



RADIO TEST REPORT

Applicant	:	Guangzhou FIIO Electronics Technology Co., Ltd.
Address of Applicant	:	No.21, Longliang Road, Xialiang Village, Longgui Street, Baiyun District, Guangzhou, Guangdong, P.R. China
Manufacturer	:	Guangzhou FIIO Electronics Technology Co., Ltd.
Address of Manufacturer	:	No.21, Longliang Road, Xialiang Village, Longgui Street, Baiyun District, Guangzhou, Guangdong, P.R. China
Equipment under Test	:	Streaming Amplifier
Model No.	:	F3001A, F3002A, F3003A, F3004A, F3005A
FCC ID	:	R56-FC3002
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
Report No.	:	DDT-RE26051409-1E03
Issue Date	:	2026/08/17
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

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Test Report Declare

Applicant	:	Guangzhou FIIO Electronics Technology Co., Ltd.
Address of Applicant	:	No.21, Longliang Road, Xialiang Village, Longgui Street, Baiyun District, Guangzhou, Guangdong, P.R. China
Equipment under Test	:	Streaming Amplifier
Model No.	:	F3001A, F3002A, F3003A, F3004A, F3005A
Manufacturer	:	Guangzhou FIIO Electronics Technology Co., Ltd.
Address of Manufacturer	:	No.21, Longliang Road, Xialiang Village, Longgui Street, Baiyun District, Guangzhou, 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

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-RE26051409-1E03		
Date of Receipt:	2026/05/19	Date of Test:	2026/05/19 - 2026/07/30

Created: Zoe Peng	Reviewed: Bobo Chen	Approved: Ella Gong
		
2026/07/31	2026/08/17	2026/08/17

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	2026/08/17	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)	/	Pass
2	Peak Output Power	47 CFR Part 15 15.247(b)(3)	/	Pass
3	Power Spectral Density	47 CFR Part 15 15.247(e)	/	Pass
4	RF Conducted Spurious Emissions	47 CFR Part 15 15.247(d)	/	Pass
5	Radiated Emission	47 CFR Part 15 15.205, 47 CFR Part 15 15.209, 47 CFR Part 15 15.247(d)	/	Pass
6	Band Edge Compliance	47 CFR Part 15 15.205, 47 CFR Part 15 15.209, 47 CFR Part 15 15.247(d)	/	Pass
7	Power Line Conducted Emissions	47 CFR Part 15 15.207(a)	/	Pass
8	Antenna Requirement	47 CFR Part 15 15.203	/	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	: Streaming Amplifier
Model Number	: F3001A, F3002A, F3003A, F3004A, F3005A
Difference of model number	: All models are identical except the appearance and model, therefore the test performed on the model F3001A
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 48V/5A from external AC/DC Adapter
Antenna Type	: FPC Antenna
Max Antenna Gain(dBi)	: 7.25

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
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	/	/

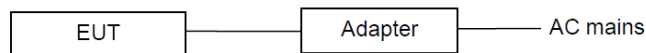
Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's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

“☑” means to be chosen or applicable; “☐” means don't to be chosen or not applicable; This note applies to entire report.

2.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
AC/DC ADAPTER	Merryking	ESA-48000500AE	Input: 100-240V~ 50/60Hz Output: DC 48.0V 5.0A

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: adb.exe

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)
IEEE 802.11b	9	1	LCH: CH1	2412
	9	1	MCH: CH6	2437
	9	1	HCH: CH11	2462
IEEE 802.11g	9	6	LCH: CH1	2412
	9	6	MCH: CH6	2437
	9	6	HCH: CH11	2462
IEEE 802.11n HT20	9	MCS 0	LCH: CH1	2412
	9	MCS 0	MCH: CH6	2437
	9	MCS 0	HCH: CH11	2462
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

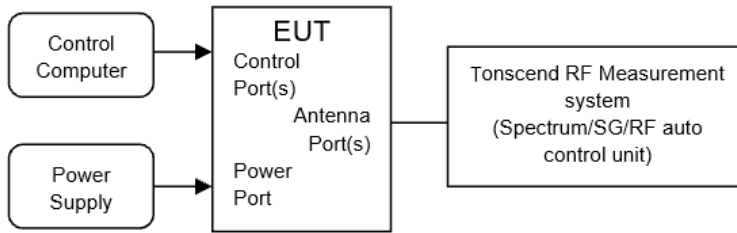
Test Item	Uncertainty
Bandwidth	1.9%
Peak Output Power (Conducted) (Spectrum analyzer)	0.98 dB
Peak Output Power (Conducted) (Power Sensor)	1.18 dB
Power Spectral Density (Base EIRP)	1.51 dB
Power Spectral Density (Spectrum analyzer)	0.98 dB
Frequencies Stability	1.9 kHz
Conducted spurious emissions	1.21 dB ($9\text{ kHz} \leq f < 7\text{ GHz}$);
	3.31 dB ($7\text{ GHz} \leq f < 40\text{ GHz}$)
Uncertainty for radio frequency (RBW < 20 kHz)	5.5×10^{-8}
Time	0.11%
Temperature	0.3 °C
Humidity	2 %
Uncertainty for Radiation Emission test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz - 1 GHz)	4.28 dB (Antenna Polarize: V)
	4.14 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz - 40 GHz)	4.22 dB (1 - 6 GHz)
	4.52 dB (6 GHz - 18 GHz)
	4.58 dB (18 GHz - 40 GHz)
Uncertainty for Power line conduction emission test	3.32dB (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
☑RF Connected Test (RF Measurement System 5#)				
Spectrum Analyzer	R&S	FSV40-N	101903	2027/02/27
Wideband Radio Communication Tester	R&S	CMW500	132871	2027/01/15
EXG Vector Generator	Agilent	N5172B	MY53051914	2027/01/06
MXG Vector Signal Generator	Agilent	N5173B	MY62220219	2027/03/18
RF Control Unit	Tonscend	JS0806-2	23180620727	2027/03/17
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2027/02/27
Test Software	Tonscend	JS1120-3	V3.6.21	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 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

Allow the trace to stabilize, measure the 6 dB bandwidth of signal, and record the results in the report

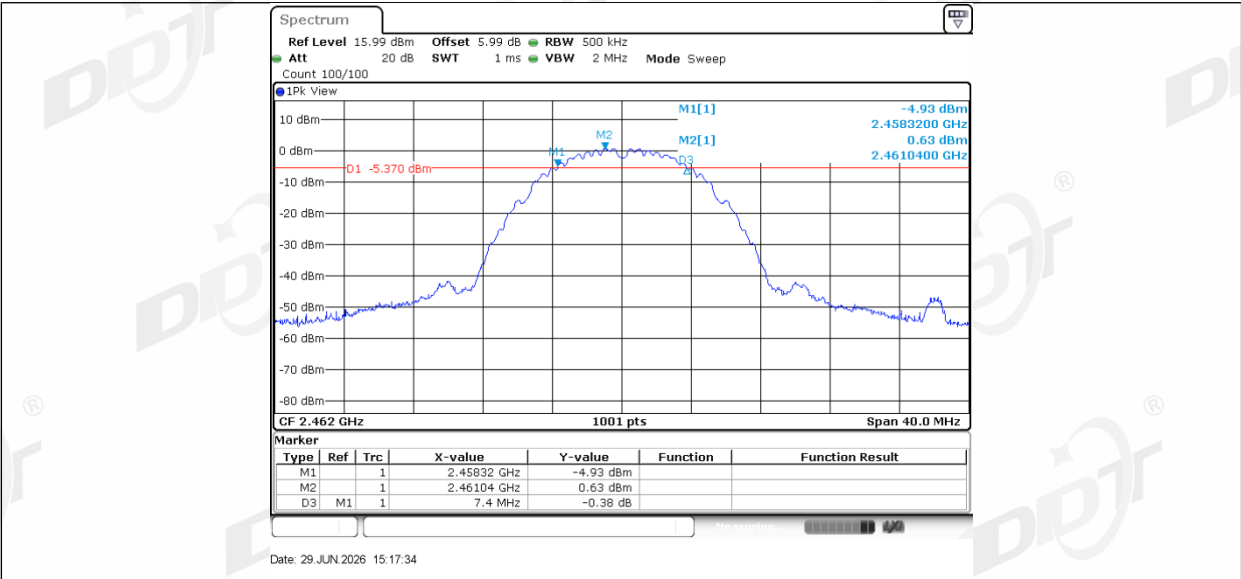
4.4. Test result

Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

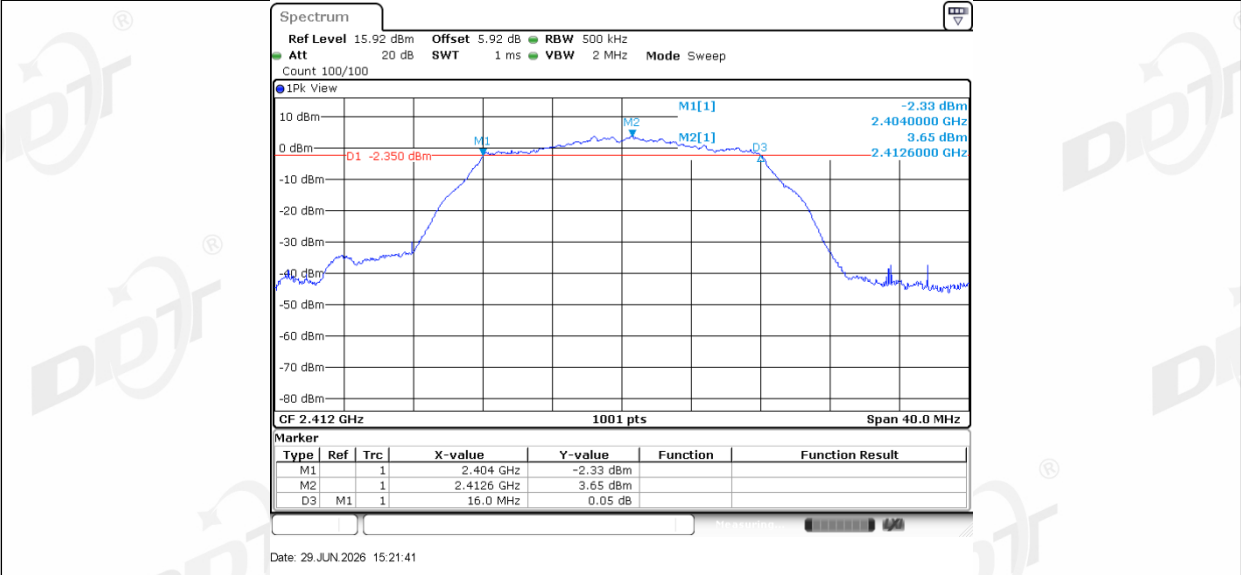
Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	7.40	2408.32	2415.72	0.5	PASS
		2437	7.40	2433.32	2440.72	0.5	PASS
		2462	7.40	2458.32	2465.72	0.5	PASS
11G	Ant1	2412	16.00	2404.00	2420.00	0.5	PASS
		2437	15.96	2429.00	2444.96	0.5	PASS
		2462	15.20	2454.04	2469.24	0.5	PASS
11N20SISO	Ant1	2412	17.00	2403.60	2420.60	0.5	PASS
		2437	17.16	2428.48	2445.64	0.5	PASS
		2462	16.12	2453.92	2470.04	0.5	PASS

4.5. Test graphs

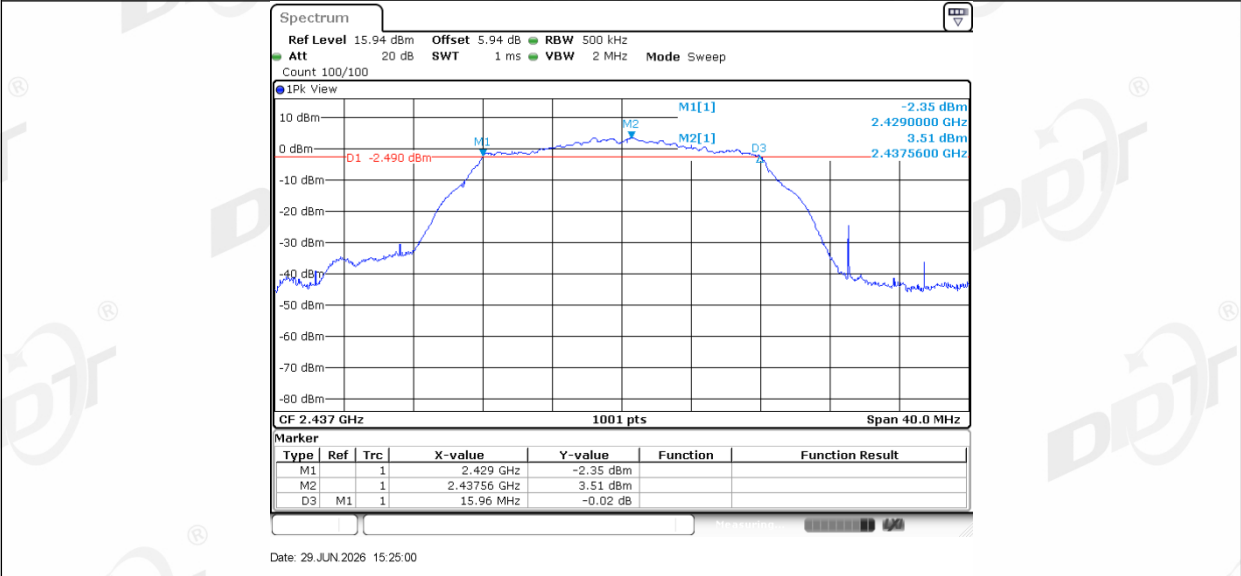




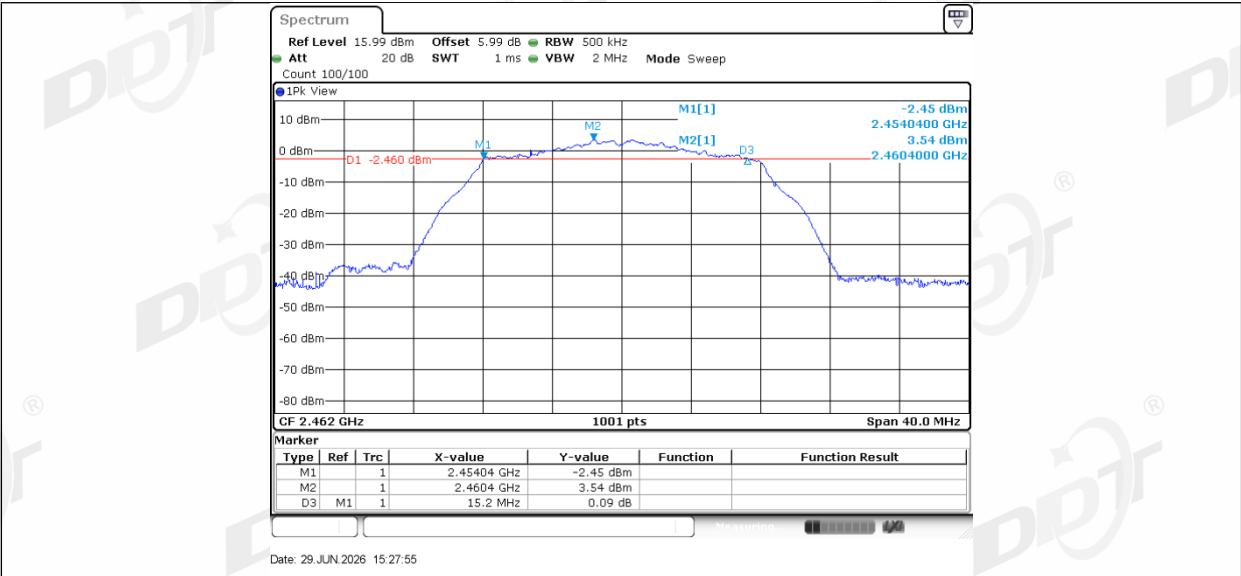
11G Ant1_2412



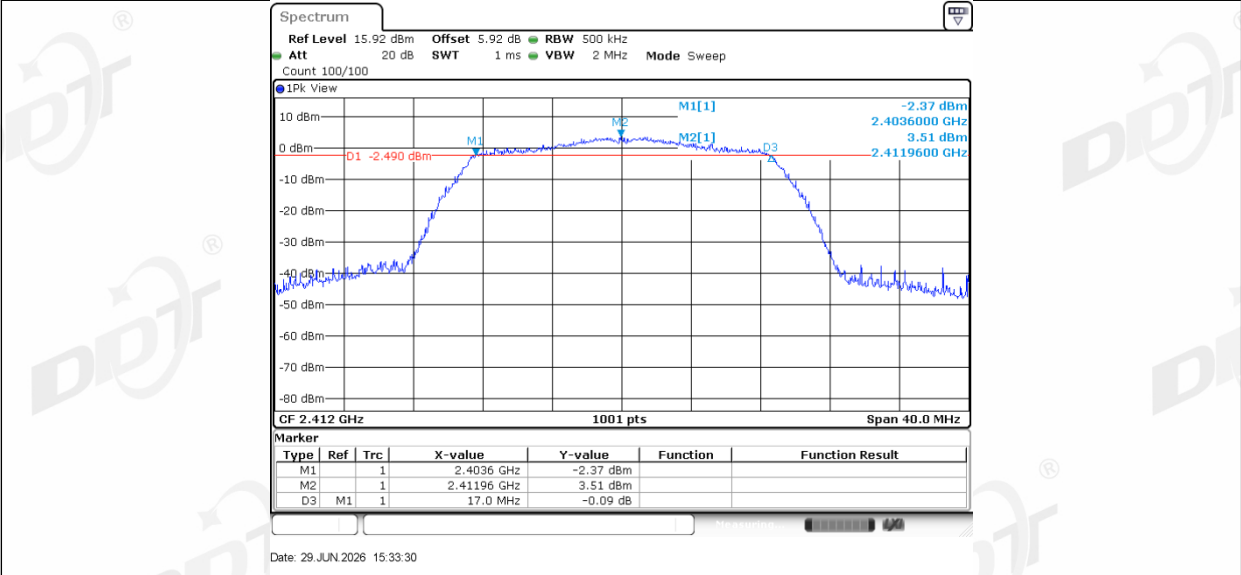
11G Ant1_2437



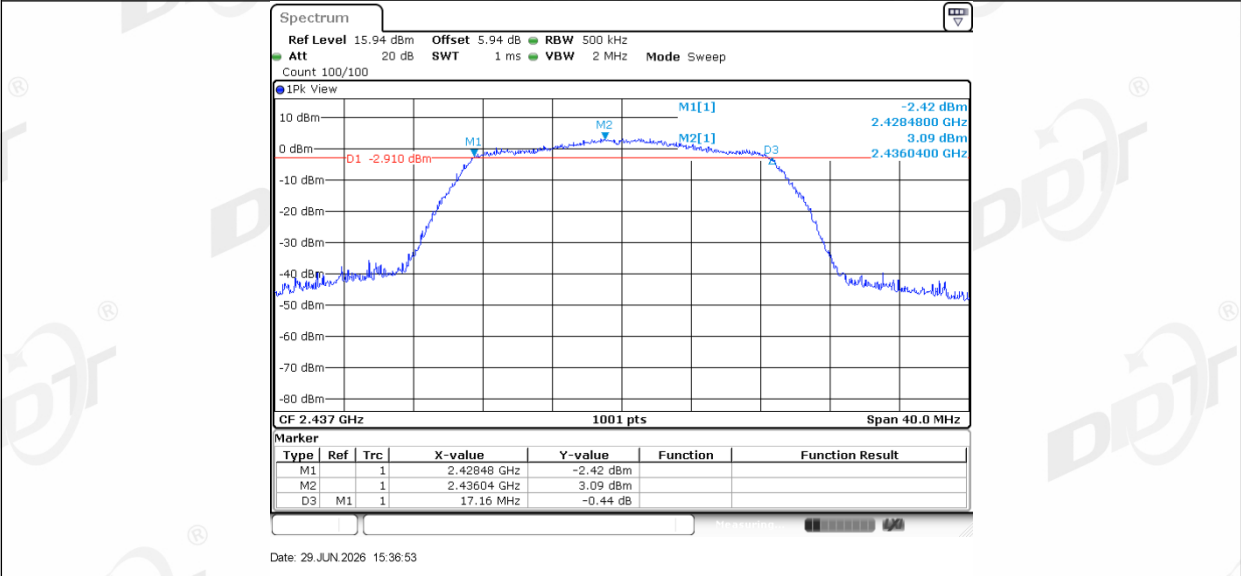
11G Ant1_2462



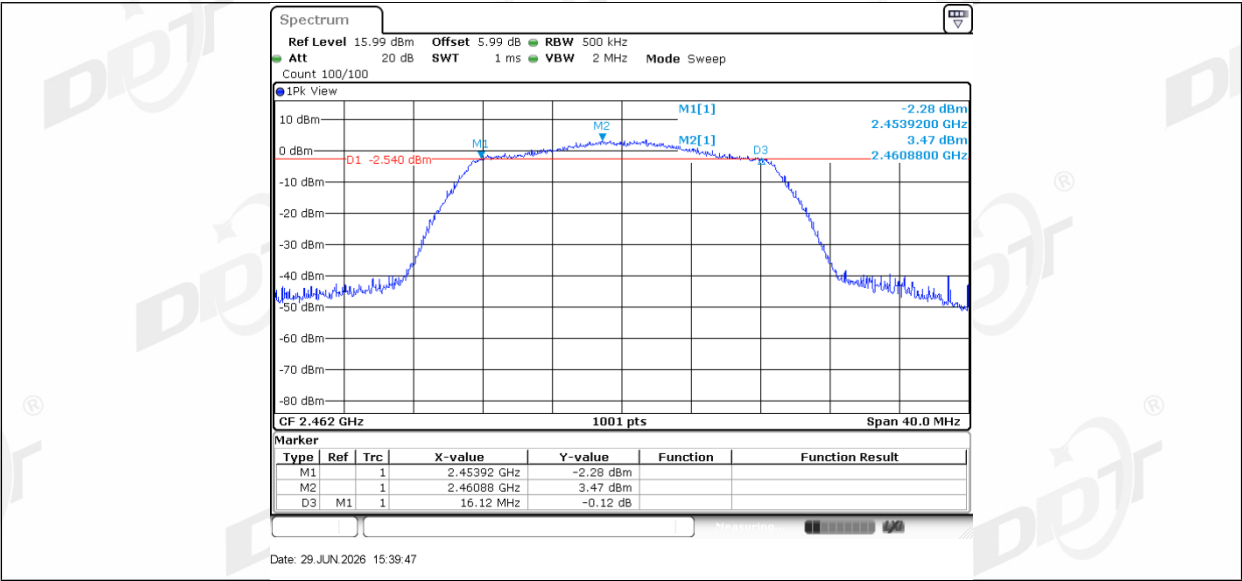
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

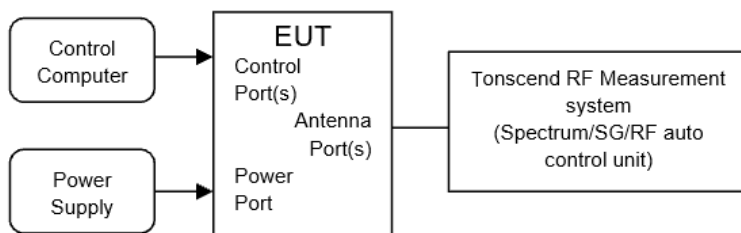


11N20SISO_Ant1_2462



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 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

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

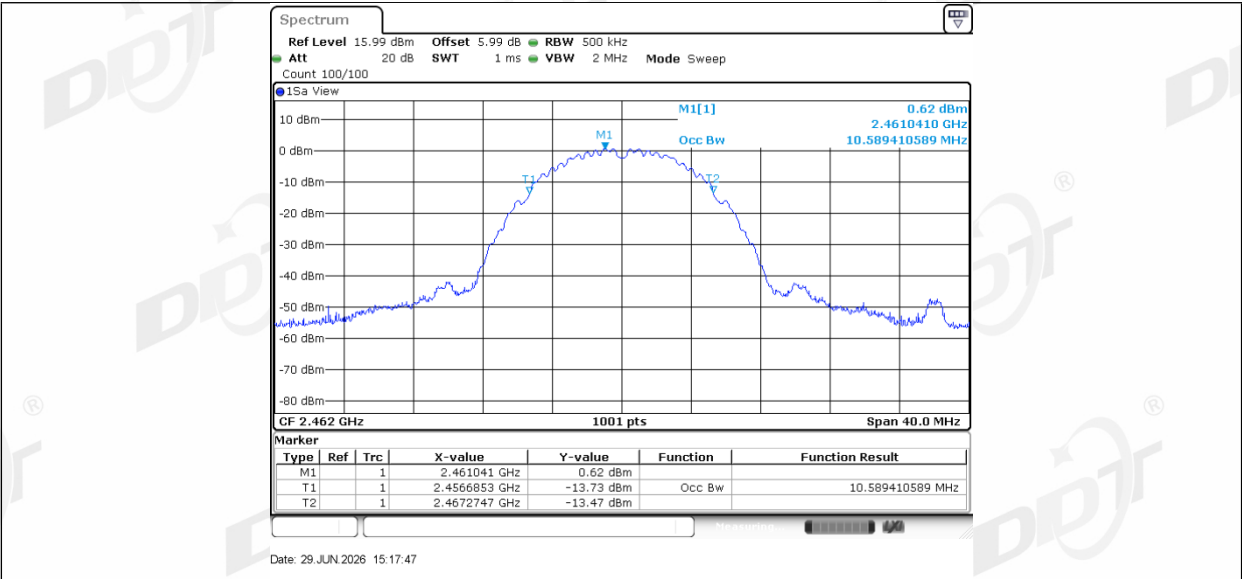
5.4. Test result

Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

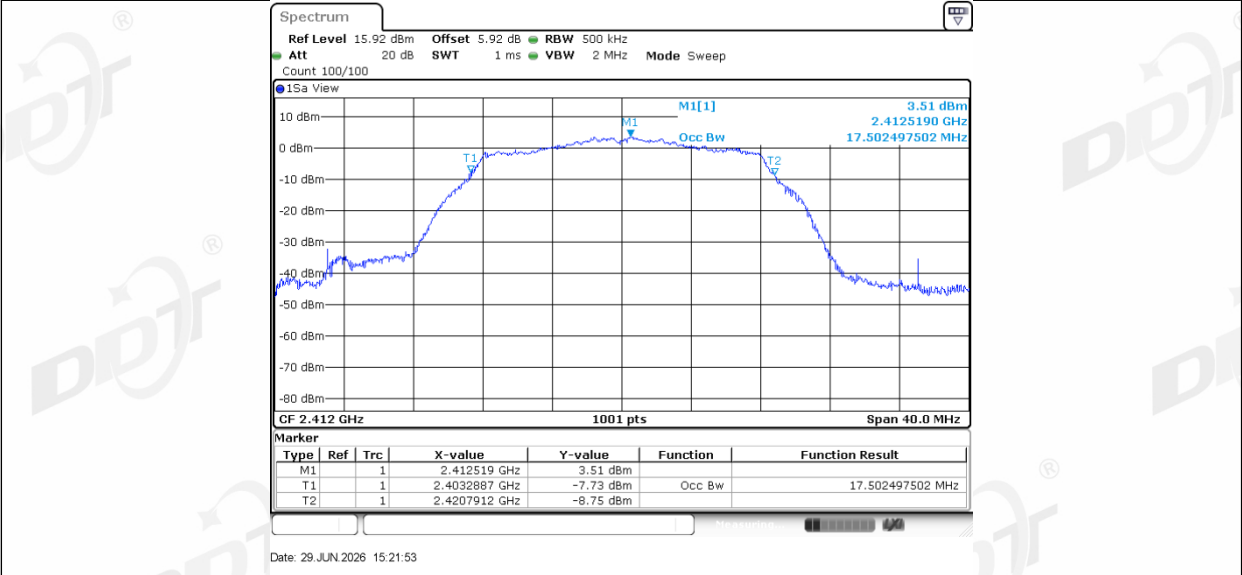
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.589	2406.7652	2417.3546	---	---
		2437	10.549	2431.7253	2442.2747	---	---
		2462	10.589	2456.6853	2467.2747	---	---
11G	Ant1	2412	17.502	2403.2887	2420.7912	---	---
		2437	17.502	2428.2088	2445.7113	---	---
		2462	17.263	2453.2887	2470.5514	---	---
11N20SISO	Ant1	2412	18.342	2402.8492	2421.1908	---	---
		2437	18.382	2427.8092	2446.1908	---	---
		2462	18.222	2452.8492	2471.0709	---	---

5.5. Test graphs

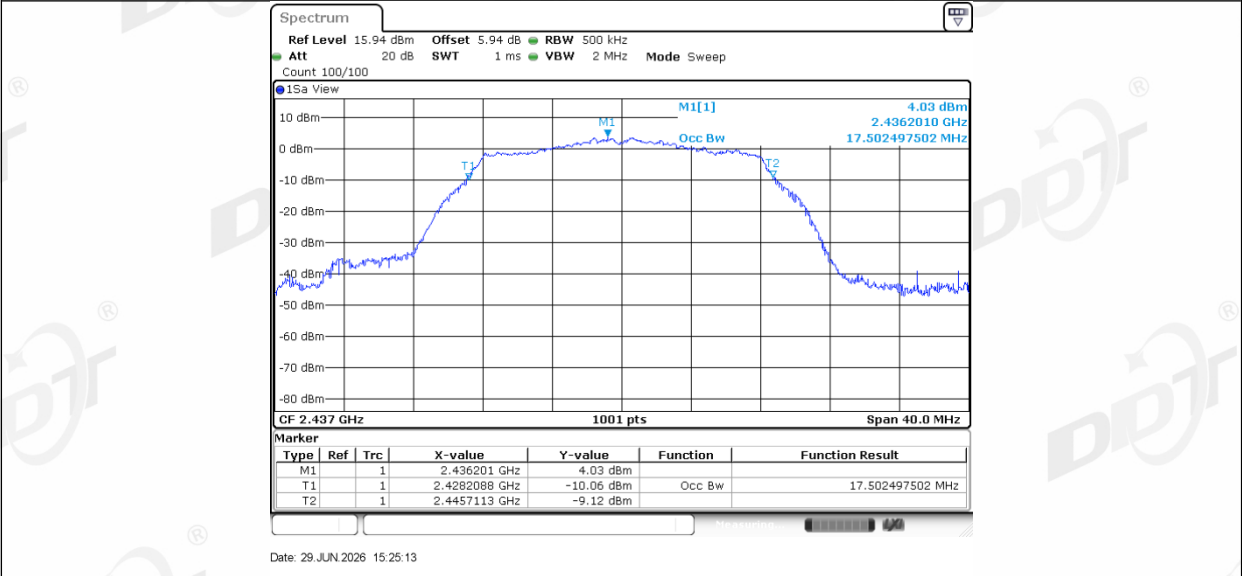




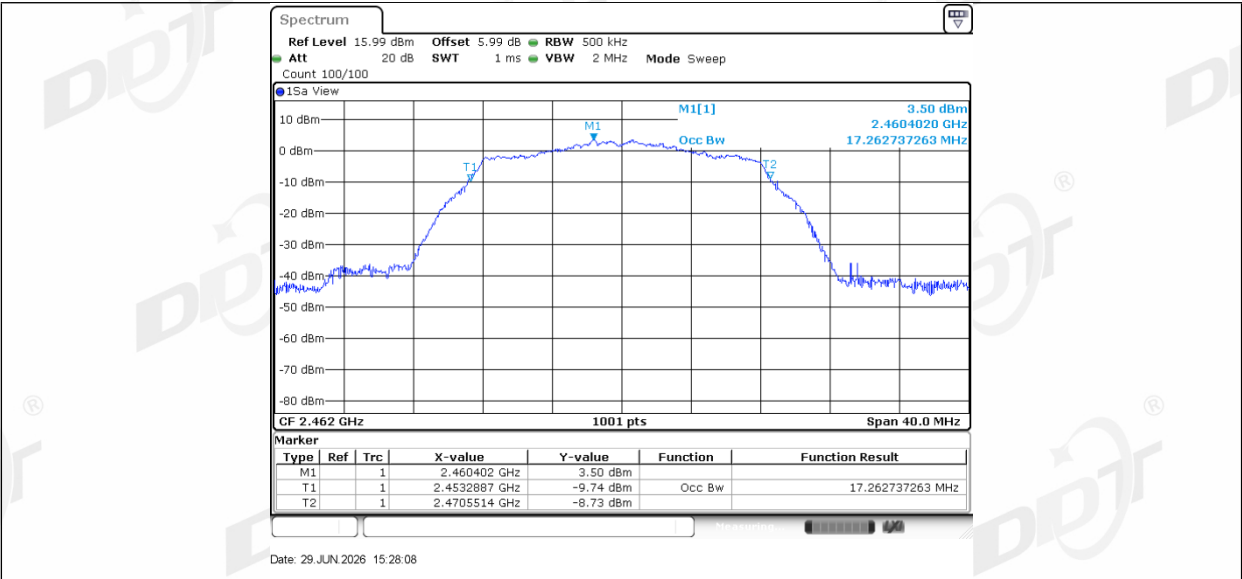
11G Ant1_2412



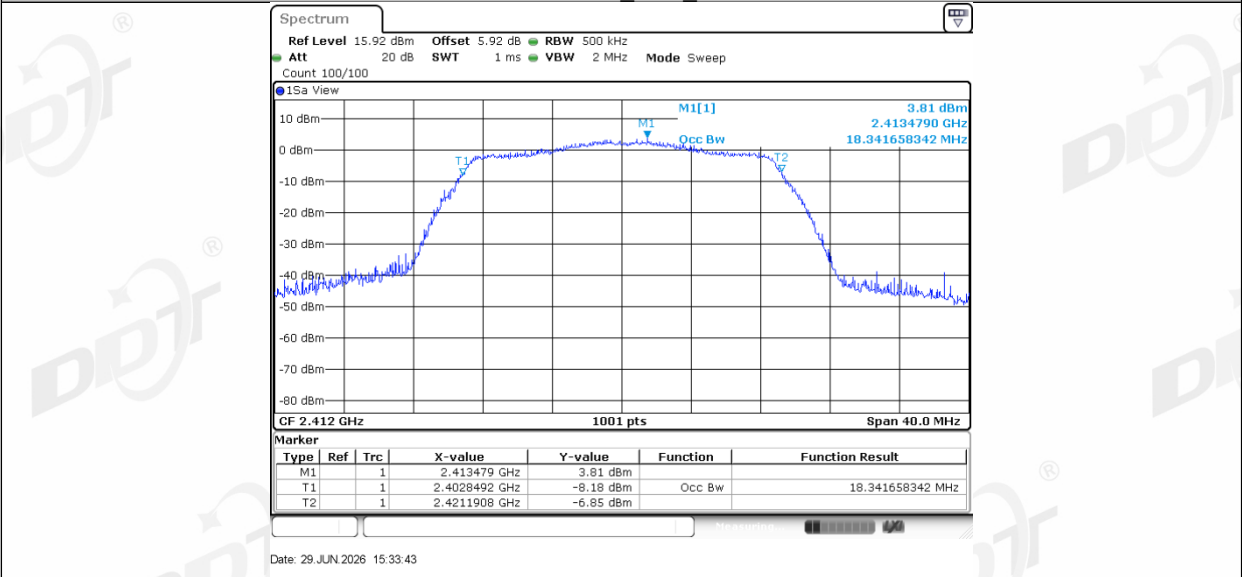
11G Ant1_2437



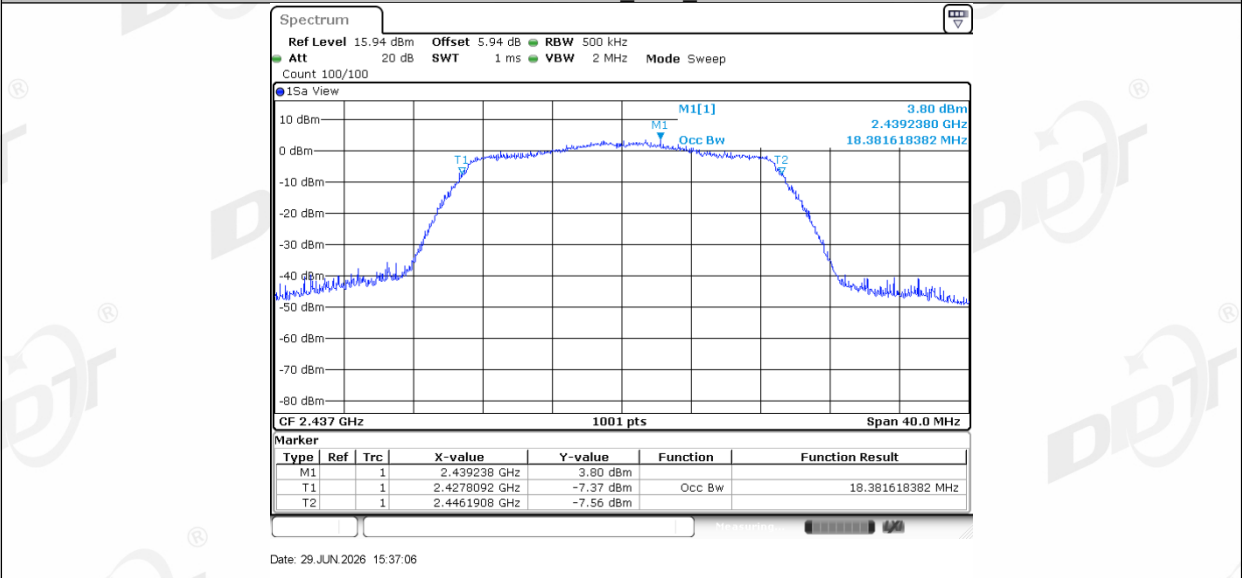
11G Ant1_2462



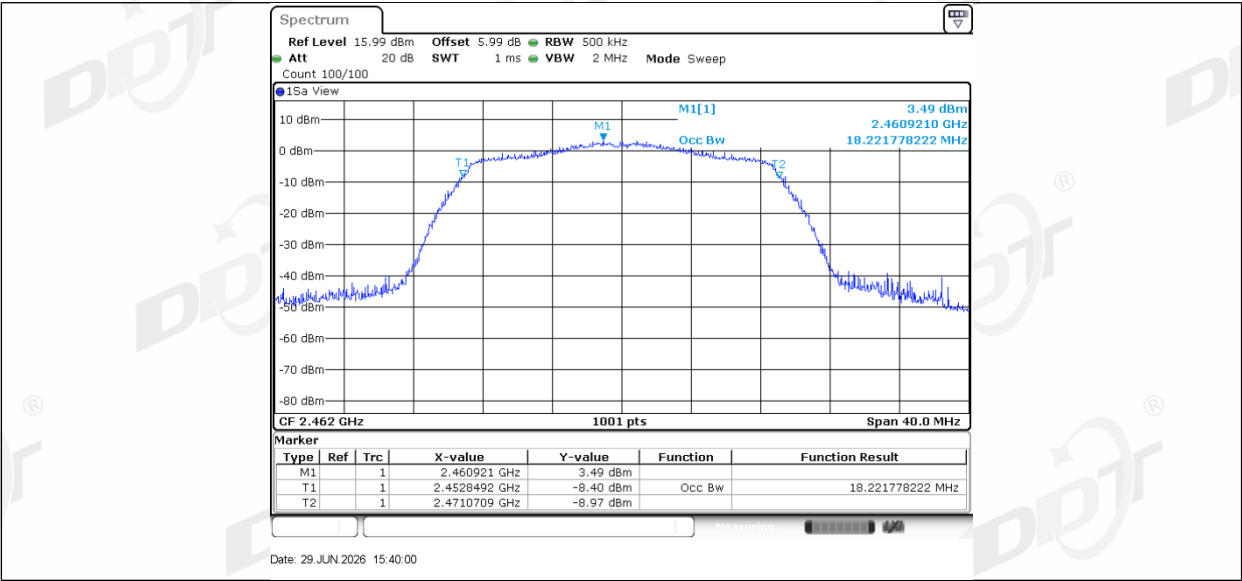
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

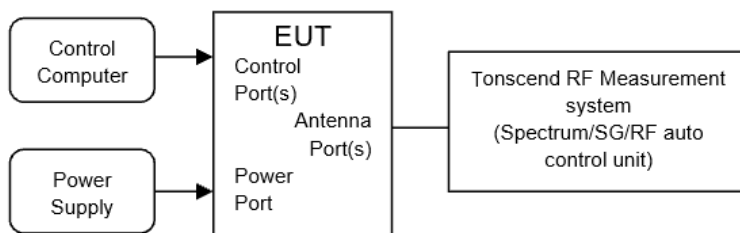


11N20SISO_Ant1_2462



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 clause 11.9.2.3.
- (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

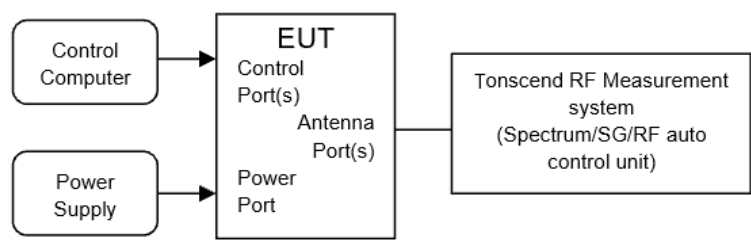
Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

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	9.63	98.83	0.05	9.68	≤28.75	16.93	≤34.75	PASS
		2437	9.20	98.94	0.05	9.25	≤28.75	16.50	≤34.75	PASS
		2462	8.60	98.83	0.05	8.65	≤28.75	15.90	≤34.75	PASS
11G	Ant1	2412	9.61	92.67	0.33	9.94	≤28.75	17.19	≤34.75	PASS
		2437	9.40	93.33	0.30	9.70	≤28.75	16.95	≤34.75	PASS
		2462	9.05	93.33	0.30	9.35	≤28.75	16.60	≤34.75	PASS
11N20SISO	Ant1	2412	9.02	92.91	0.32	9.34	≤28.75	16.59	≤34.75	PASS
		2437	8.93	92.25	0.35	9.28	≤28.75	16.53	≤34.75	PASS
		2462	8.56	92.91	0.32	8.88	≤28.75	16.13	≤34.75	PASS

Note: EIRP (dBm)=Conducted Output Power (dBm)+ Antenna Gain (dBi)

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 clause 11.10.5.

(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 kHz ≤ RBW ≤ 100 kHz |
| VBW: | ≥ 3RBW |
| Span | 1.5 times the DTS bandwidth |
| Detector Mode: | RMS |
| Sweep time: | auto |
| Trace mode | max hold |
| | Employ trace averaging (rms) |
| Trace | 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.

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

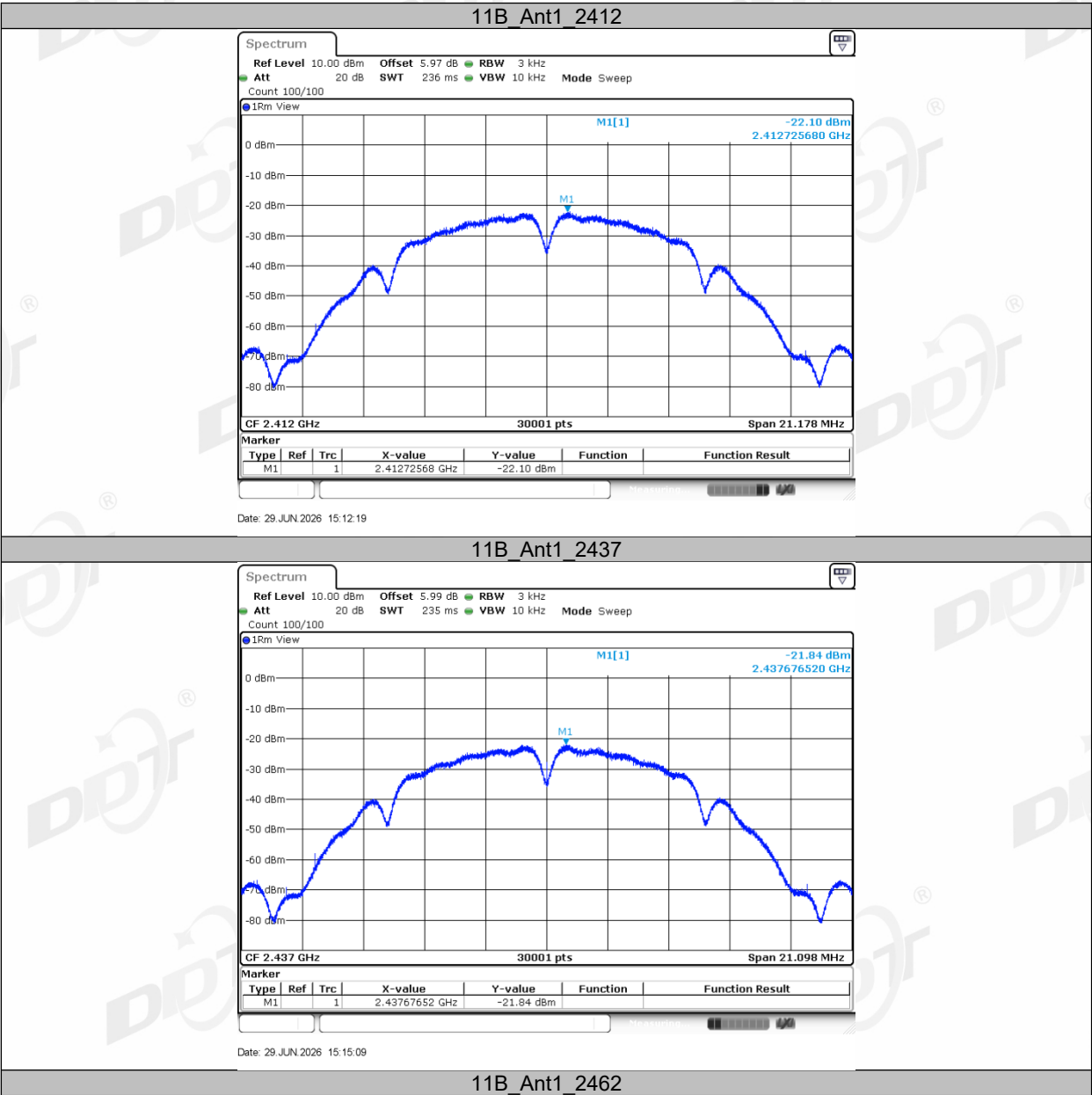
7.4. Test result

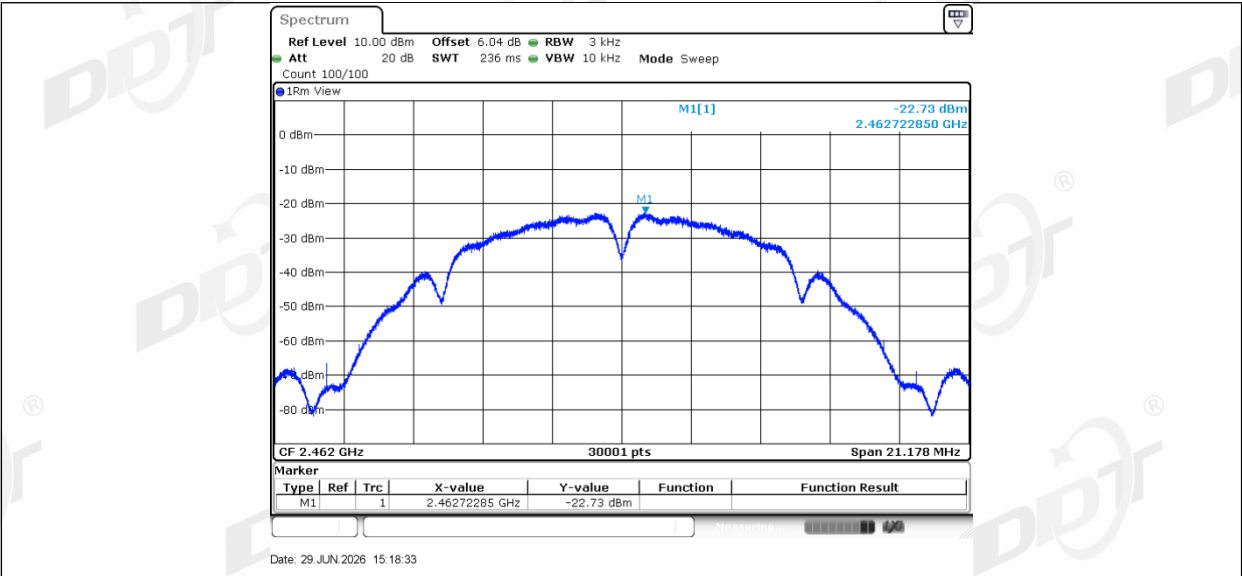
Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

Test Mode	Antenna	Frequency [MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-22.10	≤8.00	PASS
		2437	-21.84	≤8.00	PASS
		2462	-22.73	≤8.00	PASS
11G	Ant1	2412	-20.09	≤8.00	PASS
		2437	-20.06	≤8.00	PASS
		2462	-19.80	≤8.00	PASS
11N20SISO	Ant1	2412	-24.10	≤8.00	PASS
		2437	-24.12	≤8.00	PASS
		2462	-23.61	≤8.00	PASS

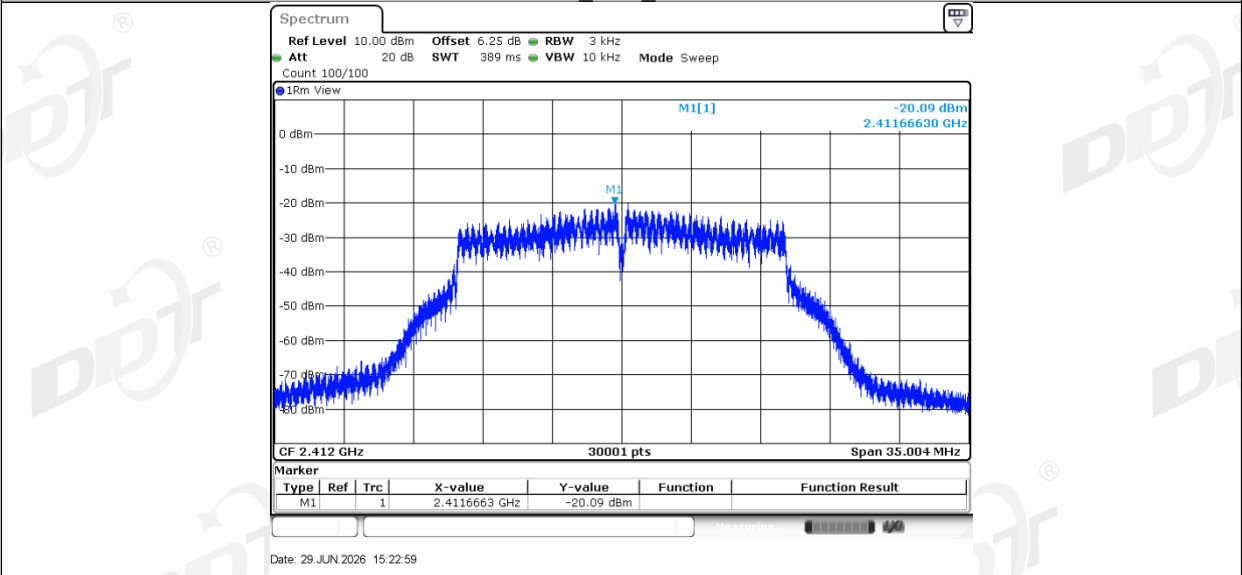
Note: The Duty Cycle Factor is compensated in the graph.

7.5. Test graphs

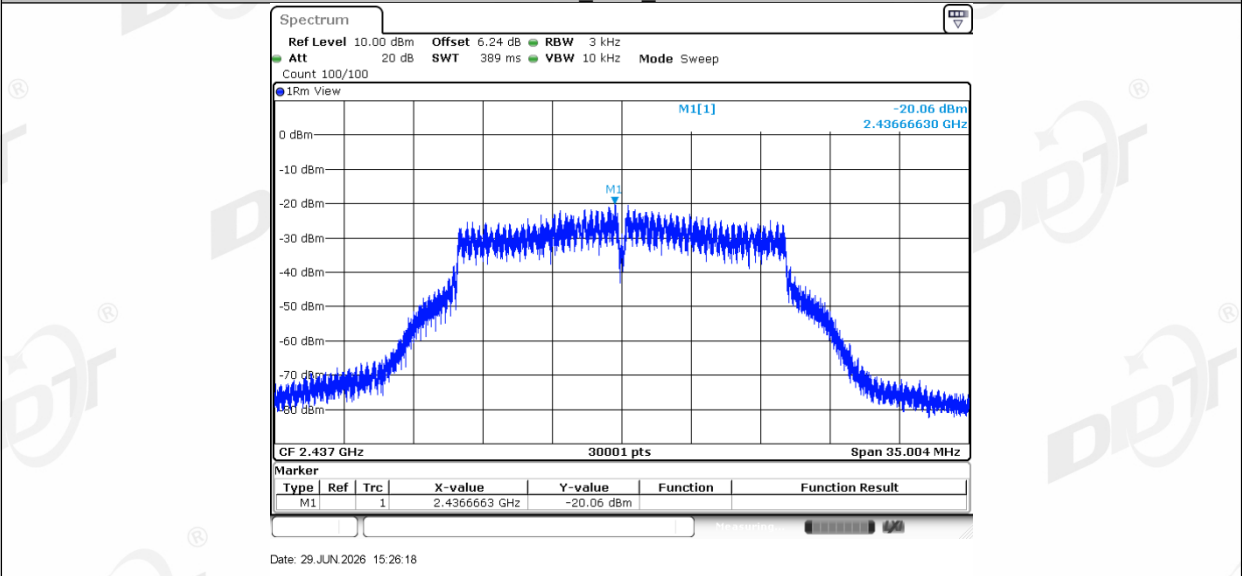




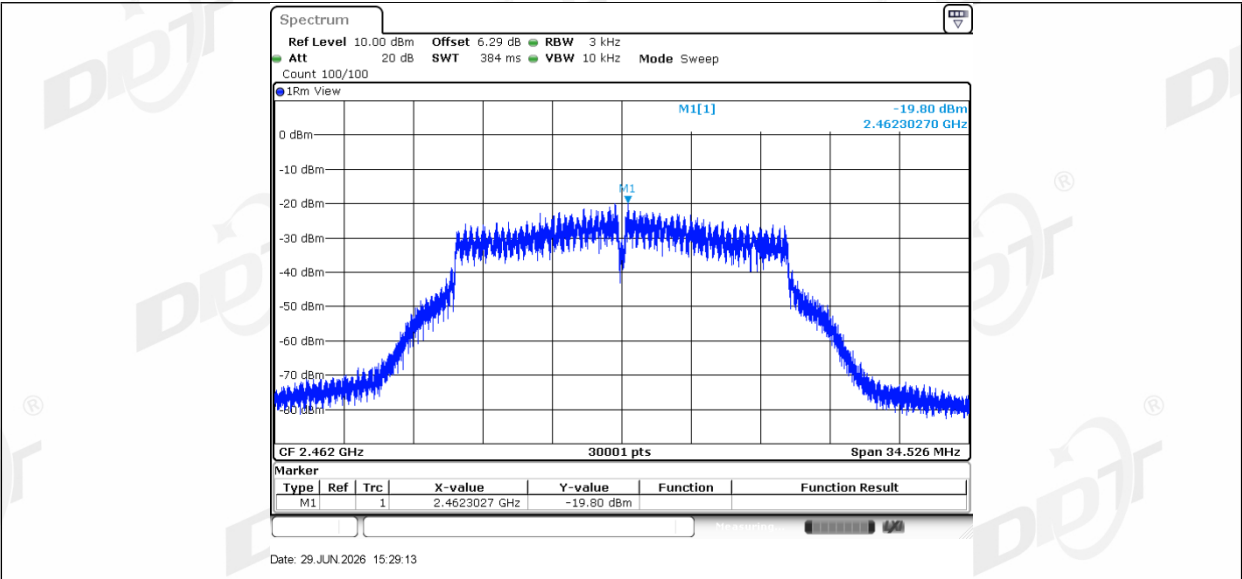
11G Ant1_2412



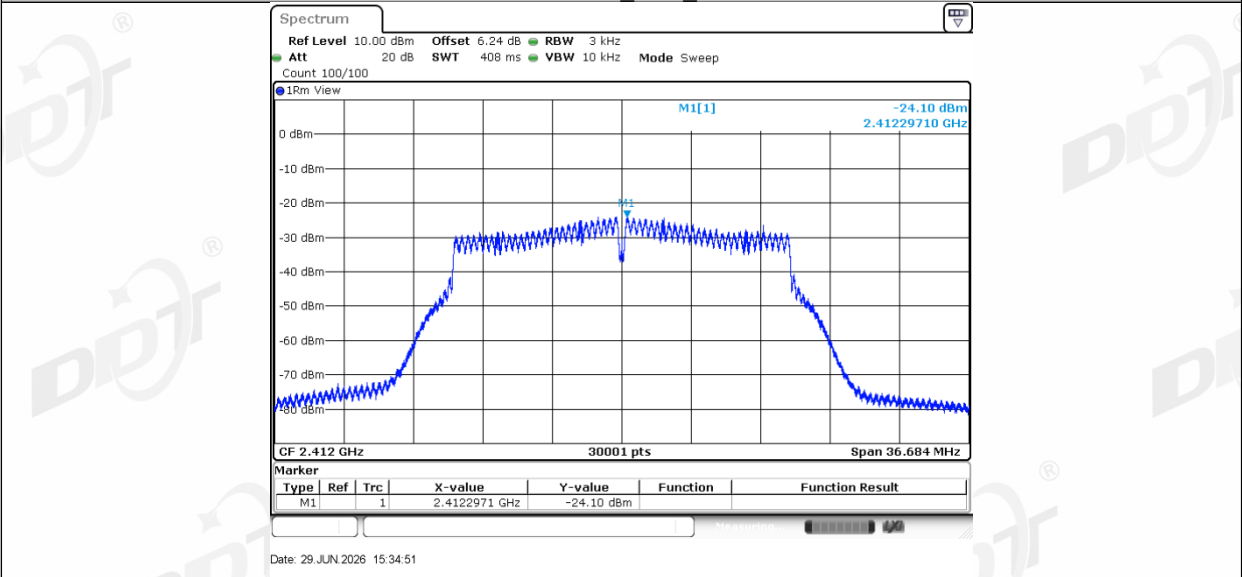
11G Ant1_2437



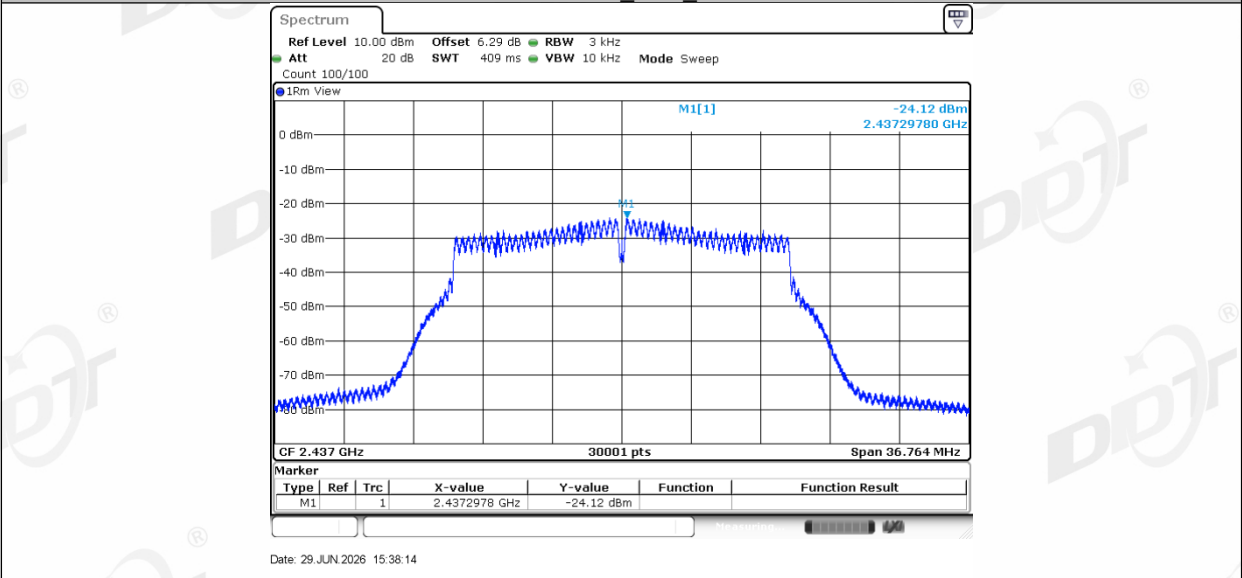
11G Ant1_2462



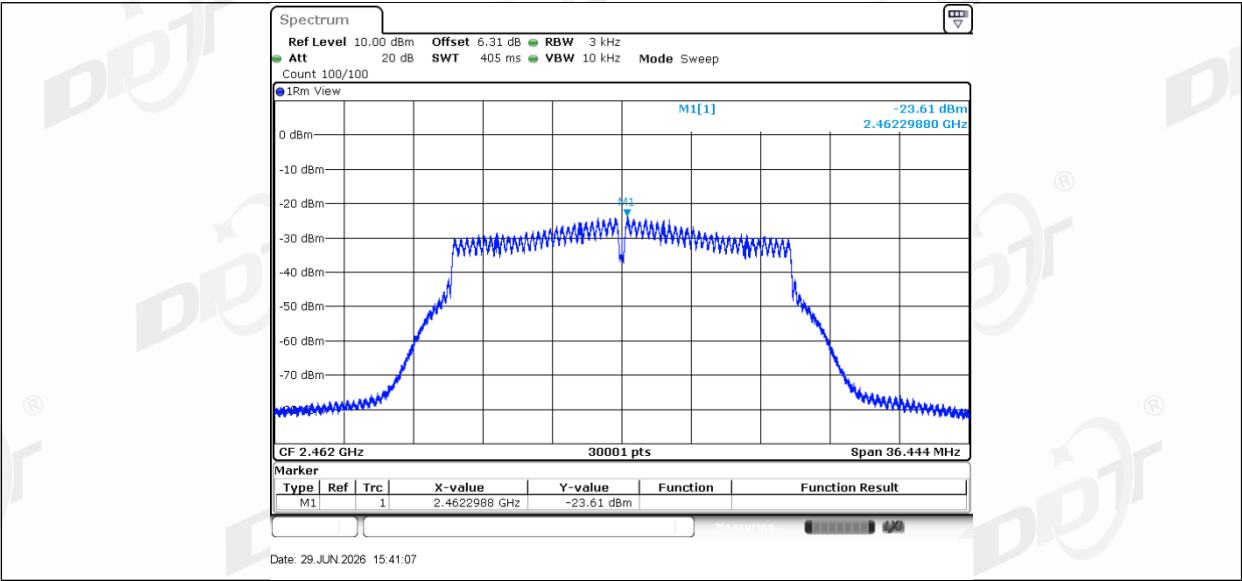
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

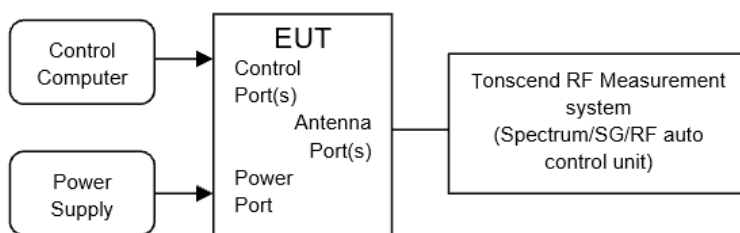


11N20SISO_Ant1_2462



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.

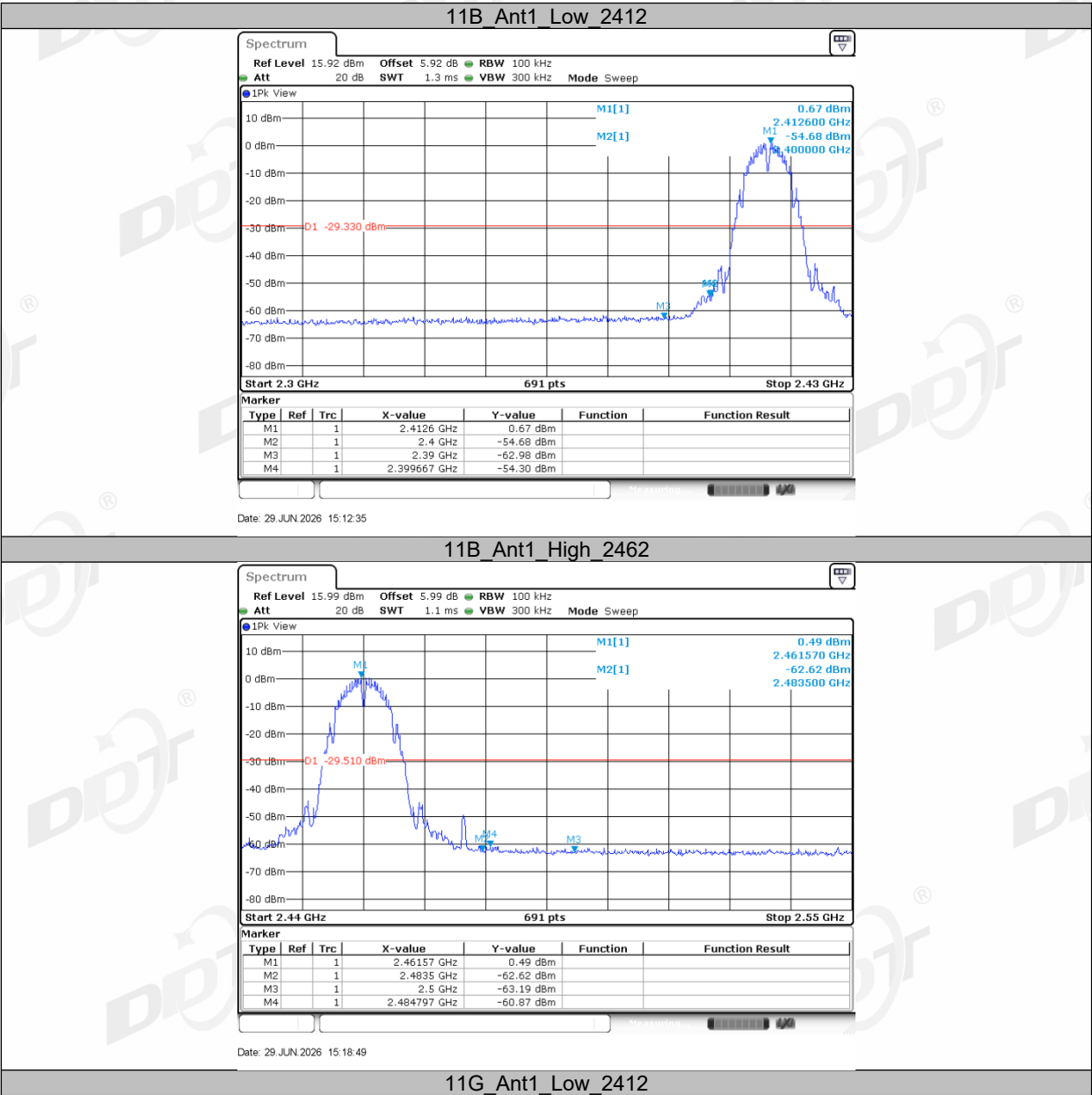
Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

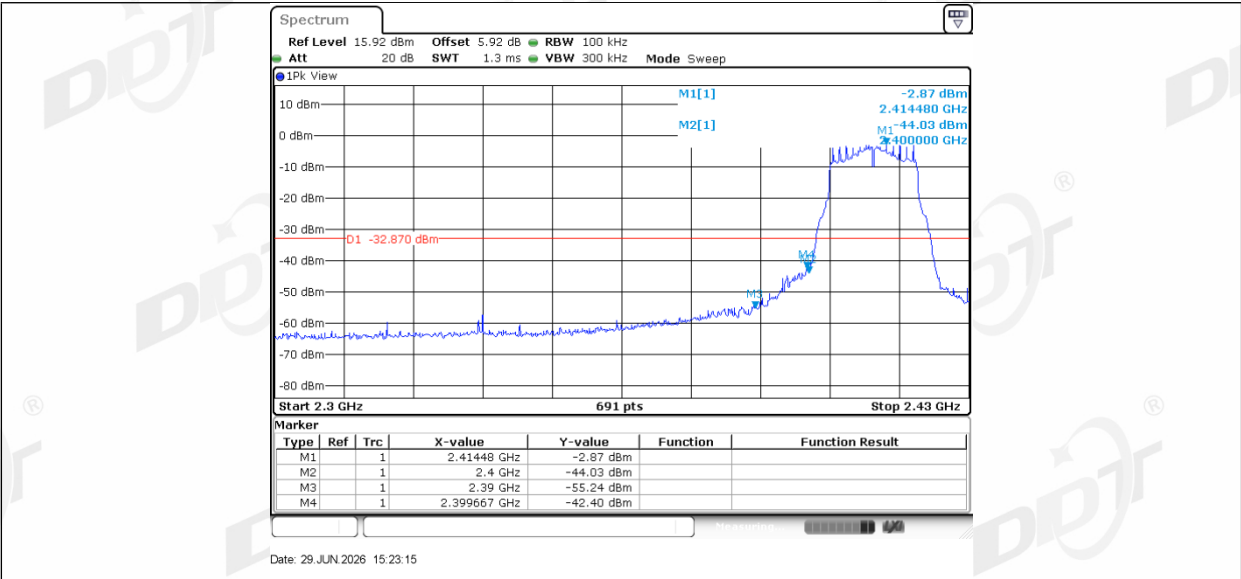
8.4. Test result

Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

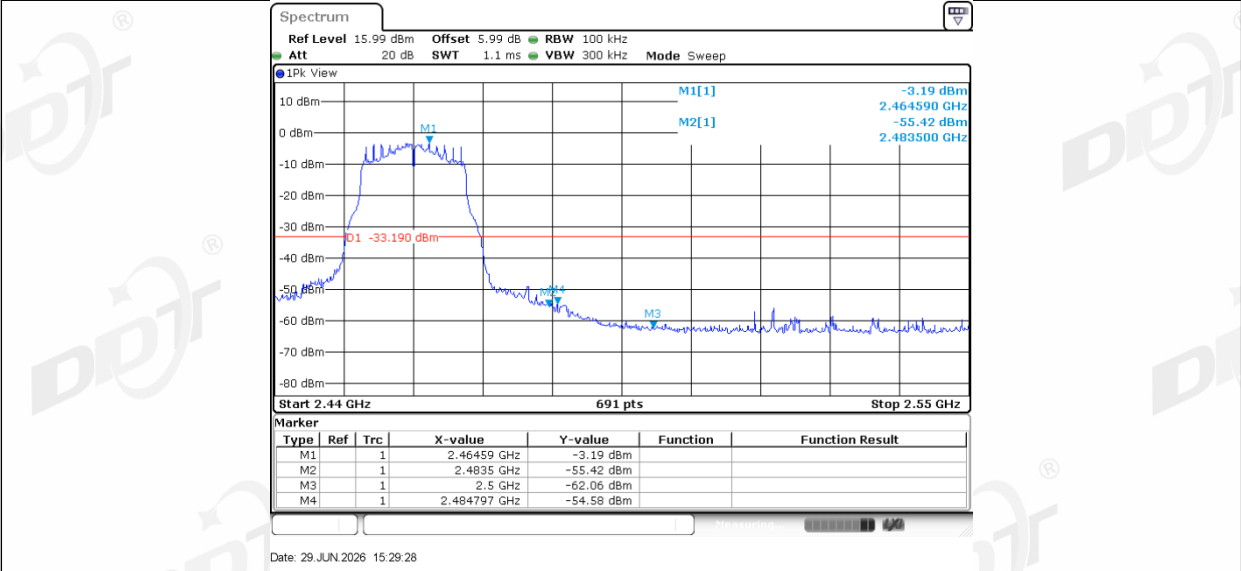
EUT Set Mode	CH or Frequency	Result(dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11g	CH1	Pass
	CH11	Pass		CH11	Pass
11n HT 20	CH1	Pass	/	/	/
	CH11	Pass		/	/

8.5. Test graphs

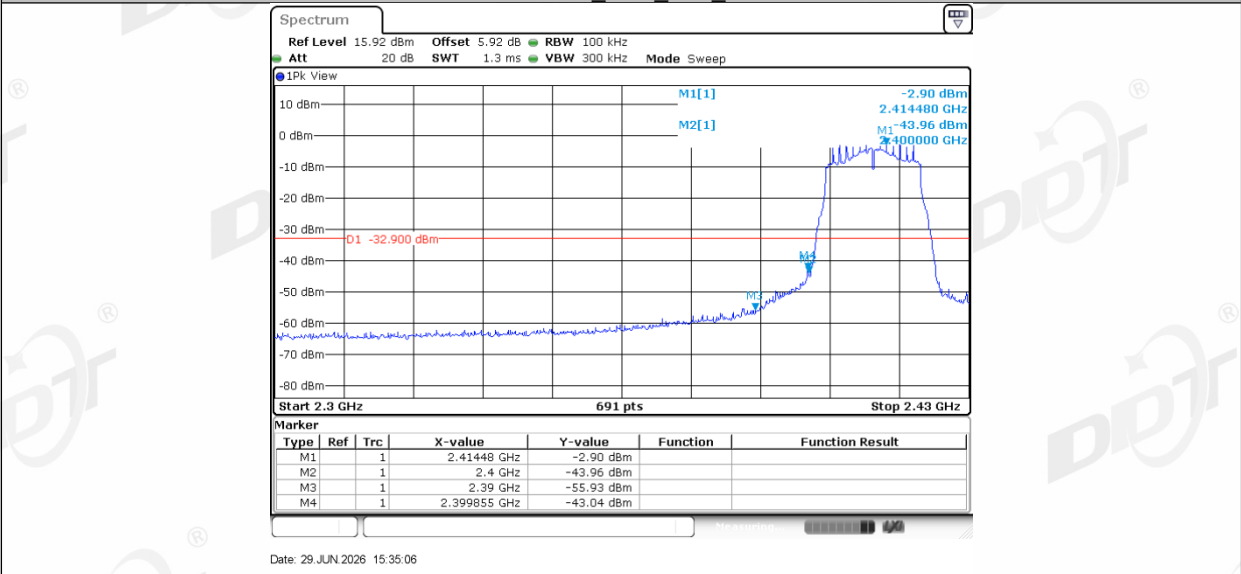




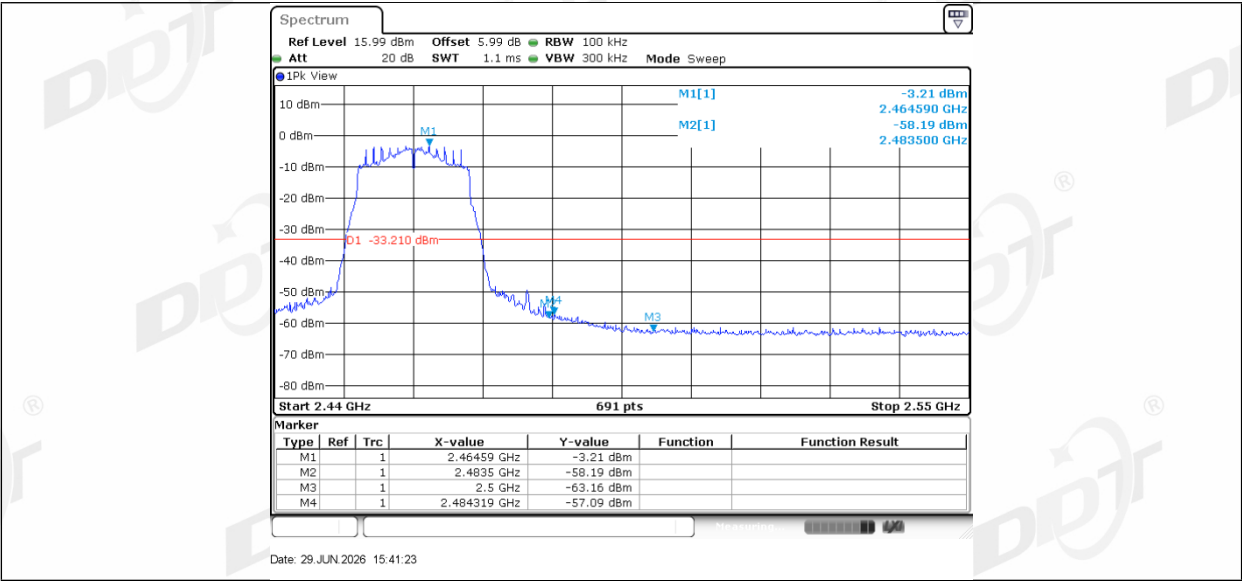
11G Ant1_High_2462



11N20SISO_Ant1_Low_2412

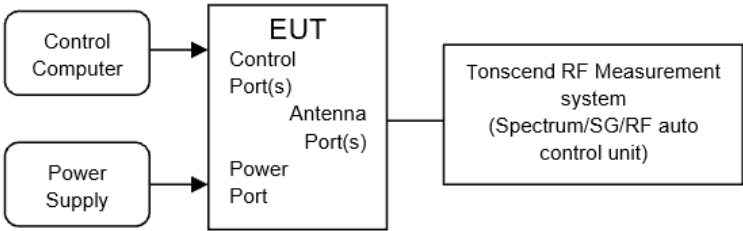


11N20SISO_Ant1_High_2462



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	≥Span/RBW
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

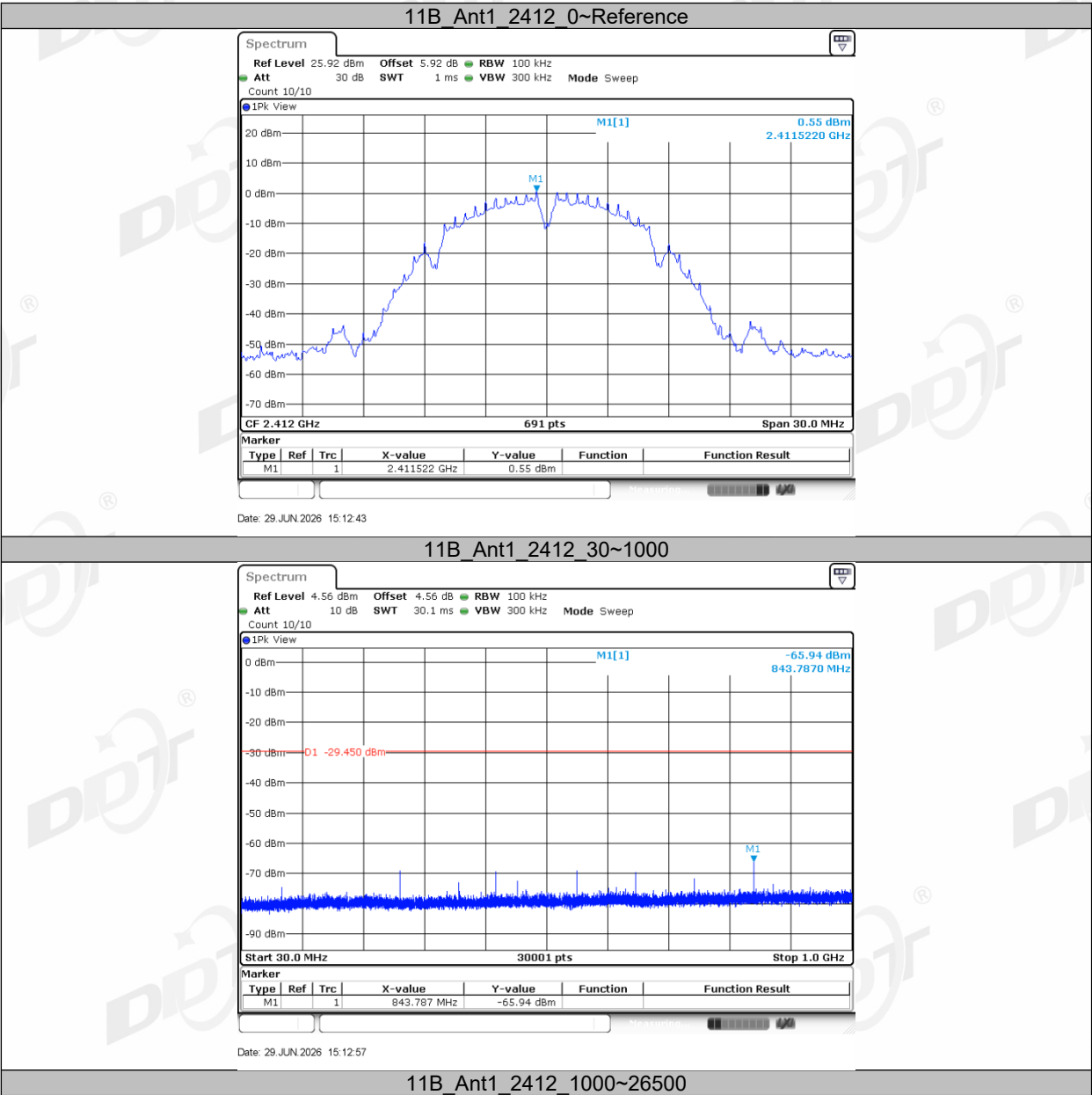
(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

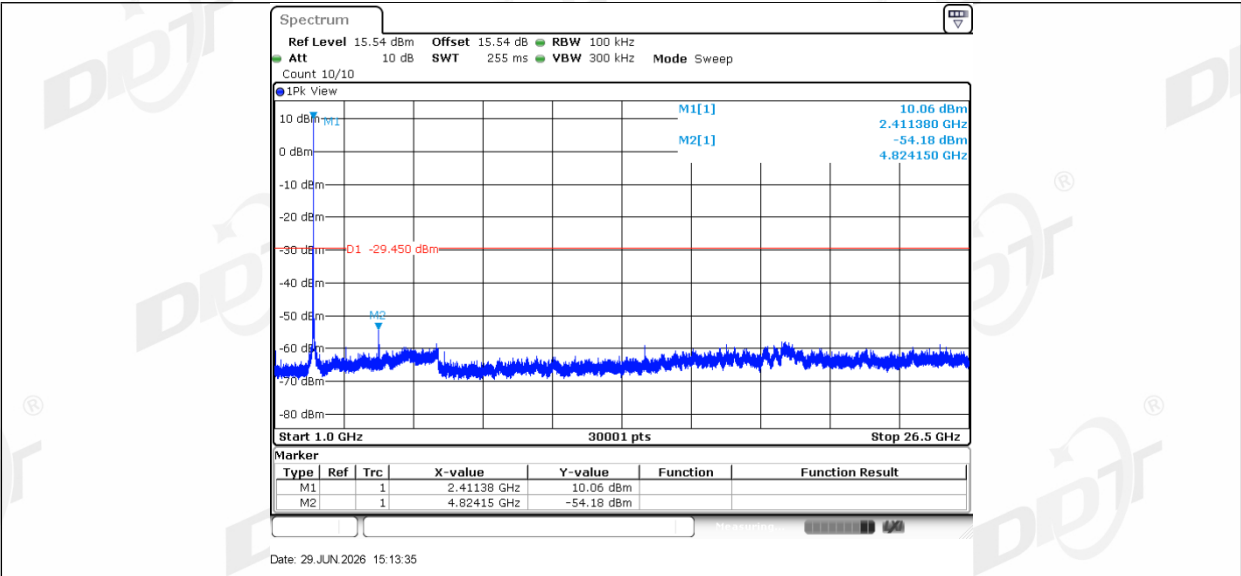
9.4. Test result

Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

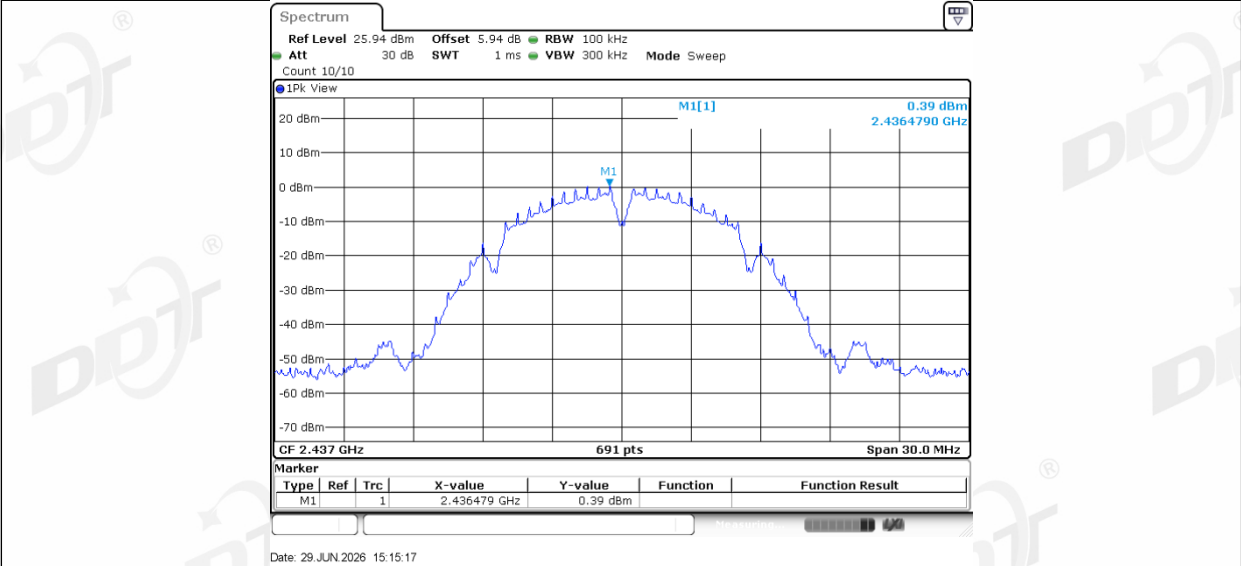
EUT Set Mode	CH or Frequency	Result(dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11g	CH1	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH11	Pass
11n HT 20	CH1	Pass	/	/	/
	CH11	Pass		/	/

9.5. Test graphs

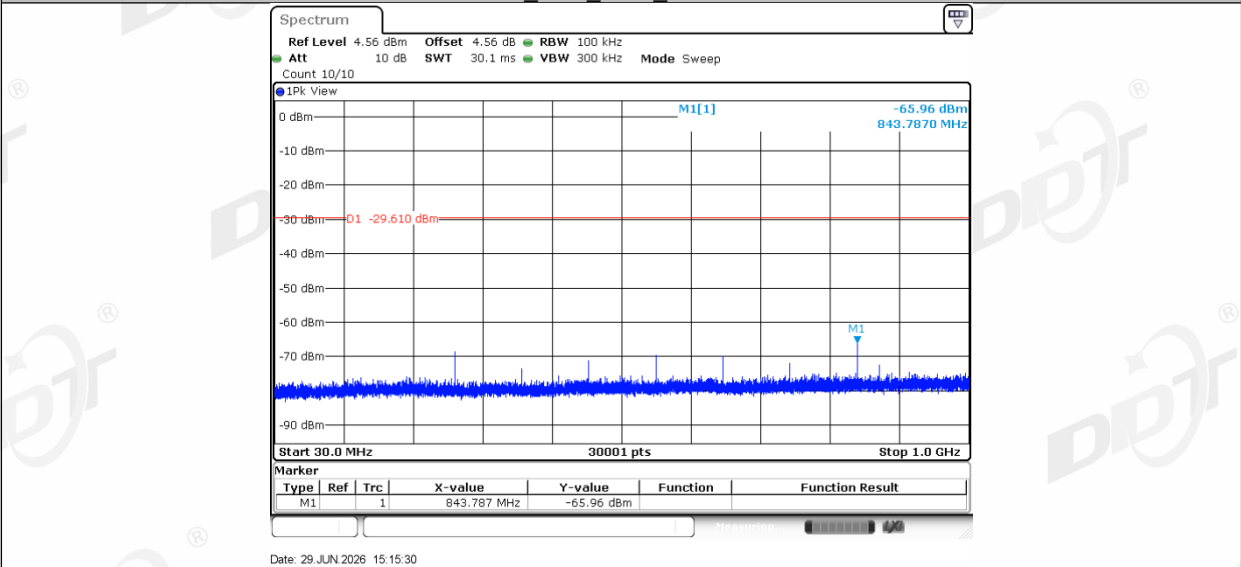




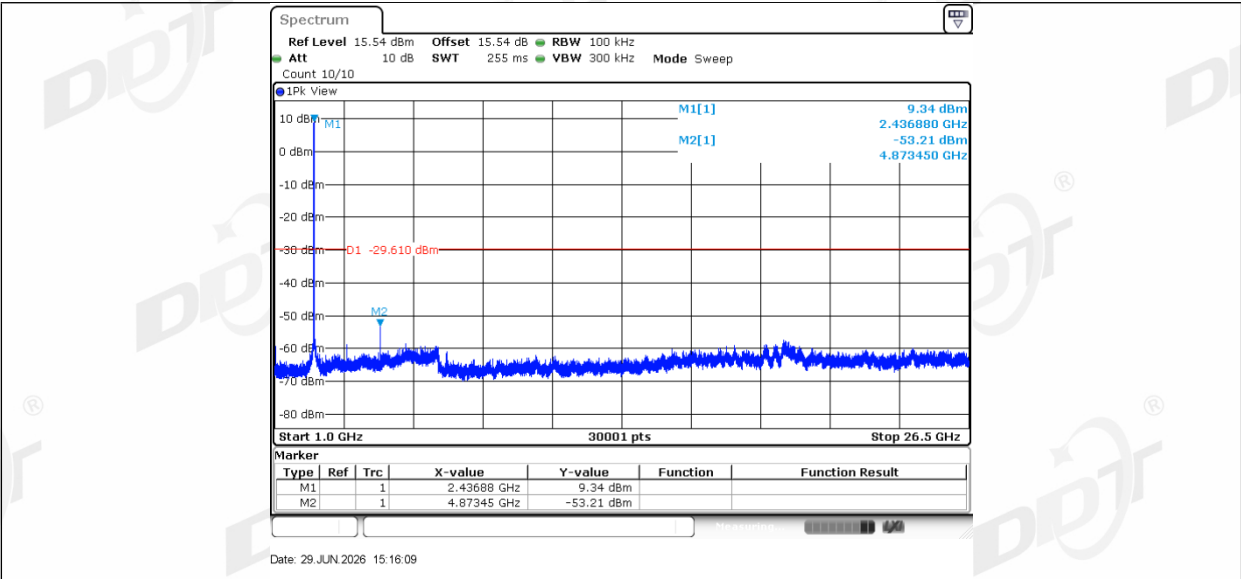
11B_Ant1_2437_0~Reference



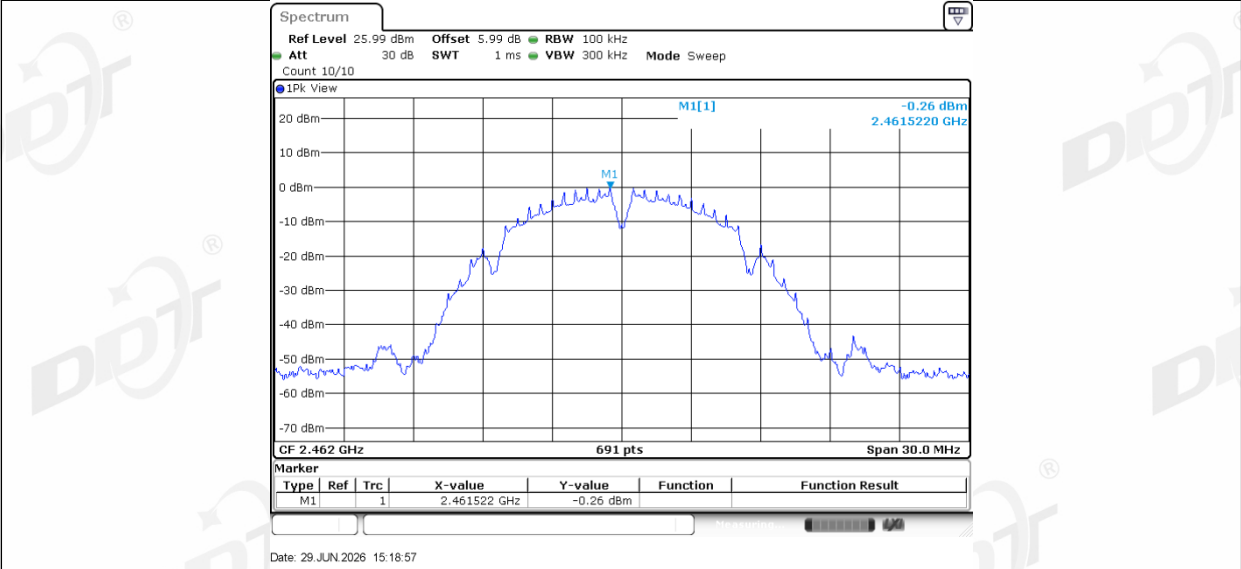
11B_Ant1_2437_30~1000



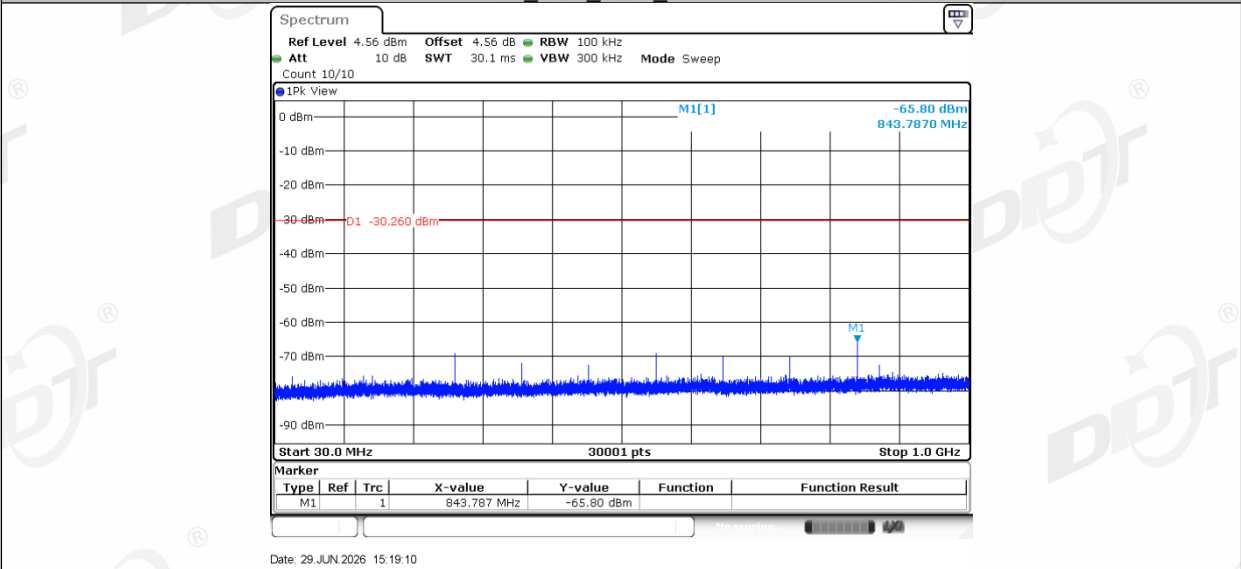
11B_Ant1_2437_1000~26500



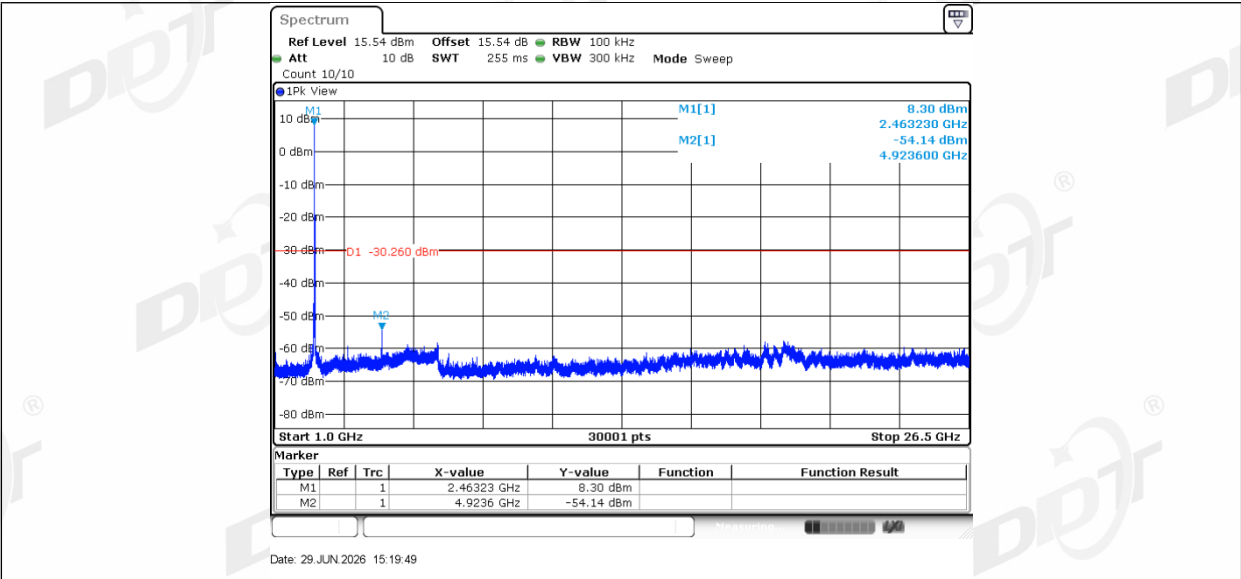
11B_Ant1_2462_0~Reference



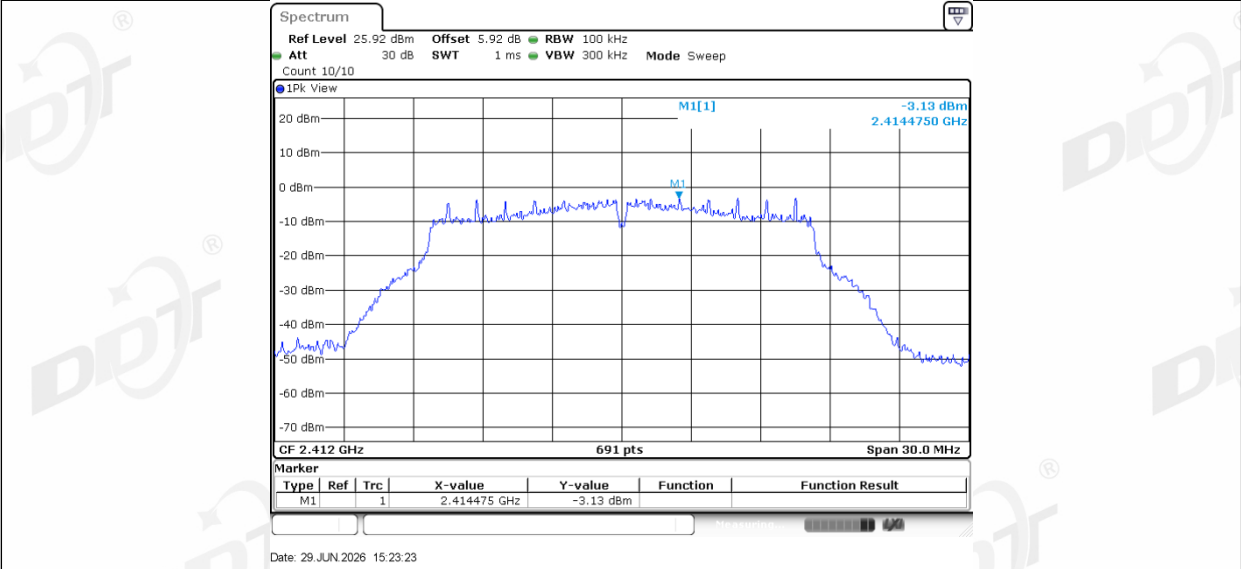
11B_Ant1_2462_30~1000



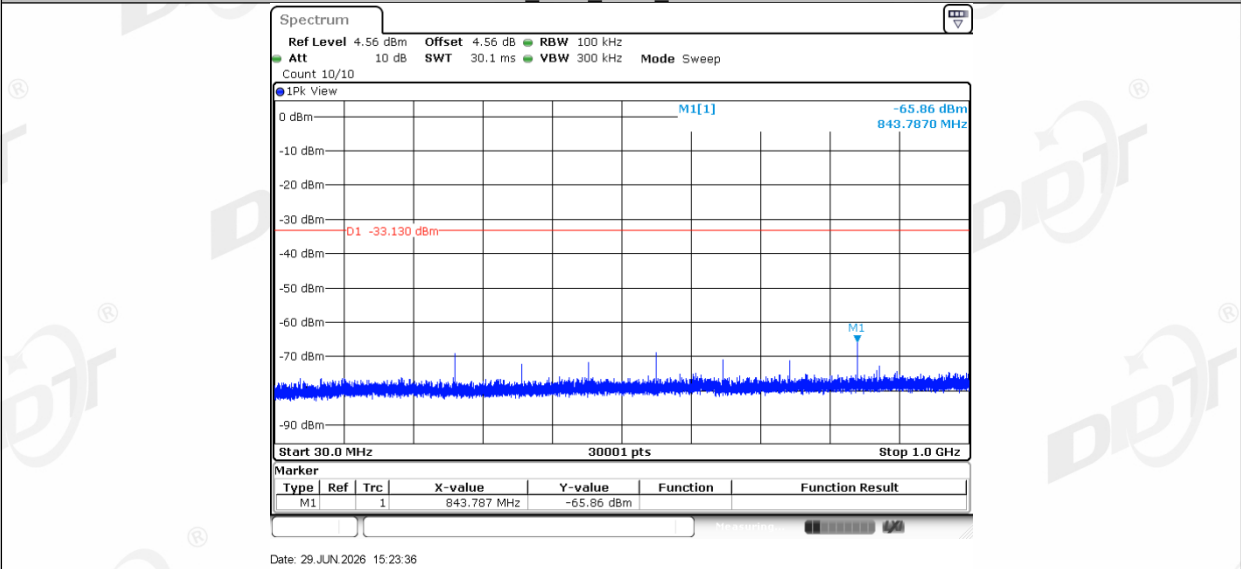
11B_Ant1_2462_1000~26500



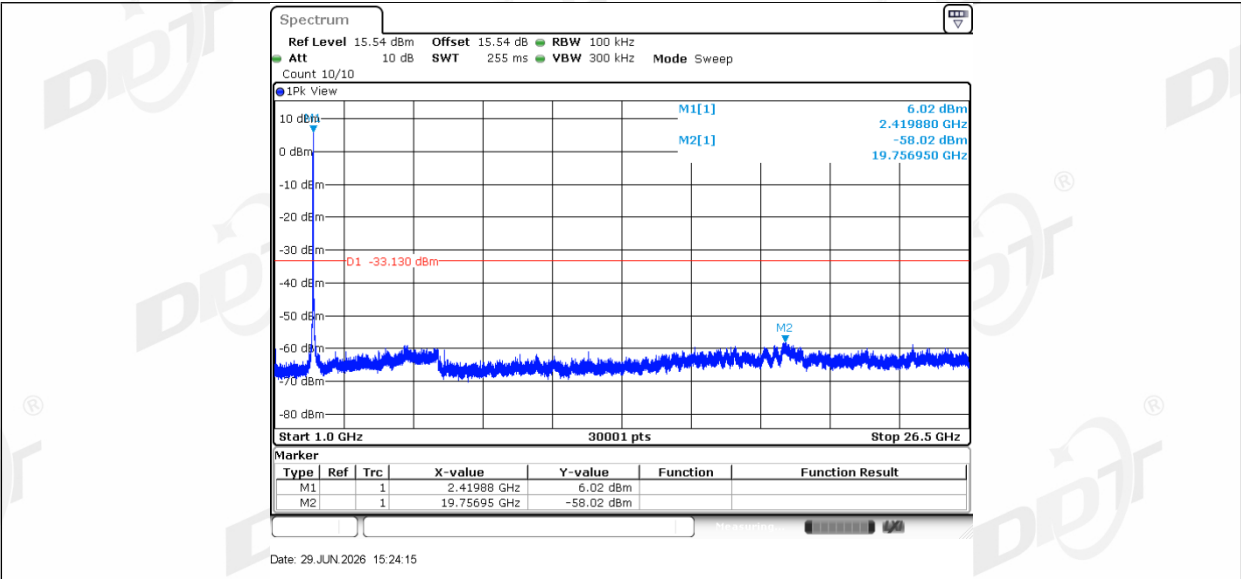
11G_Ant1_2412_0~Reference



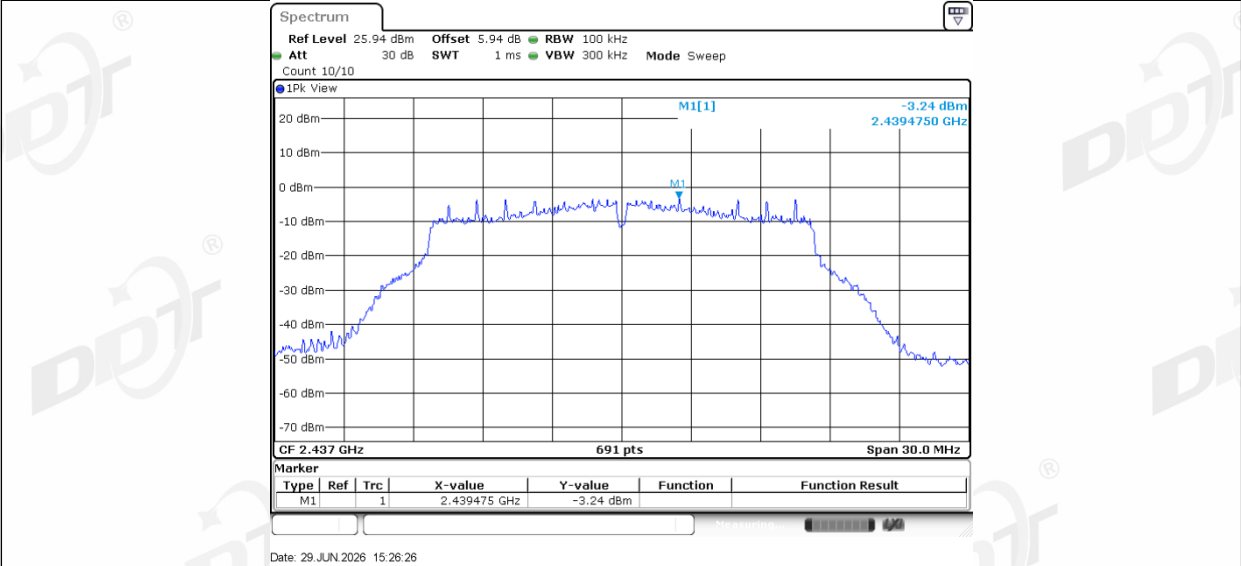
11G_Ant1_2412_30~1000



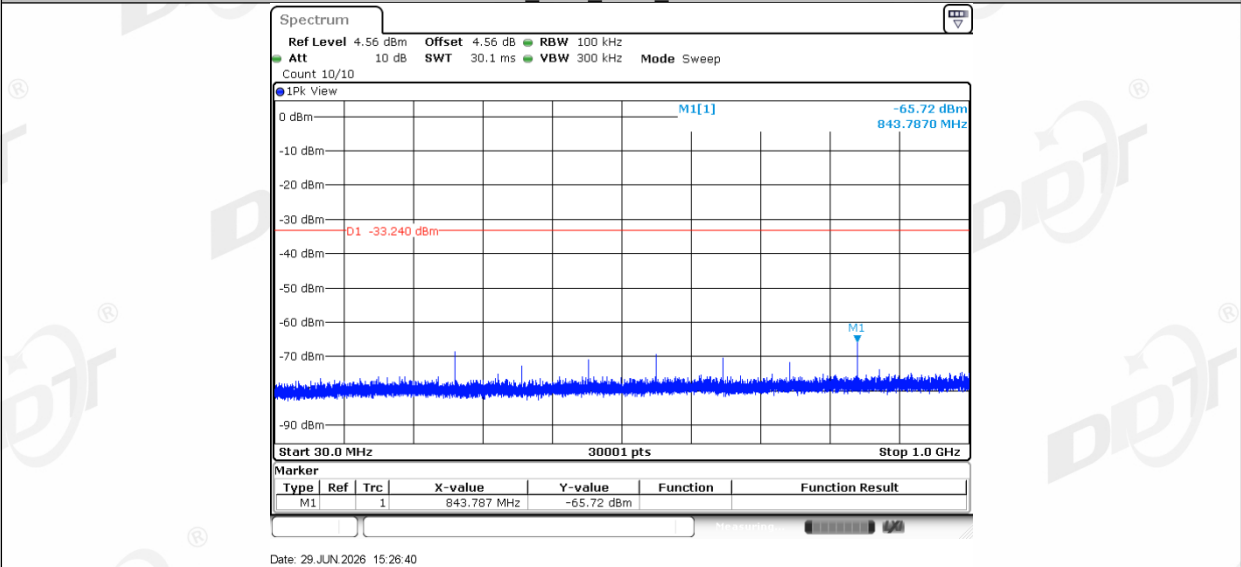
11G_Ant1_2412_1000~26500



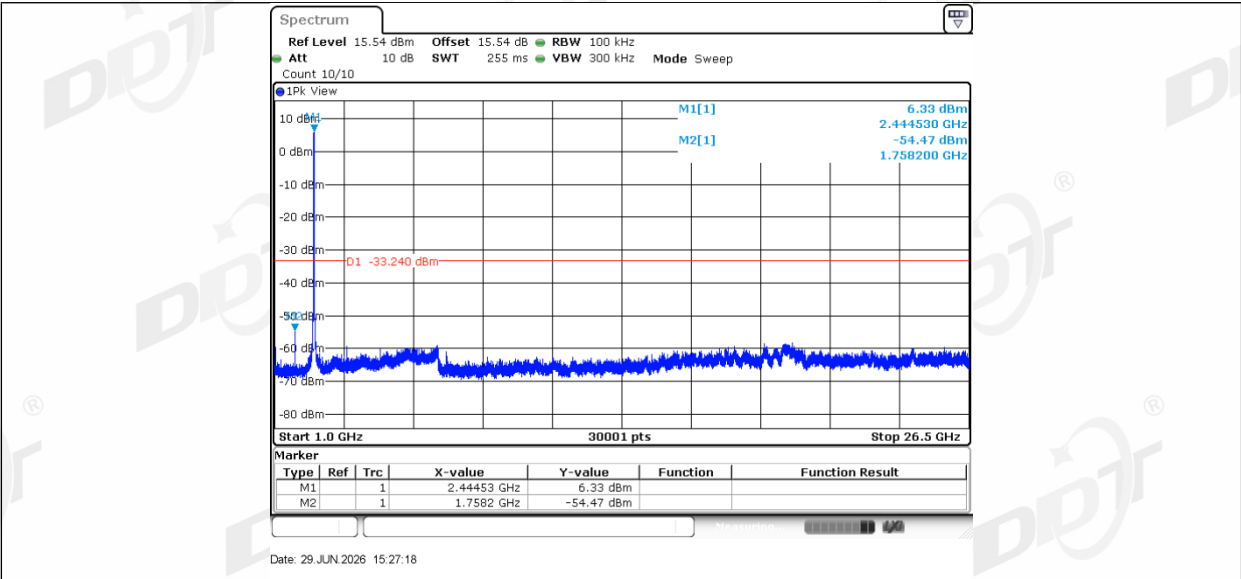
11G_Ant1_2437_0~Reference



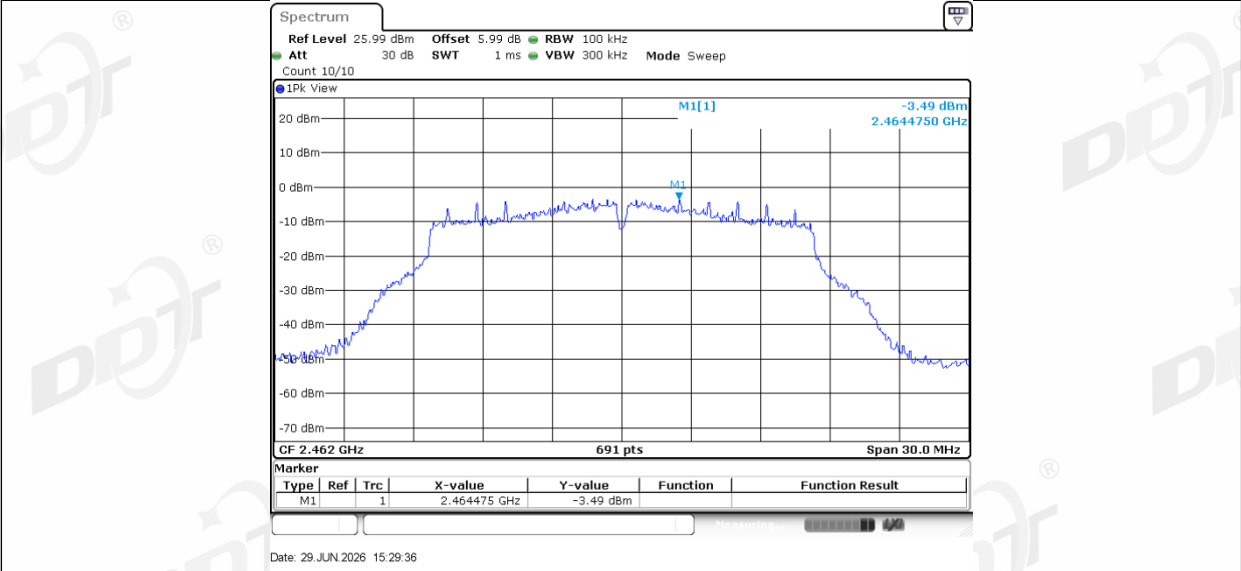
11G_Ant1_2437_30~1000



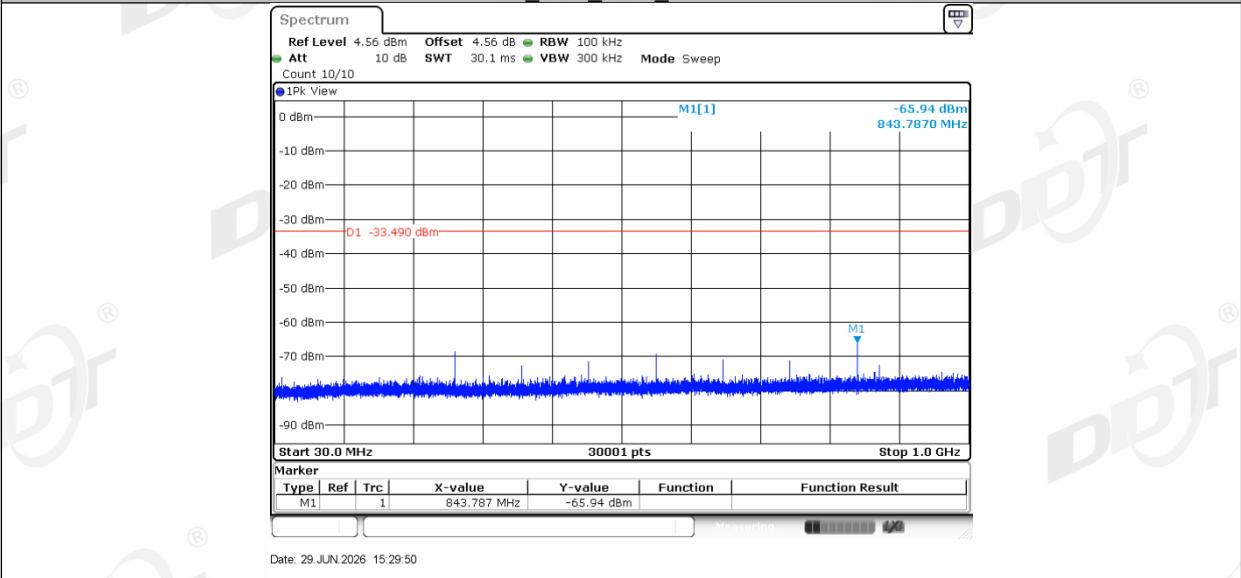
11G_Ant1_2437_1000~26500



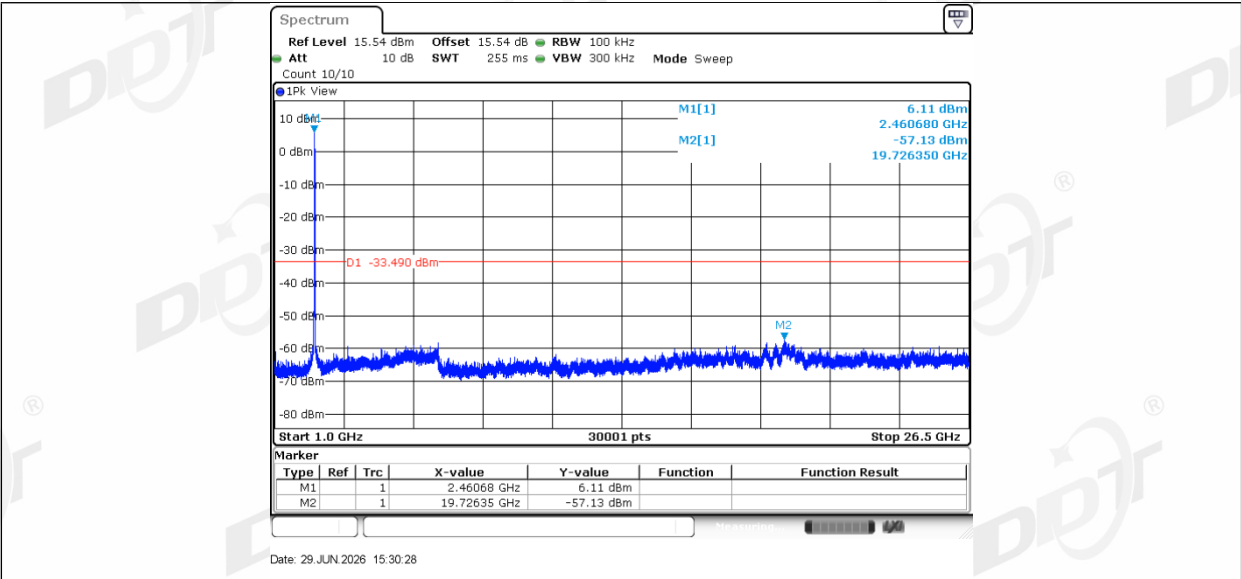
11G_Ant1_2462_0~Reference



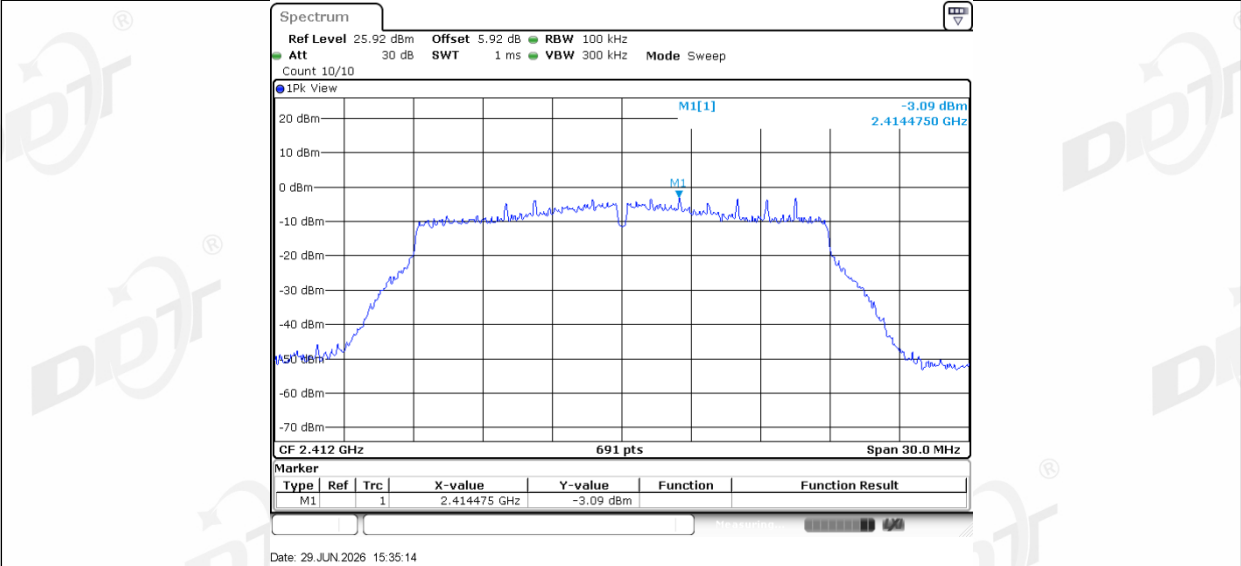
11G_Ant1_2462_30~1000



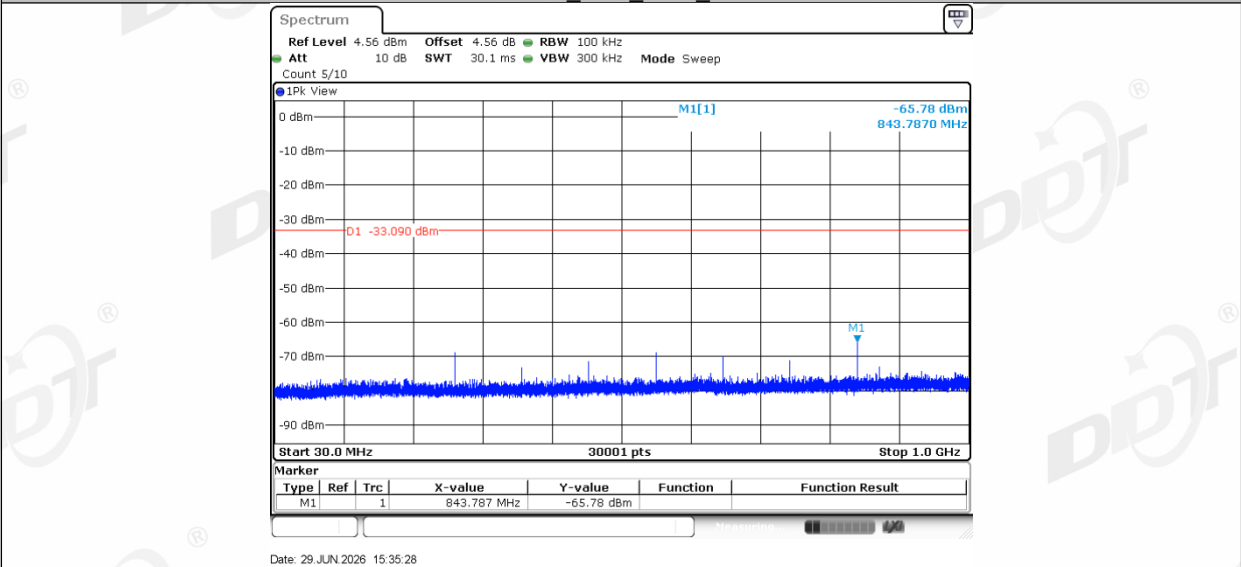
11G_Ant1_2462_1000~26500



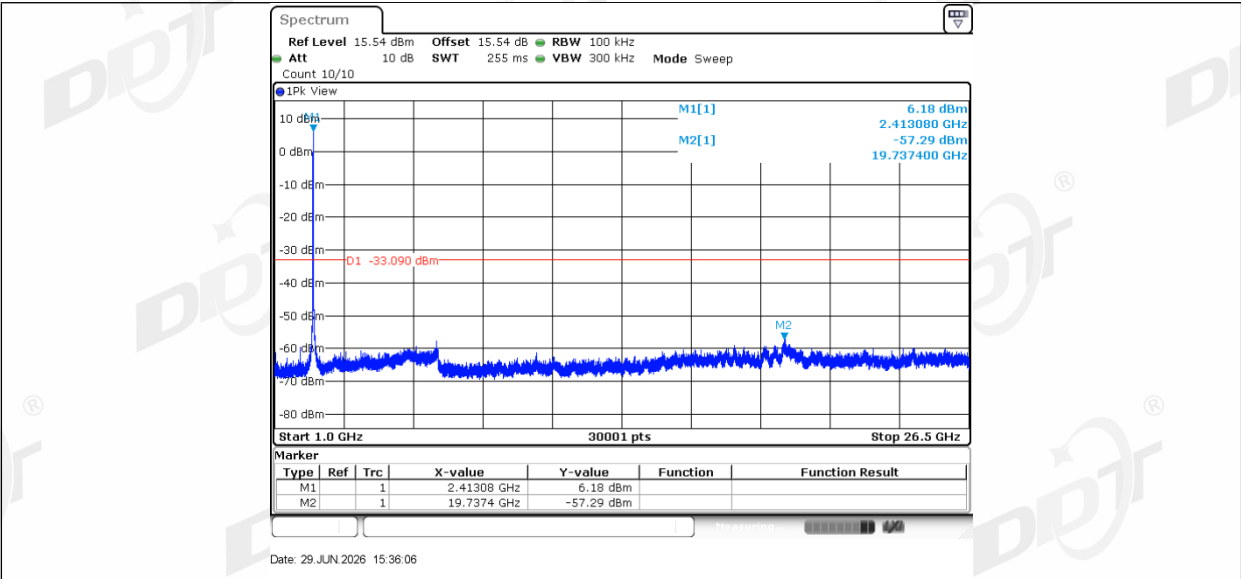
11N20SISO_Ant1_2412_0~Reference



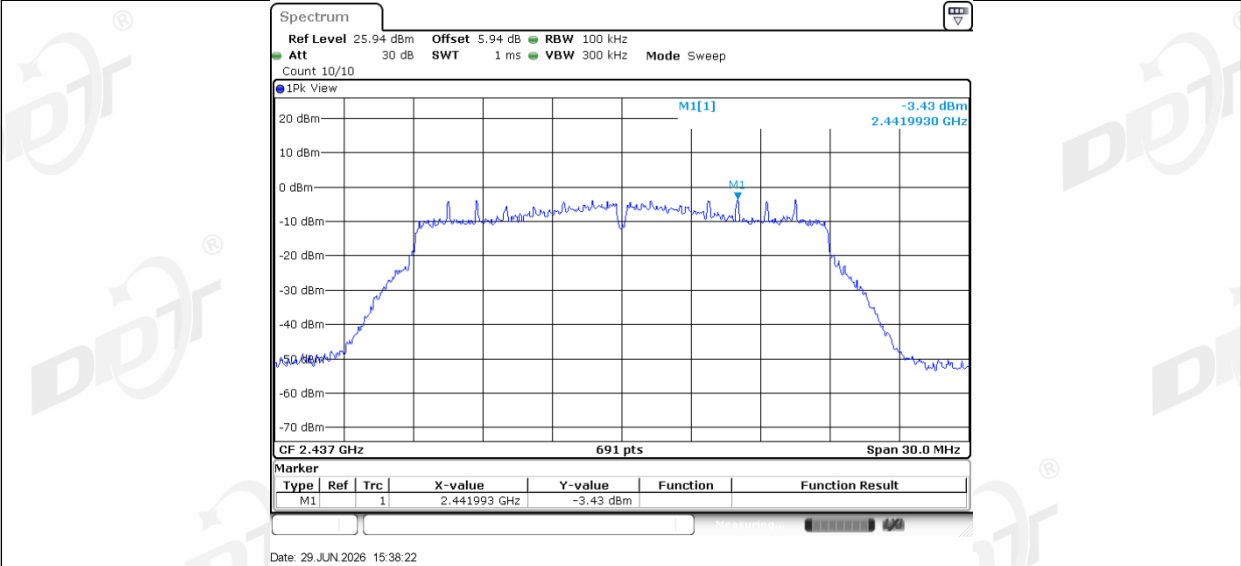
11N20SISO_Ant1_2412_30~1000



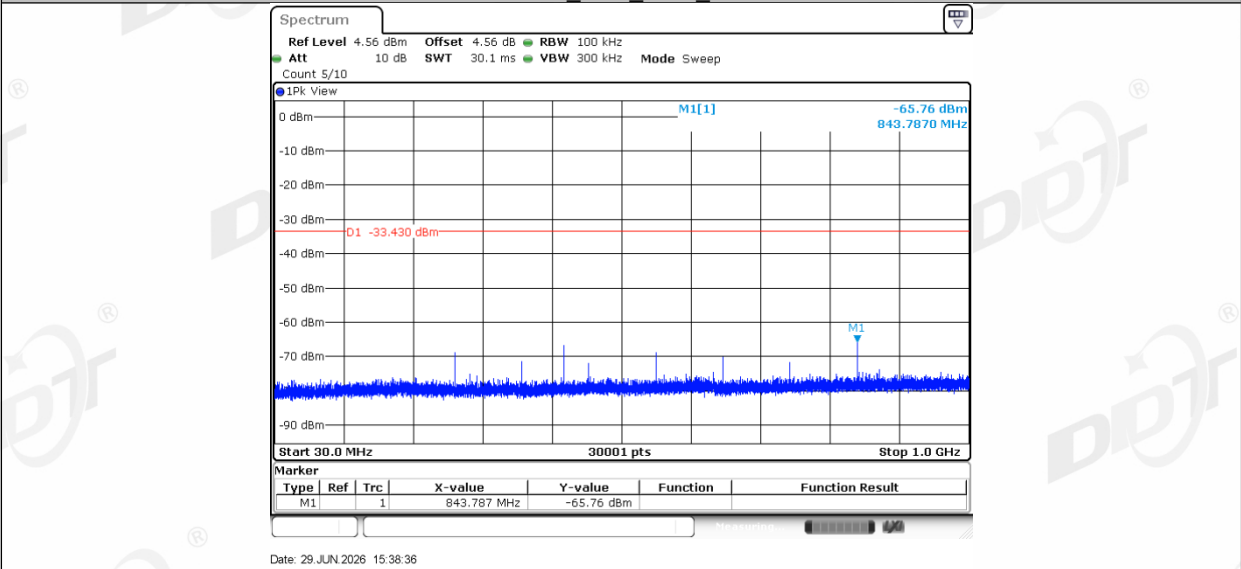
11N20SISO_Ant1_2412_1000~26500



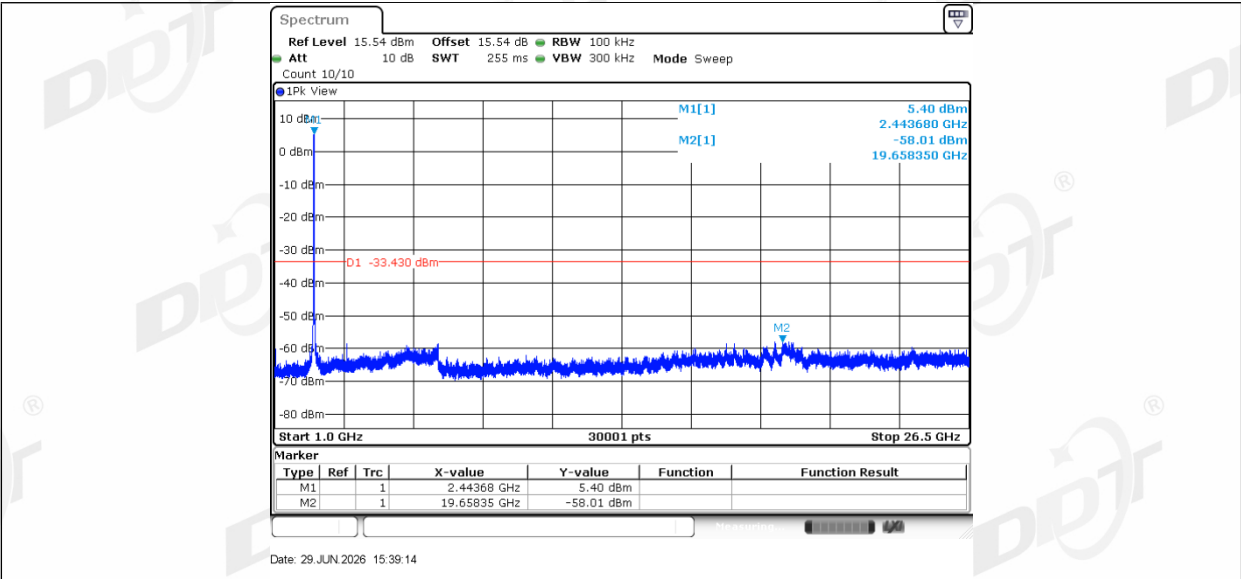
11N20SISO_Ant1_2437_0~Reference



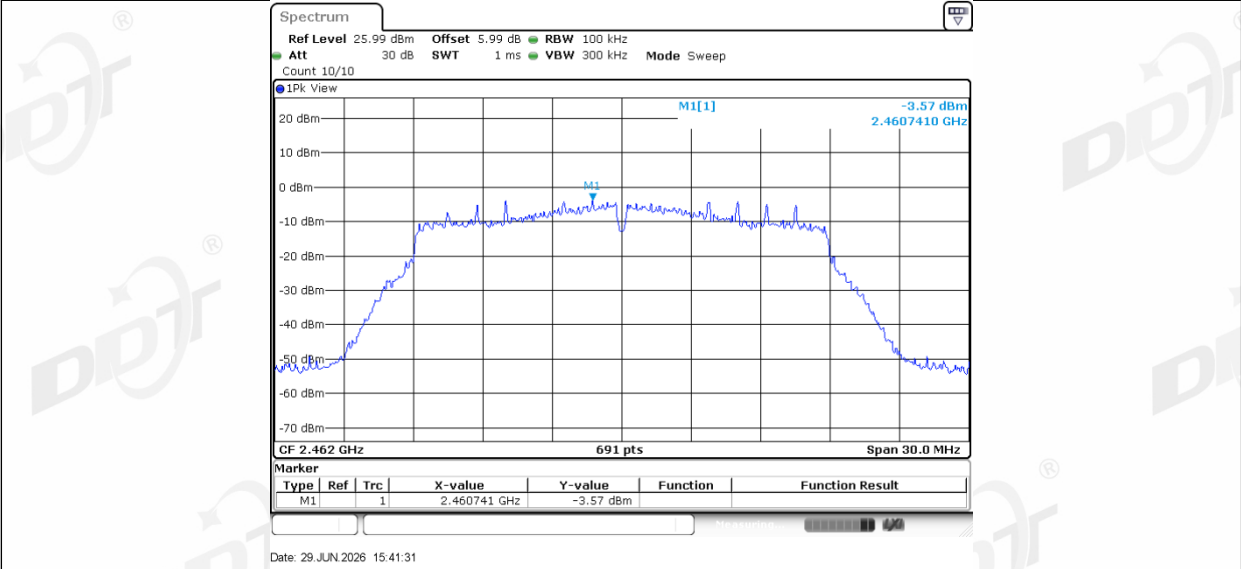
11N20SISO_Ant1_2437_30~1000



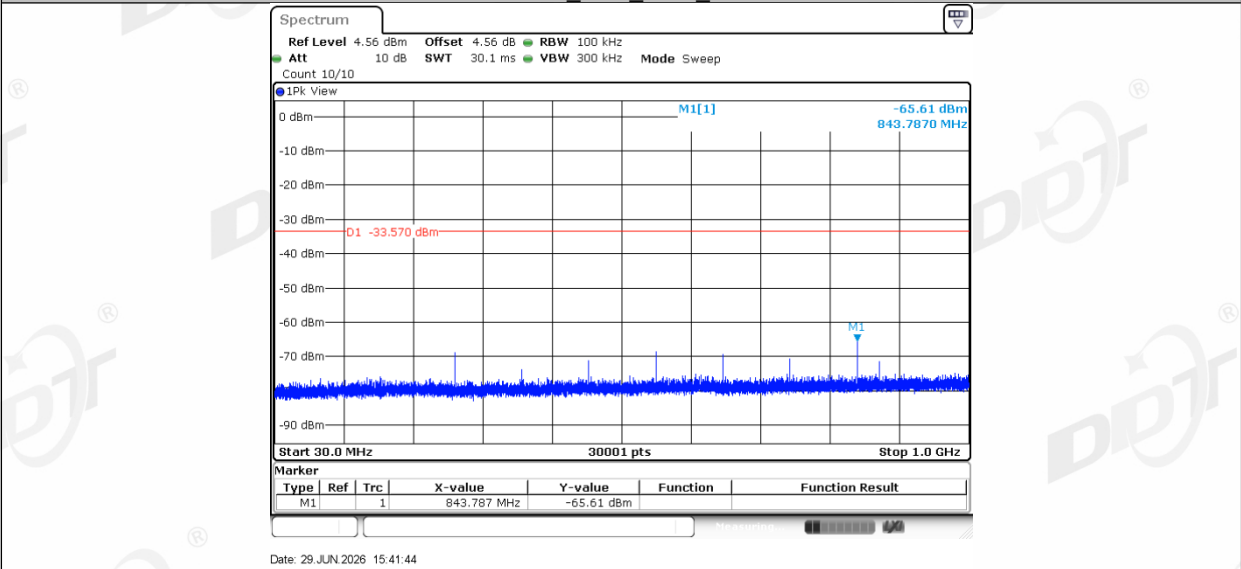
11N20SISO_Ant1_2437_1000~26500



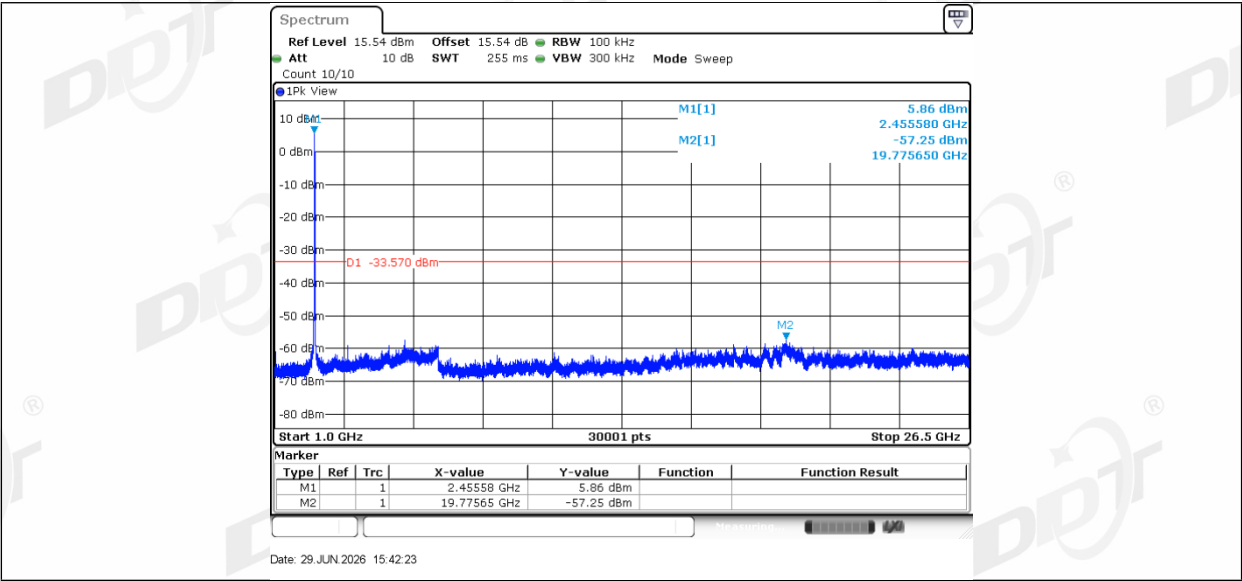
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000

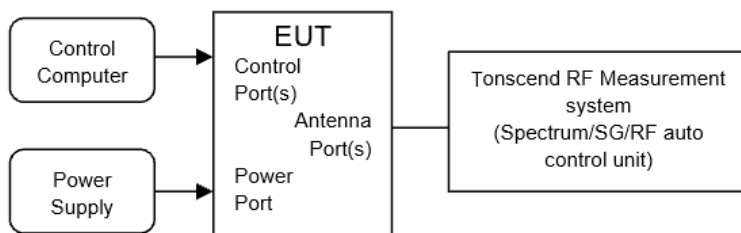


11N20SISO_Ant1_2462_1000~26500



10. Duty Cycle

10.1. Block diagram of test setup



10.2. Limit

Just for Report.

10.3. Test procedure

- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.
set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the middle hopping channel.
 - Resolution BW: 10 MHz.
 - Video BW: 10 MHz.
 - Span: Zero span.
 - Detector: Peak.
 - Trace Mode: Clear Write.
 - Sweep: Video Trigger
- (2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.
- (3) Calculate dwell time follow below formula:
Duty cycle= Pulse's on time / Burst cycle

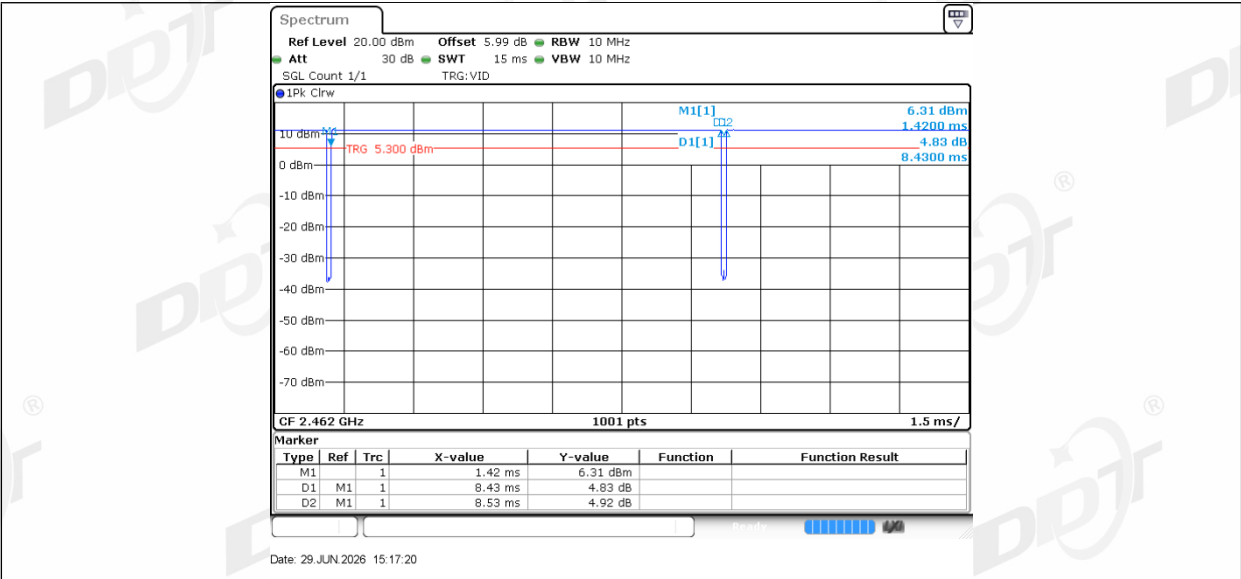
10.4. Test result

Test Engineer:	Tan Shaofeng	Test Site:	RF Test System 5#
Ambient Condition:	24.5-26.3℃,40.3-46.5%RH	Test Date:	2026.6.24-2026.7.11
Test Power Supply:	DC 48V	Sample Number:	S26051409-004

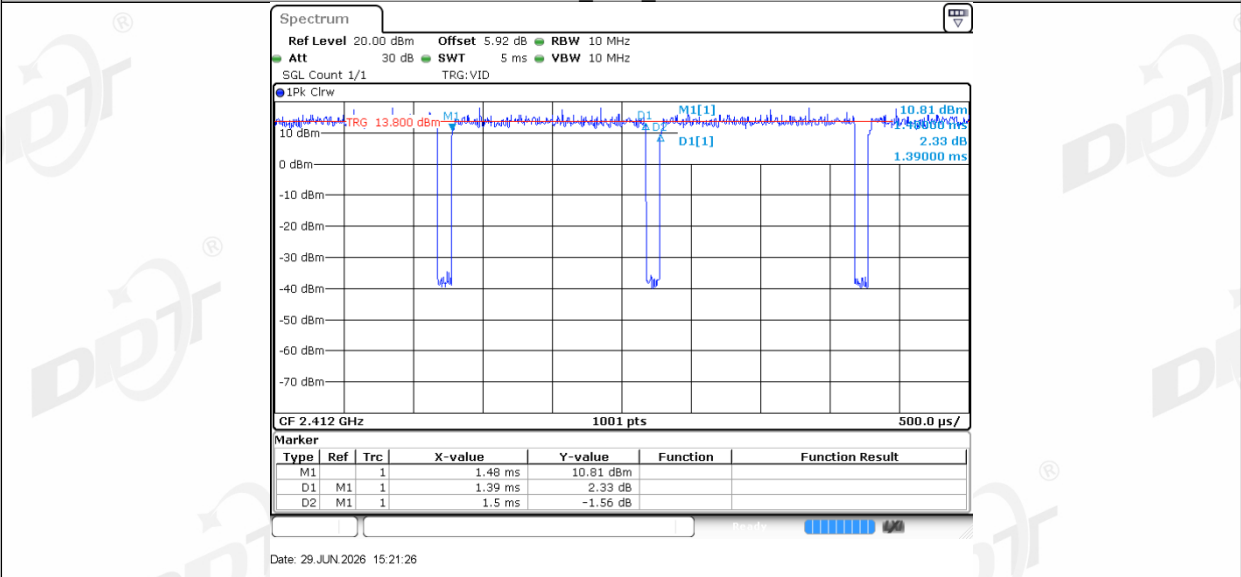
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	8.42	8.52	98.83
		2437	8.43	8.52	98.94
		2462	8.43	8.53	98.83
11G	Ant1	2412	1.39	1.50	92.67
		2437	1.40	1.50	93.33
		2462	1.40	1.50	93.33
11N20SISO	Ant1	2412	1.31	1.41	92.91
		2437	1.31	1.42	92.25
		2462	1.31	1.41	92.91

10.5. Test graphs

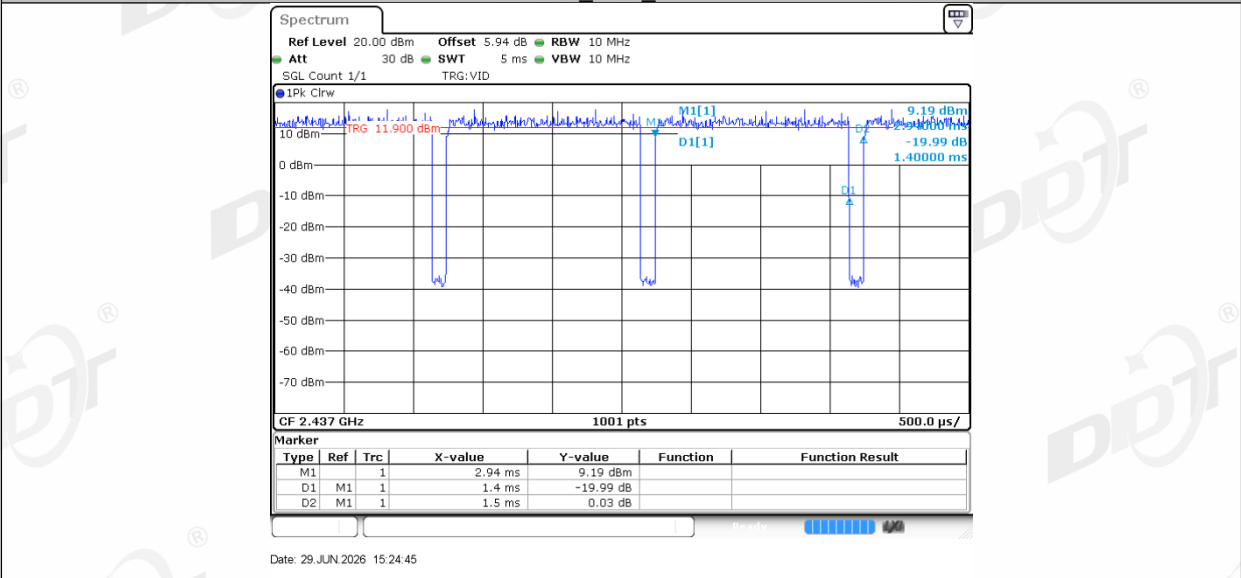




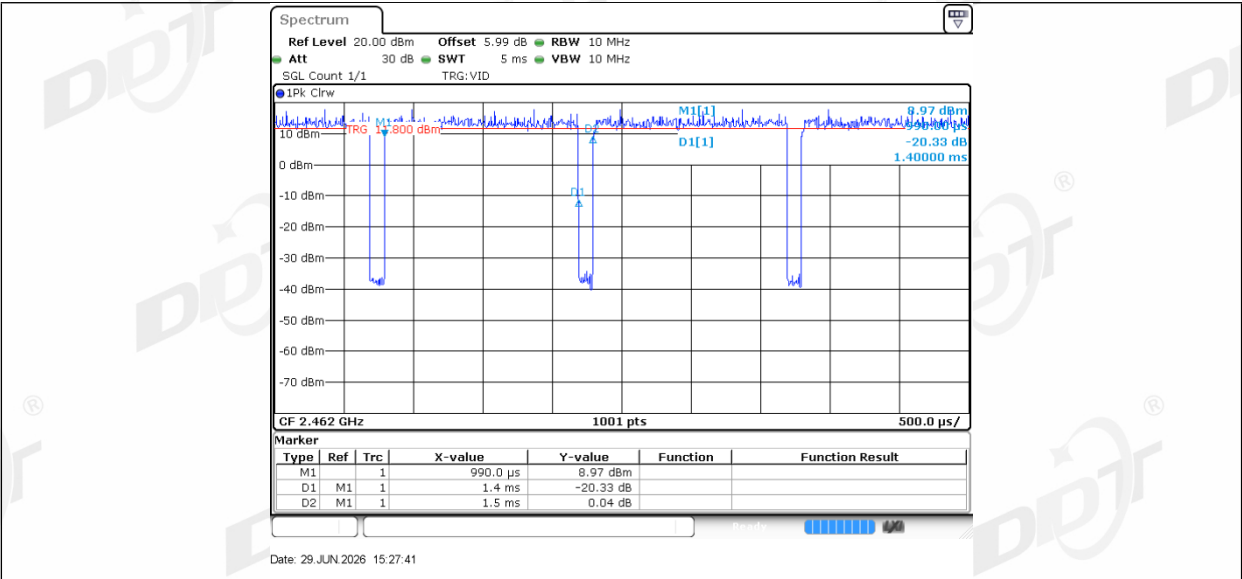
11G Ant1_2412



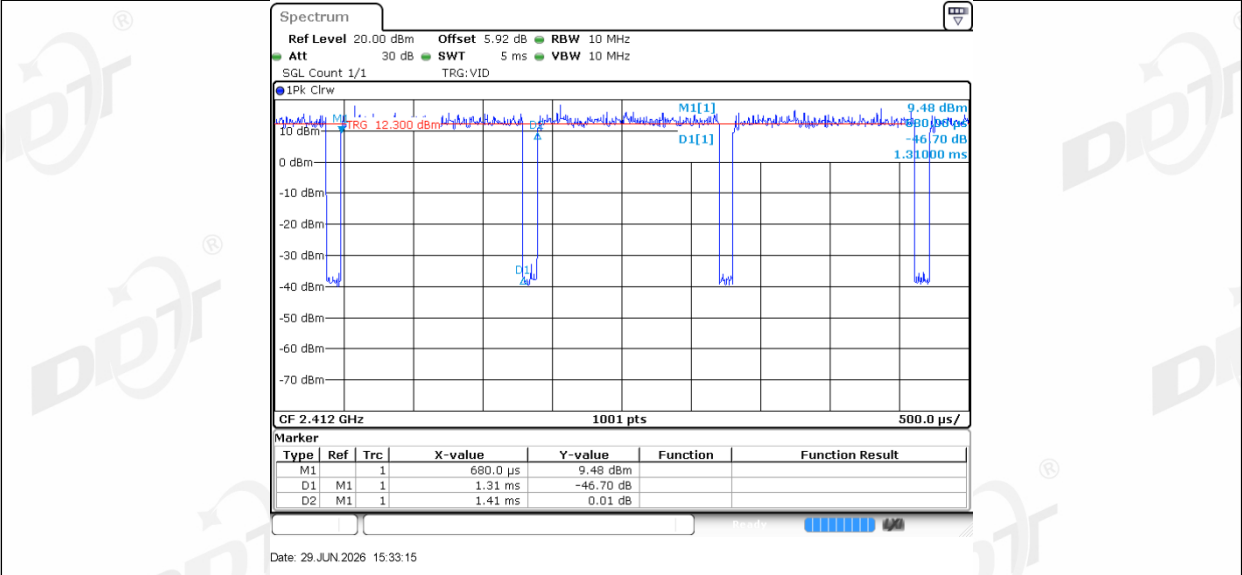
11G Ant1_2437



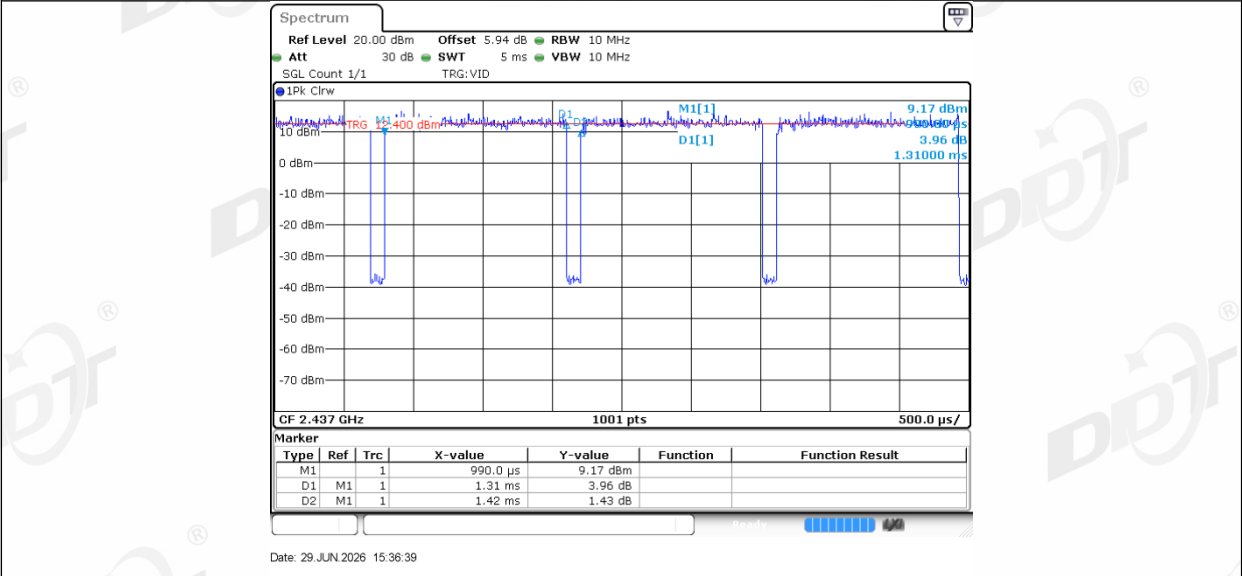
11G Ant1_2462



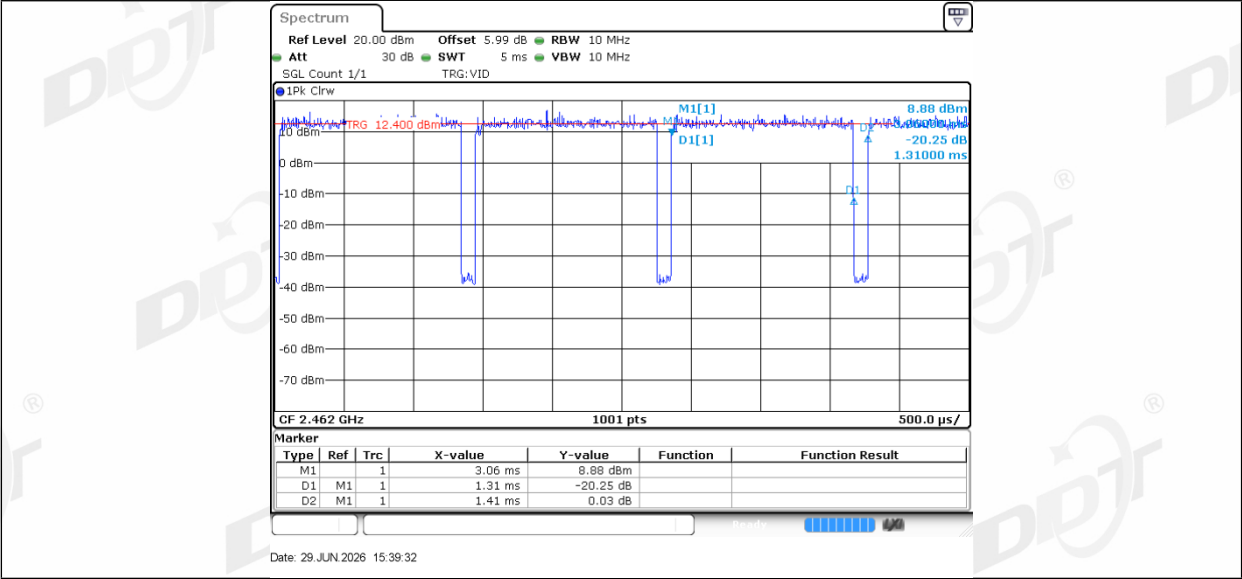
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11. Antenna Requirements

11.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2. Result

The antenna used for this product as Antenna information described in section 2.1 of the report, and there is no other antenna than that furnished by the responsible party shall be used with the device.

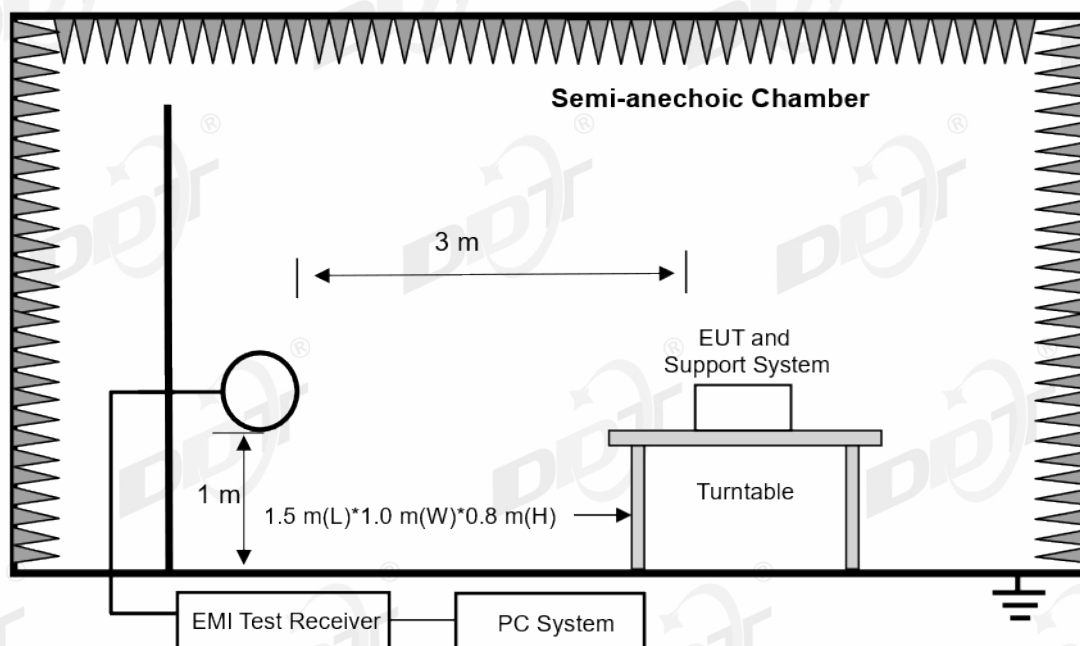
12. Radiated Emission

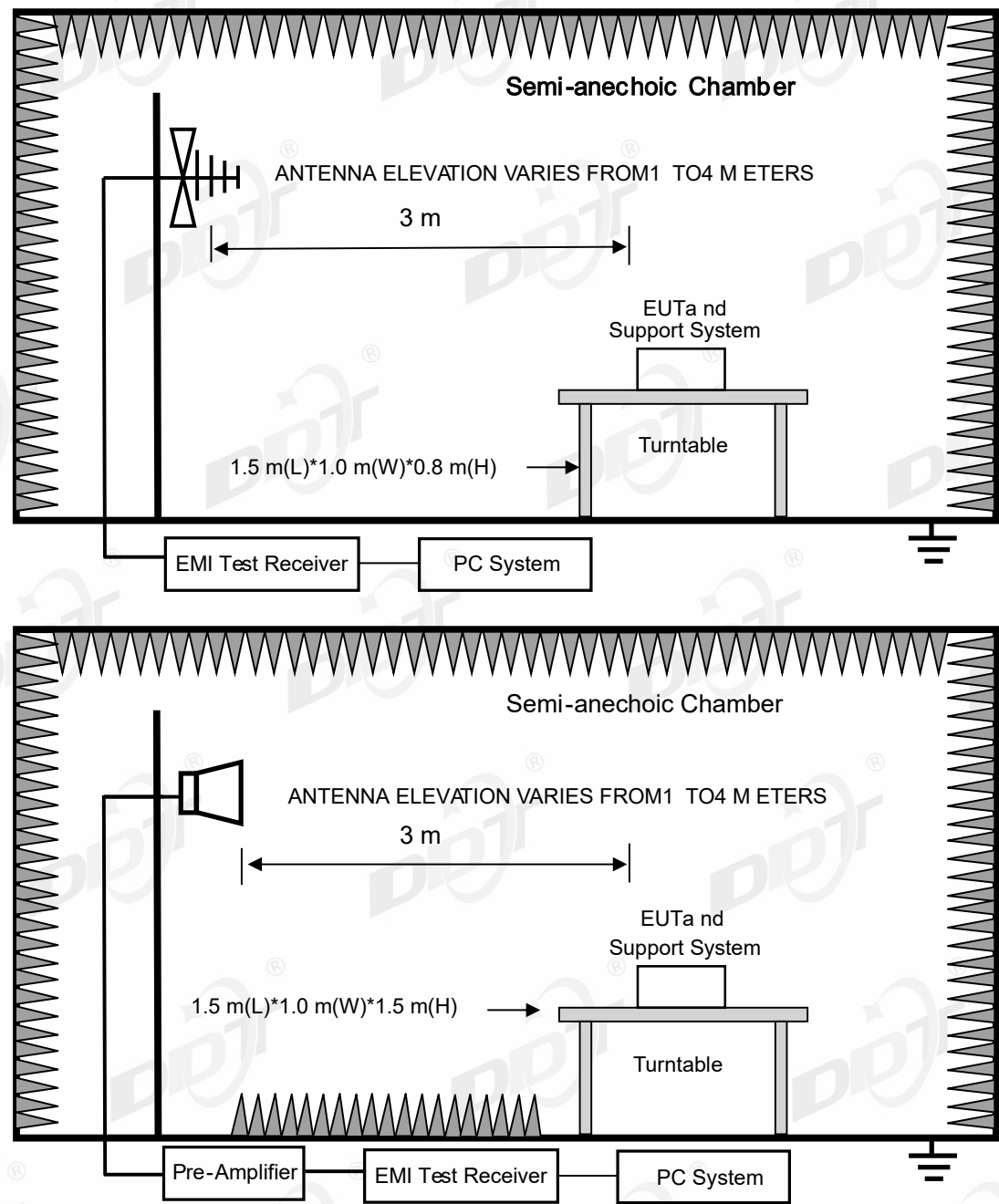
12.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2027/02/27
RF cable	Zhongke Junchuang	Z805UF-NJ-NJ-10M	DDT-ZC05591	2026/10/10
RF cable	Zhongke Junchuang	Z805UF-NJ-NJ-3M	DDT-ZC05590	2026/10/10
RF cable	Zhongke Junchuang	JCTB510-NJW-NJW-0.6M	DDT-ZC04595	2026/10/10
RF cable	Zhongke Junchuang	JCT40P-2.92J-2.92J-1M	DDT-ZC03802	2026/10/10
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2026/10/10
RF cable	Zhongke Junchuang	JCT40P-2.92J-2.92J-5M	DDT-ZC03800	2026/10/10
Radiation disturbance fully automated test software	Tonscend	JS32-RE (V5.0.0)	DDT-ZC02739	/
Pre-amplifier	SONOMA	310N	DDT-ZC01969	2027/06/25
Pre-amplifier	SONOMA	310N	DDT-ZC01969	2026/07/06
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2027/03/05
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2027/07/08
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2026/08/10
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2027/02/27
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2027/02/27
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2027/02/27
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2027/07/10
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2026/07/25
Hochgewinn-Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC02129	2027/07/10
Hochgewinn-Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC02129	2026/08/18
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2027/07/10
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2026/08/18
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2027/02/27
Band Reject Filter Group	Tonscend	JS0806-F	DDT-ZC05733	/
Hochgewinn-Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC05922	2027/01/06
Broadband Preamplifier	HPX	BP-01G-18G	DDT-ZC05923	2027/01/06
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2027/03/05
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04

Signal & Spectrum analyzer	R&S	FSV40-N	DDT-ZC04979	2027/07/10
Signal & Spectrum analyzer	R&S	FSV40-N	DDT-ZC04979	2026/07/04
SPECTRUM ANALYZER	R&S	FSU26	DDT-ZC00236	2027/06/25
SPECTRUM ANALYZER	R&S	FSU26	DDT-ZC00236	2026/07/06
RF Cable	Tonscend	7+1+1+0.5+0.5m	DDT-ZC05978	2027/01/29
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2027/03/04
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2027/02/27
RF cable	Zhongke Junchuang	JCT40P-2.92J-2.92J-1M	DDT-ZC03802	2026/10/10
Radiation disturbance fully automated test software	Tonscend	JS-RE&RSE (V5.0.0)	DDT-ZC06466	/

12.2. Block diagram of test setup





12.3. Limits

(1) FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5

6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

1Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2Above 38.6

(2) FCC 15.209 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		uV/m	dBuV/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dBuV/m (Peak)	
		54.0 dBuV/m (Average)	

Note:

(1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz and above 1000 MHz, radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30 MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$\text{Limit}_{3m}(\text{dBuV/m}) = \text{Limit}_{30m}(\text{dBuV/m}) + 40\text{Log}(30m/3m)$$

(3) Limit for this EUT

The emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits.