FCC AND ISED 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 802.11 a/b/g/n/ac/ax 1T1R USB+SDIO Wi-Fi Module Integrated BT 2.1+EDR/3.0/4.x/5.3/5.4
Brand Name:	N/A
Tested Model:	SKI.WB800D80S.1_D40
FCC ID:	2AR82-SKIWBD40S1
IC:	24728-SKIWBD40S1
Report No.:	JCF260807021-003
Received Date:	Aug. 07, 2026
Tested Date:	Aug. 07, 2026 - Aug. 27, 2026
Issued Date:	Aug. 27, 2026
Test Standards:	FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 4 July 2025
Test Procedure:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, 558074 D01 15.247 Meas Guidance v05r02, 662911 D01 Multiple Transmitter Output v02r01, RSS-Gen Issue 5 A2, Feb. 2021
Test Result:	Pass

Prepared By:

Kennys Zhang

Kennys Zhang/Engineer **Date:** Aug. 27, 2026

Reviewed By:

Roger Li

Roger Li/Engineer **Date:** Aug. 27, 2026

Approved By:

Talent Zhang

Talent Zhang/Engineer **Date:** Aug. 27, 2026

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
--	/	Aug. 27, 2026	Original Report	/

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1. Test Report Declare

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 Name:	IEEE 802.11 a/b/g/n/ac/ax 1T1R USB+SDIO Wi-Fi Module Integrated BT 2.1+EDR/3.0/4.x/5.3/5.4
Brand Name:	N/A
Model Name:	SKI.WB800D80S.1_D40
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 except as provided information by clients.

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 6.3.1 (a) RSS-Gen Clause 6.7	Pass
2	Peak Conducted Output Power & EIRP	FCC Part 15.247 (b) (3) RSS-247 Clause 6.3.2	Pass
3	Power Spectral Density	FCC Part 15.247 (e) RSS-247 Clause 6.3.1 (b)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d) RSS-247 Clause 6.6	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 6.6 RSS-GEN Clause 8.9	Pass
6	Conducted Emission Test For AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	Pass
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 6.8	Pass
Note: This report was tested strictly in accordance with the standards, without any additions, deviations or omissions to the standard content.			

3. Test Laboratory

Guangzhou Jingce Testing Technology Co., Ltd.

Add.: No.10, Hefeng No.1 street, Huangpu District, Guangzhou, Guangdong, People's Republic of China

Association for Laboratory Accreditation(A2LA). Certificate Number: 6594.03

FCC Designation Number: CN1381. Test Firm Registration Number: 486550

IC Test Firm Registration Number: 31808

Conformity Assessment Body identifier: CN0173

4. Equipment Under Test

4.1. Description of EUT

EUT Name:	IEEE 802.11 a/b/g/n/ac/ax 1T1R USB+SDIO Wi-Fi Module Integrated BT 2.1+EDR/3.0/4.x/5.3/5.4
Model Number:	SKI.WB800D80S.1_D40
EUT Function Description:	Please refer to user manual of this device
Power Supply:	DC 3.3± 0.3V
Sample No.:	260807021-01-01
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)
Antenna Type:	PIFA Antenna, MAX. Gain: 3.99 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	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

Channel List for 802.11n/ax (40 MHz)					
Channel	Frequency (MHz)	Channel	Frequency(MHz)	Channel	Frequency (MHz)
3	2422	6	2437	9	2452
4	2427	7	2442	/	/
5	2432	8	2447	/	/

4.3. Test Channel Configuration

Tested mode, channel and rand data rate information			
Mode	Data rate (Mbps) (see Note)	Channel	Frequency (MHz)
802.11b	1	Low: CH1	2412

	1	Middle: CH6	2437
	1	High: CH11	2462
802.11g	6	Low: CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
802.11n HT20	MCS 8	Low: CH1	2412
	MCS 8	Middle: CH6	2437
	MCS 8	High: CH11	2462
802.11n HT40	MCS 8	Low: CH3	2422
	MCS 8	Middle: CH6	2437
	MCS 8	High: CH9	2452
802.11ax HE20	MCS 0	Low: CH1	2412
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH11	2462
802.11ax HE40	MCS 0	Low: CH3	2422
	MCS 0	Middle: CH6	2437
	MCS 0	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 ℃
Humidity range:	40-75%
Pressure range:	86-106 kPa

4.5. The Worse Case Power Setting Parameter

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band			
Test Software		VMware Workstation	
Modulation Mode	Transmit Antenna Number	Test Software Setting Value	
		Channel	ANT1
802.11b	2	CH1	1 0 0 17
		CH6	1 0 0 17
		CH11	1 0 0 17
802.11g	2	CH1	1 0 4 17
		CH6	1 0 4 17
		CH11	1 0 4 17
802.11HT20	2	CH1	1 1 0 16
		CH6	1 1 0 16
		CH11	1 1 0 14
802.11n HT40	2	CH3	1 1 0 16
		CH6	1 1 0 16
		CH9	1 1 0 15

802.11ax HE20	2	CH1	1 2 0 17
		CH6	1 2 0 17
		CH11	1 2 0 15
802.11ax HE40	2	CH3	1 2 0 17
		CH6	1 2 0 17
		CH9	1 2 0 17

4.6. Description of Available Antennas

Test Mode	Transmit and Receive Mode	Description
802.11b	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
802.11g	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
802.11n HT20	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
802.11n HT40	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
802.11ax HE20	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
802.11ax HE40	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

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

RF Connect Test:

Radiated Emission Test:

AC Power Line Conducted Emissions Test:

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.	

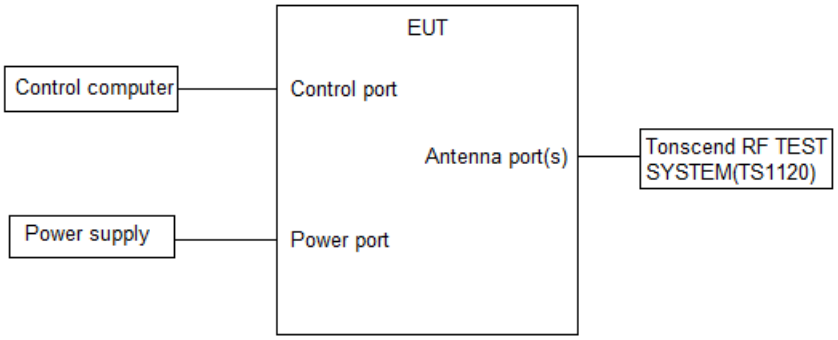
7. Measuring Instrument and Software Used

TS Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	Spectrum Analyzer	Keysight	N9030B	MY56320512	Jun. 23, 2026	Jun. 22, 2027
☑	Vector Signal Generator	Keysight	N5182B	MY57300334	Jun. 23, 2026	Jun. 22, 2027
☑	Signal Generator	Keysight	N5171B	MY57280639	Jun. 23, 2026	Jun. 22, 2027
☑	DC POWER	Keysight	E342A	MY59020356	Jun. 24, 2026	Jun. 23, 2027
☑	Incubator thermometer	GWS	EL-02JA	21107288	Jun. 23, 2026	Jun. 22, 2027
☑	Control unit(Power sensor)	Tonscend	JS0806-2	20L8060342	Jun. 24, 2026	Jun. 23, 2027
☑	Spectrum Analyzer	Keysight	N9020B	MY60112206	Aug. 17, 2026	Aug. 16, 2027
☑	Control unit(Power sensor)	Tonscend	JS0806-2	21H8060465	Jun. 24, 2026	Jun. 23, 2027
☑	Spectrum Analyzer	Keysight	N9020B	MY60112811	Jun. 23, 2026	Jun. 22, 2027
☑	Signal Generator	Keysight	N5173B	MY62220145	Jun. 23, 2026	Jun. 22, 2027
☑	Vector Signal Generator	Keysight	N5182B	MY61252859	Jun. 23, 2026	Jun. 22, 2027
☑	DC POWER	Keysight	E3642A	MY40005294	Jun. 24, 2026	Jun. 23, 2027
☑	Control unit(Power sensor)	Tonscend	JS0806-2	24F80620865	Jun. 25, 2026	Jun. 24, 2027
Software						

Used	Description	Manufacturer	Name		Version	
☑	Test software	Tonscend	JS1120-3		V3.3.10	
RSE Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	EMI Receiver	R&S	ESR26	101424	Nov. 25, 2025	Nov. 24, 2026
☑	Hybrid Antenna	Schwarzbeck	VULB9163	01361	May. 26, 2026	May. 25, 2027
☑	Horn Antenna 1	Schwarzbeck	BBHA 9120 D	02910	Jul. 17, 2026	Jul. 16, 2027
☑	Horn Antenna 2	ETS	BBHA 9170	1090	Jul. 17, 2026	Jul. 16, 2027
☑	loop-antenna	Schwarzbeck	FMZB 1513-60	00030	Jan. 11, 2026	Jan. 10, 2027
☑	Test path	/	Path2: WIFI-2.4G 1-3GHz	/	Jun. 24, 2026	Jun. 23, 2027
☑	Test path	/	Path7: ALL PASS 1-18GHz	/	Jun. 24, 2026	Jun. 23, 2027
☑	Test path	/	Path9: 3GHz High PASS 3-18GHz	/	Jun. 24, 2026	Jun. 23, 2027
☑	Test path	/	Path16: 30MHz-1GHz ALL PASS NO AMP	/	Jun. 24, 2026	Jun. 23, 2027
☑	Signal Pre-Amplifier	ETS	3116C-PA	00217677	Jul. 17, 2026	Jul. 16, 2027
☑	3m Fully-anechoic Chamber	YIHENG	9m*6m*6m	001	Sep. 05, 2023	Sep. 04, 2026
Software						
Used	Description	Manufacturer	Name		Version	
☑	Test software	Tonscend	TS+		V5.0.0.0	
Conducted Emission Test For AC Power Port						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	LISN	R&S	ENV216	102509	Jun. 23, 2026	Jun. 22, 2027
☑	EMI Receiver	R&S	ESR	102154	Jun. 10, 2026	Jun. 09, 2027
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	/	Sep. 20, 2025	Sep. 21, 2026

8. On Time and Duty Cycle

8.1. Block diagram of test setup



Note: The EUT is connected to the Control unit, and then the signal is transmitted through internal circuits to the Spectrum Analyzer.

8.2. Limits

None; for reporting purposes only

8.3. Procedure

KDB 558074 Zero-Span Spectrum Analyzer Method

8.4. Results

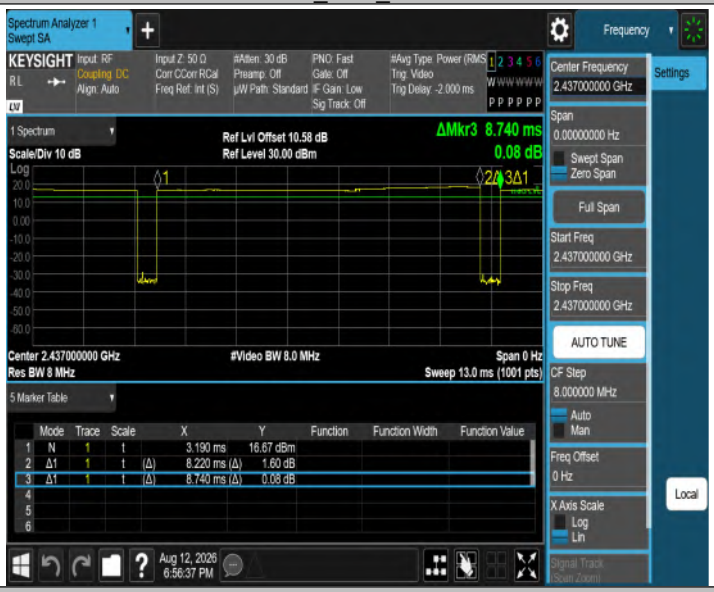
Test Mode	Ant.	Freq. (MHz)	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)
11B	Ant1	2412	8.22	8.74	94.05
		2437	8.22	8.74	94.05
		2462	8.22	8.75	93.94
11G	Ant1	2412	1.37	1.90	72.11
		2437	1.37	1.90	72.11
		2462	1.36	1.89	71.96
11N20SISO	Ant1	2412	1.27	1.80	70.56
		2437	1.28	1.81	70.72
		2462	1.28	1.81	70.72
11N40SISO	Ant1	2422	0.64	1.17	54.70
		2437	0.63	1.16	54.31
		2452	0.64	1.17	54.70
11AX20SISO	Ant1	2412	1.00	1.53	65.36
		2437	1.00	1.53	65.36
		2462	1.00	1.53	65.36
11AX40SISO	Ant1	2422	0.53	1.06	50.00
		2437	0.53	1.06	50.00
		2452	0.53	1.06	50.00

Note1: Duty Cycle Correction Factor = 10log (1/x).
Note2: Offset=cable loss + Test system insertion loss
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_2412

11B_Ant1_2437



11B_Ant1_2462

11G_Ant1_2412

11G_Ant1_2437

11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

11N20SISO_Ant1_2462

11N40SISO_Ant1_2422

11N40SISO_Ant1_2437

11N40SISO_Ant1_2452

11AX20SISO_Ant1_2412

11AX20SISO_Ant1_2437

11AX20SISO_Ant1_2462

11AX40SISO_Ant1_2422

11AX40SISO_Ant1_2437

11AX40SISO_Ant1_2452

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 4			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2) ISED RSS-247 6.3.1	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: 1 % to 5 % of the occupied bandwidth but not less than 100 kHz. For 99 % Occupied Bandwidth :1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: ≥ 3 × RBW For 99 % Occupied Bandwidth : ≥ 3×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	9.040	2407.440	2416.480	0.5	PASS
		2437	8.640	2432.440	2441.080	0.5	PASS
		2462	8.600	2457.440	2466.040	0.5	PASS
11G	Ant1	2412	15.840	2404.080	2419.920	0.5	PASS
		2437	16.120	2428.920	2445.040	0.5	PASS
		2462	16.080	2453.840	2469.920	0.5	PASS
11N20SISO	Ant1	2412	17.120	2403.400	2420.520	0.5	PASS
		2437	17.200	2428.360	2445.560	0.5	PASS
		2462	16.160	2453.440	2469.600	0.5	PASS
11N40SISO	Ant1	2422	34.640	2405.040	2439.680	0.5	PASS
		2437	35.120	2419.560	2454.680	0.5	PASS
		2452	34.320	2434.000	2468.320	0.5	PASS
11AX20SISO	Ant1	2412	18.600	2402.760	2421.360	0.5	PASS
		2437	18.240	2427.960	2446.200	0.5	PASS
		2462	18.440	2452.760	2471.200	0.5	PASS
11AX40SISO	Ant1	2422	31.760	2406.160	2437.920	0.5	PASS
		2437	37.200	2418.520	2455.720	0.5	PASS
		2452	27.600	2437.920	2465.520	0.5	PASS

Note: Offset=cable loss + Test system insertion loss

99 % bandwidth：

Test Mode	Ant.	Channel Freq. (MHz)	OCB (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11B	Ant1	2412	12.355	2405.7795	2418.1345	---	---
		2437	12.338	2430.7969	2443.1349	---	---
		2462	12.372	2455.7209	2468.0929	---	---
11G	Ant1	2412	16.685	2403.6064	2420.2914	---	---
		2437	16.673	2428.6773	2445.3503	---	---
		2462	16.718	2453.5631	2470.2811	---	---
11N20SISO	Ant1	2412	17.859	2403.0798	2420.9388	---	---
		2437	17.826	2428.0008	2445.8268	---	---
		2462	17.880	2453.0060	2470.8860	---	---
11N40SISO	Ant1	2422	36.193	2403.8927	2440.0857	---	---
		2437	36.014	2418.9538	2454.9678	---	---
		2452	36.068	2433.9158	2469.9838	---	---
11AX20SISO	Ant1	2412	18.933	2402.5442	2421.4772	---	---
		2437	18.942	2427.5113	2446.4533	---	---
		2462	18.882	2452.5036	2471.3856	---	---
11AX40SISO	Ant1	2422	37.661	2403.1517	2440.8127	---	---
		2437	37.590	2418.2671	2455.8571	---	---
		2452	37.584	2433.1409	2470.7249	---	---

Note: Offset=cable loss + Test system insertion loss

9.5. Original test data

6dB bandwidth:

11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412

11G_Ant1_2437

11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

11N20SISO_Ant1_2462

11N40SISO_Ant1_2422

11N40SISO_Ant1_2437

11N40SISO_Ant1_2452

11AX20SISO_Ant1_2412

11AX20SISO_Ant1_2437

11AX20SISO_Ant1_2462

11AX40SISO_Ant1_2422

11AX40SISO_Ant1_2437

11AX40SISO_Ant1_2452

99 % bandwidth：

11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

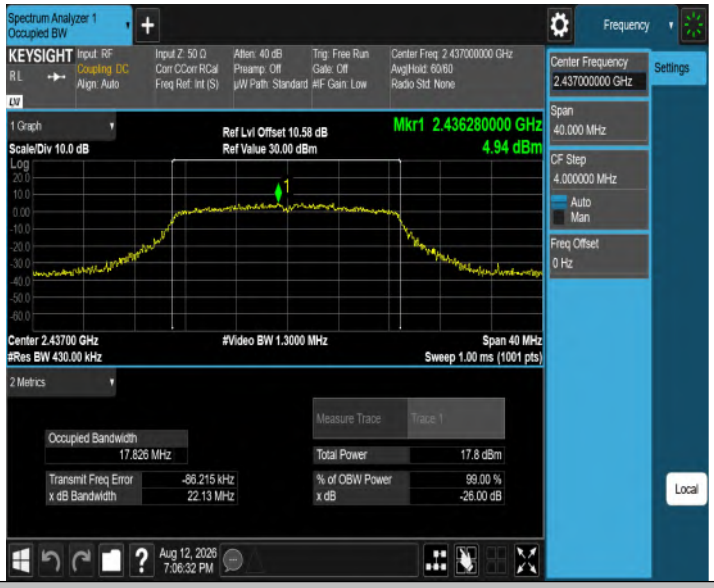
11G_Ant1_2412

11G_Ant1_2437

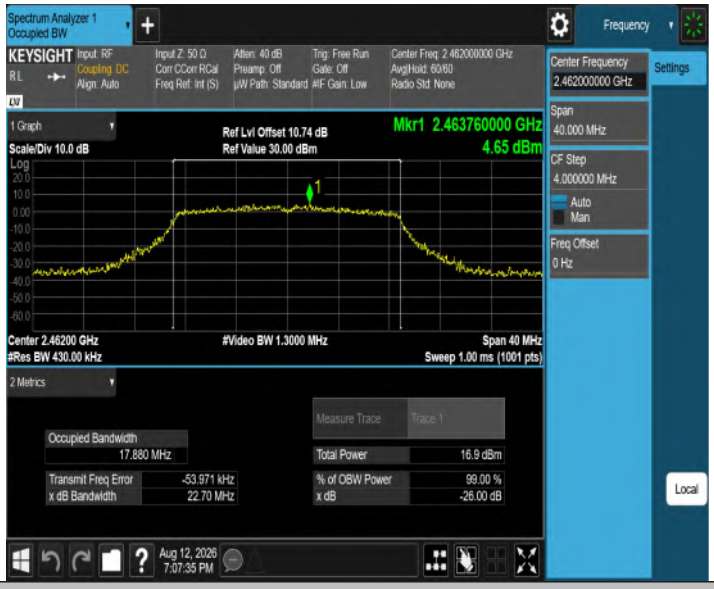
11G_Ant1_2462

11N20SISO_Ant1_2412

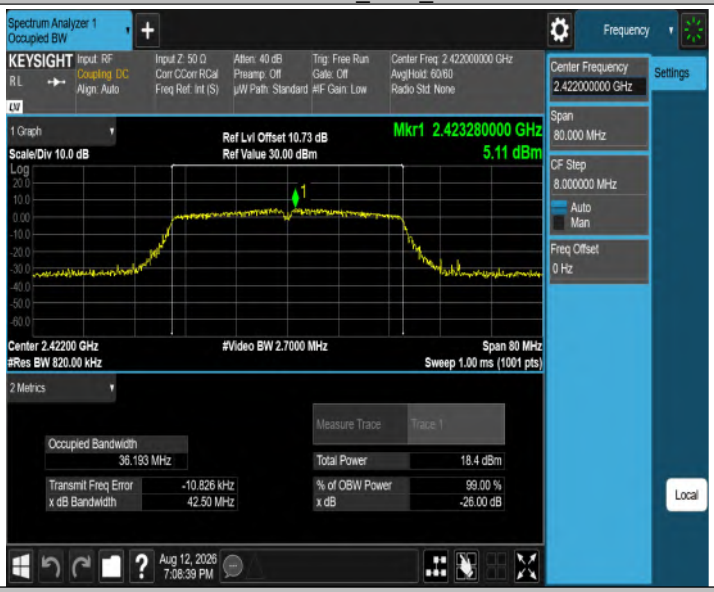
11N20SISO_Ant1_2437



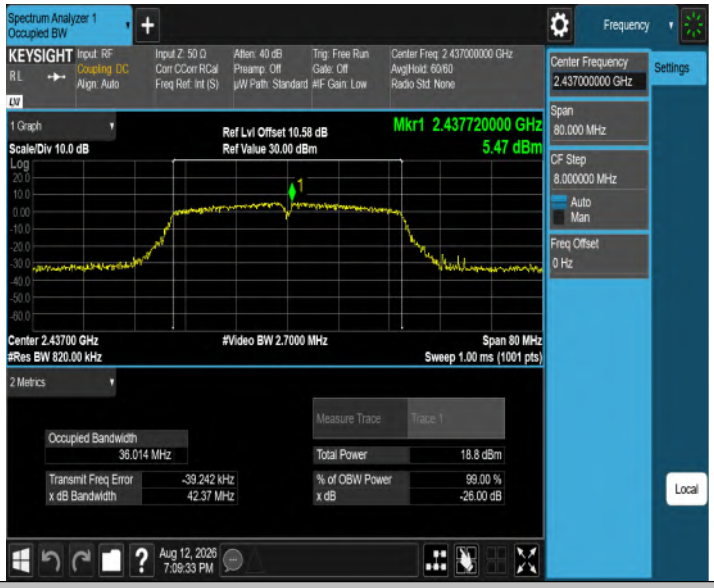
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



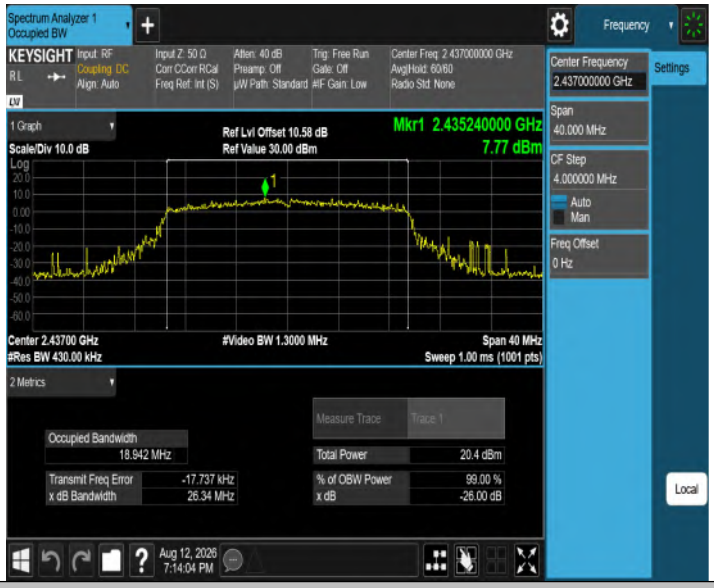
11N40SISO_Ant1_2437



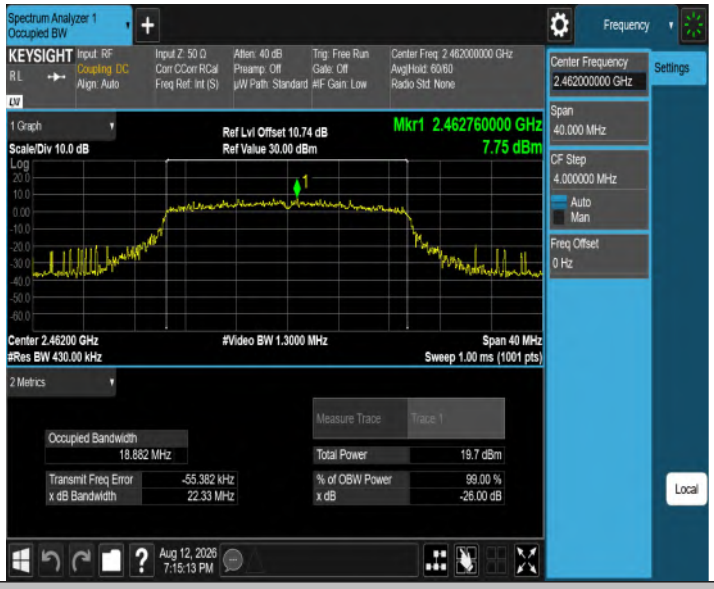
11N40SISO_Ant1_2452

11AX20SISO_Ant1_2412

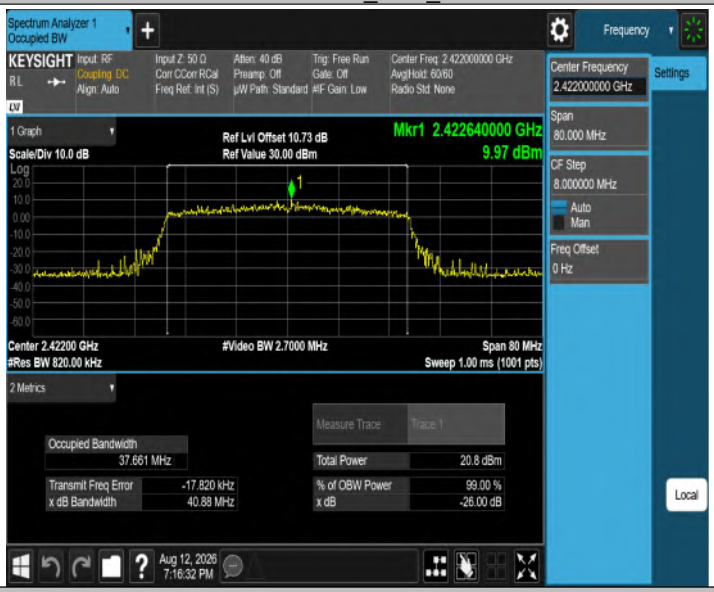
11AX20SISO_Ant1_2437



11AX20SISO_Ant1_2462

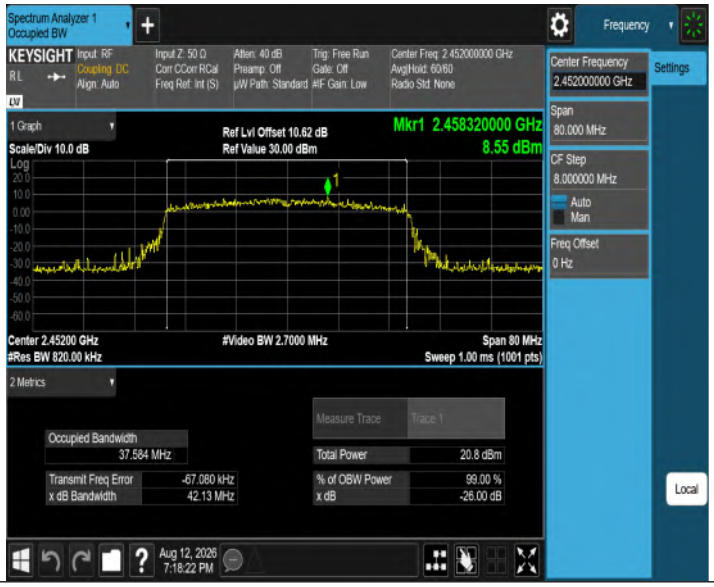


11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437

11AX40SISO_Ant1_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 4			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3) ISED RSS-247 6.3.2	Peak Output Power	1 watt or 30 dBm	2400-2483.5
ISED RSS-247 6.3.2	EIRP	4 watt or 36dBm	2400-2483.5

10.3. Test Procedure

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast responding diode detector. See Figure 24.

10.4. Results

Test Mode	Ant.	Freq. (MHz)	Peak Power (dBm)	Conducted Limit (dBm)	Gain(dBm)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11B	Ant1	2412	13.77	≤30.00	3.99	17.76	≤36.00	PASS
		2437	13.34	≤30.00	3.99	17.33	≤36.00	PASS
		2462	13.31	≤30.00	3.99	17.30	≤36.00	PASS
11G	Ant1	2412	13.74	≤30.00	3.99	17.73	≤36.00	PASS
		2437	14.01	≤30.00	3.99	18.00	≤36.00	PASS
		2462	13.65	≤30.00	3.99	17.64	≤36.00	PASS
11N20SISO	Ant1	2412	11.37	≤30.00	3.99	15.36	≤36.00	PASS
		2437	11.49	≤30.00	3.99	15.48	≤36.00	PASS
		2462	10.65	≤30.00	3.99	14.64	≤36.00	PASS
11N40SISO	Ant1	2422	12.30	≤30.00	3.99	16.29	≤36.00	PASS
		2437	11.46	≤30.00	3.99	15.45	≤36.00	PASS
		2452	12.04	≤30.00	3.99	16.03	≤36.00	PASS
11AX20SISO	Ant1	2412	13.85	≤30.00	3.99	17.84	≤36.00	PASS
		2437	14.01	≤30.00	3.99	18.00	≤36.00	PASS
		2462	11.52	≤30.00	3.99	15.51	≤36.00	PASS
11AX40SISO	Ant1	2422	14.11	≤30.00	3.99	18.10	≤36.00	PASS
		2437	14.24	≤30.00	3.99	18.23	≤36.00	PASS
		2452	14.05	≤30.00	3.99	18.04	≤36.00	PASS

Note: The EIRP = Peak Power + Ant. Gain

11. Power Spectral Density

11.1. Block diagram of test setup

Same as section 8.1

11.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 4			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.247 (e) ISED RSS-247 6.3.1	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

11.3. Test Procedure

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

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	3 kHz ≤ RBW ≤100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

11.4. Results

Test Mode	Ant.	Freq. (MHz)	Result (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
11B	Ant1	2412	-17.07	≤8.00	PASS
		2437	-17.34	≤8.00	PASS
		2462	-15.68	≤8.00	PASS
11G	Ant1	2412	-14.83	≤8.00	PASS
		2437	-14.16	≤8.00	PASS
		2462	-14.70	≤8.00	PASS
11N20SISO	Ant1	2412	-17.39	≤8.00	PASS
		2437	-17.01	≤8.00	PASS
		2462	-21.93	≤8.00	PASS
11N40SISO	Ant1	2422	-19.11	≤8.00	PASS
		2437	-18.65	≤8.00	PASS
		2452	-22.27	≤8.00	PASS
11AX20SISO	Ant1	2412	-17.21	≤8.00	PASS
		2437	-17.47	≤8.00	PASS
		2462	-20.95	≤8.00	PASS
11AX40SISO	Ant1	2422	-19.76	≤8.00	PASS
		2437	-19.63	≤8.00	PASS
		2452	-20.27	≤8.00	PASS

Note: Offset=cable loss + Test system insertion loss

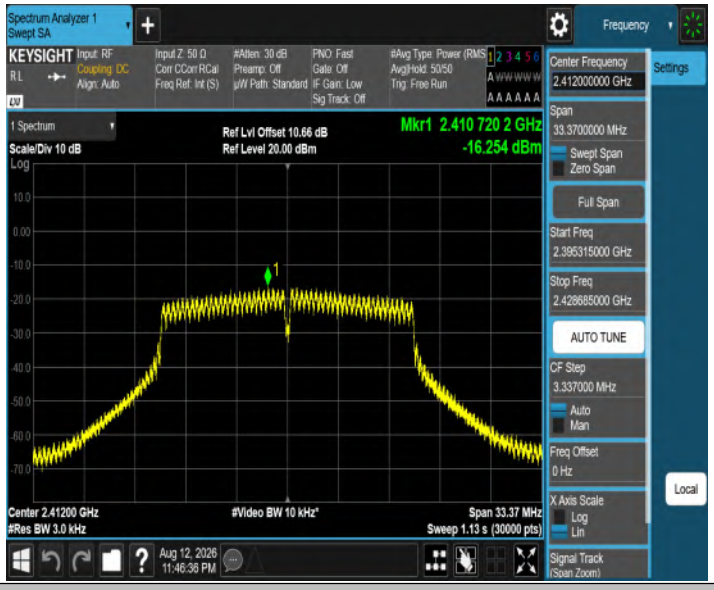
11.5. Original test data

11B_Ant1_2412

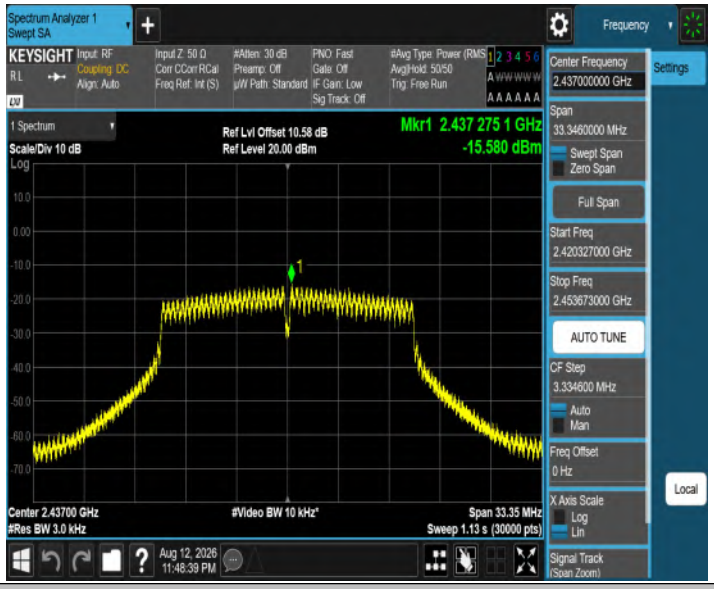
11B_Ant1_2437

11B_Ant1_2462

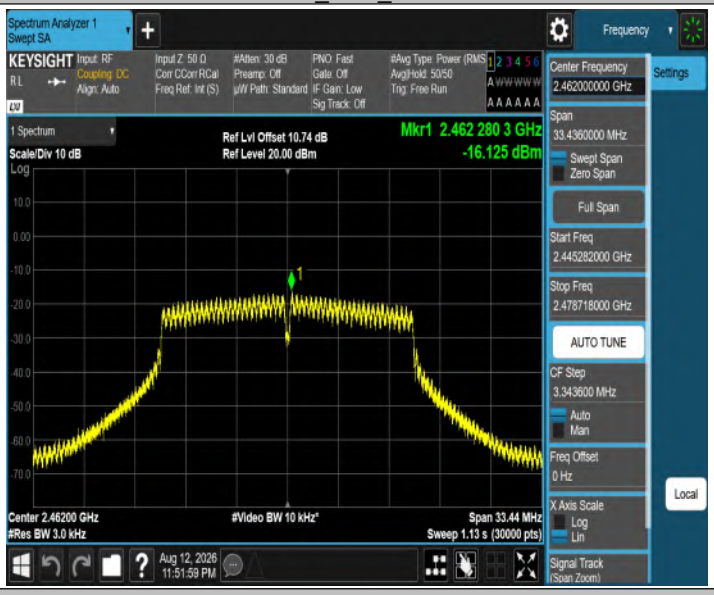
11G_Ant1_2412



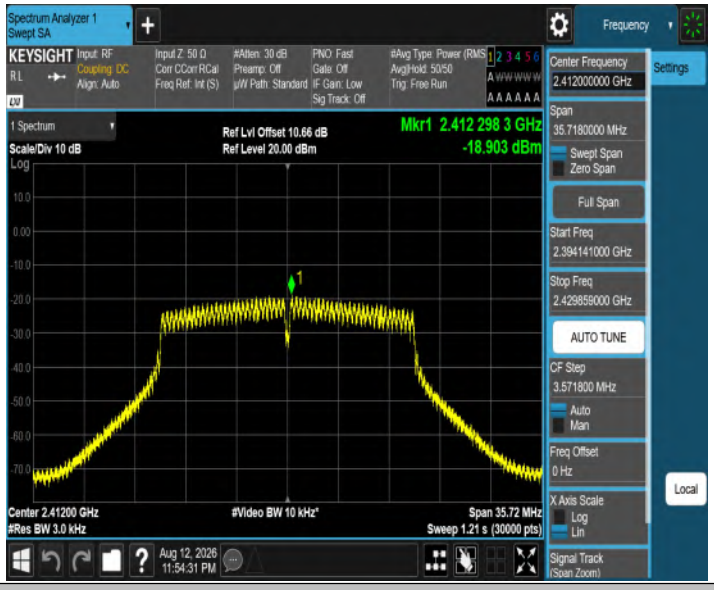
11G_Ant1_2437



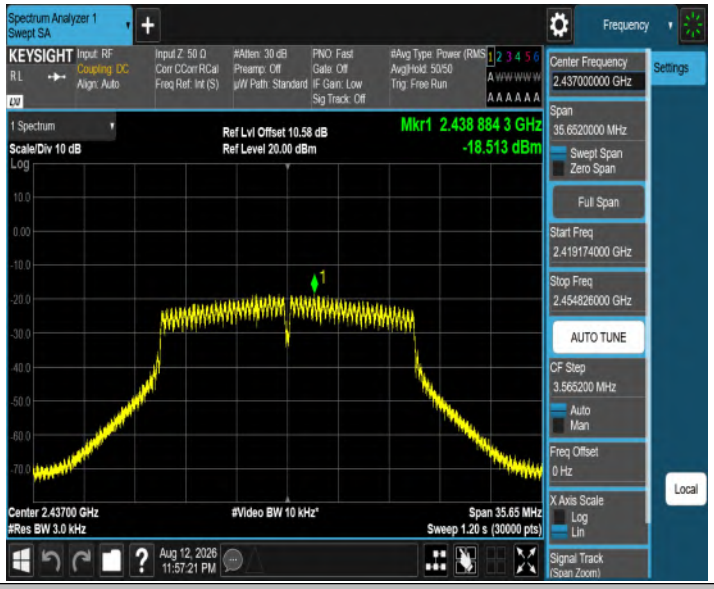
11G_Ant1_2462



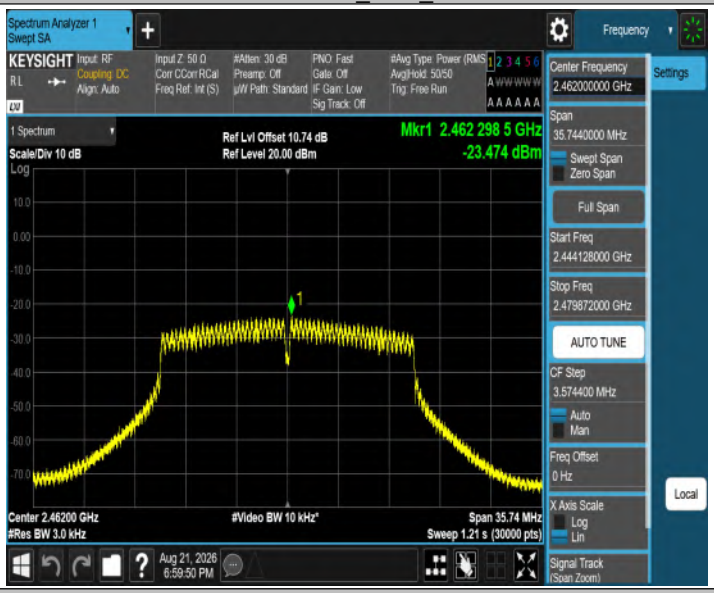
11N20SISO_Ant1_2412



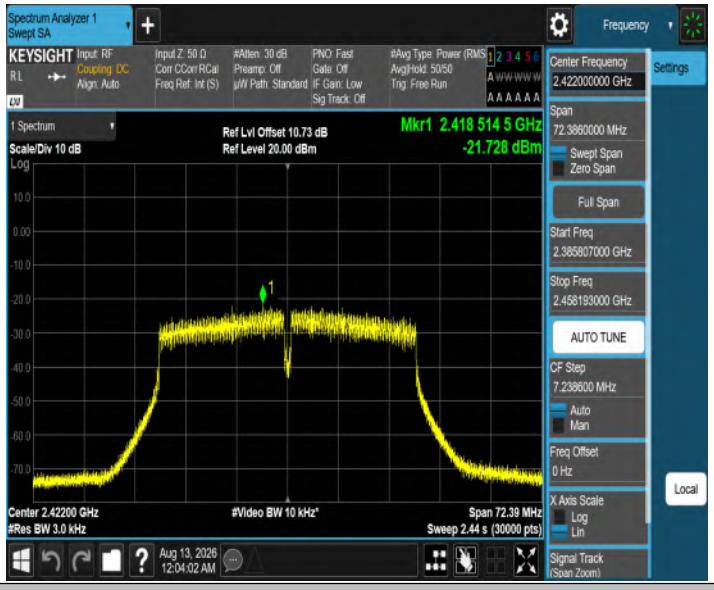
11N20SISO_Ant1_2437



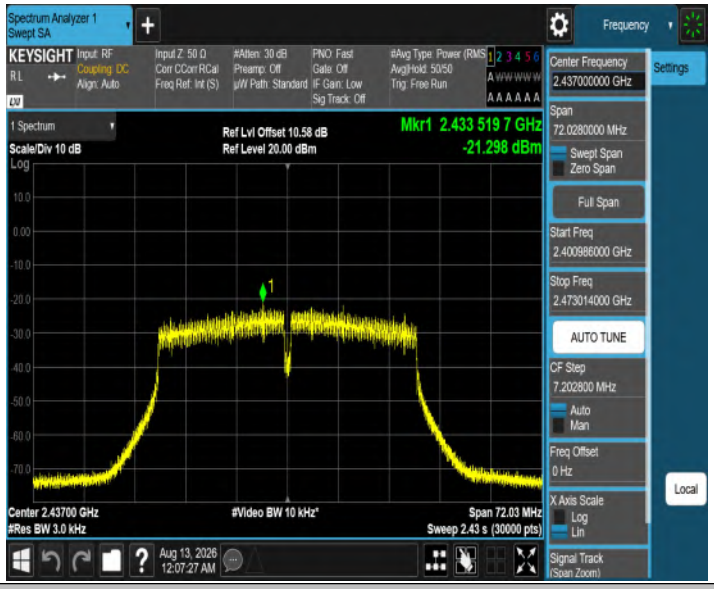
11N20SISO_Ant1_2462



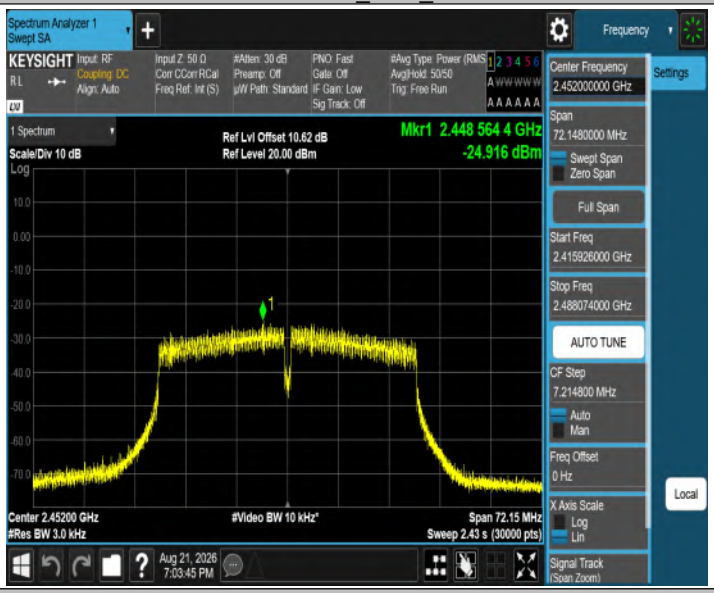
11N40SISO_Ant1_2422



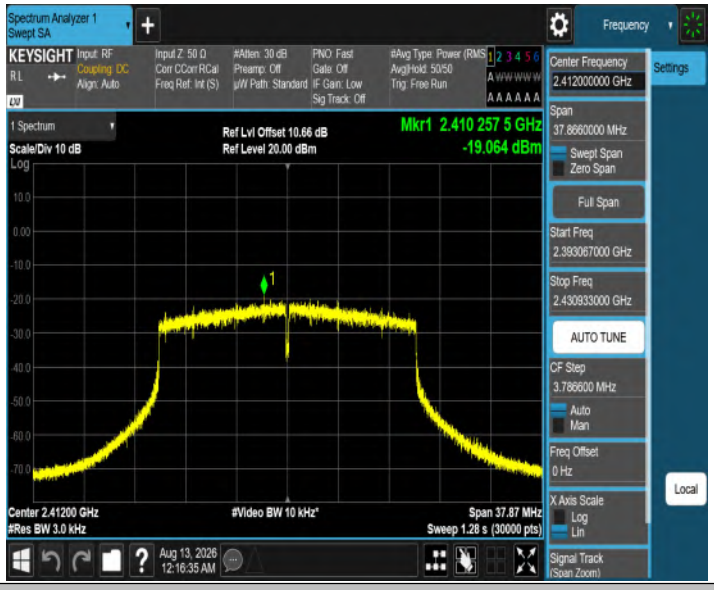
11N40SISO_Ant1_2437



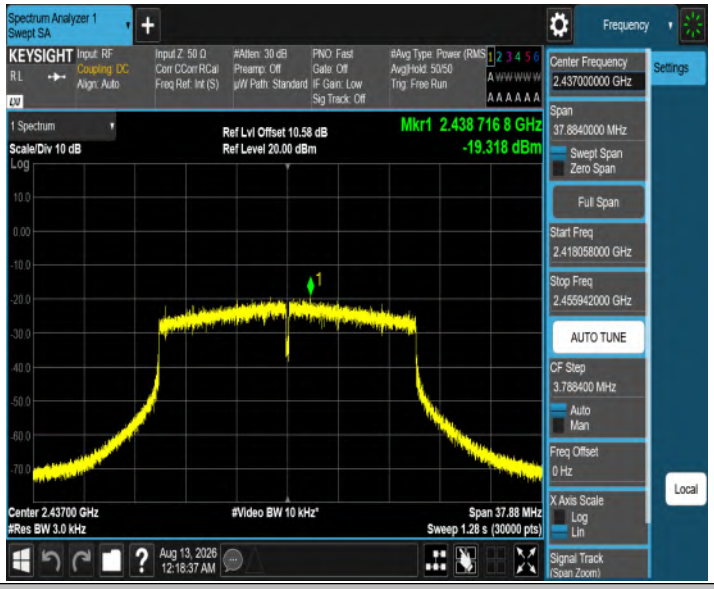
11N40SISO_Ant1_2452



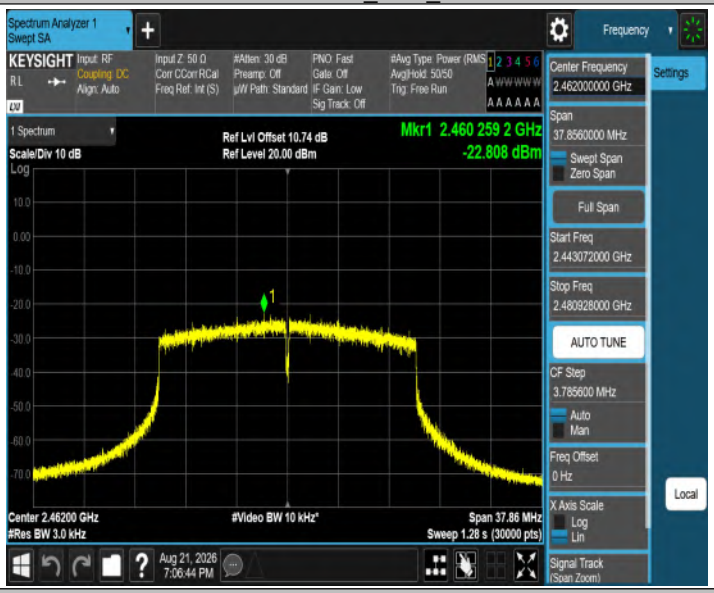
11AX20SISO_Ant1_2412



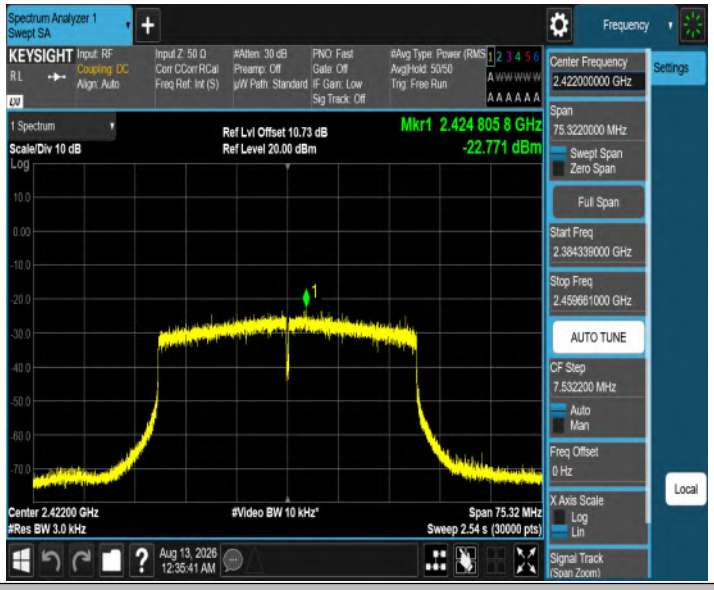
11AX20SISO_Ant1_2437



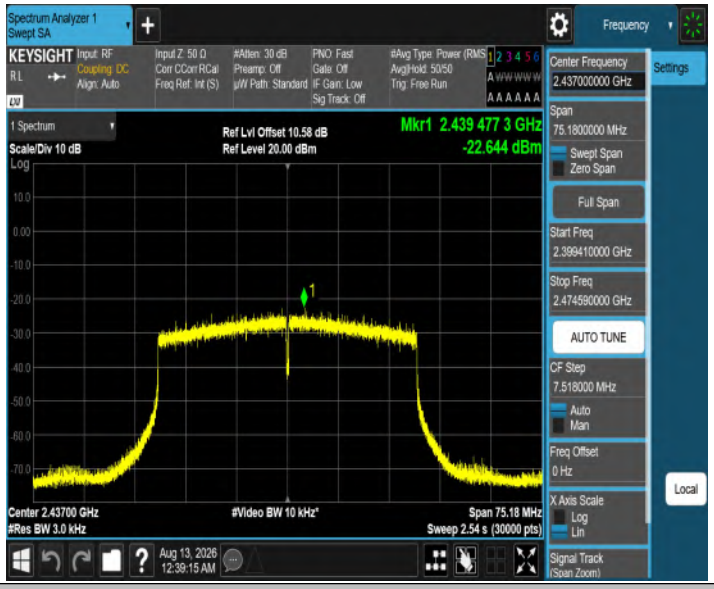
11AX20SISO_Ant1_2462



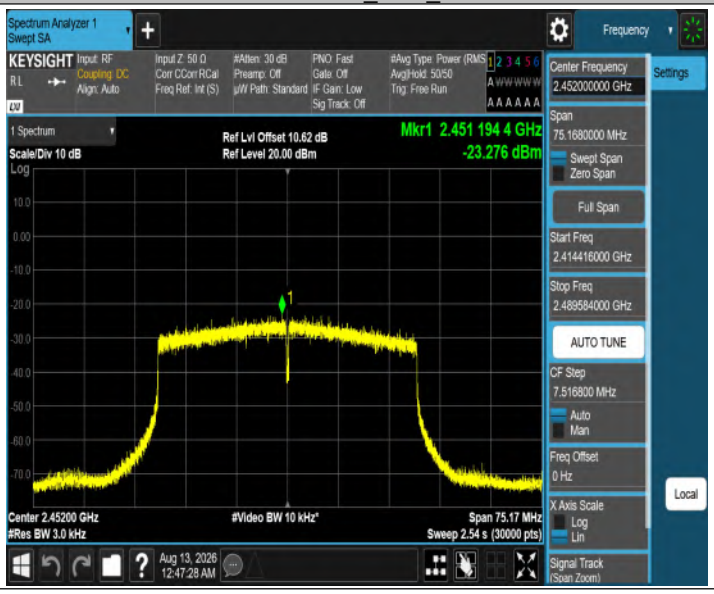
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



12. Conducted Band edge and Spurious Emissions

12.1. Block diagram of test setup

Same as section 8.1

12.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 4		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d) ISED RSS-247 6.6	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

12.3. Test Procedure

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Connect the UUT to the spectrum analyzer and use the following settings:
Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	≥ 3 × RBW
measurement points	≥ span/RBW
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level.

12.4. Test result

Test Mode	Ant.	Ch Name	Freq. (MHz)	Ref Level (dBm)	Result (dBm)	Limit (dBm)	Verdict
11B	Ant1	Low	2412	5.33	-38.04	≤-24.67	PASS
		High	2462	8.52	-48.71	≤-21.48	PASS
11G	Ant1	Low	2412	4.49	-29.97	≤-25.51	PASS
		High	2462	5.69	-36.44	≤-24.31	PASS
11N20SISO	Ant1	Low	2412	2.18	-31.1	≤-27.82	PASS
		High	2462	3.32	-39.16	≤-26.68	PASS
11N40SISO	Ant1	Low	2422	2.10	-38.56	≤-27.9	PASS
		High	2452	2.12	-44.44	≤-27.88	PASS
11AX20SISO	Ant1	Low	2412	4.34	-29.76	≤-25.66	PASS
		High	2462	3.48	-42.51	≤-26.52	PASS
11AX40SISO	Ant1	Low	2422	1.38	-35.14	≤-28.62	PASS

		High	2452	1.70	-39.64	≤-28.3	PASS

Note: Offset=cable loss + Test system insertion loss

Test Mode	Ant.	Freq. (MHz)	Freq Range (Mhz)	Ref Level (dBm)	Result (dBm)	Limit (dBm)	Verdict
11B	Ant1	2412	Reference	2.92	2.92	---	PASS
			30~1000	2.92	-64.63	≤-27.08	PASS
			1000~26500	2.92	-40.6	≤-27.08	PASS
		2437	Reference	3.03	3.03	---	PASS
			30~1000	3.03	-64.05	≤-26.97	PASS
			1000~26500	3.03	-39.48	≤-26.97	PASS
		2462	Reference	8.71	8.71	---	PASS
			30~1000	8.71	-64.32	≤-21.29	PASS
			1000~26500	8.71	-35.62	≤-21.29	PASS
11G	Ant1	2412	Reference	3.53	3.53	---	PASS
			30~1000	3.53	-64.92	≤-26.47	PASS
			1000~26500	3.53	-36.66	≤-26.47	PASS
		2437	Reference	3.90	3.90	---	PASS
			30~1000	3.90	-64	≤-26.1	PASS
			1000~26500	3.90	-35.49	≤-26.1	PASS
		2462	Reference	2.98	2.98	---	PASS
			30~1000	2.98	-64.19	≤-27.02	PASS
			1000~26500	2.98	-35.57	≤-27.02	PASS
11N20SISO	Ant1	2412	Reference	1.94	1.94	---	PASS
			30~1000	1.94	-63.69	≤-28.06	PASS
			1000~26500	1.94	-38.94	≤-28.06	PASS
		2437	Reference	1.93	1.93	---	PASS
			30~1000	1.93	-63.85	≤-28.07	PASS
			1000~26500	1.93	-38.56	≤-28.07	PASS
		2462	Reference	1.69	1.69	---	PASS
			30~1000	1.69	-63.3	≤-28.31	PASS
			1000~26500	1.69	-37.6	≤-28.31	PASS
11N40SISO	Ant1	2422	Reference	1.08	1.08	---	PASS
			30~1000	1.08	-64.19	≤-28.92	PASS
			1000~26500	1.08	-40.82	≤-28.92	PASS
		2437	Reference	0.33	0.33	---	PASS
			30~1000	0.33	-62.44	≤-29.67	PASS
			1000~26500	0.33	-39.14	≤-29.67	PASS
		2452	Reference	2.33	2.33	---	PASS
			30~1000	2.33	-64.67	≤-27.67	PASS
			1000~26500	2.33	-39.68	≤-27.67	PASS
11AX20SISO	Ant1	2412	Reference	3.56	3.56	---	PASS
			30~1000	3.56	-62.18	≤-26.44	PASS
			1000~26500	3.56	-38.37	≤-26.44	PASS
		2437	Reference	0.03	0.03	---	PASS
			30~1000	0.03	-64.02	≤-29.97	PASS
			1000~26500	0.03	-39.58	≤-29.97	PASS
		2462	Reference	2.68	2.68	---	PASS
			30~1000	2.68	-64.83	≤-27.32	PASS
			1000~26500	2.68	-36.68	≤-27.32	PASS
11AX40SISO	Ant1	2422	Reference	0.08	0.08	---	PASS

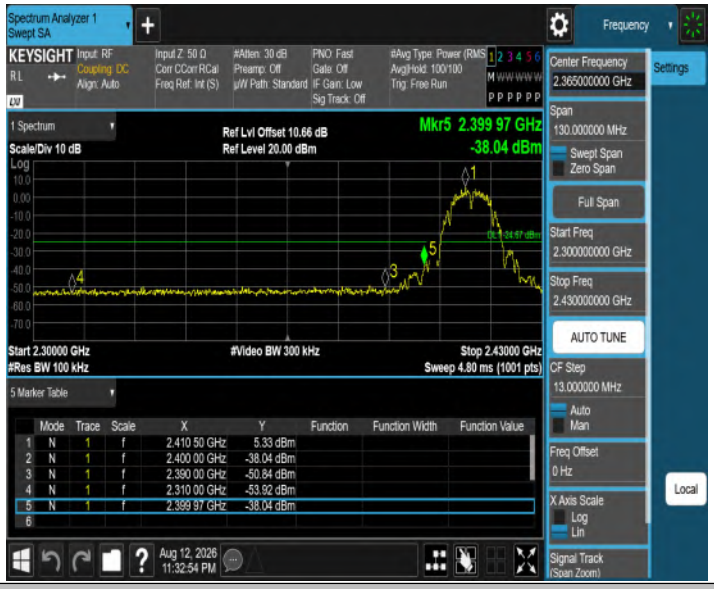
			30~1000	0.08	-63.68	≤-29.92	PASS
			1000~26500	0.08	-37.29	≤-29.92	PASS
		2437	Reference	-1.78	-1.78	---	PASS
			30~1000	-1.78	-63.95	≤-31.78	PASS
			1000~26500	-1.78	-39.32	≤-31.78	PASS
		2452	Reference	1.42	1.42	---	PASS
			30~1000	1.42	-63.67	≤-28.58	PASS
			1000~26500	1.42	-40.95	≤-28.58	PASS

Note: Offset=cable loss + Test system insertion loss

12.5. Original test data

Band edge:

11B_Ant1_Low_2412

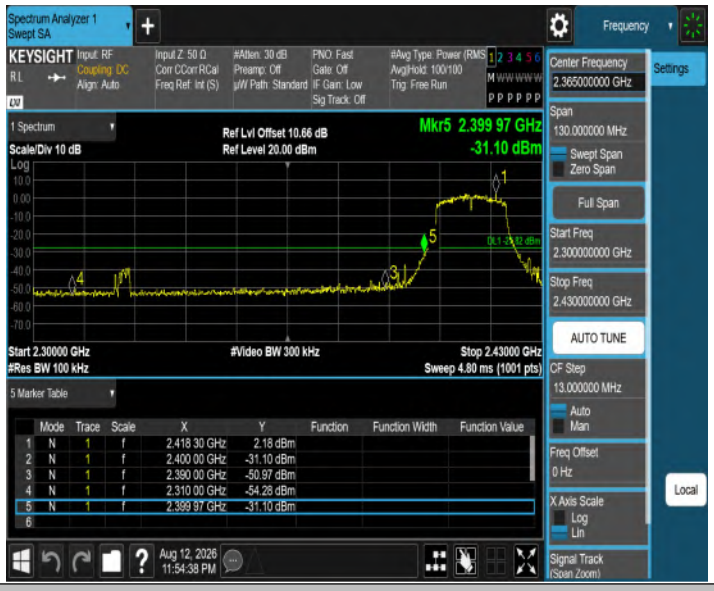


11B_Ant1_High_2462

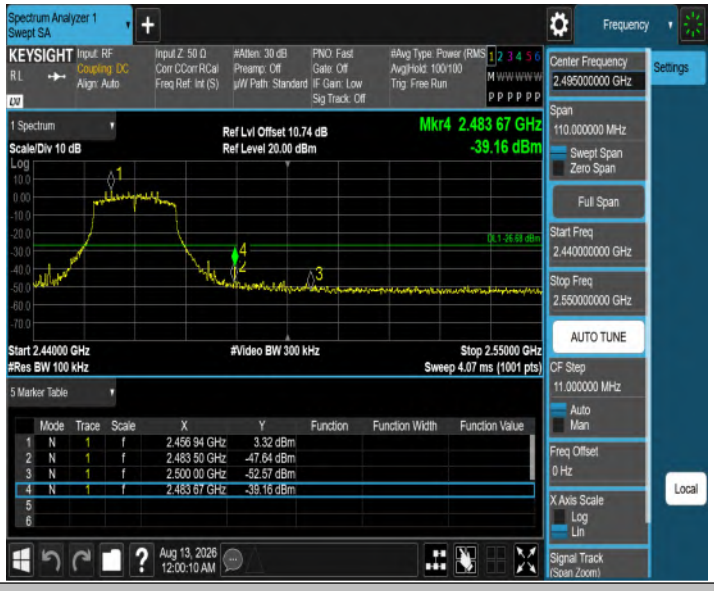
11G_Ant1_Low_2412

11G_Ant1_High_2462

11N20SISO_Ant1_Low_2412



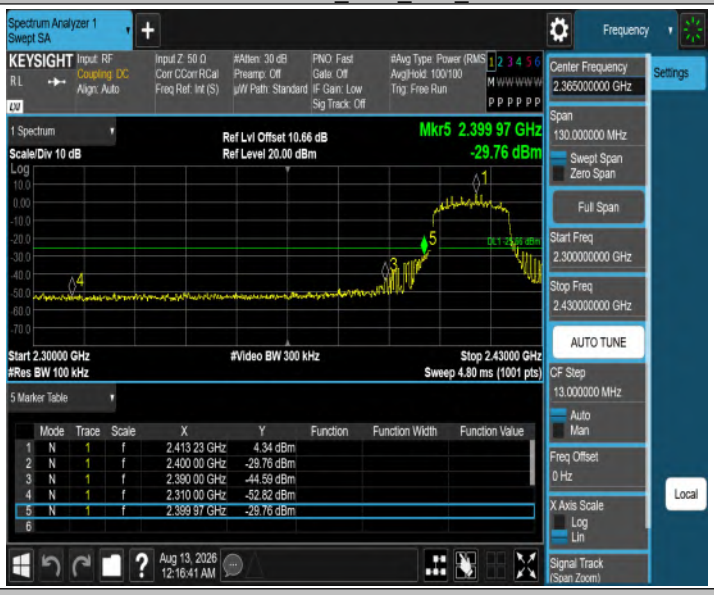
11N20SISO_Ant1_High_2462



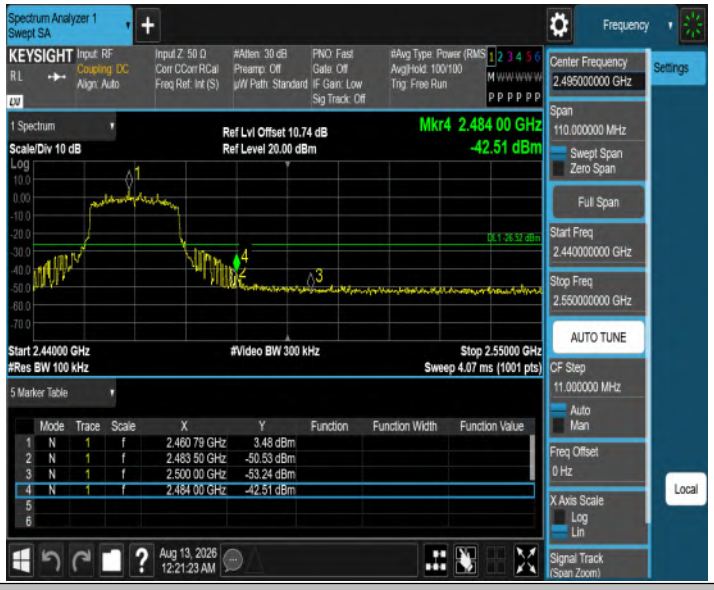
11N40SISO_Ant1_Low_2422

11N40SISO_Ant1_High_2452

11AX20SISO_Ant1_Low_2412



11AX20SISO_Ant1_High_2462



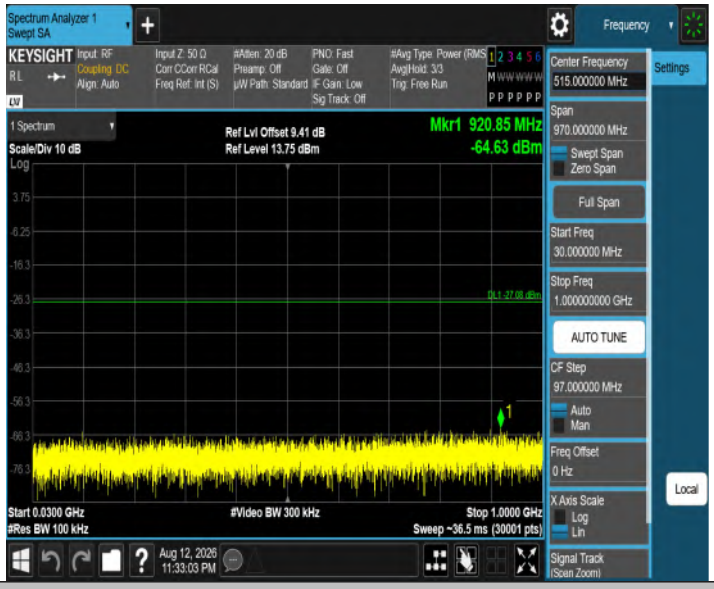
11AX40SISO_Ant1_Low_2422

11AX40SISO_Ant1_High_2452

Spurious Emission:

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500

11B_Ant1_2437_0~Reference

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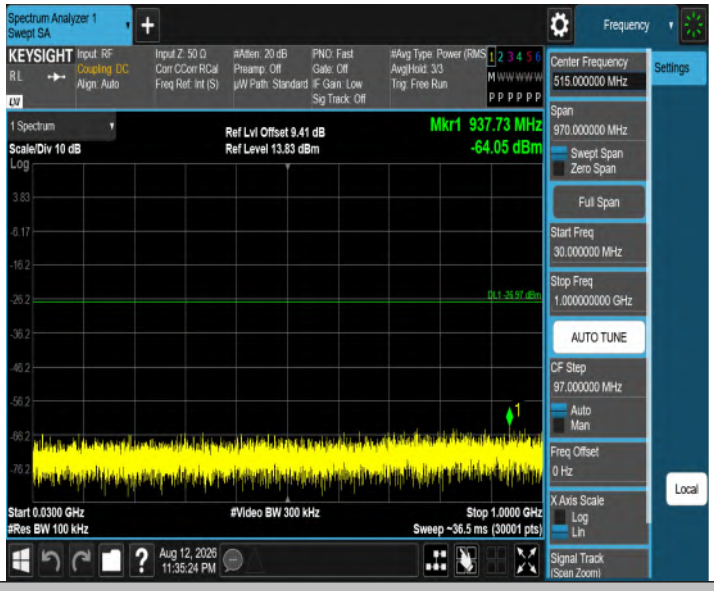

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11B_Ant1_2462_0~Reference

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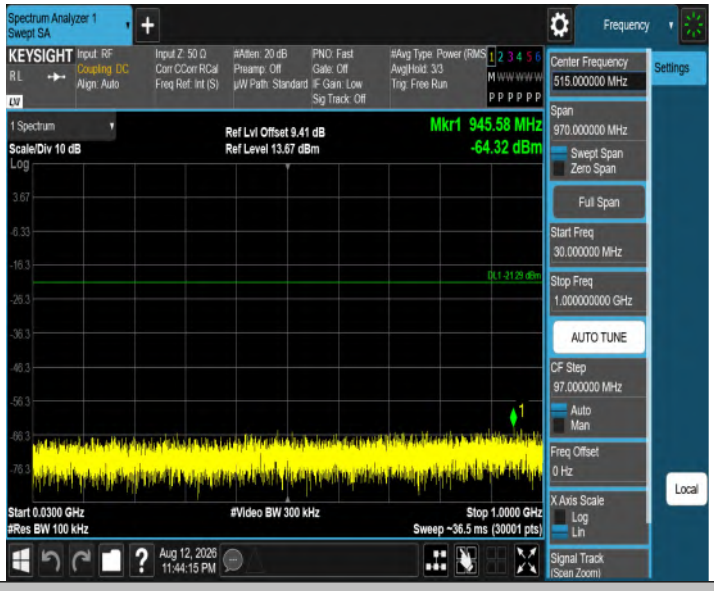

11B_Ant1_2462_1000~26500

11G_Ant1_2412_0~Reference