RF TEST REPORT

For

Guangzhou Toujing Electronic Equipment Co., Ltd.

Product Name: Rugged Tablet

Test Model(s): TJ-101ED02

Report Reference No.	:	**DACE260122021RL003**
FCC ID	:	**2BVAQTJ-101ED02**
Applicant's Name	:	Guangzhou Toujing Electronic Equipment Co., Ltd.
Address	:	201/2nd Floor, No. 26, Hecun Industrial Road, Dashi Street, Panyu District, Guangzhou City, Guangdong Province
Testing Laboratory	:	Shenzhen DACE Testing Technology Co., Ltd.
Address	:	102, Building H1, & 1/F., Building H, Hongfa Science & Technology Park, Tangtou Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Test Specification Standard	:	**47 CFR Part 15.247**
Date of Receipt	:	January 22, 2026
Date of Test	:	January 22, 2026 to March 3, 2026
Date of Issue	:	March 3, 2026
Result	:	**Pass**

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Apply for company information

Applicant's Name	:	Guangzhou Toujing Electronic Equipment Co., Ltd.
Address	:	201/2nd Floor, No. 26, Hecun Industrial Road, Dashi Street, Panyu District, Guangzhou City, Guangdong Province
Product Name	:	Rugged Tablet
Test Model(s)	:	TJ-101ED02
Series Model(s)	:	TJ-120TC04, TJ-190SW03, TJ190VH, TJ-150TC04, TJ-550SW03, TJ-650SW03,TJ-156TC04
Test Specification Standard(s)	:	47 CFR Part 15.247

NOTE1:

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

Compiled by:	Supervised by:	Approved by:
Lucy Mo / Test Engineer	Ben Tang / Project Engineer	Machael Mo / Manager
March 3, 2026	March 3, 2026	March 3, 2026

Revision History Of Report

Version	Description	REPORT No.	Issue Date
V1.0	Original	DACE260122021RL003	March 3, 2026

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1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

1.2 Summary of Test Result

Item	Standard	Method	Requirement	Result
Antenna requirement	47 CFR Part 15.247	---	47 CFR 15.203	Pass
Conducted Emission at AC power line	47 CFR Part 15.247	ANSI C63.10-2020 section 6.2	47 CFR 15.207(a)	Pass
6dB Bandwidth	47 CFR Part 15.247	ANSI C63.10-2020, section 11.8 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(a)(2)	Pass
Maximum Conducted Output Power	47 CFR Part 15.247	ANSI C63.10-2020 section 11.9.1 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(b)(3)	Pass
Power Spectral Density	47 CFR Part 15.247	ANSI C63.10-2020, section 11.10 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(e)	Pass
Emissions in non-restricted frequency bands	47 CFR Part 15.247	ANSI C63.10-2020 section 11.11 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(d)	Pass
Band edge emissions (Radiated)	47 CFR Part 15.247	ANSI C63.10-2020 section 6.10 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(d), 15.209, 15.205	Pass
Emissions in frequency bands (below 1GHz)	47 CFR Part 15.247	ANSI C63.10-2020 section 6.6.4 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(d), 15.209, 15.205	Pass
Emissions in frequency bands (above 1GHz)	47 CFR Part 15.247	ANSI C63.10-2020 section 6.6.4 KDB 558074 D01 15.247 Meas Guidance v05r02	47 CFR 15.247(d), 15.209, 15.205	Pass

2 GENERAL INFORMATION

2.1 Client Information

Applicant's Name	:	Guangzhou Toujing Electronic Equipment Co., Ltd.
Address	:	201/2nd Floor, No. 26, Hecun Industrial Road, Dashi Street, Panyu District, Guangzhou City, Guangdong Province
Manufacturer	:	Guangzhou Toujing Electronic Equipment Co., Ltd.
Address	:	201/2nd Floor, No. 26, Hecun Industrial Road, Dashi Street, Panyu District, Guangzhou City, Guangdong Province

2.2 Description of Device (EUT)

Product Name:	Rugged Tablet
Model/Type reference:	TJ-101ED02
Series Model:	TJ-120TC04, TJ-190SW03, TJ190VH, TJ-150TC04, TJ-550SW03, TJ-650SW03,TJ-156TC04
Model Difference:	The product has many models, only the model name and color is different, and the other parts such as the circuit principle, pcb and electrical structure are the same.
Trade Mark:	N/A
Power Supply:	DC 19V/3.42A from adapter Battery:DC7.6V 8000mAh
Power Adaptor:	MODEL:BYX-19003420G INPUT:100-240V~50/60Hz 1.5A Max OUTPUT:DC19V/3.42A
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz; 802.11n(HT40): 2422MHz to 2452MHz
Number of Channels:	802.11b/g/n(HT20): 11 Channels; 802.11n(HT40): 7 Channels
Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK); 802.11g: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n(HT20 and HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type:	FPC Antenna
Antenna Gain:	WIFI ANT1: 6.04dBi; WIFI ANT2: 5.31dBi;MIMO: 8.69dBi
Hardware Version:	V1.0
Software Version:	V1.0

Remark:The Antenna Gain is supplied by the customer.DACE is not responsible for this data and the related calculations associated with it

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel

see below:

Test channel	Frequency (MHz)
	802.11b/802.11g/802.11n(HT20)
Lowest channel	2412MHz
Middle channel	2437MHz
Highest channel	2462MHz
Test channel	802.11n(HT40)
Lowest channel	2422MHz
Middle channel	2437MHz
Highest channel	2452MHz

2.3 Description of Test Modes

No	Title	Description
TM1	802.11b mode	Keep the EUT in 802.11b transmitting mode.
TM2	802.11g mode	Keep the EUT in 802.11g transmitting mode.
TM3	802.11n(HT20) mode	Keep the EUT in 802.11n(HT20) transmitting mode.
TM4	802.11n(HT40) mode	Keep the EUT in 802.11n(HT40) transmitting mode.
Remark:Only the data of the worst mode would be recorded in this report.		

2.4 Description of Support Units

The EUT was tested as an independent device.

2.5 Equipments Used During The Test

Conducted Emission at AC power line					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Power absorbing clamp	SCHWARZ BECK	MESS-ELEKTRONIK	/	2025-04-23	2026-04-22
Electric Network	SCHWARZ BECK	CAT5 8158	CAT5 8158#207	2025-04-18	2026-04-17
Cable	SCHWARZ BECK	/	/	2025-04-18	2026-04-17
Pulse Limiter	SCHWARZ BECK	VTSD 9561-F Pulse limiter 10dB Attenuation	561-G071	2025-12-02	2026-12-01
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	1164.6607K03 -102109-MH	2025-04-25	2026-04-24
L.I.S.N	R&S	ESH3-Z5	831.5518.52	2025-04-18	2026-04-17
L.I.S.N	SCHWARZ BECK	NSLK 8126	05055	2025-04-18	2026-04-17
Pulse Limiter	CYBERTEK	EM5010A	/	2025-04-25	2026-04-24
EMI test software	EZ -EMC	EZ	V1.1.42	/	/

6dB Bandwidth **Maximum Conducted Output Power** **Power Spectral Density** **Emissions in non-restricted frequency bands**					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
RF Test Software	Tachoy Information Technology(shenzhen) Co.,Ltd.	RTS-01	V1.0.0	/	/
Power divider	MIDEWEST	PWD-2533	SMA-79	2025-04-18	2026-05-10
RF Sensor Unit	Tachoy Information Technology(shenzhen) Co.,Ltd.	TR1029-2	000001	/	/
Wideband radio communication tester	R&S	CMW500	113410	2025-04-25	2026-04-24
Vector Signal Generator	Keysight	N5181A	MY50143455	2025-12-02	2026-12-01
Signal Generator	Keysight	N5182A	MY48180415	2025-12-02	2026-12-01
Spectrum Analyzer	Keysight	N9020A	MY53420323	2025-12-02	2026-12-01
Power meter	Agilent	E4416	MY48200166	2025-12-06	2026-12-05

Band edge emissions (Radiated) Emissions in frequency bands (below 1GHz) Emissions in frequency bands (above 1GHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test software	Farad	EZ -EMC	V1.1.42	/	/
Positioning Controller	MF	MF-7802	/	/	/
Amplifier(18-40G)	COM-POWER	AH-1840	10100008-1	2024-04-26	2027-04-25
Horn antenna	COM-POWER	AH-1840 (18-40G)	10100008	2024-04-26	2027-04-25
Loop antenna	ZHINAN	ZN30900C	ZN30900C	2025-04-28	2026-04-27
Cable(LF)#2	Schwarzbeck	/	/	2025-04-12	2026-04-11
Cable(LF)#1	Schwarzbeck	/	/	2025-04-17	2026-04-16
Cable(HF)#2	Schwarzbeck	AK9515E	96250	2025-04-25	2026-04-24
Cable(HF)#1	Schwarzbeck	SYV-50-3-1	/	2025-04-25	2026-04-24
Power amplifier(LF)	Schwarzbeck	BBV9743	9743-151	2025-04-29	2026-04-28
Power amplifier(HF)	Schwarzbeck	BBV9718	9718-282	2025-04-29	2026-04-28
Wideband radio communication tester	R&S	CMW500	113410	2025-04-25	2026-04-24
Spectrum Analyzer	R&S	FSP30	1321.3008K40 -101729-jR	2025-04-18	2026-04-17
Test Receiver	R&S	ESCI 3	1166.5950K03 -101431-Jq	2025-04-18	2026-04-17
Horn Antenna	Sunol Sciences	DRH-118	A091114	2025-04-21	2026-04-20
Broadband Antenna	Sunol Sciences	JB6 Antenna	A090414	2024-09-28	2026-09-27

2.6 Statement Of The Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Disturbance (0.15~30MHz)	±3.41dB
Occupied Bandwidth	±3.63%
RF conducted power	±0.733dB
RF power density	±0.234%
Conducted Spurious emissions	±1.98dB
Radiated Emission (Above 1GHz)	±5.46dB
Radiated Emission (Below 1GHz)	±5.79dB
Note: (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

2.7 Identification of Testing Laboratory

Company Name:	Shenzhen DACE Testing Technology Co., Ltd.
Address:	102, Building H1, & 1/F., Building H, Hongfa Science & Technology Park, Tangtou Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252

Identification of the Responsible Testing Location

Company Name:	Shenzhen DACE Testing Technology Co., Ltd.
Address:	102, Building H1, & 1/F., Building H, Hongfa Science & Technology Park, Tangtou Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252
Designation Number:	CN1342
Test Firm Registration Number:	778666
A2LA Certificate Number:	6270.01

2.8 Announcement

(1) The test report reference to the report template version v0.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) This document may not be altered or revised in any way unless done so by DACE and all revisions are duly noted in the revisions section.

(5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

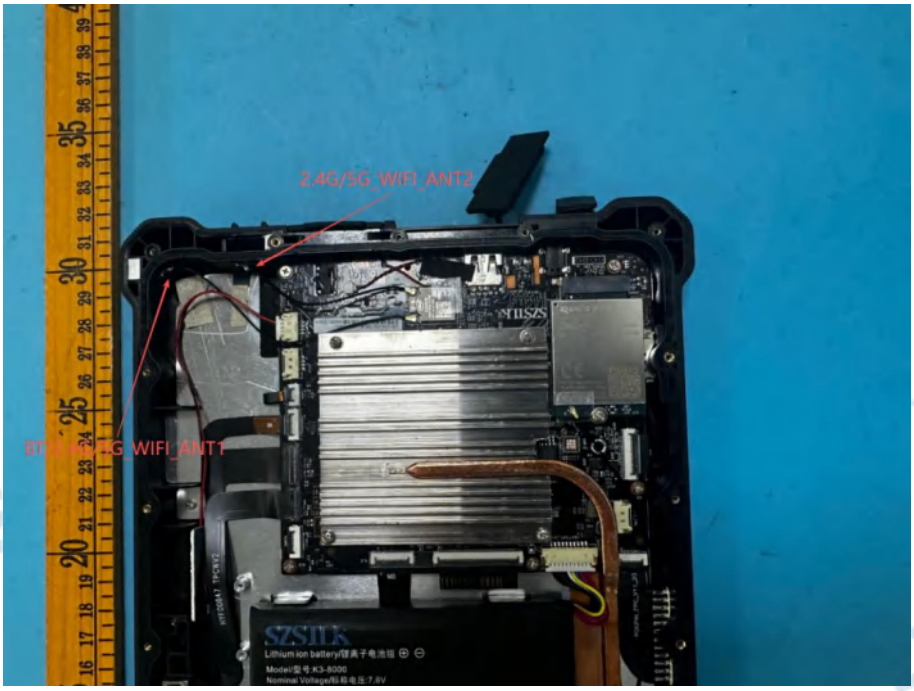
(6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

3 Evaluation Results (Evaluation)

3.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.
Test Method:	---

3.1.1 Conclusion:



4 Radio Spectrum Matter Test Results (RF)

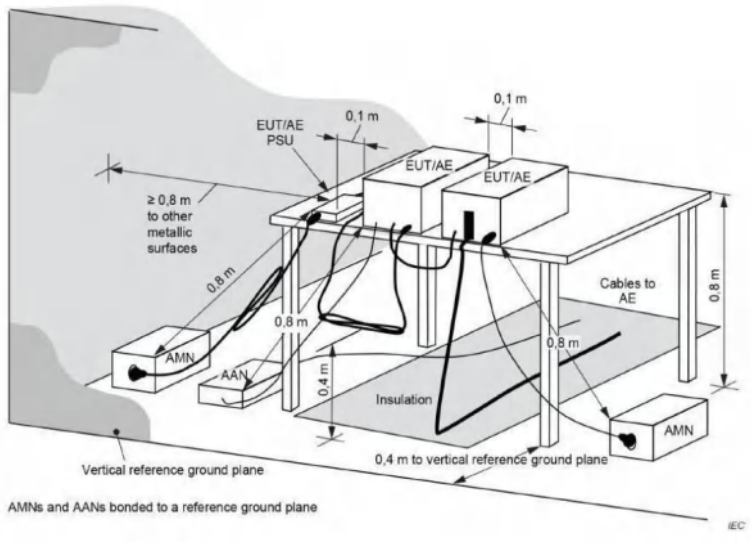
4.1 Conducted Emission at AC power line

Test Requirement:	Refer to 47 CFR 15.207(a), Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).
Test Limit:	Frequency of emission (MHz) / Conducted limit (dBμV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 *Decreases with the logarithm of the frequency.
Test Method:	ANSI C63.10-2020 section 6.2
Procedure:	Refer to ANSI C63.10-2020 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices

4.1.1 E.U.T. Operation:

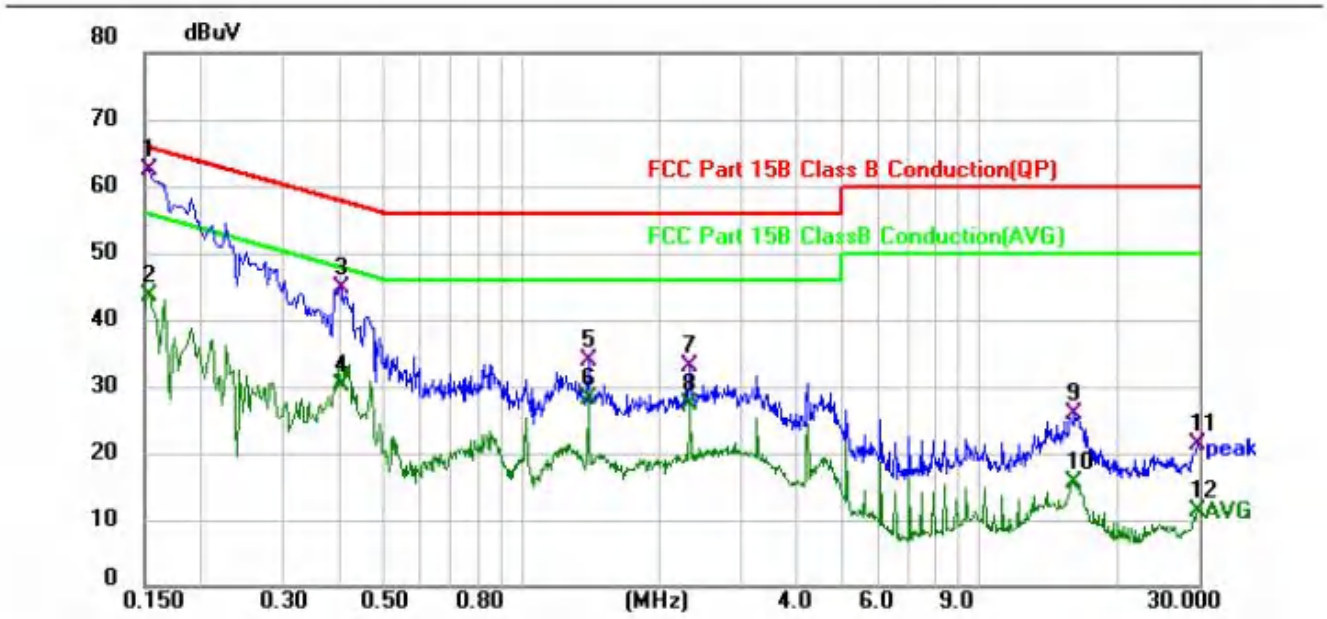
Operating Environment:					
Temperature:	23.9 °C	Humidity:	49 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1				
Final test mode:	TM1				

4.1.2 Test Setup Diagram:



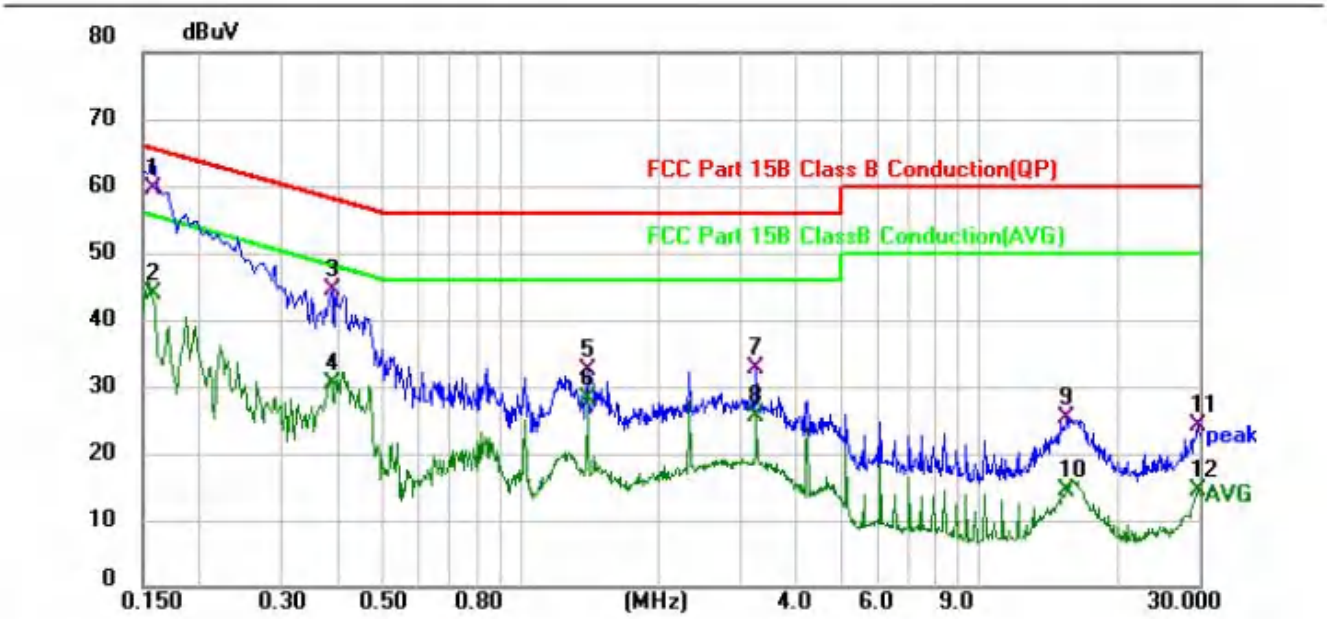
4.1.3 Test Data:

TM1 / Line: Line / Band: 2400-2483.5 MHz / BW: 20 / CH: L



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1539	52.19	10.11	62.30	65.79	-3.49	QP	
2		0.1539	33.43	10.11	43.54	55.79	-12.25	AVG	
3		0.4020	34.57	10.10	44.67	57.81	-13.14	QP	
4		0.4020	20.05	10.10	30.15	47.81	-17.66	AVG	
5		1.4020	23.75	10.06	33.81	56.00	-22.19	QP	
6		1.4020	18.00	10.06	28.06	46.00	-17.94	AVG	
7		2.3340	23.12	10.02	33.14	56.00	-22.86	QP	
8		2.3340	17.20	10.02	27.22	46.00	-18.78	AVG	
9		16.1180	15.21	10.52	25.73	60.00	-34.27	QP	
10		16.1180	5.12	10.52	15.64	50.00	-34.36	AVG	
11		29.8580	10.18	11.11	21.29	60.00	-38.71	QP	
12		29.8580	0.16	11.11	11.27	50.00	-38.73	AVG	

TM1 / Line: Neutral / Band: 2400-2483.5 MHz / BW: 20 / CH: L



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1580	49.49	10.11	59.60	65.57	-5.97	QP	
2		0.1580	33.65	10.11	43.76	55.57	-11.81	AVG	
3		0.3860	34.34	10.09	44.43	58.15	-13.72	QP	
4		0.3860	20.34	10.09	30.43	48.15	-17.72	AVG	
5		1.4020	22.42	10.06	32.48	56.00	-23.52	QP	
6		1.4020	18.10	10.06	28.16	46.00	-17.84	AVG	
7		3.2700	22.49	10.10	32.59	56.00	-23.41	QP	
8		3.2700	15.33	10.10	25.43	46.00	-20.57	AVG	
9		15.5380	14.89	10.52	25.41	60.00	-34.59	QP	
10		15.5380	3.82	10.52	14.34	50.00	-35.66	AVG	
11		29.9380	12.95	11.12	24.07	60.00	-35.93	QP	
12		29.9380	3.21	11.12	14.33	50.00	-35.67	AVG	

NOTE:
1.An initial pre-scan was performed on the line and neutral lines with peak detector.
2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3.Mesurement Level = Reading level + Correct Factor, Over=Limit- Mesurement

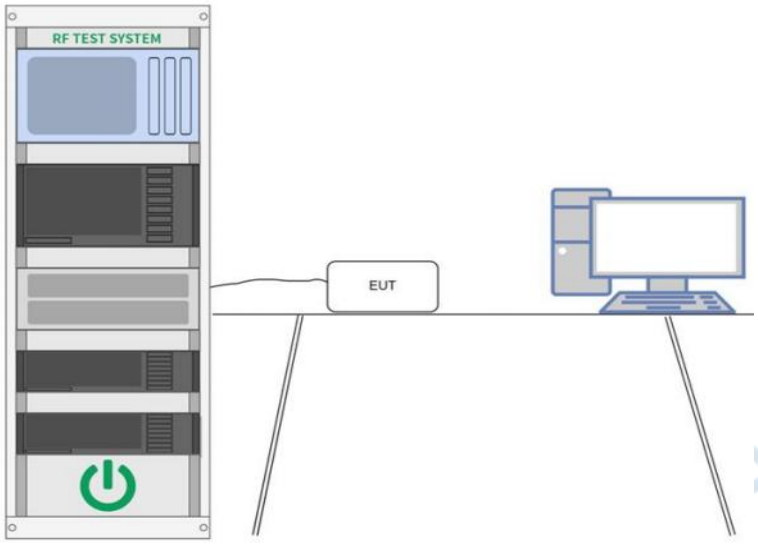
4.2 6dB Bandwidth

Test Requirement:	47 CFR 15.247(a)(2)
Test Limit:	Refer to 47 CFR 15.247(a)(2), Systems using digital modulation techniques may operate in the 902-928 MHz, and 2400-2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
Test Method:	ANSI C63.10-2020, section 11.8 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	11.8.1 Option 1 The steps for the first option are as follows: a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz. b) Set the VBW ≥ [3 × RBW]. c) Detector = peak. d) Trace mode = max-hold. e) Sweep = No faster than coupled (auto) time. f) Allow the trace to stabilize. g) 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 “−6 dB down amplitude”. If a marker is below this “−6 dB down amplitude” value, then it shall be as close as possible to this value. 11.8.2 Option 2 The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW ≥ 3 × RBW, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

4.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.7 °C	Humidity:	51 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1, TM2, TM3, TM4				

4.2.2 Test Setup Diagram:



4.2.3 Test Data:

Please Refer to Appendix for Details.

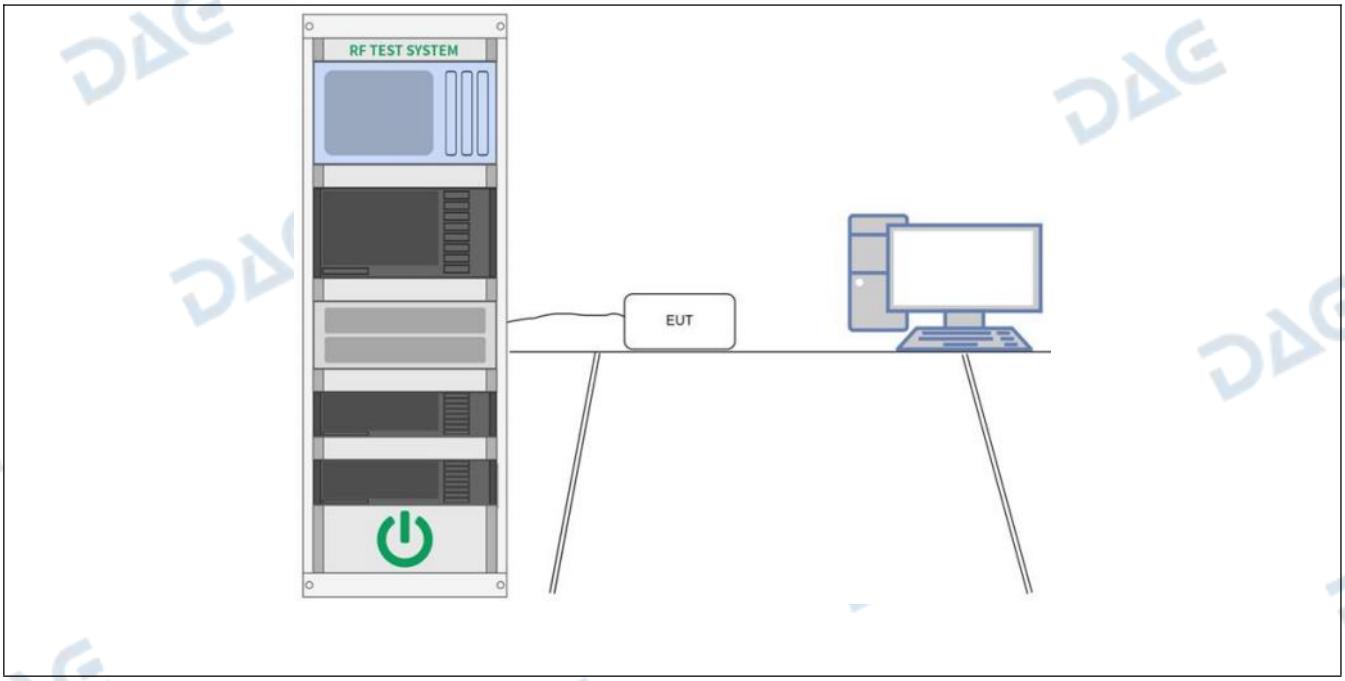
4.3 Maximum Conducted Output Power

Test Requirement:	47 CFR 15.247(b)(3)
Test Limit:	Refer to 47 CFR 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.
Test Method:	ANSI C63.10-2020 section 11.9.1 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020, section 11.9.1 Maximum peak conducted output power Note: Per ANSI C63.10-2020, if there are two or more antnnas, the conducted powers at Core 0, Core 1,…, Core i were first measured separately, as shown in the section above(this product olny have one antenna). The measured values were then summed in linear power units then converted back to dBm. Per ANSI C63.10-2020 Section 14.4.3.2.3, the directional gain is calculated using the following formula, where GN is the gain of the nth antenna and NANT, the total number of antennas used. For correlated unequal antenna gain Directional gain = 10*log[(10G1/20 + 10G2/20 + … + 10GN/20)2 / NANT] dBi For completely uncorrelated unequal antenna gain Directional gain = 10*log[(10G1/10 + 10G2/10 + … + 10GN/10)/ NANT] dBi Sample Multiple antennas Calculation: Core 0 + Core 1 +…Core i. = MIMO/CDD (i is the number of antennas) (#VALUE! mW + mW) = #VALUE! mW = dBm Sample e.i.r.p. Calculation: e.i.r.p. (dBm) = Conducted Power (dBm) + Ant gain (dBi)

4.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.8 °C	Humidity:	54 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1, TM2, TM3, TM4				

4.3.2 Test Setup Diagram:



4.3.3 Test Data:

Please Refer to Appendix for Details.

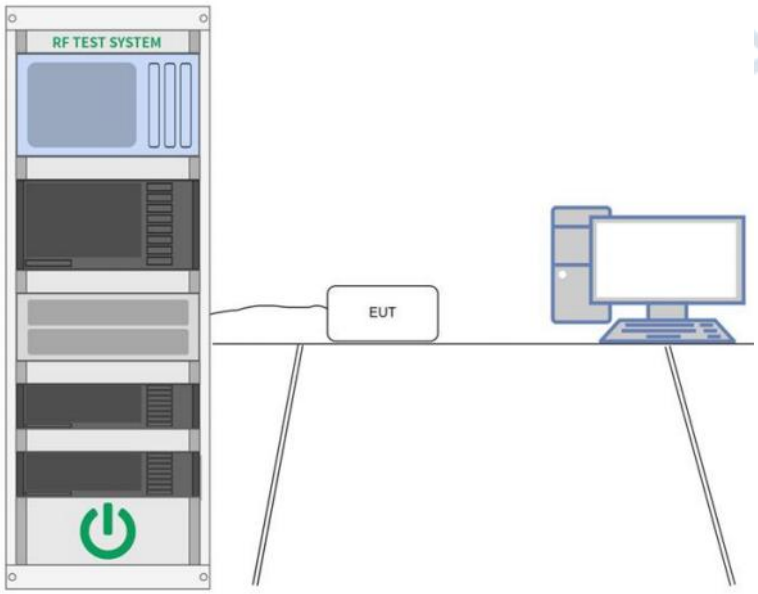
4.4 Power Spectral Density

Test Requirement:	47 CFR 15.247(e)
Test Limit:	Refer to 47 CFR 15.247(e), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.
Test Method:	ANSI C63.10-2020, section 11.10 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020, section 11.10, Maximum power spectral density level in the fundamental emission

4.4.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.8 °C	Humidity:	46 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1, TM2, TM3, TM4				

4.4.2 Test Setup Diagram:



4.4.3 Test Data:

Please Refer to Appendix for Details.

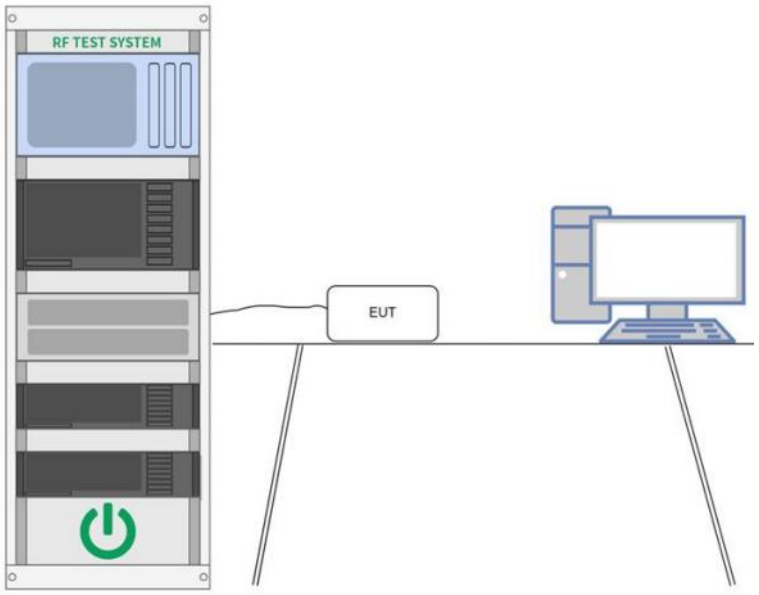
4.5 Emissions in non-restricted frequency bands

Test Requirement:	47 CFR 15.247(d)
Test Limit:	Refer to 47 CFR 15.247(d), In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required.
Test Method:	ANSI C63.10-2020 section 11.11 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 Section 11.11.1, Section 11.11.2, Section 11.11.3

4.5.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.6 °C	Humidity:	51 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1, TM2, TM3, TM4				

4.5.2 Test Setup Diagram:



4.5.3 Test Data:

Please Refer to Appendix for Details.

4.6 Band edge emissions (Radiated)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).
Test Limit:	

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Method:	ANSI C63.10-2020 section 6.10 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 section 6.10.5.2

4.6.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.4 °C	Humidity:	47 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1, TM2, TM3, TM4				

4.6.2 Test Data:

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11b-ant1_Low Channel: 2412MHz								
H	2390	48.13	-6.62	41.51	74	-32.49	PK	Pass
H	2390	38.20	-6.62	31.58	54	-22.42	AV	Pass
H	2400	49.16	-6.43	42.73	74	-31.27	PK	Pass
H	2400	38.57	-6.43	32.14	54	-21.86	AV	Pass
V	2390	47.43	-6.62	40.81	74	-33.19	PK	Pass
V	2390	37.11	-6.62	30.49	54	-23.51	AV	Pass
V	2400	49.48	-6.43	43.05	74	-30.95	PK	Pass
V	2400	37.88	-6.43	31.45	54	-22.55	AV	Pass
802.11b-ant1_High Channel: 2462MHz								
H	2483.5	57.26	-6.17	51.09	74	-22.91	PK	Pass
H	2483.5	43.34	-6.17	37.17	54	-16.83	AV	Pass
H	2500	57.97	-6.13	51.84	74	-22.16	PK	Pass
H	2500	44.51	-6.13	38.38	54	-15.62	AV	Pass
V	2483.5	58.44	-6.17	52.27	74	-21.73	PK	Pass
V	2483.5	43.25	-6.17	37.08	54	-16.92	AV	Pass
V	2500	57.16	-6.13	51.03	74	-22.97	PK	Pass
V	2500	43.58	-6.13	37.45	54	-16.55	AV	Pass
802.11b-ant2_Low Channel: 2412MHz								
H	2390	47.50	-6.62	40.88	74	-33.12	PK	Pass
H	2390	38.89	-6.62	32.27	54	-21.73	AV	Pass
H	2400	47.99	-6.43	41.56	74	-32.44	PK	Pass
H	2400	38.86	-6.43	32.43	54	-21.57	AV	Pass
V	2390	47.32	-6.62	40.70	74	-33.30	PK	Pass
V	2390	37.24	-6.62	30.62	54	-23.38	AV	Pass
V	2400	47.74	-6.43	41.31	74	-32.69	PK	Pass
V	2400	38.75	-6.43	32.32	54	-21.68	AV	Pass
802.11b-ant2_High Channel: 2462MHz								
H	2483.5	57.54	-6.17	51.37	74	-22.63	PK	Pass
H	2483.5	44.31	-6.17	38.14	54	-15.86	AV	Pass
H	2500	56.68	-6.13	50.55	74	-23.45	PK	Pass
H	2500	44.43	-6.13	38.30	54	-15.70	AV	Pass
V	2483.5	57.23	-6.17	51.06	74	-22.94	PK	Pass
V	2483.5	43.71	-6.17	37.54	54	-16.46	AV	Pass
V	2500	56.67	-6.13	50.54	74	-23.46	PK	Pass
V	2500	43.93	-6.13	37.80	54	-16.20	AV	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11g-ant1_Low Channel: 2412MHz								
H	2390	48.32	-6.62	41.70	74	-32.30	PK	Pass
H	2390	38.78	-6.62	32.16	54	-21.84	AV	Pass
H	2400	48.92	-6.43	42.49	74	-31.51	PK	Pass
H	2400	38.29	-6.43	31.86	54	-22.14	AV	Pass
V	2390	49.01	-6.62	42.39	74	-31.61	PK	Pass
V	2390	38.58	-6.62	31.96	54	-22.04	AV	Pass
V	2400	47.88	-6.43	41.45	74	-32.55	PK	Pass
V	2400	37.76	-6.43	31.33	54	-22.67	AV	Pass
802.11g-ant1_High Channel: 2462MHz								
H	2483.5	56.78	-6.17	50.61	74	-23.39	PK	Pass
H	2483.5	43.52	-6.17	37.35	54	-16.65	AV	Pass
H	2500	57.76	-6.13	51.63	74	-22.37	PK	Pass
H	2500	45.14	-6.13	39.01	54	-14.99	AV	Pass
V	2483.5	58.36	-6.17	52.19	74	-21.81	PK	Pass
V	2483.5	44.77	-6.17	38.60	54	-15.40	AV	Pass
V	2500	58.47	-6.13	52.34	74	-21.66	PK	Pass
V	2500	43.48	-6.13	37.35	54	-16.65	AV	Pass
802.11g-ant2_Low Channel: 2412MHz								
H	2390	47.78	-6.62	41.16	74	-32.84	PK	Pass
H	2390	37.86	-6.62	31.24	54	-22.76	AV	Pass
H	2400	49.56	-6.43	43.13	74	-30.87	PK	Pass
H	2400	37.74	-6.43	31.31	54	-22.69	AV	Pass
V	2390	47.08	-6.62	40.46	74	-33.54	PK	Pass
V	2390	37.21	-6.62	30.59	54	-23.41	AV	Pass
V	2400	49.11	-6.43	42.68	74	-31.32	PK	Pass
V	2400	38.74	-6.43	32.31	54	-21.69	AV	Pass
802.11g-ant2_High Channel: 2462MHz								
H	2483.5	56.48	-6.17	50.31	74	-23.69	PK	Pass
H	2483.5	43.26	-6.17	37.09	54	-16.91	AV	Pass
H	2500	56.49	-6.13	50.36	74	-23.64	PK	Pass
H	2500	44.32	-6.13	38.19	54	-15.81	AV	Pass
V	2483.5	57.31	-6.17	51.14	74	-22.86	PK	Pass
V	2483.5	43.71	-6.17	37.54	54	-16.46	AV	Pass
V	2500	57.58	-6.13	51.45	74	-22.55	PK	Pass
V	2500	43.70	-6.13	37.57	54	-16.43	AV	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n20-ant1_Low Channel: 2412MHz								
H	2390	48.59	-6.62	41.97	74	-32.03	PK	Pass
H	2390	38.87	-6.62	32.25	54	-21.75	AV	Pass
H	2400	49.11	-6.43	42.68	74	-31.32	PK	Pass
H	2400	37.45	-6.43	31.02	54	-22.98	AV	Pass
V	2390	48.11	-6.62	41.49	74	-32.51	PK	Pass
V	2390	37.53	-6.62	30.91	54	-23.09	AV	Pass
V	2400	47.74	-6.43	41.31	74	-32.69	PK	Pass
V	2400	37.28	-6.43	30.85	54	-23.15	AV	Pass
802.11n20-ant1_High Channel: 2462MHz								
H	2483.5	56.16	-6.17	49.99	74	-24.01	PK	Pass
H	2483.5	45.45	-6.17	39.28	54	-14.72	AV	Pass
H	2500	58.21	-6.13	52.08	74	-21.92	PK	Pass
H	2500	43.84	-6.13	37.71	54	-16.29	AV	Pass
V	2483.5	58.32	-6.17	52.15	74	-21.85	PK	Pass
V	2483.5	44.10	-6.17	37.93	54	-16.07	AV	Pass
V	2500	56.52	-6.13	50.39	74	-23.61	PK	Pass
V	2500	43.05	-6.13	36.92	54	-17.08	AV	Pass
802.11n20-an2_Low Channel: 2412MHz								
H	2390	48.79	-6.62	42.17	74	-31.83	PK	Pass
H	2390	39.04	-6.62	32.42	54	-21.58	AV	Pass
H	2400	47.24	-6.43	40.81	74	-33.19	PK	Pass
H	2400	39.27	-6.43	32.84	54	-21.16	AV	Pass
V	2390	49.47	-6.62	42.85	74	-31.15	PK	Pass
V	2390	38.61	-6.62	31.99	54	-22.01	AV	Pass
V	2400	48.01	-6.43	41.58	74	-32.42	PK	Pass
V	2400	37.91	-6.43	31.48	54	-22.52	AV	Pass
802.11n20-ant2_High Channel: 2462MHz								
H	2483.5	58.55	-6.17	52.38	74	-21.62	PK	Pass
H	2483.5	43.62	-6.17	37.45	54	-16.55	AV	Pass
H	2500	58.02	-6.13	51.89	74	-22.11	PK	Pass
H	2500	43.84	-6.13	37.71	54	-16.29	AV	Pass
V	2483.5	58.54	-6.17	52.37	74	-21.63	PK	Pass
V	2483.5	44.54	-6.17	38.37	54	-15.63	AV	Pass
V	2500	57.58	-6.13	51.45	74	-22.55	PK	Pass
V	2500	44.68	-6.13	38.55	54	-15.45	AV	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n40-ant1_Low Channel: 2422MHz								
H	2390	49.14	-6.62	42.52	74	-31.48	PK	Pass
H	2390	37.51	-6.62	30.89	54	-23.11	AV	Pass
H	2400	47.27	-6.43	40.84	74	-33.16	PK	Pass
H	2400	38.36	-6.43	31.93	54	-22.07	AV	Pass
V	2390	47.65	-6.62	41.03	74	-32.97	PK	Pass
V	2390	37.47	-6.62	30.85	54	-23.15	AV	Pass
V	2400	48.60	-6.43	42.17	74	-31.83	PK	Pass
V	2400	38.41	-6.43	31.98	54	-22.02	AV	Pass
802.11n40-ant1_High Channel: 2452MHz								
H	2483.5	56.89	-6.17	50.72	74	-23.28	PK	Pass
H	2483.5	43.46	-6.17	37.29	54	-16.71	AV	Pass
H	2500	57.10	-6.13	50.97	74	-23.03	PK	Pass
H	2500	44.68	-6.13	38.55	54	-15.45	AV	Pass
V	2483.5	57.88	-6.17	51.71	74	-22.29	PK	Pass
V	2483.5	43.17	-6.17	37.00	54	-17.00	AV	Pass
V	2500	56.19	-6.13	50.06	74	-23.94	PK	Pass
V	2500	45.09	-6.13	38.96	54	-15.04	AV	Pass
802.11n40-an2_Low Channel: 2422MHz								
H	2390	48.38	-6.62	41.76	74	-32.24	PK	Pass
H	2390	37.78	-6.62	31.16	54	-22.84	AV	Pass
H	2400	49.01	-6.43	42.58	74	-31.42	PK	Pass
H	2400	37.32	-6.43	30.89	54	-23.11	AV	Pass
V	2390	49.31	-6.62	42.69	74	-31.31	PK	Pass
V	2390	38.29	-6.62	31.67	54	-22.33	AV	Pass
V	2400	49.49	-6.43	43.06	74	-30.94	PK	Pass
V	2400	37.58	-6.43	31.15	54	-22.85	AV	Pass
802.11n40-ant2_High Channel: 2452MHz								
H	2483.5	57.52	-6.17	51.35	74	-22.65	PK	Pass
H	2483.5	43.28	-6.17	37.11	54	-16.89	AV	Pass
H	2500	58.37	-6.13	52.24	74	-21.76	PK	Pass
H	2500	44.64	-6.13	38.51	54	-15.49	AV	Pass
V	2483.5	58.49	-6.17	52.32	74	-21.68	PK	Pass
V	2483.5	44.76	-6.17	38.59	54	-15.41	AV	Pass
V	2500	57.82	-6.13	51.69	74	-22.31	PK	Pass
V	2500	43.31	-6.13	37.18	54	-16.82	AV	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n20-antMIMO_Low Channel: 2412MHz								
H	2390	47.67	-6.62	41.05	74	-32.95	PK	Pass
H	2390	37.67	-6.62	31.05	54	-22.95	AV	Pass
H	2400	49.04	-6.43	42.61	74	-31.39	PK	Pass
H	2400	39.13	-6.43	32.70	54	-21.30	AV	Pass
V	2390	49.16	-6.62	42.54	74	-31.46	PK	Pass
V	2390	37.07	-6.62	30.45	54	-23.55	AV	Pass
V	2400	49.05	-6.43	42.62	74	-31.38	PK	Pass
V	2400	38.60	-6.43	32.17	54	-21.83	AV	Pass
802.11n20-antMIMO_High Channel: 2462MHz								
H	2483.5	56.96	-6.17	50.79	74	-23.21	PK	Pass
H	2483.5	43.07	-6.17	36.90	54	-17.10	AV	Pass
H	2500	58.10	-6.13	51.97	74	-22.03	PK	Pass
H	2500	43.25	-6.13	37.12	54	-16.88	AV	Pass
V	2483.5	57.82	-6.17	51.65	74	-22.35	PK	Pass
V	2483.5	44.13	-6.17	37.96	54	-16.04	AV	Pass
V	2500	57.06	-6.13	50.93	74	-23.07	PK	Pass
V	2500	43.96	-6.13	37.83	54	-16.17	AV	Pass
802.11n40-antMIMO_Low Channel: 2422MHz								
H	2390	49.52	-6.62	42.90	74	-31.10	PK	Pass
H	2390	37.66	-6.62	31.04	54	-22.96	AV	Pass
H	2400	48.04	-6.43	41.61	74	-32.39	PK	Pass
H	2400	38.73	-6.43	32.30	54	-21.70	AV	Pass
V	2390	48.56	-6.62	41.94	74	-32.06	PK	Pass
V	2390	38.80	-6.62	32.18	54	-21.82	AV	Pass
V	2400	48.21	-6.43	41.78	74	-32.22	PK	Pass
V	2400	39.30	-6.43	32.87	54	-21.13	AV	Pass
802.11n40-antMIMO_High Channel: 2452MHz								
H	2483.5	57.54	-6.17	51.37	74	-22.63	PK	Pass
H	2483.5	43.53	-6.17	37.36	54	-16.64	AV	Pass
H	2500	56.93	-6.13	50.80	74	-23.20	PK	Pass
H	2500	44.72	-6.13	38.59	54	-15.41	AV	Pass
V	2483.5	57.33	-6.17	51.16	74	-22.84	PK	Pass
V	2483.5	44.97	-6.17	38.80	54	-15.20	AV	Pass
V	2500	58.03	-6.13	51.90	74	-22.10	PK	Pass
V	2500	44.57	-6.13	38.44	54	-15.56	AV	Pass

Remark:Margin=Level - Limit, Level=Test receiver reading + correction factor
The test software will only record the worst test angle and height, and only the worst case will be recorded in the test report.

4.7 Emissions in frequency bands (below 1GHz)

<table>
<tr><td>Test Requirement:</td><td>Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).</td></tr>
<tr><td>Test Limit:</td><td>
<table>
<tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10-2020 section 6.6.4
KDB 558074 D01 15.247 Meas Guidance v05r02</td></tr>
<tr><td>Procedure:</td><td>a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
d. The antenna height 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
j. Repeat above procedures until all frequencies measured was complete.
Remark:
1) For emission below 1GHz, through pre-scan found the worst case is the lowest</td></tr>
</table>

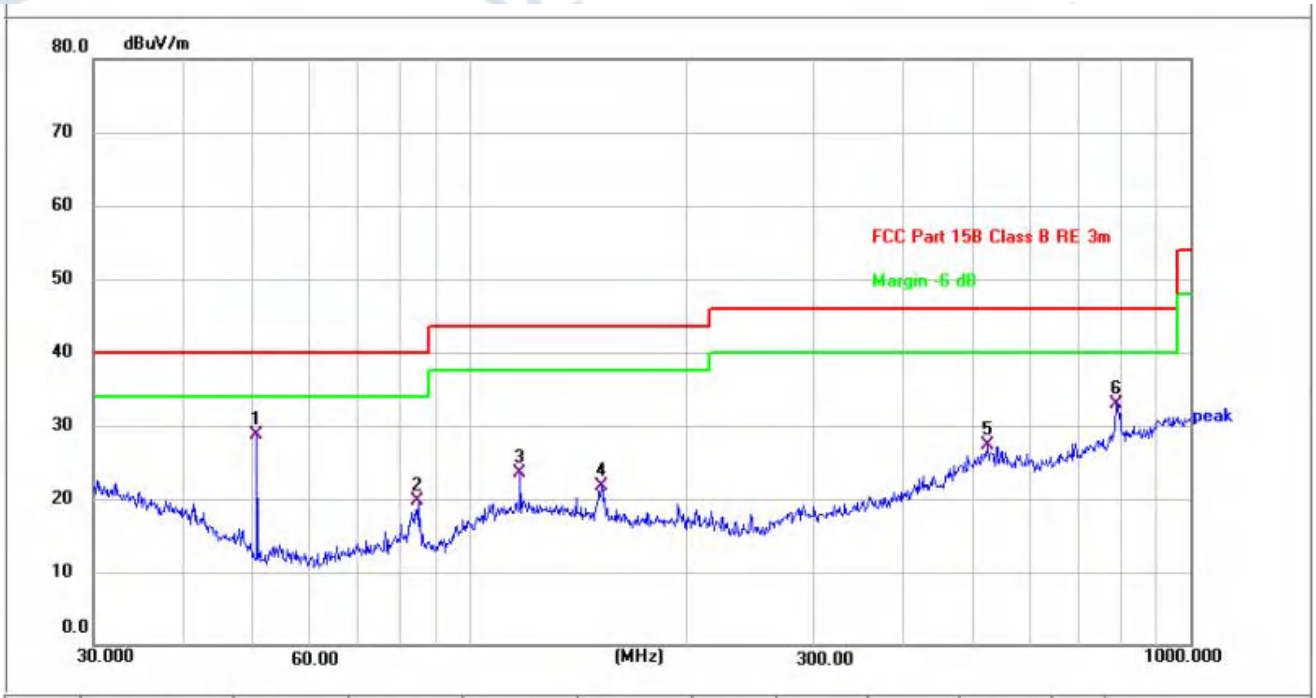
	channel. Only the worst case is recorded in the report. 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Final Test Level =Receiver Reading + Antenna Factor + Cable Factor ¨C Preamplifier Factor 3) Scan from 9kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. Fundamental frequency is blocked by filter, and only spurious emission is shown.

4.7.1 E.U.T. Operation:

Operating Environment:					
Temperature:	22.5 °C	Humidity:	54 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1				

4.7.2 Test Data:

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 20 / CH: L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	50.5860	42.59	-13.82	28.77	40.00	-11.23	QP	100		P	
2	84.7019	32.55	-12.89	19.66	40.00	-20.34	QP	100		P	
3	117.3603	30.27	-6.75	23.52	43.50	-19.98	QP	100		P	
4	152.1297	29.81	-8.19	21.62	43.50	-21.88	QP	100		P	
5	522.7180	30.52	-3.29	27.23	46.00	-18.77	QP	100		P	
6	787.8513	30.92	2.00	32.92	46.00	-13.08	QP	100		P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 20 / CH: L

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.2111	24.35	-2.49	21.86	40.00	-18.14	QP			P	
2	87.4176	26.88	-12.65	14.23	40.00	-25.77	QP			P	
3	150.5377	38.40	-7.81	30.59	43.50	-12.91	QP			P	
4	207.8501	38.22	-9.96	28.26	43.50	-15.24	QP			P	
5	462.3455	32.61	-4.05	28.56	46.00	-17.44	QP			P	
6 *	790.6187	35.17	2.12	37.29	46.00	-8.71	QP			P	

4.8 Emissions in frequency bands (above 1GHz)

<table>
<tr><td>Test Requirement:</td><td>Refer to 47 CFR 15.247(d), in addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).</td></tr>
<tr><td>Test Limit:</td><td>
<table>
<tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10-2020 section 6.6.4
KDB 558074 D01 15.247 Meas Guidance v05r02</td></tr>
<tr><td>Procedure:</td><td>a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
d. The antenna height 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
j. Repeat above procedures until all frequencies measured was complete.
Remark:</td></tr>
</table>

	1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report. 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Final Test Level =Receiver Reading + Antenna Factor + Cable Factor ¨C Preamplifier Factor 3) Scan from 9kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. Fundamental frequency is blocked by filter, and only spurious emission is shown.

4.8.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.4 °C	Humidity:	55 %	Atmospheric Pressure:	101.4 kPa
Pretest mode:	TM1, TM2, TM3, TM4				
Final test mode:	TM1, TM2, TM3, TM4				

4.8.2 Test Data:

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11b-ant1_Low Channel: 2412MHz								
V	4824	53.96	-0.17	53.79	74	-20.21	PK	Pass
V	4824	33.73	-0.17	33.56	54	-20.44	AV	Pass
V	7236	54.57	4.78	59.35	74	-14.65	PK	Pass
V	7236	34.10	4.78	38.88	54	-15.12	AV	Pass
V	9648	53.20	8.08	61.28	74	-12.72	PK	Pass
V	9648	33.03	8.08	41.11	54	-12.89	AV	Pass
H	4824	55.42	-0.17	55.25	74	-18.75	PK	Pass
H	4824	35.57	-0.17	35.40	54	-18.60	AV	Pass
H	7236	54.09	4.78	58.87	74	-15.13	PK	Pass
H	7236	33.03	4.78	37.81	54	-16.19	AV	Pass
H	9648	53.81	8.08	61.89	74	-12.11	PK	Pass
H	9648	33.39	8.08	41.47	54	-12.53	AV	Pass
Middle Channel:2437MHz								
V	4874	55.15	-0.17	54.98	74	-19.02	PK	Pass
V	4874	33.56	-0.17	33.39	54	-20.61	AV	Pass
V	7311	54.72	4.78	59.50	74	-14.50	PK	Pass
V	7311	35.15	4.78	39.93	54	-14.07	AV	Pass
V	9748	55.26	8.08	63.34	74	-10.66	PK	Pass
V	9748	33.59	8.08	41.67	54	-12.33	AV	Pass
H	4874	54.61	-0.17	54.44	74	-19.56	PK	Pass
H	4874	35.38	-0.17	35.21	54	-18.79	AV	Pass
H	7311	53.82	4.78	58.60	74	-15.40	PK	Pass
H	7311	35.01	4.78	39.79	54	-14.21	AV	Pass

H	9748	54.20	8.08	62.28	74	-11.72	PK	Pass
H	9748	34.83	8.08	42.91	54	-11.09	AV	Pass
High Channel:2462MHz								
V	4924	55.35	-0.17	55.18	74	-18.82	PK	Pass
V	4924	35.45	-0.17	35.28	54	-18.72	AV	Pass
V	7386	54.50	4.78	59.28	74	-14.72	PK	Pass
V	7386	33.24	4.78	38.02	54	-15.98	AV	Pass
V	9848	53.75	8.08	61.83	74	-12.17	PK	Pass
V	9848	33.38	8.08	41.46	54	-12.54	AV	Pass
H	4924	53.75	-0.17	53.58	74	-20.42	PK	Pass
H	4924	34.03	-0.17	33.86	54	-20.14	AV	Pass
H	7386	54.77	4.78	59.55	74	-14.45	PK	Pass
H	7386	34.74	4.78	39.52	54	-14.48	AV	Pass
H	9848	53.88	8.08	61.96	74	-12.04	PK	Pass
H	9848	35.01	8.08	43.09	54	-10.91	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11b-ant2_Low Channel: 2412MHz								
V	4824	55.33	-0.17	55.16	74	-18.84	PK	Pass
V	4824	35.12	-0.17	34.95	54	-19.05	AV	Pass
V	7236	53.41	4.78	58.19	74	-15.81	PK	Pass
V	7236	33.19	4.78	37.97	54	-16.03	AV	Pass
V	9648	55.03	8.08	63.11	74	-10.89	PK	Pass
V	9648	33.81	8.08	41.89	54	-12.11	AV	Pass
H	4824	55.48	-0.17	55.31	74	-18.69	PK	Pass
H	4824	33.51	-0.17	33.34	54	-20.66	AV	Pass
H	7236	54.10	4.78	58.88	74	-15.12	PK	Pass
H	7236	34.40	4.78	39.18	54	-14.82	AV	Pass
H	9648	54.42	8.08	62.50	74	-11.50	PK	Pass
H	9648	33.13	8.08	41.21	54	-12.79	AV	Pass
Middle Channel:2437MHz								
V	4874	54.91	-0.17	54.74	74	-19.26	PK	Pass
V	4874	34.61	-0.17	34.44	54	-19.56	AV	Pass
V	7311	53.88	4.78	58.66	74	-15.34	PK	Pass
V	7311	35.21	4.78	39.99	54	-14.01	AV	Pass
V	9748	53.93	8.08	62.01	74	-11.99	PK	Pass
V	9748	33.12	8.08	41.20	54	-12.80	AV	Pass
H	4874	53.89	-0.17	53.72	74	-20.28	PK	Pass
H	4874	34.80	-0.17	34.63	54	-19.37	AV	Pass
H	7311	54.95	4.78	59.73	74	-14.27	PK	Pass
H	7311	33.61	4.78	38.39	54	-15.61	AV	Pass

H	9748	54.60	8.08	62.68	74	-11.32	PK	Pass
H	9748	33.29	8.08	41.37	54	-12.63	AV	Pass
High Channel:2462MHz								
V	4924	53.83	-0.17	53.66	74	-20.34	PK	Pass
V	4924	33.54	-0.17	33.37	54	-20.63	AV	Pass
V	7386	53.82	4.78	58.60	74	-15.40	PK	Pass
V	7386	34.61	4.78	39.39	54	-14.61	AV	Pass
V	9848	54.51	8.08	62.59	74	-11.41	PK	Pass
V	9848	34.73	8.08	42.81	54	-11.19	AV	Pass
H	4924	53.24	-0.17	53.07	74	-20.93	PK	Pass
H	4924	35.33	-0.17	35.16	54	-18.84	AV	Pass
H	7386	53.24	4.78	58.02	74	-15.98	PK	Pass
H	7386	33.59	4.78	38.37	54	-15.63	AV	Pass
H	9848	53.45	8.08	61.53	74	-12.47	PK	Pass
H	9848	34.96	8.08	43.04	54	-10.96	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11g-ant1_Low Channel: 2412MHz								
V	4824	55.41	-0.17	55.24	74	-18.76	PK	Pass
V	4824	33.71	-0.17	33.54	54	-20.46	AV	Pass
V	7236	53.26	4.78	58.04	74	-15.96	PK	Pass
V	7236	34.18	4.78	38.96	54	-15.04	AV	Pass
V	9648	53.93	8.08	62.01	74	-11.99	PK	Pass
V	9648	35.29	8.08	43.37	54	-10.63	AV	Pass
H	4824	54.89	-0.17	54.72	74	-19.28	PK	Pass
H	4824	34.32	-0.17	34.15	54	-19.85	AV	Pass
H	7236	54.90	4.78	59.68	74	-14.32	PK	Pass
H	7236	34.88	4.78	39.66	54	-14.34	AV	Pass
H	9648	54.31	8.08	62.39	74	-11.61	PK	Pass
H	9648	33.41	8.08	41.49	54	-12.51	AV	Pass
Middle Channel:2437MHz								
V	4874	54.24	-0.17	54.07	74	-19.93	PK	Pass
V	4874	35.19	-0.17	35.02	54	-18.98	AV	Pass
V	7311	53.42	4.78	58.20	74	-15.80	PK	Pass
V	7311	34.86	4.78	39.64	54	-14.36	AV	Pass
V	9748	53.50	8.08	61.58	74	-12.42	PK	Pass
V	9748	33.58	8.08	41.66	54	-12.34	AV	Pass
H	4874	54.47	-0.17	54.30	74	-19.70	PK	Pass
H	4874	34.15	-0.17	33.98	54	-20.02	AV	Pass
H	7311	53.32	4.78	58.10	74	-15.90	PK	Pass
H	7311	34.92	4.78	39.70	54	-14.30	AV	Pass

H	9748	54.18	8.08	62.26	74	-11.74	PK	Pass
H	9748	34.21	8.08	42.29	54	-11.71	AV	Pass
High Channel:2462MHz								
V	4924	54.76	-0.17	54.59	74	-19.41	PK	Pass
V	4924	33.88	-0.17	33.71	54	-20.29	AV	Pass
V	7386	54.76	4.78	59.54	74	-14.46	PK	Pass
V	7386	34.48	4.78	39.26	54	-14.74	AV	Pass
V	9848	55.37	8.08	63.45	74	-10.55	PK	Pass
V	9848	33.24	8.08	41.32	54	-12.68	AV	Pass
H	4924	55.32	-0.17	55.15	74	-18.85	PK	Pass
H	4924	35.53	-0.17	35.36	54	-18.64	AV	Pass
H	7386	53.79	4.78	58.57	74	-15.43	PK	Pass
H	7386	33.87	4.78	38.65	54	-15.35	AV	Pass
H	9848	53.16	8.08	61.24	74	-12.76	PK	Pass
H	9848	35.19	8.08	43.27	54	-10.73	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11g-ant2_Low Channel: 2412MHz								
V	4824	54.99	-0.17	54.82	74	-19.18	PK	Pass
V	4824	34.25	-0.17	34.08	54	-19.92	AV	Pass
V	7236	53.04	4.78	57.82	74	-16.18	PK	Pass
V	7236	35.19	4.78	39.97	54	-14.03	AV	Pass
V	9648	55.10	8.08	63.18	74	-10.82	PK	Pass
V	9648	34.30	8.08	42.38	54	-11.62	AV	Pass
H	4824	54.35	-0.17	54.18	74	-19.82	PK	Pass
H	4824	35.32	-0.17	35.15	54	-18.85	AV	Pass
H	7236	54.84	4.78	59.62	74	-14.38	PK	Pass
H	7236	33.42	4.78	38.20	54	-15.80	AV	Pass
H	9648	53.51	8.08	61.59	74	-12.41	PK	Pass
H	9648	33.13	8.08	41.21	54	-12.79	AV	Pass
Middle Channel:2437MHz								
V	4874	53.14	-0.17	52.97	74	-21.03	PK	Pass
V	4874	33.36	-0.17	33.19	54	-20.81	AV	Pass
V	7311	54.40	4.78	59.18	74	-14.82	PK	Pass
V	7311	33.68	4.78	38.46	54	-15.54	AV	Pass
V	9748	54.80	8.08	62.88	74	-11.12	PK	Pass
V	9748	35.16	8.08	43.24	54	-10.76	AV	Pass
H	4874	54.46	-0.17	54.29	74	-19.71	PK	Pass
H	4874	33.22	-0.17	33.05	54	-20.95	AV	Pass
H	7311	54.76	4.78	59.54	74	-14.46	PK	Pass
H	7311	33.40	4.78	38.18	54	-15.82	AV	Pass

H	9748	54.41	8.08	62.49	74	-11.51	PK	Pass
H	9748	35.49	8.08	43.57	54	-10.43	AV	Pass
High Channel:2462MHz								
V	4924	55.13	-0.17	54.96	74	-19.04	PK	Pass
V	4924	33.25	-0.17	33.08	54	-20.92	AV	Pass
V	7386	53.95	4.78	58.73	74	-15.27	PK	Pass
V	7386	34.62	4.78	39.40	54	-14.60	AV	Pass
V	9848	53.88	8.08	61.96	74	-12.04	PK	Pass
V	9848	35.06	8.08	43.14	54	-10.86	AV	Pass
H	4924	54.98	-0.17	54.81	74	-19.19	PK	Pass
H	4924	35.08	-0.17	34.91	54	-19.09	AV	Pass
H	7386	53.87	4.78	58.65	74	-15.35	PK	Pass
H	7386	34.00	4.78	38.78	54	-15.22	AV	Pass
H	9848	54.71	8.08	62.79	74	-11.21	PK	Pass
H	9848	34.15	8.08	42.23	54	-11.77	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n20-ant1_Low Channel: 2412MHz								
V	4824	53.17	-0.17	53.00	74	-21.00	PK	Pass
V	4824	34.79	-0.17	34.62	54	-19.38	AV	Pass
V	7236	55.47	4.78	60.25	74	-13.75	PK	Pass
V	7236	35.60	4.78	40.38	54	-13.62	AV	Pass
V	9648	53.84	8.08	61.92	74	-12.08	PK	Pass
V	9648	35.08	8.08	43.16	54	-10.84	AV	Pass
H	4824	53.86	-0.17	53.69	74	-20.31	PK	Pass
H	4824	34.51	-0.17	34.34	54	-19.66	AV	Pass
H	7236	53.28	4.78	58.06	74	-15.94	PK	Pass
H	7236	35.59	4.78	40.37	54	-13.63	AV	Pass
H	9648	53.11	8.08	61.19	74	-12.81	PK	Pass
H	9648	33.38	8.08	41.46	54	-12.54	AV	Pass
Middle Channel:2437MHz								
V	4874	55.18	-0.17	55.01	74	-18.99	PK	Pass
V	4874	33.63	-0.17	33.46	54	-20.54	AV	Pass
V	7311	53.19	4.78	57.97	74	-16.03	PK	Pass
V	7311	35.47	4.78	40.25	54	-13.75	AV	Pass
V	9748	55.52	8.08	63.60	74	-10.40	PK	Pass
V	9748	33.71	8.08	41.79	54	-12.21	AV	Pass
H	4874	55.13	-0.17	54.96	74	-19.04	PK	Pass
H	4874	33.81	-0.17	33.64	54	-20.36	AV	Pass
H	7311	55.39	4.78	60.17	74	-13.83	PK	Pass
H	7311	35.39	4.78	40.17	54	-13.83	AV	Pass

H	9748	55.25	8.08	63.33	74	-10.67	PK	Pass
H	9748	34.86	8.08	42.94	54	-11.06	AV	Pass
High Channel:2462MHz								
V	4924	54.69	-0.17	54.52	74	-19.48	PK	Pass
V	4924	33.78	-0.17	33.61	54	-20.39	AV	Pass
V	7386	54.95	4.78	59.73	74	-14.27	PK	Pass
V	7386	33.74	4.78	38.52	54	-15.48	AV	Pass
V	9848	53.20	8.08	61.28	74	-12.72	PK	Pass
V	9848	34.44	8.08	42.52	54	-11.48	AV	Pass
H	4924	54.08	-0.17	53.91	74	-20.09	PK	Pass
H	4924	34.35	-0.17	34.18	54	-19.82	AV	Pass
H	7386	55.09	4.78	59.87	74	-14.13	PK	Pass
H	7386	34.59	4.78	39.37	54	-14.63	AV	Pass
H	9848	53.65	8.08	61.73	74	-12.27	PK	Pass
H	9848	34.89	8.08	42.97	54	-11.03	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n20-ant2_Low Channel: 2412MHz								
V	4824	53.34	-0.17	53.17	74	-20.83	PK	Pass
V	4824	33.13	-0.17	32.96	54	-21.04	AV	Pass
V	7236	53.50	4.78	58.28	74	-15.72	PK	Pass
V	7236	33.90	4.78	38.68	54	-15.32	AV	Pass
V	9648	54.83	8.08	62.91	74	-11.09	PK	Pass
V	9648	33.65	8.08	41.73	54	-12.27	AV	Pass
H	4824	54.99	-0.17	54.82	74	-19.18	PK	Pass
H	4824	34.77	-0.17	34.60	54	-19.40	AV	Pass
H	7236	53.36	4.78	58.14	74	-15.86	PK	Pass
H	7236	33.93	4.78	38.71	54	-15.29	AV	Pass
H	9648	53.93	8.08	62.01	74	-11.99	PK	Pass
H	9648	34.52	8.08	42.60	54	-11.40	AV	Pass
Middle Channel:2437MHz								
V	4874	53.40	-0.17	53.23	74	-20.77	PK	Pass
V	4874	34.25	-0.17	34.08	54	-19.92	AV	Pass
V	7311	54.99	4.78	59.77	74	-14.23	PK	Pass
V	7311	34.77	4.78	39.55	54	-14.45	AV	Pass
V	9748	53.41	8.08	61.49	74	-12.51	PK	Pass
V	9748	35.26	8.08	43.34	54	-10.66	AV	Pass
H	4874	55.32	-0.17	55.15	74	-18.85	PK	Pass
H	4874	34.31	-0.17	34.14	54	-19.86	AV	Pass
H	7311	53.45	4.78	58.23	74	-15.77	PK	Pass
H	7311	33.84	4.78	38.62	54	-15.38	AV	Pass

H	9748	54.27	8.08	62.35	74	-11.65	PK	Pass
H	9748	33.96	8.08	42.04	54	-11.96	AV	Pass
High Channel:2462MHz								
V	4924	54.42	-0.17	54.25	74	-19.75	PK	Pass
V	4924	34.97	-0.17	34.80	54	-19.20	AV	Pass
V	7386	53.81	4.78	58.59	74	-15.41	PK	Pass
V	7386	34.54	4.78	39.32	54	-14.68	AV	Pass
V	9848	55.15	8.08	63.23	74	-10.77	PK	Pass
V	9848	34.55	8.08	42.63	54	-11.37	AV	Pass
H	4924	55.18	-0.17	55.01	74	-18.99	PK	Pass
H	4924	33.39	-0.17	33.22	54	-20.78	AV	Pass
H	7386	53.76	4.78	58.54	74	-15.46	PK	Pass
H	7386	35.60	4.78	40.38	54	-13.62	AV	Pass
H	9848	55.11	8.08	63.19	74	-10.81	PK	Pass
H	9848	35.51	8.08	43.59	54	-10.41	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n40-ant1_Low Channel: 2422MHz								
V	4844	53.11	-0.17	52.94	74	-21.06	PK	Pass
V	4844	33.11	-0.17	32.94	54	-21.06	AV	Pass
V	7266	55.53	4.78	60.31	74	-13.69	PK	Pass
V	7266	34.37	4.78	39.15	54	-14.85	AV	Pass
V	9688	54.19	8.08	62.27	74	-11.73	PK	Pass
V	9688	33.41	8.08	41.49	54	-12.51	AV	Pass
H	4844	54.76	-0.17	54.59	74	-19.41	PK	Pass
H	4844	33.96	-0.17	33.79	54	-20.21	AV	Pass
H	7266	53.69	4.78	58.47	74	-15.53	PK	Pass
H	7266	33.55	4.78	38.33	54	-15.67	AV	Pass
H	9688	55.00	8.08	63.08	74	-10.92	PK	Pass
H	9688	35.35	8.08	43.43	54	-10.57	AV	Pass
Middle Channel:2437MHz								
V	4874	54.56	-0.17	54.39	74	-19.61	PK	Pass
V	4874	33.58	-0.17	33.41	54	-20.59	AV	Pass
V	7311	53.54	4.78	58.32	74	-15.68	PK	Pass
V	7311	33.33	4.78	38.11	54	-15.89	AV	Pass
V	9748	54.78	8.08	62.86	74	-11.14	PK	Pass
V	9748	34.03	8.08	42.11	54	-11.89	AV	Pass
H	4874	55.00	-0.17	54.83	74	-19.17	PK	Pass
H	4874	33.43	-0.17	33.26	54	-20.74	AV	Pass
H	7311	53.31	4.78	58.09	74	-15.91	PK	Pass
H	7311	33.74	4.78	38.52	54	-15.48	AV	Pass

H	9748	53.07	8.08	61.15	74	-12.85	PK	Pass
H	9748	35.57	8.08	43.65	54	-10.35	AV	Pass
High Channel:2452MHz								
V	4904	54.57	-0.17	54.40	74	-19.60	PK	Pass
V	4904	35.14	-0.17	34.97	54	-19.03	AV	Pass
V	7356	55.06	4.78	59.84	74	-14.16	PK	Pass
V	7356	34.15	4.78	38.93	54	-15.07	AV	Pass
V	9808	55.08	8.08	63.16	74	-10.84	PK	Pass
V	9808	35.33	8.08	43.41	54	-10.59	AV	Pass
H	4904	54.20	-0.17	54.03	74	-19.97	PK	Pass
H	4904	35.29	-0.17	35.12	54	-18.88	AV	Pass
H	7356	55.03	4.78	59.81	74	-14.19	PK	Pass
H	7356	34.86	4.78	39.64	54	-14.36	AV	Pass
H	9808	53.35	8.08	61.43	74	-12.57	PK	Pass
H	9808	34.52	8.08	42.60	54	-11.40	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n40-ant2_Low Channel: 2422MHz								
V	4844	53.04	-0.17	52.87	74	-21.13	PK	Pass
V	4844	34.68	-0.17	34.51	54	-19.49	AV	Pass
V	7266	54.59	4.78	59.37	74	-14.63	PK	Pass
V	7266	34.79	4.78	39.57	54	-14.43	AV	Pass
V	9688	55.04	8.08	63.12	74	-10.88	PK	Pass
V	9688	34.68	8.08	42.76	54	-11.24	AV	Pass
H	4844	53.71	-0.17	53.54	74	-20.46	PK	Pass
H	4844	34.79	-0.17	34.62	54	-19.38	AV	Pass
H	7266	55.15	4.78	59.93	74	-14.07	PK	Pass
H	7266	33.35	4.78	38.13	54	-15.87	AV	Pass
H	9688	55.15	8.08	63.23	74	-10.77	PK	Pass
H	9688	33.91	8.08	41.99	54	-12.01	AV	Pass
Middle Channel:2437MHz								
V	4874	54.15	-0.17	53.98	74	-20.02	PK	Pass
V	4874	33.47	-0.17	33.30	54	-20.70	AV	Pass
V	7311	54.13	4.78	58.91	74	-15.09	PK	Pass
V	7311	33.23	4.78	38.01	54	-15.99	AV	Pass
V	9748	53.83	8.08	61.91	74	-12.09	PK	Pass
V	9748	35.20	8.08	43.28	54	-10.72	AV	Pass
H	4874	53.51	-0.17	53.34	74	-20.66	PK	Pass
H	4874	34.59	-0.17	34.42	54	-19.58	AV	Pass
H	7311	54.45	4.78	59.23	74	-14.77	PK	Pass
H	7311	33.38	4.78	38.16	54	-15.84	AV	Pass

H	9748	55.41	8.08	63.49	74	-10.51	PK	Pass
H	9748	34.86	8.08	42.94	54	-11.06	AV	Pass
High Channel:2452MHz								
V	4904	54.24	-0.17	54.07	74	-19.93	PK	Pass
V	4904	34.35	-0.17	34.18	54	-19.82	AV	Pass
V	7356	54.74	4.78	59.52	74	-14.48	PK	Pass
V	7356	35.10	4.78	39.88	54	-14.12	AV	Pass
V	9808	54.92	8.08	63.00	74	-11.00	PK	Pass
V	9808	34.49	8.08	42.57	54	-11.43	AV	Pass
H	4904	55.09	-0.17	54.92	74	-19.08	PK	Pass
H	4904	33.73	-0.17	33.56	54	-20.44	AV	Pass
H	7356	53.37	4.78	58.15	74	-15.85	PK	Pass
H	7356	35.20	4.78	39.98	54	-14.02	AV	Pass
H	9808	53.49	8.08	61.57	74	-12.43	PK	Pass
H	9808	33.28	8.08	41.36	54	-12.64	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n20-antMIMO_Low Channel: 2412MHz								
V	4824	53.25	-0.17	53.08	74	-20.92	PK	Pass
V	4824	34.27	-0.17	34.10	54	-19.90	AV	Pass
V	7236	54.08	4.78	58.86	74	-15.14	PK	Pass
V	7236	34.58	4.78	39.36	54	-14.64	AV	Pass
V	9648	54.26	8.08	62.34	74	-11.66	PK	Pass
V	9648	35.03	8.08	43.11	54	-10.89	AV	Pass
H	4824	55.39	-0.17	55.22	74	-18.78	PK	Pass
H	4824	35.03	-0.17	34.86	54	-19.14	AV	Pass
H	7236	54.85	4.78	59.63	74	-14.37	PK	Pass
H	7236	34.70	4.78	39.48	54	-14.52	AV	Pass
H	9648	53.30	8.08	61.38	74	-12.62	PK	Pass
H	9648	34.14	8.08	42.22	54	-11.78	AV	Pass
Middle Channel:2437MHz								
V	4874	54.92	-0.17	54.75	74	-19.25	PK	Pass
V	4874	33.25	-0.17	33.08	54	-20.92	AV	Pass
V	7311	53.58	4.78	58.36	74	-15.64	PK	Pass
V	7311	35.22	4.78	40.00	54	-14.00	AV	Pass
V	9748	54.50	8.08	62.58	74	-11.42	PK	Pass
V	9748	33.81	8.08	41.89	54	-12.11	AV	Pass
H	4874	54.15	-0.17	53.98	74	-20.02	PK	Pass
H	4874	33.68	-0.17	33.51	54	-20.49	AV	Pass
H	7311	53.40	4.78	58.18	74	-15.82	PK	Pass
H	7311	33.17	4.78	37.95	54	-16.05	AV	Pass

H	9748	54.32	8.08	62.40	74	-11.60	PK	Pass
H	9748	33.68	8.08	41.76	54	-12.24	AV	Pass
High Channel:2462MHz								
V	4924	54.54	-0.17	54.37	74	-19.63	PK	Pass
V	4924	34.78	-0.17	34.61	54	-19.39	AV	Pass
V	7386	53.99	4.78	58.77	74	-15.23	PK	Pass
V	7386	35.43	4.78	40.21	54	-13.79	AV	Pass
V	9848	54.99	8.08	63.07	74	-10.93	PK	Pass
V	9848	34.38	8.08	42.46	54	-11.54	AV	Pass
H	4924	54.32	-0.17	54.15	74	-19.85	PK	Pass
H	4924	35.16	-0.17	34.99	54	-19.01	AV	Pass
H	7386	54.83	4.78	59.61	74	-14.39	PK	Pass
H	7386	34.73	4.78	39.51	54	-14.49	AV	Pass
H	9848	54.90	8.08	62.98	74	-11.02	PK	Pass
H	9848	33.52	8.08	41.60	54	-12.40	PK	Pass

Polar	Frequency	Meter Reading	Cable Loss	Level	Limit (dBuV/m)	Margin	Detector Type	Result
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)		(dBuV/m)		
802.11n40-antMIMO_Low Channel: 2422MHz								
V	4844	55.10	-0.17	54.93	74	-19.07	PK	Pass
V	4844	35.54	-0.17	35.37	54	-18.63	AV	Pass
V	7266	53.39	4.78	58.17	74	-15.83	PK	Pass
V	7266	34.18	4.78	38.96	54	-15.04	AV	Pass
V	9688	54.38	8.08	62.46	74	-11.54	PK	Pass
V	9688	34.80	8.08	42.88	54	-11.12	AV	Pass
H	4844	55.53	-0.17	55.36	74	-18.64	PK	Pass
H	4844	34.50	-0.17	34.33	54	-19.67	AV	Pass
H	7266	55.47	4.78	60.25	74	-13.75	PK	Pass
H	7266	33.85	4.78	38.63	54	-15.37	AV	Pass
H	9688	54.41	8.08	62.49	74	-11.51	PK	Pass
H	9688	33.87	8.08	41.95	54	-12.05	AV	Pass
Middle Channel:2437MHz								
V	4874	55.40	-0.17	55.23	74	-18.77	PK	Pass
V	4874	34.24	-0.17	34.07	54	-19.93	AV	Pass
V	7311	54.51	4.78	59.29	74	-14.71	PK	Pass
V	7311	35.54	4.78	40.32	54	-13.68	AV	Pass
V	9748	53.86	8.08	61.94	74	-12.06	PK	Pass
V	9748	34.77	8.08	42.85	54	-11.15	AV	Pass
H	4874	54.89	-0.17	54.72	74	-19.28	PK	Pass
H	4874	35.17	-0.17	35.00	54	-19.00	AV	Pass
H	7311	53.05	4.78	57.83	74	-16.17	PK	Pass
H	7311	35.09	4.78	39.87	54	-14.13	AV	Pass

H	9748	54.73	8.08	62.81	74	-11.19	PK	Pass
H	9748	34.84	8.08	42.92	54	-11.08	AV	Pass
High Channel:2452MHz								
V	4904	54.34	-0.17	54.17	74	-19.83	PK	Pass
V	4904	33.16	-0.17	32.99	54	-21.01	AV	Pass
V	7356	54.90	4.78	59.68	74	-14.32	PK	Pass
V	7356	33.93	4.78	38.71	54	-15.29	AV	Pass
V	9808	54.30	8.08	62.38	74	-11.62	PK	Pass
V	9808	33.60	8.08	41.68	54	-12.32	AV	Pass
H	4904	54.41	-0.17	54.24	74	-19.76	PK	Pass
H	4904	34.62	-0.17	34.45	54	-19.55	AV	Pass
H	7356	55.13	4.78	59.91	74	-14.09	PK	Pass
H	7356	34.28	4.78	39.06	54	-14.94	AV	Pass
H	9808	55.56	8.08	63.64	74	-10.36	PK	Pass
H	9808	34.70	8.08	42.78	54	-11.22	PK	Pass

Remark:Margin=Level - Limit, Level=Test receiver reading + correction factor
The test software will only record the worst test angle and height, and only the worst case will be recorded in the test report.

5 TEST SETUP PHOTOS

Please refer to Setup Photo file

6 PHOTOS OF THE EUT

Please refer to external photos file and internal photos file

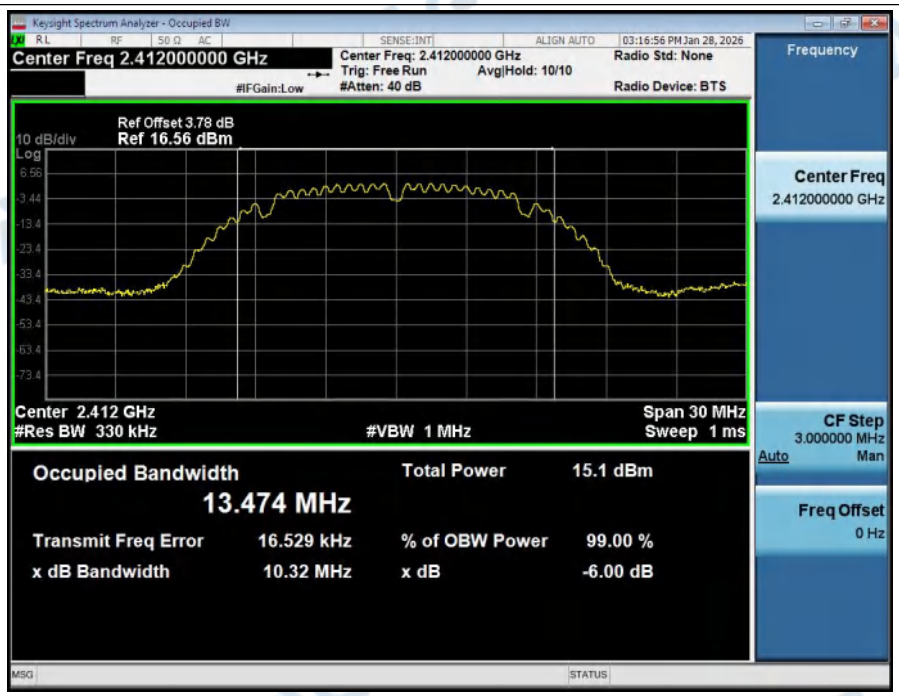
Appendix

HT260122009-TJ-101ED02-FCC ID-2.4GWIFI
FCC_2.4G_WIFI (Part15.247) Test Data

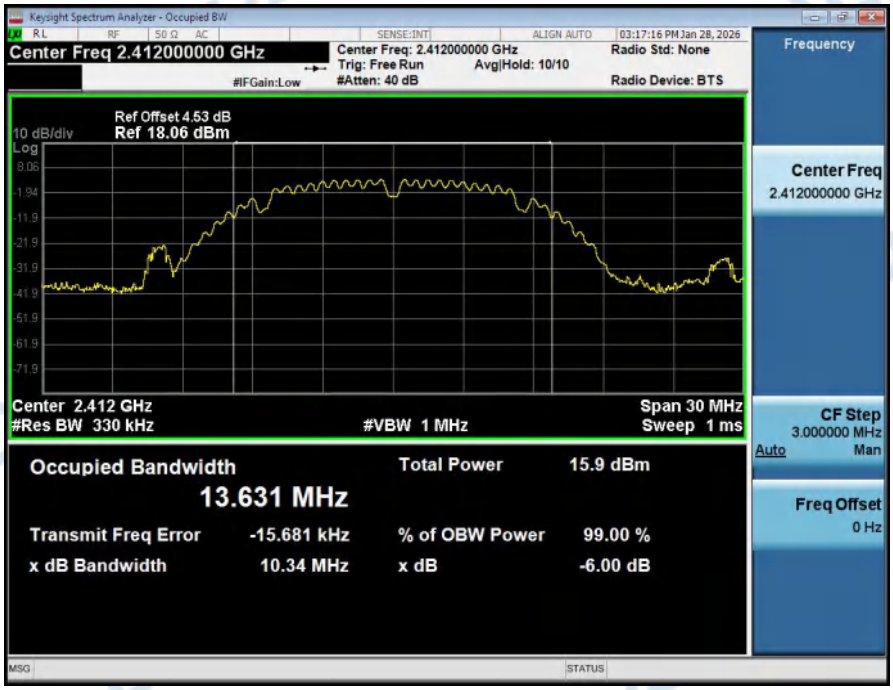
1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	10.32	500	Pass
NVNT	ANT2	802.11b	2412.00	10.34	500	Pass
NVNT	ANT1	802.11b	2437.00	10.33	500	Pass
NVNT	ANT2	802.11b	2437.00	10.34	500	Pass
NVNT	ANT1	802.11b	2462.00	10.37	500	Pass
NVNT	ANT2	802.11b	2462.00	10.34	500	Pass
NVNT	ANT1	802.11g	2412.00	14.81	500	Pass
NVNT	ANT2	802.11g	2412.00	15.55	500	Pass
NVNT	ANT1	802.11g	2437.00	16.08	500	Pass
NVNT	ANT2	802.11g	2437.00	18.94	500	Pass
NVNT	ANT1	802.11g	2462.00	16.20	500	Pass
NVNT	ANT2	802.11g	2462.00	16.13	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.05	500	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	17.27	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.22	500	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	17.21	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.39	500	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	17.45	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	30.58	500	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	34.30	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	32.46	500	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	24.69	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.61	500	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	35.56	500	Pass

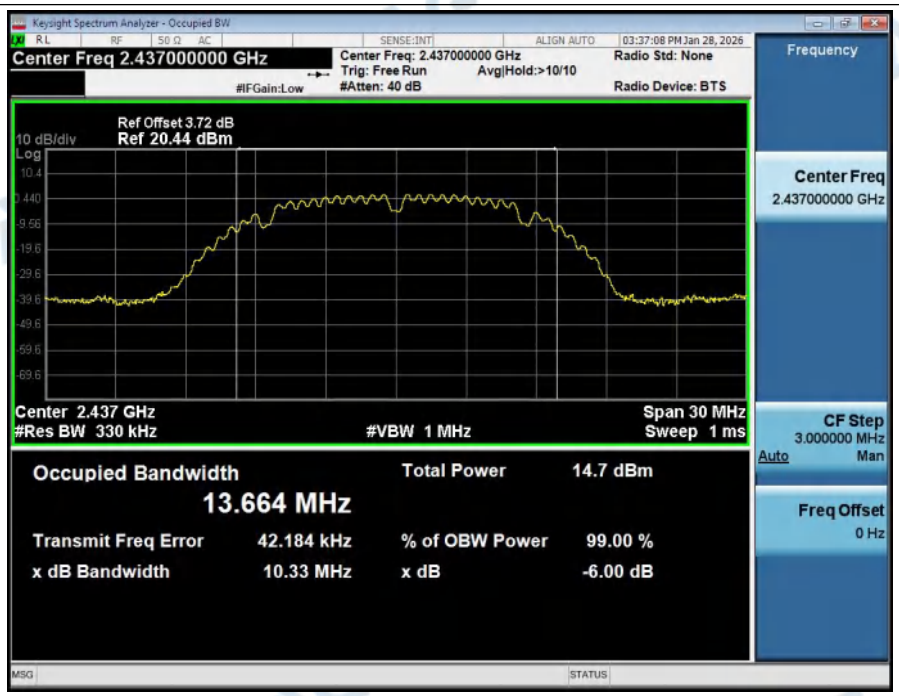
-6dB_Bandwidth_NVNT_ANT1_802_11b_2412



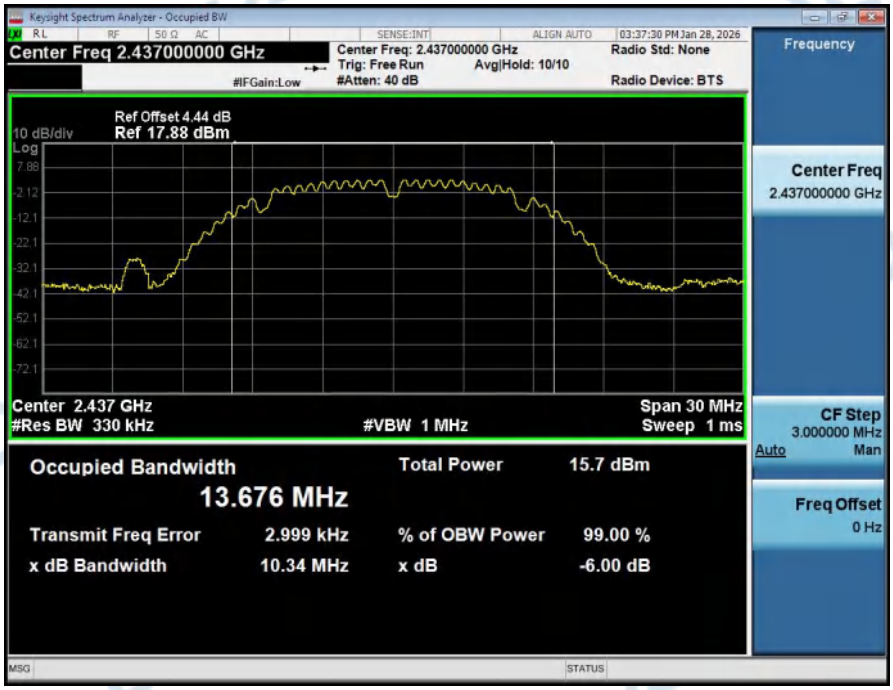
-6dB_Bandwidth_NVNT_ANT2_802_11b_2412



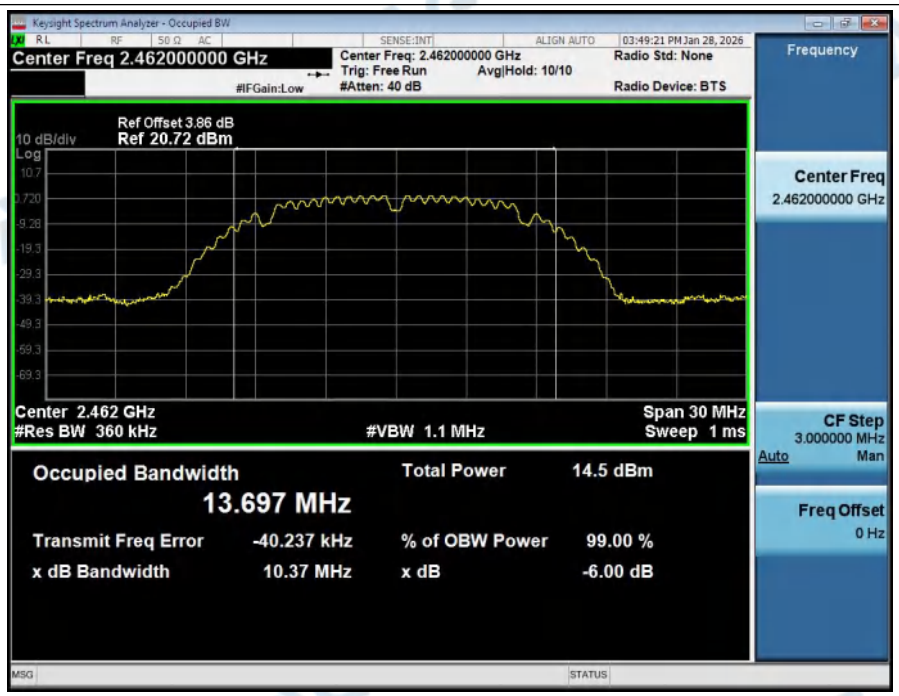
-6dB_Bandwidth_NVNT_ANT1_802_11b_2437



-6dB_Bandwidth_NVNT_ANT2_802_11b_2437



-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



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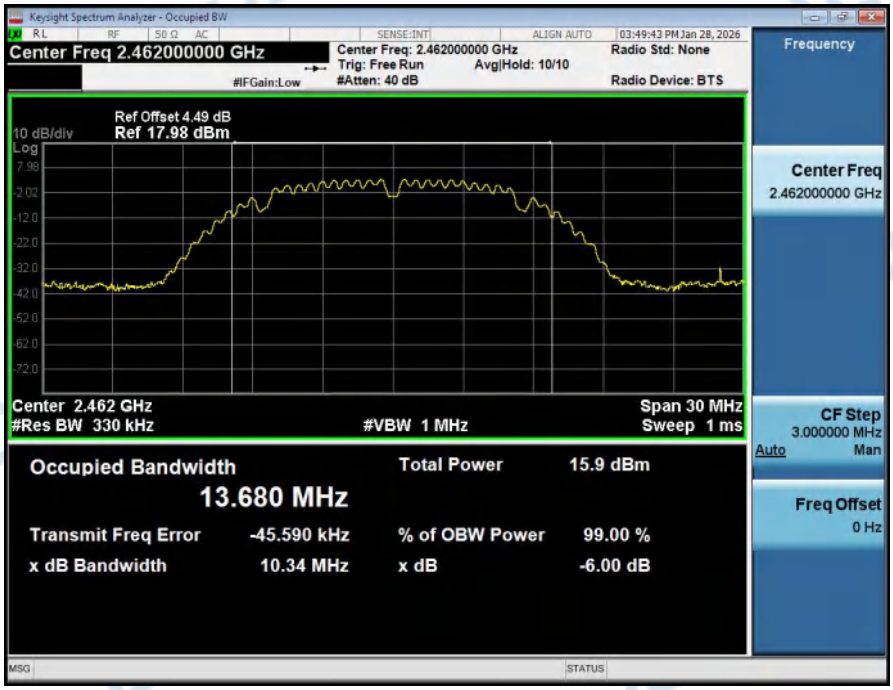
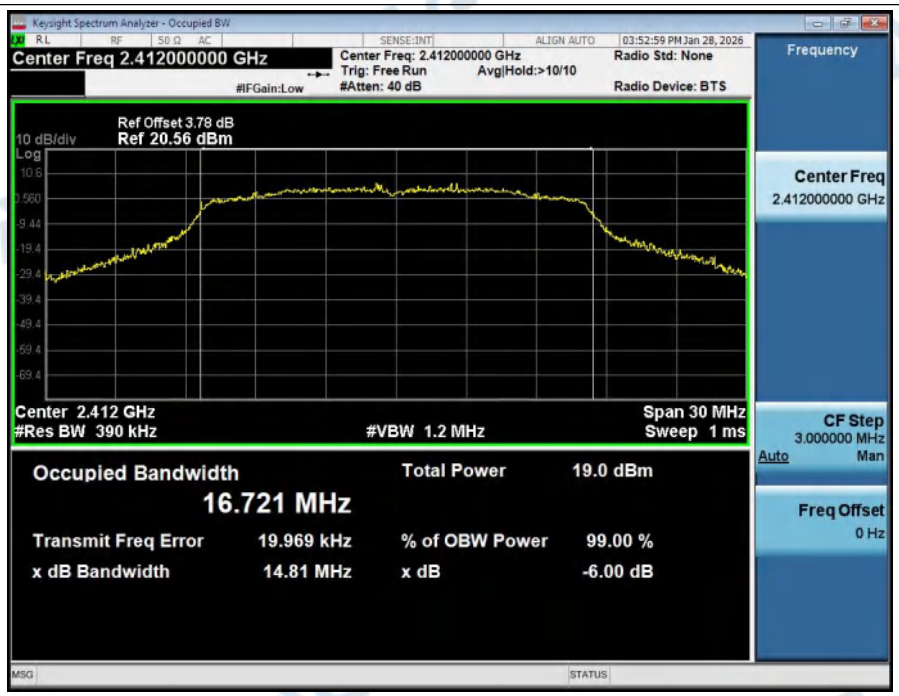
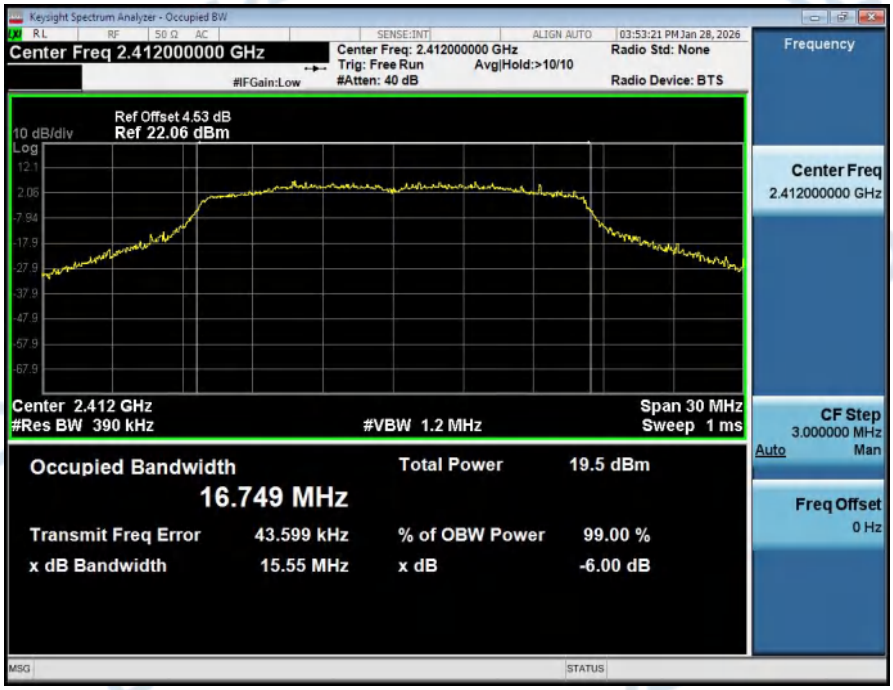


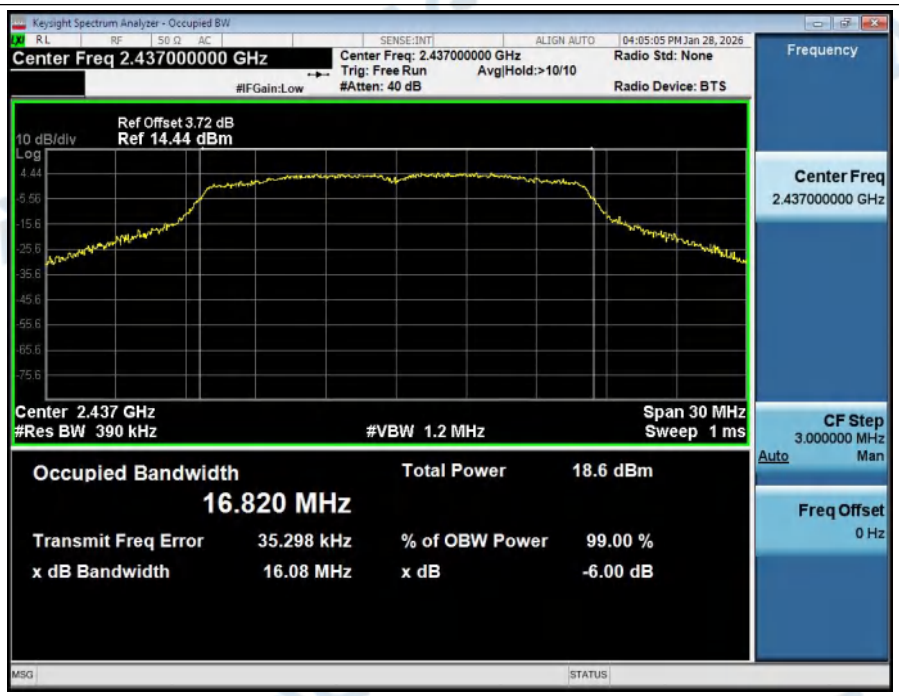
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



-6dB_Bandwidth_NVNT_ANT2_802_11g_2412



-6dB_Bandwidth_NVNT_ANT1_802_11g_2437



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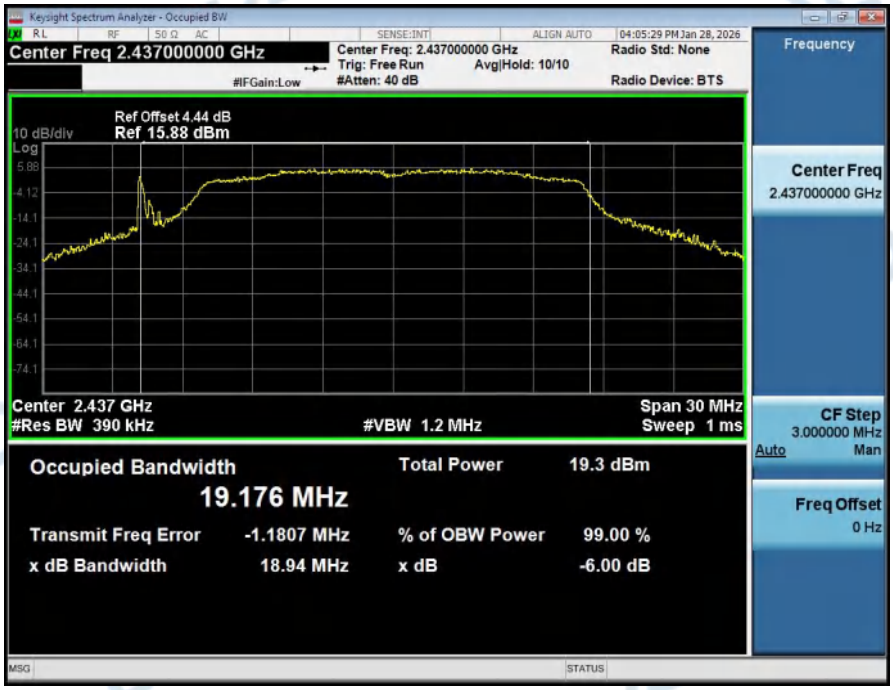

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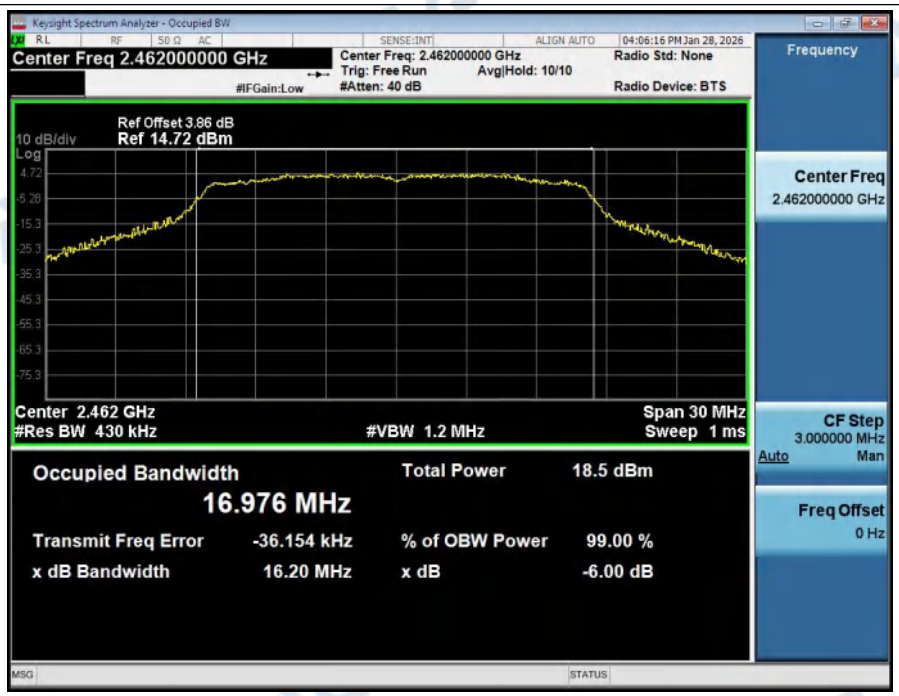

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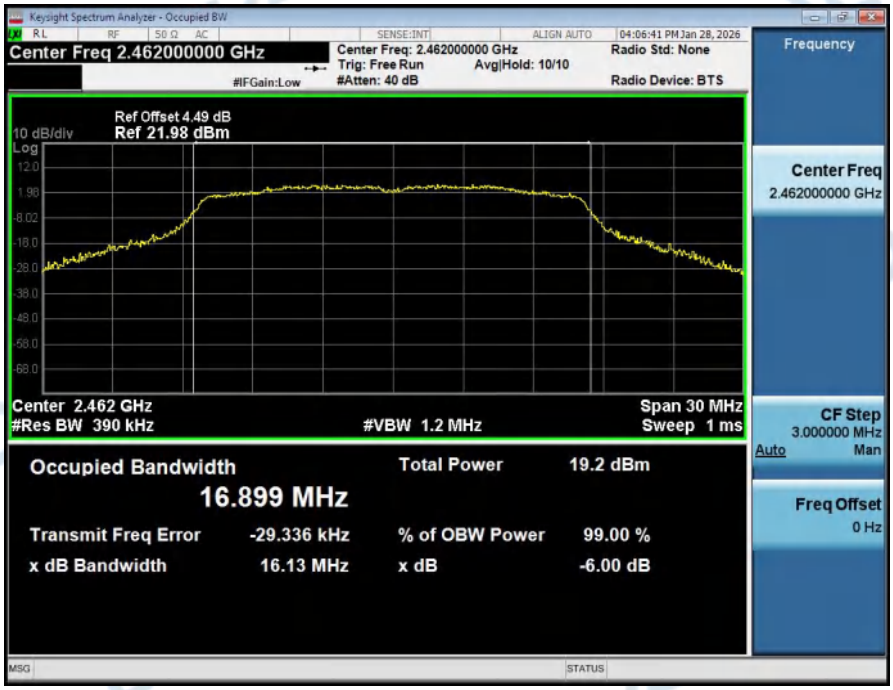
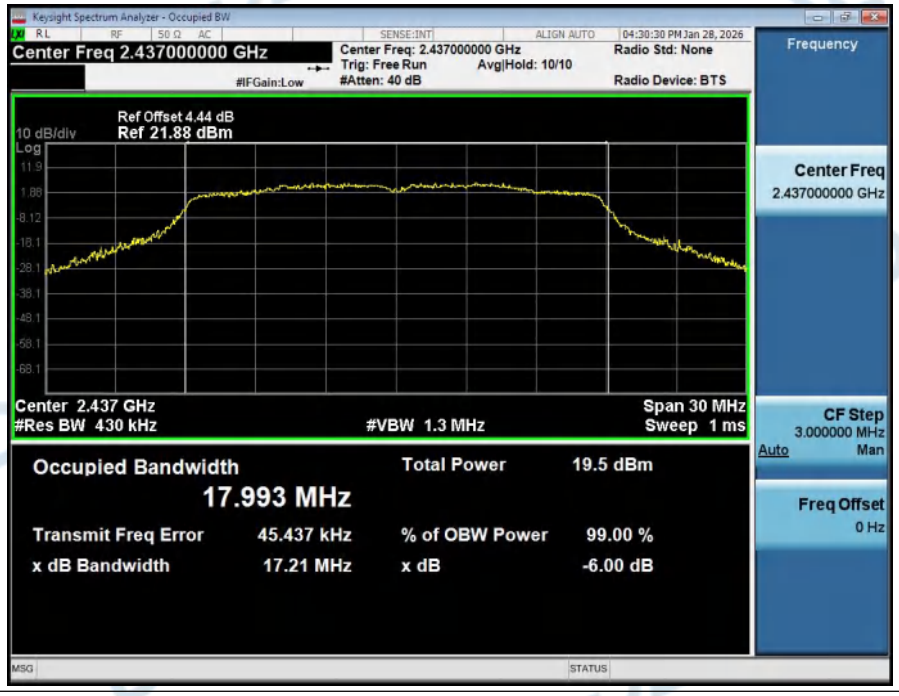


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412

-6dB_Bandwidth_NVNT_ANT2_802_11n(HT20)_2412

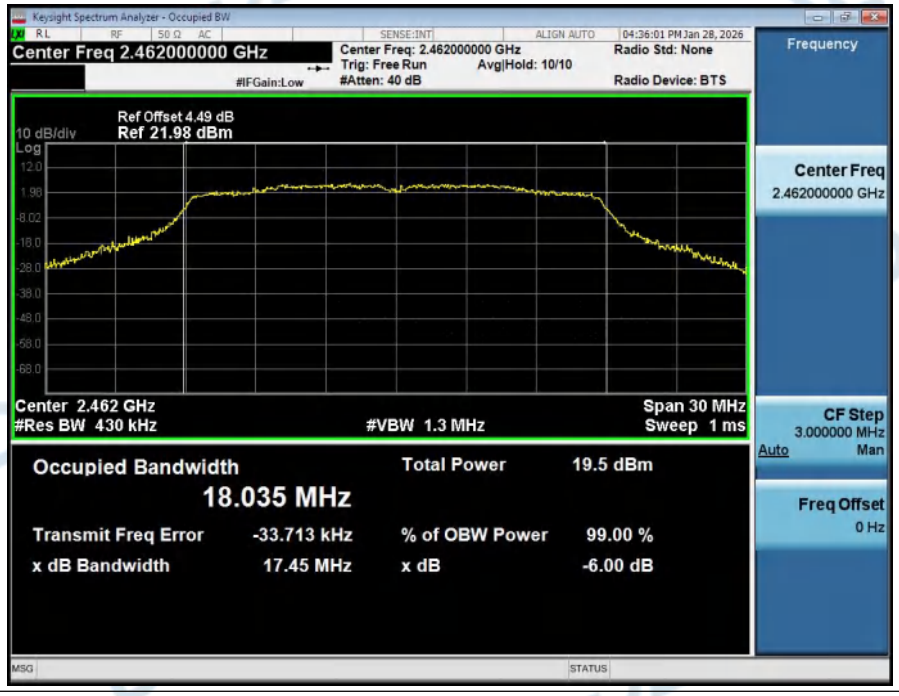
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437

-6dB_Bandwidth_NVNT_ANT2_802_11n(HT20)_2437

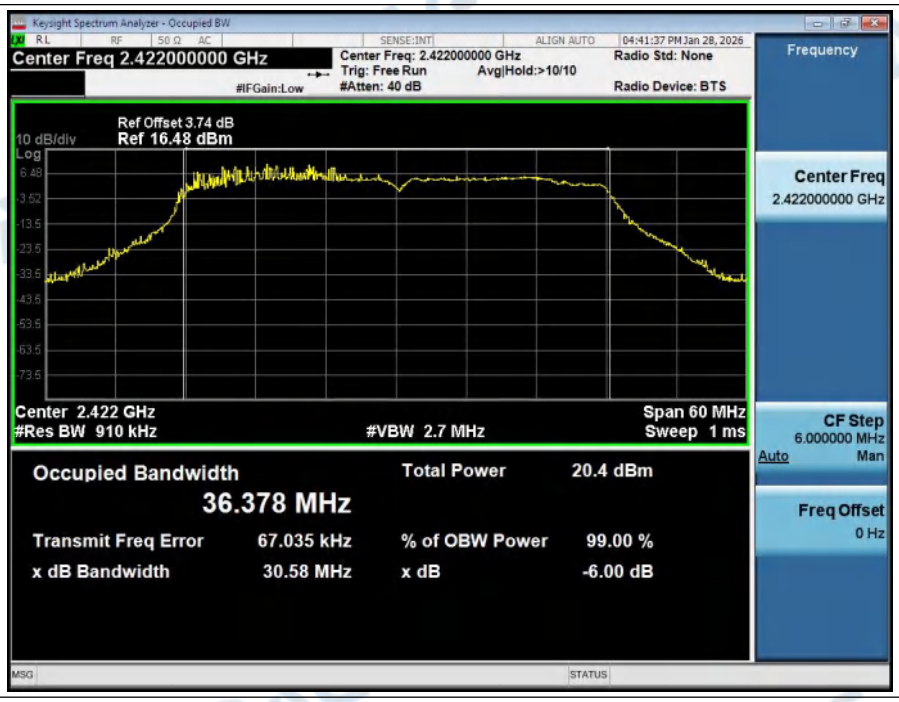


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462

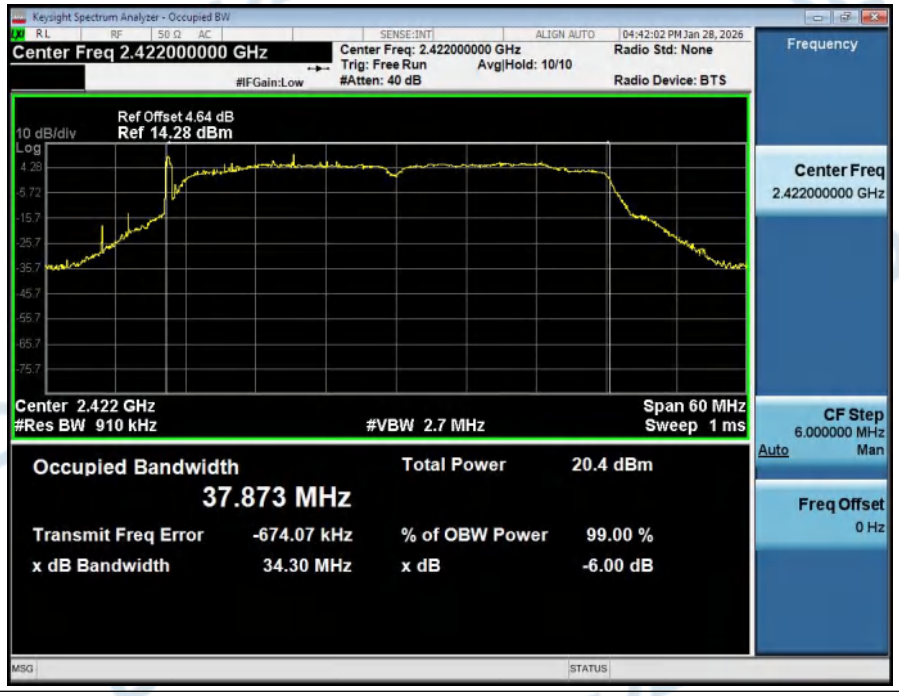
-6dB_Bandwidth_NVNT_ANT2_802_11n(HT20)_2462



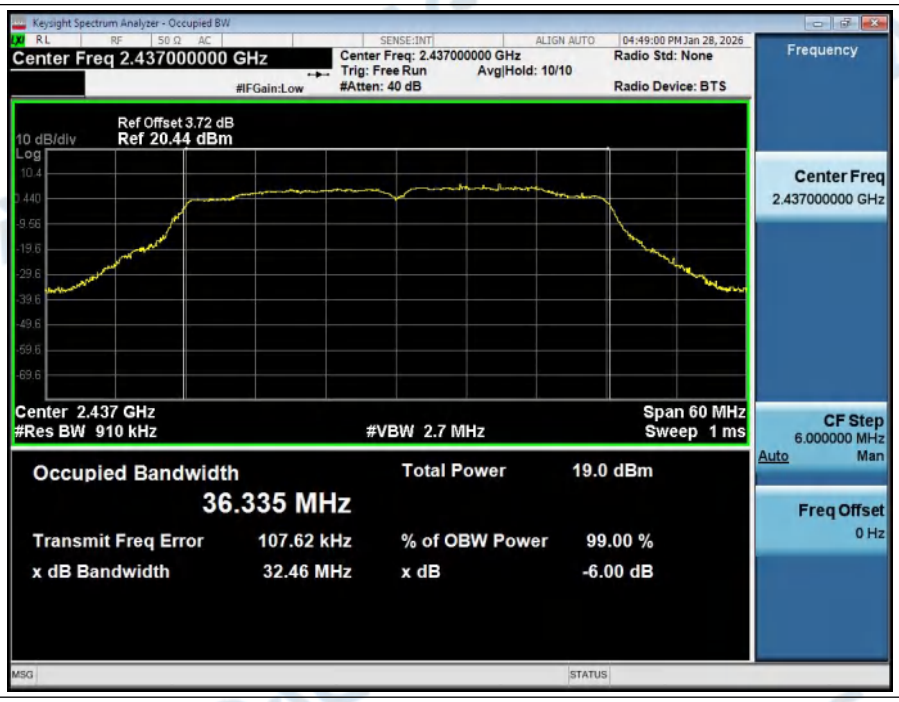
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



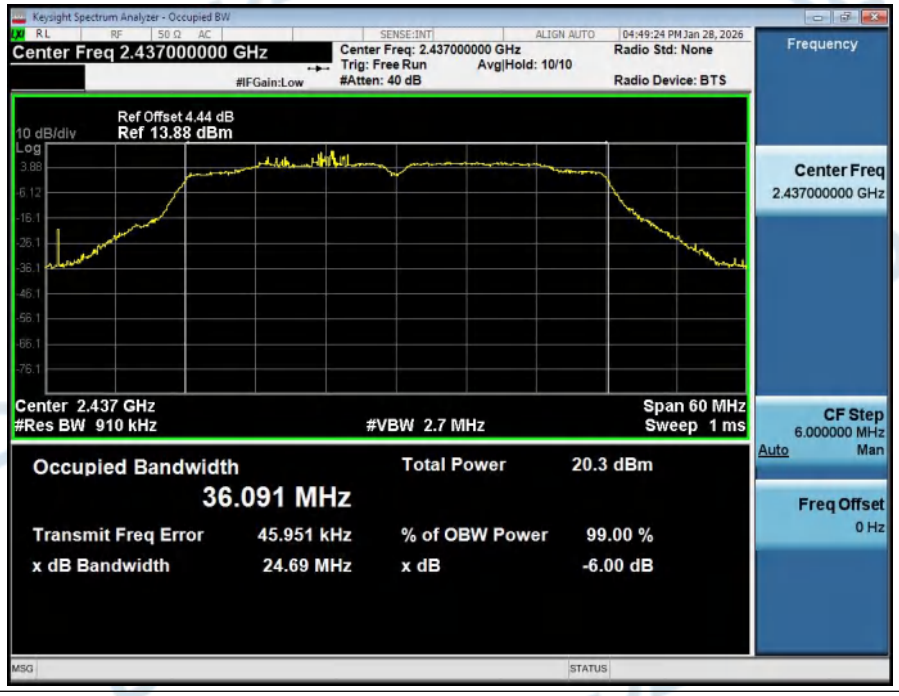
-6dB_Bandwidth_NVNT_ANT2_802_11n(HT40)_2422



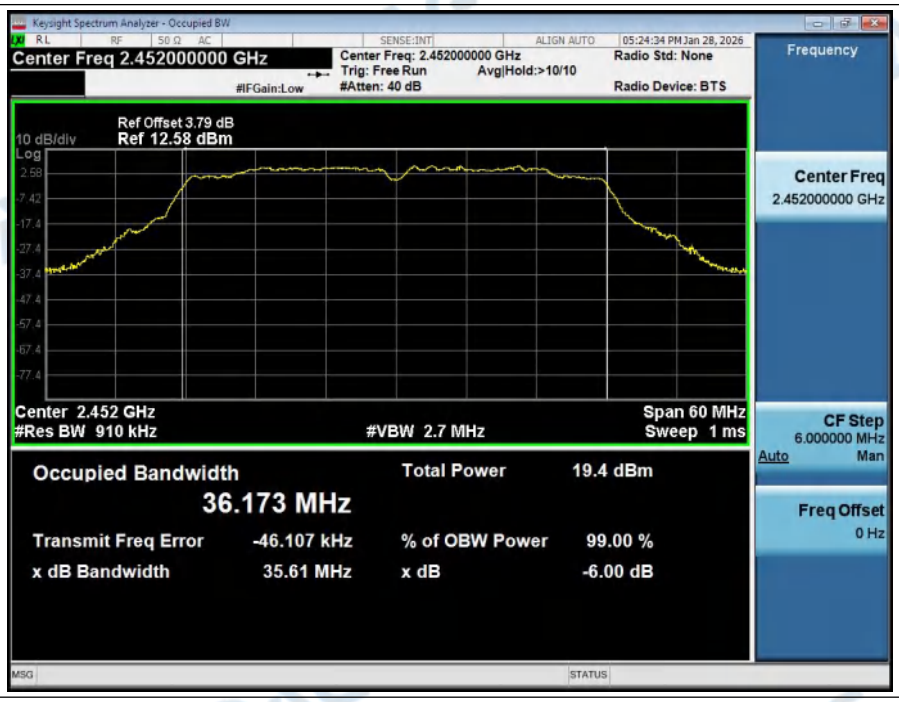
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



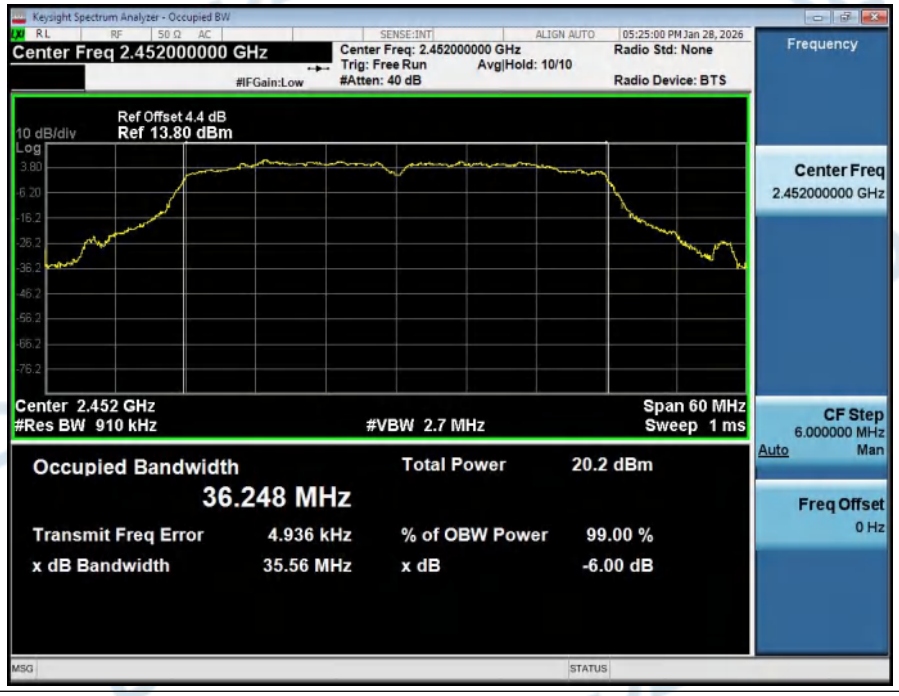
-6dB_Bandwidth_NVNT_ANT2_802_11n(HT40)_2437



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



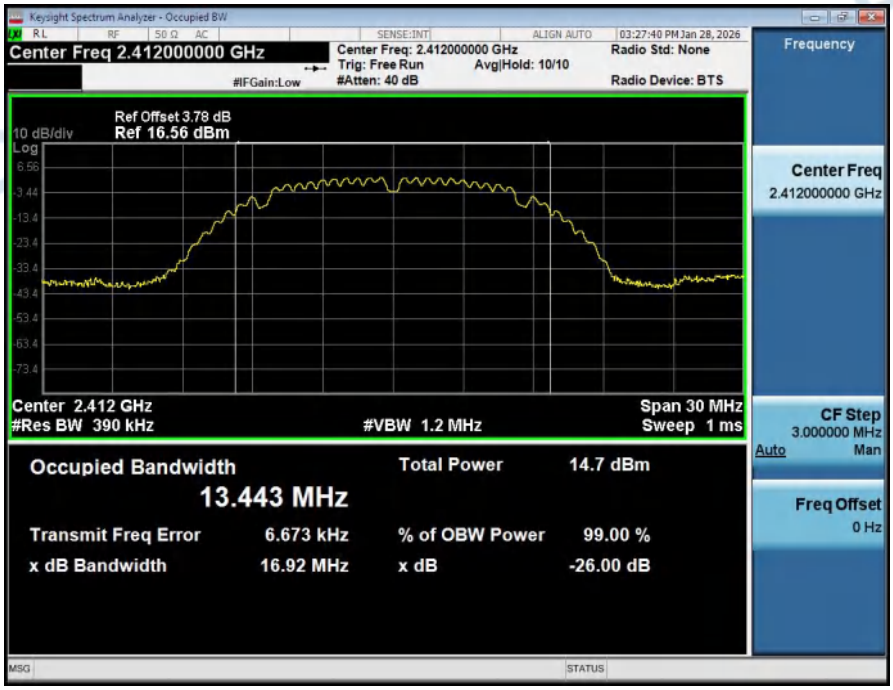
-6dB_Bandwidth_NVNT_ANT2_802_11n(HT40)_2452



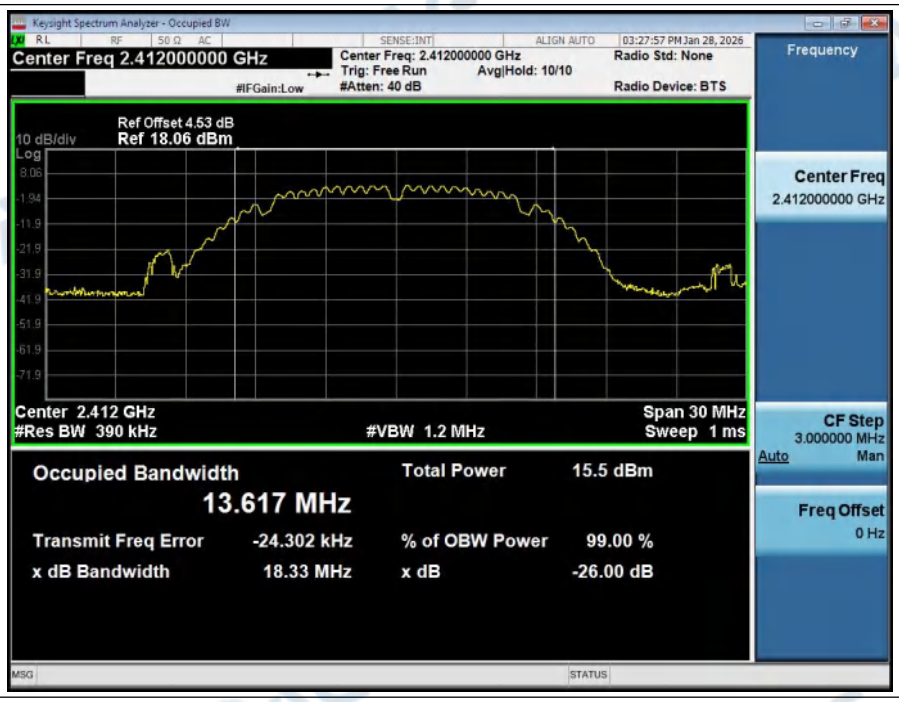
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	13.443
NVNT	ANT2	802.11b	2412.00	13.617
NVNT	ANT1	802.11b	2437.00	13.639
NVNT	ANT2	802.11b	2437.00	13.641
NVNT	ANT1	802.11b	2462.00	13.691
NVNT	ANT2	802.11b	2462.00	13.642
NVNT	ANT1	802.11g	2412.00	16.997
NVNT	ANT2	802.11g	2412.00	17.068
NVNT	ANT1	802.11g	2437.00	17.117
NVNT	ANT2	802.11g	2437.00	17.073
NVNT	ANT1	802.11g	2462.00	17.151
NVNT	ANT2	802.11g	2462.00	17.265
NVNT	ANT1	802.11n(HT20)	2412.00	18.079
NVNT	ANT2	802.11n(HT20)	2412.00	18.140
NVNT	ANT1	802.11n(HT20)	2437.00	18.170
NVNT	ANT2	802.11n(HT20)	2437.00	18.202
NVNT	ANT1	802.11n(HT20)	2462.00	18.312
NVNT	ANT2	802.11n(HT20)	2462.00	18.215
NVNT	ANT1	802.11n(HT40)	2422.00	36.353
NVNT	ANT2	802.11n(HT40)	2422.00	36.320
NVNT	ANT1	802.11n(HT40)	2437.00	36.224
NVNT	ANT2	802.11n(HT40)	2437.00	36.238
NVNT	ANT1	802.11n(HT40)	2452.00	36.282
NVNT	ANT2	802.11n(HT40)	2452.00	36.250

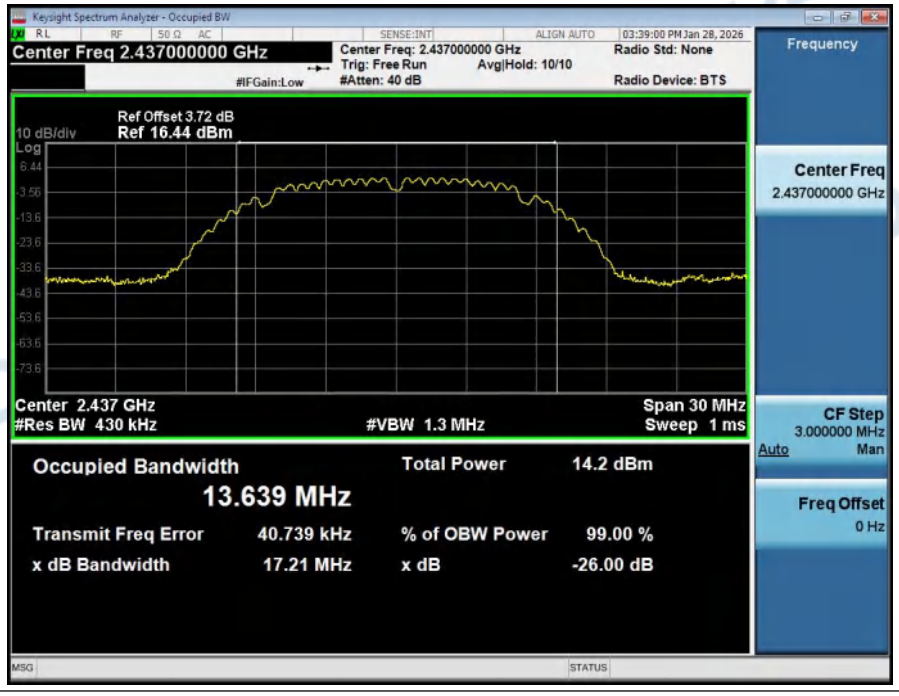
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



99%_Occupied_Bandwidth_NVNT_ANT2_802_11b_2412



99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2437



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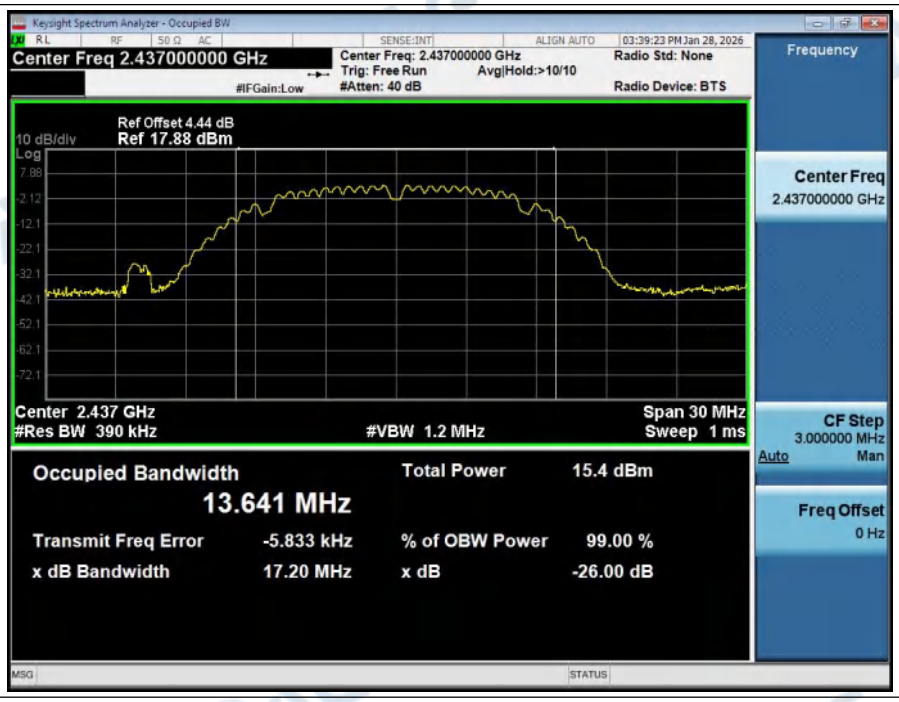
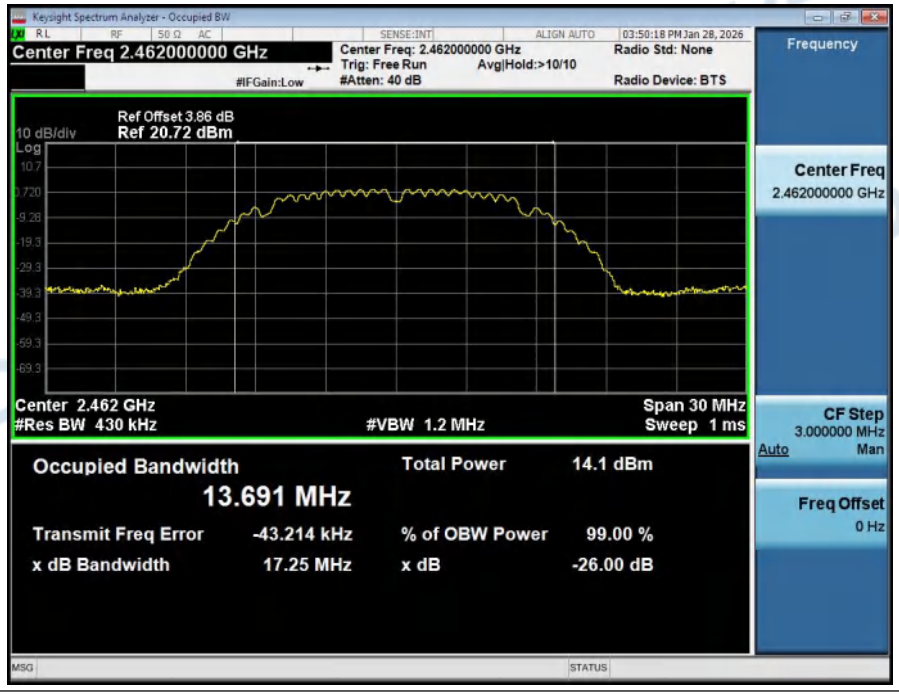
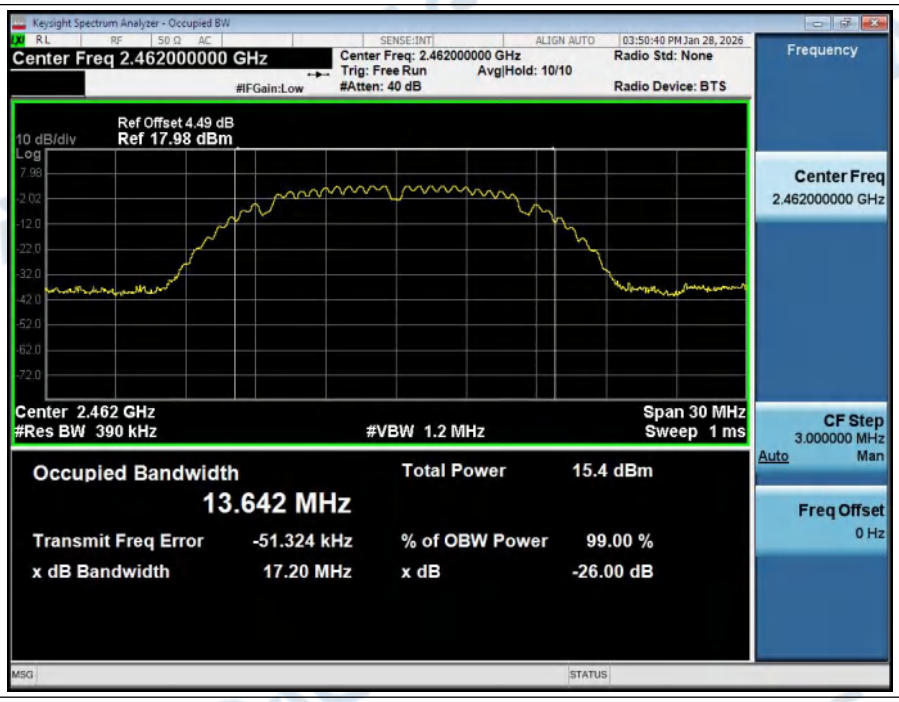


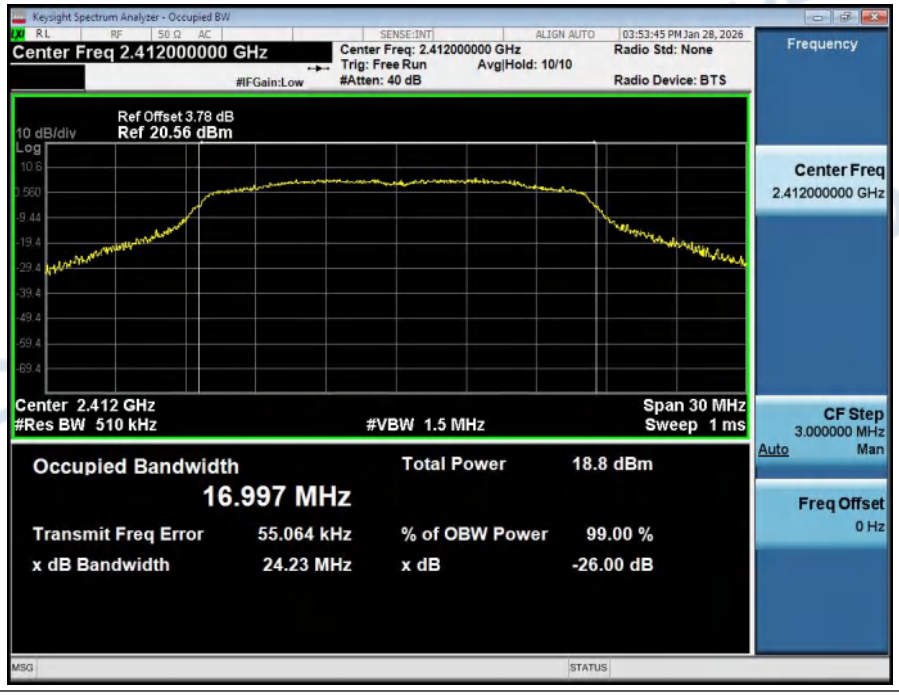
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2462



99%_Occupied_Bandwidth_NVNT_ANT2_802_11b_2462



99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2412



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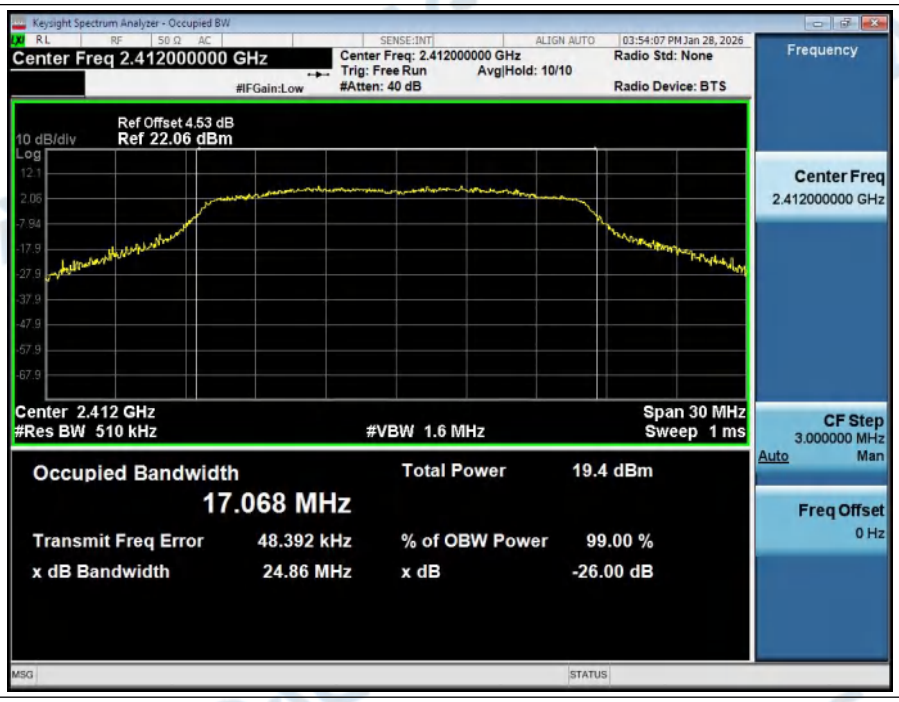
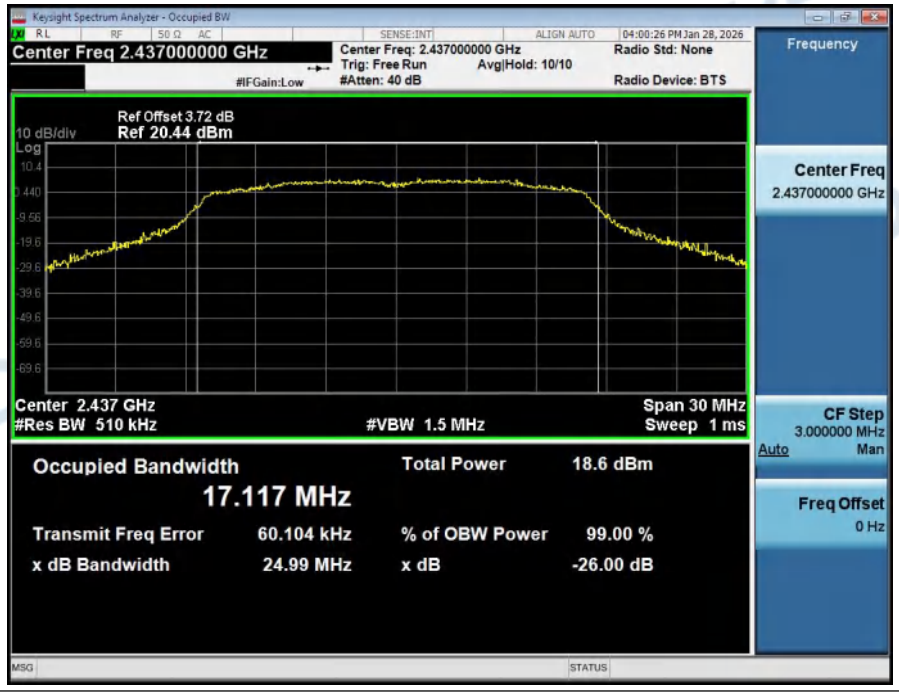
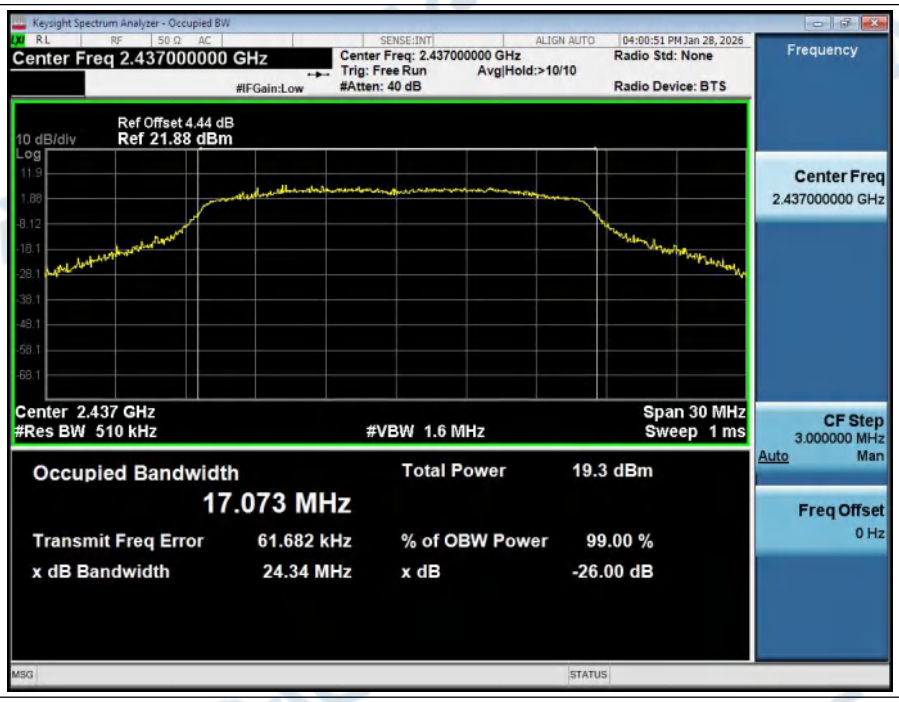


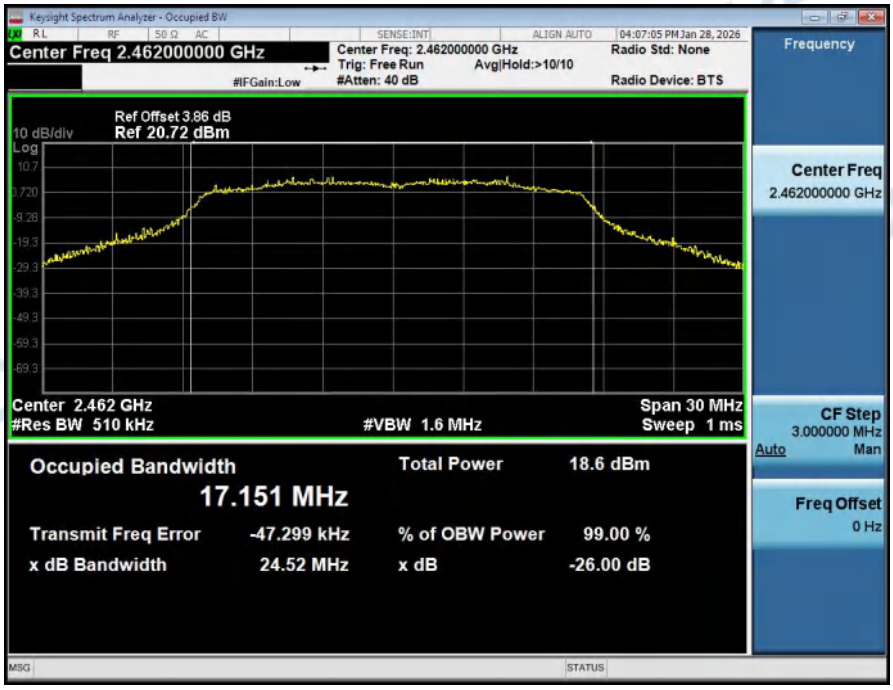
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2437



99%_Occupied_Bandwidth_NVNT_ANT2_802_11g_2437

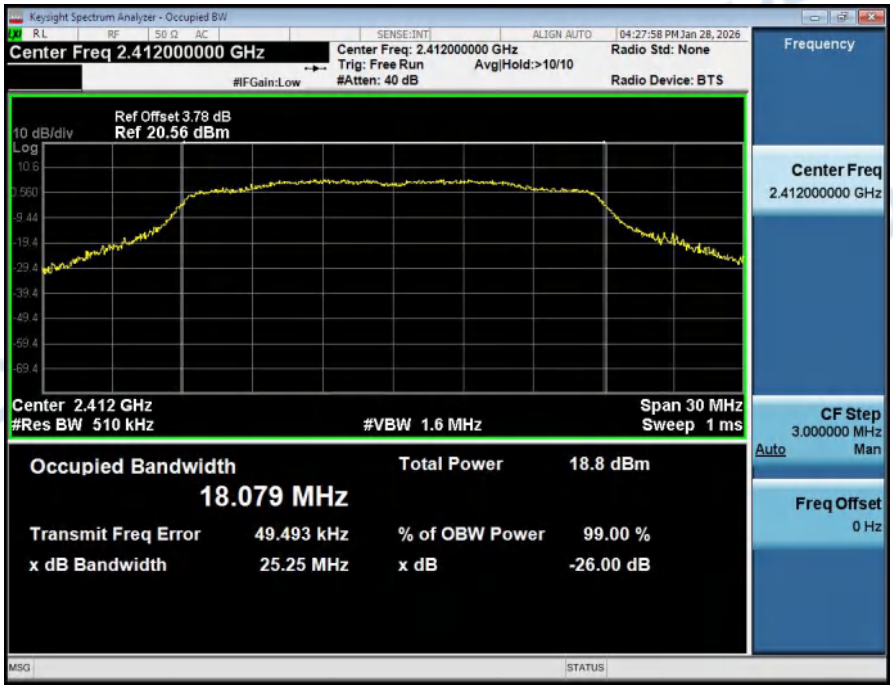


99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2462



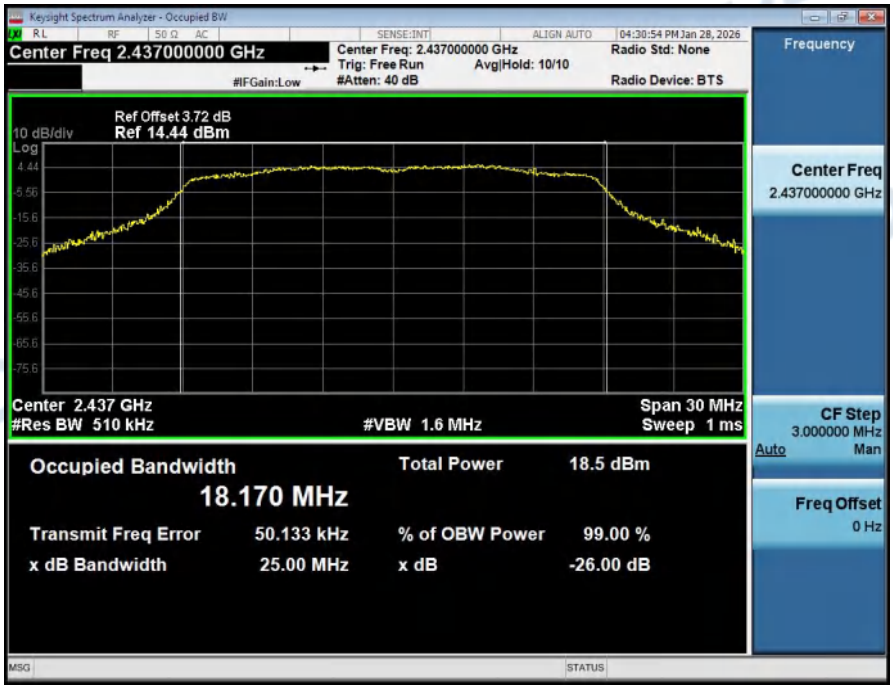
99%_Occupied_Bandwidth_NVNT_ANT2_802_11g_2462

99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



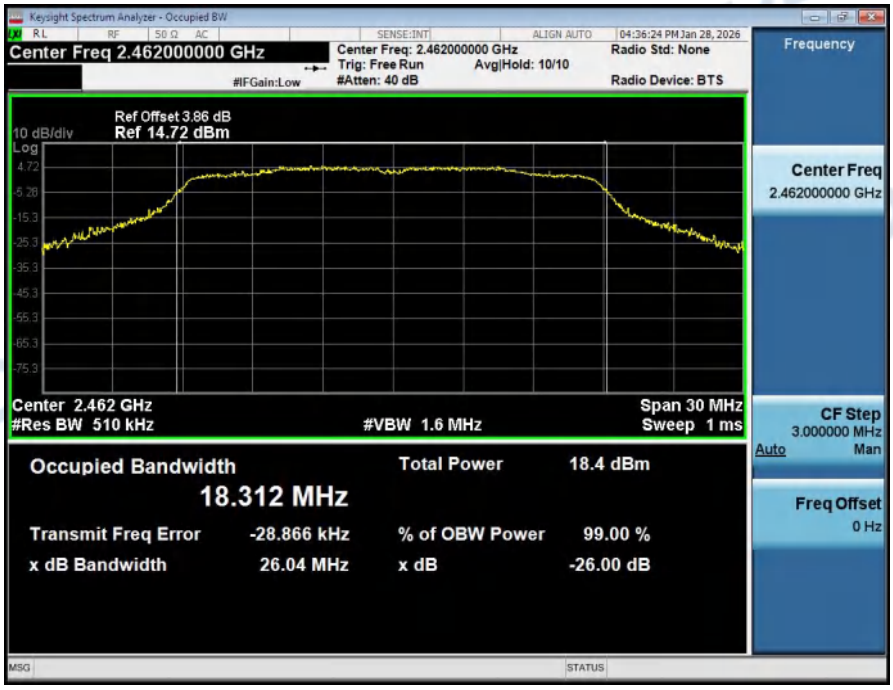
99%_Occupied_Bandwidth_NVNT_ANT2_802_11n(HT20)_2412

99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



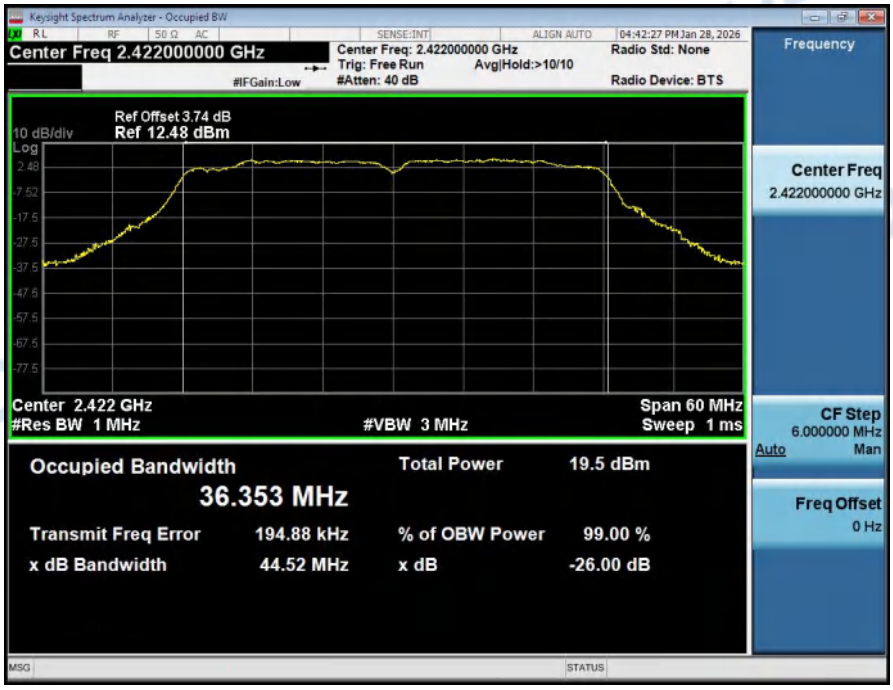
99%_Occupied_Bandwidth_NVNT_ANT2_802_11n(HT20)_2437

99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



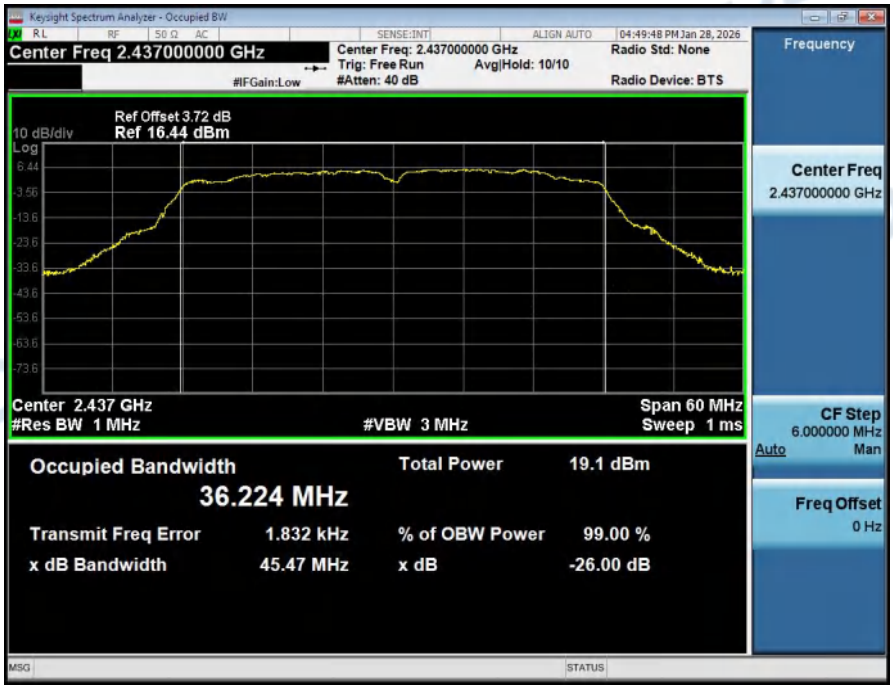
99%_Occupied_Bandwidth_NVNT_ANT2_802_11n(HT20)_2462

99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



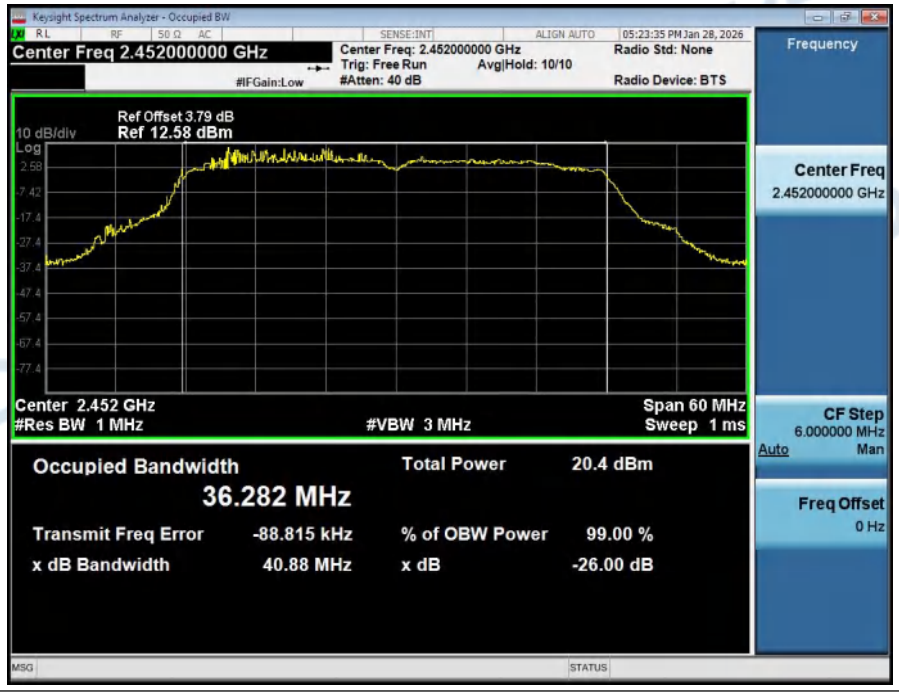
99%_Occupied_Bandwidth_NVNT_ANT2_802_11n(HT40)_2422

99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437

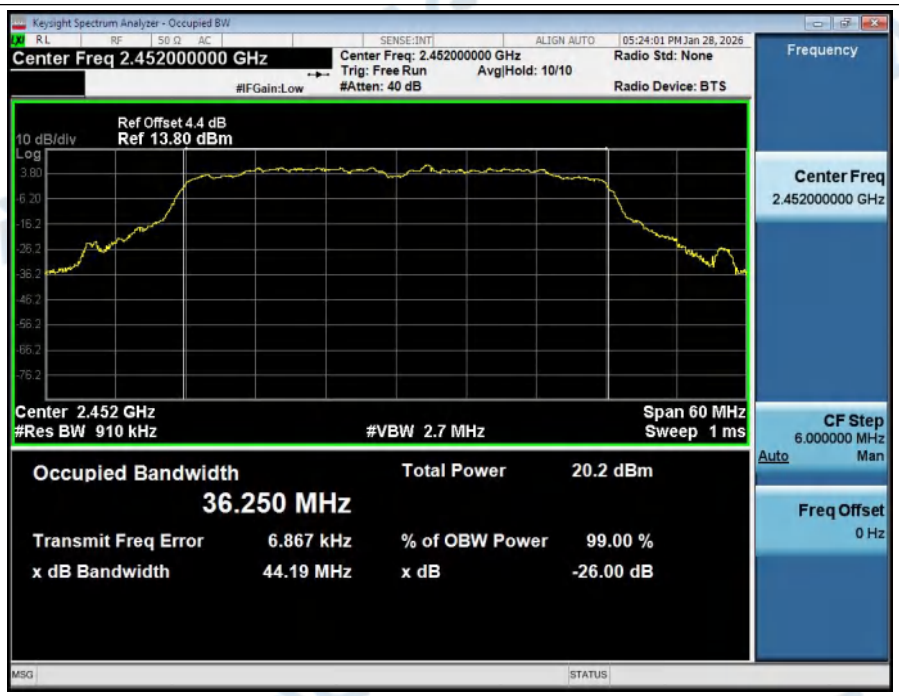


99%_Occupied_Bandwidth_NVNT_ANT2_802_11n(HT40)_2437

99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



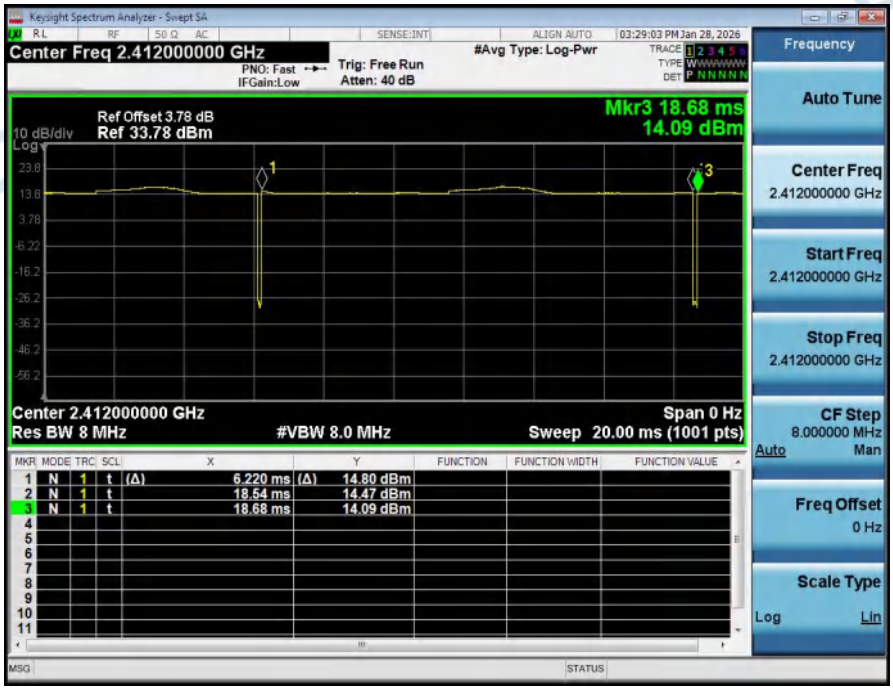
99%_Occupied_Bandwidth_NVNT_ANT2_802_11n(HT40)_2452



3. Duty Cycle

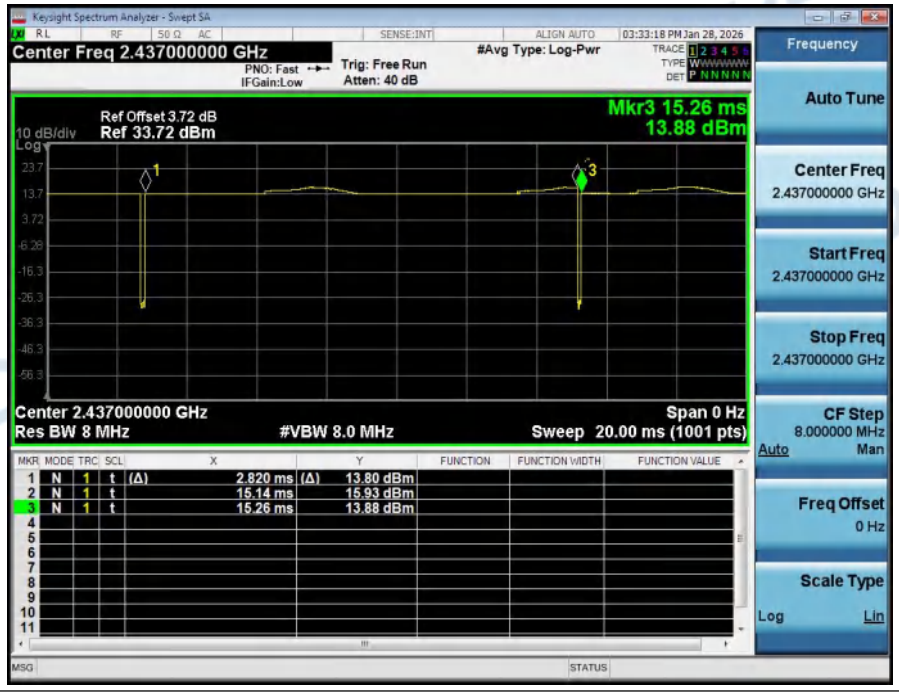
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	99.04	0.00
NVNT	ANT2	802.11b	2412.00	99.20	0.00
NVNT	ANT1	802.11b	2437.00	99.20	0.00
NVNT	ANT2	802.11b	2437.00	99.20	0.00
NVNT	ANT1	802.11b	2462.00	99.20	0.00
NVNT	ANT2	802.11b	2462.00	99.04	0.00
NVNT	ANT1	802.11g	2412.00	97.20	0.12
NVNT	ANT2	802.11g	2412.00	97.17	0.12
NVNT	ANT1	802.11g	2437.00	98.11	0.00
NVNT	ANT2	802.11g	2437.00	97.20	0.12
NVNT	ANT1	802.11g	2462.00	97.17	0.12
NVNT	ANT2	802.11g	2462.00	98.11	0.00
NVNT	ANT1	802.11n(HT20)	2412.00	96.97	0.13
NVNT	ANT2	802.11n(HT20)	2412.00	97.98	0.09
NVNT	ANT1	802.11n(HT20)	2437.00	97.98	0.09
NVNT	ANT2	802.11n(HT20)	2437.00	97.98	0.09
NVNT	ANT1	802.11n(HT20)	2462.00	97.98	0.09
NVNT	ANT2	802.11n(HT20)	2462.00	96.97	0.13
NVNT	ANT1	802.11n(HT40)	2422.00	97.96	0.09
NVNT	ANT2	802.11n(HT40)	2422.00	97.92	0.09
NVNT	ANT1	802.11n(HT40)	2437.00	97.96	0.09
NVNT	ANT2	802.11n(HT40)	2437.00	97.96	0.09
NVNT	ANT1	802.11n(HT40)	2452.00	97.73	0.10
NVNT	ANT2	802.11n(HT40)	2452.00	97.73	0.10

Duty_Cycle_NVNT_ANT1_802_11b_2412

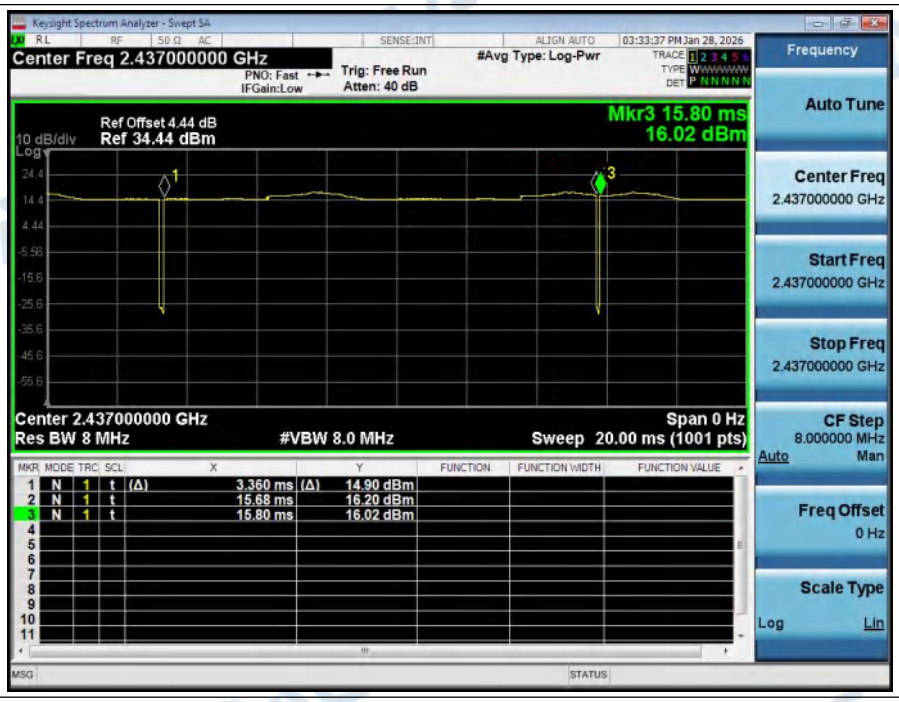


Duty_Cycle_NVNT_ANT2_802_11b_2412

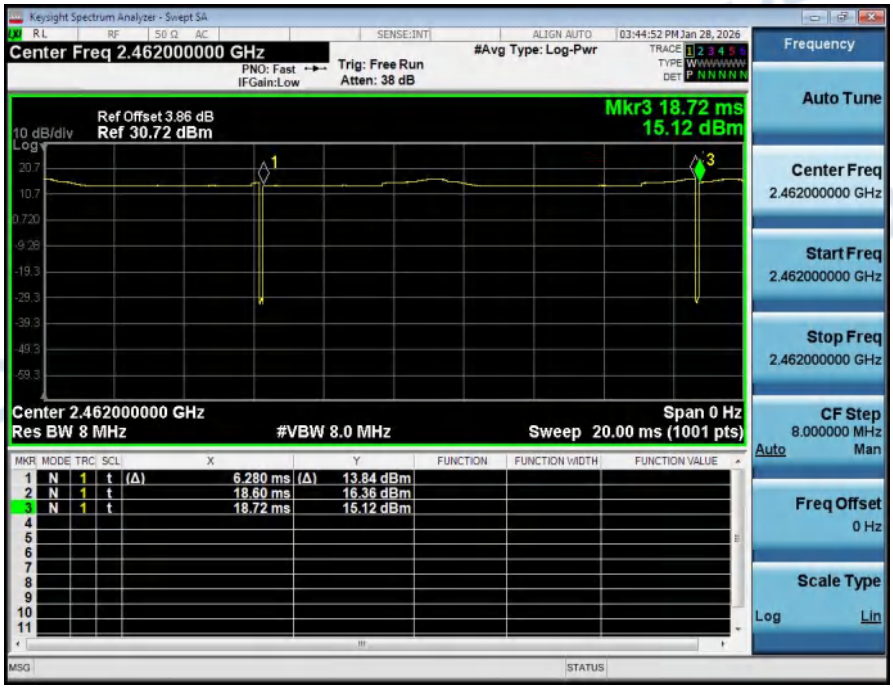
Duty_Cycle_NVNT_ANT1_802_11b_2437



Duty_Cycle_NVNT_ANT2_802_11b_2437



Duty_Cycle_NVNT_ANT1_802_11b_2462



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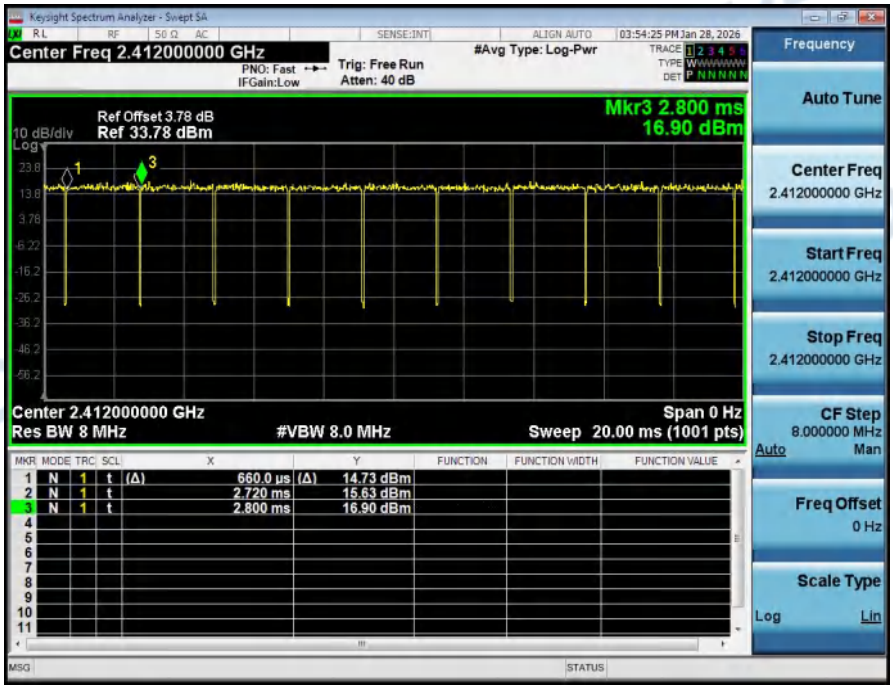

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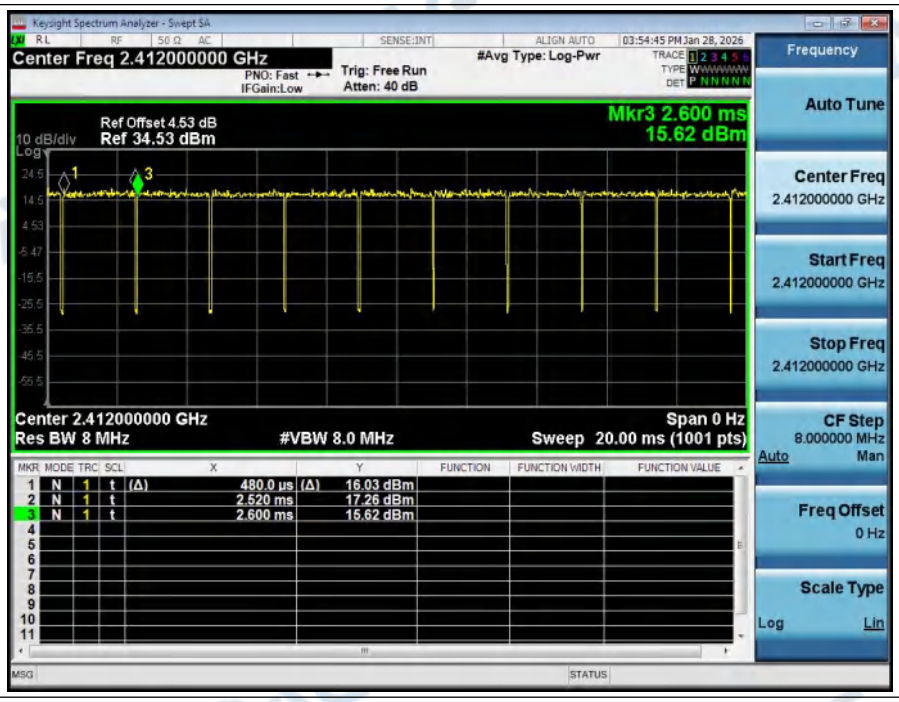

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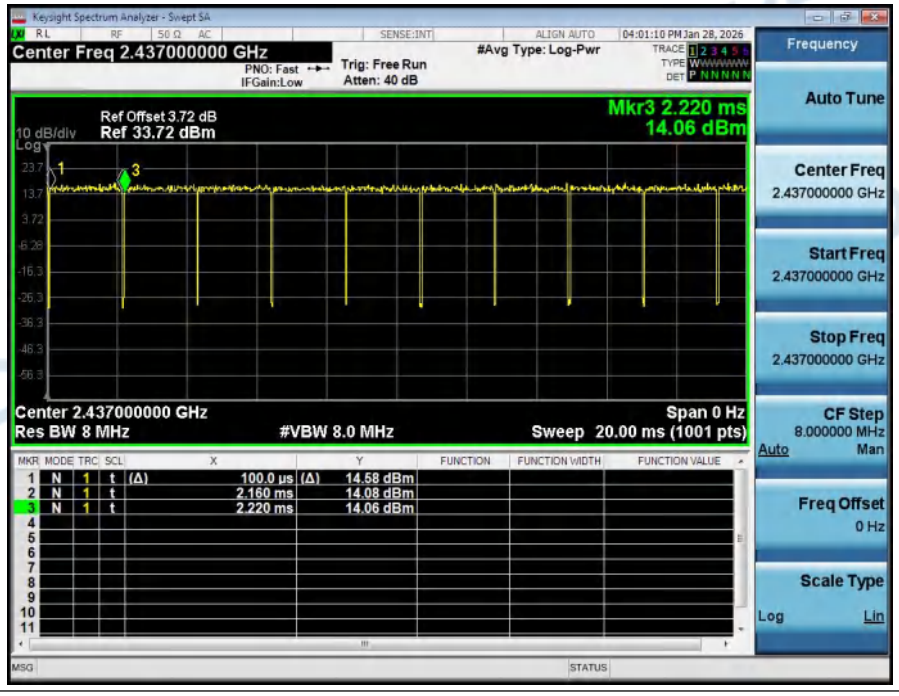

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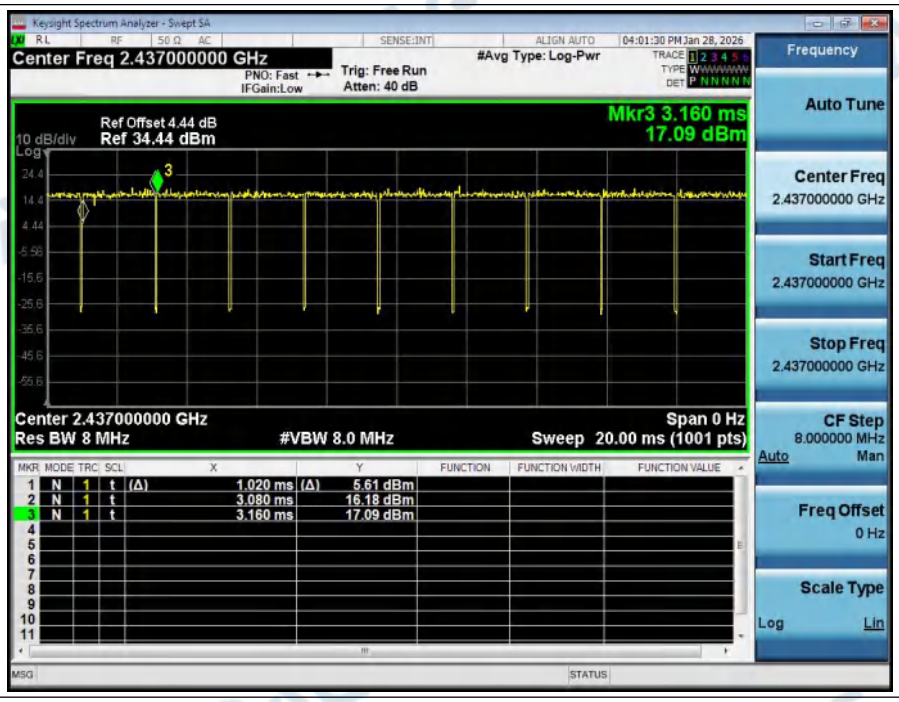

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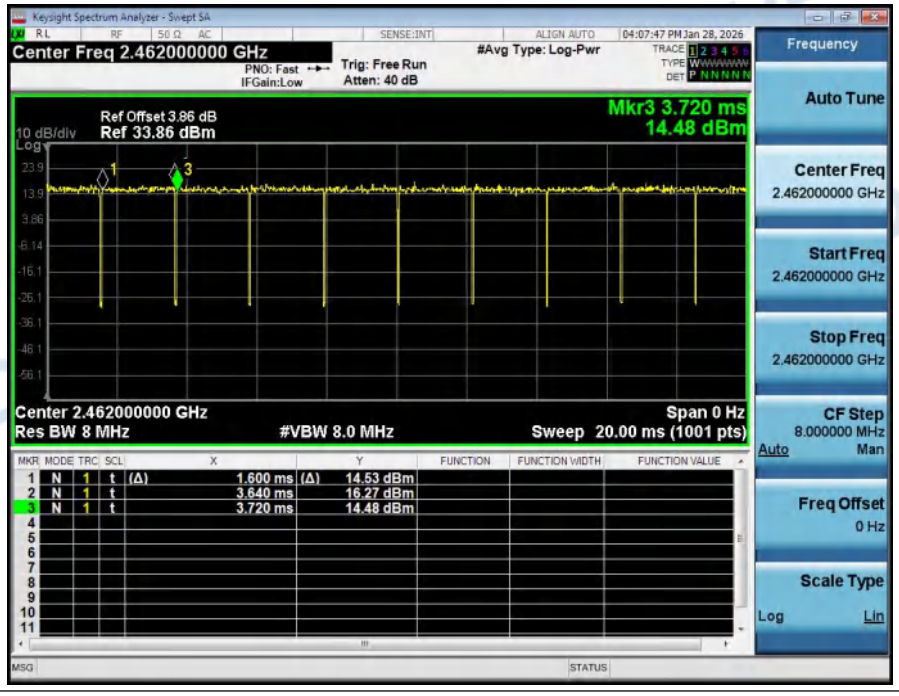

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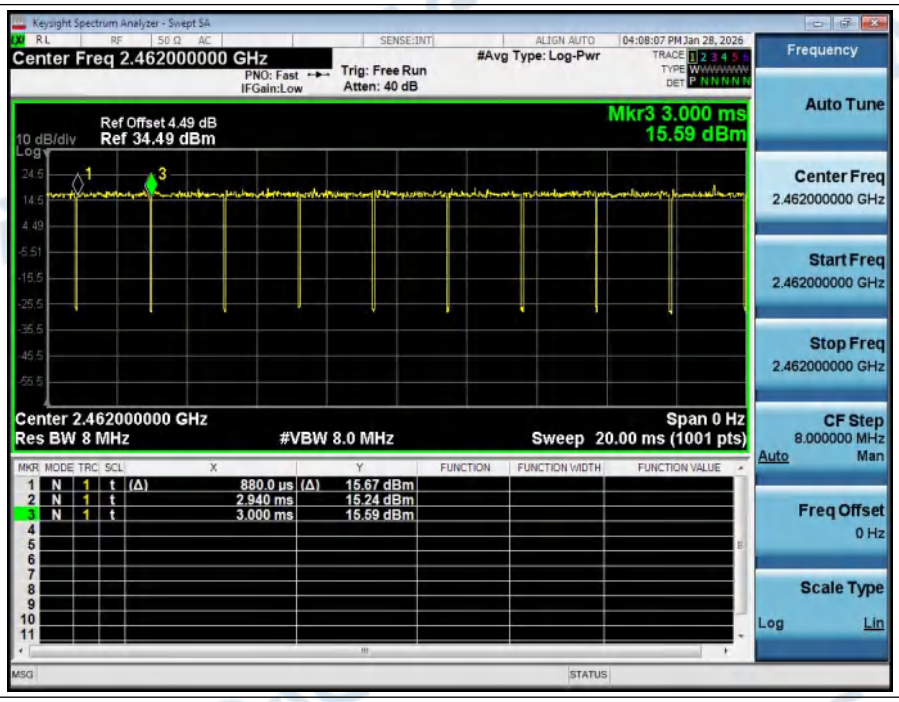
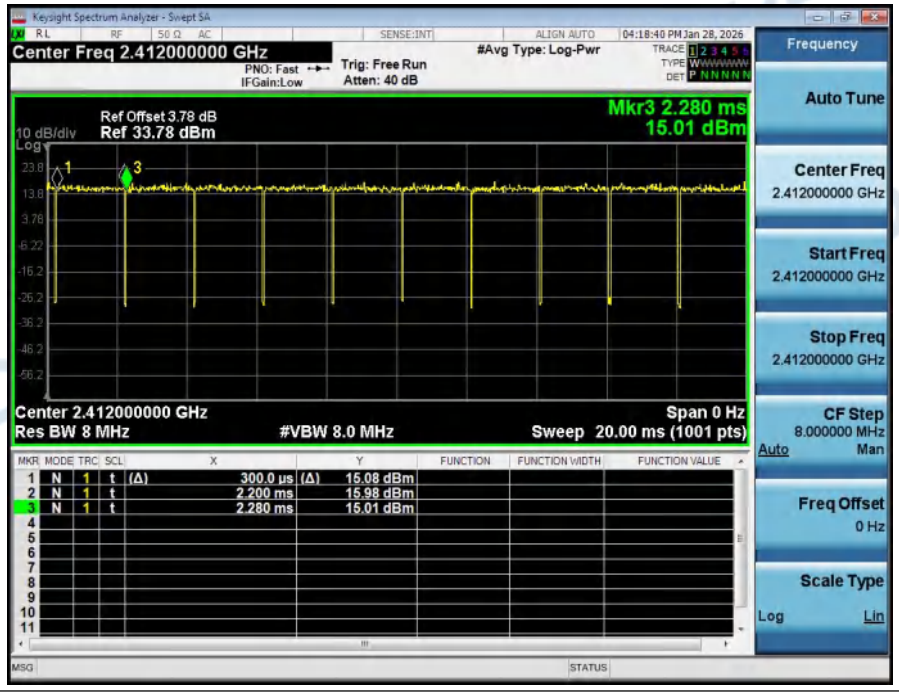


Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412



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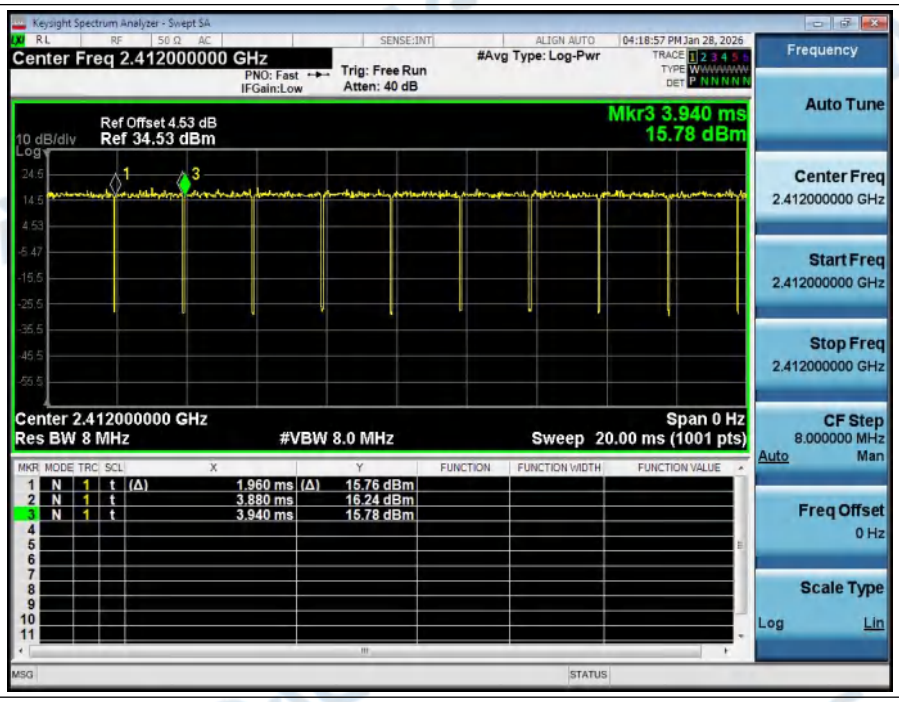

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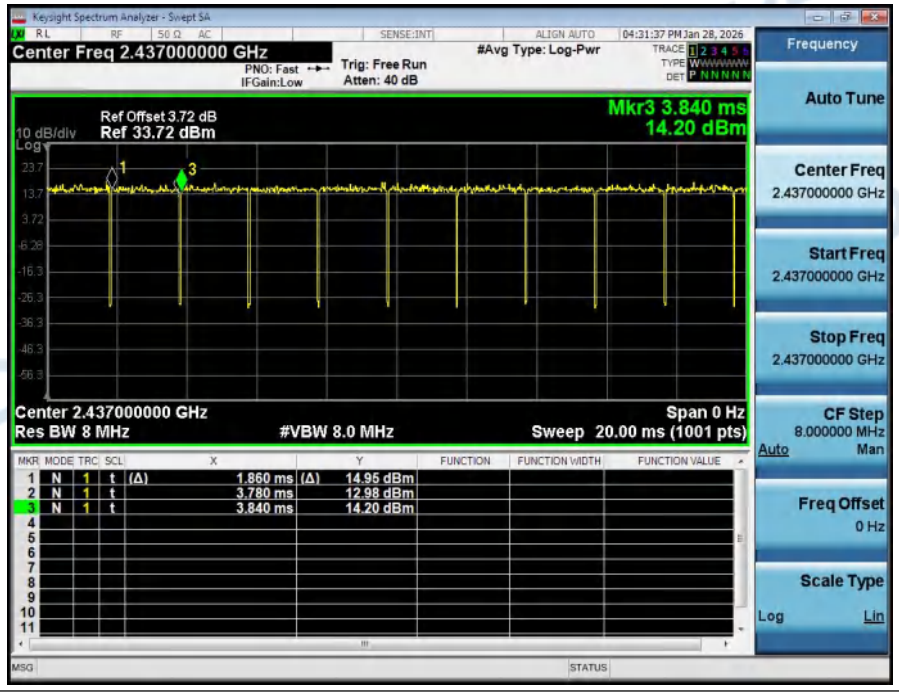

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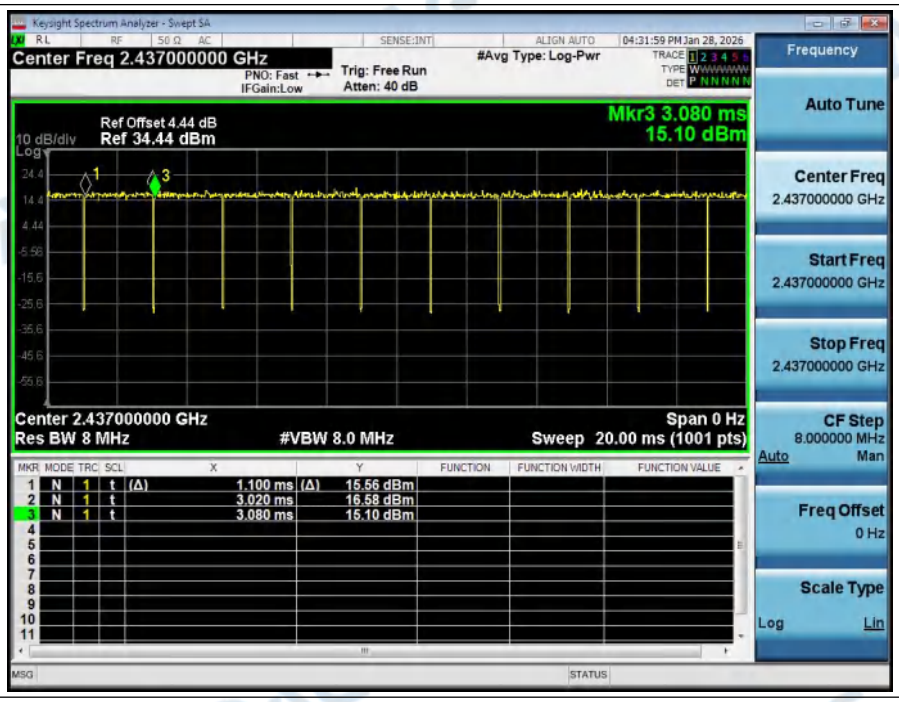

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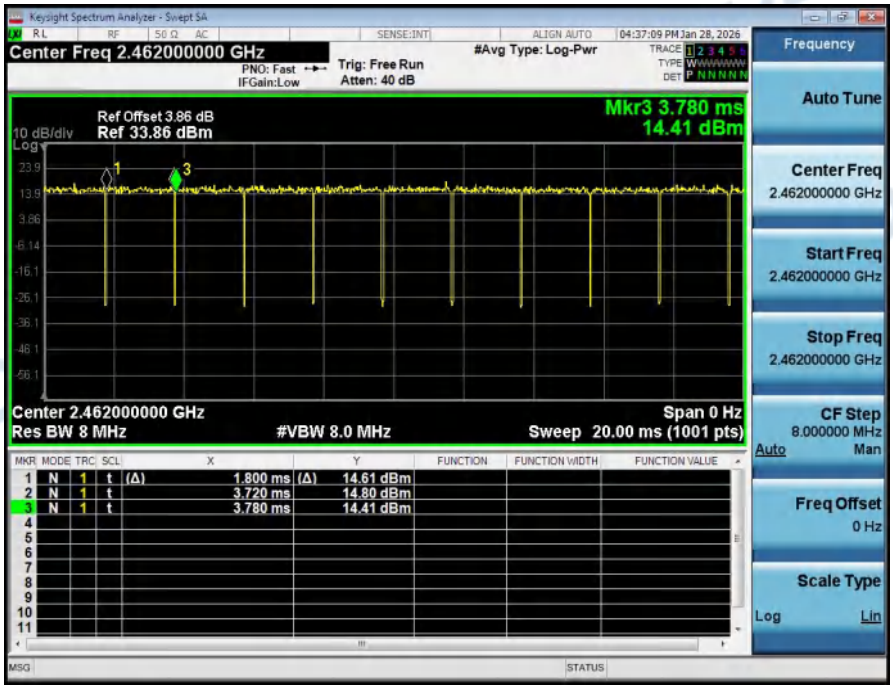

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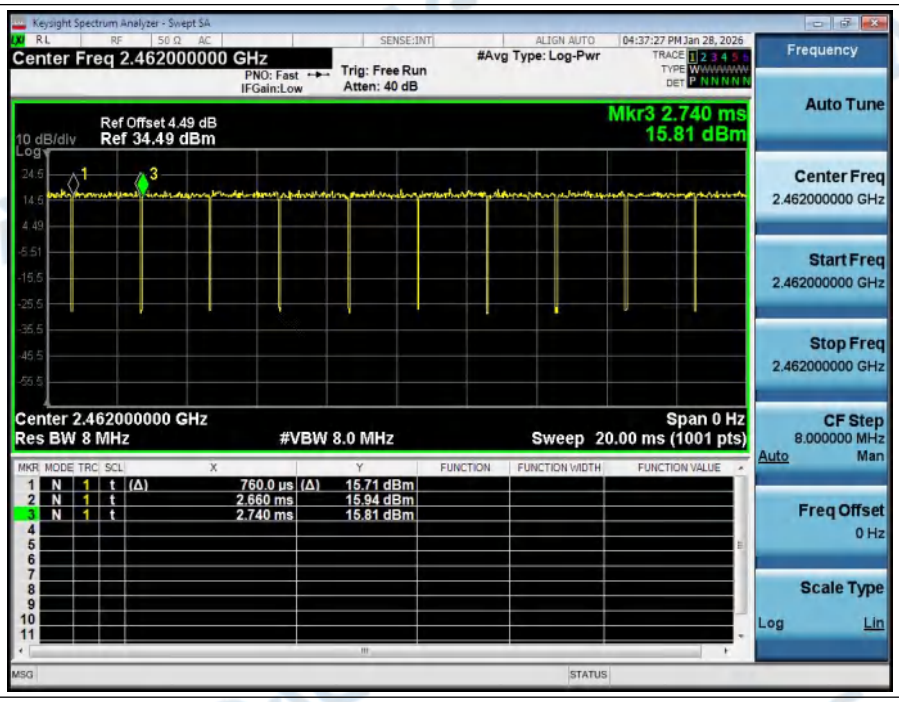

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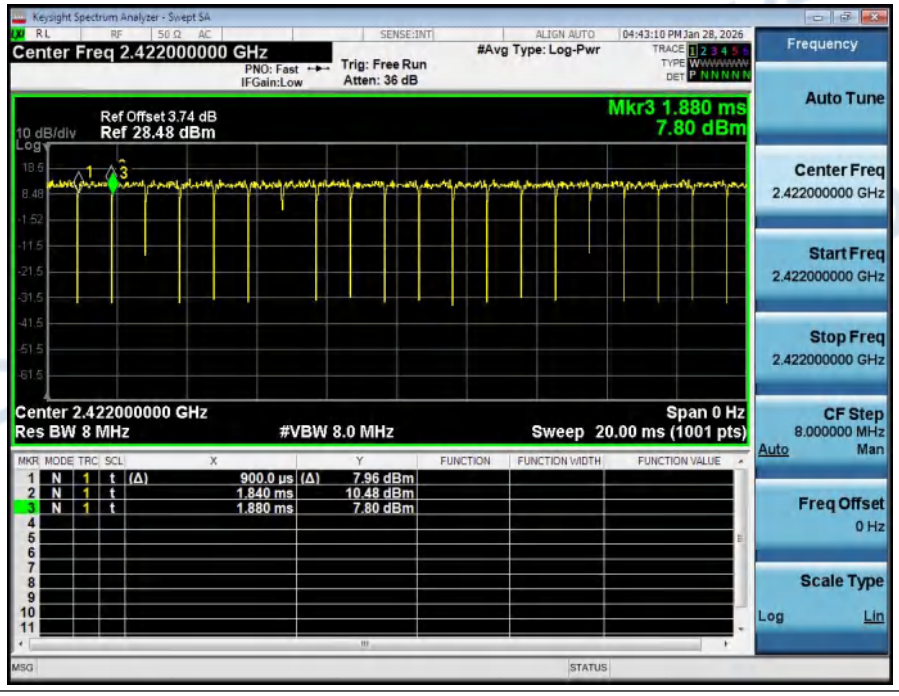
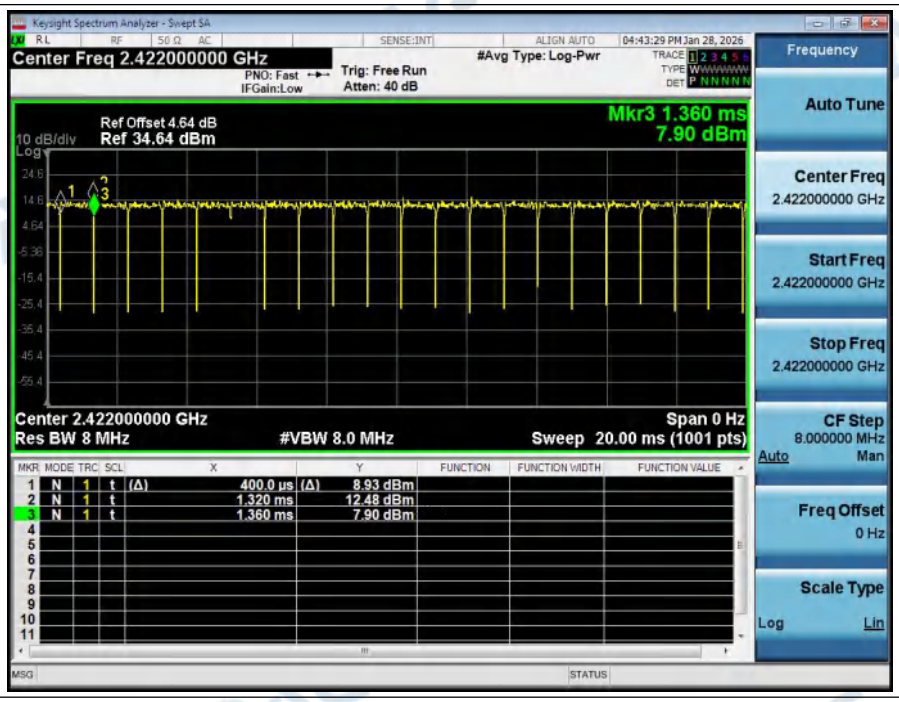
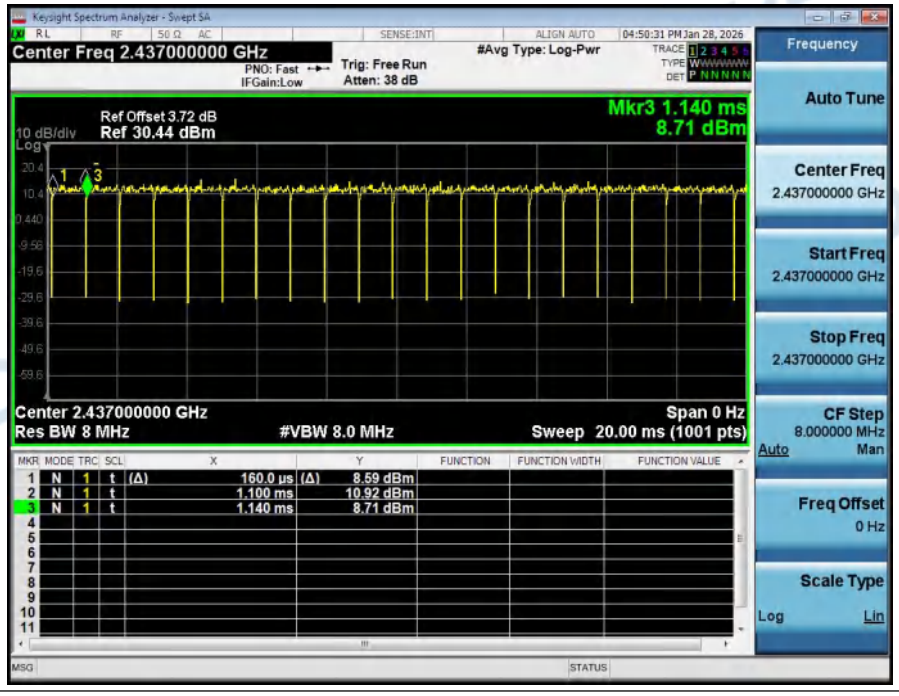


Duty_Cycle_NVNT_ANT2_802_11n(HT40)_2422



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2437