

FCC AND ISCED CERTIFICATION TEST REPORT

Applicant:	Guangzhou Shikun Electronics Co., Ltd
Address:	NO.6 Liankun Road, Huangpu District, Guangzhou, China
Manufacturer:	Guangzhou Shikun Electronics Co., Ltd
Address:	NO.6 Liankun Road, Huangpu District, Guangzhou, China
Product Description:	IEEE 802.11b/g/n/a/ac/ax 2T2R USB WiFi Module Integrated BT 2.1+EDR/4.2/5.2
Brand Name:	N/A
Tested Model:	SKI.WB920TU.2
FCC ID:	2AR82-SKIWB920TU2
IC:	24728-SKIWB920TU2
Report No.:	JCF230821202-003
Received Date:	Aug. 24, 2023
Tested Date:	Aug. 24, 2023 - Sep. 22, 2023
Issued Date:	Oct. 20, 2023
Test Standards:	FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 3, Aug. 2023.
Test Procedure:	ANSI C63.10:2013, RSS-Gen Issue 5, A2 (February 2021)
Test Result:	Pass

Prepared By:	
	
<u>Kennys Zhang/Engineer</u>	Date: Oct. 20, 2023

Reviewed By:	
	
<u>Roger Li/Engineer</u>	Date: Oct. 20, 2023

Approved By:	
	
<u>Talent Zhang/Engineer</u>	Date: Oct. 20, 2023

Note: The test results in this report apply exclusively to the tested model / sample. Without written approval of Guangzhou Jingce Testing Technology Co., Ltd. the test report shall not be reproduced except in full.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Oct. 20, 2023	Original Report	/

Table of Contents

1. Test Report Declare	5
2. Summary of Test Results	6
3. Test Laboratory	6
4. Equipment Under Test	7
4.1. Description of EUT	7
4.2. Channel List	7
4.3. Test Channel Configuration	8
4.4. Test environment conditions	8
4.5. Description of Available Antennas	8
4.6. Description of Available Antennas	9
5. Description of Test Setup	9
5.1. Accessory	9
5.2. Support Equipment	9
5.3. Test Setup	10
5.4. Setup Diagram for Tests	10
6. Measurement Uncertainty	10
7. Measuring Instrument and Software Used	10
8. On Time and Duty Cycle	12
8.1. Block diagram of test setup	12
8.2. Limits	12
8.3. Procedure	12
8.4. Results	12
8.5. Original test data	14
9. 6 dB DTS Bandwidth and 99 % Occupied Bandwidth	26
9.1. Block diagram of test setup	26
9.2. Limits	26
9.3. Test Procedure	26
9.4. Results	27
9.5. Original test data	29
10. Conducted Output Power	53
10.1. Block diagram of test setup	53
10.2. Limits	53
10.3. Test Procedure	53
10.4. Results	53
10.5. Original test data	55
11. Power Spectral Density	67
11.1. Block diagram of test setup	67
11.2. Limits	67
11.3. Test Procedure	67
11.4. Results	67
11.5. Original test data	69
12. Conducted Band edge and Spurious Emissions	81
12.1. Block diagram of test setup	81
12.2. Limits	81
12.3. Test Procedure	81
12.4. Test result	82
12.5. Original test data	85
13. Radiated Emission	129
13.1. Block diagram of test setup	129
13.2. Limit	130
13.3. Test Procedure	132
13.4. Results	135

13.5. Original test data	135
14. AC Power Line Conducted Emissions	136
14.1. Block diagram of test setup	136
14.2. Limits	136
14.3. Test procedure	136
14.4. Test result	137
15. Antenna Requirements	138
15.1. Applicable Requirements	138
15.2. Result	138
APPENDIX A – Radiated Emission Below 1GHz Test Data	139
APPENDIX B – Radiated Emission Above 1GHz Test Data	141

1. Test Report Declare

Applicant:	Guangzhou Shikun Electronics Co., Ltd
Address:	NO.6 Liankun Road, Huangpu District, Guangzhou, China
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Address:	NO.6 Liankun Road, Huangpu District, Guangzhou, China
Product Name:	IEEE 802.11b/g/n/a/ac/ax 2T2R USB WiFi Module Integrated BT 2.1+EDR/4.2/5.2
Brand Name:	N/A
Model Name:	SKI.WB920TU.2
Difference Description:	N/A

We Declare:

The equipment described above is tested by Guangzhou Jingce Testing Technology Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangzhou Jingce Testing Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

2. Summary of Test Results

Summary of Test Results			
Clause	Test Items	FCC/ISED Rules	Test Results
1	6dB Bandwidth and 99 % Occupied Bandwidth	FCC Part 15.247 (a) (2) RSS-247 Clause 5.2 (a) ISED RSS-Gen Clause 6.7	Pass
2	Peak Conducted Output Power	FCC Part 15.247 (b) (3) RSS-247 Clause 5.4 (d)	Pass
3	Power Spectral Density	FCC Part 15.247 (e) RSS-247 Clause 5.2 (b)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d) RSS-247 Clause 5.5	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9	Pass
6	Conducted Emission Test For AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	N/A
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 6.8	Pass

3. Test Laboratory

Guangzhou Jingce Testing Technology Co., Ltd.

Add.: No.192, Kezhu Road, Huangpu District, Guangzhou, Guangdong, China

Association for Laboratory Accreditation(A2LA). Certificate Number: 6594.01

FCC Designation Number: CN1331. Test Firm Registration Number: 360543

IC Test Firm Registration Number: 28796

Conformity Assessment Body identifier: CN0138

4. Equipment Under Test

4.1. Description of EUT

EUT Name:	IEEE 802.11b/g/n/a/ac/ax 2T2R USB WiFi Module Integrated BT 2.1+EDR/4.2/5.2
Model Number:	SKI.WB920TU.2
EUT Function Description:	Please reference user's manual
Power Supply:	DC 3.3V+/-0.3
Hardware Version:	N/A
Software Version:	N/A
Radio Specification:	IEEE802.11b/g/n/ax
Operation Frequency:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz IEEE 802.11ax HE20: 2412MHz—2462MHz IEEE 802.11ax HE40: 2422MHz—2452MHz
Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n (HT20/40): OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax (HE20/40): OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Data Rate:	IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130.0, 144.4Mbps IEEE 802.11n HT40: 30.0, 60.0, 90.0, 120.0, 180.0, 240.0, 270.0, 300.0 Mbps IEEE 802.11ax HE20: 17.2, 34.4, 51.6, 68.8, 103.2, 137.6, 154.8, 172.1, 206.5, 229.4, 258.1, 286.8Mbps IEEE 802.11ax HE40: 34.4, 51.6, 68.8, 103.2, 137.6, 206.5, 275.3, 309.7, 344.1, 412.9, 458.8, 516.2, 573.5Mbps
Antenna Type:	External Antenna, MAX. Gain: 3.86 dBi

Note 1: EUT is the ab. of equipment under test.

Note 2: The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.

4.2. Channel List

Channel List for 802.11b/g/n/ax (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452	/	/
2	2417	6	2437	10	2457	/	/
3	2422	7	2442	11	2462	/	/
4	2427	8	2447	/	/	/	/

Channel List for 802.11n/ax (40 MHz)					
Channel	Frequency (MHz)	Channel	Frequency(MHz)	Channel	Frequency (MHz)
3	2422	7	2442	/	/

4	2427	8	2447	/	/
5	2432	9	2452	/	/
6	2437	/	/	/	/

4.3. Test Channel Configuration

Tested mode, channel and rand data rate information			
Mode	Data rate (Mbps) (see Note)	Channel	Frequency (MHz)
802.11b	1MHz	Low: CH1	2412
	1MHz	Middle: CH6	2437
	1MHz	High: CH11	2462
802.11g	6 MHz	Low: CH1	2412
	6 MHz	Middle: CH6	2437
	6 MHz	High: CH11	2462
802.11n HT20	MCS8	Low: CH1	2412
	MCS8	Middle: CH6	2437
	MCS8	High: CH11	2462
802.11n HT40	MCS8	Low: CH3	2422
	MCS8	Middle: CH6	2437
	MCS8	High: CH9	2452
802.11ax HE20	MCS0	Low: CH1	2412
	MCS0	Middle: CH6	2437
	MCS0	High: CH11	2462
802.11ax HE40	MCS0	Low: CH3	2422
	MCS0	Middle: CH6	2437
	MCS0	High: CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

4.4. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25 °C
Humidity range:	40-75%
Pressure range:	86-106 kPa

4.5. Description of Available Antennas

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band				
Test Software		QATool_Dbg.exe		
Modulation Mode	Transmit Antenna Number	Test Software Setting Value		
		ANT1	ANT2	Channel
802.11b	2	14	14	CH1
		14	14	CH6
		14	14	CH11

802.11g	2	10	10	CH1
		10	10	CH6
		10	10	CH11
802.11HT20	2	0E	0E	CH1
		0E	0E	CH6
		0E	0E	CH11
802.11n HT40	2	0E	0E	CH3
		0E	0E	CH6
		0E	0E	CH9
802.11ax HE20	2	0E	0E	CH1
		0E	0E	CH6
		0E	0E	CH11
802.11ax HE40	2	0E	0E	CH3
		0E	0E	CH6
		0E	0E	CH9

4.6. Description of Available Antennas

Test Mode	Transmit and Receive Mode	Description
802.11b	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11g	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT20	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT40	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ax HE20	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ax HE40	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
Note: 1. Only 802.11n HT20/HT40 and 802.11ax HE20/HE40 support MIMO mode 2. WLAN 2.4 GHz & WLAN 5G can't transmit simultaneously. (declared by client)		

5. Description of Test Setup

5.1. Accessory

Description of Accessories	Manufacturer	Model Number	Description	Remark
/	/	/	/	/

5.2. Support Equipment

Equipment	Brand Name	Model Name	P/N
PC	Lenovo	T480	/

5.3. Test Setup

The EUT can work in Fixed Frequency mode.

5.4. Setup Diagram for Tests



6. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
AC Power Conduction emission	1.37 dB
All Radiated emissions	5.4dB
Conducted emissions	3.09 dB
Occupied Channel Bandwidth	1.1%
Conducted Output power	0.82dB
Power Spectral Density	0.82dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k = 2.	

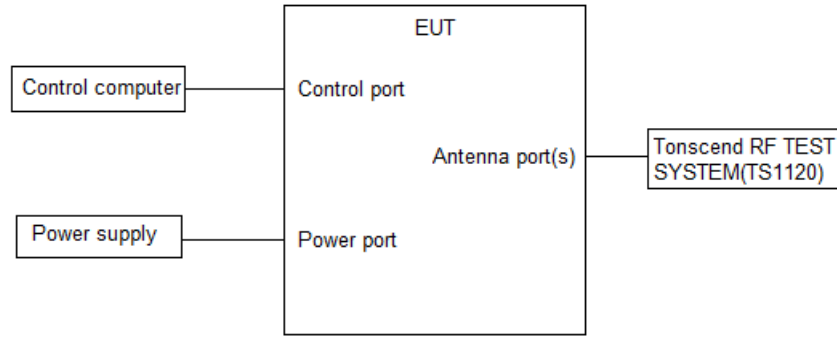
7. Measuring Instrument and Software Used

TS Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	Spectrum Analyzer	Keysight	N9030B	MY56320512	Sep. 12, 2023	Sep. 11, 2024
☒	Vector Signal Generator	Keysight	N5182B	MY57300334	Sep. 12, 2023	Sep. 11, 2024
☒	Signal Generator	Keysight	N5171B	MY57280639	Sep. 12, 2023	Sep. 11, 2024
☒	DC POWER	Keysight	E342A	MY59020356	Jul. 14, 2023	Jul. 13, 2024
☒	Incubator thermometer	GWS	EL-02JA	21107288	Sep. 12, 2023	Sep. 11, 2024
☒	Control unit(Power sensor)	Tonscend	JS0806-2	/	Sep. 12, 2023	Sep. 11, 2024
☒	Wideband radio communication tester	R&S	CMW500	163478	Jul. 11, 2023	Jul. 10, 2024
☒	Spectrum Analyzer	Keysight	N9020B	MY60112206	Sep. 12, 2023	Sep. 12, 2024
☒	Control unit(Power sensor)	Tonscend	JS0806-2	21H8060465	Sep. 12, 2023	Sep. 12, 2024
Software						
Used	Description	Manufacturer	Name		Version	
☒	Test software	TS+	JS1120-3		V3.3.10	
RSE Test System						

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	EMI Receiver	R&S	ESW	101685	Jul. 12, 2023	Jul. 11, 2024
☒	Bilog Antenna	Schwarzbeck	VULB 9163	01416	Mar. 21, 2023	Mar. 20, 2024
☒	Horn Antenna 1	Schwarzbeck	BBHA 9120 D	02411	May. 25, 2023	May. 24, 2024
☒	Horn Antenna 2	ETS	BBHA 9170	1090	Sep. 04, 2023	Sep. 03, 2024
☒	loop-antenna	Schwarzbeck	FMZB 1513-60	00030	Jan.14,2023	Jan.13,2024
☒	Signal Pre-Amplifier	Tonscend	TAP01018050	AP21C806122	Jul. 10, 2023	Jul. 09, 2024
☒	Signal Pre-Amplifier	Tonscend	TAP9K3G32	AP20K806104	Jul. 10, 2023	Jul. 09, 2024
☒	Signal Pre-Amplifier	ETS	3116C-PA	00217677	Aug. 24, 2023	Aug. 23, 2024
☒	3m Fully-anechoic Chamber	ETS	RFD-100	/	Apr. 24, 2021	Apr. 23, 2024
Software						
Used	Description	Manufacturer	Name		Version	
☒	Test software	TS+	TS+		V3.0.0.4	
Conducted Emission Test For AC Power Port						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	LISN	R&S	ENV216	102154	Jul. 10, 2023	Jul. 09, 2024
☒	EMI Receiver	R&S	ESR3	102509	Jul. 12, 2023	Jul. 11, 2024
Software						
Used	Description	Manufacturer	Name		Version	
☒	Test software	EZ	EZ-EMC		EMEC-3A1	
Other Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	Temperature & Humidity	Temperature	HTC-1	/	Nov. 25, 2022	Nov. 24, 2023

8. On Time and Duty Cycle

8.1. Block diagram of test setup



8.2. Limits

None; for reporting purposes only

8.3. Procedure

KDB 558074 Zero-Span Spectrum Analyzer Method

8.4. Results

Test Mode	Ant.	Freq. (MHz)	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)
11B	Ant1	2412	8.38	8.76	95.66
	Ant2	2412	8.38	8.74	95.88
	Ant1	2437	8.39	8.75	95.89
	Ant2	2437	8.39	8.75	95.89
	Ant1	2462	8.38	8.75	95.77
	Ant2	2462	8.39	8.76	95.78
11G	Ant1	2412	1.39	1.77	78.53
	Ant2	2412	1.39	1.77	78.53
	Ant1	2437	1.39	1.77	78.53
	Ant2	2437	1.39	1.77	78.53
	Ant1	2462	1.39	1.77	78.53
	Ant2	2462	1.39	1.77	78.53
11N20MIMO	Ant1	2412	0.67	1.04	64.42
	Ant2	2412	0.67	1.04	64.42
	Ant1	2437	0.67	1.04	64.42
	Ant2	2437	0.67	1.04	64.42
	Ant1	2462	0.67	1.04	64.42
	Ant2	2462	0.67	1.04	64.42
11N40MIMO	Ant1	2422	0.35	0.74	47.30
	Ant2	2422	0.35	0.74	47.30
	Ant1	2437	0.35	0.74	47.30
	Ant2	2437	0.35	0.73	47.95
	Ant1	2452	0.34	0.73	46.58
	Ant2	2452	0.35	0.74	47.30
11AX20MIMO	Ant1	2412	0.20	0.40	50.00
	Ant2	2412	0.20	0.40	50.00
	Ant1	2437	0.20	0.40	50.00
	Ant2	2437	0.20	0.40	50.00

	Ant1	2462	0.20	0.40	50.00
	Ant2	2462	0.21	0.42	50.00
11AX40MIMO	Ant1	2422	0.20	0.43	46.51
	Ant2	2422	0.20	0.42	47.62
	Ant1	2437	0.20	0.42	47.62
	Ant2	2437	0.20	0.43	46.51
	Ant1	2452	0.20	0.42	47.62
	Ant2	2452	0.20	0.58	34.48

Note: Duty Cycle Correction Factor = $10\log(1/x)$.

Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer, then the next higher value should be used.

For mode 11b, the duty cycle is greater than 98 %, so it can set VBW to 10 Hz.

8.5. Original test data





11B_Ant1_2462



11B_Ant2_2462



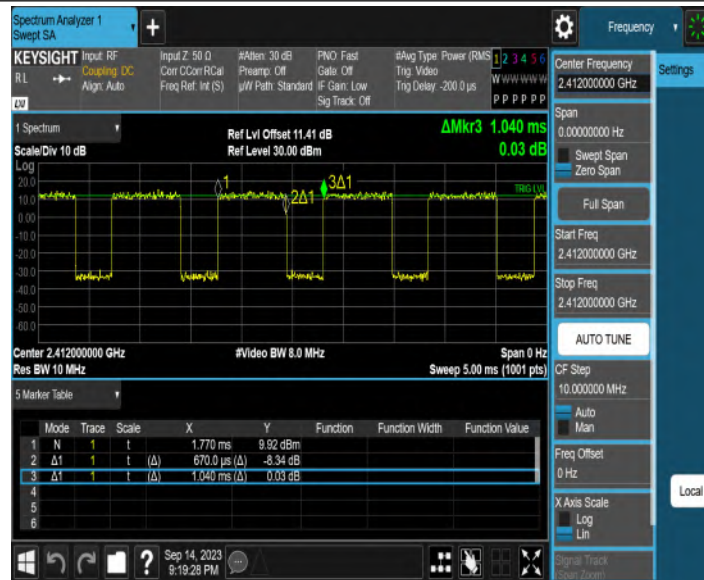
11G_Ant1_2412



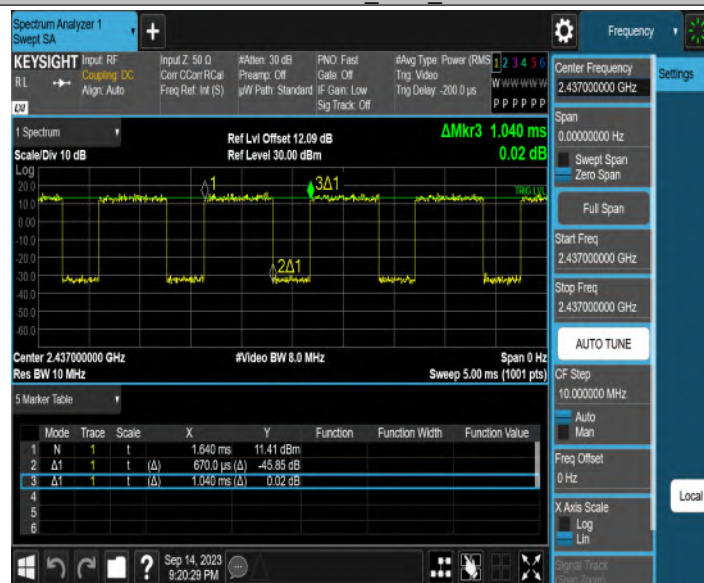




11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437















9. 6 dB DTS Bandwidth and 99 % Occupied Bandwidth

9.1. Block diagram of test setup

Same as section 8.1

9.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only.	2400-2483.5

9.3. Test Procedure

Connect the UUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth :100 kHz For 99 % Occupied Bandwidth :1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: $\geq 3 \times$ RBW For 99 % Occupied Bandwidth : $\geq 3 \times$ RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB and 99 % relative to the maximum level measured in the fundamental emission.

9.4. Results

6dB bandwidth:

Test Mode	Ant.	Freq. (MHz)	DTS BW (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11B	Ant1	2412	7.200	2408.520	2415.720	0.5	PASS
	Ant2	2412	8.280	2408.240	2416.520	0.5	PASS
	Ant1	2437	7.560	2432.960	2440.520	0.5	PASS
	Ant2	2437	6.400	2433.480	2439.880	0.5	PASS
	Ant1	2462	6.680	2458.440	2465.120	0.5	PASS
	Ant2	2462	7.040	2458.000	2465.040	0.5	PASS
11G	Ant1	2412	16.280	2403.840	2420.120	0.5	PASS
	Ant2	2412	16.320	2403.840	2420.160	0.5	PASS
	Ant1	2437	15.920	2429.240	2445.160	0.5	PASS
	Ant2	2437	16.400	2428.760	2445.160	0.5	PASS
	Ant1	2462	16.320	2453.840	2470.160	0.5	PASS
	Ant2	2462	16.360	2453.840	2470.200	0.5	PASS
11N20MIMO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
	Ant2	2412	15.440	2404.680	2420.120	0.5	PASS
	Ant1	2437	17.320	2428.440	2445.760	0.5	PASS
	Ant2	2437	17.280	2428.200	2445.480	0.5	PASS
	Ant1	2462	17.160	2453.600	2470.760	0.5	PASS
	Ant2	2462	16.920	2453.840	2470.760	0.5	PASS
11N40MIMO	Ant1	2422	30.000	2409.440	2439.440	0.5	PASS
	Ant2	2422	28.880	2406.960	2435.840	0.5	PASS
	Ant1	2437	29.120	2422.920	2452.040	0.5	PASS
	Ant2	2437	25.040	2420.760	2445.800	0.5	PASS
	Ant1	2452	31.920	2435.120	2467.040	0.5	PASS
	Ant2	2452	35.760	2434.400	2470.160	0.5	PASS
11AX20MIMO	Ant1	2412	15.720	2404.360	2420.080	0.5	PASS
	Ant2	2412	16.000	2403.760	2419.760	0.5	PASS
	Ant1	2437	13.840	2429.440	2443.280	0.5	PASS
	Ant2	2437	16.200	2428.280	2444.480	0.5	PASS
	Ant1	2462	15.520	2453.240	2468.760	0.5	PASS
	Ant2	2462	16.360	2454.440	2470.800	0.5	PASS
11AX40MIMO	Ant1	2422	29.520	2408.800	2438.320	0.5	PASS
	Ant2	2422	32.640	2403.200	2435.840	0.5	PASS
	Ant1	2437	35.120	2420.680	2455.800	0.5	PASS
	Ant2	2437	32.560	2419.480	2452.040	0.5	PASS
	Ant1	2452	35.040	2434.400	2469.440	0.5	PASS
	Ant2	2452	36.320	2433.200	2469.520	0.5	PASS

99 % bandwidth:

Test Mode	Ant.	Channel Freq. (MHz)	OCB (MHz)	FL (MHz)	FH (MHz)
11B	Ant1	2412	12.617	2405.6922	2418.3092
	Ant2	2412	12.603	2405.7053	2418.3083
	Ant1	2437	12.575	2430.6917	2443.2667
	Ant2	2437	12.550	2430.5782	2443.1282
	Ant1	2462	12.568	2455.6941	2468.2621
	Ant2	2462	12.520	2455.8601	2468.3801
11G	Ant1	2412	17.044	2403.4571	2420.5011
	Ant2	2412	17.014	2403.5328	2420.5468
	Ant1	2437	16.885	2428.4893	2445.3743
	Ant2	2437	16.868	2428.3958	2445.2638
	Ant1	2462	16.877	2453.5623	2470.4393
	Ant2	2462	17.133	2453.5085	2470.6415
11N20MIMO	Ant1	2412	18.205	2402.9140	2421.1190
	Ant2	2412	17.993	2403.0489	2421.0419
	Ant1	2437	18.105	2427.9122	2446.0172
	Ant2	2437	17.983	2427.9410	2445.9240
	Ant1	2462	18.114	2452.8917	2471.0057
	Ant2	2462	18.020	2453.0382	2471.0582
11N40MIMO	Ant1	2422	35.908	2404.0055	2439.9135
	Ant2	2422	35.884	2403.9354	2439.8194
	Ant1	2437	35.921	2419.0532	2454.9742
	Ant2	2437	35.849	2418.8984	2454.7474
	Ant1	2452	35.993	2433.9538	2469.9468
	Ant2	2452	36.369	2433.6992	2470.0682
11AX20MIMO	Ant1	2412	18.867	2402.4945	2421.3615
	Ant2	2412	18.911	2402.4796	2421.3906
	Ant1	2437	18.896	2427.5049	2446.4009
	Ant2	2437	18.900	2427.4934	2446.3934
	Ant1	2462	18.878	2452.4996	2471.3776
	Ant2	2462	18.954	2452.5453	2471.4993
11AX40MIMO	Ant1	2422	37.638	2403.1784	2440.8164
	Ant2	2422	37.658	2403.0979	2440.7559
	Ant1	2437	37.633	2418.2760	2455.9090
	Ant2	2437	37.338	2418.1383	2455.4763
	Ant1	2452	37.676	2433.0850	2470.7610
	Ant2	2452	37.958	2432.9677	2470.9257

9.5. Original test data

6dB bandwidth:



11B_Ant2_2437



11B_Ant1_2462



11B_Ant2_2462



11G_Ant1_2412













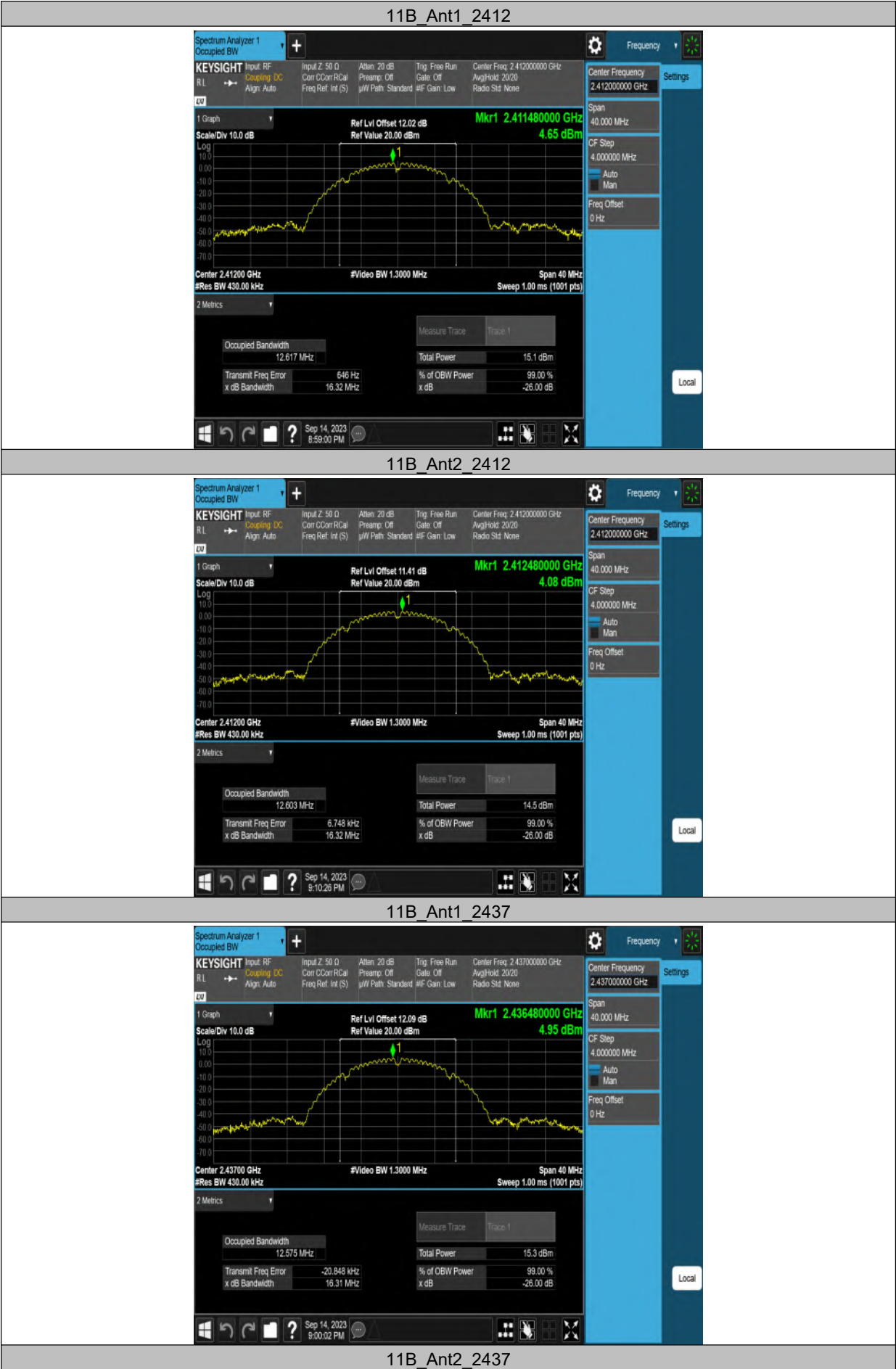


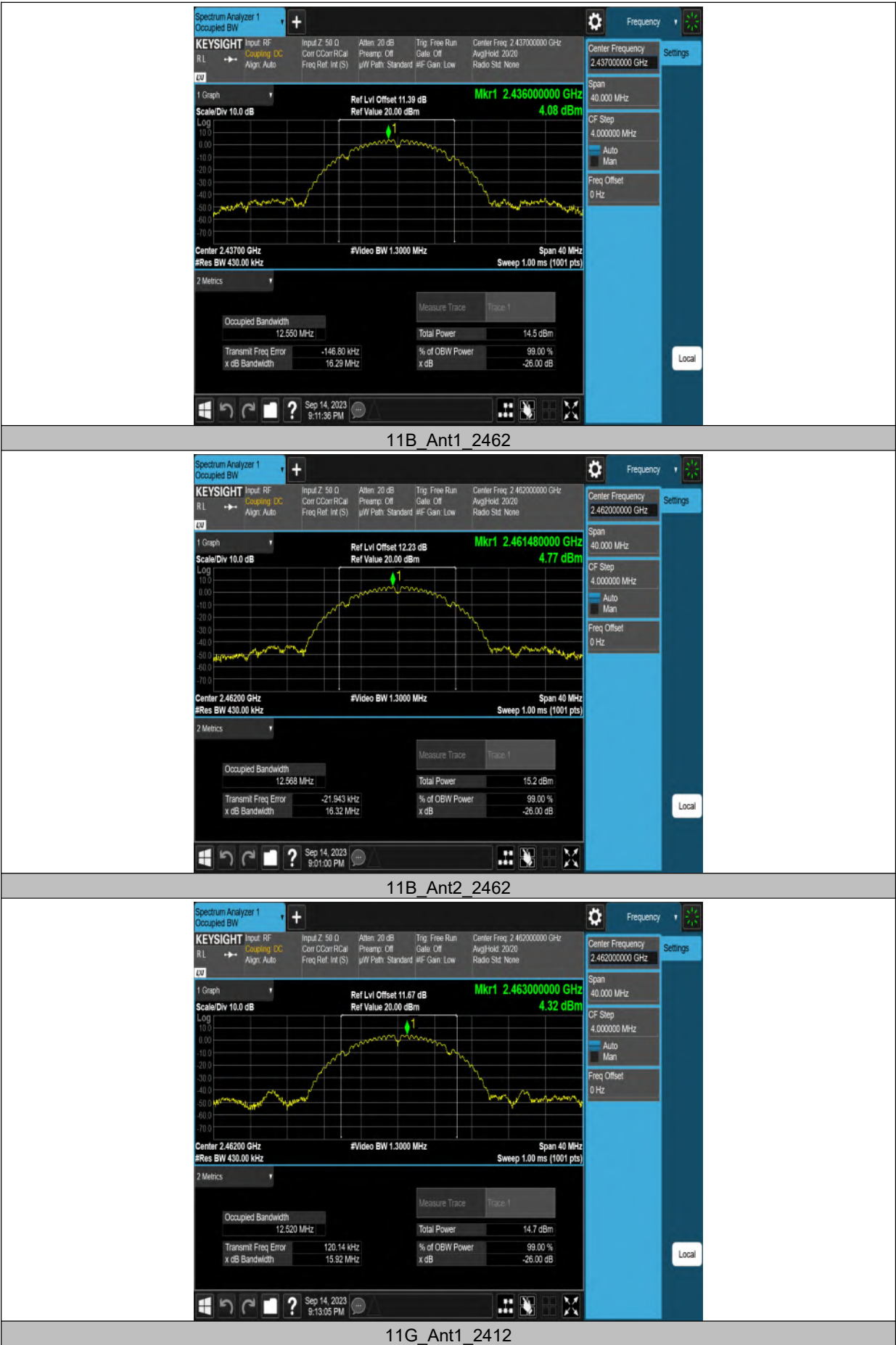


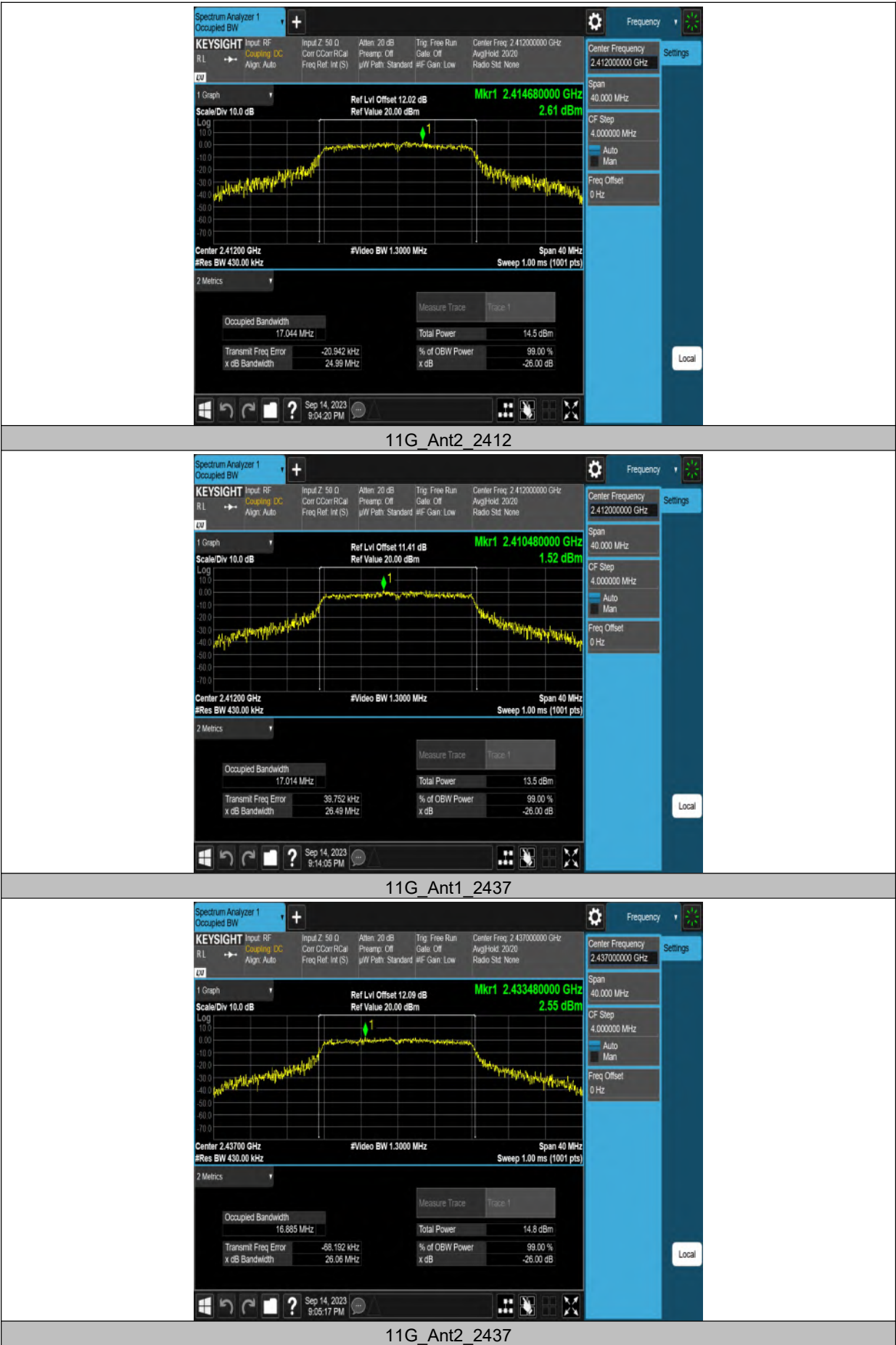


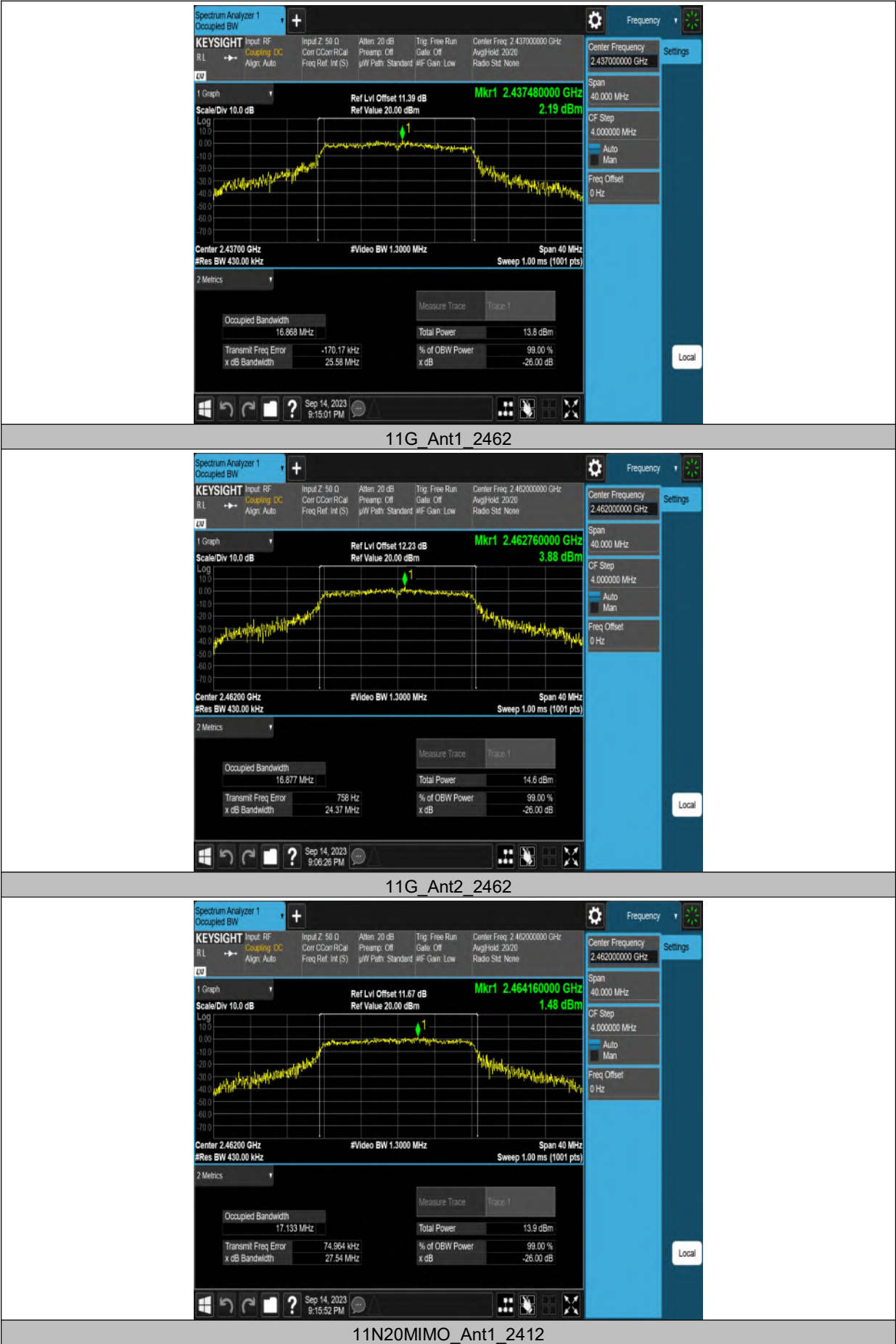


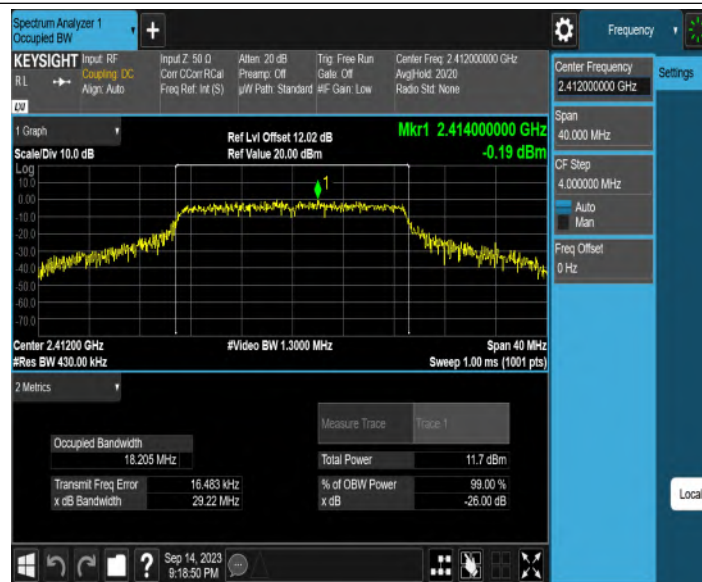
99 % bandwidth:



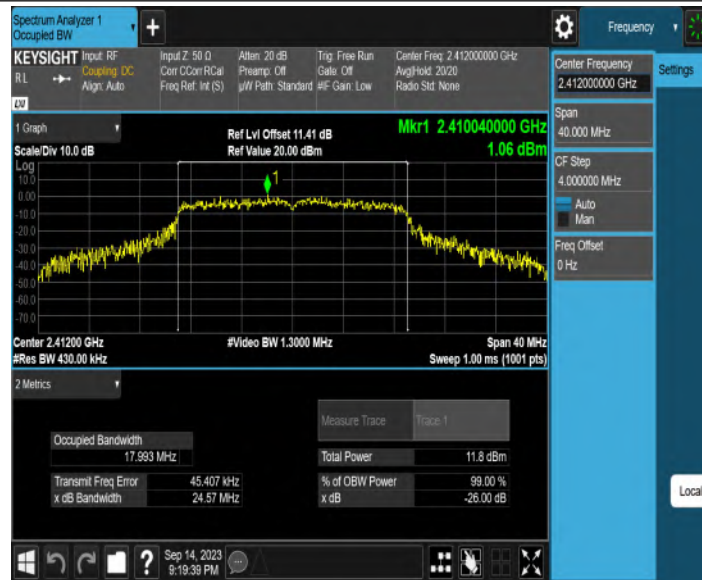




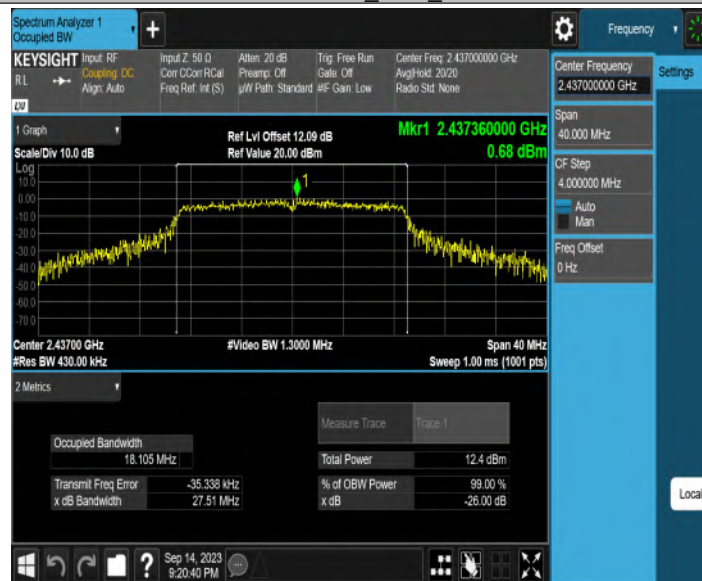




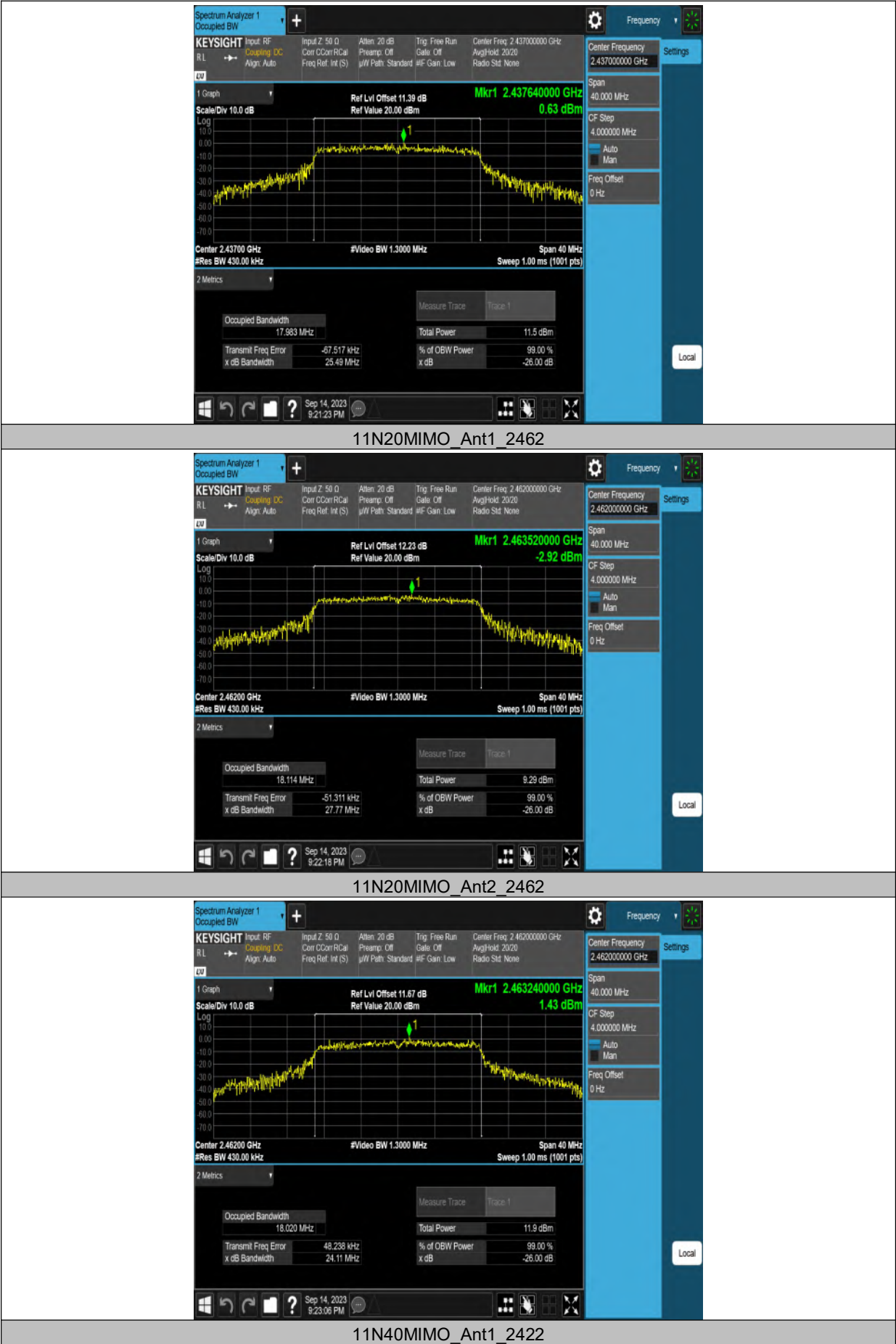
11N20MIMO_Ant2_2412

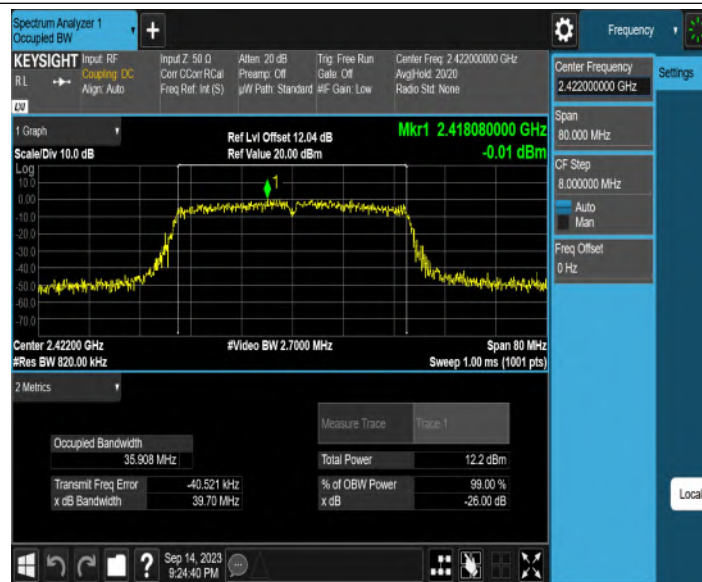


11N20MIMO_Ant1_2437

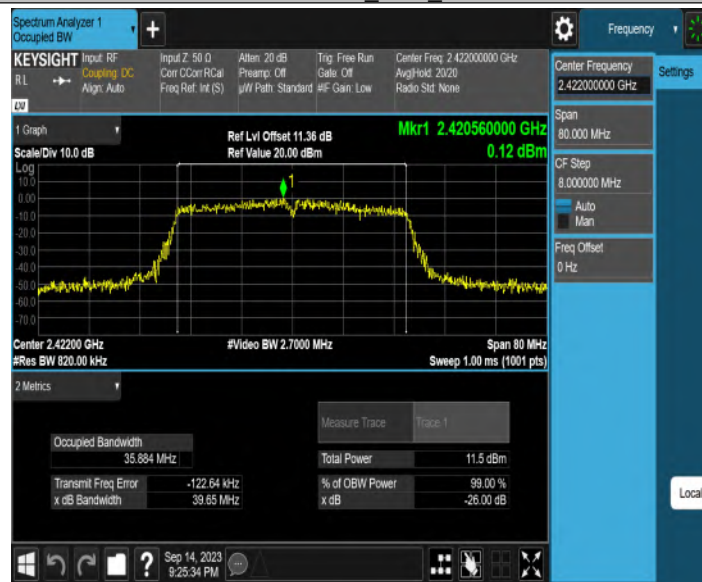


11N20MIMO_Ant2_2437

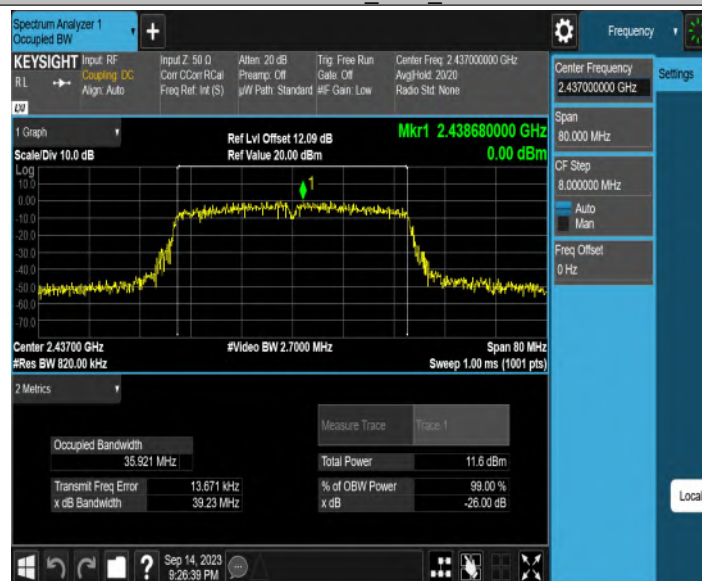




11N40MIMO_Ant2_2422

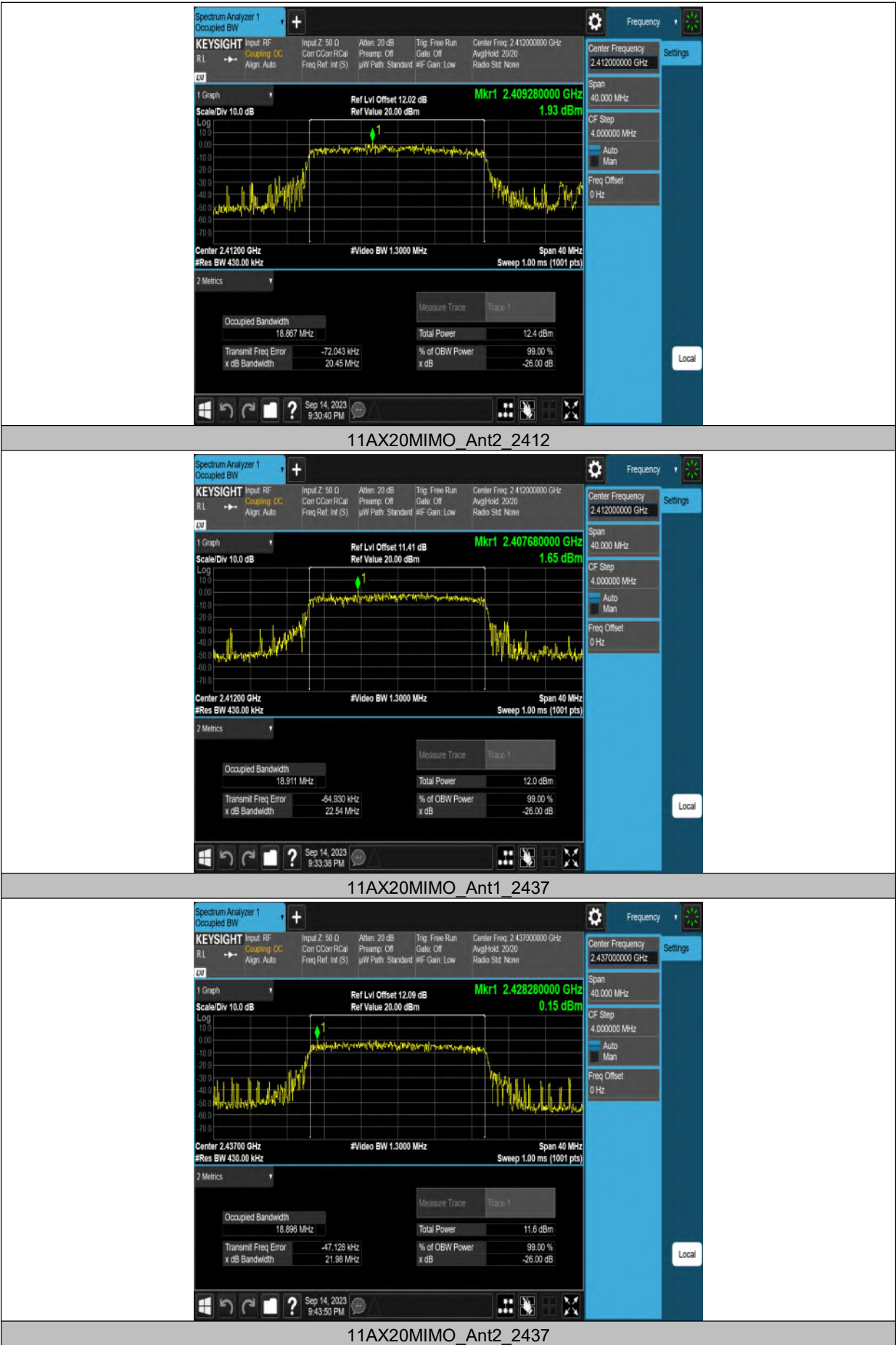


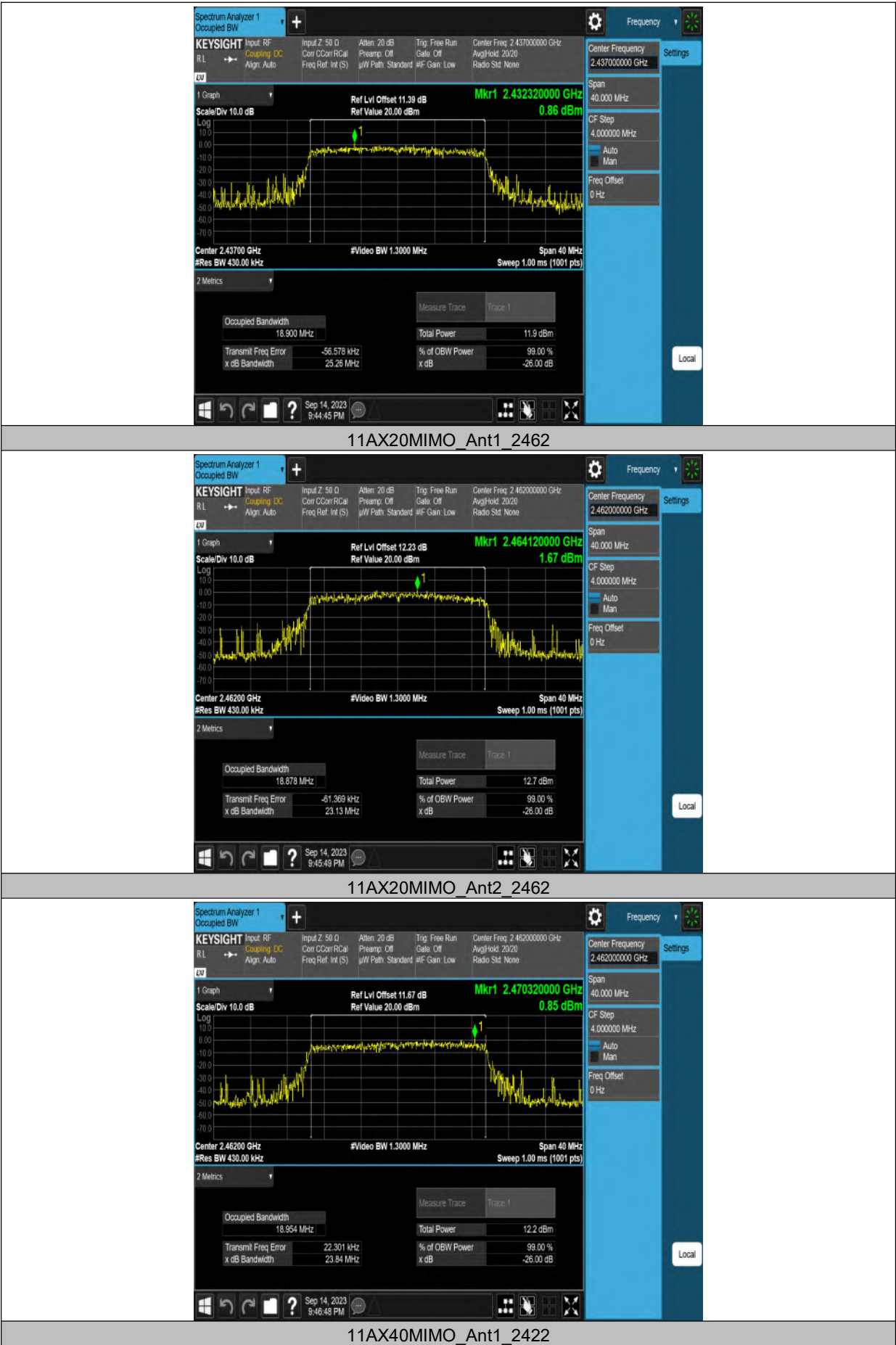
11N40MIMO_Ant1_2437

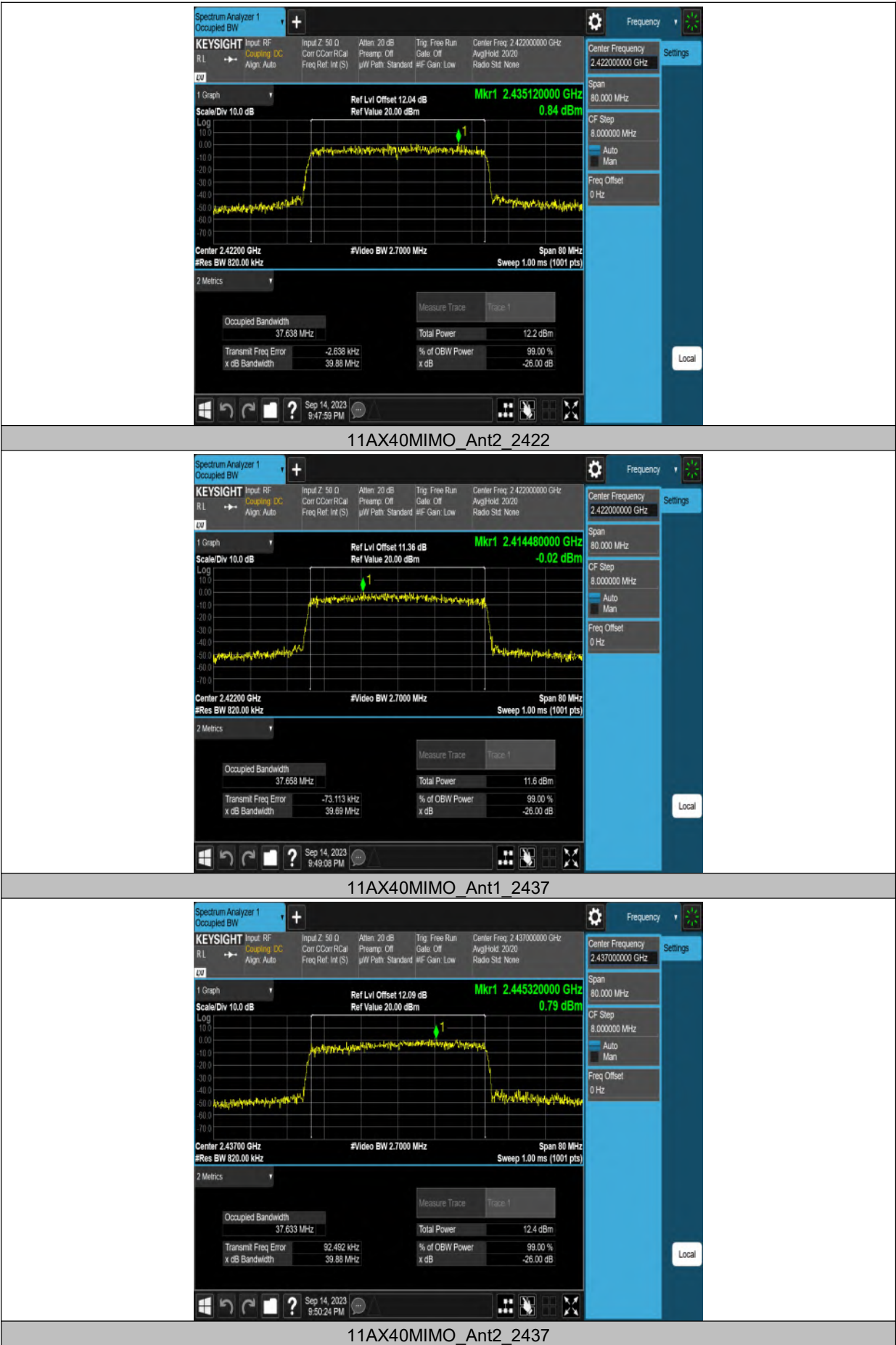


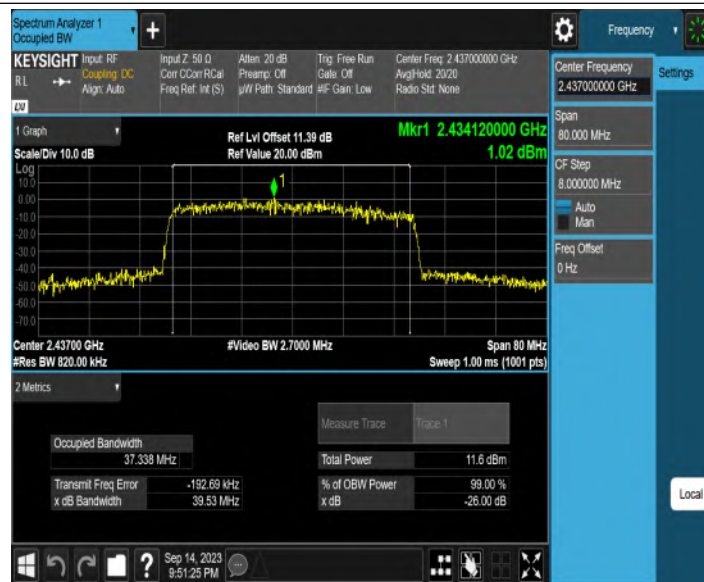
11N40MIMO_Ant2_2437



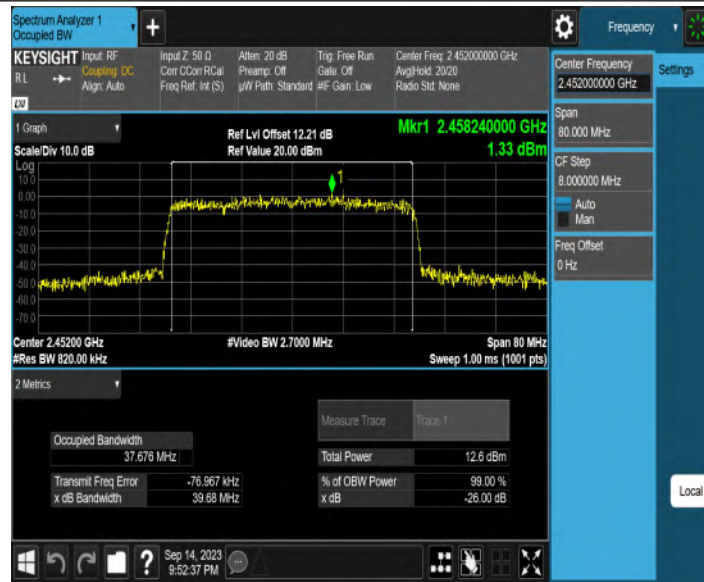




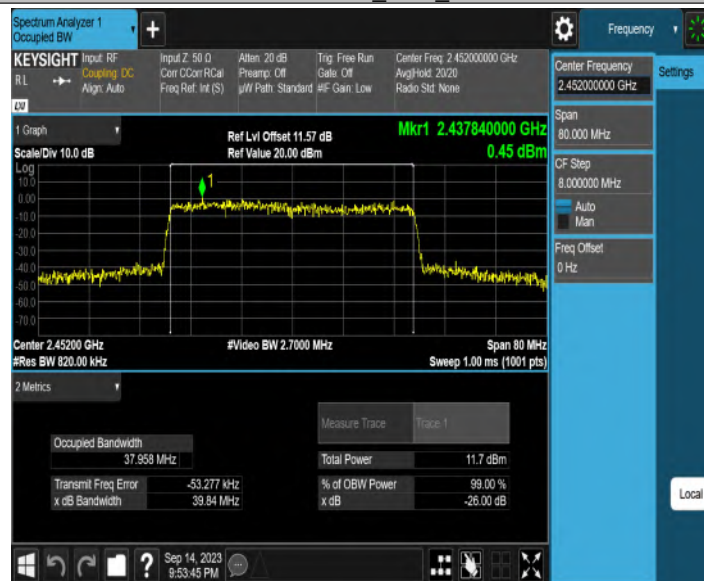




11AX40MIMO_Ant1_2452



11AX40MIMO_Ant2_2452



10. Conducted Output Power

10.1. Block diagram of test setup

Same as section 8.1

10.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3) ISED RSS-247 5.4 (d)	Peak Output Power	1 watt or 30 dBm	2400-2483.5

10.3. Test Procedure

Place the EUT on the table and set it in the transmitting mode.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.

Measure peak power each channel.

Peak Detector use for Peak result.

AVG Detector use for AVG result.

10.4. Results

Test Mode	Ant.	Freq. (MHz)	Peak Power (dBm)	Conducted Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11B	Ant1	2412	14.71	≤30.00	18.57	≤36.00	PASS
	Ant2	2412	14.30	≤30.00	18.16	≤36.00	PASS
	Ant1	2437	15.00	≤30.00	18.86	≤36.00	PASS
	Ant2	2437	13.74	≤30.00	17.60	≤36.00	PASS
	Ant1	2462	14.54	≤30.00	18.40	≤36.00	PASS
	Ant2	2462	14.17	≤30.00	18.03	≤36.00	PASS
11G	Ant1	2412	15.52	≤30.00	19.38	≤36.00	PASS
	Ant2	2412	14.74	≤30.00	18.60	≤36.00	PASS
	Ant1	2437	15.42	≤30.00	19.28	≤36.00	PASS
	Ant2	2437	14.63	≤30.00	18.49	≤36.00	PASS
	Ant1	2462	15.57	≤30.00	19.43	≤36.00	PASS
	Ant2	2462	14.82	≤30.00	18.68	≤36.00	PASS
11N20MIMO	Ant1	2412	12.93	≤30.00	16.79	≤36.00	PASS
	Ant2	2412	11.98	≤30.00	15.84	≤36.00	PASS
	total	2412	15.49	≤30.00	19.35	≤36.00	PASS
	Ant1	2437	13.24	≤30.00	17.10	≤36.00	PASS
	Ant2	2437	12.39	≤30.00	16.25	≤36.00	PASS
	total	2437	15.85	≤30.00	19.71	≤36.00	PASS
	Ant1	2462	9.85	≤30.00	13.71	≤36.00	PASS
	Ant2	2462	13.11	≤30.00	16.97	≤36.00	PASS
11N40MIMO	total	2462	14.79	≤30.00	18.65	≤36.00	PASS
	Ant1	2422	12.49	≤30.00	16.35	≤36.00	PASS
	Ant2	2422	11.42	≤30.00	15.28	≤36.00	PASS
	total	2422	15.00	≤30.00	18.86	≤36.00	PASS
	Ant1	2437	12.03	≤30.00	15.89	≤36.00	PASS
	Ant2	2437	11.18	≤30.00	15.04	≤36.00	PASS
	total	2437	14.64	≤30.00	18.50	≤36.00	PASS
	Ant1	2452	9.71	≤30.00	13.57	≤36.00	PASS

	Ant2	2452	12.27	≤ 30.00	16.13	≤ 36.00	PASS
	total	2452	14.19	≤ 30.00	18.05	≤ 36.00	PASS
11AX20MIMO	Ant1	2412	12.53	≤ 30.00	16.39	≤ 36.00	PASS
	Ant2	2412	12.44	≤ 30.00	16.30	≤ 36.00	PASS
	total	2412	15.50	≤ 30.00	19.36	≤ 36.00	PASS
	Ant1	2437	11.39	≤ 30.00	15.25	≤ 36.00	PASS
	Ant2	2437	12.41	≤ 30.00	16.27	≤ 36.00	PASS
	total	2437	14.94	≤ 30.00	18.80	≤ 36.00	PASS
	Ant1	2462	12.68	≤ 30.00	16.54	≤ 36.00	PASS
	Ant2	2462	12.62	≤ 30.00	16.48	≤ 36.00	PASS
	total	2462	15.66	≤ 30.00	19.52	≤ 36.00	PASS
11AX40MIMO	Ant1	2422	12.24	≤ 30.00	16.10	≤ 36.00	PASS
	Ant2	2422	12.03	≤ 30.00	15.89	≤ 36.00	PASS
	total	2422	15.15	≤ 30.00	19.01	≤ 36.00	PASS
	Ant1	2437	12.79	≤ 30.00	16.65	≤ 36.00	PASS
	Ant2	2437	11.95	≤ 30.00	15.81	≤ 36.00	PASS
	total	2437	15.40	≤ 30.00	19.26	≤ 36.00	PASS
	Ant1	2452	12.96	≤ 30.00	16.82	≤ 36.00	PASS
	Ant2	2452	12.22	≤ 30.00	16.08	≤ 36.00	PASS
	total	2452	15.62	≤ 30.00	19.48	≤ 36.00	PASS