

Product Name: Acoustic Imaging Camera	Report No: ITEZA2-202400496RF3
Product Model: CRY8124, CRY8121, CRY8122, CRY8123, CRY8125, CRY8128, MPAC208, MPAC208-IECEX	Security Classification: Open
Version: V1.0	Total Page:86

TIRT Testing Report

Prepared By:	Checked By:	Approved By:	
Aaron Long	Stone Tang	Joky Wang	
			

FCC Radio Test Report

FCC ID: 2BM2S-CRY8120SERIES

According to

47 CFR FCC Part 15, Subpart C(Section 15.247)

ANSI C63.10:2013

Applicant:	Hangzhou Crysound Electronics Co.,Ltd.
Address:	NO.10, Xianqiao Road, Zhongtai Street, Yuhang District, Hangzhou, Zhejiang Province, China
Manufacturer:	Hangzhou Crysound Electronics Co.,Ltd.
Address:	NO.10, Xianqiao Road, Zhongtai Street, Yuhang District, Hangzhou, Zhejiang Province, China
Sample No:	1000052998
Product Name:	Acoustic Imaging Camera
Brand Name:	N/A
Model No.:	CRY8124, CRY8121, CRY8122, CRY8123, CRY8125, CRY8128, MPAC208, MPAC208-IECEX
Test No.:	CRY8124

Date of Receipt:	2024/12/26
Date of Test:	2024/12/26~2025/01/03
Issued Date:	2025/02/14
Testing Lab:	TIRT

Note: This report shall not be reproduced except in full, without the written approval of Beijing TIRT Technology Service Co.,Ltd Shenzhen.Laboratory.

This document may be altered or revised by Beijing TIRT Technology Service Co.,Ltd Shenzhen.Laboratory.Personnel only, and shall be noted in the revision section of the document. The test results of this report relate only to the tested sample identified in this report.

Table of Contents**Page**

REPORT ISSUED HISTORY	5
1 . SUMMARY OF TEST RESULTS	6
1.1 TEST FACILITY	7
1.2 MEASUREMENT UNCERTAINTY	7
1.3 TEST ENVIRONMENT CONDITIONS	8
2 . GENERAL INFORMATION	9
2.1 GENERAL DESCRIPTION OF EUT	9
2.2 DESCRIPTION OF TEST MODES	10
2.3 DUTY CYCLE	12
2.4 BLOCKDIAGRAMSHOWINGTHECONFIGURATIONOFSYSTEMTESTED	19
2.5 SUPPORT UNITS	19
3 .AC POWER LINE CONDUCTED EMISSIONS	20
3.1 LIMIT	20
3.2 TEST PROCEDURE	20
3.3 DEVIATIONFROMTESTSTANDARD	20
3.4 TESTSETUP	21
3.5 EUT OPERATION CONDITIONS	21
3.6 TEST RESULTS	21
4 . RADIATED EMISSIONS	22
4.1 LIMIT	22
4.2 TEST PROCEDURE	23
4.3 DEVIATIONFROMTESTSTANDARD	24
4.4 TESTSETUP	24
4.5 EUT OPERATIONCONDITIONS	26
4.6 TEST RESULTS - 9 KHZ TO 30MHZ	26
4.7 TEST RESULTS - 30 MHZTO 1000MHZ	26
4.8 TEST RESULTS- ABOVE 1000MHZ	26
5 .BANDWIDTH	27
5.1 LIMIT	27
5.2 TEST PROCEDURE	27
5.3 DEVIATION FROM STANDARD	27
5.4 TEST SETUP	27
5.5 EUT OPERATION CONDITIONS	27
5.6 TESTRESULTS	27

Table of Contents	Page
6 .MAXIMUM OUTPUT POWER	28
6.1 LIMIT	28
6.2 TEST PROCEDURE	28
6.3 DEVIATION FROM STANDARD	28
6.4 TEST SETUP	28
6.5 EUT OPERATION CONDITIONS	28
6.6 TESTRESULTS	28
7 .CONDUCTED SPURIOUS EMISSIONS	29
7.1 LIMIT	29
7.2 TEST PROCEDURE	29
7.3 DEVIATION FROM STANDARD	29
7.4 TEST SETUP	29
7.5 EUT OPERATION CONDITIONS	29
7.6 TESTRESULTS	29
8 .POWER SPECTRAL DENSITY	30
8.1 LIMIT	30
8.2 TEST PROCEDURE	30
8.3 DEVIATION FROM STANDARD	30
8.4 TEST SETUP	30
8.5 EUT OPERATION CONDITIONS	30
8.6 TESTRESULTS	30
9 . MEASUREMENT INSTRUMENTS LIST	31
10 .EUT TEST PHOTO	32
11. PHOTOS OF EUT	32
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS	33
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ	35
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ	36
APPENDIXD -RADIATED EMISSION- ABOVE 1000MHZ	38
APPENDIXE - BANDWIDTH	43
APPENDIXF - MAXIMUMOUTPUT POWER	57
APPENDIXG - CONDUCTED SPURIOUS EMISSIONS	58
APPENDIXH - POWER SPECTRAL DENSITY	80

REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
ITEZA2-202400496RF3	V1.0	OriginalReport.	2025.02.14	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS	-----
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	-----
15.247(e)	Power Spectral Density	APPENDIX H	PASS	-----
15.203	Antenna Requirement	-----	PASS	Note(2)

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST FACILITY

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen
Address:	104 Building C, Xinmingsheng Industrial Park No.132, Zhangge Old Village East Zone, Zhangge Community, Fucheng Street, Longhua District, Shenzhen, Guangdong, P. R. China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number:	6049.01
FCC Accredited Lab.Designation Number:	CN1366
FCC Test Firm Registration Number:	820690
Telephone:	+86-0755-27087573

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))
The TIRT measurement uncertainty as below table:

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	±142.12 KHz
RF power conducted	±0.74 dB
RF power radiated	±3.25dB
Spurious emissions, conducted	±1.78dB
Spurious emissions, radiated (30MHz~1GHz)	±4.6dB
Spurious emissions, radiated (1GHz~18GHz)	±4.9dB
Conduction Emissions(150kHz~30MHz)	±3.1 dB
Humidity	±4.6%
Temprature	±0.7°C
Time	±1.2%

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25.1°C	52%	DC 5V Power Adapter	Stone Tang
Radiated Emissions-9kHz to 30 MHz	24.5°C	50%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang
Radiated Emissions-30MHz to 1000MHz	24.2°C	53%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang
Radiated Emissions-Above 1000MHz	26.0°C	53%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang
Bandwidth	25.0°C	56%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang
Maximum Output Power	24.9°C	54%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang
Conducted Spurious Emissions	25.1°C	62%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang
Power Spectral Density	26.0°C	60%	DC 7.2V from battery or DC 5V Power Adapter	Stone Tang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Acoustic Imaging Camera
Brand Name	N/A
Test Model	CRY8124
Series Model	CRY8124, CRY8121, CRY8122, CRY8123, CRY8125, CRY8128, MPAC208, MPAC208-IECEX
Model Difference(s)	There is no difference except the name of the model
Software Version	V2.00
Hardware Version	V1.1
Power Rating	DC 7.2V from battery or DC 5V from Power Adapter
Operation Frequency	2412 MHz~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n :OFDM(64QAM, 16QAM, QPSK, BPSK)
Maximum Output Average Power	IEEE 802.11b: 14.18dBm (0.026182W)

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20)							
CH03 - CH09 for IEEE 802.11n(HT40)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

Ant.	Manufactured	Model Name	Antenna Type	Connector	Gain (dBi)
1	Sunsky Technology Co.,Ltd.	S11	FPC	N/A	1.28

Note:

- The antenna gain is provided by the manufacturer.
- The antenna is for fixed use

2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11

Radiated emissions test- Above 1GHz	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11

Final Test Mode	Conducted RF test
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

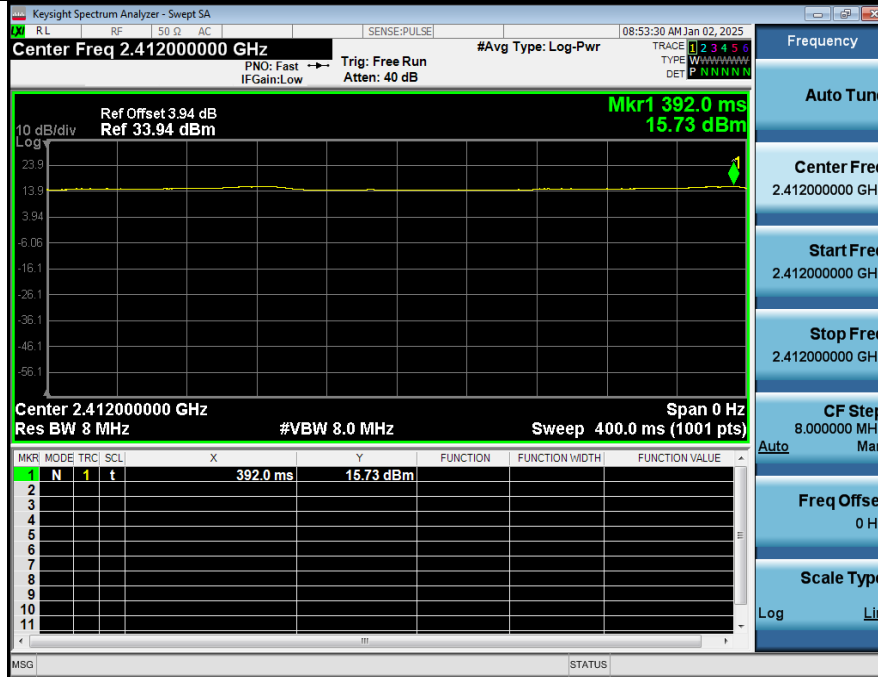
NOTE:

- (1) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (2) For radiated emission above 1 GHz test, the spurious points of 1GHz~18GHz and 18GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

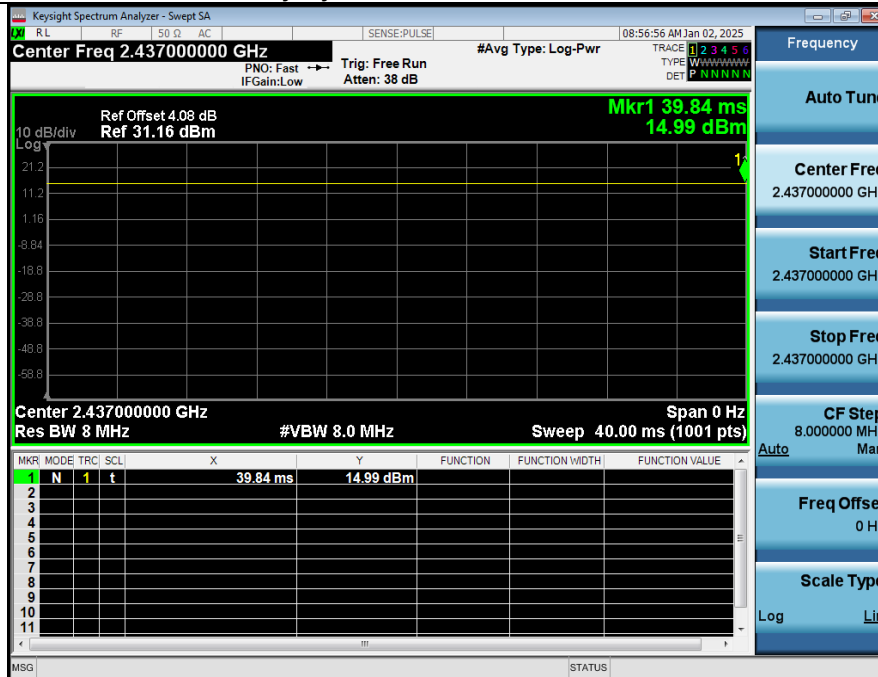
2.3 DUTY CYCLE

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	100	0.00
NVNT	ANT1	802.11b	2437.00	100	0.00
NVNT	ANT1	802.11b	2462.00	100	0.00
NVNT	ANT1	802.11g	2412.00	97.90	0.09
NVNT	ANT1	802.11g	2437.00	97.90	0.09
NVNT	ANT1	802.11g	2462.00	97.90	0.09
NVNT	ANT1	802.11n(HT20)	2412.00	97.76	0.10
NVNT	ANT1	802.11n(HT20)	2437.00	98.50	0.00
NVNT	ANT1	802.11n(HT20)	2462.00	97.76	0.10
NVNT	ANT1	802.11n(HT40)	2422.00	97.06	0.13
NVNT	ANT1	802.11n(HT40)	2437.00	97.06	0.13
NVNT	ANT1	802.11n(HT40)	2452.00	95.65	0.19

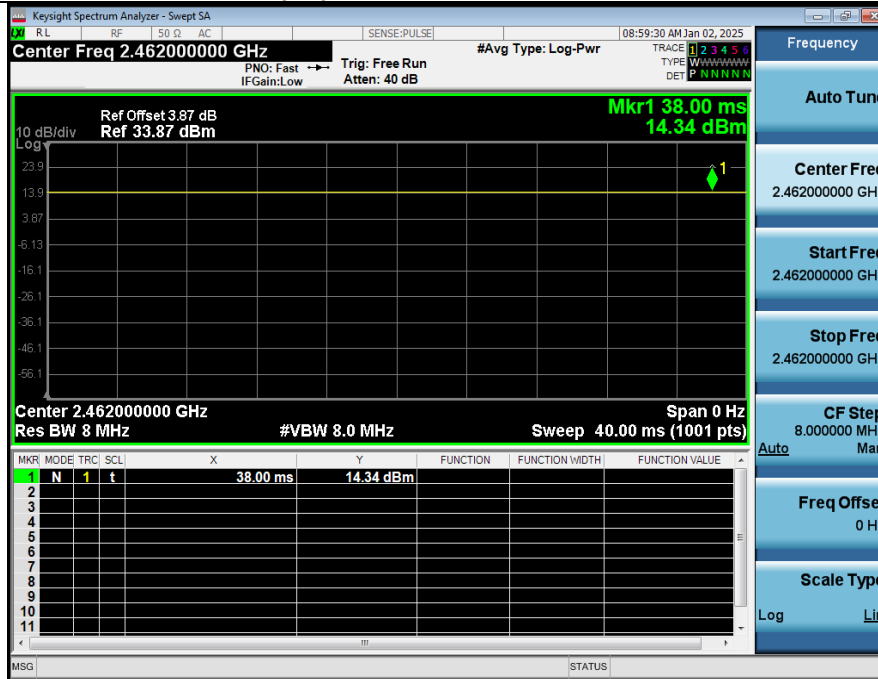
Duty Cycle NVNT_ANT1_802_11b_2412



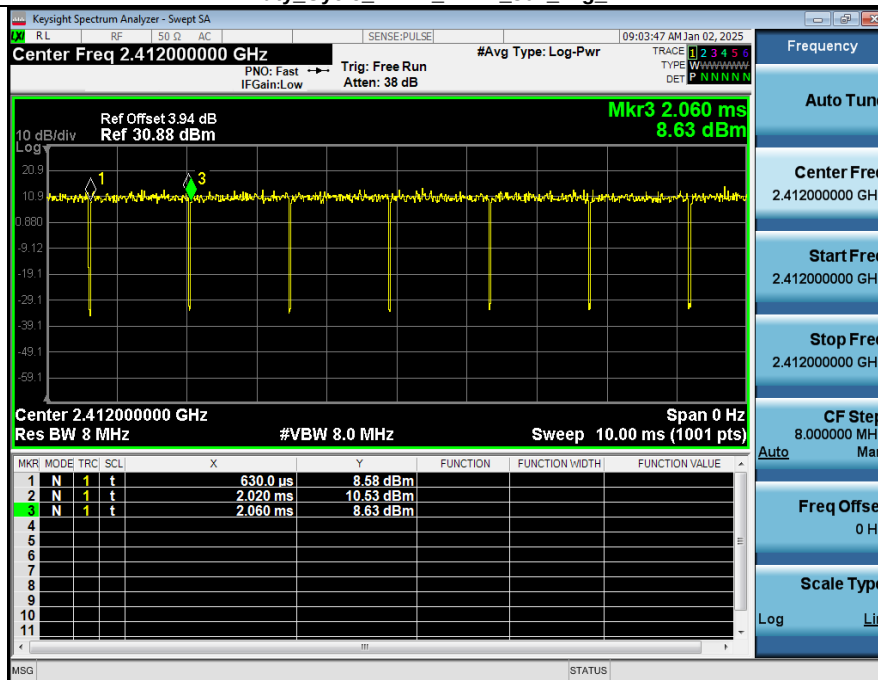
Duty Cycle NVNT_ANT1_802_11b_2437



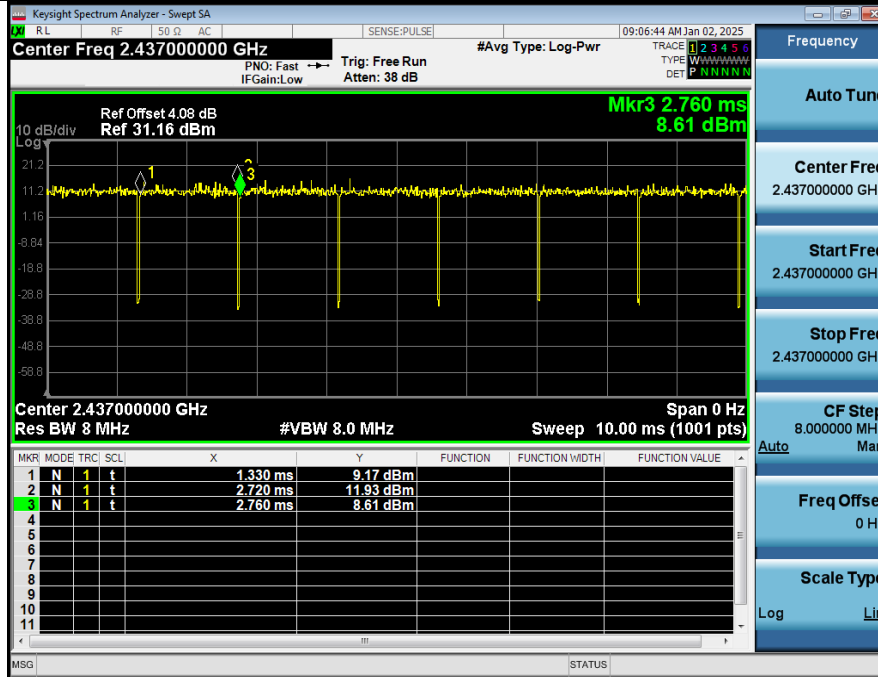
Duty Cycle NVNT_ANT1_802_11b_2462



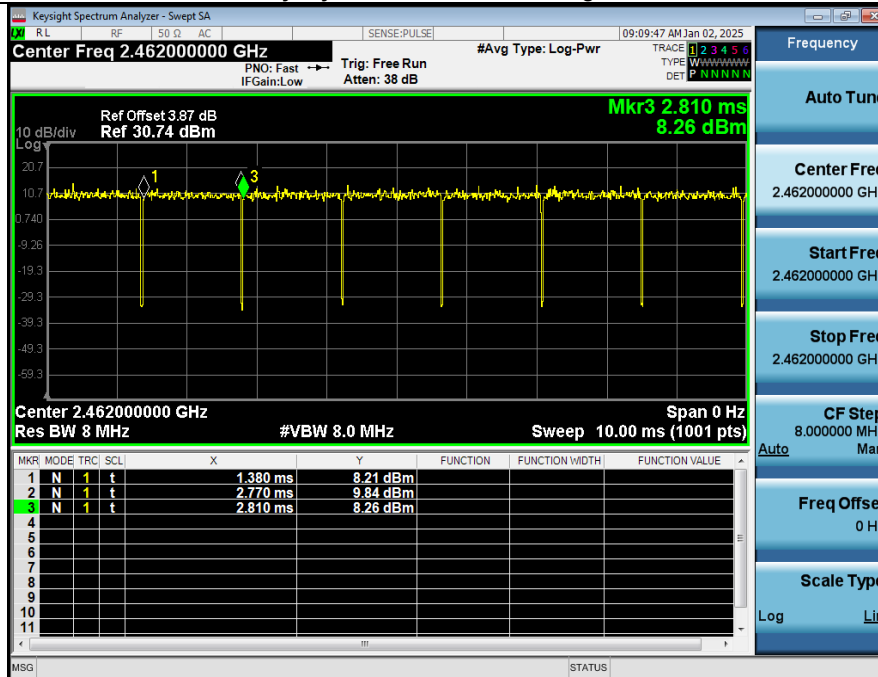
Duty Cycle NVNT_ANT1_802_11g_2412



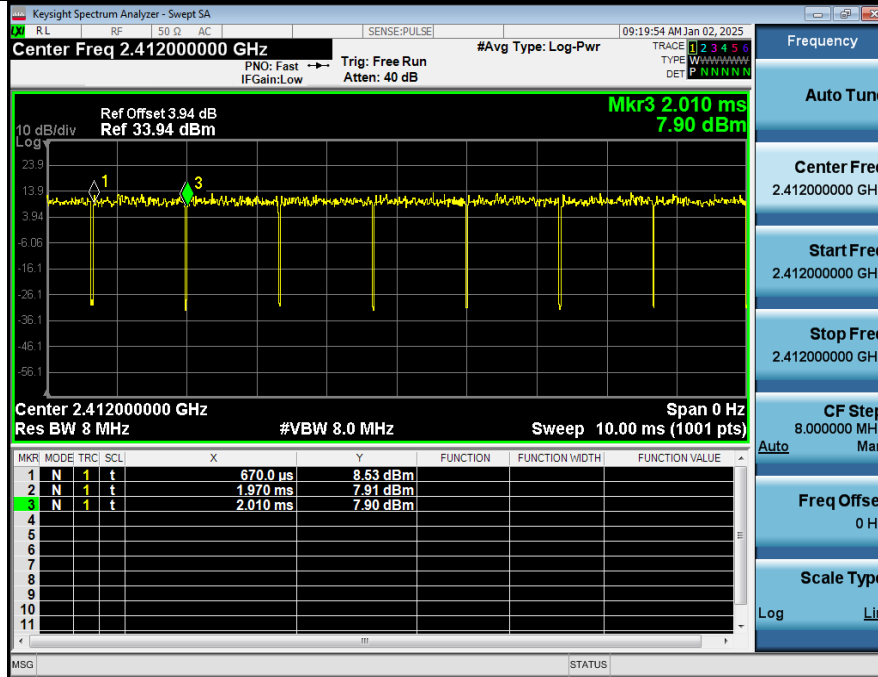
Duty Cycle NVNT ANT1 802 11g 2437



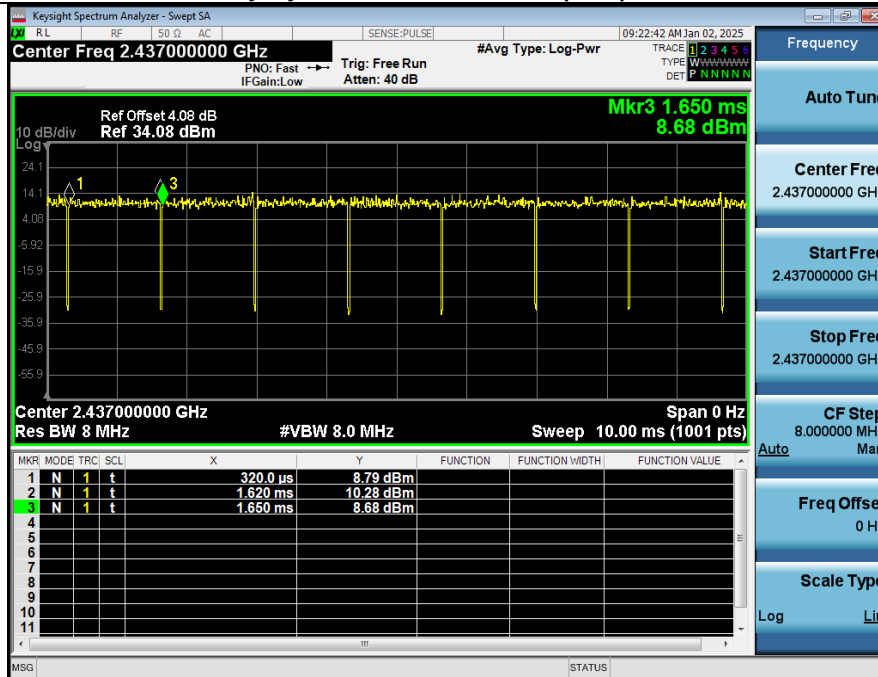
Duty Cycle NVNT ANT1 802 11g 2462



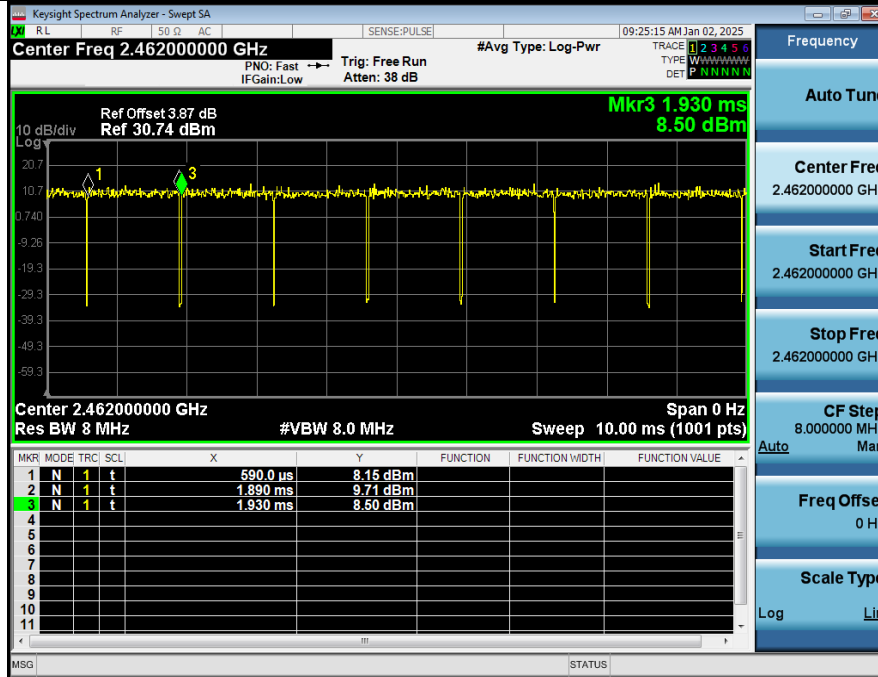
Duty Cycle NVNT_ANT1_802_11n(HT20)_2412



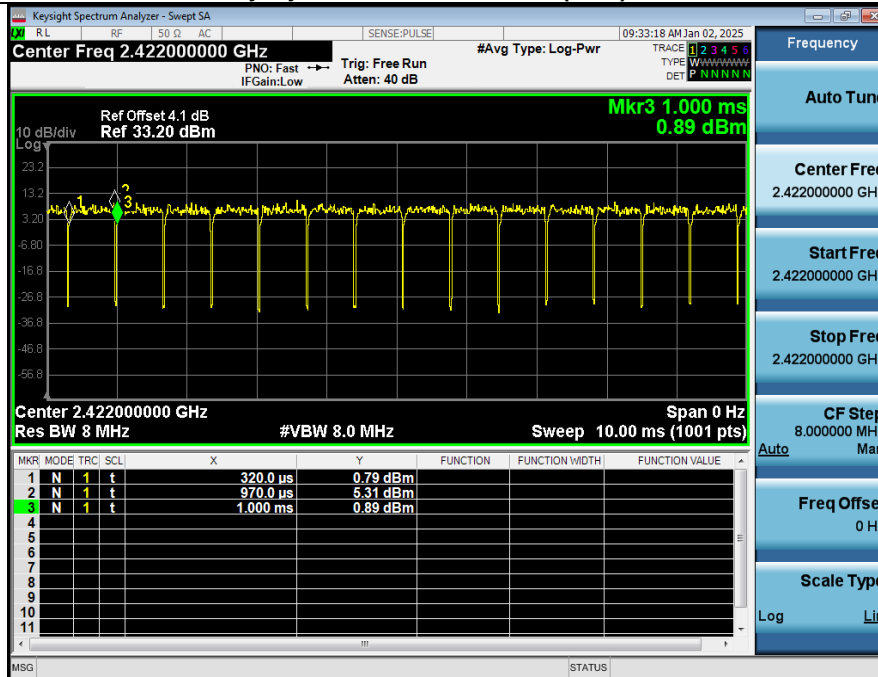
Duty Cycle NVNT_ANT1_802_11n(HT20)_2437



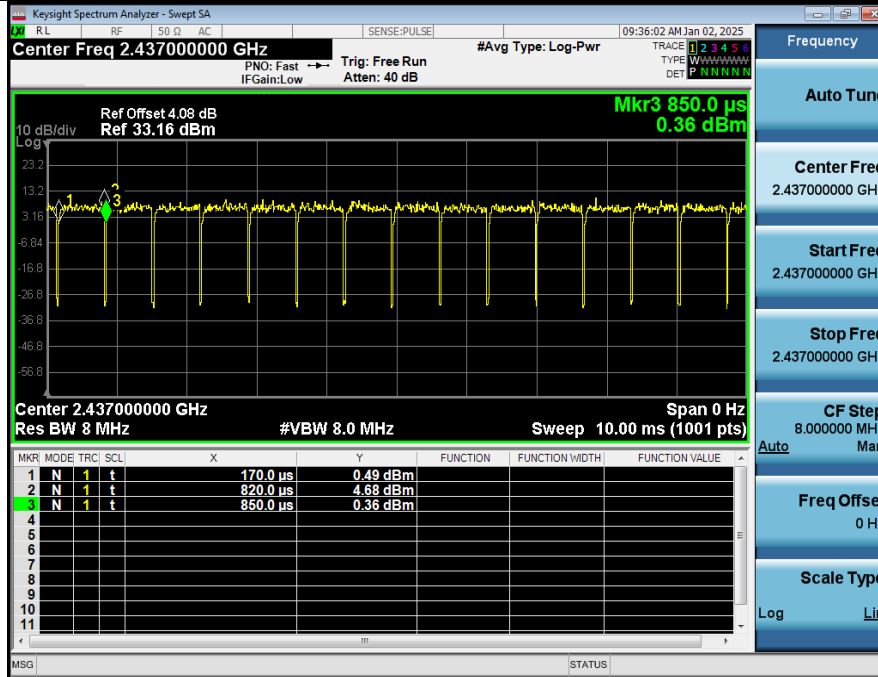
Duty Cycle NVNT_ANT1_802_11n(HT20)_2462



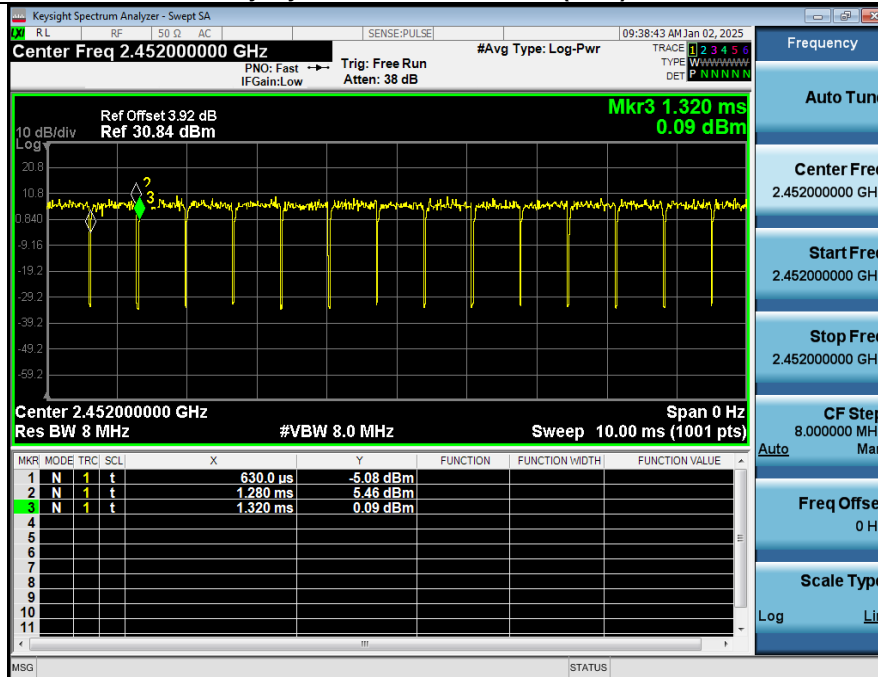
Duty Cycle NVNT_ANT1_802_11n(HT40)_2422



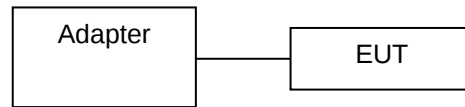
Duty Cycle NVNT_ANT1_802_11n(HT40)_2437



Duty Cycle NVNT_ANT1_802_11n(HT40)_2452



2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 SUPPORT UNITS

Support Equipment				
No.	Equipment	Brand Name	Model Name	Remarks
1	/	/	/	/

3.AC POWER LINE CONDUCTED EMISSIONS

3.1LIMIT

Frequency of Emission (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 -0.5	66to 56*	56 to 46*
0.5-5.0	56	46
5.0 -30.0	60	50

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

3.2TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the groundplane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

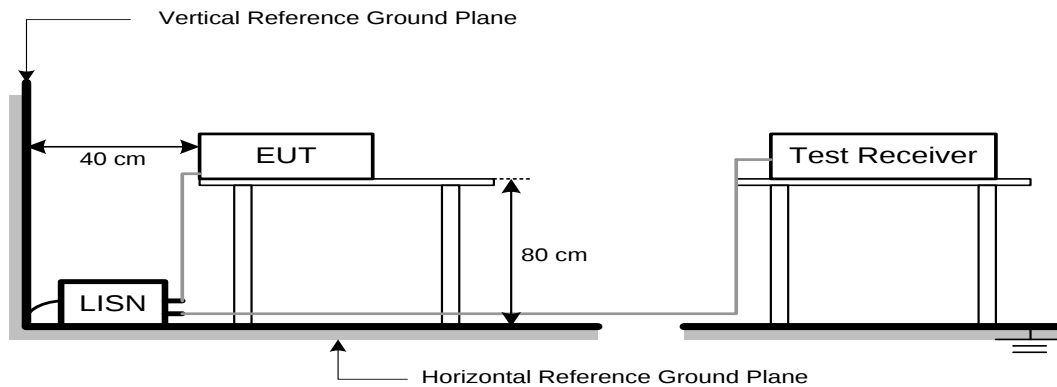
The following table is the setting of the receiver:

Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3DEVIATIONFROMTESTSTANDARD

No deviation.

3.4 TEST SETUP



The LISN edge is arranged parallel to the edge of the test table

The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT

3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000MHz)

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	(dBuV/m at 3 m)	
	Peak	Average
Above 1000	74	54

NOTE:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2 TEST PROCEDURE

- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
(below 1GHz)
- All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- For the actual test configuration, please refer to the related Item -EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for PK value 1MHz / 1/THz for AVG value

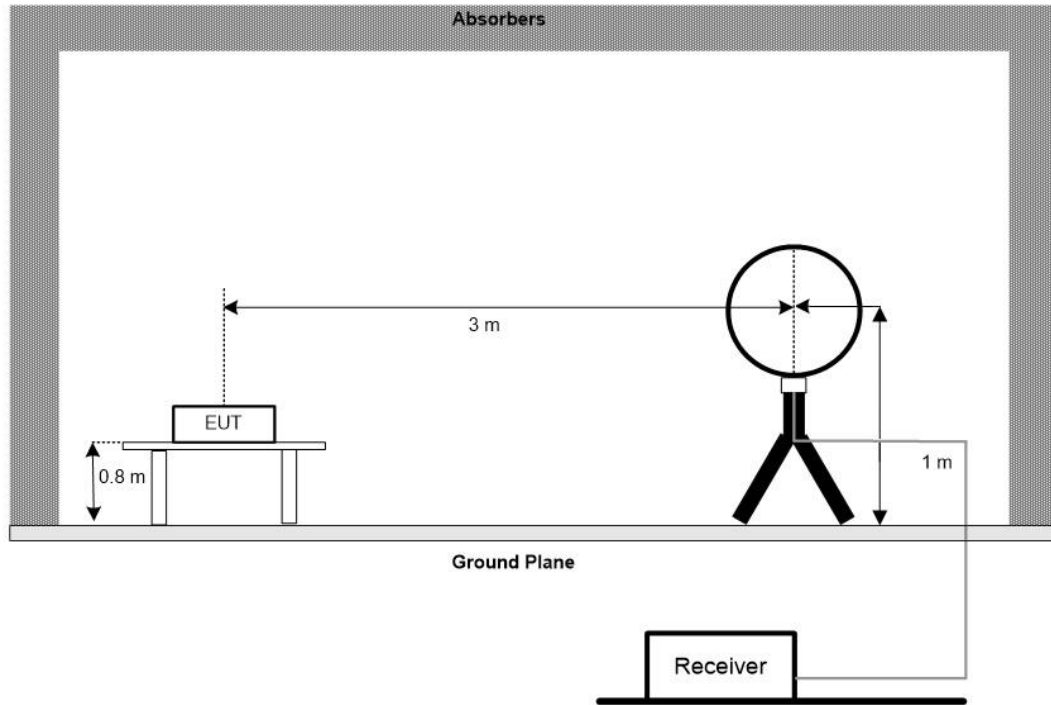
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

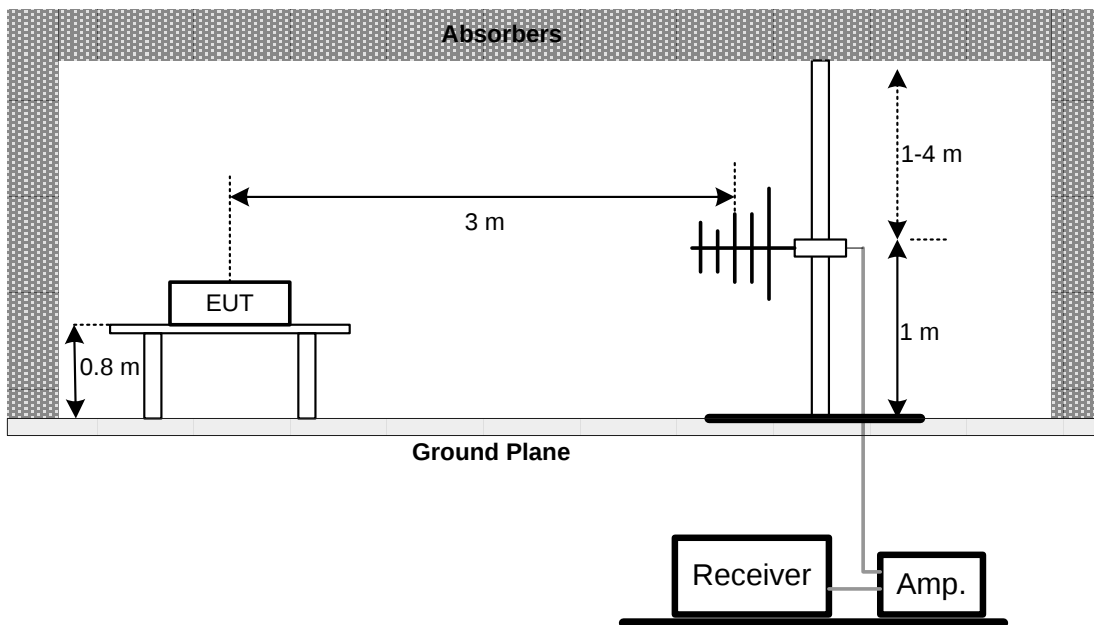
No deviation.

4.4 TEST SETUP

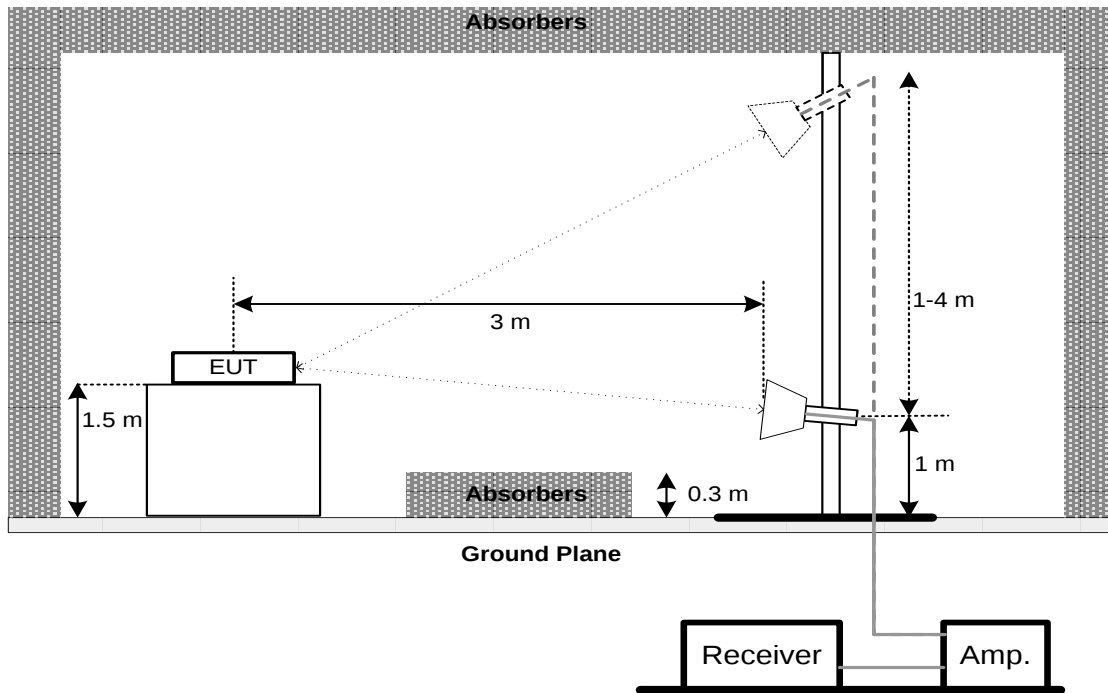
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 1 GHz



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS - 9 KHZ TO 30MHZ

Please refer to the APPENDIX B.

Remark:

- (1) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULTS - 30 MHZ TO 1000MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS- ABOVE 1000MHZ

Please refer to the APPENDIX D.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5.BANDWIDTH

5.1LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

5.2TEST PROCEDURE

- The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	> Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

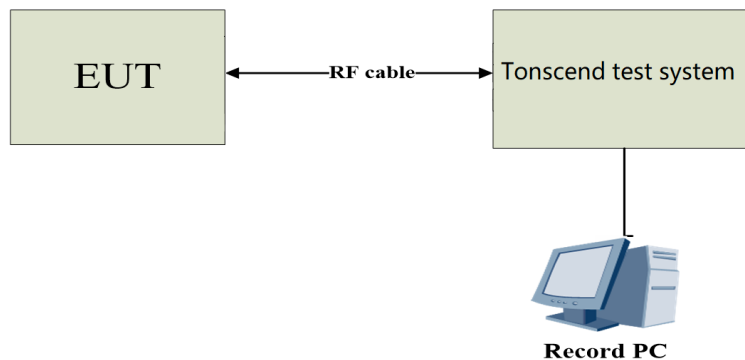
For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	300 kHz For 20MHz 1 MHz For 40MHz
VBW	1 MHz For 20MHz 3 MHz For 40MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3DEVIATION FROM STANDARD

No deviation.

5.4TEST SETUP



5.5EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6TESTRESULTS

Please refer to the APPENDIX E.

6.MAXIMUM OUTPUT POWER

6.1LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000Watt or 30.00 dBm

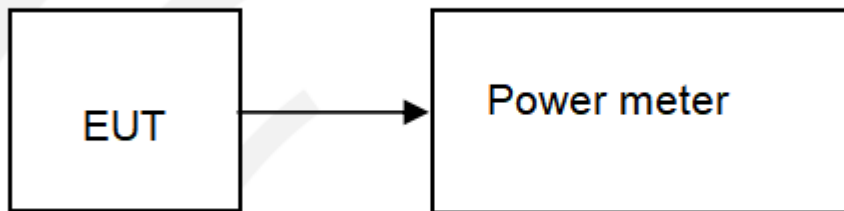
6.2TEST PROCEDURE

- The EUT was directly connected to the test system and antenna output port as show in the block diagram below.
- The transmitter output is connected to the RF Power meter. The Power meter is set to the peak power detection

6.3DEVIATION FROM STANDARD

No deviation.

6.4TEST SETUP



6.5EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6TEST RESULTS

Please refer to the APPENDIX F.

7.CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

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 Output Power limits. If the transmitter complies with the Output 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 Section 15.209(a) is not required.

7.2TEST PROCEDURE

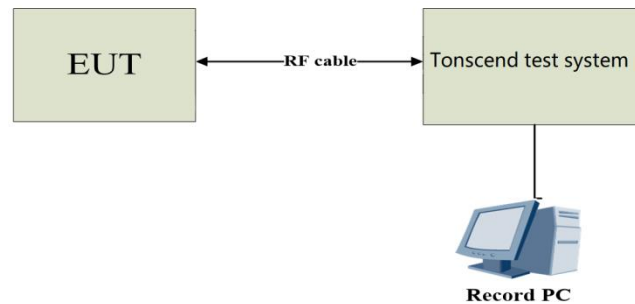
- The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.3DEVIATION FROM STANDARD

No deviation.

7.4TEST SETUP



7.5EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6TESTRESULTS

Please refer to the APPENDIX G.

8.POWER SPECTRAL DENSITY

8.1LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2TEST PROCEDURE

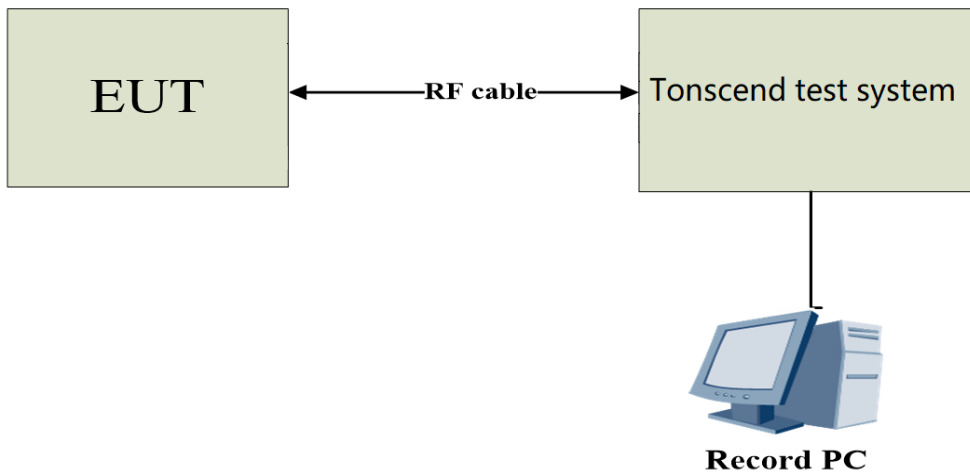
- The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	1.5 times the DTS bandwidth
RBW	3 kHz
VBW	10 kHz
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

8.3DEVIATION FROM STANDARD

No deviation.

8.4TEST SETUP



8.5EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6TESTRESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI Receiver	Rohde&Schwarz	ESIB 40	YH-TIRT-SAC-966-20220911	2024/01/05	2025/01/04
Integral Antenna	Schwarzbeck	VULB 9163	01314	2023/12/11	2025/12/10
Integral Antenna	Rohde&Schwarz	HF907	RSM2991424	2023/12/11	2025/12/10
Preamplifier	Emtrace	RP01A	'02017	2024/01/05	2025/01/04
Preamplifier	Schwarzbeck	BBV9744	00143	2024/01/05	2025/01/04
Loop Antenna	ZHINAN	ZN30900A	12024	2024/01/05	2025/01/04
Horn Antenna	Schwarzbeck	BBHA9170	00956	2024/01/05	2025/01/04
RF Cable	/	LMR400UF-NMNM-7.0M	/	2024/01/05	2025/01/04
RF Cable	/	SFT2050PUR-NMNM-7.0M	/	2024/01/05	2025/01/04
EMI Receiver	Rohde&Schwarz	ESR7	1316.3003K07-102611-mk	2024/11/02	2025/11/01
LISN	Rohde&Schwarz	ENV216	3560.655.12-102915-Bp	2024/11/02	2025/11/01
RF Cable	\	SFT2050PUR-NMNM-2.0M	\	2024/01/05	2025/01/04
Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2024/01/05	2025/01/04
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	101722	2024/01/05	2025/01/04
Filter	HEWLETT PACKARD	JS0806-F	19K8060209	2024/01/05	2025/01/04
RF Sensor Unit	Tachoy	TR1029-2	20220428P008	2024/01/05	2025/01/04

Remark: "N/A" denotes no model name, serial no. or calibration specified.

10.EUT TEST PHOTO

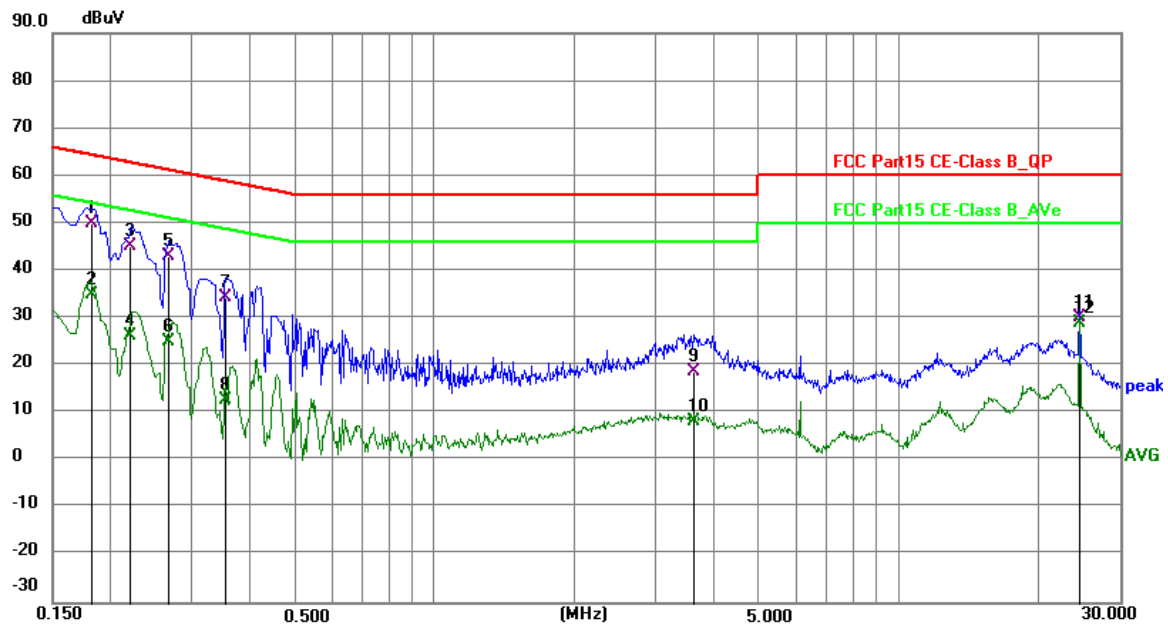
Please reference to the appendix I Test Setup Photo for details.

11. PHOTOS OF EUT

Please reference to the appendix II external photos and appendix III internal photos for details..

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode	TX B Mode Channel 06	Phase	Line
-----------	----------------------	-------	------

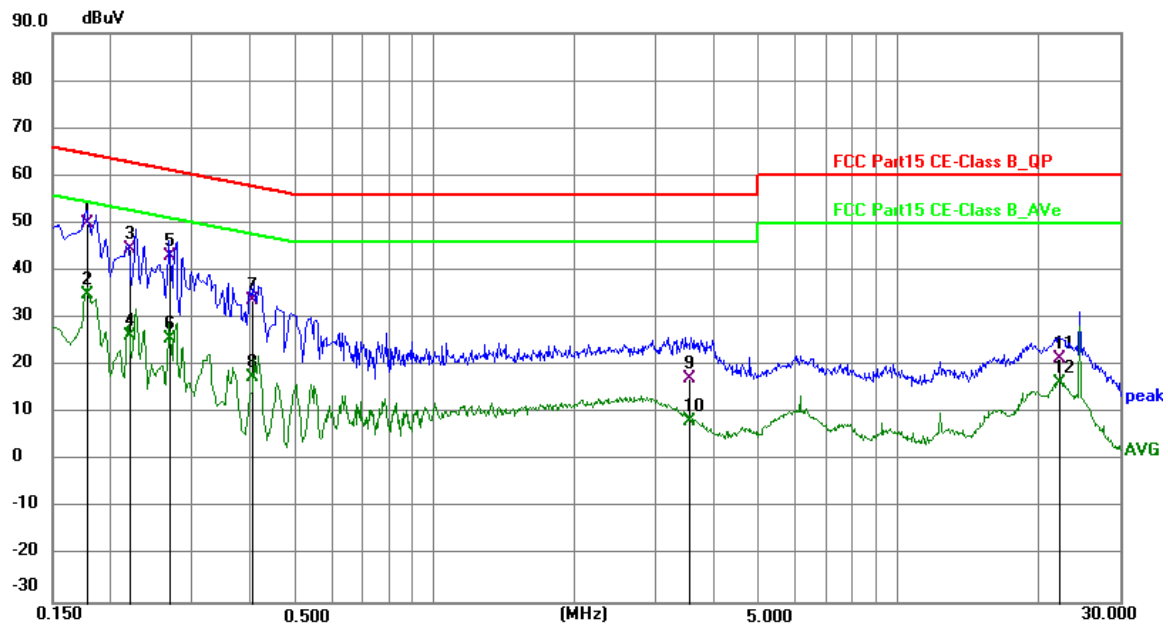


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.1823	40.28	9.63	49.91	64.38	-14.47	QP	P	
2	0.1823	25.43	9.63	35.06	54.38	-19.32	AVG	P	
3	0.2201	35.50	9.63	45.13	62.82	-17.69	QP	P	
4	0.2201	16.60	9.63	26.23	52.82	-26.59	AVG	P	
5	0.2671	33.33	9.63	42.96	61.21	-18.25	QP	P	
6	0.2671	15.37	9.63	25.00	51.21	-26.21	AVG	P	
7	0.3542	24.68	9.63	34.31	58.86	-24.55	QP	P	
8	0.3542	3.27	9.63	12.90	48.86	-35.96	AVG	P	
9	3.6203	9.23	9.67	18.90	56.00	-37.10	QP	P	
10	3.6203	-1.37	9.67	8.30	46.00	-37.70	AVG	P	
11	24.5769	20.33	9.76	30.09	60.00	-29.91	QP	P	
12	24.5769	19.27	9.76	29.03	50.00	-20.97	AVG	P	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX B Mode Channel 06	Phase	Neutral
-----------	----------------------	-------	---------



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.1787	40.26	9.63	49.89	64.55	-14.66	QP	P	
2	0.1787	25.25	9.63	34.88	54.55	-19.67	AVG	P	
3	0.2199	34.97	9.63	44.60	62.82	-18.22	QP	P	
4	0.2199	16.48	9.63	26.11	52.82	-26.71	AVG	P	
5	0.2686	33.41	9.62	43.03	61.16	-18.13	QP	P	
6	0.2686	16.00	9.62	25.62	51.16	-25.54	AVG	P	
7	0.4042	24.05	9.62	33.67	57.77	-24.10	QP	P	
8	0.4042	8.01	9.62	17.63	47.77	-30.14	AVG	P	
9	3.5709	7.49	9.67	17.16	56.00	-38.84	QP	P	
10	3.5709	-1.29	9.67	8.38	46.00	-37.62	AVG	P	
11	22.2111	11.60	9.82	21.42	60.00	-38.58	QP	P	
12	22.2111	6.43	9.82	16.25	50.00	-33.75	AVG	P	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

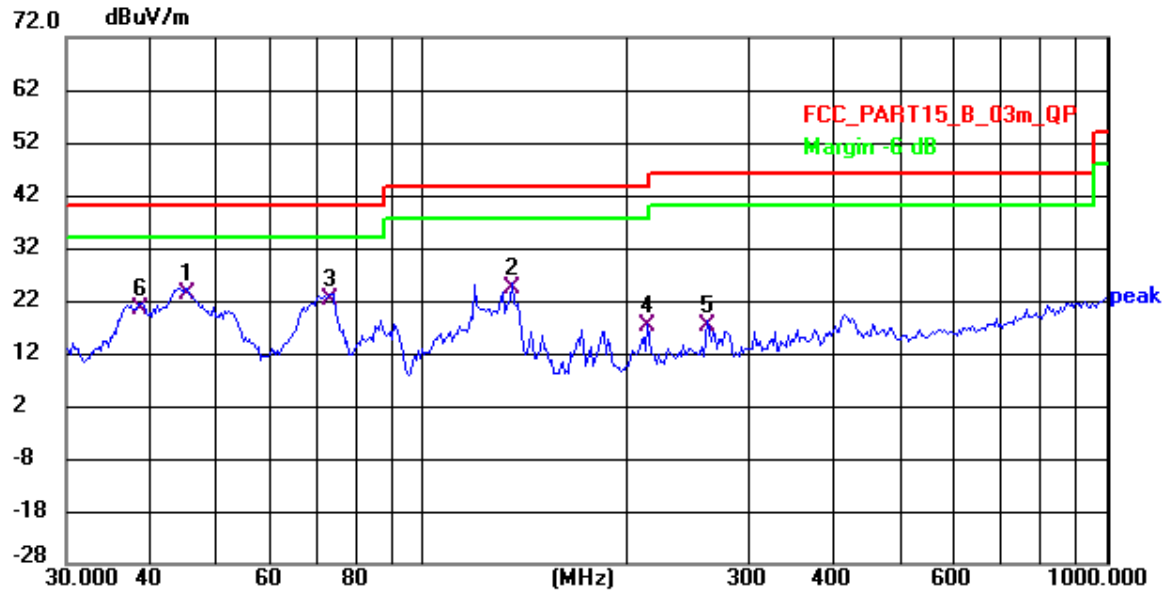
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode	TX B Mode Channel 06	Polarization	Vertical
-----------	----------------------	--------------	----------

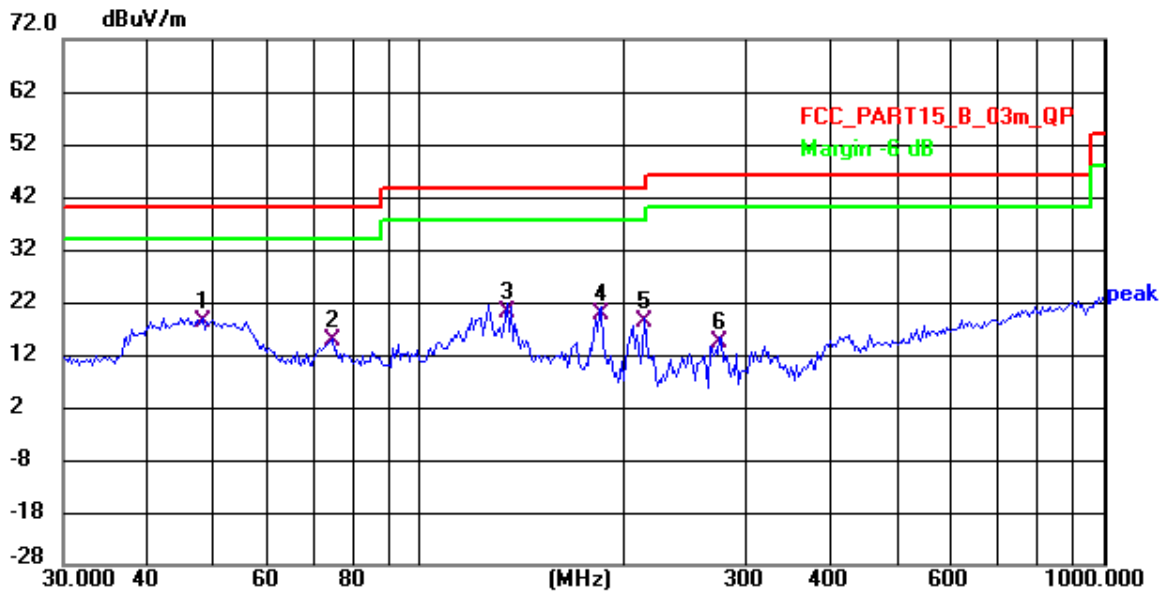


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	45.095	42.62	-19.52	23.10	40.00	-16.90	QP	100	199	P	
2	134.964	45.65	-21.45	24.20	43.50	-19.30	QP	100	236	P	
3	73.233	44.89	-22.77	22.12	40.00	-17.88	QP	100	145	P	
4	213.103	42.73	-25.38	17.35	43.50	-26.15	QP	100	0	P	
5	261.273	40.33	-23.32	17.01	46.00	-28.99	QP	100	147	P	
6	38.636	39.89	-19.38	20.51	40.00	-19.49	QP	100	32	P	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX B Mode Channel 06	Polarization	Horizontal
-----------	----------------------	--------------	------------



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 *	48.039	37.63	-19.49	18.14	40.00	-21.86	QP	200	47	P	
2	74.269	37.61	-22.99	14.62	40.00	-25.38	QP	200	145	P	
3	134.019	41.49	-21.48	20.01	43.50	-23.49	QP	200	63	P	
4	183.866	43.15	-23.32	19.83	43.50	-23.67	QP	100	83	P	
5	213.103	43.70	-25.38	18.32	43.50	-25.18	QP	200	147	P	
6	274.446	37.17	-22.96	14.21	46.00	-31.79	QP	200	11	P	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

APPENDIXD -RADIATED EMISSION- ABOVE 1000MHZ

Test Result of Radiated Spurious at Band edges.

Note: All test plots below include both horizontal and vertical, only show the worst mode data

Test Results					PASS			
Frequency Range					2310MHz~2410MHz			
Test Mode					TX B Mode Channel 01			
N o.	Freq MHz	Polarity	Reading (dBUV/m)	Correct Factor	Result (dBUV/m)	Limit (dBUV/m)	Margin	Remark
1	2390	H	74.50	-21.47	53.03	74.00	-20.97	Peak
2	2390	H	--	-21.47	--	54.00	--	Avg
3	2400	H	78.86	-26.12	52.74	74.00	-21.26	Peak
4	2400	H	--	-26.12	--	54.00	--	Avg
1	2390	V	74.92	-21.47	53.45	74.00	-20.55	Peak
2	2390	V	--	-21.47	--	54.00	--	Avg
3	2400	V	78.95	-26.12	52.83	74.00	-21.17	Peak
4	2400	V	--	-26.12	--	54.00	--	Avg
Test Results					PASS			
Frequency Range					2450MHz~2550MHz			
Test Mode					TX B Mode Channel 11			
1	2483.5	H	79.25	-25.29	53.96	74.00	-20.04	Peak
2	2483.5	H	--	-25.29	--	54.00	--	Avg
1	2483.5	V	79.34	-25.29	54.05	74.00	-19.95	Peak
2	2483.5	V	--	-25.29	--	54.00	--	Avg

Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.

2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.

Result=Reading + Correct Factor.

Margin= Result-Limit.

3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

Test Results					PASS			
Frequency Range					2310MHz~2410MHz			
Test Mode					TX G Mode Channel 01			
N o.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	74.80	-21.47	53.33	74.00	-20.67	Peak
2	2390	H	--	-21.47	--	54.00	--	Avg
3	2400	H	78.63	-26.12	52.51	74.00	-21.49	Peak
4	2400	H	--	-26.12	--	54.00	--	Avg
1	2390	V	75.16	-21.47	53.69	74.00	-20.31	Peak
2	2390	V	--	-21.47	--	54.00	--	Avg
3	2400	V	79.14	-26.12	53.02	74.00	-20.98	Peak
4	2400	V	--	-26.12	--	54.00	--	Avg
Test Results					PASS			
Frequency Range					2450MHz~2550MHz			
Test Mode					TX G Mode Channel 11			
1	2483.5	H	78.86	-25.29	53.57	74.00	-20.43	Peak
2	2483.5	H	--	-25.29	--	54.00	--	Avg
1	2483.5	V	78.36	-25.29	53.07	74.00	-20.93	Peak
2	2483.5	V	--	-25.29	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

Test Results					PASS			
Frequency Range					2310MHz~2410MHz			
Test Mode					TX N(HT20) Mode Channel 01			
N o.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	75.01	-21.47	53.54	74.00	-20.46	Peak
2	2390	H	--	-21.47	--	54.00	--	Avg
3	2400	H	79.38	-26.12	53.26	74.00	-20.74	Peak
4	2400	H	--	-26.12	--	54.00	--	Avg
1	2390	V	74.98	-21.47	53.51	74.00	-20.49	Peak
2	2390	V	--	-21.47	--	54.00	--	Avg
3	2400	V	79.56	-26.12	53.44	74.00	-20.56	Peak
4	2400	V	--	-26.12	--	54.00	--	Avg
Test Results					PASS			
Frequency Range					2450MHz~2550MHz			
Test Mode					TX N(HT20) Mode Channel 11			
1	2483.5	H	78.81	-25.29	53.52	74.00	-20.48	Peak
2	2483.5	H	--	-25.29	--	54.00	--	Avg
1	2483.5	V	78.82	-25.29	53.53	74.00	-20.47	Peak
2	2483.5	V	--	-25.29	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

Test Results					PASS			
Frequency Range					2310MHz~2410MHz			
Test Mode					TX N(HT40) Mode Channel 03			
N o.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	74.87	-21.47	53.40	74.00	-20.60	Peak
2	2390	H	--	-21.47	--	54.00	--	Avg
3	2400	H	79.37	-26.12	53.25	74.00	-20.75	Peak
4	2400	H	--	-26.12	--	54.00	--	Avg
1	2390	V	74.54	-21.47	53.07	74.00	-20.93	Peak
2	2390	V	--	-21.47	--	54.00	--	Avg
3	2400	V	79.20	-26.12	53.08	74.00	-20.92	Peak
4	2400	V	--	-26.12	--	54.00	--	Avg
Test Results					PASS			
Frequency Range					2450MHz~2550MHz			
Test Mode					TX N(HT40) Mode Channel 09			
1	2483.5	H	79.22	-25.29	53.93	74.00	-20.07	Peak
2	2483.5	H	--	-25.29	--	54.00	--	Avg
1	2483.5	V	79.24	-25.29	53.95	74.00	-20.05	Peak
2	2483.5	V	--	-25.29	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

ABOVE 1000 MHz

Note: All the modes have been tested and recorded worst mode in the report.

Modulation Type: IEEE 802.11b

Channel 1 / 2412 MHz									
Frequency	Ant.Pol. H/V	Peak reading (dBuV)	AV reading (dBuV)	Correction Factor	Emission Level		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
4824.00	H	54.50	51.3	-1.88	52.62	49.42	74	54	-21.38
7236.00	H	44.73	---	7.8	52.53	---	74	54	-21.47
---	H	---	---	---	---	---	---	---	---
4824.00	V	55.59	---	-1.88	53.71	---	74	54	-20.29
7236.00	V	43.22	---	7.8	51.02	---	74	54	-22.98
---	V	---	---	---	---	---	---	---	---

Channel 6 / 2437 MHz									
Frequency	Ant.Pol. H/V	Peak reading (dBuV)	AV reading (dBuV)	Correction Factor	Emission Level		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
4874.00	H	55.18	52.31	-1.59	53.59	50.72	74	54	-20.41
7311.00	H	42.10	---	8.1	50.20	---	74	54	-23.80
---	H	---	---	---	---	---	---	---	---
4874.00	V	54.50	---	-1.59	52.91	---	74	54	-21.09
7311.00	V	43.76	---	8.1	51.86	---	74	54	-22.14
---	V	---	---	---	---	---	---	---	---

Channel 11 / 2462 MHz									
Frequency	Ant.Pol. H/V	Peak reading (dBuV)	AV reading (dBuV)	Correction Factor	Emission Level		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
4924.00	H	55.09	52	-1.3	53.79	50.7	74	54	-20.21
7386.00	H	41.60	---	9	50.60	---	74	54	-23.40
---	H	---	---	---	---	---	---	---	---
4924.00	V	54.74	---	-1.3	53.44	---	74	54	-20.56
7386.00	V	43.36	---	9	52.36	---	74	54	-21.64
---	V	---	---	---	---	---	---	---	---

Notes:

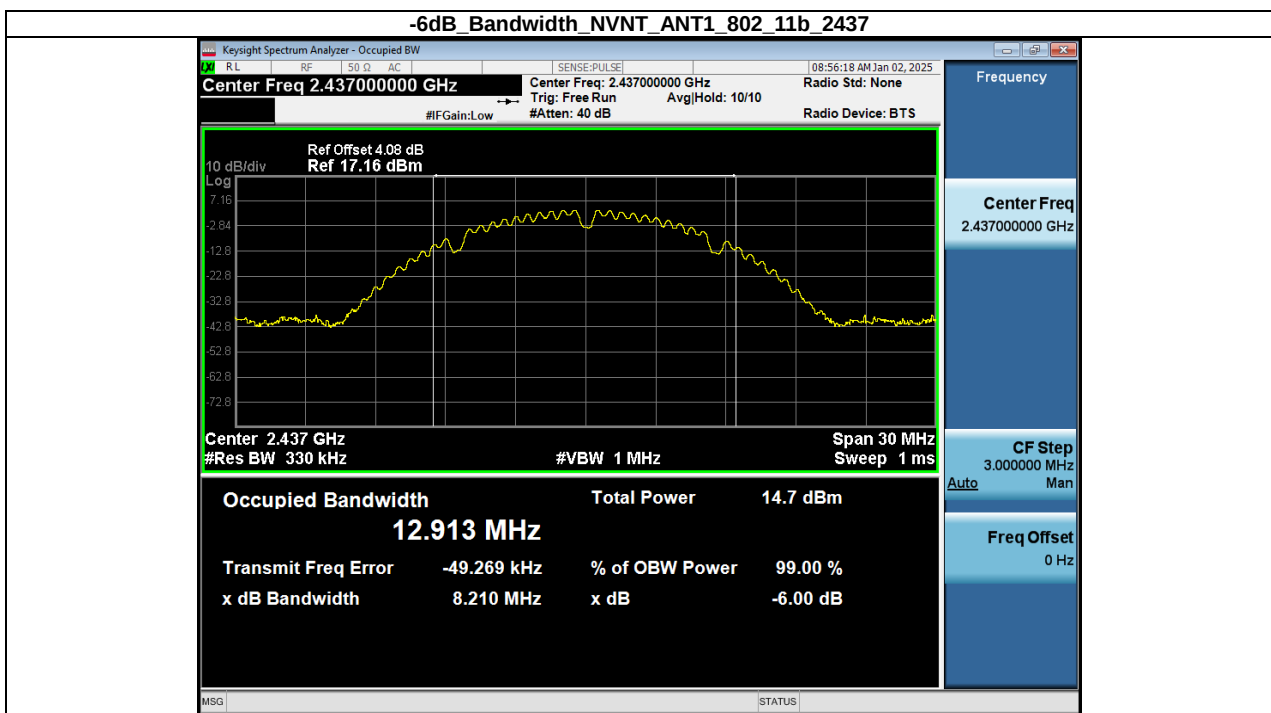
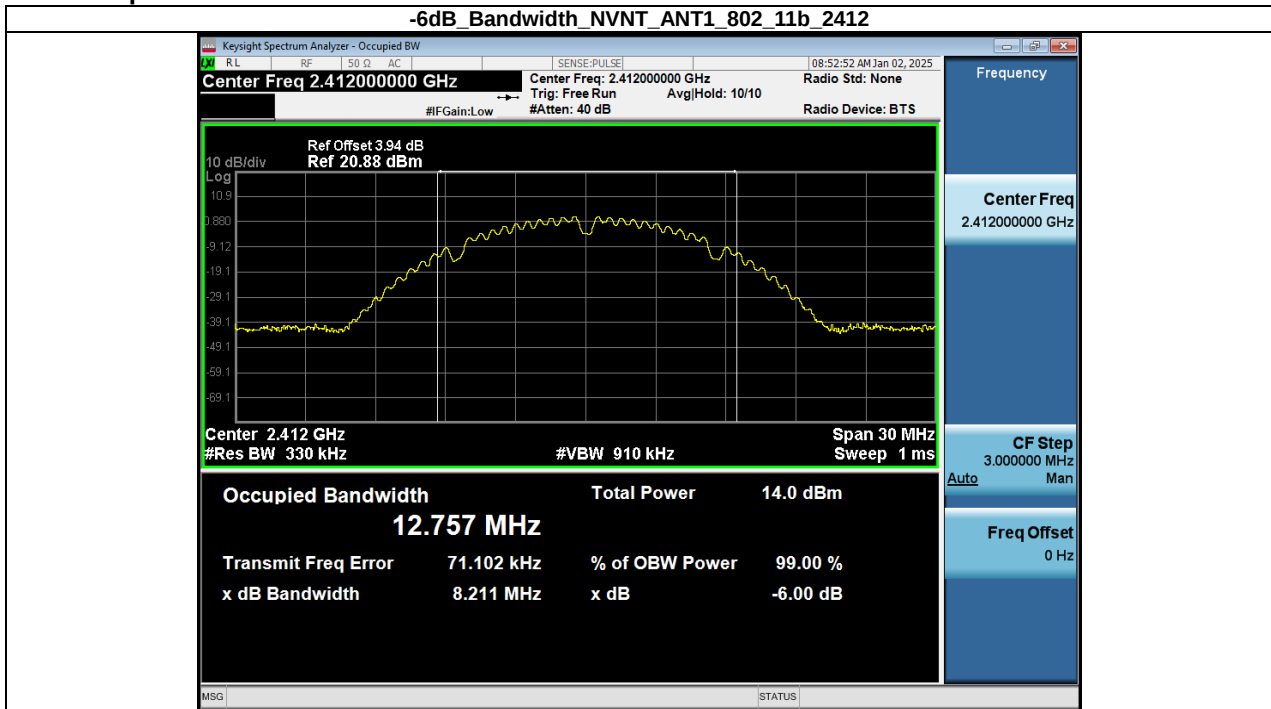
- 1). Radiated emissions measured in frequency range from 9 KHz~10th harmonic or 26.5GHz (which is less) were made with an instrument using Peak detector mode.
- 2). Data of measurement within this frequency range shown "—" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 3). Worst case data at 1Mbps at IEEE 802.11b.
- 4). Measured Level = Reading Level + Factor, Margin = Measured Level – Limit

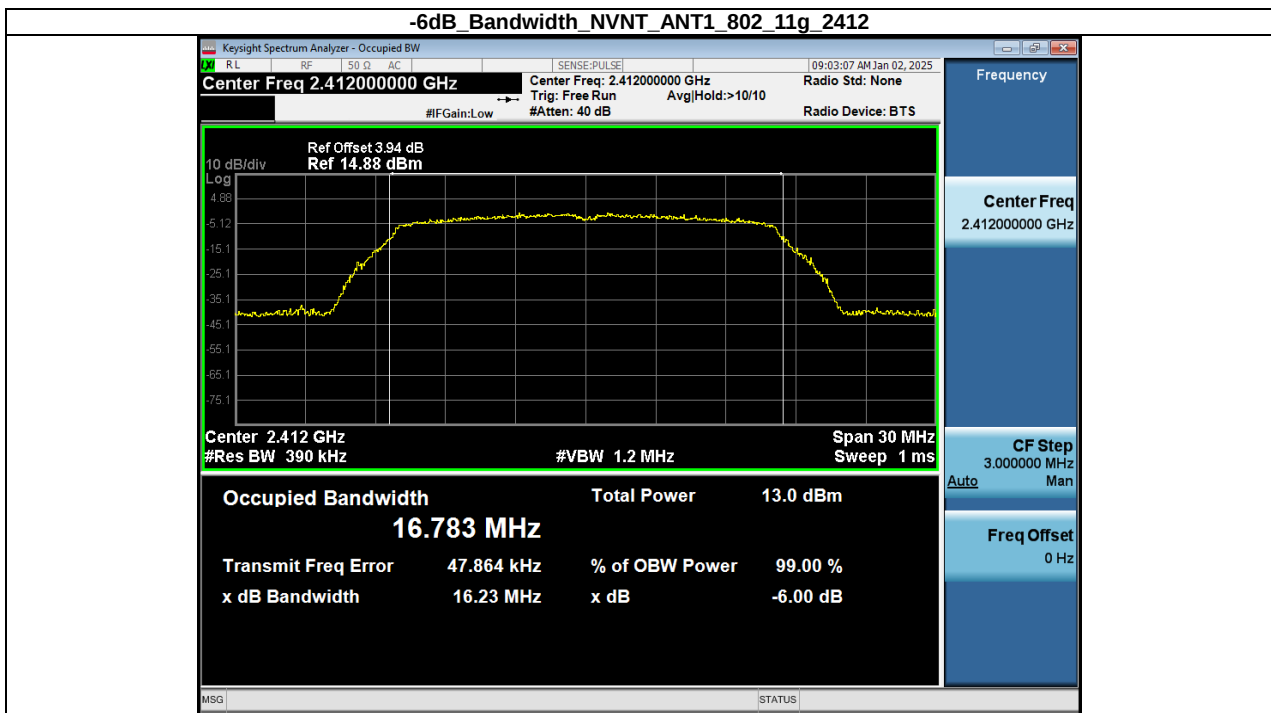
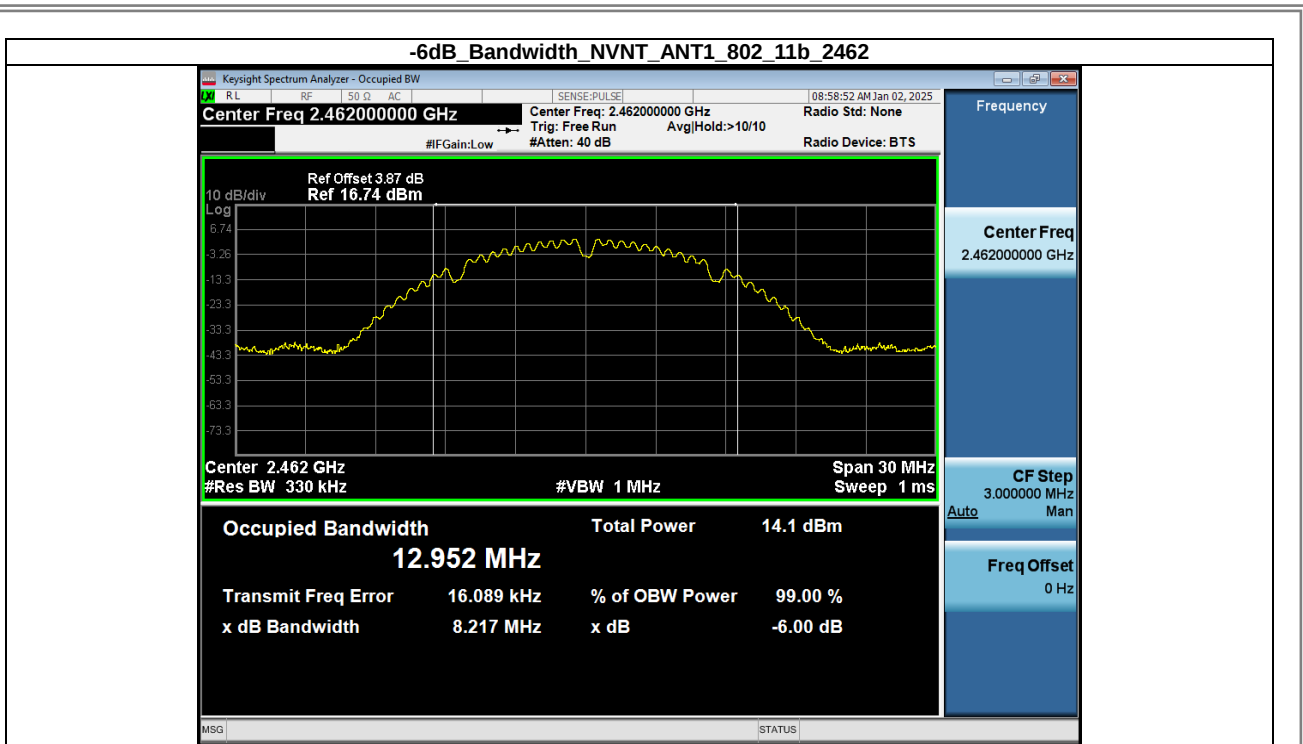
APPENDIXE - BANDWIDTH

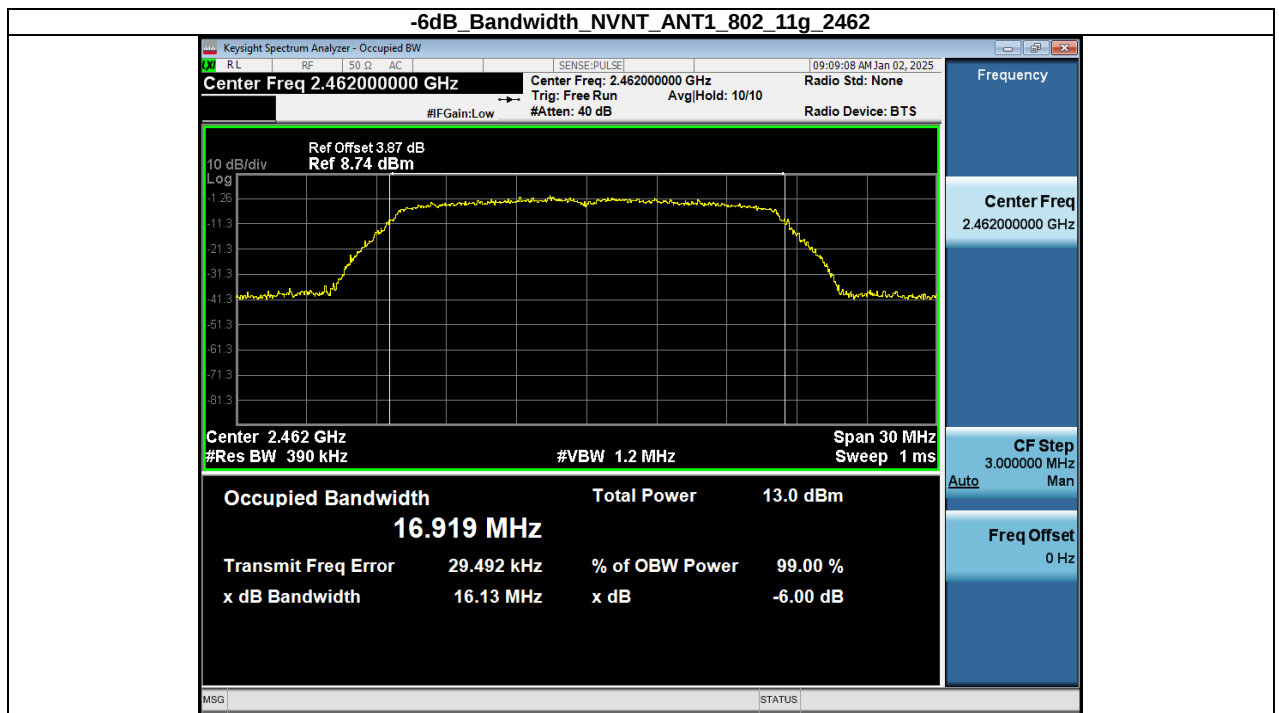
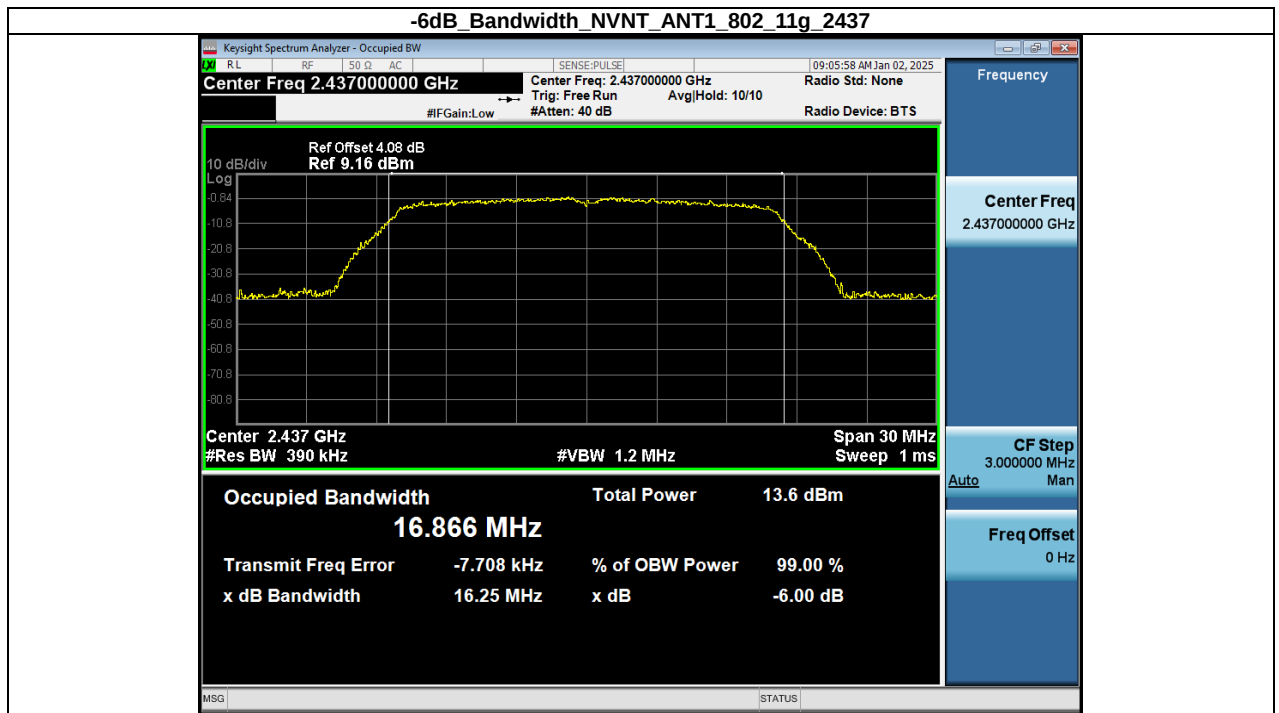
1. DTS Bandwidth

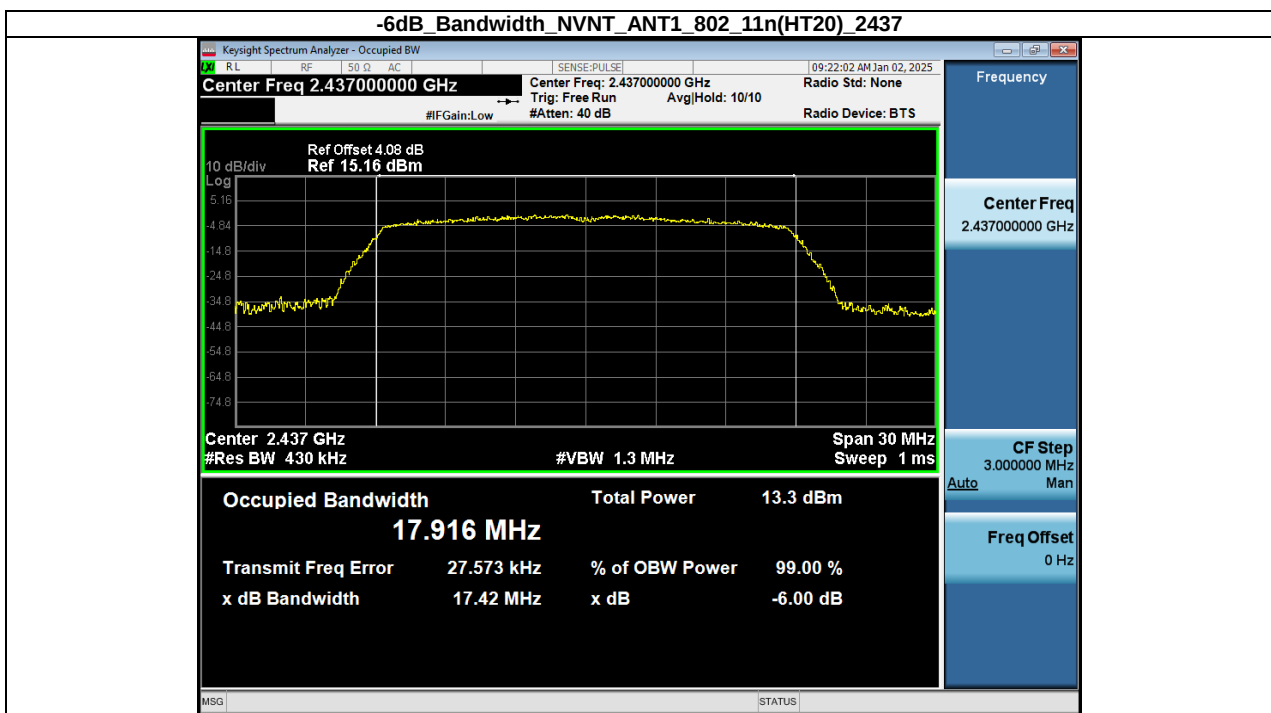
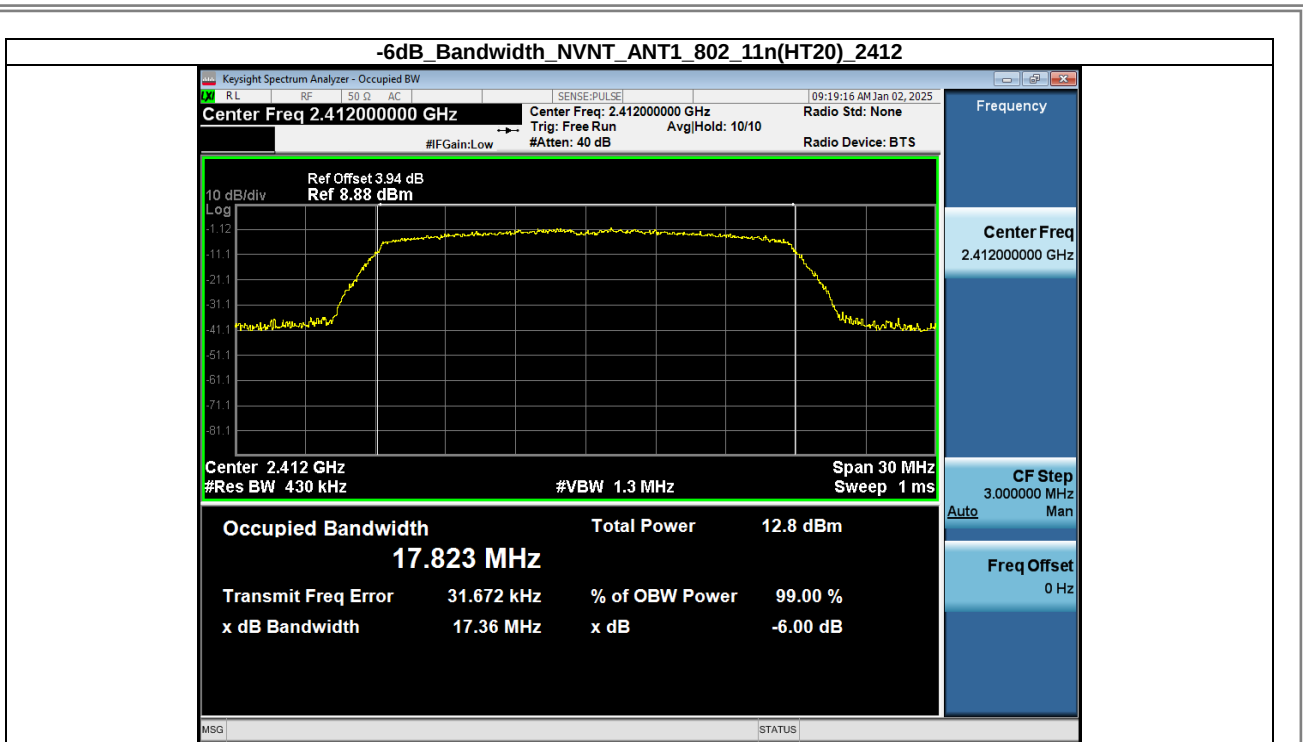
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	8.21	500	Pass
NVNT	ANT1	802.11b	2437.00	8.21	500	Pass
NVNT	ANT1	802.11b	2462.00	8.22	500	Pass
NVNT	ANT1	802.11g	2412.00	16.23	500	Pass
NVNT	ANT1	802.11g	2437.00	16.25	500	Pass
NVNT	ANT1	802.11g	2462.00	16.13	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.36	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.42	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.39	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	35.05	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	35.36	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.58	500	Pass

Test Graphs

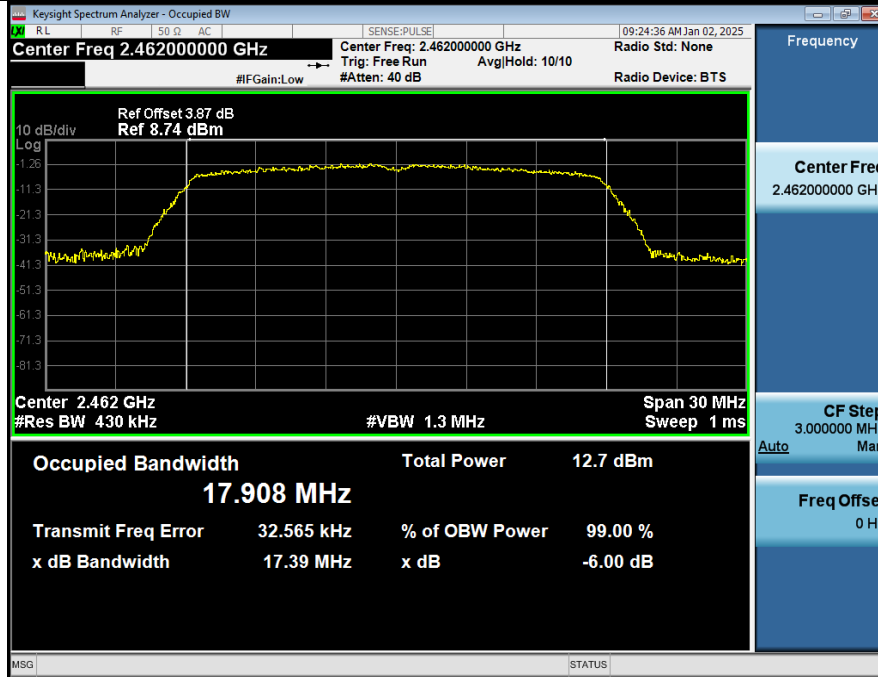




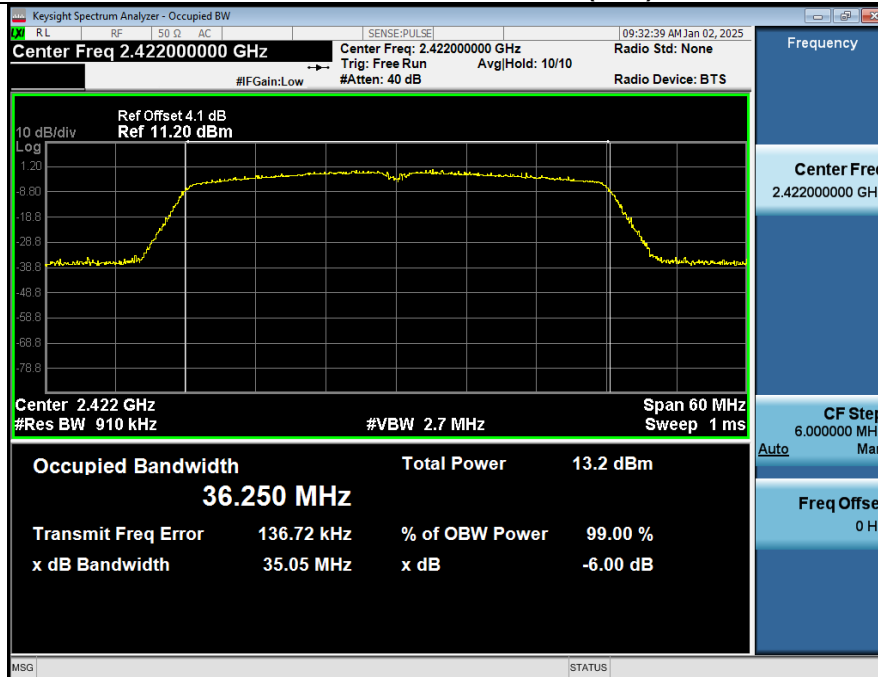


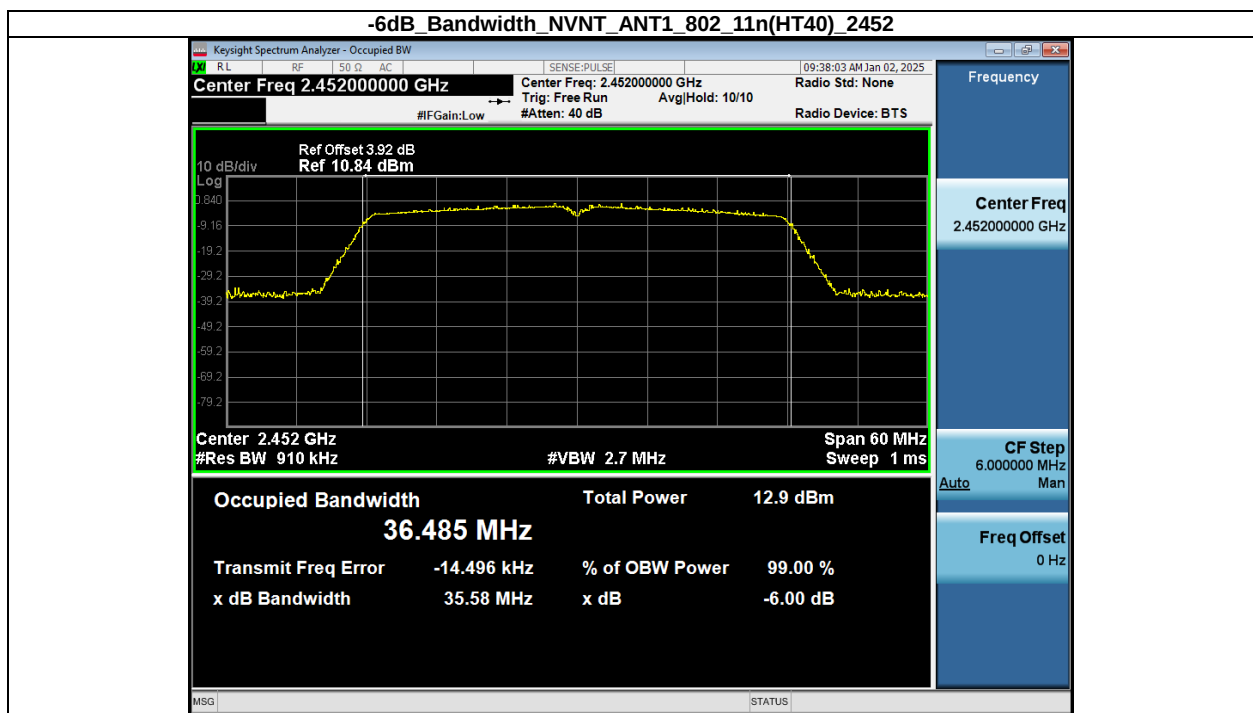
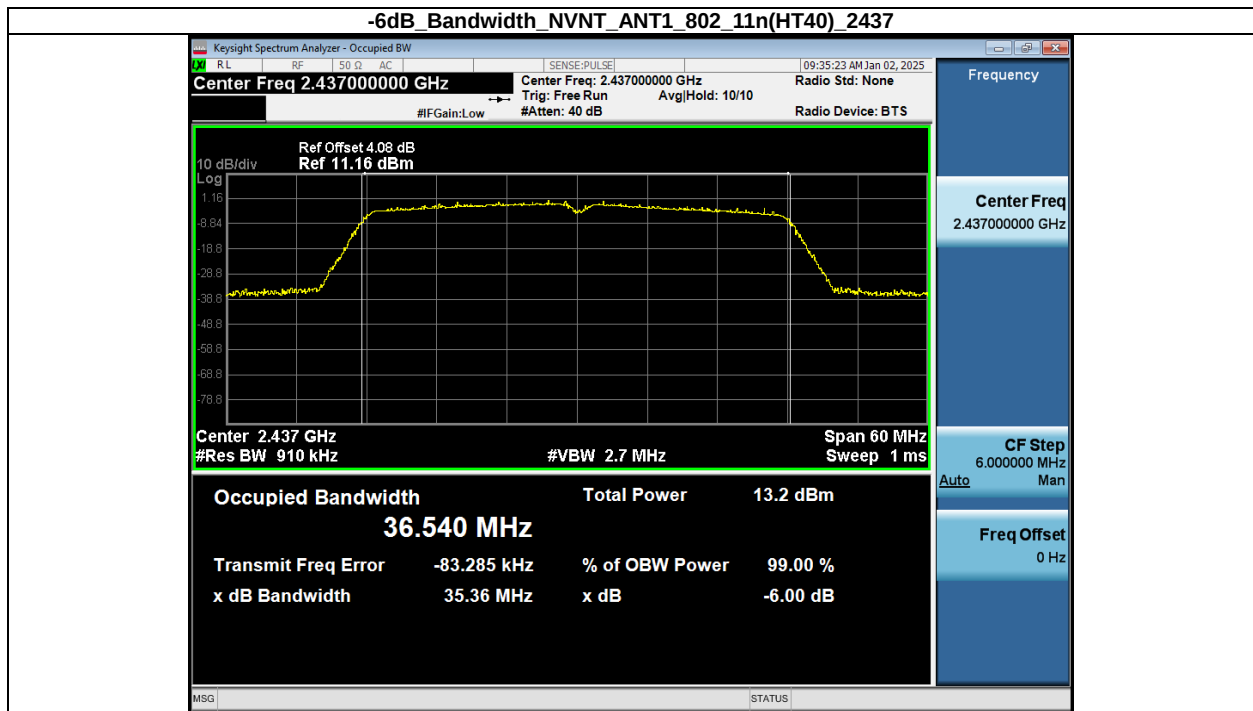


-6dB Bandwidth NVNT_ANT1_802_11n(HT20)_2462



-6dB Bandwidth NVNT_ANT1_802_11n(HT40)_2422

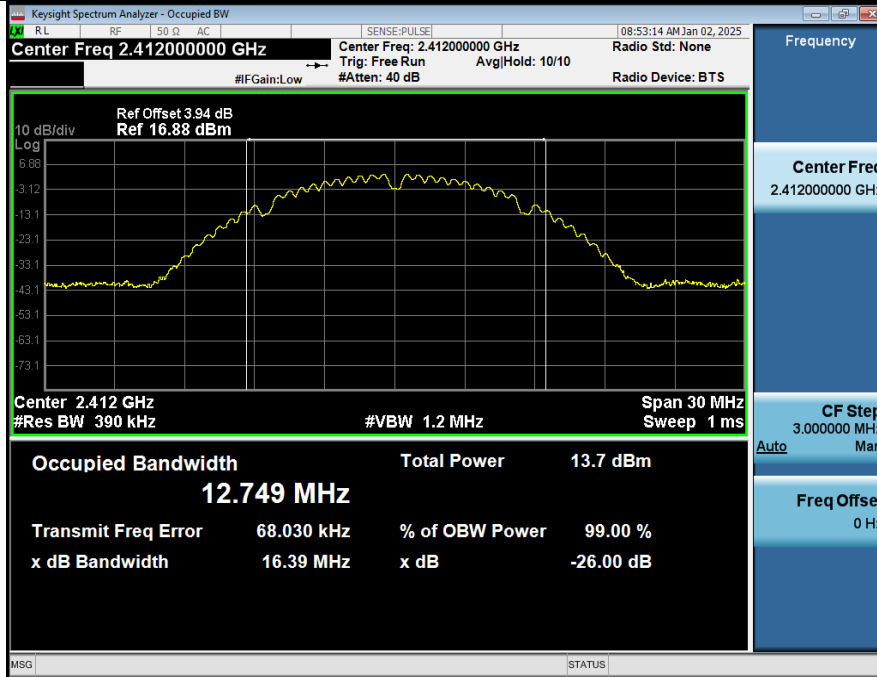




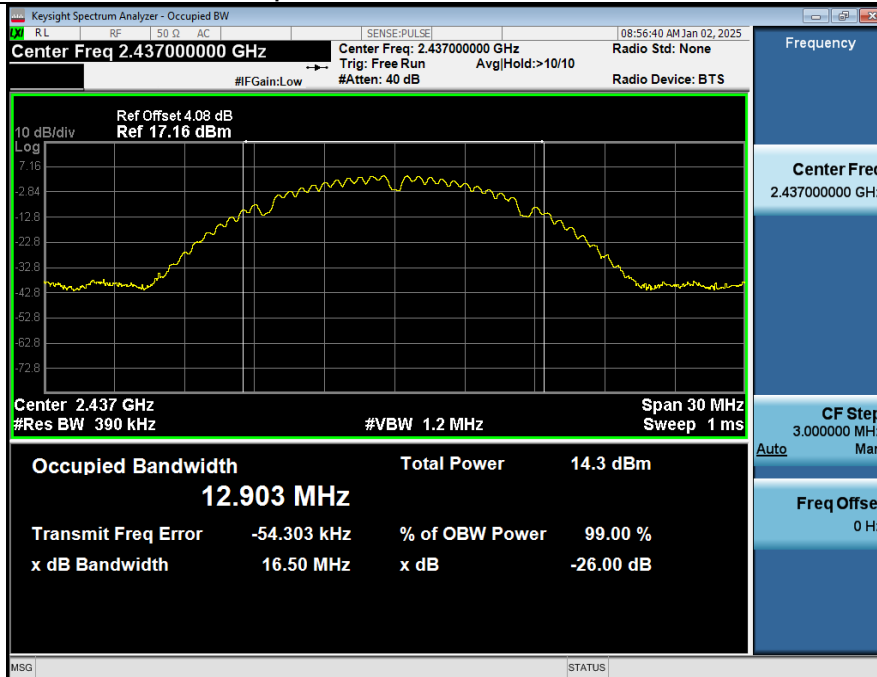
99% OCCUPIED BANDWIDTH

Condition	Antenna	Modulation	Frequency (MHz)	99%BW(MHz)
NVNT	ANT1	802.11b	2412.00	12.749
NVNT	ANT1	802.11b	2437.00	12.903
NVNT	ANT1	802.11b	2462.00	12.956
NVNT	ANT1	802.11g	2412.00	16.984
NVNT	ANT1	802.11g	2437.00	17.091
NVNT	ANT1	802.11g	2462.00	17.071
NVNT	ANT1	802.11n(HT20)	2412.00	17.860
NVNT	ANT1	802.11n(HT20)	2437.00	17.990
NVNT	ANT1	802.11n(HT20)	2462.00	18.017
NVNT	ANT1	802.11n(HT40)	2422.00	36.289
NVNT	ANT1	802.11n(HT40)	2437.00	36.513
NVNT	ANT1	802.11n(HT40)	2452.00	36.551

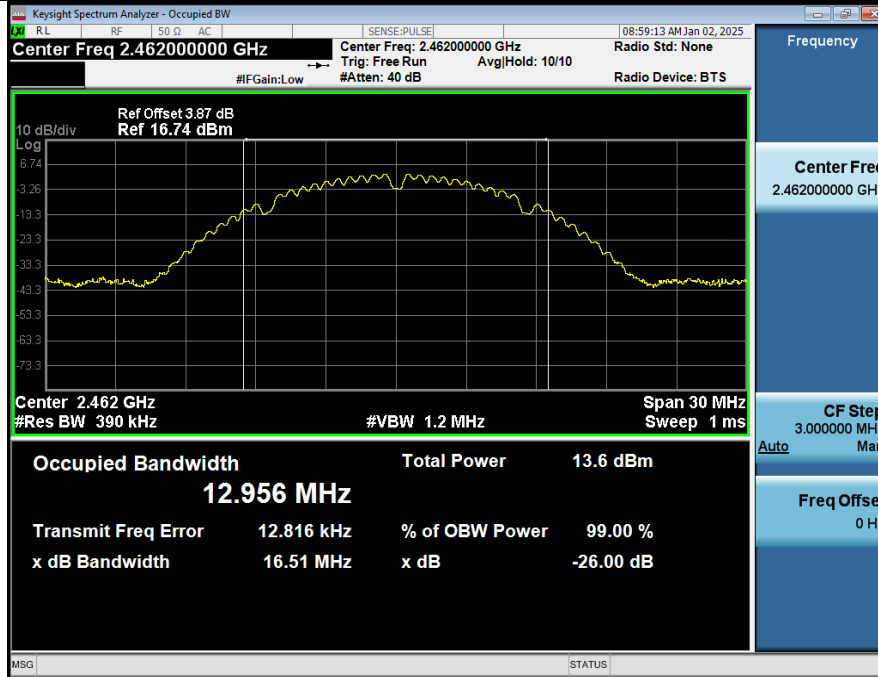
99% Occupied Bandwidth NVNT_ANT1_802_11b_2412



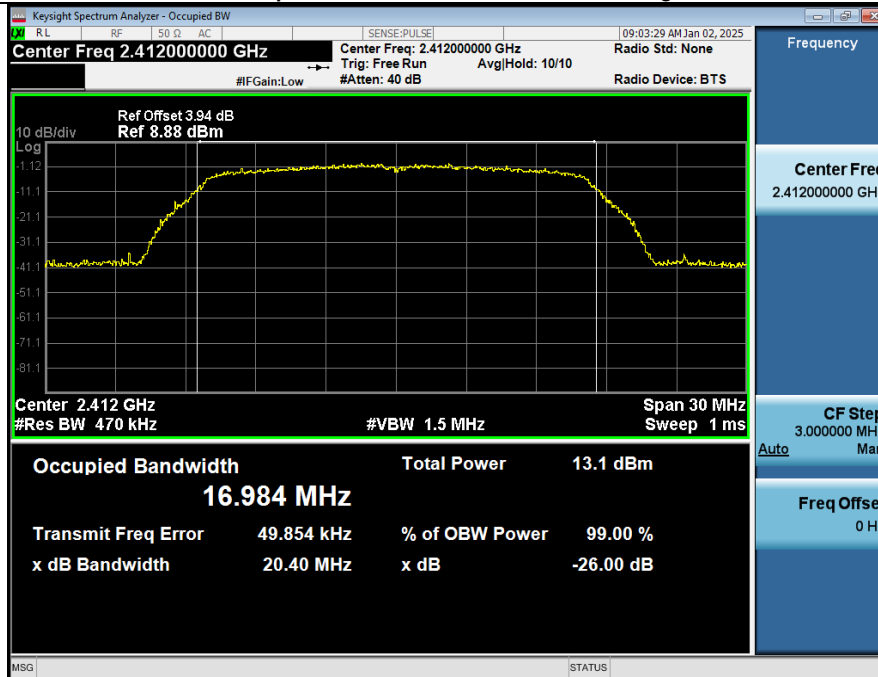
99% Occupied Bandwidth NVNT_ANT1_802_11b_2437



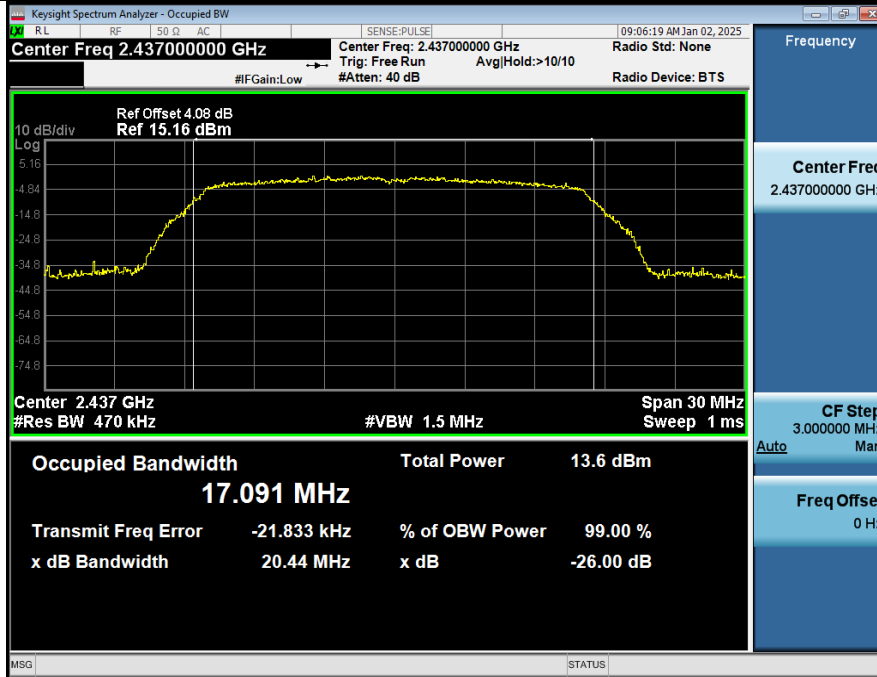
99% Occupied Bandwidth_NVNT_ANT1_802_11b_2462



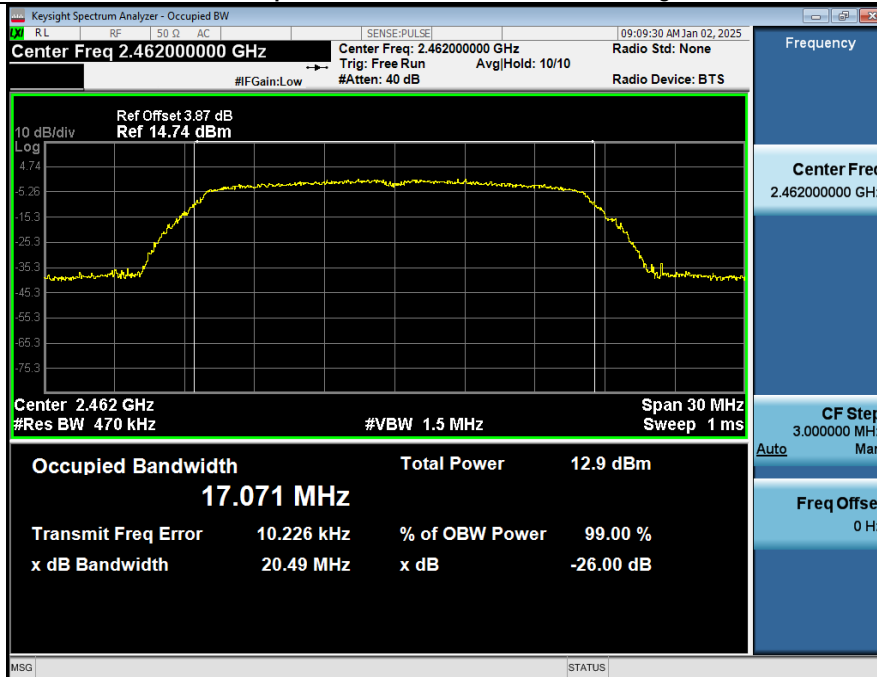
99% Occupied Bandwidth_NVNT_ANT1_802_11g_2412



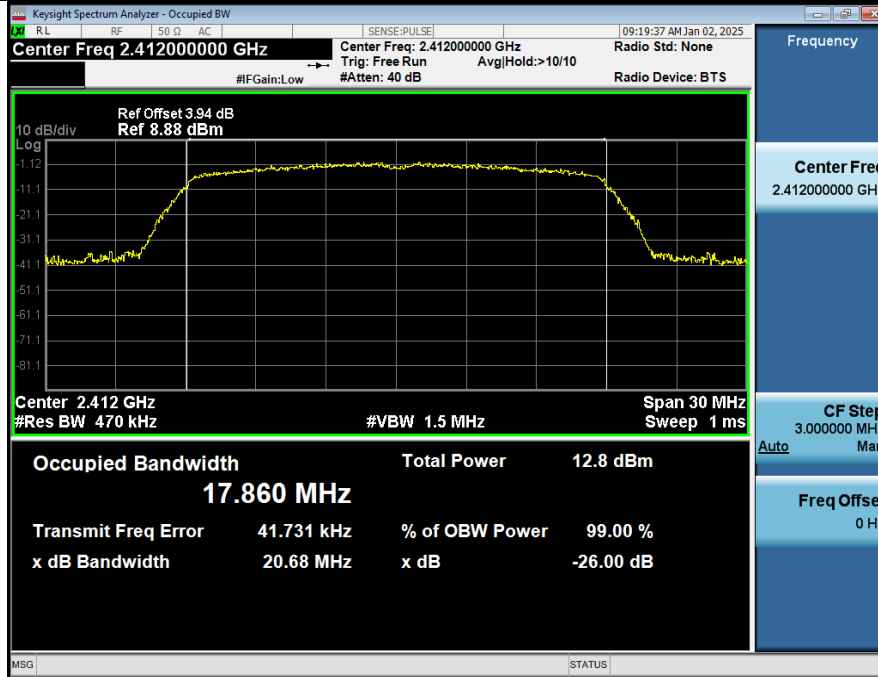
99% Occupied Bandwidth NVNT_ANT1_802_11g_2437



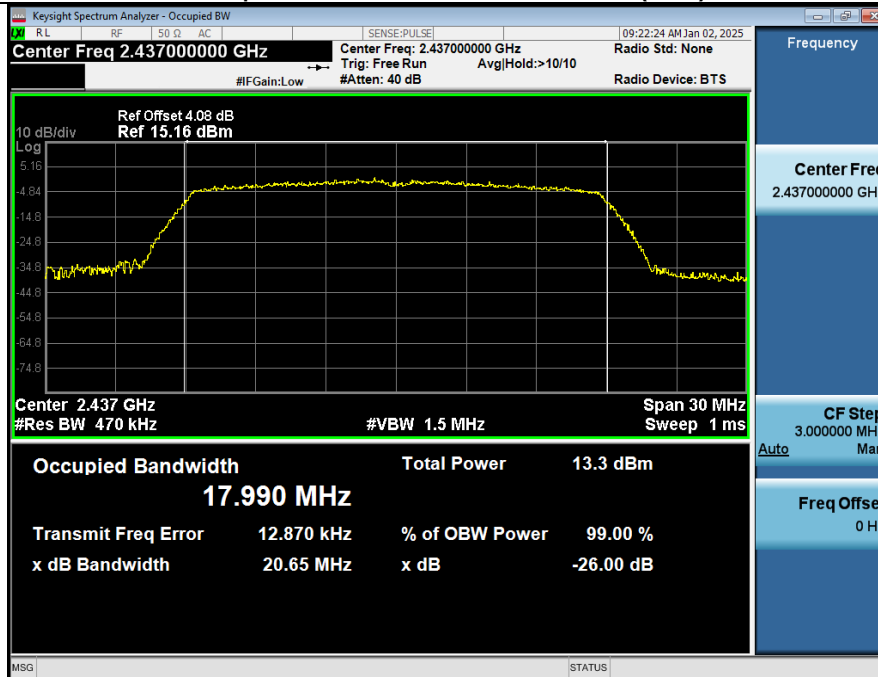
99% Occupied Bandwidth NVNT_ANT1_802_11g_2462



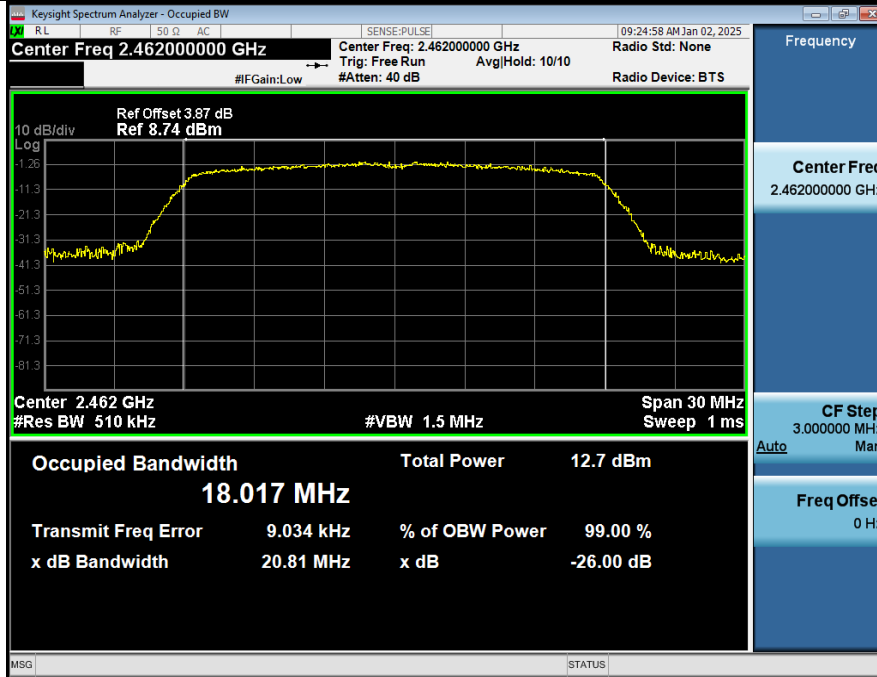
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2412



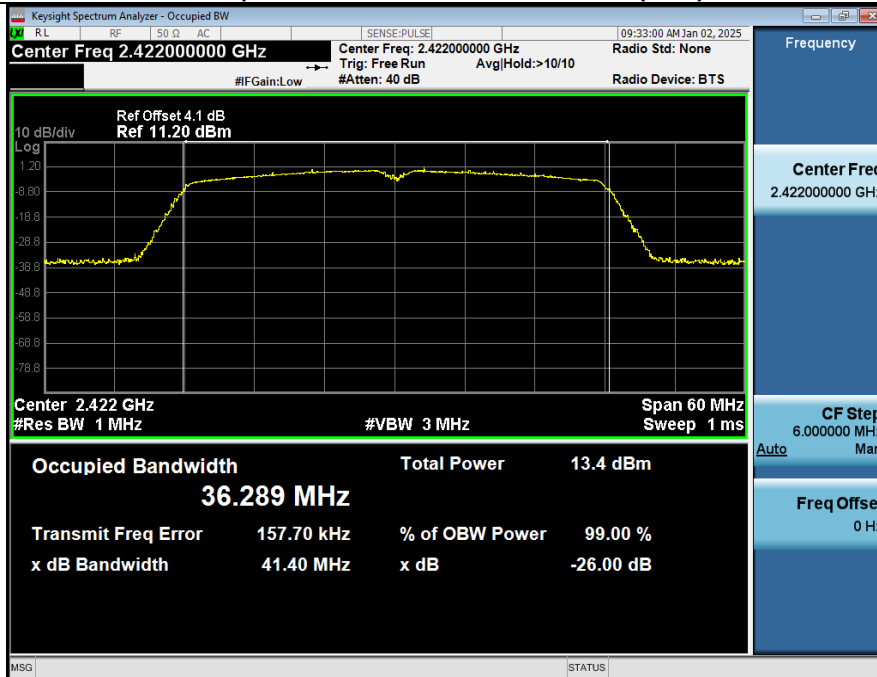
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2437

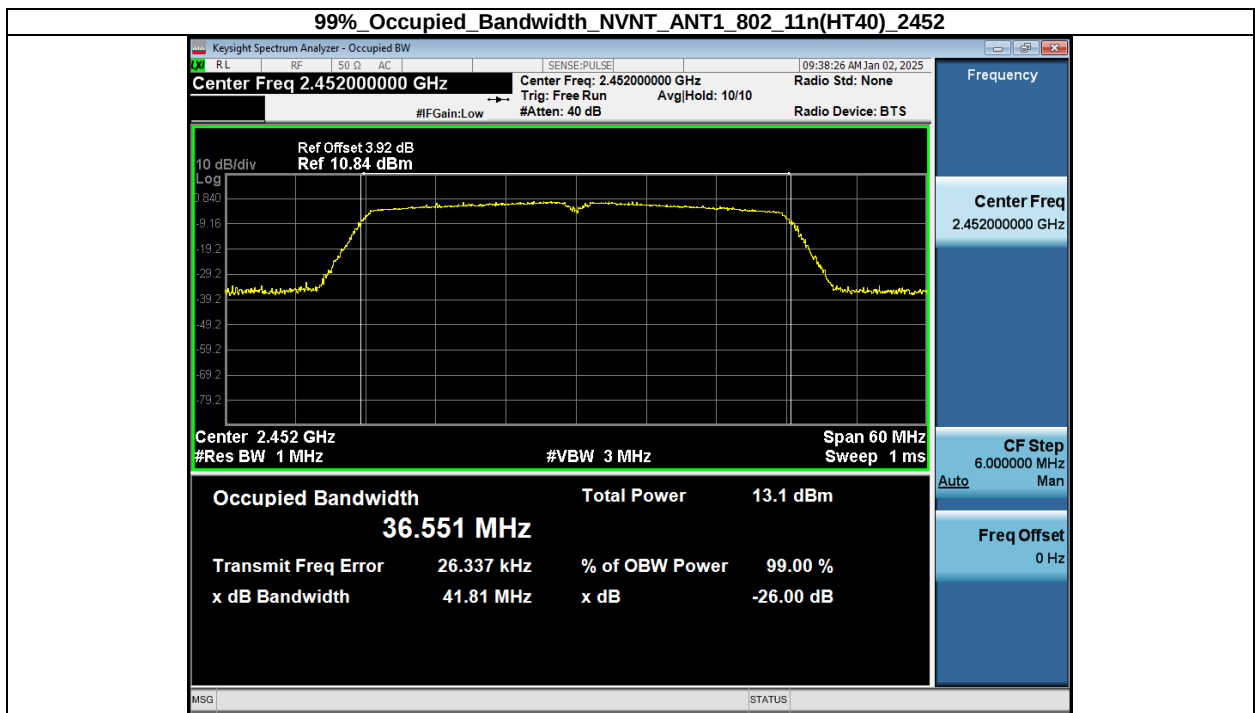
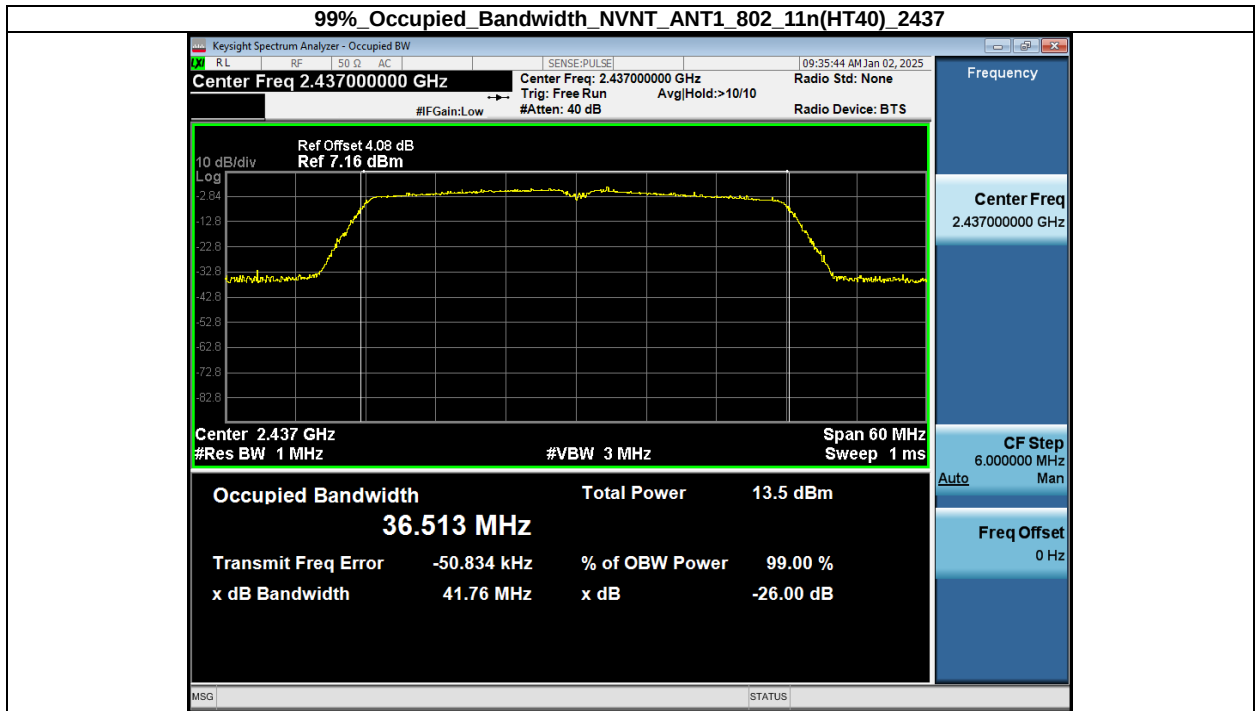


99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2462



99% Occupied Bandwidth NVNT_ANT1_802_11n(HT40)_2422





APPENDIX F - MAXIMUM OUTPUT POWER

Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Limit (dBm)	Result
NVNT	ANT1	802.11b	2412.00	13.51	30	Pass
NVNT	ANT1	802.11b	2437.00	14.18	30	Pass
NVNT	ANT1	802.11b	2462.00	13.48	30	Pass
NVNT	ANT1	802.11g	2412.00	13.64	30	Pass
NVNT	ANT1	802.11g	2437.00	14.16	30	Pass
NVNT	ANT1	802.11g	2462.00	13.37	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	13.45	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	13.91	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	13.35	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	13.14	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	13.27	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	12.89	30	Pass

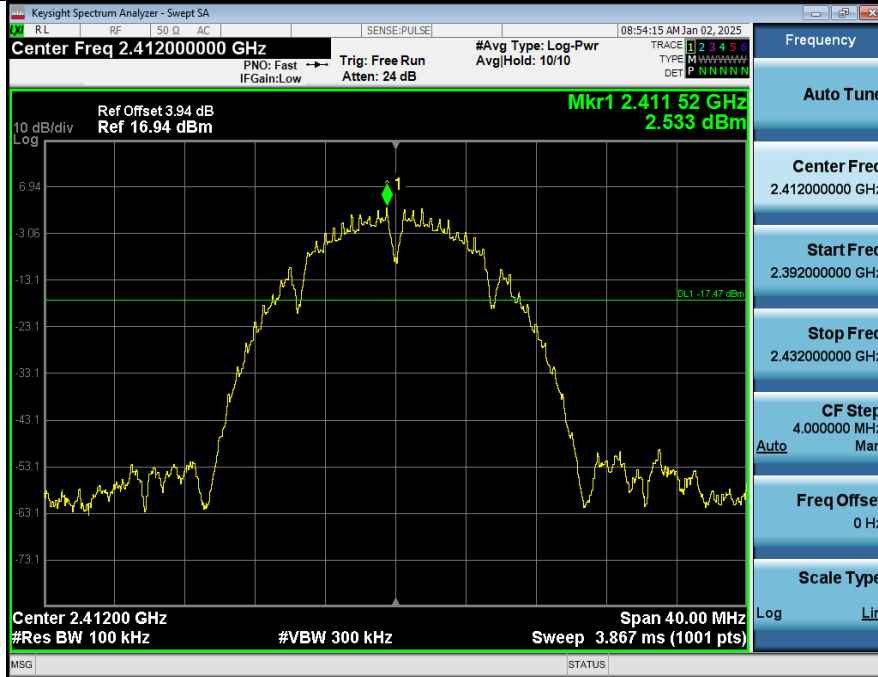
APPENDIXG - CONDUCTED SPURIOUS EMISSIONS

1. Conducted Spurious Emission

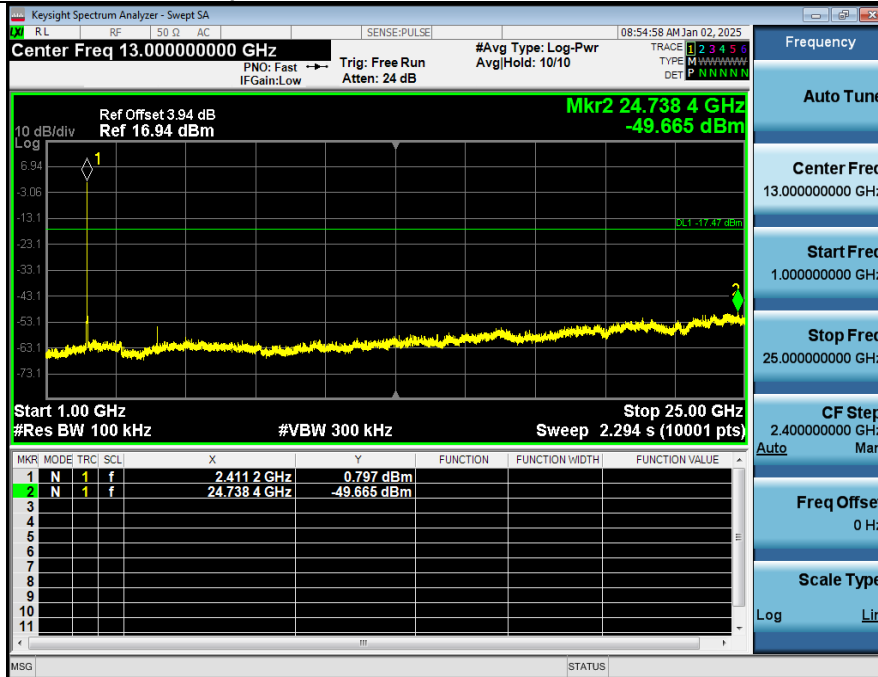
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	24738.400	2.533	-49.665	-17.467	Pass
NVNT	ANT1	802.11b	2437.00	24488.115	3.355	-49.476	-16.645	Pass
NVNT	ANT1	802.11b	2462.00	24415.702	2.494	-49.783	-17.506	Pass
NVNT	ANT1	802.11g	2412.00	24400.720	-4.404	-57.188	-24.404	Pass
NVNT	ANT1	802.11g	2437.00	23971.236	-4.851	-56.816	-24.851	Pass
NVNT	ANT1	802.11g	2462.00	24645.426	-4.283	-51.683	-24.283	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24395.726	-4.744	-57.412	-24.744	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24403.217	-4.300	-51.009	-24.300	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	23923.793	-4.944	-57.016	-24.944	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	24642.929	-7.853	-59.851	-27.853	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24385.738	-7.797	-59.766	-27.797	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	24348.283	-8.030	-54.333	-28.030	Pass

Test Graphs

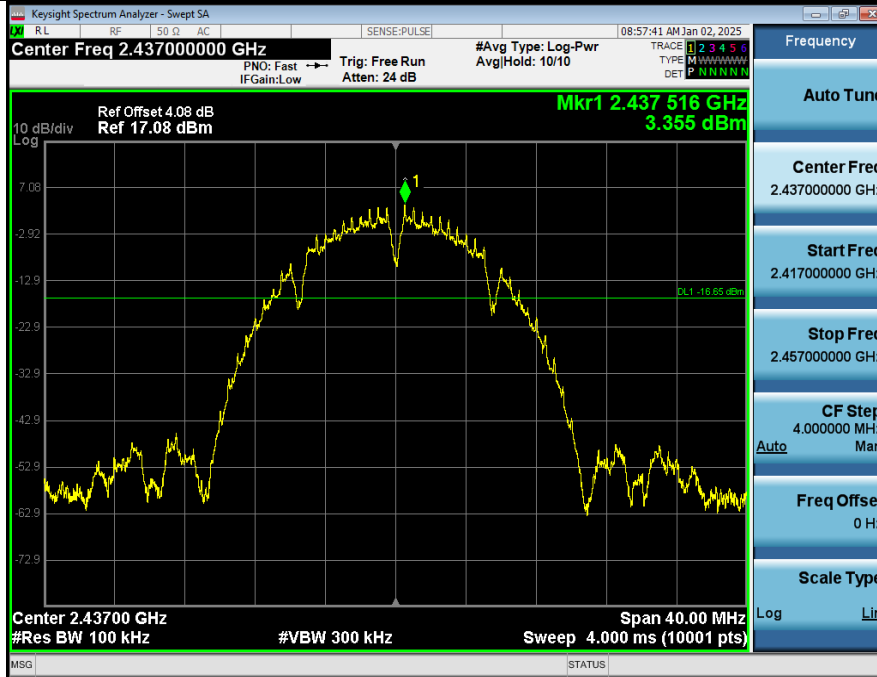
1 Reference Level NVNT_ANT1_802_11b_2412



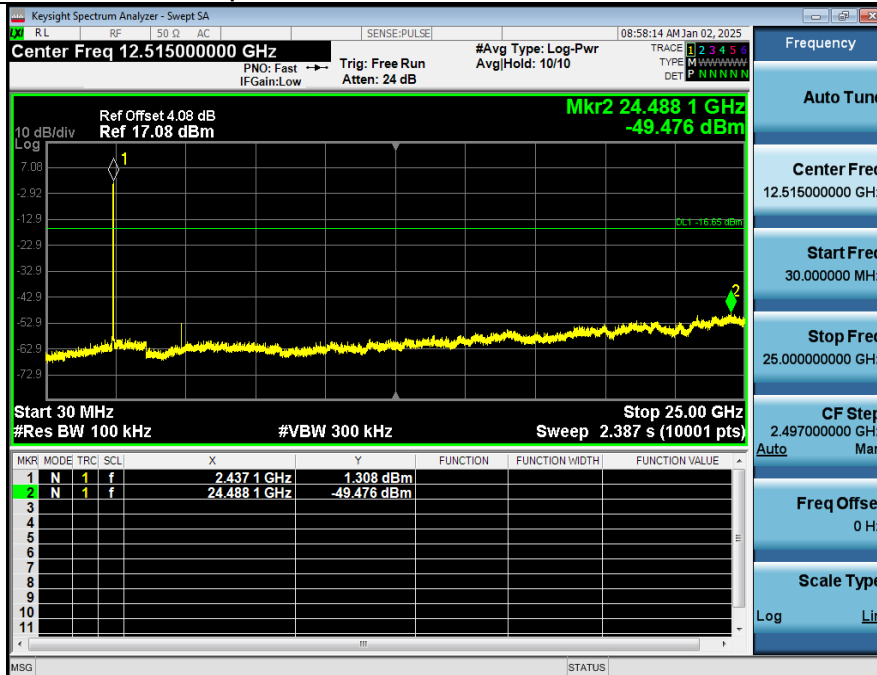
2 Spurious Emission NVNT_ANT1_802_11b_2412



1 Reference Level NVNT_ANT1_802_11b_2437



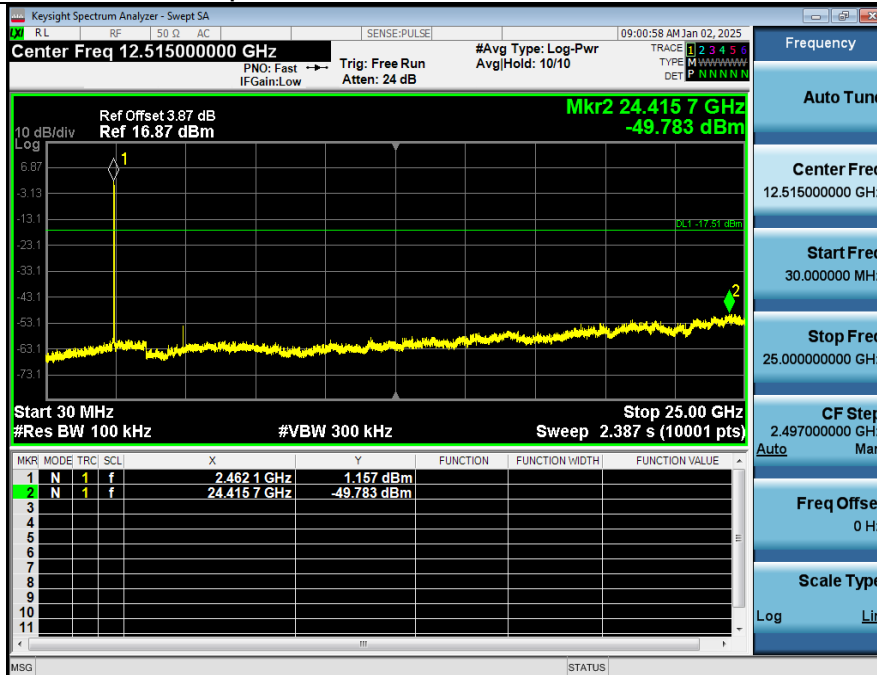
2 Spurious Emission NVNT_ANT1_802_11b_2437

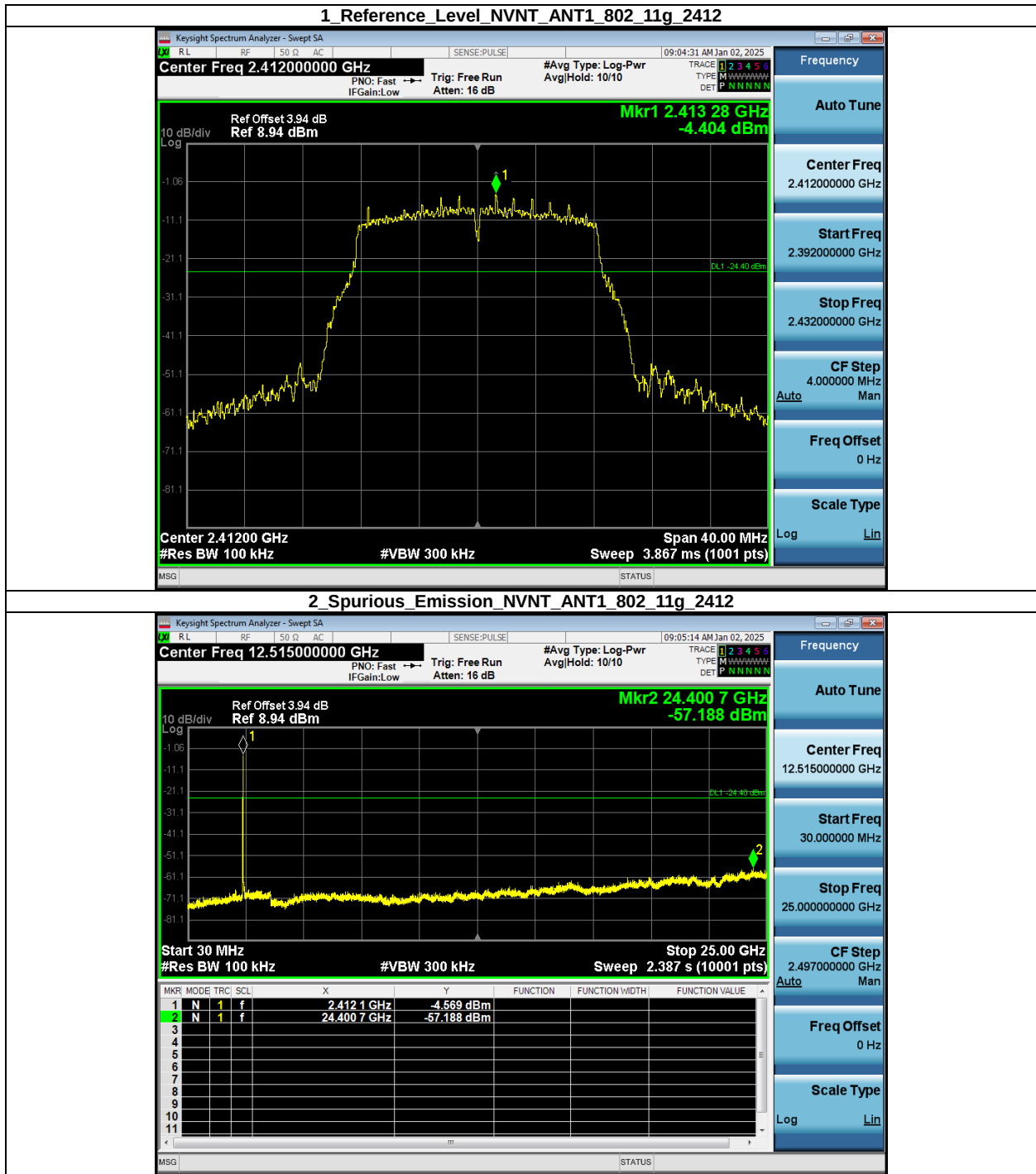


1 Reference Level NVNT_ANT1_802_11b_2462

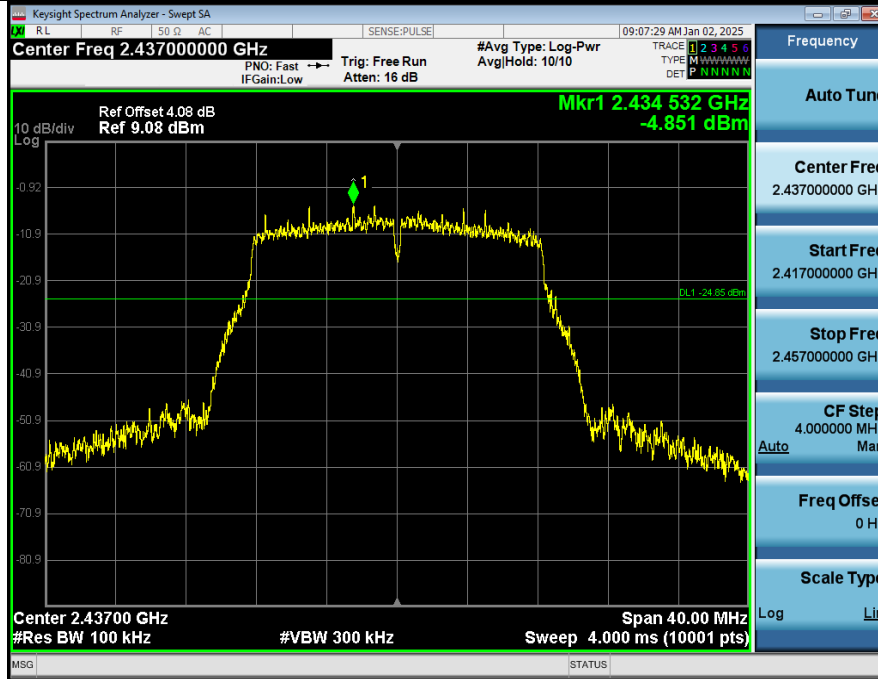


2 Spurious Emission NVNT_ANT1_802_11b_2462

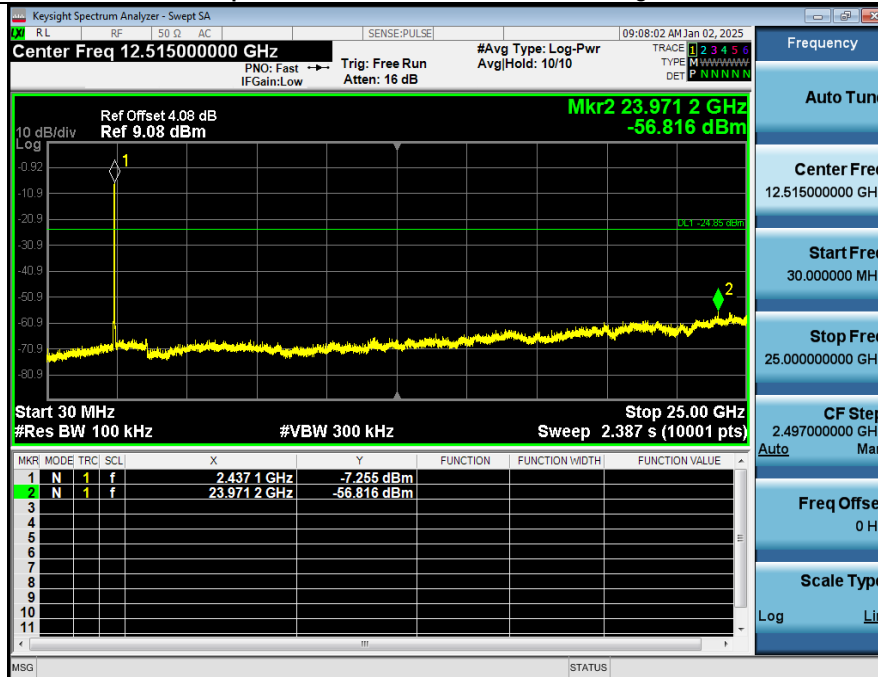




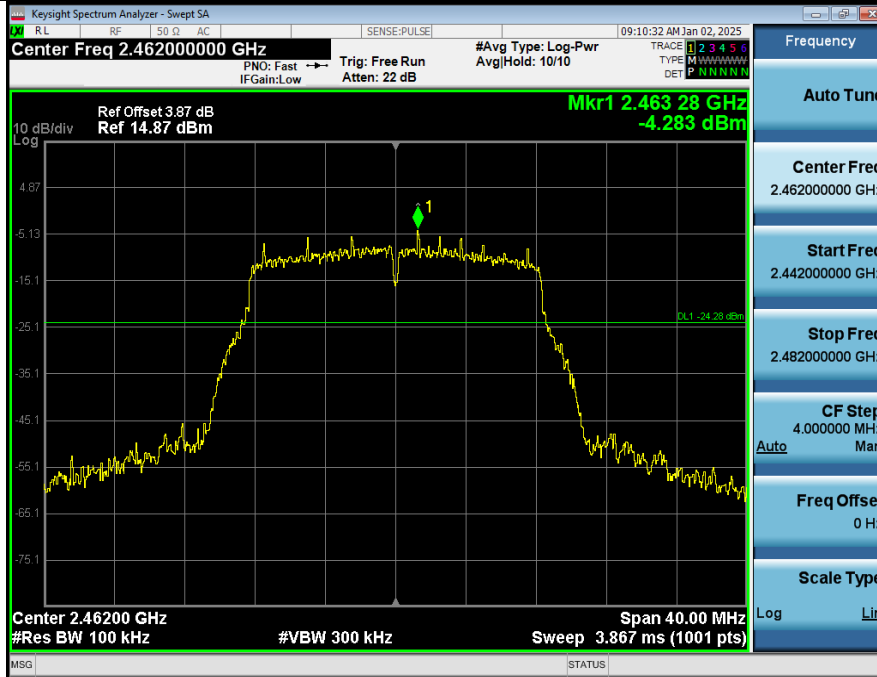
1 Reference Level NVNT_ANT1_802_11g_2437



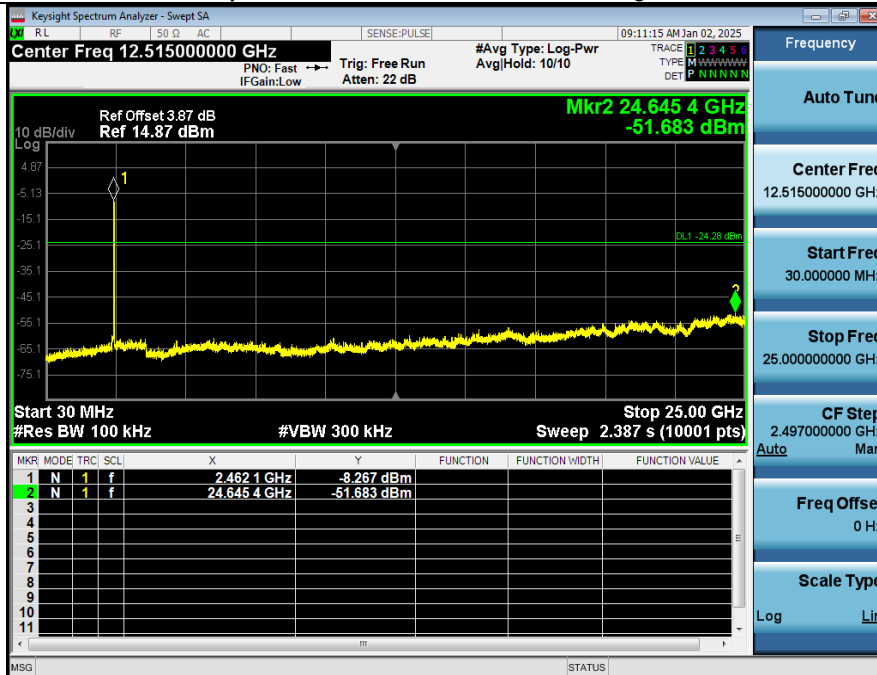
2 Spurious Emission NVNT_ANT1_802_11g_2437



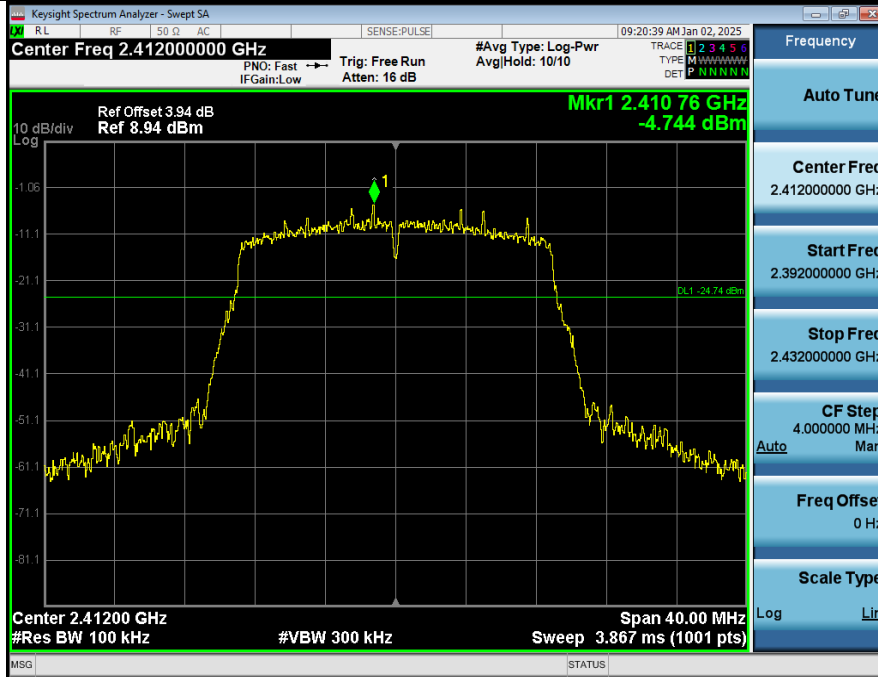
1 Reference Level NVNT_ANT1_802_11g_2462



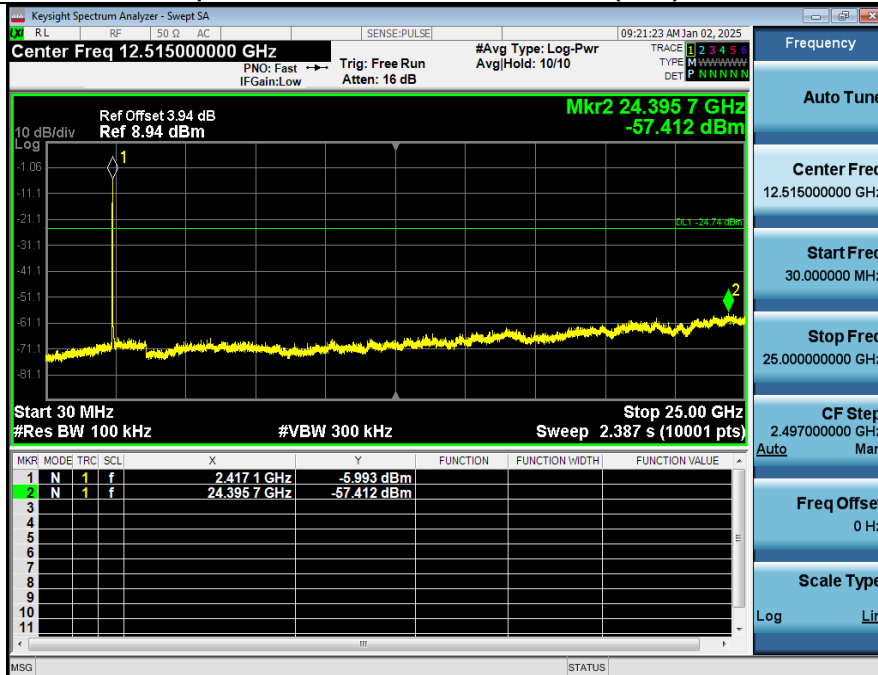
2 Spurious Emission NVNT_ANT1_802_11g_2462



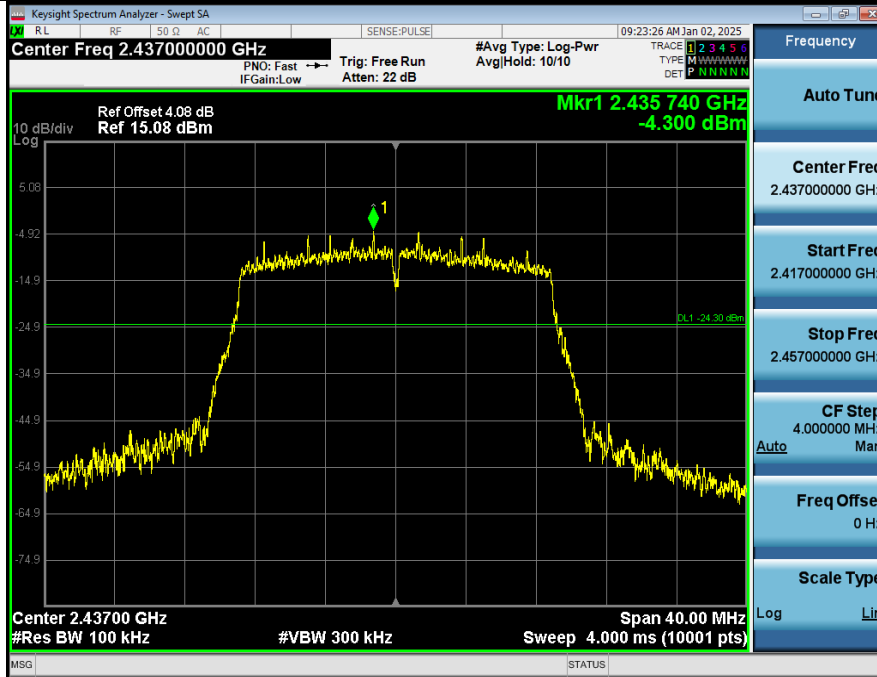
1 Reference Level_NVNT_ANT1_802_11n(HT20)_2412



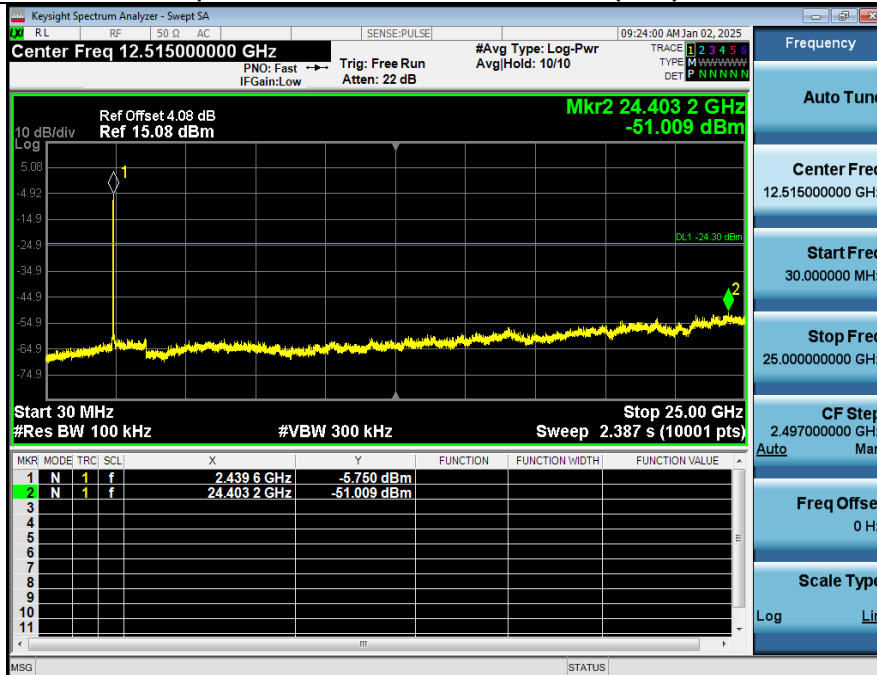
2 Spurious Emission_NVNT_ANT1_802_11n(HT20)_2412



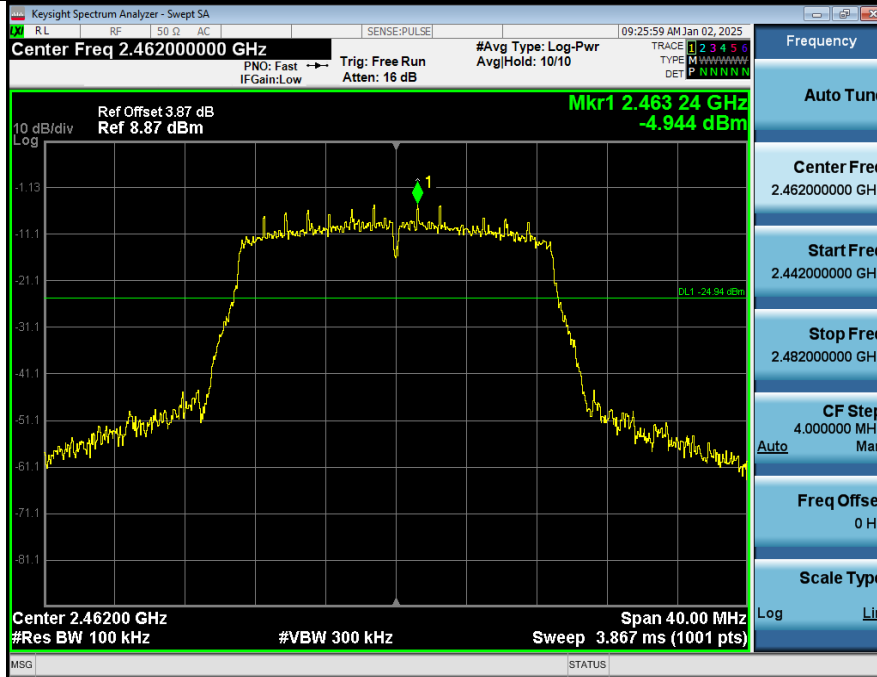
1 Reference Level_NVNT_ANT1_802_11n(HT20)_2437



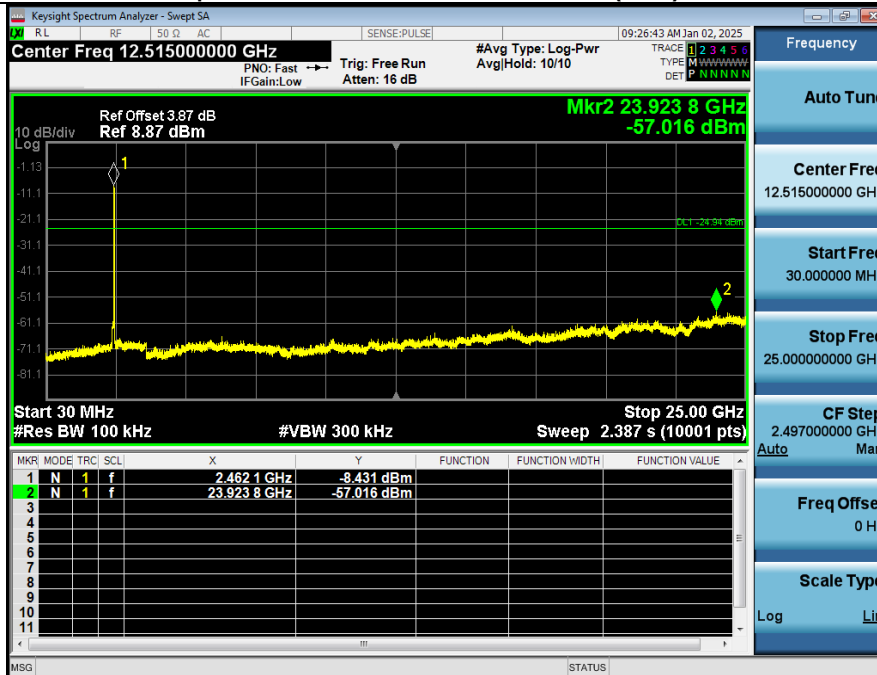
2 Spurious Emission_NVNT_ANT1_802_11n(HT20)_2437



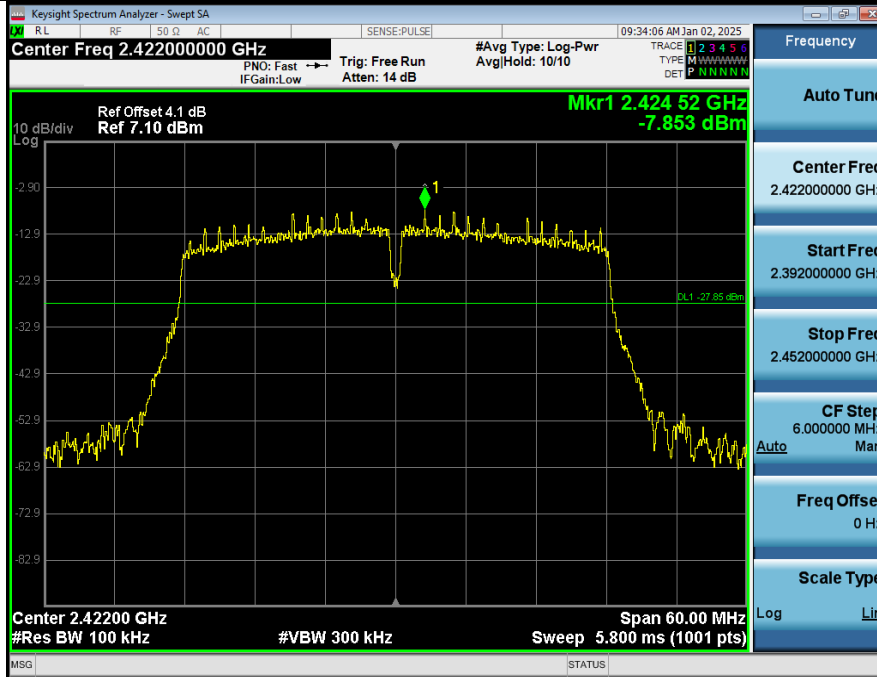
1 Reference Level_NVNT_ANT1_802_11n(HT20)_2462



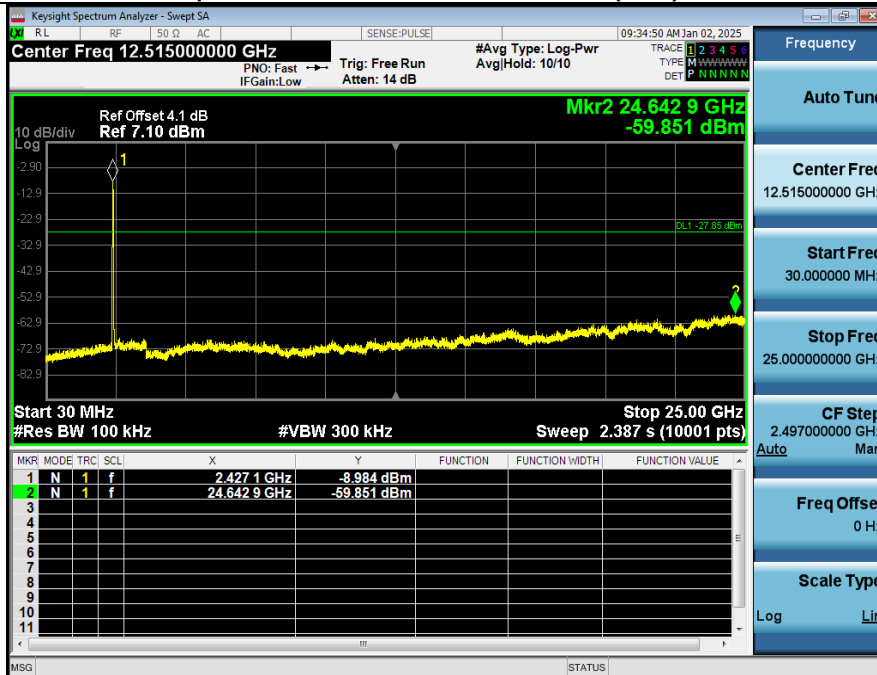
2 Spurious Emission_NVNT_ANT1_802_11n(HT20)_2462



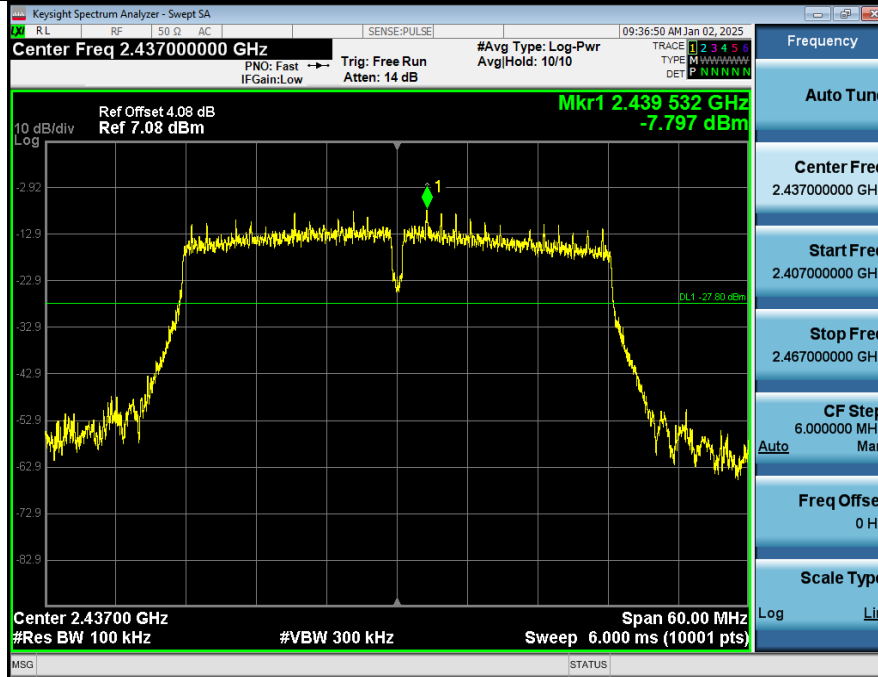
1 Reference Level_NVNT_ANT1_802_11n(HT40)_2422



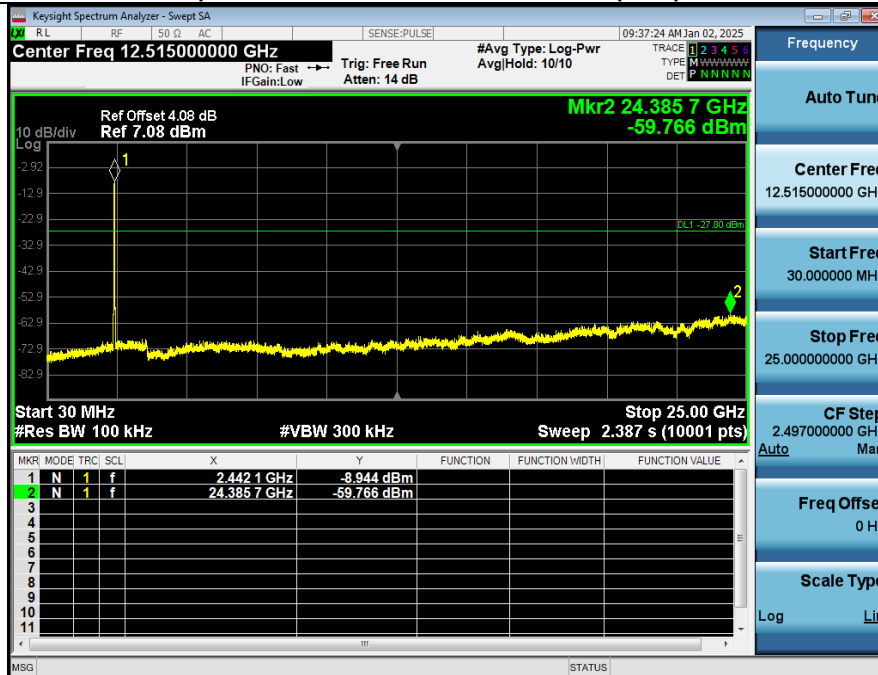
2 Spurious Emission_NVNT_ANT1_802_11n(HT40)_2422



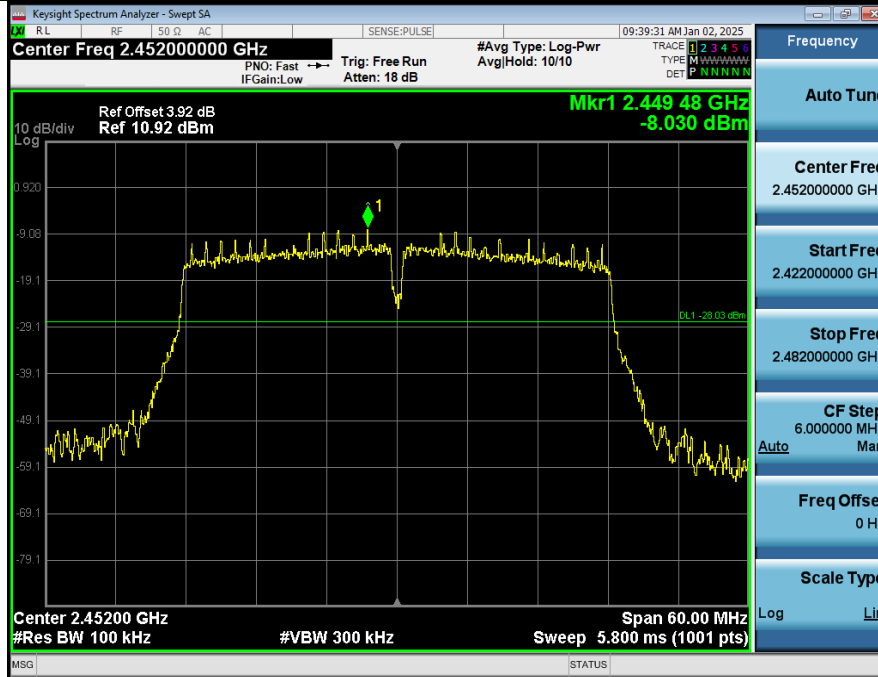
1 Reference_Level_NVNT_ANT1_802_11n(HT40)_2437



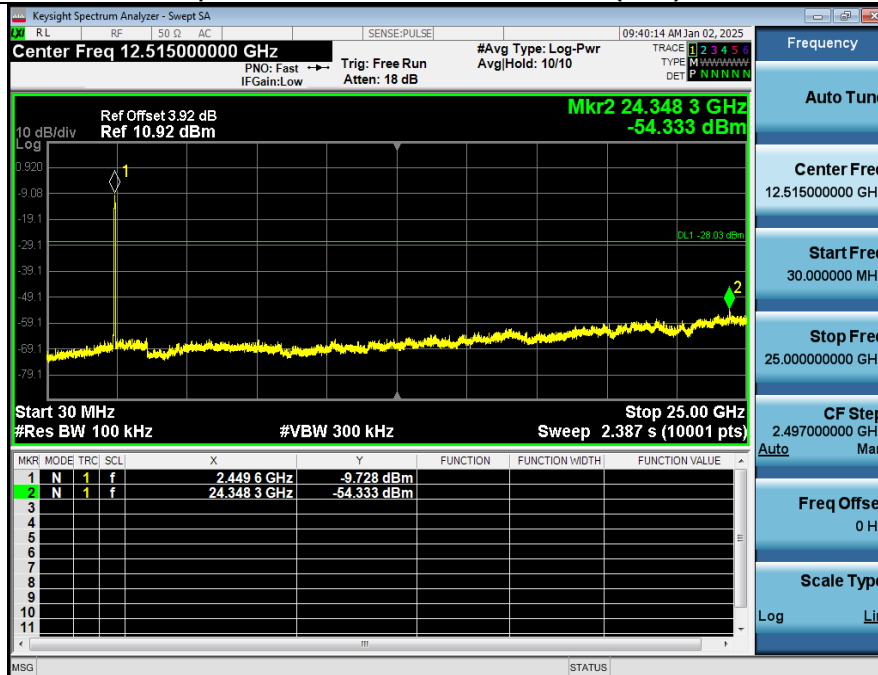
2 Spurious Emission_NVNT_ANT1_802_11n(HT40)_2437



1 Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



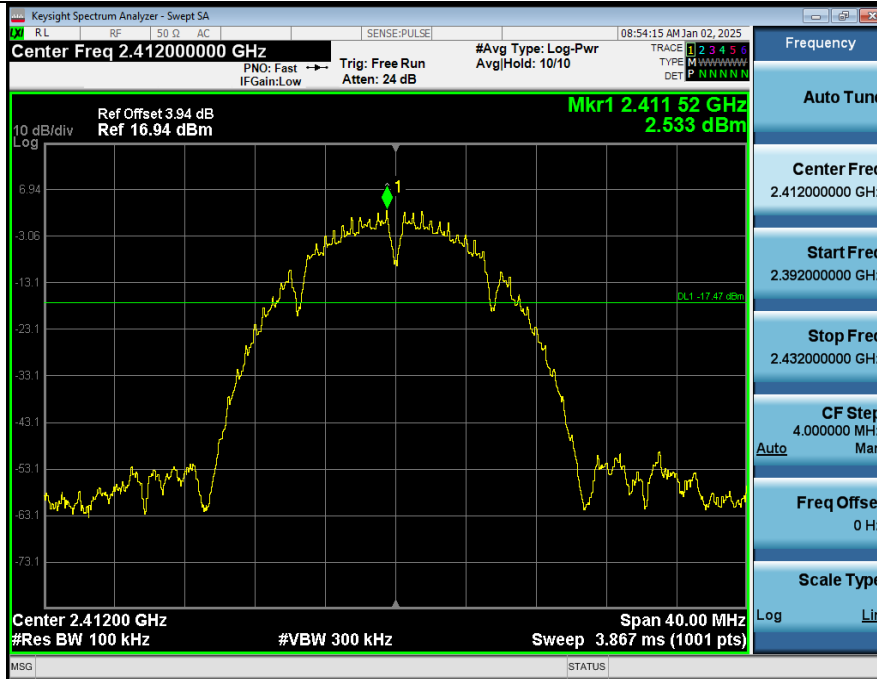
2 Spurious Emission_NVNT_ANT1_802_11n(HT40)_2452



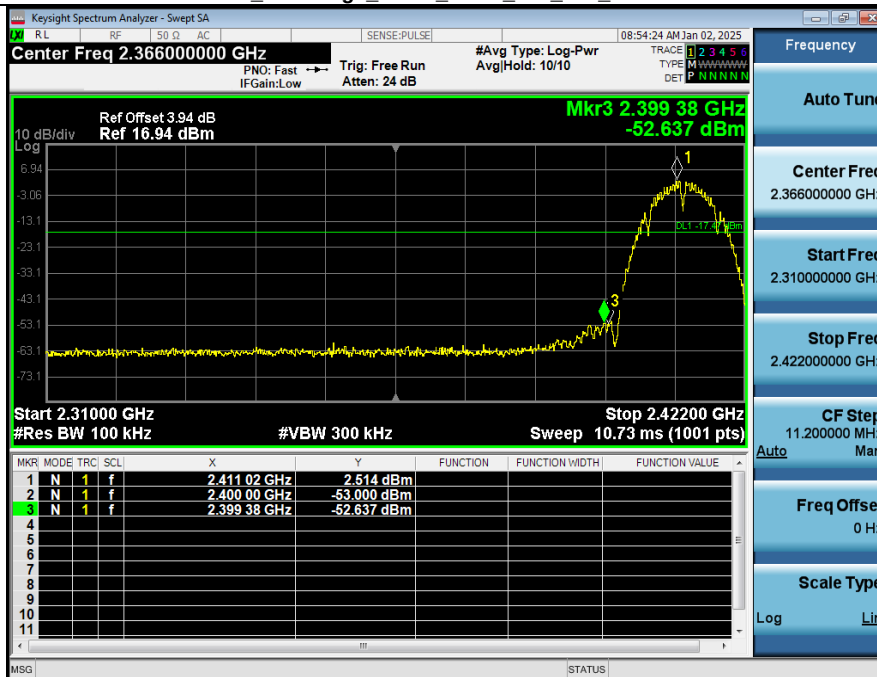
2. Band edge measurements

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.376	2.533	-52.637	-17.467	Pass
NVNT	ANT1	802.11b	2462.00	2485.024	2.494	-59.472	-17.506	Pass
NVNT	ANT1	802.11g	2412.00	2399.936	-4.404	-50.833	-24.404	Pass
NVNT	ANT1	802.11g	2462.00	2484.448	-4.283	-59.977	-24.283	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	-4.744	-48.623	-24.744	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.920	-4.944	-61.391	-24.944	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.496	-7.853	-51.335	-27.853	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2484.632	-8.030	-55.626	-28.030	Pass

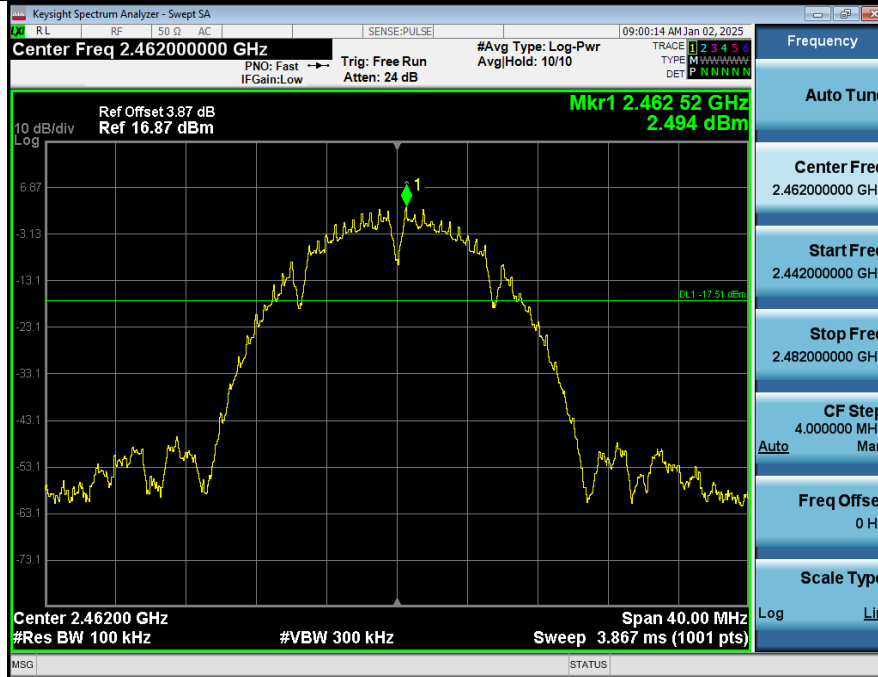
1 Reference Level NVNT_ANT1_802_11b_2412



2 Bandedge NVNT_ANT1_802_11b_2412



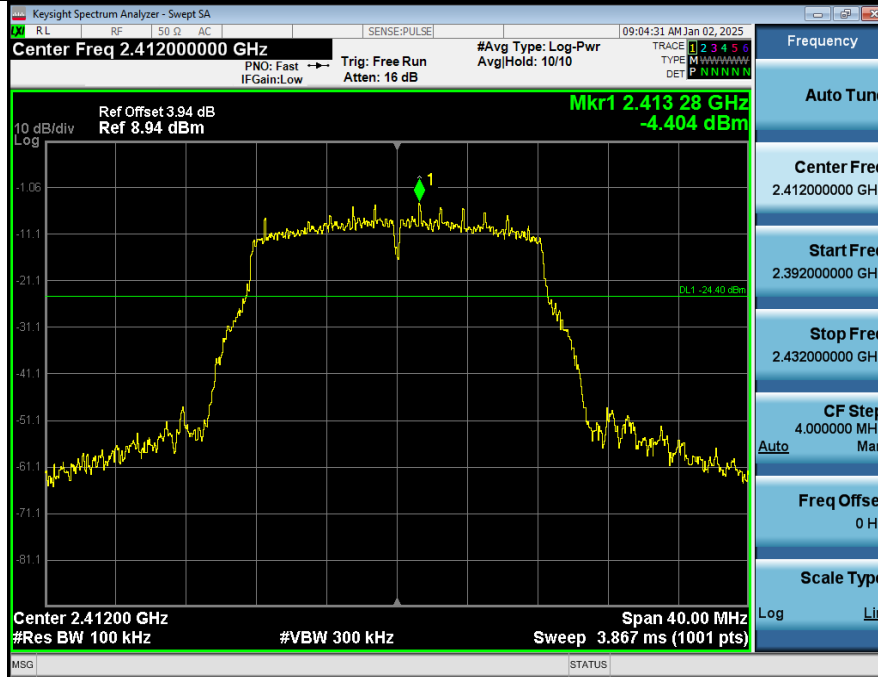
1 Reference_Level_NVNT_ANT1_802_11b_2462



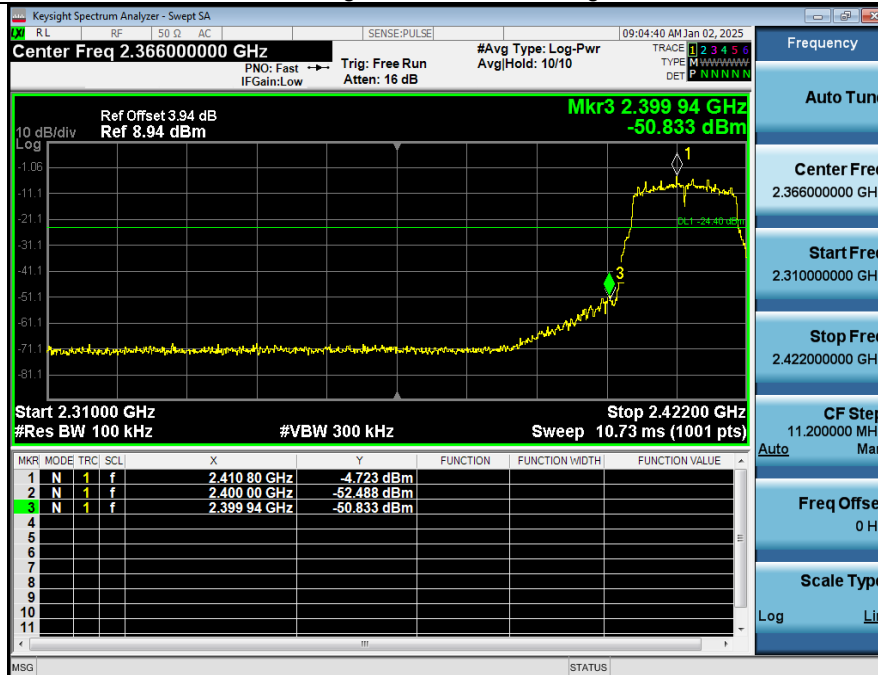
2 Bandedge_NVNT_ANT1_802_11b_2462



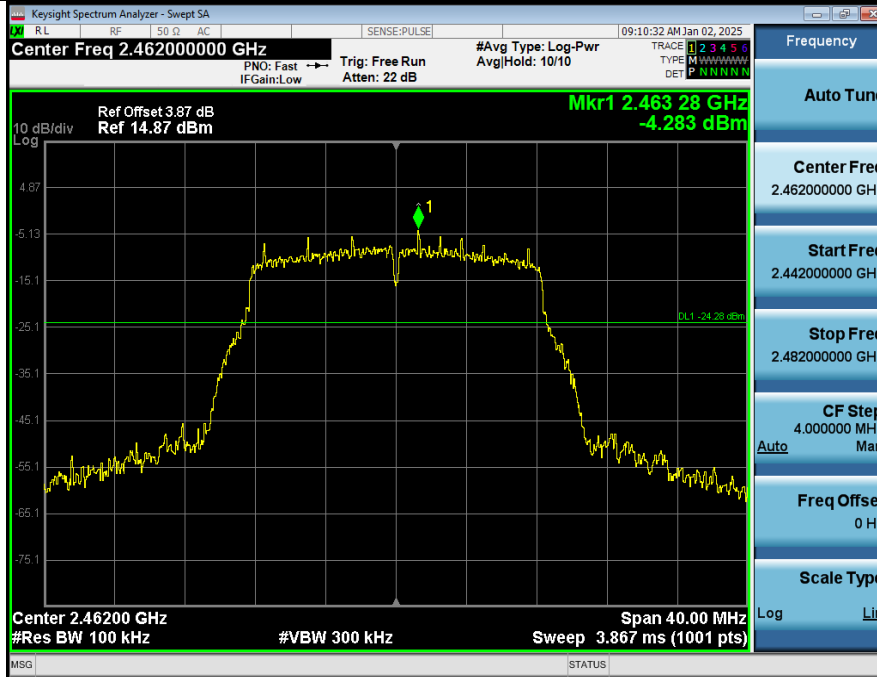
1 Reference_Level_NVNT_ANT1_802_11g_2412



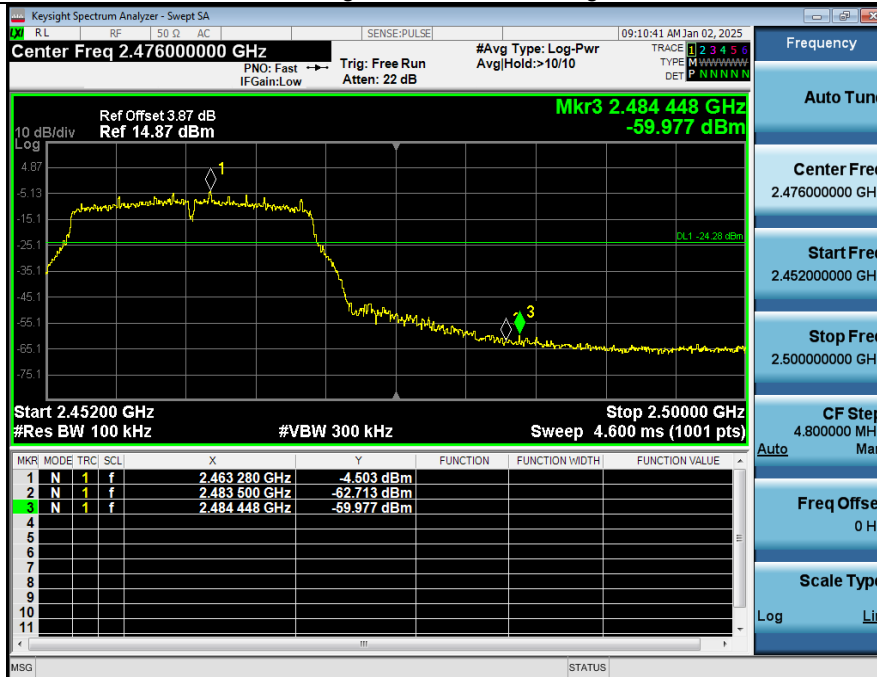
2 Bandedge_NVNT_ANT1_802_11g_2412



1 Reference Level NVNT_ANT1_802_11g_2462



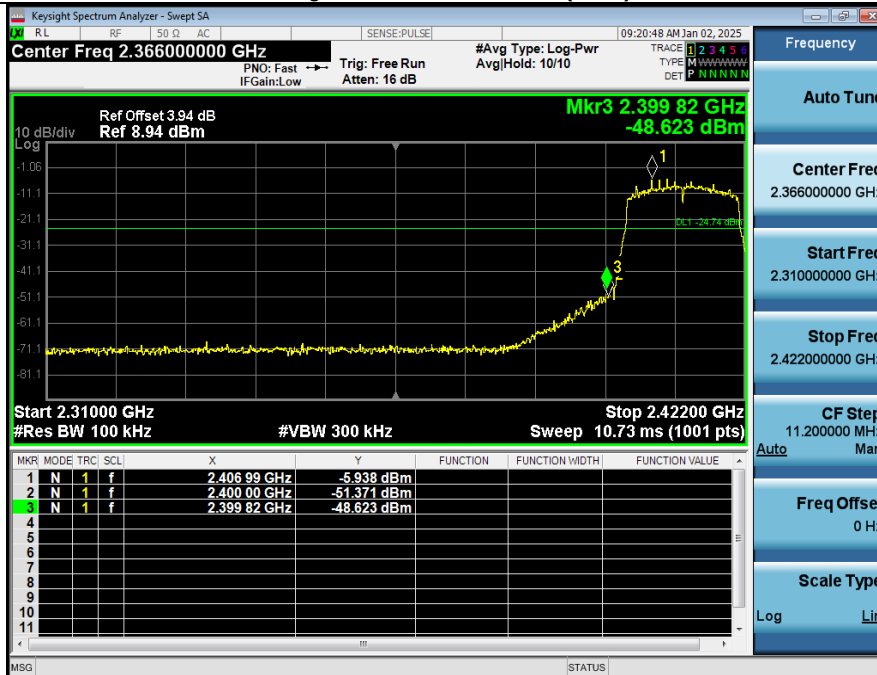
2 Bandedge NVNT_ANT1_802_11g_2462



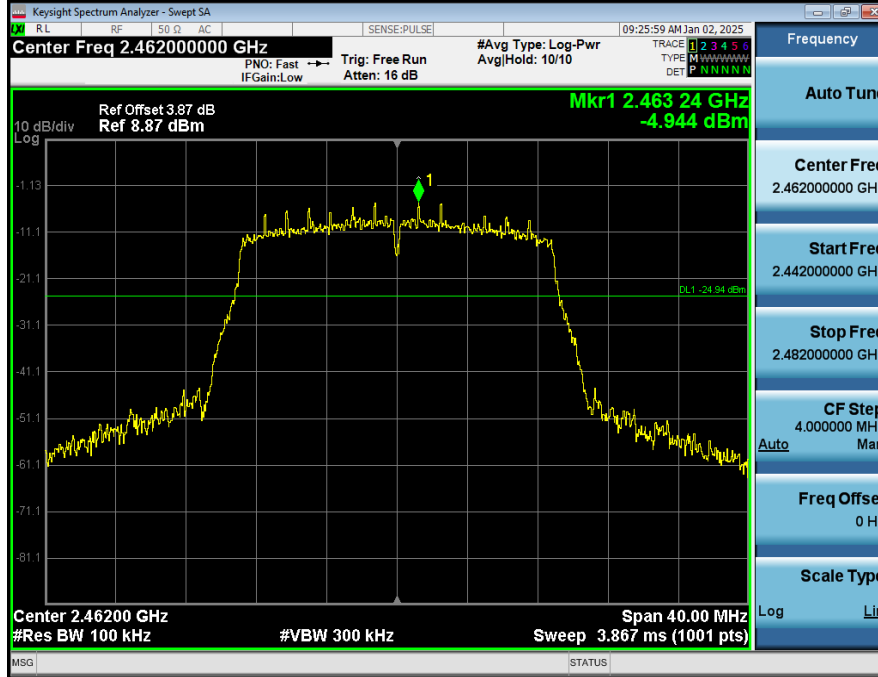
1 Reference Level_NVNT_ANT1_802_11n(HT20)_2412



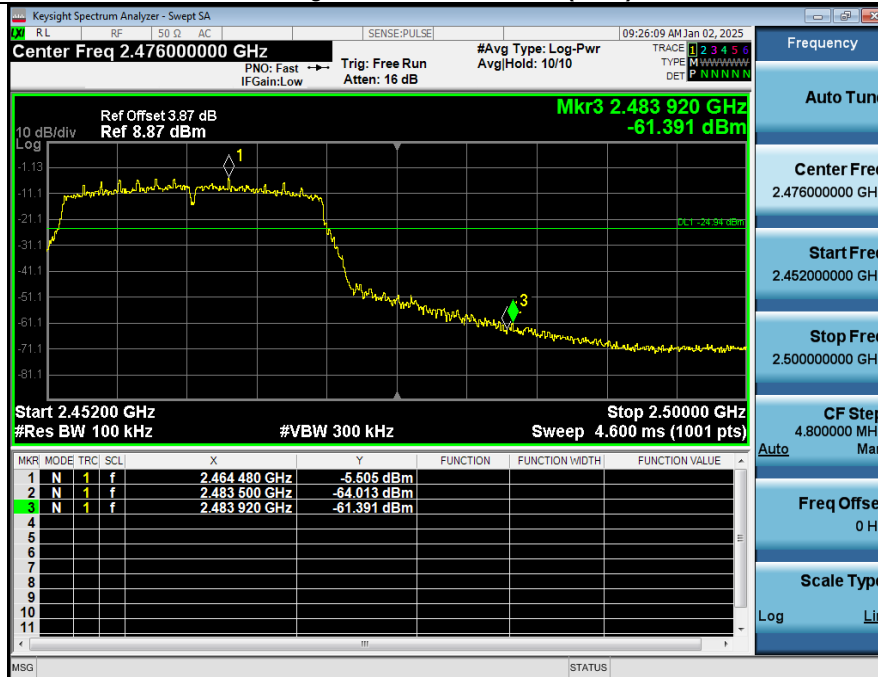
2 Bandedge_NVNT_ANT1_802_11n(HT20)_2412



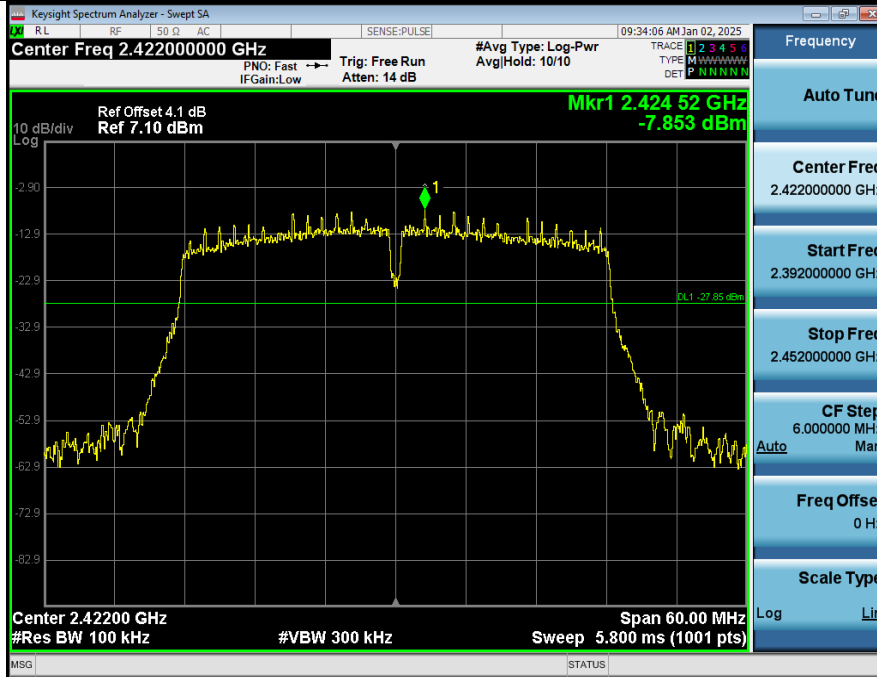
1 Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



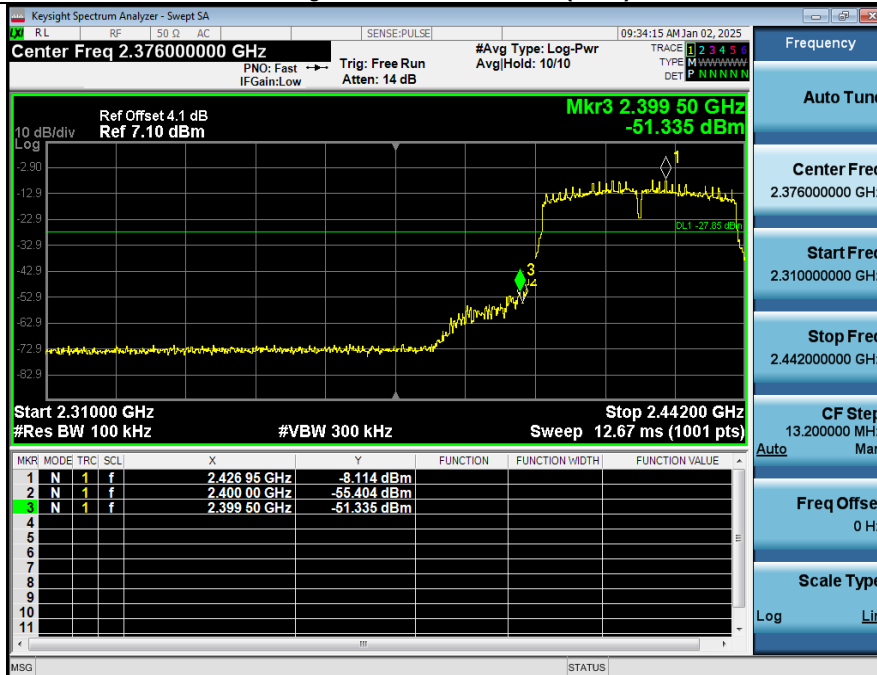
2 Bandedge_NVNT_ANT1_802_11n(HT20)_2462



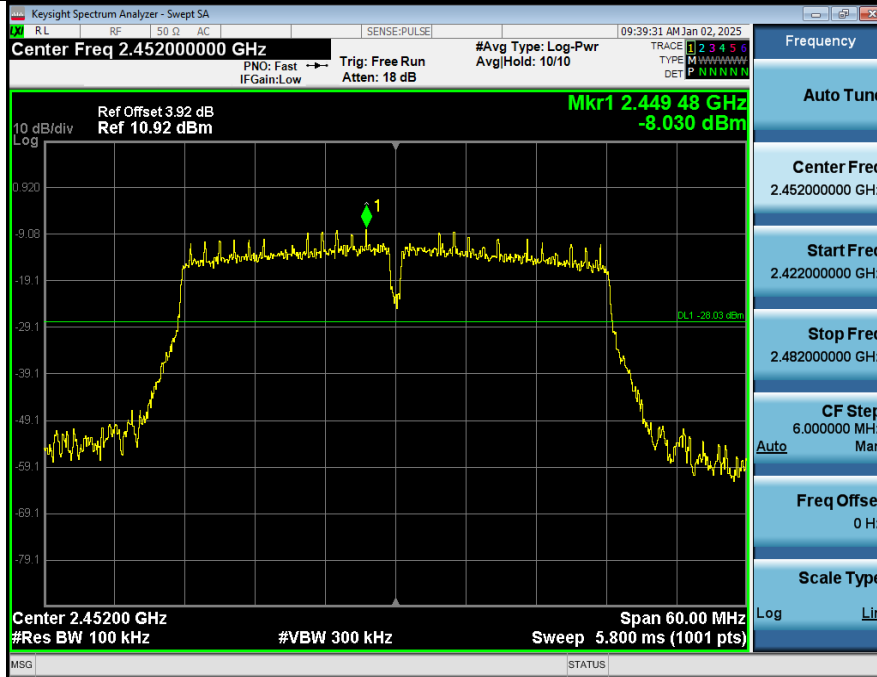
1 Reference Level_NVNT_ANT1_802_11n(HT40) 2422



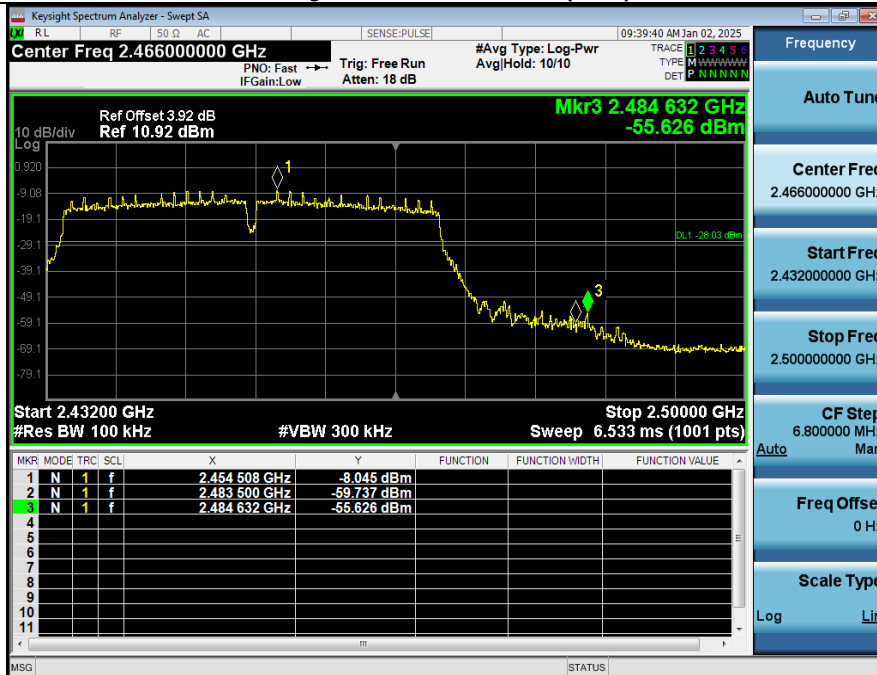
2 Bandedge_NVNT_ANT1_802_11n(HT40) 2422



1 Reference Level_NVNT_ANT1_802_11n(HT40) 2452



2 Bandedge_NVNT_ANT1_802_11n(HT40) 2452



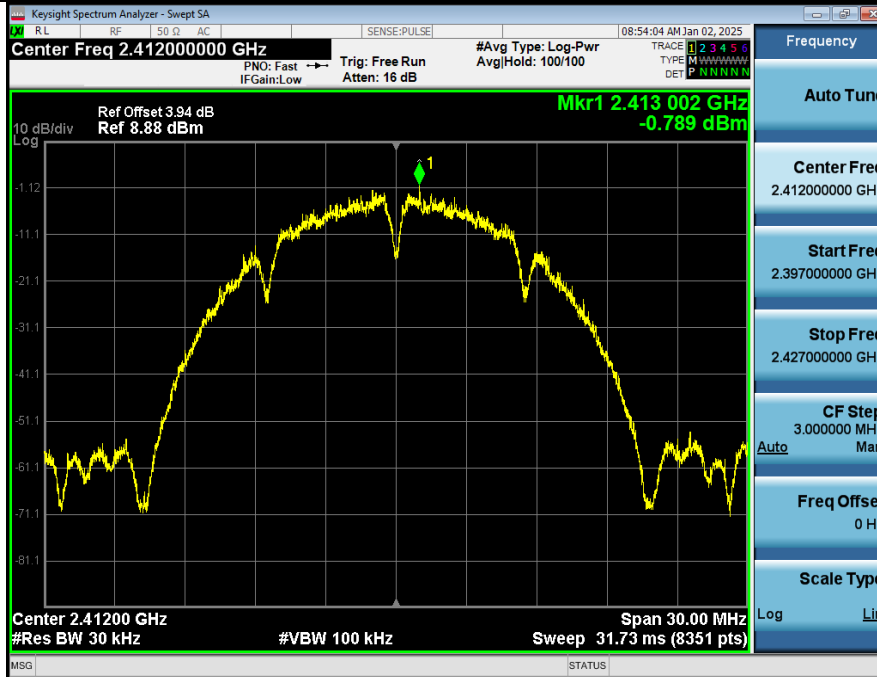
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a).
3. The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

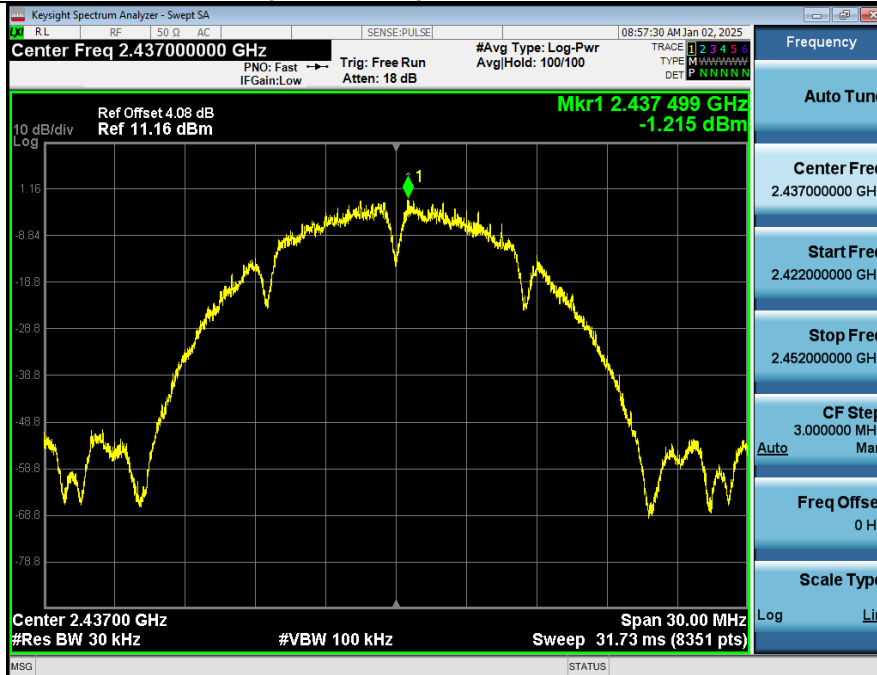
APPENDIXH - POWER SPECTRAL DENSITY

Condition	Antenna	Modulation	Frequency (MHz)	SA_PSD(dBm/30kHz)	Duty factor(dB)	RB factor(dB)	PSD(dBm/3kHz)	Limit (dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-0.79	N/A	-10.00	-10.79	8	Pass
NVNT	ANT1	802.11b	2437.00	-1.22	N/A	-10.00	-11.21	8	Pass
NVNT	ANT1	802.11b	2462.00	-1.96	N/A	-10.00	-11.96	8	Pass
NVNT	ANT1	802.11g	2412.00	-8.72	N/A	-10.00	-18.73	8	Pass
NVNT	ANT1	802.11g	2437.00	-8.78	N/A	-10.00	-18.78	8	Pass
NVNT	ANT1	802.11g	2462.00	-9.29	N/A	-10.00	-19.29	8	Pass
NVNT	ANT1	802.11n (HT20)	2412.00	-8.64	N/A	-10.00	-18.64	8	Pass
NVNT	ANT1	802.11n (HT20)	2437.00	-8.08	N/A	-10.00	-18.08	8	Pass
NVNT	ANT1	802.11n (HT20)	2462.00	-8.86	N/A	-10.00	-18.86	8	Pass
NVNT	ANT1	802.11n (HT40)	2422.00	-13.16	N/A	-10.00	-23.16	8	Pass
NVNT	ANT1	802.11n (HT40)	2437.00	-13.08	N/A	-10.00	-23.08	8	Pass
NVNT	ANT1	802.11n (HT40)	2452.00	-13.37	N/A	-10.00	-23.37	8	Pass

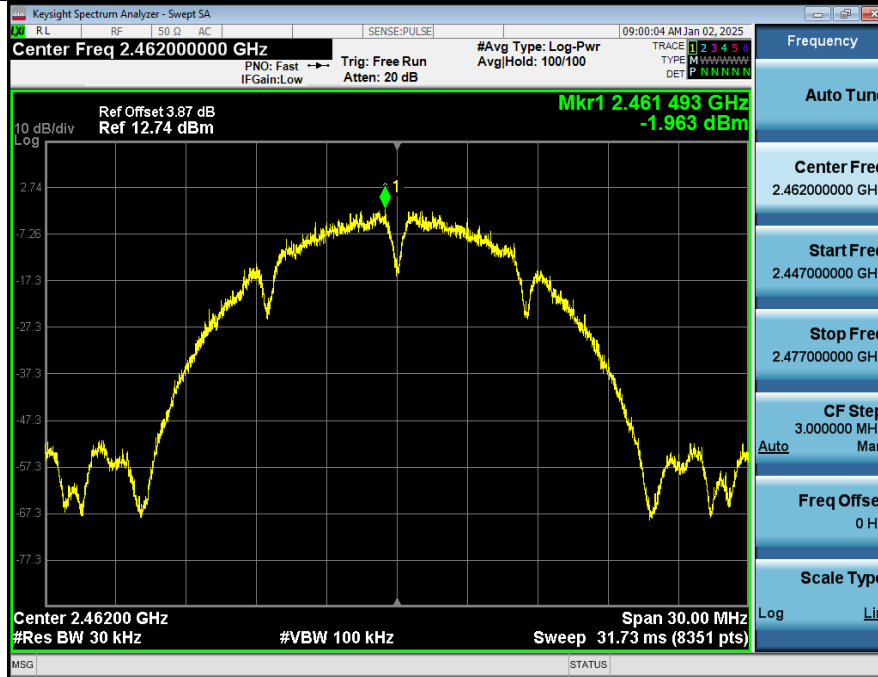
Power Spectral Density_NVNT_ANT1_802_11b_2412



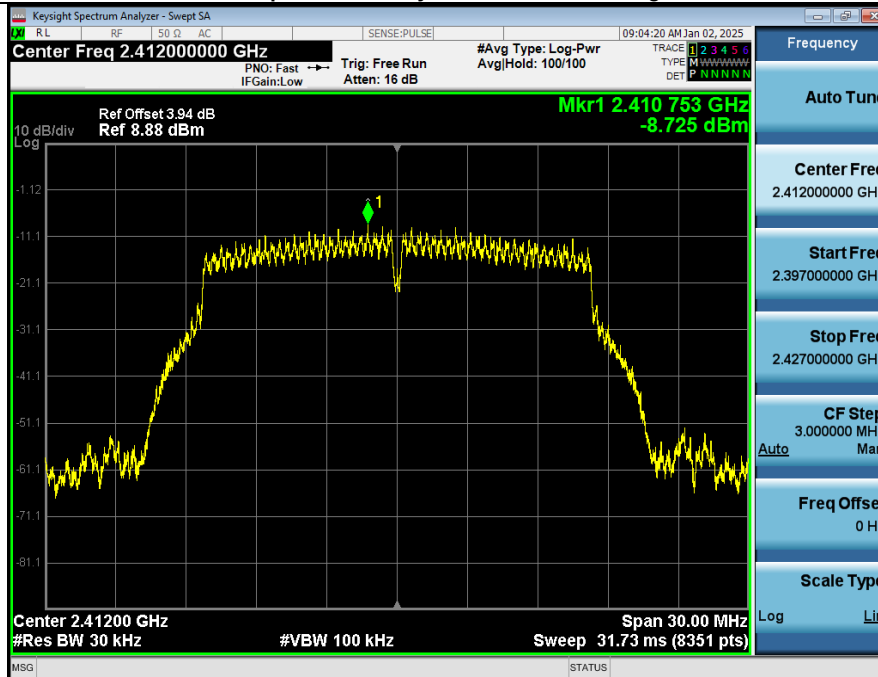
Power Spectral Density_NVNT_ANT1_802_11b_2437

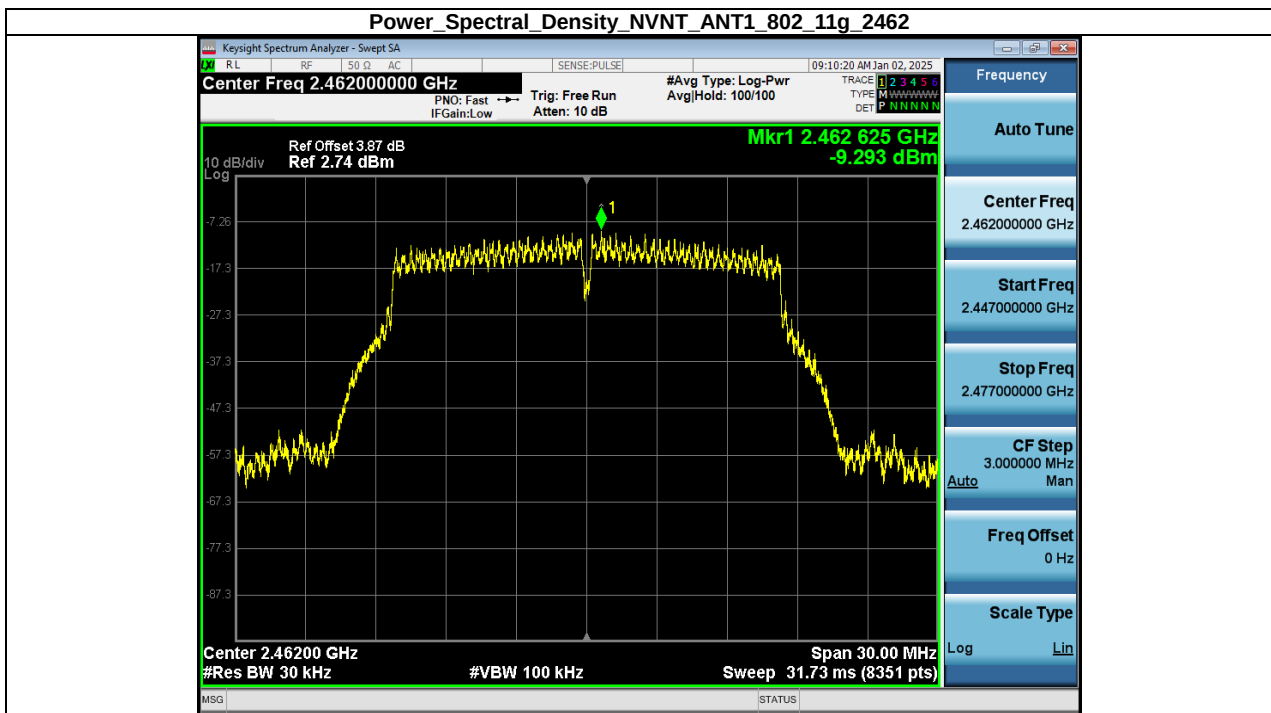
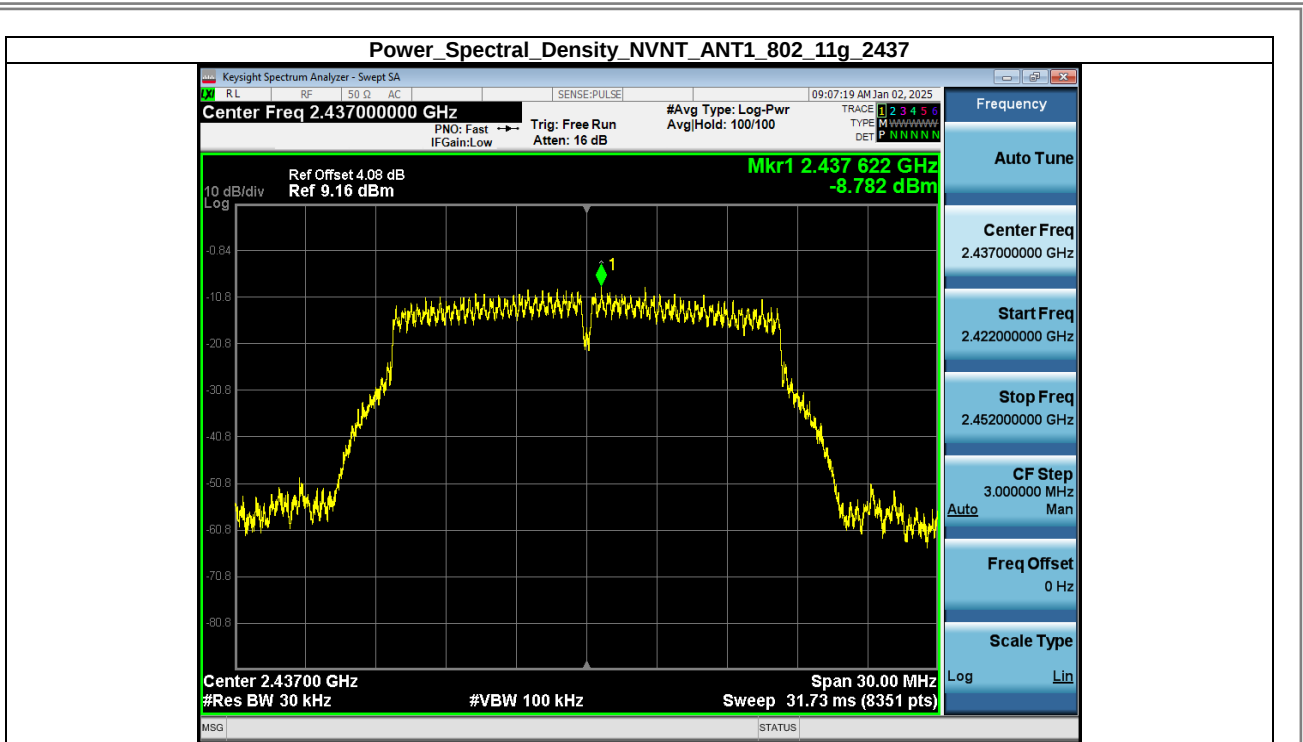


Power Spectral Density NVNT_ANT1_802_11b_2462

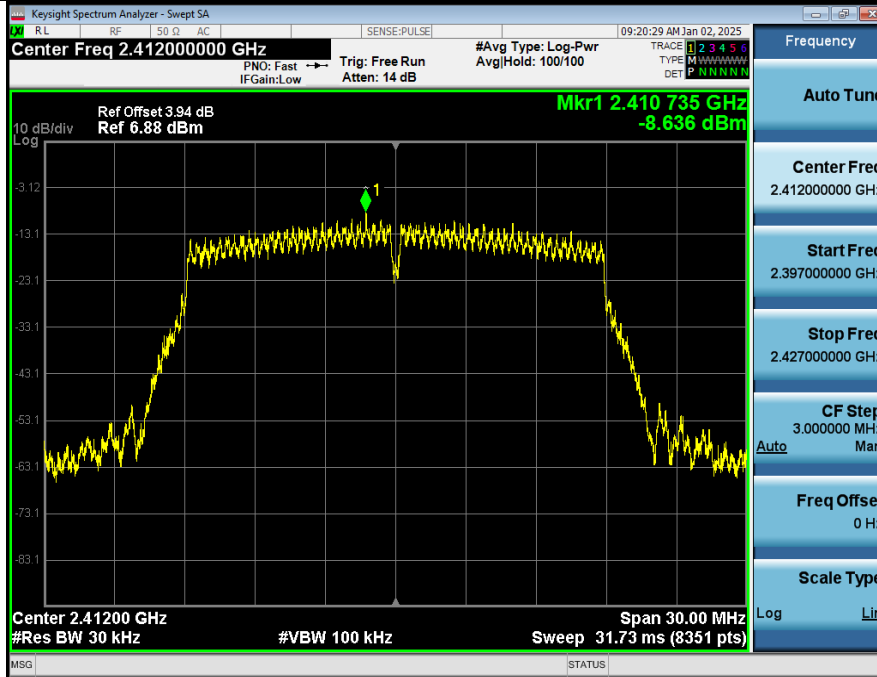


Power Spectral Density NVNT_ANT1_802_11g_2412

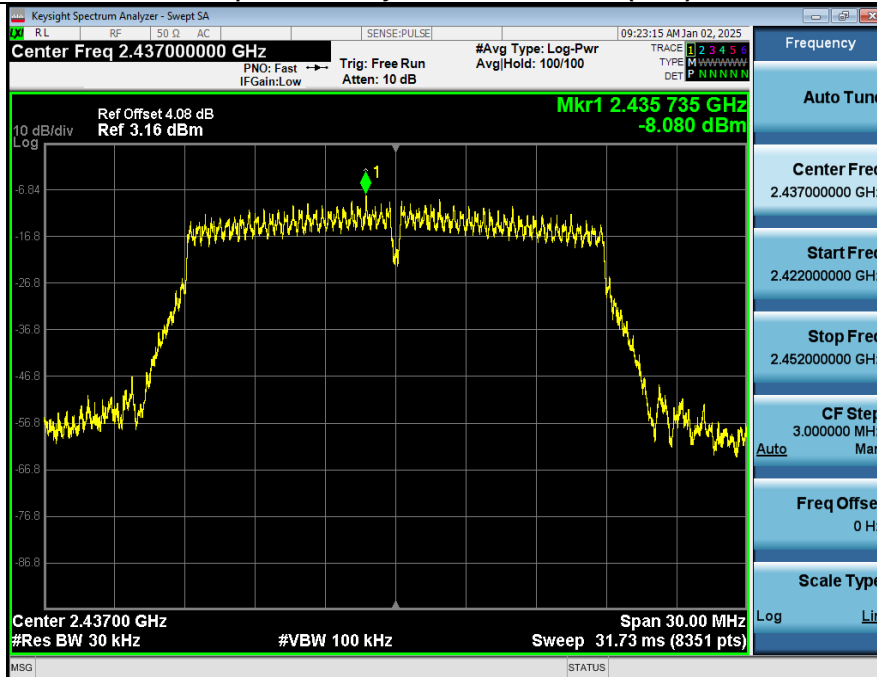




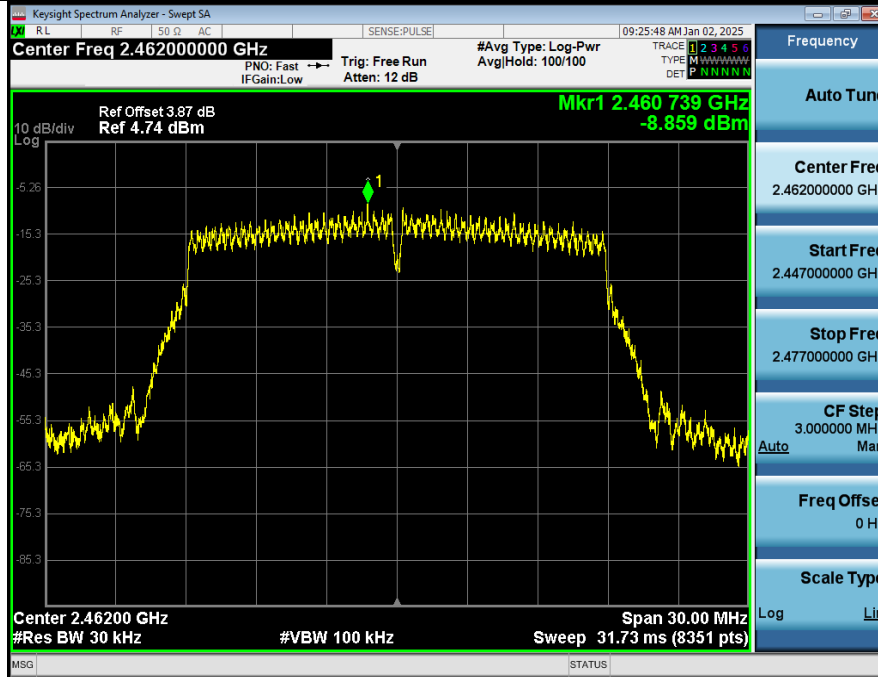
Power Spectral Density NVNT_ANT1_802_11n(HT20)_2412



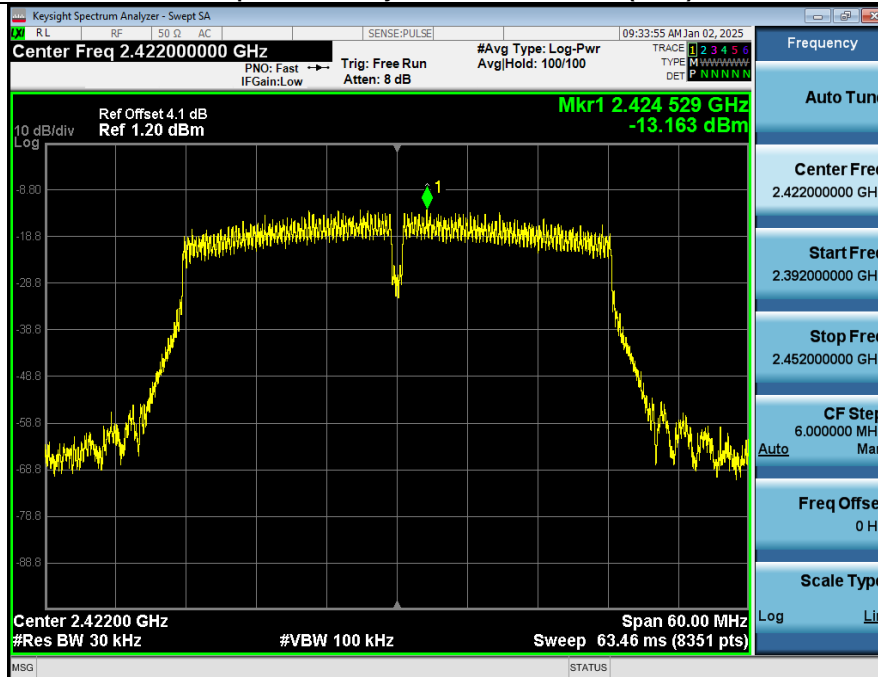
Power Spectral Density NVNT_ANT1_802_11n(HT20)_2437

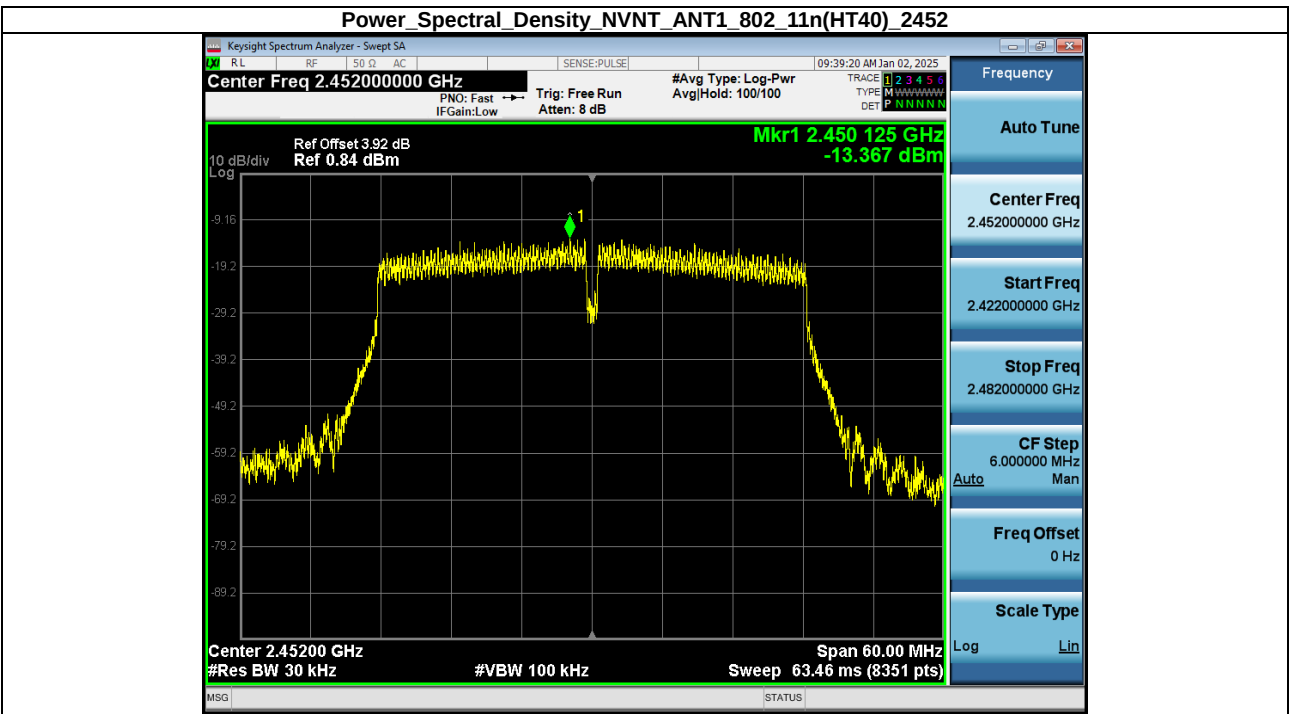
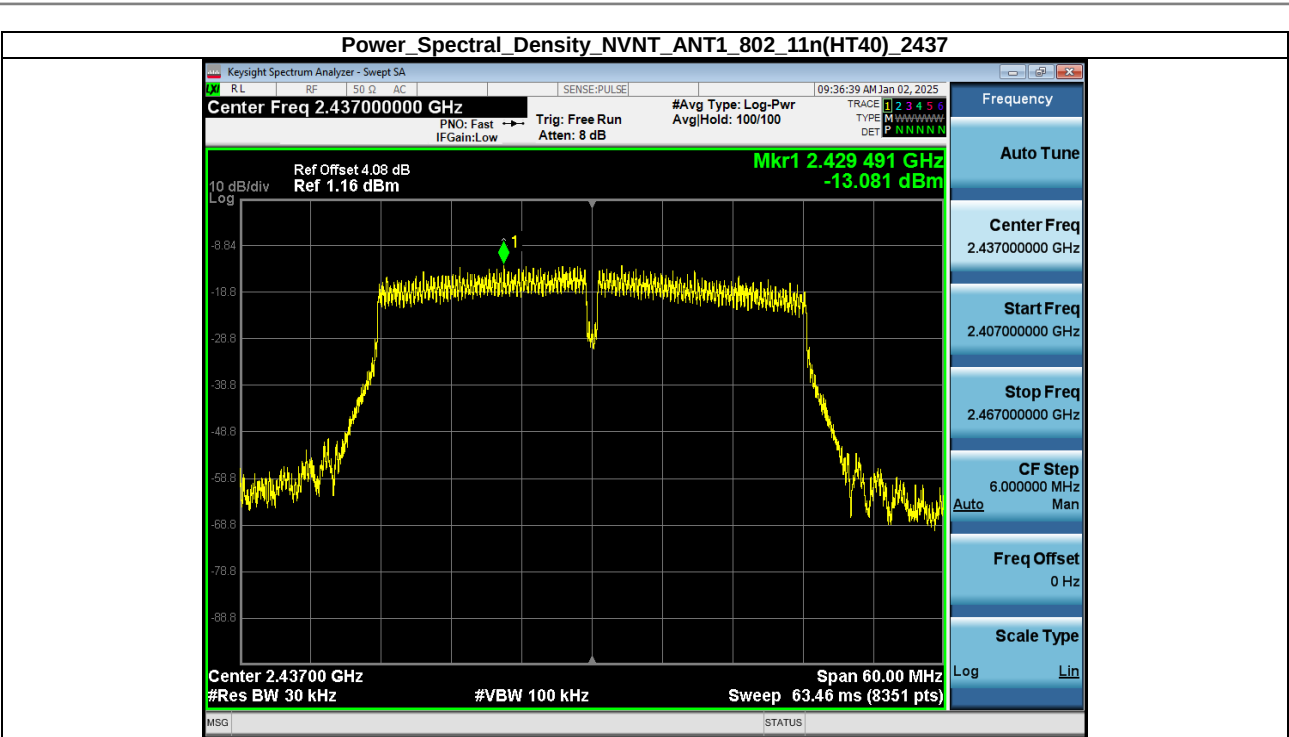


Power Spectral Density NVNT ANT1_802_11n(HT20)_2462



Power Spectral Density NVNT ANT1_802_11n(HT40)_2422





End of Test Report