



MEASUREMENT REPORT

FCC PART 15.247 802.11b/g/n

FCC ID: 2AJ3WEBEQPZ10

APPLICANT: Hangzhou Eboylamp Electronics Co.,Ltd.

Application Type: Certification

Product: SMART LED LAMP

Model No.: EBE-QPZ10

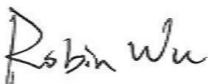
FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15.247

Test Procedure(s): ANSI C63.10-2013, KDB 558074 D01v03r05

Test Date: March 27 ~ April 17, 2017

Reviewed By
Manager

: 
(Robin Wu)

Approved By
CEO

: 
(Marlin Chen)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 558074 D01v03r05. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1703RSU03701	Rev. 01	Initial report	04-17-2017	Valid

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§2.1033 General Information

Applicant:	Hangzhou Eboylamp Electronics Co.,Ltd.
Applicant Address:	No.326Liangyun Street,Yuhang District,Hangzhou,Zhejiang
Manufacturer:	Hangzhou Eboylamp Electronics Co.,Ltd.
Manufacturer Address:	No.326Liangyun Street,Yuhang District,Hangzhou,Zhejiang
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT Registration No.:	809388
FCC Rule Part(s):	Part 15.247
FCC ID:	2AJ3WEBEQPZ10
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	Digital Transmission System (DTS)

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 809388) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	SMART LED LAMP
Model No.	EBE-QPZ10
WLAN Specification	
Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462 MHz
Maximum Peak Output Power	802.11b: 8.97dBm 802.11g: 19.18dBm 802.11n-HT20: 19.19dBm
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM
Antenna Gain	3.0dBi

2.2. Operation Frequency / Channel List

802.11b/g/n-HT20

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	--	--

2.3. Test Mode

Test Mode	Mode 1: Transmit by 802.11b
	Mode 2: Transmit by 802.11g
	Mode 3: Transmit by 802.11n-HT20

2.4. Test Software

The test utility software used during testing was “SecureCRT”.

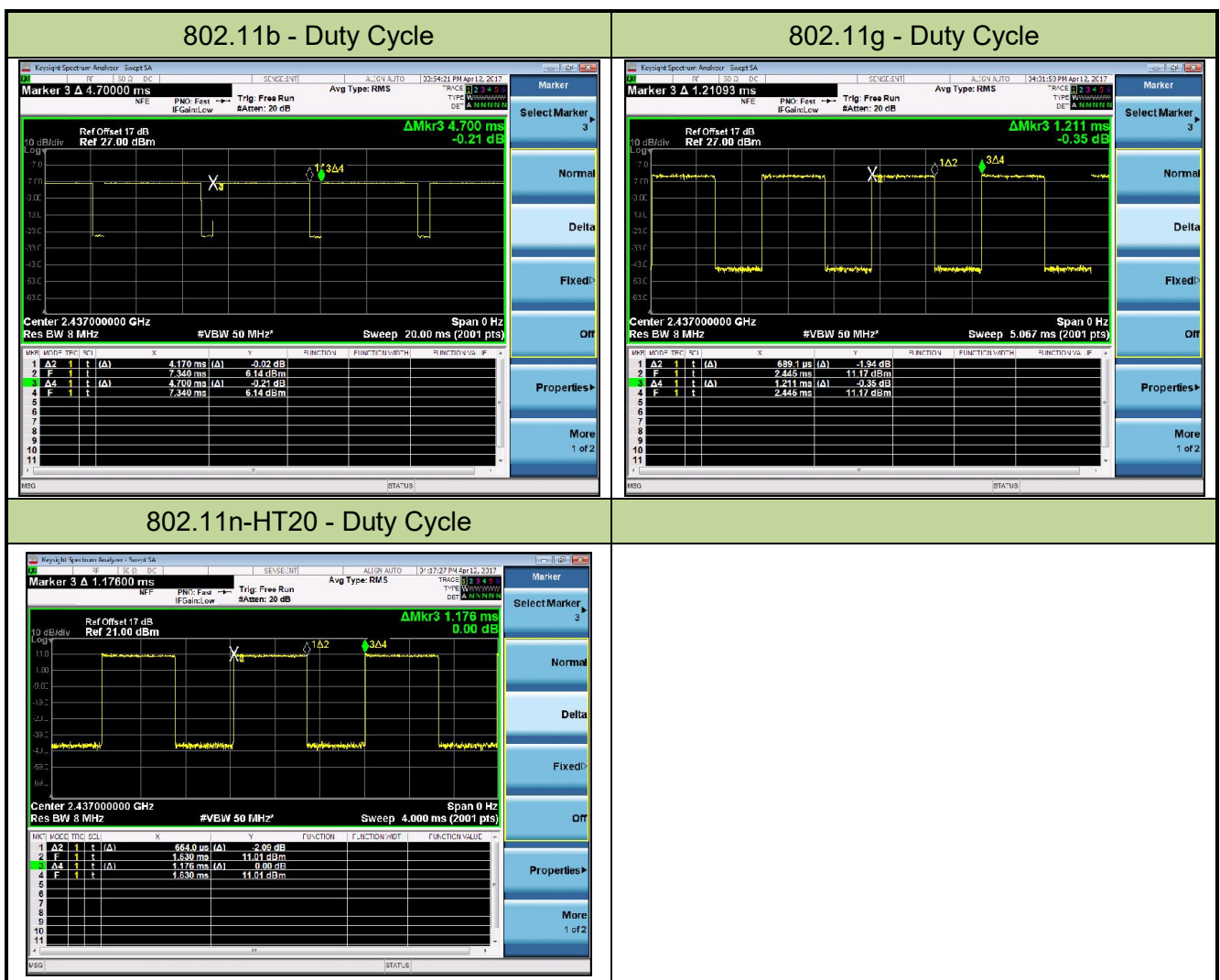
2.5. Device Capabilities

This device contains the following capabilities:

2.4GHz WLAN (DTS)

Note: 2.4GHz WLAN (DTS) operation is possible in 20MHz channel bandwidths. The maximum achievable duty cycle was determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
802.11b	88.7%
802.11g	56.9%
802.11n-HT20	55.6%



2.6. Test Configuration

The **SMART LED LAMP** was tested per the guidance of KDB 558074 D01v03r05. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.7. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.8. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 558074 D01v03r05 were used in the measurement of the **SMART LED LAMP**.

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

Line conducted emissions test results are shown in Section 7.8.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-25GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 antenna of the **SMART LED LAMP** is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The **SMART LED LAMP FCC ID: 2AJ3WEBEQPZ10** unit complies with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions - SR2

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	101209	1 year	2017/06/21
Two-Line V-Network	R&S	ENV216	101683	1 year	2017/06/21
Two-Line V-Network	R&S	ENV216	101684	1 year	2017/06/21
Temperature/Humidity Meter	Yuhuaze	N/A	N/A	1 year	2017/12/20
Shielding Anechoic Chamber	MIX-BEP	Chamber-SR2	N/A	1 year	2017/05/10

Radiated Emission – AC2

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9010A	MY56070124	1 year	2017/06/23
EMI Test Receiver	R&S	ESR7	101209	1 year	2017/06/21
Preamplifier	Agilent	83017A	MY52090106	1 year	2018/03/28
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	302	N/A	N/A
Loop Antenna	Schwarzbeck	FMZB1519	1519-041	1 year	2017/11/21
TRILOG Antenna	Schwarzbeck	VULB9162	9162-047	1 year	2017/10/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1167	1 year	2017/10/22
Broadband Horn Antenna	Schwarzbeck	BBHA9170	BBHA9170549	1 year	2018/01/04
Digital Thermometer & Hygrometer	Minggao	N/A	N/A	1 year	2017/12/14
Anechoic Chamber	RIKEN	Chamber-AC2	N/A	1 year	2017/05/10

Conducted Test Equipment - TR3

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY52090106	1 year	2017/05/08
USB Wideband Power Sensor	Boonton	55006	8911	1 year	2017/05/08
Temperature/Humidity Meter	Yuhuaze	N/A	N/A	1 year	2017/12/20

Software	Version	Function
e3	V8.3.5	EMI Test Software

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement - SR2
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 150kHz~30MHz: 3.46dB
Radiated Emission Measurement - AC2
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 9kHz ~ 1GHz: 4.18dB 1GHz ~ 25GHz: 4.76dB
Spurious Emissions, Conducted - TR3
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.78dB
Output Power - TR3
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.13dB
Power Spectrum Density - TR3
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.15dB
Occupied Bandwidth - TR3
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.28%

7. TEST RESULT

7.1. Summary

Company Name: Hangzhou Eboylamp Electronics Co.,Ltd.
FCC ID: 2AJ3WEBEQPZ10
FCC Classification: Digital Transmission System (DTS)
Data Rate(s) Tested: 1Mbps ~ 11Mbps (b); 6Mbps ~ 54Mbps (g);
6.5/7.2Mbps ~ 65.0/72.2Mbps (n-HT20);

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(2)	6dB Bandwidth	$\geq 500\text{kHz}$	Conducted	Pass	Section 7.2
15.247(b)(3)	Output Power	$\leq 30\text{dBm}$		Pass	Section 7.3
15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$		Pass	Section 7.4
15.247(d)	Band Edge / Out-of-Band Emissions	$\geq 20\text{dBc}$		Pass	Section 7.5
15.205 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.6 & 7.7
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.8

Notes:

- 1) All modes of operation and data rates were investigated. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.

7.2. 6dB Bandwidth Measurement

7.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

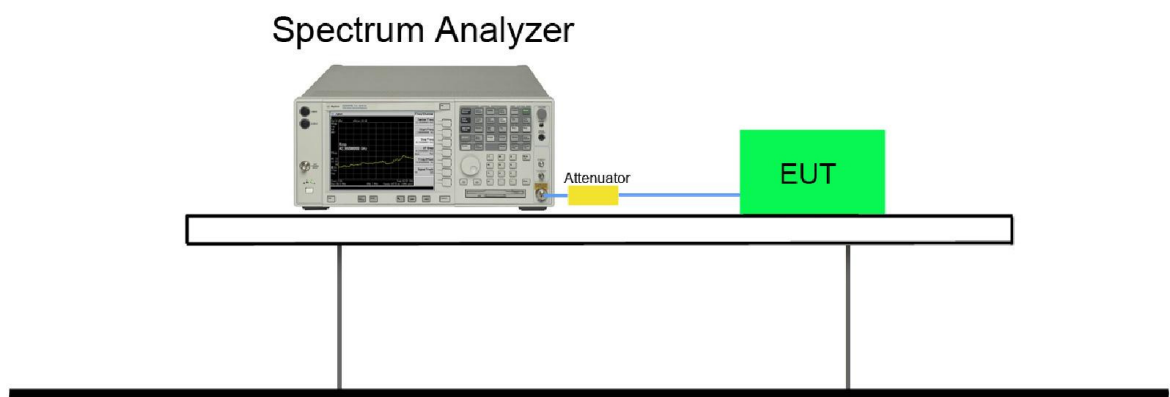
7.2.2. Test Procedure used

KDB 558074 D01v03r05 – Section 8.2 Option 2

7.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

7.2.4. Test Setup

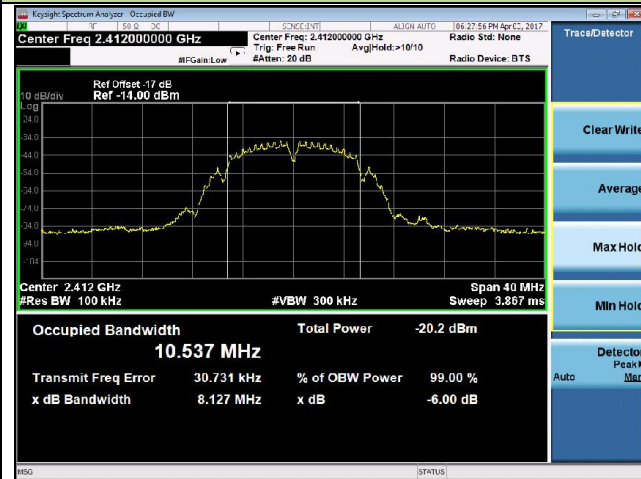


7.2.5. Test Result

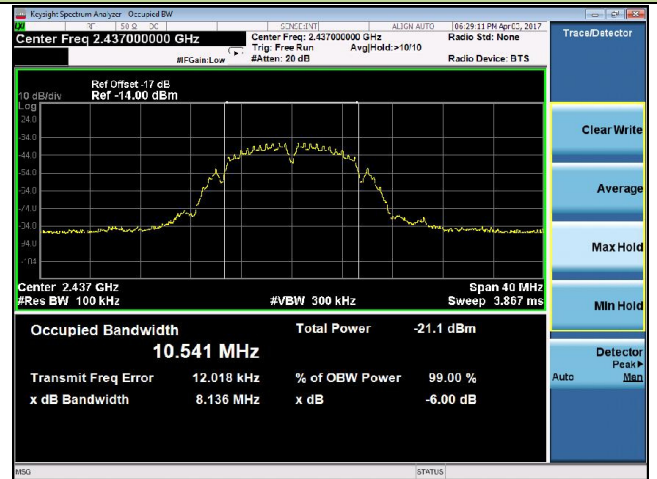
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	1	01	2412	8.13	≥ 0.5	Pass
802.11b	1	06	2437	8.14	≥ 0.5	Pass
802.11b	1	11	2462	8.14	≥ 0.5	Pass
802.11g	6	01	2412	16.40	≥ 0.5	Pass
802.11g	6	06	2437	16.37	≥ 0.5	Pass
802.11g	6	11	2462	16.38	≥ 0.5	Pass
802.11n-HT20	6.5	01	2412	17.61	≥ 0.5	Pass
802.11n-HT20	6.5	06	2437	17.62	≥ 0.5	Pass
802.11n-HT20	6.5	11	2462	17.60	≥ 0.5	Pass

802.11b 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

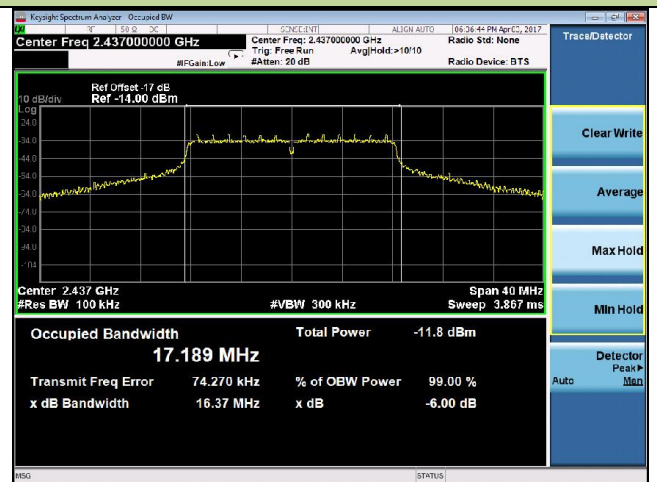


802.11g 6dB Bandwidth

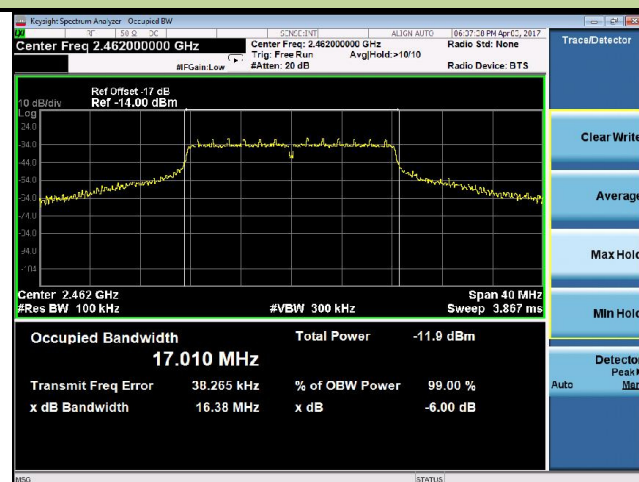
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



802.11n-HT20 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



7.3. Output Power Measurement

7.3.1. Test Limit

The maximum output power shall be less 1 Watt (30dBm).

7.3.2. Test Procedure Used

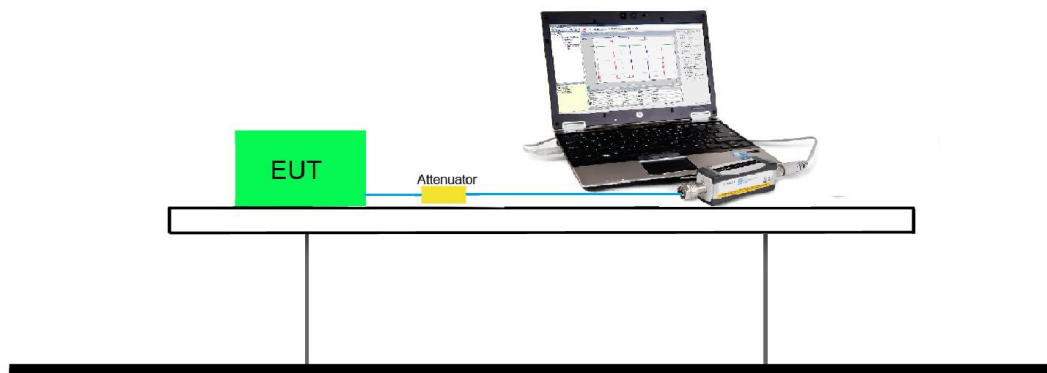
KDB 558074 D01v03r05 - Section 9.1.2 PKPM1 Peak Power Method (for signals with BW $\leq$ 50MHz)

7.3.3. Test Setting

Method PKPM1 (Peak Power Measurement of Signals with DTS BW $\leq$ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

7.3.4. Test Setup



7.3.5. Test Result of Output Power

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (yellow marker) for final test of each channel.

MCS Index for 802.11n	N _{TX}	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

Output power at various data rates:

Test Mode	Bandwidth (MHz)	Channel No.	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)
802.11b	20	6	2437	1	3.27
				5.5	3.12
				11	3.10
802.11g	20	6	2437	6	10.73
				24	10.56
				54	10.34
802.11n	20	6	2437	6.5	10.59
				7.2	10.34
				26.0	10.25
				28.9	10.13
				65.0	10.08
				72.2	10.01

Test Result of Peak Output Power

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Peak Power (dBm)	Limit (dBm)	Result
11b	1	1	2412	8.97	≤30	Pass
11b	1	6	2437	7.51	≤30	Pass
11b	1	11	2462	4.61	≤30	Pass
11g	6	1	2412	18.85	≤30	Pass
11g	6	6	2437	19.18	≤30	Pass
11g	6	11	2462	19.1	≤30	Pass
11n-HT20	6.5	1	2412	19.3	≤30	Pass
11n-HT20	6.5	6	2437	19.19	≤30	Pass
11n-HT20	6.5	11	2462	19.15	≤30	Pass

7.3.6. Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)	Result
11b	1	1	2412	4.75	≤30	Pass
11b	1	6	2437	3.27	≤30	Pass
11b	1	11	2462	0.29	≤30	Pass
11g	6	1	2412	9.23	≤30	Pass
11g	6	6	2437	10.73	≤30	Pass
11g	6	11	2462	10.72	≤30	Pass
11n-HT20	6.5	1	2412	10.96	≤30	Pass
11n-HT20	6.5	6	2437	10.59	≤30	Pass
11n-HT20	6.5	11	2462	10.62	≤30	Pass

7.4. Power Spectral Density Measurement

7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

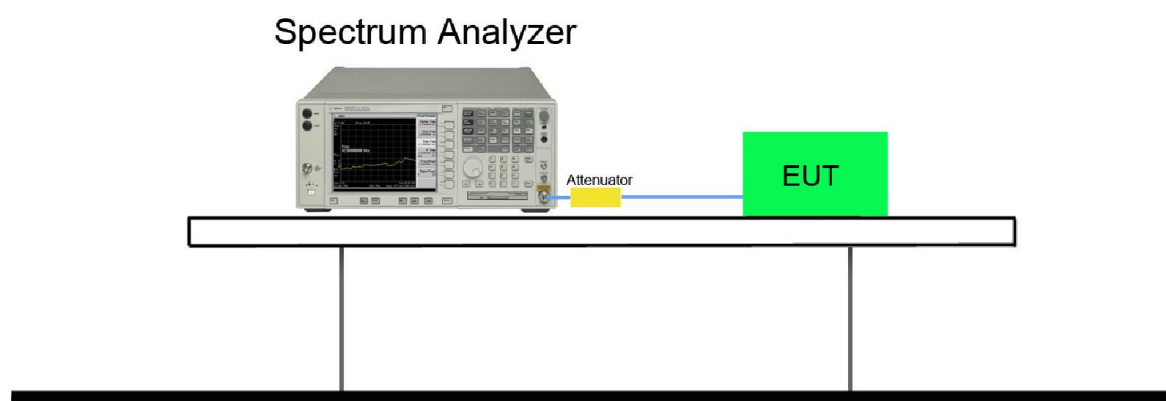
7.4.2. Test Procedure Used

KDB 558074 D01v03r05 - Section 10.2 Method PKPSD

7.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

7.4.4. Test Setup



7.4.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	PSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
11b	1	1	2412	-11.03	≤8.0	Pass
11b	1	6	2437	-12.60	≤8.0	Pass
11b	1	11	2462	-15.45	≤8.0	Pass
11g	6	1	2412	-9.06	≤8.0	Pass
11g	6	6	2437	-7.26	≤8.0	Pass
11g	6	11	2462	-7.82	≤8.0	Pass
11n-HT20	6.5	1	2412	-6.21	≤8.0	Pass
11n-HT20	6.5	6	2437	-6.75	≤8.0	Pass
11n-HT20	6.5	11	2462	-7.47	≤8.0	Pass

802.11b Peak PSD

Channel 01 (2412MHz)



Channel 06 (2437MHz)

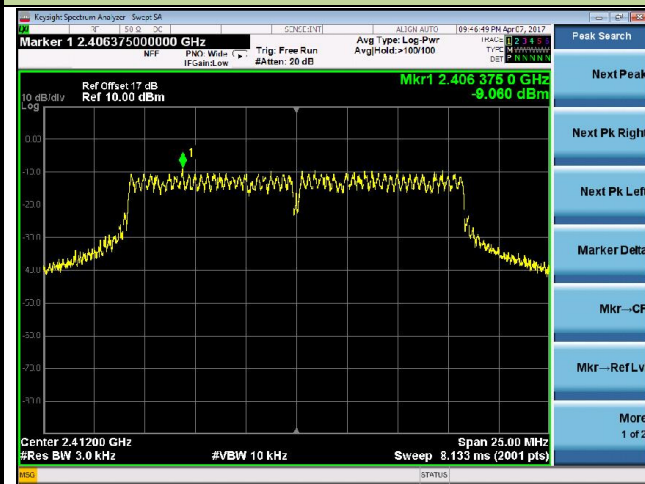


Channel 11 (2462MHz)

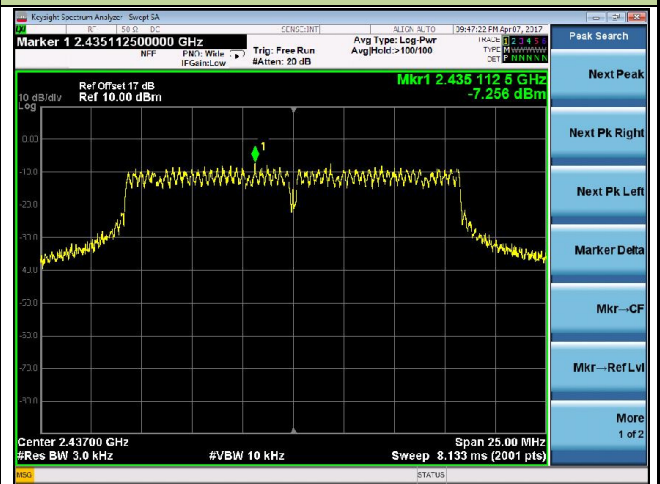


802.11g Peak PSD

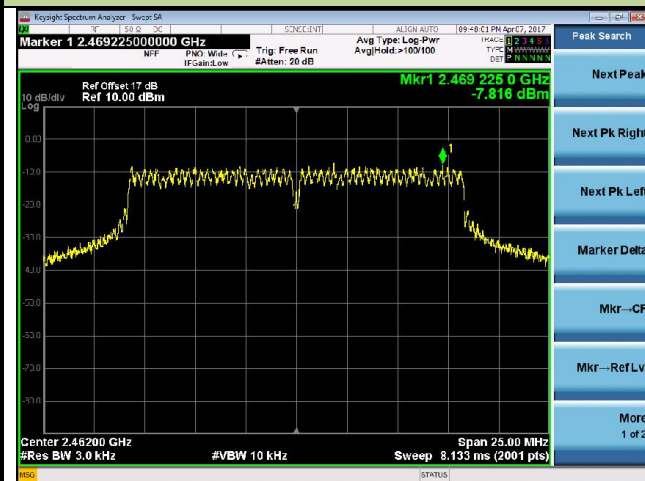
Channel 01 (2412MHz)



Channel 06 (2437MHz)

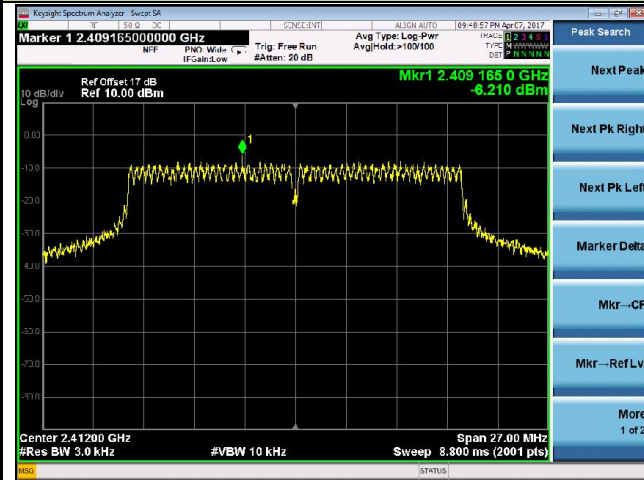


Channel 11 (2462MHz)

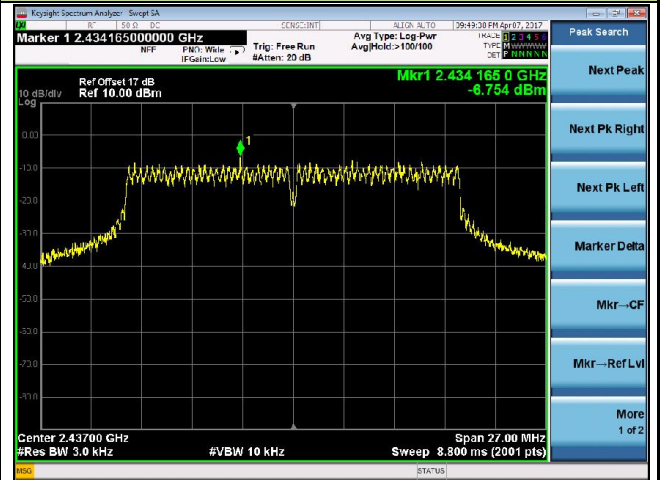


802.11n-HT20 Peak PSD

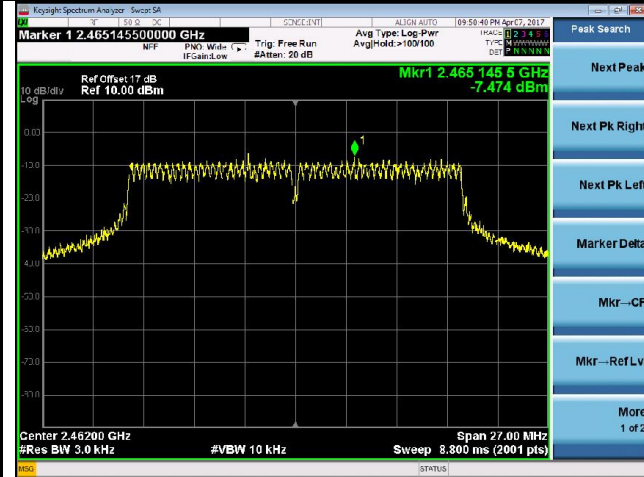
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

7.5.2. Test Procedure Used

KDB 558074 D01v03r05 - Section 11.2 & Section 11.3

7.5.3. Test Settling

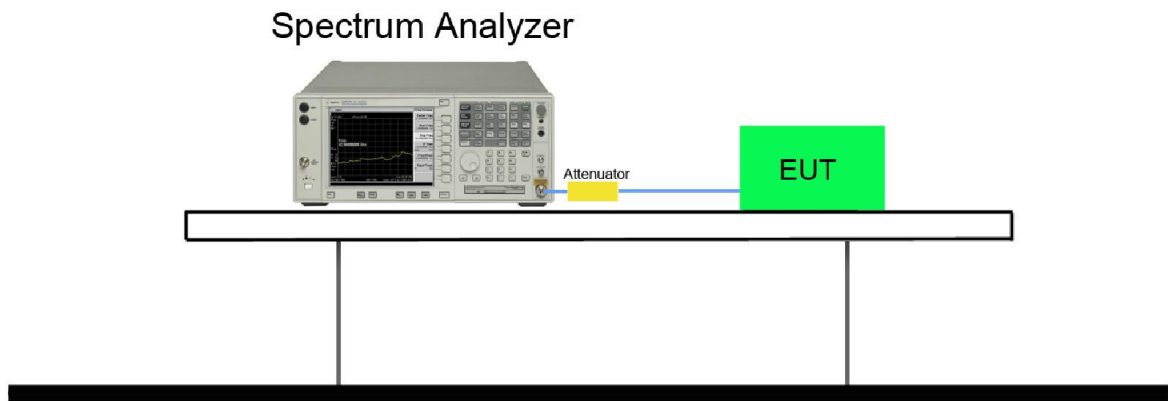
1. Reference level measurement

- (a) Set instrument center frequency to DTS channel center frequency
- (b) Set the span to ≥ 1.5 times the DTS bandwidth
- (c) Set the RBW = 100 kHz
- (d) Set the VBW $\geq 3 \times$ RBW
- (e) Detector = peak
- (f) Sweep time = auto couple
- (g) Trace mode = max hold
- (h) Allow trace to fully stabilize

2. Emission level measurement

- (a) Set the center frequency and span to encompass frequency range to be measured
- (b) RBW = 100kHz
- (c) VBW = 300kHz
- (d) Detector = Peak
- (e) Trace mode = max hold
- (f) Sweep time = auto couple
- (g) The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
802.11b	1	01	2412	20dBc	Pass
802.11b	1	06	2437	20dBc	Pass
802.11b	1	11	2462	20dBc	Pass
802.11g	6	01	2412	20dBc	Pass
802.11g	6	06	2437	20dBc	Pass
802.11g	6	11	2462	20dBc	Pass
802.11n-HT20	6.5	01	2412	20dBc	Pass
802.11n-HT20	6.5	06	2437	20dBc	Pass
802.11n-HT20	6.5	11	2462	20dBc	Pass

802.11b Out-of-Band Emissions

Channel 01 (2412MHz)

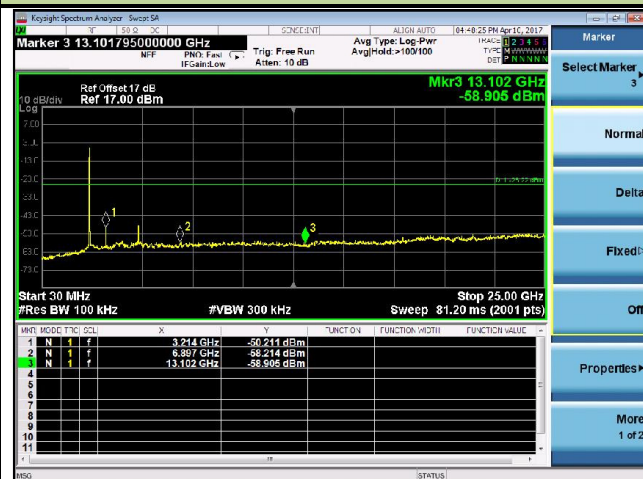
100kHz PSD Reference Level



Low Band Edge



Spurious Emission

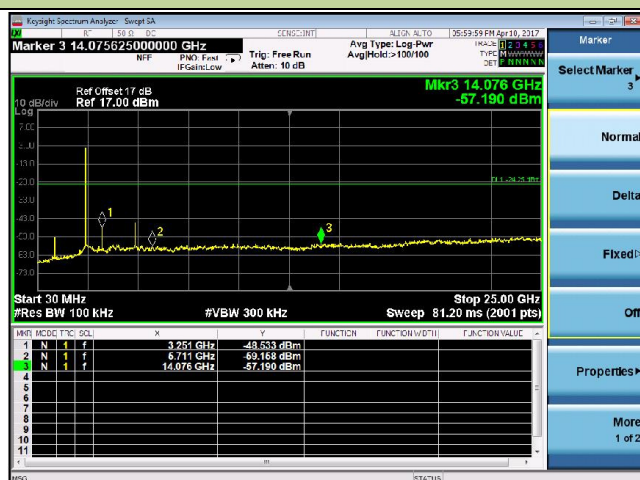


Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission



Channel 11 (2462MHz)

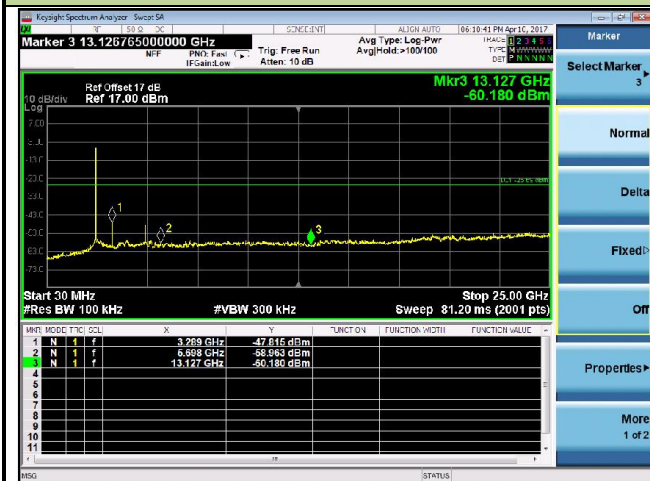
100kHz PSD Reference Level



High Band Edge



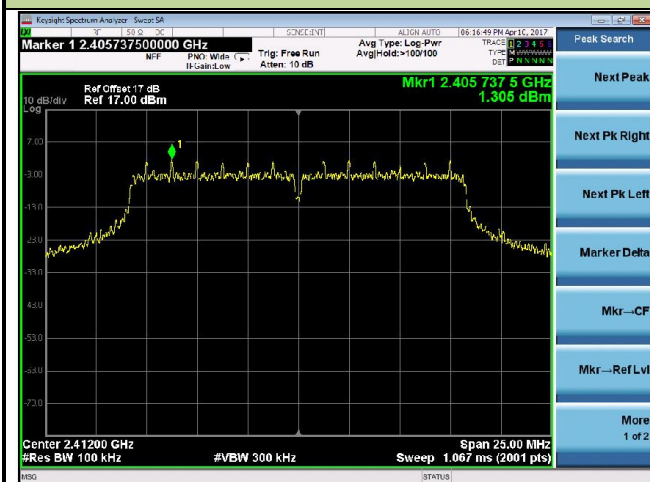
Spurious Emission



802.11g Out-of-Band Emissions

Channel 01 (2412MHz)

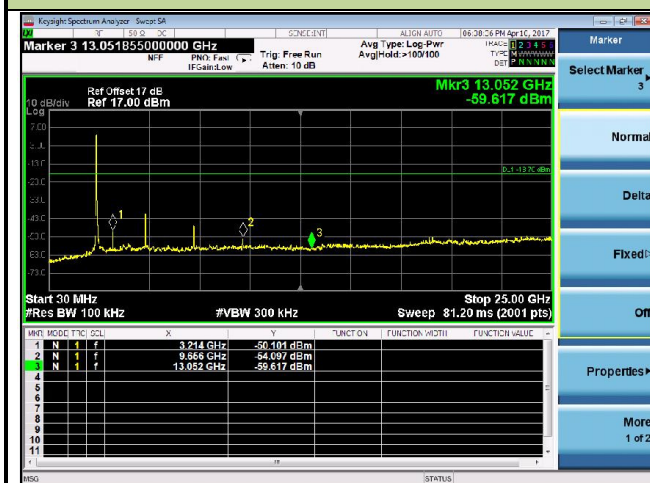
100kHz PSD Reference Level



Low Band Edge

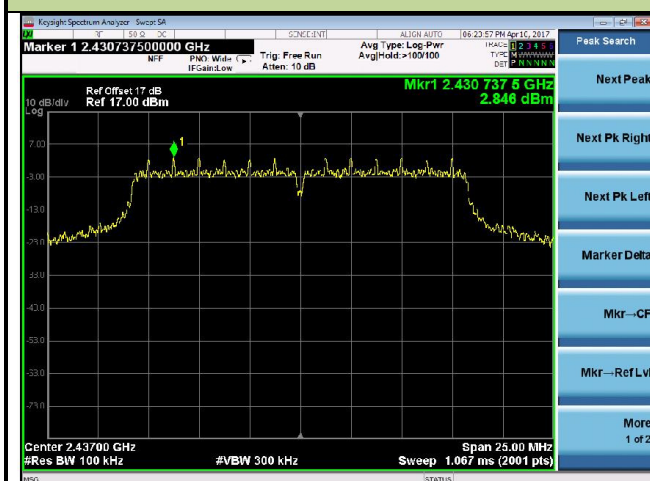


Spurious Emission

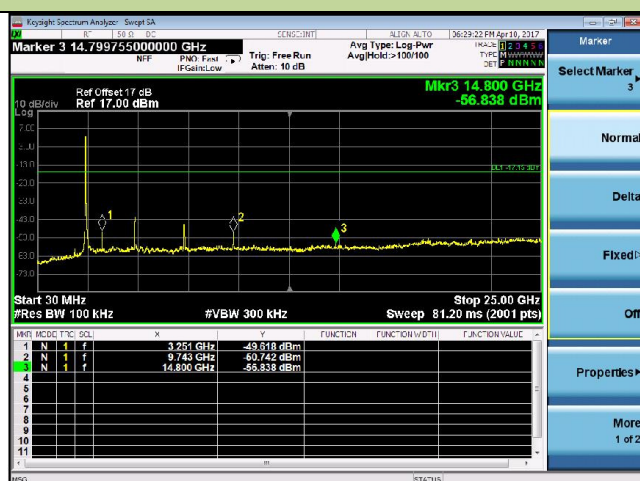


Channel 06 (2437MHz)

100kHz PSD Reference Level

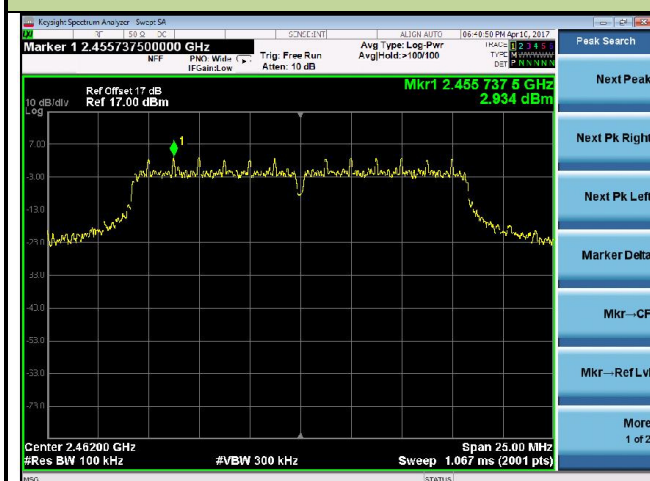


Spurious Emission

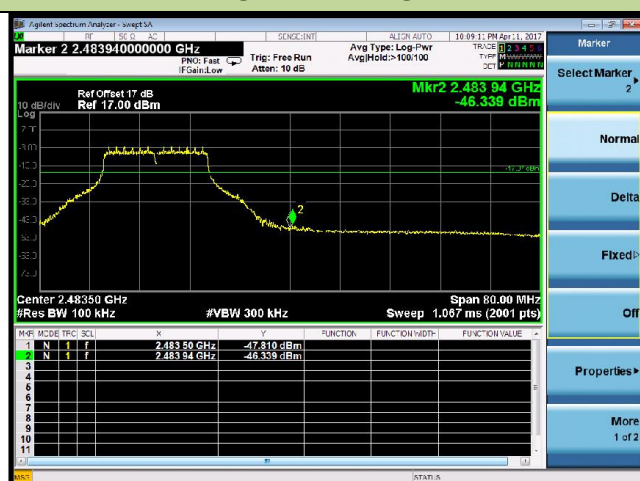


Channel 11 (2462MHz)

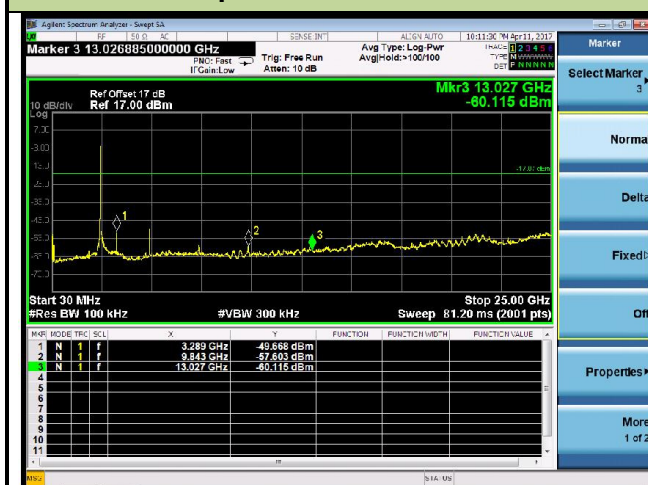
100kHz PSD Reference Level



High Band Edge



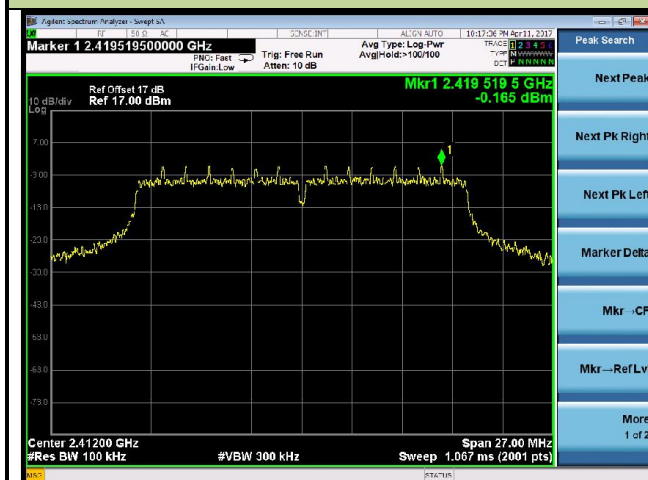
Spurious Emission



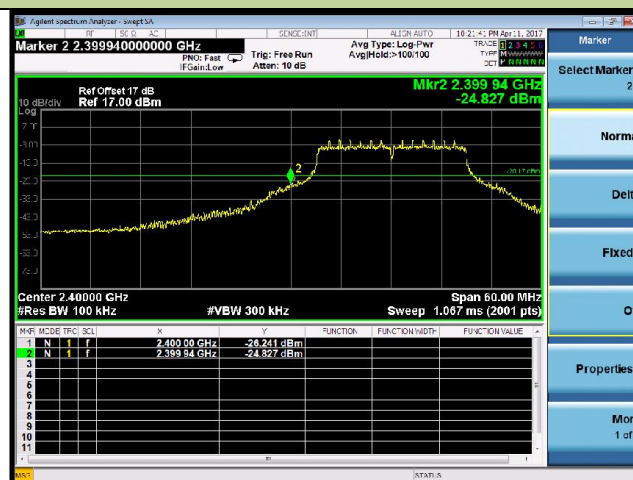
802.11n-HT20 Out-of-Band Emissions

Channel 01 (2412MHz)

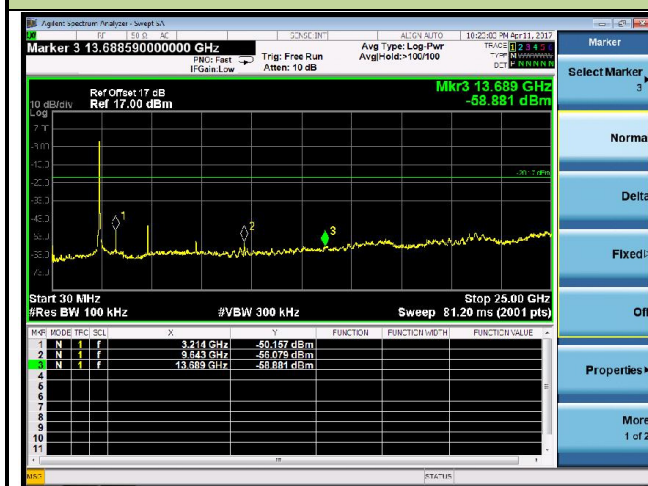
100kHz PSD Reference Level



Low Band Edge

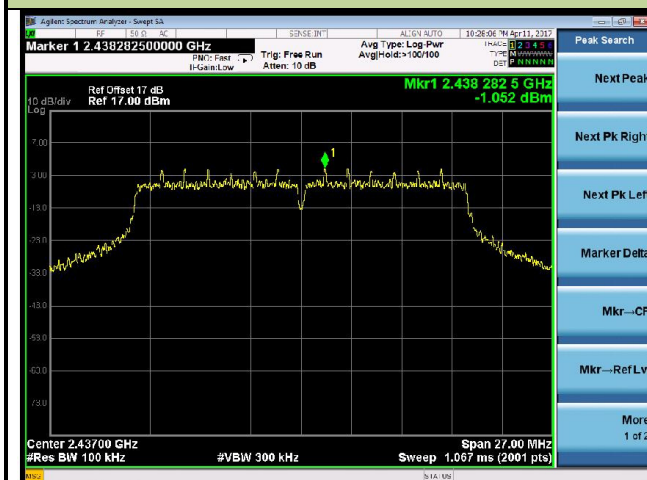


Spurious Emission

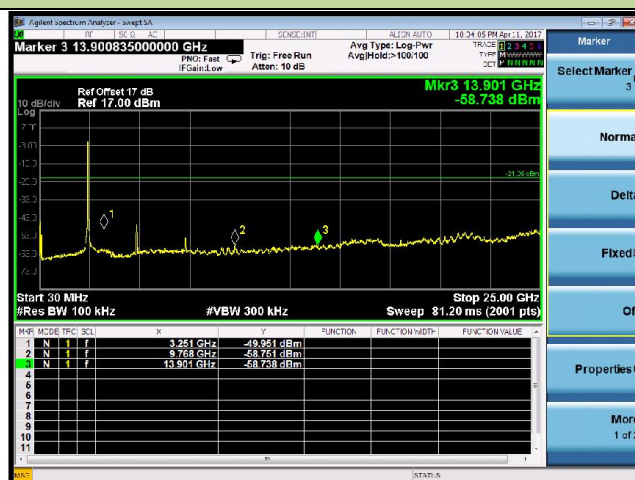


Channel 06 (2437MHz)

100kHz PSD Reference Level

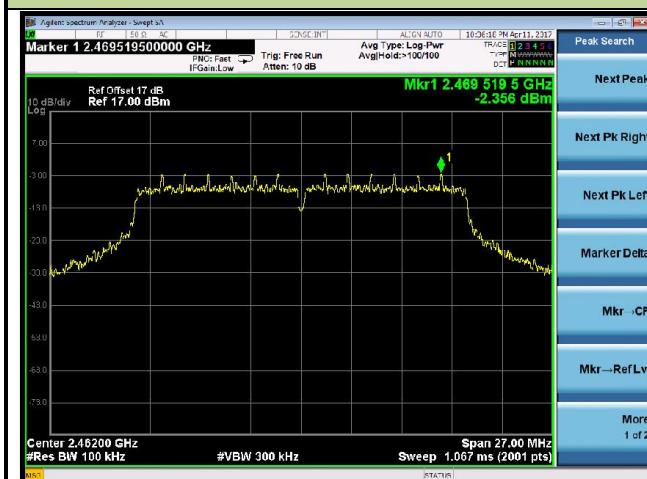


Spurious Emission



Channel 11 (2462MHz)

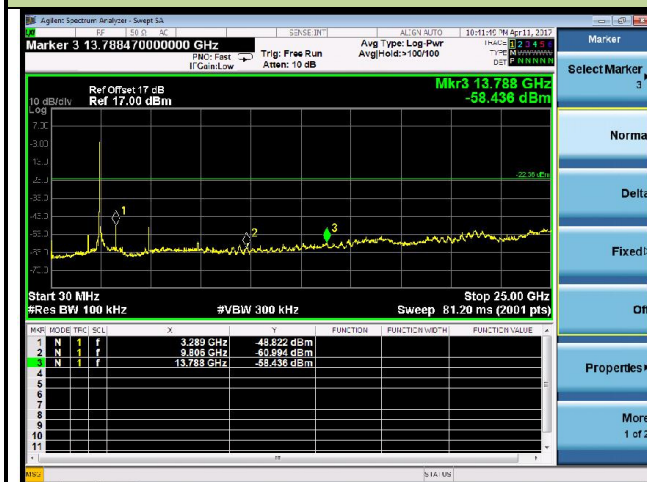
100kHz PSD Reference Level



High Band Edge



Spurious Emission



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

KDB 558074 D01v03r05 – Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r05 – Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r05 – Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements per Section 12.2.4 of KDB 558074 D01v03r05

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple

6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

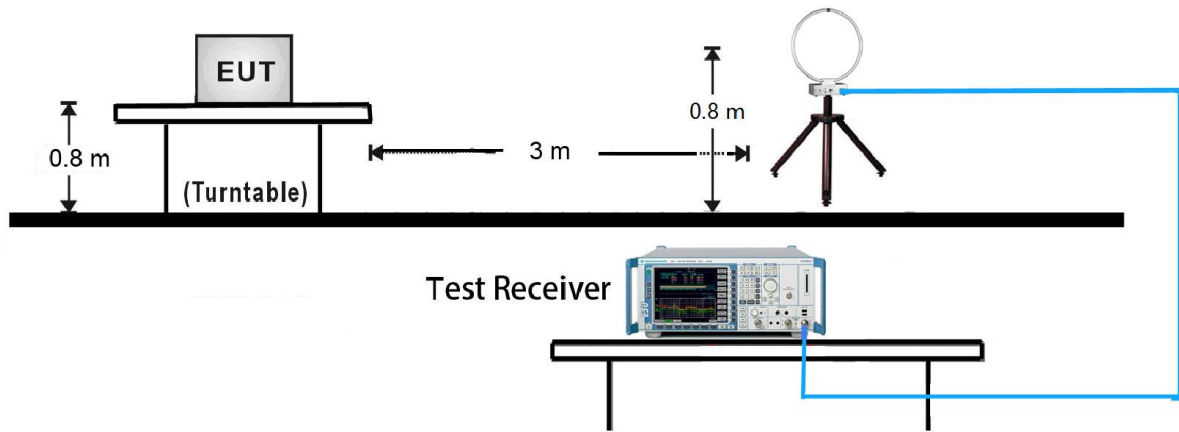
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements per Section 12.2.5.3 of KDB 558074 D01v03r05

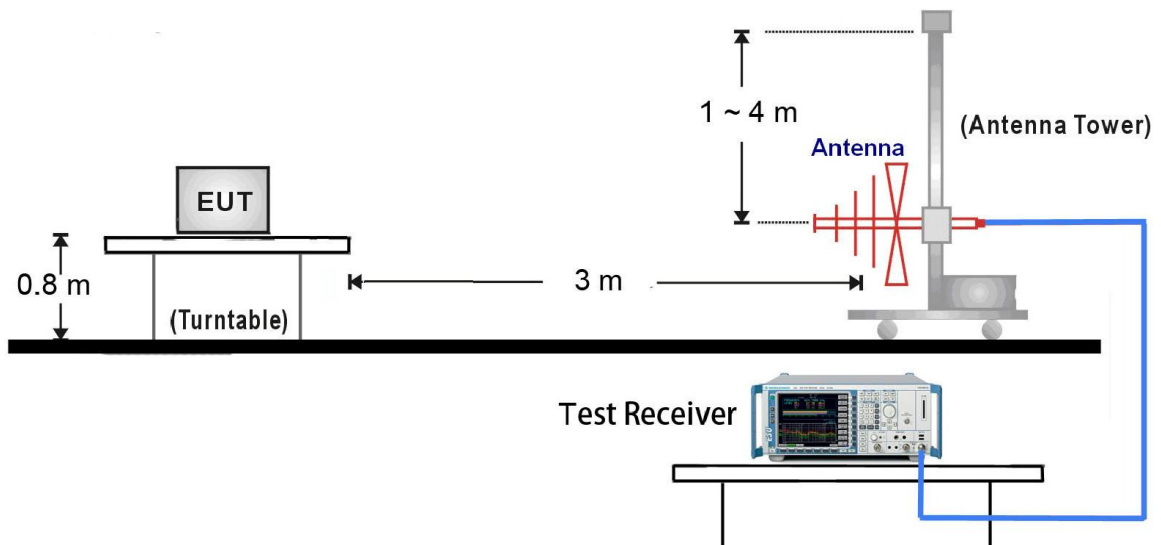
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

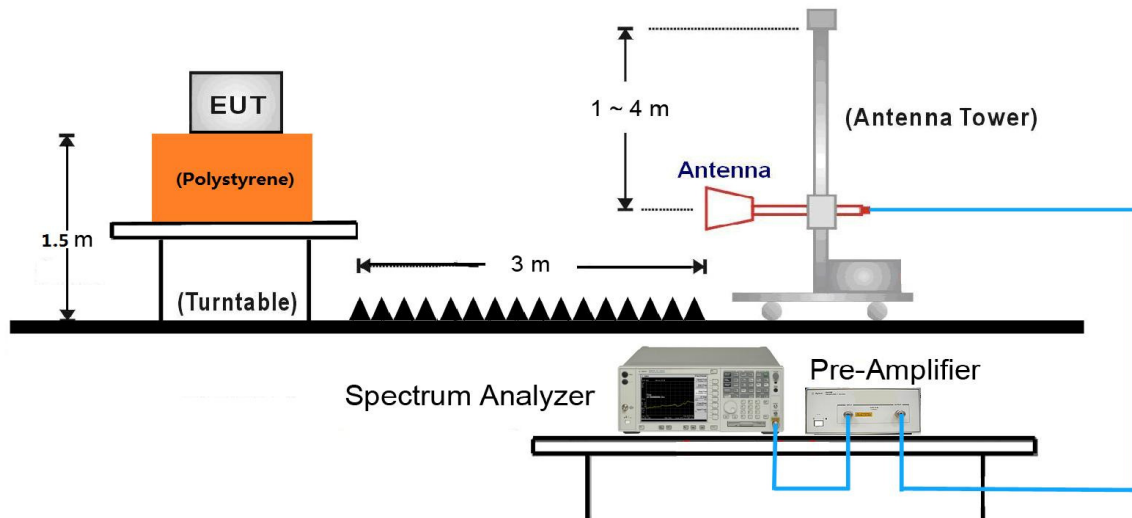
9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:



1GHz ~ 25GHz Test Setup:



7.6.5. Test Result

Test Mode:	802.11b	Test Site:	AC2
Test Channel:	01	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4824.0	50.0	2.6	52.6	54.0	-1.4	Average	Horizontal
	4825.0	54.4	2.7	57.1	74.0	-16.9	Peak	Horizontal
	7562.0	33.0	10.9	43.9	74.0	-30.1	Peak	Horizontal
	8539.5	33.3	11.0	44.3	76.0	-31.7	Peak	Horizontal
	10367.0	32.4	14.9	47.3	76.0	-28.7	Peak	Horizontal
	4824.0	47.9	2.6	50.5	54.0	-3.5	Average	Vertical
	4825.0	52.2	2.7	54.9	74.0	-19.1	Peak	Vertical
	7570.5	32.9	10.8	43.7	74.0	-30.3	Peak	Vertical
	8650.0	33.0	11.0	44.0	76.0	-32.0	Peak	Vertical
	10282.0	31.9	14.6	46.5	76.0	-29.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (107.2dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11b	Test Site:	AC2
Test Channel:	06	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4874.0	51.1	2.6	53.7	54.0	-0.3	Average	Horizontal
	4876.0	55.6	2.6	58.2	74.0	-15.8	Peak	Horizontal
	7638.5	34.1	10.5	44.6	74.0	-29.4	Peak	Horizontal
	8701.0	32.3	11.4	43.7	74.8	-31.1	Peak	Horizontal
	9755.0	33.4	13.0	46.4	74.8	-28.4	Peak	Horizontal
	4874.0	49.4	2.6	52.0	54.0	-2.0	Average	Vertical
	4876.0	53.7	2.6	56.3	74.0	-17.7	Peak	Vertical
	7477.0	33.5	10.8	44.3	74.0	-29.7	Peak	Vertical
	8590.5	33.7	11.0	44.7	74.8	-30.1	Peak	Vertical
	10367.0	33.4	14.9	48.3	74.8	-26.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (105.3dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11b	Test Site:	AC2
Test Channel:	11	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4924.0	51.2	2.6	53.8	54.0	-0.2	Average	Horizontal
	4927.0	55.4	2.6	58.0	74.0	-16.0	Peak	Horizontal
	7579.0	34.3	10.8	45.1	74.0	-28.9	Peak	Horizontal
	8633.0	32.2	11.2	43.4	73.2	-29.8	Peak	Horizontal
	10520.0	32.1	15.4	47.5	73.2	-25.7	Peak	Horizontal
	4924.0	47.4	2.6	50.0	54.0	-4.0	Average	Vertical
	4927.0	51.7	2.6	54.3	74.0	-19.7	Peak	Vertical
	7536.5	32.6	11.0	43.6	74.0	-30.4	Peak	Vertical
	8769.0	32.1	11.8	43.9	73.2	-29.3	Peak	Vertical
	10231.0	32.5	14.4	46.9	73.2	-26.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11g	Test Site:	AC2
Test Channel:	01	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4824.0	37.5	2.6	40.1	54.0	-13.9	Average	Horizontal
	4825.0	62.3	2.7	65.0	74.0	-9.0	Peak	Horizontal
	7400.5	33.7	10.8	44.5	74.0	-29.5	Peak	Horizontal
	8633.0	32.2	11.2	43.4	75.4	-32.0	Peak	Horizontal
	10392.5	31.9	14.9	46.8	75.4	-28.6	Peak	Horizontal
	4823.0	35.0	2.6	37.6	54.0	-16.4	Average	Vertical
	4825.0	56.6	2.7	59.3	74.0	-14.7	Peak	Vertical
	7247.5	33.8	10.7	44.5	74.0	-29.5	Peak	Vertical
	8565.0	31.8	10.9	42.7	75.4	-32.7	Peak	Vertical
	9610.5	32.6	12.5	45.1	75.4	-30.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (106.7dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11g	Test Site:	AC2
Test Channel:	06	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4874.2	39.6	2.6	42.2	54.0	-11.8	Average	Horizontal
	4876.0	62.9	2.6	65.5	74.0	-8.5	Peak	Horizontal
	7307.0	42.4	10.7	53.1	74.0	-20.9	Peak	Horizontal
	7311.1	24.5	10.7	35.2	54.0	-18.8	Average	Horizontal
	8548.0	33.1	11.0	44.1	75.0	-30.9	Peak	Horizontal
	9755.0	36.0	13.0	49.0	75.0	-26.0	Peak	Horizontal
	4873.8	37.0	2.6	39.6	54.0	-14.4	Average	Vertical
	4876.0	58.7	2.6	61.3	74.0	-12.7	Peak	Vertical
	7311.2	26.3	10.7	37.0	54.0	-17.0	Average	Vertical
	7315.5	45.8	10.7	56.5	74.0	-17.5	Peak	Vertical
	8786.0	31.8	11.8	43.6	75.0	-31.4	Peak	Vertical
	9738.0	35.7	12.5	48.2	75.0	-26.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (106.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11g	Test Site:	AC2
Test Channel:	11	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4924.0	40.8	2.6	43.4	54.0	-10.6	Average	Horizontal
	4927.0	64.9	2.6	67.5	74.0	-6.5	Peak	Horizontal
	7383.5	46.0	10.7	56.7	74.0	-17.3	Peak	Horizontal
	7386.5	21.5	10.7	32.2	54.0	-21.8	Average	Horizontal
	8599.0	32.5	11.0	43.5	74.1	-30.6	Peak	Horizontal
	9848.5	34.8	13.3	48.1	74.1	-26.0	Peak	Horizontal
	4918.5	60.5	2.6	63.1	74.0	-10.9	Peak	Vertical
	4923.7	38.2	2.6	40.8	54.0	-13.2	Average	Vertical
	7386.0	24.5	10.7	35.2	54.0	-18.8	Average	Vertical
	7400.5	46.5	10.8	57.3	74.0	-16.7	Peak	Vertical
	8837.0	31.7	11.6	43.3	74.1	-30.8	Peak	Vertical
	9848.5	34.3	13.3	47.6	74.1	-26.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (106.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC2
Test Channel:	01	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4823.7	37.7	2.6	40.3	54.0	-13.7	Average	Horizontal
	4825.0	60.7	2.7	63.4	74.0	-10.6	Peak	Horizontal
	7239.0	40.0	10.6	50.6	74.0	-23.4	Peak	Horizontal
	8769.0	32.9	11.8	44.7	72.1	-27.4	Peak	Horizontal
	9644.5	34.5	12.7	47.2	72.1	-24.9	Peak	Horizontal
	4824.1	35.7	2.7	38.4	54.0	-15.6	Average	Vertical
	4825.0	58.8	2.7	61.5	74.0	-12.5	Peak	Vertical
	7230.5	40.9	10.7	51.6	74.0	-22.4	Peak	Vertical
	8599.0	33.4	11.0	44.4	72.1	-27.7	Peak	Vertical
	9644.5	35.2	12.7	47.9	72.1	-24.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (103.5dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC2
Test Channel:	06	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4874.1	39.0	2.6	41.6	54.0	-12.4	Average	Horizontal
	4876.0	63.6	2.6	66.2	74.0	-7.8	Peak	Horizontal
	7307.0	42.6	10.7	53.3	74.0	-20.7	Peak	Horizontal
	7311.0	20.4	10.7	31.1	54.0	-22.9	Average	Horizontal
	8692.5	32.7	11.3	44.0	71.8	-27.8	Peak	Horizontal
	9746.5	35.3	12.7	48.0	71.8	-23.8	Peak	Horizontal
	4874.3	36.1	2.6	38.7	54.0	-15.3	Average	Vertical
	4876.0	59.8	2.6	62.4	74.0	-11.6	Peak	Vertical
	7307.0	44.3	10.7	55.0	74.0	-19.0	Peak	Vertical
	7311.1	24.2	10.7	34.9	54.0	-19.1	Average	Vertical
	8616.0	33.1	11.2	44.3	71.8	-27.5	Peak	Vertical
	9738.0	35.8	12.5	48.3	71.8	-23.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (103.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC2
Test Channel:	11	Test Engineer:	Kevin Guo
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4924.0	40.3	2.6	42.9	54.0	-11.1	Average	Horizontal
	4927.0	64.3	2.6	66.9	74.0	-7.1	Peak	Horizontal
	7375.0	45.2	10.8	56.0	74.0	-18.0	Peak	Horizontal
	7386.0	23.8	10.7	34.5	54.0	-19.5	Average	Horizontal
	8590.5	33.5	11.0	44.5	71.3	-26.8	Peak	Horizontal
	9857.0	34.6	13.0	47.6	71.3	-23.7	Peak	Horizontal
	4918.5	61.3	2.6	63.9	74.0	-10.1	Peak	Vertical
	4923.8	38.1	2.6	40.7	54.0	-13.3	Average	Vertical
	7383.5	47.7	10.7	58.4	74.0	-15.6	Peak	Vertical
	7386.9	27.3	10.7	38.0	54.0	-16.0	Average	Vertical
	8769.0	31.8	11.8	43.6	71.3	-27.7	Peak	Vertical
	9840.0	34.8	13.5	48.3	71.3	-23.0	Peak	Vertical

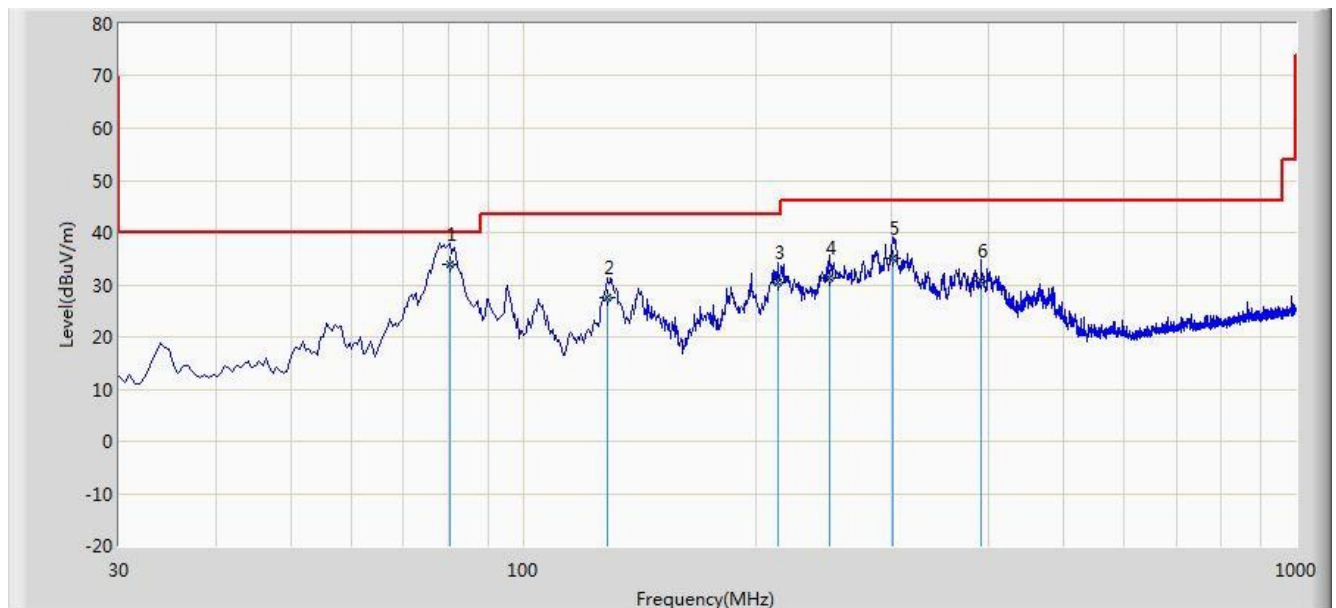
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The worst case of Radiated Emission below 1GHz:

Site: AC2	Time: 2017/04/17 - 18:25
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Worse Case Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

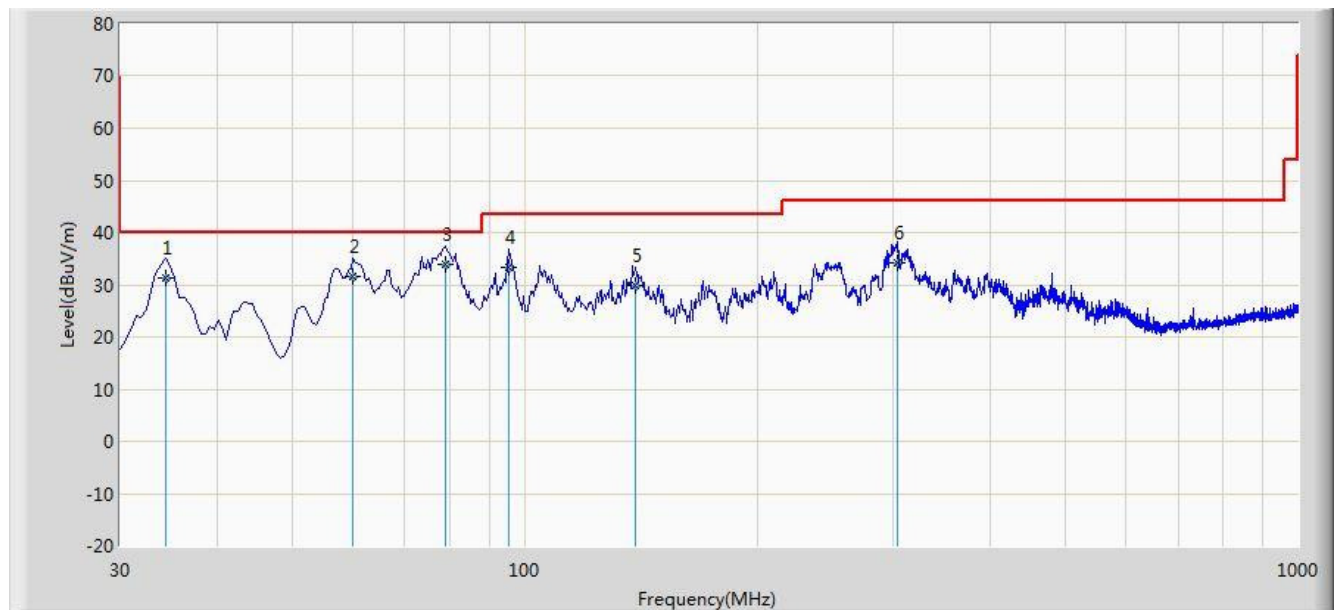


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			80.440	33.777	24.325	-6.223	40.000	9.452	QP
2			128.455	27.517	17.304	-15.983	43.500	10.213	QP
3			213.330	30.323	17.826	-13.177	43.500	12.496	QP
4			248.735	31.288	17.627	-14.712	46.000	13.661	QP
5			301.115	34.942	20.342	-11.058	46.000	14.600	QP
6			391.325	30.826	14.283	-15.174	46.000	16.542	QP

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/04/17 - 18:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Jone Zhang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Worse Case Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			34.365	31.261	18.429	-8.739	40.000	12.832	QP
2			60.070	31.564	17.692	-8.436	40.000	13.872	QP
3			78.985	34.015	24.768	-5.985	40.000	9.247	QP
4			95.475	33.363	20.967	-10.137	43.500	12.396	QP
5			139.125	29.962	20.416	-13.538	43.500	9.545	QP
6			303.055	34.091	19.438	-11.909	46.000	14.654	QP

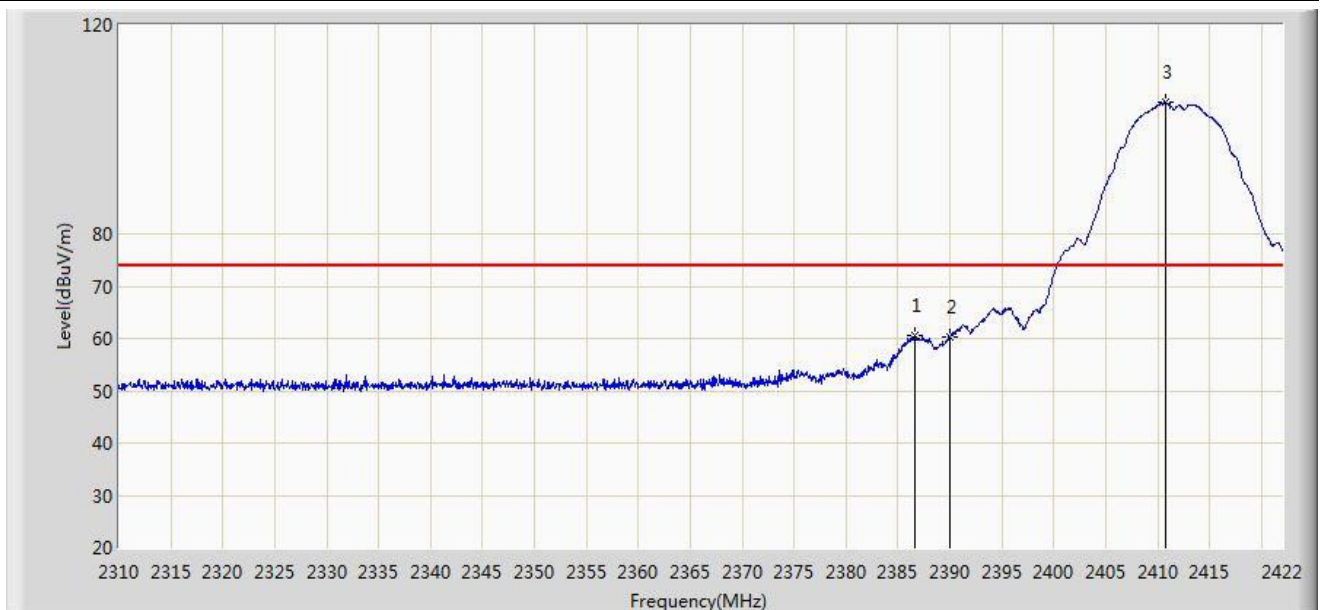
Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Result

Site: AC2	Time: 2017/03/30 - 20:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2386.664	60.480	28.221	-13.520	74.000	32.259	PK
2			2390.000	60.253	27.975	-13.747	74.000	32.278	PK
3			2410.744	105.078	72.833	N/A	N/A	32.245	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:02
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

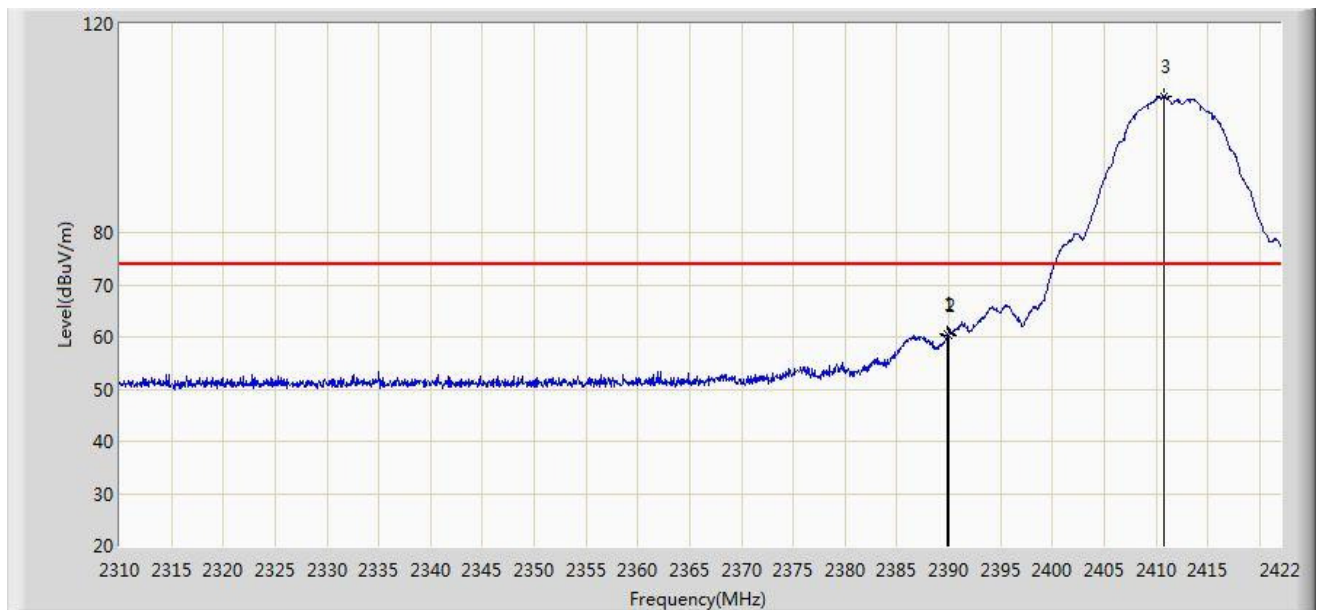


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.224	53.050	20.787	-0.950	54.000	32.263	AV
2			2390.000	51.207	18.929	-2.793	54.000	32.278	AV
3			2411.304	97.118	64.875	N/A	N/A	32.243	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 19:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.912	60.626	28.348	-13.374	74.000	32.278	PK
2			2390.000	60.160	27.882	-13.840	74.000	32.278	PK
3			2410.800	105.991	73.746	N/A	N/A	32.245	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 19:52
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

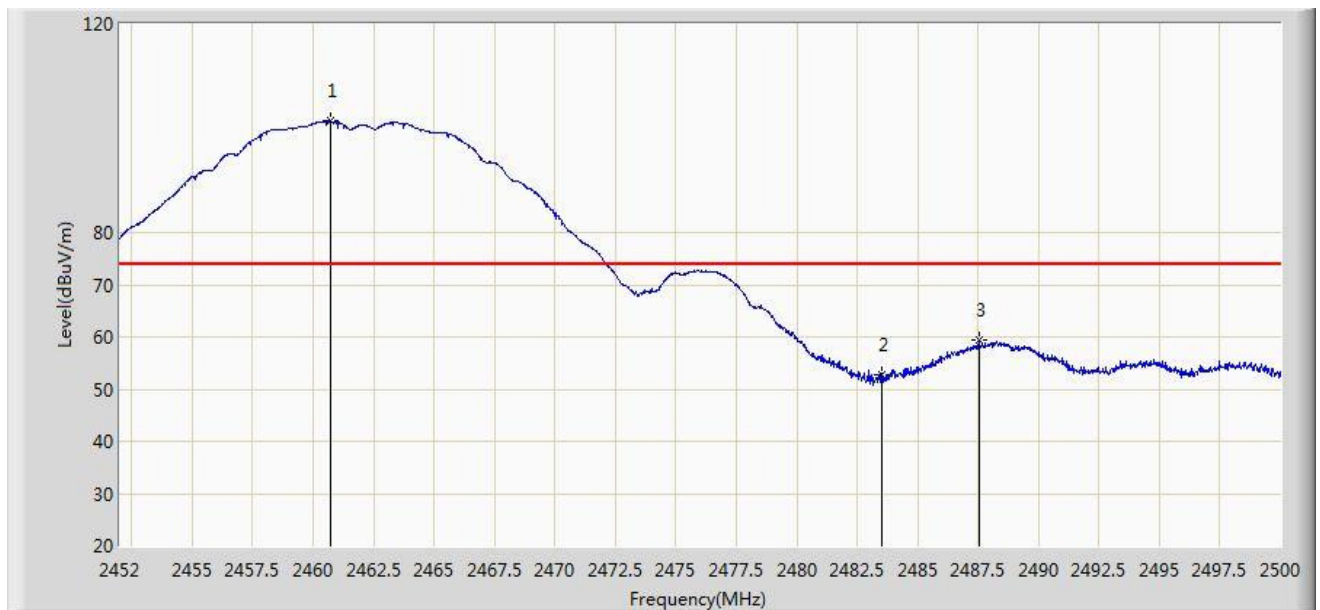


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.168	52.713	20.451	-1.287	54.000	32.262	AV
2			2390.000	51.079	18.801	-2.921	54.000	32.278	AV
3			2411.248	97.940	65.697	N/A	N/A	32.243	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:20
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

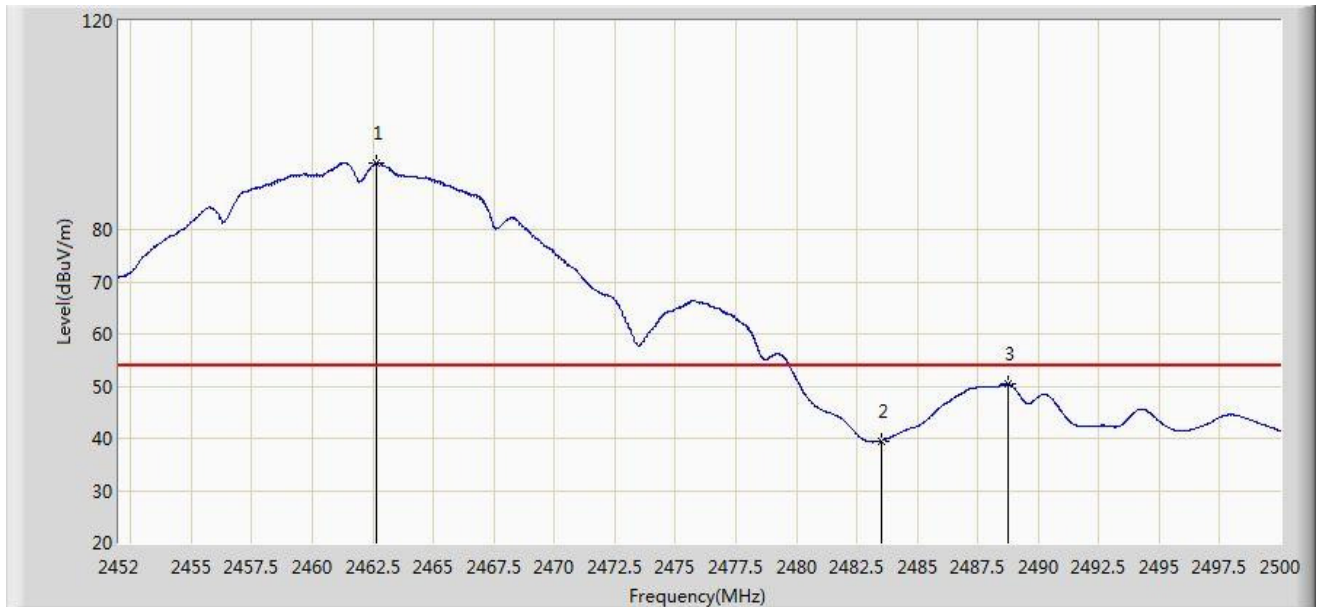


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2460.712	101.334	69.101	N/A	N/A	32.232	PK
2			2483.500	52.763	20.482	-21.237	74.000	32.282	PK
3			2487.520	59.294	26.999	-14.706	74.000	32.295	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:21
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

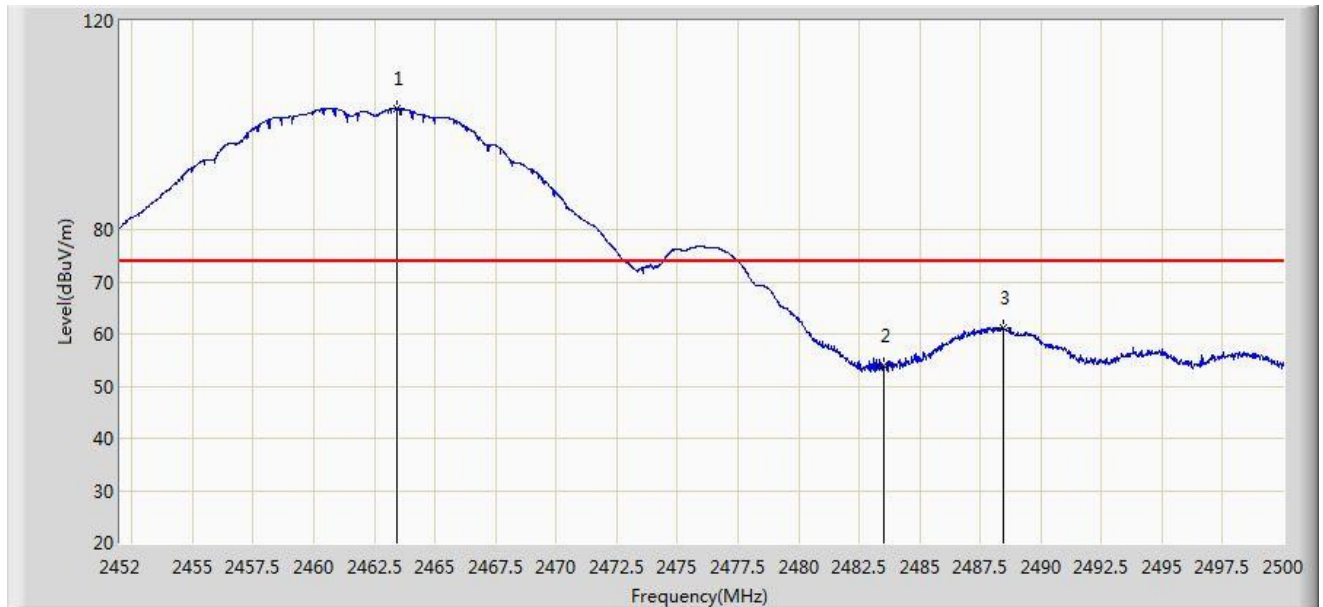


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2462.656	92.709	60.470	N/A	N/A	32.239	AV
2			2483.500	39.490	7.209	-14.510	54.000	32.282	AV
3			2488.768	50.357	18.058	-3.643	54.000	32.299	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:12
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

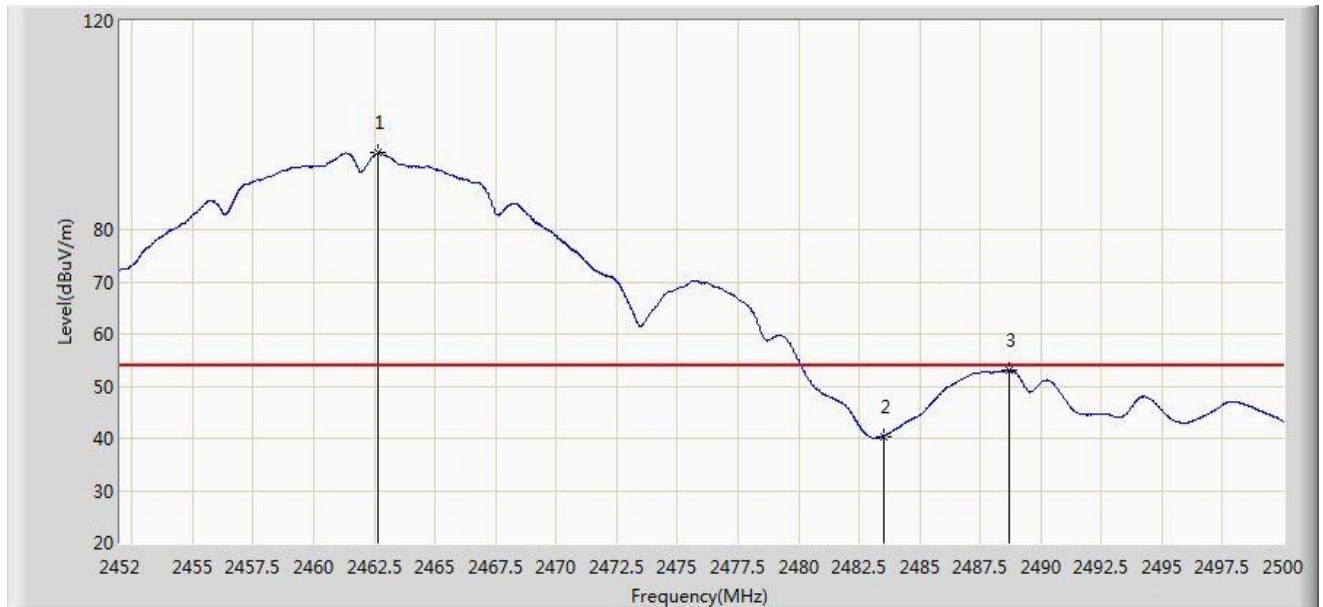


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2463.424	103.165	70.926	N/A	N/A	32.240	PK
2			2483.500	54.053	21.772	-19.947	74.000	32.282	PK
3			2488.456	61.301	29.003	-12.699	74.000	32.299	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:13
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

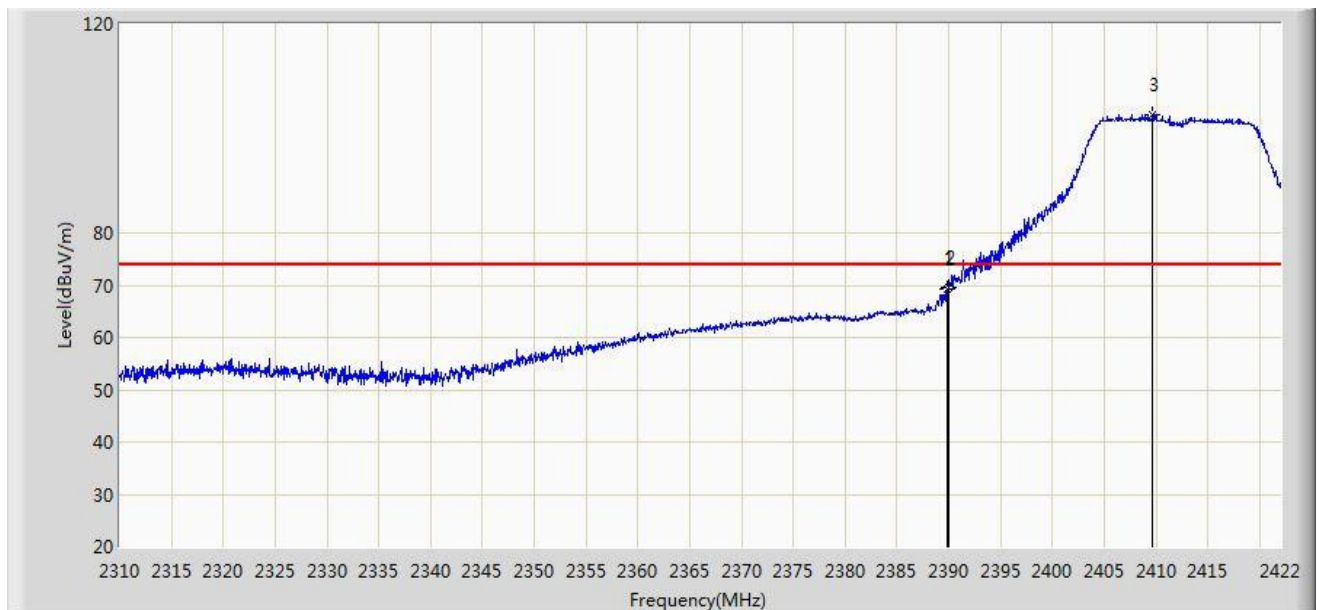


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2462.656	94.698	62.459	N/A	N/A	32.239	AV
2			2483.500	40.381	8.100	-13.619	54.000	32.282	AV
3			2488.672	53.081	20.782	-0.919	54.000	32.299	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

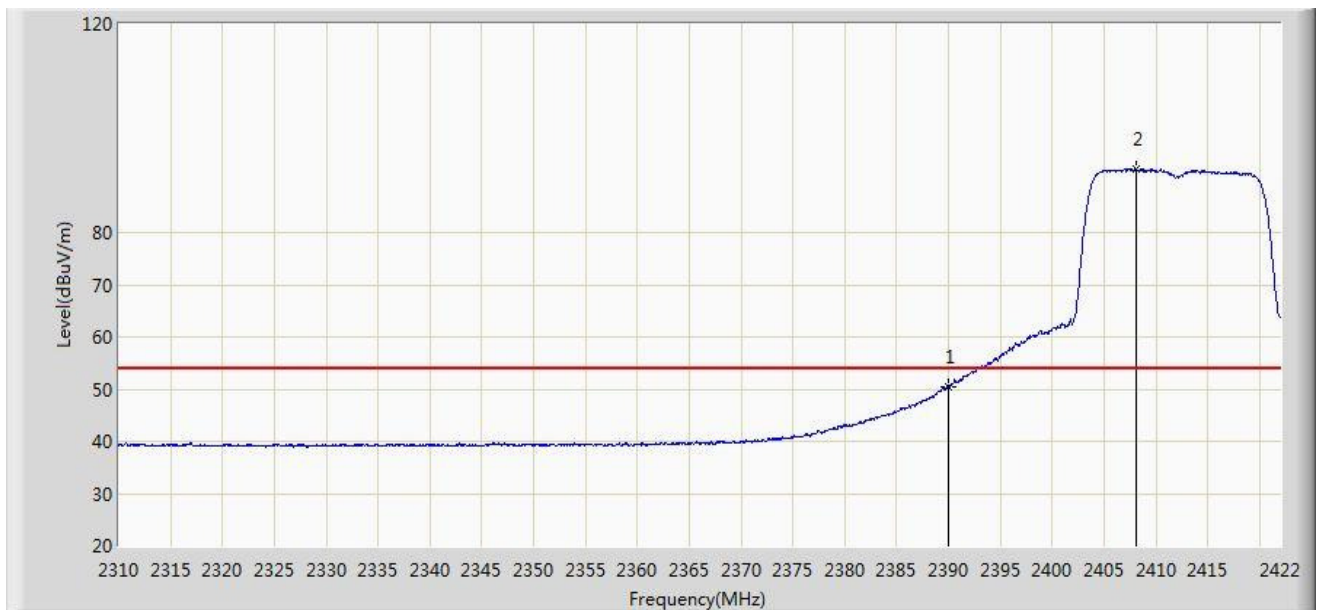


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.912	69.324	37.046	-4.676	74.000	32.278	PK
2			2390.000	69.596	37.318	-4.404	74.000	32.278	PK
3			2409.680	102.691	70.443	N/A	N/A	32.249	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

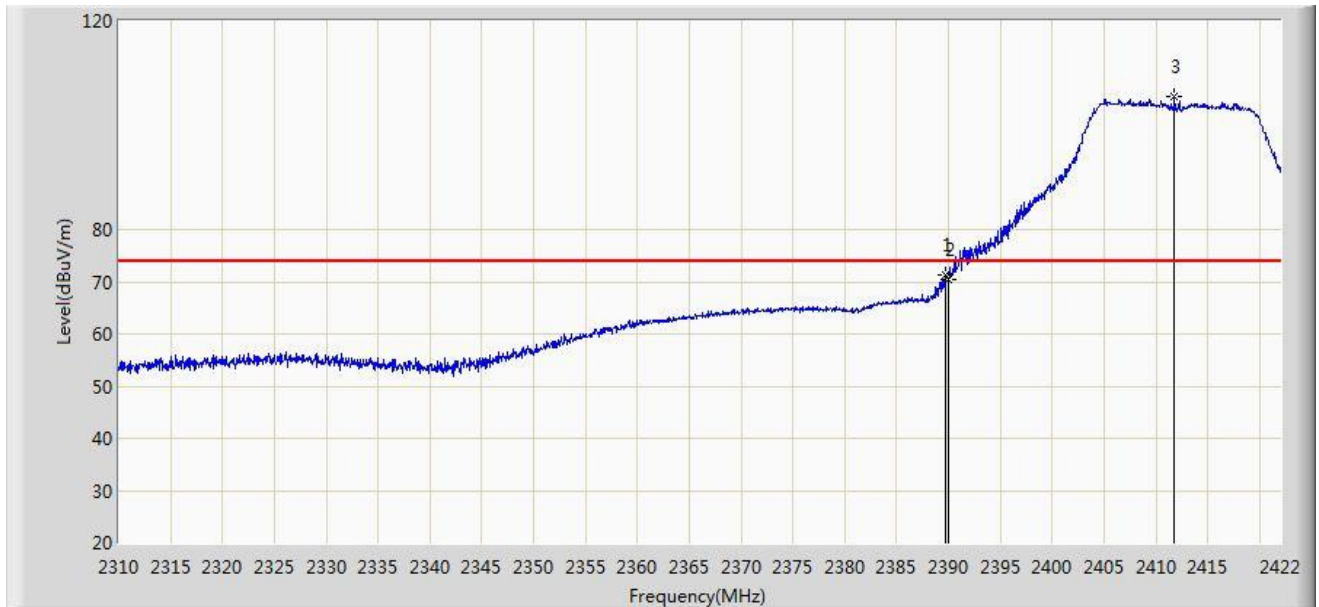


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	50.533	18.255	-3.467	54.000	32.278	AV
2			2408.168	92.281	60.028	N/A	N/A	32.253	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

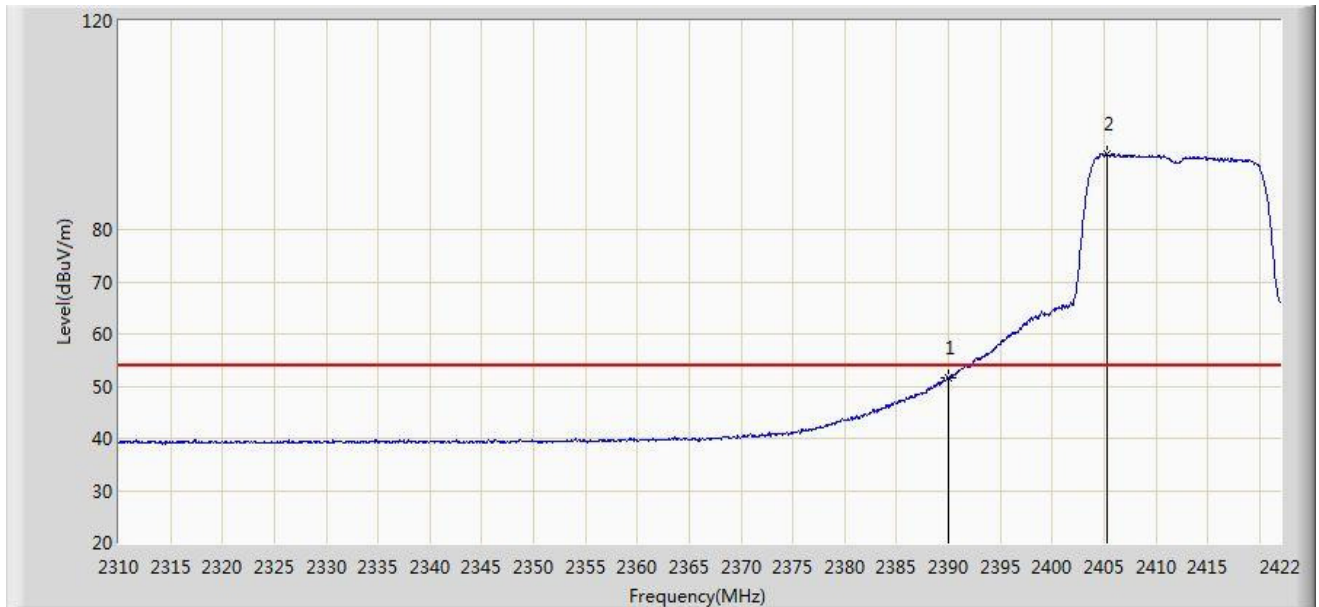


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.744	71.332	39.055	-2.668	74.000	32.276	PK
2			2390.000	70.498	38.220	-3.502	74.000	32.278	PK
3			2411.808	105.443	73.202	N/A	N/A	32.240	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:35
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

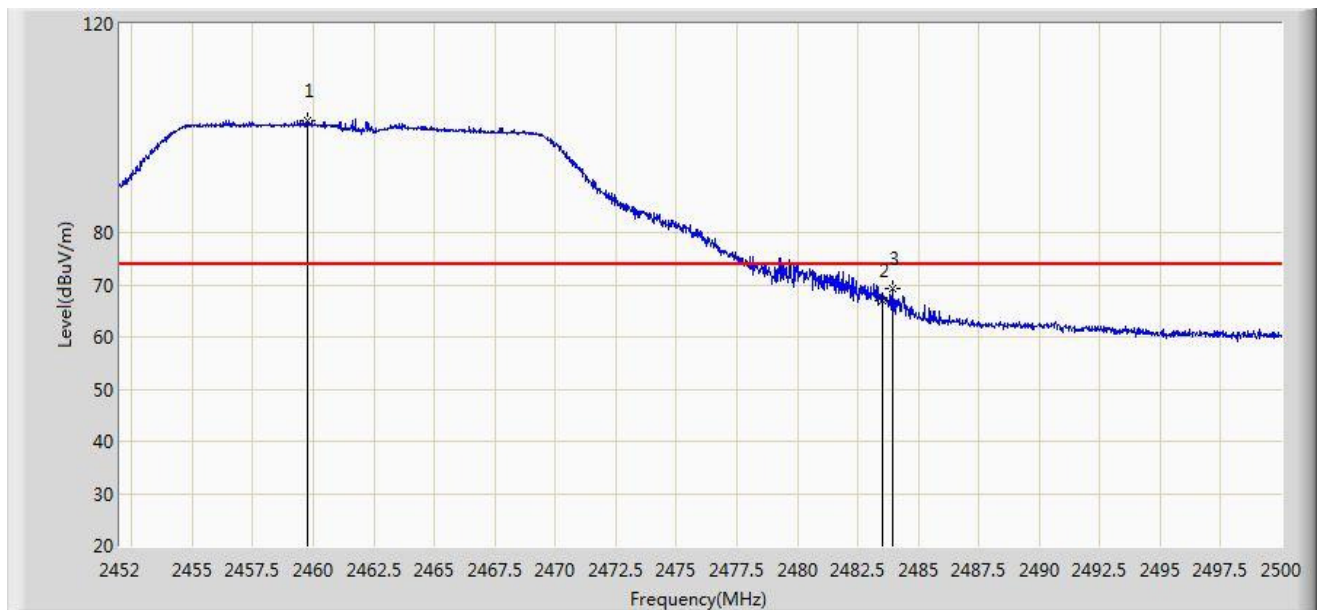


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.660	19.382	-2.340	54.000	32.278	AV
2			2405.368	94.463	62.200	N/A	N/A	32.262	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2459.776	101.517	69.288	N/A	N/A	32.228	PK
2			2483.500	67.096	34.815	-6.904	74.000	32.282	PK
3			2483.944	69.180	36.897	-4.820	74.000	32.282	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:00
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

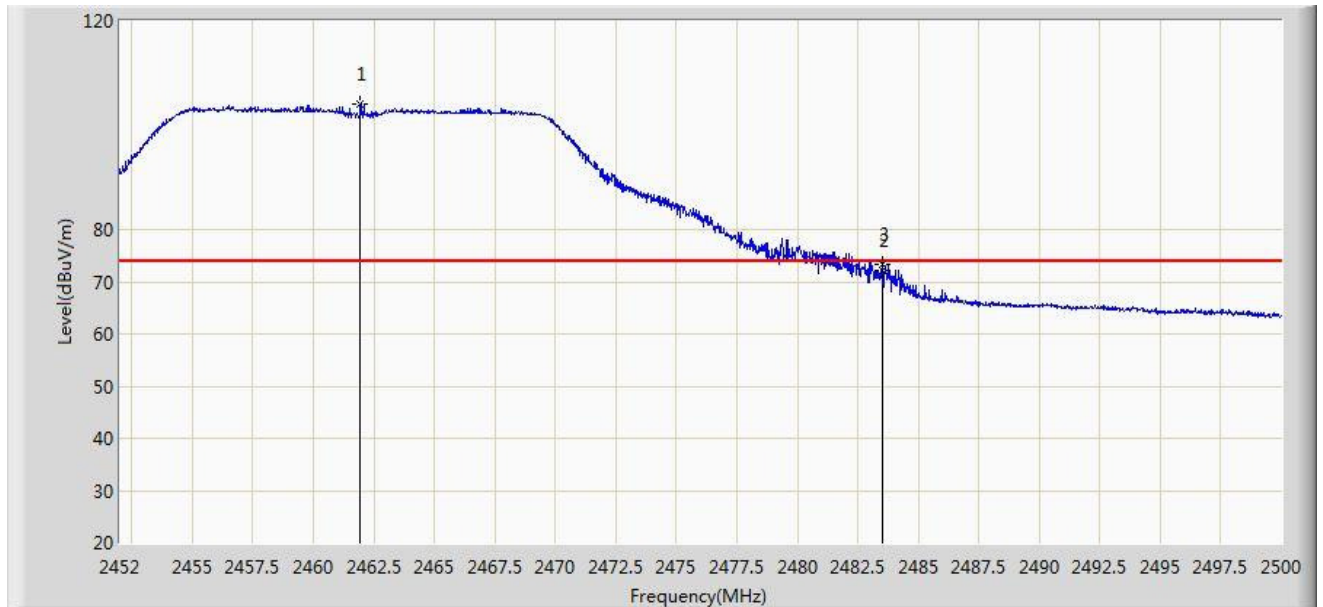


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2458.696	90.909	58.685	N/A	N/A	32.224	AV
2			2483.500	49.066	16.785	-4.934	54.000	32.282	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:52
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

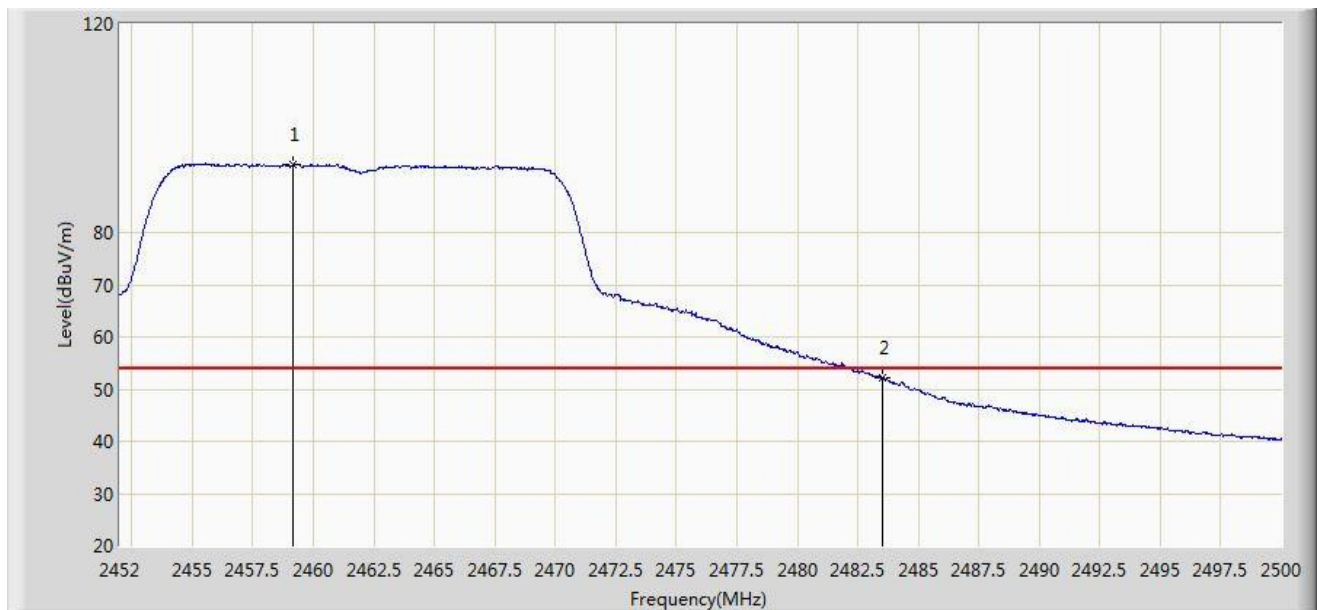


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2461.936	104.141	71.903	N/A	N/A	32.238	PK
2			2483.500	72.134	39.853	-1.866	74.000	32.282	PK
3			2483.512	73.388	41.107	-0.612	74.000	32.282	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 20:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

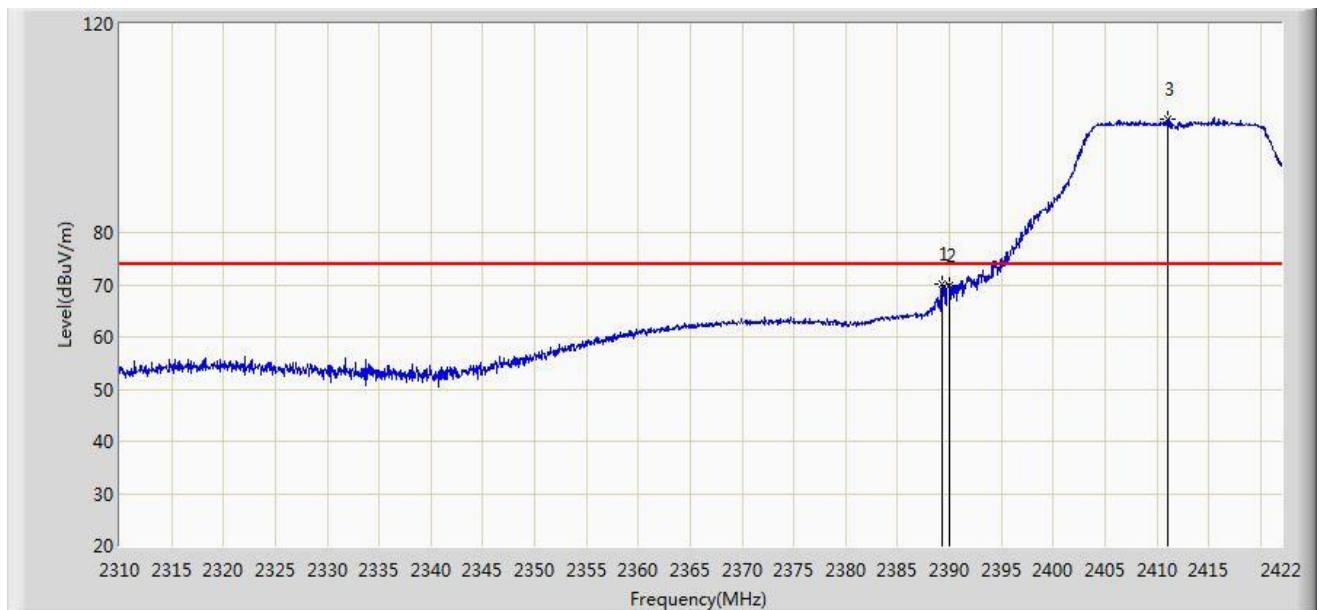


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2459.176	93.059	60.833	N/A	N/A	32.226	AV
2			2483.500	52.164	19.883	-1.836	54.000	32.282	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:16
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

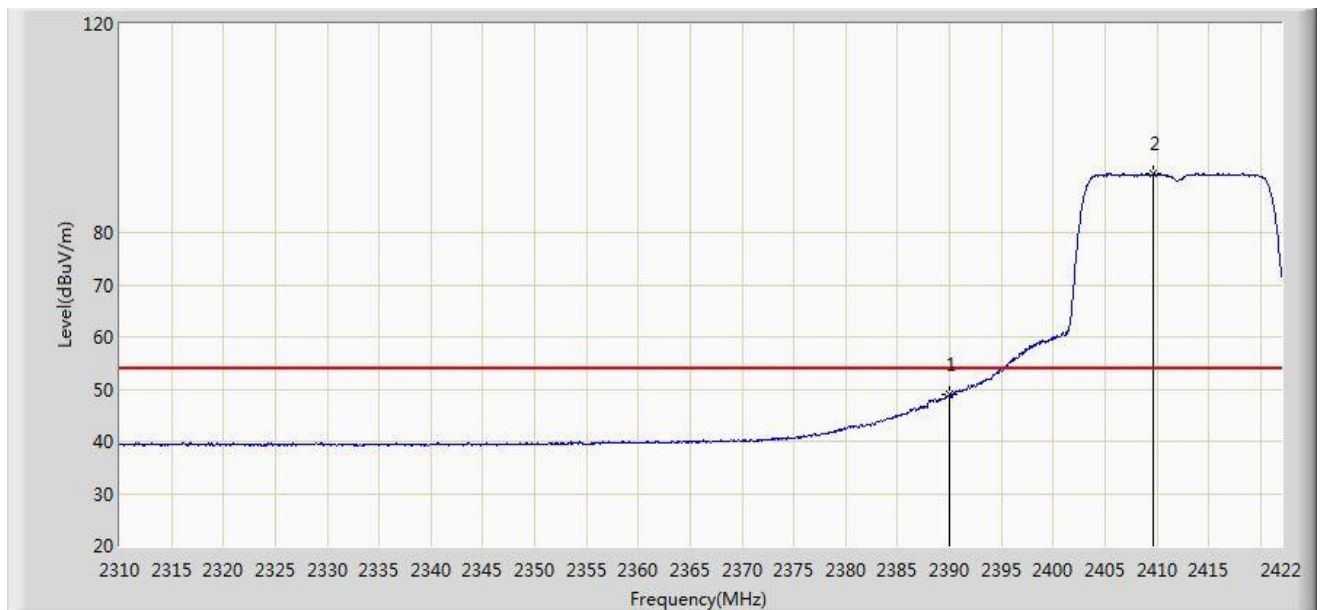


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.296	70.279	38.005	-3.721	74.000	32.275	PK
2			2390.000	69.950	37.672	-4.050	74.000	32.278	PK
3			2411.080	101.752	69.508	N/A	N/A	32.243	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

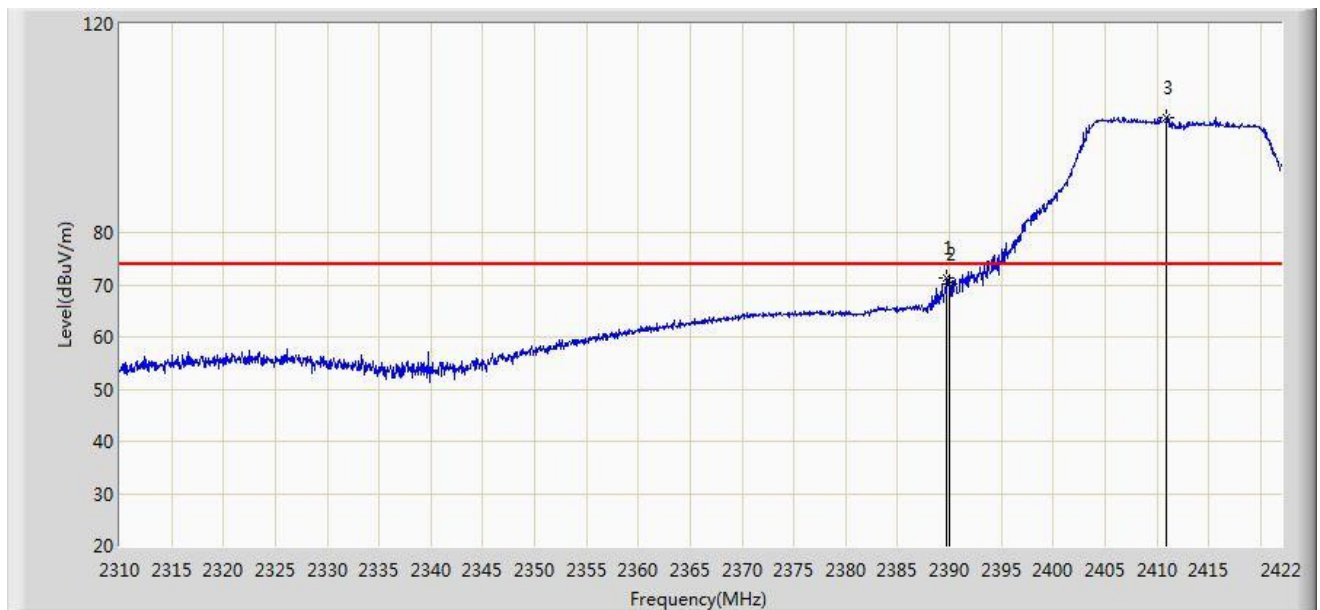


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	48.941	16.663	-5.059	54.000	32.278	AV
2			2409.680	91.320	59.072	N/A	N/A	32.249	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:10
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

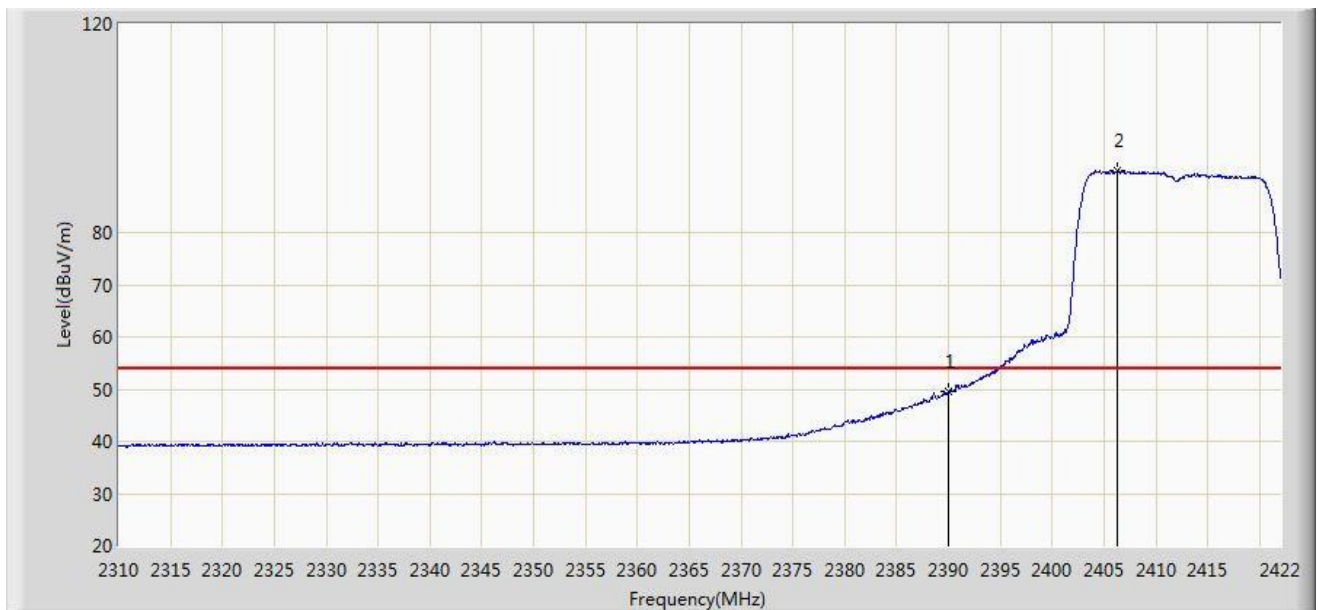


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.744	71.444	39.167	-2.556	74.000	32.276	PK
2			2390.000	70.046	37.768	-3.954	74.000	32.278	PK
3			2410.968	102.087	69.843	N/A	N/A	32.244	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

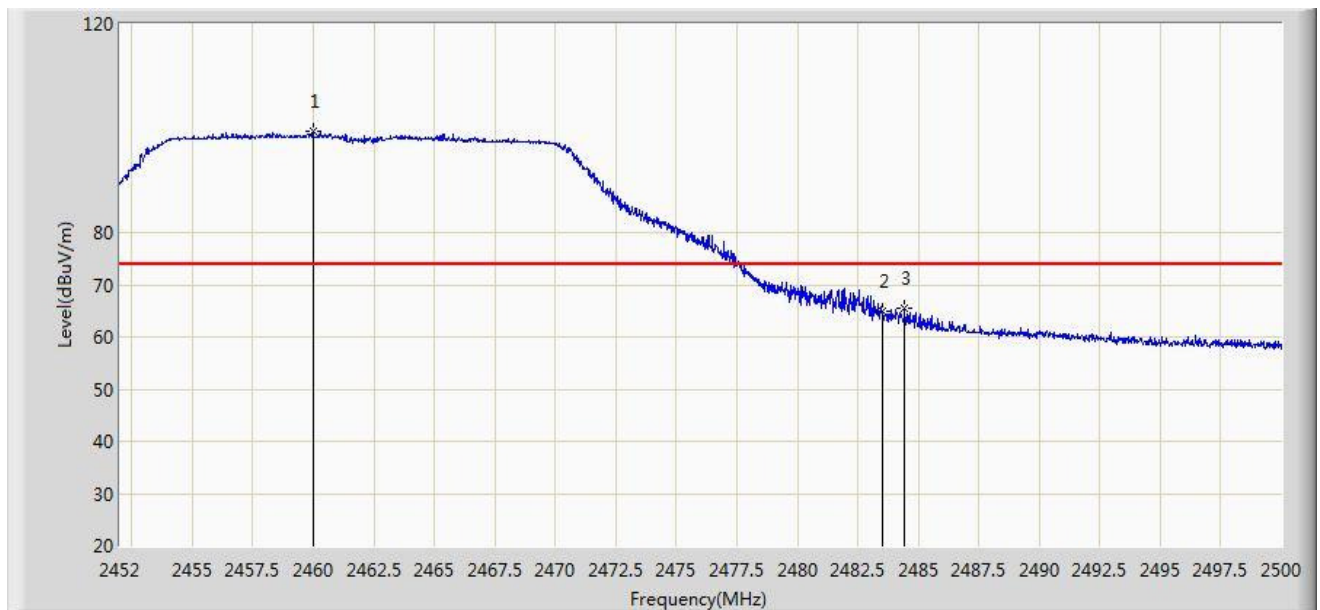


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.443	17.165	-4.557	54.000	32.278	AV
2			2406.320	91.890	59.631	N/A	N/A	32.260	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2459.992	99.415	67.185	N/A	N/A	32.230	PK
2			2483.500	64.841	32.560	-9.159	74.000	32.282	PK
3			2484.448	65.531	33.247	-8.469	74.000	32.284	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

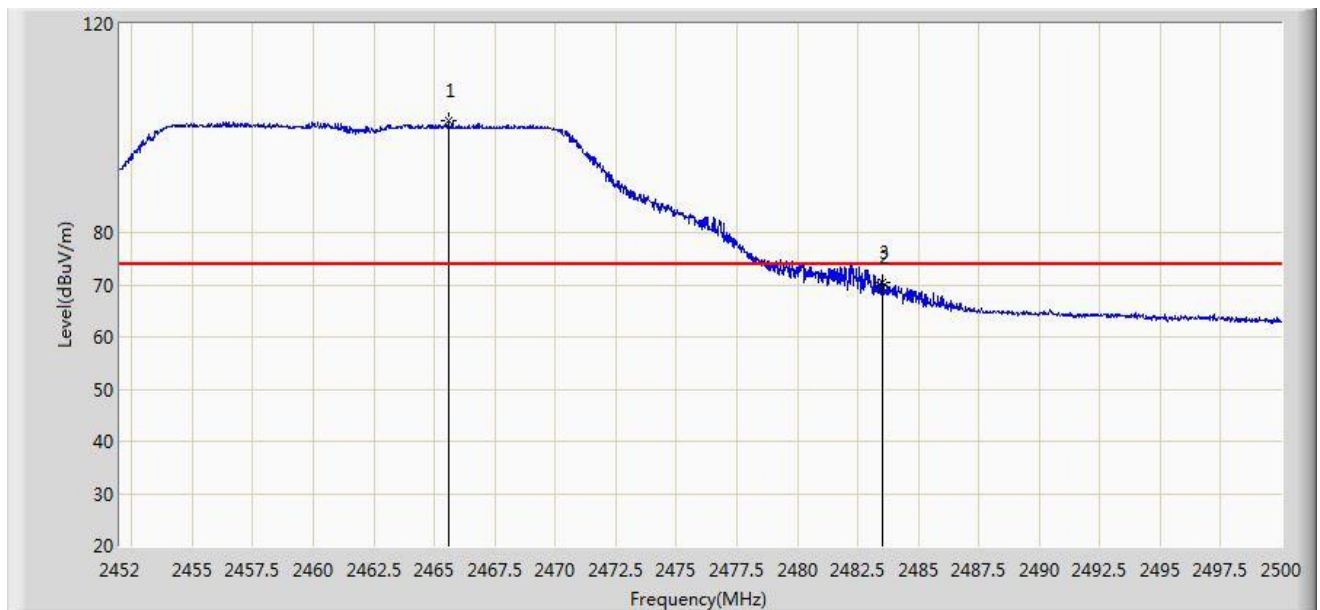


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2460.400	88.815	56.584	N/A	N/A	32.231	AV
2			2483.500	46.655	14.374	-7.345	54.000	32.282	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:28
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2465.584	101.342	69.099	N/A	N/A	32.242	PK
2			2483.500	69.544	37.263	-4.456	74.000	32.282	PK
3			2483.512	70.375	38.094	-3.625	74.000	32.282	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2017/03/30 - 21:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Guo
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2456.992	90.683	58.466	N/A	N/A	32.217	AV
2			2483.500	50.331	18.050	-3.669	54.000	32.282	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

7.8. AC Conducted Emissions Measurement

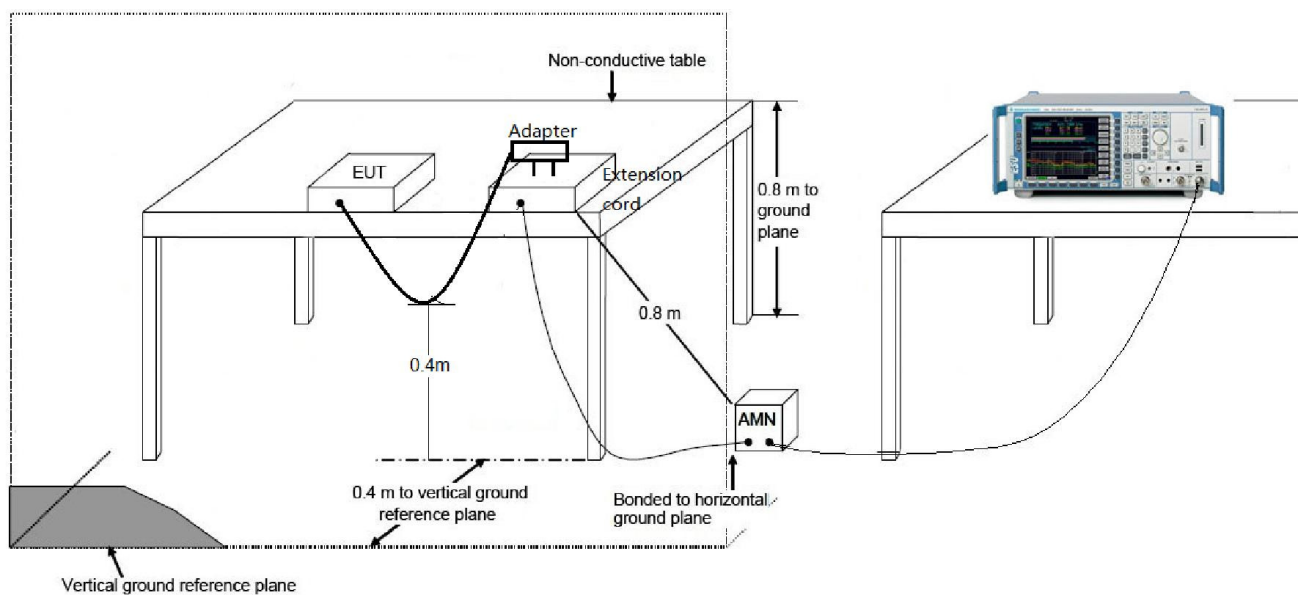
7.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 – 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

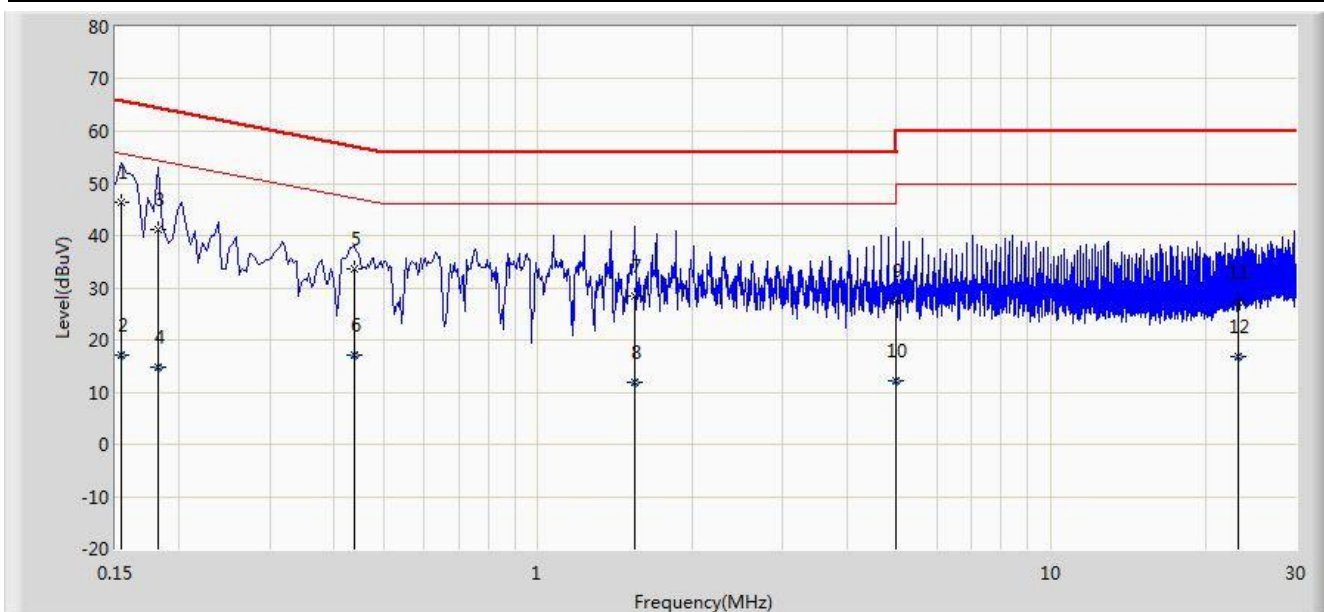
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Site: SR2	Time: 2017/03/31 - 16:51
Limit: FCC_Part15.207_CE_AC Power	Engineer: Kevin Guo
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

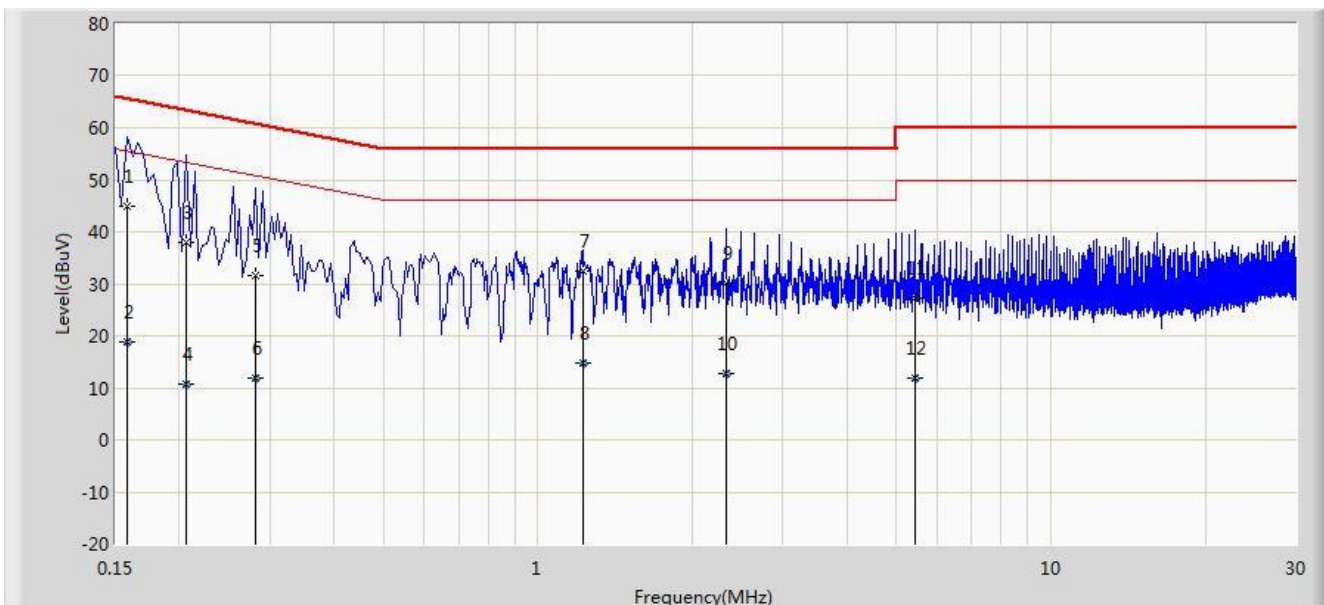


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.154	46.488	35.748	-19.294	65.781	10.740	QP
2			0.154	17.024	6.285	-38.757	55.781	10.740	AV
3			0.182	41.092	31.044	-23.302	64.394	10.048	QP
4			0.182	14.640	4.592	-39.754	54.394	10.048	AV
5			0.438	33.659	23.542	-23.441	57.100	10.117	QP
6			0.438	16.963	6.847	-30.136	47.100	10.117	AV
7			1.546	28.434	18.548	-27.566	56.000	9.887	QP
8			1.546	11.784	1.897	-34.216	46.000	9.887	AV
9			4.986	27.640	17.613	-28.360	56.000	10.027	QP
10			4.986	12.295	2.268	-33.705	46.000	10.027	AV
11			23.150	27.133	16.946	-32.867	60.000	10.187	QP
12			23.150	16.725	6.538	-33.275	50.000	10.187	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2017/03/31 - 16:56
Limit: FCC_Part15.207_CE_AC Power	Engineer: Kevin Guo
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: SMART LED LAMP	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.158	44.990	34.700	-20.579	65.568	10.290	QP
2			0.158	18.890	8.600	-36.679	55.568	10.290	AV
3			0.206	38.072	28.071	-25.293	63.365	10.001	QP
4			0.206	10.711	0.710	-42.654	53.365	10.001	AV
5			0.282	31.456	21.431	-29.301	60.757	10.025	QP
6			0.282	11.781	1.757	-38.975	50.757	10.025	AV
7			1.222	32.531	22.630	-23.469	56.000	9.901	QP
8			1.222	14.823	4.922	-31.177	46.000	9.901	AV
9			2.326	30.240	20.374	-25.760	56.000	9.866	QP
10			2.326	12.704	2.838	-33.296	46.000	9.866	AV
11			5.438	27.255	17.172	-32.745	60.000	10.083	QP
12			5.438	11.743	1.660	-38.257	50.000	10.083	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **SMART LED LAMP FCC ID: 2AJ3WEBEQPZ10** is in compliance with Part 15C of the FCC Rules.

The End