

RF Test Report

Applicant : Plume Design, Inc.

Product Name : SuperPod with WiFi 6

Trade Name : Plume Design, Inc.

Model Number : F3A, F4A

Applicable Standard : MIC notification. No.88 of 2004, Annex 43
2.4 GHz band wide-band low-power data communication system
(Item 19 of Article 2 Paragraph 1)

Received Date : Mar. 02, 2022

Test Period : Apr. 27 ~ Jun. 07, 2022

Issued Date : Jul. 25, 2022

Issued by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 334025, Taiwan (R.O.C)
Tel : +886-3-2710188 / Fax : +886-3-2710190

Note:

- 1.The test results are valid only for samples provided by customers and under the test conditions described in this report.
- 2.This report shall not be reproduced except in full, without the written approval of A Test Lab Technology Corporation.
- 3.The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.

Revision History

Rev.	Issued Date	Revisions	Revised By
00	Jul. 15, 2022	Initial Issue	Emma Chao
01	Jul. 25, 2022	Update chapter 1.1 (P.5 ~ P.6) Update chapter 2.4 (P.11) Update chapter 4 (P.26 ~ P.44)	Emma Chao

Verification of Compliance

Applicant : Plume Design, Inc.

Product Name : SuperPod with WiFi 6

Trade Name : Plume Design, Inc.

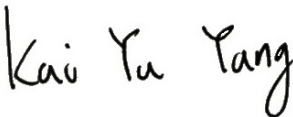
Model Number : F3A, F4A

Applicable Standard : MIC notification. No.88 of 2004, Annex 43
2.4 GHz band wide-band low-power data communication
system (Item 19 of Article 2 Paragraph 1)

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
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The above equipment has been tested by A Test Lab Techno Corp., and found compliance with the requirements set forth in the 2.4 GHz band wide-band low-power data communication system (Item 19 of Article 2 Paragraph 1) and technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved By : 

(Kai Yu Yang)

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Appendix A. Test Setup Photographs

1 General Information

1.1. EUT Description

Applicant	Plume Design, Inc. 325 Lytton Ave., Palo Alto, CA 94301		
Product Name	SuperPod with WiFi 6		
Trade Name	Plume Design, Inc.		
Model Number	F3A, F4A		
Model Different Description	F3A and F4A are the same PCB design and enclosure. However, F4A doesn't lay out components for UWB.		
Antenna information	ANT		Type
	ANT-0	2G1	PIFA Antenna
	ANT-1	2G2	PIFA Antenna
Radio Equipment	2.4 GHz Band Wide-Band Low-Power Data Communication System		
Classification of Specified Radio Equipment	Article 2 Clause 1 Item 19		
Modulation Type	IEEE 802.11b: DSSS		
	IEEE 802.11g: OFDM		
	IEEE 802.11n 20 MHz / IEEE 802.11ac 20 MHz : OFDM		
	IEEE 802.11n 40 MHz / IEEE 802.11ac 40 MHz : OFDM		
	IEEE 802.11ax 20 MHz: OFDMA		
	IEEE 802.11ax 40 MHz : OFDMA		
Type of Emissions	IEEE 802.11b: G1D 2412 MHz-2472 MHz (Interval of 5 MHz 13ch)		
	IEEE 802.11g: D1D, G1D 2412 MHz-2472 MHz (Interval of 5 MHz 13ch)		
	IEEE 802.11n 20 MHz : D1D, G1D 2412 MHz-2472 MHz		
	IEEE 802.11n 40 MHz : D1D, G1D 2422 MHz-2462 MHz		
	IEEE 802.11ax 20 MHz : D1D, G1D 2412 MHz-2472 MHz		
	IEEE 802.11ax 40 MHz : D1D, G1D 2422 MHz-2462 MHz		
Declared Rated Power	SISO		
	IEEE 802.11b	8.61 mW/MHz	9.35 dBm/MHz
	IEEE 802.11g	8.32 mW/ MHz	9.20 dBm/MHz
	IEEE 802.11ax 20 MHz	8.20 mW/ MHz	9.14 dBm/MHz
	IEEE 802.11ax 40 MHz	4.06 mW/MHz	6.09 dBm/MHz
	MIMO(2TX)		
	IEEE 802.11b	7.56 mW/MHz	8.79 dBm/MHz
	IEEE 802.11g	7.50 mW/ MHz	8.75 dBm/MHz
	IEEE 802.11ax 20 MHz	7.19 mW/ MHz	8.57 dBm/MHz
	IEEE 802.11ax 40 MHz	3.72 mW/MHz	5.71 dBm/MHz

E.I.R.P	SISO	
	IEEE 802.11b	11.85 dBm/MHz
	IEEE 802.11g	11.70 dBm/MHz
	IEEE 802.11ax 20 MHz	11.64 dBm/MHz
	IEEE 802.11ax 40 MHz	8.59 dBm/MHz
	MIMO(2TX)	
	IEEE 802.11b	11.89 dBm/MHz
	IEEE 802.11g	11.85 dBm/MHz
	IEEE 802.11ax 20 MHz	11.67 dBm/MHz
	IEEE 802.11ax 40 MHz	8.81 dBm/MHz
Tested Circuit Insertion Loss		10.8 dB
Frequency equal to the transmission rate of the modulation signal		IEEE 802.11b: 1.375 MHz
Operate Temp. Range		-30 ~ +50 °C
EUT Power Rating		100-240 V, 50-60 Hz, 0.45 A

Test Mode	Antenna Delivery	Data Rate	
		(Mbps)	
IEEE 802.11b	2TX	1	Up to 11
IEEE 802.11g	2TX	6	Up to 54
IEEE 802.11n 20 MHz	2TX	26	Up to 144.4
IEEE 802.11n 40 MHz	2TX	54	Up to 300
IEEE 802.11ac 20 MHz	2TX	26	Up to 173.3
IEEE 802.11ac 40 MHz	2TX	54	Up to 400
IEEE 802.11ax 20 MHz	2TX	MCS0	Up to 286.8
IEEE 802.11ax 40 MHz	2TX	MCS0	Up to 573.5

1.2. Summary of Test Result

Item	Result	Remark
Frequency Error	PASS	-----
Occupied Bandwidth	PASS	-----
Spread Bandwidth	PASS	-----
Spread factor	PASS	-----
Antenna Power Error	PASS	-----
Unwanted Emission Strength	PASS	-----
Secondarily Emitted Radio Wave Strength	PASS	-----
Carrier Sense	PASS	-----
Radio Interference Prevention Capability Measurement	PASS	-----

Decision Rule

- ☒ Uncertainty is not included.
- ☐ Uncertainty is included.

2 Test Methodology

2.1. Mode of Operation

Test Category

2.4 GHz Band Wideband Low-Power Data Communication System

Test Mode
IEEE 802.11b Continuous TX Mode
IEEE 802.11g Continuous TX Mode
IEEE 802.11ax 20 MHz Continuous TX Mode
IEEE 802.11ax 40 MHz Continuous TX Mode

Note: This product supports normal mode and Beamforming on mode. According to below power table, the normal mode is worst power. So, normal mode has to test and record results.

The normal voltage settings are respectively adopted during the test. Because the voltage error are less than 1 %.

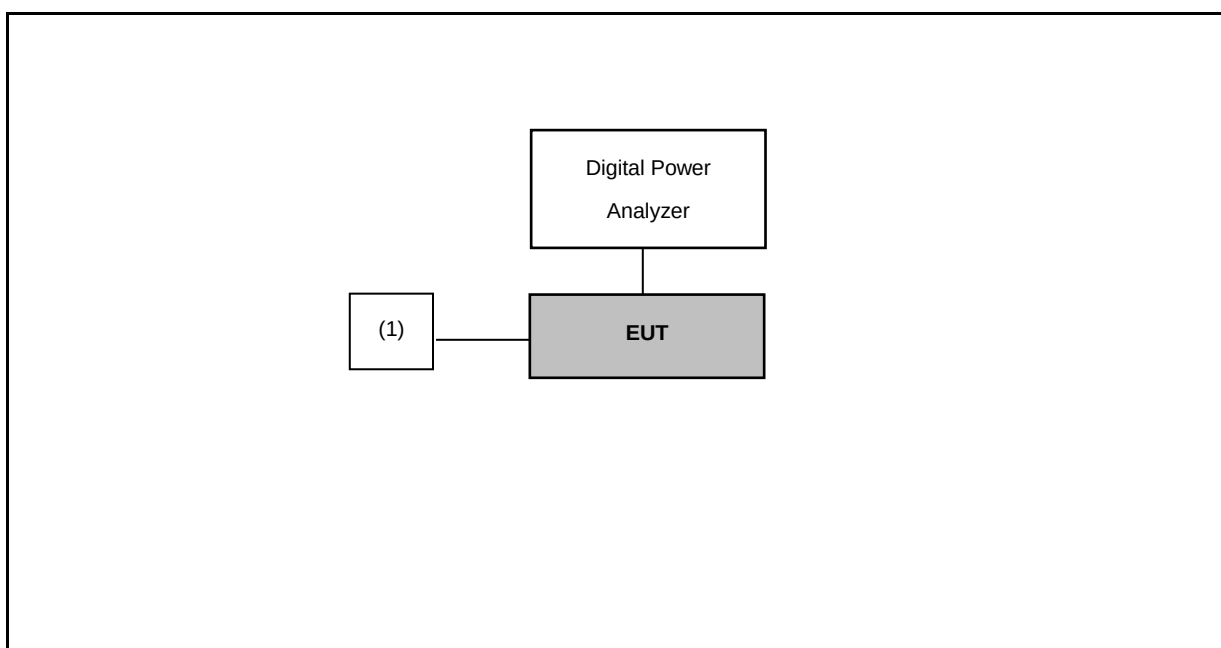
EUT and Module Power tables				
EUT Setup Value (Vac)		Normal	Hight(+10 %)	Low(-10 %)
		100	110	90
Module Vdd Power Measurement Value (Vdc)		Normal	Hight(+10 %)	Low(-10 %)
		3.292	3.294	3.291
Voltage error (%)	Result	Ref. level	-0.0608	0.0304
	Limit	---	± 1	
Judgment		---	PASS	PASS

5.4 A
For 6756&6715x system, 2G, 5GU FEM

2.2. EUT Test Step

1.	Setup the EUT shown on "Configuration of Test System Details".
2.	Turn on Wi-Fi function.
3.	EUT run test program.

2.3. Configuration of Test System Details



	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Notebook	ASUS	P1448U	---	---

2.4. Test Instruments

Test Period: Apr. 27 ~ Jun. 07, 2022

Testing Engineer: Peter Shui

Use	Equipment	Manufacturer	Model Number	Serial Number	Calibration Authority	Cal. Date	Cal. Period	Cal. Method
☒	Power Sensor	Anritsu	MA2411B	1126022	ETC	Sep. 03, 2021	1 year	(C)
☒	Power Meter	Anritsu	ML2495A	1135009	ETC	Sep. 03, 2021	1 year	(C)
☐	Power Sensor	Agilent	N1921A	MY45241957	ETC	Dec. 06, 2021	1 year	(C)
☐	Power Meter	Agilent	N1911A	MY45101619	ETC	Dec. 06, 2021	1 year	(C)
☐	Spectrum Analyzer (10 Hz~26.5 GHz)	Keysight	N9010B	MY59071418	ETC	Mar. 16, 2022	1 year	(C)
☐	Spectrum Analyzer (9 kHz~26.5 GHz)	Agilent	N9010A	MY48030518	ETC	Jul. 23, 2021	1 year	(C)
☒	Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	ETC	Sep. 09, 2021	1 year	(C)
☐	Spectrum Analyzer (3 Hz~50 GHz)	Agilent	N9030A	MY53120541	ETC	Jan. 05, 2022	1 year	(C)
☒	Signal Generator	Keysight	N5182B	MY53052569	ETC	Apr. 16, 2022	1 year	(C)
☒	Signal Generator	Keysight	N5182BX07	MY59360221	ETC	Apr. 16, 2022	1 year	(C)
☐	Wireless Connectivity Tester	R&S	CMW270	102208	R&S	Jun. 02, 2021	1 year	(C)
☐	Power Supply	KEITHLEY	2303	4045290	OCL	Jan. 19, 2022	1 year	(C)
☒	Digital Power Analyzer	IDRC	CP-268	268710	OCL	Nov. 23, 2021	1 year	(C)

Remark :

- (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.
- (b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No. 51 of 1992).
- (c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
- (d) Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No. 3, which shall have been given any type of calibration, etc. listed above from (a) to (c)

From JRL Article 24-2, paragraph 4, Item 2

2.5. Uncertainty of Measured Value

Test Item	Uncertainty
Frequency Error	1.3×10^{-7}
Occupied Bandwidth	4.5%
Spread Bandwidth	4.5%
Antenna Power Error	1.1 dB
Unwanted Emission Strength	1.1 dB
Secondarily Emitted Radio Wave Strength	1.1 dB
Carrier Sense	1.2 dB

2.6. Test Site Environment

Items	Test Item	Required	Actual
Temperature (°C)	Conducted	5-35	20-30
Humidity (%RH)		45-85	45-75

Site Name: A Test Lab Techno Corp.

Site Address: No. 140-1, Changan Street, Bade District, Taoyuan City 334025, Taiwan (R.O.C)

TEL : 886-3-271-0188 / FAX : 886-3-271-0190

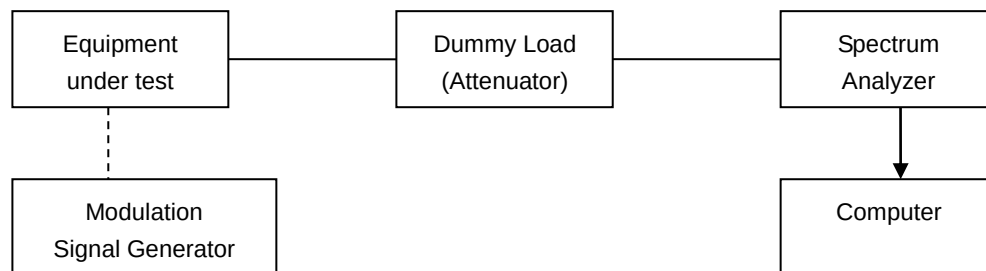
3 Measurement Procedure

3.1. Frequency Error Measurement

■ Limit

Frequency Tolerance ≤ 50 ppm.

■ Test Setup



■ Measuring Equipment Conditions

Spectrum Analyzer Setting

SPAN : 300 kHz

RBW : 1 KH

VBW : 30 kHz

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Positive Peak

Storage Mode : Normal

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

■ Conditions of Equipment under Test

- (1) Set the EUT to the test frequency and transmit RF signal.
- (2) The modulation state is "continuous wave without modulation" by stopping spread spectrum in principle. But, if it is not possible, it shall be "continuous burst wave without modulation".

■ Measuring Operation Procedures

In case of burst waves, the measurement shall be done for enough time(e.g. covering 20 or more of burst waves) in order to obtain the enough measuring accuracy, and the average of the measured values becomes the final value.

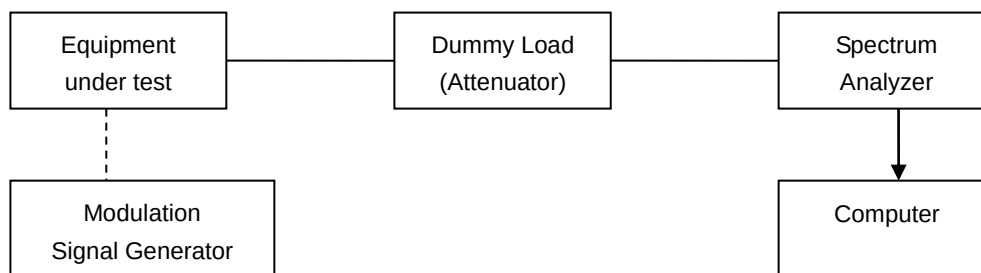
3.2. Occupied Bandwidth Measurement

■ Limit

Others: Occupied Bandwidth $\leq$ 26 MHz.

OFDM: Occupied Bandwidth $\leq$ 40 MHz.

■ Test Setup



■ Measuring Equipment Conditions

Spectrum Analyzer Setting

SPAN : 40 MHz(BW=20) or 80 MHz(BW=40) or 160 MHz(BW=80) or 320 MHz(BW=160)

RBW : 300 kHz

VBW : 300 kHz

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.)

Data Points : 401 points or more

Indication mode : Max hold

Detection Mode : Positive Peak

Storage Mode : Normal

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

■ Conditions of Equipment under Test

Set to testing frequency and modulate using standard encoding test signals.

■ Measuring Operation Procedures

The 99 % Occupied Bandwidth of Total Power.

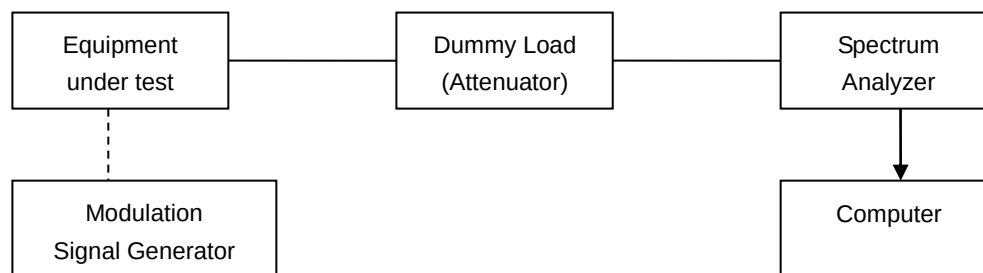
3.3. Spread Bandwidth and Spread Factor Measurement

■ Limit

Spread Bandwidth ≥ 0.5 MHz.

Spread Factor ≥ 5

■ Test Setup



■ Measuring Equipment Conditions

Spectrum Analyzer Setting

SPAN : 40 MHz(BW=20) or 80 MHz(BW=40) or 160 MHz(BW=80) or 320 MHz(BW=160)

RBW : 300 kHz

VBW : 300 kHz

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.)

Data Points : 401 points or more

Indication mode : Max hold

Detection Mode : Positive Peak

Storage Mode : Normal

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

■ Conditions of Equipment under Test

Set to testing frequency and modulate using standard encoding test signals.

■ Measuring Operation Procedures

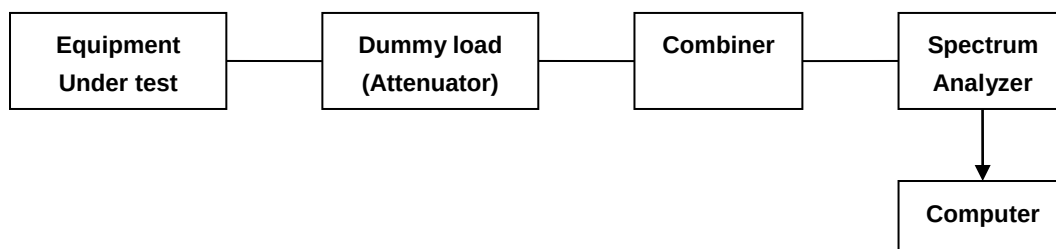
The 90 % Occupied Bandwidth of Total Power.

3.4. Antenna Power (Conducted) Measurement

■ Limit

- (1) OFDM BW<26 MHz:RF Output Power ≤ 10 mW/MHz
- (2) OFDM BW=26 MHz~38 MHz:RF Output Power ≤ 5 mW/MHz
- (3) Other than (1) & (2) :RF Output Power ≤ 10 mW RF Output Power Tolerance $\leq 20\% \sim -80\%$

■ Test Setup



■ Measuring Equipment Conditions

Spectrum Analyzer Setting

Mode : Channel power

SPAN : 40 MHz(BW=20) or 80 MHz(BW=40) or 160 MHz(BW=80) or 160 MHz(BW=80)

RBW : 30 kHz

VBW : 300 kHz

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.)

Data Points : 401 points or more

Indication mode : Max hold

Detection Mode : Positive Peak

Storage Mode : Normal

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

■ Conditions of Equipment under Test

Set to the test frequency and spread-spectrum code. Modulate it with standard coded test signal.

■ Measuring Operation Procedures

I- in case of direct sequence spread-spectrum system, operate the EUT as follows:

- (1) Setting the spectrum analyzer according to 6.3.
- (2) Find the frequency of maximum power and then point to the center frequency
- (3) Detection Mode change to Avg.
- (4) Channel Power change to 1 MHz and record the result.

II- In the case of the frequency hopping system or the combination of the system and the direct sequence spread-spectrum system, operate the EUT as follows:

- (1) Connect the power meter to the output of the attenuator and measure the total power.
- (2) Divide the total power with the spread-spectrum bandwidth and determine the mean power pre 1 MHz.
- (3) Check and see if the hopping frequencies are uniformly distributed according to the submitted document.
If not uniformity distributed, the measuring method should be considered particularly according to the submitted document.
- (4) Antenna power shall be as follows:
 - a. In case of continuous waves: Value in step (2).
 - b. In case of burst waves: Calculated value from the value in step (2) and ratio of transmission time.

III- In the case of other modulation mode, operate the equipment under the test as follows:

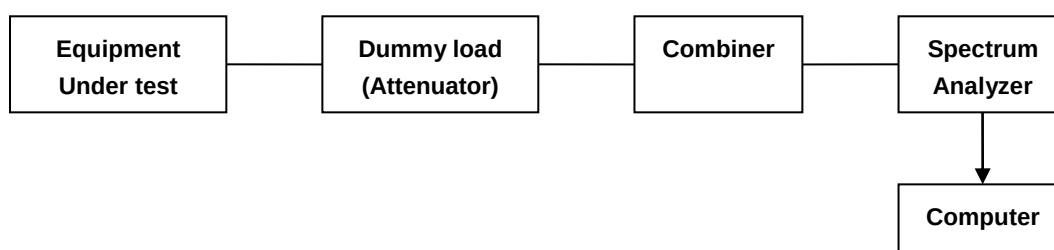
- (1) Connect the power meter to the output of the attenuator and measure the total power.
 - (2) Antenna power shall be as follows:
 - a. In case of continuous waves: Value in step (1).
 - b. In case of burst waves: Calculated value from the value in step (2) and the transmission time ratio.
- Sections where data is not transmitted shall be treated as same as in case direct sequence spread-spectrum system

3.5. Unwanted Emission Strength Measurement

■ Limit

Frequency (MHz)	Limit (μW/MHz)
Under 2387 MHz	≤ 2.5
2387-2400 MHz	≤ 25
2483.5-2496.5 MHz	≤ 25
2496.5-12.5 GHz	≤ 2.5

■ Test Setup



■ Measuring Equipment Conditions

Step-1 (Search Mode)

Spectrum Analyzer Setting

SPAN : Measuring Frequency Range (Refer to the 4.7 of the page 18)

RBW : 1 MHz

VBW : Same as RBW

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.

*In case of burst wave, one burst shall be included per data point)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Positive Peak

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

Step-2 (Measuring Mode *Normal)

Spectrum Analyzer Setting

Center Frequency : Searched Frequency

SPAN : 1 MHz – 10 MHz (The SPAN that keeps accuracy of the frequency.)

RBW : 1 MHz

VBW : Same as RBW

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.

*In case of burst wave, one burst shall be included per data point)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Positive Peak

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

Step-3 (Measuring Mode *Zero Span)

Spectrum Analyzer Setting

Center Frequency : Searched Frequency

SPAN : 0 Hz (ZERO SPAN)

RBW : 1 MHz

VBW : Same as RBW

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.

*In case of burst wave, one burst shall be included per data point)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Sample

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

■ Conditions of Equipment under Test

Set the test frequency and test spread-spectrum code, and modulate it with a standard code test signal.

■ Measuring Operation Procedures

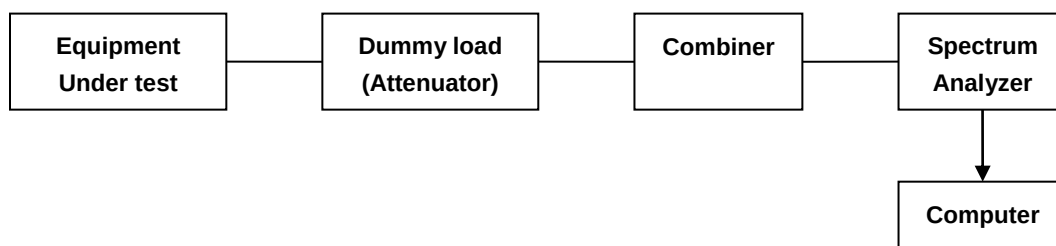
Set the spectrum analyzer according to (Step 1) and search for spurious emissions. If searched value is under the technical standard value, do not need to measure by (Step 2). In this case, it reports the searched value and measured frequency. We measure by (Step 2) to keep the accuracy, and then it reports the more detail value.

3.6. Secondly Emitted Radio Wave Strength Measurement

■ Limit

Frequency (MHz)	Limit (nW)
Under 1 GHz	≤ 4
1 - 12.5 GHz	≤ 20

■ Test Setup



■ Measuring Equipment Conditions

Step-1 (Search Mode)

Spectrum Analyzer Setting

SPAN : Measuring Frequency Range (Refer to the 4.7 of the page 18)

RBW : 1 MHz (frequency range; 1 GHz over), 100 kHz (frequency range; 30 MHz to 1 GHz)

VBW : Same as RBW (1 MHz or 100 kHz)

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.

*In case of burst wave, one burst shall be included per data point)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Positive Peak

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

Step-2 (Measuring Mode *Normal)

Spectrum Analyzer Setting

Center Frequency : Searched Frequency

SPAN : 1 MHz – 10 MHz (The SPAN that keeps accuracy of the frequency.)

RBW : 1 MHz (frequency range; 1 GHz over), 100 kHz (frequency range; 30 MHz to 1 GHz)

VBW : Same as RBW (1 MHz or 100 kHz)

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.

*In case of burst wave, one burst shall be included per data point)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Positive Peak

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

Step-3 (Measuring Mode *Zero Span)

Spectrum Analyzer Setting

Center Frequency : Searched Frequency

SPAN : 0 Hz (ZERO SPAN)

RBW : 1 MHz (frequency range; 1 GHz over), 100 kHz (frequency range; 30 MHz to 1 GHz)

VBW : Same as RBW (1 MHz or 100 kHz)

Sweep Time : AUTO (Minimum time to ensure measurement accuracy.

*In case of burst wave, one burst shall be included per data point)

Data Points : 401 points or more

Sweep Mode : Single Sweep

Detection Mode : Sample

Y-axis Scale : 10 dB/Div.

Reference Level : Enough level for maximum dynamic range

■ Conditions of Equipment under Test

Set the EUT to receiver the test frequency with forced continuous receiving control.

■ Measuring Operation Procedures

Set the spectrum analyzer according to (Step 1) and search for spurious emissions. If searched value is under the technical standard value, do not need to measure by (Step 2). In this case, it reports the searched value and measured frequency. We measure by (Step 2) to keep the accuracy, and then it reports the more detail value.

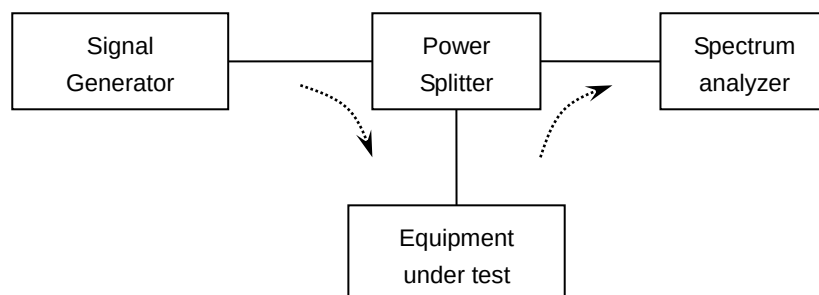
3.7. Carrier Sense Measurement

■ Limit

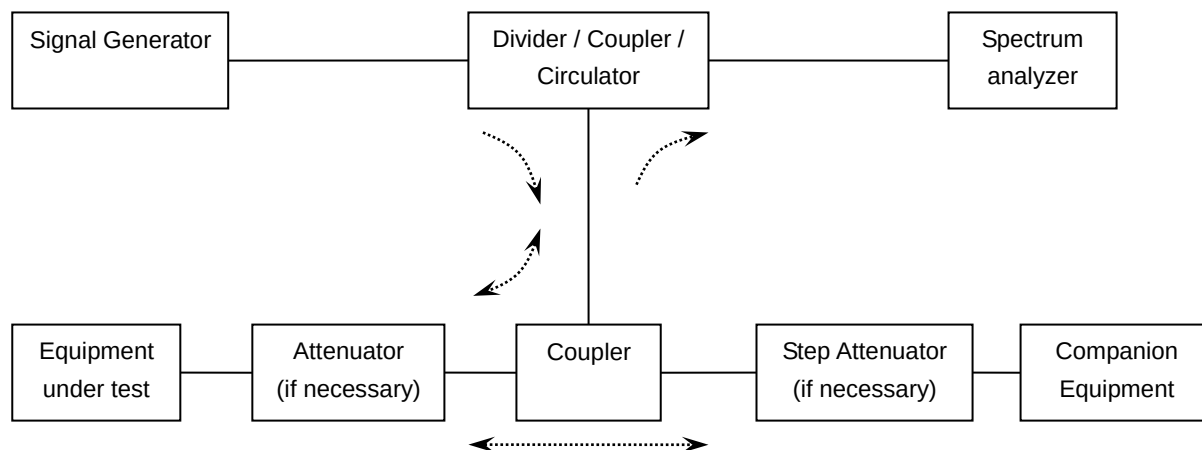
During outputting Carrier Wave by Signal Generator, check the EUT does not transmit any waves (include the Beacon).

■ Test Setup

Carry out the test by Equipment under Test only (Necessary a Test Mode)



Carry out the test by using a companion equipment (Necessary actual communication)



■ Measuring Equipment Conditions

(1) Set the spectrum analyzer as follow:

Resolution bandwidth:	1 MHz
Video bandwidth:	1 MHz
Sweep Time:	AUTO (Minimum time to ensure measurement accuracy.)
Sweep mode:	Continuous Sweep
Detection mode:	Positive peak
Storage Mode:	Normal
Y-axis scale:	10 dB/Div
Trigger:	Free Run

■ Conditions of Equipment under Test

Required normal mode of the applicable equipment (EUT)

3.8. Radio Interference Prevention Capability Measurement

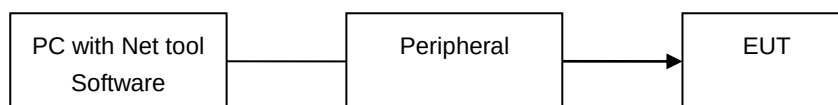
■ Limit

Identification code $\geq$ 48 bits

■ Measuring Id Code Software

MAC IP List: MAC Scan

■ Test Setup



■ Measuring Operation Procedures

1. In the case that the EUT has the function of automatically transmitting the identification code: a. Transmit the predetermined identification codes form EUT. b. Check the transmitted identification codes with the demodulator.
2. In the case of receiving the identification code: a. Transmit the predetermined identification codes form the counterpart. b . Check if communication is normal. c. Transmit the signals other than predetermined ID codes form the counterpart. d. check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

3.9. Construction Protection Confirmation Method

■ Limit

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

4 Test Results

1X1

IEEE 802.11b Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11b mode NV

Peak Antenna Gain	2.50	dBi
Declaration Output Power	8.61	mW/MHz
Declaration Output Power	9.35	dBm/MHz
EIRP	11.85	dBm/MHz
Input Power Voltage	100	Vac

Tested Circuit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		1Mbps	mode

Frequency equal to the transmission rate
of the modulation signal (5.5 Mbps)

1.375 MHz

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2412	2442	2472	Result	Limit
Channel Number		Ch.	1	7	13	-----	-----
Reading Frequency (TX0)		MHz	2412.0213	2442.0216	2472.0213	-----	-----
Frequency Tolerance (TX0)		ppm	8.83	8.85	8.62	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	10.3670	10.3860	10.3990	PASS	≤26 MHz
Spread Bandwidth (TX0)		MHz	7.3816	7.3690	7.3555	PASS	≥ 0.5 MHz
Antenna Power (Density)(TX0)		mW/MHz	8.36	8.61	8.61	PASS	≤10 mW/MHz
Antenna Power Tolerance(TX0)		%	-2.90	0.00	0.00	PASS	-80≤x≤+20
E.I.R.P (Density)(TX0)		dBm/MHz	11.72	11.85	11.85	PASS	≤ 12.14 dBm/MHz
Real Total Output Power (TX0)		dBm	16.63	16.72	16.65	-----	-----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.12	0.11	0.10	PASS	≤2.5uW/MHz
		MHz	2212.60	2240.90	2273.90	-----	-----
	2387-2400MHz	μW/MHz	0.11	0.05	0.03	PASS	≤25uW/MHz
		MHz	2397.53	2398.56	2393.60	-----	-----
	2483.5-2496.5MHz	μW/MHz	0.04	0.05	0.09	PASS	≤25uW/MHz
		MHz	2486.97	2487.87	2483.96	-----	-----
	2496.5 - 12.5GHz	μW/MHz	0.03	0.03	0.05	PASS	≤2.5uW/MHz
		MHz	2617.00	2647.00	2497.00	-----	-----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)	Under 1GHz	nW	0.010	0.009	0.011	PASS	≤ 4 nW
		MHz	963.140	203.630	957.320	-----	-----
	1 - 12.5GHz	nW	0.168	0.605	0.179	PASS	≤ 20 nW
		MHz	2679.000	2530.000	5876.000	-----	-----
Spread Factor		MHz	5.37	5.36	5.35	PASS	≥5
Interference Prevention Function		-----	good			PASS	-----

IEEE 802.11g Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11g mode NV

Peak Antenna Gain	2.50	dBi
Declaration Output Power	8.32	mW/MHz
Declaration Output Power	9.20	dBm/MHz
EIRP	11.70	dBm/MHz
Input Power Voltage	100	Vac

Tested Circuit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		6Mbps	mode

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2412	2442	2472	Result	Limit
Channel Number		Ch.	1	7	13	-----	-----
Reading Frequency (TX0)		MHz	2412.0213	2442.0216	2472.0225	-----	-----
Frequency Tolerance (TX0)		ppm	8.83	8.85	9.10	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	17.0790	17.0230	17.1200	PASS	≤26 MHz
Antenna Power (Density)(TX0)		mW/MHz	8.32	8.15	8.15	PASS	≤10 mW/MHz
Antenna Power Tolerance(TX0)		%	0.00	-2.04	-2.04	PASS	-80≤x≤+20
E.I.R.P (Density)		dBm/MHz	11.70	11.61	11.61	PASS	≤12.14 dBm/MHz
Real Total Output Power (TX0)		dBm	23.19	23.10	23.10	-----	-----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.01	0.40	0.22	PASS	≤2.5uW/MHz
		MHz	2384.60	2238.50	2278.60	-----	-----
	2387-2400MHz	μW/MHz	0.09	0.46	0.09	PASS	≤25uW/MHz
		MHz	2399.66	2399.60	2394.98	-----	-----
	2483.5-2496.5MHz	μW/MHz	0.13	0.42	0.25	PASS	≤25uW/MHz
		MHz	2489.39	2483.51	2483.80	-----	-----
	2496.5 - 12.5GHz	μW/MHz	0.12	0.12	0.02	PASS	≤2.5uW/MHz
		MHz	2497.00	2517.00	2496.50	-----	-----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)	Under 1GHz	nW	0.009	0.009	0.012	PASS	≤4 nW
		MHz	935.010	936.950	809.880	-----	-----
	1 - 12.5GHz	nW	0.231	0.163	0.165	PASS	≤20 nW
		MHz	6405.000	5876.000	3162.000	-----	-----
Interference Prevention Function		-----	good			PASS	-----

IEEE 802.11ax 20 MHz Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11AX20 mode NV

Peak Antenna Gain	2.50	dBi
Declaration Output Power	8.20	mW/MHz
Declaration Output Power	9.14	dBm/MHz
EIRP	11.64	dBm/MHz
Input Power Voltage	100	Vac

Tested Circit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		MCS 0	mode

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2412	2442	2472	Result	Limit
Channel Number		Ch.	1	7	13	-----	-----
Reading Frequency (TX0)		MHz	2412.0213	2442.0210	2472.0207	-----	-----
Frequency Tolerance (TX0)		ppm	8.83	8.60	8.37	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	19.2040	19.1450	19.1280	PASS	≤26 MHz
Antenna Power (Density)(TX0)		mW/MHz	8.20	8.17	7.96	PASS	≤10 mW/MHz
Antenna Power Tolerance(TX0)		%	0.00	-0.37	-2.93	PASS	-80≤x≤+20
E.I.R.P (Density)		dBm/MHz	11.64	11.62	11.51	PASS	≤12.14 dBm/MHz
Real Total Output Power (TX0)		dBm	21.52	21.41	21.47	-----	-----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.05	0.22	0.16	PASS	≤2.5uW/MHz
		MHz	2387.00	2245.60	2266.80	-----	-----
	2387-2400MHz	μW/MHz	0.30	0.78	0.06	PASS	≤25uW/MHz
		MHz	2399.00	2398.18	2399.79	-----	-----
	2483.5-2496.5MHz	μW/MHz	0.10	0.35	0.45	PASS	≤25uW/MHz
		MHz	2491.66	2485.05	2486.14	-----	-----
	2496.5 - 12.5GHz	μW/MHz	0.07	0.10	0.06	PASS	≤2.5uW/MHz
		MHz	2607.00	2497.00	2496.50	-----	-----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)	Under 1GHz	nW	0.009	0.009	0.009	PASS	≤4 nW
		MHz	171.620	208.480	811.820	-----	-----
	1 - 12.5GHz	nW	0.337	0.291	0.292	PASS	≤20 nW
		MHz	2518.000	2449.000	3553.000	-----	-----
Interference Prevention Function		-----	good			PASS	-----

IEEE 802.11ax 40 MHz Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11AX40 mode NV

Peak Antenna Gain	2.50	dBi
Declaration Output Power	4.06	mW/MHz
Declaration Output Power	6.09	dBm/MHz
EIRP	8.59	dBm/MHz
Input Power Voltage	100	Vac

Tested Circit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		MCS0	mode

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency			MHz	2422	2442	2462	Result	LIMIT
Channel Number			Ch.	3	7	11	-----	-----
Reading Frequency (TX0)			MHz	2422.0204	2442.0207	2462.0210	-----	-----
Frequency Tolerance (TX0)			ppm	8.42	8.48	8.53	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)			MHz	37.5750	37.5760	37.6020	PASS	≤ 40 MHz
Antenna Power (Density)(TX0)			mW/MHz	4.06	4.03	4.05	PASS	≤ 5 mW/MHz
Antenna Power Tolerance(TX0)			%	0.00	-0.74	-0.25	PASS	-80≤x≤+20
E.I.R.P (Density)			dBm/MHz	8.59	8.55	8.57	PASS	≤ 9.14 dBm/MHz
Real Total Output Power (TX0)			dBm	21.51	21.48	21.56	-----	-----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.14	0.74	0.21	PASS	≤ 2.5uW/MHz	
		MHz	2387.00	2387.00	2379.90	-----		
	2387-2400MHz	μW/MHz	0.27	20.54	0.75	PASS	≤ 25uW/MHz	
		MHz	2399.44	2398.58	2394.06	-----		
	2483.5-2496.5MHz	μW/MHz	0.57	23.91	0.46	PASS	≤ 25uW/MHz	
		MHz	2489.84	2484.67	2485.66	-----		
	2496.5 - 12.5GHz	μW/MHz	0.14	2.23	0.23	PASS	≤ 2.5uW/MHz	
		MHz	2497.00	2497.00	2496.50	-----		
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)	Under 1GHz	nW	0.010	0.009	0.009	PASS	≤ 4 nW	
		MHz	895.240	803.090	983.510	-----	-----	
	1 - 12.5GHz	nW	0.182	0.217	0.234	PASS	≤ 20 nW	
		MHz	2541.000	2472.000	2541.000	-----	-----	
Carrier Sensing Function			-----	good	good	good	PASS	-----
Interference Prevention Function			-----	good			PASS	-----

2X2

IEEE 802.11b Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11b mode_NV

Peak Antenna Gain	3.10	dBi
Declaration Output Power	7.56	mW/MHz
Declaration Output Power	8.79	dBm/MHz
EIRP	11.89	dBm/MHz
Input Power Voltage	100	Vac

Tested Circit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		1Mbps	mode

Frequency equal to the transmission rate
of the modulation signal (5.5 Mbps)

1.375 MHz

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2412	2442	2472	Result	Limit
Channel Number		Ch.	1	7	13	----	----
Reading Frequency (TX0)		MHz	2412.0111	2442.0126	2472.0111	----	----
Frequency Tolerance (TX0)		ppm	4.60	5.16	4.49	PASS	-50≤x≤+50
Reading Frequency (TX1)		MHz	2412.0165	2442.0165	2472.0150	----	----
Frequency Tolerance (TX1)		ppm	6.84	6.76	6.07	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	10.3690	10.3760	10.3960	PASS	≤26 MHz
Spread Bandwidth (TX0)		MHz	7.3664	7.3905	7.3031	PASS	≥0.5 MHz
Occupied Bandwidth (TX1)		MHz	10.3770	10.3760	10.3800	PASS	≤26 MHz
Spread Bandwidth (TX1)		MHz	7.3650	7.3921	7.3479	PASS	≥0.5 MHz
Antenna Power (Density)(TX0)		mW/MHz	3.62	3.66	3.64	PASS	≤10 mW/MHz
Antenna Power (Density)(TX1)		mW/MHz	3.83	3.90	3.85	PASS	≤10 mW/MHz
Antenna Power (Density)(TX0+1)		mW/MHz	7.45	7.56	7.49	PASS	≤10 mW/MHz
Antenna Power Tolerance(TX0+1)		%	-1.46	0.00	-0.93	PASS	-80≤x≤+20
E.I.R.P (Density)		dBm/MHz	11.82	11.89	11.84	PASS	≤12.14 dBm/MHz
Real Total Output Power (TX0)		dBm	13.25	13.30	13.27	----	----
Real Total Output Power (TX1)		dBm	13.53	13.55	13.49	----	----
Real Total Output Power (TX0+1)		dBm	16.40	16.44	16.39	----	----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.04	0.04	0.03	PASS	≤2.5uW/MHz
		MHz	2210.20	2240.90	187.90	----	----
	2387-2400MHz	μW/MHz	0.02	0.02	0.02	PASS	≤25uW/MHz
		MHz	2393.40	2395.13	2399.48	----	----
	2483.5-2496.5MHz	μW/MHz	0.02	0.02	0.02	PASS	≤25uW/MHz
		MHz	2491.86	2483.84	2491.82	----	----
	2496.5 - 12.5GHz	μW/MHz	0.03	0.02	0.03	PASS	≤2.5uW/MHz
		MHz	5958.00	12300.00	5678.00	----	----
Unwanted Emission Strength (TX1)	Under 2387MHz	μW/MHz	0.03	0.02	0.02	PASS	≤2.5uW/MHz
		MHz	2214.90	2240.90	2181.90	----	----
	2387-2400MHz	μW/MHz	0.02	0.02	0.02	PASS	≤25uW/MHz
		MHz	2399.43	2392.75	2388.51	----	----
	2483.5-2496.5MHz	μW/MHz	0.02	0.02	0.02	PASS	≤25uW/MHz
		MHz	2495.97	2486.05	2483.84	----	----
	2496.5MHz-12.5GHz	μW/MHz	0.02	0.03	0.03	PASS	≤2.5uW/MHz
		MHz	6518.00	5728.00	6338.00	----	----

Unwanted Emission Strength (TX0+1)	Under 2387MHz		μW/MHz	0.06	0.06	0.05	PASS	≤ 2.5uW/MHz
			MHz	-----	-----	-----	-----	-----
	2387-2400MHz		μW/MHz	0.04	0.04	0.04	PASS	≤ 25uW/MHz
			MHz	-----	-----	-----	-----	-----
	2483.5-2496.5MHz		μW/MHz	0.04	0.04	0.05	PASS	≤ 25uW/MHz
			MHz	-----	-----	-----	-----	-----
	2496.5MHz-12.5GHz		μW/MHz	0.05	0.05	0.05	PASS	≤ 2.5uW/MHz
			MHz	-----	-----	-----	-----	-----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)		Under 1GHz	nW	0.009	0.009	0.010	PASS	≤ 4 nW
			MHz	875.840	811.820	772.050	-----	-----
		1 - 12.5GHz	nW	0.173	2.528	0.180	PASS	≤ 20 nW
			MHz	6394.000	2415.000	5715.000	-----	-----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX1)		Under 1GHz	nW	0.010	0.009	0.009	PASS	≤ 4 nW
			MHz	999.030	943.740	901.060	-----	-----
		1 - 12.5GHz	nW	0.489	1.282	0.892	PASS	≤ 20 nW
			MHz	2438.000	3346.000	2518.000	-----	-----
Secondarily Emitted Radio Wave Strength (RX0+1)		Under 1GHz	nW	0.018	0.018	0.019	PASS	≤ 4 nW
			MHz	-----	-----	-----	-----	-----
		1 - 12.5GHz	nW	0.662	3.810	1.072	PASS	≤ 20 nW
			MHz	-----	-----	-----	-----	-----
Spread Factor			MHz	5.36	5.37	5.31	PASS	≥ 5
Interference Prevention Function			-----	good			PASS	-----

IEEE 802.11g Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11g mode NV

Peak Antenna Gain	3.10	dBi
Declaration Output Power	7.50	mW/MHz
Declaration Output Power	8.75	dBm/MHz
EIRP	11.85	dBm/MHz
Input Power Voltage	100	Vac

Tested Circuit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		6Mbps	mode

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2412	2442	2472	Result	Limit
Channel Number		Ch.	1	7	13	----	----
Reading Frequency (TX0)		MHz	2412.0108	2442.0126	2472.0129	----	----
Frequency Tolerance (TX0)		ppm	4.48	5.16	5.22	PASS	-50≤x≤+50
Reading Frequency (TX1)		MHz	2412.0147	2442.0147	2472.0141	----	----
Frequency Tolerance (TX1)		ppm	6.09	6.02	5.70	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	17.0030	16.9550	16.8950	PASS	≤26 MHz
Occupied Bandwidth (TX1)		MHz	16.7140	16.7070	16.7160	PASS	≤26 MHz
Antenna Power (Density)(TX0)		mW/MHz	3.78	3.72	3.66	----	----
Antenna Power (Density)(TX1)		mW/MHz	3.72	3.67	3.71	----	----
Antenna Power (Density)(TX0+1)		mW/MHz	7.50	7.39	7.37	PASS	≤10 mW/MHz
Antenna Power Tolerance(TX0+1)		%	0.00	-1.47	-1.73	PASS	-80≤x≤+20
E.I.R.P (Density)		dBm/MHz	11.85	11.79	11.77	PASS	≤12.14 dBm/MHz
Real Total Output Power (TX0)		dBm	19.93	19.78	19.73	----	----
Real Total Output Power (TX1)		dBm	19.90	19.83	19.82	----	----
Real Total Output Power (TX0+1)		dBm	22.93	22.82	22.79	----	----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.00	0.15	0.11	PASS	≤2.5uW/MHz
		MHz	2384.64	2238.50	2271.50	----	----
	2387-2400MHz	μW/MHz	0.01	0.10	0.06	PASS	≤25uW/MHz
		MHz	2399.39	2399.84	2397.10	----	----
	2483.5-2496.5MHz	μW/MHz	0.09	0.16	0.04	PASS	≤25uW/MHz
		MHz	2492.47	2487.15	2483.50	----	----
	2496.5 - 12.5GHz	μW/MHz	0.05	0.07	0.00	PASS	≤2.5uW/MHz
		MHz	2497.00	2517.00	2496.50	----	----
Unwanted Emission Strength (TX1)	Under 2387MHz	μW/MHz	0.01	0.08	0.08	PASS	≤2.5uW/MHz
		MHz	2384.64	2240.90	2269.20	----	----
	2387-2400MHz	μW/MHz	0.03	0.13	0.07	PASS	≤25uW/MHz
		MHz	2399.48	2398.00	2399.27	----	----
	2483.5-2496.5MHz	μW/MHz	0.08	0.13	0.02	PASS	≤25uW/MHz
		MHz	2487.95	2483.86	2484.02	----	----
	2496.5MHz-12.5GHz	μW/MHz	0.05	0.07	0.01	PASS	≤2.5uW/MHz
		MHz	2497.00	2497.00	2496.50	----	----

Unwanted Emission Strength (TX0+1)	Under 2387MHz		μW/MHz	0.01	0.23	0.18	PASS	≤ 2.5uW/MHz
			MHz	-----	-----	-----	-----	-----
	2387-2400MHz		μW/MHz	0.04	0.23	0.13	PASS	≤ 25uW/MHz
			MHz	-----	-----	-----	-----	-----
	2483.5-2496.5MHz		μW/MHz	0.17	0.29	0.06	PASS	≤ 25uW/MHz
			MHz	-----	-----	-----	-----	-----
2496.5MHz-12.5GHz		μW/MHz	0.10	0.14	0.01	PASS	≤ 2.5uW/MHz	
		MHz	-----	-----	-----	-----	-----	
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)		Under 1GHz	nW	0.010	0.010	0.009	PASS	≤ 4 nW
			MHz	935.980	865.170	808.910	-----	-----
		1 - 12.5GHz	nW	0.167	0.157	0.603	PASS	≤ 20 nW
			MHz	2461.000	5784.000	2518.000	-----	-----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX1)		Under 1GHz	nW	0.010	0.010	0.010	PASS	≤ 4 nW
			MHz	809.880	813.760	810.850	-----	-----
		1 - 12.5GHz	nW	0.840	0.476	1.040	PASS	≤ 20 nW
			MHz	3392.000	2438.000	3530.000	-----	-----
Secondarily Emitted Radio Wave Strength (RX0+1)		Under 1GHz	nW	0.020	0.020	0.020	PASS	≤ 4 nW
			MHz	-----	-----	-----	-----	-----
		1 - 12.5GHz	nW	1.006	0.633	1.643	PASS	≤ 20 nW
			MHz	-----	-----	-----	-----	-----
Interference Prevention Function			-----	good			PASS	-----

IEEE 802.11ax 20 MHz Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11AX20 mode NV

Peak Antenna Gain	3.10	dBi
Declaration Output Power	7.19	mW/MHz
Declaration Output Power	8.57	dBm/MHz
EIRP	11.67	dBm/MHz
Input Power Voltage	100	Vac

Tested Circuit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		MCS 0	mode

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2412	2442	2472	Result	Limit
Channel Number		Ch.	1	7	13	----	-----
Reading Frequency (TX0)		MHz	2412.0123	2442.0126	2472.0126	----	-----
Frequency Tolerance (TX0)		ppm	5.10	5.16	5.10	PASS	-50≤x≤+50
Reading Frequency (TX1)		MHz	2412.0132	2442.0144	2472.0147	----	-----
Frequency Tolerance (TX1)		ppm	5.47	5.90	5.95	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	19.1960	19.1880	19.1650	PASS	≤ 26 MHz
Occupied Bandwidth (TX1)		MHz	19.1410	19.1290	19.1520	PASS	≤ 26 MHz
Antenna Power (Density)(TX0)		mW/MHz	3.61	3.61	3.63	----	-----
Antenna Power (Density)(TX1)		mW/MHz	3.51	3.52	3.56	----	-----
Antenna Power (Density)(TX0+1)		mW/MHz	7.12	7.13	7.19	PASS	≤10 mW/MHz
Antenna Power Tolerance(TX0+1)		%	-0.97	-0.83	0.00	PASS	-80≤x≤+20
E.I.R.P (Density)		dBm/MHz	11.62	11.63	11.67	PASS	≤ 12.14 dBm/MHz
Real Total Output Power (TX0)		dBm	18.17	18.10	17.96	----	-----
Real Total Output Power (TX1)		dBm	18.11	18.15	18.07	----	-----
Real Total Output Power (TX0+1)		dBm	21.15	21.14	21.03	----	-----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	1.14	0.11	0.09	PASS	≤ 2.5uW/MHz
		MHz	2387.00	2250.30	2273.90	----	-----
	2387-2400MHz	μW/MHz	0.02	0.09	0.04	PASS	≤ 25uW/MHz
		MHz	2397.82	2399.01	2395.87	----	-----
	2483.5-2496.5MHz	μW/MHz	0.06	0.09	0.12	PASS	≤ 25uW/MHz
		MHz	2495.54	2484.20	2483.58	----	-----
	2496.5 - 12.5GHz	μW/MHz	0.04	0.04	0.01	PASS	≤ 2.5uW/MHz
		MHz	2497.00	2497.00	2496.50	----	-----
Unwanted Emission Strength (TX1)	Under 2387MHz	μW/MHz	1.25	0.06	0.06	PASS	≤ 2.5uW/MHz
		MHz	2387.00	2240.90	2280.90	----	-----
	2387-2400MHz	μW/MHz	0.05	0.13	0.05	PASS	≤ 25uW/MHz
		MHz	2397.47	2399.56	2399.81	----	-----
	2483.5-2496.5MHz	μW/MHz	0.05	0.09	0.07	PASS	≤ 25uW/MHz
		MHz	2485.65	2488.97	2483.59	----	-----
	2496.5MHz-12.5GHz	μW/MHz	0.03	0.05	0.01	PASS	≤ 2.5uW/MHz
		MHz	2517.00	2507.00	2496.50	----	-----

Unwanted Emission Strength (TX0+1)	Under 2387MHz		μW/MHz	2.40	0.17	0.14	PASS	≤ 2.5uW/MHz
			MHz	----	----	----	----	----
	2387-2400MHz		μW/MHz	0.08	0.22	0.09	PASS	≤ 25uW/MHz
			MHz	----	----	----	----	----
	2483.5-2496.5MHz		μW/MHz	0.11	0.19	0.18	PASS	≤ 25uW/MHz
			MHz	----	----	----	----	----
	2496.5MHz-12.5GHz		μW/MHz	0.07	0.09	0.02	PASS	≤ 2.5uW/MHz
			MHz	----	----	----	----	----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)		Under 1GHz	nW	0.008	0.010	0.009	PASS	≤ 4 nW
			MHz	937.320	886.510	817.640	----	----
		1 - 12.5GHz	nW	0.194	0.172	0.244	PASS	≤ 20 nW
			MHz	5819.000	5796.000	2518.000	----	----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX1)		Under 1GHz	nW	0.009	0.009	0.010	PASS	≤ 4 nW
			MHz	772.050	930.160	917.550	----	----
		1 - 12.5GHz	nW	2.179	0.295	0.223	PASS	≤ 20 nW
			MHz	2403.000	2438.000	2668.000	----	----
Secondarily Emitted Radio Wave Strength (RX0+1)		Under 1GHz	nW	0.017	0.019	0.019	PASS	≤ 4 nW
			MHz	----	----	----	----	----
		1 - 12.5GHz	nW	2.373	0.468	0.467	PASS	≤ 20 nW
			MHz	----	----	----	----	----
Interference Prevention Function			----	good			PASS	----

IEEE 802.11ax 40 MHz Continuous TX mode

2. TEST RESULTS DATA FOR JAPANESE CERTIFICATION 11AX40 mode NV

Peak Antenna Gain	3.10	dBi
Declaration Output Power	3.72	mW/MHz
Declaration Output Power	5.71	dBm/MHz
EIRP	8.81	dBm/MHz
Input Power Voltage	100	Vac

Tested Circuit Insertion Loss		10.8	dB
Burst	ON TIME	-Not applicable-	sec
	OFF TIME	-Not applicable-	sec
	Ratio	-Not applicable-	%
Packet Type (Mode)		MCS0	mode

Test Category ; 2.4GHz Band Wideband Low-Power Data Communication System

Comprehensive operation test

: In order to receive constant voltage from the PC side, power supply voltage examines only by usual state voltage.

2.1 TEST Results (Normal Voltage)

Measurement Frequency		MHz	2422	2442	2462	Result	LIMIT
Channel Number		Ch.	3	7	11	-----	-----
Reading Frequency (TX0)		MHz	2422.0105	2442.0117	2462.0123	-----	-----
Frequency Tolerance (TX0)		ppm	4.34	4.79	5.00	PASS	-50≤x≤+50
Reading Frequency (TX1)		MHz	2422.0120	2442.0108	2462.0132	-----	-----
Frequency Tolerance (TX1)		ppm	4.95	4.42	5.36	PASS	-50≤x≤+50
Occupied Bandwidth (TX0)		MHz	37.5350	37.6170	37.6510	PASS	≤40 MHz
Occupied Bandwidth (TX1)		MHz	37.6210	37.4860	37.6160	PASS	≤40 MHz
Antenna Power (Density)(TX0)		mW/MHz	1.78	1.76	1.81	-----	-----
Antenna Power (Density)(TX1)		mW/MHz	1.78	1.87	1.91	-----	-----
Antenna Power (Density)(TX0+1)		mW/MHz	3.56	3.63	3.72	PASS	≤5 mW/MHz
Antenna Power Tolerance(TX0+1)		%	-4.30	-2.42	0.00	PASS	-80≤x≤+20
E.I.R.P (Density)		dBm/MHz	8.61	8.70	8.81	PASS	≤9.14 dBm/MHz
Real Total Output Power (TX0)		dBm	18.00	18.07	17.97	-----	-----
Real Total Output Power (TX1)		dBm	18.05	18.16	18.10	-----	-----
Real Total Output Power (TX0+1)		dBm	21.04	21.13	21.05	-----	-----
Unwanted Emission Strength (TX0)	Under 2387MHz	μW/MHz	0.02	0.21	0.08	PASS	≤2.5uW/MHz
		MHz	2387.00	2387.00	32.40	-----	
	2387-2400MHz	μW/MHz	0.03	1.62	0.13	PASS	≤25uW/MHz
		MHz	2398.12	2399.16	2398.05	-----	
	2483.5-2496.5MHz	μW/MHz	0.14	3.47	0.07	PASS	≤25uW/MHz
		MHz	2483.90	2486.87	2485.68	-----	
	2496.5 - 12.5GHz	μW/MHz	0.05	0.16	0.04	PASS	≤2.5uW/MHz
		MHz	2497.00	2497.00	2496.50	-----	
Unwanted Emission Strength (TX1)	Under 2387MHz	μW/MHz	0.04	0.25	0.06	PASS	≤2.5uW/MHz
		MHz	2387.00	2387.00	2375.20	-----	
	2387-2400MHz	μW/MHz	0.06	2.94	0.20	PASS	≤25uW/MHz
		MHz	2399.08	2397.06	2399.71	-----	
	2483.5-2496.5MHz	μW/MHz	0.40	4.63	0.04	PASS	≤25uW/MHz
		MHz	2488.01	2483.71	2484.68	-----	
	2496.5MHz-12.5GHz	μW/MHz	0.08	0.36	0.02	PASS	≤2.5uW/MHz
		MHz	2497.00	2497.00	2496.50	-----	

Unwanted Emission Strength (TX0+1)	Under 2387MHz		μW/MHz	0.05	0.46	0.13	PASS	≤2.5uW/MHz	
			MHz	----	----	----	----	----	
	2387-2400MHz		μW/MHz	0.08	4.55	0.33	PASS	≤25uW/MHz	
			MHz	----	----	----	----	----	
	2483.5-2496.5MHz		μW/MHz	0.55	8.11	0.11	PASS	≤25uW/MHz	
			MHz	----	----	----	----	----	
	2496.5MHz-12.5GHz		μW/MHz	0.14	0.52	0.07	PASS	≤2.5uW/MHz	
			MHz	----	----	----	----	----	
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX0)			Under 1GHz	nW	0.013	0.010	0.009	PASS	≤ 4 nW
			Under 1GHz	MHz	996.120	890.390	977.690	----	----
			1 - 12.5GHz	nW	0.201	1.358	0.189	PASS	≤ 20 nW
				MHz	2461.000	2438.000	5888.000	----	----
Secondarily Emitted Radio Wave Strength (RX Spurious) (RX1)			Under 1GHz	nW	0.009	0.009	0.010	PASS	≤ 4 nW
				MHz	524.700	1.000	934.040	----	----
			1 - 12.5GHz	nW	0.433	0.481	0.417	PASS	≤ 20 nW
				MHz	2541.000	2438.000	2438.000	----	----
Secondarily Emitted Radio Wave Strength (RX0+1)			Under 1GHz	nW	0.022	0.019	0.019	PASS	≤ 4 nW
				MHz	----	----	----	----	----
			1 - 12.5GHz	nW	0.634	1.839	0.606	PASS	≤ 20 nW
				MHz	----	----	----	----	----
Carrier Sensing Function			----	good	good	good	PASS	----	
Interference Prevention Function			----	good			PASS	----	

■ Antenna List

Antenna			Gain Specification			Notes (Cable or Others)
ANT		Type	Max Gain (dBi)	Attenuation (dB)	Net Gain (dBi)	
ANT-0	2G1	PIFA Antenna	2.5	0	0	Horizontal + Vertical
ANT-1	2G2	PIFA Antenna	3.1	0	0	Horizontal + Vertical

■ Construction Protection Confirmation Method

Confirmation Method

☐	1. Sealed with special screws (indicate the special screws used in Exterior View Drawings, and also attach its technical drawings of such screws).
☐	2. Plastic chassis is being welded using ultrasonic waves.
☐	3. Chassis is glued using a special adhesive.
☐	4. Metal covers are spot-fused (indicate the fused points in Exterior View Drawings).
☒	5. Cover is specially interlocked (indicate the interlocked part in Exterior View Drawings).
☐	6. Shield case is welded at RF and modulation parts, and ID-ROM is welded using the BGA Method.
☐	7. Shield case is welded at RF and modulation parts, and ID-ROM is glued at its lead with a special adhesive.
☐	8. Shield case is welded at RF and modulation parts, and ID-ROM is glued with a non-transparent laminating agent.
☐	9. Other ()

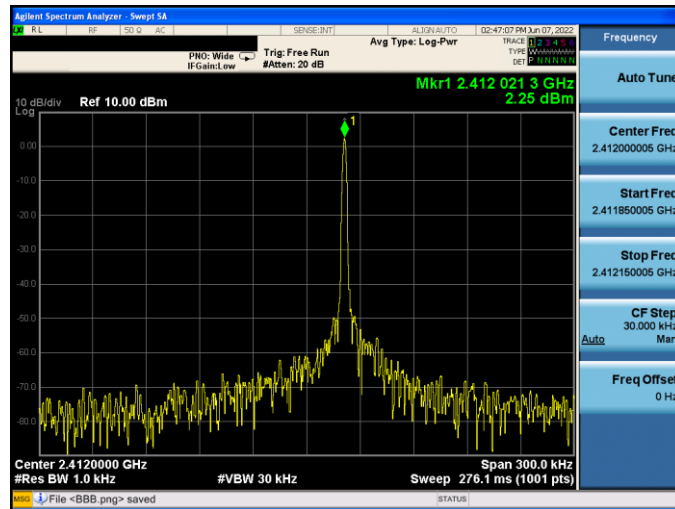
■ Test Graphs

1X1

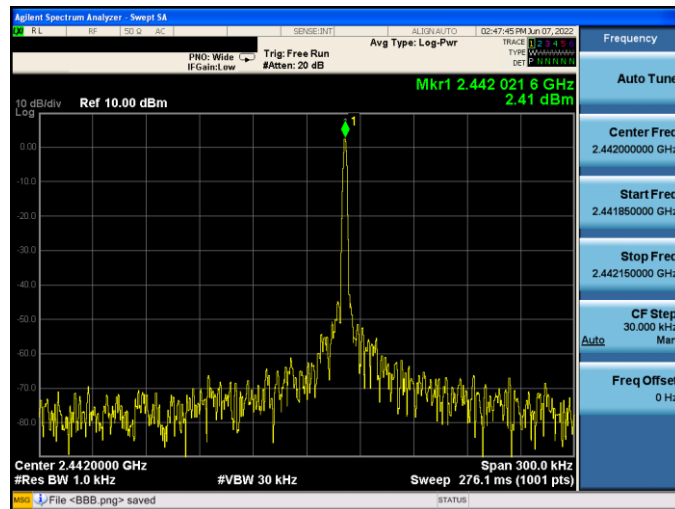
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0

Frequency Error Measurement

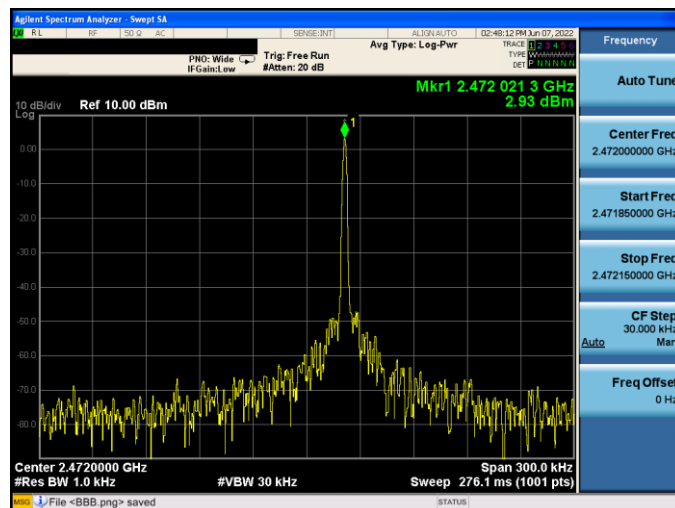
2412 MHz

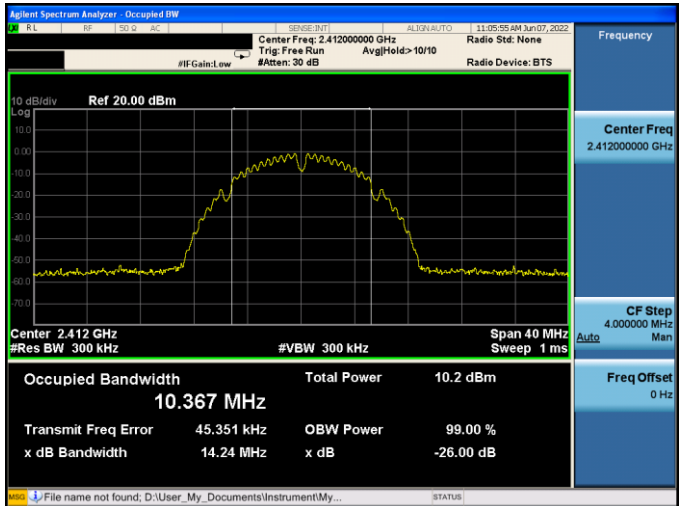
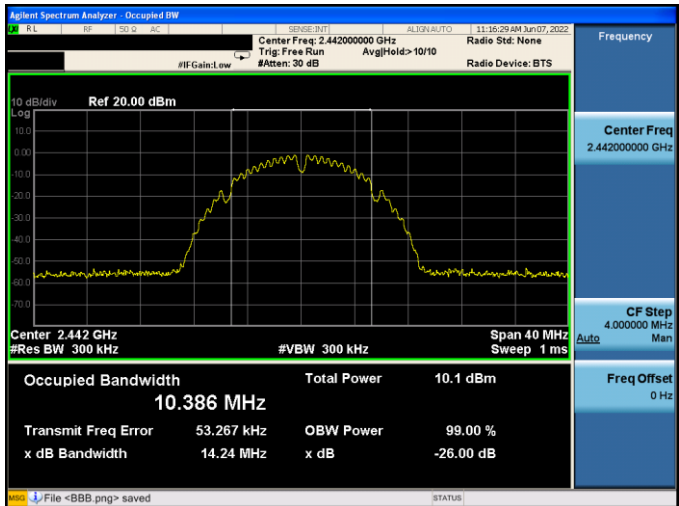
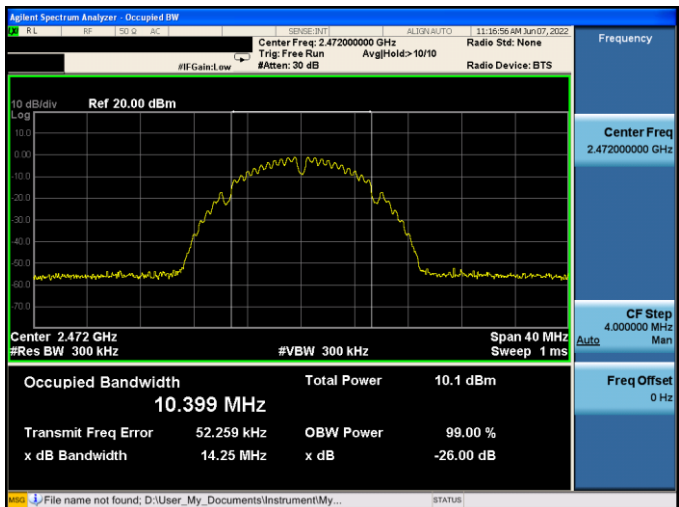


2442 MHz



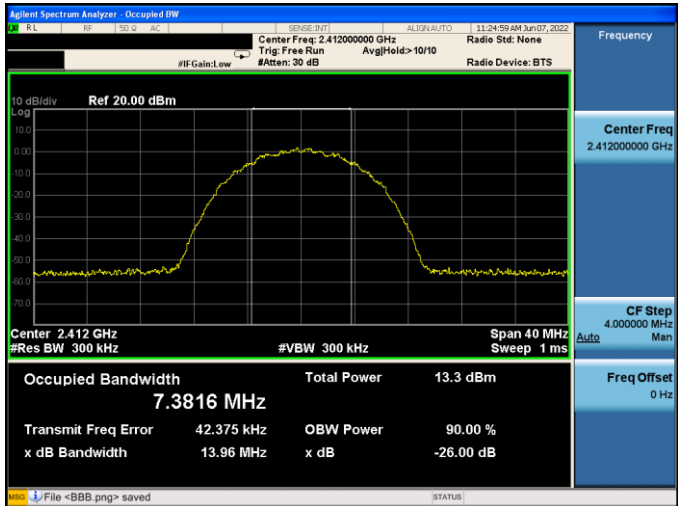
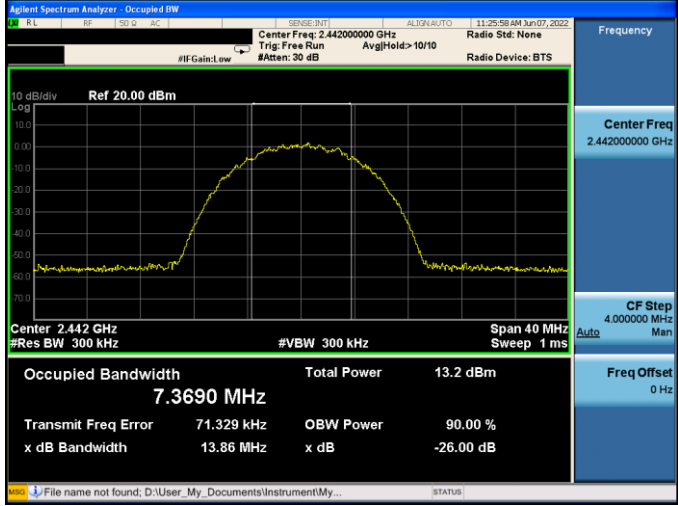
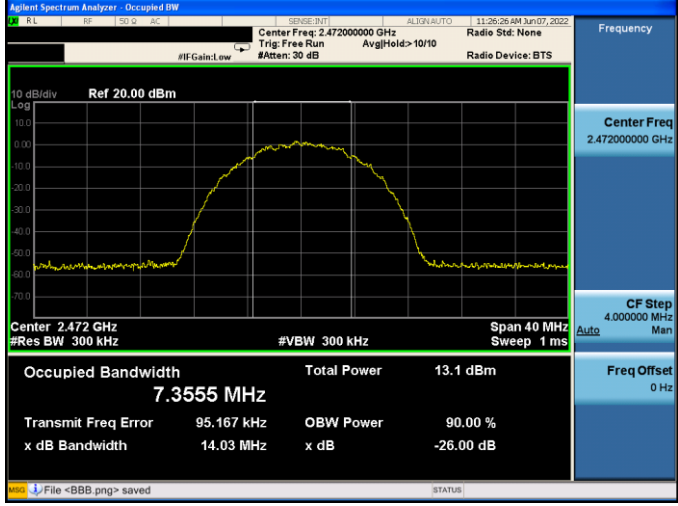
2472 MHz

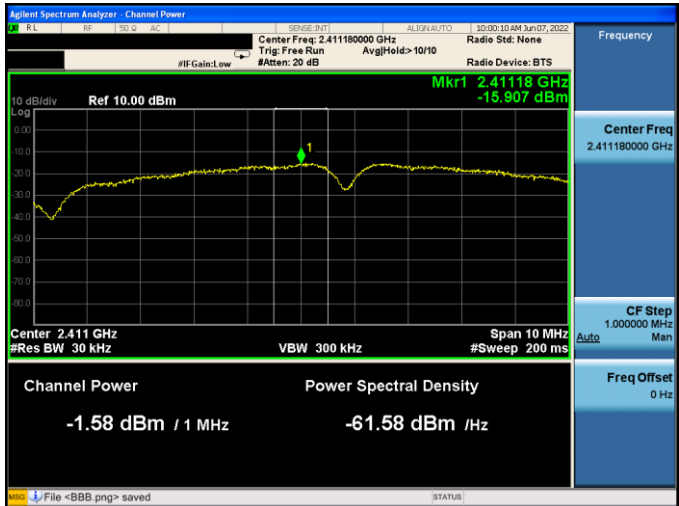
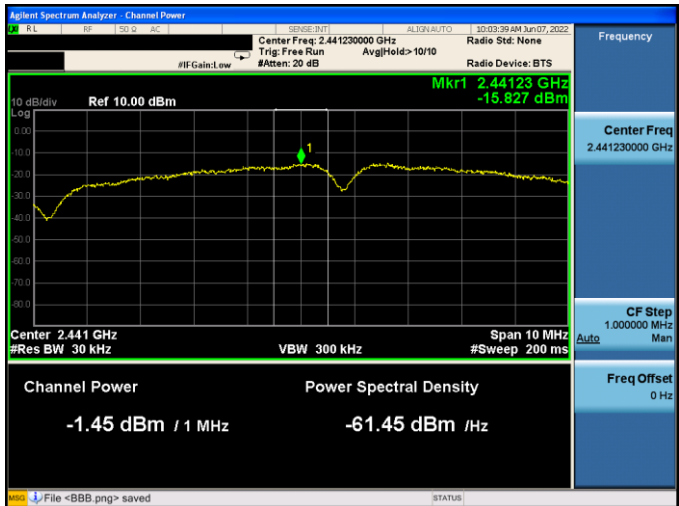
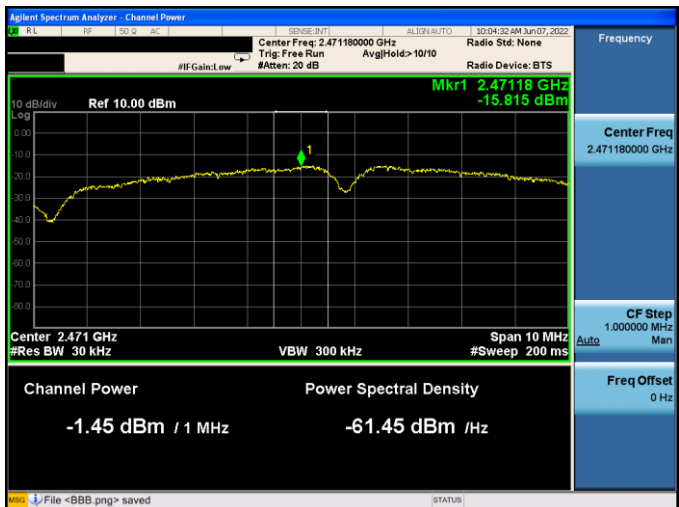


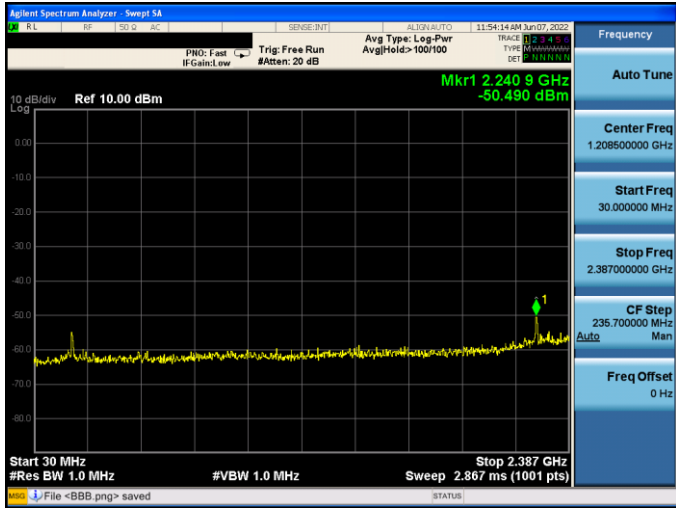
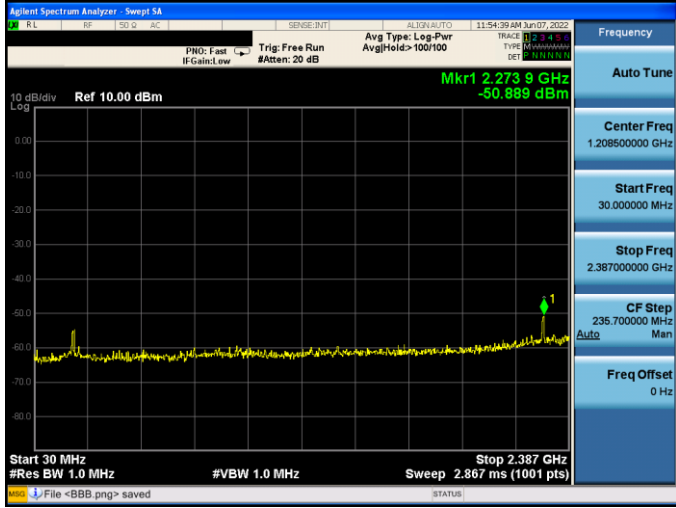
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0	
Occupied Bandwidth Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run #Atten: 30 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 10.367 MHz Total Power 10.2 dBm Transmit Freq Error 45.351 kHz OBW Power 99.00 % x dB Bandwidth 14.24 MHz x dB -26.00 dB File name not found: D:\User_My_Documents\InstrumentMy...
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.44200000 GHz Trig: Free Run #Atten: 30 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 10.386 MHz Total Power 10.1 dBm Transmit Freq Error 53.267 kHz OBW Power 99.00 % x dB Bandwidth 14.24 MHz x dB -26.00 dB File <BBB.png> saved
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.47200000 GHz Trig: Free Run #Atten: 30 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 10.399 MHz Total Power 10.1 dBm Transmit Freq Error 52.259 kHz OBW Power 99.00 % x dB Bandwidth 14.25 MHz x dB -26.00 dB File name not found: D:\User_My_Documents\InstrumentMy...

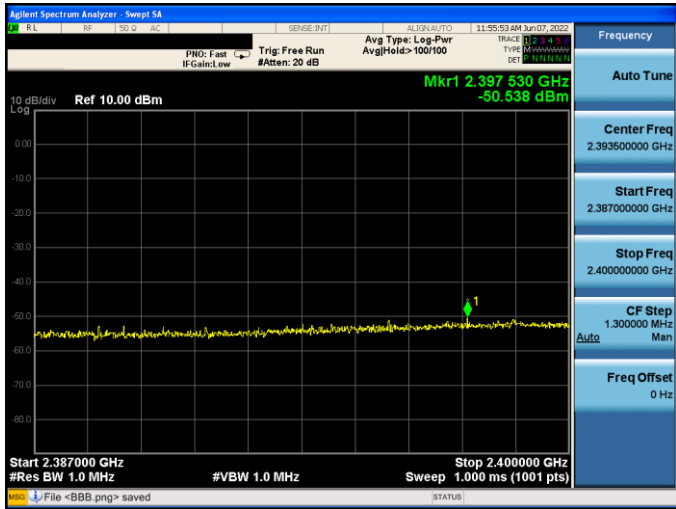
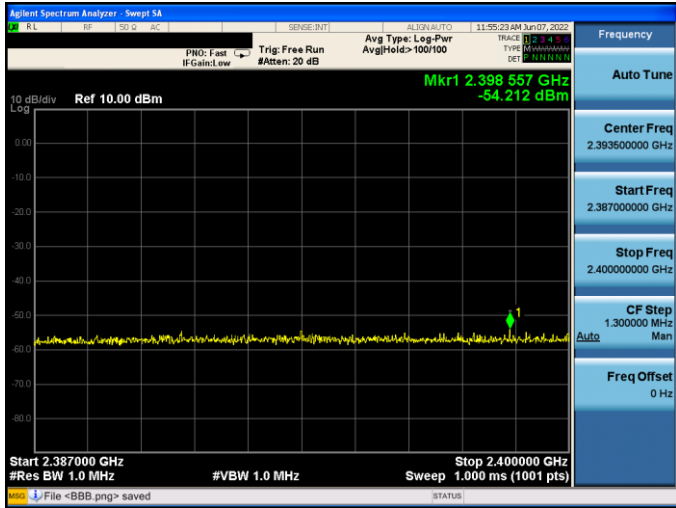
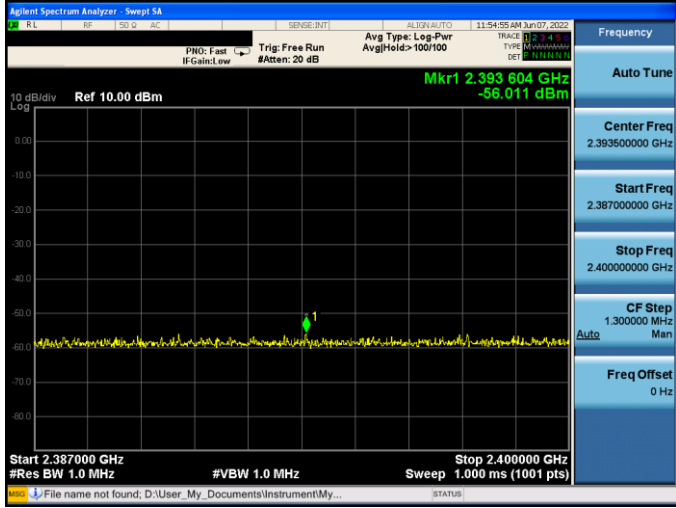
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0

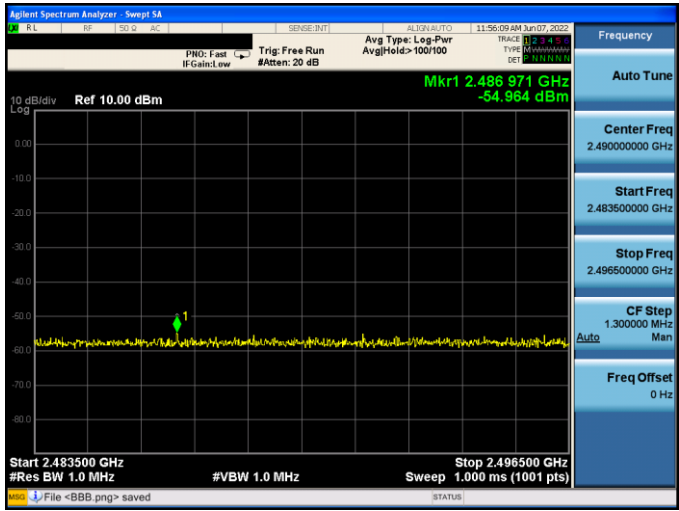
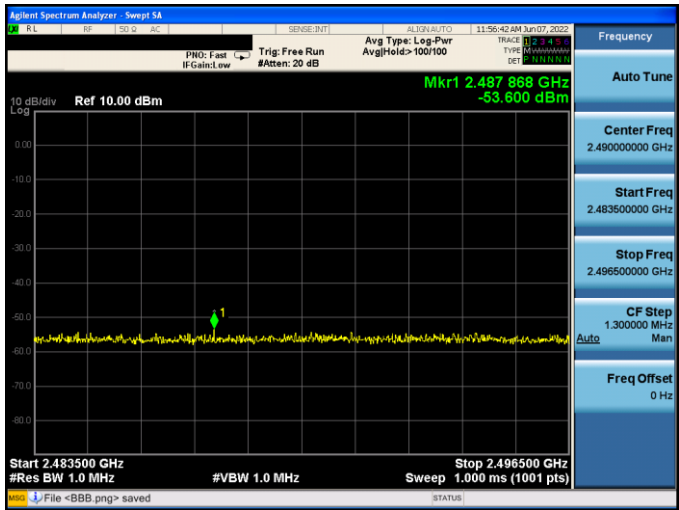
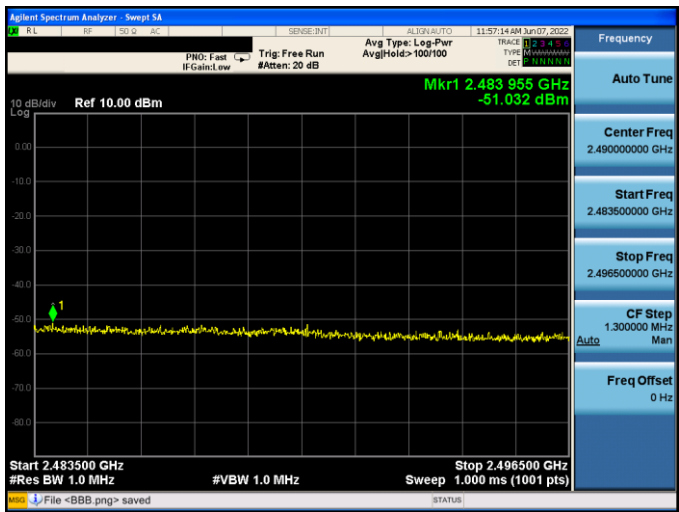
Spread Bandwidth and Spread Factor Measurement

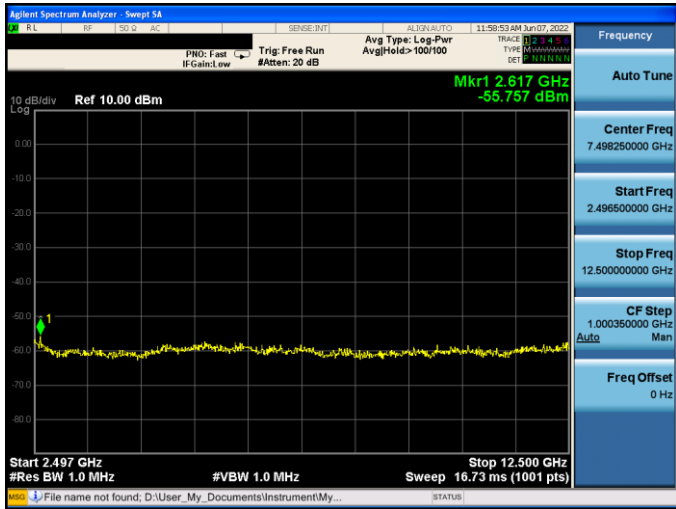
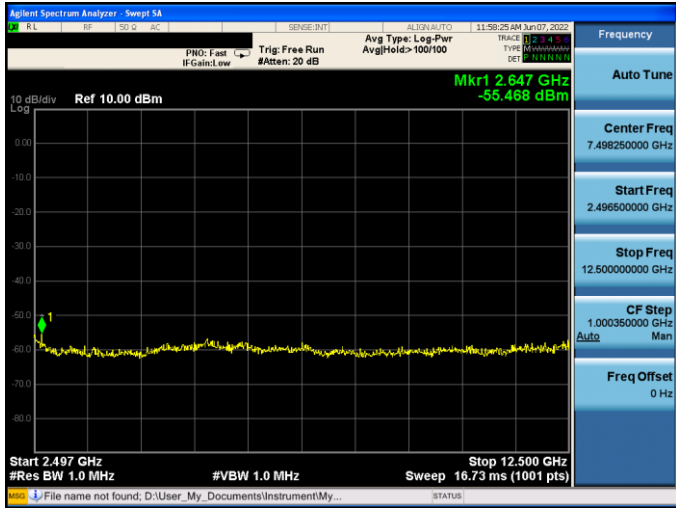
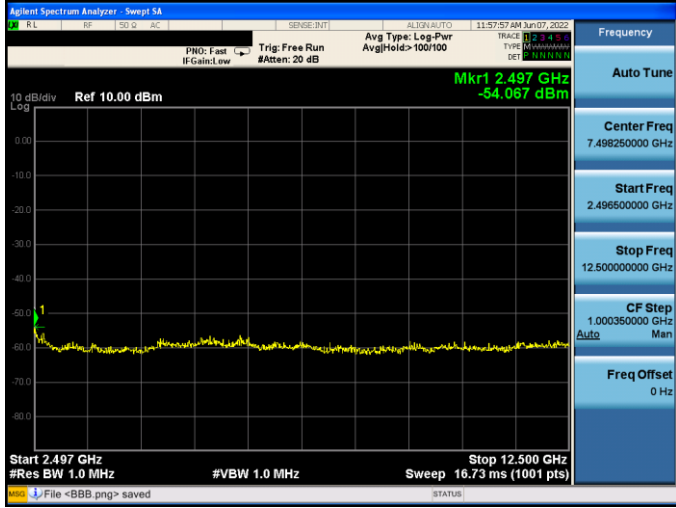
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 7.3816 MHz Total Power 13.3 dBm Transmit Freq Error 42.375 kHz OBW Power 90.00 % x dB Bandwidth 13.96 MHz x dB -26.00 dB File <BBB.png> saved
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.44200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 7.3690 MHz Total Power 13.2 dBm Transmit Freq Error 71.329 kHz OBW Power 90.00 % x dB Bandwidth 13.86 MHz x dB -26.00 dB File name not found: D:\User_My_Documents\Instrument\My...
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.47200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 7.3555 MHz Total Power 13.1 dBm Transmit Freq Error 95.167 kHz OBW Power 90.00 % x dB Bandwidth 14.03 MHz x dB -26.00 dB File <BBB.png> saved

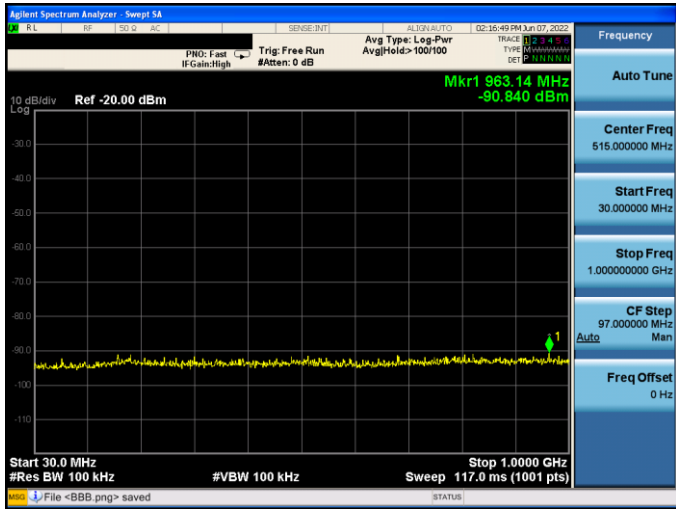
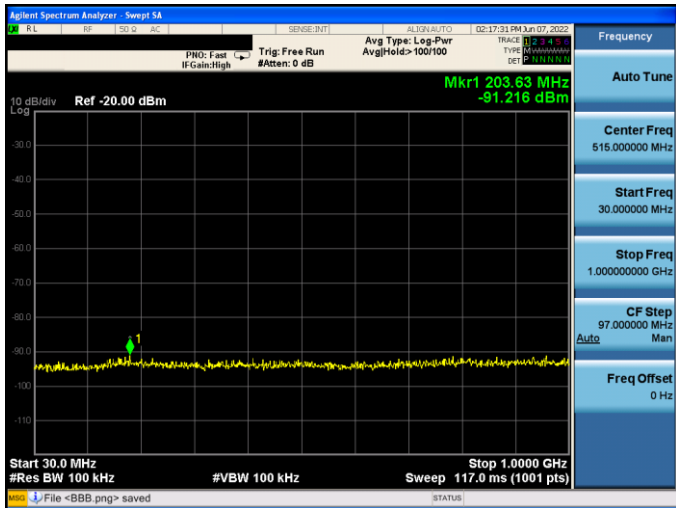
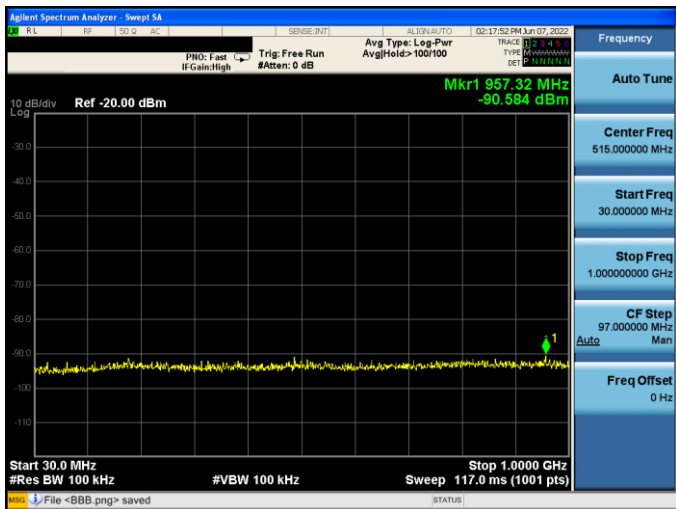
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0	
Antenna Power (Conducted) Measurement_ Antenna Power	
2412 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.411180000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Frequency Center Freq 2.411180000 GHz CF Step 1.000000 MHz Auto Freq Offset 0 Hz Channel Power -1.58 dBm / 1 MHz Power Spectral Density -61.58 dBm / Hz File <BBB.png> saved
2442 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.441230000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Frequency Center Freq 2.441230000 GHz CF Step 1.000000 MHz Auto Freq Offset 0 Hz Channel Power -1.45 dBm / 1 MHz Power Spectral Density -61.45 dBm / Hz File <BBB.png> saved
2472 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.471180000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Frequency Center Freq 2.471180000 GHz CF Step 1.000000 MHz Auto Freq Offset 0 Hz Channel Power -1.45 dBm / 1 MHz Power Spectral Density -61.45 dBm / Hz File <BBB.png> saved

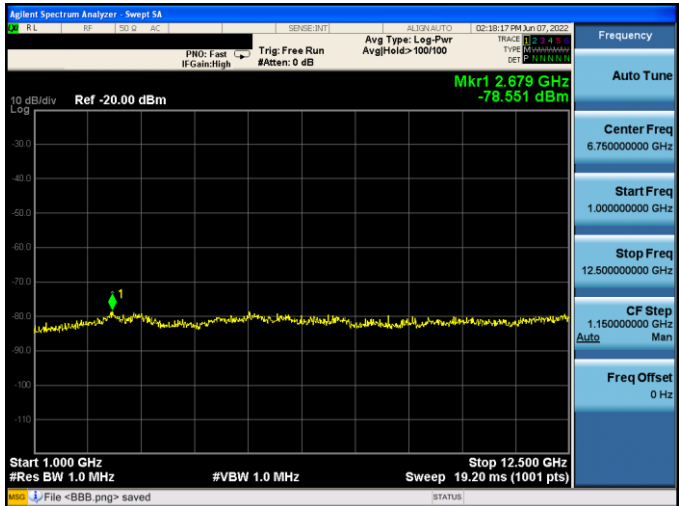
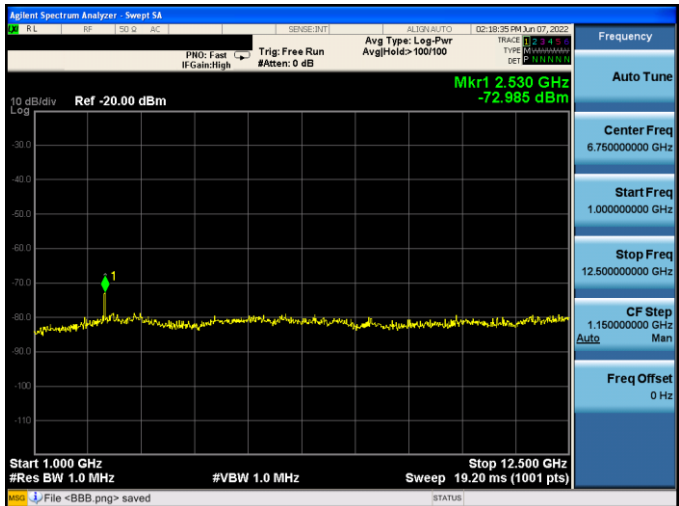
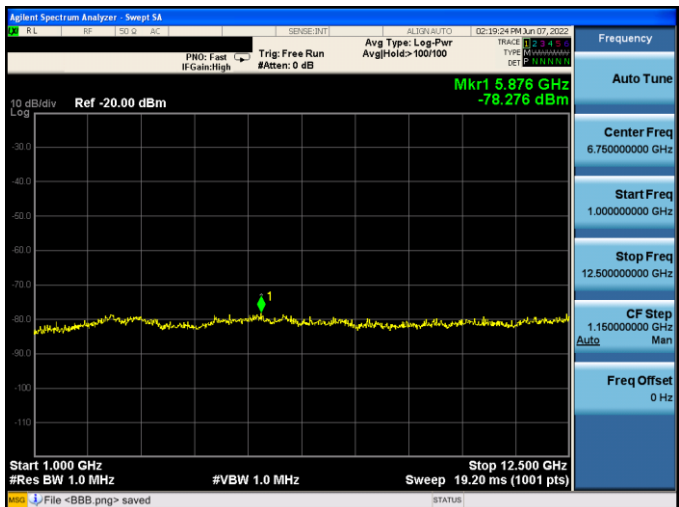
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ Under 2387 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

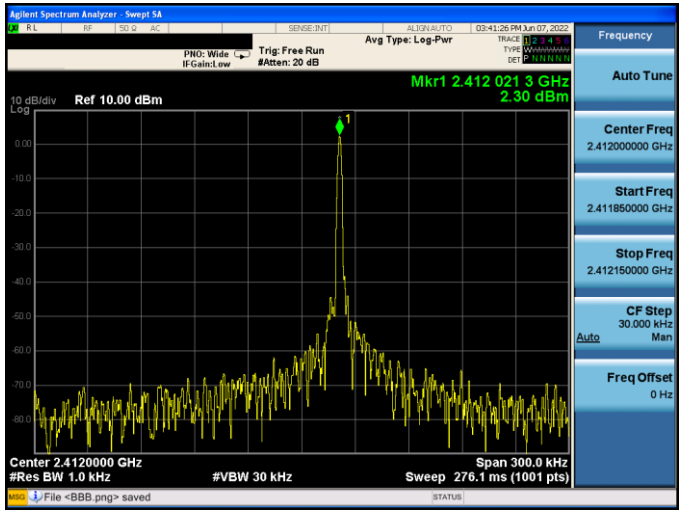
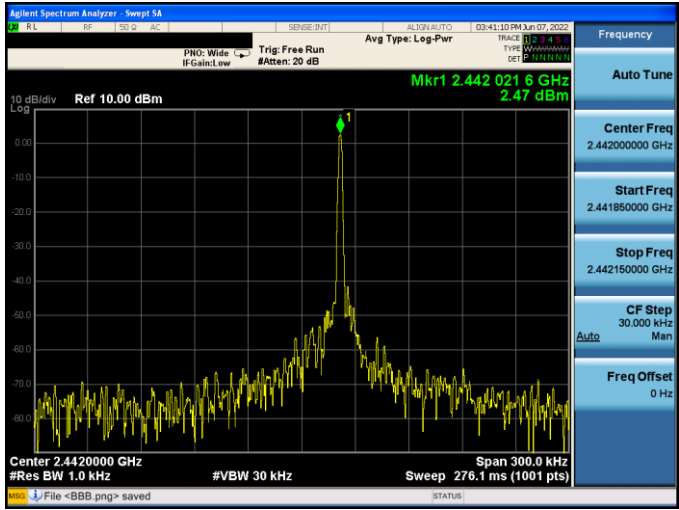
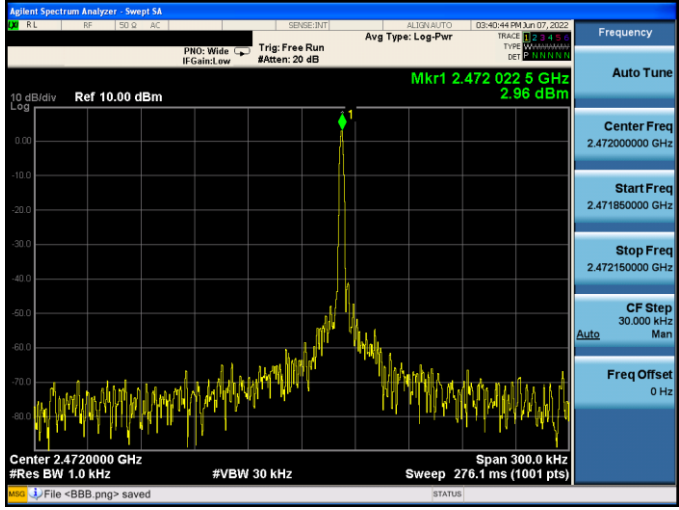
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2387-2400 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Sweep 5A PRO: Fast IF Gain: Low Trig: Free Run #Atten: 20 dB Avg Type: Log-Pwr AvgHold: 100/100 Ref 10.00 dBm Mkr1 2.397 530 GHz -50.638 dBm Start 2.387000 GHz #Res BW 1.0 MHz #VBW 1.0 MHz Stop 2.400000 GHz Sweep 1.000 ms (1001 pts) File <BBB.png> saved Frequency Auto Tune Center Freq 2.393500000 GHz Start Freq 2.387000000 GHz Stop Freq 2.400000000 GHz CF Step 1.300000 MHz Auto Man Freq Offset 0 Hz
2442 MHz	 Agilent Spectrum Analyzer - Sweep 5A PRO: Fast IF Gain: Low Trig: Free Run #Atten: 20 dB Avg Type: Log-Pwr AvgHold: 100/100 Ref 10.00 dBm Mkr1 2.398 557 GHz -54.212 dBm Start 2.387000 GHz #Res BW 1.0 MHz #VBW 1.0 MHz Stop 2.400000 GHz Sweep 1.000 ms (1001 pts) File <BBB.png> saved Frequency Auto Tune Center Freq 2.393500000 GHz Start Freq 2.387000000 GHz Stop Freq 2.400000000 GHz CF Step 1.300000 MHz Auto Man Freq Offset 0 Hz
2472 MHz	 Agilent Spectrum Analyzer - Sweep 5A PRO: Fast IF Gain: Low Trig: Free Run #Atten: 20 dB Avg Type: Log-Pwr AvgHold: 100/100 Ref 10.00 dBm Mkr1 2.393 604 GHz -56.011 dBm Start 2.387000 GHz #Res BW 1.0 MHz #VBW 1.0 MHz Stop 2.400000 GHz Sweep 1.000 ms (1001 pts) File name not found: D:\User_My_Documents\Instrument\My... Frequency Auto Tune Center Freq 2.393500000 GHz Start Freq 2.387000000 GHz Stop Freq 2.400000000 GHz CF Step 1.300000 MHz Auto Man Freq Offset 0 Hz

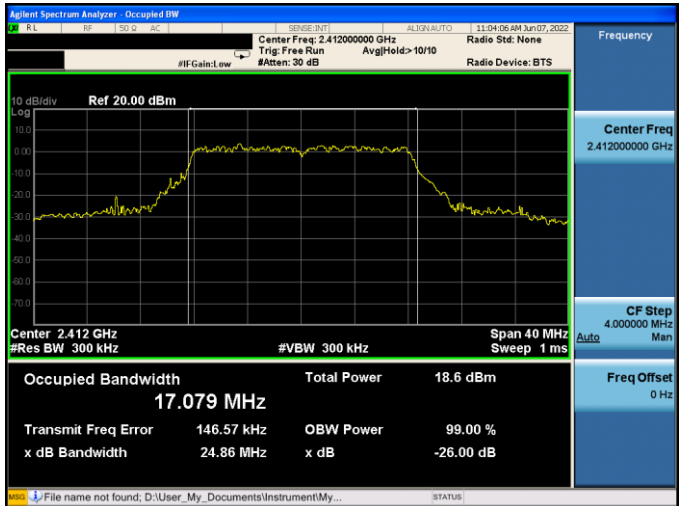
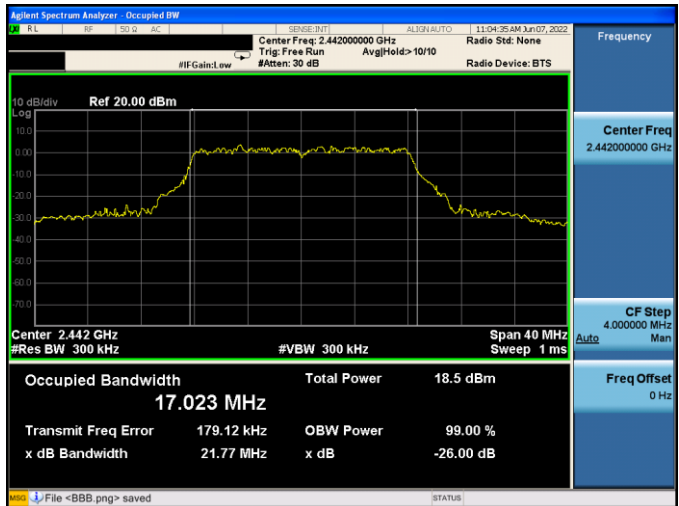
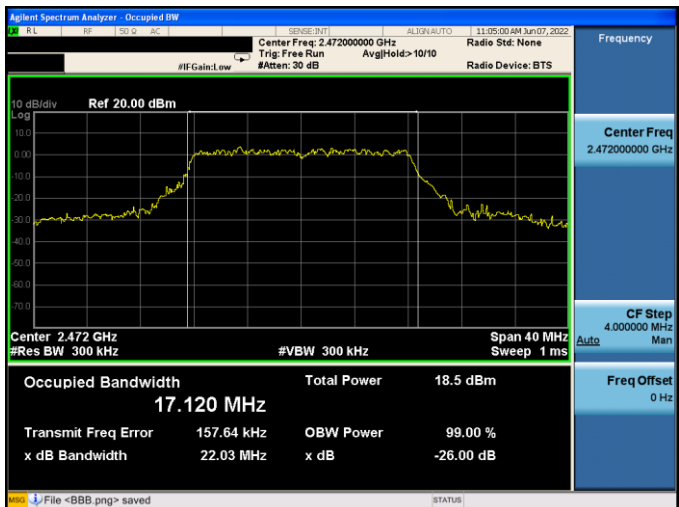
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2483.5-2496.5 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

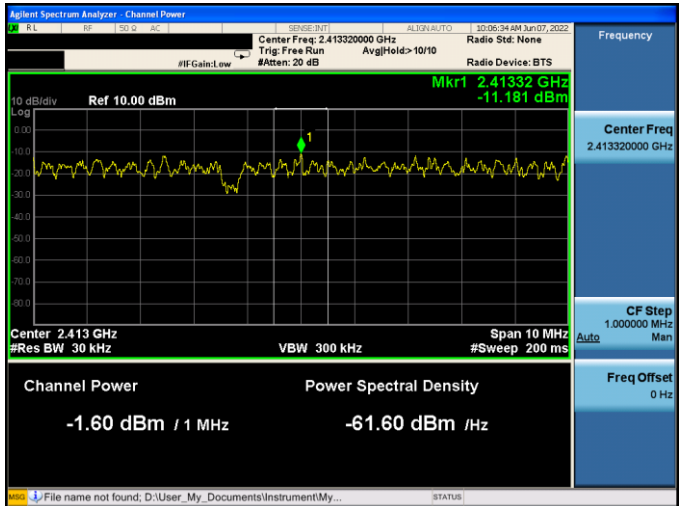
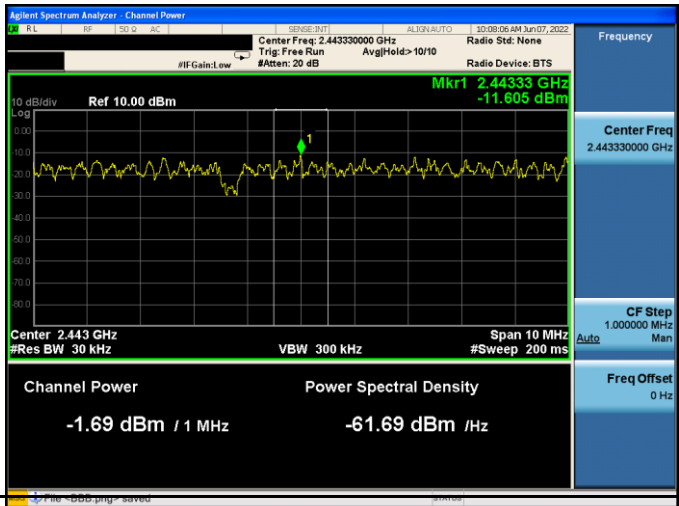
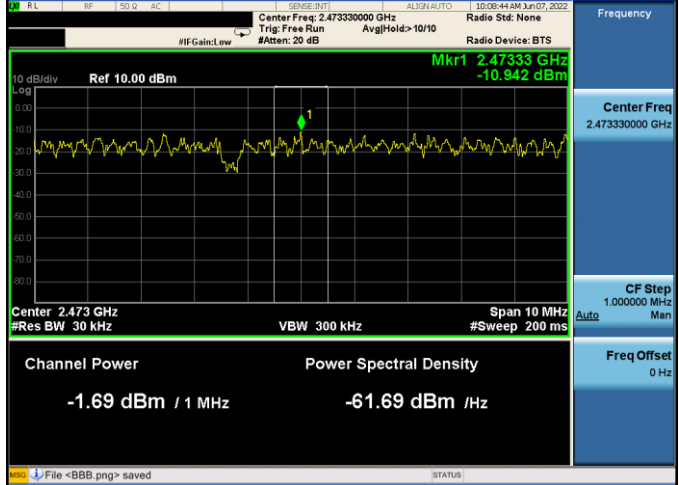
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2442 MHz	
2472 MHz	

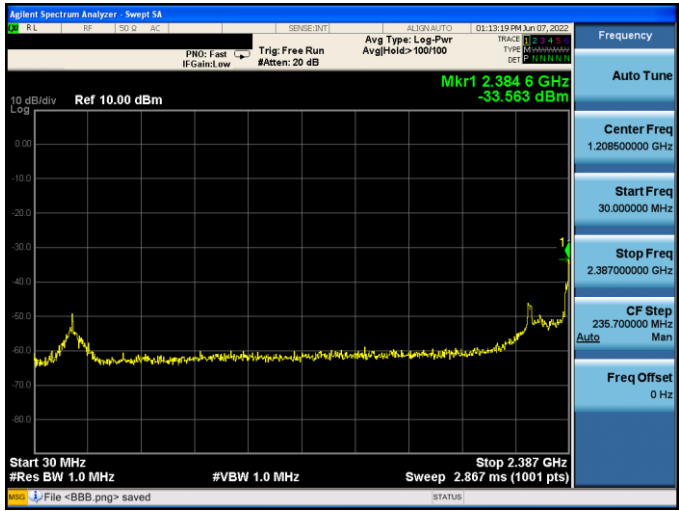
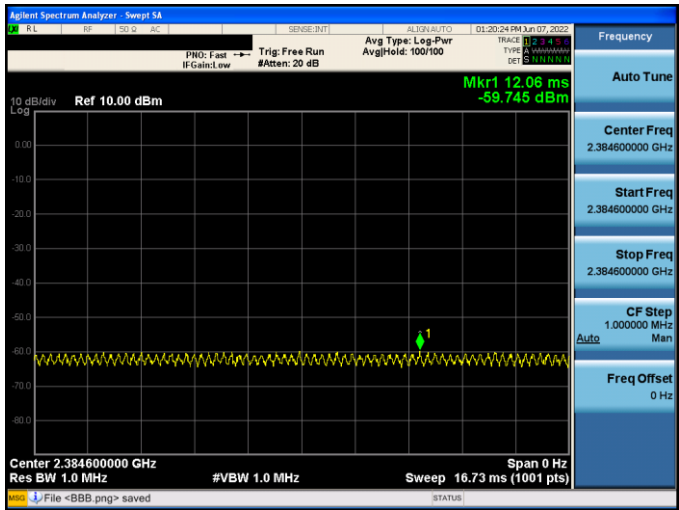
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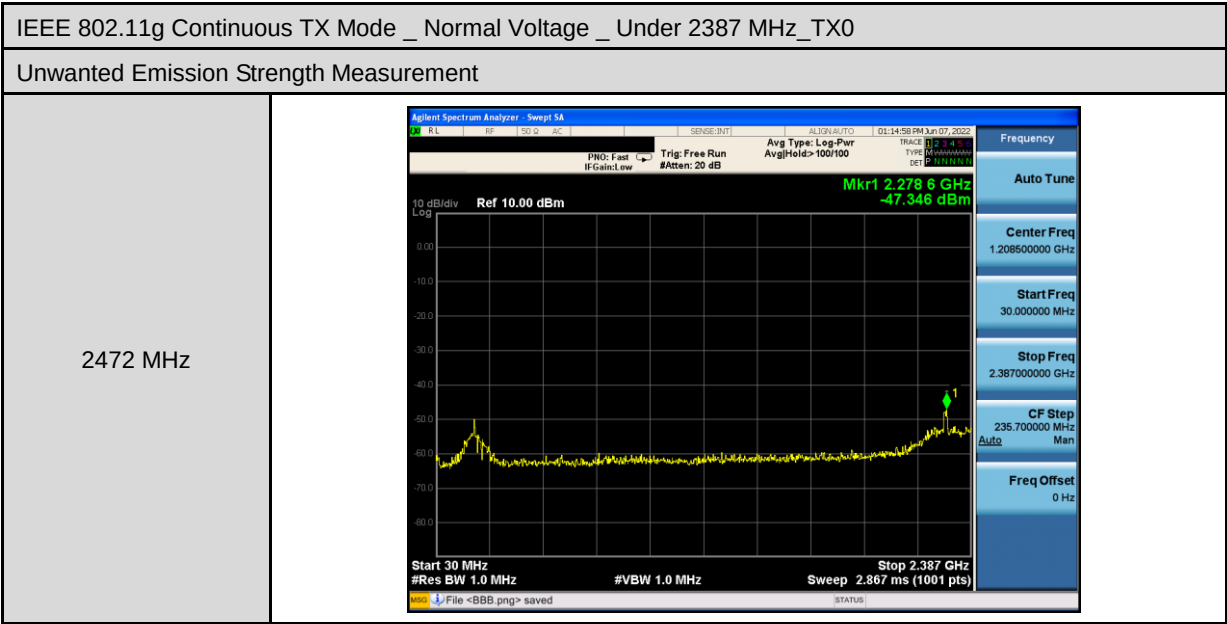
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Secondarily Emitted Radio Wave Strength Measurement	
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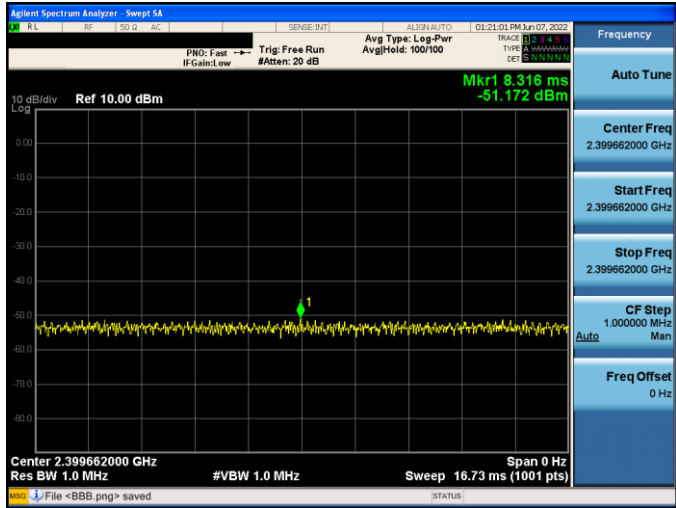
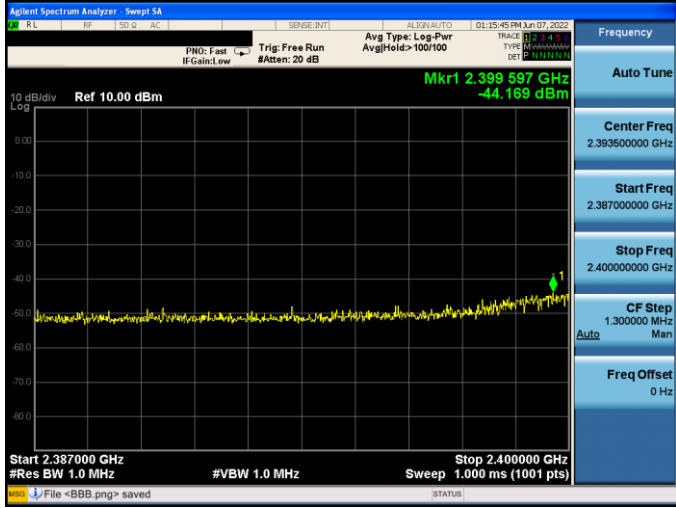
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Frequency Error Measurement	
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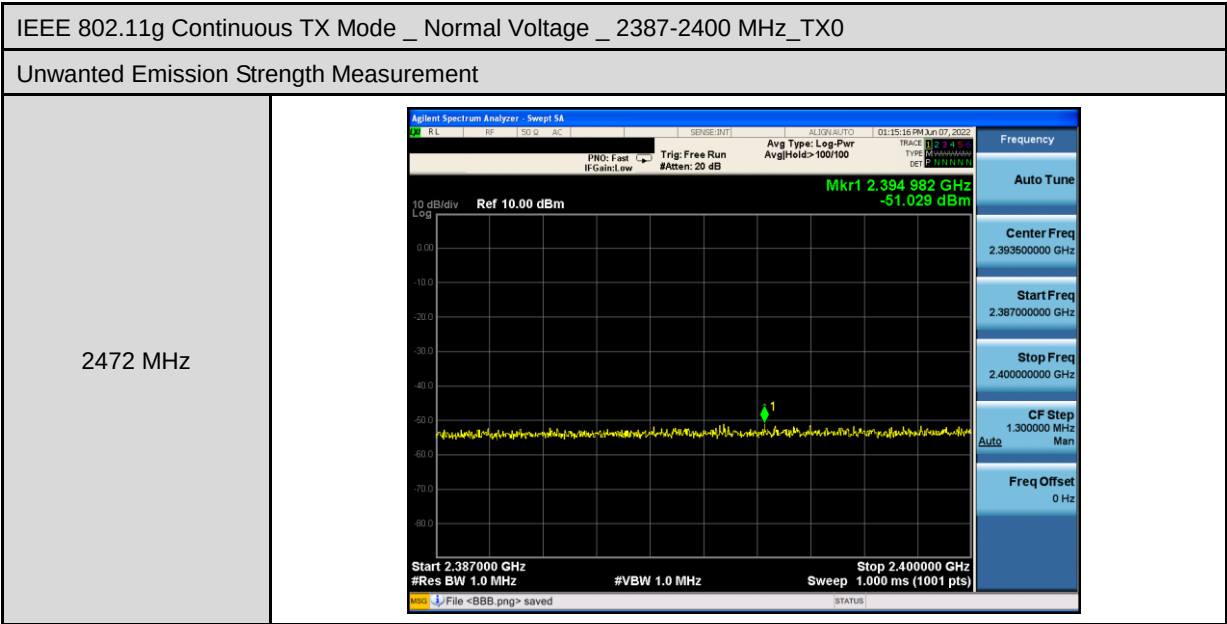
IEEE 802.11g Continuous TX Mode _ Normal Voltage _TX0	
Occupied Bandwidth Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.079 MHz Total Power 18.6 dBm Transmit Freq Error 146.57 kHz OBW Power 99.00 % x dB Bandwidth 24.86 MHz x dB -26.00 dB File name not found: D:\User_My_Documents\InstrumentMy...
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.442000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.023 MHz Total Power 18.5 dBm Transmit Freq Error 179.12 kHz OBW Power 99.00 % x dB Bandwidth 21.77 MHz x dB -26.00 dB File <BBB.png> saved
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.472000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.120 MHz Total Power 18.5 dBm Transmit Freq Error 157.64 kHz OBW Power 99.00 % x dB Bandwidth 22.03 MHz x dB -26.00 dB File <BBB.png> saved

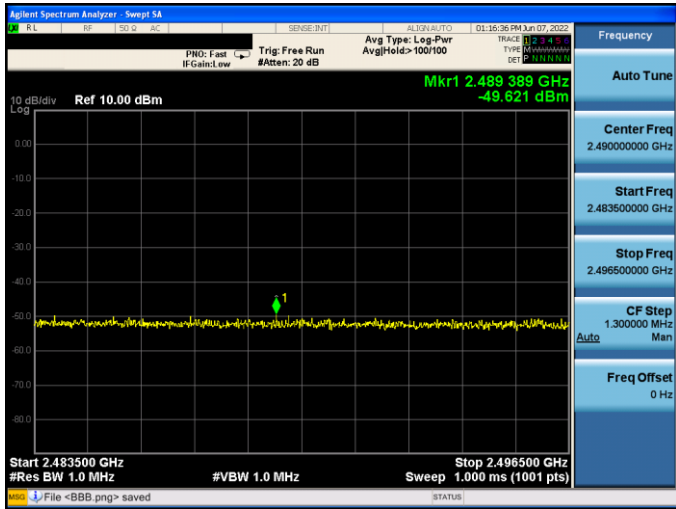
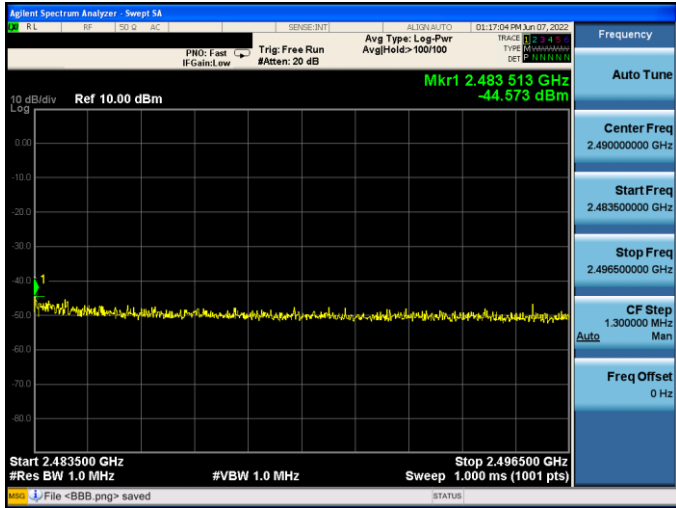
IEEE 802.11g Continuous TX Mode _ Normal Voltage _TX0	
Antenna Power (Conducted) Measurement_ Antenna Power	
2412 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.413320000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.41332 GHz -11.181 dBm Center 2.413 GHz #Res BW 30 kHz VBW 300 kHz Span 10 MHz #Sweep 200 ms Channel Power: -1.60 dBm / 1 MHz Power Spectral Density: -61.60 dBm / Hz Frequency: 2.413320000 GHz Center Freq: 2.413320000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz
2442 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.443330000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.44333 GHz -11.606 dBm Center 2.443 GHz #Res BW 30 kHz VBW 300 kHz Span 10 MHz #Sweep 200 ms Channel Power: -1.69 dBm / 1 MHz Power Spectral Density: -61.69 dBm / Hz Frequency: 2.443330000 GHz Center Freq: 2.443330000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz
2472 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.473330000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.47333 GHz -10.942 dBm Center 2.473 GHz #Res BW 30 kHz VBW 300 kHz Span 10 MHz #Sweep 200 ms Channel Power: -1.69 dBm / 1 MHz Power Spectral Density: -61.69 dBm / Hz Frequency: 2.473330000 GHz Center Freq: 2.473330000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz

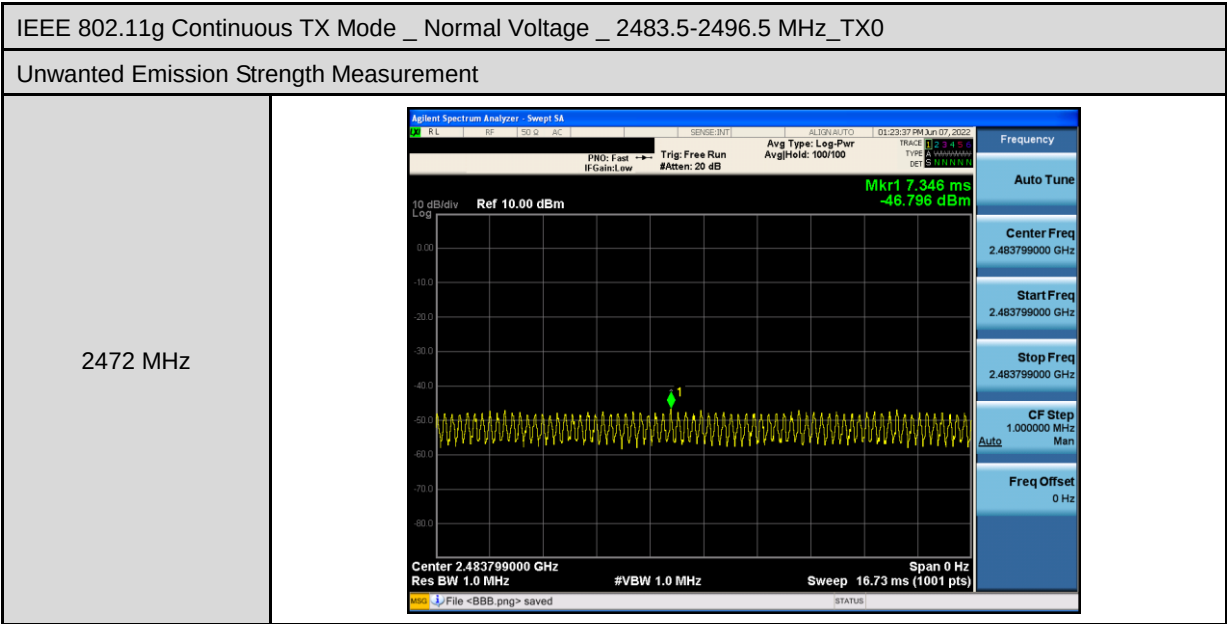
IEEE 802.11g Continuous TX Mode _ Normal Voltage _ Under 2387 MHz_TX0	
Unwanted Emission Strength Measurement	
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2412 MHz	
2442 MHz	

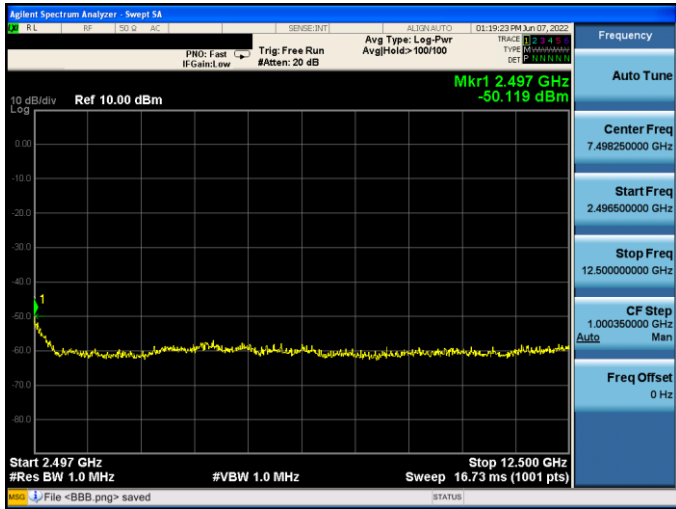
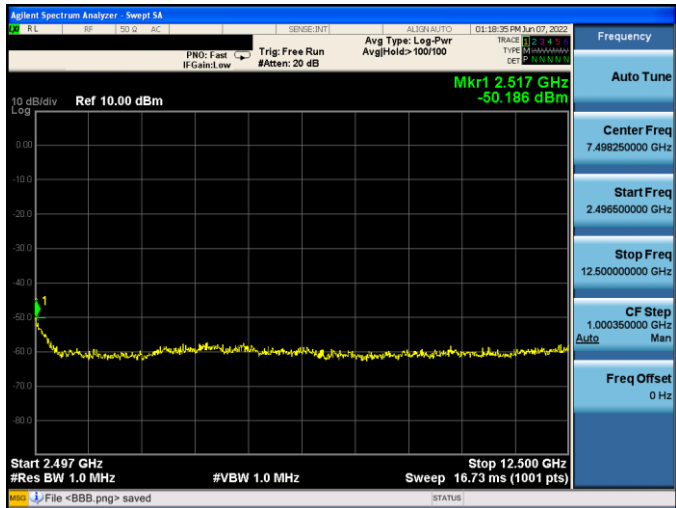
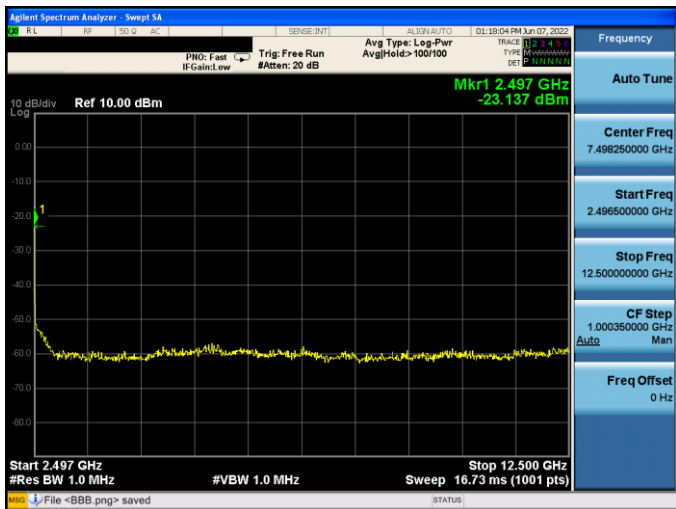


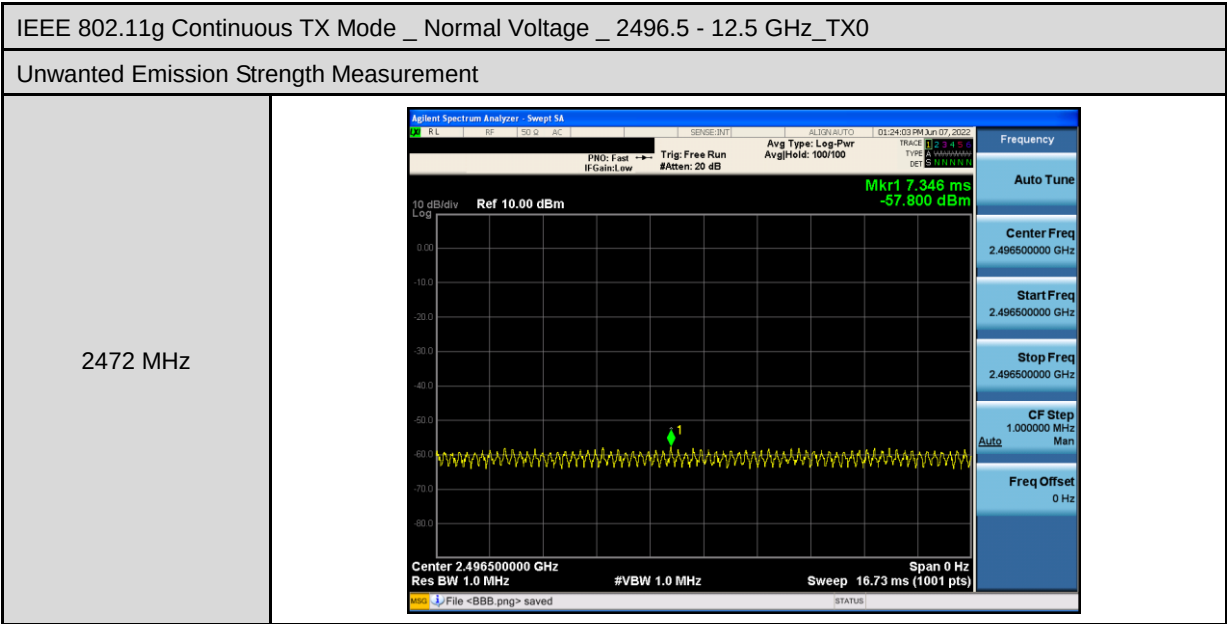
IEEE 802.11g Continuous TX Mode _ Normal Voltage _ 2387-2400 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2412 MHz	
2442 MHz	



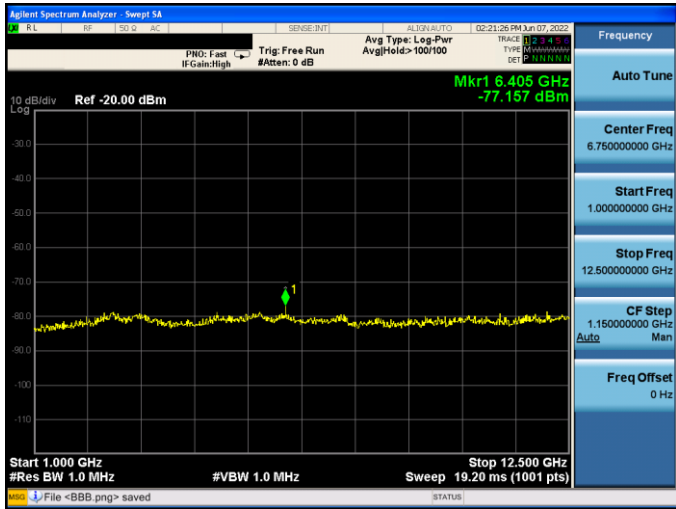
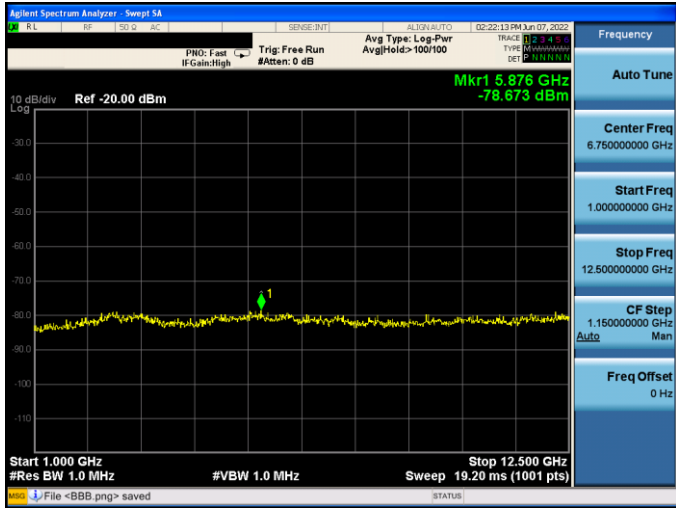
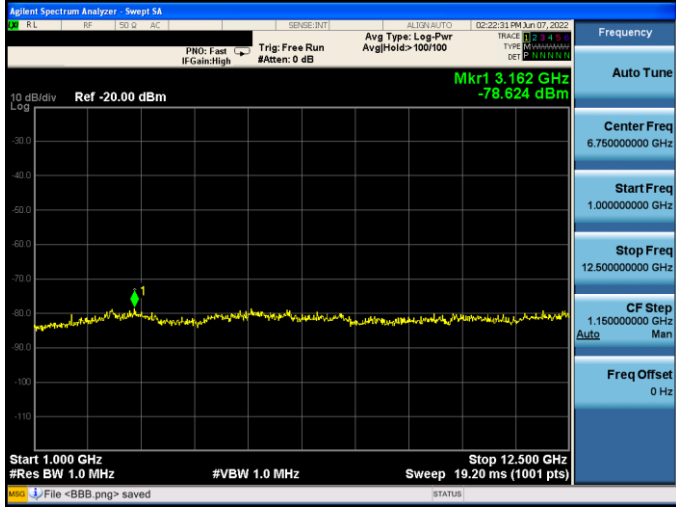
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Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

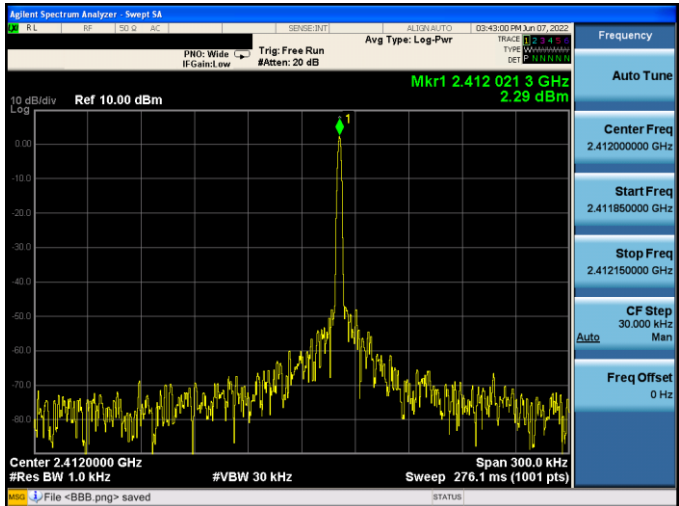
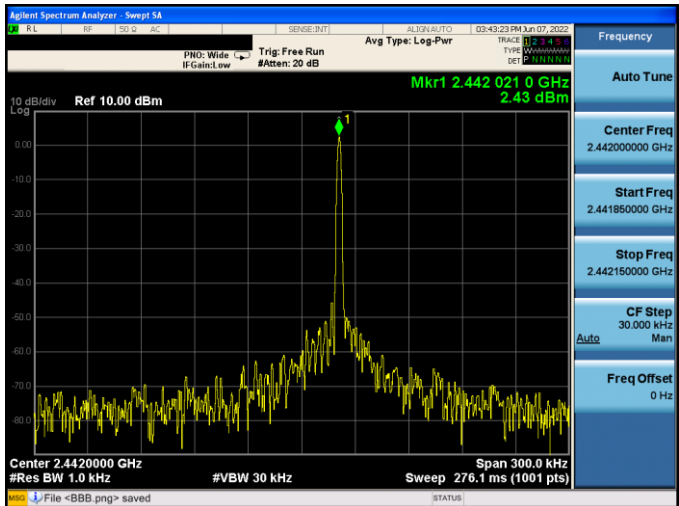
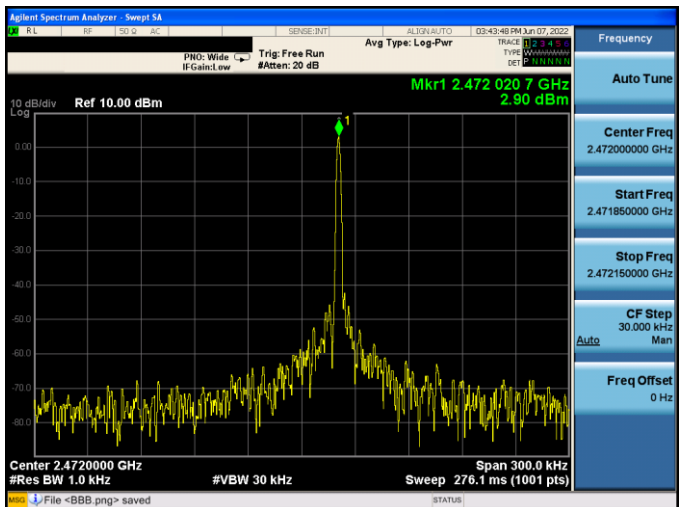


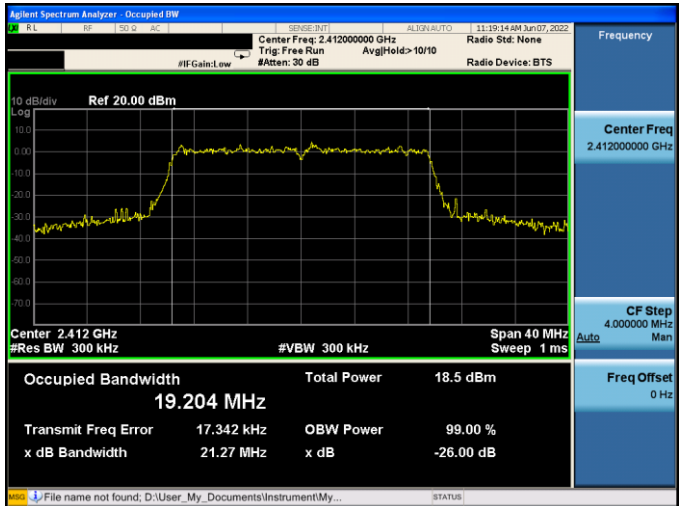
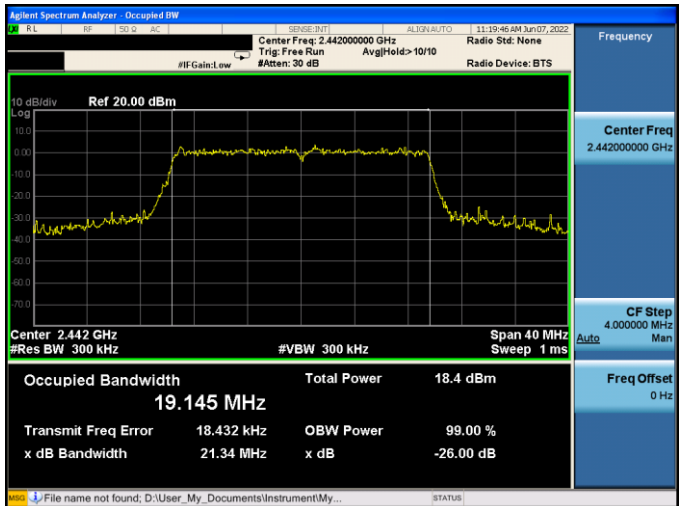
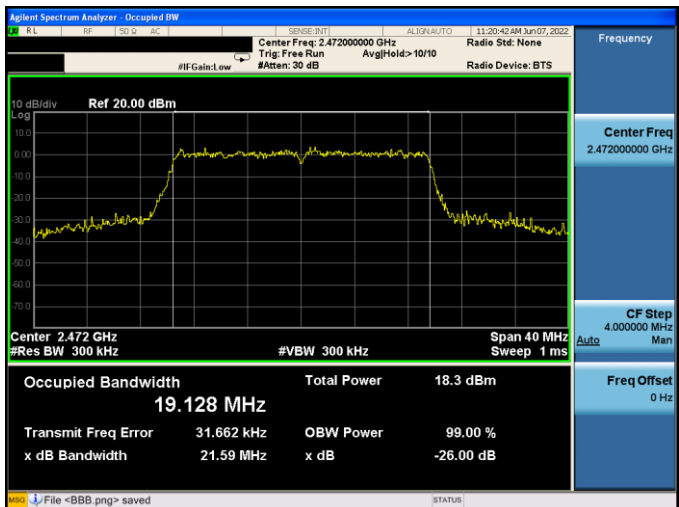
IEEE 802.11g Continuous TX Mode _ Normal Voltage _ 2496.5 - 12.5 GHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

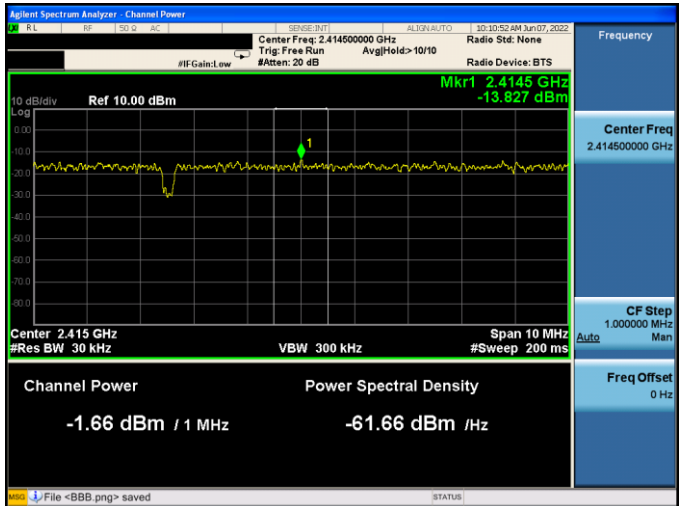
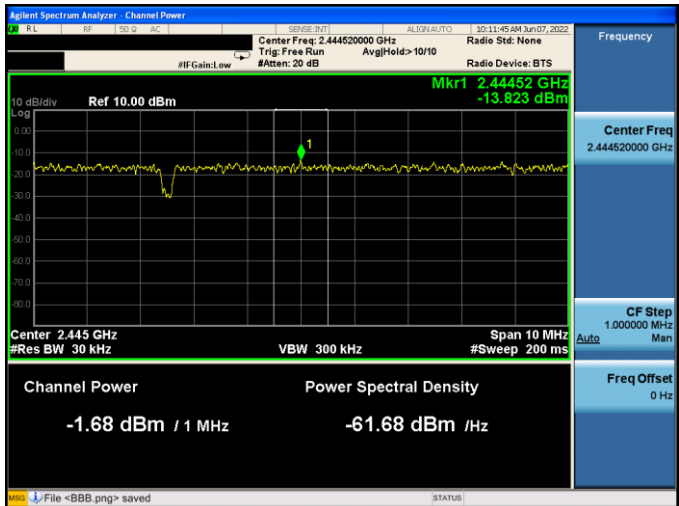
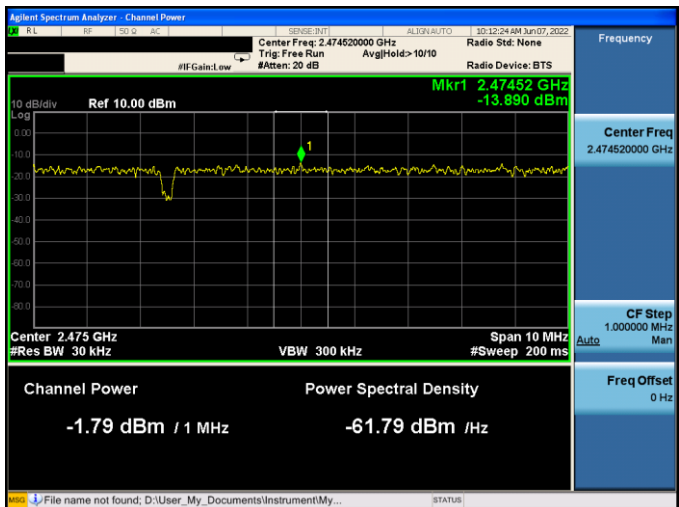


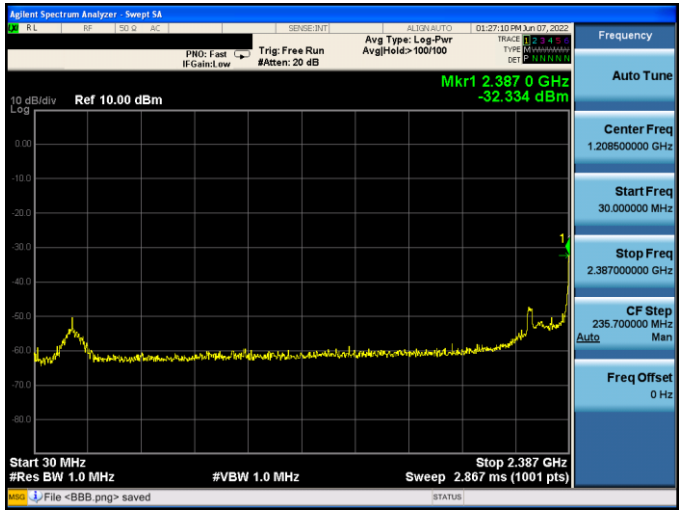
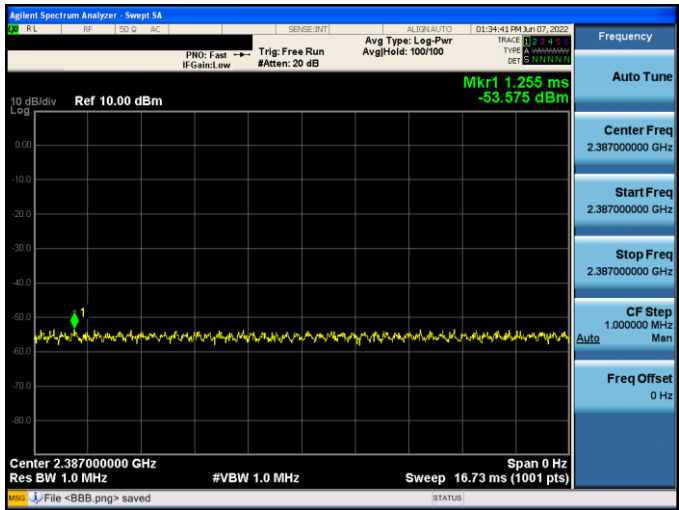
IEEE 802.11g Continuous TX Mode _ Normal Voltage _ Under 1 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
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2472 MHz	

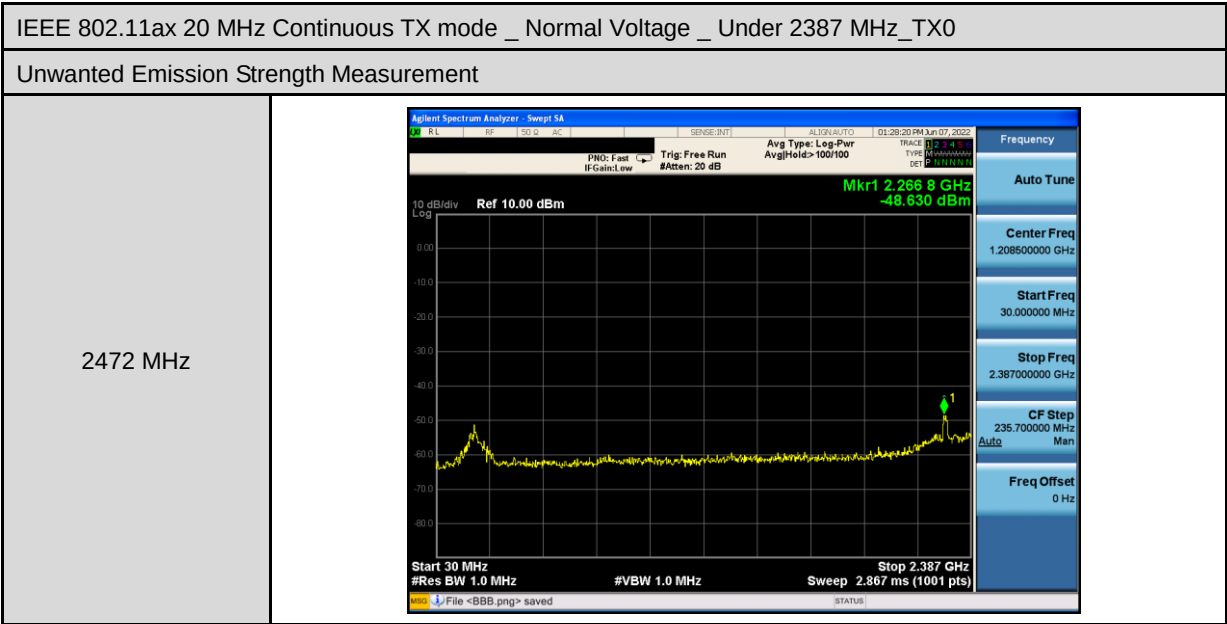
IEEE 802.11g Continuous TX Mode _ Normal Voltage _ 1 - 12.5 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

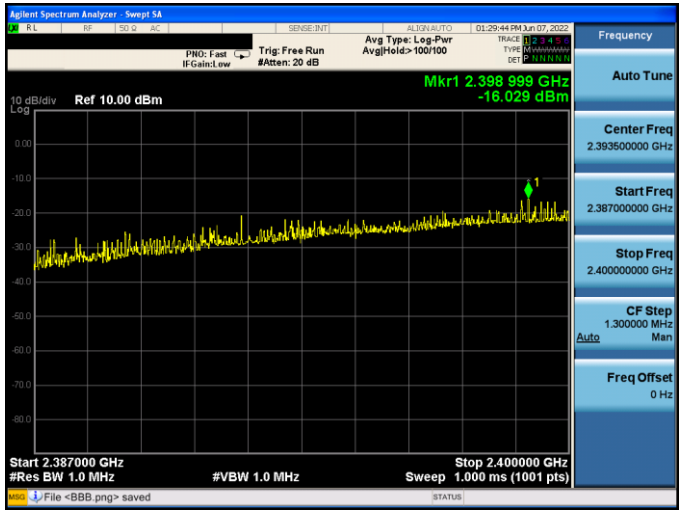
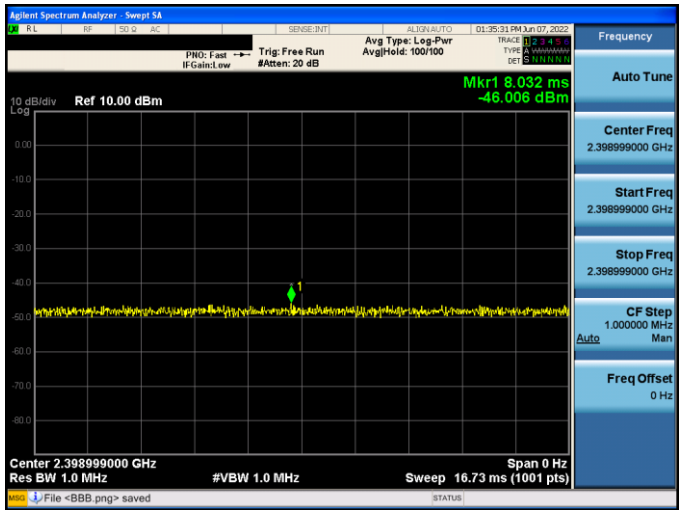
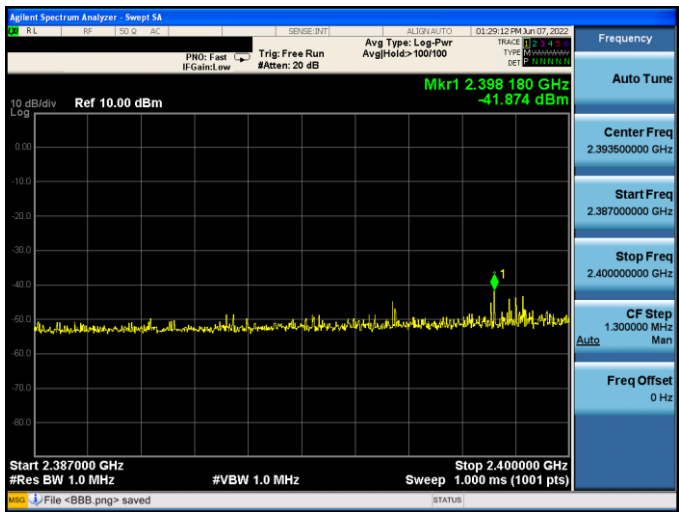
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _TX0	
Frequency Error Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

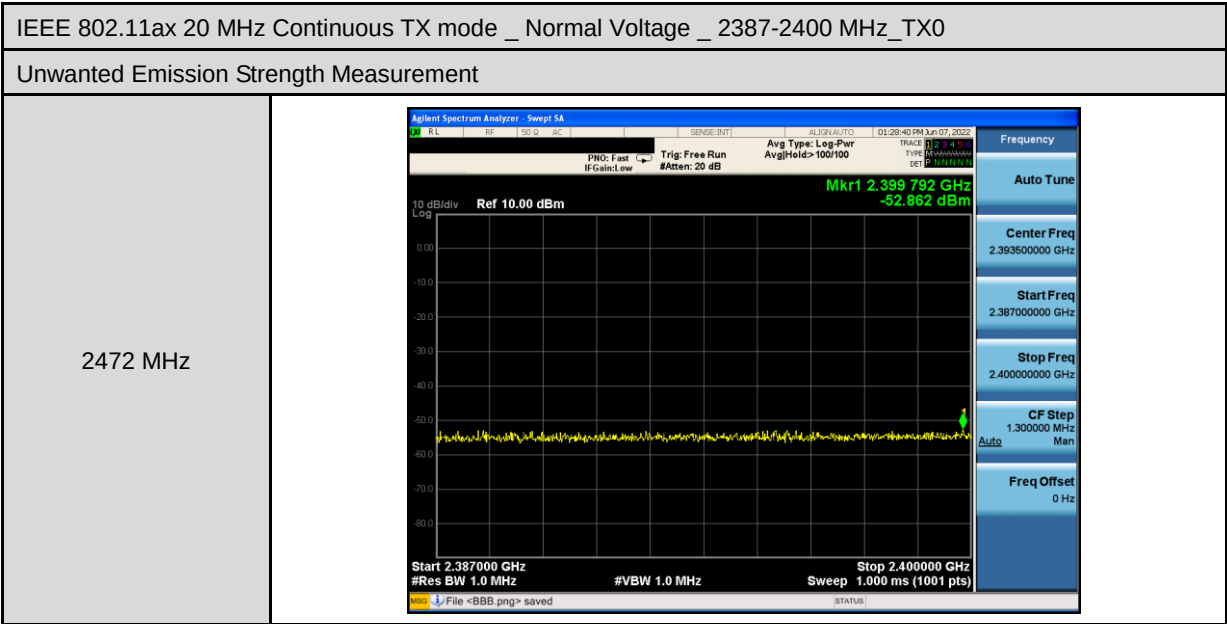
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _TX0	
Occupied Bandwidth Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Trig: Free Run #Atten: 30 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 19.204 MHz Total Power 18.5 dBm Transmit Freq Error 17.342 kHz OBW Power 99.00 % x dB Bandwidth 21.27 MHz x dB -26.00 dB Frequency Center Freq 2.412000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz File name not found; D:\User_My_Documents\Instrument\My...
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.442000000 GHz Trig: Free Run #Atten: 30 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 19.145 MHz Total Power 18.4 dBm Transmit Freq Error 18.432 kHz OBW Power 99.00 % x dB Bandwidth 21.34 MHz x dB -26.00 dB Frequency Center Freq 2.442000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz File name not found; D:\User_My_Documents\Instrument\My...
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.472000000 GHz Trig: Free Run #Atten: 30 dB Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 19.128 MHz Total Power 18.3 dBm Transmit Freq Error 31.662 kHz OBW Power 99.00 % x dB Bandwidth 21.59 MHz x dB -26.00 dB Frequency Center Freq 2.472000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz File <BBB.png> saved

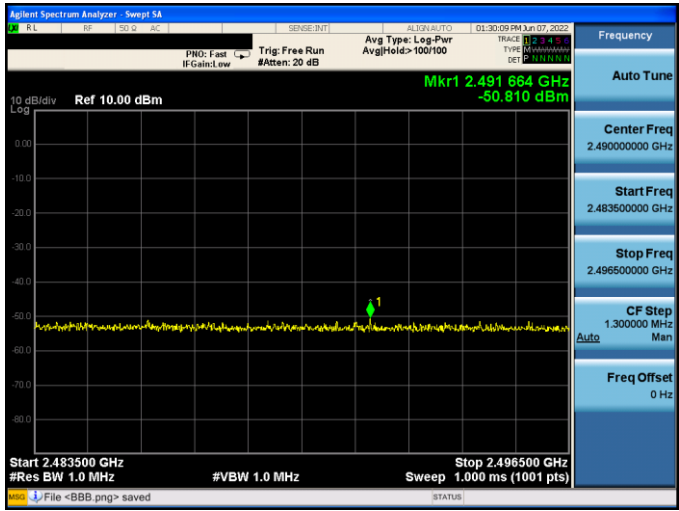
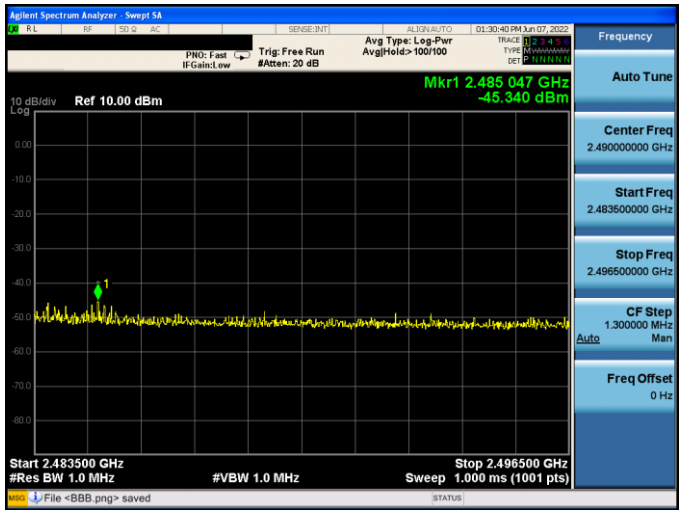
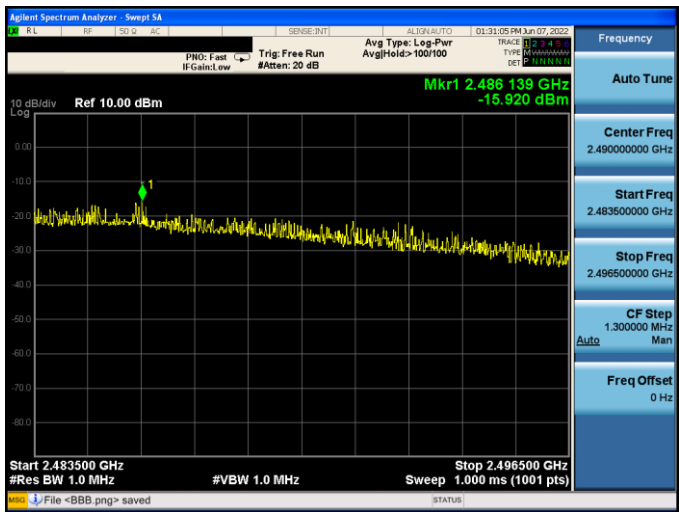
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _TX0	
Antenna Power (Conducted) Measurement_ Antenna Power	
2412 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.41450000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.4145 GHz -13.827 dBm Center 2.415 GHz #Res BW 30 kHz VBW 300 kHz Span 10 MHz #Sweep 200 ms Channel Power -1.66 dBm / 1 MHz Power Spectral Density -61.66 dBm / Hz File <BBB.png> saved
2442 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.44452000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.44452 GHz -13.823 dBm Center 2.445 GHz #Res BW 30 kHz VBW 300 kHz Span 10 MHz #Sweep 200 ms Channel Power -1.68 dBm / 1 MHz Power Spectral Density -61.68 dBm / Hz File <BBB.png> saved
2472 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.47452000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.47452 GHz -13.890 dBm Center 2.475 GHz #Res BW 30 kHz VBW 300 kHz Span 10 MHz #Sweep 200 ms Channel Power -1.79 dBm / 1 MHz Power Spectral Density -61.79 dBm / Hz File name not found; D:\User_My_Documents\InstrumentMy...

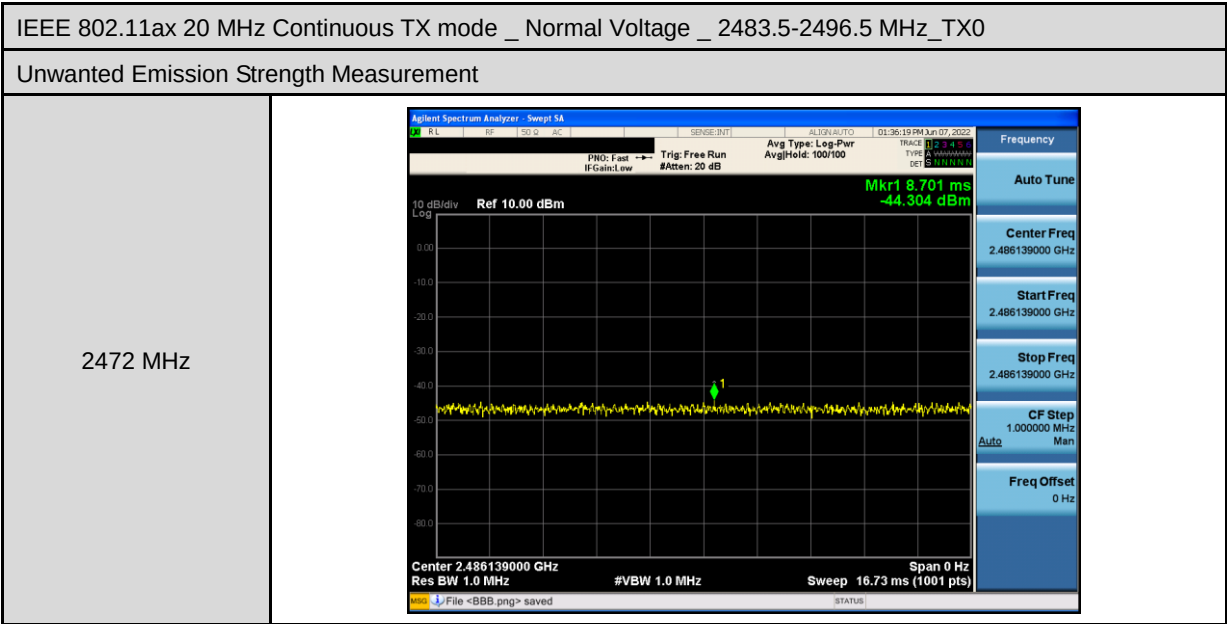
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _ Under 2387 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2412 MHz	
2442 MHz	

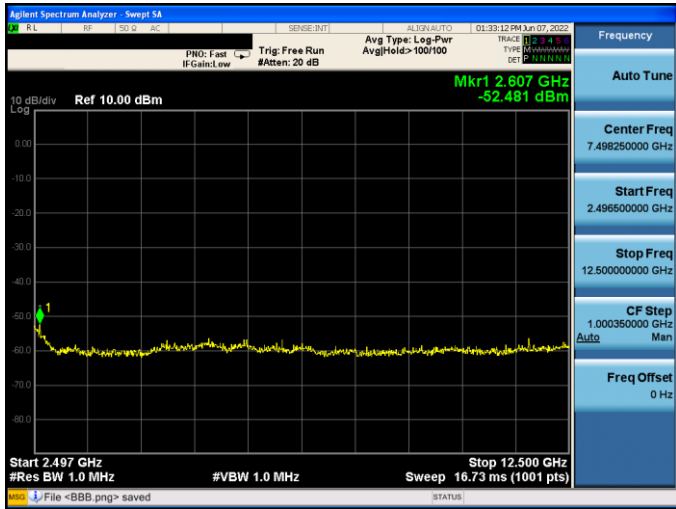
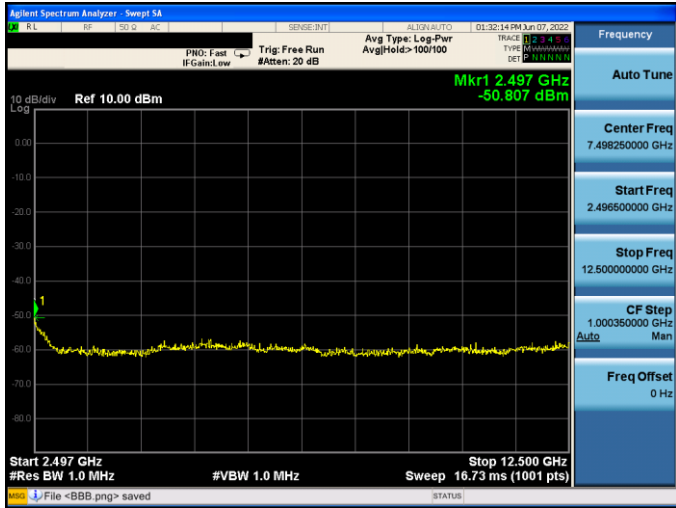
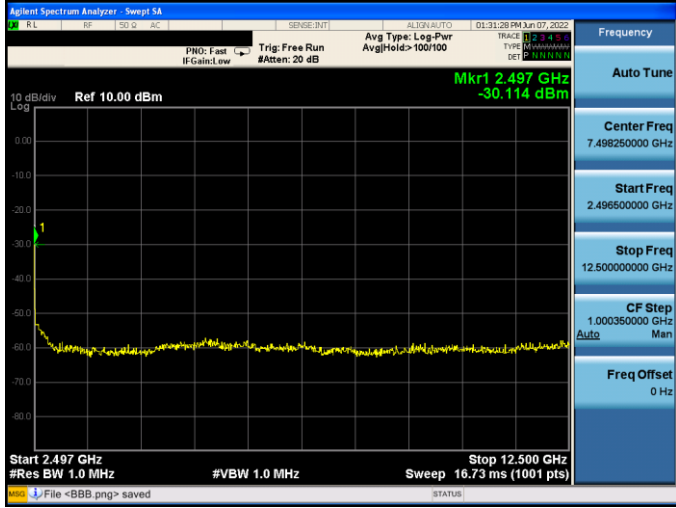


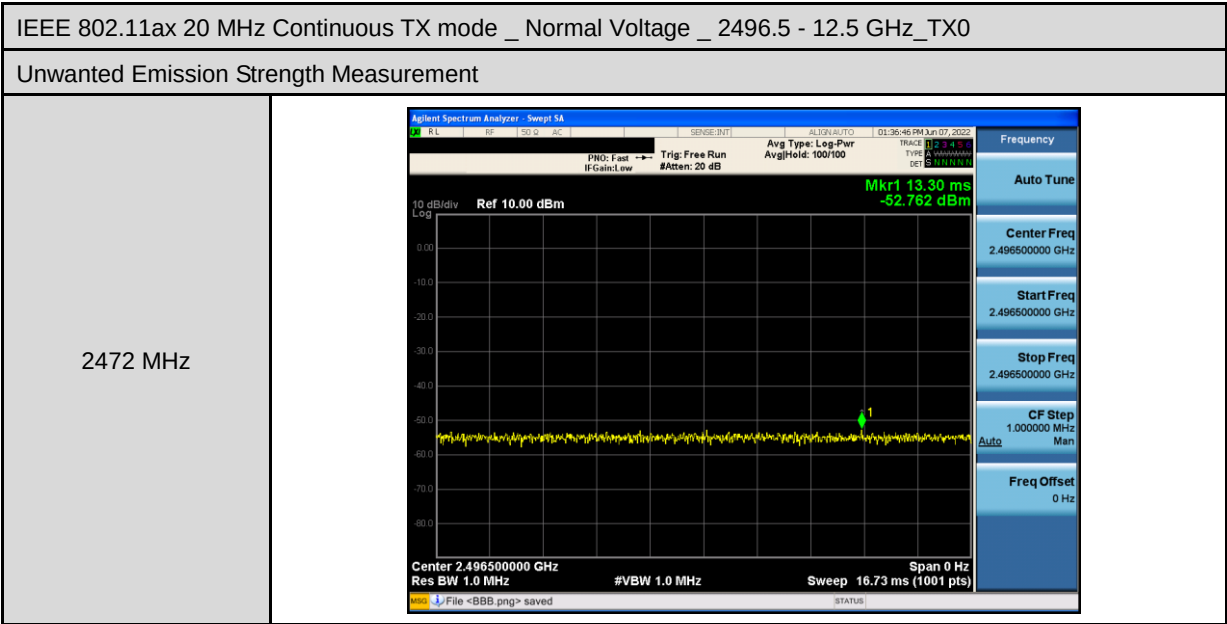
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _ 2387-2400 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2412 MHz	
2442 MHz	

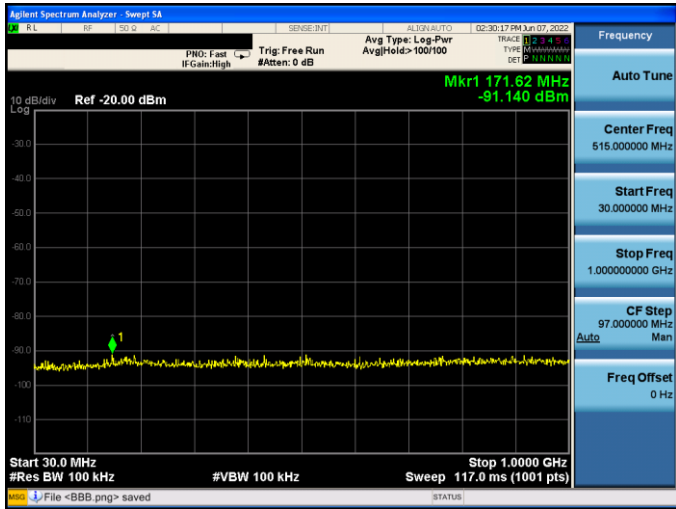
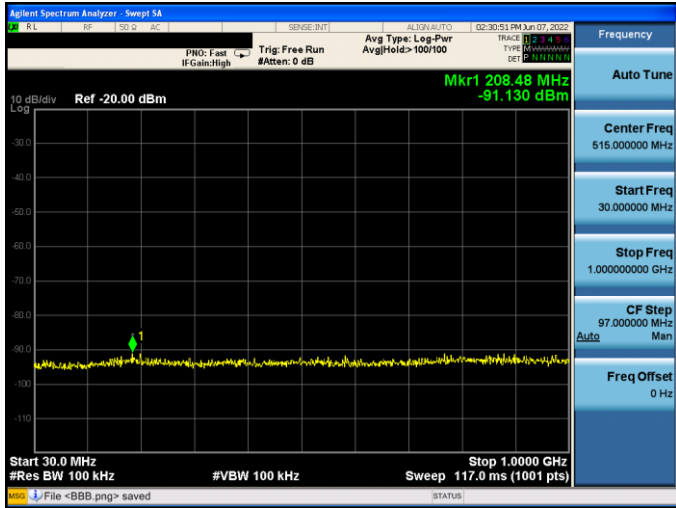
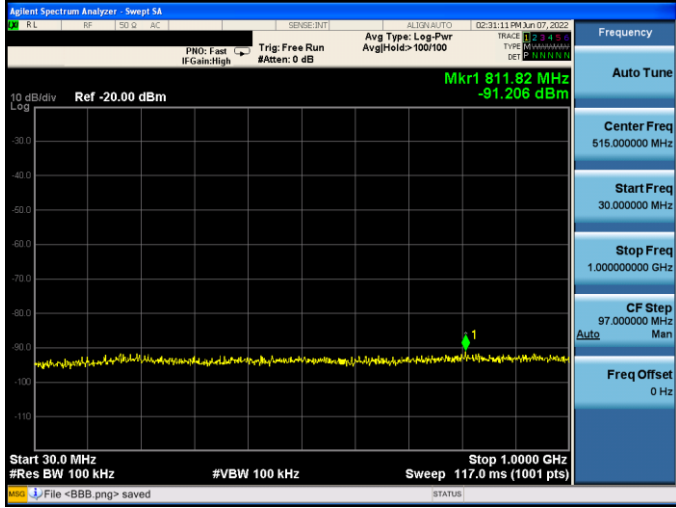


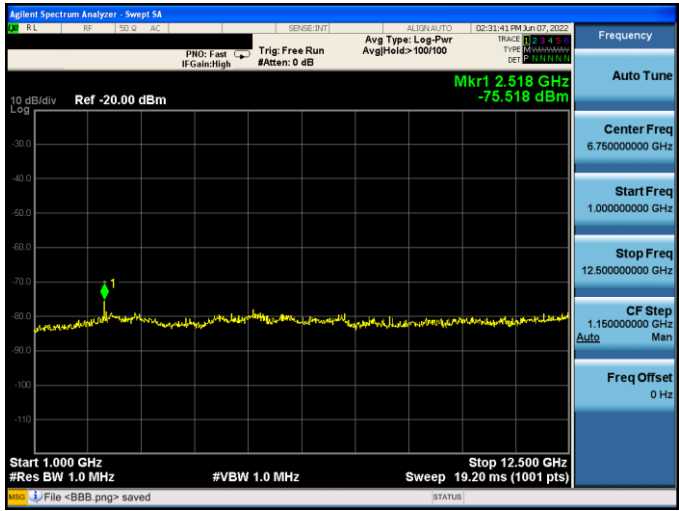
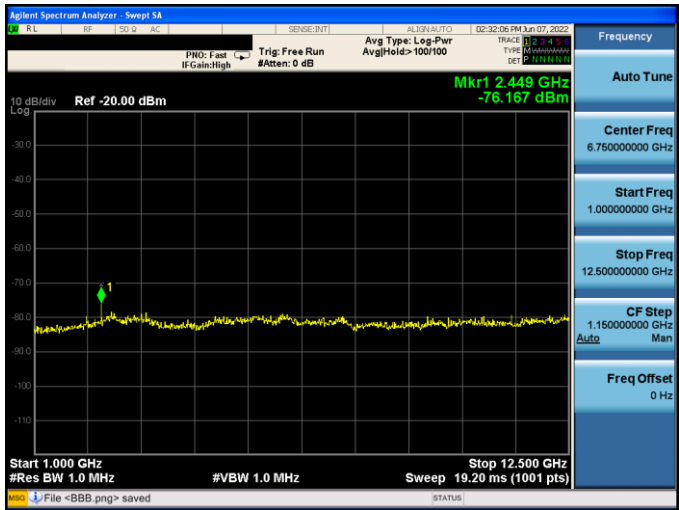
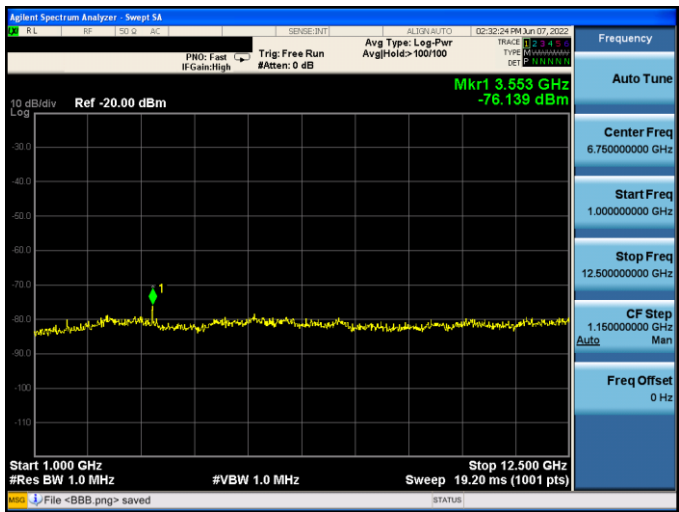
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _ 2483.5-2496.5 MHz_TX0	
Unwanted Emission Strength Measurement	
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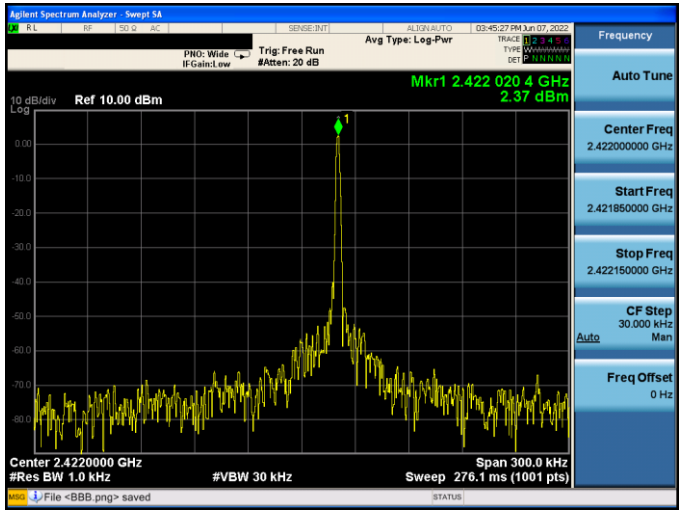
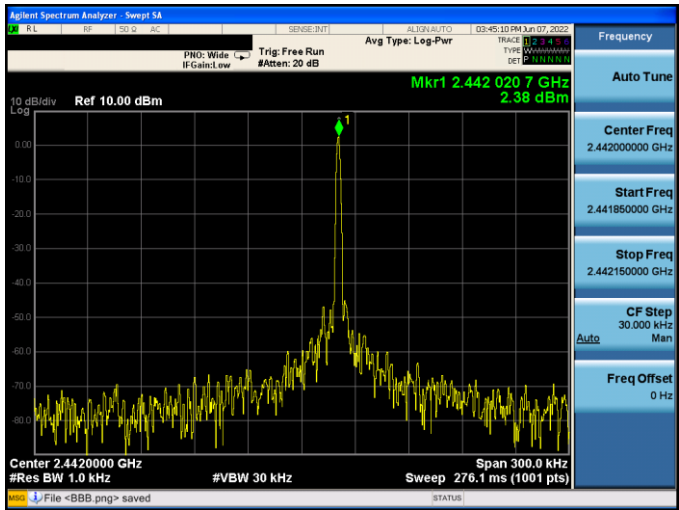
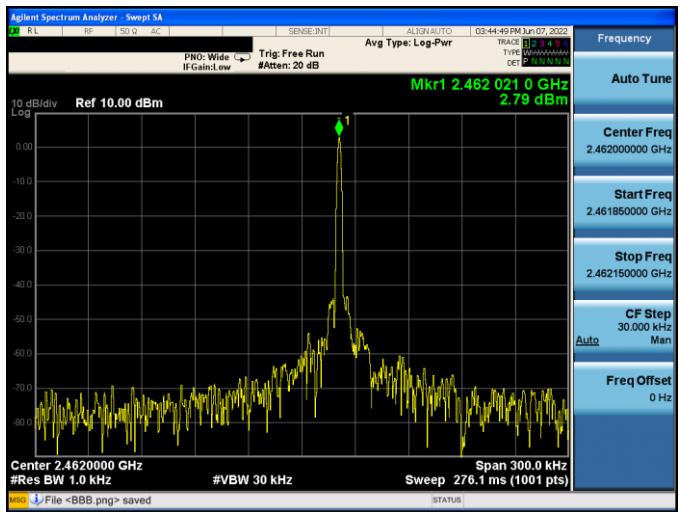


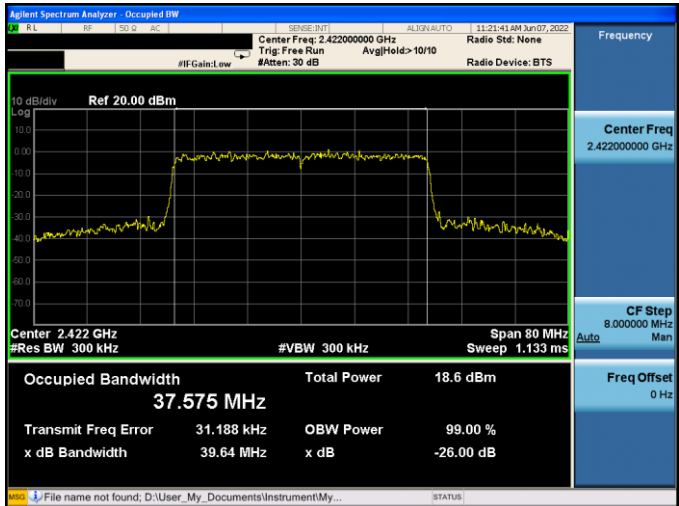
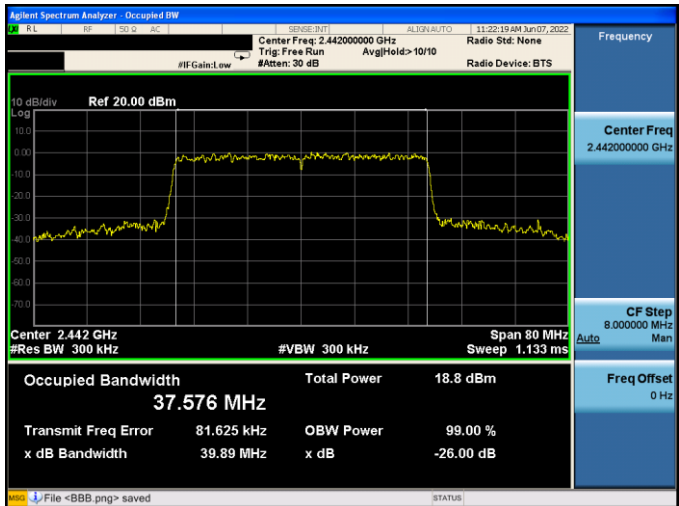
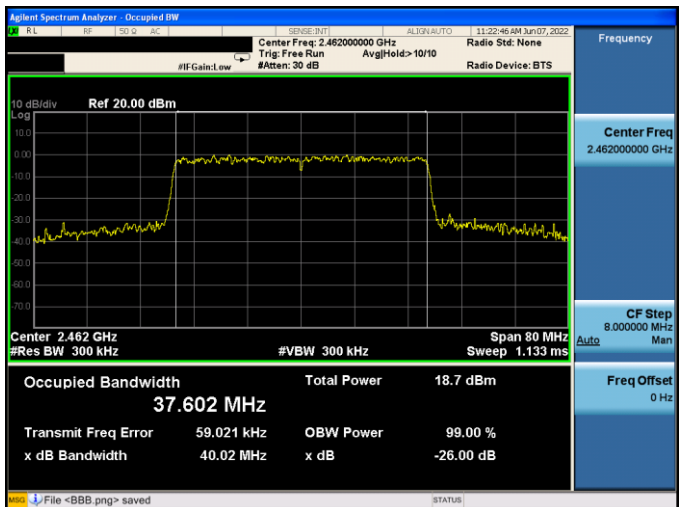
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _ 2496.5 - 12.5 GHz_TX0	
Unwanted Emission Strength Measurement	
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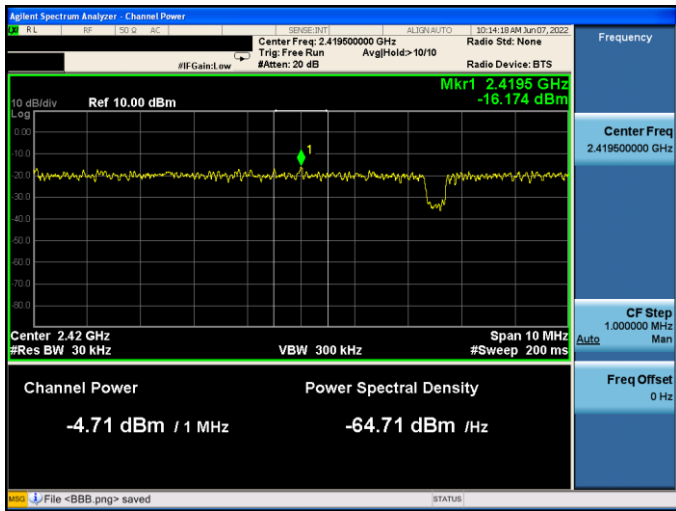
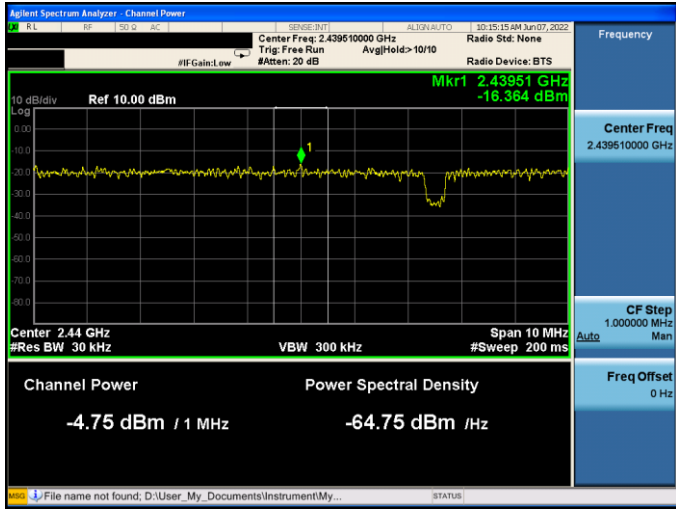
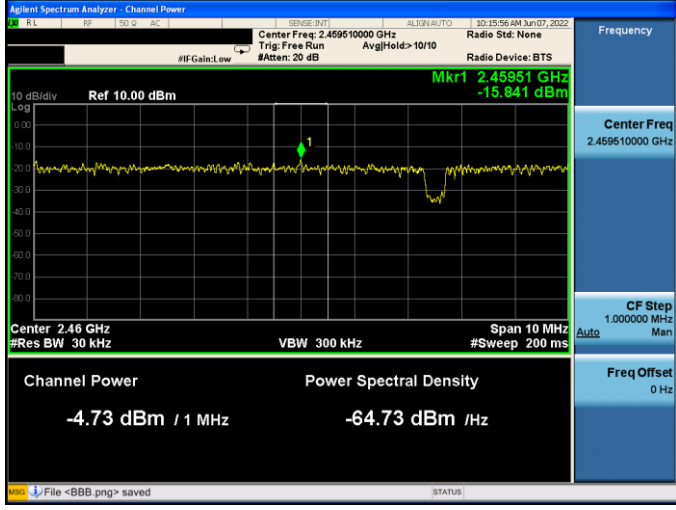


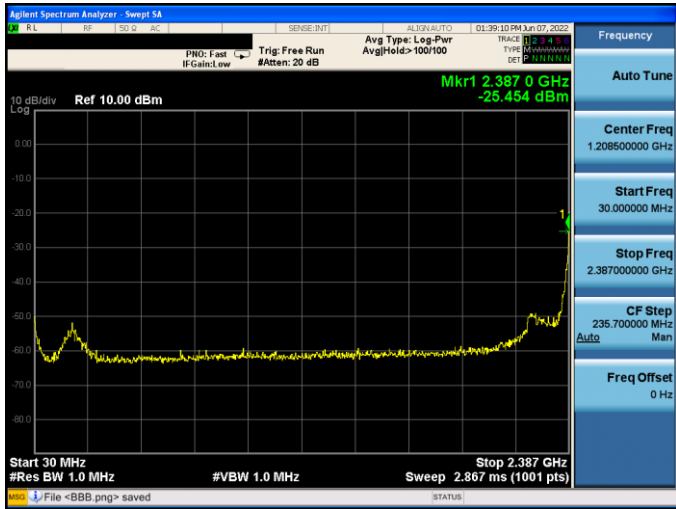
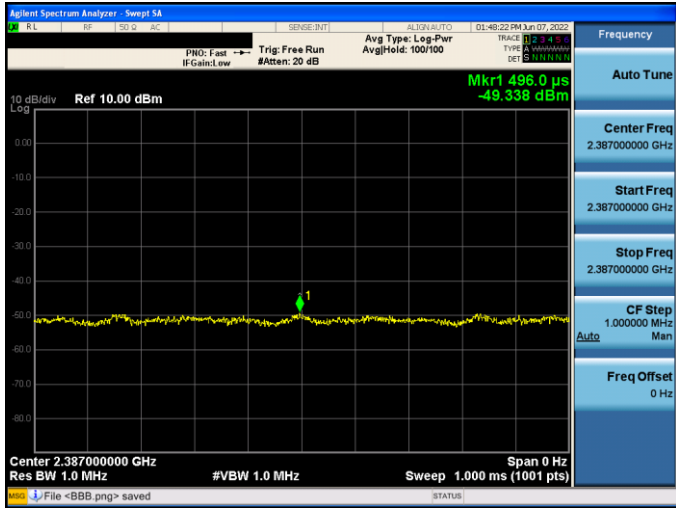
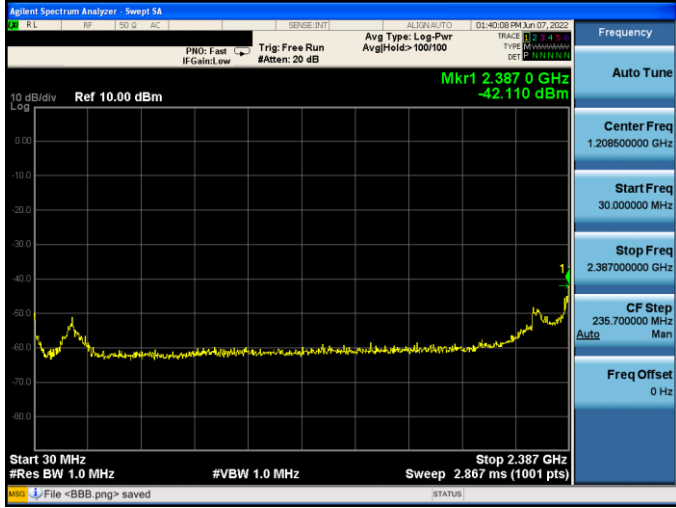
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _ Under 1 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
2412 MHz	
2442 MHz	
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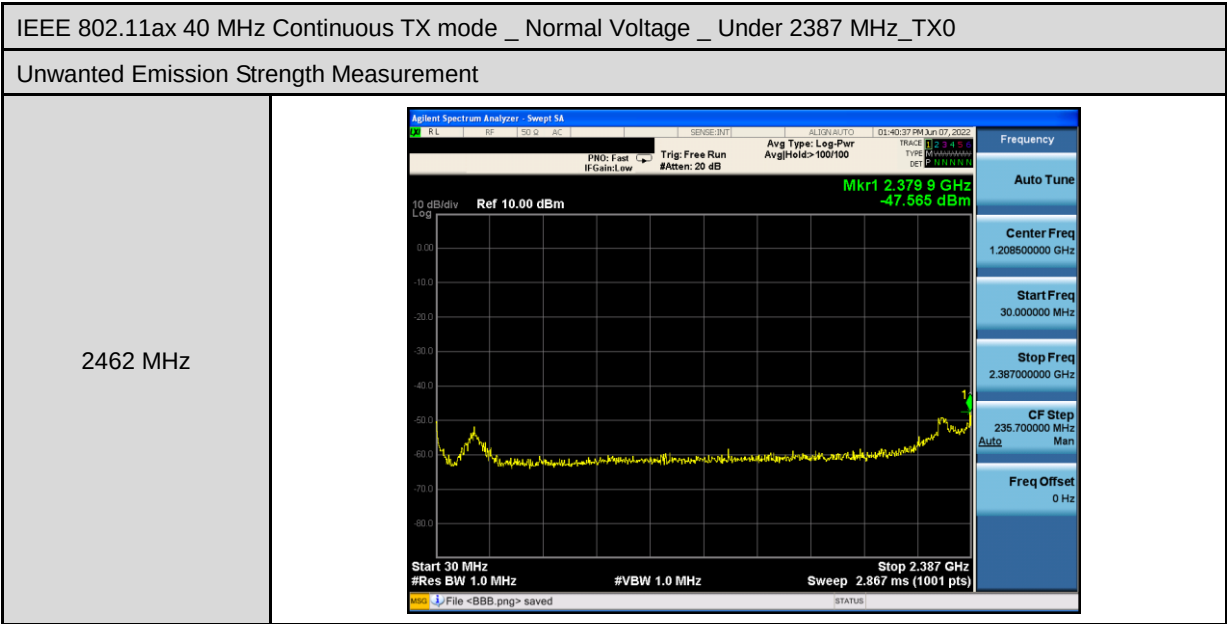
IEEE 802.11ax 20 MHz Continuous TX mode _ Normal Voltage _ 1 - 12.5 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
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2472 MHz	

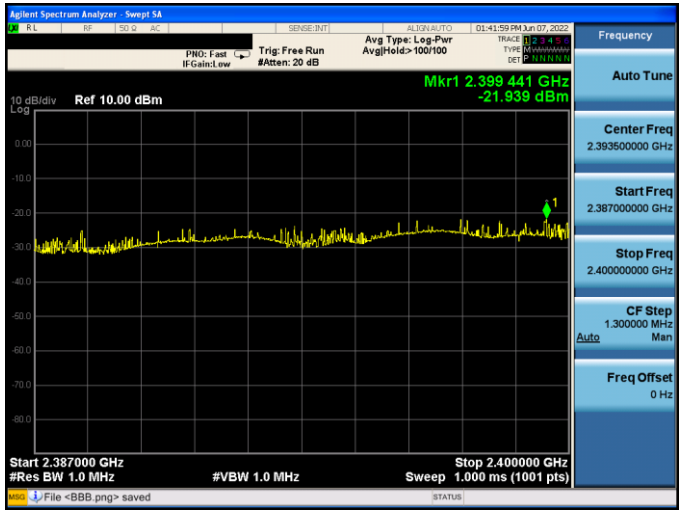
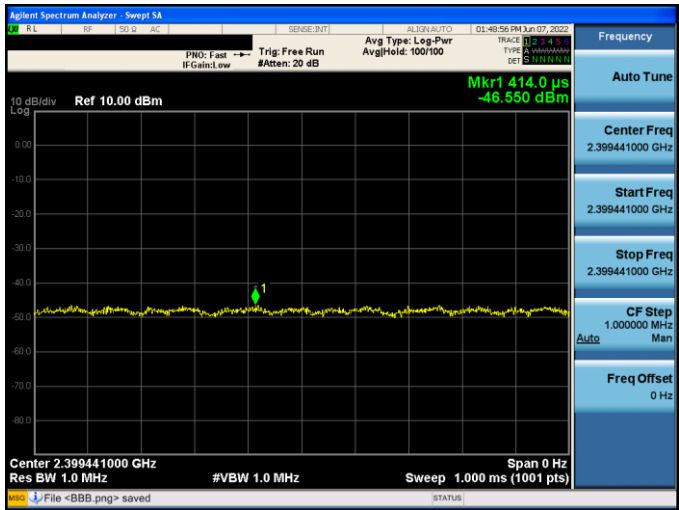
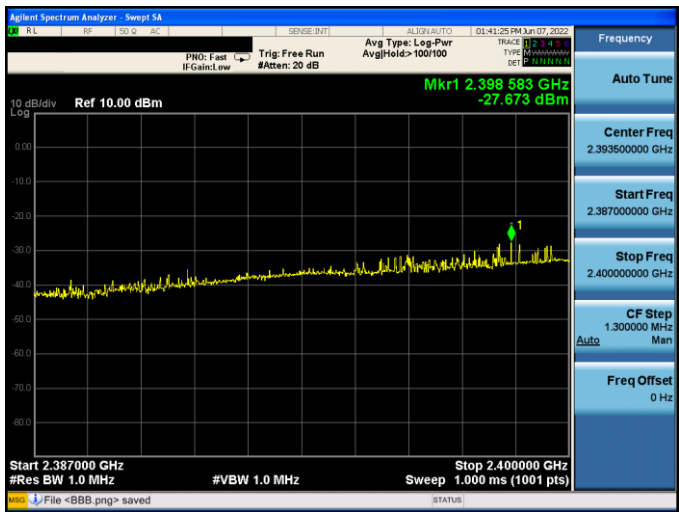
IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _TX0	
Frequency Error Measurement	
2422 MHz	
2442 MHz	
2462 MHz	

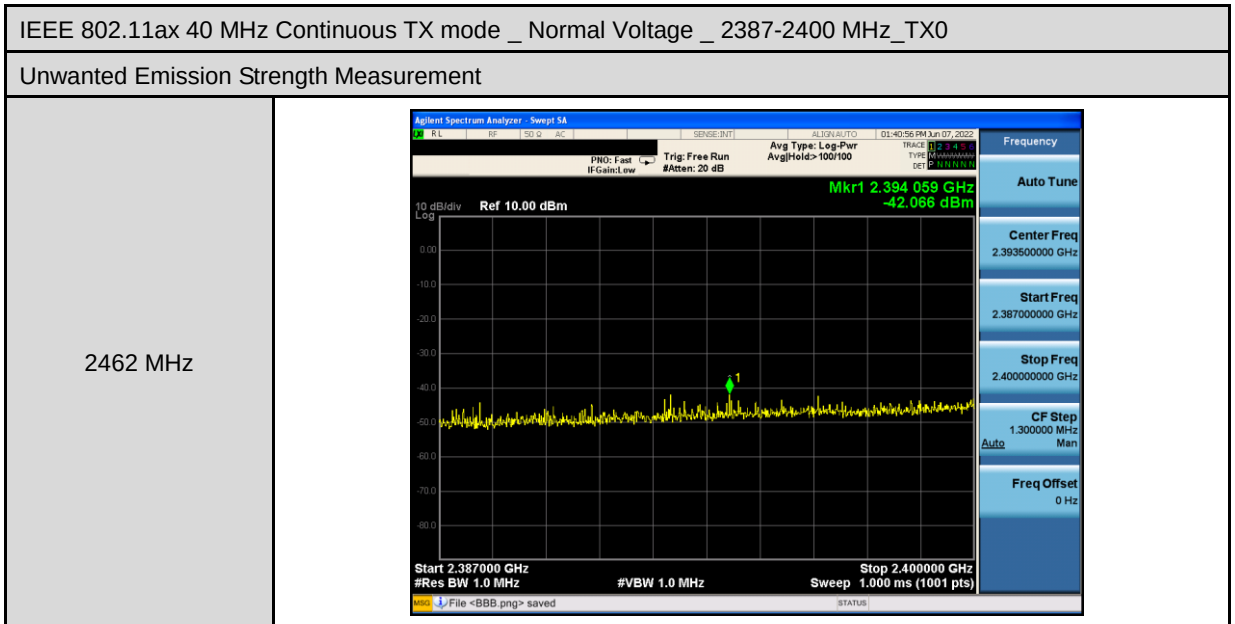
IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _TX0	
Occupied Bandwidth Measurement	
2422 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.42200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.422 GHz #Res BW 300 kHz #VBW 300 kHz Span 80 MHz Sweep 1.133 ms Occupied Bandwidth 37.575 MHz Total Power 18.6 dBm Transmit Freq Error 31.188 kHz OBW Power 99.00 % x dB Bandwidth 39.64 MHz x dB -26.00 dB File name not found: D:\User_My_Documents\InstrumentMy...
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.44200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 80 MHz Sweep 1.133 ms Occupied Bandwidth 37.576 MHz Total Power 18.8 dBm Transmit Freq Error 81.625 kHz OBW Power 99.00 % x dB Bandwidth 39.89 MHz x dB -26.00 dB File <BBB.png> saved
2462 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.46200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 2.462 GHz #Res BW 300 kHz #VBW 300 kHz Span 80 MHz Sweep 1.133 ms Occupied Bandwidth 37.602 MHz Total Power 18.7 dBm Transmit Freq Error 59.021 kHz OBW Power 99.00 % x dB Bandwidth 40.02 MHz x dB -26.00 dB File <BBB.png> saved

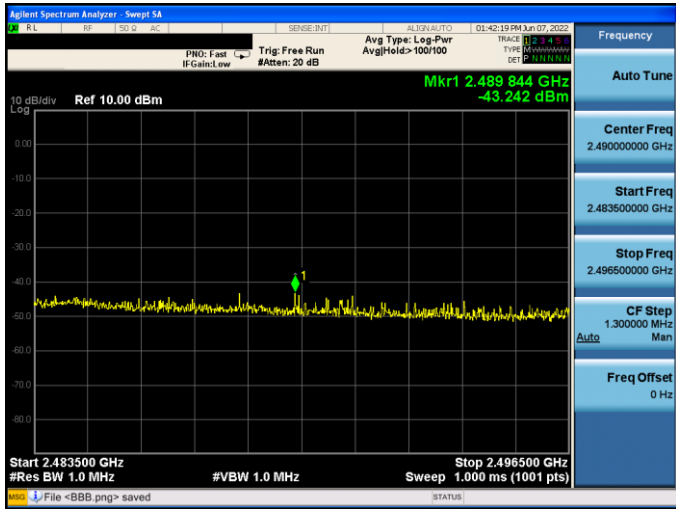
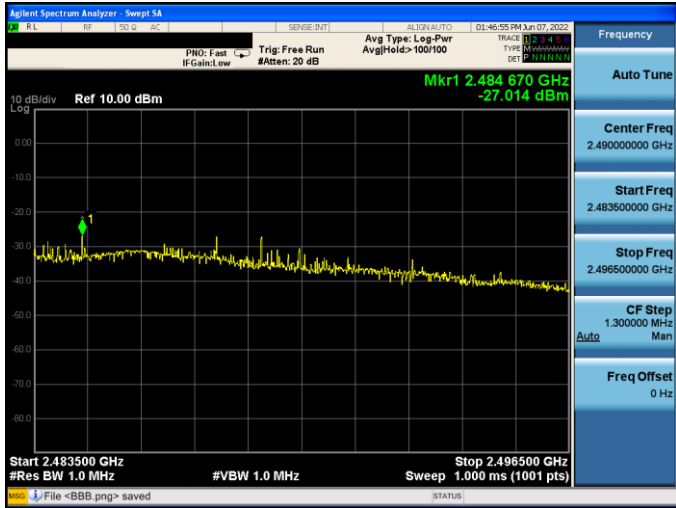
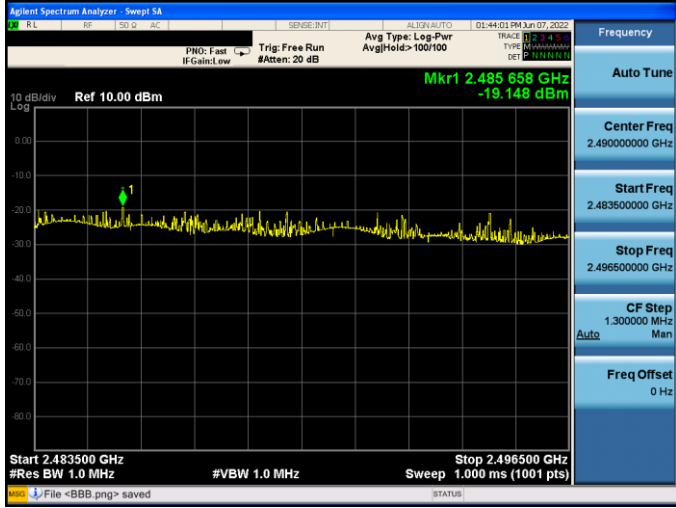
IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _TX0	
Antenna Power (Conducted) Measurement_ Antenna Power	
2422 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.41950000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.4195 GHz -16.174 dBm Center 2.42 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power -4.71 dBm / 1 MHz Power Spectral Density -64.71 dBm /Hz File <BBB.png> saved
2442 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.439510000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.43951 GHz -16.364 dBm Center 2.44 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power -4.75 dBm / 1 MHz Power Spectral Density -64.75 dBm /Hz File name not found; D:\User_My_Documents\Instrument\My...
2462 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.459510000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Mkr1 2.45951 GHz -15.841 dBm Center 2.46 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power -4.73 dBm / 1 MHz Power Spectral Density -64.73 dBm /Hz File <BBB.png> saved

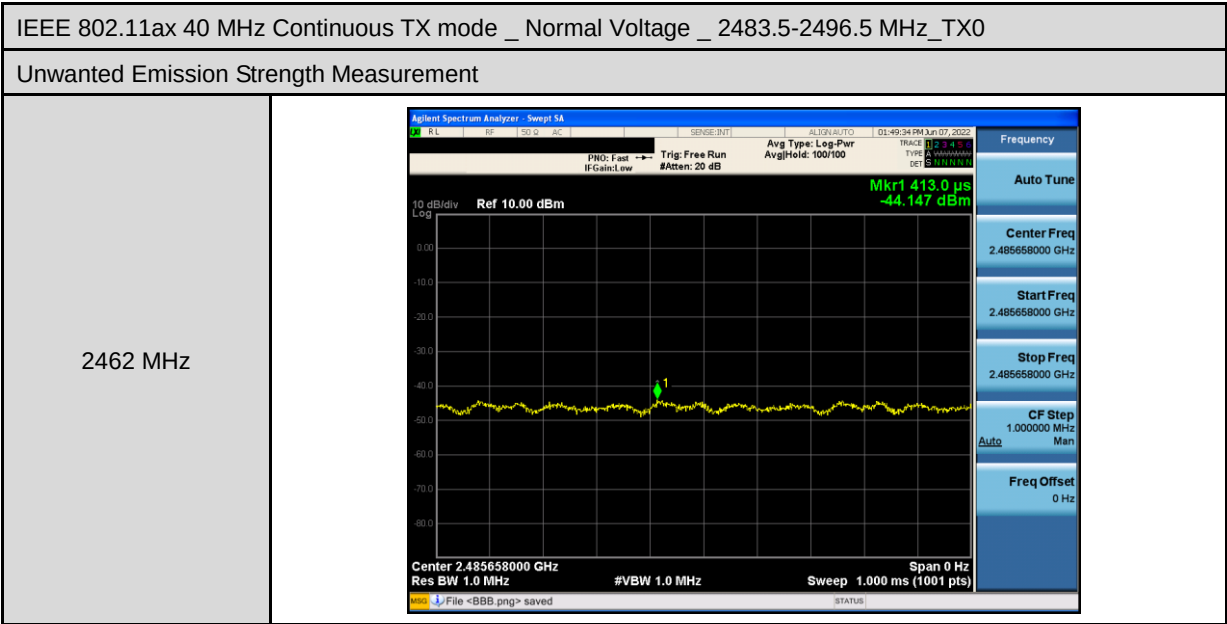
IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _ Under 2387 MHz_TX0	
Unwanted Emission Strength Measurement	
2422 MHz	
2422 MHz	
2442 MHz	

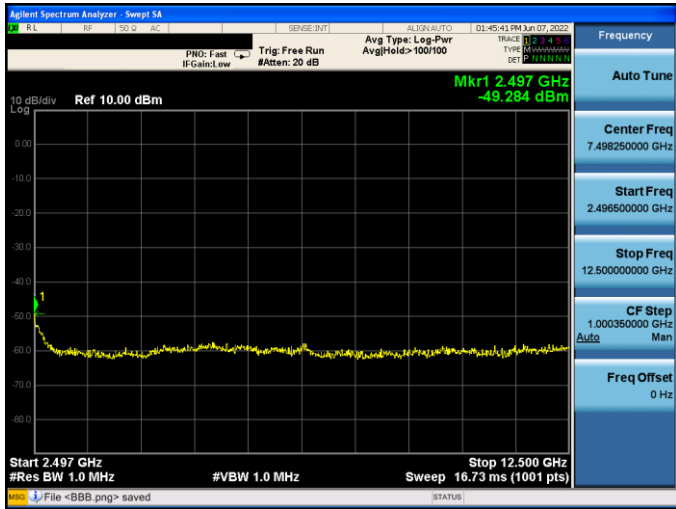
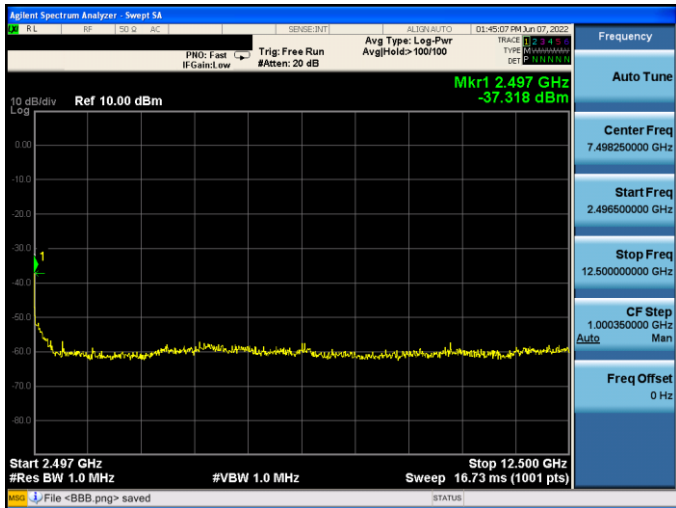
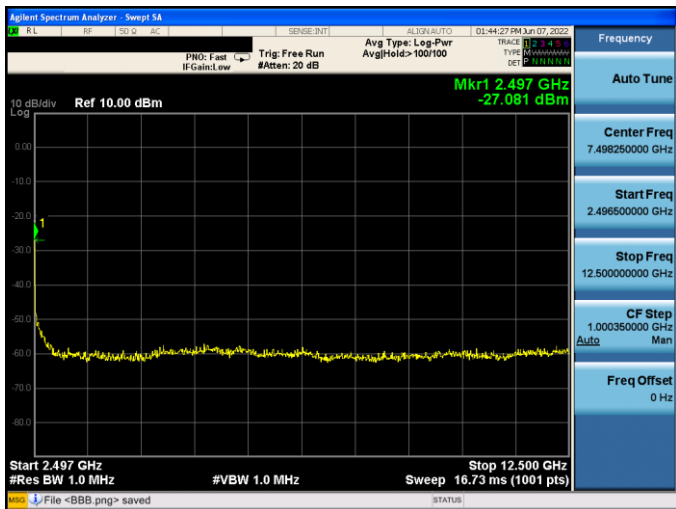


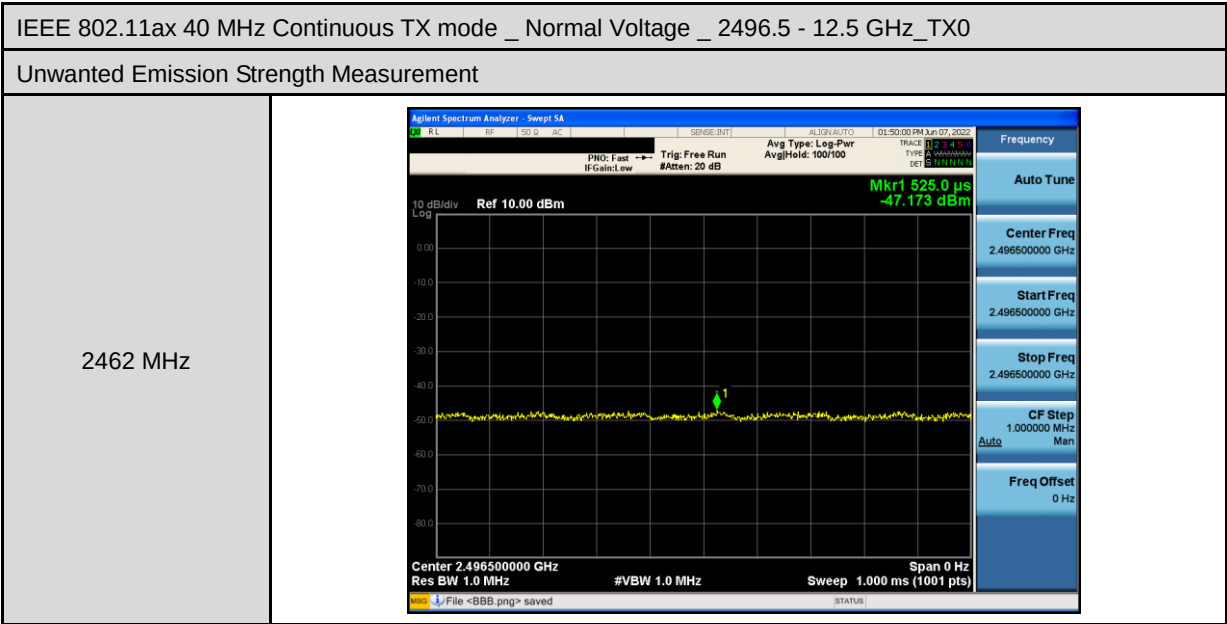
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Unwanted Emission Strength Measurement	
2422 MHz	
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2442 MHz	

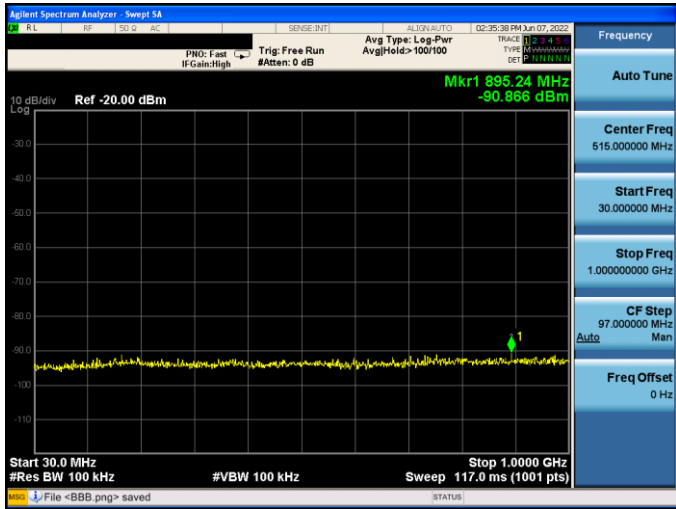
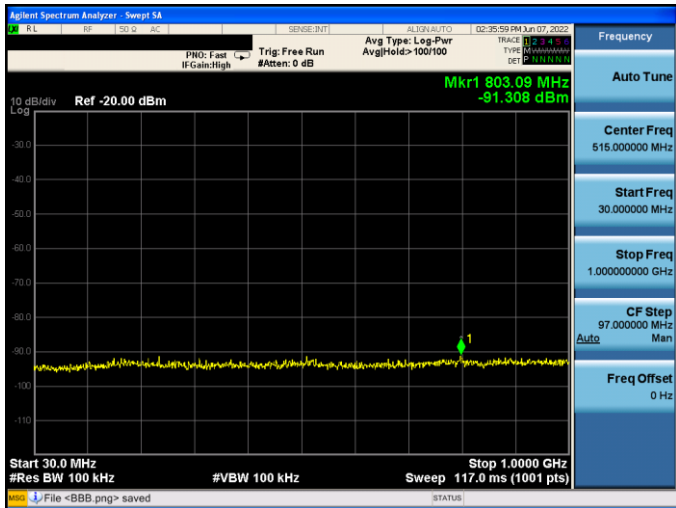
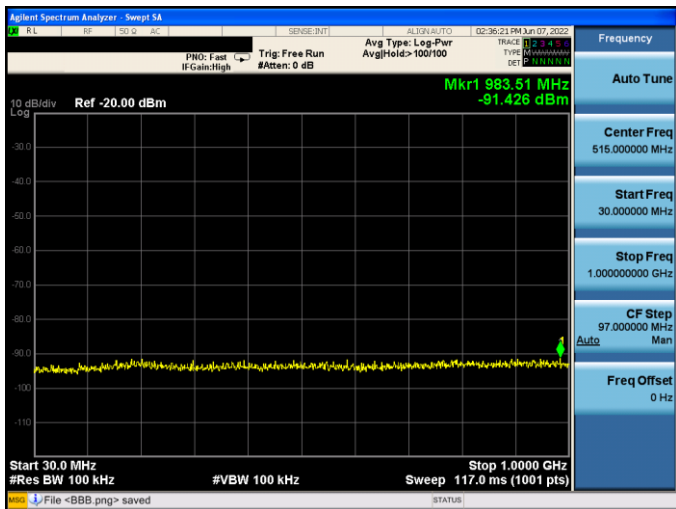


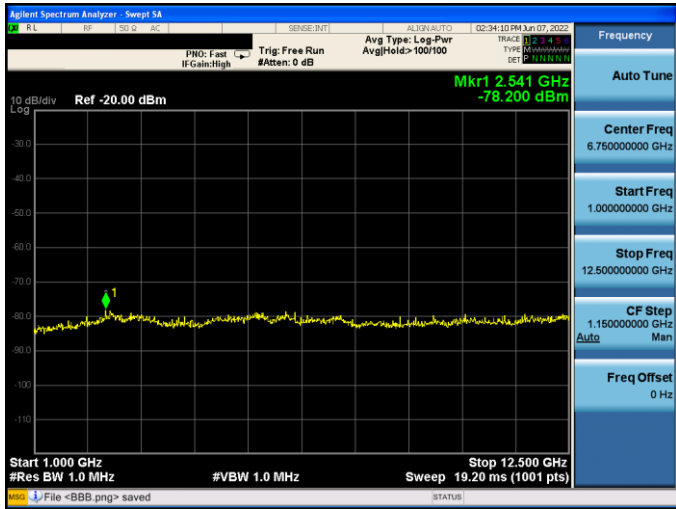
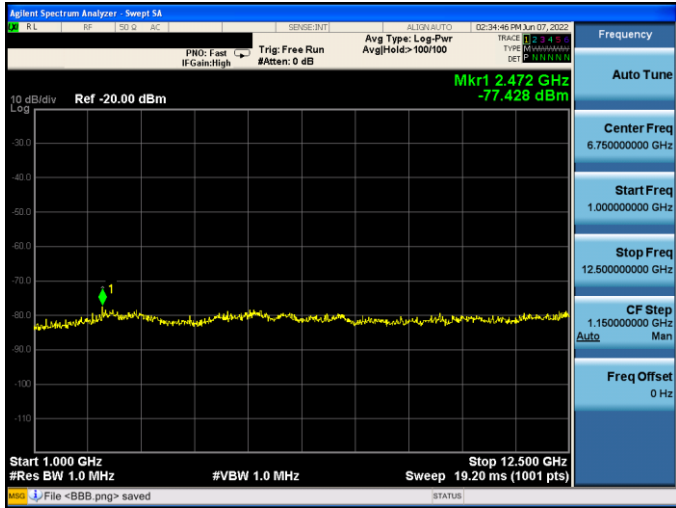
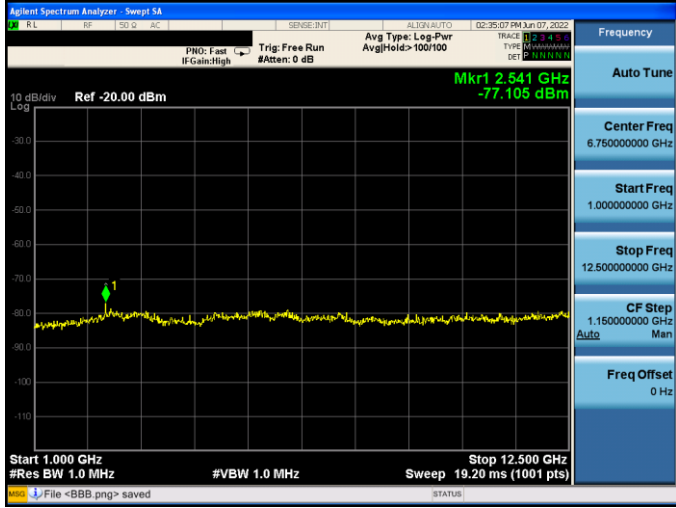
IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _ 2483.5-2496.5 MHz_TX0	
Unwanted Emission Strength Measurement	
2422 MHz	
2442 MHz	
2462 MHz	



IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _ 2496.5 - 12.5 GHz_TX0	
Unwanted Emission Strength Measurement	
2422 MHz	
2442 MHz	
2462 MHz	



IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _ Under 1 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
2422 MHz	
2442 MHz	
2462 MHz	

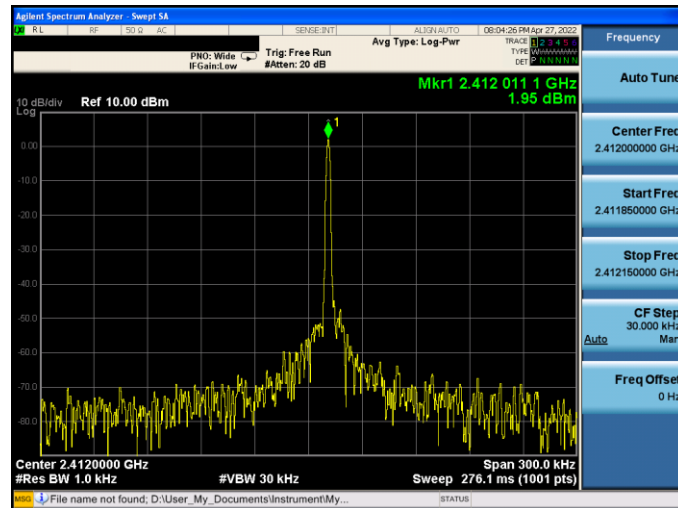
IEEE 802.11ax 40 MHz Continuous TX mode _ Normal Voltage _ 1 - 12.5 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
2422 MHz	
2442 MHz	
2462 MHz	

2x2

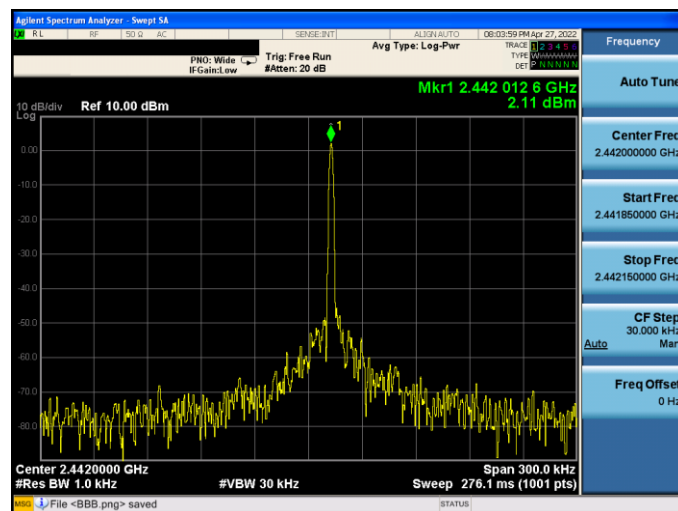
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0

Frequency Error Measurement

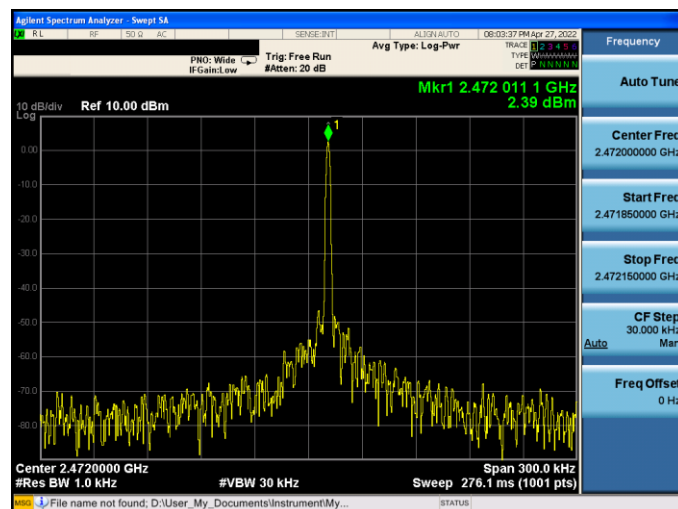
2412 MHz

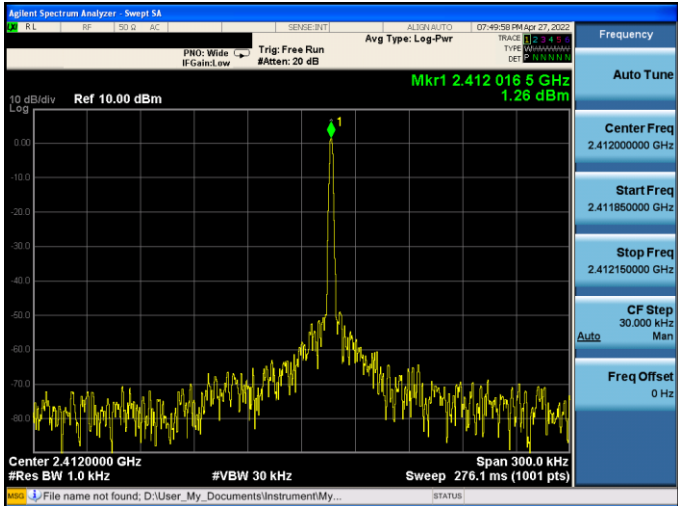
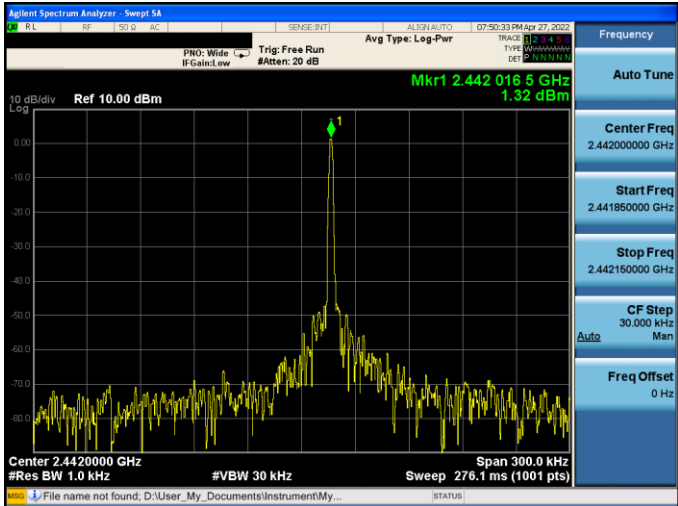
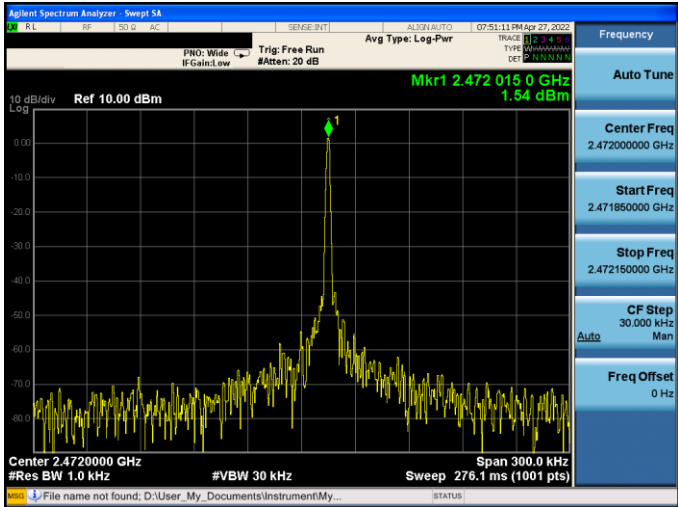


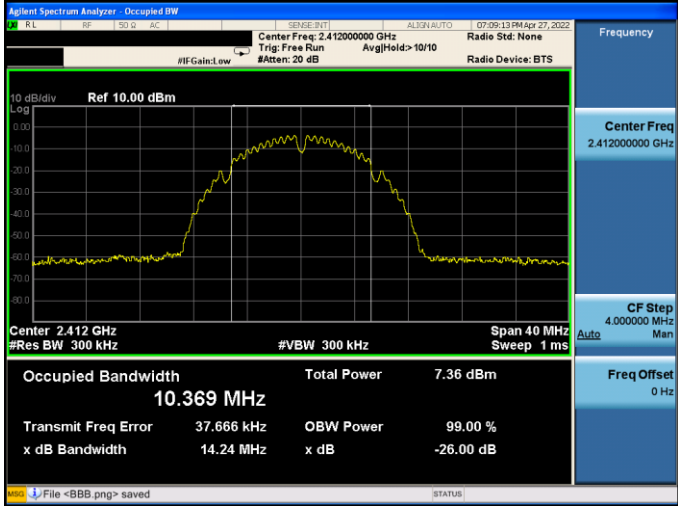
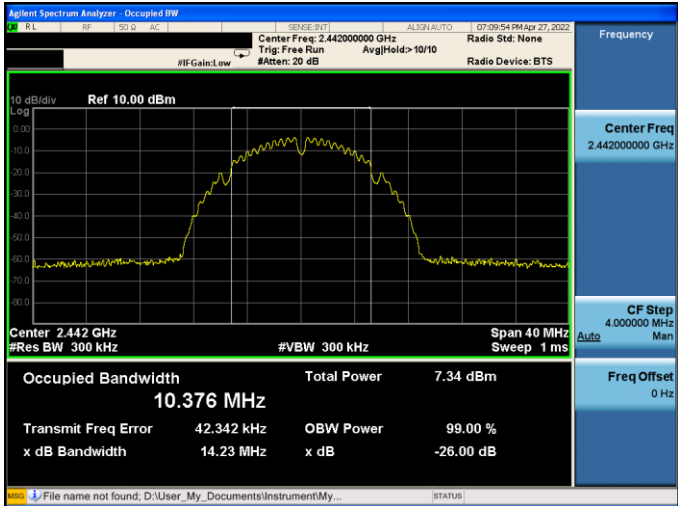
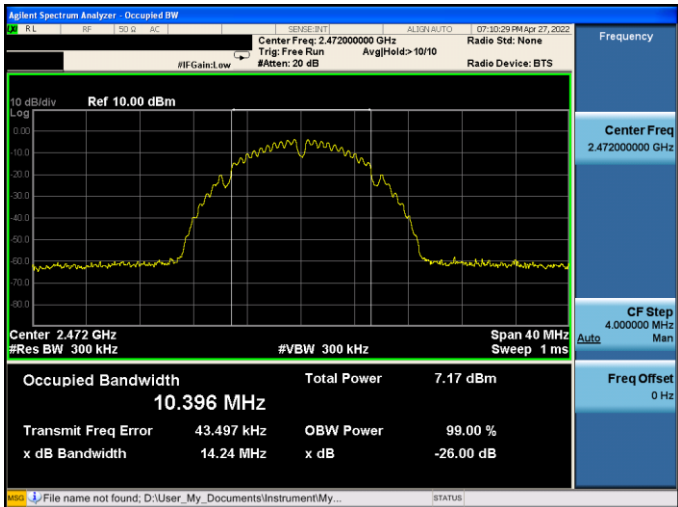
2442 MHz



2472 MHz



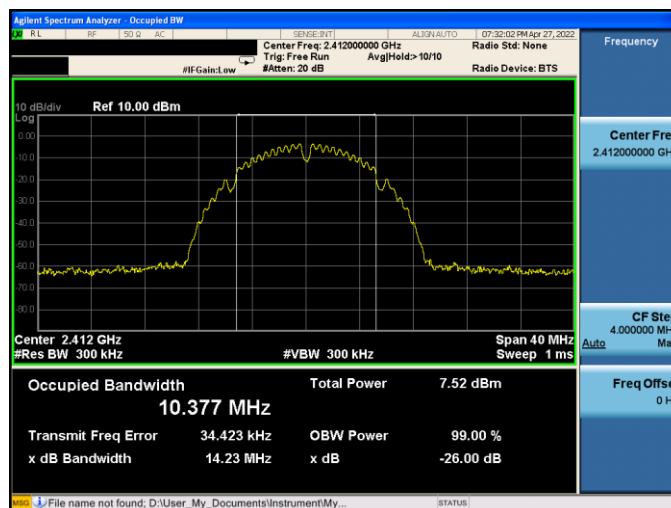
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ TX1	
Frequency Error Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0	
Occupied Bandwidth Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS IF Gain: Low Ref 10.00 dBm 10 dB/div Log Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 10.369 MHz Total Power 7.36 dBm Transmit Freq Error 37.666 kHz OBW Power 99.00 % x dB Bandwidth 14.24 MHz x dB -26.00 dB File <888.png> saved STATUS
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.44200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS IF Gain: Low Ref 10.00 dBm 10 dB/div Log Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 10.376 MHz Total Power 7.34 dBm Transmit Freq Error 42.342 kHz OBW Power 99.00 % x dB Bandwidth 14.23 MHz x dB -26.00 dB File name not found, D:\User_My_Documents\Instrument\My... STATUS
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.47200000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS IF Gain: Low Ref 10.00 dBm 10 dB/div Log Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 10.396 MHz Total Power 7.17 dBm Transmit Freq Error 43.497 kHz OBW Power 99.00 % x dB Bandwidth 14.24 MHz x dB -26.00 dB File name not found, D:\User_My_Documents\Instrument\My... STATUS

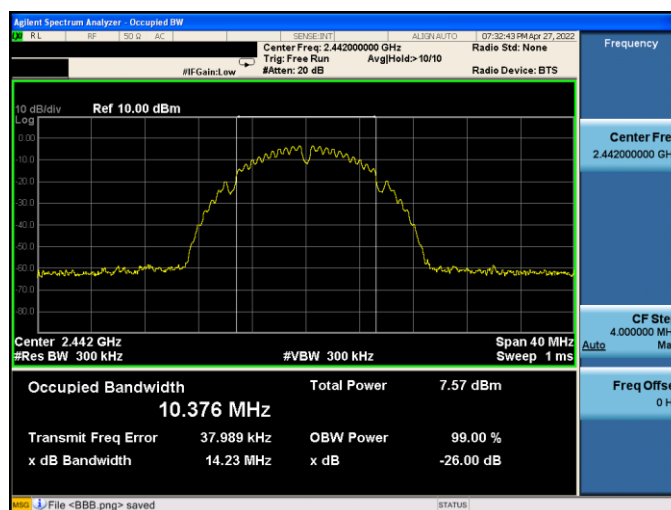
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ TX1

Occupied Bandwidth Measurement

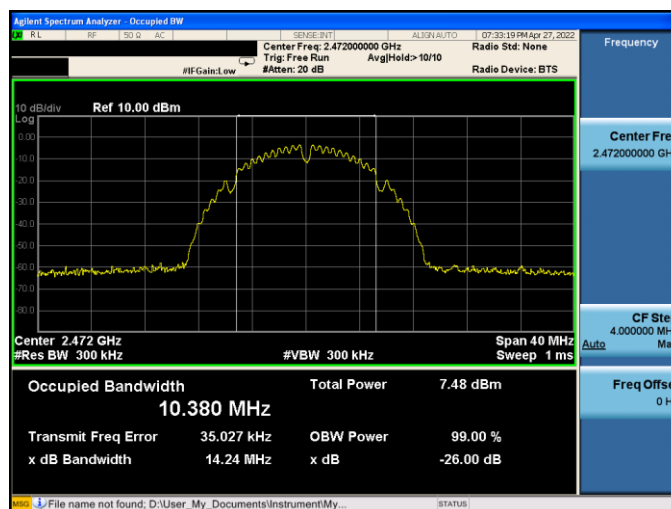
2412 MHz

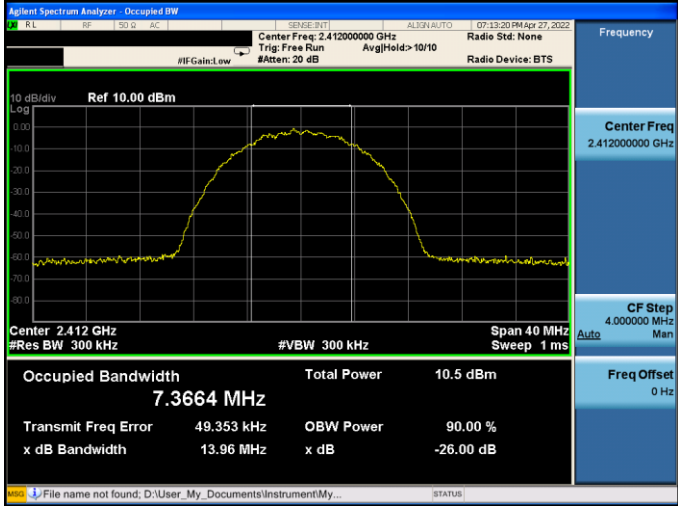
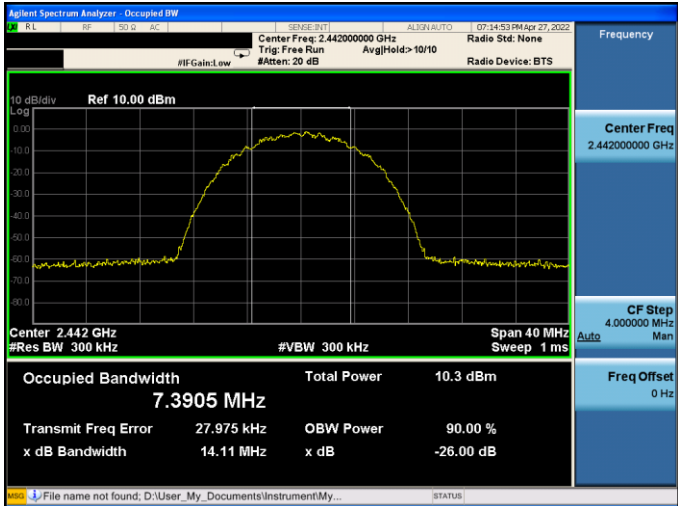
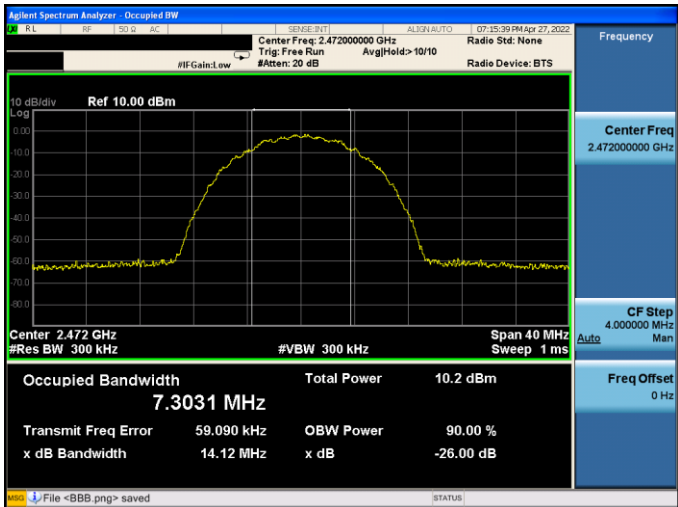


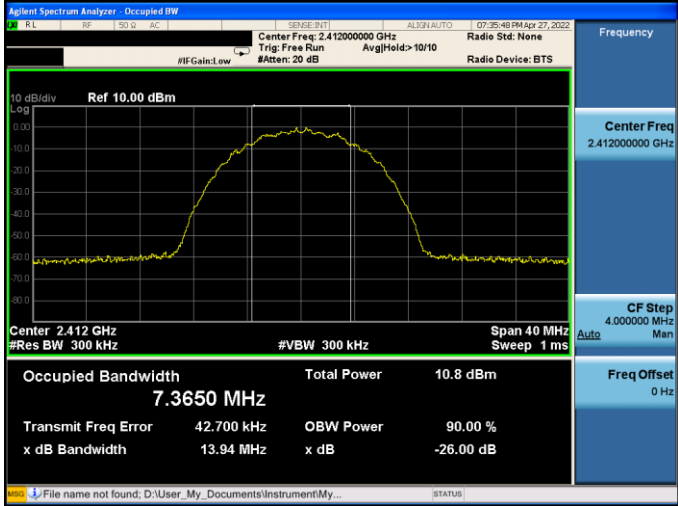
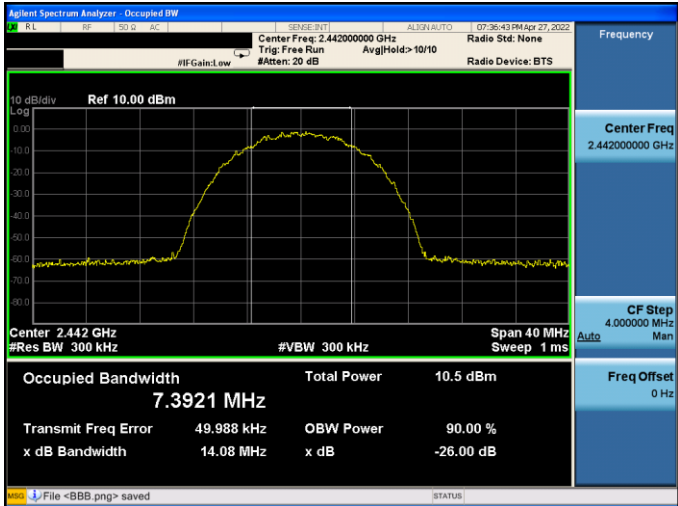
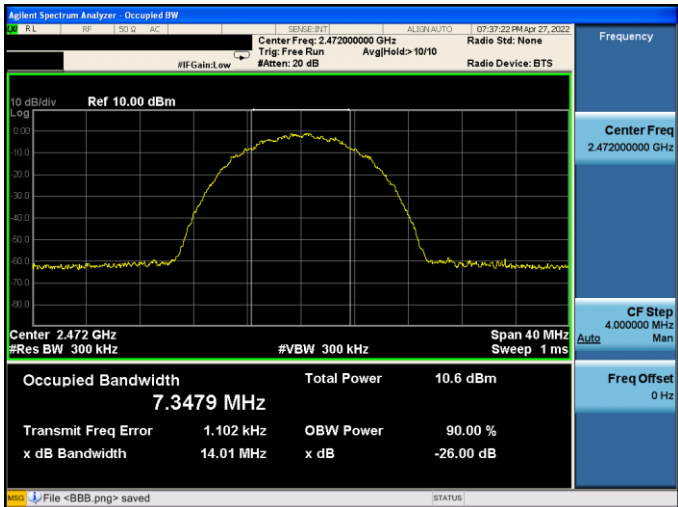
2442 MHz

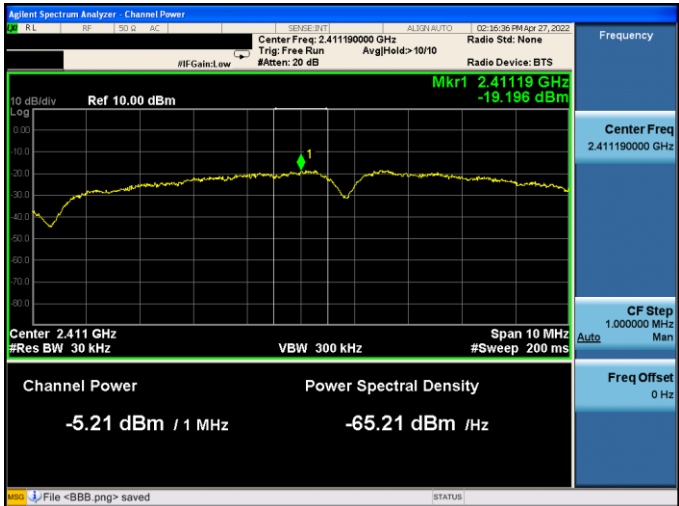
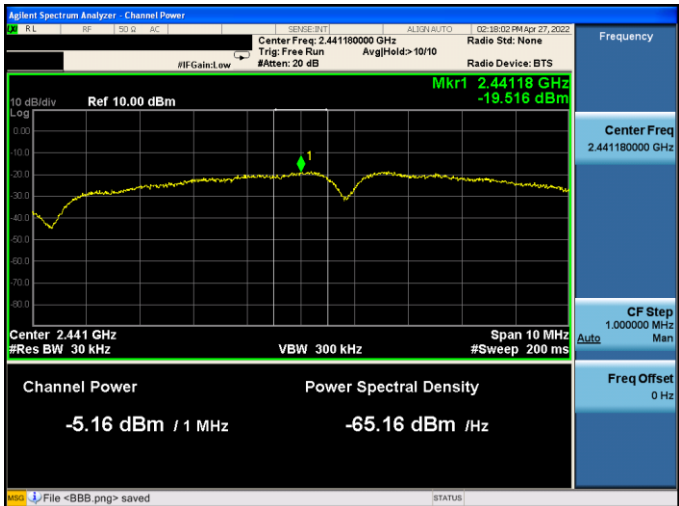
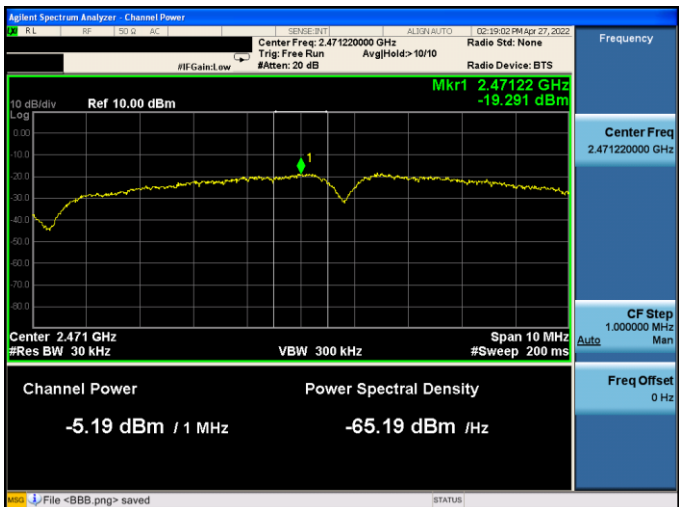


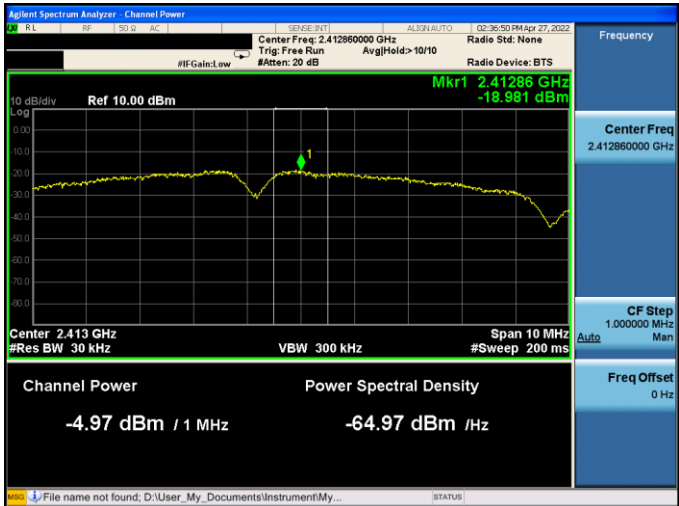
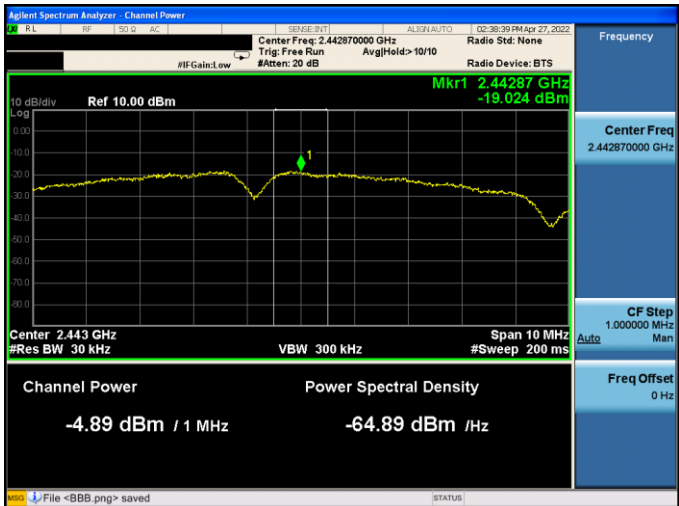
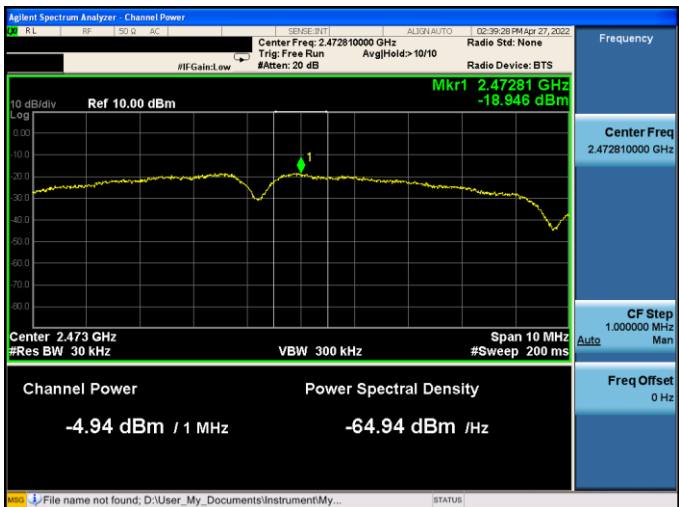
2472 MHz

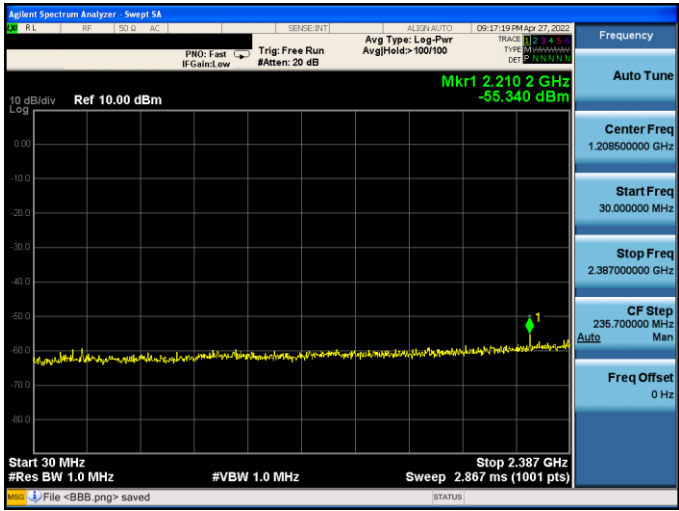
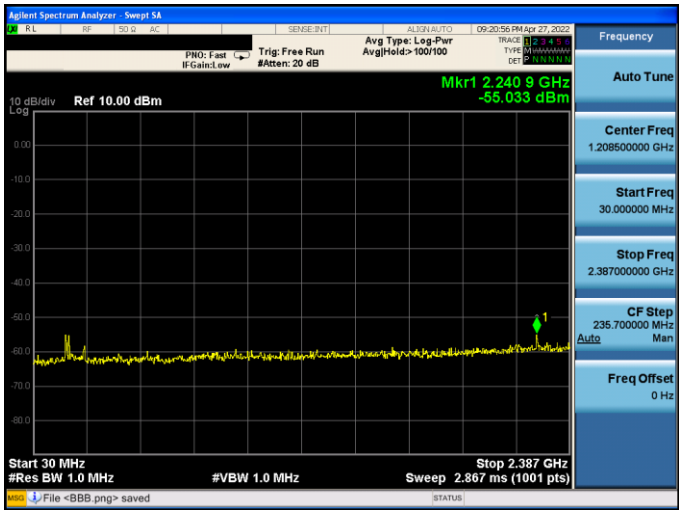
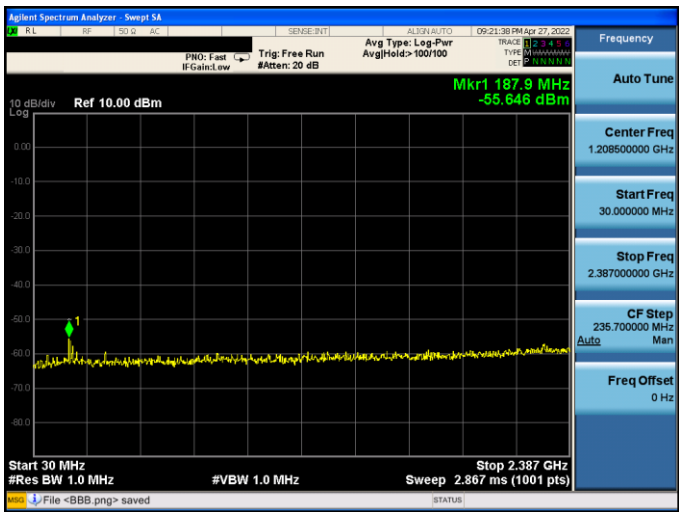


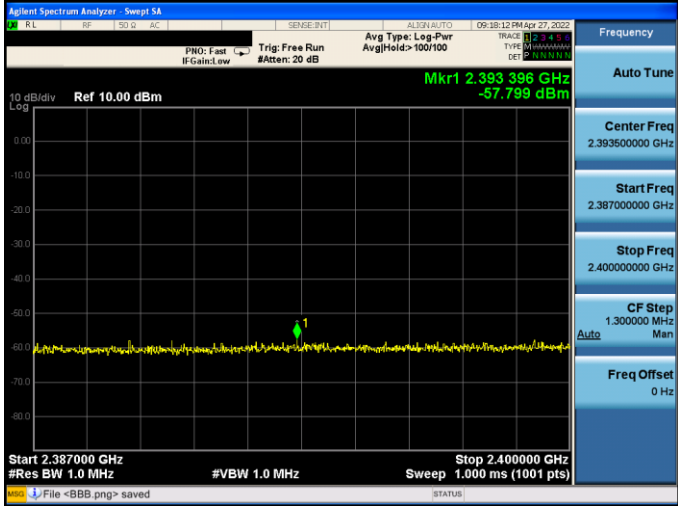
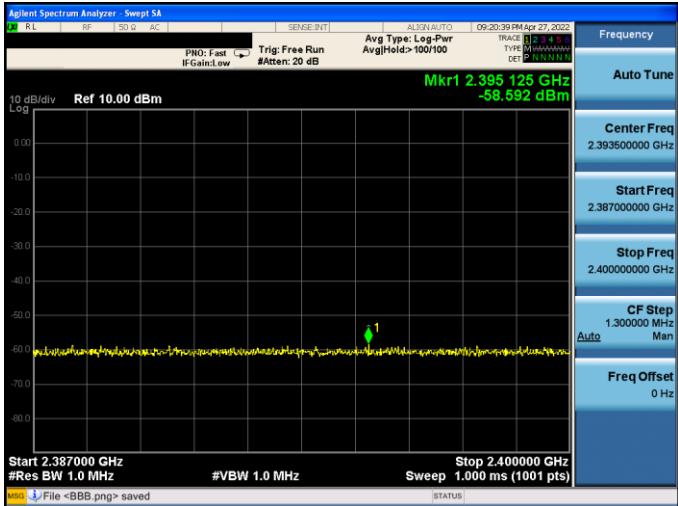
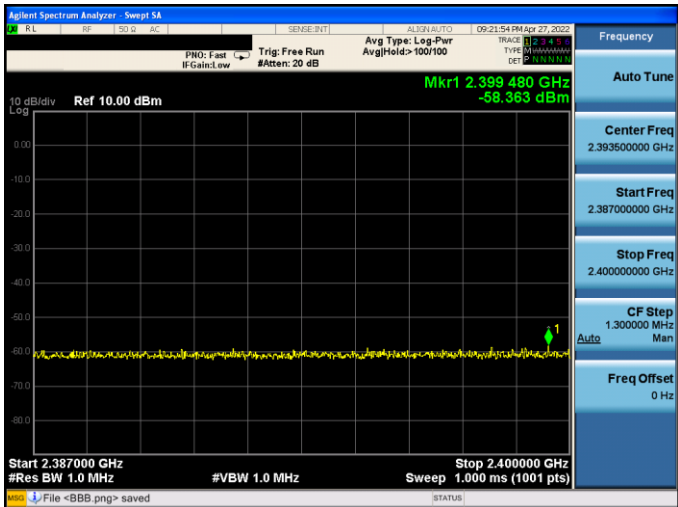
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0	
Spread Bandwidth and Spread Factor Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth: 7.3664 MHz Total Power: 10.5 dBm Transmit Freq Error: 49.353 kHz OBW Power: 90.00 % x dB Bandwidth: 13.96 MHz x dB: -26.00 dB Frequency: 2.412000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.442000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth: 7.3905 MHz Total Power: 10.3 dBm Transmit Freq Error: 27.975 kHz OBW Power: 90.00 % x dB Bandwidth: 14.11 MHz x dB: -26.00 dB Frequency: 2.442000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.472000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref 10.00 dBm Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth: 7.3031 MHz Total Power: 10.2 dBm Transmit Freq Error: 59.090 kHz OBW Power: 90.00 % x dB Bandwidth: 14.12 MHz x dB: -26.00 dB Frequency: 2.472000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz

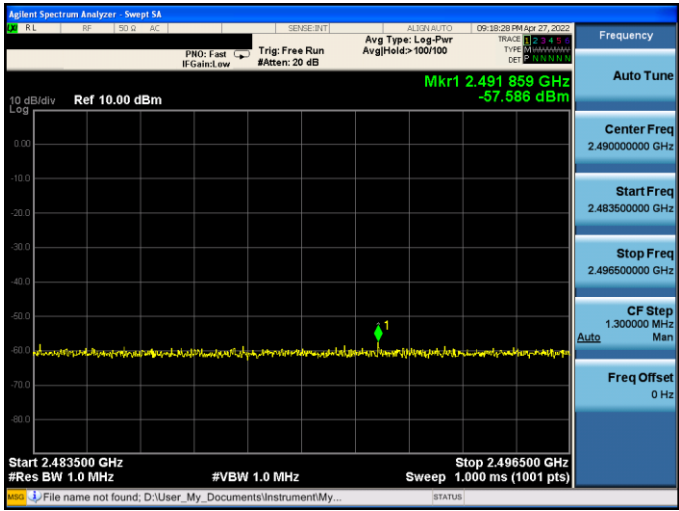
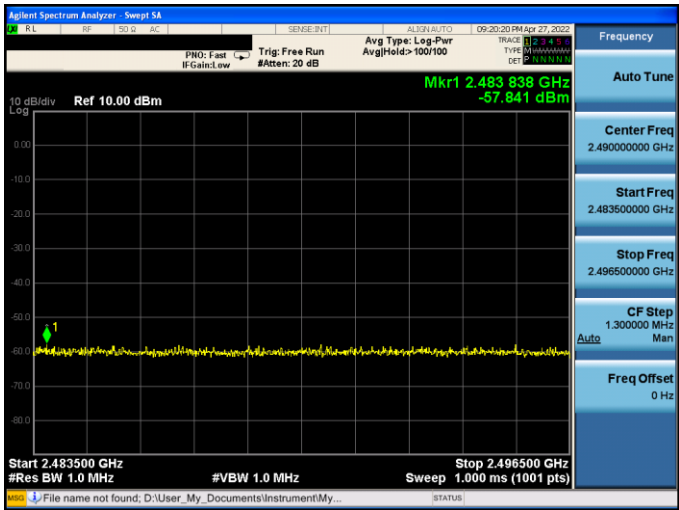
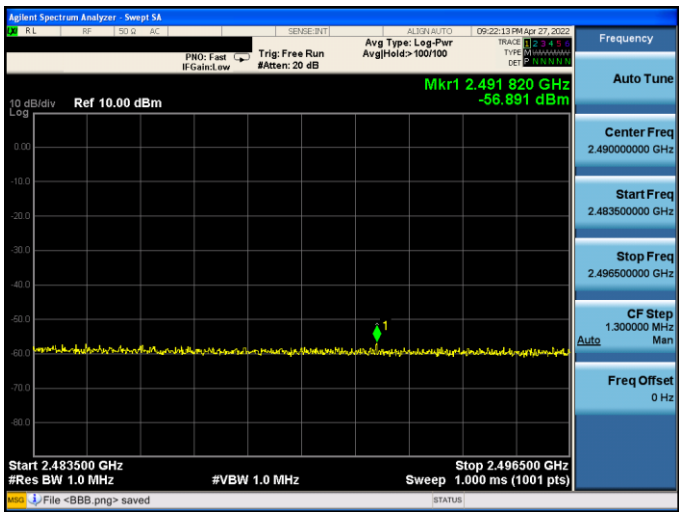
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ TX1	
Spread Bandwidth and Spread Factor Measurement	
2412 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS Ref 10.00 dBm Center 2.412 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 7.3650 MHz Total Power 10.8 dBm Transmit Freq Error 42.700 kHz OBW Power 90.00 % x dB Bandwidth 13.94 MHz x dB -26.00 dB File name not found: D:\User_My_Documents\Instrument\My...
2442 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.44200000 GHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS Ref 10.00 dBm Center 2.442 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 7.3921 MHz Total Power 10.5 dBm Transmit Freq Error 49.988 kHz OBW Power 90.00 % x dB Bandwidth 14.08 MHz x dB -26.00 dB File <BBB.png> saved
2472 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.47200000 GHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS Ref 10.00 dBm Center 2.472 GHz #Res BW 300 kHz #VBW 300 kHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 7.3479 MHz Total Power 10.6 dBm Transmit Freq Error 1.102 kHz OBW Power 90.00 % x dB Bandwidth 14.01 MHz x dB -26.00 dB File <BBB.png> saved

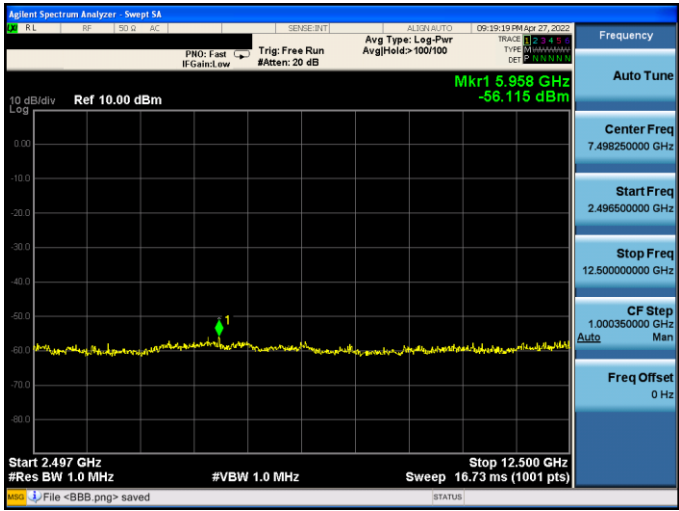
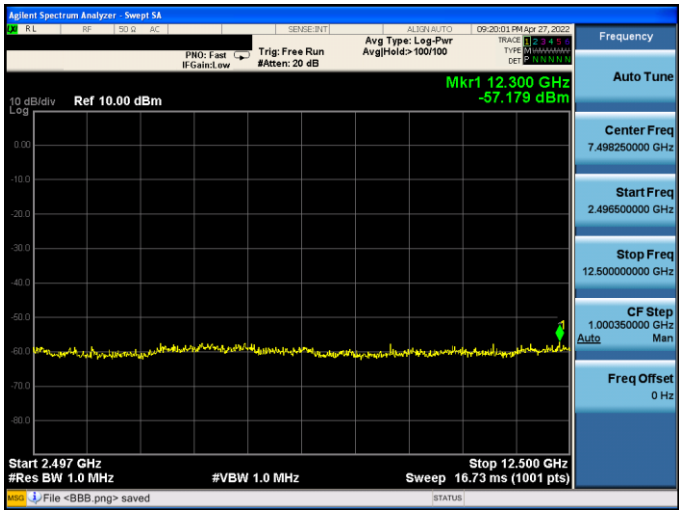
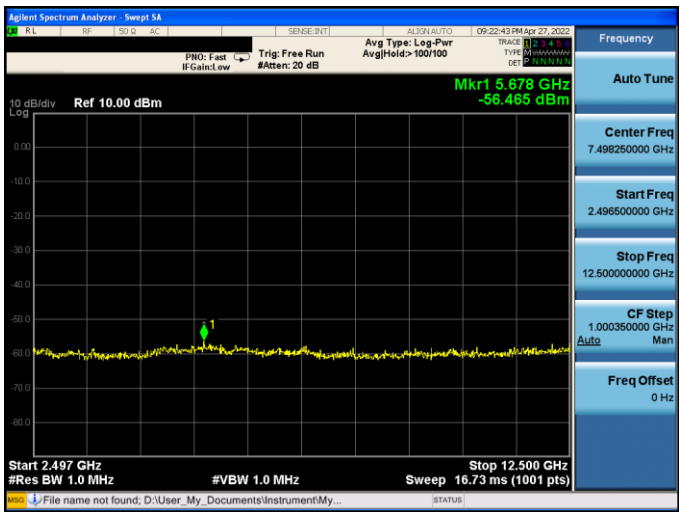
IEEE 802.11b Continuous TX Mode _ Normal Voltage _TX0	
Antenna Power (Conducted) Measurement_ Antenna Power	
2412 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.411190000 GHz Trig: Free Run #Atten: 20 dB Radio Device: BTS Ref 10.00 dBm Mkr1 2.41119 GHz -19.196 dBm Center 2.411 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power: -5.21 dBm / 1 MHz Power Spectral Density: -65.21 dBm / Hz Frequency: 2.411190000 GHz Center Freq: 2.411190000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz File <BBB.png> saved
2442 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.441180000 GHz Trig: Free Run #Atten: 20 dB Radio Device: BTS Ref 10.00 dBm Mkr1 2.44118 GHz -19.516 dBm Center 2.441 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power: -5.16 dBm / 1 MHz Power Spectral Density: -65.16 dBm / Hz Frequency: 2.441180000 GHz Center Freq: 2.441180000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz File <BBB.png> saved
2472 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.471220000 GHz Trig: Free Run #Atten: 20 dB Radio Device: BTS Ref 10.00 dBm Mkr1 2.47122 GHz -19.291 dBm Center 2.471 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power: -5.19 dBm / 1 MHz Power Spectral Density: -65.19 dBm / Hz Frequency: 2.471220000 GHz Center Freq: 2.471220000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz File <BBB.png> saved

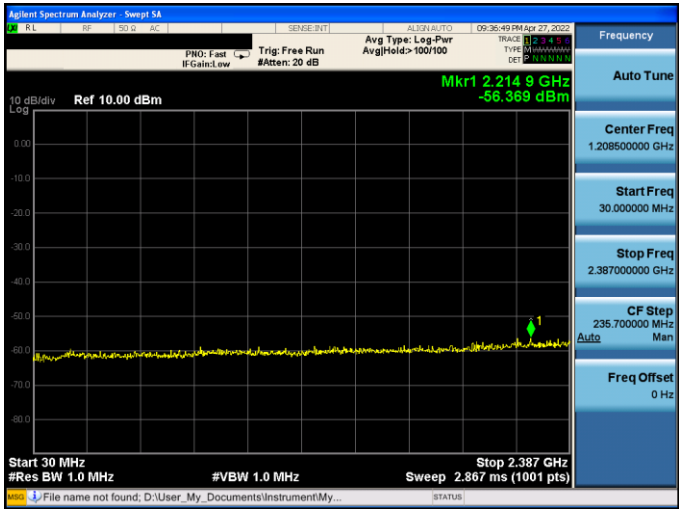
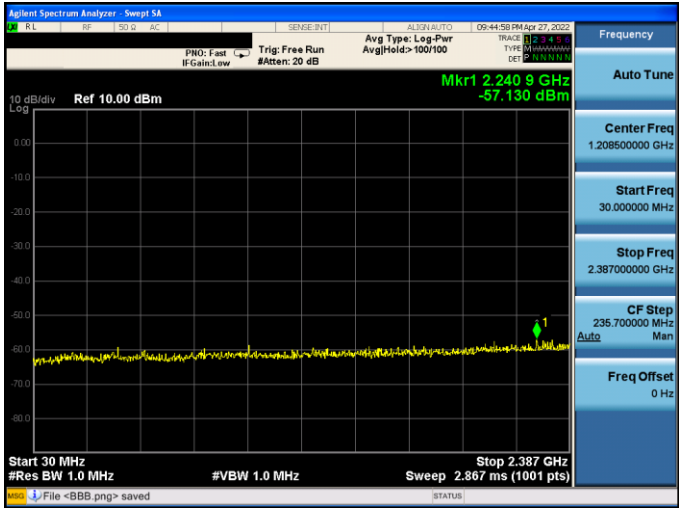
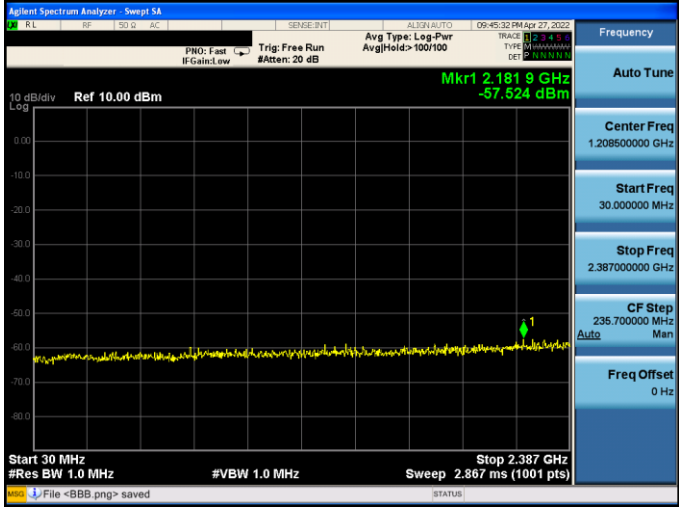
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ TX1	
Antenna Power (Conducted) Measurement_ Antenna Power	
2412 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.412860000 GHz Trig: Free Run #Atten: 20 dB Radio Device: BTS Ref 10.00 dBm Mkr1 2.41286 GHz -18.981 dBm Center 2.413 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power: -4.97 dBm / 1 MHz Power Spectral Density: -64.97 dBm / Hz Center Freq: 2.412860000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz
2442 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.442870000 GHz Trig: Free Run #Atten: 20 dB Radio Device: BTS Ref 10.00 dBm Mkr1 2.44287 GHz -19.024 dBm Center 2.443 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power: -4.89 dBm / 1 MHz Power Spectral Density: -64.89 dBm / Hz Center Freq: 2.442870000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz
2472 MHz	 Agilent Spectrum Analyzer - Channel Power Center Freq: 2.472810000 GHz Trig: Free Run #Atten: 20 dB Radio Device: BTS Ref 10.00 dBm Mkr1 2.47281 GHz -18.946 dBm Center 2.473 GHz #Res BW 30 kHz Span 10 MHz VBW 300 kHz #Sweep 200 ms Channel Power: -4.94 dBm / 1 MHz Power Spectral Density: -64.94 dBm / Hz Center Freq: 2.472810000 GHz CF Step: 1.000000 MHz Freq Offset: 0 Hz

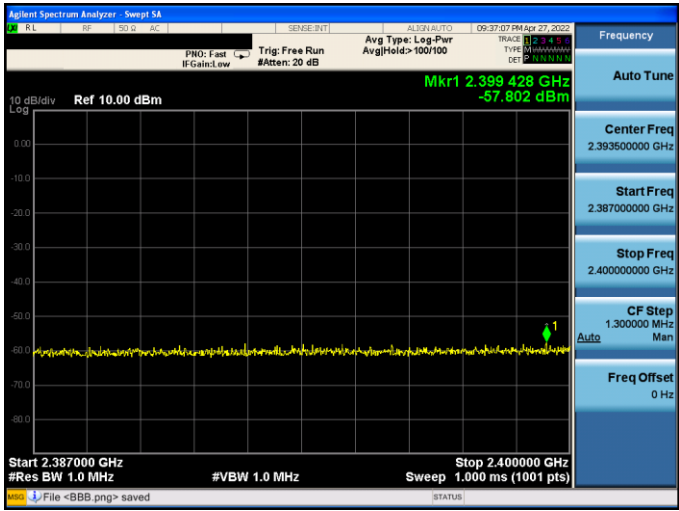
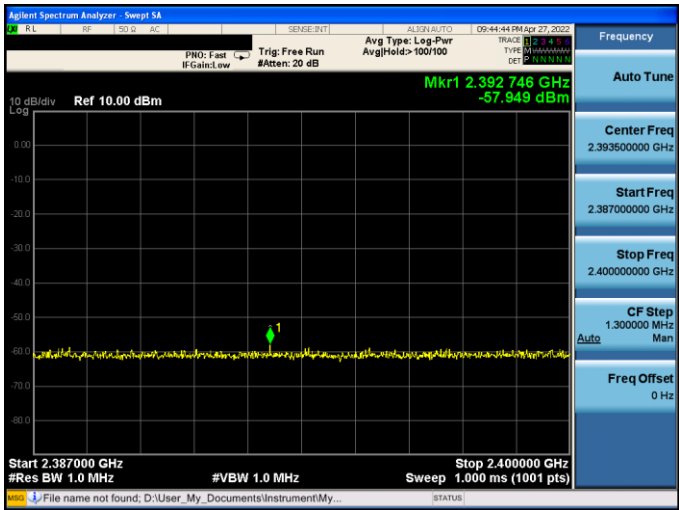
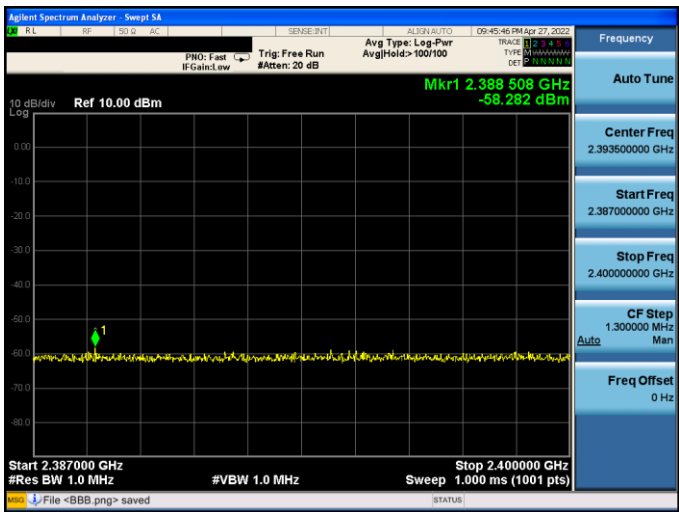
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ Under 2387 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

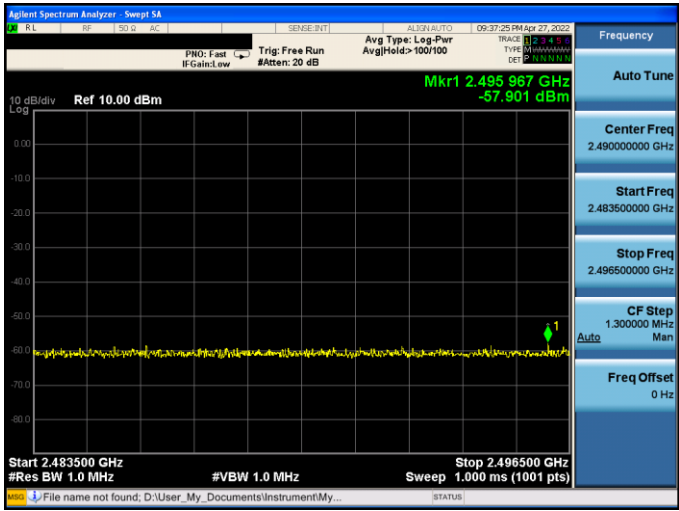
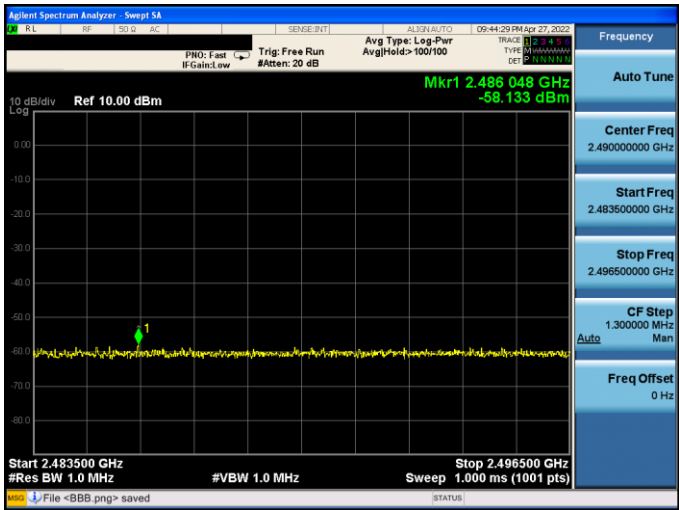
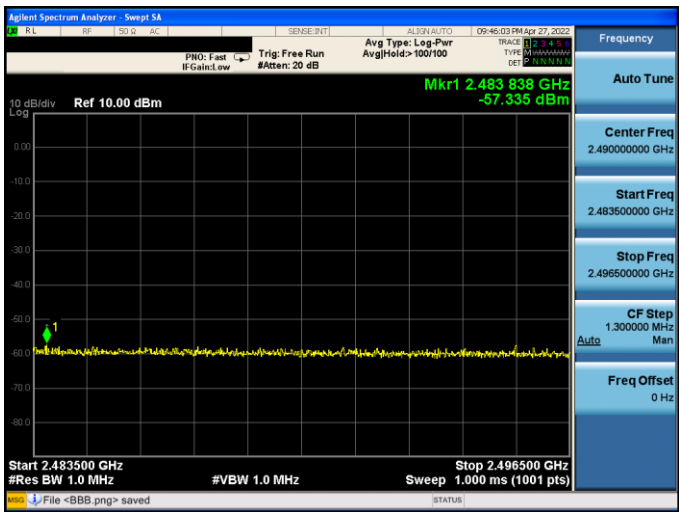
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2387-2400 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

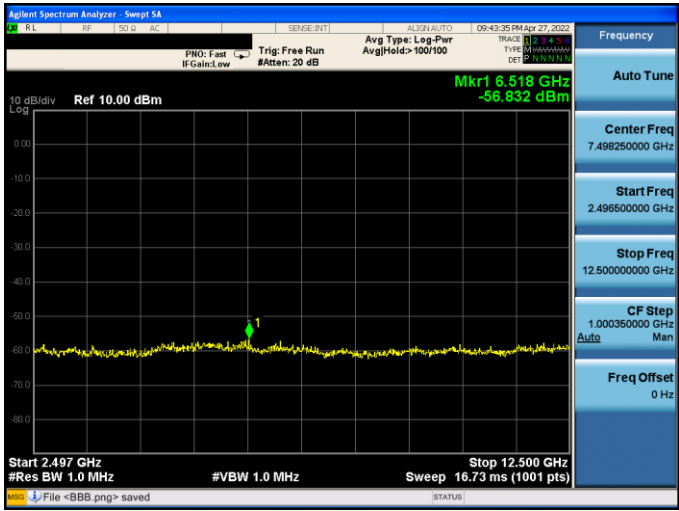
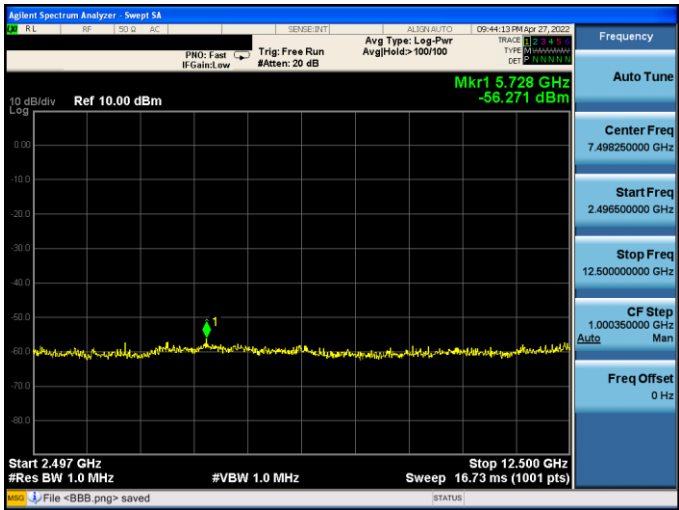
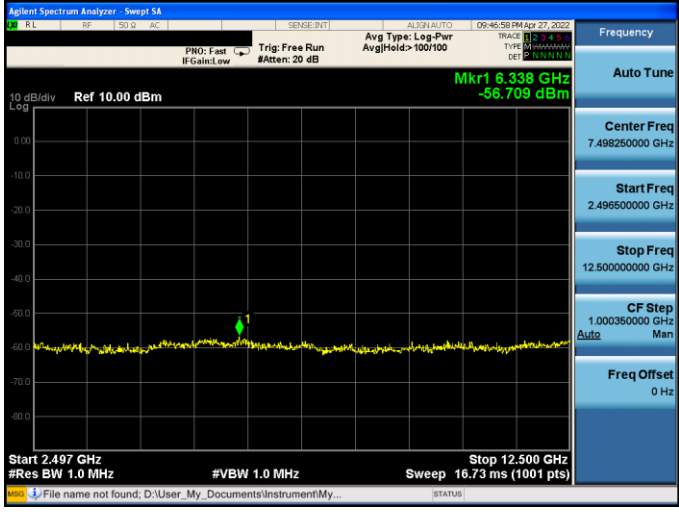
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2483.5-2496.5 MHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

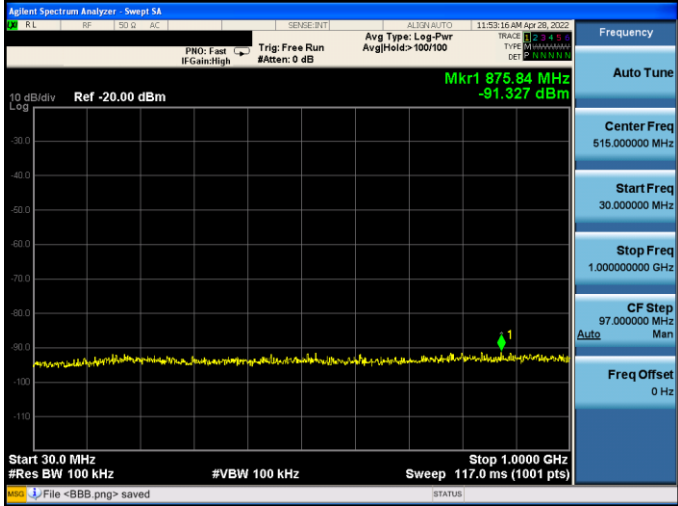
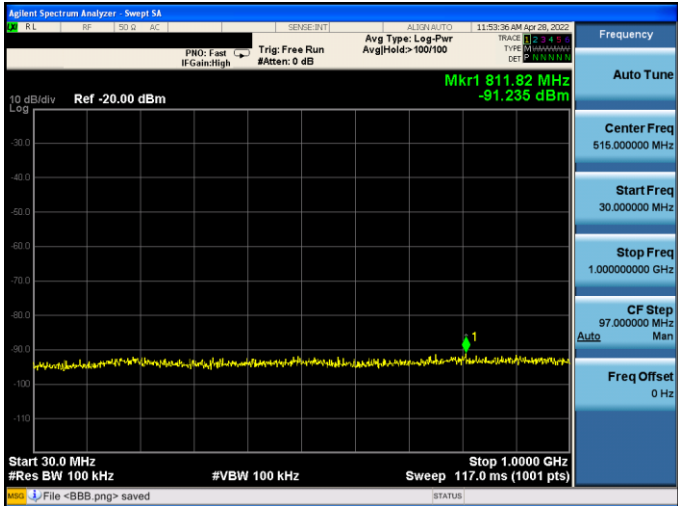
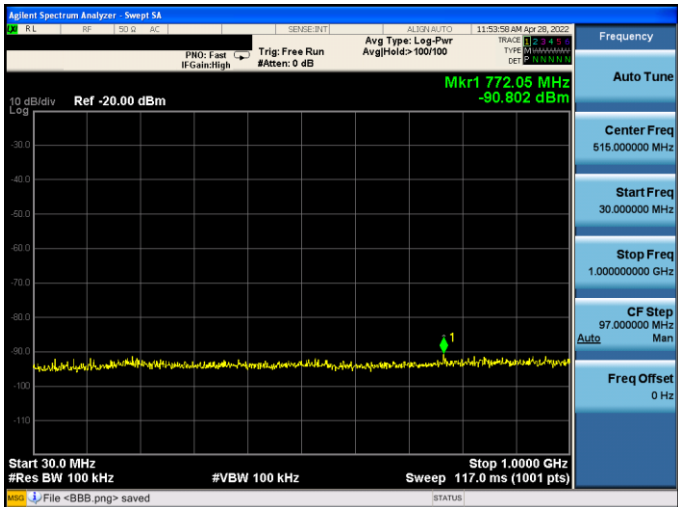
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2496.5 - 12.5 GHz_TX0	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

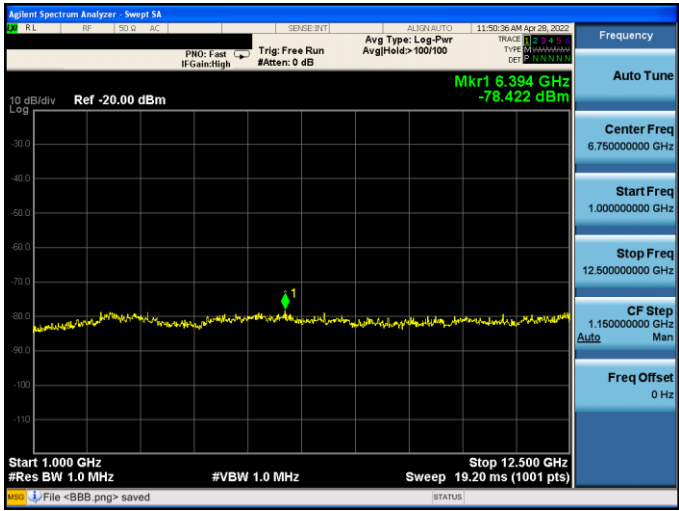
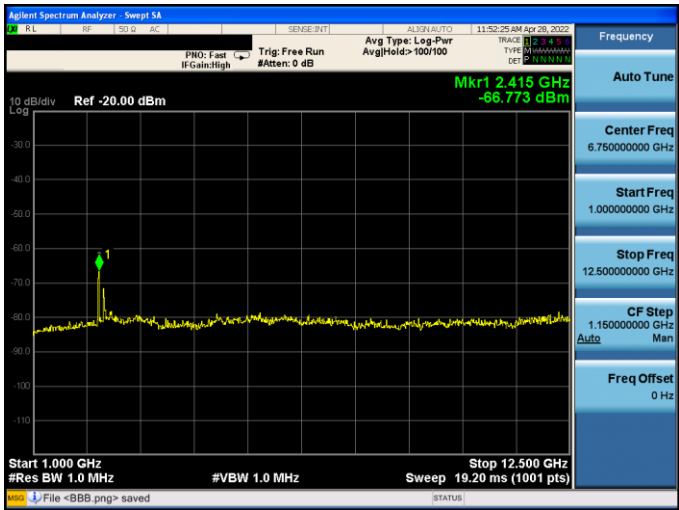
IEEE 802.11b Continuous TX Mode _ Normal Voltage _ Under 2387 MHz_TX1	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2387-2400 MHz_TX1	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2483.5-2496.5 MHz_TX1	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 2496.5 - 12.5 GHz_TX1	
Unwanted Emission Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

IEEE 802.11b Continuous TX Mode _ Normal Voltage _ Under 1 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	

IEEE 802.11b Continuous TX Mode _ Normal Voltage _ 1 - 12.5 GHz_RX0	
Secondarily Emitted Radio Wave Strength Measurement	
2412 MHz	
2442 MHz	
2472 MHz	