

# TEST REPORT

FCC ID: 2AIZN-X1101B

Product: Tablet

Model No.: X1101B

Trade Mark: Infinix

Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

Issued Date: 14 November 2024

Issued for:

INFINIX MOBILITY LIMITED

FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI  
STREET FOTAN NT HONGKONG

Issued By:

World Standardization Certification & Testing Group(Shenzhen) Co.,Ltd.  
Building A-B,Baoli' an Industrial Park,No.58 and 60,Tangtou Avenue, Shiyao  
Street, Bao' an District, Shenzhen City, Guangdong Province, China

TEL: +86-755-26996192

FAX: +86-755-86376605

**Note:** This report shall not be reproduced except in full, without the written approval of World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. This document may be altered or revised by World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.



## TABLE OF CONTENTS

<b>1. Test Certification</b>	<b>3</b>
<b>2. Test Result Summary</b>	<b>4</b>
<b>3. EUT Description</b>	<b>5</b>
<b>4. General Information</b>	<b>7</b>
4.1. TEST ENVIRONMENT AND MODE	7
4.2. DESCRIPTION OF SUPPORT UNITS	8
<b>5. Facilities and Accreditations</b>	<b>9</b>
5.1. FACILITIES	9
5.2. ACCREDITATIONS	9
5.3. MEASUREMENT UNCERTAINTY	10
5.4. MEASUREMENT INSTRUMENTS	11
<b>6. Test Results and Measurement Data</b>	<b>12</b>
6.1. ANTENNA REQUIREMENT	12
6.2. CONDUCTED EMISSION	13
6.3. EMISSION BANDWIDTH	18
6.4. POWER SPECTRAL DENSITY	26
6.5. CONDUCTED BAND EDGE AND SPURIOUS EMISSION MEASUREMENT	34
6.6. RADIATED SPURIOUS EMISSION MEASUREMENT	55
<b>7. Test Setup Photographs</b>	<b>67</b>



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

## 1. Test Certification

Product:	Tablet
Model No.:	X1101B
Additional Model:	Infinix
Applicant:	INFINIX MOBILITY LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer:	INFINIX MOBILITY LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Date of Test:	29 September 2024 to 13 November 2024
Applicable Standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247

The above equipment has been tested by World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By:

Wang Xiang

(Wang Xiang)

Checked By:

Qin Shuiquan

(Qin Shuiquan)

Approved By:

Li Huaibi

(Li Huaibi)

Date:

14 November 2024



## 2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203/§15.247 (c)	PASS
AC Power Line Conducted Emission	§15.207	PASS
Maximum Conducted Output Power	§15.247 (b)(3) §2.1046	PASS
6dB Emission Bandwidth	§15.247 (a)(2) §2.1049	PASS
Power Spectral Density	§15.247 (e)	PASS
Band Edge	§15.247(d) §2.1051, §2.1057	PASS
Spurious Emission	§15.205/§15.209 §2.1053, §2.1057	PASS

### Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

### 3. EUT Description

<b>Product:</b>	Tablet
<b>Model No.:</b>	X1101B
<b>Trade Mark:</b>	Infinix
<b>Software version:</b>	X1101B-M1101CDEGHIJKL
<b>Hardware version:</b>	V1.0
<b>Operation Frequency:</b>	2412MHz~2462MHz (802.11b/g/n(HT20) 2422MHz~2452MHz (802.11n(HT40)
<b>Channel Separation:</b>	5MHz
<b>Modulation type:</b>	DSSS (DBPSK, DQPSK, CCK) for IEEE 802.11b OFDM (BPSK,QPSK,16QAM,64QAM,256QAM,) for IEEE 802.11g/n
<b>Antenna Type:</b>	Internal Antenna
<b>Antenna Gain</b>	1dBi
<b>Operating Voltage:</b>	Adapter1: U180XKB Input: 100-240V~50/60Hz 0.6A Output: 5.0V~2.4A , 7.5V~2.4A 18W max Adapter2: U180XED Input: 100-240V~50/60Hz 0.6A Output: 5.0V~2.4A , 7.5V~2.4A 18W max Rechargeable Li-ion Polymer Battery: BL-68CX Rated Voltage: 3.85V Rated Capacity: 6800mAh /26.18Wh Typical Capacity: 7000mAh /26.95Wh Limited Charge Voltage: 4.4V
<b>Remark:</b>	N/A.

Note: 1. N/A stands for no applicable.

2. Antenna gain provided by the customer.



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

### Operation Frequency each of channel For 802.11b/g/n(HT20)

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

### Operation Frequency each of channel For 802.11n(HT40)

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
--	--	4	2427MHz	7	2442MHz	--	--
--	--	5	2432MHz	8	2447MHz	--	--
3	2422MHz	6	2437MHz	9	2452MHz		

#### Note:

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

#### 802.11b/g/n(HT20)

Channel	Frequency
The lowest channel	2412MHz
The middle channel	2437MHz
The Highest channel	2462MHz

#### 802.11n(HT40)

Channel	Frequency
The lowest channel	2422MHz
The middle channel	2437MHz
The Highest channel	2452MHz



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

## 4. General Information

### 4.1. Test environment and mode

#### Operating Environment:

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

#### Test Mode:

Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations(The value of duty cycle is 98.46%)
-------------------	--

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:

**Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.**

Mode
802.11b
802.11g
802.11n(H20)
802.11n(H40)

#### Final Test Mode:

Operation mode:	Keep the EUT in continuous transmitting with modulation
-----------------	---

1.For WIFI function, the engineering test program was provided and enabled to make EUT continuous transmit/receive.2.According to ANSI C63.10 standards, the test results are both the "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 98.5% with maximum power setting for all modulations.



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

## 4.2. Description of Support Units

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

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Adapter	/	Adapter1/2	/	/

**Note:**

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, 6dB Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

## 5. Facilities and Accreditations

### 5.1. Facilities

All measurement facilities used to collect the measurement data are located at **Building A-B, Baoli'an Industrial Park, No.58 and 60, Tangtou Avenue, Shiyuan Street, Bao'an District, Shenzhen City, Guangdong Province, China of the World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.**

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

### 5.2. ACCREDITATIONS

#### ANAB - Certificate Number: AT-3951

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (ANAB). Certification Number: AT-3951



### 5.3.Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission Test	$\pm 3.2\text{dB}$
2	RF power, conducted	$\pm 2.4\%$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	All emissions, radiated(<1GHz)	$\pm 4.7\text{dB}$
5	All emissions, radiated(>1GHz)	$\pm 4.7\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2.0\%$
8	Receiver Spurious Emissions	$\pm 2.5\%$
9	Transmitter Unwanted Emissions in the Spurious Domain	$\pm 2.5\%$
10	Transmitter Unwanted Emission in the out-of Band	$\pm 1.3\%$
11	Occupied Channel Bandwidth	$\pm 2.4\%$



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

## 5.4.MEASUREMENT INSTRUMENTS

NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	Calibration Date	Calibration Due.
Test software	--	EZ-EMC	CON-03A	-	-
Test software	--	MTS8310	--	-	--
EMI Test Receiver	R&S	ESCI	100005	11/05/2024	11/04/2025
LISN	AFJ	LS16	16010222119	11/05/2024	11/04/2025
LISN(EUT)	Mestec	AN3016	04/10040	11/05/2024	11/04/2025
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	11/05/2024	11/04/2025
Coaxial cable	Megalon	LMR400	N/A	11/05/2024	11/04/2025
GPIO cable	Megalon	GPIO	N/A	11/05/2024	11/04/2025
Spectrum Analyzer	R&S	FSU	100114	11/05/2024	11/04/2025
Pre Amplifier	H.P.	HP8447E	2945A02715	11/05/2024	11/04/2025
Pre-Amplifier	CDSI	PAP-1G18-38	--	11/05/2024	11/04/2025
Bi-log Antenna	SCHWARZBECK	VULB9168	01488	07/29/2024	07/28/2025
9*6*6 Anechoic	--	--	--	11/05/2024	11/04/2025
Horn Antenna	COMPLIANCE ENGINEERING	CE18000	--	11/05/2024	11/04/2025
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-631	11/05/2024	11/04/2025
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	11/05/2024	11/04/2025
System-Controller	CCS	N/A	N/A	N.C.R	N.C.R
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R
RF cable	Murata	MXHQ87WA3000	-	11/05/2024	11/04/2025
Loop Antenna	EMCO	6502	00042960	11/05/2024	11/04/2025
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	11/05/2024	11/04/2025
Power meter	Anritsu	ML2487A	6K00003613	11/05/2024	11/04/2025
Power sensor	Anritsu	MX248XD	--	11/05/2024	11/04/2025
Spectrum Analyzer	Keysight	N9010B	MY60241089	11/05/2024	11/04/2025



## 6. Test Results and Measurement Data

### 6.1. Antenna requirement

**Standard requirement:**

FCC Part15 C Section 15.203 /247(c)

**15.203 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

**15.247(c) (1)(i) requirement:**

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

**E.U.T Antenna:**

The Bluetooth antenna is a Internal Antenna. it meets the standards, and the best case gain of the antenna is 1dBi.



Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

## 6.2. Conducted Emission

### 6.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2014														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	<div><p>Reference Plane</p><p>40cm</p><p>80cm</p><p>E.U.T</p><p>AC power</p><p>Test table/Insulation plane</p><p>LISN</p><p>EMI Receiver</p><p>Filter</p><p>AC power</p></div> <p>Remark E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>														
Test Mode:	Charging + transmitting with modulation														
Test Procedure:	<ol style="list-style-type: none"><li>1. The E.U.T is connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li><li>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li><li>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2014 on conducted measurement.</li></ol>														
Test Result:	PASS														



Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

## 6.2.2. EUT OPERATING CONDITIONS

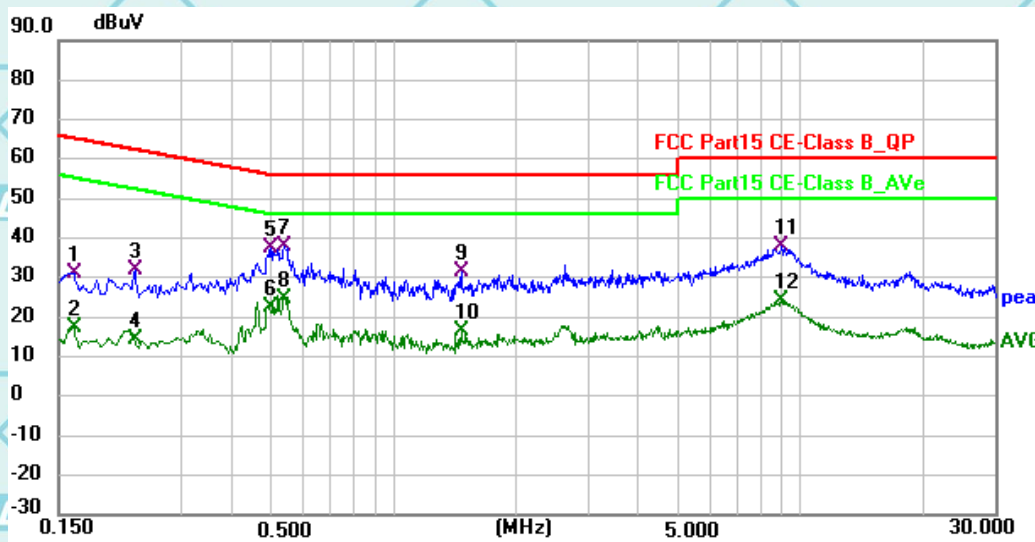
The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

### Test data

Please refer to following diagram for individual

### Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)

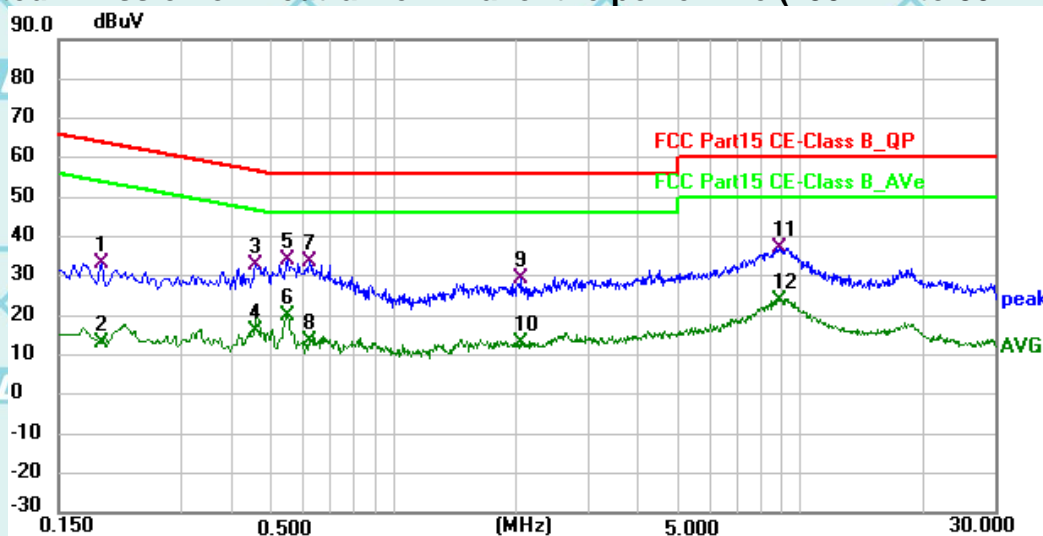


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1635	10.46	20.72	31.18	65.28	-34.10	QP
2	0.1635	-3.23	20.72	17.49	55.28	-37.79	AVG
3	0.2310	11.32	20.67	31.99	62.41	-30.42	QP
4	0.2310	-6.51	20.67	14.16	52.41	-38.25	AVG
5	0.4965	16.83	20.51	37.34	56.06	-18.72	QP
6	0.4965	1.90	20.51	22.41	46.06	-23.65	AVG
7 *	0.5370	17.32	20.52	37.84	56.00	-18.16	QP
8	0.5370	3.91	20.52	24.43	46.00	-21.57	AVG
9	1.4640	10.76	20.64	31.40	56.00	-24.60	QP
10	1.4640	-4.28	20.64	16.36	46.00	-29.64	AVG
11	8.9925	17.35	20.47	37.82	60.00	-22.18	QP
12	8.9925	3.84	20.47	24.31	50.00	-25.69	AVG



Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

## Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1905	12.37	20.70	33.07	64.01	-30.94	QP
2	0.1905	-7.55	20.70	13.15	54.01	-40.86	AVG
3	0.4560	12.28	20.54	32.82	56.77	-23.95	QP
4	0.4560	-4.30	20.54	16.24	46.77	-30.53	AVG
5 *	0.5460	13.35	20.52	33.87	56.00	-22.13	QP
6	0.5460	-0.44	20.52	20.08	46.00	-25.92	AVG
7	0.6225	13.24	20.53	33.77	56.00	-22.23	QP
8	0.6225	-6.91	20.53	13.62	46.00	-32.38	AVG
9	2.0445	8.67	20.61	29.28	56.00	-26.72	QP
10	2.0445	-7.39	20.61	13.22	46.00	-32.78	AVG
11	8.8485	16.72	20.47	37.19	60.00	-22.81	QP
12	8.8485	3.34	20.47	23.81	50.00	-26.19	AVG

### Note1:

Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = Antenna factor + Cable loss

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

Margin (dB) = Measurement (dBuV) – Limits (dBuV)

Q.P. =Quasi-Peak AVG =average

\* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.


For multiple adapters, the report only displays the adapter with the worst data.



Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### 6.2.3. Maximum Conducted Output Power

### 6.2.4. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (b)(3)
<b>Test Method:</b>	KDB 558074
<b>Limit:</b>	30dBm
<b>Test Setup:</b>	 <p><b>Spectrum Analyzer</b>                      <b>EUT</b></p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v04.</li> <li>2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.</li> <li>3. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>4. Measure the conducted output power and record the results in the test report.</li> </ol>
<b>Test Result:</b>	PASS



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

### 6.2.5. Test Data

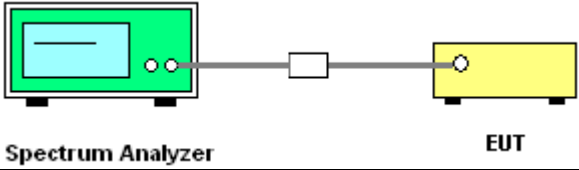
Mode	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Limit (dBm)	Verdict
b	2412	20.92	30	Pass
b	2437	18.93	30	Pass
b	2462	18.69	30	Pass
g	2412	21.40	30	Pass
g	2437	21.78	30	Pass
g	2462	21.65	30	Pass
n20	2412	22.29	30	Pass
n20	2437	<b>22.66</b>	30	Pass
n20	2462	22.55	30	Pass
n40	2422	20.93	30	Pass
n40	2437	21.00	30	Pass
n40	2452	20.95	30	Pass



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

### 6.3. Emission Bandwidth

#### 6.3.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (a)(2)
<b>Test Method:</b>	KDB 558074
<b>Limit:</b>	>500kHz
<b>Test Setup:</b>	 <p>Spectrum Analyzer                      EUT</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v04.</li> <li>2. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz.</li> <li>4. Measure and record the results in the test report.</li> </ol>
<b>Test Result:</b>	PASS



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

### 6.3.2. Test data(worst)

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	8.575	0.5	Pass
b	2437	7.527	0.5	Pass
b	2462	8.015	0.5	Pass
g	2412	13.80	0.5	Pass
g	2437	14.85	0.5	Pass
g	2462	15.44	0.5	Pass
n20	2412	13.84	0.5	Pass
n20	2437	15.07	0.5	Pass
n20	2462	12.95	0.5	Pass
n40	2422	35.02	0.5	Pass
n40	2437	32.48	0.5	Pass
n40	2452	35.32	0.5	Pass

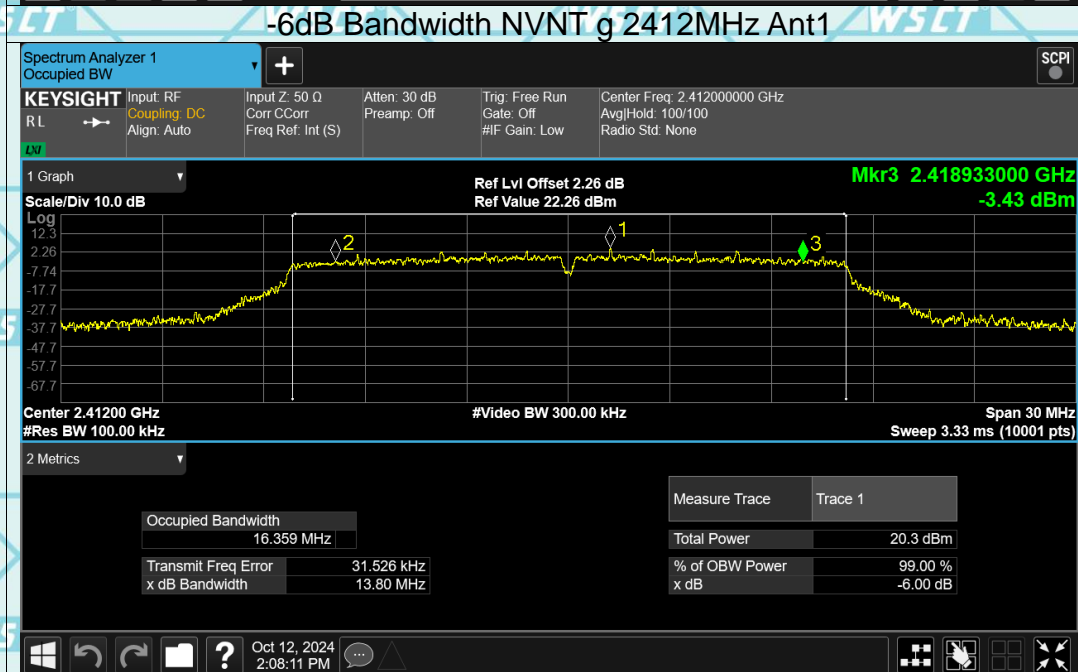
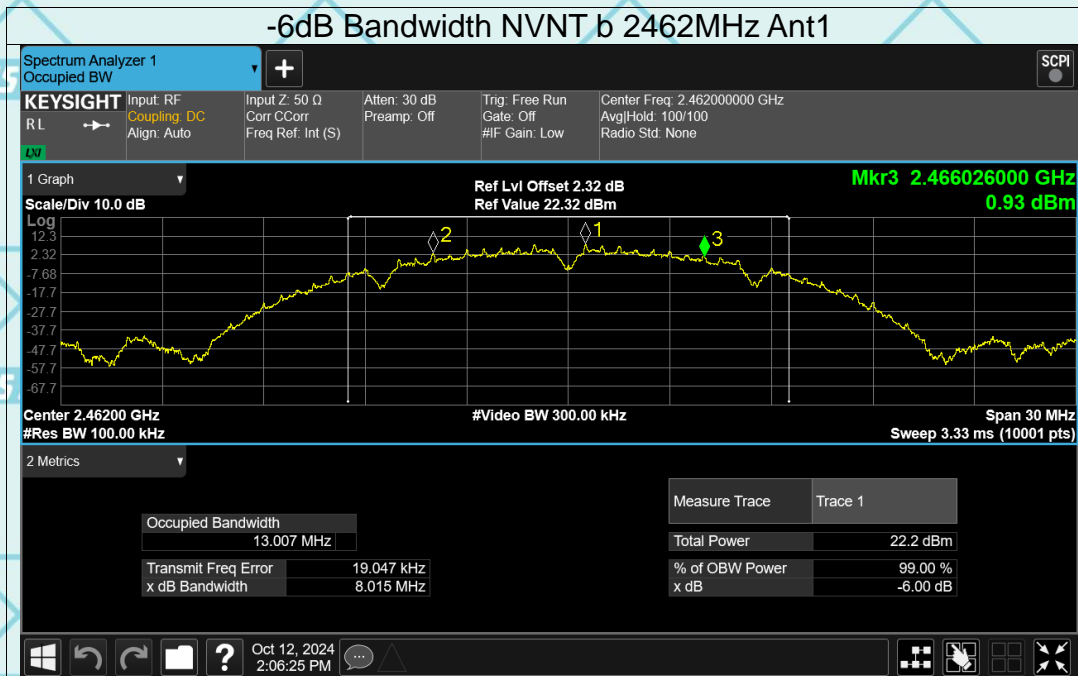


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1



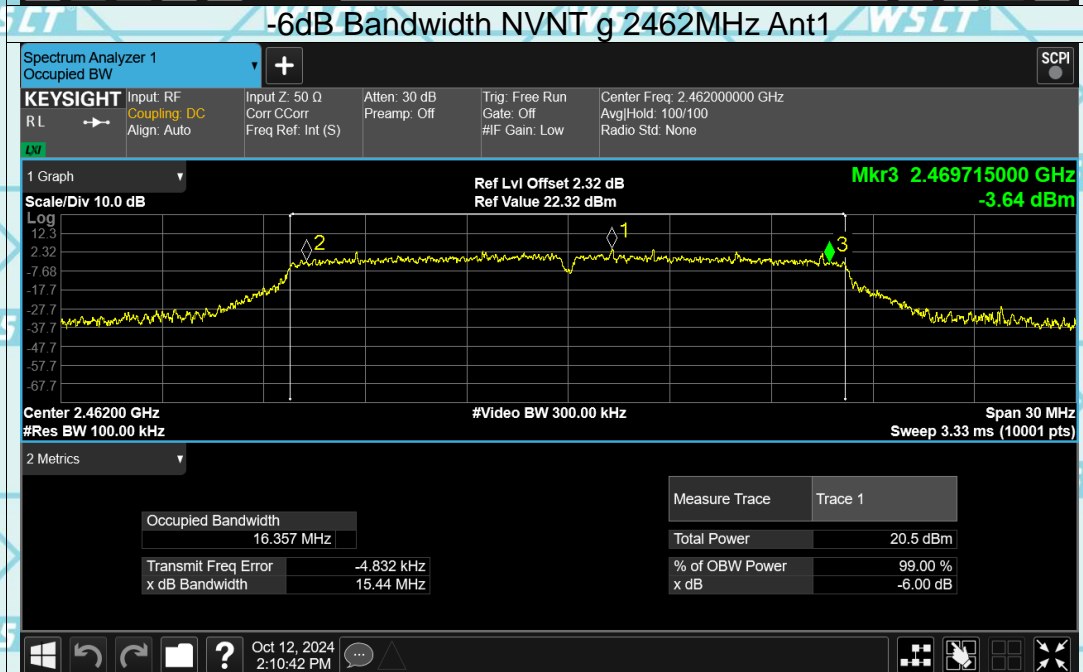
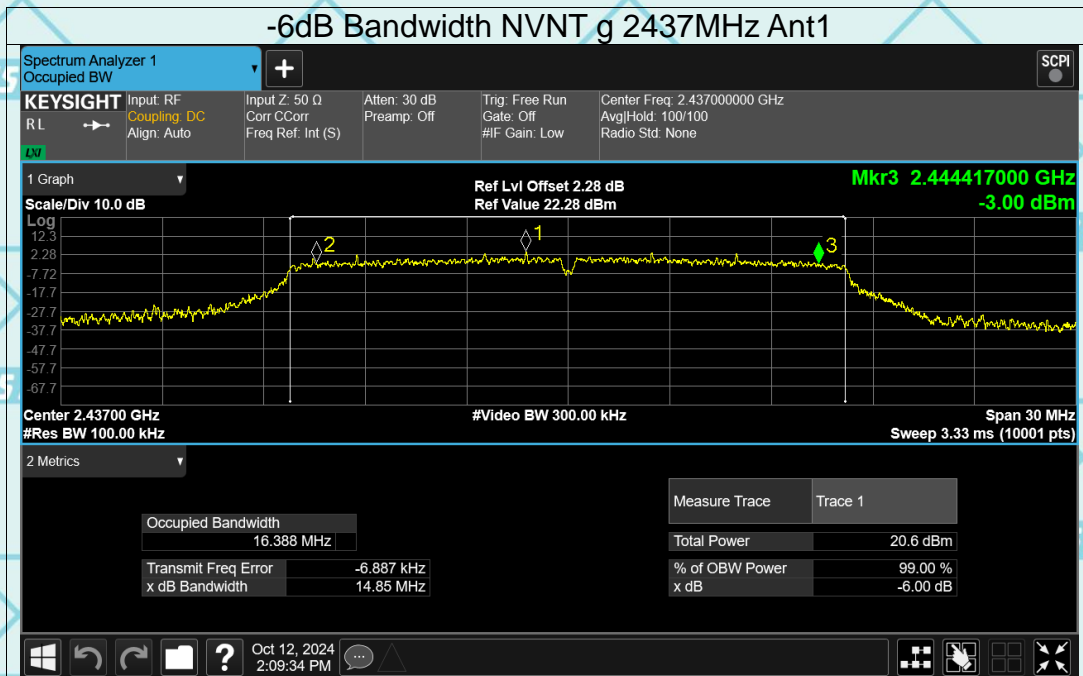


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1



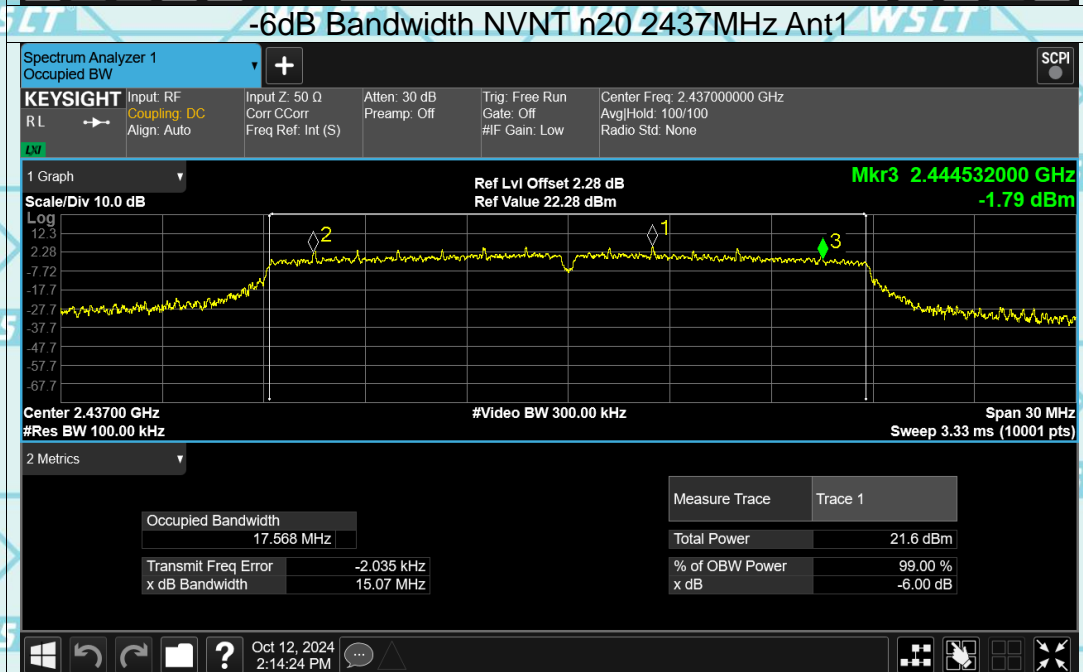
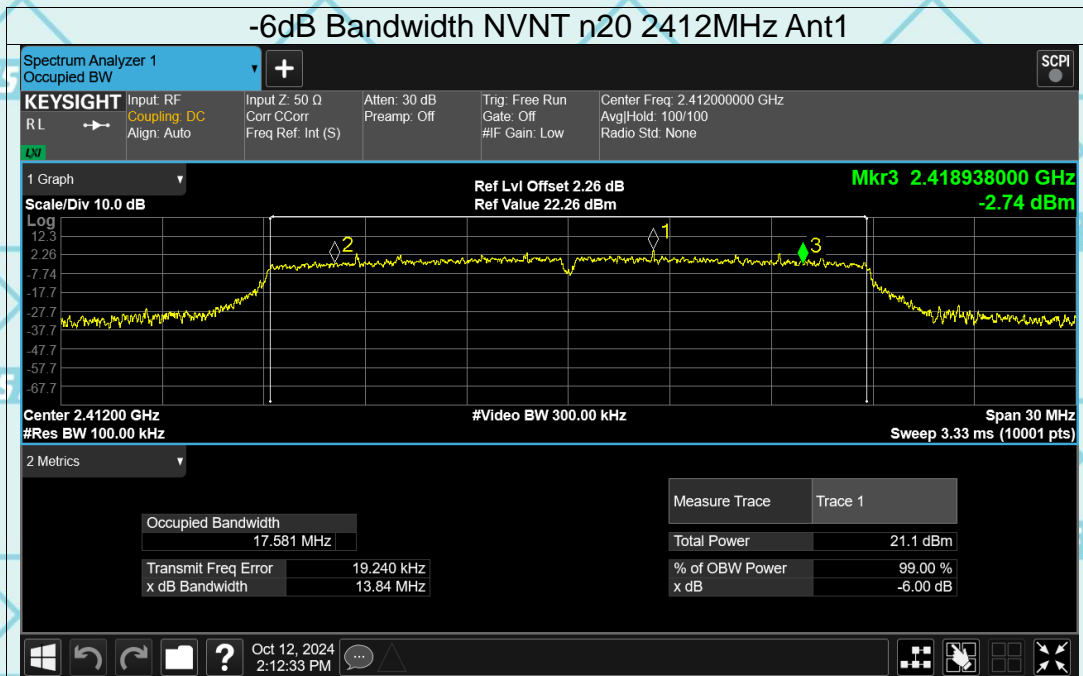


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1



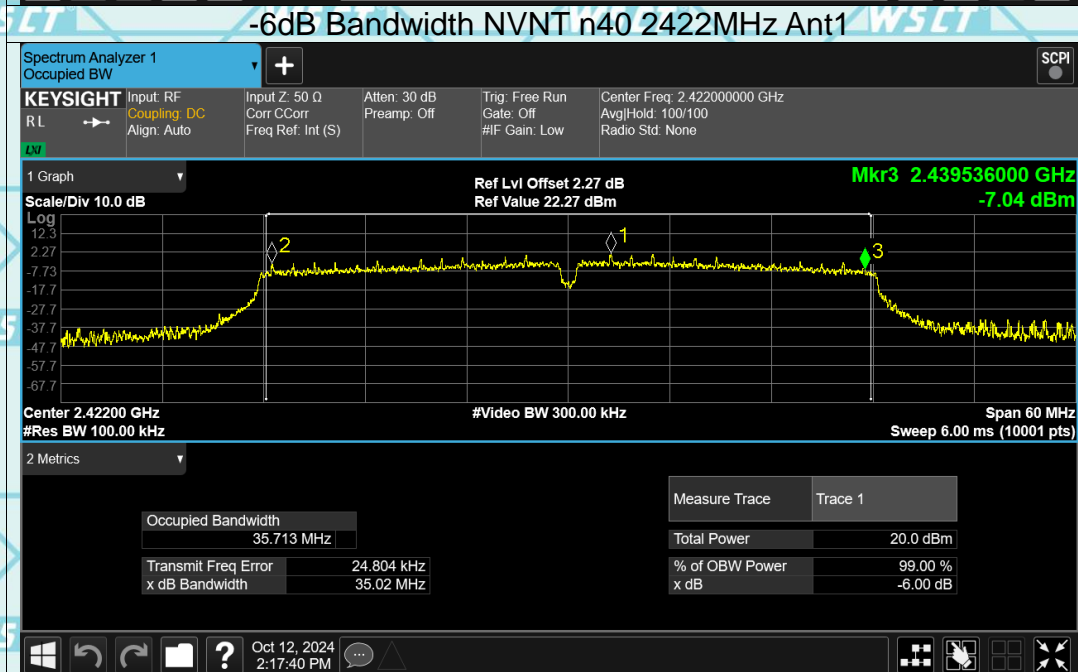
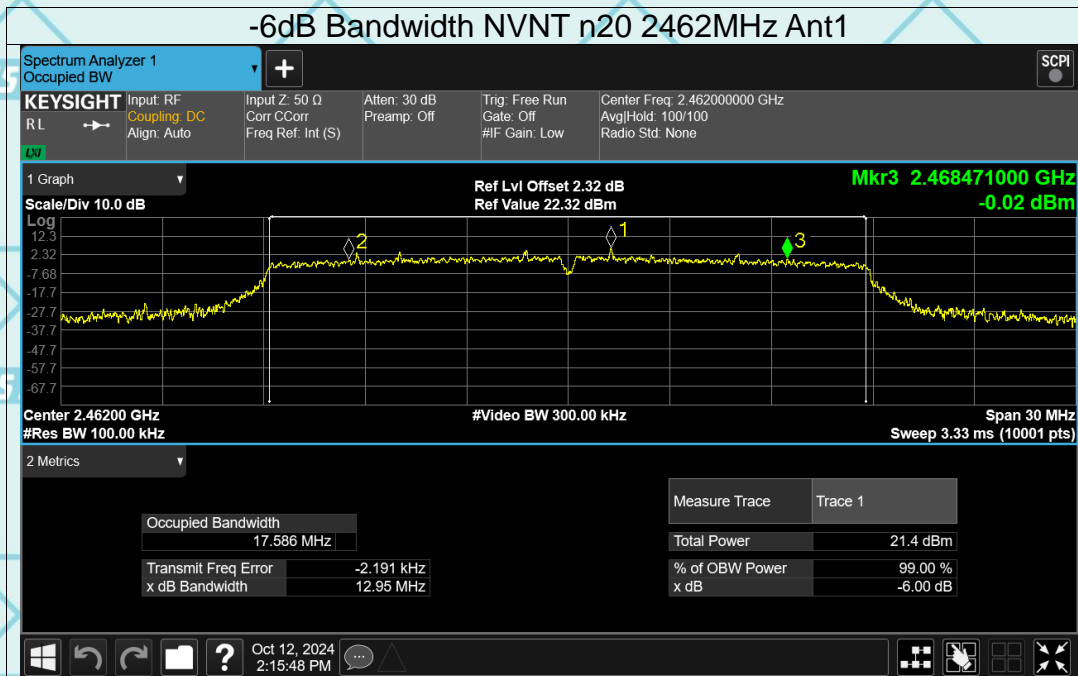


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1



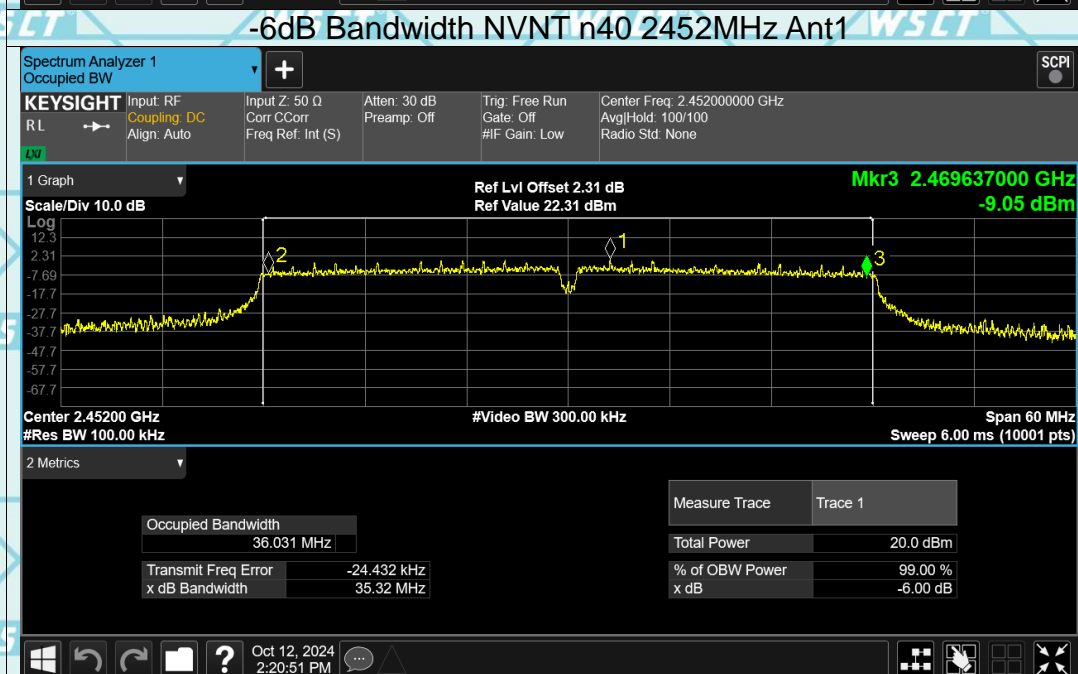
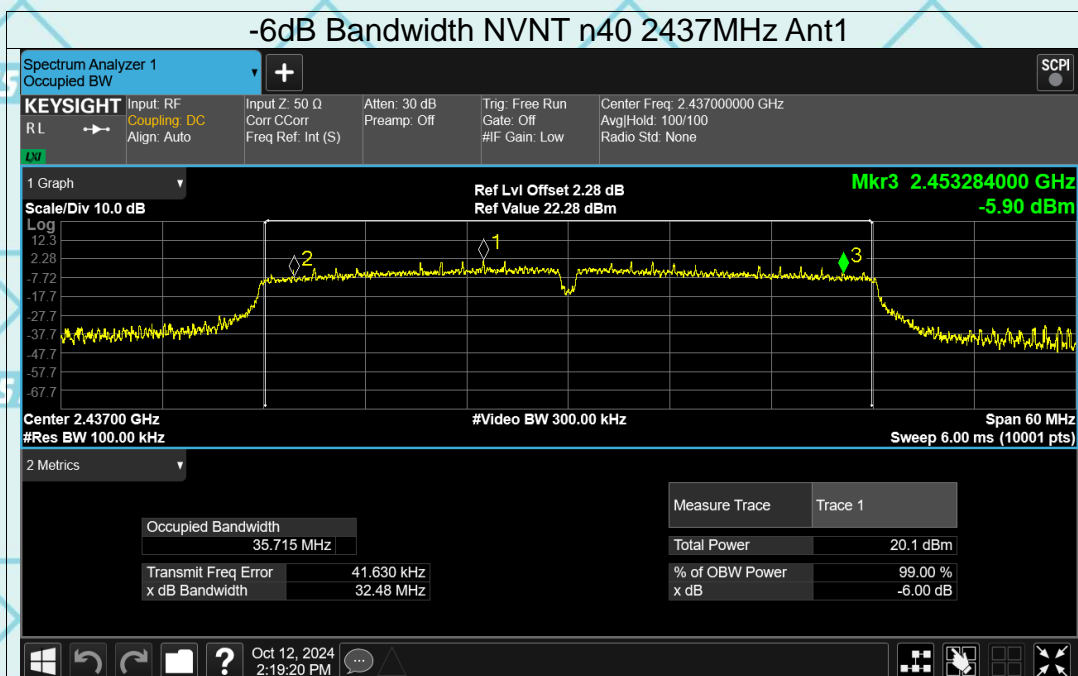


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1





Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

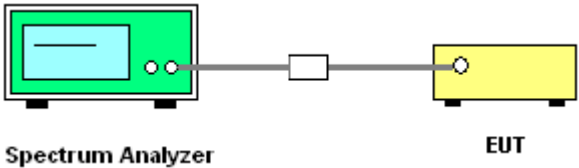




Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

## 6.4. Power Spectral Density

### 6.4.1 Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (e)
<b>Test Method:</b>	KDB 558074
<b>Limit:</b>	The average power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.
<b>Test Setup:</b>	 <p>Spectrum Analyzer                      EUT</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows Measurement Procedure 10.3 Method AVGPDS of FCC KDB Publication No.558074 D01 DTS Meas. Guidance v04</li> <li>2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.</li> <li>3. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW): <math>3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}</math>. Video bandwidth VBW <math>\geq 3 \times \text{RBW}</math>. Set the span to at least 1.5 times the OBW.</li> <li>5. Detector = RMS, Sweep time = auto couple.</li> <li>6. Employ trace averaging (RMS) mode over a minimum of 100 traces. Use the peak marker function to determine the maximum power level.</li> <li>6. Measure and record the results in the test report.</li> </ol>
<b>Test Result:</b>	PASS



Report No.: WSCT-ANAB-R&amp;E241100056A-Wi-Fi1

### 6.4.2. Test data(worst)

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
b	2412	6.43	8	Pass
b	2437	3.66	8	Pass
b	2462	3.29	8	Pass
g	2412	-0.75	8	Pass
g	2437	-0.28	8	Pass
g	2462	-0.23	8	Pass
n20	2412	0.9	8	Pass
n20	2437	0.7	8	Pass
n20	2462	1.13	8	Pass
n40	2422	-3.73	8	Pass
n40	2437	-4.33	8	Pass
n40	2452	-4.67	8	Pass



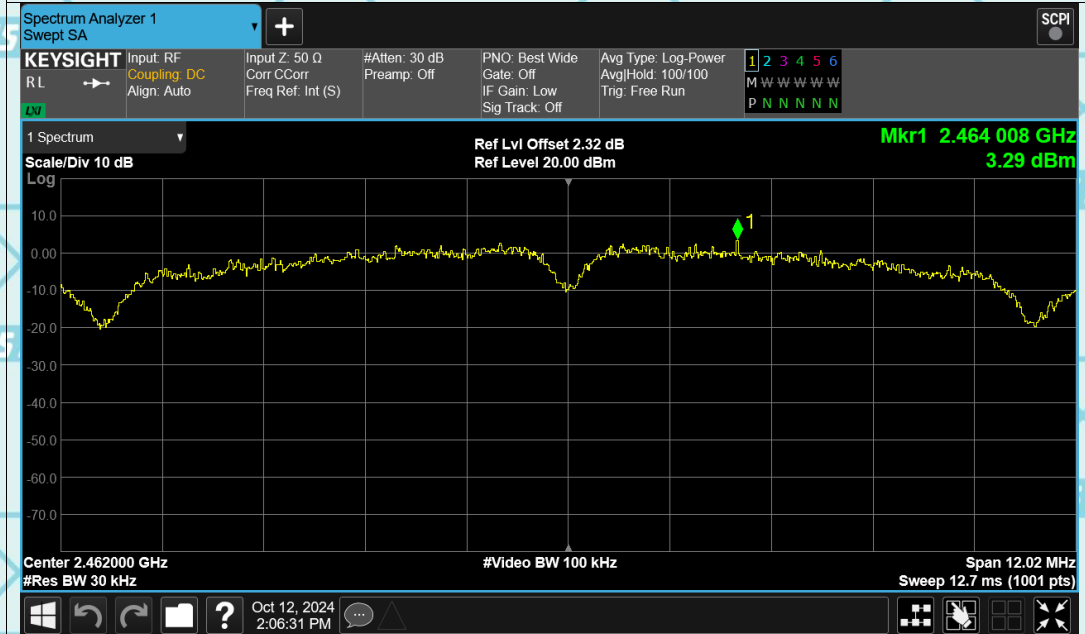
Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1



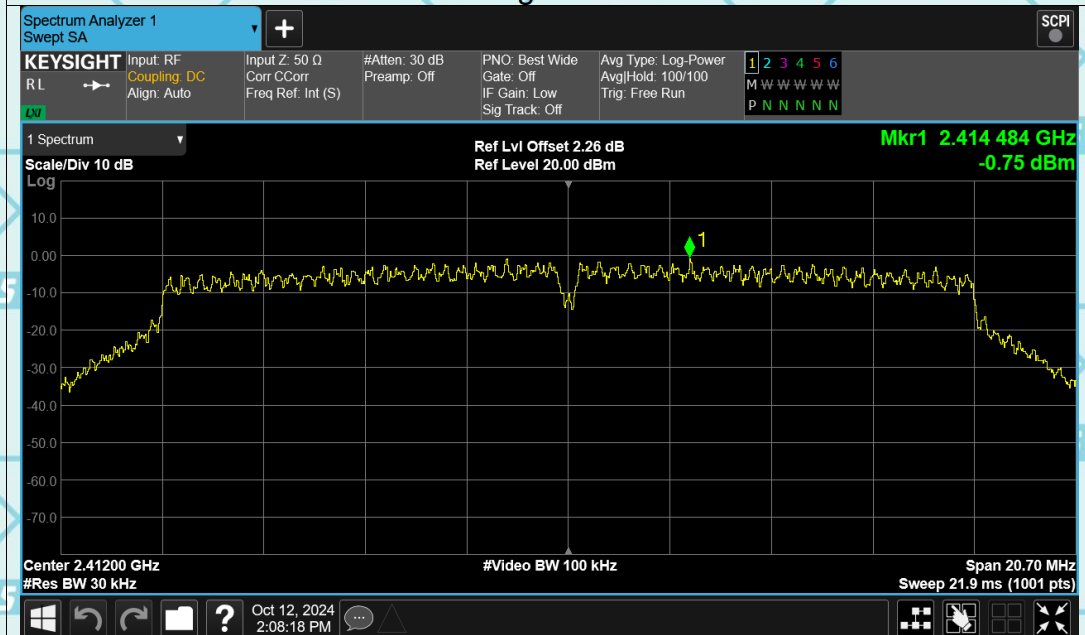


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### PSD NVNT b 2462MHz Ant1



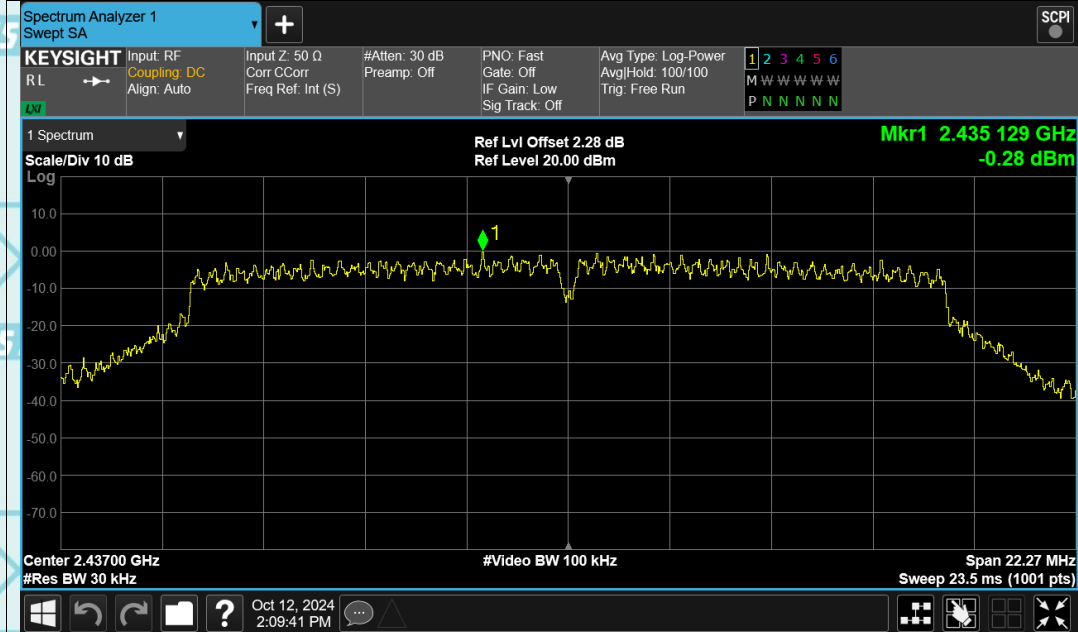
### PSD NVNT g 2412MHz Ant1



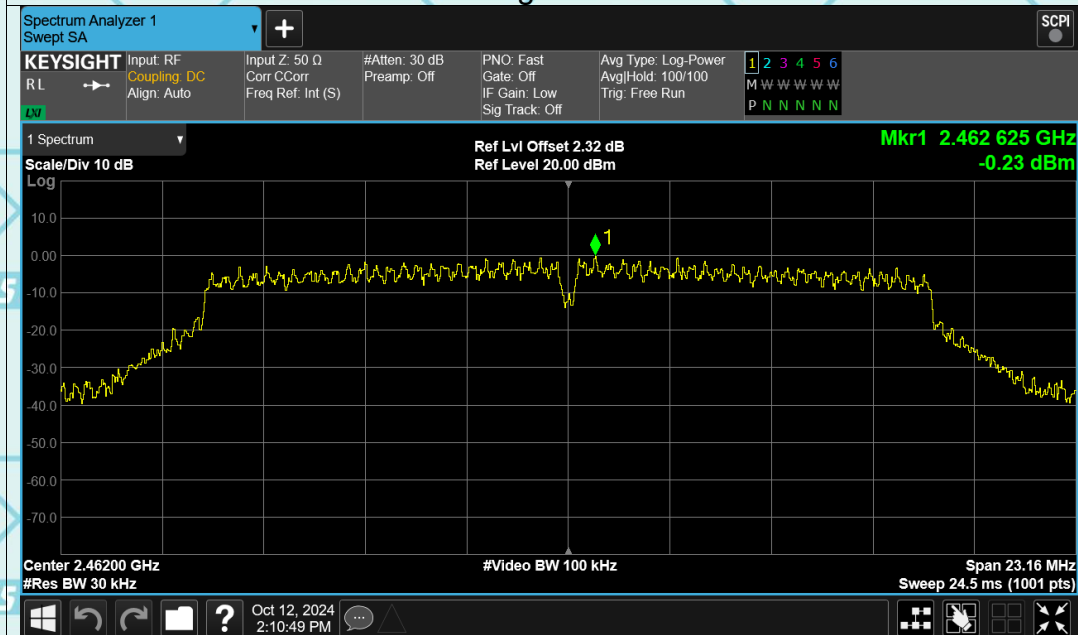


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### PSD NVNT g 2437MHz Ant1



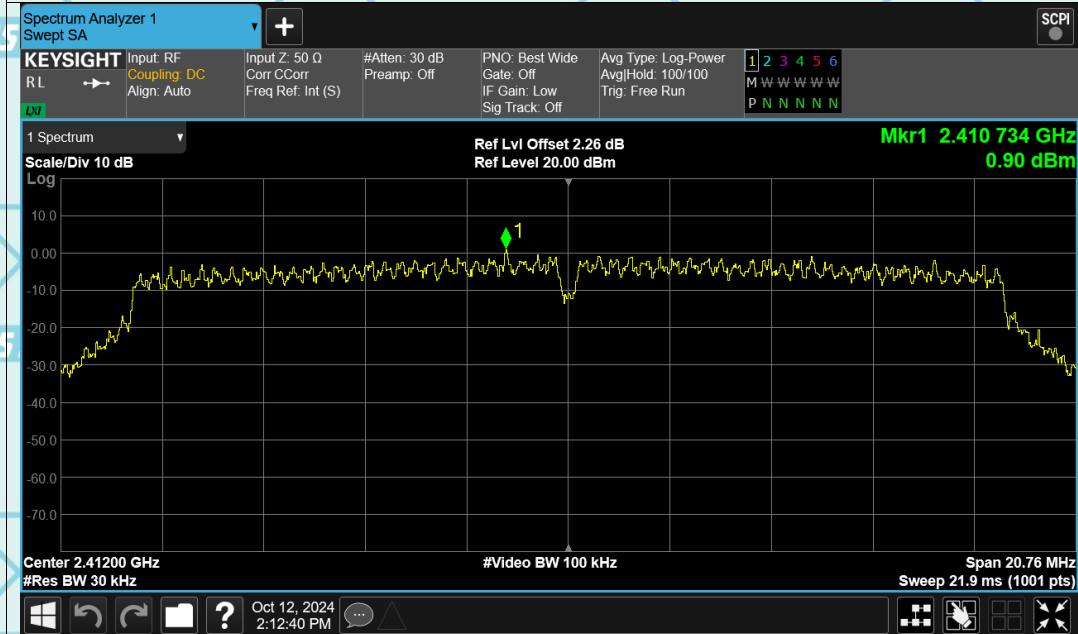
### PSD NVNT g 2462MHz Ant1



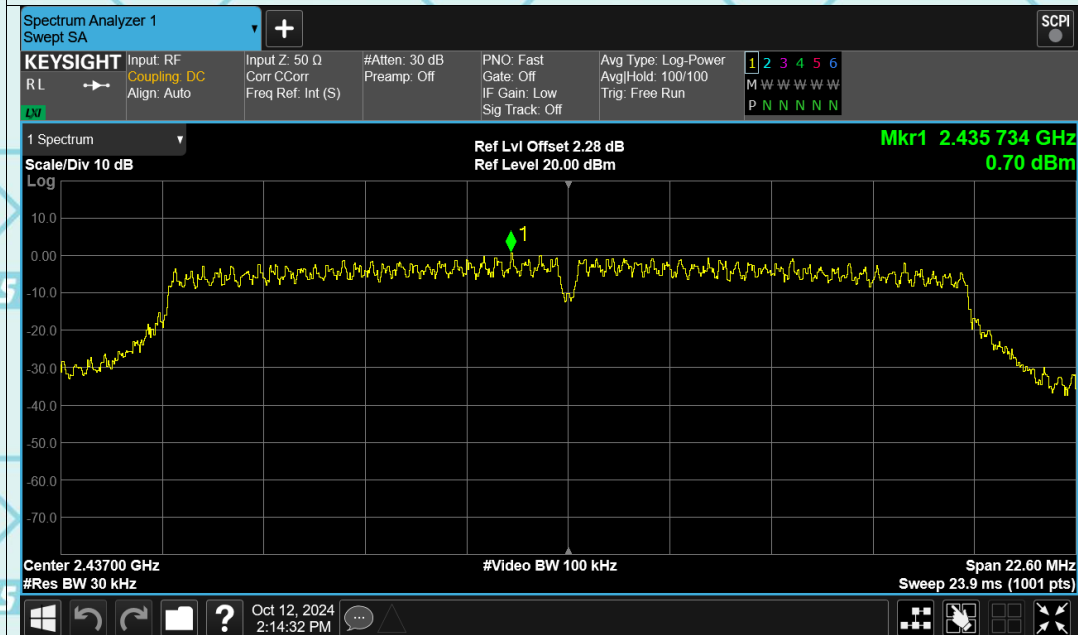


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### PSD NVNT n20 2412MHz Ant1



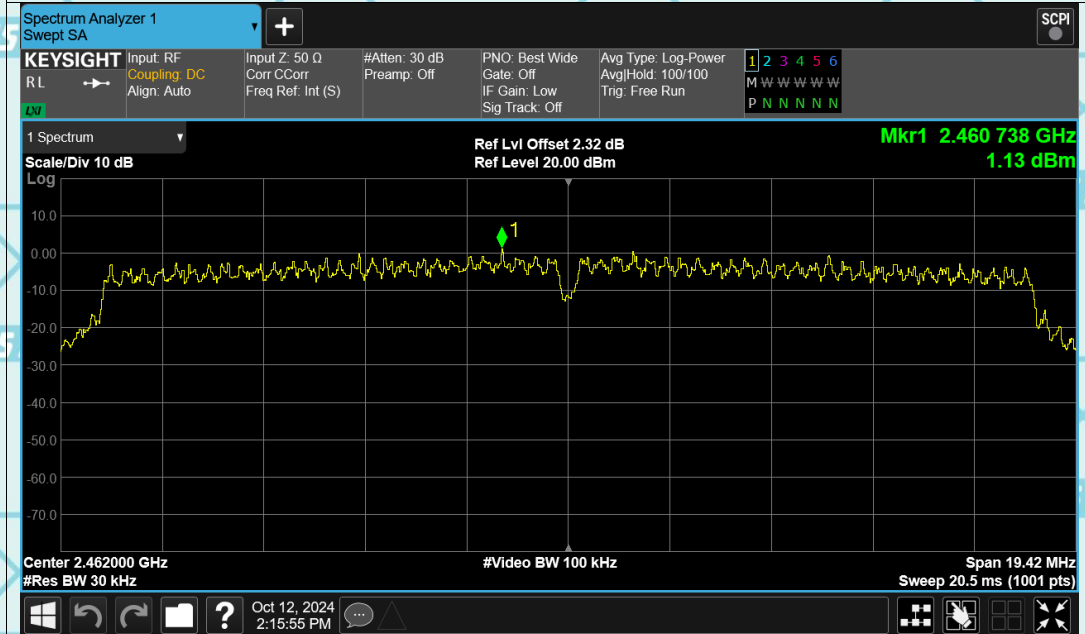
### PSD NVNT n20 2437MHz Ant1



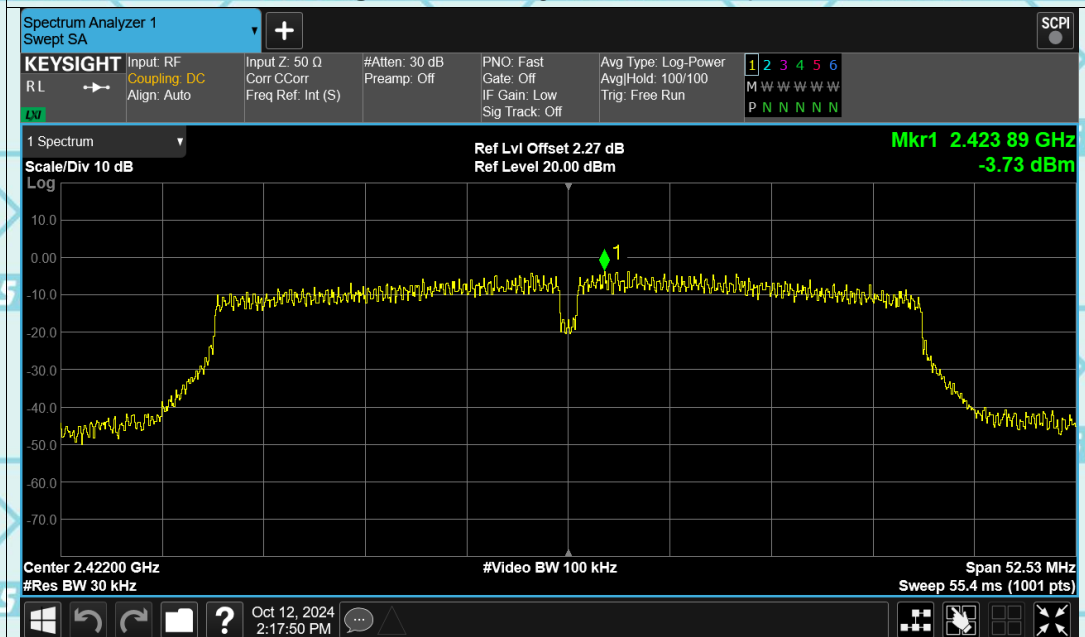


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### PSD NVNT n20 2462MHz Ant1



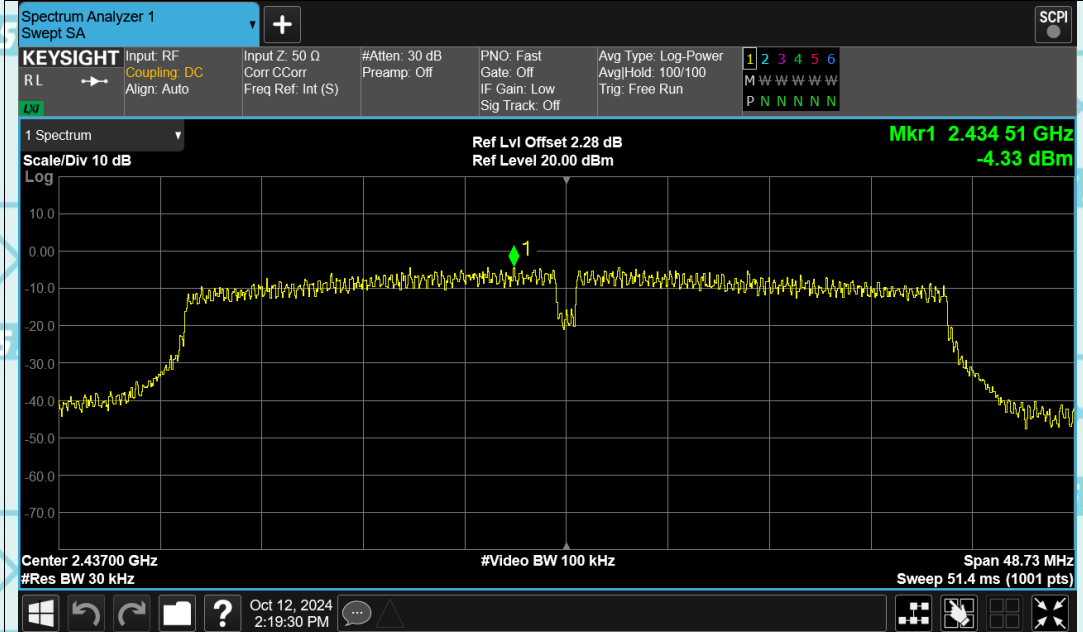
### PSD NVNT n40 2422MHz Ant1



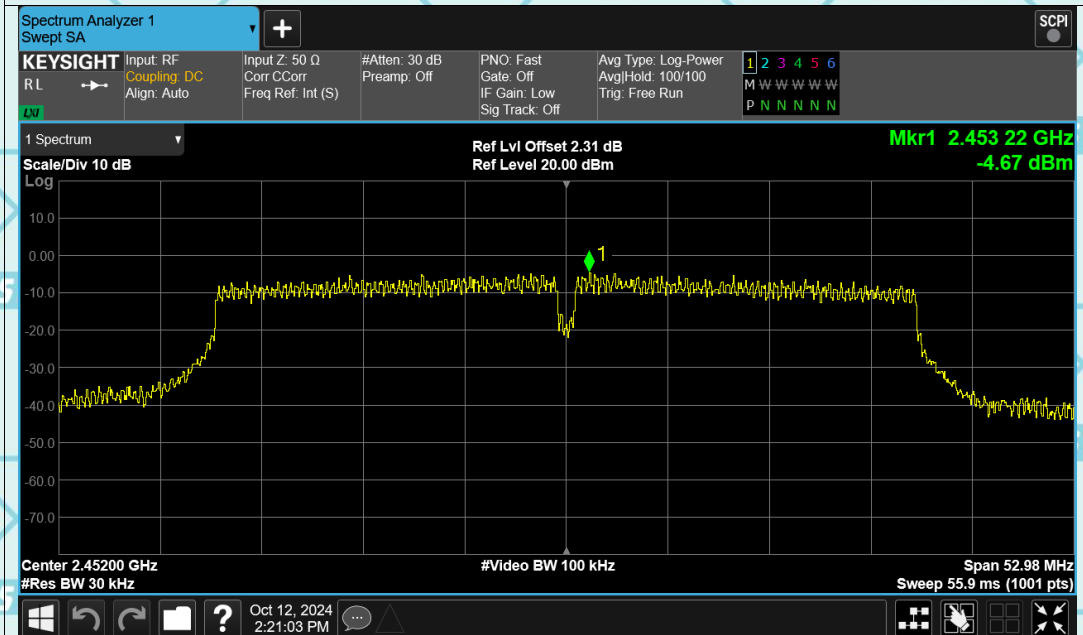


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### PSD NVNT n40 2437MHz Ant1



### PSD NVNT n40 2452MHz Ant1

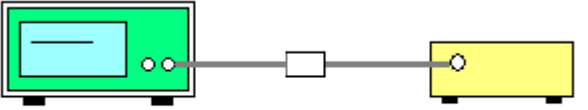




Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

## 6.5. Conducted Band Edge and Spurious Emission Measurement

### 6.5.1 Test Specification

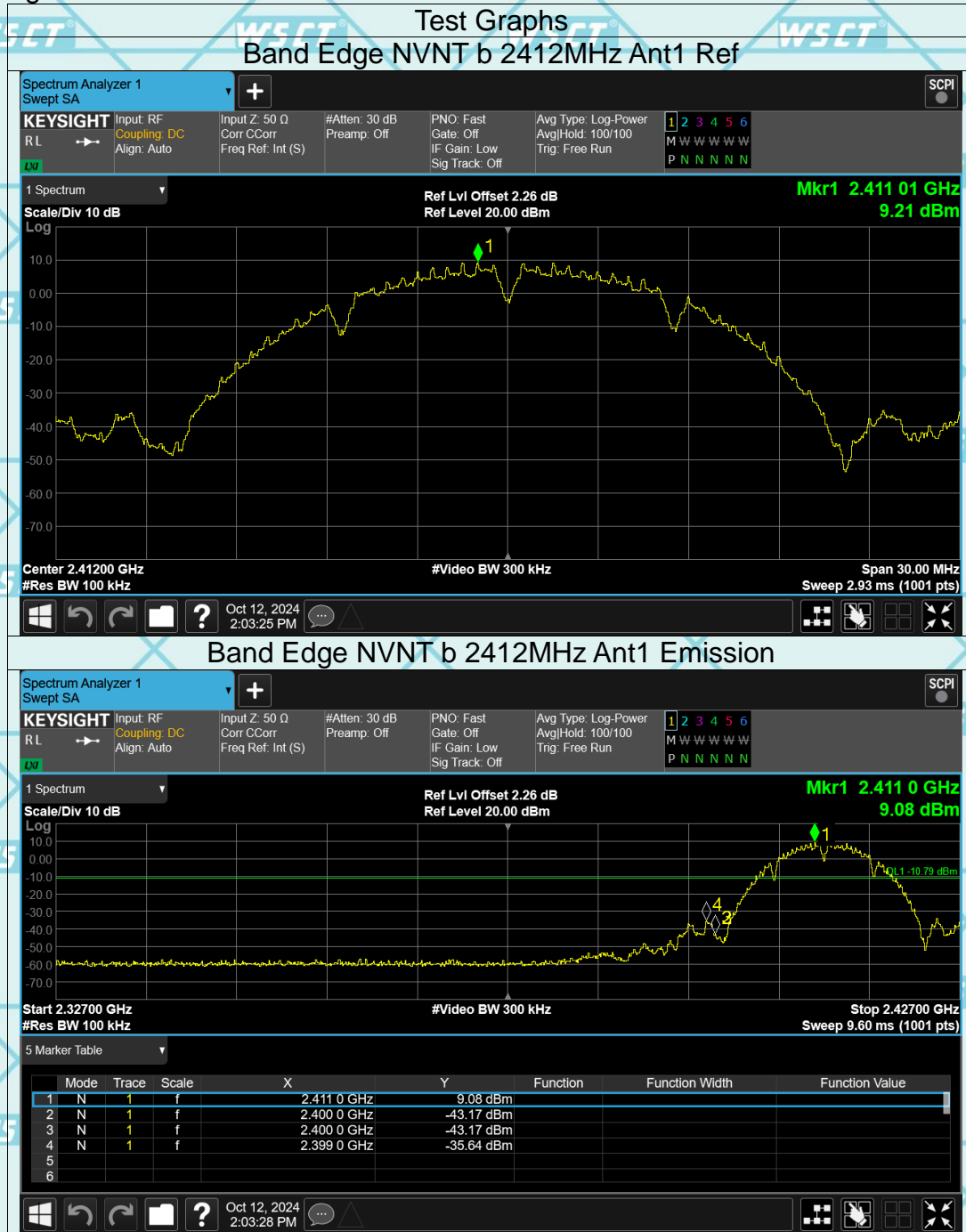
<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (d)
<b>Test Method:</b>	KDB558074
<b>Limit:</b>	In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
<b>Test Setup:</b>	 <p>Spectrum Analyzer                      EUT</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.</li> <li>2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.</li> <li>3. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>4. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).</li> <li>5. Measure and record the results in the test report.</li> <li>6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.</li> </ol>
<b>Test Result:</b>	PASS



Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

## Test Data

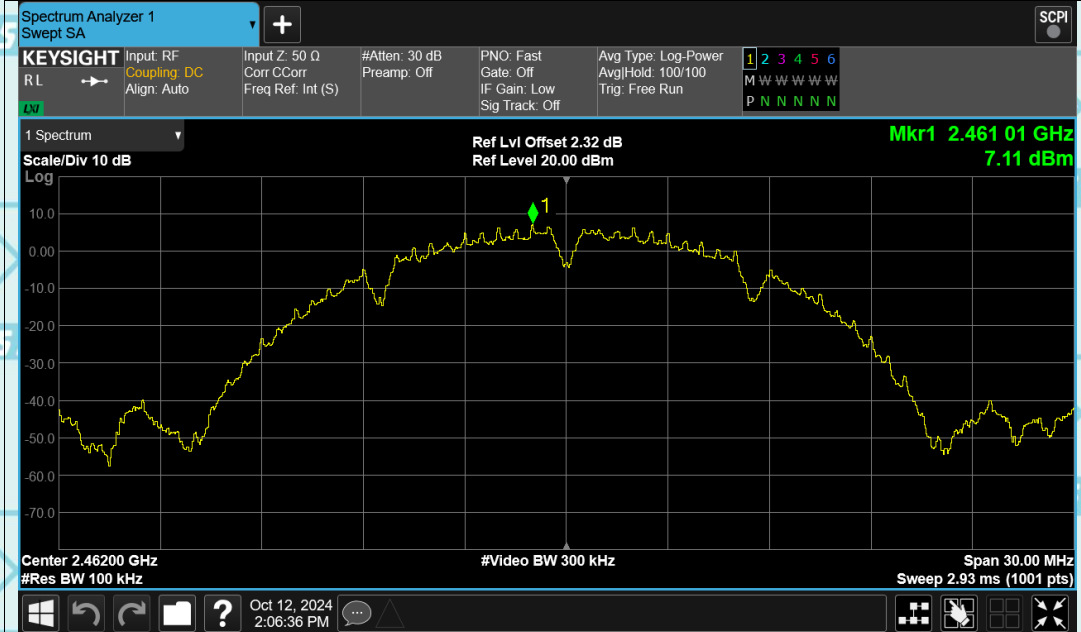
### Band Edge



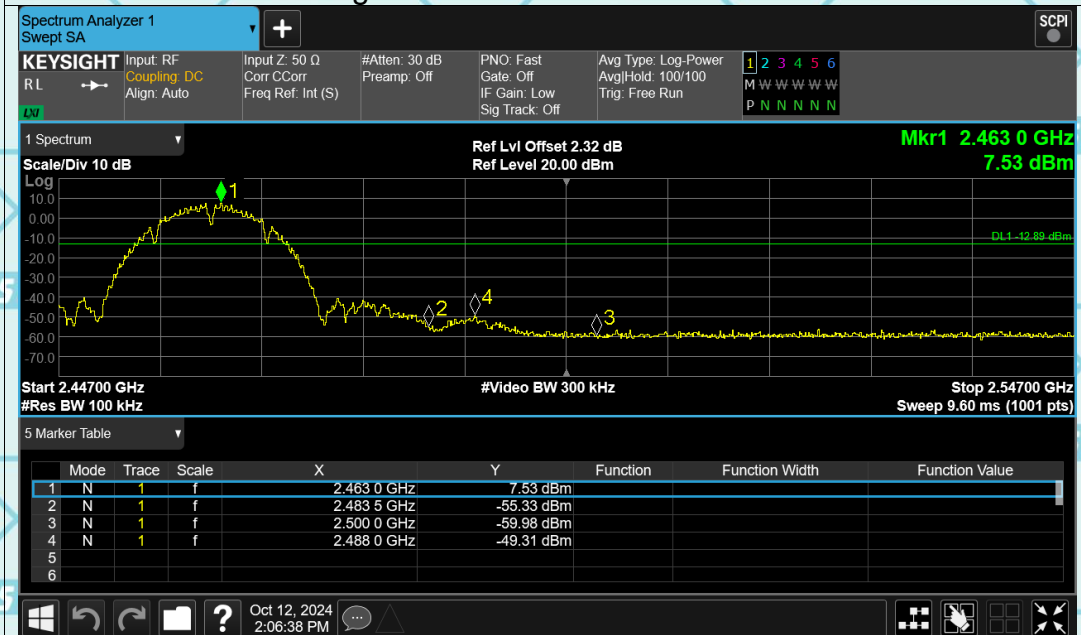


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Band Edge NVNT b 2462MHz Ant1 Ref



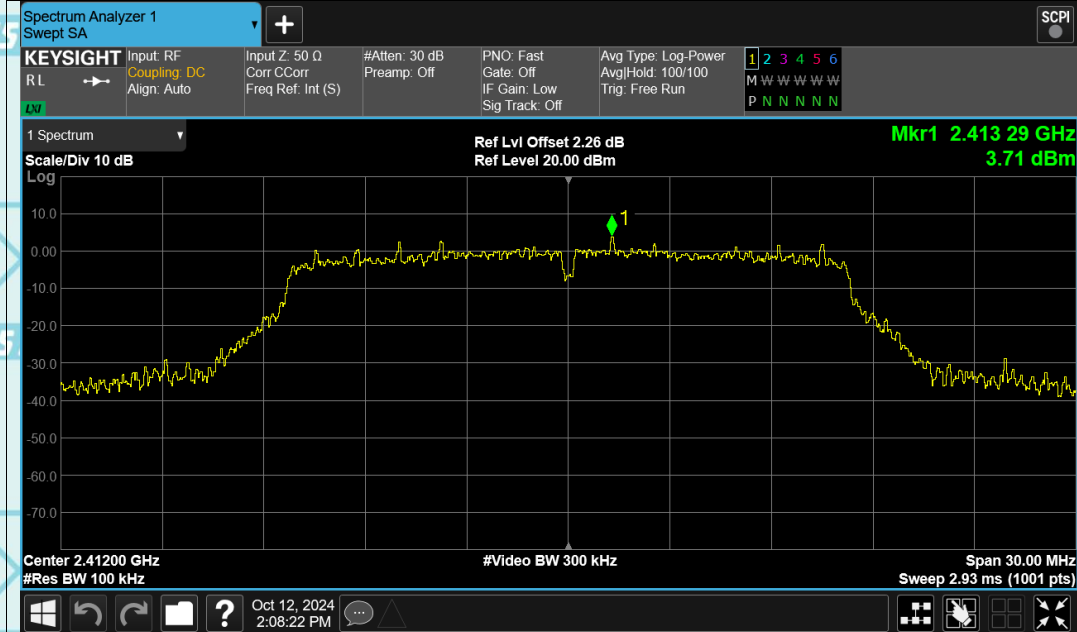
### Band Edge NVNT b 2462MHz Ant1 Emission



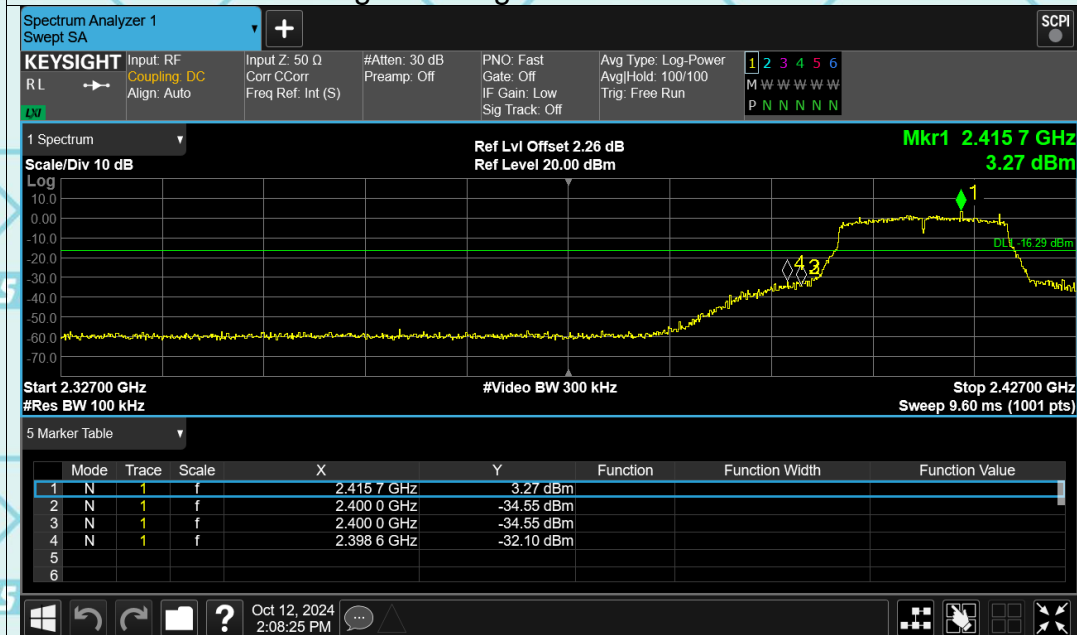


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Band Edge NVNT g 2412MHz Ant1 Ref



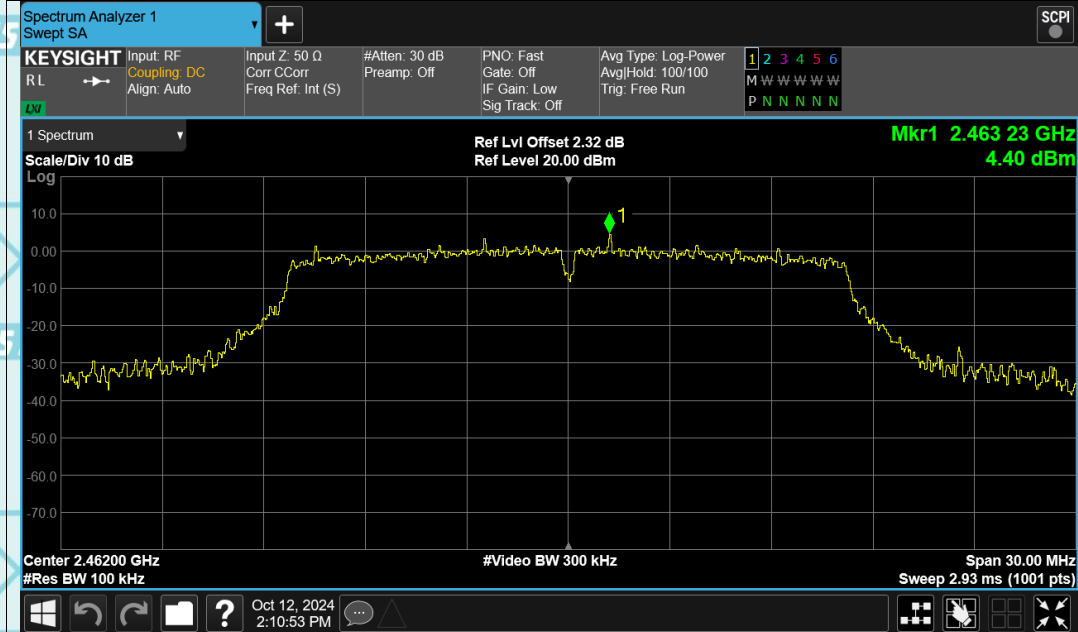
### Band Edge NVNT g 2412MHz Ant1 Emission



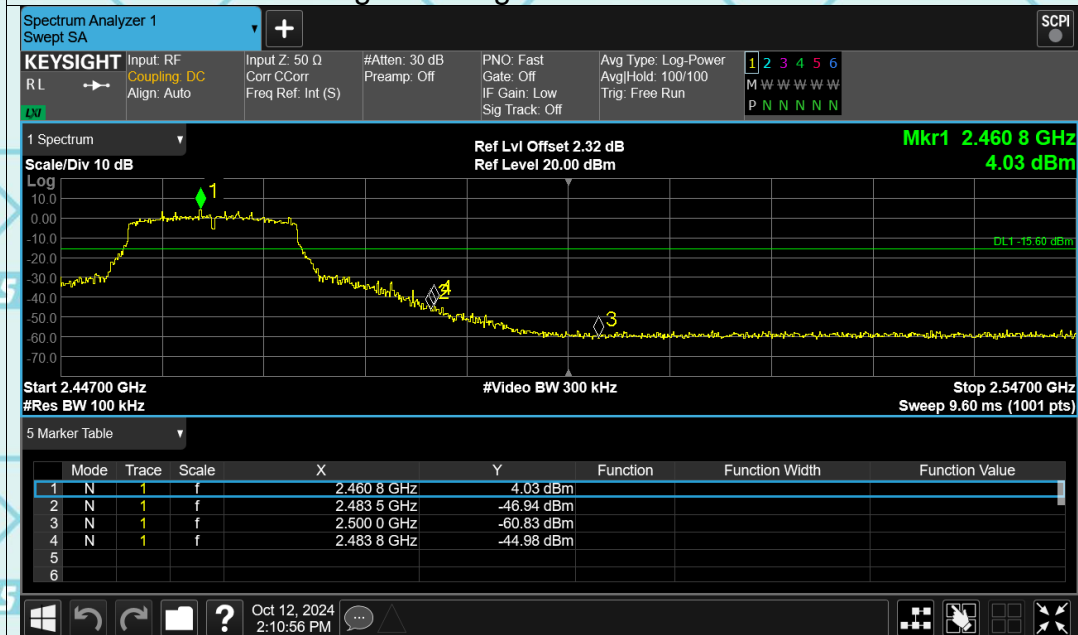


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Band Edge NVNT g 2462MHz Ant1 Ref

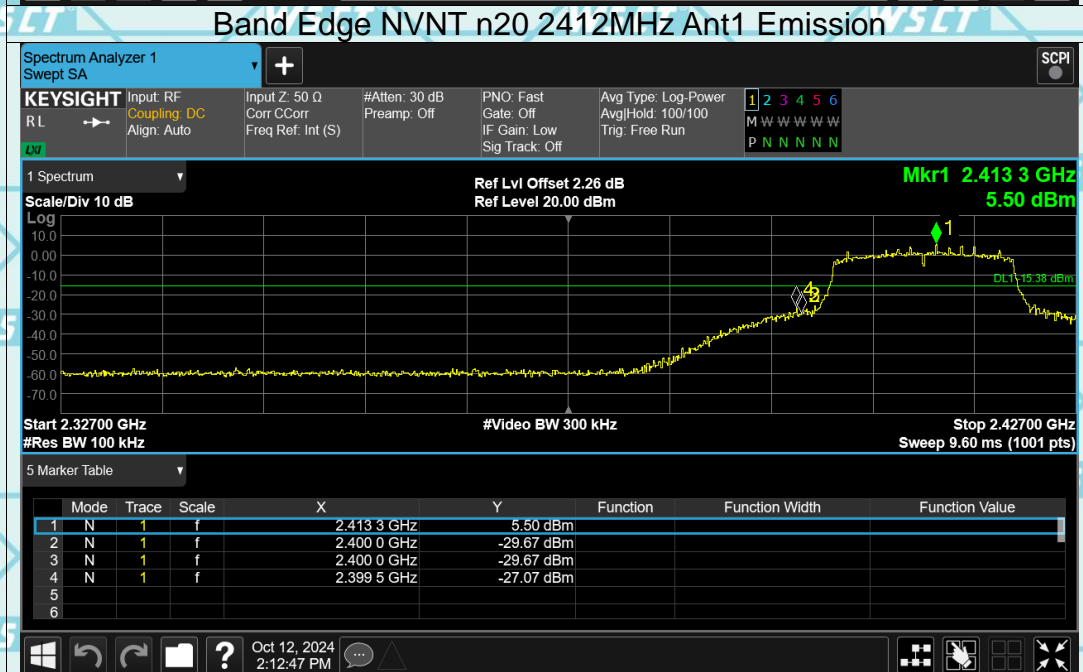
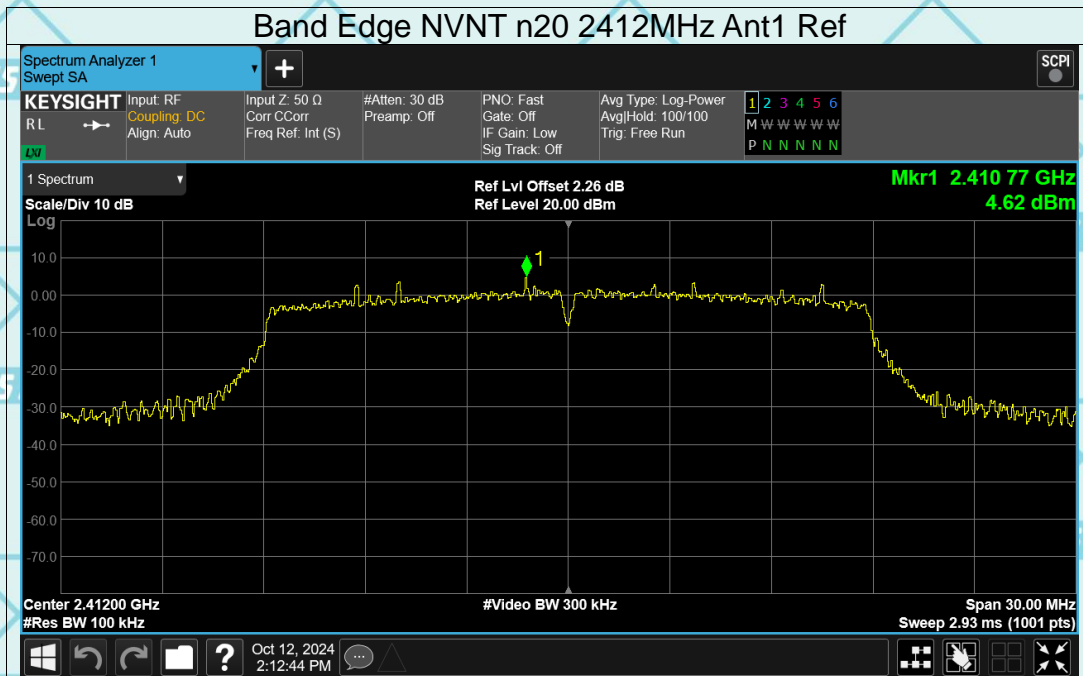


### Band Edge NVNT g 2462MHz Ant1 Emission





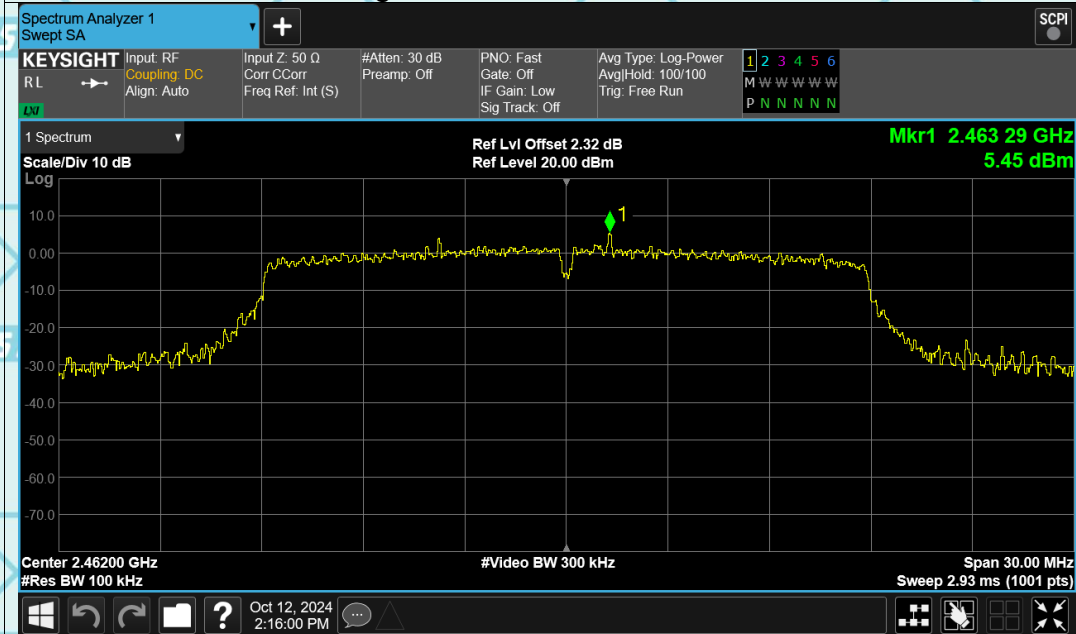
Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1



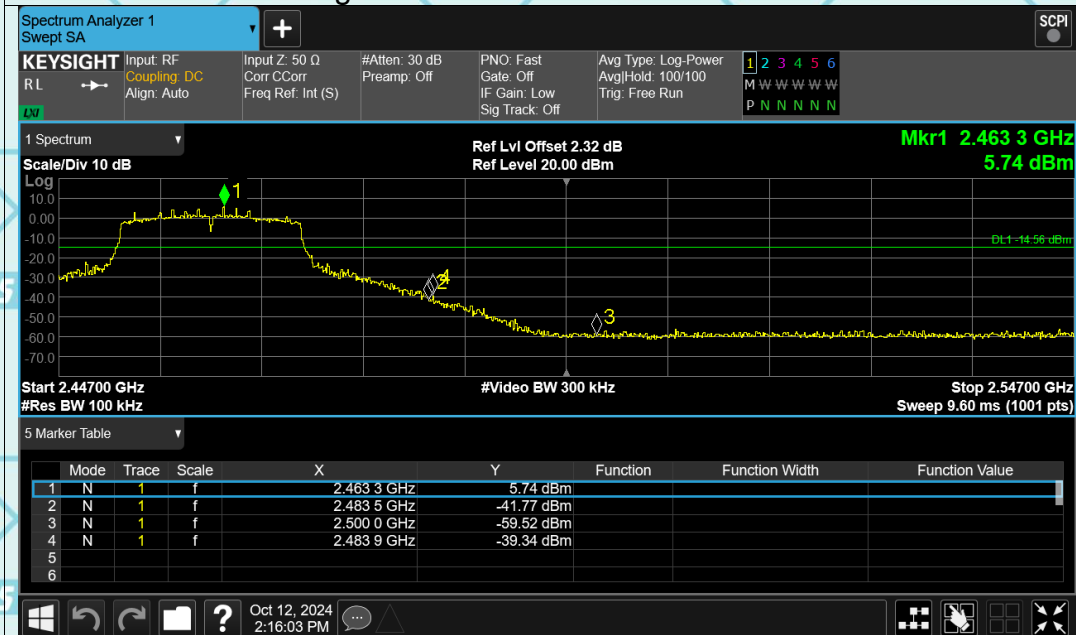


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Band Edge NVNT n20 2462MHz Ant1 Ref



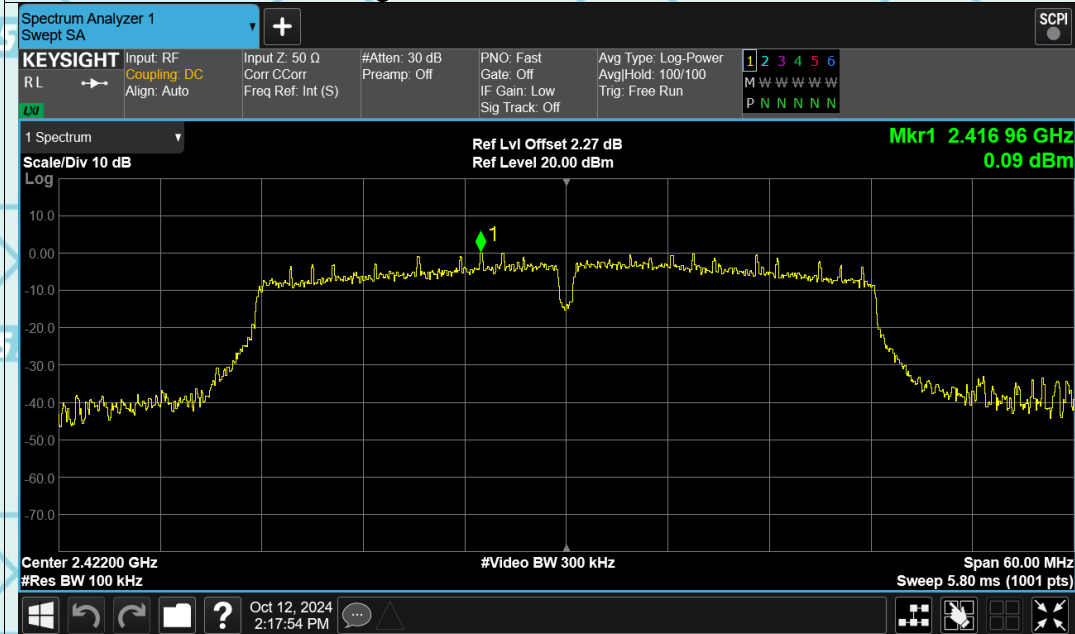
### Band Edge NVNT n20 2462MHz Ant1 Emission



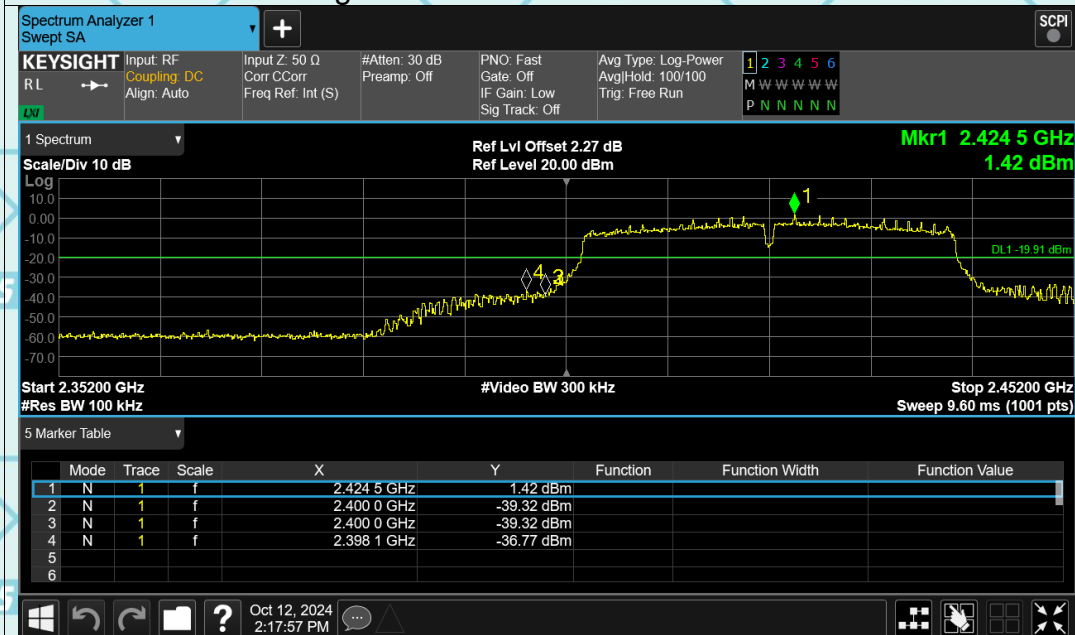


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Band Edge NVNT n40 2422MHz Ant1 Ref



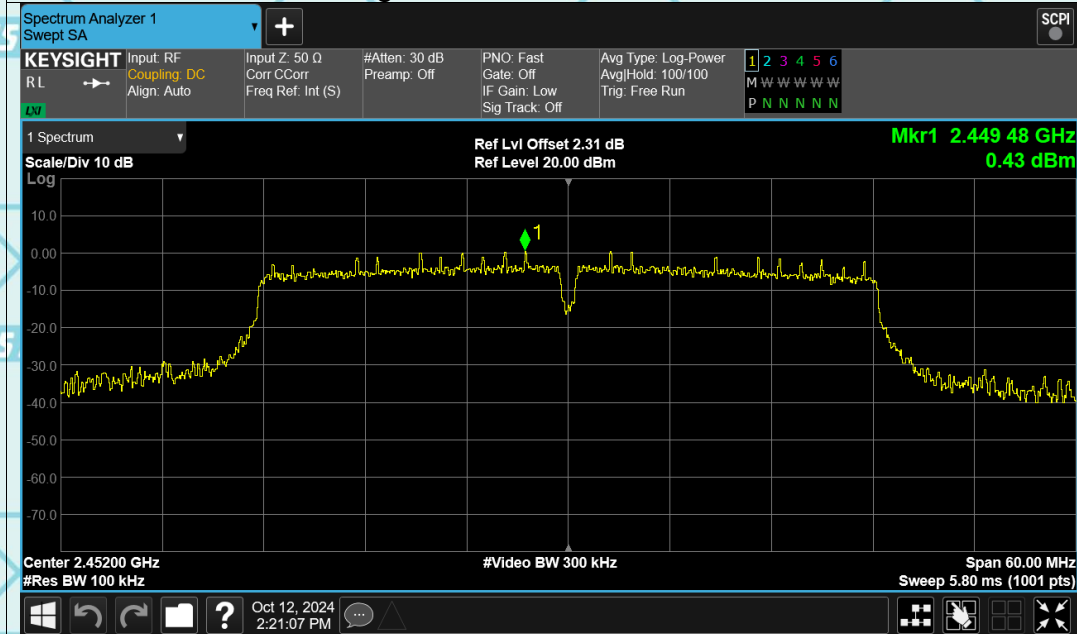
### Band Edge NVNT n40 2422MHz Ant1 Emission



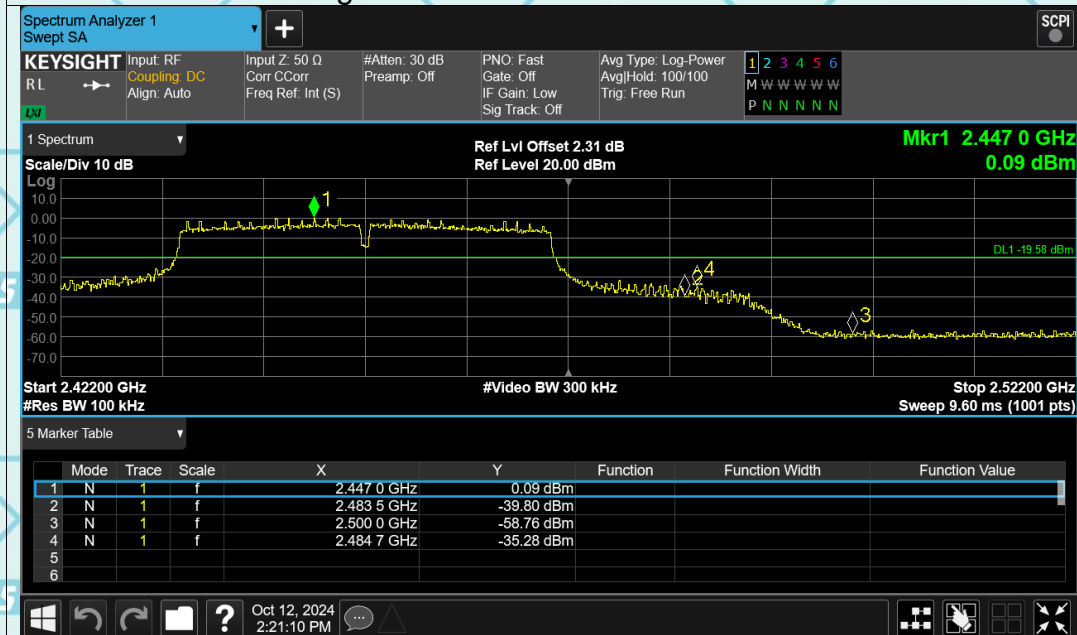


Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Band Edge NVNT n40 2452MHz Ant1 Ref



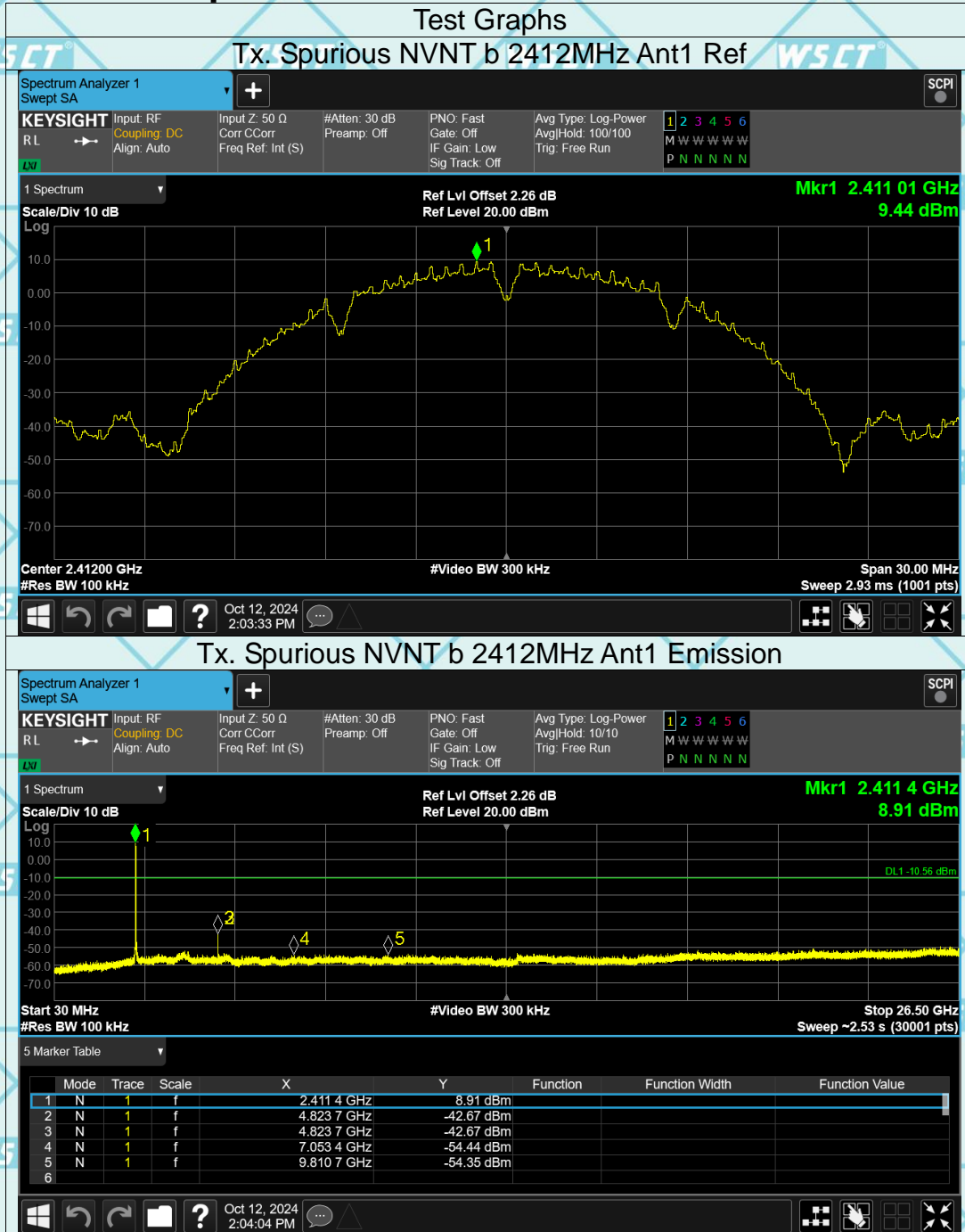
### Band Edge NVNT n40 2452MHz Ant1 Emission





Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

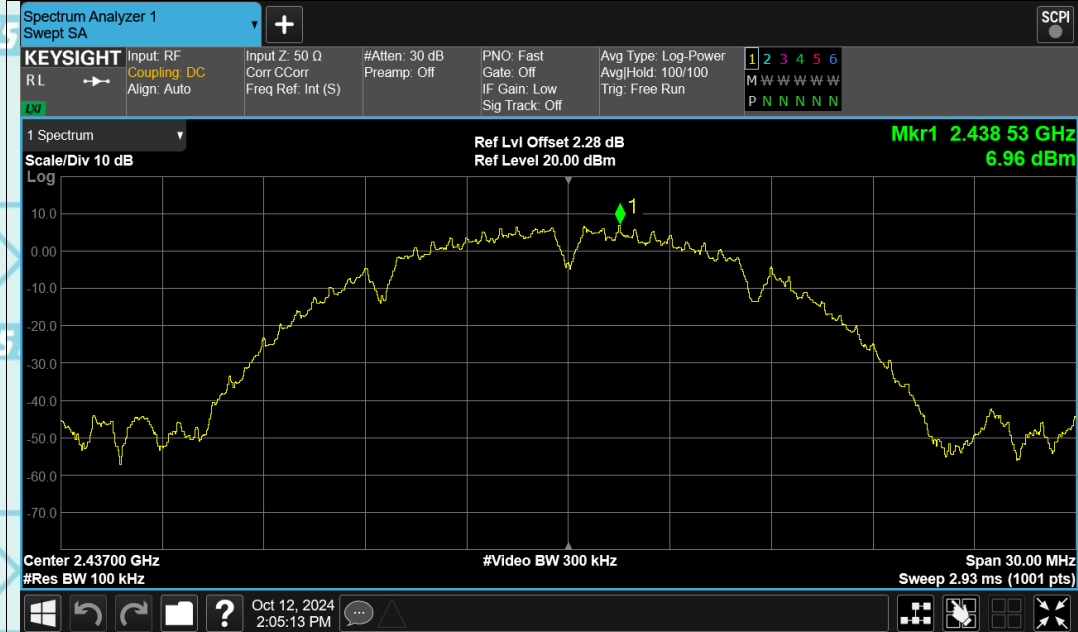
## Conducted RF Spurious Emission





Report No.: WSCT-ANAB-R&E241100056A-Wi-Fi1

### Tx. Spurious NVNT b 2437MHz Ant1 Ref



### Tx. Spurious NVNT b 2437MHz Ant1 Emission

