DEKRA Testing and Certification (Suzhou) Co., Ltd.
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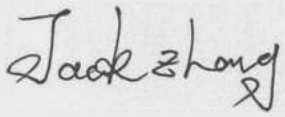
Test report No:
20C0212R-RF-US-P06V01

FCC TEST REPORT & ISED TEST REPORT

Product Name	LED Lamp
Trademark	Philips
Model and /or type reference	9290024683
FCC ID	2AGBW9290024683X
IC	20812-24683X
Applicant´s name / address	Signify (China) investment Co., Ltd Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 KD558074 D01 15.247 Meas Guidance v05r02 RSS-Gen Issue 5 / RSS-247 Issue 2
Verdict Summary	IN COMPLIANCE
Documented by (name / position & signature)	Tim Cao/Project Engineer 
Approved by (name / position & signature)	Jack Zhang/ Supervisor 
Date of issue	2021-03-12
Report Version	V1.3
Report template No	Template_FCC Part 15C-RF-V1.0

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page

COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.
In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Dec. 07, 2020
Date (start test)	Dec. 09, 2020
Date (finish test)	Mar. 10, 2021

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT : Equipment Under Test
QP : Quasi-Peak
CAV : CISPR Average
AV : Average
CDN : Coupling Decoupling Network
SAC : Semi-Anechoic Chamber
OATS : Open Area Test Site
BW : Bandwidth
AM : Amplitude Modulation
PM : Pulse Modulation
HCP : Horizontal Coupling Plane
VCP : Vertical Coupling Plane
U_N : Nominal voltage
*T*x : Transmitter
*R*x : Receiver
N/A : Not Applicable
N/M : Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
20C0212R-RF-US-P06V01	V1.0	Initial issue of report.	2021-01-14
20C0212R-RF-US-P06V01	V1.1	Page 77-78: Modified Emissions in non-restricted frequency band test data. (The test report No.: 20C0212R-RF-US-P06V01 V1.1 is to place the test report No.: 20C0212R-RF-US-P06V01 V1.0, and test report 20C0212R-RF-US-P06V01 V1.0 is obsoleted.)	2021-03-10
20C0212R-RF-US-P06V01	V1.2	Page 17: Delete redundant description. (The test report No.: 20C0212R-RF-US-P06V01 V1.2 is to place the test report No.: 20C0212R-RF-US-P06V01 V1.1, and test report 20C0212R-RF-US-P06V01 V1.1 is obsoleted.)	2021-03-10
20C0212R-RF-US-P06V01	V1.3	Page 10: Add description of two crystal oscillators. (The test report No.: 20C0212R-RF-US-P06V01 V1.3 is to place the test report No.: 20C0212R-RF-US-P06V01 V1.2, and test report 20C0212R-RF-US-P06V01 V1.2 is obsoleted.)	2021-03-12

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247, RSS-Gen Issue 5, RSS-247 Issue 2.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
   - Chapter 1.1 General Description of the Item(s);
   - Chapter 1.2 Antenna Informaion;
   - Chapter 1.3 Channel List.

USED EQUIPMENT

AC Power Line Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100906	2020.04.20	2021.04.19
Two-Line V-Network	R&S	ENV216	101190	2020.04.18	2021.04.17
Two-Line V-Network	R&S	ENV216	101044	2020.04.18	2021.04.17
Current Probe	R&S	EZ-17	100678	2020.03.12	2021.04.11
50ohm Termination	SHX	TF2	07081402	2020.09.23	2021.09.22
50ohm Termination	SHX	TF2	07081403	2020.09.23	2021.09.22
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	TR1-TH	2020.08.13	2021.08.12
Coaxial Cable	Suhner	RG 223	TR1-C1	2020.08.13	2021.08.12
Coaxial Cable	Suhner	RG 223	TR1-C2	2020.08.13	2021.08.12
Dekra test software	Dekra	-	-	-	-

Emissions in non-restricted frequency bands/ Occupied Bandwidth/ Fundamental emission output power Power Spectral Density / TR8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2020.08.15	2021.08.14
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2020.04.17	2021.04.16
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2020.08.15	2021.08.14
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2020.08.13	2021.08.12
Dekra test software	Dekra	-	-	-	-

Radiated Emission(30MHz-1GHz) / AC3

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2020.12.06	2021.12.05
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2020.08.19	2021.08.18
Temperature/Humidity Meter	RTS	RTS-8S	AC2-TH	2020.08.13	2021.08.12
Coaxial Cable	Huber+Suhner	RG 214	AC2-C	2020.04.05	2021.04.04
Dekra test software	Dekra	-	-	-	-

Radiated Emission / AC5(1GHz-40GHz)(Chamber details)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2020.05.08	2021.05.07
Preamplifier	Miteq	NSP1800-25	1364185	2020.05.06	2021.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2020.05.06	2021.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2020.01.22	2021.01.21
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2020.08.13	2021.08.12
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2020.04.05	2021.04.04
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2020.04.05	2021.04.04
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2020.04.05	2021.04.04
Dekra test software	Dekra	-	-	-	-

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95% .

Test item	Uncertainty
AC Power Line Conducted Emission	9kHz~150kHz: 2.80dB 150kHz~30MHz: 2.40dB
Peak Power Output	± 1.27 dB
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~200MHz: 3.50 dB 300MHz~1GHz: 3.60 dB Vertical: 30MHz~200MHz: 3.60 dB 300MHz~1GHz: 3.50 dB
Radiated Emission(1GHz~26.5GHz)	Horizontal: 1GHz~18GHz: 5.00 dB Vertical: 1GHz~18GHz: 4.80 dB
RF antenna conducted test	± 1.27dB
Radiated Emission Band Edge	± 3.9 dB
DTS Bandwidth	±150Hz
Occupied Bandwidth	±1kHz
Power Density	±1.27dB

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Product Name ..... :	LED Lamp
Model No. ..... :	9290024683
Trademark ..... :	Philips
FCC ID ..... :	2AGBW9290024683X
IC ..... :	20812-24683X
Manufacturer ..... :	Signify (China) investment Co., Ltd
Manufacturer address ..... :	Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai

Note: There are two crystal oscillators used for this product, the only difference between them is the manufacturer. We have tested the output power, radiated emission and band edge of the two crystal oscillators respectively, and other items was operated on the product which power is higher.

Wireless specifiction..... :	BLE 5.0					
Operating frequency range(s)	2402~2480MHz					
Type of Modulation..... :	GFSK					
PHYs ..... :	☒	LE 1M	☒	LE 2M	☒	LE Coded S=2/8
Data Rate ..... :	☒	1Mbit/s	☒	2Mbit/s	☒	500/125 Kbit/s
Number of channel..... :	40					

Rated power supply ..... :	Voltage and Frequency	
	☐	AC: 220 – 240 V, 50/60 Hz
	☒	AC: 100 – 130 V, 50/60 Hz
	☐	DC: ……
	☐	Battery: ……
Mounting position ..... :	☐	Table top equipment
	☒	Wall/Ceiling mounted equipment
	☐	Floor standing equipment
	☐	Hand-held equipment
	☐	Other: ……..

1.2 Antenna Information

Antenna model / type number ..... :	Slot antenna			
Antenna serial number ..... :	N/A			
Antenna Delivery ..... :	☒	1TX + 1RX		
	☐	2TX + 2RX		
	☐	Others:……		
Antenna technology ..... :	☒	SISO		
	☐	MIMO	☐	CDD
			☐	Beam-forming
Antenna Type ..... :	☐	External	☐	Dipole
			☐	Sectorized
	☒	Internal	☐	Ceramic Chip
			☐	PIFA
			☒	PCB
			☐	Others……..
Antenna Gain ..... :	-0.8 dBi			

1.3 Channel List

Bluetooth Working Frequency of Each Channel: (For v5.0)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
37	2402 MHz	00	2404 MHz	01	2406 MHz	02	2408 MHz
03	2410 MHz	04	2412 MHz	05	2414 MHz	06	2416 MHz
07	2418 MHz	08	2420 MHz	09	2422 MHz	10	2424 MHz
38	2426 MHz	11	2428 MHz	12	2430 MHz	13	2432 MHz
14	2434 MHz	15	2436 MHz	16	2438 MHz	17	2440 MHz
18	2442 MHz	19	2444 MHz	20	2446 MHz	21	2448 MHz
22	2450 MHz	23	2452 MHz	24	2454 MHz	25	2456 MHz
26	2458 MHz	27	2460 MHz	28	2462 MHz	29	2464 MHz
30	2466 MHz	31	2468 MHz	32	2470 MHz	33	2472 MHz
34	2474 MHz	35	2476 MHz	36	2478 MHz	39	2480 MHz

Note: The General Description of the Item , antenna information and Channel List for the EUT in clause 1 are provided and confirmed by the client.

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

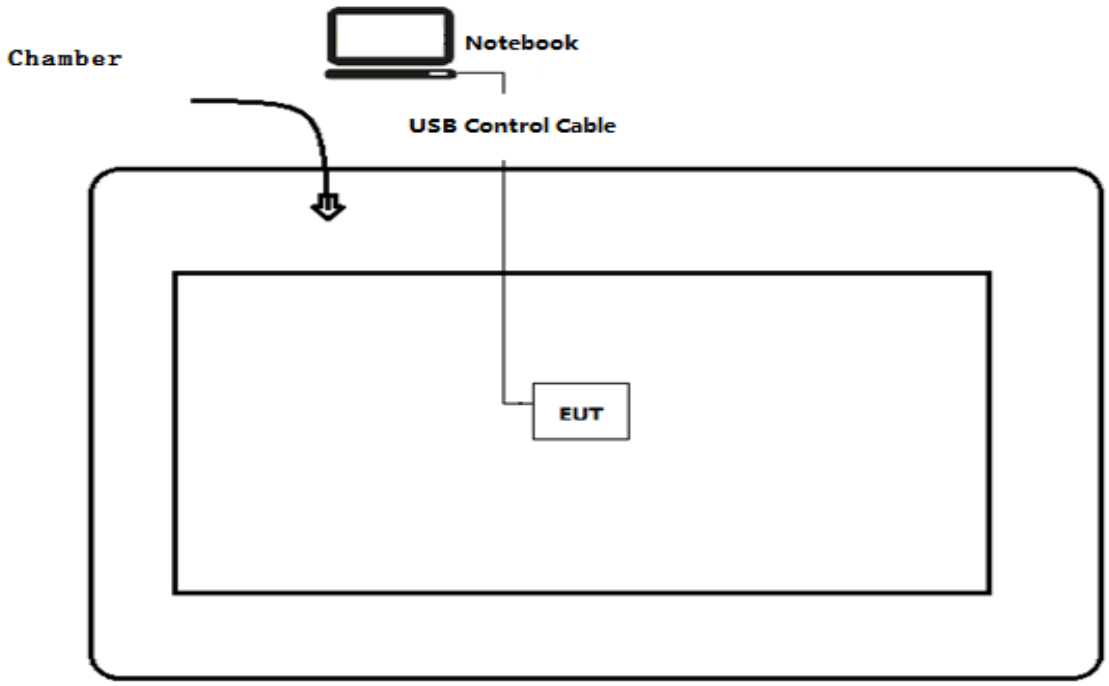
Test Mode For Bluetooth	Mode 1: Transmit by LE_1Mbps(GFSK_LE)
	Mode 2: Transmit by LE_2Mbps(GFSK_LE)
	Mode 3: Transmit by LE_Coded S=2
	Mode 4: Transmit by LE_Coded S=8

2.2 Auxiliary equipment / Test software for the EUT

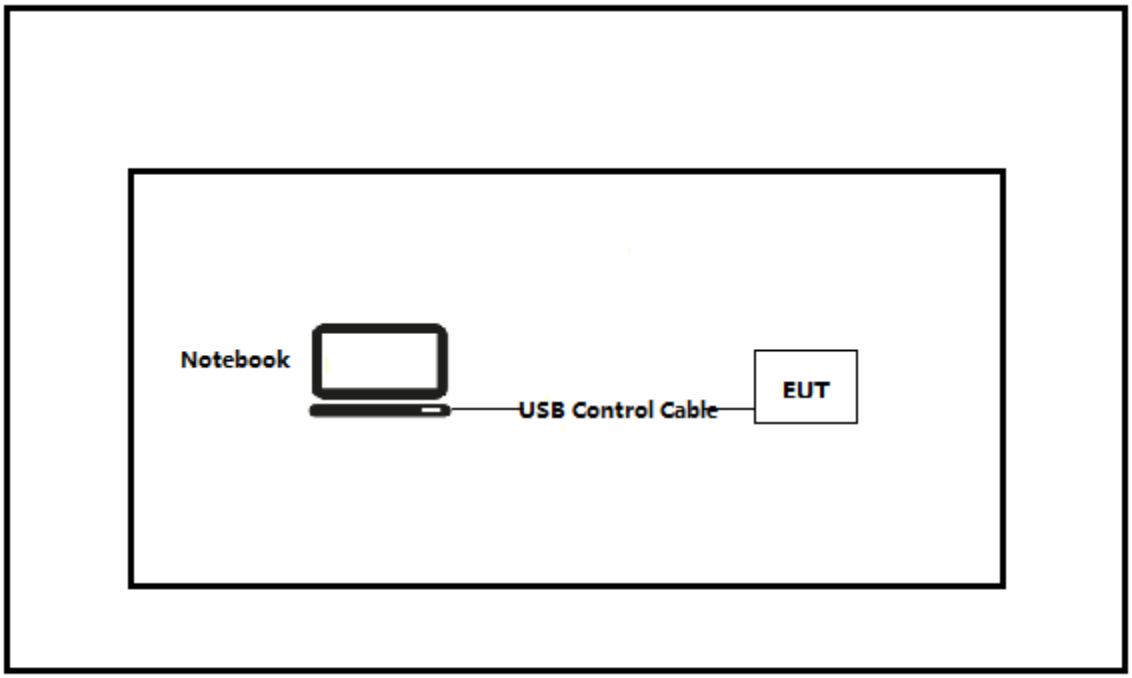
Auxiliary equipment	Type / Version	Manufacturer	Supplied by
Notebook	Think pad x220	Lenovo	Adapter
software	Type / Version	Manufacturer	Supplied by
HueApprobation Tool	V1.1.5.0	N/A	N/A

2.3 Test Configuration / Block diagram used for tests

Test setup Diagram- Radiated Test



Test setup Diagram- Conducted test



2.4 Testing process

1	Setup the EUT as shown in Section 2.3.
2	Execute the [HueApprobation Tool] on the notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Verify that the EUT works properly.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
FCC CFR Title 47 Part 15 Subpart C Section 15.247	2019	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10	2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01 v05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247
RSS-Gen Issue 5 Amendment 1	2019	General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 2	2017	Digital Transmission Systems (DTSs),Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

The following deviation(s) was / were made from the published requirements of the listed standards: N/A.

(Please define the deviations from the standard(s) if applicable)

3.3 Overview of results

For FCC

Requirement – Test case	Basic standard(s)	Verdict	Remark
AC Power Line Conducted Emission	FCC 15.207	PASS	---
Emissions in restricted frequency bands	FCC 15.247(b)(3)	PASS	---
Duty cycle	ANSI C63.10:2013	PASS	---
Emissions in non-restricted frequency bands	FCC 15.247(d), FCC 15.209	PASS	---
Radiated Emission Band Edge	FCC 15.247(d)	PASS	---
Fundamental emission output power	FCC 15.247(d), FCC 15.209	PASS	---
DTS Bandwidth	FCC 15.247(a)(2)	PASS	---
Power Spectral Density	FCC 15.247(e)	PASS	---
Antenna Requirement	FCC 15.203	PASS	---

For ISED

Requirement – Test case	Basic standard(s)	Verdict	Remark
AC Power Line Conducted Emission	RSS-Gen Issue 5 Section 8.8	PASS	---
Emissions in restricted frequency bands	RSS-Gen Issue 5 Section 8.9	PASS	---
Duty cycle	ANSI C63.10:2013	PASS	---
Emissions in non-restricted frequency bands	RSS-247 Issue 2 Section 5.5	PASS	---
Radiated Emission Band Edge	RSS-Gen Issue 5 Section 8.10	PASS	---
Fundamental emission output power	RSS-247 Issue 2 Section 5.4(d)	PASS	---
DTS Bandwidth	RSS-Gen Issue 5 Section 6.7	PASS	---
Power Spectral Density	RSS-247 Issue 2 Section 5.2(b)	PASS	---
Antenna Requirement	RSS-Gen Issue 5 Section 6.8	PASS	---

3.4 Test Facility

USA	**:**	**FCC Designation Number: CN1199**
CA	**:**	**ISED CAB identifier: CN0040**

4 TEST RESULTS

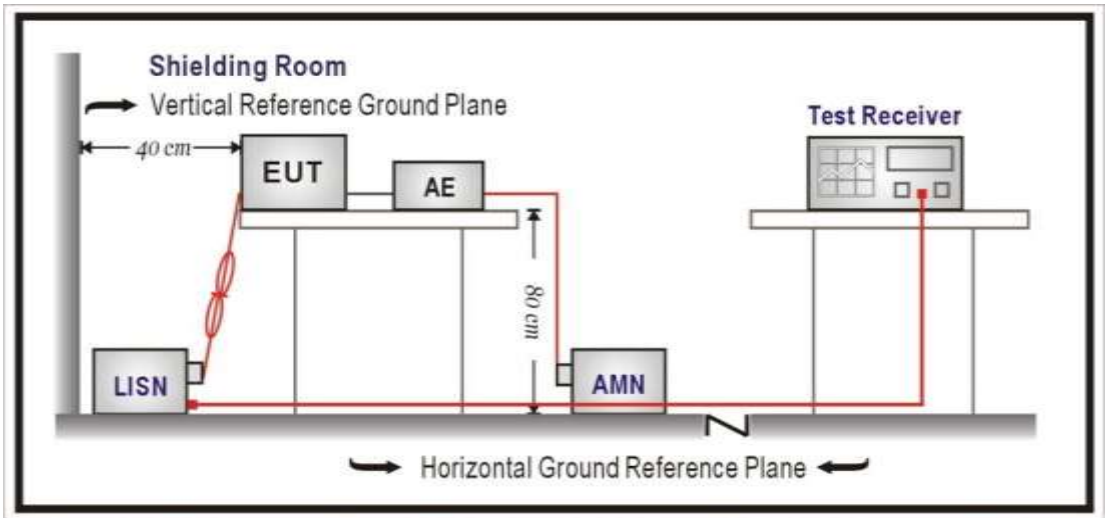
4.1 AC Power Line Conducted Emission	VERDICT: PASS

4.1.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.207	
Frequency range [MHz]	Limit: QP [dB(μV)[1)]]	Limit: AV [dB(μV) [1)]]
0,15 - 0,50	66 – 56 [2)]	56 - 46 [2)]
0,50 - 5,0	56	46
5,0 - 30	60	50

[1)] At the transition frequency, the lower limit applies.
[2)] The limit decreases linearly with the logarithm of the frequency.
NOTE 1: The exclusion band for transmitters shall be considered for transmitters operating at frequencies below 30 MHz.
NOTE 2: Where the AC output port is directly connected (or via a circuit breaker) to the AC power input port of the EUT the AC power output port need not to be tested.

4.1.2 Test Setup

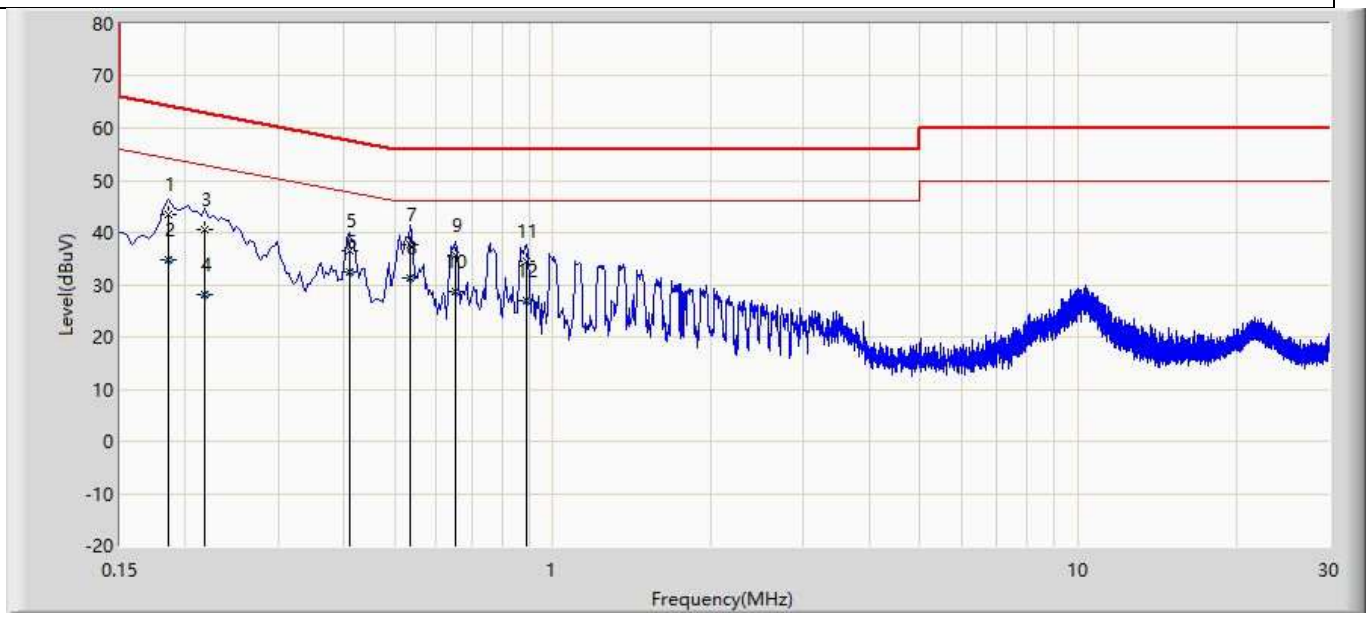


4.1.3 Test Procedure

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

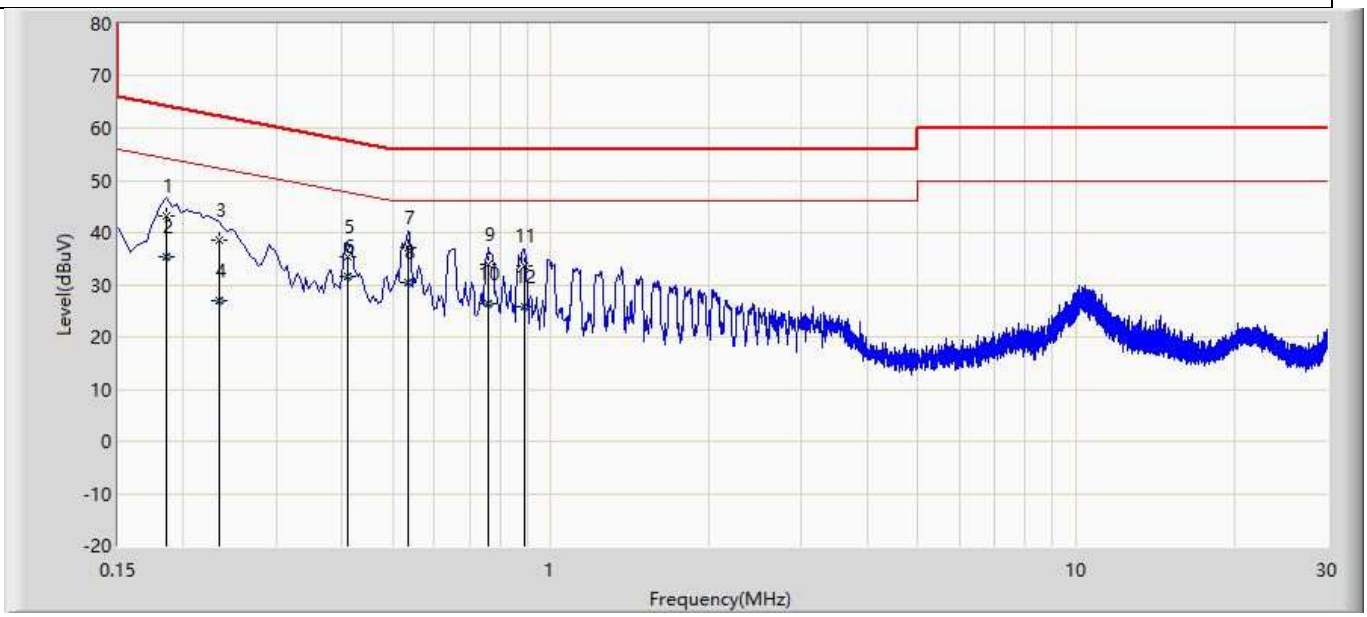
4.1.4 Test Data

Profile: 20C0212R	Page No.: 36
Engineer:YingfeiWang	
Site: TR1	Time: 2021/01/06 - 01:55
Limit: CISPR15_CE_Mains	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Line
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.186	43.471	33.585	-20.742	64.213	9.857	0.028	0.000	QP
2		0.186	34.870	24.984	-19.343	54.213	9.857	0.028	0.000	AV
3		0.218	40.656	30.766	-22.239	62.895	9.861	0.029	0.000	QP
4		0.218	28.126	18.236	-24.769	52.895	9.861	0.029	0.000	AV
5		0.410	36.655	26.749	-20.993	57.648	9.867	0.039	0.000	QP
6		0.410	32.579	22.673	-15.069	47.648	9.867	0.039	0.000	AV
7		0.534	37.802	27.886	-18.198	56.000	9.872	0.044	0.000	QP
8	*	0.534	31.352	21.437	-14.648	46.000	9.872	0.044	0.000	AV
9		0.654	35.746	25.821	-20.254	56.000	9.878	0.048	0.000	QP
10		0.654	28.653	18.727	-17.347	46.000	9.878	0.048	0.000	AV
11		0.890	34.537	24.677	-21.463	56.000	9.804	0.056	0.000	QP
12		0.890	27.026	17.166	-18.974	46.000	9.804	0.056	0.000	AV

Profile: 20C0212R	Page No.: 37
Engineer: YingfeiWang	
Site: TR1	Time: 2021/01/06 - 01:55
Limit: CISPR15_CE_Mains	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Neutral
EUT:LED Lamp	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.186	43.271	33.396	-20.942	64.213	9.847	0.028	0.000	QP
2		0.186	35.279	25.404	-18.934	54.213	9.847	0.028	0.000	AV
3		0.234	38.657	28.776	-23.650	62.307	9.852	0.030	0.000	QP
4		0.234	26.829	16.948	-25.478	52.307	9.852	0.030	0.000	AV
5		0.410	35.443	25.546	-22.205	57.648	9.858	0.039	0.000	QP
6		0.410	31.663	21.766	-15.985	47.648	9.858	0.039	0.000	AV
7		0.534	37.146	27.239	-18.854	56.000	9.864	0.044	0.000	QP
8	*	0.534	30.535	20.627	-15.465	46.000	9.864	0.044	0.000	AV
9		0.762	33.831	23.961	-22.169	56.000	9.818	0.052	0.000	QP
10		0.762	26.458	16.588	-19.542	46.000	9.818	0.052	0.000	AV
11		0.890	33.488	23.721	-22.512	56.000	9.712	0.056	0.000	QP
12		0.890	25.897	16.130	-20.103	46.000	9.712	0.056	0.000	AV

Note:
1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp). Test Photograph.
3. We evalued both tow crystal oscillator, and shown in report is the worst data.

4.2 Emissions in restricted frequency bands — VERDICT: PASS

4.2.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.207		
Restricted Bands of operation			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 –16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975–12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675–12.57725	322 – 335.4	3600 – 4400	
13.36 – 13.41			
Restricted Bands of operation for IC			
0.090 - 0.110	13.36 - 13.41	960 - 1427	9.0 - 9.2
0.495 - 0.505	16.42 - 16.423	1435 - 1626.5	9.3 - 9.5
2.1735 - 2.1905	16.69475 - 16.69525	1645.5 - 1646.5	10.6 - 12.7
3.020 - 3.026	16.80425 - 16.80475	1660 - 1710	13.25 - 13.4
4.125 - 4.128	25.5 - 25.67	1718.8 - 1722.2	14.47 - 14.5
4.17725 - 4.17775	37.5 - 38.25	2200 - 2300	15.35 - 16.2
4.20725 - 4.20775	73 - 74.6	2310 - 2390	17.7 - 21.4
5.677 - 5.683	74.8 - 75.2	2483.5 - 2500	22.01 - 23.12
6.215 - 6.218	108 - 138	2655 - 2900	23.6 - 24.0
6.26775 - 6.26825	149.9 - 150.05	3260 - 3267	31.2 - 31.8
6.31175 - 6.31225	156.52475 - 156.52525	3332 - 3339	36.43 - 36.5
8.291 - 8.294	156.7 - 156.9	3345.8 - 3358	Above 38.6
8.362 - 8.366	162.0125 - 167.17	3500 - 4400	
8.37625 - 8.38675	167.72 - 173.2	4500 - 5150	
8.41425 - 8.41475	240 - 285	5350 - 5460	
12.29 - 12.293	322 - 335.4	7250 - 7750	
12.51975 - 12.52025	399.9 - 410	8025 - 8500	
12.57675 - 12.57725	608 - 614	--	

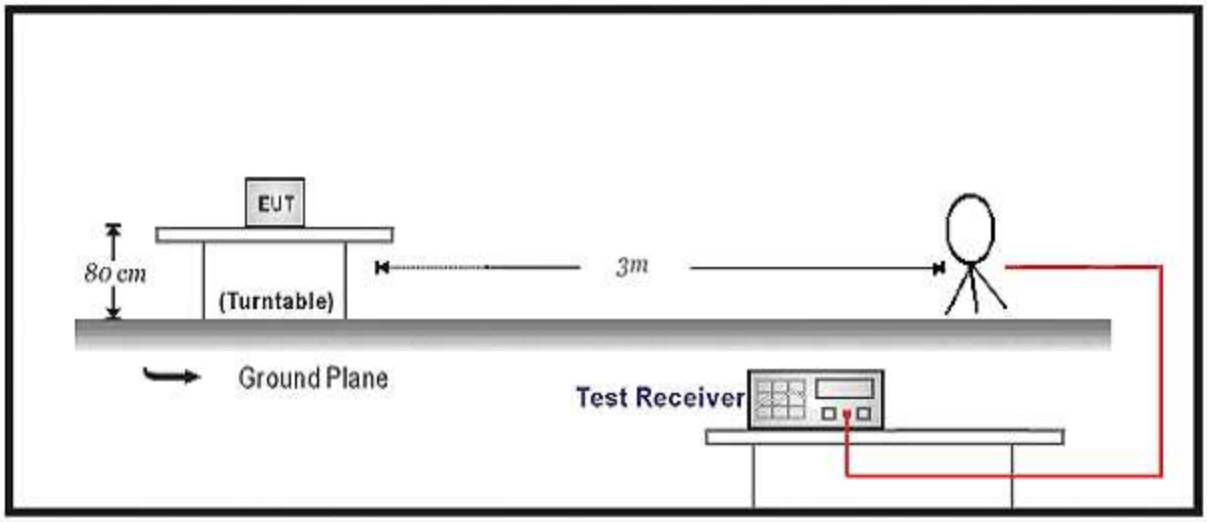
Restricted Band Emissions Limit			
Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30(Note 1)
1.705 - 30	30	29.5	30(Note 1)
30 - 88	100	40	3(Note 2)
88 - 216	150	43.5	3(Note 2)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

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

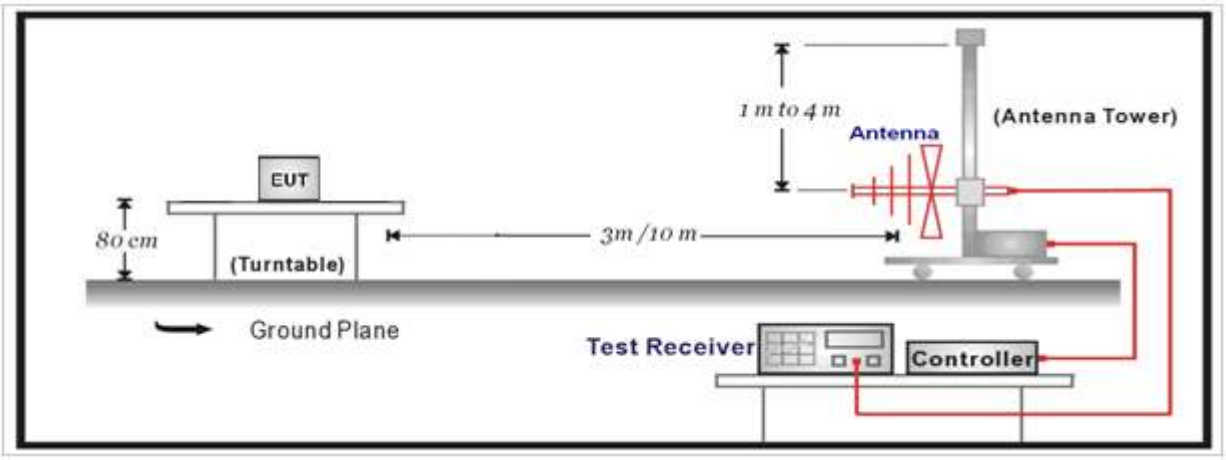
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated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

4.2.2 Test Setup

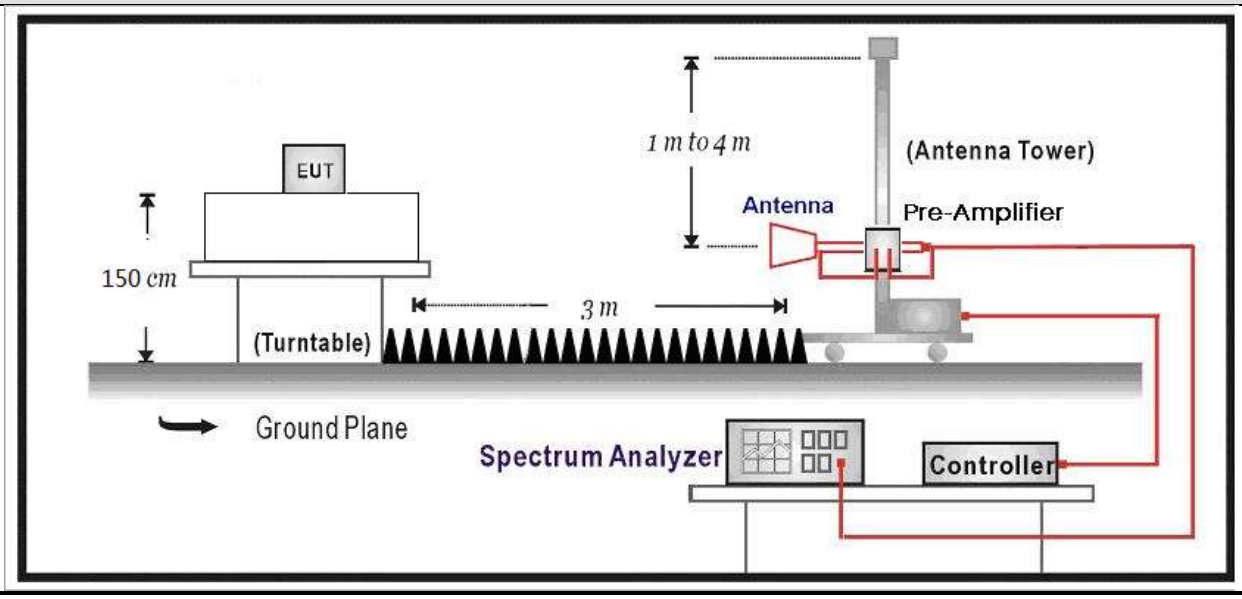
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



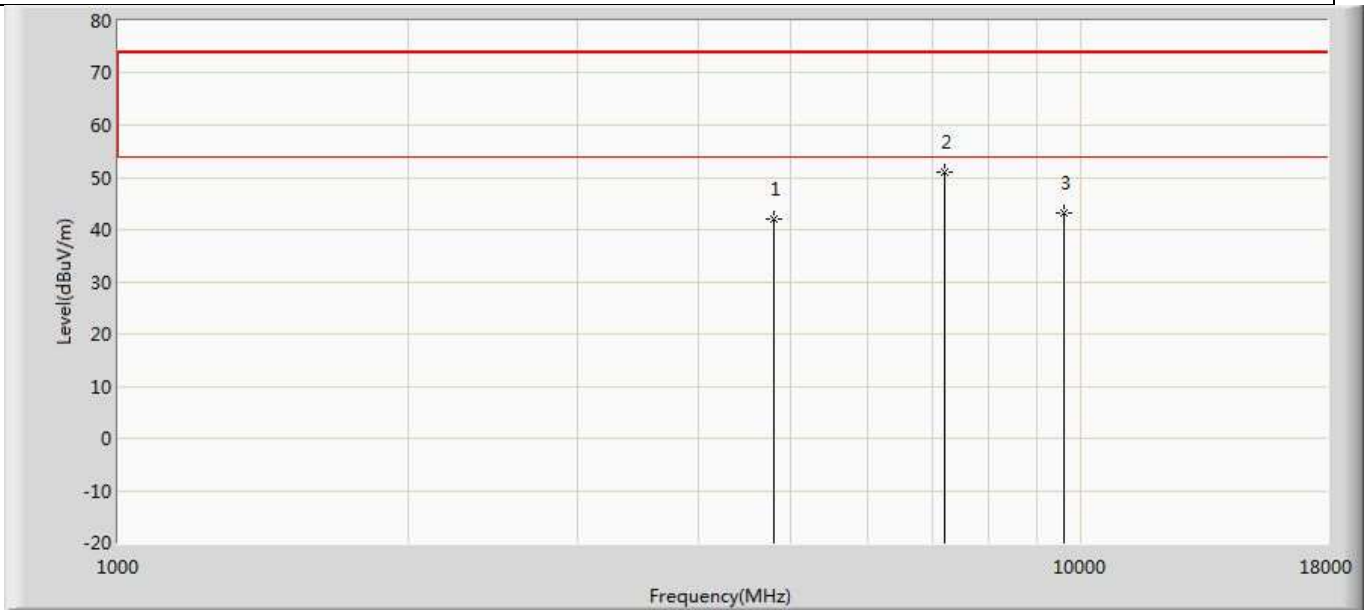
4.2.3 Test Procedure

	References Rule			Chapter	Description
☒	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

4.2.4 Test Data

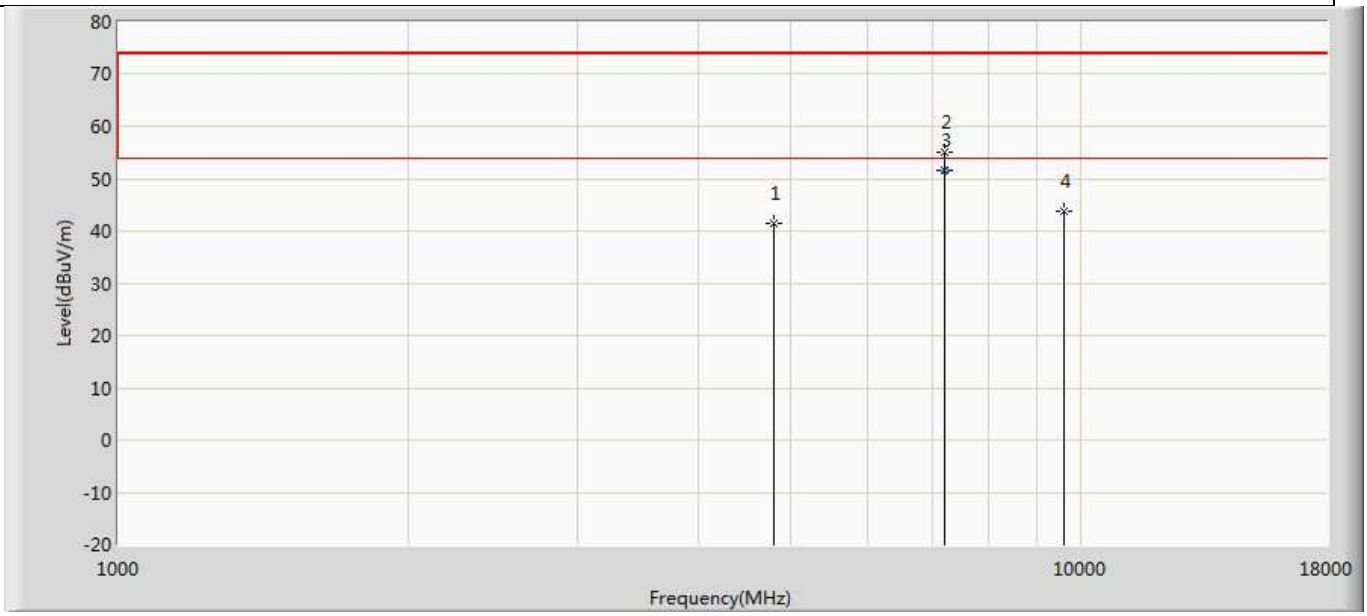
crystal oscillator #1:

Profile: 20C0212R	Page No.: 31
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:11
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	



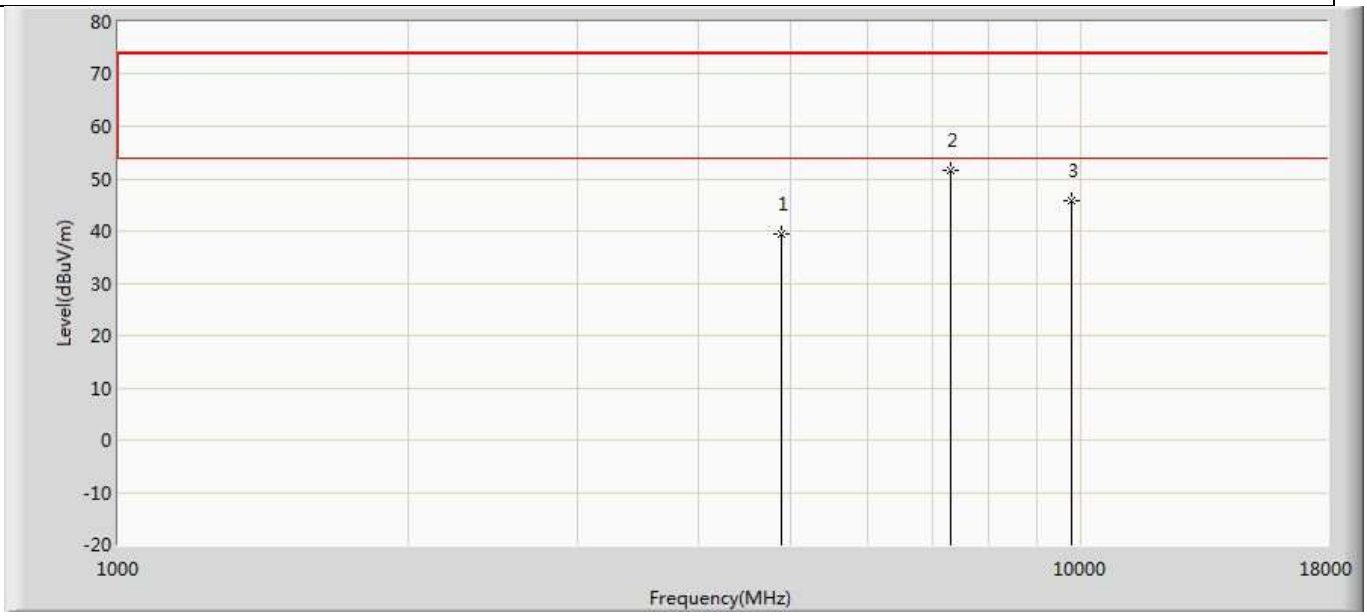
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.154	36.438	-31.846	74.000	5.716	PK
2	*	7206.000	51.124	42.001	-22.876	74.000	9.123	PK
3		9608.000	43.331	32.094	-30.669	74.000	11.238	PK

Profile: 20C0212R	Page No.: 32
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:11
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 1:Transmit at 2402MHz by LE_1Mbps	



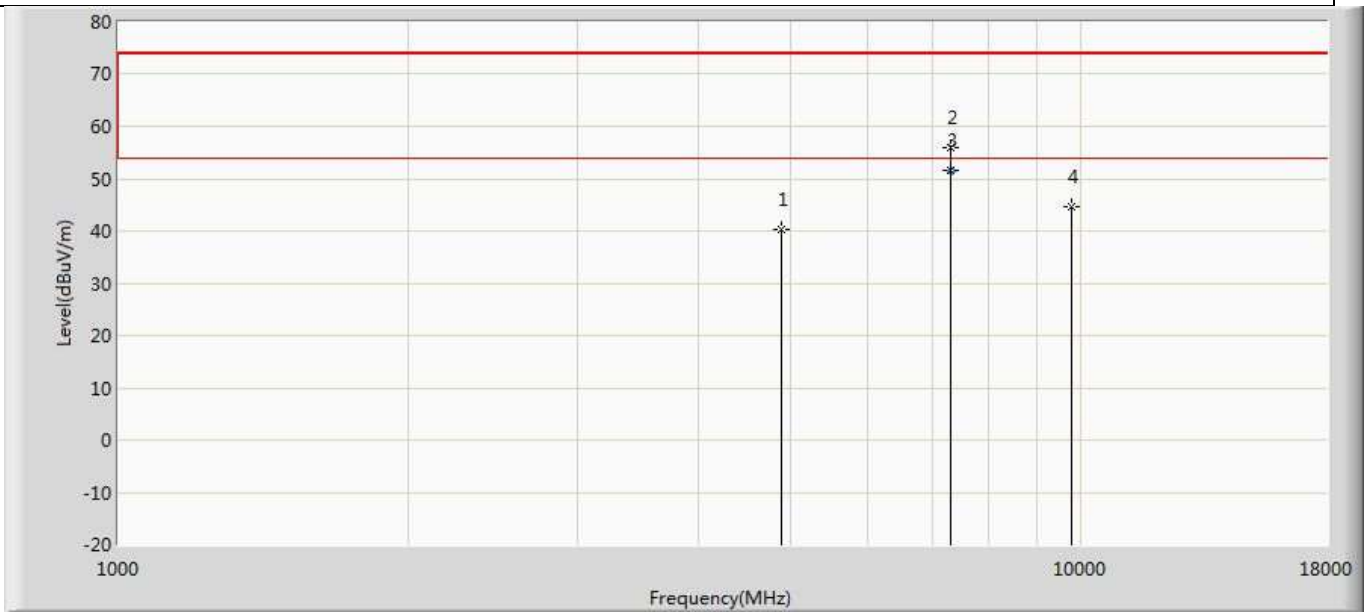
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.412	35.696	-32.588	74.000	5.716	PK
2		7206.000	55.142	46.019	-18.858	74.000	9.123	PK
3	*	7206.000	51.736	42.613	-2.264	54.000	9.123	AV
4		9608.000	43.841	32.604	-30.159	74.000	11.238	PK

Profile: 20C0212R	Page No.: 33
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



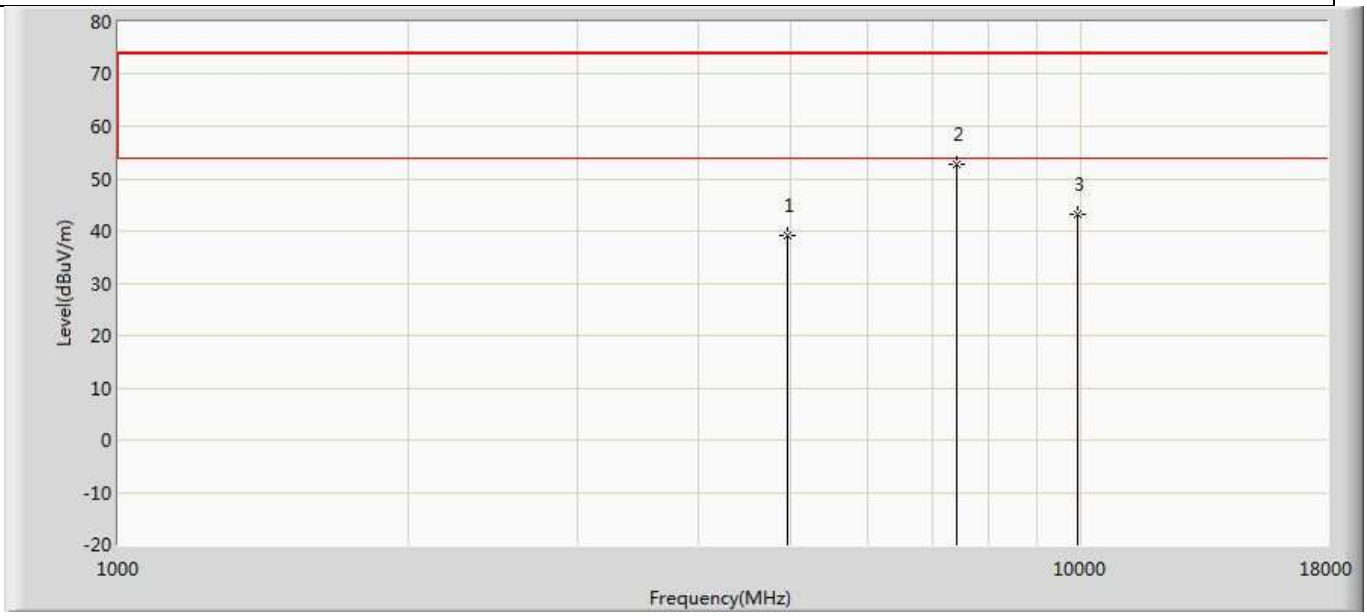
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	39.412	33.621	-34.588	74.000	5.790	PK
2	*	7320.000	51.453	42.192	-22.547	74.000	9.261	PK
3		9760.000	45.741	33.678	-28.259	74.000	12.063	PK

Profile: 20C0212R	Page No.: 34
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:12
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	



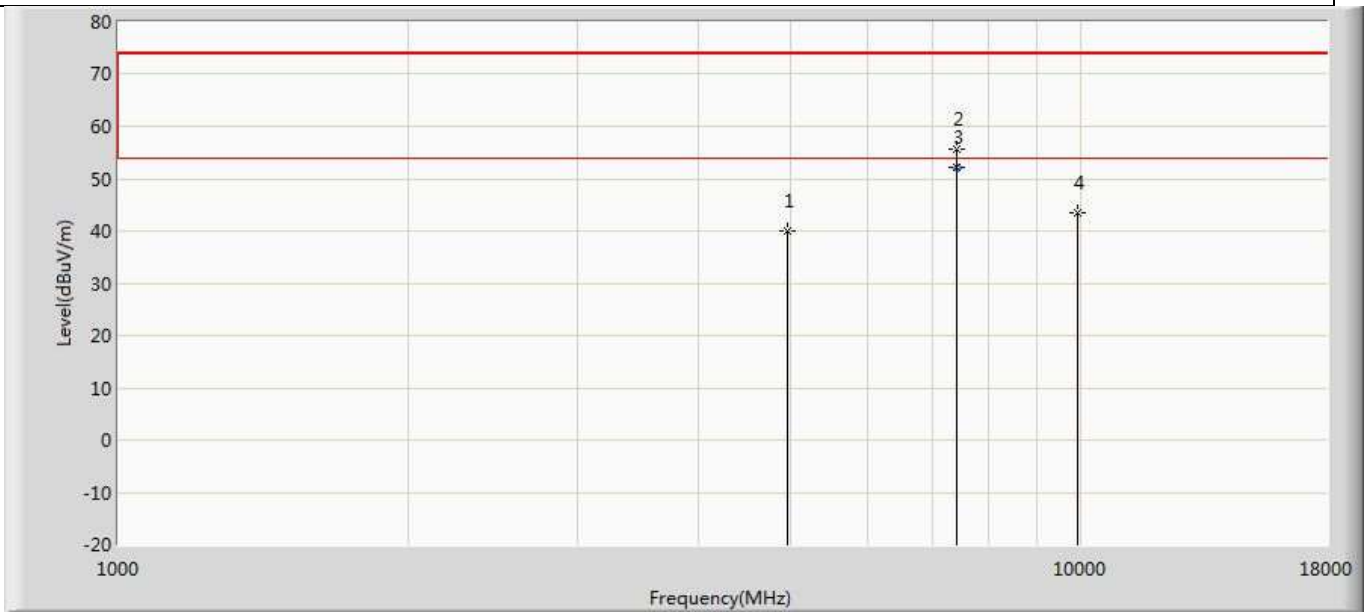
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.174	34.383	-33.826	74.000	5.790	PK
2		7320.000	55.845	46.584	-18.155	74.000	9.261	PK
3	*	7320.000	51.475	42.214	-2.525	54.000	9.261	AV
4		9760.000	44.643	32.580	-29.357	74.000	12.063	PK

Profile: 20C0212R	Page No.: 35
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



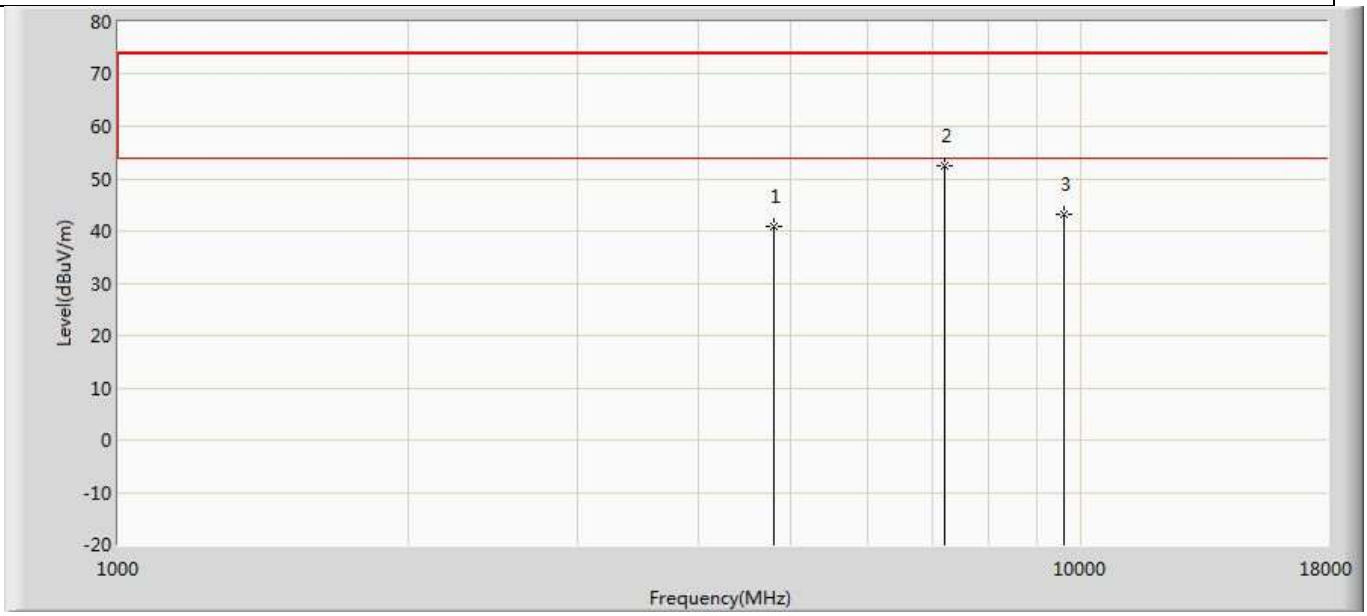
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	39.115	33.369	-34.885	74.000	5.745	PK
2	*	7440.000	52.745	43.294	-21.255	74.000	9.451	PK
3		9920.000	43.228	31.540	-30.772	74.000	11.688	PK

Profile: 20C0212R	Page No.: 36
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:12
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	



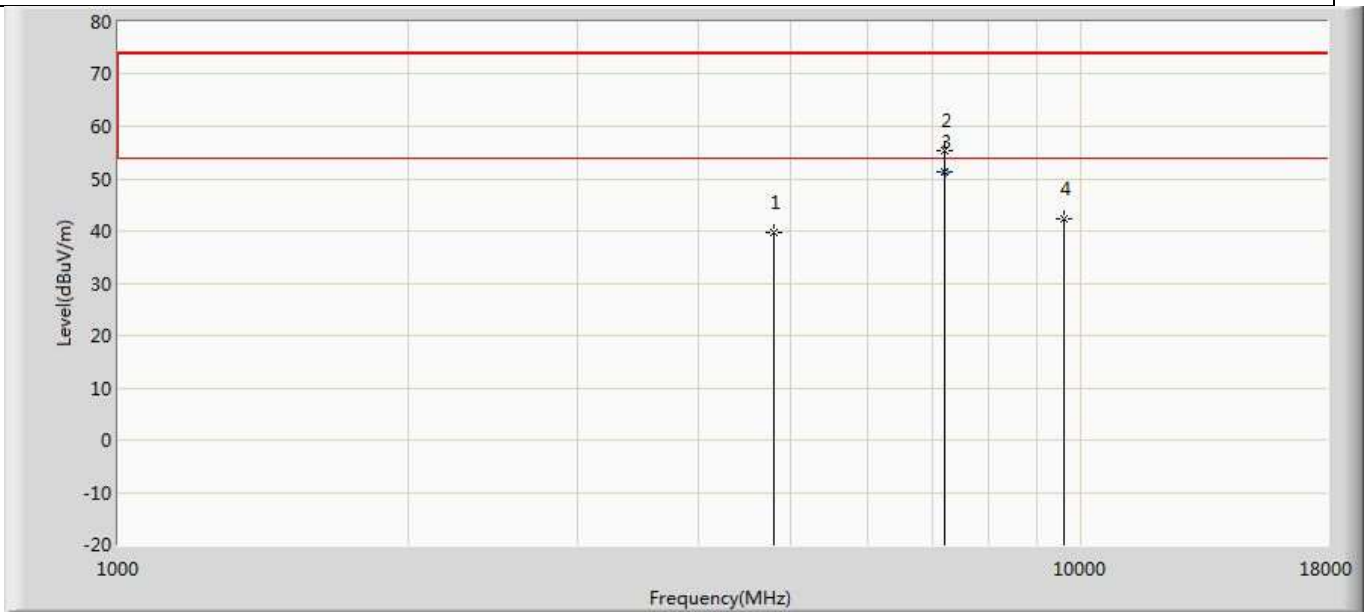
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.124	34.378	-33.876	74.000	5.745	PK
2		7440.000	55.634	46.183	-18.366	74.000	9.451	PK
3	*	7440.000	52.156	42.705	-1.844	54.000	9.451	AV
4		9920.000	43.425	31.737	-30.575	74.000	11.688	PK

Profile: 20C0212R	Page No.: 37
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:12
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	



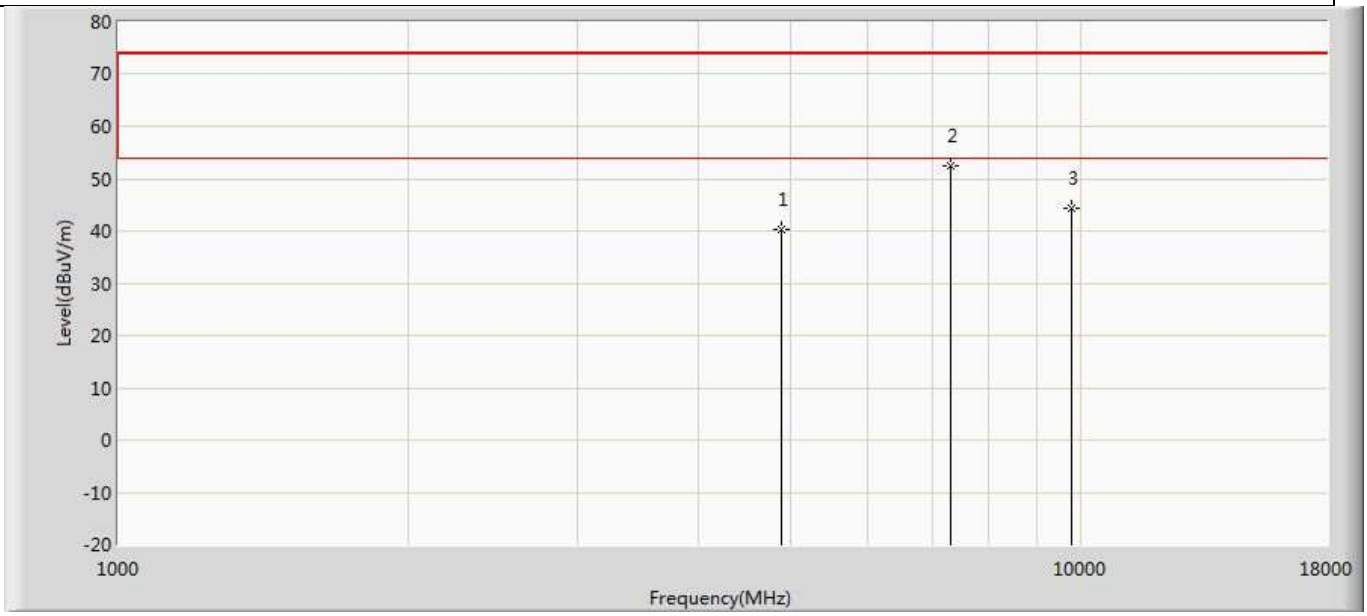
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.745	35.029	-33.255	74.000	5.716	PK
2	*	7206.000	52.412	43.289	-21.588	74.000	9.123	PK
3		9608.000	43.314	32.077	-30.686	74.000	11.238	PK

Profile: 20C0212R	Page No.: 38
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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	



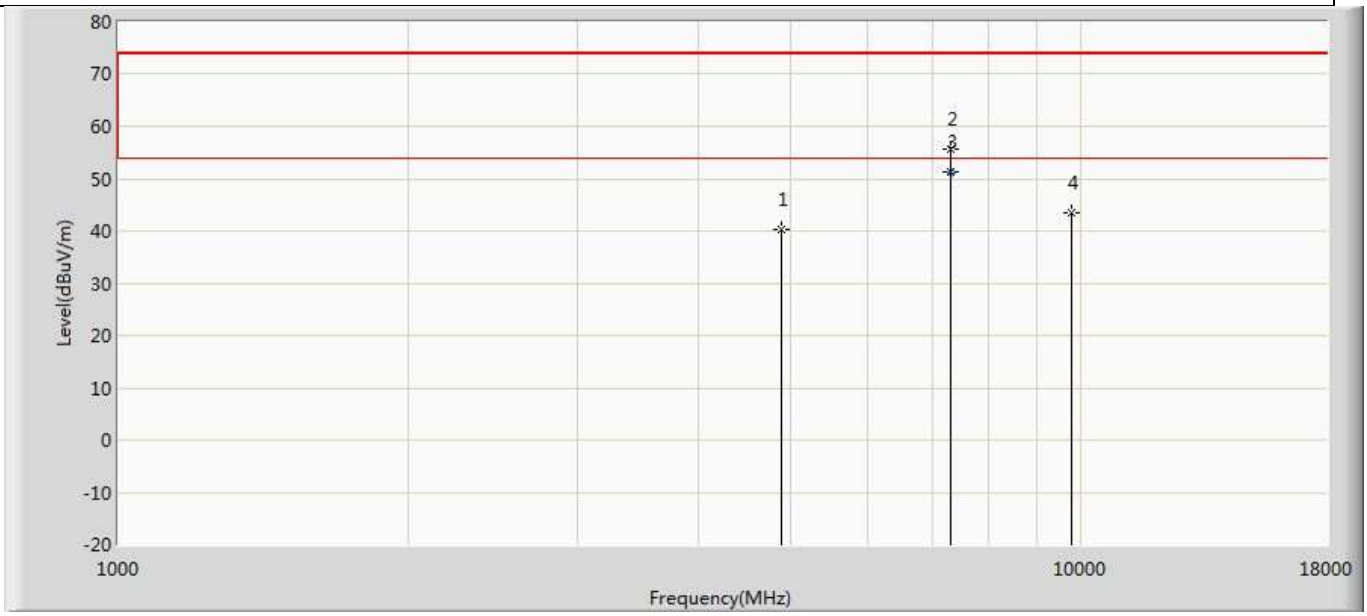
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	39.745	34.029	-34.255	74.000	5.716	PK
2		7206.000	55.475	46.352	-18.525	74.000	9.123	PK
3	*	7206.000	51.375	42.252	-2.625	54.000	9.123	AV
4		9608.000	42.315	31.078	-31.685	74.000	11.238	PK

Profile: 20C0212R	Page No.: 39
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 2:Transmit at 2440MHz by LE_2Mbps	



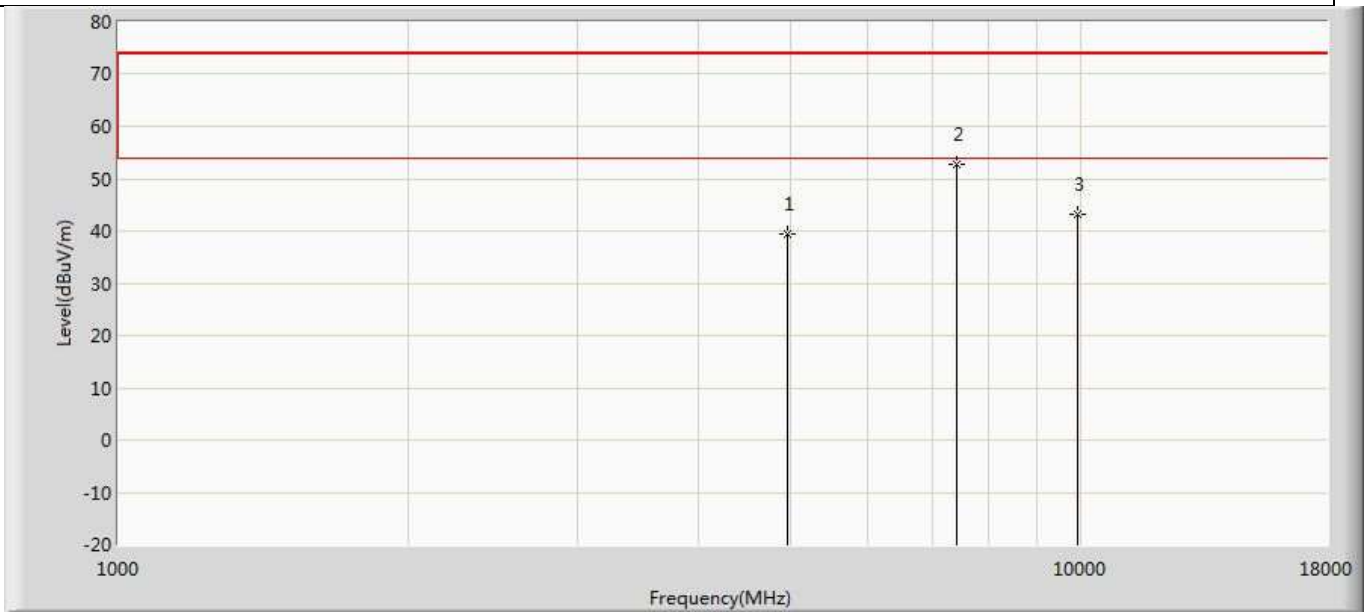
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.415	34.624	-33.585	74.000	5.790	PK
2	*	7320.000	52.456	43.195	-21.544	74.000	9.261	PK
3		9760.000	44.248	32.185	-29.752	74.000	12.063	PK

Profile: 20C0212R	Page No.: 40
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 2440MHz by LE_2Mbps	



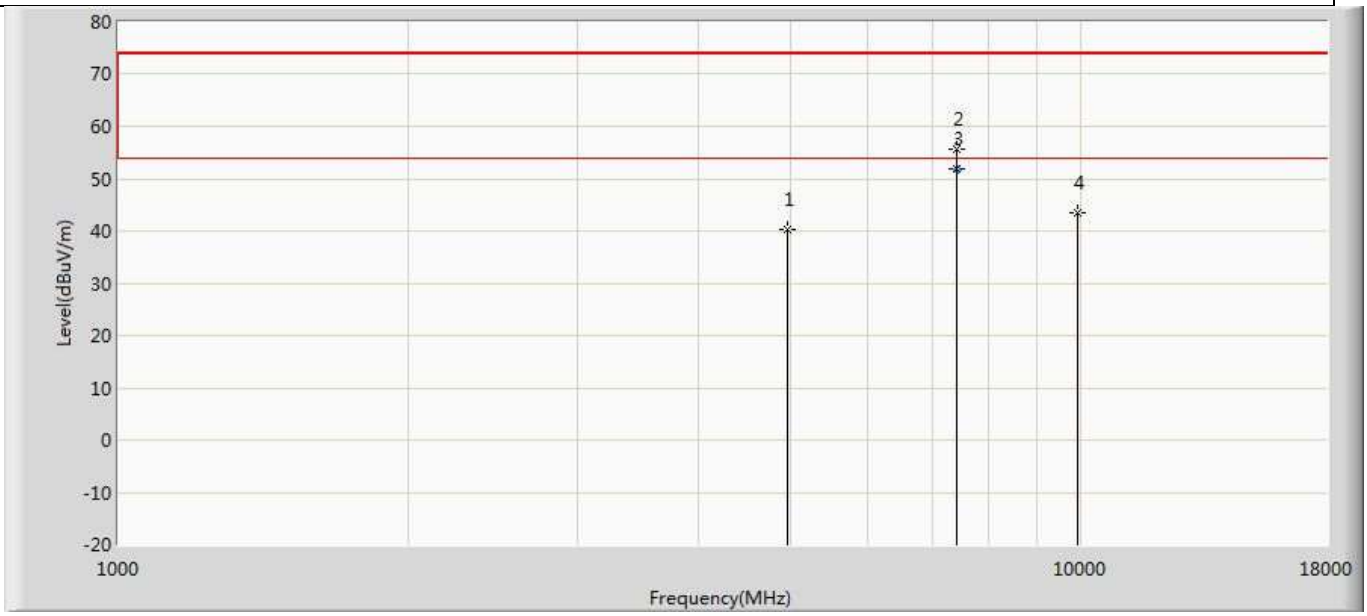
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.154	34.363	-33.846	74.000	5.790	PK
2		7320.000	55.745	46.484	-18.255	74.000	9.261	PK
3	*	7320.000	51.283	42.022	-2.717	54.000	9.261	AV
4		9760.000	43.345	31.282	-30.655	74.000	12.063	PK

Profile: 20C0212R	Page No.: 41
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 2:Transmit at 2480MHz by LE_2Mbps	



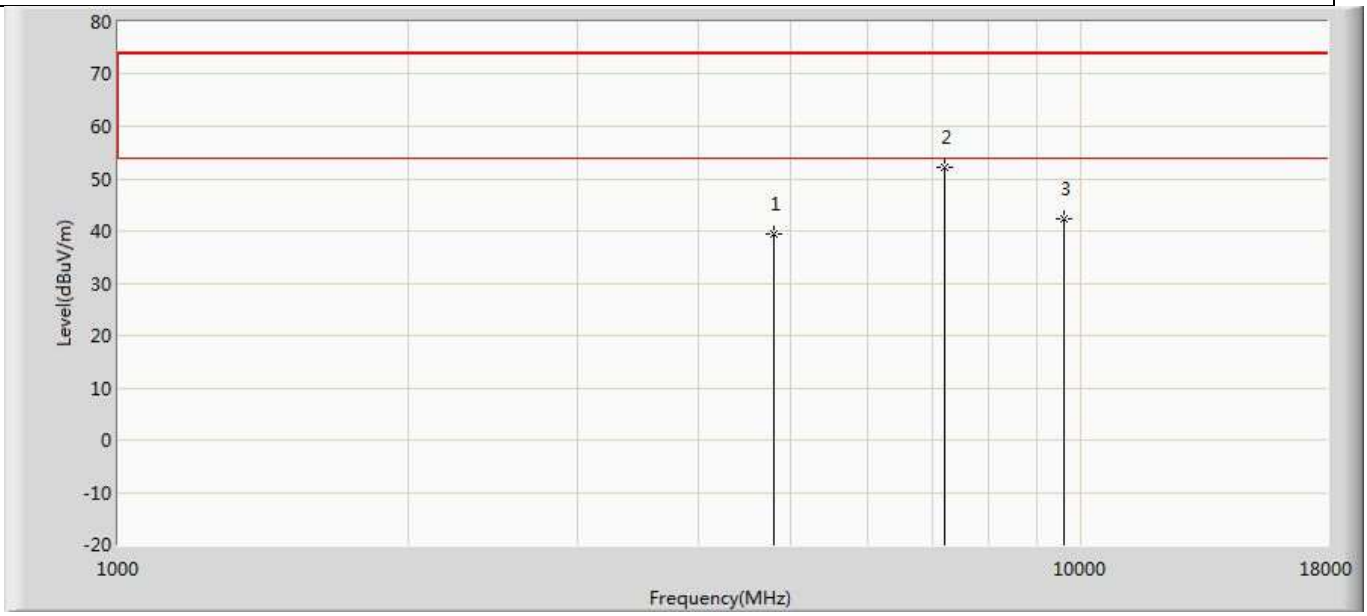
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	39.542	33.796	-34.458	74.000	5.745	PK
2	*	7440.000	52.845	43.394	-21.155	74.000	9.451	PK
3		9920.000	43.258	31.570	-30.742	74.000	11.688	PK

Profile: 20C0212R	Page No.: 42
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 2480MHz by LE_2Mbps	



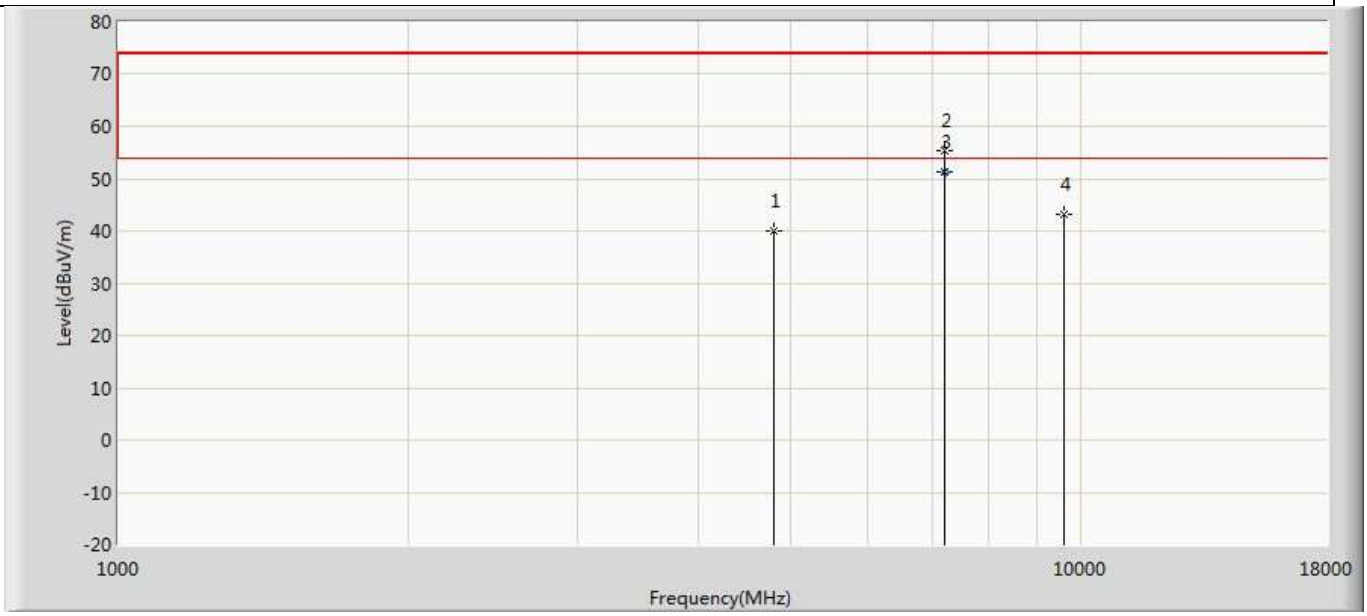
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.245	34.499	-33.755	74.000	5.745	PK
2		7440.000	55.658	46.207	-18.342	74.000	9.451	PK
3	*	7440.000	51.849	42.398	-2.151	54.000	9.451	AV
4		9920.000	43.452	31.764	-30.548	74.000	11.688	PK

Profile: 20C0212R	Page No.: 43
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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	



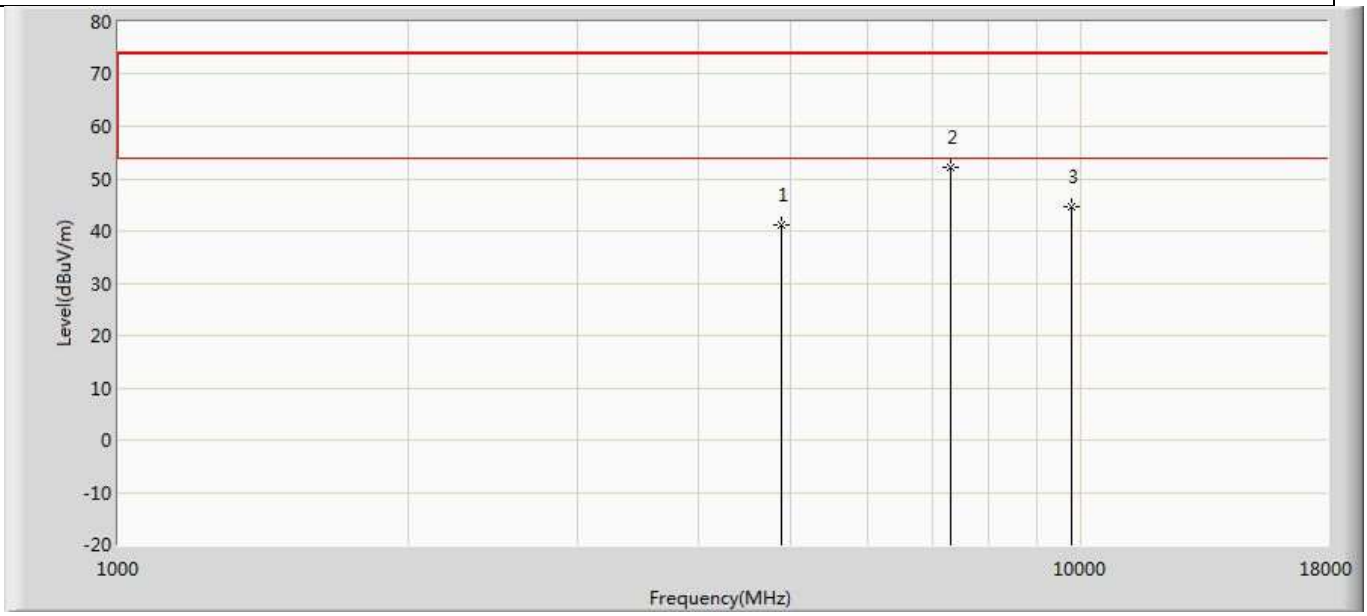
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	39.487	33.771	-34.513	74.000	5.716	PK
2	*	7206.000	52.185	43.062	-21.815	74.000	9.123	PK
3		9608.000	42.452	31.215	-31.548	74.000	11.238	PK

Profile: 20C0212R	Page No.: 44
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 3:Transmit at 2402MHz by LE_Coded S=2	



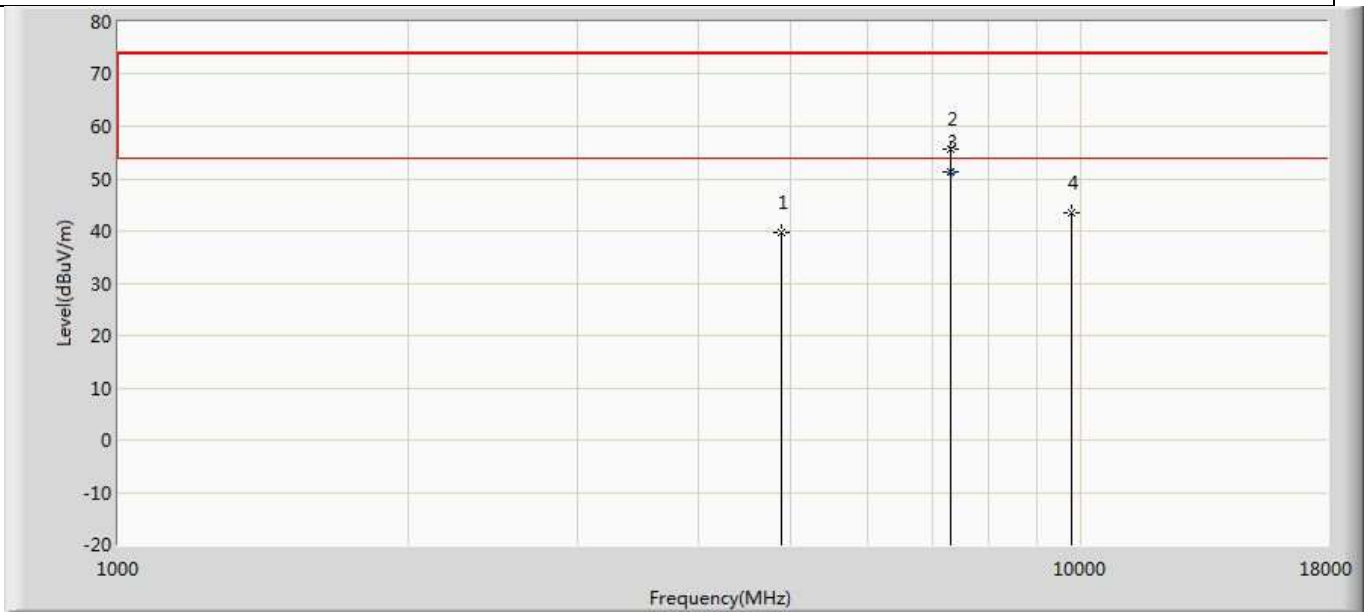
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.127	34.411	-33.873	74.000	5.716	PK
2		7206.000	55.468	46.345	-18.532	74.000	9.123	PK
3	*	7206.000	51.283	42.160	-2.717	54.000	9.123	AV
4		9608.000	43.285	32.048	-30.715	74.000	11.238	PK

Profile: 20C0212R	Page No.: 45
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 2440MHz by LE_Coded S=2	



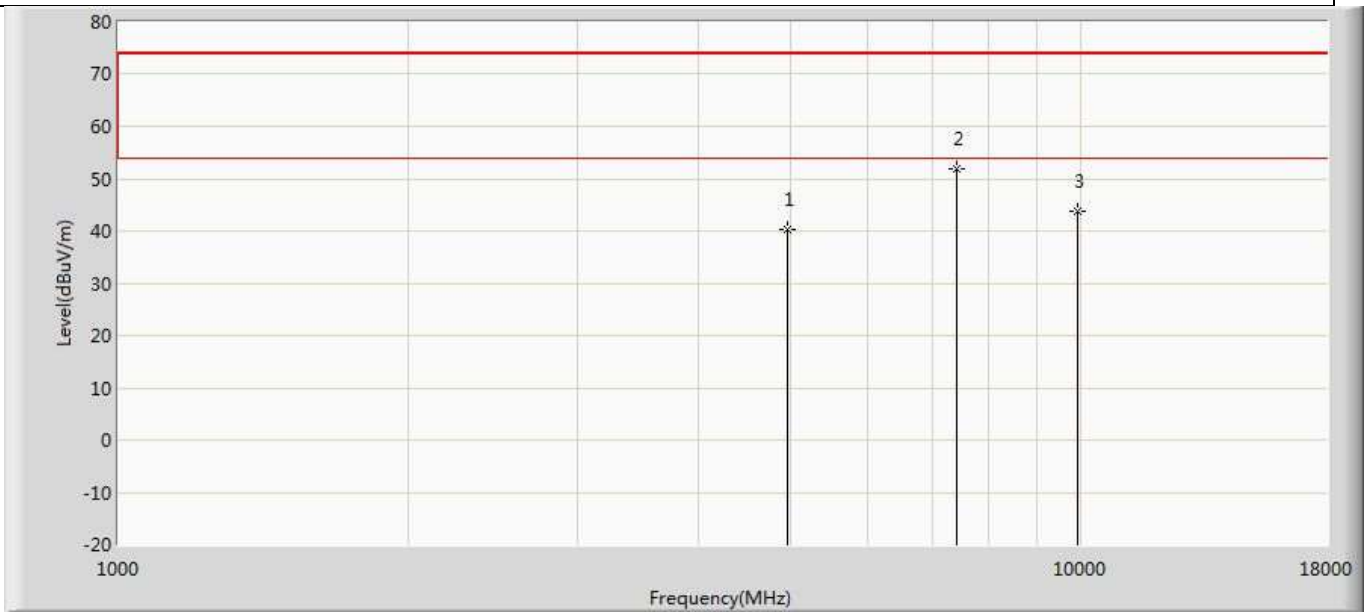
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.185	35.394	-32.815	74.000	5.790	PK
2	*	7320.000	52.248	42.987	-21.752	74.000	9.261	PK
3		9760.000	44.745	32.682	-29.255	74.000	12.063	PK

Profile: 20C0212R	Page No.: 46
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:13
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 3:Transmit at 2440MHz by LE_Coded S=2	



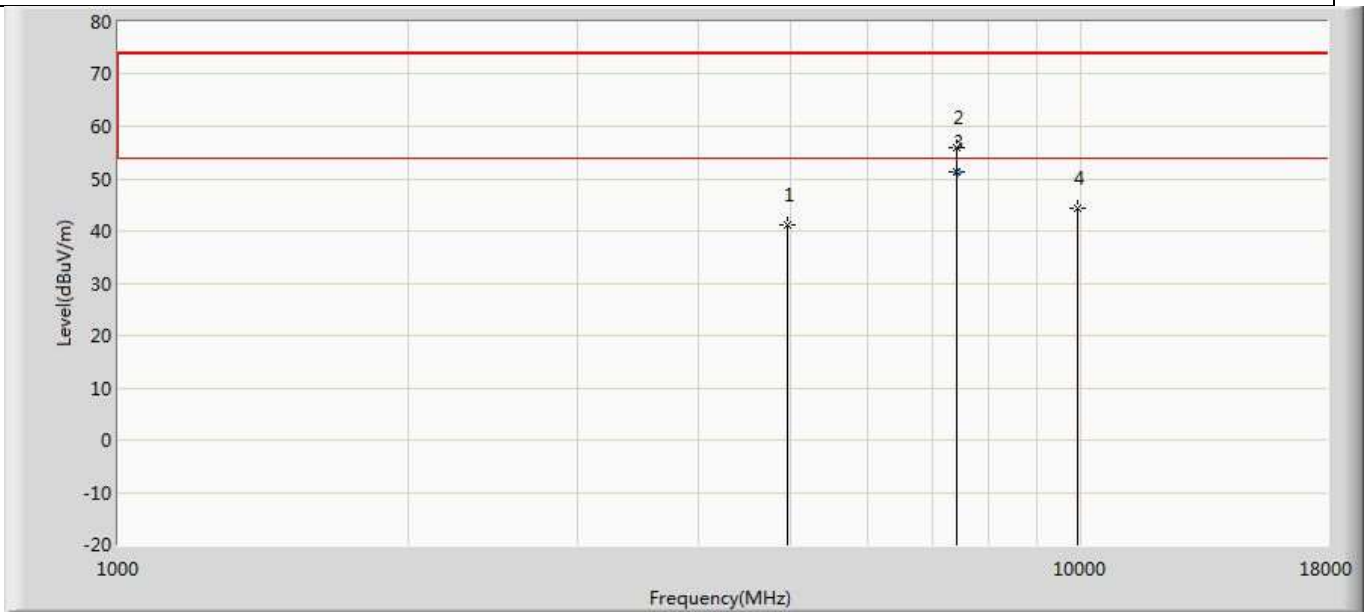
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	39.846	34.055	-34.154	74.000	5.790	PK
2		7320.000	55.747	46.486	-18.253	74.000	9.261	PK
3	*	7320.000	51.293	42.032	-2.707	54.000	9.261	AV
4		9760.000	43.485	31.422	-30.515	74.000	12.063	PK

Profile: 20C0212R	Page No.: 47
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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	



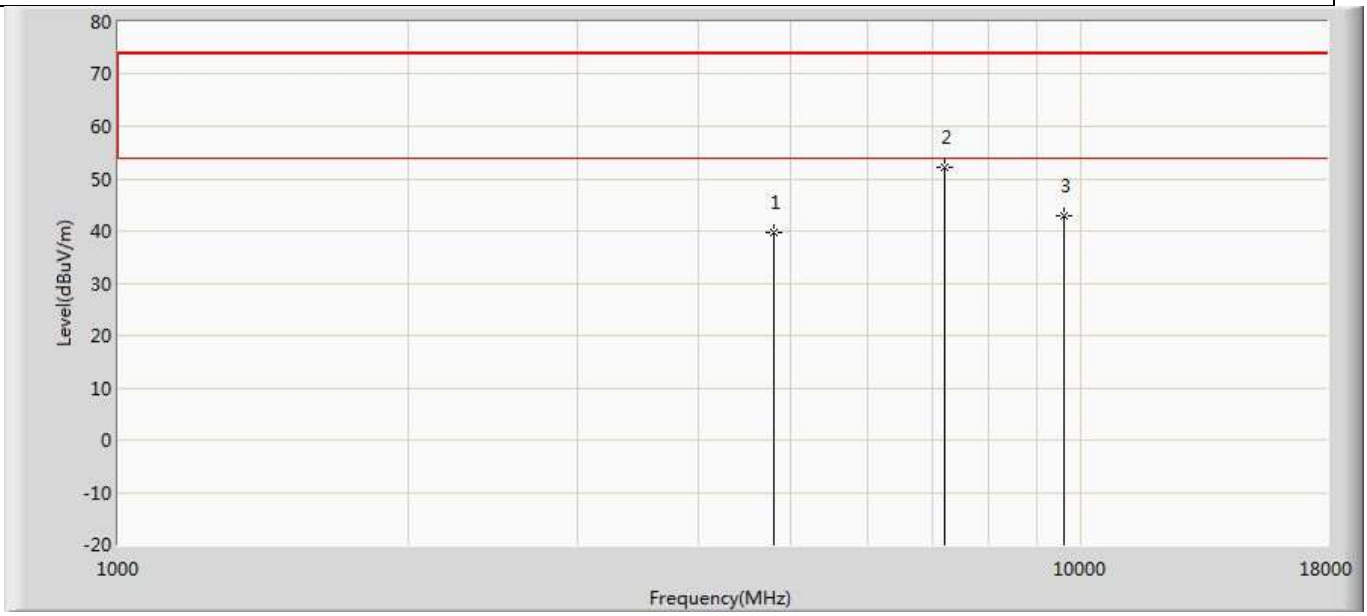
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.184	34.438	-33.816	74.000	5.745	PK
2	*	7440.000	51.745	42.294	-22.255	74.000	9.451	PK
3		9920.000	43.657	31.969	-30.343	74.000	11.688	PK

Profile: 20C0212R	Page No.: 48
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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	



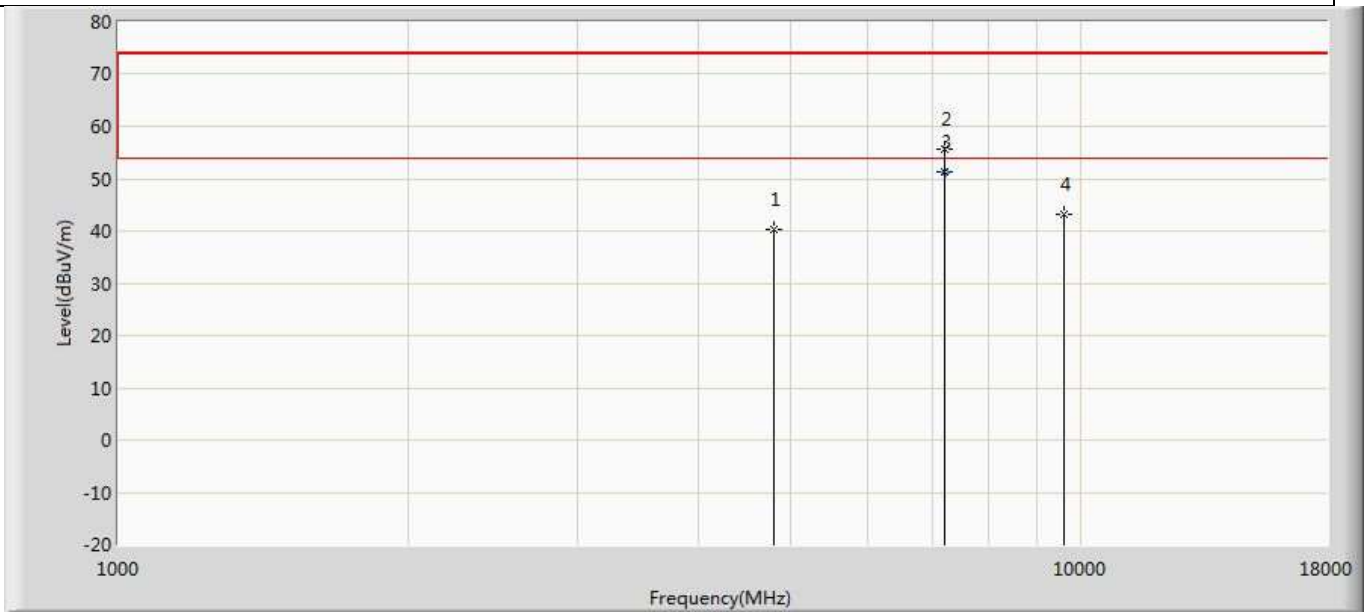
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.184	35.438	-32.816	74.000	5.745	PK
2		7440.000	55.874	46.423	-18.126	74.000	9.451	PK
3	*	7440.000	51.384	41.933	-2.616	54.000	9.451	AV
4		9920.000	44.348	32.660	-29.652	74.000	11.688	PK

Profile: 20C0212R	Page No.: 49
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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	



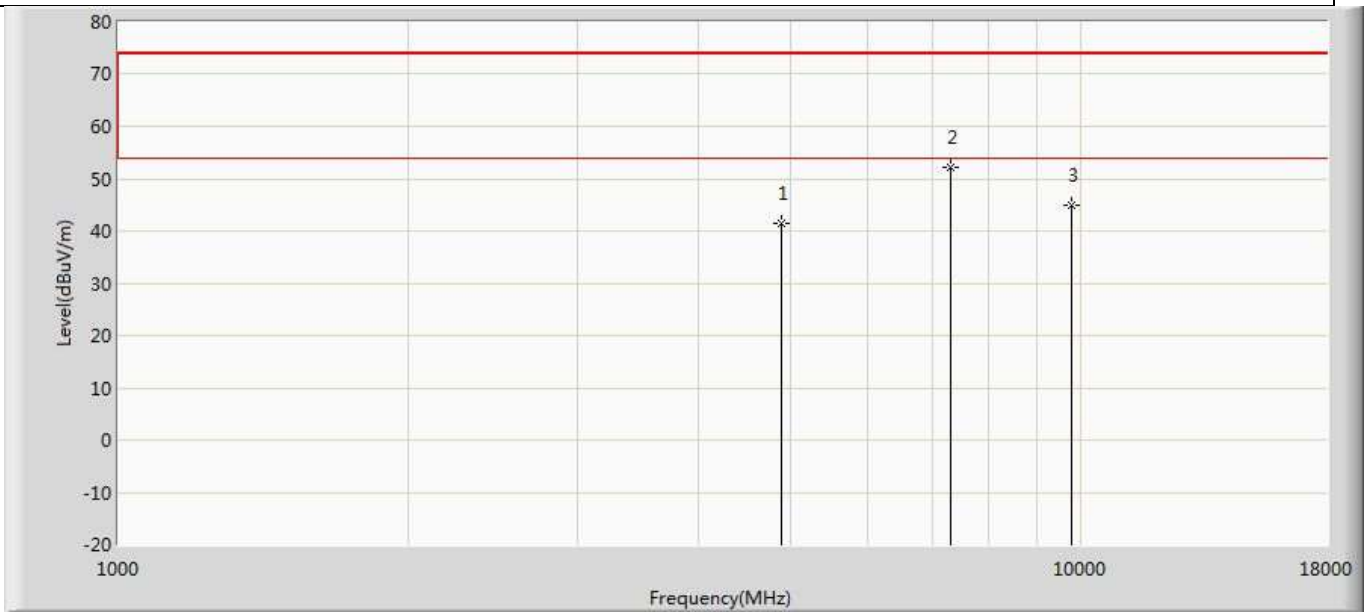
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	39.745	34.029	-34.255	74.000	5.716	PK
2	*	7206.000	52.274	43.151	-21.726	74.000	9.123	PK
3		9608.000	42.845	31.608	-31.155	74.000	11.238	PK

Profile: 20C0212R	Page No.: 50
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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_Coded S=8	



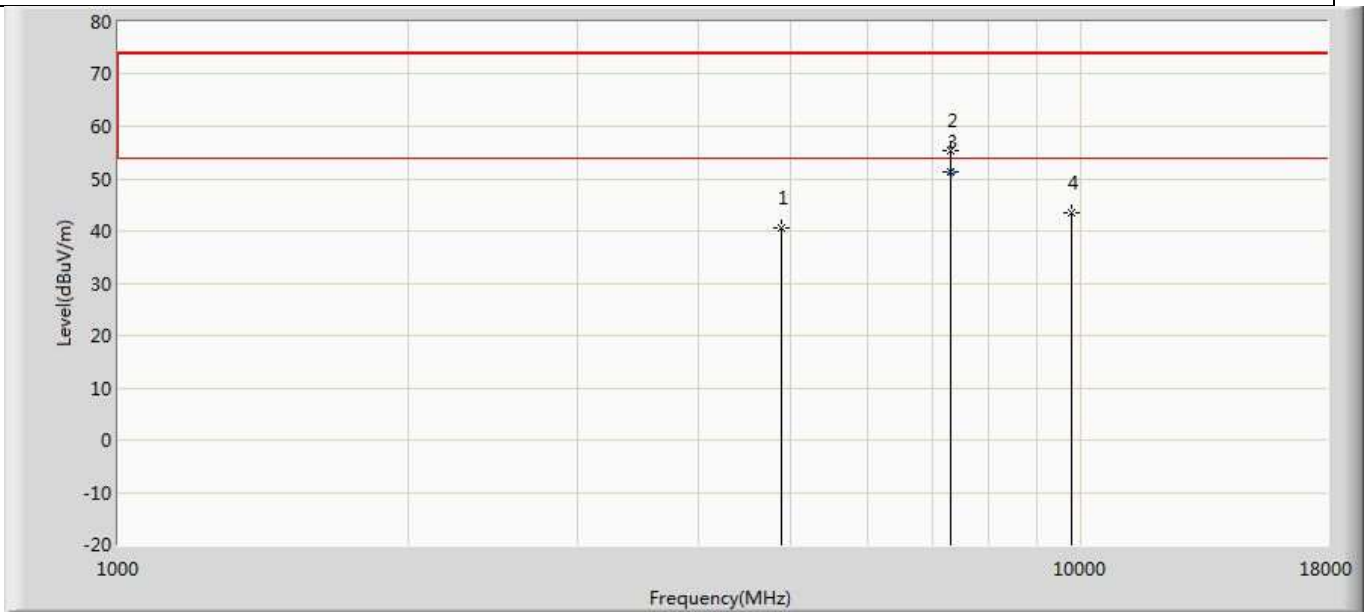
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.247	34.531	-33.753	74.000	5.716	PK
2		7206.000	55.647	46.524	-18.353	74.000	9.123	PK
3	*	7206.000	51.384	42.261	-2.616	54.000	9.123	AV
4		9608.000	43.294	32.057	-30.706	74.000	11.238	PK

Profile: 20C0212R	Page No.: 51
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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	



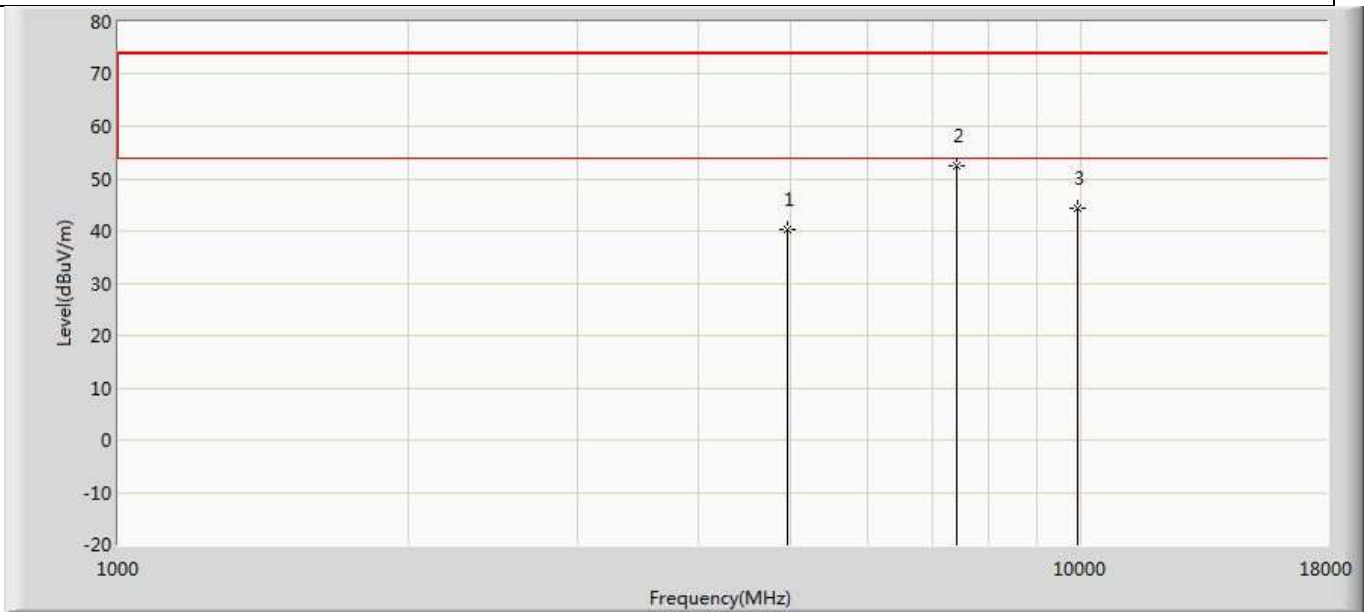
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.452	35.661	-32.548	74.000	5.790	PK
2	*	7320.000	52.274	43.013	-21.726	74.000	9.261	PK
3		9760.000	44.845	32.782	-29.155	74.000	12.063	PK

Profile: 20C0212R	Page No.: 52
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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	



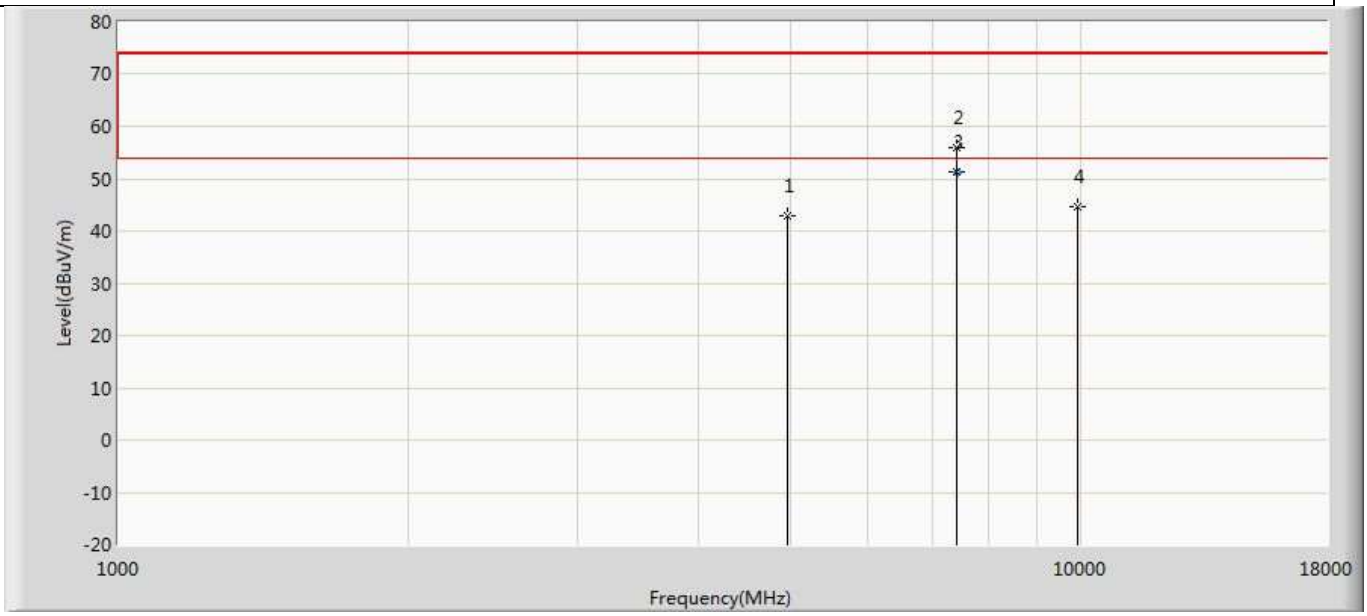
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.485	34.694	-33.515	74.000	5.790	PK
2		7320.000	55.493	46.232	-18.507	74.000	9.261	PK
3	*	7320.000	51.293	42.032	-2.707	54.000	9.261	AV
4		9760.000	43.347	31.284	-30.653	74.000	12.063	PK

Profile: 20C0212R	Page No.: 53
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
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	40.327	34.581	-33.673	74.000	5.745	PK
2	*	7440.000	52.495	43.044	-21.505	74.000	9.451	PK
3		9920.000	44.264	32.576	-29.736	74.000	11.688	PK

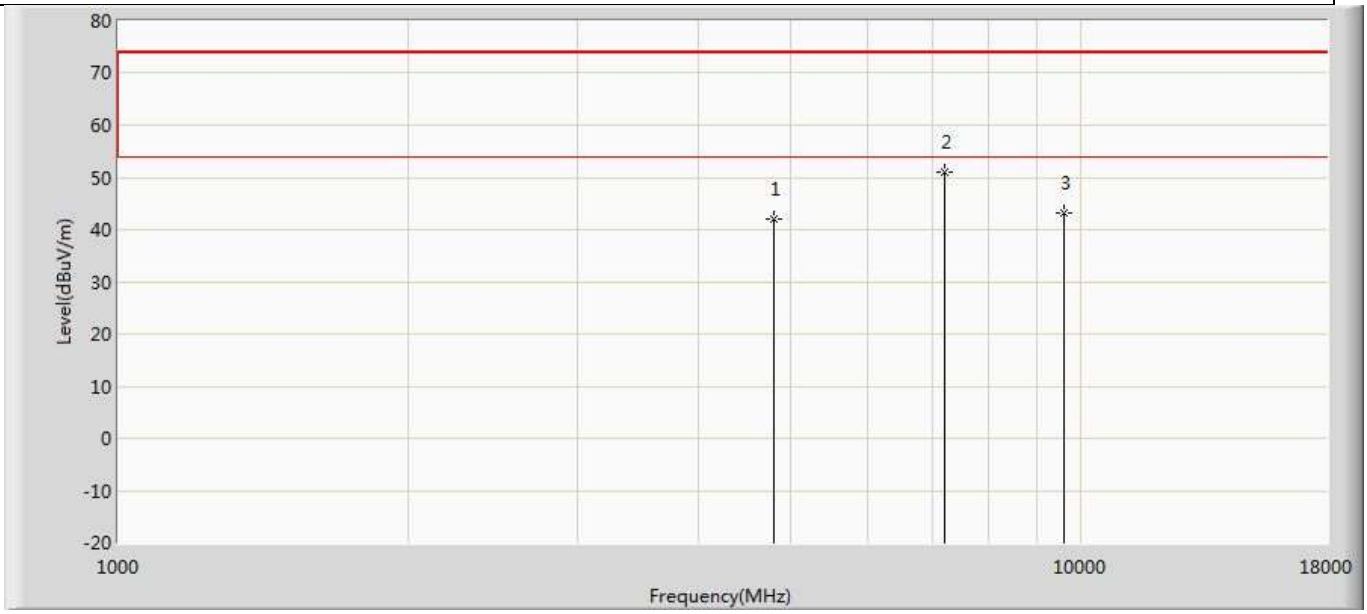
Profile: 20C0212R	Page No.: 54
Engineer: Tongben	
Site: AC5	Time: 2021/01/05 - 00:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded S=8	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.932	37.186	-31.068	74.000	5.745	PK
2		7440.000	55.938	46.487	-18.062	74.000	9.451	PK
3	*	7440.000	51.283	41.832	-2.717	54.000	9.451	AV
4		9920.000	44.764	33.076	-29.236	74.000	11.688	PK

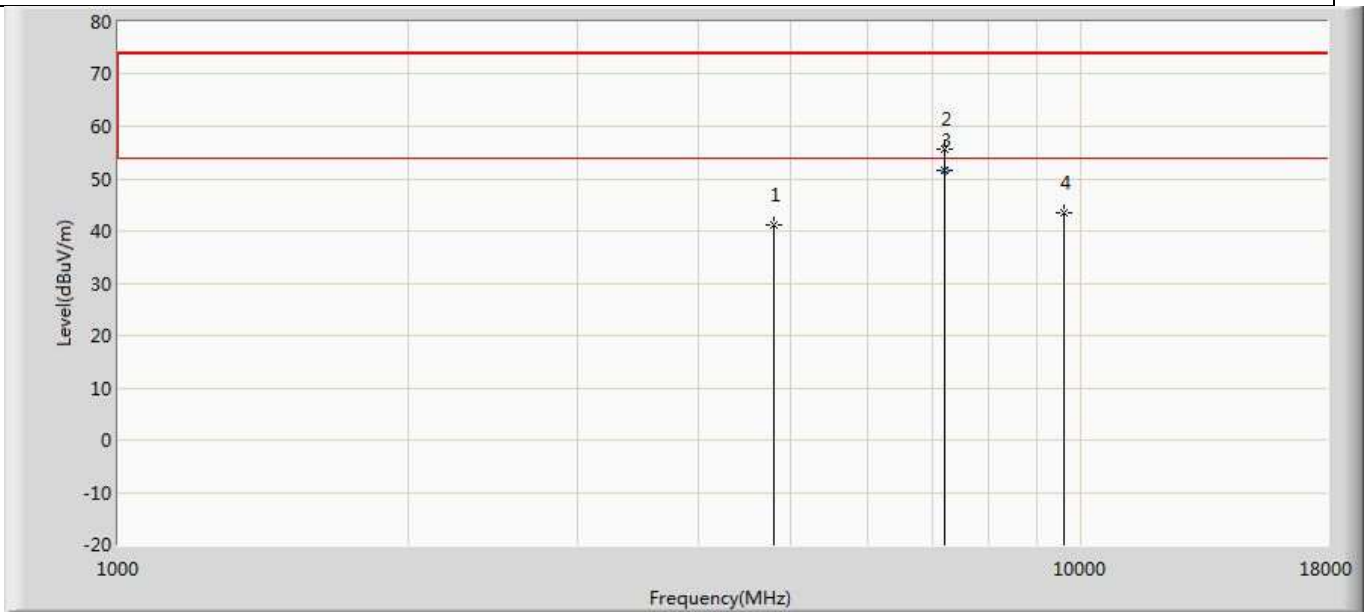
crystal oscillator #2:

Profile: 20C0212R	Page No.: 25
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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 2402MHz by LE_1Mbps	



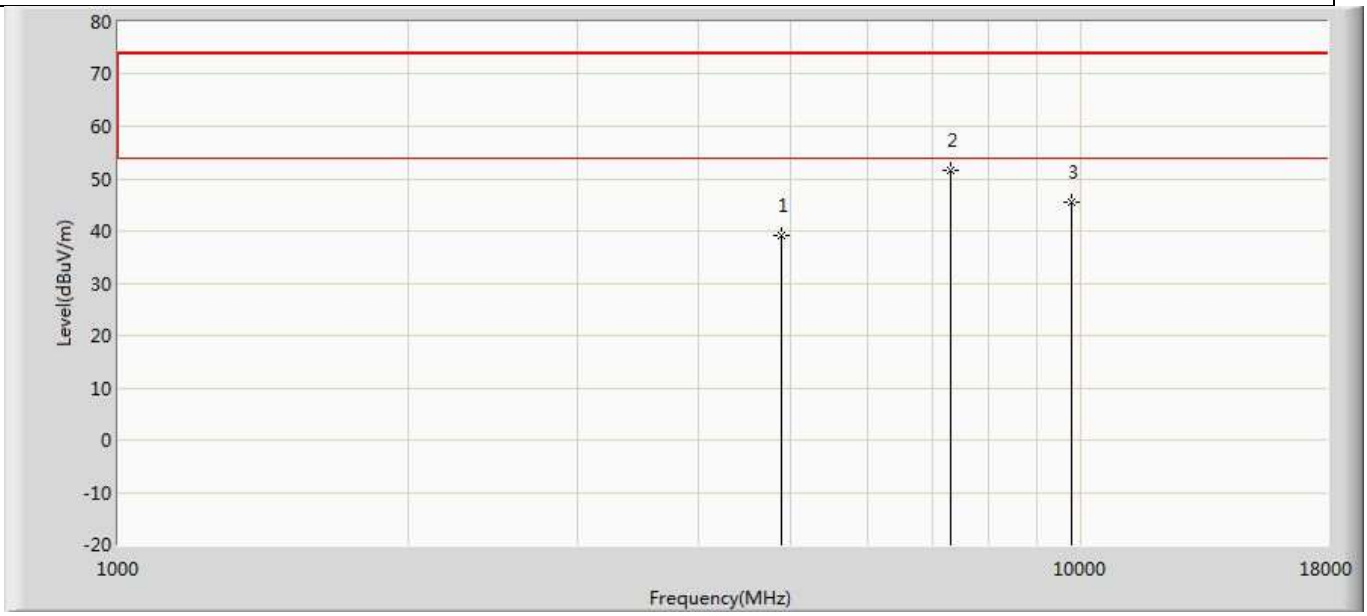
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.134	36.418	-31.866	74.000	5.716	PK
2	*	7206.000	51.118	41.995	-22.882	74.000	9.123	PK
3		9608.000	43.065	31.828	-30.935	74.000	11.238	PK

Profile: 20C0212R	Page No.: 26
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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 2402MHz by LE_1Mbps	



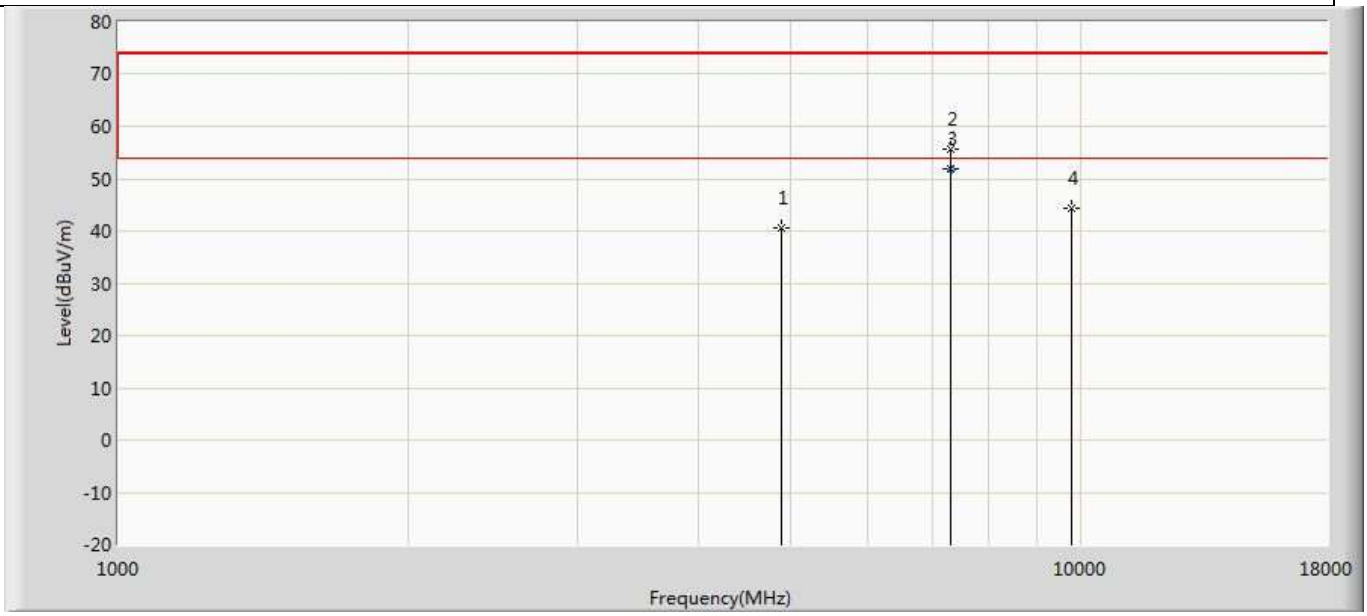
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.136	35.420	-32.864	74.000	5.716	PK
2		7206.000	55.575	46.452	-18.425	74.000	9.123	PK
3	*	7206.000	51.648	42.525	-2.352	54.000	9.123	AV
4		9608.000	43.364	32.127	-30.636	74.000	11.238	PK

Profile: 20C0212R	Page No.: 27
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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	



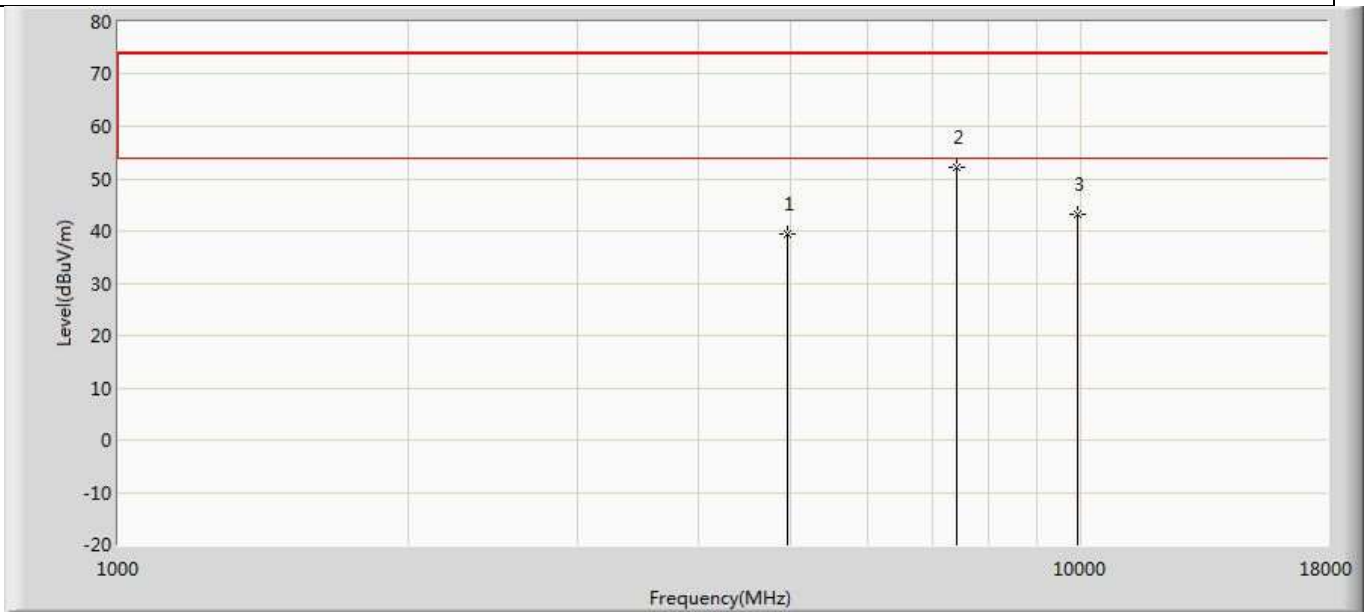
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	39.236	33.445	-34.764	74.000	5.790	PK
2	*	7320.000	51.648	42.387	-22.352	74.000	9.261	PK
3		9760.000	45.573	33.510	-28.427	74.000	12.063	PK

Profile: 20C0212R	Page No.: 28
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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	



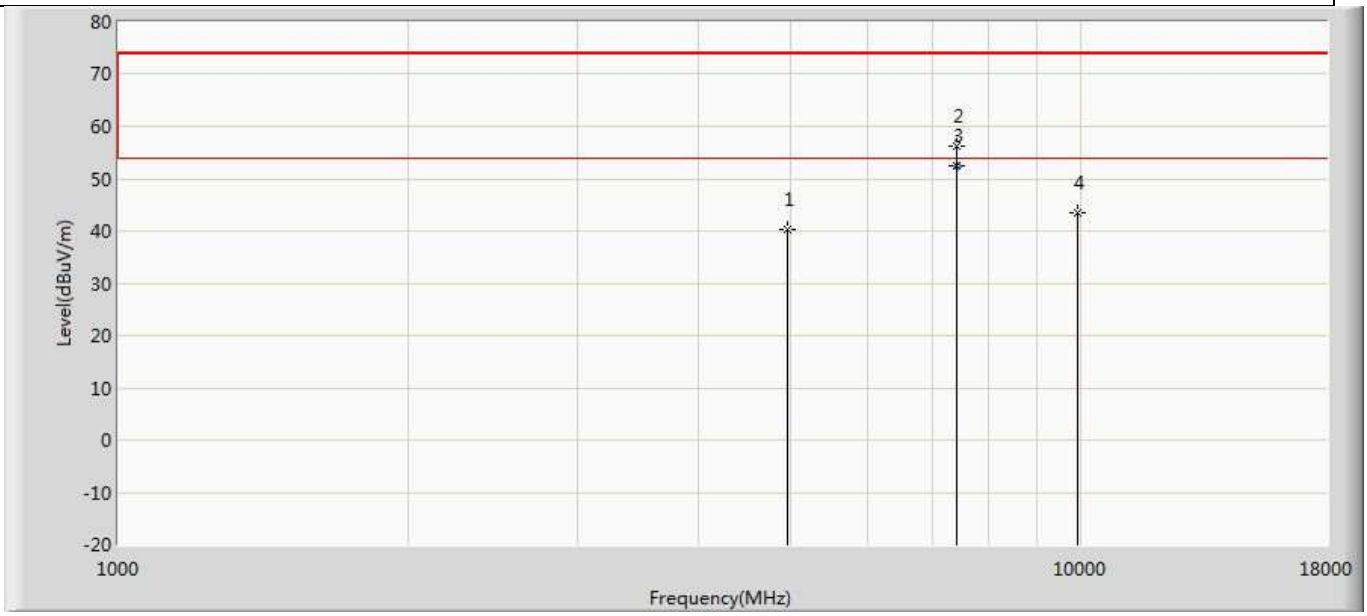
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.658	34.867	-33.342	74.000	5.790	PK
2		7320.000	55.536	46.275	-18.464	74.000	9.261	PK
3	*	7320.000	51.967	42.706	-2.033	54.000	9.261	AV
4		9760.000	44.483	32.420	-29.517	74.000	12.063	PK

Profile: 20C0212R	Page No.: 29
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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	



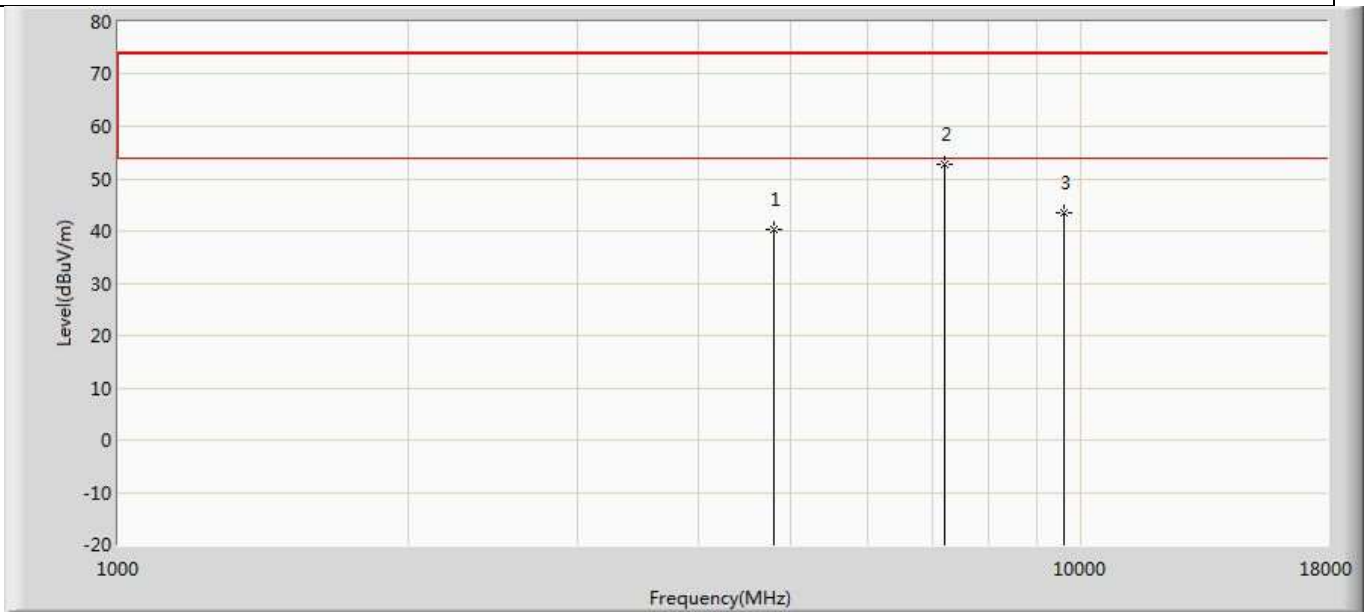
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	39.346	33.600	-34.654	74.000	5.745	PK
2	*	7440.000	52.152	42.701	-21.848	74.000	9.451	PK
3		9920.000	43.237	31.549	-30.763	74.000	11.688	PK

Profile: 20C0212R	Page No.: 30
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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	



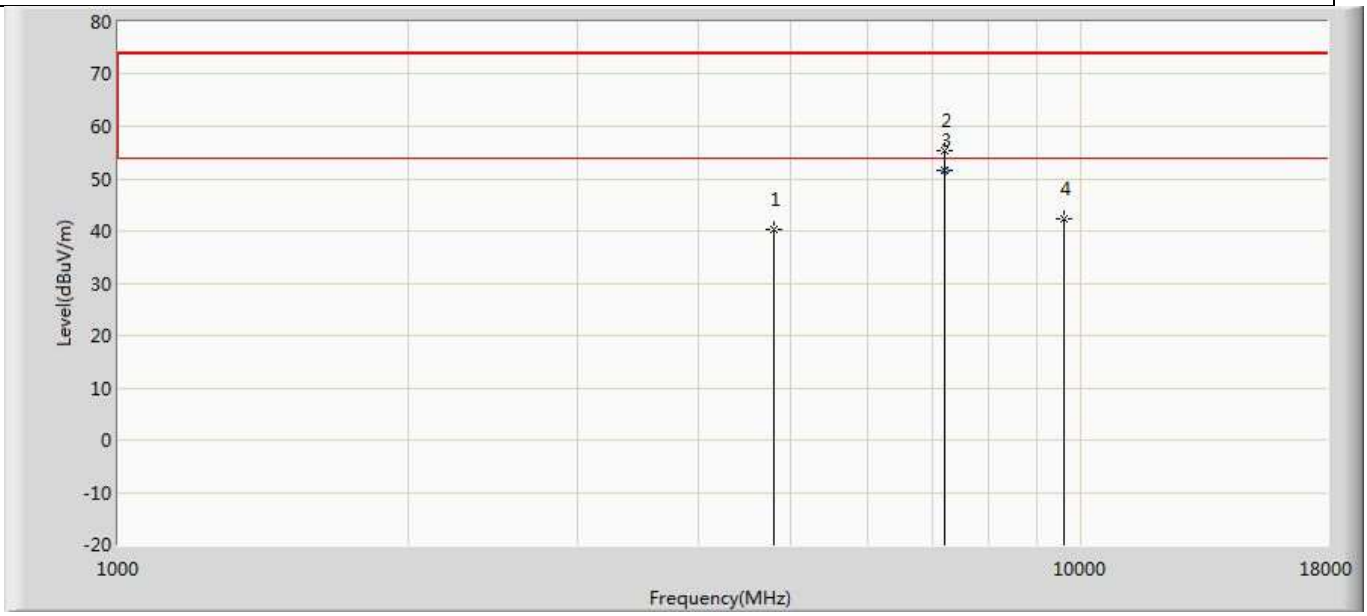
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.158	34.412	-33.842	74.000	5.745	PK
2		7440.000	56.231	46.780	-17.769	74.000	9.451	PK
3	*	7440.000	52.475	43.024	-1.525	54.000	9.451	AV
4		9920.000	43.339	31.651	-30.661	74.000	11.688	PK

Profile: 20C0212R	Page No.: 31
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



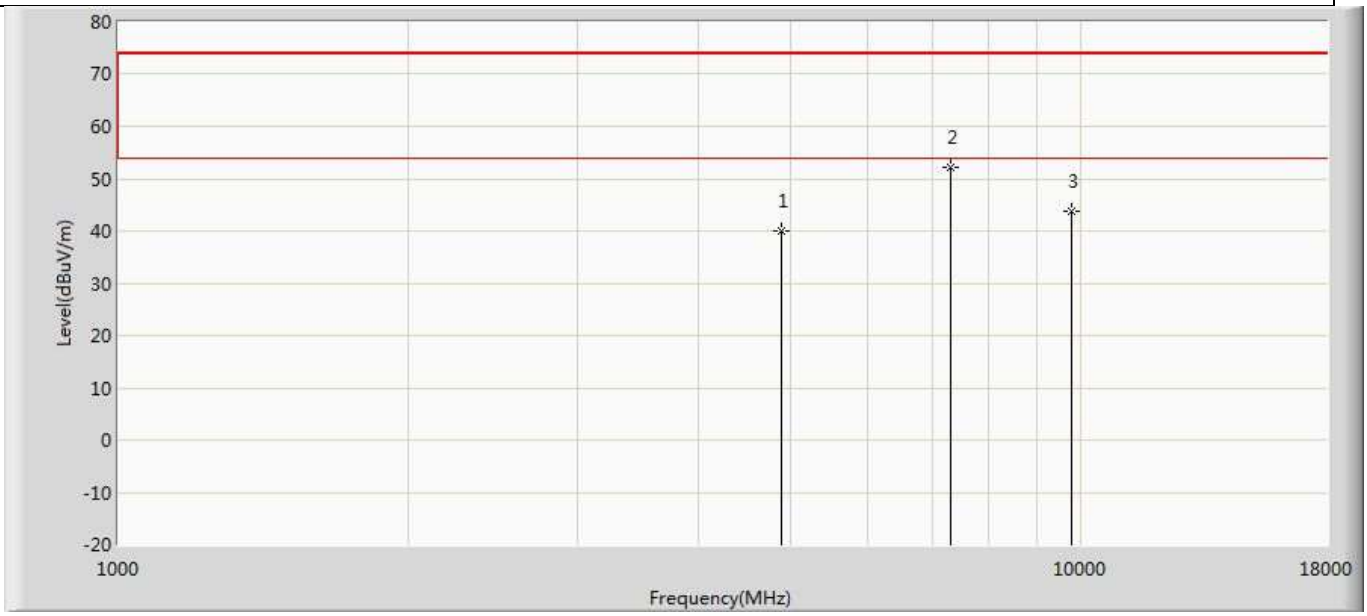
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.284	34.568	-33.716	74.000	5.716	PK
2	*	7206.000	52.625	43.502	-21.375	74.000	9.123	PK
3		9608.000	43.345	32.108	-30.655	74.000	11.238	PK

Profile: 20C0212R	Page No.: 32
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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 2402MHz by LE_2Mbps	



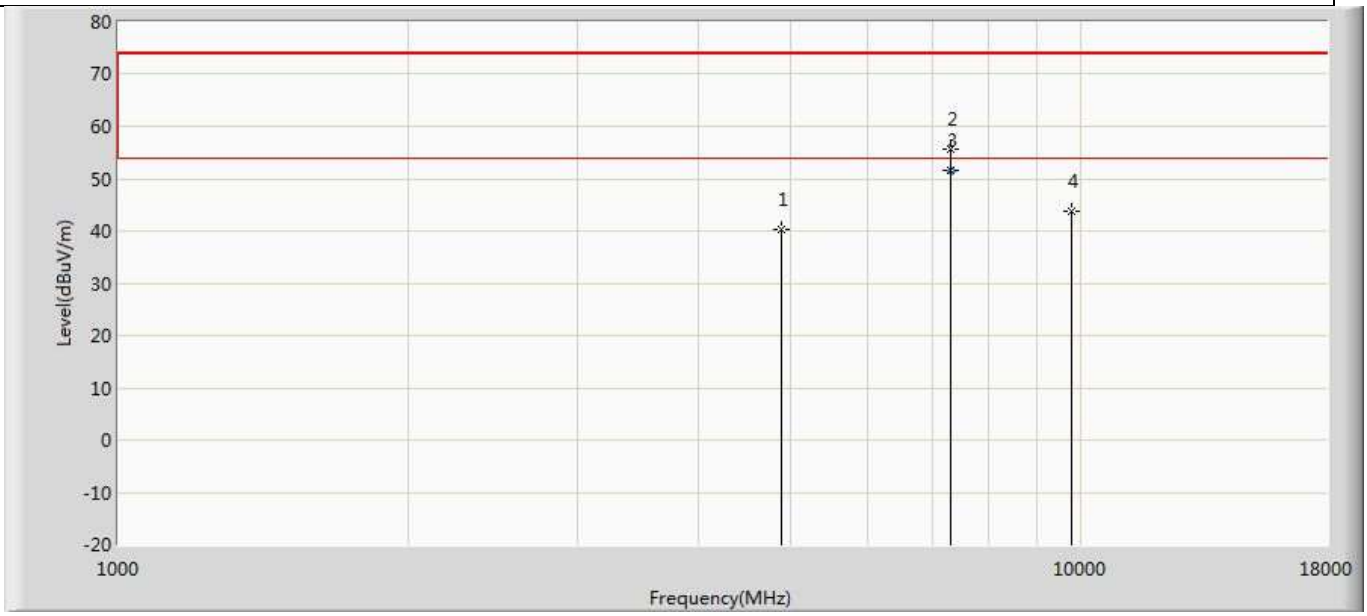
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.256	34.540	-33.744	74.000	5.716	PK
2		7206.000	55.246	46.123	-18.754	74.000	9.123	PK
3	*	7206.000	51.649	42.526	-2.351	54.000	9.123	AV
4		9608.000	42.198	30.961	-31.802	74.000	11.238	PK

Profile: 20C0212R	Page No.: 33
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:19
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	



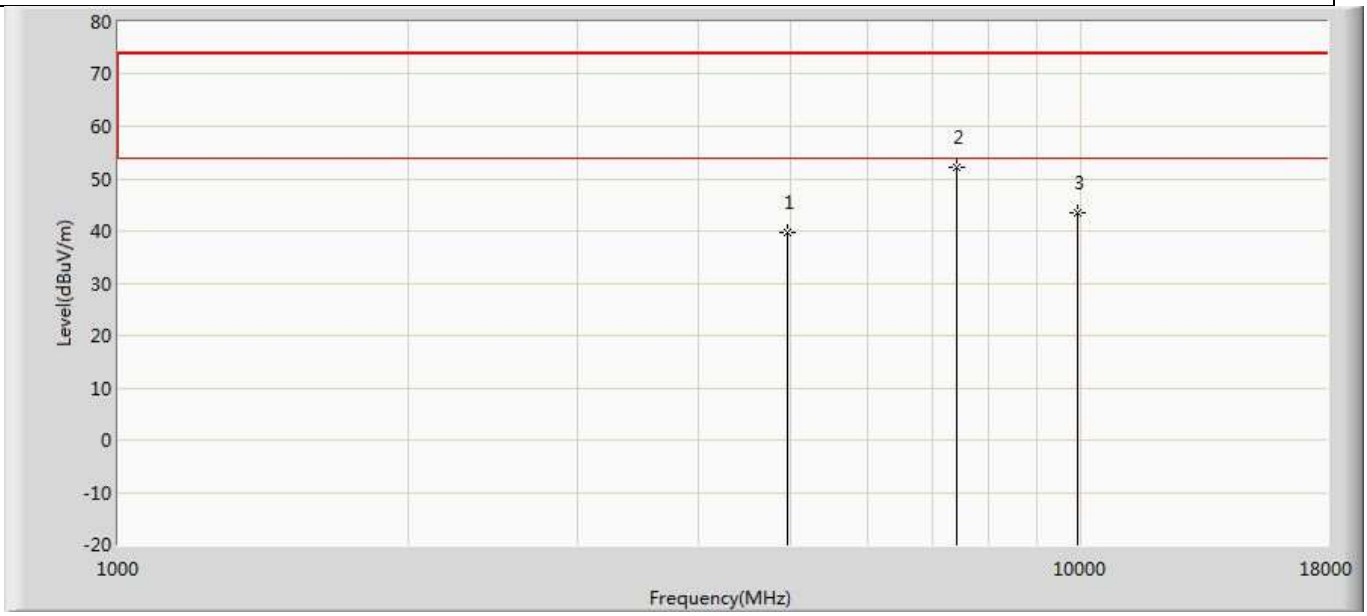
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.012	34.221	-33.988	74.000	5.790	PK
2	*	7320.000	52.246	42.985	-21.754	74.000	9.261	PK
3		9760.000	43.859	31.796	-30.141	74.000	12.063	PK

Profile: 20C0212R	Page No.: 34
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 2440MHz by LE_2Mbps	



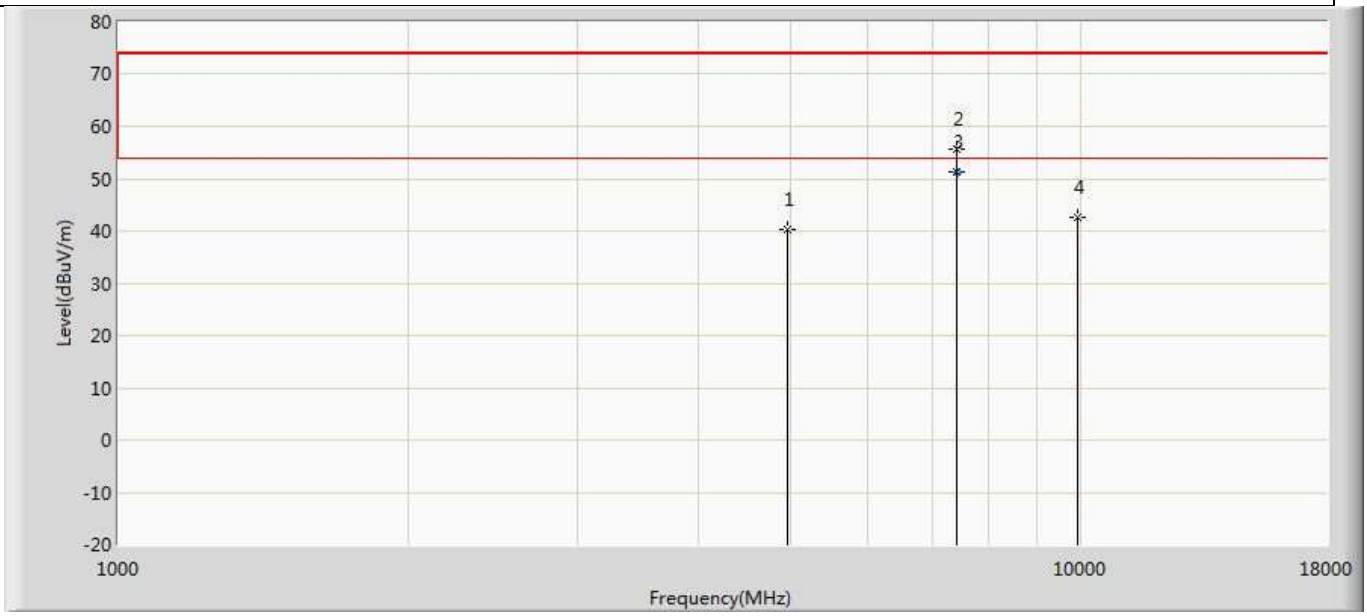
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.347	34.556	-33.653	74.000	5.790	PK
2		7320.000	55.531	46.270	-18.469	74.000	9.261	PK
3	*	7320.000	51.673	42.412	-2.327	54.000	9.261	AV
4		9760.000	43.825	31.762	-30.175	74.000	12.063	PK

Profile: 20C0212R	Page No.: 35
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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	



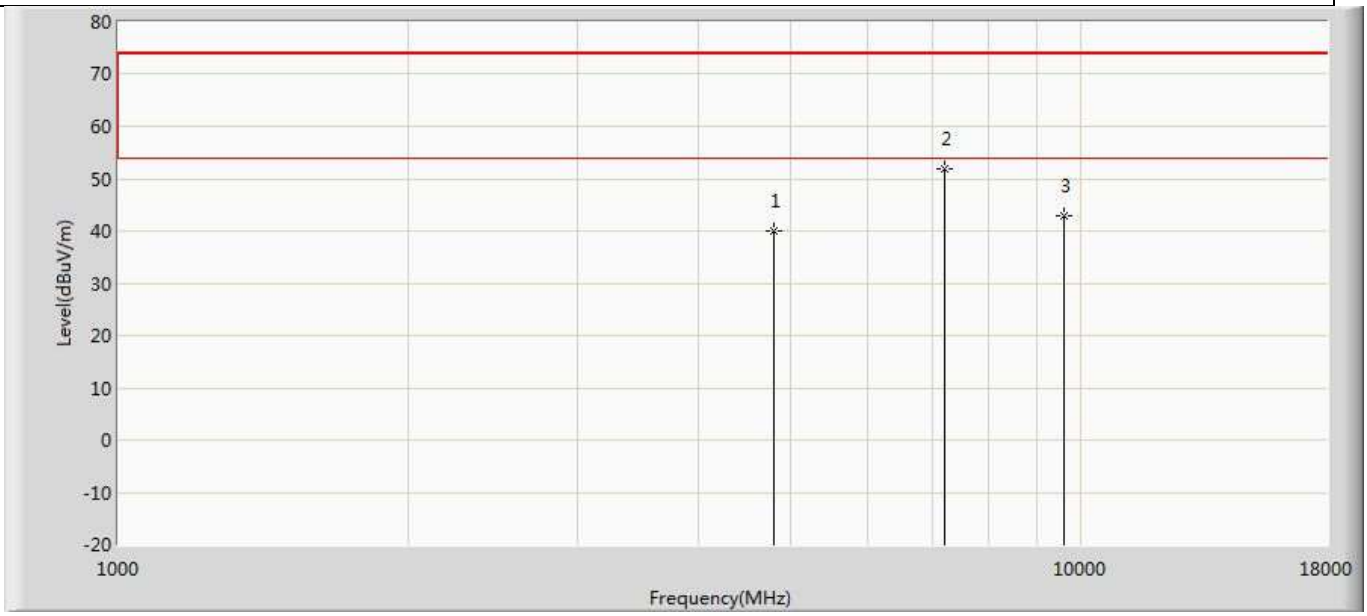
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	39.628	33.882	-34.372	74.000	5.745	PK
2	*	7440.000	52.211	42.760	-21.789	74.000	9.451	PK
3		9920.000	43.513	31.825	-30.487	74.000	11.688	PK

Profile: 20C0212R	Page No.: 36
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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	



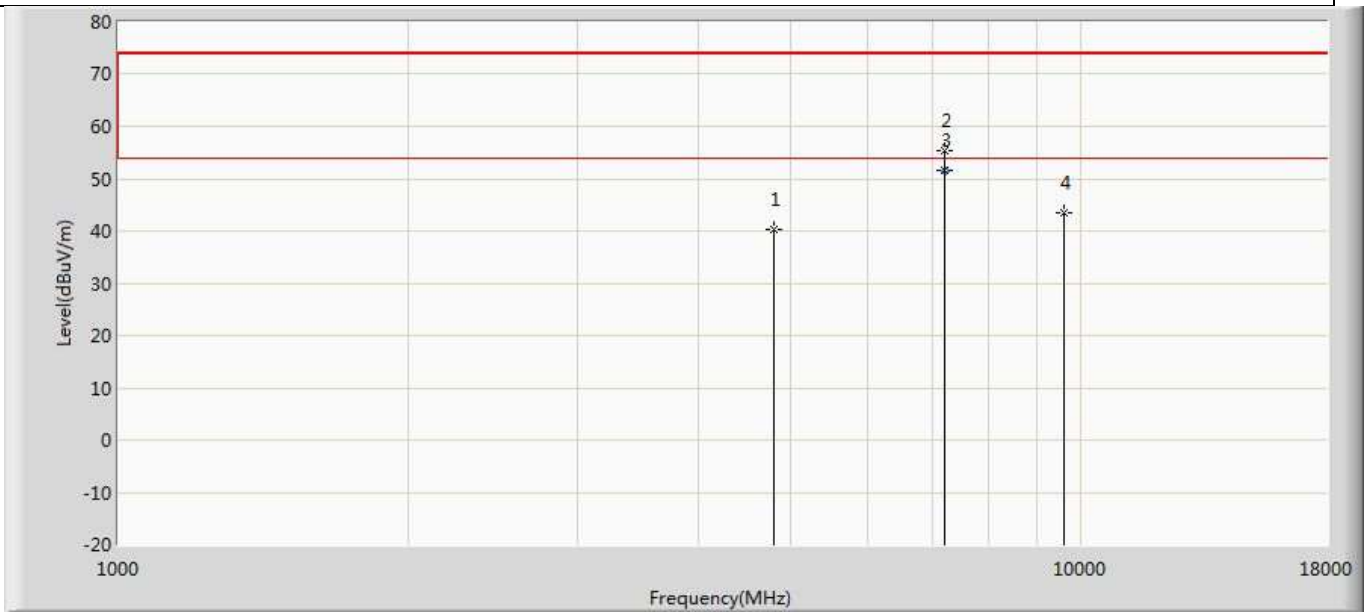
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.176	34.430	-33.824	74.000	5.745	PK
2		7440.000	55.628	46.177	-18.372	74.000	9.451	PK
3	*	7440.000	51.293	41.842	-2.707	54.000	9.451	AV
4		9920.000	42.598	30.910	-31.402	74.000	11.688	PK

Profile: 20C0212R	Page No.: 37
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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_Code S=2	



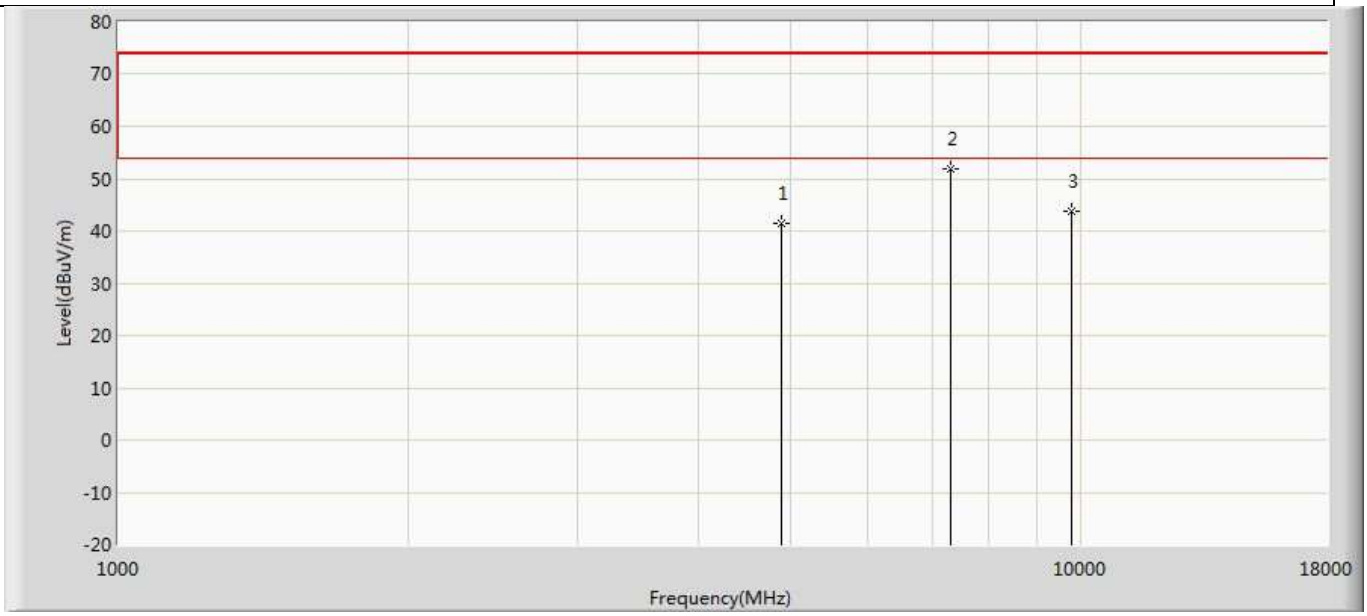
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	39.995	34.279	-34.005	74.000	5.716	PK
2	*	7206.000	51.859	42.736	-22.141	74.000	9.123	PK
3		9608.000	42.852	31.615	-31.148	74.000	11.238	PK

Profile: 20C0212R	Page No.: 38
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 2402MHz by LE_Code S=2	



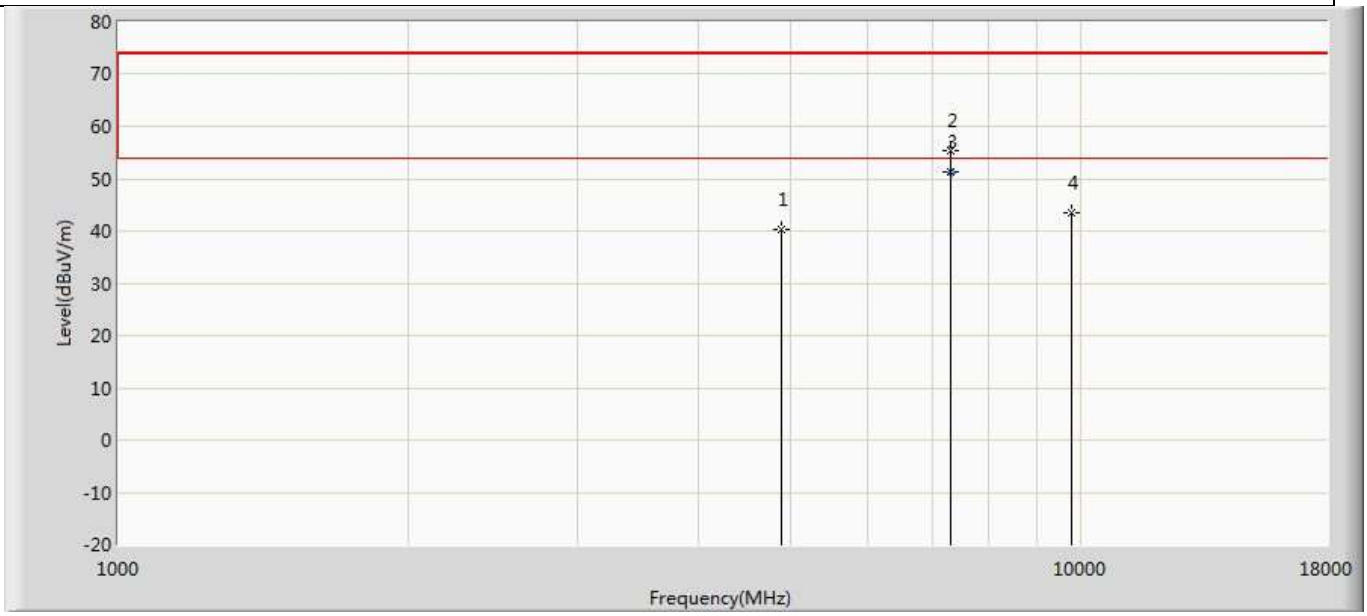
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.337	34.621	-33.663	74.000	5.716	PK
2		7206.000	55.252	46.129	-18.748	74.000	9.123	PK
3	*	7206.000	51.682	42.559	-2.318	54.000	9.123	AV
4		9608.000	43.533	32.296	-30.467	74.000	11.238	PK

Profile: 20C0212R	Page No.: 39
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 2440MHz by LE_Code S=2	



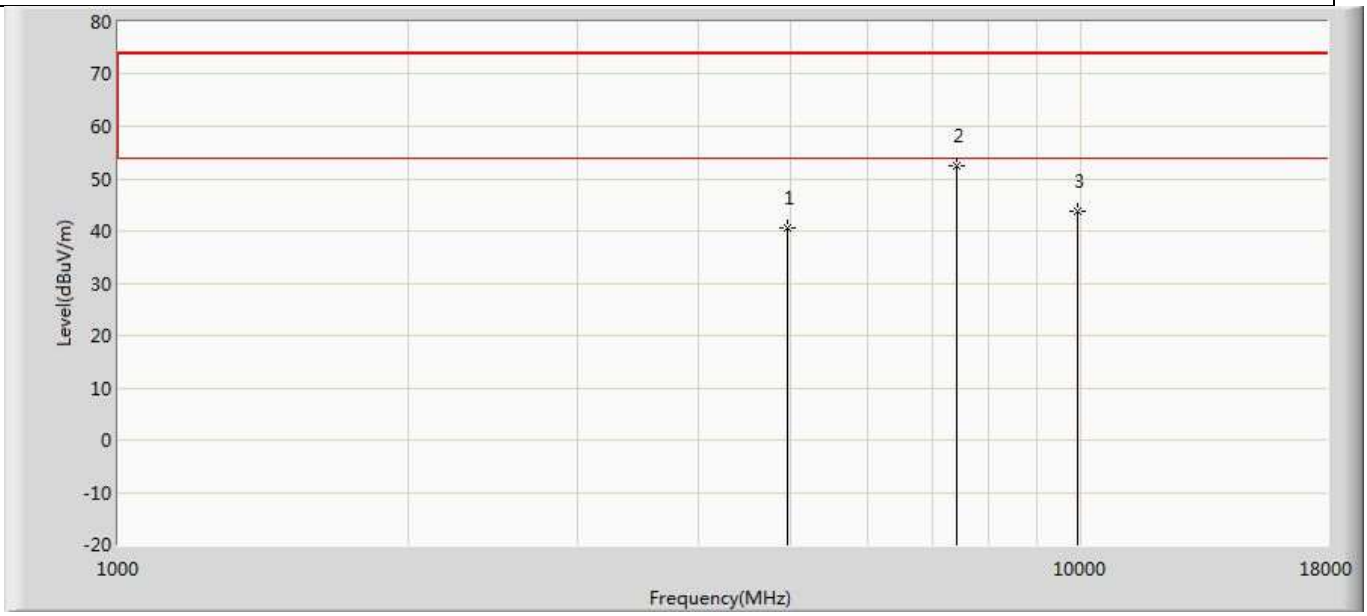
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.526	35.735	-32.474	74.000	5.790	PK
2	*	7320.000	51.927	42.666	-22.073	74.000	9.261	PK
3		9760.000	43.648	31.585	-30.352	74.000	12.063	PK

Profile: 20C0212R	Page No.: 40
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 2440MHz by LE_Code S=2	



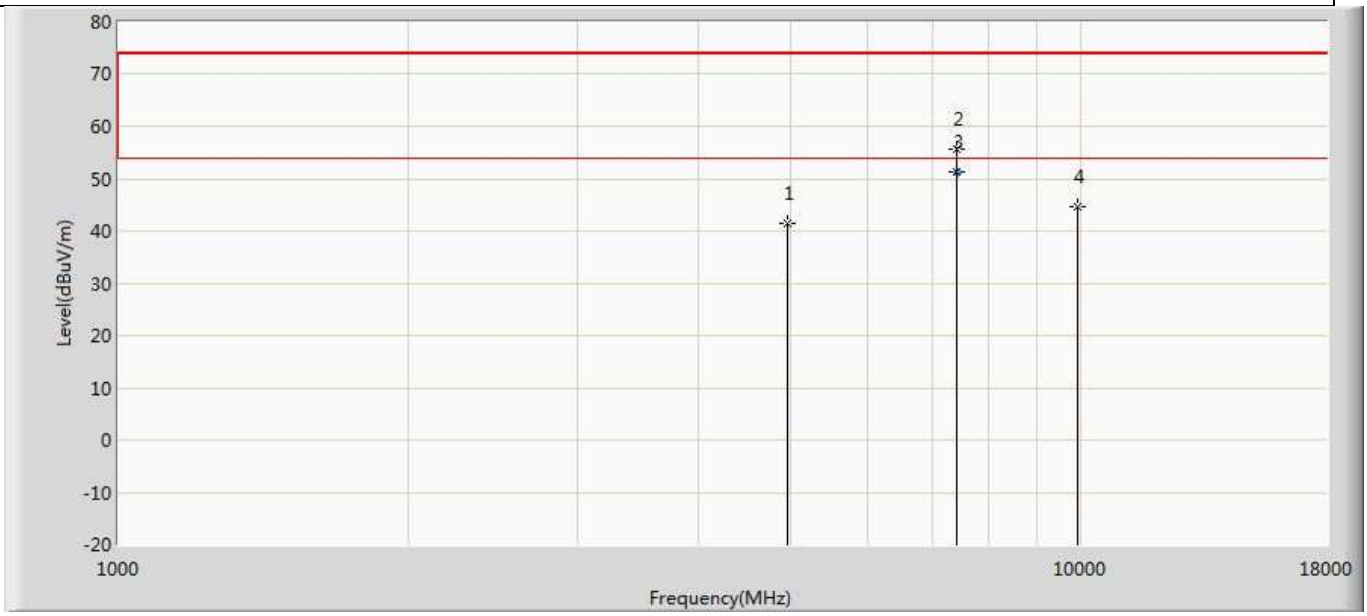
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.335	34.544	-33.665	74.000	5.790	PK
2		7320.000	55.267	46.006	-18.733	74.000	9.261	PK
3	*	7320.000	51.349	42.088	-2.651	54.000	9.261	AV
4		9760.000	43.527	31.464	-30.473	74.000	12.063	PK

Profile: 20C0212R	Page No.: 41
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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_Code S=2	



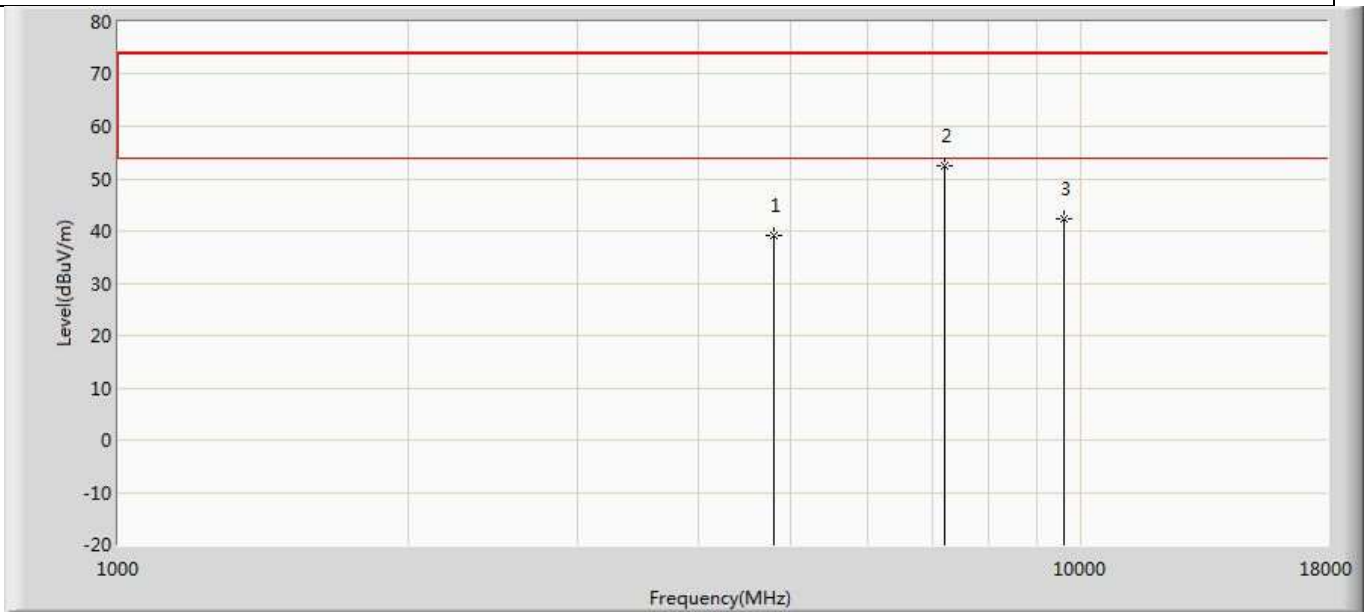
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.623	34.877	-33.377	74.000	5.745	PK
2	*	7440.000	52.506	43.055	-21.494	74.000	9.451	PK
3		9920.000	43.648	31.960	-30.352	74.000	11.688	PK

Profile: 20C0212R	Page No.: 42
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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_Code S=2	



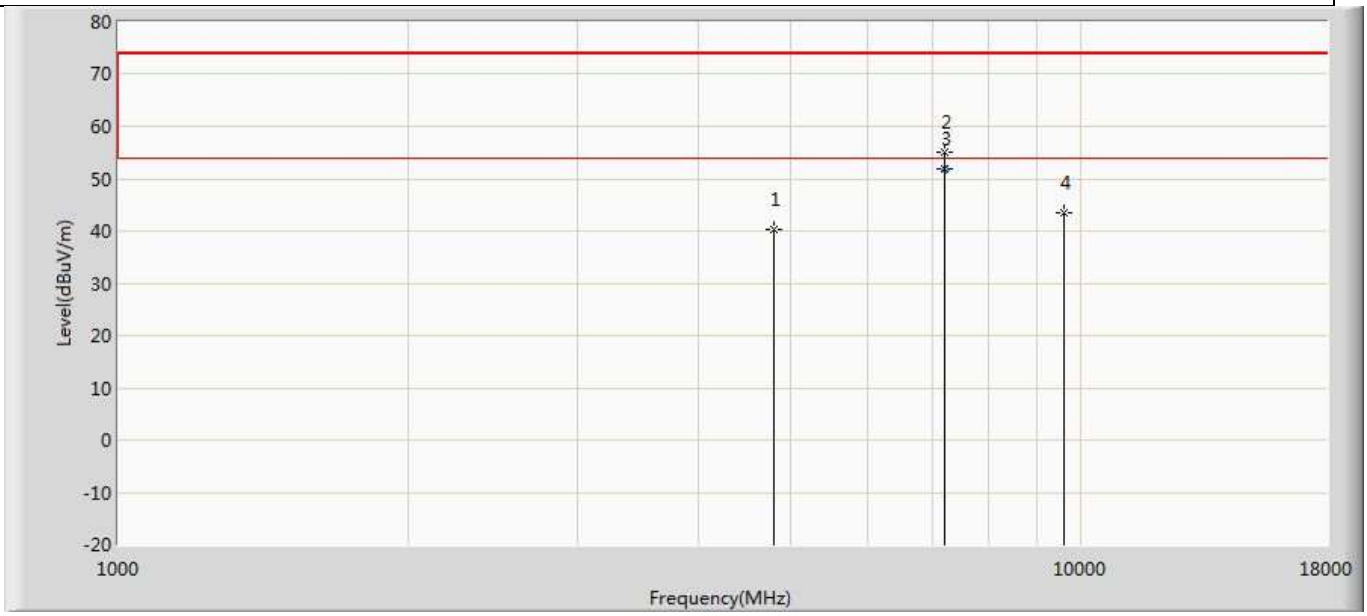
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.365	35.619	-32.635	74.000	5.745	PK
2		7440.000	55.536	46.085	-18.464	74.000	9.451	PK
3	*	7440.000	51.246	41.795	-2.754	54.000	9.451	AV
4		9920.000	44.638	32.950	-29.362	74.000	11.688	PK

Profile: 20C0212R	Page No.: 43
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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_Code S=8	



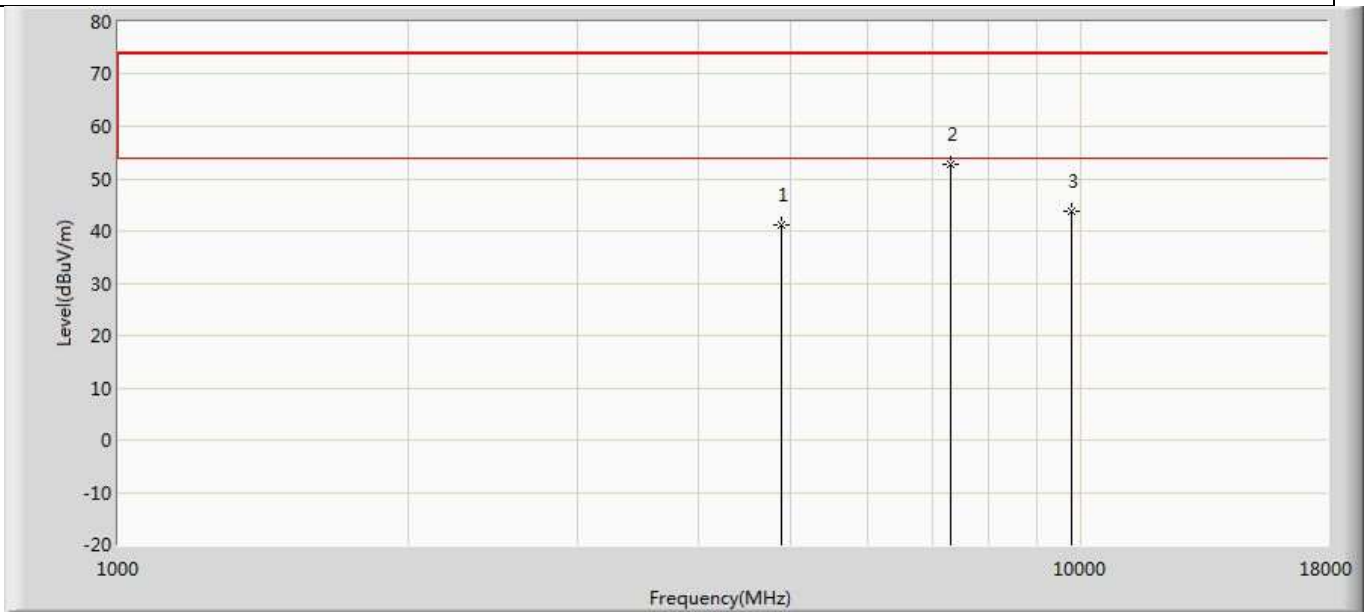
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	39.134	33.418	-34.866	74.000	5.716	PK
2	*	7206.000	52.346	43.223	-21.654	74.000	9.123	PK
3		9608.000	42.328	31.091	-31.672	74.000	11.238	PK

Profile: 20C0212R	Page No.: 44
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 1:Transmit at 2402MHz by LE_Code S=8	



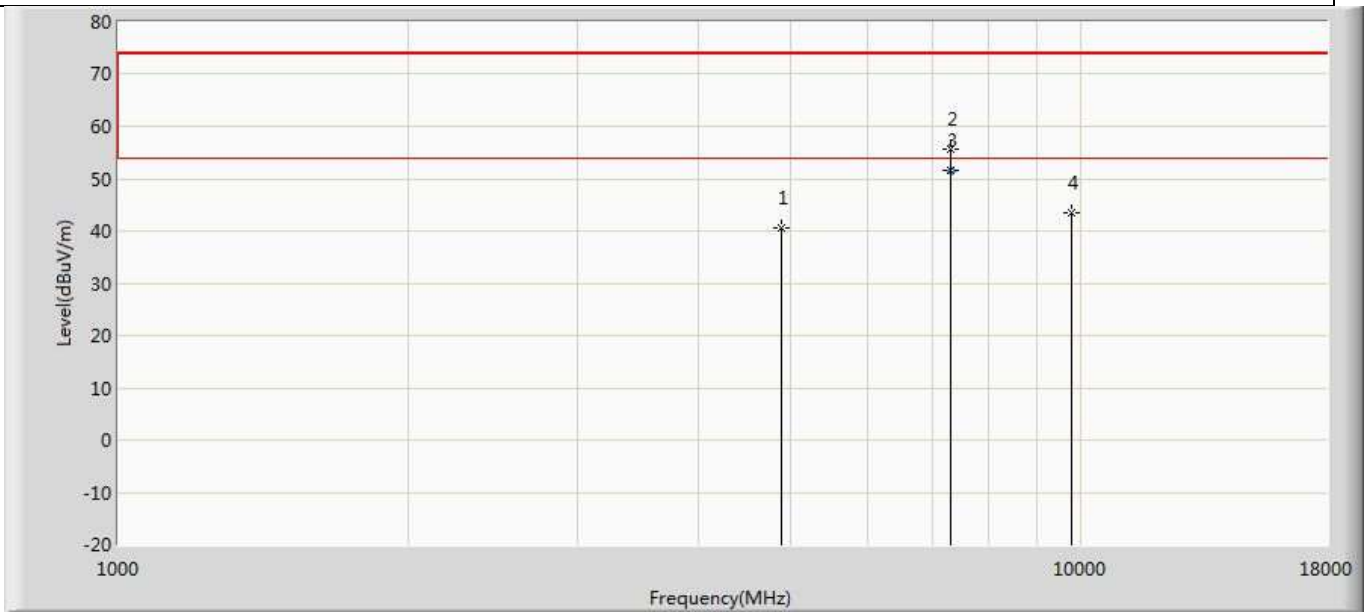
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	40.168	34.452	-33.832	74.000	5.716	PK
2		7206.000	55.164	46.041	-18.836	74.000	9.123	PK
3	*	7206.000	51.967	42.844	-2.033	54.000	9.123	AV
4		9608.000	43.529	32.292	-30.471	74.000	11.238	PK

Profile: 20C0212R	Page No.: 45
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 2440MHz by LE_Code S=8	



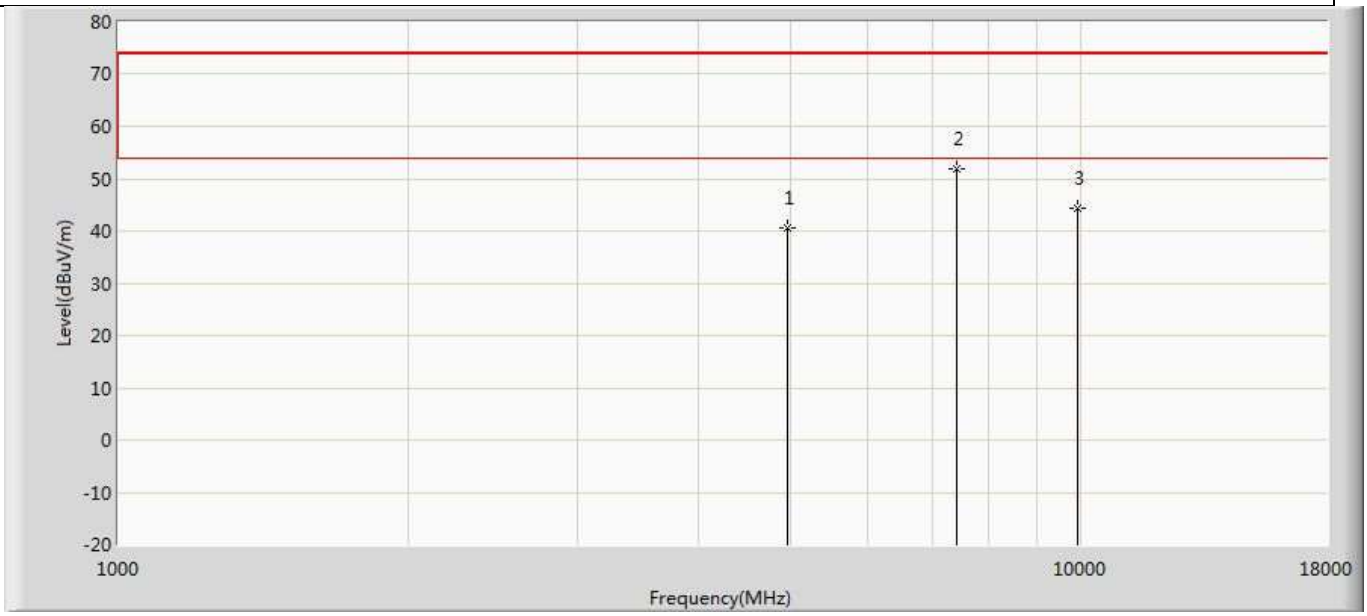
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.135	35.344	-32.865	74.000	5.790	PK
2	*	7320.000	52.629	43.368	-21.371	74.000	9.261	PK
3		9760.000	43.645	31.582	-30.355	74.000	12.063	PK

Profile: 20C0212R	Page No.: 46
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:20
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 2440MHz by LE_Code S=8	



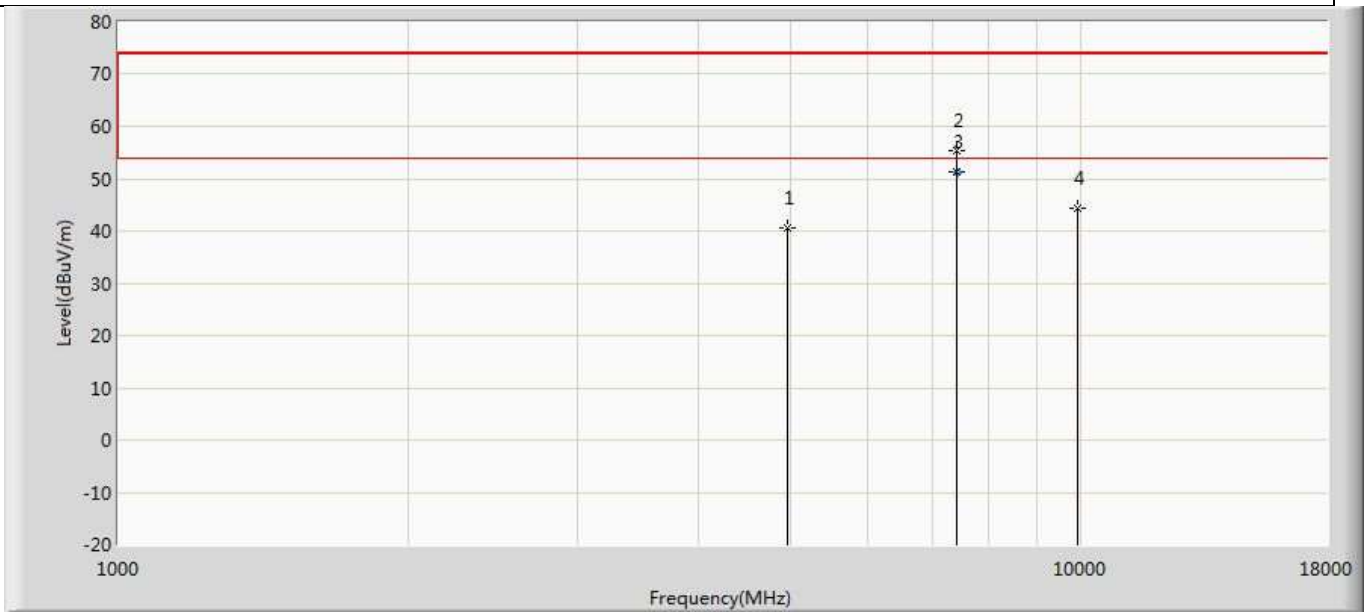
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	40.536	34.745	-33.464	74.000	5.790	PK
2		7320.000	55.627	46.366	-18.373	74.000	9.261	PK
3	*	7320.000	51.473	42.212	-2.527	54.000	9.261	AV
4		9760.000	43.526	31.463	-30.474	74.000	12.063	PK

Profile: 20C0212R	Page No.: 47
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:21
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 4:Transmit at 2480MHz by LE_Code 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	40.628	34.882	-33.372	74.000	5.745	PK
2	*	7440.000	51.969	42.518	-22.031	74.000	9.451	PK
3		9920.000	44.375	32.687	-29.625	74.000	11.688	PK

Profile: 20C0212R	Page No.: 48
Engineer: Tongben	
Site: AC5	Time: 2021/01/09 - 02:21
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 4:Transmit at 2480MHz by LE_Code S=8	

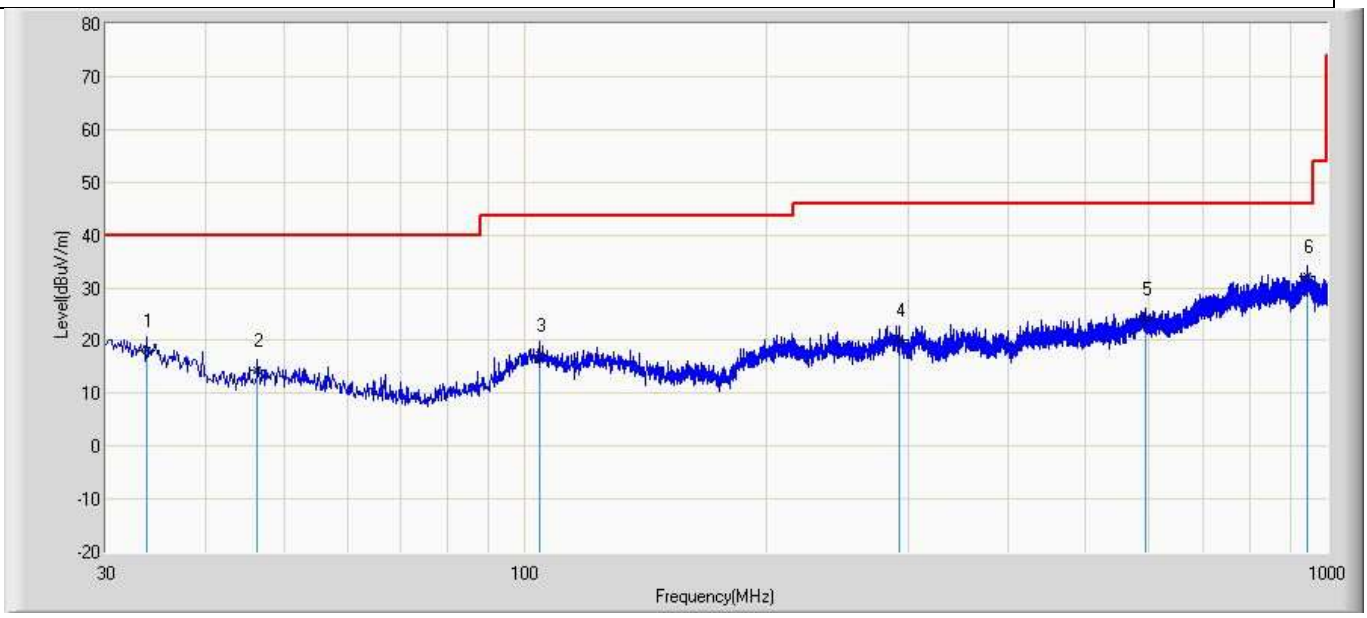


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.563	34.817	-33.437	74.000	5.745	PK
2		7440.000	55.274	45.823	-18.726	74.000	9.451	PK
3	*	7440.000	51.375	41.924	-2.625	54.000	9.451	AV
4		9920.000	44.347	32.659	-29.653	74.000	11.688	PK

Note:
1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. The test frequency range, 9kHz~30MHz and Above 18GHz worst case are at least 6dB below the limits, therefore no data appear in the report.
4. 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.

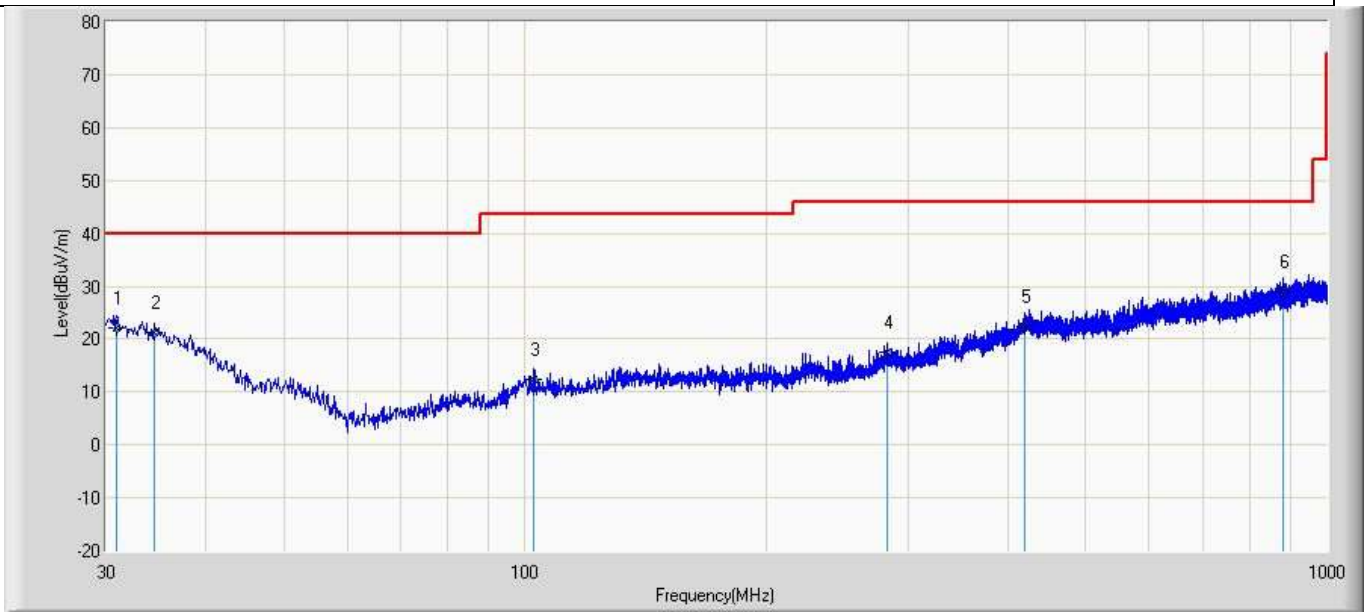
The worst case of Radiated Emission below 1GHz:

Profile: 20C0212R	Page No.: 1
Engineer: YULIU	
Site: AC3	Time: 2020/03/27 - 03:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1	



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		33.759	18.224	-4.548	-21.776	40.000	22.772	125	90	QP
2		46.369	14.254	-3.642	-25.746	40.000	17.896	150	224	QP
3		104.084	17.268	-4.683	-26.232	43.500	21.951	180	150	QP
4		292.991	20.089	-3.992	-25.911	46.000	24.081	115	350	QP
5		594.904	24.011	-2.943	-21.989	46.000	26.954	160	288	QP
6	*	945.195	32.074	-2.271	-13.926	46.000	34.345	120	340	QP

Profile: 20C0212R	Page No.: 2
Engineer: YULIU	
Site: AC3	Time: 2020/12/21 - 18:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1	



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		30.970	22.245	-5.031	-17.755	40.000	27.276	125	340	QP
2		34.486	21.354	-4.215	-18.646	40.000	25.569	133	240	QP
3		102.629	12.255	-4.209	-31.245	43.500	16.465	140	265	QP
4		282.321	17.465	-3.329	-28.535	46.000	20.794	119	210	QP
5		420.546	22.398	-4.654	-23.602	46.000	27.052	170	195	QP
6	*	882.388	29.049	-2.138	-16.951	46.000	31.187	160	230	QP

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

4.3 Emissions in non-restricted frequency band	VERDICT: PASS

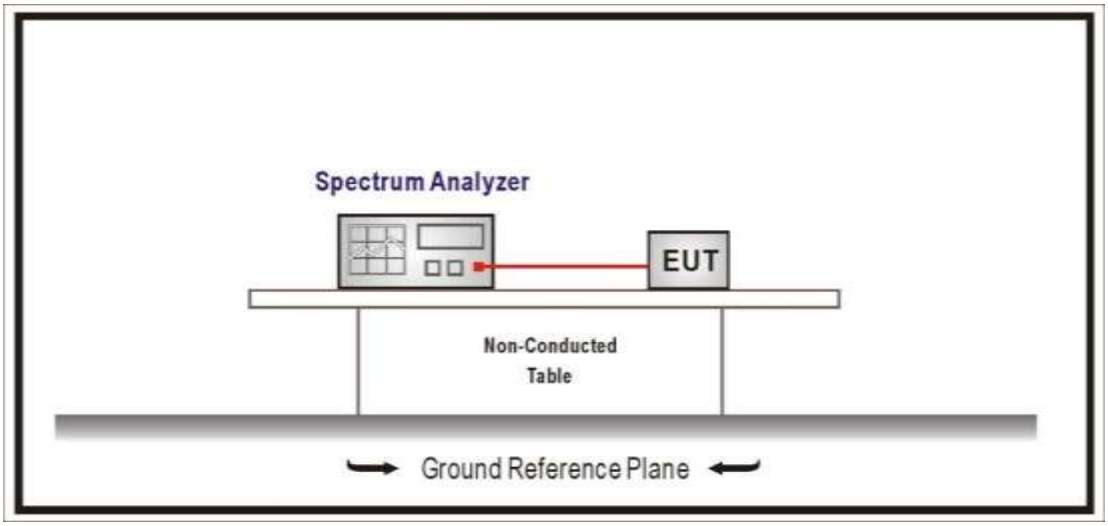
4.3.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d)
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30dBc(Note1)
RF Output power(PK detector)	20dBc(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).

4.3.2 Test Setup

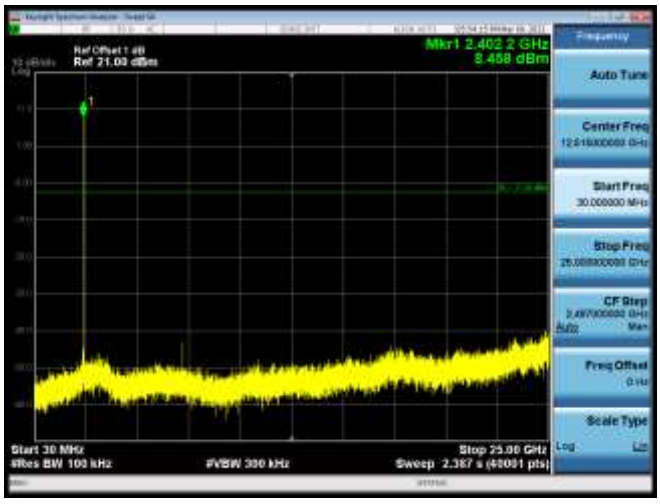


4.3.3 Test Procedure

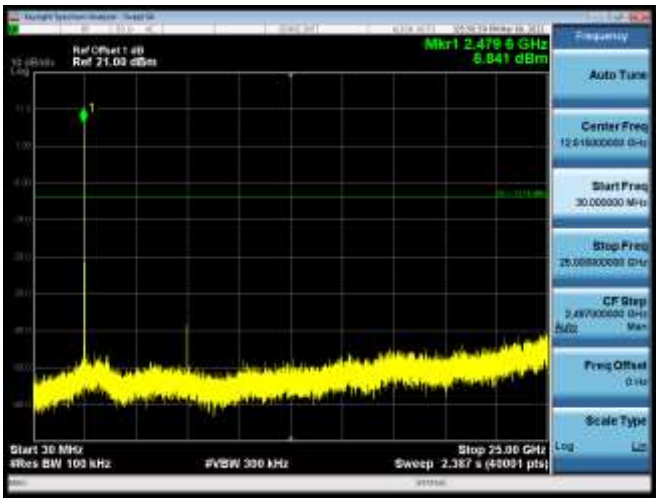
References Rule			Chapter	Description
☒	ANSI C63.10		11.11	Emissions in non-restricted frequency bands
	☒	ANSI C63.10	11.11.1	General
	☒	ANSI C63.10	11.11.2	Reference level measurement
	☒	ANSI C63.10	11.11.3	Emission level measurement

4.3.4 Test Data

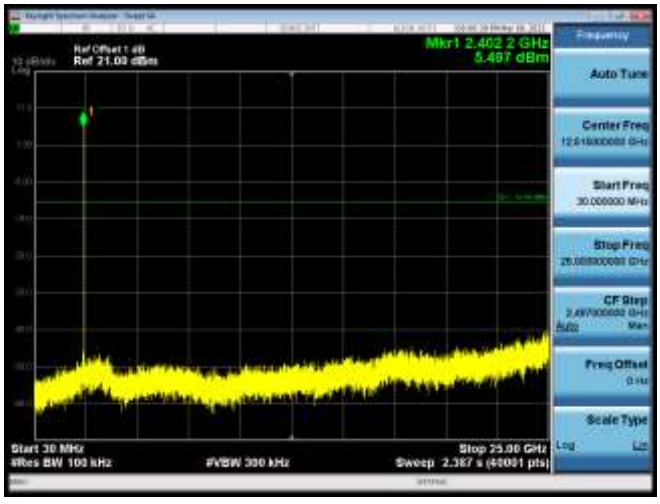
Mode 1 CH37 (2402MHz)



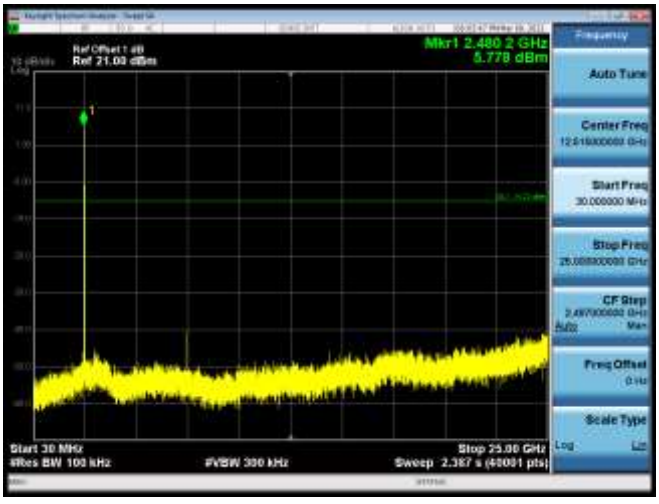
Mode 1 CH39 (2480MHz)

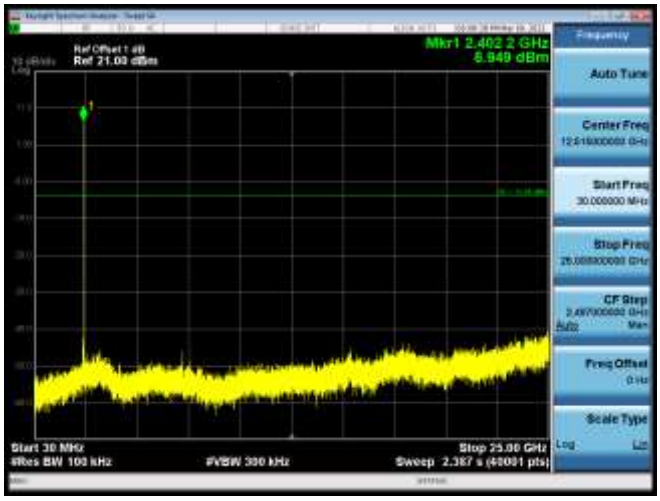
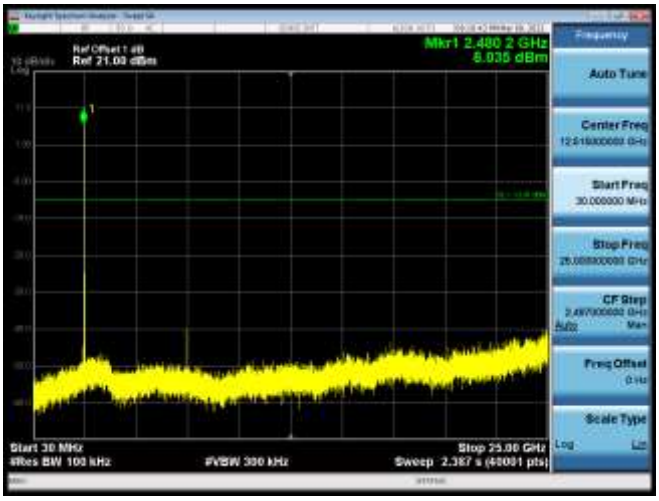
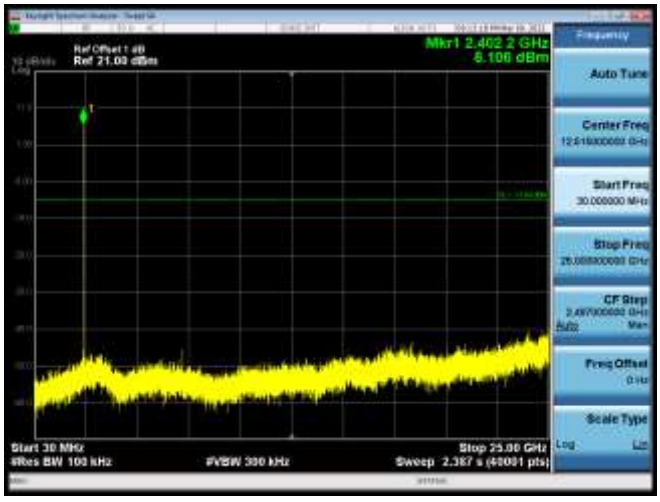
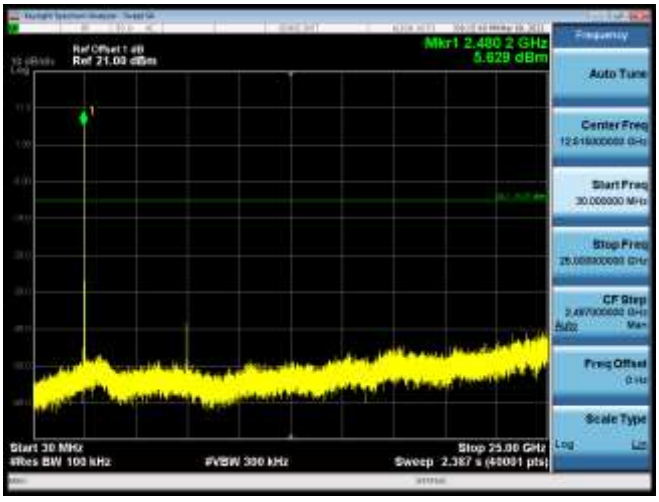


Mode 2 CH37 (2402MHz)



Mode 2 CH39 (2480MHz)



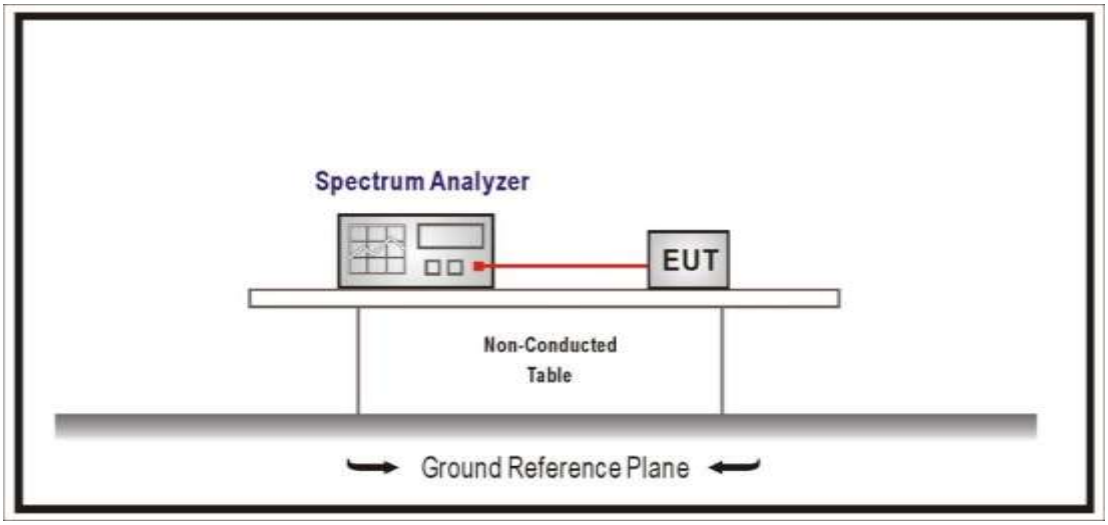
Mode 3 CH37 (2402MHz)	Mode 3 CH39 (2480MHz)
	
Mode 4 CH37 (2402MHz)	**Mode 4 CH39 (2480MHz)**
	

4.4 Duty cycle	VERDICT: PASS

4.4.1 Limit

N/A

4.4.2 Test Setup



4.4.3 Test Procedure

References Rule		Chapter	Description
☒	ANSI C63.10	11.6	Duty cycle (D), transmission duration (T), and maximum power control level

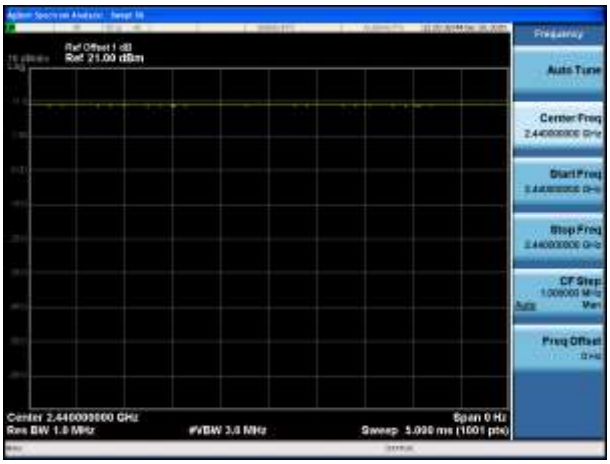
4.4.4 Test Data

Test Mode	Tx On (ms)	VBW (kHz)	Tx On + Tx Off (ms)	Duty Cycle
Mode 1	--	0.01	--	100%
Mode 2	--	0.01	--	100%
Mode 3	--	0.01	--	100%
Mode 4	--	0.01	--	100%

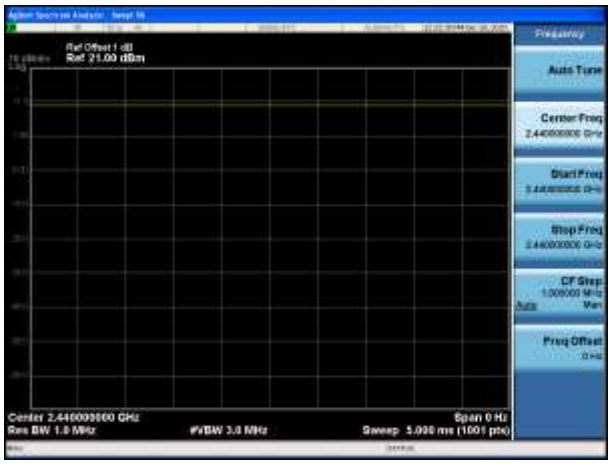
Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

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

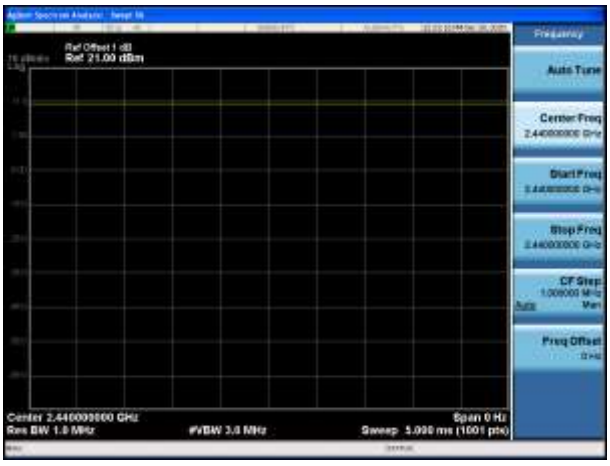
Mode 1 CH18 2440MHz



Mode 2 CH18 2440MHz



Mode 3 CH18 2440MHz



Mode 4 CH18 2440MHz

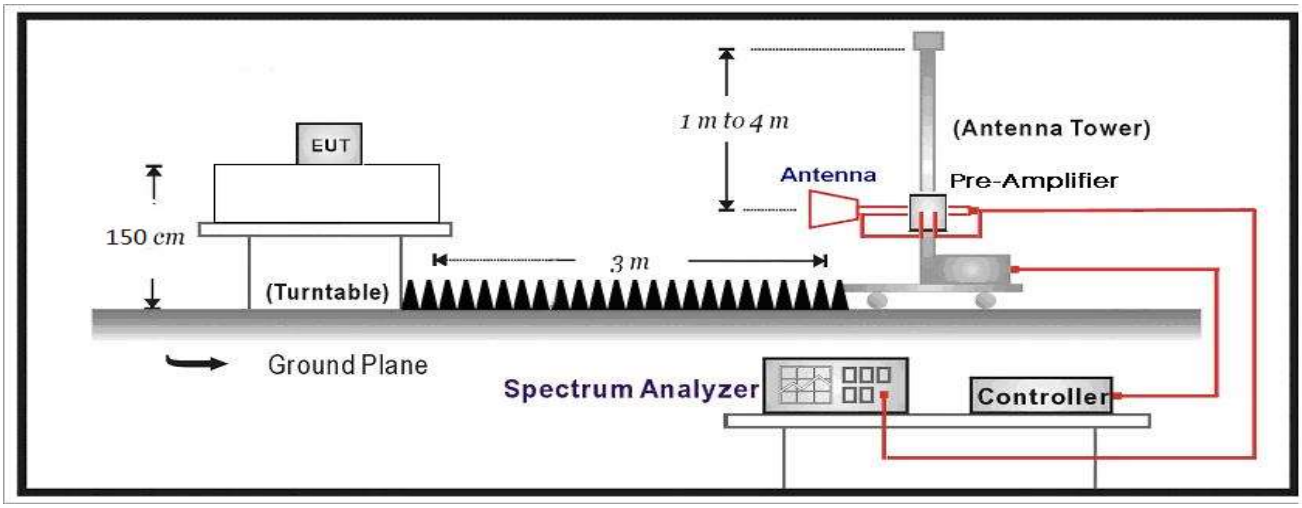
4.5 Radiated Emission Band Edge — VERDICT: PASS

4.5.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d) , 15.209			
Frequency bands (MHz)	Detector	Limit (dBμV/m)	RBW (MHz)	Distance (m)
2310-2390 2483.5-2500	PK	74	1	3
	AV	54	1	3
Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.				

4.5.2 Test Setup

Above 1GHz Test Setup:



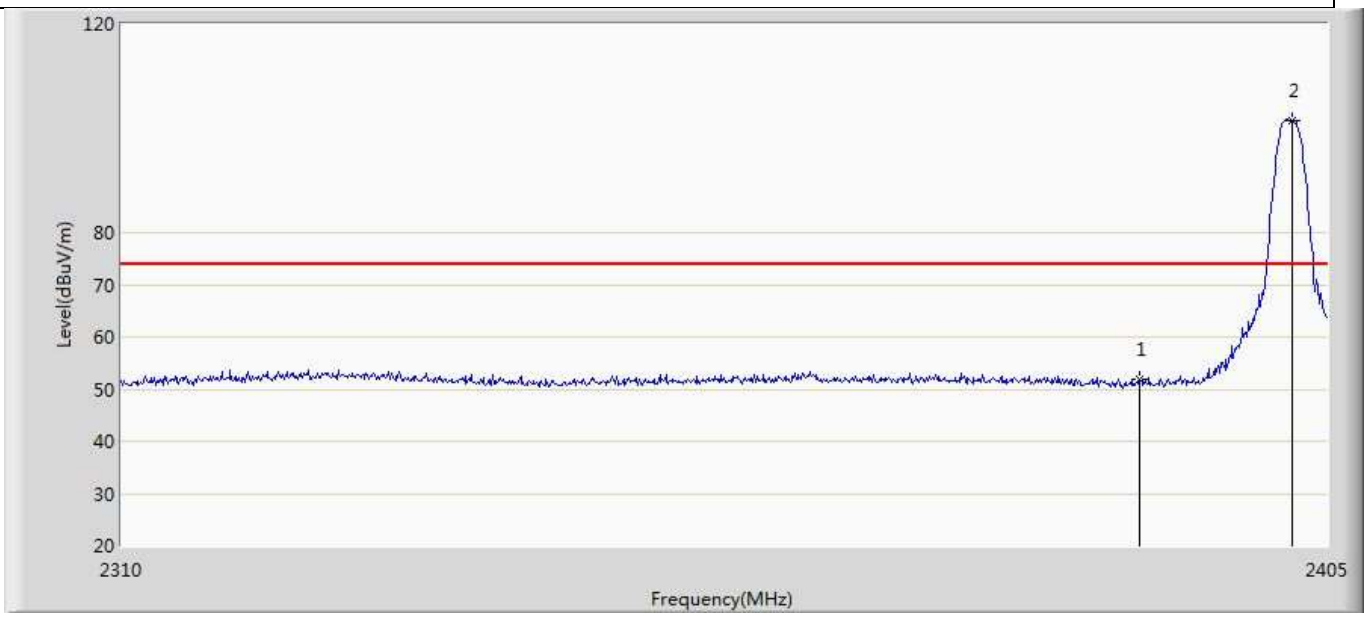
4.5.3 Test Procedure

	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

4.5.4 Test Data

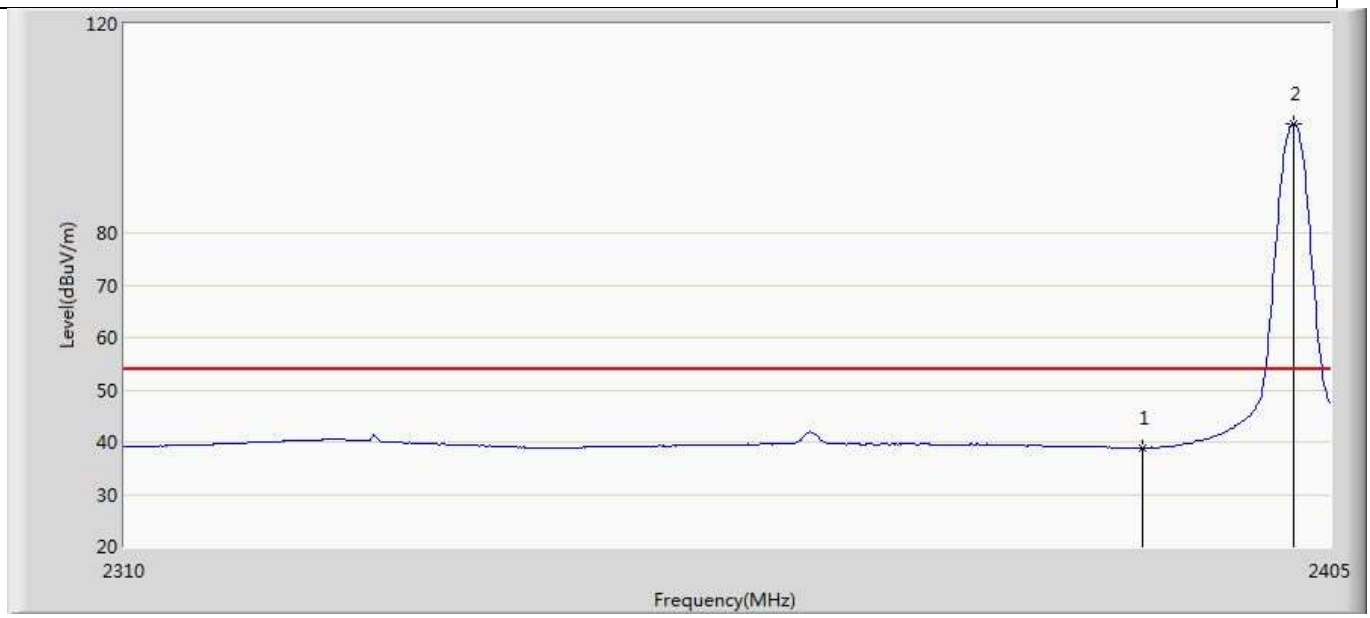
crystal oscillator #1:

Profile: 20C0212R	Page No.: 9
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



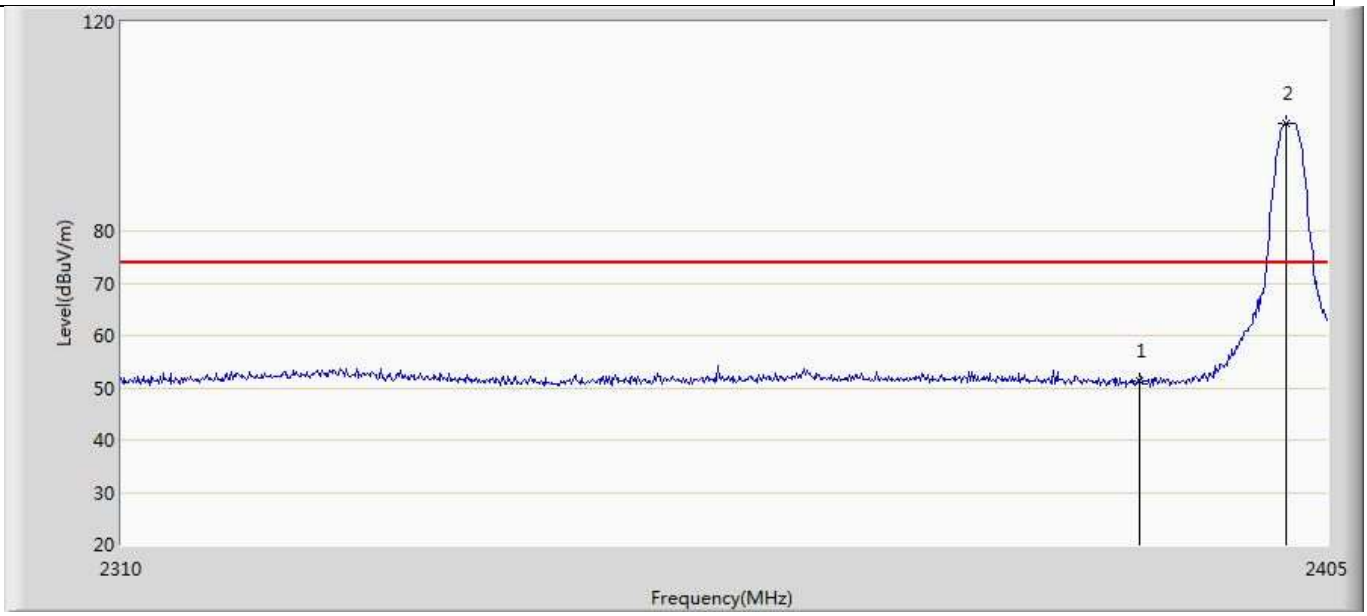
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.809	16.065	-22.191	74.000	35.745	PK
2	*	2402.245	101.536	65.450	N/A	N/A	36.086	PK

Profile: 20C0212R	Page No.: 10
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



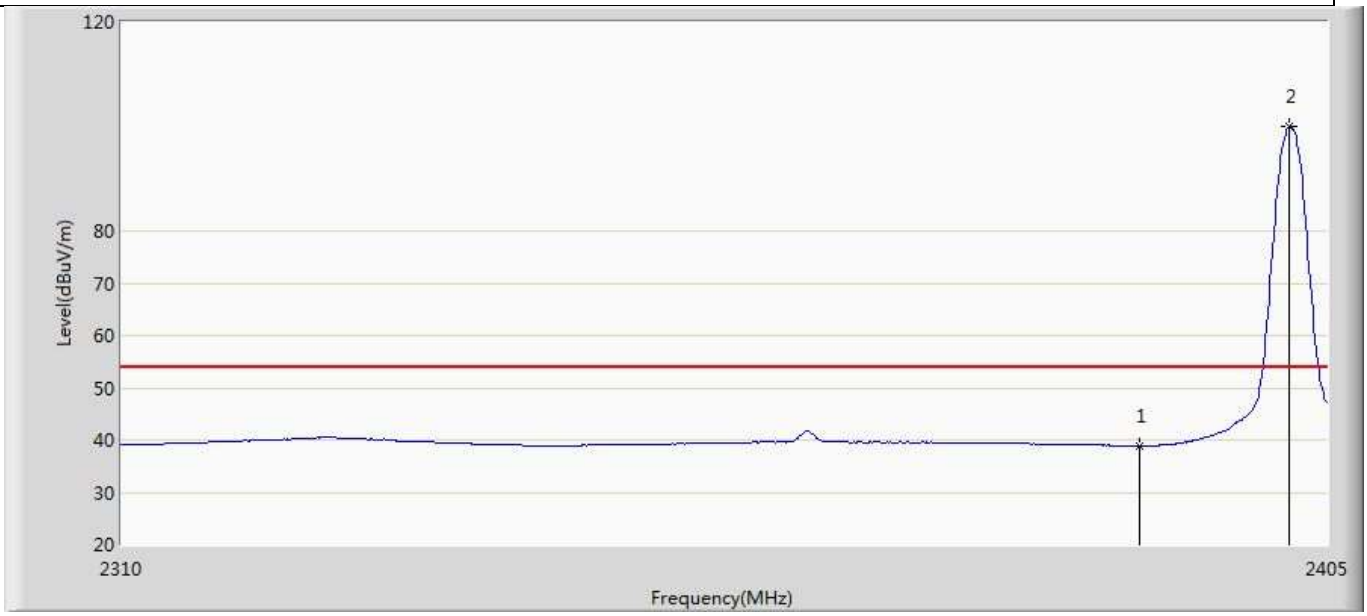
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.916	3.172	-15.084	54.000	35.745	AV
2	*	2402.055	100.982	64.910	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 11
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:39
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 1:Transmit at 2402MHz by LE_1Mbps	



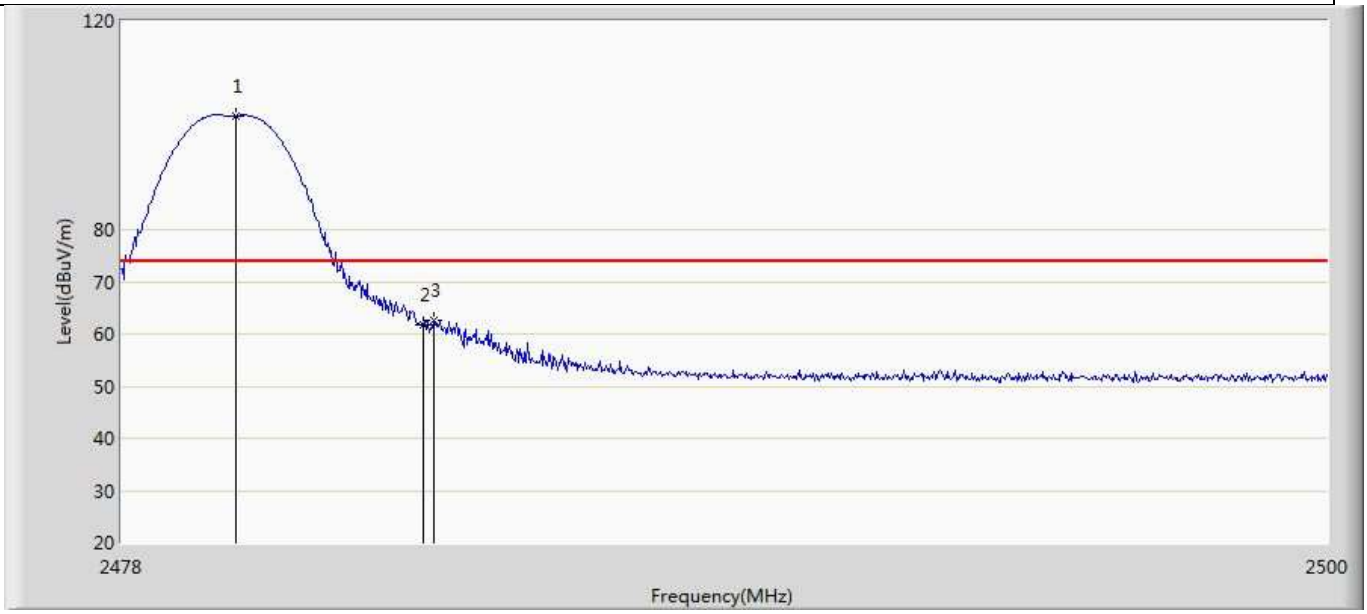
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.397	15.653	-22.603	74.000	35.745	PK
2	*	2401.770	100.664	64.613	N/A	N/A	36.050	PK

Profile: 20C0212R	Page No.: 12
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



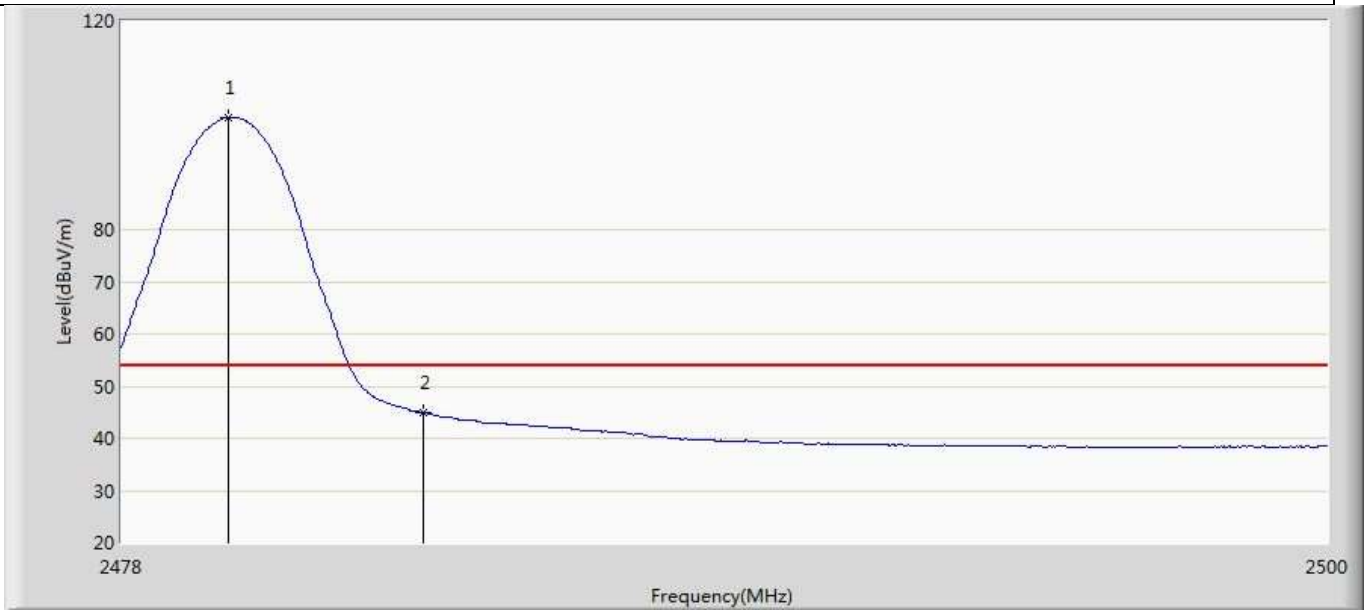
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.860	3.116	-15.140	54.000	35.745	AV
2	*	2401.960	100.036	63.971	N/A	N/A	36.064	AV

Profile: 20C0212R	Page No.: 25
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



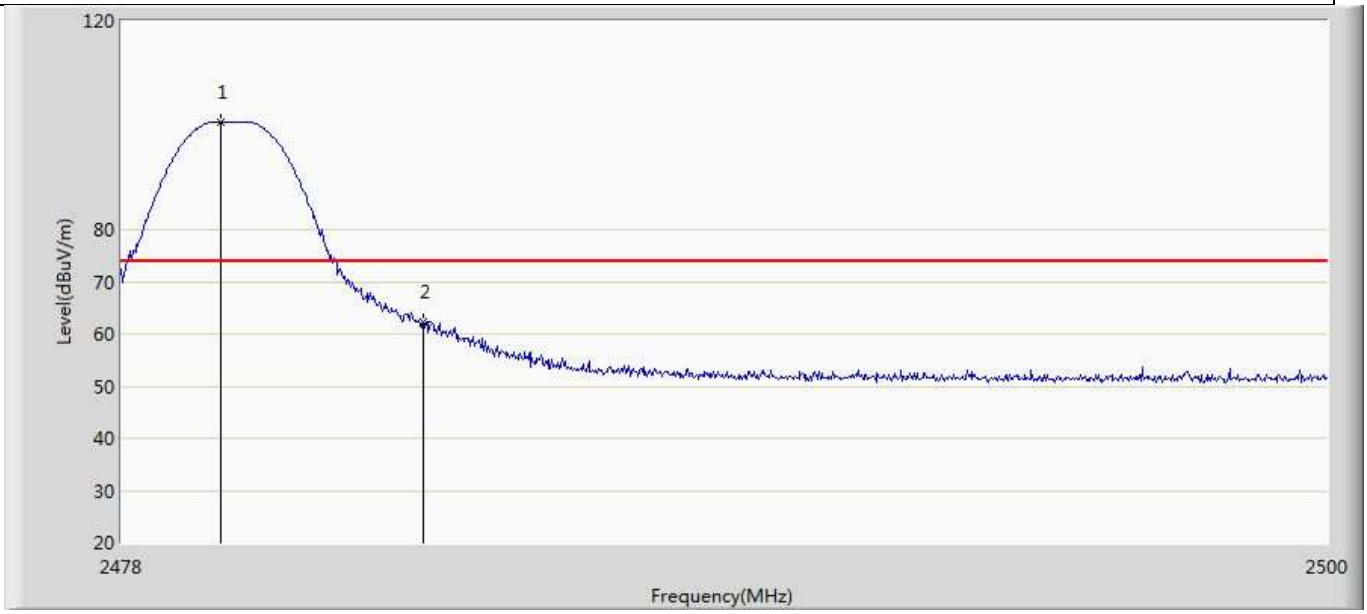
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.090	101.840	65.014	N/A	N/A	36.827	PK
2		2483.500	61.778	25.079	-12.222	74.000	36.699	PK
3		2483.676	62.491	25.798	-11.509	74.000	36.693	PK

Profile: 20C0212R	Page No.: 26
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



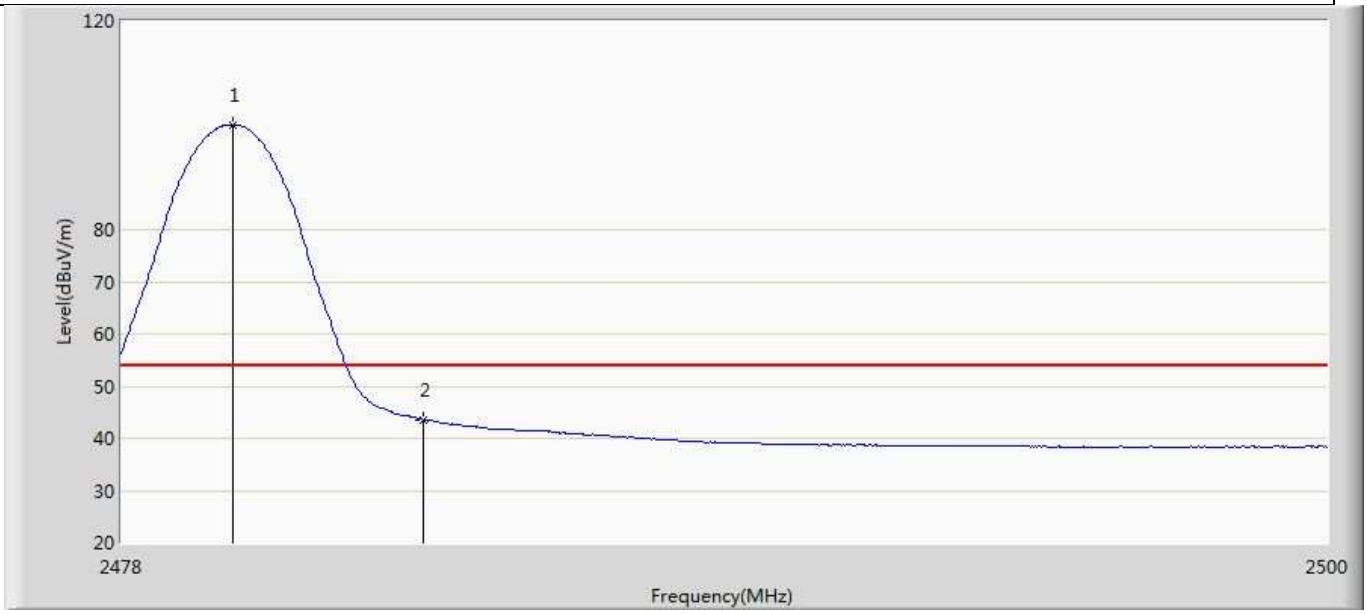
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.958	101.544	64.713	N/A	N/A	36.832	AV
2		2483.500	44.951	8.252	-9.049	54.000	36.699	AV

Profile: 20C0212R	Page No.: 27
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:12
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	



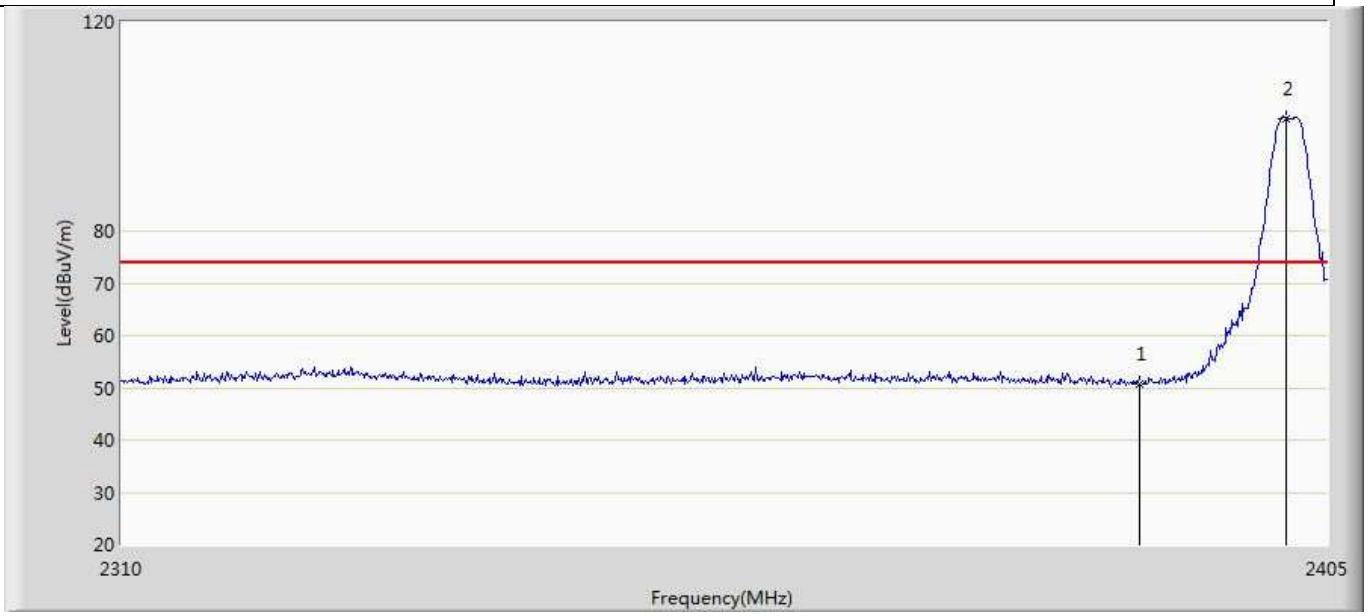
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.804	100.621	63.784	N/A	N/A	36.837	PK
2		2483.500	62.236	25.537	-11.764	74.000	36.699	PK

Profile: 20C0212R	Page No.: 28
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:13
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 1:Transmit at 2480MHz by LE_1Mbps	



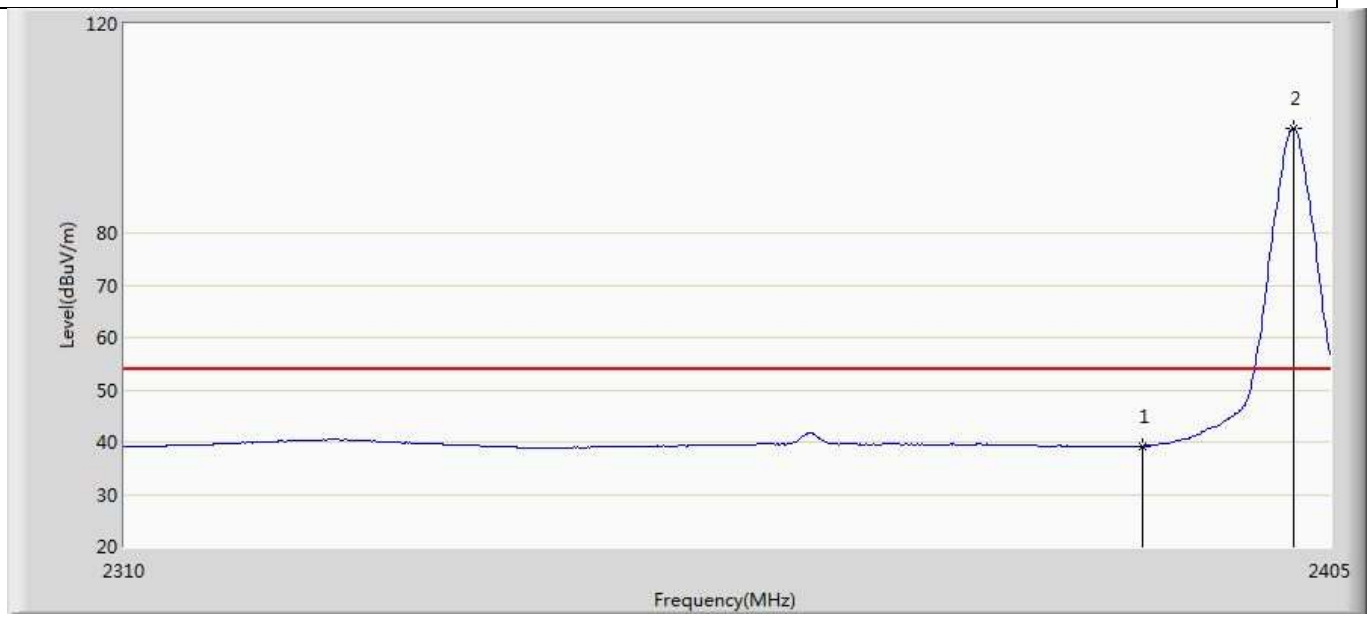
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.024	100.140	63.311	N/A	N/A	36.829	AV
2		2483.500	43.597	6.898	-10.403	54.000	36.699	AV

Profile: 20C0212R	Page No.: 13
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:49
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 2402MHz by LE_2Mbps	



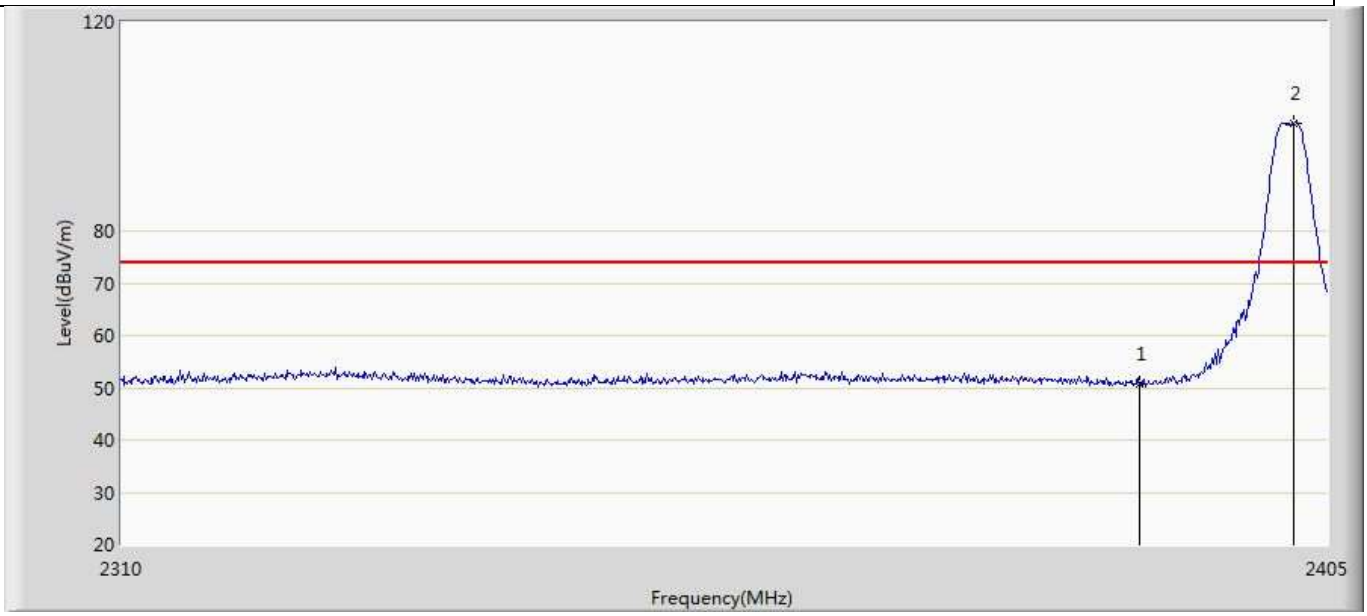
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.596	14.852	-23.404	74.000	35.745	PK
2	*	2401.770	101.524	65.473	N/A	N/A	36.050	PK

Profile: 20C0212R	Page No.: 14
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



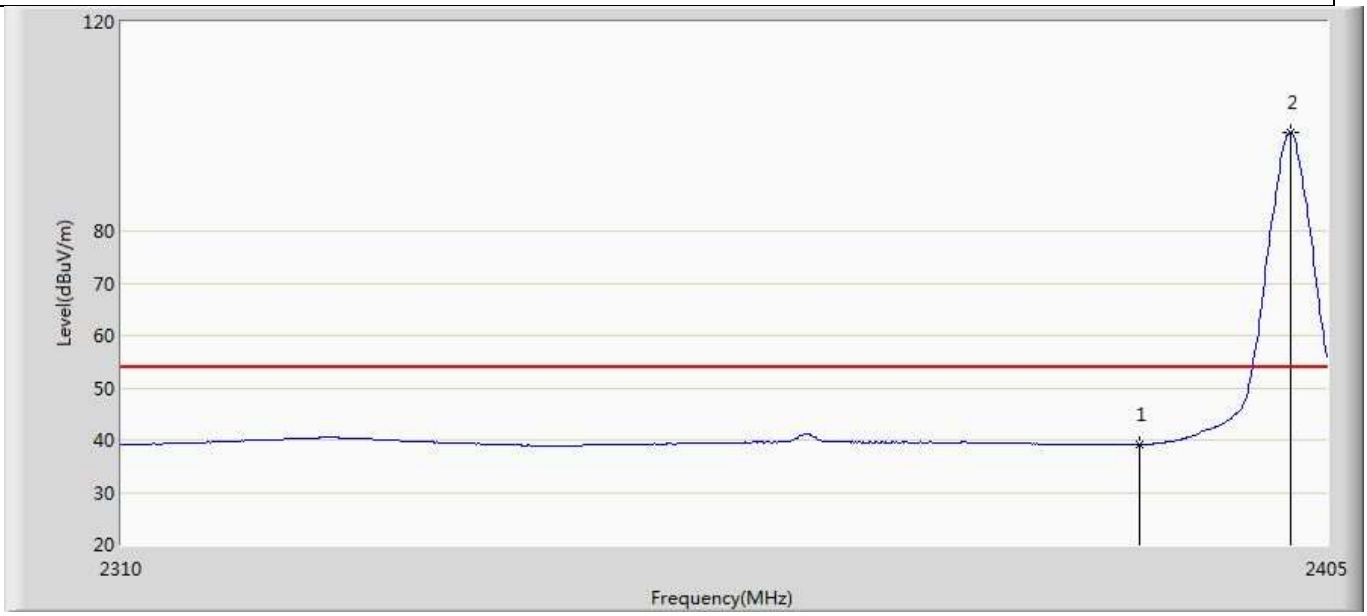
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	39.262	3.518	-14.738	54.000	35.745	AV
2	*	2402.055	100.092	64.020	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 15
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



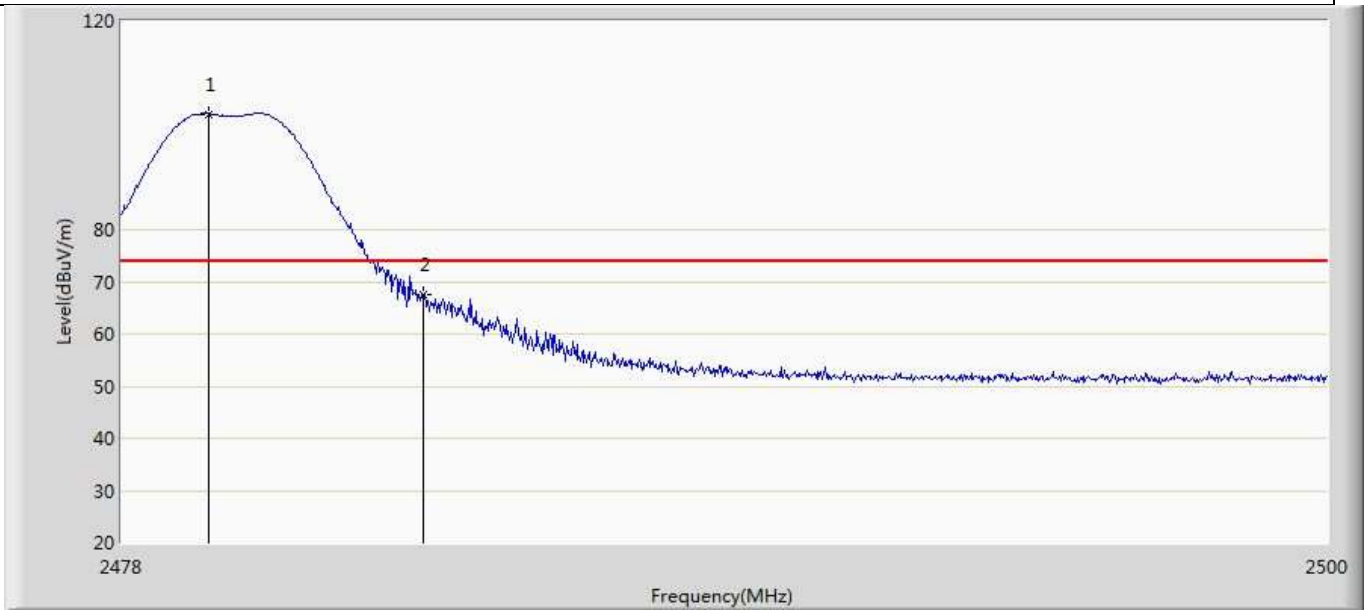
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.766	15.022	-23.234	74.000	35.745	PK
2	*	2402.340	100.685	64.592	N/A	N/A	36.093	PK

Profile: 20C0212R	Page No.: 16
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:06
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	



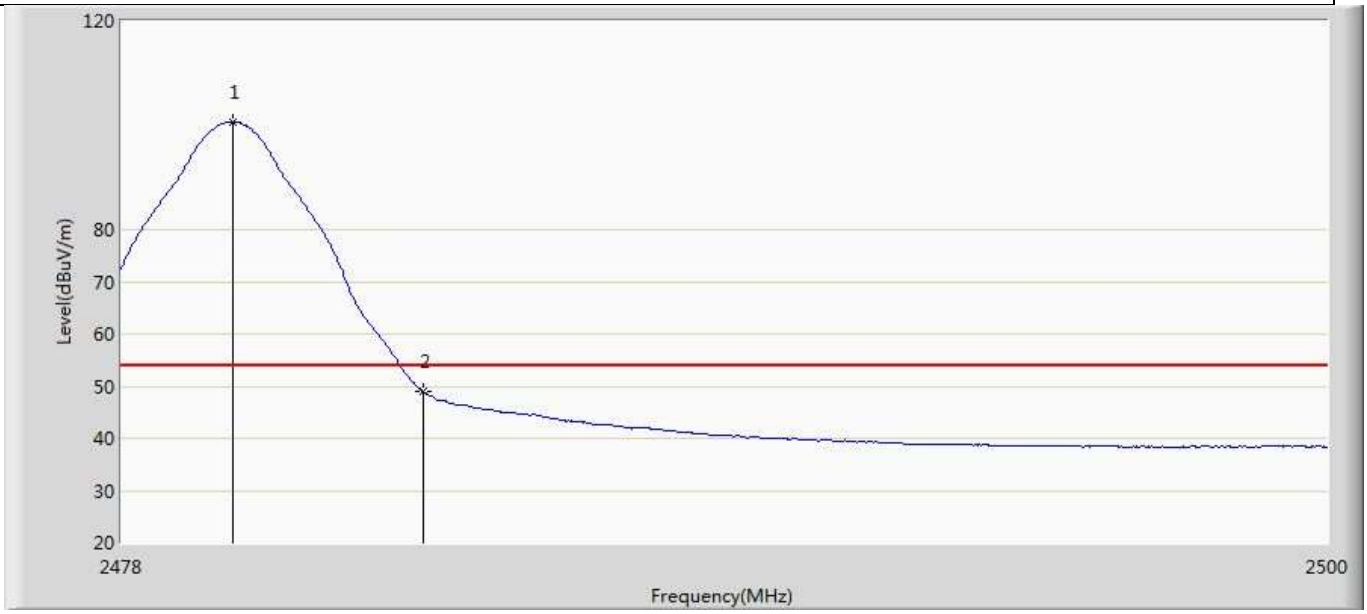
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	39.066	3.322	-14.934	54.000	35.745	AV
2	*	2402.055	98.876	62.804	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 29
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:20
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	



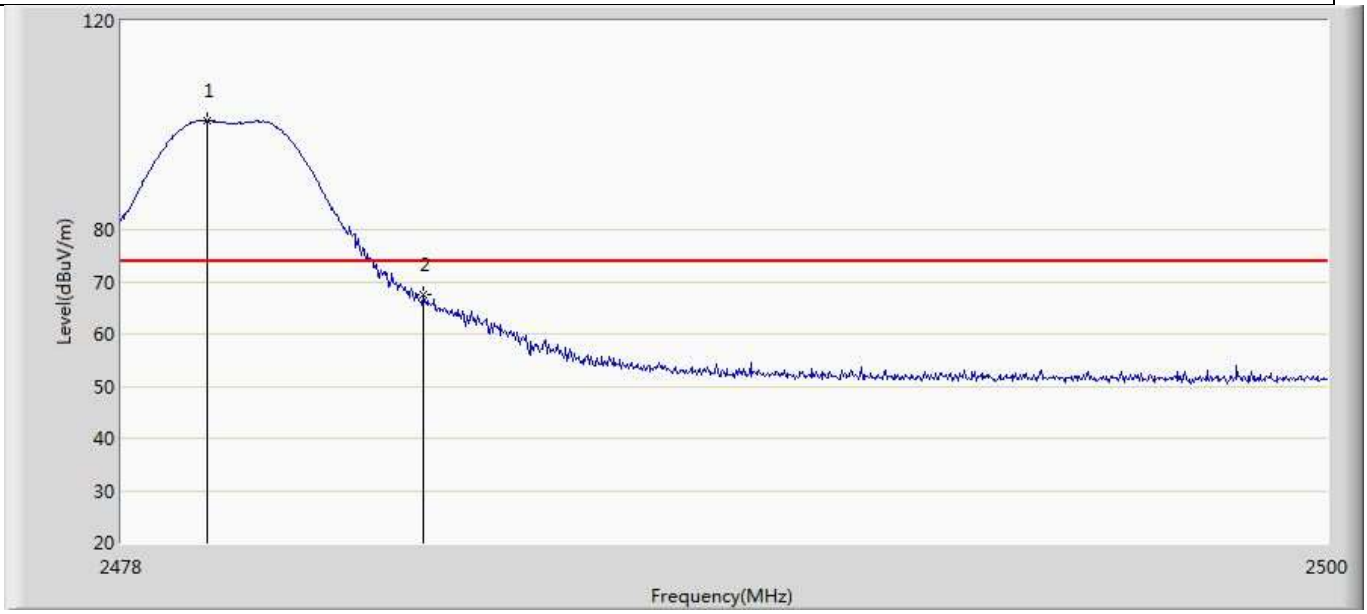
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.606	102.173	65.329	N/A	N/A	36.845	PK
2		2483.500	67.614	30.915	-6.386	74.000	36.699	PK

Profile: 20C0212R	Page No.: 30
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:21
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 2:Transmit at 2480MHz by LE_2Mbps	



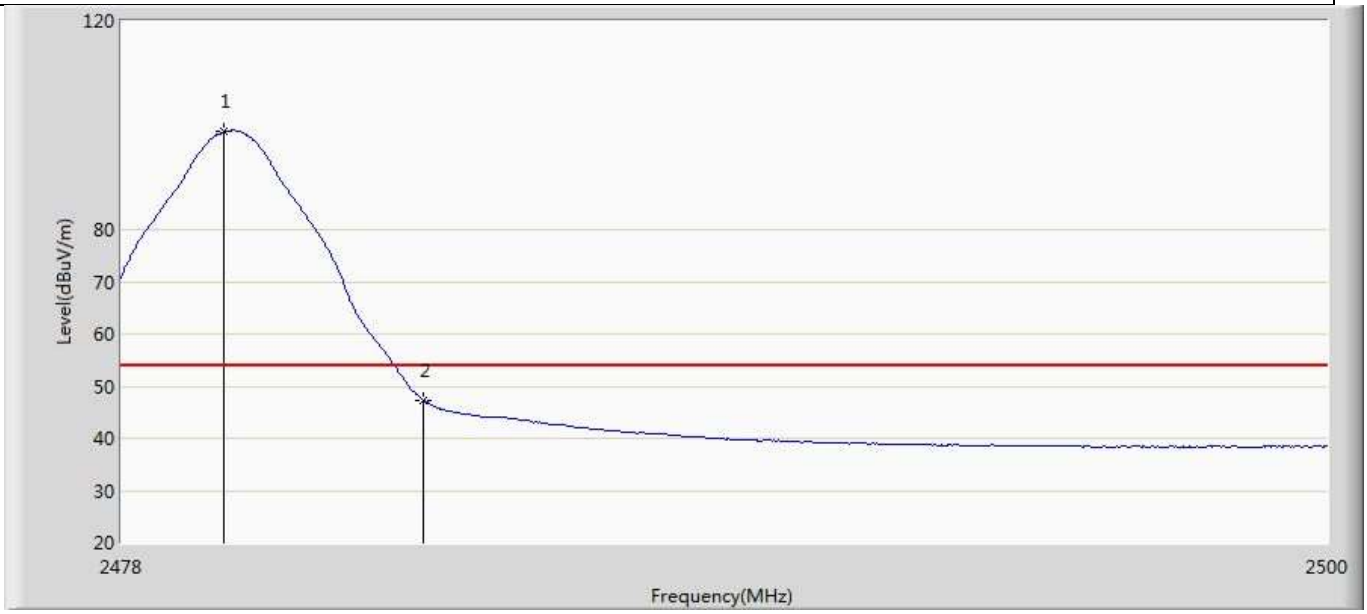
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.024	100.601	63.772	N/A	N/A	36.829	AV
2		2483.500	48.870	12.171	-5.130	54.000	36.699	AV

Profile: 20C0212R	Page No.: 31
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:32
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 2:Transmit at 2480MHz by LE_2Mbps	



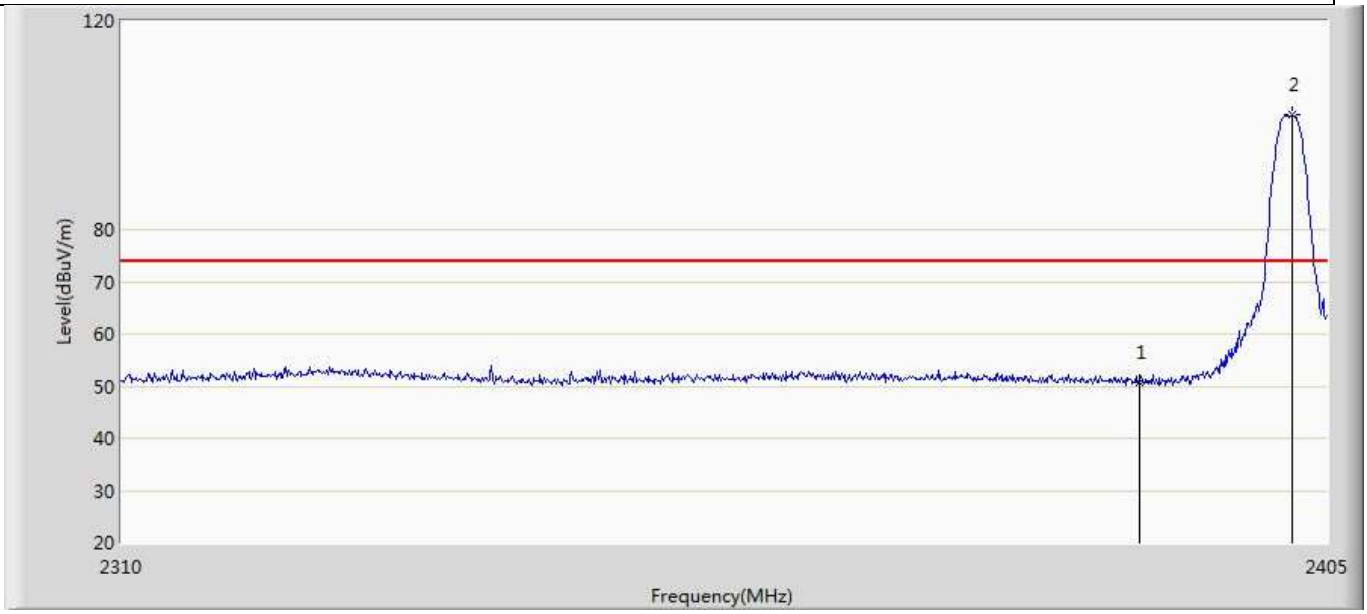
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.562	100.875	64.029	N/A	N/A	36.846	PK
2		2483.500	67.543	30.844	-6.457	74.000	36.699	PK

Profile: 20C0212R	Page No.: 32
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



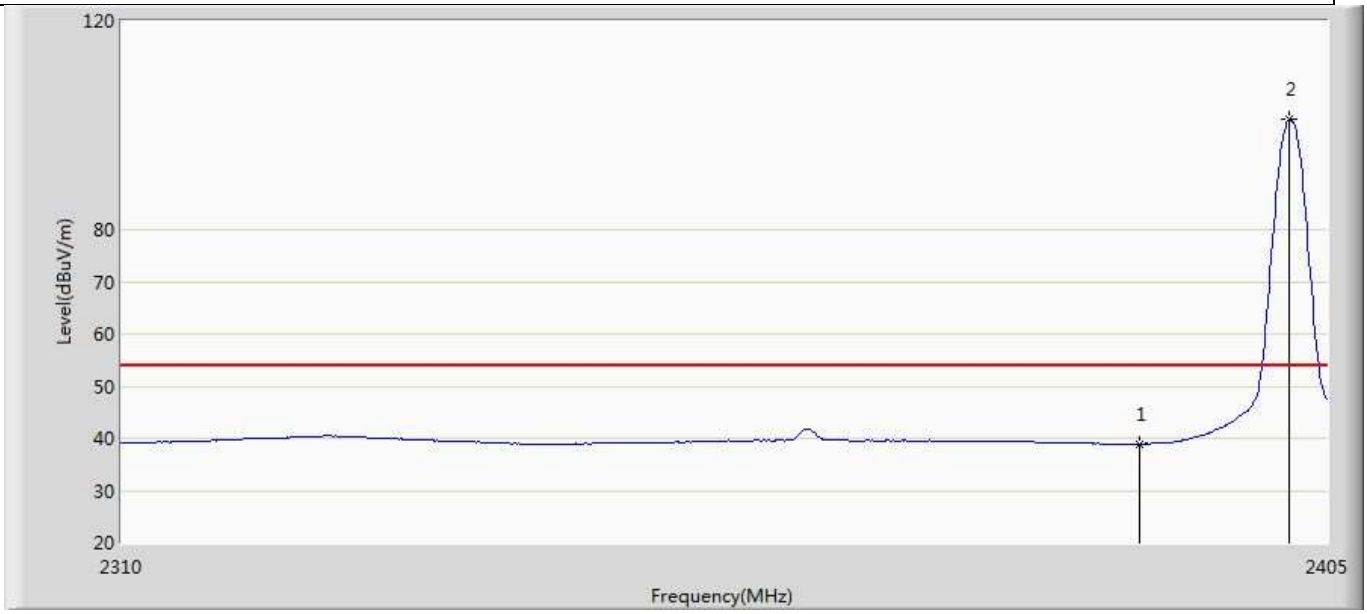
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.870	98.753	61.918	N/A	N/A	36.835	AV
2		2483.500	47.290	10.591	-6.710	54.000	36.699	AV

Profile: 20C0212R	Page No.: 21
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:35
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 3:Transmit at 2402MHz by LE_Coded S=2	



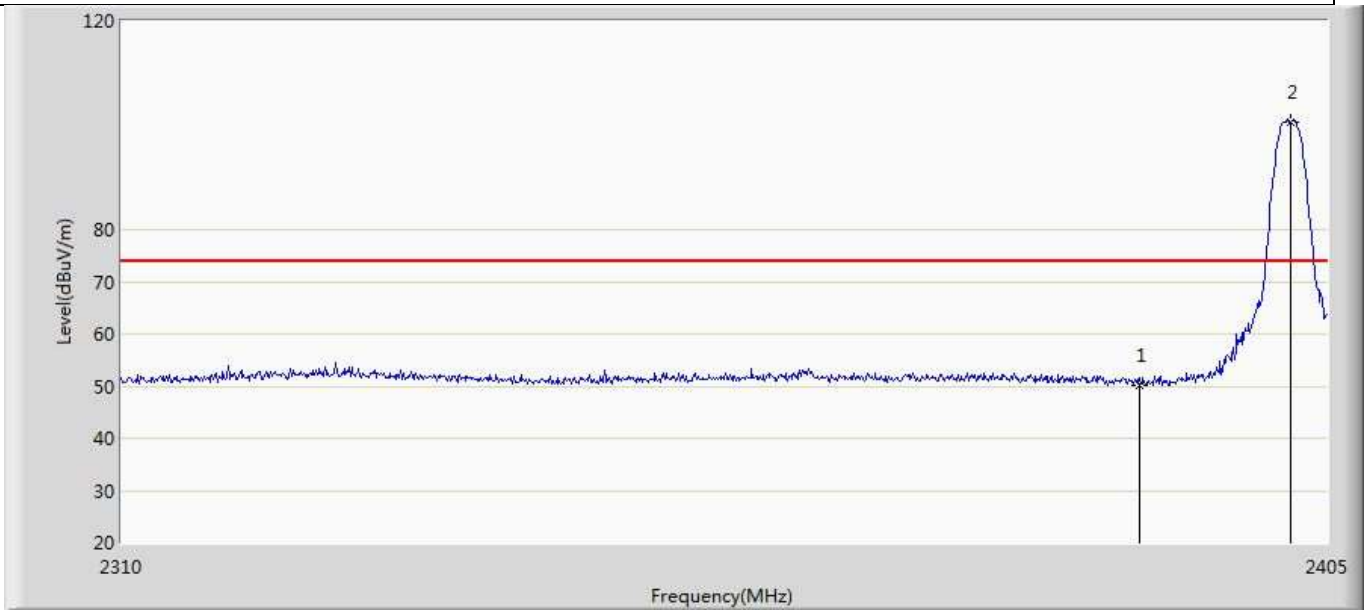
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.768	15.024	-23.232	74.000	35.745	PK
2	*	2402.245	101.886	65.800	N/A	N/A	36.086	PK

Profile: 20C0212R	Page No.: 22
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded S=2	



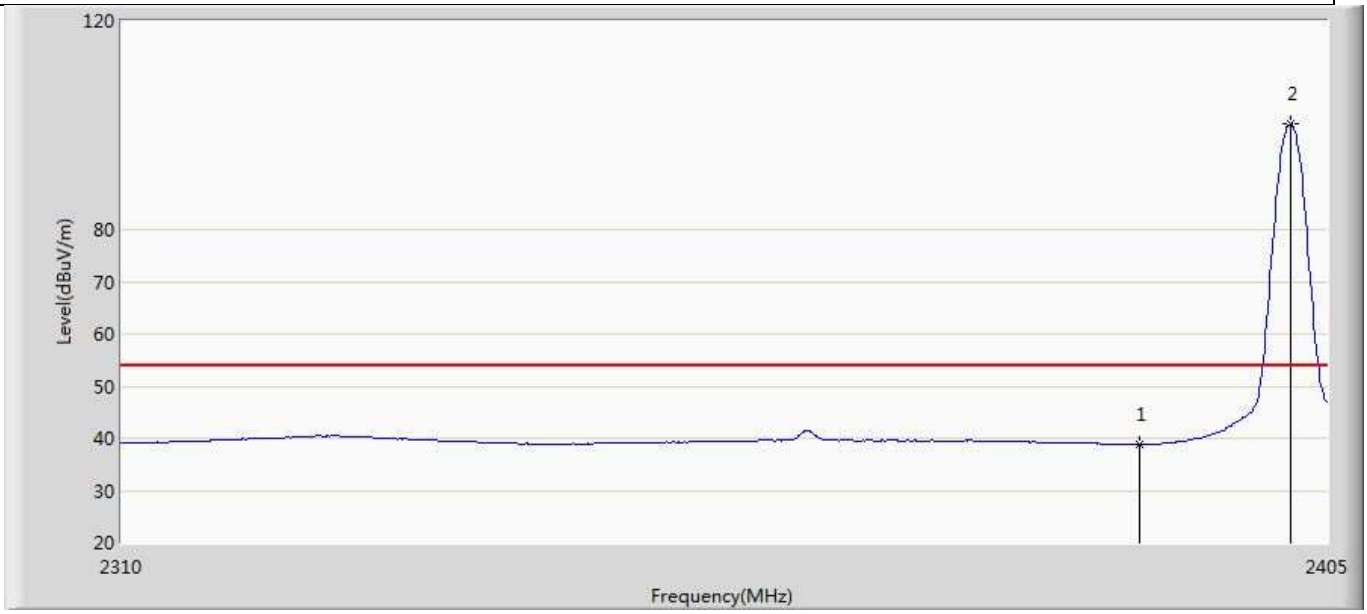
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.880	3.136	-15.120	54.000	35.745	AV
2	*	2401.960	101.146	65.081	N/A	N/A	36.064	AV

Profile: 20C0212R	Page No.: 23
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:48
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	



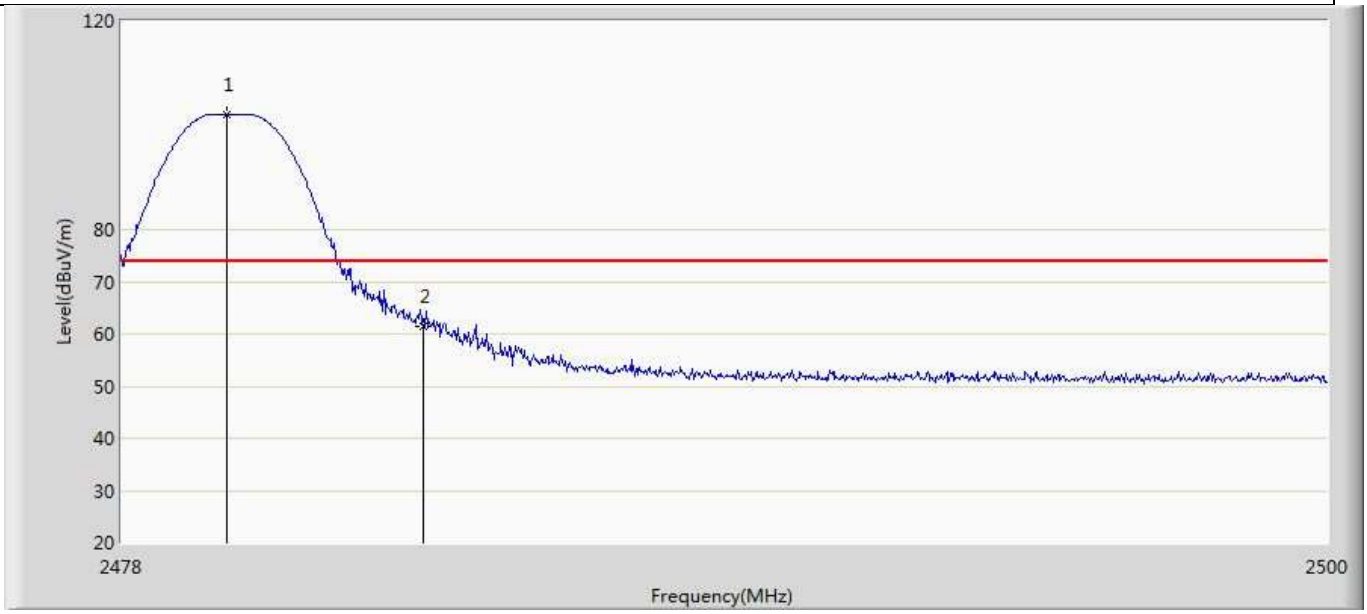
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.209	14.465	-23.791	74.000	35.745	PK
2	*	2402.055	100.715	64.643	N/A	N/A	36.071	PK

Profile: 20C0212R	Page No.: 24
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded S=2	



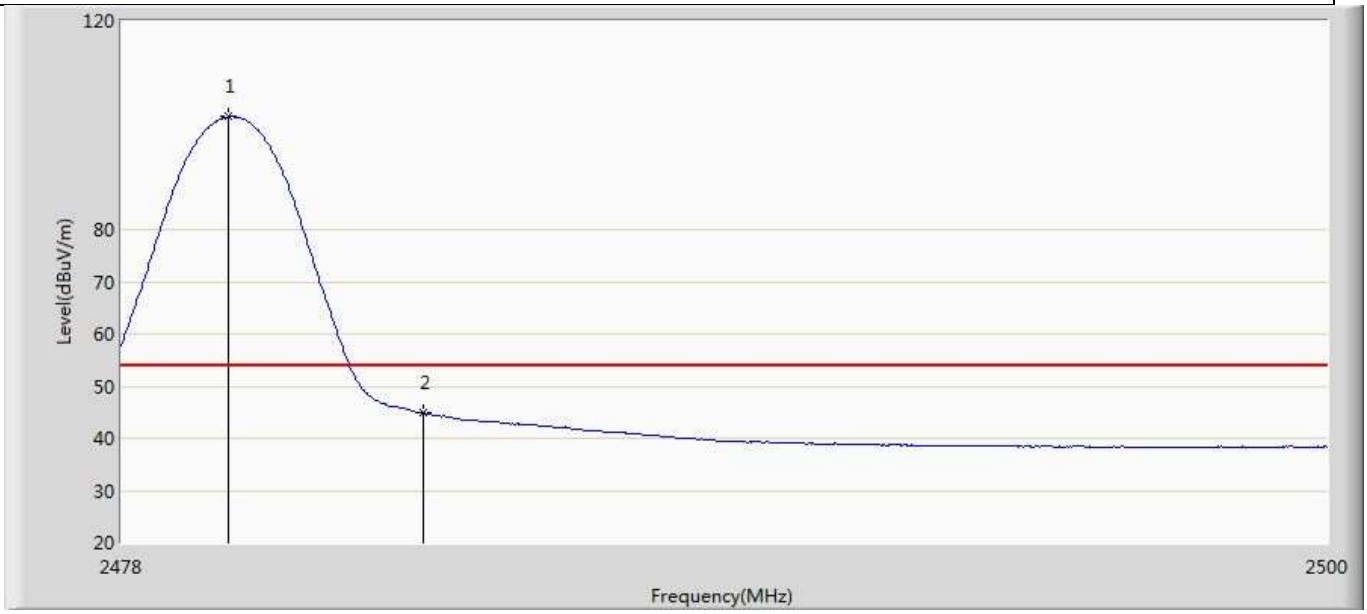
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.845	3.101	-15.155	54.000	35.745	AV
2	*	2402.055	100.186	64.114	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 37
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded S=2	



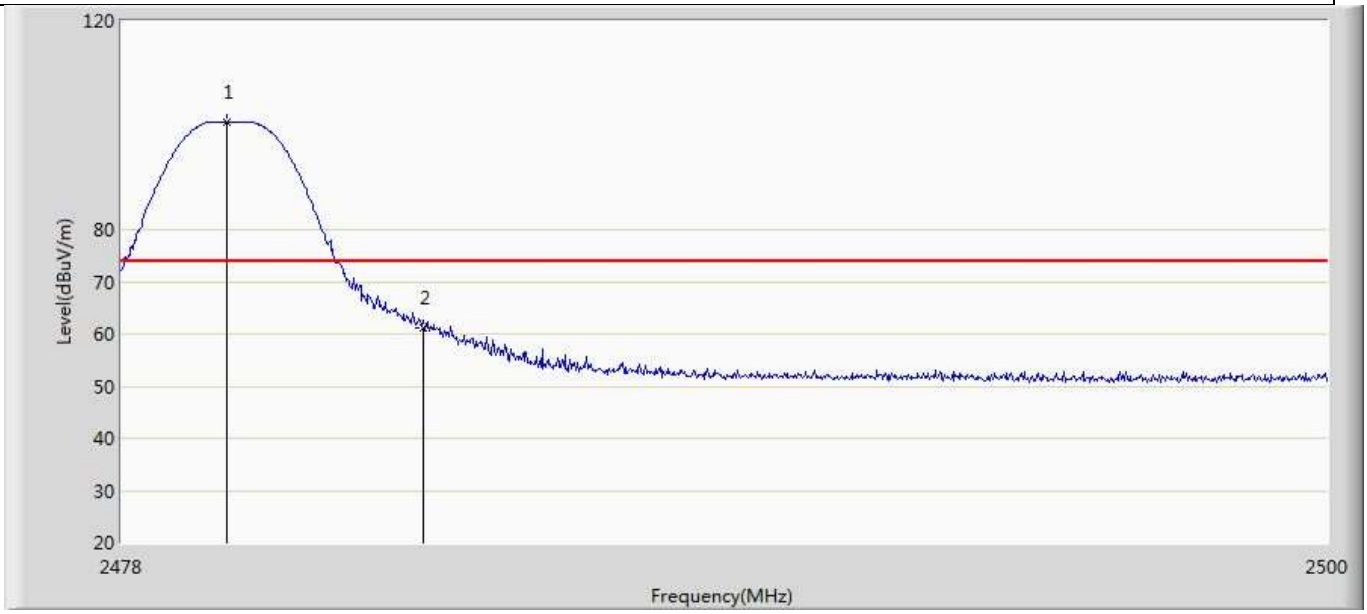
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.914	101.985	65.152	N/A	N/A	36.833	PK
2		2483.500	61.517	24.818	-12.483	74.000	36.699	PK

Profile: 20C0212R	Page No.: 38
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:04
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 2480MHz by LE_Coded S=2	



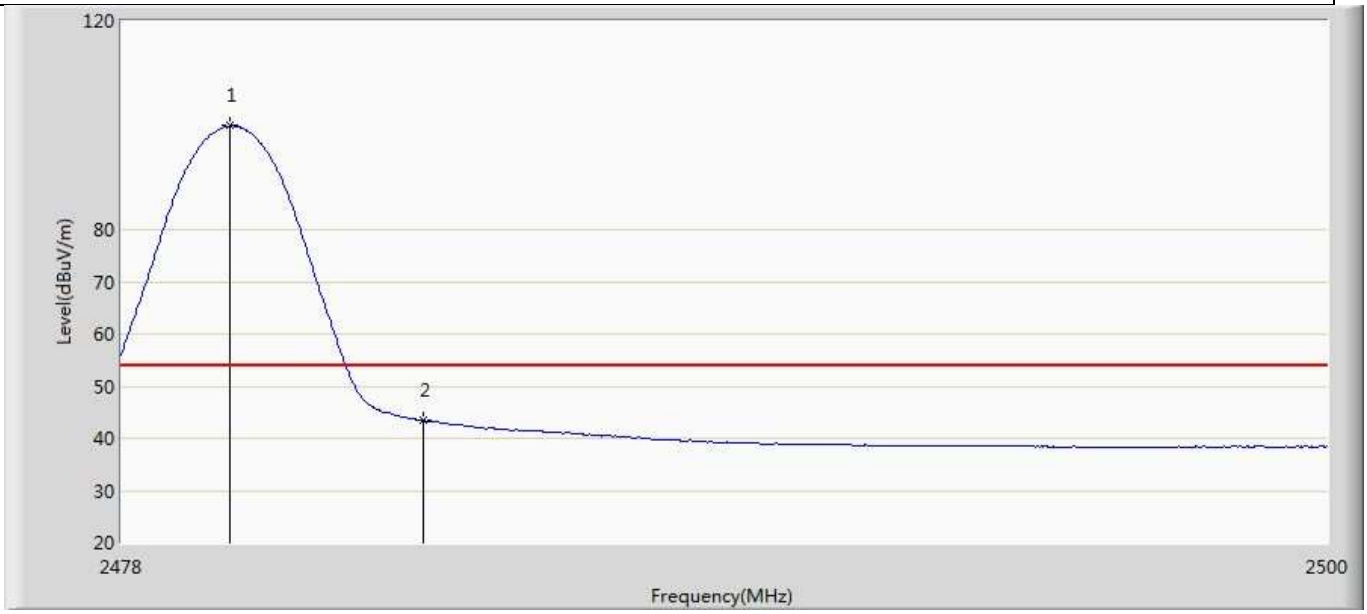
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.958	101.619	64.788	N/A	N/A	36.832	AV
2		2483.500	44.879	8.180	-9.121	54.000	36.699	AV

Profile: 20C0212R	Page No.: 39
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:14
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	



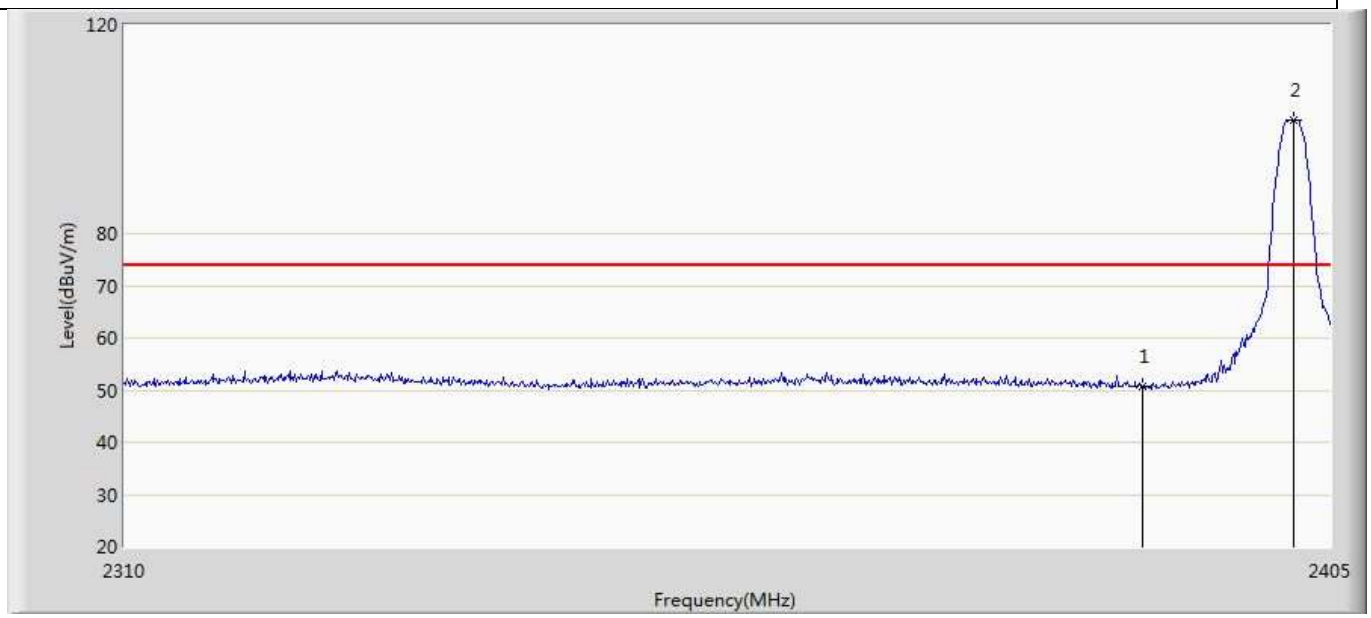
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.914	100.591	63.758	N/A	N/A	36.833	PK
2		2483.500	61.218	24.519	-12.782	74.000	36.699	PK

Profile: 20C0212R	Page No.: 40
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded S=2	



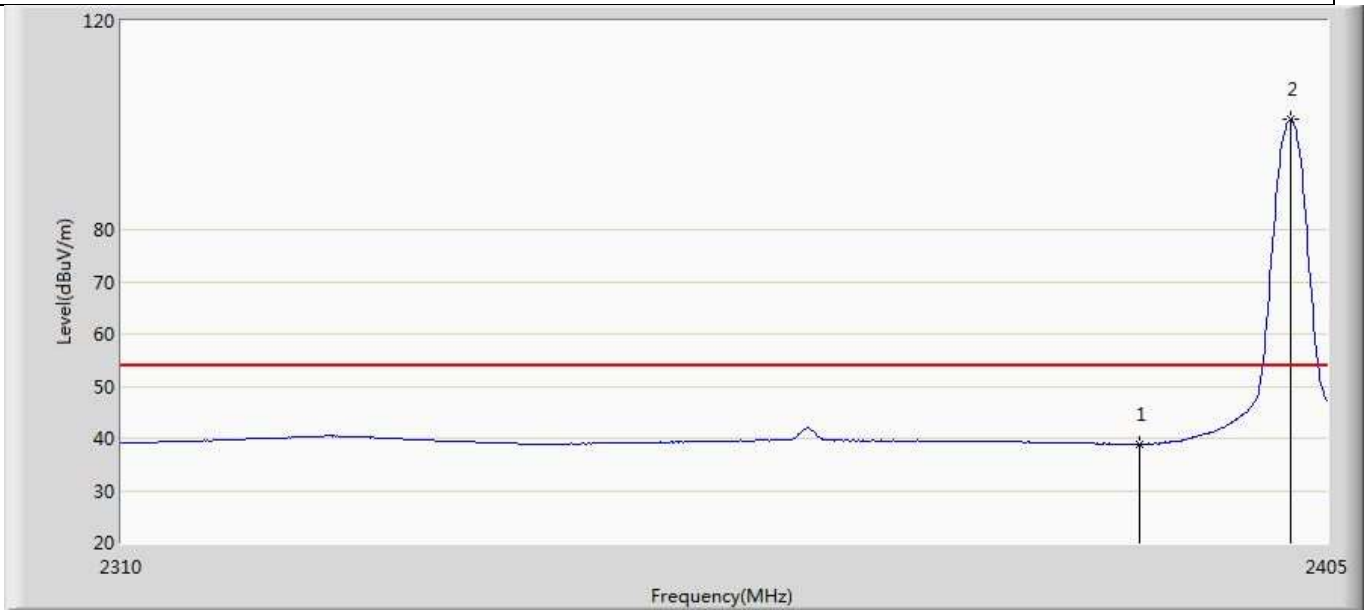
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.980	99.871	63.040	N/A	N/A	36.831	AV
2		2483.500	43.429	6.730	-10.571	54.000	36.699	AV

Profile: 20C0212R	Page No.: 17
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:14
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	



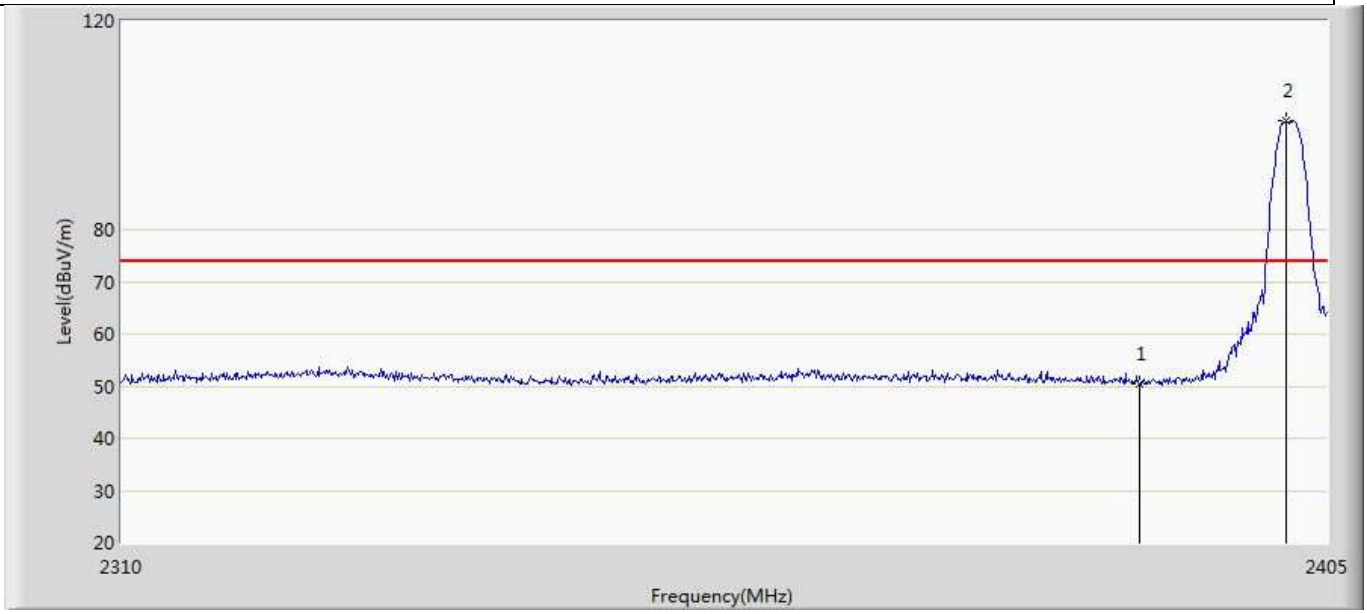
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.817	15.073	-23.183	74.000	35.745	PK
2	*	2402.055	101.639	65.567	N/A	N/A	36.071	PK

Profile: 20C0212R	Page No.: 18
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded S=8	



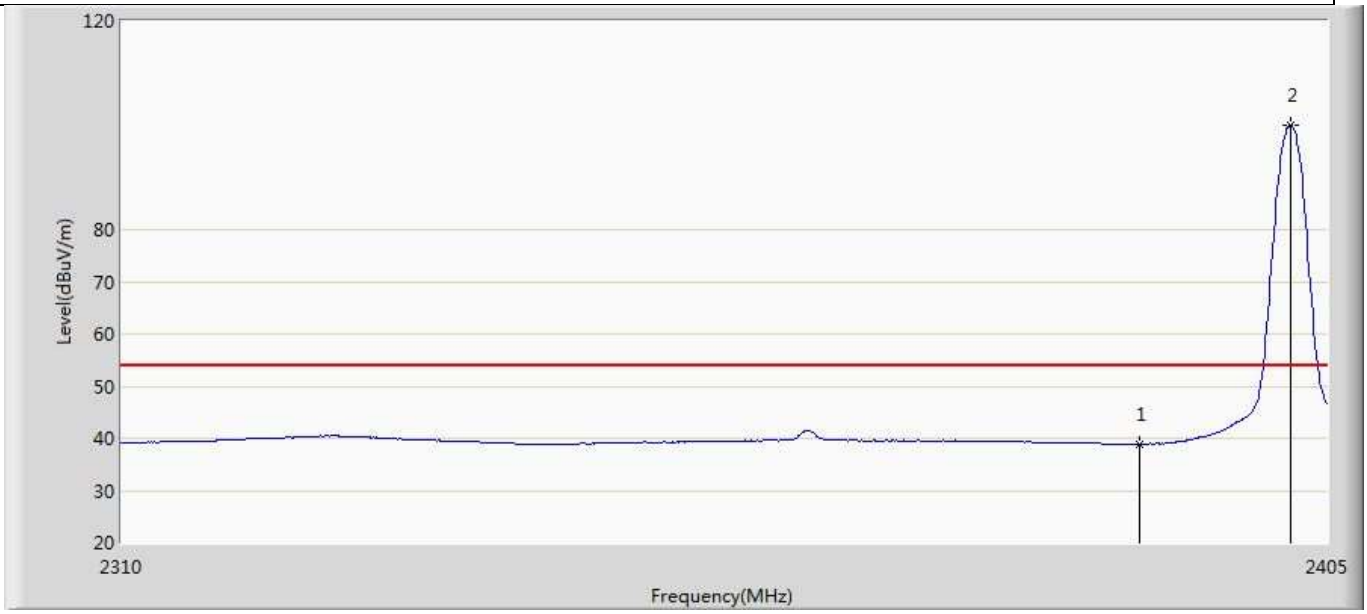
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.899	3.155	-15.101	54.000	35.745	AV
2	*	2402.055	101.022	64.950	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 19
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded S=8	



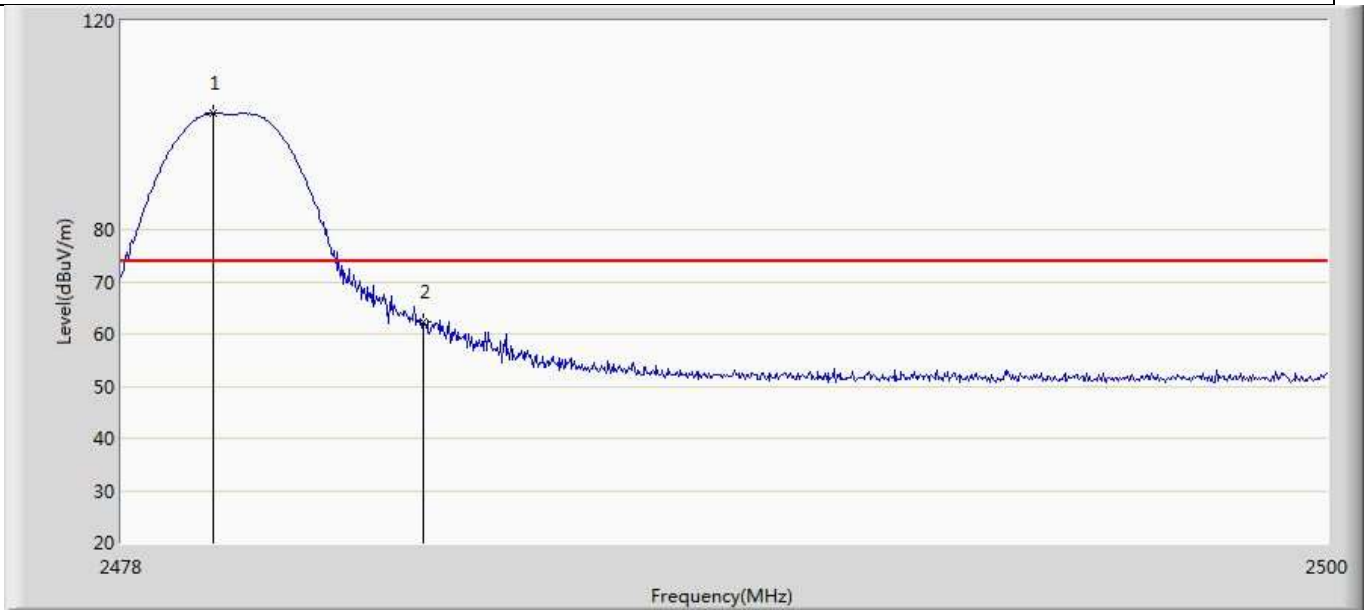
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.447	14.703	-23.553	74.000	35.745	PK
2	*	2401.770	100.747	64.696	N/A	N/A	36.050	PK

Profile: 20C0212R	Page No.: 20
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:27
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	



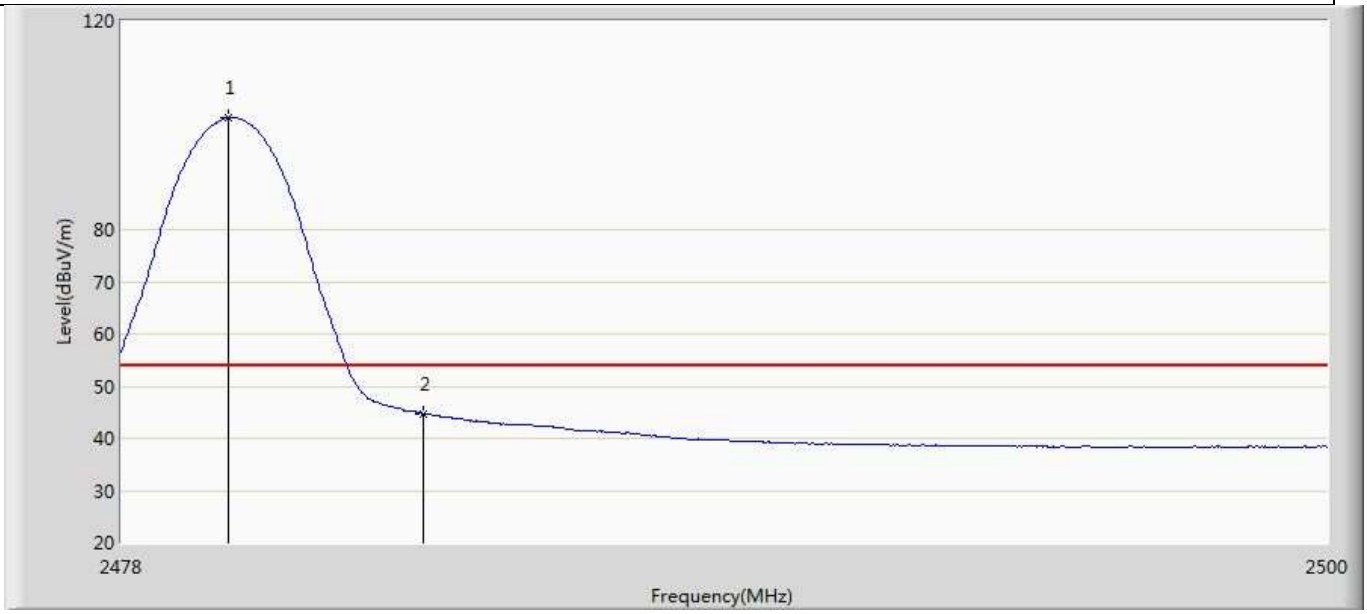
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.767	3.023	-15.233	54.000	35.745	AV
2	*	2402.055	100.101	64.029	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 33
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:41
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	



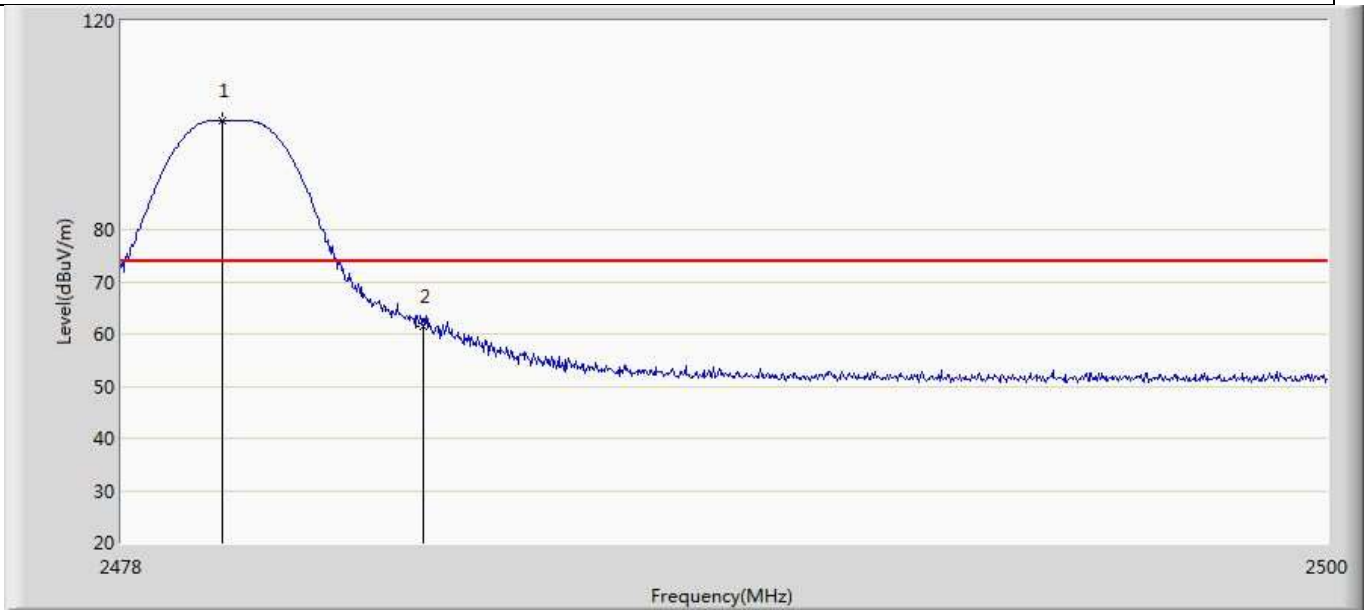
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.672	102.293	65.451	N/A	N/A	36.842	PK
2		2483.500	62.414	25.715	-11.586	74.000	36.699	PK

Profile: 20C0212R	Page No.: 34
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded S=8	



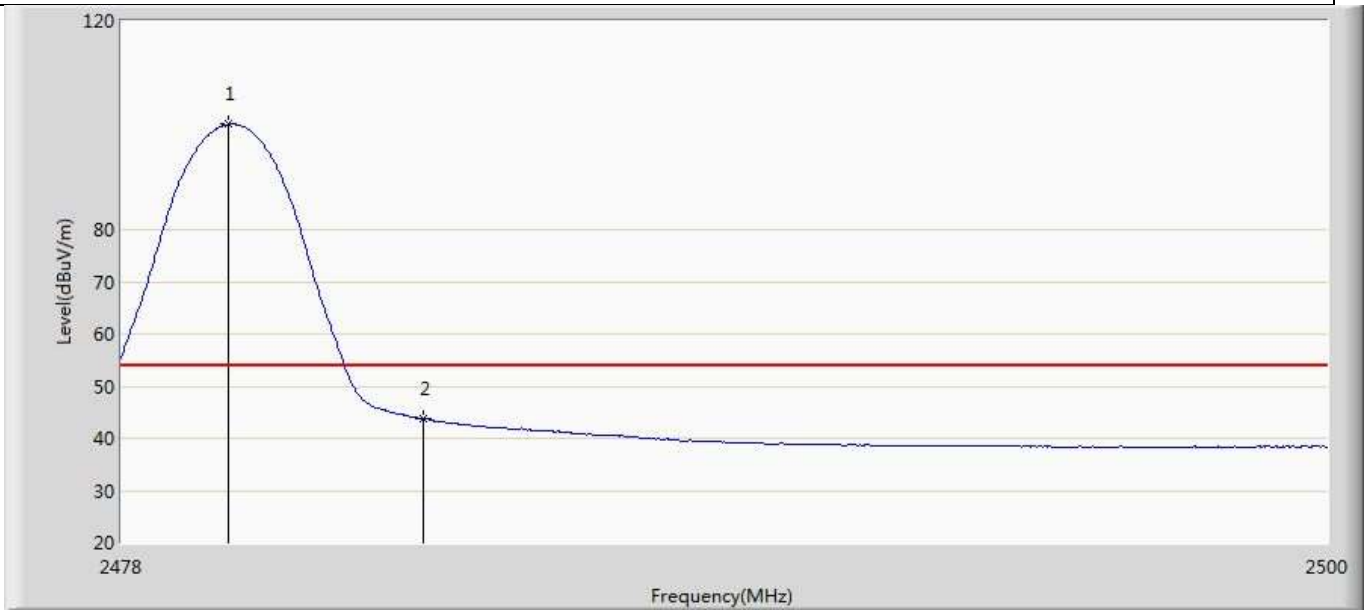
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.958	101.433	64.602	N/A	N/A	36.832	AV
2		2483.500	44.694	7.995	-9.306	54.000	36.699	AV

Profile: 20C0212R	Page No.: 35
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:53
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	*	2479.848	100.912	64.077	N/A	N/A	36.836	PK
2		2483.500	61.387	24.688	-12.613	74.000	36.699	PK

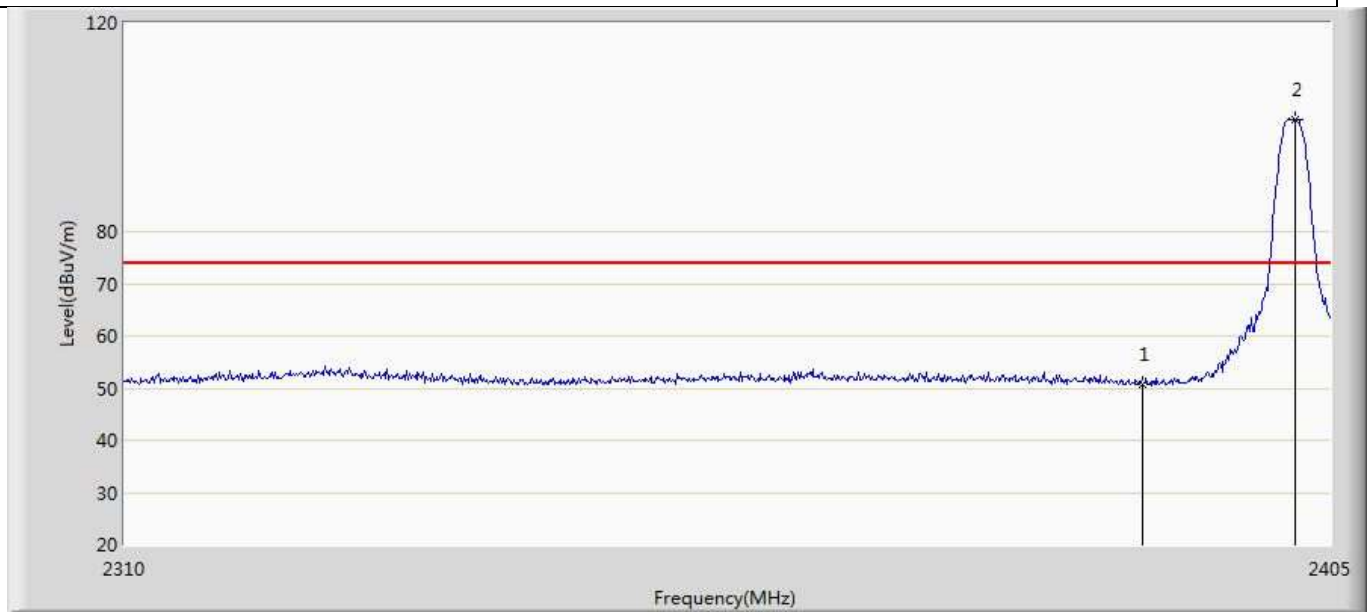
Profile: 20C0212R	Page No.: 36
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded S=8	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.958	100.200	63.369	N/A	N/A	36.832	AV
2		2483.500	43.766	7.067	-10.234	54.000	36.699	AV

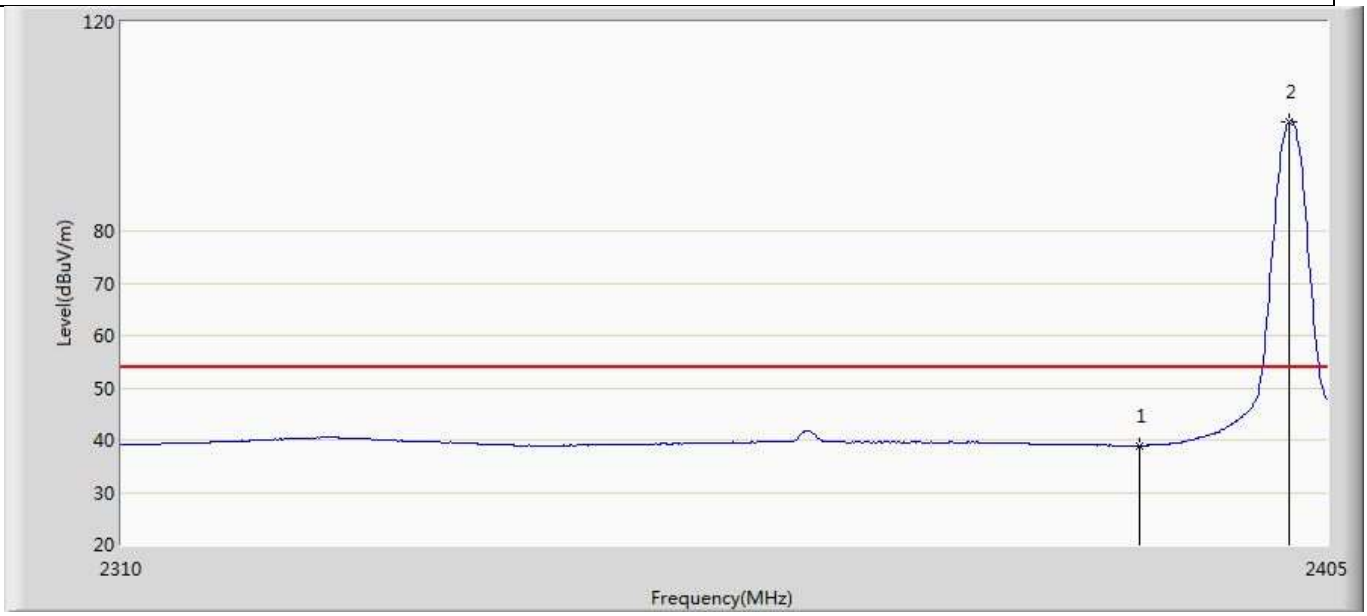
crystal oscillator #2:

Profile: 20C0212R	Page No.: 9
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



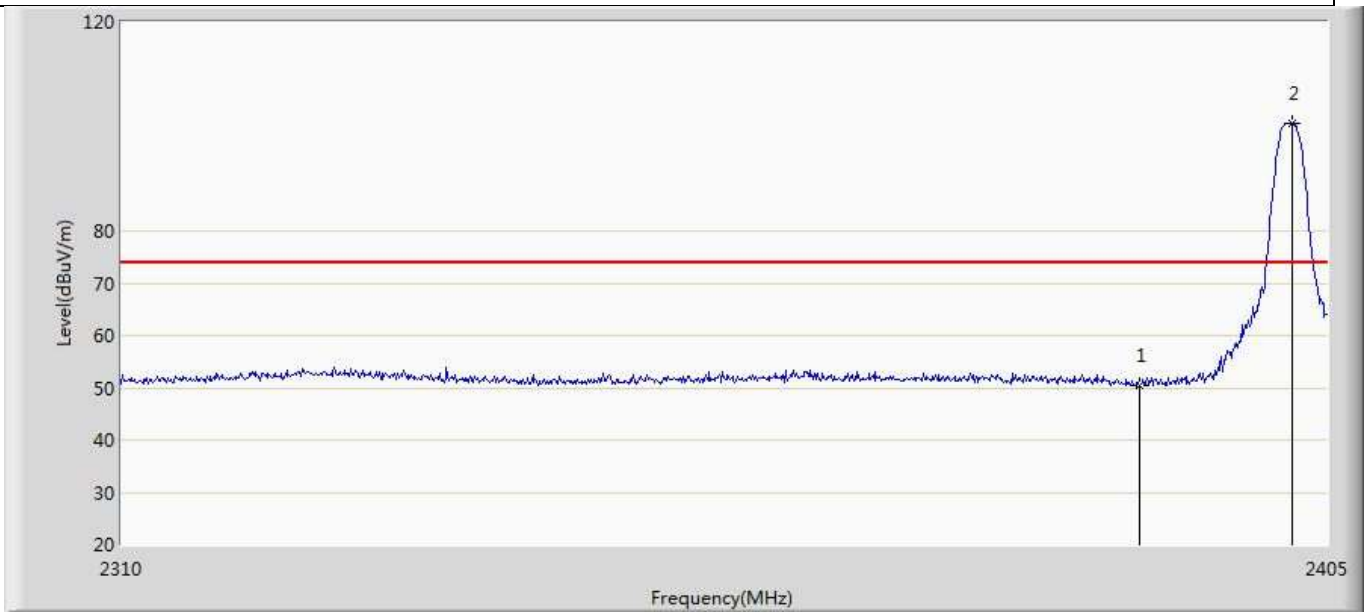
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.840	15.096	-23.160	74.000	35.745	PK
2	*	2402.150	101.557	65.478	N/A	N/A	36.079	PK

Profile: 20C0212R	Page No.: 10
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



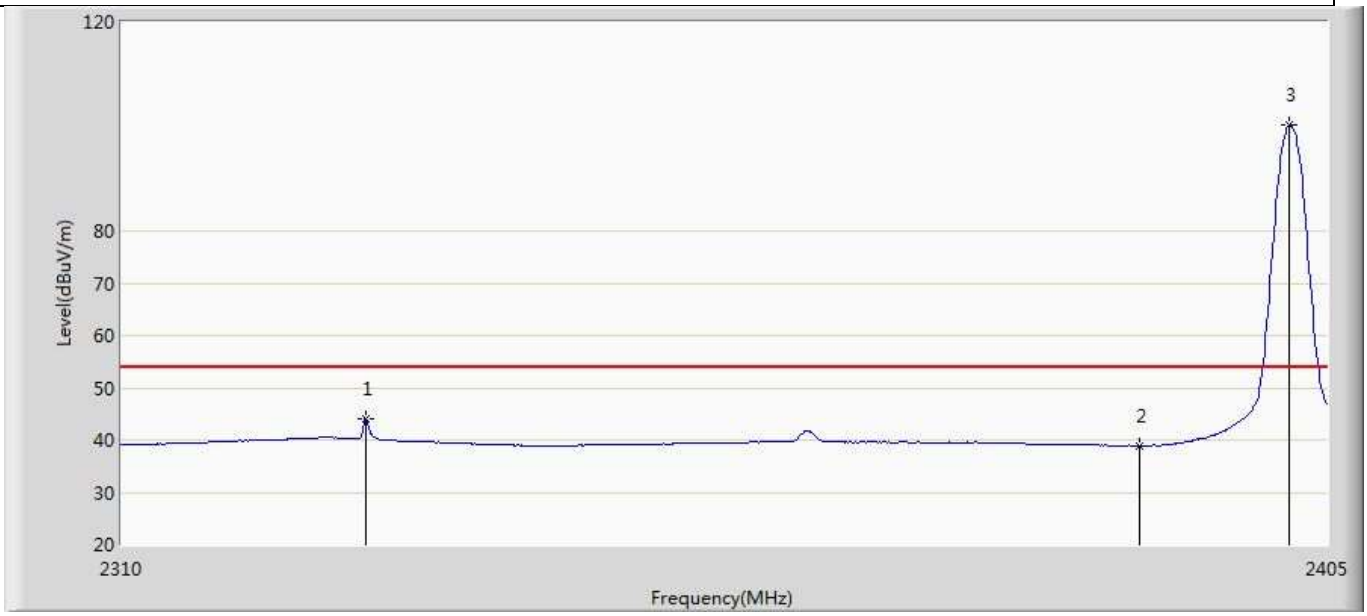
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.880	3.136	-15.120	54.000	35.745	AV
2	*	2401.960	100.931	64.866	N/A	N/A	36.064	AV

Profile: 20C0212R	Page No.: 11
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



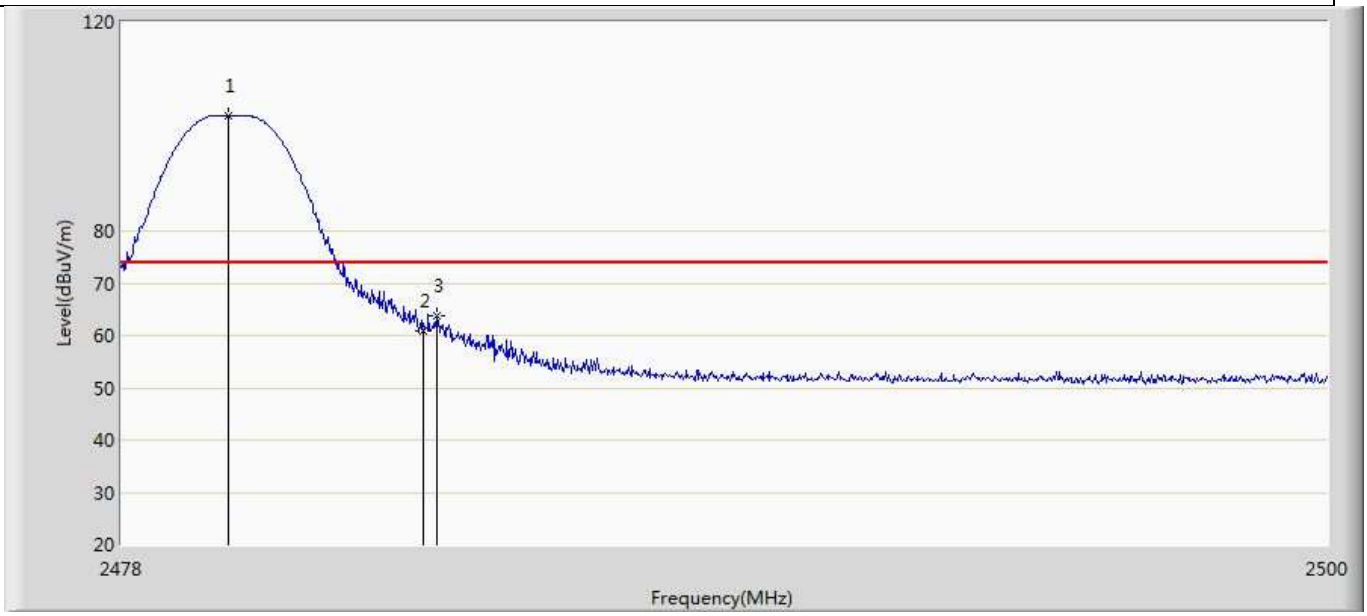
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.455	14.711	-23.545	74.000	35.745	PK
2	*	2402.245	100.624	64.538	N/A	N/A	36.086	PK

Profile: 20C0212R	Page No.: 12
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:43
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	



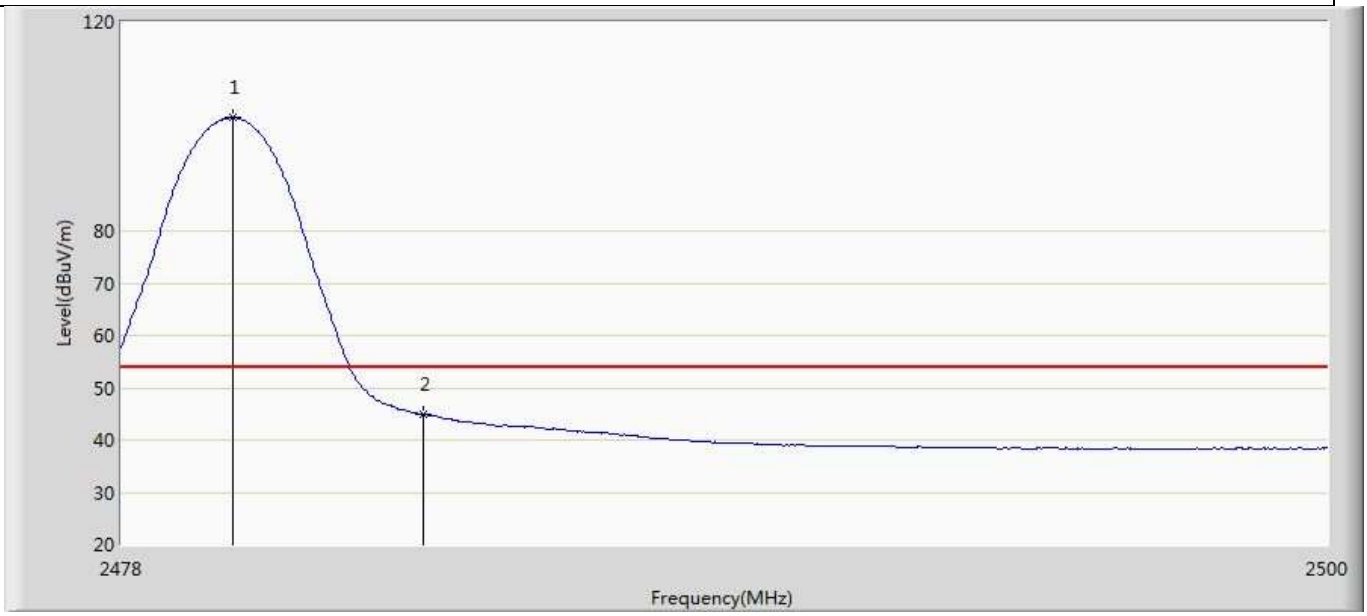
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2329.000	44.137	6.764	-9.863	54.000	37.374	AV
2		2390.000	38.883	3.139	-15.117	54.000	35.745	AV
3	*	2401.960	100.163	64.098	N/A	N/A	36.064	AV

Profile: 20C0212R	Page No.: 25
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:53
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	



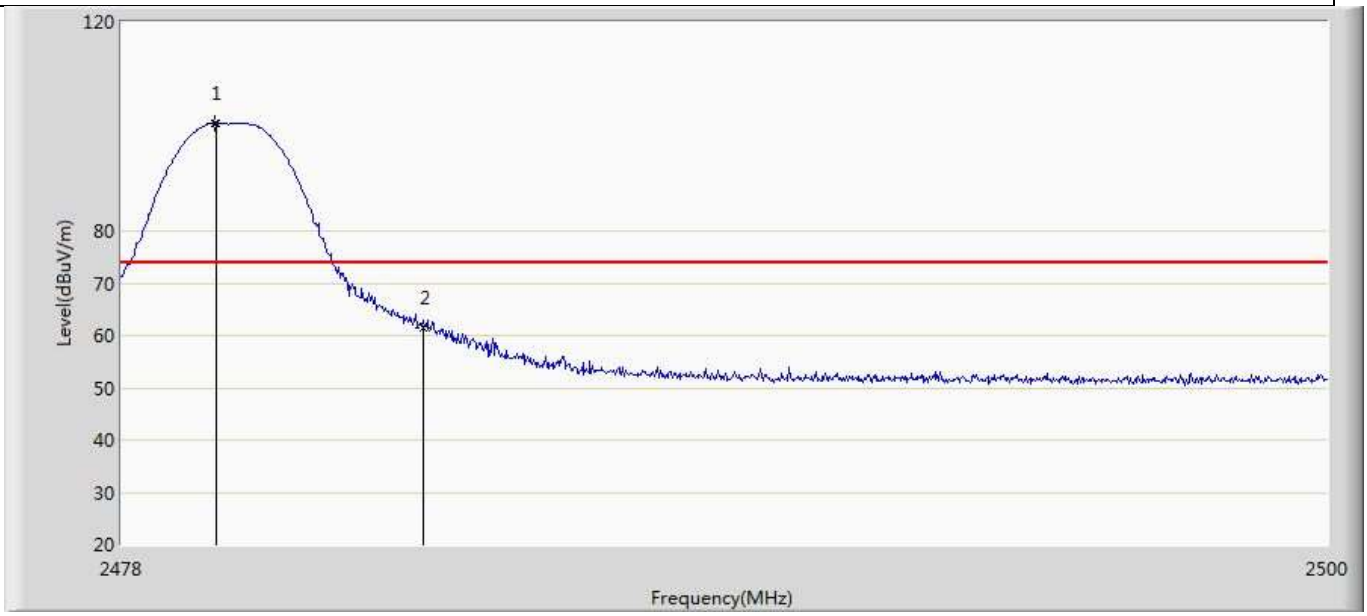
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.958	101.917	65.086	N/A	N/A	36.832	PK
2		2483.500	60.810	24.111	-13.190	74.000	36.699	PK
3		2483.742	63.704	27.014	-10.296	74.000	36.690	PK

Profile: 20C0212R	Page No.: 26
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



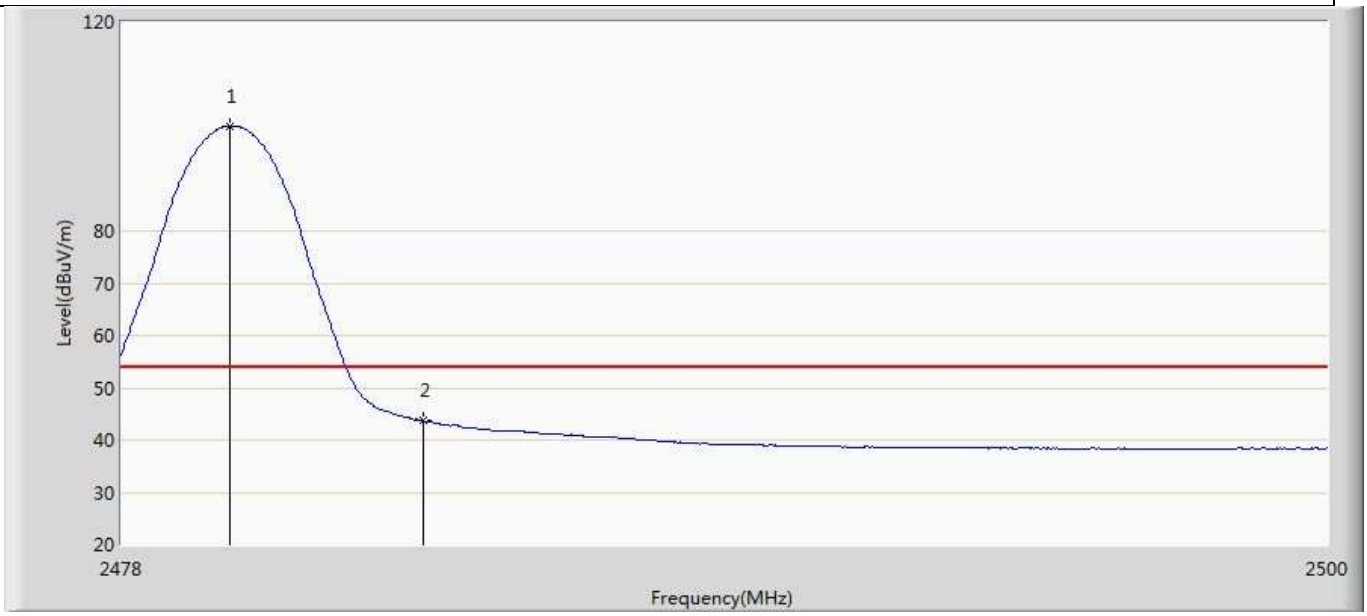
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.024	101.639	64.810	N/A	N/A	36.829	AV
2		2483.500	44.820	8.121	-9.180	54.000	36.699	AV

Profile: 20C0212R	Page No.: 27
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:14
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	



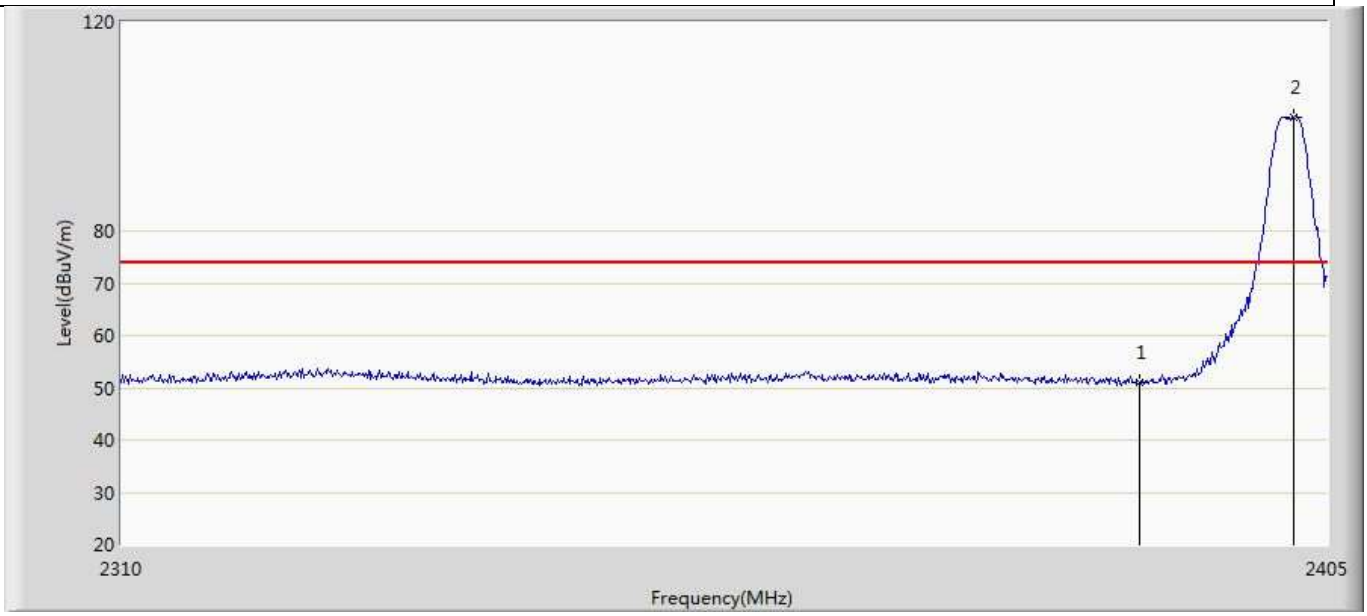
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.716	100.680	63.840	N/A	N/A	36.841	PK
2		2483.500	61.344	24.645	-12.656	74.000	36.699	PK

Profile: 20C0212R	Page No.: 28
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



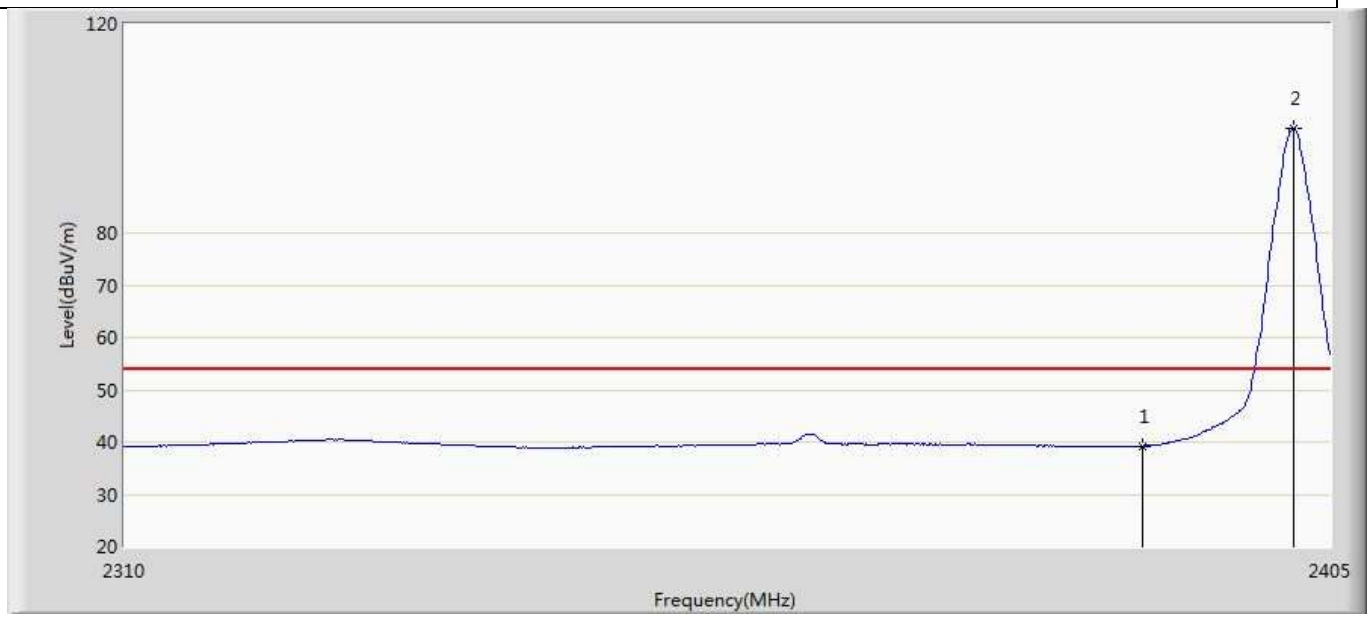
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.980	100.120	63.289	N/A	N/A	36.831	AV
2		2483.500	43.711	7.012	-10.289	54.000	36.699	AV

Profile: 20C0212R	Page No.: 13
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:44
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 2402MHz by LE_2Mbps	



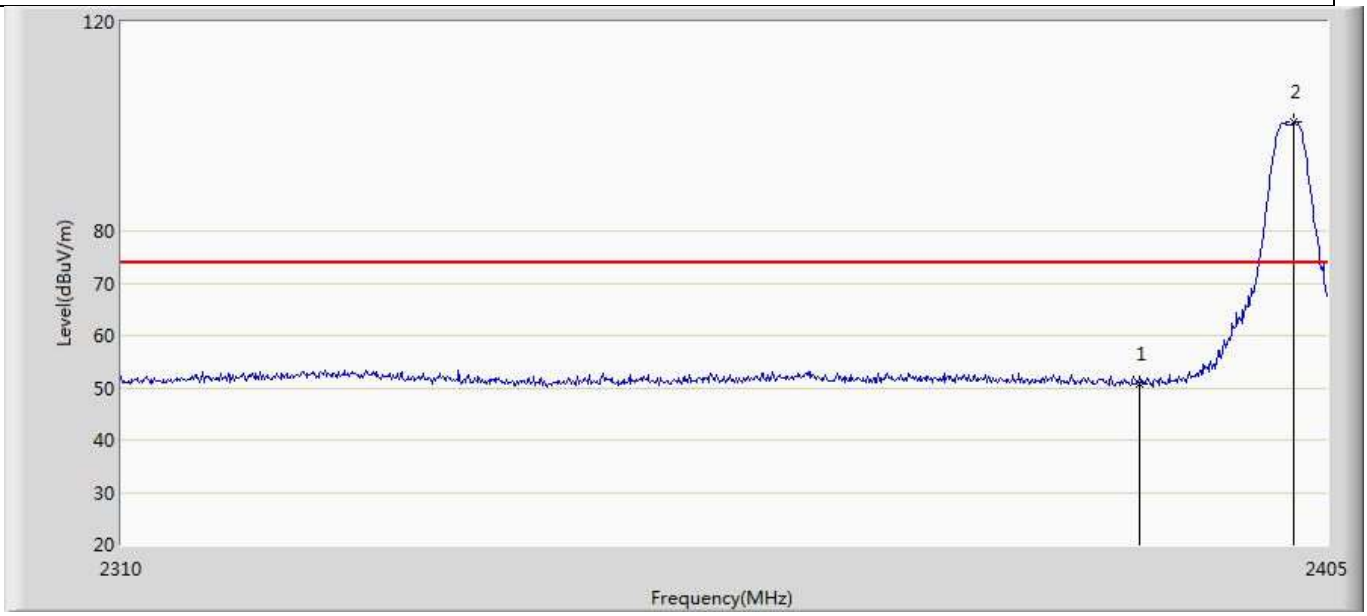
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.953	15.209	-23.047	74.000	35.745	PK
2	*	2402.340	101.844	65.751	N/A	N/A	36.093	PK

Profile: 20C0212R	Page No.: 14
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 22:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



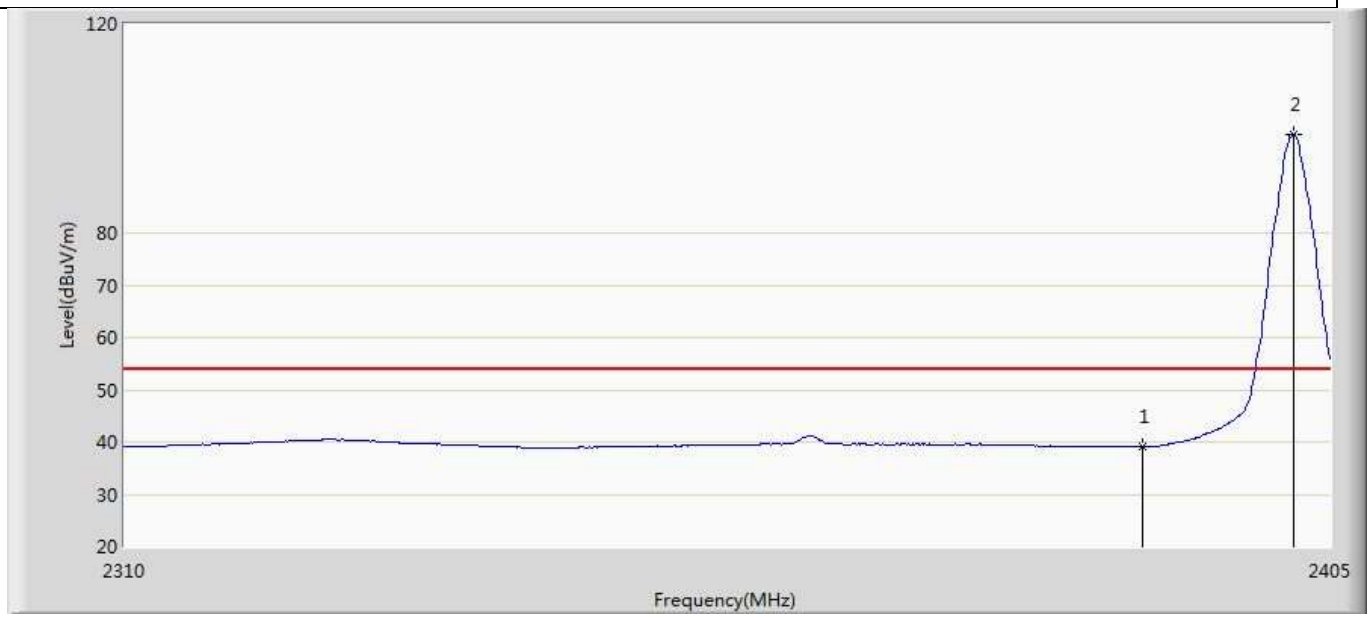
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	39.271	3.527	-14.729	54.000	35.745	AV
2	*	2402.055	100.087	64.015	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 15
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



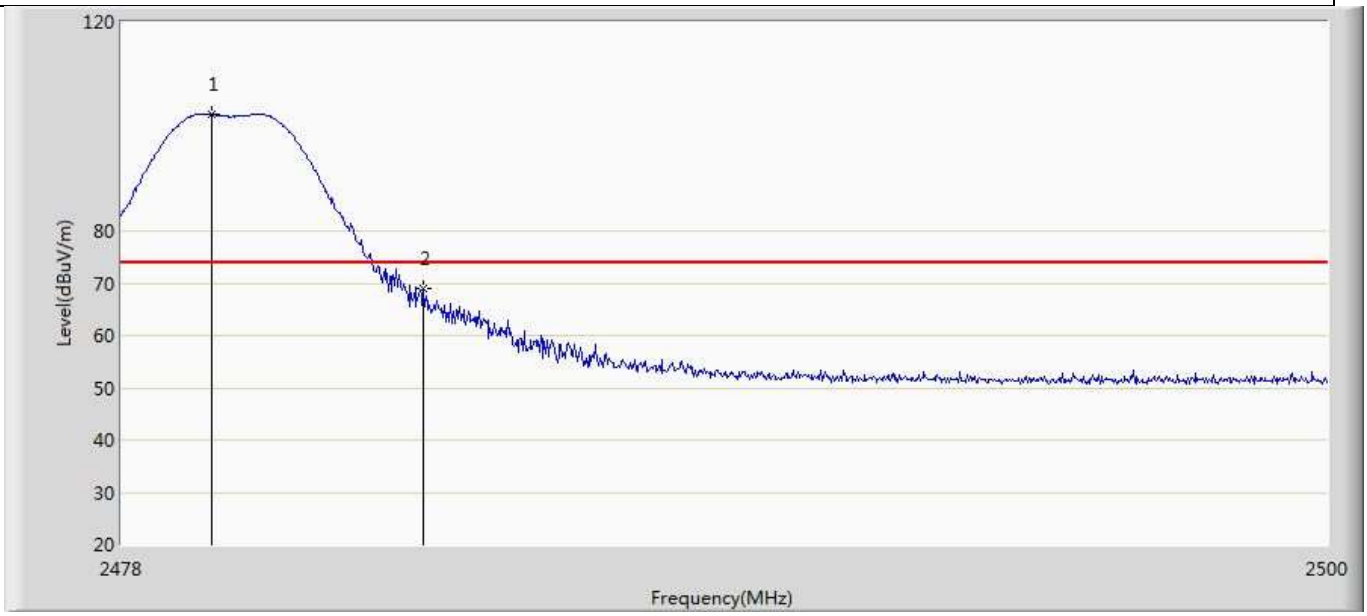
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.802	15.058	-23.198	74.000	35.745	PK
2	*	2402.340	100.749	64.656	N/A	N/A	36.093	PK

Profile: 20C0212R	Page No.: 16
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:08
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	



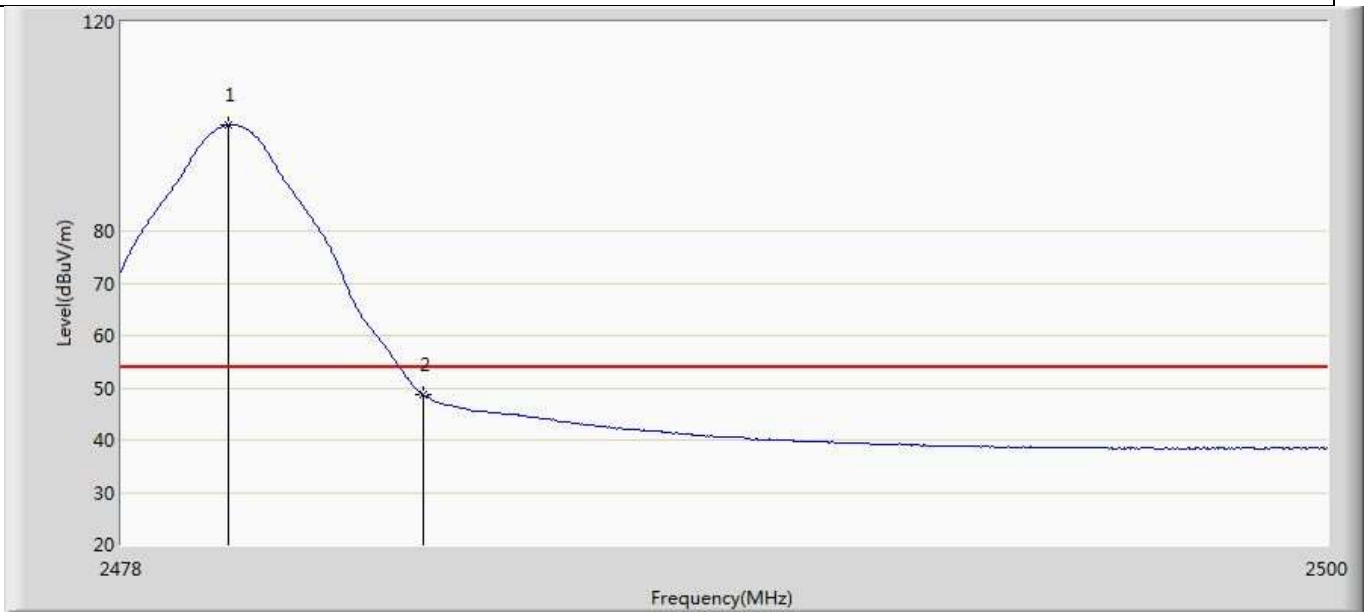
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	39.134	3.390	-14.866	54.000	35.745	AV
2	*	2402.055	98.963	62.891	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 29
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



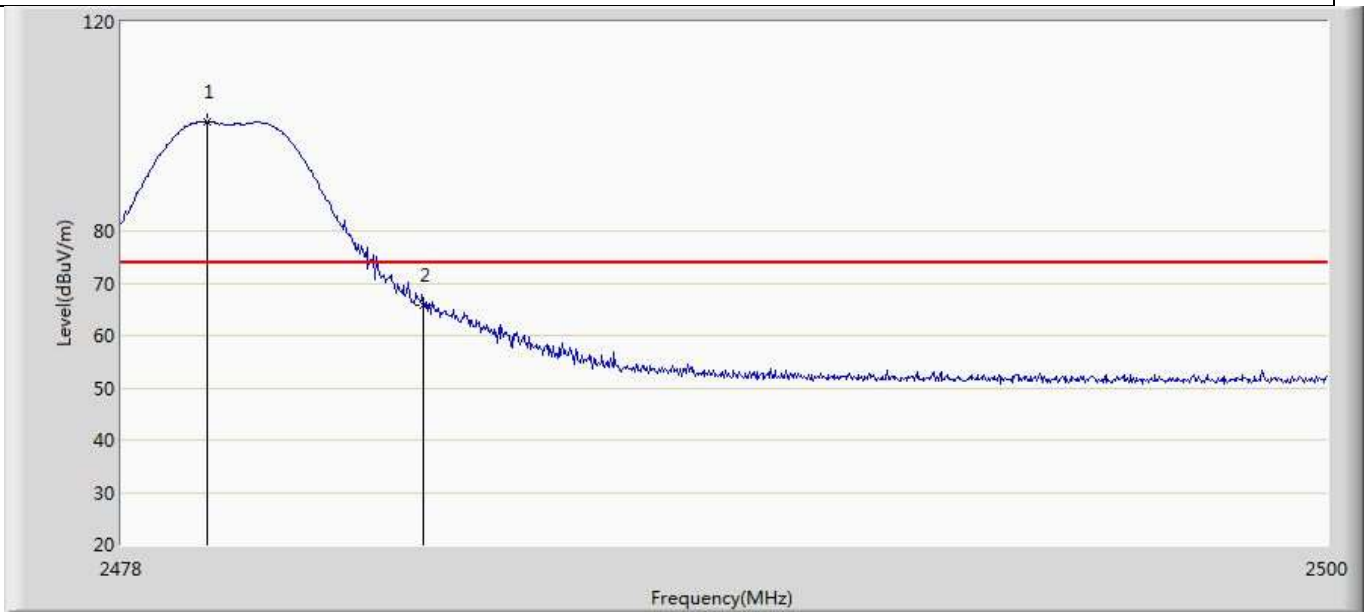
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.650	102.287	65.444	N/A	N/A	36.843	PK
2		2483.500	69.020	32.321	-4.980	74.000	36.699	PK

Profile: 20C0212R	Page No.: 30
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:19
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 2480MHz by LE_2Mbps	



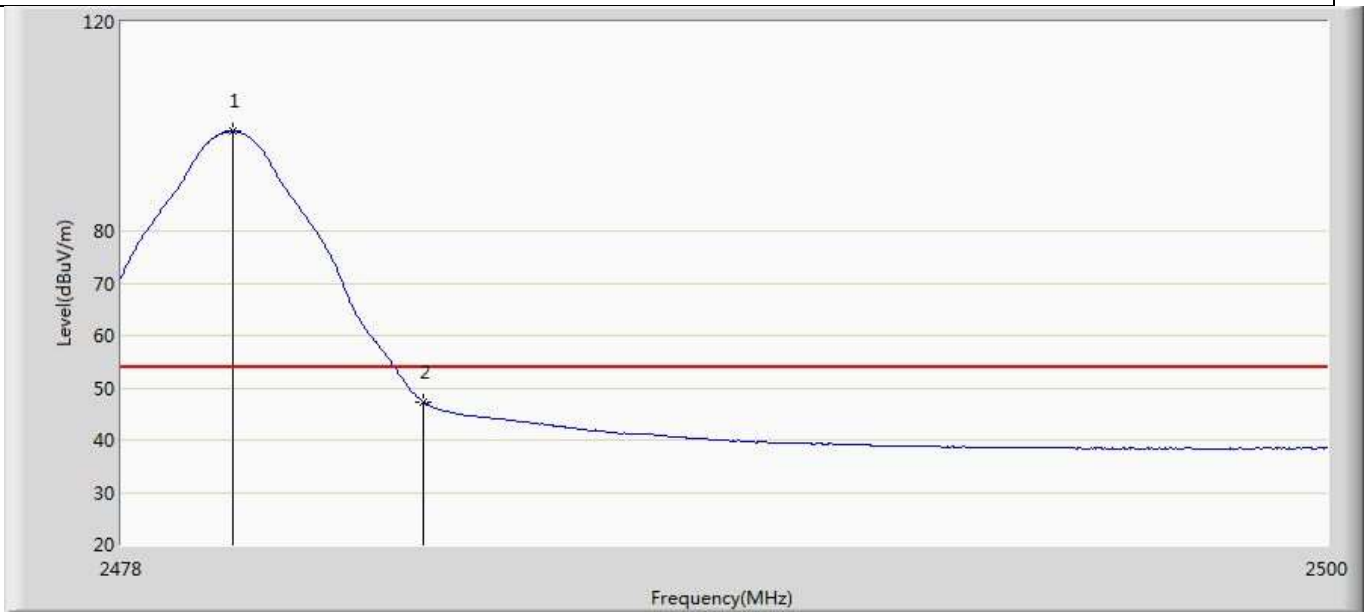
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.936	100.309	63.477	N/A	N/A	36.833	AV
2		2483.500	48.619	11.920	-5.381	54.000	36.699	AV

Profile: 20C0212R	Page No.: 31
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



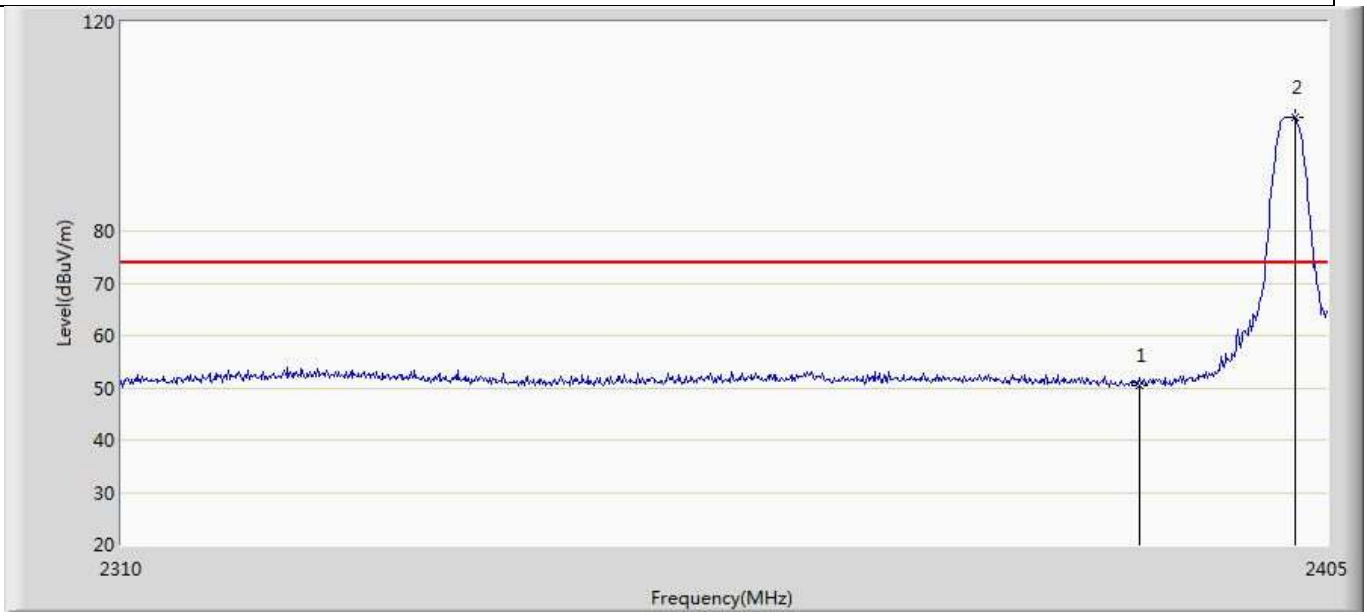
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.562	100.906	64.060	N/A	N/A	36.846	PK
2		2483.500	65.661	28.962	-8.339	74.000	36.699	PK

Profile: 20C0212R	Page No.: 32
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:35
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	



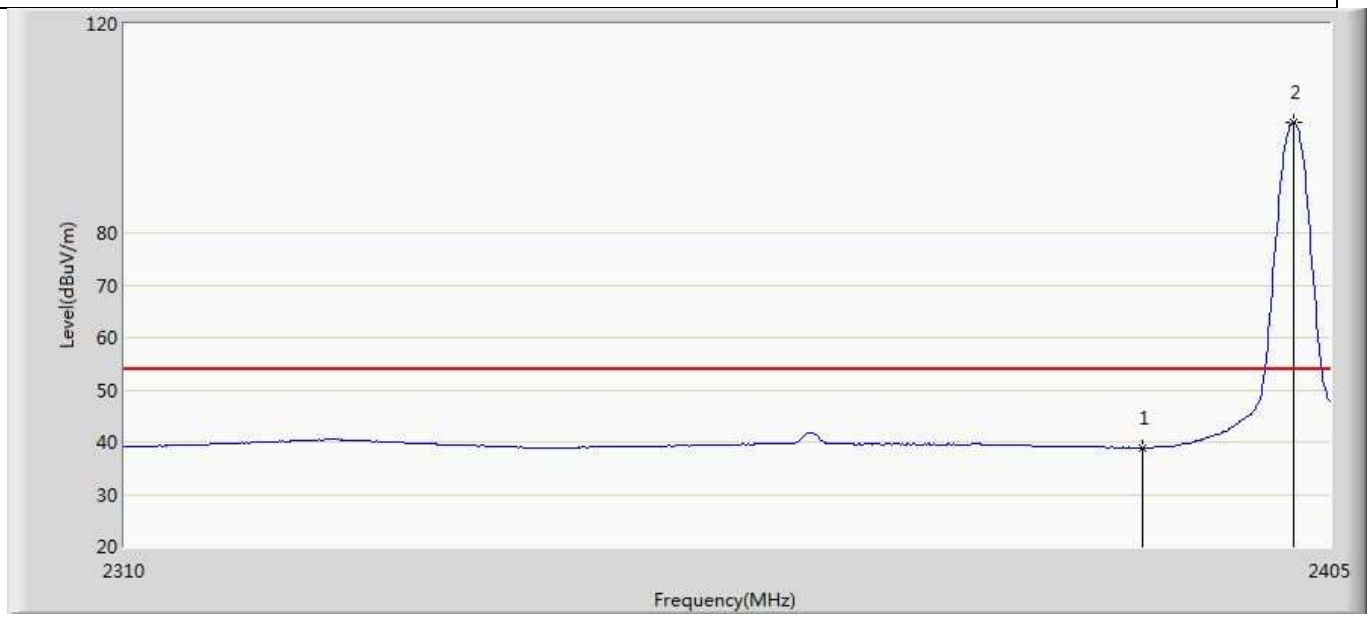
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.024	99.043	62.214	N/A	N/A	36.829	AV
2		2483.500	47.372	10.673	-6.628	54.000	36.699	AV

Profile: 20C0212R	Page No.: 21
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:31
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 3:Transmit at 2402MHz by LE_Coded S=2	



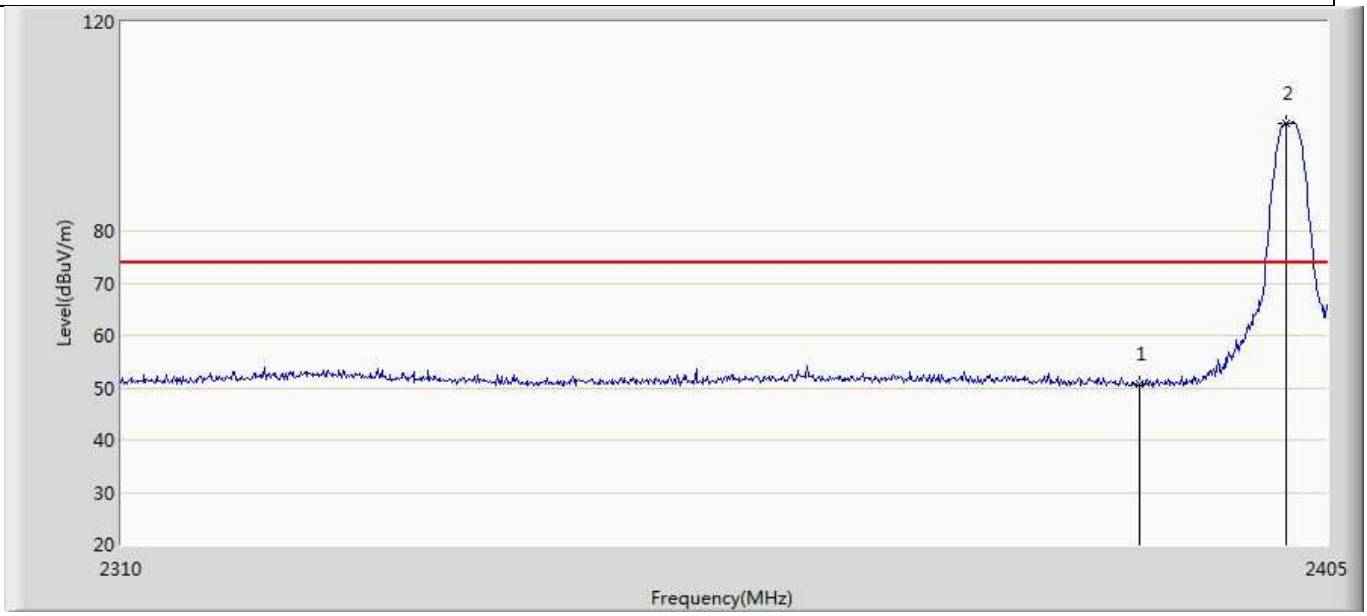
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.291	14.547	-23.709	74.000	35.745	PK
2	*	2402.435	101.675	65.575	N/A	N/A	36.100	PK

Profile: 20C0212R	Page No.: 22
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded S=2	



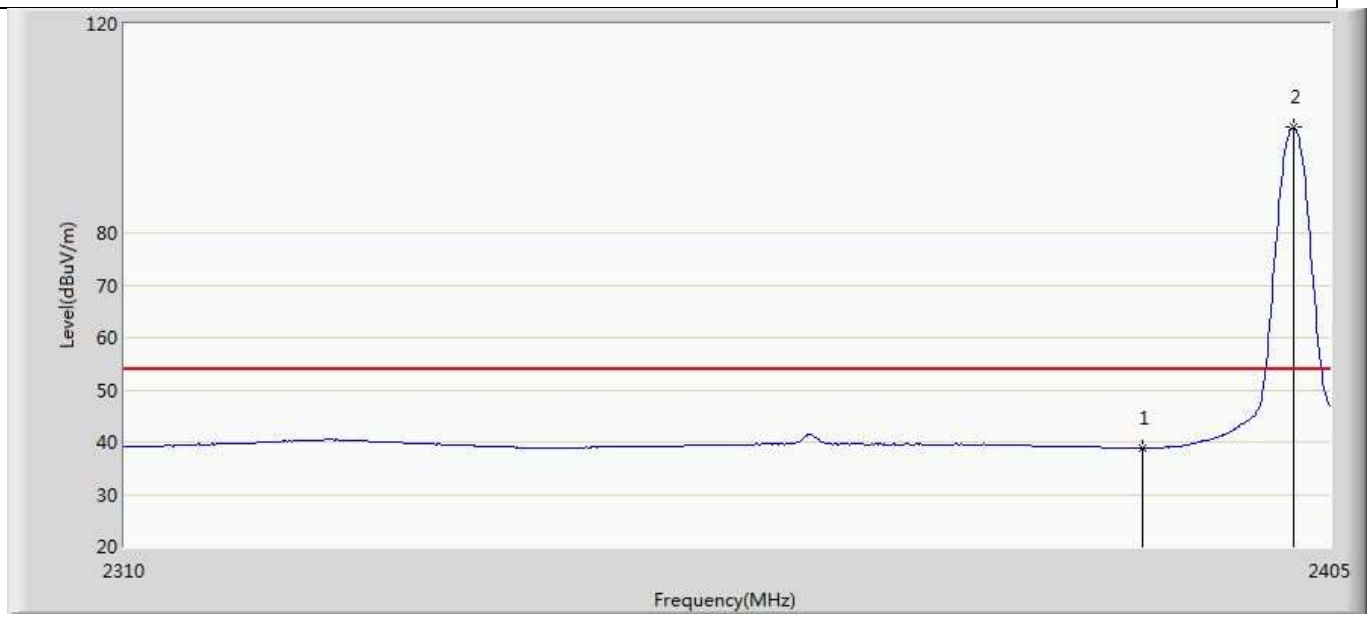
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.905	3.161	-15.095	54.000	35.745	AV
2	*	2402.055	101.183	65.111	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 23
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded S=2	



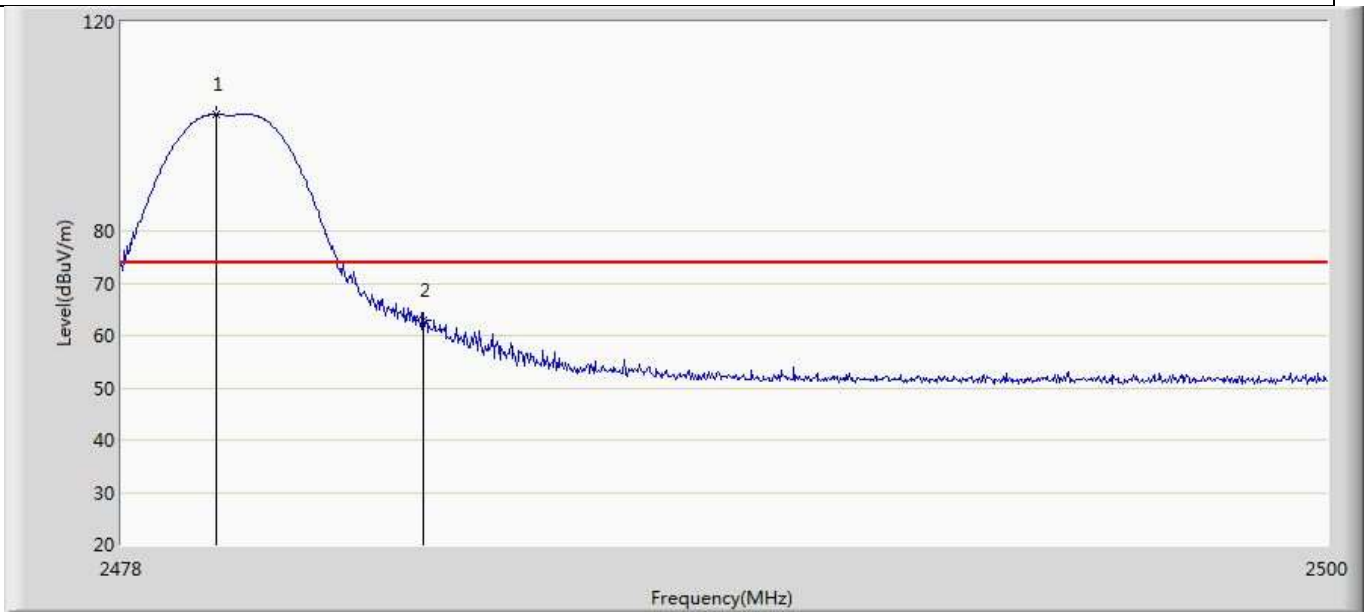
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.684	14.940	-23.316	74.000	35.745	PK
2	*	2401.770	100.698	64.647	N/A	N/A	36.050	PK

Profile: 20C0212R	Page No.: 24
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:51
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 3:Transmit at 2402MHz by LE_Coded S=2	



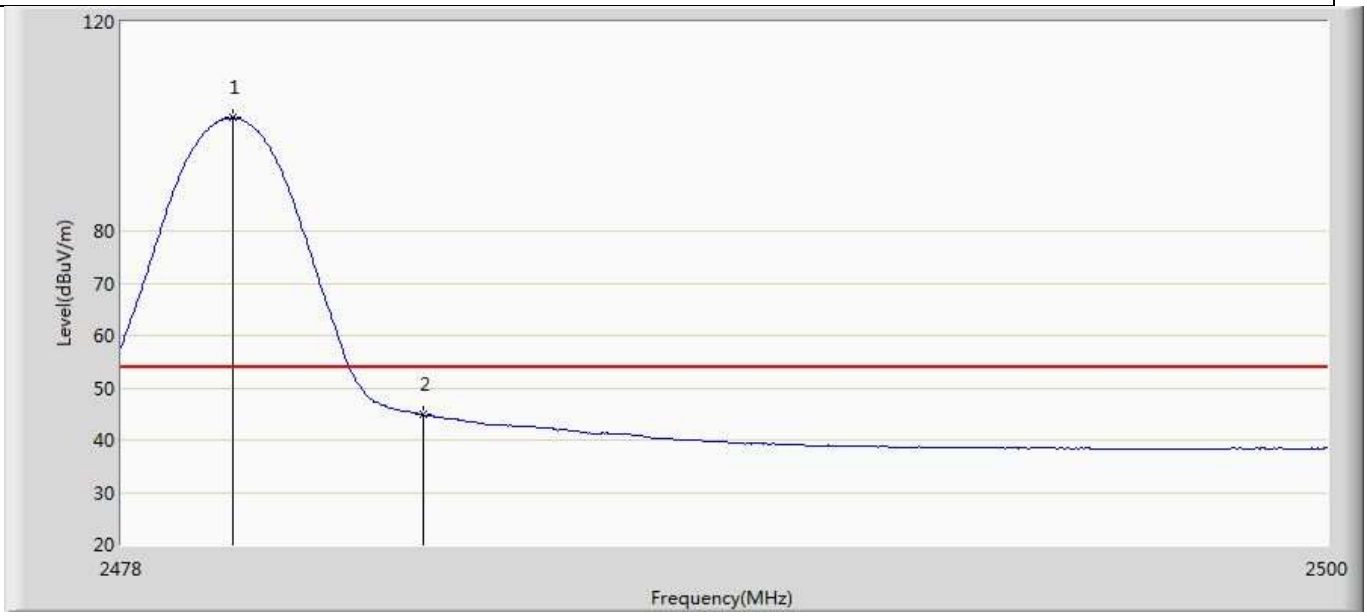
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.749	3.005	-15.251	54.000	35.745	AV
2	*	2402.055	100.161	64.089	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 37
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:58
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 3:Transmit at 2480MHz by LE_Coded S=2	



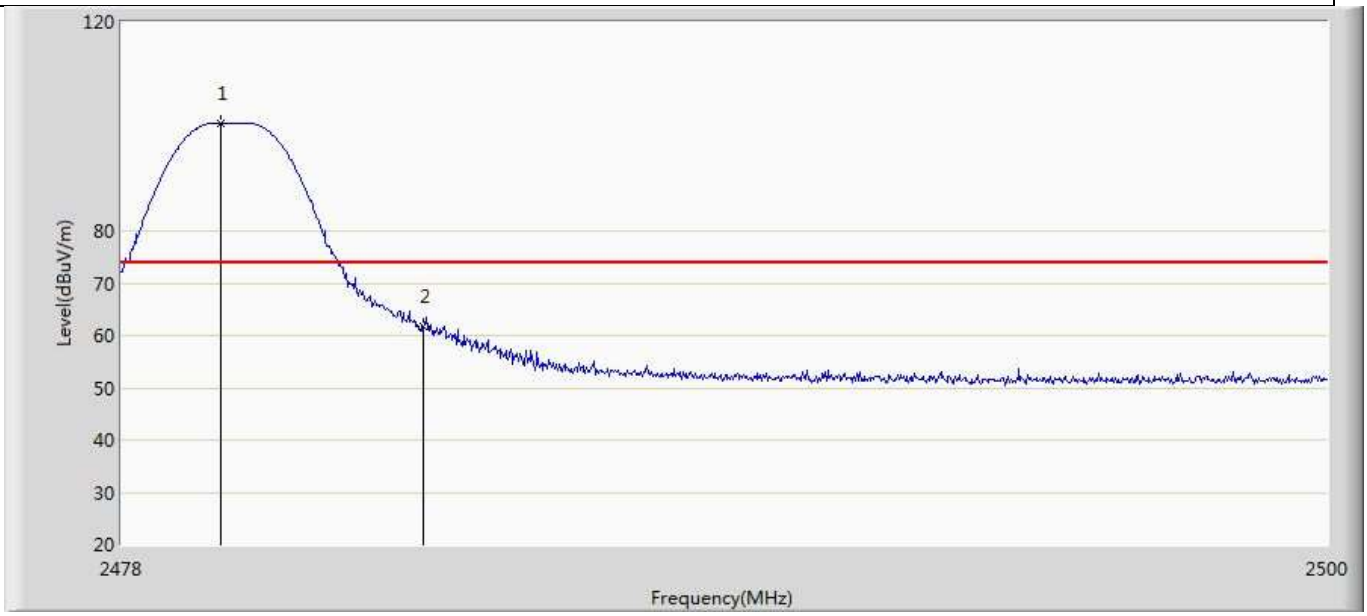
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.738	102.334	65.494	N/A	N/A	36.840	PK
2		2483.500	62.821	26.122	-11.179	74.000	36.699	PK

Profile: 20C0212R	Page No.: 38
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded S=2	



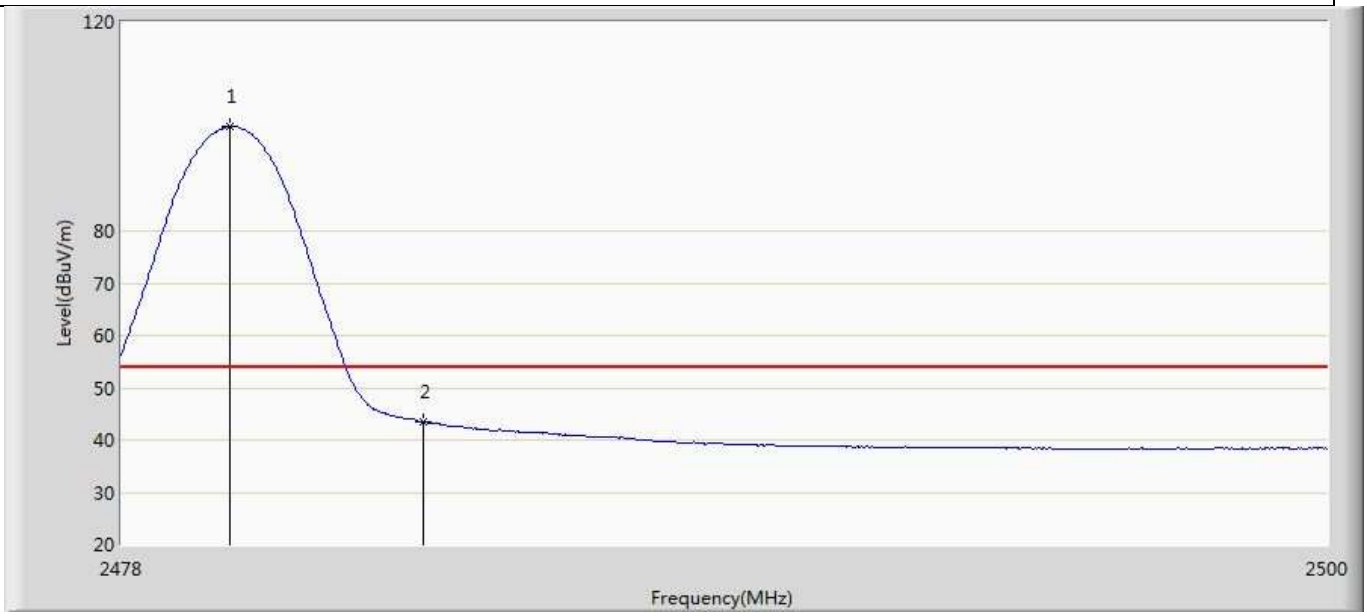
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.024	101.605	64.776	N/A	N/A	36.829	AV
2		2483.500	44.859	8.160	-9.141	54.000	36.699	AV

Profile: 20C0212R	Page No.: 39
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:16
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	



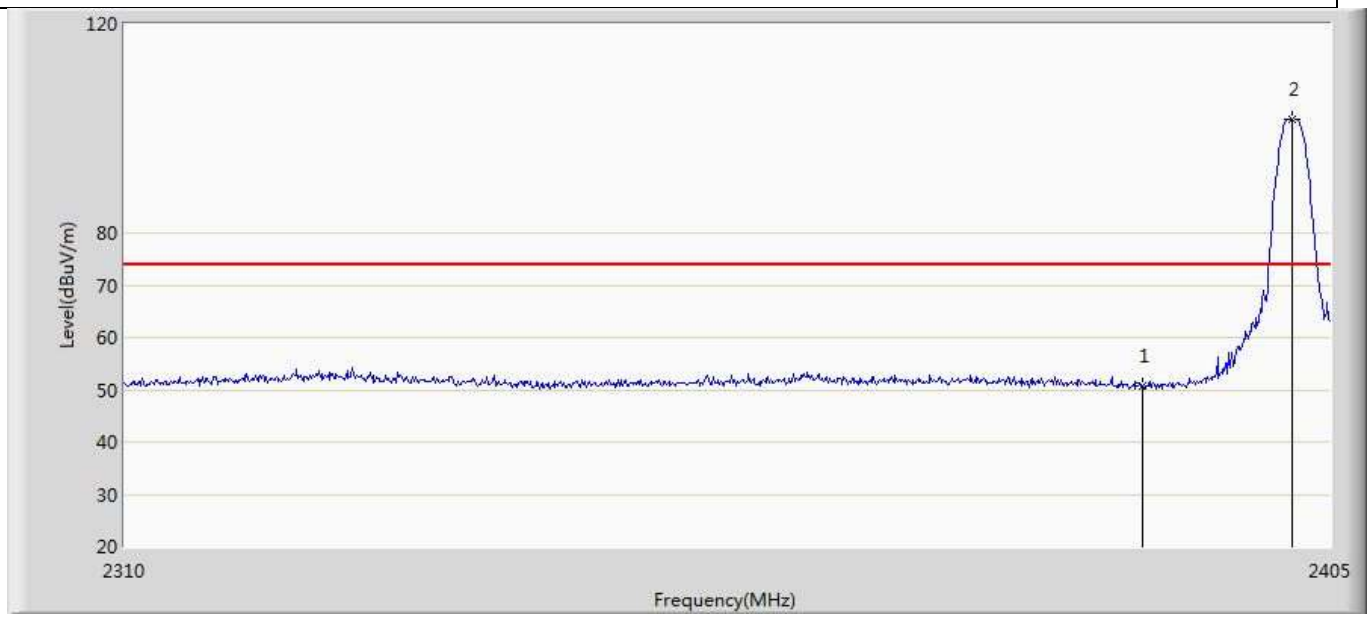
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.804	100.687	63.850	N/A	N/A	36.837	PK
2		2483.500	61.807	25.108	-12.193	74.000	36.699	PK

Profile: 20C0212R	Page No.: 40
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 01:17
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 2480MHz by LE_Coded S=2	



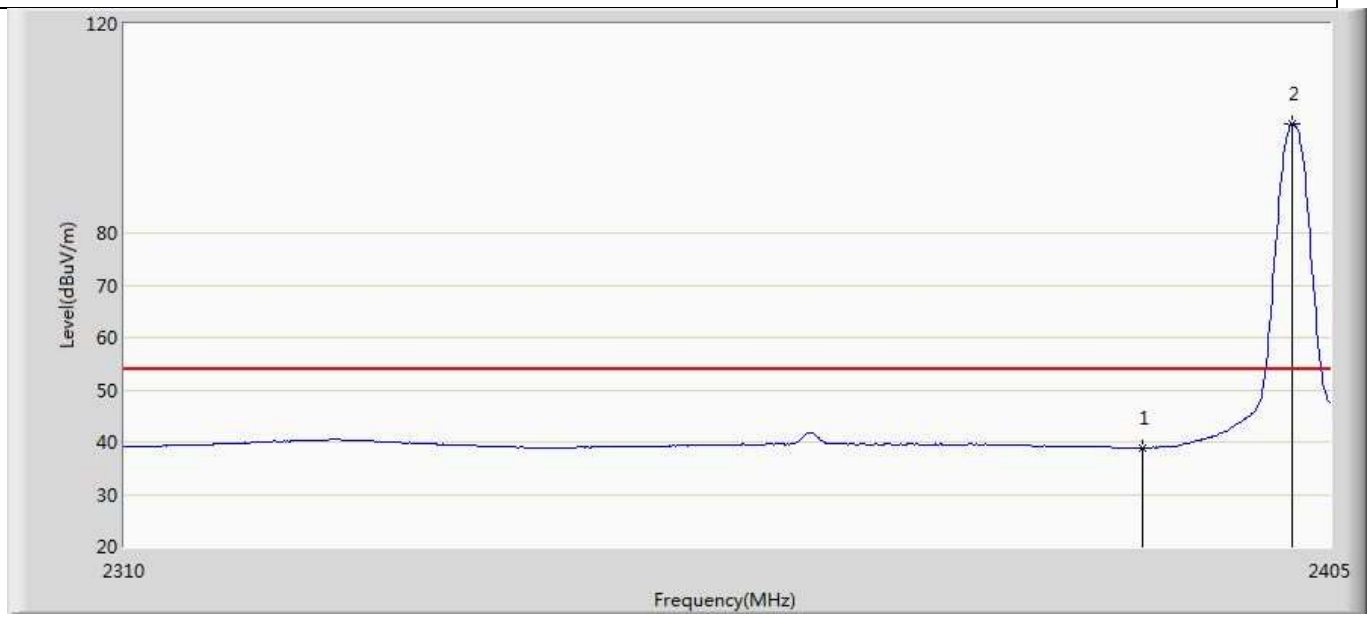
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.980	99.984	63.153	N/A	N/A	36.831	AV
2		2483.500	43.439	6.740	-10.561	54.000	36.699	AV

Profile: 20C0212R	Page No.: 17
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:11
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	



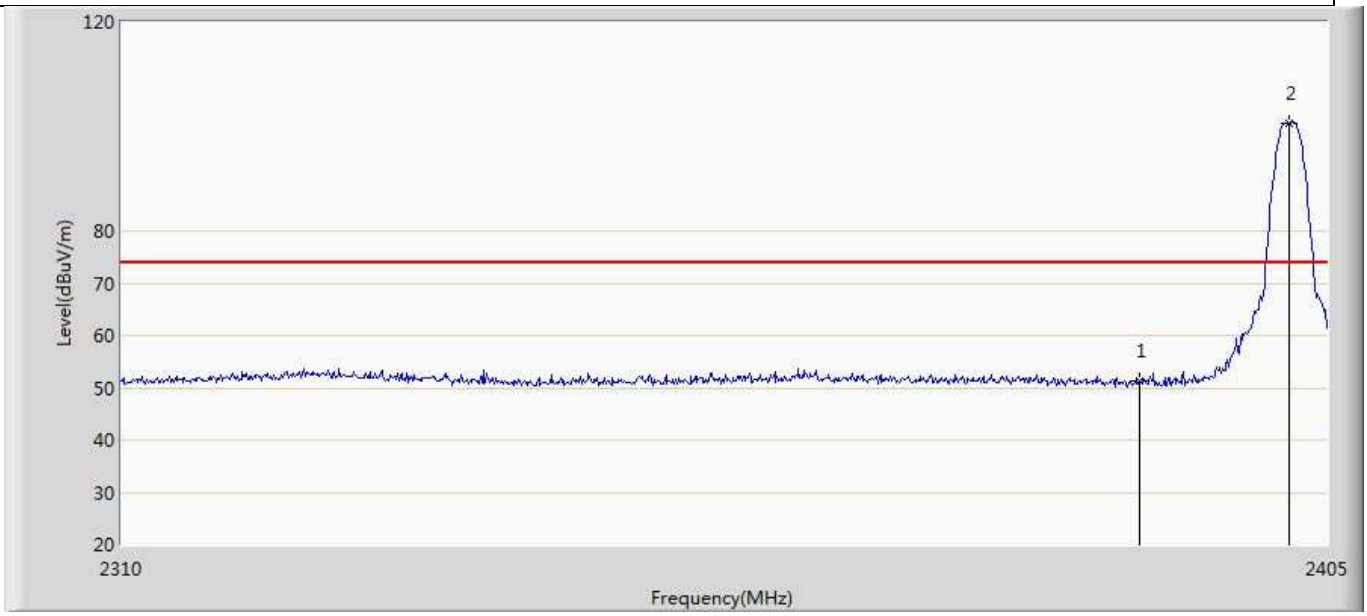
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.777	15.033	-23.223	74.000	35.745	PK
2	*	2401.960	101.602	65.537	N/A	N/A	36.064	PK

Profile: 20C0212R	Page No.: 18
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:12
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 4:Transmit at 2402MHz by LE_Coded S=8	



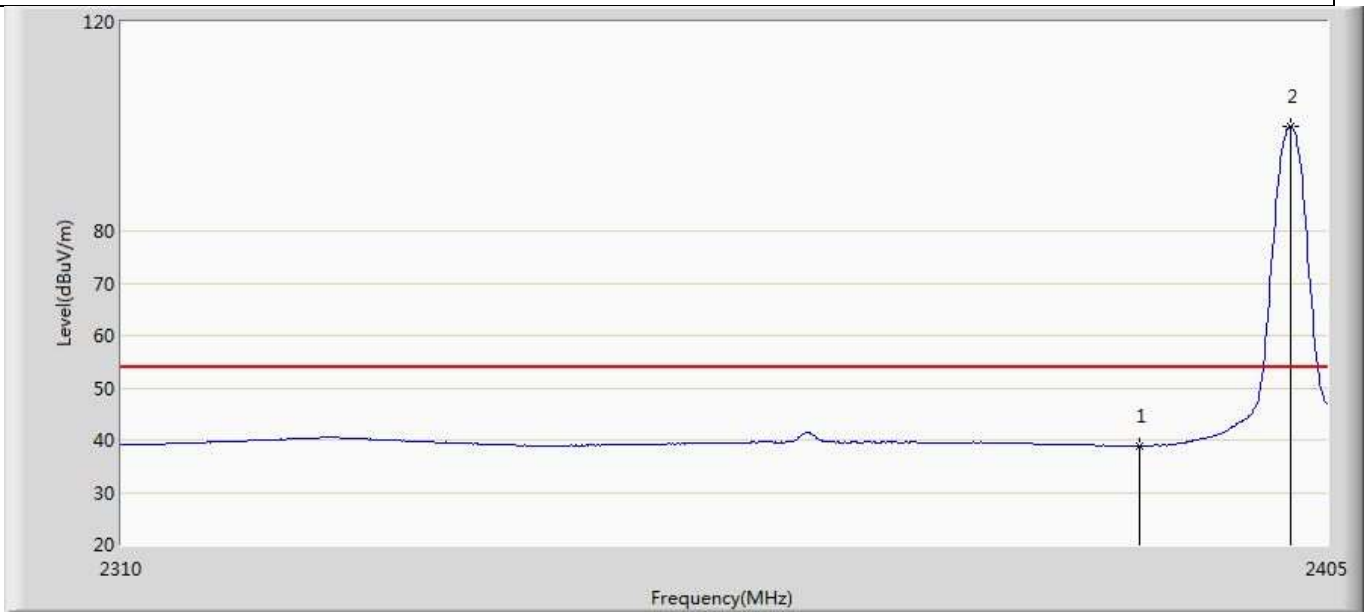
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.877	3.133	-15.123	54.000	35.745	AV
2	*	2401.960	100.960	64.895	N/A	N/A	36.064	AV

Profile: 20C0212R	Page No.: 19
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded S=8	



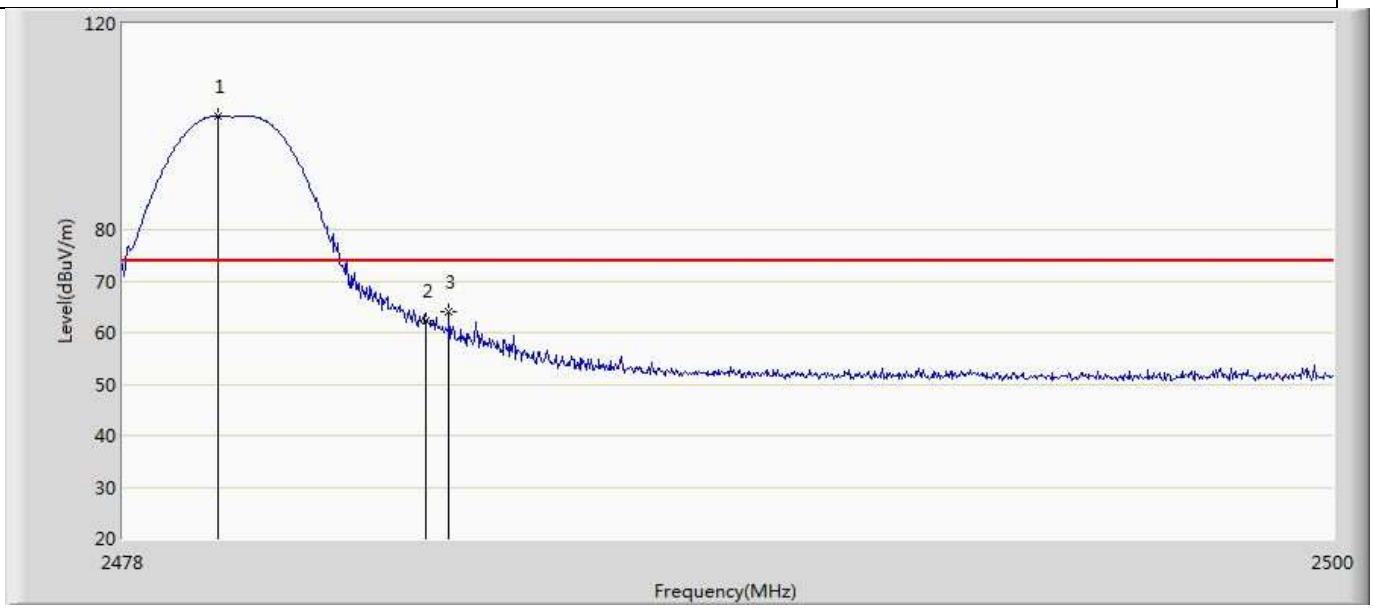
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.366	15.622	-22.634	74.000	35.745	PK
2	*	2401.960	100.599	64.534	N/A	N/A	36.064	PK

Profile: 20C0212R	Page No.: 20
Engineer: YULIU	
Site: AC5	Time: 2020/12/29 - 23:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded S=8	



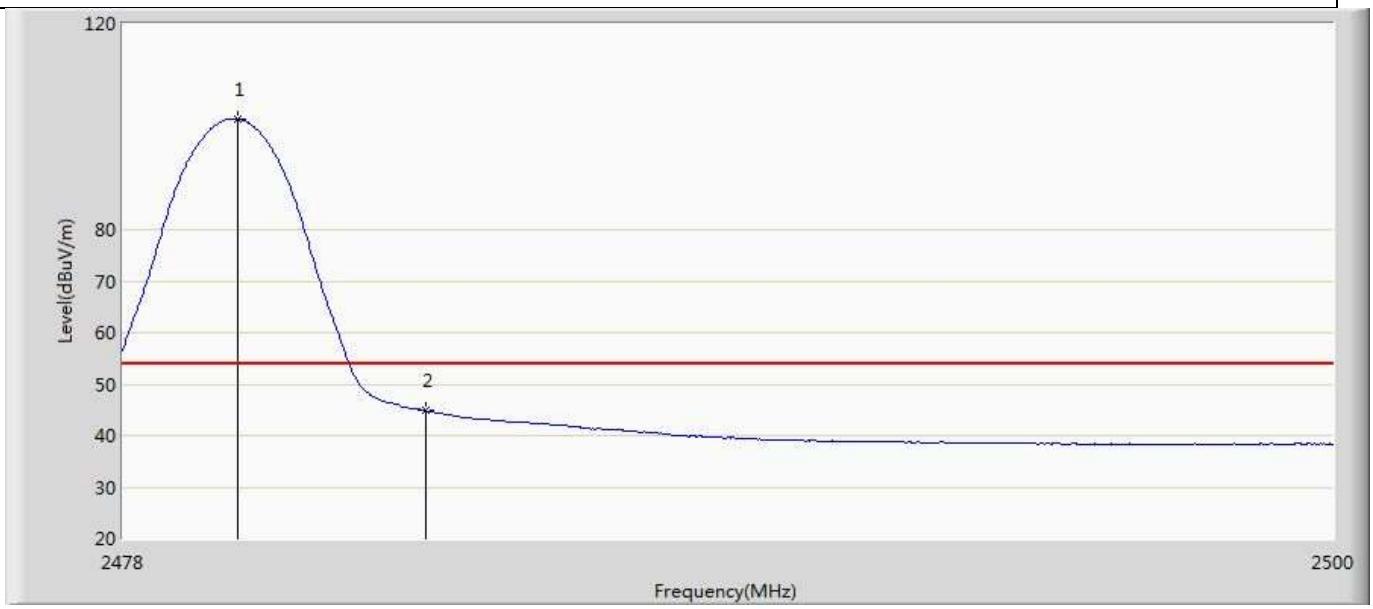
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.806	3.062	-15.194	54.000	35.745	AV
2	*	2402.055	100.065	63.993	N/A	N/A	36.071	AV

Profile: 20C0212R	Page No.: 33
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:36
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	



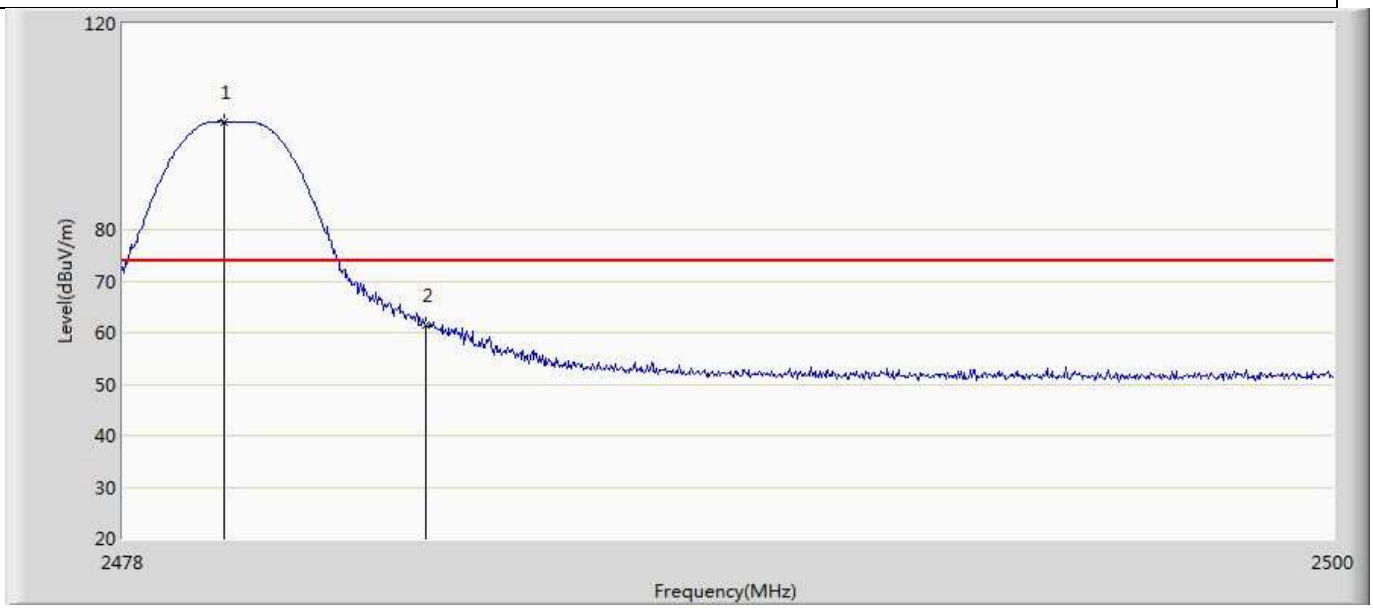
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.738	101.958	65.118	N/A	N/A	36.840	PK
2		2483.500	62.357	25.658	-11.643	74.000	36.699	PK
3		2483.918	64.166	27.482	-9.834	74.000	36.684	PK

Profile: 20C0212R	Page No.: 34
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded S=8	



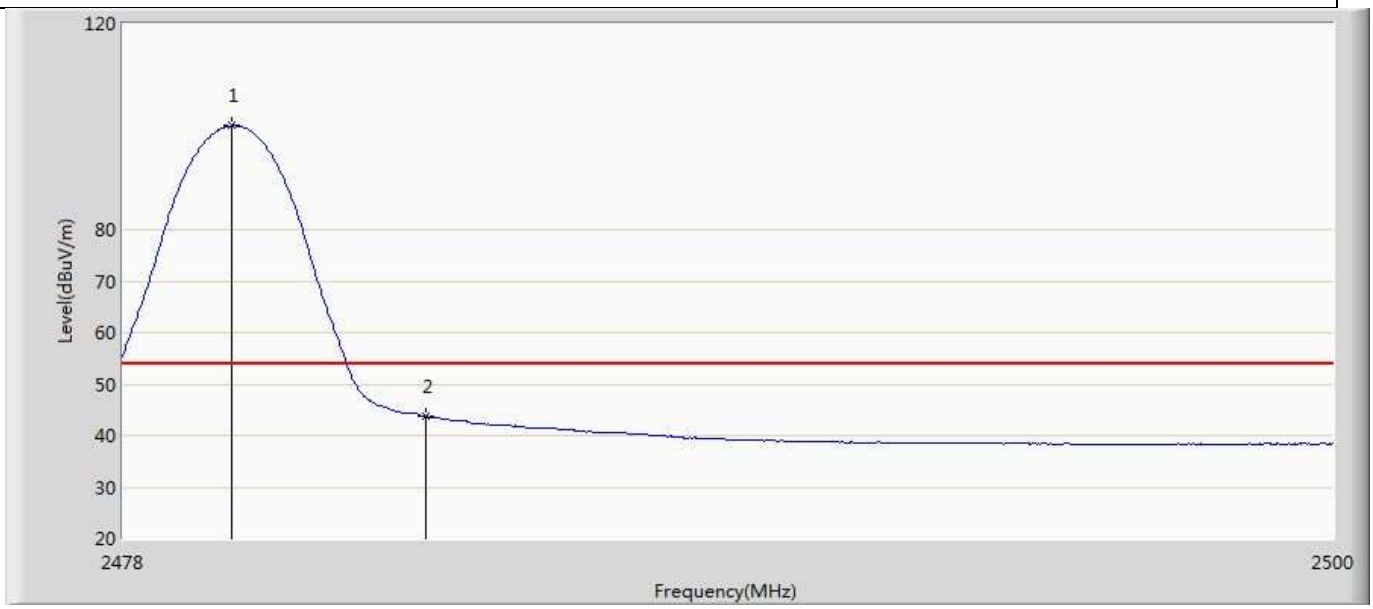
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.090	101.413	64.587	N/A	N/A	36.827	AV
2		2483.500	44.816	8.117	-9.184	54.000	36.699	AV

Profile: 20C0212R	Page No.: 35
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED Lamp	Power: AC 120V/60Hz
Note: Mode 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	*	2479.848	100.957	64.122	N/A	N/A	36.836	PK
2		2483.500	61.591	24.892	-12.409	74.000	36.699	PK

Profile: 20C0212R	Page No.: 36
Engineer: YULIU	
Site: AC5	Time: 2020/12/30 - 00:57
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 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	100.153	63.322	N/A	N/A	36.831	AV
2		2483.500	43.693	6.994	-10.307	54.000	36.699	AV

Note:

1. Measured Level = Reading Level + Factor.
2. As the radiated emission was performed, so conducted emission was not tested.

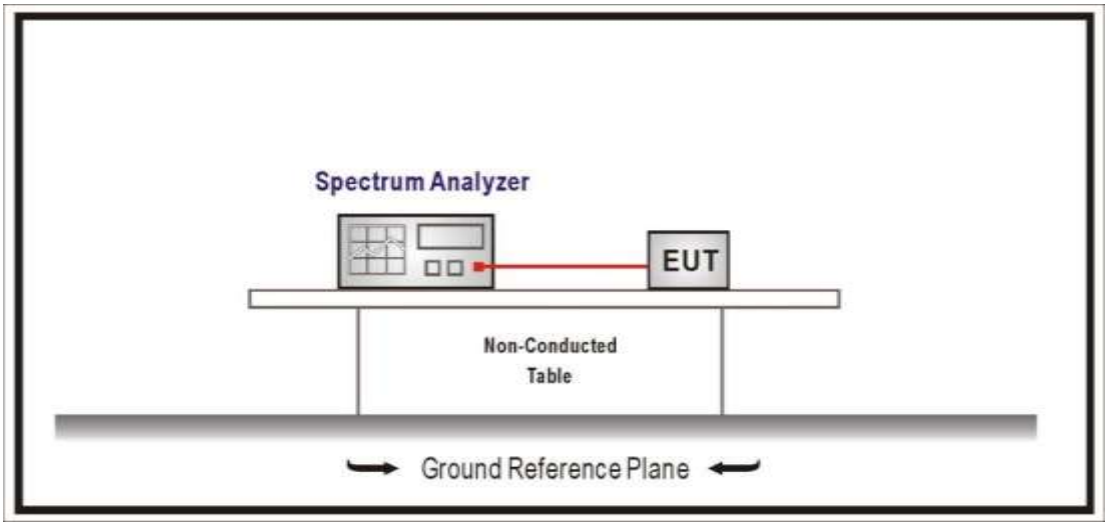
4.6 DTS Bandwidth — VERDICT: PASS

4.6.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2)

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

4.6.2 Test Setup



4.6.3 Test Procedure

	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

4.6.4 Test Data

Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	37	2402	693.8	>500	Pass
	18	2440	690.1	>500	Pass
	39	2480	690.6	>500	Pass
2	37	2402	1349.0	>500	Pass
	18	2440	1347.0	>500	Pass
	39	2480	1348.0	>500	Pass
3	37	2402	779.3	>500	Pass
	18	2440	776.7	>500	Pass
	39	2480	772.7	>500	Pass
4	37	2402	749.0	>500	Pass
	18	2440	747.3	>500	Pass
	39	2480	745.6	>500	Pass

Note : The worst case of Occupied Bandwidth as below:

6dB Occupied Bandwidth

Mode 1 / CH18 (2440MHz)

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	Limit	Result
1	37	2402	1049.0	Within frequency range	Pass
	18	2440	1043.5	Within frequency range	Pass
	39	2480	1042.5	Within frequency range	Pass
2	37	2402	2127.5	Within frequency range	Pass
	18	2440	2129.0	Within frequency range	Pass
	39	2480	2133.7	Within frequency range	Pass
3	37	2402	1089.2	Within frequency range	Pass
	18	2440	1089.3	Within frequency range	Pass
	39	2480	1088.2	Within frequency range	Pass
4	37	2402	1122.5	Within frequency range	Pass
	18	2440	1122.0	Within frequency range	Pass
	39	2480	1119.3	Within frequency range	Pass

Note : The worst case of Occupied Bandwidth as below:

99% Occupied Bandwidth

Mode 2 / CH37 (2402MHz)

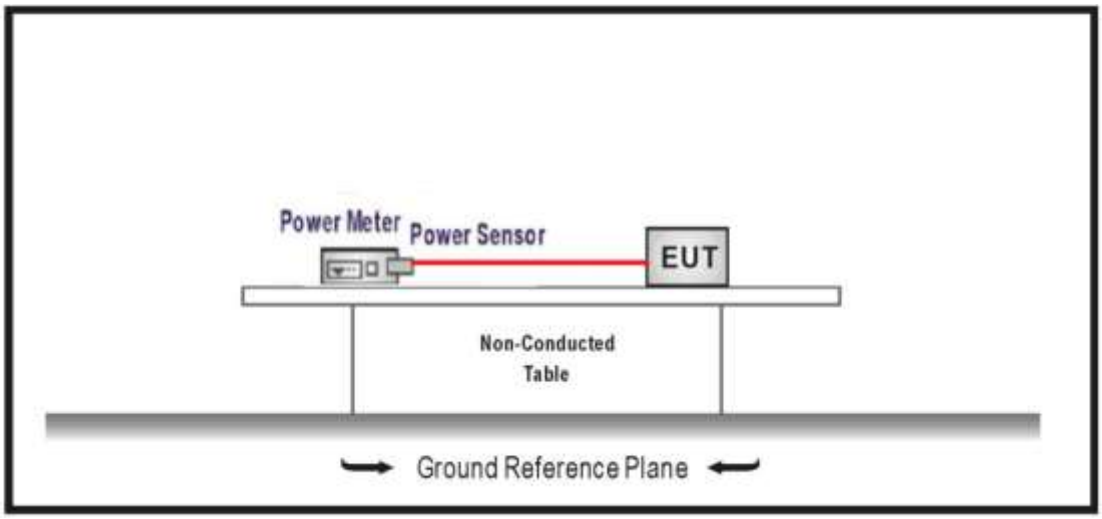
4.7 Fundamental emission output power — VERDICT: PASS

4.7.1 Limit

Standard			FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
☒	GTX ＜6dBi		Pout≤30dBm
☐	GTX ＞6dBi		
	☐	Non-Fix point-point	Pout≤30-(GTX -6)
	☐	Fix point-point	Pout≤30-[(GTX-6)]/3
	☐	Point-to-multipoint	Pout≤30-(GTX-6)
	☐	Overlap Beams	Pout≤30-[(GTX-6)]/3
	☐	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3
	☐	single directional beam	Pout≤30-[(GTX-6)]/3+8dB

Note 1 : GTX directional gain of transmitting antennas.
Note 2 : Pout is maximum peak conducted output power .

4.7.2 Test Setup



4.7.3 Test Procedure

	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

4.7.4 Test Data

crystal oscillator #1:

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	Result
Mode 1	37	2402	10.38	≤30	Pass
	18	2440	10.37	≤30	Pass
	39	2480	10.34	≤30	Pass
Mode 2	37	2402	10.63	≤30	Pass
	18	2440	10.61	≤30	Pass
	39	2480	10.70	≤30	Pass
Mode 3	37	2402	10.70	≤30	Pass
	18	2440	10.70	≤30	Pass
	39	2480	10.69	≤30	Pass
Mode 4	37	2402	10.69	≤30	Pass
	18	2440	10.69	≤30	Pass
	39	2480	10.66	≤30	Pass

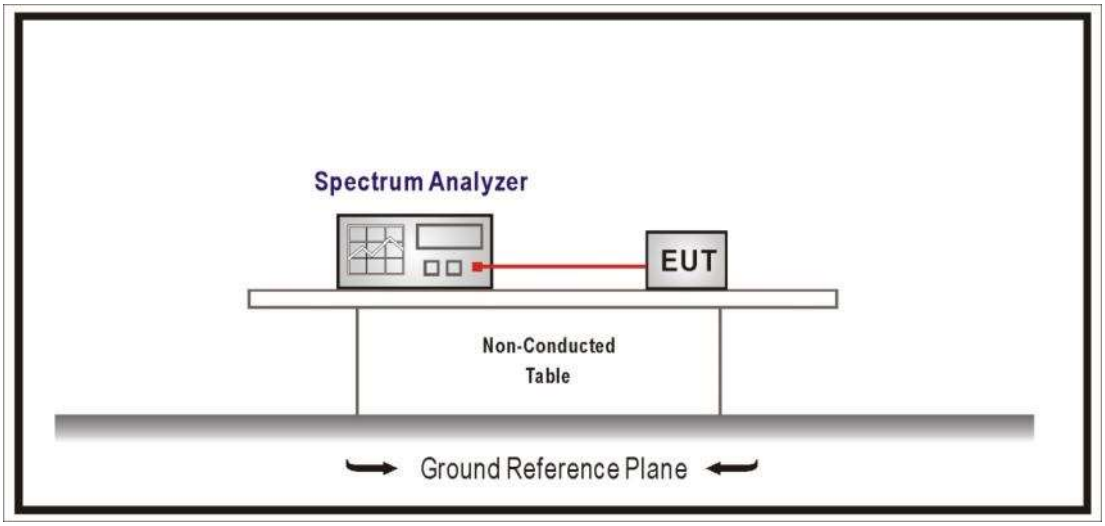
crystal oscillator #2:

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	Result
Mode 1	37	2402	10.34	≤30	Pass
	18	2440	10.22	≤30	Pass
	39	2480	10.23	≤30	Pass
Mode 2	37	2402	10.52	≤30	Pass
	18	2440	10.51	≤30	Pass
	39	2480	10.41	≤30	Pass
Mode 3	37	2402	10.61	≤30	Pass
	18	2440	10.62	≤30	Pass
	39	2480	10.54	≤30	Pass
Mode 4	37	2402	10.67	≤30	Pass
	18	2440	10.66	≤30	Pass
	39	2480	10.55	≤30	Pass

4.8 Power Density	VERDICT: PASS

4.8.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
Power Spectral Density≤8dBm/3kHz	

4.8.2 Test Setup



4.8.3 Test Procedure

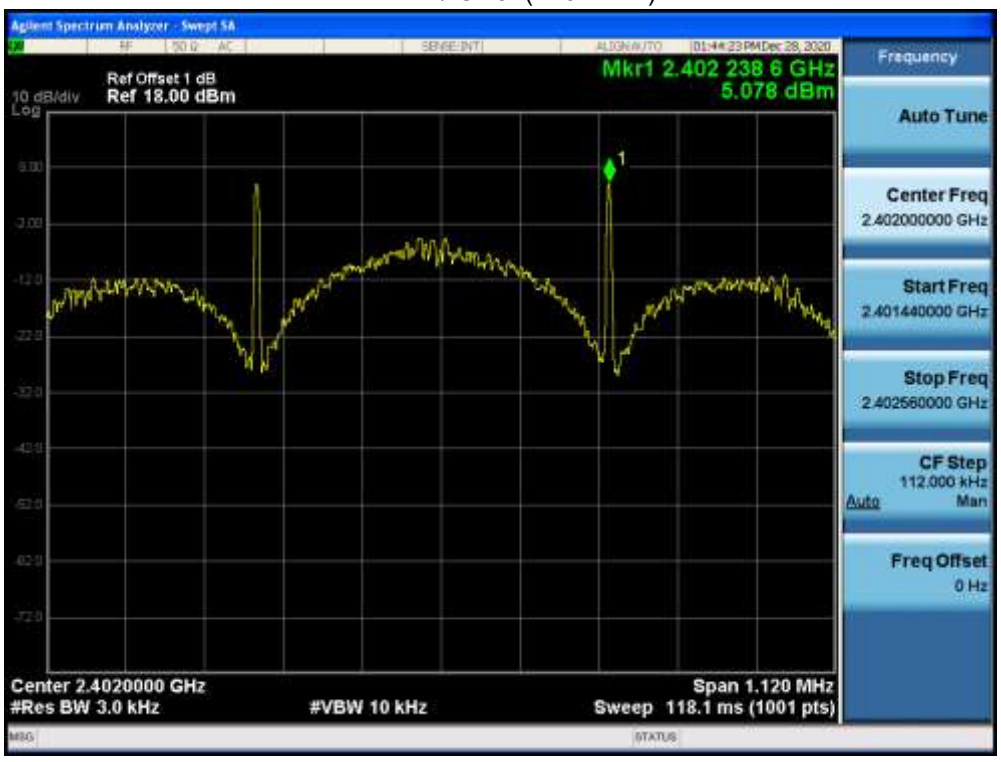
	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
	☒	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	☐	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle≥98%)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle≥98%)
	☐	ANSI C63.10	11.10.5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

4.8.4 Test Data

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
Mode 1	37	2402	-5.004	≤8	Pass
	18	2440	-4.972	≤8	Pass
	39	2480	-5.002	≤8	Pass
Mode 2	37	2402	-7.308	≤8	Pass
	18	2440	-7.365	≤8	Pass
	39	2480	-7.376	≤8	Pass
Mode 3	37	2402	-7.055	≤8	Pass
	18	2440	-7.004	≤8	Pass
	39	2480	-6.975	≤8	Pass
Mode 4	37	2402	5.078	≤8	Pass
	18	2440	4.860	≤8	Pass
	39	2480	4.866	≤8	Pass

Note : The worst case of PSD as below:

Mode 4 / CH37(2402MHz)



4.9 Antenna Requirement	VERDICT: PASS

4.9.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.203
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.	

4.9.2 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.	

5 TEST SETUP PHOTO AND EUT PHOTO

Remark: The test setup photo and EUT Photo please see appendix.

The End