

FCC Part 15C Measurement and Test Report

For

Hunan Xiangwai Science Technology Co.,Ltd

Youth Entrepreneur Innovation Park, Qinshui Road, Lengshuitan

District, Yongzhou city, Hunan Province, China

FCC ID: 2AIB9XW-G03

FCC Rule(s):	<u>FCC Part 15C</u>
Product Description:	<u>Wifi Smart Socket</u>
Tested Model:	<u>XW-G03</u>
Report No.:	<u>STR16048217I</u>
Tested Date:	<u>2016-04-25 to 2016-05-09</u>
Issued Date:	<u>2016-05-09</u>
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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Hunan Xiangwai Science Technology Co.,Ltd
Address of applicant: Youth Entrepreneur Innovation Park,Qinshui Road,
Lengshuitan District,Yongzhou city,Hunan Province,
China

Manufacturer: Hunan Xiangwai Science Technology Co.,Ltd
Address of manufacturer: Youth Entrepreneur Innovation Park,Qinshui Road,
Lengshuitan District,Yongzhou city,Hunan Province,
China

General Description of EUT	
Product Name:	Wifi Smart Socket
Trade Name:	/
Model No.:	XW-G03
Adding Model(s):	XW-G03U,XW-G03E,XW-G03C,XW-G03H,XW-G03J
Rated Voltage:	AC 120V/60Hz
Power Adapter Model:	/
<i>Note: The test data is gathered from a production sample provided by the manufacturer. The appearance of others models listed in the report is different from main-test model XW-G03, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Support Standards:	802.11b, 802.11g, 802.11n
Frequency Range:	2412-2462MHz
RF Output Power:	9.38 dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	11
Channel Separation:	5MHz
Type of Antenna:	Integral
Antenna Gain:	0 dBi
Lowest Internal Frequency	26MHz

1.2 Test Standards

The following report is prepared on behalf of the Hunan Xiangwai Science Technology Co.,Ltd in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices, and ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz. The measurement guide KDB 558074 D01 v03r05 for digital transmission systems shall be performed also.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101).

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11b	2412MHz, 2437MHz, 2462MHz
TM2	802.11g	2412MHz, 2437MHz, 2462MHz
TM3	802.11n-HT20	2412MHz, 2437MHz, 2462MHz

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Lamp socket	/	/	/
Lamp	/	/	/

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$
Occupied Bandwidth	Conducted	$\pm 1.5\%$
Power Spectral Density	Conducted	$\pm 1.8\text{dB}$
Conducted Spurious Emission	Conducted	$\pm 2.17\text{dB}$
Conducted Emissions	Conducted	$\pm 2.88\text{dB}$
Transmitter Spurious Emissions	Radiated	$\pm 5.1\text{dB}$

1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2015-06-17	2016-06-16
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2015-06-17	2016-06-16
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2015-06-17	2016-06-16
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2015-06-17	2016-06-16
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2015-06-17	2016-06-16
SEMT-1042	Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
SEMT-1121	Horn Antenna	ETS	3116B	00088203	2015-06-17	2016-06-16
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2015-06-17	2016-06-16
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2015-06-17	2016-06-16
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2015-06-17	2016-06-16
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2015-06-17	2016-06-16

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 2.1093	RF Exposure	Compliant
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable

3. RF Exposure

3.1 Standard Applicable

According to § 1.1307 and § 2.1093, the portable transmitter must comply the RF exposure requirements.

3.2 Test Result

This product complied with the requirement of the RF exposure, please see the RF Exposure Report.

4. Antenna Requirement

4.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

4.2 Evaluation Information

This product has an integral antenna, fulfill the requirement of this section.

5. Power Spectral Density

5.1 Standard Applicable

According to 15.247(a)(1)(iii), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 Test Procedure

According to the KDB 558074 D01 v03r05, such specifications require that the same method as used to determine the conducted output power shall also be used to determine the power spectral density. The test method of power spectral density as below:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set span to at least 1.5 times the OBW.
- c) Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set VBW $\geq 3 \times \text{RBW}$.
- e) Detector = power averaging (RMS) or sample detector (when RMS not available).
- f) Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$.
- g) Sweep time = auto couple.
- h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
- i) Use the peak marker function to determine the maximum amplitude level.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span in order to meet the minimum measurement point requirement as the RBW is reduced).

5.3 Environmental Conditions

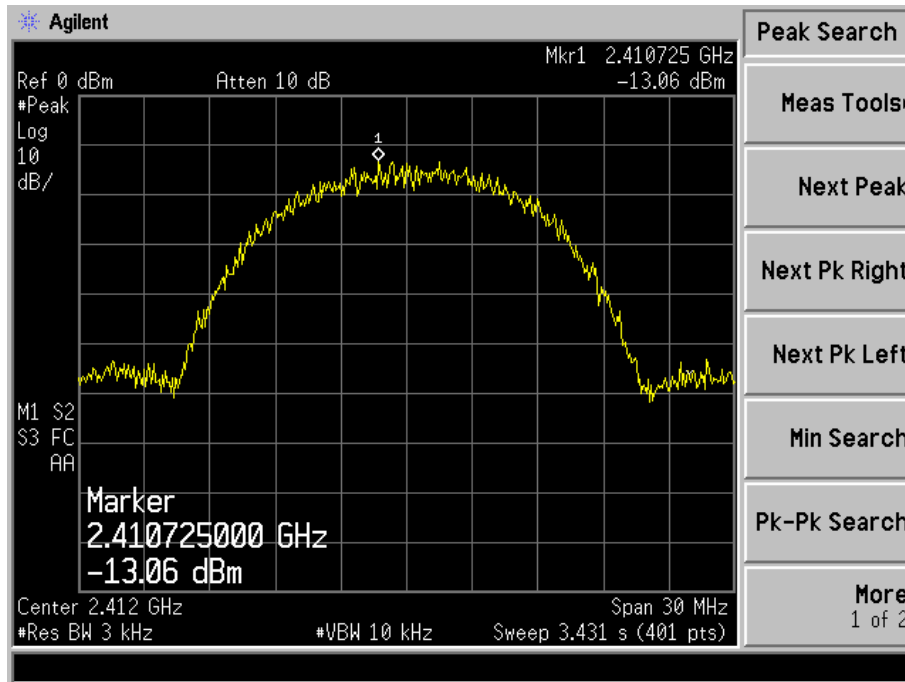
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.4 Summary of Test Results/Plots

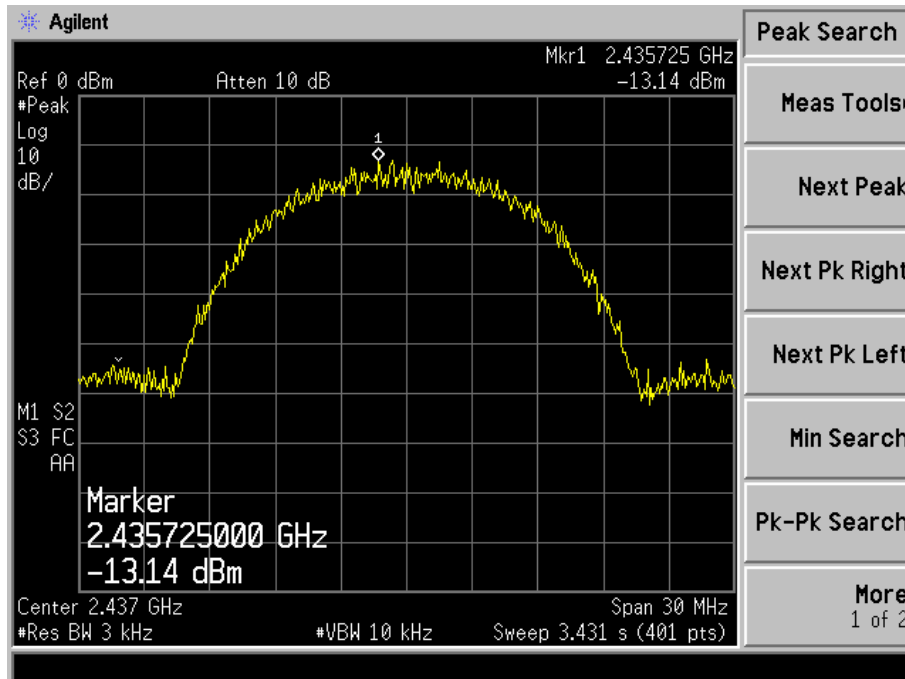
Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
802.11b	2412	-13.06	8
	2437	-13.14	8
	2462	-12.36	8
802.11g	2412	-17.41	8
	2437	-16.98	8
	2462	-16.92	8
802.11n HT20	2412	-16.96	8
	2437	-16.81	8
	2462	-16.34	8

Please refer to the following test plots:

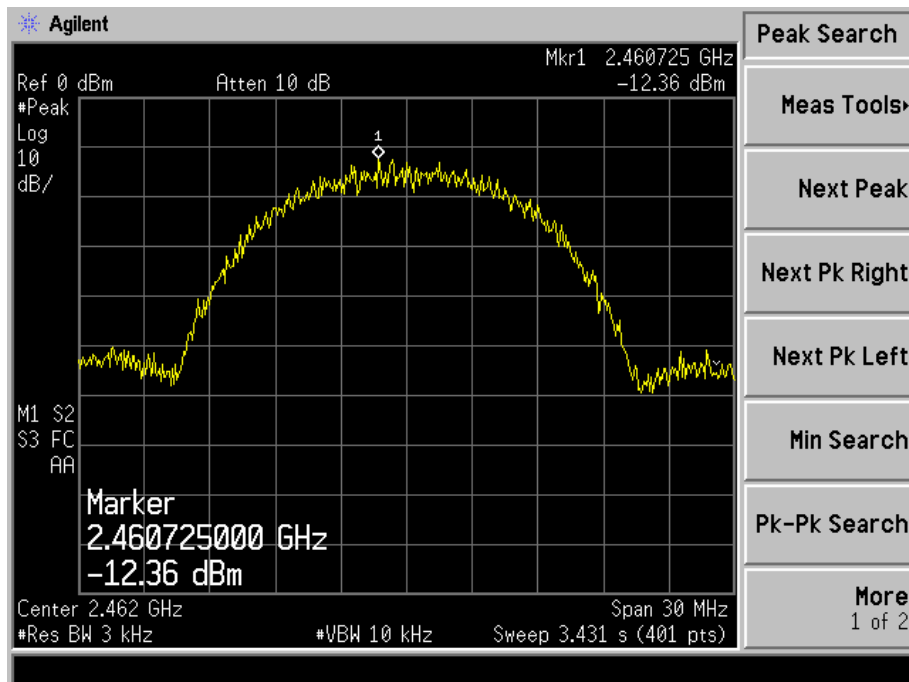
802.11b-Low Channel



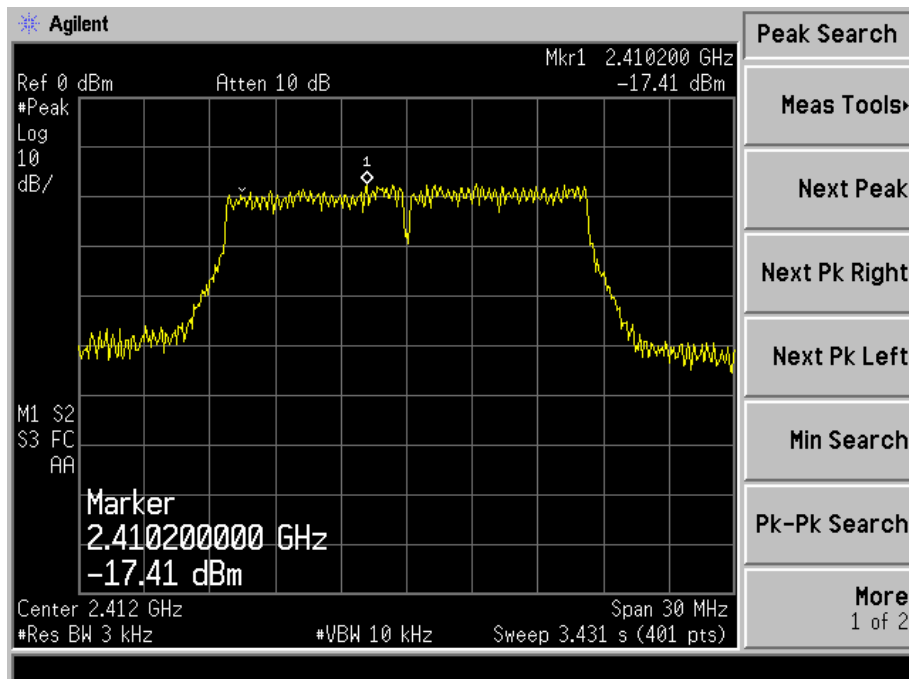
802.11b-Middle Channel



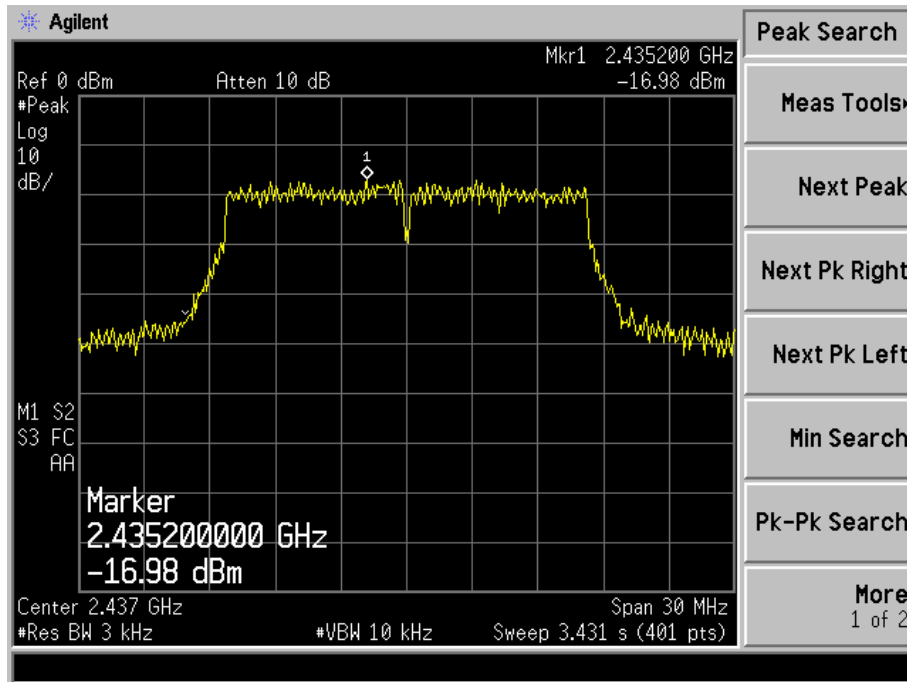
802.11b-High Channel



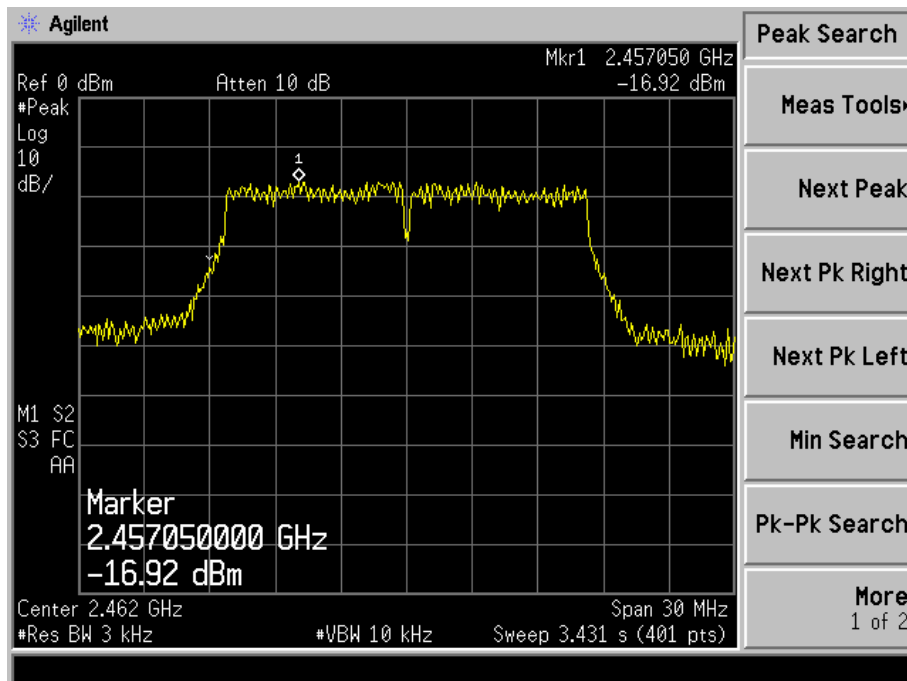
802.11g-Low Channel



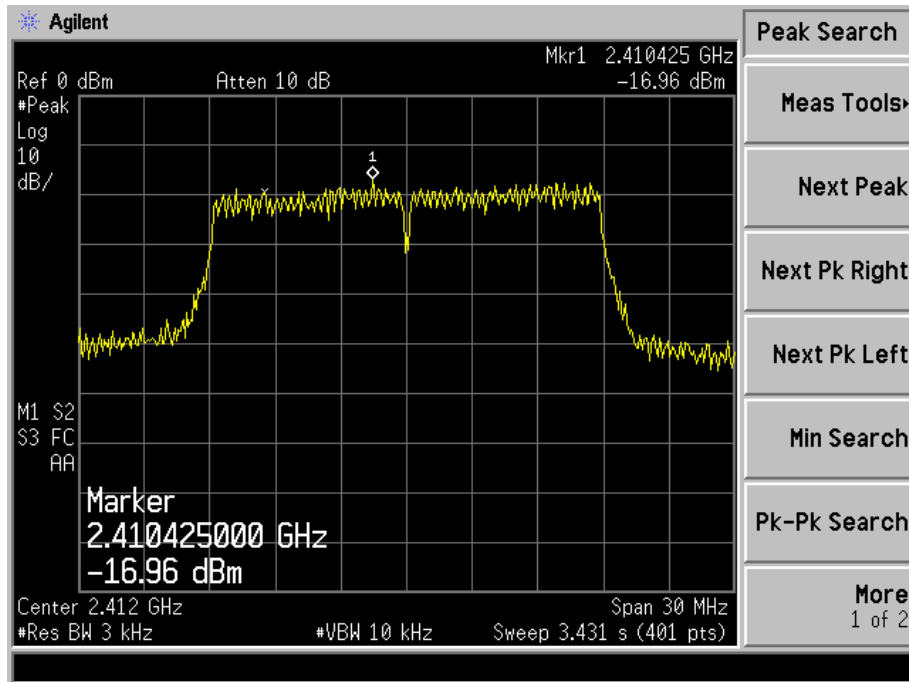
802.11g-Middle Channel



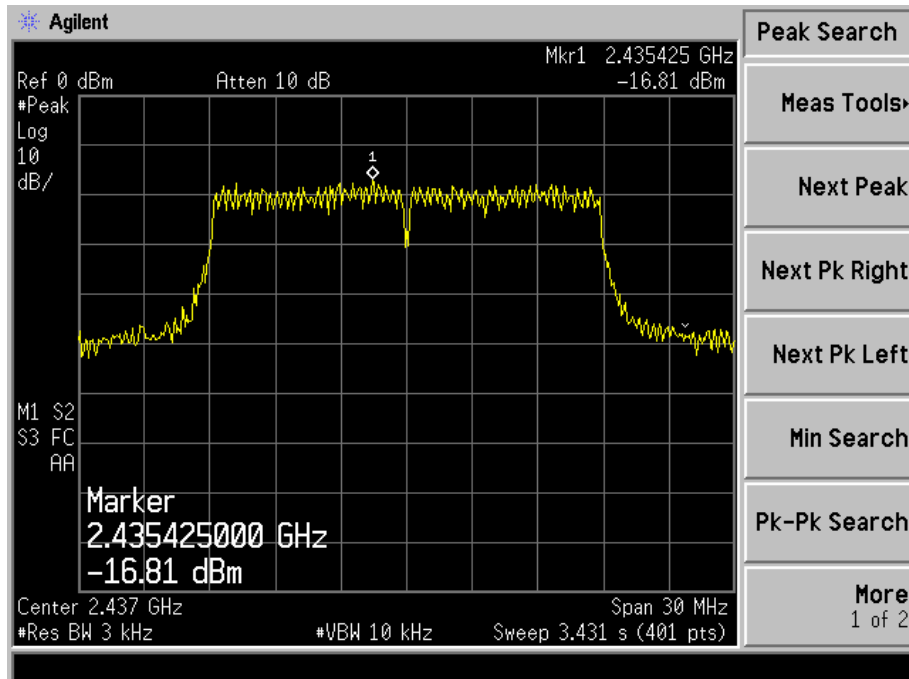
802.11g-High Channel



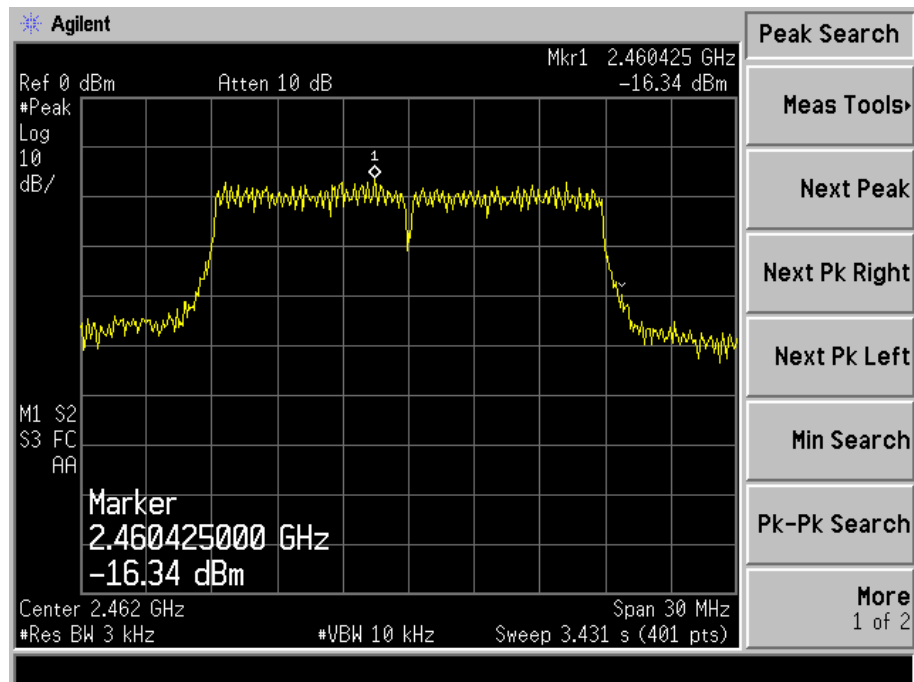
802.11n-HT20-Low Channel



802.11n-HT20-Middle Channel



802.11n-HT20-High Channel



6. 6dB Bandwidth

6.1 Standard Applicable

According to 15.247(a)(2). Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

6.2 Test Procedure

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.3 Environmental Conditions

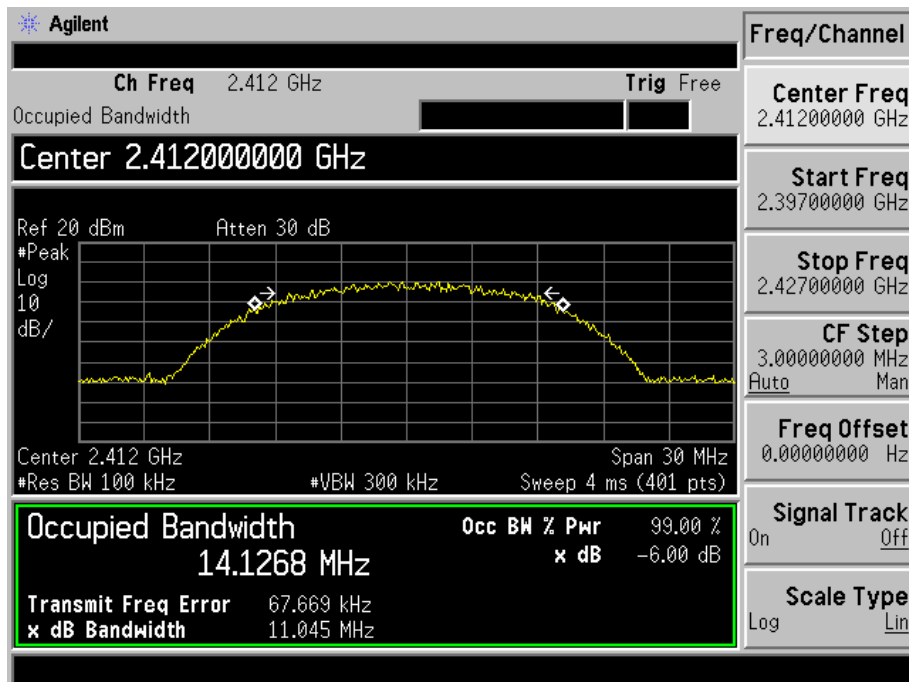
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.4 Summary of Test Results/Plots

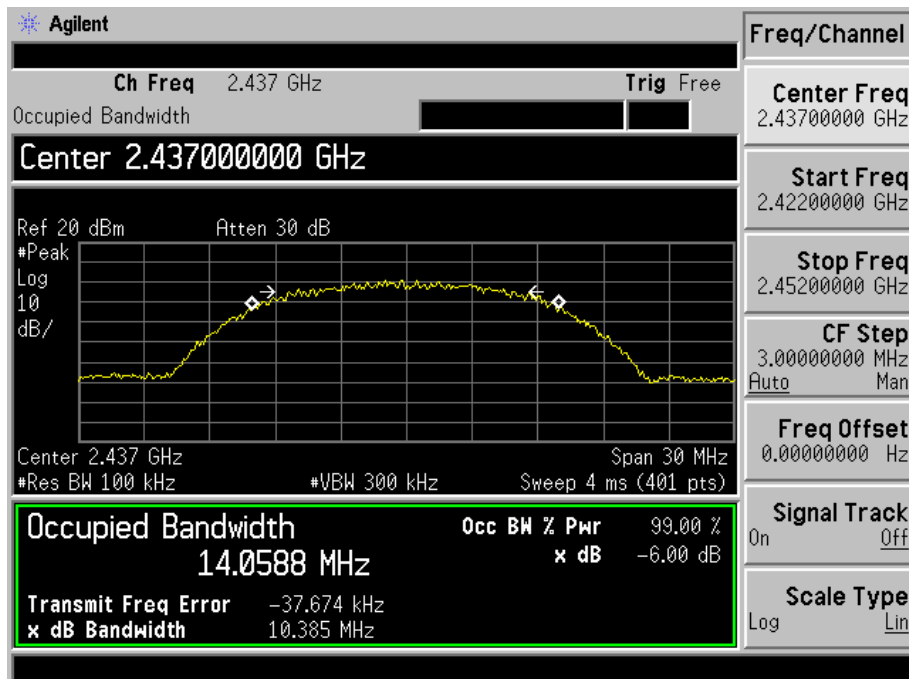
Test Mode	Test Channel MHz	6 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz
802.11b	2412	11045	14126.8	≥ 500
	2437	10385	14058.8	≥ 500
	2462	10387	14101.8	≥ 500
802.11g	2412	16525	16427.0	≥ 500
	2437	16517	16433.8	≥ 500
	2462	16550	16447.6	≥ 500
802.11n-HT20	2412	17787	17595.6	≥ 500
	2437	17743	17603.0	≥ 500
	2462	17792	17605.1	≥ 500

Please refer to the following test plots:

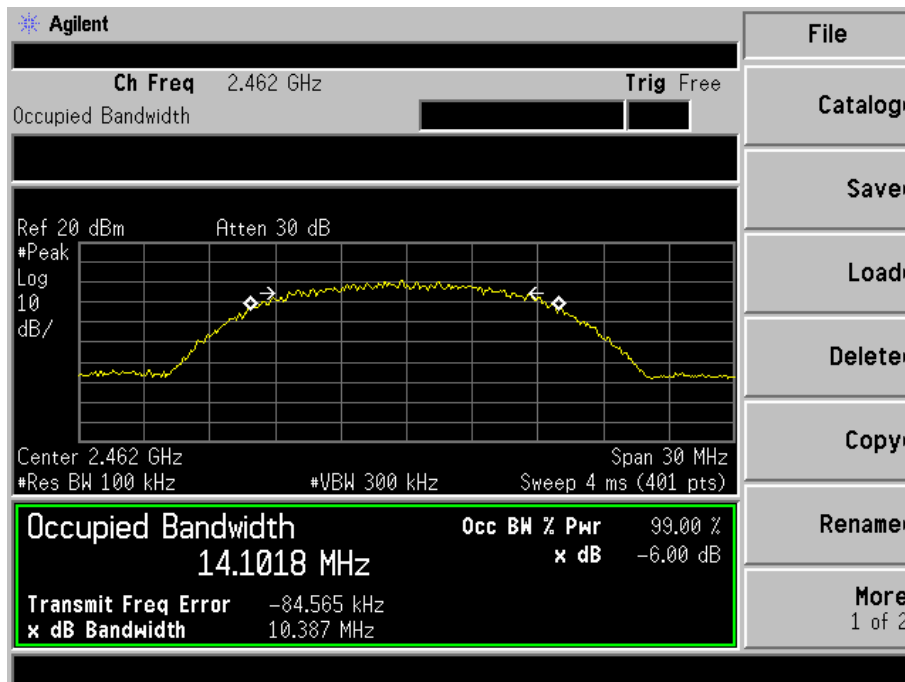
802.11b-Low Channel



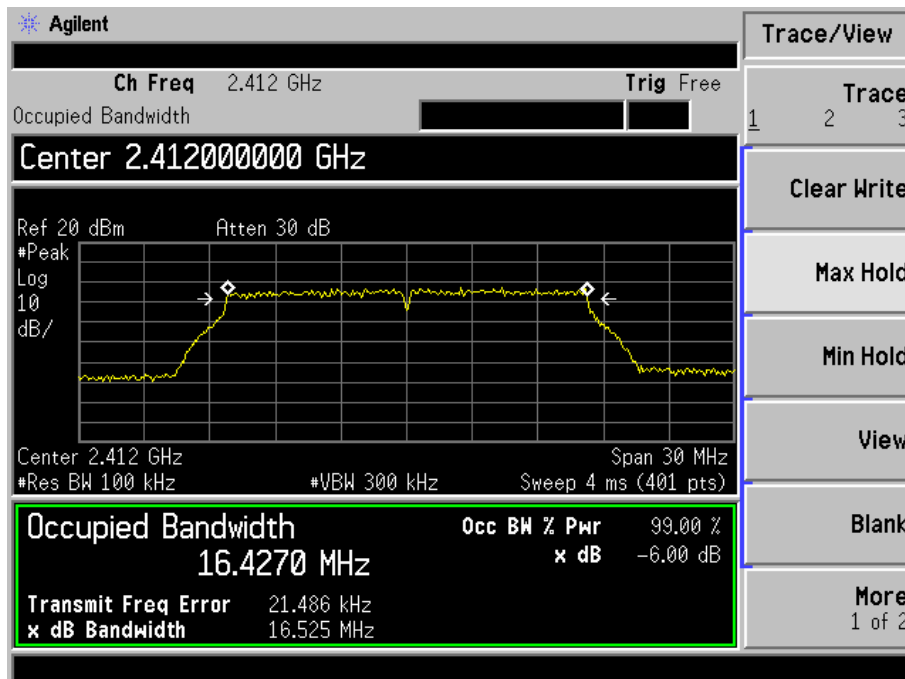
802.11b-Middle Channel



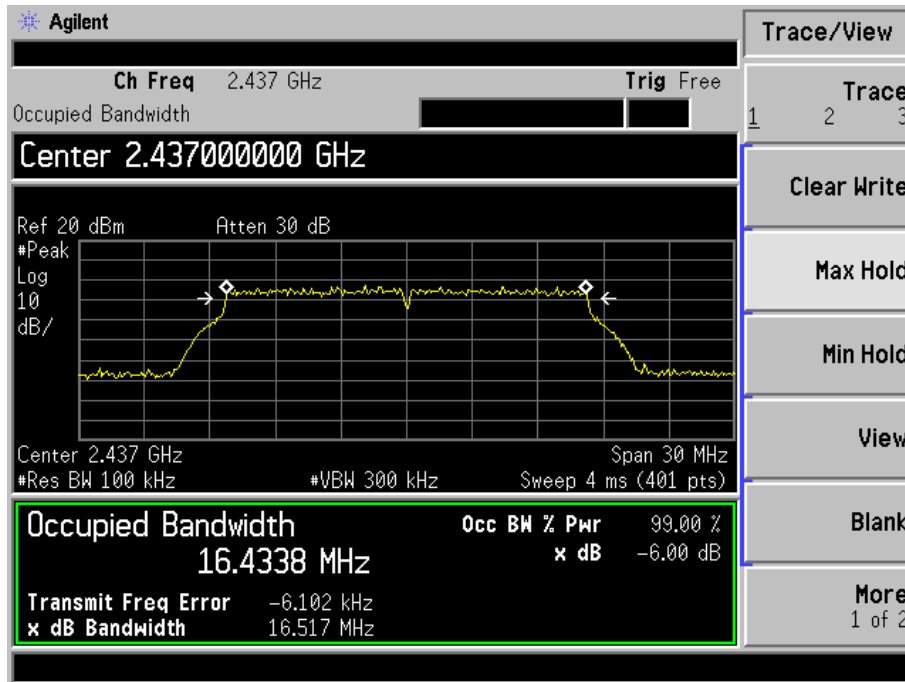
802.11b-High Channel



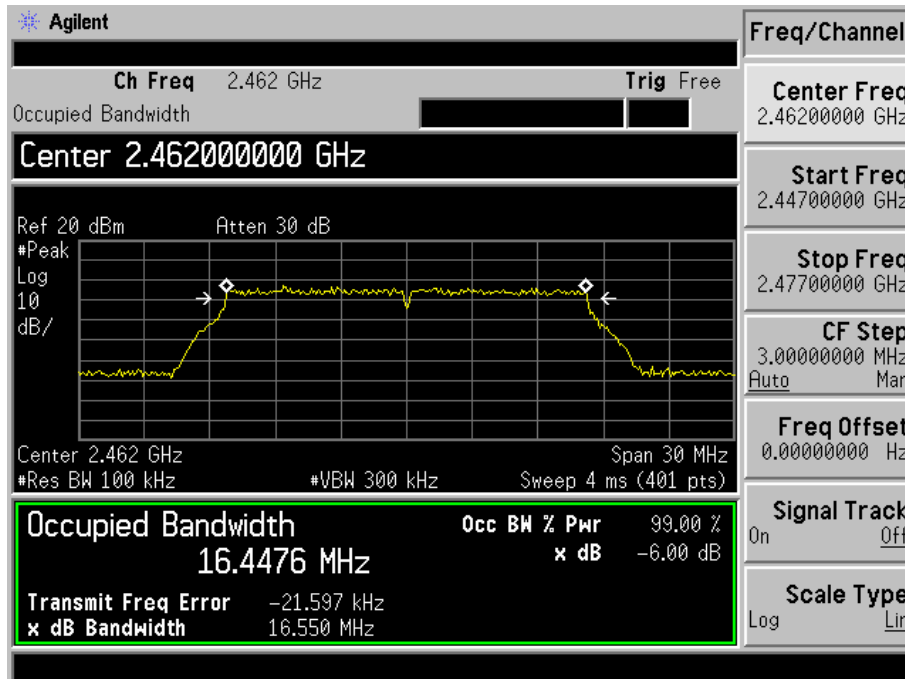
802.11g-Low Channel



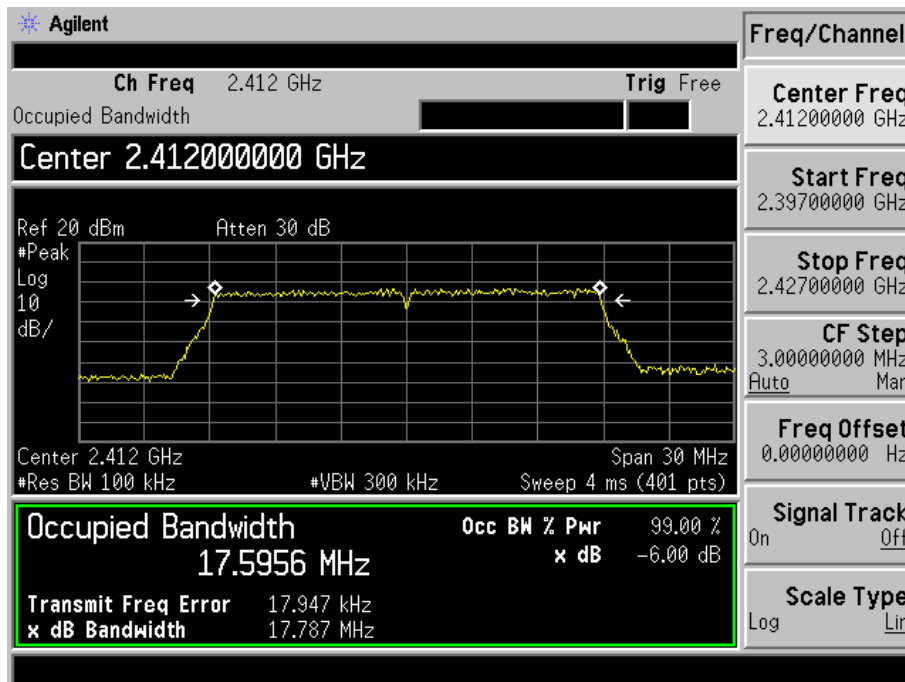
802.11g-Middle Channel



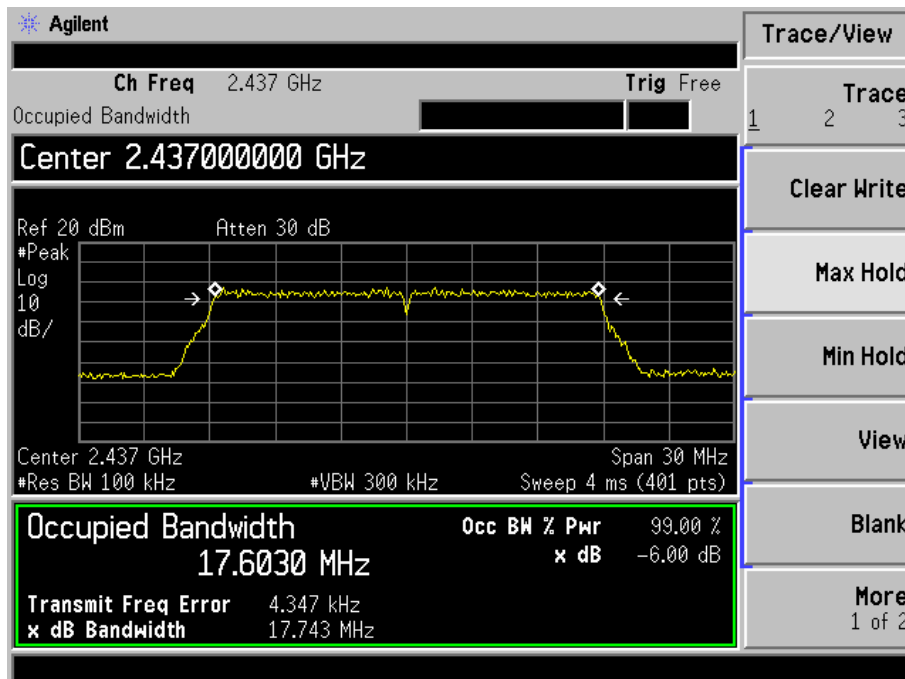
802.11g-High Channel



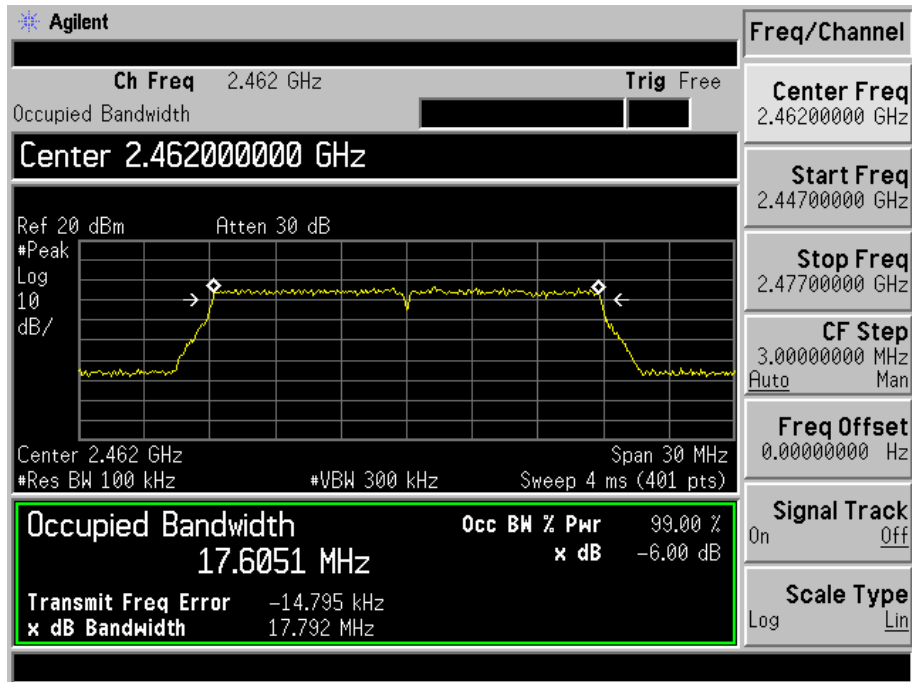
802.11n-HT20-Low Channel



802.11n-HT20-Middle Channel



802.11n-HT20-High Channel



7. RF Output Power

7.1 Standard Applicable

According to 15.247(b)(3). For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

7.2 Test Procedure

According to the KDB-558074 D01 v03r05, 9.2.2.2, when this option is exercised, the measured power is to be referenced to the OBW rather than the DTS bandwidth

- a) Set span to at least 1.5 times the OBW.
- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- c) Set VBW $\geq 3 \times$ RBW.
- d) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This gives bin-to-bin spacing $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle $< 98\%$, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run”.
- h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

7.3 Environmental Conditions

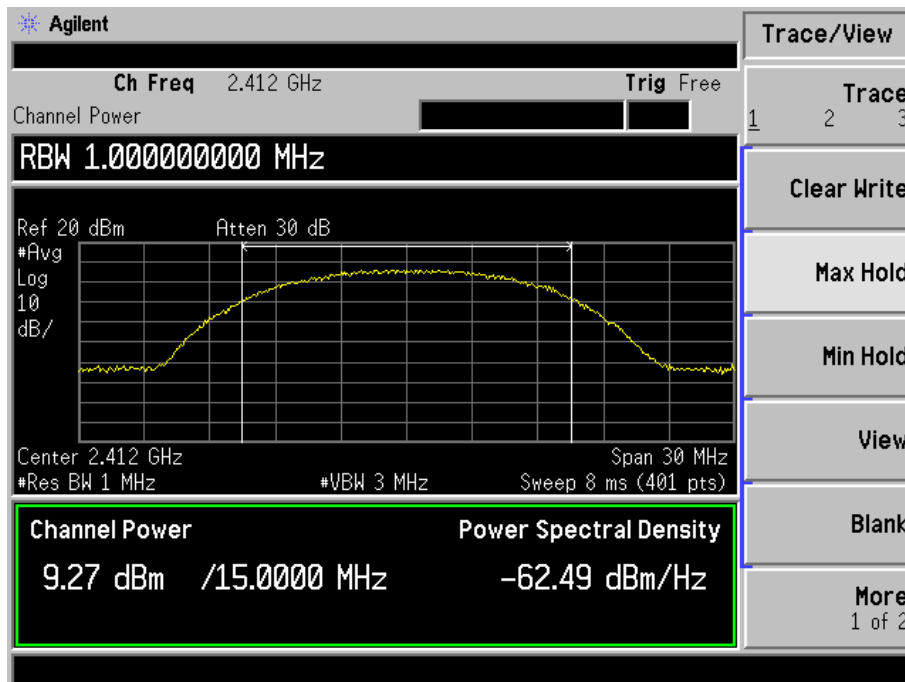
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

7.4 Summary of Test Results/Plots

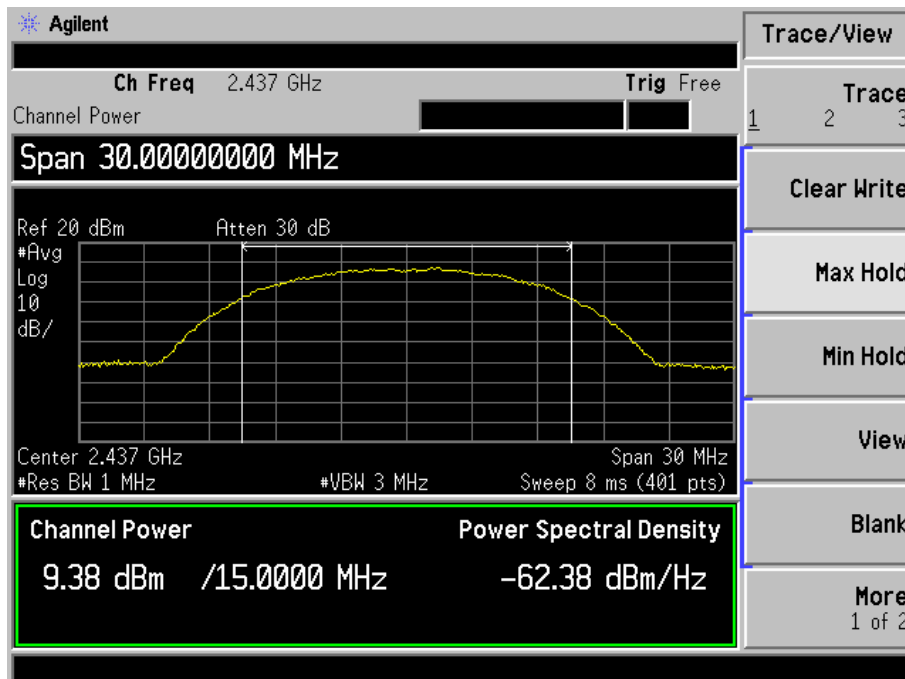
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b_11Mbps	2412	9.27	8.45	1000
	2437	9.38	8.67	1000
	2462	8.57	7.19	1000
802.11g_54Mbps	2412	8.78	7.55	1000
	2437	8.54	7.14	1000
	2462	8.08	6.43	1000
802.11n HT20_MCS7	2412	8.55	7.16	1000
	2437	8.98	7.91	1000
	2462	8.67	7.36	1000

Please refer to the following test plots:

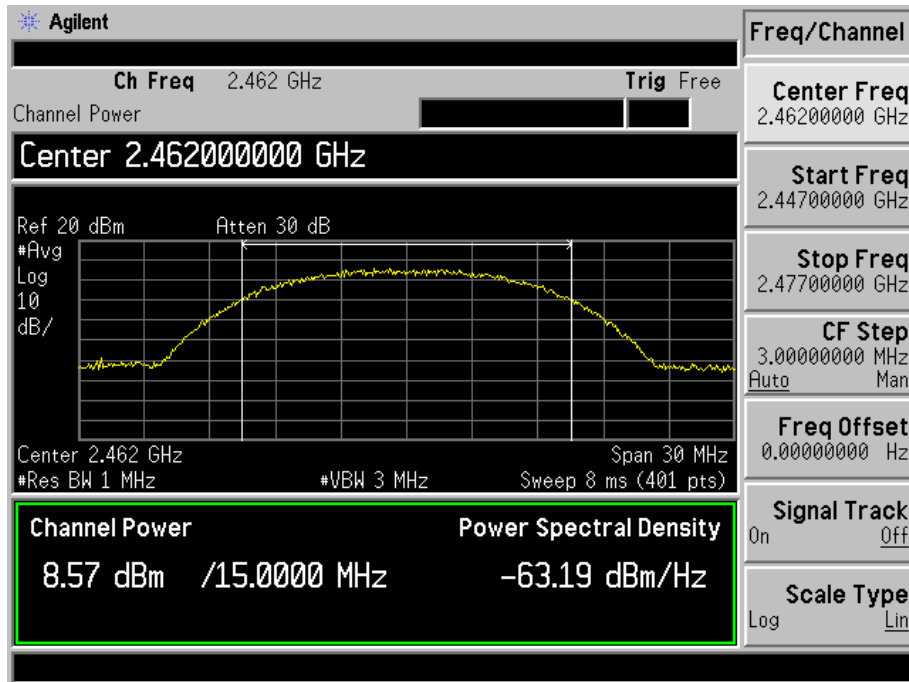
802.11b-11Mbps-Low Channel



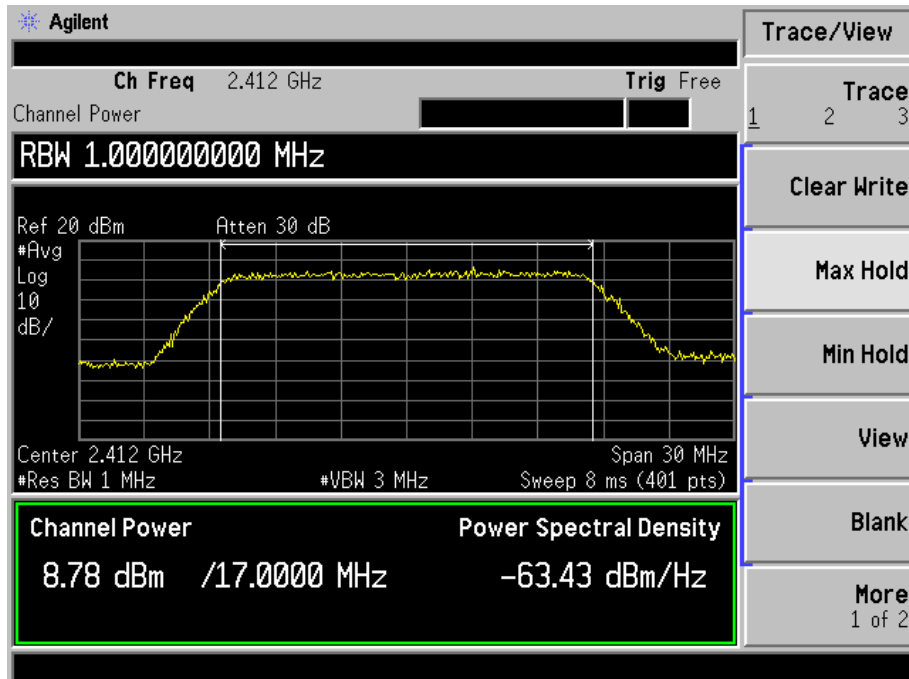
802.11b -11Mbps-Middle Channel



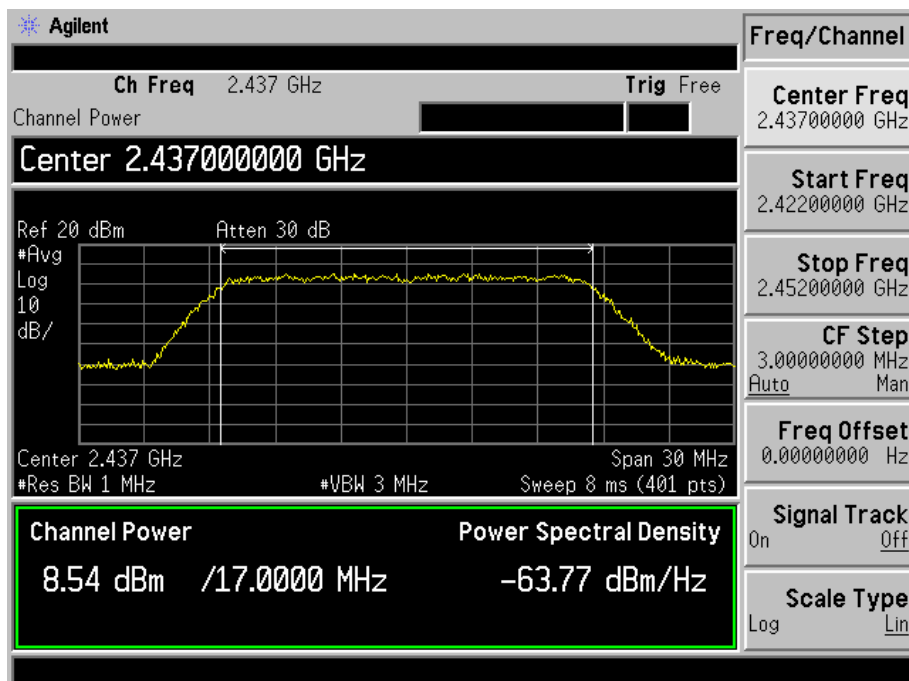
802.11b -11Mbps-High Channel



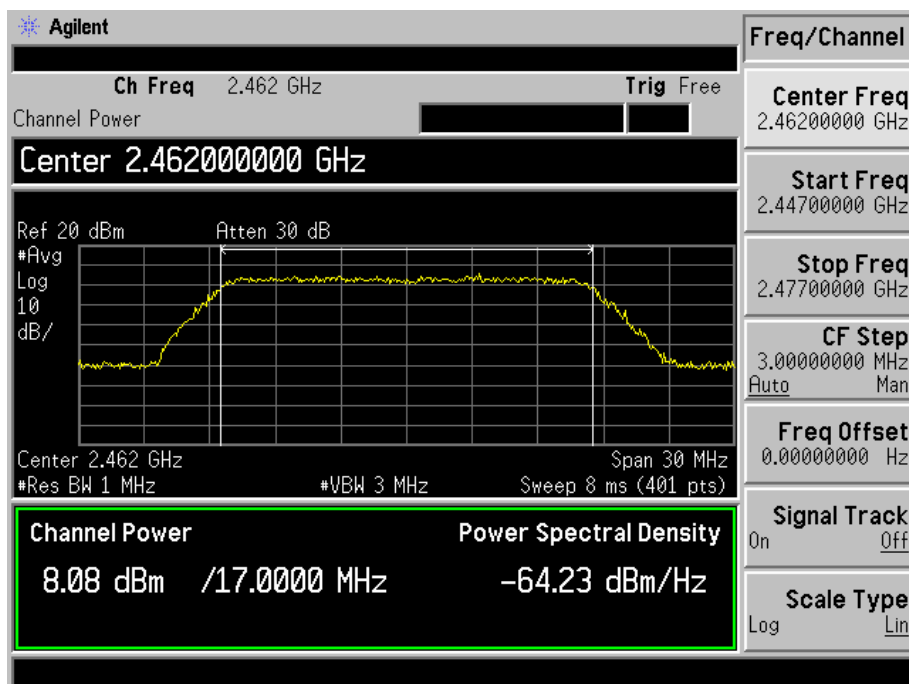
802.11g-54Mbps-Low Channel



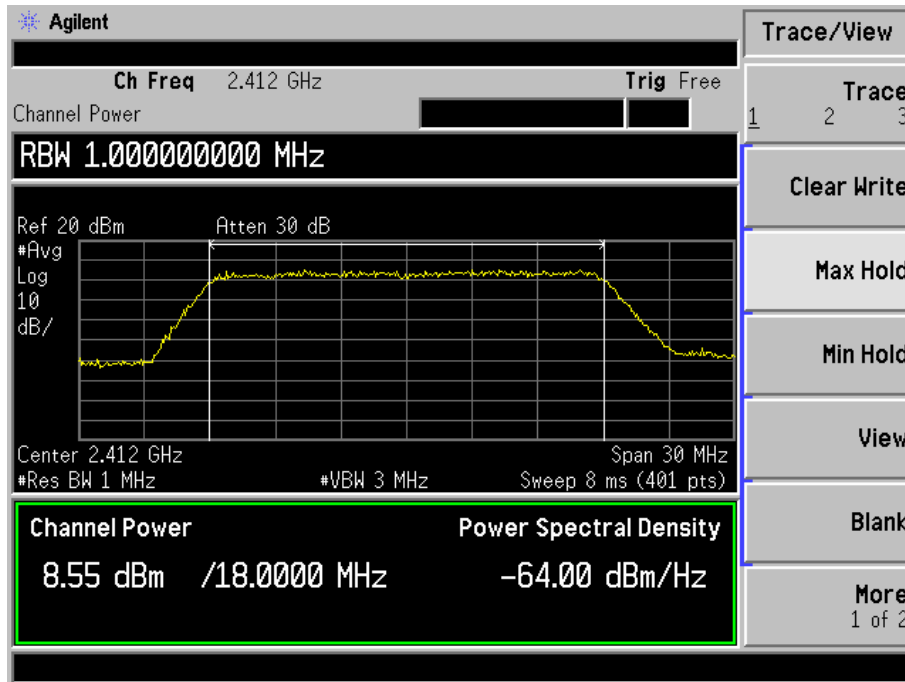
802.11g -54Mbps-Middle Channel



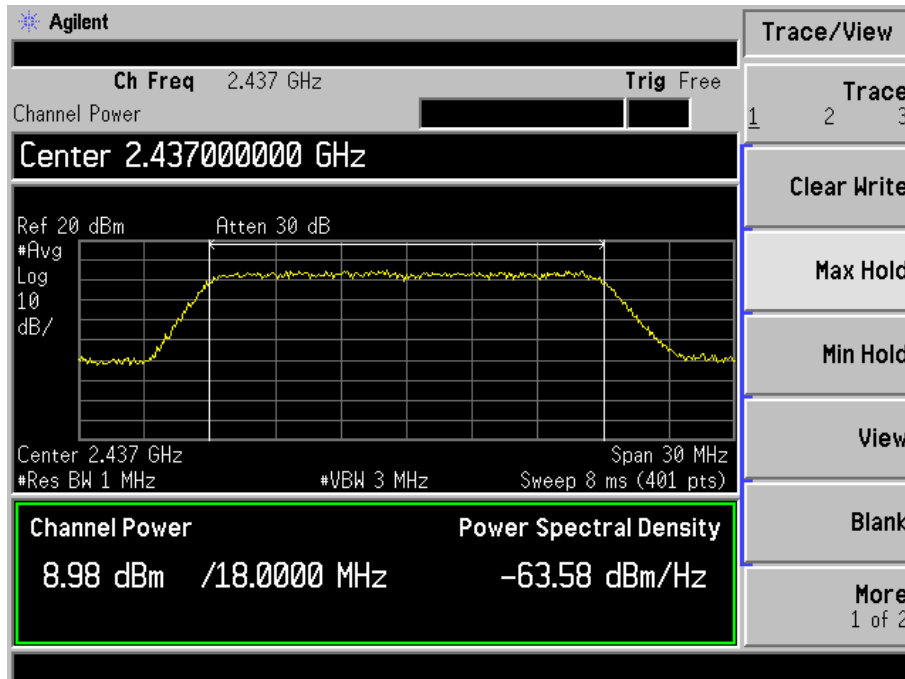
802.11g -54Mbps-High Channel



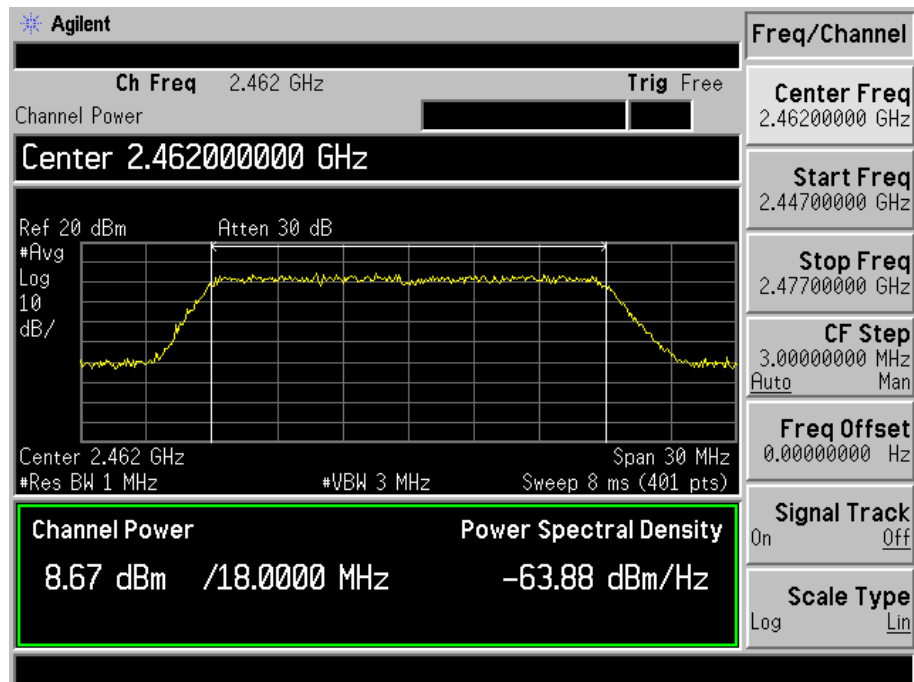
802.11n-HT20-MCS7-Low Channel



802.11n-HT20-MCS7-Middle Channel



802.11n-HT20-MCS7-High Channel



8. Field Strength of Spurious Emissions

8.1 Standard Applicable

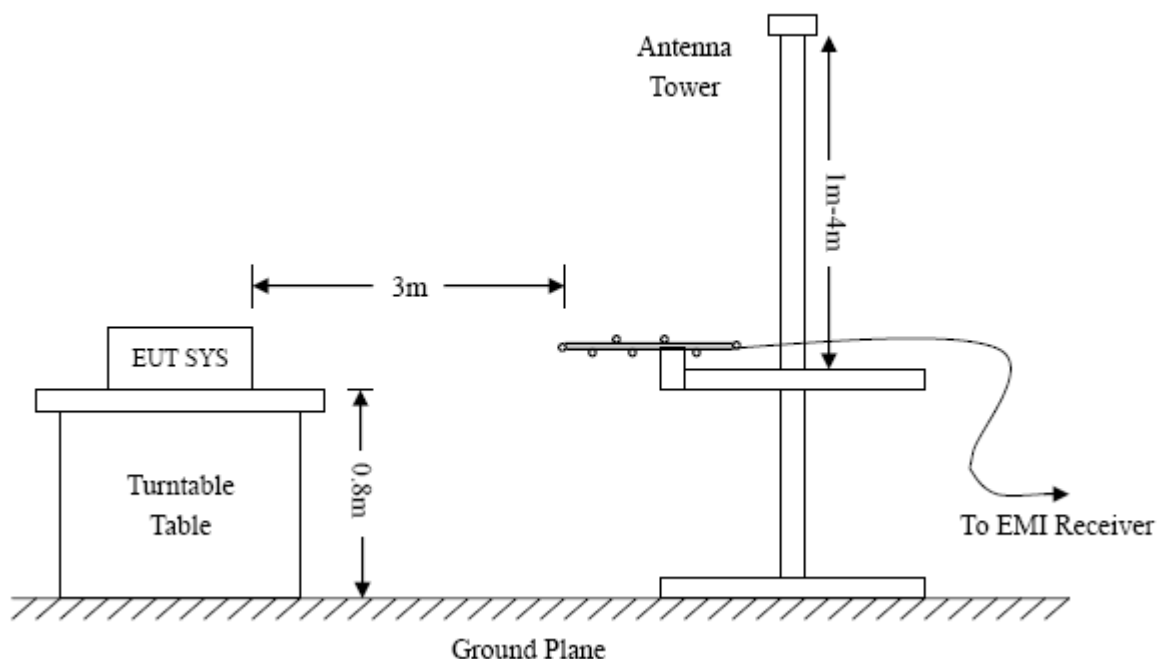
According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

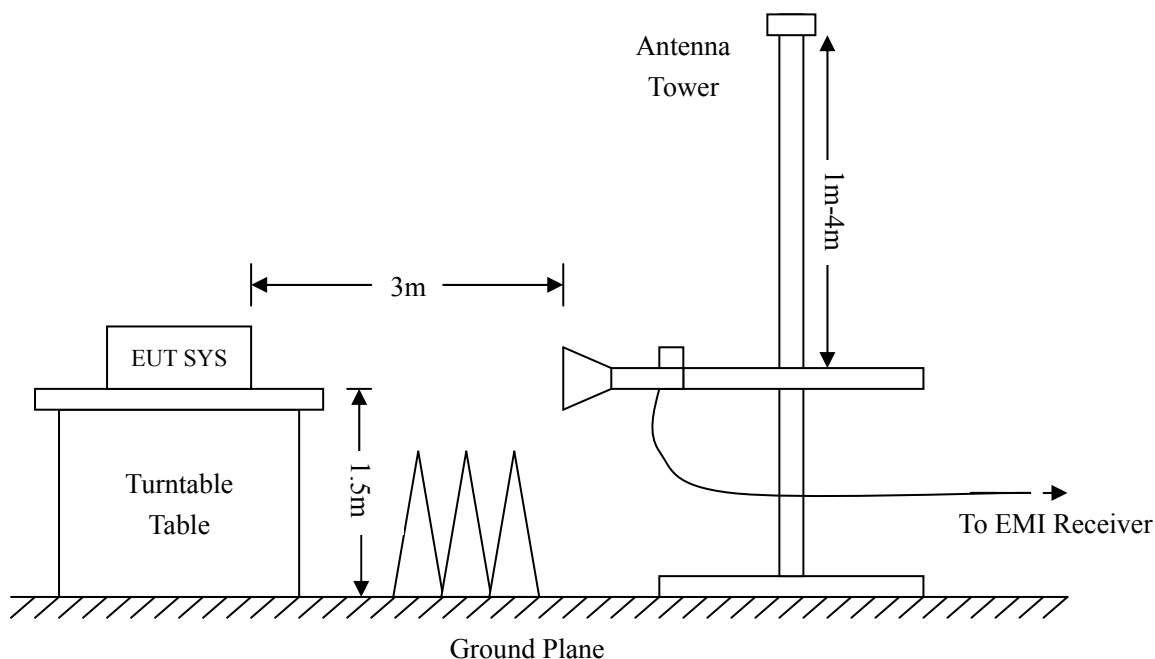
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

8.2 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle. The spacing between the peripherals was 10 cm.





Frequency :9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

Detector function = peak, AV

8.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.4 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

8.5 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst cases:

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

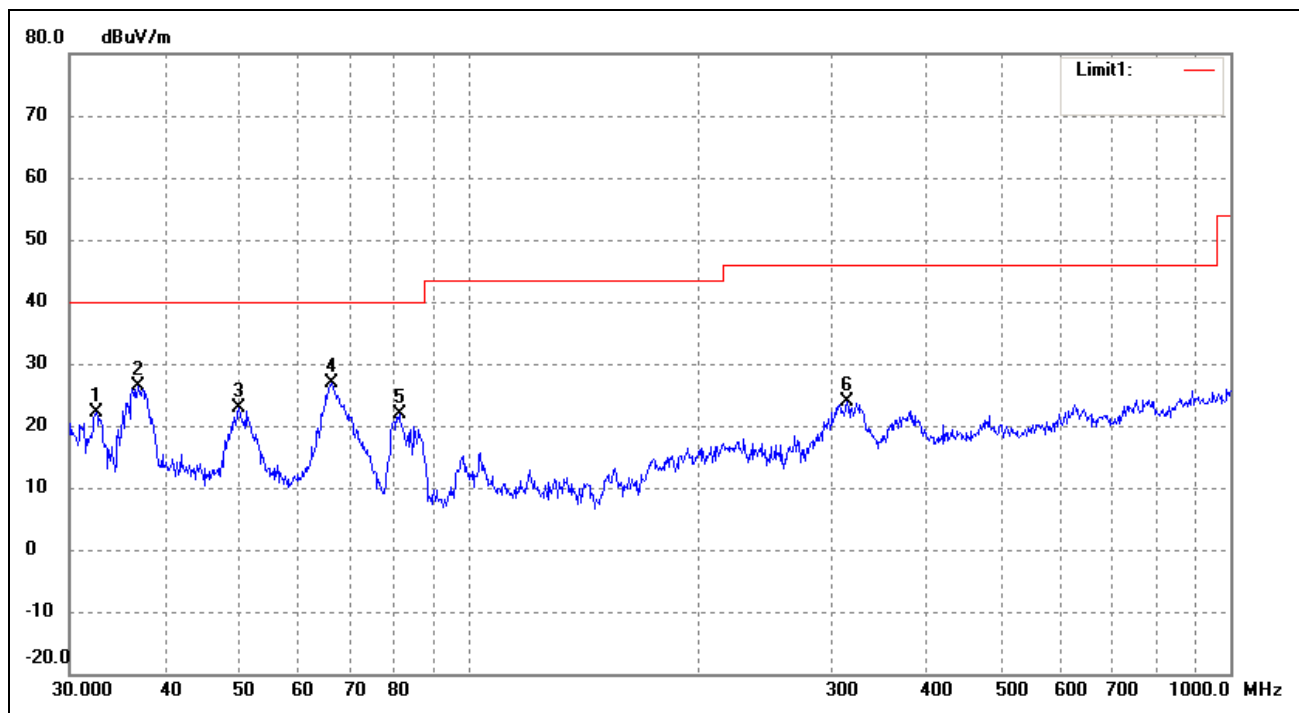
EUT: *Wifi Smart Socket*

Tested Model: *XW-G03*

Operating Condition: *802.11b Transmitting Low Channel-2412MHz*

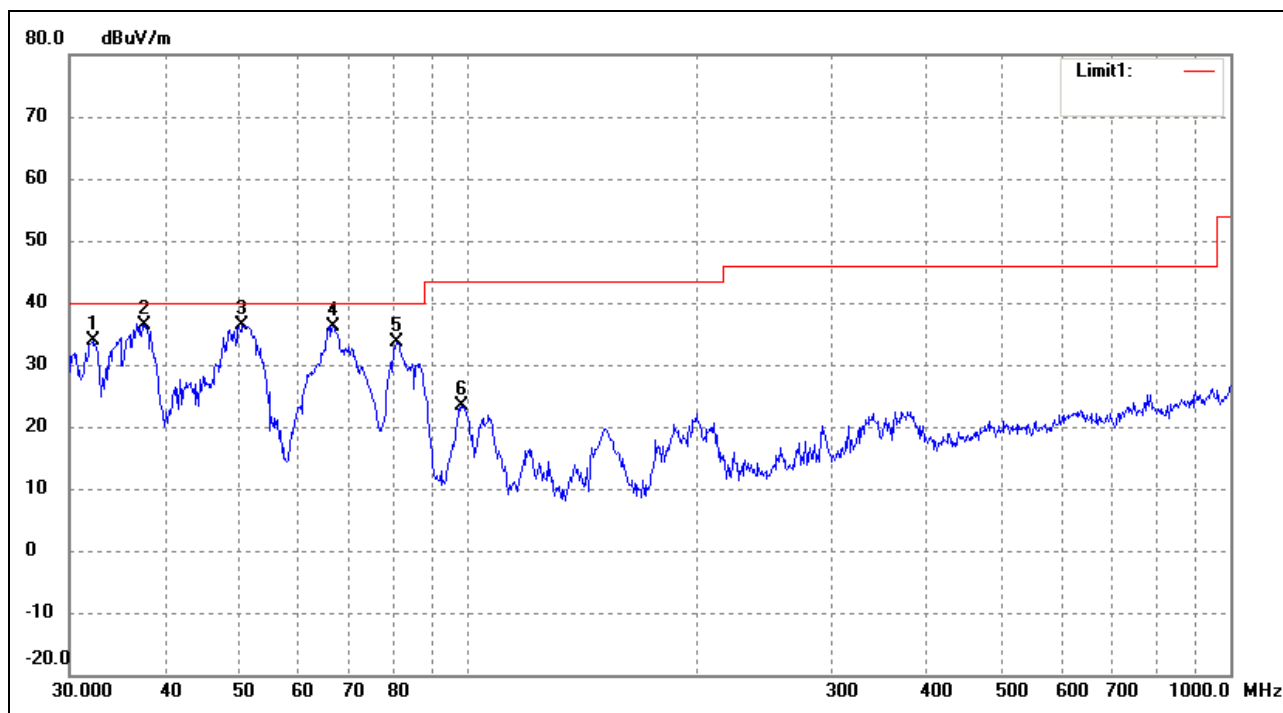
Comment: *AC 120V/60Hz*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	32.5198	31.72	-9.67	22.05	40.00	-17.95	254	100	peak
2	36.8953	34.98	-8.52	26.46	40.00	-13.54	113	100	peak
3	50.0566	31.12	-8.33	22.79	40.00	-17.21	284	100	peak
4	66.2662	38.55	-11.62	26.93	40.00	-13.07	360	100	peak
5	81.2117	34.01	-12.11	21.90	40.00	-18.10	100	100	peak
6	314.3765	28.83	-4.92	23.91	46.00	-22.09	147	100	peak

Test Specification: Vertical

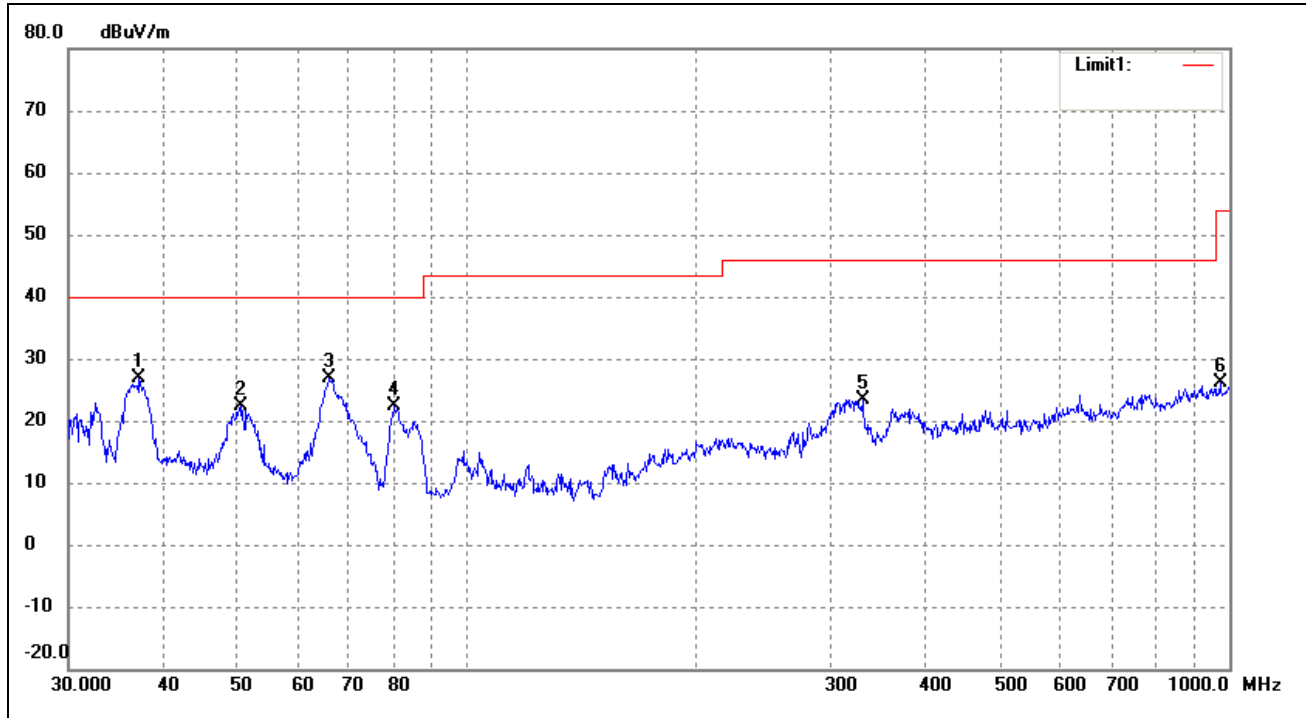


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	32.1795	43.61	-9.75	33.86	40.00	-6.14	114	100	peak
2	37.5479	44.83	-8.34	36.49	40.00	-3.51	270	100	peak
3	50.5860	44.86	-8.40	36.46	40.00	-3.54	360	100	peak
4	66.4989	47.85	-11.69	36.16	40.00	-3.84	116	100	peak
5	80.6442	45.66	-12.05	33.61	40.00	-6.39	257	100	peak
6	98.1419	34.54	-11.28	23.26	43.50	-20.24	131	100	peak

Operating Condition: 802.11b Transmitting Middle Channel-2437MHz

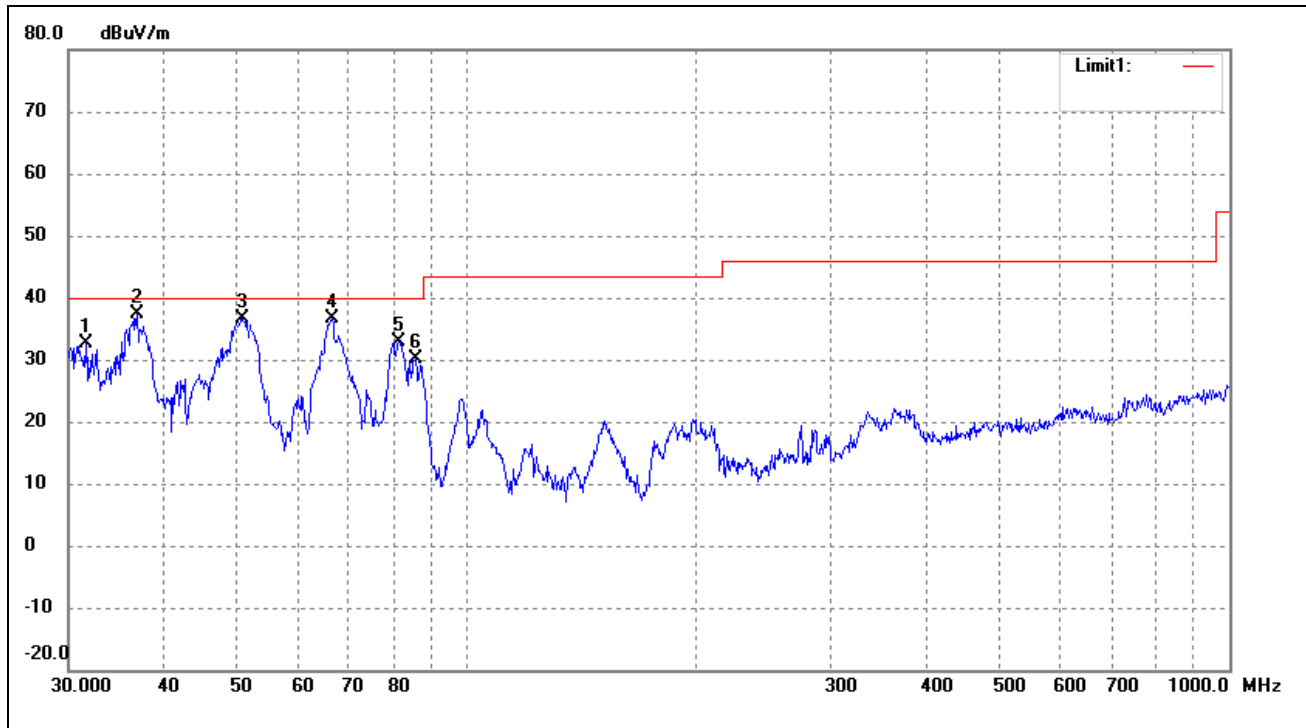
Comment: AC 120V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	37.1550	35.42	-8.45	26.97	40.00	-13.03	178	100	peak
2	50.4089	30.75	-8.37	22.38	40.00	-17.62	224	100	peak
3	66.0342	38.43	-11.54	26.89	40.00	-13.11	160	100	peak
4	80.3619	34.29	-12.02	22.27	40.00	-17.73	290	100	peak
5	330.1949	28.29	-4.81	23.48	46.00	-22.52	247	100	peak
6	972.3374	22.26	3.76	26.02	54.00	-27.98	238	100	peak

Test Specification: Vertical

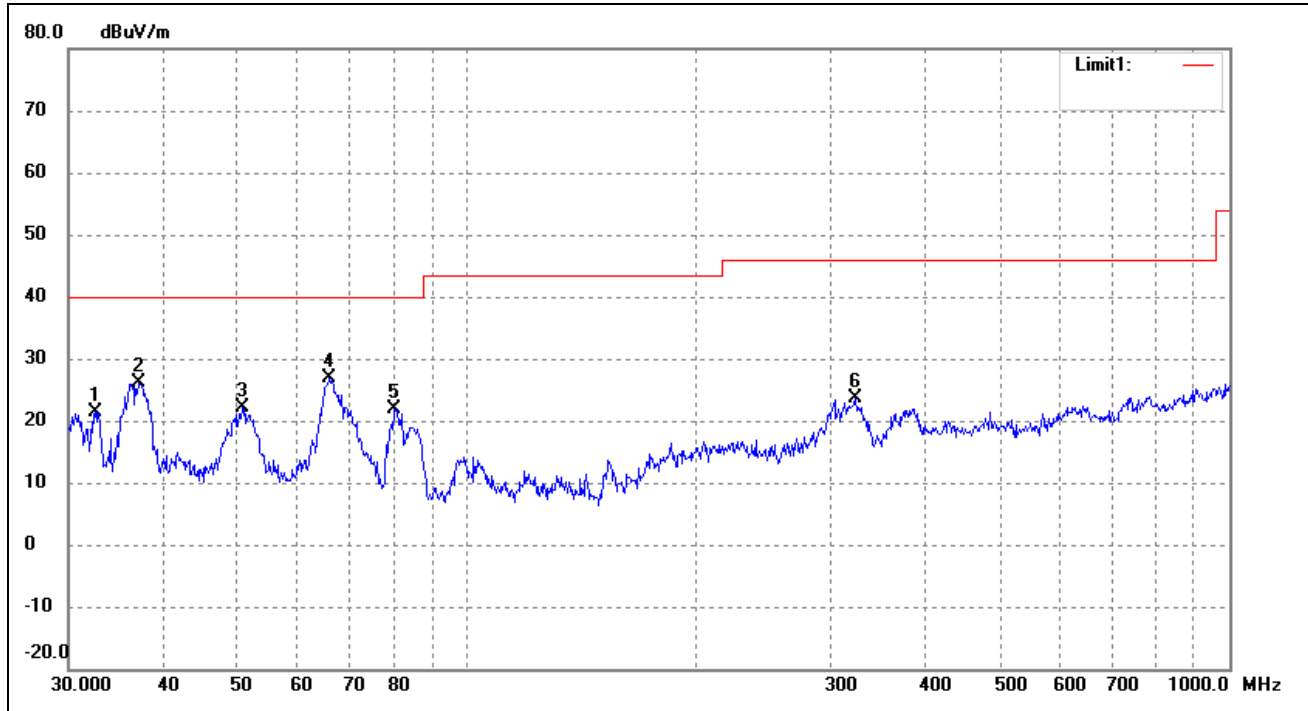


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	31.6202	42.42	-9.90	32.52	40.00	-7.48	256	100	peak
2	36.8953	45.78	-8.52	37.26	40.00	-2.74	147	100	peak
3	50.7637	44.98	-8.42	36.56	40.00	-3.44	162	100	peak
4	66.4989	48.37	-11.69	36.68	40.00	-3.32	139	100	peak
5	81.2117	45.05	-12.11	32.94	40.00	-7.06	257	100	peak
6	85.5977	42.53	-12.52	30.01	40.00	-9.99	130	100	peak

Operating Condition: 802.11b Transmitting High Channel-2462MHz

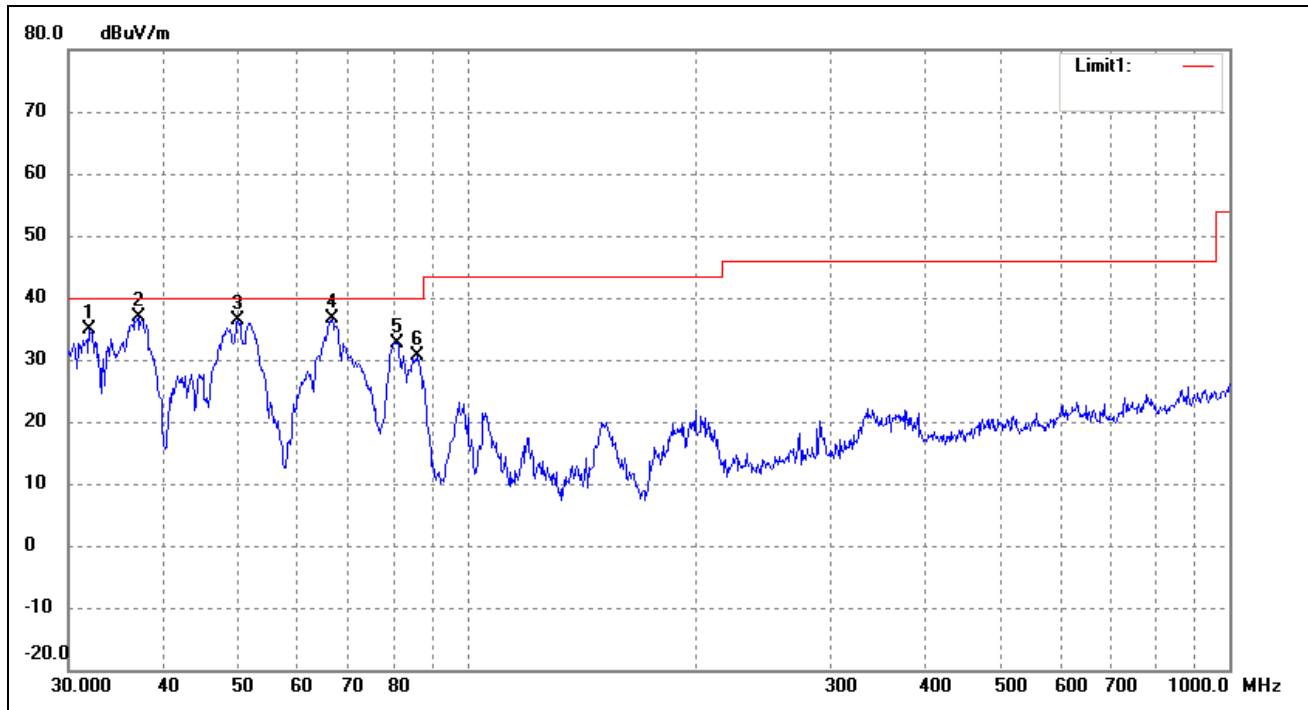
Comment: AC 120V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.5198	31.01	-9.67	21.34	40.00	-18.66	176	100	peak
2	37.0249	34.65	-8.48	26.17	40.00	-13.83	255	100	peak
3	50.7637	30.44	-8.42	22.02	40.00	-17.98	360	100	peak
4	66.0342	38.43	-11.54	26.89	40.00	-13.11	178	100	peak
5	80.3619	33.80	-12.02	21.78	40.00	-18.22	249	100	peak
6	323.3204	28.24	-4.68	23.56	46.00	-22.44	162	100	peak

Test Specification: Vertical

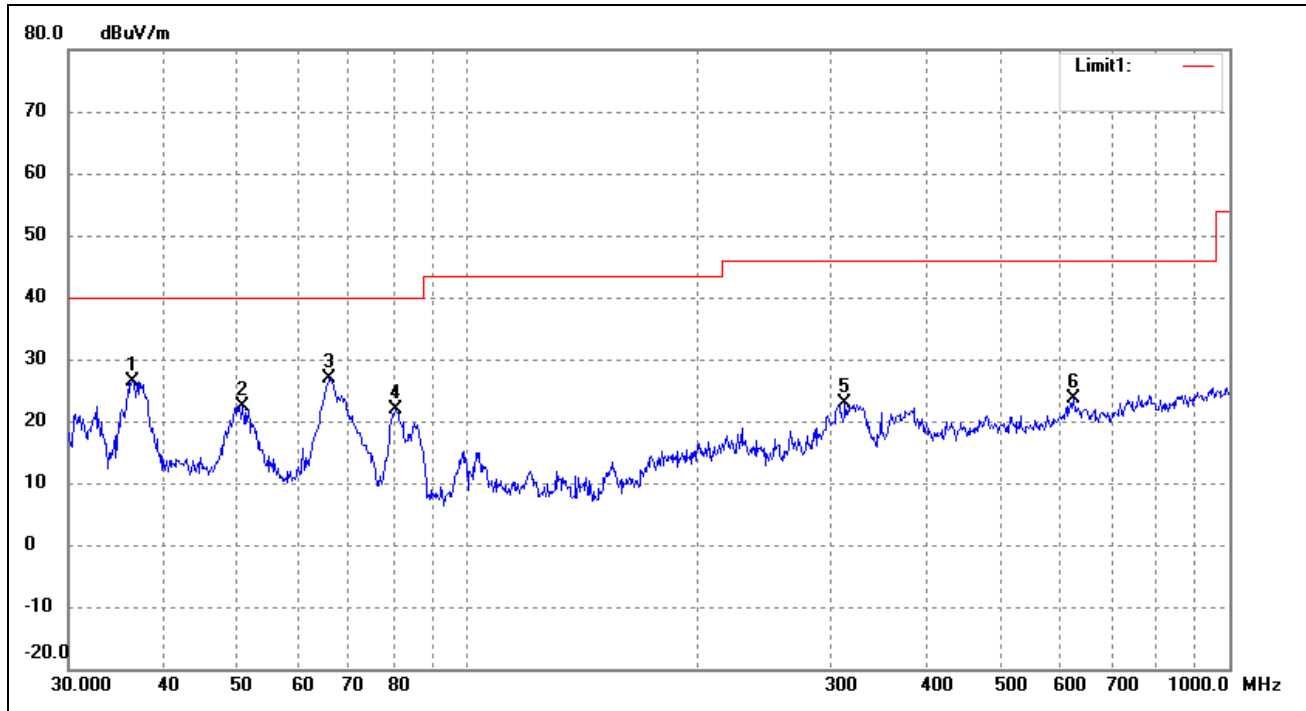


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	31.9546	44.57	-9.81	34.76	40.00	-5.24	169	100	peak
2	37.0249	45.34	-8.48	36.86	40.00	-3.14	225	100	peak
3	50.0566	44.67	-8.33	36.34	40.00	-3.66	160	100	peak
4	66.4989	48.36	-11.69	36.67	40.00	-3.33	310	100	peak
5	80.9275	44.81	-12.07	32.74	40.00	-7.26	179	100	peak
6	85.8984	43.08	-12.55	30.53	40.00	-9.47	153	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

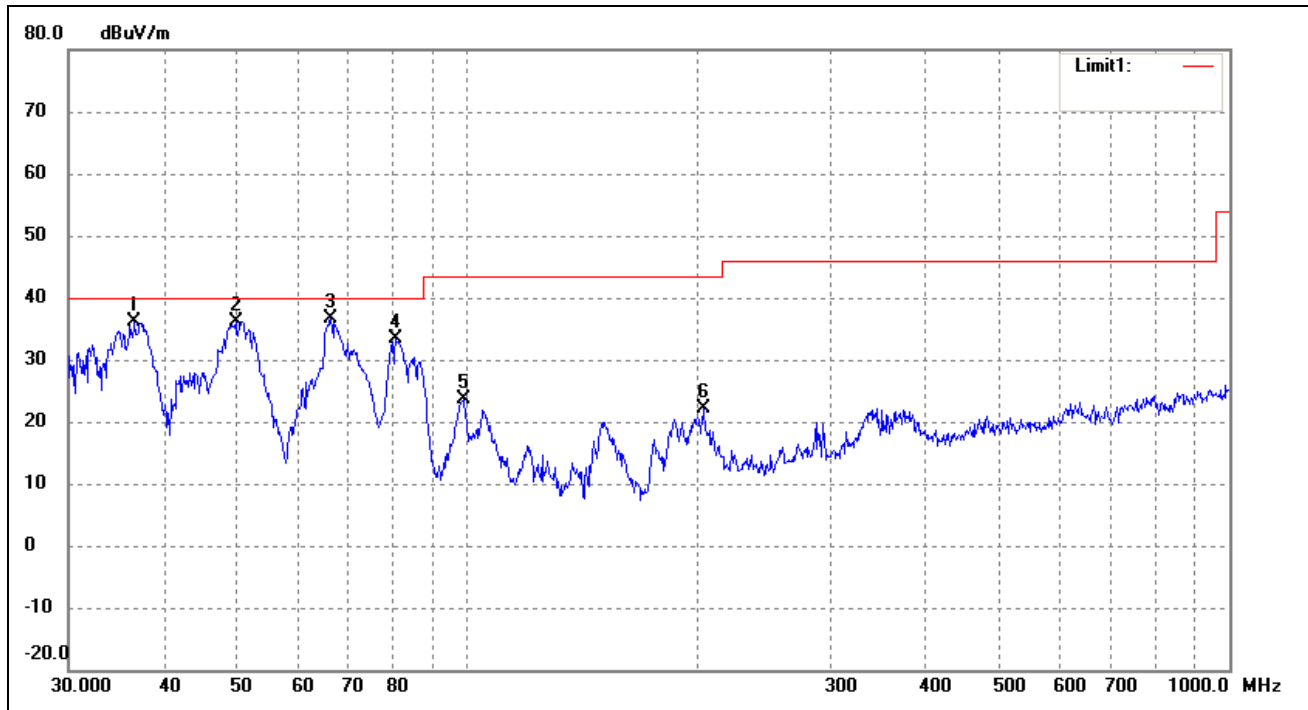
EUT: *Wifi Smart Socket*
Tested Model: *XW-G03*
Operating Condition: *802.11g Transmitting Low Channel-2412MHz*
Comment: *AC 120V/60Hz*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	36.3814	35.03	-8.66	26.37	40.00	-13.63	174	100	peak
2	50.7637	30.89	-8.42	22.47	40.00	-17.53	160	100	peak
3	66.0342	38.43	-11.54	26.89	40.00	-13.11	320	100	peak
4	80.6442	33.94	-12.05	21.89	40.00	-18.11	230	100	peak
5	313.2760	27.81	-4.97	22.84	46.00	-23.16	183	100	peak
6	625.0780	22.48	1.11	23.59	46.00	-22.41	167	100	peak

Test Specification: Vertical

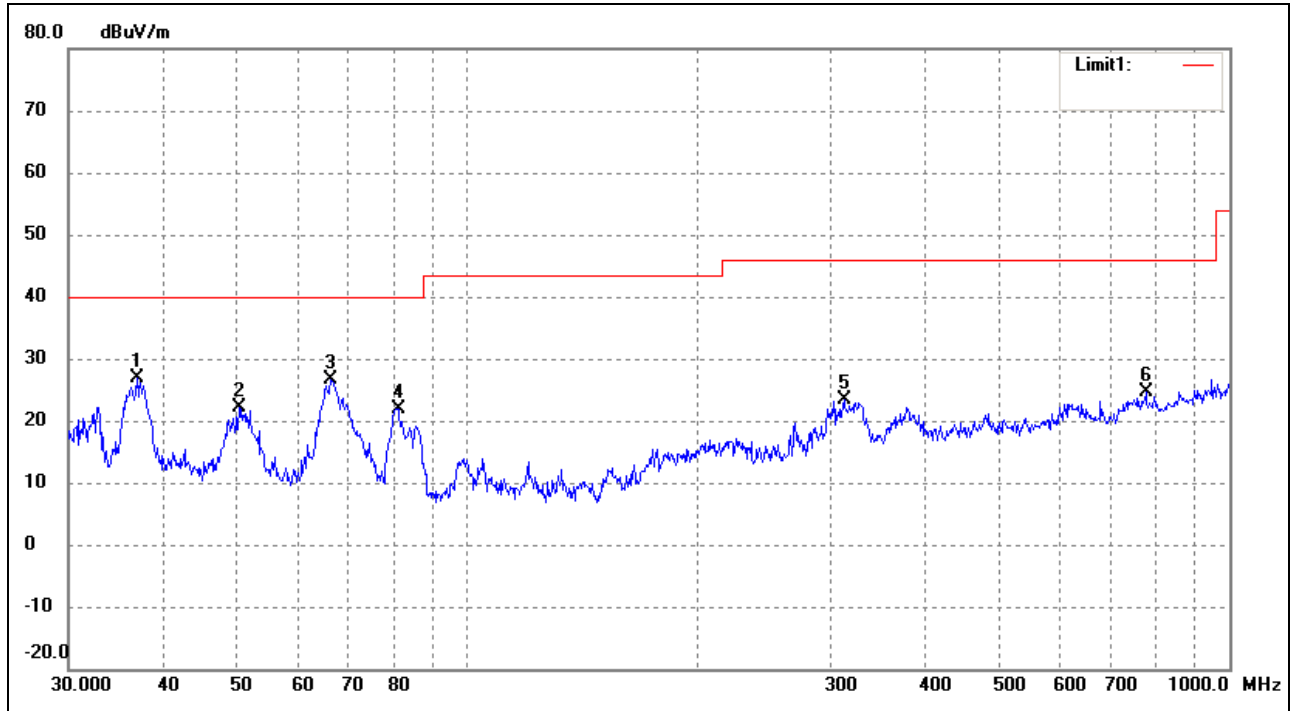


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.6375	44.68	-8.59	36.09	40.00	-3.91	177	100	peak
2	49.7068	44.40	-8.30	36.10	40.00	-3.90	90	100	peak
3	66.2662	48.16	-11.62	36.54	40.00	-3.46	336	100	peak
4	80.6442	45.54	-12.05	33.49	40.00	-6.51	360	100	peak
5	98.8326	34.76	-11.14	23.62	43.50	-19.88	127	100	peak
6	204.2377	30.78	-8.69	22.09	43.50	-21.41	336	100	peak

Operating Condition: 802.11g Transmitting Middle Channel-2437MHz

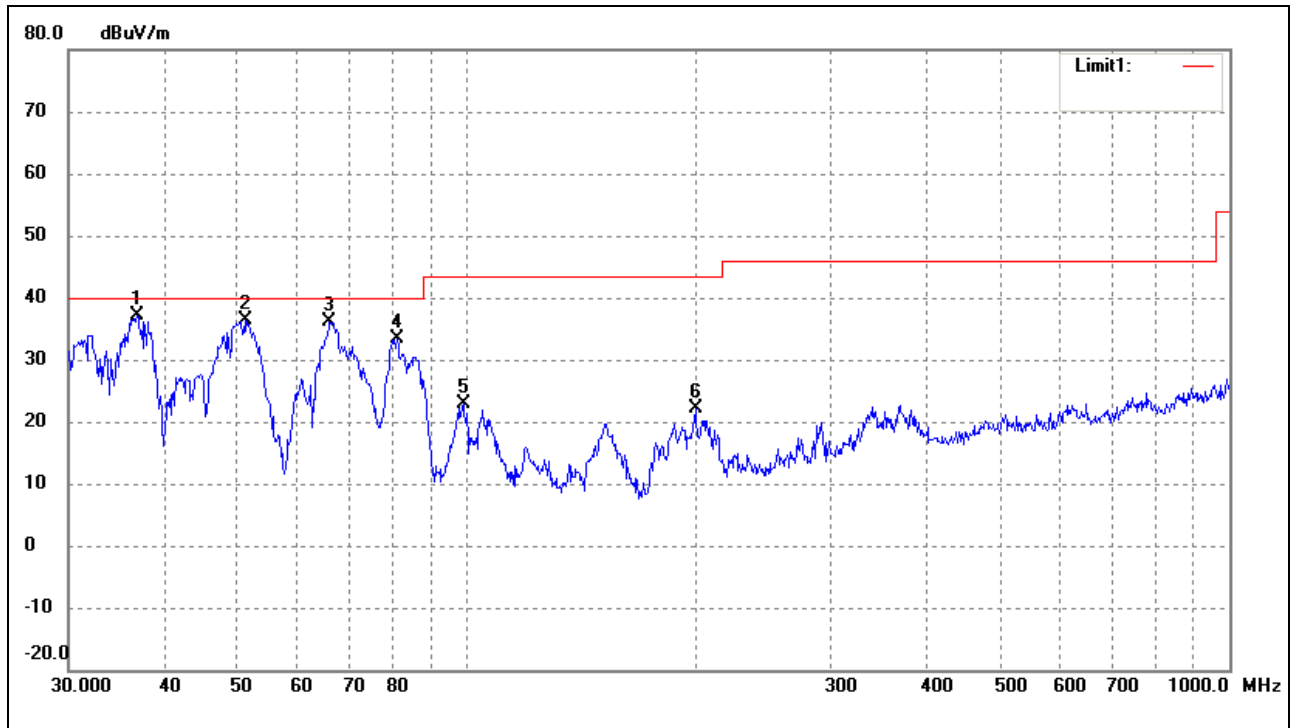
Comment: AC 120V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.8953	35.45	-8.52	26.93	40.00	-13.07	270	100	peak
2	50.2325	30.58	-8.35	22.23	40.00	-17.77	164	100	peak
3	66.2662	38.28	-11.62	26.66	40.00	-13.34	228	200	peak
4	81.2117	33.99	-12.11	21.88	40.00	-18.12	130	200	peak
5	312.1794	28.43	-5.03	23.40	46.00	-22.60	360	100	peak
6	776.8778	21.96	2.73	24.69	46.00	-21.31	168	100	peak

Test Specification: Vertical

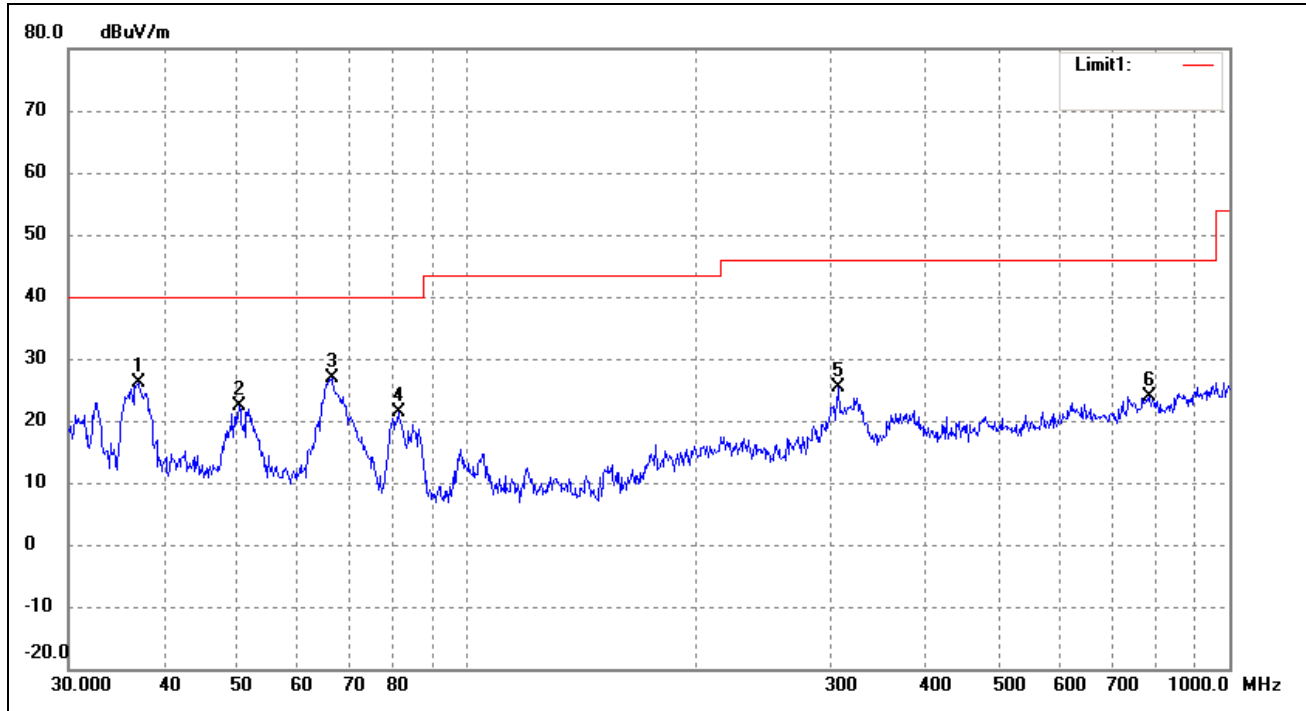


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.8953	45.71	-8.52	37.19	40.00	-2.81	360	100	peak
2	51.1209	44.72	-8.46	36.26	40.00	-3.74	255	100	peak
3	66.0342	47.56	-11.54	36.02	40.00	-3.98	270	100	peak
4	80.9275	45.50	-12.07	33.43	40.00	-6.57	180	100	peak
5	98.8326	34.10	-11.14	22.96	43.50	-20.54	169	100	peak
6	199.2855	30.86	-8.75	22.11	43.50	-21.39	283	100	peak

Operating Condition: 802.11g Transmitting High Channel-2462MHz

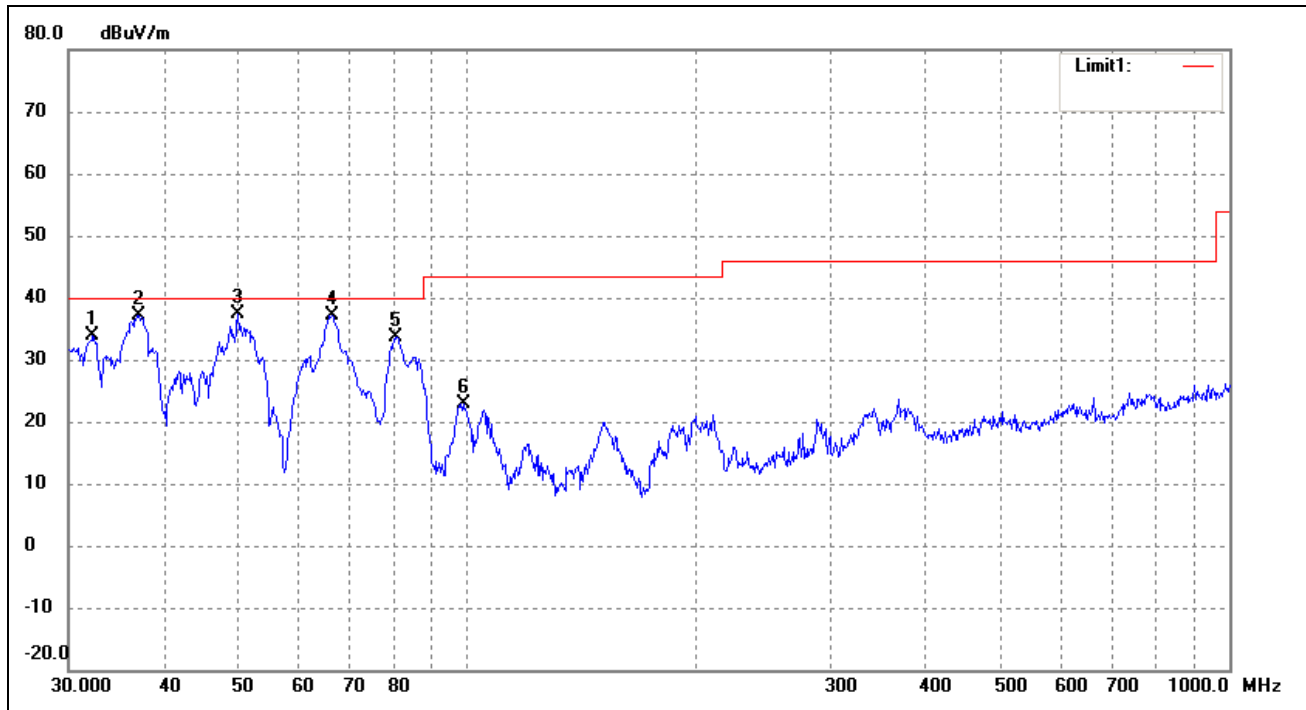
Comment: AC 120V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	37.0249	34.67	-8.48	26.19	40.00	-13.81	154	100	peak
2	50.2325	30.78	-8.35	22.43	40.00	-17.57	151	100	peak
3	66.4989	38.64	-11.69	26.95	40.00	-13.05	317	100	peak
4	81.2116	33.52	-12.11	21.41	40.00	-18.59	289	100	peak
5	306.7536	30.71	-5.29	25.42	46.00	-20.58	132	100	peak
6	785.0934	21.33	2.65	23.98	46.00	-22.02	161	100	peak

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.2925	43.48	-9.72	33.76	40.00	-6.24	320	100	peak
2	37.0249	45.72	-8.48	37.24	40.00	-2.76	180	100	peak
3	50.0566	45.60	-8.33	37.27	40.00	-2.73	225	100	peak
4	66.4989	48.84	-11.69	37.15	40.00	-2.85	267	100	peak
5	80.6442	45.77	-12.05	33.72	40.00	-6.28	187	100	peak
6	98.8326	34.12	-11.14	22.98	43.50	-20.52	254	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

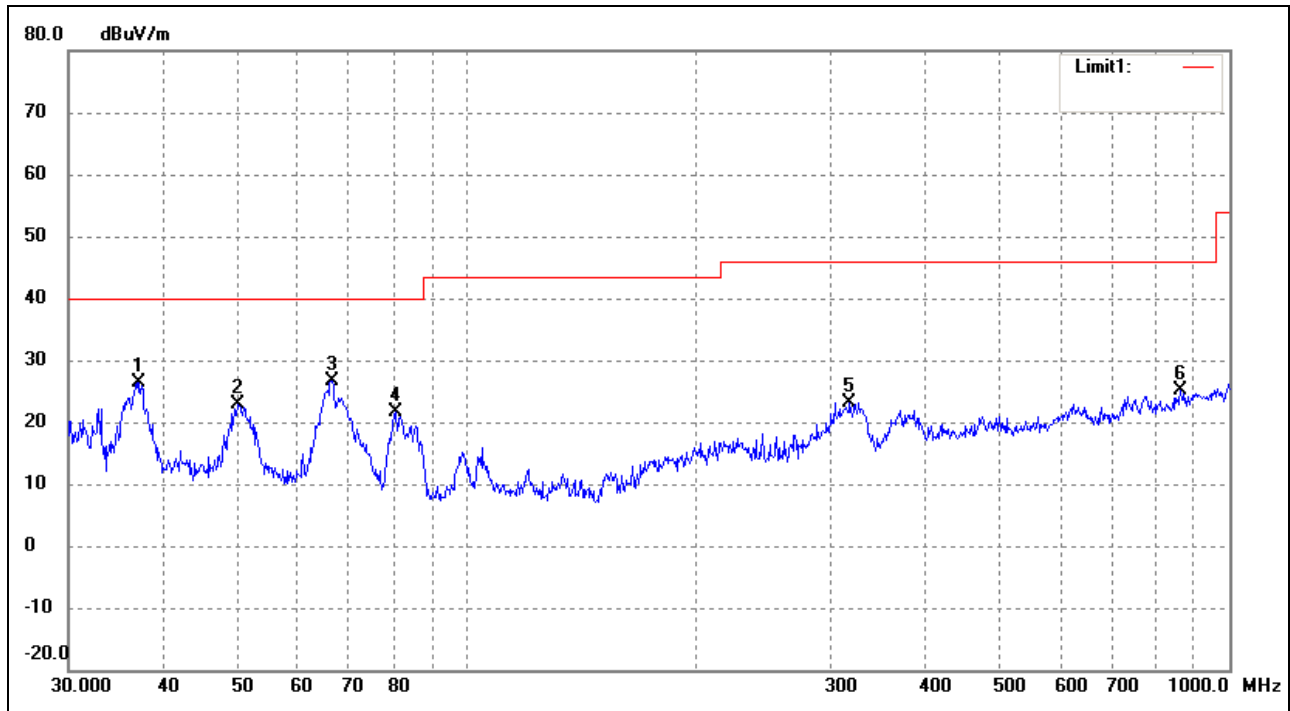
EUT: *Wifi Smart Socket*

Tested Model: *XW-G03*

Operating Condition: *802.11n-HT20 Transmitting Low Channel-2412MHz*

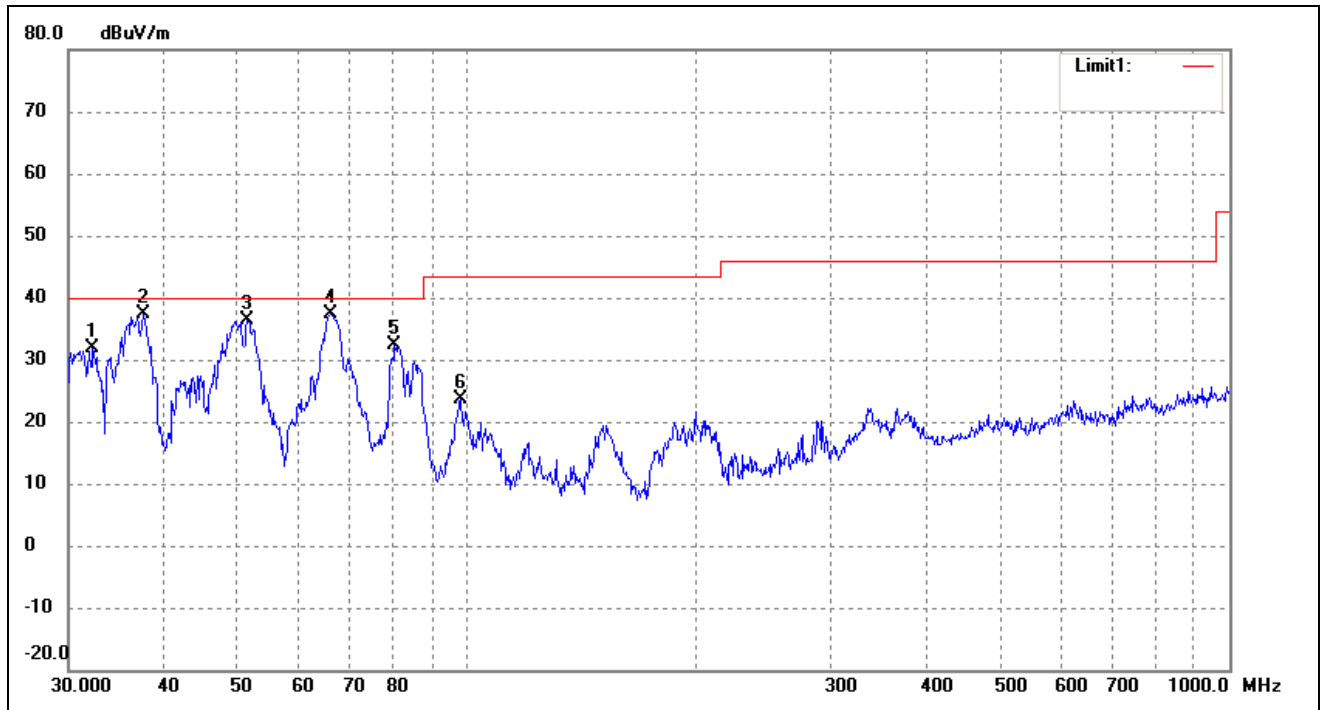
Comment: *AC 120V/60Hz*

Test Specification: *Horizontal*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	37.1550	34.90	-8.45	26.45	40.00	-13.55	150	100	peak
2	50.0566	31.10	-8.33	22.77	40.00	-17.23	131	100	peak
3	66.4989	38.40	-11.69	26.71	40.00	-13.29	285	100	peak
4	80.6442	33.67	-12.05	21.62	40.00	-18.38	224	100	peak
5	317.7011	27.97	-4.74	23.23	46.00	-22.77	162	100	peak
6	863.0562	22.21	2.97	25.18	46.00	-20.82	185	100	peak

Test Specification: Vertical

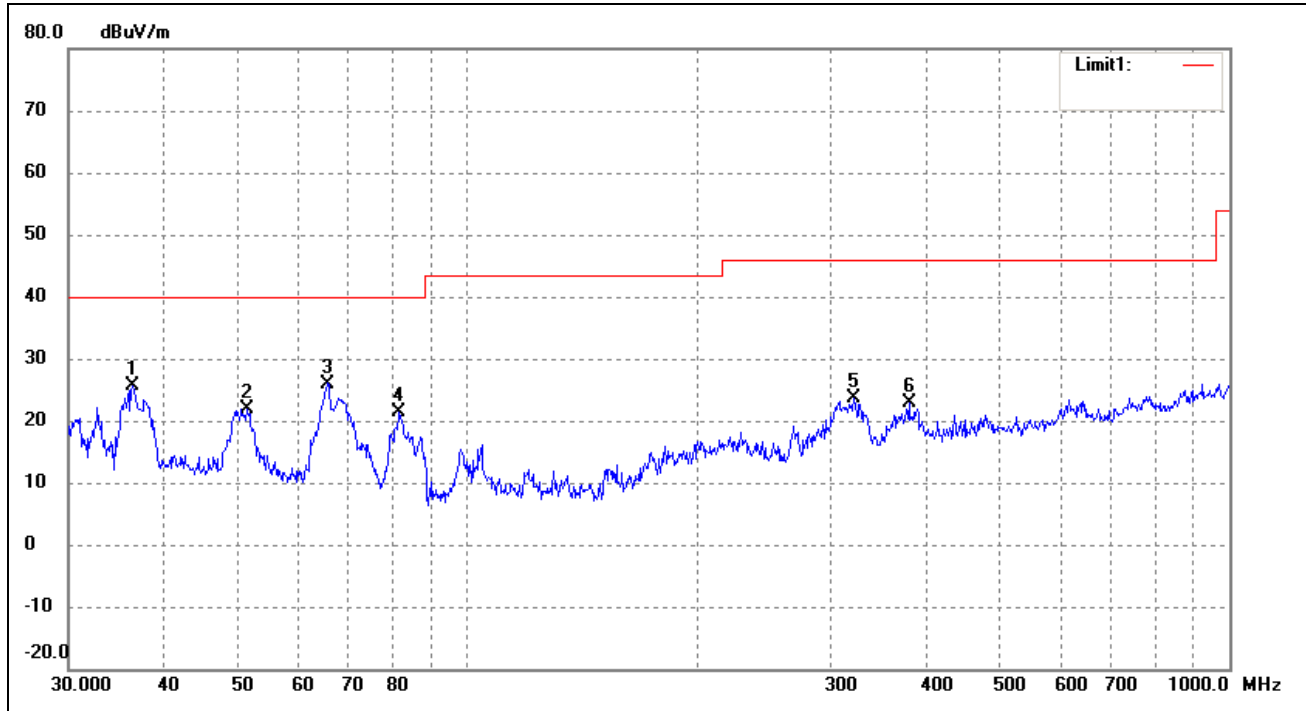


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.2925	41.49	-9.72	31.77	40.00	-8.23	155	100	peak
2	37.5479	45.80	-8.34	37.46	40.00	-2.54	197	100	peak
3	51.4807	44.93	-8.51	36.42	40.00	-3.58	310	100	peak
4	66.2662	48.94	-11.62	37.32	40.00	-2.68	229	100	peak
5	80.3619	44.46	-12.02	32.44	40.00	-7.56	130	100	peak
6	98.1419	34.91	-11.28	23.63	43.50	-19.87	163	100	peak

Operating Condition: 802.11n-HT20 Transmitting Middle Channel-2437MHz

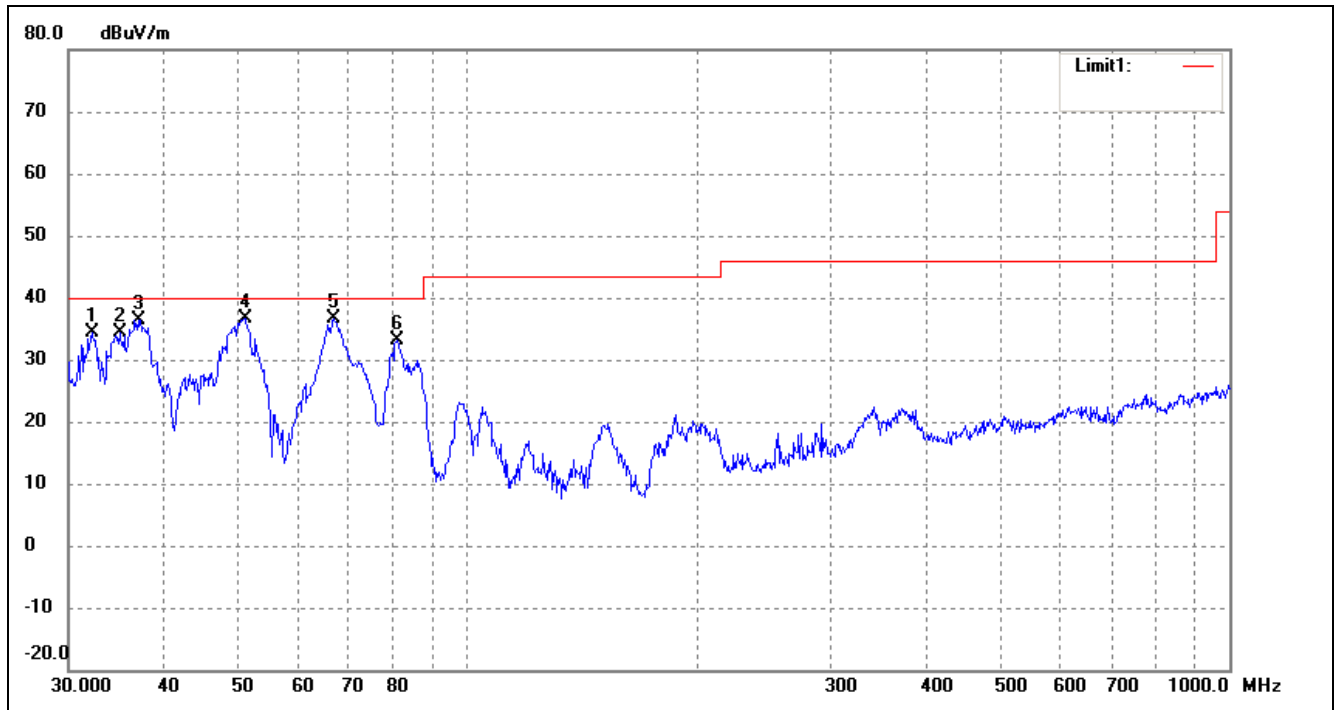
Comment: AC 120V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.3814	34.20	-8.66	25.54	40.00	-14.46	274	100	peak
2	51.4807	30.50	-8.51	21.99	40.00	-18.01	116	100	peak
3	65.5727	37.39	-11.39	26.00	40.00	-14.00	82	100	peak
4	81.4970	33.52	-12.13	21.39	40.00	-18.61	134	100	peak
5	321.0608	28.18	-4.64	23.54	46.00	-22.46	257	100	peak
6	379.9141	24.93	-2.11	22.82	46.00	-23.18	136	100	peak

Test Specification: Vertical

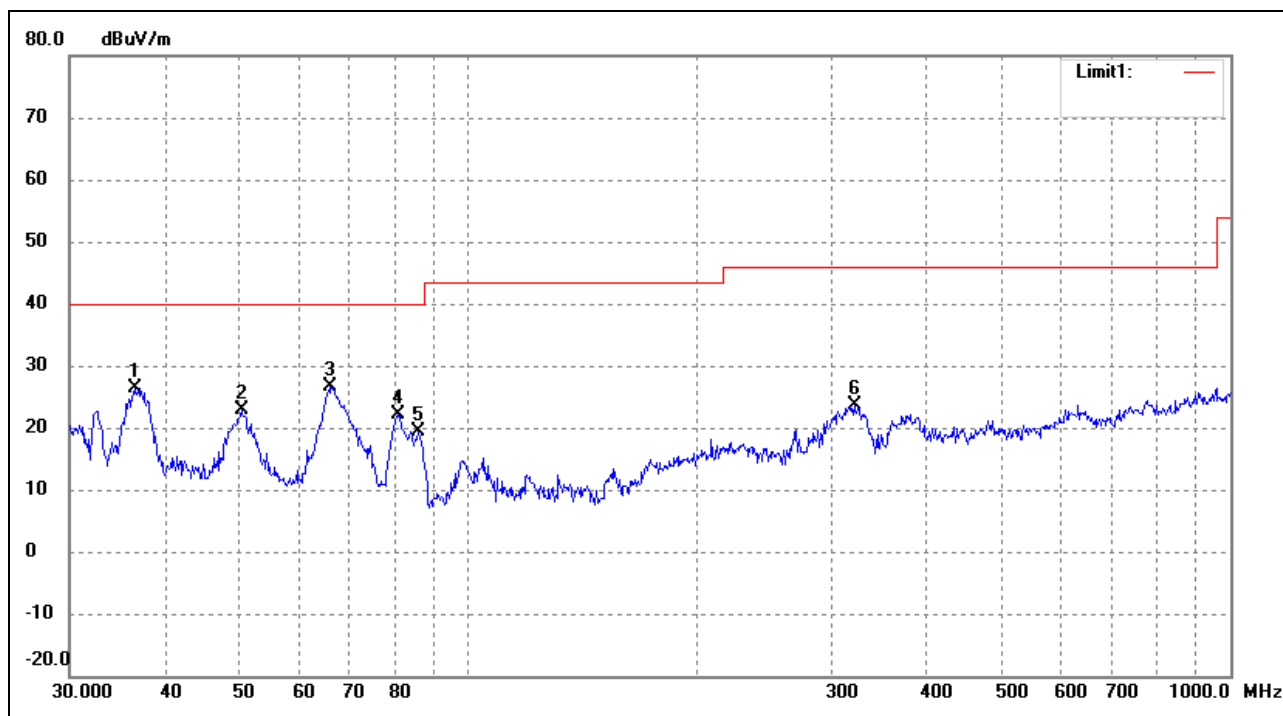


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	32.1795	44.06	-9.75	34.31	40.00	-5.69	264	100	peak
2	35.0048	43.39	-9.04	34.35	40.00	-5.65	110	100	peak
3	37.0249	44.97	-8.48	36.49	40.00	-3.51	136	100	peak
4	51.1209	45.06	-8.46	36.60	40.00	-3.40	90	100	peak
5	66.7325	48.41	-11.77	36.64	40.00	-3.36	263	100	peak
6	80.9275	45.09	-12.07	33.02	40.00	-6.98	181	100	peak

Operating Condition: 802.11n-HT20 Transmitting High Channel-2462MHz

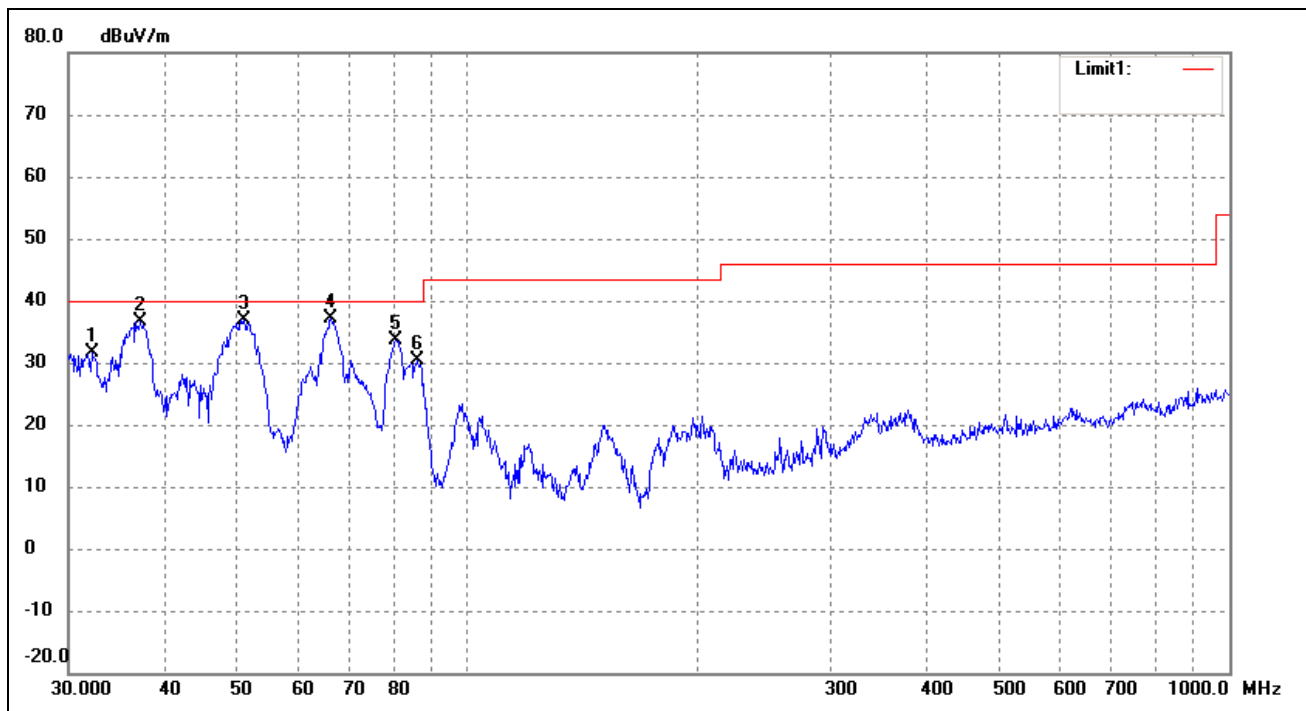
Comment: AC 120V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.5092	34.99	-8.63	26.36	40.00	-13.64	360	100	peak
2	50.4089	31.14	-8.37	22.77	40.00	-17.23	112	100	peak
3	66.0342	38.10	-11.54	26.56	40.00	-13.44	180	100	peak
4	80.9275	34.30	-12.07	22.23	40.00	-17.77	270	100	peak
5	85.8984	31.81	-12.55	19.26	40.00	-20.74	149	100	peak
6	321.0608	28.19	-4.64	23.55	46.00	-22.45	158	100	peak

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.1795	41.37	-9.75	31.62	40.00	-8.38	267	100	peak
2	37.2855	44.99	-8.41	36.58	40.00	-3.42	116	100	peak
3	50.9420	45.42	-8.44	36.98	40.00	-3.02	360	100	peak
4	66.2662	48.76	-11.62	37.14	40.00	-2.86	228	100	peak
5	80.6442	45.68	-12.05	33.63	40.00	-6.37	270	100	peak
6	86.2001	43.07	-12.58	30.49	40.00	-9.51	126	100	peak

Spurious Emissions Above 1GHz

Test Mode: 802.11b

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	52.19	-3.87	48.32	74.00	-25.68	H	PK
4824.000	41.63	-3.87	37.76	54.00	-16.24	H	AV
7236.000	46.39	1.14	47.53	74.00	-26.47	H	PK
7236.000	32.14	1.19	33.33	54.00	-20.67	H	AV
4824.000	52.97	-3.86	49.11	74.00	-24.89	V	PK
4824.000	44.78	-3.86	40.92	54.00	-13.08	V	AV
7236.000	45.69	1.10	46.79	74.00	-27.21	V	PK
7236.000	41.97	1.10	43.07	54.00	-10.93	V	AV
Middle Channel-2437MHz							
4874.000	52.91	-3.74	49.17	74.00	-24.83	H	PK
4874.000	42.58	-3.74	38.84	54.00	-15.16	H	AV
7311.000	45.13	1.47	46.6	74.00	-27.4	H	PK
7311.000	32.94	1.47	34.41	54.00	-19.59	H	AV
4874.000	54.67	-3.74	50.93	74.00	-23.07	V	PK
4874.000	41.89	-3.74	38.15	54.00	-15.85	V	AV
7311.000	53.84	1.47	55.31	74.00	-18.69	V	PK
7311.000	31.96	1.47	33.43	54.00	-20.57	V	AV
High Channel-2462MHz							
4924.000	55.14	-3.59	51.55	74.00	-22.45	H	PK
4924.000	41.69	-3.59	38.1	54.00	-15.9	H	AV
7386.000	51.31	1.79	53.1	74.00	-20.9	H	PK
7386.000	38.57	1.79	40.36	54.00	-13.64	H	AV
4924.000	55.17	-3.59	51.58	74.00	-22.42	V	PK
4924.000	41.32	-3.59	37.73	54.00	-16.27	V	AV
7386.000	48.52	1.79	50.31	74.00	-23.69	V	PK
7386.000	35.43	1.79	37.22	54.00	-16.78	V	AV

Test Mode: 802.11g

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	53.97	-3.87	50.1	74.00	-23.9	H	PK
4824.000	42.69	-3.87	38.82	54.00	-15.18	H	AV
7236.000	49.57	1.14	50.71	74.00	-23.29	H	PK
7236.000	35.84	1.19	37.03	54.00	-16.97	H	AV
4824.000	53.91	-3.86	50.05	74.00	-23.95	V	PK
4824.000	42.78	-3.86	38.92	54.00	-15.08	V	AV
7236.000	49.31	1.10	50.41	74.00	-23.59	V	PK
7236.000	38.99	1.10	40.09	54.00	-13.91	V	AV
Middle Channel-2437MHz							
4874.000	54.16	-3.74	50.42	74.00	-23.58	H	PK
4874.000	42.63	-3.74	38.89	54.00	-15.11	H	AV
7311.000	49.07	1.47	50.54	74.00	-23.46	H	PK
7311.000	35.17	1.47	36.64	54.00	-17.36	H	AV
4874.000	52.83	-3.74	49.09	74.00	-24.91	V	PK
4874.000	42.51	-3.74	38.77	54.00	-15.23	V	AV
7311.000	48.63	1.47	50.1	74.00	-23.9	V	PK
7311.000	38.56	1.47	40.03	54.00	-13.97	V	AV
High Channel-2462MHz							
4924.000	53.46	-3.59	49.87	74.00	-24.13	H	PK
4924.000	40.73	-3.59	37.14	54.00	-16.86	H	AV
7386.000	47.82	1.79	49.61	74.00	-24.39	H	PK
7386.000	33.14	1.79	34.93	54.00	-19.07	H	AV
4924.000	54.63	-3.59	51.04	74.00	-22.96	V	PK
4924.000	41.89	-3.59	38.3	54.00	-15.7	V	AV
7386.000	47.67	1.79	49.46	74.00	-24.54	V	PK
7386.000	35.49	1.79	37.28	54.00	-16.72	V	AV

Test Mode: 802.11n-HT20

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	54.73	-3.87	50.86	74.00	-23.14	H	PK
4824.000	43.64	-3.87	39.77	54.00	-14.23	H	AV
7236.000	42.19	1.14	43.33	74.00	-30.67	H	PK
7236.000	34.82	1.19	36.01	54.00	-17.99	H	AV
4824.000	51.66	-3.86	47.8	74.00	-26.2	V	PK
4824.000	41.87	-3.86	38.01	54.00	-15.99	V	AV
7236.000	46.92	1.10	48.02	74.00	-25.98	V	PK
7236.000	39.39	1.10	40.49	54.00	-13.51	V	AV
Middle Channel-2437MHz							
4874.000	54.67	-3.74	50.93	74.00	-23.07	H	PK
4874.000	42.16	-3.74	38.42	54.00	-15.58	H	AV
7311.000	48.97	1.47	50.44	74.00	-23.56	H	PK
7311.000	35.17	1.47	36.64	54.00	-17.36	H	AV
4874.000	55.93	-3.74	52.19	74.00	-21.81	V	PK
4874.000	43.86	-3.74	40.12	54.00	-13.88	V	AV
7311.000	50.08	1.47	51.55	74.00	-22.45	V	PK
7311.000	36.19	1.47	37.66	54.00	-16.34	V	AV
High Channel-2462MHz							
4924.000	52.37	-3.59	48.78	74.00	-25.22	H	PK
4924.000	44.57	-3.59	40.98	54.00	-13.02	H	AV
7386.000	50.12	1.79	51.91	74.00	-22.09	H	PK
7386.000	35.39	1.79	37.18	54.00	-16.82	H	AV
4924.000	51.72	-3.59	48.13	74.00	-25.87	V	PK
4924.000	42.96	-3.59	39.37	54.00	-14.63	V	AV
7386.000	51.62	1.79	53.41	74.00	-20.59	V	PK
7386.000	37.81	1.79	39.6	54.00	-14.4	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

9. Out of Band Emissions

9.1 Standard Applicable

According to §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

9.2 Test Procedure

According to the KDB 558074D01 v03r05, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205. Note that the method of measurement KDB publication number: 913591 may be used for the radiated bandedge measurements.

According to the KDB 558074 D01 v03r04, the conducted spurious emissions test method as follows:

1. Set start frequency to DTS channel edge frequency.
2. Set stop frequency so as to encompass the spectrum to be examined.
3. Set RBW = 100 kHz.
4. Set VBW \geq 300 kHz.
5. Detector = peak.
6. Trace Mode = max hold.
7. Sweep = auto couple.
8. Allow the trace to stabilize (this may take some time, depending on the extent of the span).
9. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in section 8.1. Report the three highest emissions relative to the limit.

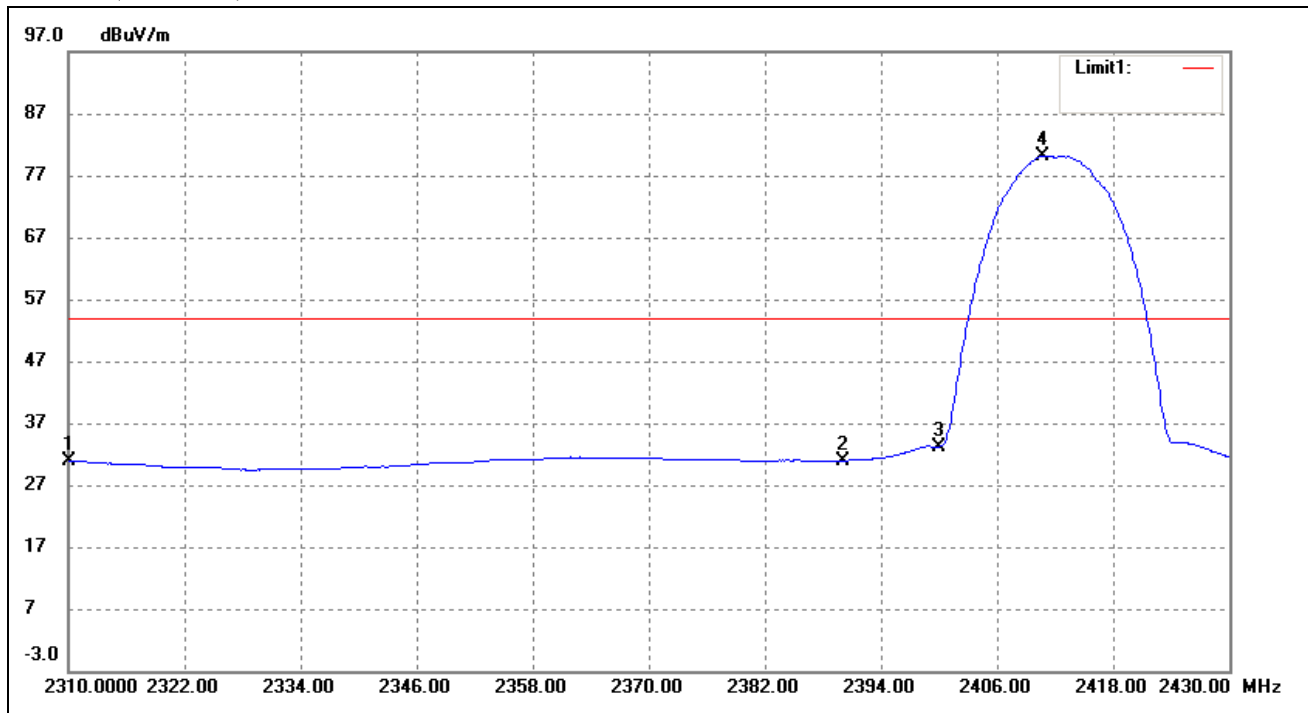
9.3 Environmental Conditions

Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

9.4 Summary of Test Results/Plots

802.11b-Lowest Bandedge

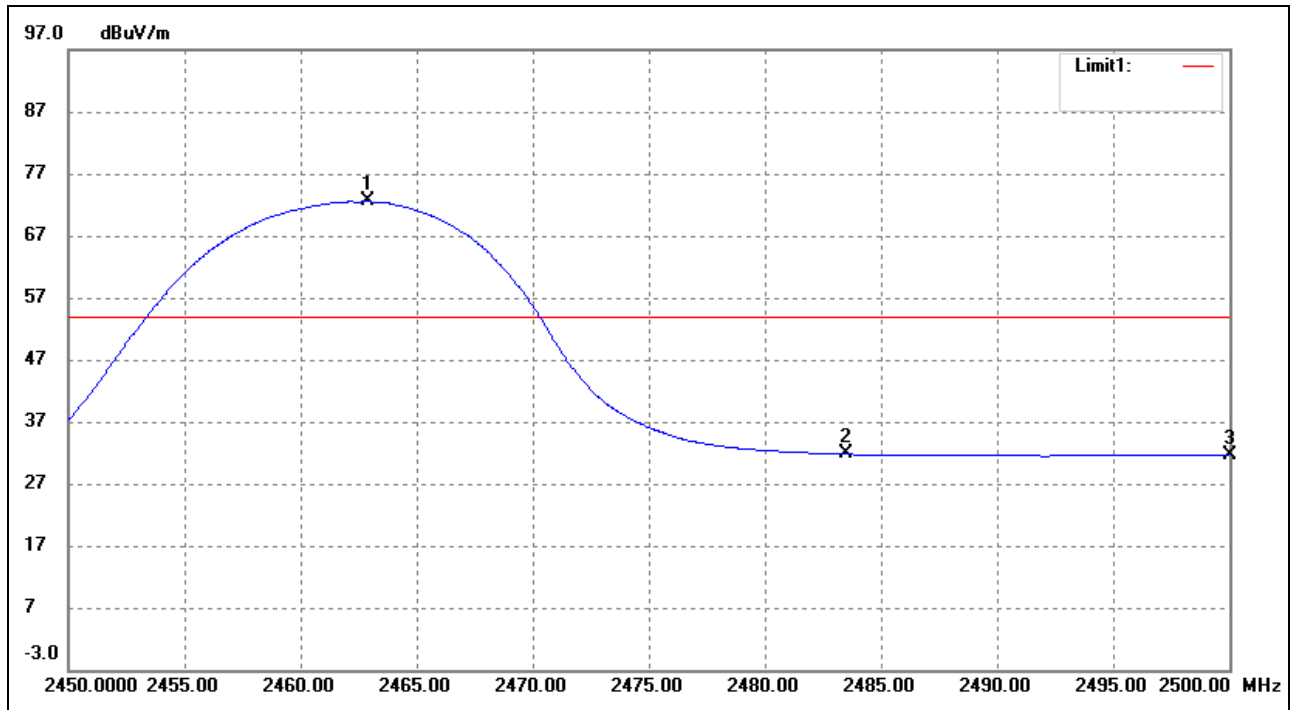
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	34.77	-3.80	30.97	54.00	-23.03	Average Detector
	2310.000	48.09	-3.80	44.29	74.00	-29.71	Peak Detector
2	2390.000	33.96	-3.00	30.96	54.00	-23.04	Average Detector
	2390.000	47.16	-3.00	44.16	74.00	-29.84	Peak Detector
3	2400.000	36.12	-2.90	33.22	54.00	-20.78	Average Detector
	2400.000	47.97	-2.90	45.07	74.00	-28.93	Peak Detector

802.11b-Highest Bandedge

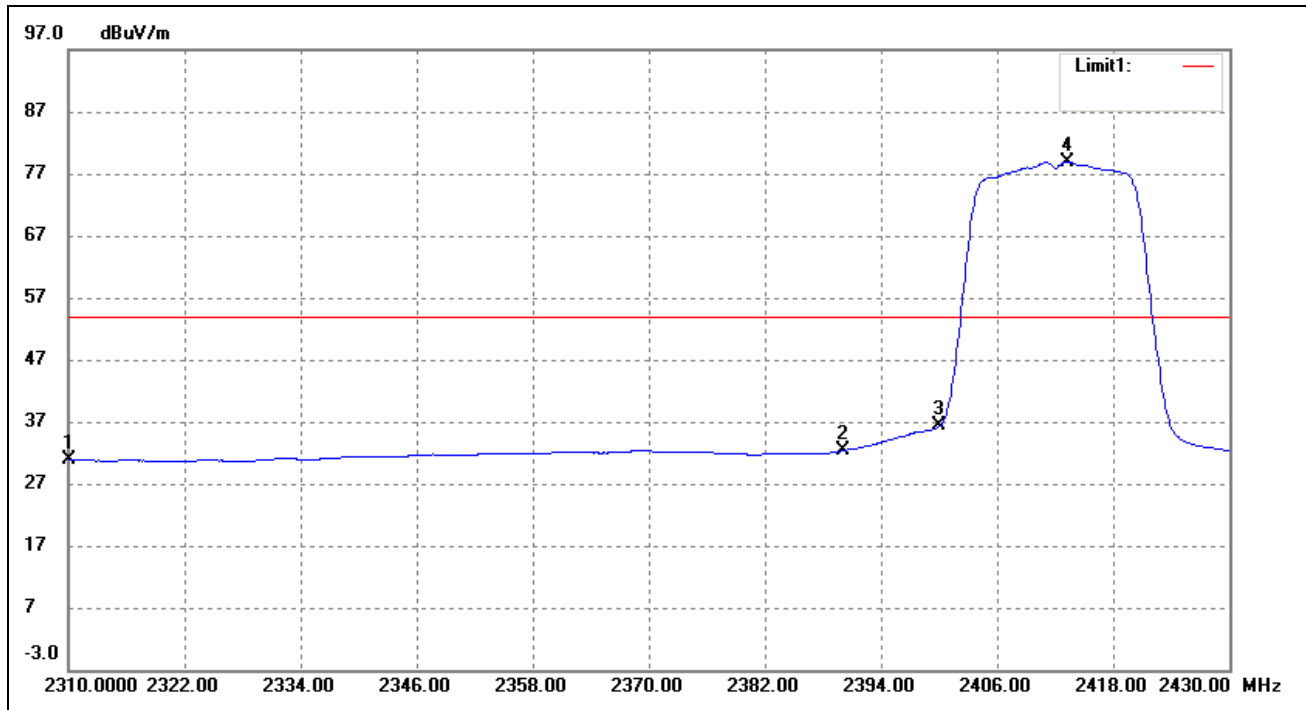
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2462.900	75.11	-2.58	72.53	/	/	Average Detector
	2463.250	84.91	-2.58	82.33	/	/	Peak Detector
2	2483.500	Delta = 40.88dBc		31.78	54.00	-22.22	Average Detector
	2483.500			44.50	74.00	-29.50	Peak Detector
3	2500.000	34.07	-2.40	31.67	54.00	-22.33	Average Detector
	2500.000	46.82	-2.40	44.42	74.00	-29.58	Peak Detector

802.11g-Lowest Bandedge

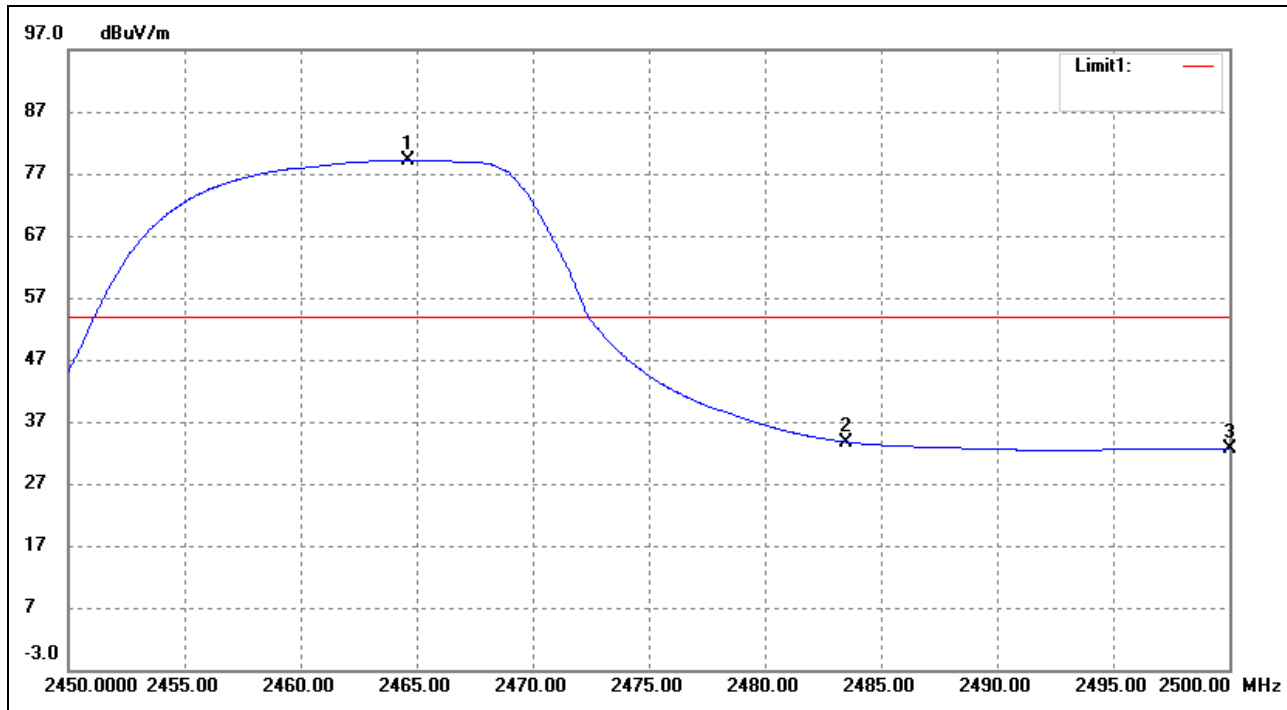
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	34.79	-3.80	30.99	54.00	-23.01	Average Detector
	2310.000	47.41	-3.80	43.61	74.00	-30.39	Peak Detector
2	2390.000	35.30	-3.00	32.30	54.00	-21.70	Average Detector
	2390.000	48.23	-3.00	45.23	74.00	-28.77	Peak Detector
3	2400.000	39.17	-2.90	36.27	54.00	-17.73	Average Detector
	2400.000	57.18	-2.90	54.28	74.00	-19.72	Peak Detector

802.11g-Highest Bandedge

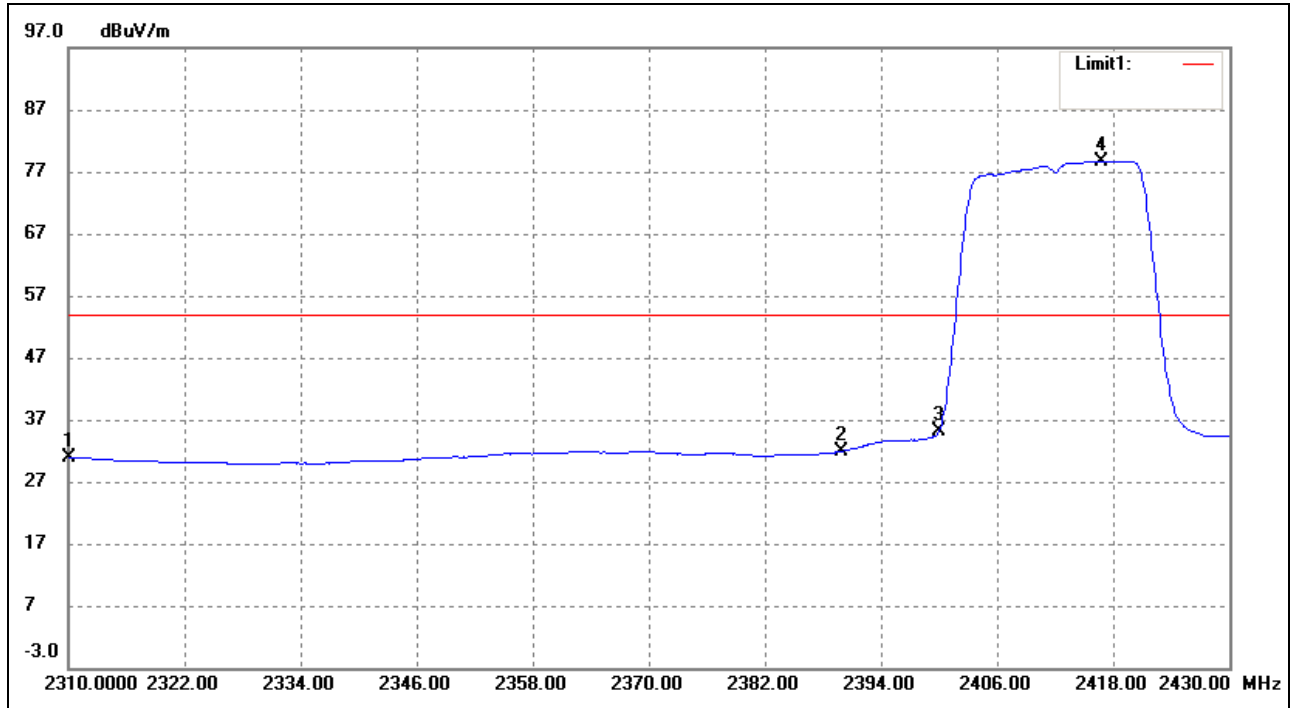
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2	2464.650	81.68	-2.57	79.11	/	/	Average Detector
	2463.200	92.36	-2.58	89.78	/	/	Peak Detector
1	2483.500	Delta = 43.89dBc		33.73	54.00	-20.27	Average Detector
	2483.500			47.20	74.00	-26.80	Peak Detector
3	2500.000	35.08	-2.40	32.68	54.00	-21.32	Average Detector
	2500.000	46.97	-2.40	44.57	74.00	-29.43	Peak Detector

802.11n-HT20-Lowest Bandedge

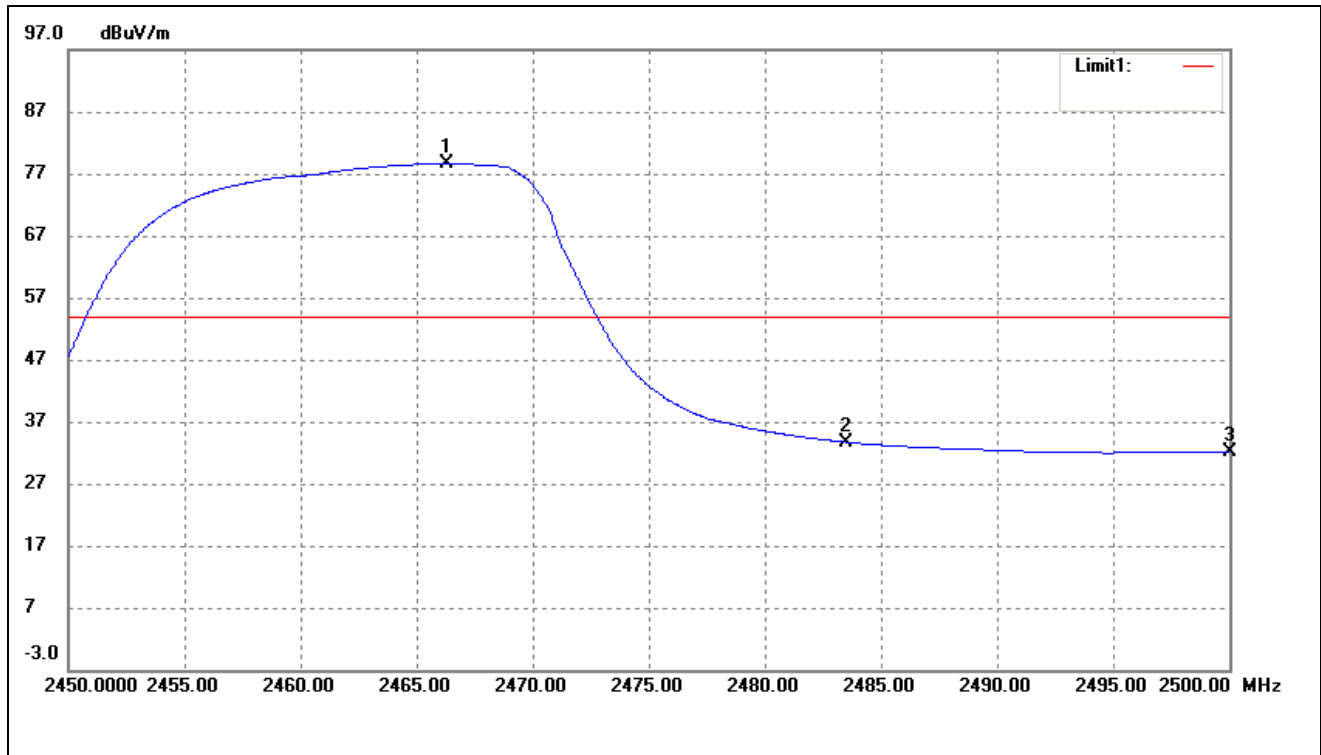
Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	34.78	-3.80	30.98	54.00	-23.02	Average Detector
	2310.000	47.52	-3.80	43.72	74.00	-30.28	Peak Detector
2	2390.000	34.98	-3.00	31.98	54.00	-22.02	Average Detector
	2390.000	49.24	-3.00	46.24	74.00	-27.76	Peak Detector
3	2400.000	38.13	-2.90	35.23	54.00	-18.77	Average Detector
	2400.000	56.26	-2.90	53.36	74.00	-20.64	Peak Detector

802.11n-HT20-Highest Bandedge

Vertical (Worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2466.300	81.14	-2.56	78.58	/	/	Average Detector
	2466.300	92.89	-2.56	90.33	/	/	Peak Detector
2	2483.500	Delta = 43.63dBc		33.73	54.00	-20.27	Average Detector
	2483.500			46.15	74.00	-27.85	Peak Detector
3	2500.000	34.49	-2.40	32.09	54.00	-21.91	Average Detector
	2500.000	47.13	-2.40	44.73	74.00	-29.27	Peak Detector

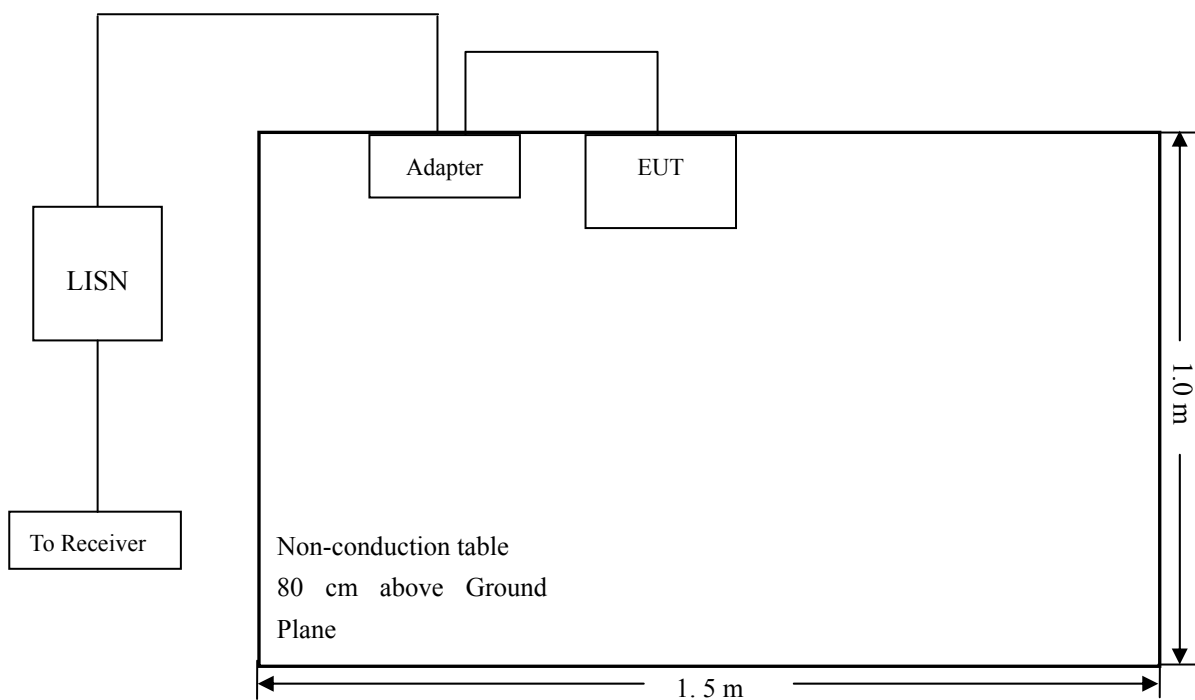
10. Conducted Emissions

10.1 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle. The spacing between the peripherals was 10 cm.

10.2 Basic Test Setup Block Diagram



10.3 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

10.4 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency	150 kHz
Stop Frequency.....	30 MHz
Sweep Speed	Auto
IF Bandwidth.....	10 kHz
Quasi-Peak Adapter Bandwidth	9 kHz
Quasi-Peak Adapter Mode	Normal

10.5 Summary of Test Results/Plots

According to the data in section 10.6, the EUT complied with the FCC Part 15.207 Conducted margin for this device, with the *worst* margin reading of:

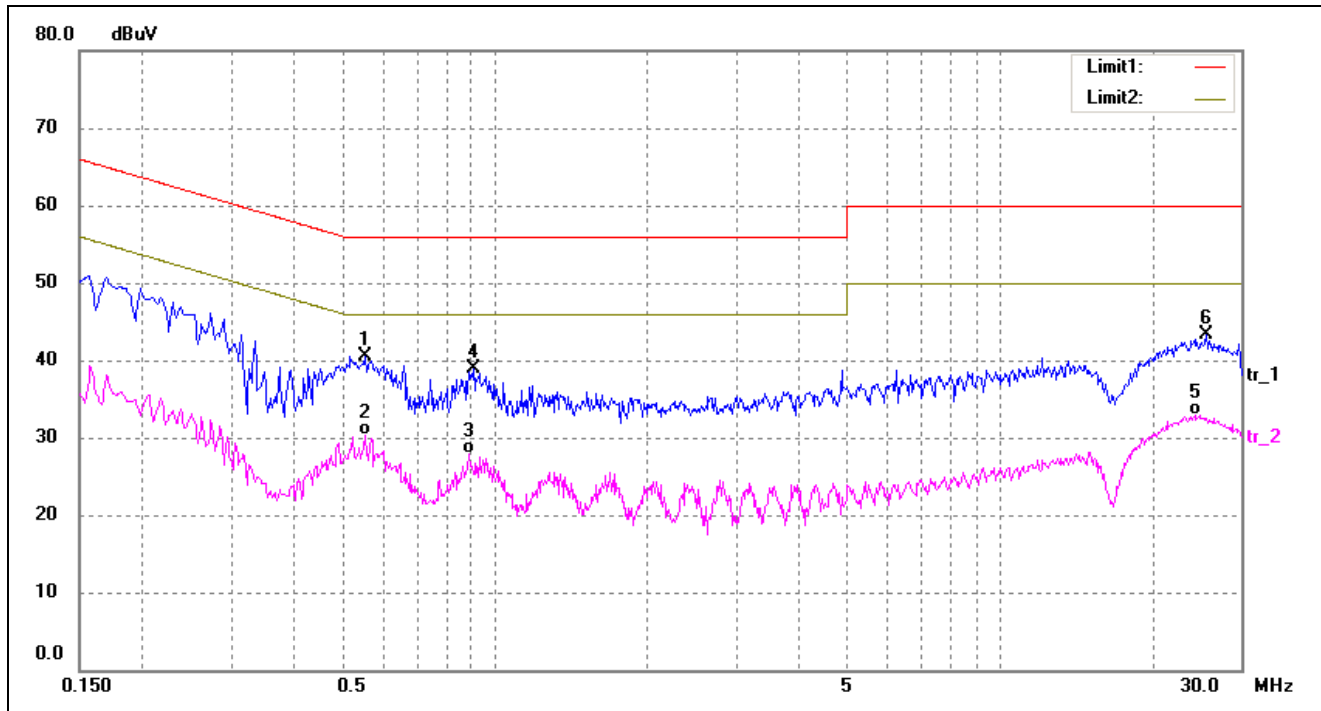
-10.92 dB at 0.562 MHz in the **Line** mode, **Average** detector, **0.15-30MHz**

10.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

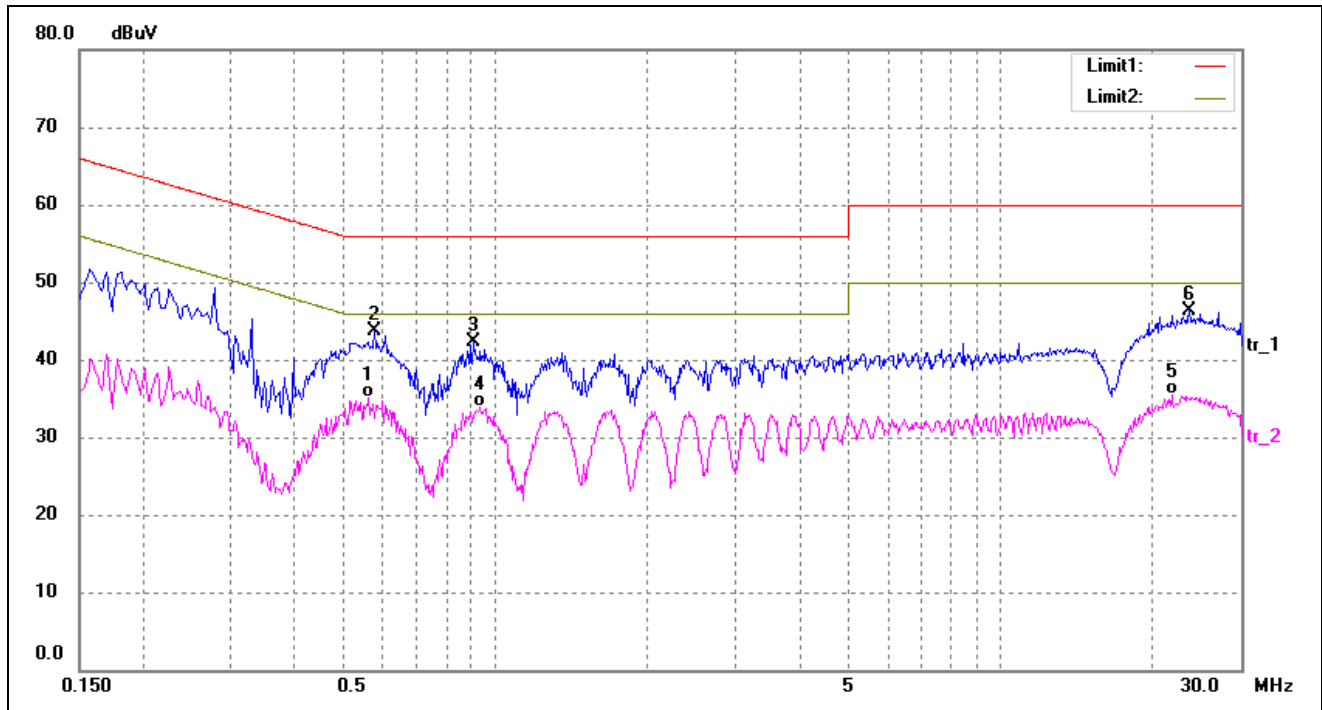
EUT: *Wifi Smart Socket*
Tested Model: *XW-G03*
Operating Condition: *Transmitting(Wi-Fi)*
Comment: *AC 120V/60Hz*

Test Specification: *Neutral*



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.5540	30.88	9.57	40.45	56.00	-15.55	peak
2	0.5540	20.68	9.57	30.25	46.00	-15.75	AVG
3	0.8860	18.34	9.65	27.99	46.00	-18.01	AVG
4	0.9060	29.15	9.66	38.81	56.00	-17.19	peak
5	24.3780	22.42	10.52	32.94	50.00	-17.06	AVG
6	25.6940	32.72	10.54	43.26	60.00	-16.74	peak

Test Specification: Live



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.5620	25.51	9.57	35.08	46.00	-10.92	AVG
2	0.5780	34.17	9.58	43.75	56.00	-12.25	peak
3	0.9060	32.74	9.66	42.40	56.00	-13.60	peak
4	0.9340	24.25	9.66	33.91	46.00	-12.09	AVG
5	21.9300	24.95	10.49	35.44	50.00	-14.56	AVG
6	23.6980	35.89	10.51	46.40	60.00	-13.60	peak

***** END OF REPORT *****