Test Report

FCC Part15 Subpart C

Product Name	:	Connected Sleep & Wake-up light
Model No.	:	HF3670, HF3671, HF3672, HF3673, HF3674
FCC ID	:	2APFC-HF367X

Applicant	:	Philips Consumer Lifestyle B.V.
Address	:	Tussendiepen 4, 9206 AD Drachten, The Nertherlands

Date of Receipt	:	Jan. 18, 2018
Test Date	:	Jan. 18, 2018 ~ Mar. 14, 2018
Issued Date	:	Dec. 03, 2021
Report No.	:	21A0342R-RF-US-P06V01
Report Version	:	V1.1

This report is only referred to the item that has undergone the test.

This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.

The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is

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Test Report Certification

Issued Date : Dec. 03, 2021
Report No. : 21A0342R-RF-US-P06V01

Product Name	:	Connected Sleep & Wake-up light
Applicant	:	Philips Consumer Lifestyle B.V.
Address	:	Tussendiepen 4, 9206 AD Drachten, The Nertherlands
Manufacturer	:	Philips Consumer Lifestyle B.V.
Address	:	Tussendiepen 4, 9206 AD Drachten, The Nertherlands
Model No.	:	HF3670, HF3671, HF3672, HF3673, HF3674
FCC ID	:	2APFC-HF367X
EUT Voltage	:	100-240Vac, 50/60Hz, 24W
Test Voltage	:	AC 120V/60Hz
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C ANSI C63.10:2013 KDB 558074 D01v04 KDB 662911 D01 Multiple Transmitter Output v02r01
Test Result	:	Complied
Performed Location	:	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 FCC Designation Number: CN1199

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Approved By : Jack Zhang

(Supervisor: Jack Zhang)

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
21A0342R-RF-US-P06V01	V1.0	Initial Issued Report	Nov. 18, 2021
21A0342R-RF-US-P06V01	V1.1	Page 5: Correct the release date of V1.0. (The test report No.: 21A0342R-RF-US-P06V01 V1.1 is to replace the test report No.: 21A0342R-RF-US-P06V01 V1.0, and test report 21A0342R-RF-US-P06V01 V1.0 is obsoleted.)	Dec. 03, 2021

Note: This report is based on DEKRA report (Report NO.: 1812126R-RF-CA-P06V01). The customer stated that the antenna information in the original report was incorrect, and the maximum gain of antenna 2 should be 3.3dBi. After evaluation, no items need to be re-tested. This time a new adapter (new HF20) and a new DC-DC IC (IC01 add alternative EC2330) are adopted too.

1. General Information

1.1. EUT Description

Product Name	Connected Sleep & Wake-up light
Model No.	HF3670, HF3671, HF3672, HF3673, HF3674
EUT Voltage	100-240Vac, 50/60Hz, 24W
Frequency Range	For 2.4GHz Band 802.11b/g/n(20MHz): 2412~2462MHz
Channel Number	For 2.4GHz Band 802.11b/g/n(20MHz): 11
Type of Modulation	802.11b: DSSS-DBPSK, DQPSK, CCK
	802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM
Data Rate	802.11b: 1/2/5.5/11 Mbps
	802.11g: 6/9/12/18/24/36/48/54 Mbps
	802.11n: up to 150 Mbps
Channel Control	Auto

Note: The different model name is just the difference in the color of the appearance.

1.2. Working Frequency of Each Channel:

802.11b/g/n Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	N/A	N/A

1.3. Antenna information

Model No.	N/A					
Antenna manufacturer	N/A					
Antenna Delivery	☐	1*TX+1*RX	☒	2*TX+2*RX	☐	3*TX+3*RX
Antenna technology	☒	SISO				
	☐	MIMO	☐	Basic		
			☐	CDD		
			☐	Sectorized		
			☐	Beam-forming		
Antenna Type	☒	External	☒	Metal		
			☐	Sectorized		
	☒	Internal	☐	PIFA		
			☒	PCB		
			☐	Ceramic Chip Antenna		
			☐	Metal plate type F antenna		
Antenna Technology	Ant1: Integral PCB antenna, Max. 3,0 dBi Ant2: External antenna, Max. 3,3 dBi					

1.4. Mode of Operation

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

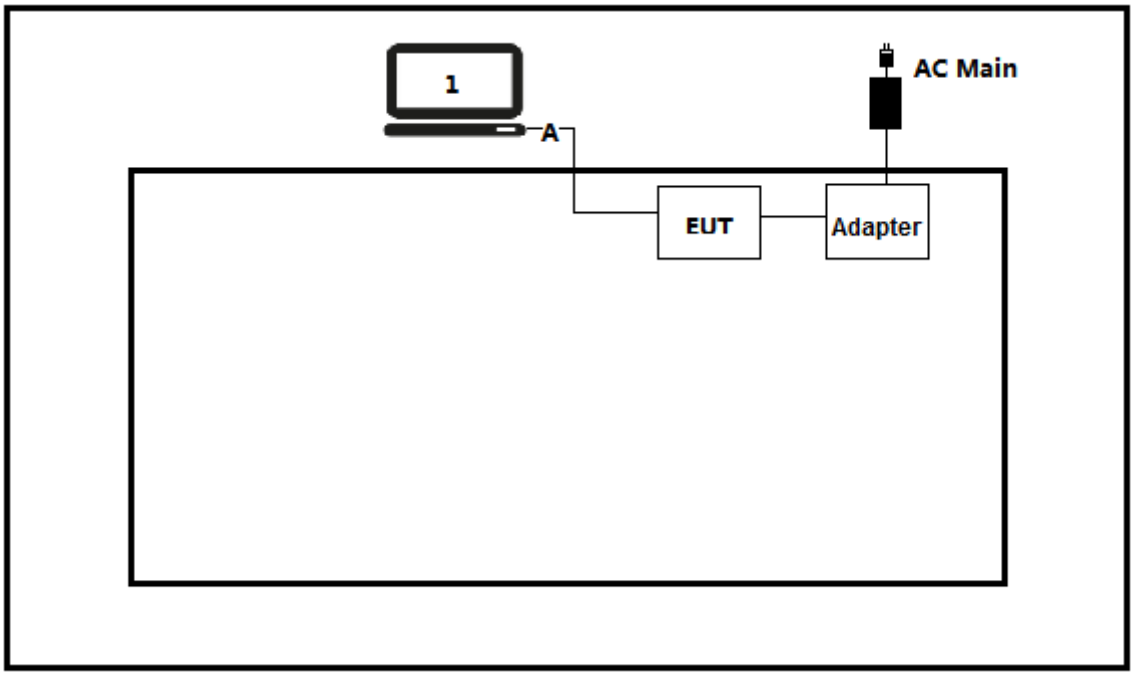
1.5. Tested System Details

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

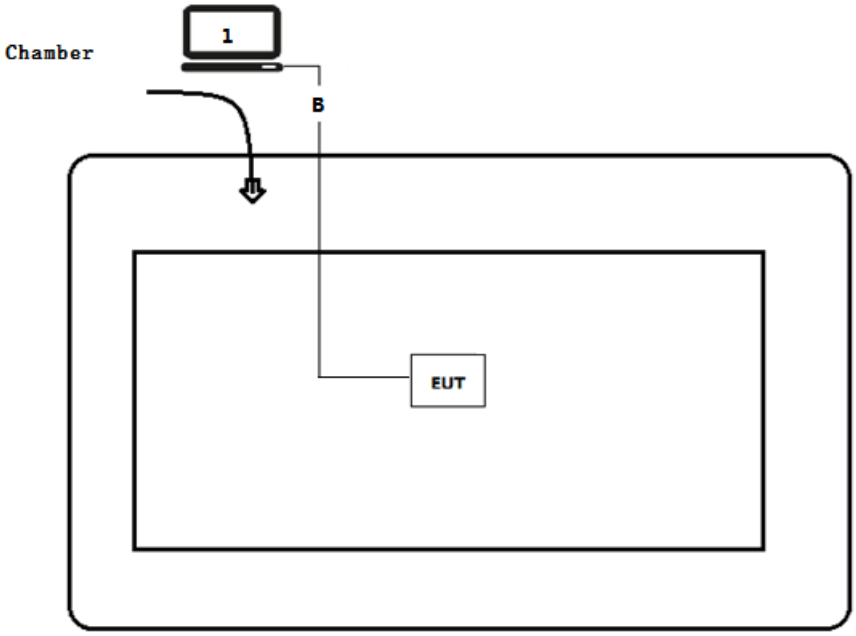
No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	Think pad x220	SUA0600195	Non-shielded
A	USB cable	N/A	N/A	N/A	Shielded, 0.5m
B	USB cable	N/A	N/A	N/A	Shielded, 10m

1.6. Configuration of Tested System

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



1.7. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Run RF software [CMD], and set the test mode and channel, then press OK to start to continue transmit.

2. Technical Test

2.1. Summary of Test Result

Performed Test Item	Normative References	Limit	Result
AC Power Line Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: Section 15.207	FCC 15.207	PASS
Emissions in restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: Section 15.209	FCC 15.209	PASS
Emissions in non-restricted frequency bands	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(d)	⩾20dBc	PASS
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 15.247(d)	FCC 15.209	PASS
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(a)(2)	⩾500kHz	PASS
Fundamental emission output power	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(b)(3)	⩽30dBm	PASS
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: Section 15.247(e)	⩽8dBm/3kHz	PASS
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C: Section 15.203	FCC 15.203	PASS

2.2. Test Frequency configuration:

Modulation Mode	Channel	Frequency	Channel	Frequency	Channel	Frequency
802.11b	01	2412 MHz	06	2437MHz	11	2462MHz
802.11g	01	2412 MHz	06	2437MHz	11	2462MHz
802.11n(20MHz)	01	2412 MHz	06	2437MHz	11	2462MHz

2.3. Power vs Data Rate

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)				
		802.11b	802.11g		20MHz Bandwidth	
					800ns GI	400ns GI
0	1	1	6	---	6.5	7.2
1	1	2	9	---	13.0	14.4
2	1	5.5	12	---	19.5	21.7
3	1	11	18	---	26.0	28.9
4	1	---	24	---	39.0	43.3
5	1	---	36	---	52.0	57.8
6	1	---	48	---	58.5	65.0
7	1	---	54	---	65.0	72.2
8	2	---	---	---	13.0	14.4
9	2	---	---	---	26.0	28.9
10	2	---	---	---	39.0	43.3
11	2	---	---	---	52.0	57.8
12	2	---	---	---	78.0	86.7
13	2	---	---	---	104.0	115.6
14	2	---	---	---	117.0	130.0
15	2	---	---	---	130.0	144.0

Spatial Streams (Note1)	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)	
				20MHz	
				Guard Interval	
				800ns	400ns
1	0	BPSK	1/2	6.5	7.2
	1	QPSK	1/2	13	14.4
	2	QPSK	3/4	19.5	21.7
	3	16-QAM	1/2	26	28.9
	4	16-QAM	3/4	39	43.3
	5	64-QAM	2/3	52	57.8
	6	64-QAM	3/4	58.5	65
	7	64-QAM	5/6	65	72.2
	8	256-QAM	3/4	78	86.7
	9	256-QAM	5/6	N/A	N/A
2	0	BPSK	1/2	13	14.4
	1	QPSK	1/2	26	28.8
	2	QPSK	3/4	39	43.4
	3	16-QAM	1/2	52	57.8
	4	16-QAM	3/4	78	86.6
	5	64-QAM	2/3	104	115.6
	6	64-QAM	3/4	117	130
	7	64-QAM	5/6	130	144.4
	8	256-QAM	3/4	156	173.4
	9	256-QAM	5/6	N/A	N/A

2.4. Test Environment

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

2.5. Measurement Uncertainty

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

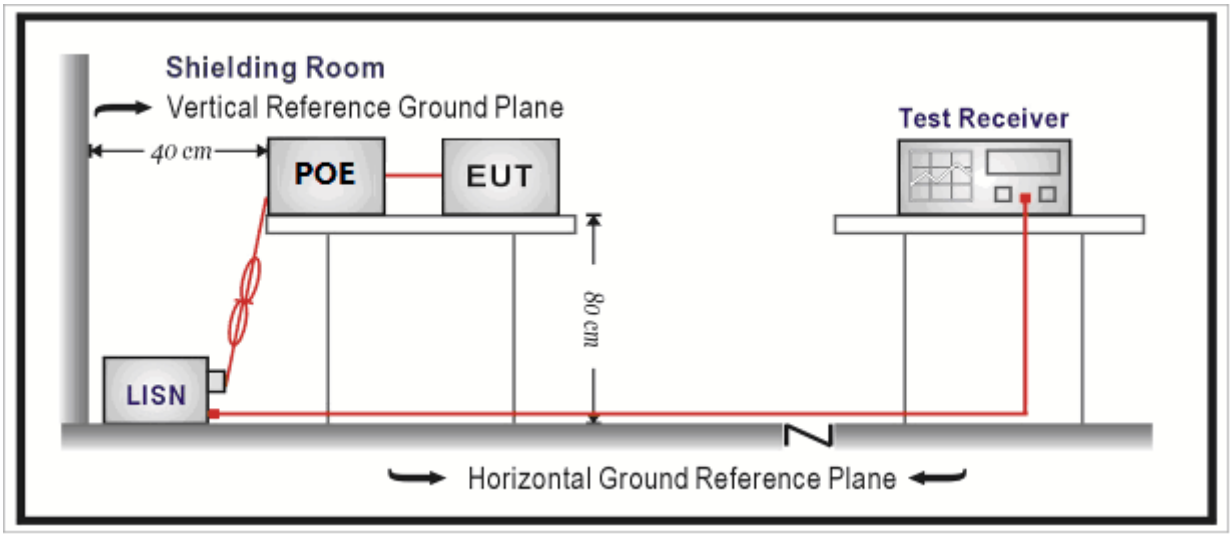
3. AC Power Line Conducted Emission

3.1. Test Equipment

AC Power Line Conducted Emission / TR-1					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100726	2017.03.29	2018.03.28
Two-Line V-Network	R&S	ENV216	100043	2017.03.29	2018.03.28
Two-Line V-Network	R&S	ENV216	100044	2017.09.17	2018.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2018.03.02	2019.03.01
50ohm Termination	SHX	TF2	07081401	2017.09.17	2018.09.16
Temperature/Humidity Meter	zhichen	ZC1-2	TR1-TH	2018.01.04	2019.01.03
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

3.2. Test Setup

AC Power Line Conducted Emission test setup



3.3. Limit

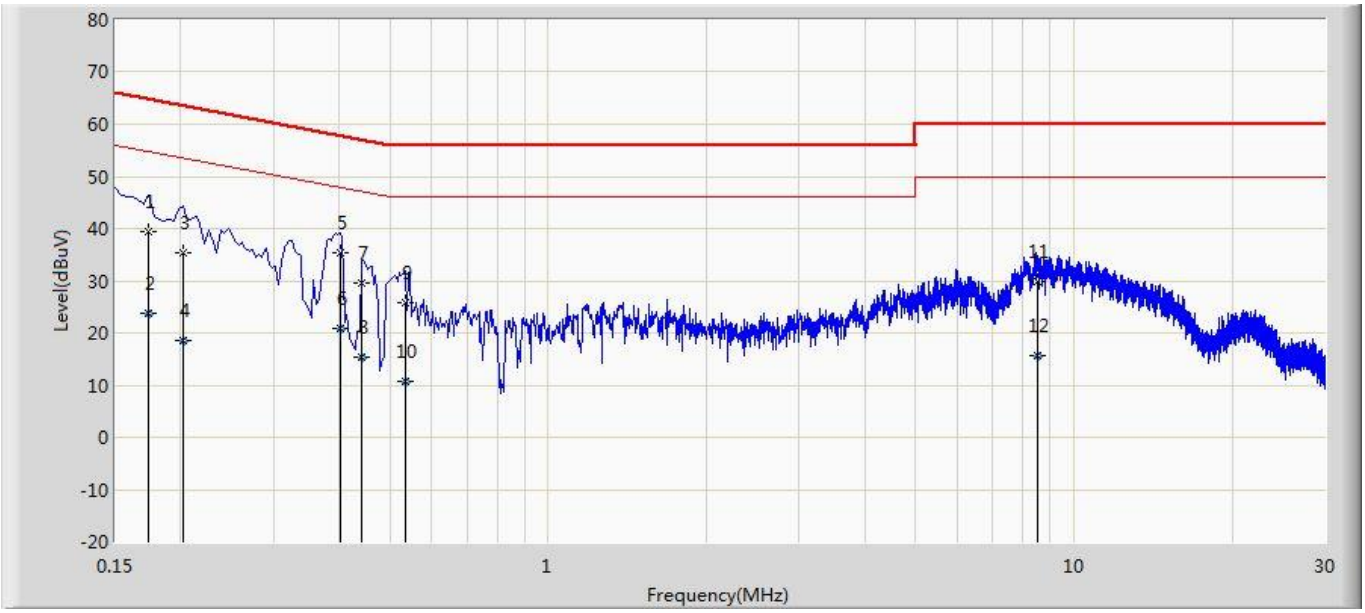
Frequency of Emission (MHz)	Conducted Limit	
	Quasi-peak (dBµV)	Average(dBµV)
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

3.4. Test Procedure

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

3.5. Test Result

Engineer: CptJack	
Site: TR1	Time: 2018/01/30
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant 1	

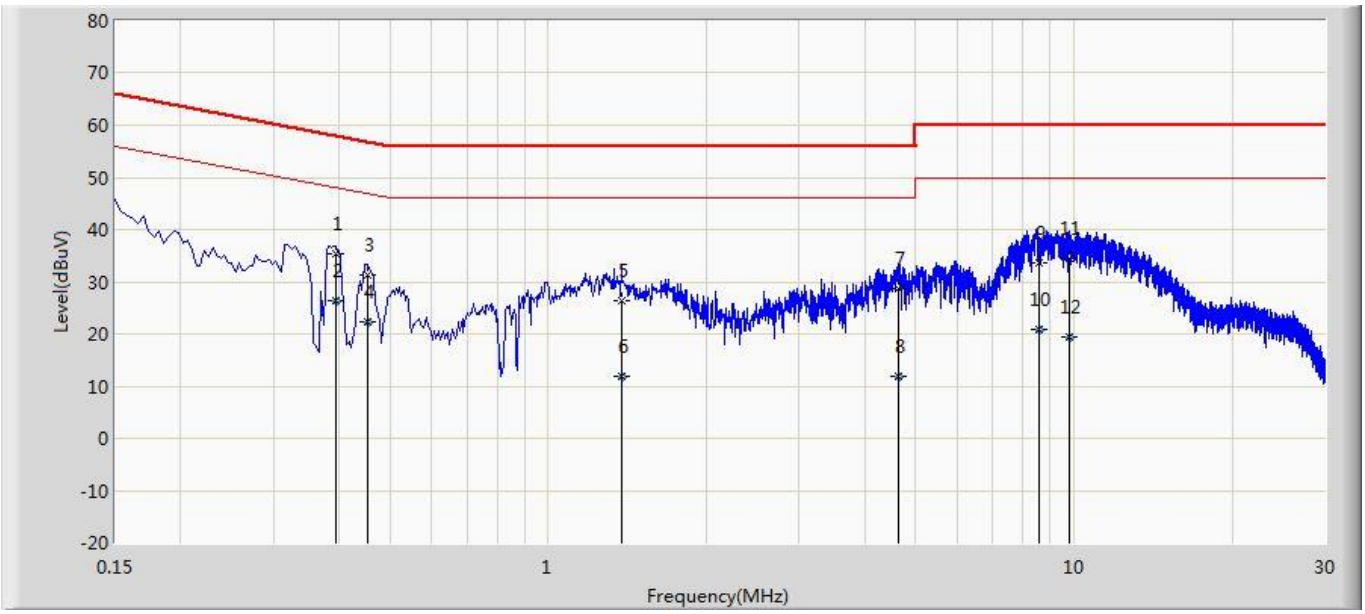


No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.174	39.346	29.713	-25.422	64.767	9.605	0.027	0.000	QP
2		0.174	23.647	14.015	-31.120	54.767	9.605	0.027	0.000	AV
3		0.202	35.463	25.833	-28.065	63.528	9.601	0.029	0.000	QP
4		0.202	18.690	9.060	-34.838	53.528	9.601	0.029	0.000	AV
5	*	0.402	35.442	25.803	-22.370	57.812	9.600	0.038	0.000	QP
6		0.402	20.944	11.305	-26.868	47.812	9.600	0.038	0.000	AV
7		0.442	29.556	19.915	-27.468	57.024	9.600	0.041	0.000	QP
8		0.442	15.501	5.861	-31.523	47.024	9.600	0.041	0.000	AV
9		0.534	25.914	16.270	-30.086	56.000	9.600	0.044	0.000	QP
10		0.534	10.592	0.948	-35.408	46.000	9.600	0.044	0.000	AV
11		8.507	29.846	19.925	-30.154	60.000	9.735	0.186	0.000	QP
12		8.507	15.560	5.639	-34.440	50.000	9.735	0.186	0.000	AV

Note:

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

Engineer: CptJack	
Site: TR1	Time: 2018/01/30
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.394	35.223	25.592	-22.756	57.979	9.593	0.038	0.000	QP
2	*	0.394	26.238	16.606	-21.741	47.979	9.593	0.038	0.000	AV
3		0.454	31.189	21.557	-25.613	56.802	9.591	0.041	0.000	QP
4		0.454	22.387	12.755	-24.414	46.802	9.591	0.041	0.000	AV
5		1.378	26.485	16.818	-29.515	56.000	9.598	0.070	0.000	QP
6		1.378	12.003	2.335	-33.997	46.000	9.598	0.070	0.000	AV
7		4.634	28.753	18.971	-27.247	56.000	9.645	0.137	0.000	QP
8		4.634	11.977	2.195	-34.023	46.000	9.645	0.137	0.000	AV
9		8.578	33.659	23.725	-26.341	60.000	9.748	0.186	0.000	QP
10		8.578	20.732	10.798	-29.268	50.000	9.748	0.186	0.000	AV
11		9.770	34.616	24.635	-25.384	60.000	9.783	0.198	0.000	QP
12		9.770	19.367	9.385	-30.633	50.000	9.783	0.198	0.000	AV

Note:

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

4. Emissions in restricted frequency bands

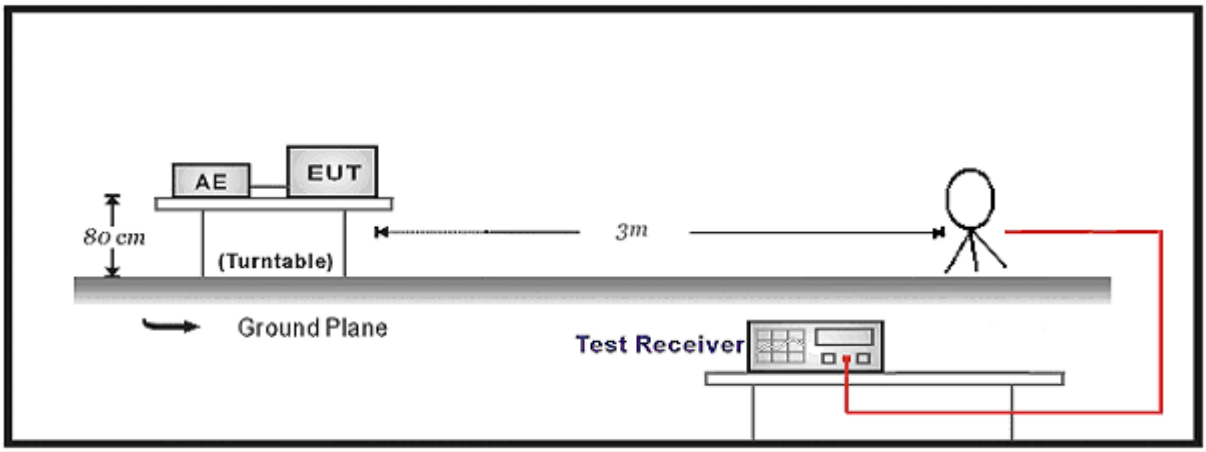
4.1. Test Equipment

Radiated Emission(Below 1GHz) / AC-2					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Test Receiver	R&S	ESCI	100573	2017.03.29	2018.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2017.11.16	2018.11.15
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2017.10.16	2018.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2018.03.02	2019.03.01
Temperature/Humidity Meter	Zhichen	ZC1-2	AC2-TH	2018.01.04	2019.01.03
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

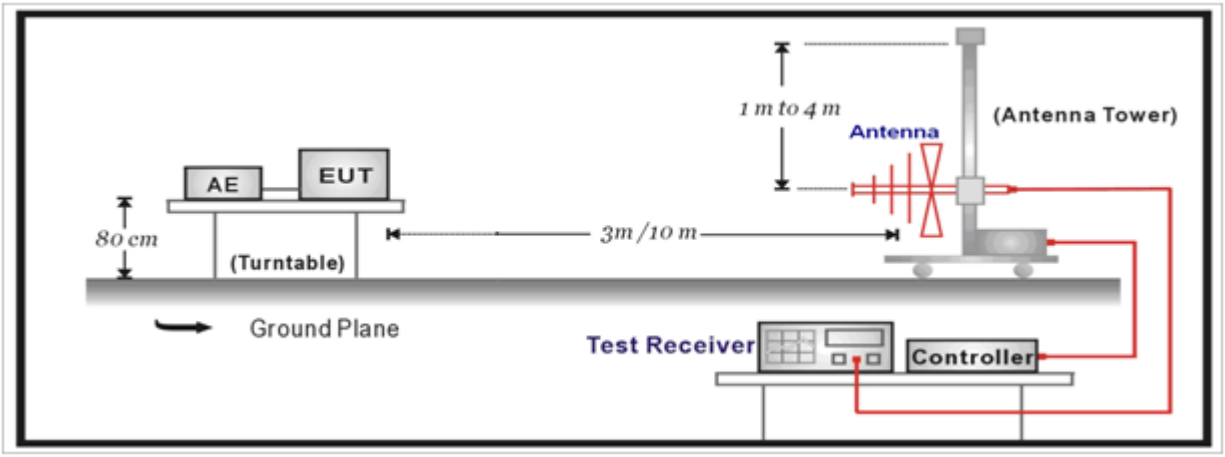
Radiated Emission(Above 1GHz) / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2018.01.04	2019.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2017.05.06	2018.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2017.05.06	2018.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2018.01.22	2019.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2017.11.25	2018.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2018.03.02	2019.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2017.06.10	2018.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2018.01.04	2019.01.03
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

4.2. Test Setup

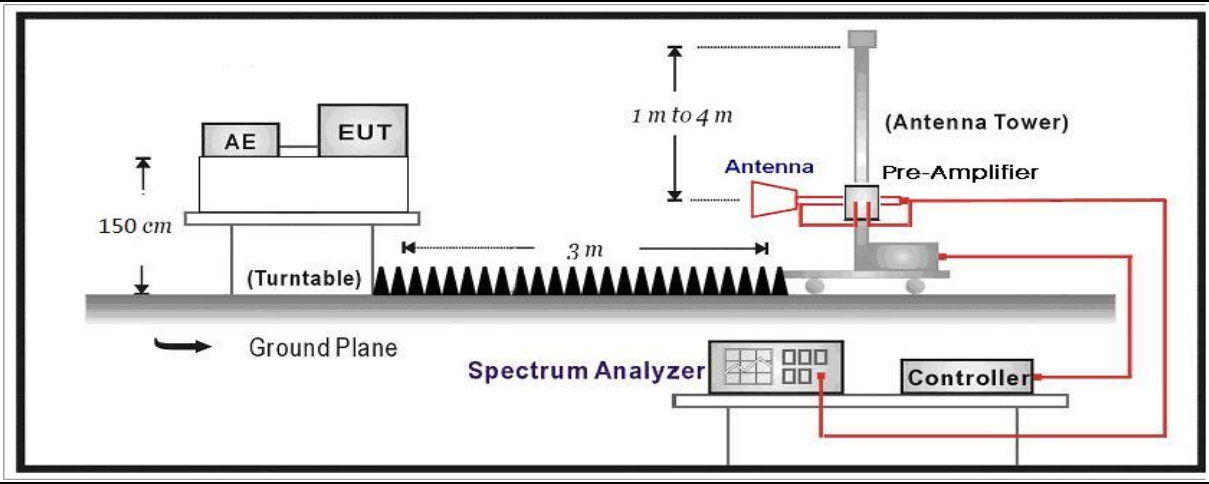
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

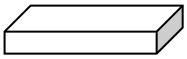
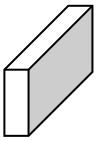
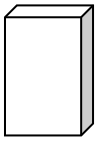
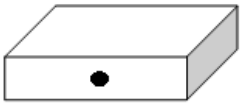
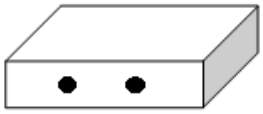
Restricted Bands of operation			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 –16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427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

Restricted Bands of operation			
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			

4.4. Test Procedure

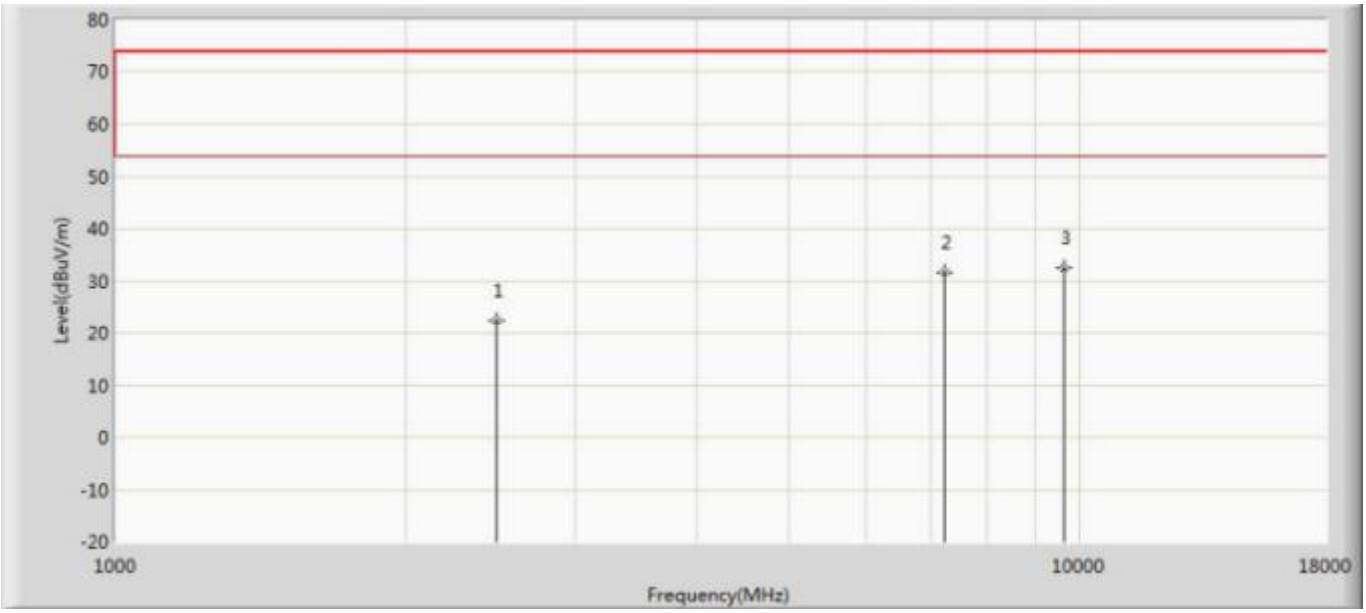
Test Method						
	References Rule				Chapter	Description
☐	ANSI C63.10				11.11	Emissions in non-restricted frequency bands
	☐	ANSI C63.10			11.11.2	Reference level measurement
	☐	ANSI C63.10			11.11.3	Emission level measurement
☒	ANSI C63.10				11.12	Emissions in restricted frequency bands
	☒	ANSI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

4.5. EUT test Axis definition

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

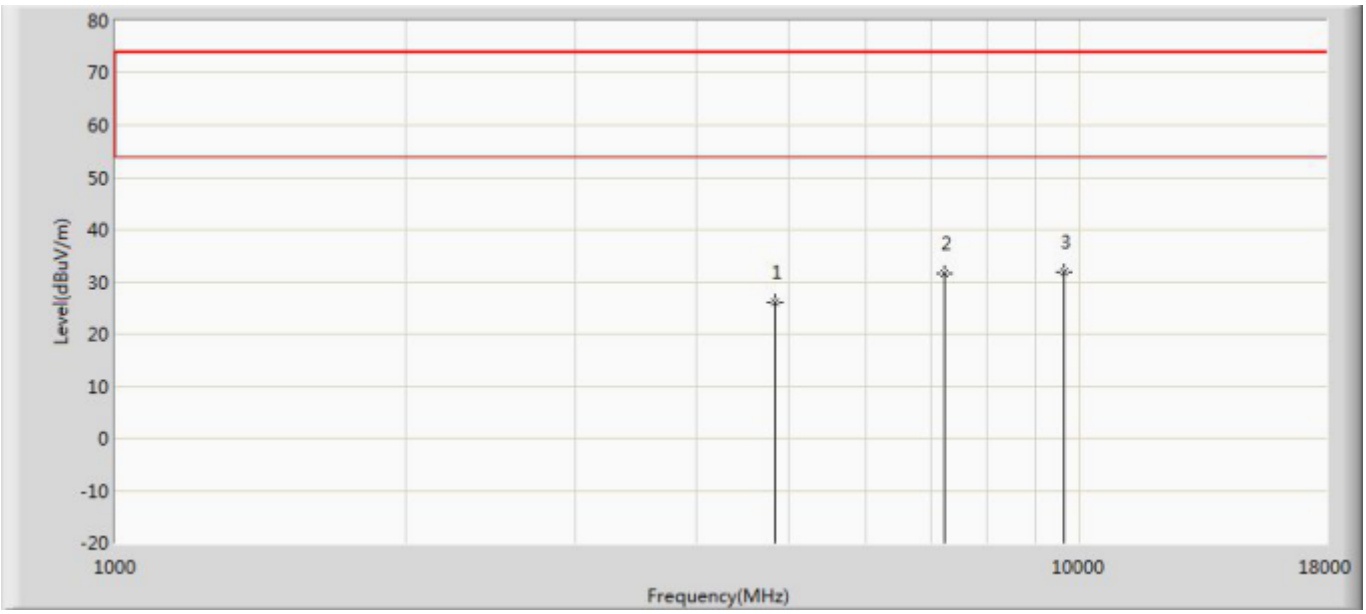
4.6. Test Result

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant 1	



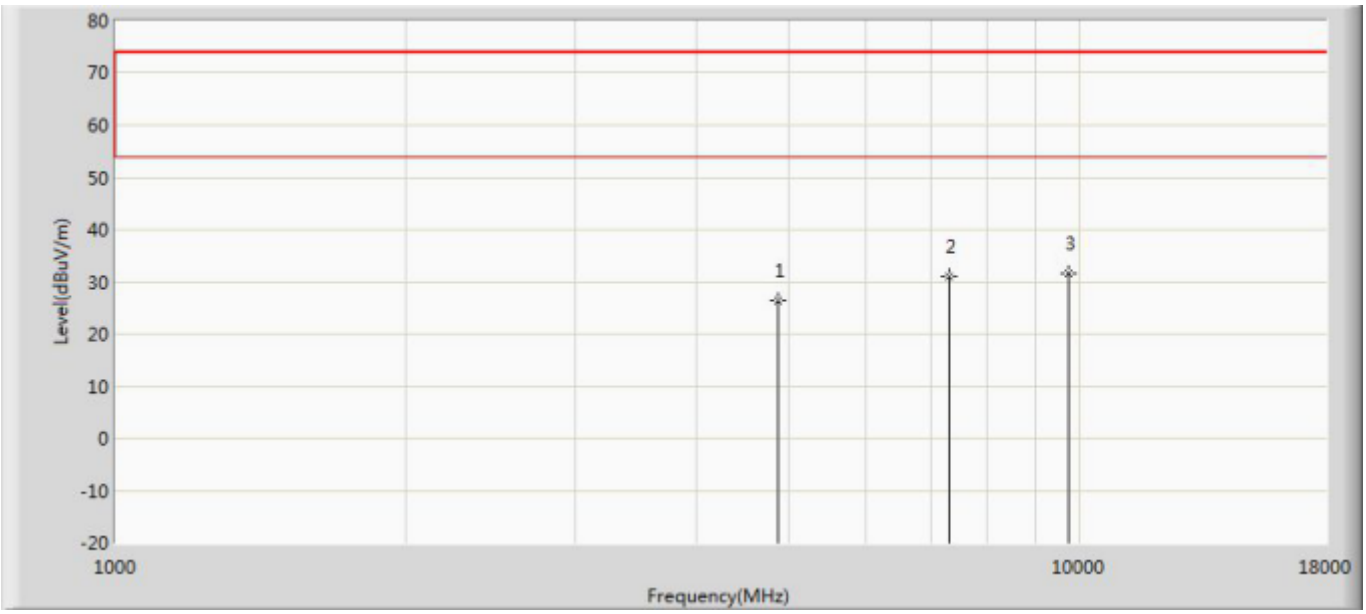
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2482.000	22.366	27.624	-51.634	74.000	-5.257	PK
2		7236.000	31.689	28.281	-42.311	74.000	3.407	PK
3	*	9648.000	32.593	27.597	-41.407	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant 1	



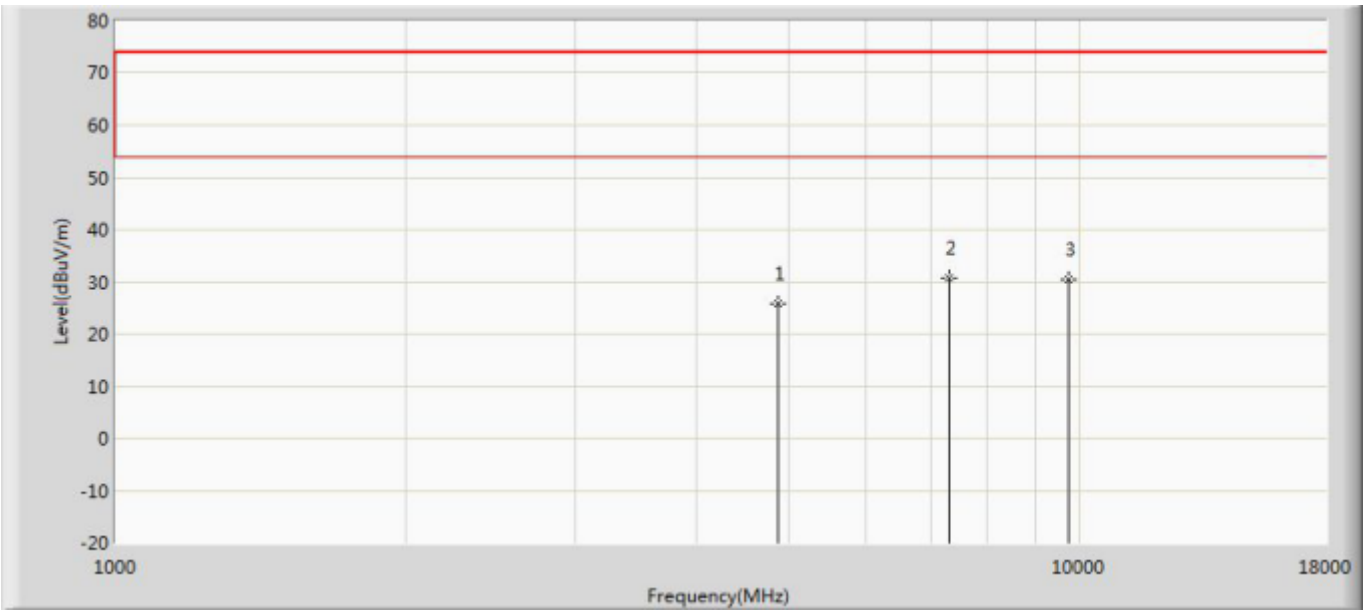
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	26.011	26.517	-47.989	74.000	-0.505	PK
2		7236.000	31.516	28.108	-42.484	74.000	3.407	PK
3	*	9648.000	31.951	26.955	-42.049	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2437MHz by 802.11b with Ant 1	



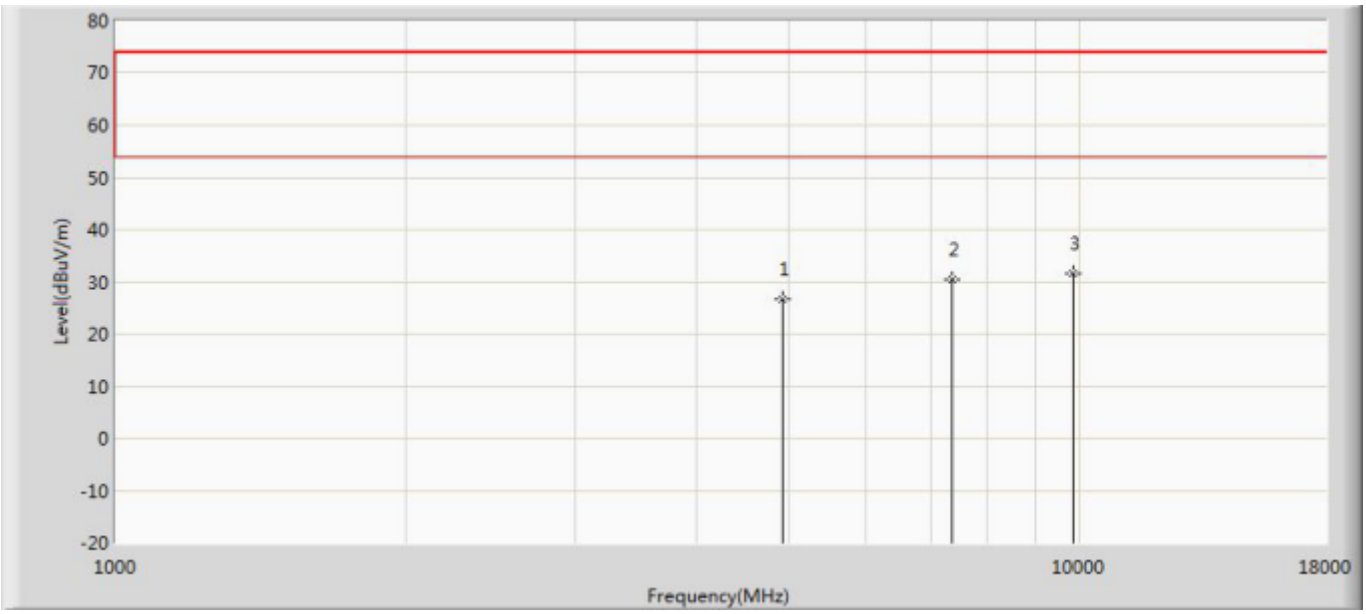
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.309	26.751	-47.691	74.000	-0.442	PK
2		7311.000	30.931	27.059	-43.069	74.000	3.872	PK
3	*	9748.000	31.669	26.668	-42.331	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2437MHz by 802.11b with Ant1	



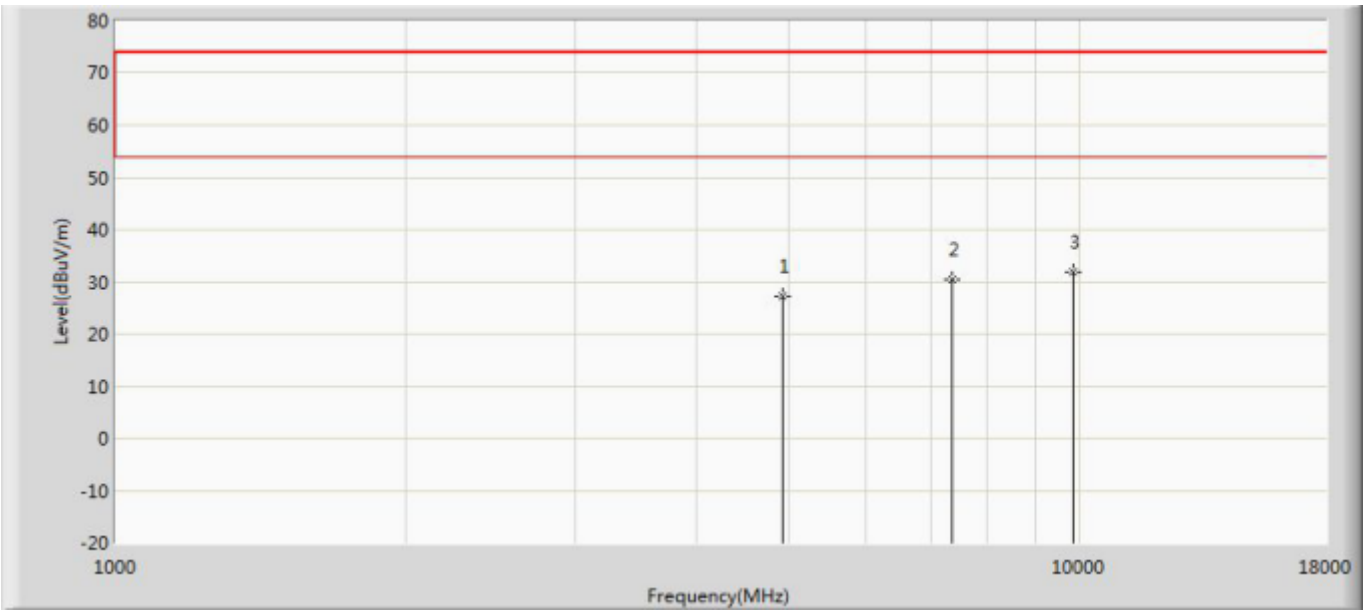
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	25.857	26.299	-48.143	74.000	-0.442	PK
2	*	7311.000	30.768	26.896	-43.232	74.000	3.872	PK
3		9748.000	30.425	25.424	-43.575	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b with Ant1	



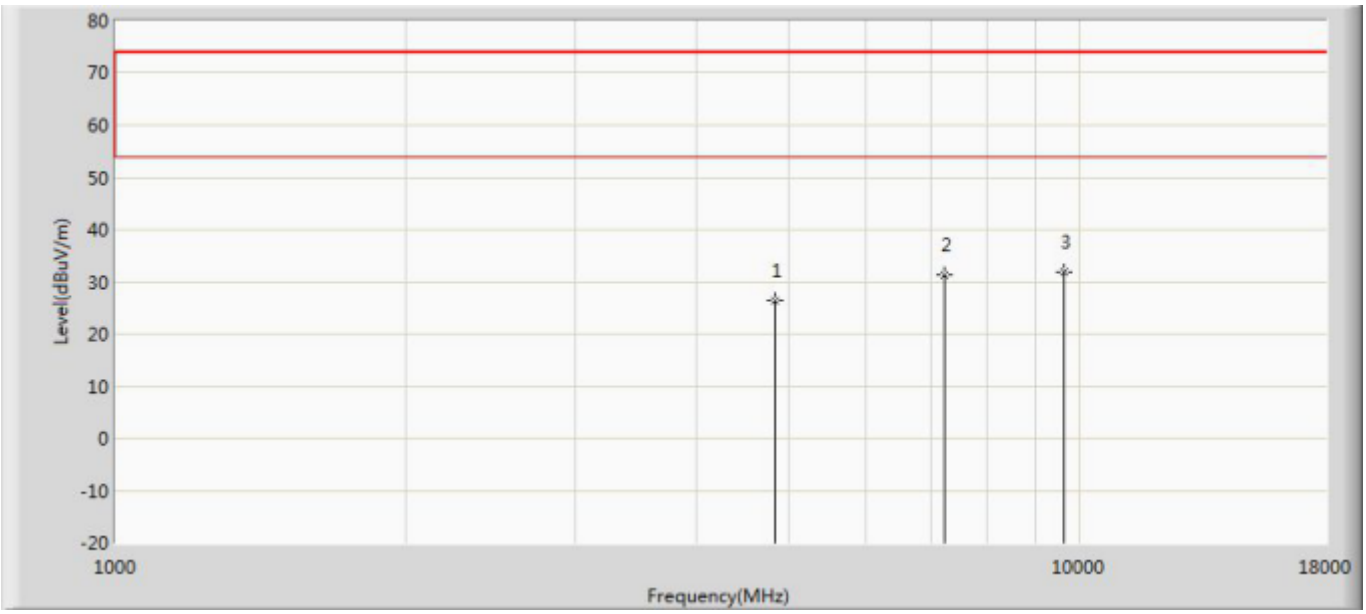
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	26.597	26.492	-47.403	74.000	0.104	PK
2		7386.000	30.394	27.220	-43.606	74.000	3.174	PK
3	*	9848.000	31.727	25.738	-42.273	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b with Ant1	



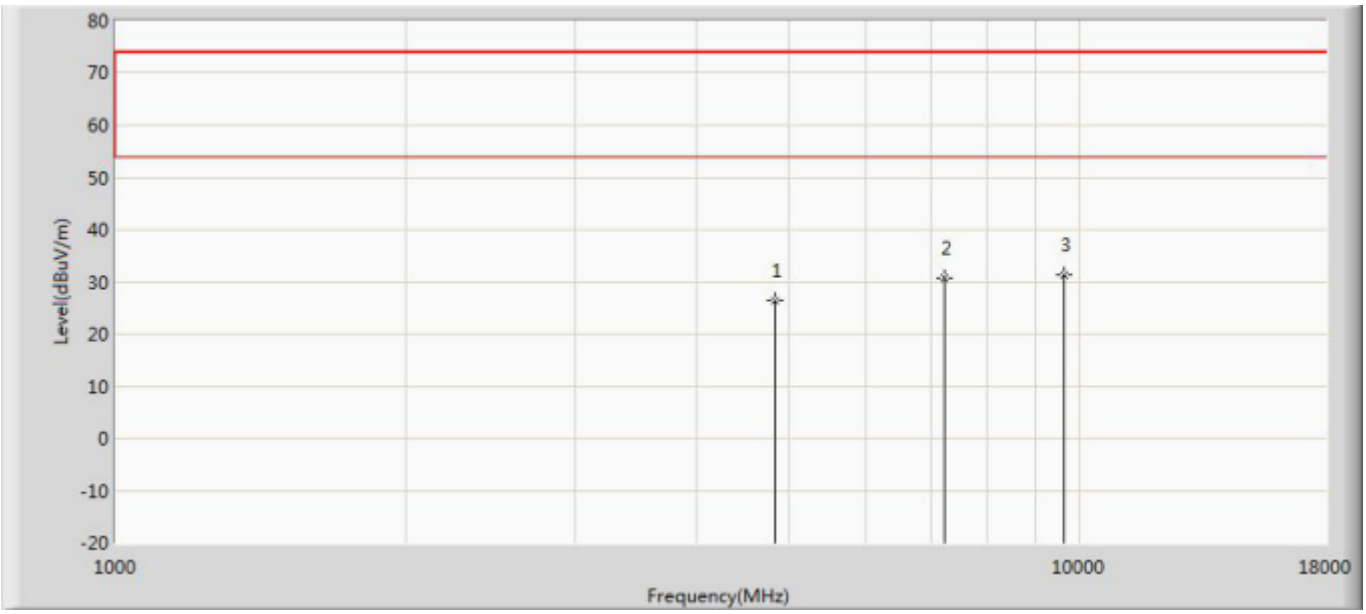
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.191	27.086	-46.809	74.000	0.104	PK
2		7386.000	30.361	27.187	-43.639	74.000	3.174	PK
3	*	9848.000	31.946	25.957	-42.054	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g with Ant1	



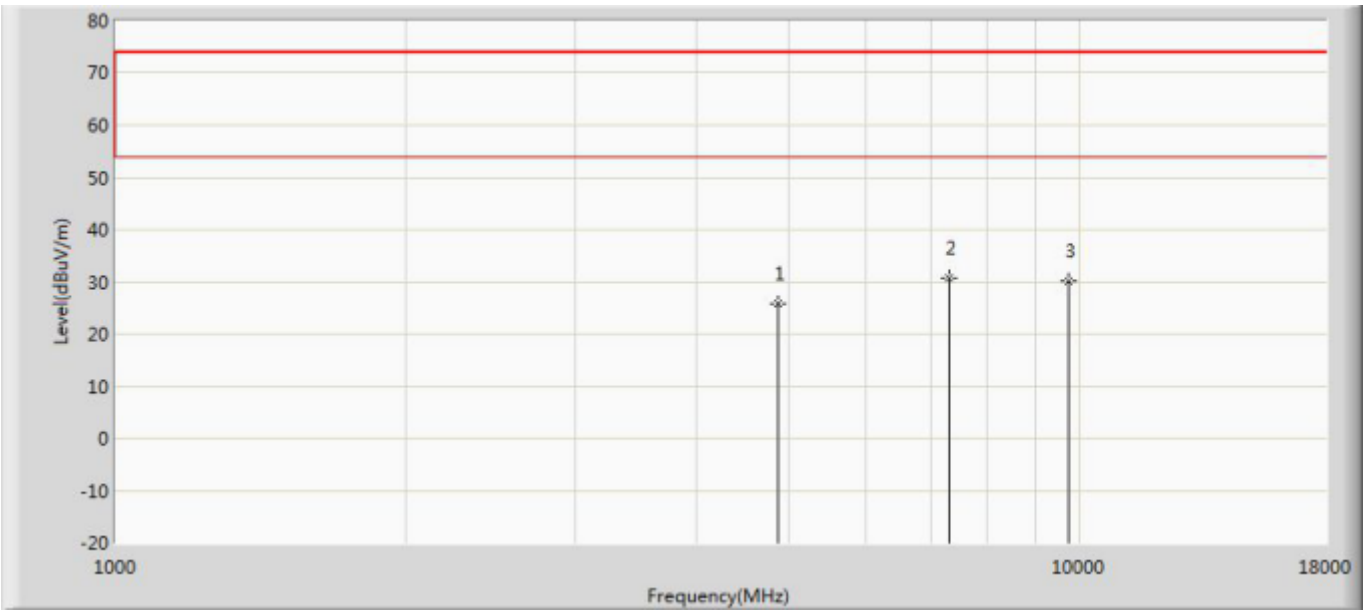
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	26.251	26.757	-47.749	74.000	-0.505	PK
2		7236.000	31.244	27.836	-42.756	74.000	3.407	PK
3	*	9648.000	31.888	26.892	-42.112	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g with Ant1	



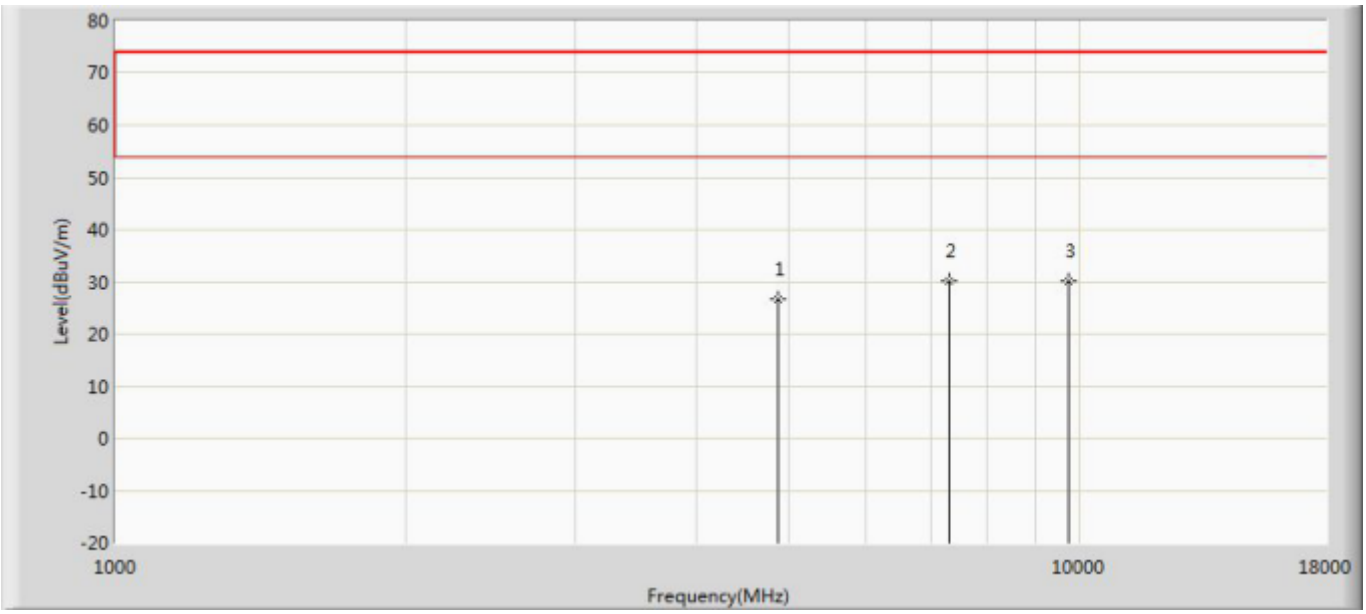
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	26.236	26.742	-47.764	74.000	-0.505	PK
2		7236.000	30.628	27.220	-43.372	74.000	3.407	PK
3	*	9648.000	31.233	26.237	-42.767	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2437MHz by 802.11g with Ant1	



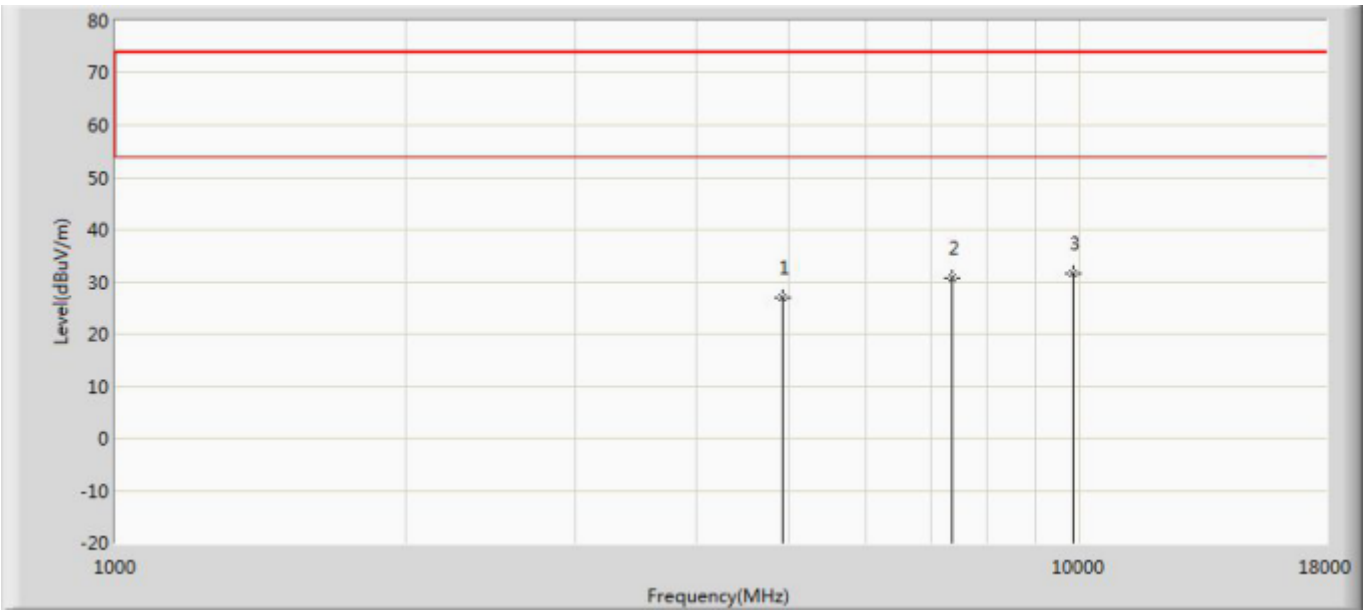
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	25.921	26.363	-48.079	74.000	-0.442	PK
2	*	7311.000	30.611	26.739	-43.389	74.000	3.872	PK
3		9748.000	30.034	25.033	-43.966	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2437MHz by 802.11g with Ant1	



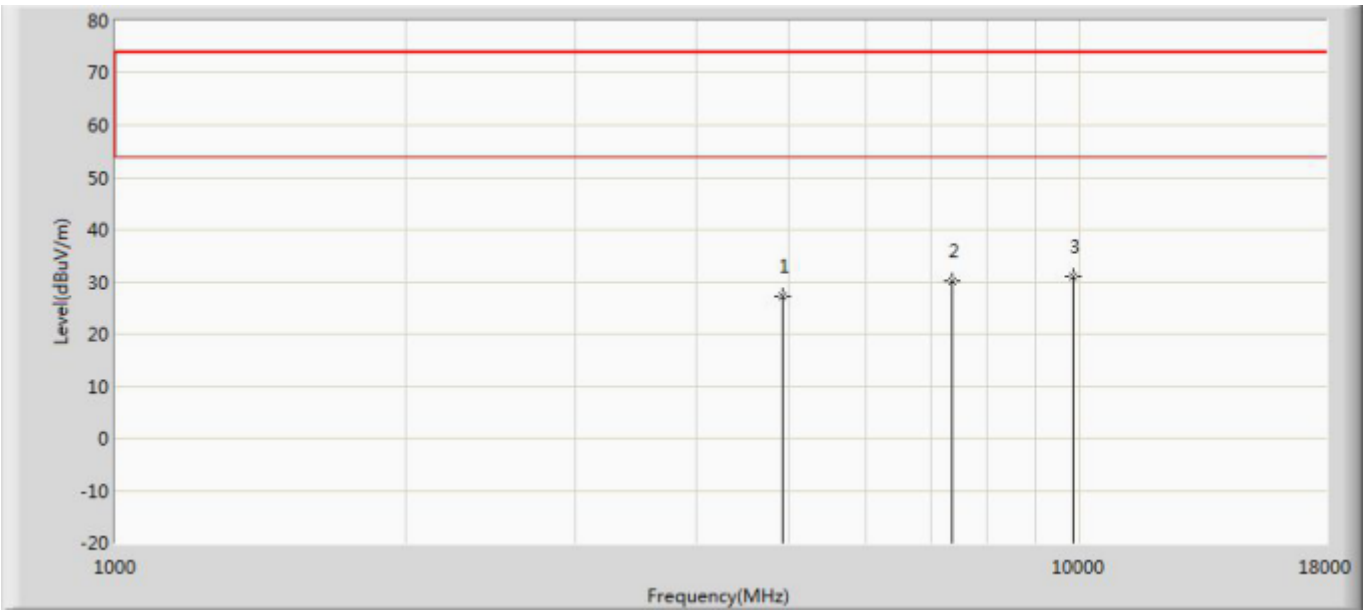
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.689	27.131	-47.311	74.000	-0.442	PK
2	*	7311.000	30.276	26.404	-43.724	74.000	3.872	PK
3		9748.000	30.271	25.270	-43.729	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g with Ant1	



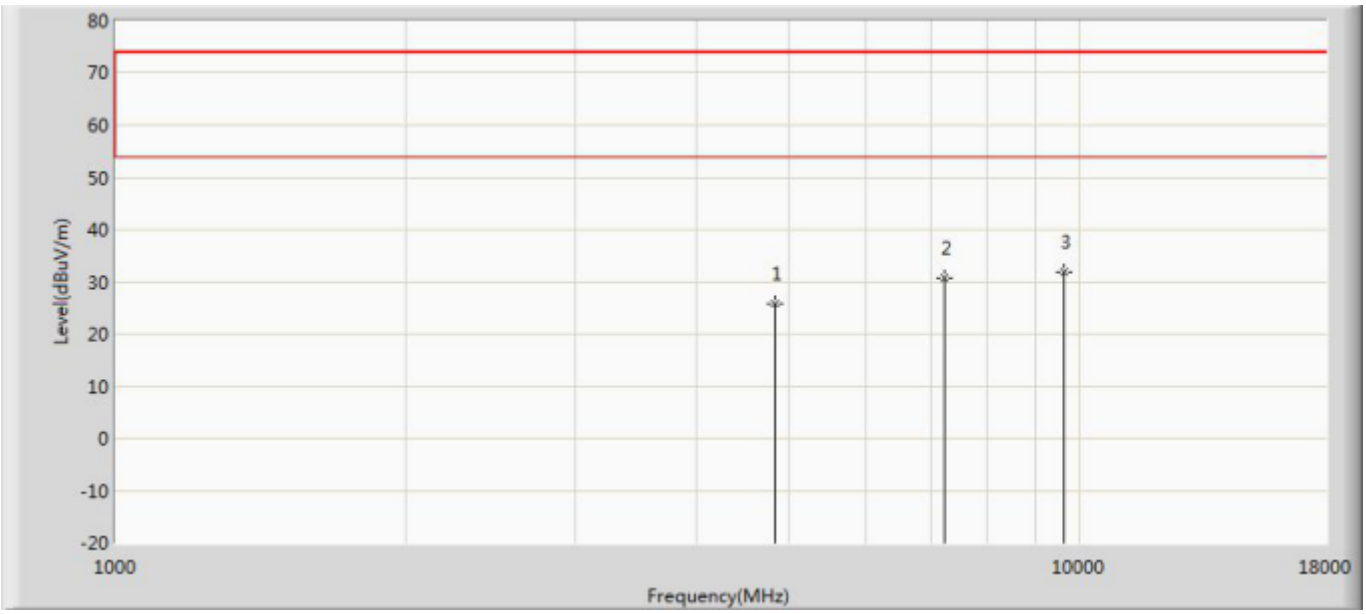
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	26.974	26.869	-47.026	74.000	0.104	PK
2		7386.000	30.710	27.536	-43.290	74.000	3.174	PK
3	*	9848.000	31.584	25.595	-42.416	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g with Ant1	



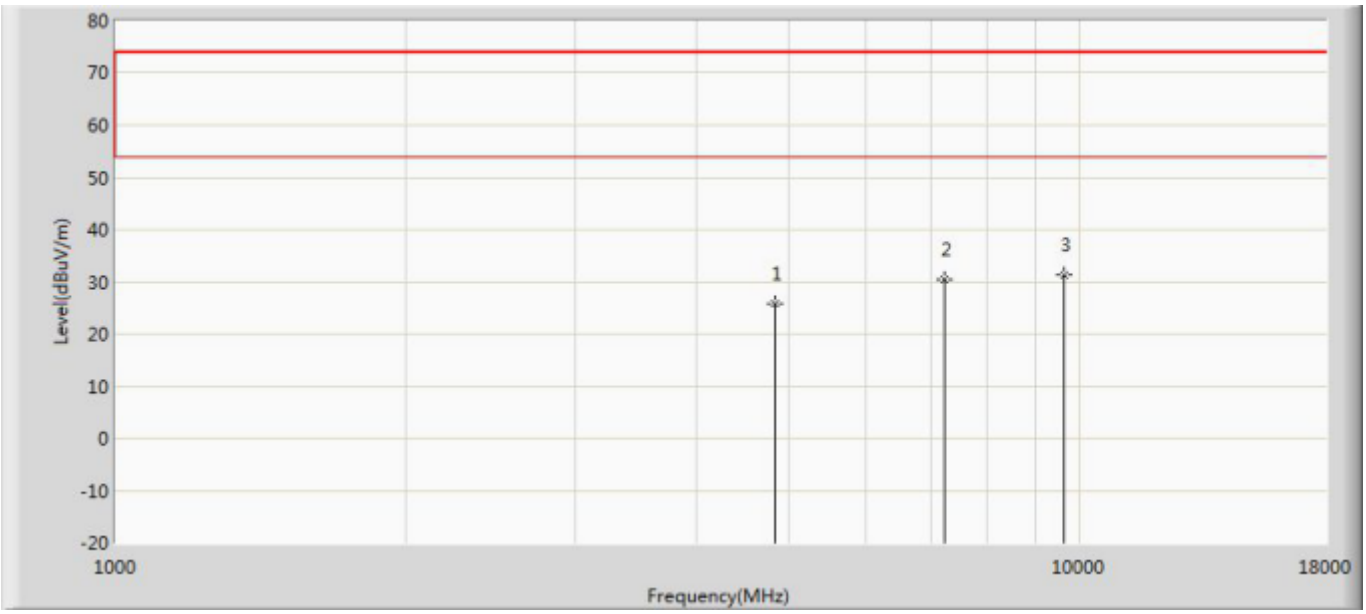
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.222	27.117	-46.778	74.000	0.104	PK
2		7386.000	30.257	27.083	-43.743	74.000	3.174	PK
3	*	9848.000	31.130	25.141	-42.870	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20 with Ant1	



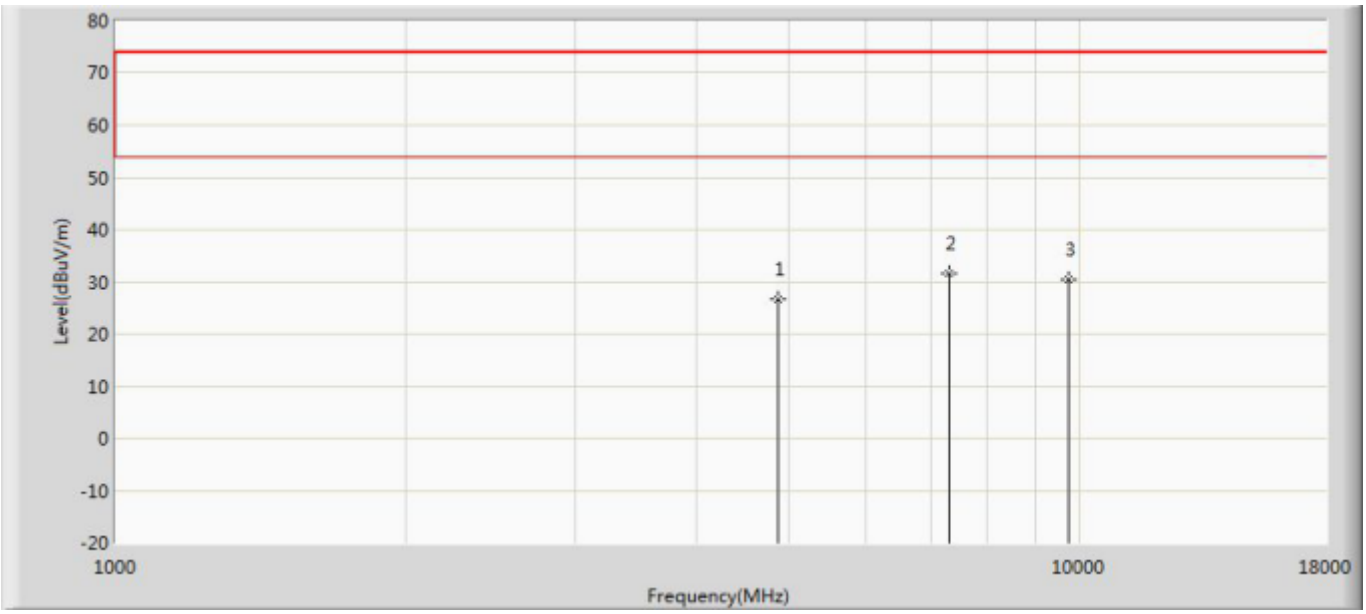
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.812	26.318	-48.188	74.000	-0.505	PK
2		7236.000	30.722	27.314	-43.278	74.000	3.407	PK
3	*	9648.000	31.766	26.770	-42.234	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20 with Ant1	



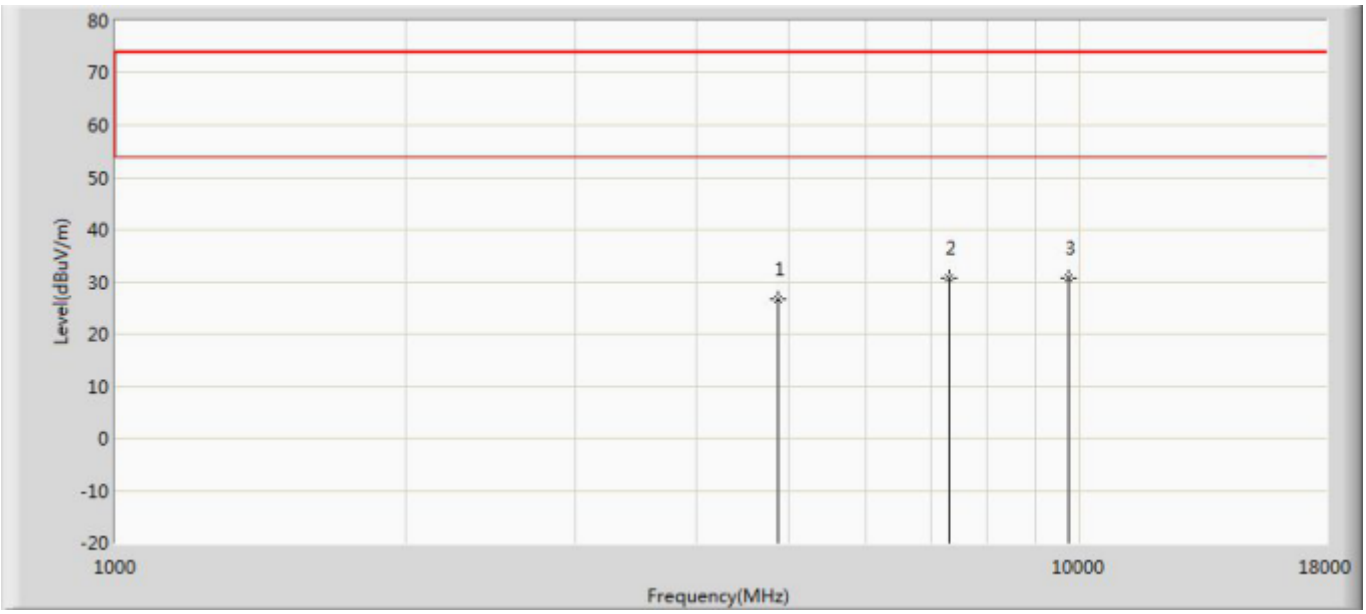
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.797	26.303	-48.203	74.000	-0.505	PK
2		7236.000	30.499	27.091	-43.501	74.000	3.407	PK
3	*	9648.000	31.189	26.193	-42.811	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2437MHz by 802.11n20 with Ant1	



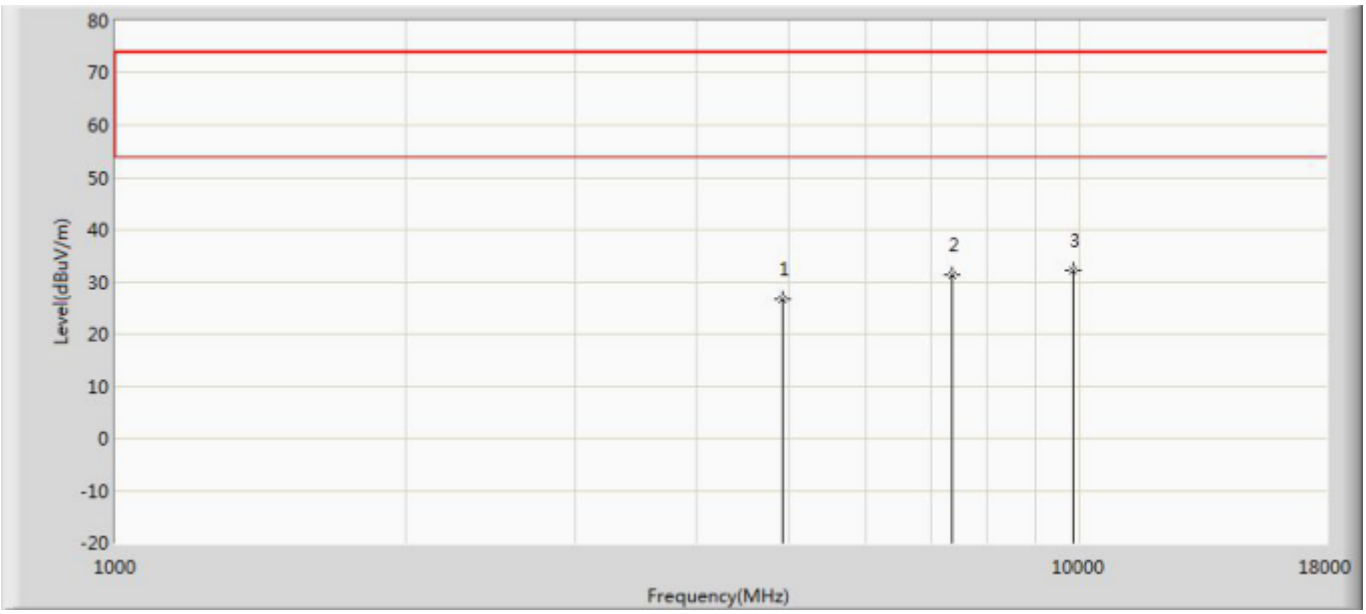
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.727	27.169	-47.273	74.000	-0.442	PK
2	*	7311.000	31.490	27.618	-42.510	74.000	3.872	PK
3		9748.000	30.569	25.568	-43.431	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2437MHz by 802.11n20 with Ant1	



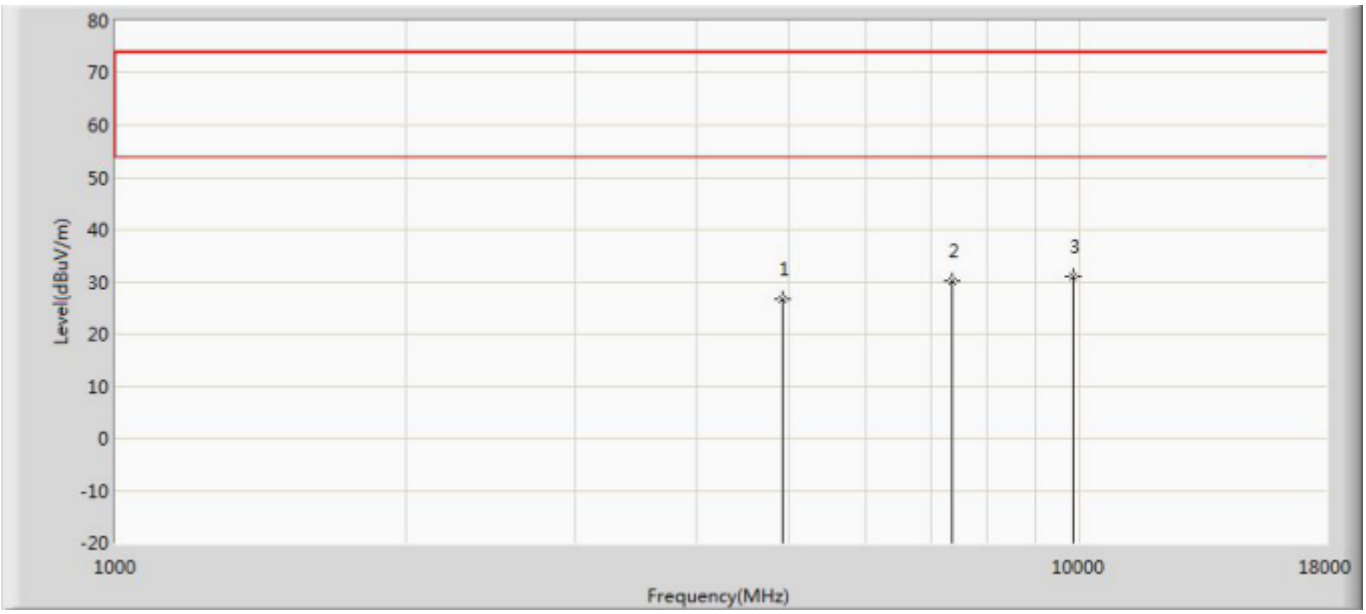
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.632	27.074	-47.368	74.000	-0.442	PK
2		7311.000	30.592	26.720	-43.408	74.000	3.872	PK
3	*	9748.000	30.625	25.624	-43.375	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20 with Ant1	



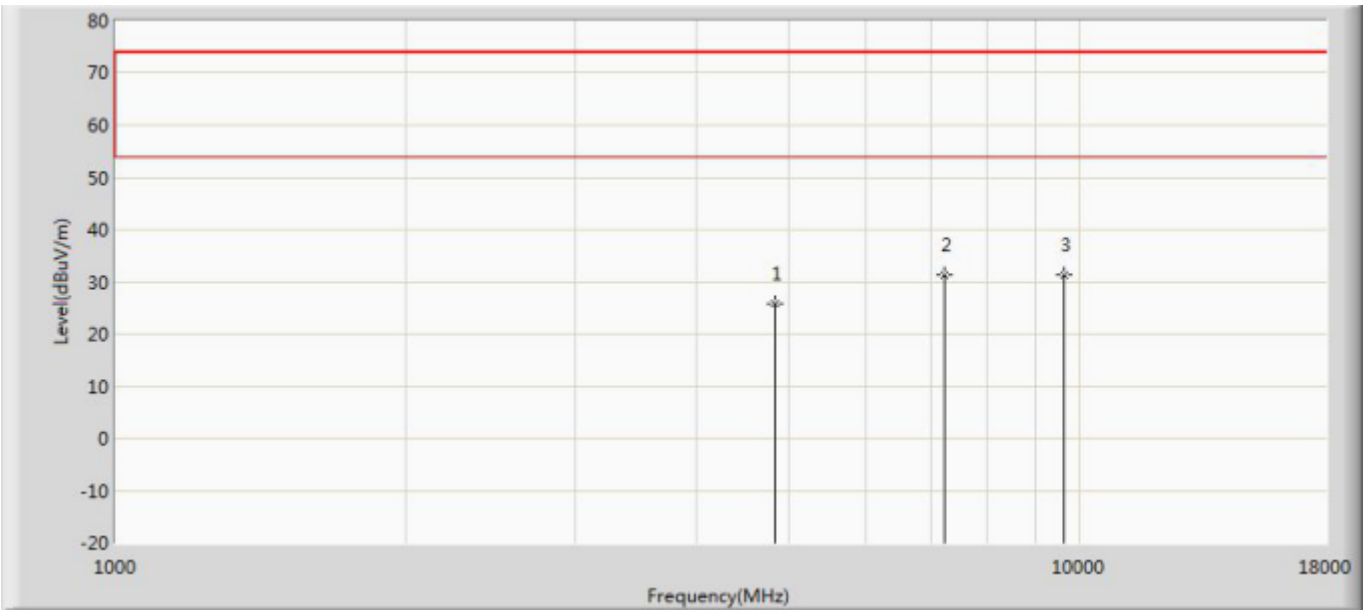
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	26.659	26.554	-47.341	74.000	0.104	PK
2		7386.000	31.417	28.243	-42.583	74.000	3.174	PK
3	*	9848.000	32.116	26.127	-41.884	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20 with Ant1	



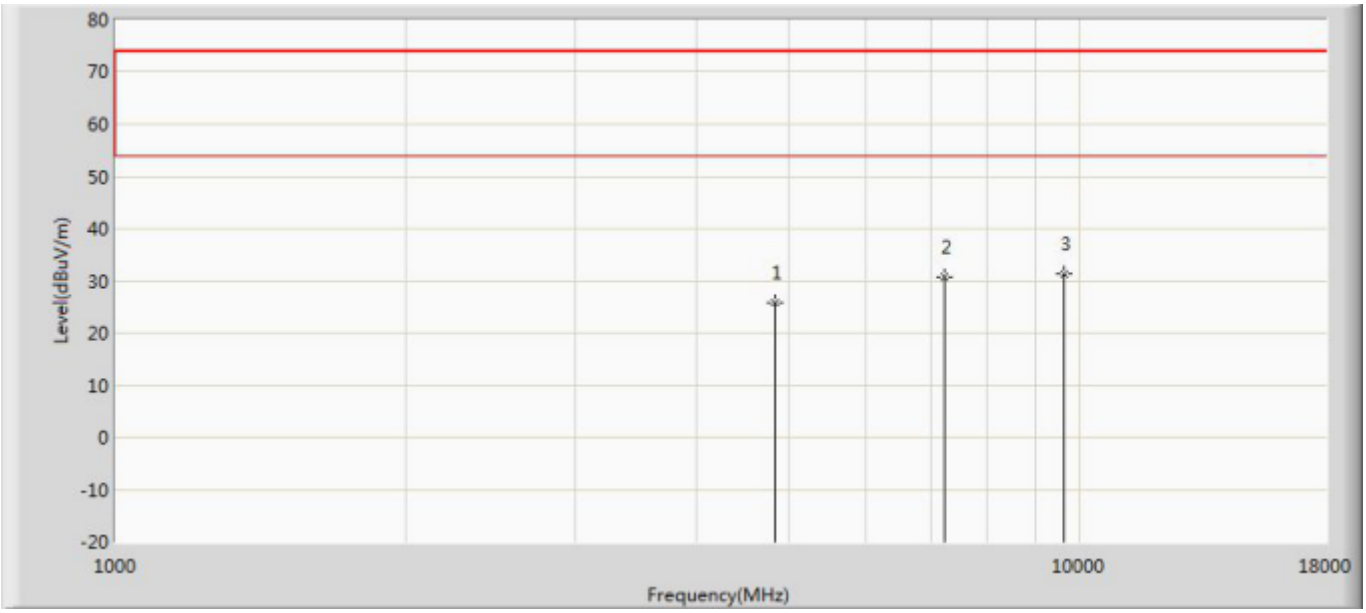
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	26.770	26.665	-47.230	74.000	0.104	PK
2		7386.000	30.054	26.880	-43.946	74.000	3.174	PK
3	*	9848.000	31.146	25.157	-42.854	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant2	



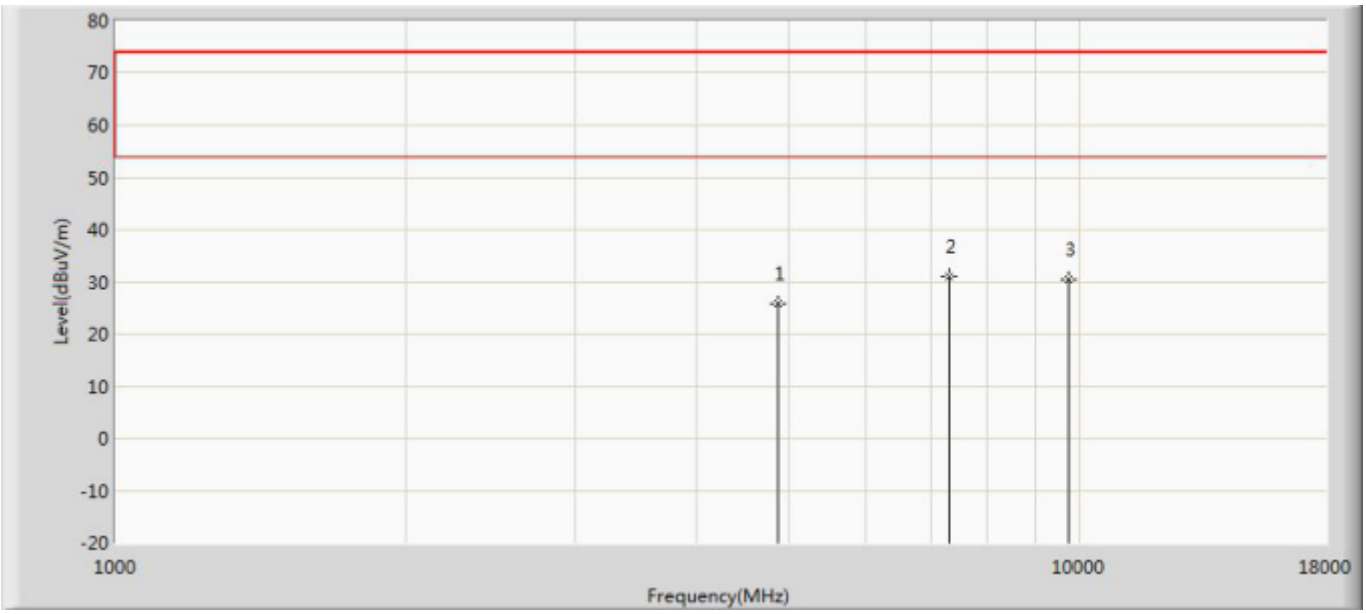
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.800	26.306	-48.200	74.000	-0.505	PK
2		7236.000	31.331	27.923	-42.669	74.000	3.407	PK
3	*	9648.000	31.427	26.431	-42.573	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant2	



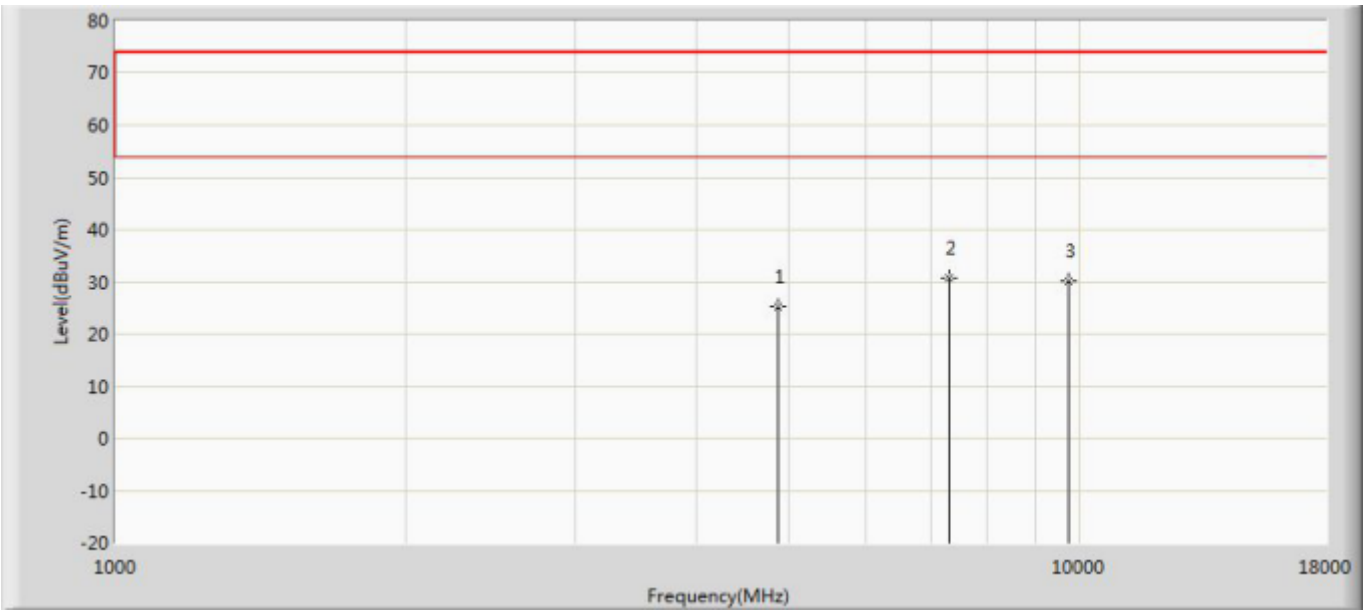
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.810	26.316	-48.190	74.000	-0.505	PK
2		7236.000	30.813	27.405	-43.187	74.000	3.407	PK
3	*	9648.000	31.377	26.381	-42.623	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2437MHz by 802.11b with Ant2	



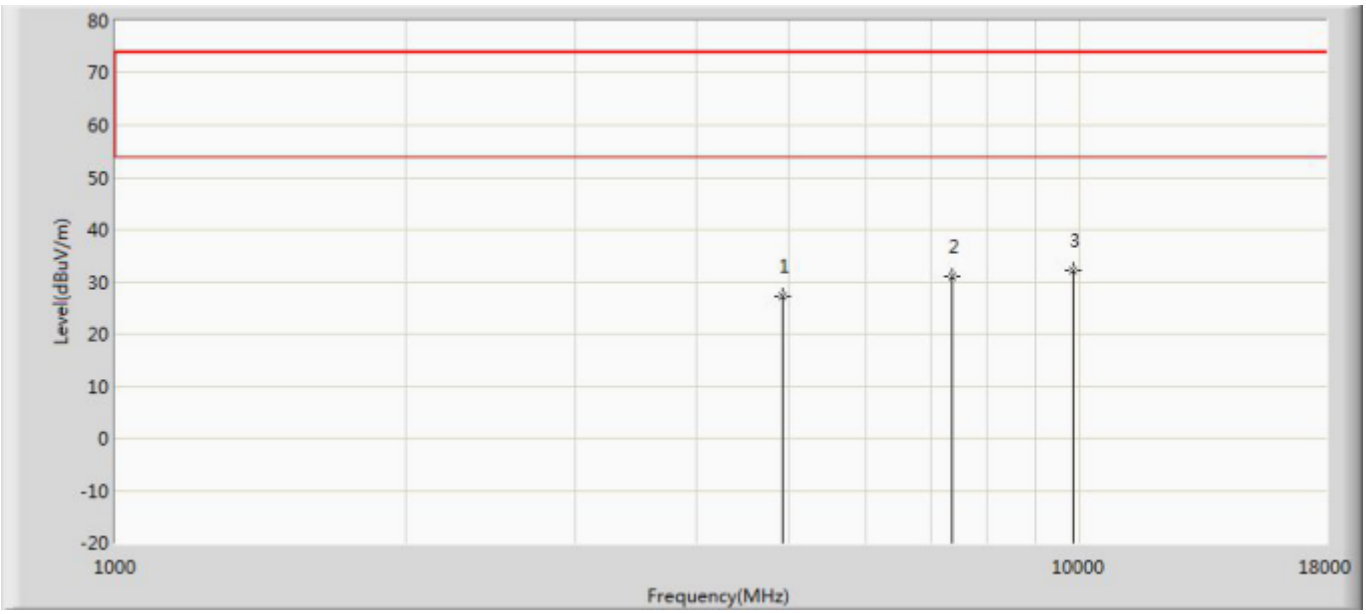
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	25.912	26.354	-48.088	74.000	-0.442	PK
2	*	7311.000	30.901	27.029	-43.099	74.000	3.872	PK
3		9748.000	30.551	25.550	-43.449	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2437MHz by 802.11b with Ant2	



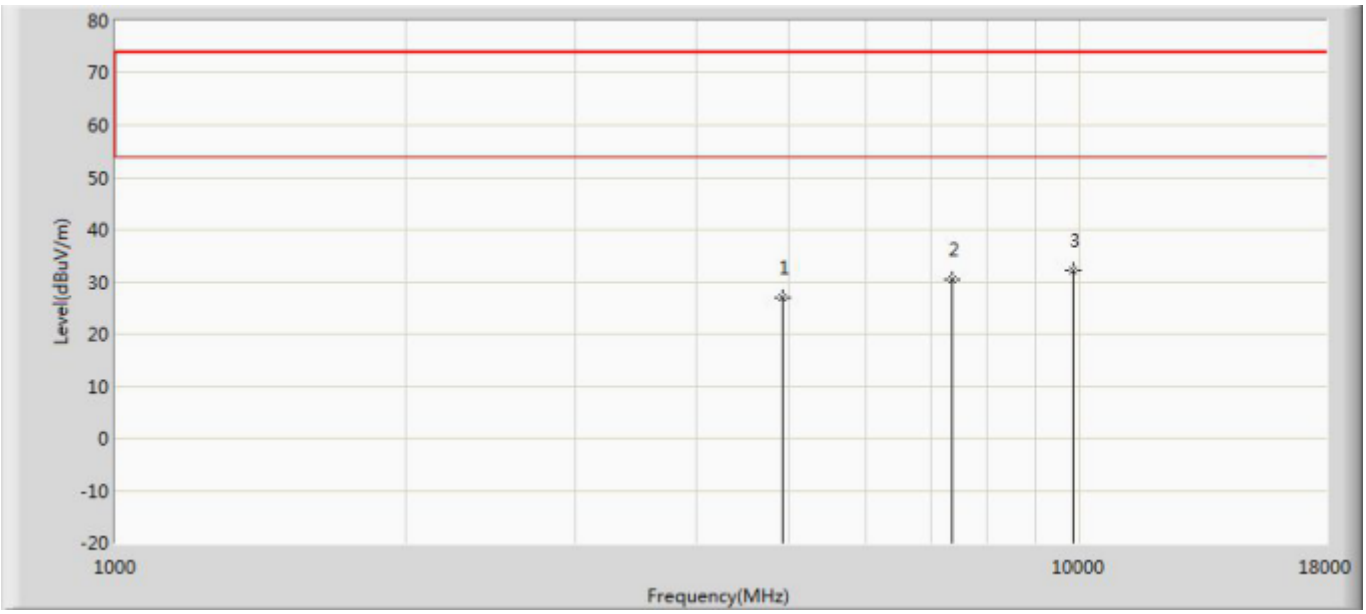
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	25.272	25.714	-48.728	74.000	-0.442	PK
2	*	7311.000	30.683	26.811	-43.317	74.000	3.872	PK
3		9748.000	30.189	25.188	-43.811	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b with Ant2	



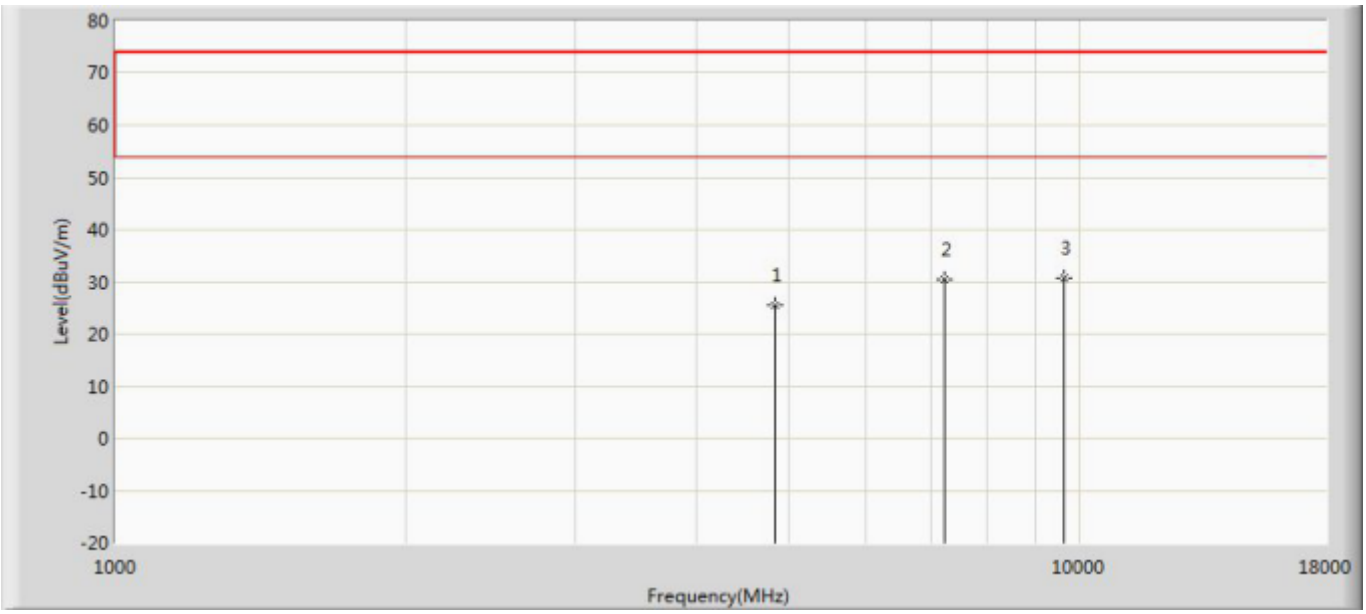
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.250	27.145	-46.750	74.000	0.104	PK
2		7386.000	30.926	27.752	-43.074	74.000	3.174	PK
3	*	9848.000	32.046	26.057	-41.954	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2462MHz by 802.11b with Ant2	



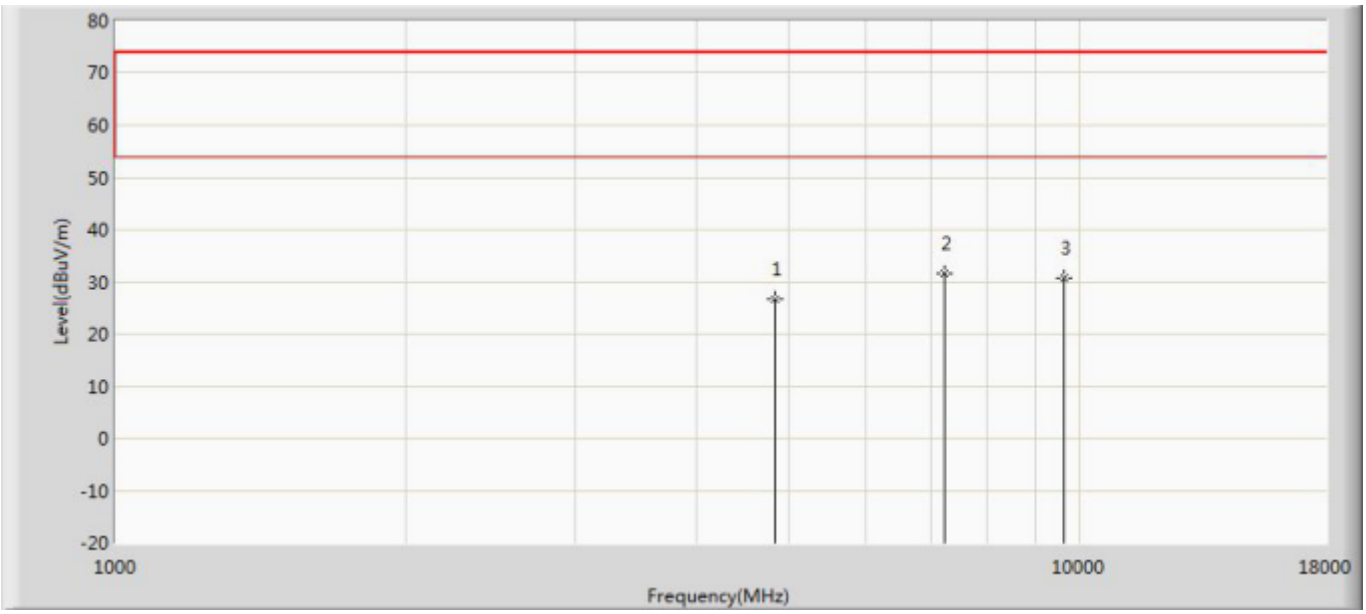
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.034	26.929	-46.966	74.000	0.104	PK
2		7386.000	30.387	27.213	-43.613	74.000	3.174	PK
3	*	9848.000	32.045	26.056	-41.955	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g with Ant2	



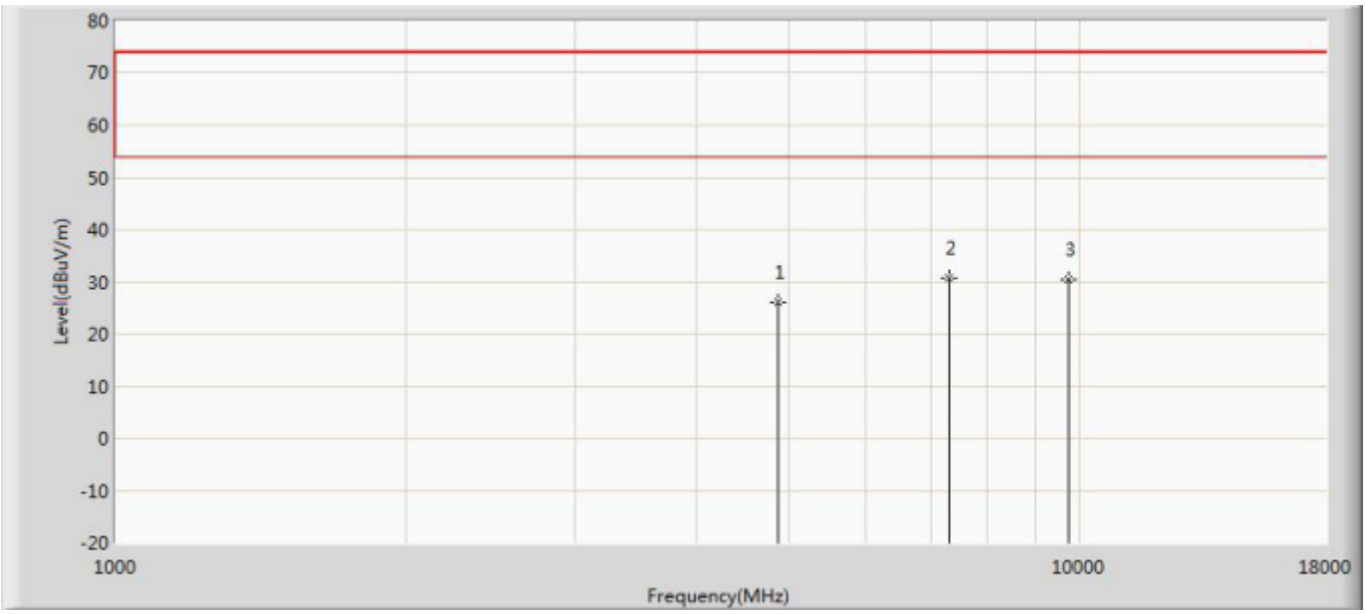
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.588	26.094	-48.412	74.000	-0.505	PK
2		7236.000	30.335	26.927	-43.665	74.000	3.407	PK
3	*	9648.000	30.821	25.825	-43.179	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz by 802.11g with Ant2	



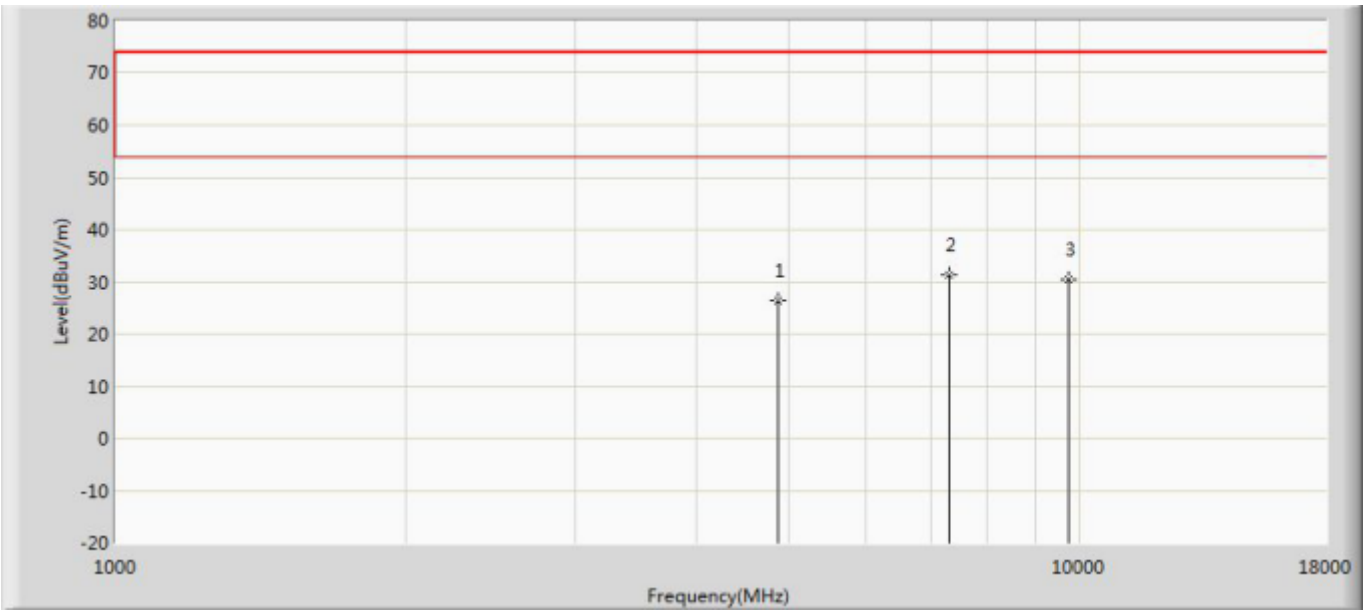
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	26.654	27.160	-47.346	74.000	-0.505	PK
2	*	7236.000	31.532	28.124	-42.468	74.000	3.407	PK
3		9648.000	30.797	25.801	-43.203	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2437MHz by 802.11g with Ant2	



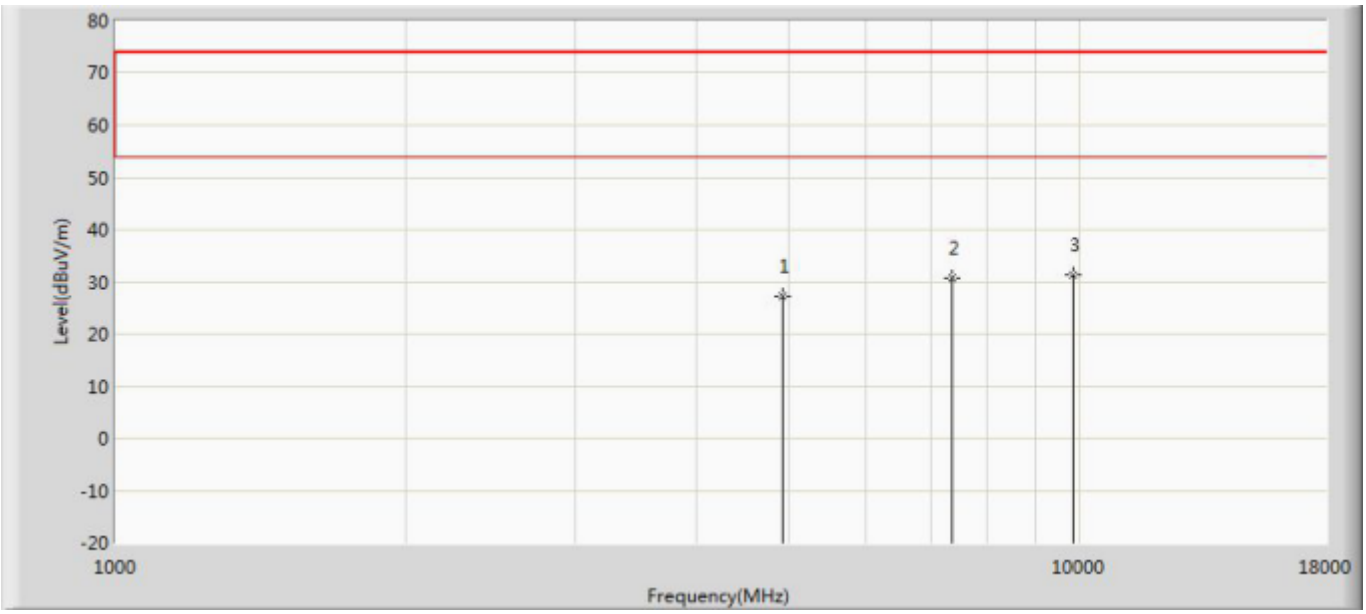
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.212	26.654	-47.788	74.000	-0.442	PK
2	*	7311.000	30.775	26.903	-43.225	74.000	3.872	PK
3		9748.000	30.475	25.474	-43.525	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2437MHz by 802.11g with Ant2	



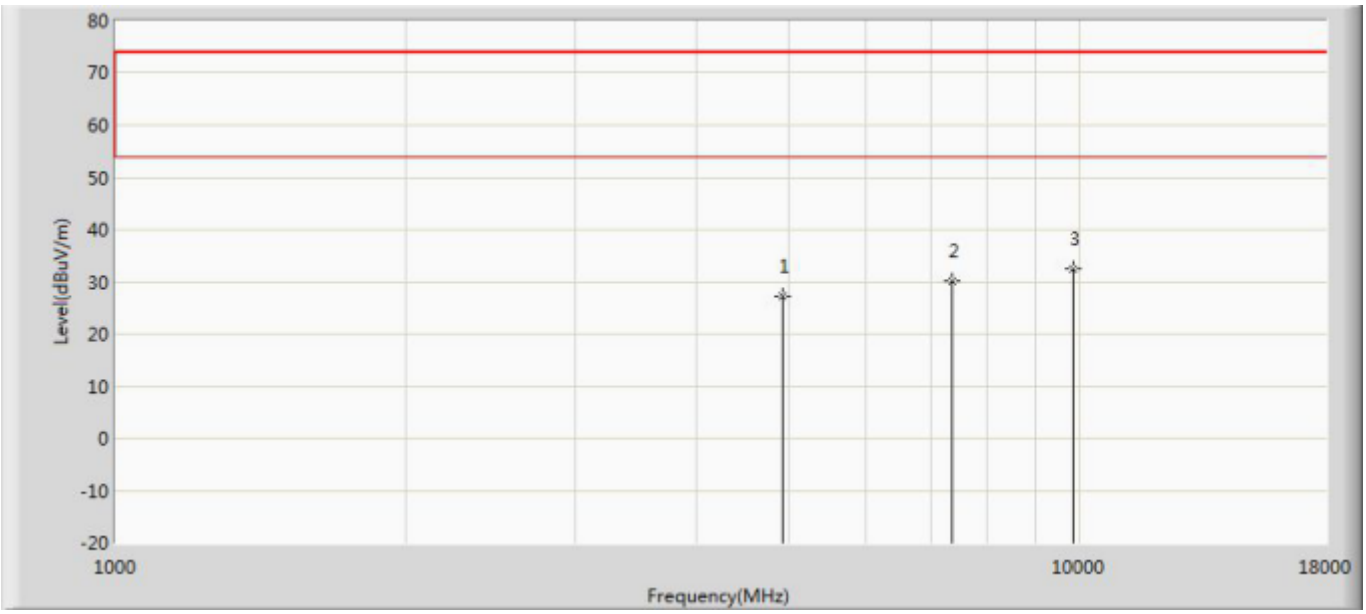
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.309	26.751	-47.691	74.000	-0.442	PK
2	*	7311.000	31.363	27.491	-42.637	74.000	3.872	PK
3		9748.000	30.453	25.452	-43.547	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g with Ant2	



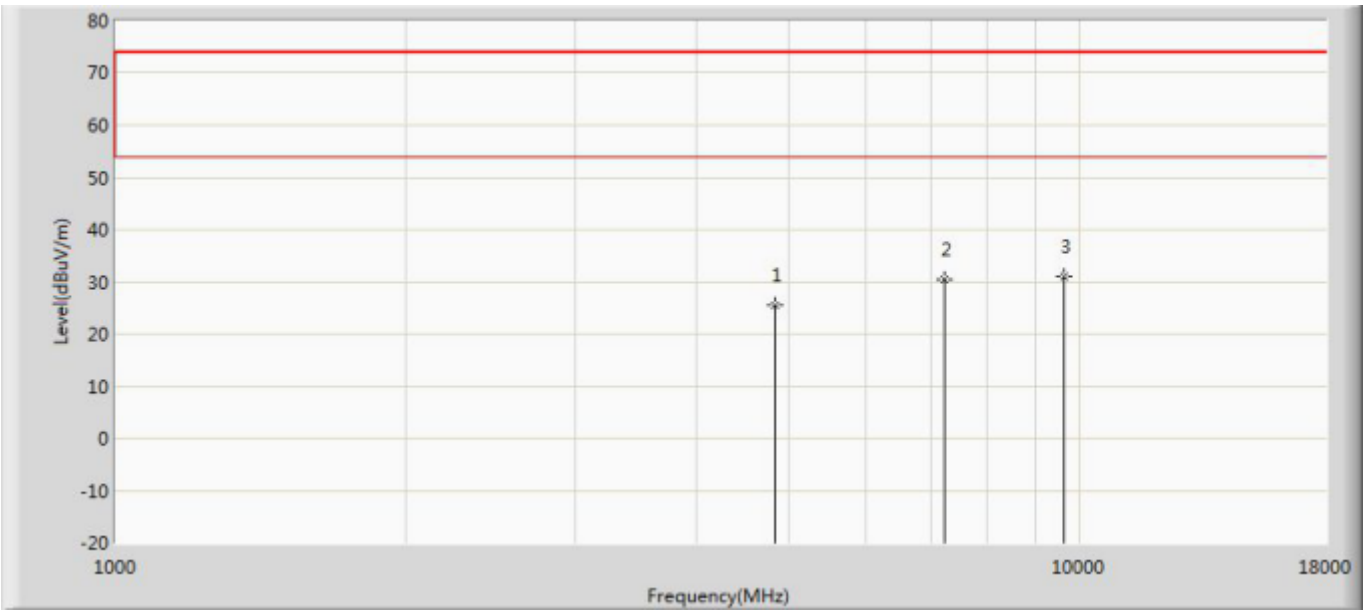
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.102	26.997	-46.898	74.000	0.104	PK
2		7386.000	30.755	27.581	-43.245	74.000	3.174	PK
3	*	9848.000	31.408	25.419	-42.592	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2462MHz by 802.11g with Ant2	



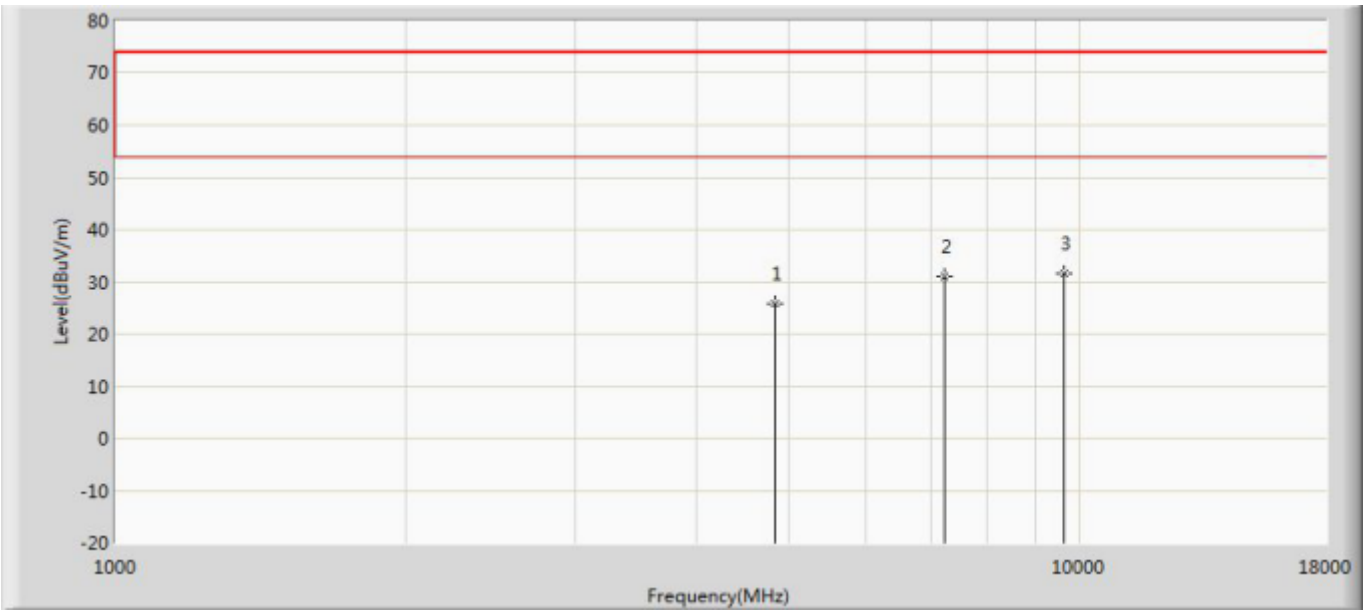
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.375	27.270	-46.625	74.000	0.104	PK
2		7386.000	30.268	27.094	-43.732	74.000	3.174	PK
3	*	9848.000	32.365	26.376	-41.635	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20 with Ant2	



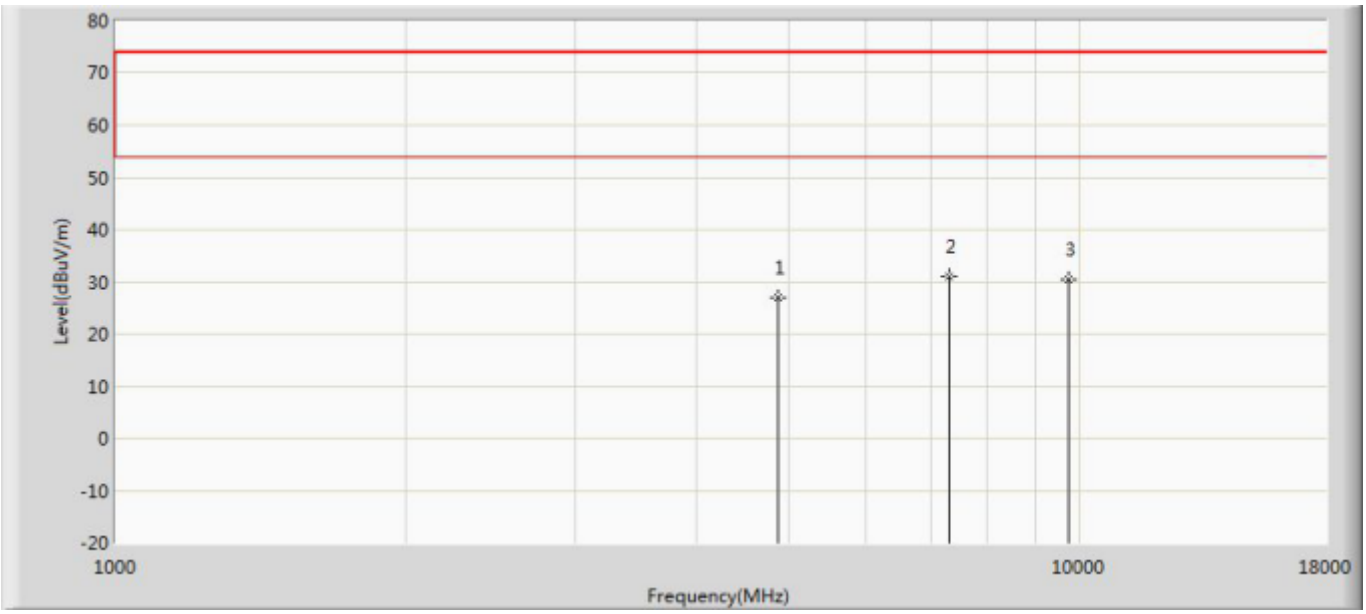
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.586	26.092	-48.414	74.000	-0.505	PK
2		7236.000	30.520	27.112	-43.480	74.000	3.407	PK
3	*	9648.000	31.114	26.118	-42.886	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20 with Ant2	



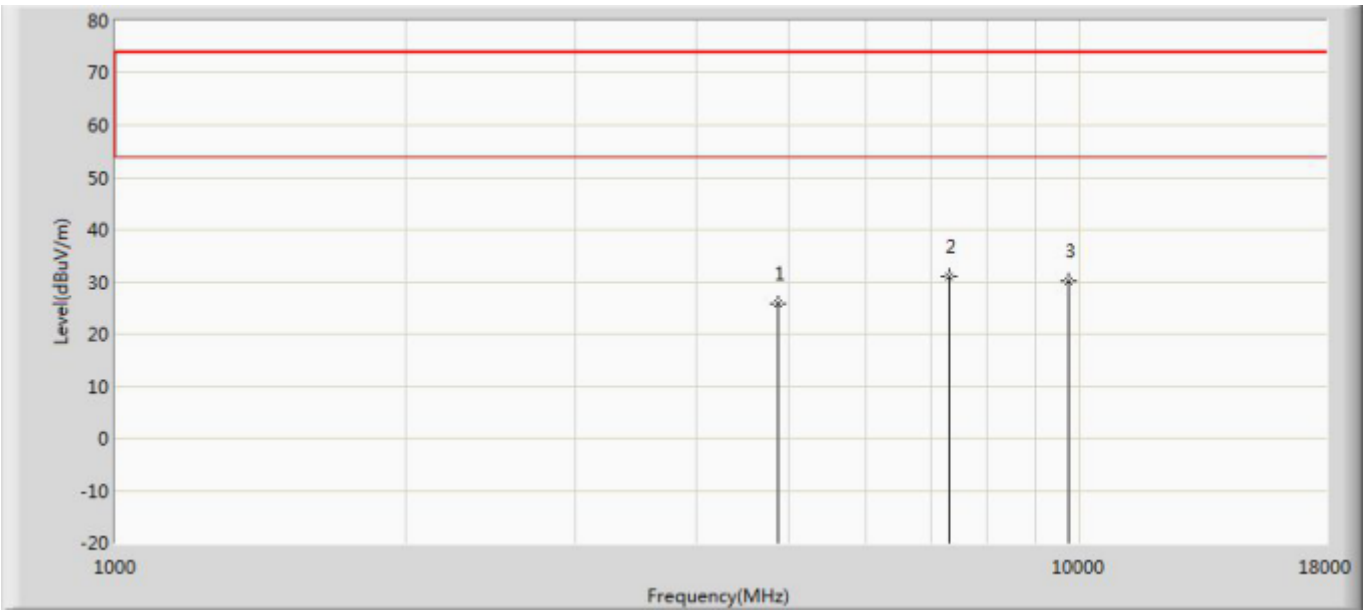
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	25.823	26.329	-48.177	74.000	-0.505	PK
2		7236.000	31.014	27.606	-42.986	74.000	3.407	PK
3	*	9648.000	31.648	26.652	-42.352	74.000	4.996	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2437MHz by 802.11n20 with Ant2	



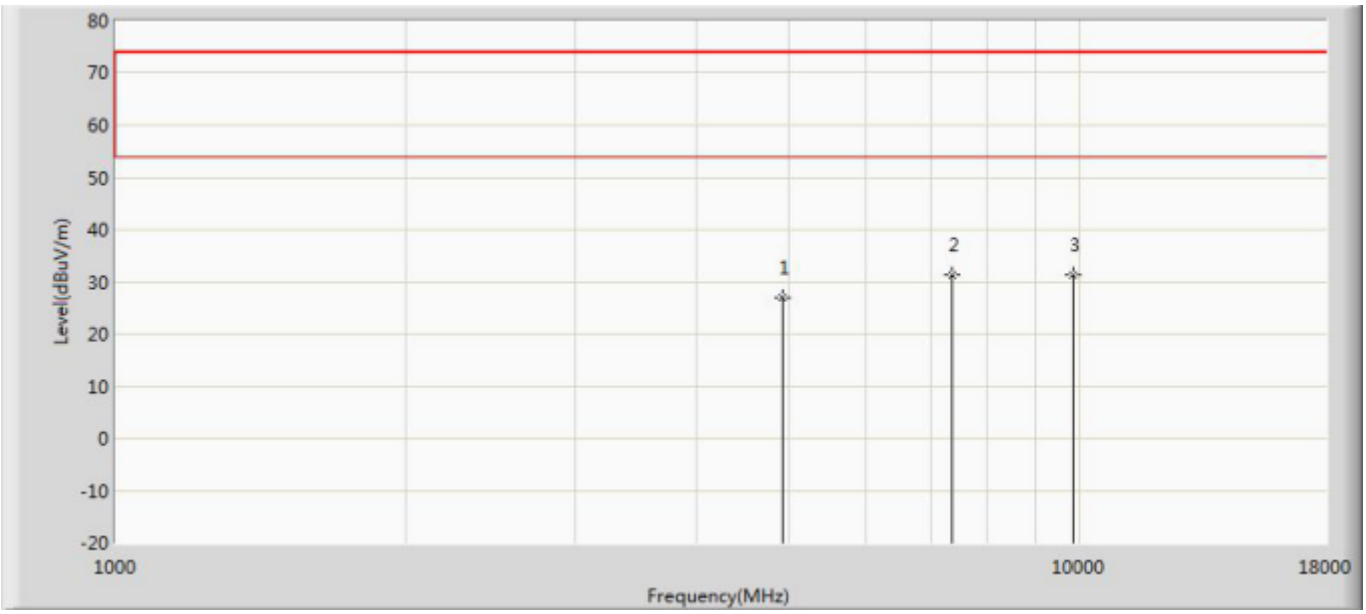
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	26.831	27.273	-47.169	74.000	-0.442	PK
2	*	7311.000	30.931	27.059	-43.069	74.000	3.872	PK
3		9748.000	30.392	25.391	-43.608	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2437MHz by 802.11n20 with Ant2	



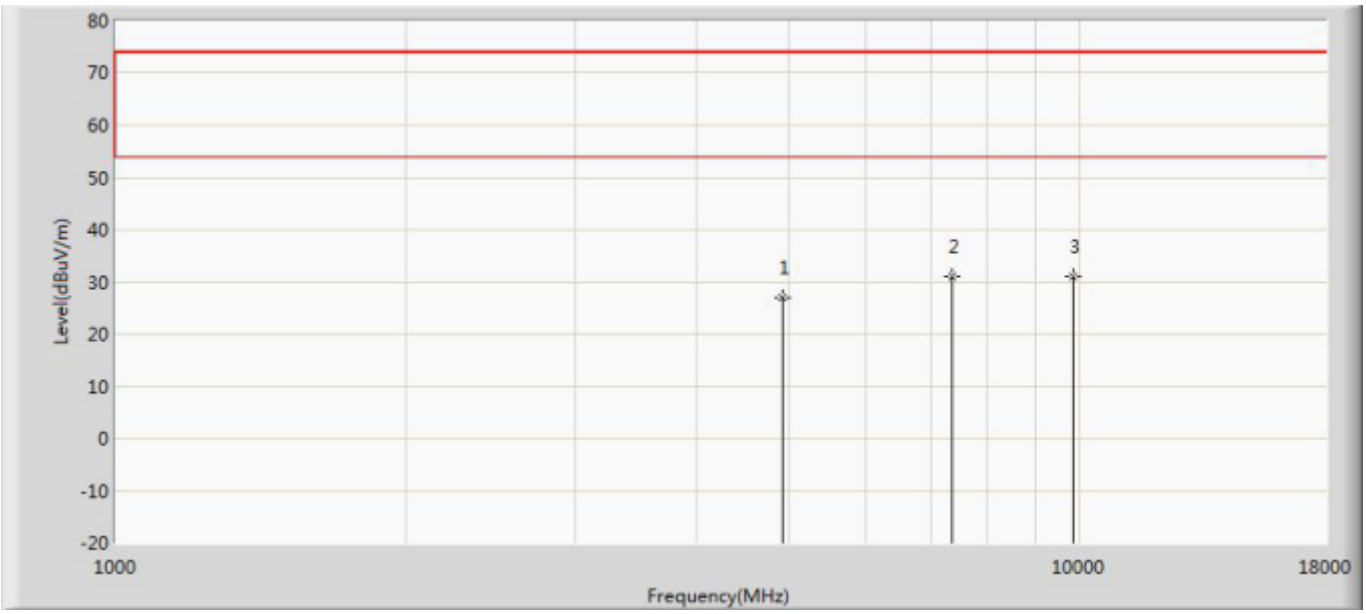
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	25.867	26.309	-48.133	74.000	-0.442	PK
2	*	7311.000	31.091	27.219	-42.909	74.000	3.872	PK
3		9748.000	30.130	25.129	-43.870	74.000	5.002	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20 with Ant2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	27.018	26.913	-46.982	74.000	0.104	PK
2	*	7386.000	31.269	28.095	-42.731	74.000	3.174	PK
3		9848.000	31.170	25.181	-42.830	74.000	5.989	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 21:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2462MHz by 802.11n20 with Ant2	



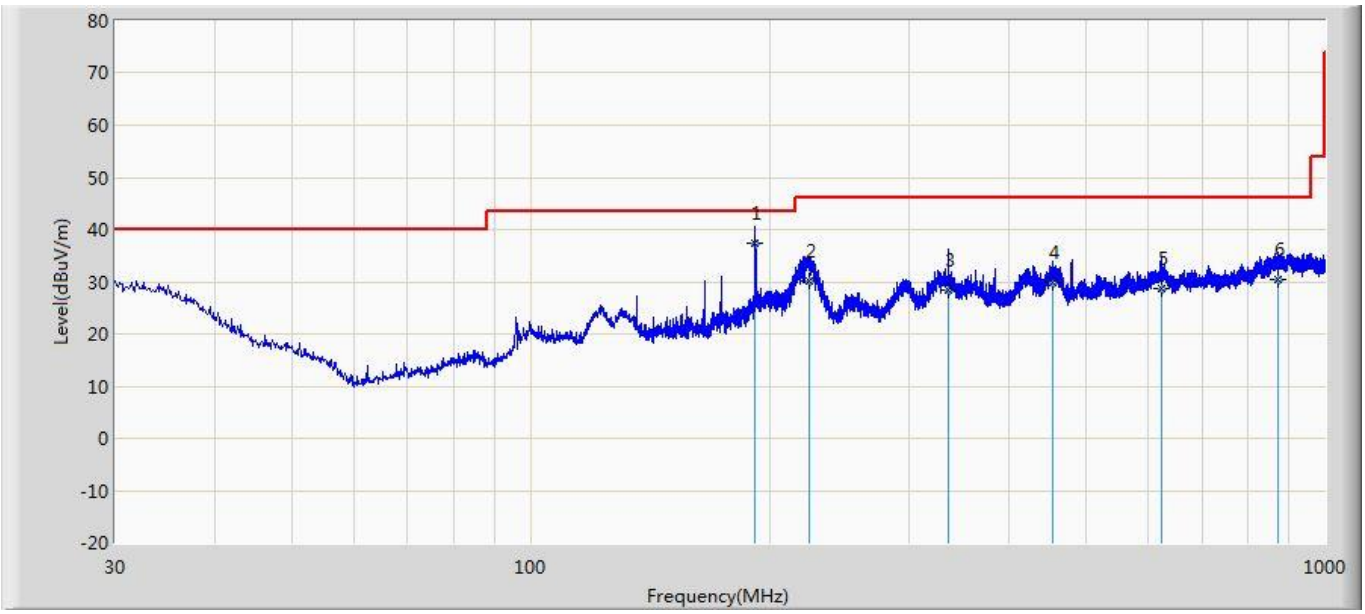
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	26.983	26.878	-47.017	74.000	0.104	PK
2	*	7386.000	31.100	27.926	-42.900	74.000	3.174	PK
3		9848.000	31.031	25.042	-42.969	74.000	5.989	PK

Note:

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

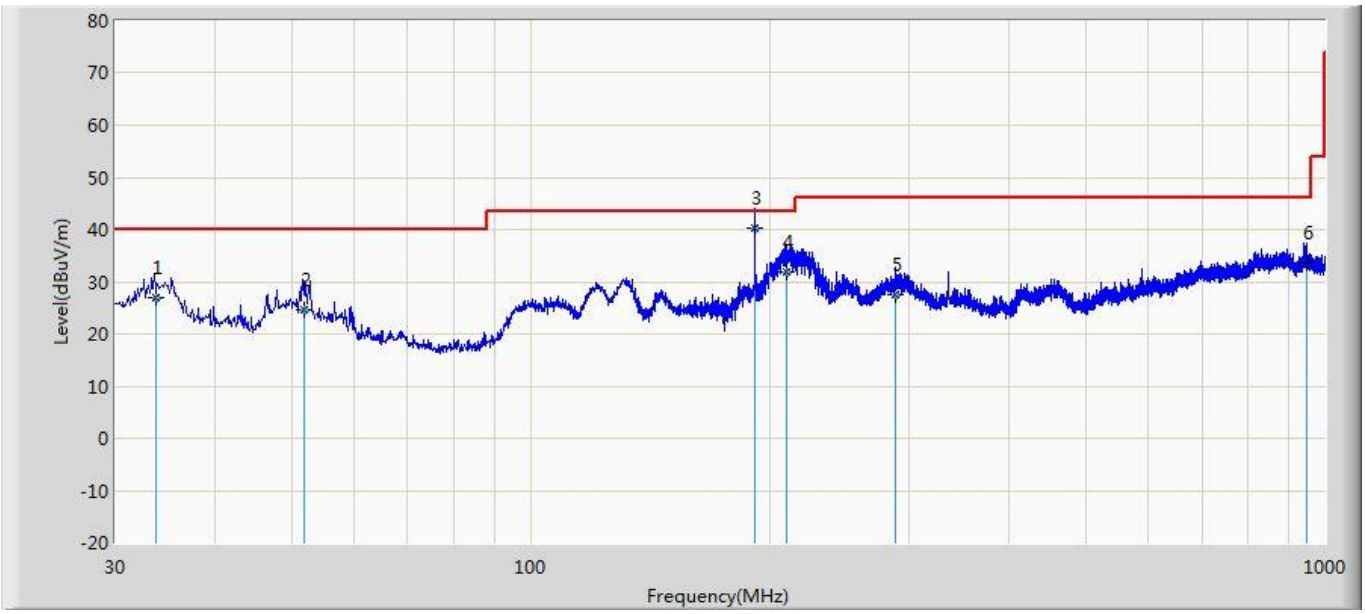
The worst case of Radiated Emission below 1GHz:

Engineer: Kay	
Site: AC2	Time: 2018/01/29
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1	*	191.516	37.311	19.980	-6.189	43.500	10.008	7.323	0.000	200	138	QP
2		223.845	30.124	12.103	-15.876	46.000	10.571	7.450	0.000	200	139	QP
3		335.812	28.450	5.600	-17.550	46.000	15.112	7.738	0.000	100	81	QP
4		454.251	29.748	2.510	-16.252	46.000	19.239	7.998	0.000	100	325	QP
5		623.845	28.621	-2.120	-17.379	46.000	22.175	8.566	0.000	100	144	QP
6		874.523	30.407	-2.120	-15.593	46.000	23.339	9.188	0.000	200	104	QP

Engineer: Kay	
Site: AC2	Time: 2018/01/29
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz by 802.11b with Ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		33.715	26.920	3.690	-13.080	40.000	16.571	6.658	0.000	200	102	QP
2		51.985	24.506	5.680	-15.494	40.000	12.248	6.578	0.000	100	143	QP
3	*	191.886	40.297	18.700	-3.203	43.500	14.273	7.324	0.000	100	34	QP
4		209.625	31.992	8.600	-11.508	43.500	16.007	7.385	0.000	200	147	QP
5		287.956	27.623	2.635	-18.377	46.000	17.380	7.608	0.000	100	145	QP
6		950.635	33.519	0.121	-12.481	46.000	24.047	9.351	0.000	100	214	QP

Note:

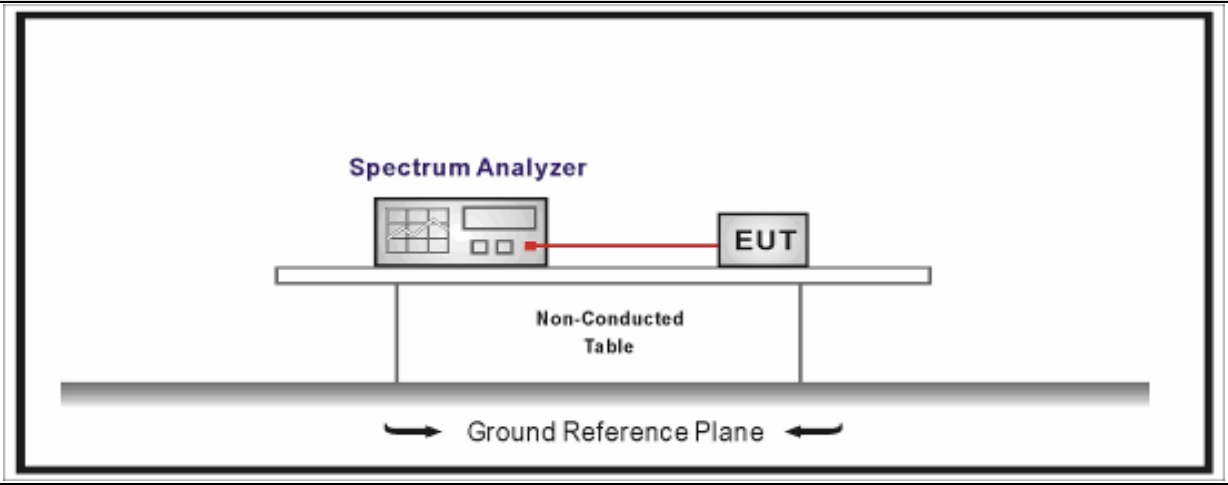
1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

5. Emissions in non-restricted frequency bands

5.1. Test Equipment

Emissions in non-restricted frequency bands / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2017.04.09	2018.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2017.04.09	2018.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2017.04.10	2018.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

5.2. Test Setup

Emissions in non-restricted frequency bands


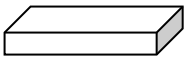
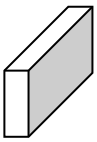
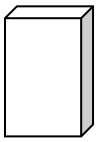
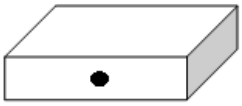
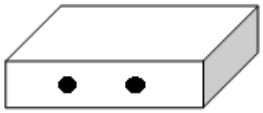
5.3. Limit

Un-Restricted Band Emissions Limit	
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30c(Note1)
RF Output power(PK detector)	20c(Note2)
Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc). Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).	

5.4. Test Procedure

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

5.5. EUT test Axis definition

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

5.6. Test Result

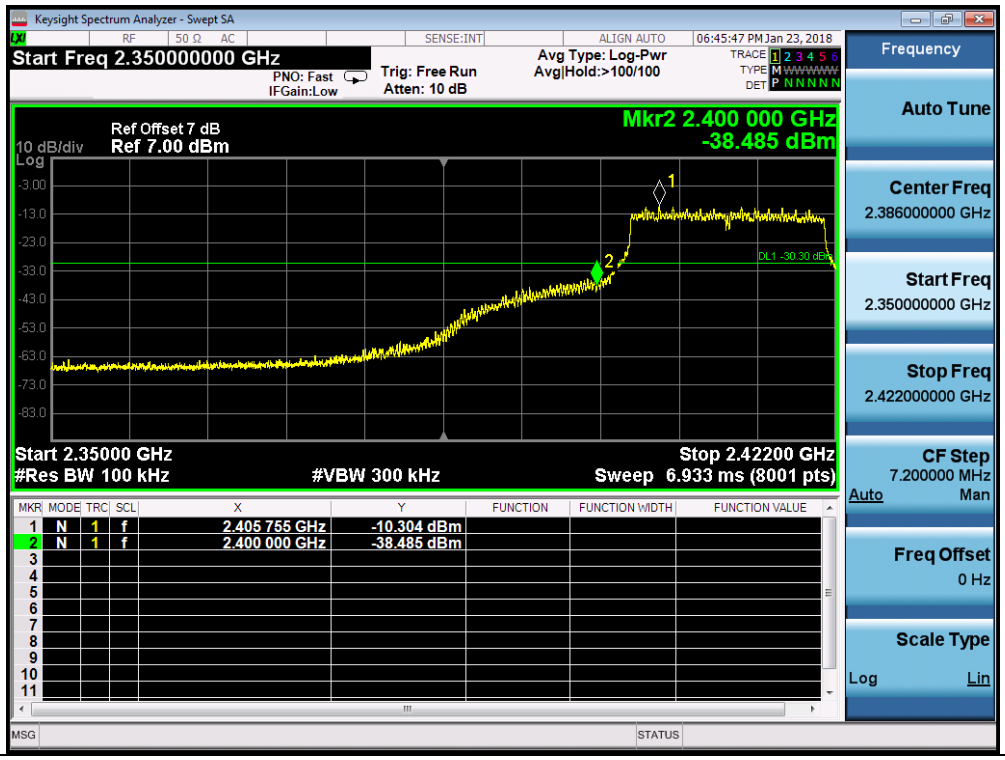
Product Name	:	Wake-up Light	Power	:	AC 120V/60Hz
Test Mode	:	Mode1~3	Test Site	:	TR8
Test Date	:	2018.01.23	Test Engineer	:	Tommie

Antenna #1

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
1	01	2412	-6.349	2400	-52.567	46.218	>20	Pass
1	11	2462	-5.879	2500	-62.513	56.634	>20	Pass
2	01	2412	-5.614	2400	-51.021	45.407	>20	Pass
2	11	2462	-5.670	2500	-62.814	57.144	>20	Pass
3	01	2412	-10.304	2400	-38.485	28.181	>20	Pass
3	11	2462	-9.493	2500	-63.974	54.481	>20	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

Mode 3 CH01(2412MHz)

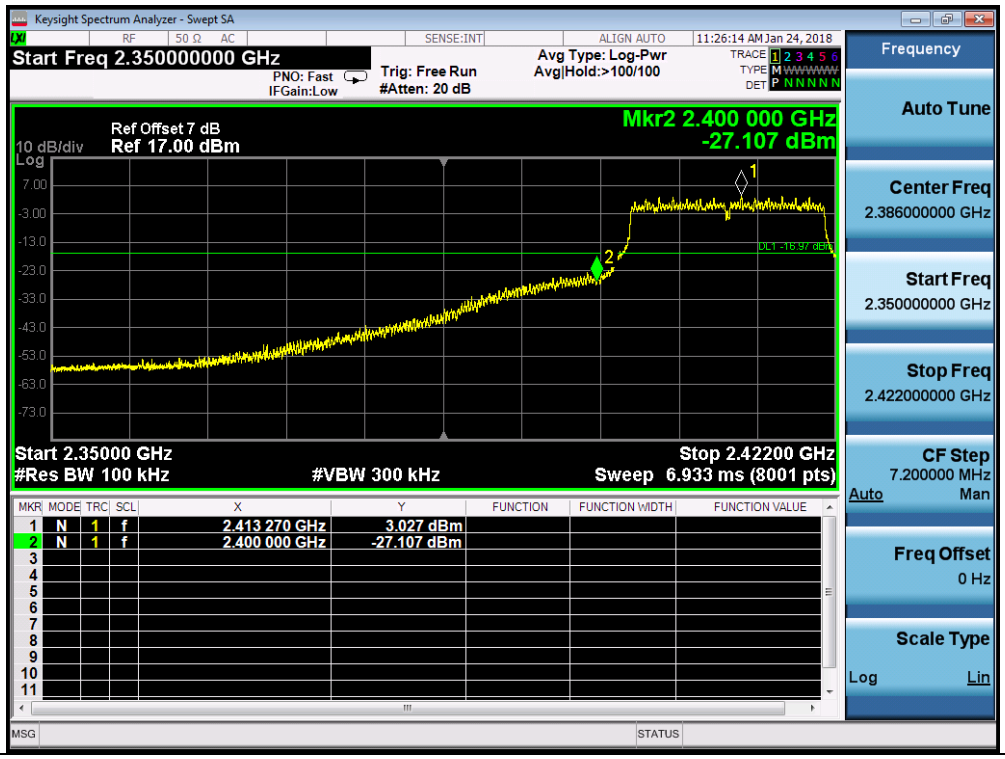


Antenna #2

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
1	01	2412	6.561	2400	-36.349	42.91	>20	Pass
1	11	2462	7.675	2500	-48.173	55.848	>20	Pass
2	01	2412	6.935	2400	-35.759	42.694	>20	Pass
2	11	2462	7.194	2500	-48.856	56.05	>20	Pass
3	01	2412	3.027	2400	-27.107	30.134	>20	Pass
3	11	2462	2.890	2500	-48.594	51.484	>20	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

Mode 3 CH01(2412MHz)



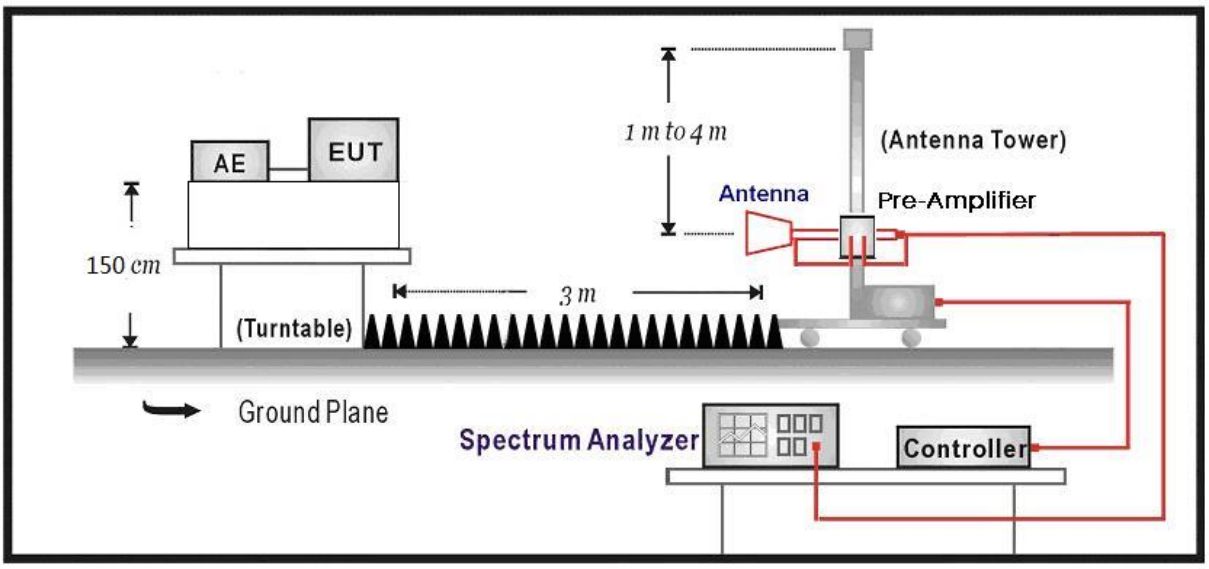
6. Radiated Emission Band Edge

6.1. Test Equipment

Radiated Emission Band Edge / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2018.01.04	2019.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2017.05.06	2018.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2017.05.06	2018.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2018.01.22	2019.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2017.11.25	2018.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2018.03.02	2019.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2018.03.02	2019.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2017.06.10	2018.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2018.01.04	2019.01.03
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

6.2. Test Setup

Radiated Emission Band Edge



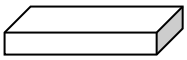
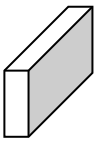
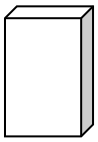
6.3. Limit

Band edge Limit				
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.				

6.4. Test Procedure

Radiated Emission Band Edge						
	References Rule				Chapter	Description
☒	ANSI C63.10				6.10	Band-edge testing
	☒	ANSI C63.10			6.10.5	Restricted-band band-edge measurements
	☐	ANSI C63.10			6.10.6	Marker-delta method
☒	ANSI C63.10				11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10			11.12.1	Radiated emission measurements
	☒	ANSI C63.10			11.12.2.7	Radiated spurious emission test
☐	ANSI C63.10				6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
☐	ANSI C63.10				6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
☒	ANSI C63.10				6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	☐	ANSI C63.10			11.12.2	Antenna-port conducted measurements
		☐	ANSI C63.10		11.12.2.3	Quasi-peak measurement procedure
		☐	ANSI C63.10		11.12.2.4	Peak power measurement procedure
		☐	ANSI C63.10		11.12.2.5	Average power measurement procedures
			☐	ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
			☐	ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
			☐	ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

6.5. EUT test definition

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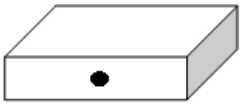
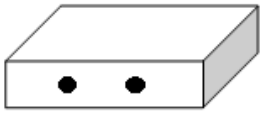
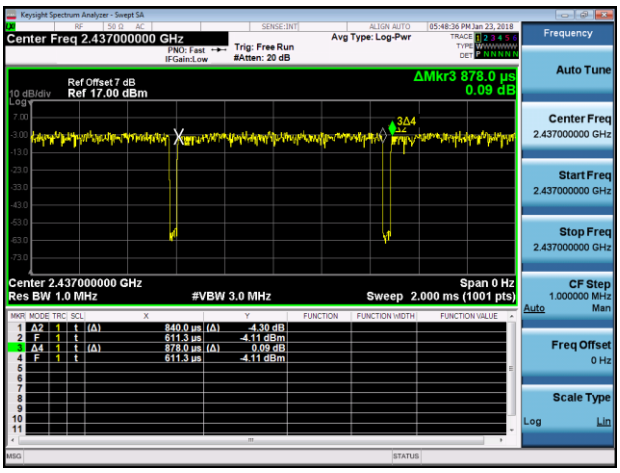
	☐	Conducted		
	☐	Chain 1		
				
	☐	Chain 1	Chain 2	
				
	☐	Chain 1	Chain 2	Chain 3

6.6. Duty Cycle

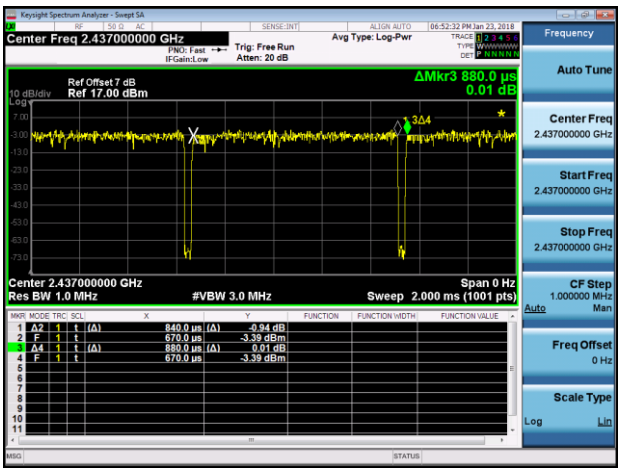
Ant1:

Test Mode	Tx On (ms)	Tx Off (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
802.11b	0.84	0.038	1.2kHz	0.878	95.67%
802.11g	0.84	0.04	1.2kHz	0.88	95.45%
802.11n(20MHz)	0.1635	0.0425	6.2kHz	0.206	79.37%

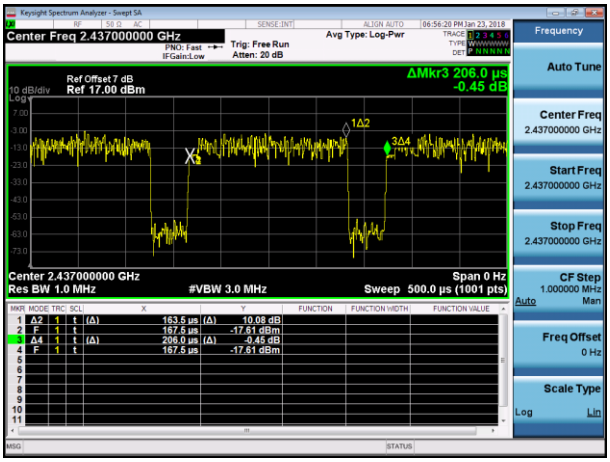
802.11b



802.11g



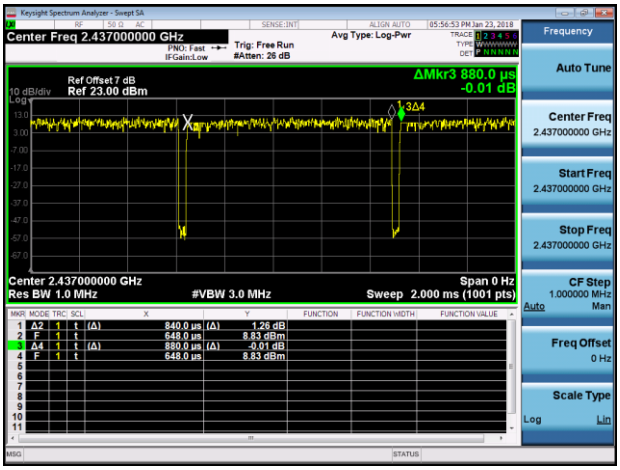
802.11n(20MHz)



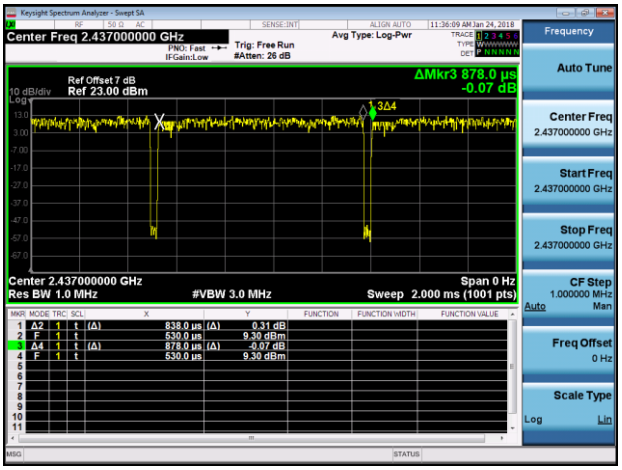
Ant2:

Test Mode	Tx On (ms)	Tx Off (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
802.11b	0.84	0.04	1.2kHz	0.88	95.45%
802.11g	0.838	0.04	1.2kHz	0.878	95.44%
802.11n(20MHz)	0.165	0.0415	6.2kHz	0.2065	79.90%

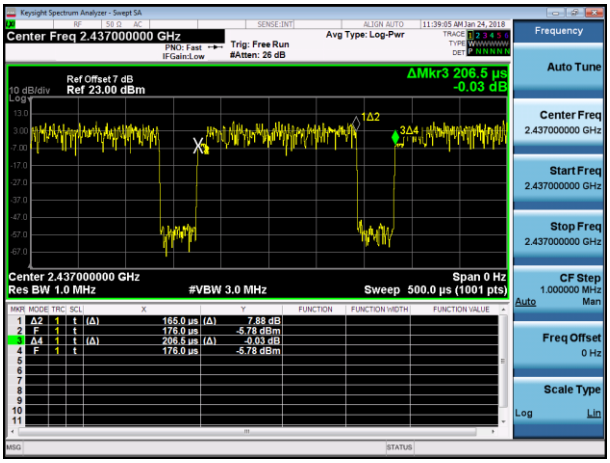
802.11b



802.11g

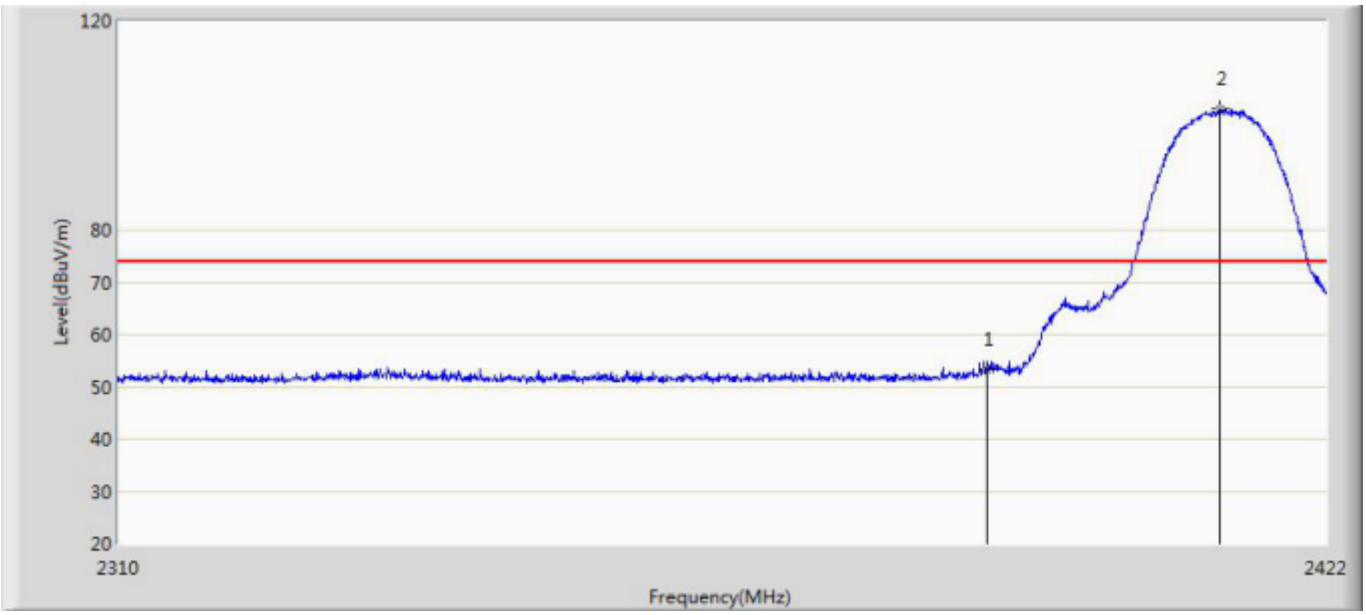


802.11n(20MHz)



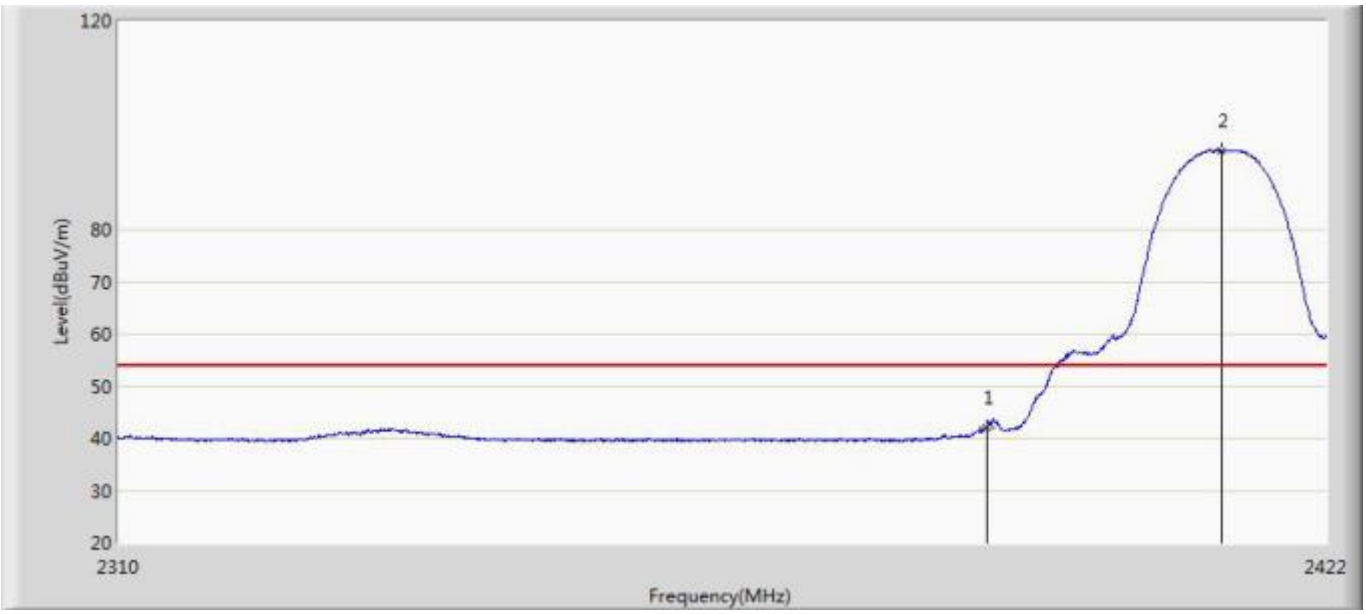
6.7. Test Result

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz at 802.11b with Ant 1	



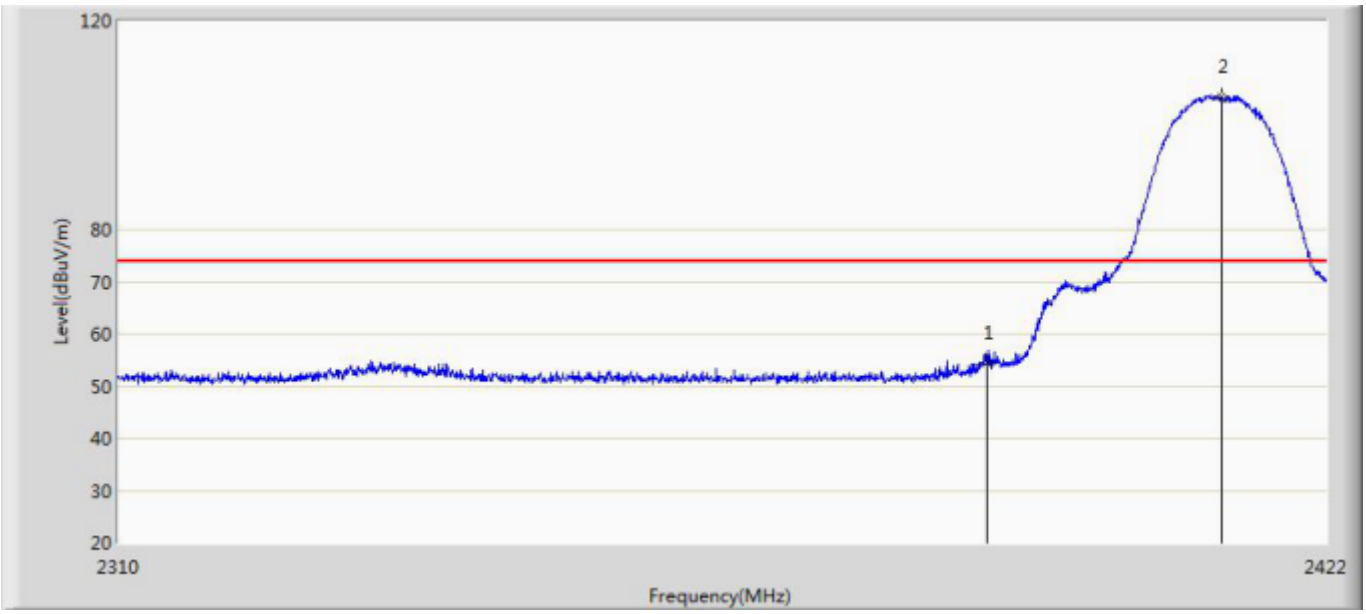
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.446	17.116	-20.554	74.000	36.329	PK
2	*	2412.032	103.202	66.859	N/A	N/A	36.343	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz at 802.11b with Ant 1	



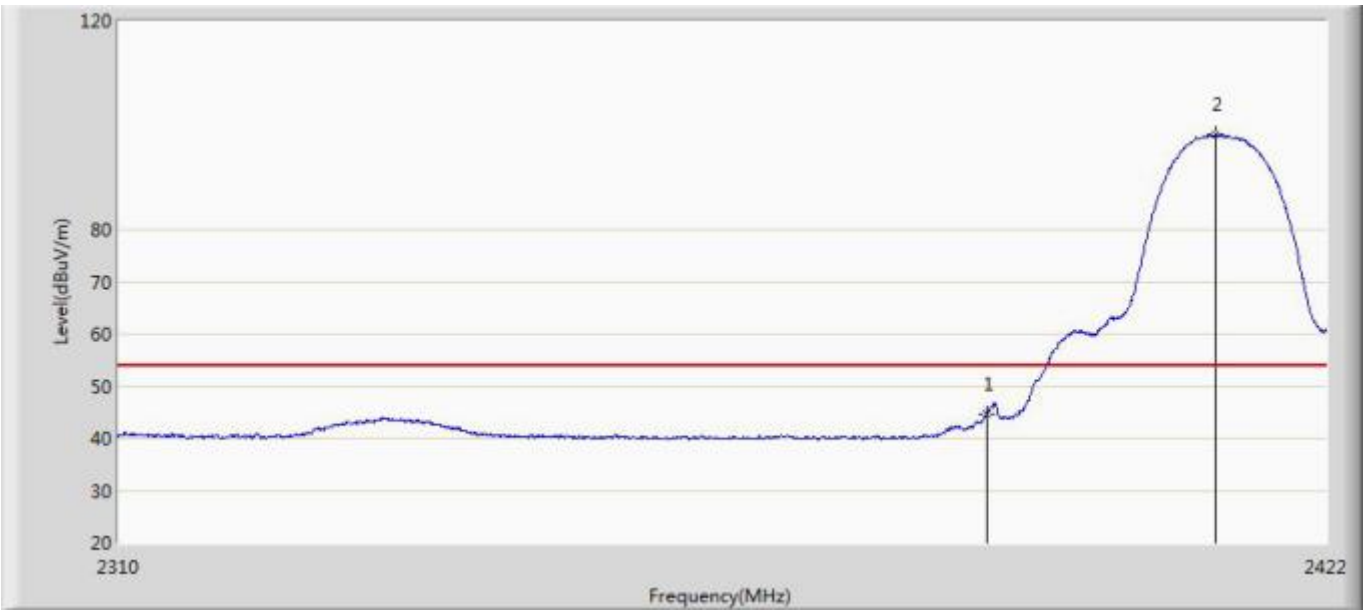
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.073	5.743	-11.927	54.000	36.329	AV
2	*	2412.088	95.134	58.790	N/A	N/A	36.344	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz at 802.11b with Ant 1	



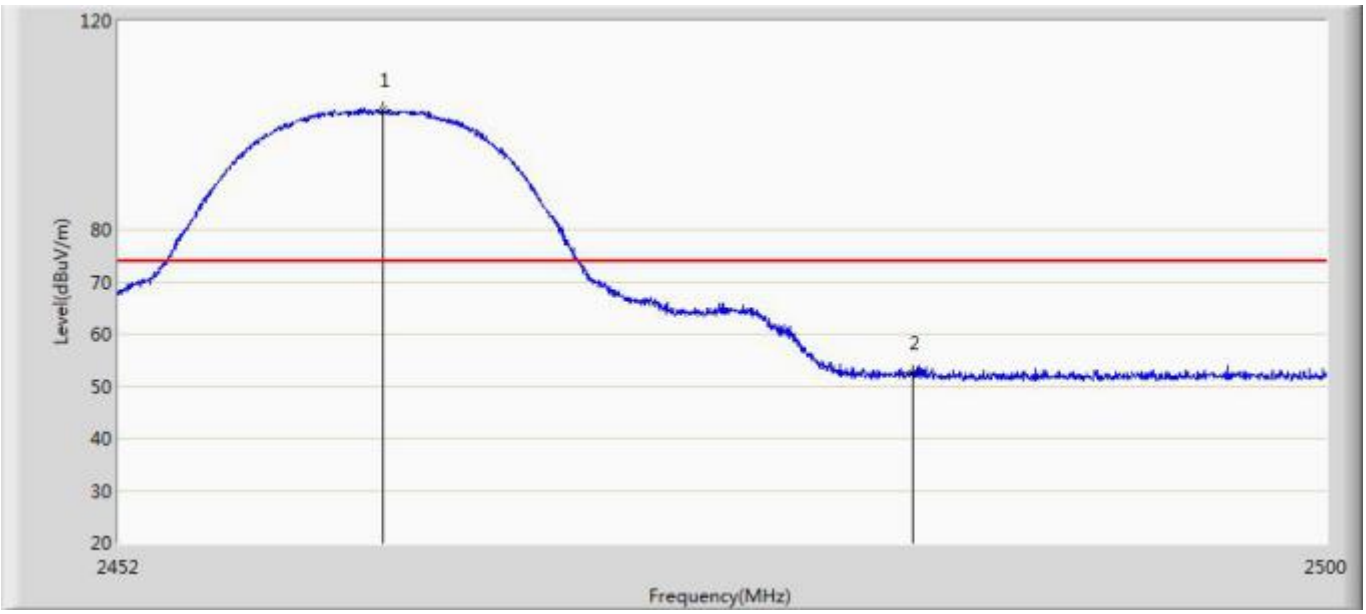
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.563	18.233	-19.437	74.000	36.329	PK
2	*	2412.088	105.640	69.296	N/A	N/A	36.344	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2412MHz at 802.11b with Ant 1	



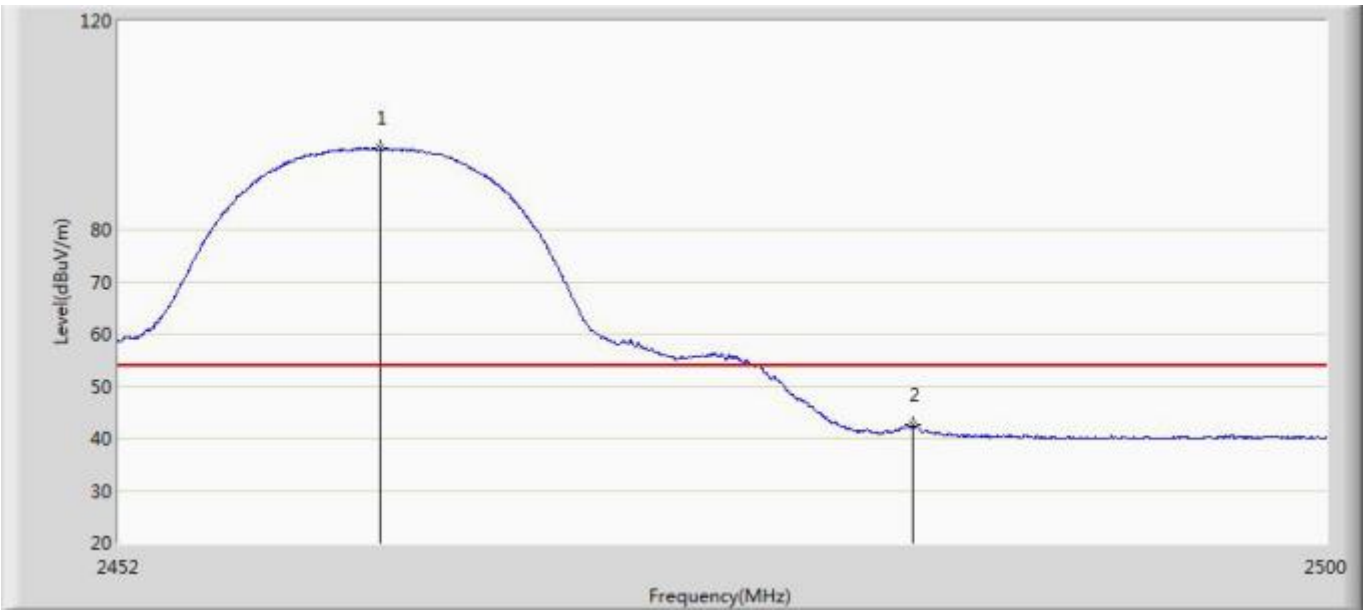
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.605	8.275	-9.395	54.000	36.329	AV
2	*	2411.584	98.275	61.939	N/A	N/A	36.337	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz at 802.11b with Ant 1	



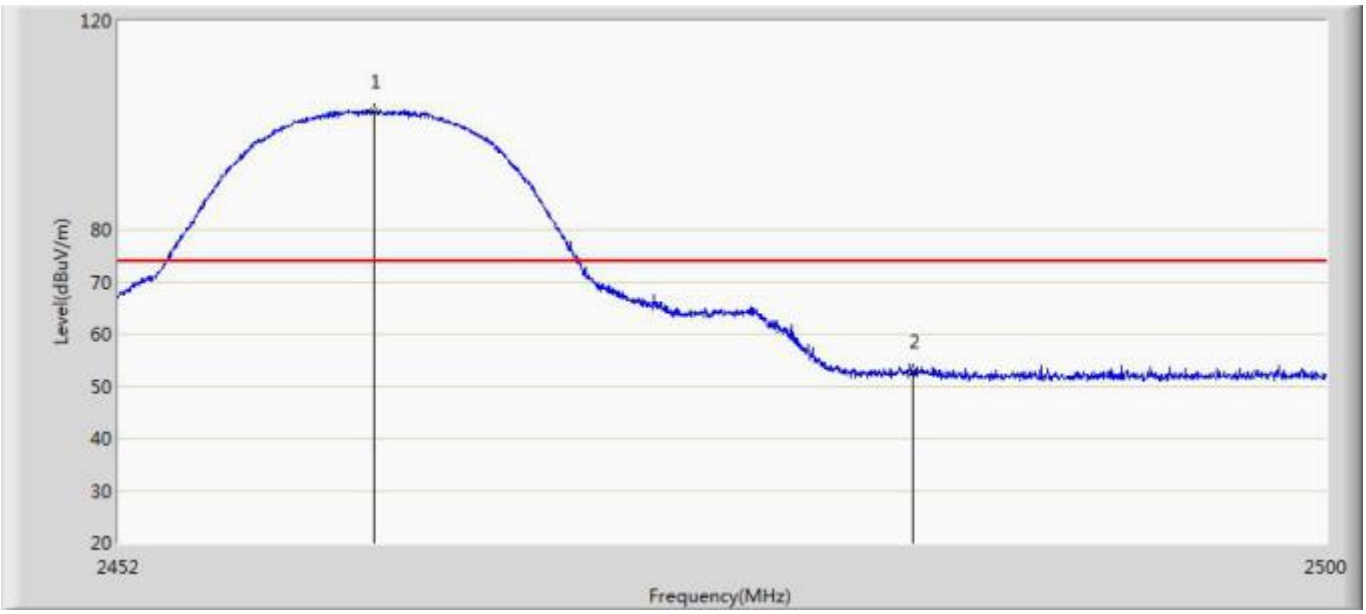
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.464	102.789	66.166	N/A	N/A	36.623	PK
2		2483.500	52.322	15.855	-21.678	74.000	36.467	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz at 802.11b with Ant 1	



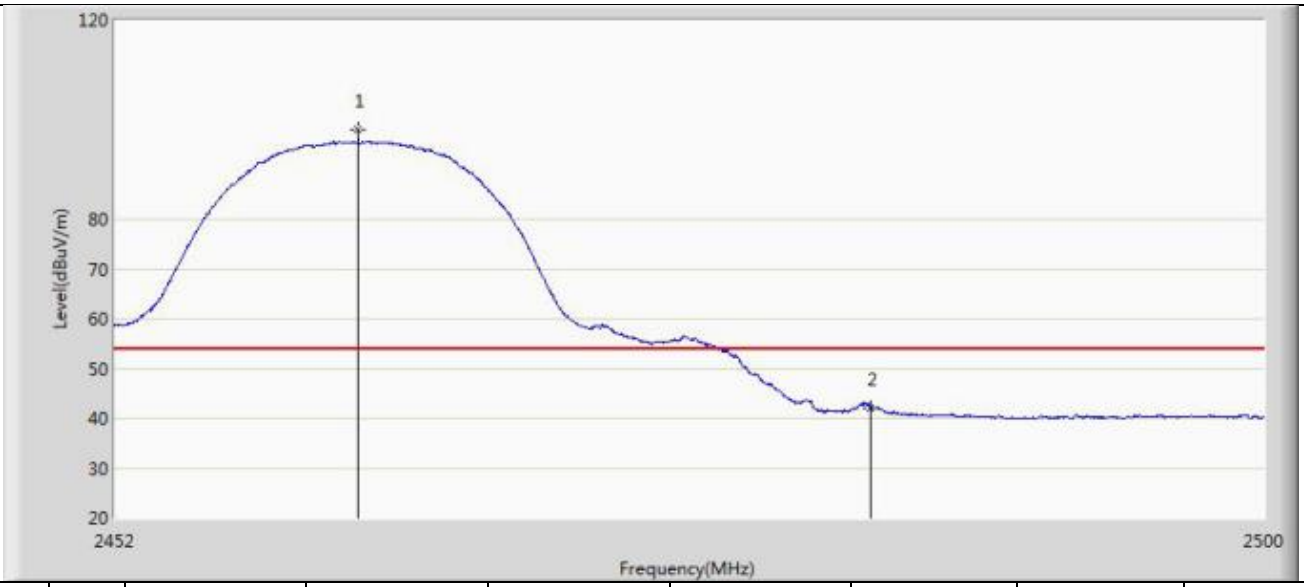
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.344	95.513	58.889	N/A	N/A	36.624	AV
2		2483.500	42.468	6.001	-11.532	54.000	36.467	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz at 802.11b with Ant 1	



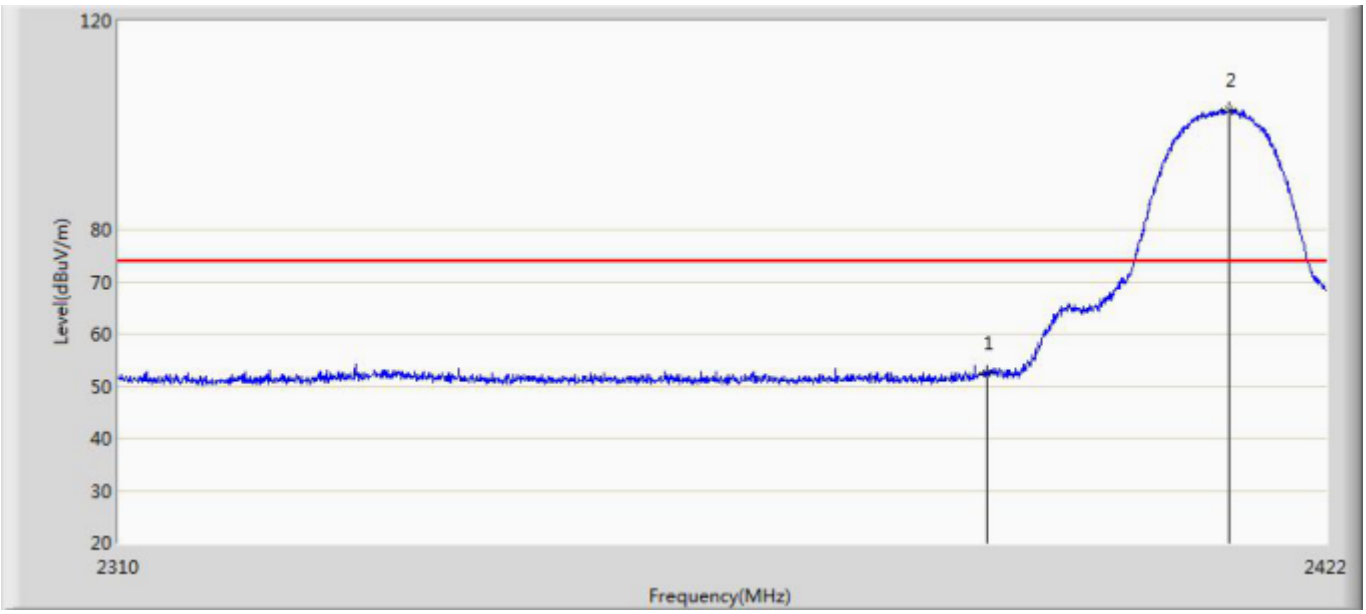
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.104	102.632	66.004	N/A	N/A	36.627	PK
2		2483.500	52.693	16.226	-21.307	74.000	36.467	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz at 802.11b with Ant 1	



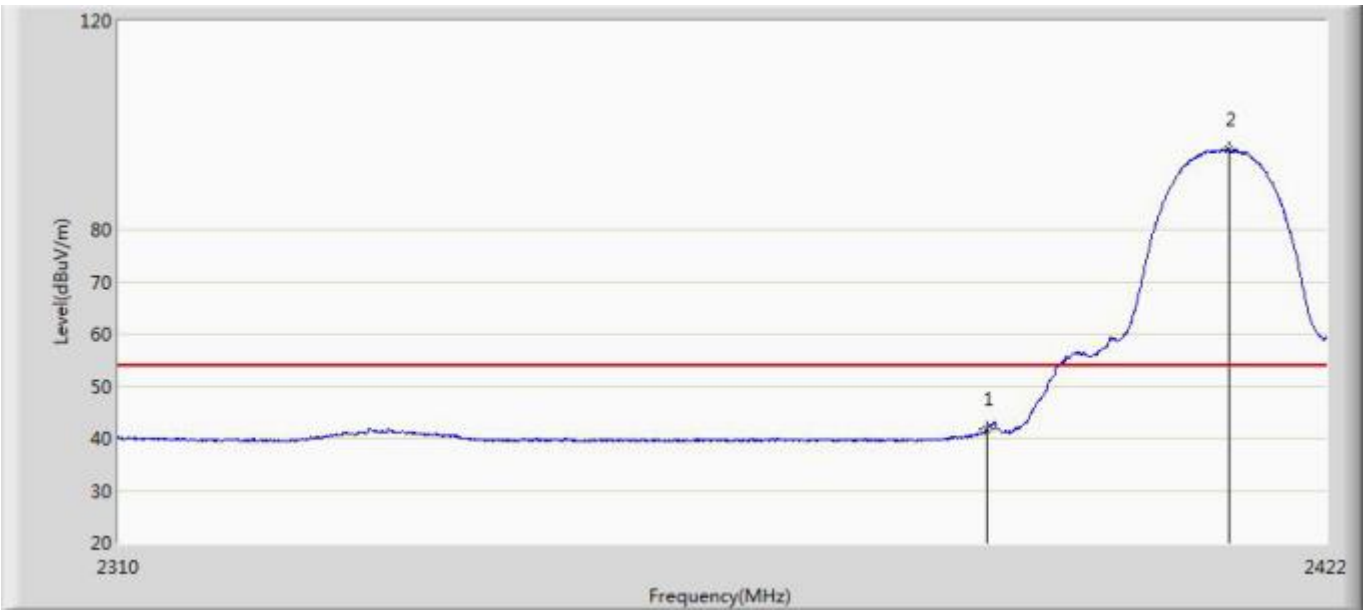
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.104	102.632	66.004	N/A	N/A	36.627	AV
2		2483.500	42.116	5.649	-11.884	54.000	36.467	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz at 802.11g with Ant 1	



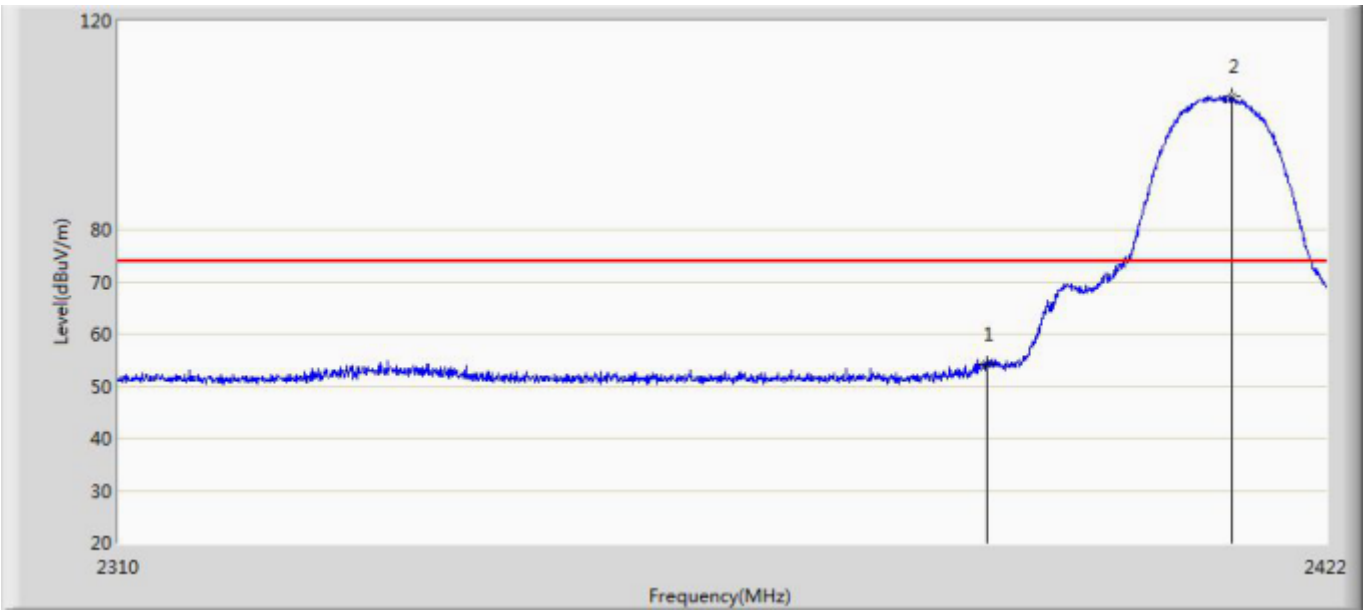
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	52.361	16.031	-21.639	74.000	36.329	PK
2	*	2412.816	102.889	66.533	N/A	N/A	36.356	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz at 802.11g with Ant 1	



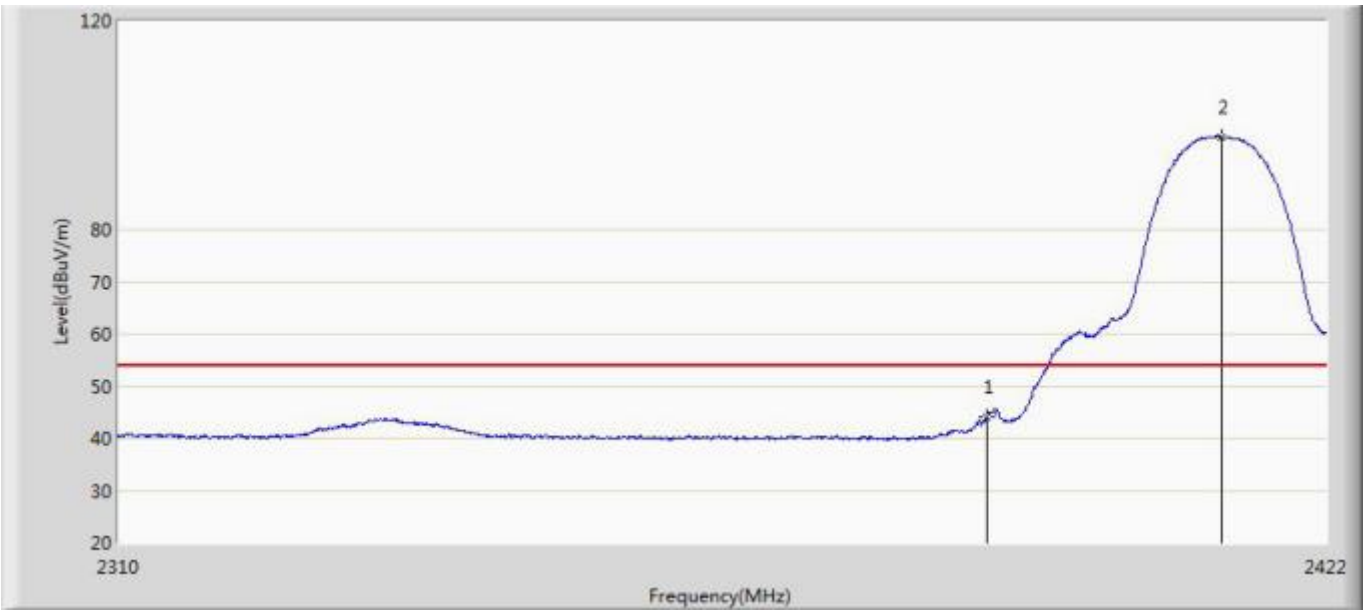
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.716	5.386	-12.284	54.000	36.329	AV
2	*	2412.816	95.407	59.051	N/A	N/A	36.356	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz at 802.11g with Ant 1	



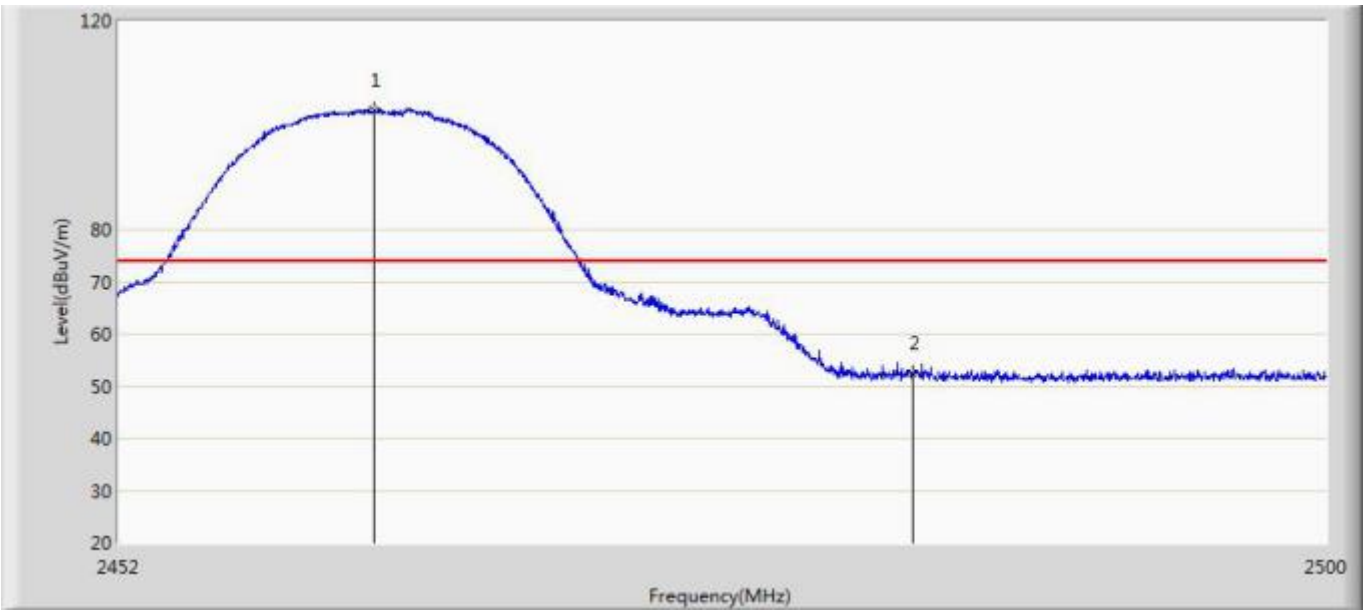
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.265	17.935	-19.735	74.000	36.329	PK
2	*	2413.040	105.636	69.277	N/A	N/A	36.360	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2412MHz at 802.11g with Ant 1	



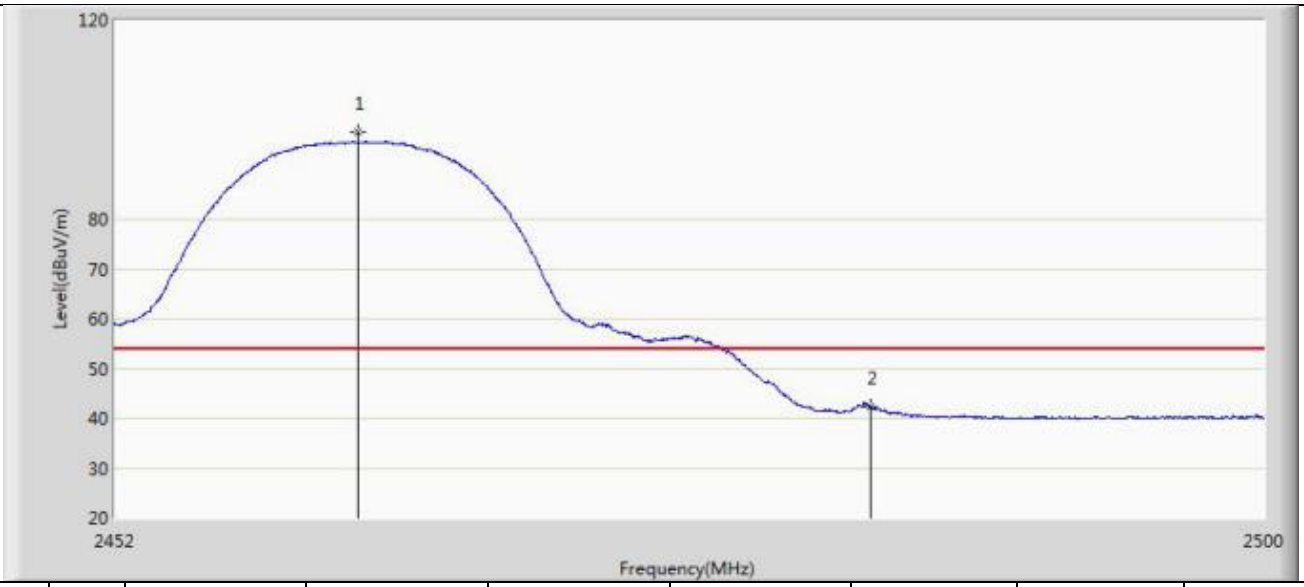
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	43.923	7.593	-10.077	54.000	36.329	AV
2	*	2412.088	97.740	61.396	N/A	N/A	36.344	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 802.11g with Ant 1	



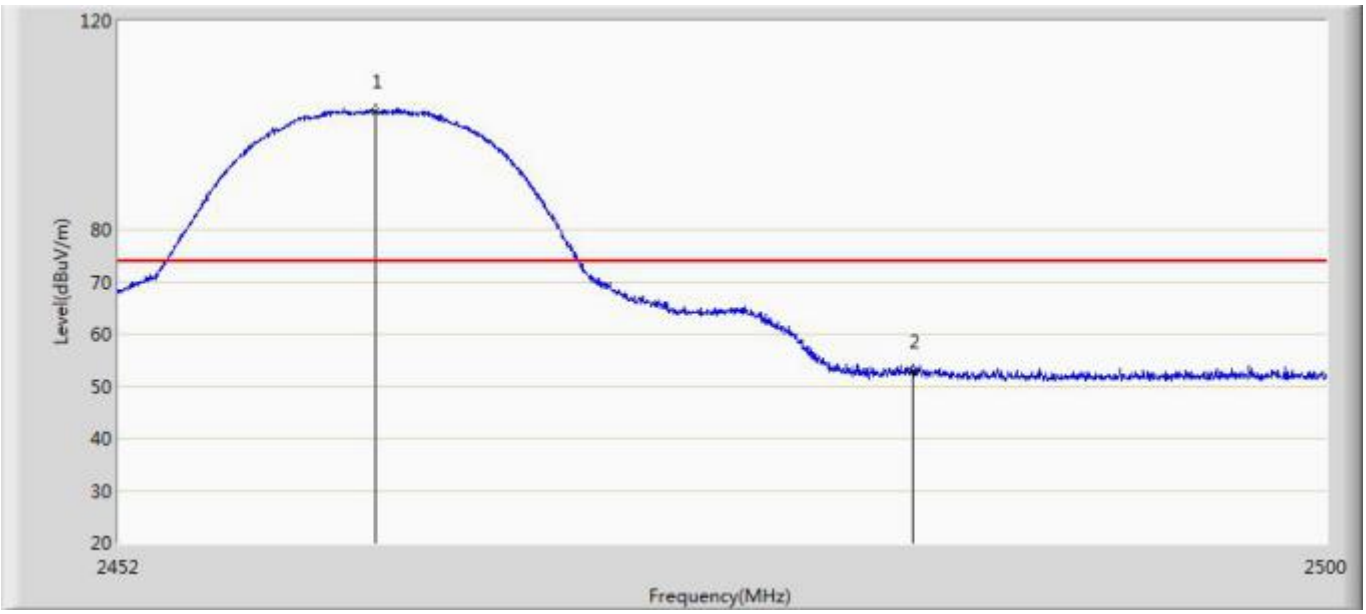
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.080	102.868	66.240	N/A	N/A	36.628	PK
2		2483.500	52.362	15.895	-21.638	74.000	36.467	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 802.11g with Ant 1	



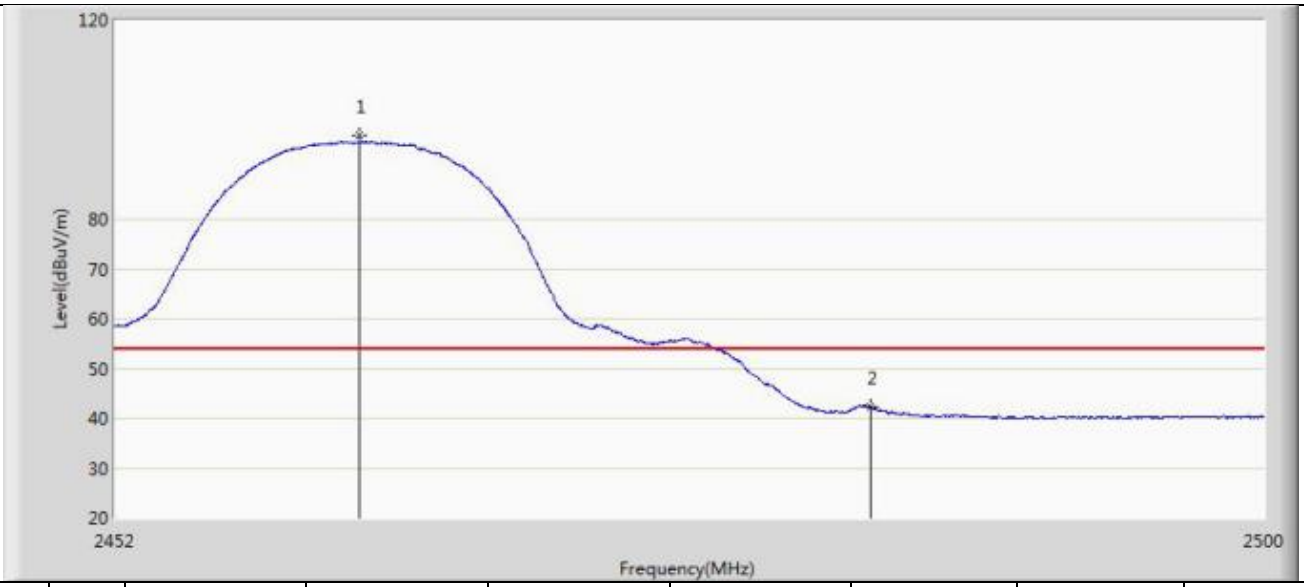
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.080	102.868	66.240	N/A	N/A	36.628	AV
2		2483.500	42.229	5.762	-11.771	54.000	36.467	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 802.11g with Ant 1	



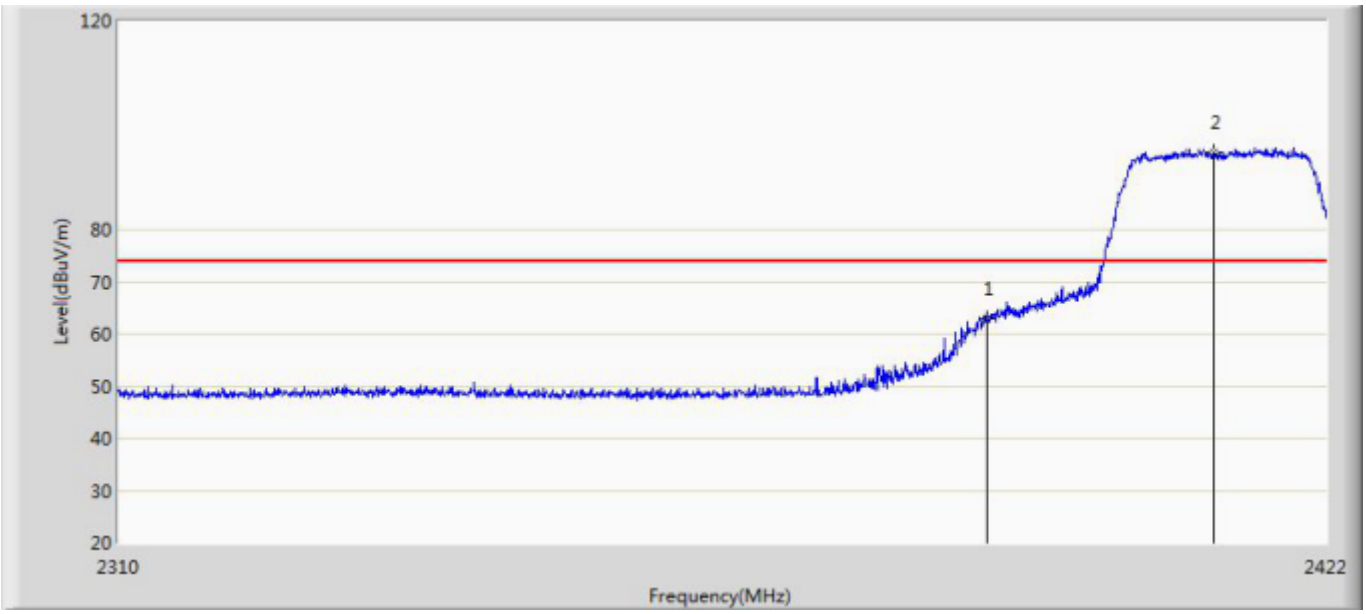
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.176	102.484	65.857	N/A	N/A	36.626	PK
2		2483.500	52.666	16.199	-21.334	74.000	36.467	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/12 - 17:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 802.11g with Ant 1	



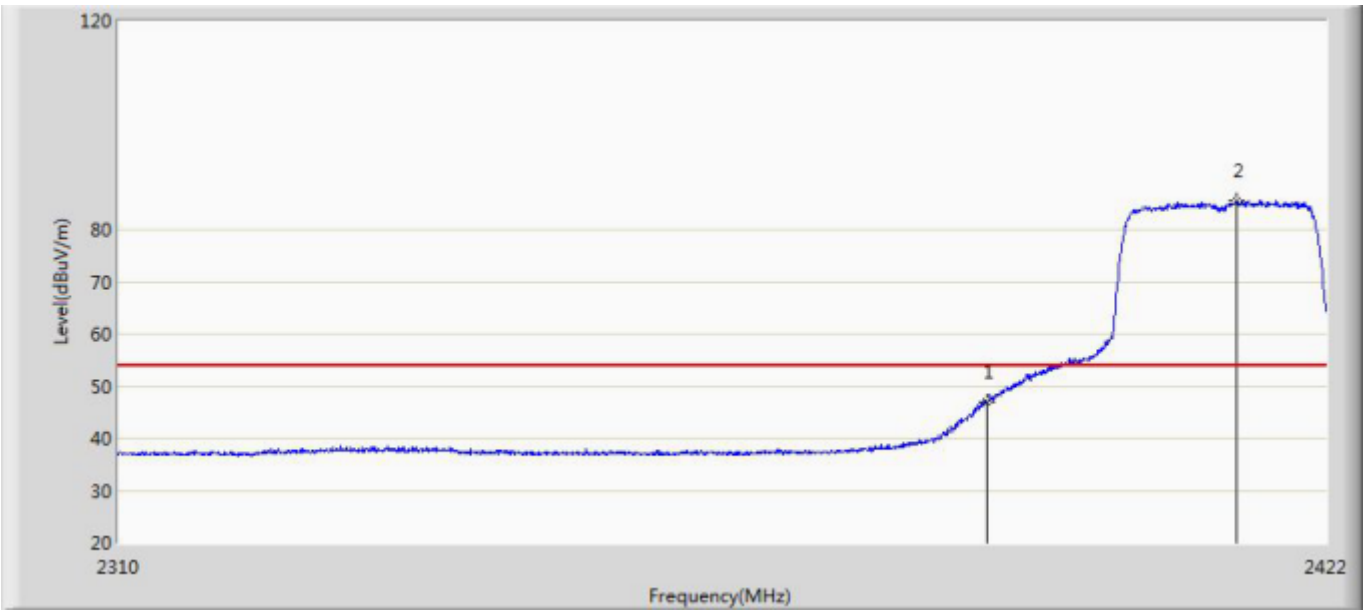
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.176	102.484	65.857	N/A	N/A	36.626	AV
2		2483.500	42.313	5.846	-11.687	54.000	36.467	AV

Engineer: Tommie	
Site: AC5	Time: 2018/02/28 - 08:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20 with Ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	62.887	26.557	-11.113	74.000	36.329	PK
2	*	2411.416	94.750	58.416	N/A	N/A	36.334	PK

Engineer: Tommie	
Site: AC5	Time: 2018/02/28 - 09:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Connected Sleep & Wake-up light	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2412MHz by 802.11n20 with Ant 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	46.835	10.505	-7.165	54.000	36.329	AV
2	*	2413.600	85.574	49.206	N/A	N/A	36.368	AV