



RF MEASUREMENT REPORT

FCC ID: 2AXJ4WR902ACV4
Applicant: TP-Link Corporation Limited
Product: AC750 Wi-Fi Travel Router
Model No.: TL-WR902AC
Brand Name: tp-link
FCC Classification: Digital Transmission System (DTS)
FCC Rule Part(s): Part 15 Subpart C (Section 15.247)
Result: Complies
Received Date: 2023-05-09
Test Date: 2023-05-09 ~ 2023-05-17

Reviewed By:

Kevin Guo

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.

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Revision History

Report No.	Version	Description	Issue Date	Note
2305RSU013-U1	V01	Initial Report	2023-06-07	Valid

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information	6
1.5. Radio Specification under Test	6
1.6. Working Frequencies	7
1.7. Antenna Details	7
2. Test Configuration	8
2.1. Test Mode	8
2.2. Test System Connection Diagram	8
2.3. Test System Details	9
2.4. Test Software	9
2.5. Applied Standards	9
2.6. Test Environment Condition	9
3. Antenna Requirements	10
4. Measuring Instrument	11
5. Decision Rules and Measurement Uncertainty	12
5.1. Decision Rules	12
5.2. Measurement Uncertainty	12
6. Test Result	13
6.1. Summary	13
6.2. 6dB Bandwidth Measurement	14
6.2.1. Test Limit	14
6.2.2. Test Procedure	14
6.2.3. Test Setting	14
6.2.4. Test Setup	14
6.2.5. Test Result	14
6.3. Output Power Measurement	15
6.3.1. Test Limit	15
6.3.2. Test Procedure	15
6.3.3. Test Setting	15
6.3.4. Test Setup	15
6.3.5. Test Result	15
6.4. Power Spectral Density Measurement	16
6.4.1. Test Limit	16

6.4.2.	Test Procedure	16
6.4.3.	Test Setting	16
6.4.4.	Test Setup	16
6.4.5.	Test Result	17
6.5.	Conducted Band Edge and Out-of-Band Emissions Measurement	18
6.5.1.	Test Limit	18
6.5.2.	Test Procedure	18
6.5.3.	Test Setting	18
6.5.4.	Test Setup	18
6.5.5.	Test Result	19
6.6.	Radiated Spurious Emission Measurement.....	20
6.6.1.	Test Limit	20
6.6.2.	Test Procedure	20
6.6.3.	Test Setting	20
6.6.4.	Test Setup	22
6.6.5.	Test Result	23
6.7.	Radiated Restricted Band Edge Measurement	24
6.7.1.	Test Limit	24
6.7.2.	Test Procedure	25
6.7.3.	Test Setting	25
6.7.4.	Test Setup	26
6.7.5.	Test Result	26
6.8.	AC Conducted Emissions Measurement	27
6.8.1.	Test Limit	27
6.8.2.	Test Setup	27
6.8.3.	Test Result	27
Appendix A – Test Result.....		28
A.1	Duty Cycle Test Result.....	28
A.2	6dB Bandwidth Test Result	29
A.3	Output Power Test Result	34
A.4	Power Spectral Density Test Result.....	35
A.5	Conducted Band Edge and Out-of-Band Emissions Test Result.....	44
A.6	Radiated Spurious Emission Test Result.....	61
A.7	Radiated Restricted Band Edge Test Result.....	67
A.8	AC Conducted Emissions Test Result	115
Appendix B – Test Setup Photograph		117
Appendix C – EUT Photograph		118

1. General Information

1.1. Applicant

TP-Link Corporation Limited

Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong

1.2. Manufacturer

TP-Link Corporation Limited

Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong

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 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104 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 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
	Laboratory Accreditations
	TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	AC750 Wi-Fi Travel Router
Model No.	TL-WR902AC
EUT Identification No.	20230412Sampe#01 (For Radiated) 20230412Sampe#02 (For Conducted)
Wi-Fi Specification	802.11a/b/g/n/ac
Antenna Information	Refer to section 1.7
Working Voltage	By Adapter
Accessory	
Adapter	Model: AMS135-050200FU Input: 100-240V – 50/60Hz 0.5A/22VA Output: 5V 2.0A
Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462MHz
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 300Mbps

1.6. Working Frequencies

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	--	--

802.11n-HT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz
06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	--	--	--	--

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Tx Paths	Antenna Gain (dBi)	CDD Directional Gain (dBi)	
				For Power	For PSD
Monopole	2.400 ~ 2483.5	2	2.00	2.00	5.01
	5150 ~ 5250	1	3.00	--	--
	5725 ~ 5850				

Note: The EUT supports Cyclic Delay Diversity (CDD) mode for Wi-Fi 2.4G.

For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 2$, $N_{SS} = 1$.

If all antennas have the same gain, G_{ANT} , Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,

$$\text{Array Gain} = 10 \log (N_{ANT} / N_{SS}) \text{ dB} = 3.01;$$

- For power measurements on IEEE 802.11 devices,

$$\text{Array Gain} = 0 \text{ dB for } N_{ANT} \leq 4;$$

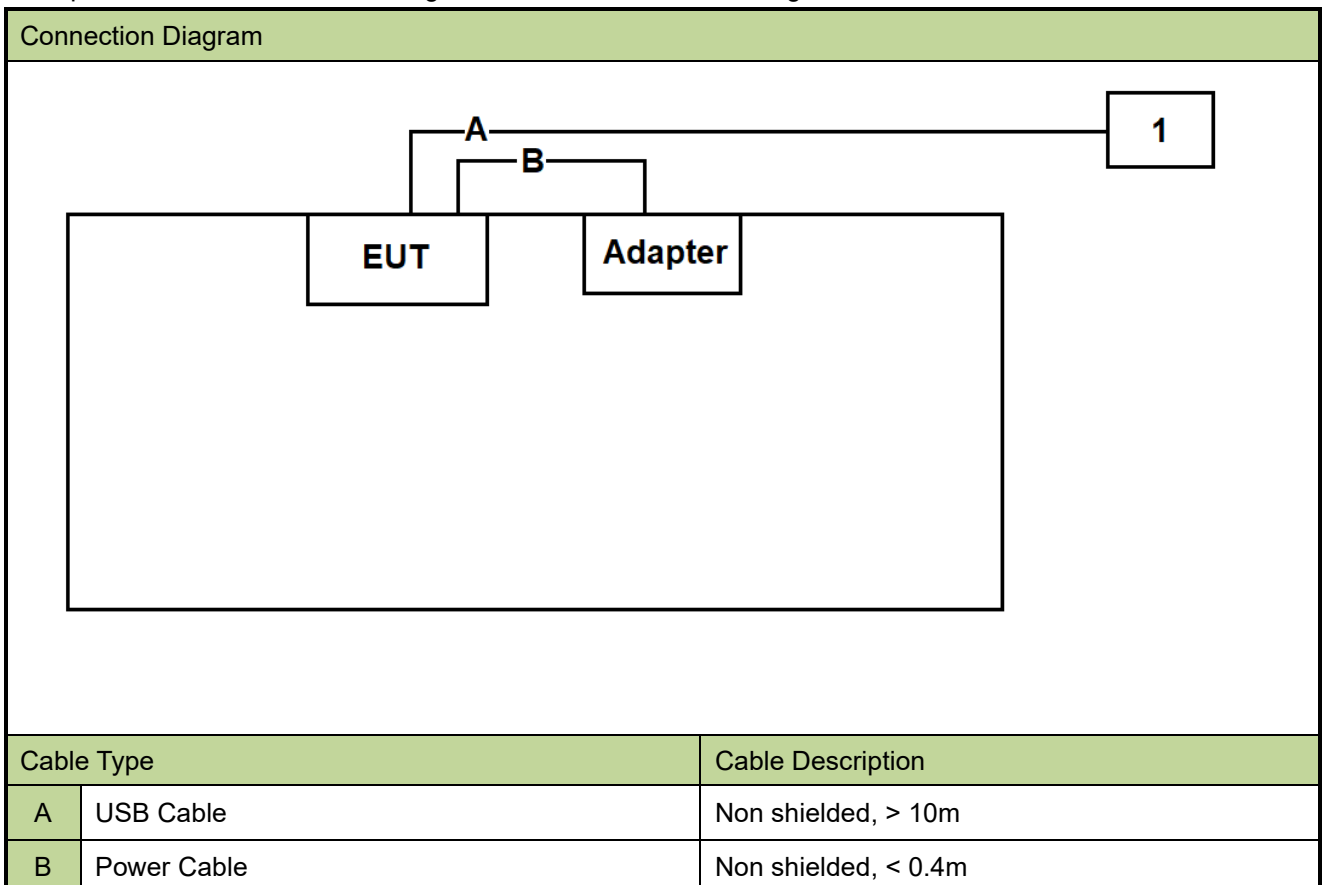
2. Test Configuration

2.1. Test Mode

Mode 1: Transmit by 802.11b _ Nss = 1 (1Mbps) – CDD Mode
Mode 2: Transmit by 802.11g _ Nss = 1 (6Mbps) – CDD Mode
Mode 3: Transmit by 802.11n-HT20 _ Nss = 1 (MCS0) – CDD Mode
Mode 4: Transmit by 802.11n-HT40 _ Nss = 1 (MCS0) – CDD Mode
Note:
1. For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.
2. For CDD mode, this device supports 2 N _{SS} and power level is the same of spatial multiplexing. The worst case is N _{SS} =1.
3. As Designated by manufacturer, the lowest data rate was the worst condition, so all the tests were done with lowest data rate.

2.2. Test System Connection Diagram

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



2.3. Test System Details

Product		Manufacturer	Model No.
1	Notebook	HP	735G5

2.4. Test Software

The test utility software used during testing was “Secure CRT”, and the version was 7.0.0.

Note: Final power setting please refer to operational description.

2.5. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.247
- KDB 558074 D01v05r02
- KDB 662911 D01v02r01
- ANSI C63.10-2013

2.6. 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. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Signal Analyzer	Agilent	N9010A	MRTSUE06195	1 year	2023-12-20	NS-AC1/NS-TR2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06292	1 year	2023-10-18	NS-AC1
Anechoic Chamber	BOOMWAVE	NS-AC1	MRTSUE06496	1 year	2023-07-23	NS-AC1
Shielding Room	BOOMWAVE	NS-SR2	MRTSUE06551	5 years	2024-06-03	NS-SR2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06572	1 year	2024-03-31	NS-AC1
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06573	1 year	2023-06-21	NS-AC1
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06574	1 year	2023-07-11	NS-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE06575	1 year	2023-06-19	NS-AC1
EMI Test Receiver	R&S	ESL3	MRTSUE06576	1 year	2023-06-19	NS-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06577	1 year	2023-07-03	NS-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06578	1 year	2023-07-03	NS-SR2
ISN	R&S	ENY81	MRTSUE06579	1 year	2023-06-29	NS-SR2
ISN	R&S	ENY81-CA6	MRTSUE06580	1 year	2023-06-09	NS-SR2
USB Power Sensor	Keysight	U2021XA	MRTSUE06581	1 year	2023-07-13	NS-TR2
Preamplifier	EMCI	EMC184045SE	MRTSUE06641	1 year	2024-01-12	NS-AC1
Thermohygrometer	DELI	NO.8813	MRTSUE06783	1 year	2023-12-28	NS-TR2
Temperature Chamber	OUKE	OK-TH-100C	MRTSUE06899	1 year	2024-04-26	NS-TR2
Signal Analyzer	Keysight	N9020A	MRTSUE10065	1 year	2023-12-20	NS-AC1/NS-TR2
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2023-12-28	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2023-09-29	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2023-06-06	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11020	1 year	2024-05-03	NS-AC1
Thermohygrometer	testo	608-H1	MRTSUE11104	1 year	2024-05-03	NS-AC1
Thermohygrometer	testo	608-H1	MRTSUE11106	1 year	2024-05-03	NS-SR2

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_T-E-TAC-2	1.02	RE Antenna & Turntable
Controller_MF 7802	2.03C	RE Antenna & Turntable
Agilent Power Panel	V 3.9	Power

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.

(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. 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% ($U=2Uc(y)$): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 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% ($U=2Uc(y)$): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.15dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.28%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6dB Bandwidth	Conducted	Pass
15.247(b)(3)	Output Power		Pass
15.247(e)	Power Spectral Density		Pass
15.247(d)	Band Edge / Out-of-Band Emissions		Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

Notes:

- 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.
- For radiated emission tests, 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.

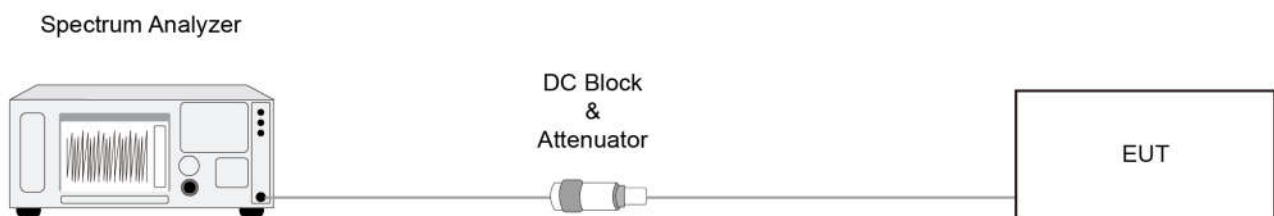
6.2.2. Test Procedure

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 to stabilize

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. Output Power Measurement

6.3.1. Test Limit

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

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3.2. Test Procedure

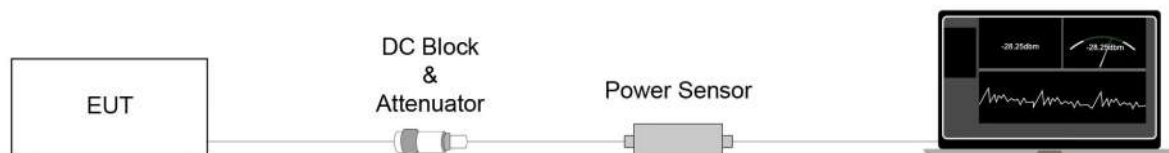
ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.3.3. Test Setting

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

Refer to Appendix A.3.

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.

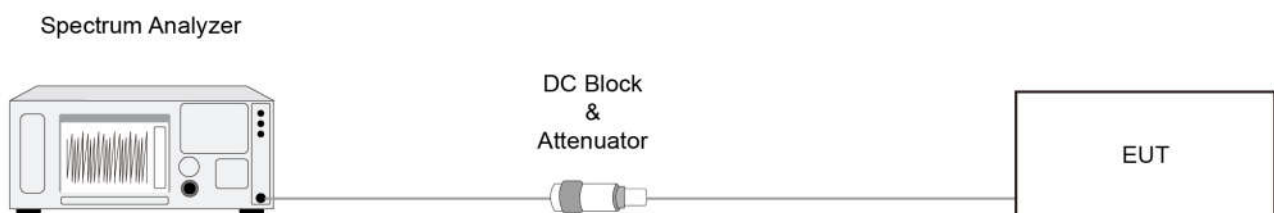
6.4.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.10.5

6.4.3. Test Setting

1. Measure the duty cycle (x) of the transmitter output signal.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the OBW.
4. RBW = 10 kHz.
5. VBW = 30 kHz.
6. Detector = RMS.
7. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
8. Sweep time = auto couple.
9. Don't use sweep triggering. Allow sweep to "free run".
10. Employ trace averaging (RMS) mode over a minimum of 100 traces.
11. Use the peak marker function to determine the maximum amplitude level.
12. Add $10 \log (1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time. If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.4.

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

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

ANSI C63.10-2013 - Section 11.11

6.5.3. Test Settling

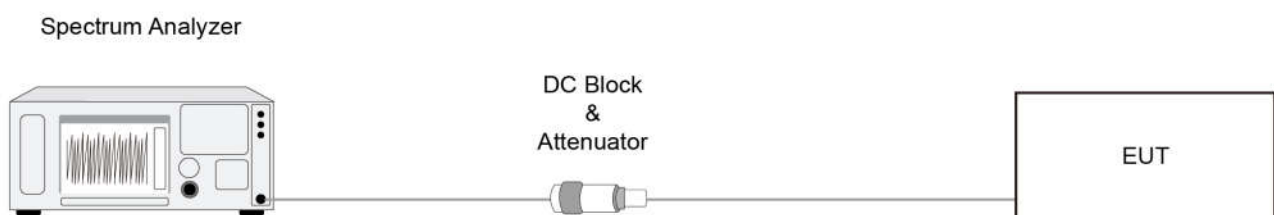
Reference level measurement

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

Refer to Appendix A.5.

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

ANSI C63.10 - 2013 - Section 11.11 & 11.12

ANSI C63.10 - 2013 - Section 6.3 (General Requirements)

ANSI C63.10 - 2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 - 2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 - 2013 - Section 6.6 (Standard test method above 1GHz)

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

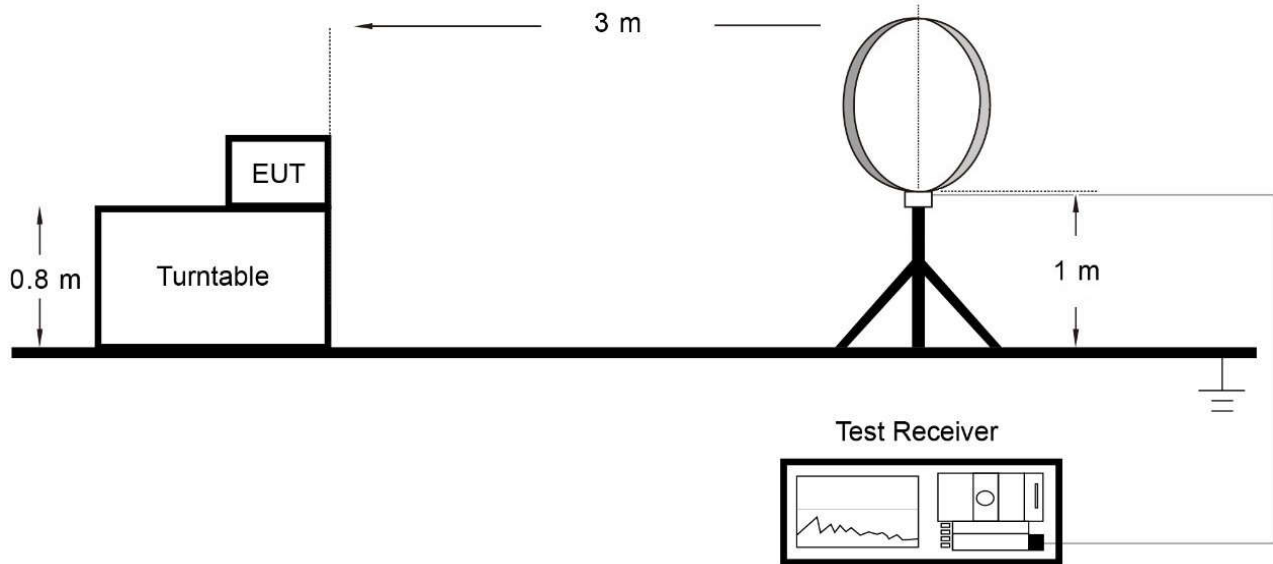
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

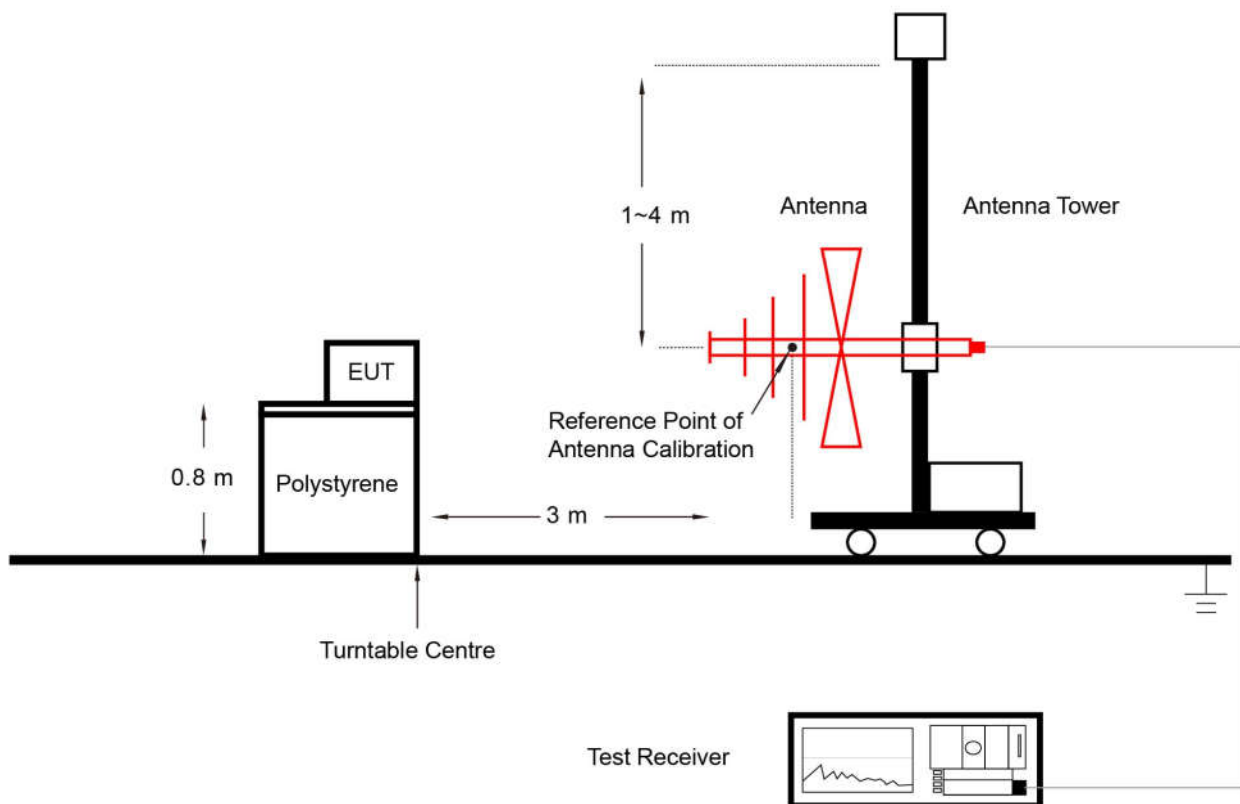
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4.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

6.6.4. Test Setup

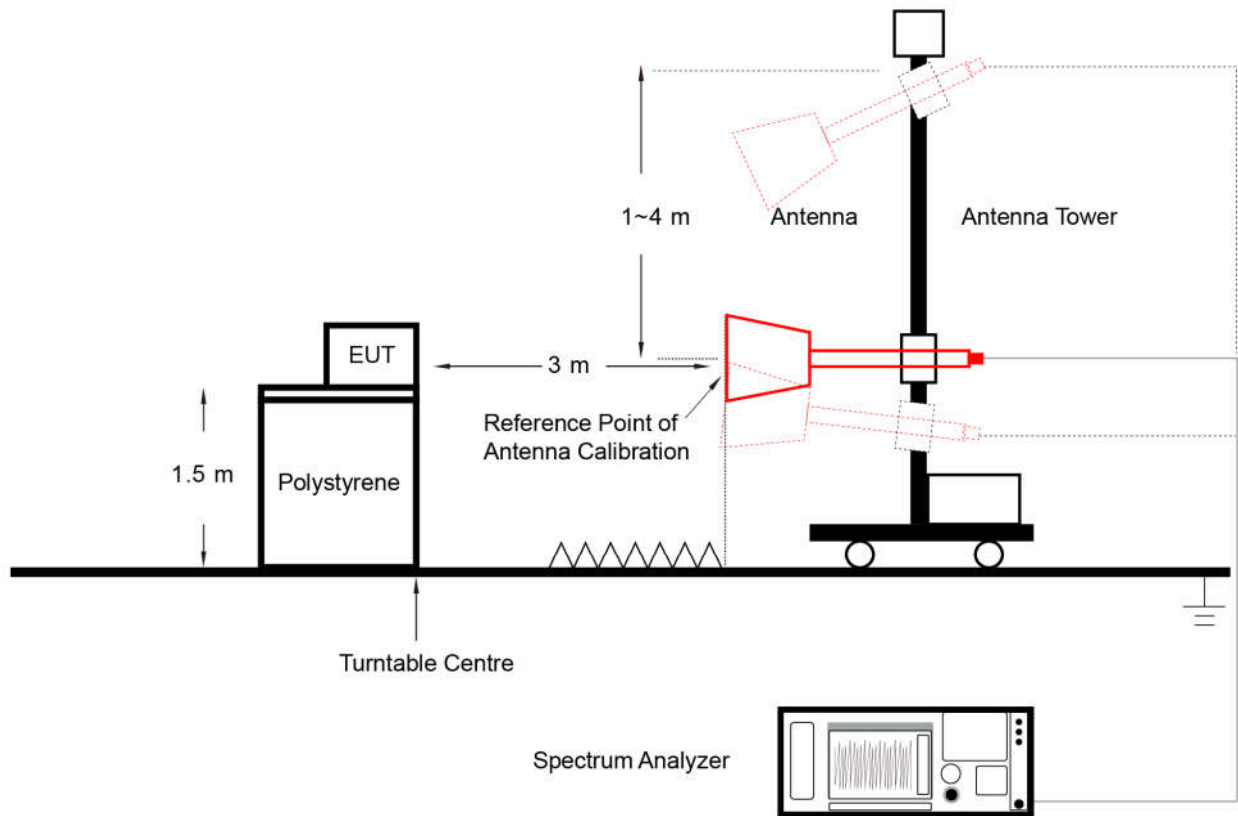
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.6.

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

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

6.7.3. Test Setting

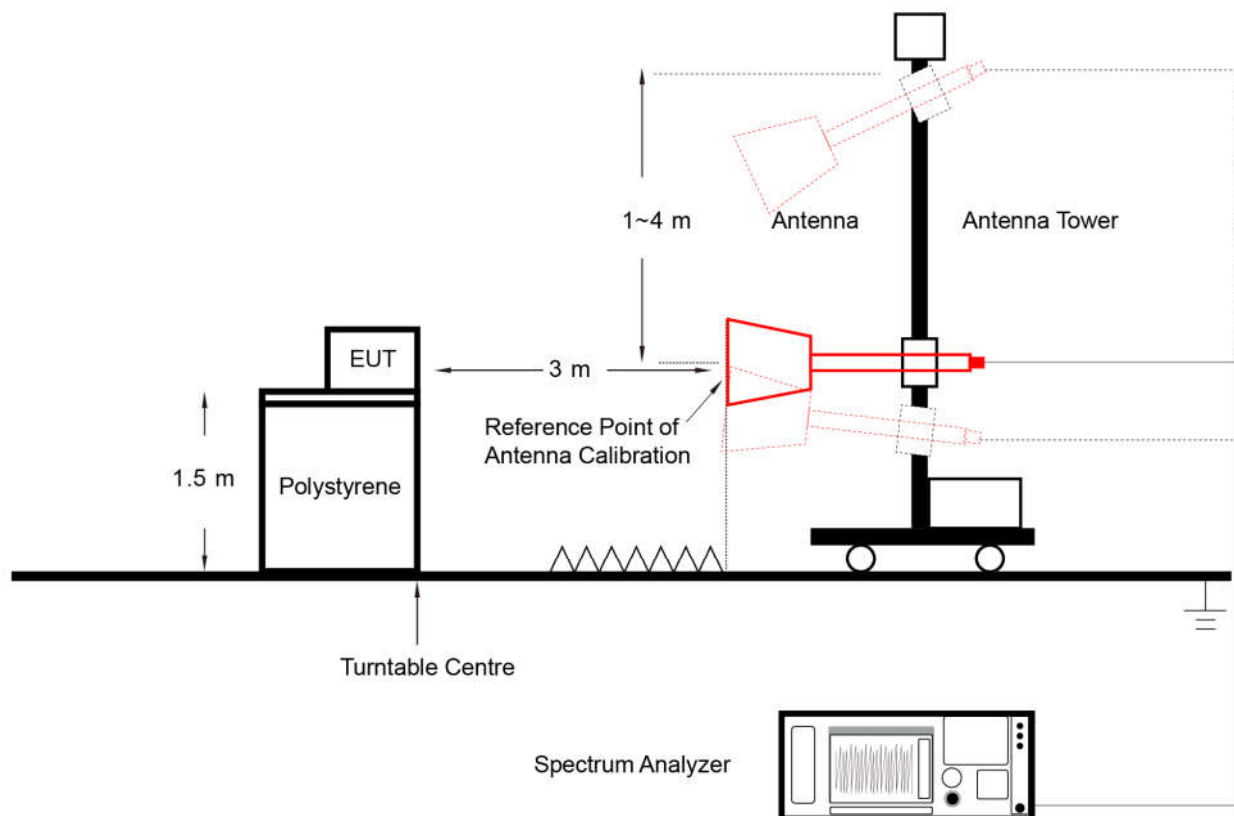
Peak Field Strength Measurements

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. Average Type = Voltage
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

Refer to Appendix A.7.

6.8. AC Conducted Emissions Measurement

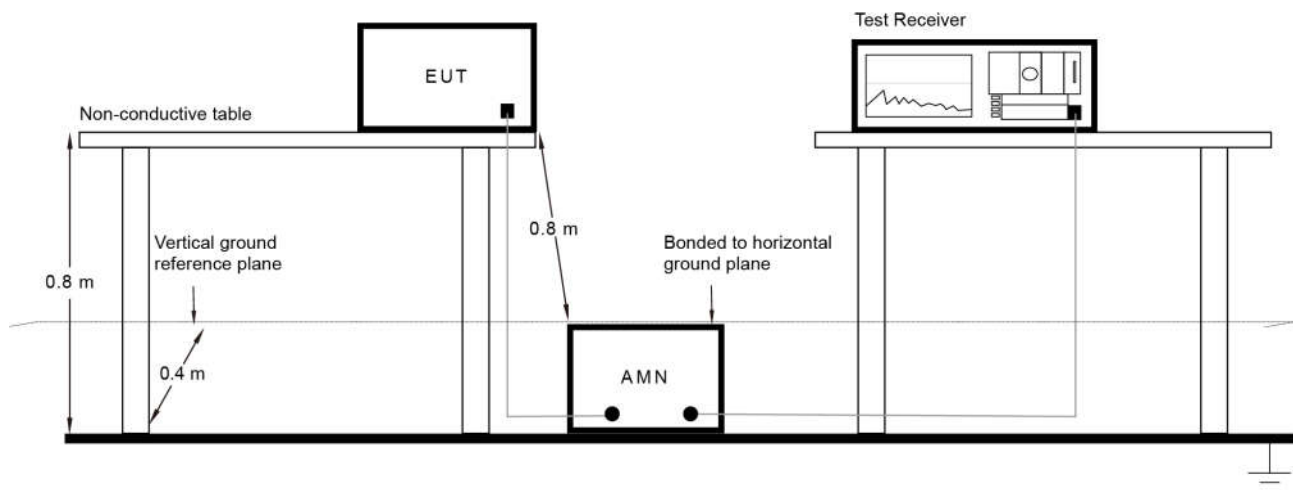
6.8.1. Test Limit

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

Refer to Appendix A.8.

Appendix A – Test Result

A.1 Duty Cycle Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2023/05/12		

Test Mode	Duty Cycle
802.11b	98.25%
802.11g	86.31%
802.11n-HT20	92.18%
802.11n-HT40	81.46%



A.2 6dB Bandwidth Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2023/05/12		

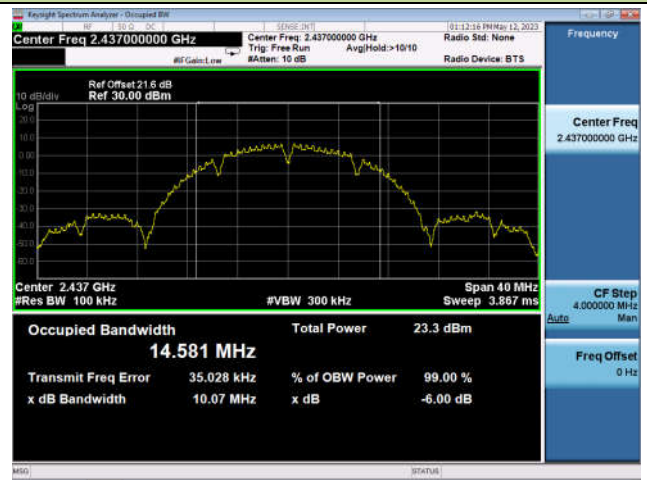
Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
11b	1Mbps	01	2412	9.581	≥ 0.5
11b	1Mbps	06	2437	10.07	≥ 0.5
11b	1Mbps	11	2462	9.578	≥ 0.5
11g	6Mbps	01	2412	15.13	≥ 0.5
11g	6Mbps	06	2437	15.15	≥ 0.5
11g	6Mbps	11	2462	15.14	≥ 0.5
11n-HT20	MCS0	01	2412	15.12	≥ 0.5
11n-HT20	MCS0	06	2437	15.13	≥ 0.5
11n-HT20	MCS0	11	2462	15.15	≥ 0.5
11n-HT40	MCS0	03	2422	33.90	≥ 0.5
11n-HT40	MCS0	06	2437	35.08	≥ 0.5
11n-HT40	MCS0	09	2452	35.11	≥ 0.5

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)

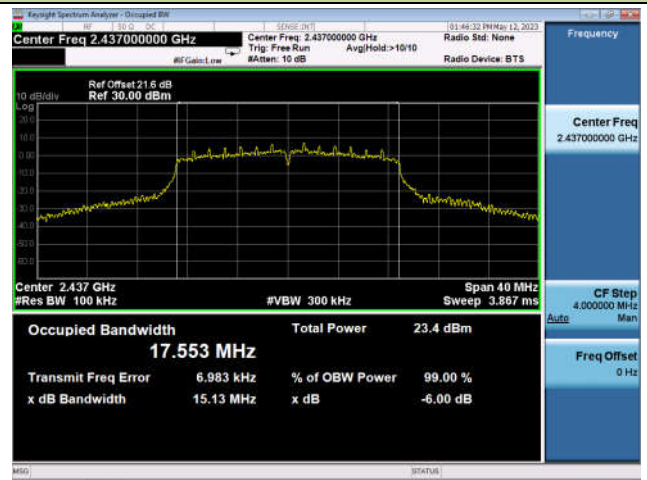


802.11n-HT20 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)

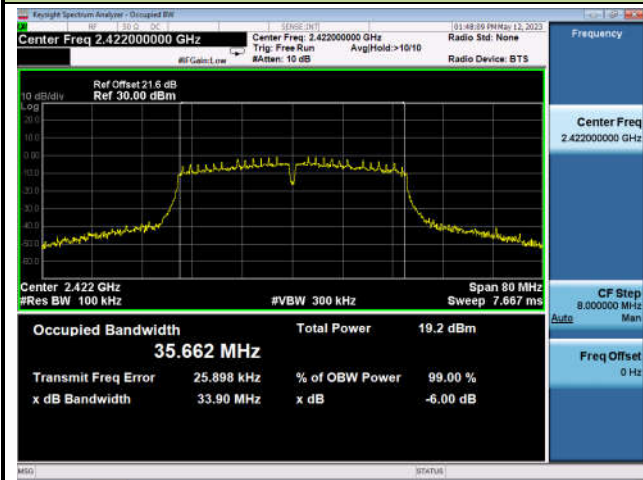


Channel 11 (2462MHz)

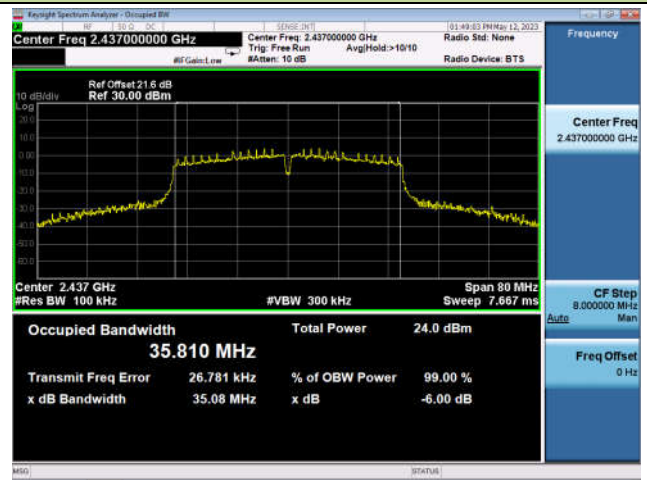


802.11n-HT40 6dB Bandwidth

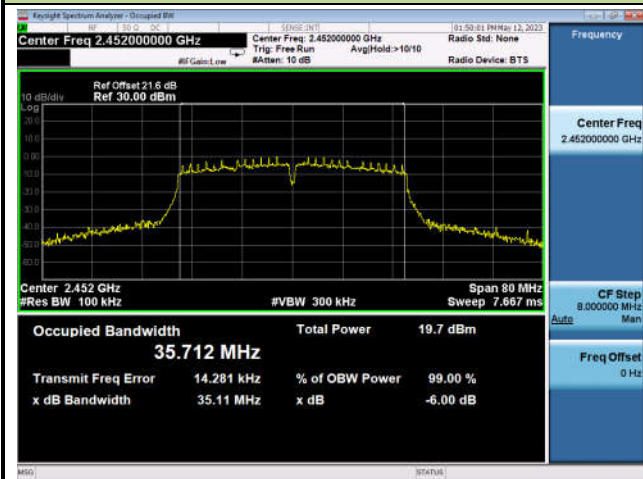
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



A.3 Output Power Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2023/05/09		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Limit (dBm)
				Ant 0	Ant 1		
11b	1Mbps	01	2412	16.95	16.87	19.92	≤ 30.00
11b	1Mbps	06	2437	17.00	16.76	19.89	≤ 30.00
11b	1Mbps	11	2462	16.94	16.60	19.78	≤ 30.00
11g	6Mbps	01	2412	15.85	15.34	18.61	≤ 30.00
11g	6Mbps	06	2437	17.47	16.81	20.16	≤ 30.00
11g	6Mbps	11	2462	14.89	15.14	18.03	≤ 30.00
11n-HT20	MCS0	01	2412	15.50	15.01	18.27	≤ 30.00
11n-HT20	MCS0	06	2437	17.23	16.81	20.04	≤ 30.00
11n-HT20	MCS0	11	2462	14.70	15.34	18.04	≤ 30.00
11n-HT40	MCS0	03	2422	11.96	11.98	14.98	≤ 30.00
11n-HT40	MCS0	04	2427	14.16	13.53	16.87	≤ 30.00
11n-HT40	MCS0	05	2432	15.66	14.99	18.35	≤ 30.00
11n-HT40	MCS0	06	2437	16.98	16.55	19.78	≤ 30.00
11n-HT40	MCS0	08	2447	14.45	13.90	17.19	≤ 30.00
11n-HT40	MCS0	09	2452	13.57	12.85	16.24	≤ 30.00

Note: Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)}\}$

A.4 Power Spectral Density Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2023/05/12 ~ 2023/05/17		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average PSD (dBm/10kHz)		Duty Cycle	Total PSD (dBm / 10kHz)	Limit (dBm / 3kHz)
				Ant 0	Ant 1			
11b	1Mbps	01	2412	-10.978	-10.304	98.25%	-7.54	≤ 8.00
11b	1Mbps	06	2437	-10.597	-9.950	98.25%	-7.17	≤ 8.00
11b	1Mbps	11	2462	-10.543	-9.791	98.25%	-7.06	≤ 8.00
11g	6Mbps	01	2412	-13.205	-12.762	86.31%	-9.33	≤ 8.00
11g	6Mbps	06	2437	-11.975	-11.888	86.31%	-8.28	≤ 8.00
11g	6Mbps	11	2462	-13.513	-13.209	86.31%	-9.71	≤ 8.00
11n-HT20	MCS0	01	2412	-12.736	-12.243	92.18%	-9.12	≤ 8.00
11n-HT20	MCS0	06	2437	-11.161	-11.266	92.18%	-7.85	≤ 8.00
11n-HT20	MCS0	11	2462	-13.760	-12.850	92.18%	-9.92	≤ 8.00
11n-HT40	MCS0	03	2422	-19.235	-19.119	81.46%	-15.28	≤ 8.00
11n-HT40	MCS0	06	2437	-14.132	-14.288	81.46%	-10.31	≤ 8.00
11n-HT40	MCS0	09	2452	-17.351	-18.288	81.46%	-13.89	≤ 8.00

Note:

When Duty Cycle ≥ 98%, Total PSD (dBm / 10kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm / 10kHz)

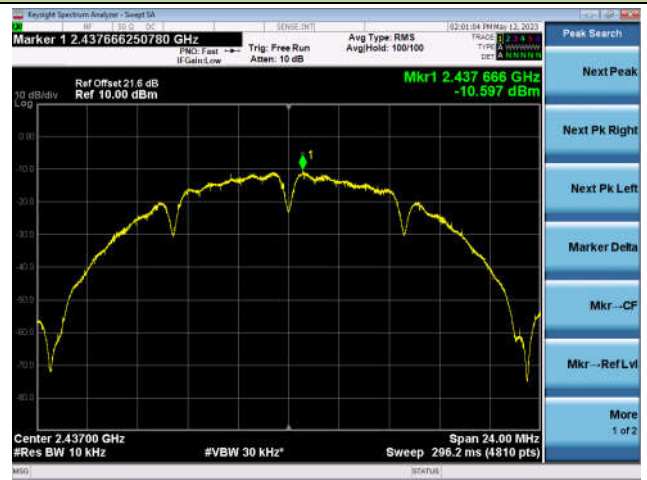
When EUT duty cycle < 98%, Total PSD (dBm / 10kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm / 10kHz)
+ $10 \cdot \log (1/\text{Duty Cycle})$.

802.11b - Average PSD - Ant 0

Channel 01 (2412MHz)



Channel 06 (2437MHz)

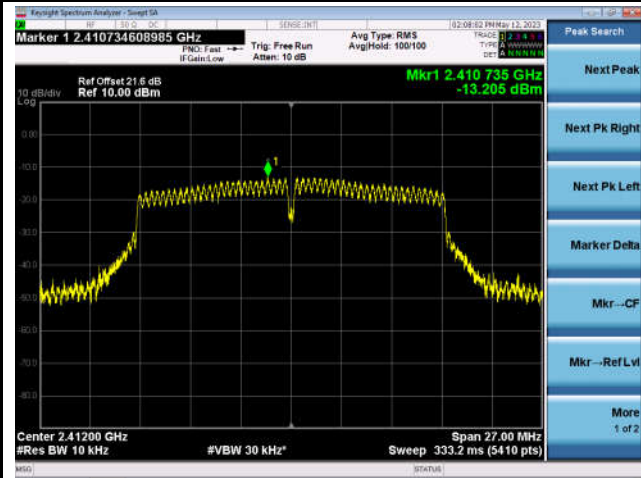


Channel 11 (2462MHz)

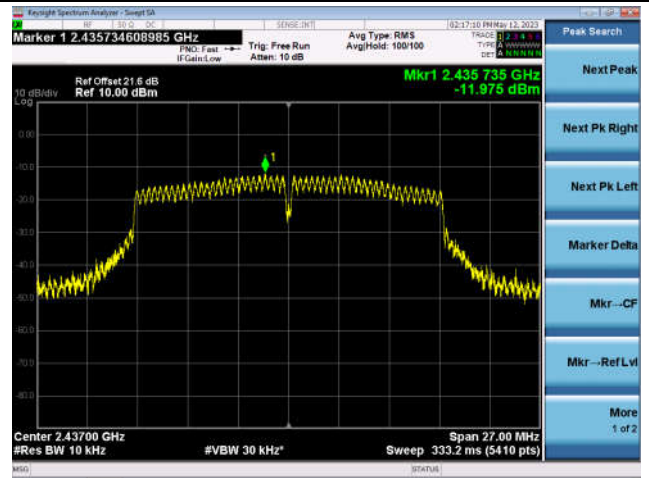


802.11g - Average PSD - Ant 0

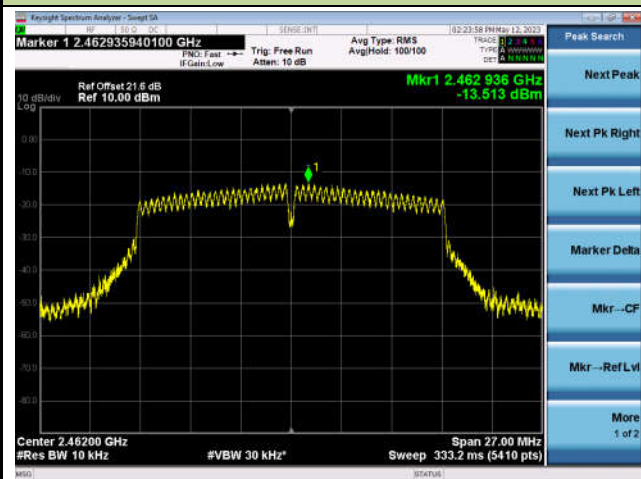
Channel 01 (2412MHz)



Channel 06 (2437MHz)

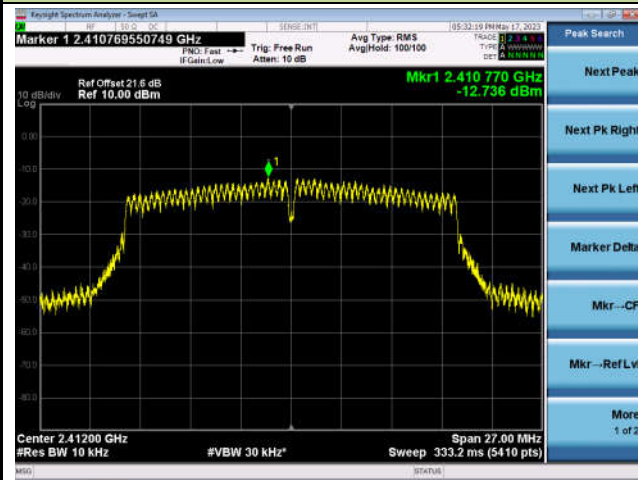


Channel 11 (2462MHz)

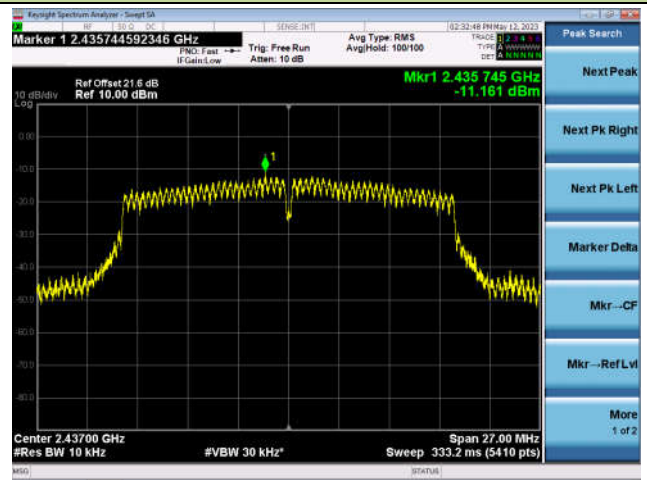


802.11n-HT20 - Average PSD - Ant 0

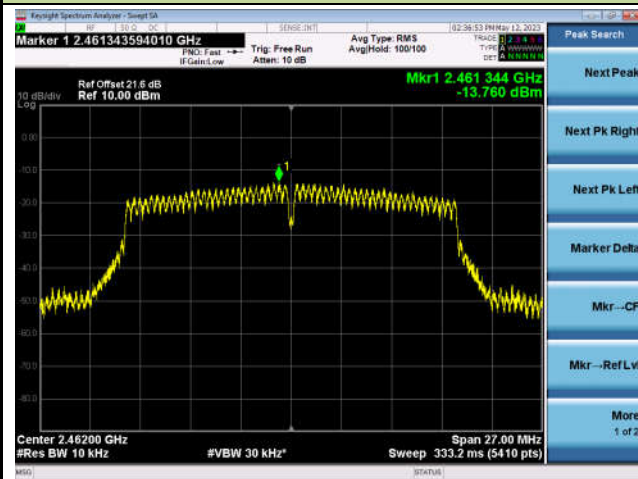
Channel 01 (2412MHz)



Channel 06 (2437MHz)

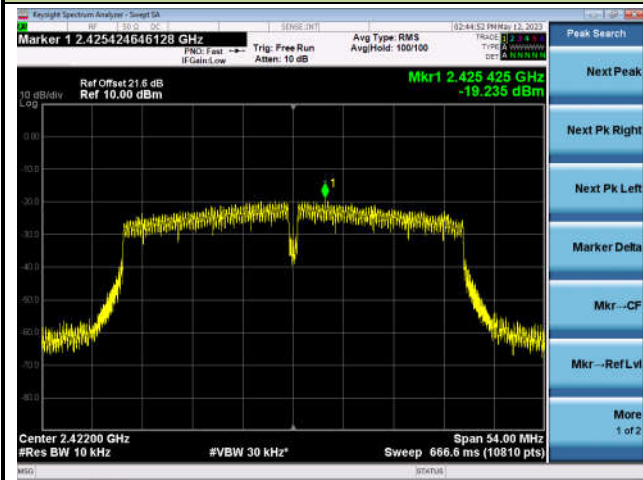


Channel 11 (2462MHz)

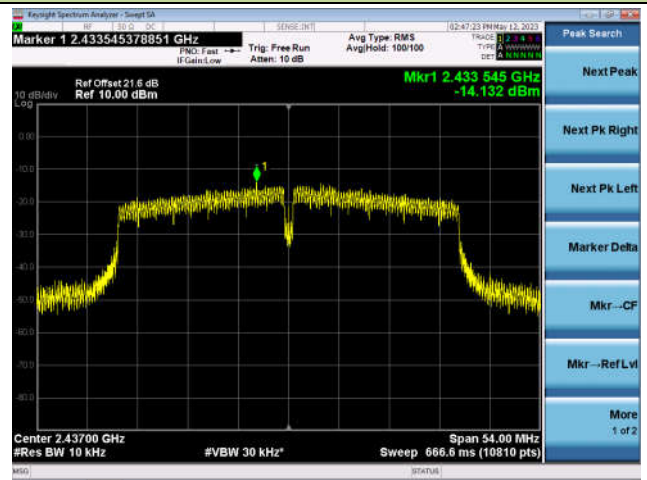


802.11n-HT40 - Average PSD - Ant 0

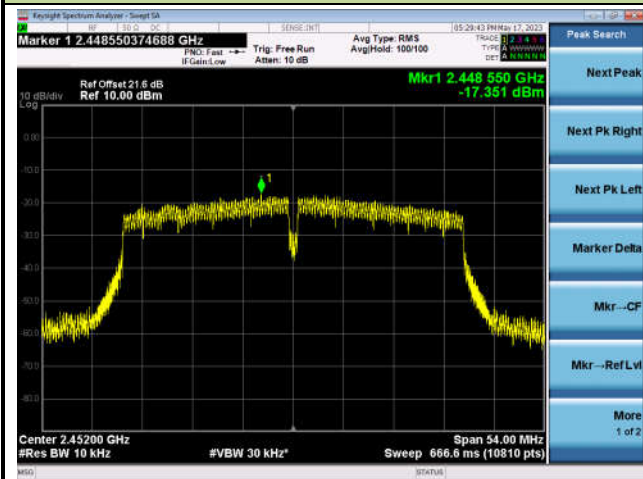
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



802.11b - Average PSD - Ant 1

Channel 01 (2412MHz)



Channel 06 (2437MHz)

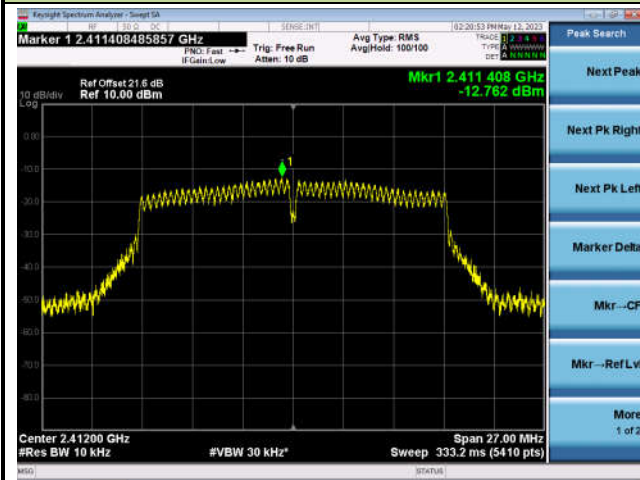


Channel 11 (2462MHz)

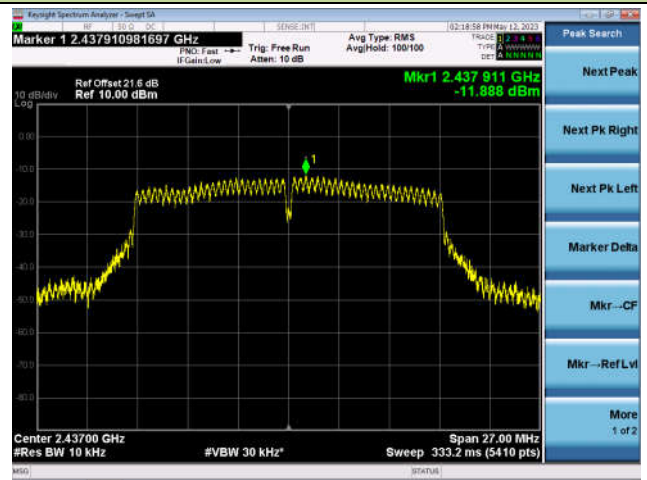


802.11g - Average PSD - Ant 1

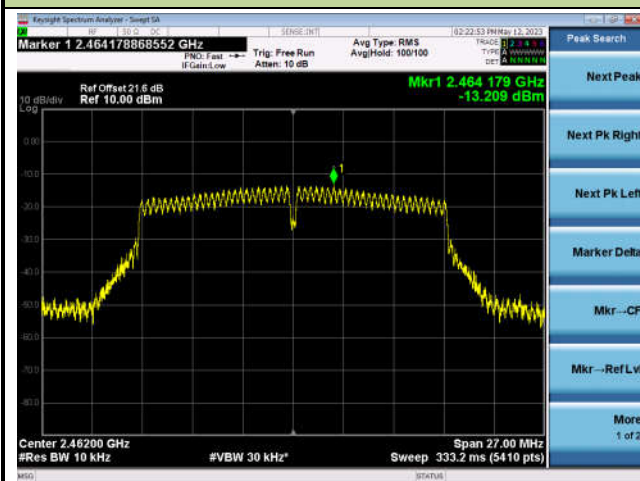
Channel 01 (2412MHz)



Channel 06 (2437MHz)

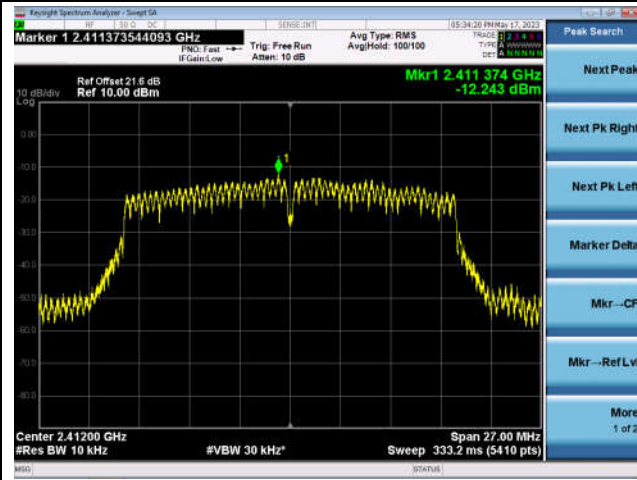


Channel 11 (2462MHz)

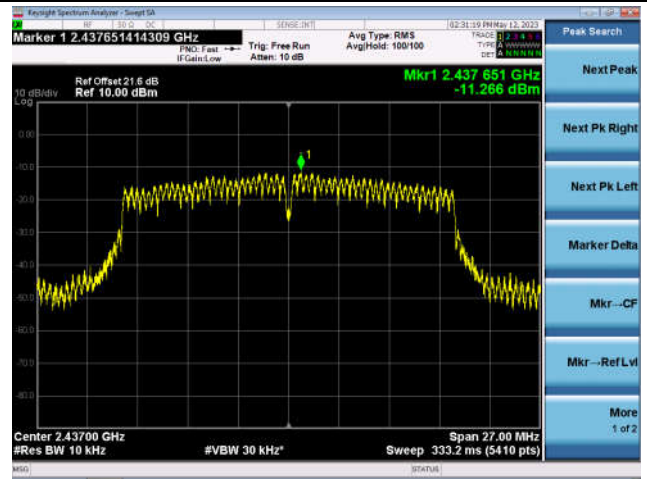


802.11n-HT20 - Average PSD - Ant 1

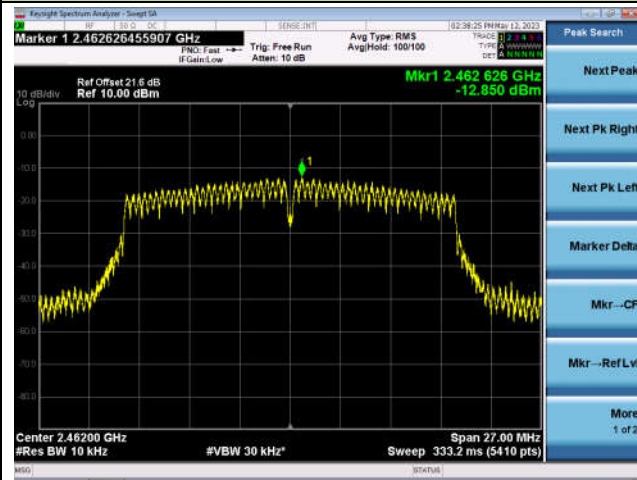
Channel 01 (2412MHz)



Channel 06 (2437MHz)

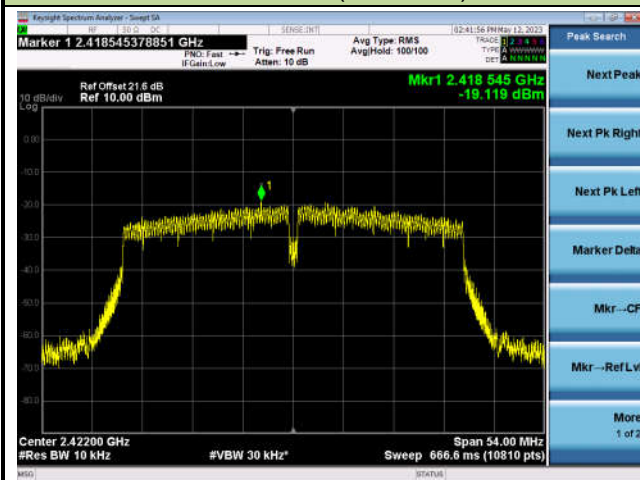


Channel 11 (2462MHz)

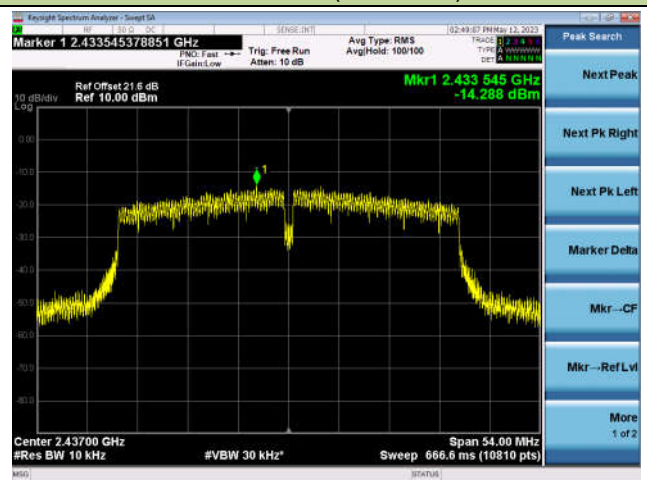


802.11n-HT40 - Average PSD - Ant 1

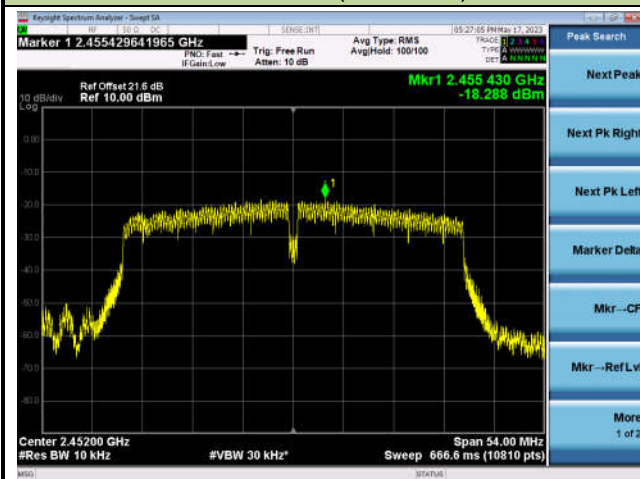
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



A.5 Conducted Band Edge and Out-of-Band Emissions Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2023/05/12 ~ 2023/05/17		

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit
11b	1Mbps	01	2412	30dBc
11b	1Mbps	06	2437	30dBc
11b	1Mbps	11	2462	30dBc
11g	6Mbps	01	2412	30dBc
11g	6Mbps	06	2437	30dBc
11g	6Mbps	11	2462	30dBc
11n-HT20	MCS0	01	2412	30dBc
11n-HT20	MCS0	06	2437	30dBc
11n-HT20	MCS0	11	2462	30dBc
11n-HT40	MCS0	03	2422	30dBc
11n-HT40	MCS0	06	2437	30dBc
11n-HT40	MCS0	09	2452	30dBc

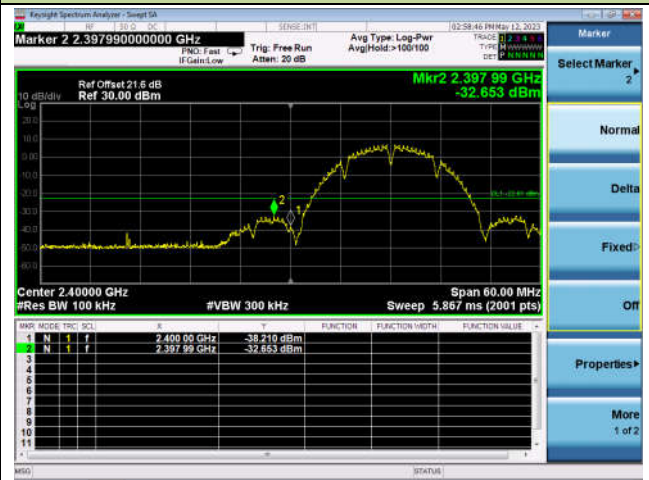
802.11b Out-of-Band Emissions - Ant 0

Channel 01 (2412MHz)

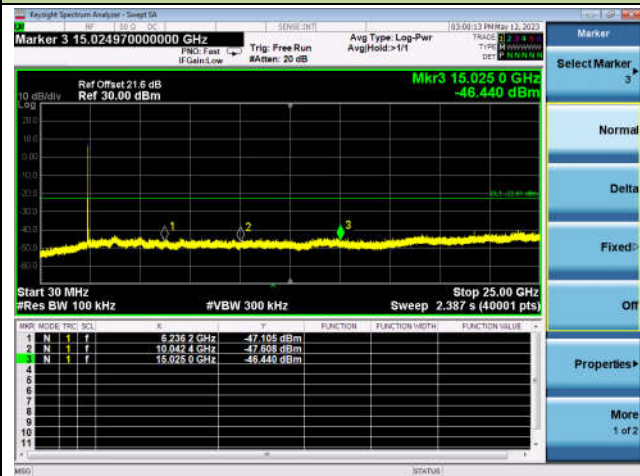
Reference Level



Low Band Edge



Spurious Emission

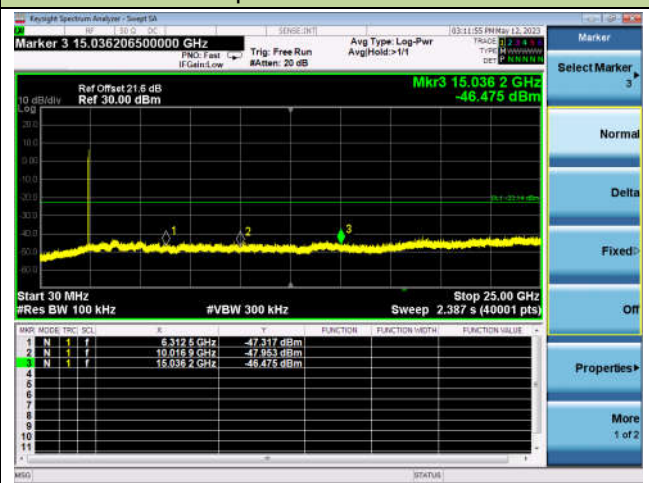


Channel 06 (2437MHz)

Reference Level



Spurious Emission

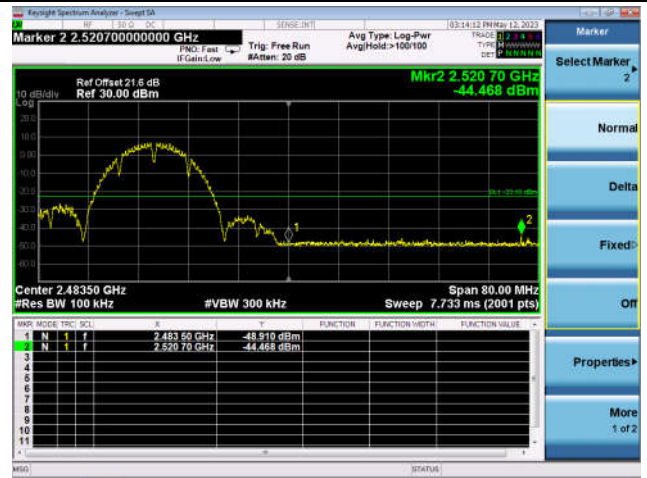


Channel 11 (2462MHz)

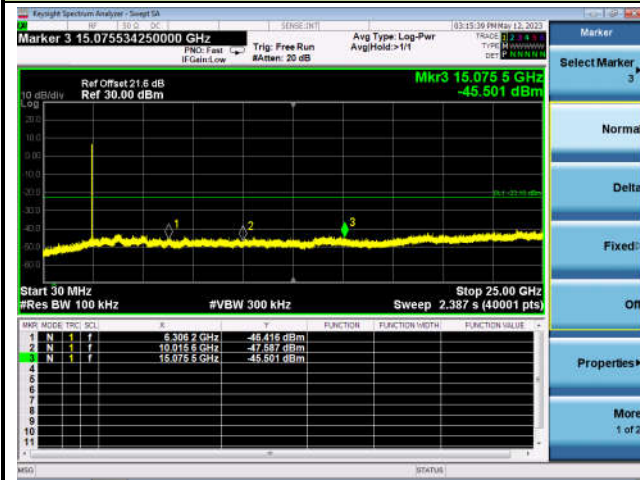
Reference Level



High Band Edge



Spurious Emission



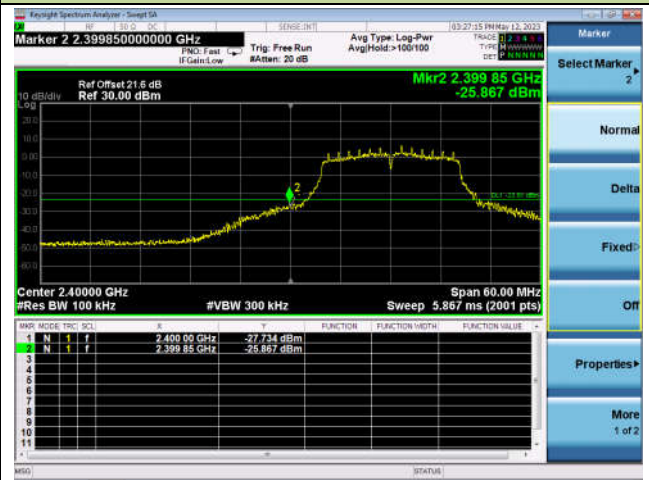
802.11g Out-of-Band Emissions - Ant 0

Channel 01 (2412MHz)

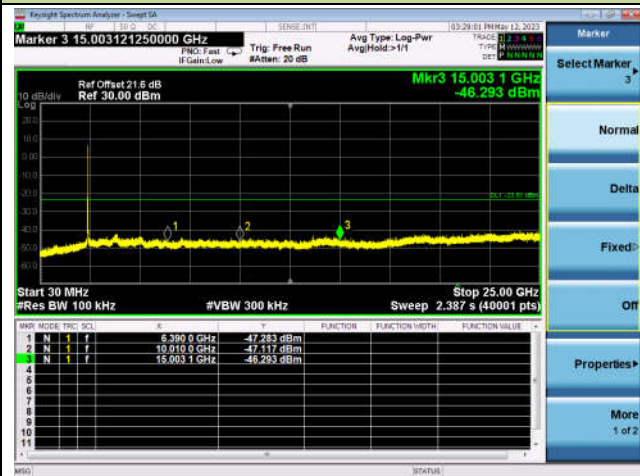
Reference Level



Low Band Edge



Spurious Emission

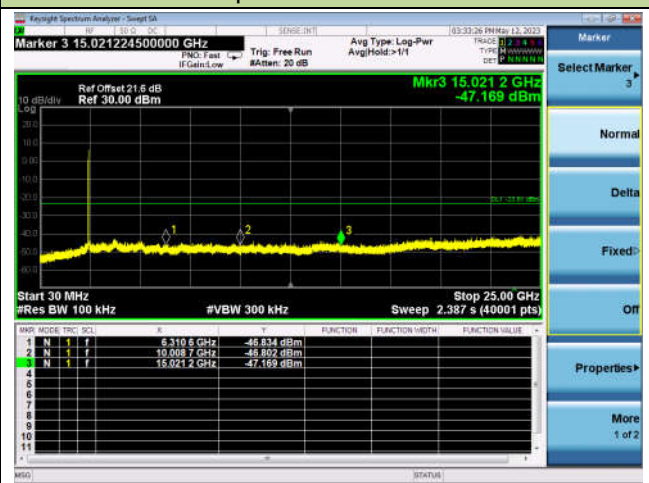


Channel 06 (2437MHz)

Reference Level

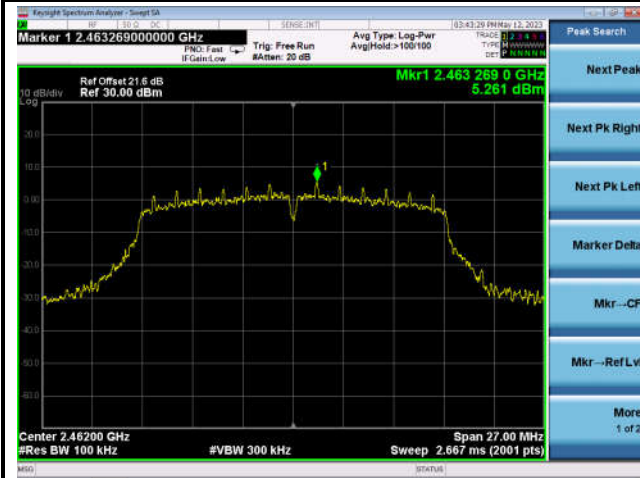


Spurious Emission

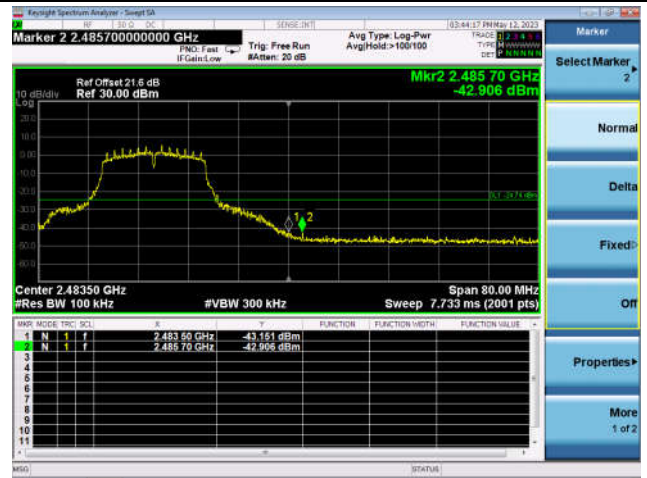


Channel 11 (2462MHz)

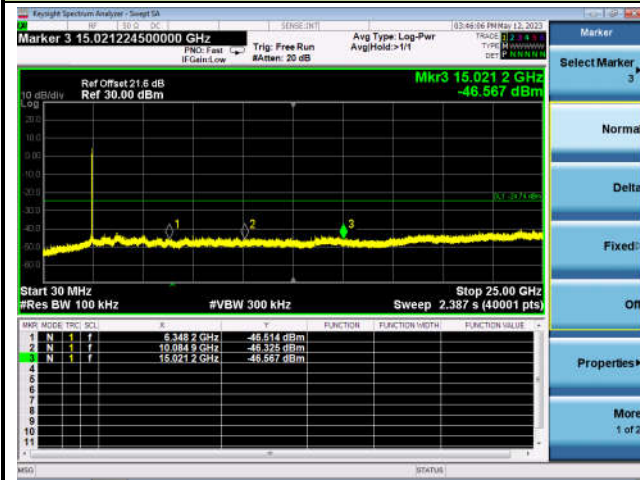
Reference Level



High Band Edge



Spurious Emission



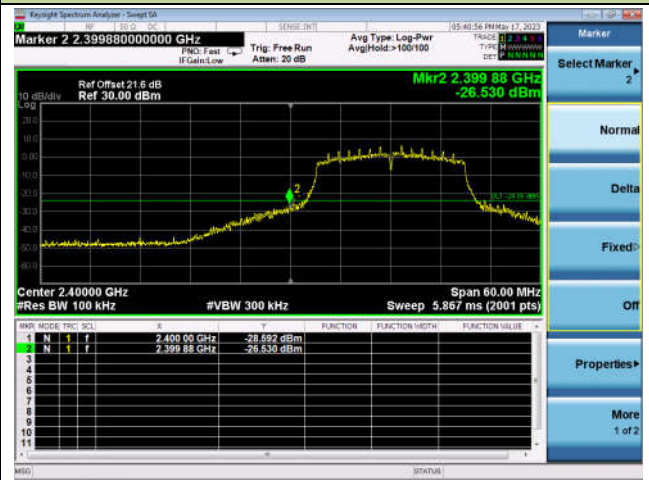
802.11n-HT20 Out-of-Band Emissions - Ant 0

Channel 01 (2412MHz)

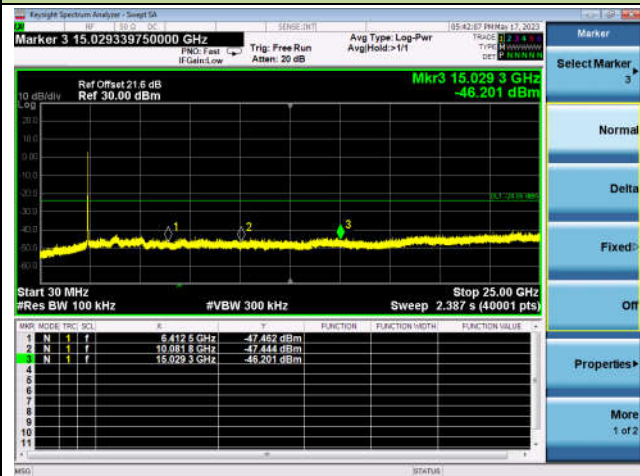
Reference Level



Low Band Edge



Spurious Emission

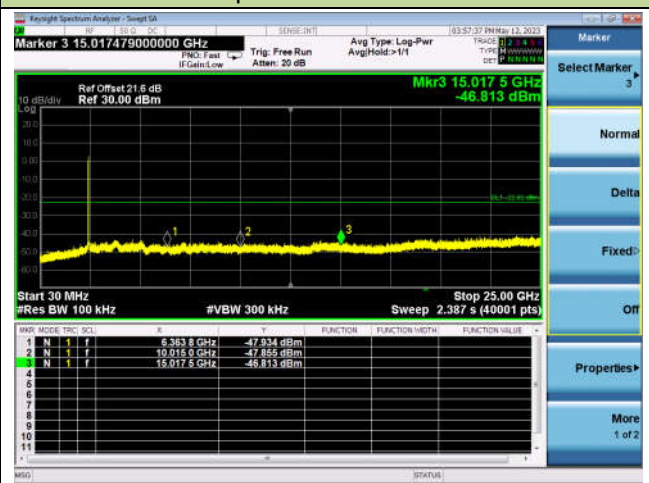


Channel 06 (2437MHz)

Reference Level

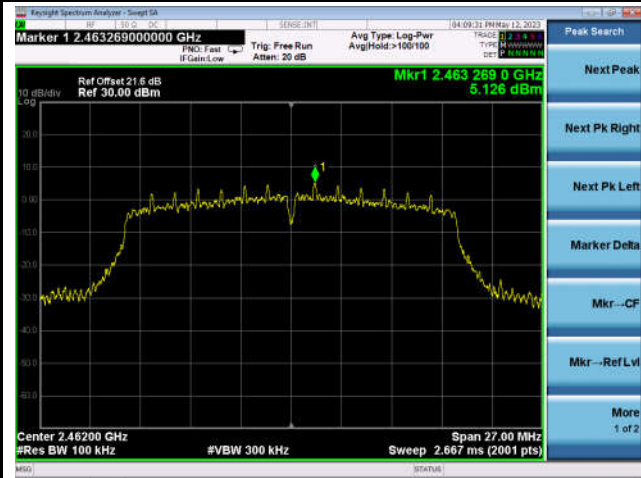


Spurious Emission

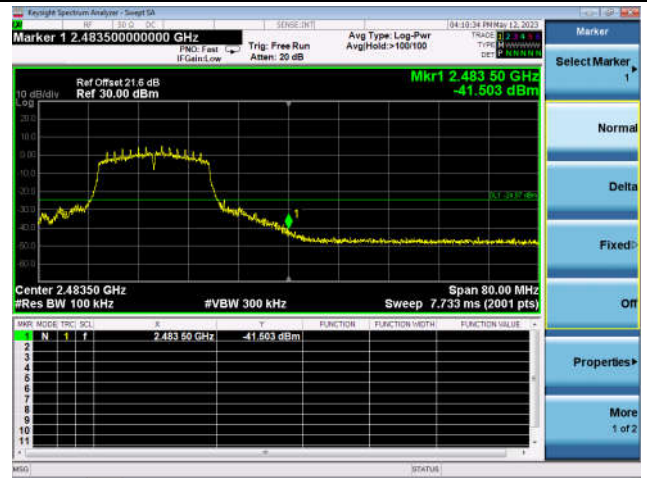


Channel 11 (2462MHz)

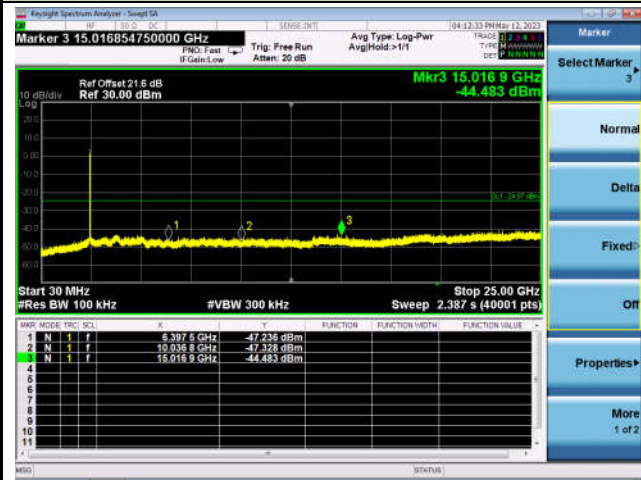
Reference Level



High Band Edge



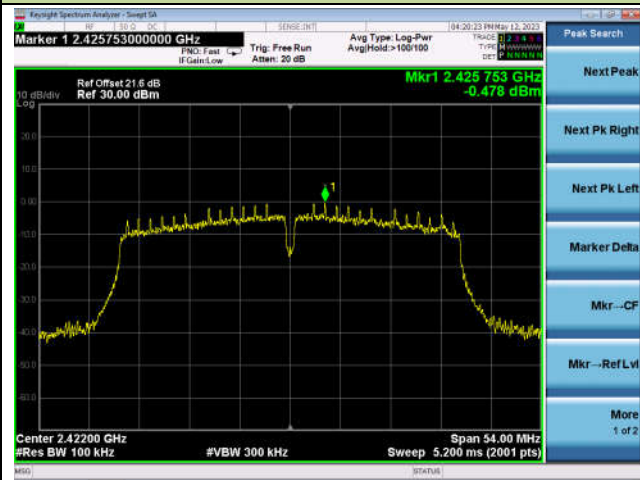
Spurious Emission



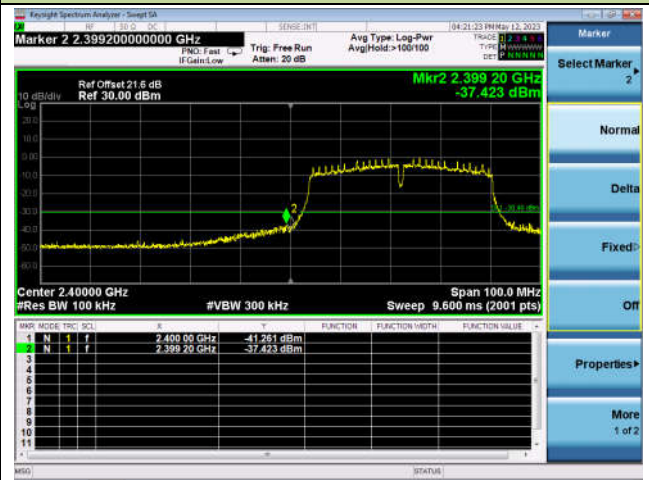
802.11n-HT40 Out-of-Band Emissions - Ant 0

Channel 03 (2422MHz)

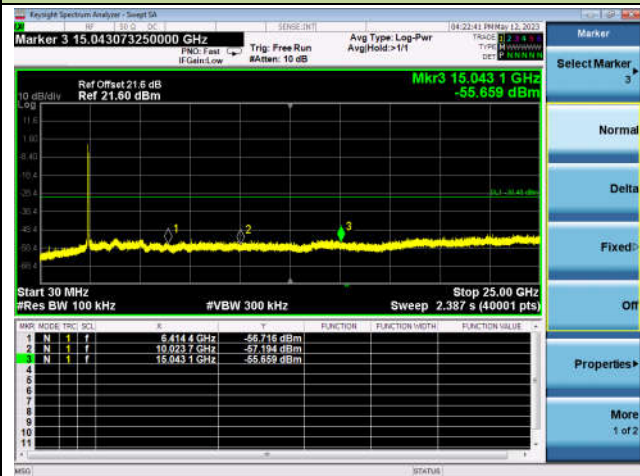
Reference Level



Low Band Edge



Spurious Emission

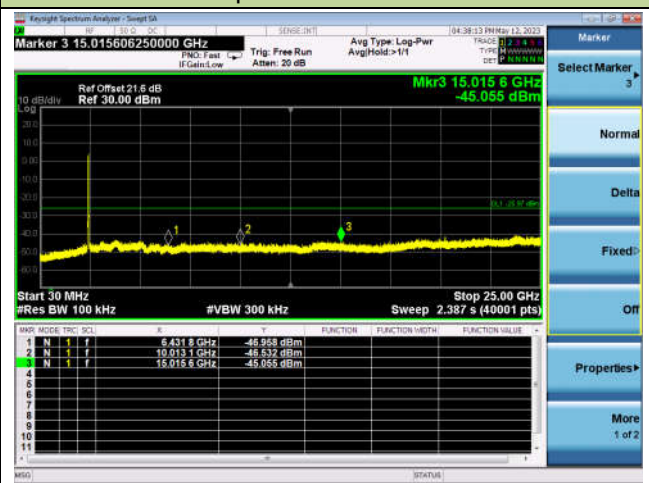


Channel 06 (2437MHz)

Reference Level

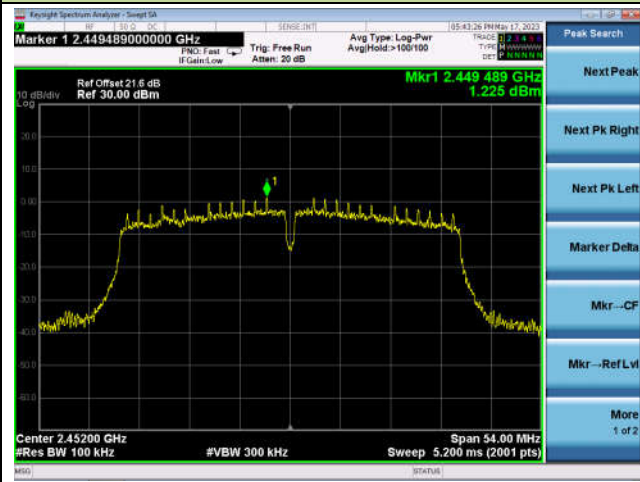


Spurious Emission

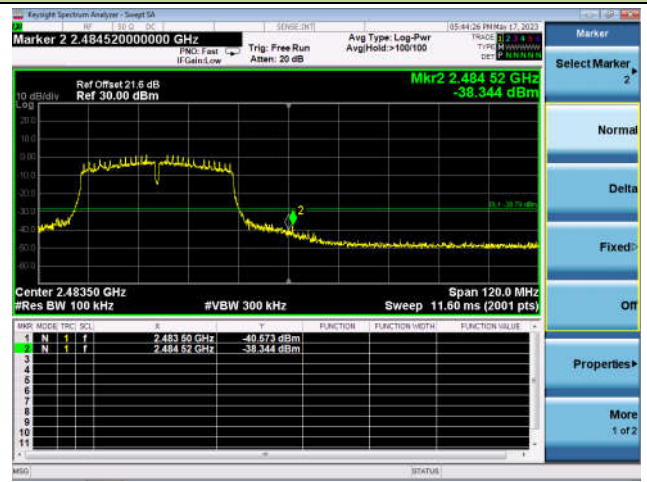


Channel 09 (2452MHz)

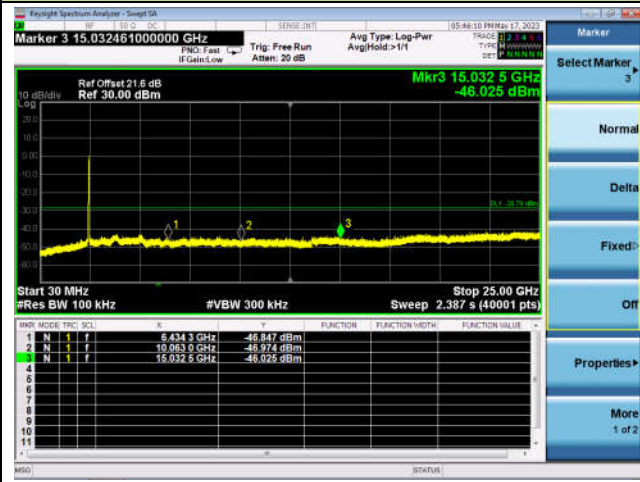
Reference Level



High Band Edge



Spurious Emission



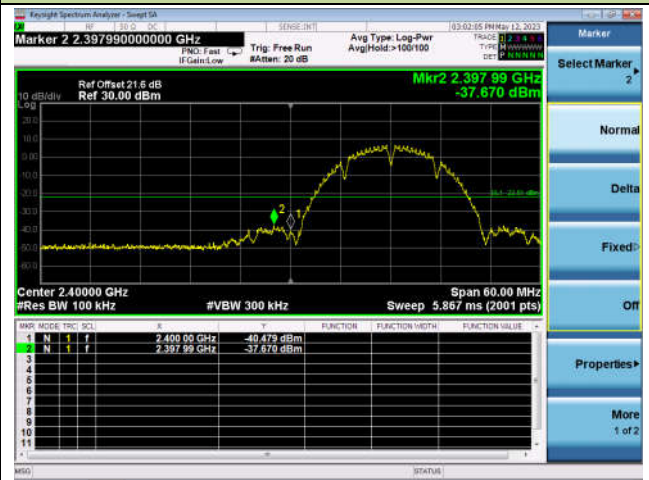
802.11b Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

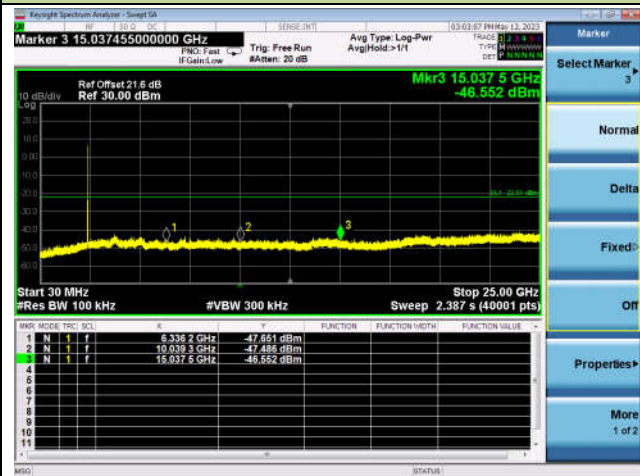
Reference Level



Low Band Edge



Spurious Emission

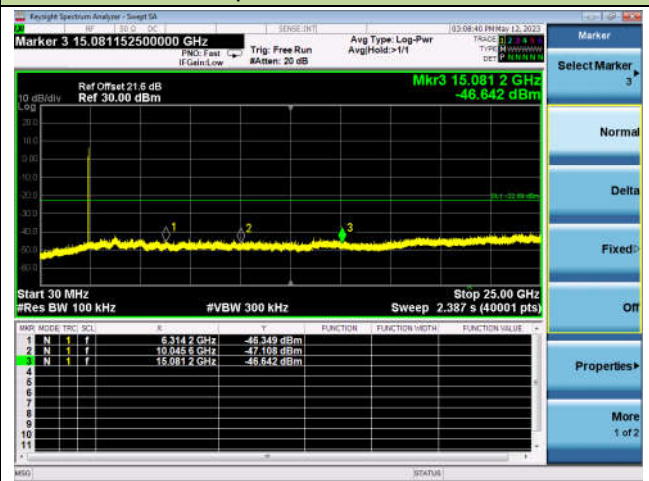


Channel 06 (2437MHz)

Reference Level



Spurious Emission

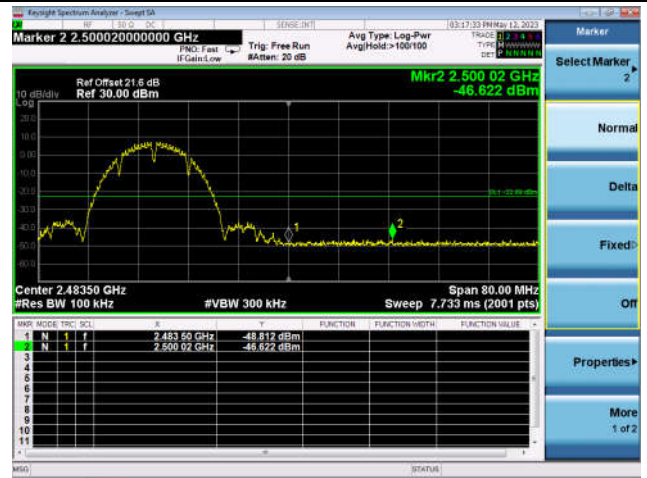


Channel 11 (2462MHz)

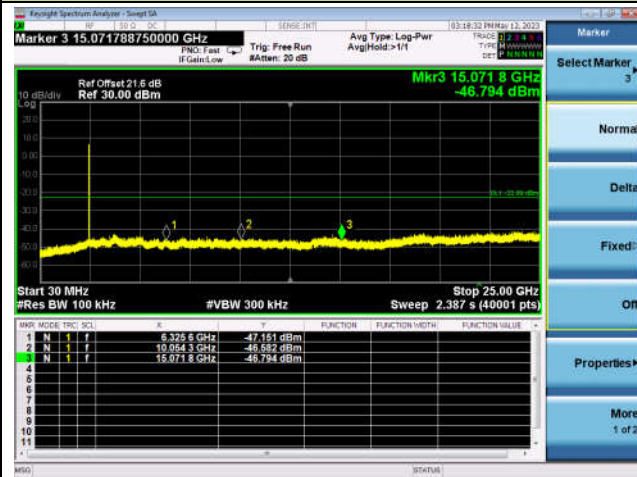
Reference Level



High Band Edge



Spurious Emission



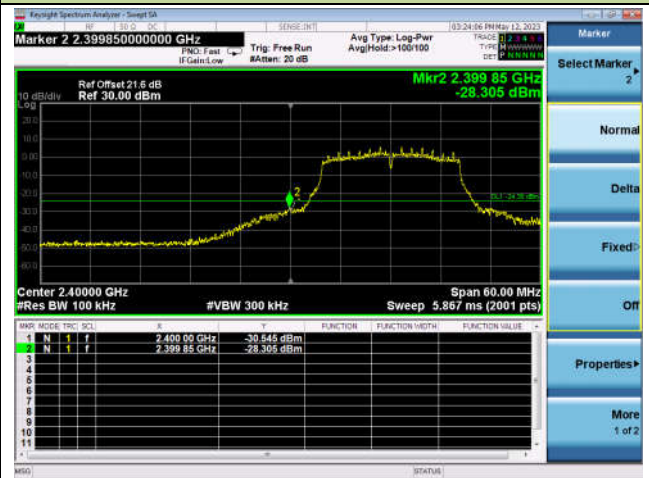
802.11g Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

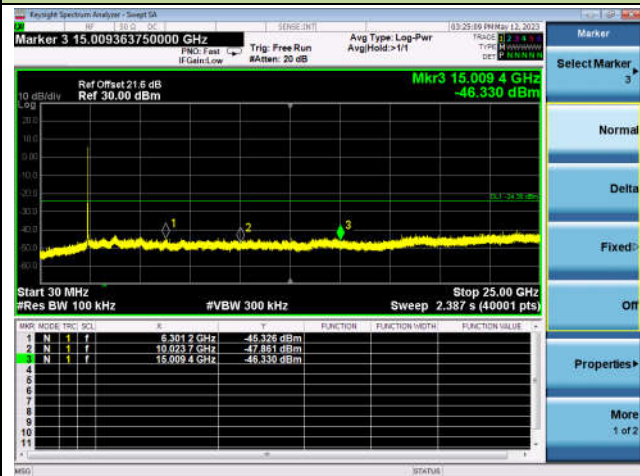
Reference Level



Low Band Edge



Spurious Emission

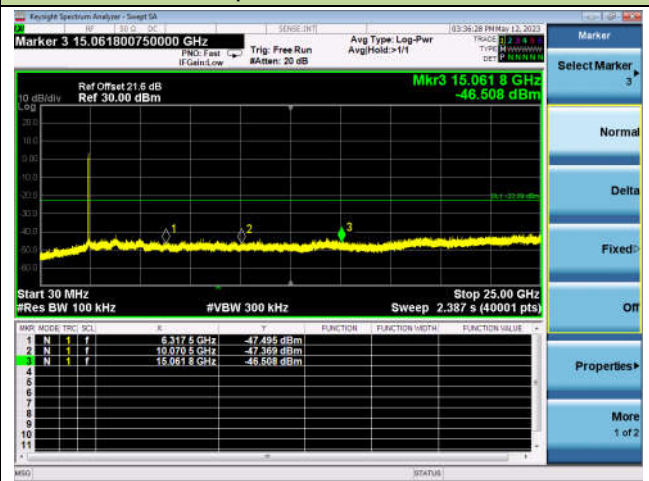


Channel 06 (2437MHz)

Reference Level

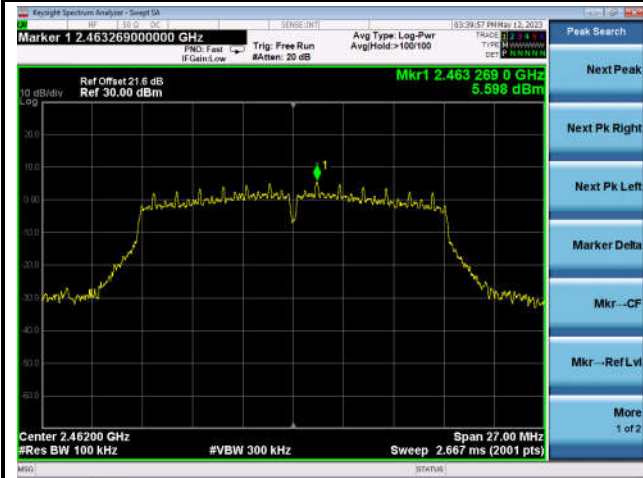


Spurious Emission

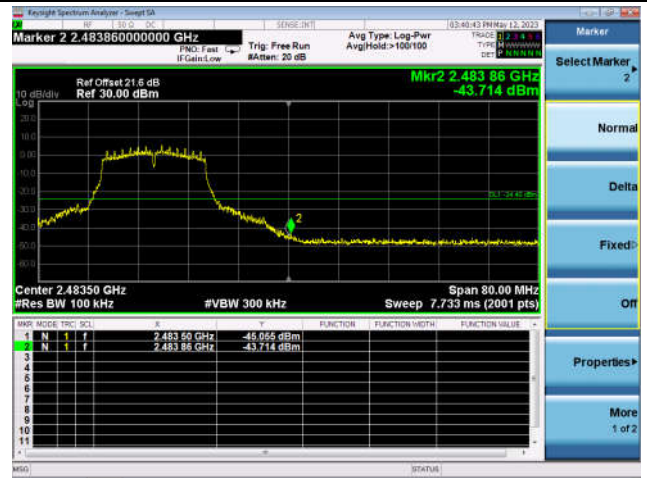


Channel 11 (2462MHz)

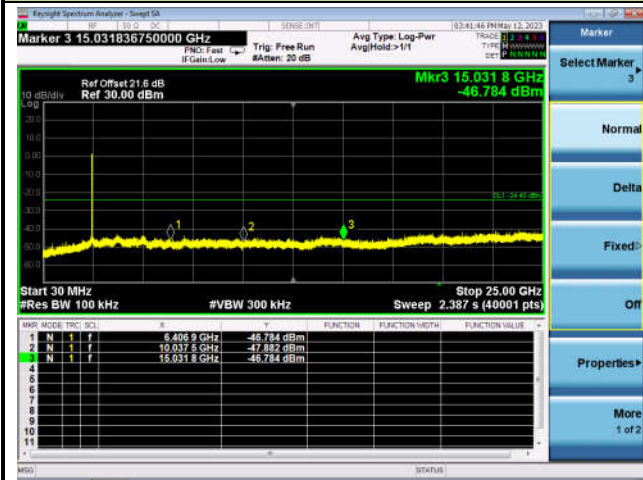
Reference Level



High Band Edge



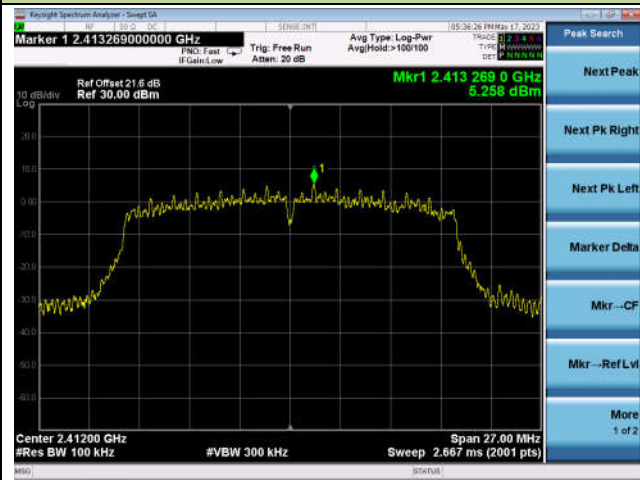
Spurious Emission



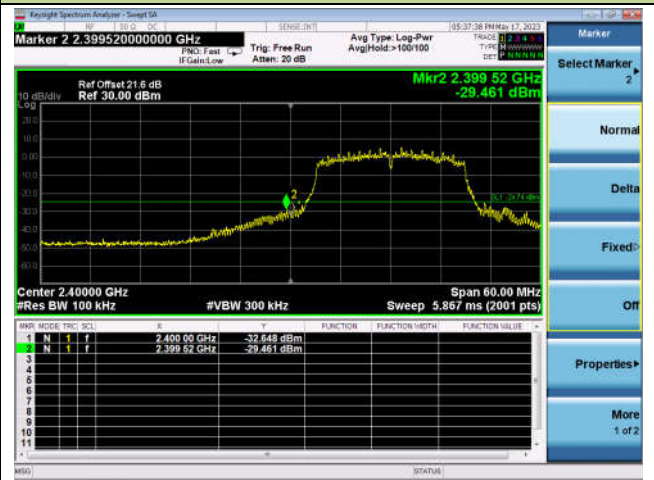
802.11n-HT20 Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

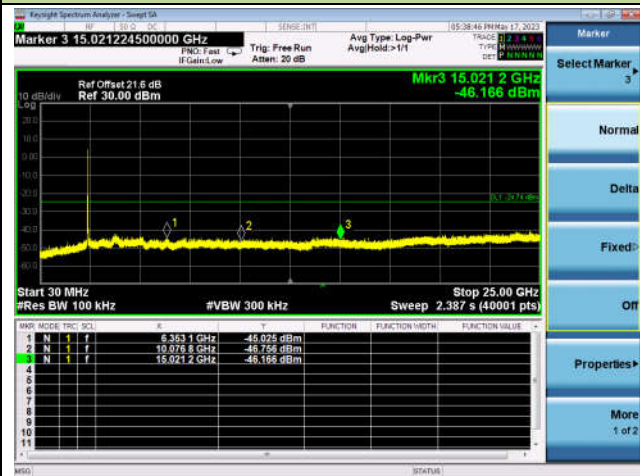
Reference Level



Low Band Edge

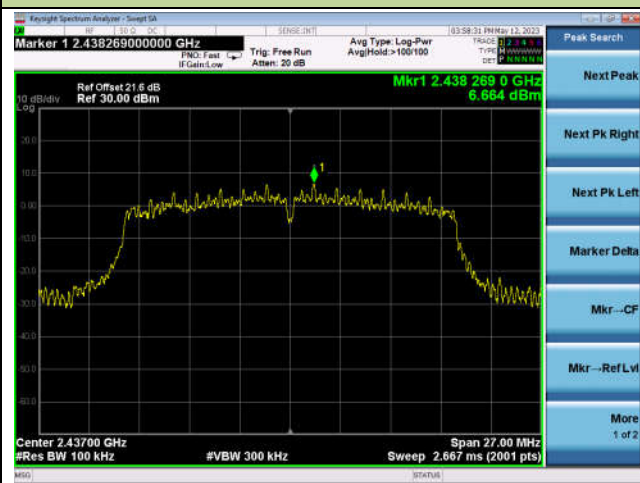


Spurious Emission

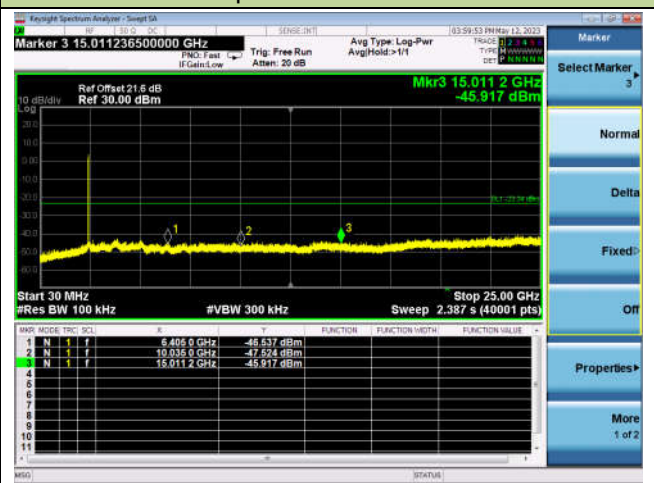


Channel 06 (2437MHz)

Reference Level

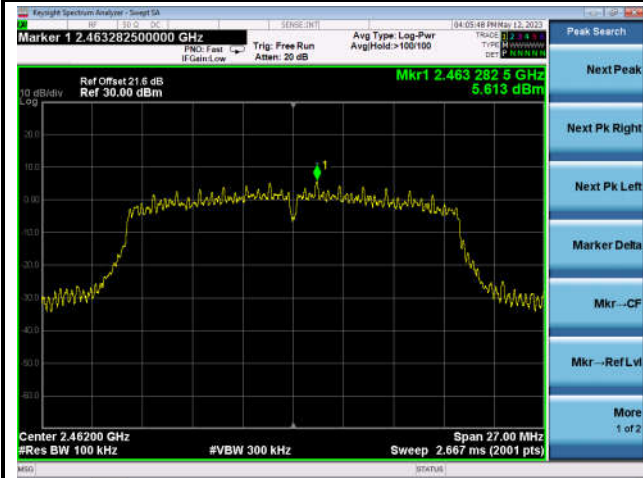


Spurious Emission

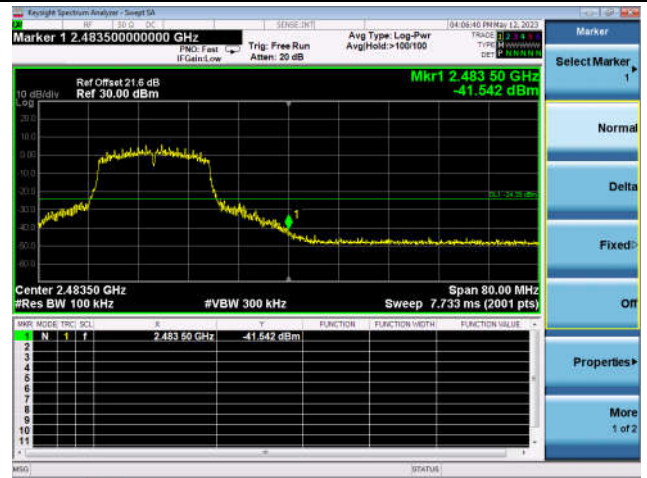


Channel 11 (2462MHz)

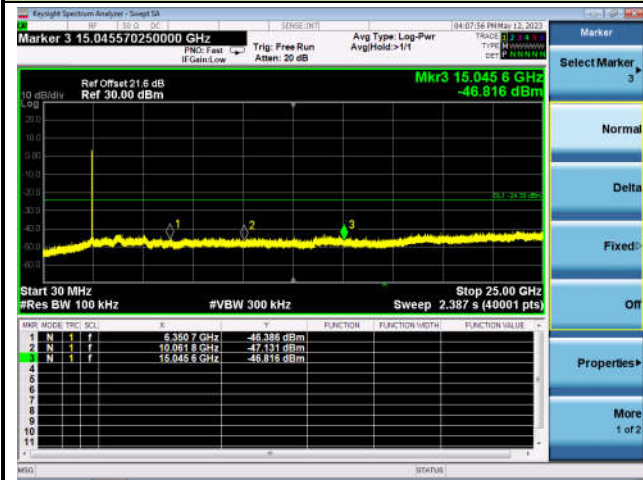
Reference Level



High Band Edge



Spurious Emission



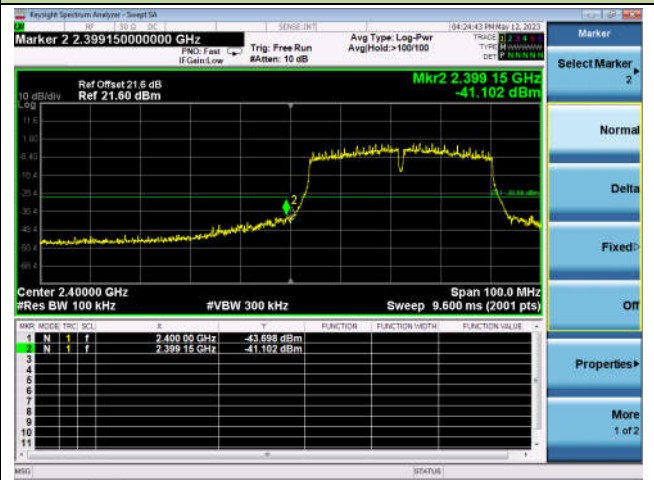
802.11n-HT40 Out-of-Band Emissions - Ant 1

Channel 03 (2422MHz)

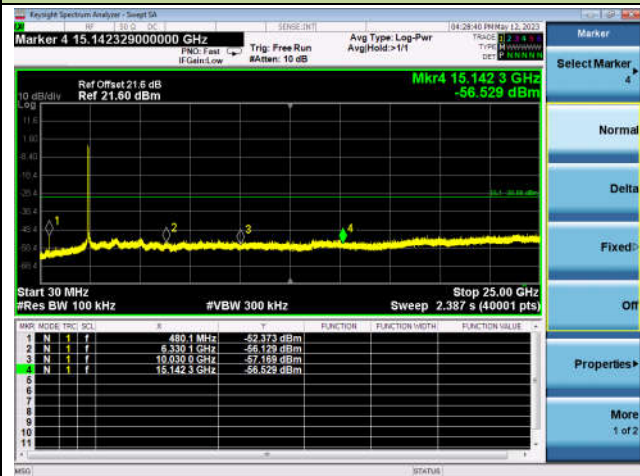
Reference Level



Low Band Edge

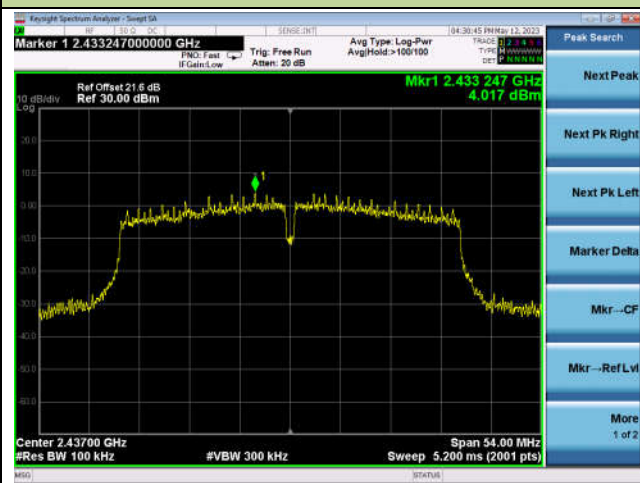


Spurious Emission

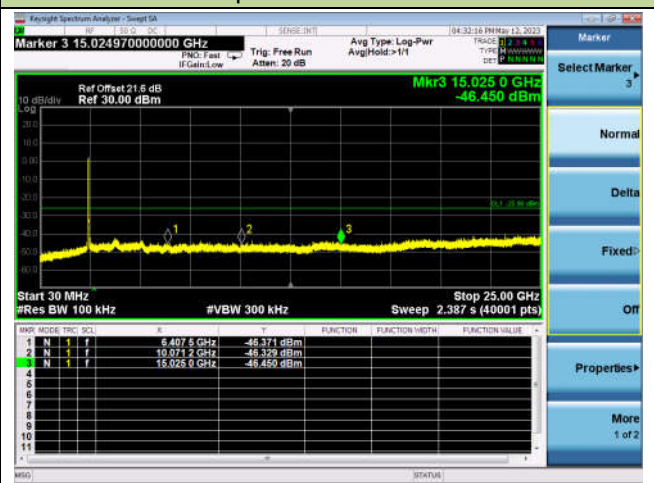


Channel 06 (2437MHz)

Reference Level

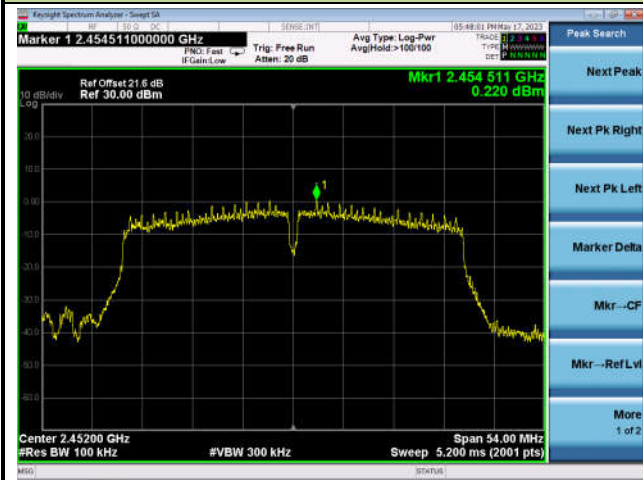


Spurious Emission

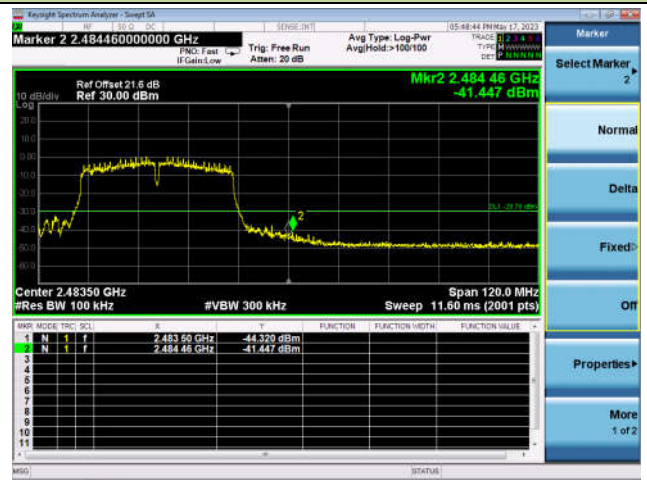


Channel 09 (2452MHz)

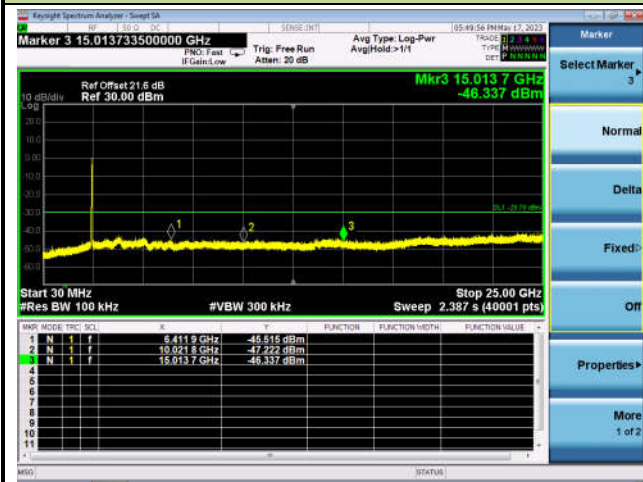
Reference Level



High Band Edge



Spurious Emission



A.6 Radiated Spurious Emission Test Result

Test Site	NS-AC1	Test Engineer	Flag Yang
Test Date	2023/05/12	Test Mode:	802.11b
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.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4825.0	44.4	1.7	46.1	74.0	-27.9	Peak	Horizontal
	6440.0	37.6	5.2	42.8	74.0	-31.2	Peak	Horizontal
	7876.5	37.0	9.1	46.1	74.0	-27.9	Peak	Horizontal
	4825.0	43.4	1.7	45.1	74.0	-28.9	Peak	Vertical
	6661.0	37.2	6.5	43.7	74.0	-30.3	Peak	Vertical
	8650.0	35.8	11.8	47.6	74.0	-26.4	Peak	Vertical
06	4876.0	44.0	1.5	45.5	74.0	-28.5	Peak	Horizontal
	7077.5	36.0	8.9	44.9	74.0	-29.1	Peak	Horizontal
	8888.0	35.6	12.5	48.1	74.0	-25.9	Peak	Horizontal
	4876.0	43.8	1.5	45.3	74.0	-28.7	Peak	Vertical
	6482.5	37.0	5.8	42.8	74.0	-31.2	Peak	Vertical
	7834.0	37.2	8.8	46.0	74.0	-28.0	Peak	Vertical
11	4927.0	45.7	1.4	47.1	74.0	-26.9	Peak	Horizontal
	6491.0	37.5	5.8	43.3	74.0	-30.7	Peak	Horizontal
	7910.5	37.7	8.7	46.4	74.0	-27.6	Peak	Horizontal
	4927.0	45.4	1.4	46.8	74.0	-27.2	Peak	Vertical
	6278.5	37.1	5.0	42.1	74.0	-31.9	Peak	Vertical
	7528.0	36.1	10.0	46.1	74.0	-27.9	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m) Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)								

Test Site	NS-AC1	Test Engineer	Flag Yang
Test Date	2023/05/12	Test Mode:	802.11g
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.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4825.0	39.1	1.7	40.8	74.0	-33.2	Peak	Horizontal
	5122.5	39.2	2.2	41.4	74.0	-32.6	Peak	Horizontal
	7196.5	36.0	9.4	45.4	74.0	-28.6	Peak	Horizontal
	4825.0	39.9	1.7	41.6	74.0	-32.4	Peak	Vertical
	6040.5	37.5	4.1	41.6	74.0	-32.4	Peak	Vertical
	6763.0	37.7	6.5	44.2	74.0	-29.8	Peak	Vertical
06	4876.0	40.8	1.5	42.3	74.0	-31.7	Peak	Horizontal
	5938.5	37.2	3.9	41.1	74.0	-32.9	Peak	Horizontal
	6788.5	37.7	6.7	44.4	74.0	-29.6	Peak	Horizontal
	4876.0	41.4	1.5	42.9	74.0	-31.1	Peak	Vertical
	6219.0	38.0	4.4	42.4	74.0	-31.6	Peak	Vertical
	7859.5	37.4	9.0	46.4	74.0	-27.6	Peak	Vertical
11	4927.0	42.2	1.4	43.6	74.0	-30.4	Peak	Horizontal
	5955.5	37.4	3.9	41.3	74.0	-32.7	Peak	Horizontal
	7460.0	35.5	10.3	45.8	74.0	-28.2	Peak	Horizontal
	4927.0	42.0	1.4	43.4	74.0	-30.6	Peak	Vertical
	5836.5	37.9	3.4	41.3	74.0	-32.7	Peak	Vertical
	7460.0	36.4	10.3	46.7	74.0	-27.3	Peak	Vertical

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

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

Test Site	NS-AC1	Test Engineer	Flag Yang
Test Date	2023/05/12	Test Mode:	802.11n-HT20
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.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4825.0	37.9	1.7	39.6	74.0	-34.4	Peak	Horizontal
	5573.0	38.1	2.5	40.6	74.0	-33.4	Peak	Horizontal
	6593.0	37.0	6.3	43.3	74.0	-30.7	Peak	Horizontal
	4825.0	39.6	1.7	41.3	74.0	-32.7	Peak	Vertical
	6440.0	37.3	5.2	42.5	74.0	-31.5	Peak	Vertical
	7902.0	37.5	8.7	46.2	74.0	-27.8	Peak	Vertical
06	4867.5	40.9	1.5	42.4	74.0	-31.6	Peak	Horizontal
	5539.0	38.6	2.3	40.9	74.0	-33.1	Peak	Horizontal
	6848.0	36.9	6.8	43.7	74.0	-30.3	Peak	Horizontal
	4876.0	41.8	1.5	43.3	74.0	-30.7	Peak	Vertical
	6032.0	37.1	4.1	41.2	74.0	-32.8	Peak	Vertical
	6865.0	36.4	7.2	43.6	74.0	-30.4	Peak	Vertical
11	4918.5	42.5	1.4	43.9	74.0	-30.1	Peak	Horizontal
	6117.0	37.8	4.2	42.0	74.0	-32.0	Peak	Horizontal
	7409.0	36.7	10.3	47.0	74.0	-27.0	Peak	Horizontal
	4927.0	44.9	1.4	46.3	74.0	-27.7	Peak	Vertical
	6134.0	37.4	4.6	42.0	74.0	-32.0	Peak	Vertical
	7434.5	36.0	10.2	46.2	74.0	-27.8	Peak	Vertical

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

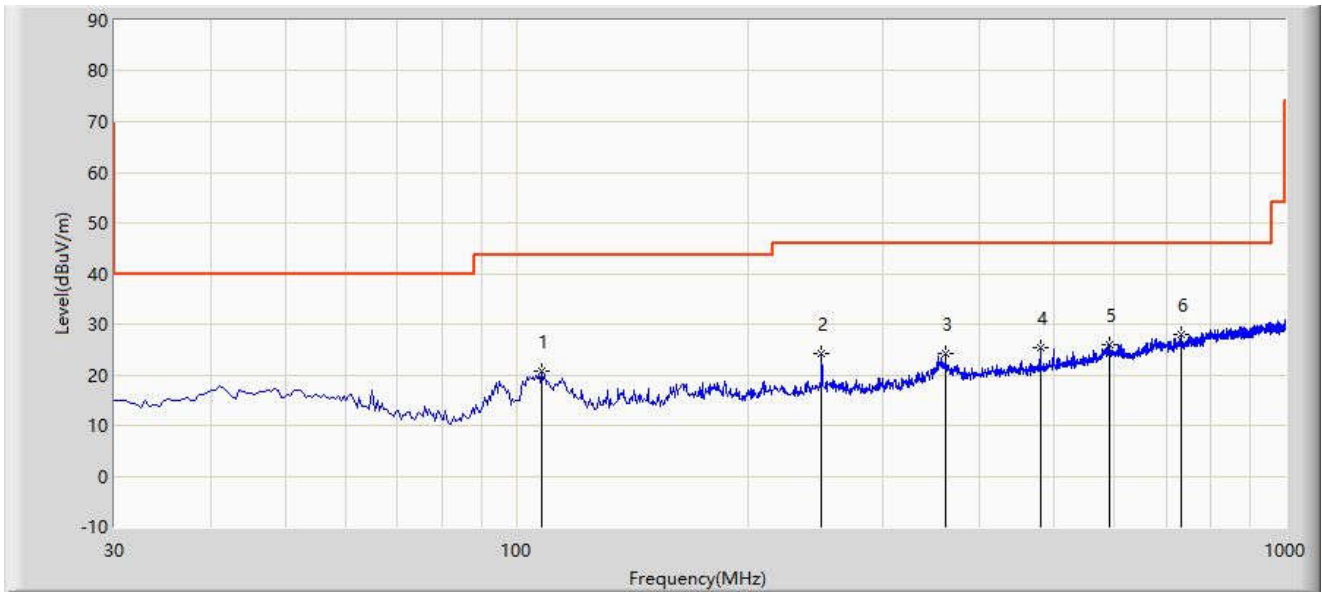
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	NS-AC1	Test Engineer	Flag Yang
Test Date	2023/05/12	Test Mode:	802.11n-HT40
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.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
03	5148.0	39.0	2.6	41.6	74.0	-32.4	Peak	Horizontal
	6669.5	36.9	6.6	43.5	74.0	-30.5	Peak	Horizontal
	7851.0	37.4	9.0	46.4	74.0	-27.6	Peak	Horizontal
	4417.0	38.1	0.3	38.4	74.0	-35.6	Peak	Vertical
	5488.0	39.1	2.6	41.7	74.0	-32.3	Peak	Vertical
	6678.0	37.3	6.7	44.0	74.0	-30.0	Peak	Vertical
06	4876.0	39.0	1.5	40.5	74.0	-33.5	Peak	Horizontal
	6567.5	36.6	6.3	42.9	74.0	-31.1	Peak	Horizontal
	8327.0	37.7	9.3	47.0	74.0	-27.0	Peak	Horizontal
	4876.0	41.8	1.5	43.3	74.0	-30.7	Peak	Vertical
	6278.5	37.9	5.0	42.9	74.0	-31.1	Peak	Vertical
	7485.5	36.4	10.1	46.5	74.0	-27.5	Peak	Vertical
09	4850.5	38.4	1.5	39.9	74.0	-34.1	Peak	Horizontal
	5479.5	39.5	2.4	41.9	74.0	-32.1	Peak	Horizontal
	6499.5	37.1	5.9	43.0	74.0	-31.0	Peak	Horizontal
	4553.0	38.5	1.1	39.6	74.0	-34.4	Peak	Vertical
	5564.5	38.4	2.5	40.9	74.0	-33.1	Peak	Vertical
	7009.5	35.9	8.5	44.4	74.0	-29.6	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m) Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)								

The Result of Radiated Emission below 1GHz:

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_Part15.209_RSE(3m)	Engineer: Flag Yang
Probe: NS-AC1_VULB9162	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2437MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		108.085	20.787	5.210	-22.713	43.500	15.577	PK
2		249.705	24.258	6.820	-21.742	46.000	17.438	PK
3		361.740	24.078	4.716	-21.922	46.000	19.362	PK
4		480.080	25.447	3.594	-20.553	46.000	21.852	PK
5		591.145	25.992	1.255	-20.008	46.000	24.737	PK
6	*	732.280	27.871	1.812	-18.129	46.000	26.059	PK

Note 1: " * ", means this data is the worst emission level.

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

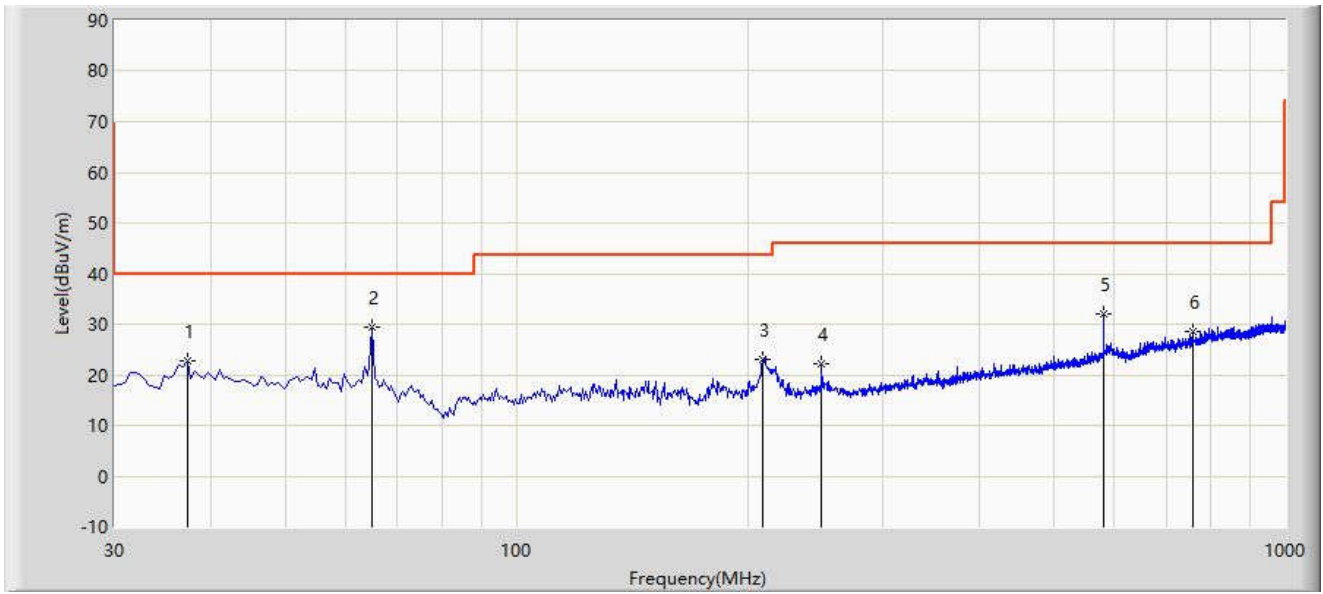
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: 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: NS-AC1	Time: 2023/05/11
Limit: FCC_Part15.209_RSE(3m)	Engineer: Flag Yang
Probe: NS-AC1_VULB9162	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2437MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		37.275	22.702	6.141	-17.298	40.000	16.561	PK
2	*	64.920	29.451	14.174	-10.549	40.000	15.277	PK
3		208.965	23.078	7.490	-20.422	43.500	15.588	PK
4		249.705	22.274	4.836	-23.726	46.000	17.438	PK
5		579.990	32.162	8.015	-13.838	46.000	24.147	PK
6		758.955	28.488	1.939	-17.512	46.000	26.550	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

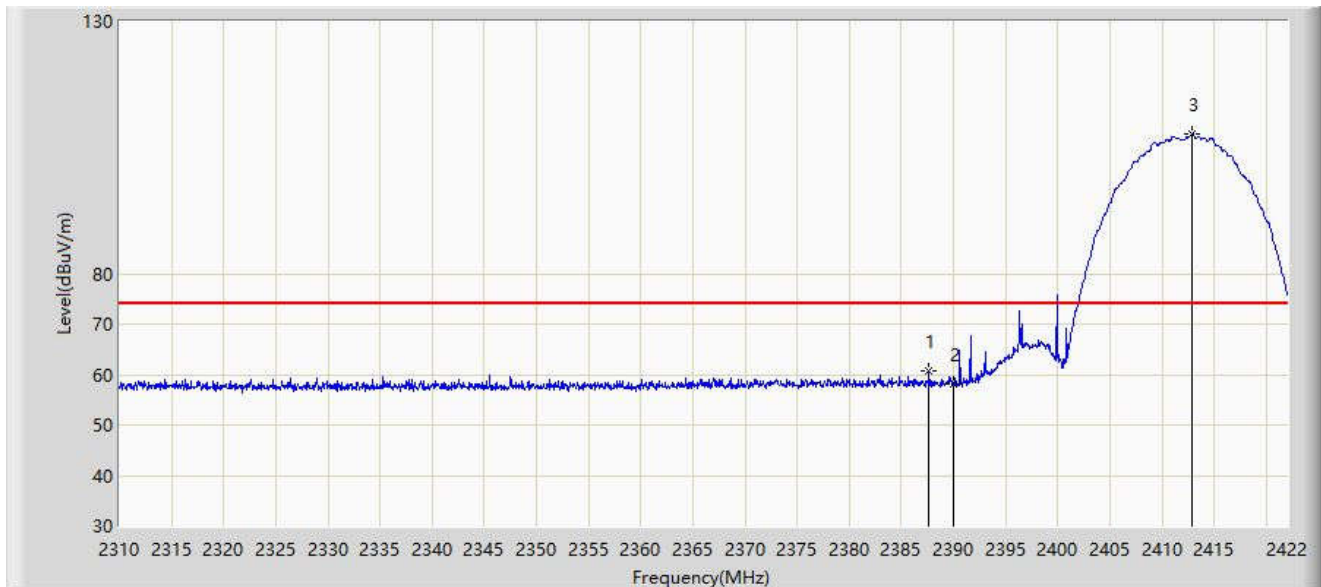
Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: 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.

A.7 Radiated Restricted Band Edge Test Result

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



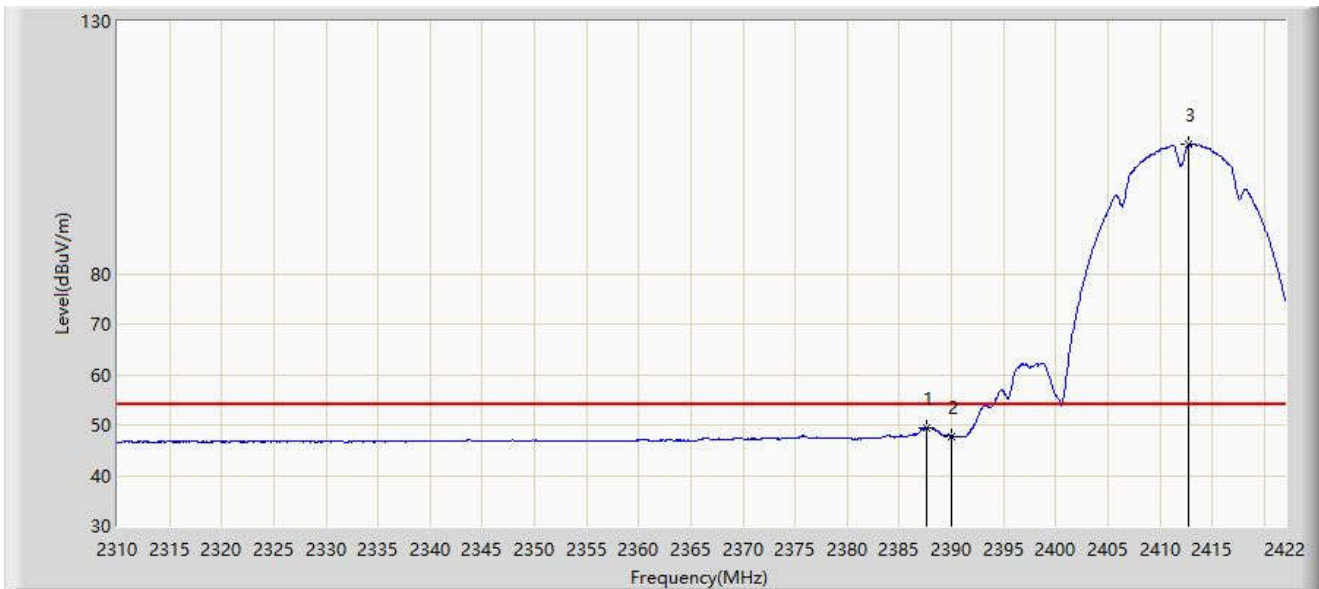
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2387.672	60.584	29.713	-13.416	74.000	30.871	PK
2		2390.000	58.191	27.340	-15.809	74.000	30.850	PK
3		2412.928	107.655	76.805	N/A	N/A	30.850	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



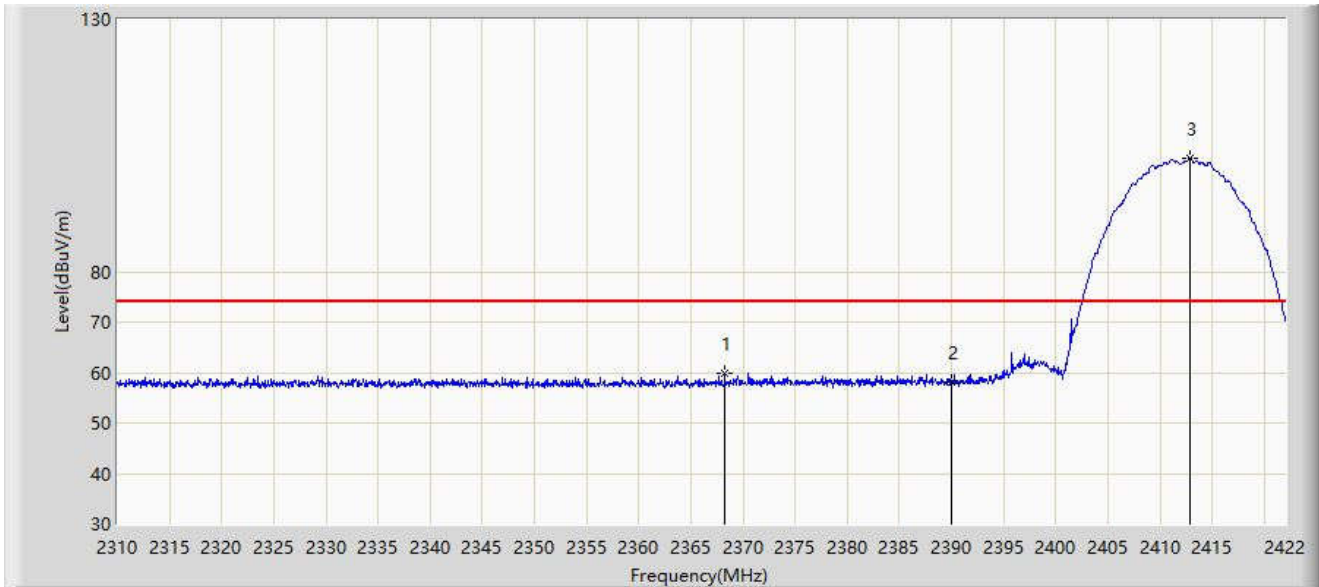
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2387.560	49.557	18.685	-4.443	54.000	30.872	AV
2		2390.000	47.787	16.936	-6.213	54.000	30.850	AV
3		2412.760	105.612	74.761	N/A	N/A	30.851	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



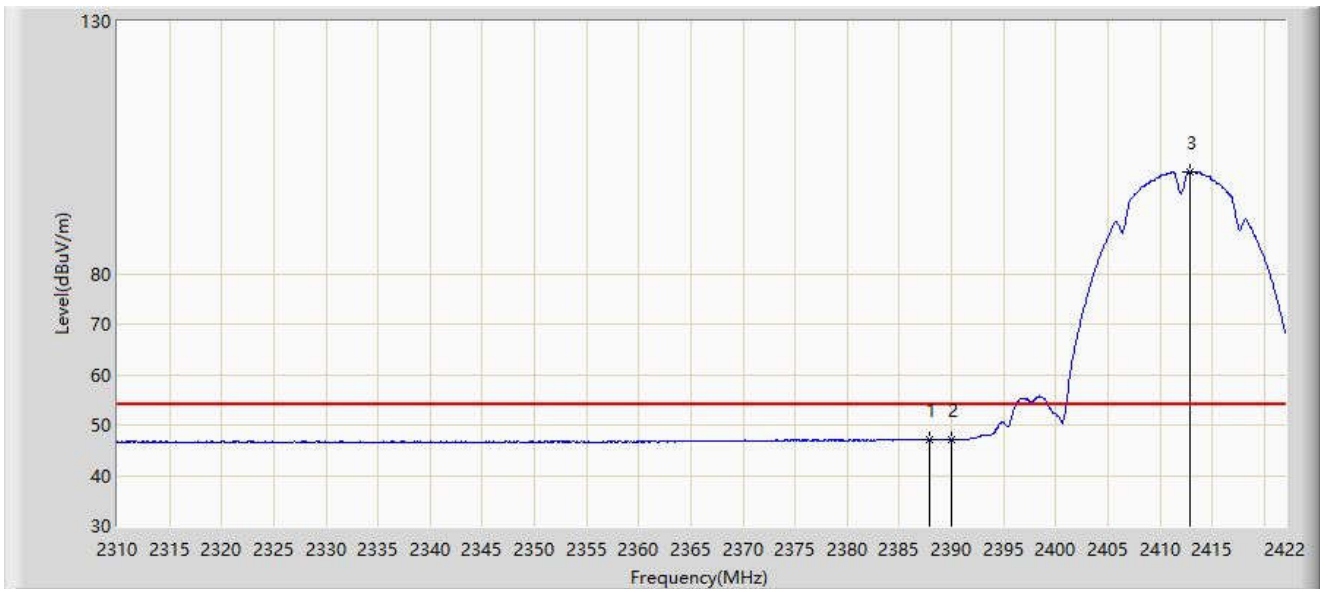
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2368.240	59.922	29.025	-14.078	74.000	30.897	PK
2		2390.000	58.221	27.370	-15.779	74.000	30.850	PK
3		2412.872	102.477	71.626	N/A	N/A	30.851	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



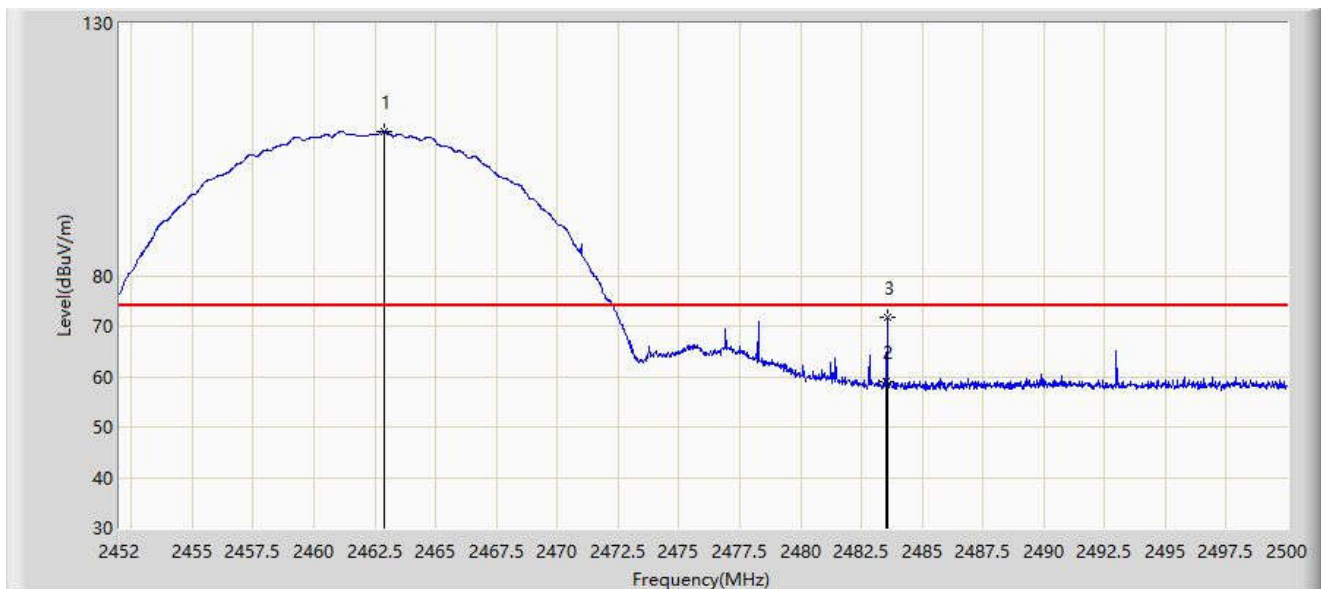
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2387.952	47.204	16.335	-6.796	54.000	30.869	AV
2		2390.000	46.992	16.141	-7.008	54.000	30.850	AV
3		2412.816	100.264	69.413	N/A	N/A	30.851	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.896	108.604	77.730	N/A	N/A	30.874	PK
2		2483.500	58.960	28.198	-15.040	74.000	30.761	PK
3	*	2483.560	71.780	41.018	-2.220	74.000	30.762	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



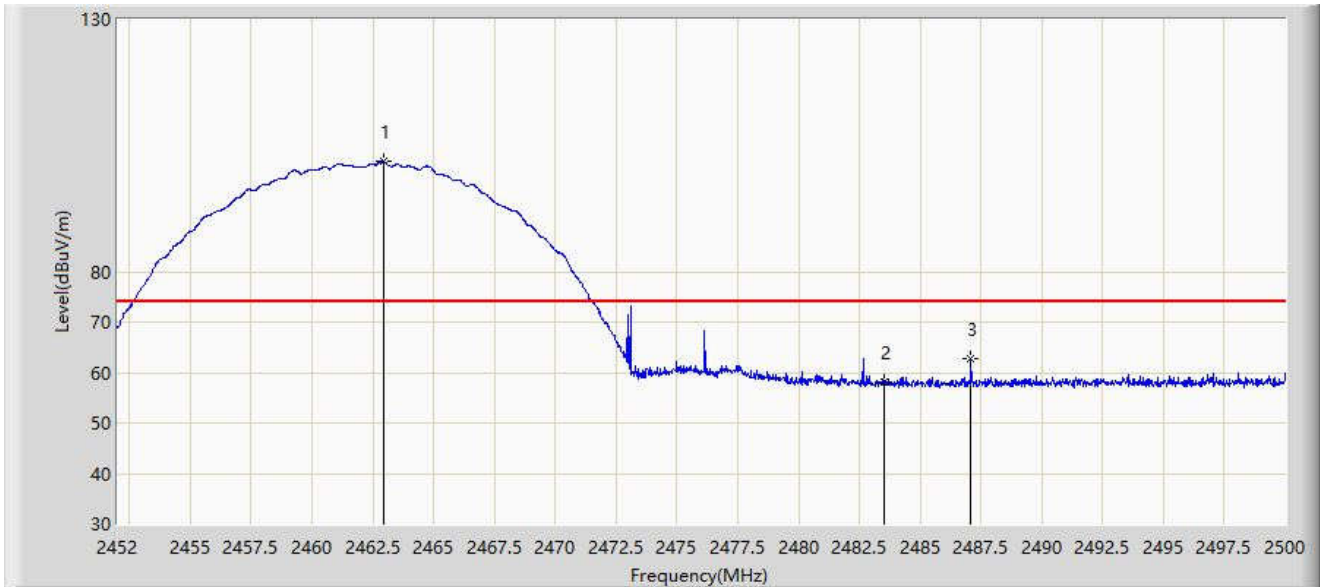
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2461.216	106.518	75.639	N/A	N/A	30.879	AV
2		2483.500	48.223	17.461	-5.777	54.000	30.761	AV
3	*	2489.176	48.428	17.664	-5.572	54.000	30.764	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



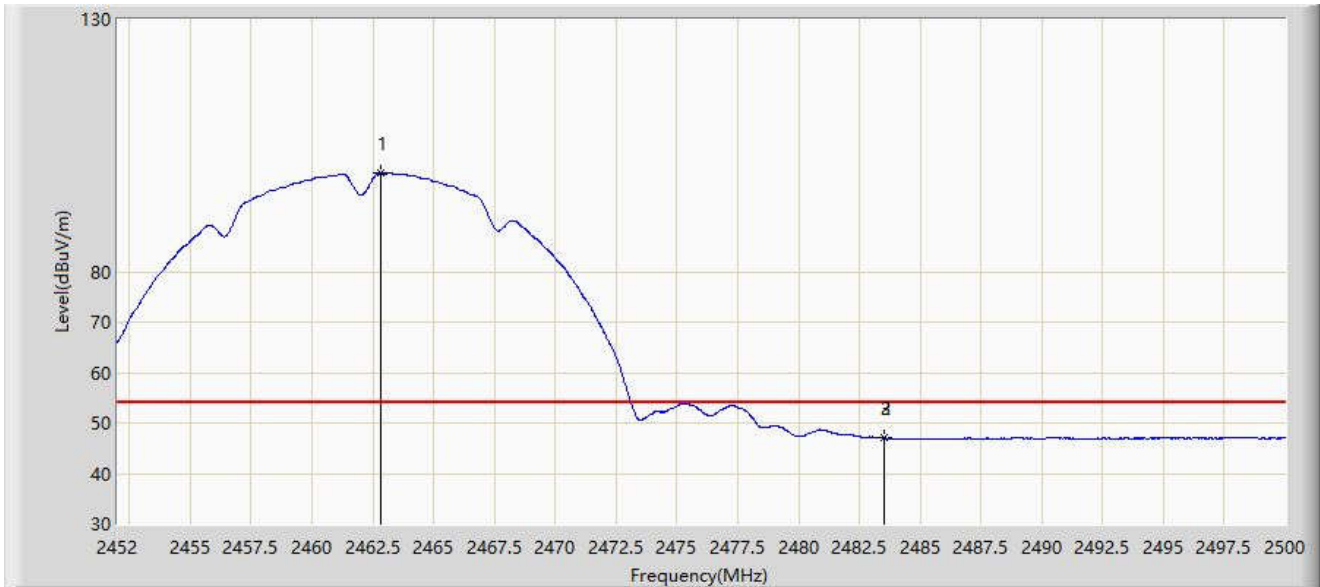
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.920	101.766	70.892	N/A	N/A	30.873	PK
2		2483.500	58.036	27.274	-15.964	74.000	30.761	PK
3	*	2487.088	62.812	32.049	-11.188	74.000	30.763	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



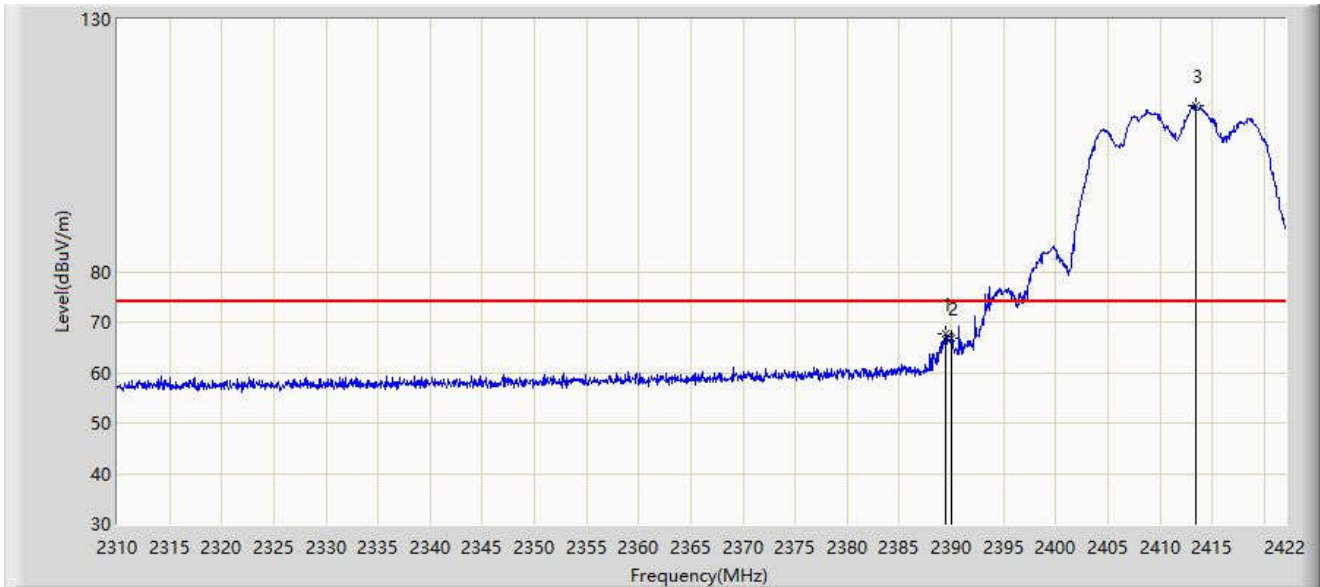
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.824	99.540	68.666	N/A	N/A	30.874	AV
2		2483.500	47.042	16.280	-6.958	54.000	30.761	AV
3	*	2483.536	47.058	16.296	-6.942	54.000	30.762	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



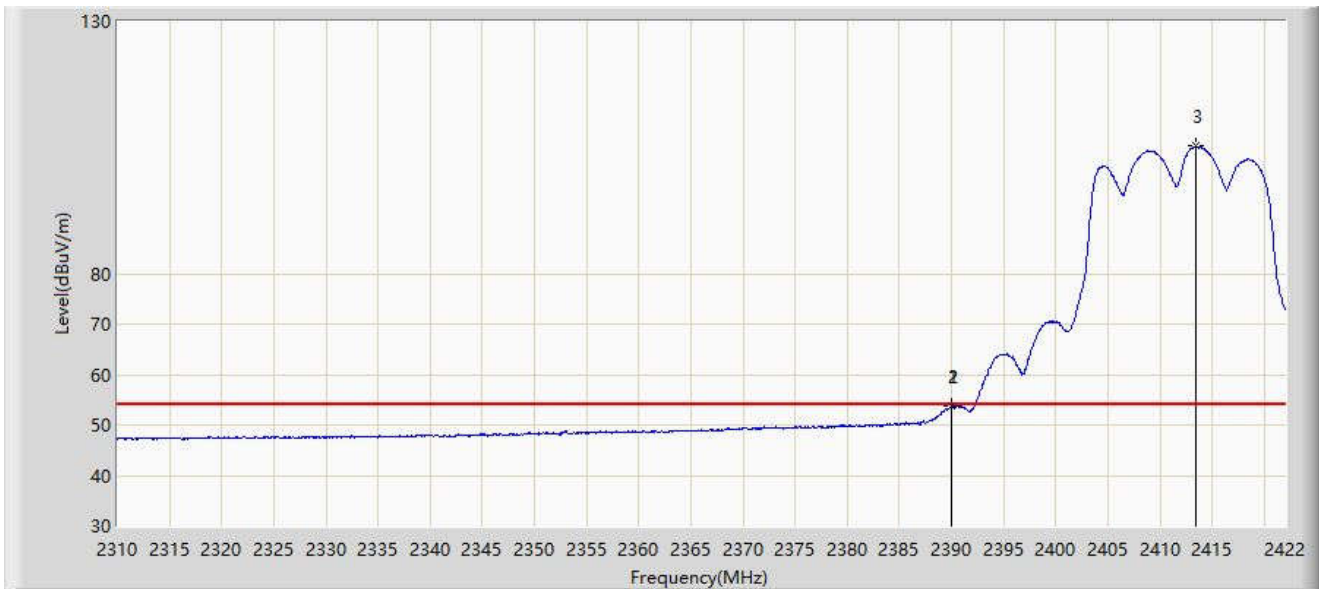
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.464	67.584	36.729	-6.416	74.000	30.856	PK
2		2390.000	66.775	35.924	-7.225	74.000	30.850	PK
3		2413.432	112.916	82.069	N/A	N/A	30.846	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



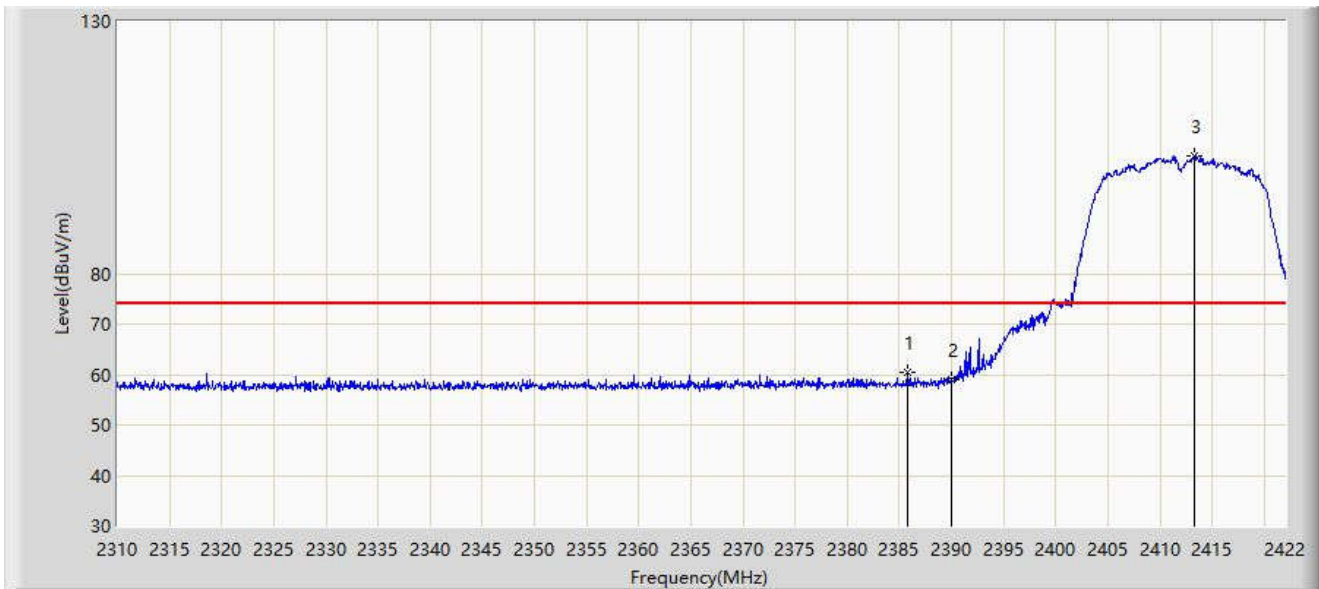
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.968	53.663	22.812	-0.337	54.000	30.852	AV
2		2390.000	53.627	22.776	-0.373	54.000	30.850	AV
3		2413.488	105.290	74.444	N/A	N/A	30.846	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



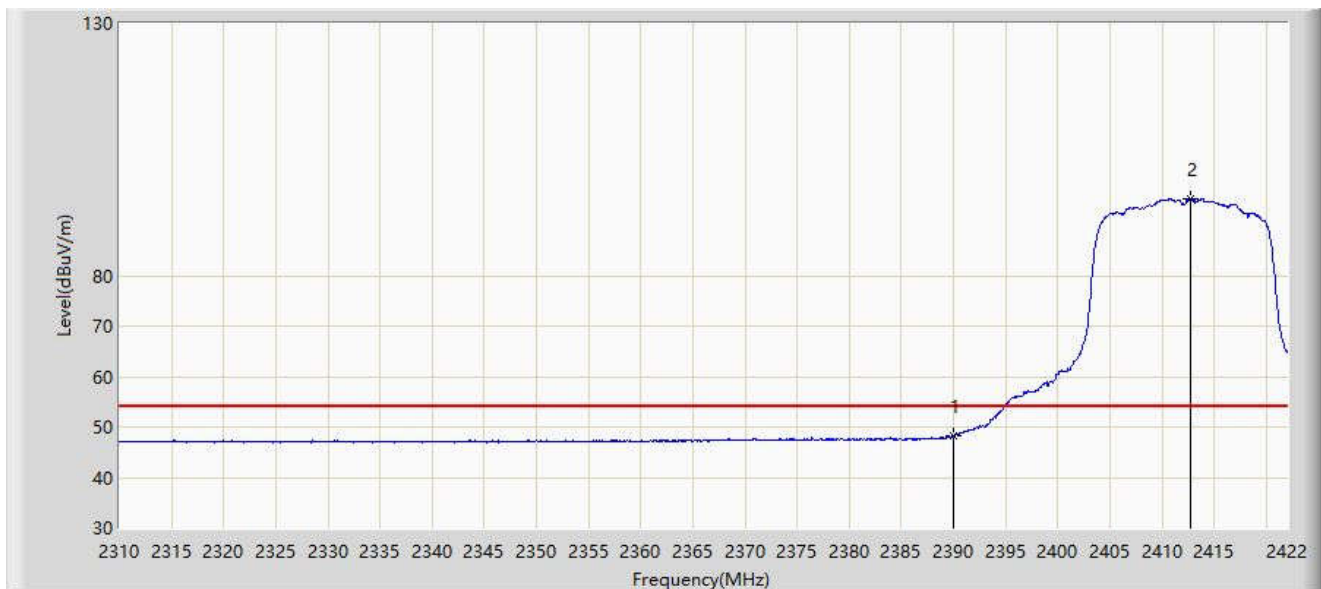
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2385.824	60.396	29.509	-13.604	74.000	30.887	PK
2		2390.000	58.969	28.118	-15.031	74.000	30.850	PK
3		2413.264	103.308	72.460	N/A	N/A	30.847	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



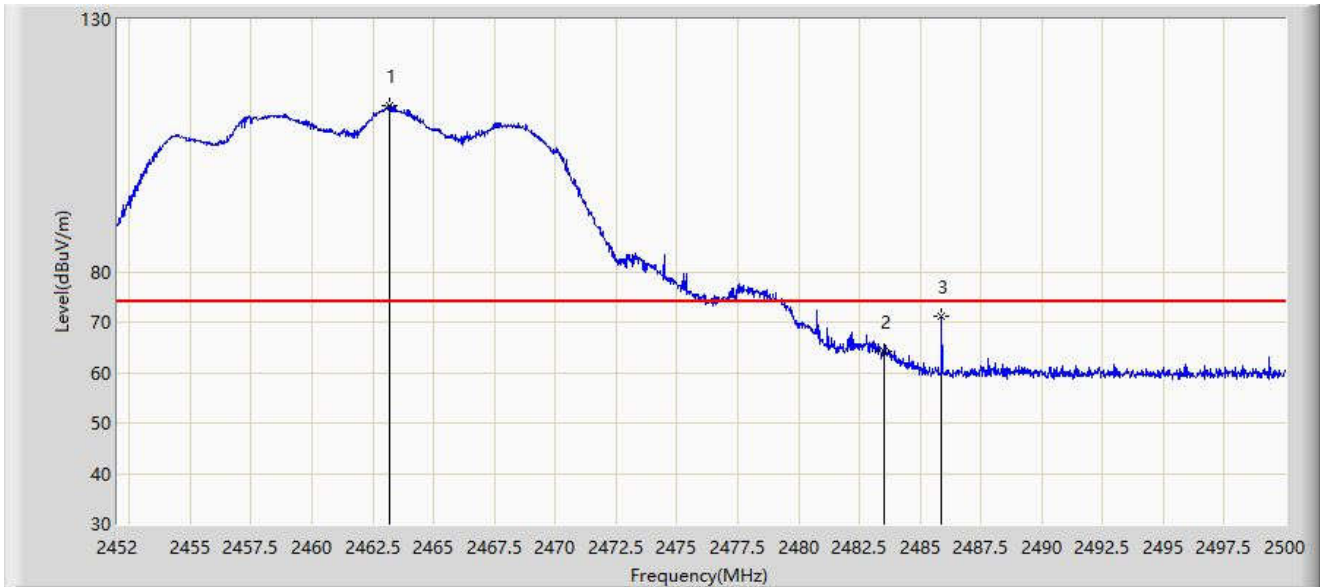
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	48.162	17.311	-5.838	54.000	30.850	AV
2		2412.704	95.338	64.486	N/A	N/A	30.852	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



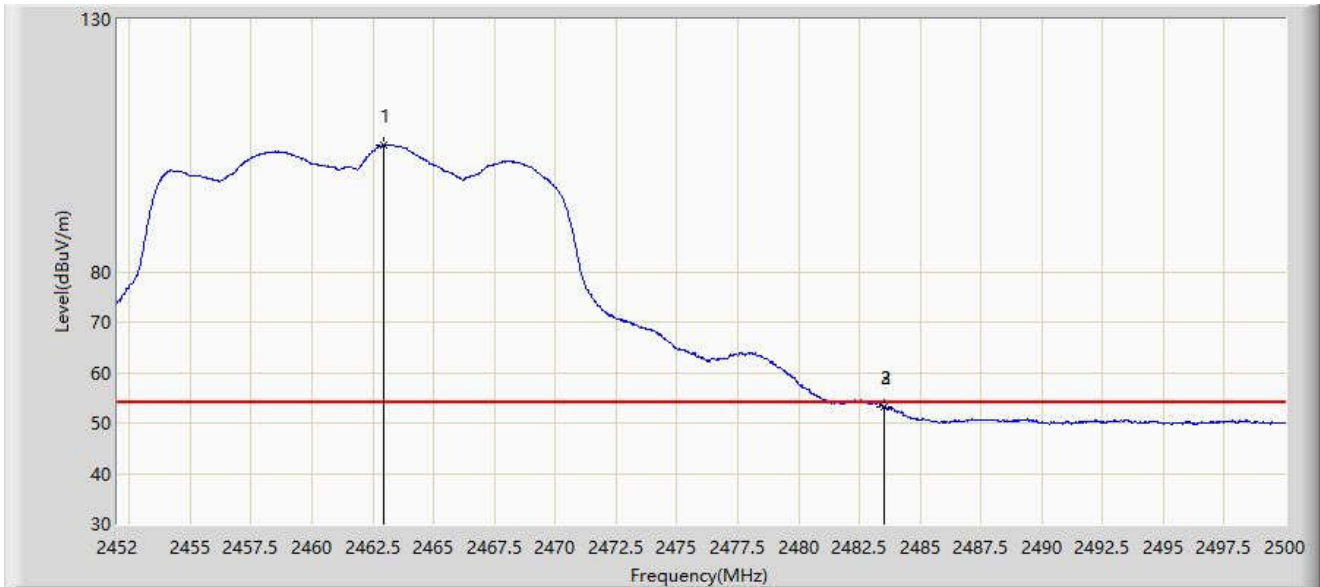
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2463.160	112.984	82.112	N/A	N/A	30.872	PK
2		2483.500	64.288	33.526	-9.712	74.000	30.761	PK
3	*	2485.888	71.066	40.303	-2.934	74.000	30.763	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



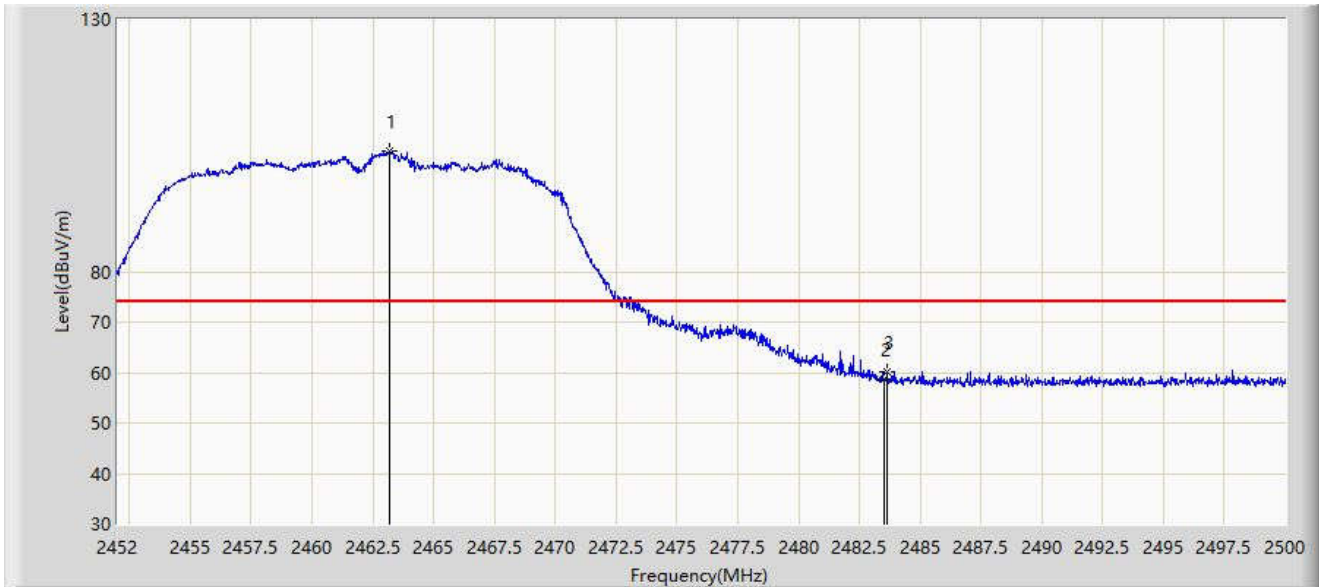
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.944	105.118	74.245	N/A	N/A	30.873	AV
2		2483.500	53.218	22.456	-0.782	54.000	30.761	AV
3	*	2483.536	53.310	22.548	-0.690	54.000	30.762	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



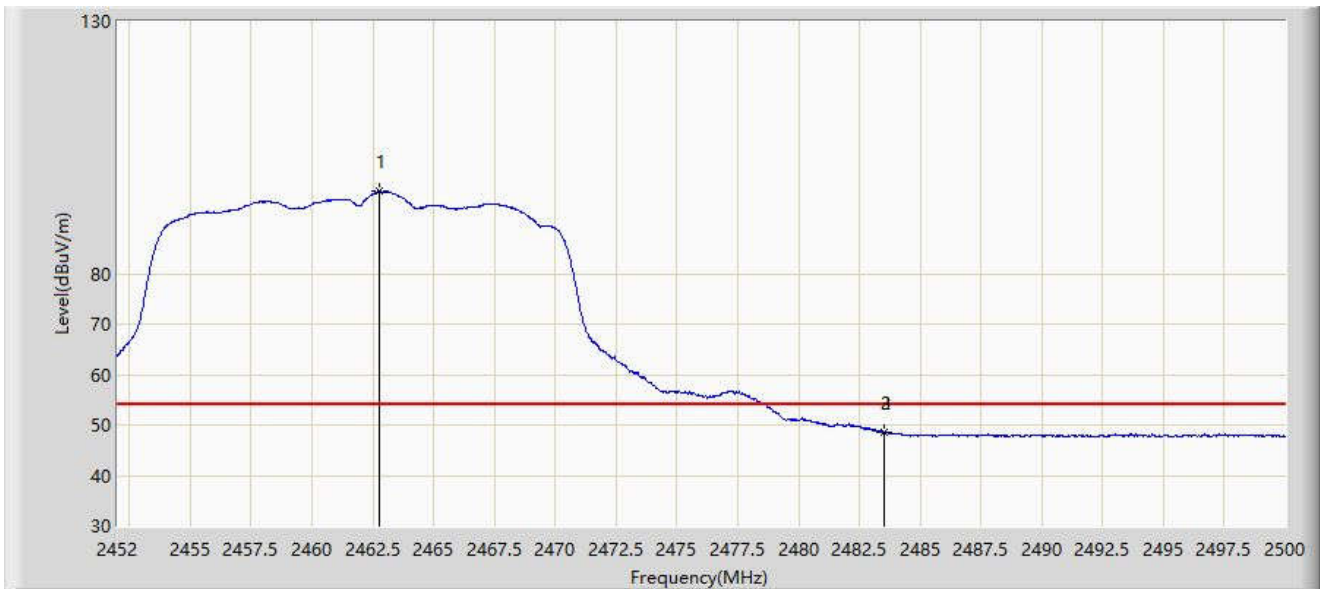
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2463.208	103.959	73.088	N/A	N/A	30.872	PK
2		2483.500	58.795	28.033	-15.205	74.000	30.761	PK
3	*	2483.656	60.256	29.494	-13.744	74.000	30.762	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/11
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



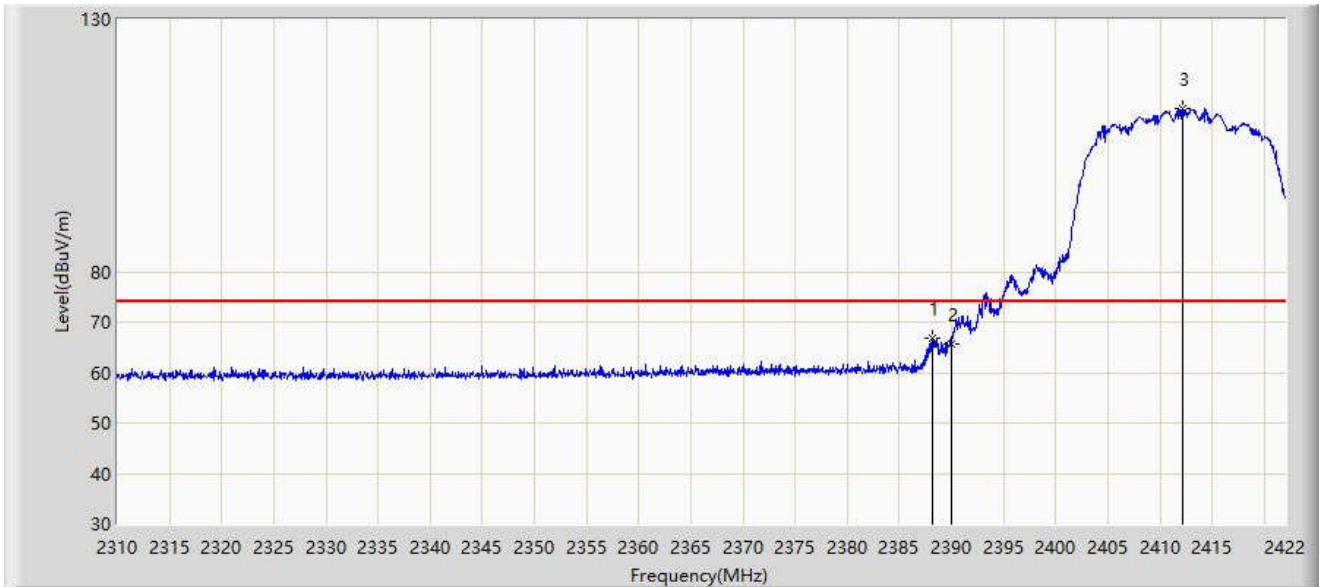
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2462.752	96.333	65.458	N/A	N/A	30.874	AV
2		2483.500	48.524	17.762	-5.476	54.000	30.761	AV
3	*	2483.536	48.684	17.922	-5.316	54.000	30.762	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/17
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



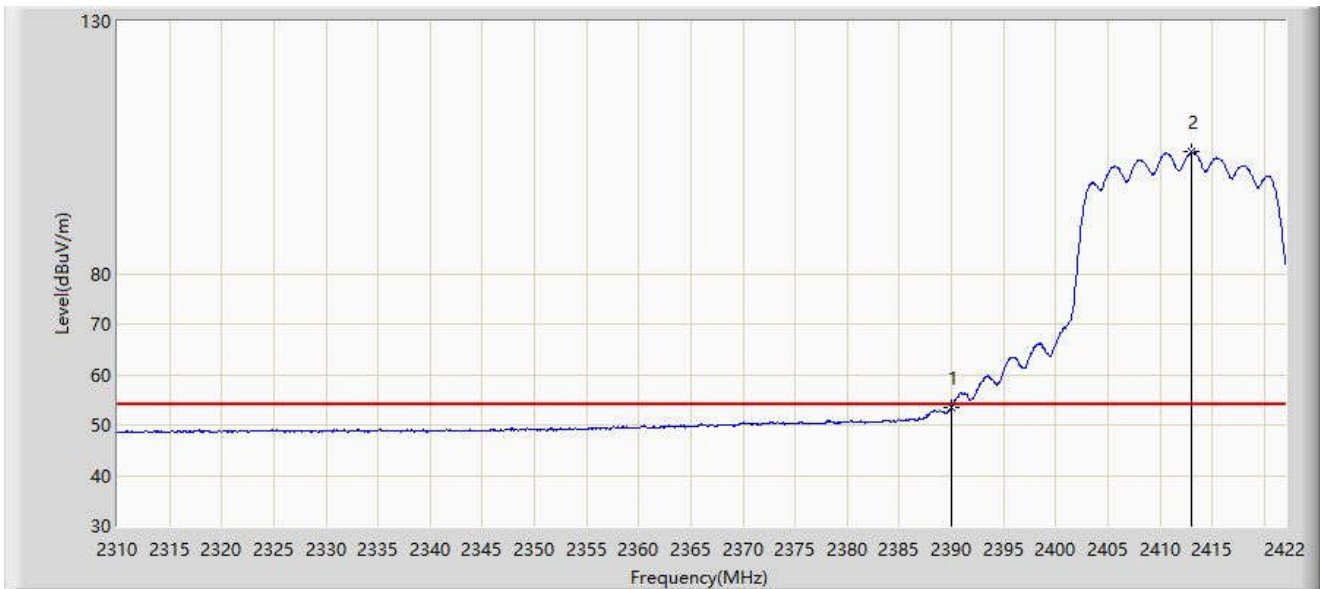
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2388.232	66.761	35.895	-7.239	74.000	30.866	PK
2		2390.000	65.774	34.923	-8.226	74.000	30.850	PK
3		2412.200	112.272	81.417	N/A	N/A	30.856	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/17
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



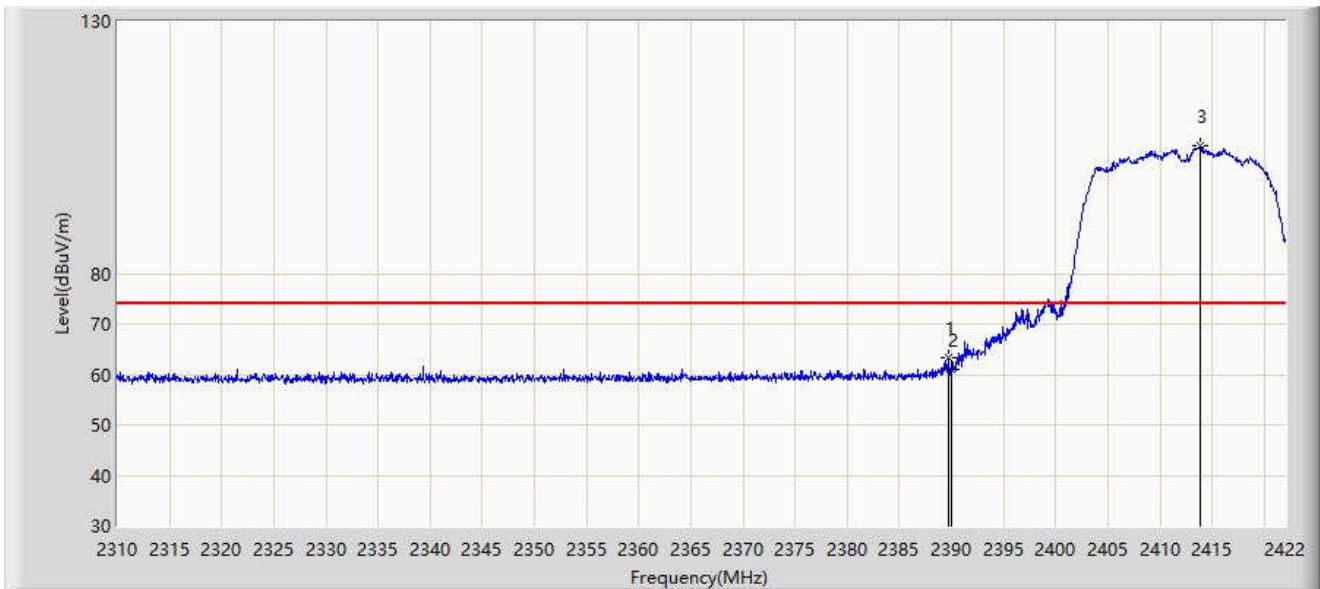
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	53.562	22.711	-0.438	54.000	30.850	AV
2		2413.040	104.080	73.231	N/A	N/A	30.850	AV

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2023/05/17
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: AC750 Wi-Fi Travel Router	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.688	63.332	32.478	-10.668	74.000	30.853	PK
2		2390.000	60.965	30.114	-13.035	74.000	30.850	PK
3		2413.880	105.280	74.436	N/A	N/A	30.844	PK

Note 1: " * ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).