

MEASUREMENT REPORT

FCC PART 15C / WLAN 802.11b/g/n

FCC ID: HD5-EDA61K1

Applicant: Honeywell International Inc
Honeywell Safety and Productivity Solutions

Application Type: Certification

Product: Mobile Computer

Model No.: EDA61K-1

Brand Name: Honeywell

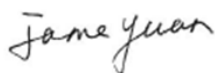
FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

Test Procedure(s): ANSI C63.10-2013

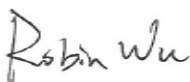
Test Date: November 06 ~ 24, 2020

Reviewed By:



(Jame Yuan)

Approved By:



(Robin Wu)



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 ANSI C63.10-2013. 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
2010RSU078-U1	Rev. 01	Initial Report	11-25-2020	Valid

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1. General Information

1.1. Applicant

Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Baires Road, Fort Mill, SC 29707 United States

1.2. Manufacturer

Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Bailes Road, Fort Mill, SC 29707 United States

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory
	Laboratory Location (Suzhou – Wuzhong) D8 Building, No.2 Tian’edang Rd., Wuzhong Economic Development Zone, Suzhou, China
	Laboratory Location (Suzhou – SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China
	Laboratory Accreditations
	A2LA: 3628.01 FCC: CN1166 VCCI: R-20025, G-20034, C-20020, T-20020
	CNAS: L10551 ISED: CN0001
☐	Test Site – MRT Shenzhen Laboratory
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China
	Laboratory Accreditations
	A2LA: 3628.02 FCC: CN1284
	CNAS: L10551 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory
	Laboratory Location (Taiwan) No. 38, Fuxing 2 nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
	Laboratory Accreditations
	TAF: L3261-190725 FCC: 291082, TW3261
	ISED: TW3261

2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	Mobile Computer
Model No.	EDA61K-1
Serial No.	19252B5D57 (Conducted Sample), 19311B01EA (Radiated Sample)
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Version	v4.1 dual mode
Satellite	GPS/GLONASS
GSM Operation Band (s)	GPRS/EDGE 850/1900
WCDMA Operation Band (s)	Band II/IV/V
CDMA2000 Operation Band (s)	BC0 / BC1
LTE Operation Band (s)	FDD Band 2/4/5/7/12/13/17/25, TDD Band 38/41
Accessories	
USB Adapter	Model No.: ADS-12B-06 05010E Input Power: 100 - 240V ~ 50/60Hz, Max. 0.3A Output Power: 5VDC 2.0A
Rechargeable Li-ion Battery	Model No.: CK65-BTSC Capacitance: 7000mAh/25.2Wh Rated Voltage: 3.6V

2.2. Product Specification Subjective to this Report

Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462 MHz
Channel Number	802.11b/g/n-HT20: 11
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM
Data Rate	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 72.2Mbps
Antenna Type:	FPC Antenna
Antenna Gain:	3.3dBi

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies for this report

802.11b/g/n-HT20

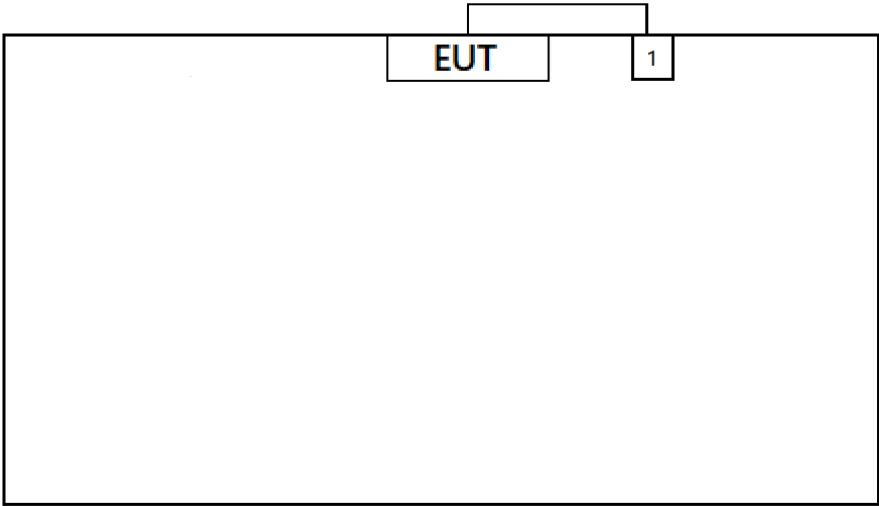
Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz	--	--

2.4. Test Mode

Test Mode	Mode 1: Transmit by 802.11b (1Mbps)
	Mode 2: Transmit by 802.11g (6Mbps)
	Mode 3: Transmit by 802.11n-HT20 (MCS0)

2.5. Description of Test Configuration

The device was tested per the guidance ANSI C63.10: 2013 that was used to reference the appropriate EUT setup for radiated emissions and AC line conducted emission testing.

		
Product	Manufacturer	Model No.
1 Adapter	Shenzhen Honor Electronic Co., Ltd	ADS-12B-06 05010E

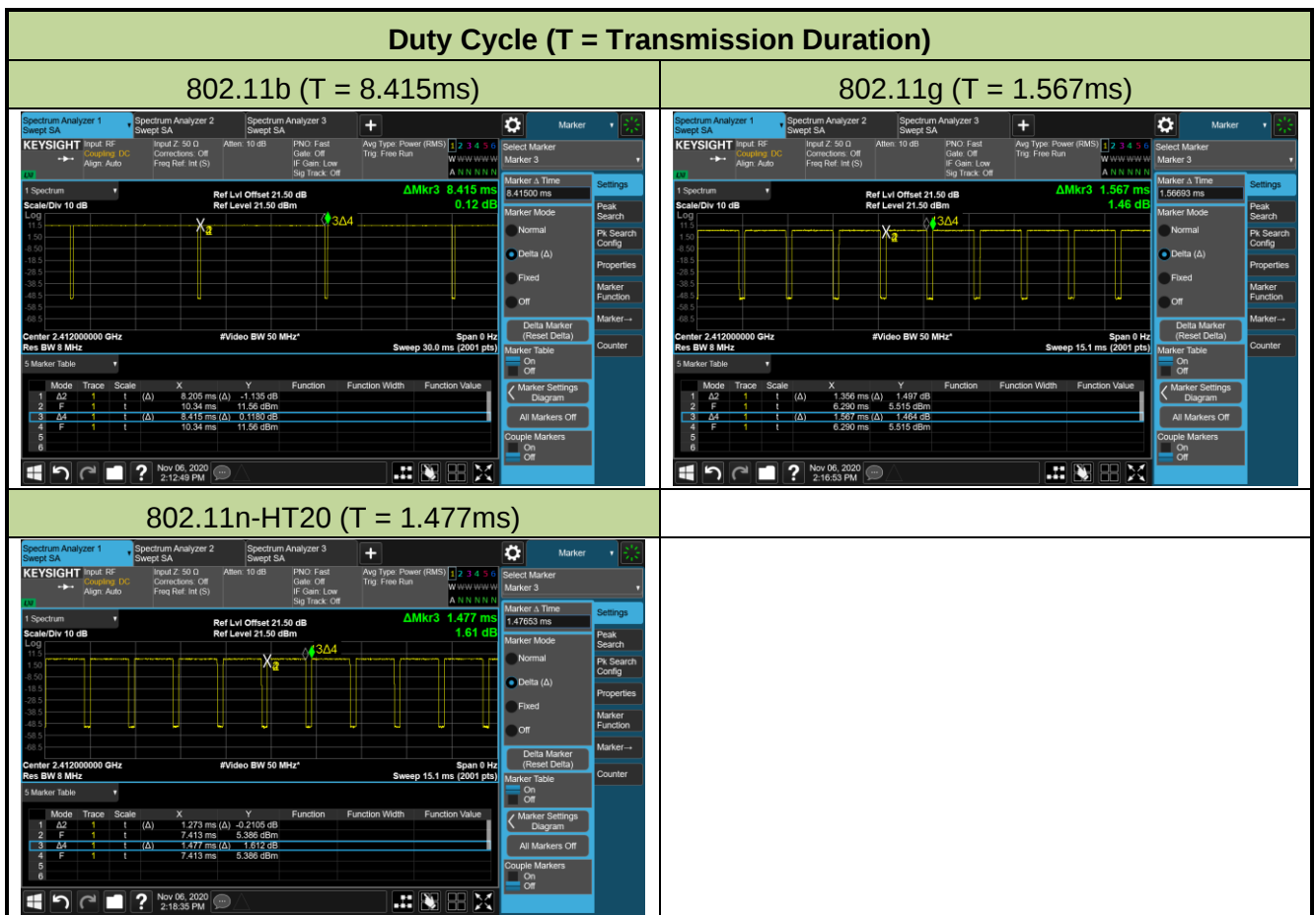
Note 1: The test utility software used during testing was “QRCT”, and the version was 3.0.268.0.

Note 2: Detail power setting refer to operation description.

2.6. Duty Cycle

2.4GHz WLAN (DTS) operation is possible in 20MHz channel bandwidths. The maximum achievable duty cycles for all modes were 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	97.5%
802.11g	86.5%
802.11n-HT20	86.1%



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.

2.9. Test Environment Condition

Ambient Temperature	15 ~ 35 °C
Relative Humidity	20 ~ 75 %RH

3. 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 device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. TEST EQUIPMENT CALIBRATION DATE

Conducted Emission - (WZ-SR2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2021/01/18
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2021/09/09
Thermal Hygrometer	testo	608-H1	MRTSUE06404	1 year	2021/07/26
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

Conducted Emission - (SIP-SR2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2021/07/02
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2021/09/09
Thermal Hygrometer	testo	608-H1	MRTSUE06621	1 year	2020/12/29

Radiated Emission - (WZ-AC1)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2021/01/18
PXA Signal Analyzer	Keysight	N9030B	MRTSUE06395	1 year	2021/08/30
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2021/08/08
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2021/09/27
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2020/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2021/11/14
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
Thermal Hygrometer	testo	608-H1	MRTSUE06403	1 year	2021/07/26
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2021/04/30

Radiated Emission - (WZ-AC2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Keysight	N9038A	MRTSUE06125	1 year	2021/07/02
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2021/05/26
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2021/10/25
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2020/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2021/11/14
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
Thermal Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2020/12/15
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2021/04/30

Radiated Emission - (SIP-AC1)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2021/07/02
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2021/07/23
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06645	1 year	2021/08/30
Double Ridged Horn Antenna	R&S	HF907	MRTSUE06610	1 year	2021/08/30
Preamplifier	EMCI	EMC051845SE	MRTSUE06600	1 year	2021/11/09
Thermal Hygrometer	testo	608-H1	MRTSUE06620	1 year	2020/12/29
Anechoic Chamber	RIKEN	SIP-AC1	MRTSUE06554	1 year	2020/12/25

Radiated Emission - (SIP-AC2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2021/07/02
MXA Signal Analyzer	Keysight	N9020B	MRTSUE06604	1 year	2021/09/26
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06646	1 year	2021/08/30
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06648	1 year	2020/12/17
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06599	1 year	2020/12/17
Preamplifier	EMCI	EMC051845SE	MRTSUE06644	1 year	2021/11/09
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2021/10/21
Thermal Hygrometer	testo	608-H1	MRTSUE06624	1 year	2020/12/29
Anechoic Chamber	RIKEN	SIP-AC2	MRTSUE06781	1 year	2020/12/25

Radiated Emission - (SIP-AC3)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2021/07/02
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2021/07/23
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06647	1 year	2021/08/08
Double Ridged Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2021/09/13
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06598	1 year	2020/12/17
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2021/01/16
Preamplifier	EMCI	EMC184045SE	MRTSUE06641	1 year	2021/01/16
Thermal Hygrometer	testo	608-H1	MRTSUE06622	1 year	2020/12/29
Anechoic Chamber	RIKEN	SIP-AC3	MRTSUE06782	1 year	2020/12/25

Conducted Test Equipment - (WZ-SIP-TR3)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2021/04/14
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2021/01/08
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2021/04/14
Power Meter	Agilent	U2021XA	MRTSUE06030	1 year	2021/10/22
USB wideband power sensor	Keysight	U2021XA	MRTSUE06446	1 year	2021/08/30
USB wideband power sensor	Keysight	U2021XA	MRTSUE06447	1 year	2021/08/08
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2021/06/11
Audio Analyzer	Agilent	U8903B	MRTSUE06143	1 year	2021/06/11
Modulation Analyzer	HP	HP8901A	MRTSUE06098	1 year	2021/09/26
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2021/10/20
DC Power Supply	GWINSTEK	DPS-3303C	MRTSUE06064	N/A	N/A
Temperature & Humidity Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2021/10/21
Thermal Hygrometer	testo	608-H1	MRTSUE06401	1 year	2021/07/26

Conducted Test Equipment - (SIP-SR5)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2021/04/14
PXA Signal Analyzer	Keysight	N9030B	MRTSUE06395	1 year	2021/08/30
USB wideband power sensor	Agilent	U2021XA	MRTSUE06595	1 year	2021/09/26
USB wideband power sensor	Agilent	U2021XA	MRTSUE06596	1 year	2021/09/26
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2021/10/20
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2021/06/11
Temperature Chamber	BAOYT	BYG-408CS	MRTSUE06847	1 year	2021/03/31
Thermal Hygrometer	testo	622	MRTSUE06629	1 year	2020/12/30

Software	Version	Function
EMI Software	V3	EMI Test Software

5. 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
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.15dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 0.28%

6. TEST RESULT

6.1. Summary

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 6.2
15.247(b)(3)	Output Power	$\leq 1\text{Watt}$		Pass	Section 6.3
15.247(e)	Power Spectral Density	$\leq 8\text{dBm} / 3\text{kHz}$		Pass	Section 6.4
15.247(d)	Band Edge / Out-of-Band Emissions	$\geq 20\text{dBc (Peak)}$		Pass	Section 6.5
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 6.6 & 6.7
15.207	AC Conducted Emissions 150kHz - 30MHz	$< \text{FCC 15.207 limits}$	Line Conducted	Pass	Section 6.8

Notes:

- 1) 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.
- 2) 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.

6.2. 6dB Bandwidth Measurement

6.2.1. Test Limit

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

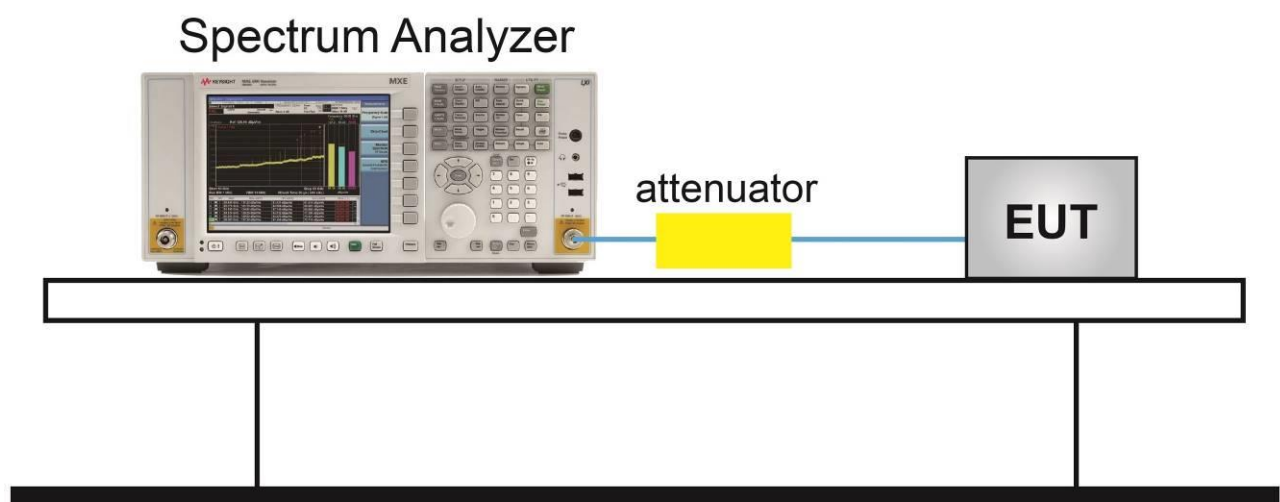
6.2.2. Test Procedure used

ANSI C63.10-2013 - Section 11.8

6.2.3. 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

6.2.4. Test Setup



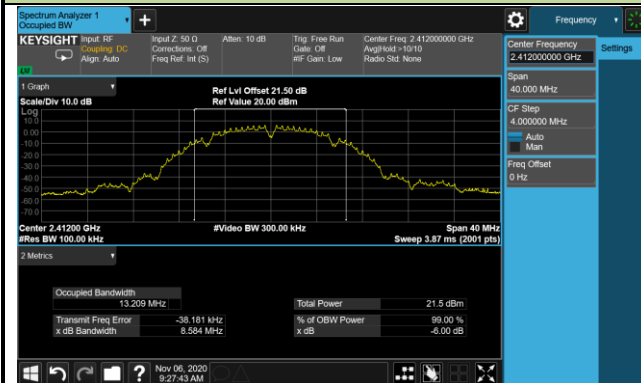
6.2.5. Test Result

Product	Mobile Computer	Test Engineer	Gordon Qi
Test Site	SIP-TR3	Test Date	2020/11/06

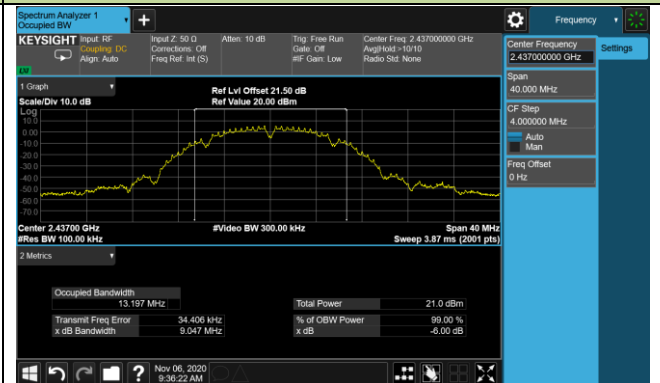
Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	1Mbps	01	2412	8.58	≥ 0.5	Pass
802.11b	1Mbps	06	2437	9.05	≥ 0.5	Pass
802.11b	1Mbps	11	2462	8.57	≥ 0.5	Pass
802.11g	6Mbps	01	2412	16.39	≥ 0.5	Pass
802.11g	6Mbps	06	2437	16.41	≥ 0.5	Pass
802.11g	6Mbps	11	2462	16.45	≥ 0.5	Pass
802.11n-HT20	MCS0	01	2412	17.59	≥ 0.5	Pass
802.11n-HT20	MCS0	06	2437	17.60	≥ 0.5	Pass
802.11n-HT20	MCS0	11	2462	17.61	≥ 0.5	Pass

802.11b 6dB Bandwidth

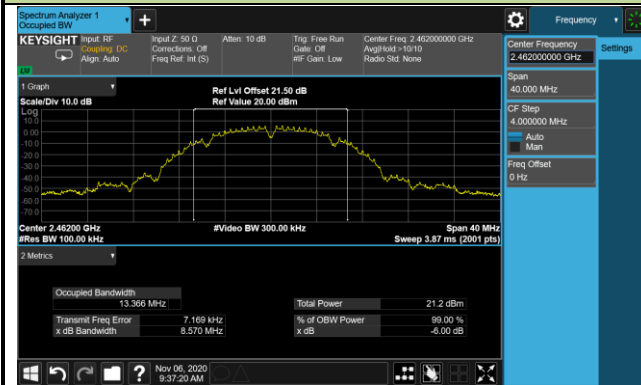
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

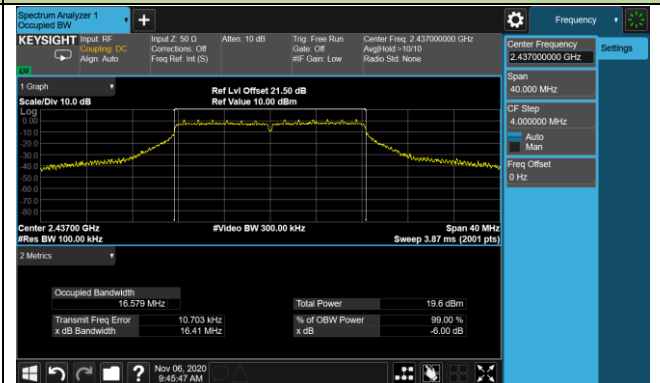


802.11g 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)

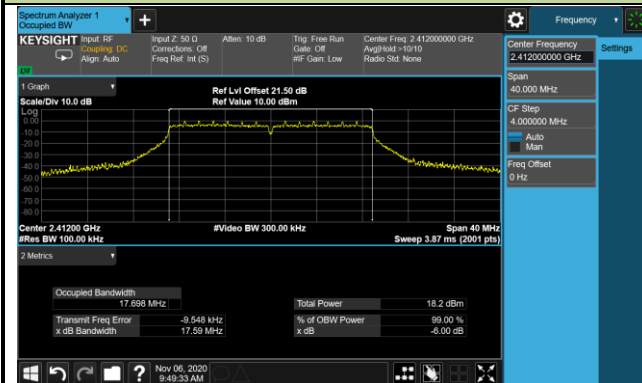


Channel 11 (2462MHz)

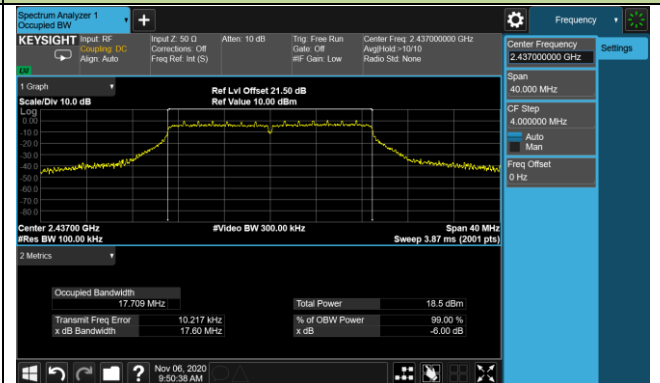


802.11n-HT20 6dB Bandwidth

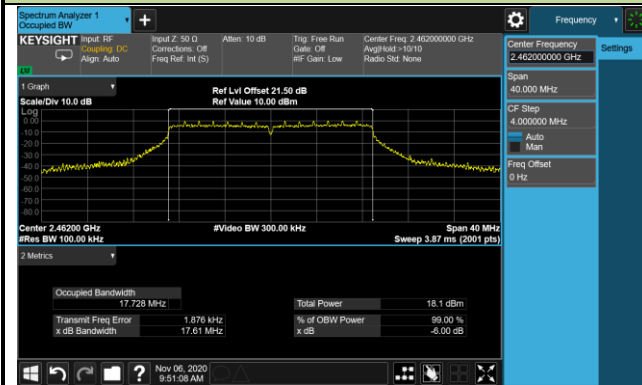
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



6.3. Output Power Measurement

6.3.1. Test Limit

The maximum conducted output power shall not exceed 1 Watt (30dBm).

6.3.2. Test Procedure Used

ANSI C63.10-2013 Section 11.9.1.3

ANSI C63.10-2013 Section 11.9.2.3

6.3.3. Test Setting

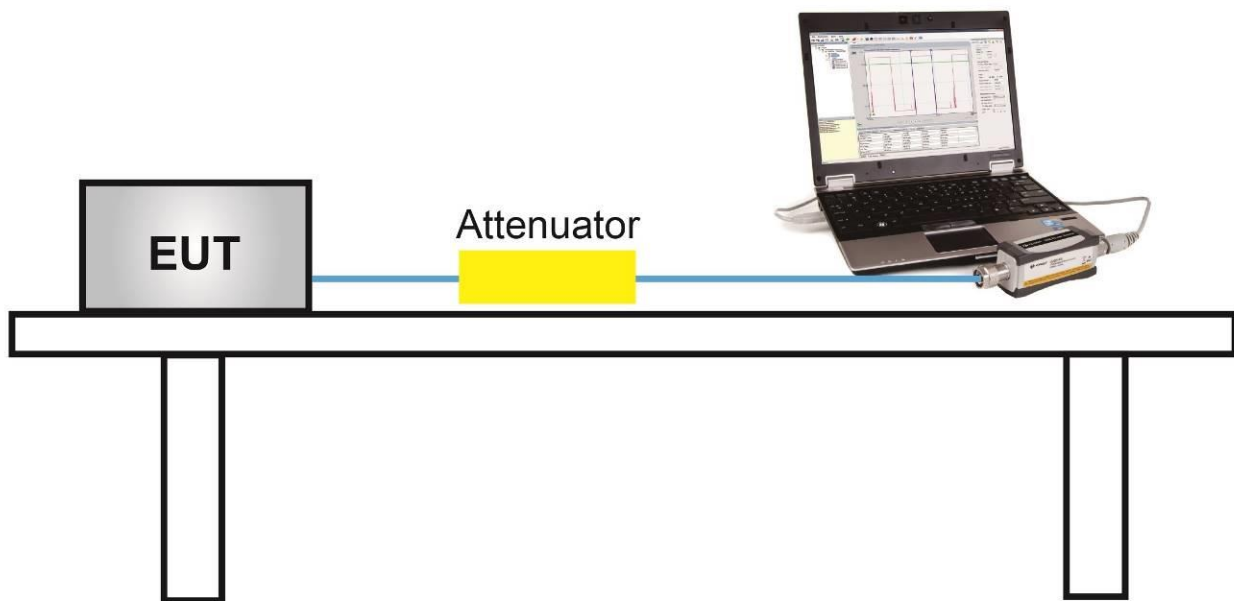
Method PKPM1 (Peak Power Measurement of Signals with DTS BW $\leq$ 50MHz)

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.

Average Power Measurement

Average 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 power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.3.4. Test Setup



6.3.5.Test Result

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

Test Mode	Bandwidth (MHz)	Channel No.	Frequency (MHz)	Data Rate / MCS	Average Power (dBm)
802.11b	20	6	2437	1Mbps	14.59
				5.5Mbps	14.50
				11Mbps	14.42
802.11g	20	6	2437	6Mbps	12.61
				24Mbps	12.55
				54Mbps	12.49
802.11n	20	6	2437	MCS0	11.85
				MCS3	11.78
				MCS7	11.74

Test Result of Peak Output Power

Product	Mobile Computer	Test Engineer	Chase Zhu
Test Site	SIP-TR3	Test Date	2020/11/13

Test Mode	Data Rate / MCS	Channel No.	Freq. (MHz)	Peak Power (dBm)	Limit (dBm)	Result
11b	1Mbps	01	2412	17.63	≤ 30.00	Pass
11b	1Mbps	06	2437	17.52	≤ 30.00	Pass
11b	1Mbps	11	2462	17.71	≤ 30.00	Pass
11g	6Mbps	01	2412	21.47	≤ 30.00	Pass
11g	6Mbps	06	2437	21.15	≤ 30.00	Pass
11g	6Mbps	11	2462	21.11	≤ 30.00	Pass
11n-HT20	MCS0	01	2412	20.27	≤ 30.00	Pass
11n-HT20	MCS0	06	2437	20.29	≤ 30.00	Pass
11n-HT20	MCS0	11	2462	20.18	≤ 30.00	Pass

Test Result of Average Output Power (Reporting Only)

Product	Mobile Computer	Test Engineer	Chase Zhu
Test Site	SIP-TR3	Test Date	2020/11/13

Test Mode	Data Rate / MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)	Result
11b	1Mbps	01	2412	14.71	≤ 30.00	Pass
11b	1Mbps	06	2437	14.59	≤ 30.00	Pass
11b	1Mbps	11	2462	14.88	≤ 30.00	Pass
11g	6Mbps	01	2412	12.58	≤ 30.00	Pass
11g	6Mbps	06	2437	12.61	≤ 30.00	Pass
11g	6Mbps	11	2462	12.71	≤ 30.00	Pass
11n-HT20	MCS0	01	2412	11.58	≤ 30.00	Pass
11n-HT20	MCS0	06	2437	11.85	≤ 30.00	Pass
11n-HT20	MCS0	11	2462	11.75	≤ 30.00	Pass

6.4. Power Spectral Density Measurement

6.4.1. Test Limit

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

The same method of determining the conducted output power shall be used to determine the power spectral density.

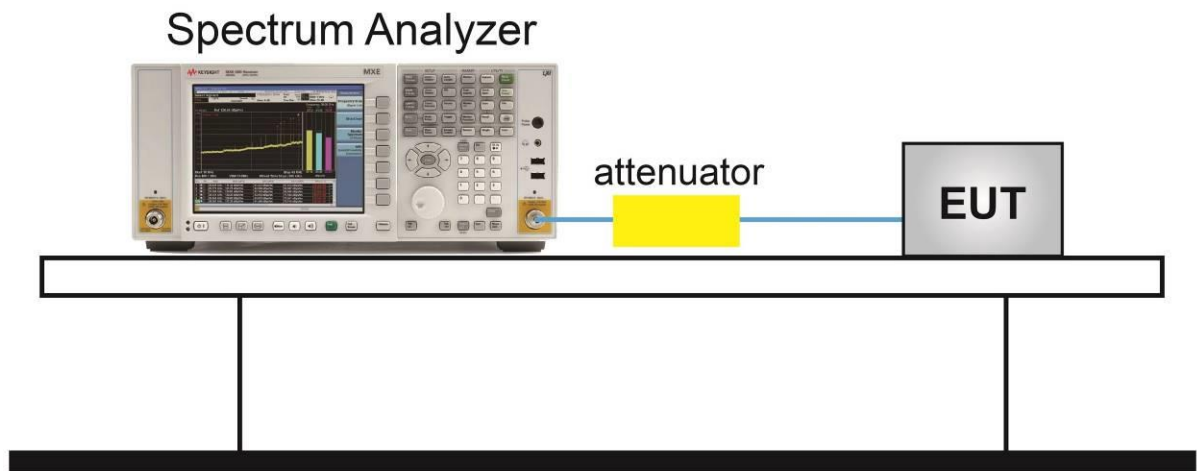
6.4.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.10.2

6.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the OBW
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = RMS
6. Employ trace averaging (rms) mode over a minimum of 100 traces.
7. Sweep time = auto couple
8. Trace mode = max hold
9. Trace was allowed to stabilize

6.4.4. Test Setup



6.4.5. Test Result

Product	Mobile Computer	Test Engineer	Gordon Qi
Test Site	SIP-TR3	Test Date	2020/11/24

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PKPSD (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
11b	1Mbps	01	2412	-8.93	≤ 8.00	Pass
11b	1Mbps	06	2437	-8.74	≤ 8.00	Pass
11b	1Mbps	11	2462	-9.51	≤ 8.00	Pass
11g	6Mbps	01	2412	-13.25	≤ 8.00	Pass
11g	6Mbps	06	2437	-12.77	≤ 8.00	Pass
11g	6Mbps	11	2462	-13.28	≤ 8.00	Pass
11n-HT20	MCS0	01	2412	-13.10	≤ 8.00	Pass
11n-HT20	MCS0	06	2437	-12.84	≤ 8.00	Pass
11n-HT20	MCS0	11	2462	13.50	≤ 8.00	Pass

802.11b PKPSD

Channel 01 (2412MHz)



Channel 06 (2437MHz)

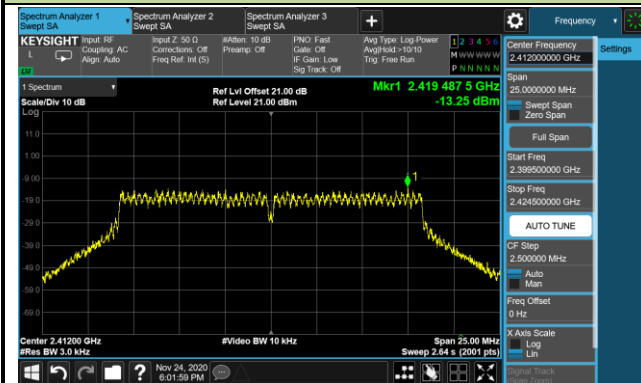


Channel 11 (2462MHz)

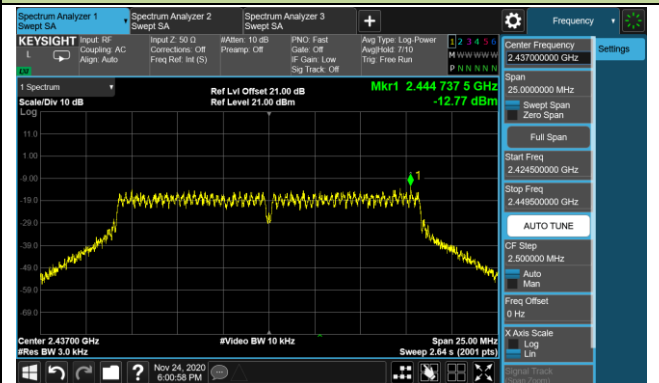


802.11g - PKPSD

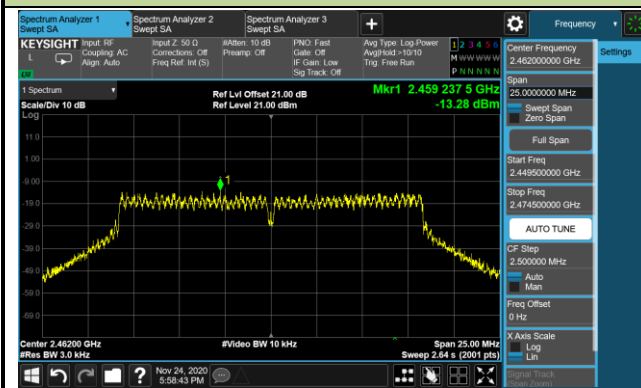
Channel 01 (2412MHz)



Channel 06 (2437MHz)

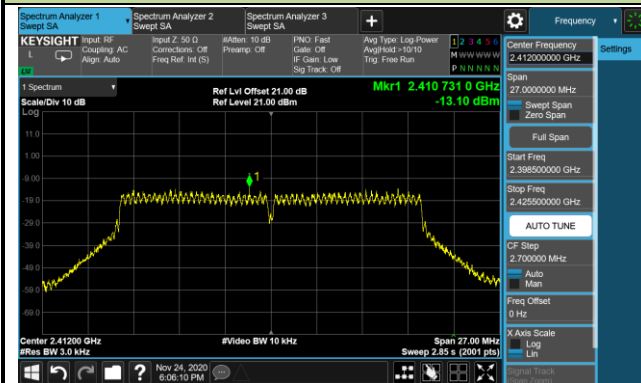


Channel 11 (2462MHz)

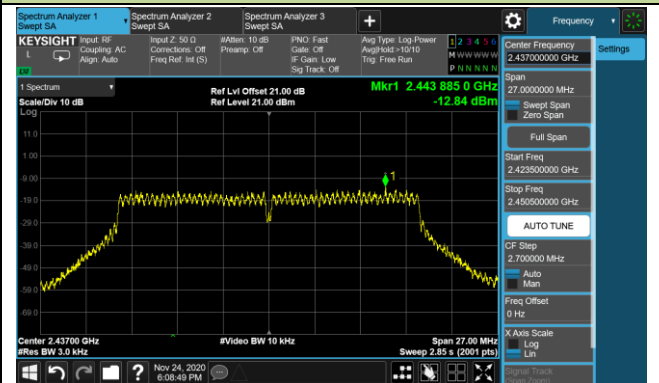


802.11n-HT20 - PKPSD

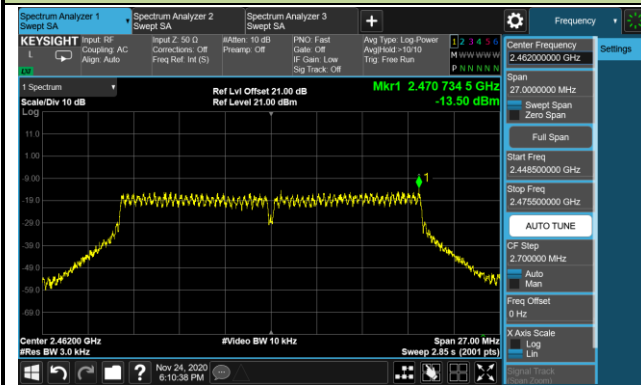
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



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

6.5.1. 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.

6.5.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.11

6.5.3. Test Setting

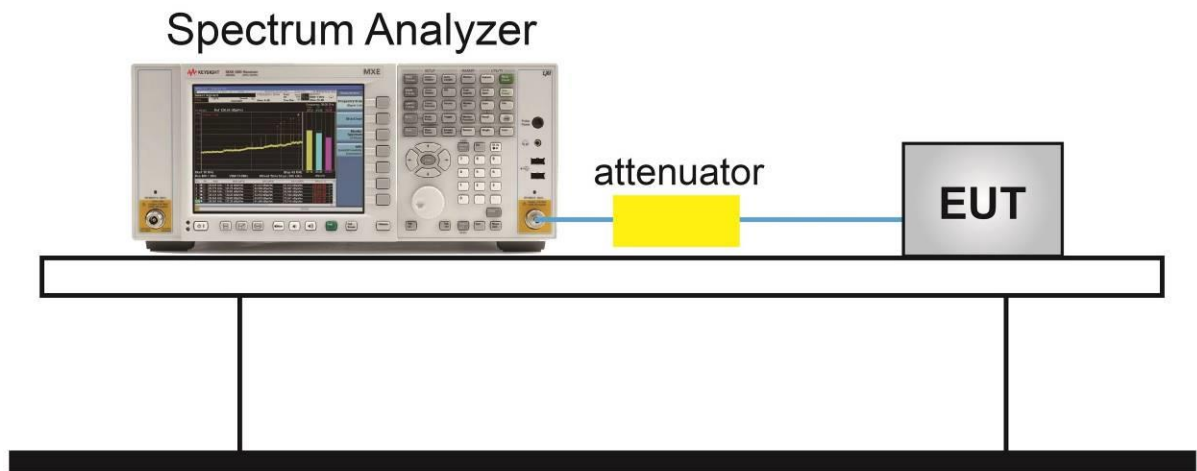
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW $\geq 3 \times$ RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

6.5.4. Test Setup



6.5.5.Test Result

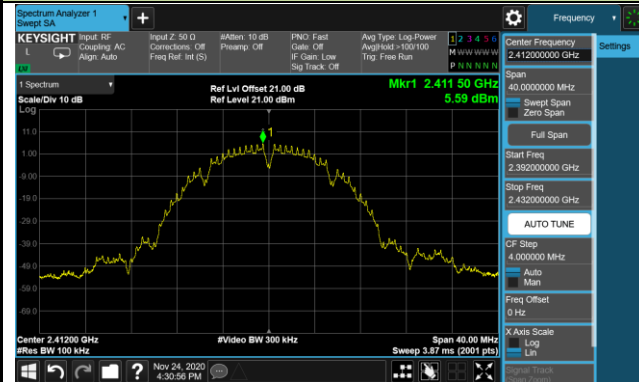
Product	Mobile Computer	Test Engineer	Gordon Qi
Test Site	SIP-TR3	Test Date	2020/11/24

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit	Result
802.11b	1Mbps	01	2412	20dBc	Pass
802.11b	1Mbps	06	2437	20dBc	Pass
802.11b	1Mbps	11	2462	20dBc	Pass
802.11g	6Mbps	01	2412	20dBc	Pass
802.11g	6Mbps	06	2437	20dBc	Pass
802.11g	6Mbps	11	2462	20dBc	Pass
802.11n-HT20	MCS0	01	2412	20dBc	Pass
802.11n-HT20	MCS0	06	2437	20dBc	Pass
802.11n-HT20	MCS0	11	2462	20dBc	Pass

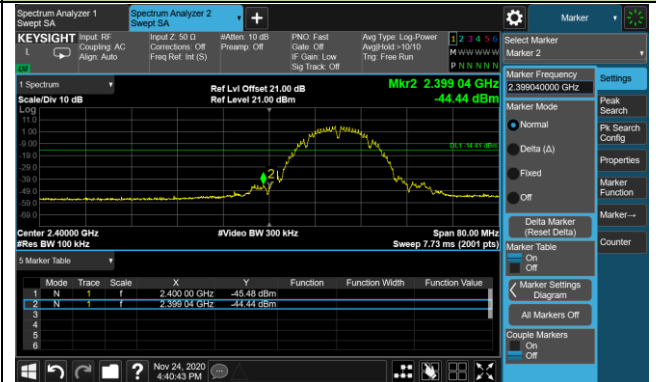
802.11b Out-of-Band Emissions

Channel 01 (2412MHz)

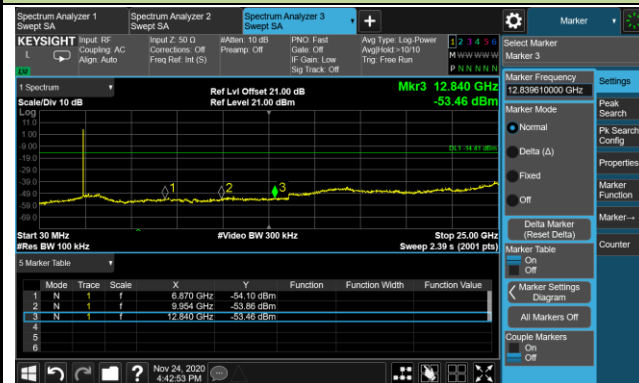
100kHz PSD Reference Level



Low Band Edge



Spurious Emission

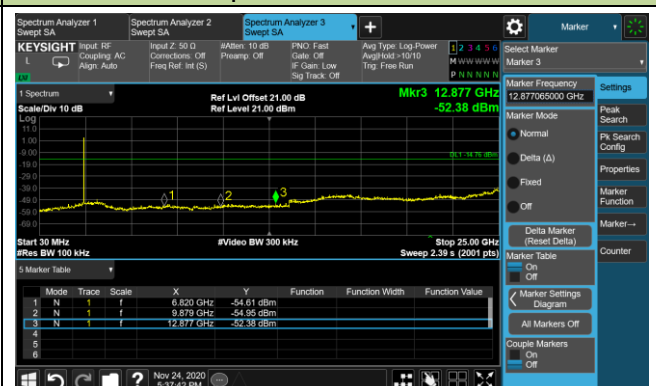


Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission



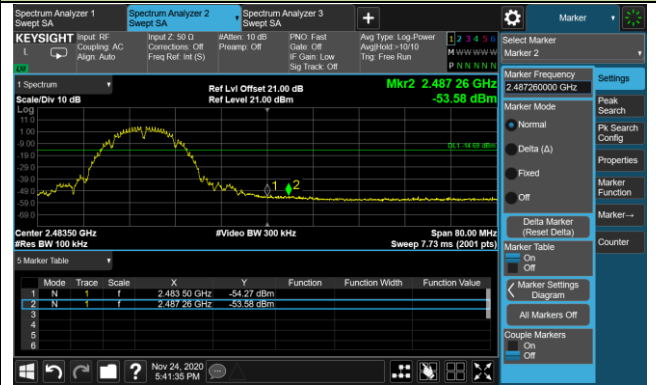
802.11b Out-of-Band Emissions

Channel 11 (2462MHz)

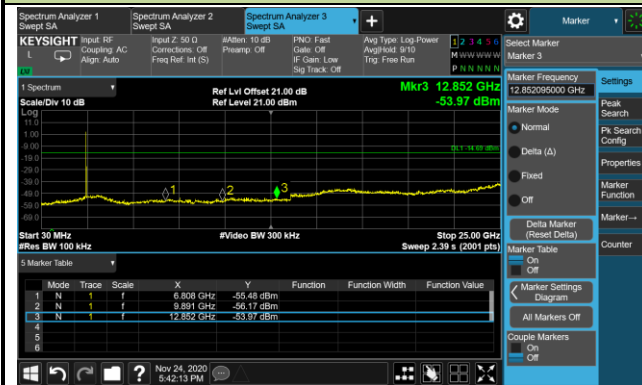
100kHz PSD Reference Level



High Band Edge



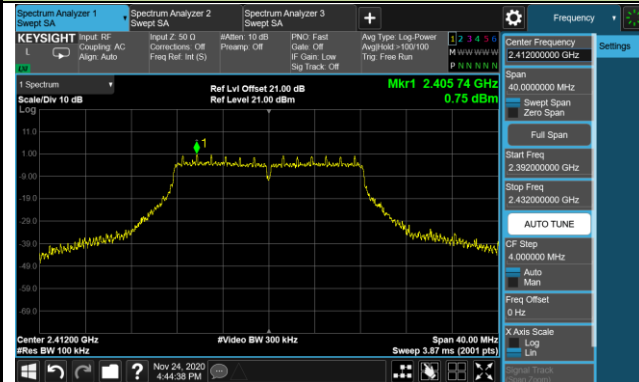
Spurious Emission



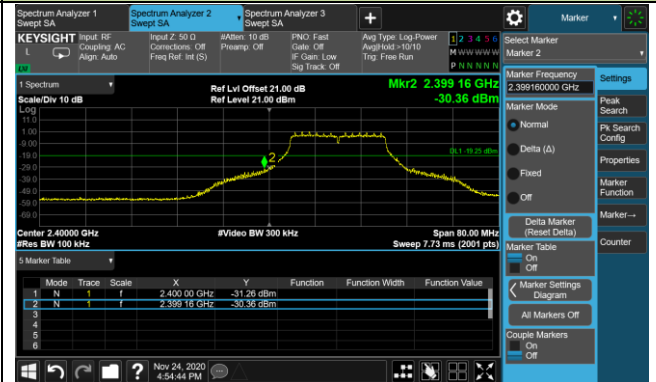
802.11g Out-of-Band Emissions

Channel 01 (2412MHz)

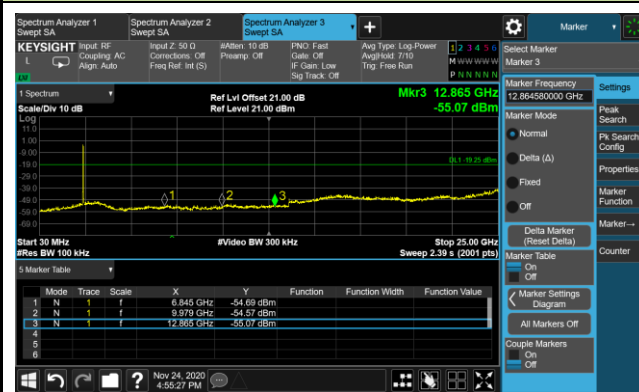
100kHz PSD Reference Level



Low Band Edge

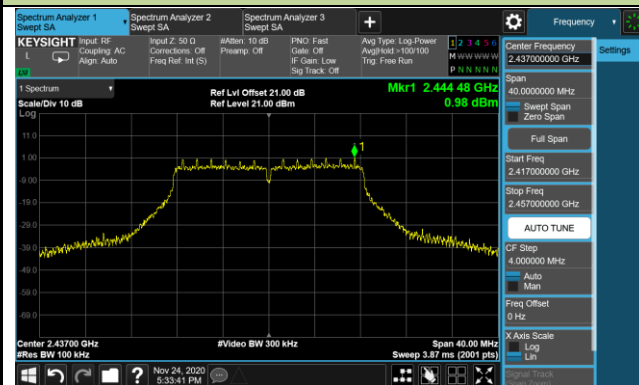


Spurious Emission

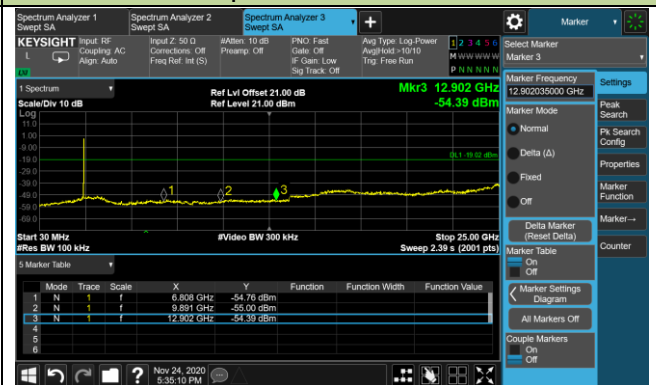


Channel 06 (2437MHz)

100kHz PSD Reference Level



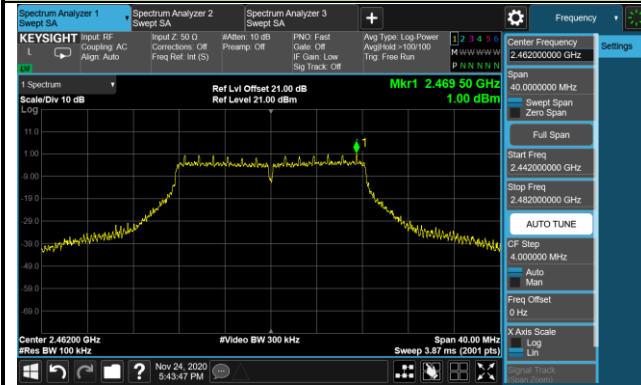
Spurious Emission



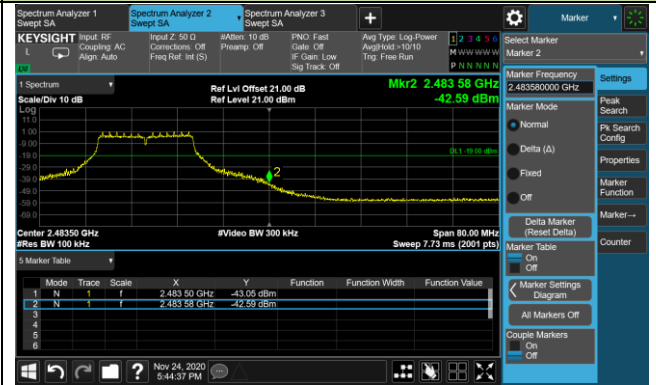
802.11g Out-of-Band Emissions

Channel 11 (2462MHz)

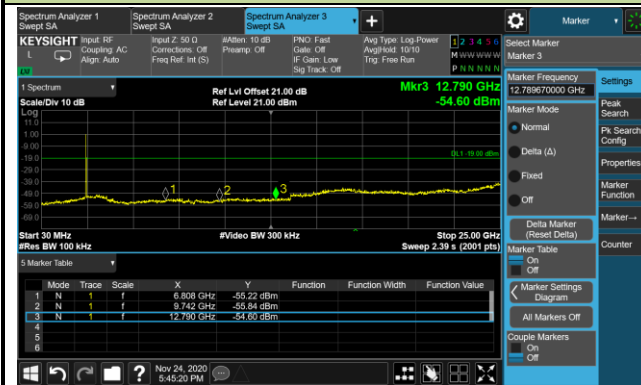
100kHz PSD Reference Level



High Band Edge



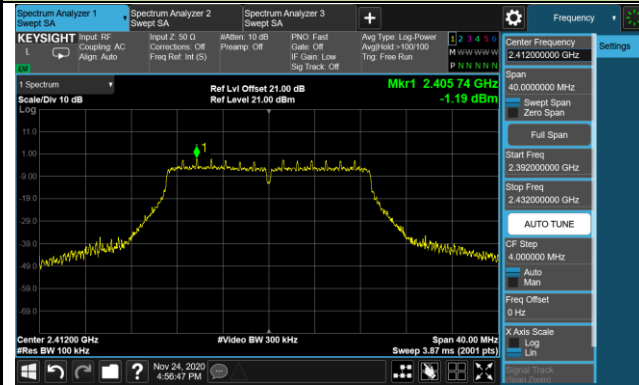
Spurious Emission



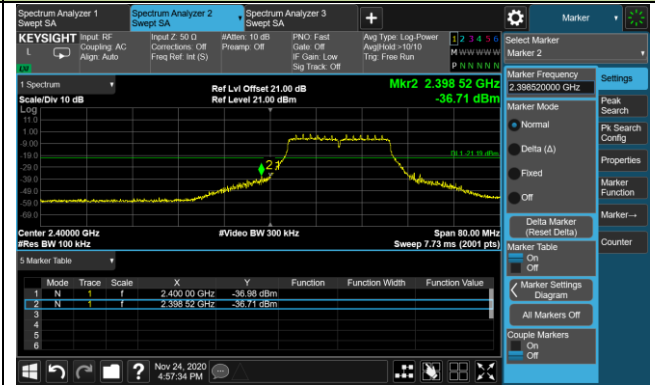
802.11n-HT20 Out-of-Band Emissions

Channel 01 (2412MHz)

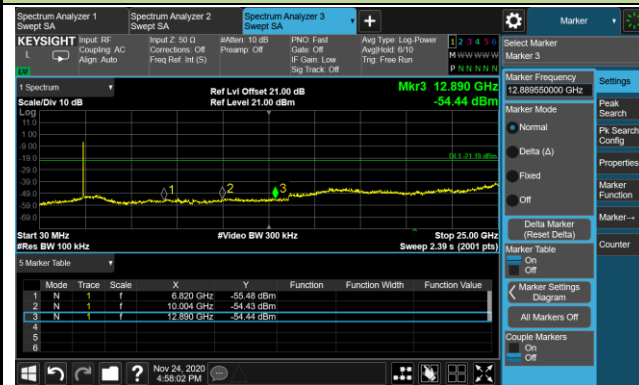
100kHz PSD Reference Level



Low Band Edge

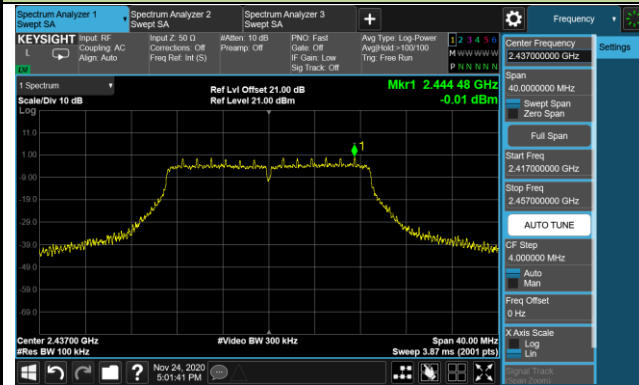


Spurious Emission

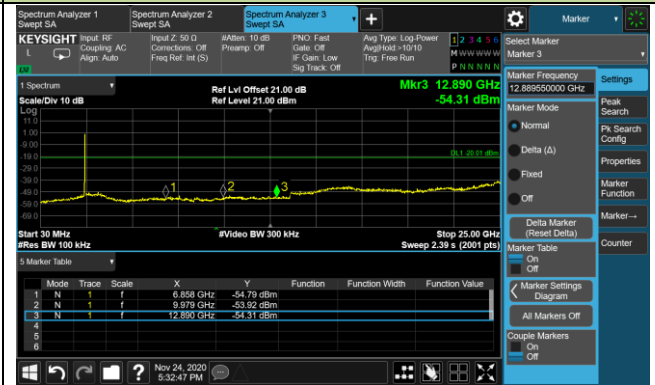


Channel 06 (2437MHz)

100kHz PSD Reference Level



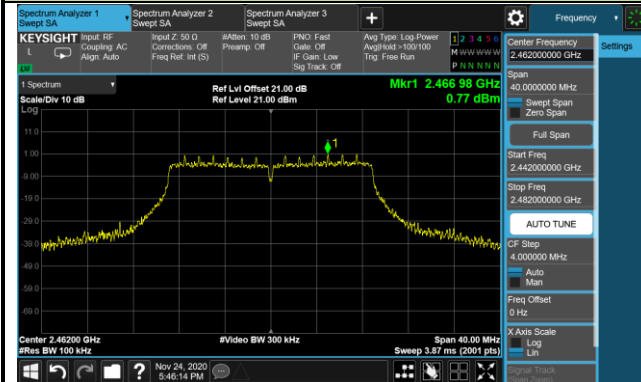
Spurious Emission



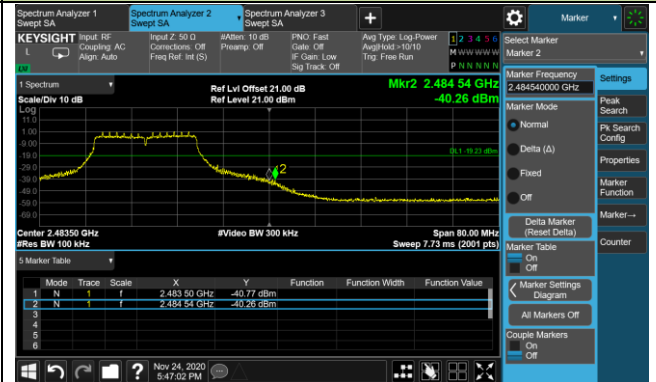
802.11n-HT20 Out-of-Band Emissions

Channel 11 (2462MHz)

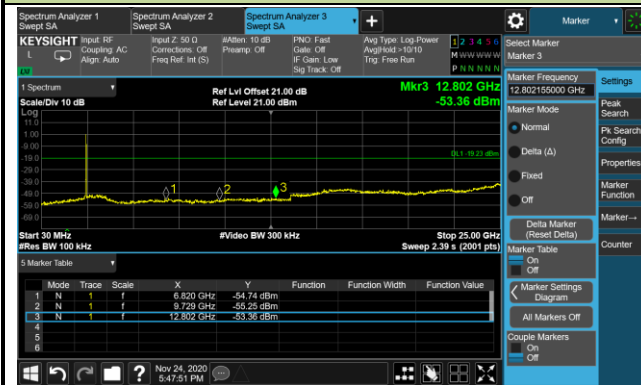
100kHz PSD Reference Level



High Band Edge



Spurious Emission



6.6. Radiated Spurious Emission Measurement

6.6.1. 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

6.6.2. Test Procedure Used

ANSI C63.10-2013 Section 6.3 & 6.4 & 6.5 & 6.6

6.6.3. Test Setting

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
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

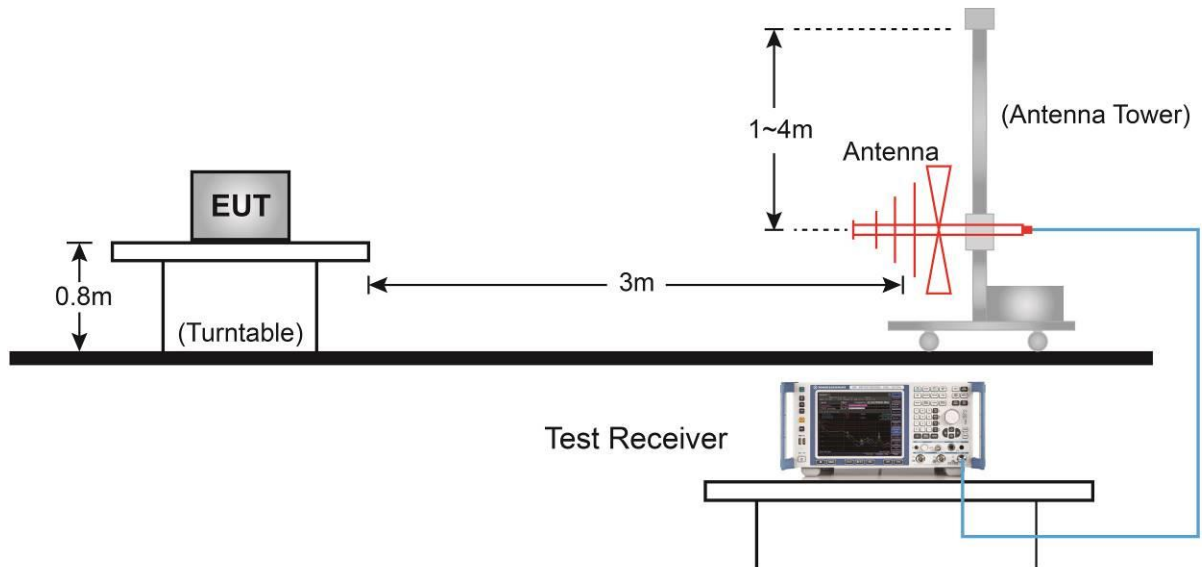
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

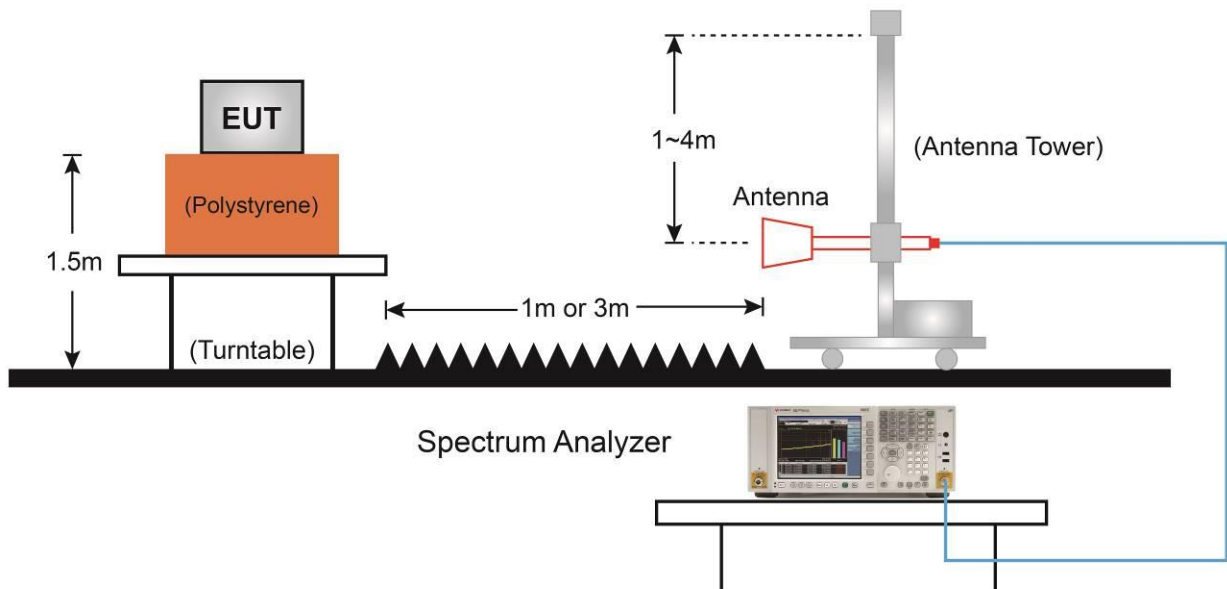
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11b	Test Channel:	01
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
	11149.0	49.4	-3.4	46.0	74.0	-28.0	Peak	Horizontal
	12109.5	49.8	-3.1	46.7	74.0	-27.3	Peak	Horizontal
*	13860.5	48.1	0.4	48.5	74.0	-25.5	Peak	Horizontal
*	16937.5	48.1	4.7	52.8	74.0	-21.2	Peak	Horizontal
	11599.5	50.4	-3.6	46.8	74.0	-27.2	Peak	Vertical
	12203.0	50.4	-3.2	47.2	74.0	-26.8	Peak	Vertical
*	16546.5	48.2	4.3	52.5	74.0	-21.5	Peak	Vertical
*	17362.5	47.7	5.0	52.7	74.0	-21.3	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11b	Test Channel:	06
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
	11693.0	50.4	-3.8	46.6	74.0	-27.4	Peak	Horizontal
	12526.0	50.0	-2.6	47.4	74.0	-26.6	Peak	Horizontal
*	14804.0	48.4	2.5	50.9	74.0	-23.1	Peak	Horizontal
*	17371.0	47.7	5.5	53.2	74.0	-20.8	Peak	Horizontal
	10970.5	50.2	-3.2	47.0	74.0	-27.0	Peak	Vertical
	12220.0	50.7	-3.2	47.5	74.0	-26.5	Peak	Vertical
*	14166.5	48.5	1.0	49.5	74.0	-24.5	Peak	Vertical
*	16470.0	47.7	4.6	52.3	74.0	-21.7	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11b	Test Channel:	11
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
	11489.0	50.5	-3.1	47.4	74.0	-26.6	Peak	Horizontal
	12296.5	50.1	-3.1	47.0	74.0	-27.0	Peak	Horizontal
*	14073.0	49.1	1.0	50.1	74.0	-23.9	Peak	Horizontal
*	16776.0	47.9	5.1	53.0	74.0	-21.0	Peak	Horizontal
	10970.5	50.0	-3.2	46.8	74.0	-27.2	Peak	Vertical
	12262.5	51.9	-3.6	48.3	74.0	-25.7	Peak	Vertical
*	13656.5	50.0	-0.4	49.6	74.0	-24.4	Peak	Vertical
*	16640.0	48.7	4.1	52.8	74.0	-21.2	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11g	Test Channel:	01
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
	11140.5	49.7	-3.5	46.2	74.0	-27.8	Peak	Horizontal
	12203.0	49.9	-3.2	46.7	74.0	-27.3	Peak	Horizontal
*	14727.5	47.3	2.2	49.5	74.0	-24.5	Peak	Horizontal
*	16691.0	48.2	4.6	52.8	74.0	-21.2	Peak	Horizontal
	11038.5	50.8	-3.5	47.3	74.0	-26.7	Peak	Vertical
	11659.0	50.3	-3.2	47.1	74.0	-26.9	Peak	Vertical
*	14090.0	49.3	0.8	50.1	74.0	-23.9	Peak	Vertical
*	16385.0	47.3	4.7	52.0	74.0	-22.0	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11g	Test Channel:	06
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
	11021.5	50.8	-3.4	47.4	74.0	-26.6	Peak	Horizontal
	12007.5	50.1	-3.1	47.0	74.0	-27.0	Peak	Horizontal
*	14234.5	48.3	1.2	49.5	74.0	-24.5	Peak	Horizontal
*	16818.5	47.8	4.7	52.5	74.0	-21.5	Peak	Horizontal
	11242.5	50.5	-3.8	46.7	74.0	-27.3	Peak	Vertical
	12696.0	51.4	-2.5	48.9	74.0	-25.1	Peak	Vertical
*	14234.5	49.1	1.2	50.3	74.0	-23.7	Peak	Vertical
*	16810.0	47.9	4.6	52.5	74.0	-21.5	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11g	Test Channel:	11
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
	10766.5	50.8	-3.6	47.2	74.0	-26.8	Peak	Horizontal
	11710.0	50.7	-3.4	47.3	74.0	-26.7	Peak	Horizontal
*	14183.5	48.9	1.0	49.9	74.0	-24.1	Peak	Horizontal
*	16776.0	46.9	5.1	52.0	74.0	-22.0	Peak	Horizontal
	11489.0	50.3	-3.1	47.2	74.0	-26.8	Peak	Vertical
	12109.5	49.8	-3.1	46.7	74.0	-27.3	Peak	Vertical
*	14328.0	49.2	1.3	50.5	74.0	-23.5	Peak	Vertical
*	16682.5	47.7	4.7	52.4	74.0	-21.6	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11n-HT20	Test Channel:	01
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
	10987.5	50.0	-3.3	46.7	74.0	-27.3	Peak	Horizontal
	12101.0	50.0	-3.2	46.8	74.0	-27.2	Peak	Horizontal
*	15195.0	48.2	2.6	50.8	74.0	-23.2	Peak	Horizontal
*	16920.5	48.3	4.7	53.0	74.0	-21.0	Peak	Horizontal
	11064.0	50.0	-3.3	46.7	74.0	-27.3	Peak	Vertical
	12322.0	50.5	-3.2	47.3	74.0	-26.7	Peak	Vertical
*	14821.0	48.8	2.5	51.3	74.0	-22.7	Peak	Vertical
*	17201.0	48.7	5.0	53.7	74.0	-20.3	Peak	Vertical

Note 1: “*” means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11n-HT20	Test Channel:	06
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
	11446.5	51.3	-3.9	47.4	74.0	-26.6	Peak	Horizontal
	12084.0	50.1	-3.4	46.7	74.0	-27.3	Peak	Horizontal
*	14353.5	49.6	1.6	51.2	74.0	-22.8	Peak	Horizontal
*	17260.5	48.3	4.8	53.1	74.0	-20.9	Peak	Horizontal
	11081.0	49.9	-3.2	46.7	74.0	-27.3	Peak	Vertical
	11650.5	50.6	-3.5	47.1	74.0	-26.9	Peak	Vertical
*	14863.5	47.7	2.3	50.0	74.0	-24.0	Peak	Vertical
*	17303.0	47.8	4.8	52.6	74.0	-21.4	Peak	Vertical

Note 1: "*" means test frequency didn't fall into restricted band.

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

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

Product	Mobile Computer	Test Engineer	White Wang
Test Site	SIP-AC3	Test Date	2020/11/12
Test Mode:	802.11n-HT20	Test Channel:	11
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
	10987.5	50.1	-3.3	46.8	74.0	-27.2	Peak	Horizontal
	11650.5	51.1	-3.5	47.6	74.0	-26.4	Peak	Horizontal
*	14821.0	47.9	2.5	50.4	74.0	-23.6	Peak	Horizontal
*	17379.5	47.7	5.3	53.0	74.0	-21.0	Peak	Horizontal
	11140.5	50.3	-3.5	46.8	74.0	-27.2	Peak	Vertical
	11778.0	50.4	-3.4	47.0	74.0	-27.0	Peak	Vertical
*	13826.5	49.0	0.3	49.3	74.0	-24.7	Peak	Vertical
*	16750.5	47.6	4.4	52.0	74.0	-22.0	Peak	Vertical

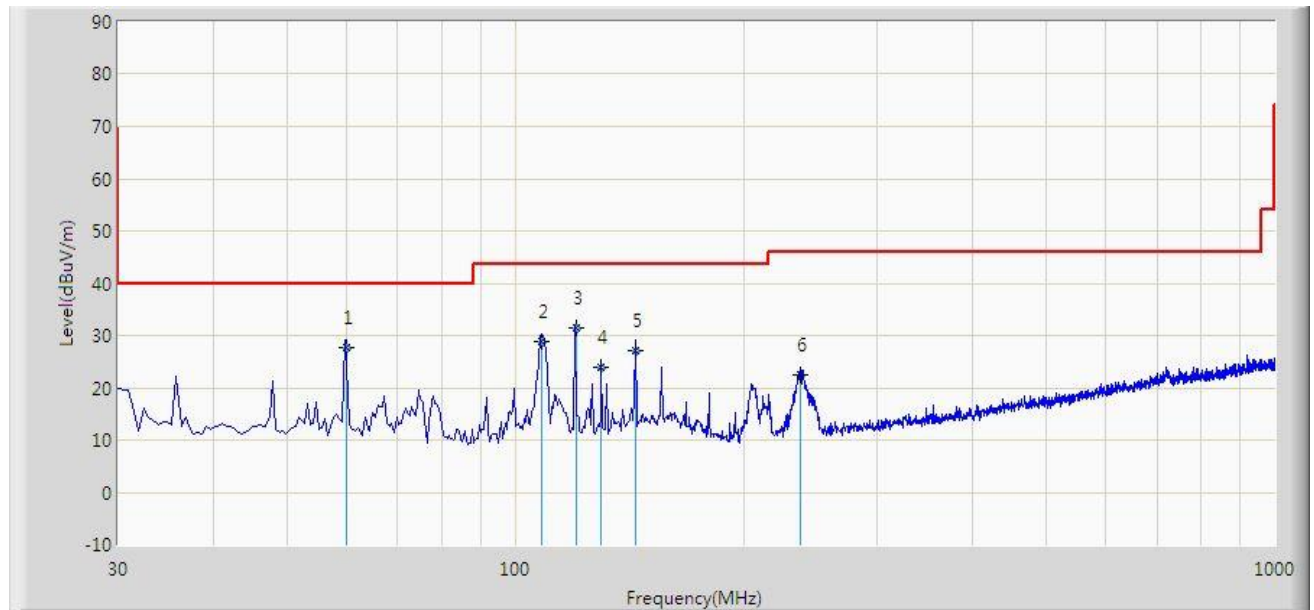
Note 1: "*" means test frequency didn't fall into restricted band.

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 Result of Radiated Emission below 1GHz:

Site: SIP-AC3	Time: 2020/11/15 - 18:02
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Worst Case Mode: Transmit by 802.11b at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			59.971	27.780	14.600	-12.220	40.000	13.180	QP
2			108.527	28.906	17.300	-14.594	43.500	11.606	QP
3		*	120.210	31.484	18.600	-12.016	43.500	12.884	QP
4			129.860	23.966	10.500	-19.534	43.500	13.467	QP
5			143.975	27.083	12.600	-16.417	43.500	14.483	QP
6			237.580	22.507	10.200	-23.493	46.000	12.307	QP

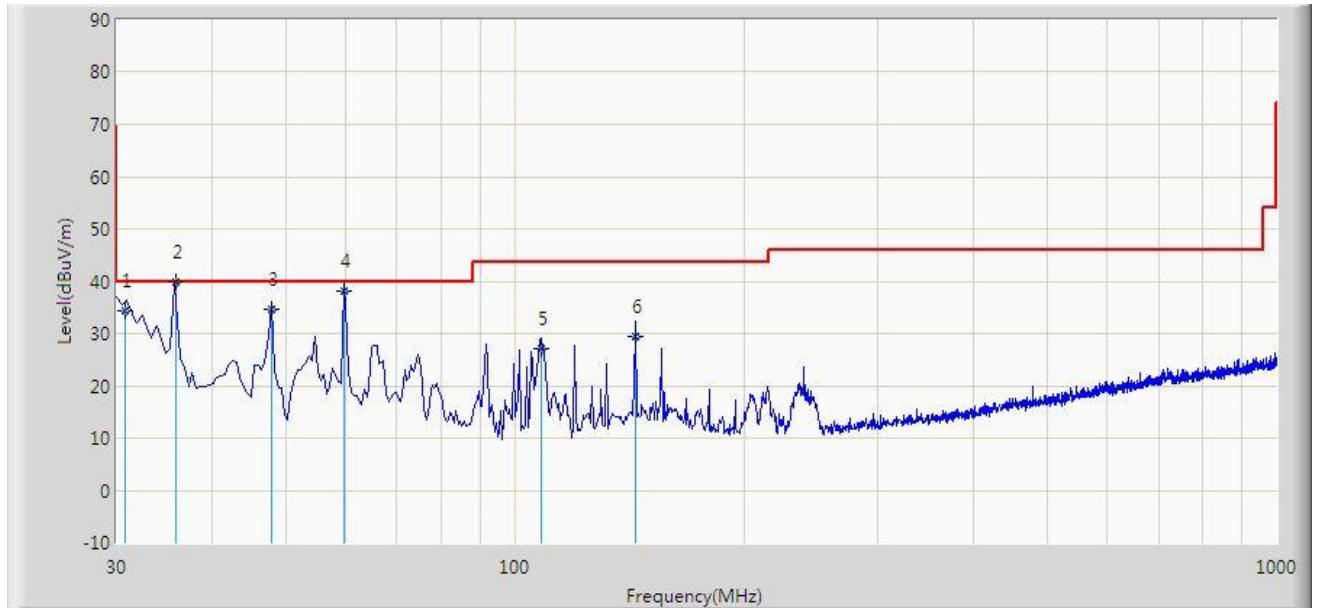
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: SIP-AC3	Time: 2020/11/15 - 18:10
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Worst Case Mode: Transmit by 802.11b at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			30.761	34.368	20.800	-5.632	40.000	13.569	QP
2		*	35.984	39.783	25.900	-0.217	40.000	13.884	QP
3			48.003	34.700	20.700	-5.300	40.000	14.000	QP
4			59.585	38.043	24.800	-1.957	40.000	13.243	QP
5			108.560	27.009	15.400	-16.491	43.500	11.609	QP
6			143.974	29.383	14.900	-14.117	43.500	14.483	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

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

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

6.7. Radiated Restricted Band Edge Measurement

6.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR 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

6.7.2.Test Procedure Used

ANSI C63.10-2013 Section 6.3 & 6.6 & 11.13

6.7.3.Test Setting

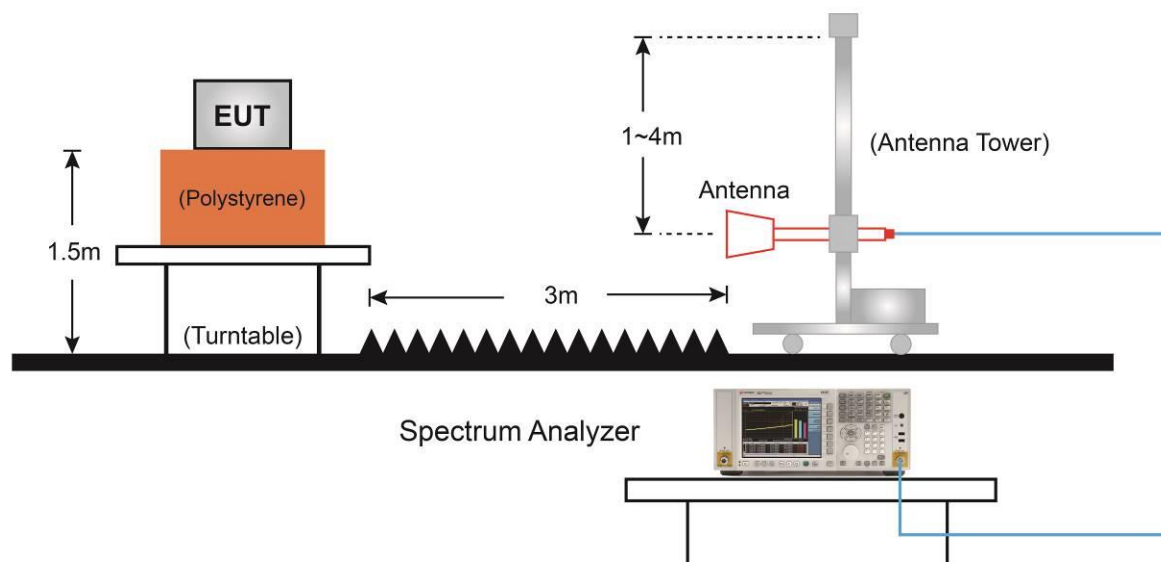
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

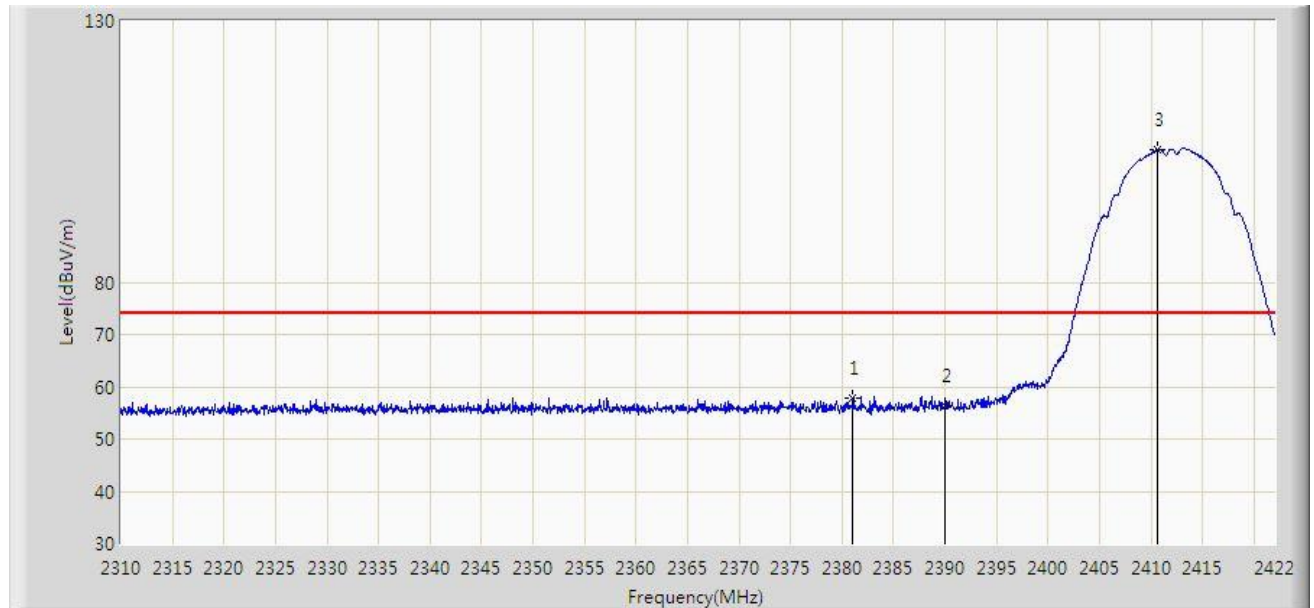
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). 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

6.7.4.Test Setup



6.7.5.Test Result

Site: SIP-AC3	Time: 2020/11/10 - 10:29
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

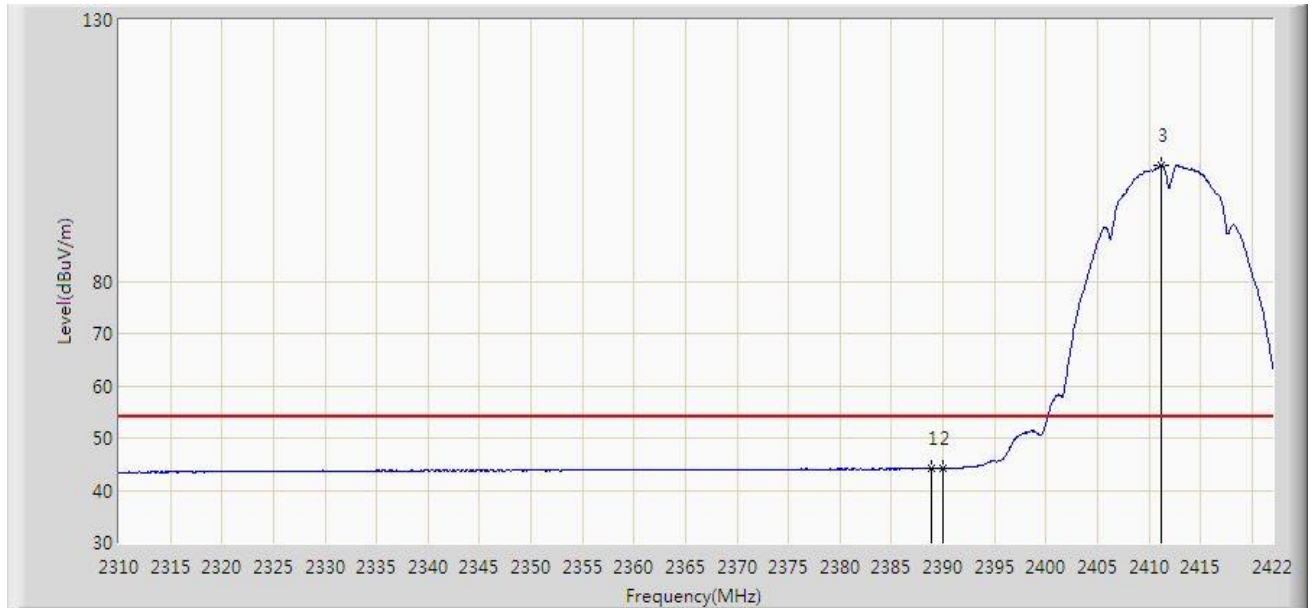


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2381.064	57.810	26.232	-16.190	74.000	31.578	PK
2			2390.000	56.352	24.808	-17.648	74.000	31.544	PK
3		*	2410.632	105.340	73.563	N/A	N/A	31.777	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 10:37
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

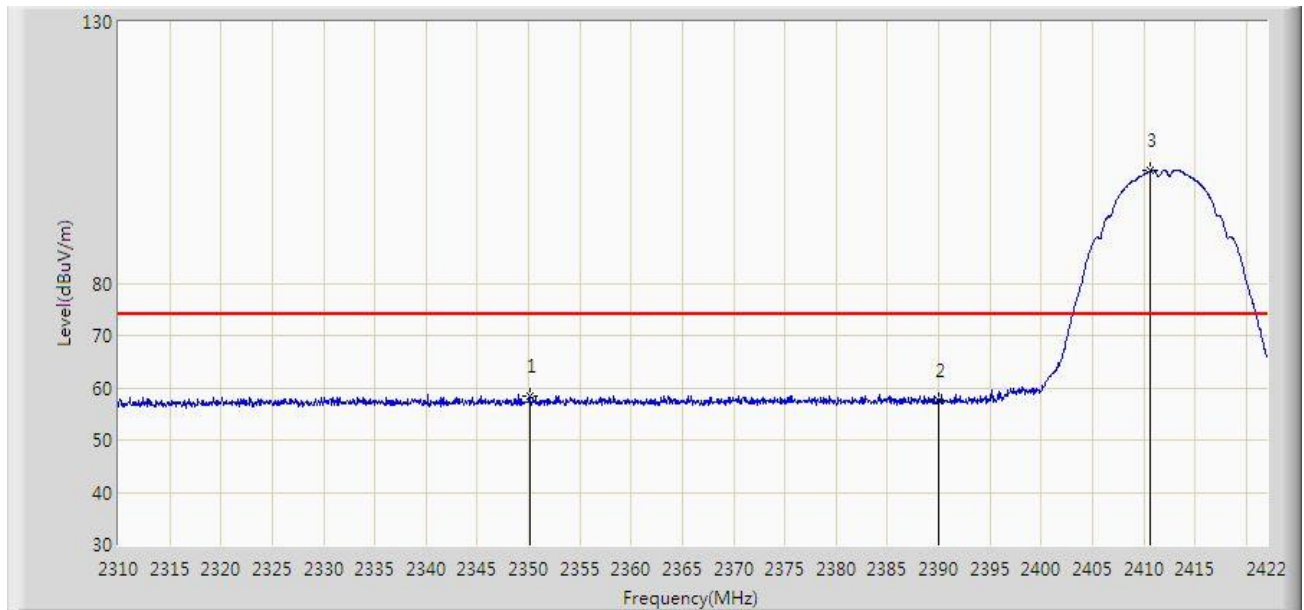


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.904	44.248	12.700	-9.752	54.000	31.548	AV
2			2390.000	44.192	12.648	-9.808	54.000	31.544	AV
3		*	2411.192	102.232	70.450	N/A	N/A	31.781	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 10:38
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

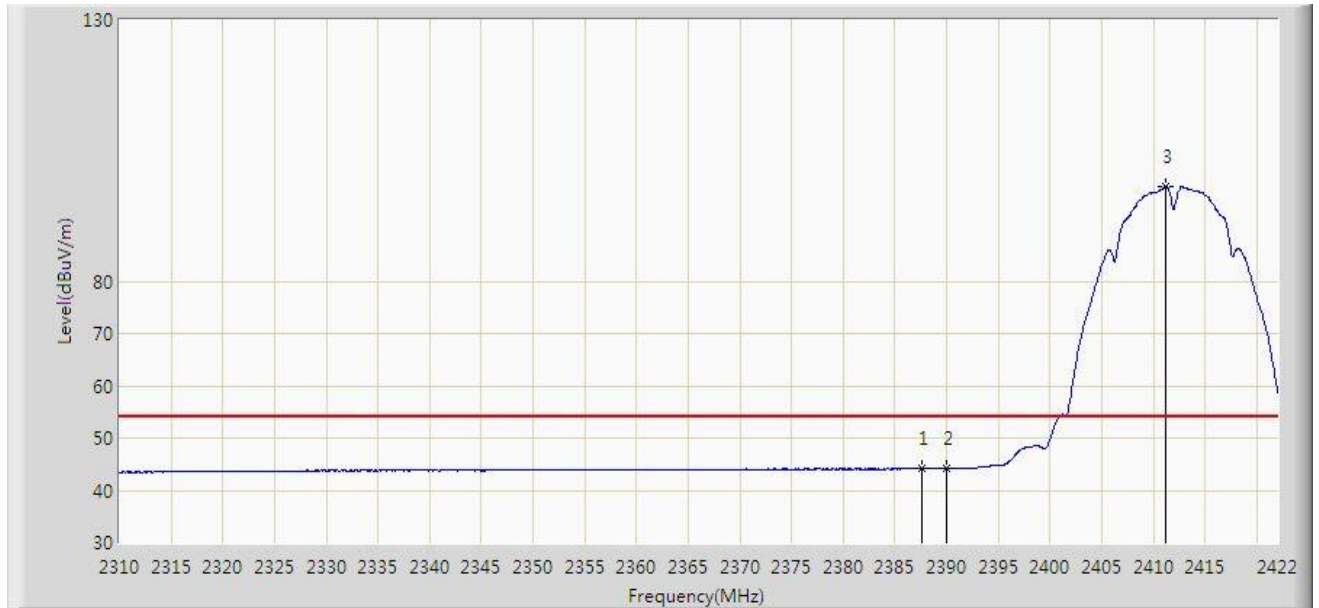


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2350.152	58.530	27.092	-15.470	74.000	31.438	PK
2			2390.000	57.593	26.049	-16.407	74.000	31.544	PK
3		*	2410.632	101.469	69.692	N/A	N/A	31.777	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 10:49
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

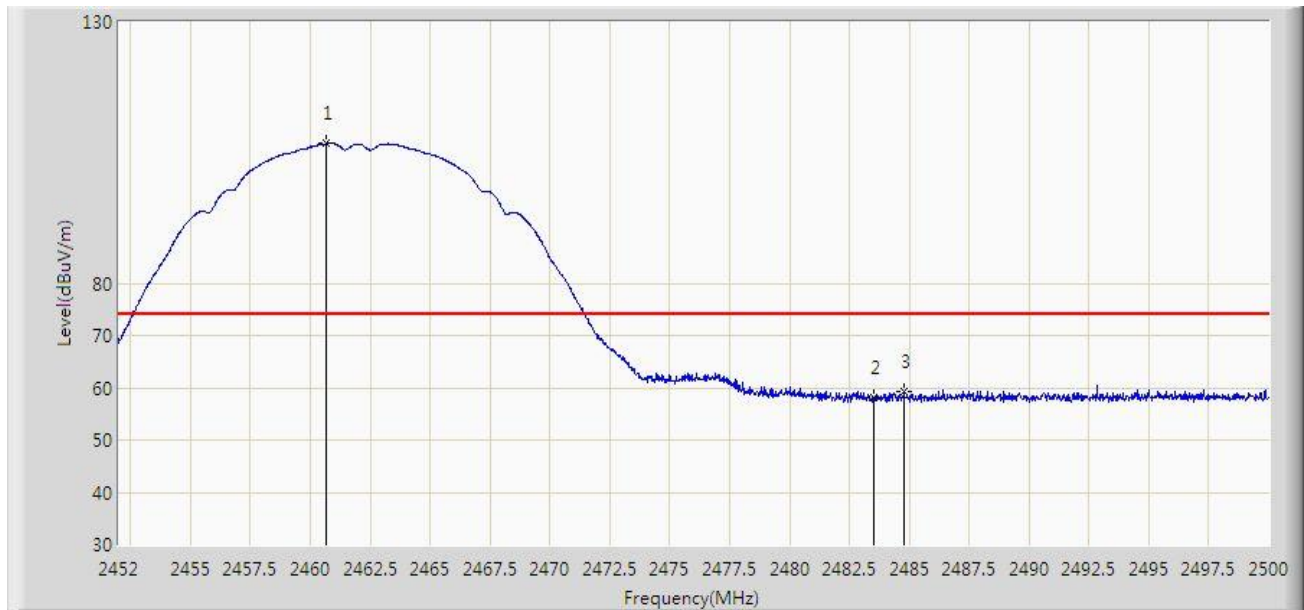


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.560	44.228	12.675	-9.772	54.000	31.553	AV
2			2390.000	44.148	12.604	-9.852	54.000	31.544	AV
3		*	2411.136	98.106	66.324	N/A	N/A	31.782	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 10:51
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	

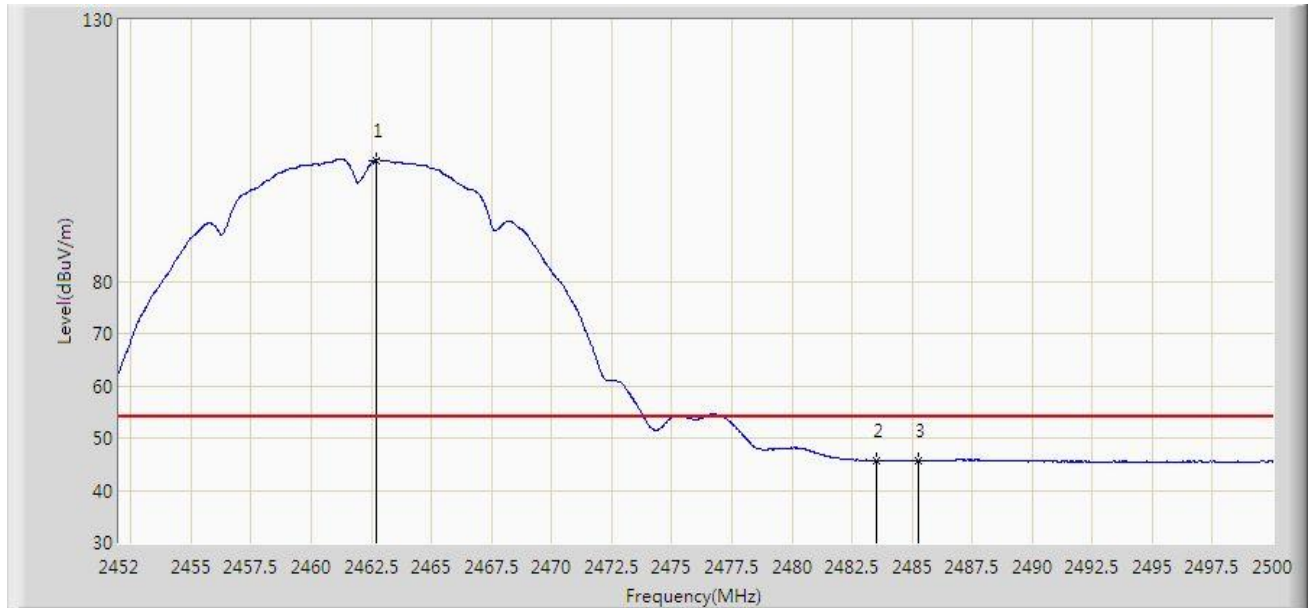


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.640	106.754	74.614	N/A	N/A	32.141	PK
2			2483.500	57.973	25.775	-16.027	74.000	32.197	PK
3			2484.784	59.358	27.135	-14.642	74.000	32.223	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 10:55
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	

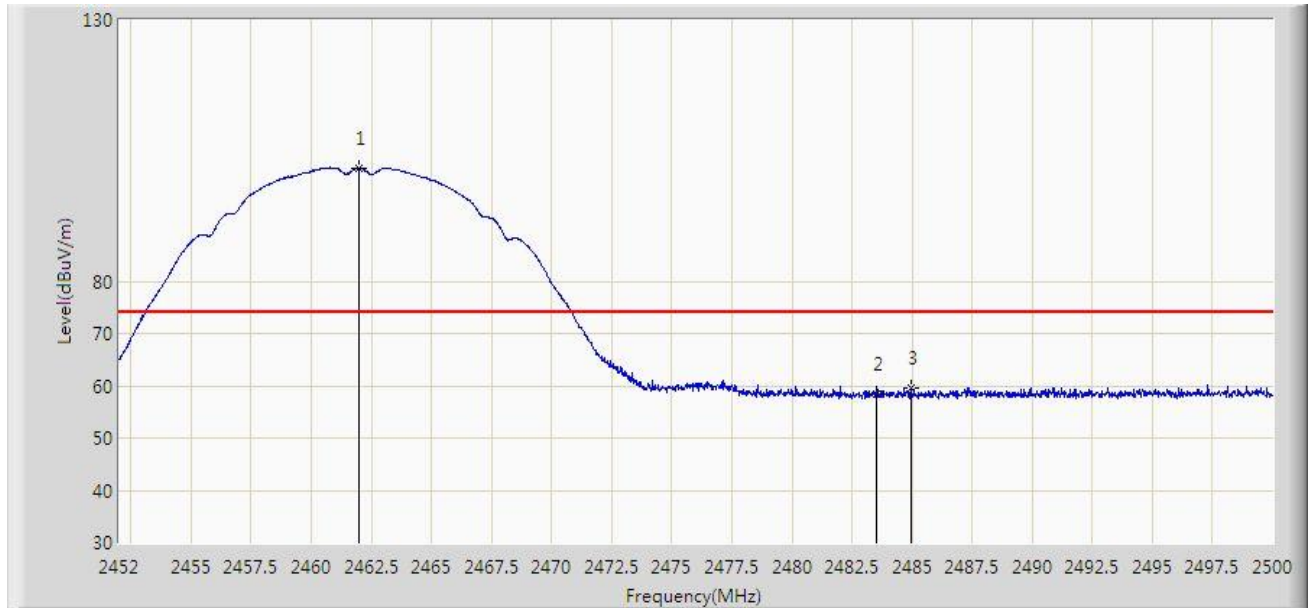


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.680	103.172	71.016	N/A	N/A	32.156	AV
2			2483.500	45.724	13.526	-8.276	54.000	32.197	AV
3			2485.264	45.733	13.501	-8.267	54.000	32.232	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 10:58
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	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)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.984	101.584	69.426	N/A	N/A	32.158	PK
2			2483.500	58.322	26.124	-15.678	74.000	32.197	PK
3			2484.952	59.670	27.444	-14.330	74.000	32.226	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:01
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	

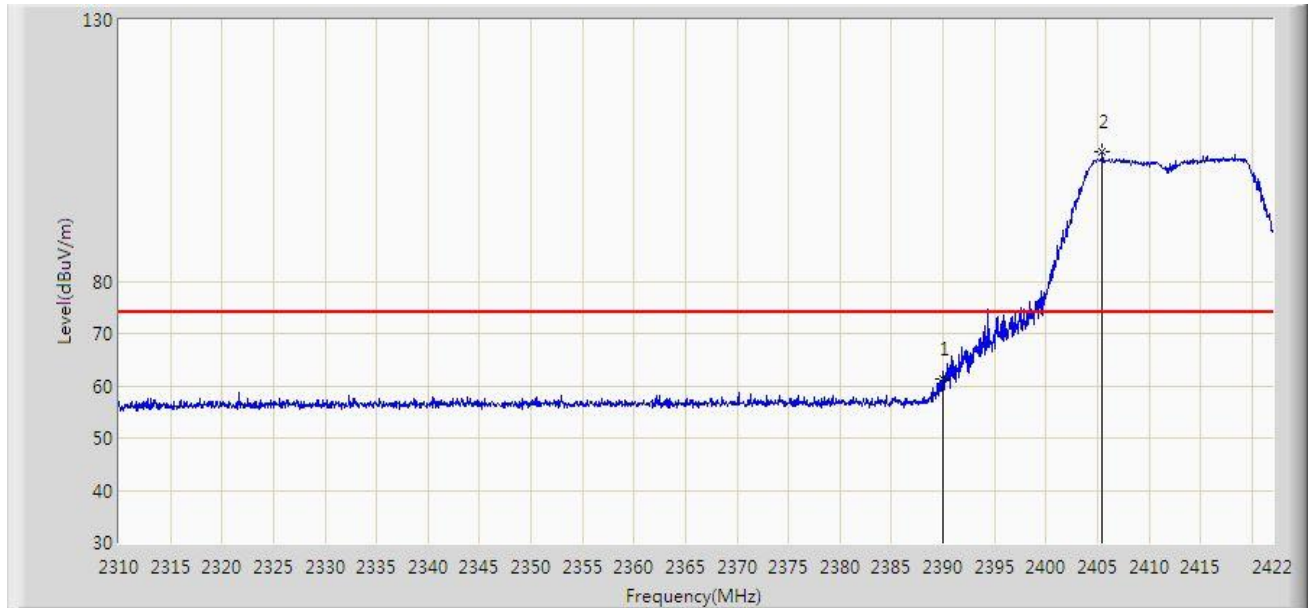


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.312	98.284	66.135	N/A	N/A	32.149	AV
2			2483.500	45.226	13.028	-8.774	54.000	32.197	AV
3			2485.768	45.397	13.155	-8.603	54.000	32.241	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:03
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

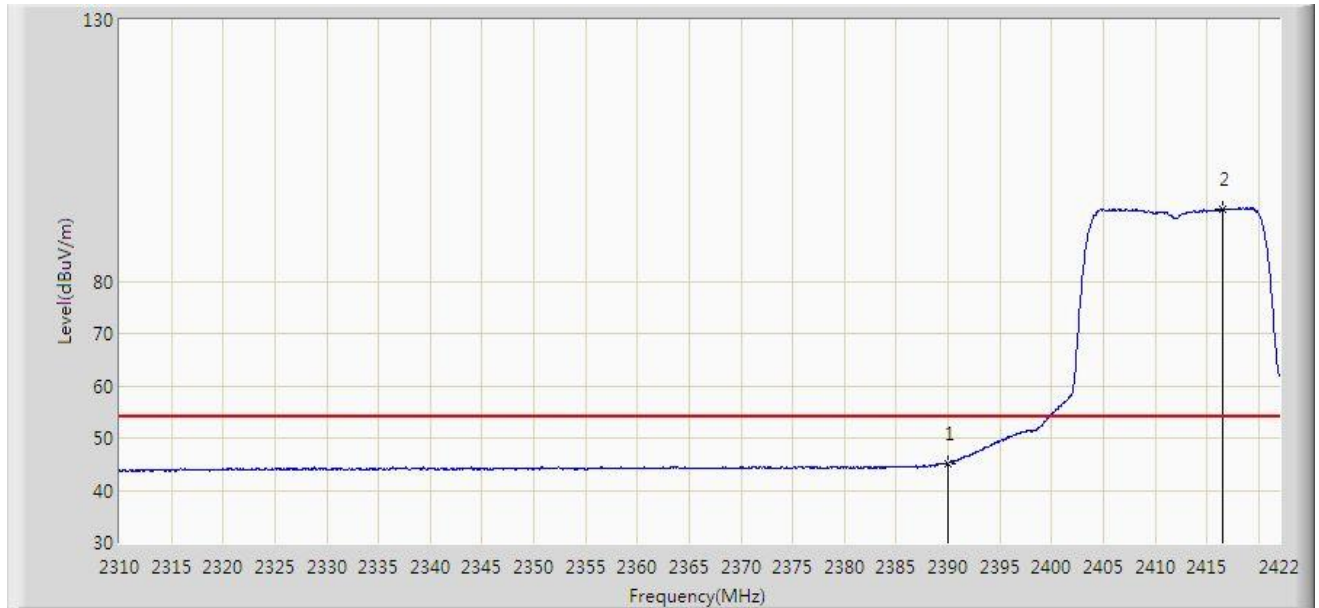


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	61.214	29.670	-12.786	74.000	31.544	PK
2		*	2405.480	104.787	73.087	N/A	N/A	31.700	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:06
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

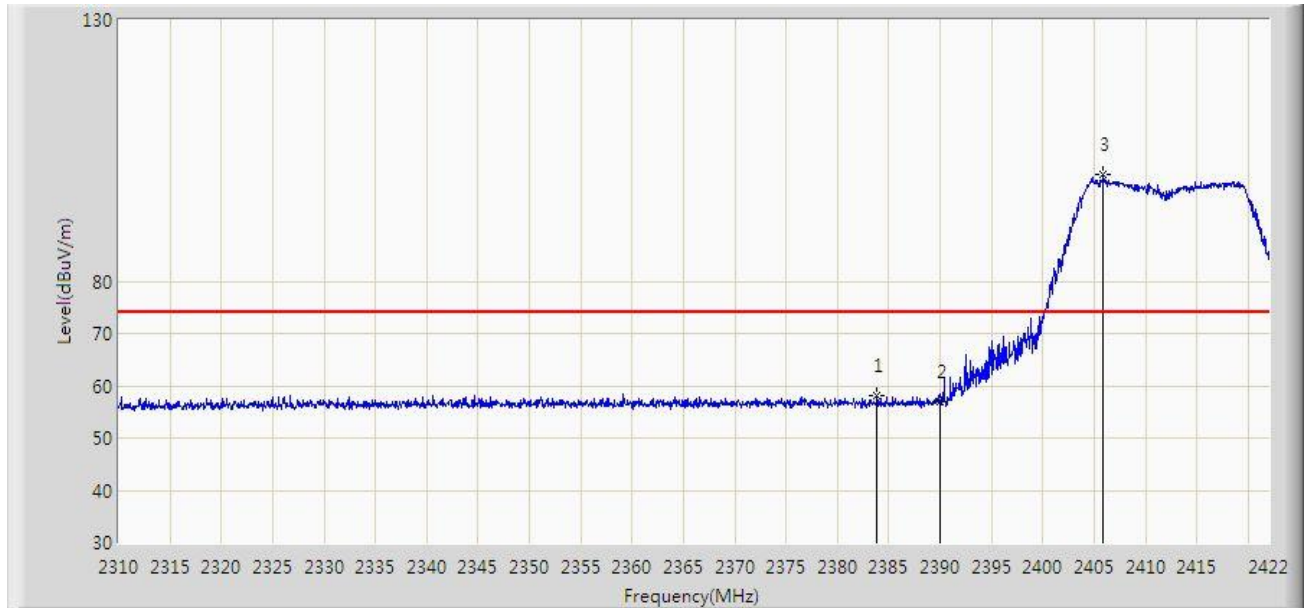


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.145	13.601	-8.855	54.000	31.544	AV
2		*	2416.568	93.825	62.054	N/A	N/A	31.771	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:11
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

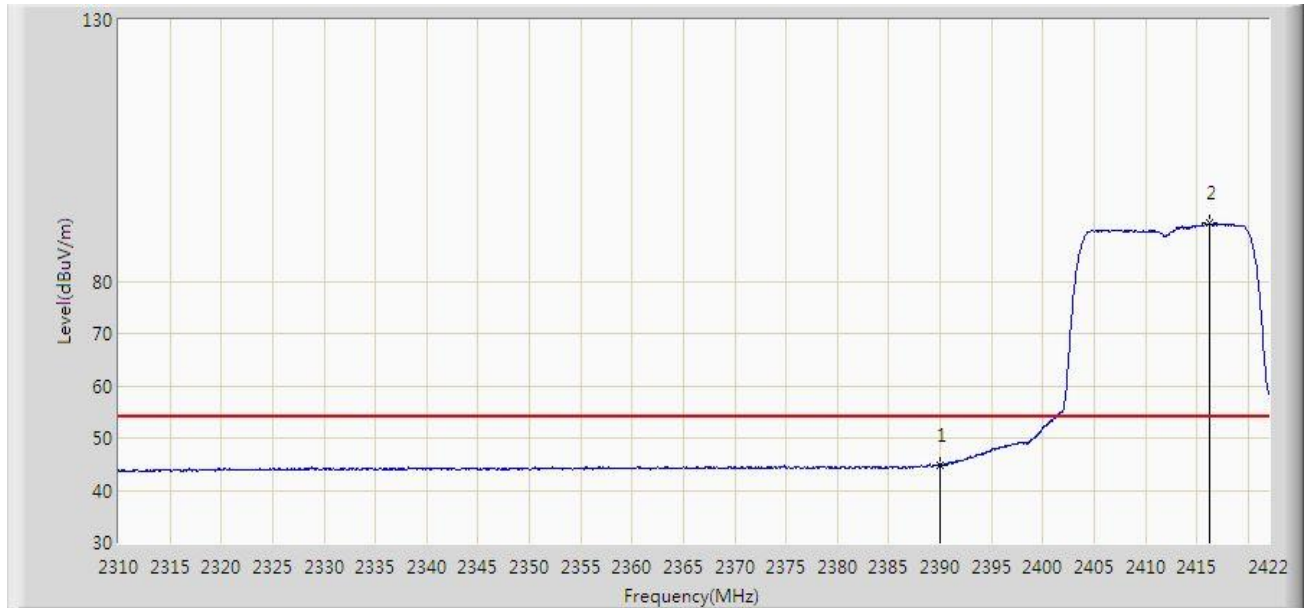


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2383.864	58.022	26.455	-15.978	74.000	31.567	PK
2			2390.000	57.066	25.522	-16.934	74.000	31.544	PK
3		*	2405.928	100.299	68.592	N/A	N/A	31.706	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:14
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

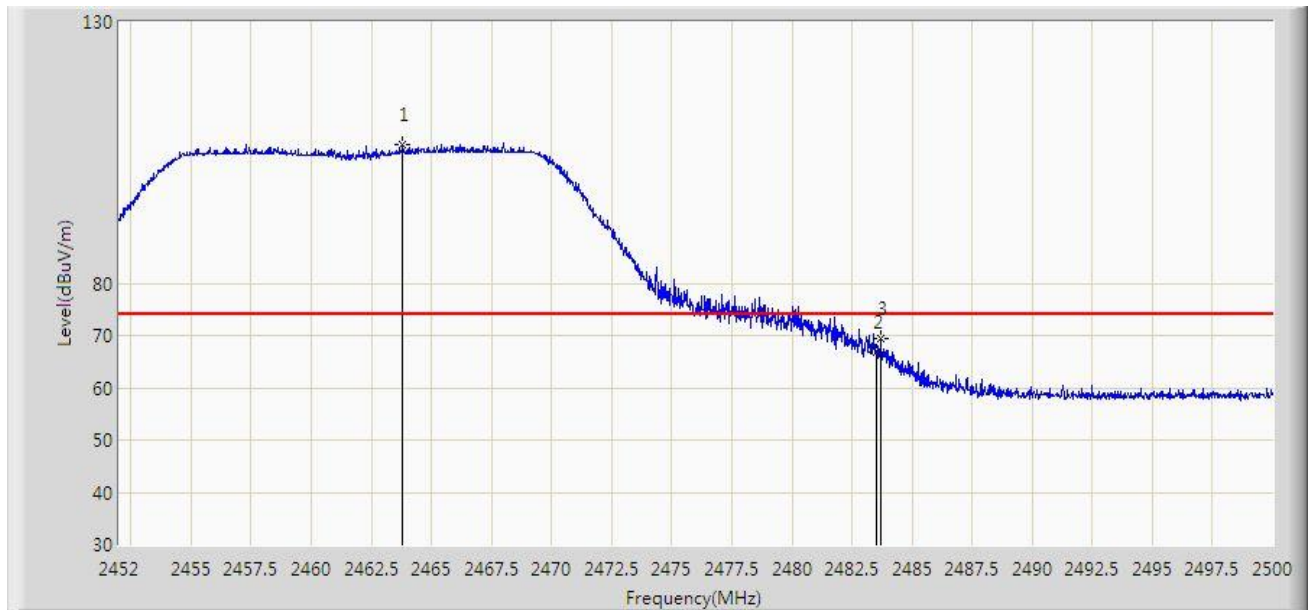


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	44.920	13.376	-9.080	54.000	31.544	AV
2		*	2416.232	91.078	59.306	N/A	N/A	31.772	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:17
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

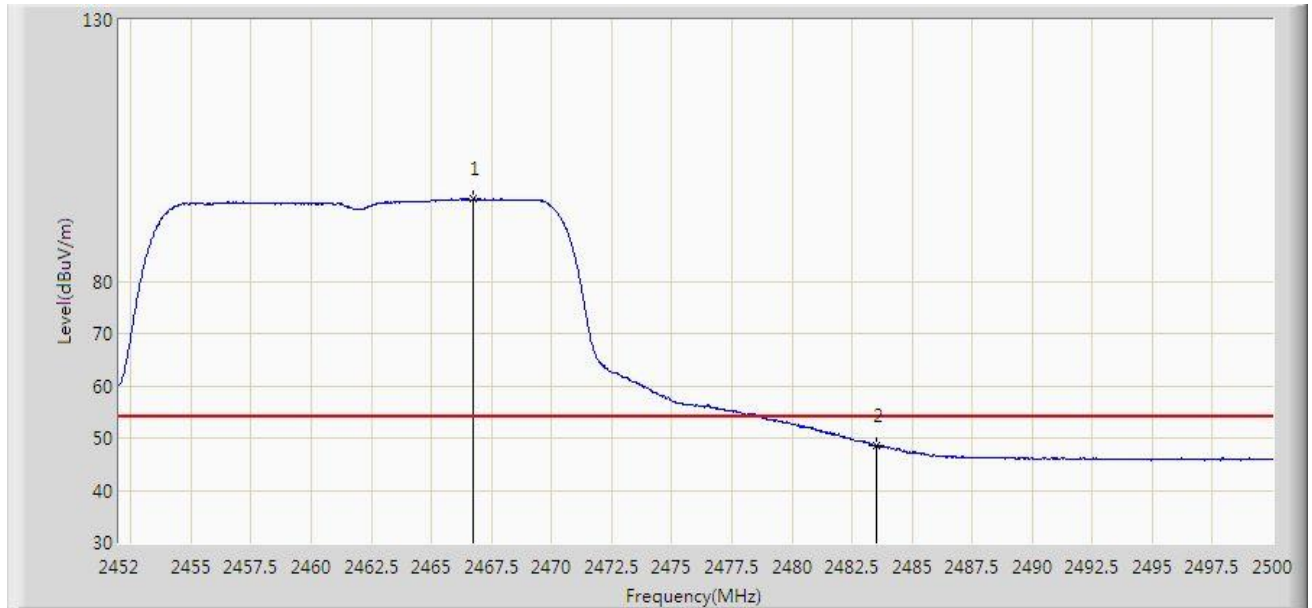


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.784	106.526	74.373	N/A	N/A	32.153	PK
2			2483.500	66.752	34.554	-7.248	74.000	32.197	PK
3			2483.704	69.298	37.096	-4.702	74.000	32.202	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:22
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

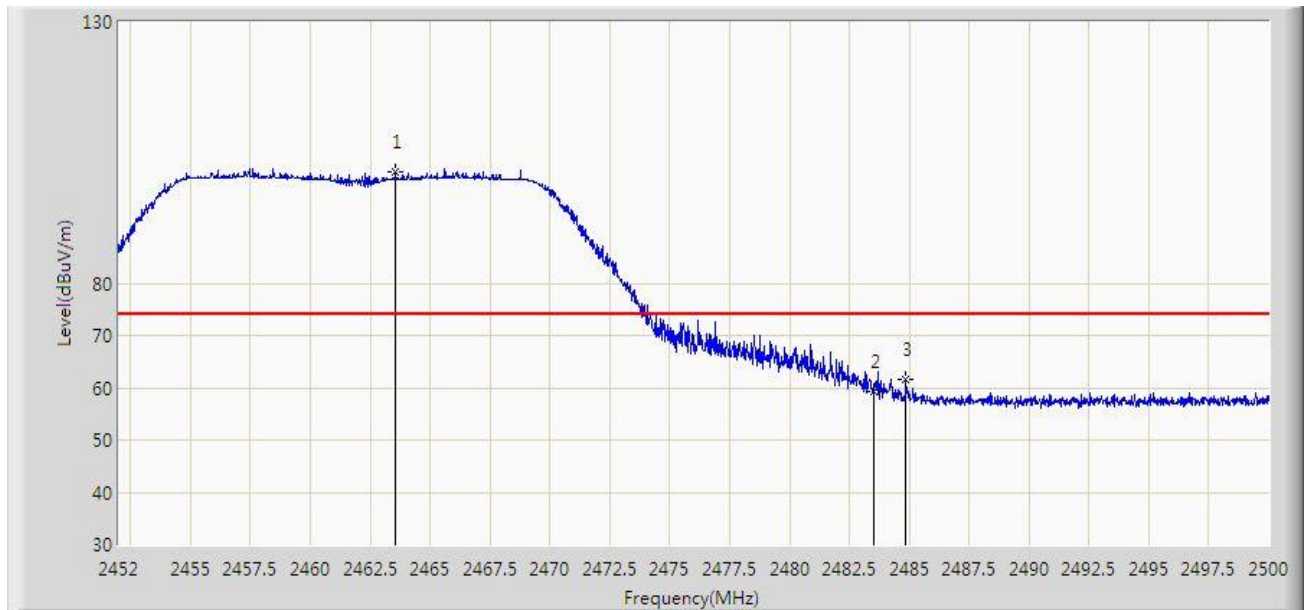


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2466.760	95.684	63.539	N/A	N/A	32.145	AV
2			2483.500	48.626	16.428	-5.374	54.000	32.197	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:27
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

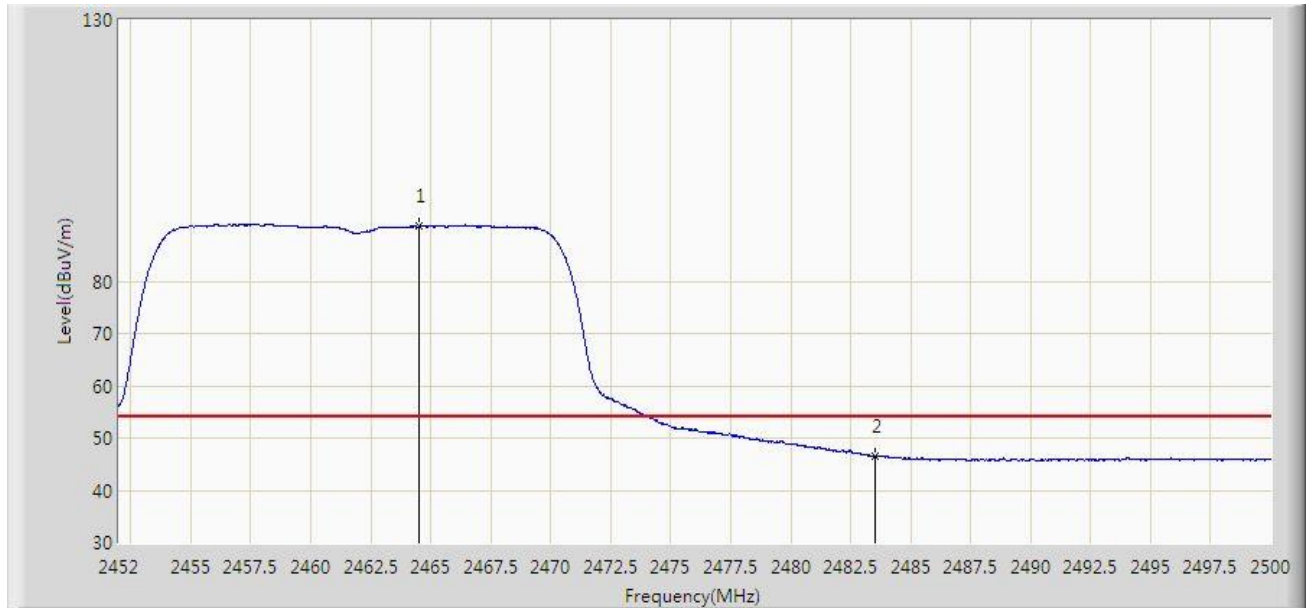


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.544	101.283	69.129	N/A	N/A	32.154	PK
2			2483.500	59.163	26.965	-14.837	74.000	32.197	PK
3			2484.856	61.636	29.412	-12.364	74.000	32.224	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:30
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

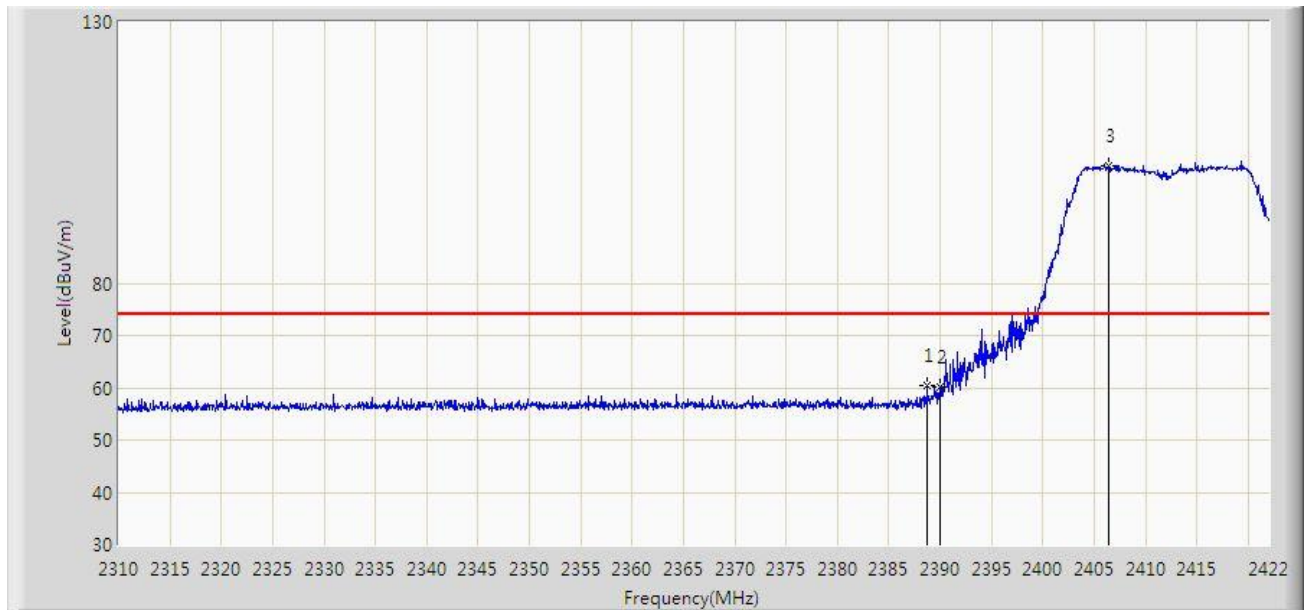


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.528	90.455	58.304	N/A	N/A	32.151	AV
2			2483.500	46.568	14.370	-7.432	54.000	32.197	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:43
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

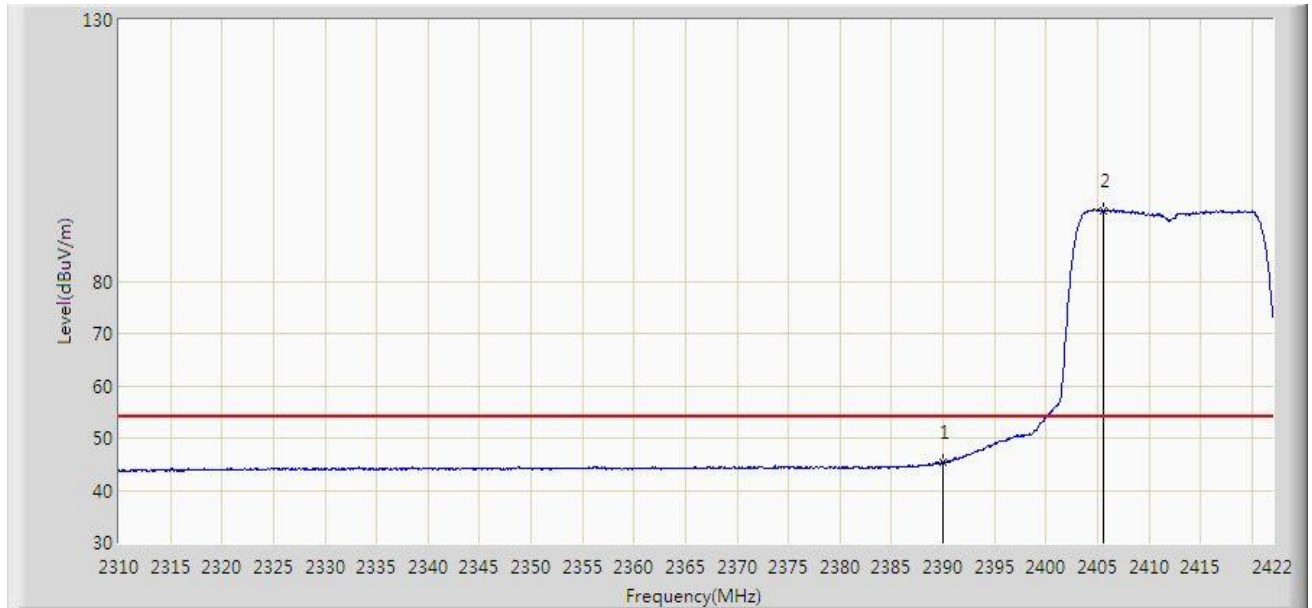


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.736	60.554	29.005	-13.446	74.000	31.549	PK
2			2390.000	60.183	28.639	-13.817	74.000	31.544	PK
3		*	2406.376	102.528	70.815	N/A	N/A	31.713	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:43
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

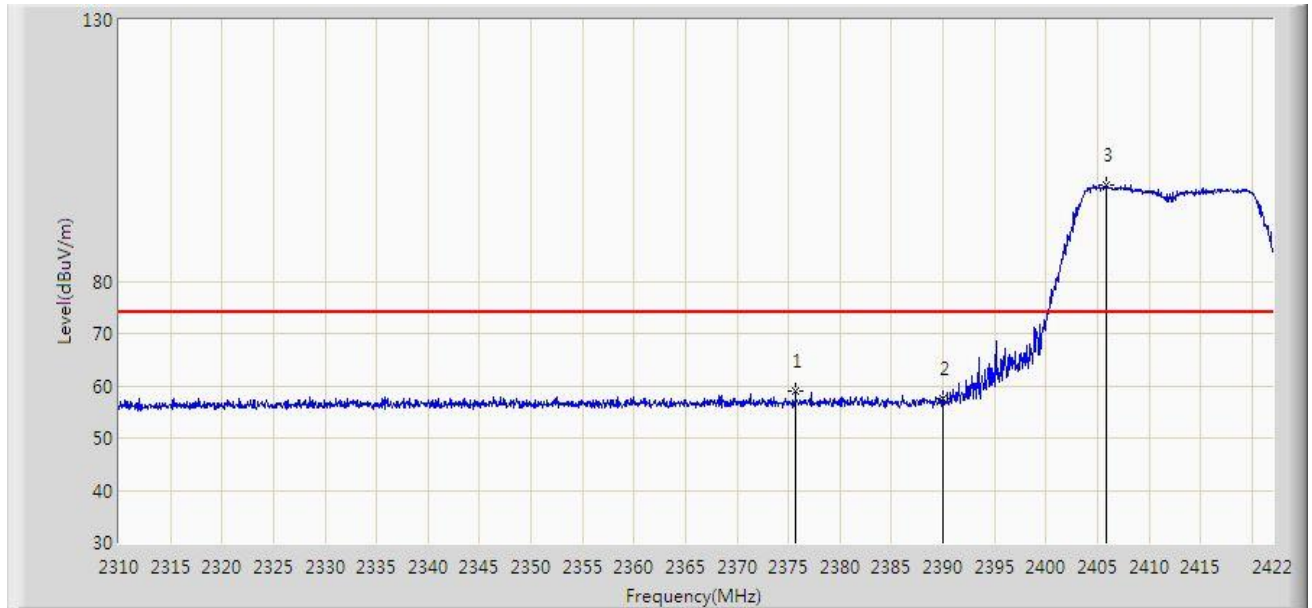


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.310	13.766	-8.690	54.000	31.544	AV
2		*	2405.592	93.534	61.832	N/A	N/A	31.701	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:49
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

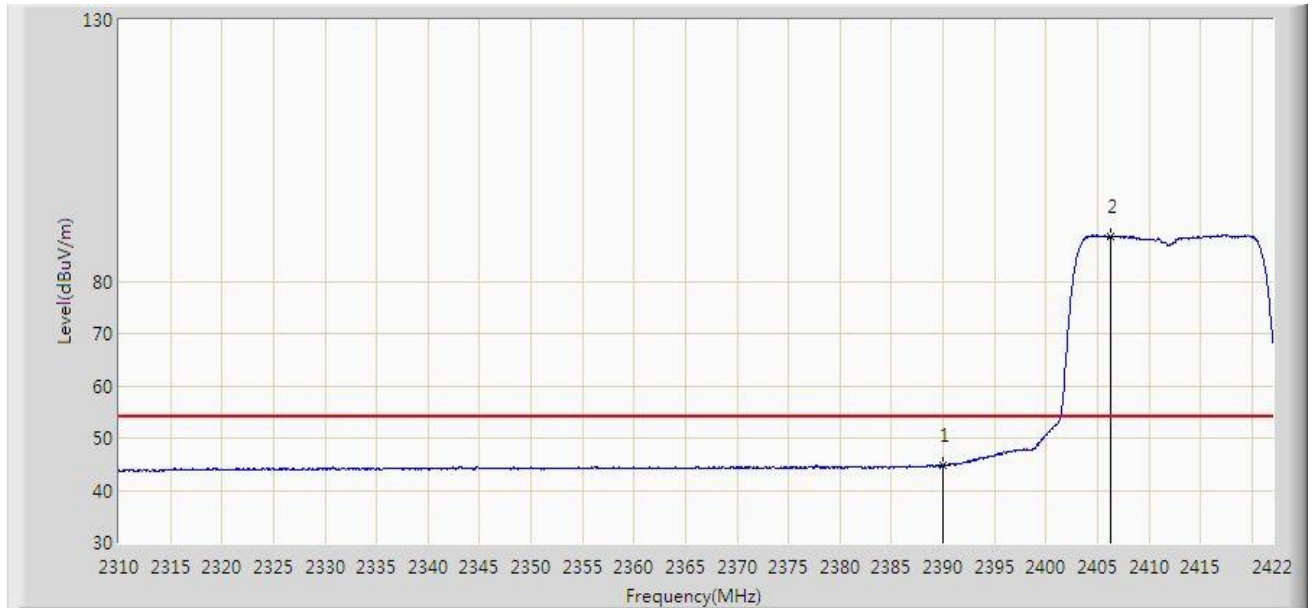


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2375.688	58.893	27.309	-15.107	74.000	31.584	PK
2			2390.000	57.515	25.971	-16.485	74.000	31.544	PK
3		*	2405.816	98.267	66.562	N/A	N/A	31.705	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:51
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

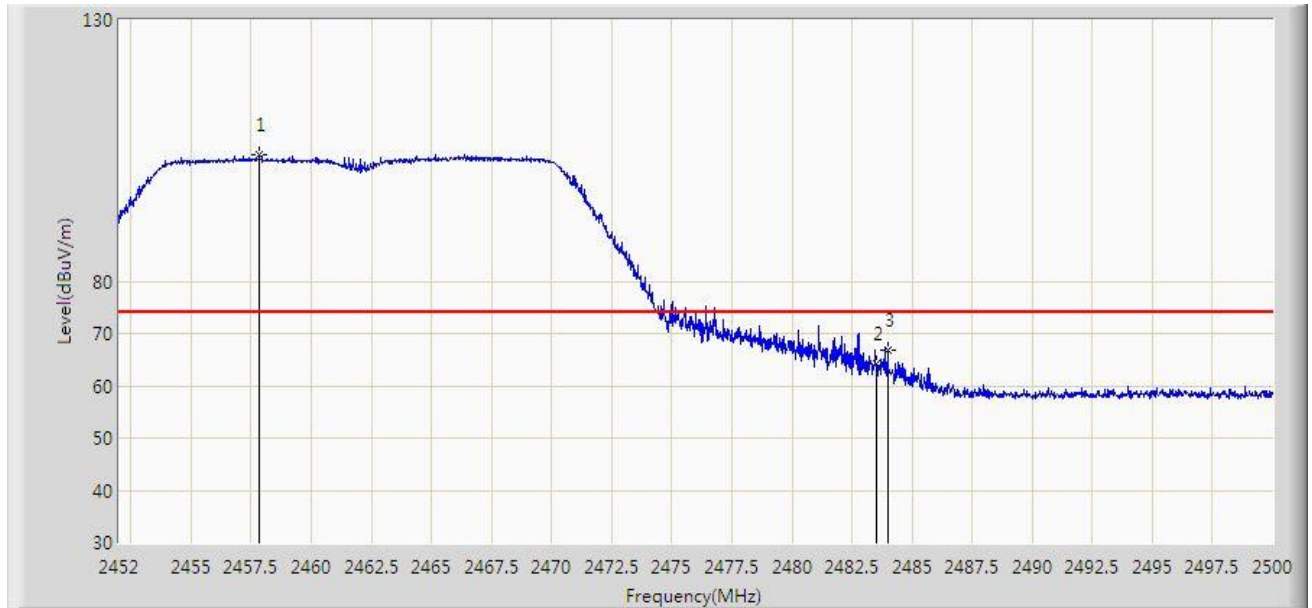


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	44.677	13.133	-9.323	54.000	31.544	AV
2		*	2406.320	88.554	56.842	N/A	N/A	31.712	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:55
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

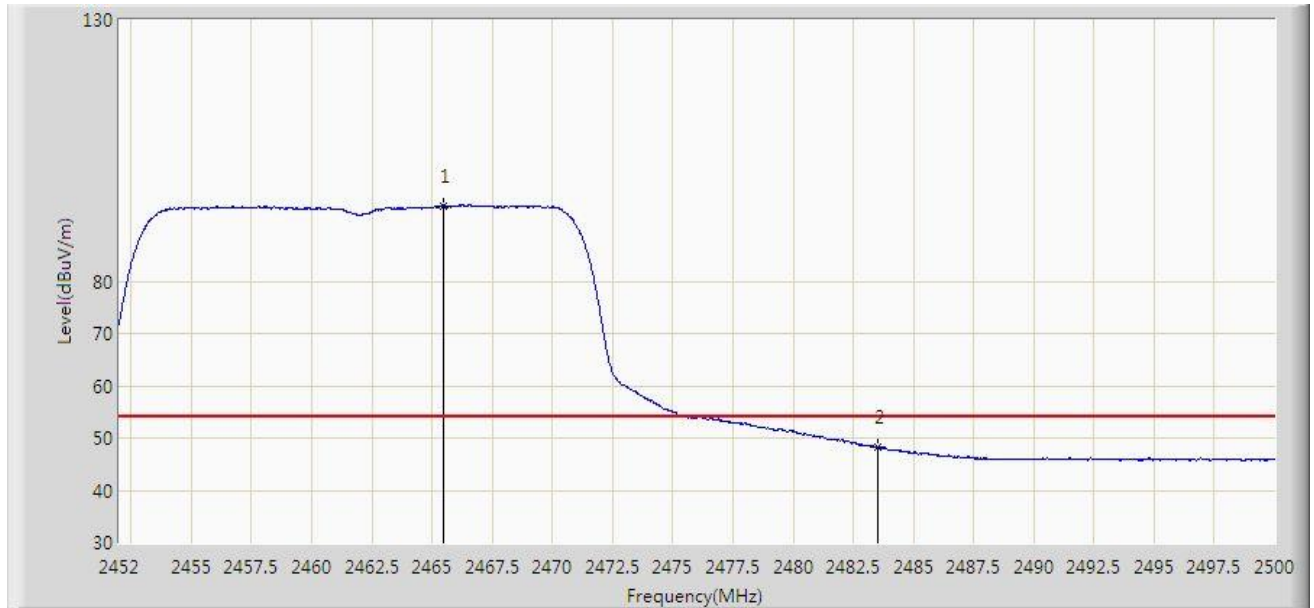


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.832	104.245	72.142	N/A	N/A	32.104	PK
2			2483.500	64.089	31.891	-9.911	74.000	32.197	PK
3			2483.992	66.819	34.612	-7.181	74.000	32.207	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 11:58
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

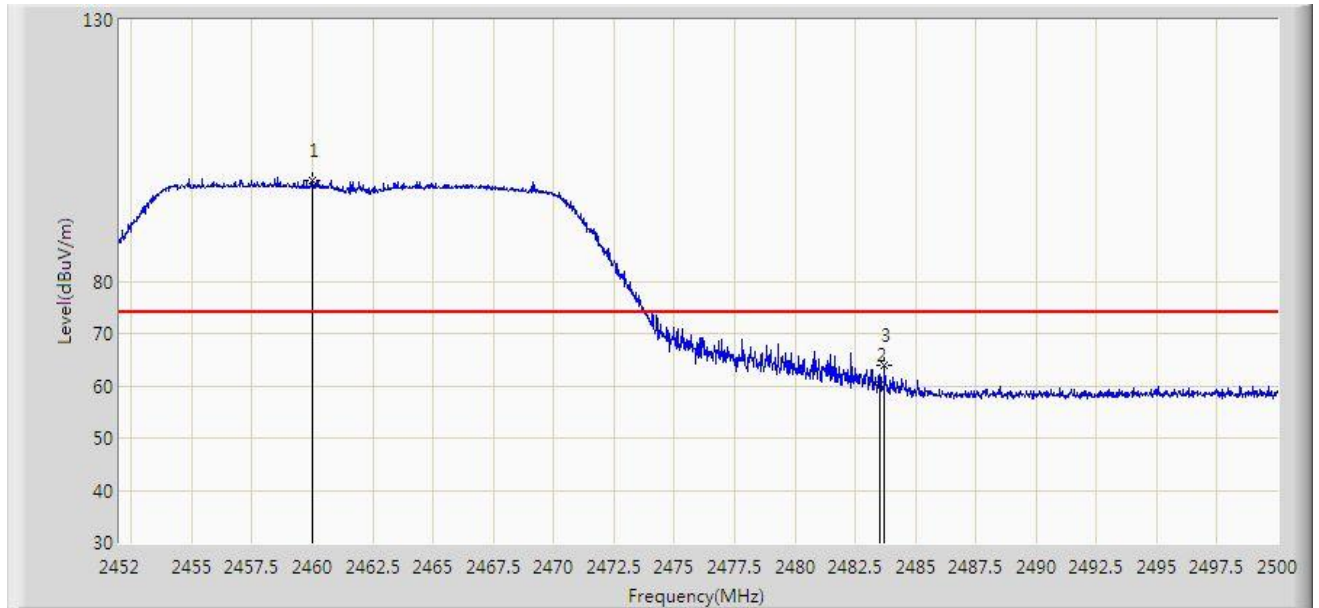


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.464	94.449	62.301	N/A	N/A	32.148	AV
2			2483.500	48.268	16.070	-5.732	54.000	32.197	AV

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

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

Site: SIP-AC3	Time: 2020/11/10 - 12:00
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

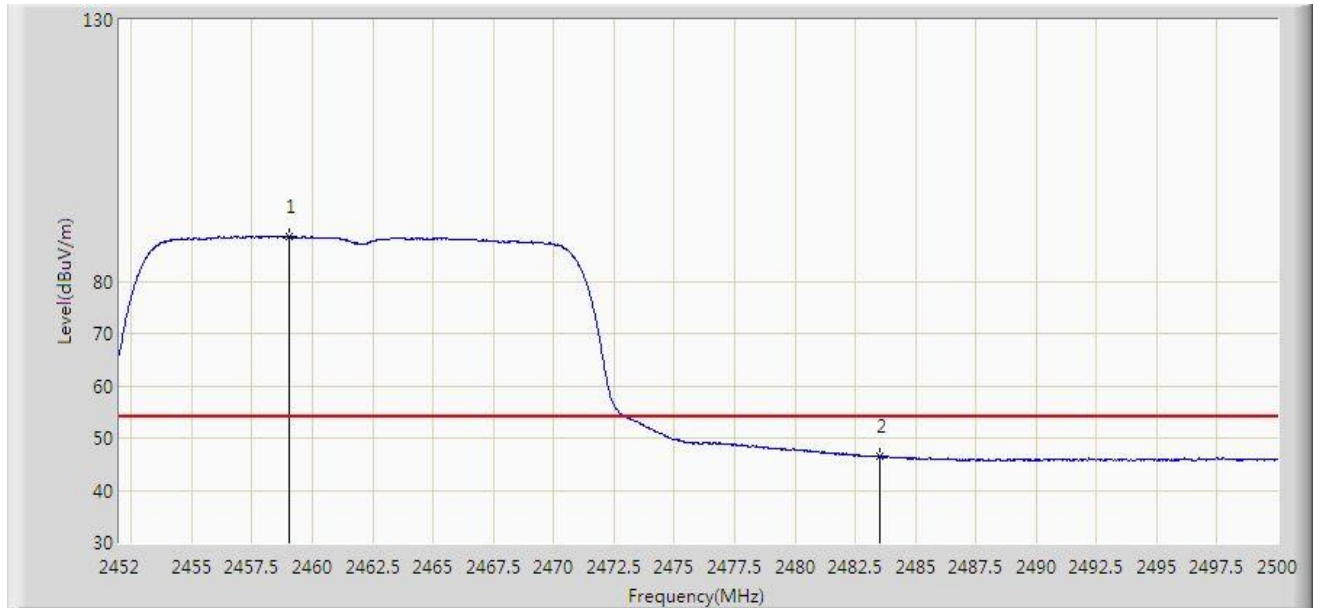


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.016	99.143	67.011	N/A	N/A	32.132	PK
2			2483.500	60.033	27.835	-13.967	74.000	32.197	PK
3			2483.728	64.005	31.803	-9.995	74.000	32.202	PK

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

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

Site: SIP-AC3	Time: 2020/11/10 - 13:10
Limit: FCC_Part15.209_RE(3m)	Engineer: White Wang
Probe: SIP-AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Mobile Computer	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)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.056	88.544	56.425	N/A	N/A	32.119	AV
2			2483.500	46.377	14.179	-7.623	54.000	32.197	AV

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

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

6.8. AC Conducted Emissions Measurement

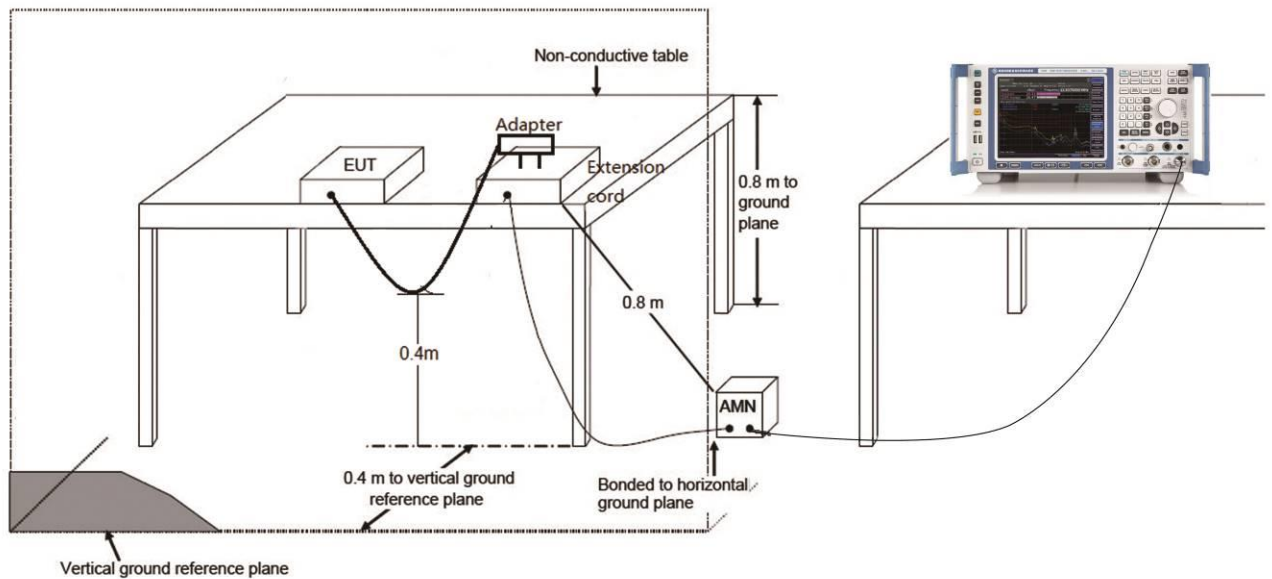
6.8.1. Test Limit

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.

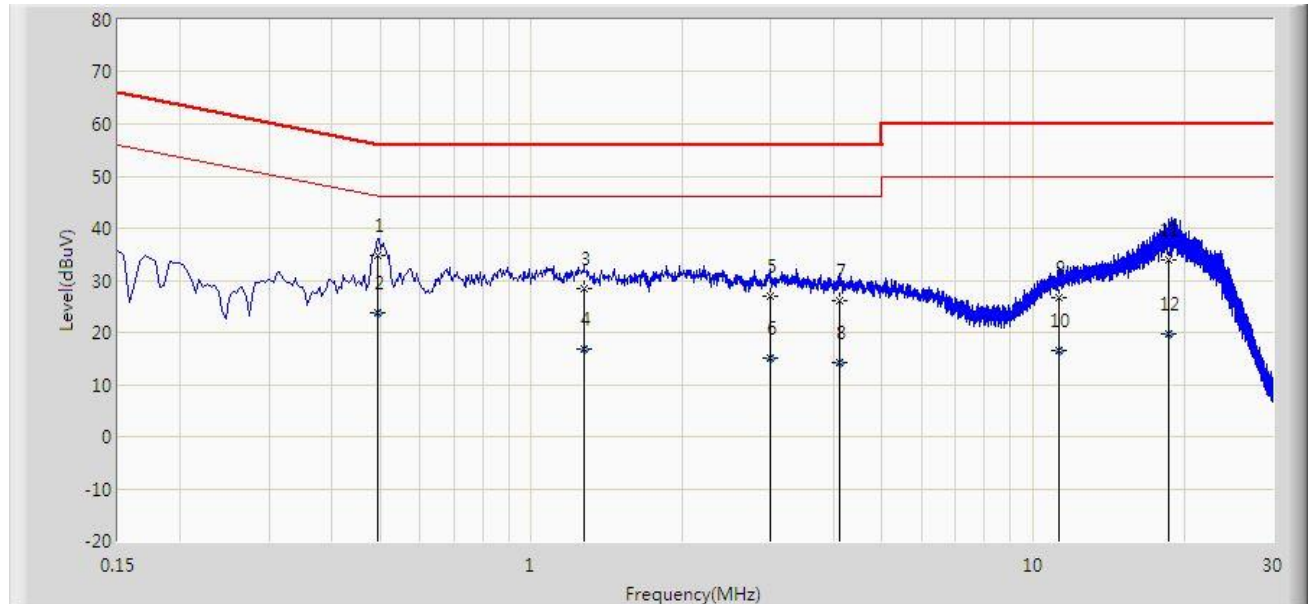
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.8.2. Test Setup



6.8.3.Test Result

Site: SIP-SR2	Time: 2020/11/20 - 14:22
Limit: FCC_Part15.207_CE_AC Power	Engineer: Kyrie Xie
Probe: ENV216_101684_Filter On	Polarity: Line
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

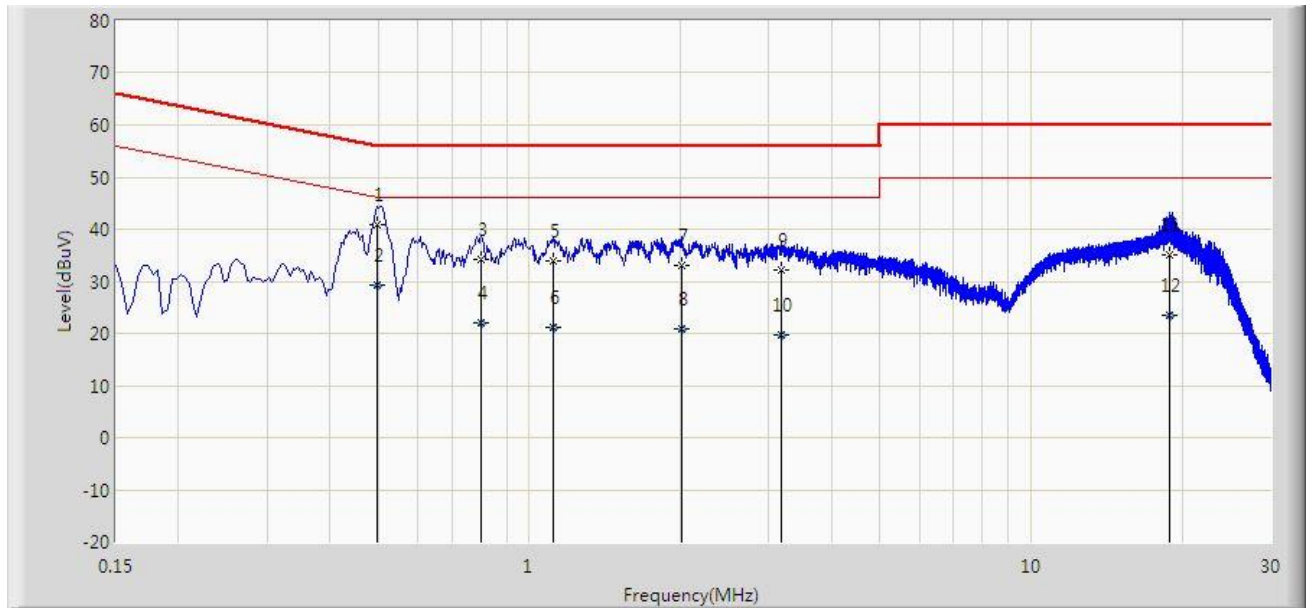


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.494	34.777	24.609	-21.323	56.100	10.169	QP
2			0.494	23.821	13.652	-22.280	46.100	10.169	AV
3			1.274	28.294	18.350	-27.706	56.000	9.944	QP
4			1.274	16.674	6.731	-29.326	46.000	9.944	AV
5			2.986	26.835	16.925	-29.165	56.000	9.911	QP
6			2.986	15.086	5.175	-30.914	46.000	9.911	AV
7			4.122	26.100	16.222	-29.900	56.000	9.879	QP
8			4.122	14.140	4.262	-31.860	46.000	9.879	AV
9			11.254	26.740	16.769	-33.260	60.000	9.971	QP
10			11.254	16.497	6.526	-33.503	50.000	9.971	AV
11			18.642	34.046	23.982	-25.954	60.000	10.064	QP
12			18.642	19.825	9.761	-30.175	50.000	10.064	AV

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

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

Site: SIP-SR2	Time: 2020/11/20 - 14:29
Limit: FCC_Part15.207_CE_AC Power	Engineer: Kyrie Xie
Probe: ENV216_101684_Filter On	Polarity: Neutral
EUT: Mobile Computer	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.498	40.958	30.759	-15.076	56.033	10.198	QP
2			0.498	29.374	19.175	-16.660	46.033	10.198	AV
3			0.802	34.089	24.036	-21.911	56.000	10.053	QP
4			0.802	22.090	12.038	-23.910	46.000	10.053	AV
5			1.114	33.822	23.861	-22.178	56.000	9.960	QP
6			1.114	21.158	11.198	-24.842	46.000	9.960	AV
7			2.006	32.949	23.003	-23.051	56.000	9.945	QP
8			2.006	20.751	10.806	-25.249	46.000	9.945	AV
9			3.182	32.087	22.166	-23.913	56.000	9.920	QP
10			3.182	19.736	9.815	-26.264	46.000	9.920	AV
11			18.886	35.156	25.040	-24.844	60.000	10.116	QP
12			18.886	23.528	13.412	-26.472	50.000	10.116	AV

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

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

7. CONCLUSION

The data collected relate only the item(s) tested and show that the device is in compliance with Part 15C of the FCC rules.

_____ The End _____

Appendix A - Test Setup Photograph

Refer to “2010RSU078-UT” file.

Appendix B - EUT Photograph

Refer to "2010RSU078-UE" file.