



TEST REPORT

FCC ID: 2ADYY-AE10

Product: Mobile Phone

Model No.: AE10

Trade Mark: TECNO

Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

Issued Date: 11 July 2024

Issued for:

TECNO 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.

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Note: The results contained in this report pertain only to the tested sample. This report shall not be reproduced, except in full, without written approval of World Standardization Certification & Testing Group(Shenzhen) Co., Ltd. This report must not be used by the client to claim product certification, approval, or any agency of the U.S. Government.





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Certificate #5768.01

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1. Test Certification

Product:	Mobile Phone
Model No.:	AE10
Additional Model:	TECNO
Applicant:	TECNO MOBILE LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer:	TECNO MOBILE LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Date of receipt:	14 February 2024
Date of Test:	15 February 2024 to 11 July 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/system, 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:

Liu Fuxin

(Liu Fuxin)

Date:

11 July 2024



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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.



3. EUT Description

Product:	Mobile Phone
Model No.:	AE10
Trade Mark:	TECNO
Software version:	AE10-H833A-U-OP-240421V2267
Hardware version:	V2.0
Operation Frequency:	2412MHz~2462MHz (802.11b/g/n/ax(HT20)) 2422MHz~2452MHz (802.11n/ax(HT40))
Channel Separation:	5MHz
Modulation type:	DSSS (DBPSK, DQPSK, CCK) for IEEE 802.11b OFDM/OFDMA(BPSK,QPSK,16QAM,64QAM,256QAM,1024QAM) for IEEE 802.11g/n/ax
Antenna Type:	FIPA Antenna
Antenna Gain	ANT1: -5.12dBi ANT2: -4.01dBi
Operating Voltage:	Adapter: U700TSA Input: 100-240V~50/60Hz 2.0A Output: 5.0V~3.0A 15.0W or 5.0-10.0V~7.0A MAX or 11.0V~6.4A MAX or 4.0-20.0V~3.5A 70.0W MAX Rechargeable Li-ion Polymer Battery Model1: BL-29GT Rated Voltage: 3.86V Rated Capacity: 2973mAh/11.48Wh Typical Capacity: 3043mAh/11.75Wh Limited Charge Voltage: 4.53V Rechargeable Li-ion Polymer Battery Model2: BL-25MT Rated Voltage: 3.86V Rated Capacity: 2637mAh/10.18Wh Typical Capacity: 2707mAh/10.45Wh Limited Charge Voltage: 4.53V
Remark:	N/A.

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

2. Antenna gain provided by the customer.



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

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

802.11n/ax (HT40)

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



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/ax(H20)
802.11n/ax(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.



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.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Adapter	U700TSA	/	/	TECNO

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.



5. Facilities and Accreditations

5.1. Facilities

All measurement facilities used to collect the measurement data are located at **Building A-B, Baoshi Science & Technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, 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

CNAS - Registration Number: L3732

China National Accreditation Service for Conformity Assessment, The test firm Registration Number: L3732

FCC - Designation Number: CN1303

World Standardization Certification & Testing Group(Shenzhen) CO., LTD. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Designation Number: CN1303.

A2LA - Certificate Number: 5768.01

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number: 5768.01



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	$\pm 2.4\%$



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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	SUNOL Sciences	JB3	A021907	11/05/2023	11/04/2024
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 Wi-Fi antenna is a FIPA Antenna. it meets the standards, and the best case gain of the antenna is ANT1:-5.12dBi , ANT2:-4.01dBi.	



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 40cm 80cm E.U.T. AC power LISN Filter AC power EMI Receiver Test table/Insulation 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														



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.



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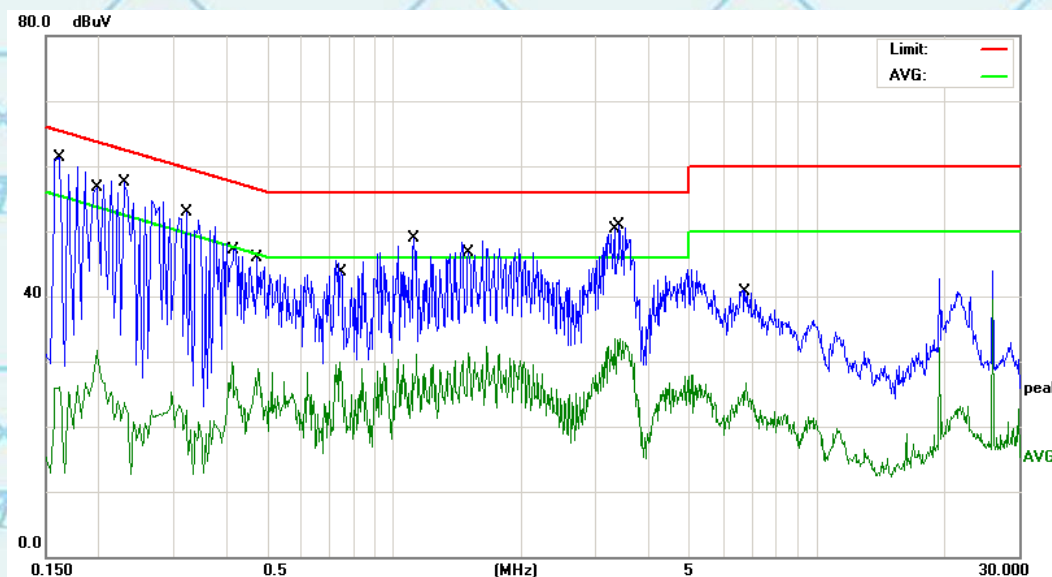
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Test data

Please refer to following diagram for individual

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



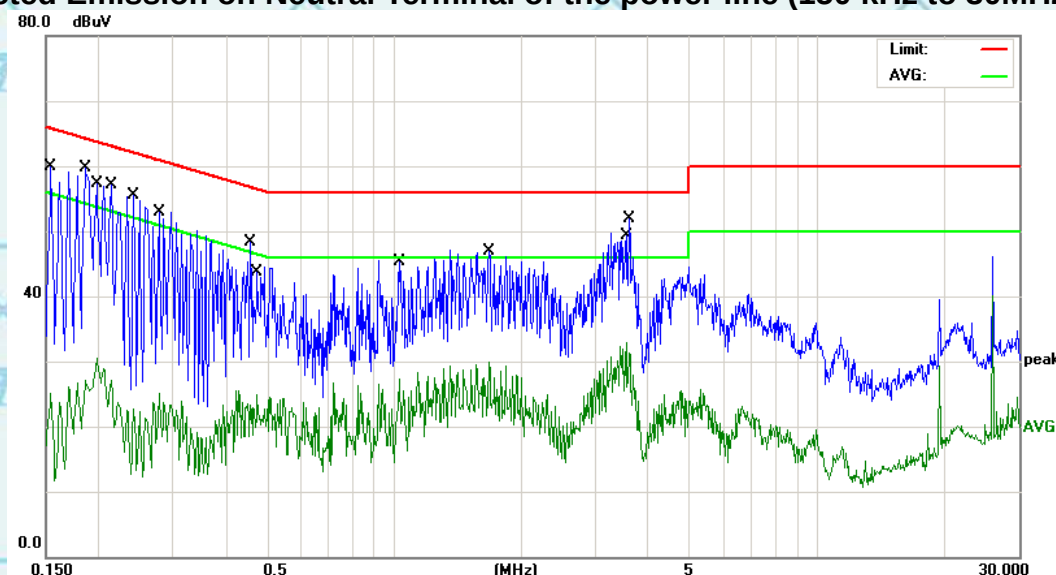
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1620	50.92	10.41	61.33	65.36	-4.03	QP
2		0.1980	21.27	10.41	31.68	53.69	-22.01	AVG
3		0.2300	47.03	10.42	57.45	62.45	-5.00	QP
4		0.3220	42.42	10.43	52.85	59.65	-6.80	QP
5		0.4140	19.53	10.45	29.98	47.57	-17.59	AVG
6		0.4740	35.51	10.46	45.97	56.44	-10.47	QP
7		0.7460	19.31	10.49	29.80	46.00	-16.20	AVG
8		1.1140	38.36	10.53	48.89	56.00	-7.11	QP
9		1.4980	20.79	10.58	31.37	46.00	-14.63	AVG
10		3.3140	22.77	10.67	33.44	46.00	-12.56	AVG
11		3.4140	40.31	10.67	50.98	56.00	-5.02	QP
12		6.7980	16.03	10.73	26.76	50.00	-23.24	AVG



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No.	Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measure- ment dBμV	Limit dBμV	Over dB	Detector
1		0.1539	49.59	10.41	60.00	65.78	-5.78	QP
2		0.1860	49.35	10.41	59.76	64.21	-4.45	QP
3		0.1980	20.18	10.41	30.59	53.69	-23.10	AVG
4		0.2140	16.64	10.41	27.05	53.04	-25.99	AVG
5		0.2420	45.07	10.42	55.49	62.02	-6.53	QP
6		0.2779	42.41	10.43	52.84	60.88	-8.04	QP
7		0.4580	37.81	10.46	48.27	56.73	-8.46	QP
8		0.4740	14.40	10.46	24.86	46.44	-21.58	AVG
9		1.0300	16.73	10.51	27.24	46.00	-18.76	AVG
10		1.6740	19.27	10.61	29.88	46.00	-16.12	AVG
11		3.5340	22.24	10.68	32.92	46.00	-13.08	AVG
12	*	3.5940	41.14	10.68	51.82	56.00	-4.18	QP

Note1:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

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

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

Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) - Limits (dBμV)

Q.P. = Quasi-Peak AVG = average

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



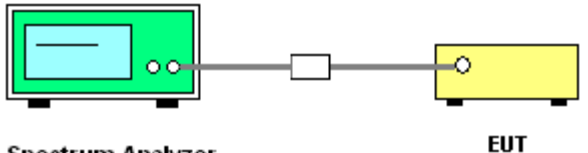
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6.2.3. Maximum Conducted Output Power

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





6.2.5. Test Data

ANT1

Mode	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Limit (dBm)	Verdict
b	2412	10.35	30	Pass
b	2437	11.53	30	Pass
b	2462	12.74	30	Pass
g	2412	13.20	30	Pass
g	2437	12.99	30	Pass
g	2462	11.76	30	Pass
n20	2412	10.75	30	Pass
n20	2437	11.08	30	Pass
n20	2462	12.18	30	Pass
n40	2422	11.12	30	Pass
n40	2437	10.10	30	Pass
n40	2452	9.74	30	Pass
ax20	2412	9.49	30	Pass
ax20	2437	11.29	30	Pass
ax20	2462	12.01	30	Pass
ax40	2422	12.16	30	Pass
ax40	2437	11.20	30	Pass
ax40	2452	11.04	30	Pass

ANT2

Mode	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Limit (dBm)	Verdict
b	2412	8.98	30	Pass
b	2437	11.30	30	Pass
b	2462	8.40	30	Pass
g	2412	11.23	30	Pass
g	2437	12.81	30	Pass
g	2462	11.25	30	Pass
n20	2412	10.99	30	Pass
n20	2437	12.29	30	Pass
n20	2462	10.98	30	Pass
n40	2422	10.38	30	Pass
n40	2437	12.25	30	Pass
n40	2452	12.50	30	Pass
ax20	2412	11.81	30	Pass
ax20	2437	12.75	30	Pass
ax20	2462	11.74	30	Pass
ax40	2422	11.56	30	Pass
ax40	2437	13.08	30	Pass
ax40	2452	13.88	30	Pass



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MIMO mode

Mode	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Limit (dBm)	Verdict
n20	2412	13.88	30	Pass
n20	2437	14.74	30	Pass
n20	2462	14.63	30	Pass
n40	2422	13.78	30	Pass
n40	2437	14.32	30	Pass
n40	2452	14.35	30	Pass
ax20	11.81	13.81	30	Pass
ax20	12.75	15.09	30	Pass
ax20	11.74	14.89	30	Pass
ax40	11.56	14.88	30	Pass
ax40	13.08	15.25	30	Pass
ax40	13.88	15.70	30	Pass

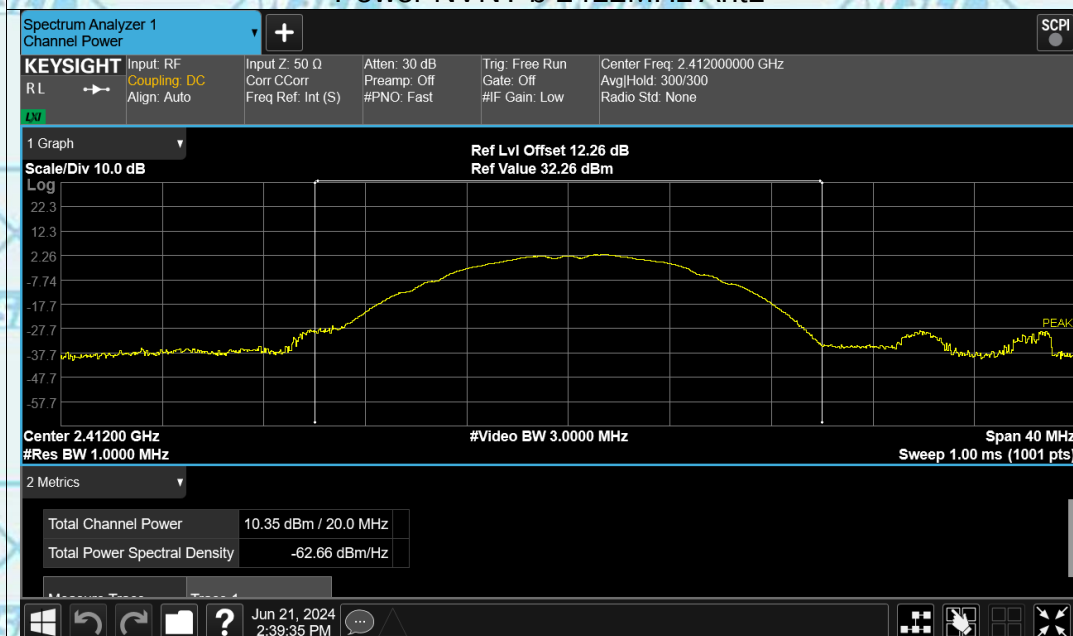
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ANT1

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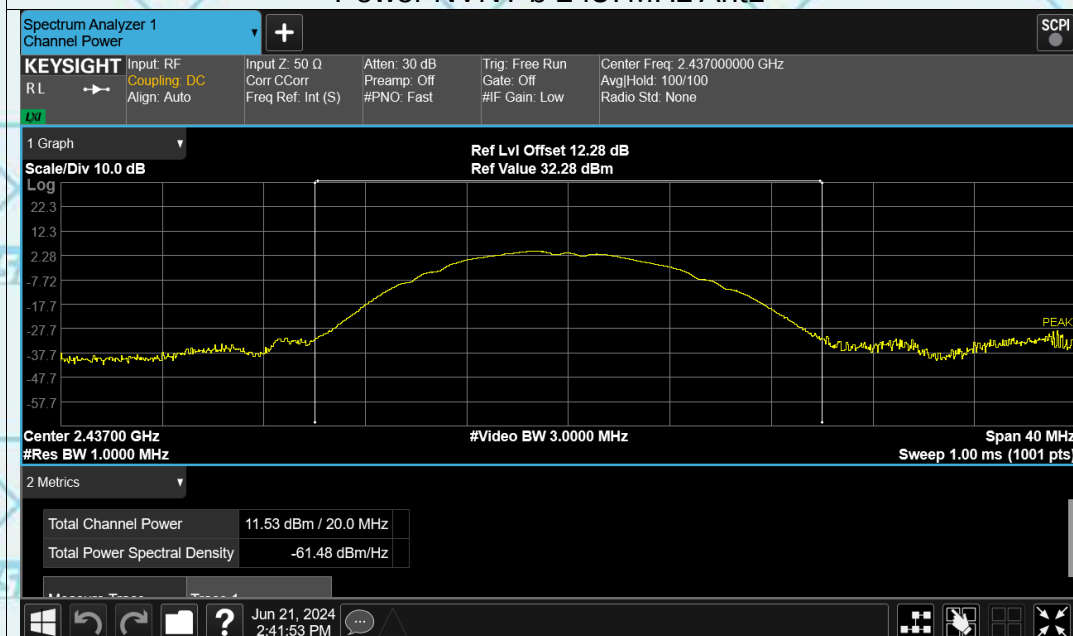
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Test Graphs

Power NVNT b 2412MHz Ant1



Power NVNT b 2437MHz Ant1



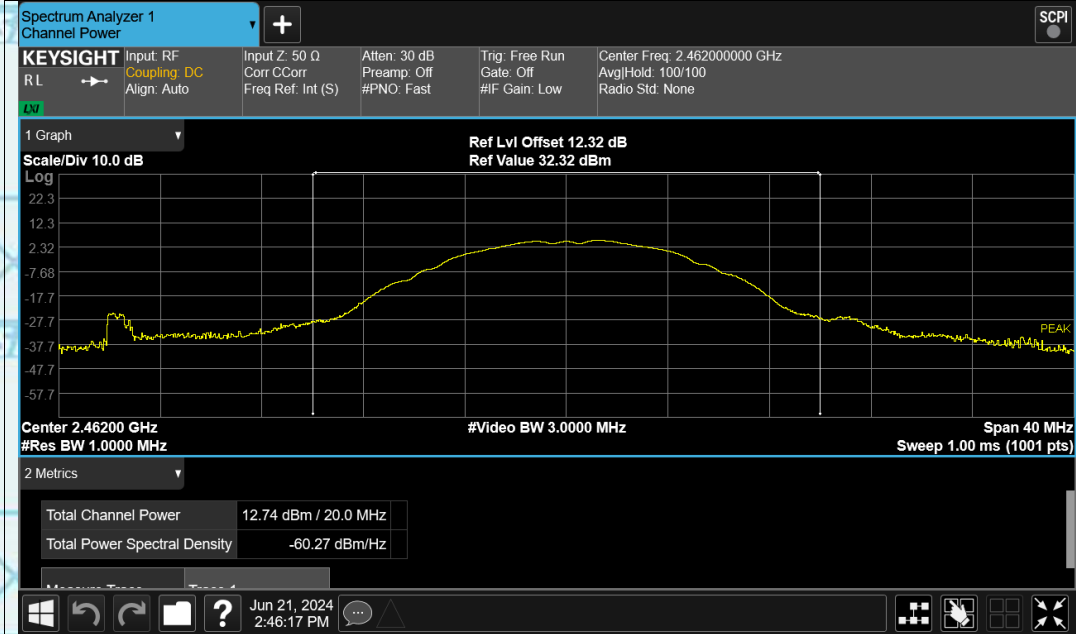


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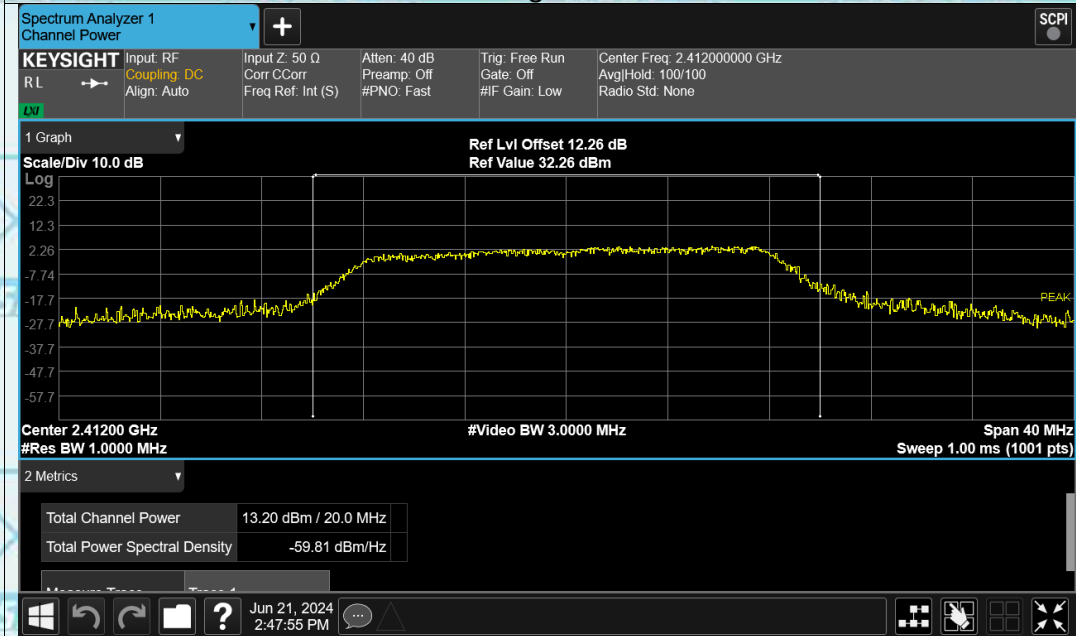
Certificate #5768.01

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Power NVNT b 2462MHz Ant1



Power NVNT g 2412MHz Ant1



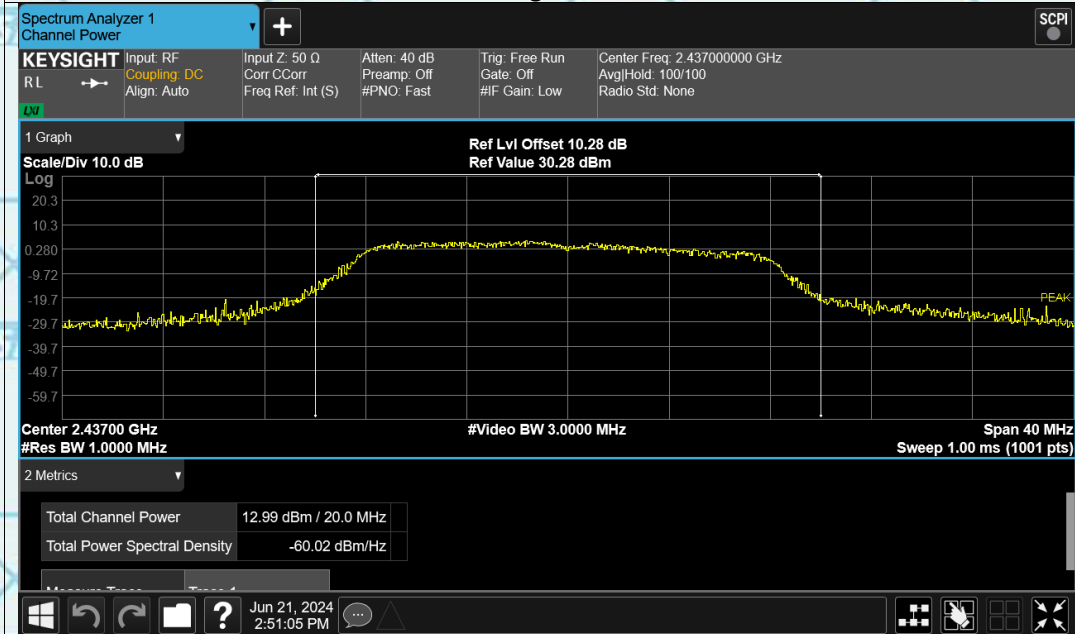


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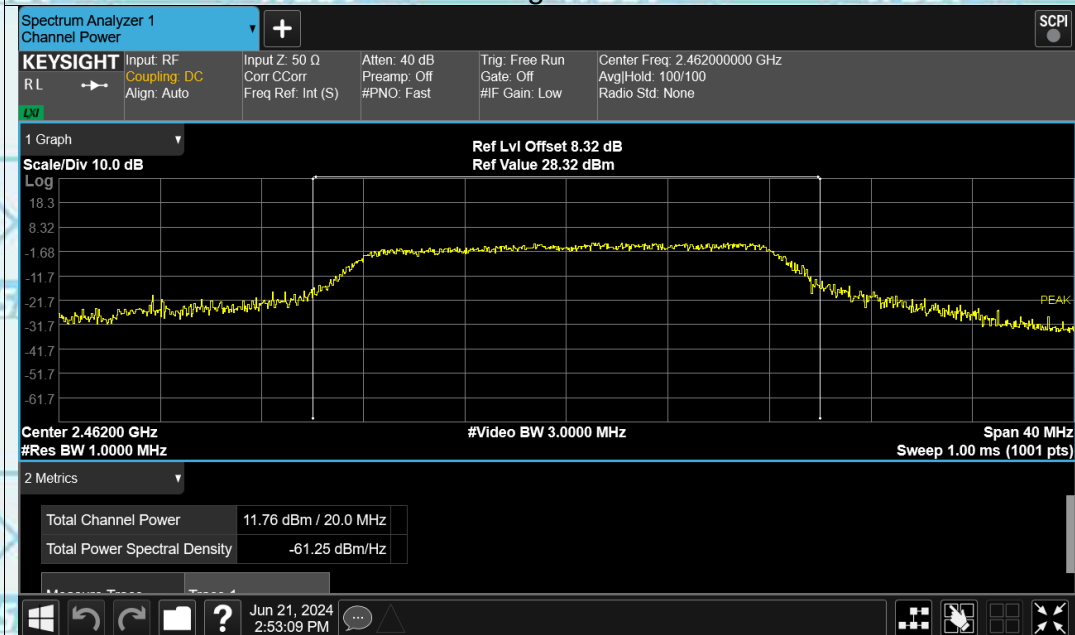
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Power NVNT g 2437MHz Ant1



Power NVNT g 2462MHz Ant1



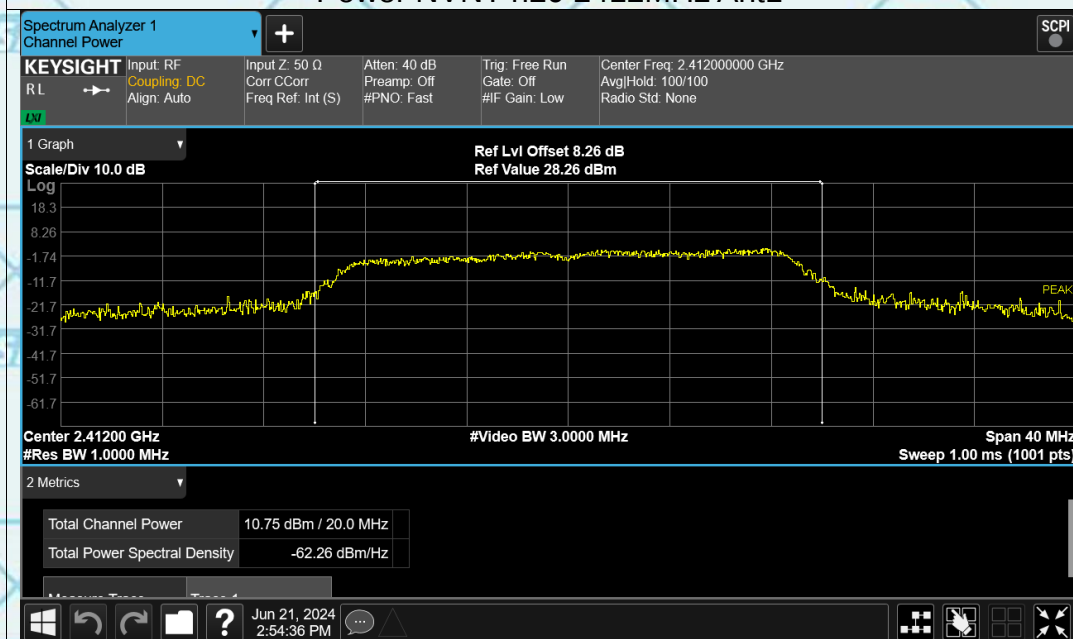


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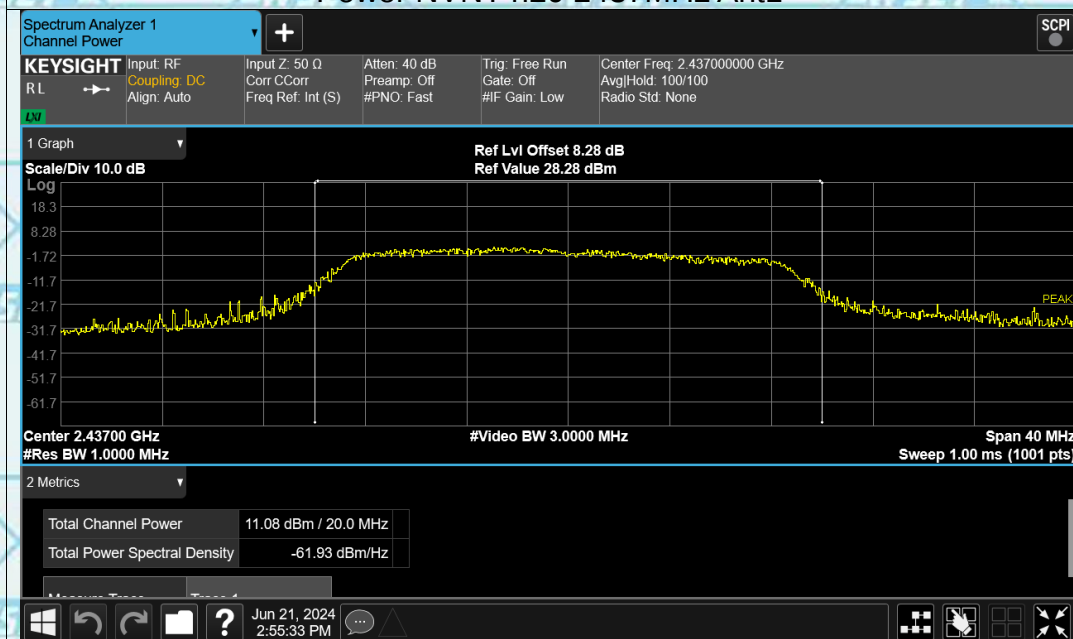
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Power NVNT n20 2412MHz Ant1



Power NVNT n20 2437MHz Ant1



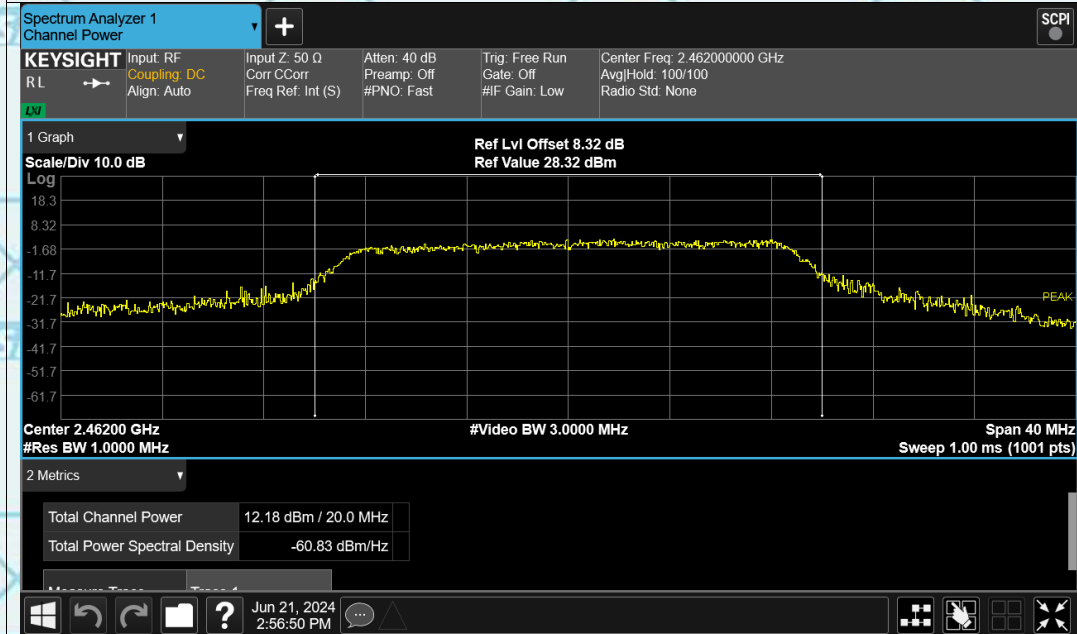


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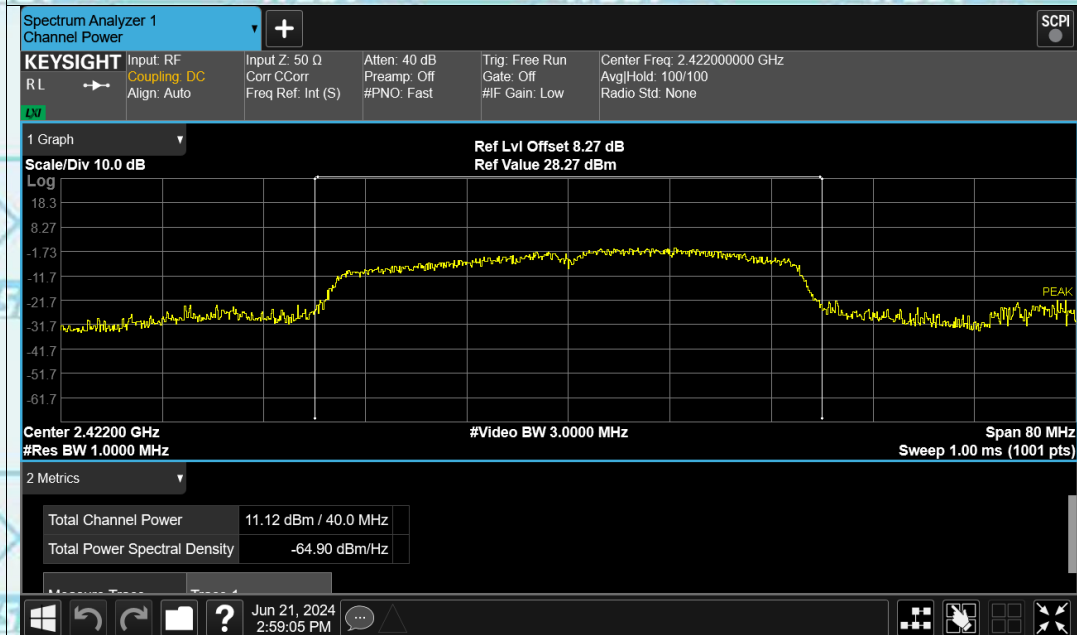
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Power NVNT n20 2462MHz Ant1



Power NVNT n40 2422MHz Ant1



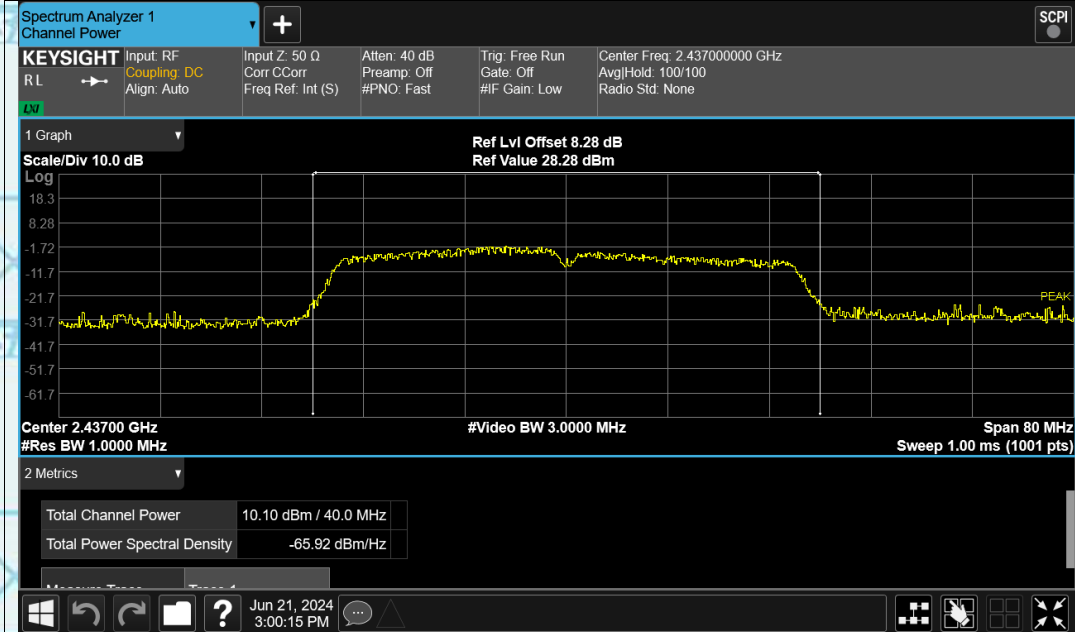


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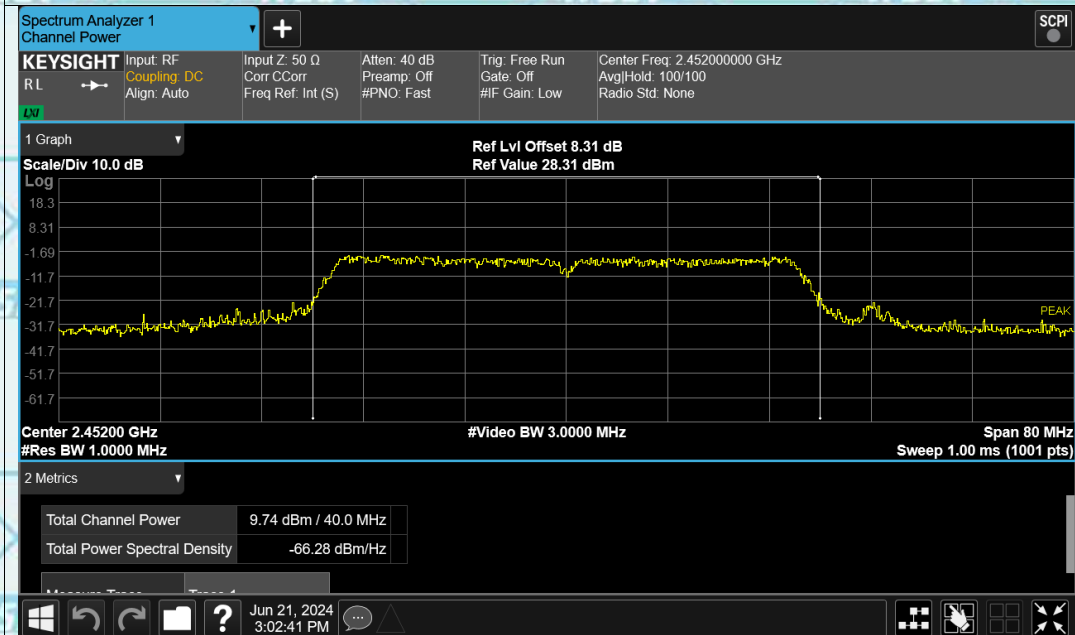
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Power NVNT n40 2437MHz Ant1



Power NVNT n40 2452MHz Ant1



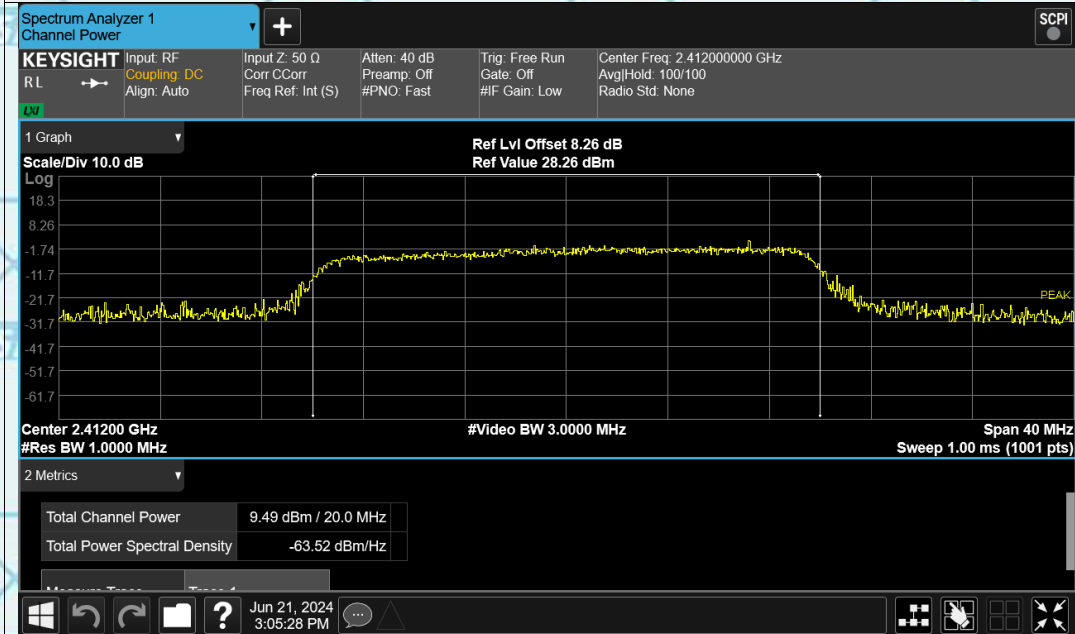


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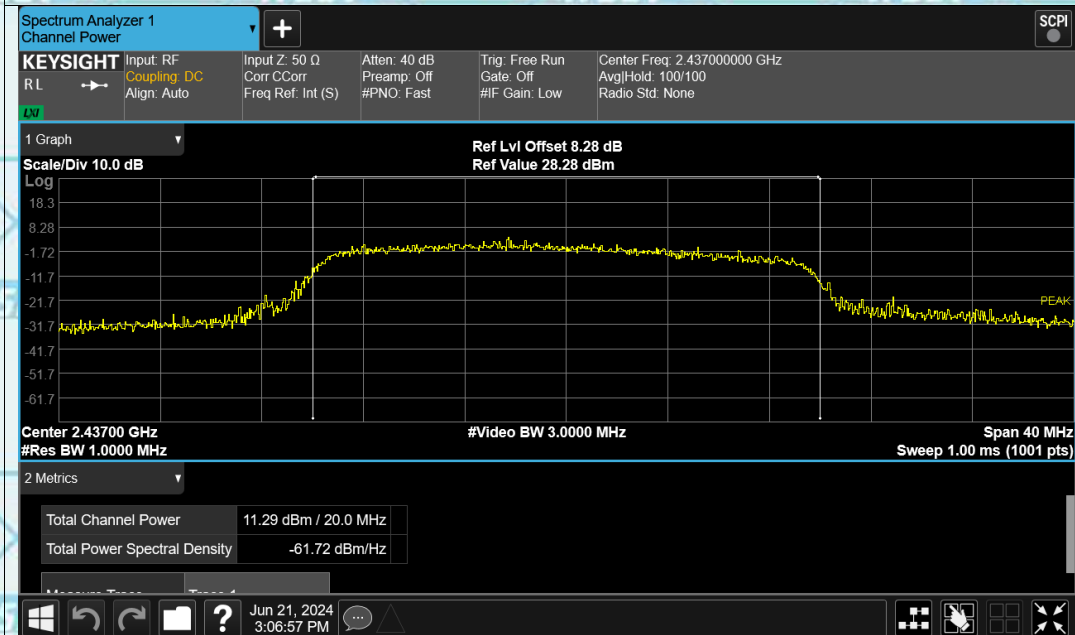
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Power NVNT ax20 2412MHz Ant1



Power NVNT ax20 2437MHz Ant1



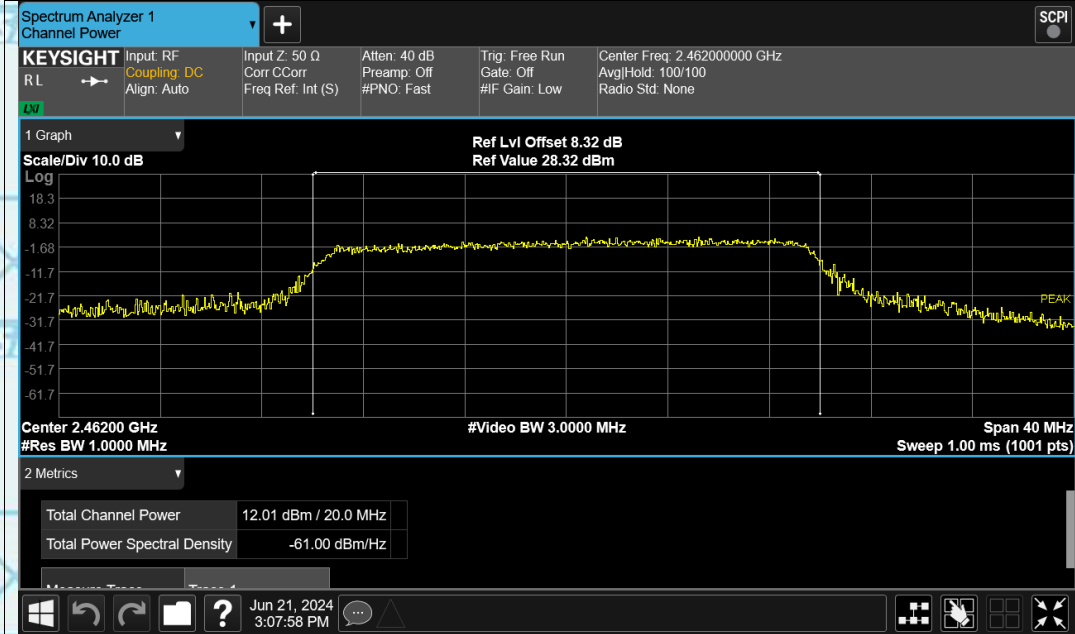


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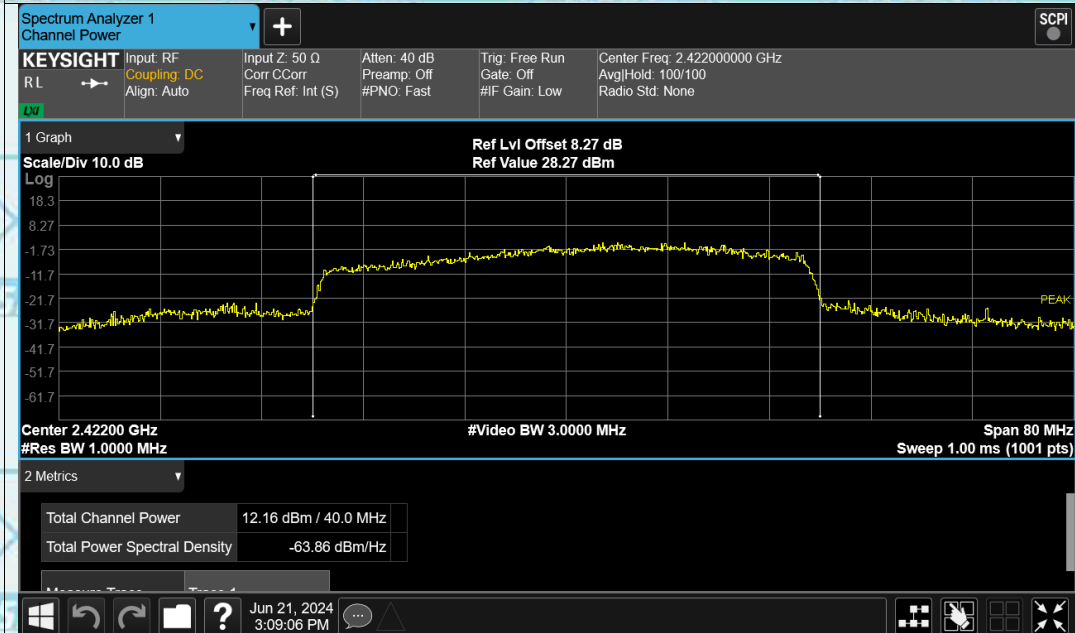
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Power NVNT ax20 2462MHz Ant1



Power NVNT ax40 2422MHz Ant1



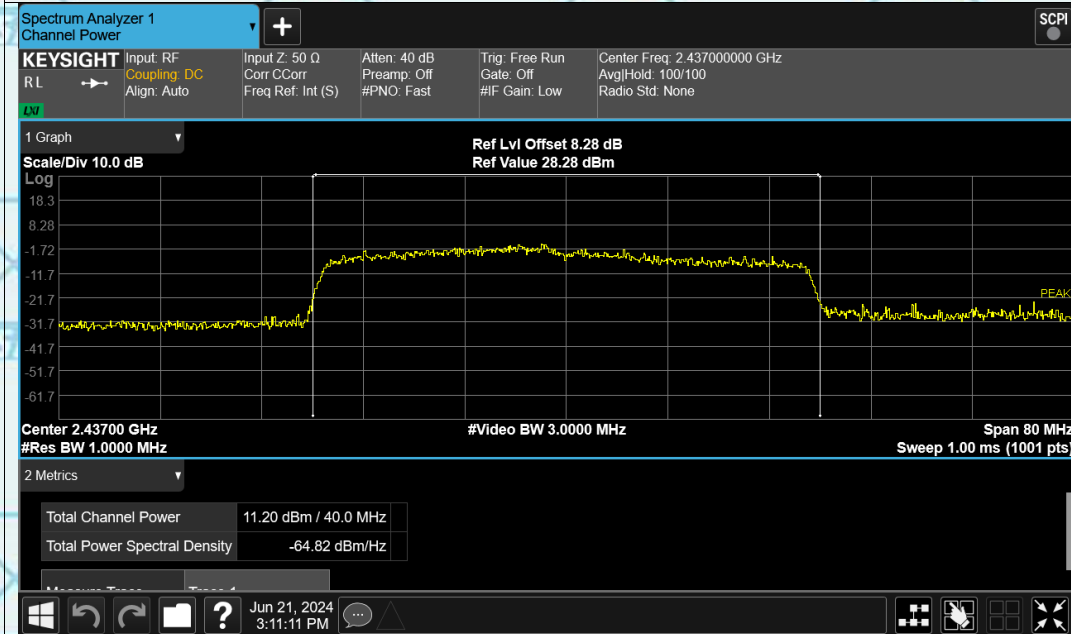


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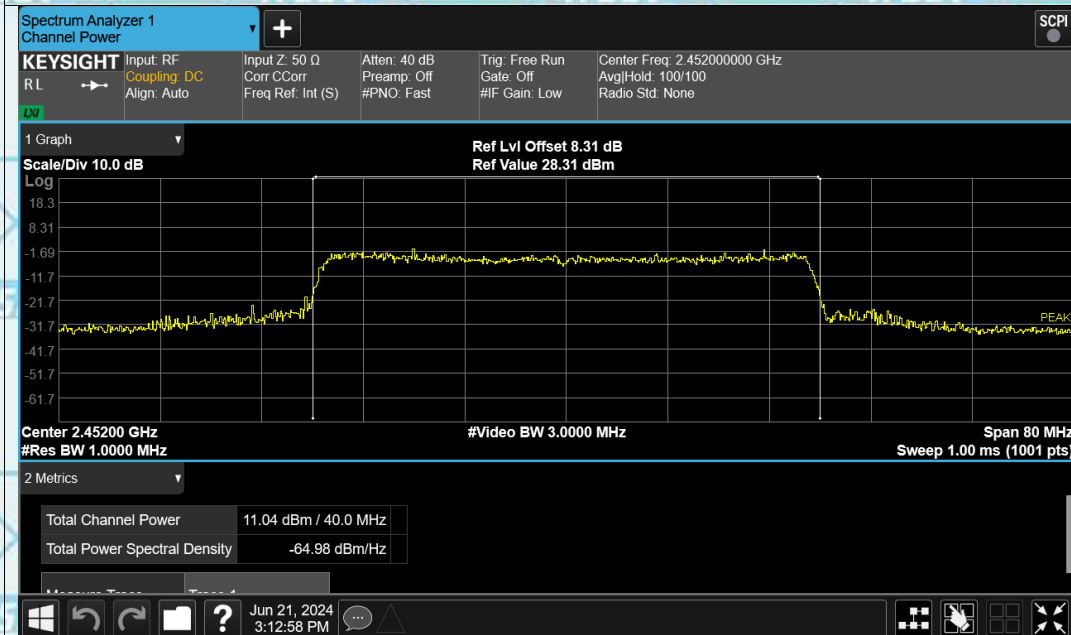
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Power NVNT ax40 2437MHz Ant1



Power NVNT ax40 2452MHz Ant1





Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

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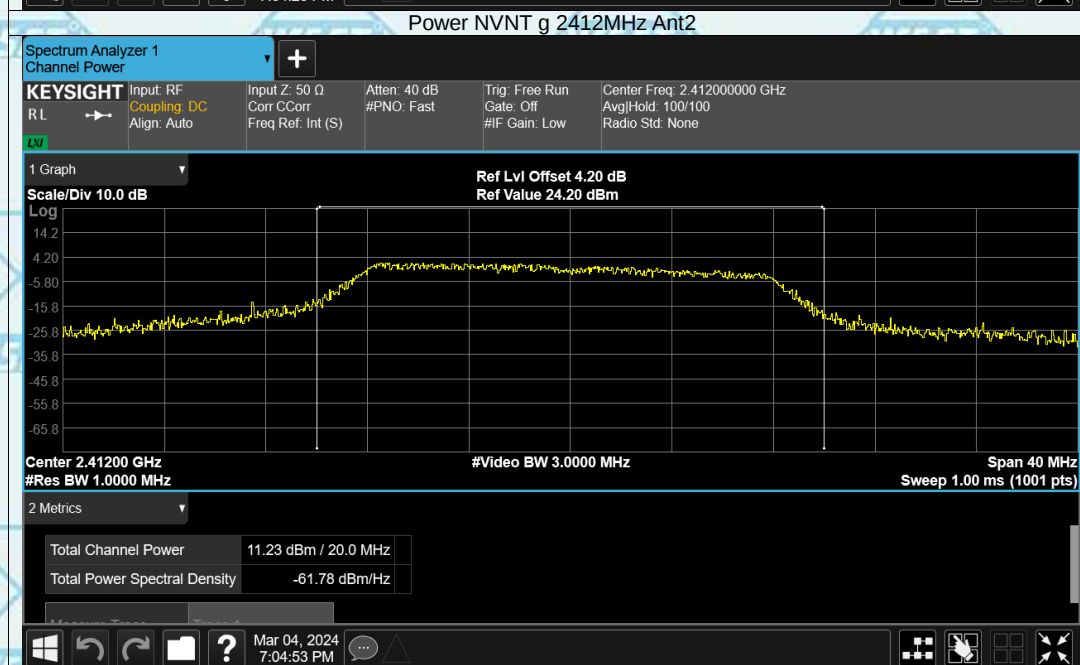
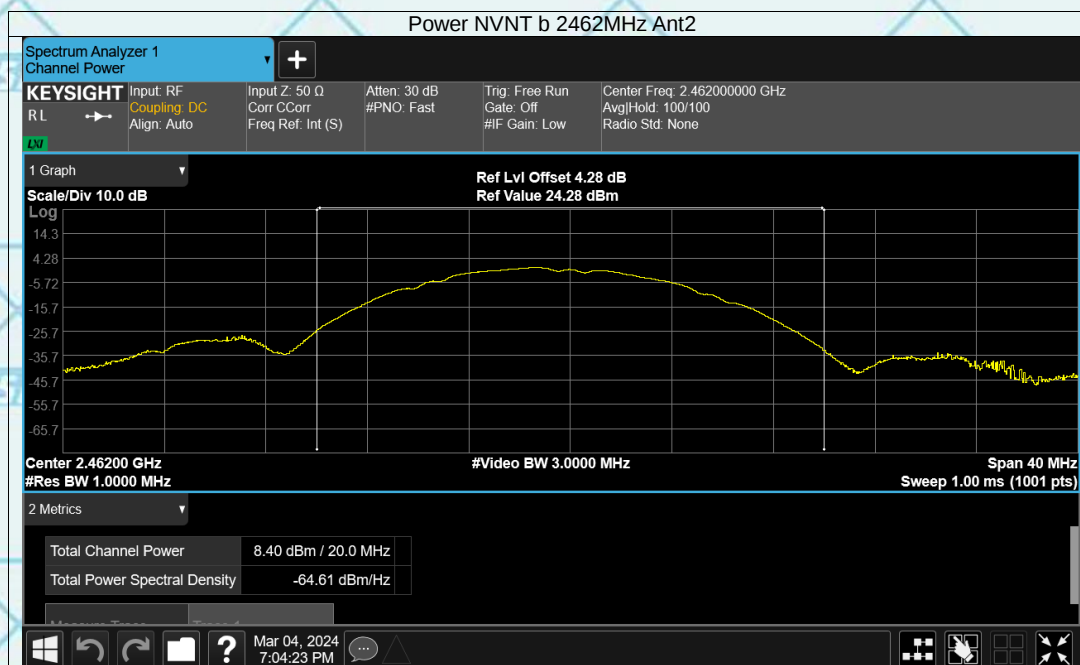
ANT2





Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

Certificate #5768.01

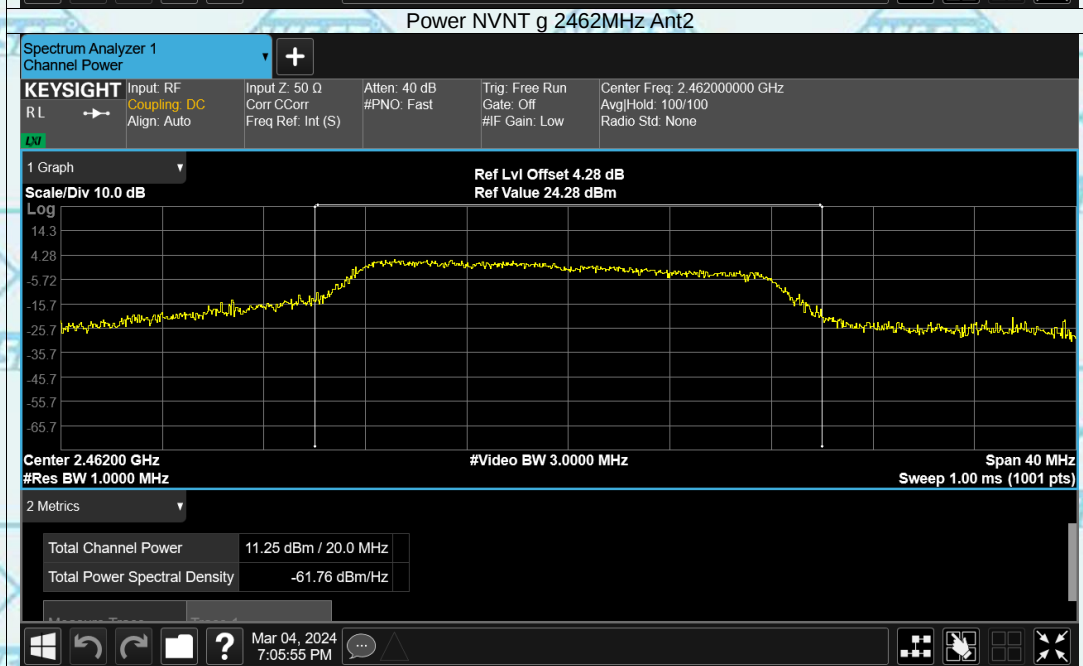
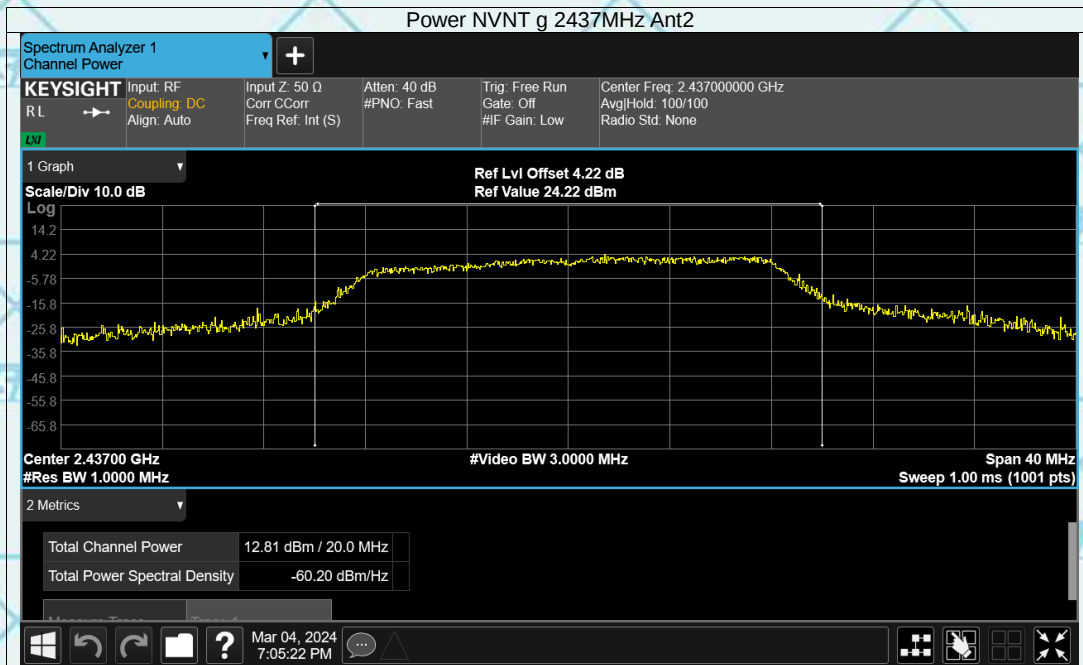
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Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

Certificate #5768.01

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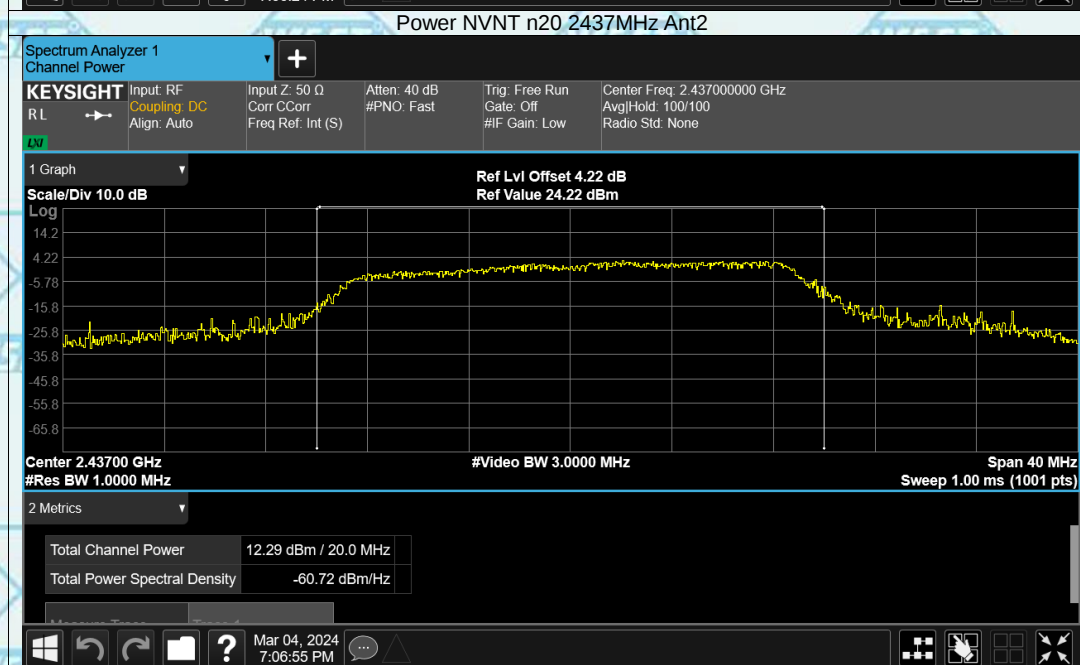
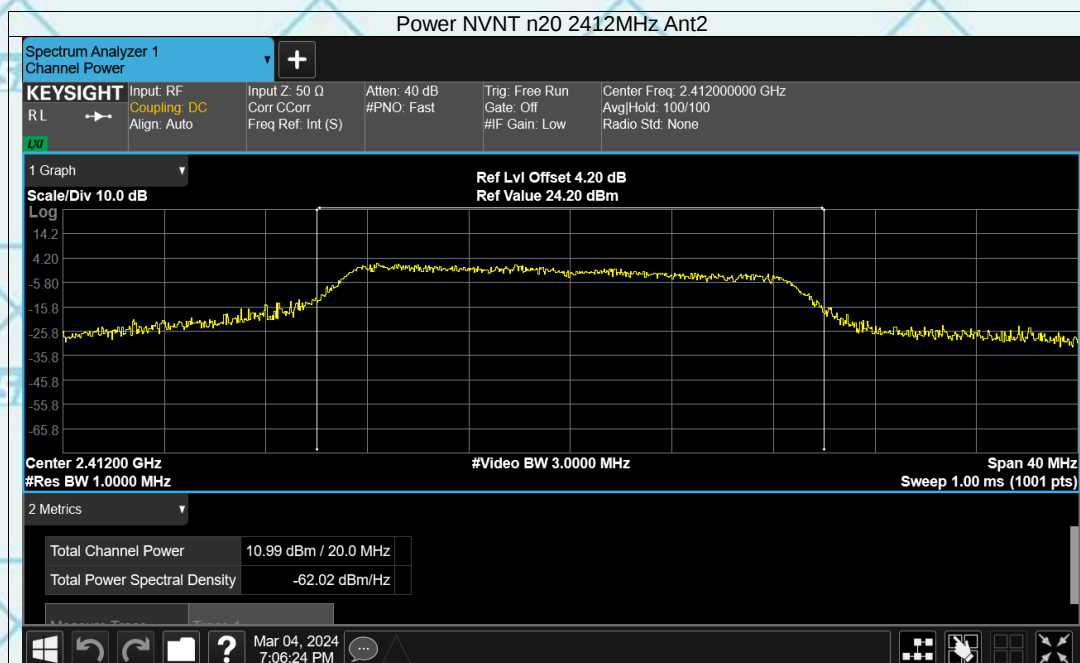




Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

Certificate #5768.01

For Question,
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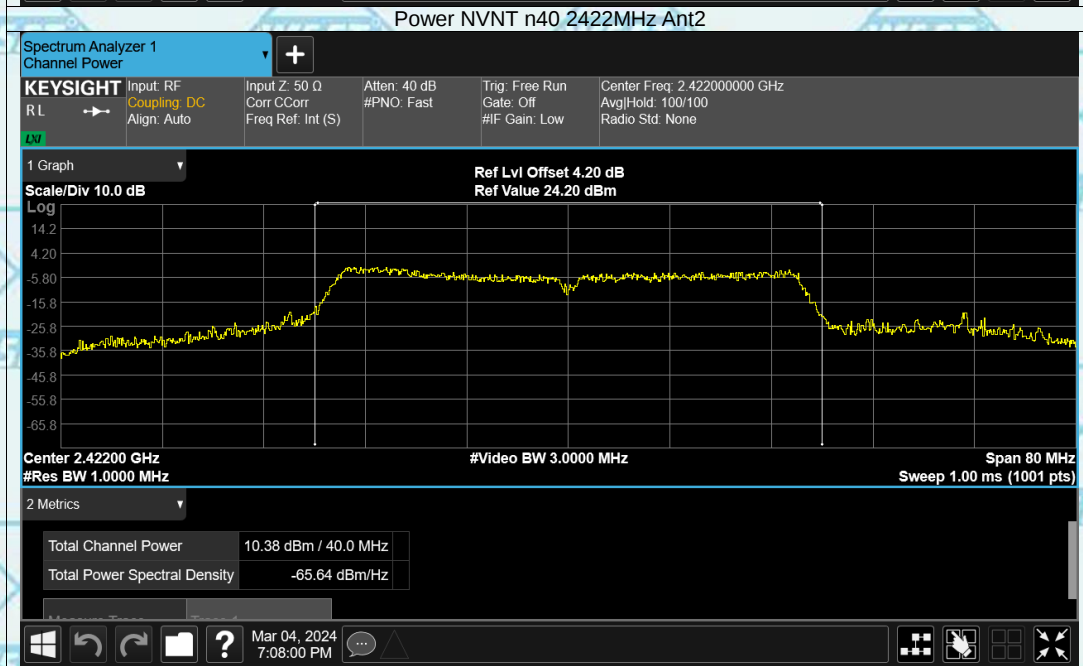
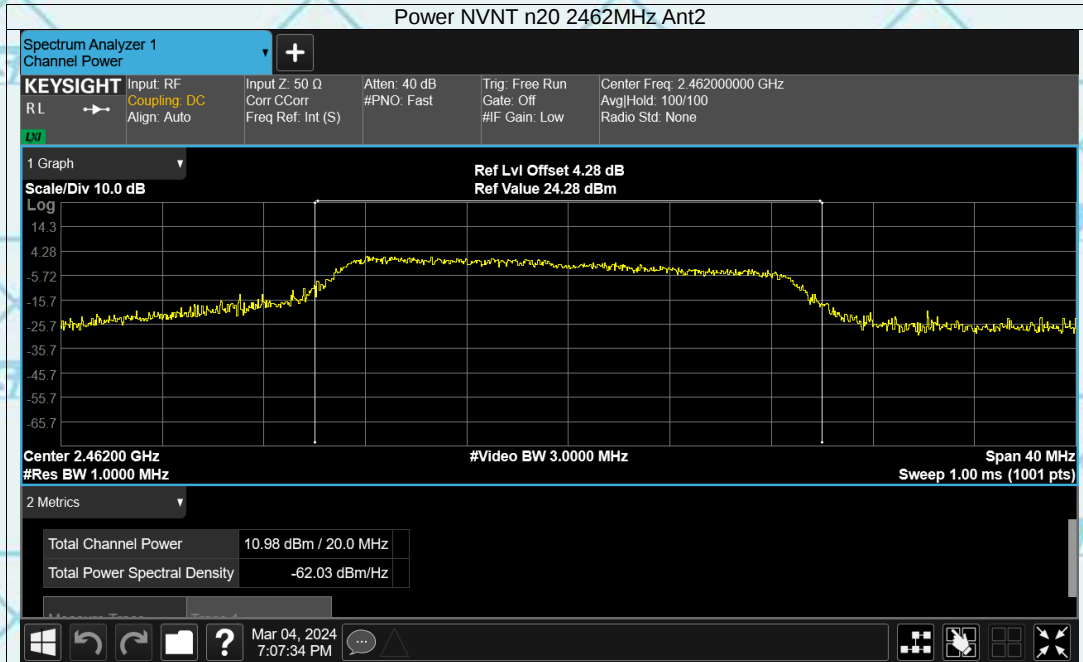




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Certificate #5768.01

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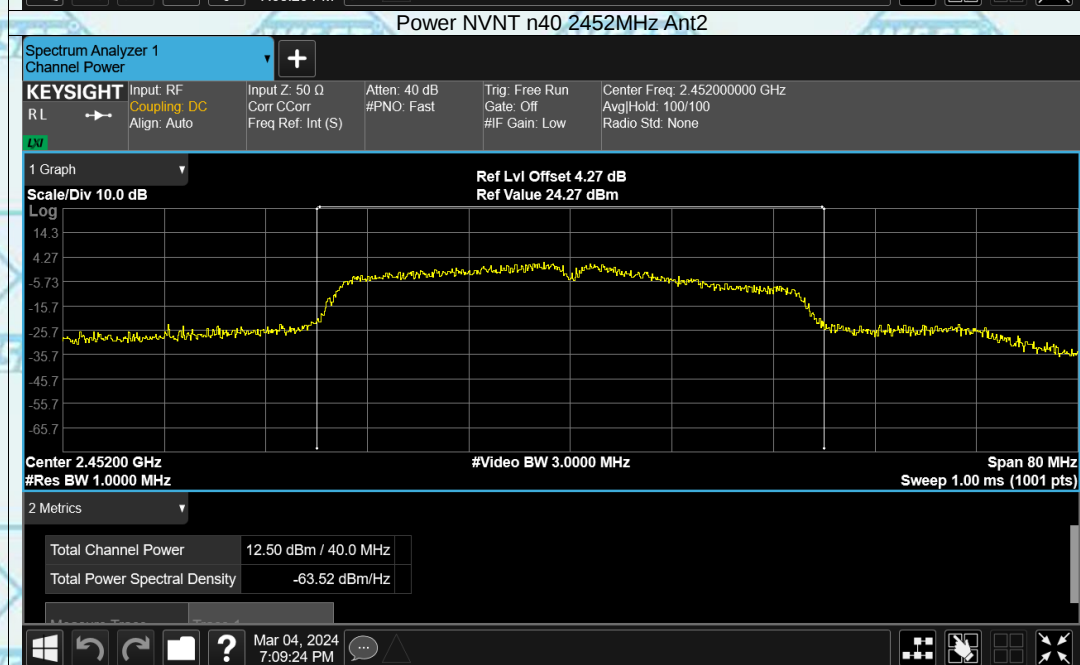
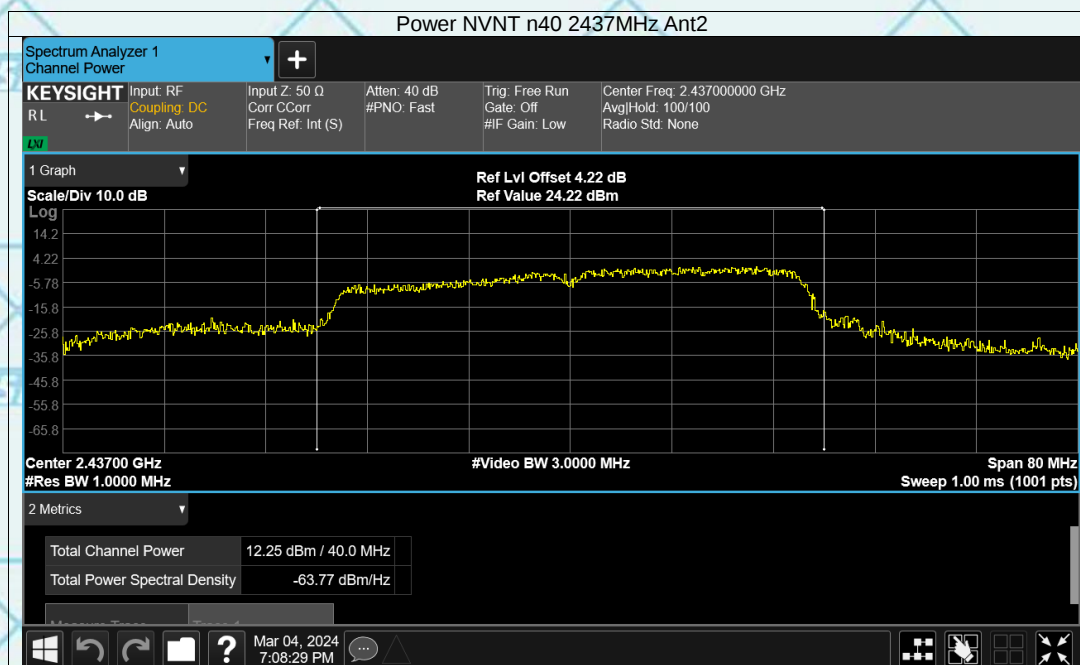




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Certificate #5768.01

For Question,
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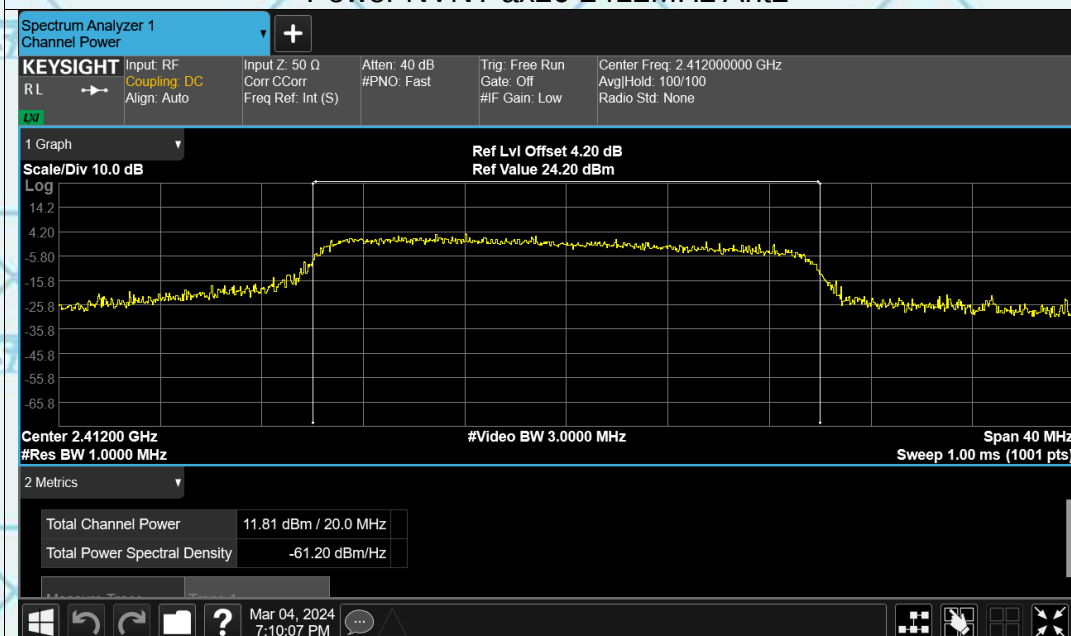


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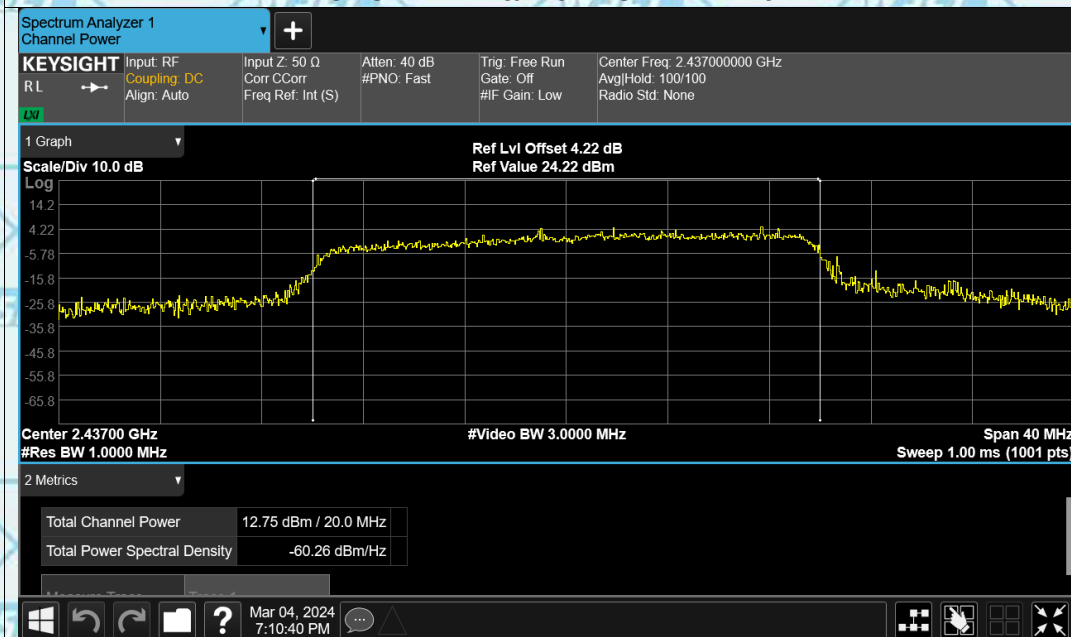
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Power NVNT ax20 2412MHz Ant2



Power NVNT ax20 2437MHz Ant2



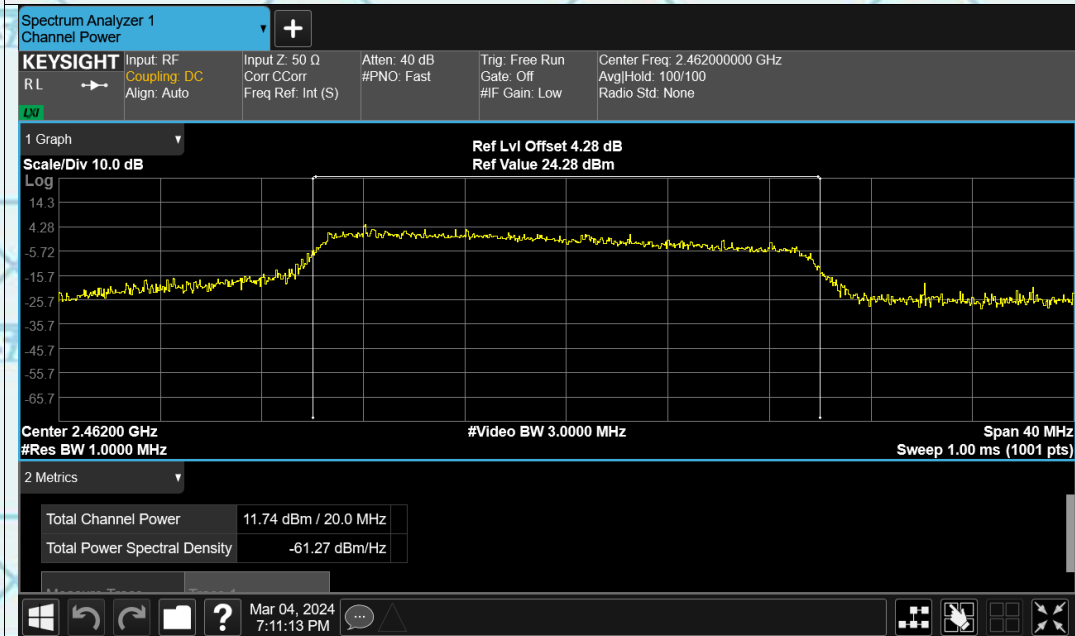


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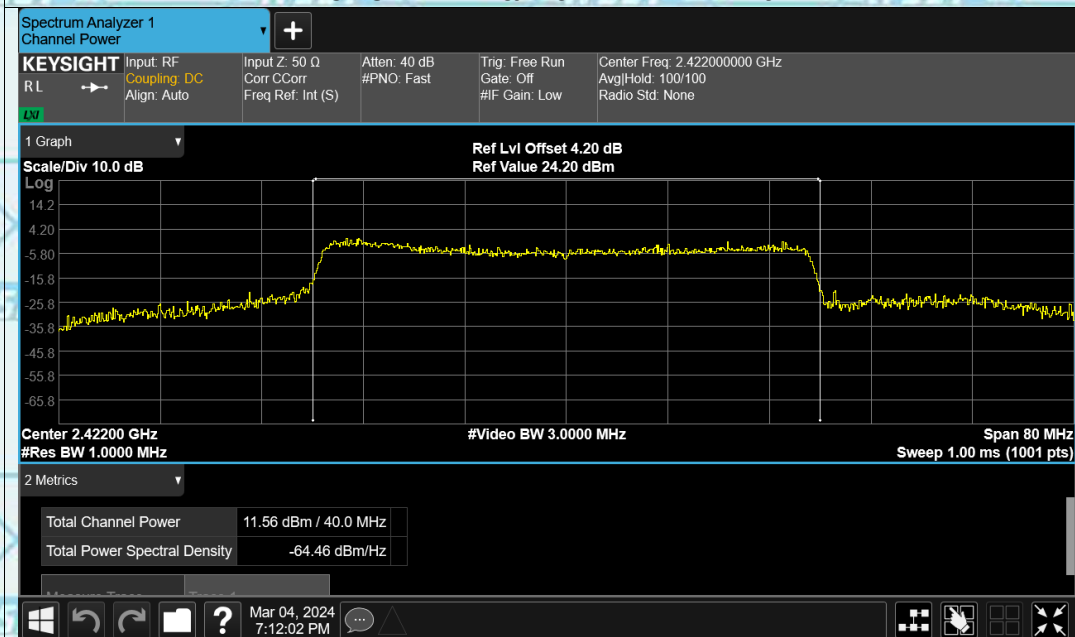
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Power NVNT ax20 2462MHz Ant2



Power NVNT ax40 2422MHz Ant2



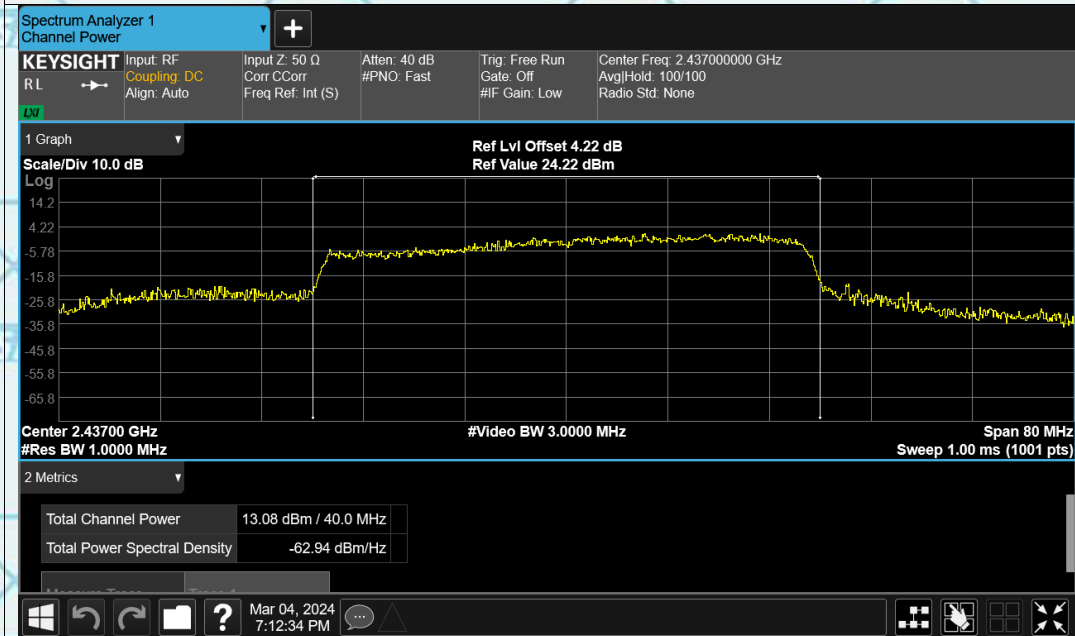


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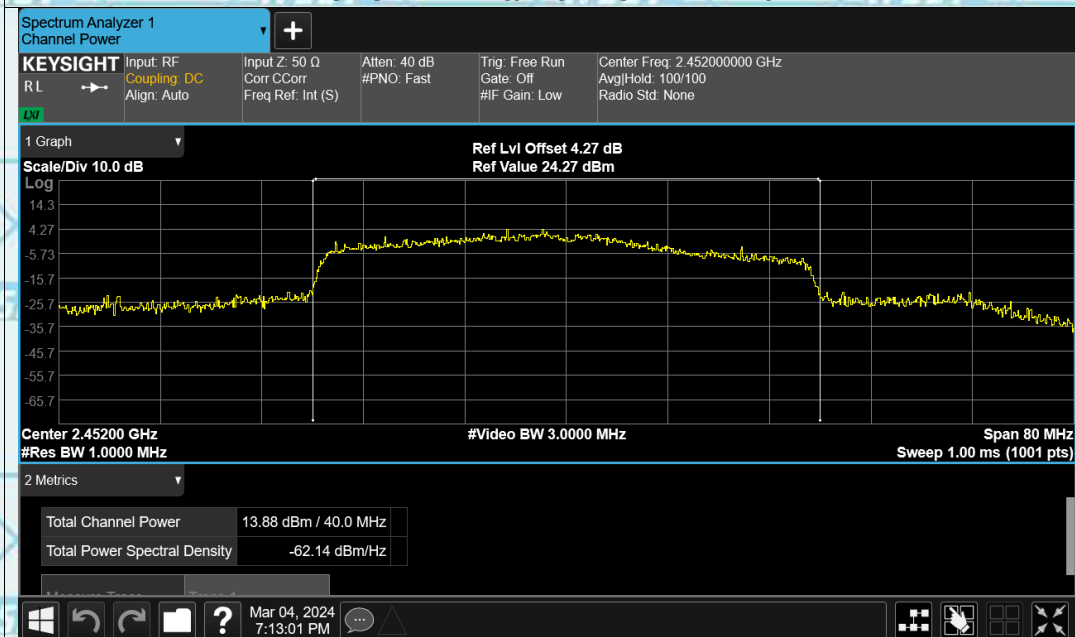
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Power NVNT ax40 2437MHz Ant2



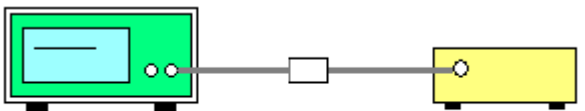
Power NVNT ax40 2452MHz Ant2





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:	 Spectrum Analyzer EUT
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



6.3.2. Test data(worst)

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	8.061	0.5	Pass
b	2437	9.037	0.5	Pass
b	2462	8.542	0.5	Pass
g	2412	13.20	0.5	Pass
g	2437	15.70	0.5	Pass
g	2462	11.99	0.5	Pass
n20	2412	15.07	0.5	Pass
n20	2437	14.43	0.5	Pass
n20	2462	16.33	0.5	Pass
n40	2422	25.03	0.5	Pass
n40	2437	35.76	0.5	Pass
n40	2452	35.69	0.5	Pass
ax20	2412	14.53	0.5	Pass
ax20	2437	16.54	0.5	Pass
ax20	2462	16.99	0.5	Pass
ax40	2422	22.60	0.5	Pass
ax40	2437	36.53	0.5	Pass
ax40	2452	37.73	0.5	Pass



Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

Certificate #5768.01

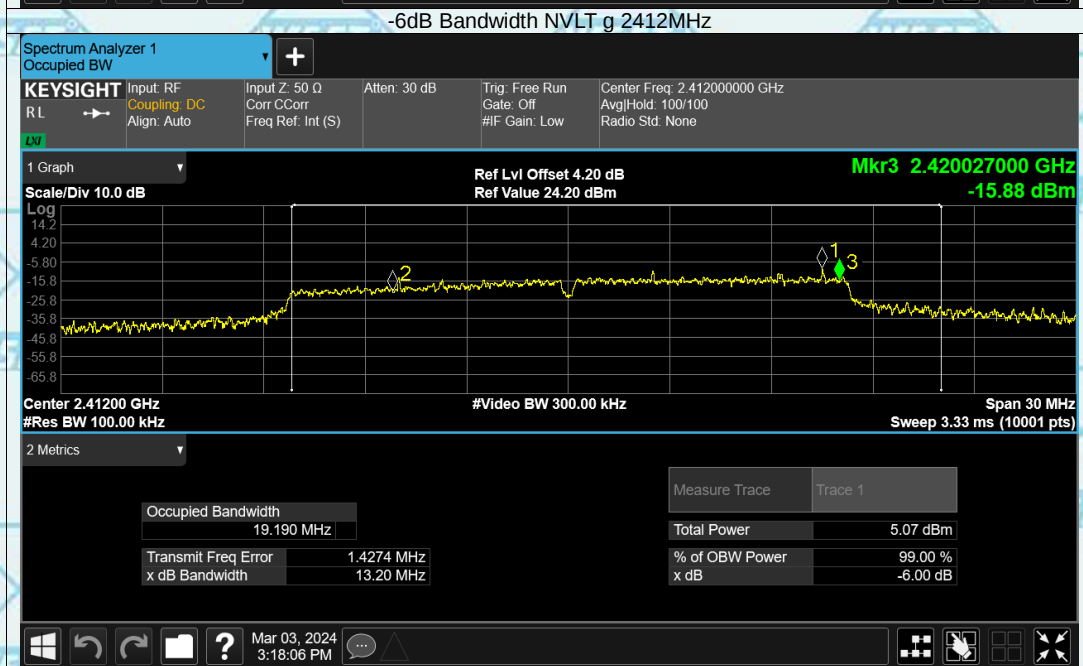
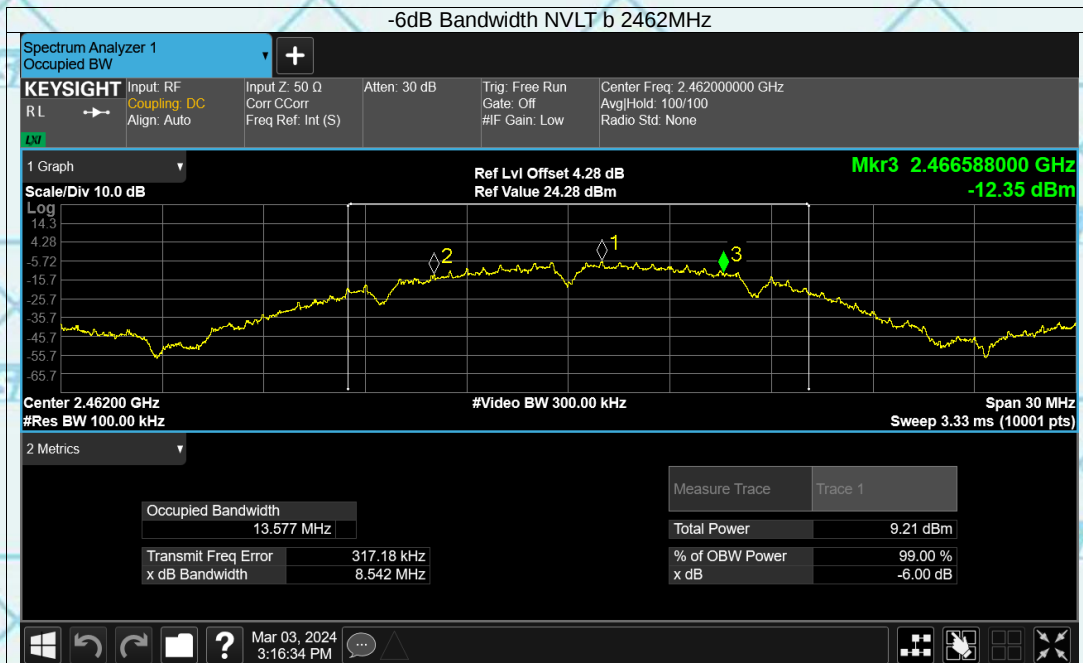
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Certificate #5768.01

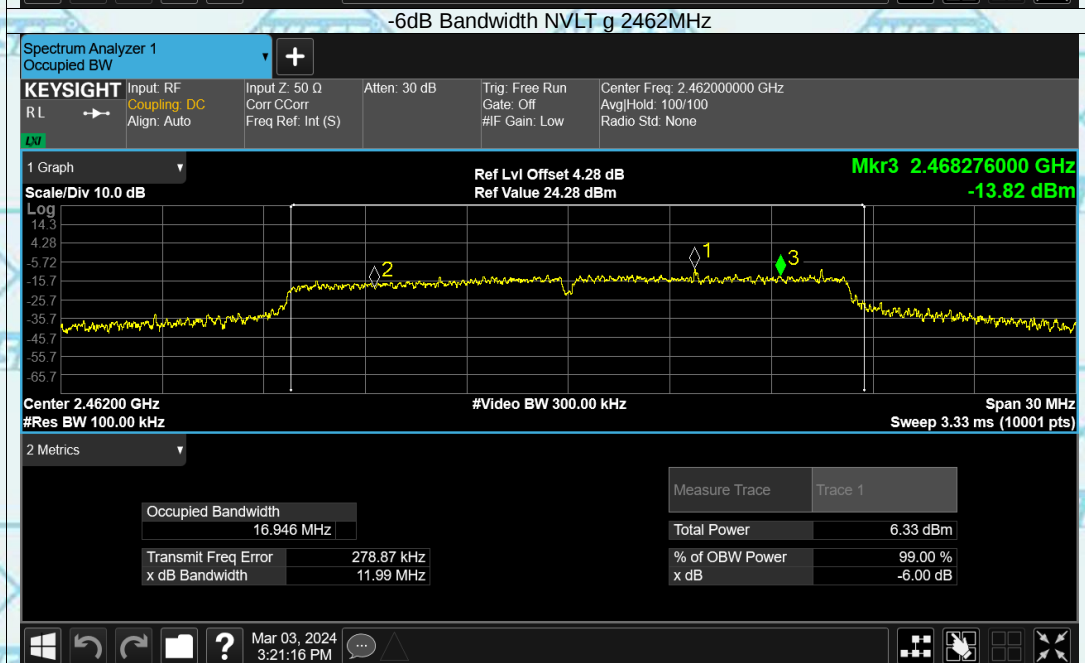
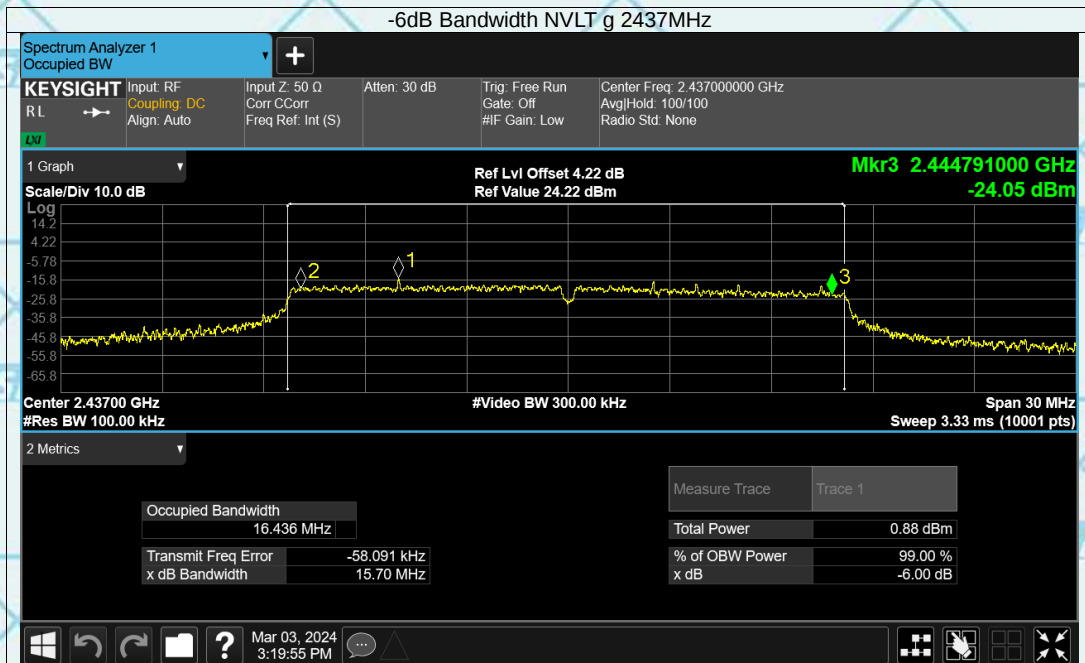
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Certificate #5768.01

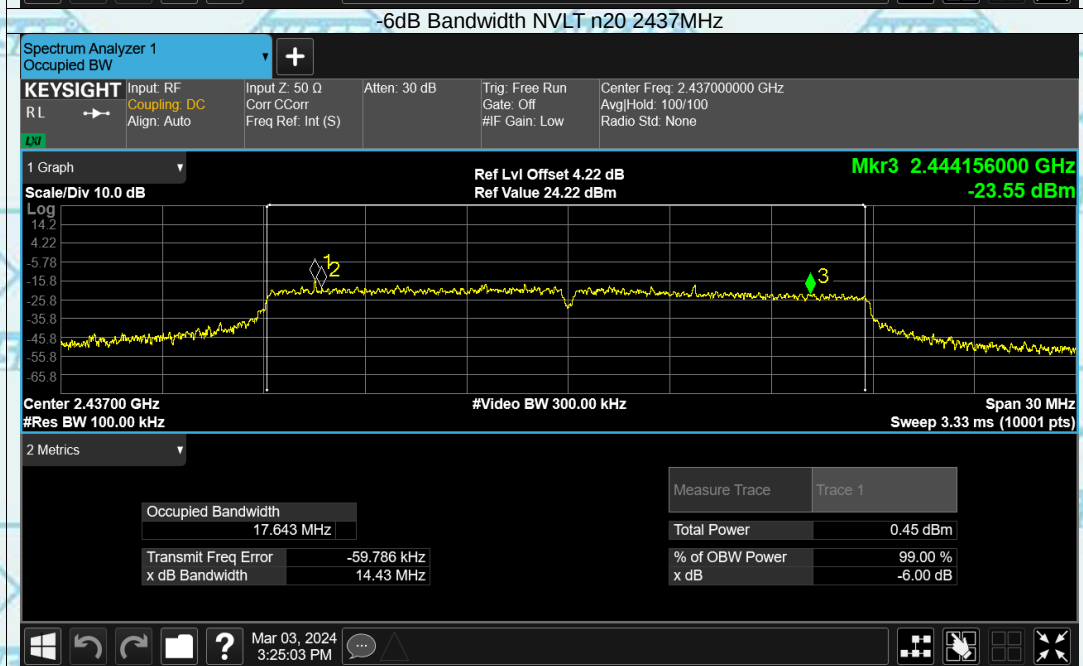
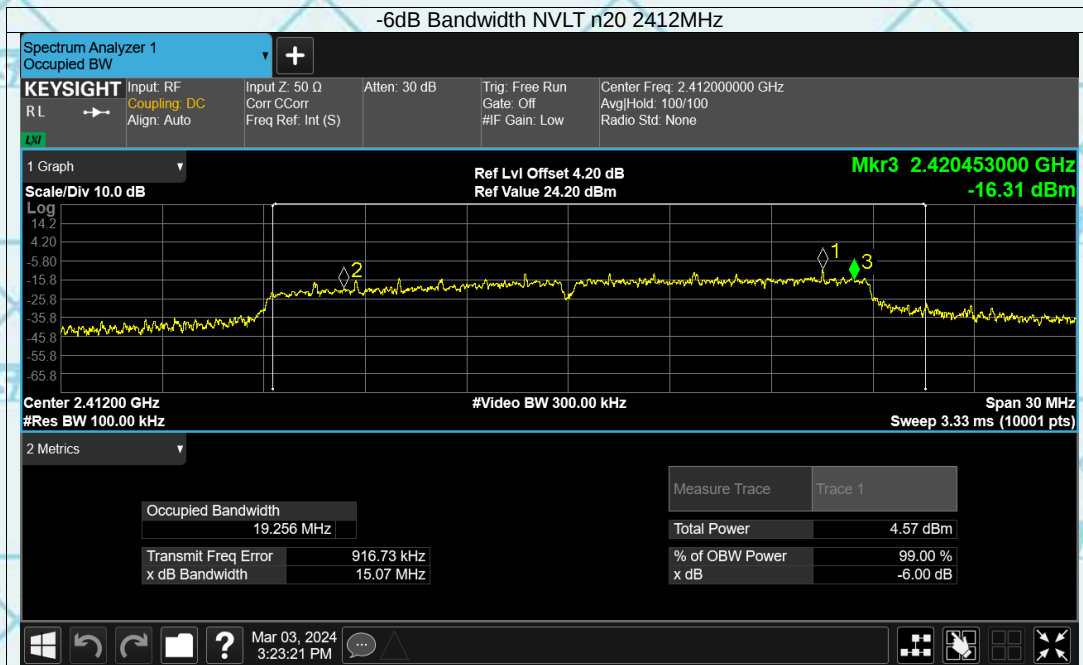
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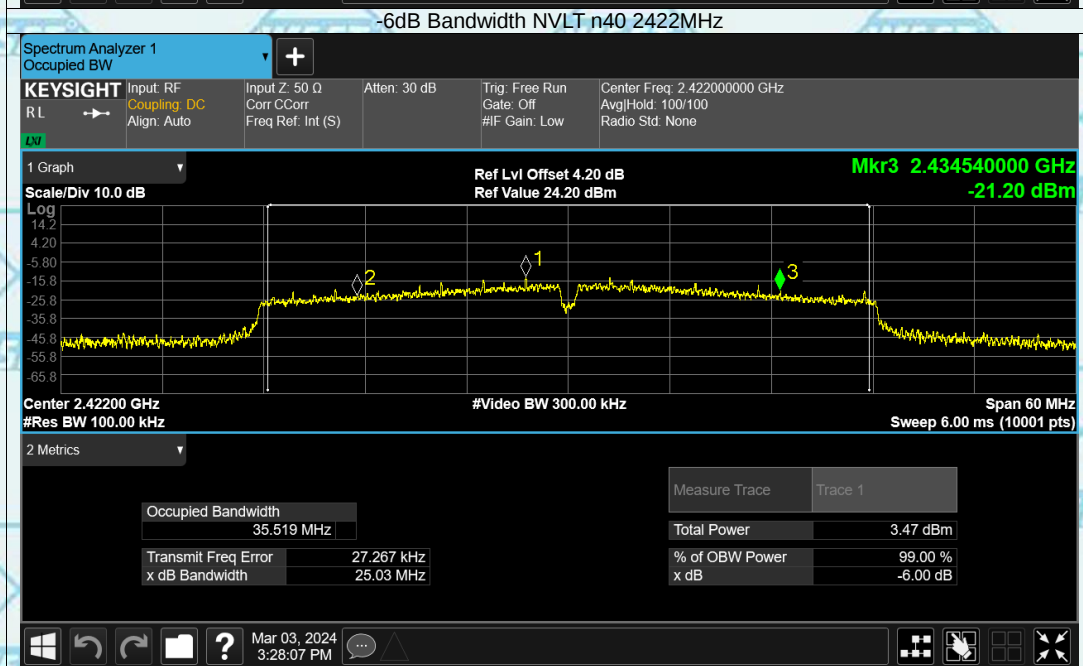
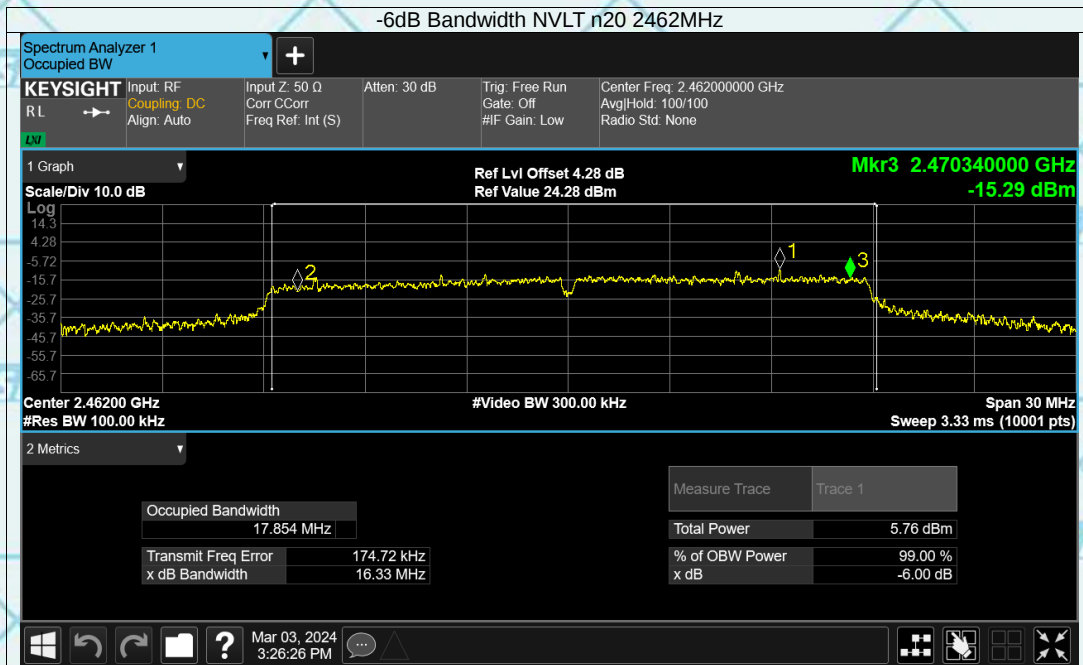




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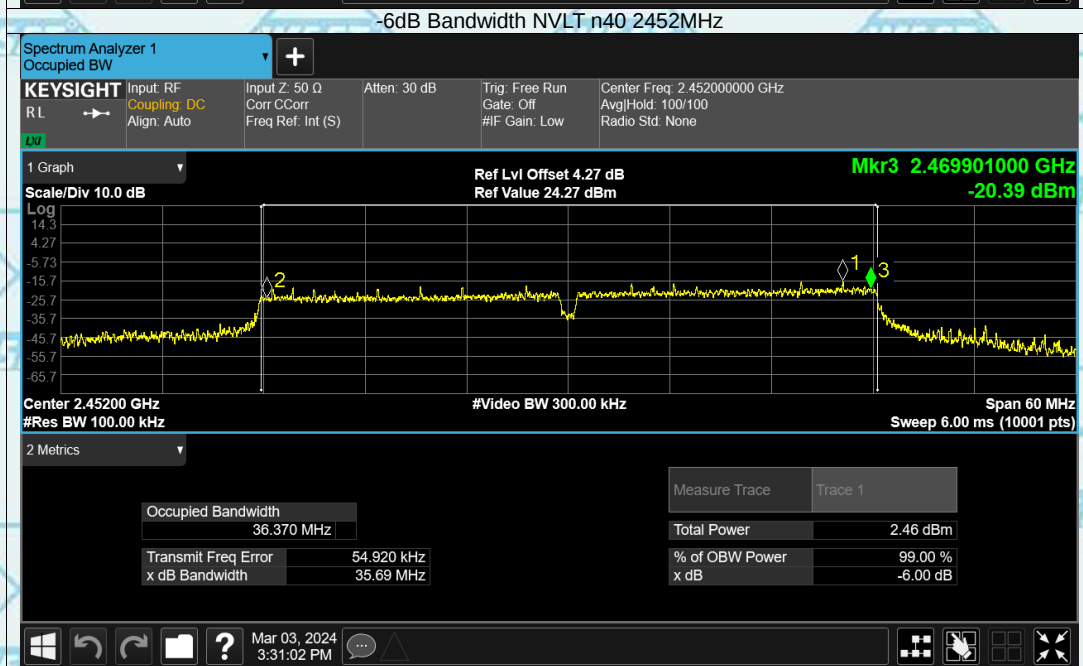
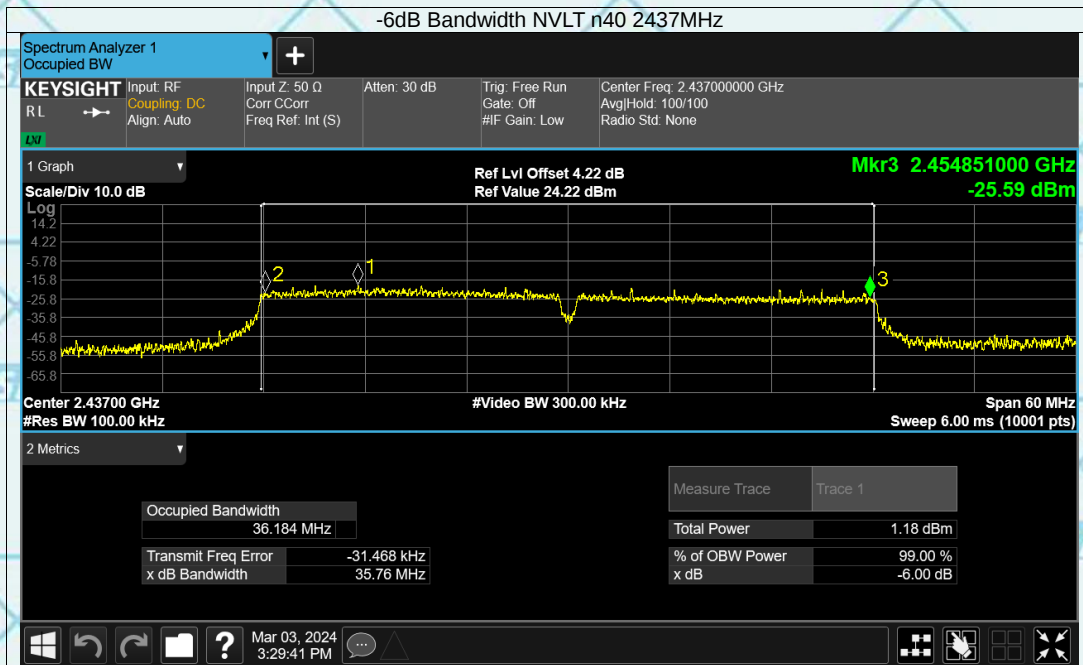
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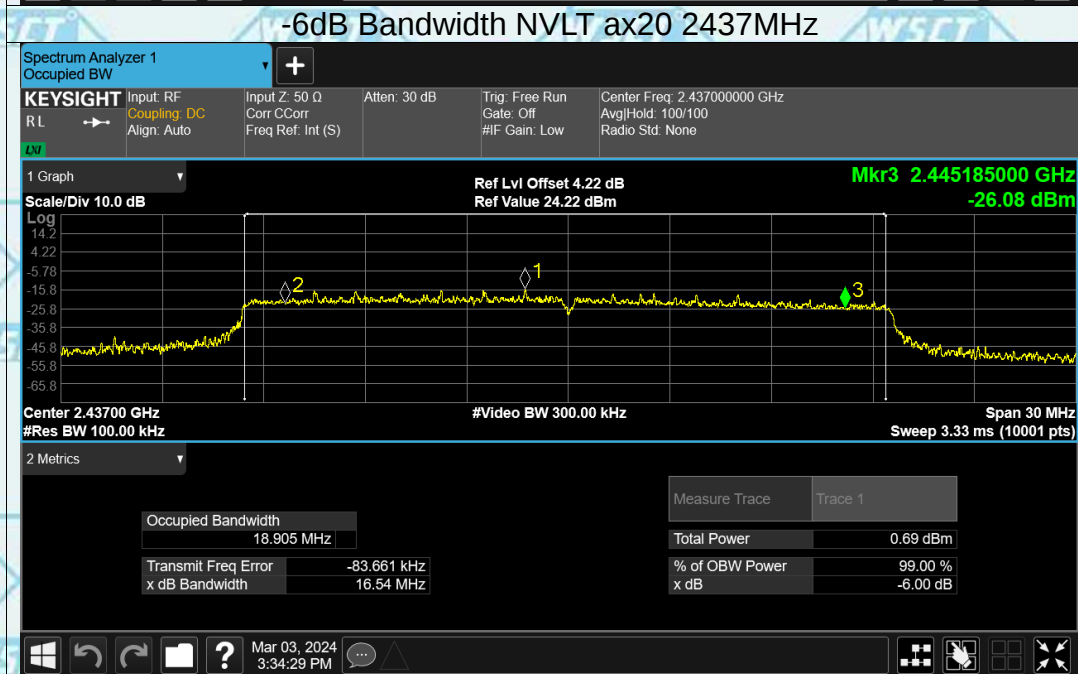
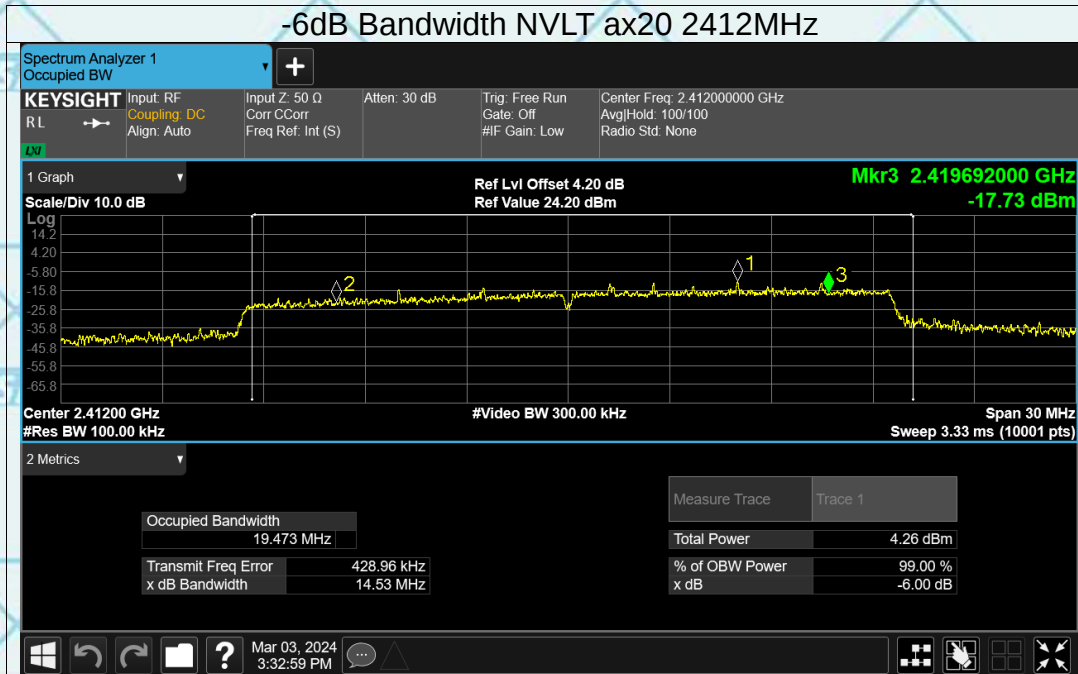
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Certificate #5768.01

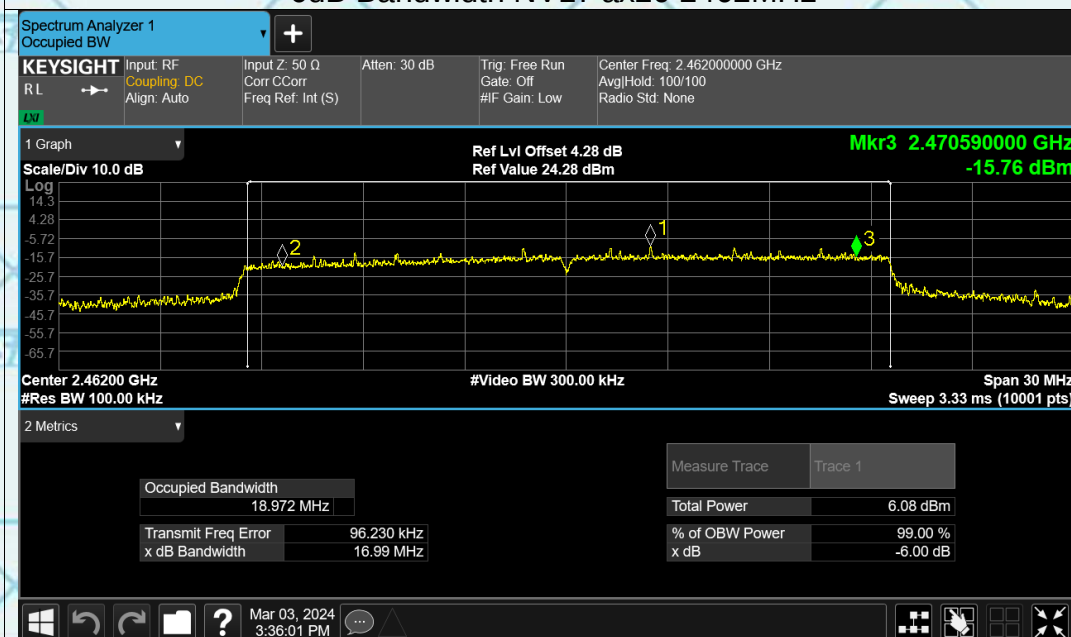
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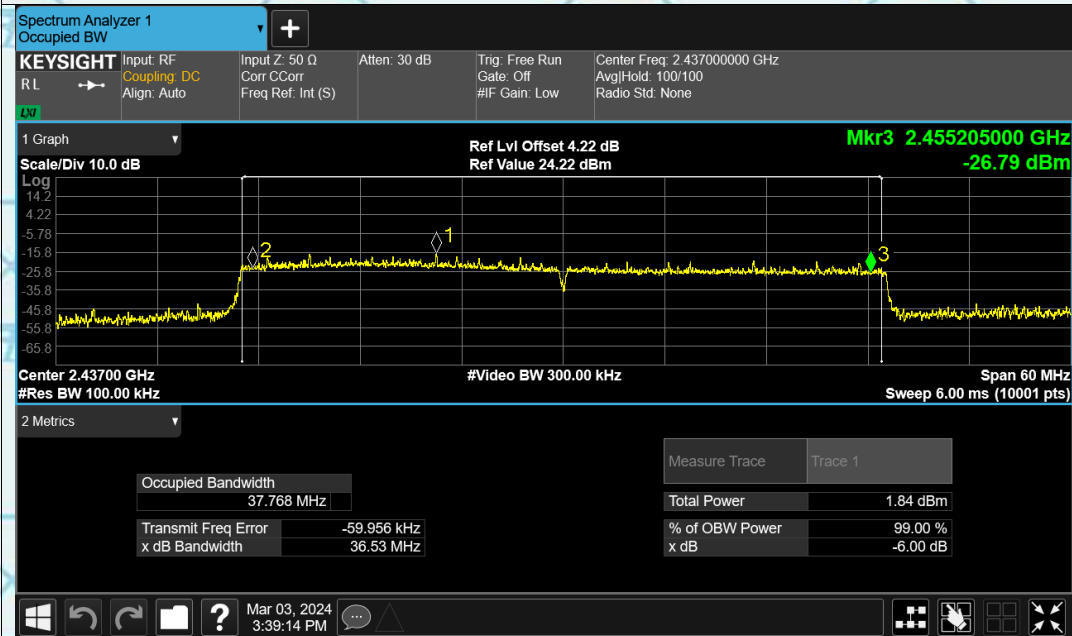
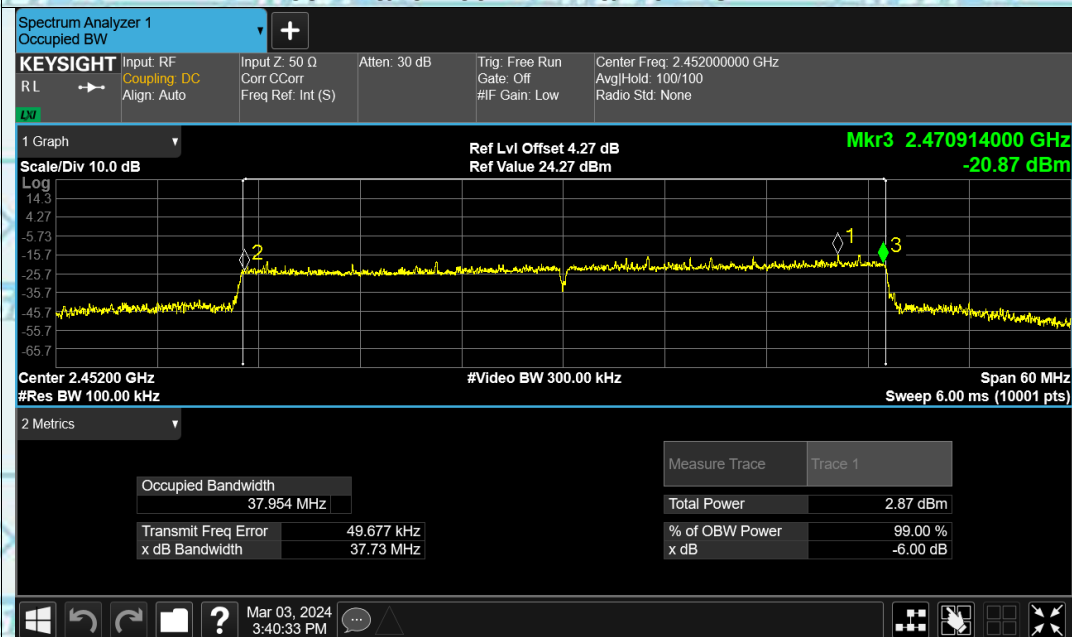
Certificate #5768.01

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www.wsct-cert.com**-6dB Bandwidth NVLT ax20 2462MHz****-6dB Bandwidth NVLT ax40 2422MHz**



Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

Certificate #5768.01

For Question,
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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 AVGPS 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-A2LA-R&E240300009A-Wi-Fi1

Certificate #5768.01

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6.4.2. Test data(worst)

ANT1

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
b	2412	-14.17	8	Pass
b	2437	-12.17	8	Pass
b	2462	-12.99	8	Pass
g	2412	-17.68	8	Pass
g	2437	-17.86	8	Pass
g	2462	-21.70	8	Pass
n20	2412	-20.74	8	Pass
n20	2437	-20.50	8	Pass
n20	2462	-19.05	8	Pass
n40	2422	-22.39	8	Pass
n40	2437	-24.41	8	Pass
n40	2452	-26.05	8	Pass
ax20	2412	-23.85	8	Pass
ax20	2437	-21.60	8	Pass
ax20	2462	-21.60	8	Pass
ax40	2422	-23.17	8	Pass
ax40	2437	-23.39	8	Pass
ax40	2452	-25.13	8	Pass

ANT2

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
b	2412	-6.46	8	Pass
b	2437	-2.75	8	Pass
b	2462	-7.32	8	Pass
g	2412	-10.16	8	Pass
g	2437	-7.51	8	Pass
g	2462	-9.57	8	Pass
n20	2412	-10.22	8	Pass
n20	2437	-7.99	8	Pass
n20	2462	-10.17	8	Pass
n40	2422	-12.46	8	Pass
n40	2437	-10.72	8	Pass
n40	2452	-9.86	8	Pass
ax20	2412	-11.24	8	Pass
ax20	2437	-8.99	8	Pass
ax20	2462	-10.28	8	Pass
ax40	2422	-12.52	8	Pass
ax40	2437	-10.30	8	Pass
ax40	2452	-8.48	8	Pass



Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

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MIMO mode

Mode	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
n20	2412	-9.85	8	Pass
n20	2437	-7.75	8	Pass
n20	2462	-9.64	8	Pass
n40	2422	-12.04	8	Pass
n40	2437	-10.54	8	Pass
n40	2452	-9.76	8	Pass
ax20	2412	-11.01	8	Pass
ax20	2437	-8.76	8	Pass
ax20	2462	-9.97	8	Pass
ax40	2422	-12.16	8	Pass
ax40	2437	-10.09	8	Pass
ax40	2452	-9.85	8	Pass

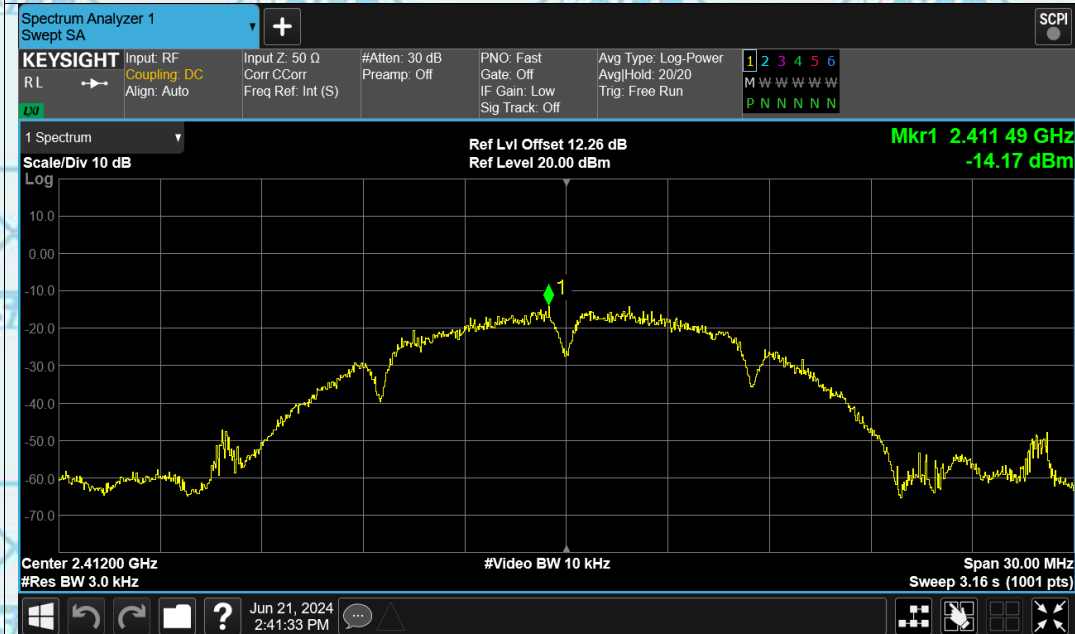
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ANT2

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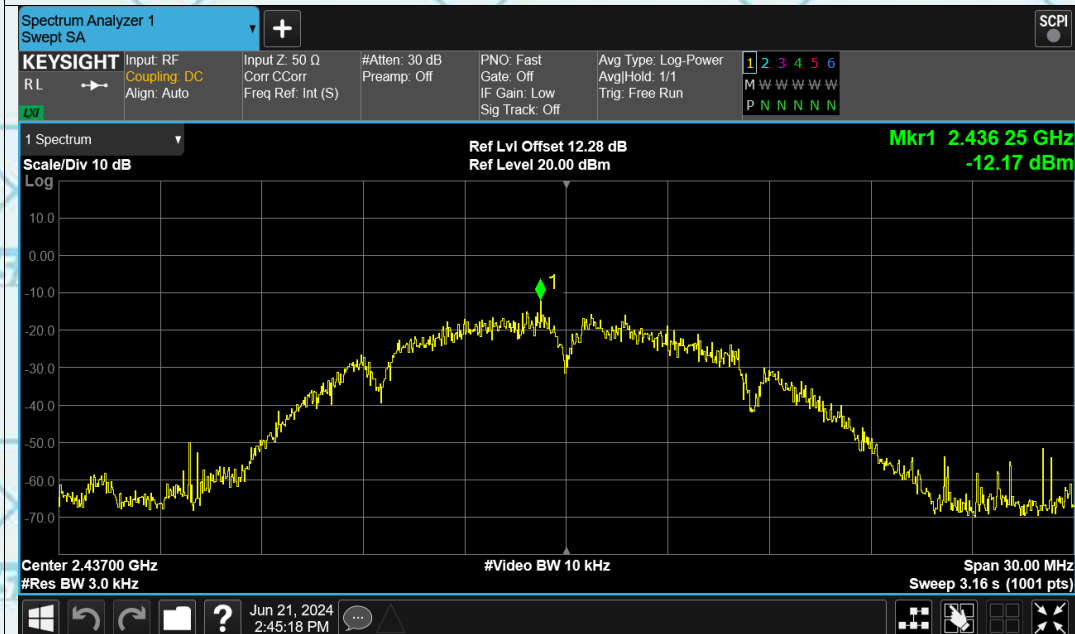
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Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



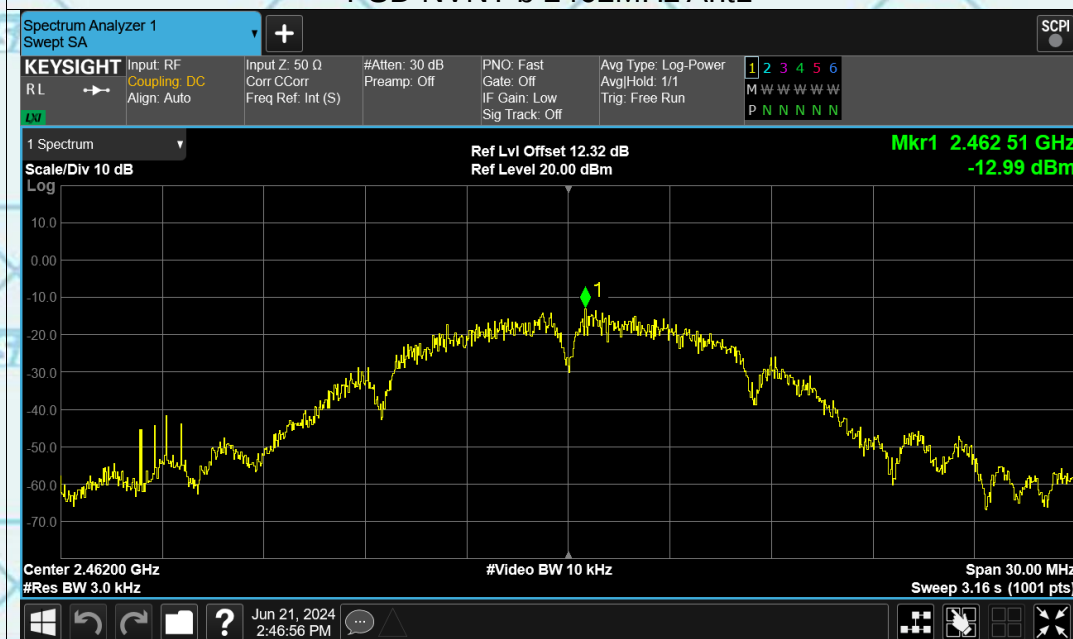


Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

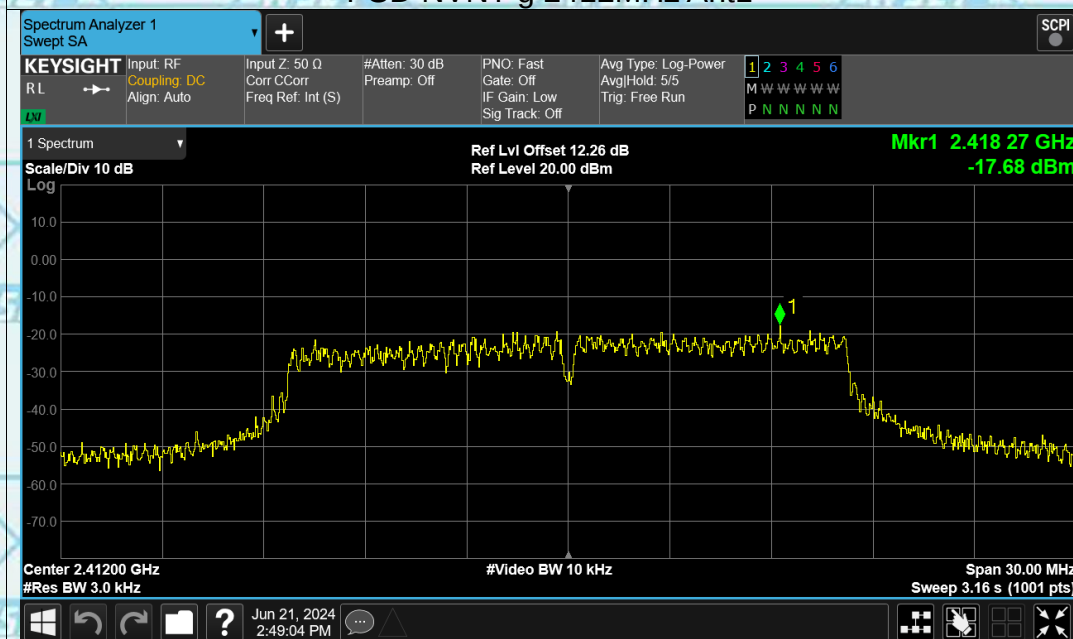
Certificate #5768.01

For Question,
Please Contact with WSCT
www.wsct-cert.com

PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1



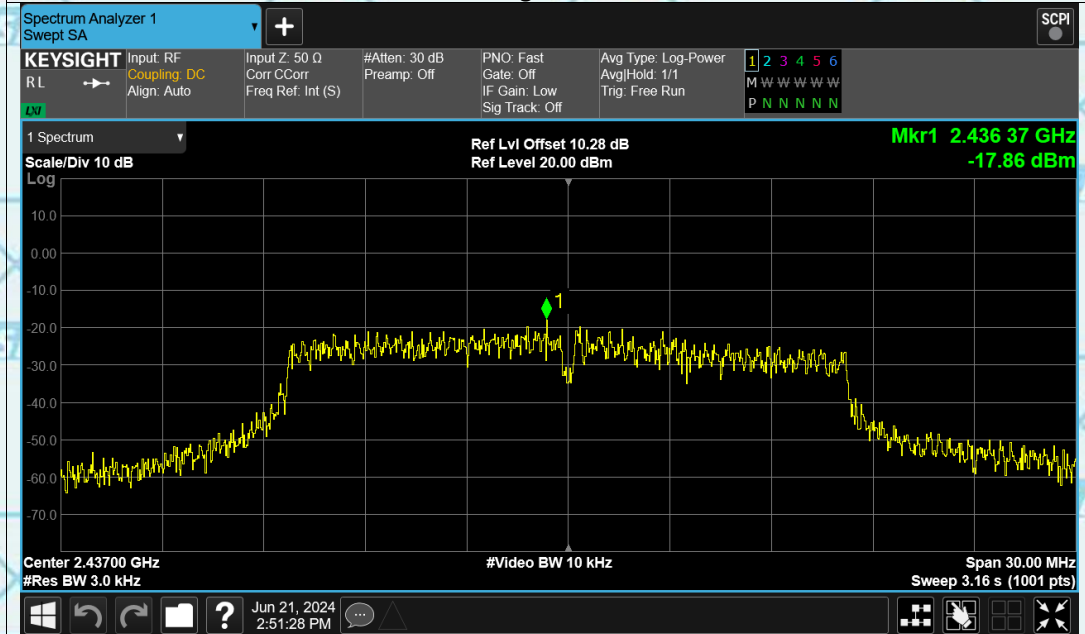


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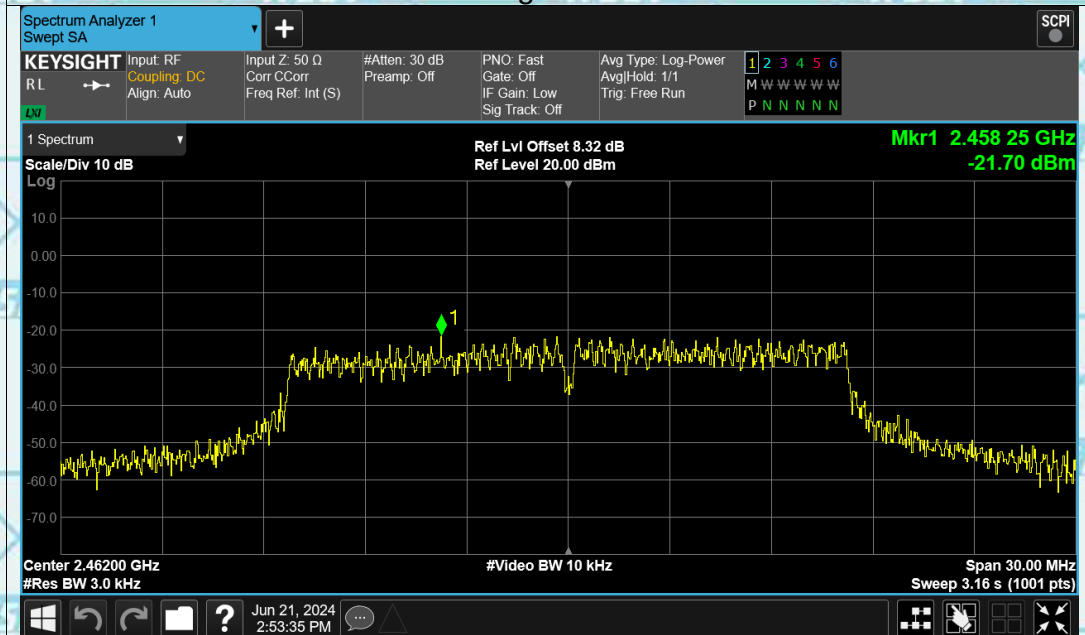
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For Question,
Please Contact with WSCT
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PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1



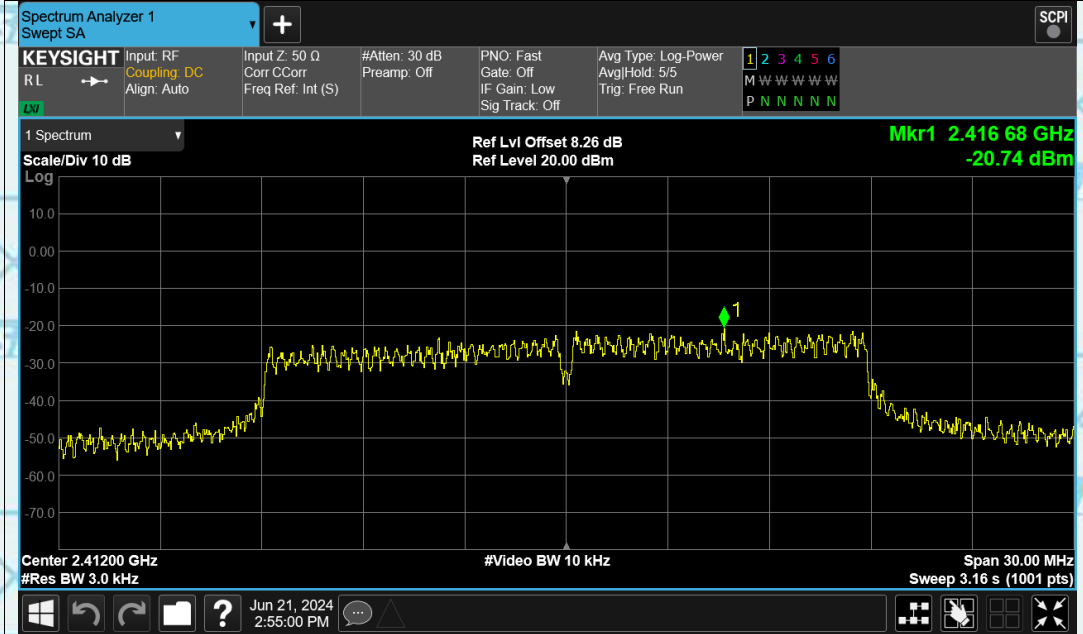


Report No.: WSCT-A2LA-R&E240300009A-Wi-Fi1

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PSD NVNT n20 2412MHz Ant1



PSD NVNT n20 2437MHz Ant1

