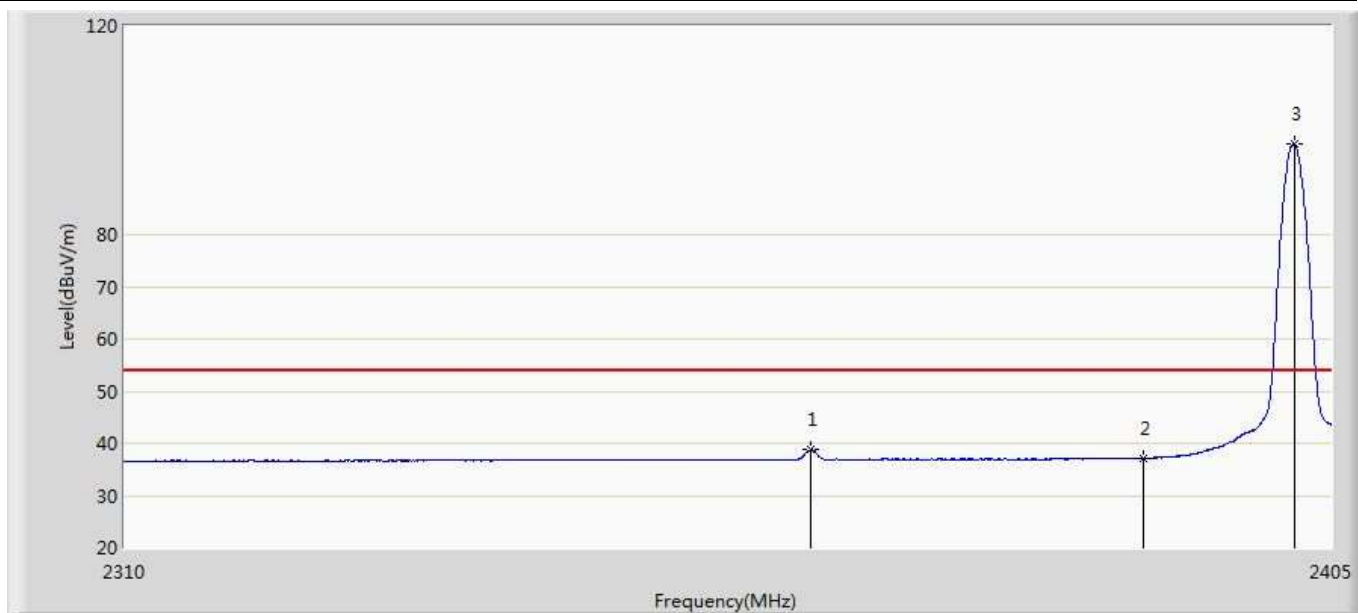
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	47.896	12.214	-26.104	74.000	35.682	PK
2	*	2402.198	98.927	63.214	24.927	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:17
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)	



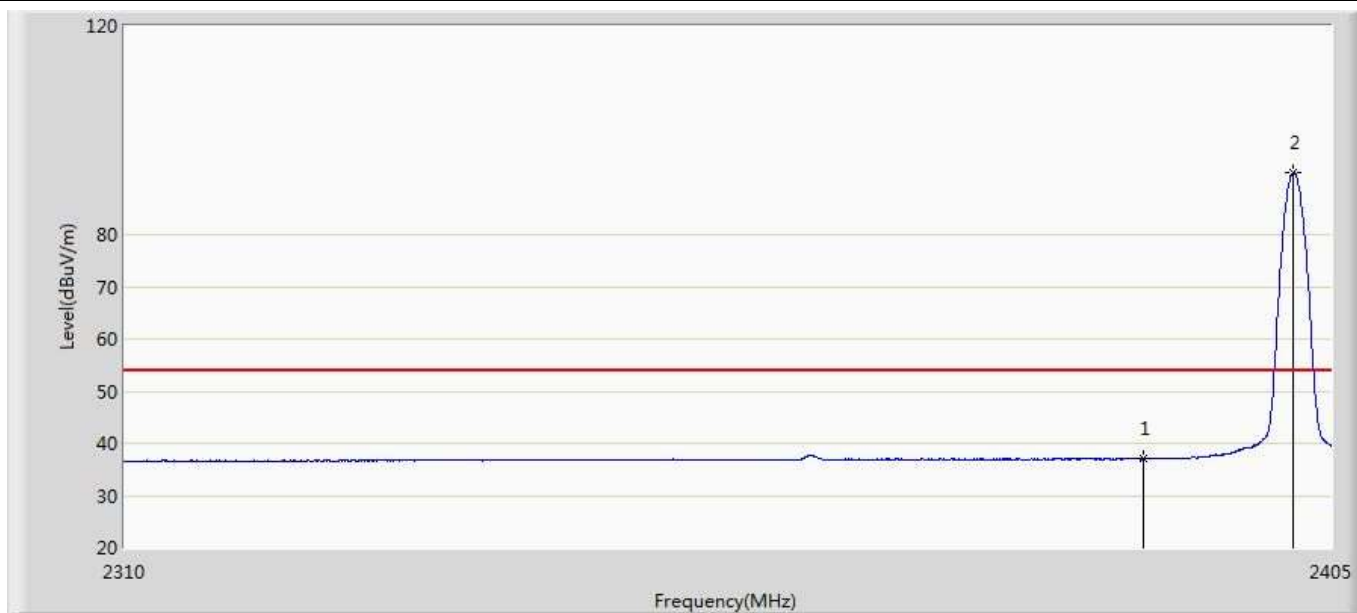
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.165	12.483	-25.835	74.000	35.682	PK
2	*	2401.770	93.528	57.816	19.528	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:20
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 3:Transmit at 2402MHz by LE_Coded (S=2)	



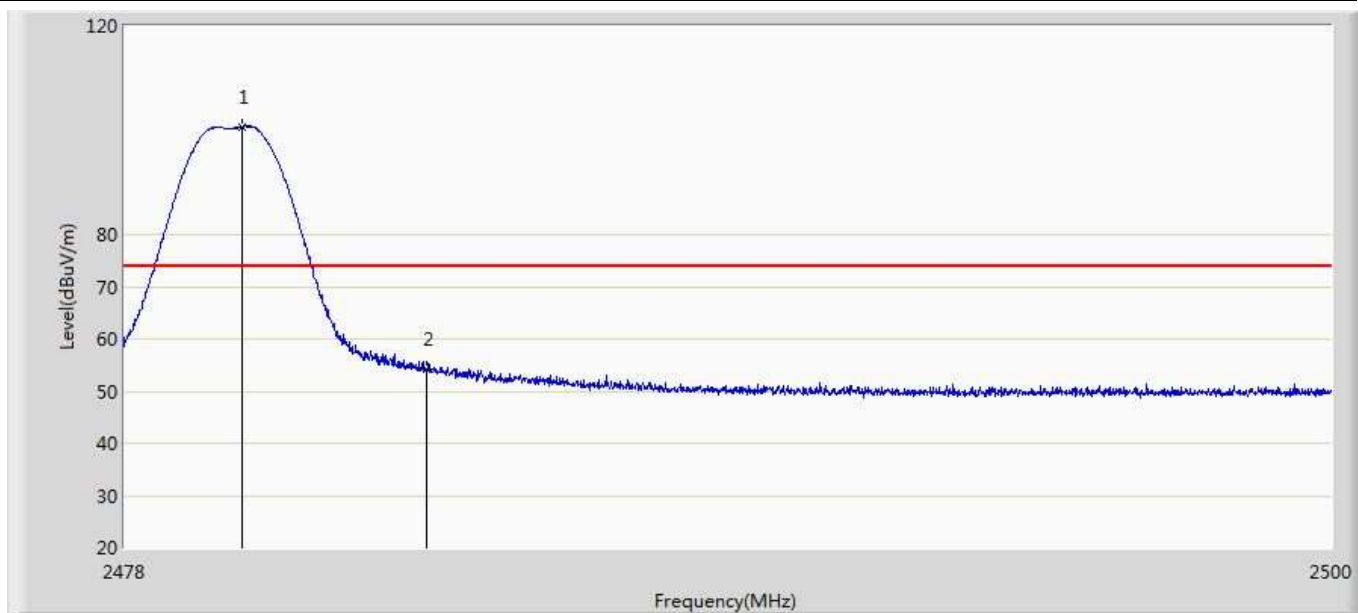
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	38.907	3.285	-15.093	54.000	35.622	AV
2		2390.000	37.201	1.519	-16.799	54.000	35.682	AV
3	*	2402.055	97.425	61.712	43.425	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:22
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 3:Transmit at 2402MHz by LE_Coded (S=2)	



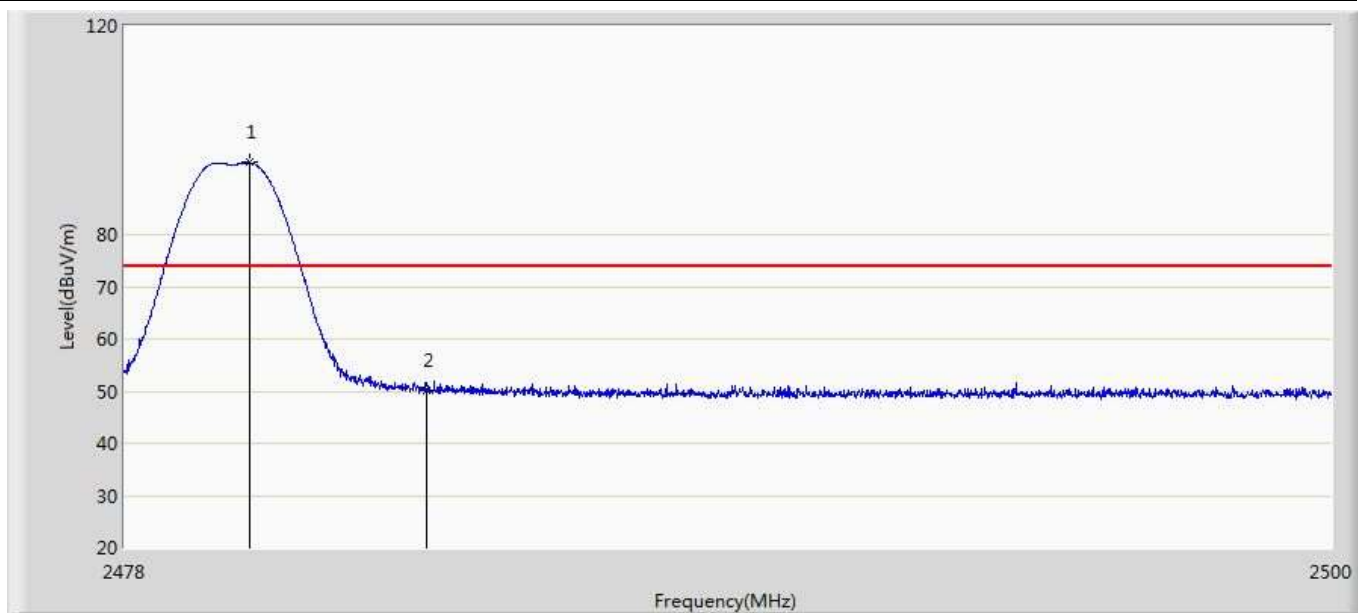
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.053	1.371	-16.947	54.000	35.682	AV
2	*	2401.960	91.913	56.200	37.913	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:53
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)	



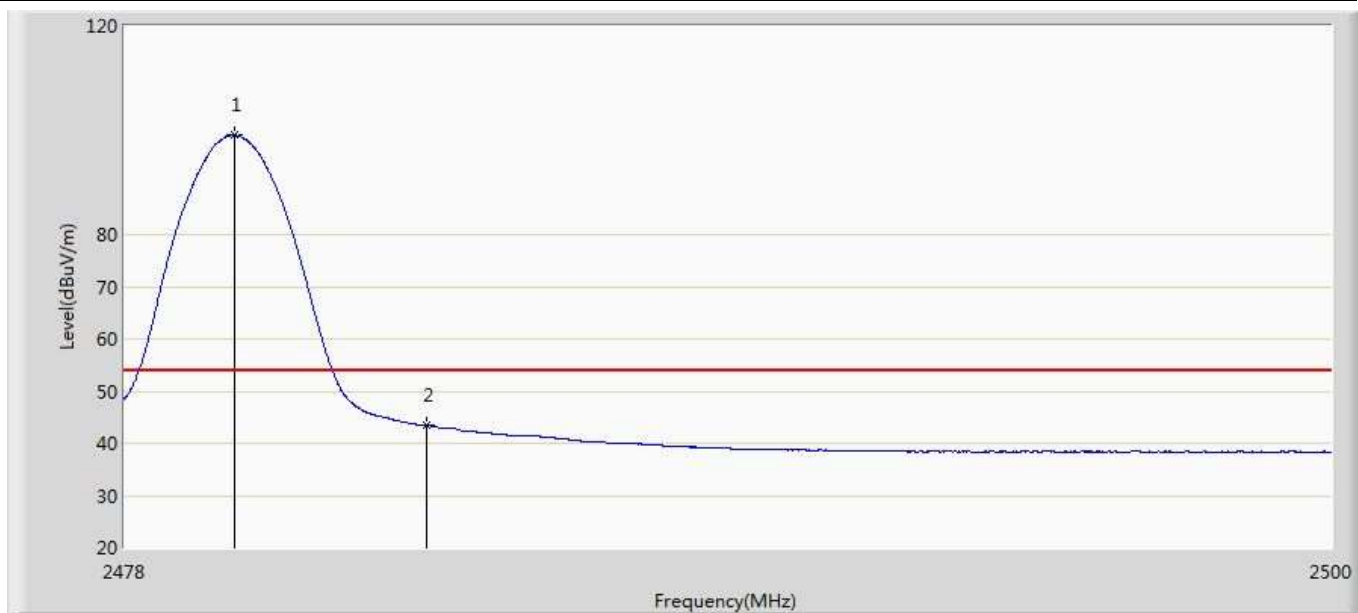
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.145	100.675	64.808	26.675	74.000	35.867	PK
2		2483.500	54.284	18.392	-19.716	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:27
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)	



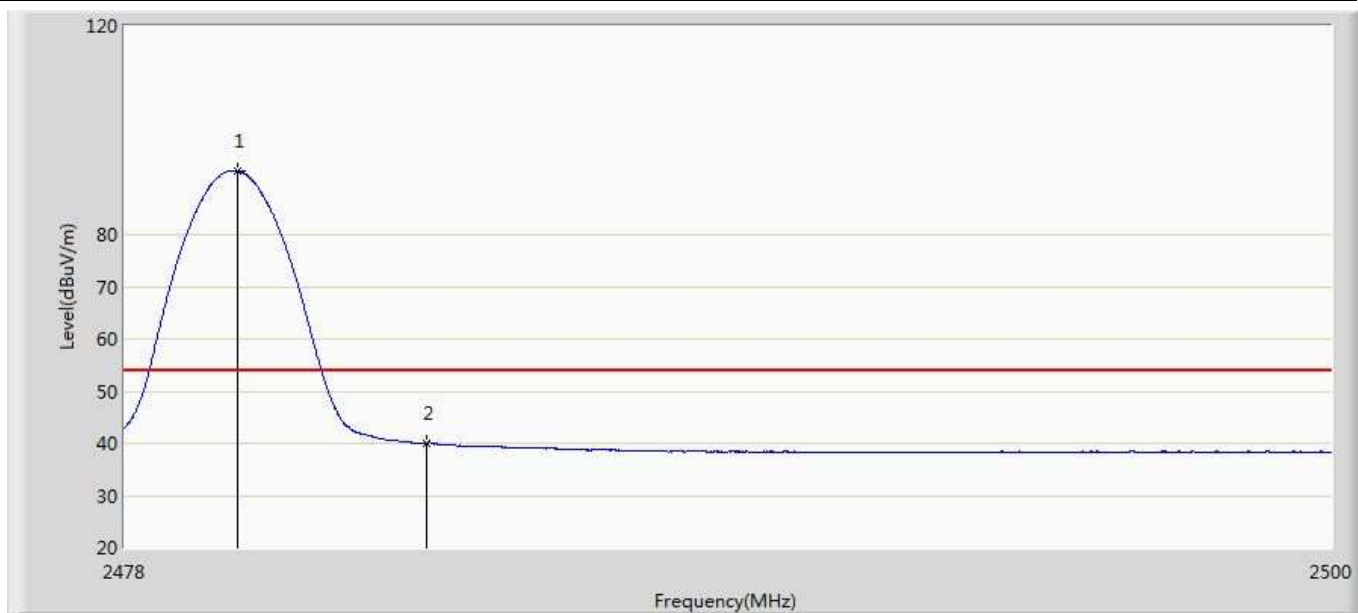
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.288	93.774	57.906	19.774	74.000	35.869	PK
2		2483.500	50.197	14.305	-23.803	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:29
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)	



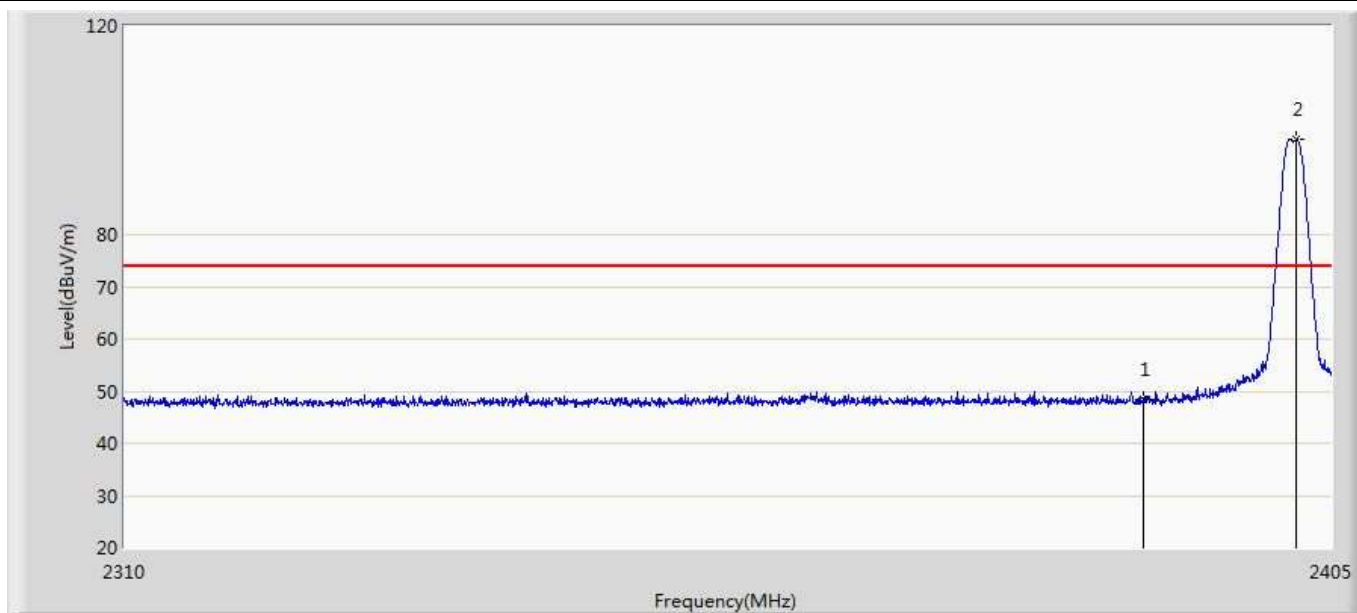
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	99.013	63.147	45.013	54.000	35.866	AV
2		2483.500	43.414	7.522	-10.586	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:31
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)	



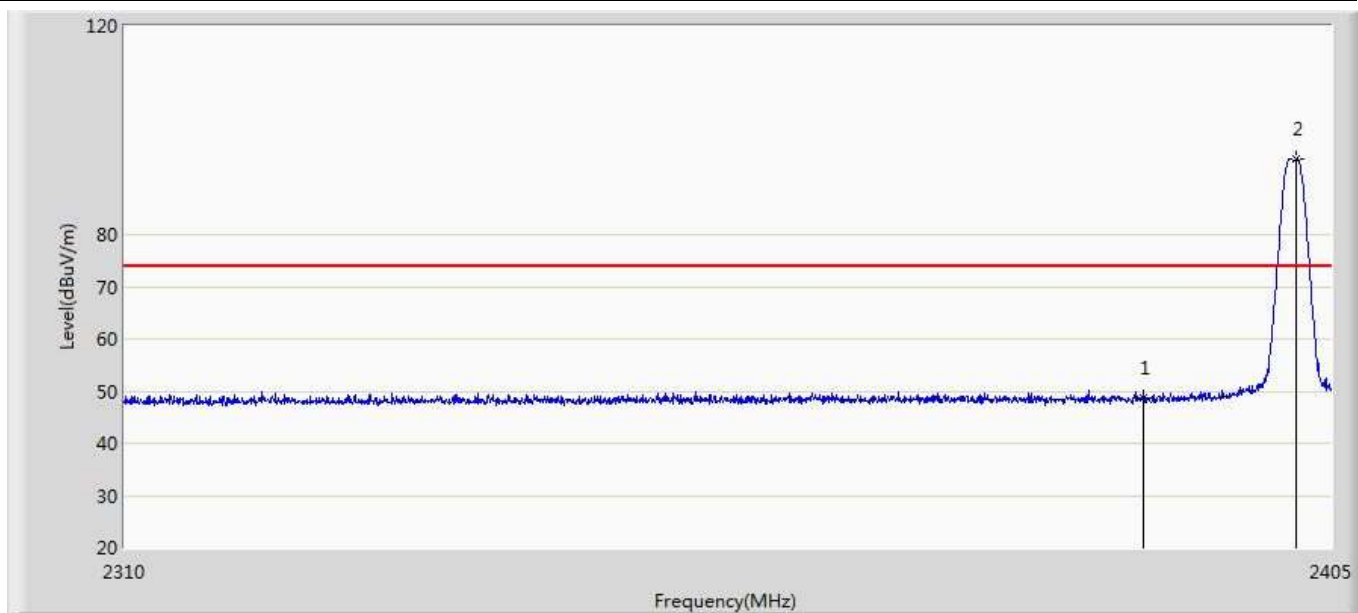
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	92.251	56.384	38.251	54.000	35.866	AV
2		2483.500	40.075	4.183	-13.925	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:25
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 4:Transmit at 2402MHz by LE_Coded (S=8)	



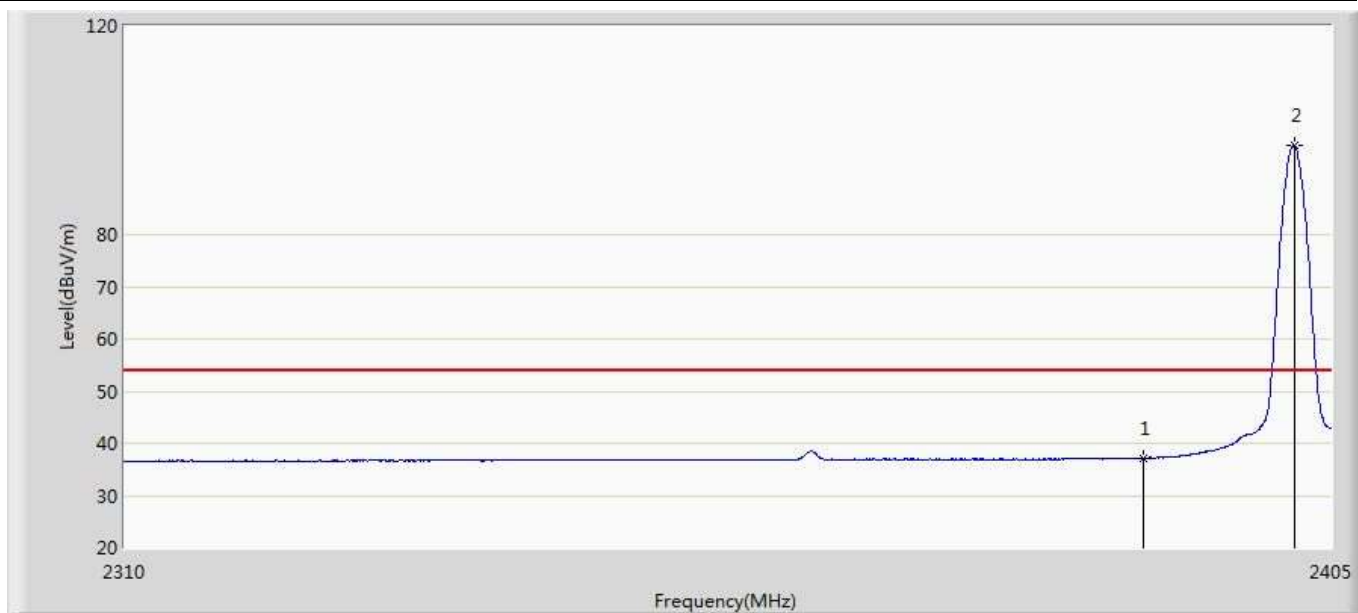
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.476	12.794	-25.524	74.000	35.682	PK
2	*	2402.198	98.186	62.473	24.186	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:28
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 4:Transmit at 2402MHz by LE_Coded (S=8)	



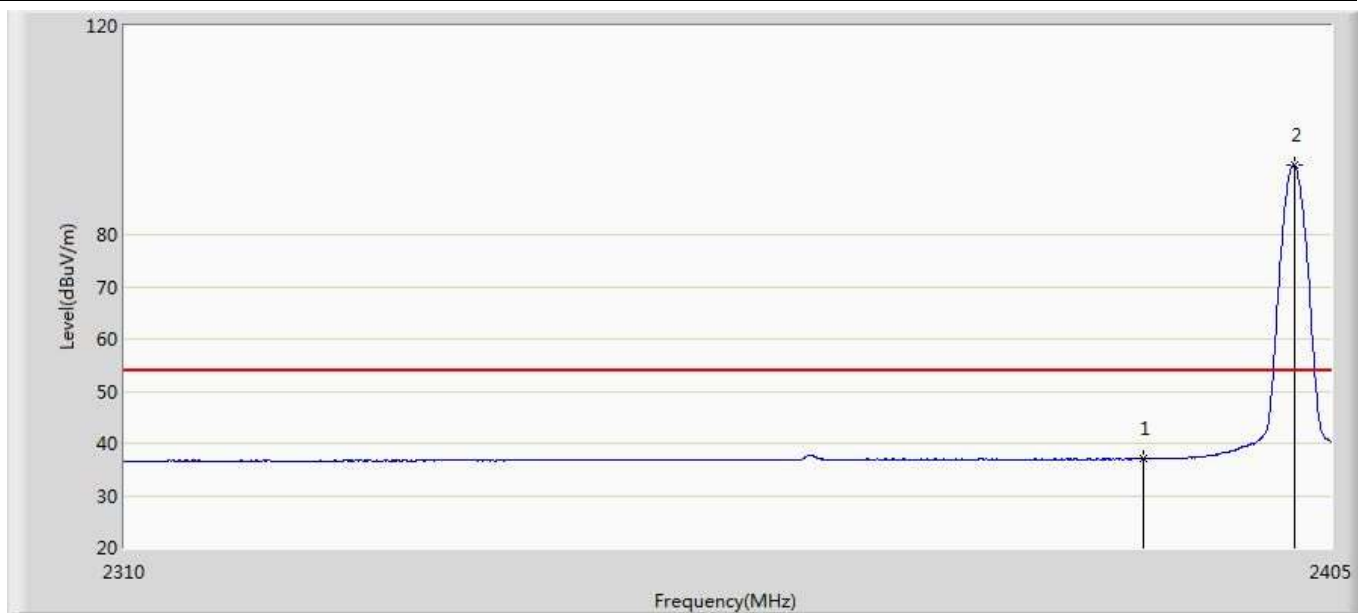
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.672	12.990	-25.328	74.000	35.682	PK
2	*	2402.198	94.488	58.775	20.488	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:31
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)	



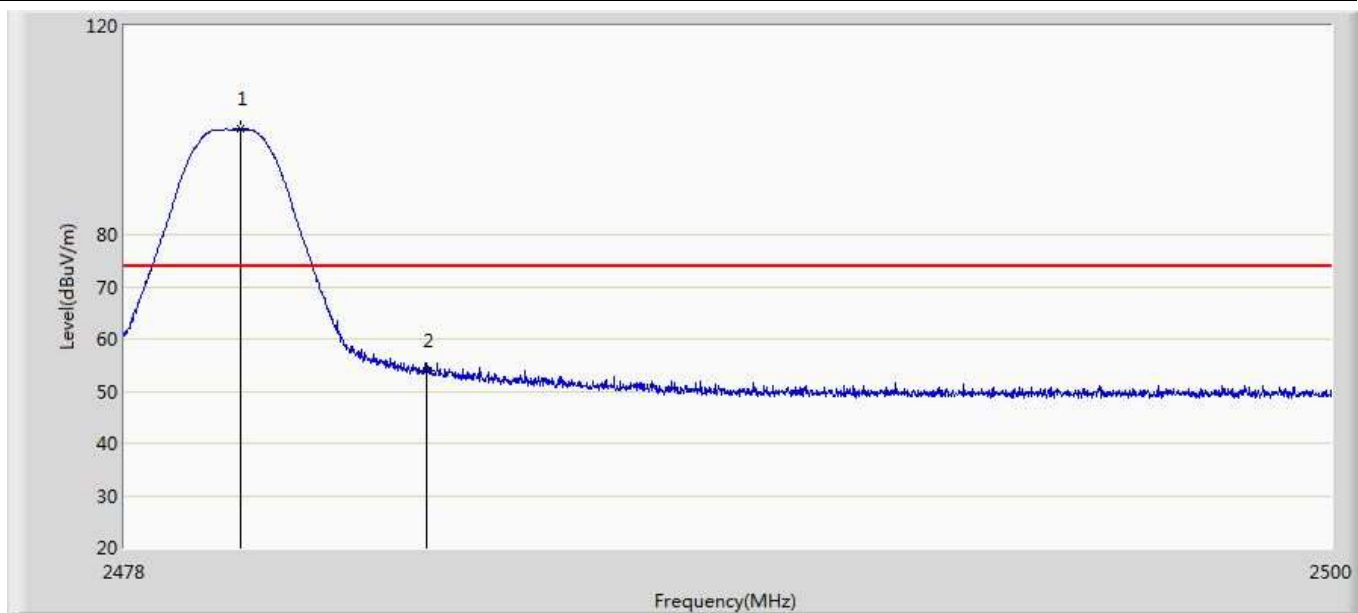
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.182	1.500	-16.818	54.000	35.682	AV
2	*	2402.055	97.055	61.342	43.055	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/14 - 15:33
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 4:Transmit at 2402MHz by LE_Coded (S=8)	



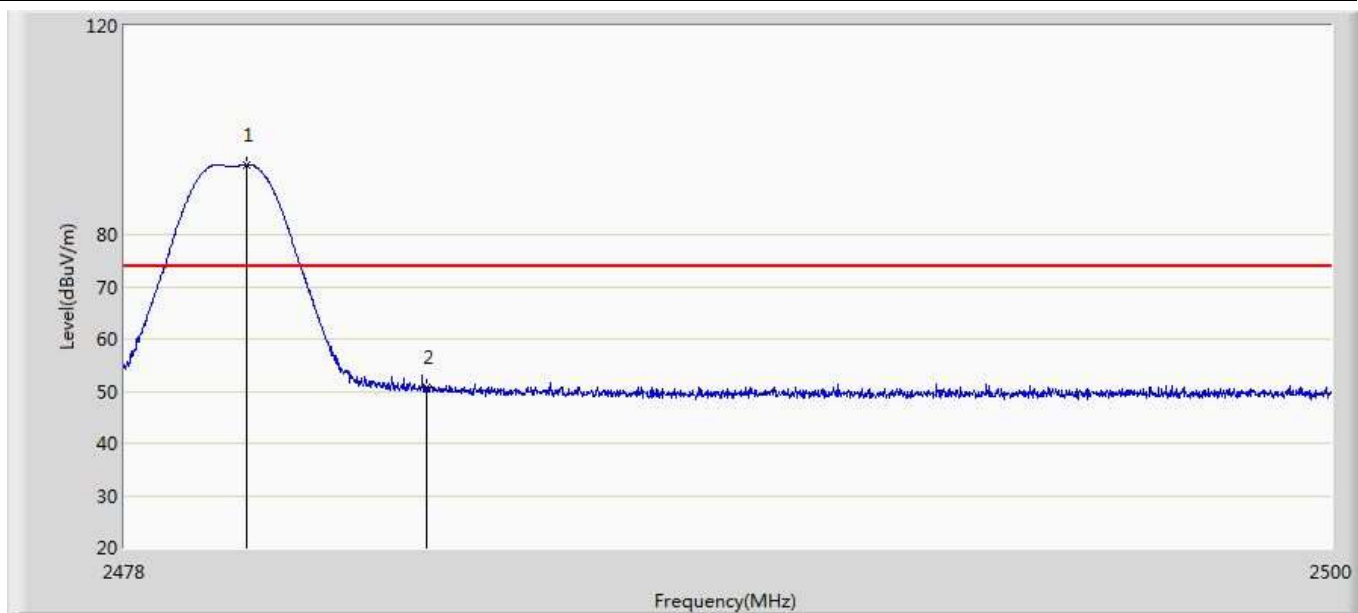
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.022	1.340	-16.978	54.000	35.682	AV
2	*	2402.055	93.308	57.595	39.308	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:34
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)	



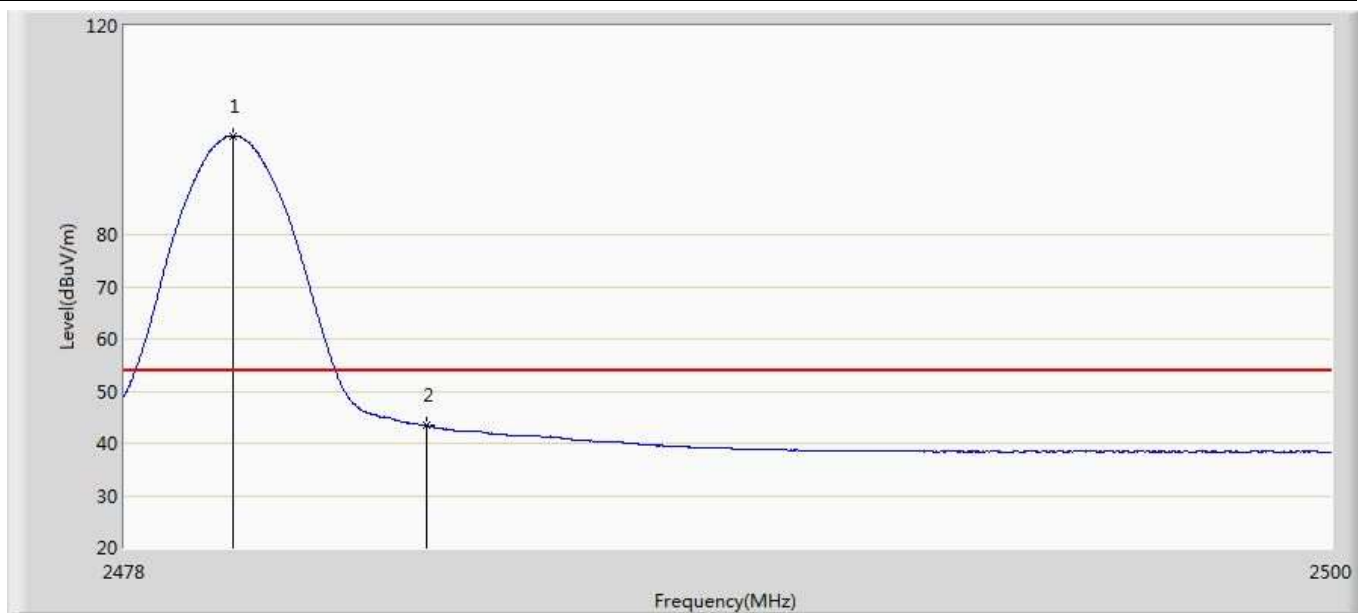
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.123	100.308	64.441	26.308	74.000	35.867	PK
2		2483.500	53.921	18.029	-20.079	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:36
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 4:Transmit at 2480MHz by LE_Coded (S=8)	



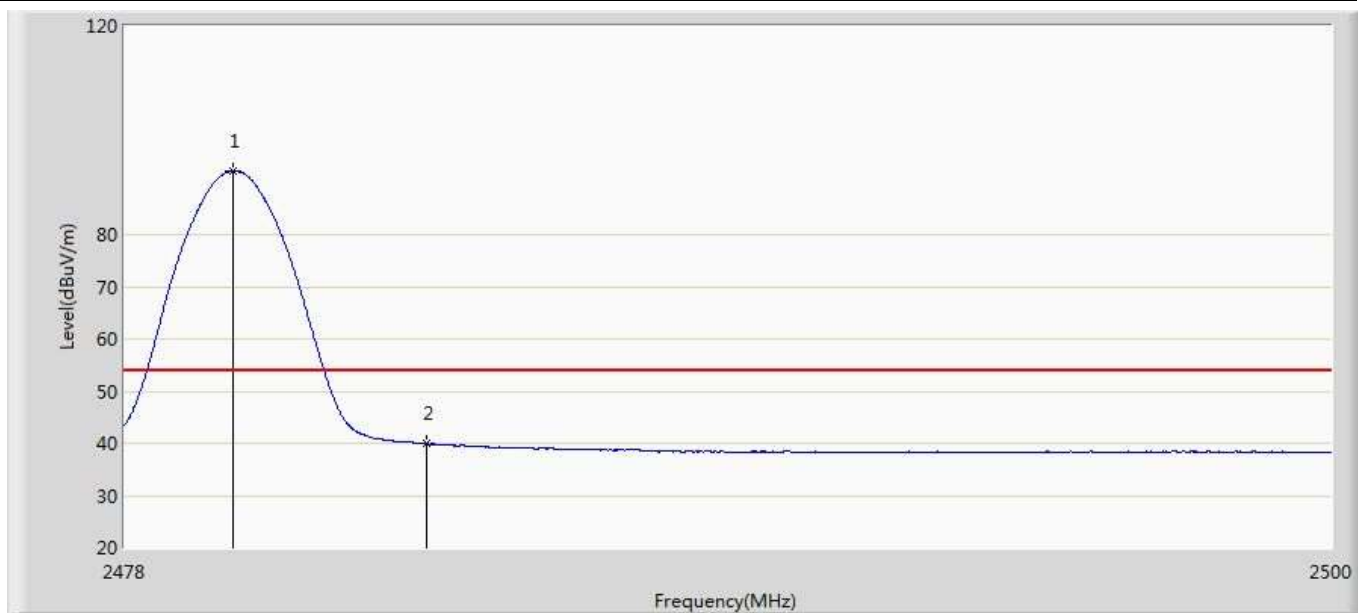
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.222	93.426	57.558	19.426	74.000	35.868	PK
2		2483.500	50.861	14.969	-23.139	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:37
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	*	2479.980	98.945	63.079	44.945	54.000	35.866	AV
2		2483.500	43.424	7.532	-10.576	54.000	35.891	AV

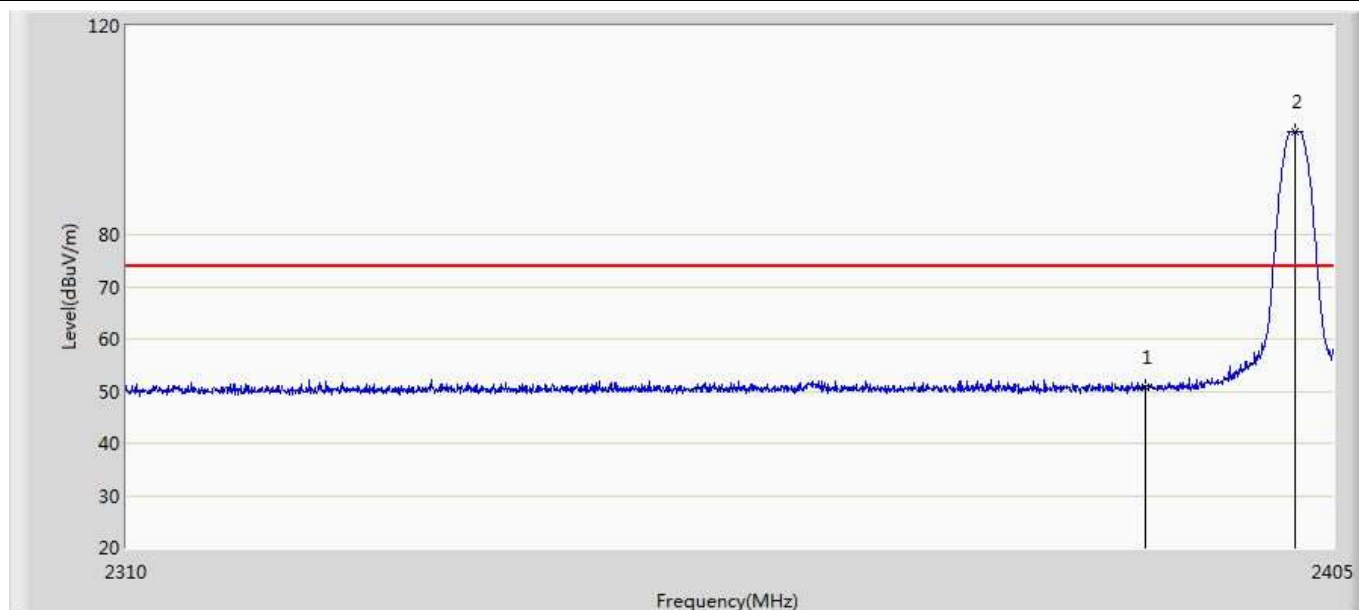
Engineer: Tongben	
Site: AC5	Time: 2019/08/15 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded (S=8)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.980	92.210	56.344	38.210	54.000	35.866	AV
2		2483.500	39.893	4.001	-14.107	54.000	35.891	AV

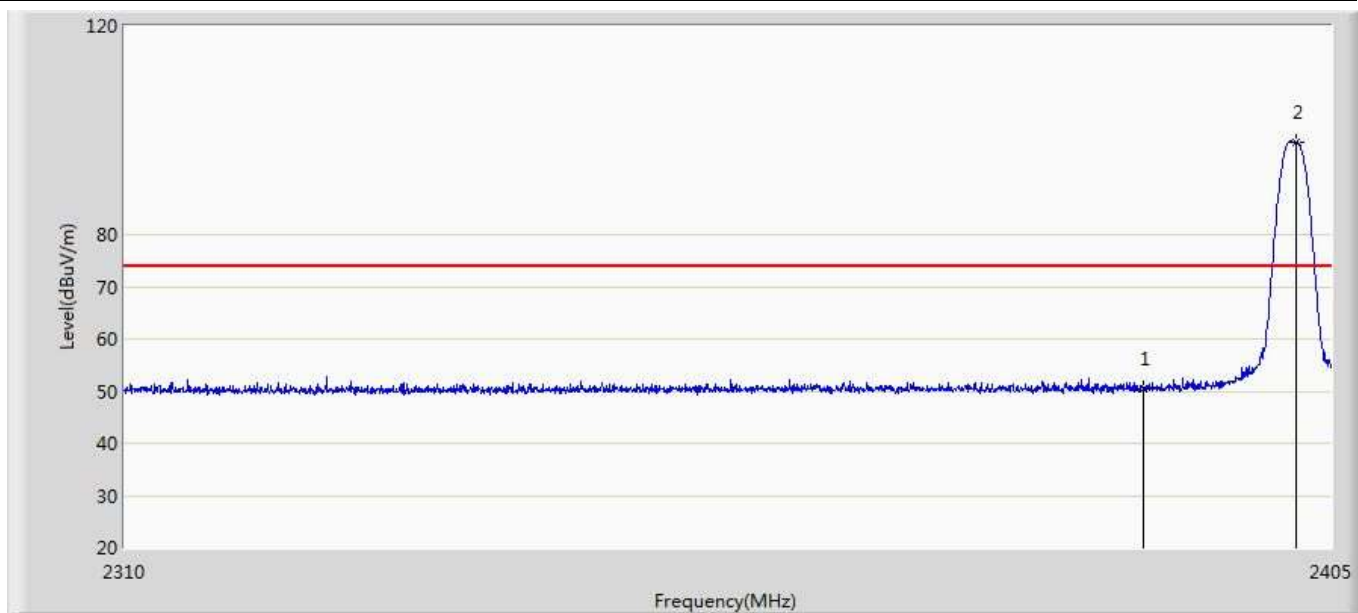
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Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



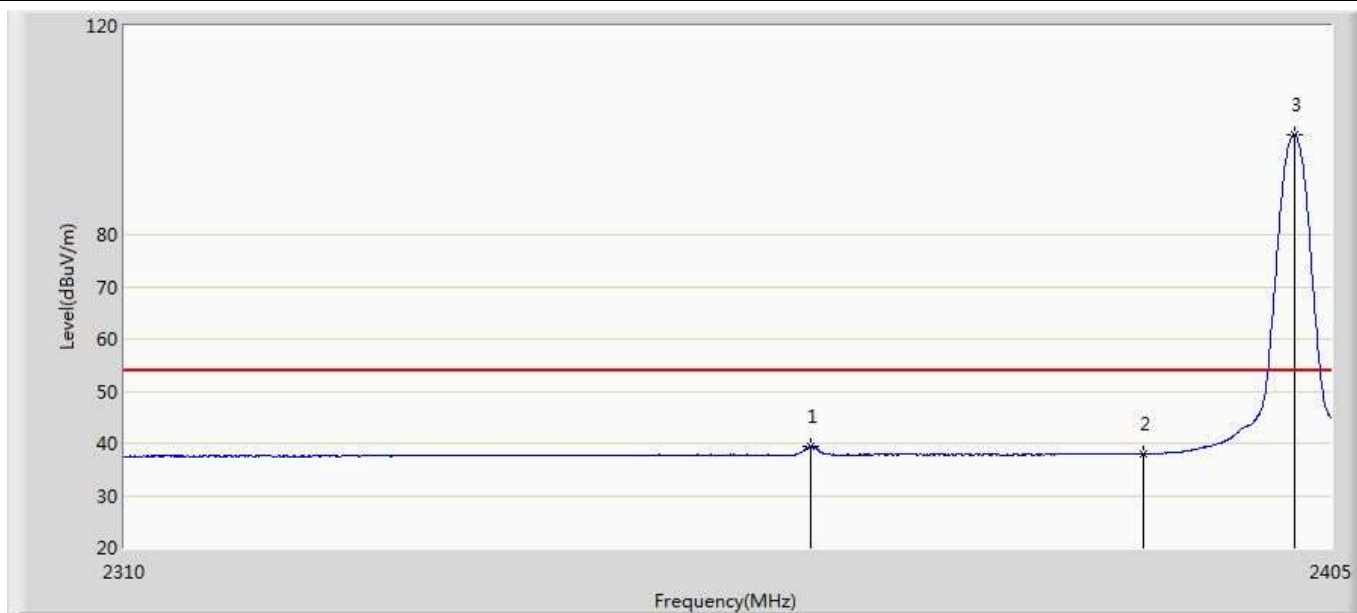
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.721	15.039	-23.279	74.000	35.682	PK
2	*	2401.913	99.741	64.029	25.741	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:51
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	



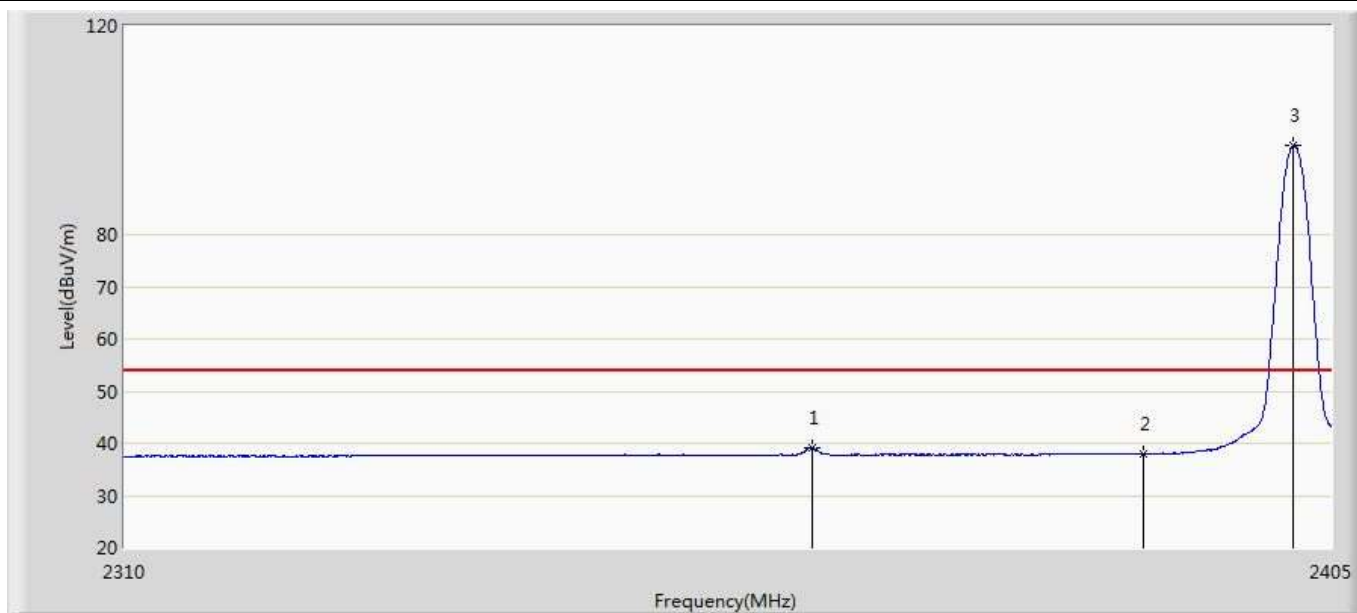
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.579	14.897	-23.421	74.000	35.682	PK
2	*	2402.150	97.798	62.085	23.798	74.000	35.713	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:53
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	



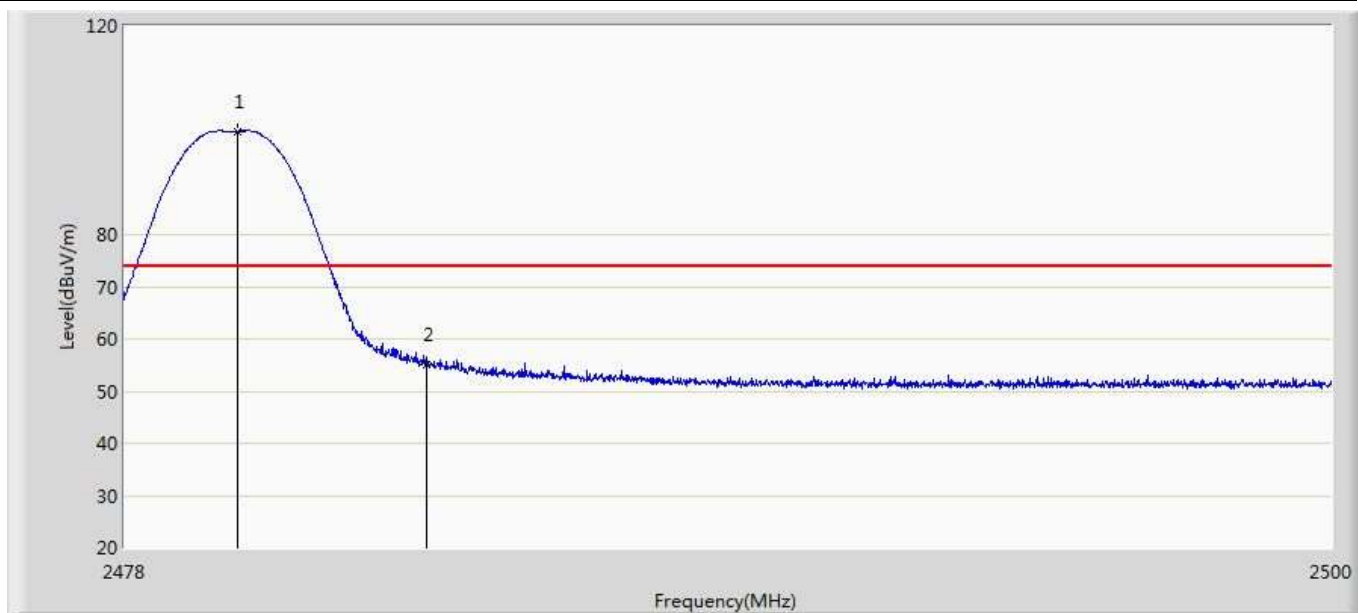
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	39.415	3.793	-14.585	54.000	35.622	AV
2		2390.000	38.029	2.347	-15.971	54.000	35.682	AV
3	*	2402.055	99.145	63.432	45.145	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:55
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 1:Transmit at 2402MHz by LE_1Mbps	



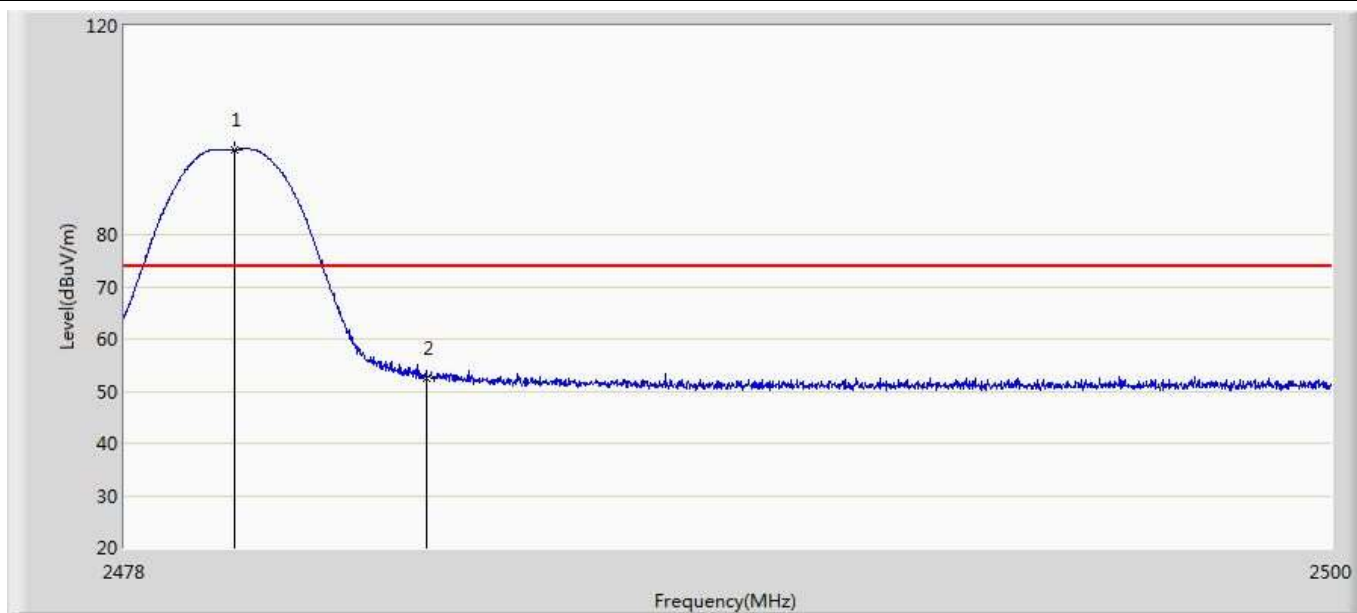
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	39.106	3.484	-14.894	54.000	35.622	AV
2		2390.000	37.959	2.277	-16.041	54.000	35.682	AV
3	*	2401.913	96.965	61.253	42.965	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 18:53
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	



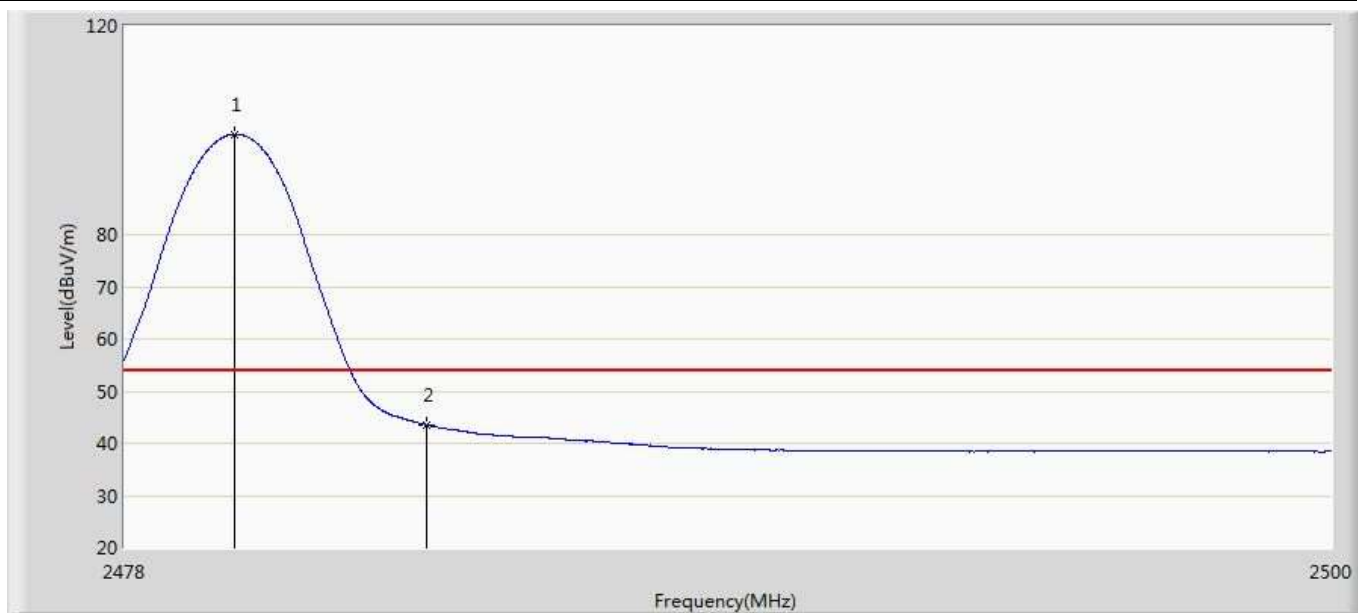
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	99.848	63.981	25.848	74.000	35.866	PK
2		2483.500	55.192	19.300	-18.808	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 18:57
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 2480MHz by LE_1Mbps	



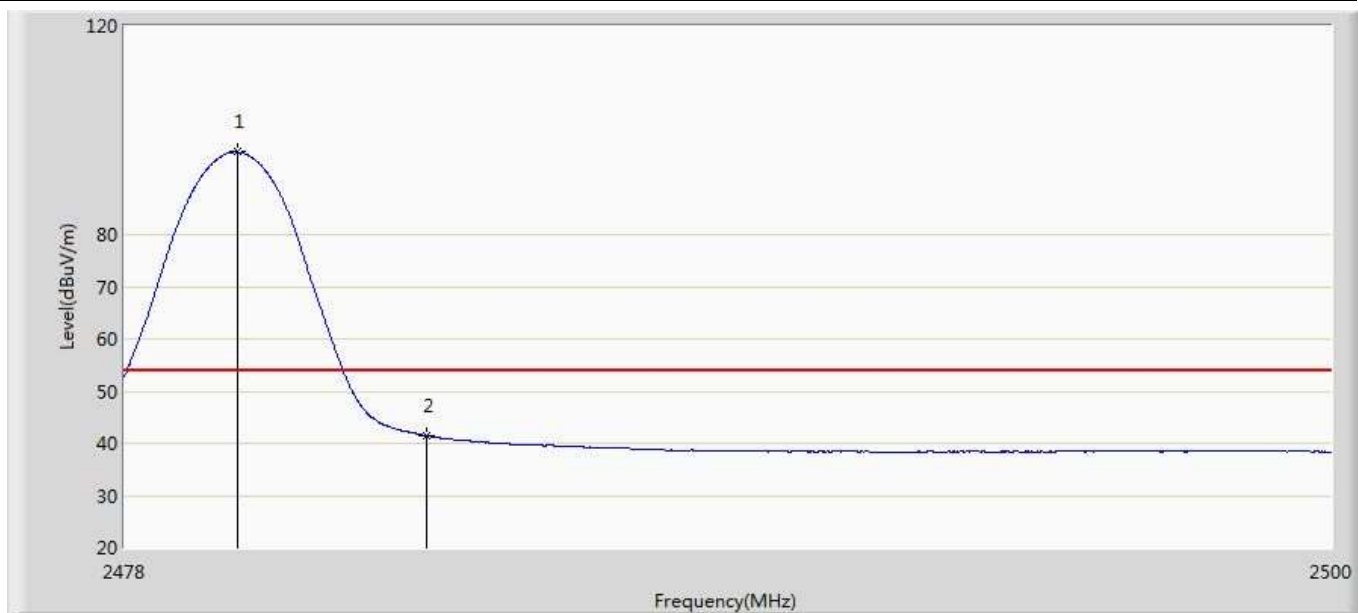
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	96.329	60.463	22.329	74.000	35.866	PK
2		2483.500	52.585	16.693	-21.415	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 18:58
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	



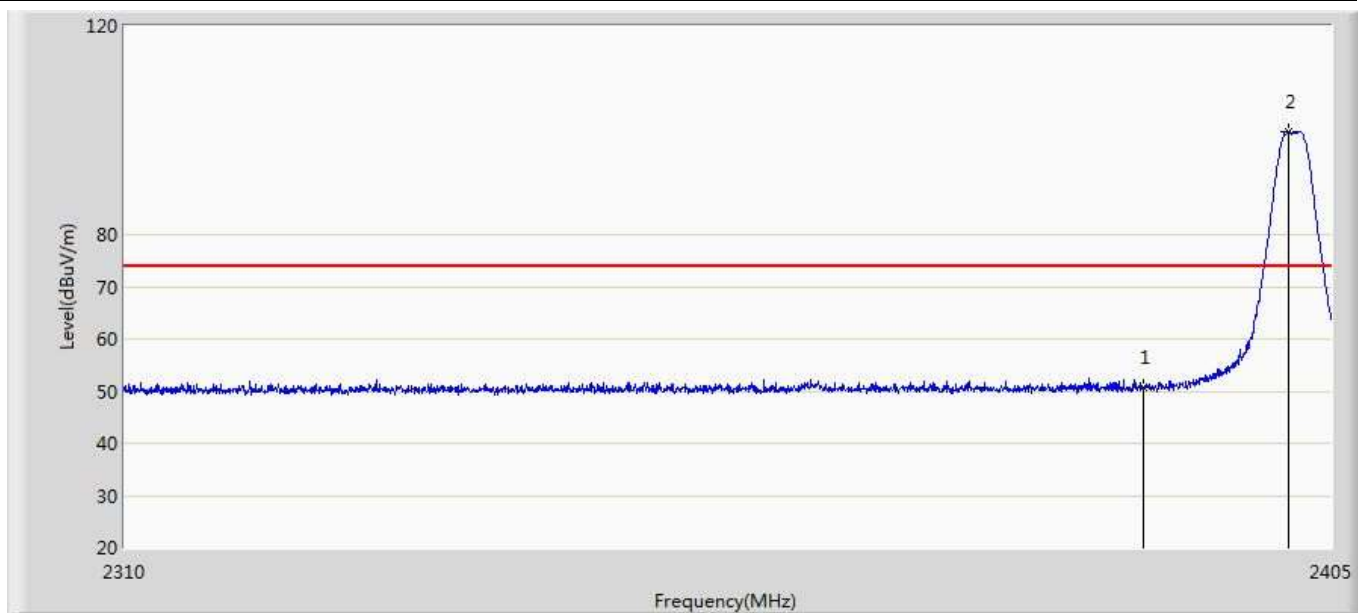
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	99.224	63.358	45.224	54.000	35.866	AV
2		2483.500	43.568	7.676	-10.432	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:00
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 1:Transmit at 2480MHz by LE_1Mbps	



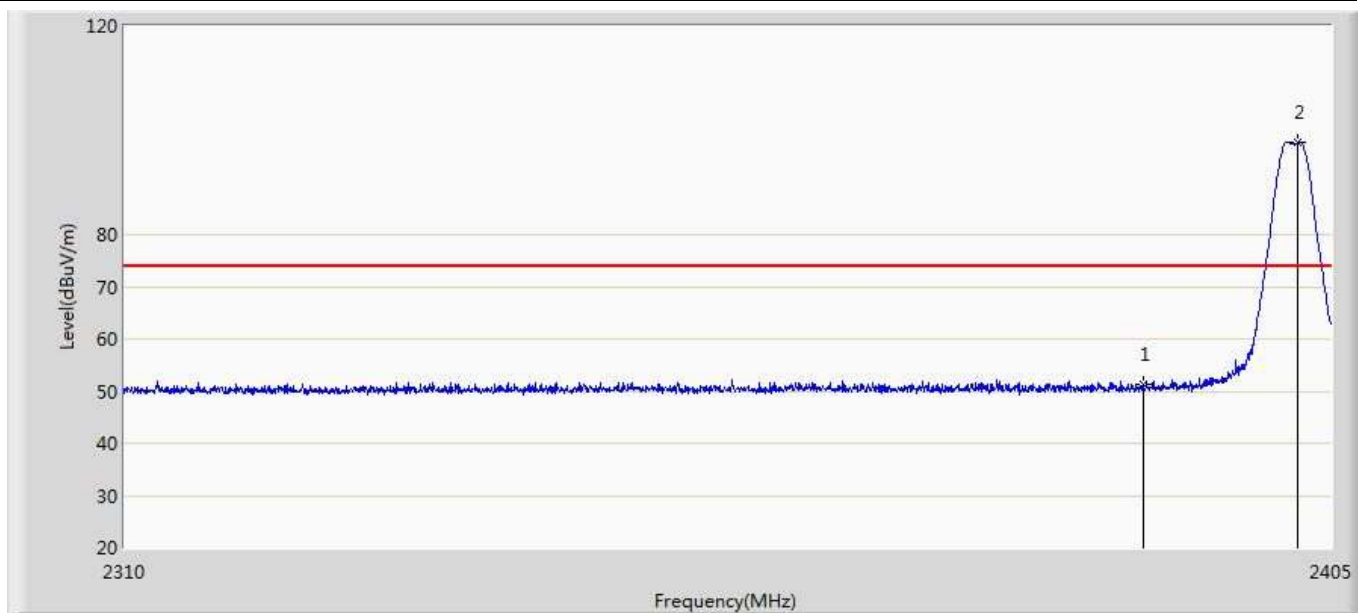
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.046	95.814	59.947	41.814	54.000	35.866	AV
2		2483.500	41.474	5.582	-12.526	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:07
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	



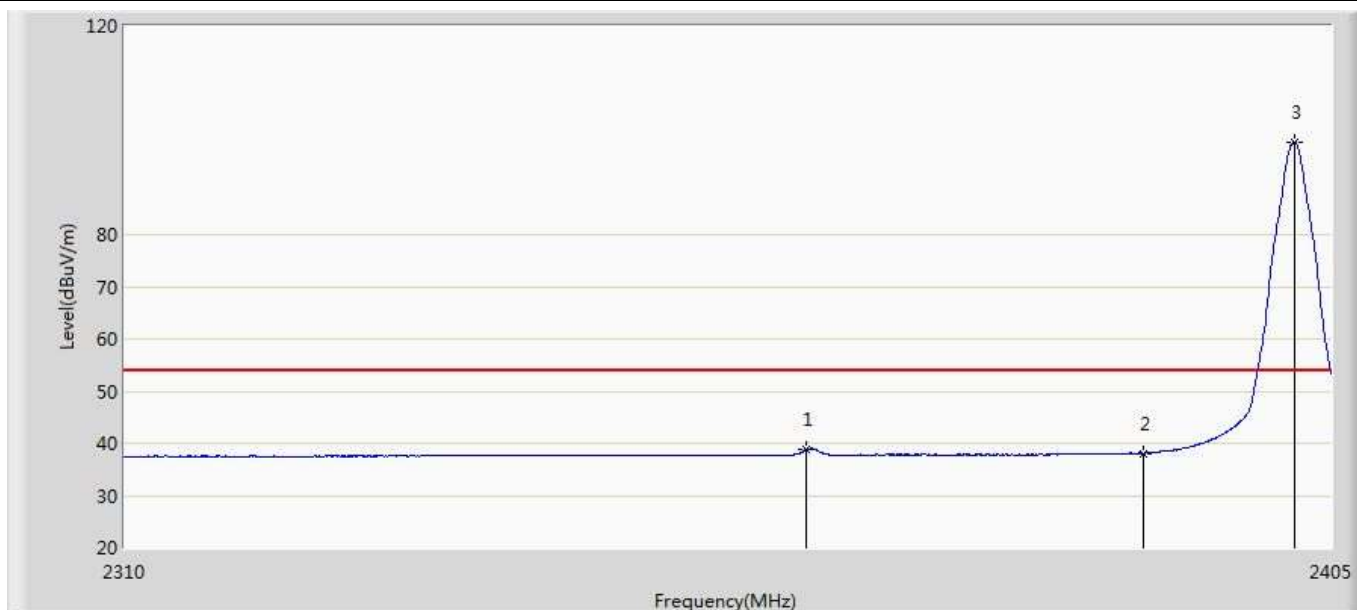
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.621	14.939	-23.379	74.000	35.682	PK
2	*	2401.627	99.759	64.047	25.759	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:10
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	



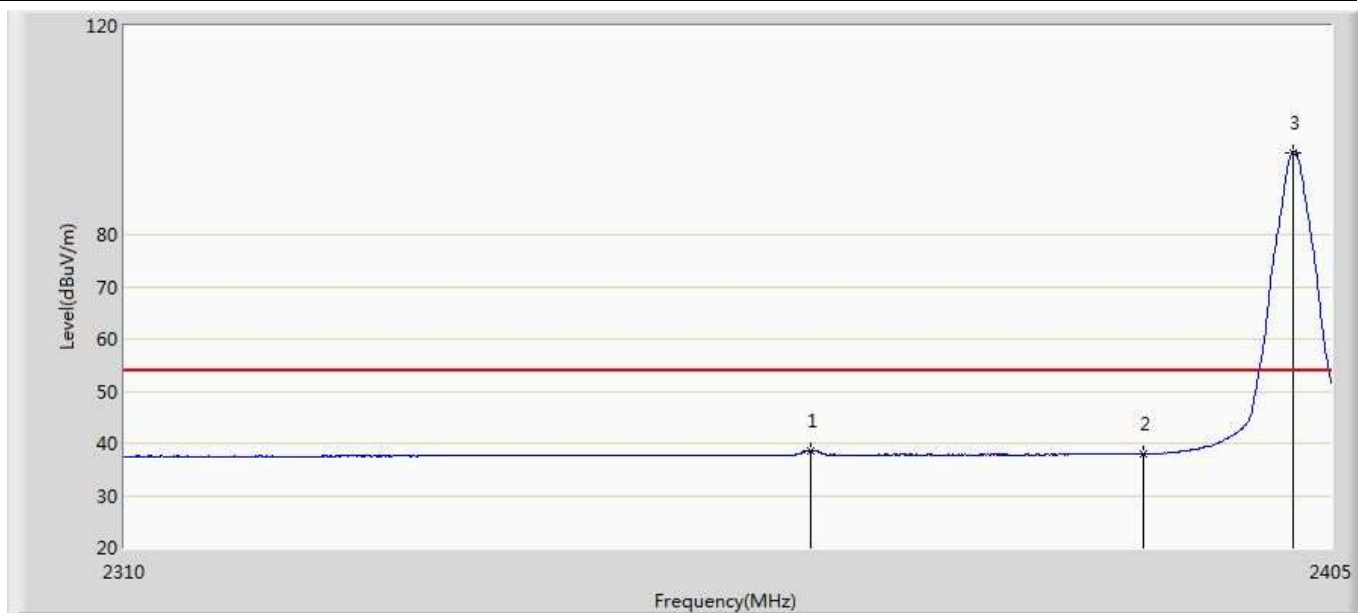
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.201	15.519	-22.799	74.000	35.682	PK
2	*	2402.387	97.695	61.981	23.695	74.000	35.714	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:12
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 2:Transmit at 2402MHz by LE_2Mbps	



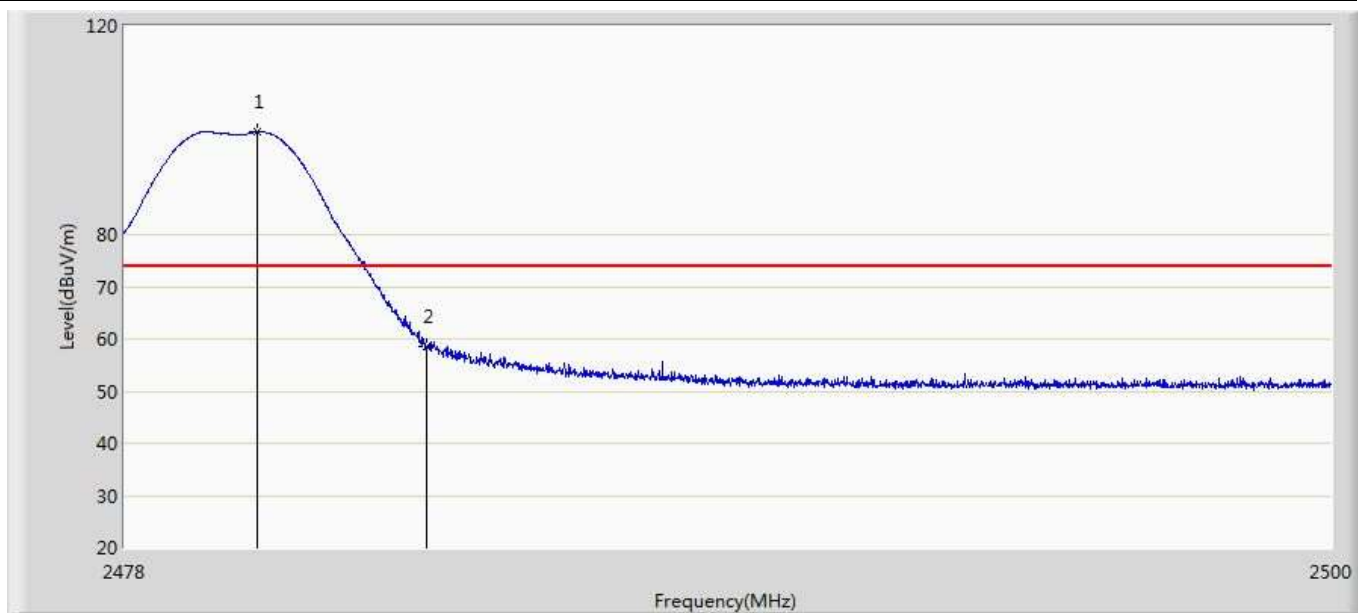
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.248	38.793	3.172	-15.207	54.000	35.621	AV
2		2390.000	38.078	2.396	-15.922	54.000	35.682	AV
3	*	2402.055	97.814	62.101	43.814	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 20:13
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	



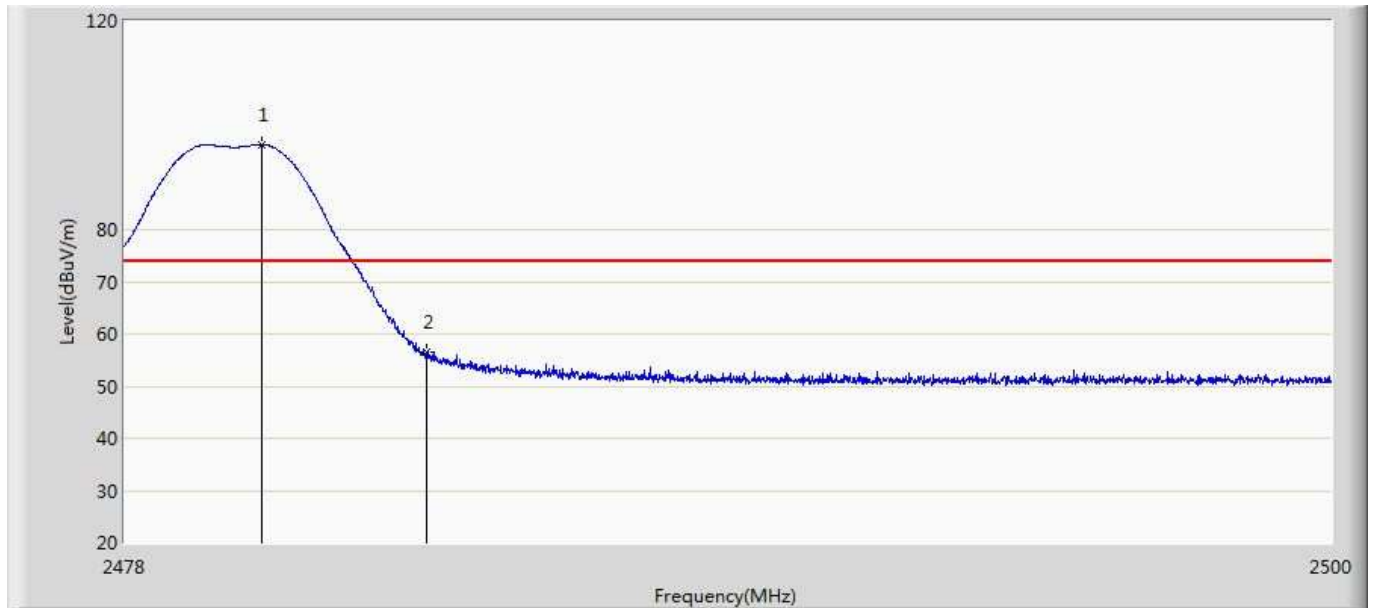
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	38.545	2.923	-15.455	54.000	35.622	AV
2		2390.000	37.935	2.253	-16.065	54.000	35.682	AV
3	*	2401.913	95.725	60.013	41.725	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:02
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 2:Transmit at 2480MHz by LE_2Mbps	



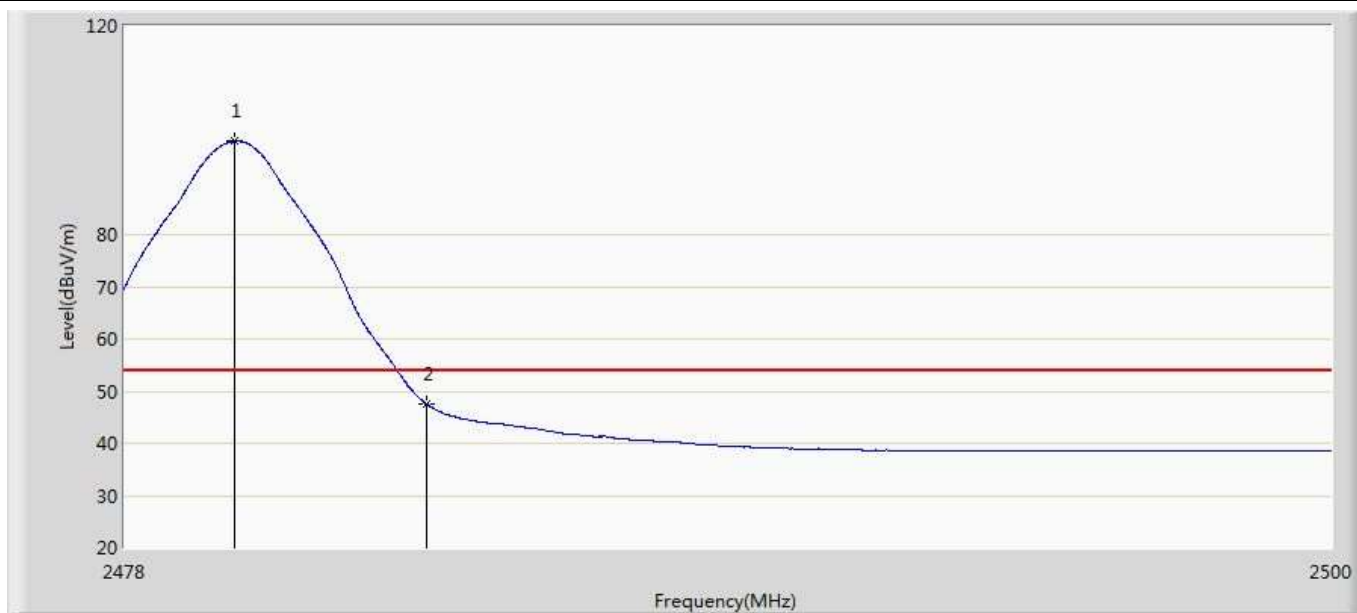
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.420	99.663	63.794	25.663	74.000	35.870	PK
2		2483.500	58.647	22.755	-15.353	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:05
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 2:Transmit at 2480MHz by LE_2Mbps	



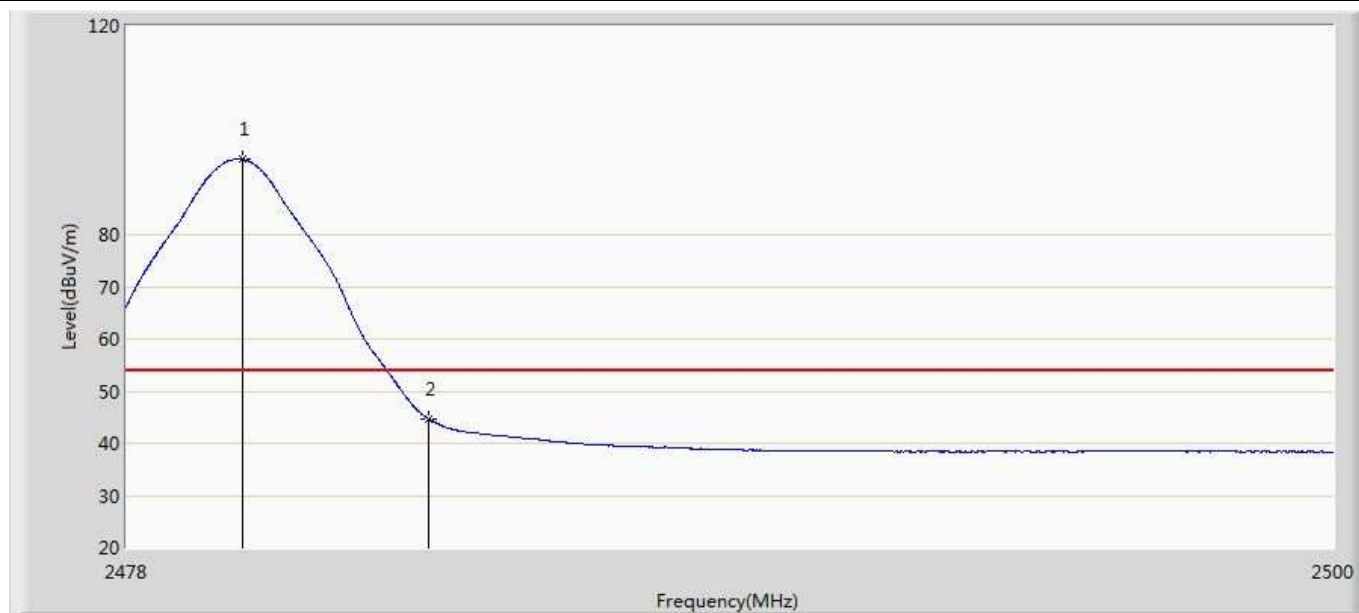
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.497	96.284	60.414	22.284	74.000	35.870	PK
2		2483.500	56.390	20.498	-17.610	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:07
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	



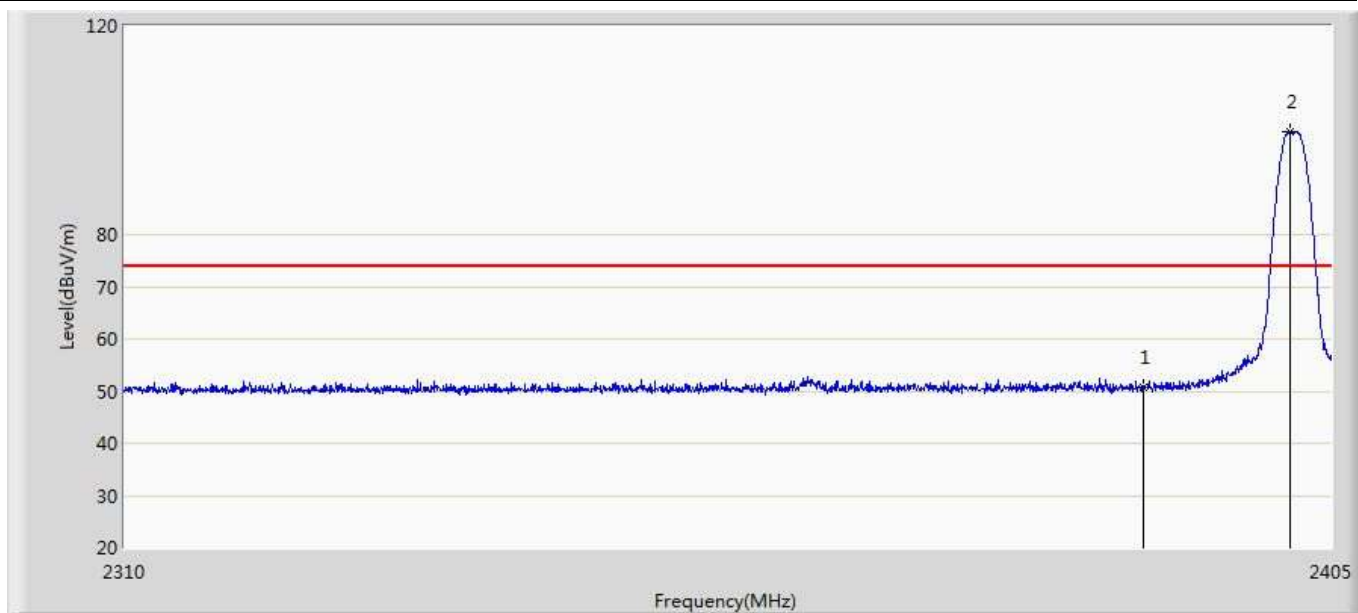
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	97.893	62.027	43.893	54.000	35.866	AV
2		2483.500	47.495	11.603	-6.505	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:08
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	



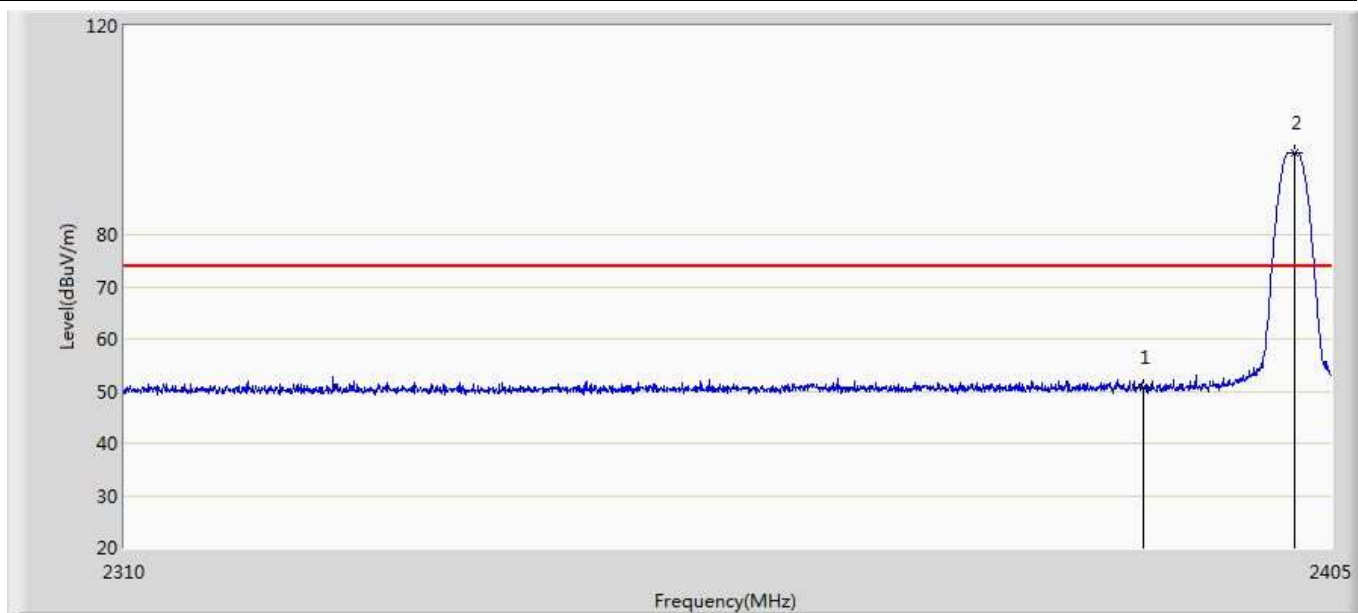
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.112	94.401	58.534	40.401	54.000	35.867	AV
2		2483.500	44.693	8.801	-9.307	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:01
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 2402MHz by LE_Coded (S=2)	



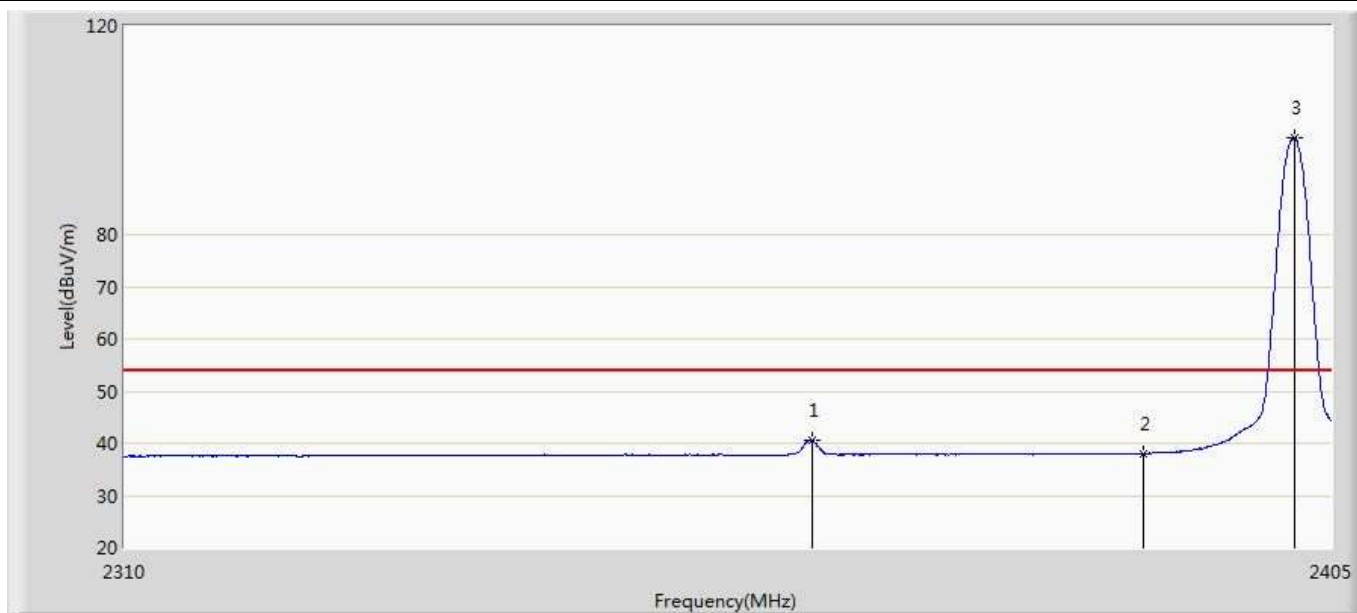
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.864	15.182	-23.136	74.000	35.682	PK
2	*	2401.770	99.670	63.958	25.670	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:02
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 3:Transmit at 2402MHz by LE_Coded (S=2)	



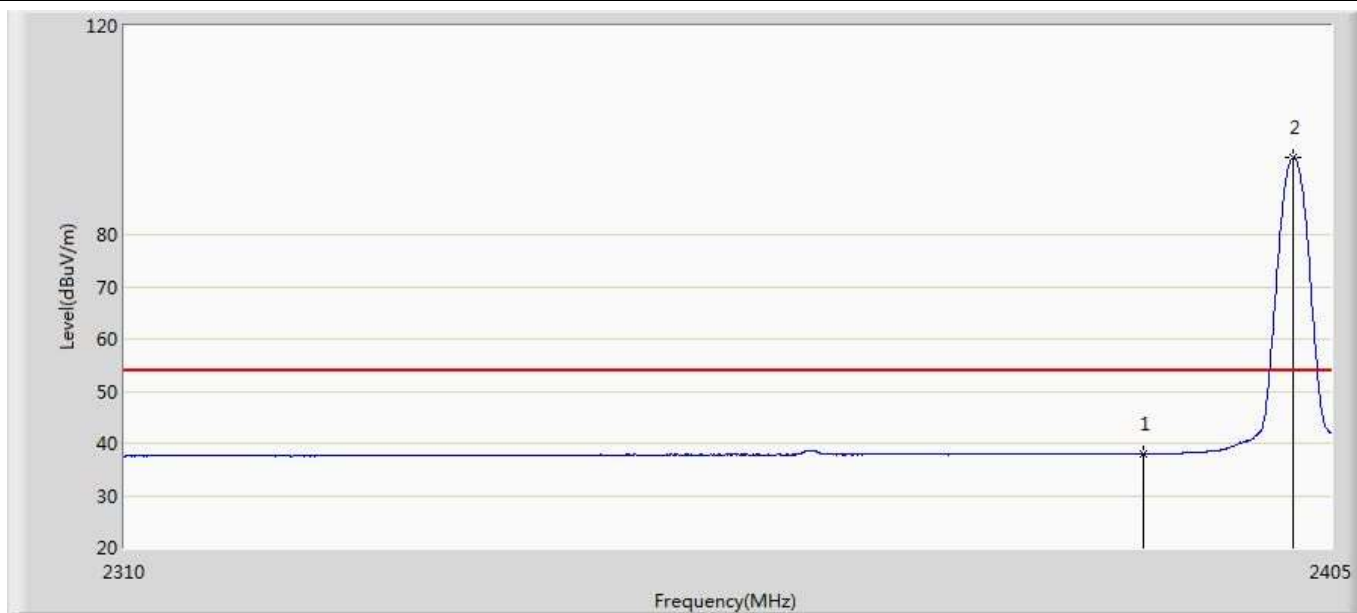
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.616	14.934	-23.384	74.000	35.682	PK
2	*	2402.055	95.664	59.951	21.664	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:04
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)	



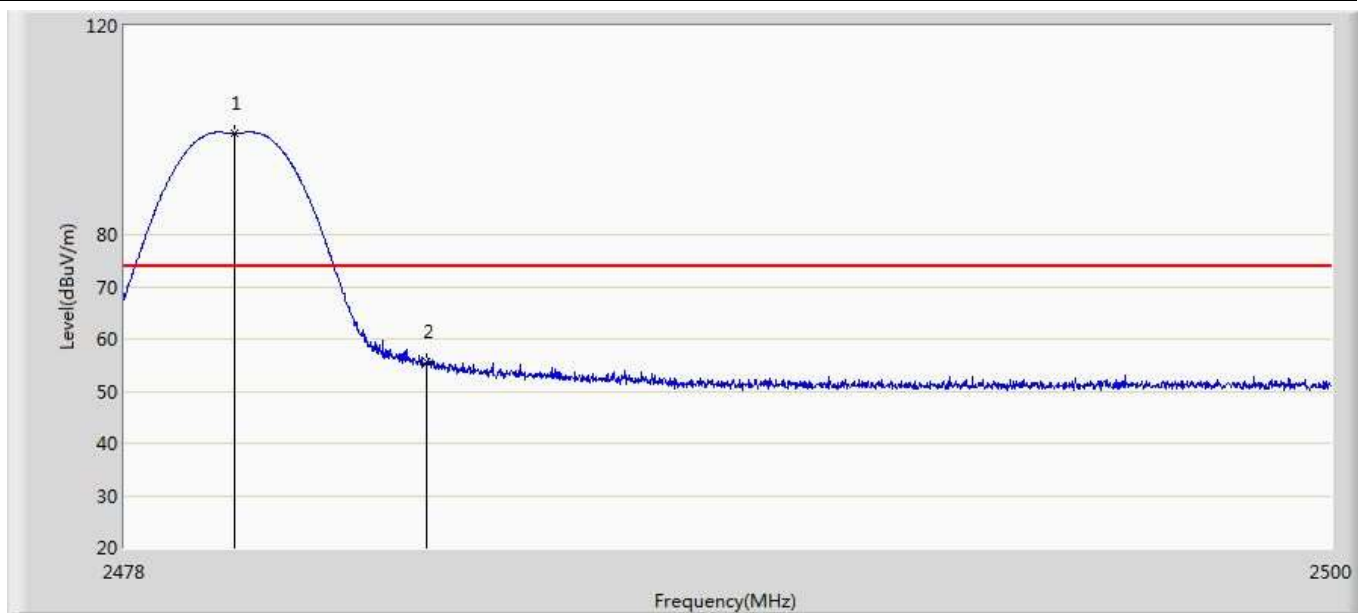
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	40.498	4.876	-13.502	54.000	35.622	AV
2		2390.000	38.104	2.422	-15.896	54.000	35.682	AV
3	*	2402.055	98.656	62.943	44.656	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:07
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 3:Transmit at 2402MHz by LE_Coded (S=2)	



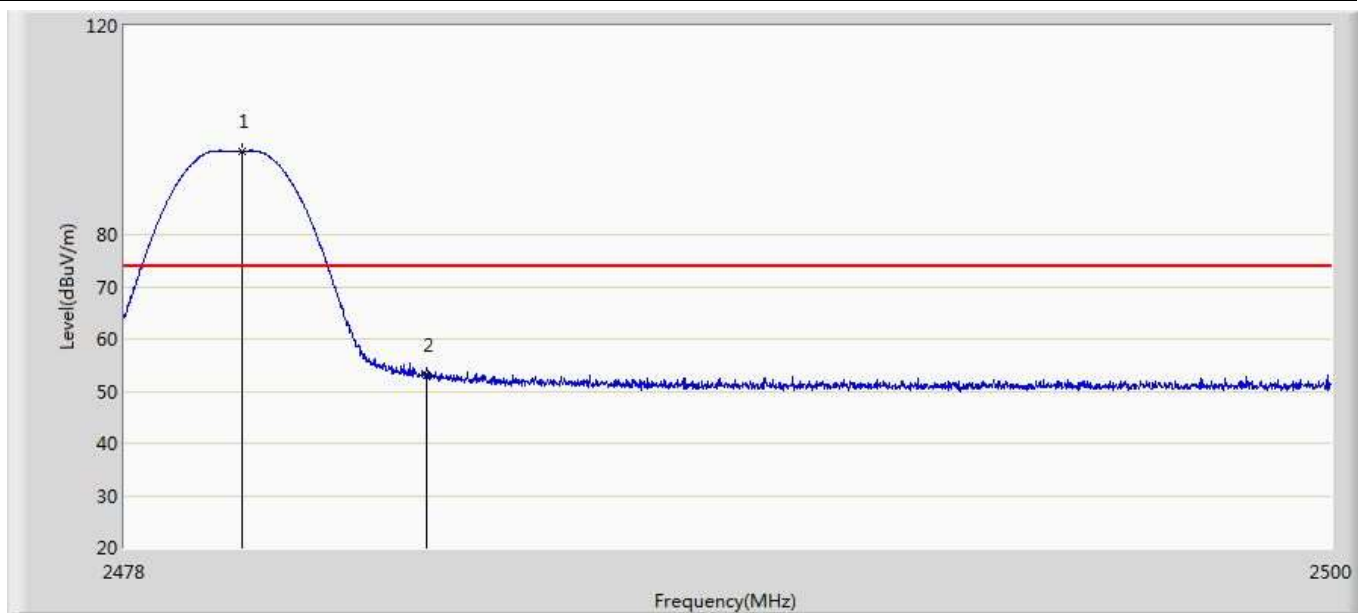
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.975	2.293	-16.025	54.000	35.682	AV
2	*	2401.960	94.705	58.992	40.705	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:20
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 3:Transmit at 2480MHz by LE_Coded (S=2)	



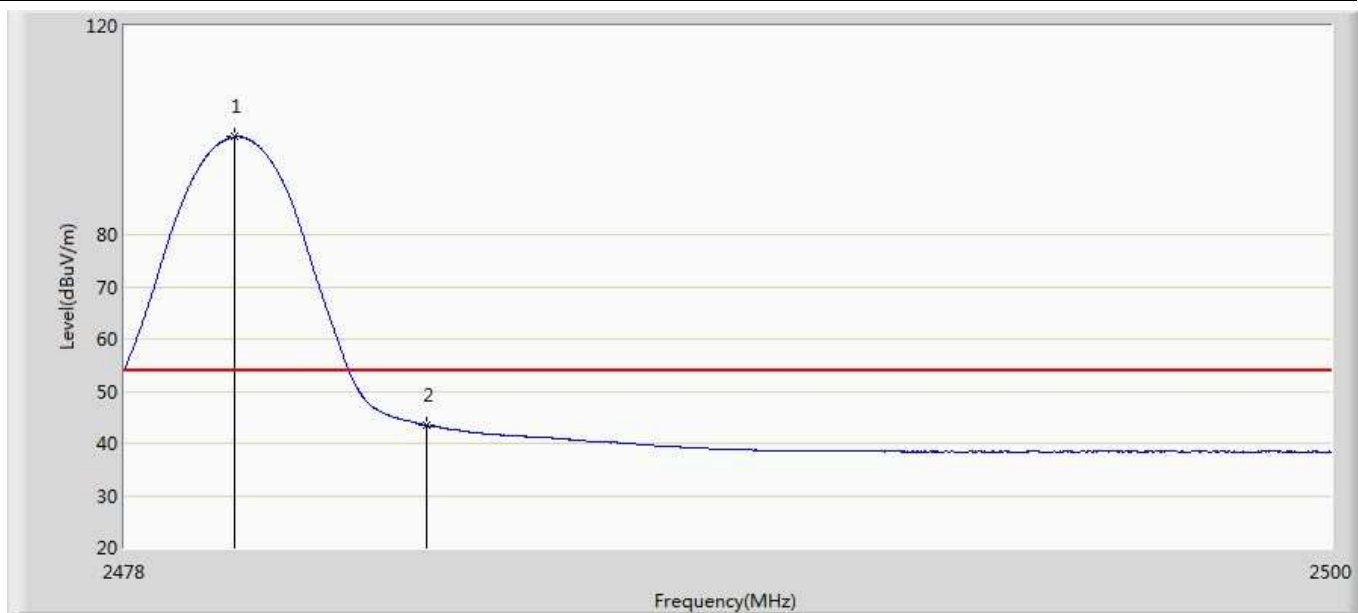
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	99.449	63.583	25.449	74.000	35.866	PK
2		2483.500	55.708	19.816	-18.292	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:23
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 2480MHz by LE_Coded (S=2)	



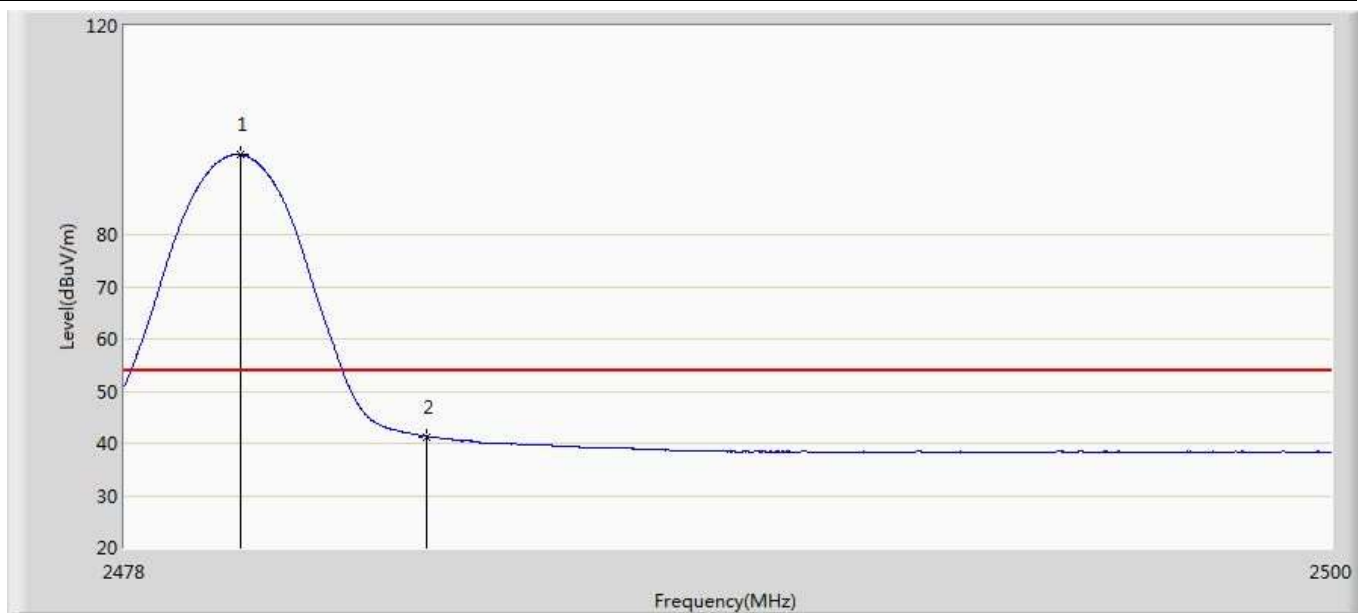
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.145	95.993	60.126	21.993	74.000	35.867	PK
2		2483.500	53.153	17.261	-20.847	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:25
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 3:Transmit at 2480MHz by LE_Coded (S=2)	



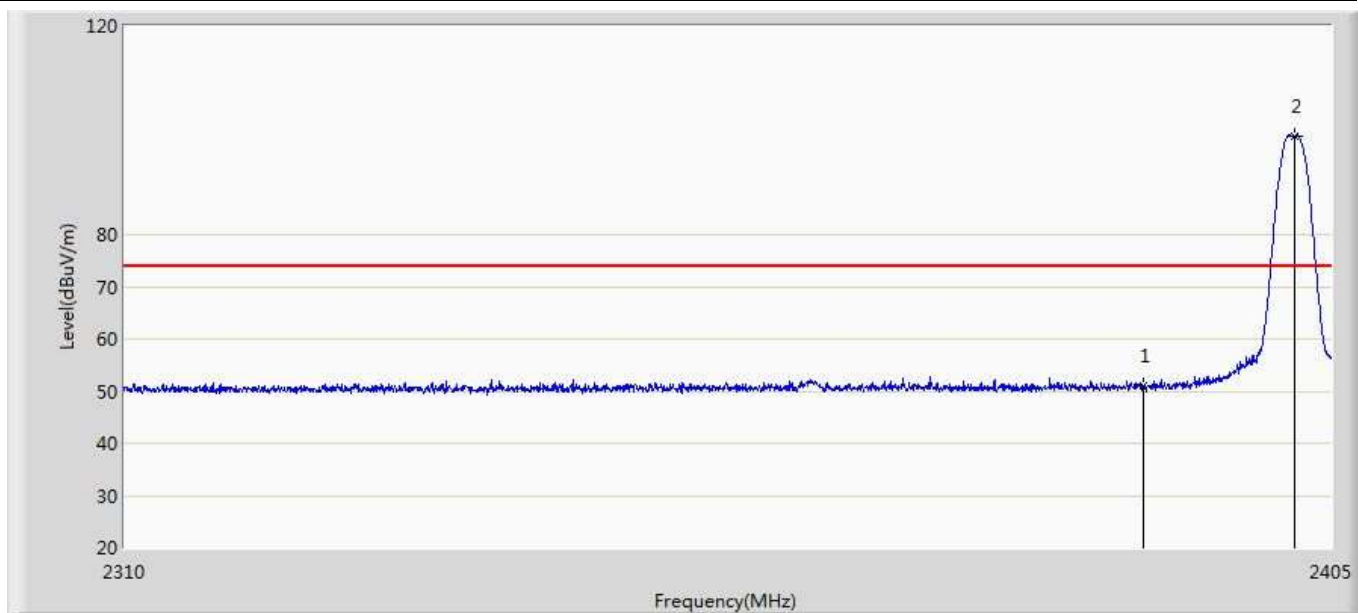
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.013	98.700	62.834	44.700	54.000	35.866	AV
2		2483.500	43.453	7.561	-10.547	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:27
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)	



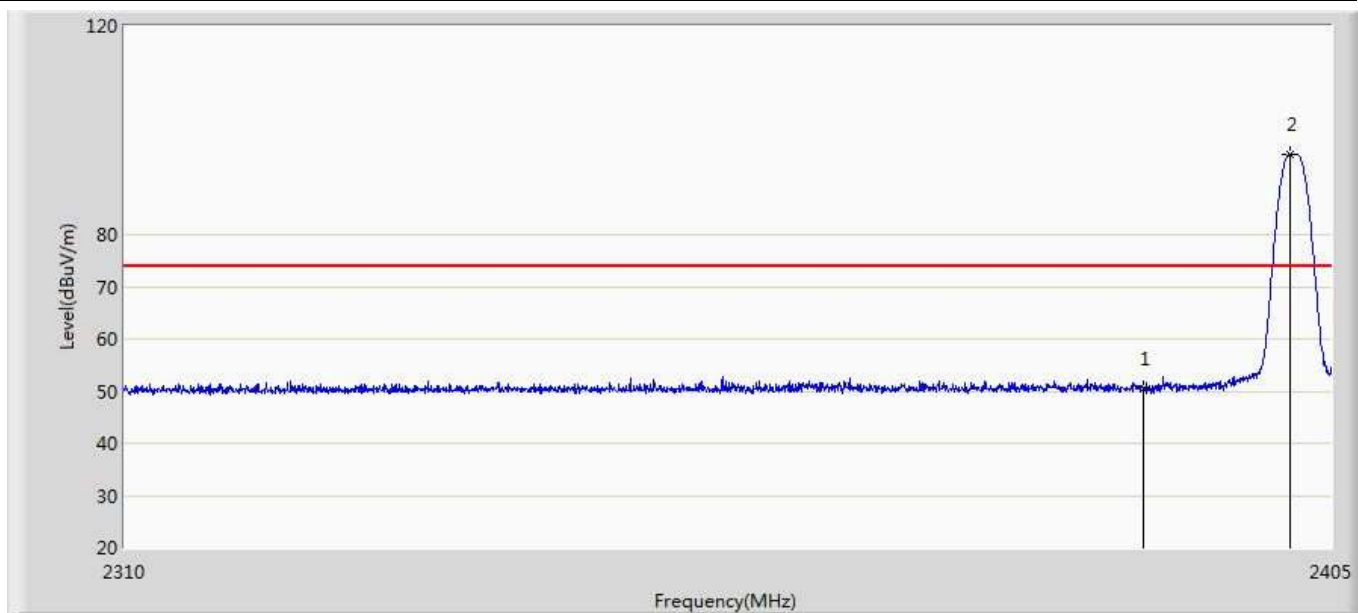
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.112	95.332	59.465	41.332	54.000	35.867	AV
2		2483.500	41.303	5.411	-12.697	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:20
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 4:Transmit at 2402MHz by LE_Coded (S=8)	



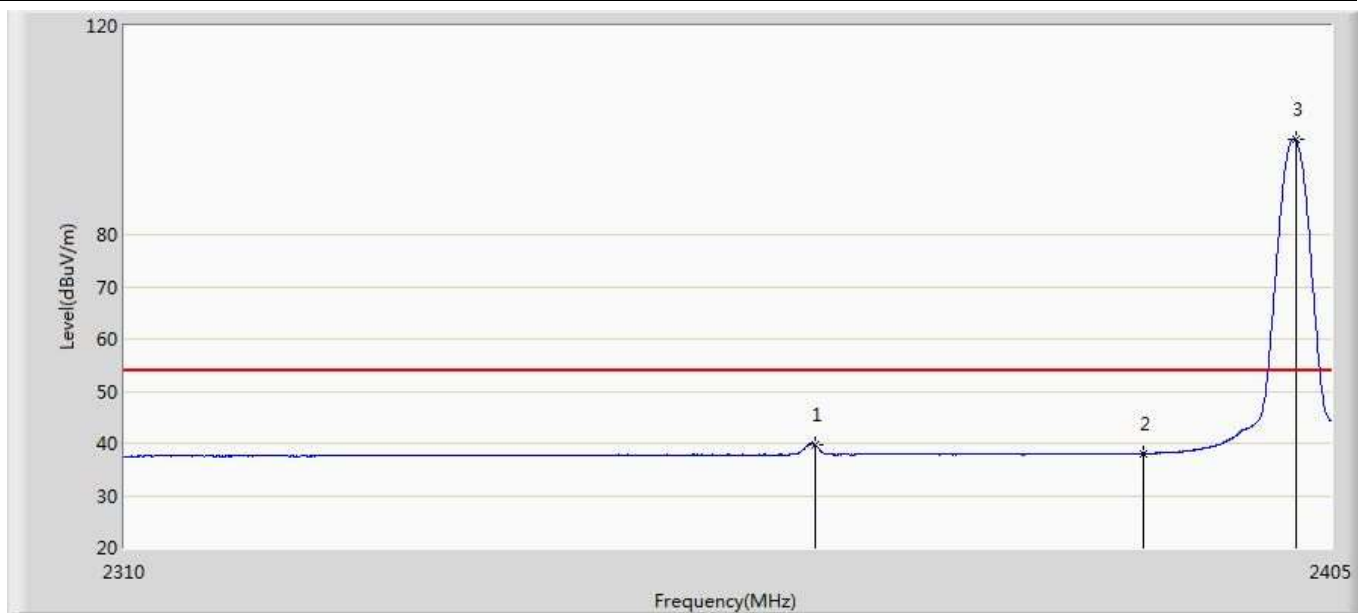
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.922	15.240	-23.078	74.000	35.682	PK
2	*	2402.055	98.906	63.193	24.906	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:24
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 2402MHz by LE_Coded (S=8)	



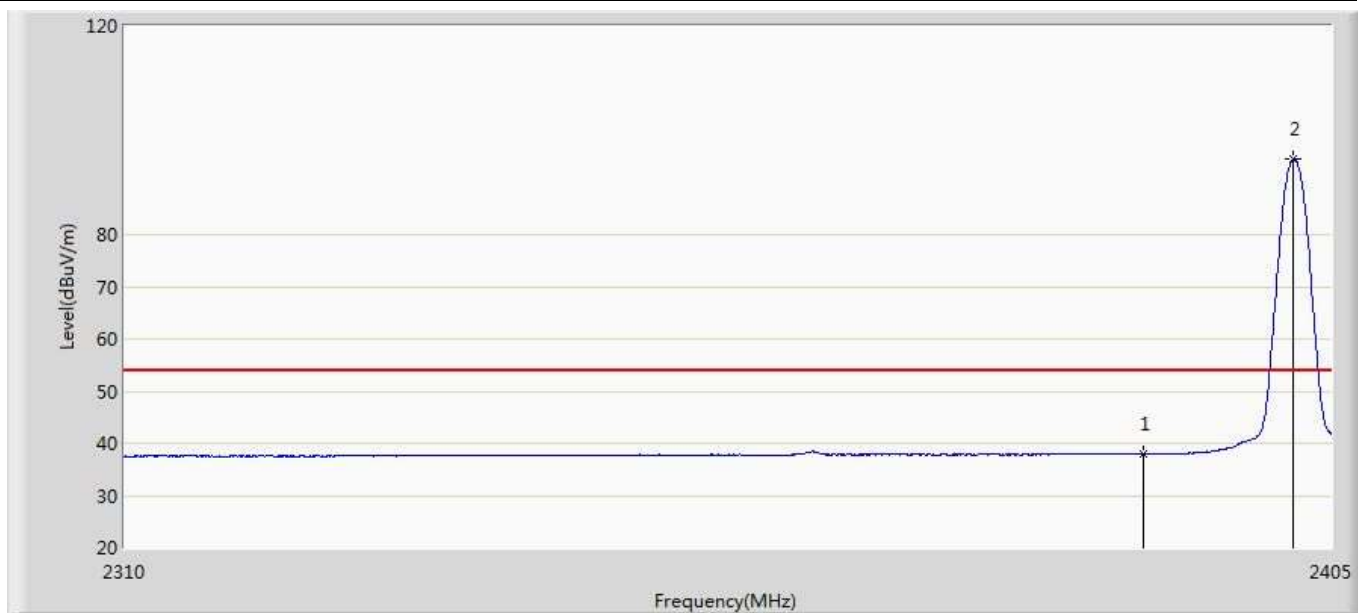
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.559	14.877	-23.441	74.000	35.682	PK
2	*	2401.770	95.402	59.690	21.402	74.000	35.712	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:25
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 4:Transmit at 2402MHz by LE_Coded (S=8)	



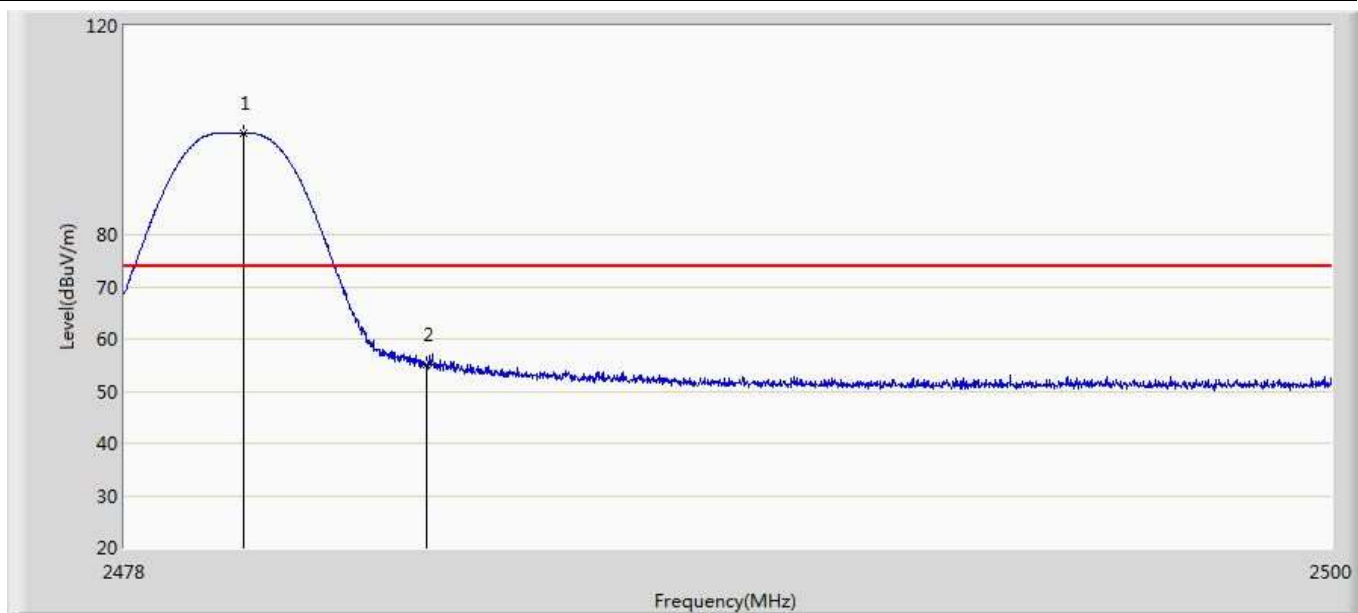
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.913	39.725	4.102	-14.275	54.000	35.623	AV
2		2390.000	38.111	2.429	-15.889	54.000	35.682	AV
3	*	2402.198	98.171	62.458	44.171	54.000	35.714	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 17:27
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)	



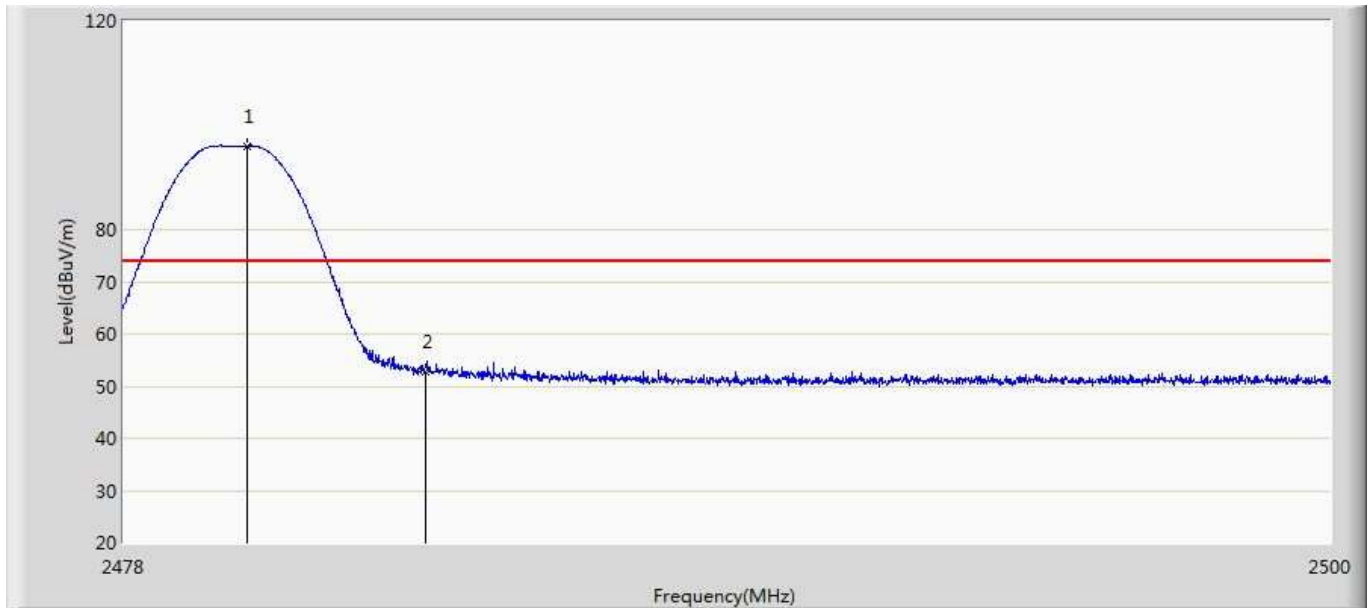
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.904	2.222	-16.096	54.000	35.682	AV
2	*	2401.960	94.452	58.739	40.452	54.000	35.712	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:29
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)	



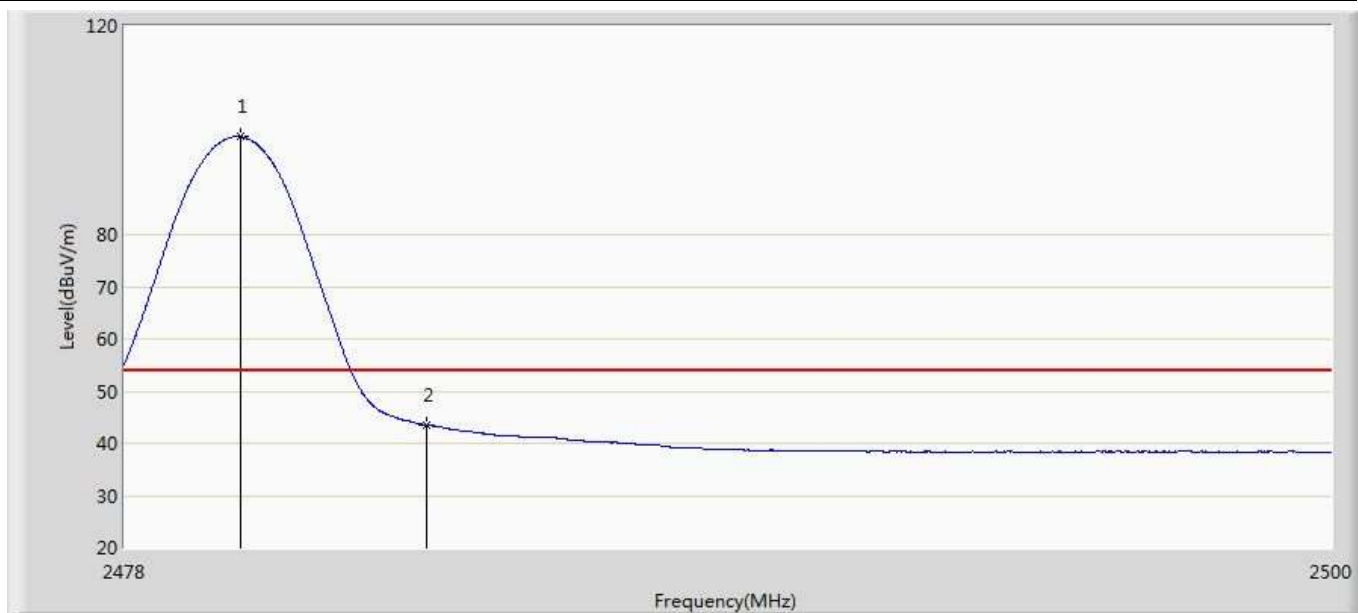
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.178	99.418	63.550	25.418	74.000	35.867	PK
2		2483.500	55.084	19.192	-18.916	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:32
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)	



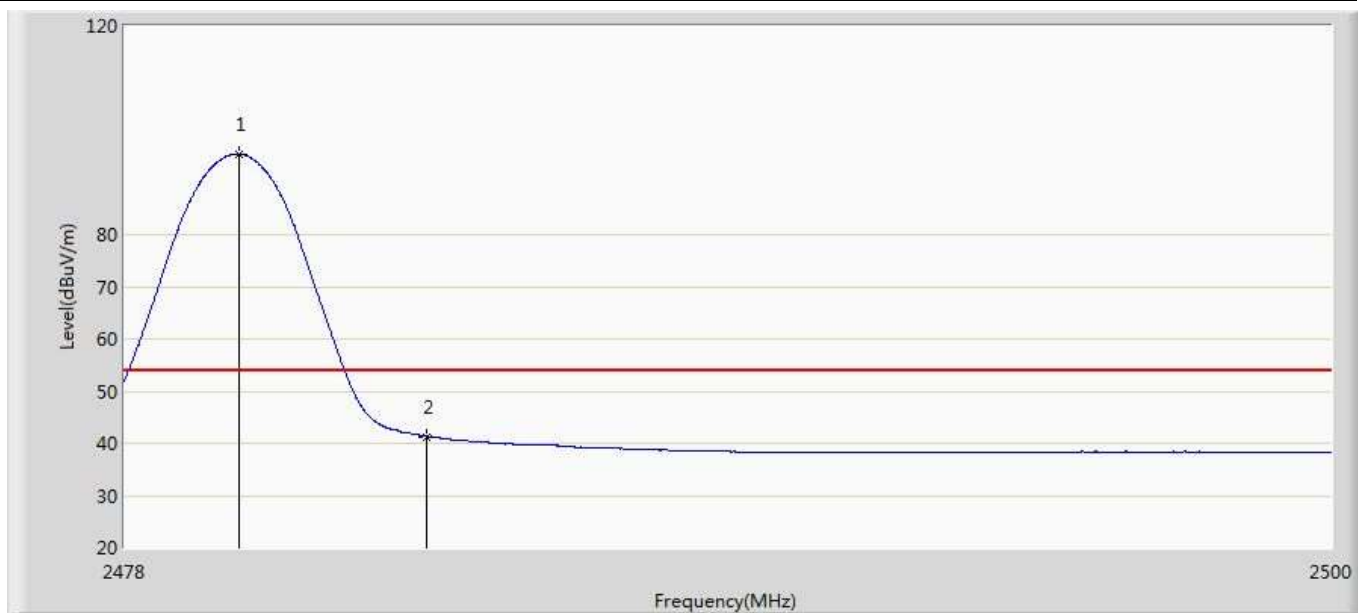
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.255	96.066	60.198	22.066	74.000	35.868	PK
2		2483.500	52.706	16.814	-21.294	74.000	35.891	PK

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:33
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 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	*	2480.112	98.747	62.880	44.747	54.000	35.867	AV
2		2483.500	43.517	7.625	-10.483	54.000	35.891	AV

Engineer: Tongben	
Site: AC5	Time: 2019/08/12 - 19:36
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 4:Transmit at 2480MHz by LE_Coded (S=8)	



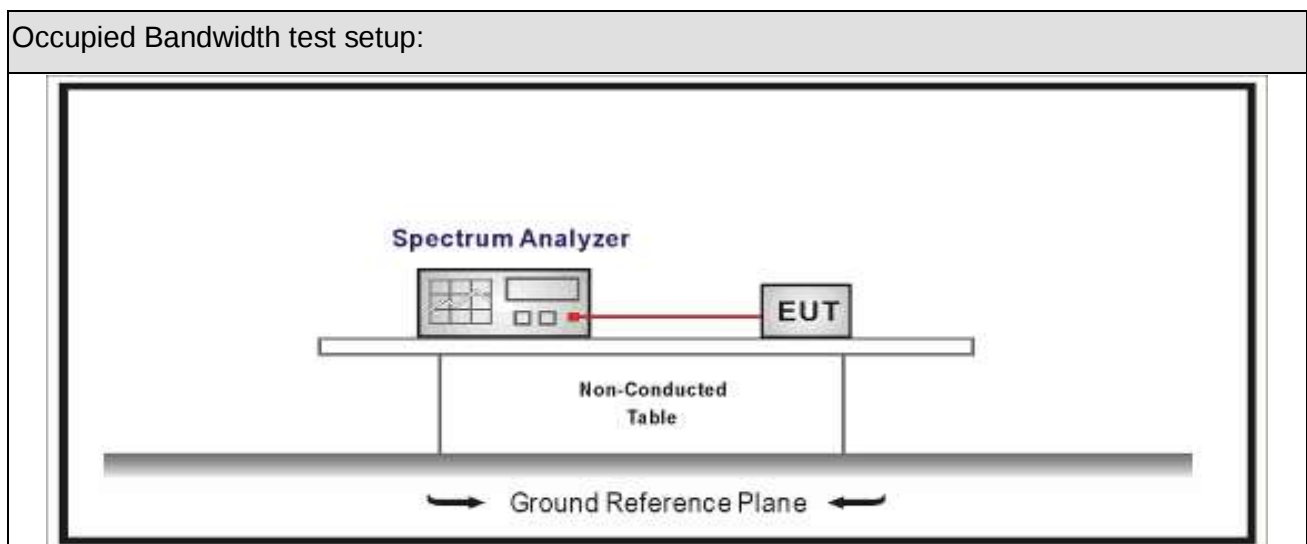
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.079	95.410	59.543	41.410	54.000	35.867	AV
2		2483.500	41.297	5.405	-12.703	54.000	35.891	AV

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

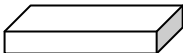
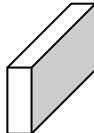
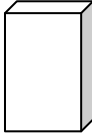
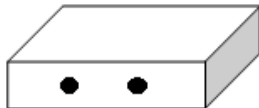
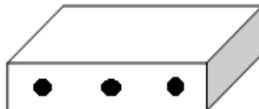
Occupied Bandwidth

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

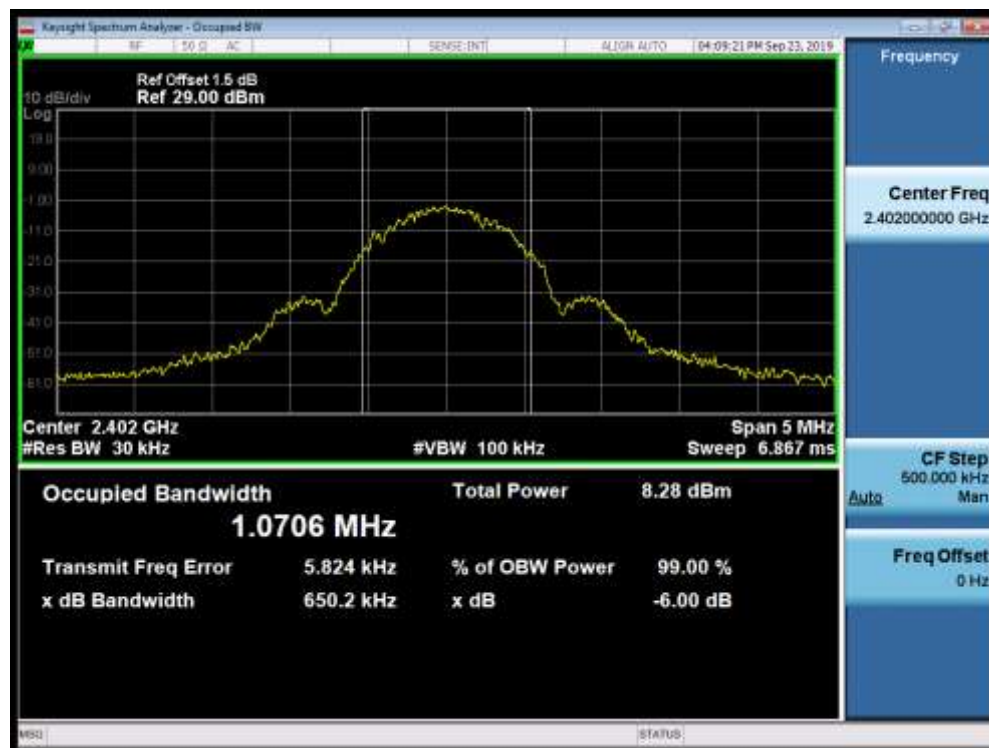
Item	Occupied Bandwidth			
Device Category	☐	Fixed point-to-point		
	☐	Emit multiple directional beams, simultaneously or sequentially		
	☒	Other cases		
Test mode	Mode 1-3			
Test method	☐	Radiated		
		X Axis	Y Axis	Z Axis
				
		Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted		
	☒	Chain 1		
		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

7.6. Test Result

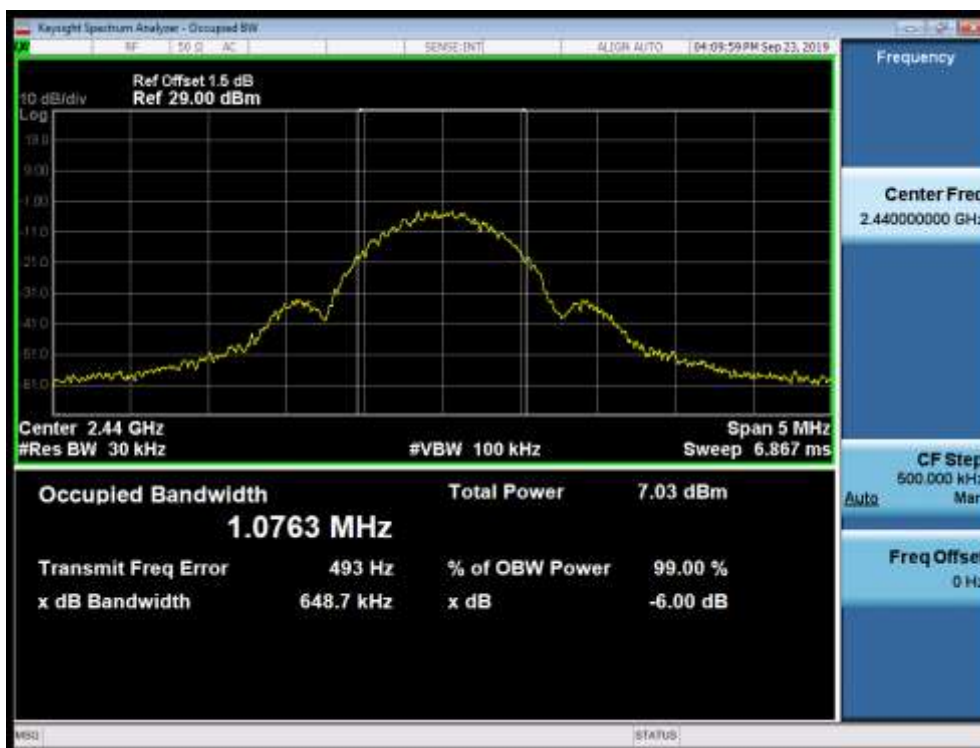
Product Name	: LED lamp	Test Voltage	: AC 120V/60Hz
Test Mode	: Mode 1	Test Site	: TR-8
Test Date	: 2019.08.19	Test Engineer	: Simon

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	00	2402	1070.6	>500	Pass
1	19	2440	1076.3	>500	Pass
1	39	2480	1066.0	>500	Pass

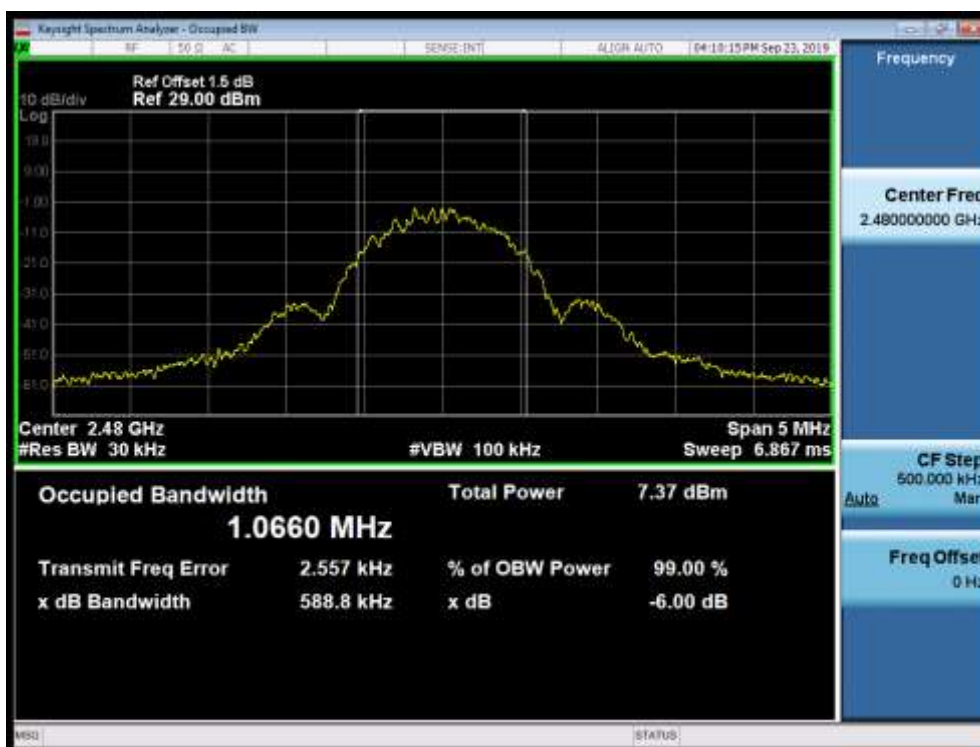
Mode 1 CH00 (2402MHz)



Mode 1 CH19 (2440MHz)



Mode 1 CH39 (2480MHz)



Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	00	2402	699.3	>500	Pass
1	19	2440	692.0	>500	Pass
1	39	2480	684.4	>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	2162.4	>500	Pass
2	19	2440	2165.9	>500	Pass
2	39	2480	2167.1	>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	1383	>500	Pass
2	19	2440	1382	>500	Pass
2	39	2480	1377	>500	Pass

Mode 2 CH00 (2402MHz)



Mode 2 CH19 (2440MHz)



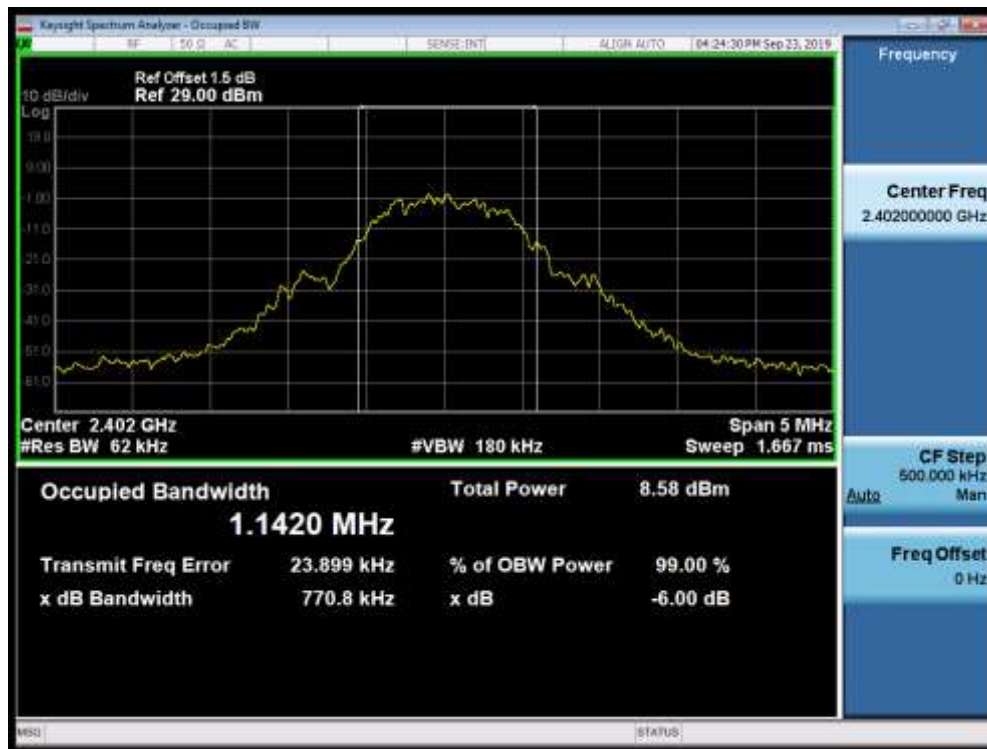
Mode 2 CH39 (2480MHz)



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	1148.5	>500	Pass
3	19	2440	1146.0	>500	Pass
3	39	2480	1152.5	>500	Pass

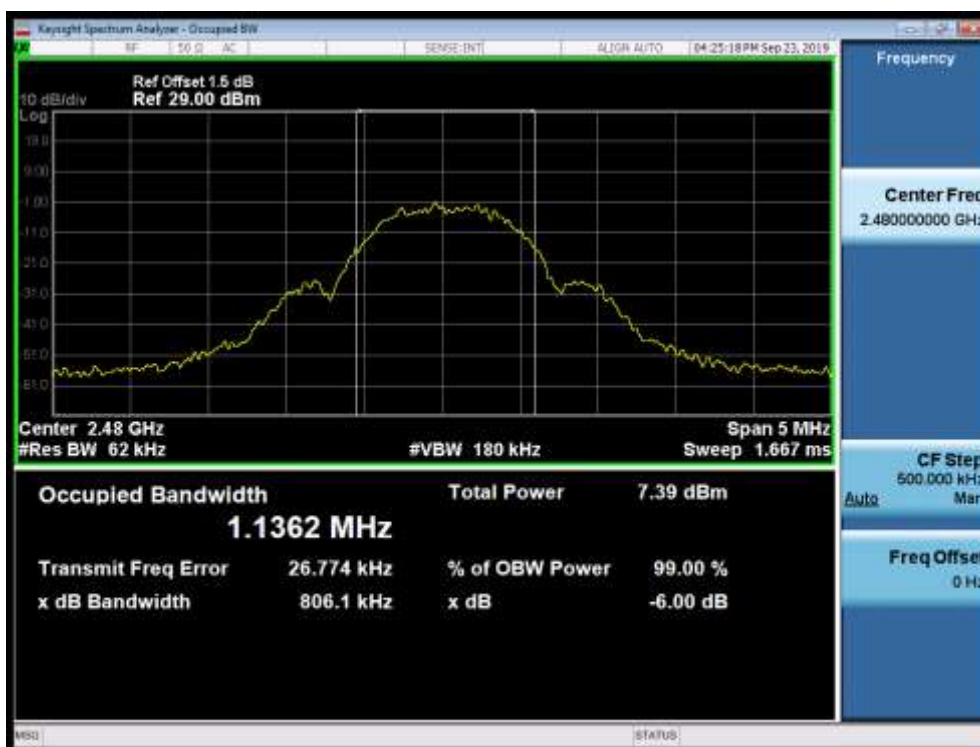
Mode 3 CH00 (2402MHz)



Mode 3 CH19 (2440MHz)



Mode 3 CH39 (2480MHz)



Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
3	00	2402	789.3	>500	Pass
3	19	2440	790.3	>500	Pass
3	39	2480	786.3	>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	1118.5	>500	Pass
4	19	2440	1123.4	>500	Pass
4	39	2480	1110.7	>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	736.1	>500	Pass
4	19	2440	738.9	>500	Pass
4	39	2480	734.8	>500	Pass

Mode 4 CH00 (2402MHz)



Mode 4 CH19 (2440MHz)



Mode 4 CH39 (2480MHz)

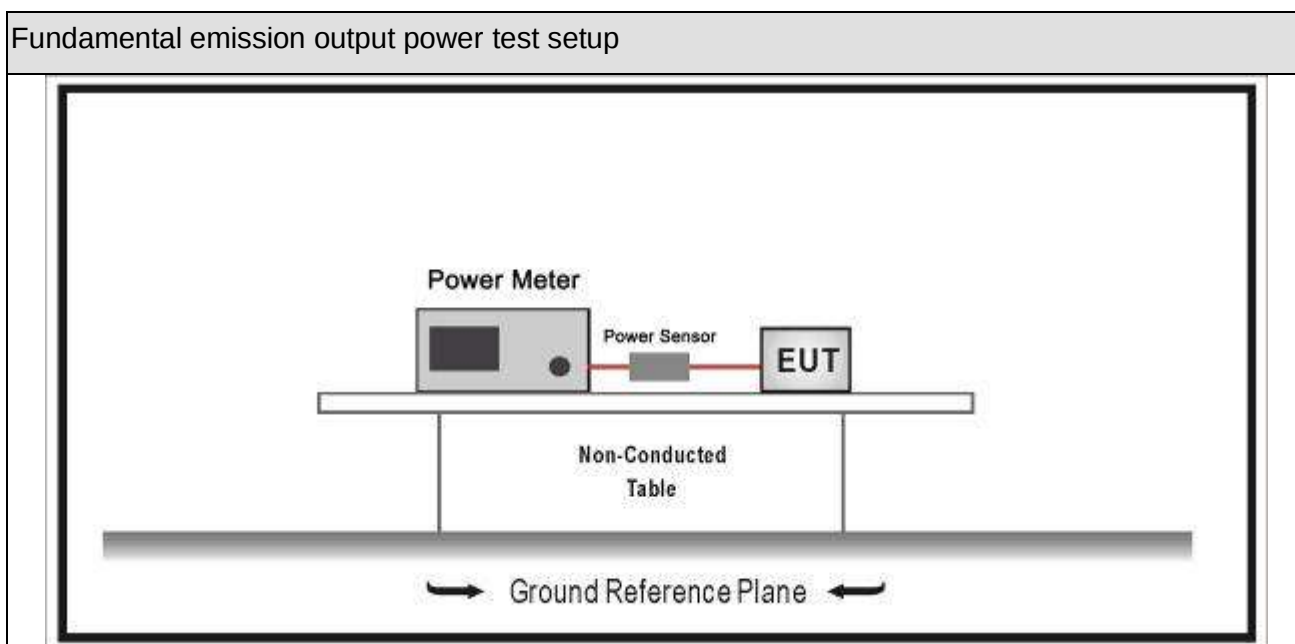


8. Fundamental emission output power

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



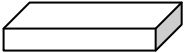
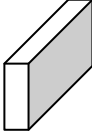
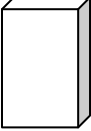
8.3. Limit

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	9.19	30	Pass
	19	2440	9.21	30	Pass
	39	2480	9.05	30	Pass
Mode 2	00	2402	9.21	30	Pass
	19	2440	9.35	30	Pass
	39	2480	9.16	30	Pass
Mode 3	00	2402	9.02	30	Pass
	19	2440	9.14	30	Pass
	39	2480	8.99	30	Pass
Mode 4	00	2402	9.32	30	Pass
	19	2440	9.27	30	Pass
	39	2480	9.11	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

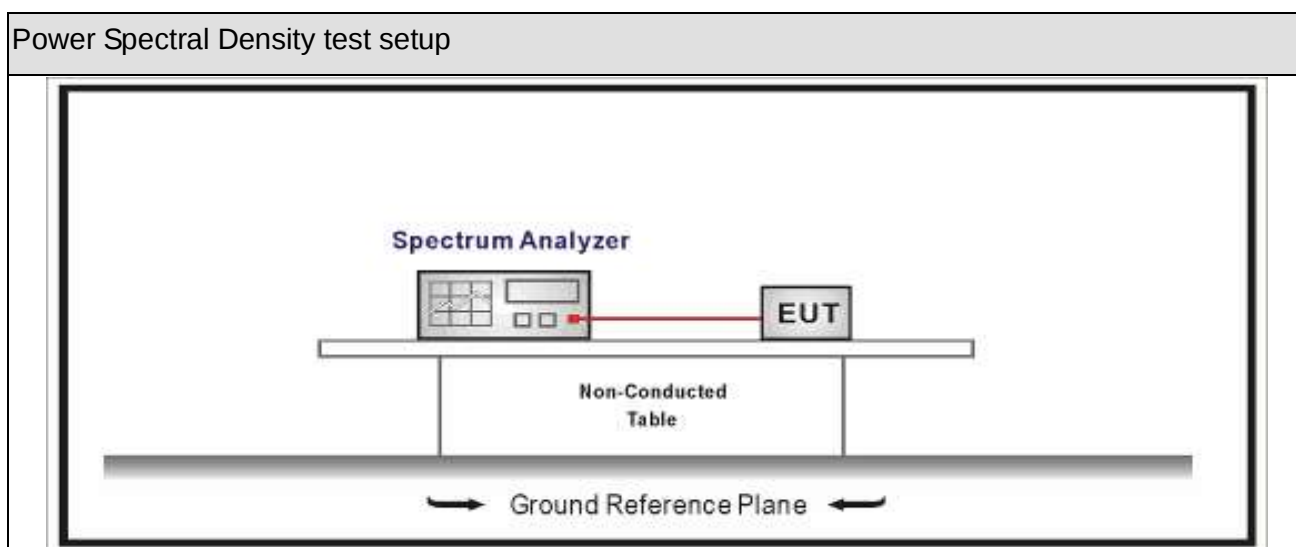
Mode	Channel	Test Frequency (MHz)	Measurement Power Output (dBm)	Limit (dBm)	Result
Mode 1	00	2402	9.26	30	Pass
	19	2440	9.37	30	Pass
	39	2480	9.24	30	Pass
Mode 2	00	2402	9.15	30	Pass
	19	2440	9.26	30	Pass
	39	2480	9.08	30	Pass
Mode 3	00	2402	9.16	30	Pass
	19	2440	9.19	30	Pass
	39	2480	8.98	30	Pass
Mode 4	00	2402	9.24	30	Pass
	19	2440	9.36	30	Pass
	39	2480	9.11	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



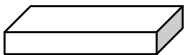
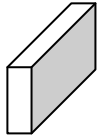
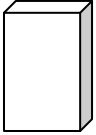
9.3. Limit

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
				

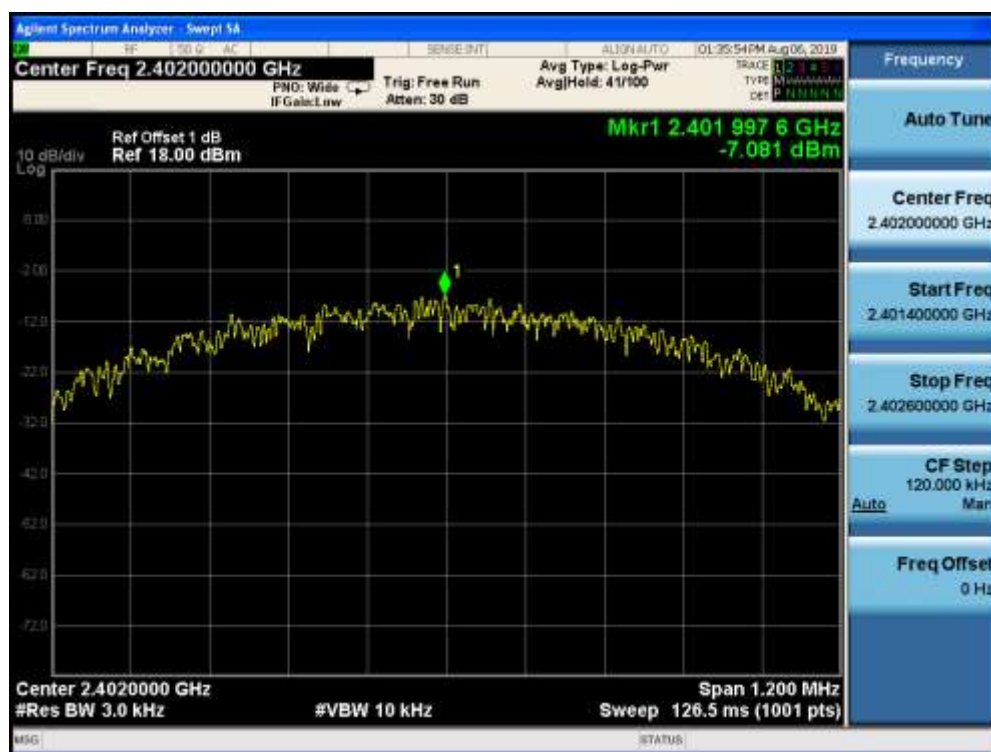
9.6. Test Result

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	-7.081	-7.081	8	Pass
1	19	2440	-7.222	-7.222	8	Pass
1	39	2480	-7.767	-7.767	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 _____