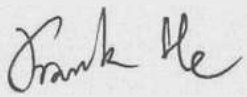
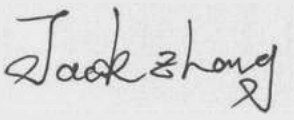
DEKRA Testing and Certification (Suzhou) Co., Ltd.
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
www.dekra-certification.com

Test report No:
1992203R-RF-US-P06V01

FCC TEST REPORT & IC TEST REPORT

Product Name	Hue Outdoor light strip 2m
Trademark	PHILIPS
FCC ID	2AGBW9290022890AX
IC	20812-2890AX
Model and /or type reference	9290022890A
Applicant´s name / address	Signify (China) Investment Co., Ltd Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai, 200233, China
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	Kitty Li/Project Assistant 
Tested by (name / position & signature)	Frank He/ Technical Supervisor 
Approved by (name / position & signature)	Jack Zhang/ Supervisor 
Date of issue	2019-12-02
Report template No	1992203R-RF-US-P06V01

INDEX

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.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Sep. 30, 2019
Date (start test)	Oct. 08, 2019
Date (finish test)	Nov. 26, 2019

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
1992203R-RF-US-P06V01	V1.0	Initial issue of report.	2019-12-02

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, unless the specification, standard or customer have special requirements.
4. The test results presented in this report relate only to the object tested.
5. The test results relate only to the samples tested.
6. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
7. This report will not be used for social proof function in China market.

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	2019.04.20	2020.04.19
Two-Line V-Network	R&S	ENV216	101190	2019.05.25	2020.05.24
Two-Line V-Network	R&S	ENV216	101044	2019.05.25	2020.05.24
Current Probe	R&S	EZ-17	100678	2019.03.12	2020.04.11
50ohm Termination	SHX	TF2	07081402	2019.09.02	2020.09.01
50ohm Termination	SHX	TF2	07081403	2019.09.02	2020.09.01
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	TR1-TH	2019.08.21	2020.08.20
Coaxial Cable	Suhner	RG 223	TR1-C1	2019.08.25	2020.08.24
Coaxial Cable	Suhner	RG 223	TR1-C2	2019.08.25	2020.08.24
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	2019.09.28	2020.09.27
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2019.04.17	2020.04.16
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2019.08.30	2020.08.29
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2019.07.14	2020.07.13
Power Sensor	Anritsu	MA2411B	0846014	2019.08.12	2020.08.11
Coaxial Cable	Woken	SFL402	F02-150410-044	2019.01.01	2019.12.31
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	2019.03.03	2020.03.02
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2019.05.25	2020.05.24
Temperature/Humidity Meter	RTS	RTS-8S	AC2-TH	2019.09.02	2020.09.01
Coaxial Cable	Huber+Suhner	RG 214	AC2-C	2019.04.13	2020.04.12
Dekra test software	Dekra	-	-	-	-

Radiated Emission (1GHz-40GHz)/ AC5

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2019.05.08	2020.05.07
Preamplifier	Miteq	NSP1800-25	1364185	2019.05.06	2020.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2019.05.06	2020.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2019.01.22	2020.01.21
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.09.02	2020.09.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2019.04.13	2020.04.12
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2019.04.13	2020.04.12
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2019.04.13	2020.04.12
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%.The Uncertainties is complice with standard required as below.

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..... :	Hue Outdoor light strip 2m
Model No. ..... :	9290022890A
Trademark ..... :	PHILIPS
Manufacturer..... :	Signify (China) Investment Co., Ltd.
Manufacturer Address..... :	Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai, 200233, China

Wireless specifiction..... :	Bluetooth 5.0
Operating frequency range(s)	2400~2483.5MHz
Type of Modulation..... :	GFSK
Number of channel..... :	40
Operating Temperature Range..... :	-20℃ ~ 45 ℃

Rated power supply .....:	Voltage and Frequency	
	☒	AC: 100 – 240 V, 50/60 Hz
	☐	AC: 110 – 120 V, 50/60 Hz
	☐	DC: 15~24Vdc
	☐	Battery: 3.7V
Mounting position.....:	☐	Table top equipment
	☐	Wall/Ceiling mounted equipment
	☐	Floor standing equipment
	☐	Hand-held equipment
	☒	Other: Outdoor equipment

Note1: We have evaluated both modes of LE 1M, LE 2M and LE coded, the power of LE 1M mode is higher than other mode, the test data of both modes is showed in the report with test items power, bandwidth and RSE/ Bandedge; the test data of worse mode is showed with other test items.

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

1.2 Antenna Information

Antenna model / type number ..... :	N/A			
Antenna serial number ..... :	N/A			
Antenna Delivery ..... :	☒	1TX + 1RX		
	☐	2TX + 2RX		
Antenna technology ..... :	☒	SISO		
	☐	MIMO	☐	CDD
			☐	Beam-forming
Antenna Type ..... :	☐	External	☐	Dipole
			☐	Sectorized
	☒	Internal	☐	PIFA
			☒	PCB
			☐	Ceramic Chip
			☐	Others……..
Antenna Gain..... :	2.99 dBi			

1.3 Channel List

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

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.

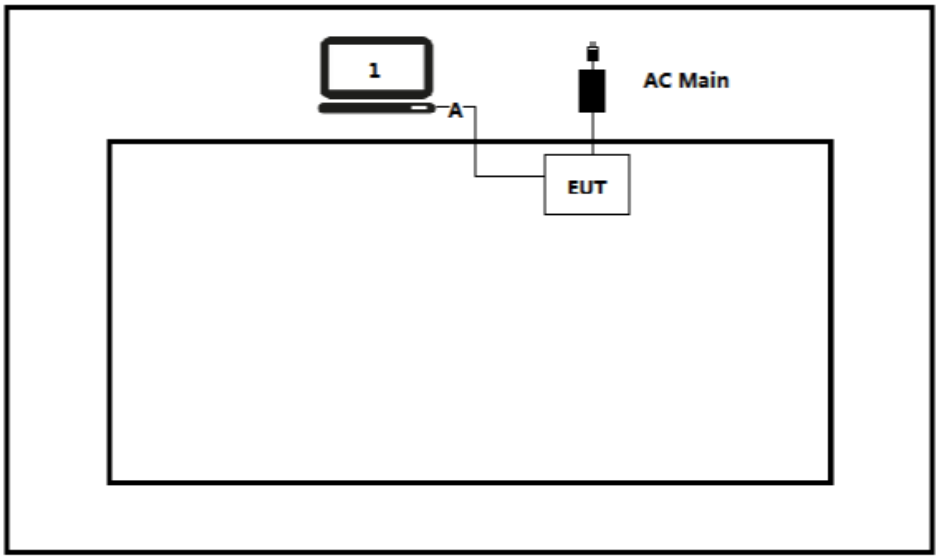
Test Mode For Bluetooth	Mode 1: Transmit by LE_1Mbps(GFSK_LE)
	Mode 2: Transmit by LE_2Mbps(GFSK_LE)
	Mode 3: Transmit by LE_Coded(S=2)(GFSK_LE)
	Mode 4: Transmit by LE_Coded(S=8)(GFSK_LE)

2.2 Auxiliary equipment / Test software for the EUT

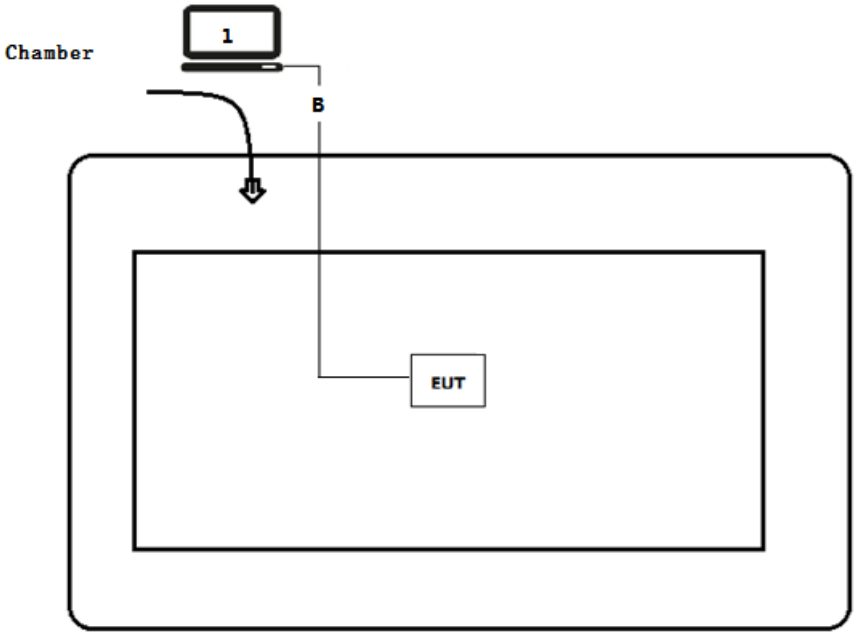
Auxiliary equipment	Type / Version	Manufacturer	Supplied by
Notebook	E470	Lenovo	N/A
software	Type / Version	Manufacturer	Supplied by
HueApprobationTool	1.1.00	Philips	N/A

2.3 Test Configuration / Block diagram used for tests

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated test



2.4 Testing process

1	Setup the EUT as shown in Section 2.4.
2	Execute the HueApprobation Tool on the EUT
3	Configure the test mode, the test channel, and the data rate.
4	Press “Start Test” to start the continuous Transmitter.
5	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 D01V05r02	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	N/A	
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	N/A	---
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

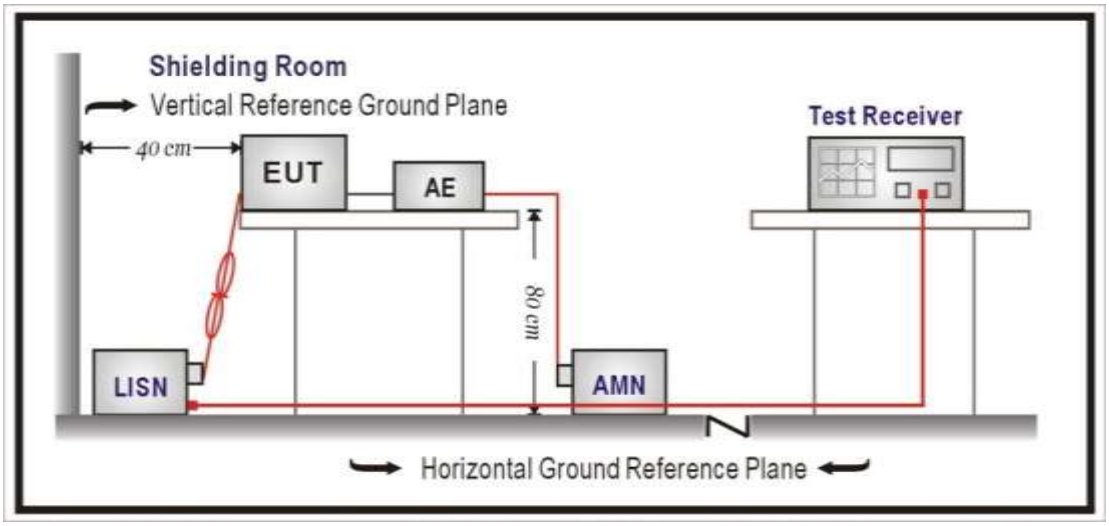
4.1 AC Power Line Conducted Emission	VERDICT: PASS

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

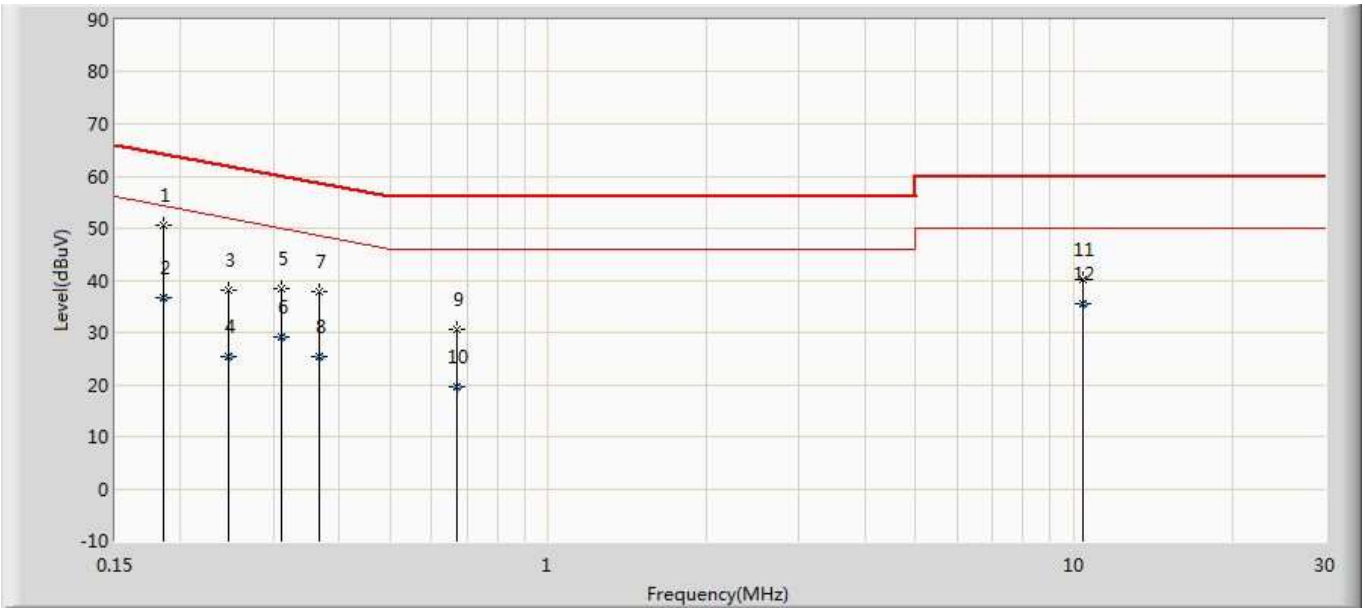


4.1.3 Test Procedure

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

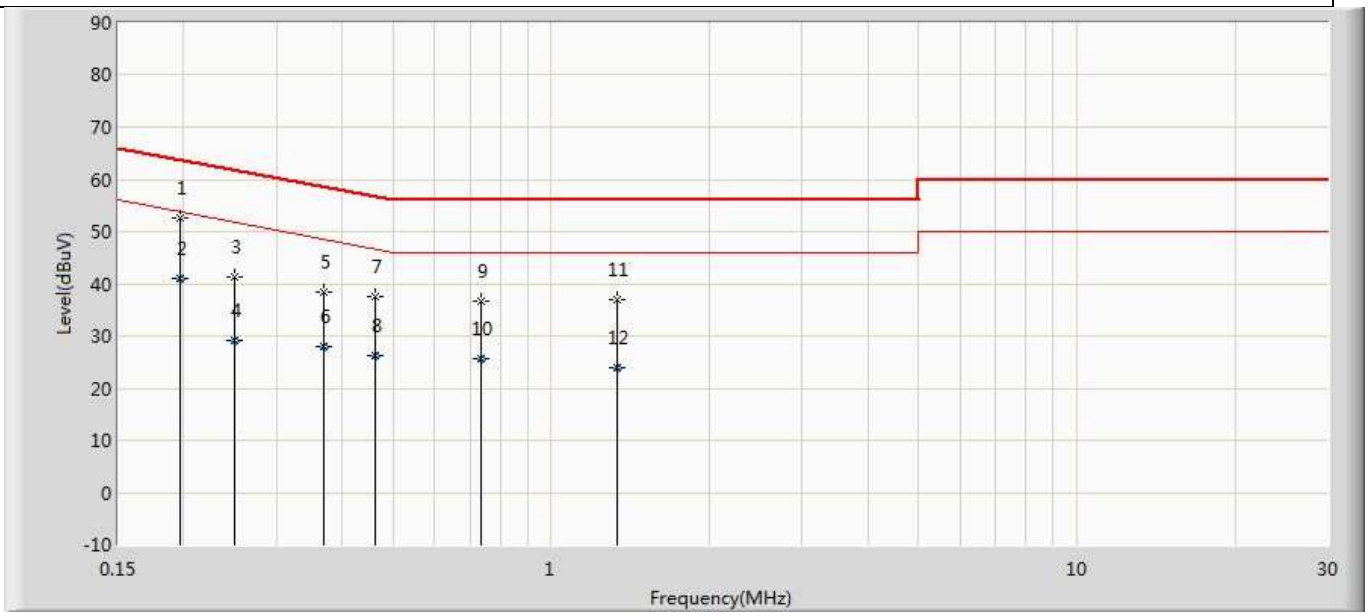
4.1.4 Test Data

Profile: 1992203R	Page No.: 5
Engineer: Cyan	
Site: TR1	Time: 2019/10/16 - 22:09
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1 Transmit by LE_1Mbps(GFSK_LE)	



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	50.627	41.014	-13.586	64.213	9.585	0.028	0.000	QP
2		0.186	36.616	27.003	-17.597	54.213	9.585	0.028	0.000	AV
3		0.246	38.136	28.513	-23.755	61.891	9.593	0.031	0.000	QP
4		0.246	25.289	15.665	-26.602	51.891	9.593	0.031	0.000	AV
5		0.310	38.378	28.747	-21.593	59.970	9.597	0.034	0.000	QP
6		0.310	29.158	19.526	-20.813	49.970	9.597	0.034	0.000	AV
7		0.366	37.703	28.066	-20.888	58.591	9.601	0.036	0.000	QP
8		0.366	25.219	15.582	-23.372	48.591	9.601	0.036	0.000	AV
9		0.670	30.594	20.927	-25.406	56.000	9.618	0.049	0.000	QP
10		0.670	19.469	9.802	-26.531	46.000	9.618	0.049	0.000	AV
11		10.380	40.185	30.144	-19.815	60.000	9.836	0.205	0.000	QP
12		10.380	35.374	25.333	-14.626	50.000	9.836	0.205	0.000	AV

Profile: 1992203R	Page No.: 6
Engineer: Cyan	
Site: TR1	Time: 2019/10/16 - 22:09
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1 Transmit by LE_1Mbps(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1	*	0.197	52.701	43.085	-11.026	63.727	9.587	0.029	0.000	QP
2		0.197	40.923	31.307	-12.804	53.727	9.587	0.029	0.000	AV
3		0.250	41.419	31.795	-20.338	61.757	9.593	0.031	0.000	QP
4		0.250	29.026	19.402	-22.731	51.757	9.593	0.031	0.000	AV
5		0.370	38.298	28.660	-20.203	58.501	9.601	0.037	0.000	QP
6		0.370	27.883	18.245	-20.618	48.501	9.601	0.037	0.000	AV
7		0.462	37.524	27.876	-19.132	56.657	9.607	0.041	0.000	QP
8		0.462	26.204	16.556	-20.453	46.657	9.607	0.041	0.000	AV
9		0.734	36.724	27.052	-19.276	56.000	9.621	0.051	0.000	QP
10		0.734	25.774	16.102	-20.226	46.000	9.621	0.051	0.000	AV
11		1.334	36.999	27.300	-19.001	56.000	9.630	0.069	0.000	QP
12		1.334	23.988	14.288	-22.012	46.000	9.630	0.069	0.000	AV

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

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			

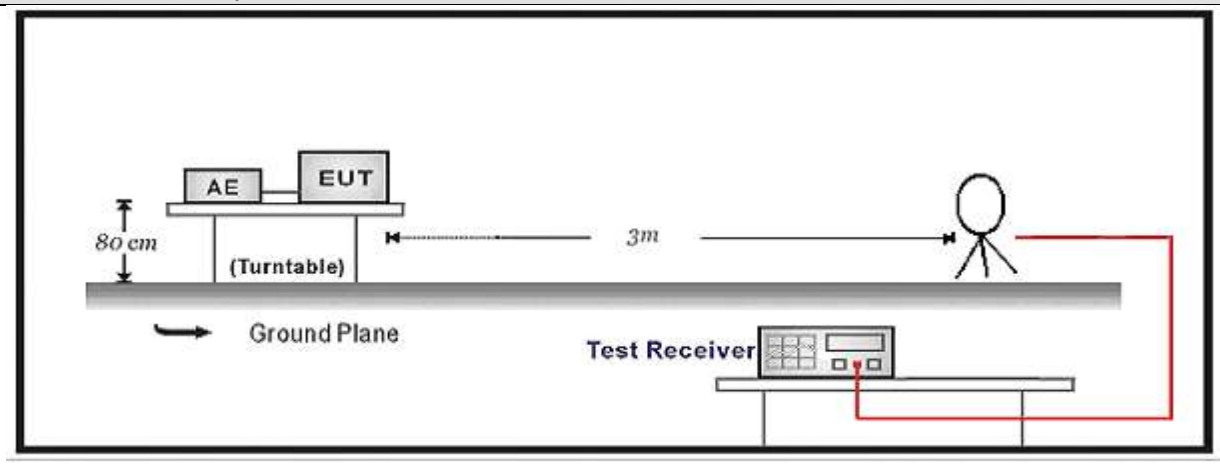
Restricted Band Emissions Limit			
Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30(Note 1)
1.705 - 30	30	29.5	30(Note 1)
30 - 88	100	40	3(Note 2)
88 - 216	150	43.5	3(Note 2)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

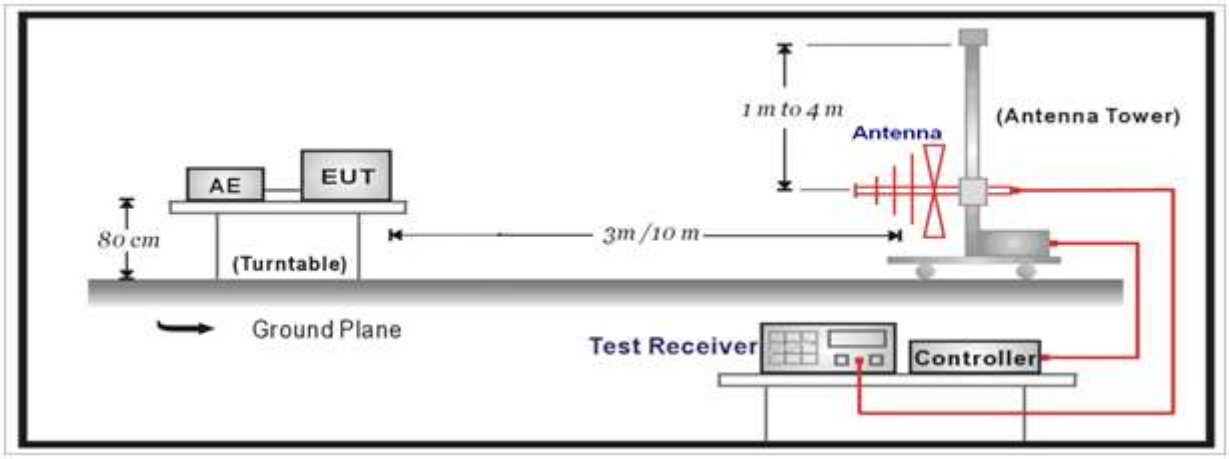
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated 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

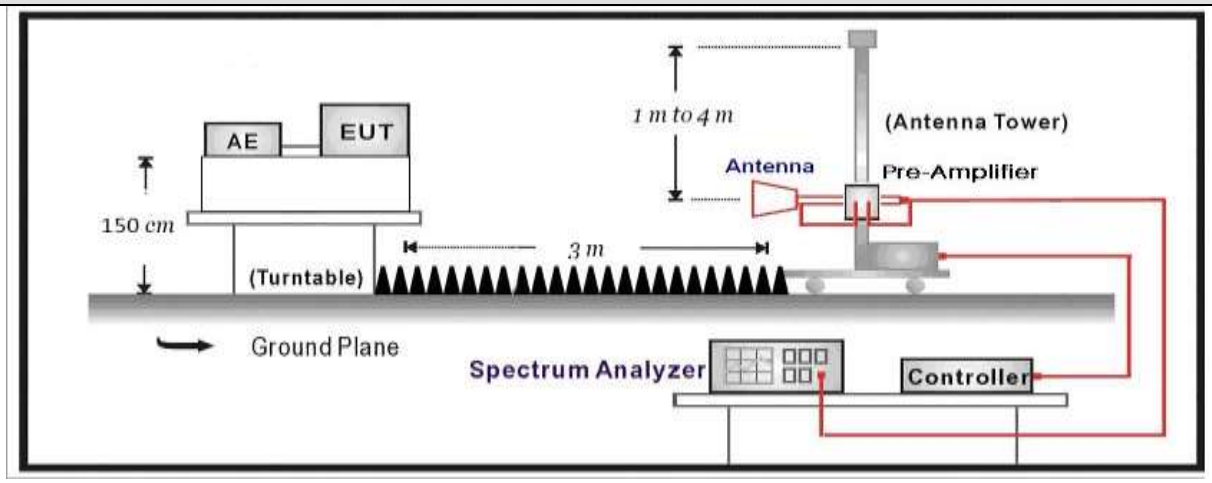
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



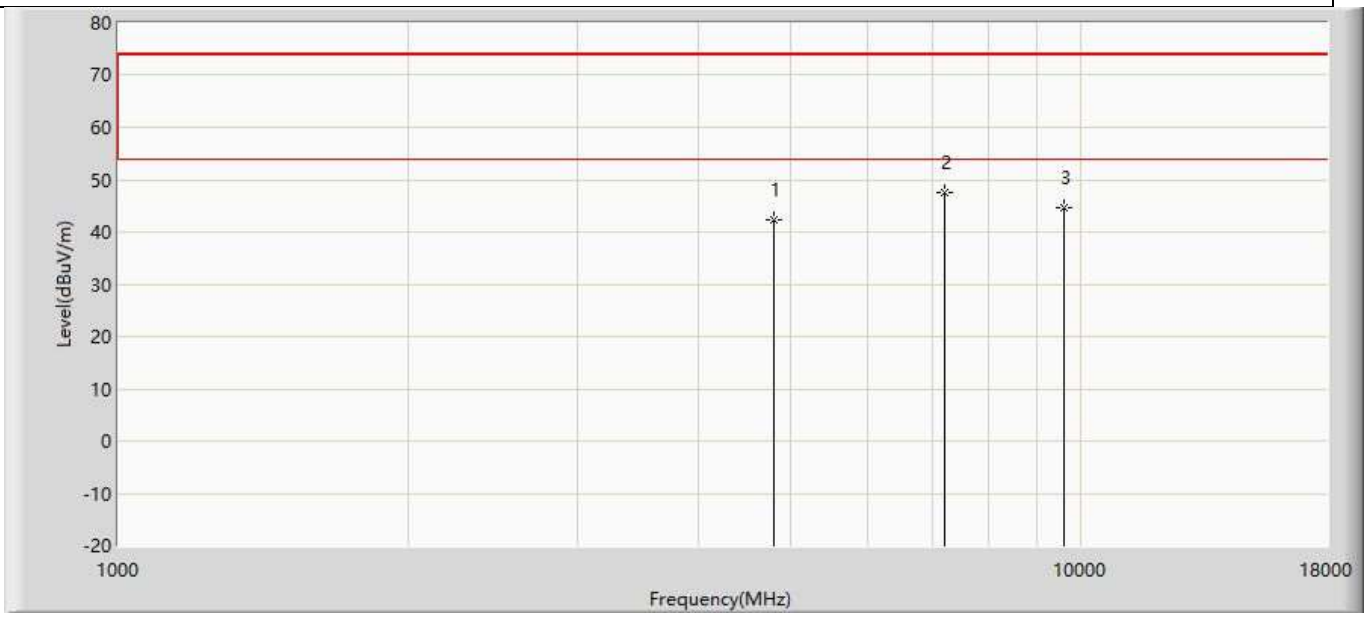
4.2.3 Test Procedure

	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

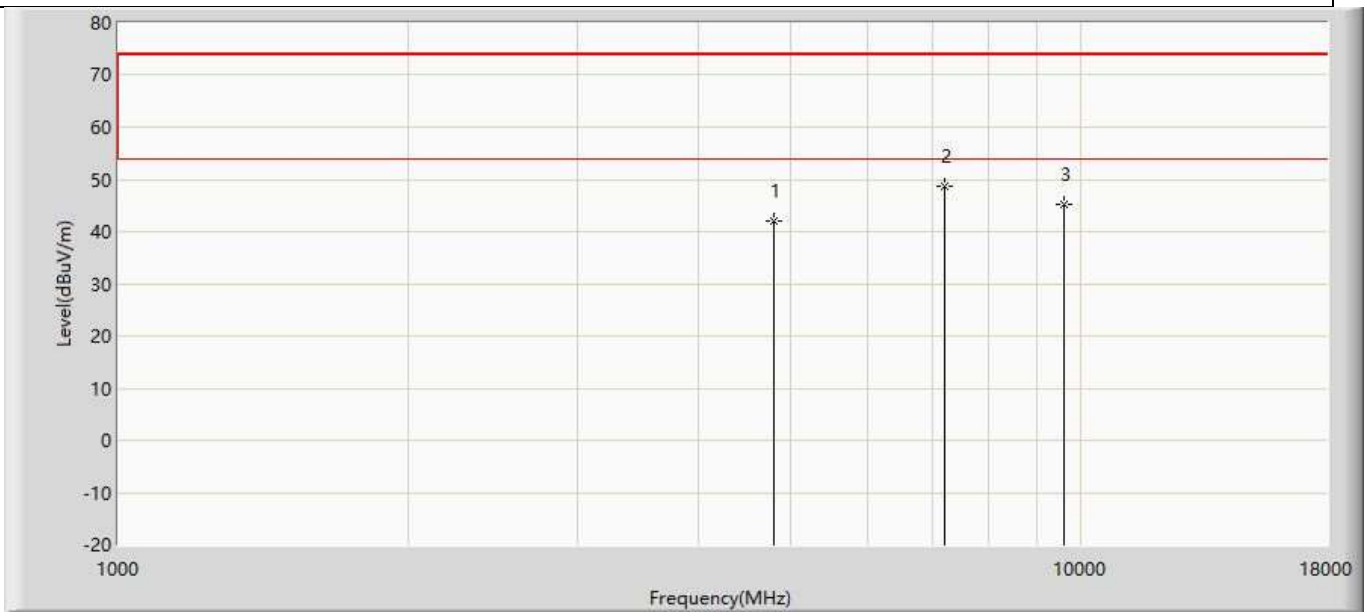
Murata:

Profile: 1992203R	Page No.: 77
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



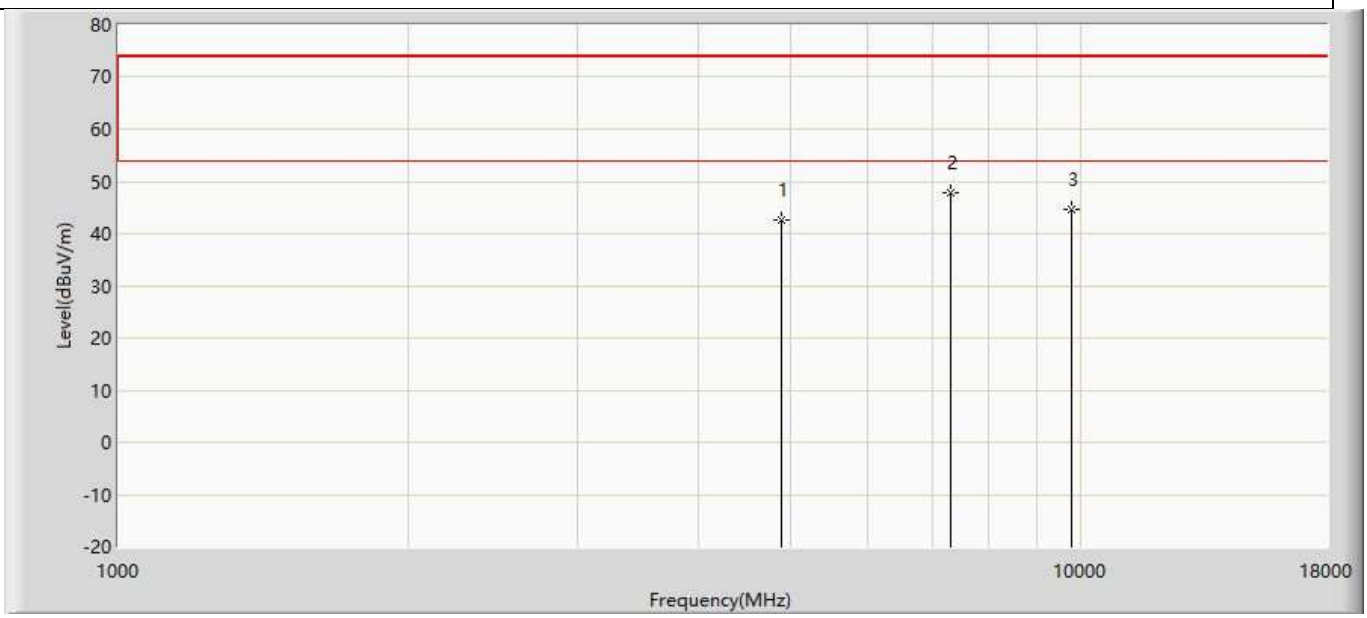
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.258	37.627	-31.742	74.000	4.631	PK
2	*	7206.000	47.623	39.599	-26.377	74.000	8.024	PK
3		9608.000	44.681	35.364	-29.319	74.000	9.318	PK

Profile: 1992203R	Page No.: 78
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



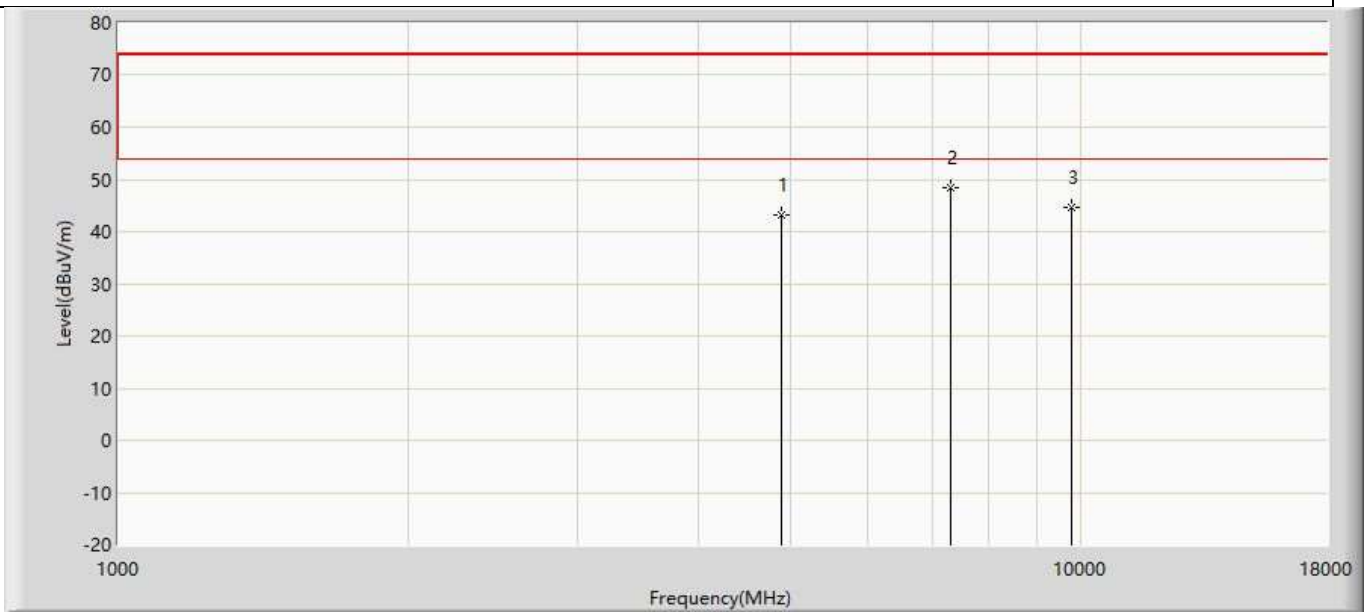
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.955	37.324	-32.045	74.000	4.631	PK
2	*	7206.000	48.662	40.638	-25.338	74.000	8.024	PK
3		9608.000	45.158	35.841	-28.842	74.000	9.318	PK

Profile: 1992203R	Page No.: 85
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps(GFSK_LE)	



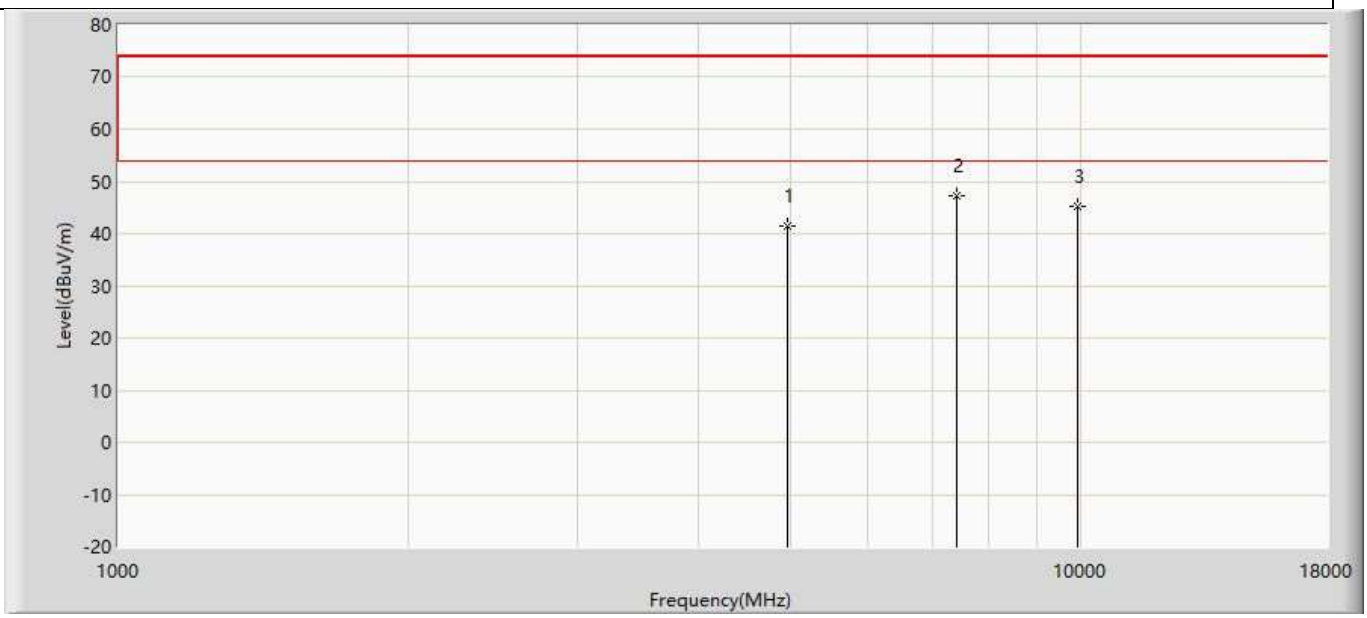
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.495	37.716	-31.505	74.000	4.778	PK
2	*	7320.000	47.742	39.672	-26.258	74.000	8.071	PK
3		9760.000	44.759	34.855	-29.241	74.000	9.904	PK

Profile: 1992203R	Page No.: 86
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps(GFSK_LE)	



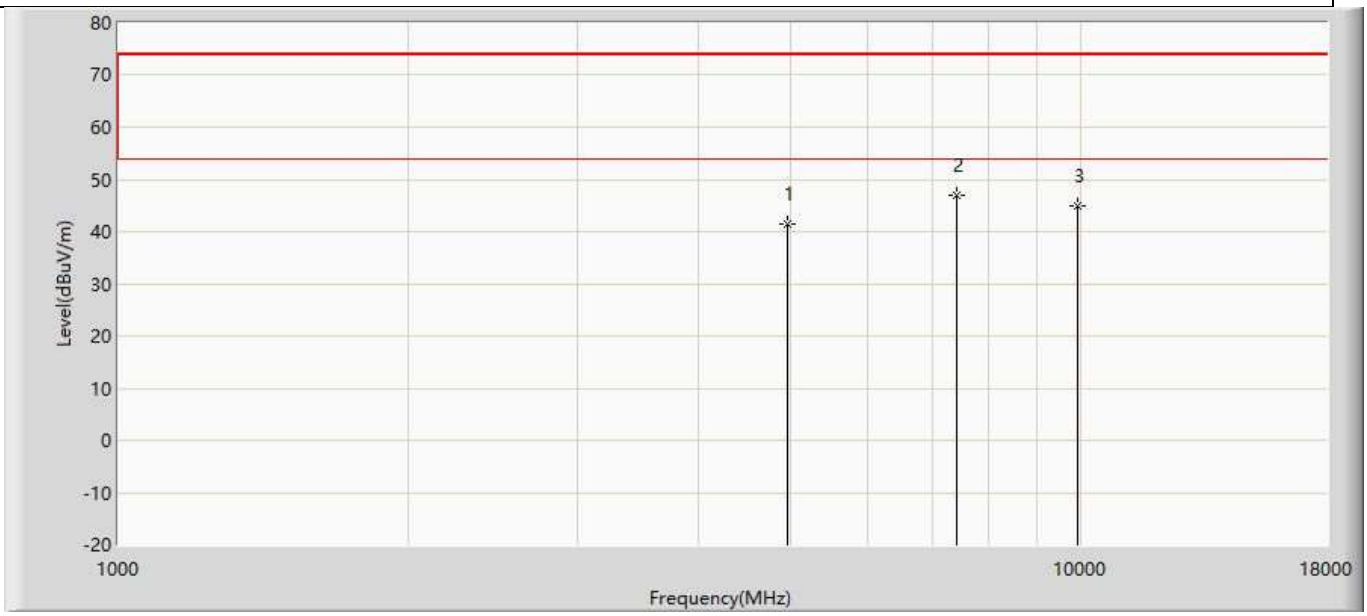
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.071	38.292	-30.929	74.000	4.778	PK
2	*	7320.000	48.327	40.257	-25.673	74.000	8.071	PK
3		9760.000	44.604	34.700	-29.396	74.000	9.904	PK

Profile: 1992203R	Page No.: 93
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



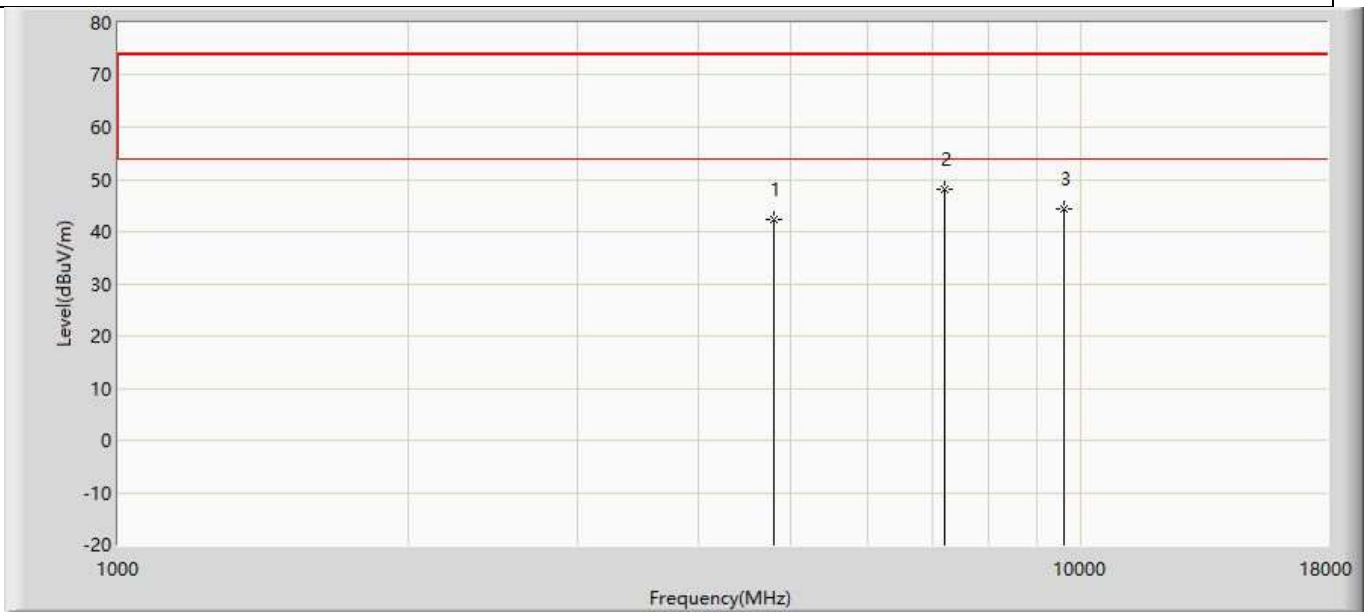
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.390	36.605	-32.610	74.000	4.784	PK
2	*	7440.000	47.345	39.294	-26.655	74.000	8.051	PK
3		9920.000	45.323	35.428	-28.677	74.000	9.894	PK

Profile: 1992203R	Page No.: 94
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



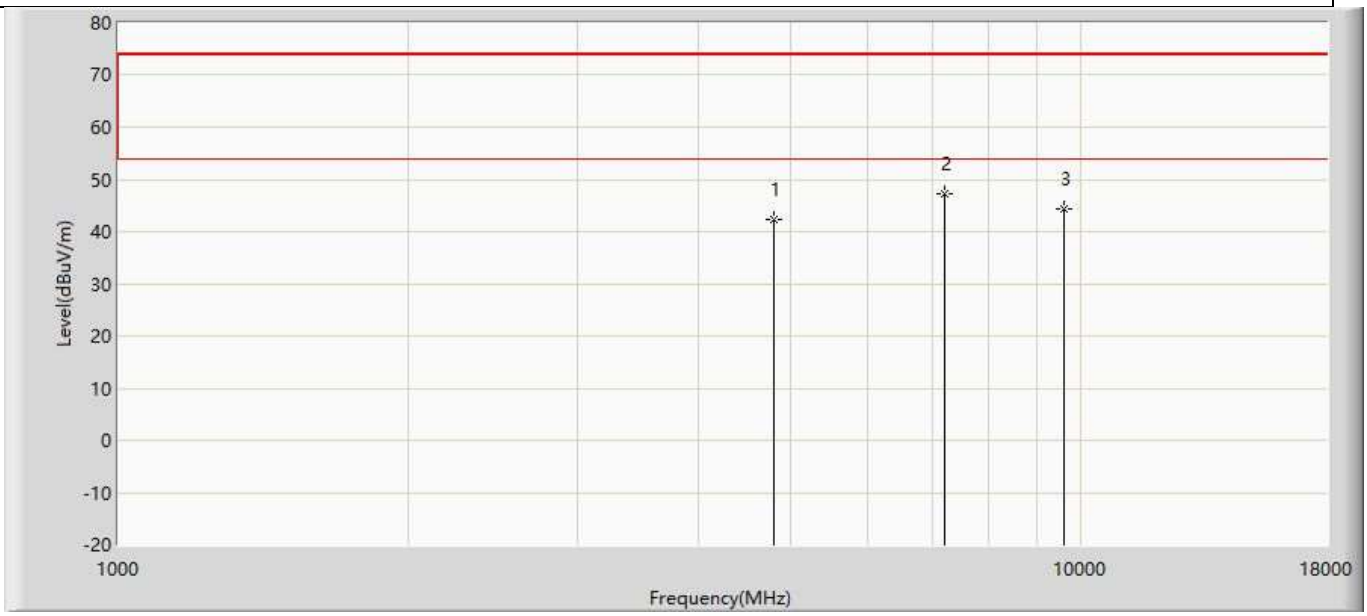
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.519	36.734	-32.481	74.000	4.784	PK
2	*	7440.000	46.913	38.862	-27.087	74.000	8.051	PK
3		9920.000	44.883	34.988	-29.117	74.000	9.894	PK

Profile: 1992203R	Page No.: 79
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



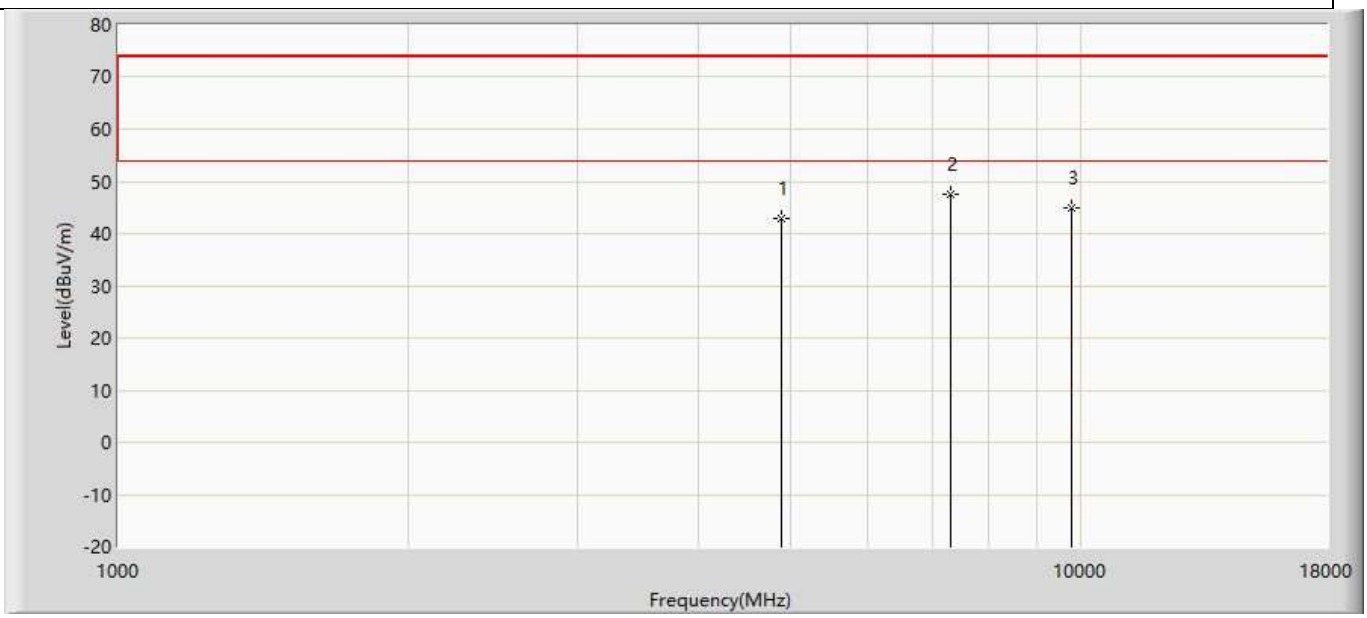
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.363	37.732	-31.637	74.000	4.631	PK
2	*	7206.000	48.016	39.992	-25.984	74.000	8.024	PK
3		9608.000	44.243	34.926	-29.757	74.000	9.318	PK

Profile: 1992203R	Page No.: 80
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



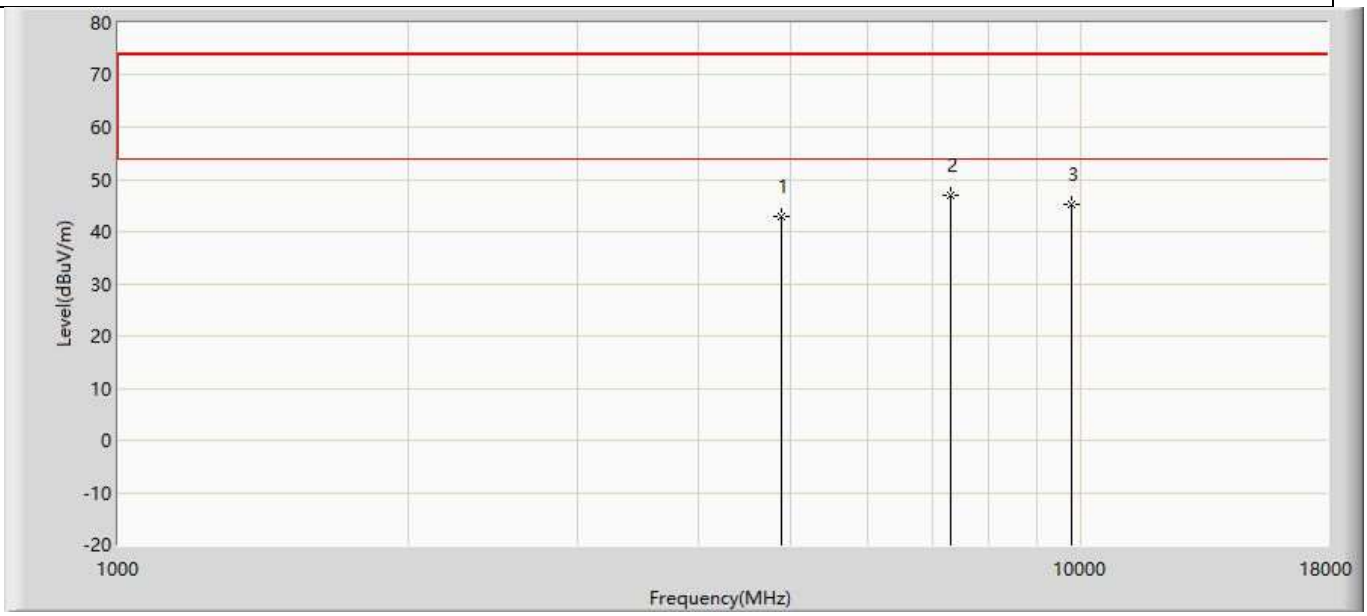
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.446	37.815	-31.554	74.000	4.631	PK
2	*	7206.000	47.201	39.177	-26.799	74.000	8.024	PK
3		9608.000	44.404	35.087	-29.596	74.000	9.318	PK

Profile: 1992203R	Page No.: 87
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps(GFSK_LE)	



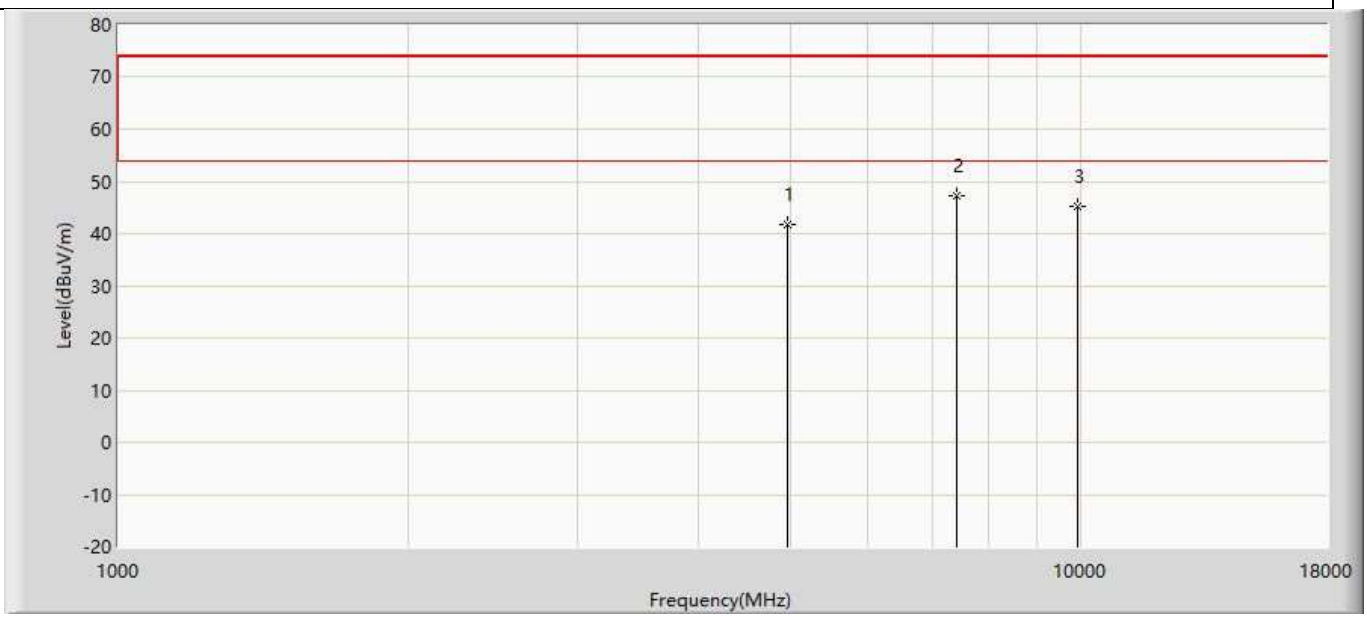
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.861	38.082	-31.139	74.000	4.778	PK
2	*	7320.000	47.497	39.427	-26.503	74.000	8.071	PK
3		9760.000	44.966	35.062	-29.034	74.000	9.904	PK

Profile: 1992203R	Page No.: 88
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps(GFSK_LE)	



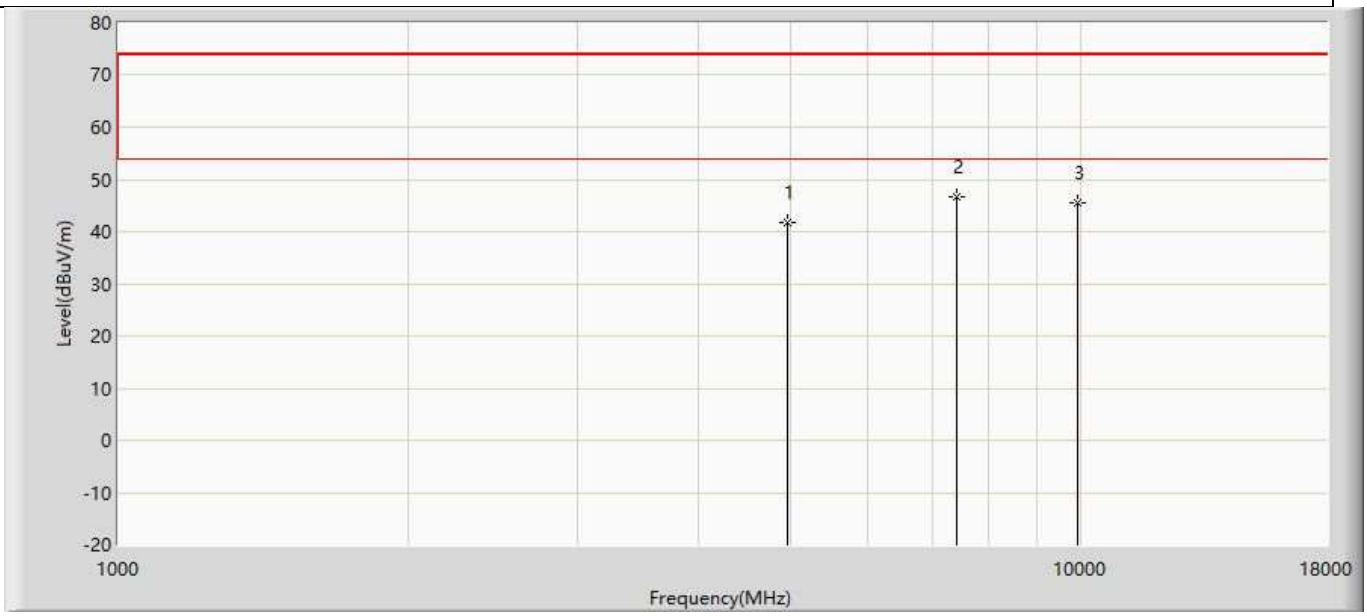
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.766	37.987	-31.234	74.000	4.778	PK
2	*	7320.000	47.100	39.030	-26.900	74.000	8.071	PK
3		9760.000	45.243	35.339	-28.757	74.000	9.904	PK

Profile: 1992203R	Page No.: 95
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



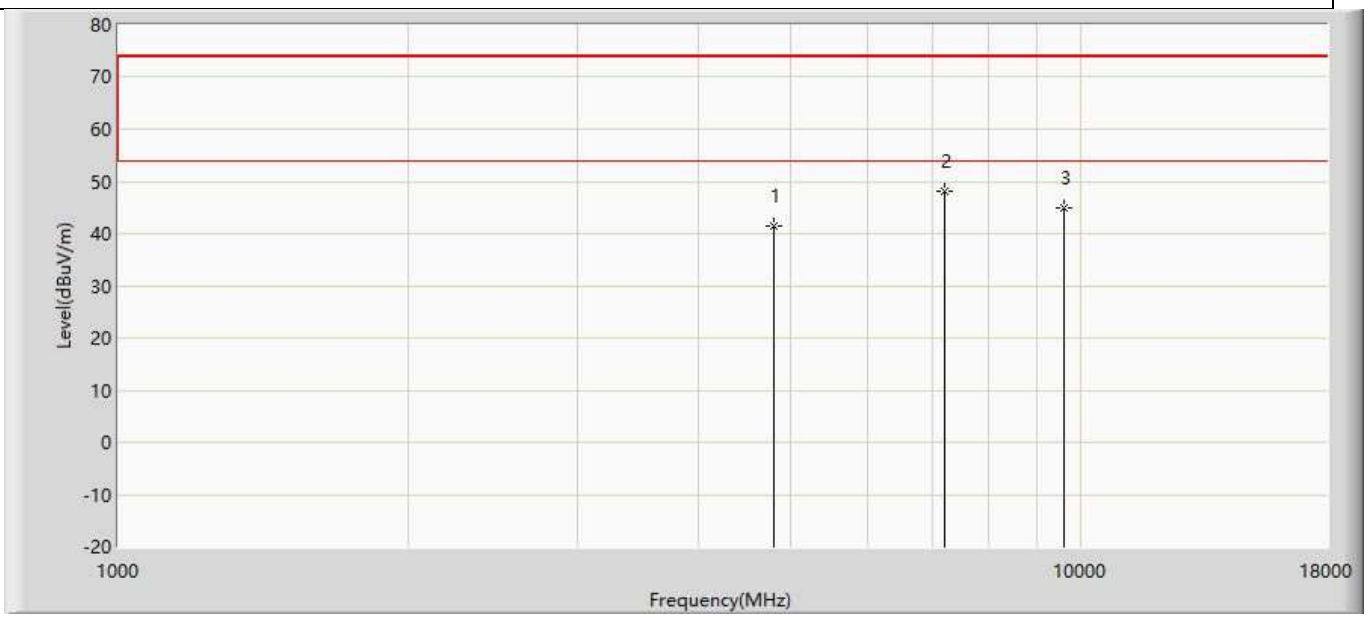
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.779	36.994	-32.221	74.000	4.784	PK
2	*	7440.000	47.165	39.114	-26.835	74.000	8.051	PK
3		9920.000	45.201	35.306	-28.799	74.000	9.894	PK

Profile: 1992203R	Page No.: 96
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



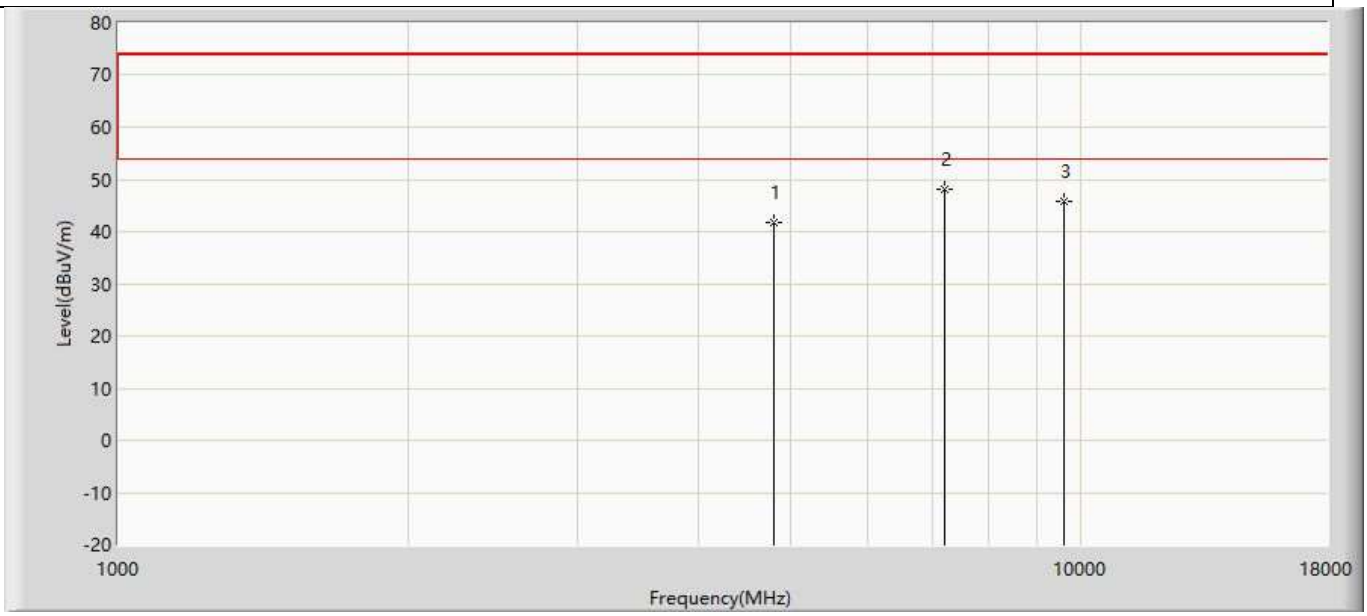
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.643	36.858	-32.357	74.000	4.784	PK
2	*	7440.000	46.609	38.558	-27.391	74.000	8.051	PK
3		9920.000	45.543	35.648	-28.457	74.000	9.894	PK

Profile: 1992203R	Page No.: 83
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



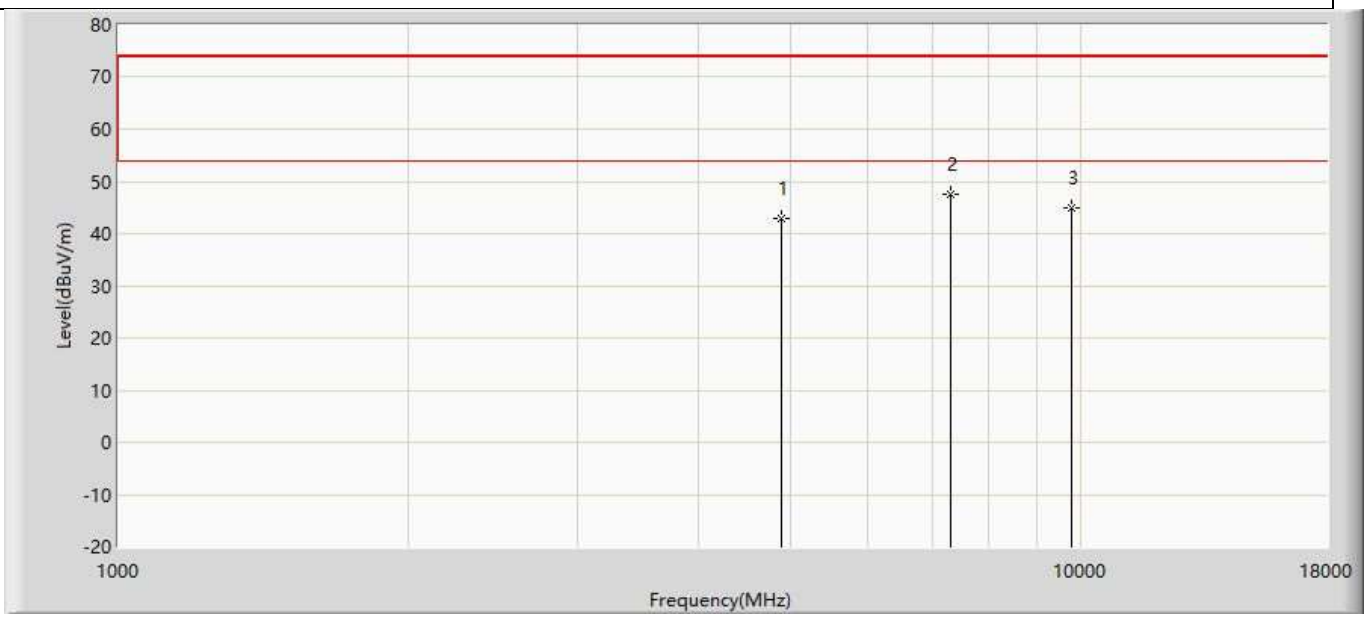
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.570	36.939	-32.430	74.000	4.631	PK
2	*	7206.000	48.087	40.063	-25.913	74.000	8.024	PK
3		9608.000	45.002	35.685	-28.998	74.000	9.318	PK

Profile: 1992203R	Page No.: 84
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



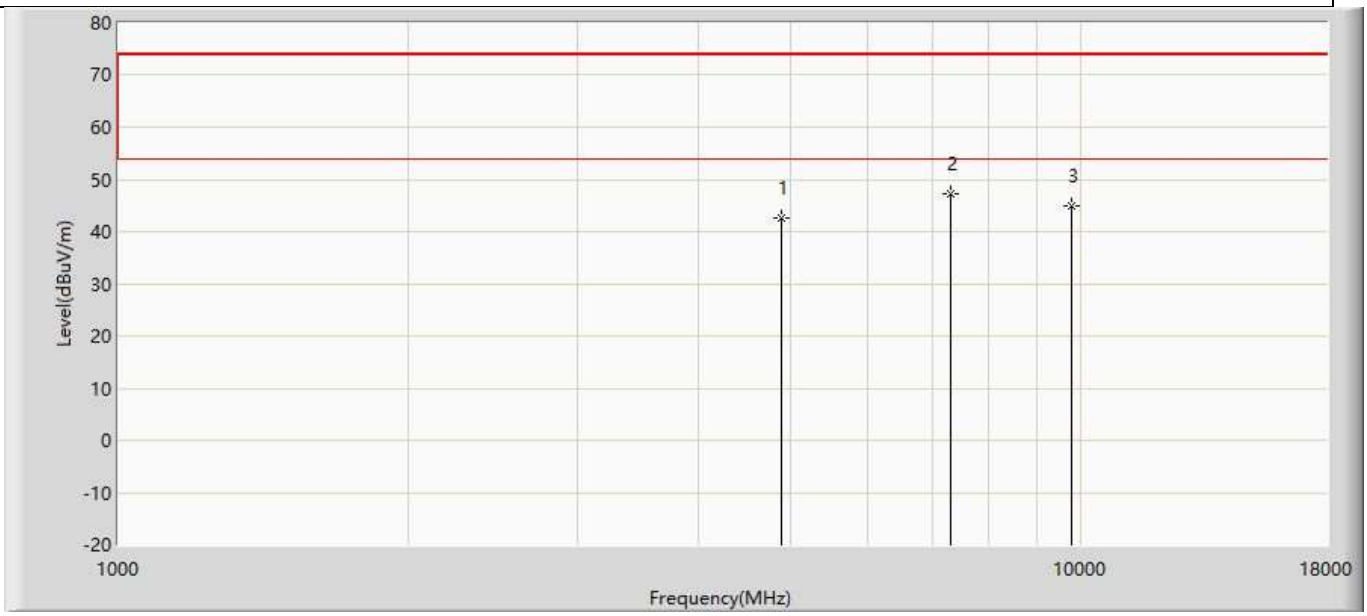
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.635	37.004	-32.365	74.000	4.631	PK
2	*	7206.000	48.063	40.039	-25.937	74.000	8.024	PK
3		9608.000	45.725	36.408	-28.275	74.000	9.318	PK

Profile: 1992203R	Page No.: 91
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded(S=2)(GFSK_LE)	



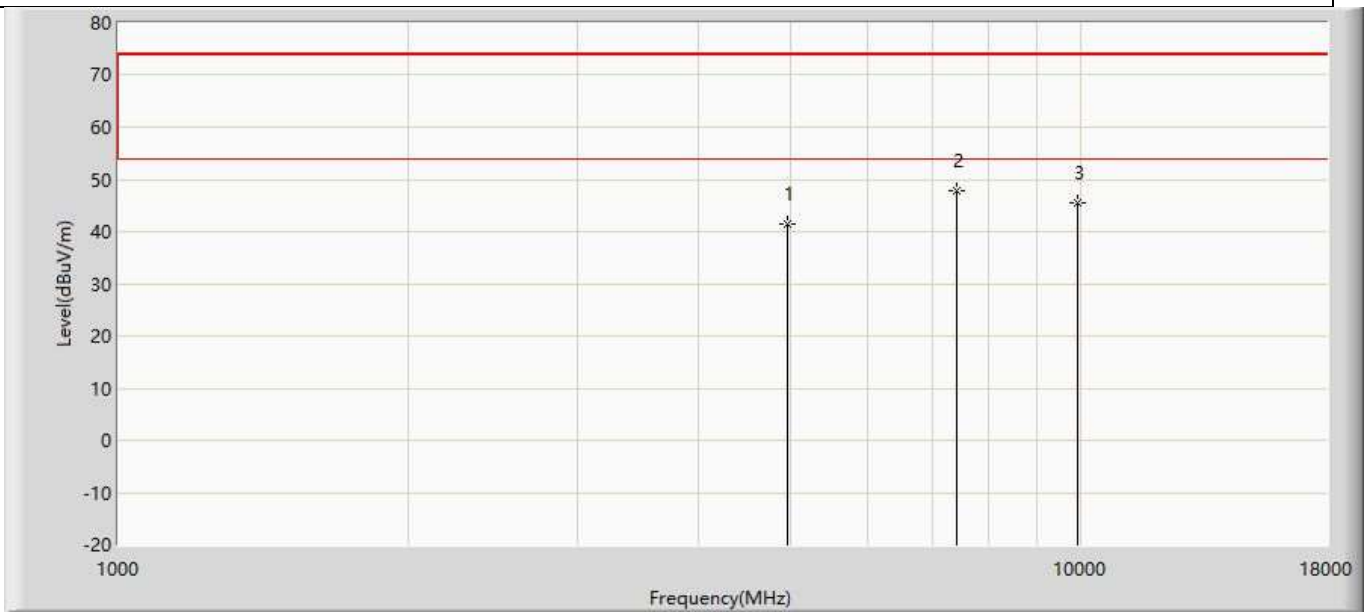
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.806	38.027	-31.194	74.000	4.778	PK
2	*	7320.000	47.497	39.427	-26.503	74.000	8.071	PK
3		9760.000	45.035	35.131	-28.965	74.000	9.904	PK

Profile: 1992203R	Page No.: 92
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded(S=2)(GFSK_LE)	



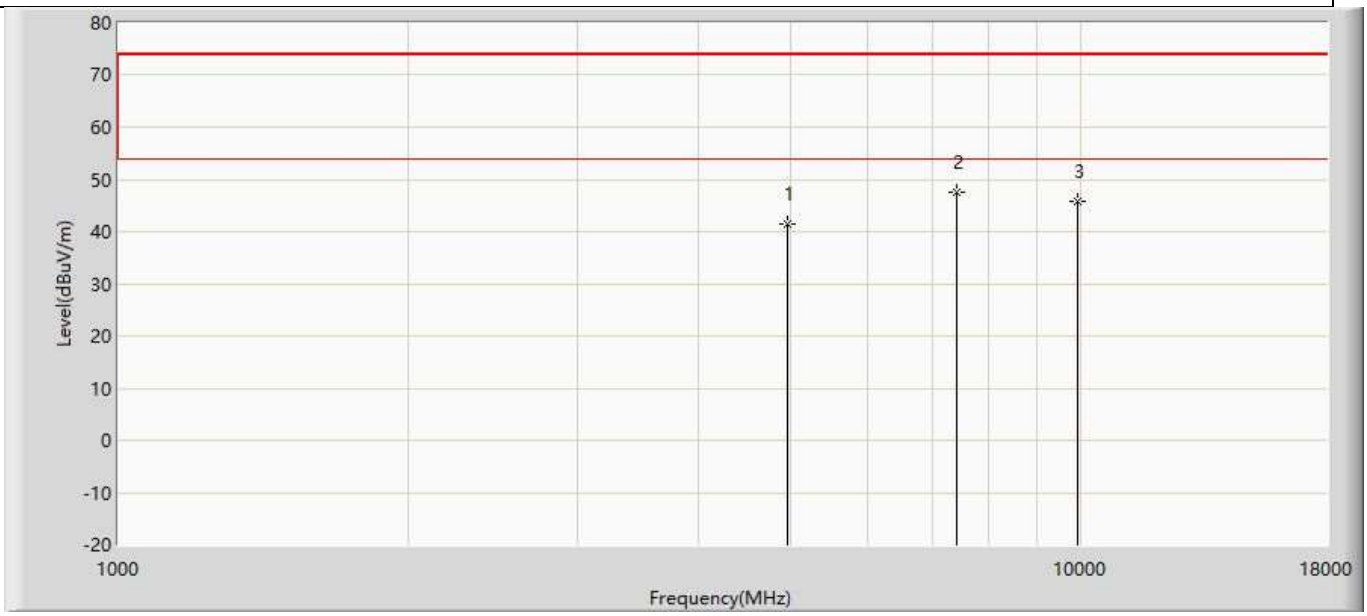
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.689	37.910	-31.311	74.000	4.778	PK
2	*	7320.000	47.334	39.264	-26.666	74.000	8.071	PK
3		9760.000	44.967	35.063	-29.033	74.000	9.904	PK

Profile: 1992203R	Page No.: 99
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



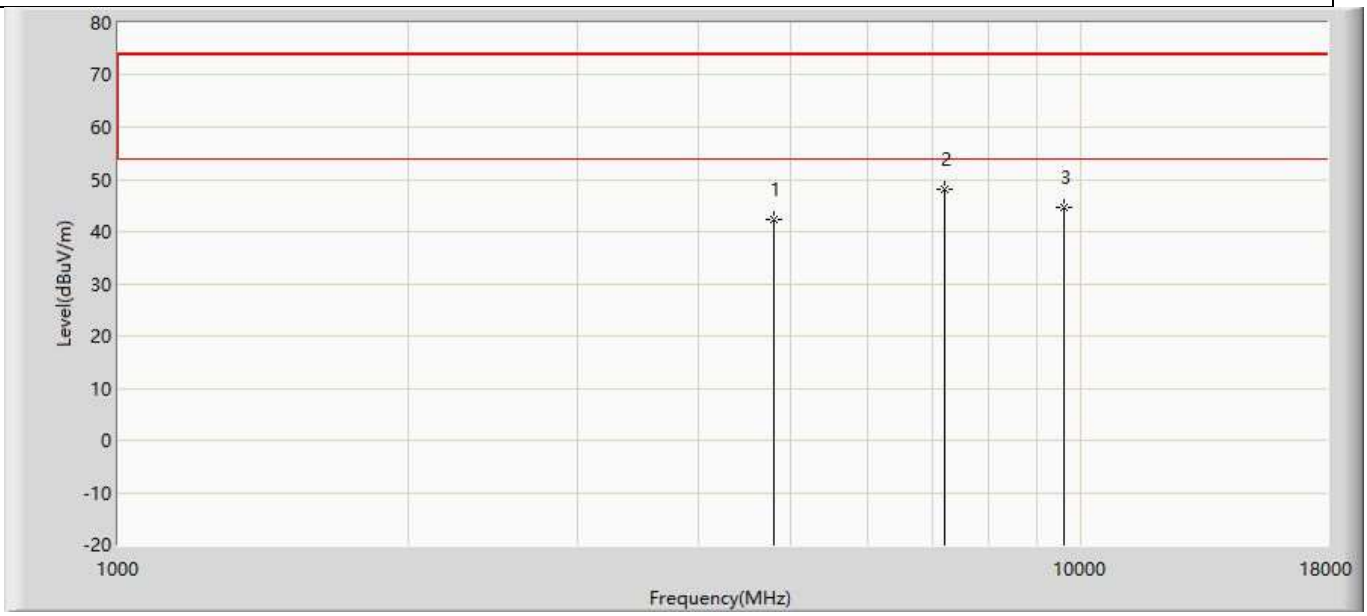
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.381	36.596	-32.619	74.000	4.784	PK
2	*	7440.000	47.782	39.731	-26.218	74.000	8.051	PK
3		9920.000	45.426	35.531	-28.574	74.000	9.894	PK

Profile: 1992203R	Page No.: 100
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



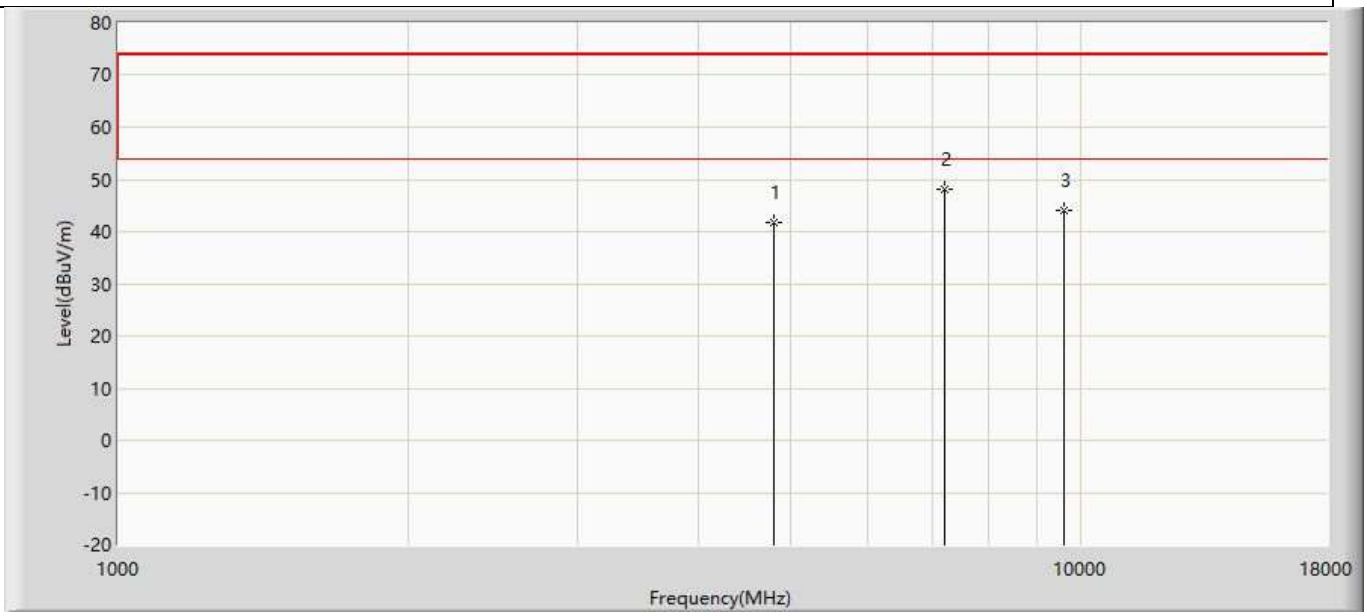
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.314	36.529	-32.686	74.000	4.784	PK
2	*	7440.000	47.643	39.592	-26.357	74.000	8.051	PK
3		9920.000	45.656	35.761	-28.344	74.000	9.894	PK

Profile: 1992203R	Page No.: 81
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



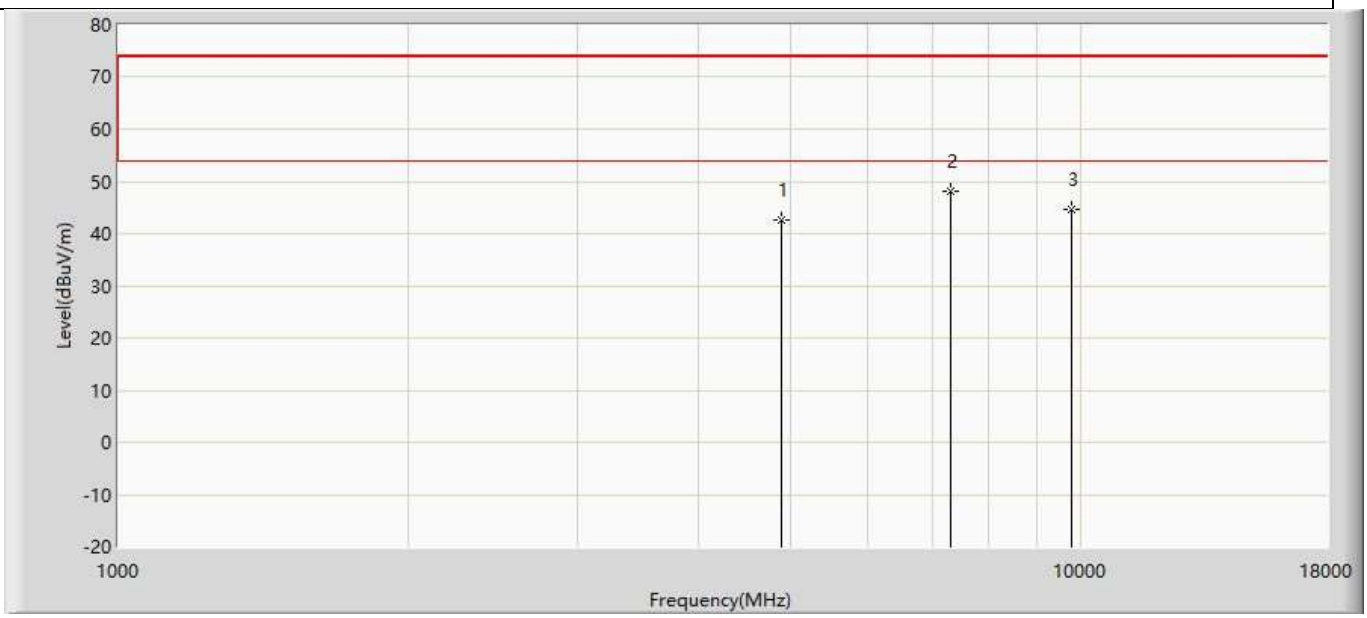
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.319	37.688	-31.681	74.000	4.631	PK
2	*	7206.000	48.015	39.991	-25.985	74.000	8.024	PK
3		9608.000	44.537	35.220	-29.463	74.000	9.318	PK

Profile: 1992203R	Page No.: 82
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



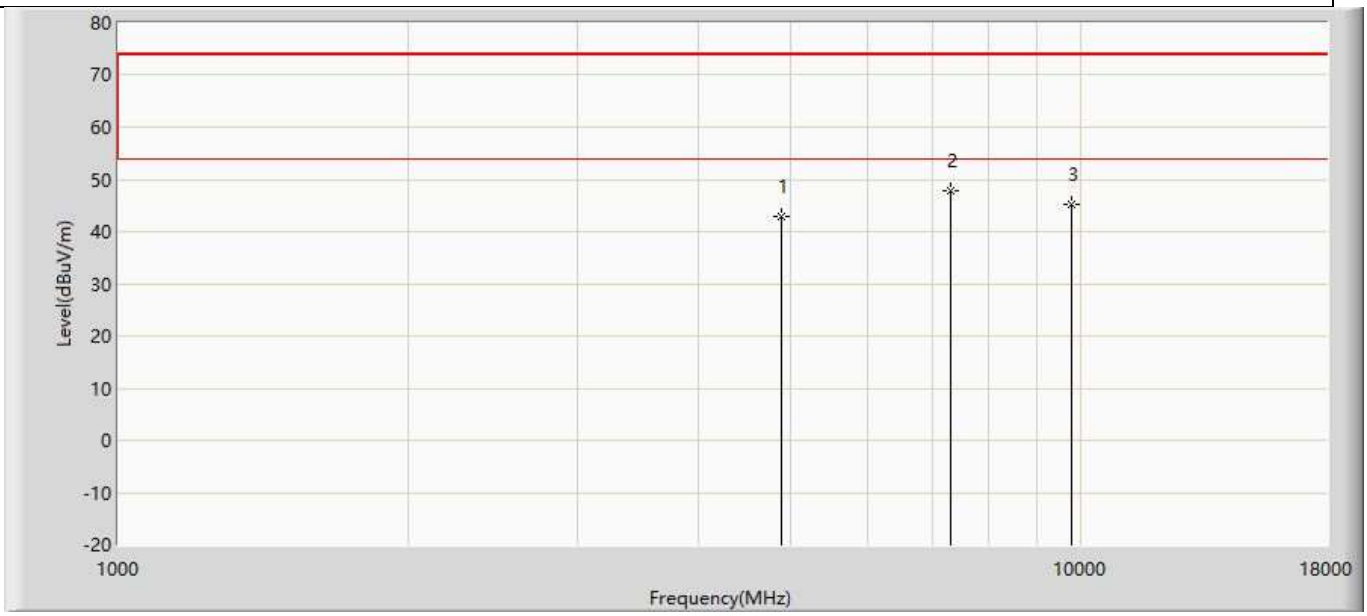
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.711	37.080	-32.289	74.000	4.631	PK
2	*	7206.000	48.082	40.058	-25.918	74.000	8.024	PK
3		9608.000	43.933	34.616	-30.067	74.000	9.318	PK

Profile: 1992203R	Page No.: 89
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded(S=8)(GFSK_LE)	



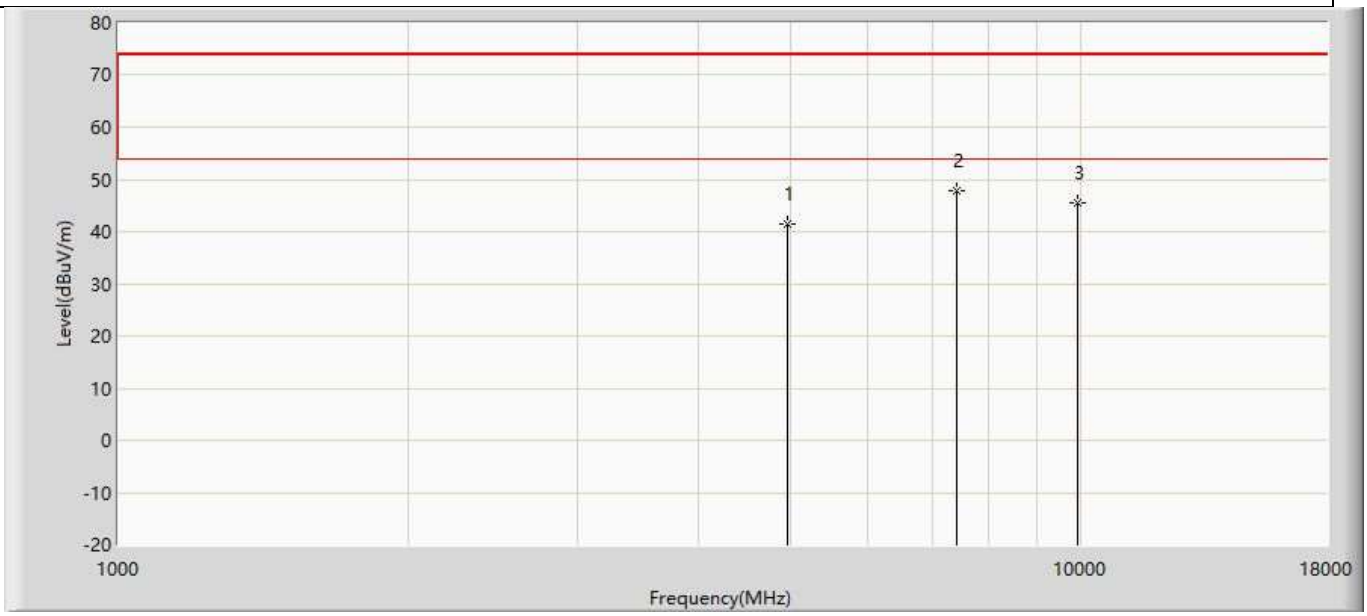
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.702	37.923	-31.298	74.000	4.778	PK
2	*	7320.000	47.975	39.905	-26.025	74.000	8.071	PK
3		9760.000	44.712	34.808	-29.288	74.000	9.904	PK

Profile: 1992203R	Page No.: 90
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded(S=8)(GFSK_LE)	



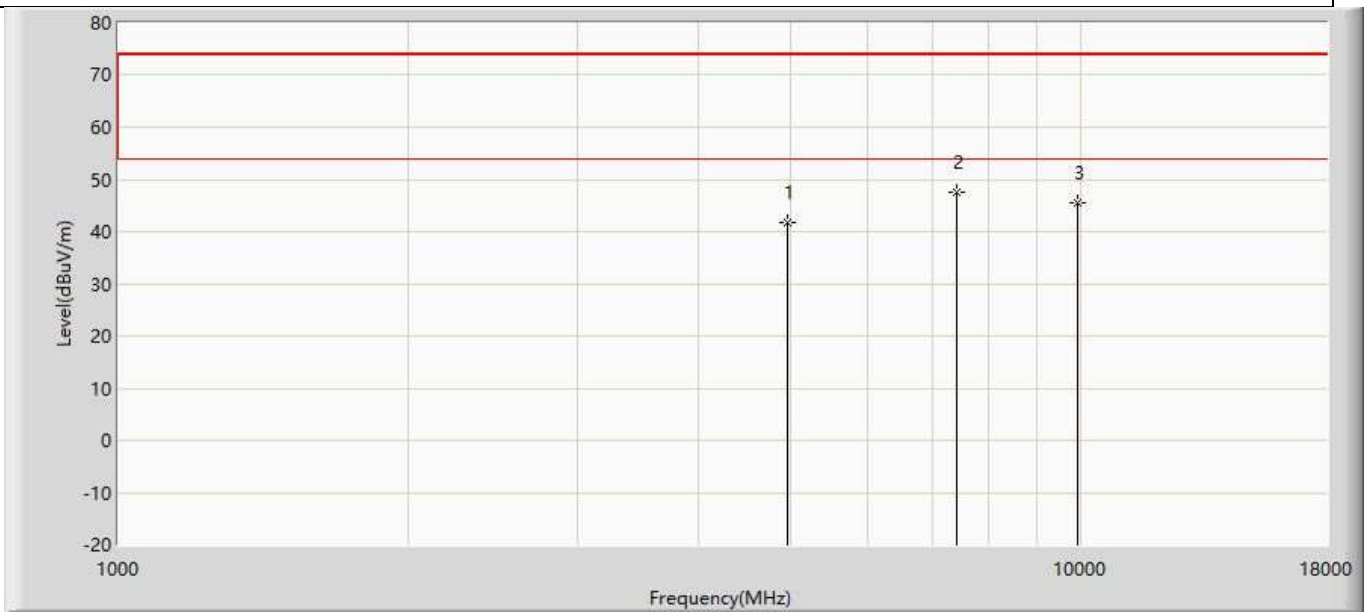
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	43.002	38.223	-30.998	74.000	4.778	PK
2	*	7320.000	47.910	39.840	-26.090	74.000	8.071	PK
3		9760.000	45.083	35.179	-28.917	74.000	9.904	PK

Profile: 1992203R	Page No.: 97
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.475	36.690	-32.525	74.000	4.784	PK
2	*	7440.000	47.856	39.805	-26.144	74.000	8.051	PK
3		9920.000	45.519	35.624	-28.481	74.000	9.894	PK

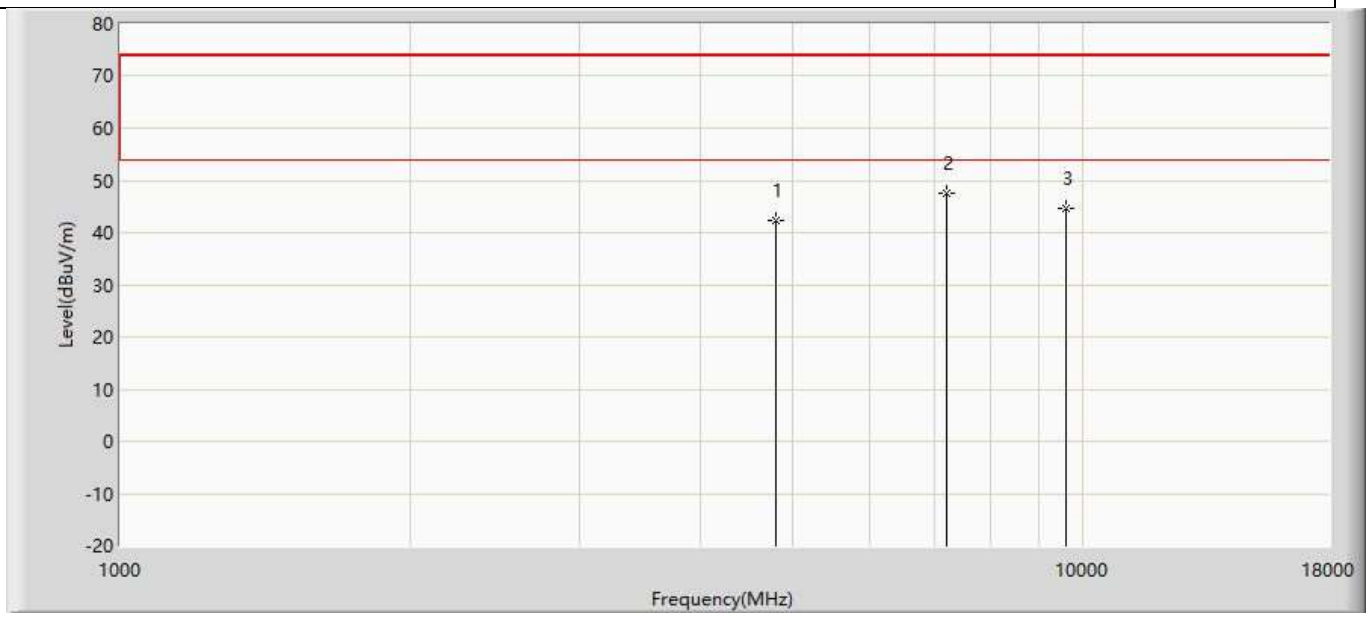
Profile: 1992203R	Page No.: 98
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 13:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.868	37.083	-32.132	74.000	4.784	PK
2	*	7440.000	47.394	39.343	-26.606	74.000	8.051	PK
3		9920.000	45.381	35.486	-28.619	74.000	9.894	PK

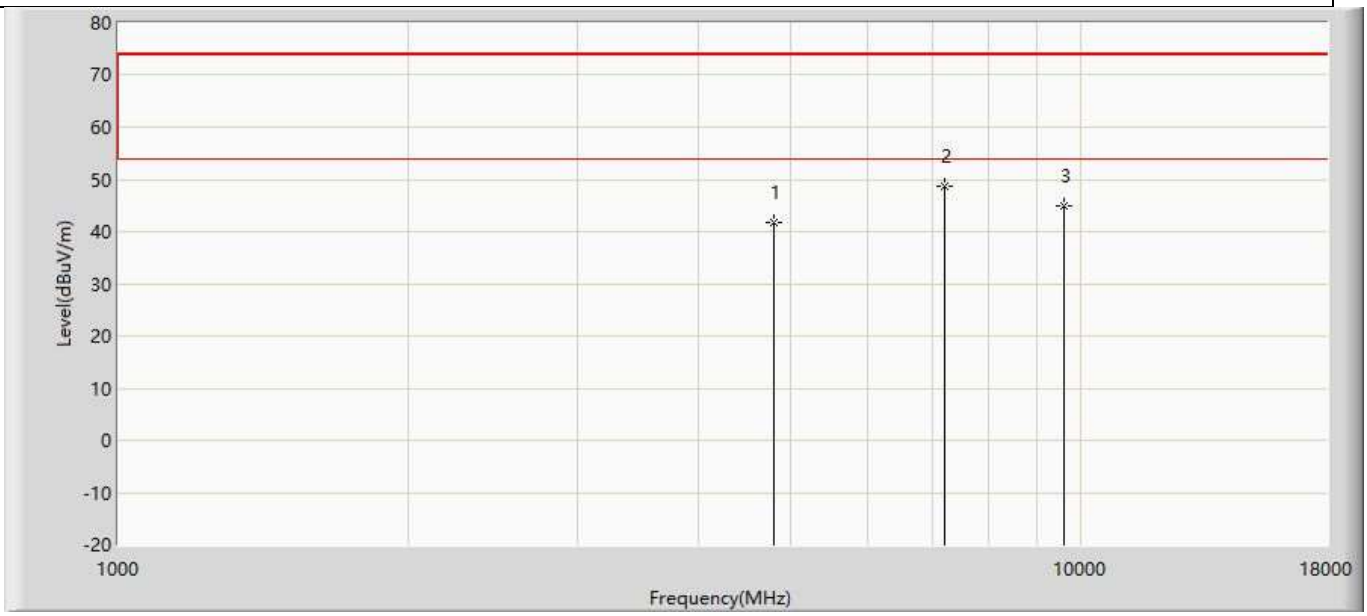
KDS:

Profile: 1992203R	Page No.: 47
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



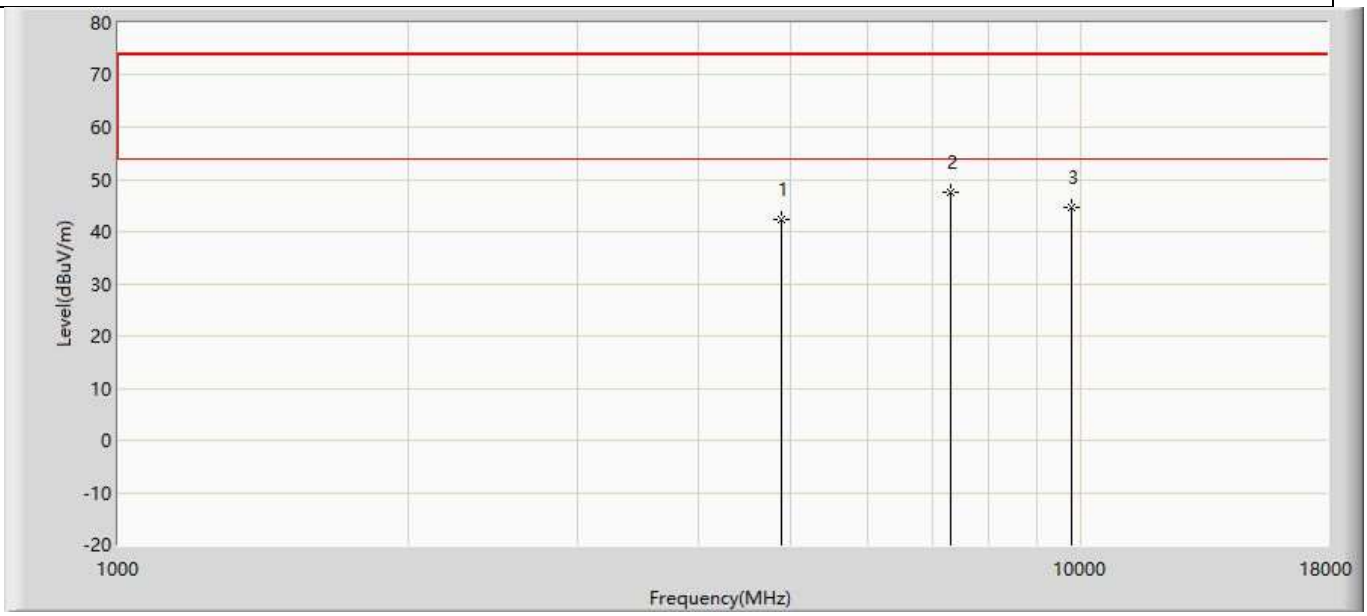
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.184	37.553	-31.816	74.000	4.631	PK
2	*	7206.000	47.492	39.468	-26.508	74.000	8.024	PK
3		9608.000	44.591	35.274	-29.409	74.000	9.318	PK

Profile: 1992203R	Page No.: 48
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



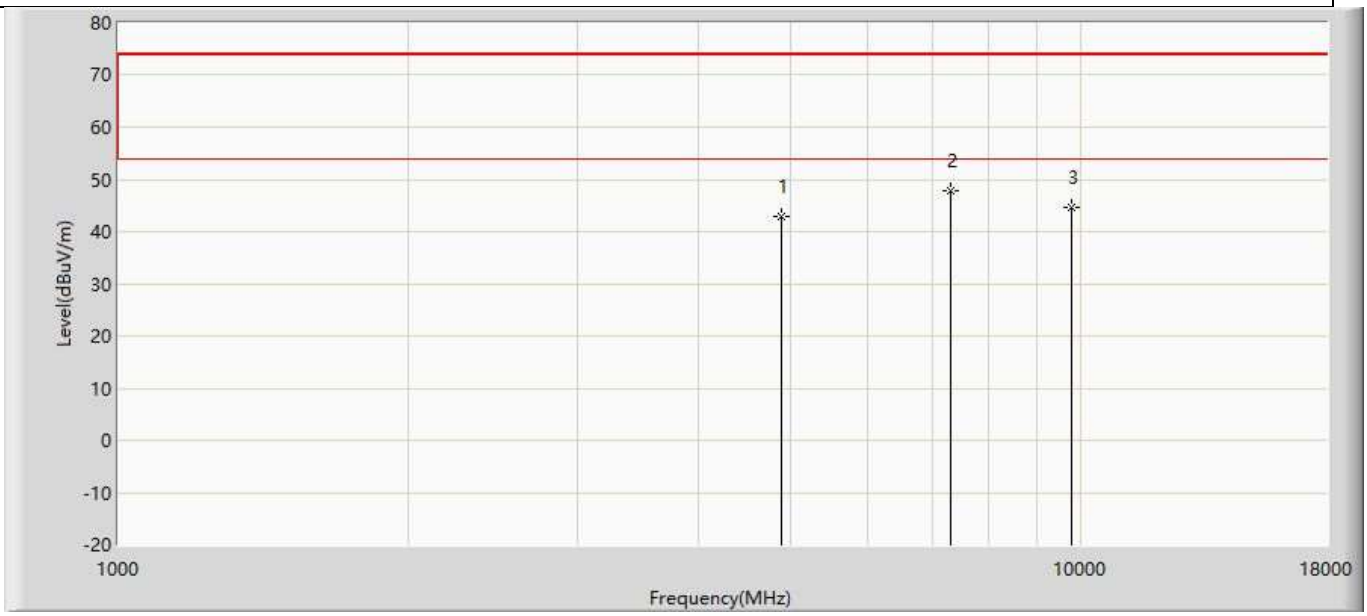
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.745	37.114	-32.255	74.000	4.631	PK
2	*	7206.000	48.560	40.536	-25.440	74.000	8.024	PK
3		9608.000	45.054	35.737	-28.946	74.000	9.318	PK

Profile: 1992203R	Page No.: 49
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps(GFSK_LE)	



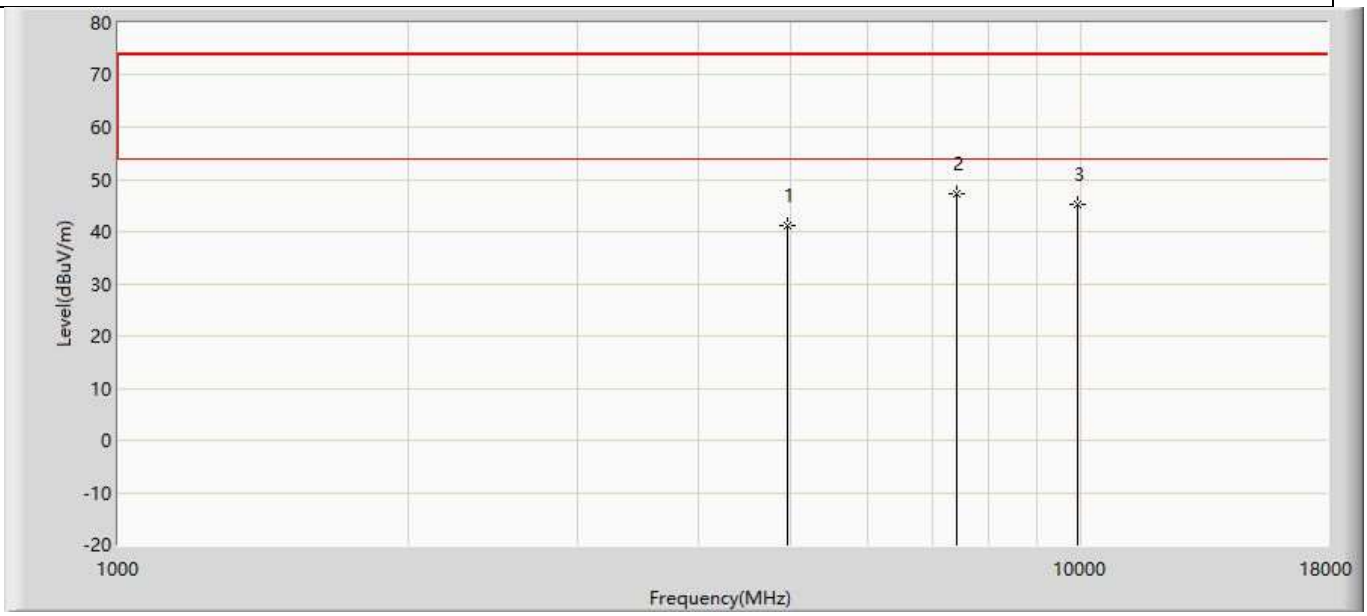
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.427	37.648	-31.573	74.000	4.778	PK
2	*	7320.000	47.599	39.529	-26.401	74.000	8.071	PK
3		9760.000	44.576	34.672	-29.424	74.000	9.904	PK

Profile: 1992203R	Page No.: 50
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps(GFSK_LE)	



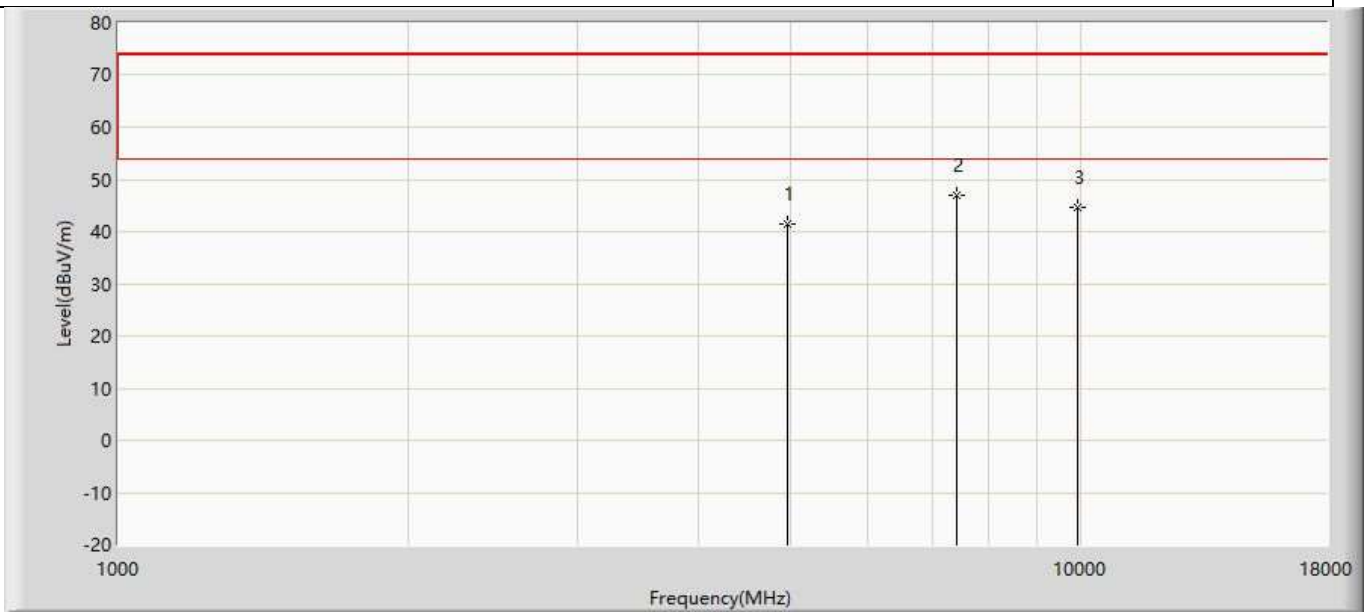
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.937	38.158	-31.063	74.000	4.778	PK
2	*	7320.000	47.886	39.816	-26.114	74.000	8.071	PK
3		9760.000	44.540	34.636	-29.460	74.000	9.904	PK

Profile: 1992203R	Page No.: 51
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



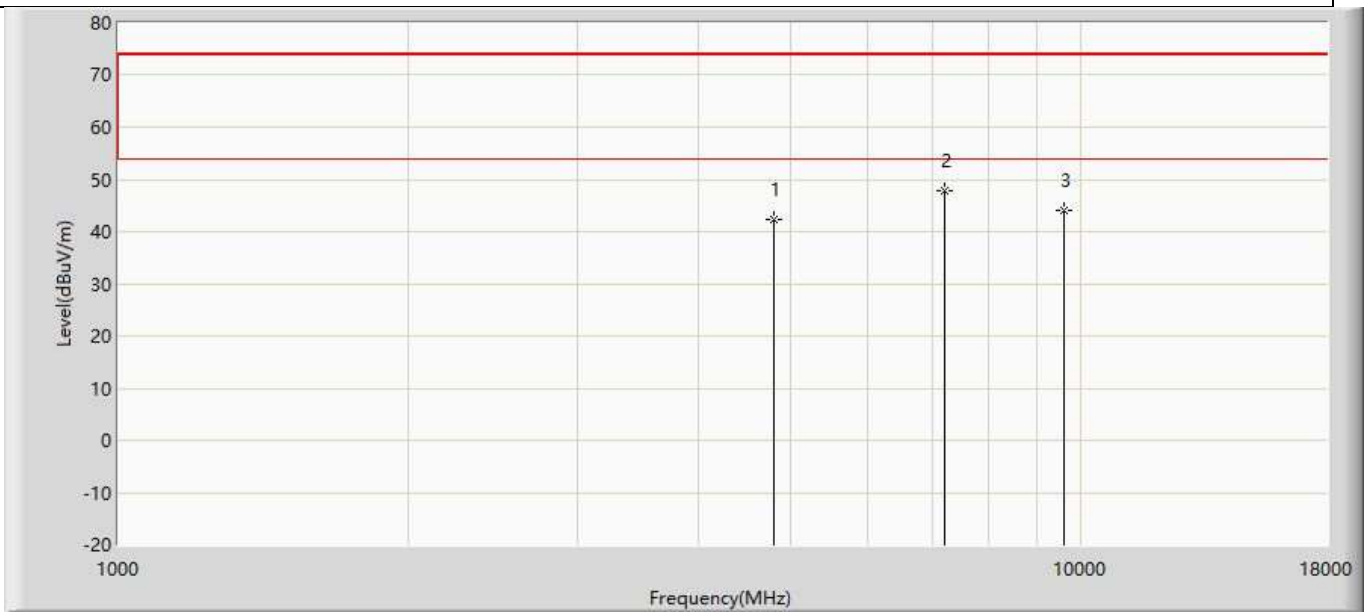
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.171	36.386	-32.829	74.000	4.784	PK
2	*	7440.000	47.189	39.138	-26.811	74.000	8.051	PK
3		9920.000	45.188	35.293	-28.812	74.000	9.894	PK

Profile: 1992203R	Page No.: 52
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



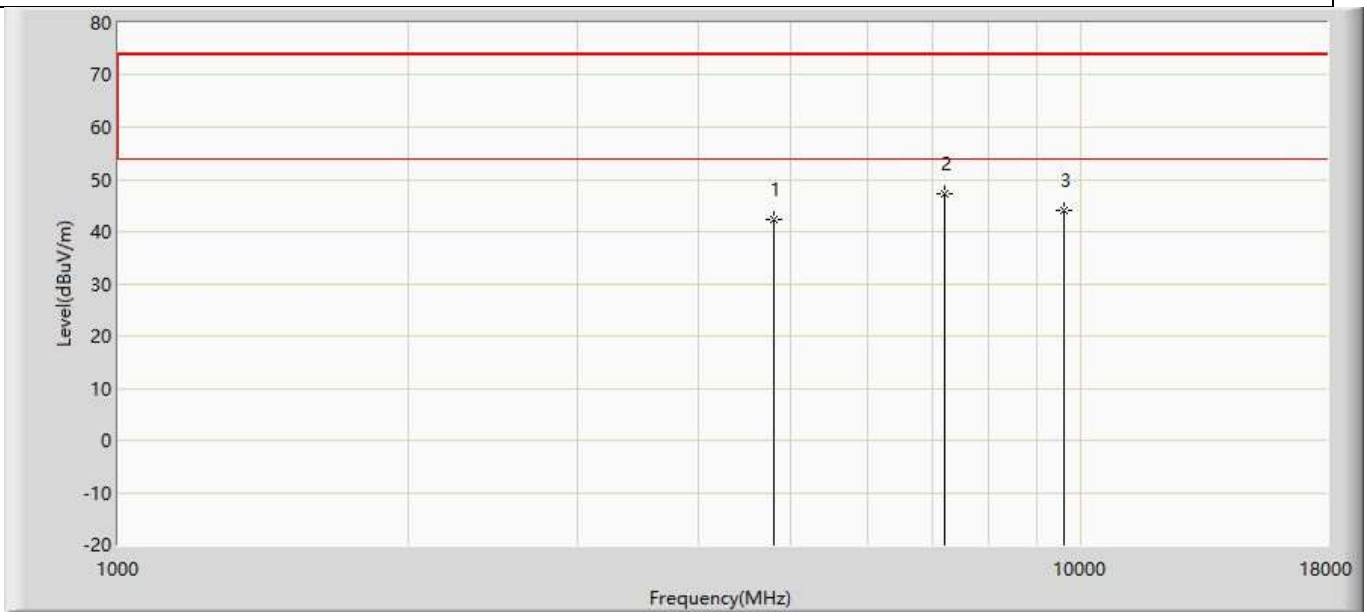
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.378	36.593	-32.622	74.000	4.784	PK
2	*	7440.000	46.844	38.793	-27.156	74.000	8.051	PK
3		9920.000	44.693	34.798	-29.307	74.000	9.894	PK

Profile: 1992203R	Page No.: 53
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



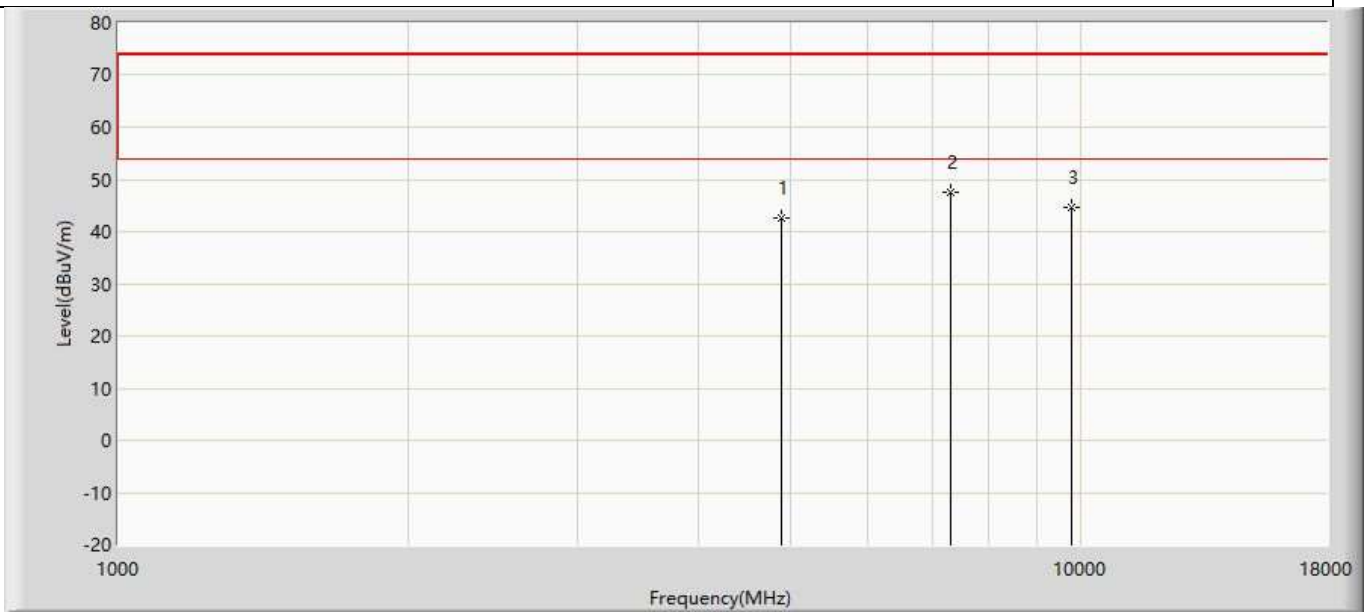
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.269	37.638	-31.731	74.000	4.631	PK
2	*	7206.000	47.758	39.734	-26.242	74.000	8.024	PK
3		9608.000	43.980	34.663	-30.020	74.000	9.318	PK

Profile: 1992203R	Page No.: 54
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



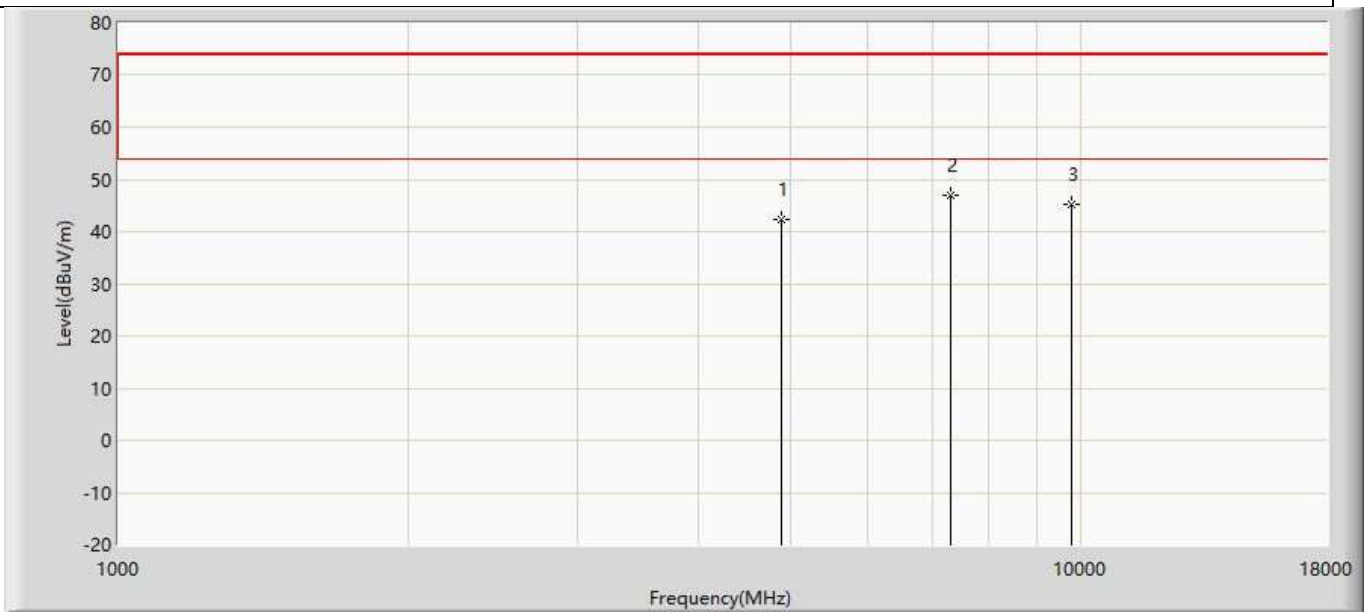
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.328	37.697	-31.672	74.000	4.631	PK
2	*	7206.000	47.106	39.082	-26.894	74.000	8.024	PK
3		9608.000	44.152	34.835	-29.848	74.000	9.318	PK

Profile: 1992203R	Page No.: 55
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps(GFSK_LE)	



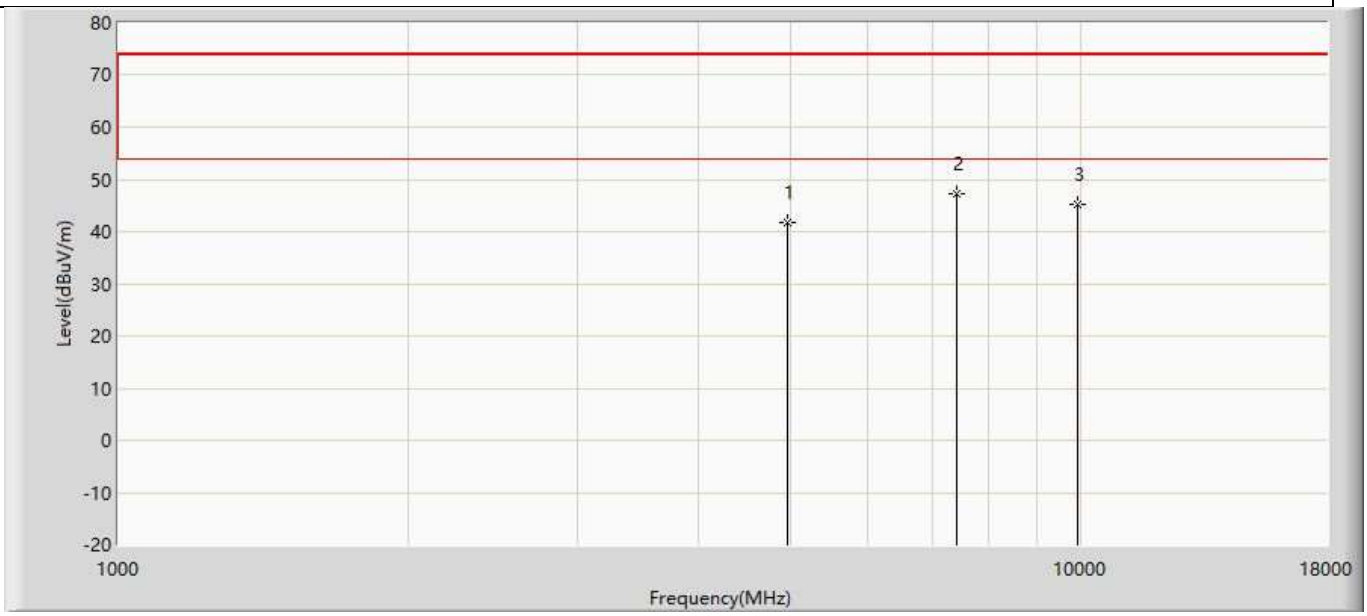
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.719	37.940	-31.281	74.000	4.778	PK
2	*	7320.000	47.411	39.341	-26.589	74.000	8.071	PK
3		9760.000	44.737	34.833	-29.263	74.000	9.904	PK

Profile: 1992203R	Page No.: 56
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps(GFSK_LE)	



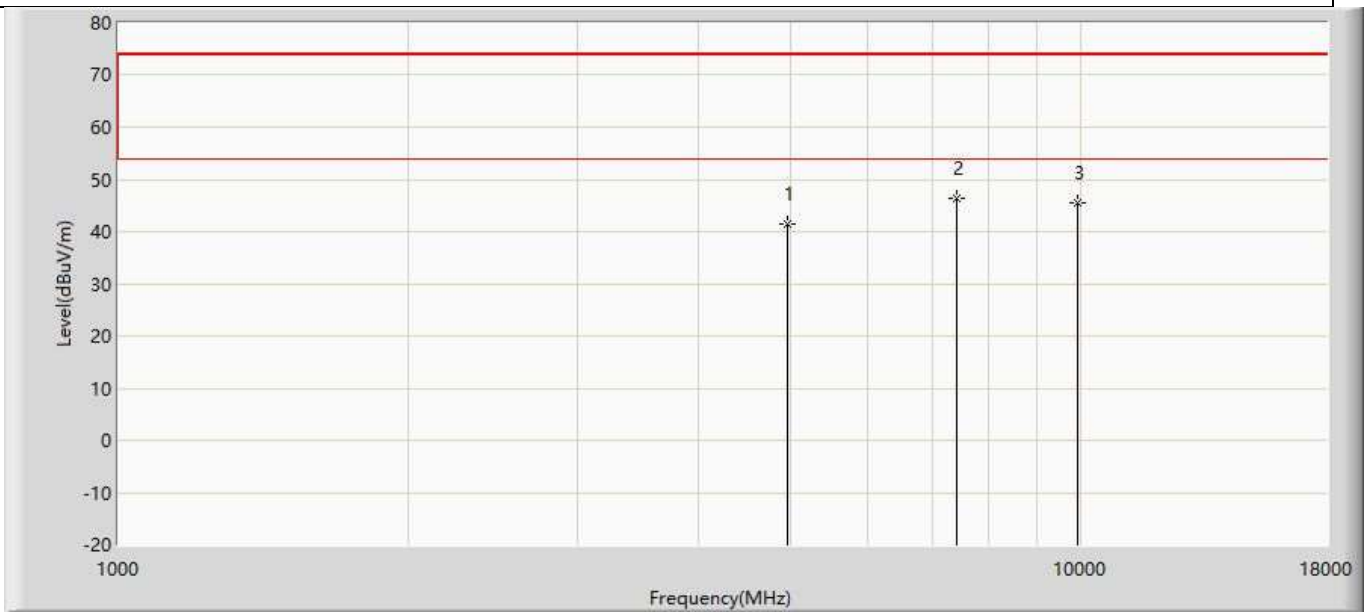
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.446	37.667	-31.554	74.000	4.778	PK
2	*	7320.000	47.008	38.938	-26.992	74.000	8.071	PK
3		9760.000	45.100	35.196	-28.900	74.000	9.904	PK

Profile: 1992203R	Page No.: 57
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



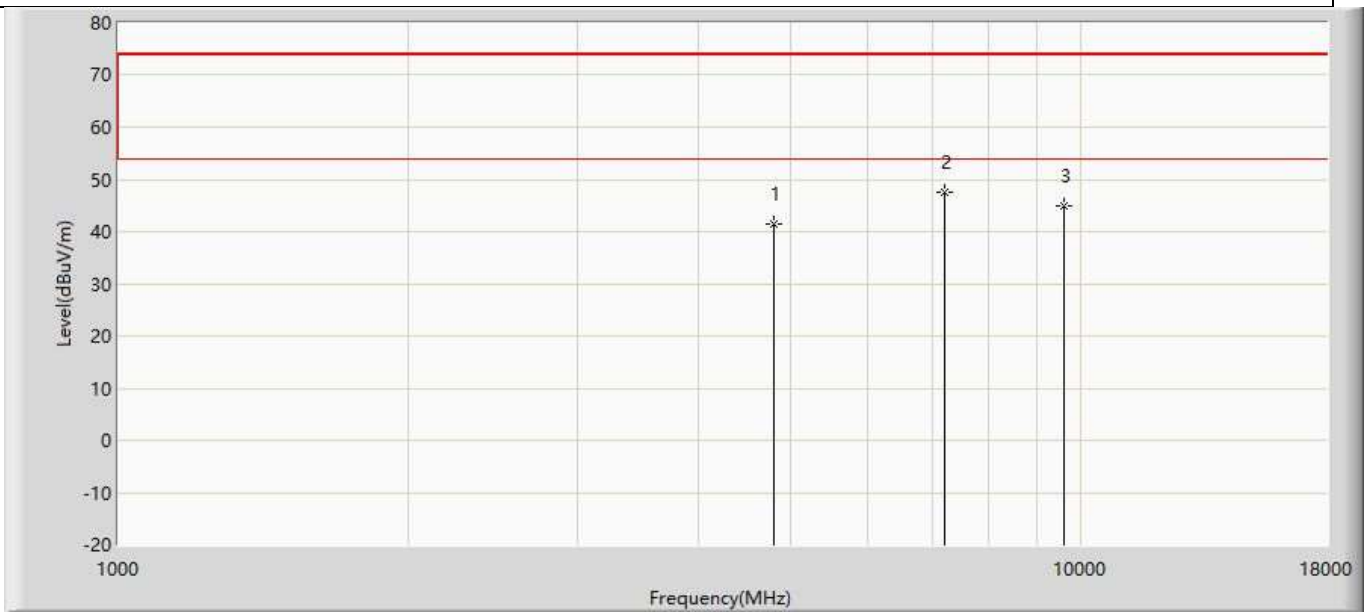
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.678	36.893	-32.322	74.000	4.784	PK
2	*	7440.000	47.140	39.089	-26.860	74.000	8.051	PK
3		9920.000	45.081	35.186	-28.919	74.000	9.894	PK

Profile: 1992203R	Page No.: 58
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



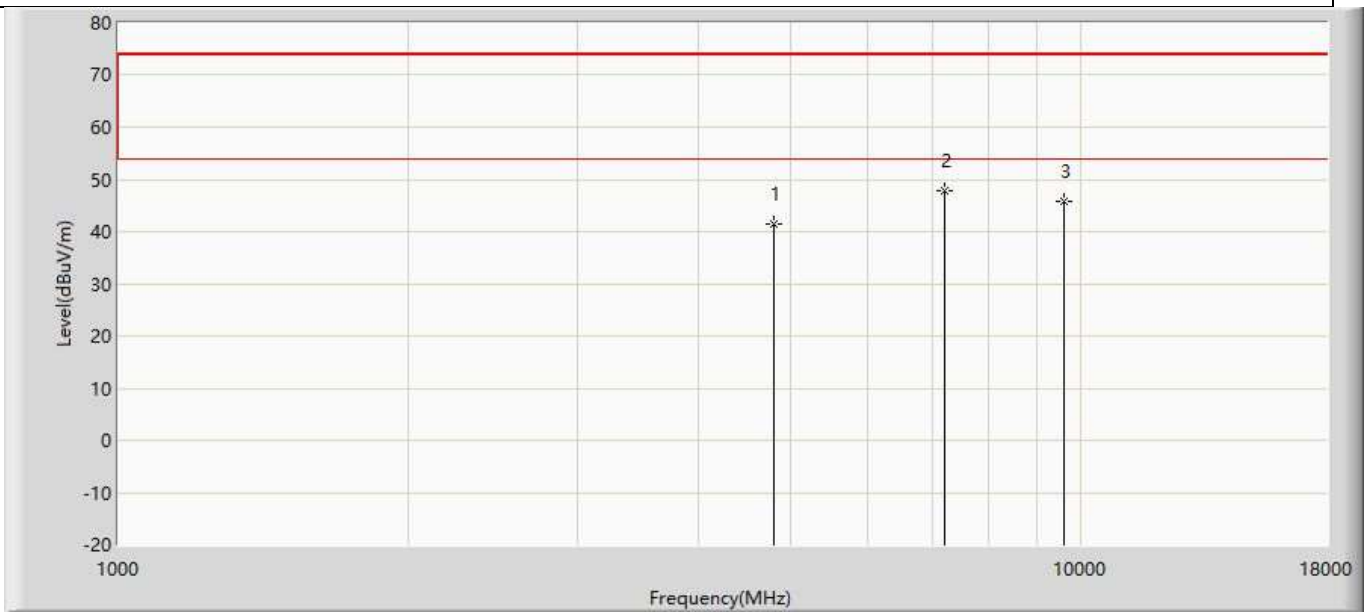
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.320	36.535	-32.680	74.000	4.784	PK
2	*	7440.000	46.406	38.355	-27.594	74.000	8.051	PK
3		9920.000	45.373	35.478	-28.627	74.000	9.894	PK

Profile: 1992203R	Page No.: 65
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



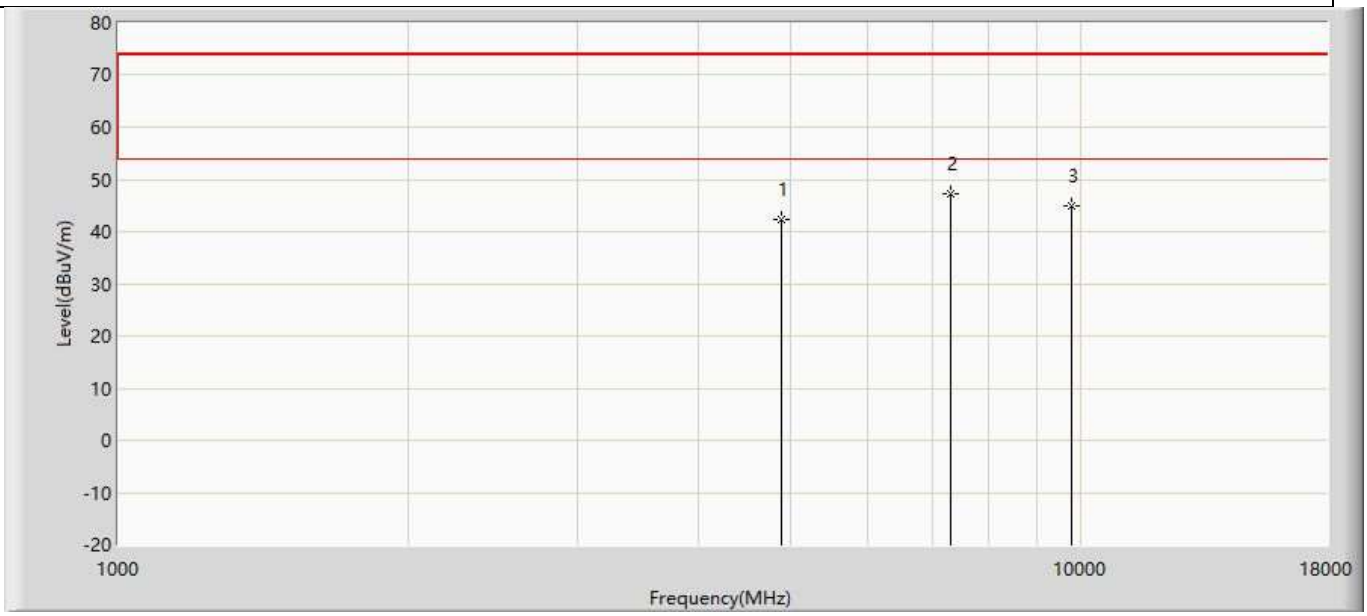
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.502	36.871	-32.498	74.000	4.631	PK
2	*	7206.000	47.672	39.648	-26.328	74.000	8.024	PK
3		9608.000	44.785	35.468	-29.215	74.000	9.318	PK

Profile: 1992203R	Page No.: 66
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



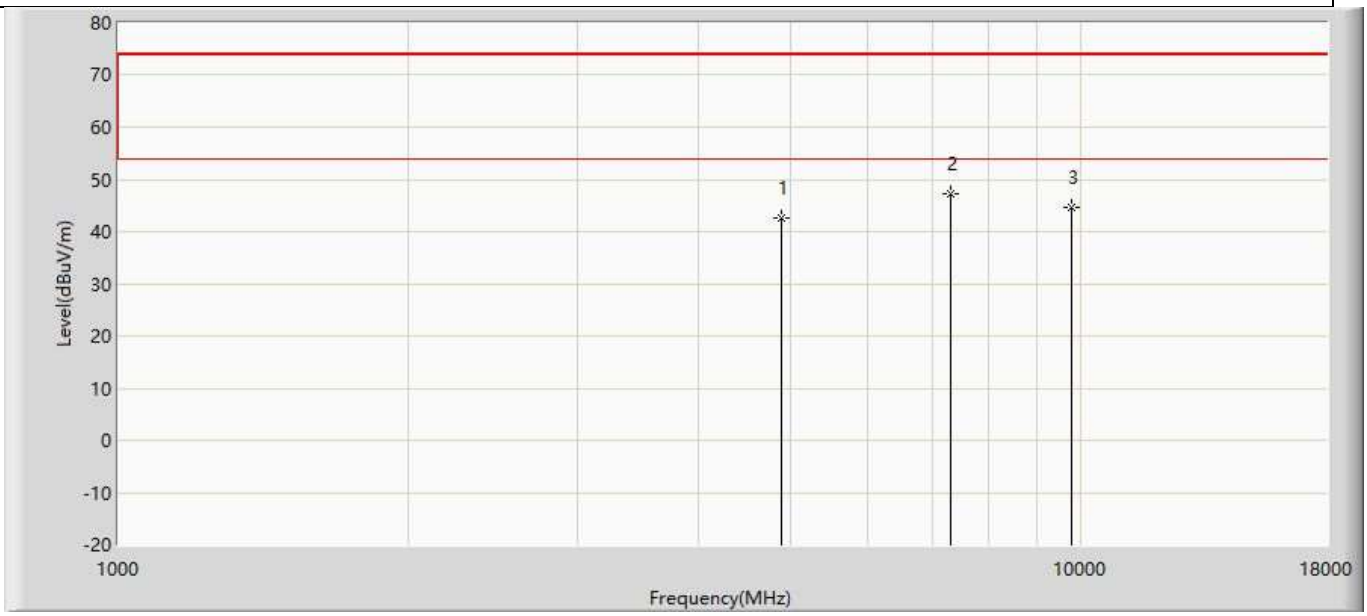
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.530	36.899	-32.470	74.000	4.631	PK
2	*	7206.000	47.871	39.847	-26.129	74.000	8.024	PK
3		9608.000	45.698	36.381	-28.302	74.000	9.318	PK

Profile: 1992203R	Page No.: 67
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded(S=2)(GFSK_LE)	



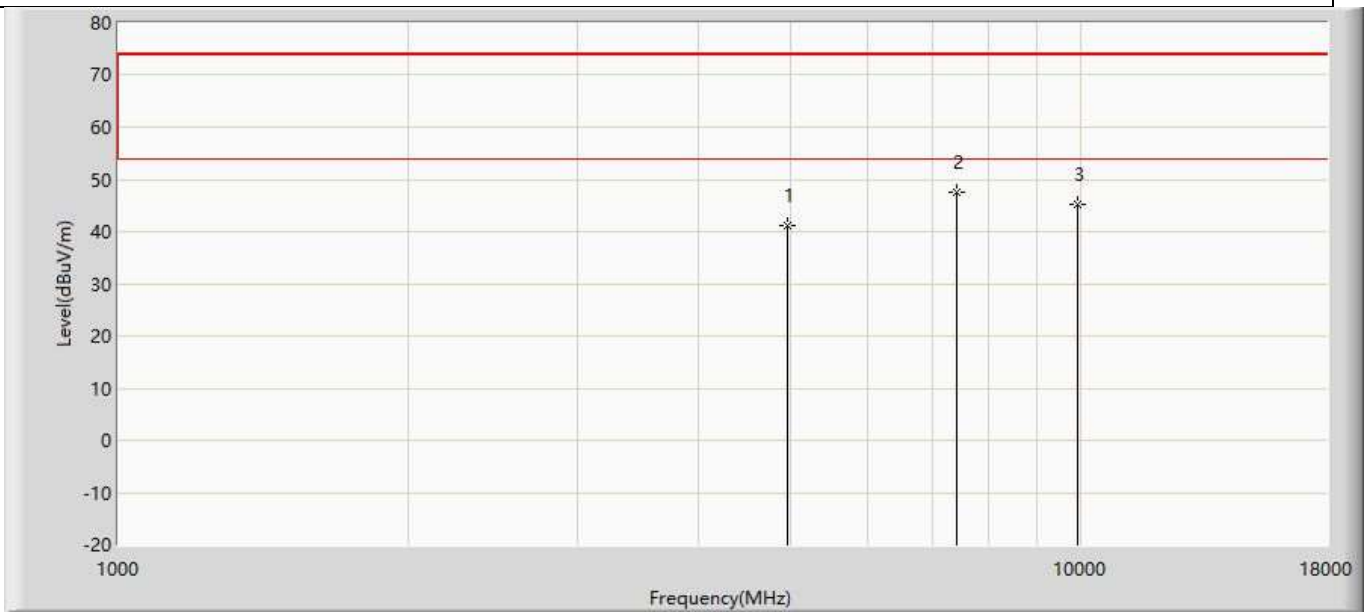
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.369	37.590	-31.631	74.000	4.778	PK
2	*	7320.000	47.204	39.134	-26.796	74.000	8.071	PK
3		9760.000	44.943	35.039	-29.057	74.000	9.904	PK

Profile: 1992203R	Page No.: 68
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2440MHz by LE_Coded(S=2)(GFSK_LE)	



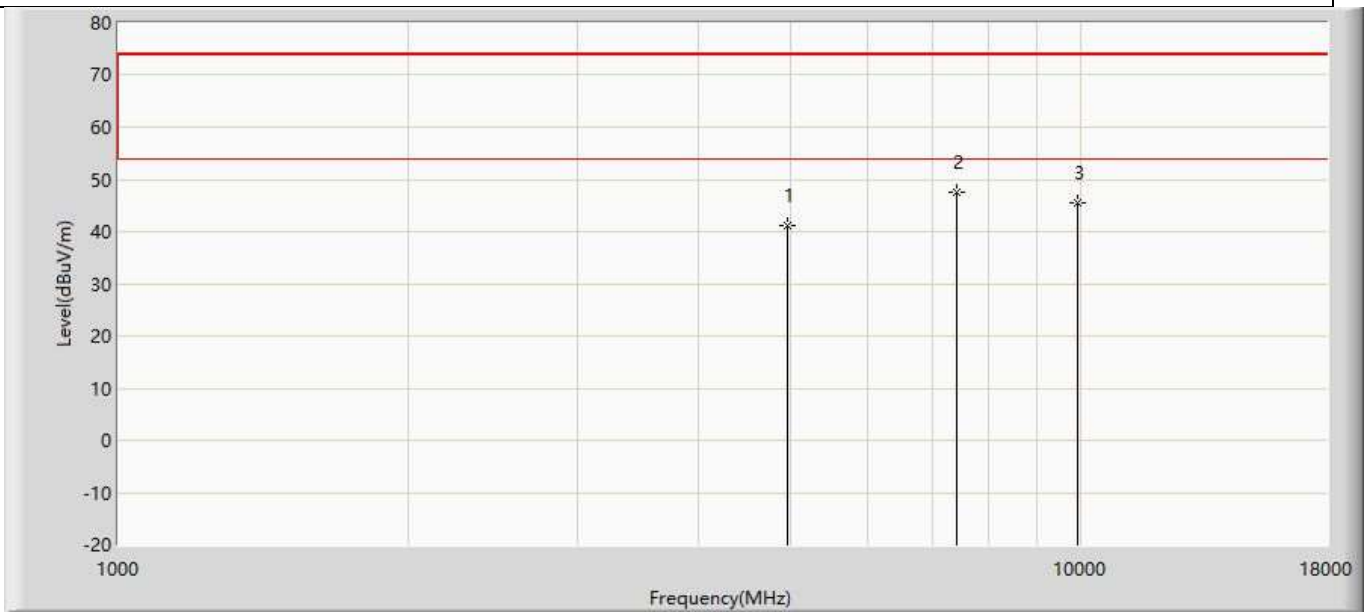
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.594	37.815	-31.406	74.000	4.778	PK
2	*	7320.000	47.208	39.138	-26.792	74.000	8.071	PK
3		9760.000	44.573	34.669	-29.427	74.000	9.904	PK

Profile: 1992203R	Page No.: 69
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



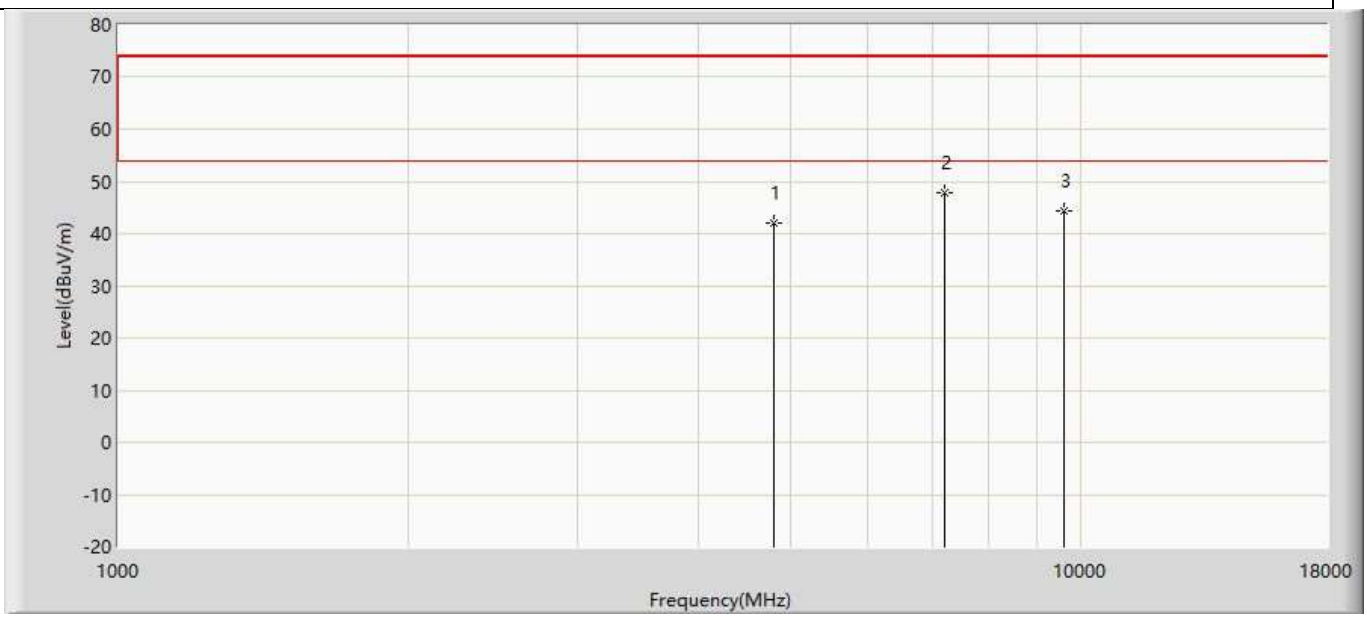
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.267	36.482	-32.733	74.000	4.784	PK
2	*	7440.000	47.437	39.386	-26.563	74.000	8.051	PK
3		9920.000	45.284	35.389	-28.716	74.000	9.894	PK

Profile: 1992203R	Page No.: 70
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



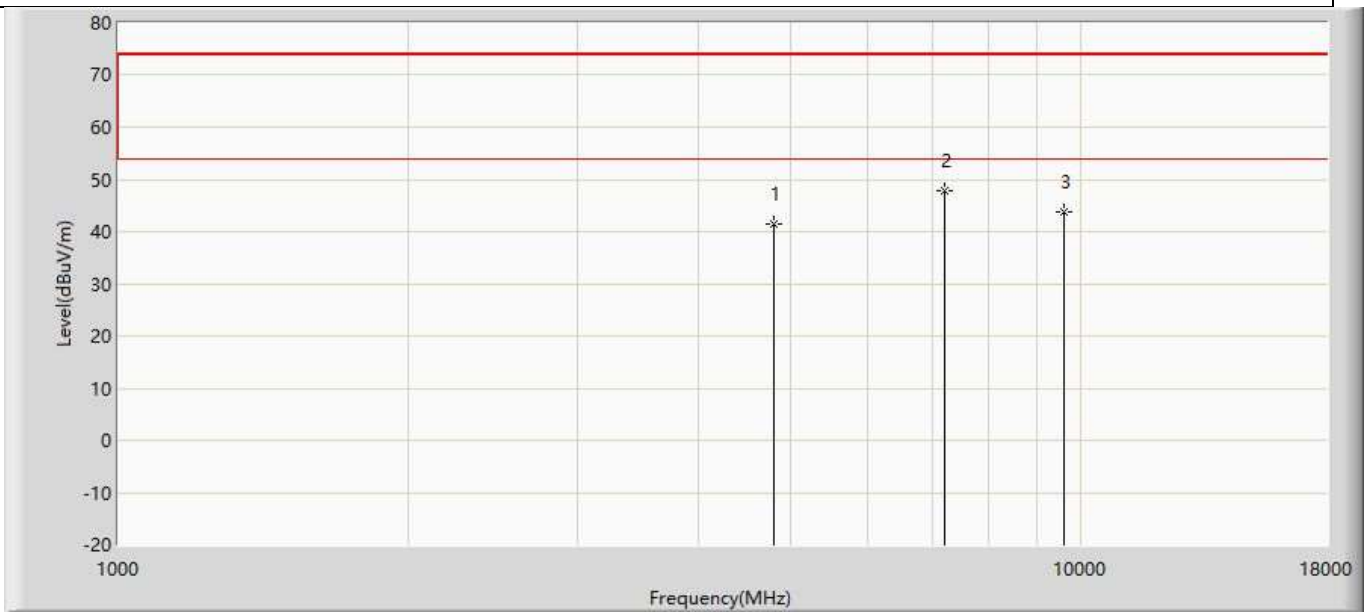
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.267	36.482	-32.733	74.000	4.784	PK
2	*	7440.000	47.480	39.429	-26.520	74.000	8.051	PK
3		9920.000	45.587	35.692	-28.413	74.000	9.894	PK

Profile: 1992203R	Page No.: 59
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



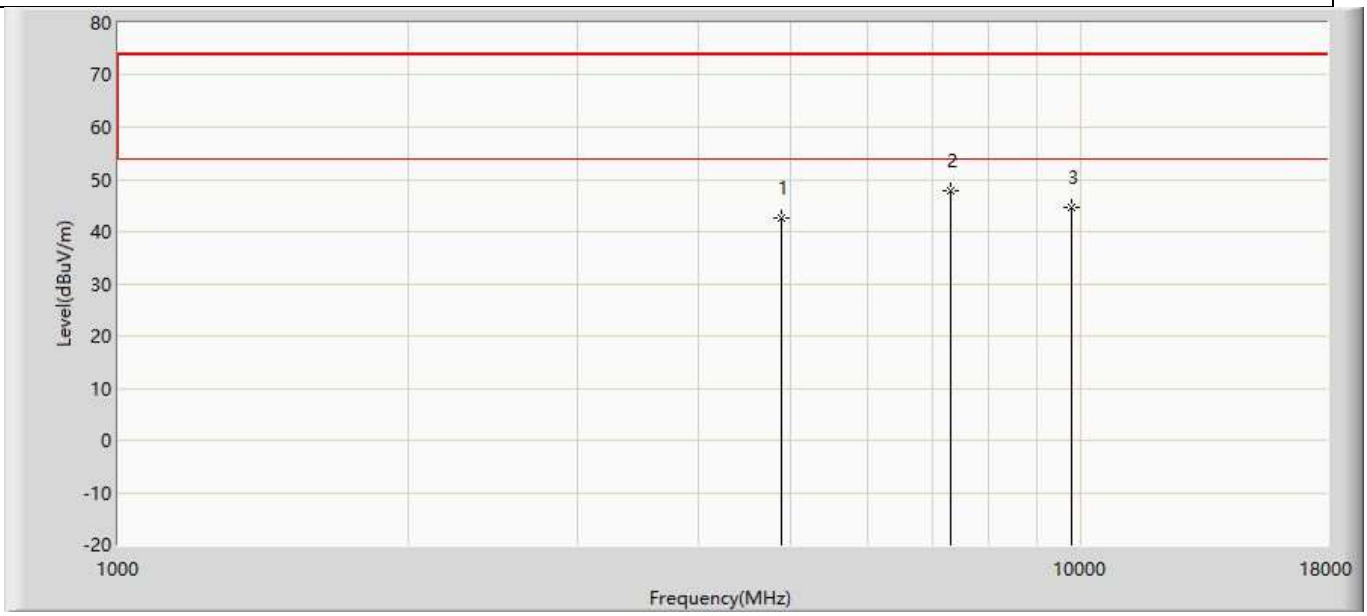
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.117	37.486	-31.883	74.000	4.631	PK
2	*	7206.000	47.839	39.815	-26.161	74.000	8.024	PK
3		9608.000	44.426	35.109	-29.574	74.000	9.318	PK

Profile: 1992203R	Page No.: 60
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



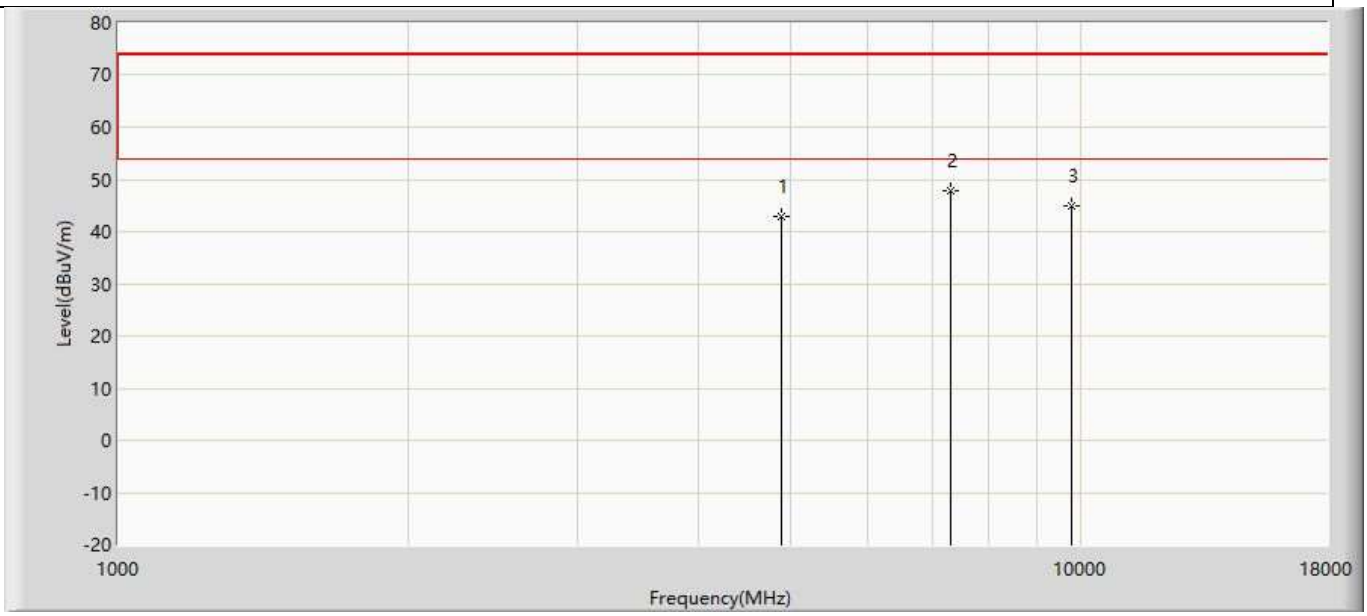
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.522	36.891	-32.478	74.000	4.631	PK
2	*	7206.000	47.805	39.781	-26.195	74.000	8.024	PK
3		9608.000	43.700	34.383	-30.300	74.000	9.318	PK

Profile: 1992203R	Page No.: 61
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 15:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded(S=8)(GFSK_LE)	



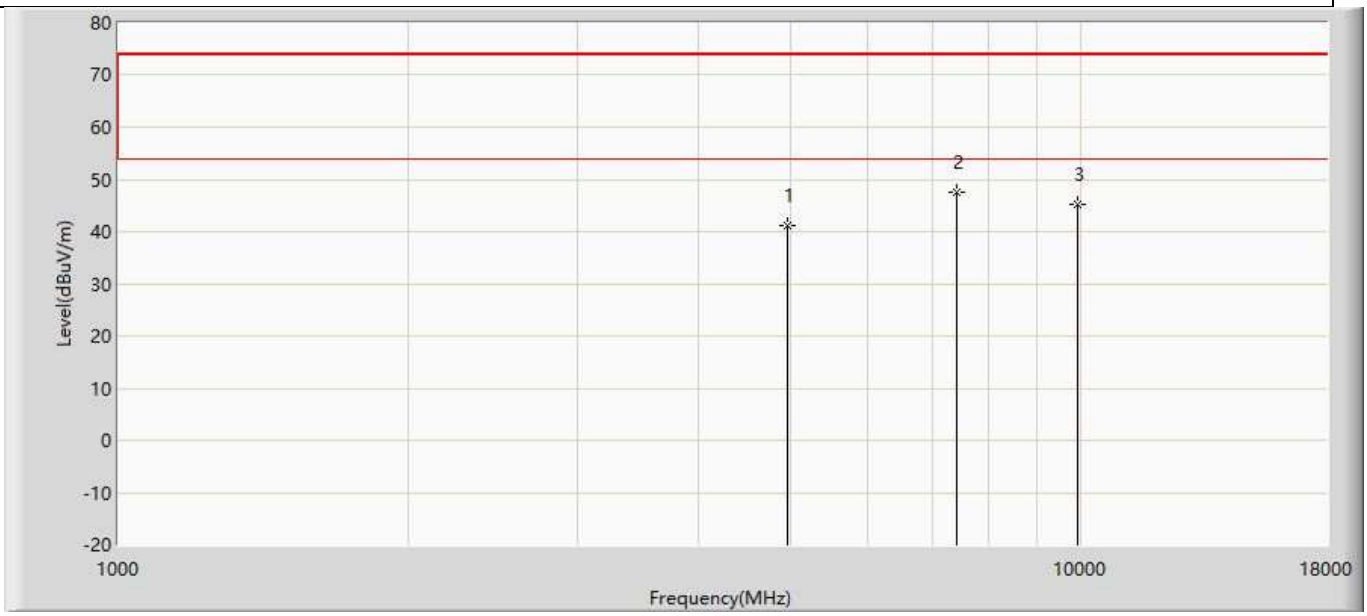
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.625	37.846	-31.375	74.000	4.778	PK
2	*	7320.000	47.916	39.846	-26.084	74.000	8.071	PK
3		9760.000	44.522	34.618	-29.478	74.000	9.904	PK

Profile: 1992203R	Page No.: 62
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2440MHz by LE_Coded(S=8)(GFSK_LE)	



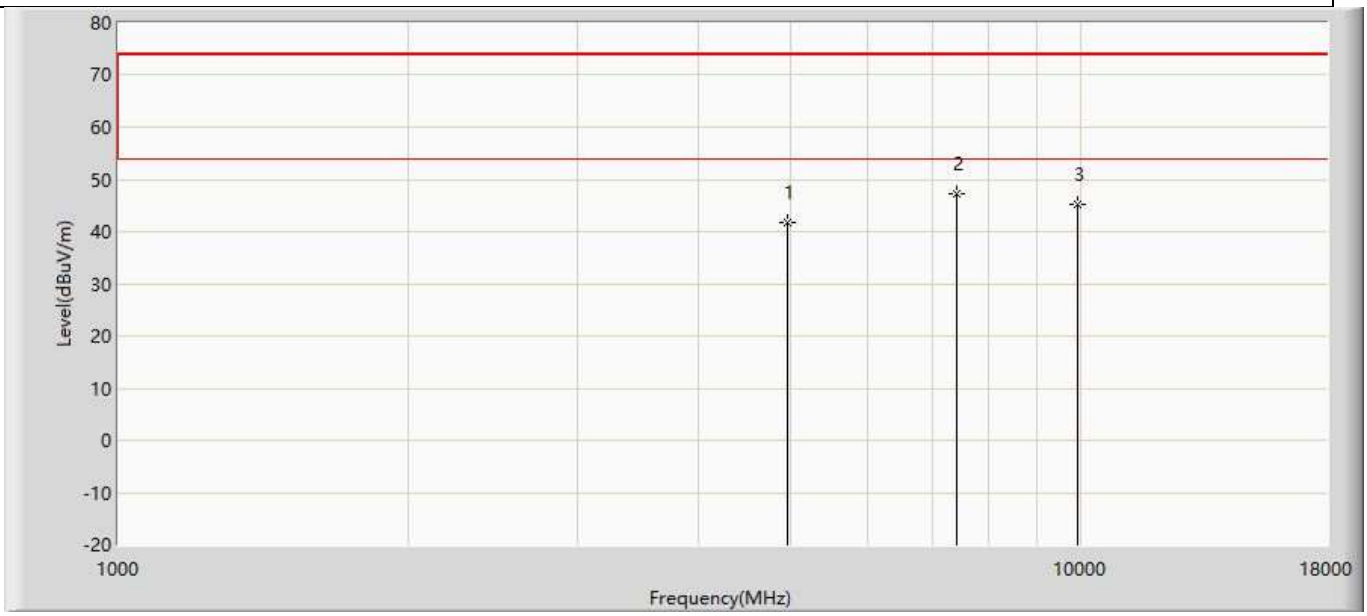
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.947	38.168	-31.053	74.000	4.778	PK
2	*	7320.000	47.808	39.738	-26.192	74.000	8.071	PK
3		9760.000	45.032	35.128	-28.968	74.000	9.904	PK

Profile: 1992203R	Page No.: 63
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.304	36.519	-32.696	74.000	4.784	PK
2	*	7440.000	47.489	39.438	-26.511	74.000	8.051	PK
3		9920.000	45.281	35.386	-28.719	74.000	9.894	PK

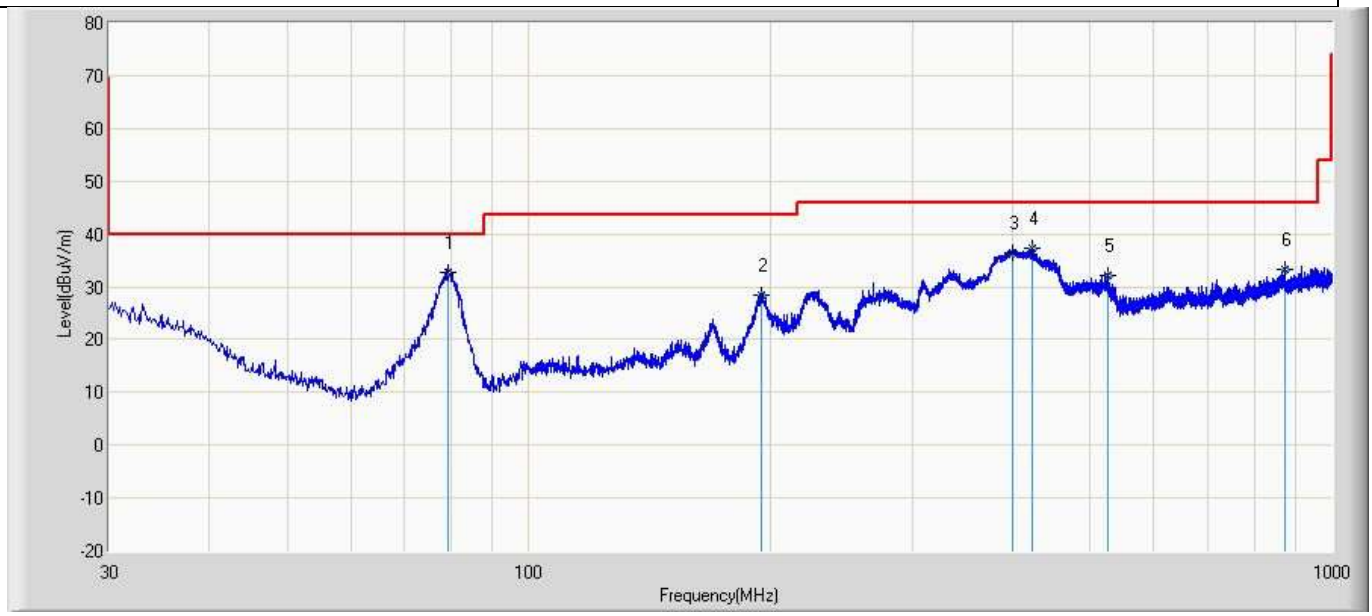
Profile: 1992203R	Page No.: 64
Engineer: Pawn	
Site: AC5	Time: 2019/10/16 - 16:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	41.637	36.852	-32.363	74.000	4.784	PK
2	*	7440.000	47.190	39.139	-26.810	74.000	8.051	PK
3		9920.000	45.229	35.334	-28.771	74.000	9.894	PK

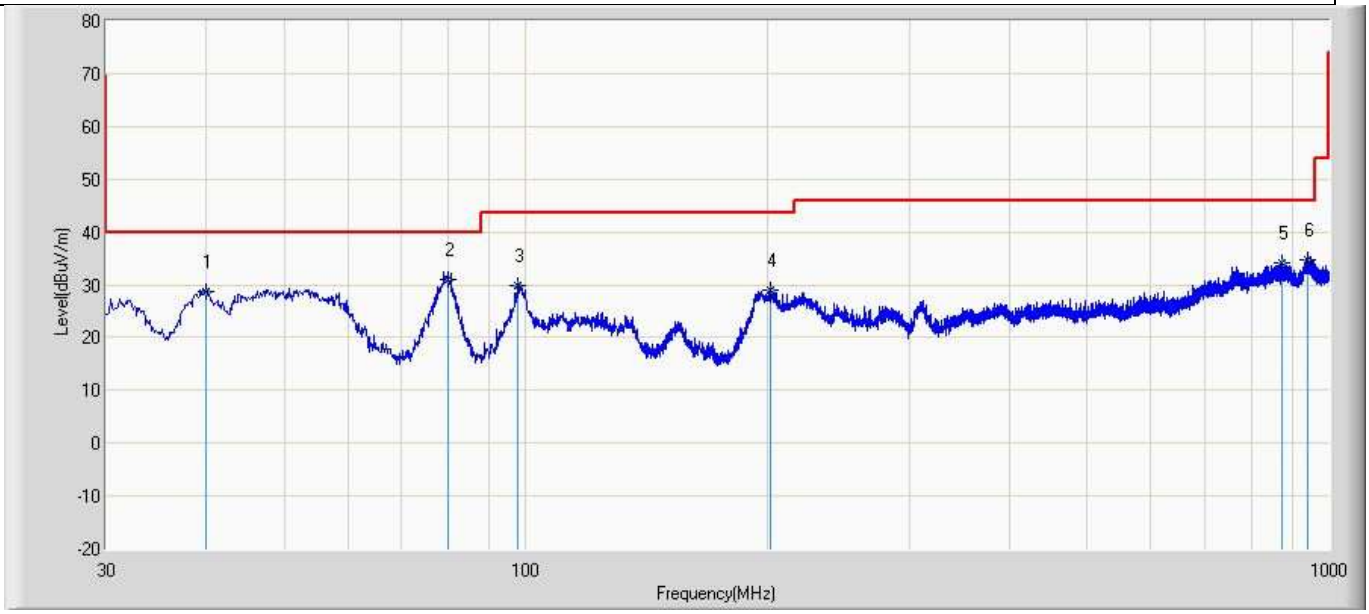
The worst case of Radiated Emission below 1GHz:

Profile: 1992203R	Page No.: 1
Engineer: Cyan	
Site: AC3	Time: 2019/05/09 - 21:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1 Transmit by LE_1Mbps(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	79.470	32.779	19.854	-7.221	40.000	12.925	QP
2		194.415	28.489	11.002	-15.011	43.500	17.488	QP
3		400.661	36.579	11.241	-9.421	46.000	25.338	QP
4		422.799	37.282	9.988	-8.718	46.000	27.295	QP
5		525.549	32.196	4.847	-13.804	46.000	27.349	QP
6		874.870	33.323	2.113	-12.677	46.000	31.210	QP

Profile: 1992203R	Page No.: 2
Engineer: Cyan	
Site: AC3	Time: 2019/10/17 - 00:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1 Transmit by LE_1Mbps(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		39.943	28.767	9.887	-11.233	40.000	18.880	QP
2	*	79.955	30.974	15.654	-9.026	40.000	15.320	QP
3		97.779	29.769	8.540	-13.731	43.500	21.229	QP
4		201.690	29.079	6.411	-14.421	43.500	22.668	QP
5		874.143	34.019	1.111	-11.981	46.000	32.908	QP
6		942.406	34.845	0.544	-11.155	46.000	34.301	QP

Note:
1. " * ", means this data is the worst emission level.
2. Measured Level = Reading Level + Factor(Probe+Cable-Amp).
3. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.
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.
5. As the radiated emission was performed, so conducted emission was not tested.

4.3 Emissions in non-restricted frequency band	VERDICT: PASS

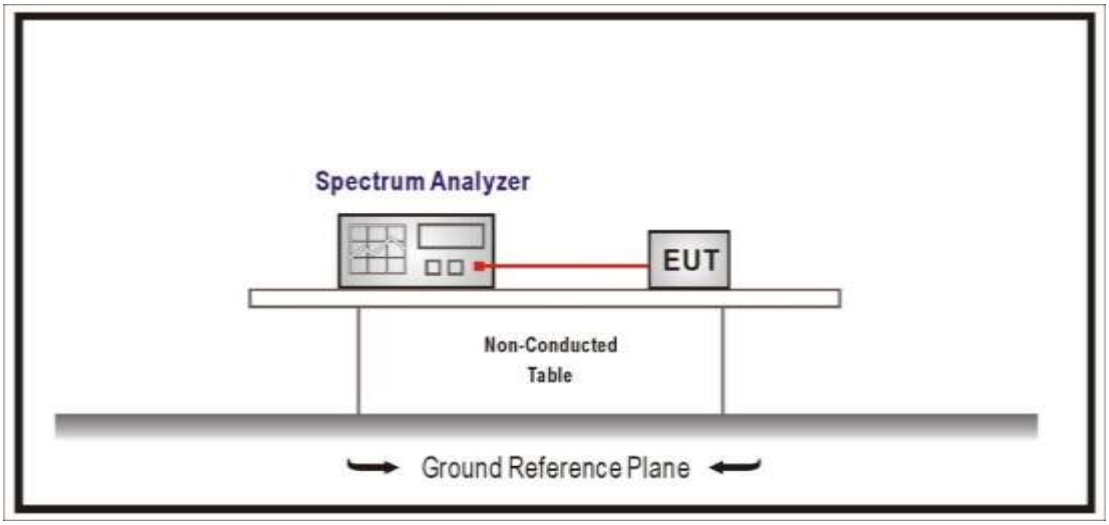
4.3.1 Limit

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

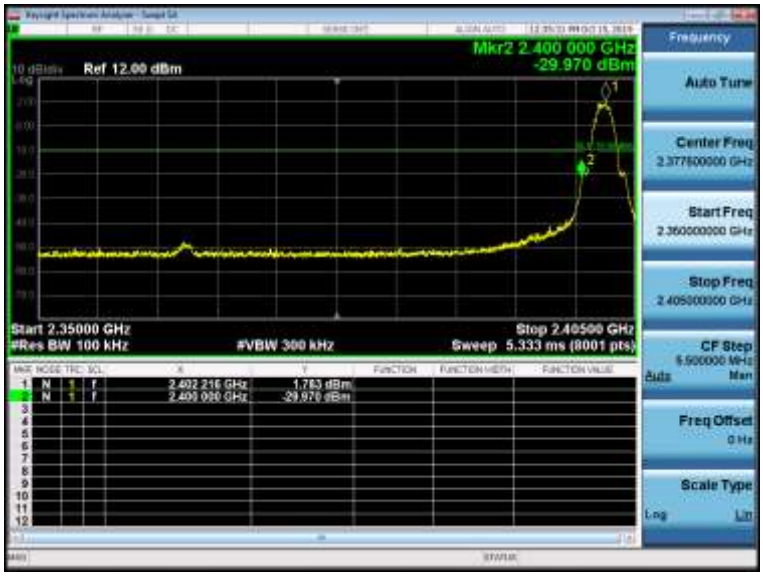
References Rule			Chapter	Description
☒	ANSI C63.10		11.11	Emissions in non-restricted frequency bands
	☒	ANSI C63.10	11.11.1	General
	☒	ANSI C63.10	11.11.2	Reference level measurement
	☒	ANSI C63.10	11.11.3	Emission level measurement

4.3.4 Test Data

Mode	Channel	Test Frequency (MHz)	Maximum In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
Mode 1	00	2402	3.665	2400	-47.831	51.50	>20	Pass
	39	2480	4.058	2518.438	-55.888	59.95	>20	Pass
Mode 2	00	2402	1.783	2400	-29.97	31.75	>20	Pass
	39	2480	1.344	2518.266	-57.735	59.08	>20	Pass
Mode 3	00	2402	4.192	2400	-46.606	50.80	>20	Pass
	39	2480	3.249	2518.703	-55.924	59.17	>20	Pass
Mode 4	00	2402	1.136	2400	-48.327	49.46	>20	Pass
	39	2480	0.336	2518.219	-56.407	56.74	>20	Pass

Note : We evaluated all test modes, shown in the report is the worst data.

Mode 2 CH00(2402MHz)



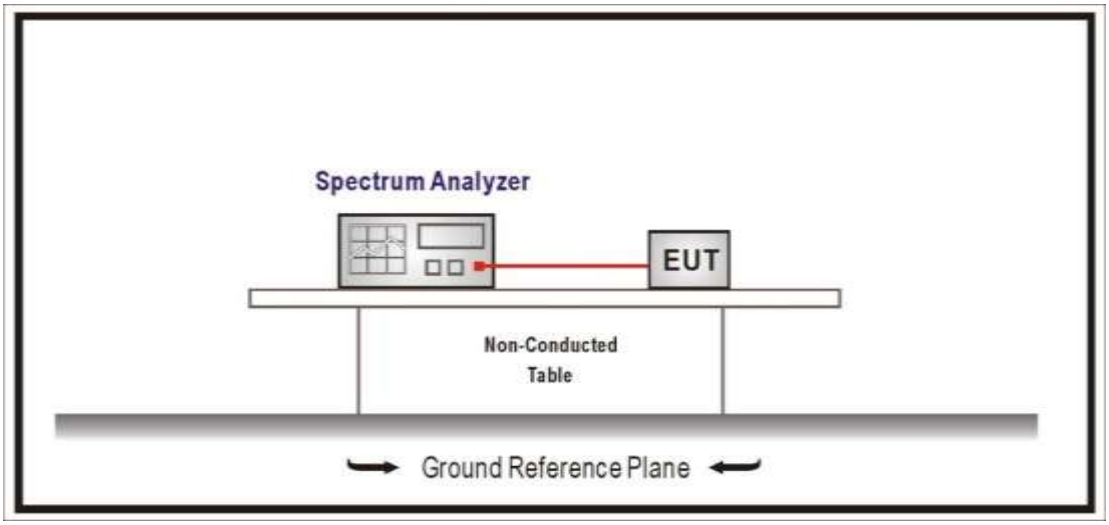
Mode 2 CH39(2480MHz)

4.4 Duty cycle	VERDICT: N/A

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

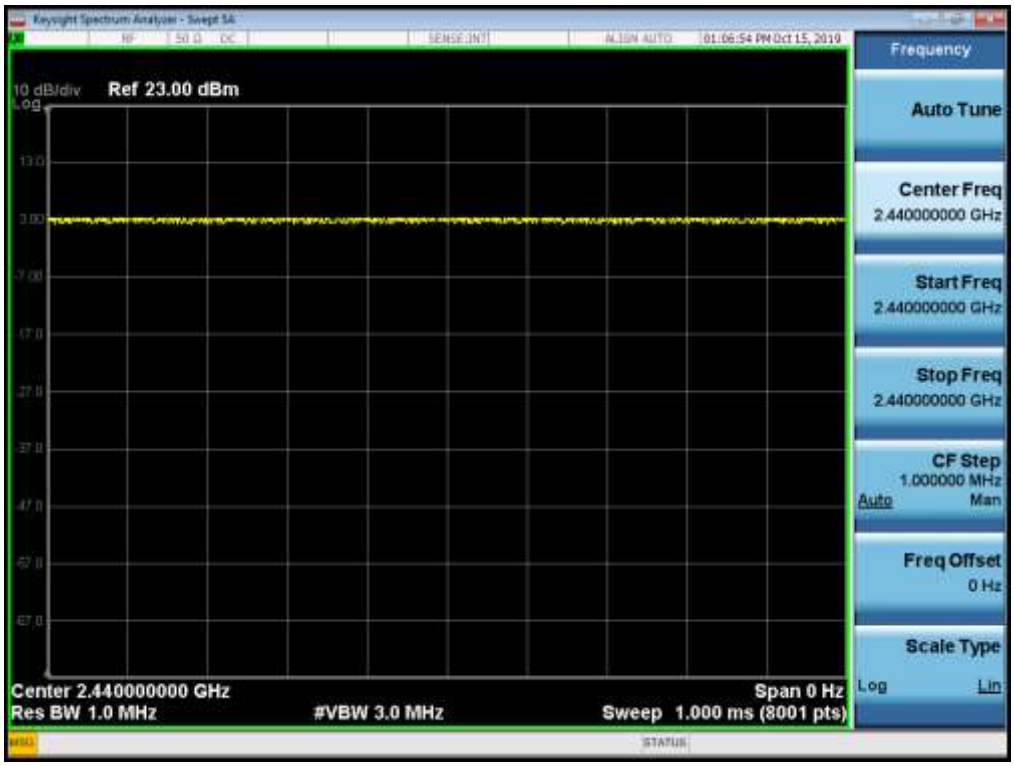
4.4.4 Test Data

Test Mode	Tx On (ms)	Tx Off (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
Mode 1	N/A	N/A	10	N/A	100%
Mode 2	N/A	N/A	10	N/A	100%
Mode 3	N/A	N/A	10	N/A	100%
Mode 4	N/A	N/A	10	N/A	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



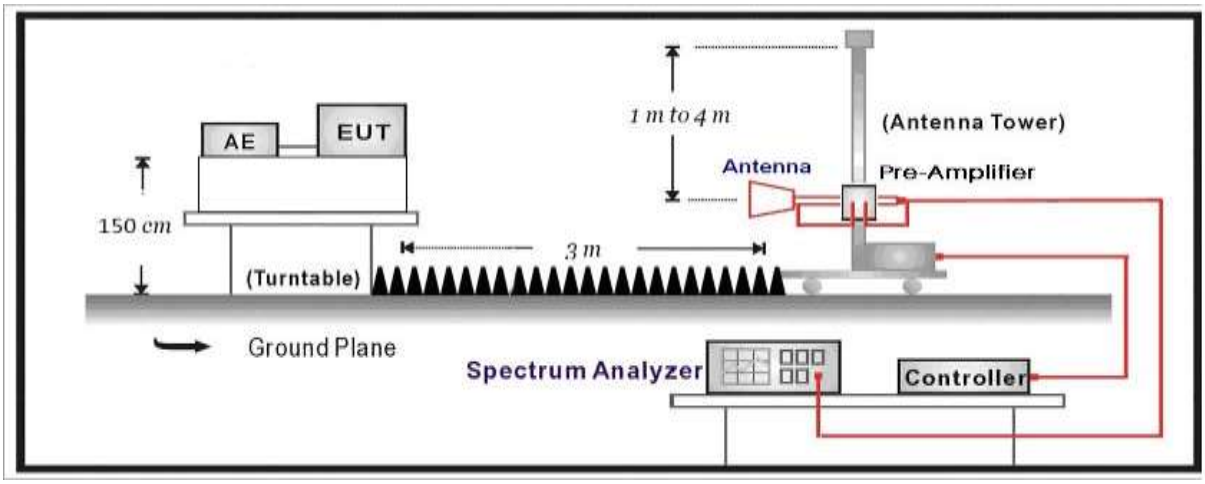
4.5 Radiated Emission Band Edge — VERDICT: PASS

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:



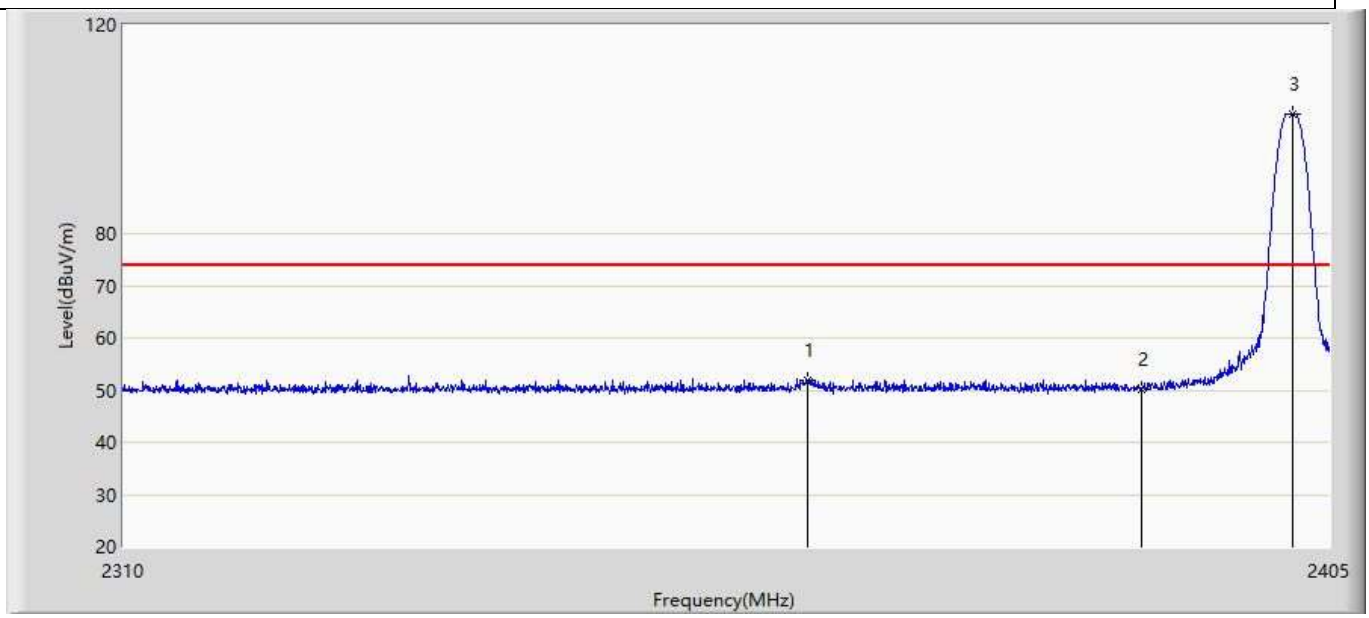
4.5.3 Test Procedure

	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

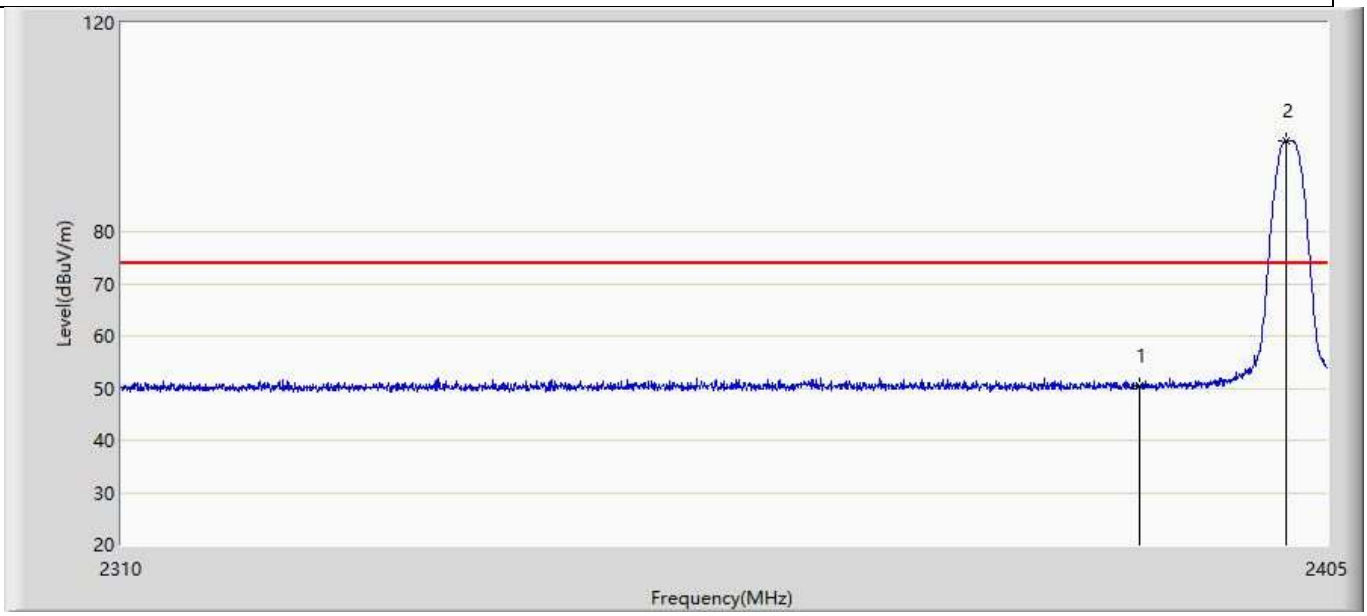
Murata:

Profile: 1992203R	Page No.: 9
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



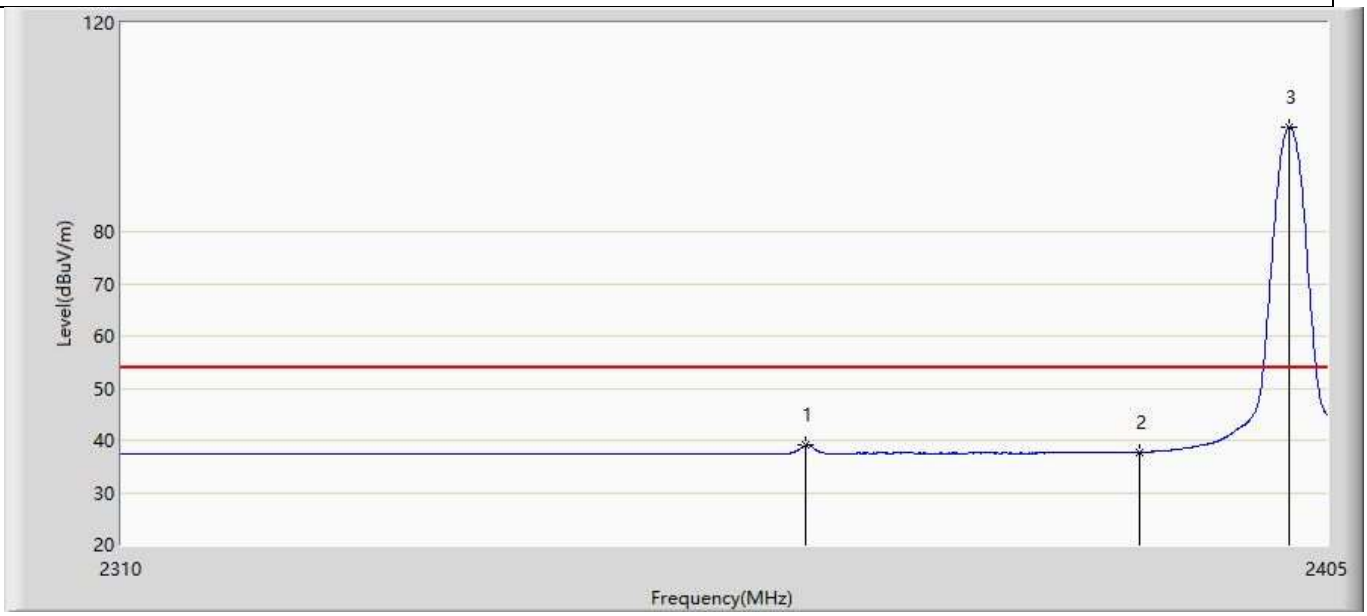
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.485	51.942	16.502	-22.058	74.000	35.441	PK
2		2390.000	50.187	14.730	-23.813	74.000	35.458	PK
3	*	2402.055	102.908	67.438	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 10
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



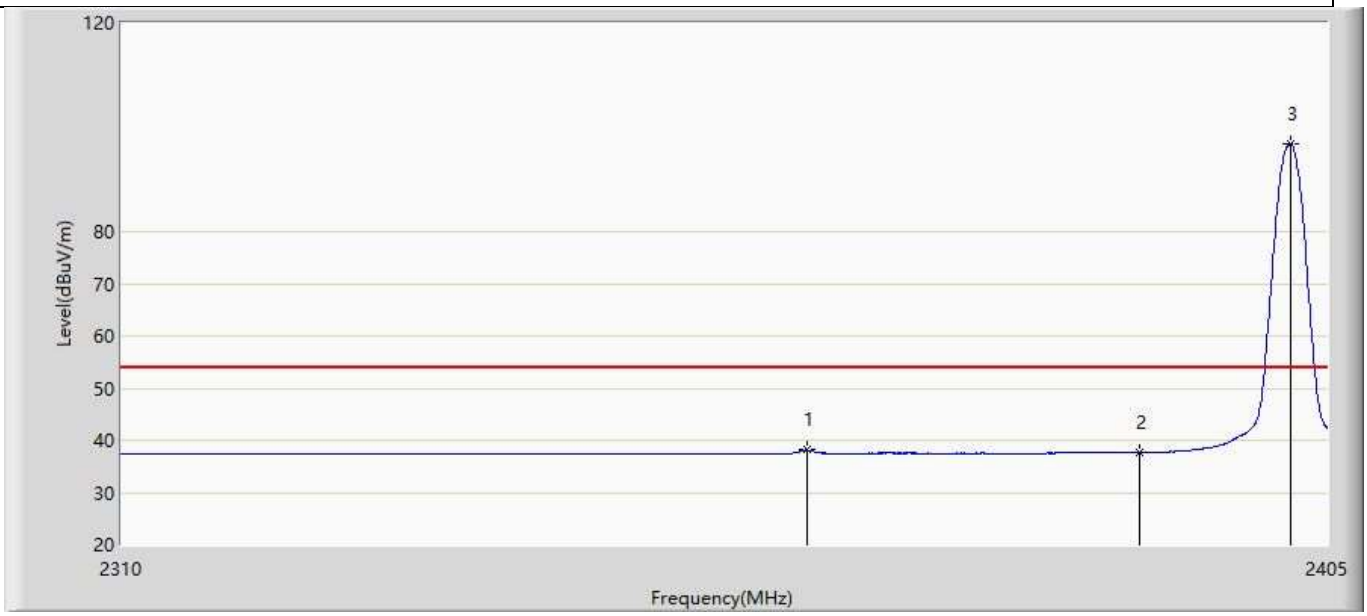
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.465	15.008	-23.535	74.000	35.458	PK
2	*	2401.770	97.489	62.020	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 11
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



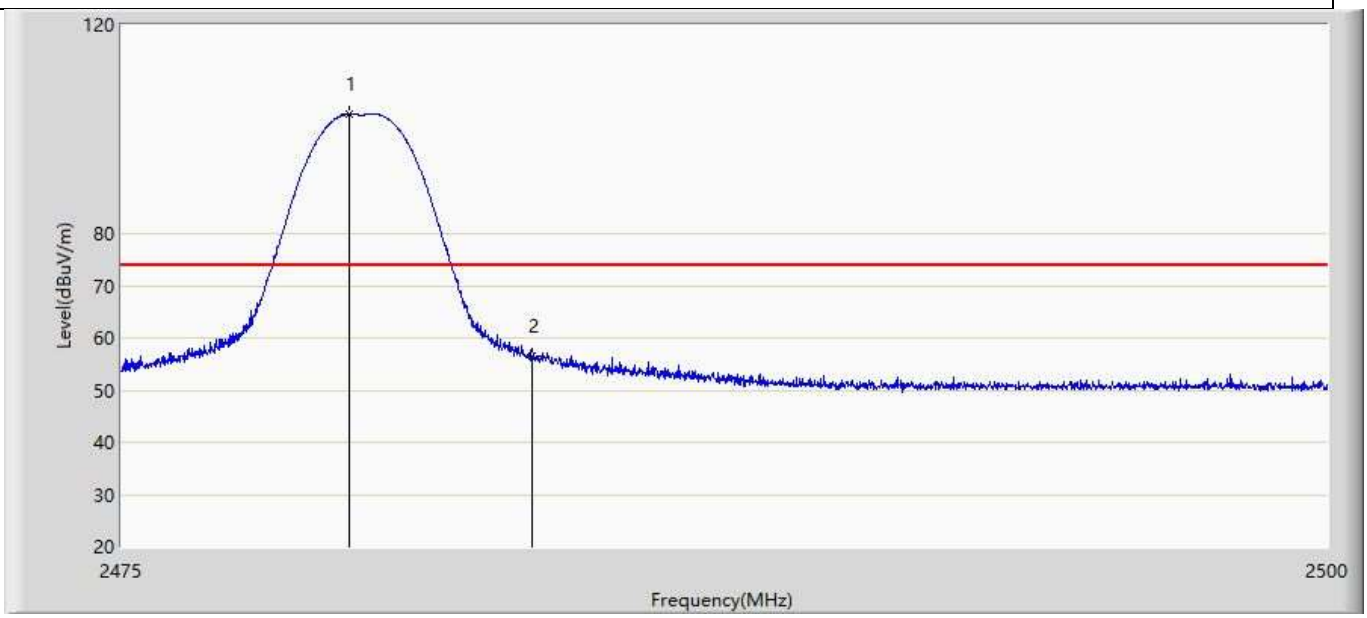
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.437	39.008	3.568	-14.992	54.000	35.440	AV
2		2390.000	37.723	2.266	-16.277	54.000	35.458	AV
3	*	2401.913	99.981	64.512	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 12
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



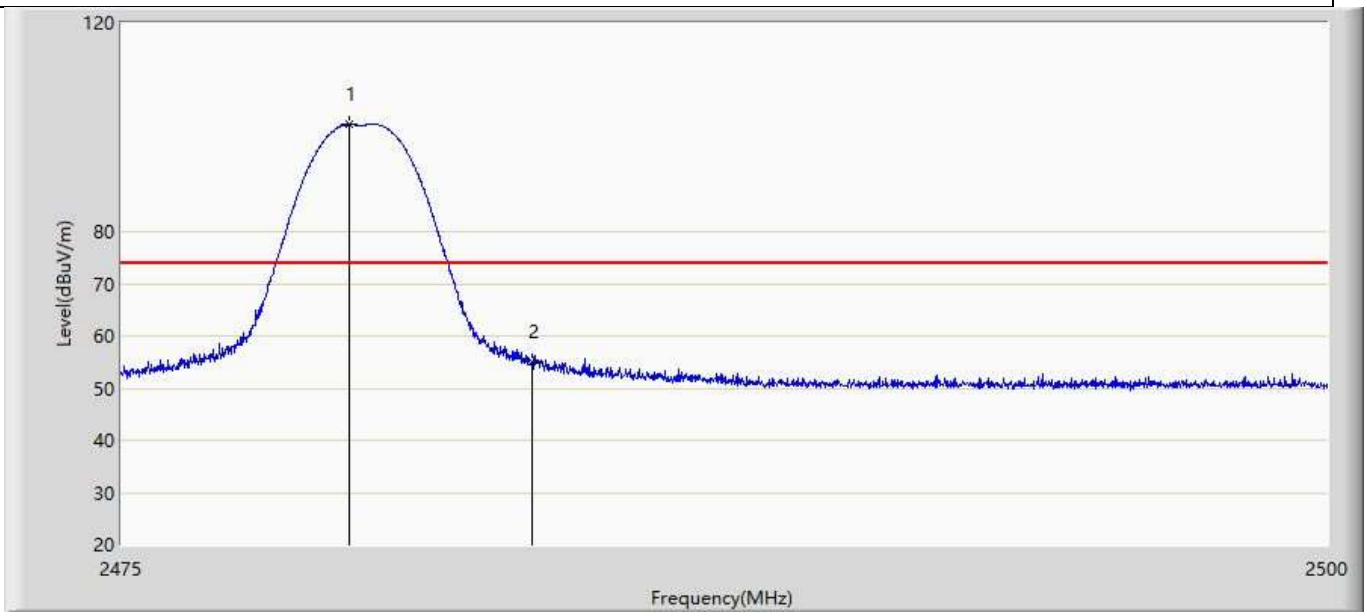
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	38.120	2.680	-15.880	54.000	35.441	AV
2		2390.000	37.625	2.168	-16.375	54.000	35.458	AV
3	*	2402.055	96.939	61.469	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 25
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



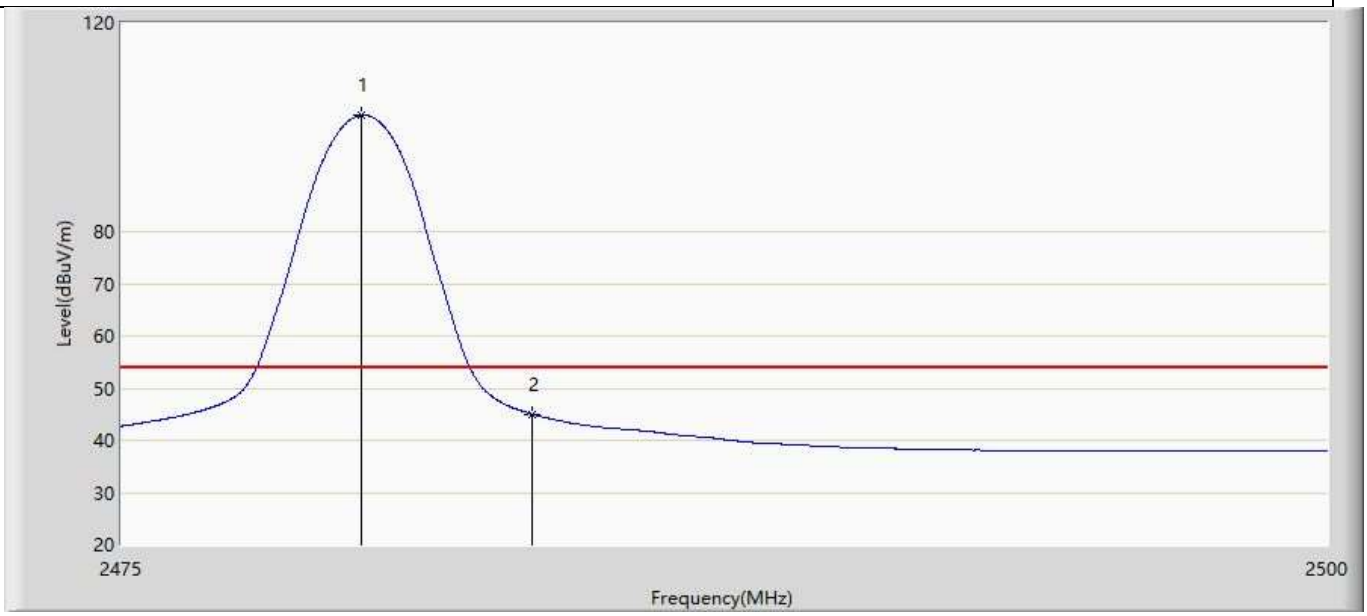
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.700	102.835	67.339	N/A	N/A	35.496	PK
2		2483.500	56.469	20.951	-17.531	74.000	35.517	PK

Profile: 1992203R	Page No.: 26
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



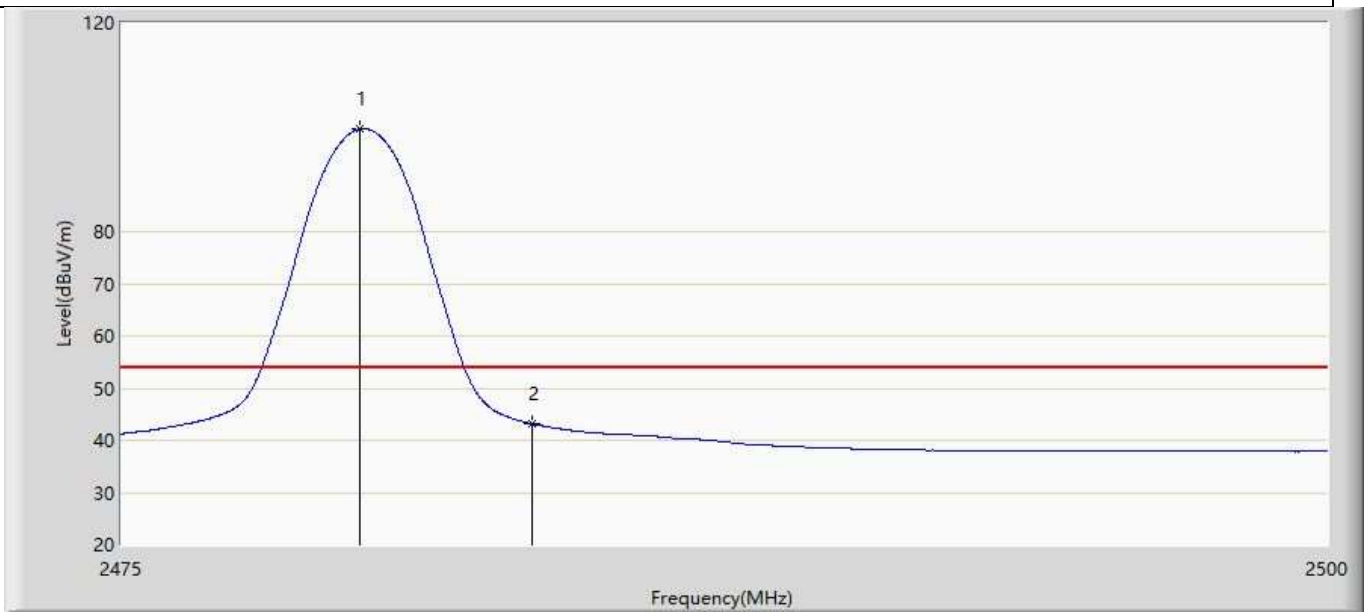
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.700	100.445	64.949	N/A	N/A	35.496	PK
2		2483.500	54.983	19.465	-19.017	74.000	35.517	PK

Profile: 1992203R	Page No.: 27
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



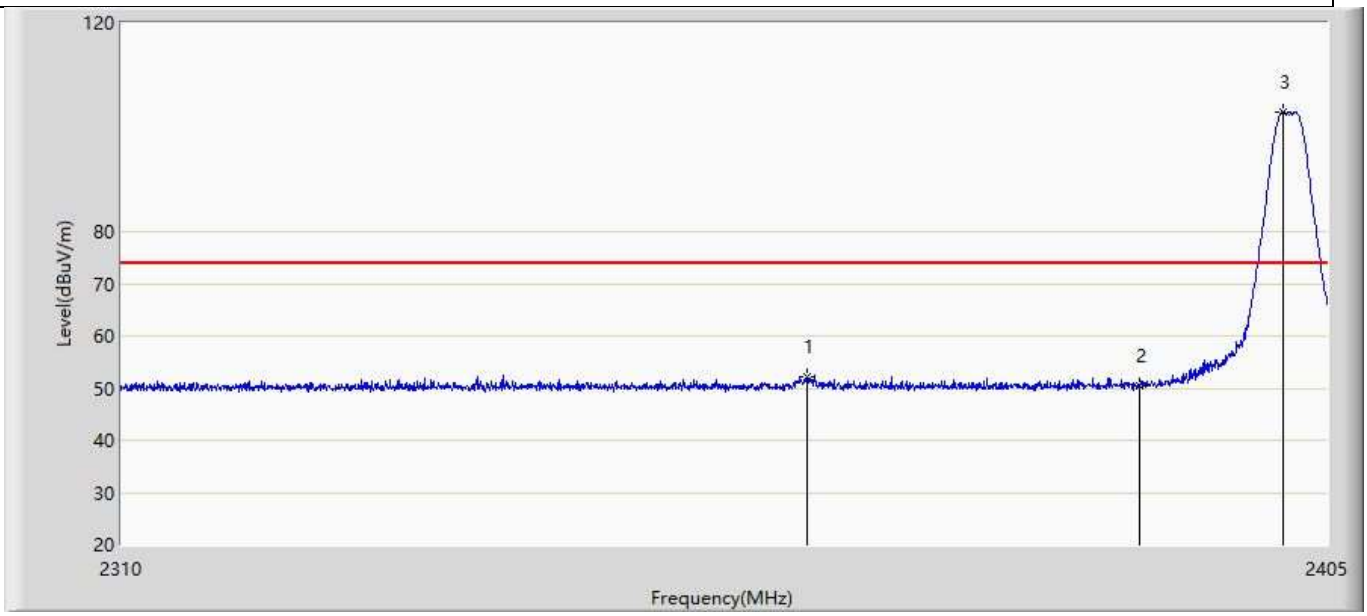
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.975	102.304	66.806	N/A	N/A	35.498	AV
2		2483.500	44.977	9.459	-9.023	54.000	35.517	AV

Profile: 1992203R	Page No.: 28
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



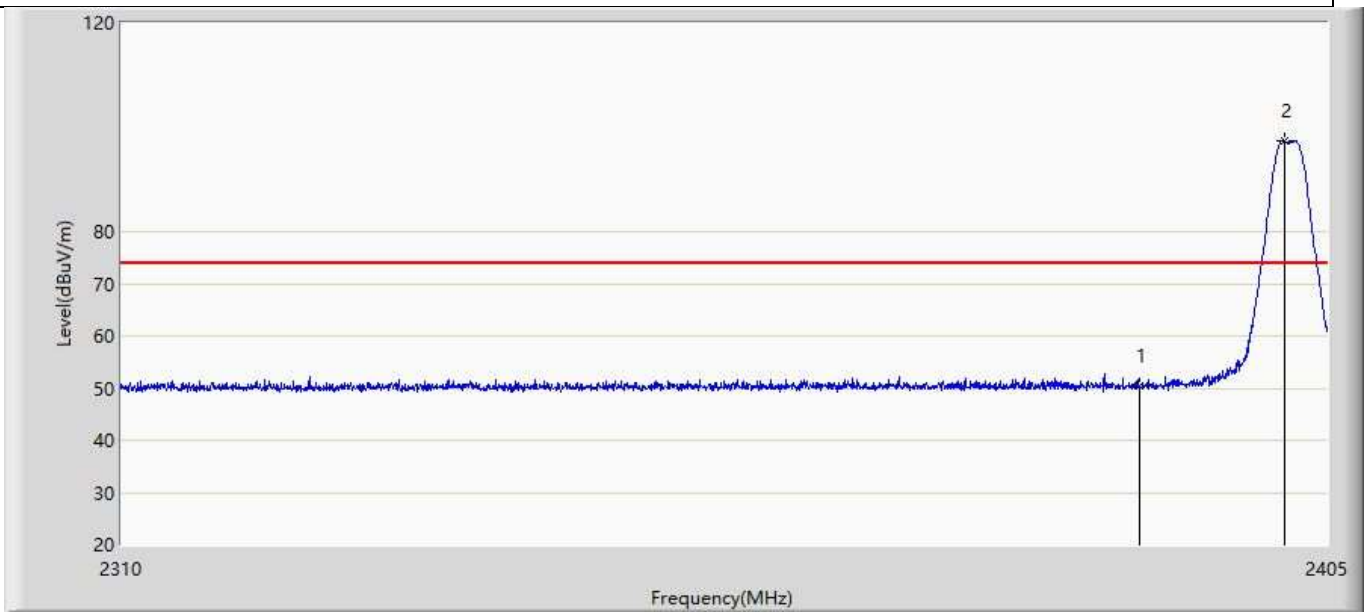
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.937	99.663	64.166	N/A	N/A	35.498	AV
2		2483.500	43.160	7.642	-10.840	54.000	35.517	AV

Profile: 1992203R	Page No.: 13
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



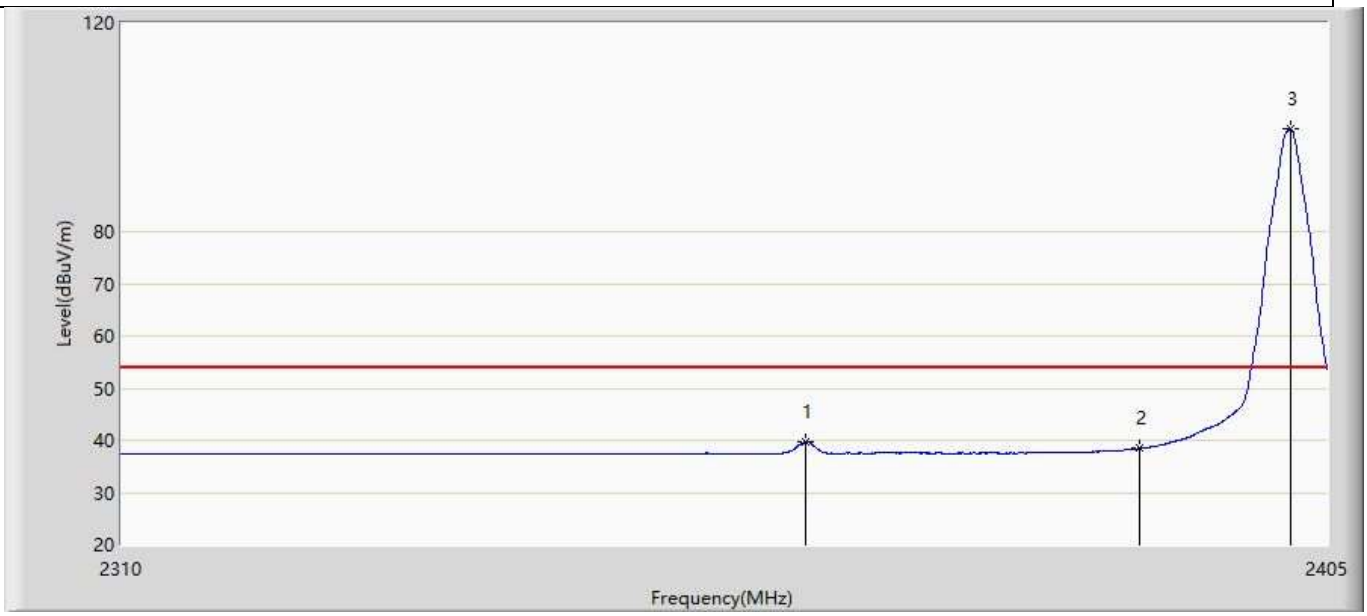
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.627	52.253	16.813	-21.747	74.000	35.441	PK
2		2390.000	50.469	15.012	-23.531	74.000	35.458	PK
3	*	2401.485	102.835	67.366	N/A	N/A	35.468	PK

Profile: 1992203R	Page No.: 14
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



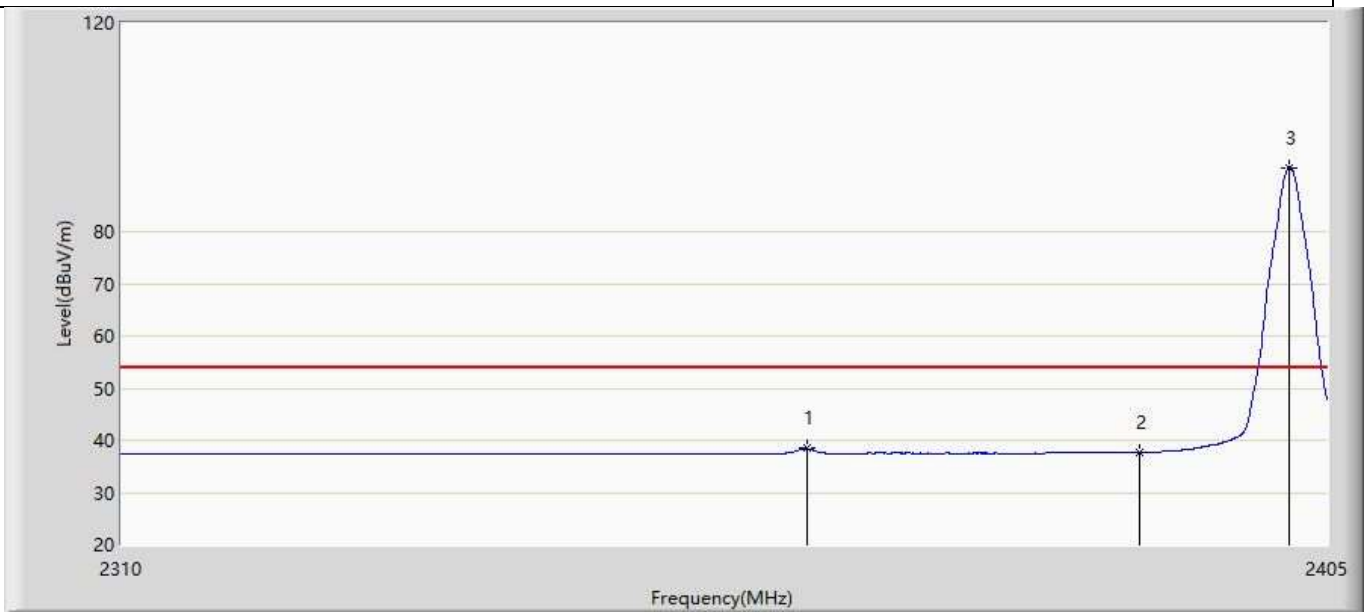
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.417	14.960	-23.583	74.000	35.458	PK
2	*	2401.627	97.300	61.831	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 15
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



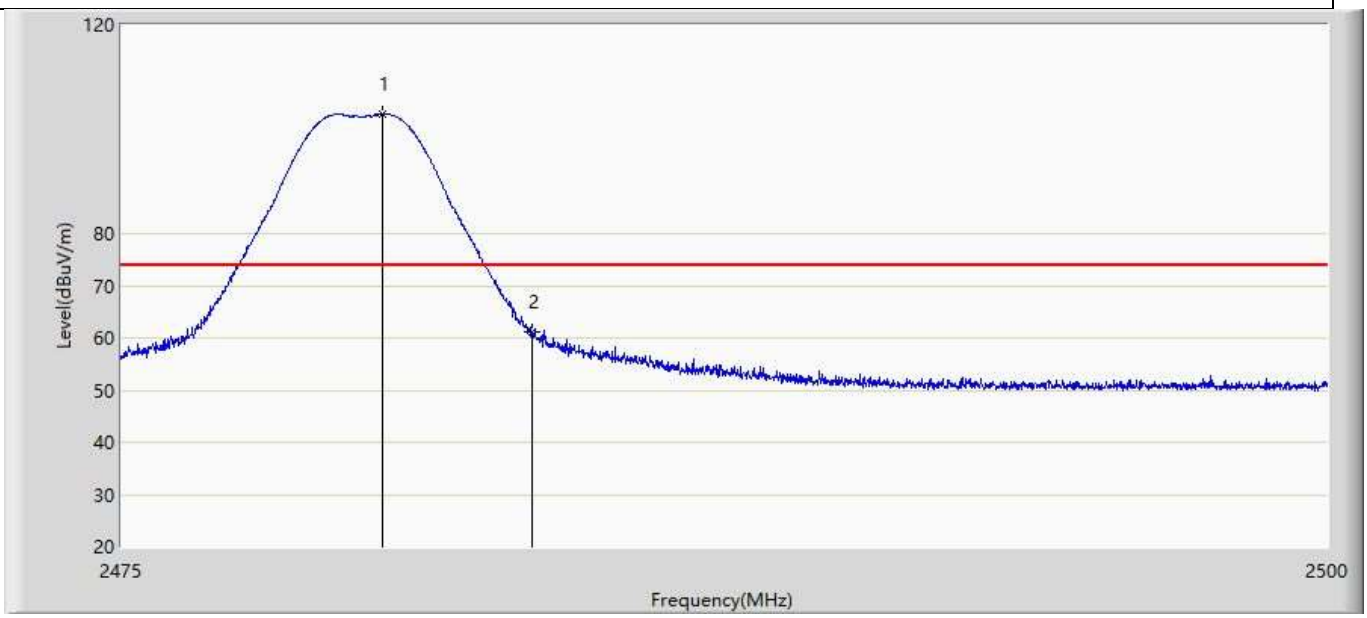
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.437	39.655	4.215	-14.345	54.000	35.440	AV
2		2390.000	38.426	2.969	-15.574	54.000	35.458	AV
3	*	2402.055	99.746	64.276	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 16
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



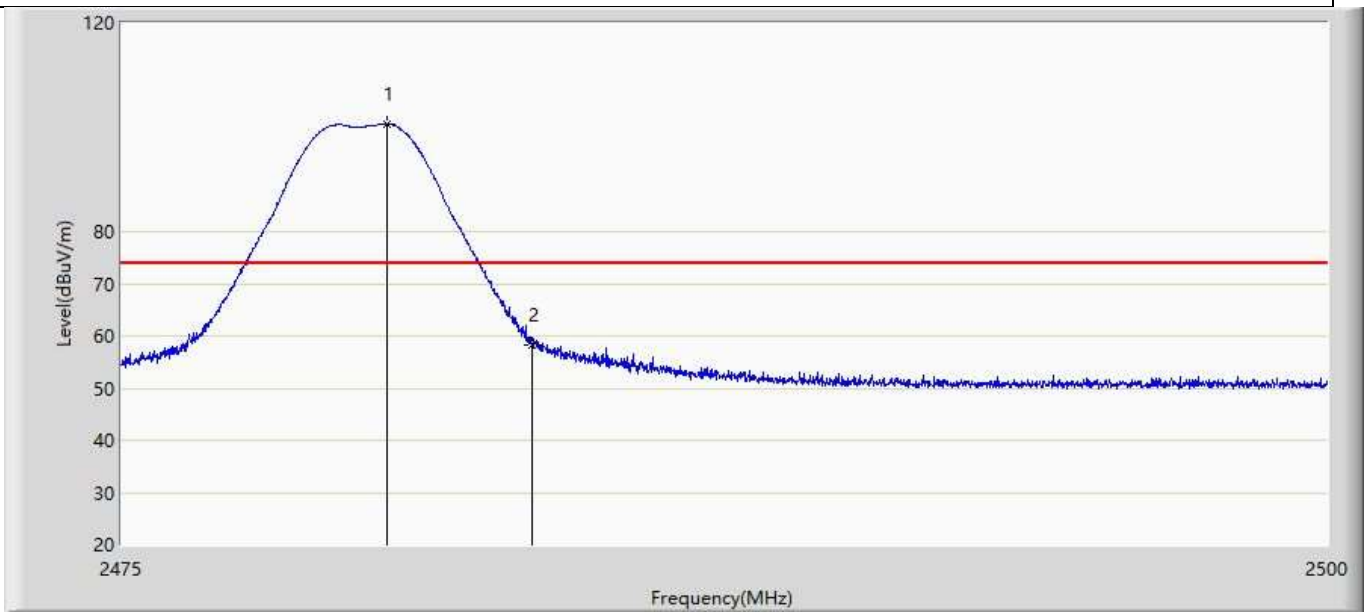
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	38.435	2.995	-15.565	54.000	35.441	AV
2		2390.000	37.677	2.220	-16.323	54.000	35.458	AV
3	*	2401.913	92.243	56.774	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 29
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



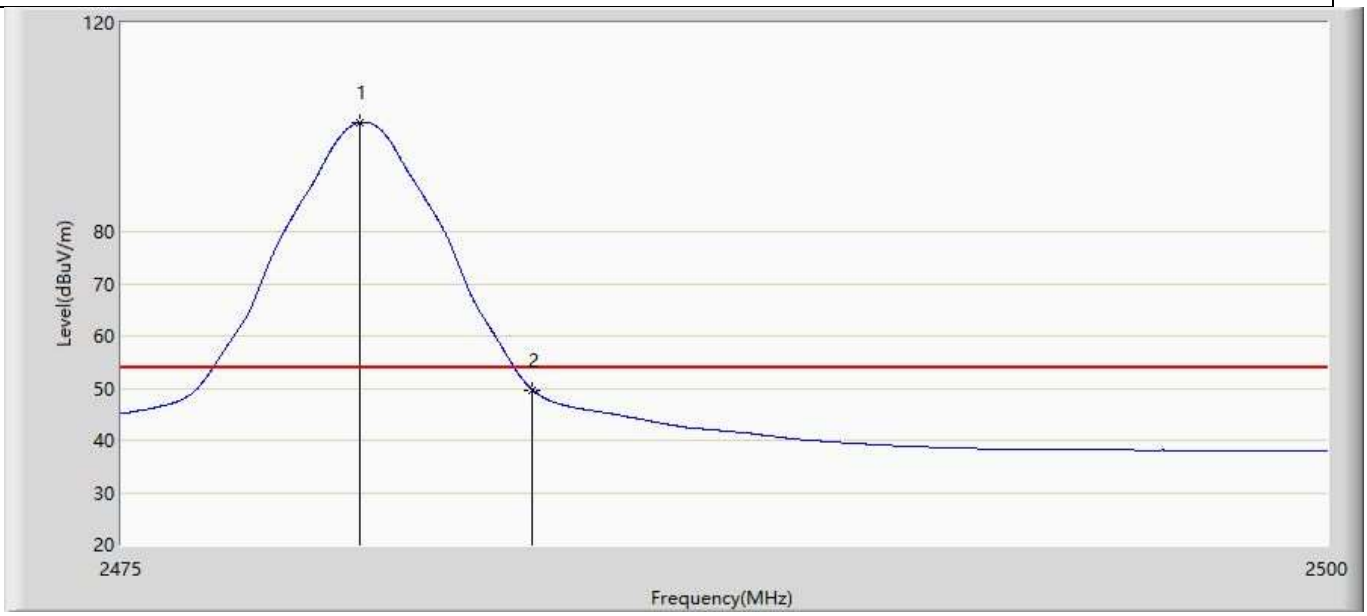
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.400	102.862	67.362	N/A	N/A	35.501	PK
2		2483.500	61.025	25.507	-12.975	74.000	35.517	PK

Profile: 1992203R	Page No.: 30
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



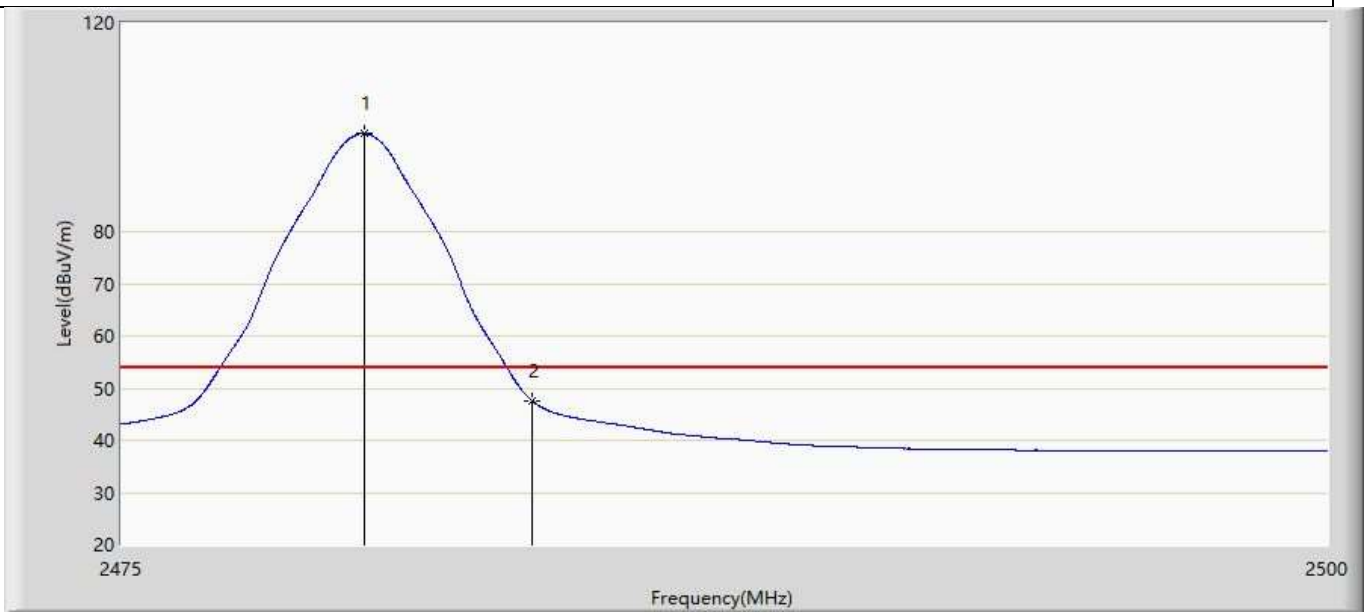
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.488	100.617	65.116	N/A	N/A	35.500	PK
2		2483.500	58.278	22.760	-15.722	74.000	35.517	PK

Profile: 1992203R	Page No.: 31
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



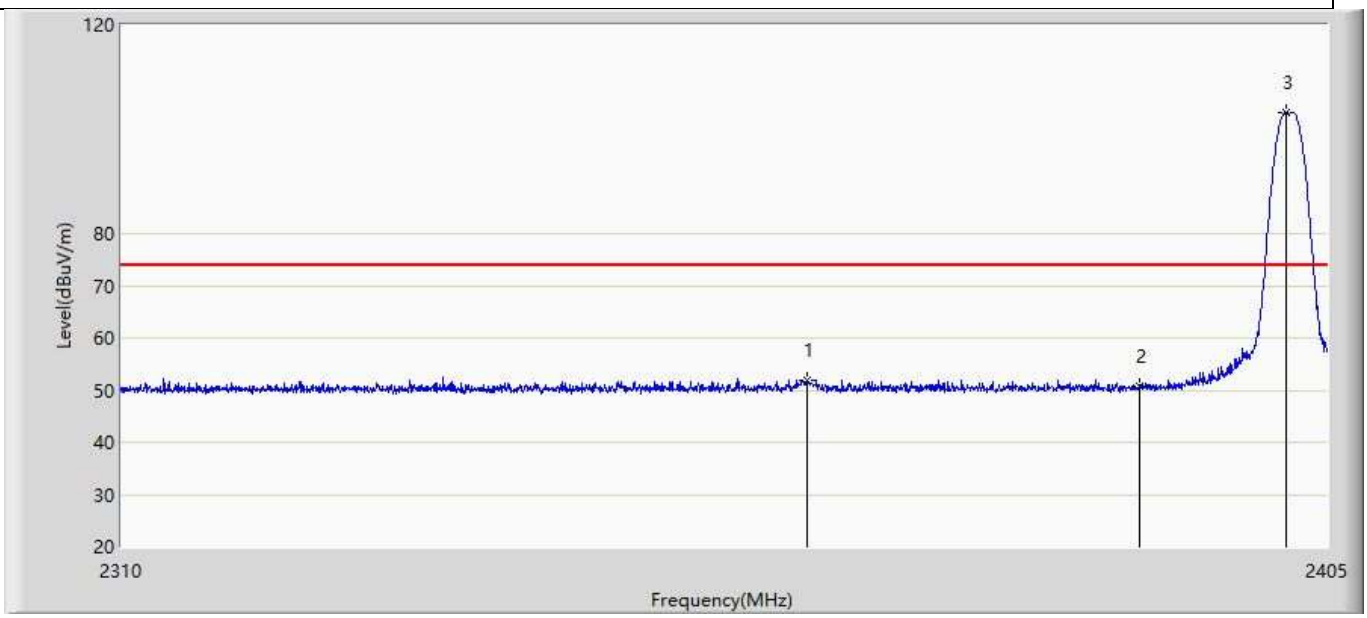
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.937	100.946	65.449	N/A	N/A	35.498	AV
2		2483.500	49.689	14.171	-4.311	54.000	35.517	AV

Profile: 1992203R	Page No.: 32
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



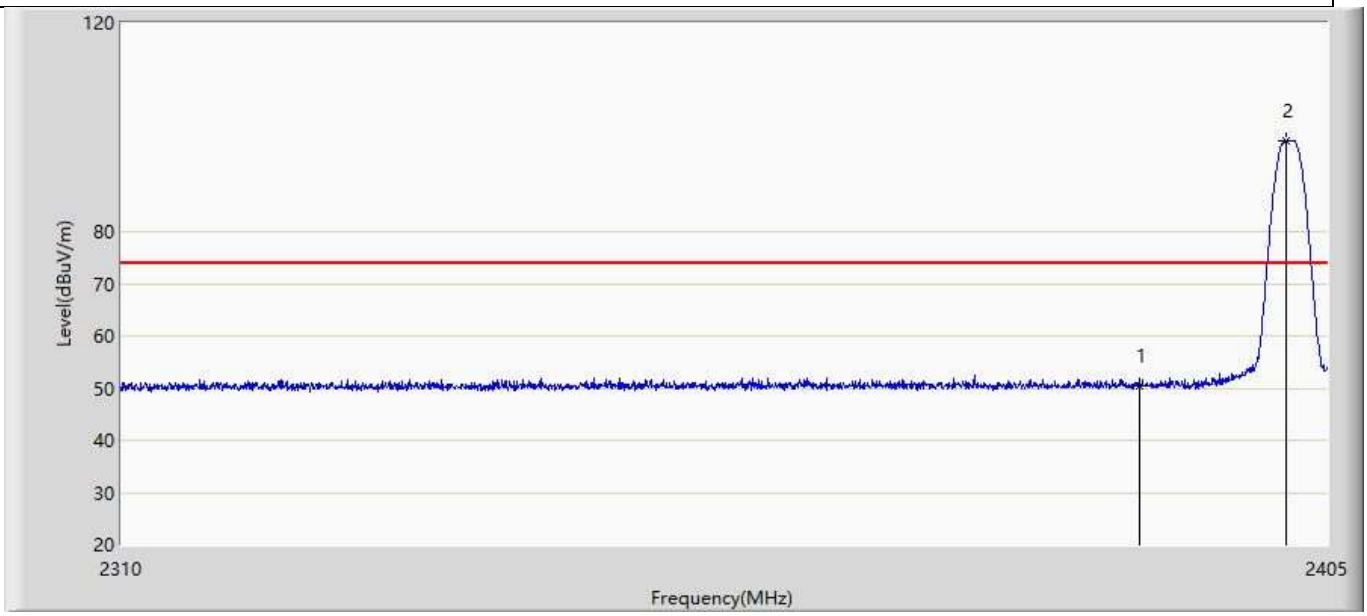
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	98.763	63.265	N/A	N/A	35.498	AV
2		2483.500	47.540	12.022	-6.460	54.000	35.517	AV

Profile: 1992203R	Page No.: 21
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



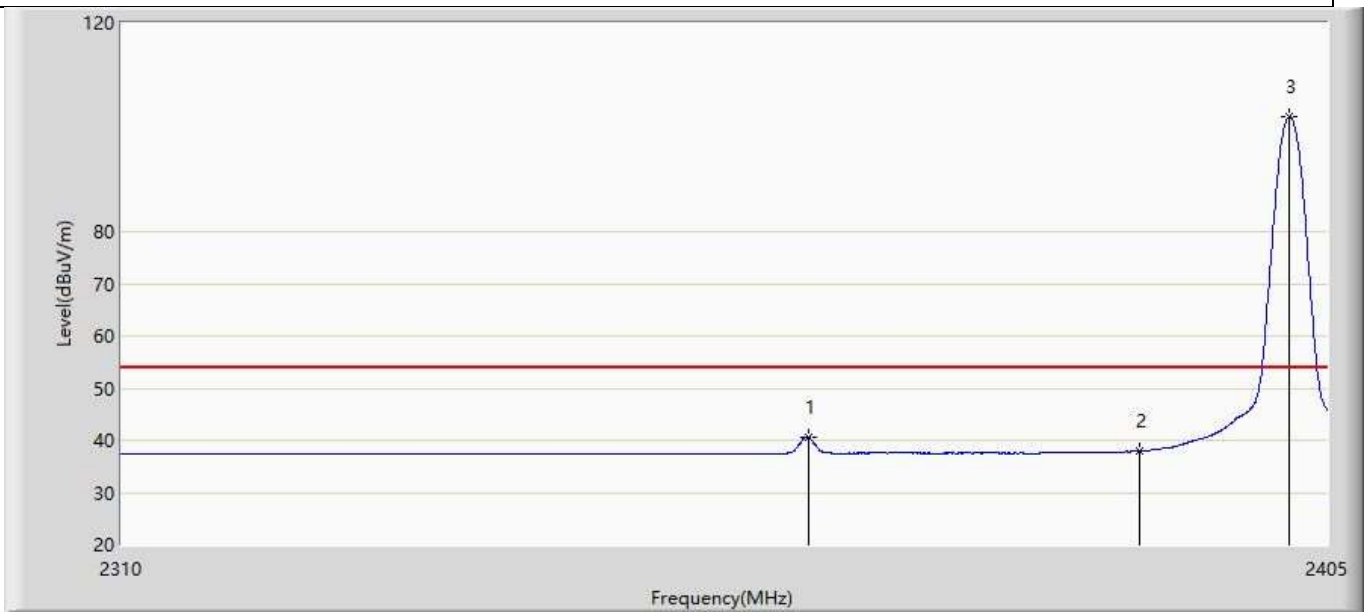
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	51.765	16.325	-22.235	74.000	35.441	PK
2		2390.000	50.811	15.354	-23.189	74.000	35.458	PK
3	*	2401.770	103.144	67.675	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 22
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



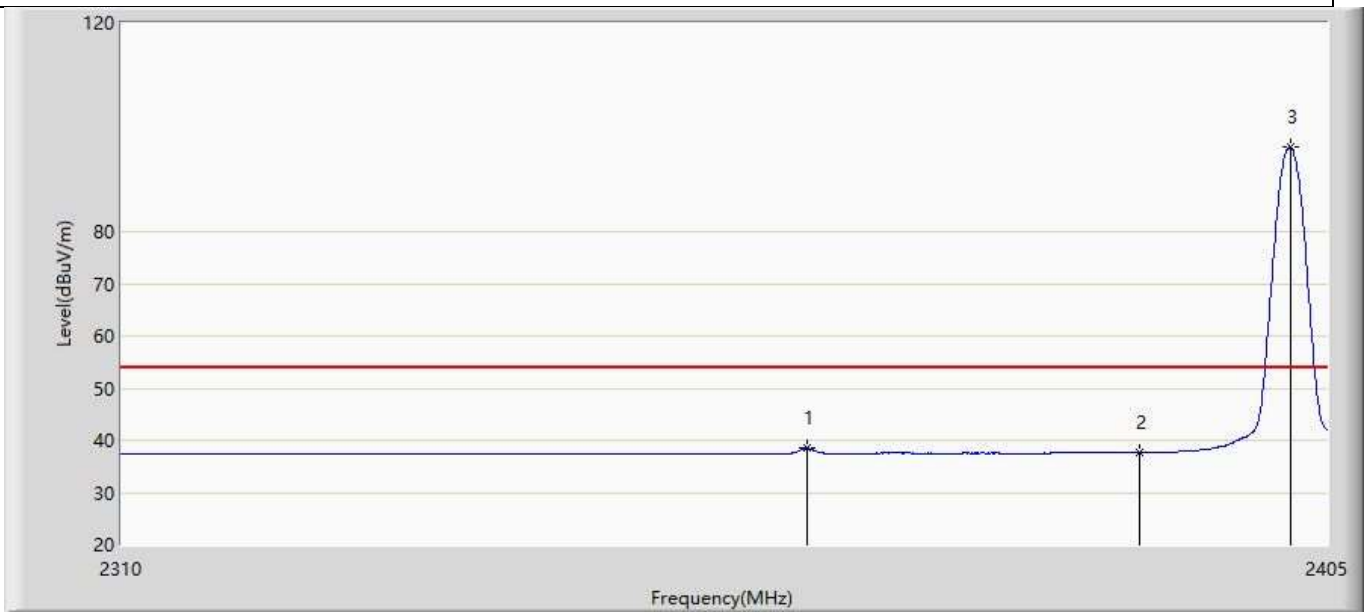
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.507	15.050	-23.493	74.000	35.458	PK
2	*	2401.770	97.505	62.036	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 23
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



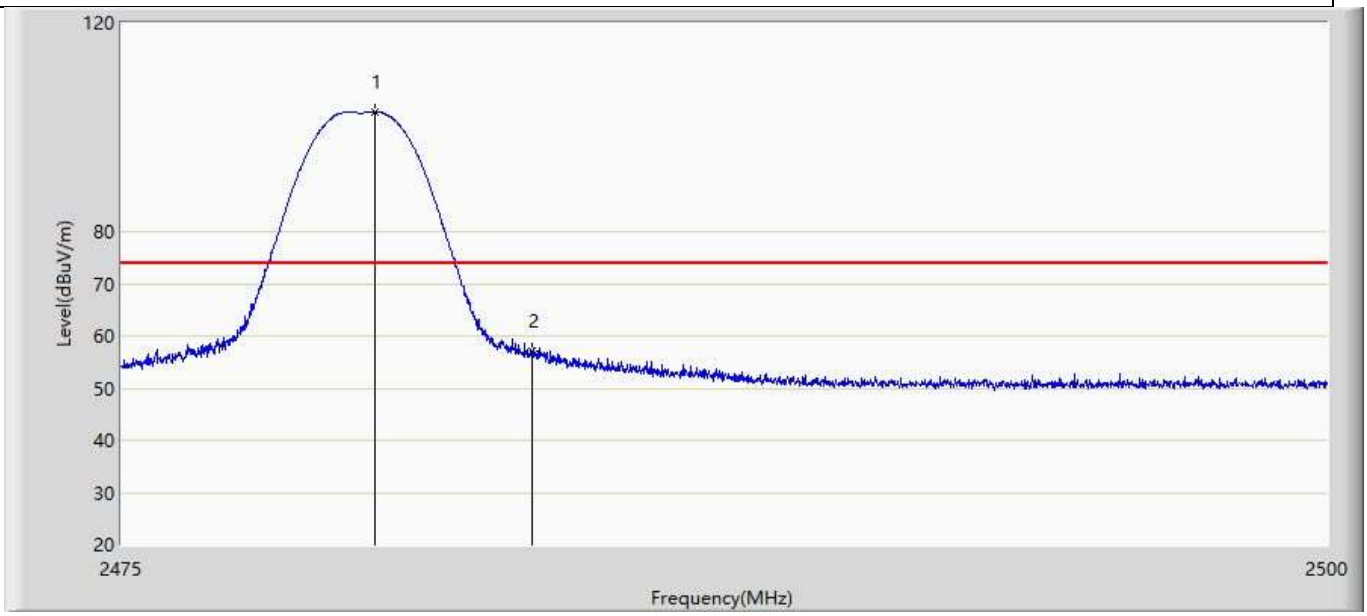
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	40.562	5.122	-13.438	54.000	35.440	AV
2		2390.000	37.969	2.512	-16.031	54.000	35.458	AV
3	*	2401.913	101.962	66.493	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 24
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



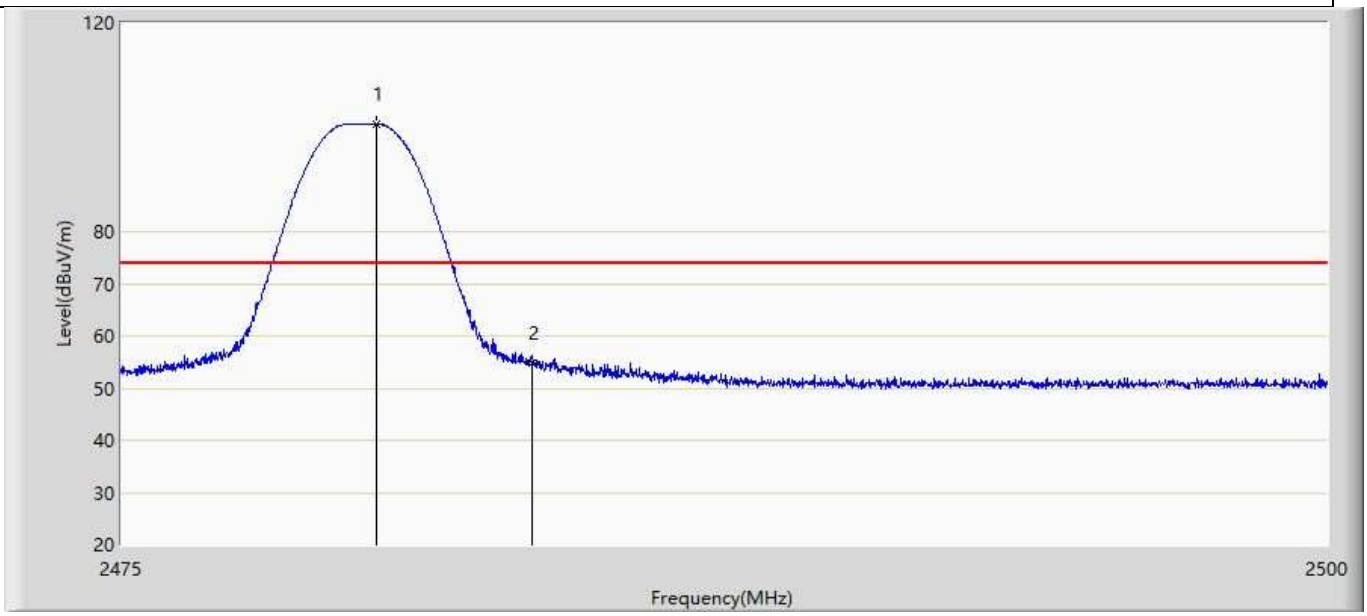
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	38.479	3.039	-15.521	54.000	35.441	AV
2		2390.000	37.631	2.174	-16.369	54.000	35.458	AV
3	*	2402.055	96.217	60.747	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 37
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



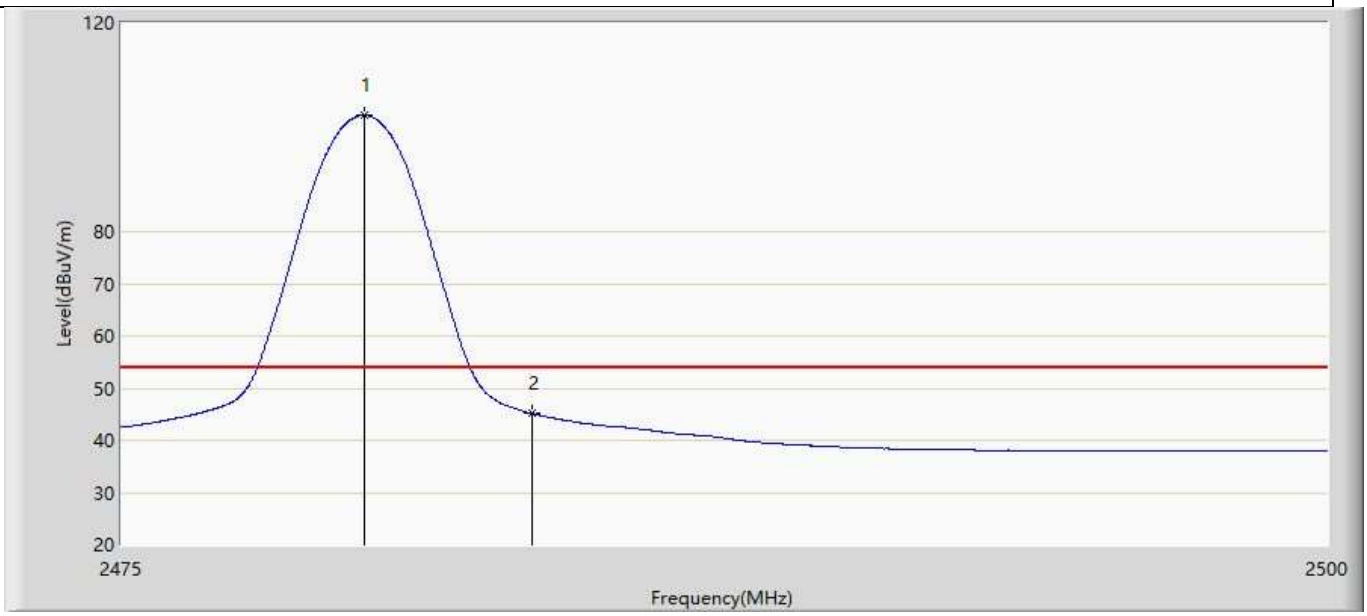
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.250	102.880	67.381	N/A	N/A	35.500	PK
2		2483.500	57.036	21.518	-16.964	74.000	35.517	PK

Profile: 1992203R	Page No.: 38
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 18:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



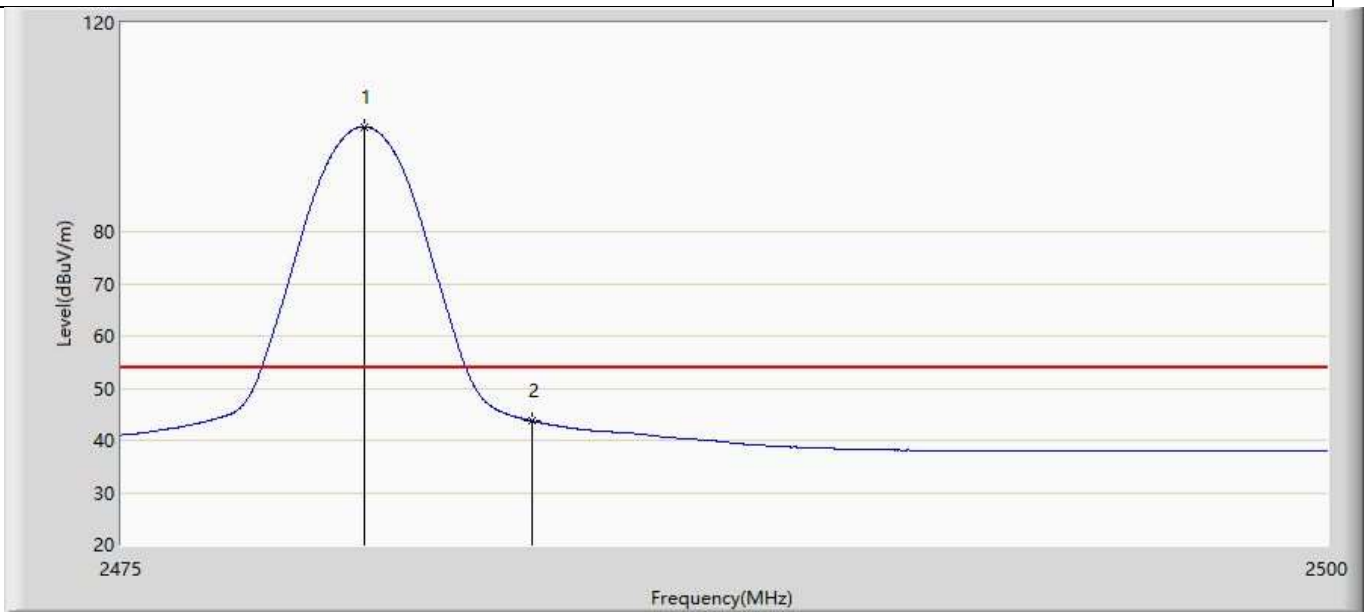
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.288	100.625	65.126	N/A	N/A	35.500	PK
2		2483.500	54.750	19.232	-19.250	74.000	35.517	PK

Profile: 1992203R	Page No.: 39
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 18:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



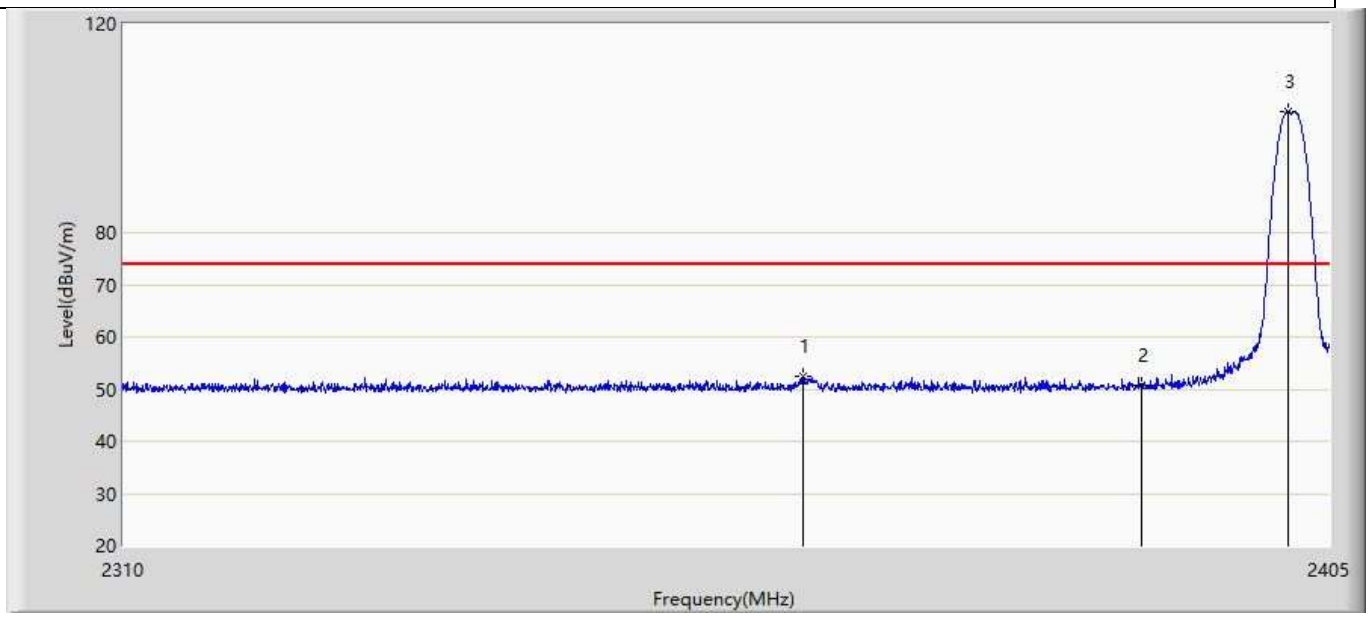
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	102.283	66.785	N/A	N/A	35.498	AV
2		2483.500	45.107	9.589	-8.893	54.000	35.517	AV

Profile: 1992203R	Page No.: 40
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 18:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



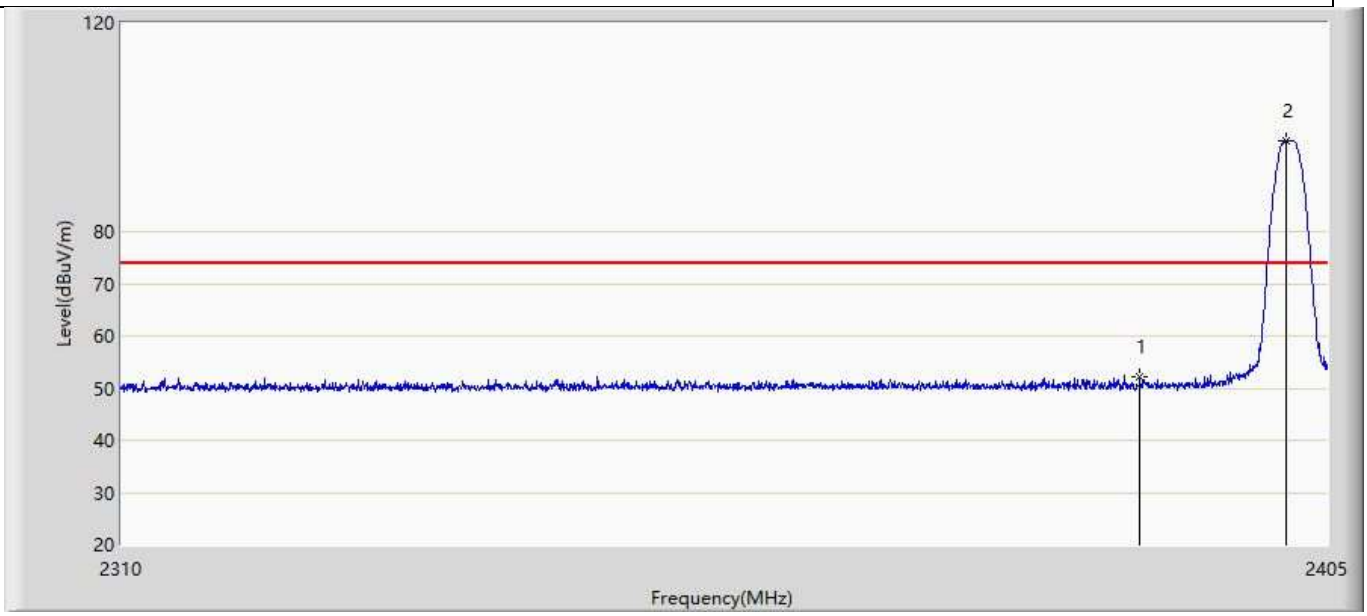
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	100.097	64.599	N/A	N/A	35.498	AV
2		2483.500	43.707	8.189	-10.293	54.000	35.517	AV

Profile: 1992203R	Page No.: 17
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



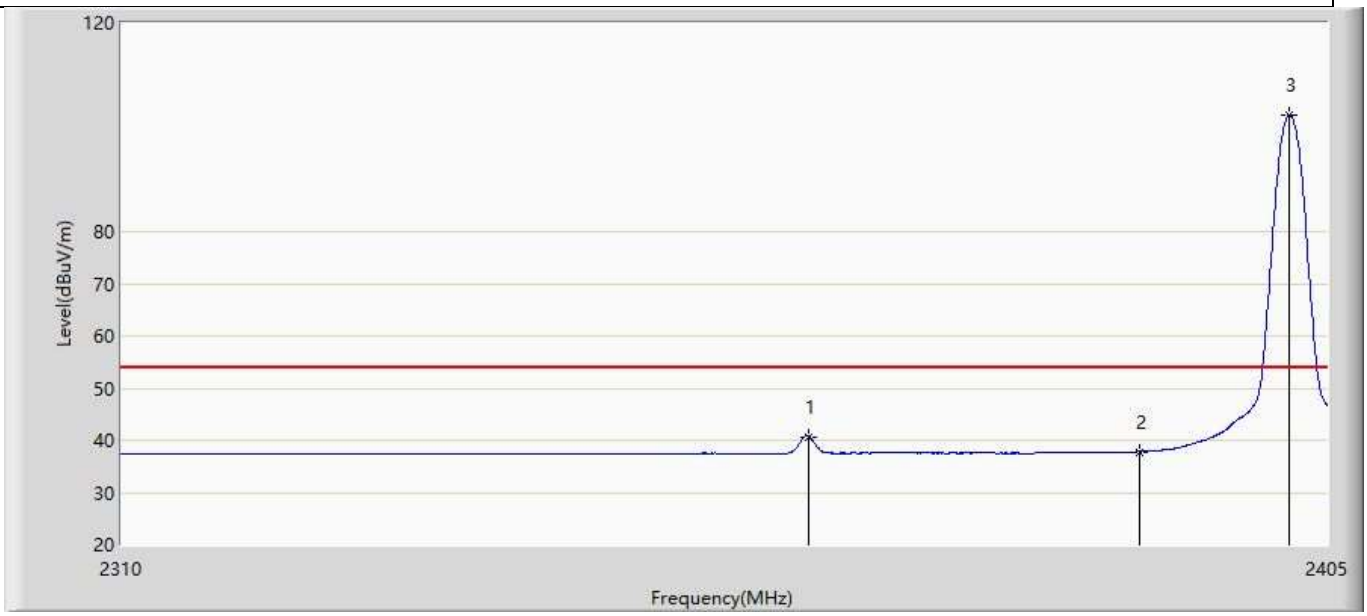
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.153	52.538	17.098	-21.462	74.000	35.440	PK
2		2390.000	50.848	15.391	-23.152	74.000	35.458	PK
3	*	2401.770	103.114	67.645	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 18
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



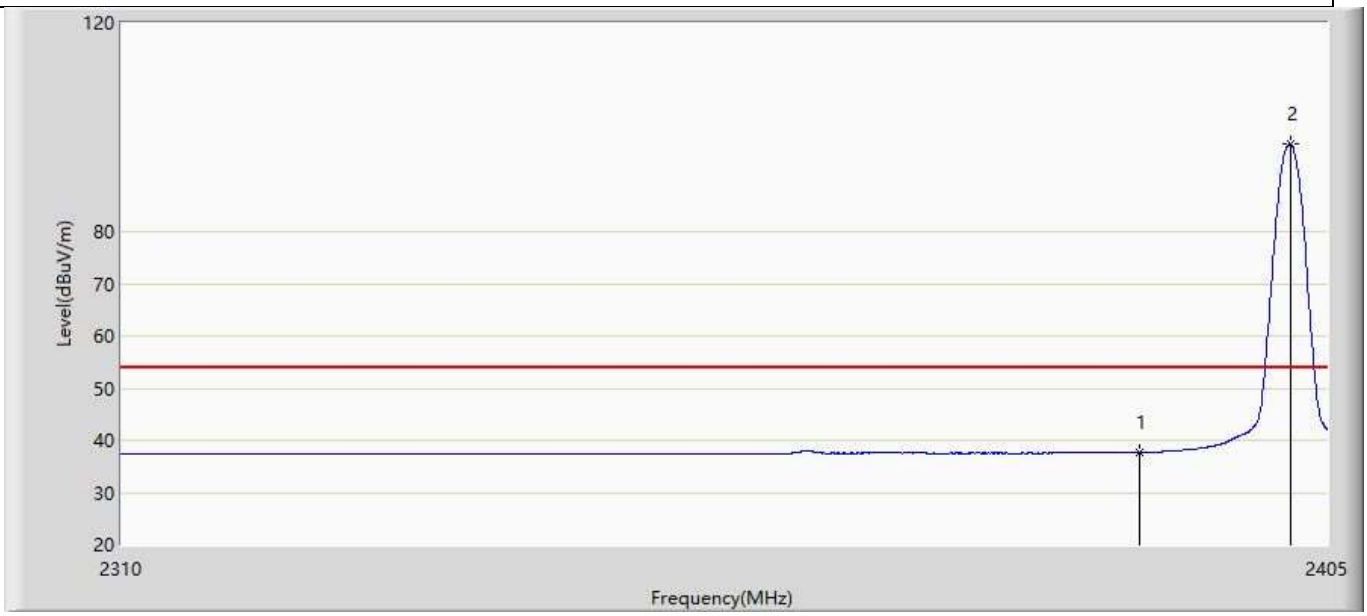
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.036	16.579	-21.964	74.000	35.458	PK
2	*	2401.770	97.437	61.968	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 19
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



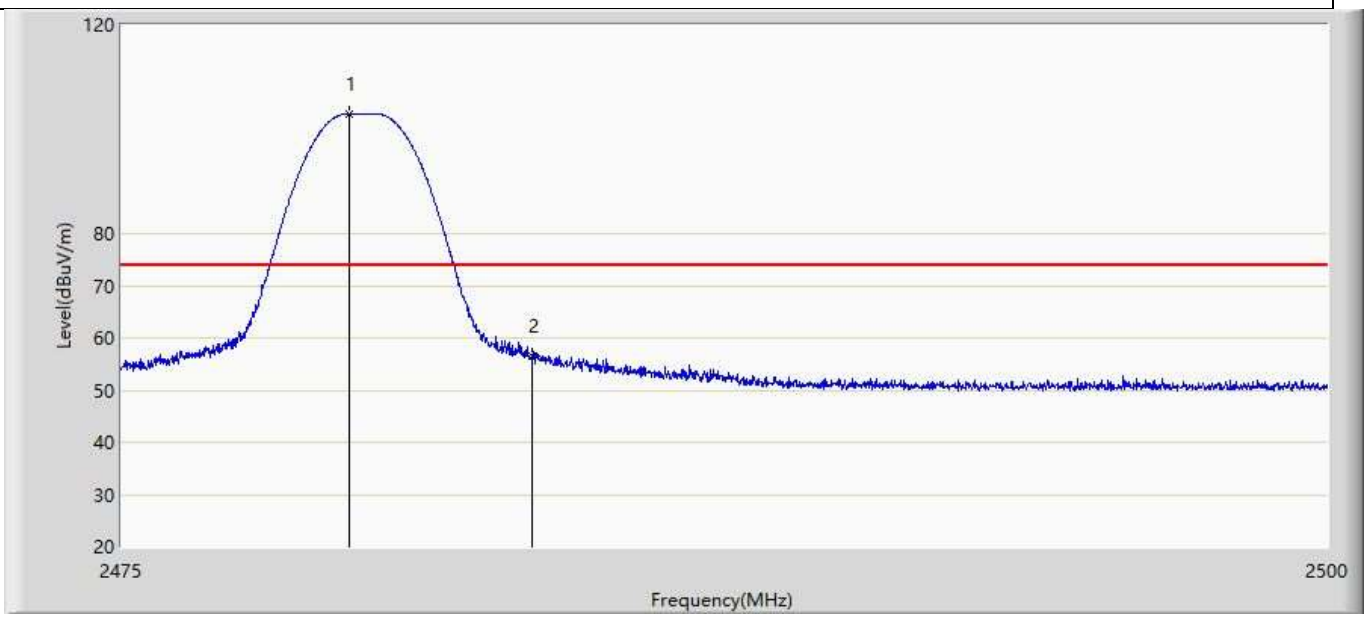
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	40.720	5.280	-13.280	54.000	35.440	AV
2		2390.000	37.817	2.360	-16.183	54.000	35.458	AV
3	*	2401.913	102.358	66.889	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 20
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



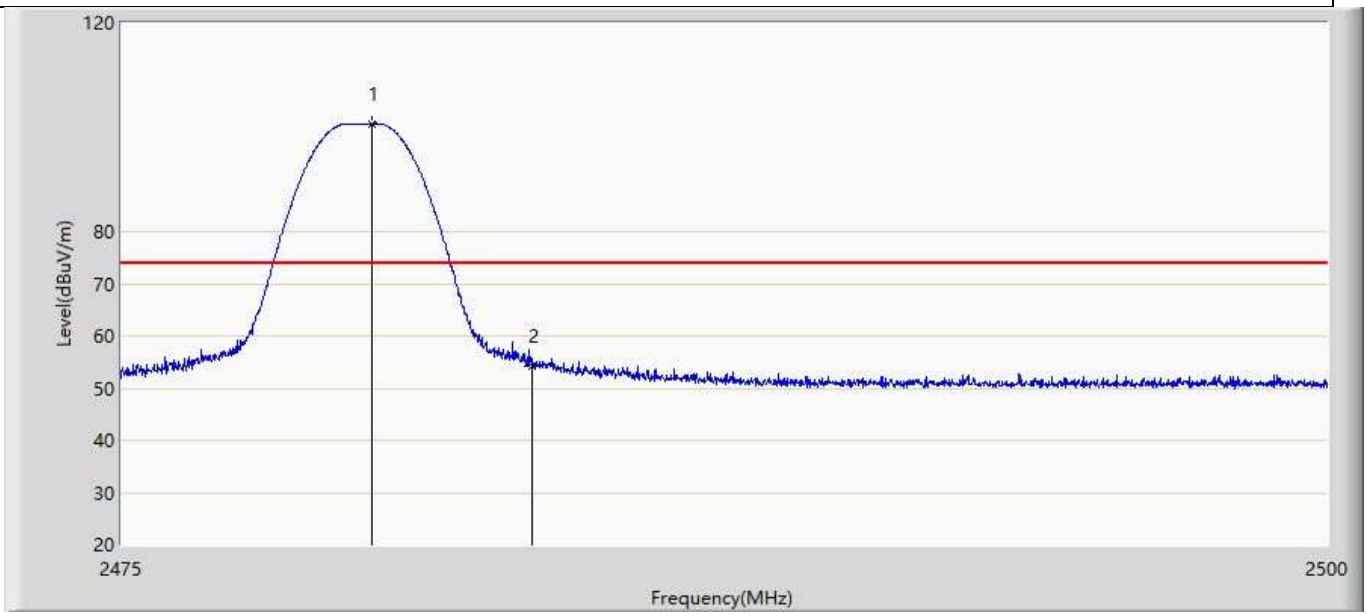
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.687	2.230	-16.313	54.000	35.458	AV
2	*	2402.055	96.740	61.270	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 33
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



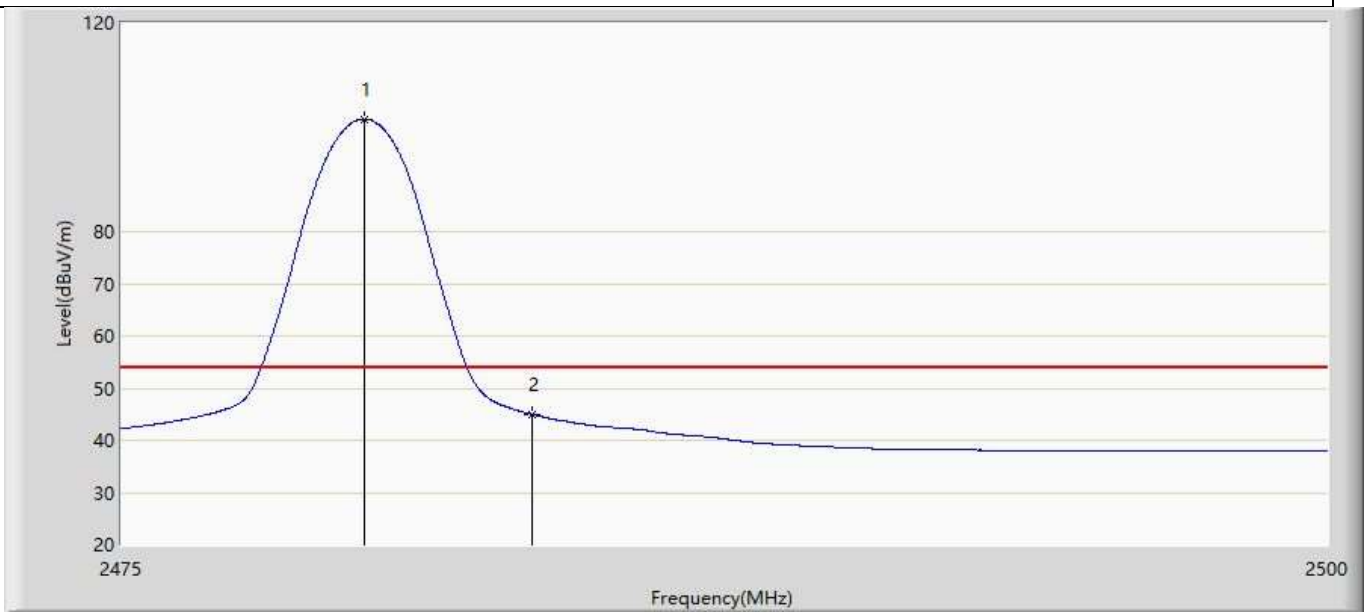
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.700	102.905	67.409	N/A	N/A	35.496	PK
2		2483.500	56.598	21.080	-17.402	74.000	35.517	PK

Profile: 1992203R	Page No.: 34
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



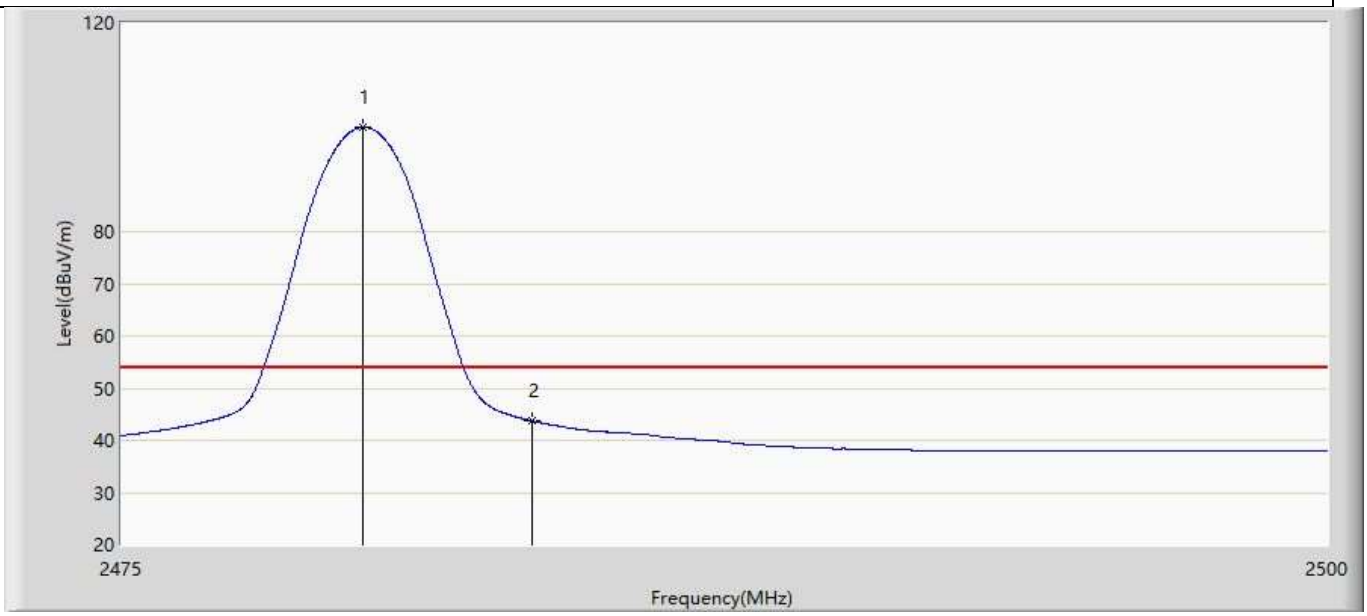
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.175	100.709	65.210	N/A	N/A	35.499	PK
2		2483.500	54.306	18.788	-19.694	74.000	35.517	PK

Profile: 1992203R	Page No.: 35
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	101.574	66.076	N/A	N/A	35.498	AV
2		2483.500	44.958	9.440	-9.042	54.000	35.517	AV

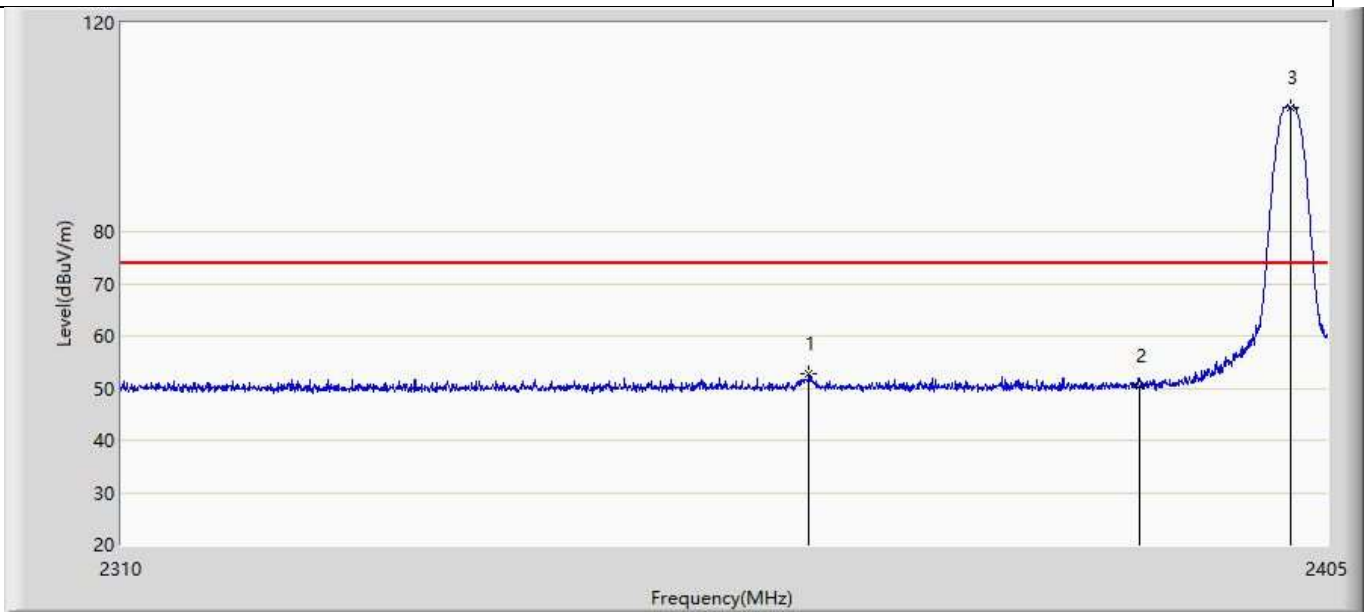
Profile: 1992203R	Page No.: 36
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 17:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.000	99.970	64.472	N/A	N/A	35.498	AV
2		2483.500	43.722	8.204	-10.278	54.000	35.517	AV

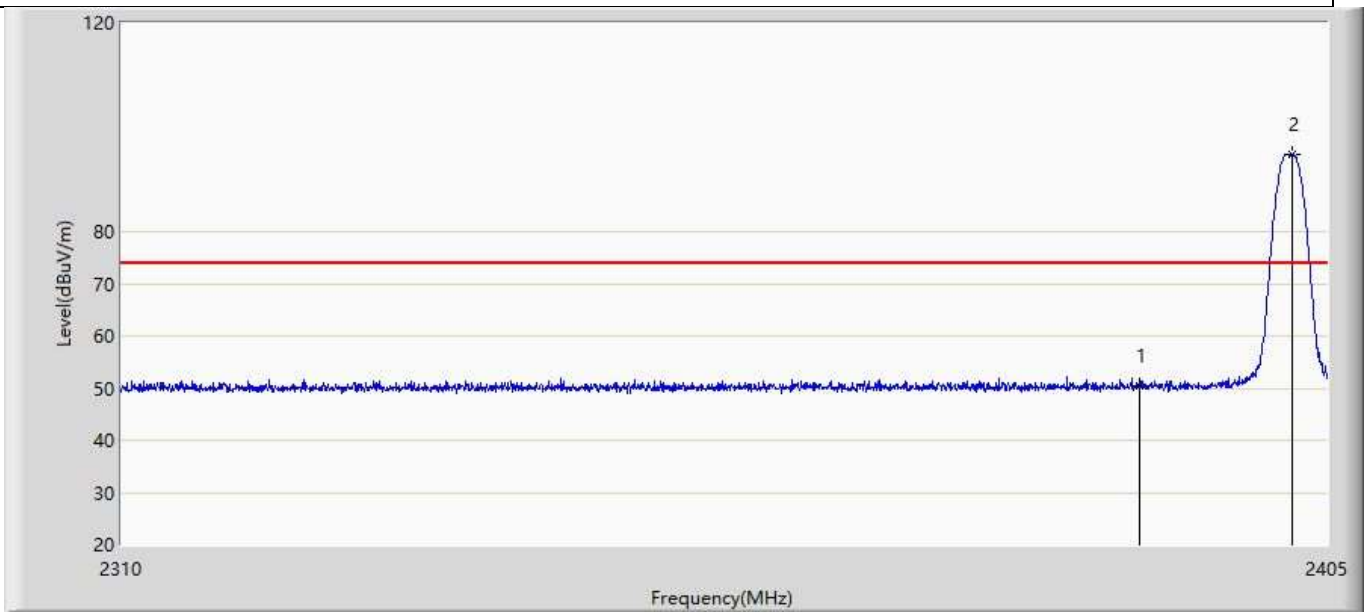
KDS:

Profile: 1992203R	Page No.: 9
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 18:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



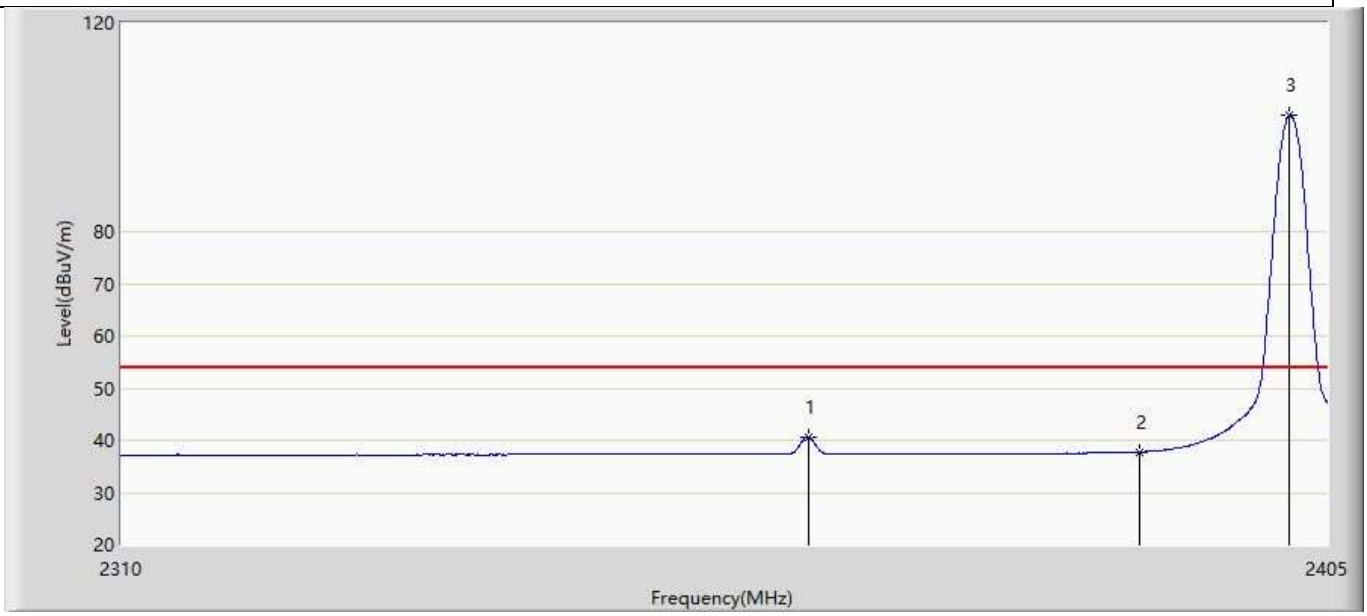
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	52.621	17.181	-21.379	74.000	35.440	PK
2		2390.000	50.436	14.979	-23.564	74.000	35.458	PK
3	*	2402.055	103.850	68.380	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 10
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 18:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



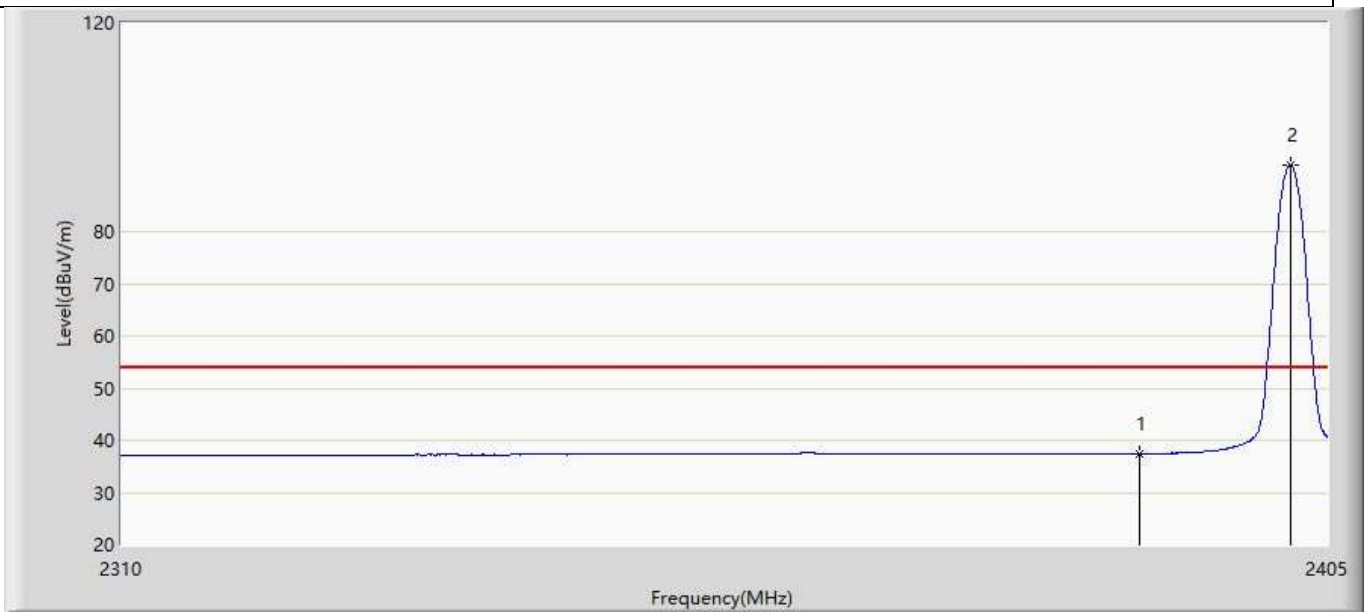
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.418	14.961	-23.582	74.000	35.458	PK
2	*	2402.150	94.730	59.260	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 11
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 18:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



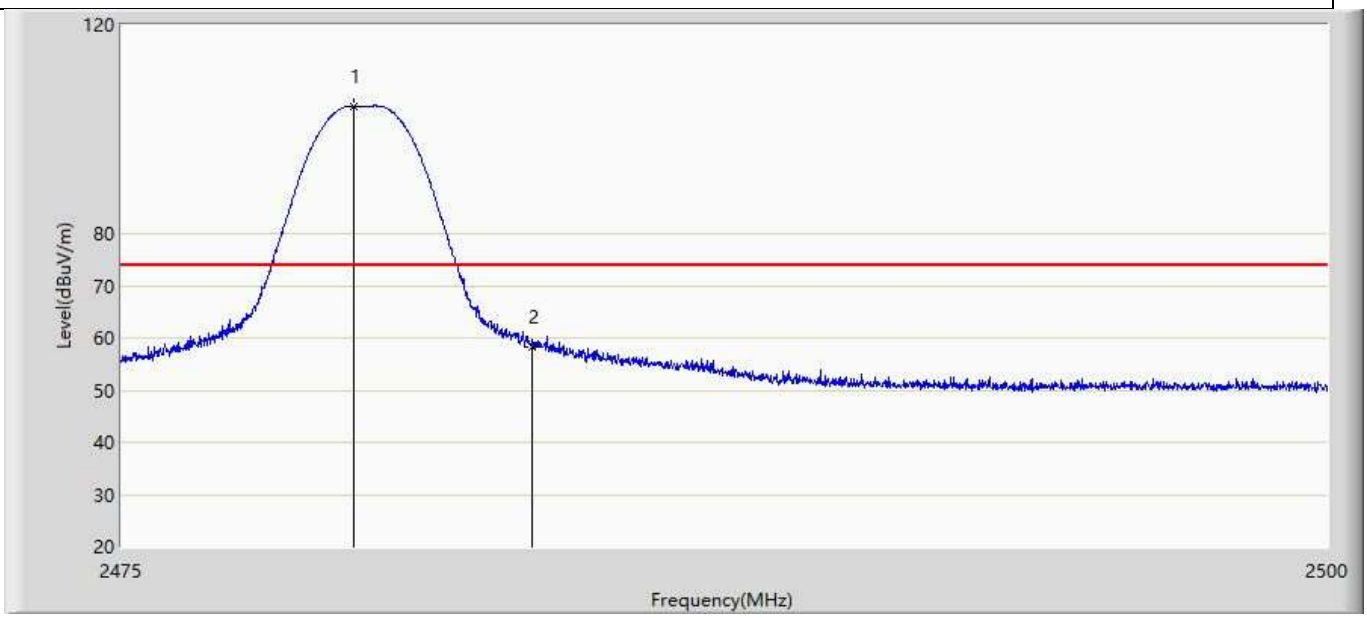
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	40.531	5.091	-13.469	54.000	35.440	AV
2		2390.000	37.779	2.322	-16.221	54.000	35.458	AV
3	*	2401.960	102.205	66.736	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 12
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps(GFSK_LE)	



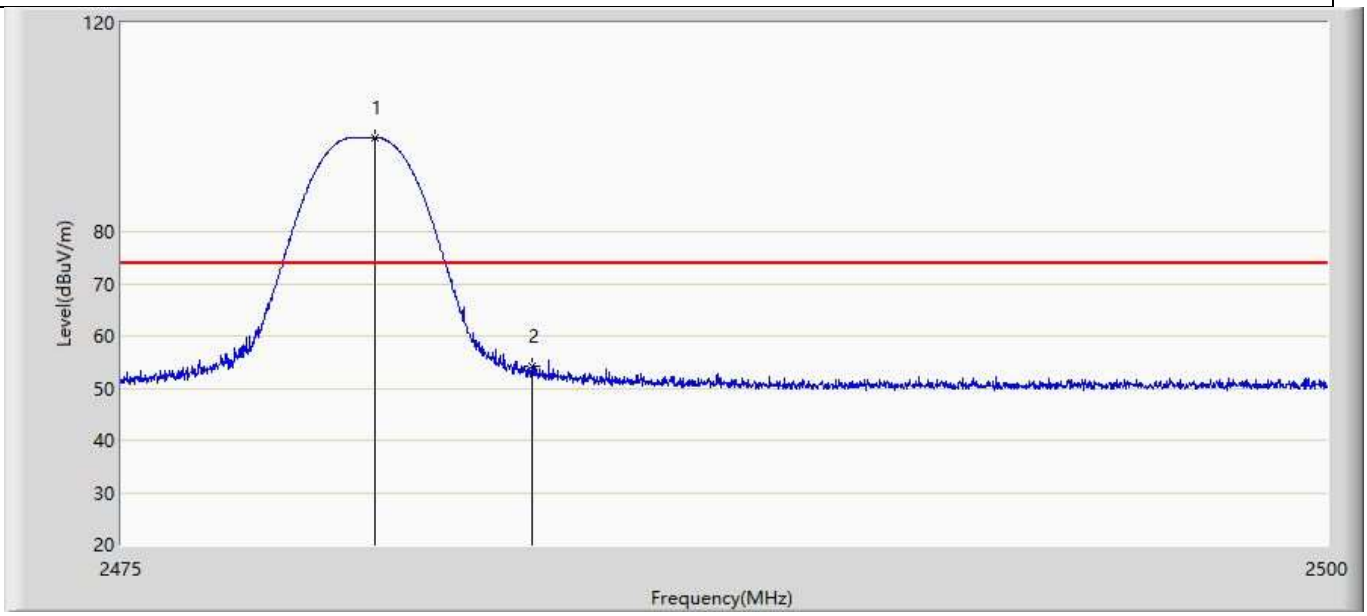
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.455	1.998	-16.545	54.000	35.458	AV
2	*	2402.055	92.722	57.252	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 25
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



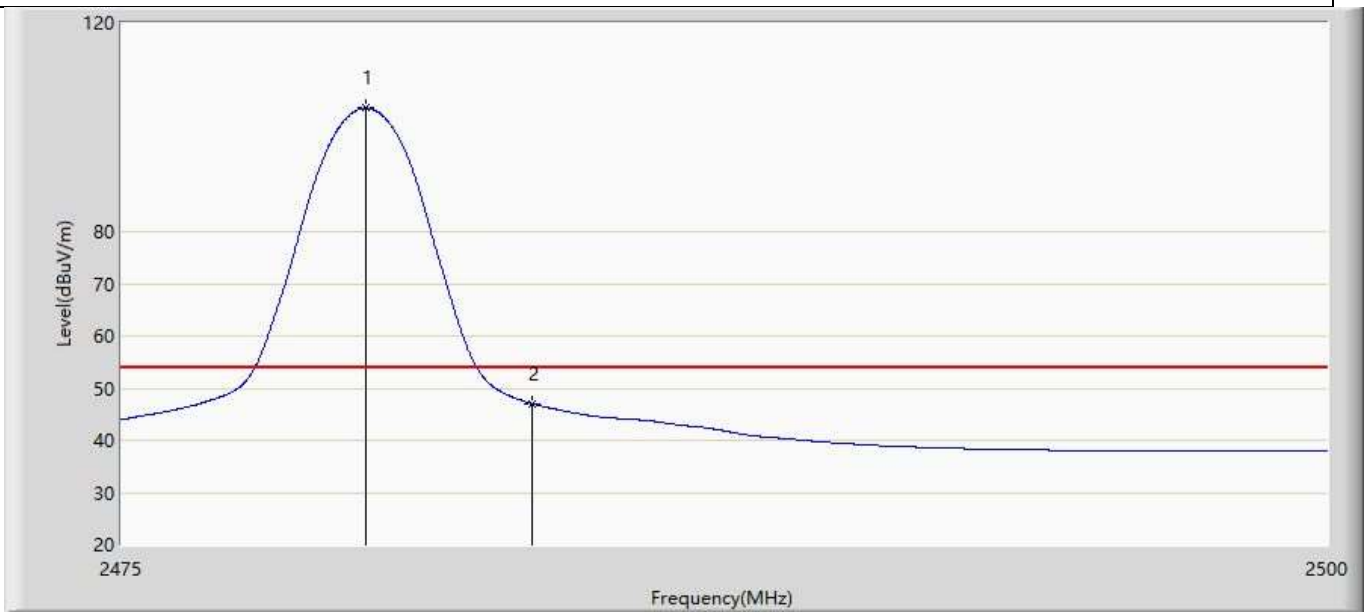
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.812	104.432	68.935	N/A	N/A	35.497	PK
2		2483.500	58.189	22.671	-15.811	74.000	35.517	PK

Profile: 1992203R	Page No.: 26
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



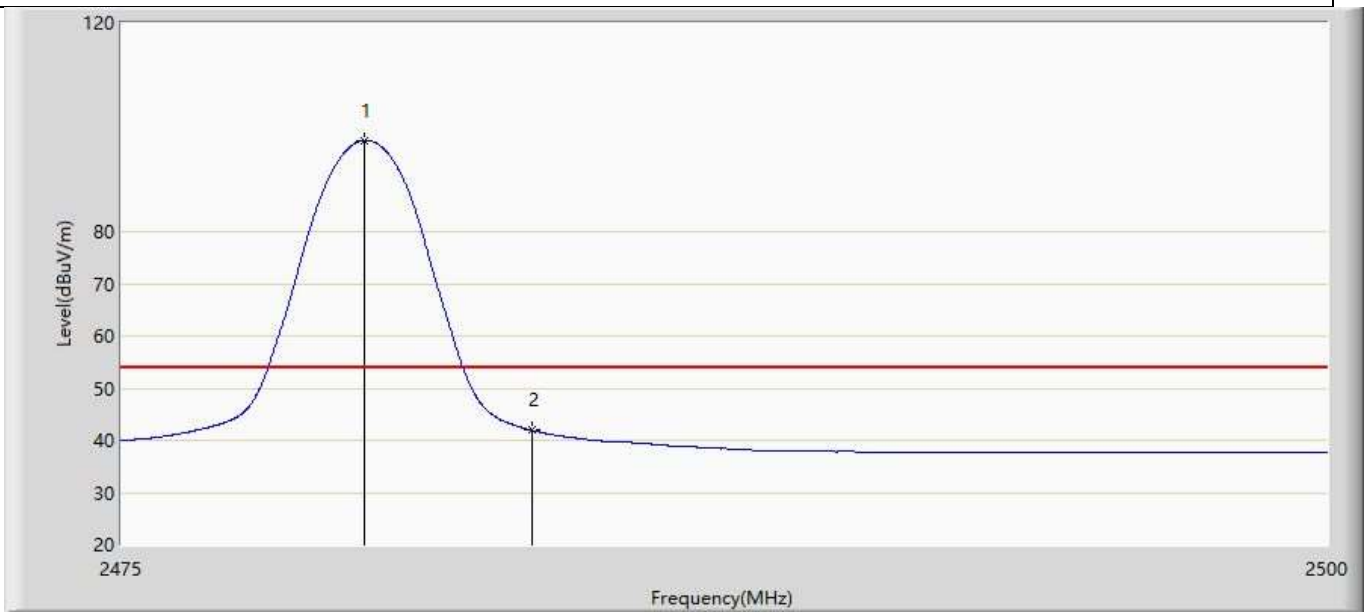
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.250	97.984	62.485	N/A	N/A	35.500	PK
2		2483.500	54.263	18.745	-19.737	74.000	35.517	PK

Profile: 1992203R	Page No.: 27
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



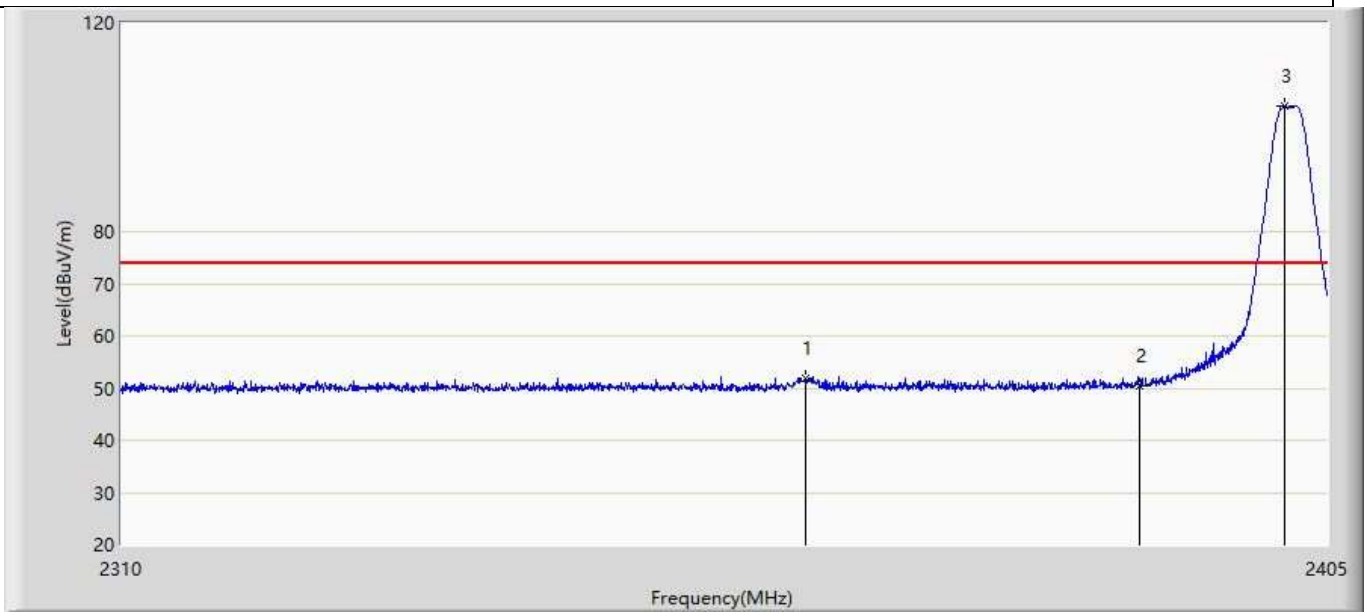
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.050	103.652	68.154	N/A	N/A	35.498	AV
2		2483.500	46.992	11.474	-7.008	54.000	35.517	AV

Profile: 1992203R	Page No.: 28
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps(GFSK_LE)	



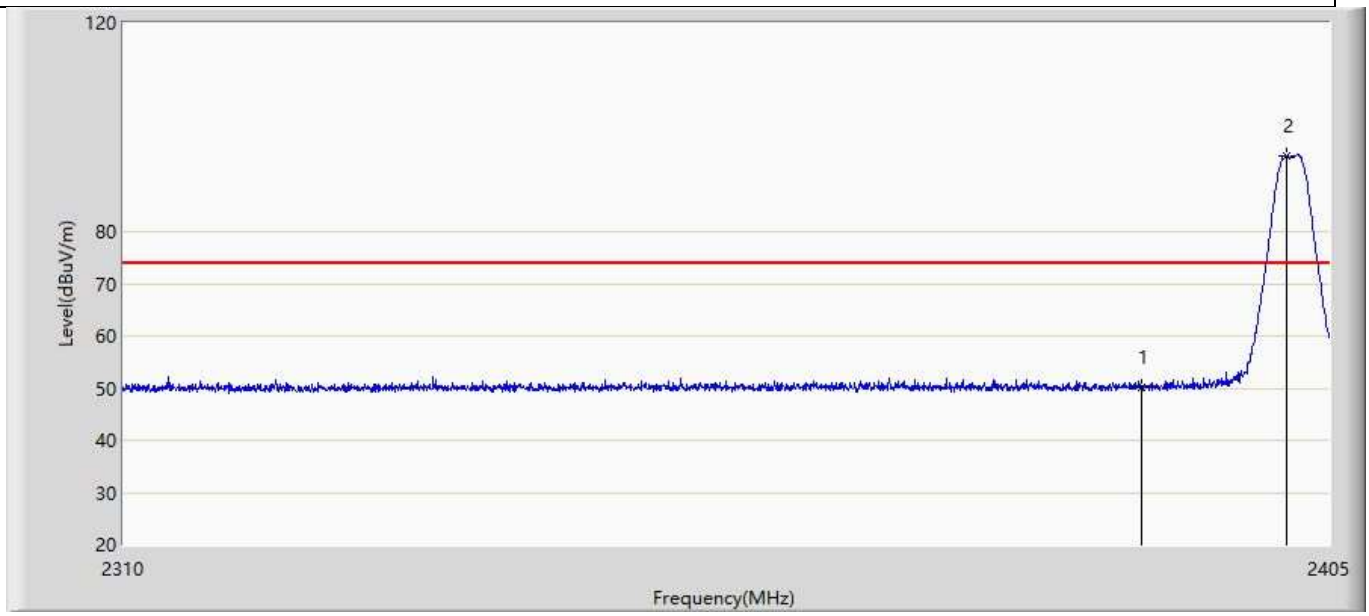
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	97.464	61.966	N/A	N/A	35.498	AV
2		2483.500	41.893	6.375	-12.107	54.000	35.517	AV

Profile: 1992203R	Page No.: 13
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



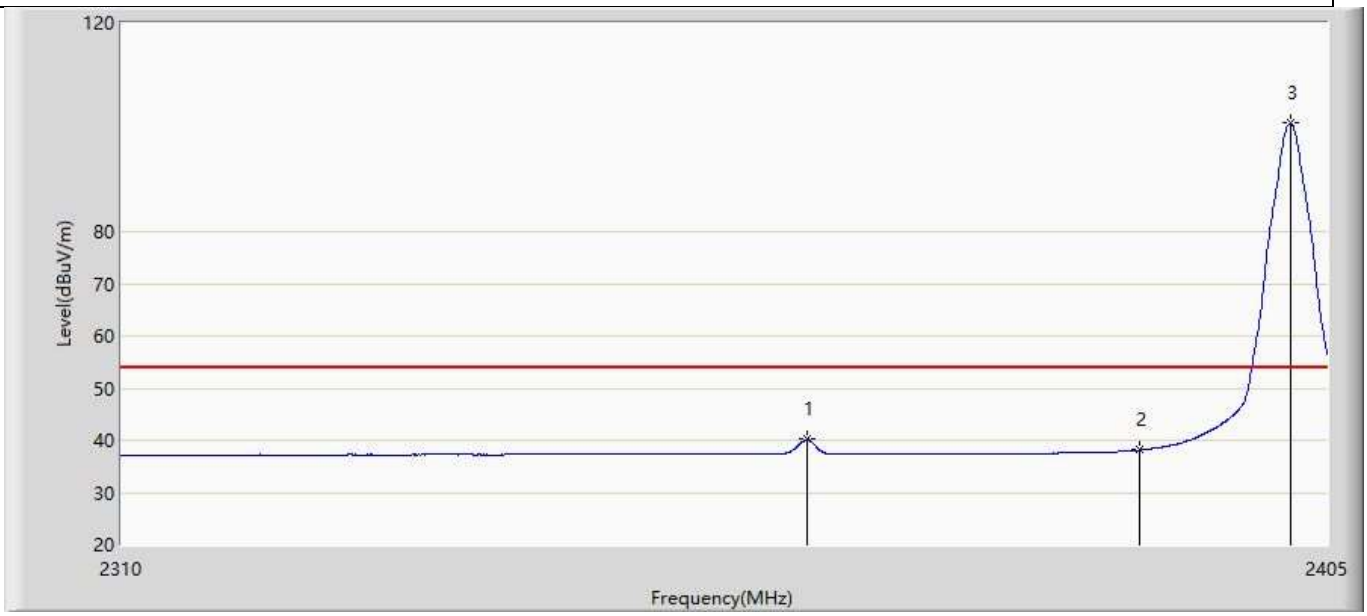
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.437	51.750	16.310	-22.250	74.000	35.440	PK
2		2390.000	50.415	14.958	-23.585	74.000	35.458	PK
3	*	2401.627	104.128	68.659	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 14
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



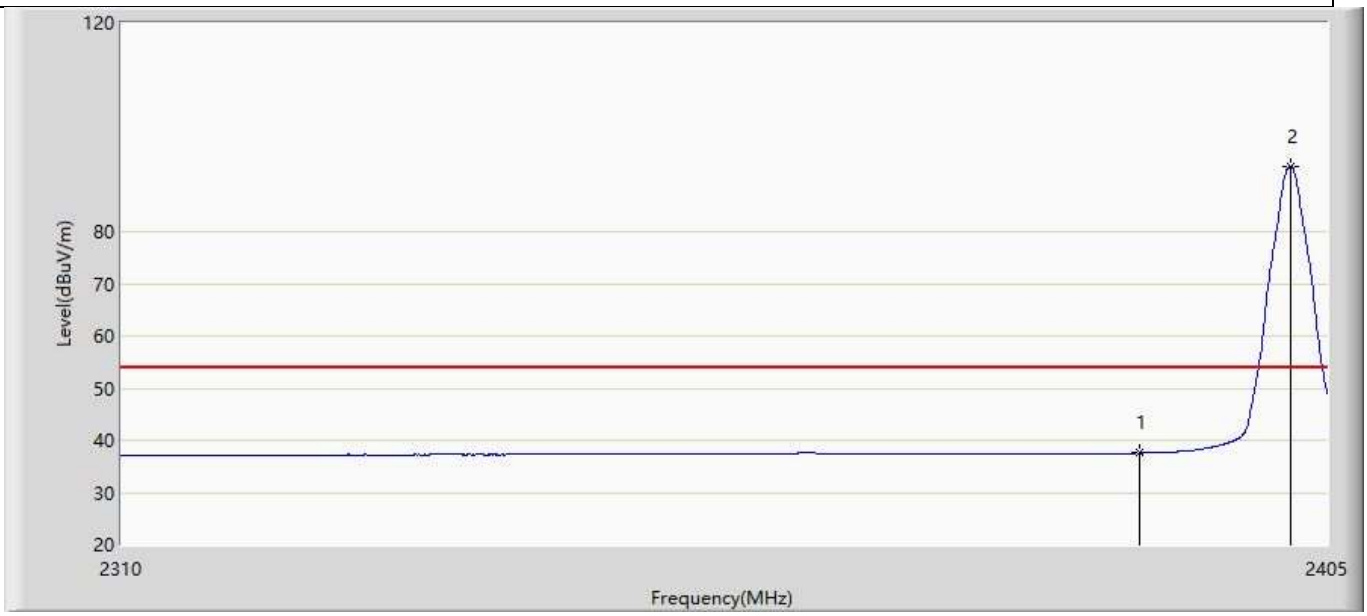
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.181	14.724	-23.819	74.000	35.458	PK
2	*	2401.627	94.571	59.102	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 15
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



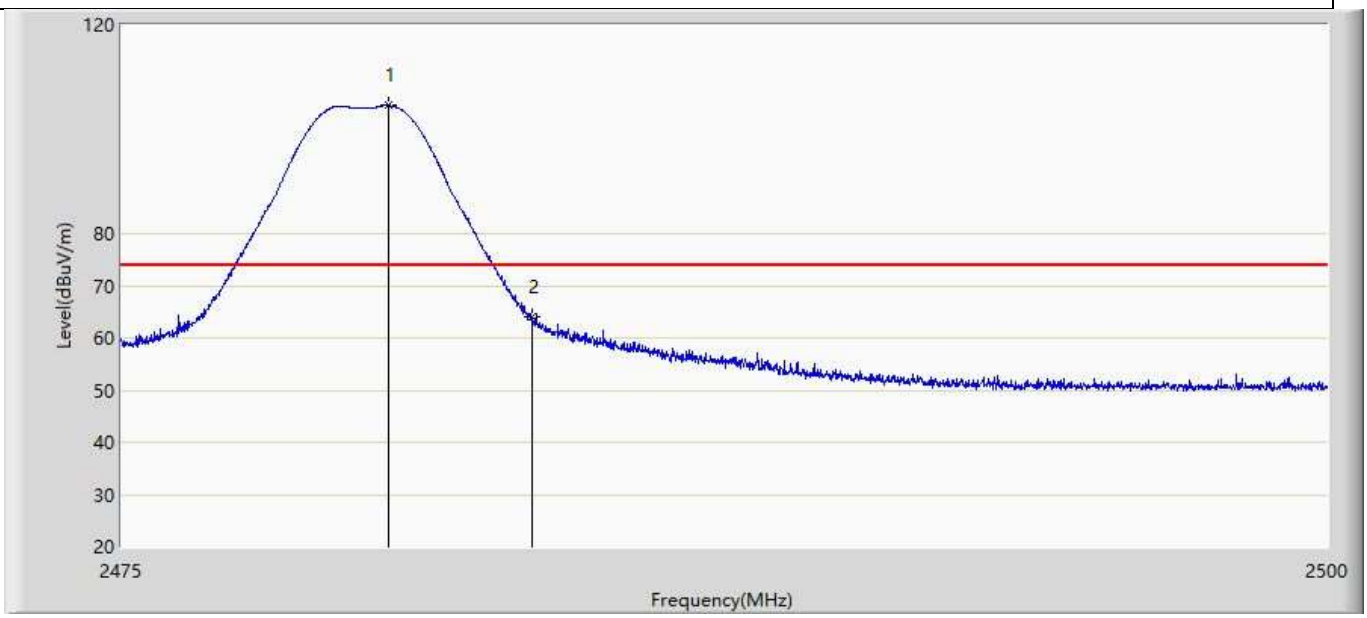
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	40.171	4.731	-13.829	54.000	35.441	AV
2		2390.000	38.128	2.671	-15.872	54.000	35.458	AV
3	*	2402.055	100.728	65.258	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 16
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps(GFSK_LE)	



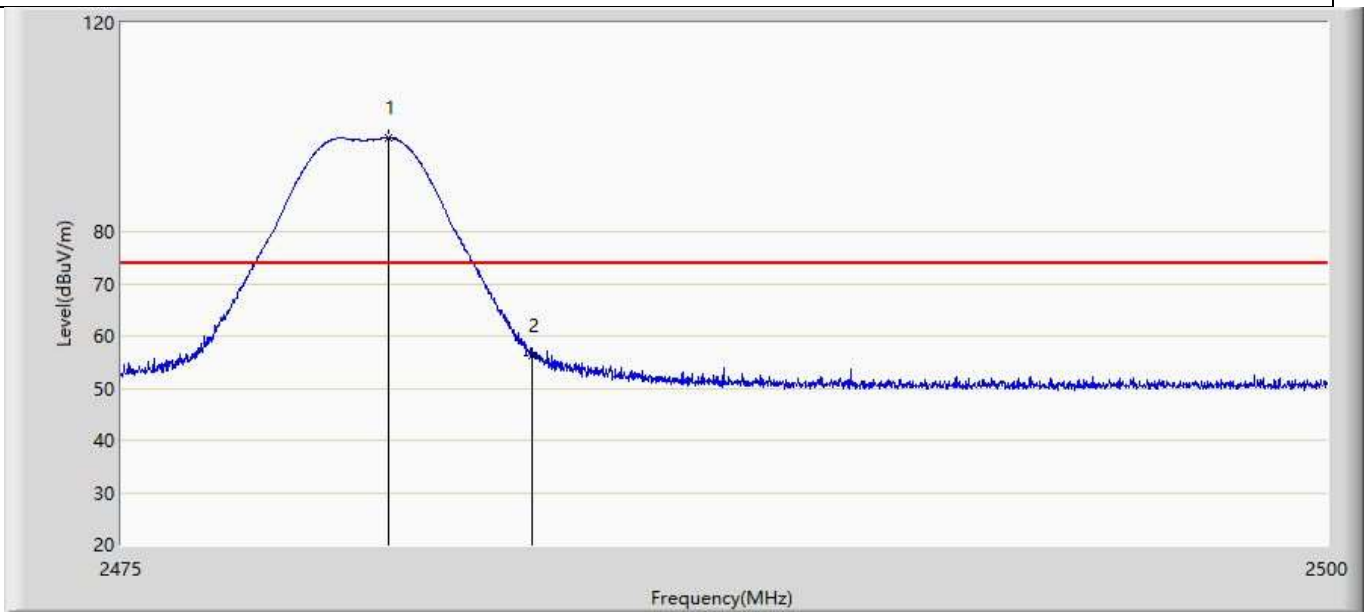
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.556	2.099	-16.444	54.000	35.458	AV
2	*	2402.055	92.589	57.119	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 29
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



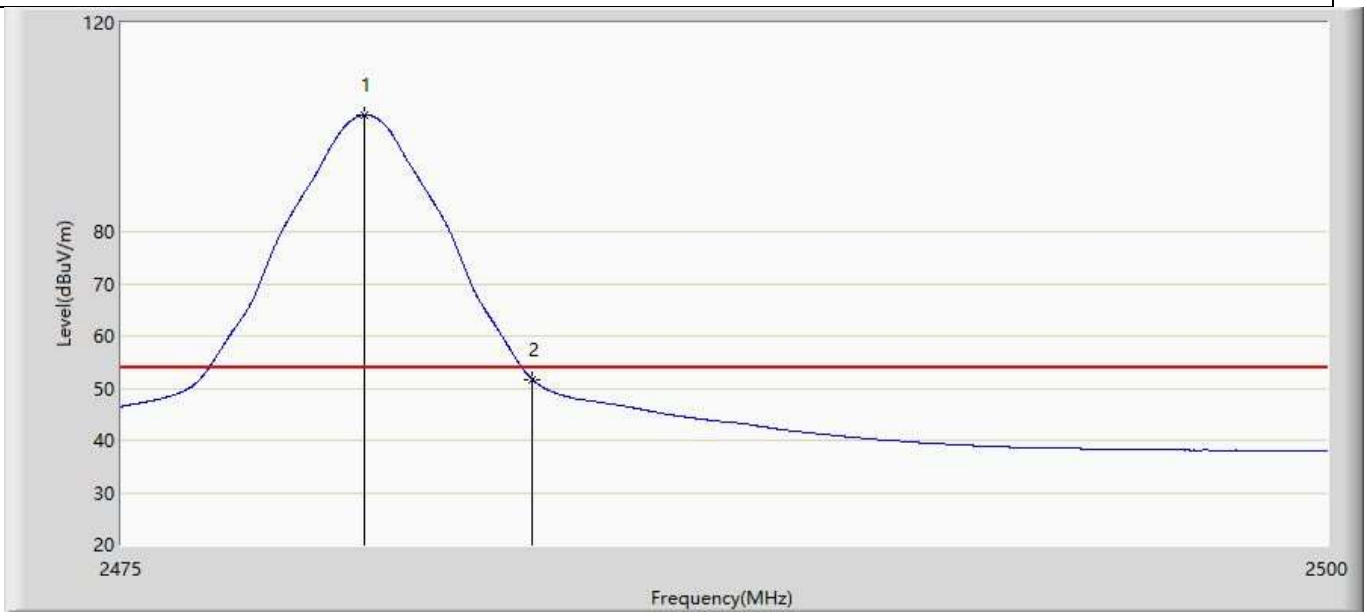
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.525	104.529	69.028	N/A	N/A	35.500	PK
2		2483.500	63.997	28.479	-10.003	74.000	35.517	PK

Profile: 1992203R	Page No.: 30
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



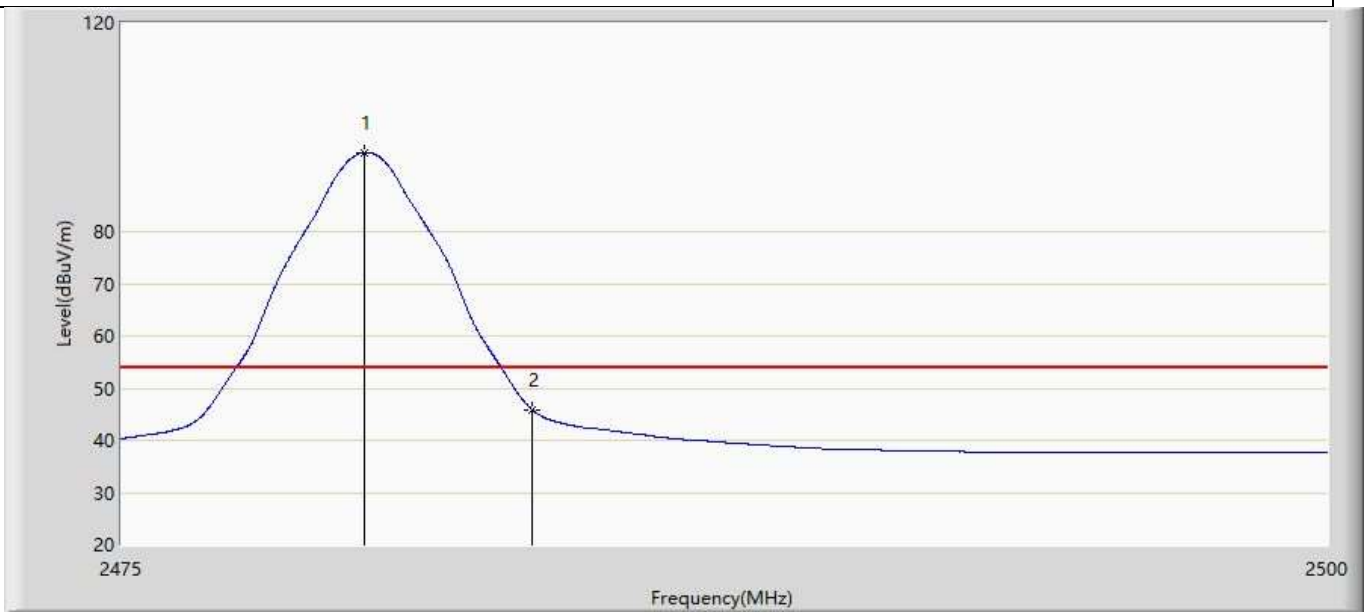
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.525	97.936	62.435	N/A	N/A	35.500	PK
2		2483.500	56.273	20.755	-17.727	74.000	35.517	PK

Profile: 1992203R	Page No.: 31
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



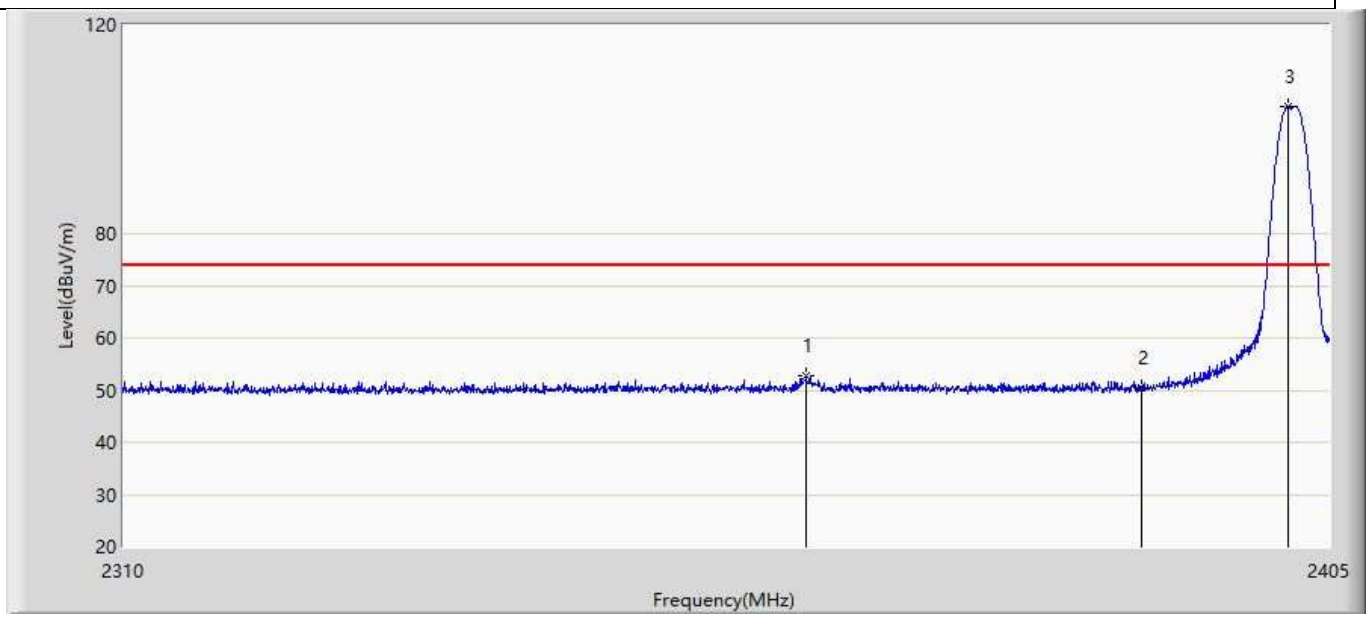
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	102.317	66.819	N/A	N/A	35.498	AV
2		2483.500	51.629	16.111	-2.371	54.000	35.517	AV

Profile: 1992203R	Page No.: 32
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps(GFSK_LE)	



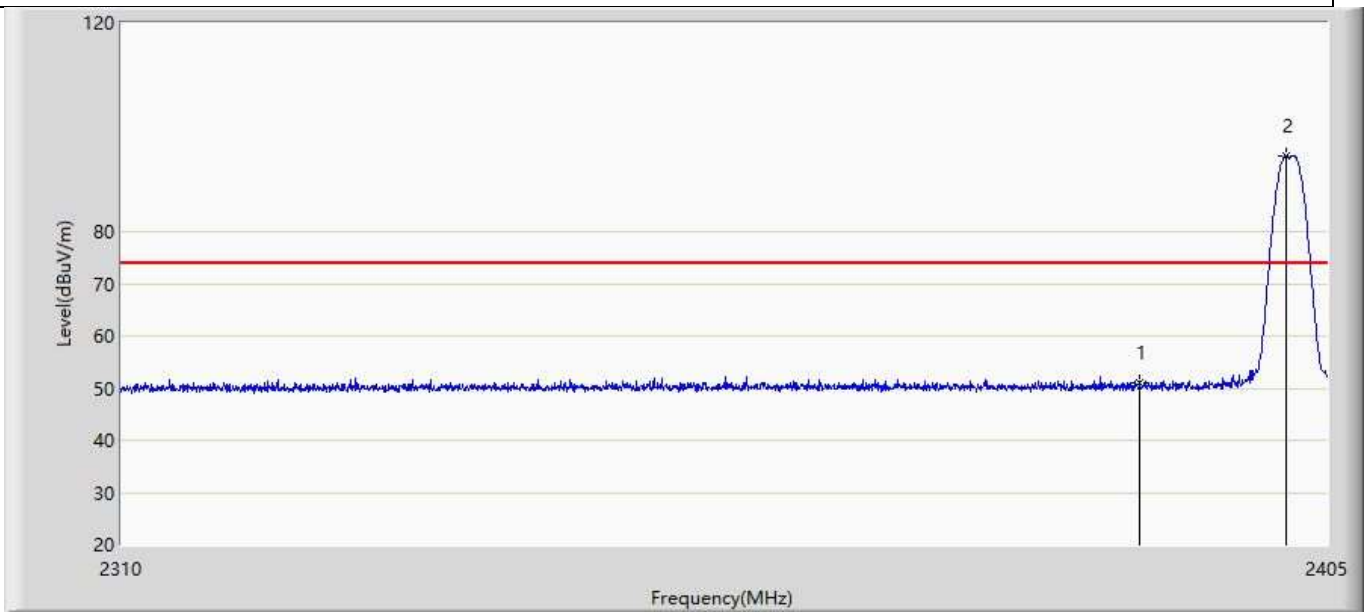
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	95.133	59.635	N/A	N/A	35.498	AV
2		2483.500	45.811	10.293	-8.189	54.000	35.517	AV

Profile: 1992203R	Page No.: 21
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



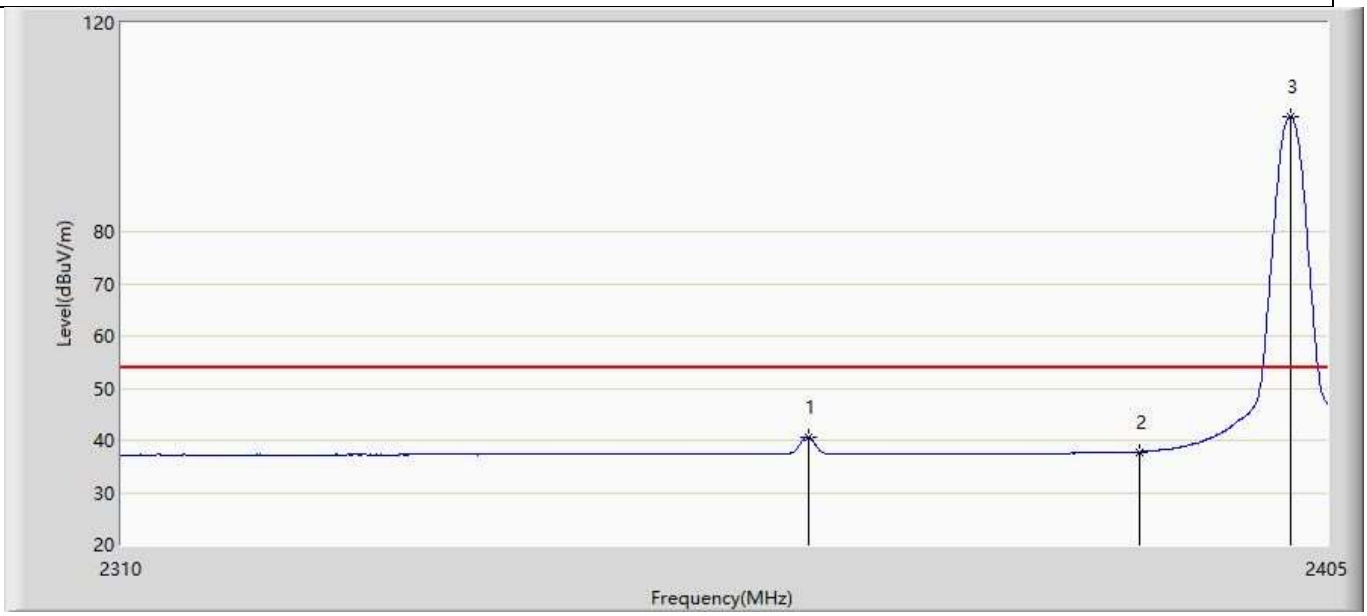
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.343	52.782	17.342	-21.218	74.000	35.440	PK
2		2390.000	50.538	15.081	-23.462	74.000	35.458	PK
3	*	2401.770	104.321	68.852	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 22
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



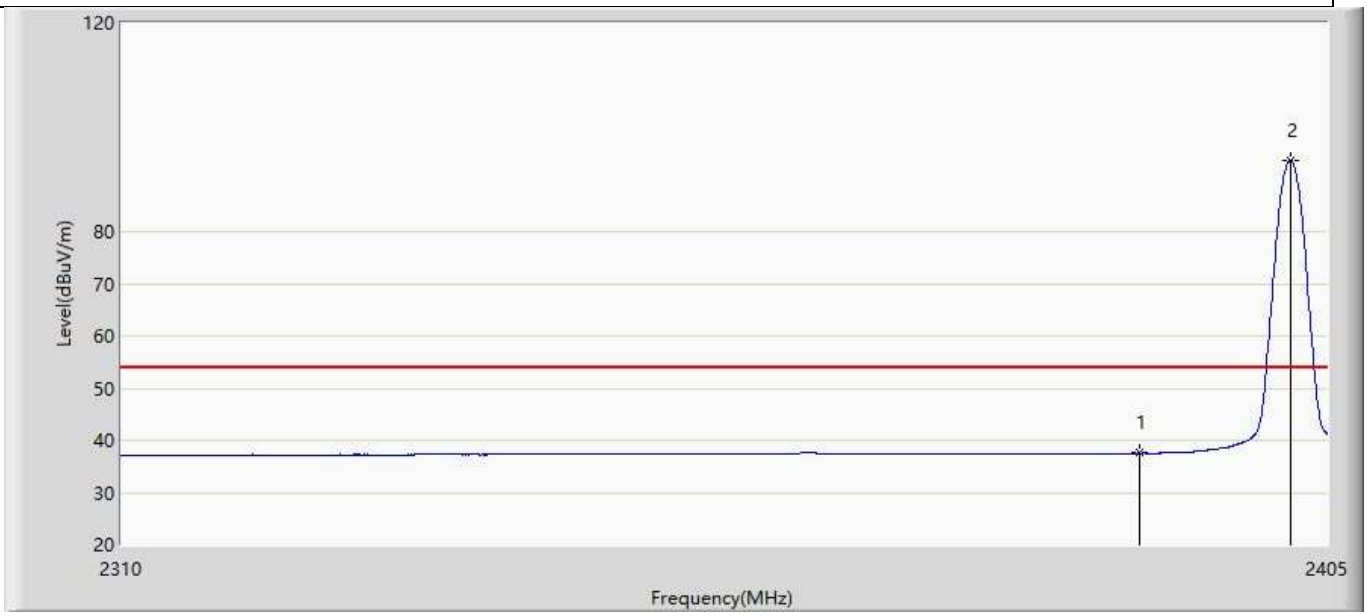
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.051	15.594	-22.949	74.000	35.458	PK
2	*	2401.770	94.443	58.974	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 23
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



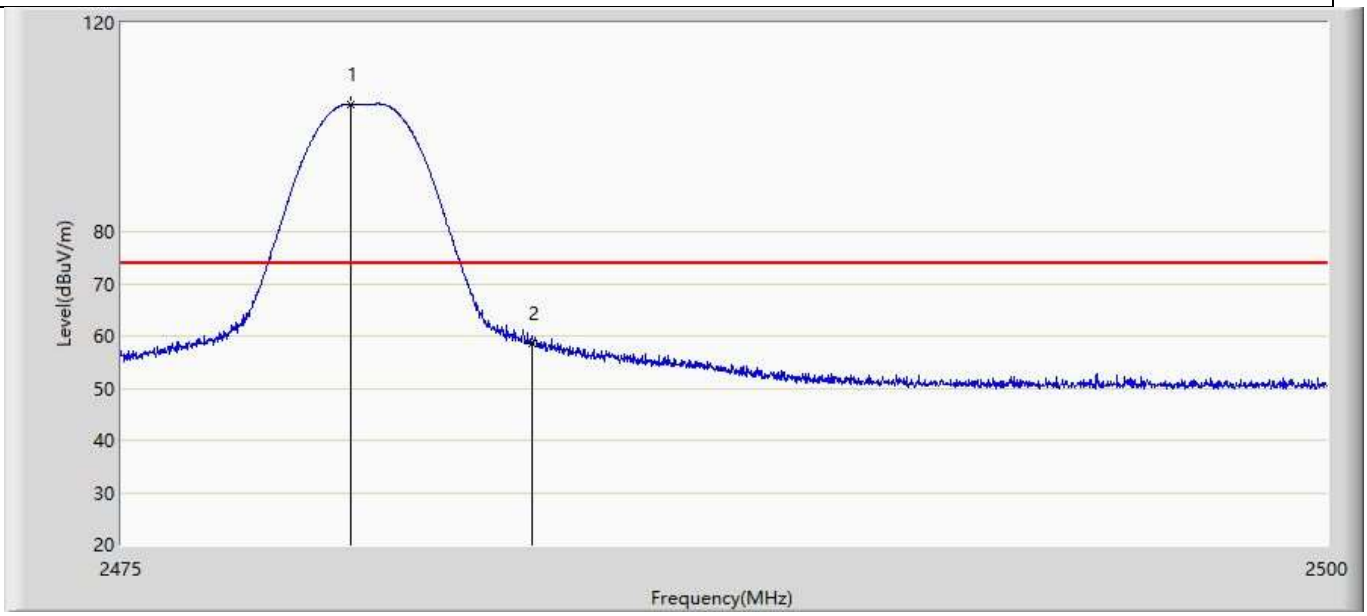
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	40.519	5.079	-13.481	54.000	35.440	AV
2		2390.000	37.804	2.347	-16.196	54.000	35.458	AV
3	*	2402.055	102.147	66.677	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 24
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2402MHz by LE_Coded(S=2)(GFSK_LE)	



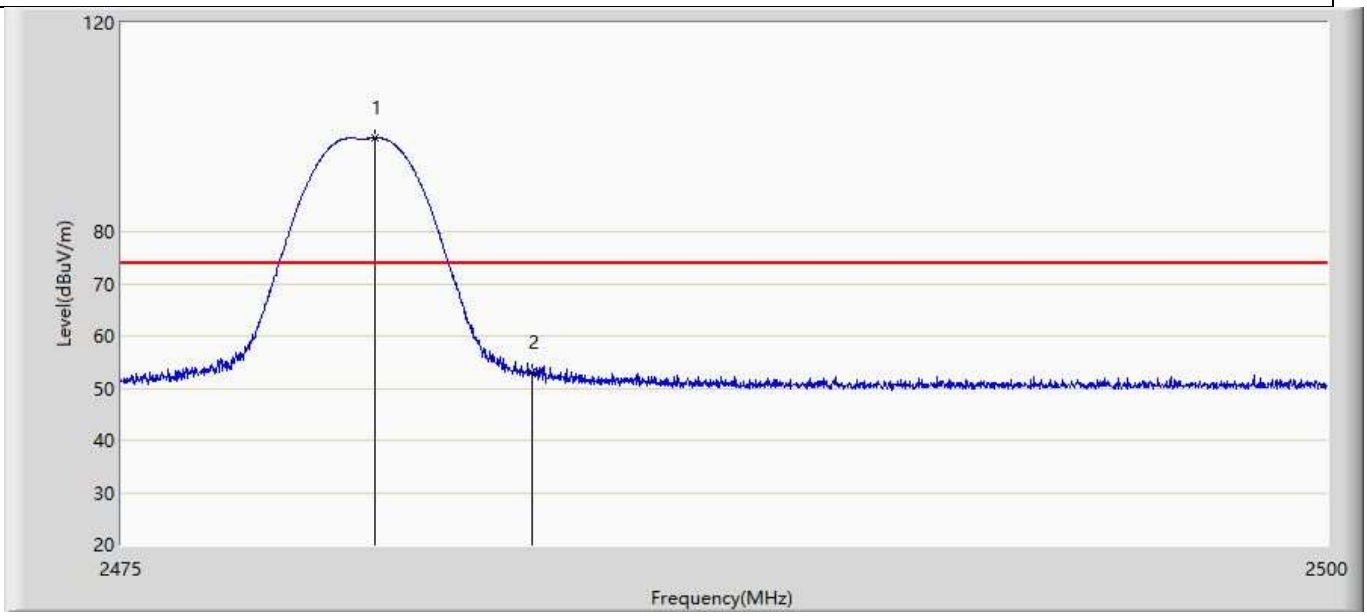
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.545	2.088	-16.455	54.000	35.458	AV
2	*	2402.055	93.574	58.104	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 37
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



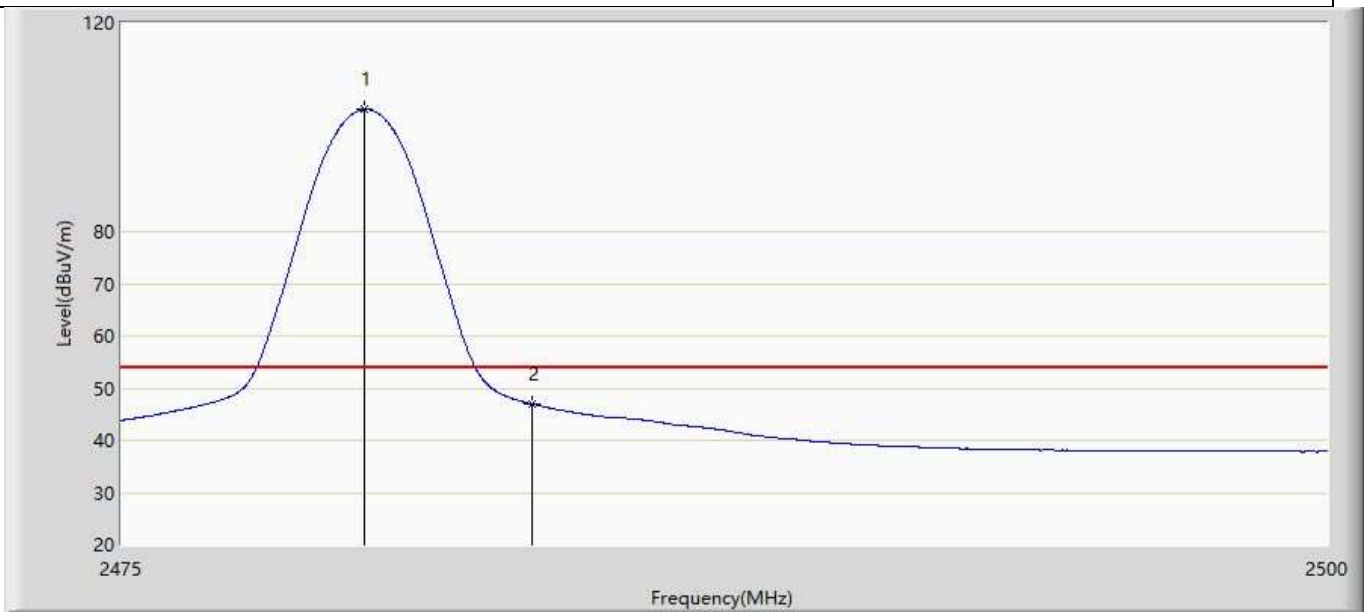
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.738	104.430	68.934	N/A	N/A	35.497	PK
2		2483.500	58.652	23.134	-15.348	74.000	35.517	PK

Profile: 1992203R	Page No.: 38
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



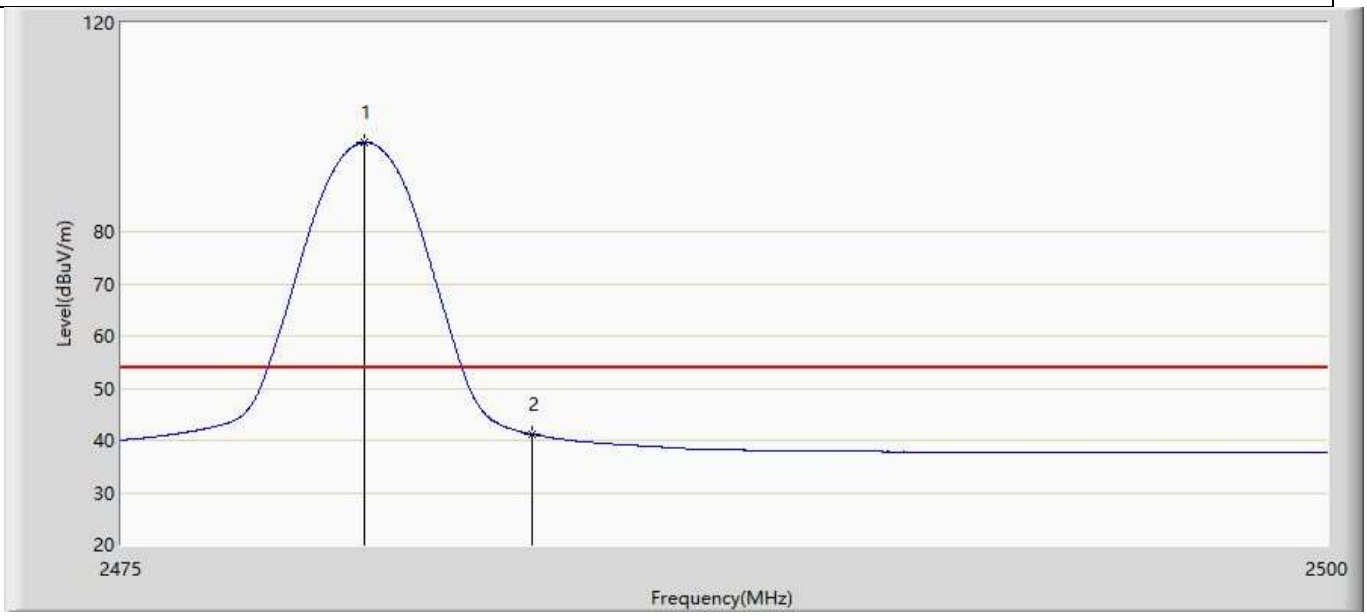
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.250	97.903	62.404	N/A	N/A	35.500	PK
2		2483.500	53.174	17.656	-20.826	74.000	35.517	PK

Profile: 1992203R	Page No.: 39
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



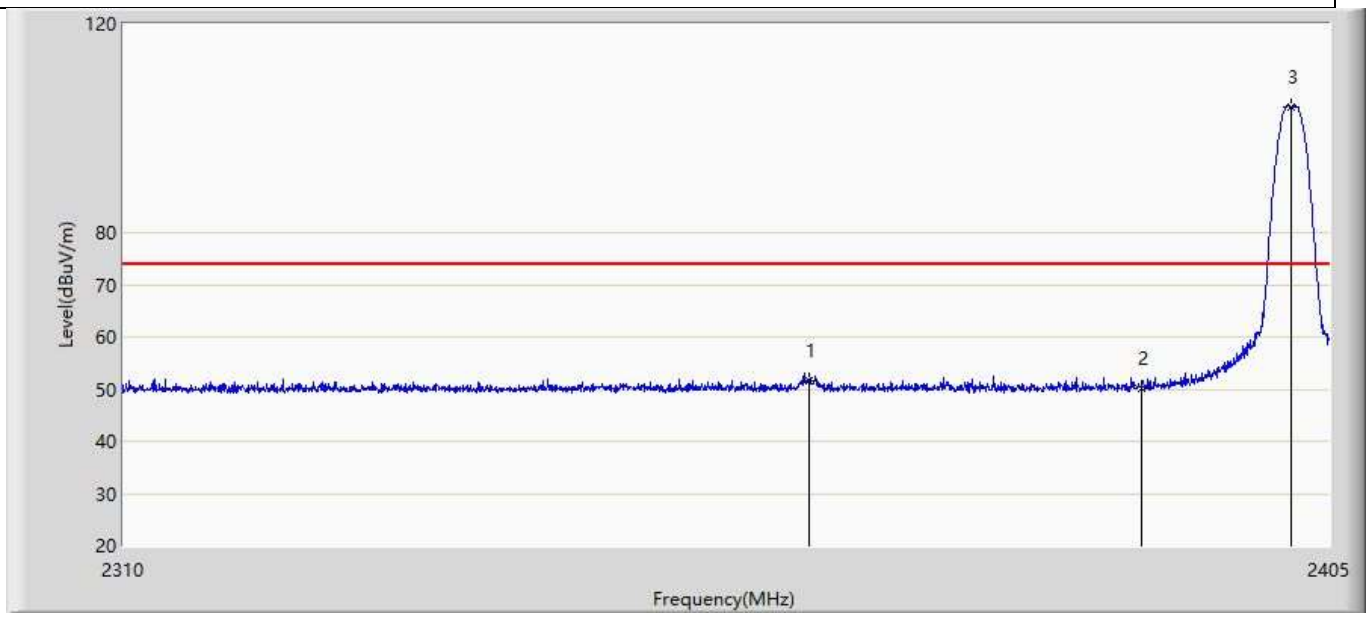
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	103.391	67.893	N/A	N/A	35.498	AV
2		2483.500	46.931	11.413	-7.069	54.000	35.517	AV

Profile: 1992203R	Page No.: 40
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 3:Transmit at 2480MHz by LE_Coded(S=2)(GFSK_LE)	



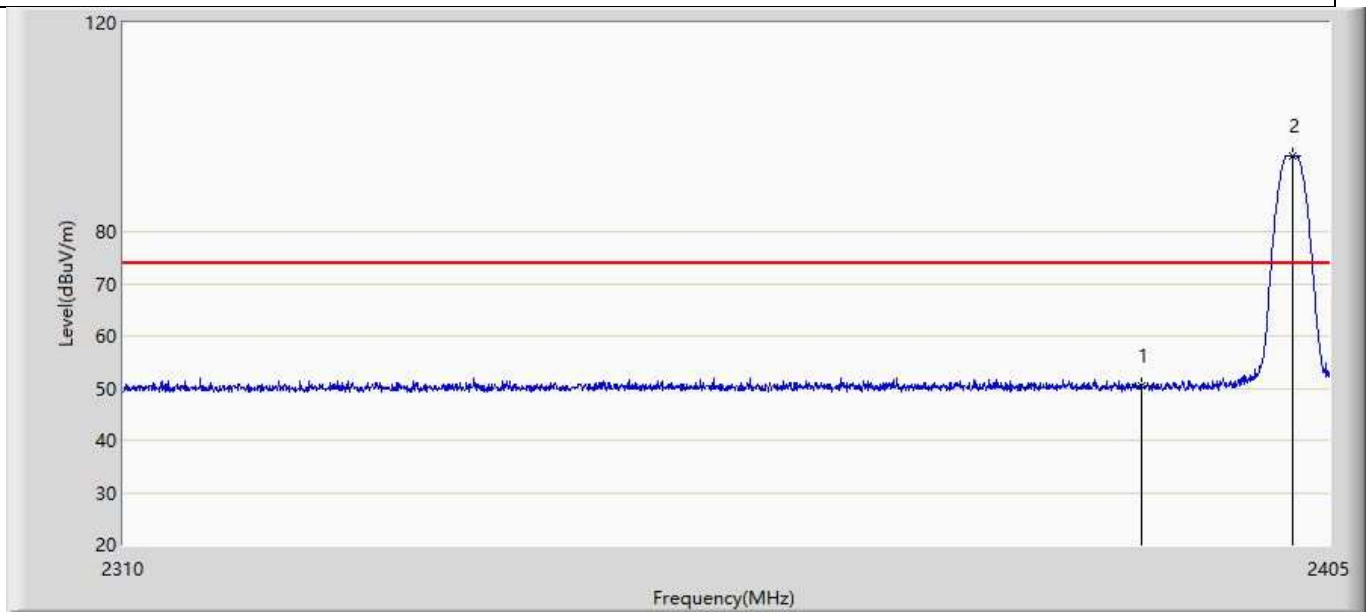
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.012	97.043	61.545	N/A	N/A	35.498	AV
2		2483.500	41.126	5.608	-12.874	54.000	35.517	AV

Profile: 1992203R	Page No.: 17
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



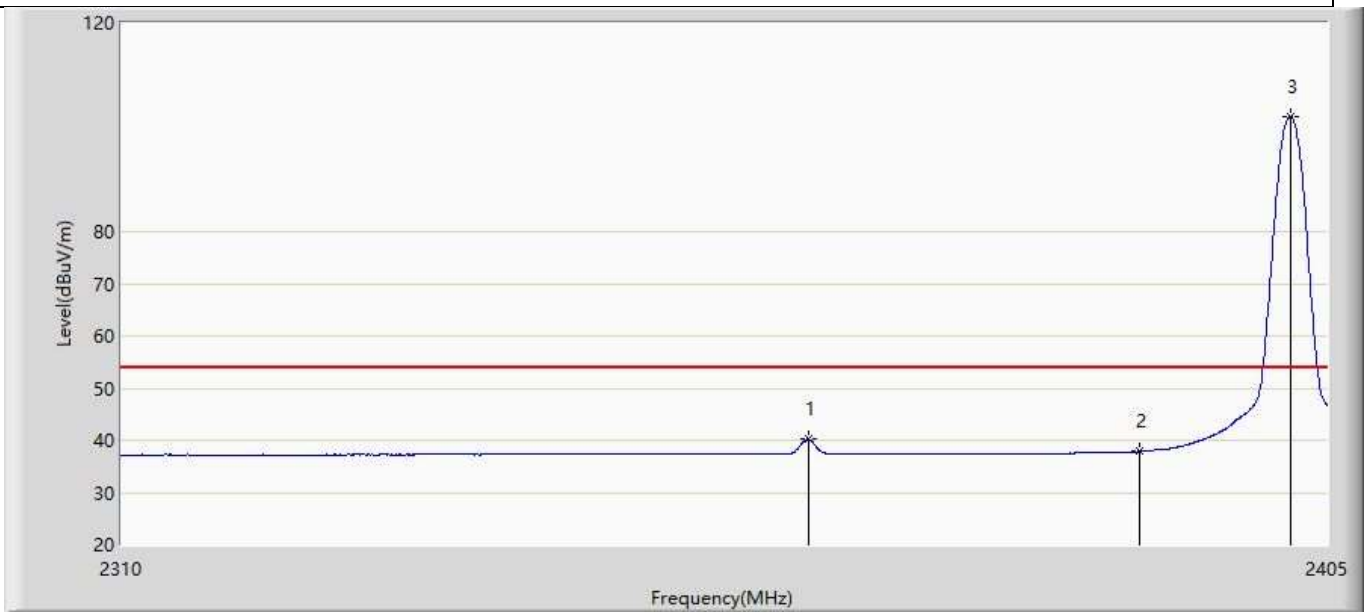
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.580	51.641	16.201	-22.359	74.000	35.441	PK
2		2390.000	50.279	14.822	-23.721	74.000	35.458	PK
3	*	2401.913	104.153	68.684	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 18
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



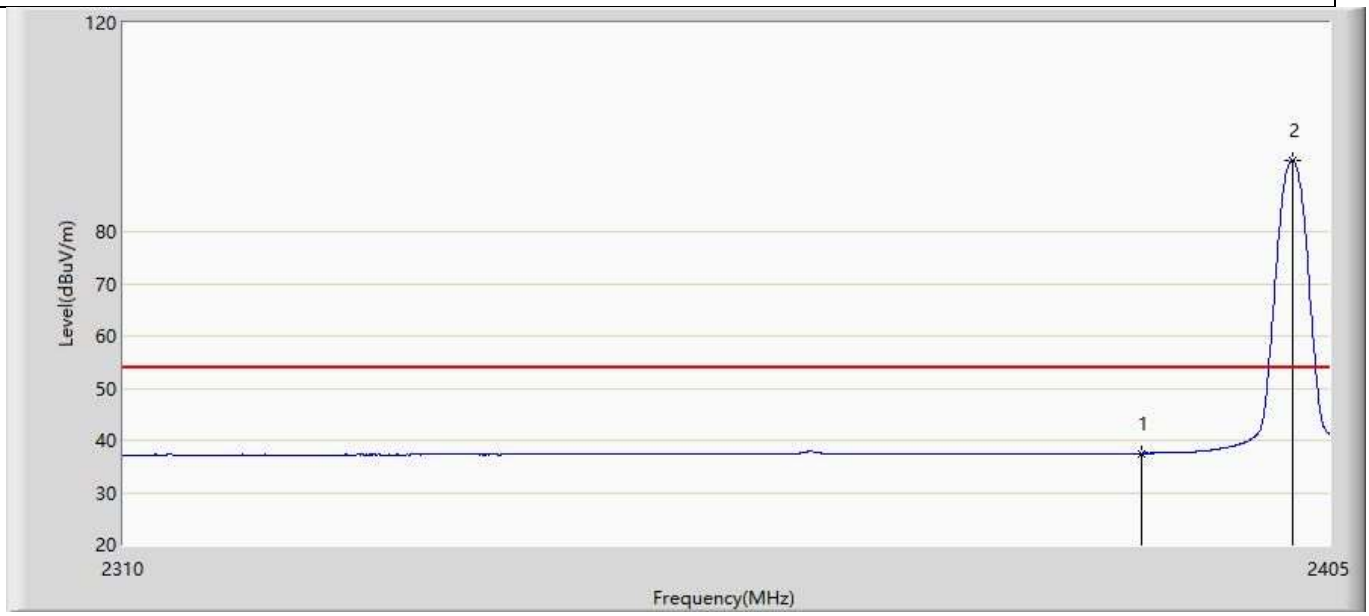
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.414	14.957	-23.586	74.000	35.458	PK
2	*	2402.055	94.429	58.959	N/A	N/A	35.469	PK

Profile: 1992203R	Page No.: 19
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



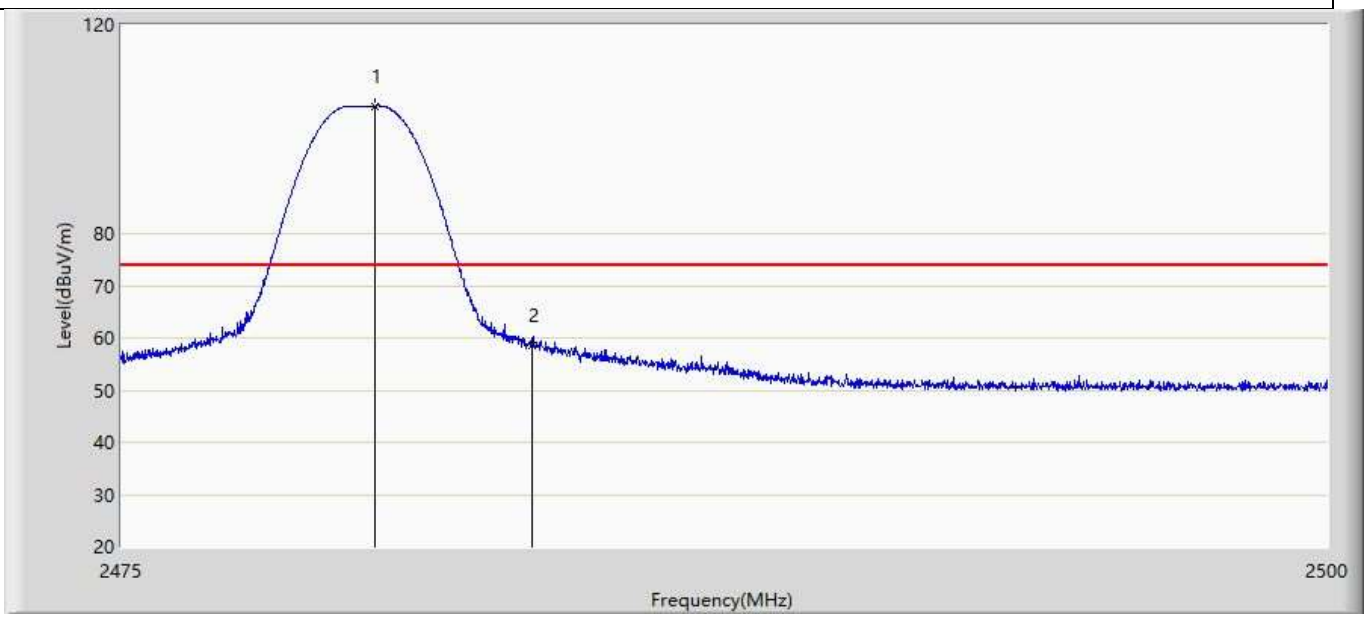
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2363.722	40.145	4.705	-13.855	54.000	35.440	AV
2		2390.000	37.860	2.403	-16.140	54.000	35.458	AV
3	*	2402.055	102.121	66.651	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 20
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2402MHz by LE_Coded(S=8)(GFSK_LE)	



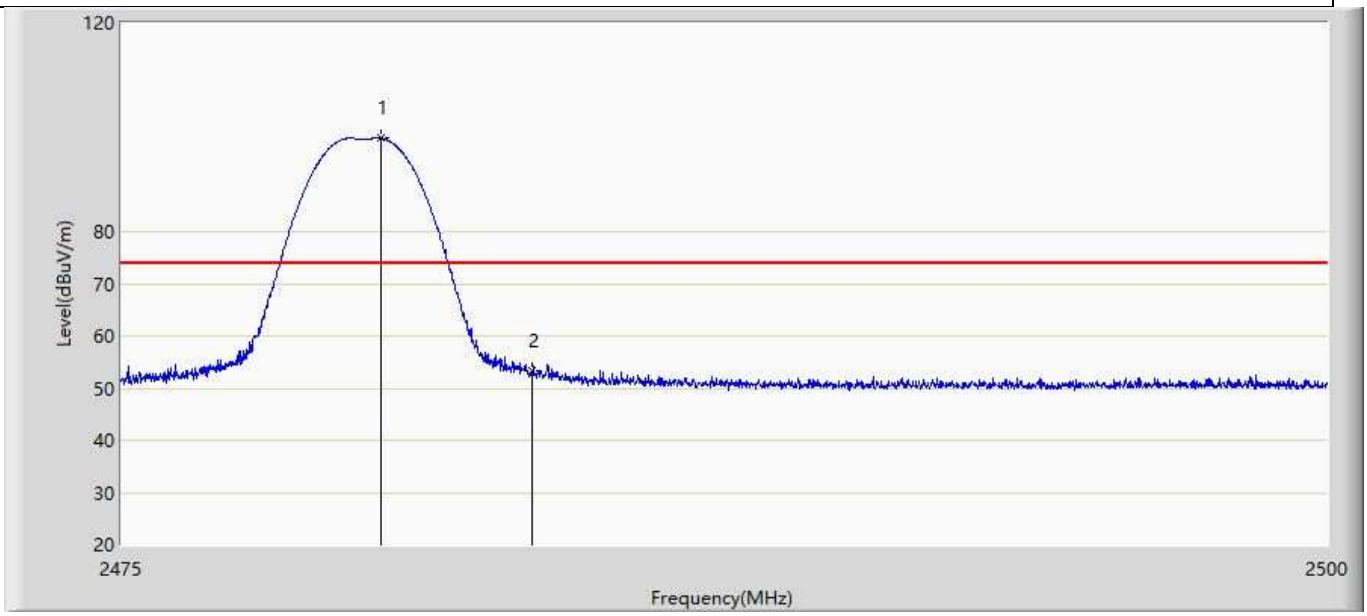
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	37.516	2.059	-16.484	54.000	35.458	AV
2	*	2402.055	93.724	58.254	N/A	N/A	35.469	AV

Profile: 1992203R	Page No.: 33
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



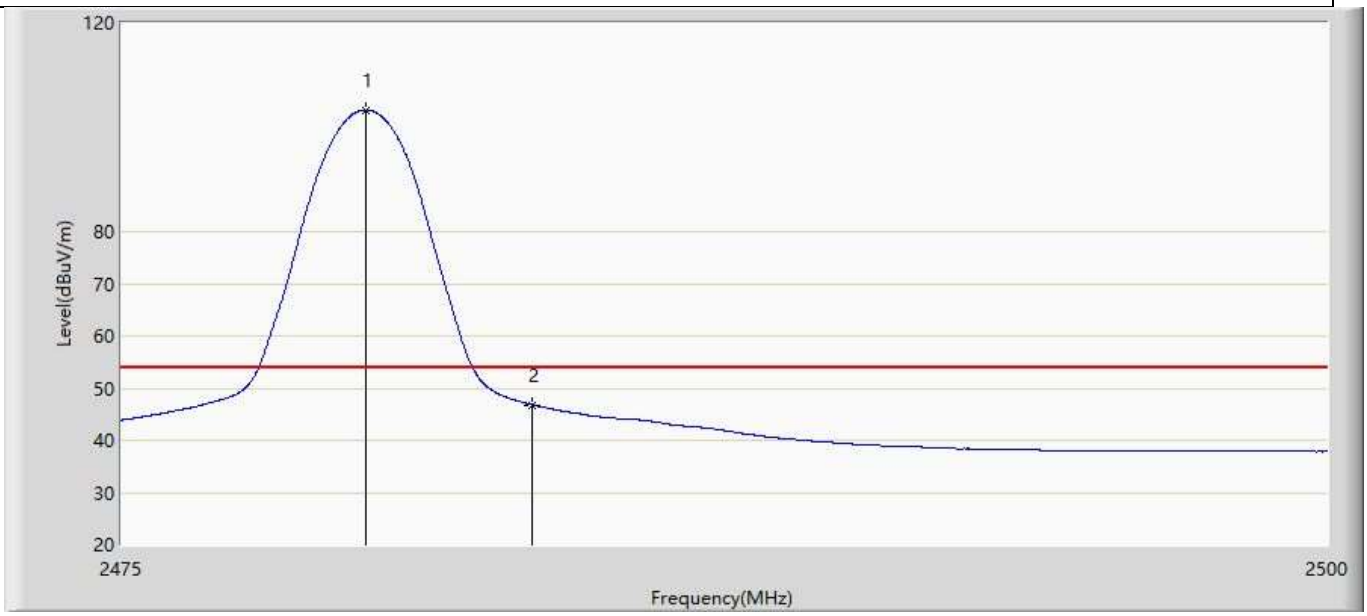
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.250	104.489	68.990	N/A	N/A	35.500	PK
2		2483.500	58.442	22.924	-15.558	74.000	35.517	PK

Profile: 1992203R	Page No.: 34
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



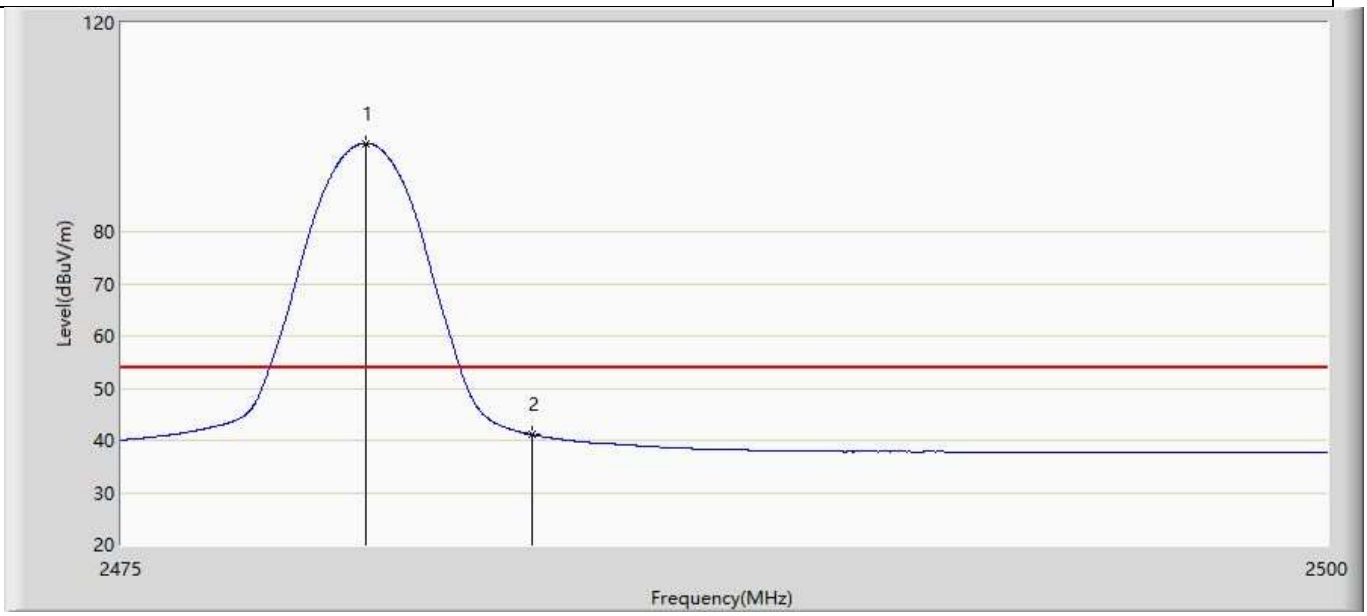
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.363	97.858	62.358	N/A	N/A	35.500	PK
2		2483.500	53.234	17.716	-20.766	74.000	35.517	PK

Profile: 1992203R	Page No.: 35
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.050	103.322	67.824	N/A	N/A	35.498	AV
2		2483.500	46.782	11.264	-7.218	54.000	35.517	AV

Profile: 1992203R	Page No.: 36
Engineer: Pawn	
Site: AC5	Time: 2019/10/15 - 19:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Hue Outdoor light strip 2m	Power: AC 110V/60Hz
Note: Mode 4:Transmit at 2480MHz by LE_Coded(S=8)(GFSK_LE)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.050	96.940	61.442	N/A	N/A	35.498	AV
2		2483.500	41.095	5.577	-12.905	54.000	35.517	AV

Note:

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

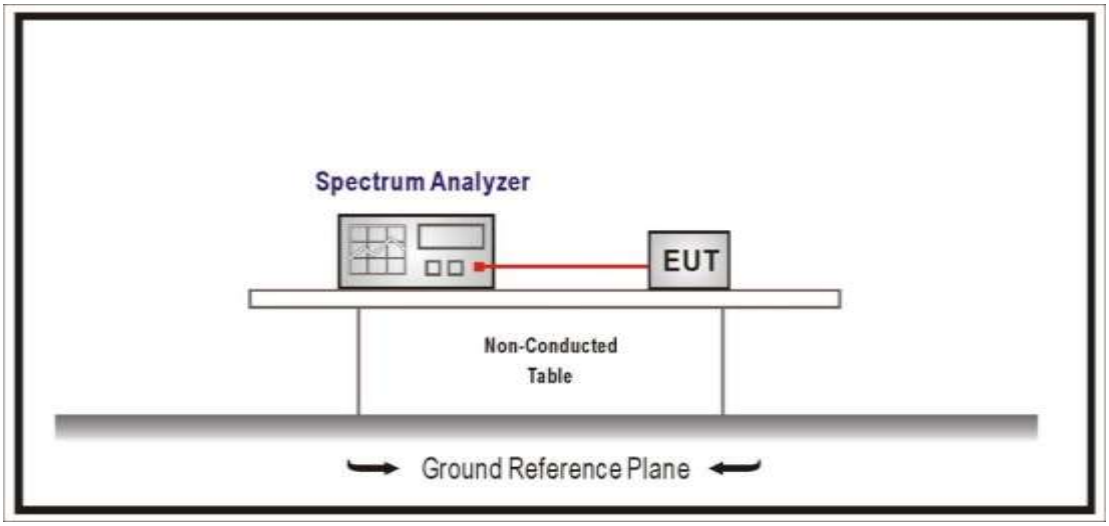
4.6 DTS Bandwidth	VERDICT: PASS

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

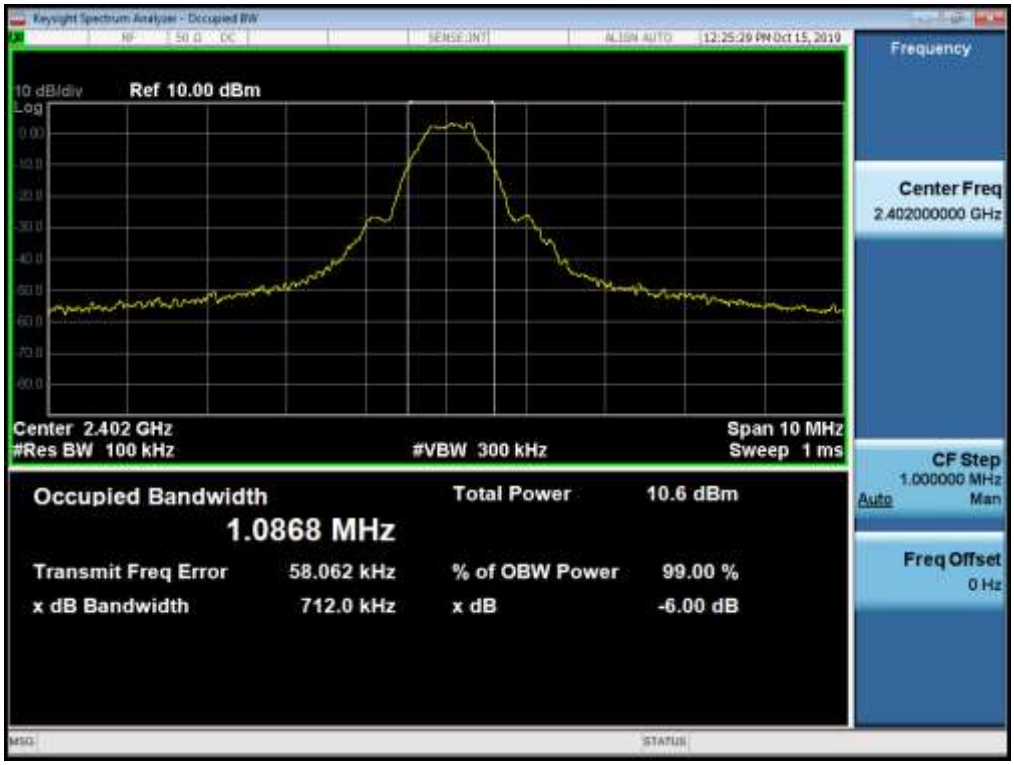
	Reference Rule		Chapter	Description
☒	ANSI C63.10		11.8	DTS bandwidth
	☐	ANSI C63.10	11.8.1	Option 1
	☒	ANSI C63.10	11.8.2	Option 2

4.6.4 Test Data

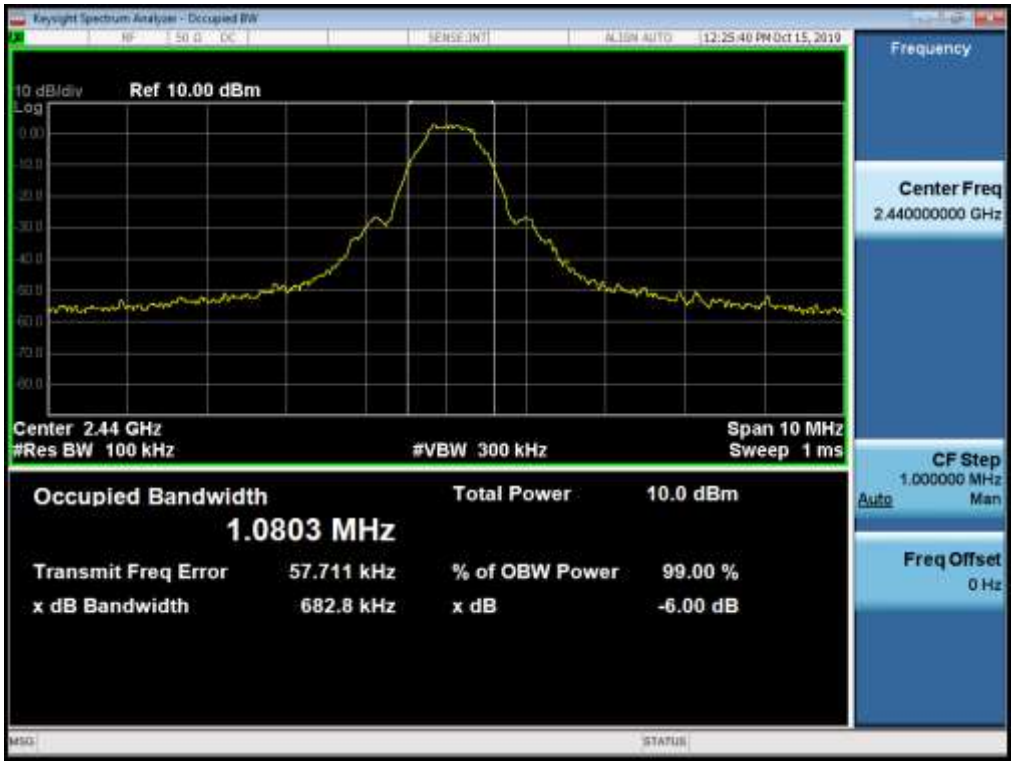
Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	6dB Occupied Bandwidth (MHz)	Limit (kHz)	Result
Mode 1	00	2402	1.4490	0.712	>500	Pass
	19	2440	1.4418	0.6828	>500	Pass
	39	2480	1.4047	0.7185	>500	Pass
Mode 2	00	2402	2.4031	1.387	>500	Pass
	19	2440	2.3794	1.395	>500	Pass
	39	2480	2.3636	1.372	>500	Pass
Mode 3	00	2402	1.5967	0.8065	>500	Pass
	19	2440	1.5898	0.7893	>500	Pass
	39	2480	1.5821	0.8069	>500	Pass
Mode 4	00	2402	1.5385	0.7578	>500	Pass
	19	2440	1.5362	0.763	>500	Pass
	39	2480	1.5241	0.7605	>500	Pass

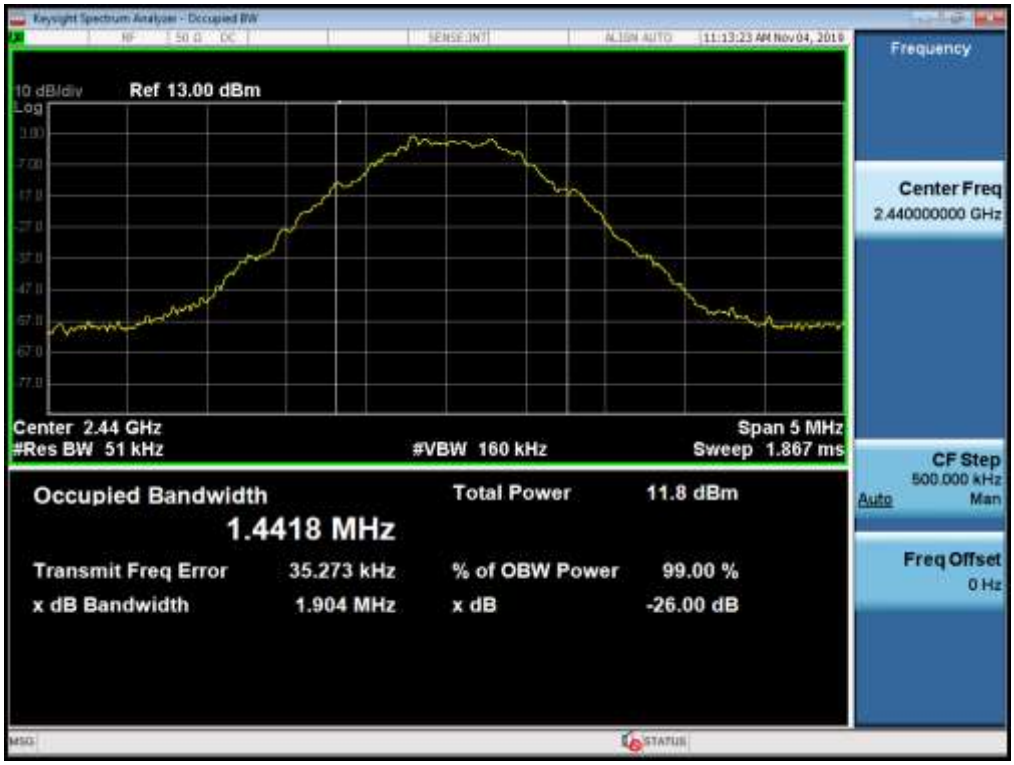
Note : We evaluated all test modes, shown in the report is the worst data.

Mode 1 CH00 (2402MHz)

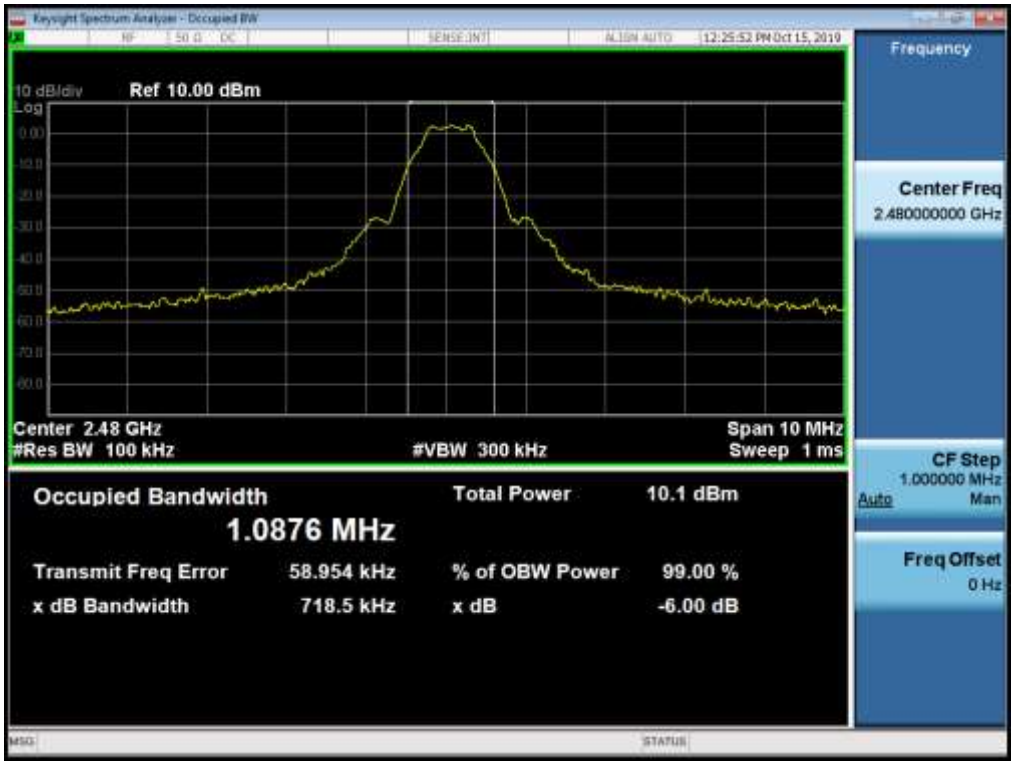


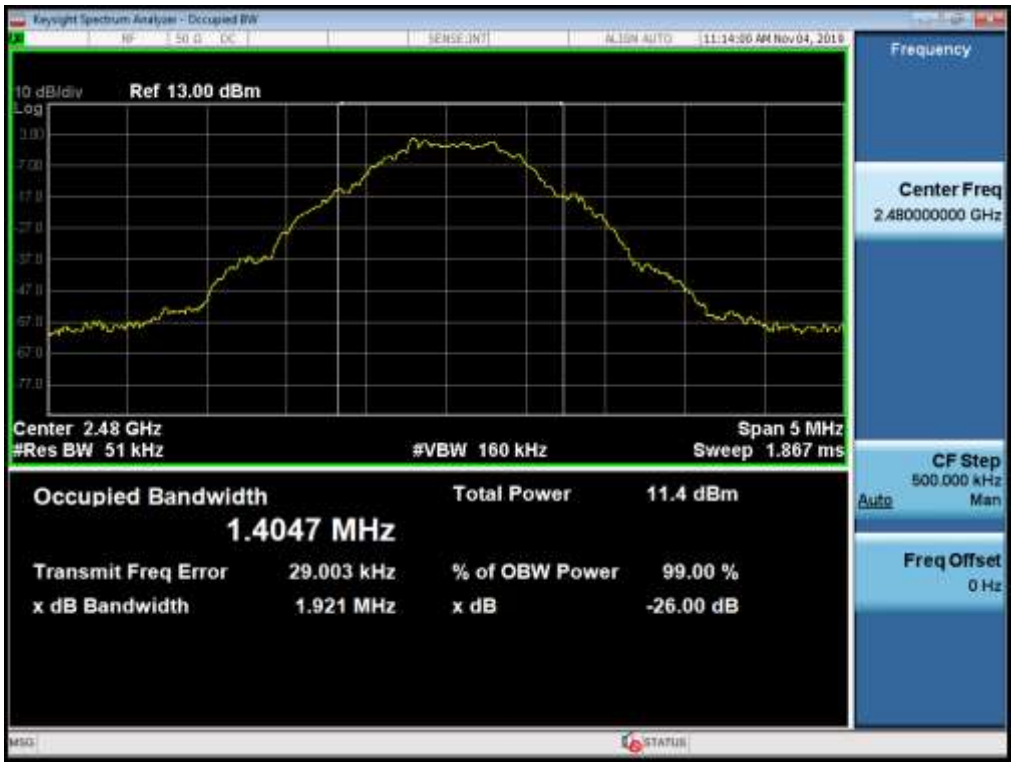
Mode 1 CH19 (2440MHz)





Mode 1 CH39 (2480MHz)





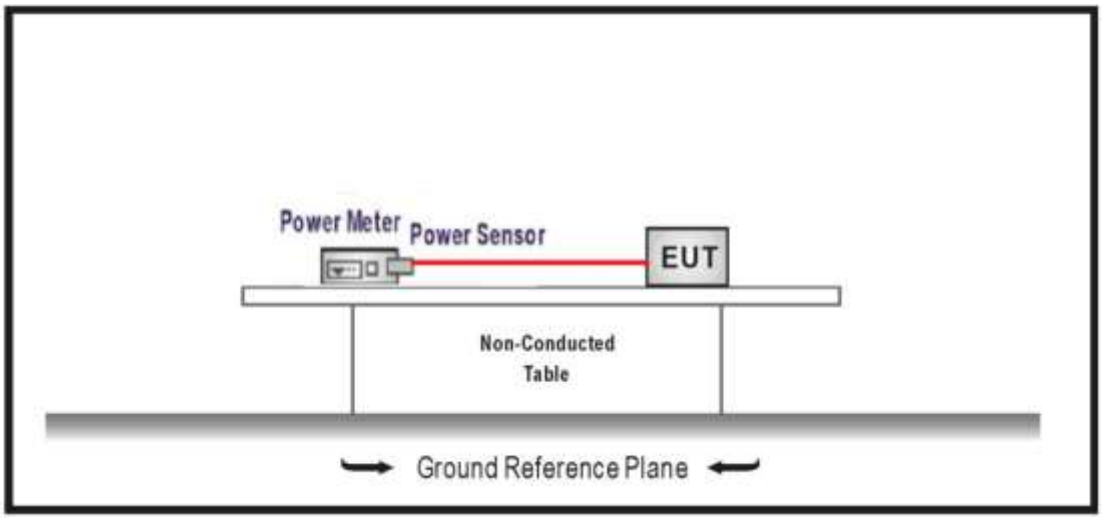
4.7 Fundamental emission output power — VERDICT: PASS

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

Murata:

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	Result
Mode 1	00	2402	8.27	≤30	Pass
	19	2440	8.14	≤30	Pass
	39	2480	8.01	≤30	Pass
Mode 2	00	2402	9.33	≤30	Pass
	19	2440	9.18	≤30	Pass
	39	2480	8.92	≤30	Pass
Mode 3	00	2402	8.58	≤30	Pass
	19	2440	8.40	≤30	Pass
	39	2480	8.04	≤30	Pass
Mode 4	00	2402	8.57	≤30	Pass
	19	2440	8.43	≤30	Pass
	39	2480	8.12	≤30	Pass

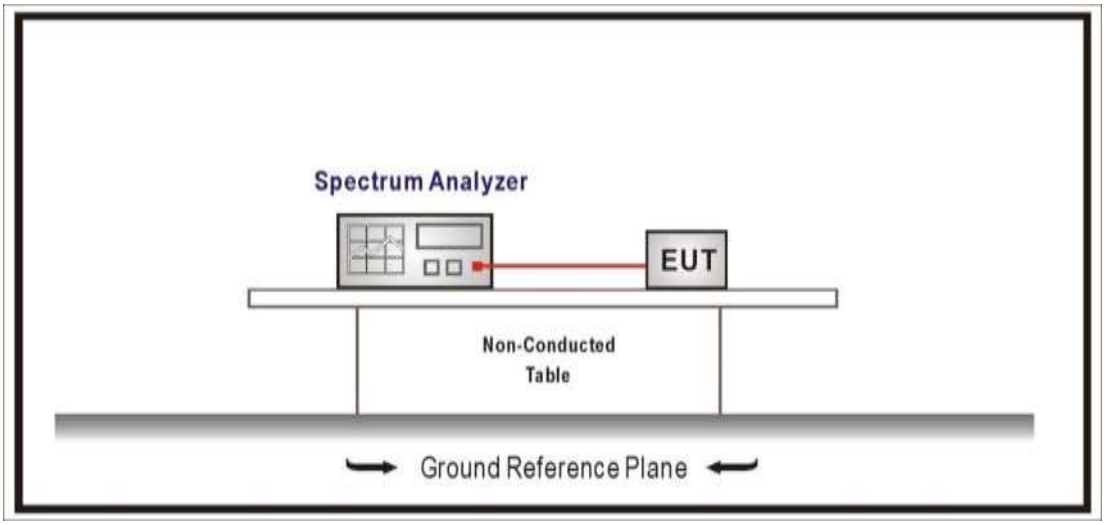
KDS:

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	Result
Mode 1	00	2402	8.14	≤30	Pass
	19	2440	8.08	≤30	Pass
	39	2480	7.87	≤30	Pass
Mode 2	00	2402	9.11	≤30	Pass
	19	2440	9.06	≤30	Pass
	39	2480	8.74	≤30	Pass
Mode 3	00	2402	8.33	≤30	Pass
	19	2440	8.27	≤30	Pass
	39	2480	8.02	≤30	Pass
Mode 4	00	2402	8.39	≤30	Pass
	19	2440	8.28	≤30	Pass
	39	2480	8.03	≤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

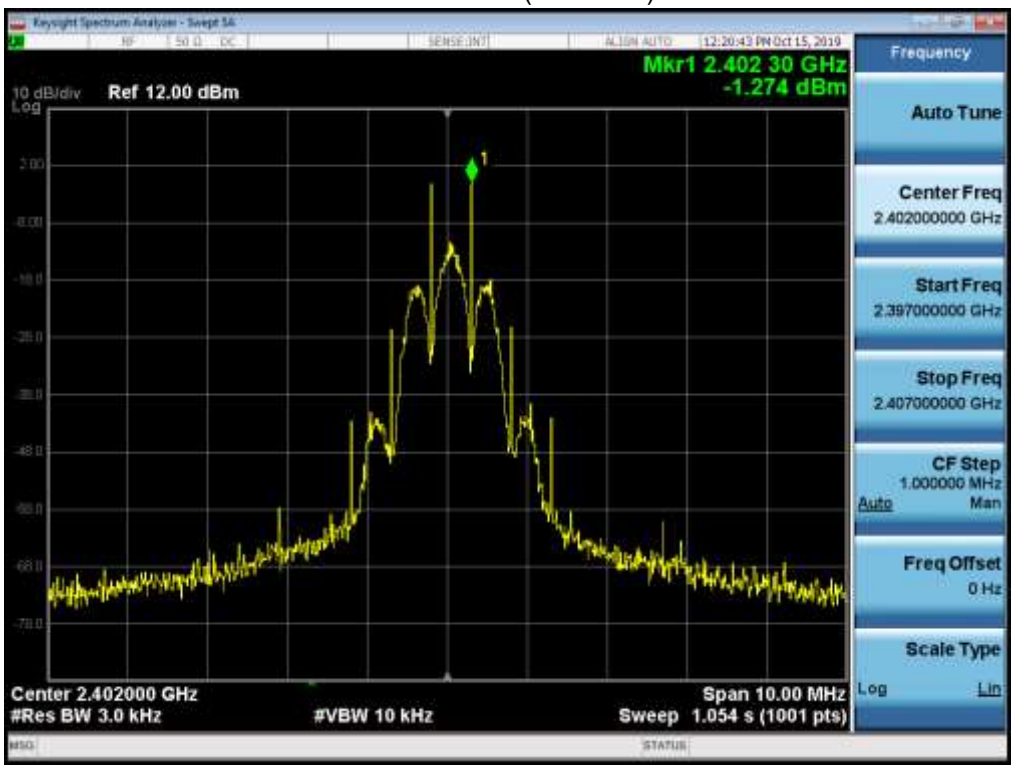
	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
	☒	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	☐	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle≥98%)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle≥98%)
	☐	ANSI C63.10	11.10.5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

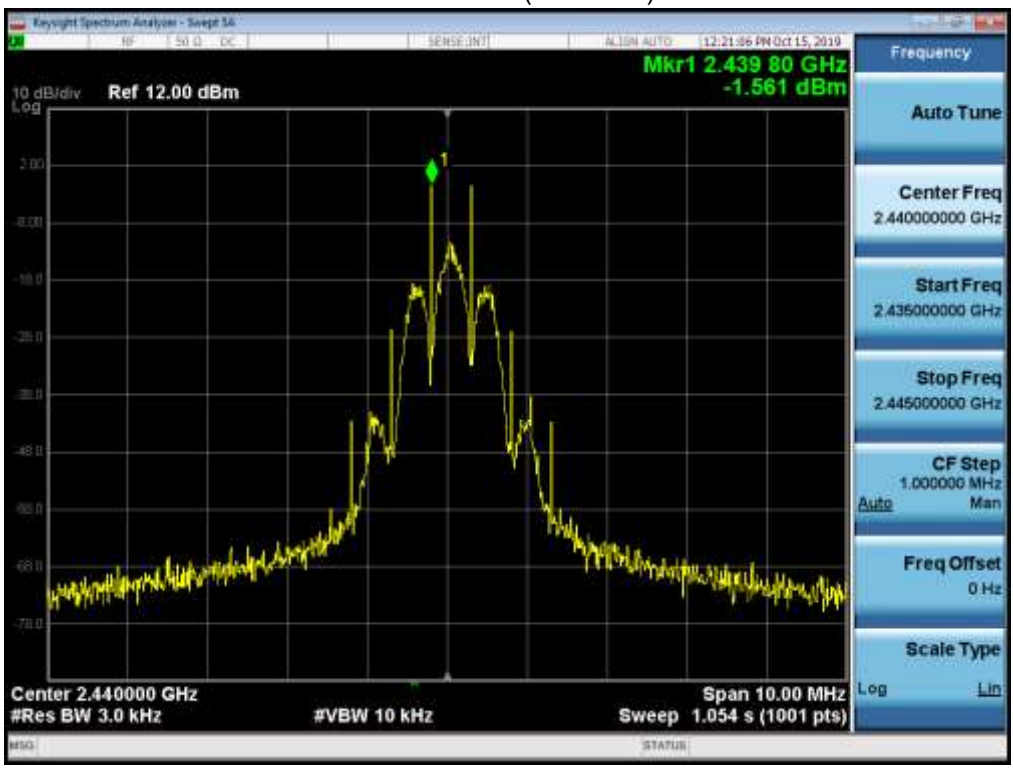
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Total Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
Mode 1	00	2402	-10.514	-10.514	≤8	Pass
	19	2440	-10.624	-10.624	≤8	Pass
	39	2480	-11.115	-11.115	≤8	Pass
Mode 2	00	2402	-13.377	-13.377	≤8	Pass
	19	2440	-13.579	-13.579	≤8	Pass
	39	2480	-13.679	-13.679	≤8	Pass
Mode 3	00	2402	-13.385	-13.385	≤8	Pass
	19	2440	-13.358	-13.358	≤8	Pass
	39	2480	-13.603	-13.603	≤8	Pass
Mode 4	00	2402	-1.274	-1.274	≤8	Pass
	19	2440	-1.561	-1.561	≤8	Pass
	39	2480	-1.798	-1.798	≤8	Pass

Note: We evaluated all test modes, shown in the report is the worst data.

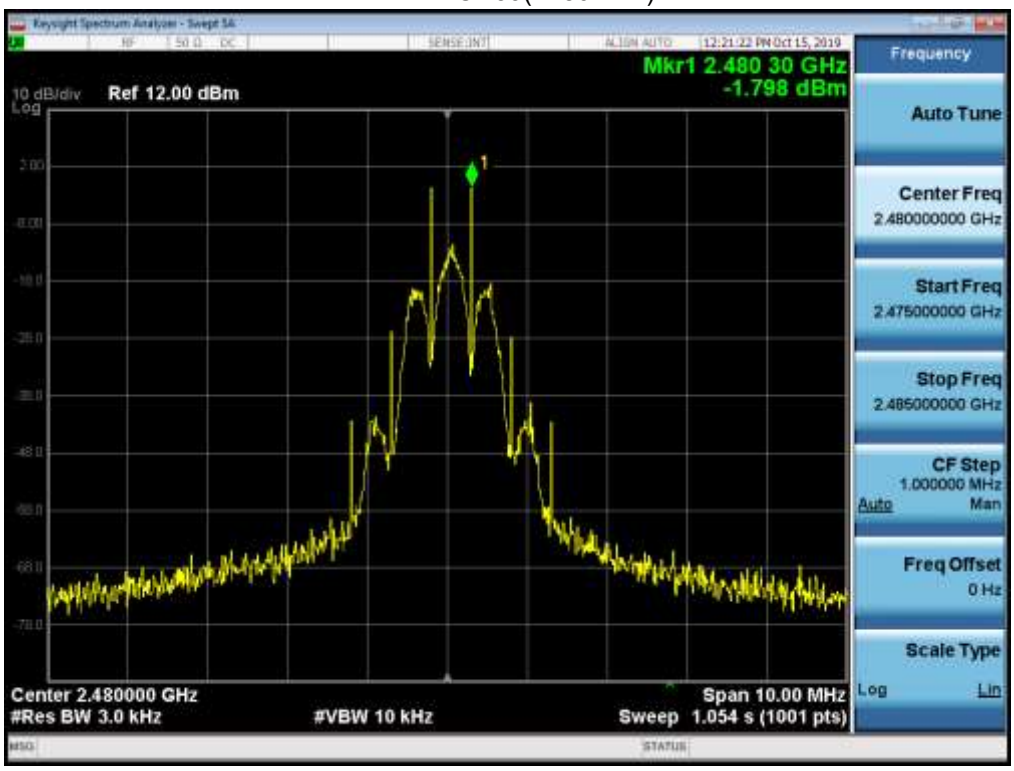
Mode 4 CH00(2402MHz)



Mode 4 CH19(2440MHz)



Mode 4 CH39(2480MHz)



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.	

4.10 Test setup photo and EUT Photo	VERDICT: PASS

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

The End