



RADIO TEST REPORT

Applicant	:	LYSORA TECHNOLOGY INC.
Address of Applicant	:	8 THE GREEN, STE A, DOVER, KENT COUNTY, DELAWARE 19901, USA
Manufacturer	:	LYSORA TECHNOLOGY INC.
Address of Manufacturer	:	8 THE GREEN, STE A, DOVER, KENT COUNTY, DELAWARE 19901, USA
Equipment under Test	:	Wireless Access Point
Model No.	:	L2530
FCC ID	:	2BPSN-L2530
IC	:	34118-L2530
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart C, 662911 D01 Multiple Transmitter Output v02r01, RSS-247 Issue 4 July 24, 2025, ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+ Errata to C63.10a-2024, RSS-Gen Issue 5, Apr. 2018, Amendment 2 (February 2021)
Report No.	:	DDT-RE25070107-1E01
Issue Date	:	2025/10/24
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

Table of Contents

1.	Summary of Test Results	7
2.	General Test Information.....	8
2.1.	Description of EUT	8
2.2.	Accessories of EUT	9
2.3.	Block diagram of EUT configuration for test.....	9
2.4.	Decision of final test mode	9
2.5.	Deviations of test standard	10
2.6.	Test environment conditions	10
2.7.	Test laboratory	10
2.8.	Measurement uncertainty	11
3.	Equipment Used During Conductive Test	12
4.	6dB Bandwidth	13
4.1.	Block diagram of test setup	13
4.2.	Limits	13
4.3.	Test procedure	13
4.4.	Test result.....	14
4.5.	Test graphs	16
5.	99% Bandwidth	28
5.1.	Block diagram of test setup	28
5.2.	Limits	28
5.3.	Test procedure	28
5.4.	Test result.....	29
5.5.	Test graphs	31
6.	Conducted Output Power	43
6.1.	Block diagram of test setup	43
6.2.	Limits	43
6.3.	Test procedure	43
6.4.	Test result average.....	44
7.	Power Spectral Density	46
7.1.	Block diagram of test setup	46
7.2.	Limits	46
7.3.	Test procedure	46
7.4.	Test result.....	47
7.5.	Test graphs	49
8.	Band Edge Compliance (Conducted Method)	61
8.1.	Block diagram of test setup	61

8.2.	Limits	61
8.3.	Test procedure	61
8.4.	Test result.....	62
8.5.	Test graphs	63
9.	RF Conducted Spurious Emissions.....	71
9.1.	Block diagram of test setup	71
9.2.	Limits	71
9.3.	Test procedure	71
9.4.	Test result.....	72
9.5.	Test graphs	73
10.	Duty Cycle	109
10.1.	Block diagram of test setup	109
10.2.	Limit.....	109
10.3.	Test procedure	109
10.4.	Test result.....	110
10.5.	Test graphs	112
11.	Antenna Requirements.....	124
11.1.	Limit.....	124
11.2.	Result	124
12.	Radiated Emission	125
12.1.	Test equipment.....	125
12.2.	Block diagram of test setup	126
12.3.	Limits	127
12.4.	Assistant equipment used for test	129
12.5.	Test procedure	129
12.6.	Test result.....	131
12.7.	Test data	131
13.	Band Edge Compliance.....	139
13.1.	Test equipment.....	139
13.2.	Block diagram of test setup	140
13.3.	Limits	140
13.4.	Assistant equipment used for test	140
13.5.	Test procedure	140
13.6.	Test result.....	140
13.7.	Test data	141
14.	Power Line Conducted Emissions.....	153
14.1.	Test equipment.....	153
14.2.	Block diagram of test setup	153

14.3. Limits 153

14.4. Assistant equipment used for test 154

14.5. Test procedure 154

14.6. Test result.....154

14.7. Test data 155

15. Test Setup Photograph 157

16. Photos of the EUT 160

Test Report Declare

Applicant	:	LYSORA TECHNOLOGY INC.
Address of Applicant	:	8 THE GREEN, STE A, DOVER, KENT COUNTY, DELAWARE 19901, USA
Equipment under Test	:	Wireless Access Point
Model No.	:	L2530
Manufacturer	:	LYSORA TECHNOLOGY INC.
Address of Manufacturer	:	8 THE GREEN, STE A, DOVER, KENT COUNTY, DELAWARE 19901, USA

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart C,
662911 D01 Multiple Transmitter Output v02r01,
RSS-247 Issue 4 July 24, 2025,
ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024,
RSS-Gen Issue 5, Apr. 2018, Amendment 2 (February 2021)

We Declare:

The equipment described above is tested by Guangdong Dongdian Testing Service 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 Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE25070107-1E01		
Date of Receipt:	2025/07/01	Date of Test:	2025/07/01 - 2025/09/13

Created: Jacky Huang	Reviewed: Johnson Huang	Approved: Damon Hu
		
2025/09/14	2025/10/24	2025/10/24

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Version	Revision Content	Issue Date	Approved
V0	Initial issue	2025/10/24	Damon Hu

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	6 dB Bandwidth and 99% Bandwidth	FCC Part 15: 15.247(a)(2), RSS-247 Issue 4 clause 6.3.1, RSS-Gen Issue 5 clause 6.7	/	Pass
2	Peak Output Power	FCC Part 15: 15.247(b)(3), RSS-247 Issue 4 clause 6.3.2	/	Pass
3	Power Spectral Density	FCC Part 15:15.247(e), RSS-247 Issue 4 clause 6.3.1	/	Pass
4	RF Conducted Spurious Emissions	FCC Part 15: 15.247(d), RSS-247 Issue 4 clause 6.6	/	Pass
5	Radiated Emission	FCC Part 15: 15.205, FCC Part 15: 15.209, FCC Part 15: 15.247(d), RSS-247 Issue 4 clause 6.6 RSS-Gen Issue 5 clause 8.9, RSS-Gen Issue 5 clause 8.10	/	Pass
6	Band Edge Compliance	FCC Part 15: 15.205, FCC Part 15: 15.209, FCC Part 15: 15.247(d), RSS-247 Issue 4 clause 6.6, RSS-Gen Issue 5 clause 8.9, RSS-Gen Issue 5 clause 8.10	/	Pass
7	Power Line Conducted Emissions	FCC Part 15: 15.207(a), RSS-Gen Issue 5 clause 8.8	/	Pass
8	Antenna Requirement	FCC Part 15: 15.203, RSS-Gen Issue 5 clause 6.8	/	Pass
Note: N/A is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.				

2. General Test Information

2.1. Description of EUT

EUT Name	: Wireless Access Point
Model Number	: L2530
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 12V powered by external adapter or POE
Antenna Type	: Built-in omnidirectional antenna
Max Antenna Gain (dBi)	: Antenna 1: 2.20 Antenna 2: 3.13
Beamforming Gain (dBi)	: 3
Directional gain	: 5.69
Directional gain = $10 \cdot \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N \text{ANT}]$ dBi [Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.] For this product, direction gain = $10 \cdot \log[(10^{2.2/20} + 10^{3.13/20})^2 / 2] = 5.69$	

Radio Technology	: IEEE 802.11b/g/n/ax
Operation frequency	: IEEE 802.11b: 2412MHz to 2462MHz IEEE 802.11g: 2412MHz to 2462MHz IEEE 802.11n HT20: 2412MHz to 2462MHz IEEE 802.11n HT40: 2422MHz to 2452MHz IEEE 802.11ax HE20: 2412MHz to 2462MHz IEEE 802.11ax HE40: 2422MHz to 2452MHz
Modulation	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDM, OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)

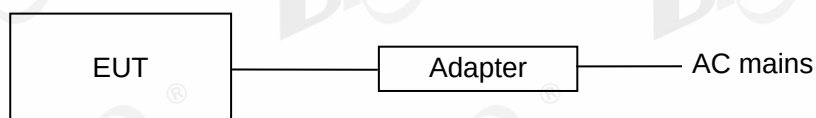
Channel information					
CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447	/	/

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

2.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

2.3. Block diagram of EUT configuration for test



2.4. Decision of final test mode

According pre-test, the worst test modes were reported as below:

Test software: QATool_Dbg.exe, version: 2.78

The test software was used to control EUT work in Continuous Tx mode and select test channel, wireless mode as below table.

The pathloss of external cable: 0.5dB (According to the manufacturer's claims)

Tested mode, Tx Power Setting, Data rate, Channel, and Frequency					
Tested mode	Tx Power Setting		Data rate (Mbps) (see Note)	Test Channel	Frequency (MHz)
	ANT1	ANT2			
IEEE 802.11b	19		1	LCH: CH1	2412
			1	MCH: CH6	2437
			1	HCH: CH11	2462
IEEE 802.11g	19		6	LCH: CH1	2412
			6	MCH: CH6	2437
			6	HCH: CH11	2462
IEEE 802.11n HT20	19		MCS 8	LCH: CH1	2412
			MCS 8	MCH: CH6	2437
			MCS 8	HCH: CH11	2462
IEEE 802.11n HT40	17		MCS 8	LCH: CH3	2422
			MCS 8	MCH: CH6	2437
			MCS 8	HCH: CH9	2452
IEEE 802.11ax HE20	17		MCS 0	LCH: CH1	2412
			MCS 0	MCH: CH6	2437
			MCS 0	HCH: CH11	2462
IEEE 802.11ax HE40	17		MCS 0	LCH: CH3	2422
			MCS 0	MCH: CH6	2437
			MCS 0	HCH: 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.

2.5. Deviations of test standard

No deviation.

2.6. Test environment conditions

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

Temperature range:	+15°C to +35 °C
Humidity range:	20% to 75%
Pressure range:	86 kPa to 106 kPa

Note: The specific temperature and humidity information of each test item refers to the temperature and humidity record in the corresponding test data.

2.7. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20240, G-20118

2.8. Measurement uncertainty

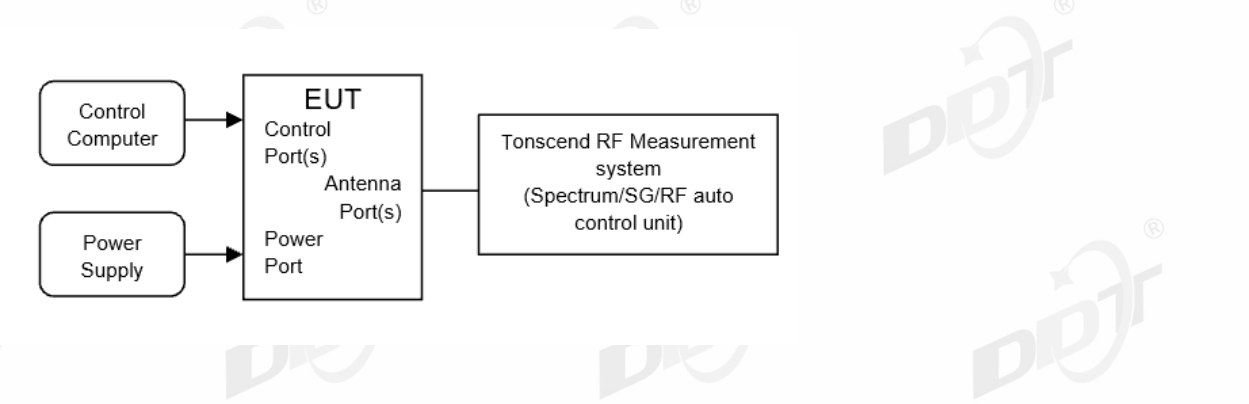
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz $\leq$ f < 3.6 GHz);
	1.38 dB (3.6 GHz $\leq$ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz $\leq$ f < 3.6 GHz);
	1.38 dB (3.6 GHz $\leq$ f < 8 GHz)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB (10 MHz $\leq$ f < 3.6 GHz);
	1.40 dB (3.6 GHz $\leq$ f < 8 GHz)
	1.66 dB (8 GHz $\leq$ f < 26.5 GHz)
Uncertainty for radio frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 °C
Humidity	2 %
Uncertainty for Radiation Emission test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz - 1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz - 40 GHz)	4.10 dB (1 - 6 GHz)
	4.40 dB (6 GHz - 18 GHz)
	3.54 dB (18 GHz - 26 GHz)
	4.30 dB (26 GHz - 40 GHz)
Uncertainty for Power line conduction emission test	3.34dB (150KHz-30MHz)
	3.72dB (9KHz-150KHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment Used During Conductive Test

Equipment	Manufacturer	Model No.	Serial Number	Due Date	Cal. Interval
☑RF Connected Test (RF Measurement System 4#)					
Signal &Spectrum Analyzer	R&S	FSV3044	101173	2026/03/28	1 Year
Wideband Radio Communication Tester	R&S	CMW500	168801	2026/03/28	1 Year
MXG Vector Signal Generator	Agilent	N5182A	MY48180737	2026/03/28	1 Year
PSG Vector Signal Generator	Agilent	E8267D	US49060192	2025/08/25	1 Year
				2026/08/10	1 Year
RF Control Unit	Tonscend	JS0806-2	21I8060485	2026/03/28	1 Year
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2026/03/28	1 Year
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A	N/A

4. 6dB Bandwidth

4.1. Block diagram of test setup



4.2. Limits

For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz

4.3. Test procedure

- (1) The test according to ANSI C63.10-2020 clause 11.8.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously
- (4) Use the following spectrum analyzer settings for 6 dB Bandwidth:

RBW 100 kHz

VBW $\geq [3 \times \text{RBW}]$

Detector Mode peak

Sweep time auto

Trace mode max hold

- (5) Allow the trace to stabilize, measure the 6 dB bandwidth of signal, and record the results in the report.

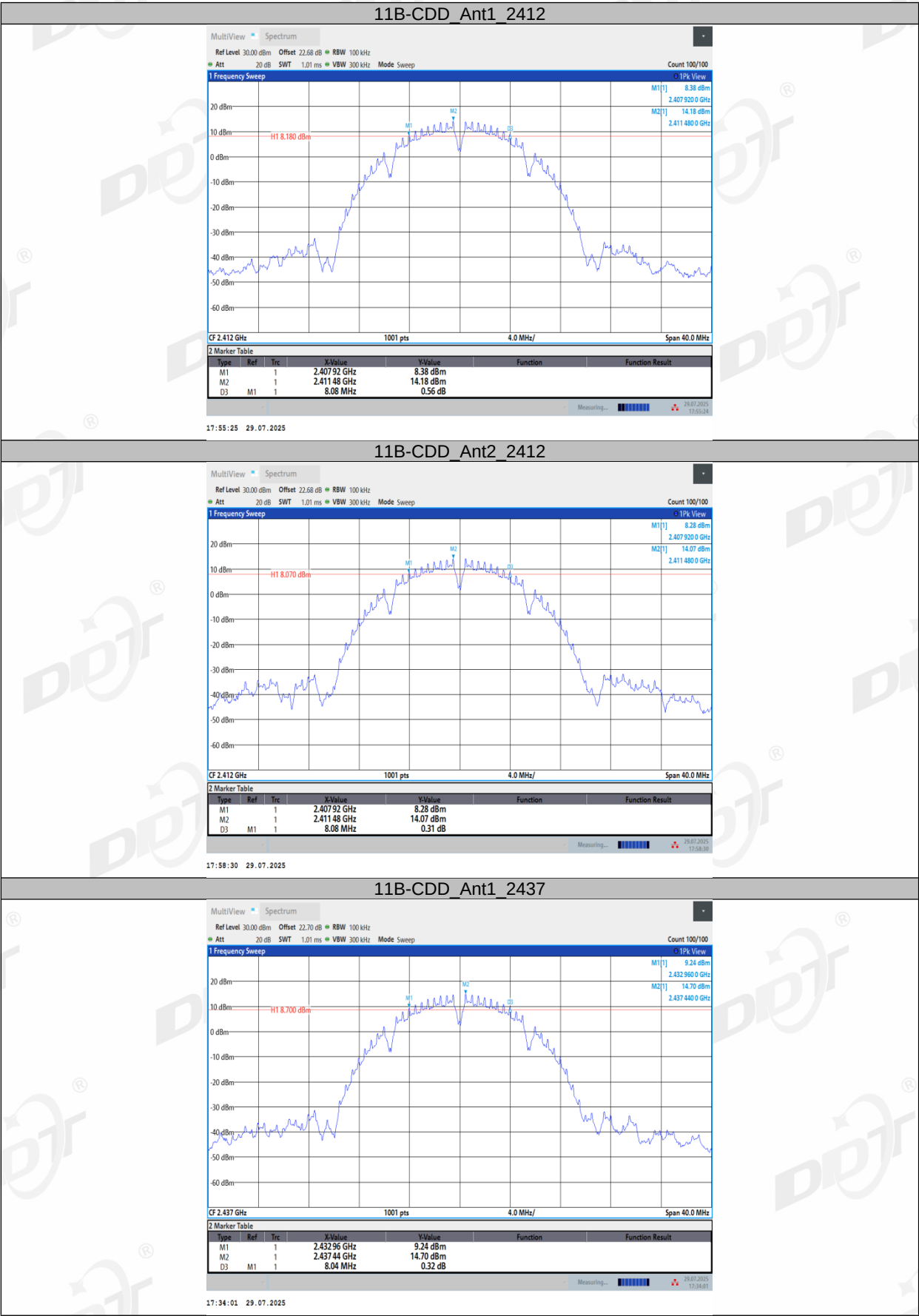
4.4. Test result

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement System 4#
Ambient Condition:	23.8-25.3°C,44.1-47.5%RH	Test Date:	2025.07.26-2025.07.30
Test Power Supply:	DC 12V	Sample Number:	S25070107-004

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B-CDD	Ant1	2412	8.08	2407.92	2416.00	0.5	PASS
	Ant2	2412	8.08	2407.92	2416.00	0.5	PASS
	Ant1	2437	8.04	2432.96	2441.00	0.5	PASS
	Ant2	2437	8.08	2432.92	2441.00	0.5	PASS
	Ant1	2462	8.08	2457.92	2466.00	0.5	PASS
	Ant2	2462	8.04	2457.96	2466.00	0.5	PASS
11G-CDD	Ant1	2412	16.32	2403.80	2420.12	0.5	PASS
	Ant2	2412	16.32	2403.80	2420.12	0.5	PASS
	Ant1	2437	16.28	2428.84	2445.12	0.5	PASS
	Ant2	2437	16.32	2428.80	2445.12	0.5	PASS
	Ant1	2462	16.08	2453.80	2469.88	0.5	PASS
	Ant2	2462	16.32	2453.80	2470.12	0.5	PASS
11N20MIMO	Ant1	2412	17.28	2403.20	2420.48	0.5	PASS
	Ant2	2412	17.60	2403.16	2420.76	0.5	PASS
	Ant1	2437	17.04	2428.44	2445.48	0.5	PASS
	Ant2	2437	17.56	2428.20	2445.76	0.5	PASS
	Ant1	2462	16.28	2454.08	2470.36	0.5	PASS
	Ant2	2462	17.52	2453.20	2470.72	0.5	PASS
11N40MIMO	Ant1	2422	35.12	2404.48	2439.60	0.5	PASS

	Ant2	2422	35.68	2404.48	2440.16	0.5	PASS
	Ant1	2437	35.12	2419.48	2454.60	0.5	PASS
	Ant2	2437	35.12	2419.48	2454.60	0.5	PASS
	Ant1	2452	35.20	2434.40	2469.60	0.5	PASS
	Ant2	2452	35.12	2434.48	2469.60	0.5	PASS
11AX20MIM O	Ant1	2412	18.76	2402.48	2421.24	0.5	PASS
	Ant2	2412	18.68	2402.56	2421.24	0.5	PASS
	Ant1	2437	18.64	2427.68	2446.32	0.5	PASS
	Ant2	2437	18.68	2427.64	2446.32	0.5	PASS
	Ant1	2462	18.64	2452.60	2471.24	0.5	PASS
	Ant2	2462	18.56	2452.68	2471.24	0.5	PASS
11AX40MIM O	Ant1	2422	36.64	2403.84	2440.48	0.5	PASS
	Ant2	2422	36.40	2403.76	2440.16	0.5	PASS
	Ant1	2437	36.40	2419.08	2455.48	0.5	PASS
	Ant2	2437	35.28	2419.48	2454.76	0.5	PASS
	Ant1	2452	36.08	2434.48	2470.56	0.5	PASS
	Ant2	2452	35.12	2434.48	2469.60	0.5	PASS

4.5. Test graphs





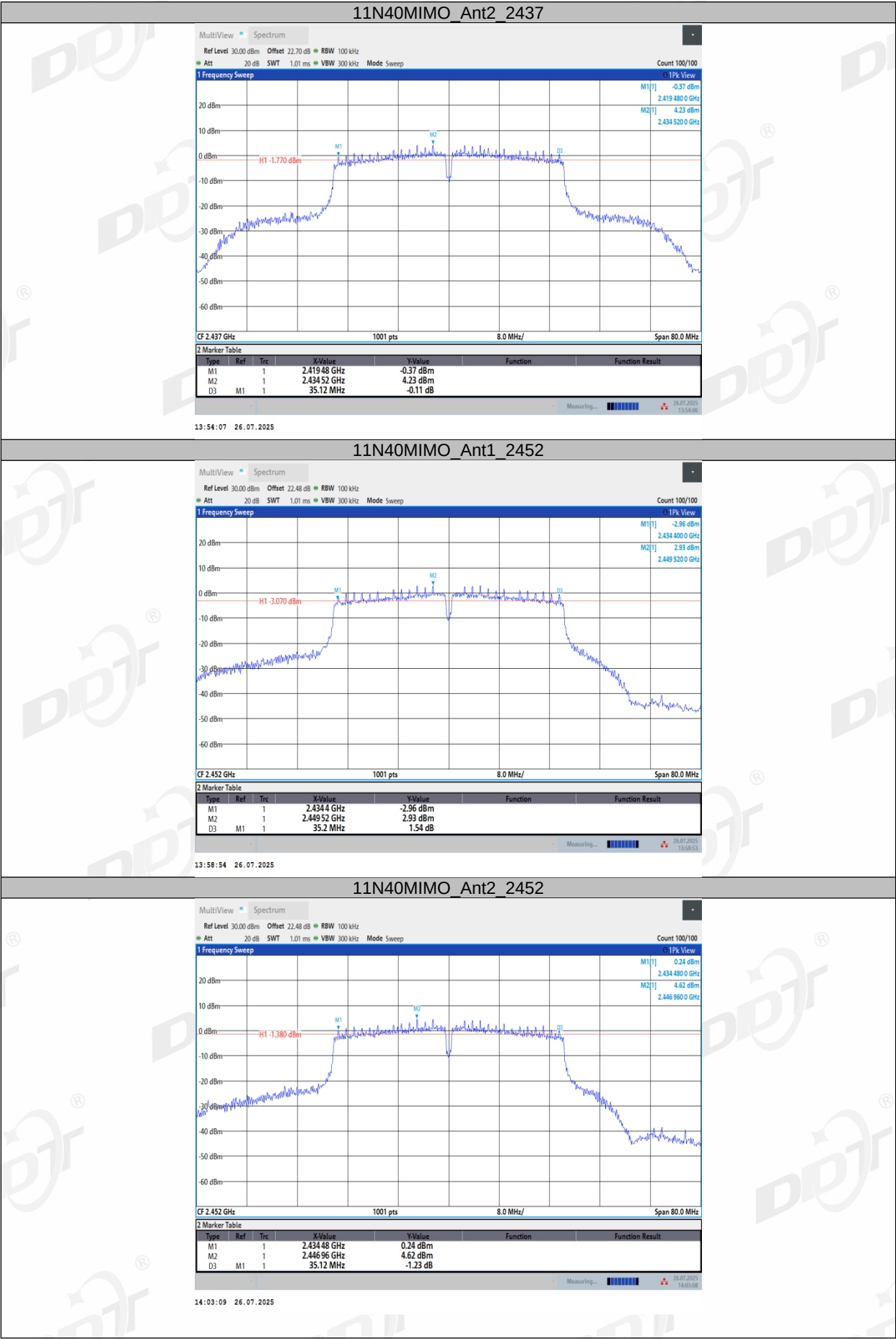


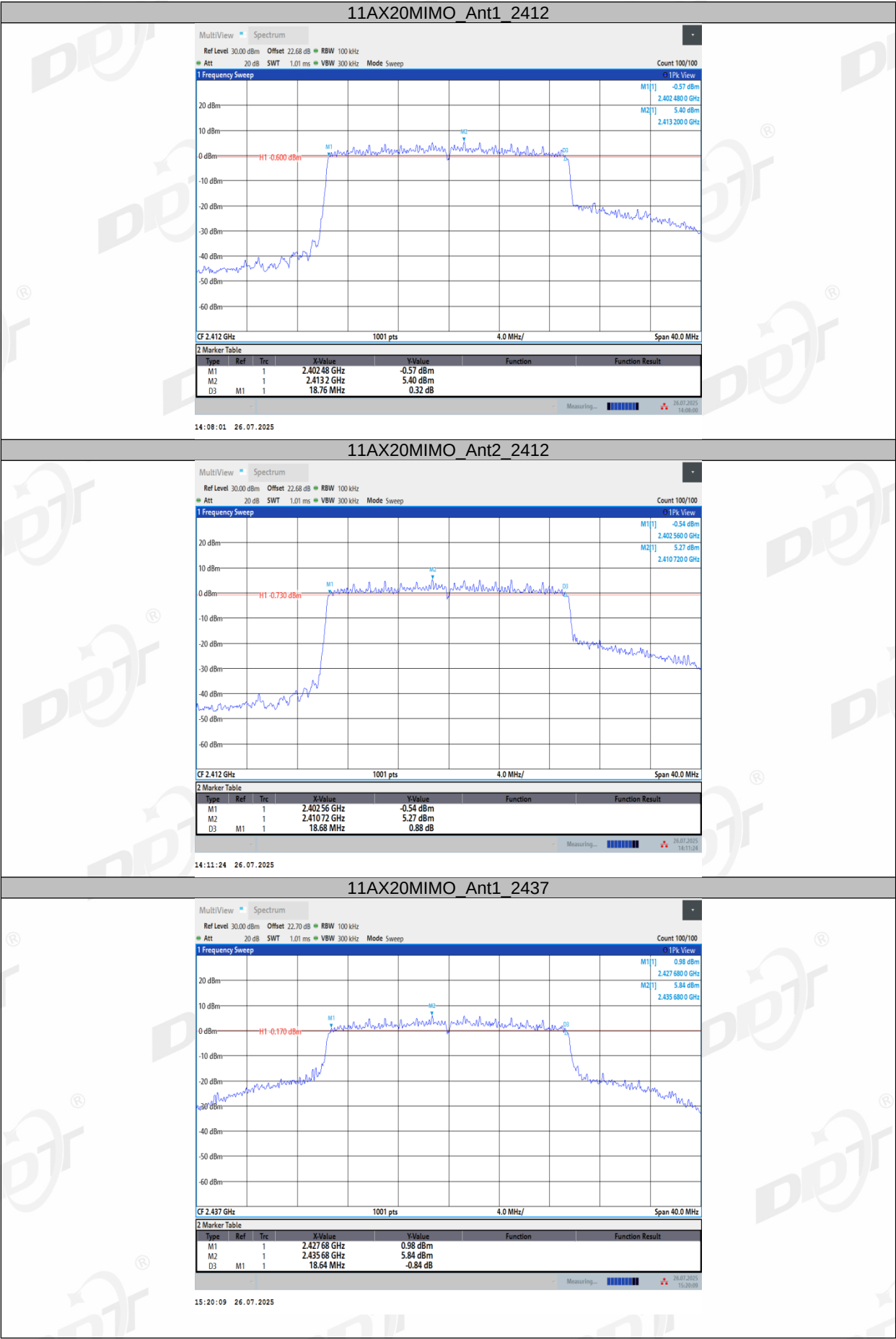


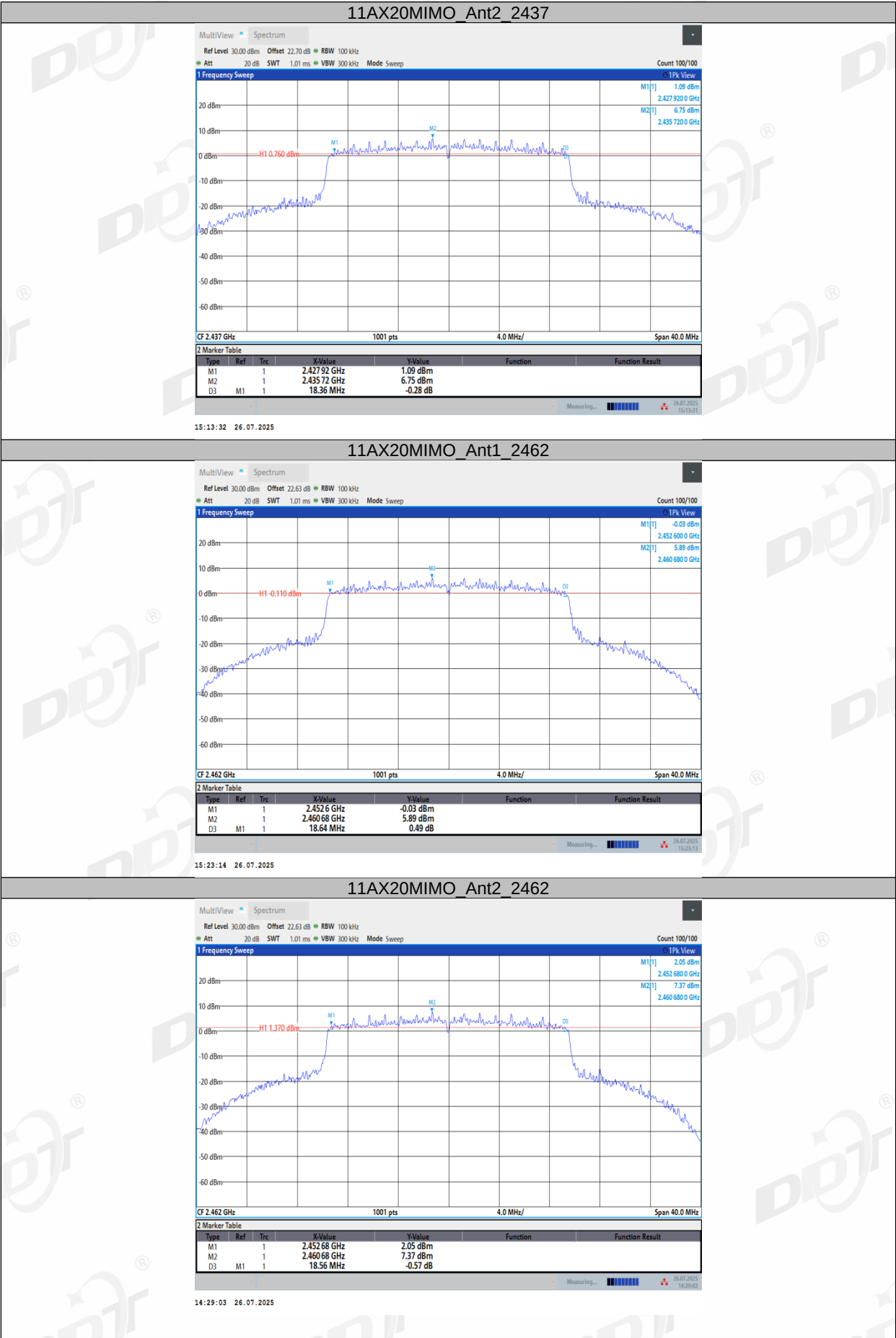




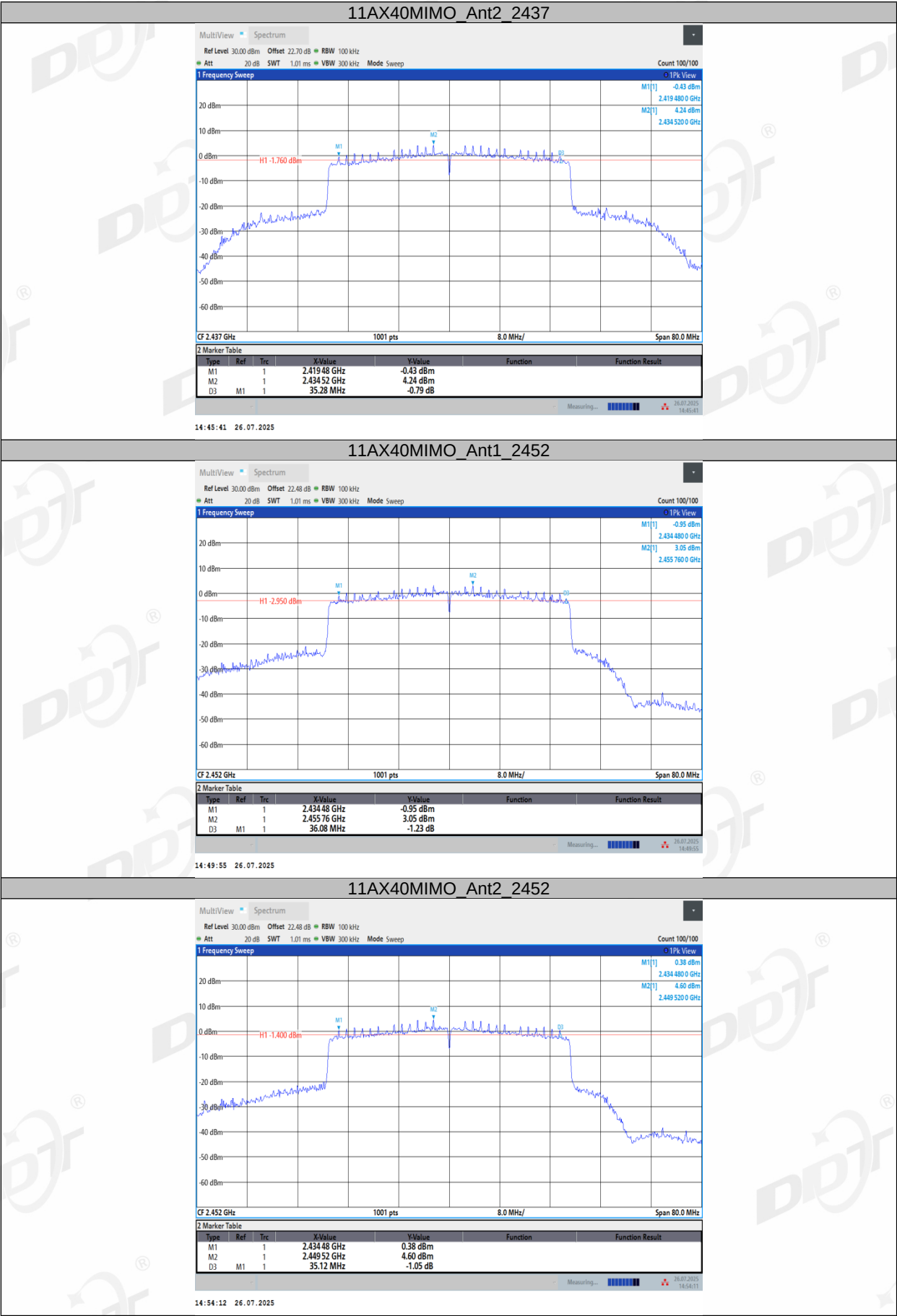






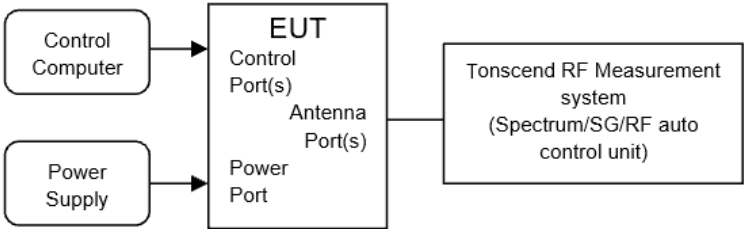






5. 99% Bandwidth

5.1. Block diagram of test setup



5.2. Limits

Just for Report.

5.3. Test procedure

- (1) The test according to ANSI C63.10-2020 clause 6.9.3.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously
- (4) Use the following spectrum analyzer settings for the 99% Bandwidth:

RBW	1% to 5% of the OBW
VBW	approximately three times RBW
Span	between 1.5 times and 5.0 times the OBW
Detector Mode	peak
Sweep time	auto
Trace mode	max hold

- (5) Allow the trace to stabilize, measure the 99% bandwidth of signal, and record the results in the report.

5.4. Test result

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement System 4#				
Ambient Condition:	23.8-25.3°C,44.1-47.5%RH		Test Date:	2025.07.26-2025.07.30			
Test Power Supply:	DC 12V		Sample Number:	S25070107-004			
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B-CDD	Ant1	2412	12.594	2405.7020	2418.2958	---	---
	Ant2	2412	12.760	2405.5863	2418.3466	---	---
	Ant1	2437	12.519	2430.7526	2443.2718	---	---
	Ant2	2437	12.457	2430.7600	2443.2168	---	---
	Ant1	2462	12.530	2455.7045	2468.2346	---	---
	Ant2	2462	12.364	2455.8162	2468.1800	---	---
11G-CDD	Ant1	2412	17.688	2403.2405	2420.9287	---	---
	Ant2	2412	17.435	2403.4641	2420.8994	---	---
	Ant1	2437	17.852	2428.0593	2445.9111	---	---
	Ant2	2437	17.483	2428.2771	2445.7605	---	---
	Ant1	2462	17.612	2453.2095	2470.8212	---	---
	Ant2	2462	17.264	2453.2916	2470.5561	---	---
11N20MIMO	Ant1	2412	18.487	2402.8267	2421.3133	---	---
	Ant2	2412	18.216	2402.9933	2421.2093	---	---
	Ant1	2437	18.807	2427.5803	2446.3873	---	---
	Ant2	2437	18.377	2427.8560	2446.2325	---	---
	Ant1	2462	18.690	2452.6647	2471.3549	---	---
	Ant2	2462	18.266	2452.7976	2471.0633	---	---
11N40MIMO	Ant1	2422	36.860	2403.6893	2440.5491	---	---

	Ant2	2422	36.824	2403.7825	2440.6064	---	---
	Ant1	2437	36.951	2418.5309	2455.4816	---	---
	Ant2	2437	36.795	2418.6262	2455.4214	---	---
	Ant1	2452	36.911	2433.4019	2470.3128	---	---
	Ant2	2452	36.582	2433.5997	2470.1819	---	---
11AX20MIM O	Ant1	2412	19.016	2402.4849	2421.5014	---	---
	Ant2	2412	19.050	2402.4954	2421.5455	---	---
	Ant1	2437	19.385	2427.2979	2446.6826	---	---
	Ant2	2437	19.289	2427.3640	2446.6527	---	---
	Ant1	2462	19.269	2452.3627	2471.6316	---	---
	Ant2	2462	19.256	2452.3262	2471.5820	---	---
11AX40MIM O	Ant1	2422	37.969	2403.0883	2441.0576	---	---
	Ant2	2422	38.128	2403.0053	2441.1329	---	---
	Ant1	2437	38.079	2417.9445	2456.0234	---	---
	Ant2	2437	38.038	2417.9978	2456.0355	---	---
	Ant1	2452	38.047	2432.8901	2470.9369	---	---
	Ant2	2452	37.914	2432.9686	2470.8825	---	---

5.5. Test graphs

