

RF Test Report

For

Applicant Name:

TECNO MOBILE LIMITED

Address:

EUT Name:

Brand Name:

Model Number:

FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG Laptop Computer TECNO **T15RA** Series Model Number: Refer to section 2

Issued By

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd. F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park,
Address:	Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Report Number:	BTF230918R00303

Report Number: **Test Standards:**

B1F230918R00303 47 CFR Part 15.247

Test Conclusion: FCC ID: Test Date: Date of Issue:

Pass 2ADYY-T15RA 2023-08-25 to 2023-09-21 2023-09-22

Prepared By:

Date:

Approved By:

Date:

Shenzk YiS Chris Liu / Project En 2023-09-22 $\overline{\ }$ Ryan.CJ / EMC Manager

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2023-09-22

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Revision History		
Issue Date	Revisions Content	
2023-09-22	Original	
	Issue Date	Issue Date Revisions Content

Note: Once the revision has been made, then previous versions reports are invalid.

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		Test Data:	
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Introduction 1

1.1 Identification of Testing Laboratory

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.		
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China		
Phone Number:	+86-0755-23146130		
Fax Number: +86-0755-23146130			

1.2 Identification of the Responsible Testing Location

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.		
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Communi Songgang Street, Bao'an District, Shenzhen, China		
Phone Number:	+86-0755-23146130		
Fax Number:	+86-0755-23146130		
FCC Registration Number:	518915		
Designation Number:	CN1330		

1.3 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 BTF and all revisions are duly noted in the revisions section.

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

2 **Product Information**

2.1 Application Information

Company Name: TECNO MOBILE LIMITED	
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.2 Manufacturer Information

Company Name:	TECNO MOBILE LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.3 Factory Information

Company Name:	GUANGXI SHANCHAUN TECHNOLOGY CO LTD	
Address:	The Second Floor of Plant C01, Plant C02, Plant C03 and Plant D03 Guangxi Sannuo Smart Industrial Park, No.3, Gaoke Road, Beihai Industrial Park, BEIHAI, 536000 Guangxi, P.R.China	

2.4 General Description of Equipment under Test (EUT)

-		. ,	
EUT Name:	Laptop Computer		
Test Model Number:	T15RA		
Series Model Number:	N/A		
Software Version:	Win 11 home		
Hardware Version:	N156EAL01_MB_V11		

2.5 Technical Information

Li-ion Battery: 156		
Rated Voltage: 11.55V		
Rated Capacity: 6060mAh/70Wh		
Typical Capacity: 6160mAh/71.14Wh		
Limited Charge Voltage: 13.2V		
Adapter1:TCW-A61S-65W		
Input: 100-240V~50/60Hz 1.5A Max		
Output: PD: 5V-3A 9V-3A 12V-3A 15V-3A 20V-3.25A		
PPS:3.3-11V 5A Max		
Adapter2: DS65-2		
Input: 100-240V~50/60Hz 1.5A Max		
Output: 5.0V3.0A 9.0V3.0A 12.0V3.0A 15.0V3.0A 20.0V3.25A 65.0W		
802.11b/g/n/ax(HT20): 2412MHz to 2462MHz;		
802.11n/ax(HT40): 2422MHz to 2452MHz		
802.11b/g/n/ax(HT20): 11 Channels;		
802.11n/ax(HT40): 7 Channels		
802.11b: DSSS(CCK, DQPSK, DBPSK);		
802.11g/n/ax:		
OFDM/OFDMA(BPSK,QPSK,16QAM,64QAM,256QAM,1024QAM;		
Integral Antenna		
2.37dBi		
3.49dBi		

Note:

#: The antenna gain provided by the applicant, and the laboratory will not be responsible for the accumulated calculation results which covers the information provided by the applicant.

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Summary of Test Results 3

Test Standards 3.1

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

3.2 Uncertainty of Test

Macauramant	Value
Measurement	
Occupied Channel Bandwidth	69 KHz
RF output power, conducted	0.87 dB
Power Spectral Density, conducted	0.69 dB
Unwanted Emissions, conducted	0.94 dB
All emissions, radiated(<1GHz)	4.12 dB
All emissions, radiated(>1GHz)	4.16 dB
Temperature	0.82 °C
Humidity	4.1 %

3.3 Summary of Test Result

Item	Standard	Requirement	Result
Antenna requirement	47 CFR Part 15.247	Part 15.203	Pass
Conducted Emission at AC power line	47 CFR Part 15.247	47 CFR 15.207(a)	Pass
Occupied Bandwidth	47 CFR Part 15.247	47 CFR 15.247(a)(2)	Pass
Maximum Conducted Output Power	47 CFR Part 15.247	47 CFR 15.247(b)(3)	Pass
Power Spectral Density	47 CFR Part 15.247	47 CFR 15.247(e)	Pass
Emissions in non-restricted frequency bands	47 CFR Part 15.247	47 CFR 15.247(d)	Pass
Band edge emissions (Radiated)	47 CFR Part 15.247	47 CFR 15.247(d)	Pass
Emissions in restricted frequency bands (below 1GHz)	47 CFR Part 15.247	47 CFR 15.247(d)	Pass
Emissions in restricted frequency bands (above 1GHz)	47 CFR Part 15.247	47 CFR 15.247(d)	Pass

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Test Configuration 4

Test Equipment List 4.1

Conducted Emission at AC power line							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
Pulse Limiter	SCHWARZBECK	VTSD 9561-F	00953	2022-11-24	2023-11-23		
Coaxial Switcher	SCHWARZBECK	CX210	CX210	2022-11-24	2023-11-23		
V-LISN	SCHWARZBECK	NSLK 8127	01073	2022-11-24	2023-11-23		
LISN	AFJ	LS16/110VAC	16010020076	2023-02-23	2024-02-22		
EMI Receiver	ROHDE&SCHWA RZ	ESCI3	101422	2022-11-24	2023-11-23		

Occupied Bandwidth						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
RFTest software	/	V1.00	/	/	/	
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23	
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23	
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23	
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23	
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23	
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23	

Maximum Conducted Output Power						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
RFTest software	/	V1.00	/	/	/	
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23	
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23	
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23	
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23	
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23	
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23	

Power Spectral Density							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	/	V1.00	/	/	/		

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RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23

Emissions in non-restricted frequency bands						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
RFTest software	/	V1.00	/	/	/	
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23	
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23	
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23	
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23	
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23	
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23	

Band edge emissions	Band edge emissions (Radiated)							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-26	2024-03-25			
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23			
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/			
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27			
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23			
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23			

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POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	00008	2023-03-26	2024-03-25
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ_EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-26	2024-03-25
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	00008	2023-03-26	2024-03-25
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ_EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27

Emissions in restricted frequency bands (above 1GHz)							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-26	2024-03-25		
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23		
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2022-11-24	2023-11-23		
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23		
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2022-11-24	2023-11-23		
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23		
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23		

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POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	00008	2023-03-26	2024-03-25
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ_EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27

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4.2 Test Auxiliary Equipment

The EUT was tested as an independent device.

4.3 Test Modes

Temperature:	25.0 °C	
Humidity:	56 % RH	
Atmospheric Pressure:	1010 mbar	

Test Mode:

Keep the EUT in continuous transmitting by select channel and modulations(The value of
duty cycle is 96.45%)

The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. For the full battery state and The output power to the maximum state.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

	Mode
A 100 1	802.11b
	802.11g
	802.11n/ax(H20)
	802.11n/ax(H40)
Final Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting with modulation

"worst case" and "worst setup" 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for

802.11n(H20).Duty cycle setting during the transmission is 96.45% with maximum power setting for all modulations.

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5 Evaluation Results (Evaluation)

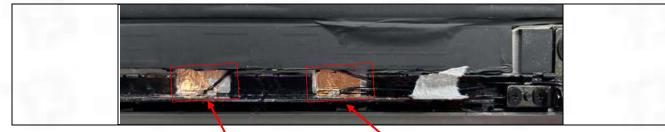
5.1 Antenna requirement

Test Requirement:

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.

AUX ANT

5.1.1 Conclusion:



MAIN ANT

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Radio Spectrum Matter Test Results (RF) 6

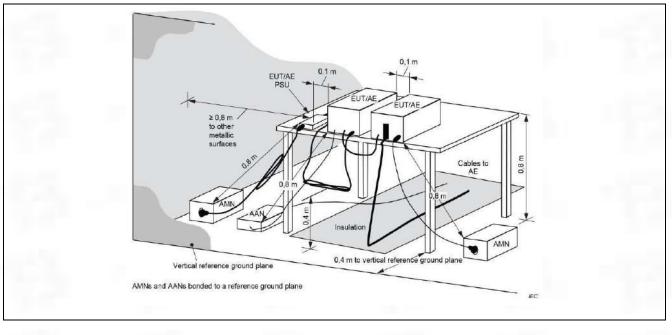
Conducted Emission at AC power line 6.1

Test Requirement:	Except as shown in paragraphs (b that is designed to be connected t frequency voltage that is conducte or frequencies, within the band 15 the following table, as measured u stabilization network (LISN).	o the public utility (AC) ed back onto the AC pow 0 kHz to 30 MHz, shall using a 50 μH/50 ohms	power line, the radio wer line on any frequency not exceed the limits in line impedance	
Test Method:		Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices		
	Frequency of emission (MHz)	Conducted limit (dB	μV)	
		Quasi-peak	Average	
Test Limit:	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
	5-30	60	50	
	*Decreases with the logarithm of t	he frequency.		

6.1.1 E.U.T. Operation:

Operating Environment:	
Temperature:	24.8 °C
Humidity:	52.5 %
Atmospheric Pressure:	1010 mbar

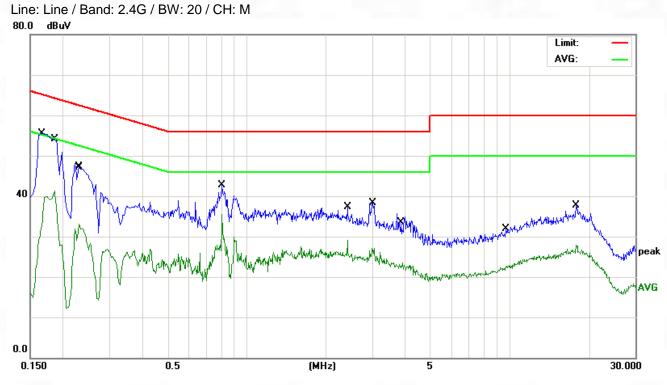
6.1.2 Test Setup Diagram:



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6.1.3 Test Data:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1660	45.10	10.45	55.55	65.15	-9.60	QP
2		0.1860	30.89	10.45	41.34	54.21	-12.87	AVG
3		0.2300	22.71	10.46	33.17	52.45	-19.28	AVG
4		0.2340	36.31	10.46	46.77	62.30	-15.53	QP
5		0.8059	32.16	10.54	42.70	56.00	-13.30	QP
6		0.8059	25.01	10.54	35.55	46.00	-10.45	AVG
7		2.4180	18.47	10.71	29.18	46.00	-16.82	AVG
8		3.0140	27.65	10.72	38.37	56.00	-17.63	QP
9		3.9140	12.71	10.73	23.44	46.00	-22.56	AVG
10		9.6940	21.15	10.82	31.97	60.00	-28.03	QP
11		17.8980	26.51	11.11	37.62	60.00	-22.38	QP
12		17.8980	16.79	11.11	27.90	50.00	-22.10	AVG

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			Limit: — AVG: —
Mar Mar Marine	an market have been and and and and and and and and and an	Multiplice of Manager and Mana	Konney Market Start and a start and a start a star

Line: Neutral / Band: 2.4G / BW: 20 / CH: M

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1660	45.98	10.45	56.43	65.15	-8.72	QP
2		0.1700	32.02	10.45	42.47	54.96	-12.49	AVG
3		0.2429	35.76	10.46	46.22	61.99	-15.77	QP
4		0.2860	17.61	10.47	28.08	50.64	-22.56	AVG
5		0.8059	22.96	10.54	33.50	46.00	-12.50	AVG
6		0.8460	30.18	10.54	40.72	56.00	-15.28	QP
7		2.4180	25.70	10.71	36.41	56.00	-19.59	QP
8		2. <mark>418</mark> 0	16.98	10.71	27.69	46.00	-18.31	AVG
9		4.3100	22.22	10.73	32.95	56.00	-23.05	QP
10		6.2260	4 .61	10.76	15.37	50.00	-34.63	AVG
11		13.7340	18.34	11.11	29.45	60.00	-30.55	QP
12		19.5980	10.24	11.06	21.30	50.00	-28.70	AVG

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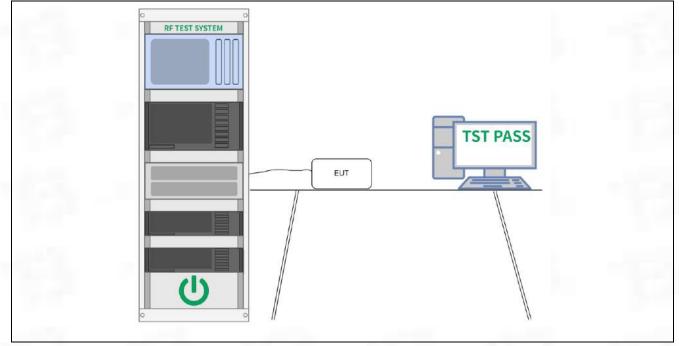
6.2 Occupied Bandwidth

Test Requirement:	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:	DTS bandwidth
Test Limit:	Section (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.
Procedure:	 a) Set RBW = 100 kHz. b) Set the VBW >= [3 x RBW]. c) Detector = peak. d) Trace mode = max hold. e) Sweep = auto couple. f) Allow the trace to stabilize. g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.2.1 E.U.T. Operation:

Operating Environment:	
Temperature:	23.6 °C
Humidity:	52.9 %
Atmospheric Pressure:	1010 mbar

6.2.2 Test Setup Diagram:



6.2.3 Test Data:

Please Refer to Appendix for Details.



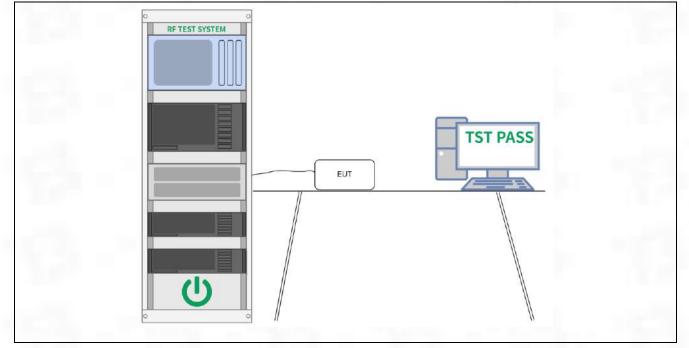
6.3 Maximum Conducted Output Power

Test Requirement:	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:	Maximum peak conducted output power
Test Limit:	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.
Procedure:	ANSI C63.10-2013, section 11.9.1 Maximum peak conducted output power
6.3.1 E.U.T. Operation:	

Operating Environment:	
Operating Environment.	
Temperature:	23.6 °C
Humidity:	52.9 %
Atmospheric Pressure:	1010 mbar



6.3.2 Test Setup Diagram:



6.3.3 Test Data:

Please Refer to Appendix for Details.

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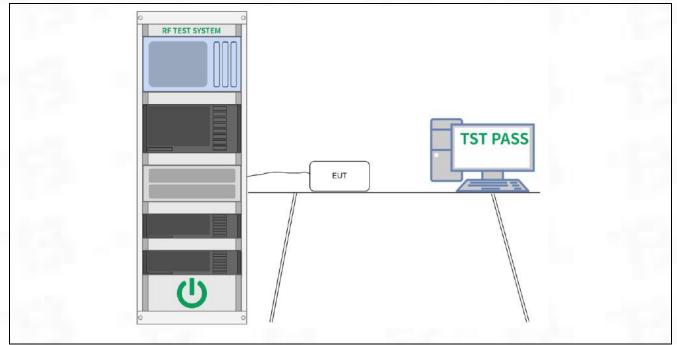
6.4 Power Spectral Density

Test Requirement:	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:	Maximum power spectral density level in the fundamental emission
Test Limit:	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.

6.4.1 E.U.T. Operation:

Operating Environment:	
Temperature:	23.6 °C
Humidity:	52.9 %
Atmospheric Pressure:	1010 mbar

6.4.2 Test Setup Diagram:



6.4.3 Test Data:

Please Refer to Appendix for Details.



6.5 Emissions in non-restricted frequency bands

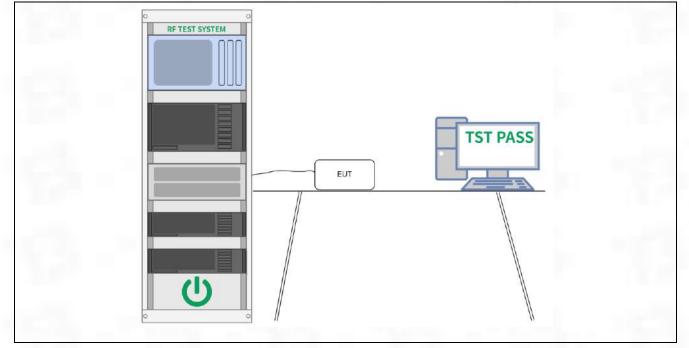
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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.
Emissions in nonrestricted frequency bands
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.
ANSI C63.10-2013 Section 11.11.1, Section 11.11.2, Section 11.11.3

6.5.1 E.U.T. Operation:

Operating Environment:		
Temperature:	23.6 °C	
Humidity:	52.9 %	
Atmospheric Pressure:	1010 mbar	



6.5.2 Test Setup Diagram:



6.5.3 Test Data:

Please Refer to Appendix for Details.

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6.6 Band edge emissions (Radiated)

Test Requirement:		issions which fall in the restricte mply with the radiated emission (c)).					
Test Method:	Radiated emissions test	Radiated emissions tests					
	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				
Test Limit:	88-216	150 **	3				
	216-960	200 **	3				
	Above 960	500	3				
	radiators operating unde 54-72 MHz, 76-88 MHz	** 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.					
Procedure:	ANSI C63.10-2013 sect	ion 6.6.4					
6.6.1 E.U.T. Operation	n:						

Operating Environment:	
Temperature:	25.8 °C
Humidity:	51.2 %
Atmospheric Pressure:	1010 mbar



6.6.2 Test Data:

Test result for 802.11b Mode (the worst case)

Frequency	Reading	Correct Factor	Emission Level	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
			Low Cha	nnel			
2390	65.79	-8.73	57.06	74	-16.94	Н	PK
2390	47.16	-8.73	38.43	54	-15.57	Н	AV
2390	66.34	-8.73	57.61	74	-16.39	V	PK
2390	50.11	-8.73	41.38	54	-12.62	V	AV
	High Channel						
2483.5	69.86	-8.17	61.69	74	-12.31	Н	PK
2483.5	47.52	-8.17	39.35	54	-14.65	Н	AV
2483.5	68.94	-8.17	60.77	74	-13.23	V	PK
2483.5	45.85	-8.17	37.68	54	-16.32	V	AV



6.7 Emissions in restricted frequency bands (below 1GHz)

Test Requirement:		issions which fall in the restrictem mply with the radiated emission (c)).				
Test Method:	Radiated emissions test	S				
	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			
Test Limit:	88-216	150 **	3			
	216-960	200 **	3			
	Above 960	500	3			
	radiators operating unde 54-72 MHz, 76-88 MHz,	** 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.				
Procedure:	ANSI C63.10-2013 sect	ion 6.6.4				
671 EUT Operation	n:					

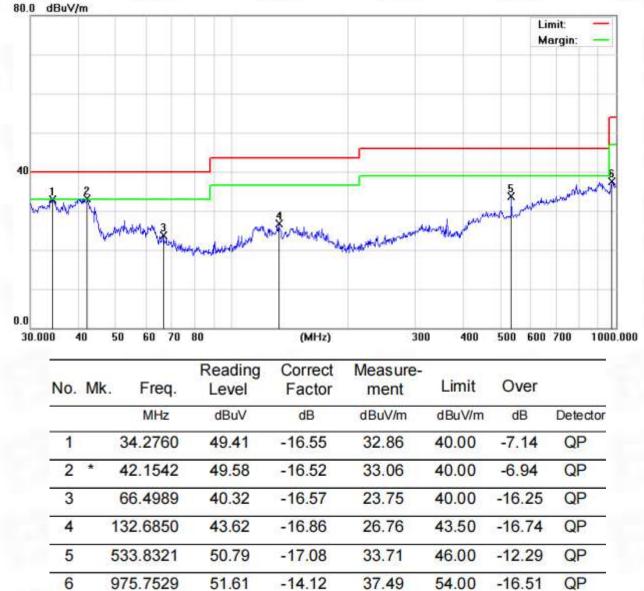
6.7.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.8 °C
Humidity:	51.2 %
Atmospheric Pressure:	1010 mbar



6.7.2 Test Data:

Note: All the mode have been tested, and only the worst case of 802.11n mode are in the report TM4 / Polarization: Horizontal / Band: 2.4G / BW: 40 / CH: L



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.0 30.000	40	50	60	70	80	(MHz)	3	00 400	500	600	700 10	00.00
N	lo. Mł	¢.	Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Ov	er		
-			MH	z	dBuV	dB	dBuV/m	dBuV/m	dE	3	Detector	
		-	6.381	14	29.35	2.94	32.29	40.00	-7.7	71	QP	
	1	36	5.50		and the second second							
	1	202.3	2.006	20-32	28.93	3.18	32.11	40.00	-7.8	39	QP	
	30	42		66	2000	3.18 1.16	32.11 26.76	40.00 43.50	-7.8 -16.		QP QP	1

9.90

15.18

32.63

39.51

46.00

46.00

-13.37

-6.49

QP

QP

TM4 / Polarization: Vertical / Band: 2.4G / BW: 40 / CH: L 80.0 dBuV/m

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22.73

24.33



6.8 Emissions in restricted frequency bands (above 1GHz)

Test Requirement:		ssions which fall in the restrictent nply with the radiated emission c)).`			
Test Method:	Radiated emissions test	S			
	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		
Test Limit:	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.				
Procedure:	ANSI C63.10-2013 secti	on 6.6.4			

6.8.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.8 °C
Humidity:	51.2 %
Atmospheric Pressure:	1010 mbar



6.8.2 Test Data:

20MHz(802.11b)-The worst

	Frag	Low channel: 2412MHz								
	Freq. (MHz)	Ant.Pol	Emission I	_evel(dBuV)	Limit 3m	(dBuV/m)	Ove	r(dB)		
	(IVIEZ)	H/V	PK	AV	PK	AV	PK	AV		
	4824	V	60.21	40.23	74	54	-13.79	-13.77		
	7236	V	58.35	39.05	74	54	-15.65	-14.95		
	4824	Н	59.59	40.83	74	54	-14.41	-13.17		
	7236	Н	58.60	39.60	74	54	-15.40	-14.40		

Free	Middle channel: 2437MHz								
Freq.	Ant.Pol	Emission I	_evel(dBuV)	Limit 3m	(dBuV/m)	Ove	er(dB)		
(MHz)	H/V	PK	AV	PK	AV	PK	AV		
4874	V	59.73	41.34	74	54	-14.27	-12.66		
7311	V	59.75	39.47	74	54	-14.25	-14.53		
4874	Н	59.22	39.22	74	54	-14.78	-14.78		
7311	Н	58.12	39.12	74	54	-15.88	-14.88		

Fred	High channel: 2462MHz								
Freq. (MHz)	Ant.Pol	Emission L	_evel(dBuV)	Limit 3m	(dBuV/m)	Over(dB)			
	H/V	PK	AV	PK	AV	PK	AV		
4924	V	58.99	41.73	74	54	-15.01	-12.27		
7386	V	59.40	39.31	74	54	-14.60	-14.69		
4924	Н	58.57	40.15	74	54	-15.43	-13.85		
7386	Н	59.85	40.85	74	54	-14.15	-13.15		



40MHz(802.11ax)-The worst

	Freq. (MHz)	Low channel: 2422MHz							
		Ant.Pol	Emission I	_evel(dBuV)	Limit 3m	(dBuV/m)	Ove	r(dB)	
		H/V	PK	AV	PK	AV	PK	AV	
	4844	V	59.66	41.43	74	54	-14.34	-12.57	
	7266	V	59.49	39.37	74	54	-14.51	-14.63	
	4844	Н	58.73	40.92	74	54	-15.27	-13.08	
	7266	Н	59.63	40.63	74	54	-14.37	-13.37	

Гиса	Middle channel: 2437MHz								
Freq.	Ant.Pol	Emission l	_evel(dBuV)	Limit 3m	(dBuV/m)	Ove	r(dB)		
(MHz)	H/V	PK	AV	PK	AV	PK	AV		
4874	V	59.13	40.64	74	54	-14.87	-13.36		
7311	V	58.92	40.20	74	54	-15.08	-13.80		
4874	Н	58.70	39.12	74	54	-15.30	-14.88		
7311	Н	59.31	40.31	74	54	-14.69	-13.69		

Fred	High channel: 2452MHz								
Freq.	Ant.Pol	Emission L	_evel(dBuV)	Limit 3m	(dBuV/m)	Ove	r(dB)		
(MHz)	H/V	PK	AV	PK	AV	PK	AV		
4904	V	58.84	41.06	74	54	-15.16	-12.94		
7356	V	59.16	40.72	74	54	-14.84	-13.28		
4904	Н	59.12	40.50	74	54	-14.88	-13.50		
7356	Н	59.35	40.35	74	54	-14.65	-13.65		

Note:

All emissions not reported were more than 20dB below the specified limit or in the noise floor. 1.

2. Emission Level= Reading Level+ Probe Factor +Cable Loss.

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 or the field strength is too small to be measured.



Appendix

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1. Bandwidth

1.1 BW

1.1.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.024	0.5	Pass
b	2437	Ant1	10.099	0.5	Pass
b	2462	Ant1	10.102	0.5	Pass
g	2412	Ant1	15.107	0.5	Pass
g	2437	Ant1	15.123	0.5	Pass
g	2462	Ant1	15.132	0.5	Pass
n20	2412	Ant1	15.115	0.5	Pass
n20	2437	Ant1	15.102	0.5	Pass
n20	2462	Ant1	15.102	0.5	Pass
n40	2422	Ant1	35.01	0.5	Pass
n40	2437	Ant1	35.053	0.5	Pass
n40	2452	Ant1	35.077	0.5	Pass
ax20	2412	Ant1	15.169	0.5	Pass
ax20	2437	Ant1	17.23	0.5	Pass
ax20	2462	Ant1	15.123	0.5	Pass
ax40	2422	Ant1	35.097	0.5	Pass
ax40	2437	Ant1	35.097	0.5	Pass
ax40	2452	Ant1	35.436	0.5	Pass

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1.1.2 Test Graph



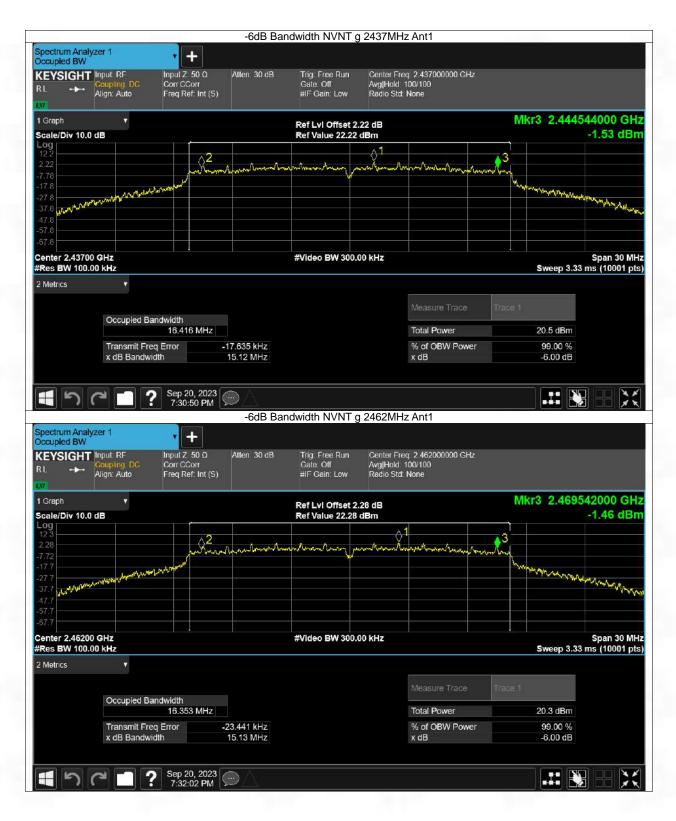
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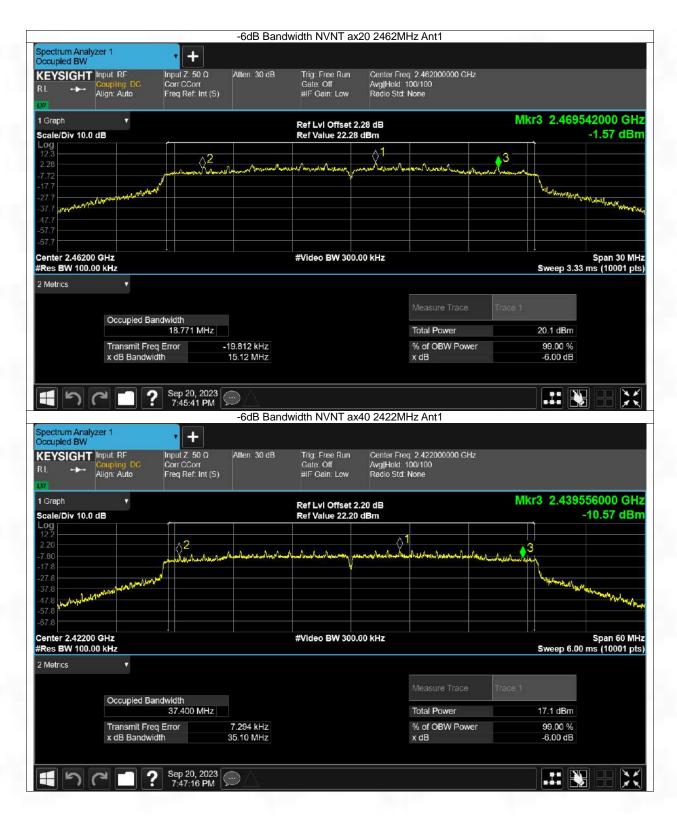
	zer 1		oub ban	dwidth NVNT n4					
pectrum Analyz ccupied BW		• +							
	Input: RF Coupling: DG Align: Auto	Input Z 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Free Avg Hold 1 Radio Std: I				
Graph				Ref Lvl Offset 2.	22 dB		Mkr	3 2.45451	7000 G
cale/Div 10.0 d	dB			Ref Value 22.22					6.54 dE
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7.0		and the second second second		¥					
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nter 2.43700	GHz			#Video BW 300.0	00 kHz				Span 60 M
Res BW 100.00								Sweep 6.00 m	
Metrics	v								
	Occupied Bar						114000 0		
		35.840 MHz	0.000.000			Total Power		20.9 dBm	
	Transmit Free x dB Bandwid		-9.823 kHz 35.05 MHz			% of OBW Power x dB		99.00 % -6.00 dB	
anto un Amalun	and d	Sep 20, 2023 7:39:20 PM	-6dB Ban	dwidth NVNT n4	10 2452MH	Iz Ant1			
cupied BW		- · ·	-6dB Ban						
EYSIGHT				dwidth NVNT n4 Trig: Free Run Gate: Off #IF Gain: Low		1 2 452000000 GHz 00/100			
EYSIGHT	Input RF Coupling DC	Input Z' 50 Q Corr CCorr		Trig: Free Run Gate: Off #IF Gain: Low	Center Freq Avg Hold 1 Radio Std: I	1 2 452000000 GHz 00/100	Mkr	 2.46950 	4000 G
Cupied BW	Input. RF Coupling DC Align: Auto	Input Z' 50 Q Corr CCorr		Trig: Free Run Gate: Off	Center Freq Avg Hold 1 Radio Std: I 27 dB	1 2 452000000 GHz 00/100	Mkr	3 2.46950	
Coupled BW EYSIGHT L Graph cale/Div 10.0 c 2.3	Input. RF Coupling DC Align: Auto	Input Z 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB	1 2 452000000 GHz 00/100		3 2.46950	4000 G 5.13 dE
Coupled BW EYSIGHT L ++- Graph cale/Div 10.0 c 23 27	Input. RF Coupling DC Align: Auto	Input Z 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Frec Avg[Hold_1 Radio Std:1 27 dB dBm	1 2 452000000 GHz 00/100	3	3 2.46950	
Coupled BW EYSIGHT L Graph cale/Div 10.0 c og 2.3 2.7 7.7 7.7	Input: RF Coupling, DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)		Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Frec Avg[Hold_1 Radio Std:1 27 dB dBm	1 2 452000000 GHz 00/100 None	3	3 2.46950	5.13 dE
Coupled BW EYSIGHT L Graph Cale/Div 10.0 0 C C C C C C C C C C C C C C C C C C	Input: RF Coupling: DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Frec Avg[Hold_1 Radio Std:1 27 dB dBm	1 2 452000000 GHz 00/100 None	3	3 2.46950	5.13 dE
Coupled BW EYSIGHT L ++ Coraph Cor	Input: RF Coupling: DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Frec Avg[Hold_1 Radio Std:1 27 dB dBm	1 2 452000000 GHz 00/100 None	3	3 2.46950	5.13 dE
Coupled BW EYSIGHT L ++ 7 Graph Cale/Div 10.0 c 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling: DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Frec Avg[Hold_1 Radio Std:1 27 dB dBm	1 2 452000000 GHz 00/100 None	3	3 2.46950	5.13 dE
Cupied BW EYSIGHT L Graph cale/Div 10.0 c 99 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling, DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz 00/100 None	3	3 2.46950 	5.13 dE
Cupled BW EYSIGHT L Graph Cale/Div 10.0 c 00 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling, DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz 00/100 None	Andruchuch	3 2.46950 	5.13 dE
Coupled BW EYSIGHT L Graph cale/Div 10.0 c 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling, DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz 00/100 None	Andruchuch	3 2.46950	5.13 dE
Coupled BW EYSIGHT L Graph cale/Div 10.0 c 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling, DC Align: Auto	Input Z 50 Q Carr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz 00/100 None	Andruchuch	3 2.46950	5.13 dE
Coupled BW EYSIGHT L Graph cale/Div 10.0 c 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling, DC Align: Auto	Input Z 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz OO/100 None	Awhuchuchuchuchuchuchuchuchuchuchuchuchuch	3 2.46950	5.13 dE
Coupled BW EYSIGHT L	Input: RF Coupling: DC Align: Auto	hdwidth 35.830 MHz	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz O0/100 None	Awhuchuchuchuchuchuchuchuchuchuchuchuchuch	3 2.46950 3 2.46950 5 weep 6.00 m 19.3 dBm	5.13 dE
Graph cale/Div 10.0 c 2.3 	Input: RF Coupling, DC Align: Auto	hdwidth 35.830 MHz	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz OO/100 None	Awhuchuchuchuchuchuchuchuchuchuchuchuchuch	3 2.46950	5.13 dE
Coupled BW EYSIGHT L Graph cale/Div 10.0 c 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input: RF Coupling: DC Align: Auto	hdwidth 35.830 MHz	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz O0/100 None Versions Versions Measure Trace Total Power % of OBW Power	Awhuchuchuchuchuchuchuchuchuchuchuchuchuch	3 2.46950 3 2.46950 5 3 2.46950 5 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5.13 dE
Coupled BW EYSIGHT L Graph cale/Div 10.0 c 2.3 2.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	Input RF Coupling, DC Align: Auto dB dB dB dB dB dB dB dB dB dB dB dB dB	ndwidth 35.830 MHz	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low Ref LvI Offset 2. Ref Value 22.27	Center Freq Avg Hold 1 Radio Std: I 27 dB dBm	1 2 452000000 GHz O0/100 None Versions Versions Measure Trace Total Power % of OBW Power	Awhuchuchuchuchuchuchuchuchuchuchuchuchuch	3 2.46950 3 2.46950 5 3 2.46950 5 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5.13 dE

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Maximum Conducted Output Power 2.

2.1 Power

2. 1.1 Test Result

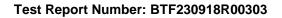
MAIN ANT1

Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
b	2412	15.96	30	Pass
b	2437	15.92	30	Pass
b	2462	15.94	30	Pass
g	2412	18.09	30	Pass
g	2437	18.37	30	Pass
g	2462	18.16	30	Pass
n20	2412	18.02	30	Pass
n20	2437	18.35	30	Pass
n20	2462	18.08	30	Pass
n40	2422	15.28	30	Pass
n40	2437	18.7	30	Pass
n40	2452	17.22	30	Pass
ax20	2412	15.92	30	Pass
ax20	2437	15.85	30	Pass
ax20	2462	15.9	30	Pass
ax40	2422	15.32	30	Pass
ax40	2437	18.68	30	Pass
ax40	2452	17.24	30	Pass

AUX ANT2

Mode	Frequency (MHz)	Total Power (dBm)	Limit (dBm)	Verdict
b	2412	16.34	30	Pass
b	2437	16.18	30	Pass
b	2462	16.15	30	Pass
g	2412	18.64	30	Pass
g	2437	18.82	30	Pass
g	2462	17.86	30	Pass
n20	2412	18.58	30	Pass
n20	2437	18.63	30	Pass
n20	2462	17.78	30	Pass
n40	2422	15.72	30	Pass
n40	2437	18.98	30	Pass
n40	2452	18.44	30	Pass
ax20	2412	19.14	30	Pass
ax20	2437	19.11	30	Pass
ax20	2462	18.32	30	Pass
ax40	2422	16.23	30	Pass
ax40	2437	19.38	30	Pass
ax40	2452	18.88	30	Pass

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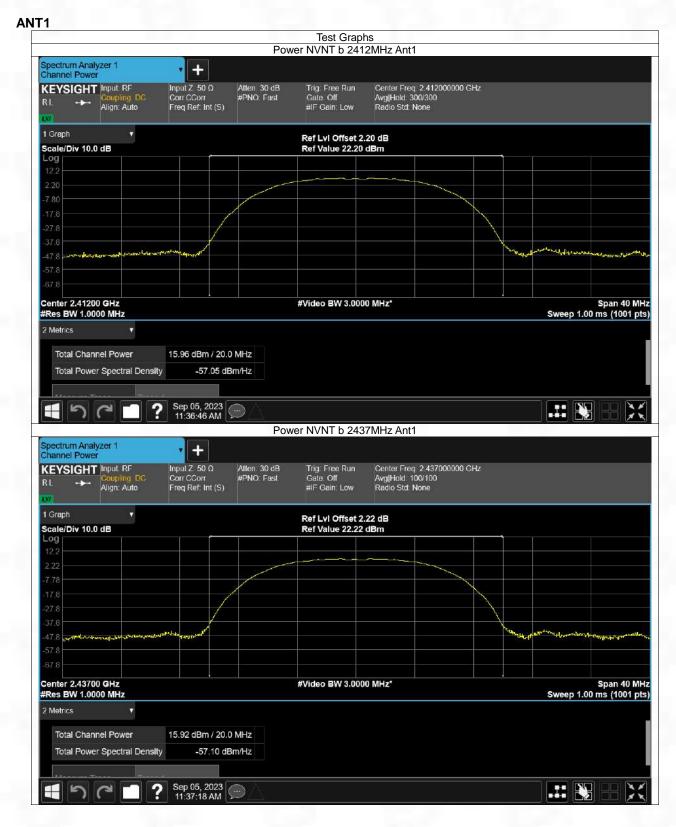
MIMO Mode

Mode	Frequency	Total Power	Limit	Verdict
	(MHz)	(dBm)	(dBm)	
n20	2412	21.32	30	Pass
n20	2437	21.50	30	Pass
n20	2462	20.94	30	Pass
n40	2422	18.52	30	Pass
n40	2437	21.85	30	Pass
n40	2452	20.88	30	Pass
ax20	2412	20.83	30	Pass
ax20	2437	20.79	30	Pass
ax20	2462	20.29	30	Pass
ax40	2422	18.81	30	Pass
ax40	2437	22.05	30	Pass
ax40	2452	21.15	30	Pass

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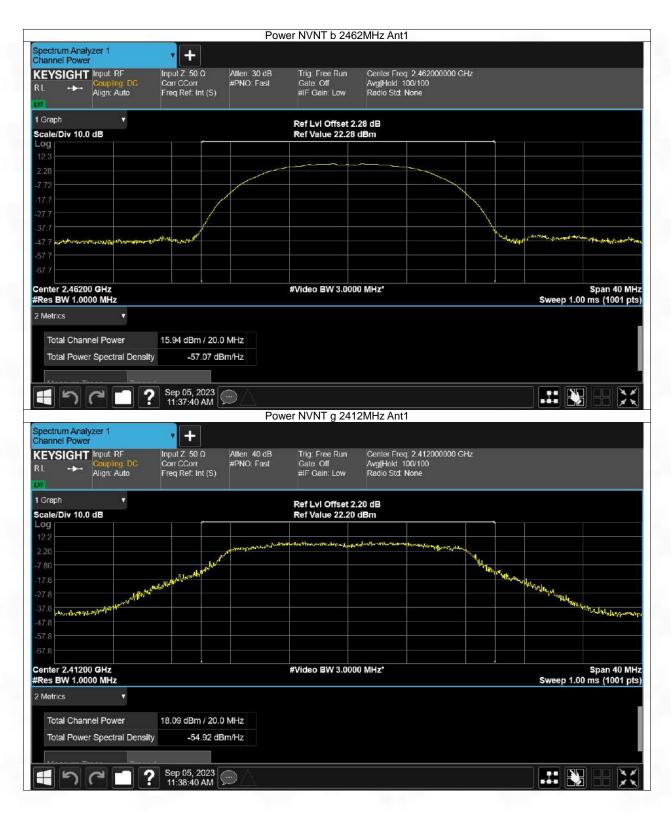


2. 1.2 Test Graph

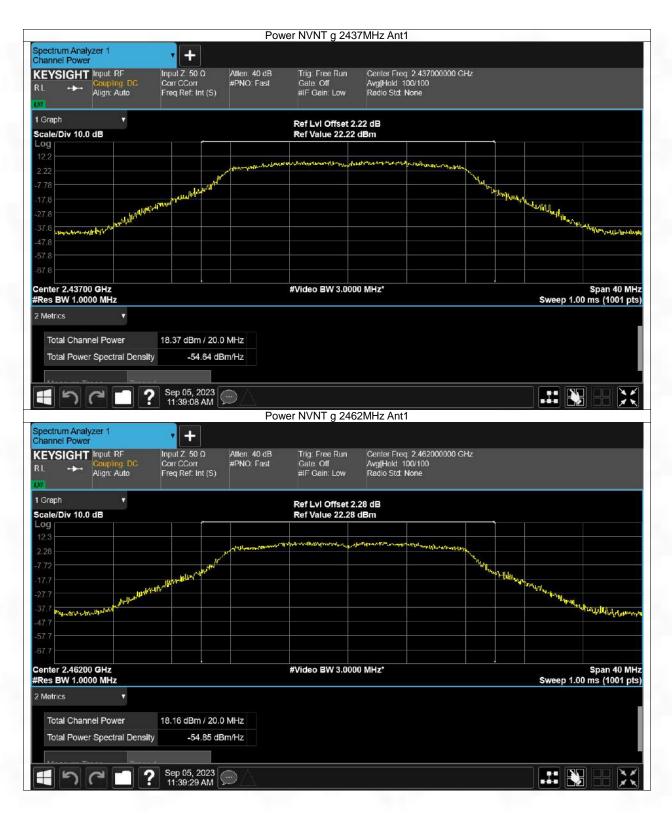


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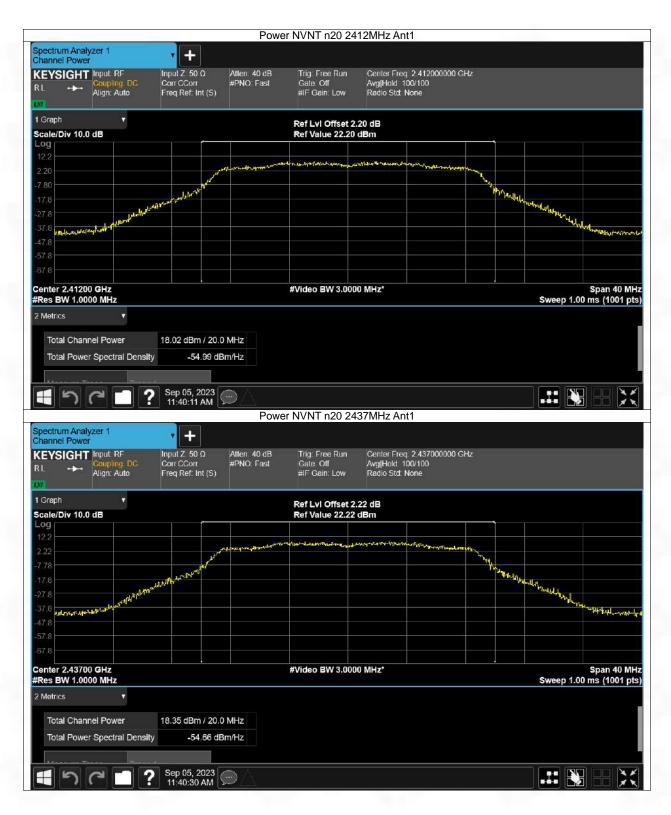




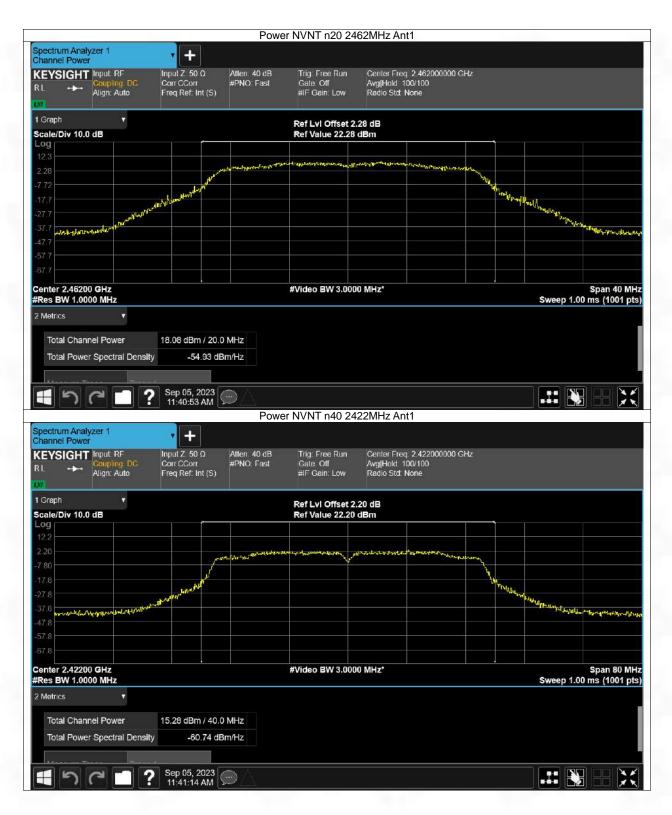




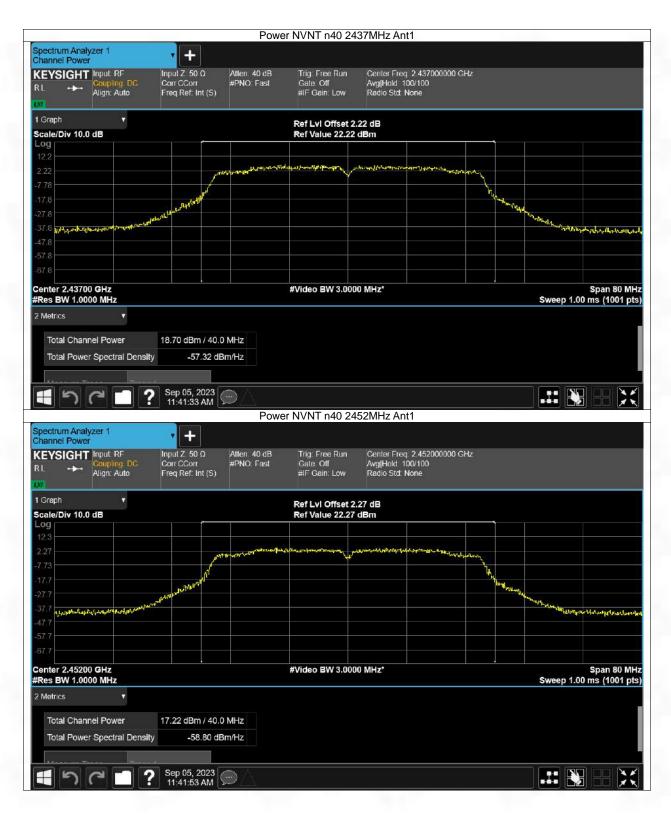




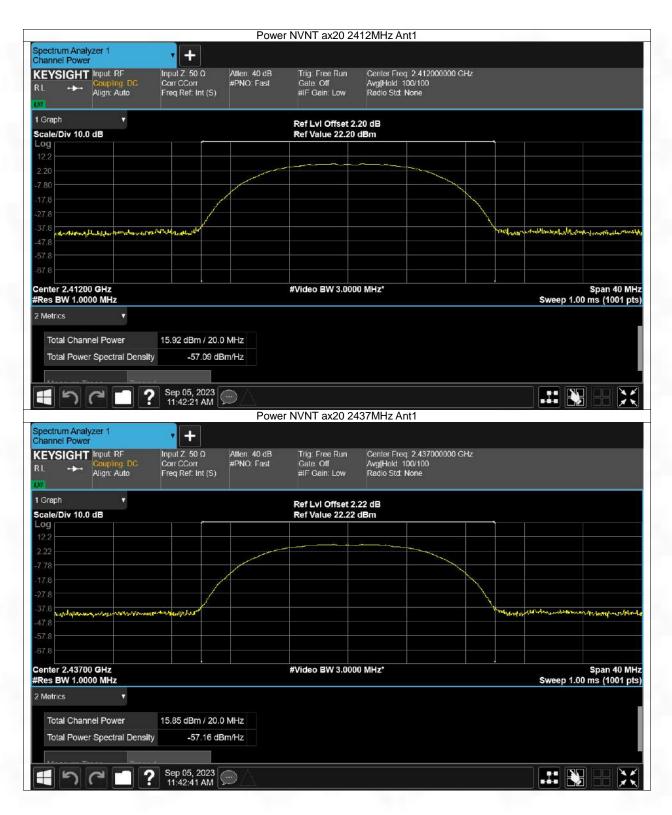




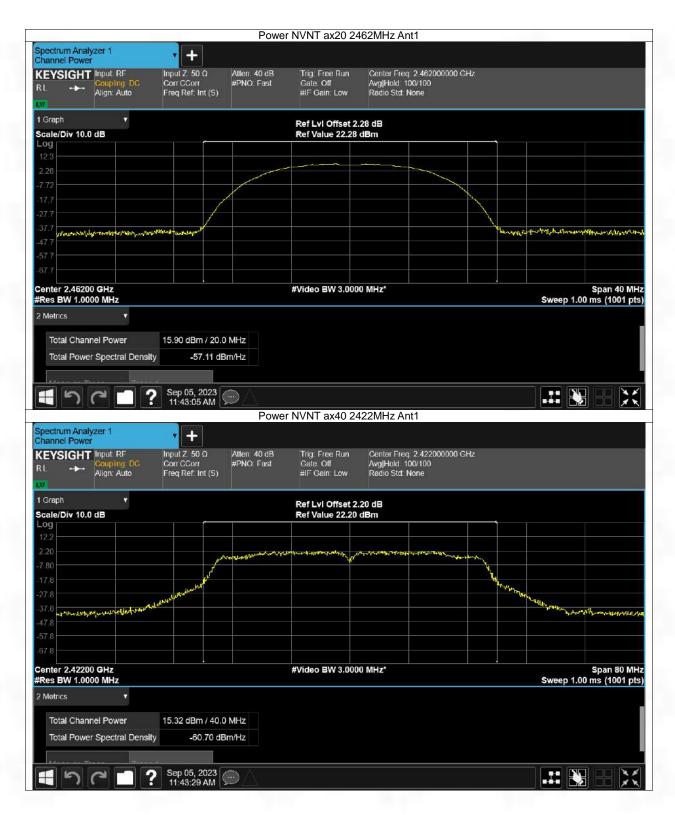




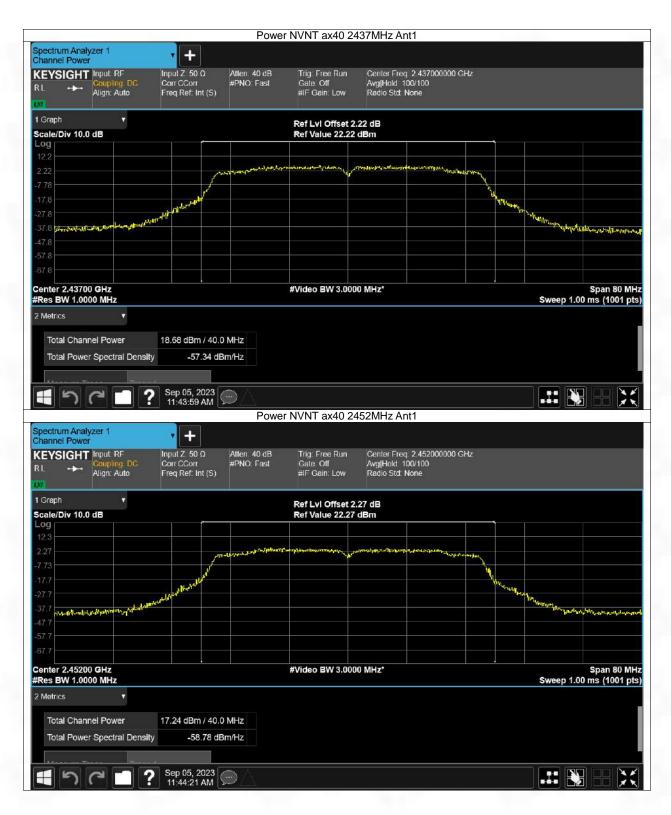






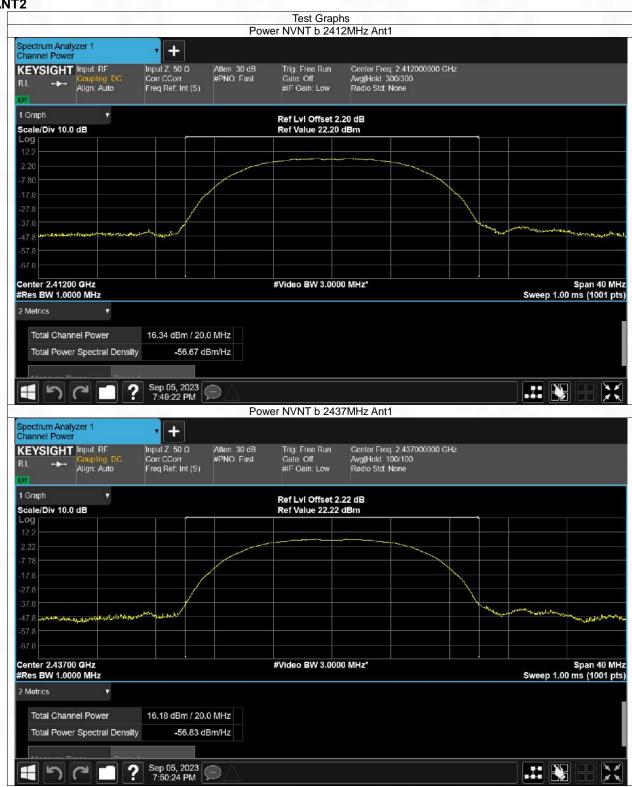






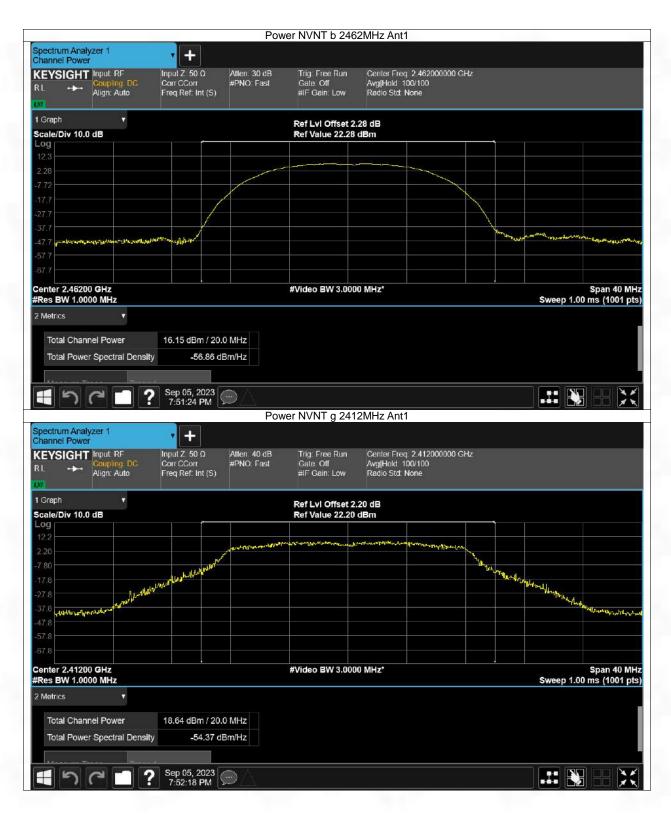


ANT2

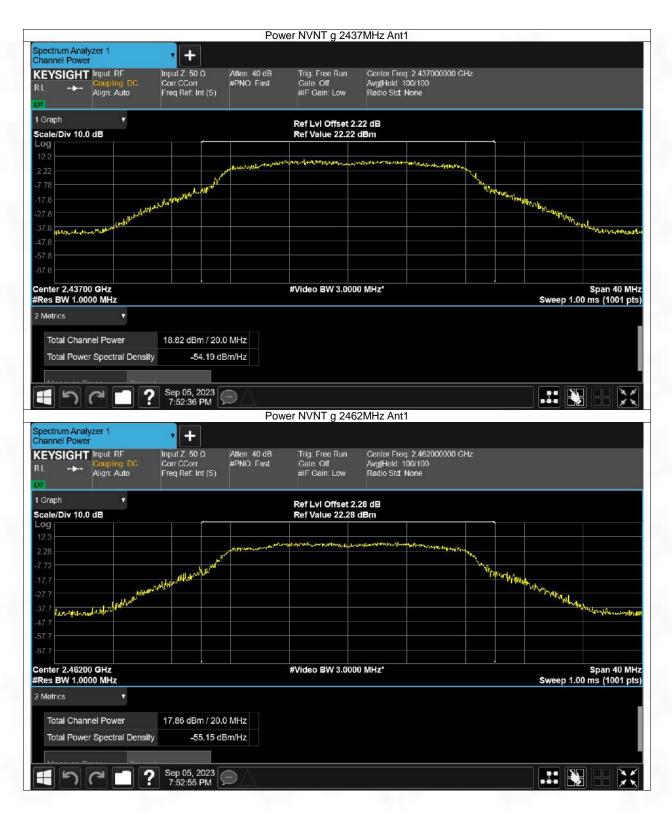


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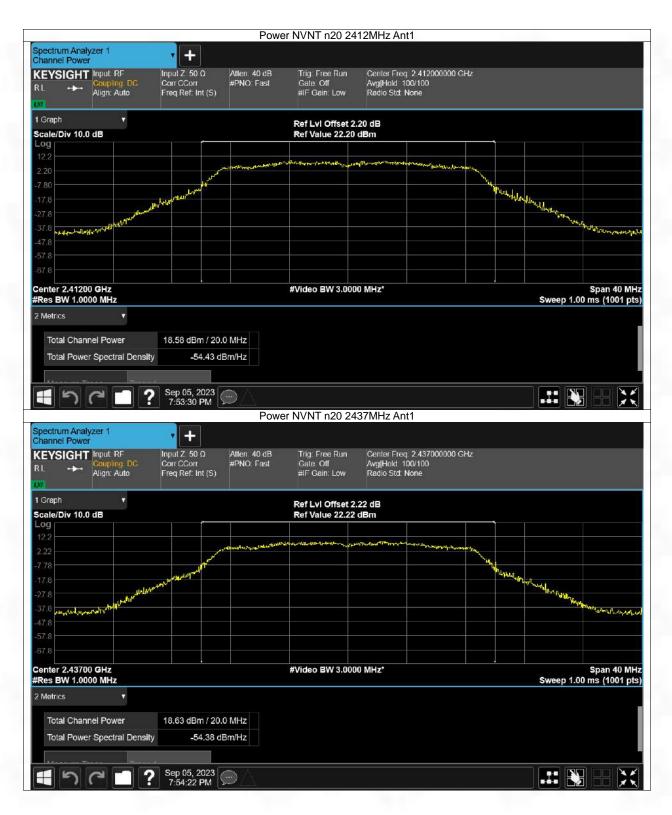




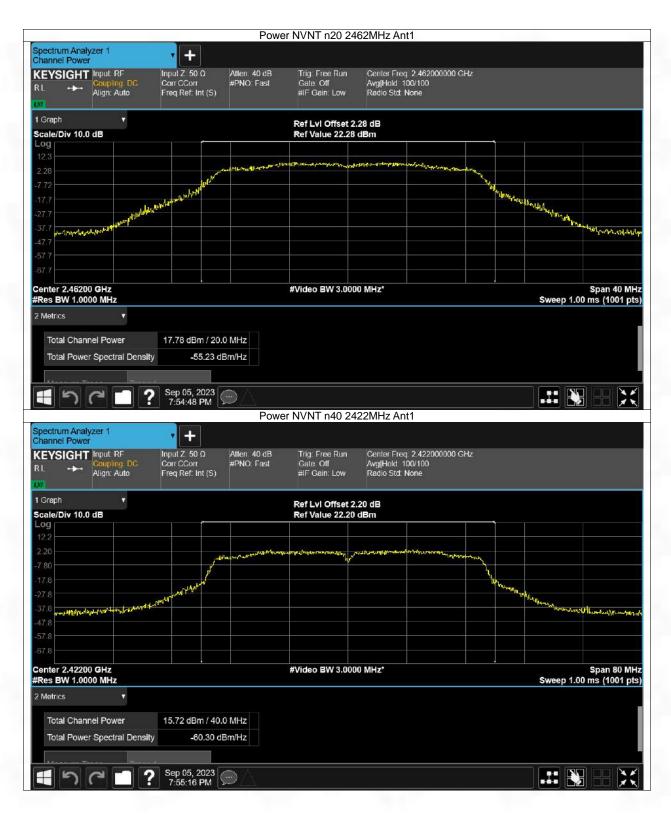




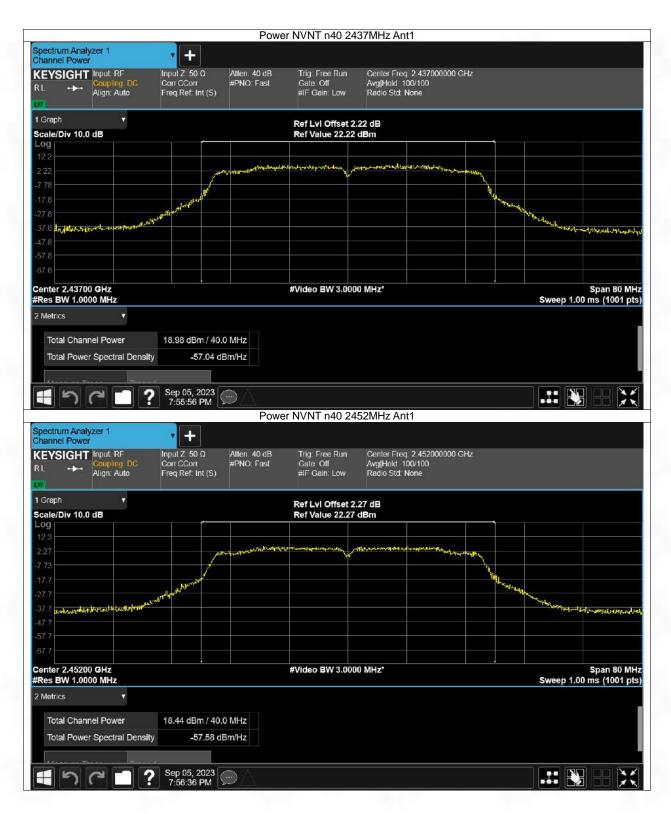




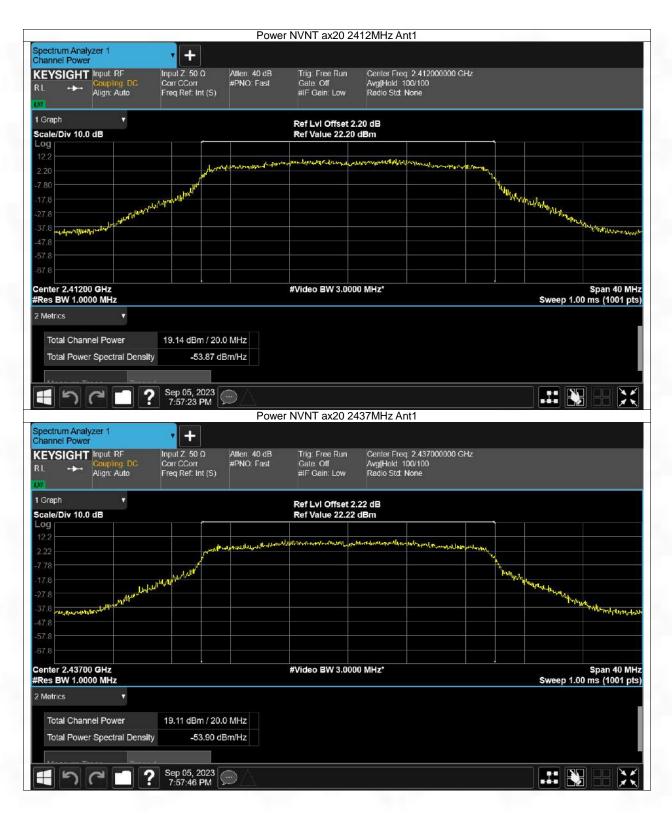




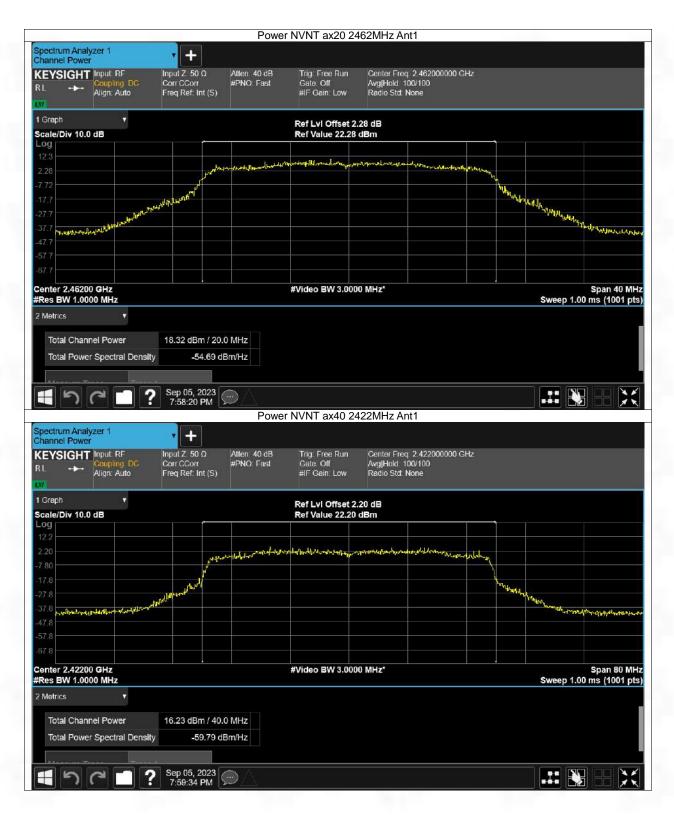




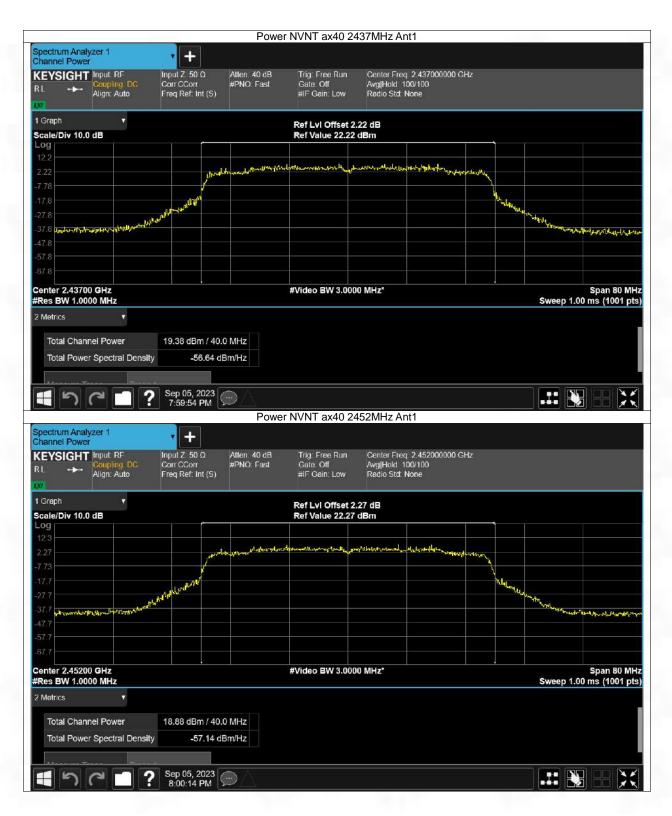














3. Maximum Power Spectral Density

3.1 PSD

3.1.1 Test Result

ANT1

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
b	2412	-8.7	8	Pass
b	2437	-8.65	8	Pass
b	2462	-8.72	8	Pass
g	2412	-10.11	8	Pass
g	2437	-9.69	8	Pass
g	2462	-10.13	8	Pass
n20	2412	-11.12	8	Pass
n20	2437	-10.72	8	Pass
n20	2462	-10.95	8	Pass
n40	2422	-16.64	8	Pass
n40	2437	-13.02	8	Pass
n40	2452	-14.57	8	Pass
ax20	2412	-12.04	8	Pass
ax20	2437	-11.72	8	Pass
ax20	2462	-12.18	8	Pass
ax40	2422	-18.57	8	Pass
ax40	2437	-14.85	8	Pass
ax40	2452	-16.42	8	Pass

ANT2

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
b	2412	-9.17	8	Pass
b	2437	-8.77	8	Pass
b	2462	-8.83	8	Pass
g	2412	-10.37	8	Pass
g	2437	-9.96	8	Pass
g	2462	-10.08	8	Pass
n20	2412	-11.4	8	Pass
n20	2437	-11.22	8	Pass
n20	2462	-11.34	8	Pass
n40	2422	-17.03	8	Pass
n40	2437	-13.42	8	Pass
n40	2452	-14.87	8	Pass
ax20	2412	-12.51	8	Pass
ax20	2437	-12.12	8	Pass
ax20	2462	-12.56	8	Pass
ax40	2422	-18.8	8	Pass
ax40	2437	-15.26	8	Pass
ax40	2452	-16.7	8	Pass

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Test Report Number: BTF230918R00303

MIMO Mode

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
n20	2412	-8.25	8	Pass
n20	2437	-7.95	8	Pass
n20	2462	-8.13	8	Pass
n40	2422	-13.82	8	Pass
n40	2437	-10.21	8	Pass
n40	2452	-11.71	8	Pass
ax20	2412	-9.26	8	Pass
ax20	2437	-8.91	8	Pass
ax20	2462	-9.36	8	Pass
ax40	2422	-15.67	8	Pass
ax40	2437	-12.04	8	Pass
ax40	2452	-13.55	8	Pass

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3.1.2 Test Graph



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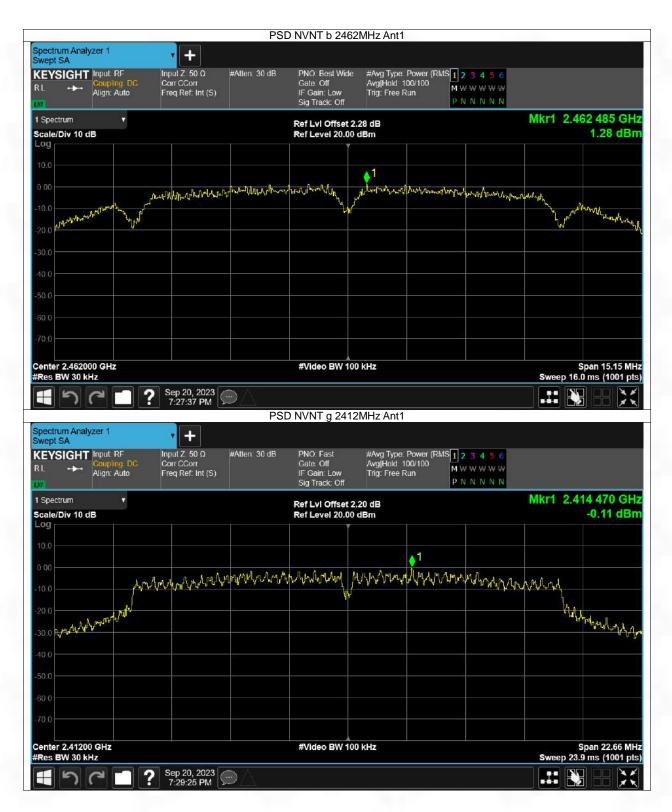


Test Report Number: BTF230918R00303

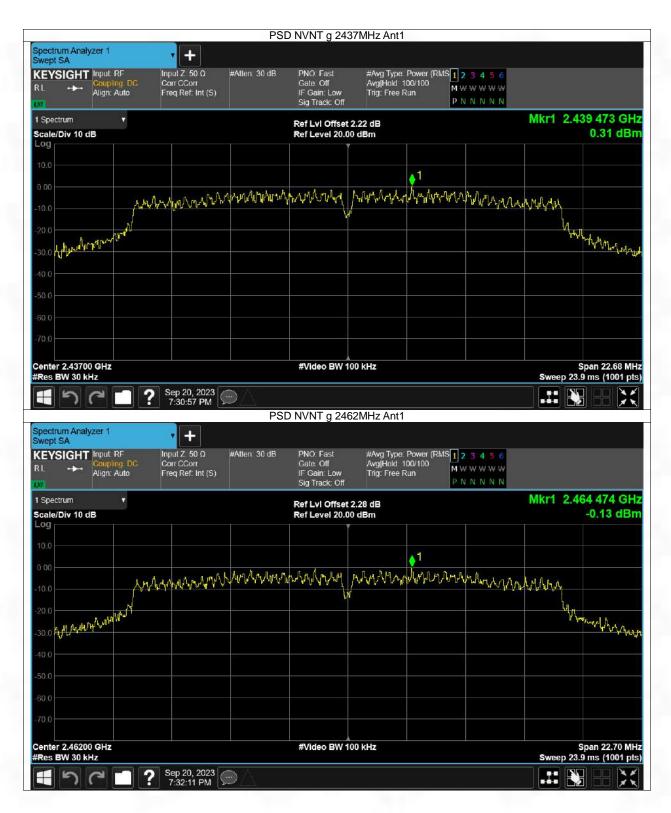


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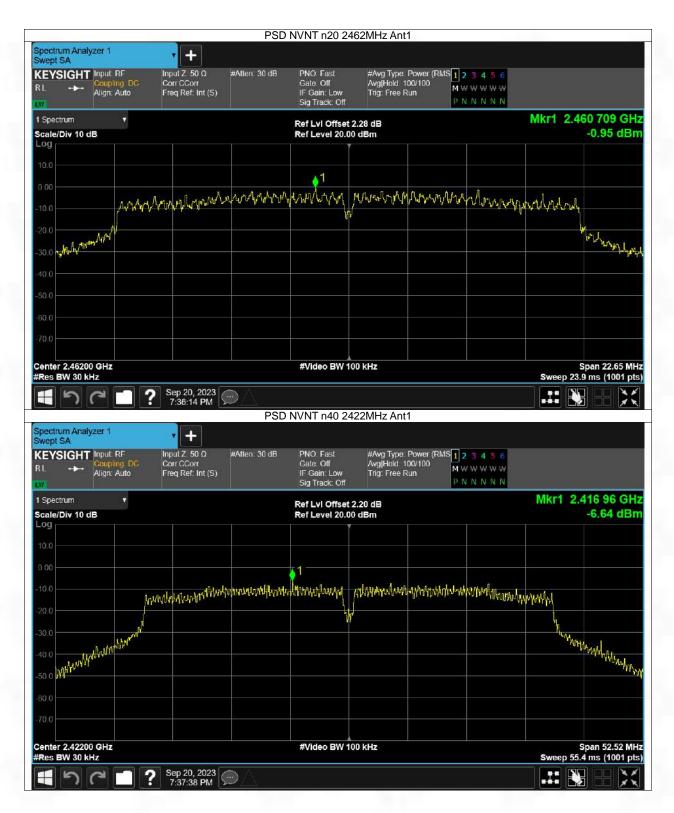




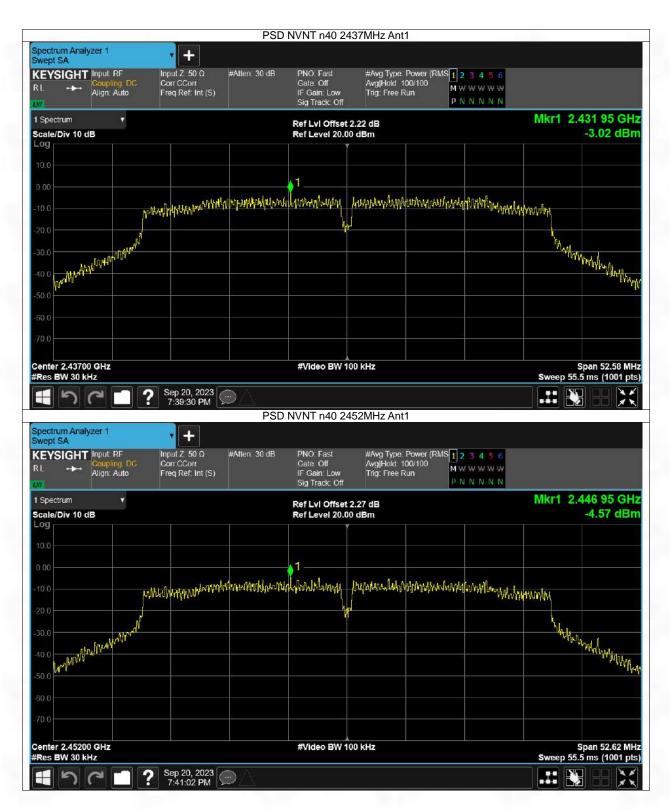
			PSD	NVNT n20 24	412MHz Ant	1			
Spectrum Ana Swept SA	llyzer 1	• +							
KEYSIGH RL ++-	T Input: RF Coupling DC Align: Auto	Input Ζ΄ 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Avg Hold_1 Trig: Free F	Run M	23456 vwwww NNNNN		
1 Spectrum Scale/Div 10	₹			Ref LvI Offset Ref Level 20.0				Mkr1 2.4	10 708 GH -1.12 dBn
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Center 2.412				#Video BW 1	00 kHz				Span 22.67 Mi 9 ms (1001 pt
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Spectrum Ana Swept SA	ilyzer 1	• +							
KEYSIGH RL +	T Input: RF Coupling DC Align: Auto	Input Ζ 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Avg Hold_1 Trig: Free F	Run M	23456 VWWWW NNNNN		
1 Spectrum Scale/Div 10	v dB			Ref Lvi Offset Ref Level 20.0				Mkr1 2.4	38 858 GH -0.72 dBr
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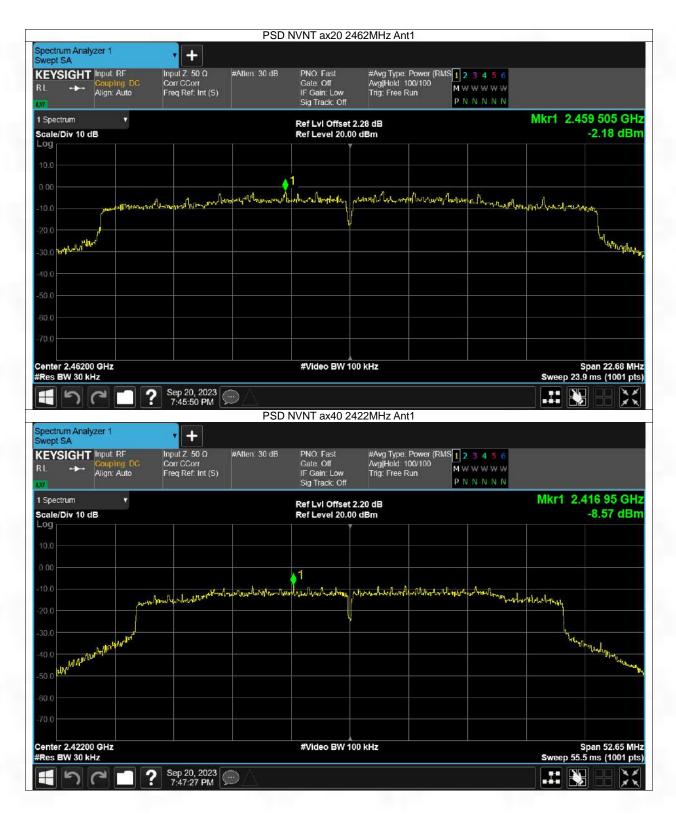




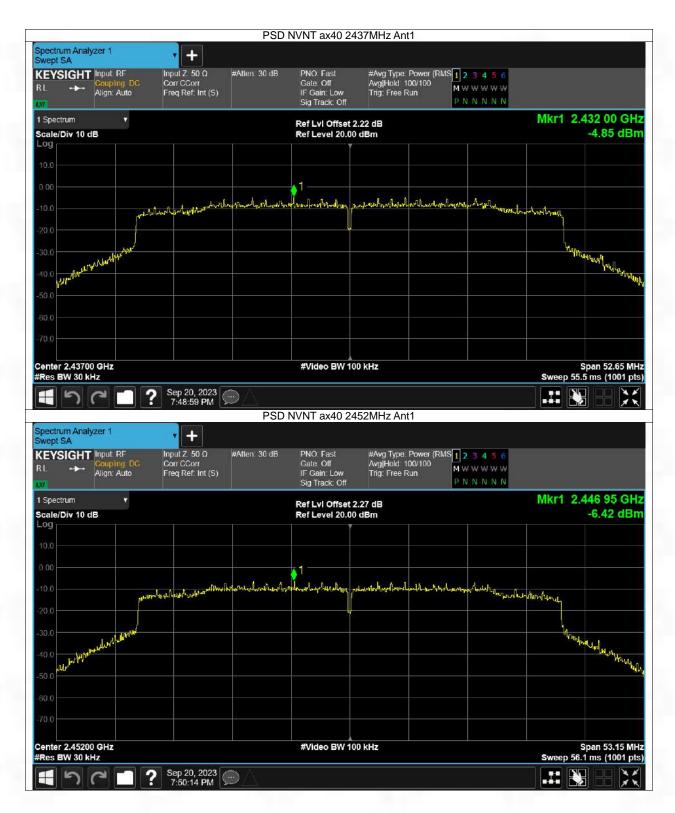












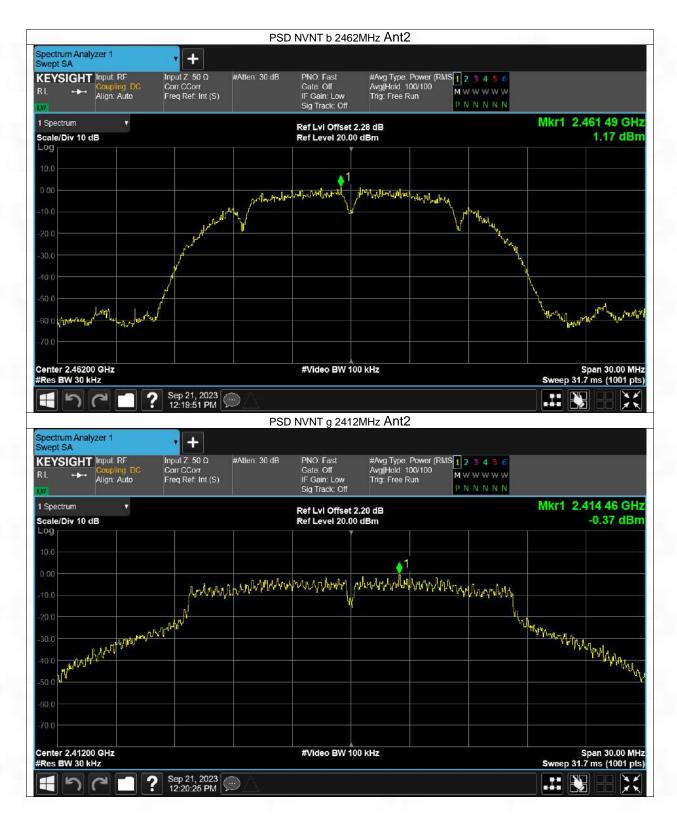


ANT2

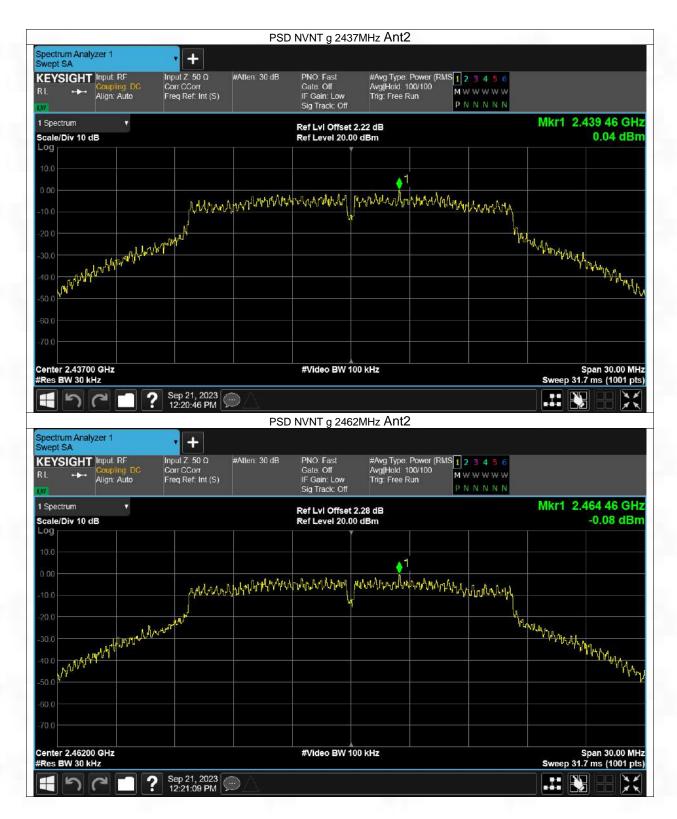


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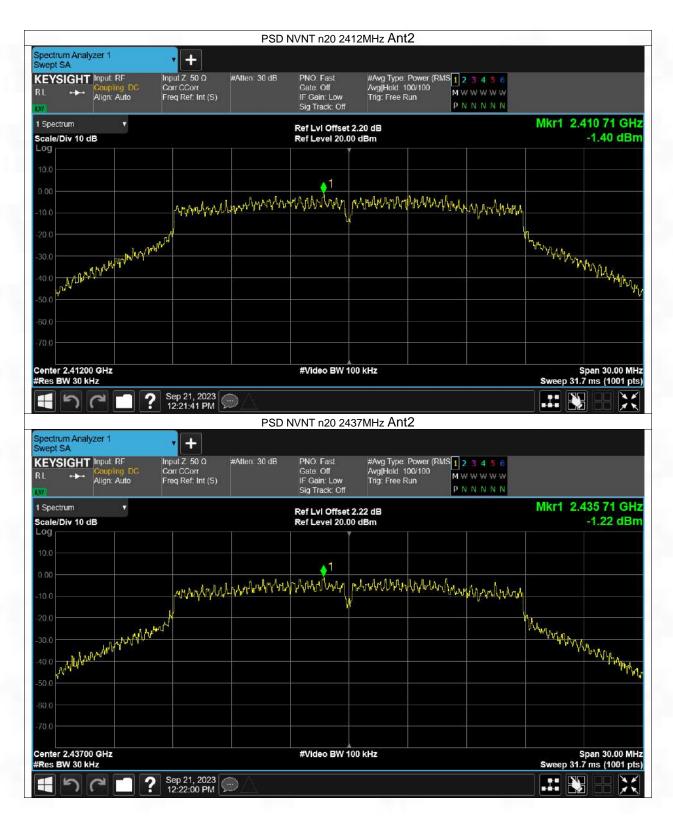




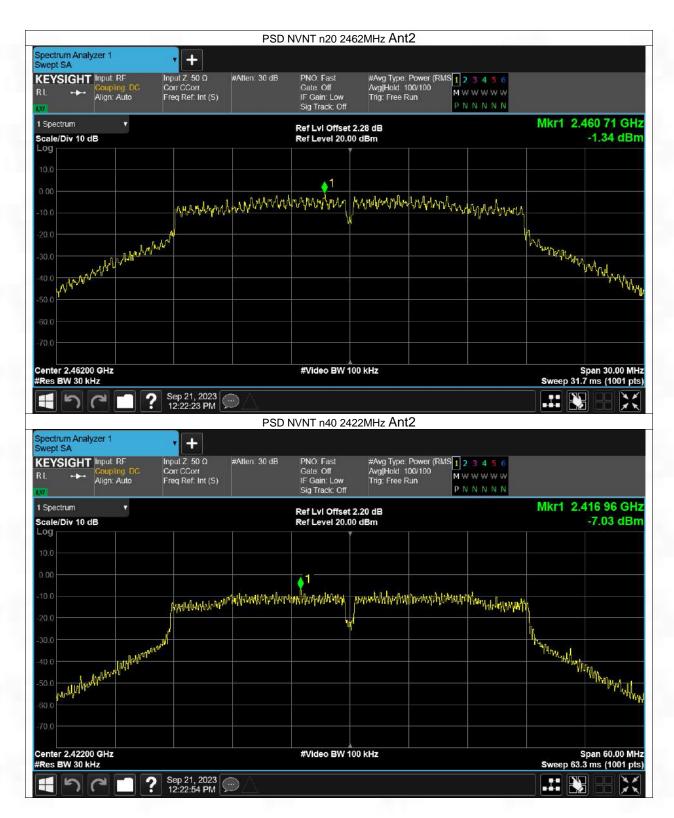




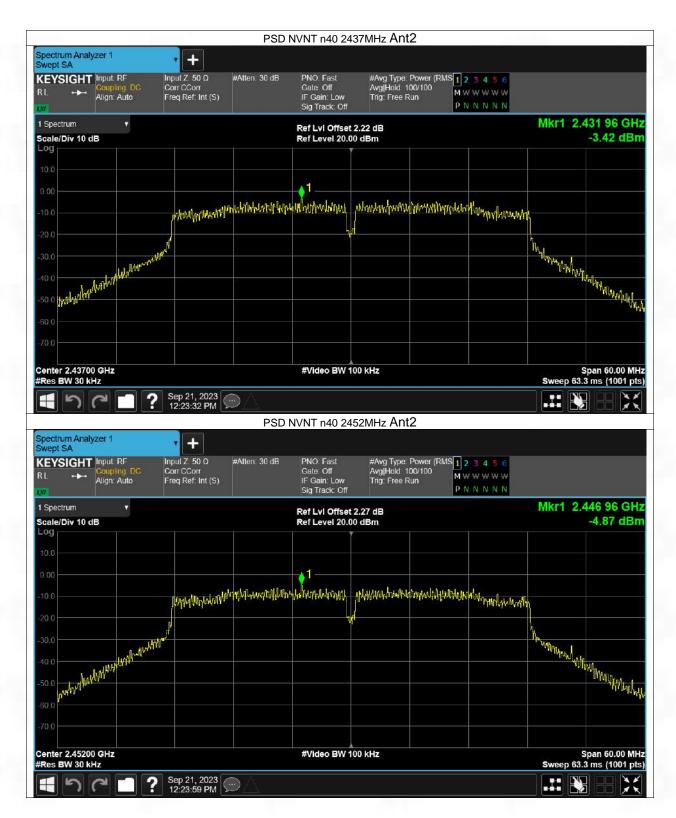




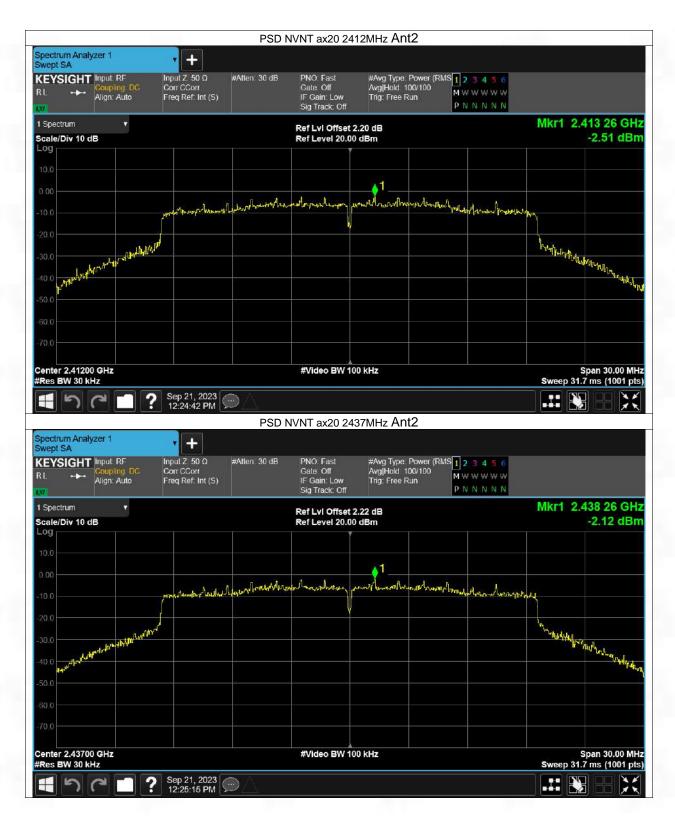




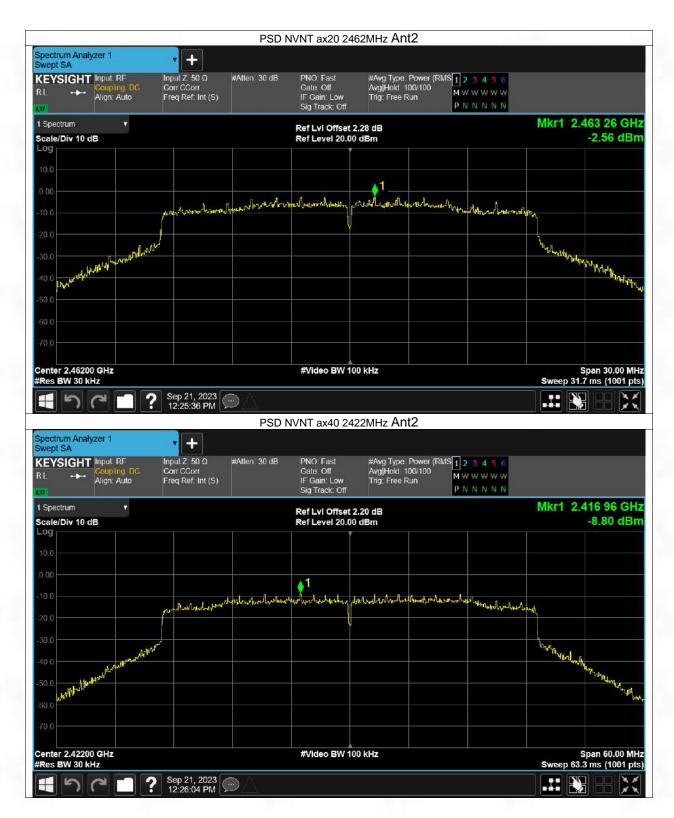




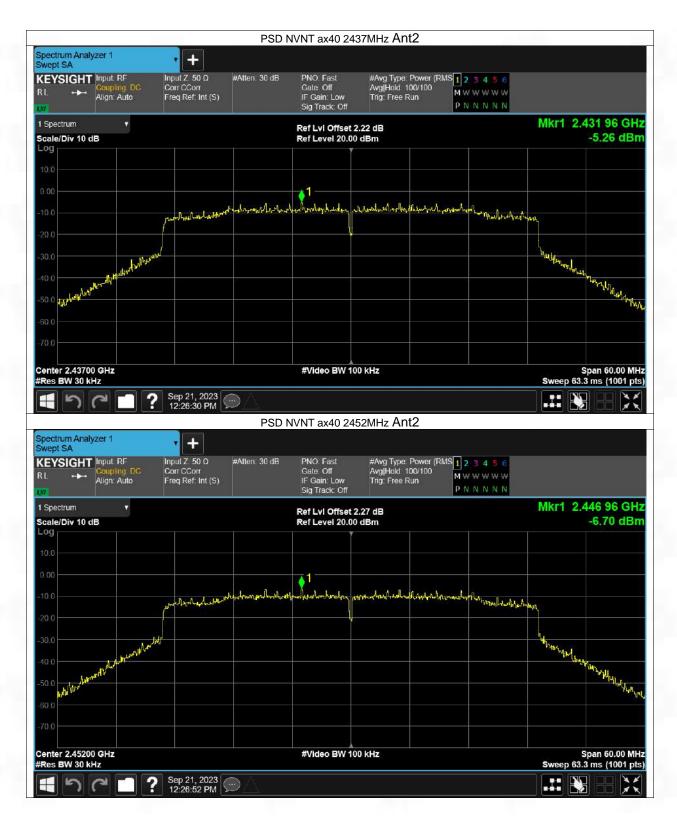














- 4. Unwanted Emissions In Non-restricted Frequency Bands
- 4.1 Test Result(pass)

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4.2 Test Graph



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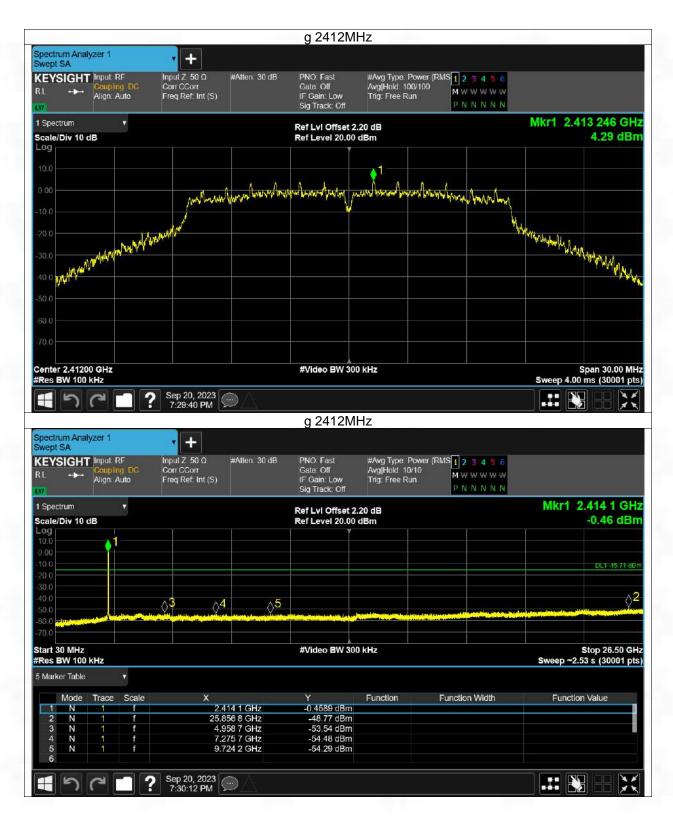




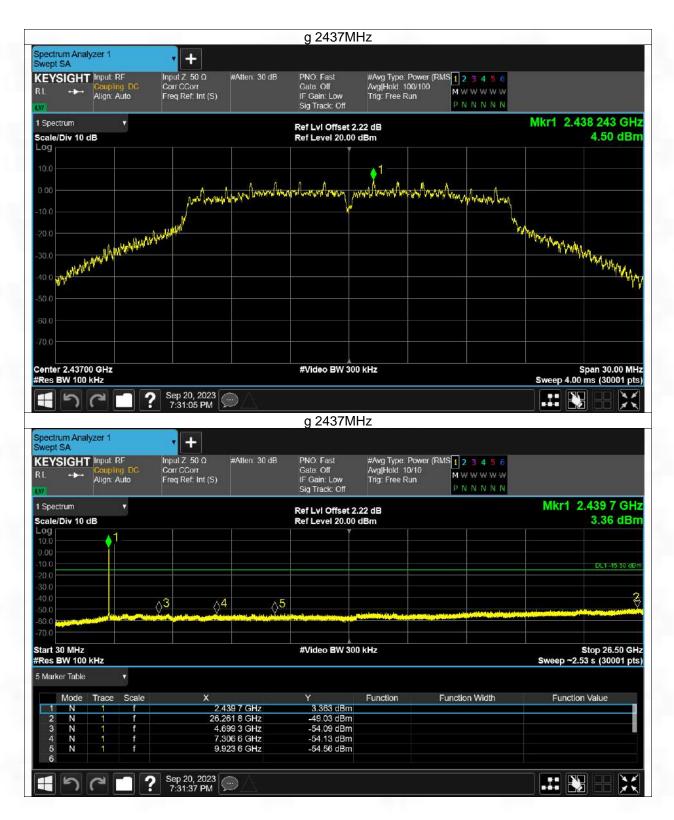




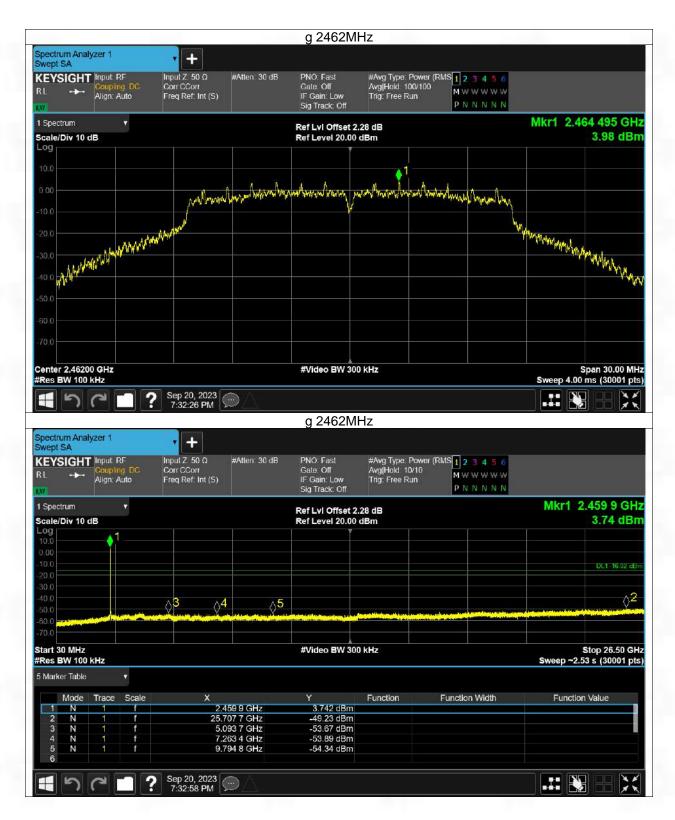




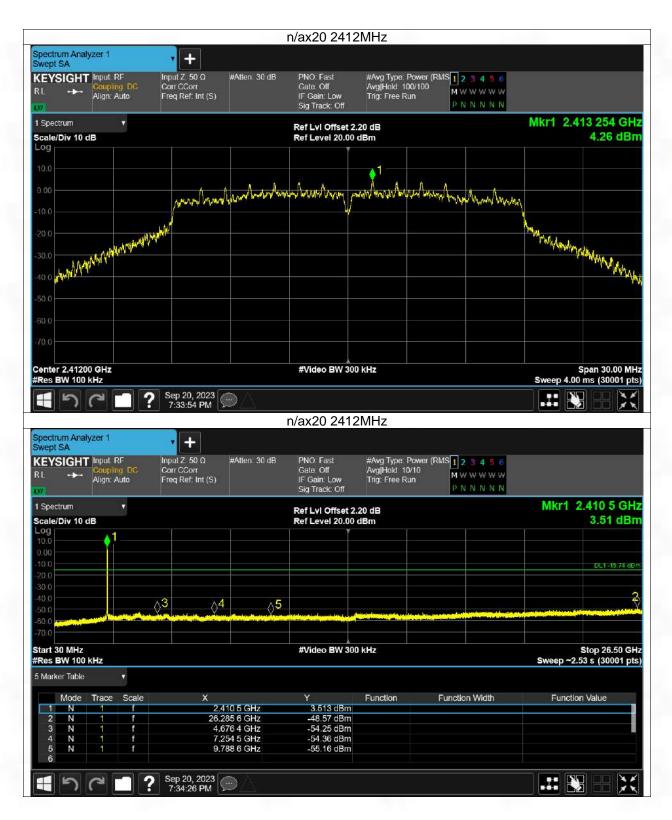












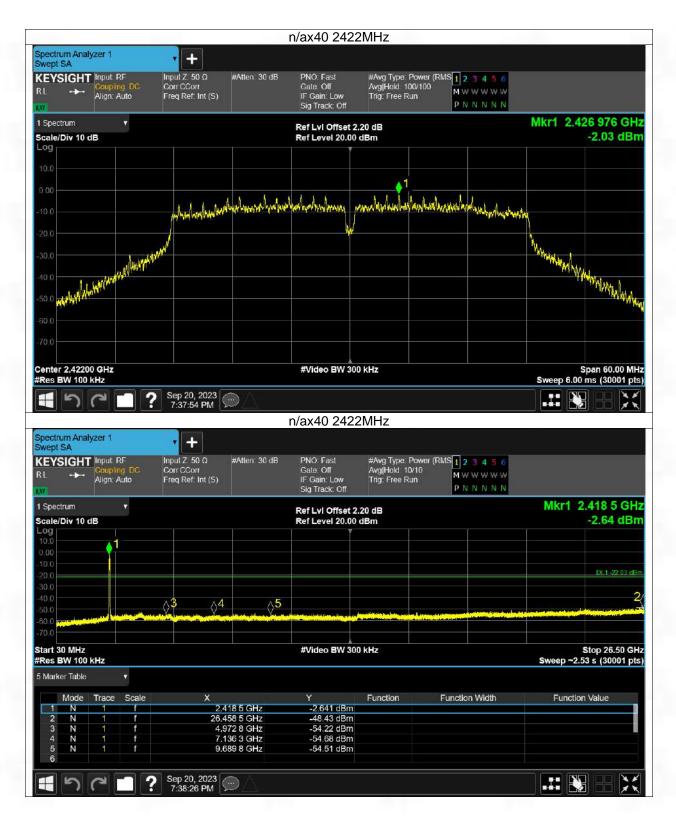




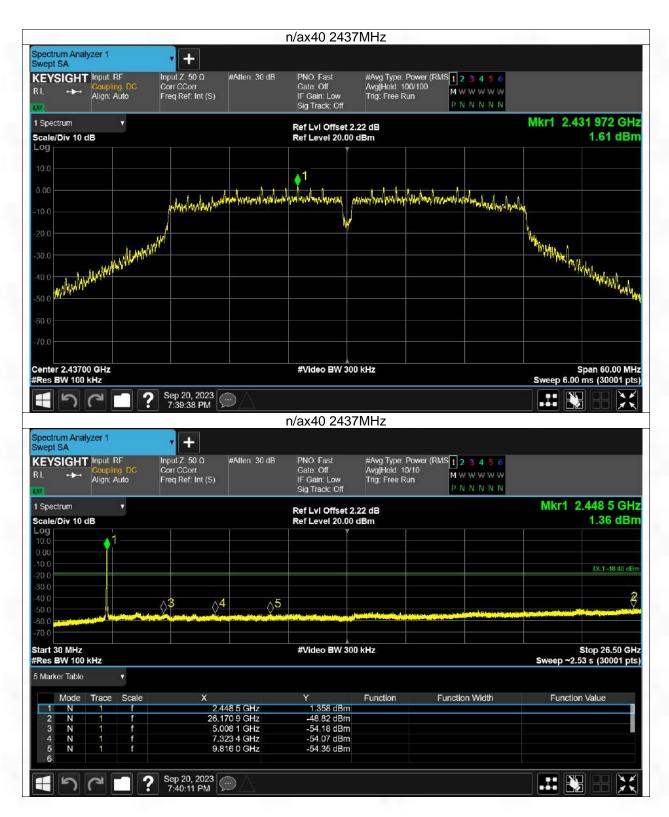




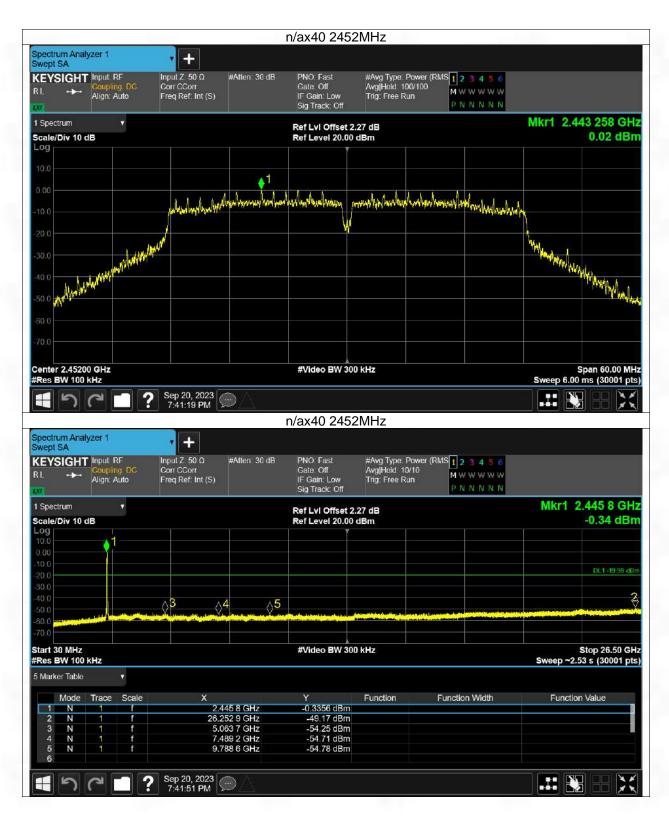














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