

FCC RADIO TEST REPORT

Applicant..... :Guangzhou Driven Technology Co., Ltd
Address..... :Room 510, Bldg.A No.19 Lianhe Street, Nanxiang 3rd Road, Huangpu district,
Guangzhou, Guangdong Province, China
Manufacturer..... :Guangzhou Driven Technology Co., Ltd
Address..... :Room 510, Bldg.A No.19 Lianhe Street, Nanxiang 3rd Road, Huangpu district,
Guangzhou, Guangdong Province, China
Factory..... :Guangzhou Driven Technology Co., Ltd
Address..... :Room 510, Bldg.A No.19 Lianhe Street, Nanxiang 3rd Road, Huangpu district,
Guangzhou, Guangdong Province, China
Product Name..... :10.1-inch Smart Control & Infotainment System
Brand Name..... :DrivenSmart
Model No. :RVCS-CS-X101
FCC ID..... :2BSZHRVCS-CS-X101
Measurement Standard..... :47 CFR FCC Part 15, Subpart C (Section 15.247)
Receipt Date of Samples..... :October 13, 2025
Date of Tested..... :October 13, 2025 to December 24, 2025
Date of Report..... :December 26, 2025

This report shows that above equipment is technically compliant with the requirements of the standards above. All test results in this report apply only to the tested sample(s). Without prior written approval of Dongguan Nore Testing Center Co., Ltd, this report shall not be reproduced except in full.



Prepared by

Jenny Liu / Project Engineer



Iori Fan / Authorized Signatory

Table of Contents

1. Summary of Test Result.....	4
2. General Description of EUT	5
3. Test Channels and Modes Detail	8
4. Configuration of EUT	8
5. Modification of EUT	8
6. Description of Support Device.....	9
7. Test Facility and Location	10
8. Applicable Standards and References.....	11
9. Deviations and Abnormalities from Standard Conditions	11
10. Test Conditions	12
11. Measurement Uncertainty	13
12. Sample Calculations	14
13. Test Items and Results	15
13.1 Duty cycle.....	15
13.2 Conducted Emissions Measurement	15
13.3 Maximum Conducted Output Power Measurement.....	19
13.4 6dB Bandwidth Measurement.....	23
13.5 Power Spectral Density Measurement	29
13.6 Band Edge and Conducted Spurious Emissions Measurement.....	33
13.7 Radiated Spurious Emissions and Restricted Bands Measurement.....	38
13.8 Antenna Requirement	45
14. Test Equipment List.....	46

1. Summary of Test Result

FCC Rules	Description of Test	Result	Remarks
§15.207 (a)	AC Power Conducted Emission	N/A	---
§15.247(b)(3)	Maximum Conducted Output Power	PASS	---
§15.247(a)(2)	6dB Bandwidth	PASS	---
§15.247(e)	Power Spectral Density	PASS	---
§15.247(d)	Band Edge and Conducted Spurious Emissions	PASS	---
§15.247(d), §15.209, §15.205	Radiated Spurious Emissions and Restricted Bands	PASS	---
§15.203	Antenna Requirement	PASS	---
Note: N/A means not applicable.			

2. General Description of EUT

Product Information	
Product Name:	10.1-inch Smart Control & Infotainment System
Main Model Name:	RVCS-CS-X101
Additional Model Name:	N/A
Model difference:	N/A
S/N:	2510-6627
Brand Name:	DrivenSmart
Hardware Version:	L837/L838_7708_VER_N_240802_FR4(MAIN)
Software Version:	MCU Version 2025.06.24 14:05:53(MAIN)
Rating:	DC 12V
Classification:	Class B
Typical Arrangement:	Table-top
Temperature range:	-20°C~70°C(Declared by manufacturer)
I/O Port:	Refer to the user manual
Accessories Information	
Adapter:	N/A
Cable:	N/A
Other:	N/A
Additional Information	
Note:	N/A
Remark:	All the information above are provided by the manufacturer. More detailed feature of the EUT please refers to the user manual.

Technical Specification (2.4GHz WLAN)	
Frequency Range:	2412-2462MHz for IEEE 802.11b/g/n(HT20) 2422-2452MHz for IEEE 802.11n(HT40)
Modulation Technology:	DSSS, OFDM
Modulation Type:	CCK, DQPSK, DBPSK, QPSK, BPSK, 16-QAM, 64-QAM,
Number of Channel:	11 for IEEE 802.11b/g/n(HT20) 7 for IEEE 802.11n(HT40)
Channel Space:	5MHz
Antenna Type:	Rod antenna
Number of Antenna	1
Antenna Gain:	2.35 dBi (Declared by the manufacturer)
Note: The product will consist of three module and this report only applies to 2.4GHz WLAN feature of module 1.	

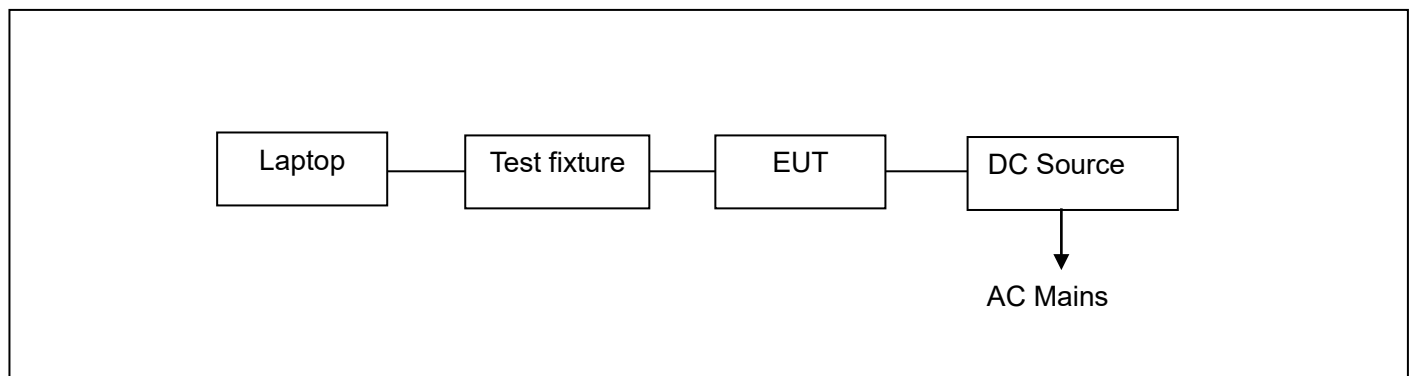
Channel List			
IEEE 802.11b/ g/ n(HT20)		IEEE 802.11n(HT40)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	---	---
2	2417	---	---
3	2422	3	2422
4	2427	4	2427
5	2432	5	2432
6	2437	6	2437
7	2442	7	2442
8	2447	8	2447
9	2452	9	2452
10	2457	---	---
11	2462	---	---

3. Test Channels and Modes Detail

Mode		Channel	Frequency (MHz)	Remark
1	TX	1	2412	IEEE 802.11b/ g/ n(HT20)
		3	2422	IEEE 802.11n(HT40)
		6	2437	IEEE 802.11b/ g/ n(HT20)/ n(HT40)
		9	2452	IEEE 802.11n(HT40)
		11	2462	IEEE 802.11b/ g/ n(HT20)
2.	Normal	---	---	---

Note: TX mode means that the EUT was programmed to be in continuously transmitting mode.

4. Configuration of EUT



5. Modification of EUT

No modifications are made to the EUT during all test items.

6. Description of Support Device

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Brand	M/N	S/N	Cable Specification	Remarks
1.	Laptop	Lenovo	R720-15 1KBN	PF0Z35FH	I/P: AC 100-240V 50-60Hz, 1.5A O/P: DC 20V 6.75A Power cord: 1.10m unshielded DC Line: 1.15m unshielded with a core	Provided by the Lab
2.	Adapter of laptop	Delta	ADL135N DC3A	---		Provided by the Lab
3.	Test fixture	---	---	---	----	Provide by the manufacturer
4.	DC Source	MAYNUO	M8811	0800109601 60105048	----	Provided by the Lab

Software	Power Setting	
	Mode	Setting
Pandora_R22.21.1701	IEEE 802.11b	16
	IEEE 802.11g	16
	IEEE 802.11n(HT20)	16
	IEEE 802.11n(HT40)	16

7. Test Facility and Location

Test Site	:	Dongguan Nore Testing Center Co., Ltd. (Dongguan NTC Co., Ltd.)
Accreditations and Authorizations	:	The Laboratory has been assessed and proved to be in compliance with CNAS/CL01 Listed by CNAS, August 13, 2018 The Certificate Registration Number is L5795. The Certificate is valid until August 13, 2030 The Laboratory has been assessed and proved to be in compliance with ISO17025 Listed by A2LA, November 01, 2017 The Certificate Registration Number is 4429.01 The Certificate is valid until December 31, 2027 Listed by FCC, November 06, 2017 Test Firm Registration Number: 907417 Listed by ISED, June 08, 2017 The Certificate Registration Number. Is 46405-9743A The CAB identifier number: CN0015
Test Site Location	:	Room 101, 1101, Building 2, No. 61, Hongmei Section, Wangsha Road, Hongmei Town, Dongguan, Guangdong, People's Republic of China

8. Applicable Standards and References

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

Test Standards:

47 CFR Part 15, Subpart C, 15.247

ANSI C63.10-2020

References Test Guidance:

DTS KDB 558074 D01 15.247 Meas Guidance v05r02

9. Deviations and Abnormalities from Standard Conditions

No additions, deviations and exclusions from the standard.

10. Test Conditions

No.	Test Item	Test Mode	Test Voltage	Tested by	Remarks
1.	AC Power Conducted Emission	---	---	---	---
2.	Max. Conducted Output Power	1	DC 12V	Sean	See note 1
3.	6dB Bandwidth	1	DC 12V	Sean	See note 1
4.	Power Spectral Density	1	DC 12V	Sean	See note 1
5.	Band Edge and Conducted Spurious Emissions	1	DC 12V	Sean	See note 1
6.	Radiated Spurious Emissions and Restricted Bands	1-2	DC 12V	Sean	See note 1
7.	Antenna Requirement	---	---	---	---

Note:

1. The testing climatic conditions for temperature, humidity, and atmospheric pressure are within: 15~35℃, 30~70%, 86~106kPa
2. DC 12V come from DC source, only the worst case was recorded in the report.
3. As the EUT can be operated multiple positions, all X,Y,Z axis were considered during the test and only the worst case X was recorded.

11. Measurement Uncertainty

No.	Test Item	Frequency	Uncertainty	Remarks
1.	Conducted Emission	150KHz ~ 30MHz	±2.46 dB	---
2.	Radiated Emission Test	9kHz ~ 30MHz	±5.63 dB	---
		30MHz ~ 1GHz	±5.63 dB	---
		1GHz ~ 18GHz	±5.16 dB	---
		18GHz ~ 40GHz	±5.16 dB	---
3.	Conducted Spurious Emissions	10Hz ~ 40GHz	±1.06 dB	---
4.	RF Output Power	10Hz ~ 40GHz	±1.08 dB	
5.	Power Spectral Density	10Hz ~ 40GHz	±1.08 dB	
6.	Occupied Channel Bandwidth	---	±1.05%	---

Note:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The measurement uncertainty levels above are estimated and calculated according to CISPR 16-4-2.
3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

12. Sample Calculations

Conducted Emission						
Freq. (MHz)	Reading Level (dBUV)	Correct Factor (dB)	Measurement (dBUV)	Limit (dBUV)	Over (dB)	Detector
0.1620	17.64	20.56	38.20	55.36	-17.16	QP
Where, Freq. = Emission frequency in MHz Reading Level = Spectrum Analyzer/Receiver reading Corrector Factor = Insertion loss of LISN + Cable Loss + RF Switching Unit attenuation Measurement = Reading + Corrector Factor Limit = Limit stated in standard Margin = Measurement - Limit Detector = Reading for Quasi-Peak / Average / Peak						

Radiated Spurious Emissions and Restricted Bands						
Freq. (MHz)	Reading Level (dBUV)	Correct Factor (dB/m)	Measurement (dBUV/m)	Limit (dBUV/m)	Over (dB)	Detector
186.1700	39.33	-8.63	30.70	43.50	-12.80	QP
Where, Freq. = Emission frequency in MHz Reading Level = Spectrum Analyzer/Receiver reading Corrector Factor = Antenna Factor + Cable Loss - Pre-amplifier Measurement = Reading + Corrector Factor Limit = Limit stated in standard Over = Margin, which calculated by Measurement - Limit Detector = Reading for Quasi-Peak / Average / Peak						

Note: For all conducted test items, the spectrum analyzer offset or transducer is derived from RF cable loss and attenuator factor. The offset or transducer is equal to the RF cable loss plus attenuator factor.

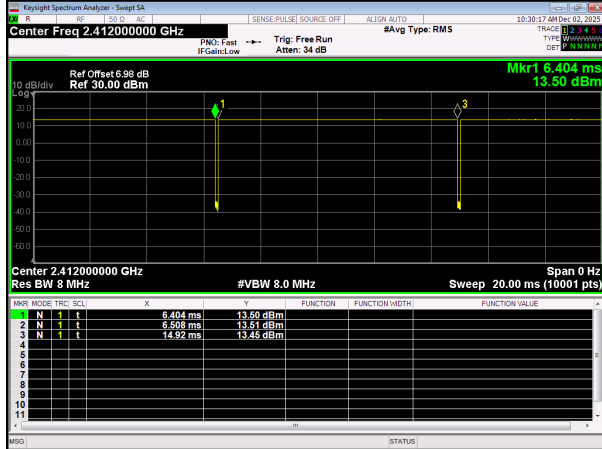
13. Test Items and Results

13.1 Duty cycle

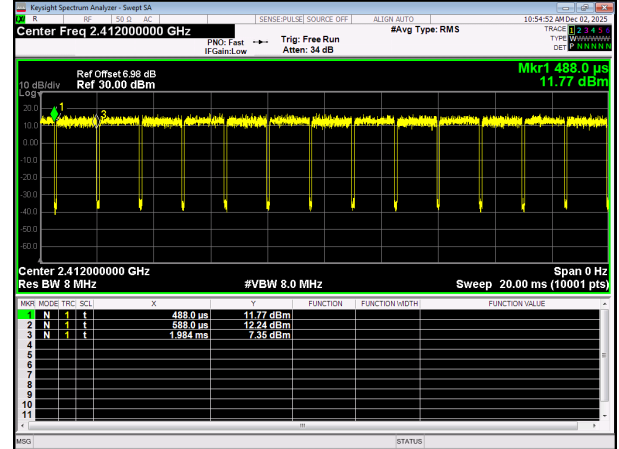
Mode	Ton (ms)	Ton+off (ms)	Duty Cycle (%)	1/T minimum VBW (kHz)	Duty Cycle Factor (dB)
802.11b	8.412	8.516	98.78%	0.12	0.05
802.11g	1.396	1.496	93.32%	0.72	0.30
802.11n(HT20)	1.308	1.406	93.03%	0.76	0.31
802.11n(HT40)	0.648	0.746	86.86%	1.54	0.61
Remark: Duty Cycle= (Ton/ Ton+off)*100% Duty Cycle factor=10*log(1/ Duty cycle)					

Test Plots

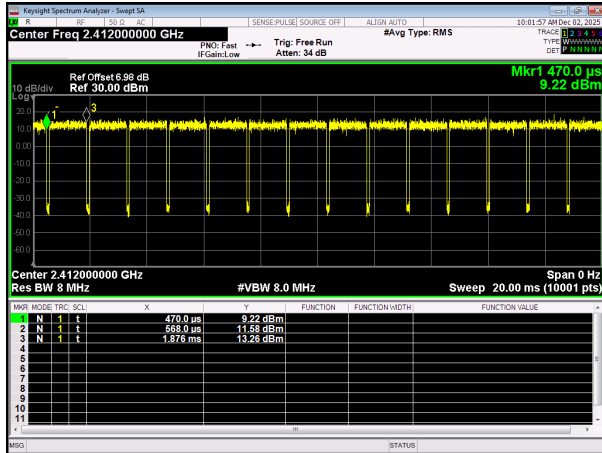
IEEE 802.11b



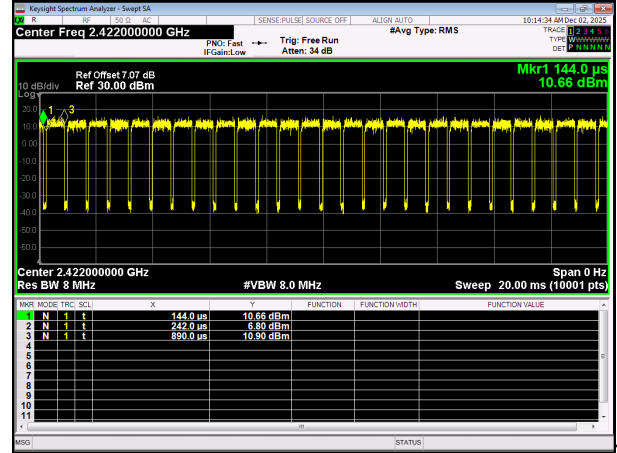
IEEE 802.11g



IEEE 802.11n(HT20)



IEEE 802.11n(HT40)



13.2 Conducted Emissions Measurement

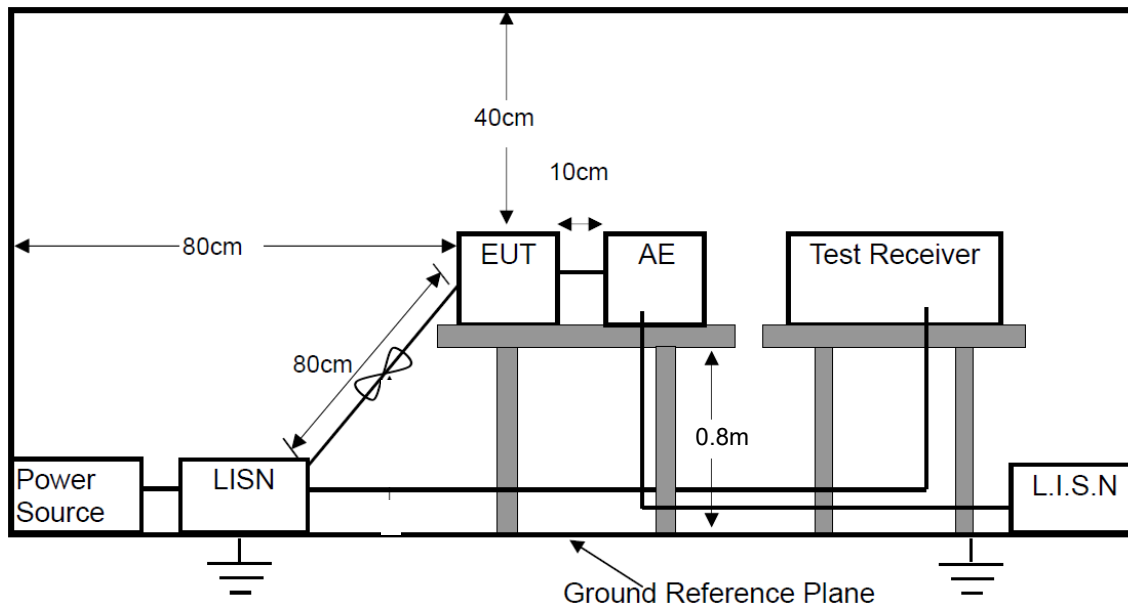
LIMITS

According to the requirements of FCC PART 15.207, the limits are as follows:

Frequency (MHz)	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

- Note:
1. If the limits for the average detector are met when using the quasi-peak detector, then the limits for the measurements with the average detector are considered to be met.
 2. The lower limit shall apply at the transition frequencies.
 3. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

- a. The EUT was placed on a wooden table 0.8m height from the metal ground plan and 0.4m from the conducting wall of the shielding room and it was kept at 0.8m from any other grounded conducting surface.
- b. All I/O cables and support devices were positioned as per ANSI C63.10.
- c. Connect mains power port of the EUT to a line impedance stabilization network (LISN).
- d. Connect all support devices to the other LISN and AAN, if needed.
- e. Scan the frequency range from 150KHz to 30MHz at both sides of AC line for maximum conducted interference checking and record the test data.

TEST RESULTS

Not applicable

13.3 Maximum Conducted Output Power Measurement

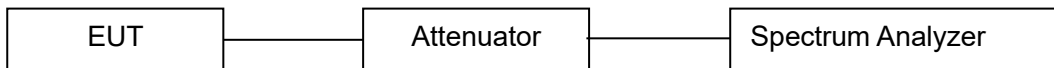
LIMITS

For system using digital modulation in the 2400-2483.5 MHz bands, the limit for peak output power is 1 Watt.

If the transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6dBi.

In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of Antenna exceeds 6dBi.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

ANSI C63.10 - 2020, Section 11.9.2.2.4

TEST RESULTS

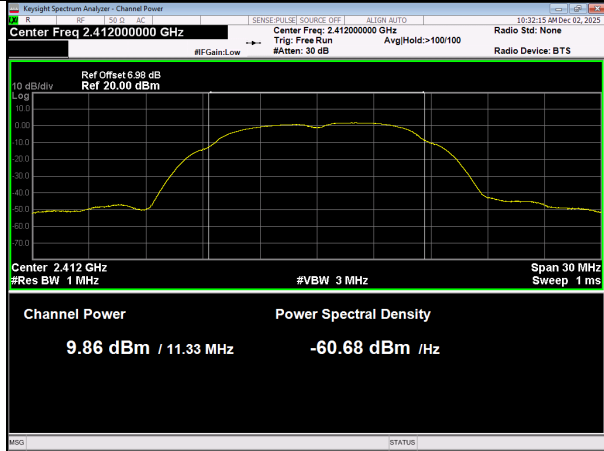
PASS

Please refer to the following tables.

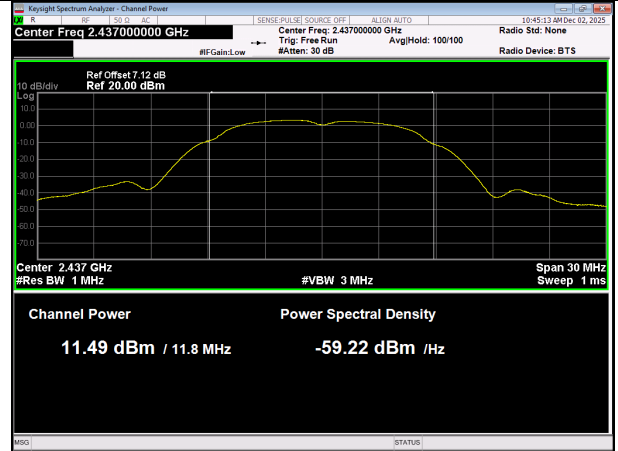
Channel	Frequency (MHz)	Data Rate (Mbps)	AVG Output Power (dBm)	Duty Cycle Factor (dB)	AVG Power (dBm)	Limit (dBm)	Result
IEEE 802.11b							
1	2412	1	9.86	0.05	9.91	≤30	PASS
6	2437	1	11.49	0.05	11.54	≤30	PASS
11	2462	1	10.53	0.05	10.58	≤30	PASS
IEEE 802.11g							
1	2412	6	10.16	0.30	10.46	≤30	PASS
6	2437	6	11.98	0.30	12.28	≤30	PASS
11	2462	6	11.30	0.30	11.60	≤30	PASS
IEEE 802.11n(HT20)							
1	2412	MCS0	10.07	0.31	10.38	≤30	PASS
6	2437	MCS0	11.73	0.31	12.04	≤30	PASS
11	2462	MCS0	10.75	0.31	11.06	≤30	PASS
IEEE 802.11n(HT40)							
3	2422	MCS0	9.81	0.61	10.42	≤30	PASS
6	2437	MCS0	11.58	0.61	12.19	≤30	PASS
9	2452	MCS0	12.78	0.61	13.39	≤30	PASS

Test Plots

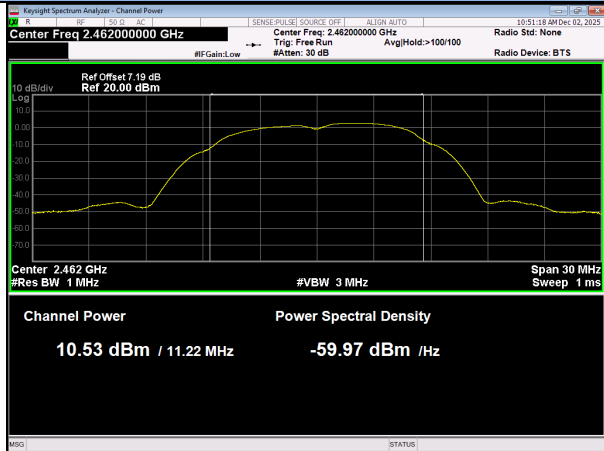
IEEE 802.11b - 2412MHz



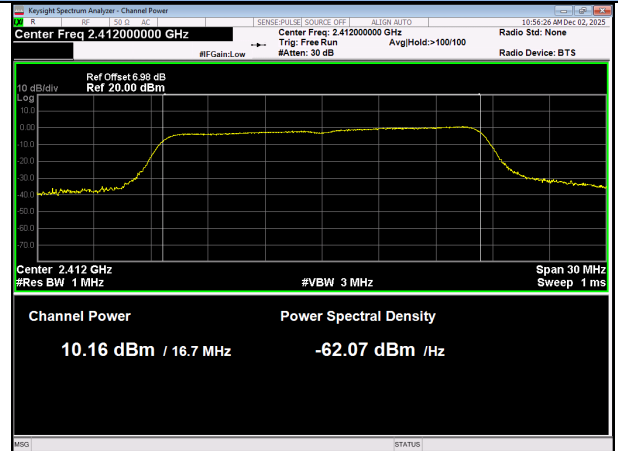
IEEE 802.11b - 2437MHz



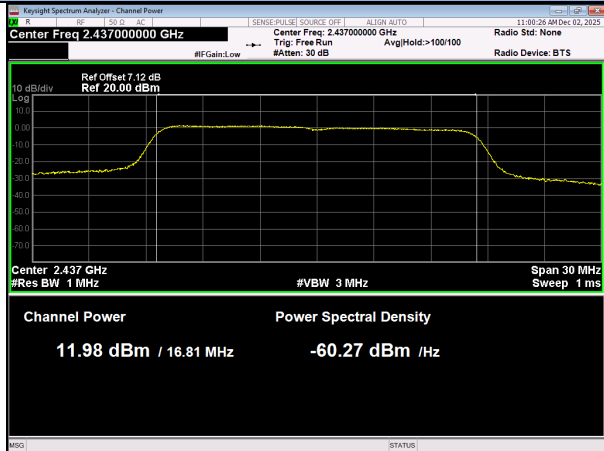
IEEE 802.11b - 2462MHz



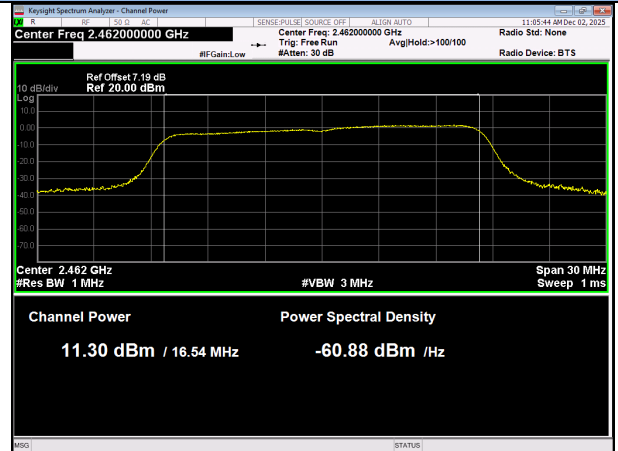
IEEE 802.11g - 2412MHz



IEEE 802.11g - 2437MHz

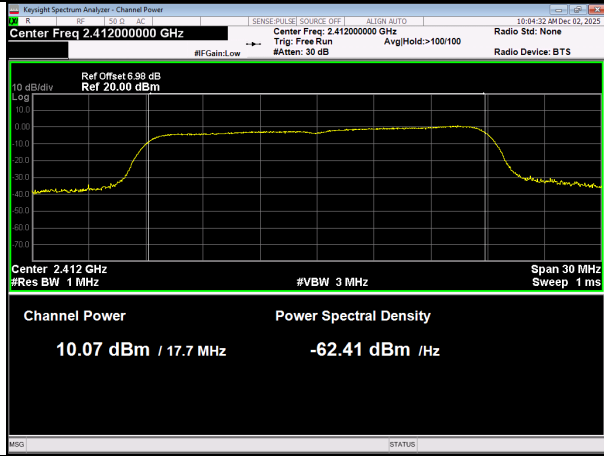


IEEE 802.11g - 2462MHz

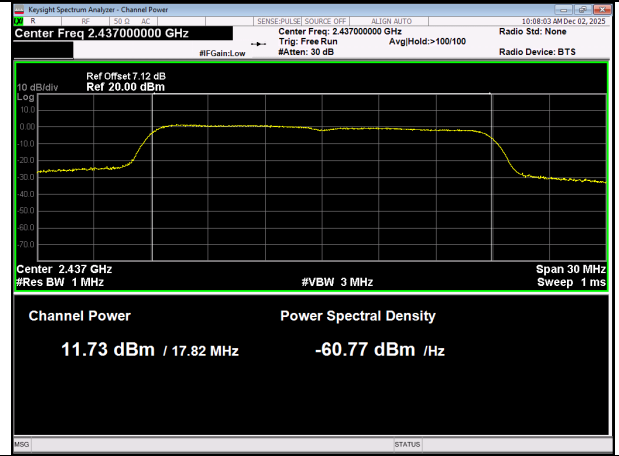


Test Plots

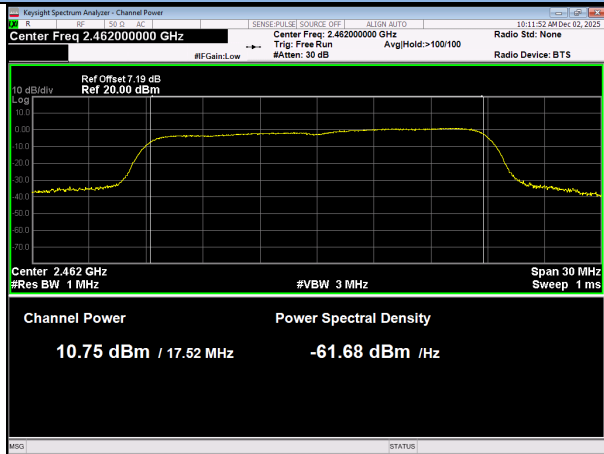
IEEE 802.11n(HT20) - 2412MHz



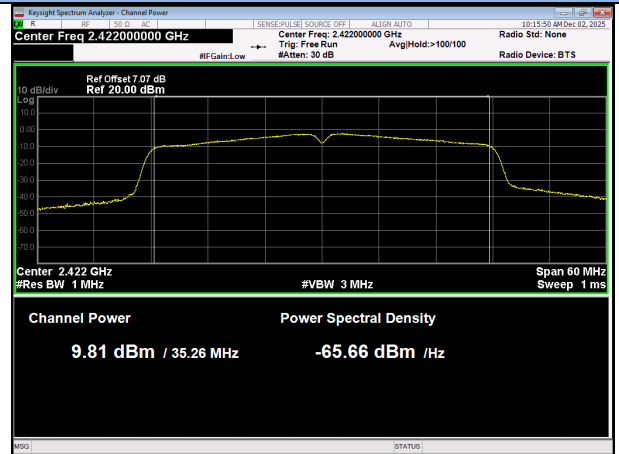
IEEE 802.11n(HT20) - 2437MHz



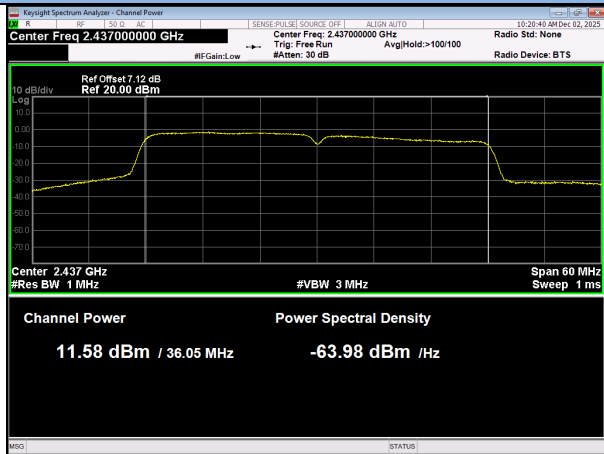
IEEE 802.11n(HT20) - 2462MHz



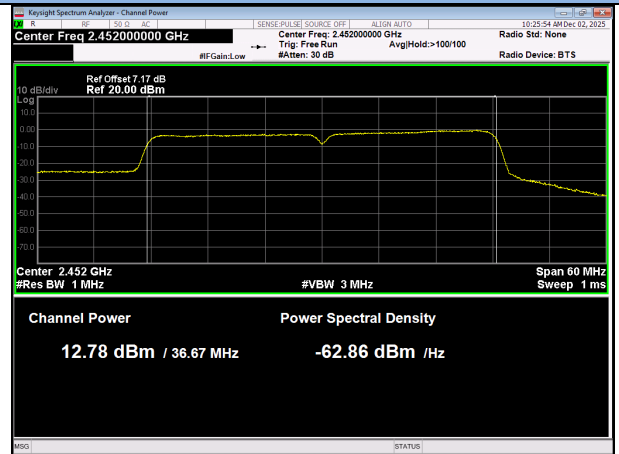
IEEE 802.11n(HT40) - 2422MHz



IEEE 802.11n(HT40) - 2437MHz



IEEE 802.11n(HT40) - 2452MHz

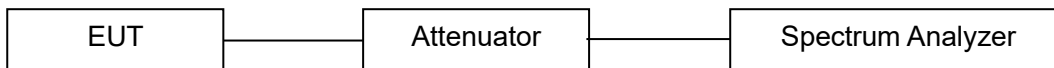


13.4 6dB Bandwidth Measurement

LIMITS

The minimum 6dB bandwidth shall be at least 500 kHz

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below according to FCC KDB558074 (v05r02):

- Set the RBW = shall be in the range of 1% to 5% of the OBW but not less than 100KHz.
- Set the VBW $\geq 3 \times$ RBW
- Set the Detector = peak.
- Set the Sweep time = No faster than coupled (auto) time.
- Set the Trace mode = max hold.
- Allow trace to fully stabilize.
- Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

TEST RESULTS

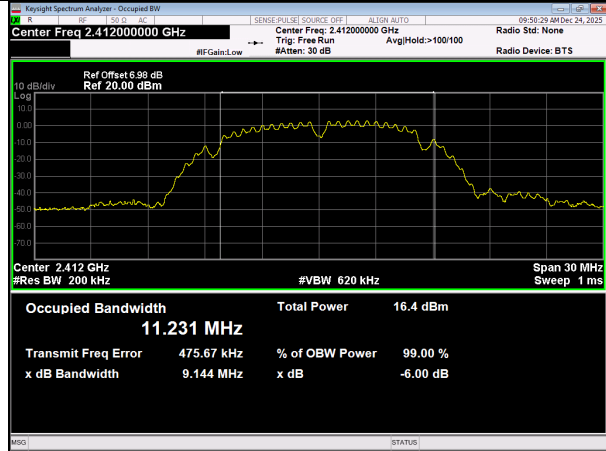
PASS

Please refer to the following tables.

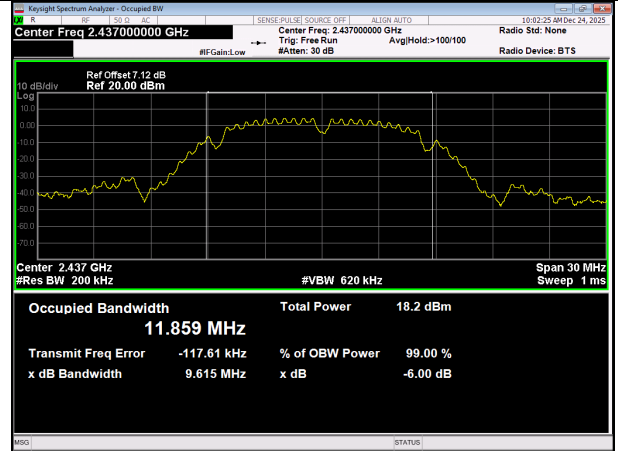
Channel	Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b						
1	2412	1	9.144	11.326	>0.5	PASS
6	2437	1	9.615	11.796	>0.5	PASS
11	2462	1	9.158	11.219	>0.5	PASS
IEEE 802.11g						
1	2412	6	16.00	16.703	>0.5	PASS
6	2437	6	16.26	16.805	>0.5	PASS
11	2462	6	16.25	16.540	>0.5	PASS
IEEE 802.11n(HT20)						
1	2412	MCS0	16.41	17.698	>0.5	PASS
6	2437	MCS0	17.44	17.817	>0.5	PASS
11	2462	MCS0	17.33	17.521	>0.5	PASS
IEEE 802.11n(HT40)						
3	2422	MCS0	26.27	35.259	>0.5	PASS
6	2437	MCS0	35.45	36.049	>0.5	PASS
9	2452	MCS0	36.18	36.663	>0.5	PASS

Test Plots of 6dB Bandwidth

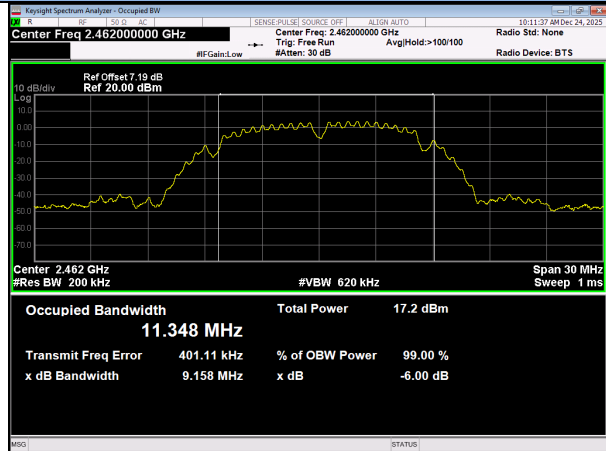
IEEE 802.11b - 2412MHz



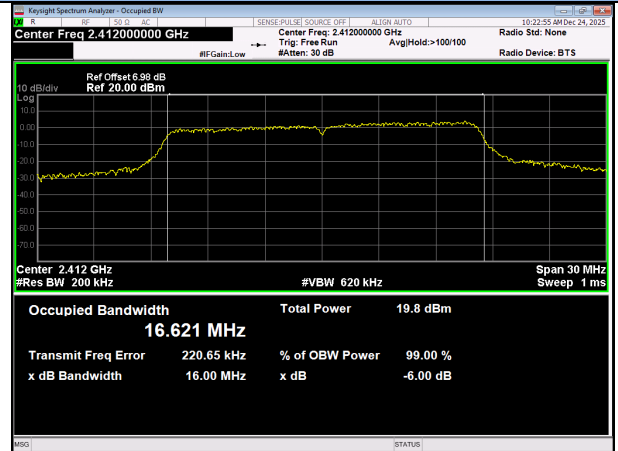
IEEE 802.11b - 2437MHz



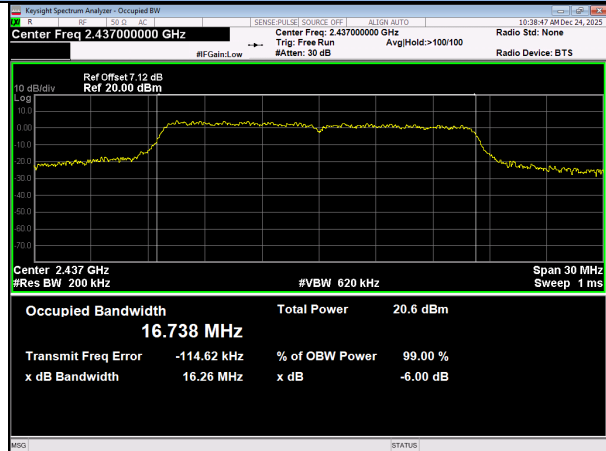
IEEE 802.11b - 2462MHz



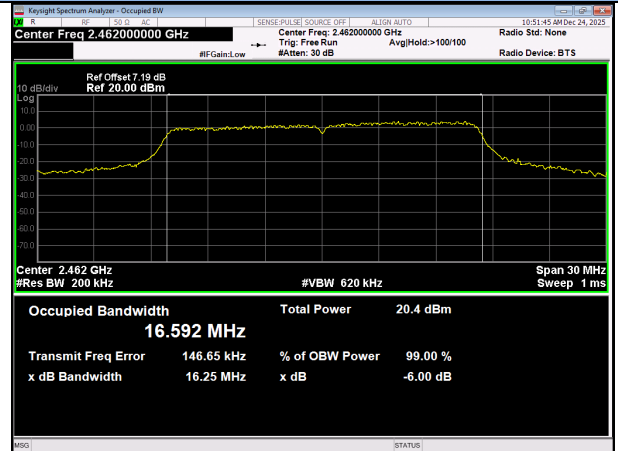
IEEE 802.11g - 2412MHz



IEEE 802.11g - 2437MHz

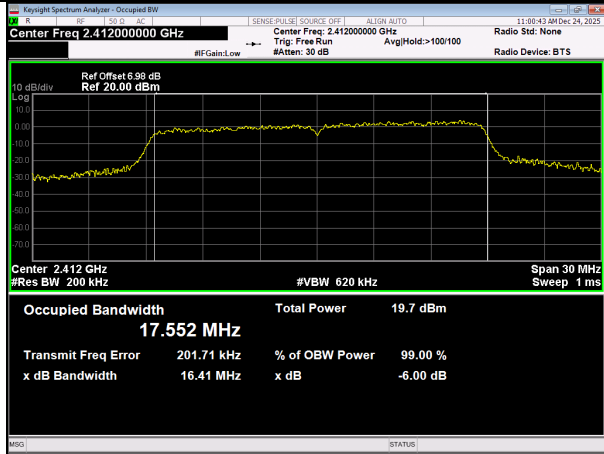


IEEE 802.11g - 2462MHz

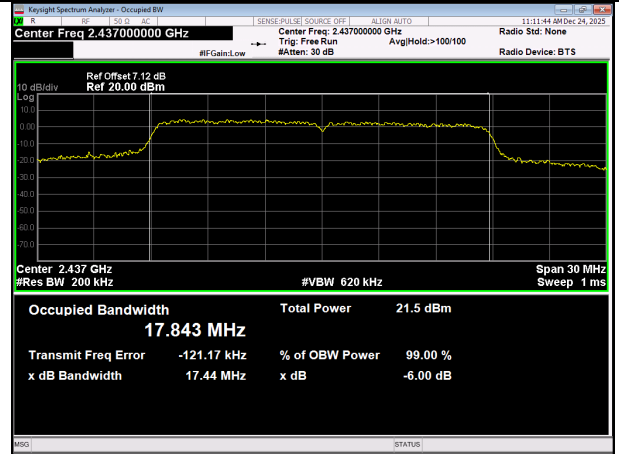


Test Plots of 6dB Bandwidth

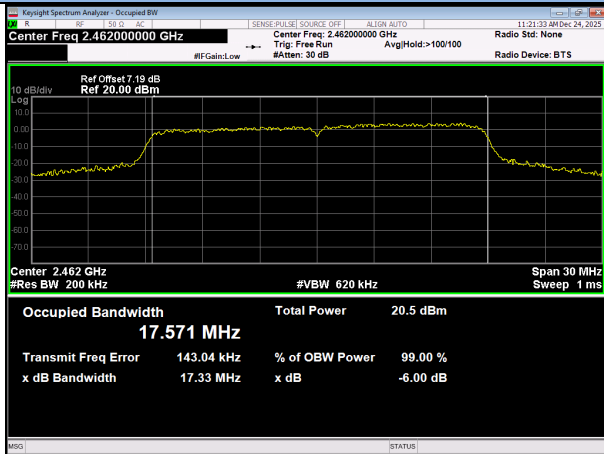
IEEE 802.11n(HT20) - 2412MHz



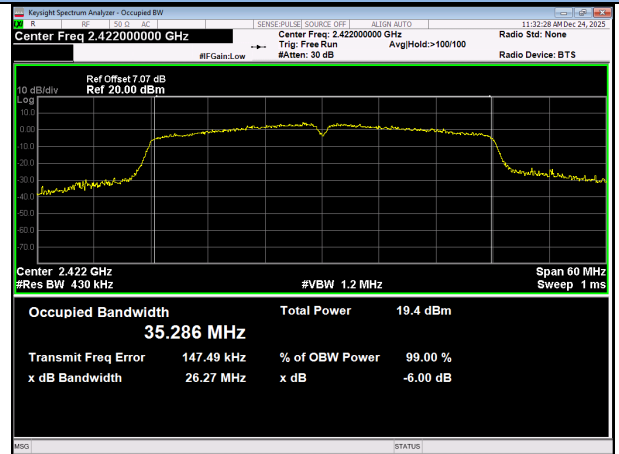
IEEE 802.11n(HT20) - 2437MHz



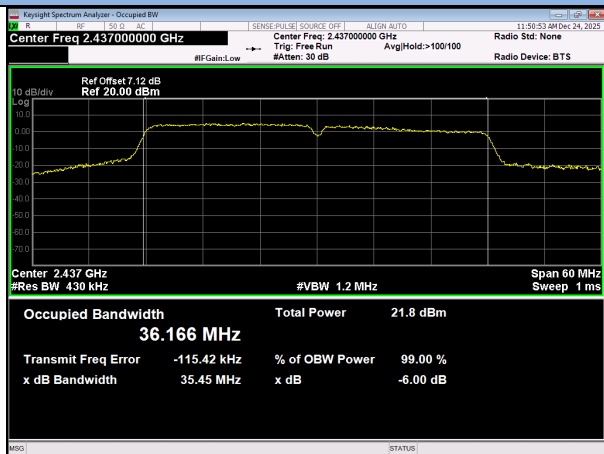
IEEE 802.11n(HT20) - 2462MHz



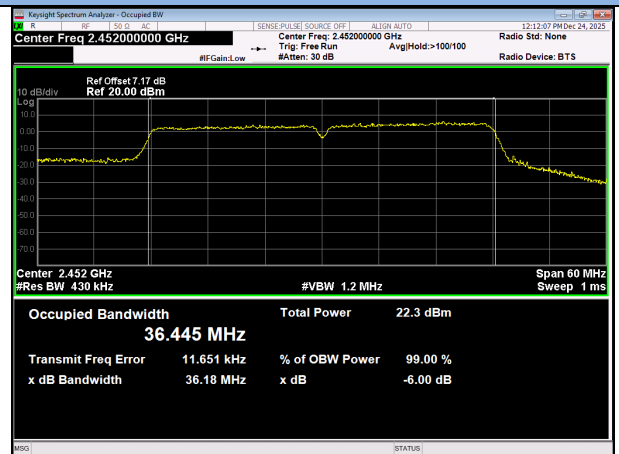
IEEE 802.11n(HT40) - 2422MHz



IEEE 802.11n(HT40) - 2437MHz

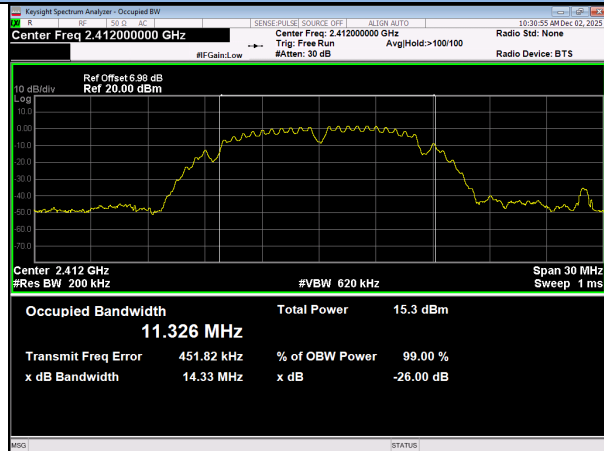


IEEE 802.11n(HT40) - 2452MHz

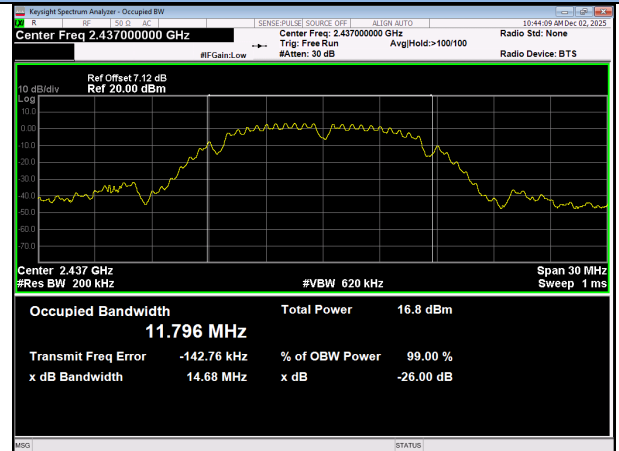


Test Plots of 99% Bandwidth

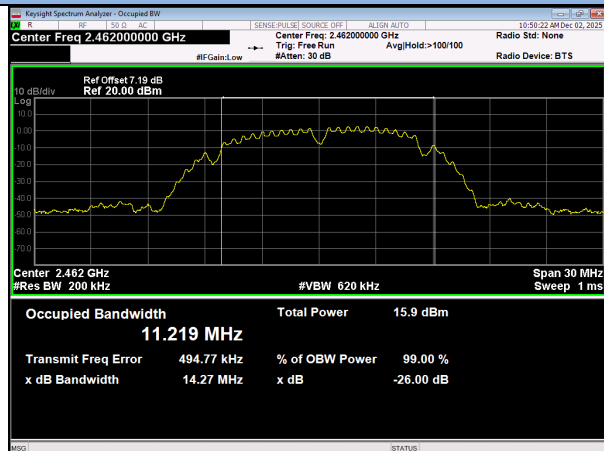
IEEE 802.11b - 2412MHz



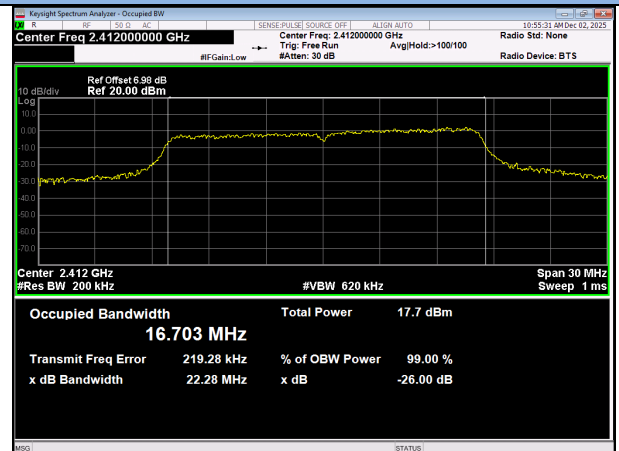
IEEE 802.11b - 2437MHz



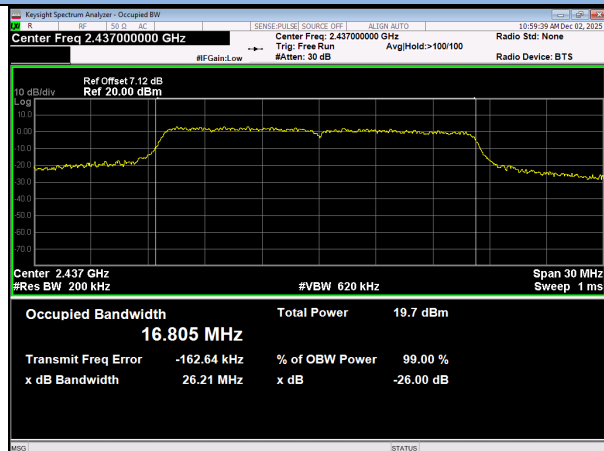
IEEE 802.11b - 2462MHz



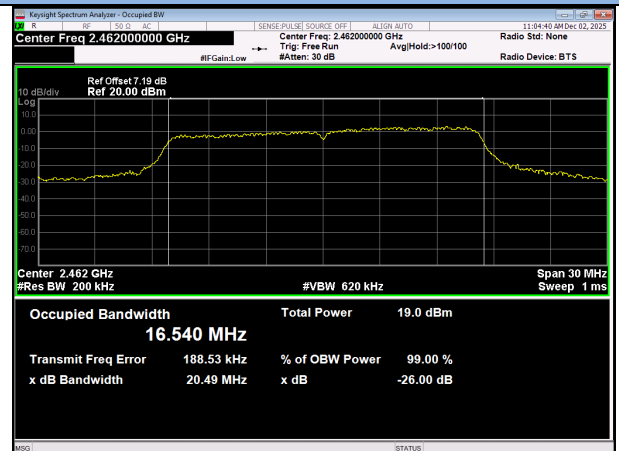
IEEE 802.11g - 2412MHz



IEEE 802.11g - 2437MHz

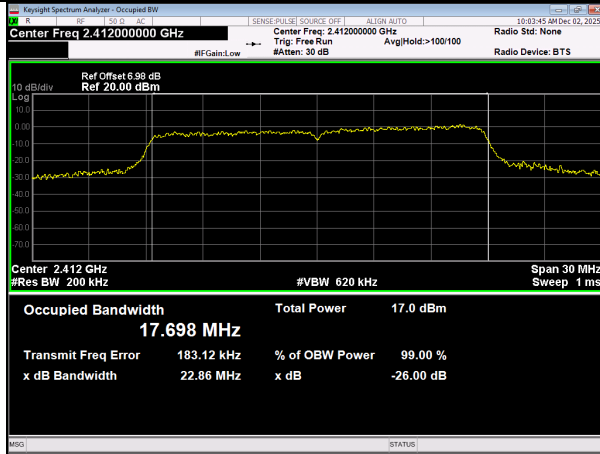


IEEE 802.11g - 2462MHz

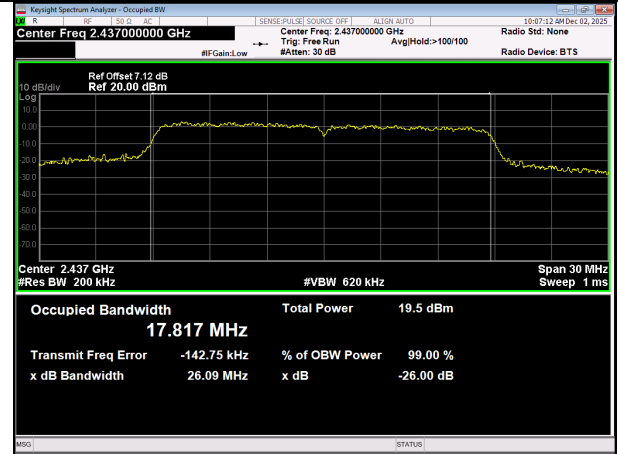


Test Plots of 99% Bandwidth

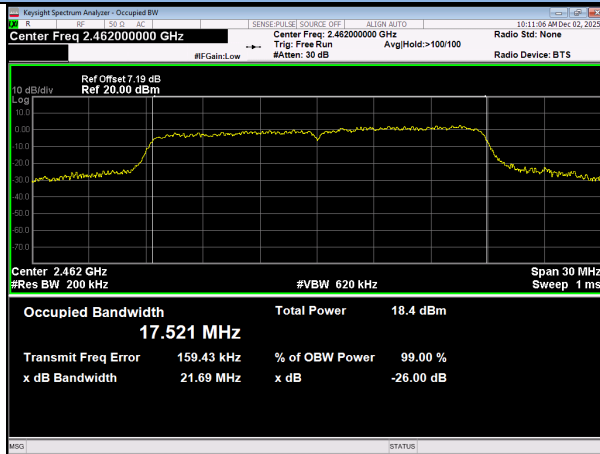
IEEE 802.11n(HT20) - 2412MHz



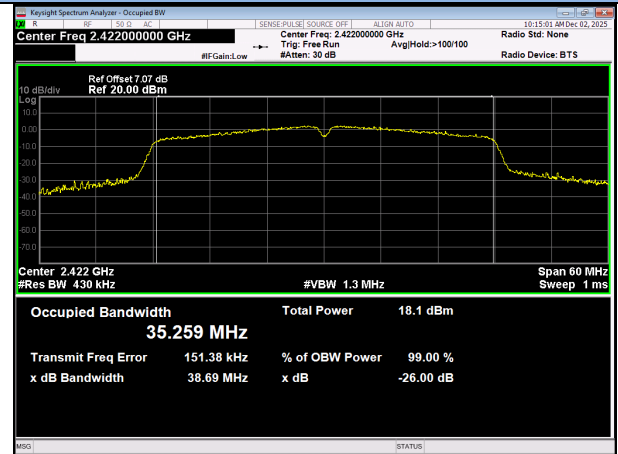
IEEE 802.11n(HT20) - 2437MHz



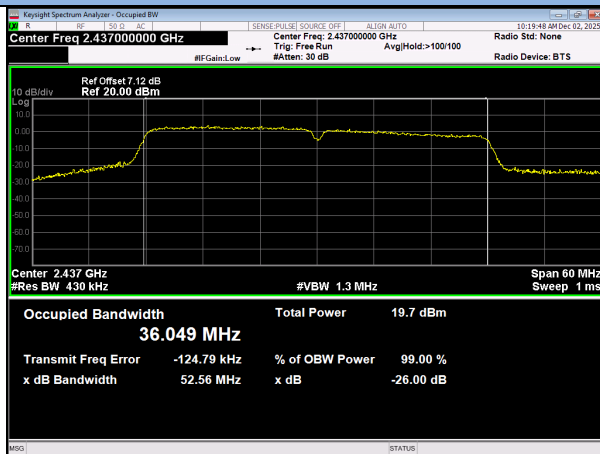
IEEE 802.11n(HT20) - 2462MHz



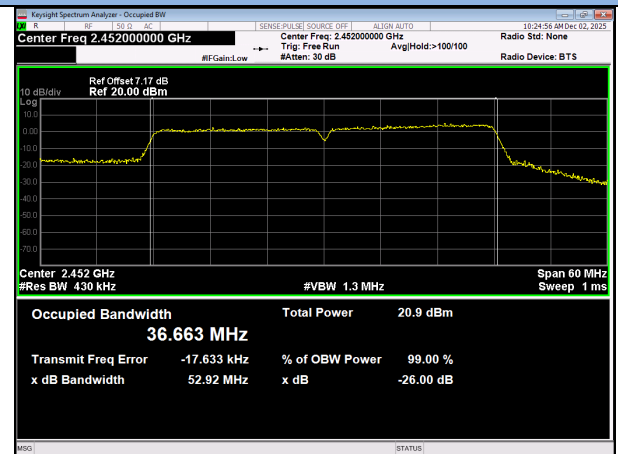
IEEE 802.11n(HT40) - 2422MHz



IEEE 802.11n(HT40) - 2437MHz



IEEE 802.11n(HT40) - 2452MHz

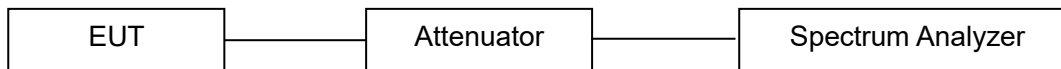


13.5 Power Spectral Density Measurement

LIMITS

The Maximum of Power Spectral Density Measurement is 8dBm in any 3 kHz.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

ANSI C63.10 - 2020, Section 11.10.5

TEST RESULTS

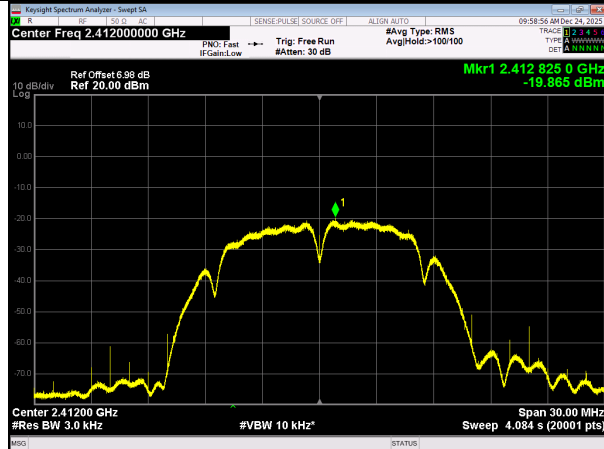
PASS

Please refer to the following tables.

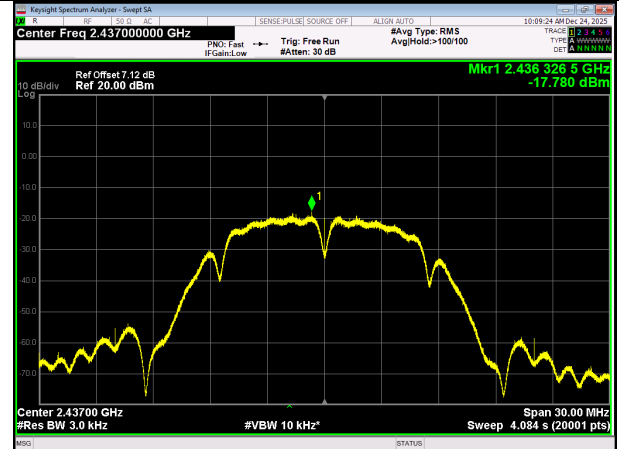
Frequency MHz	Data Rate Mbps	Duty Cycle Factor (dB)	PSD dBm / 3kHz	Total PSD with duty cycle factor	Limit dBm / 3kHz
IEEE 802.11b					
2412	1	0.05	-19.865	-19.815	8
2437	1		-17.78	-17.730	8
2462	1		-19.566	-19.516	8
IEEE 802.11g					
2412	6	0.30	-20.444	-20.144	8
2437	6		-19.514	-19.214	8
2462	6		-20.385	-20.085	8
IEEE 802.11n(HT20)					
2412	MCS0	0.31	-20.399	-20.089	8
2437	MCS0		-19.953	-19.643	8
2462	MCS0		-20.085	-19.775	8
IEEE 802.11n(HT40)					
2422	MCS0	0.61	-22.152	-21.542	8
2437	MCS0		-21.736	-21.126	8
2452	MCS0		-20.524	-19.914	8
Note: Duty cycle factor have been considered.					

Test Plots of Power Spectral Density

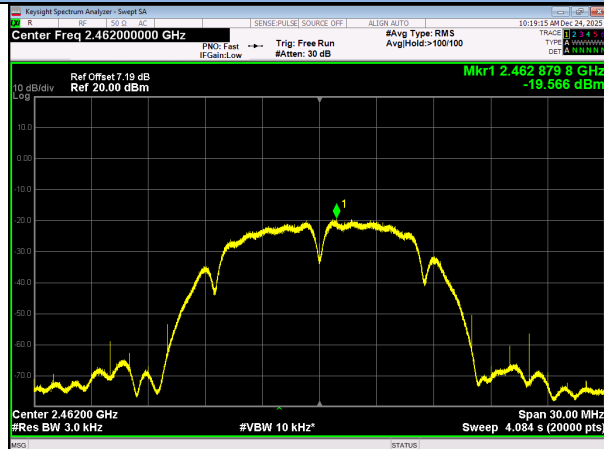
IEEE 802.11b - 2412MHz



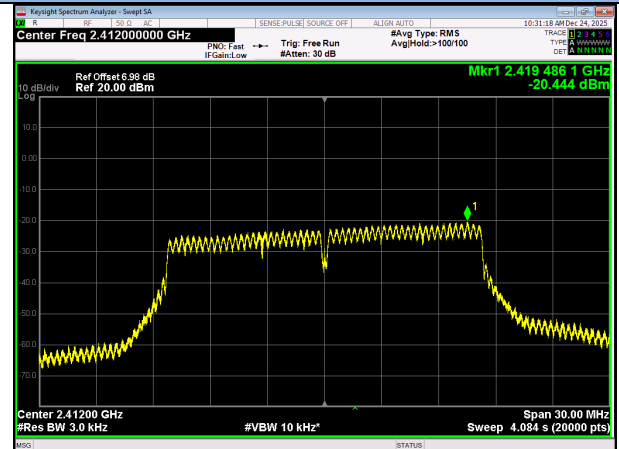
IEEE 802.11b - 2437MHz



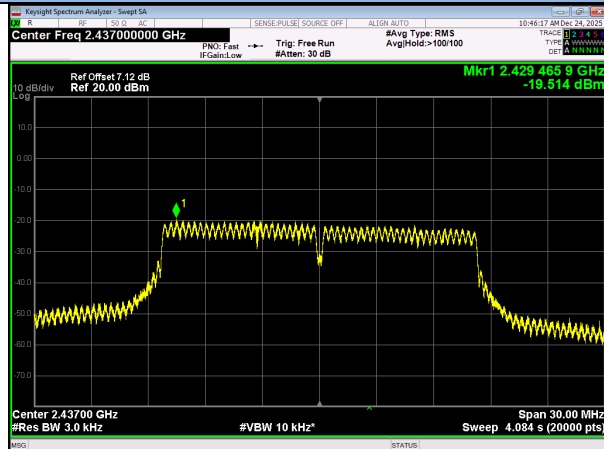
IEEE 802.11b - 2462MHz



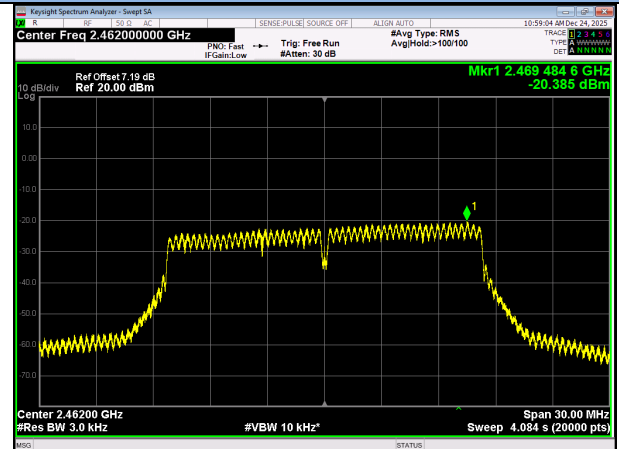
IEEE 802.11g - 2412MHz



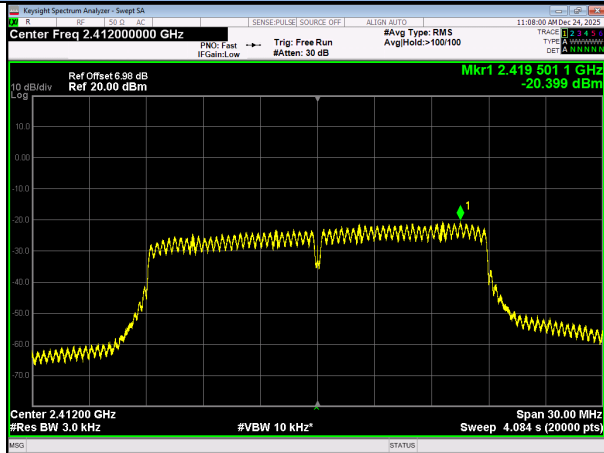
IEEE 802.11g - 2437MHz



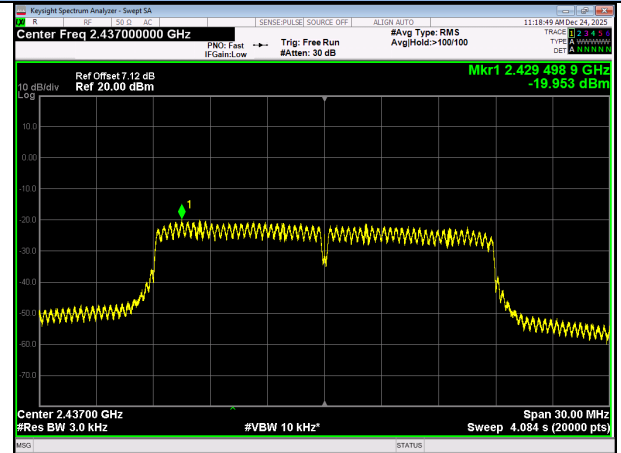
IEEE 802.11g - 2462MHz



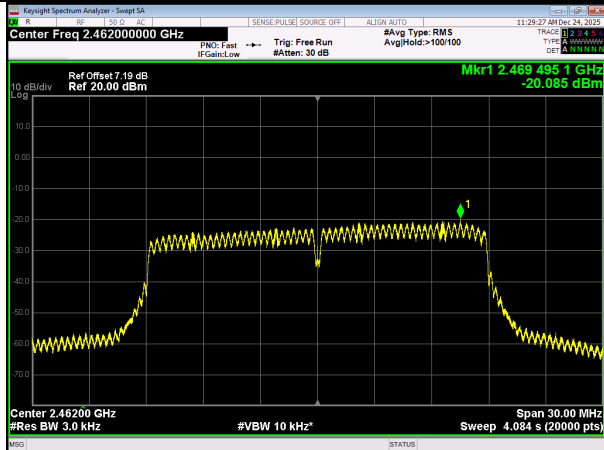
IEEE 802.11n(HT20) - 2412MHz



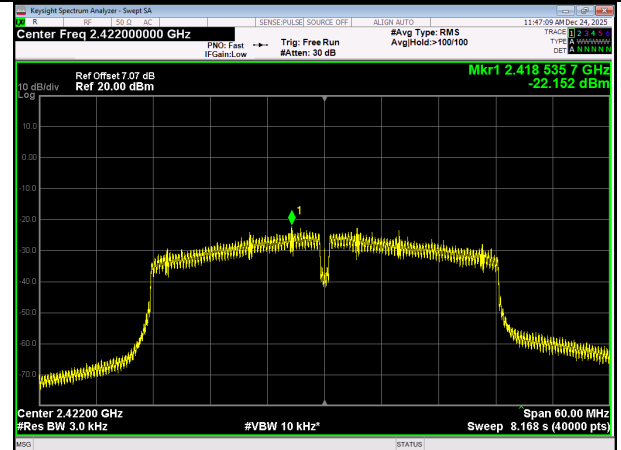
IEEE 802.11n(HT20) - 2437MHz



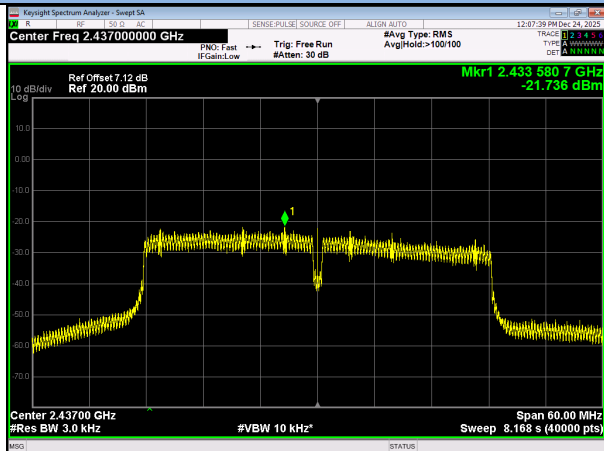
IEEE 802.11n(HT20) - 2462MHz



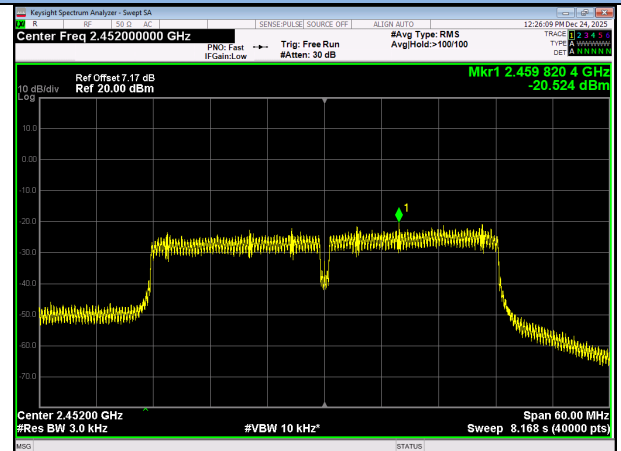
IEEE 802.11n(HT40) - 2422MHz



IEEE 802.11n(HT40) - 2437MHz



IEEE 802.11n(HT40) - 2452MHz

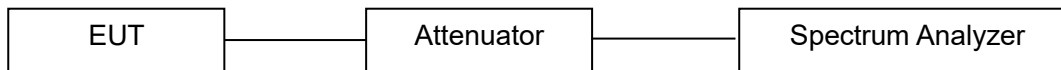


13.6 Band Edge and Conducted Spurious Emissions Measurement

LIMITS

In any 100KHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below according to ANSI C63.10-2020, Section 11.11

Measurement Procedure REF

- a. Set the RBW = 100 kHz.
- b. Set the VBW $\geq$ 300 kHz.
- c. Set the Detector = peak.
- d. Set the Sweep time = auto couple.
- e. Trace mode = max hold.
- f. Allow trace to fully stabilize.
- g. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

Measurement Procedure OOBE

- a. Set RBW = 100 kHz.
- b. Set VBW $\geq$ 300 kHz.
- c. Set the Detector = peak.
- d. Set the Sweep = auto couple.
- e. Set the Trace Mode = max hold.
- f. Allow trace to fully stabilize.
- g. Use the peak marker function to determine the maximum amplitude level.

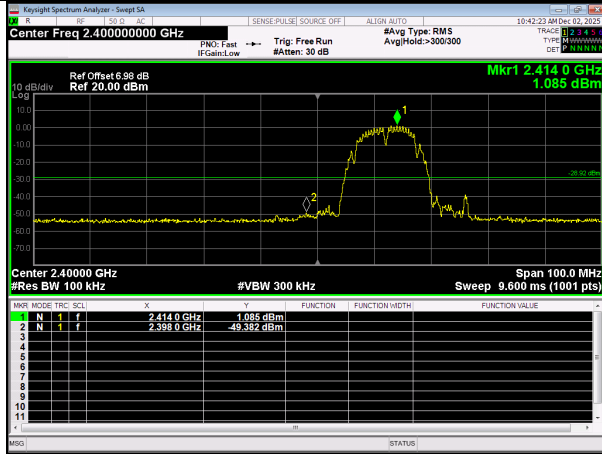
TEST RESULTS

PASS

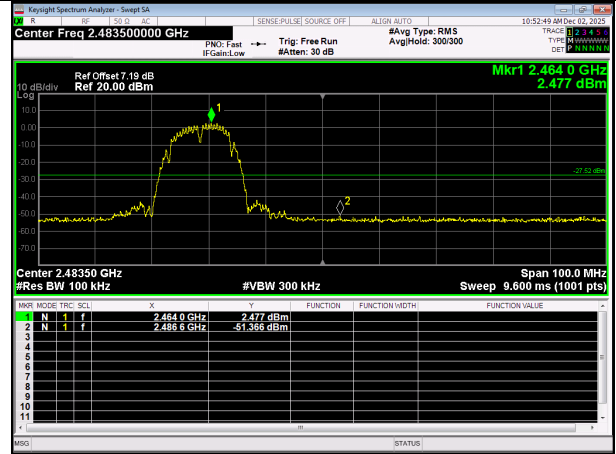
Please refer to the following test plots.

Band Edge

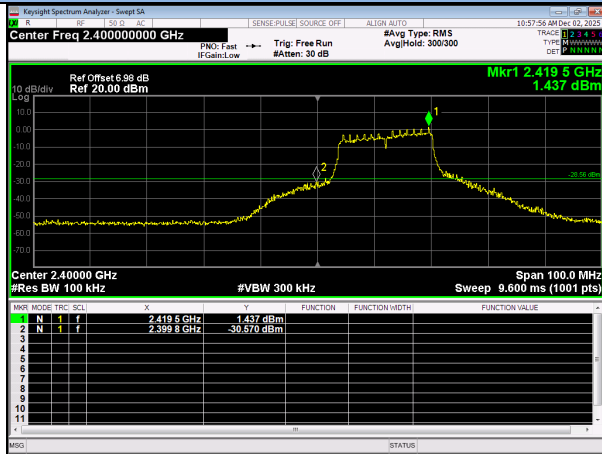
IEEE 802.11b / Low Channel



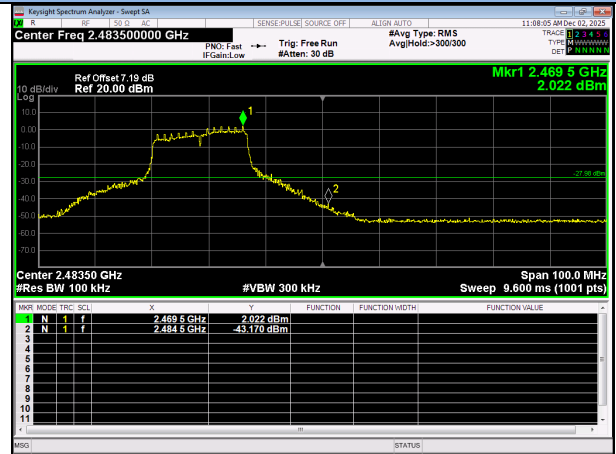
IEEE 802.11b / High Channel



IEEE 802.11g / Low Channel

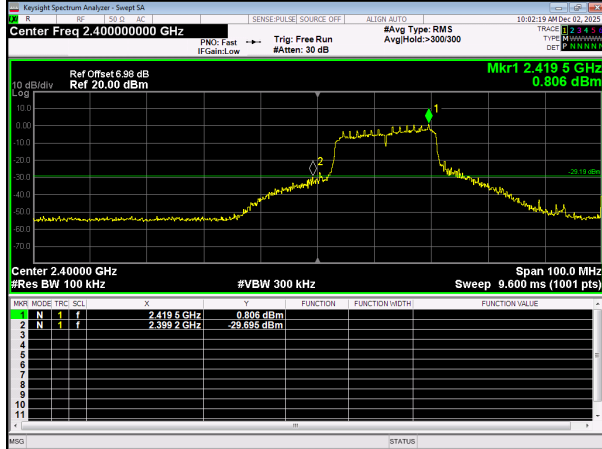


IEEE 802.11g / High Channel

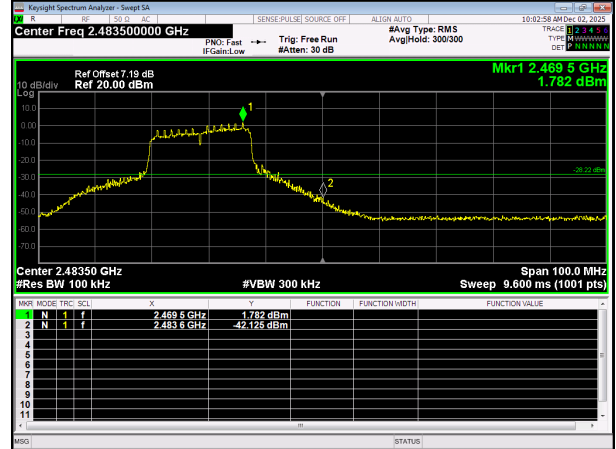


Band Edge

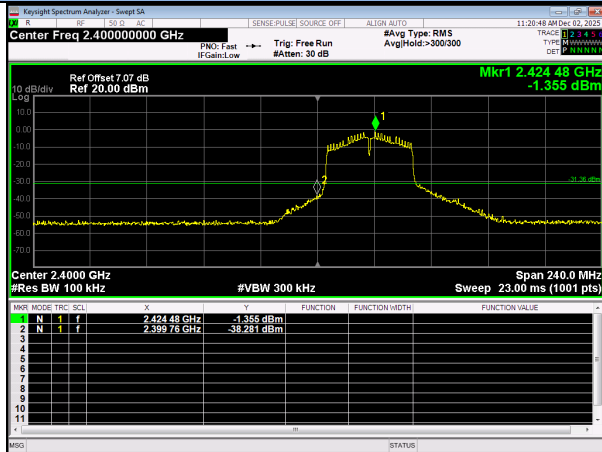
IEEE 802.11n(HT20) / Low Channel



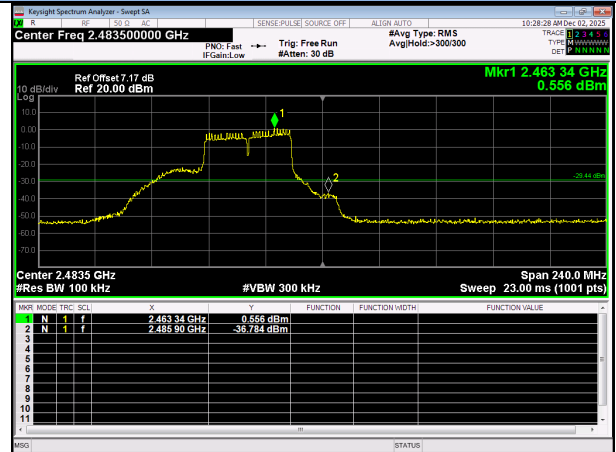
IEEE 802.11n(HT20) / High Channel



IEEE 802.11n(HT40) / Low Channel

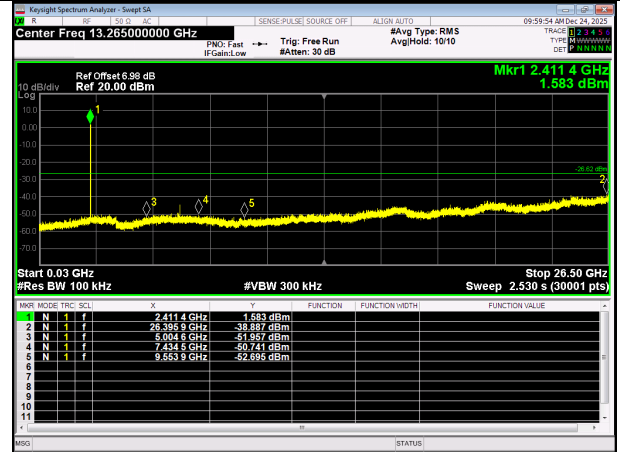
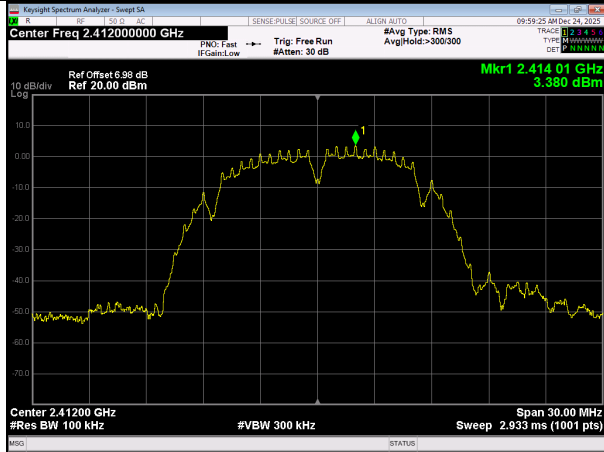


IEEE 802.11n(HT40) / High Channel

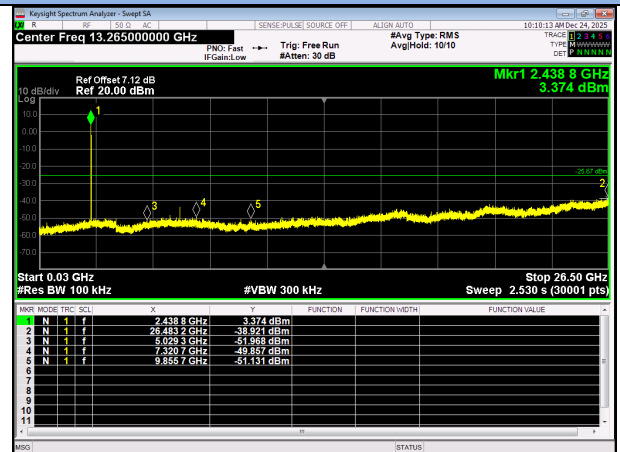
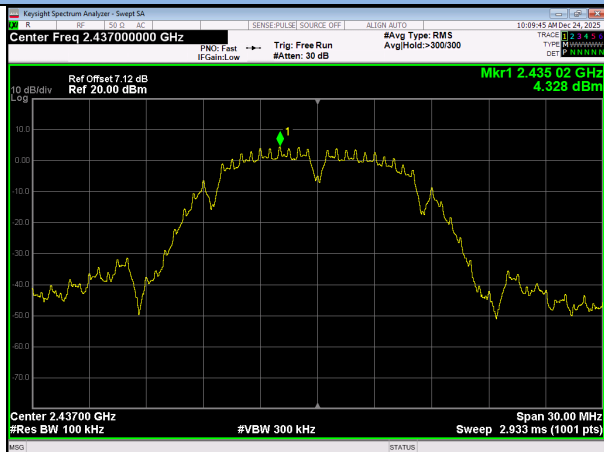


Conducted Spurious Emissions – IEEE 802.11b (The Worst Case)

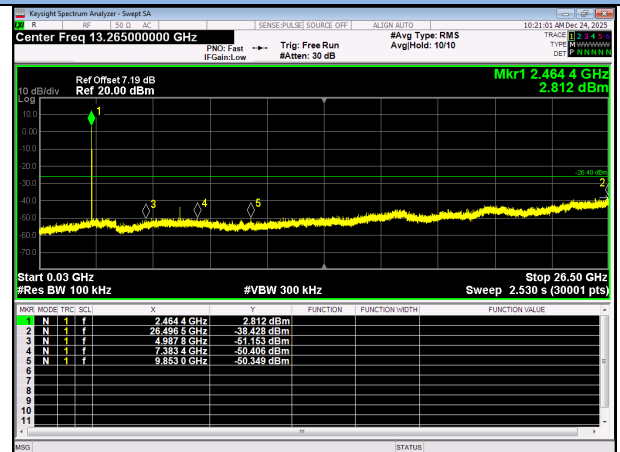
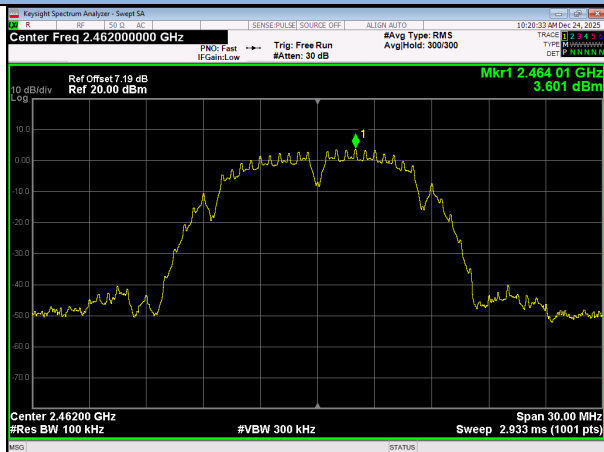
Lowest Channel



Middle Channel



Highest Channel



13.7 Radiated Spurious Emissions and Restricted Bands Measurement

LIMIT of Radiated Band Edges and non-restricted bands

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB.

LIMIT of Restricted bands

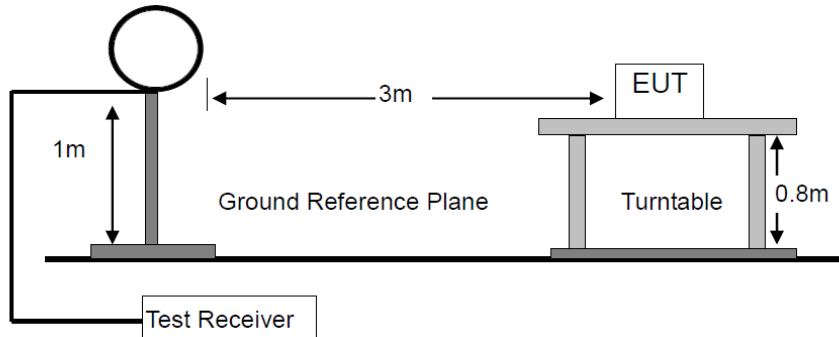
In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below:

Frequency range MHz	Distance Meters	Field Strengths Limit (15.209)
		$\mu\text{V/m}$
0.009 ~ 0.490	300	2400/F(kHz)
0.490 ~ 1.705	30	24000/F(kHz)
1.705 ~ 30	30	30
30 ~ 88	3	100
88 ~ 216	3	150
216 ~ 960	3	200
Above 960	3	500

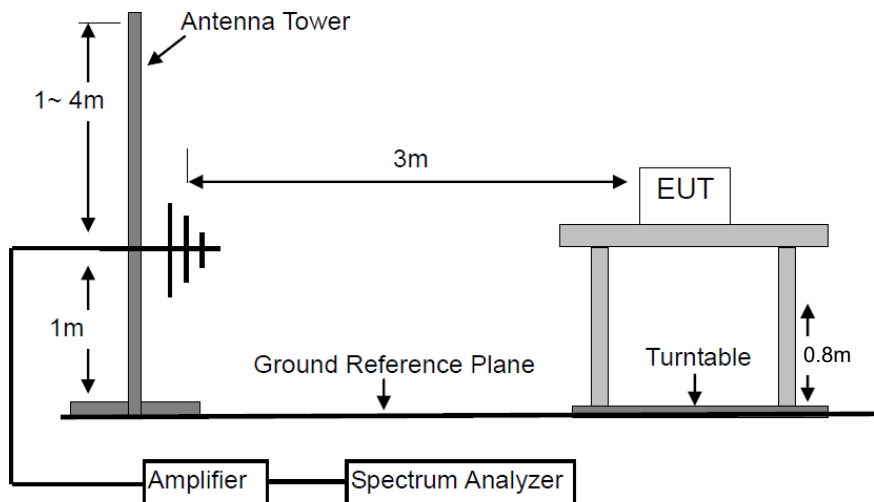
- Remark:
- (1) Emission level (dB) μV = 20 log Emission level $\mu\text{V/m}$
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
 - (4) The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.
 - (5) §15.247(d) specifies that emissions which fall in the restricted bands, as defined in §15.205 comply with radiated emission limits specified in §15.209.

BLOCK DIAGRAM OF TEST SETUP

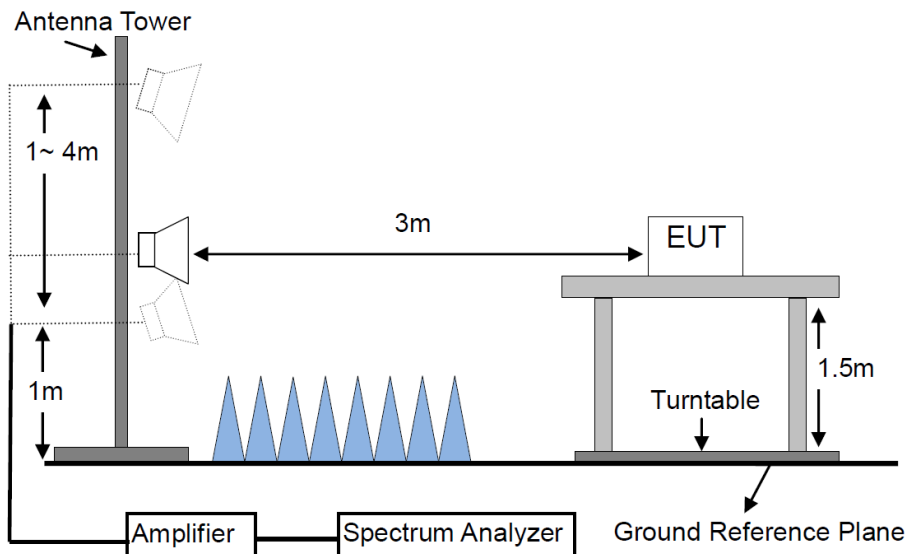
For Radiated Emission below 30MHz



For Radiated Emission 30-1000MHz



For Radiated Emission Above 1000MHz.



TEST PROCEDURES

- a. Below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi- anechoic chamber room.

- b. For the radiated emission test above 1GHz:

The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter full anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, deSEC5000CAM2/RP on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

- c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to peak detect function and specified bandwidth with maximum hold mode.
- f. A Quasi-peak measurement was then made for that frequency point for below 1GHz test. PK and AV for above 1GHz emission test.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

Frequency Band (MHz)	Detector	Resolution Bandwidth	Video Bandwidth
0.009~0.15	QP & AVG	200 Hz	1 kHz
0.15~30	QP & AVG	10 kHz	30 kHz
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	3 MHz
	Average	1 MHz	10 Hz

TEST RESULTS

PASS

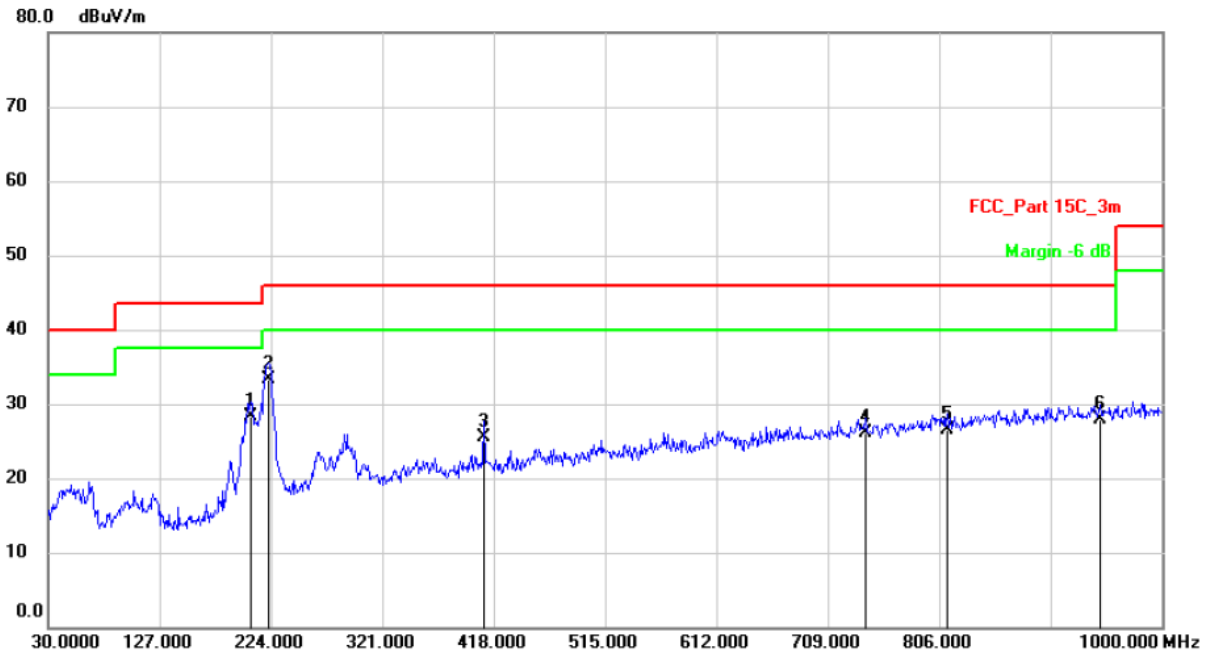
Please refer to the following pages of the worst case (IEEE 802.11n (HT40)).

M/N: RVCS-CS-X101	Testing Voltage: DC 12V
Polarization: Horizontal	Detector: QP
Test Mode: 1 (IEEE 802.11n (HT40)—worst case)	Distance: 3m

Radiated Emission Measurement

Date: 2025/10/31

Time: 18:15:27



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		206.5399	37.61	-9.31	28.30	43.50	-15.20	QP	
2	*	222.0600	42.28	-8.88	33.40	46.00	-12.60	QP	
3		409.2700	29.84	-4.24	25.60	46.00	-20.40	QP	
4		741.9800	24.18	1.92	26.10	46.00	-19.90	QP	
5		812.7900	23.64	2.96	26.60	46.00	-19.40	QP	
6		946.6500	23.72	4.18	27.90	46.00	-18.10	QP	

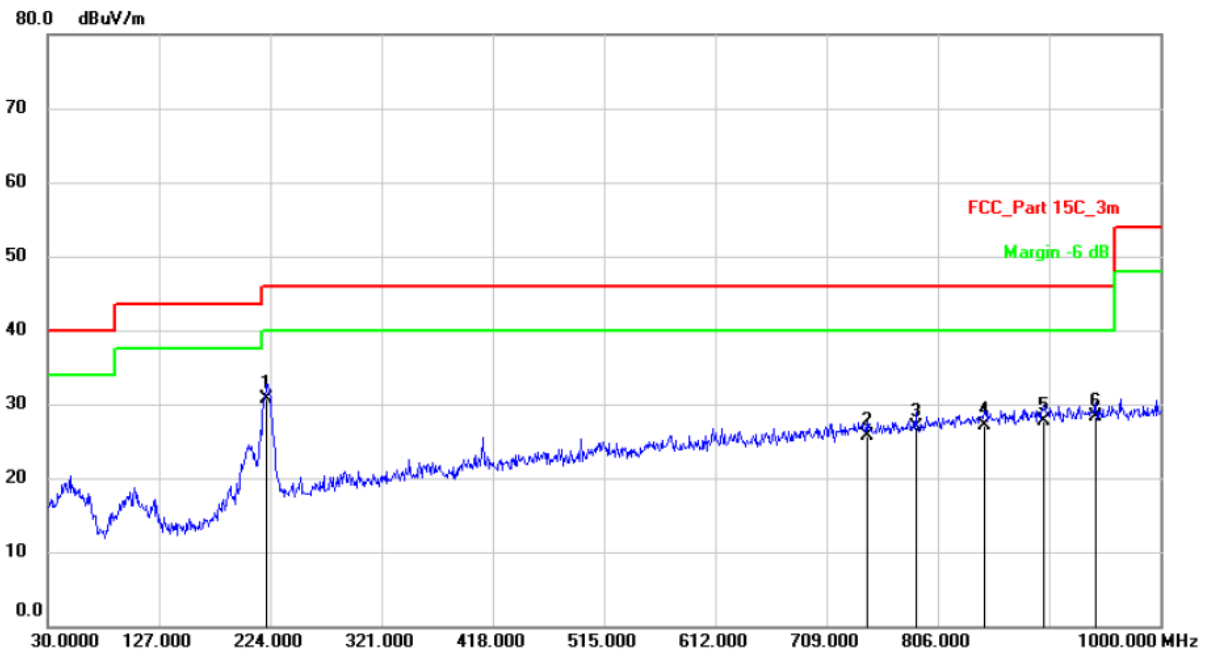
Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

M/N: RVCS-CS-X101	Testing Voltage: DC 12V
Polarization: Vertical	Detector: QP
Test Mode: 1 (IEEE 802.11n (HT40)—worst case)	Distance: 3m

Radiated Emission Measurement

Date: 2025/10/31

Time: 18:10:29



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	221.0900	39.64	-8.94	30.70	46.00	-15.30	QP	
2		743.9200	23.75	1.95	25.70	46.00	-20.30	QP	
3		786.6000	24.35	2.55	26.90	46.00	-19.10	QP	
4		846.7400	23.68	3.52	27.20	46.00	-18.80	QP	
5		898.1500	23.81	3.99	27.80	46.00	-18.20	QP	
6		943.7400	24.13	4.17	28.30	46.00	-17.70	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

Modulation: TX (IEEE 802.11n (HT40)—worst case)				Test Result: PASS			Test frequency range: 1-25GHz			
Freq. (MHz)	Ant. Pol. (H/V)	Reading Level(dBuV)		Factor (dB/m)	Emission Level (dBuV/m)		Limit 3m (dBuV/m)		Margin (dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
Operation Mode: TX Mode (Low)										
4824	V	44.82	36.79	3.92	48.74	40.71	74.00	54.00	-25.26	-13.29
7236	V	46.48	37.55	8.75	55.23	46.30	74.00	54.00	-18.77	-7.70

4824	H	45.00	34.86	3.92	48.92	38.78	74.00	54.00	-25.08	-15.22
7236	H	49.50	42.11	8.75	58.25	50.86	74.00	54.00	-15.75	-3.14

Operation Mode: TX Mode (Mid)										
4874	V	49.57	44.47	4.02	53.59	48.49	74.00	54.00	-20.41	-5.51
7311	V	49.00	41.40	8.97	57.97	50.37	74.00	54.00	-16.03	-3.63

4874	H	46.38	38.88	4.02	50.40	42.90	74.00	54.00	-23.60	-11.10
7311	H	51.05	41.97	8.97	60.02	50.94	74.00	54.00	-13.98	-3.06

Operation Mode: TX Mode (High)										
4924	V	45.94	36.43	4.12	50.06	40.55	74.00	54.00	-23.94	-13.45
7386	V	47.04	38.56	9.19	56.23	47.75	74.00	54.00	-17.77	-6.25

4924	H	47.37	41.80	4.12	51.49	45.92	74.00	54.00	-22.51	-8.08
7386	H	50.81	41.23	9.19	60.00	50.42	74.00	54.00	-14.00	-3.58

Spurious Emission in restricted band:										
2390.000	V	67.80	46.24	-2.98	64.82	43.26	74.00	54.00	-9.18	-10.74
2390.000	H	67.13	43.07	-2.98	64.15	40.09	74.00	54.00	-9.85	-13.91
2483.500	V	71.81	53.29	-2.84	68.97	50.45	74.00	54.00	-5.03	-3.55
2483.500	H	70.21	53.84	-2.84	67.37	51.00	74.00	54.00	-6.63	-3.00
Remark: 1. All the points within the restricted band are lower than the edge punctuation of the restricted band shown in the data. 2. Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits.										

13.8 Antenna Requirement

STANDARD APPLICABLE

According to of FCC part 15C section 15.203 and 15.247:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Systems operating in the 2400-2483.5MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

ANTENNA CONNECTED CONSTRUCTION

The antenna is rod antenna that no antenna other than furnished by the responsible party shall be used with the device, and the best case gain of the antenna is 2.35dBi, Therefore, the antenna is considered to meet the requirement.

14. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	101152	Aug. 21, 2025	1 Year
2.	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Aug. 21, 2025	1 Year
3.	L.I.S.N	Schwarzbeck	NNLK8129	00558	Aug. 23, 2025	1 Year
4.	RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Aug. 21, 2025	1 Year
5.	Test Receiver	Rohde & Schwarz	ESCI7	100837	Aug. 21, 2025	1 Year
6.	Spectrum Analyzer	Keysight	N9020A	MY50510314	Aug. 21, 2025	1 Year
7.	Spectrum Analyzer	Keysight	N9020A	MY54200831	Aug. 22, 2025	1 Year
8.	Spectrum Analyzer	Keysight	N9010B	MY62170254	Aug. 21, 2025	1 Year
9.	Antenna	Schwarzbeck	VULB9163	01552	Aug. 16, 2025	2 Year
10.	Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	Aug. 16, 2025	2 Year
11.	Horn Antenna	COM-Power	AH-118	071078	Aug. 16, 2025	2 Year
12.	Pre-Amplifier	HP	HP 8447D	1145A00203	Aug. 21, 2025	1 Year
13.	Pre-Amplifier	HP	HP 8449B	3008A00964	Aug. 23, 2025	1 Year
14.	Communication Tester	Rohde & Schwarz	CMW500	109851	Aug. 28, 2025	1 Year
15.	Power Sensor	DARE	RPR3006W	15I00041SNO 64	Aug. 28, 2025	1 Year
16.	Power Meter	Agilent	N1912A	MY41497159	Aug. 21, 2025	1 Year
17.	Power Sensor	Agilent	N1921A	MY48251036	Aug. 21, 2025	1 Year
18.	Horn Antenna	COM-Power	AH-840	10100020	Aug. 28, 2025	2 Year
19.	Temperature & Humidity Chamber	Wanshun	SS-HWHS-80	N/A	Aug. 09, 2025	1 Year
20.	DC Source	ZHAOXIN	KXN305D	N/A	Aug. 23, 2025	1 Year
21.	Temporary antenna connector	TESCOM	SS402	N/A	N/A	N/A
22.	Chamber	YIHENG	9*6*6m	N/A	Sep. 22, 2025	2 Year
23.	Test Software	MWRF	MTS 8310, V2.0.0.0	N/A	N/A	N/A
24.	Test Software	EZ	EZ EMC, NTC-3A1.1	N/A	N/A	N/A

Note: For photographs of EUT and measurement, please refer to appendix in separate documents.

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