

TEST REPORT

FCC ID: 2AJMN-P10003L

Product: Tablet

Model No.: P10003L

Trade Mark: itel

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

Issued Date: 16 October 2024

Issued for:

ITEL MOBILE 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, Shiyan
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

1. Test Certification	3
2. Test Result Summary	4
3. EUT Description	5
4. General Information	7
4.1. TEST ENVIRONMENT AND MODE	7
4.2. DESCRIPTION OF SUPPORT UNITS	8
5. Facilities and Accreditations	9
5.1. FACILITIES	9
5.2. ACCREDITATIONS	9
5.3. MEASUREMENT UNCERTAINTY	10
5.4. MEASUREMENT INSTRUMENTS	11
6. Test Results and Measurement Data	12
6.1. ANTENNA REQUIREMENT	12
6.2. CONDUCTED EMISSION	13
6.3. EMISSION BANDWIDTH	19
6.4. POWER SPECTRAL DENSITY	27
6.5. CONDUCTED BAND EDGE AND SPURIOUS EMISSION MEASUREMENT	35
6.6. RADIATED SPURIOUS EMISSION MEASUREMENT	56
7. Test Setup Photographs	67

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

1. Test Certification

Product:	Tablet
Model No.:	P10003L
Additional Model:	itel
Applicant:	ITEL MOBILE LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer:	ITEL MOBILE LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Date of Test:	20 September 2024 to 16 October 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:

Chen Xu

(Chen Xu)

Approved By:

Li Huaibi

(Li Huaibi)

Date:

16 October 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&E240900047A-Wi-Fi1

3. EUT Description

Product:	Tablet
Model No.:	P10003L
Trade Mark:	itel
Operation Frequency:	2412MHz~2462MHz (802.11b/g/n(HT20) 2422MHz~2452MHz (802.11n(HT40)
Channel Separation:	5MHz
Modulation type:	DSSS (DBPSK, DQPSK, CCK) for IEEE 802.11b OFDM/OFDMA(BPSK,QPSK,16QAM,64QAM,256QAM,) for IEEE 802.11g/n
Antenna Type:	FPC Antenna
Antenna Gain	1.21dBi
Operating Voltage:	Adapter1: U100ISB Input: 100-240V~50/60Hz 0.3A Output: 5.0V~2.0A Rechargeable Li-ion Polymer Battery: P10003L Rated Voltage: 3.8V Rated Capacity: 7000mAh/26.60Wh Typical Capacity: 7030mAh/26.71Wh Limited Charge Voltage: 4.35V
Remark:	N/A.

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

2. Antenna gain provided by the customer.

Report No.: WSCT-ANAB-R&E240900047A-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&E240900047A-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&E240900047A-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	/	U100ISB	/	/

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&E240900047A-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, Shiyao 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&E240900047A-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	11/05/2023	11/04/2024
LISN	AFJ	LS16	16010222119	11/05/2023	11/04/2024
LISN(EUT)	Mestec	AN3016	04/10040	11/05/2023	11/04/2024
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	11/05/2023	11/04/2024
Coaxial cable	Megalon	LMR400	N/A	11/05/2023	11/04/2024
GPIO cable	Megalon	GPIO	N/A	11/05/2023	11/04/2024
Spectrum Analyzer	R&S	FSU	100114	11/05/2023	11/04/2024
Pre Amplifier	H.P.	HP8447E	2945A02715	11/05/2023	11/04/2024
Pre-Amplifier	CDSI	PAP-1G18-38	--	11/05/2023	11/04/2024
Bi-log Antenna	SCHWARZBECK	VULB9168	01488	7/29/2024	7/28/2025
9*6*6 Anechoic	--	--	--	11/05/2023	11/04/2024
Horn Antenna	COMPLIANCE ENGINEERING	CE18000	--	11/05/2023	11/04/2024
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-631	11/05/2023	11/04/2024
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	11/05/2023	11/04/2024
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	-	11/05/2023	11/04/2024
Loop Antenna	EMCO	6502	00042960	11/05/2023	11/04/2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	11/05/2023	11/04/2024
Power meter	Anritsu	ML2487A	6K00003613	11/05/2023	11/04/2024
Power sensor	Anritsu	MX248XD	--	11/05/2023	11/04/2024
Spectrum Analyzer	Keysight	N9010B	MY60241089	11/05/2023	11/04/2024

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.

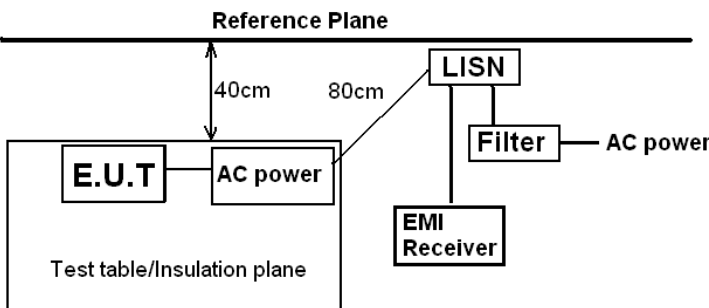
E.U.T Antenna:

The Bluetooth antenna is a FPC Antenna. it meets the standards, and the best case gain of the antenna is 1.21dBi.

Report No.: WSCT-ANAB-R&E240900047A-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:	Reference Plane  Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test Mode:	Charging + transmitting with modulation														
Test Procedure:	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. 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). 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.														
Test Result:	PASS														

Report No.: WSCT-ANAB-R&E240900047A-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.

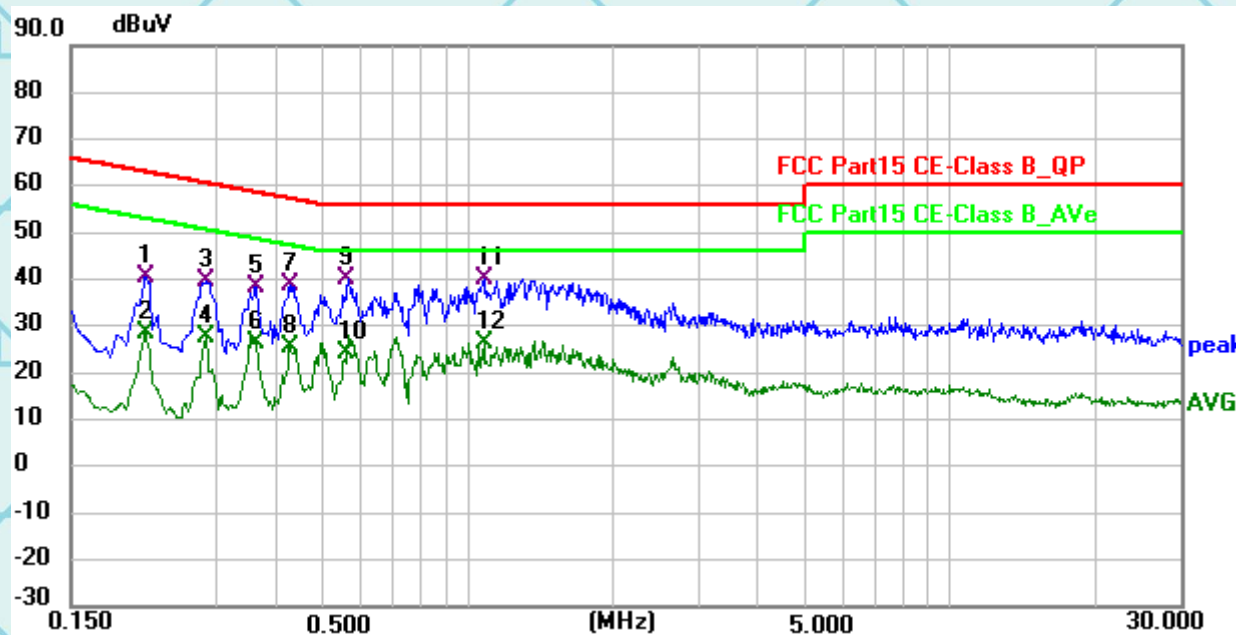
Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration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

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

Test data

Please refer to following diagram for individual

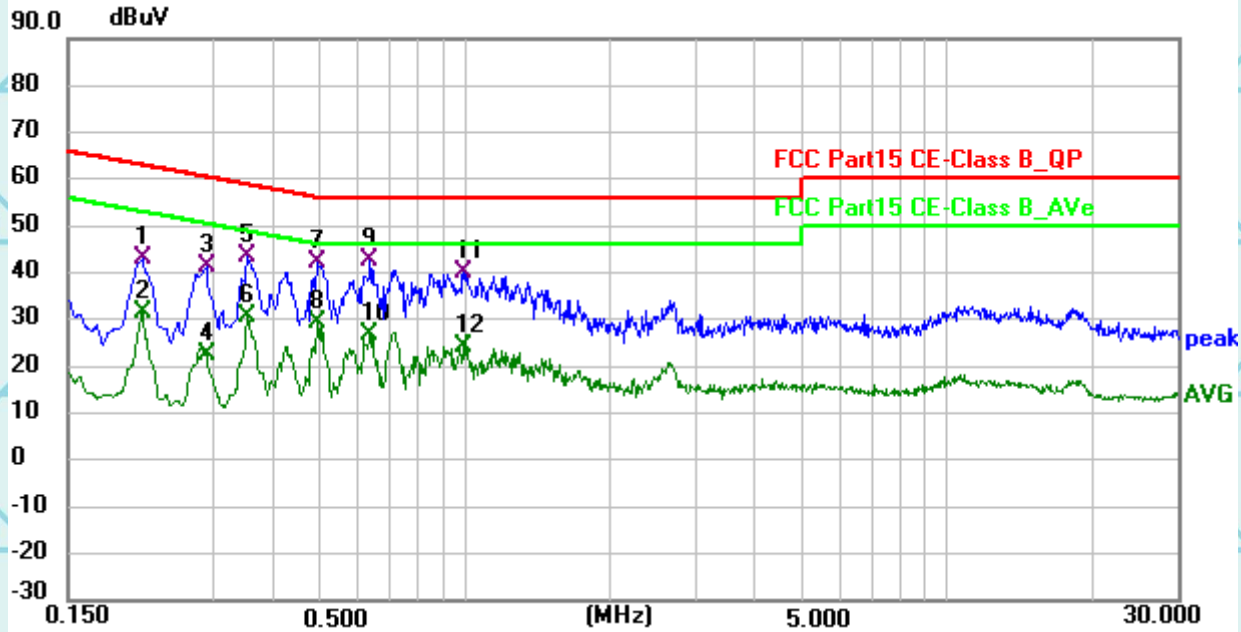
Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2130	19.89	20.68	40.57	63.09	-22.52	QP
2	0.2130	7.70	20.68	28.38	53.09	-24.71	AVG
3	0.2850	18.79	20.64	39.43	60.67	-21.24	QP
4	0.2850	7.05	20.64	27.69	50.67	-22.98	AVG
5	0.3615	17.82	20.59	38.41	58.69	-20.28	QP
6	0.3615	5.72	20.59	26.31	48.69	-22.38	AVG
7	0.4245	18.03	20.56	38.59	57.36	-18.77	QP
8	0.4245	5.04	20.56	25.60	47.36	-21.76	AVG
9 *	0.5639	19.60	20.52	40.12	56.00	-15.88	QP
10	0.5639	3.79	20.52	24.31	46.00	-21.69	AVG
11	1.0770	19.37	20.67	40.04	56.00	-15.96	QP
12	1.0770	5.59	20.67	26.26	46.00	-19.74	AVG

Report No.: WSCT-ANAB-R&E240900047A-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	0.2130	22.20	20.68	42.88	63.09	-20.21	QP
2	0.2130	10.96	20.68	31.64	53.09	-21.45	AVG
3	0.2895	20.53	20.64	41.17	60.54	-19.37	QP
4	0.2895	1.89	20.64	22.53	50.54	-28.01	AVG
5	0.3525	22.77	20.60	43.37	58.90	-15.53	QP
6	0.3525	9.83	20.60	30.43	48.90	-18.47	AVG
7	0.4920	21.73	20.51	42.24	56.13	-13.89	QP
8	0.4920	8.74	20.51	29.25	46.13	-16.88	AVG
9 *	0.6360	22.13	20.53	42.66	56.00	-13.34	QP
10	0.6360	6.29	20.53	26.82	46.00	-19.18	AVG
11	0.9915	19.45	20.67	40.12	56.00	-15.88	QP
12	0.9915	3.40	20.67	24.07	46.00	-21.93	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

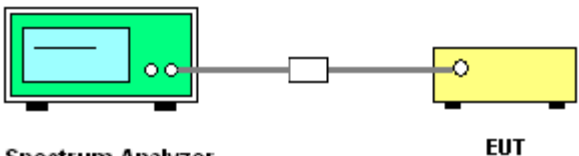
* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

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

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

6.2.3. Maximum Conducted Output Power

6.2.4. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB 558074
Limit:	30dBm
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v04. 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. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Measure the conducted output power and record the results in the test report.
Test Result:	PASS

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

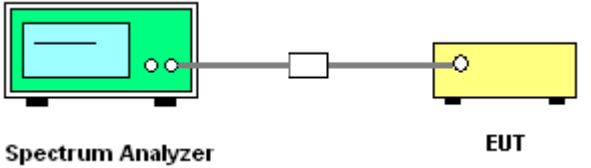
6.2.5. Test Data

Mode	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Limit (dBm)	Verdict
b	2412	18.55	30	Pass
b	2437	17.48	30	Pass
b	2462	18.32	30	Pass
g	2412	23.60	30	Pass
g	2437	22.37	30	Pass
g	2462	23.46	30	Pass
n20	2412	23.61	30	Pass
n20	2437	22.40	30	Pass
n20	2462	23.35	30	Pass
n40	2422	22.50	30	Pass
n40	2437	22.16	30	Pass
n40	2452	22.76	30	Pass

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

6.3. Emission Bandwidth

6.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB 558074
Limit:	>500kHz
Test Setup:	 The diagram shows a Spectrum Analyzer (represented by a green box with a screen and two knobs) connected via a cable to a small white rectangular component, which is then connected to the EUT (represented by a yellow box with a single knob). Labels 'Spectrum Analyzer' and 'EUT' are placed below their respective components.
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v04. 2. Set to the maximum power setting and enable the EUT transmit continuously. 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. 4. Measure and record the results in the test report.
Test Result:	PASS

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

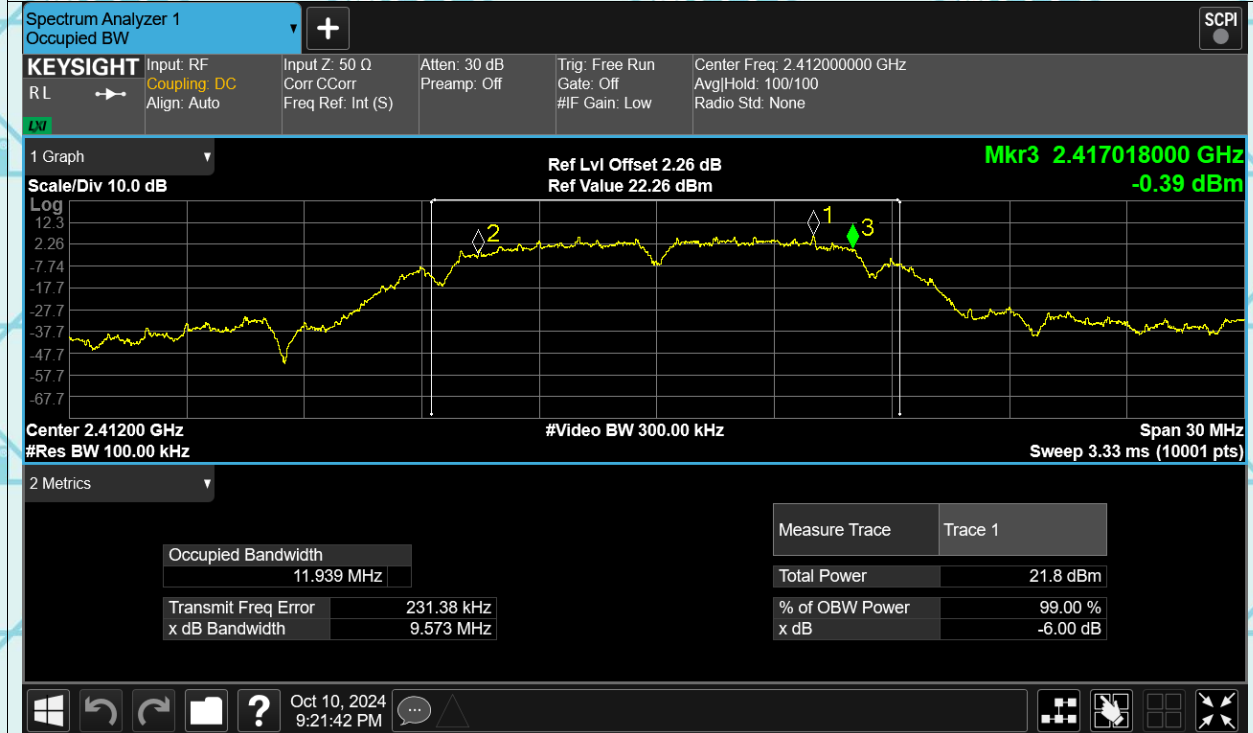
6.3.2. Test data(worst)

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	9.573	0.5	Pass
b	2437	8.555	0.5	Pass
b	2462	9.031	0.5	Pass
g	2412	15.670	0.5	Pass
g	2437	15.729	0.5	Pass
g	2462	15.730	0.5	Pass
n20	2412	16.004	0.5	Pass
n20	2437	15.519	0.5	Pass
n20	2462	15.919	0.5	Pass
n40	2422	25.104	0.5	Pass
n40	2437	32.575	0.5	Pass
n40	2452	36.002	0.5	Pass

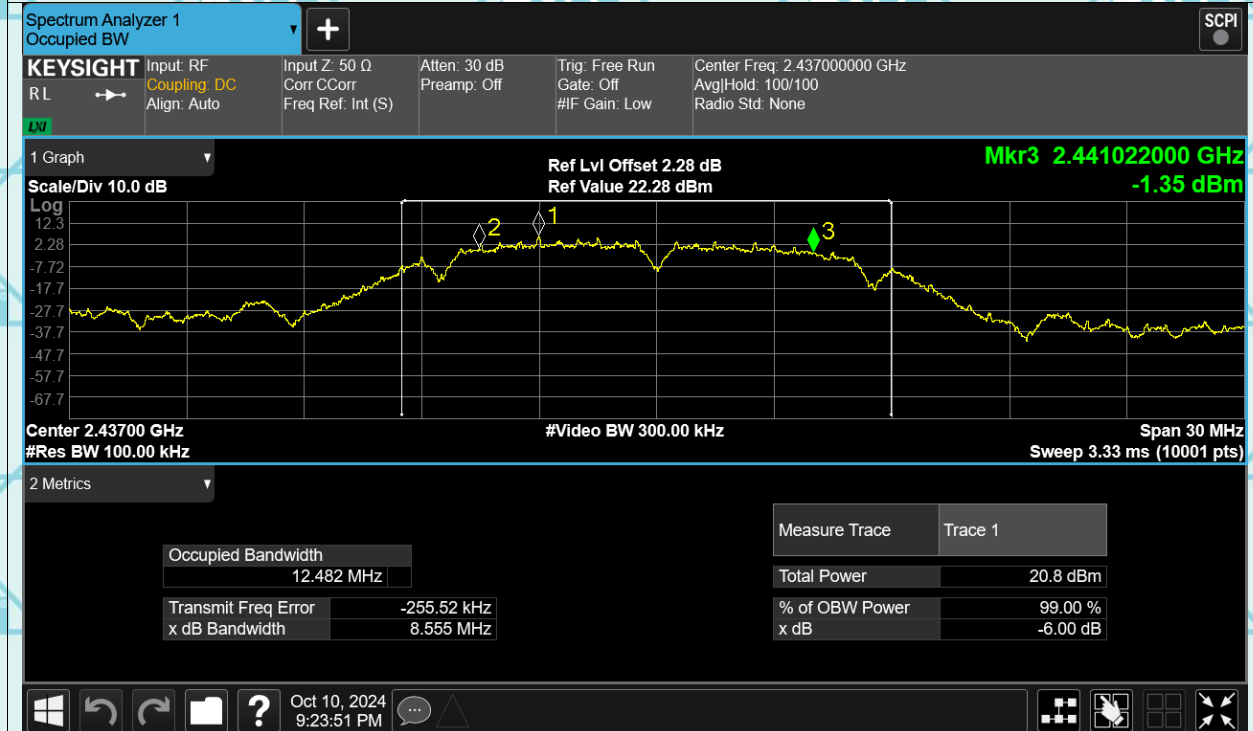
Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

Test Graphs

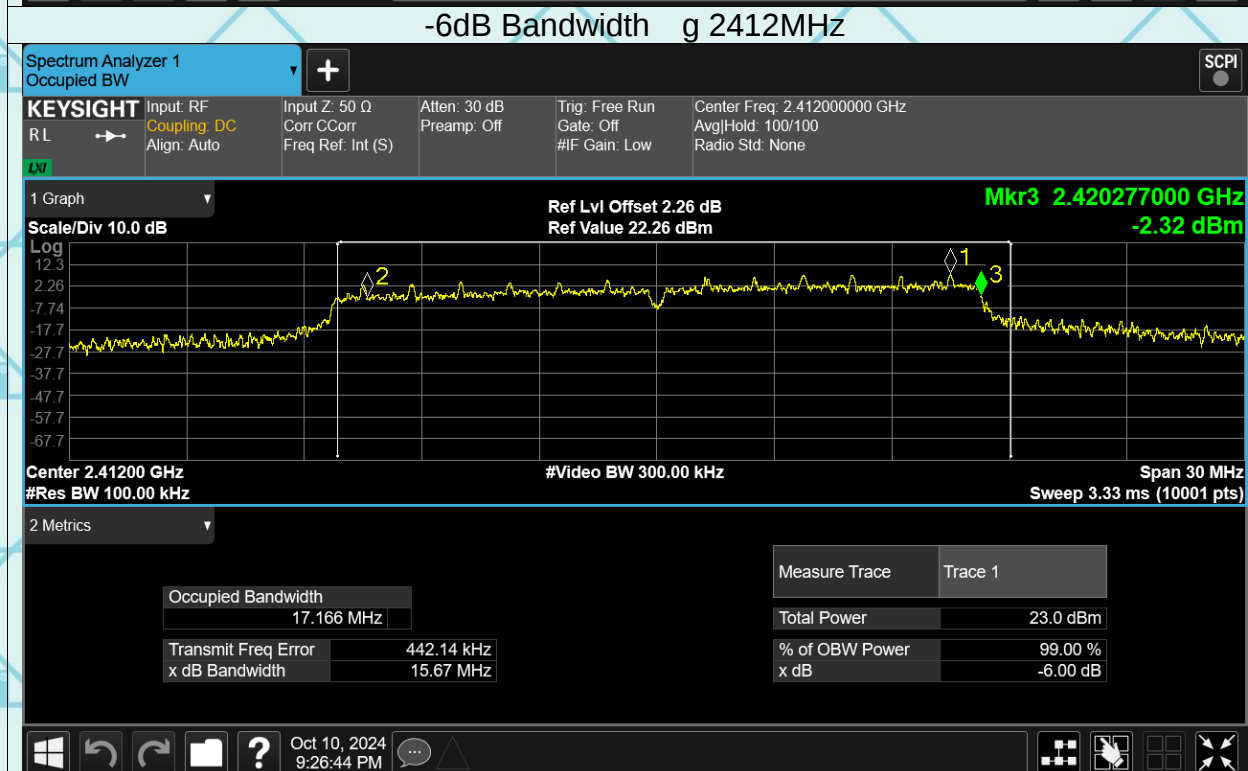
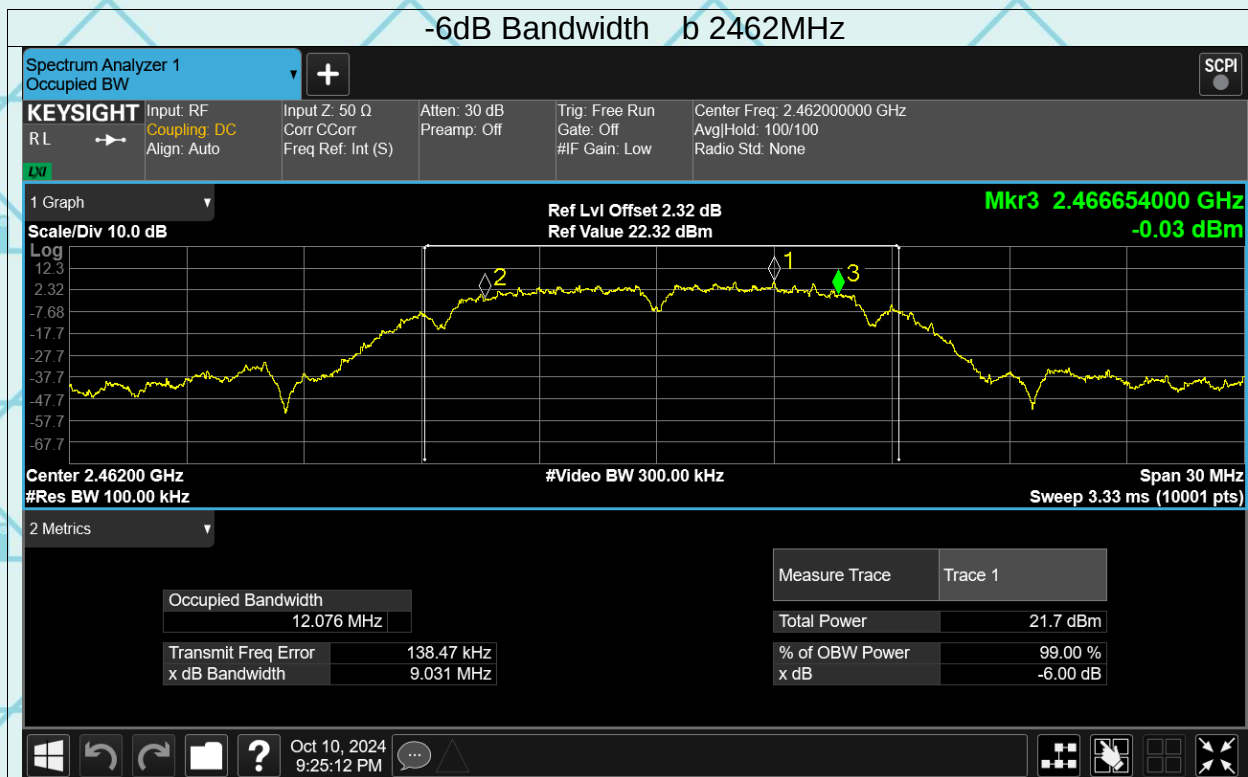
-6dB Bandwidth b 2412MHz



-6dB Bandwidth b 2437MHz

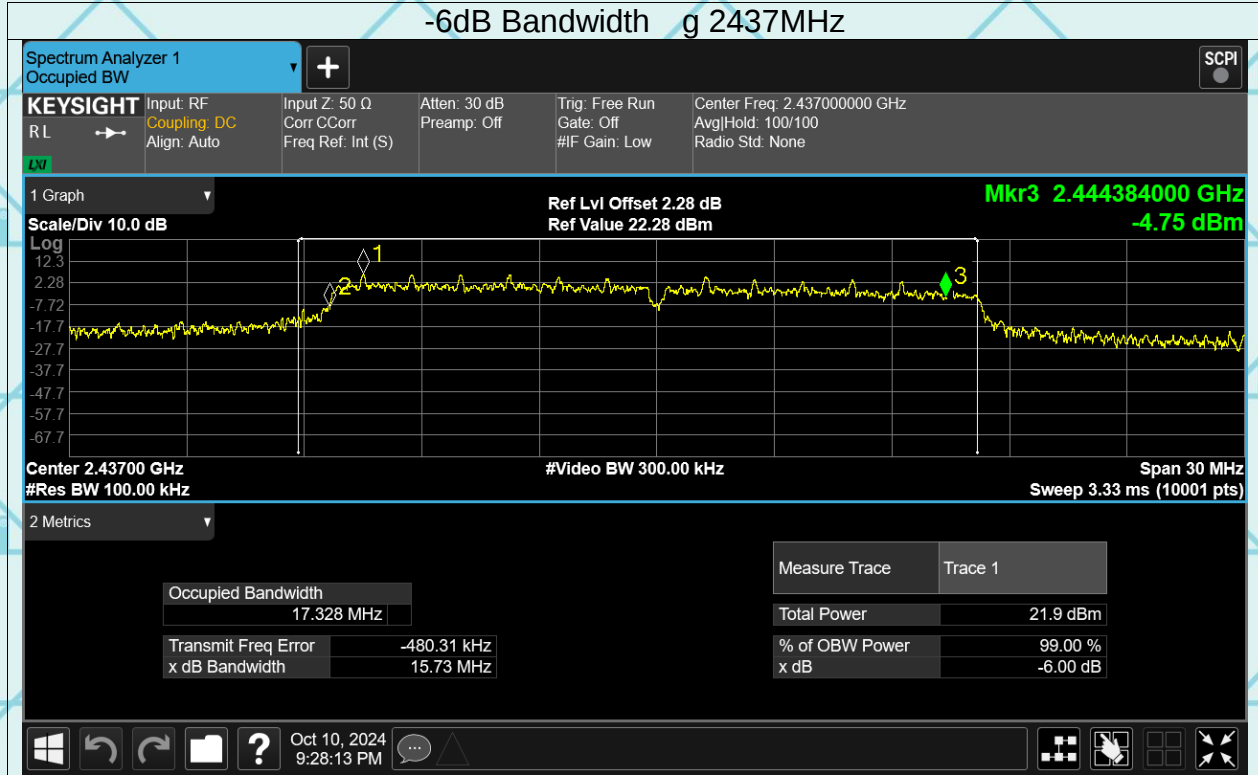


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

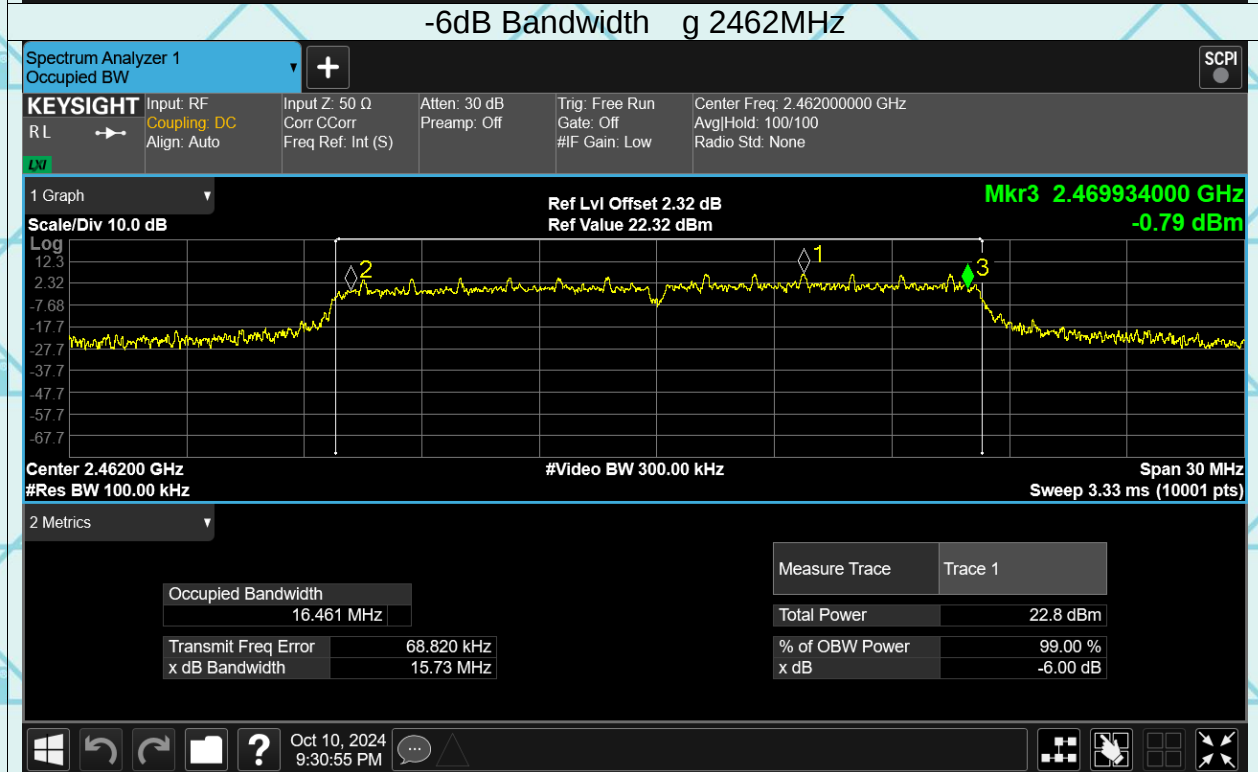


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

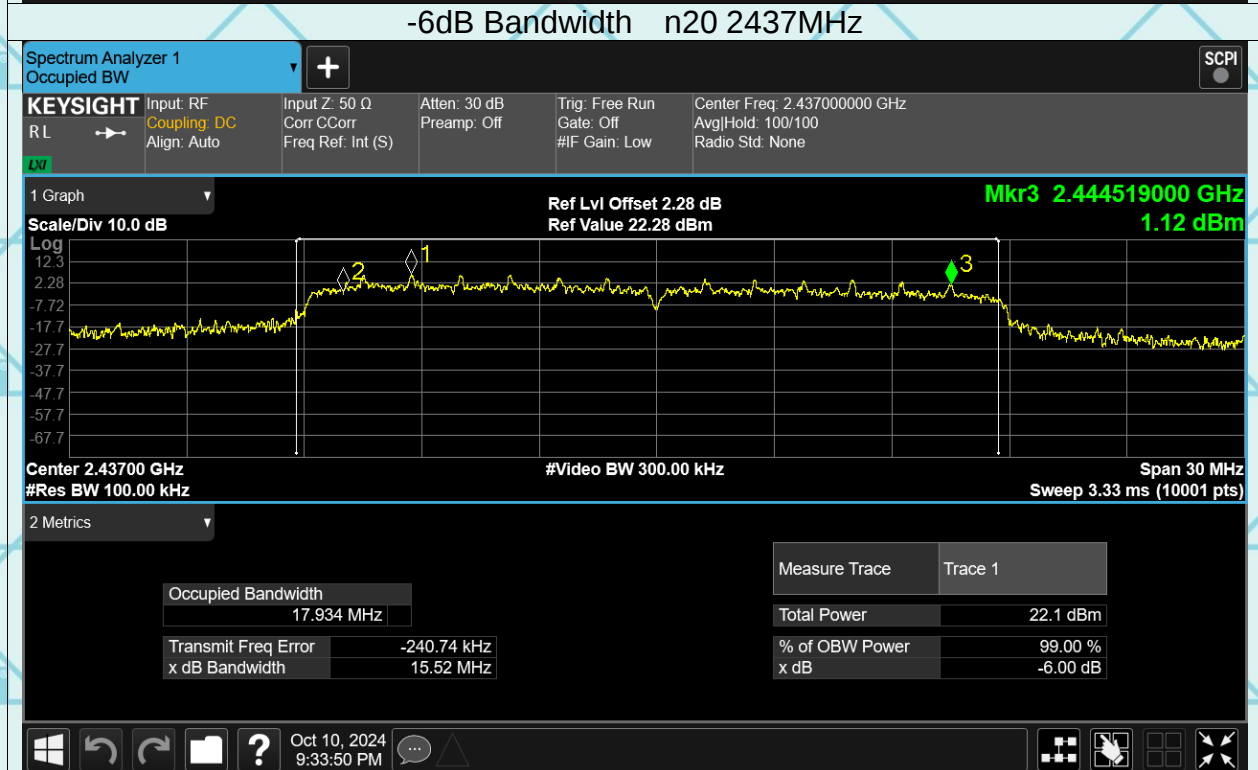
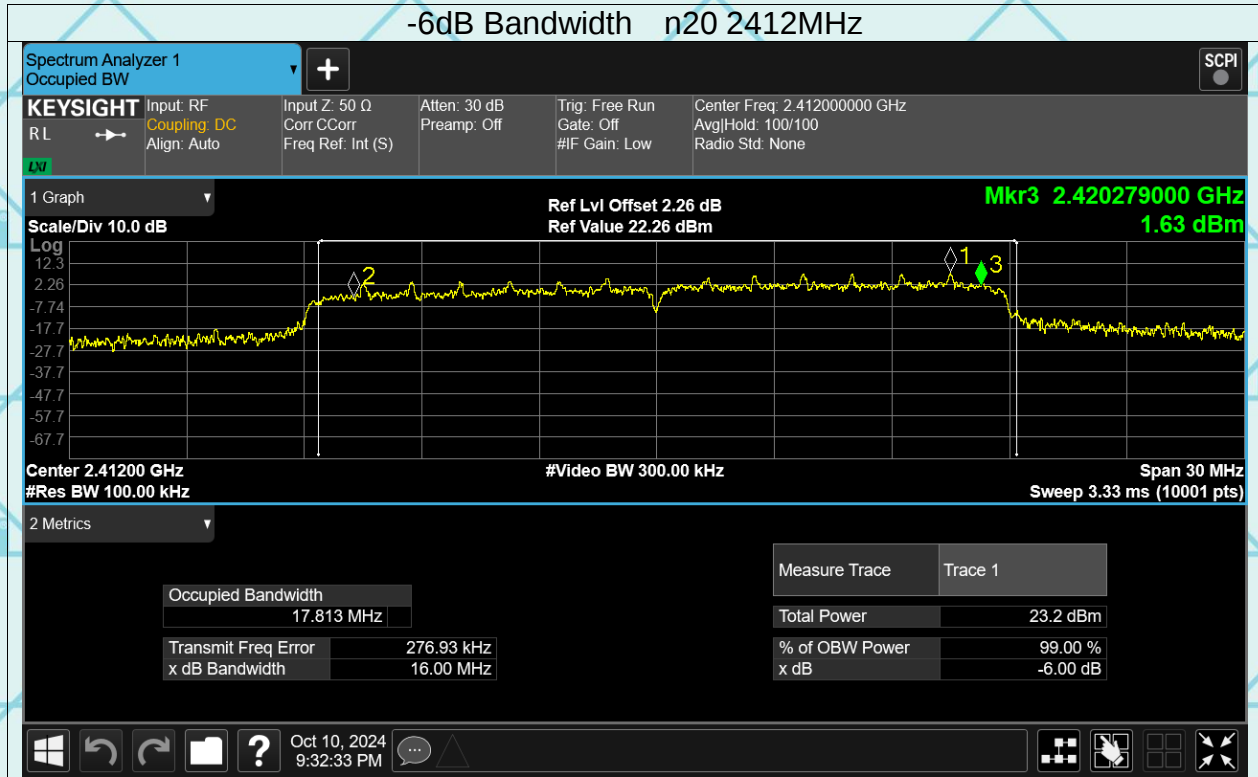
-6dB Bandwidth g 2437MHz



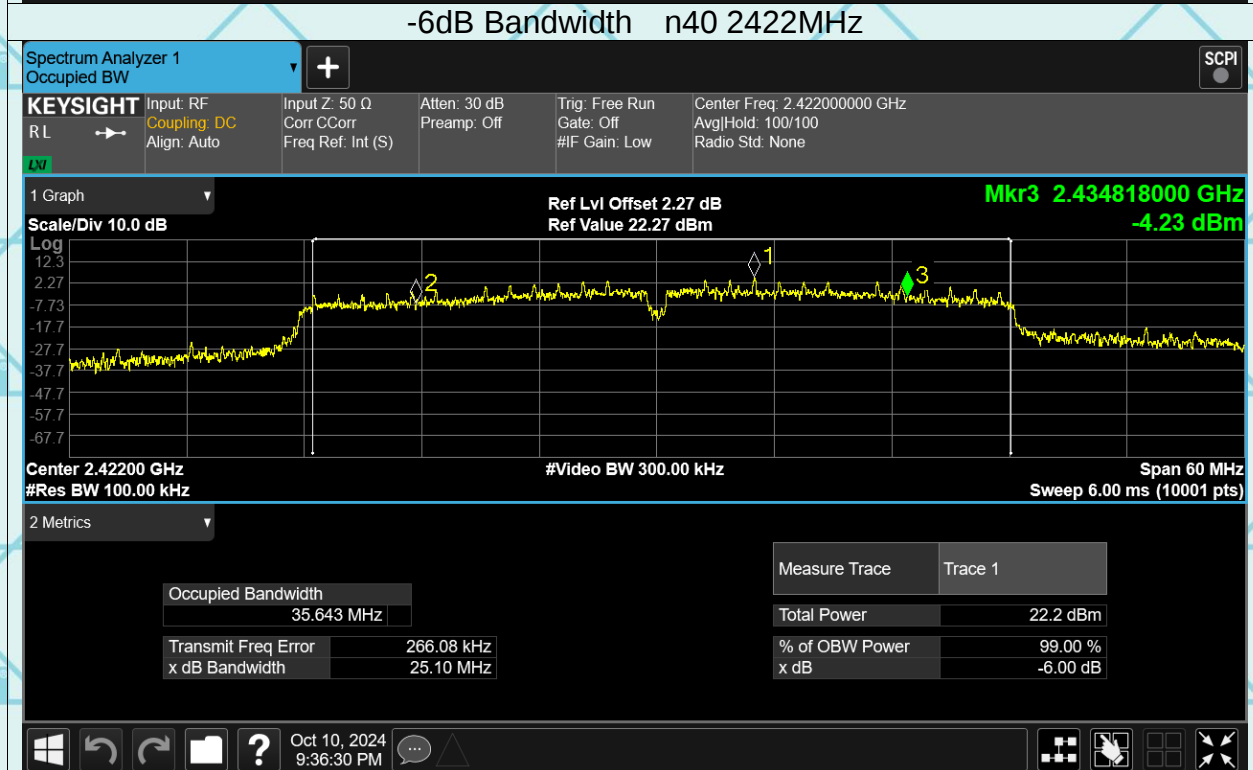
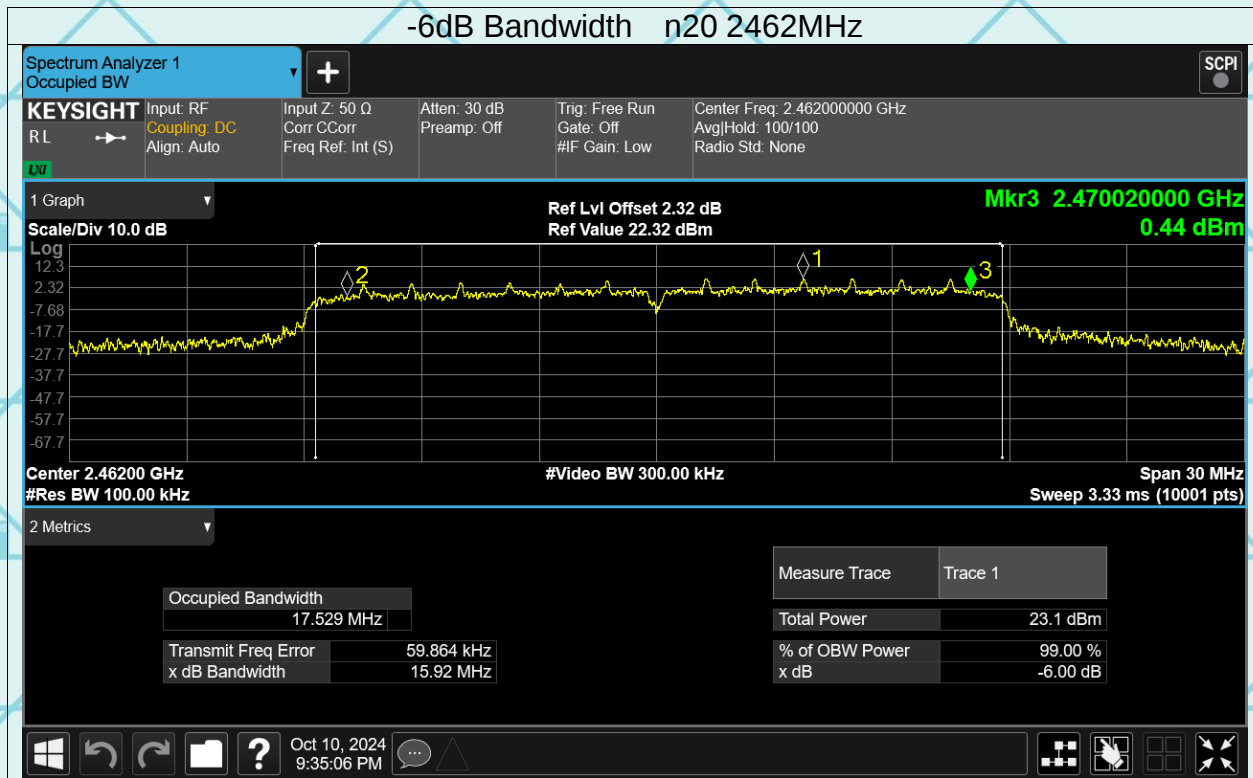
-6dB Bandwidth g 2462MHz



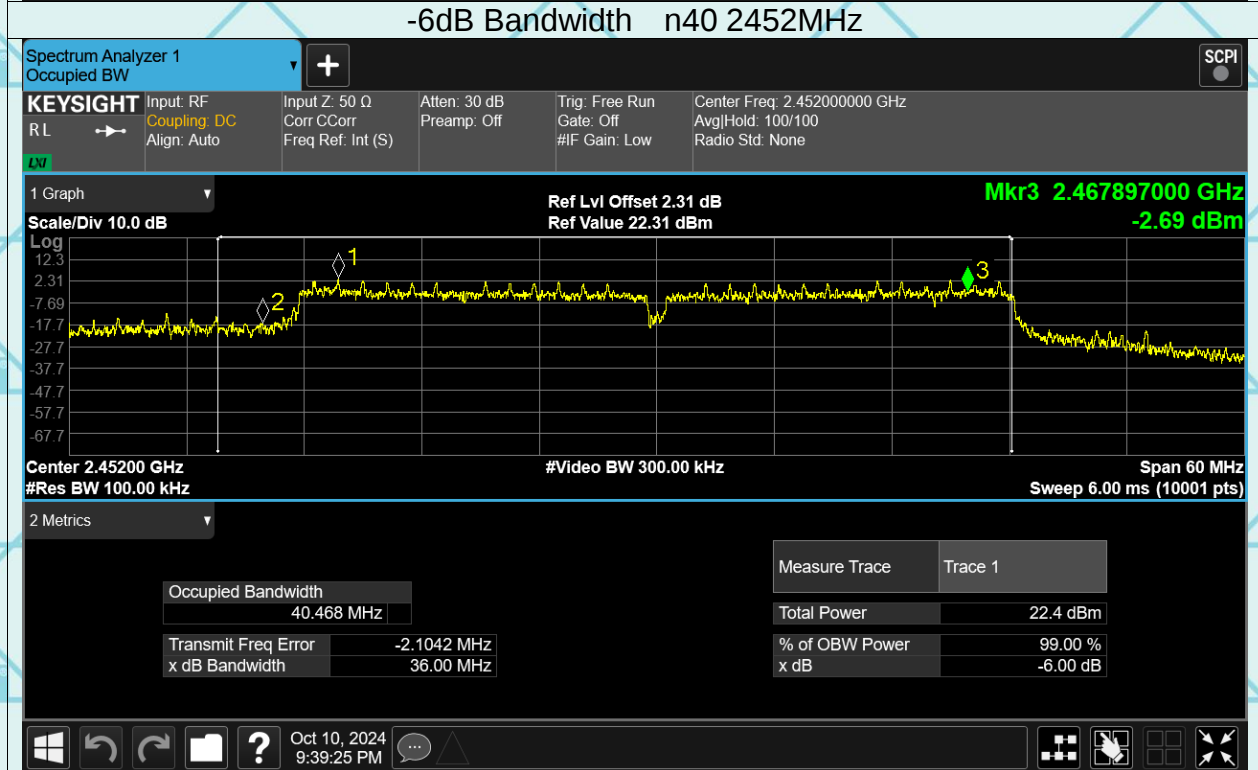
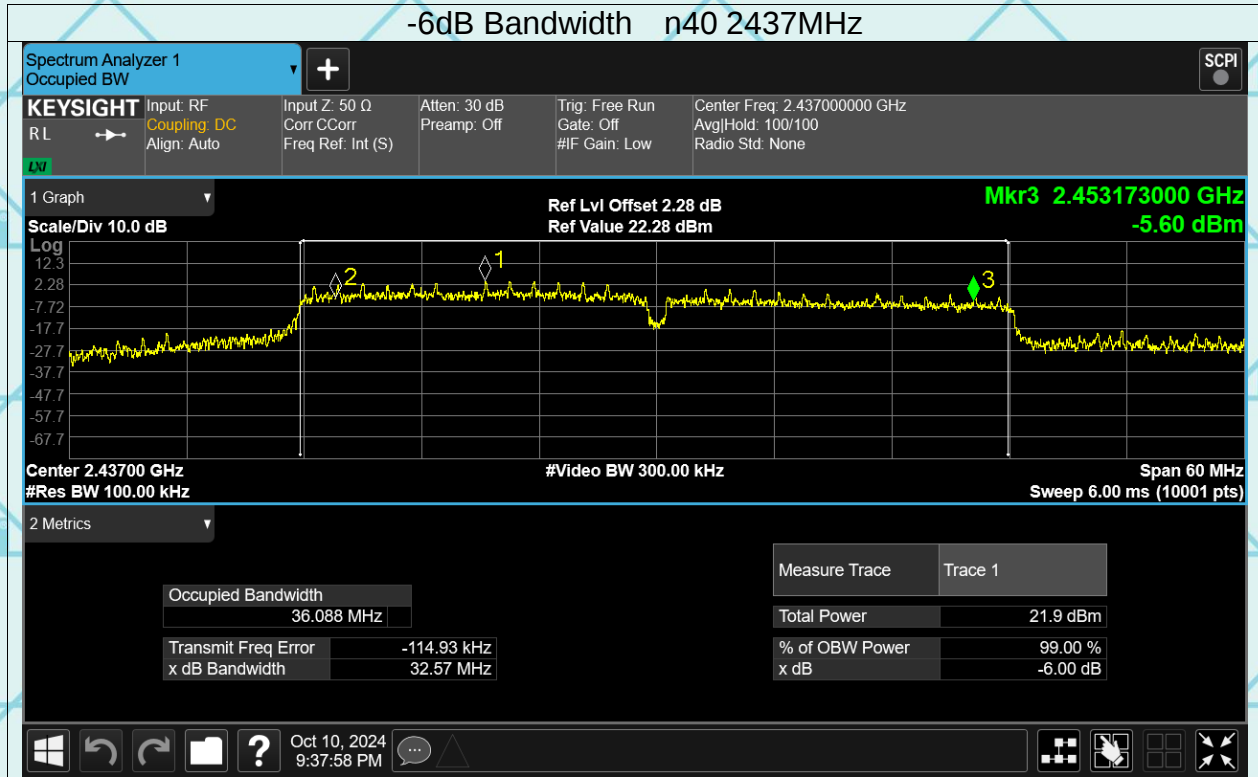
Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1



Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1



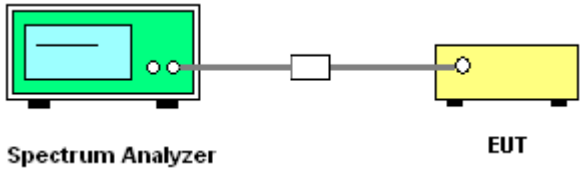
Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1



Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

6.4. Power Spectral Density

6.4.1 Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB 558074
Limit:	The average power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows Measurement Procedure 10.3 Method AVGPSD of FCC KDB Publication No.558074 D01 DTS Meas. Guidance v04 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. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW): $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$. Video bandwidth VBW $\geq 3 \times \text{RBW}$. Set the span to at least 1.5 times the OBW. 5. Detector = RMS, Sweep time = auto couple. 6. Employ trace averaging (RMS) mode over a minimum of 100 traces. Use the peak marker function to determine the maximum power level. 6. Measure and record the results in the test report.
Test Result:	PASS

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

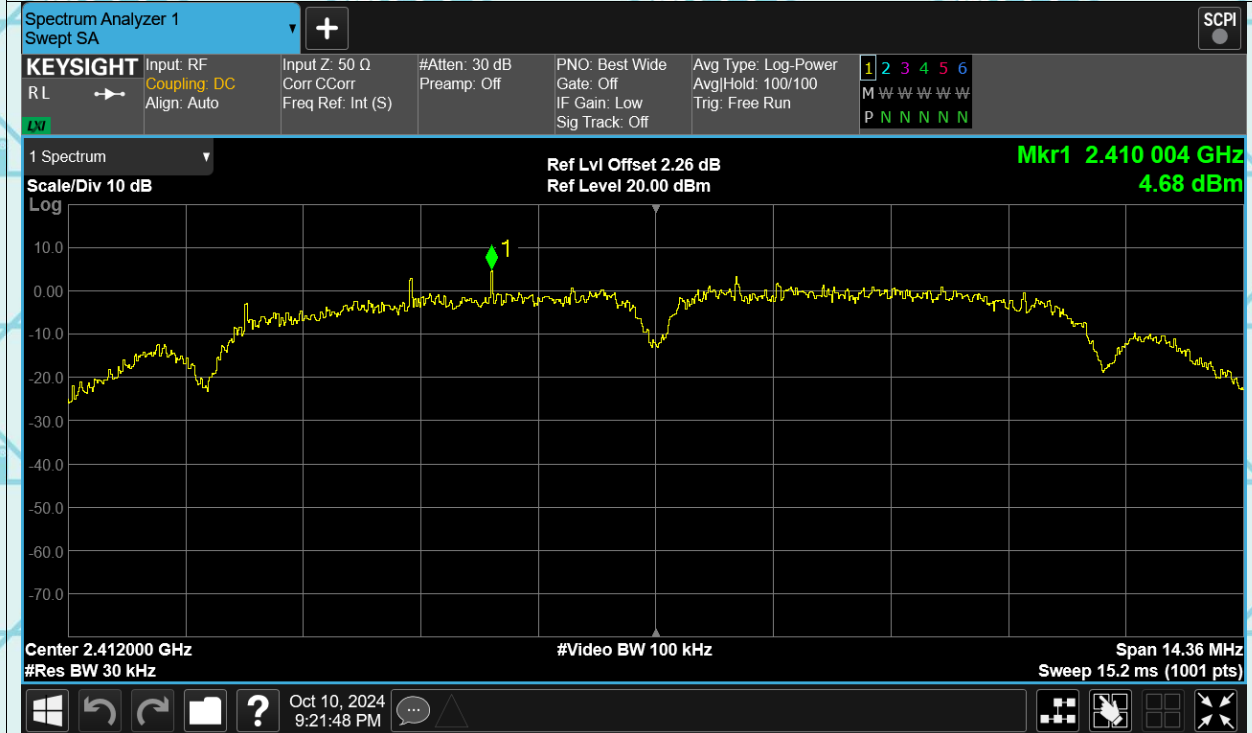
6.4.2. Test data(worst)

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
b	2412	4.68	8	Pass
b	2437	3.44	8	Pass
b	2462	3.30	8	Pass
g	2412	3.54	8	Pass
g	2437	1.52	8	Pass
g	2462	2.19	8	Pass
n20	2412	3.02	8	Pass
n20	2437	1.39	8	Pass
n20	2462	2.15	8	Pass
n40	2422	-1.64	8	Pass
n40	2437	-1.01	8	Pass
n40	2452	-2.17	8	Pass

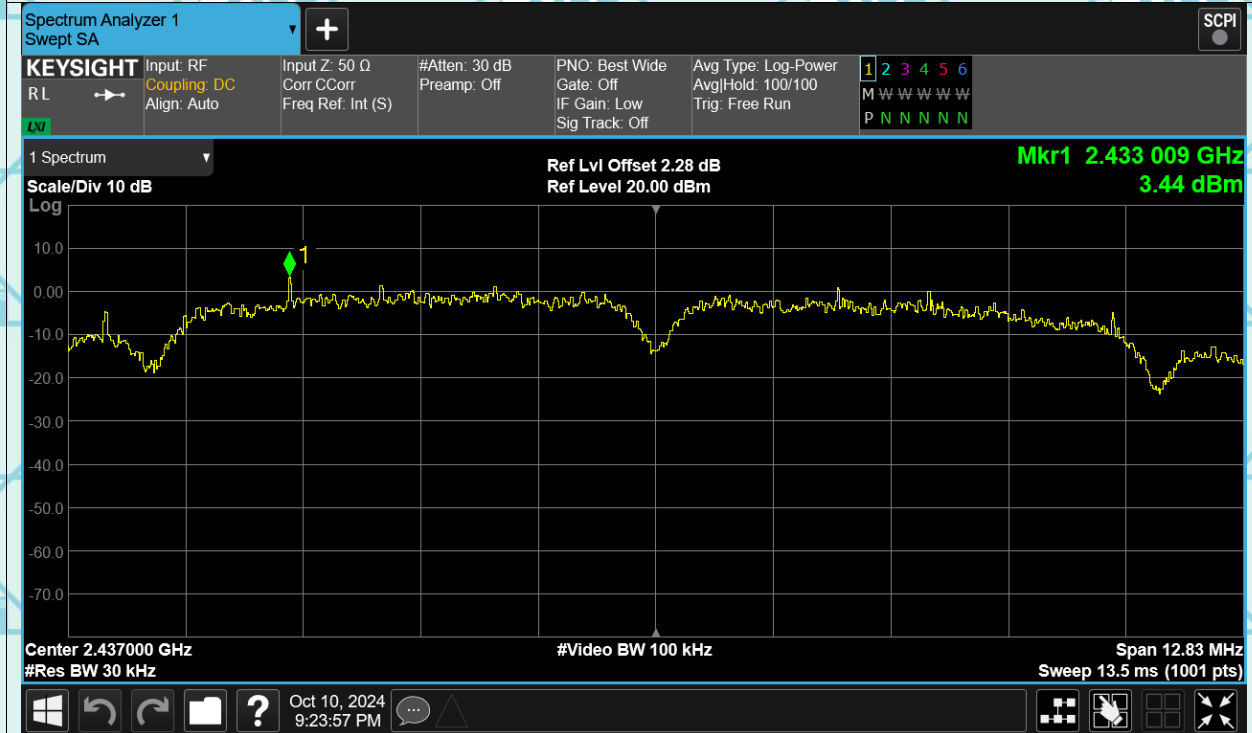
Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

Test Graphs

PSD b 2412MHz



PSD b 2437MHz

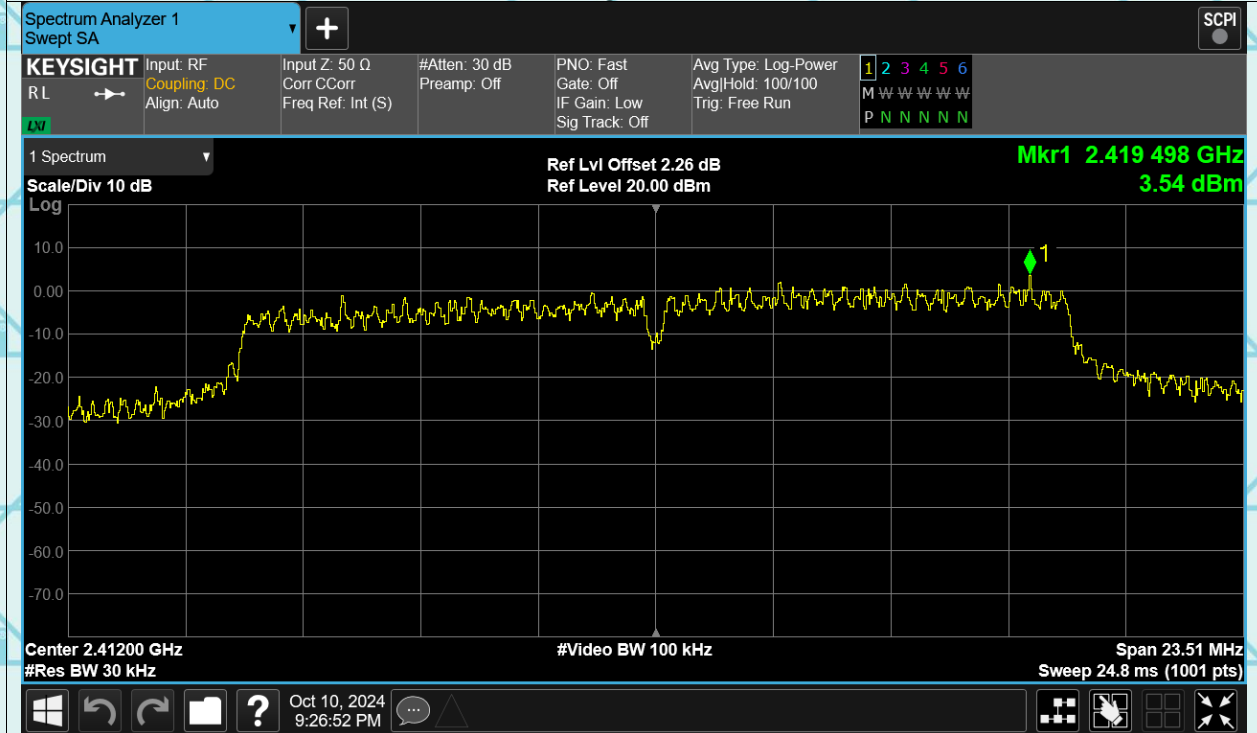


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

PSD b 2462MHz

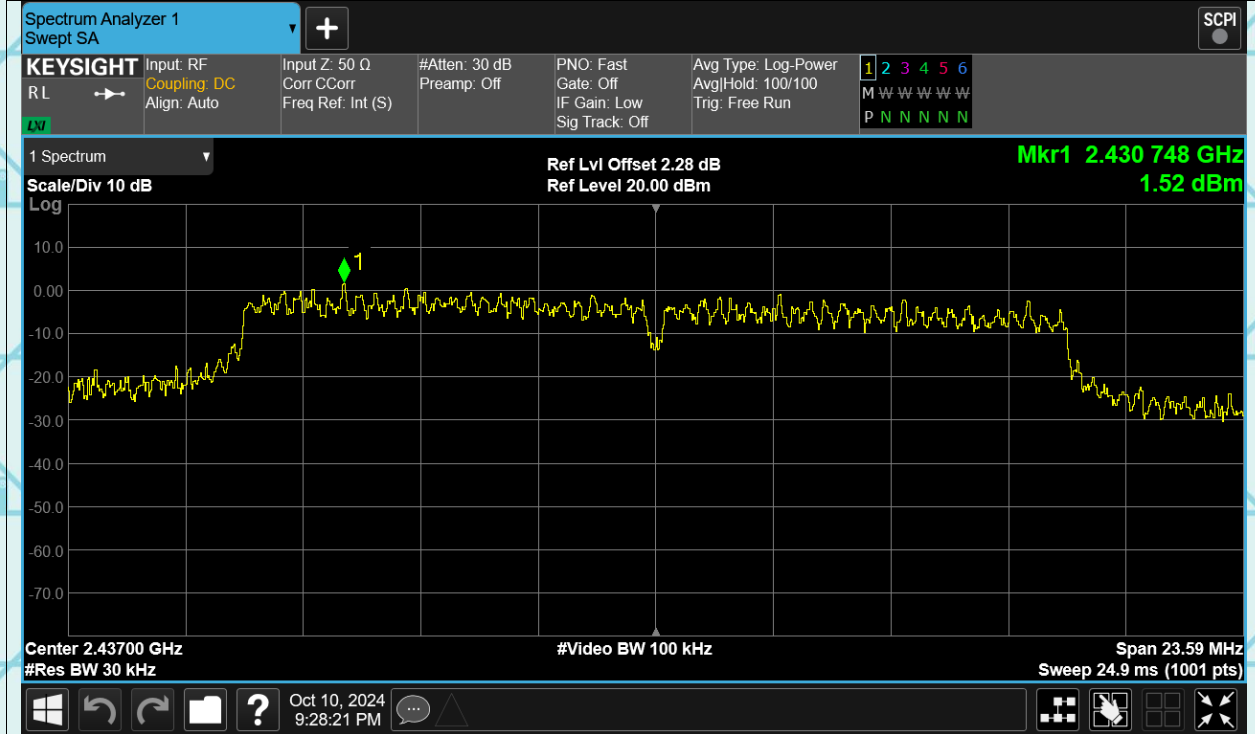


PSD g 2412MHz

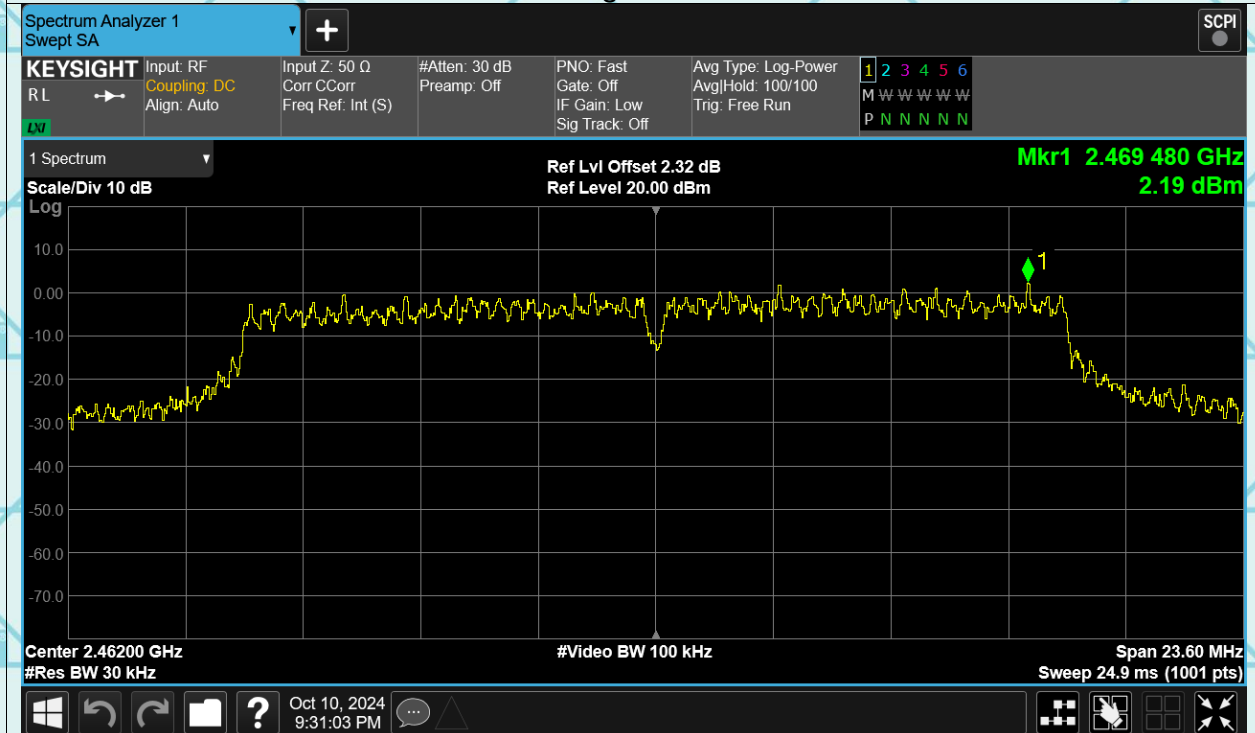


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

PSD g 2437MHz

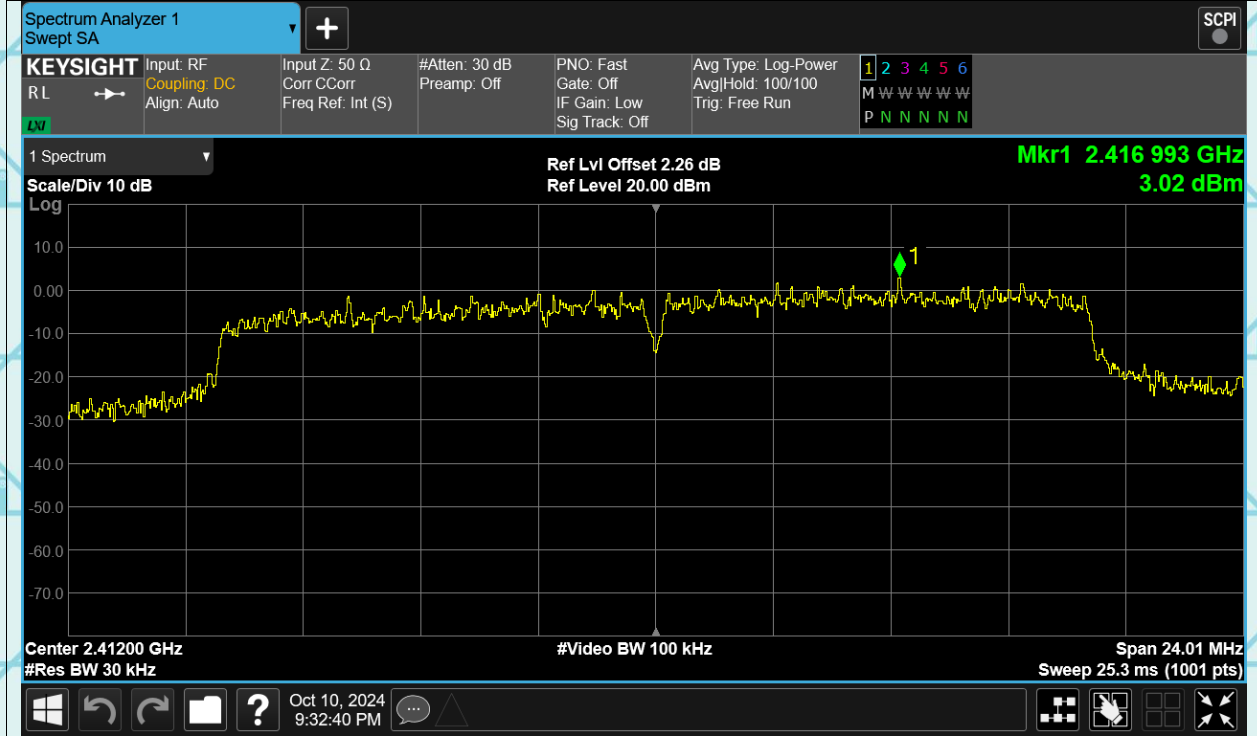


PSD g 2462MHz

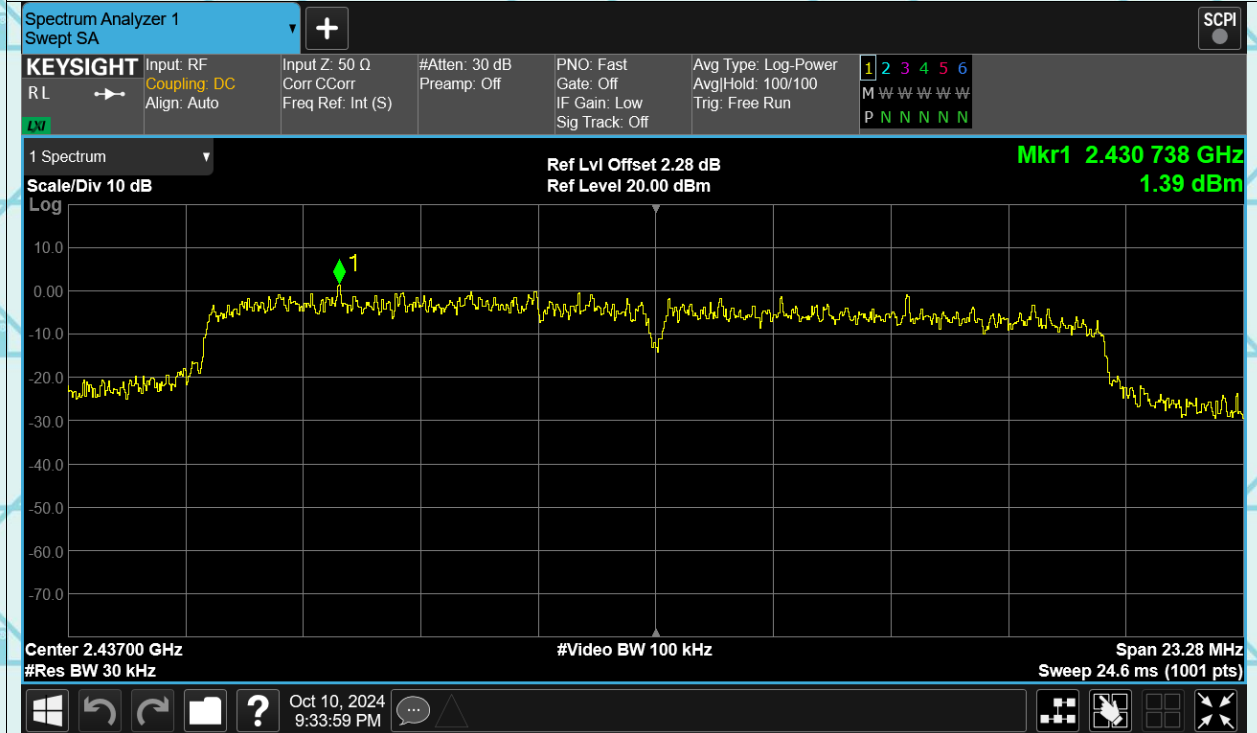


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

PSD n20 2412MHz

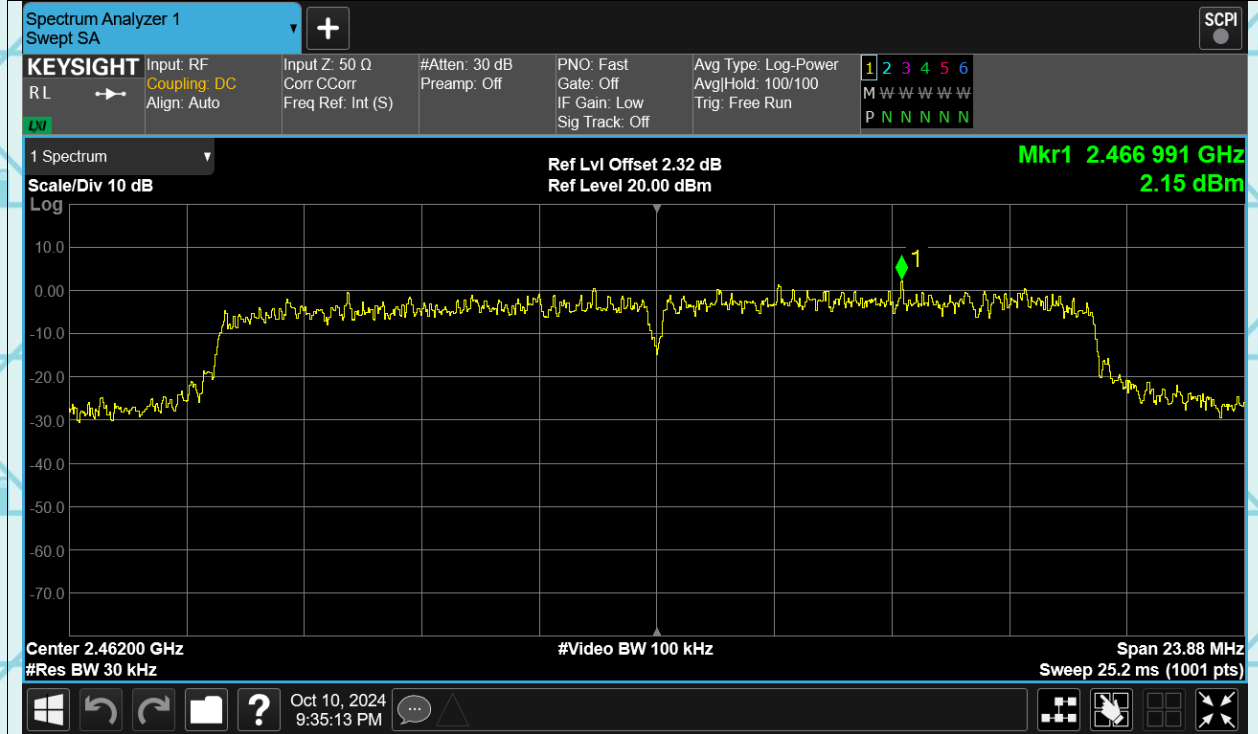


PSD n20 2437MHz

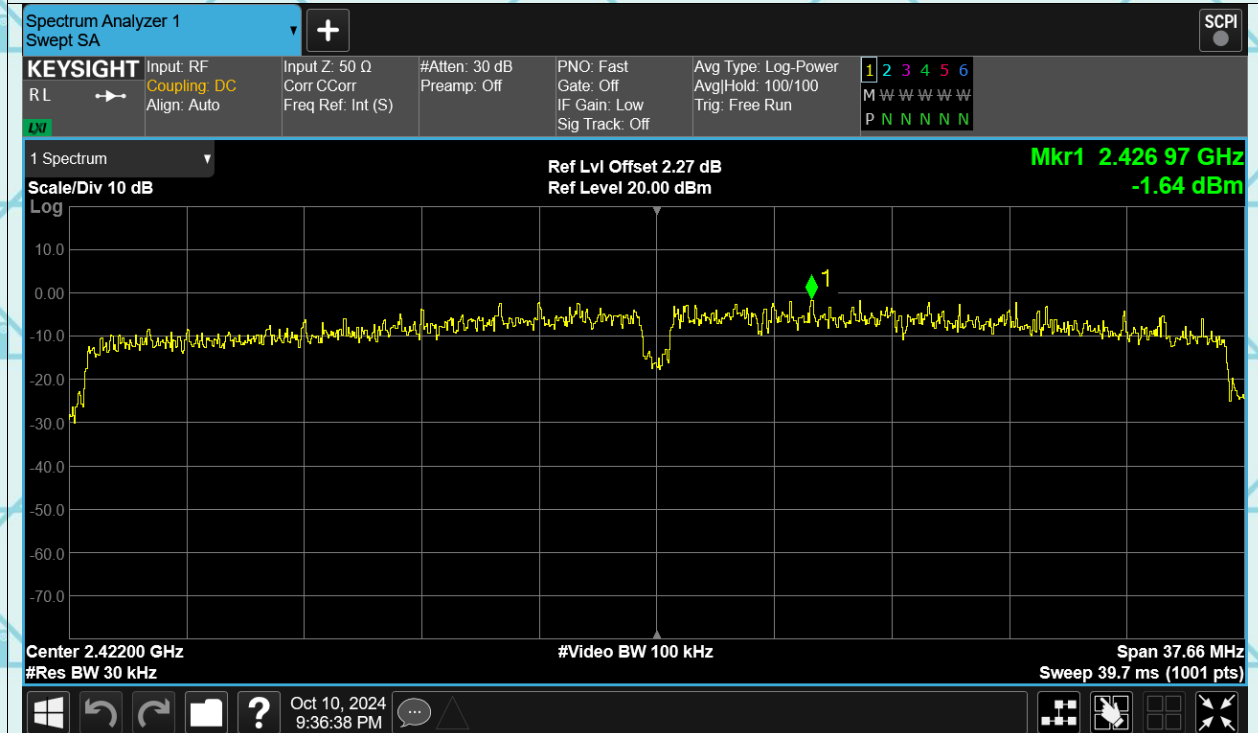


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

PSD n20 2462MHz

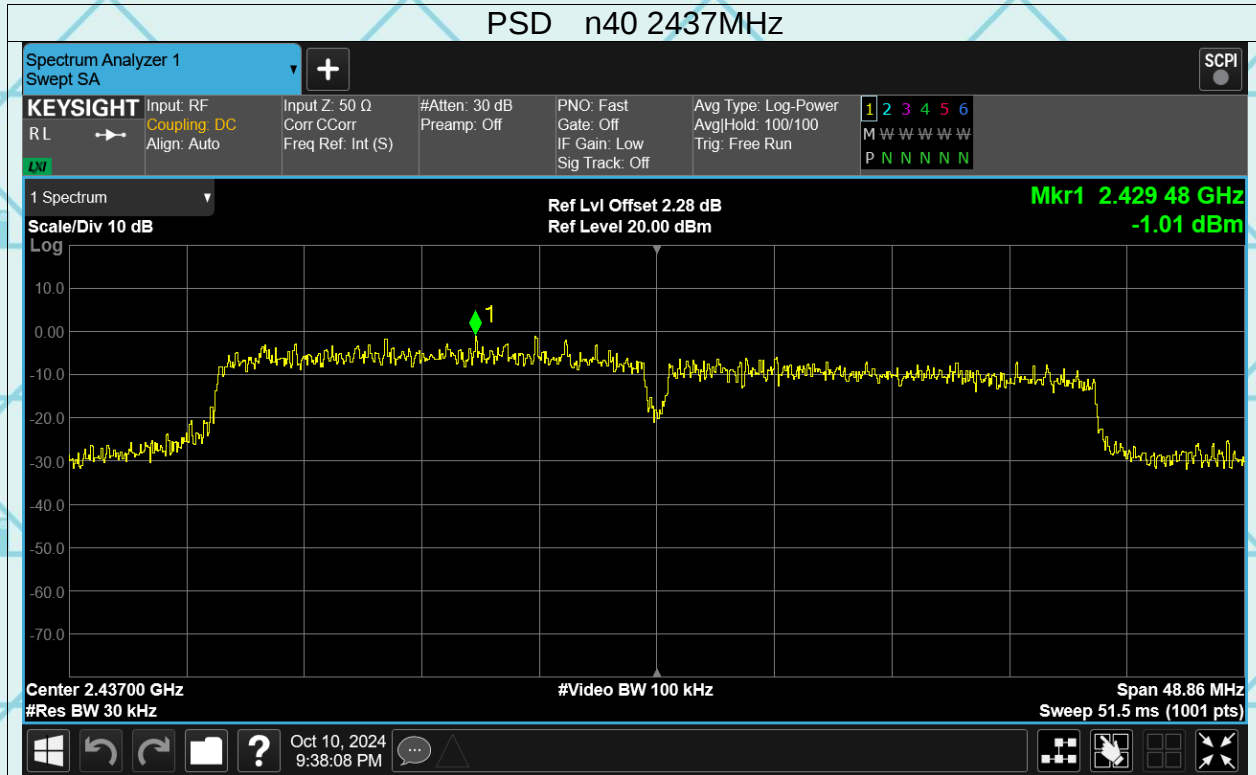


PSD n40 2422MHz

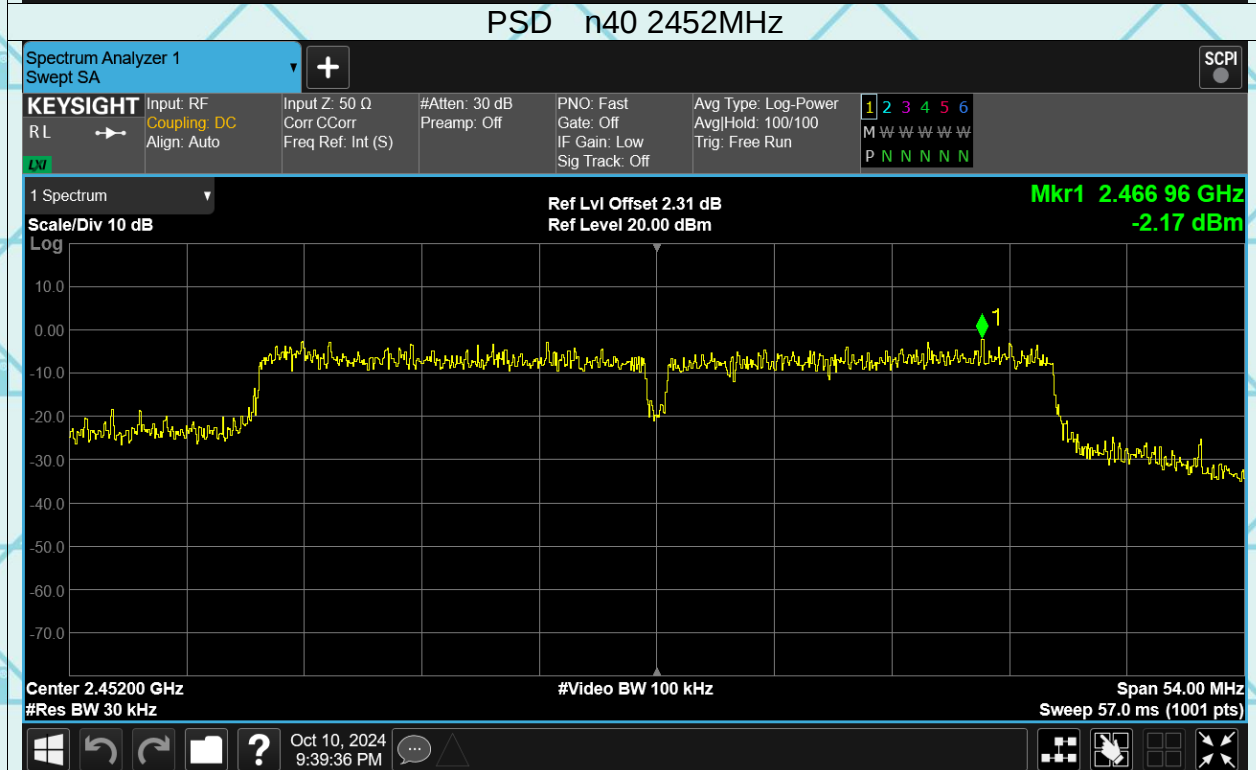


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

PSD n40 2437MHz



PSD n40 2452MHz



6.5. Conducted Band Edge and Spurious Emission Measurement

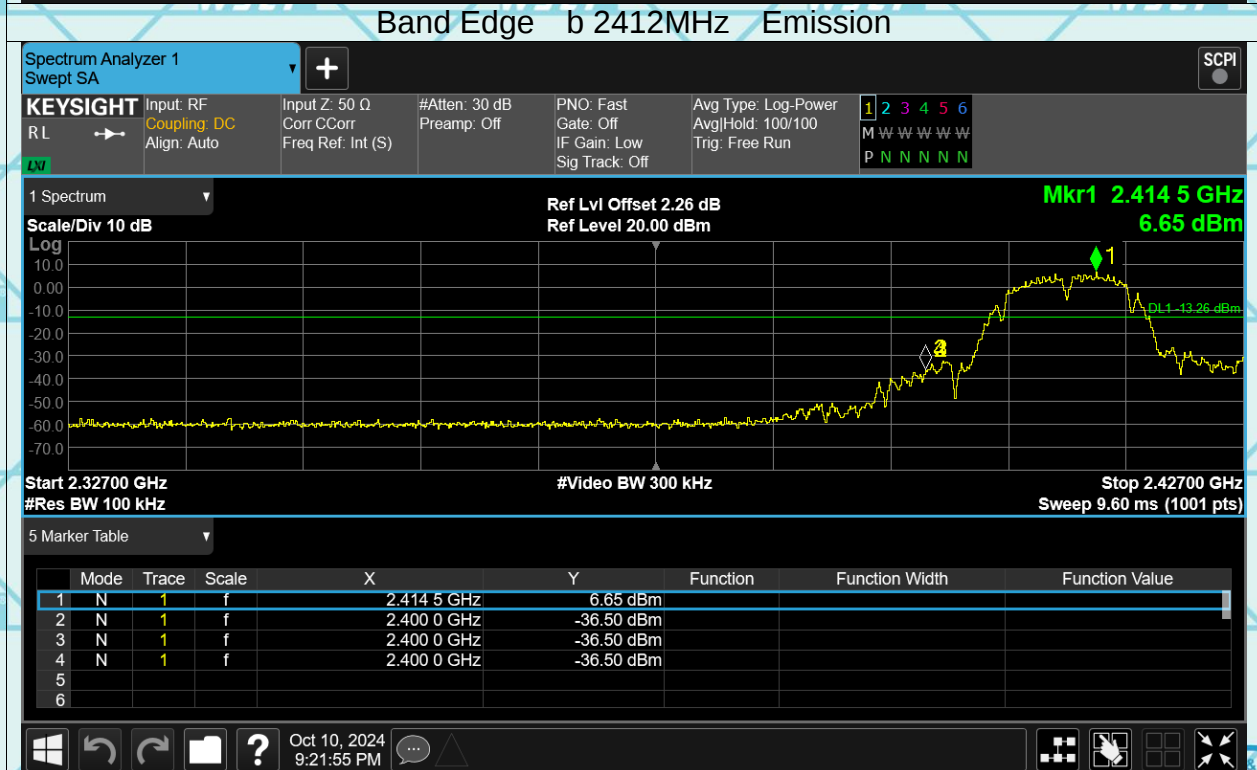
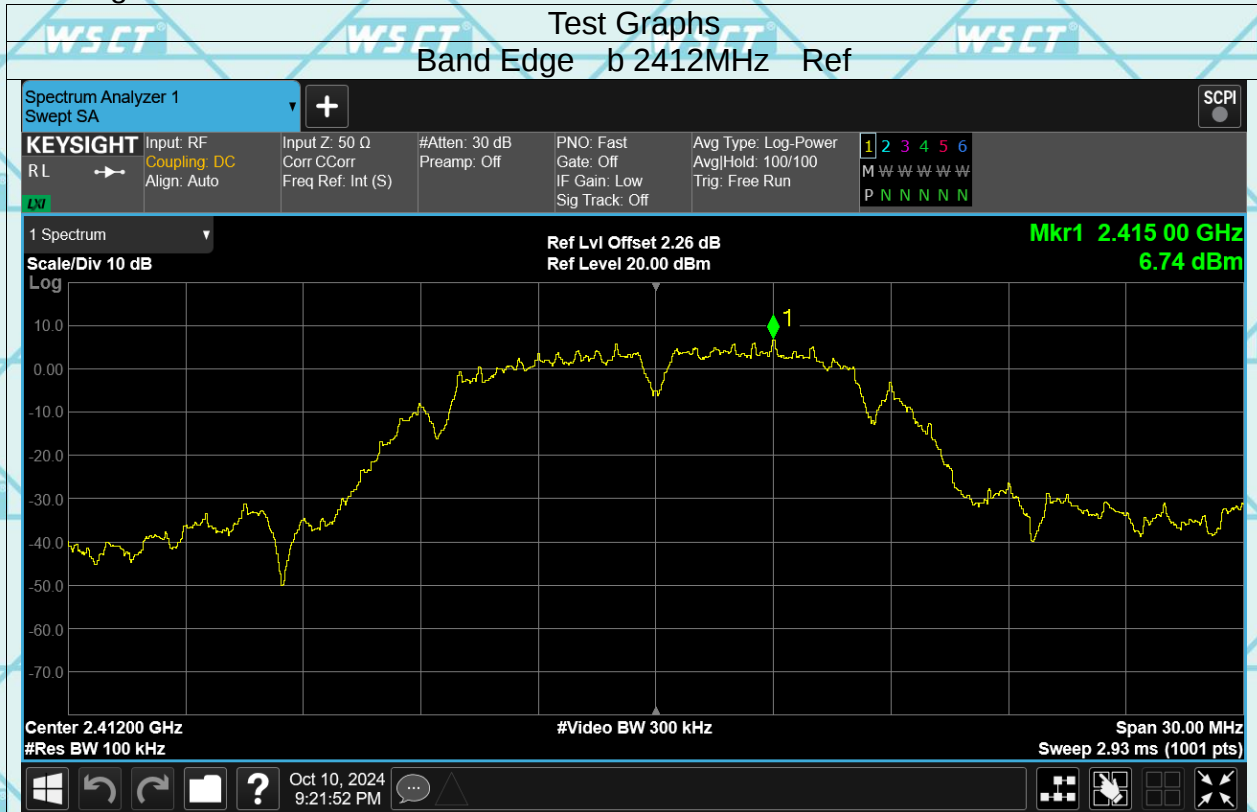
6.5.1 Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074
Limit:	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).
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04. 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. 3. Set to the maximum power setting and enable the EUT transmit continuously. 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). 5. Measure and record the results in the test report. 6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Test Result:	PASS

Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

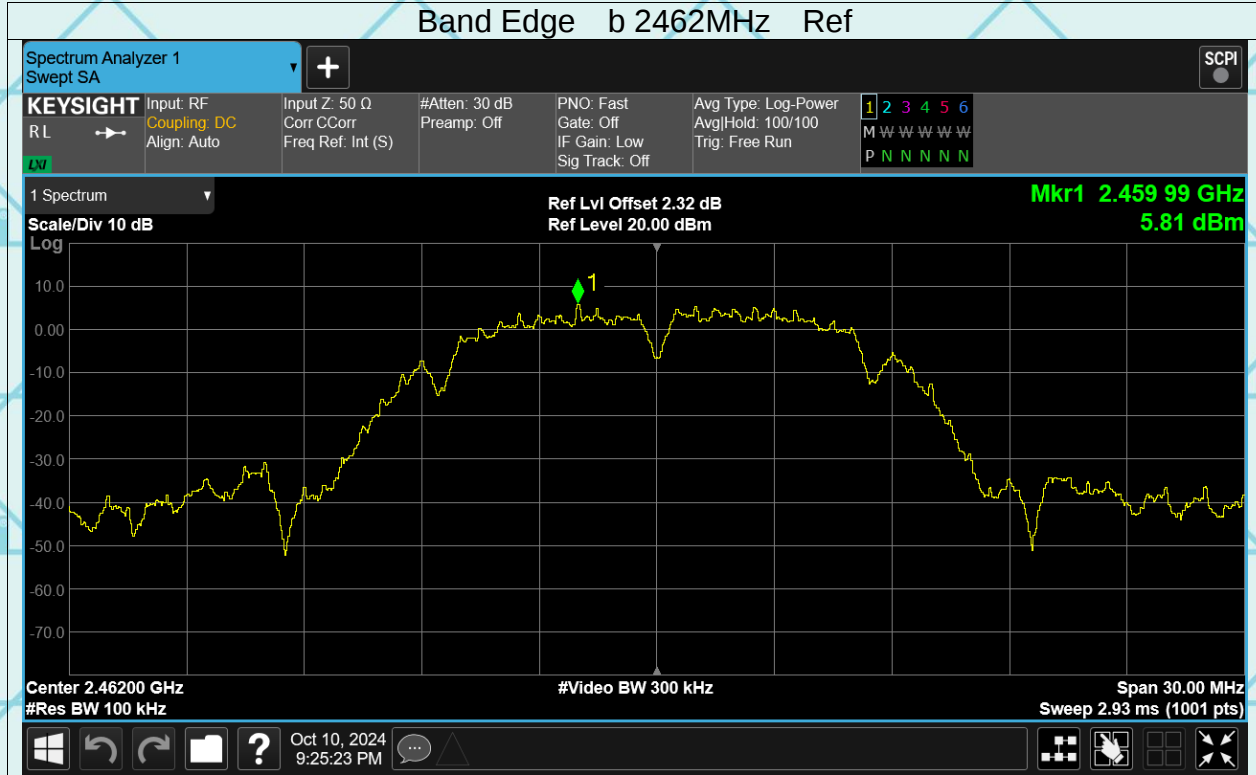
Test Data

Band Edge

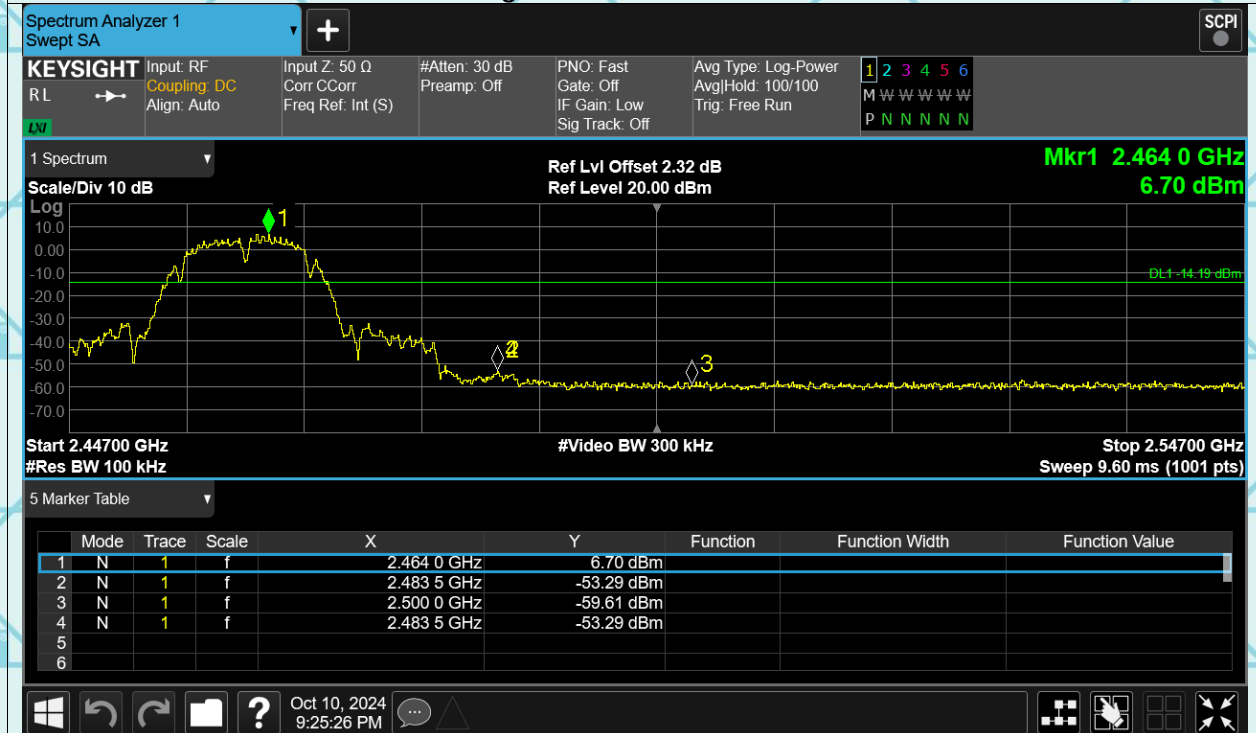


Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

Band Edge b 2462MHz Ref

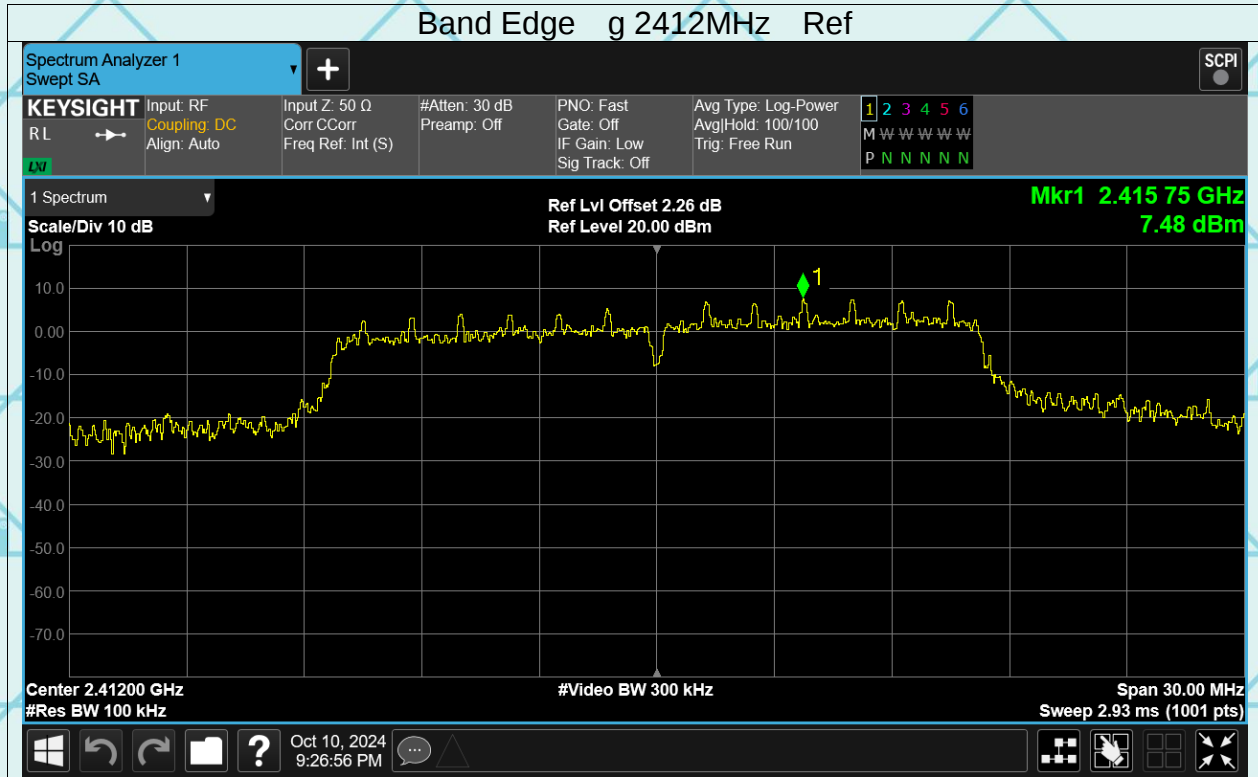


Band Edge b 2462MHz Emission



Report No.: WSCT-ANAB-R&E240900047A-Wi-Fi1

Band Edge g 2412MHz Ref



Band Edge g 2412MHz Emission

