



RADIO TEST REPORT

Applicant	:	Guangzhou Chuang Rui Automobile Electric Appliance Co., Ltd.
Address of Applicant	:	NO.8 Shenshan East Road Baiyun District, Guangzhou City, 510460, Guangdong, P.R. China
Manufacturer	:	Guangzhou Chuang Rui Automobile Electric Appliance Co., Ltd.
Address of Manufacturer	:	NO.8 Shenshan East Road Baiyun District, Guangzhou City, 510460, Guangdong, P.R. China
Equipment under Test	:	Meter
FCC Model No.	:	5HY1-41, 9AY4-5K, 7DH0-14, 9AYL-49
FCC ID	:	2BTEP-5HY141
IC	:	34894-5HY141
HVIN	:	5HY1-41, 9AYL-49
FVIN	:	5HY1-41, 9AY4-5K, 7DH0-14, 9AYL-49
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart C, ANSI C63 10-2020+Cor.1-2023+C63.10a- 2024+Errata to C63.10a-2024, RSS-247 Issue 4 July 24, 2025, RSS-Gen Issue 5, Apr. 2018, Amendment 2 (February 2021), ANSI C63 10-2020+Cor.1-2023+C63.10a- 2024+Errata to C63.10a-2024
Report No.	:	DDT-RE25072135-2E03
Issue Date	:	2026/09/27
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

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	8
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	15
5.	99% Bandwidth	19
5.1.	Block diagram of test setup	19
5.2.	Limits	19
5.3.	Test procedure	19
5.4.	Test result.....	20
5.5.	Test graphs	21
6.	Conducted Output Power	25
6.1.	Block diagram of test setup	25
6.2.	Limits	25
6.3.	Test procedure	25
6.4.	Test result average.....	26
7.	Power Spectral Density	27
7.1.	Block diagram of test setup	27
7.2.	Limits	27
7.3.	Test procedure	27
7.4.	Test result.....	28
7.5.	Test graphs	29
8.	Band Edge Compliance (Conducted Method).....	33
8.1.	Block diagram of test setup	33

8.2.	Limits	33
8.3.	Test procedure	33
8.4.	Test result.....	34
8.5.	Test graphs	35
9.	RF Conducted Spurious Emissions.....	38
9.1.	Block diagram of test setup	38
9.2.	Limits	38
9.3.	Test procedure	38
9.4.	Test result.....	39
9.5.	Test graphs	40
10.	Duty Cycle	52
10.1.	Block diagram of test setup	52
10.2.	Limit.....	52
10.3.	Test procedure	52
10.4.	Test result.....	53
10.5.	Test graphs	54
11.	Antenna Requirements.....	58
11.1.	Limit.....	58
11.2.	Result	58
12.	Radiated Emission	59
12.1.	Test equipment.....	59
12.2.	Block diagram of test setup	60
12.3.	Limits	62
12.4.	Assistant equipment used for test	64
12.5.	Test procedure	64
12.6.	Test result.....	65
12.7.	Test data	66
13.	Band Edge Compliance.....	76
13.1.	Test equipment.....	76
13.2.	Block diagram of test setup	77
13.3.	Limits	77
13.4.	Assistant equipment used for test	77
13.5.	Test procedure	77
13.6.	Test result.....	77
13.7.	Test data	78
14.	Power Line Conducted Emissions.....	94
14.1.	Test equipment.....	94
14.2.	Block diagram of test setup	94

14.3. Limits94

14.4. Assistant equipment used for test94

14.5. Test procedure95

14.6. Test result.....95

15. Test Setup Photograph96

16. Photos of the EUT98

Test Report Declare

Applicant	:	Guangzhou Chuang Rui Automobile Electric Appliance Co., Ltd.
Address of Applicant	:	NO.8 Shenshan East Road Baiyun District, Guangzhou City, 510460, Guangdong, P.R. China
Equipment under Test	:	Meter
FCC Model No.	:	5HY1-41, 9AY4-5K, 7DH0-14, 9AYL-49
HVIN	:	5HY1-41, 9AYL-49
FVIN	:	5HY1-41, 9AY4-5K, 7DH0-14, 9AYL-49
Manufacturer	:	Guangzhou Chuang Rui Automobile Electric Appliance Co., Ltd.
Address of Manufacturer	:	NO.8 Shenshan East Road Baiyun District, Guangzhou City, 510460, Guangdong, P.R. China

Test Standard Used:

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

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-RE25072135-2E03		
Date of Receipt:	2025/07/30	Date of Test:	2025/09/01 - 2026/09/15

Created: Jacky Huang	Reviewed: Johnson Huang	Approved: Ella Gong
		
2025/11/12	2026/09/27	2026/09/27

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	2026/09/27	Ella Gong

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	6 dB Bandwidth and 99% Bandwidth	47 CFR Part 15 15.247(a)(2), RSS-247 clause 6.3.1(a), RSS-Gen clause 6.7	/	Pass
2	Peak Output Power	47 CFR Part 15 15.247(b)(3), RSS-247 clause 6.3.2	/	Pass
3	Power Spectral Density	47 CFR Part 15 15.247(e), RSS-247 clause 6.3.1(b)	/	Pass
4	RF Conducted Spurious Emissions	47 CFR Part 15 15.247(d), RSS-247 clause 6.6	/	Pass
5	Radiated Emission	47 CFR Part 15 15.205, 47 CFR Part 15 15.209, 47 CFR Part 15 15.247(d), RSS-247 clause 6.6, RSS-Gen clause 8.9, RSS-Gen clause 8.10	/	Pass
6	Band Edge Compliance	47 CFR Part 15 15.205, 47 CFR Part 15 15.209, 47 CFR Part 15 15.247(d), RSS-247 clause 6.6, RSS-Gen clause 8.9, RSS-Gen clause 8.10	/	Pass
7	Antenna Requirement	47 CFR Part 15 15.203, RSS-Gen clause 6.8	/	Pass
8	Power Line Conducted Emissions	47 CFR Part 15 15.207(a), RSS-Gen clause 8.8	/	N/A
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	: Meter
Model Number	: 5HY1-41, 9AYL-49, 7DH0-14, 9AY4-5K
Difference of model number	: The UI software functions and interfaces of the above models are different. In terms of hardware, 5HY1-41 has FM function circuits (FM module), others does not have. The rest of the appearance, including the BT and Wi-Fi modules, antennas, etc., are exactly the same. The different parts do not affect the radio frequency performance. The main test model is 5HY1-41.
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 12V
Antenna Type	: FPC antenna
Max Antenna Gain (dBi)	: 2.94
Radio Technology	: IEEE 802.11b/g/n
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
Modulation	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (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: Built-in engineering mode software

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			
IEEE 802.11b	12	1	LCH: CH1	2412
		1	MCH: CH6	2437
		1	HCH: CH11	2462
IEEE 802.11g	13	6	LCH: CH1	2412
		6	MCH: CH6	2437
		6	HCH: CH11	2462
IEEE 802.11n HT20	13	MCS 0	LCH: CH1	2412
		MCS 0	MCH: CH6	2437
		MCS 0	HCH: CH11	2462
IEEE 802.11n HT40	11	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 to106 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

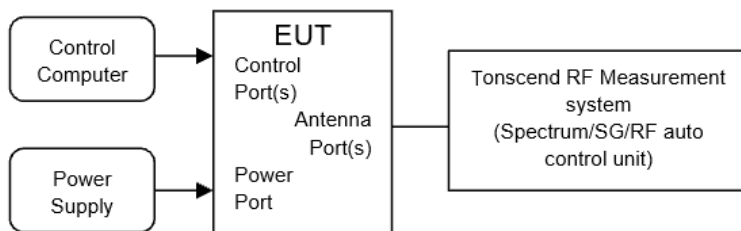
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz $\leq$ f < 3.6 GHz);
	1.38 dB (3.6 GHz $\leq$ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz $\leq$ f < 3.6 GHz);
	1.38 dB (3.6 GHz $\leq$ f < 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	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.
- (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:	23.4-28.3℃,42.9-47.8%RH	Test Date:	2025.08.13-2025.09.03
Test Power Supply:	DC 12V	Sample Number:	S25072135-003

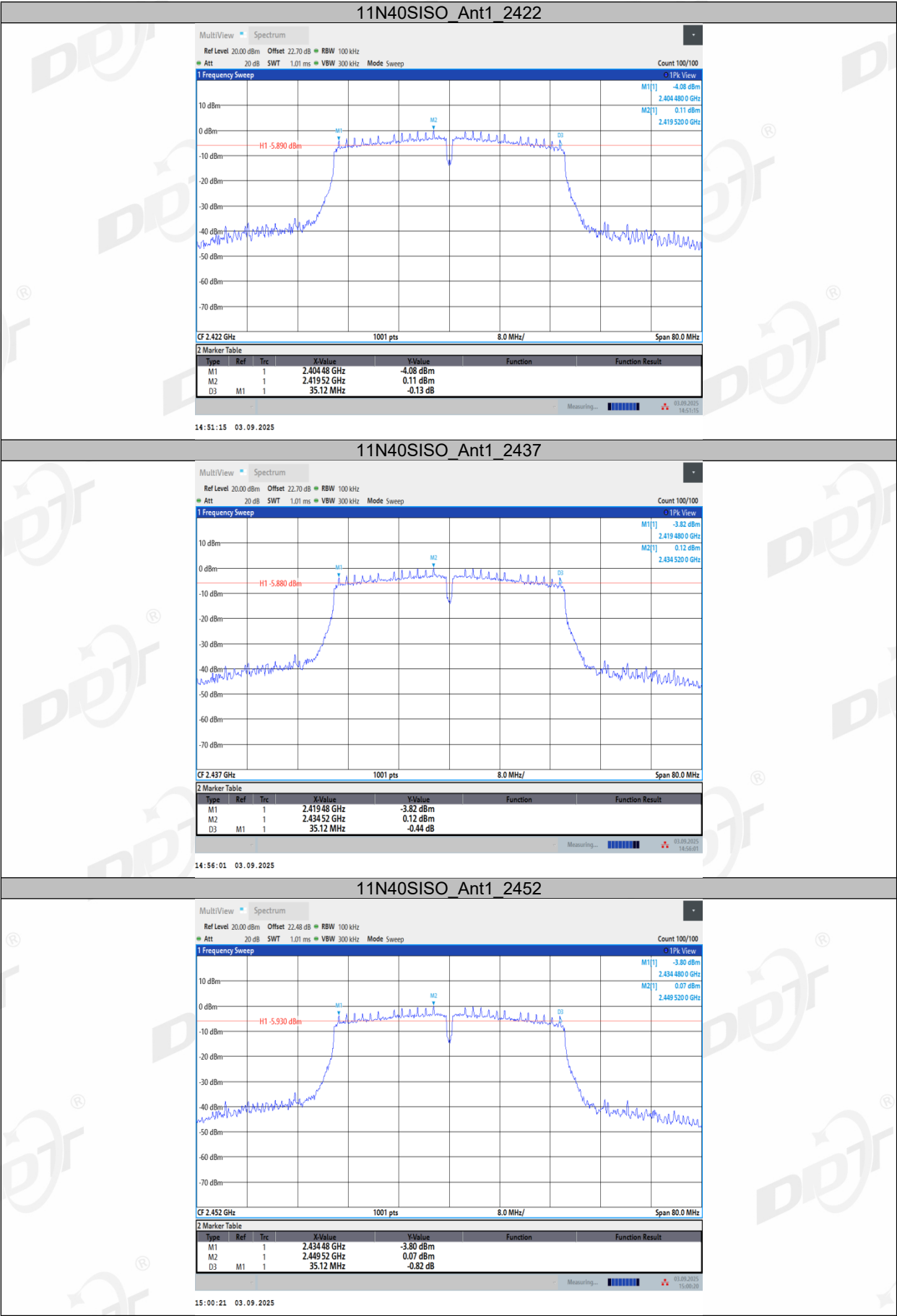
Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	8.04	2407.96	2416.00	0.5	PASS
		2437	8.04	2432.96	2441.00	0.5	PASS
		2462	8.04	2457.96	2466.00	0.5	PASS
11G	Ant1	2412	15.16	2404.40	2419.56	0.5	PASS
		2437	15.36	2429.20	2444.56	0.5	PASS
		2462	15.32	2454.24	2469.56	0.5	PASS
11N20SISO	Ant1	2412	15.92	2403.64	2419.56	0.5	PASS
		2437	15.96	2428.92	2444.88	0.5	PASS
		2462	15.64	2453.92	2469.56	0.5	PASS
11N40SISO	Ant1	2422	35.12	2404.48	2439.60	0.5	PASS
		2437	35.12	2419.48	2454.60	0.5	PASS
		2452	35.12	2434.48	2469.60	0.5	PASS

4.5. Test graphs



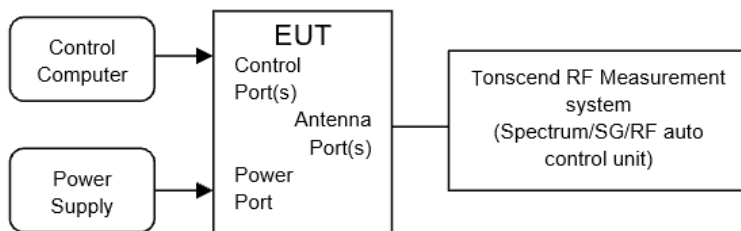






5. 99% Bandwidth

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.
- (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

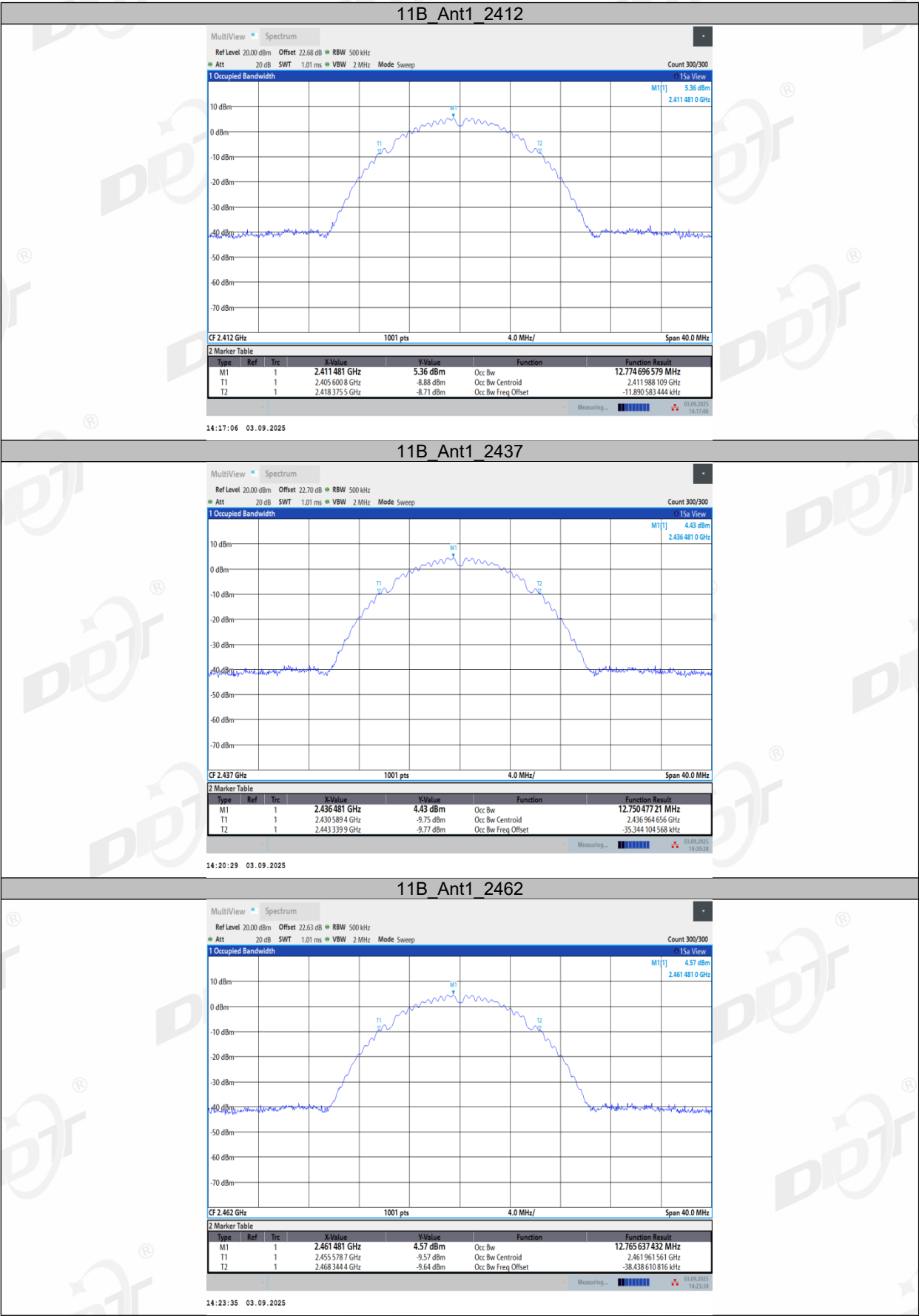
- (5) Allow the trace to stabilize, measure the 99% bandwidth of signal, and record the results in the report.

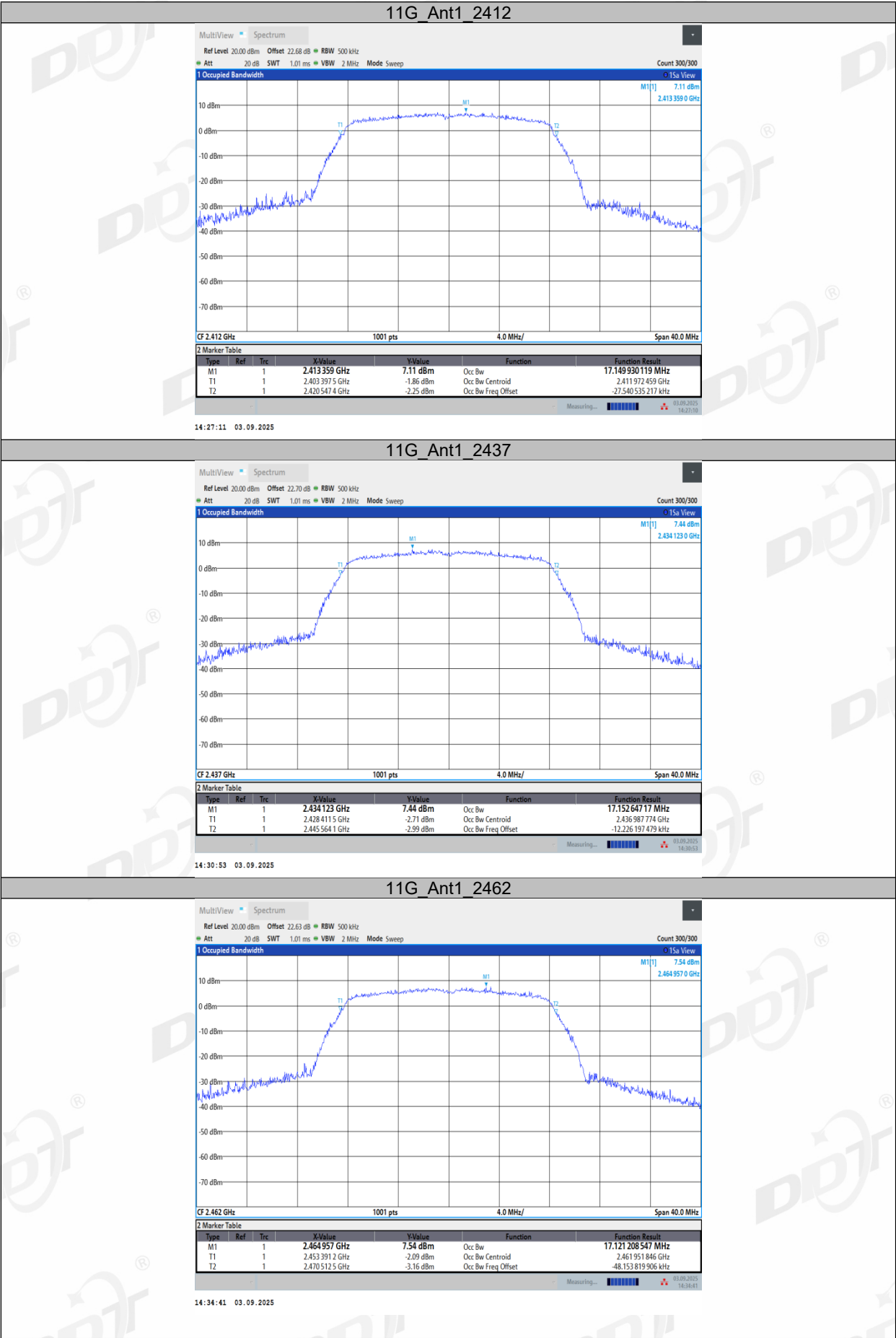
5.4. Test result

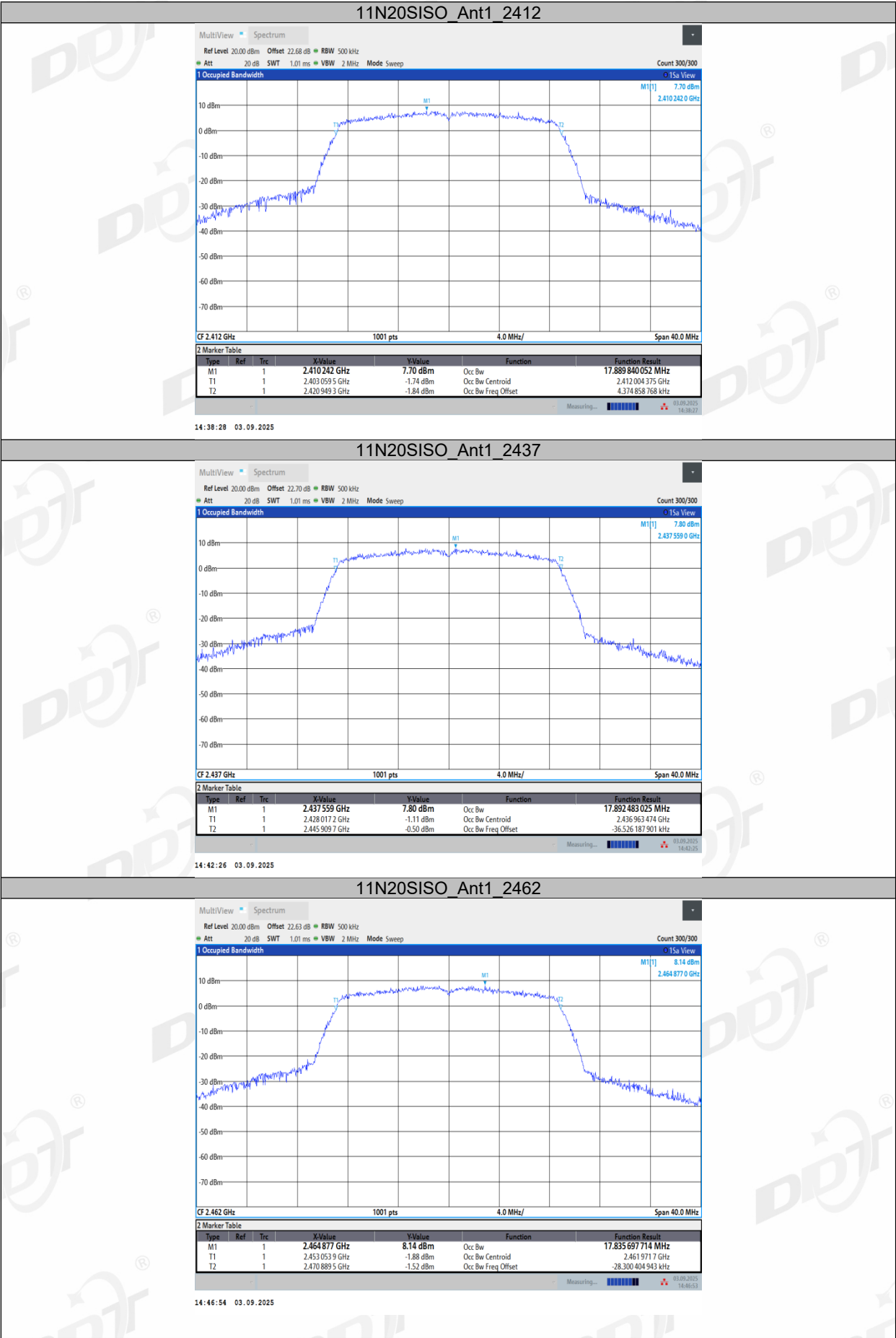
Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.4-28.3℃,42.9-47.8%RH	Test Date:	2025.08.13-2025.09.03
Test Power Supply:	DC 12V	Sample Number:	S25072135-003

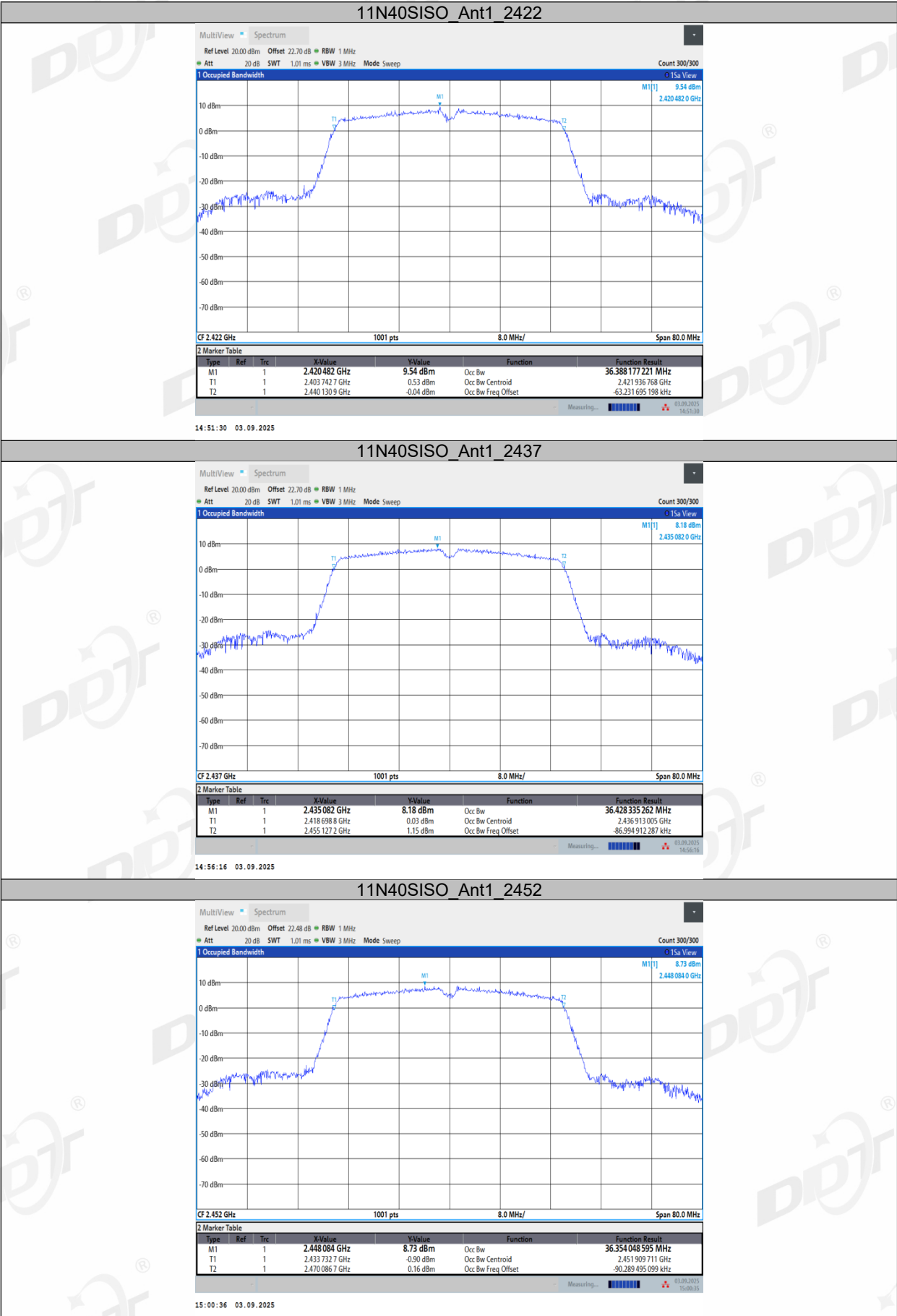
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	12.775	2405.6008	2418.3755	---	---
		2437	12.750	2430.5894	2443.3399	---	---
		2462	12.766	2455.5787	2468.3444	---	---
11G	Ant1	2412	17.150	2403.3975	2420.5474	---	---
		2437	17.153	2428.4115	2445.5641	---	---
		2462	17.121	2453.3912	2470.5125	---	---
11N20SISO	Ant1	2412	17.890	2403.0595	2420.9493	---	---
		2437	17.892	2428.0172	2445.9097	---	---
		2462	17.836	2453.0539	2470.8895	---	---
11N40SISO	Ant1	2422	36.388	2403.7427	2440.1309	---	---
		2437	36.428	2418.6988	2455.1272	---	---
		2452	36.354	2433.7327	2470.0867	---	---

5.5. Test graphs



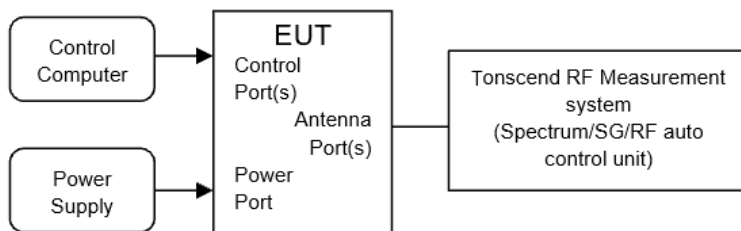






6. Conducted Output Power

6.1. Block diagram of test setup



6.2. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3. Test procedure

- (1) The test according to ANSI C63.10-2020.
- (2) Connect EUT's antenna output to RF power meter 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, If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal.
- (4) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
- (5) Adjust the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle.
- (6) Record the RF average power of each antenna port.

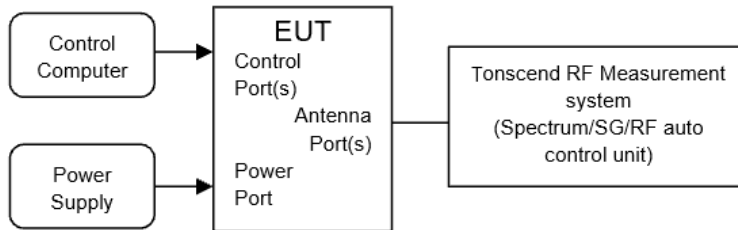
6.4. Test result average

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.4-28.3℃,42.9-47.8%RH	Test Date:	2025.08.13-2025.09.03
Test Power Supply:	DC 12V	Sample Number:	S25072135-003

Test Mode	Antenna	Frequency [MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dB]	Result [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	13.20	99.64	0.00	13.20	≤30.00	16.14	≤36.00	PASS
		2437	12.07	99.41	0.00	12.07	≤30.00	15.01	≤36.00	PASS
		2462	12.22	99.64	0.00	12.22	≤30.00	15.16	≤36.00	PASS
11G	Ant1	2412	13.02	97.18	0.12	13.14	≤30.00	16.08	≤36.00	PASS
		2437	12.92	97.18	0.12	13.04	≤30.00	15.98	≤36.00	PASS
		2462	12.92	96.53	0.15	13.07	≤30.00	16.01	≤36.00	PASS
11N20SISO	Ant1	2412	12.83	95.12	0.22	13.05	≤30.00	15.99	≤36.00	PASS
		2437	12.74	95.12	0.22	12.96	≤30.00	15.90	≤36.00	PASS
		2462	12.74	95.12	0.22	12.96	≤30.00	15.90	≤36.00	PASS
11N40SISO	Ant1	2422	11.16	92.06	0.36	11.52	≤30.00	14.46	≤36.00	PASS
		2437	11.07	90.77	0.42	11.49	≤30.00	14.43	≤36.00	PASS
		2452	11.52	92.06	0.36	11.88	≤30.00	14.82	≤36.00	PASS

7. Power Spectral Density

7.1. Block diagram of test setup



7.2. Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.3. Test procedure

- (1) The test according to ANSI C63.10-2020.
- (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 Power Spectral Density measurement:

Center frequency: DTS Channel center frequency

RBW: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$

VBW: $\geq 3\text{RBW}$

Span: 1.5 times the DTS bandwidth

Detector Mode: RMS

Sweep time: auto

Trace mode: max hold

Trace: Employ trace averaging (rms) mode over a minimum of 100 traces.

- (5) Add $[10 \log (1 / D)]$, where D is the duty cycle measured in step a), to the measured PSD to compute the average PSD during the actual transmission time.
- (6) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

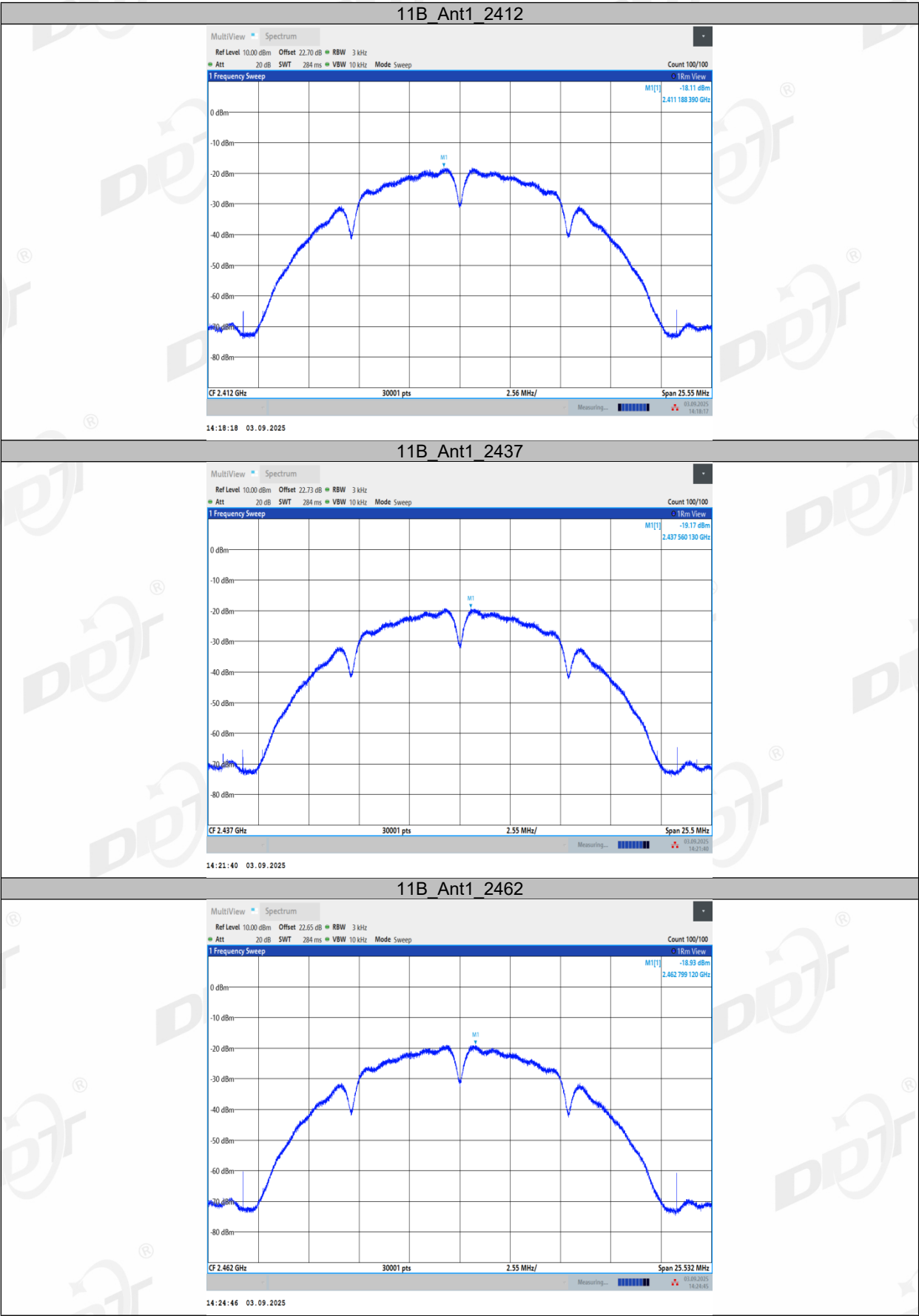
7.4. Test result

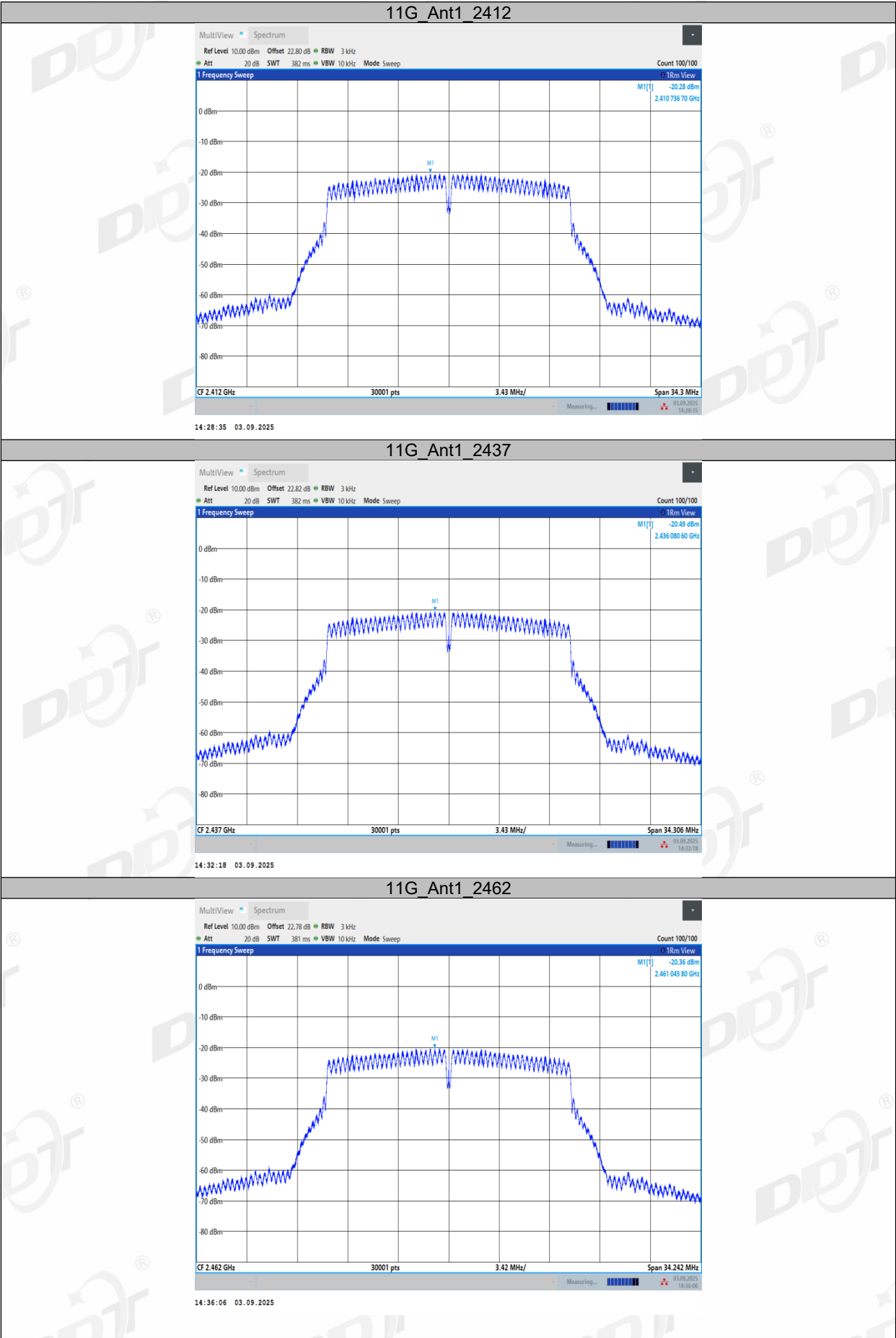
Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.4-28.3℃,42.9-47.8%RH	Test Date:	2025.08.13-2025.09.03
Test Power Supply:	DC 12V	Sample Number:	S25072135-003

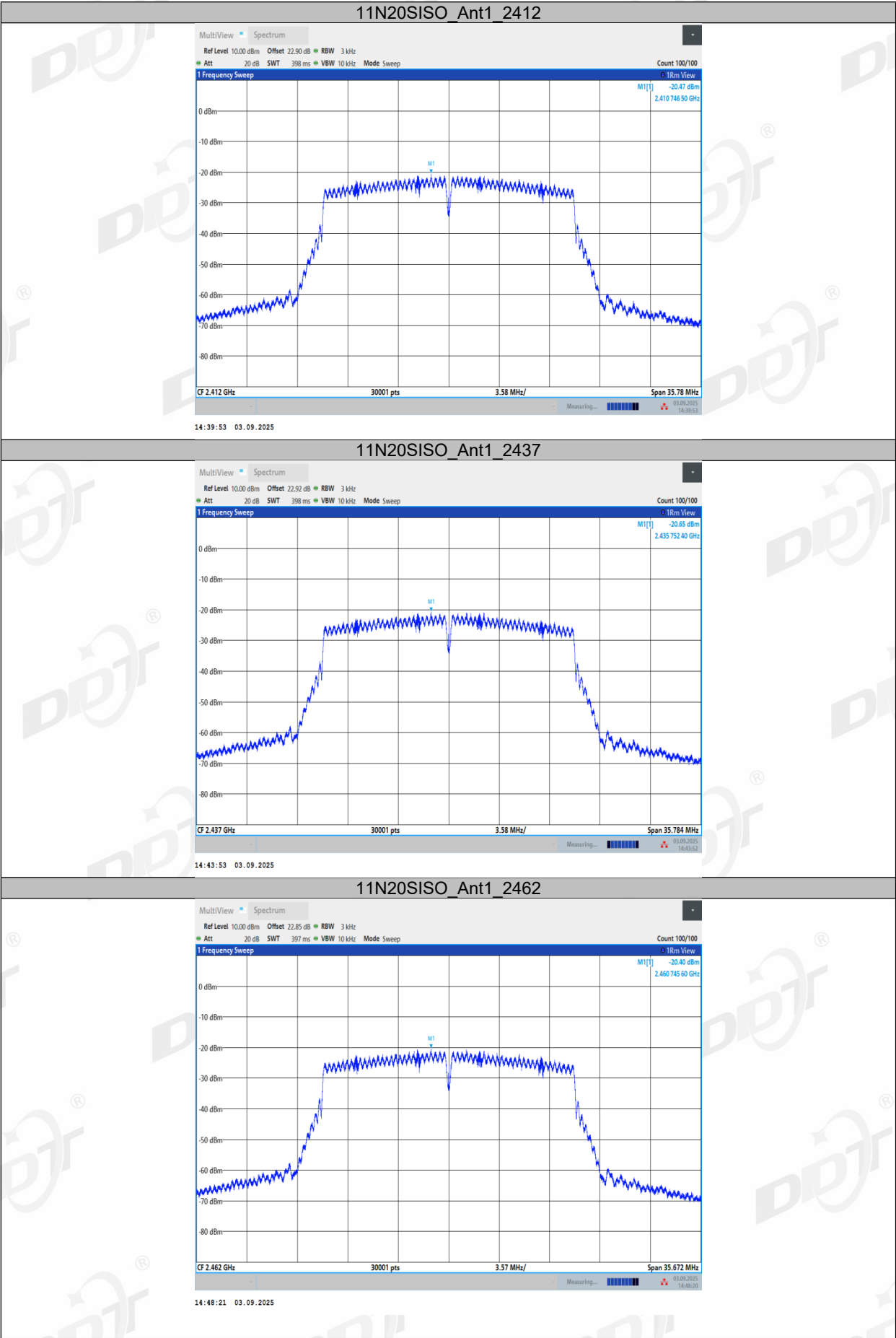
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-18.11	≤8.00	PASS
		2437	-19.17	≤8.00	PASS
		2462	-18.93	≤8.00	PASS
11G	Ant1	2412	-20.28	≤8.00	PASS
		2437	-20.49	≤8.00	PASS
		2462	-20.36	≤8.00	PASS
11N20SISO	Ant1	2412	-20.47	≤8.00	PASS
		2437	-20.65	≤8.00	PASS
		2462	-20.40	≤8.00	PASS
11N40SISO	Ant1	2422	-23.39	≤8.00	PASS
		2437	-23.45	≤8.00	PASS
		2452	-24.86	≤8.00	PASS

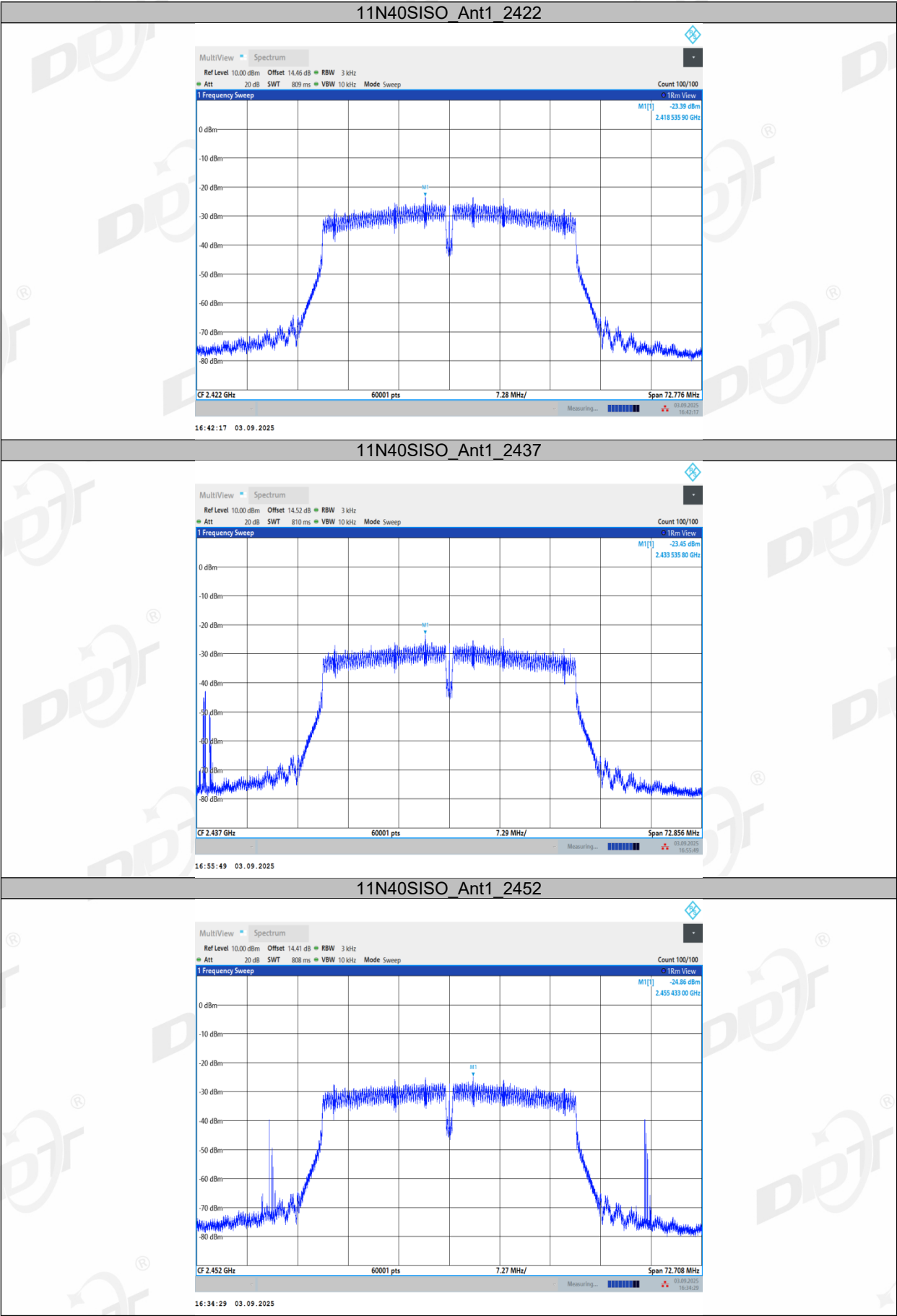
Note: The Duty Cycle Factor is compensated in the graph.

7.5. Test graphs



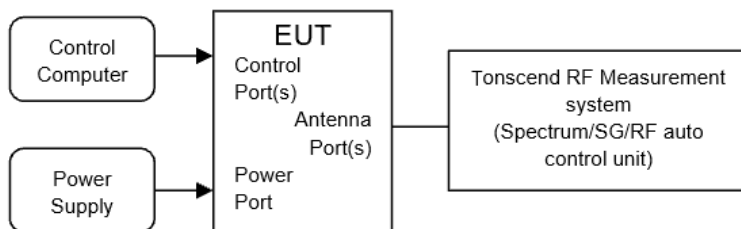






8. Band Edge Compliance (Conducted Method)

8.1. Block diagram of test setup



8.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

8.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Establish a reference level by using the following procedure:

RBW: 100 kHz

VBW: 300 kHz

Span: Encompass frequency range to be measured

Detector Mode: Peak

Sweep time: auto

Trace mode: Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

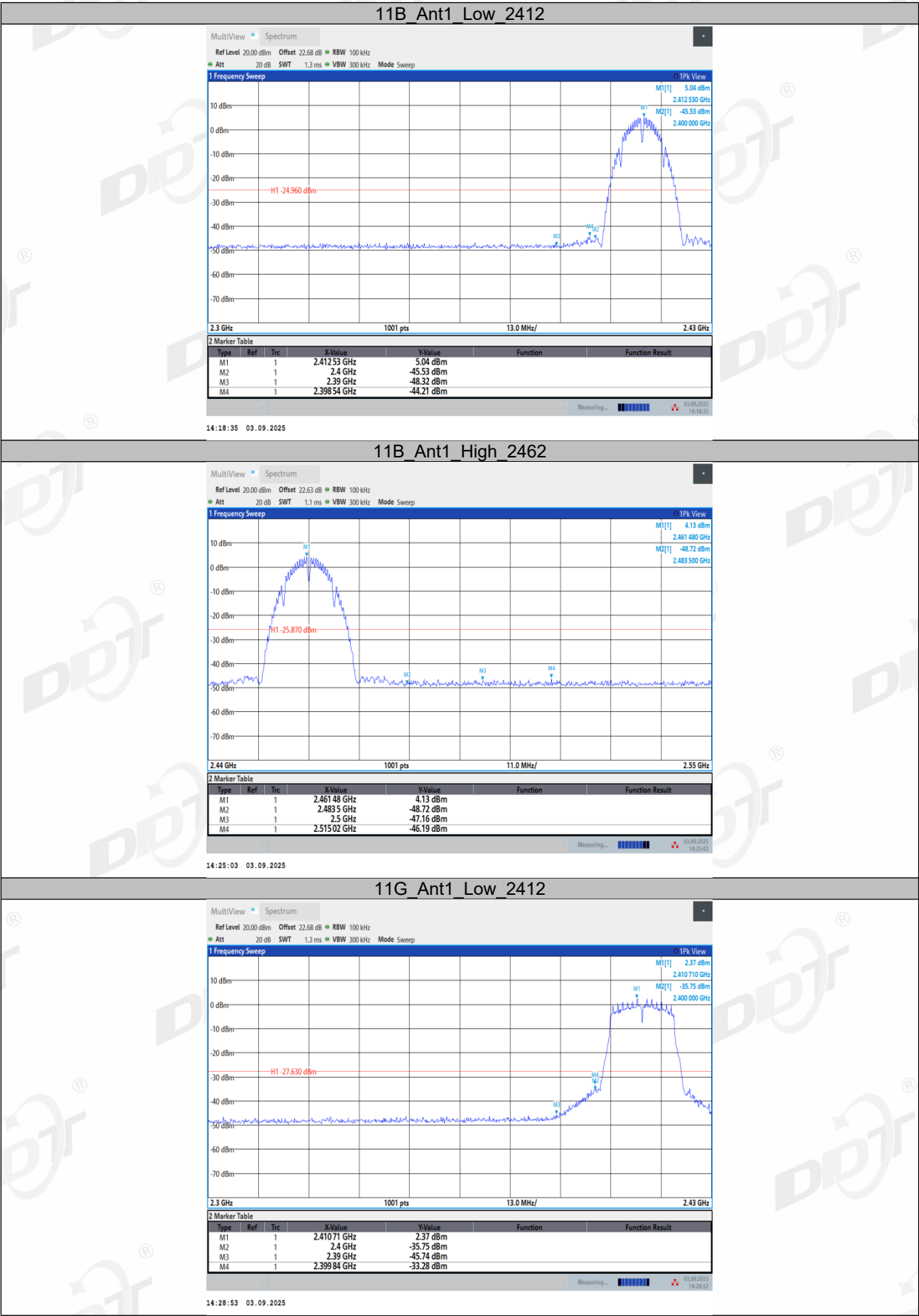
(4) Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

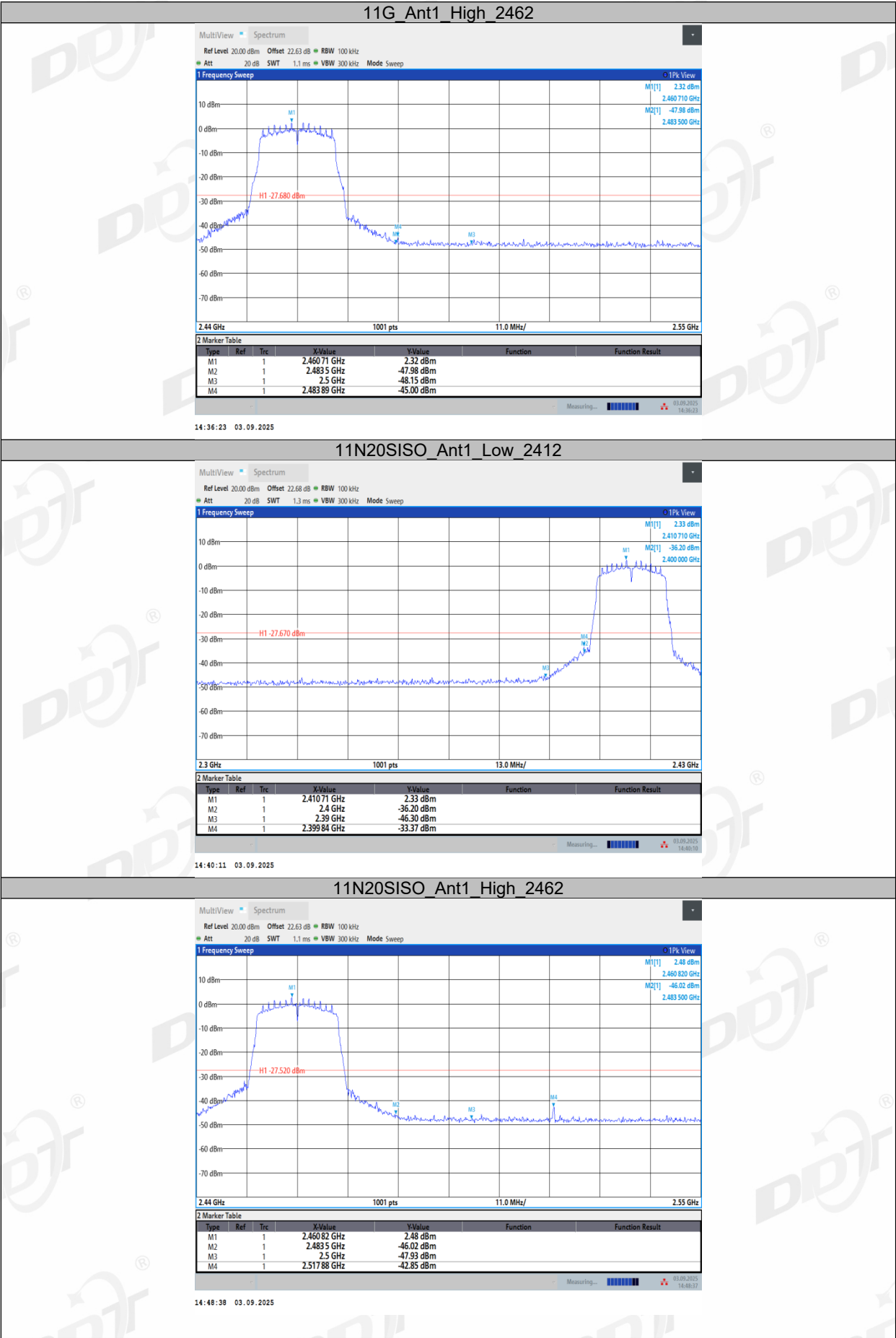
8.4. Test result

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.4-28.3℃,42.9-47.8%RH	Test Date:	2025.08.13-2025.09.03
Test Power Supply:	DC 12V	Sample Number:	S25072135-003

EUT Set Mode	CH or Frequency	Result (dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11g	CH1	Pass
	CH11	Pass		CH11	Pass
11n HT 20	CH1	Pass	11n HT 40	CH3	Pass
	CH11	Pass		CH9	Pass

8.5. Test graphs

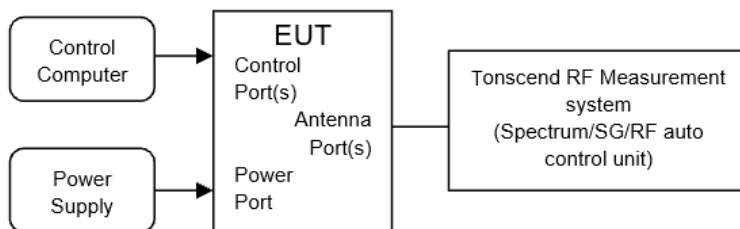






9. RF Conducted Spurious Emissions

9.1. Block diagram of test setup



9.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

9.3. Test procedure

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Establish a reference level by using the following procedure:

Center frequency:	Test frequency
RBW:	100 kHz
VBW:	300 kHz
Span:	Wide enough to capture the peak level of the in-band emission
Detector Mode:	Peak
Sweep time:	auto
Trace mode:	Max hold
- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
- (4) Set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Span:	Encompass frequency range to be measured
Number of measurement points:	$\geq \text{Span/RBW}$
Detector Mode:	Peak
Sweep time:	auto
Trace mode:	Max hold
- (5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

9.4. Test result

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.4-28.3℃,42.9-47.8%RH	Test Date:	2025.08.13-2025.09.03
Test Power Supply:	DC 12V	Sample Number:	S25072135-003

EUT Set Mode	CH or Frequency	Result (dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11g	CH1	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH11	Pass
11n HT 20	CH1	Pass	11n HT 40	CH3	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH9	Pass

9.5. Test graphs

