



FCC AND ISCED CERTIFICATION TEST REPORT

Applicant	:	BYD Auto Industry Company Limited
Address of Applicant	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China
Manufacturer	:	BYD Auto Industry Company Limited
Address of Manufacturer	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China
Equipment under Test	:	In-vehicle Multimedia Host
Model No.	:	MTD421-B2
FCC ID	:	SD4-MTD421-B2
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart C, ANSI C63.10-2020
Report No.	:	DDT-RE25060926-1E10
Issue Date	:	2026/04/02
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	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	30
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	47
7.1.	Block diagram of test setup	47
7.2.	Limits	47
7.3.	Test procedure	47
7.4.	Test result.....	48
7.5.	Test graphs	51
8.	Band Edge Compliance (Conducted Method)	75
8.1.	Block diagram of test setup	75

8.2.	Limits	75
8.3.	Test procedure	75
8.4.	Test result.....	76
8.5.	Test graphs	77
9.	RF Conducted Spurious Emissions.....	80
9.1.	Block diagram of test setup	80
9.2.	Limits	80
9.3.	Test procedure	80
9.4.	Test result.....	81
9.5.	Test graphs	82
10.	Duty Cycle	94
10.1.	Block diagram of test setup	94
10.2.	Limit.....	94
10.3.	Test procedure	94
10.4.	Test result.....	95
10.5.	Test graphs	98
11.	Antenna Requirements.....	122
11.1.	Limit.....	122
11.2.	Result	122
12.	Radiated Emission	123
12.1.	Test equipment.....	123
12.2.	Block diagram of test setup	124
12.3.	Limits	125
12.4.	Assistant equipment used for test	126
12.5.	Test procedure	126
12.6.	Test result.....	128
12.7.	Test data	129
13.	Band Edge Compliance.....	157
13.1.	Test equipment.....	157
13.2.	Block diagram of test setup	158
13.3.	Limits	158
13.4.	Assistant equipment used for test	158
13.5.	Test procedure	158
13.6.	Test result.....	158
13.7.	Test data	159
14.	Power Line Conducted Emissions.....	199
14.1.	Test equipment.....	199
14.2.	Block diagram of test setup	199

14.3. Limits199

14.4. Assistant equipment used for test199

14.5. Test procedure200

14.6. Test result.....200

15. Test Setup Photograph201

16. Photos of the EUT203

Test Report Declare

Applicant	:	BYD Auto Industry Company Limited
Address of Applicant	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China
Equipment under Test	:	In-vehicle Multimedia Host
Model No.	:	MTD421-B2
Manufacturer	:	BYD Auto Industry Company Limited
Address of Manufacturer	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China

Test Standard Used:
FCC Rules and Regulations Part 15 Subpart C,
ANSI C63.10-2020

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-RE25060926-1E10		
Date of Receipt:	2025/08/13	Date of Test:	2025/08/19 - 2025/12/24

Created: Jacky Huang	Reviewed: Johnson Huang	Approved: Ella Gong
		
2025/12/29	2026/04/02	2026/04/02

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	2026/04/02	Ella Gong

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)	/	Pass
2	Peak Output Power	FCC Part 15: 15.247(b)(3)	/	Pass
3	Power Spectral Density	FCC Part 15:15.247(e)	/	Pass
4	RF Conducted Spurious Emissions	FCC Part 15: 15.247(d)	/	Pass
5	Radiated Emission	FCC Part 15: 15.205, FCC Part 15: 15.209, FCC Part 15: 15.247(d)	/	Pass
6	Band Edge Compliance	FCC Part 15: 15.205, FCC Part 15: 15.209, FCC Part 15: 15.247(d)	/	Pass
7	Antenna Requirement	FCC Part 15: 15.203	/	Pass
8	Power Line Conducted Emissions	FCC Part 15: 15.207(a)	/	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	: In-vehicle Multimedia Host
Model Number	: MTD421-B2
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 12V
Antenna Type	: External antenna
Max Antenna Gain (dBi)	: 3.78

Radio Technology	: IEEE 802.11b/g/n/ax
Operation Channel frequency	: IEEE 802.11b: 2412MHz to 2462MHz IEEE 802.11g: 2412MHz to 2462MHz IEEE 802.11n HT20: 2412MHz to 2462MHz IEEE 802.11ax HE20: 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) IEEE 802.11ax: OFDM, OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)

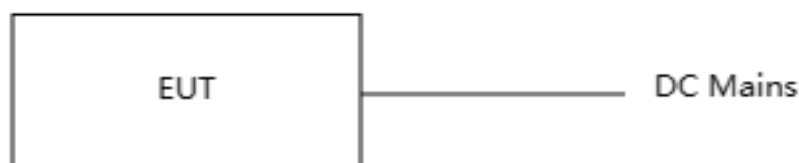
Channel information					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447	/	/

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
Connecting cable	N/A	N/A	length: 2.0m, unshielded
Power cable	N/A	N/A	length: 2.0m, unshielded
Display cable	N/A	N/A	length: 2.0m, shielded
Bluetooth/WIFI antenna	N/A	N/A	length: 2.00m, shielded

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 Rx 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	48	1	LCH: CH1	2412
		1	MCH: CH6	2437
		1	HCH: CH11	2462
IEEE 802.11g	48	6	LCH: CH1	2412
		6	MCH: CH6	2437
		6	HCH: CH11	2462
IEEE 802.11n HT20	48	MCS 0	LCH: CH1	2412
		MCS 0	MCH: CH6	2437
		MCS 0	HCH: CH11	2462
		MCS 0	MCH: CH6	2437
		MCS 0	HCH: CH9	2452
IEEE 802.11ax HE20	SU: 48 RU: 10	MCS 0	LCH: CH1	2412
		MCS 0	MCH: CH6	2437
		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

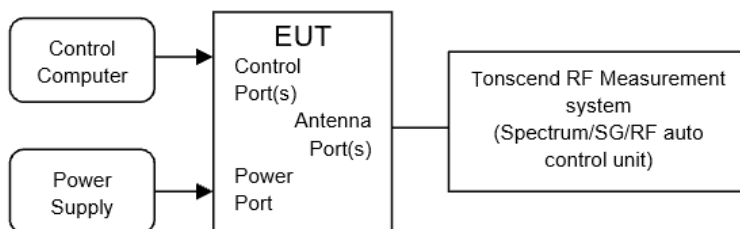
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.40 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
	1.66 dB ($8 \text{ GHz} \leq f < 26.5 \text{ GHz}$)
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 1#)					
SIGNAL ANALYZER	R&S	FSQ26	101272	2026/03/28	1 Year
Wideband Radio Communication Tester	R&S	CMW500	120259	2026/03/28	1 Year
MXG Vector Signal Generator	KEYSIGHT	N5182B	MY59100192	2026/03/28	1 Year
MXG Vector Signal Generator	Agilent	N5182A	MY19060405	2026/03/28	1 Year
RF Control Unit	Tonscend	JS0806-2	158060010	2026/03/28	1 Year
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2026/03/28	1 Year
Test Software	Tonscend	JS1120-3	V3.6.21	N/A	N/A
☑ 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	2118060485	2026/03/28	1 Year
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2026/03/28	1 Year
Test Software	Tonscend	JS1120-3	V3.6.21	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 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

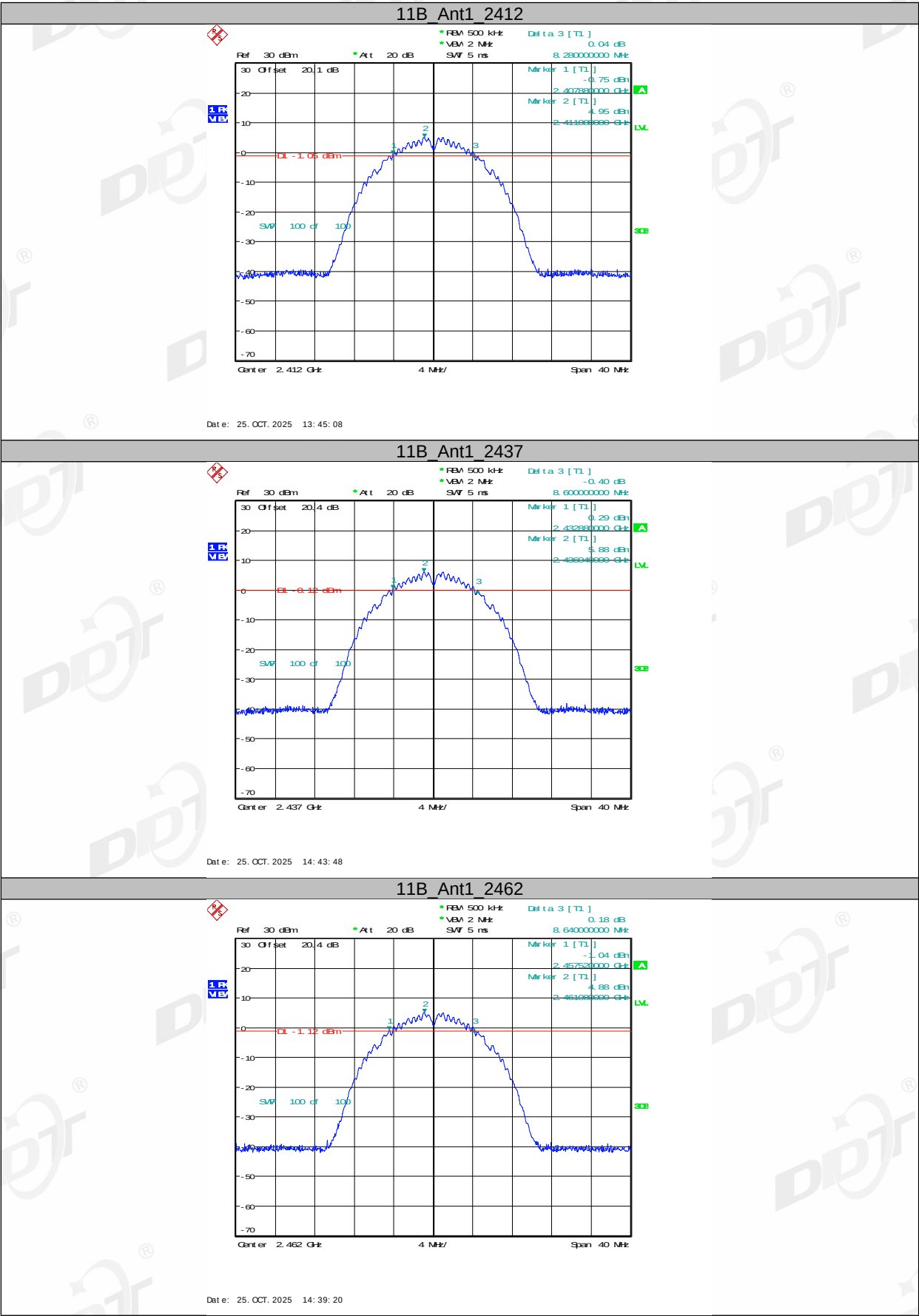
Test Engineer:	Wayne Huang	Test Site:	RF Measurement System 1# RF Measurement System 4#
Ambient Condition:	24.4℃,47.3%RH-25.6℃,45.8%RH	Test Date:	2025.10.25-2025.12.10
Test Power Supply:	DC 12V	Sample Number:	S25060926-001

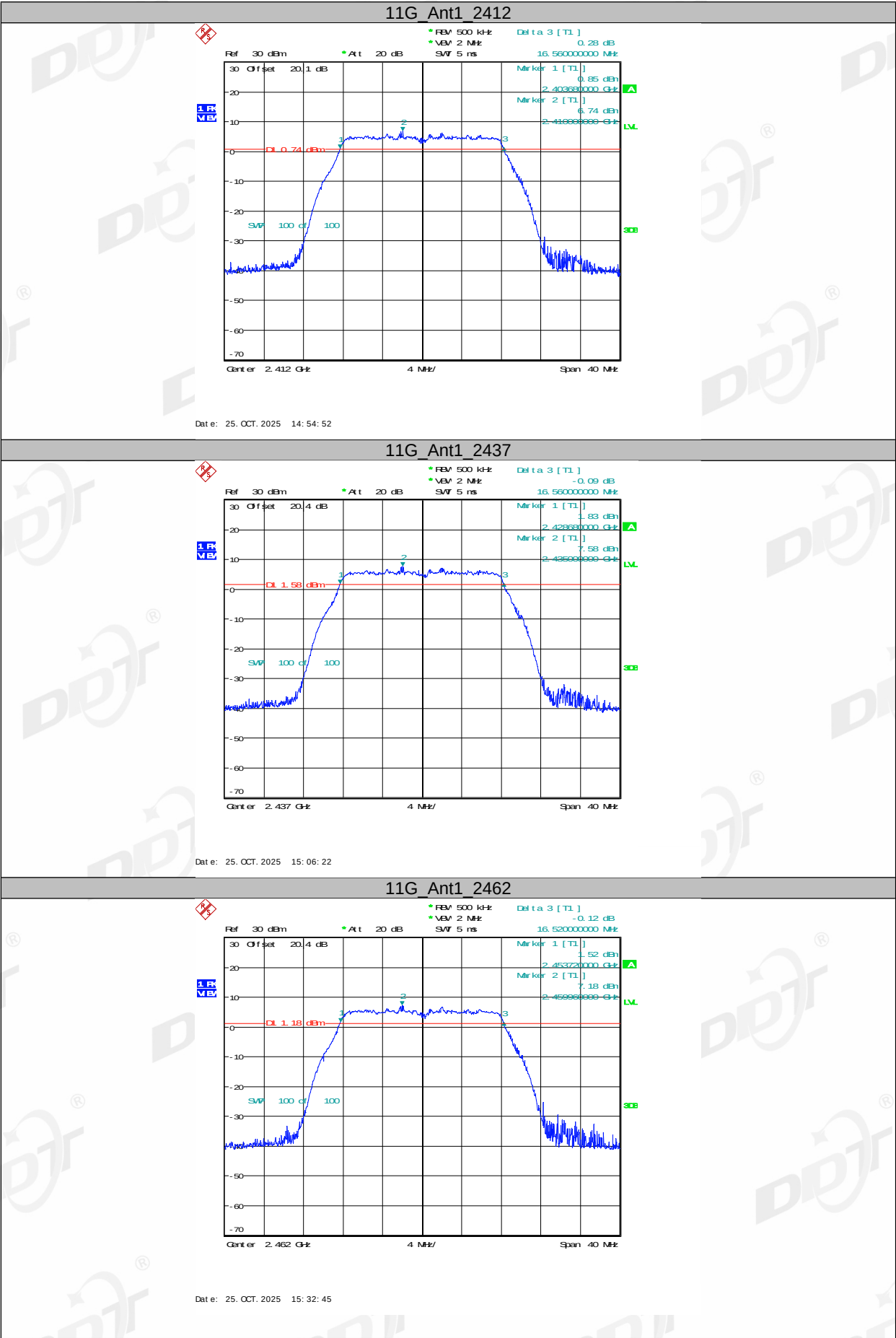
Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	8.28	2407.88	2416.16	0.5	PASS
		2437	8.60	2432.88	2441.48	0.5	PASS
		2462	8.64	2457.52	2466.16	0.5	PASS
11G	Ant1	2412	16.56	2403.68	2420.24	0.5	PASS
		2437	16.56	2428.68	2445.24	0.5	PASS
		2462	16.52	2453.72	2470.24	0.5	PASS
11N20SISO	Ant1	2412	18.04	2402.96	2421.00	0.5	PASS
		2437	17.84	2428.12	2445.96	0.5	PASS
		2462	18.08	2452.96	2471.04	0.5	PASS
11AX20SISO	Ant1	2412	19.08	2402.48	2421.56	0.5	PASS
		2437	19.12	2427.44	2446.56	0.5	PASS
		2462	19.16	2452.40	2471.56	0.5	PASS

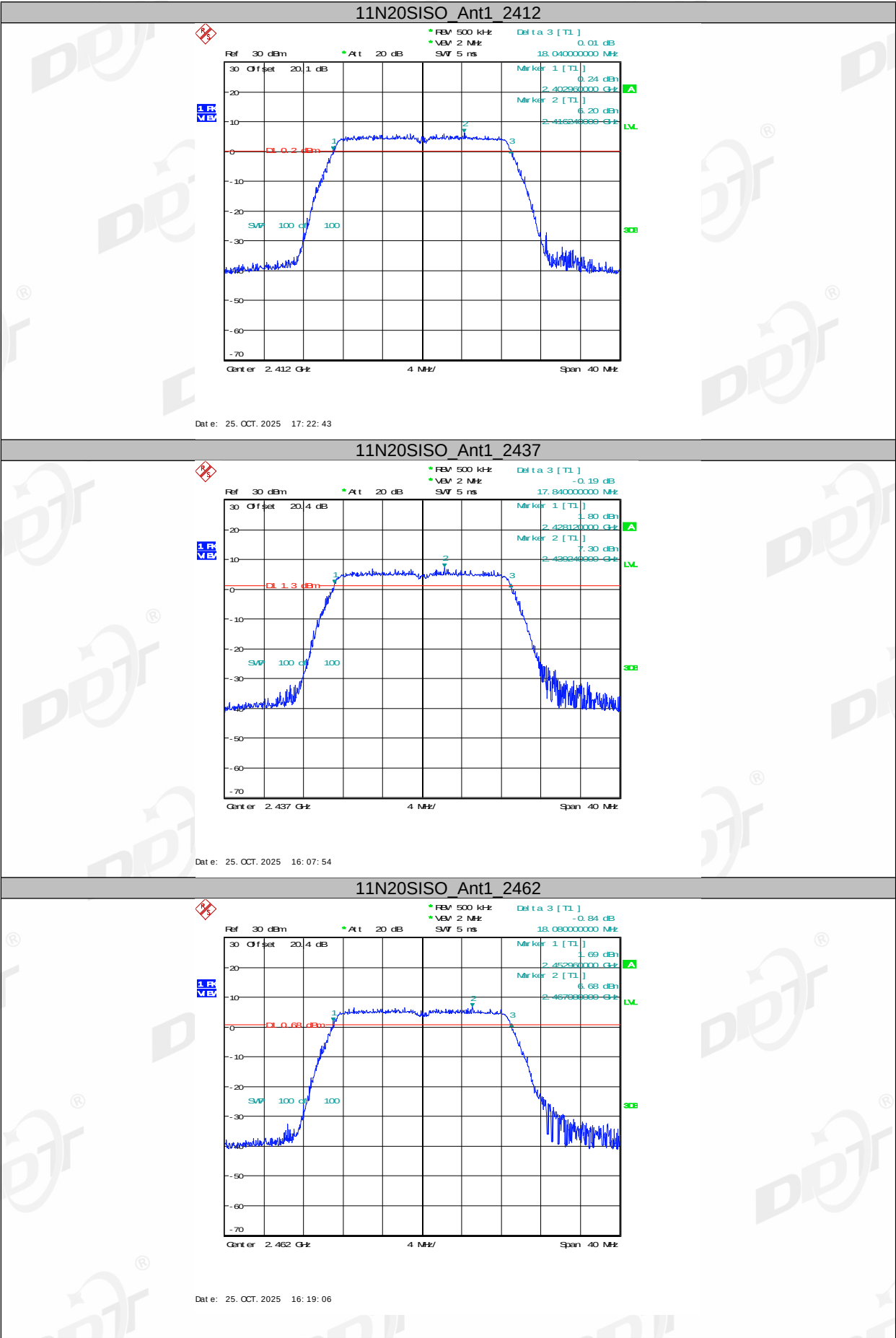
Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	2.08	2402.48	2404.56	0.5	PASS
				RU4	2.64	2410.68	2413.32	0.5	PASS
				RU8	2.08	2419.44	2421.52	0.5	PASS
			52Tone	RU37	4.04	2402.52	2406.56	0.5	PASS
				RU39	11.64	2405.72	2417.36	0.5	PASS
				RU40	15.76	2405.72	2421.48	0.5	PASS
			106Tone	RU53	17.20	2402.36	2419.56	0.5	PASS

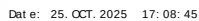
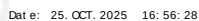
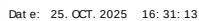
		2437		RU54	17.16	2404.44	2421.60	0.5	PASS
			26Tone	RU0	2.08	2427.48	2429.56	0.5	PASS
				RU4	2.64	2435.68	2438.32	0.5	PASS
				RU8	2.04	2444.44	2446.48	0.5	PASS
			52Tone	RU37	4.04	2427.52	2431.56	0.5	PASS
				RU39	11.64	2430.72	2442.36	0.5	PASS
				RU40	15.80	2430.72	2446.52	0.5	PASS
			106Tone	RU53	17.16	2427.40	2444.56	0.5	PASS
				RU54	17.12	2429.44	2446.56	0.5	PASS
		2462	26Tone	RU0	2.08	2452.48	2454.56	0.5	PASS
				RU4	2.64	2460.68	2463.32	0.5	PASS
				RU8	2.08	2469.44	2471.52	0.5	PASS
			52Tone	RU37	17.04	2452.48	2469.52	0.5	PASS
				RU39	13.80	2455.72	2469.52	0.5	PASS
				RU40	4.08	2467.44	2471.52	0.5	PASS
			106Tone	RU53	17.16	2452.40	2469.56	0.5	PASS
				RU54	17.16	2454.44	2471.60	0.5	PASS

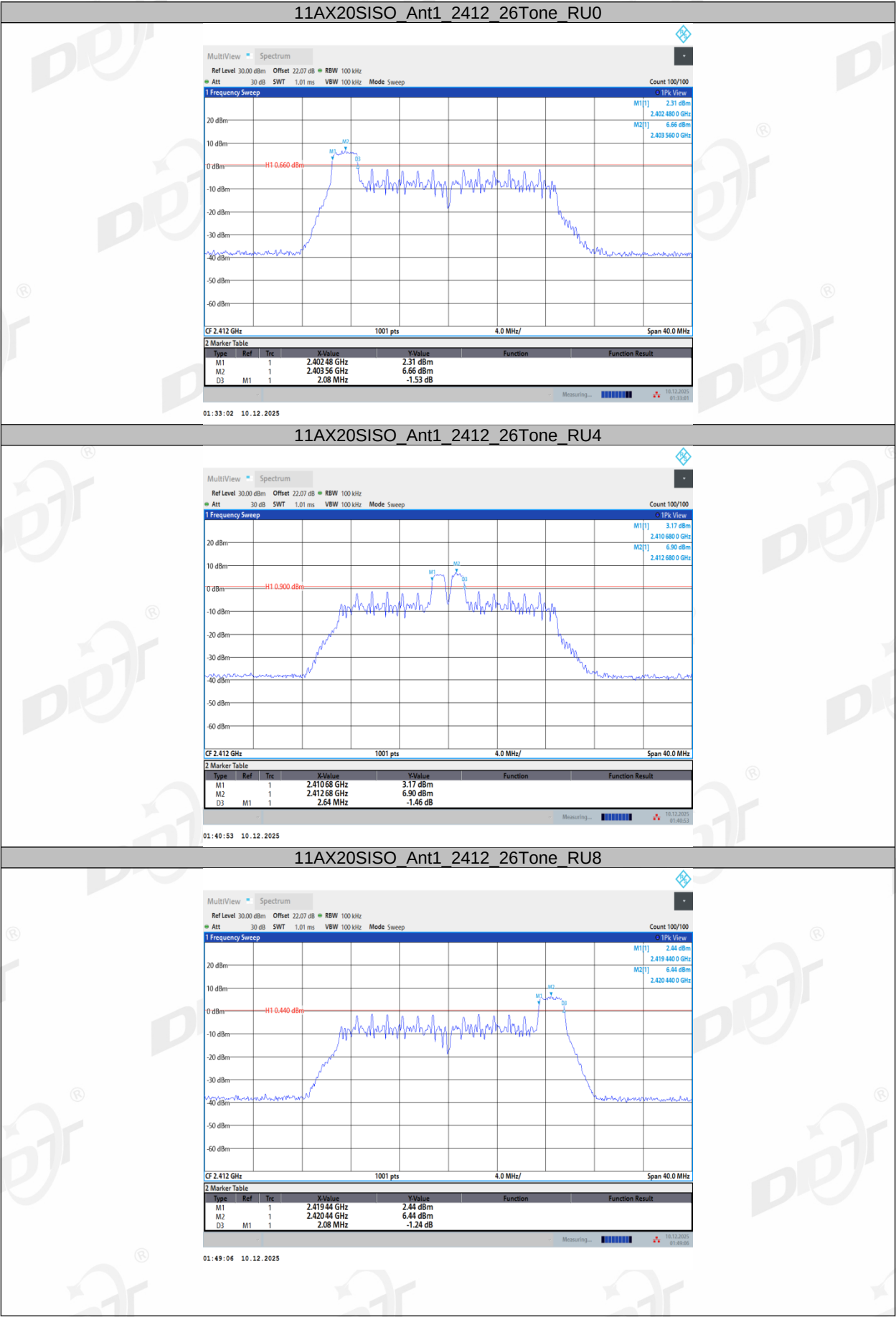
4.5. Test graphs

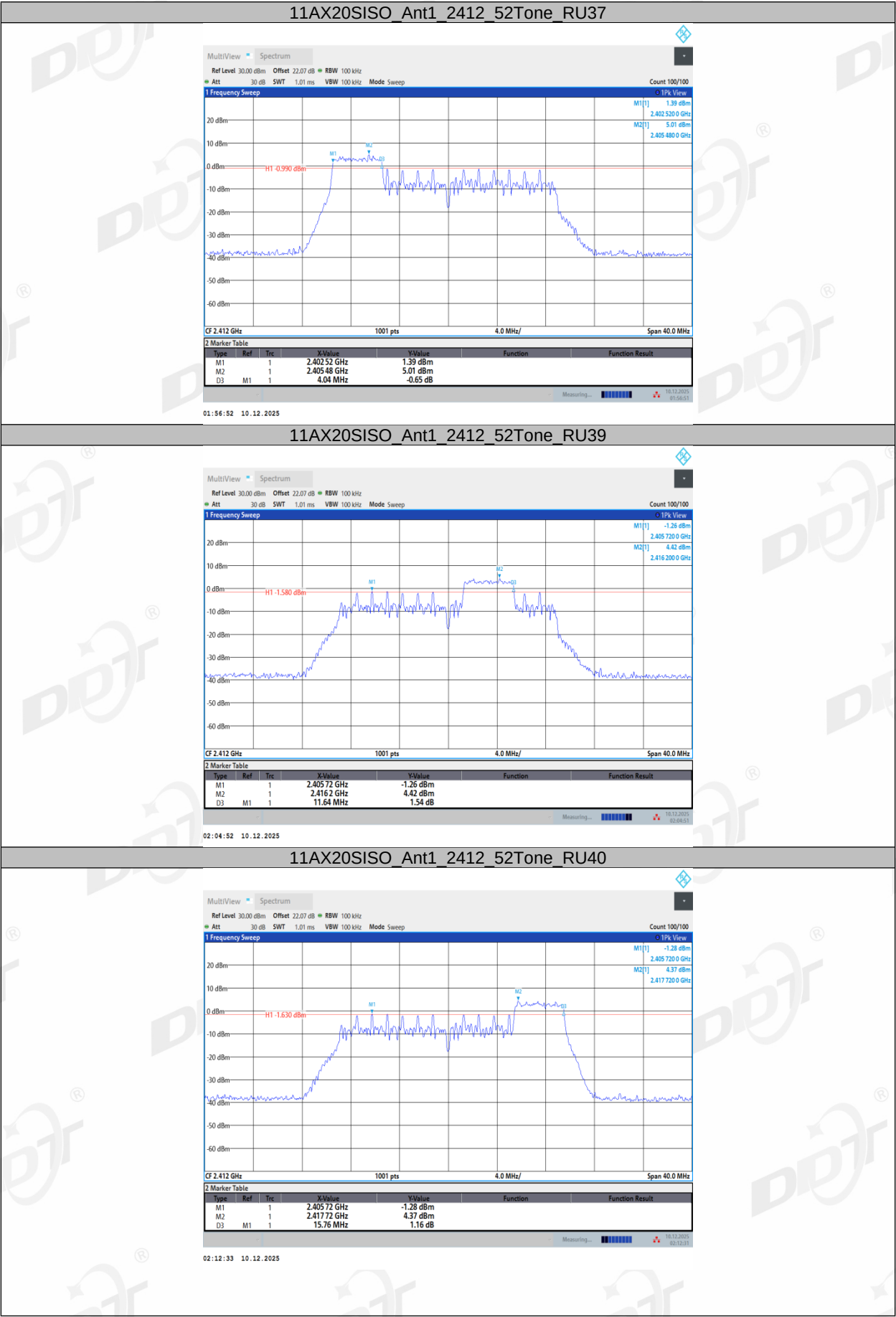


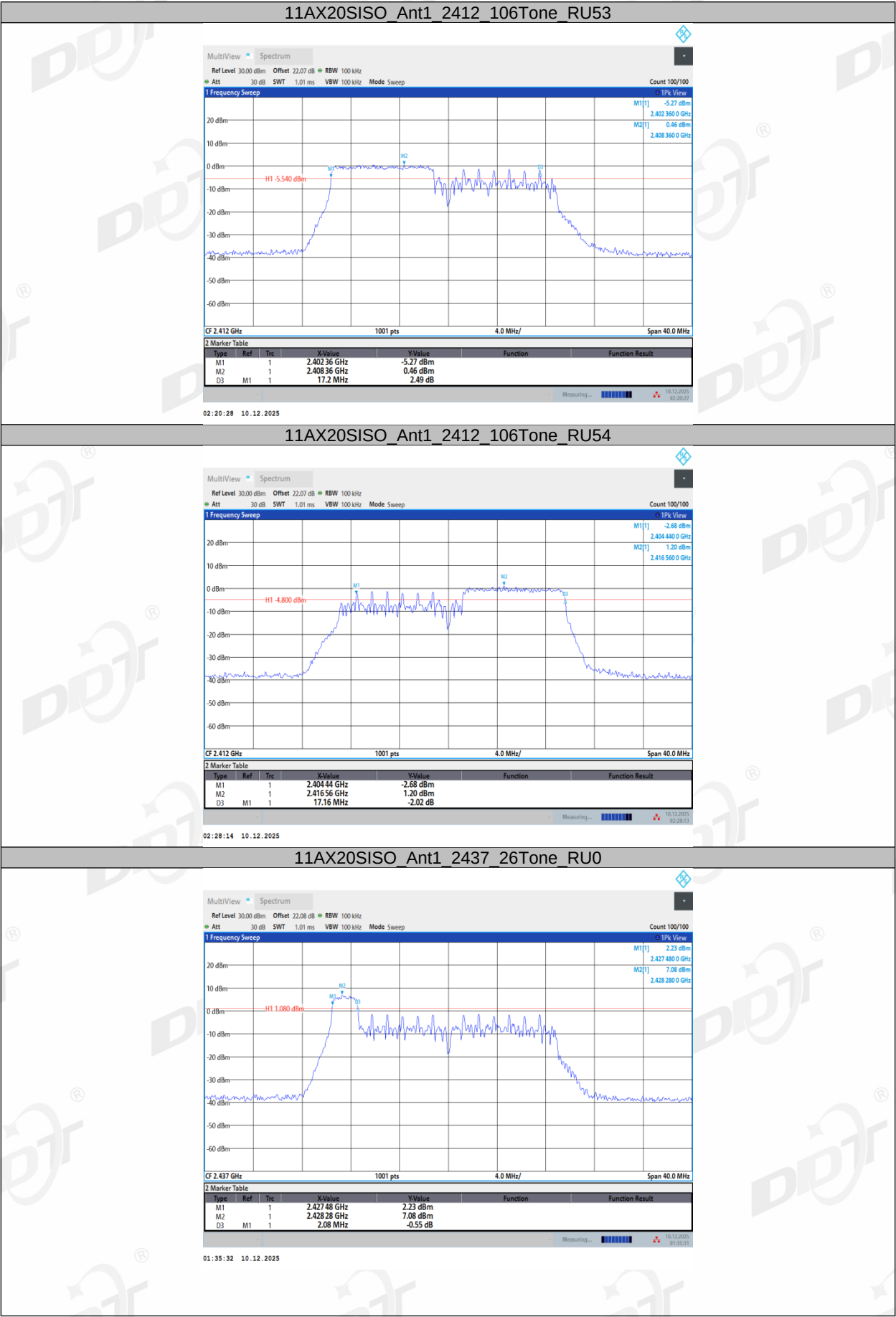


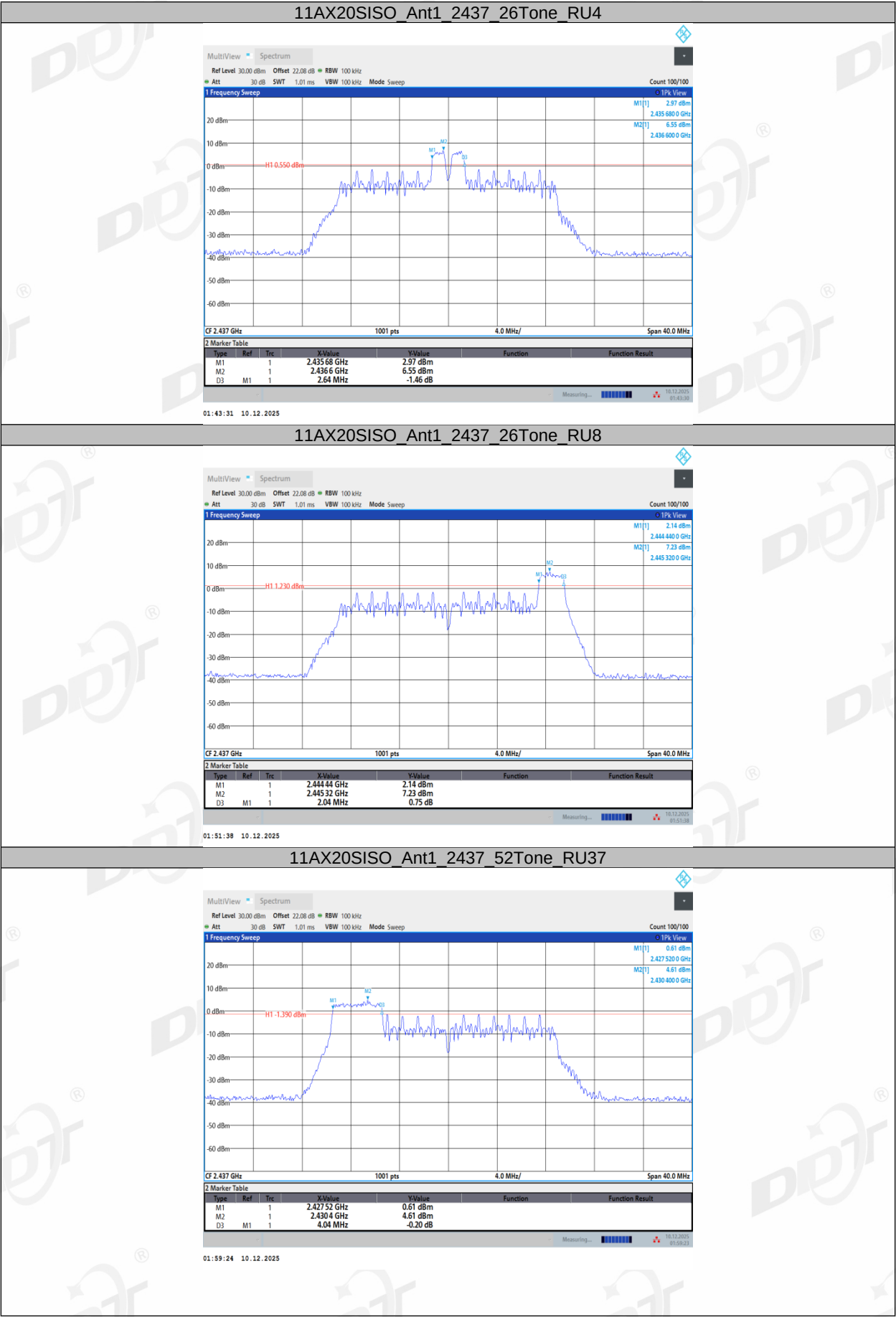






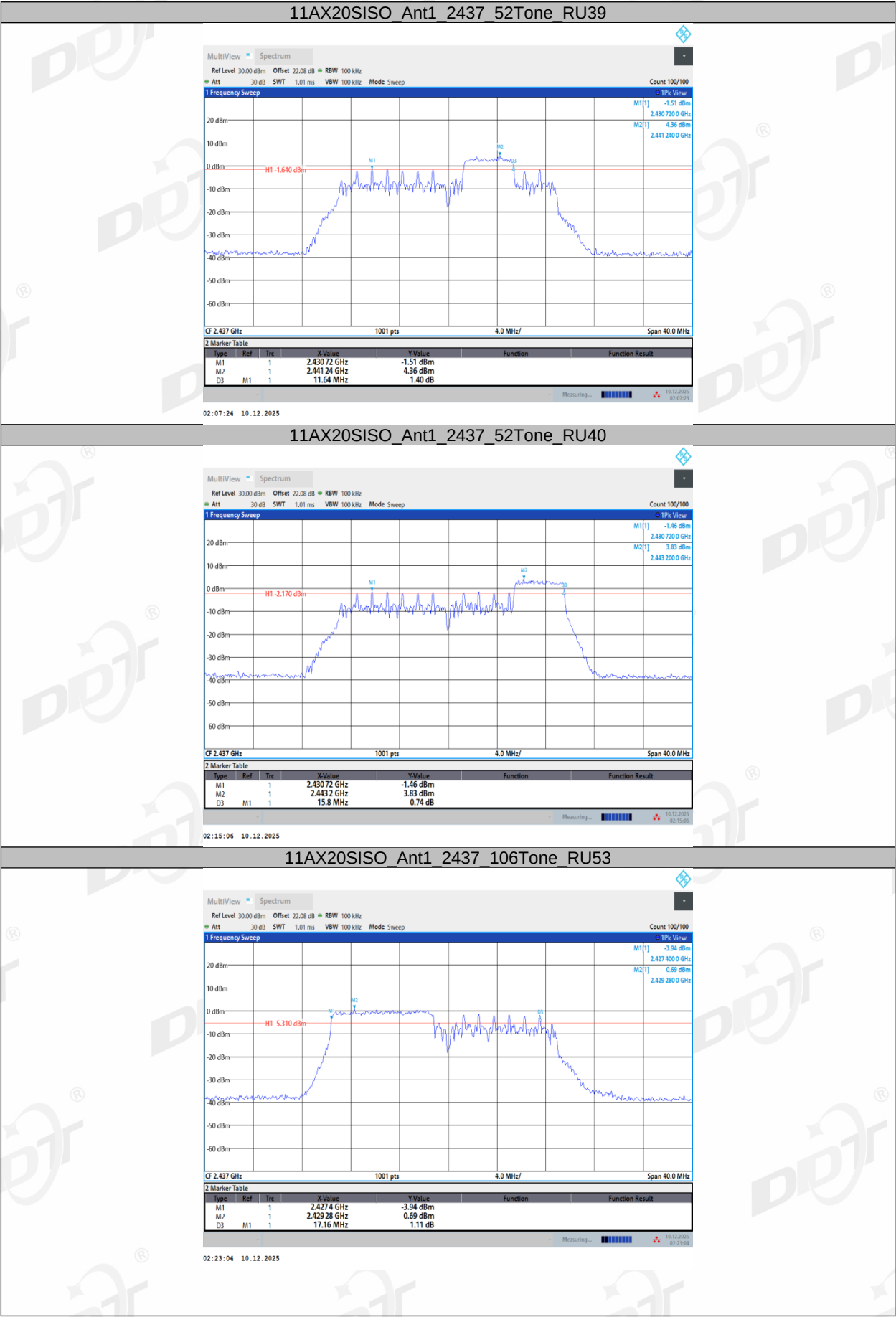


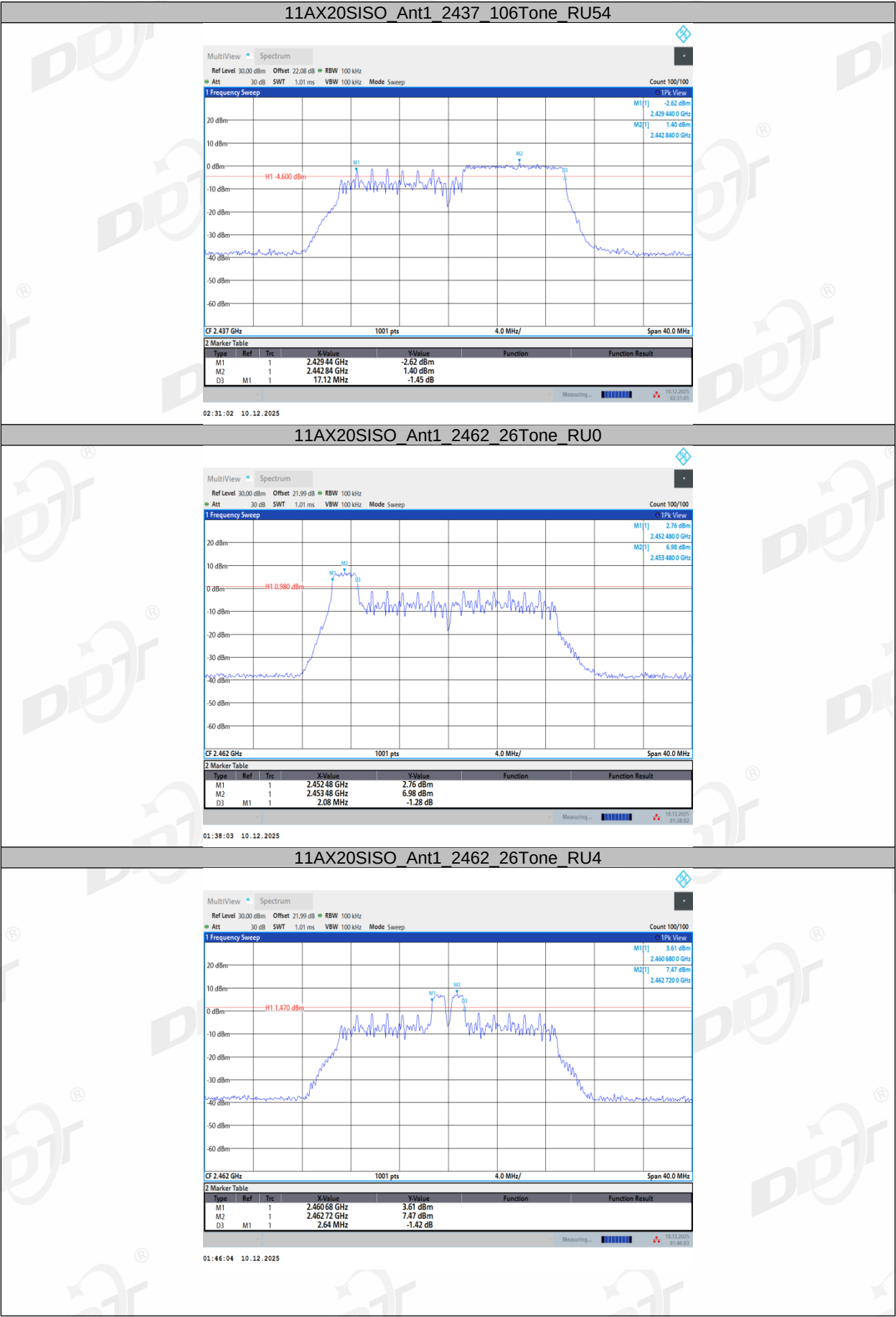


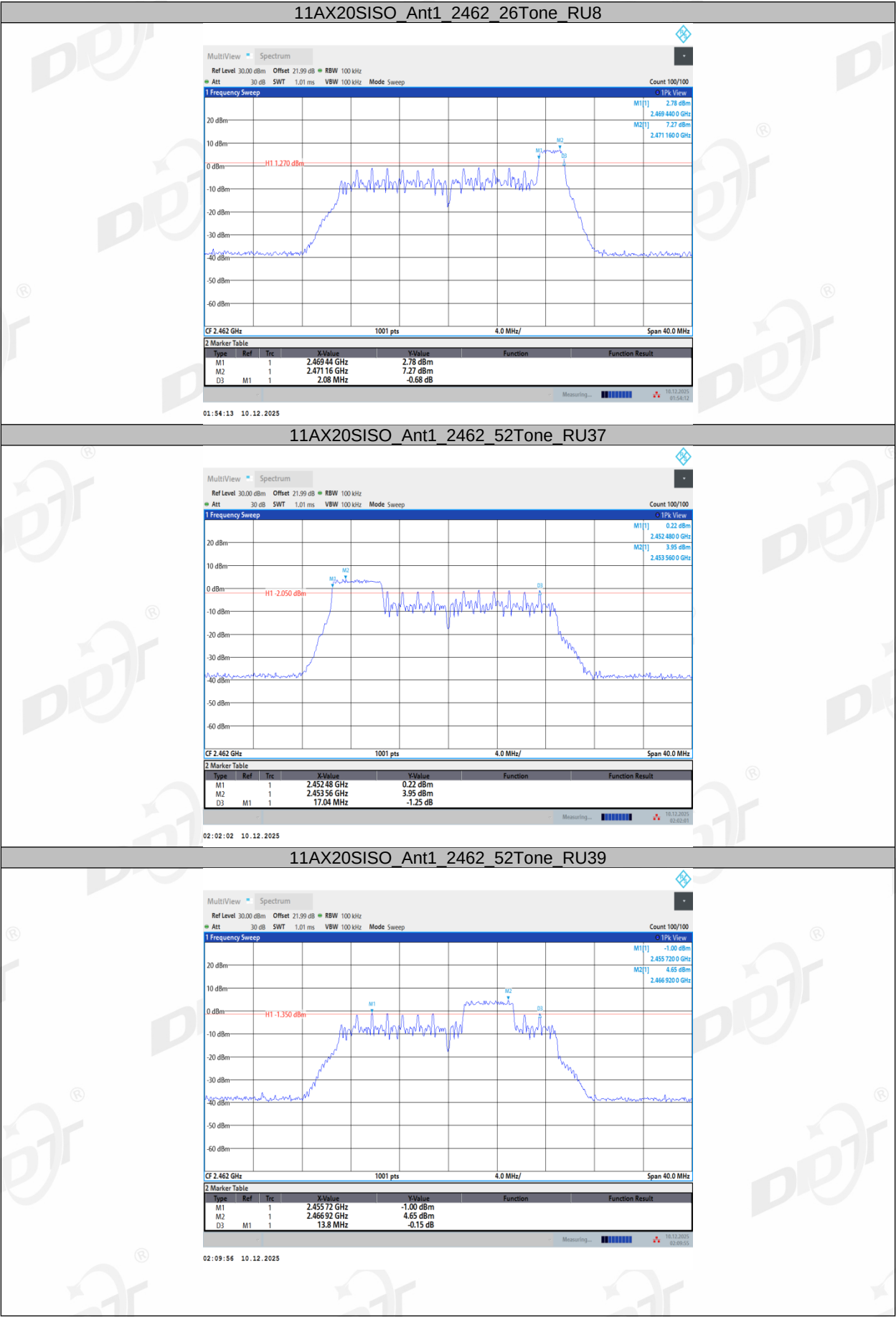


11AX20SISO_Ant1_2437_26Tone_RU8

11AX20SISO_Ant1_2437_52Tone_RU37





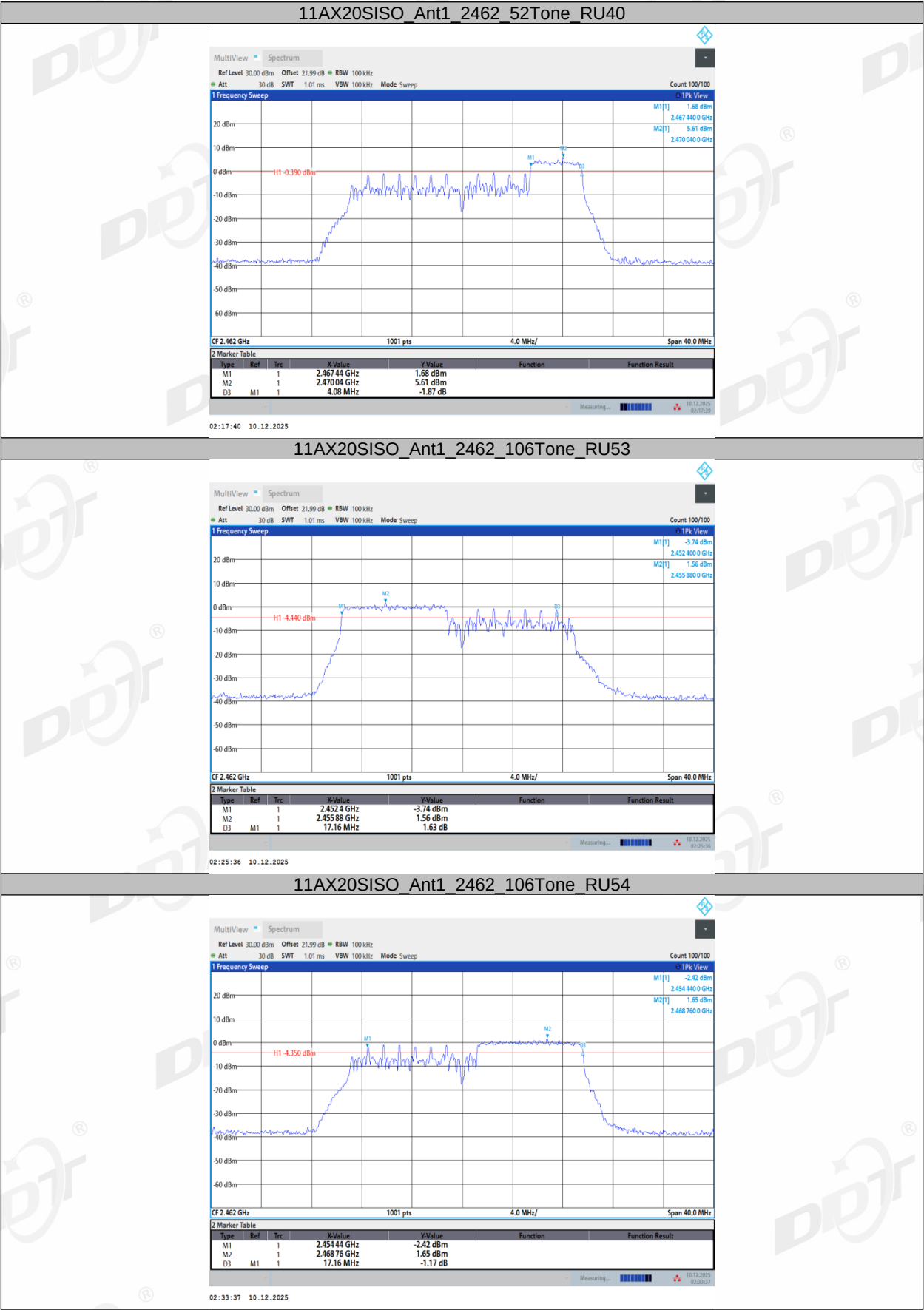


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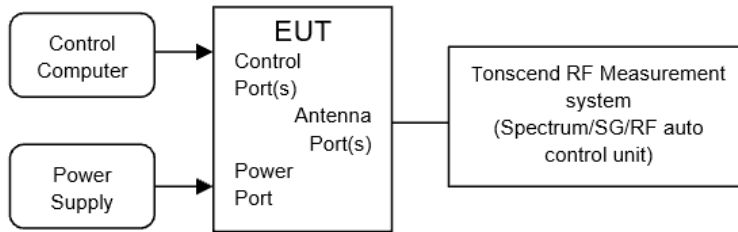
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02:09:56 10.12.2025



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

- (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:	Wayne Huang	Test Site:	RF Measurement System 1# RF Measurement System 4#
Ambient Condition:	24.4℃,47.3%RH-25.6℃,45.8%RH	Test Date:	2025.10.25-2025.12.10
Test Power Supply:	DC 12V	Sample Number:	S25060926-001

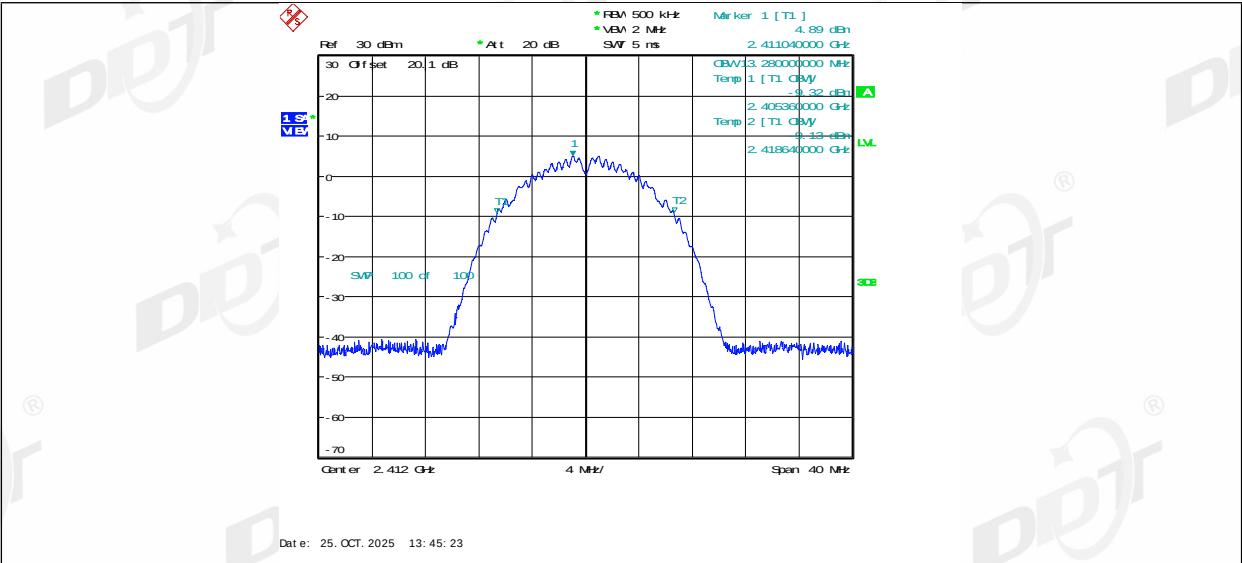
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	13.280	2405.3600	2418.6400	---	---
		2437	13.280	2430.3600	2443.6400	---	---
		2462	13.240	2455.3600	2468.6000	---	---
11G	Ant1	2412	17.640	2403.1600	2420.8000	---	---
		2437	17.600	2428.1600	2445.7600	---	---
		2462	17.720	2453.1600	2470.8800	---	---
11N20SISO	Ant1	2412	18.560	2402.7200	2421.2800	---	---
		2437	18.560	2427.7200	2446.2800	---	---
		2462	18.720	2452.6400	2471.3600	---	---
11AX20SISO	Ant1	2412	19.360	2402.2800	2421.6400	---	---
		2437	19.320	2427.3600	2446.6800	---	---
		2462	19.320	2452.3200	2471.6400	---	---

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	18.677	2401.9251	2420.6020	---	---
				RU4	17.438	2403.1362	2420.5745	---	---
				RU8	19.118	2402.9822	2422.1005	---	---
			52Tone	RU37	18.608	2402.0271	2420.6348	---	---
				RU39	17.604	2403.0041	2420.6078	---	---
				RU40	19.077	2402.8565	2421.9338	---	---
			106Tone	RU53	18.540	2402.1699	2420.7102	---	---

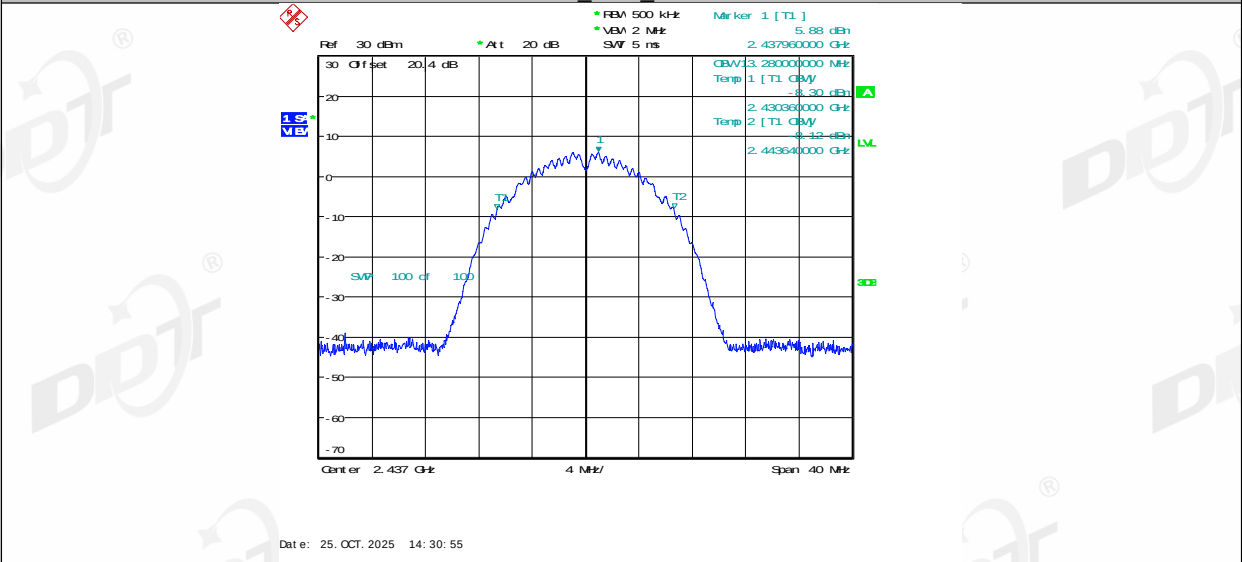
				RU54	19.092	2402.7412	2421.8332	---	---
				RU0	18.694	2426.9321	2445.6259	---	---
		2437	26Tone	RU4	17.578	2428.0499	2445.6280	---	---
				RU8	19.032	2428.0466	2447.0790	---	---
				RU37	18.588	2427.0711	2445.6586	---	---
			52Tone	RU39	17.750	2427.8877	2445.6373	---	---
				RU40	19.055	2427.8730	2446.9284	---	---
			106Tone	RU53	18.576	2427.1439	2445.7200	---	---
				RU54	19.099	2427.7515	2446.8505	---	---
		2462	26Tone	RU0	18.716	2451.9035	2470.6197	---	---
				RU4	17.599	2453.0294	2470.6289	---	---
				RU8	19.030	2453.0506	2472.0810	---	---
			52Tone	RU37	18.551	2452.1052	2470.6560	---	---
				RU39	17.636	2452.9863	2470.6224	---	---
				RU40	18.973	2452.9743	2471.9469	---	---
			106Tone	RU53	18.596	2452.1539	2470.7498	---	---
				RU54	19.057	2452.7863	2471.8431	---	---

5.5. Test graphs

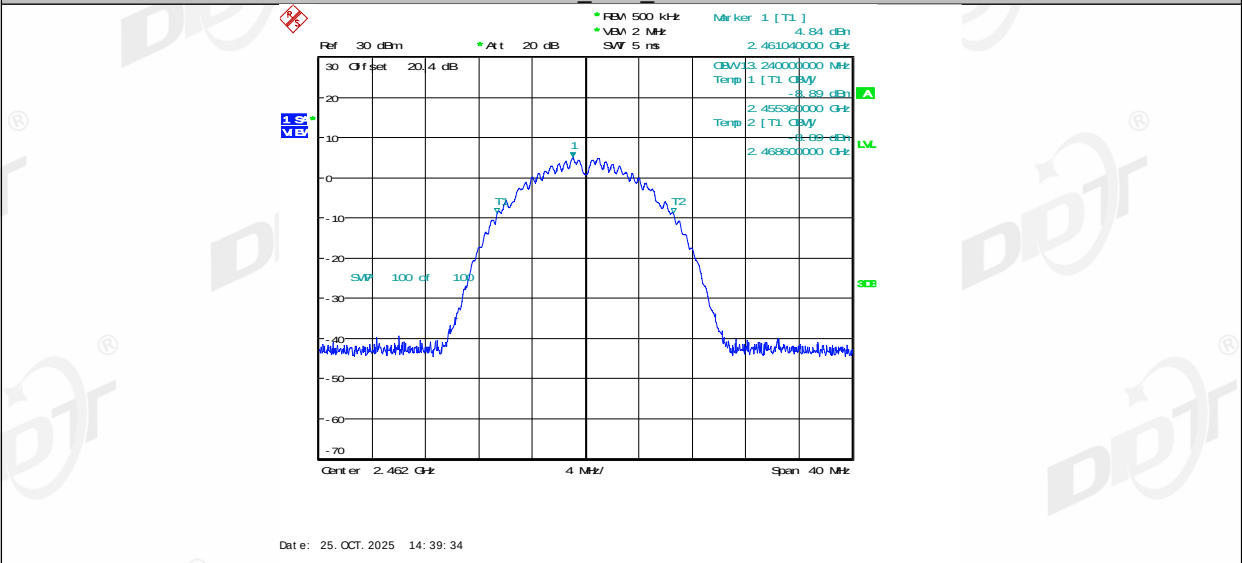
11B_Ant1_2412



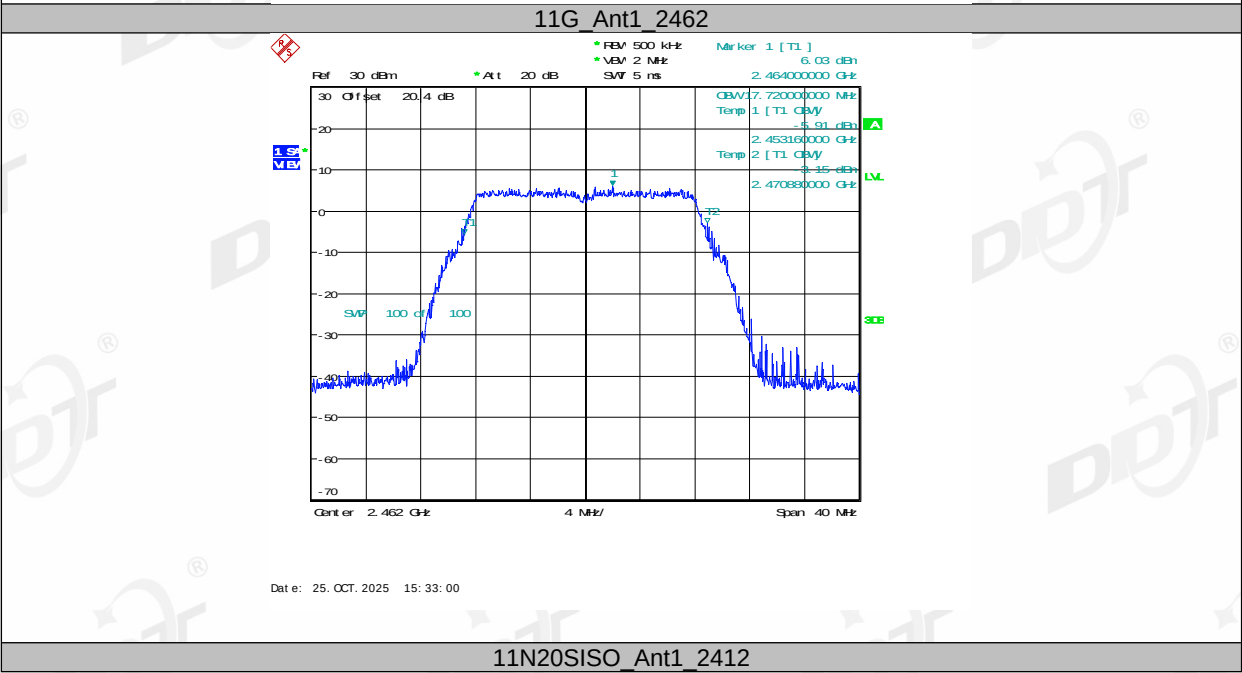
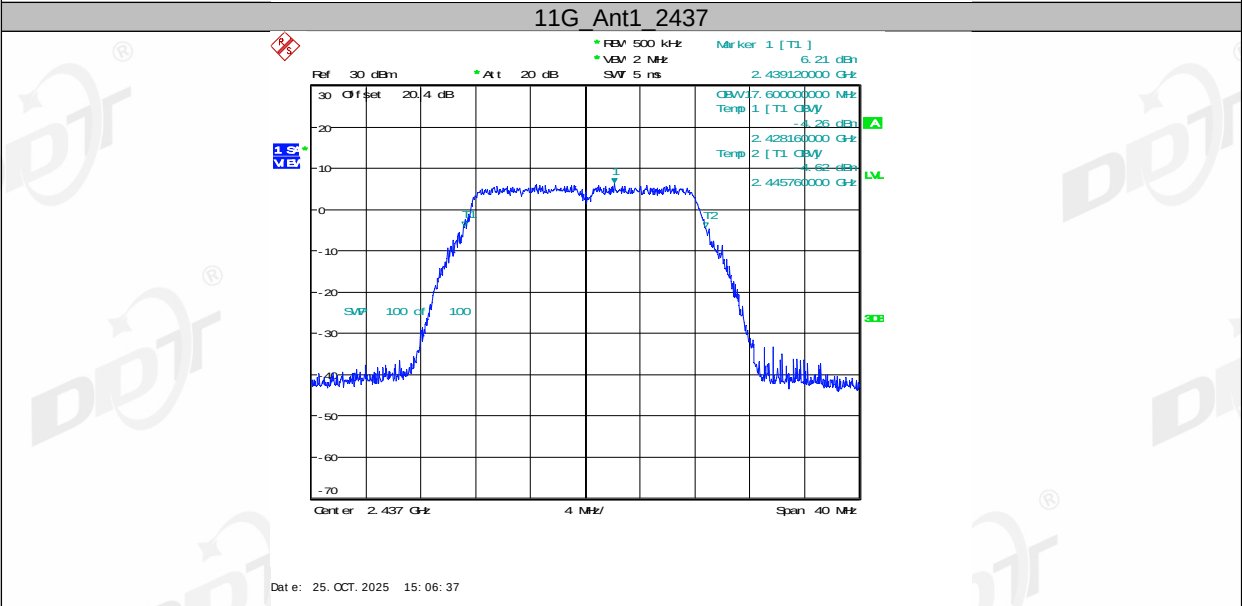
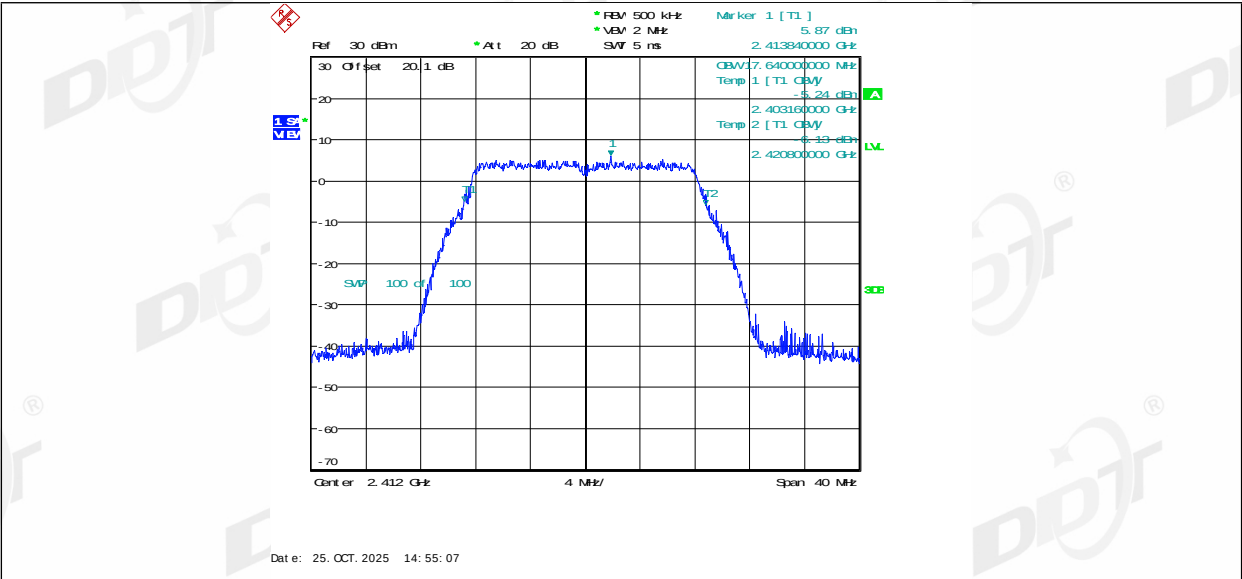
11B_Ant1_2437

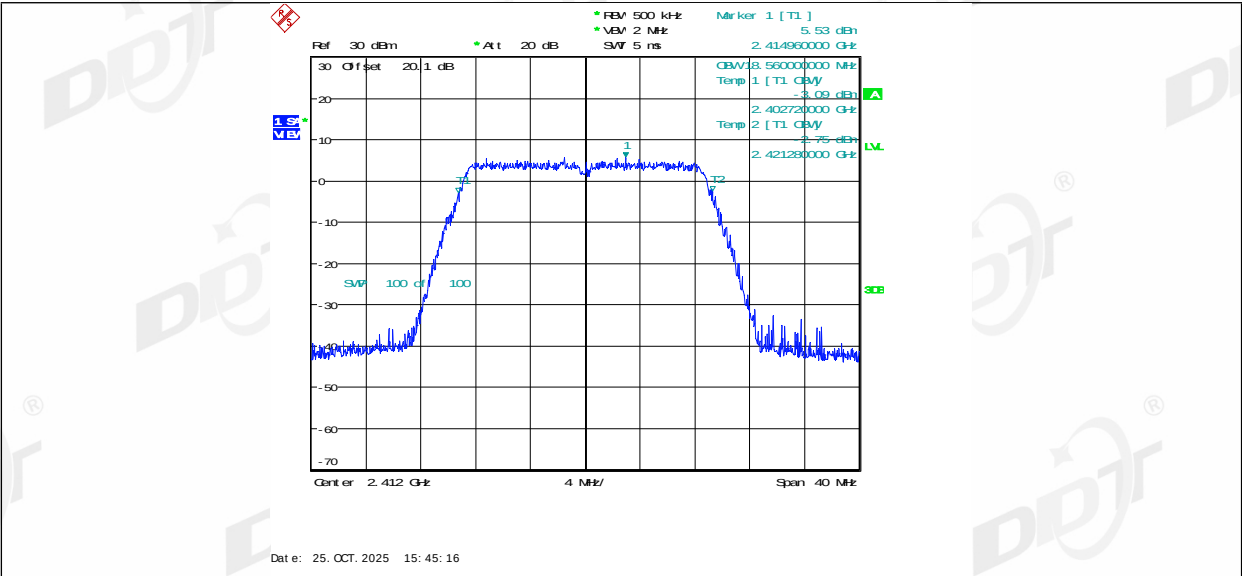


11B_Ant1_2462

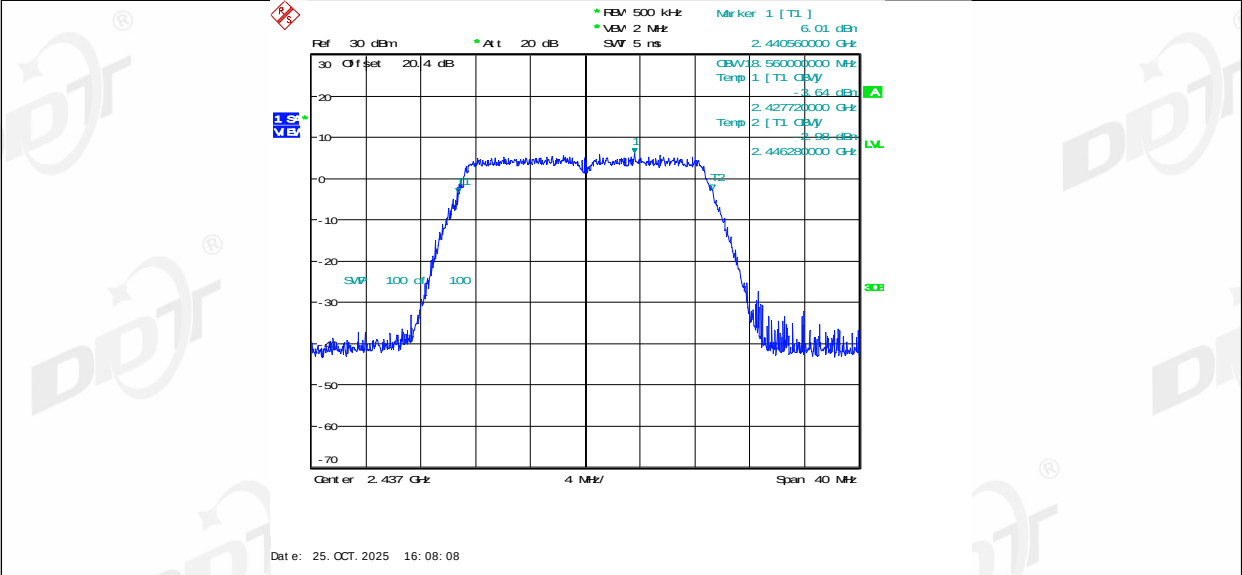


11G_Ant1_2412

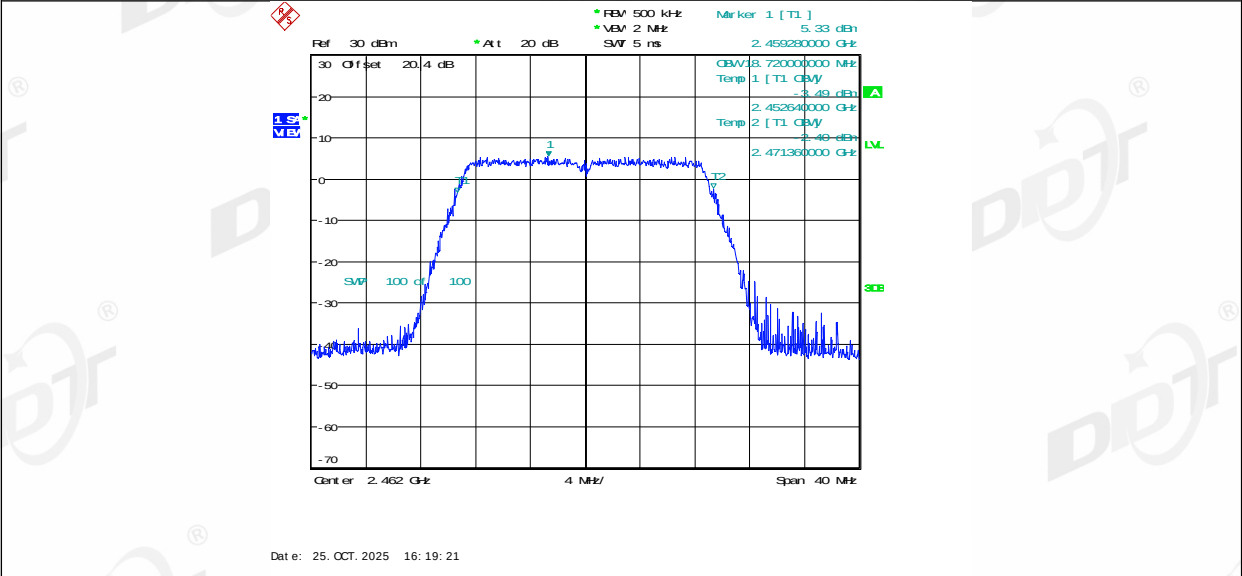




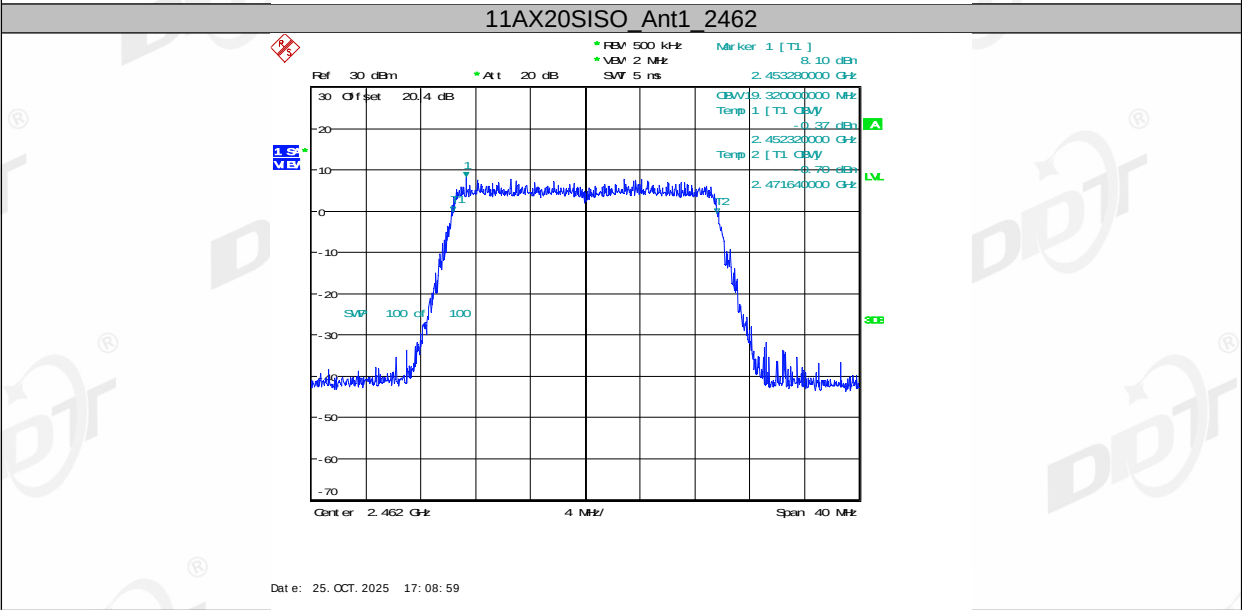
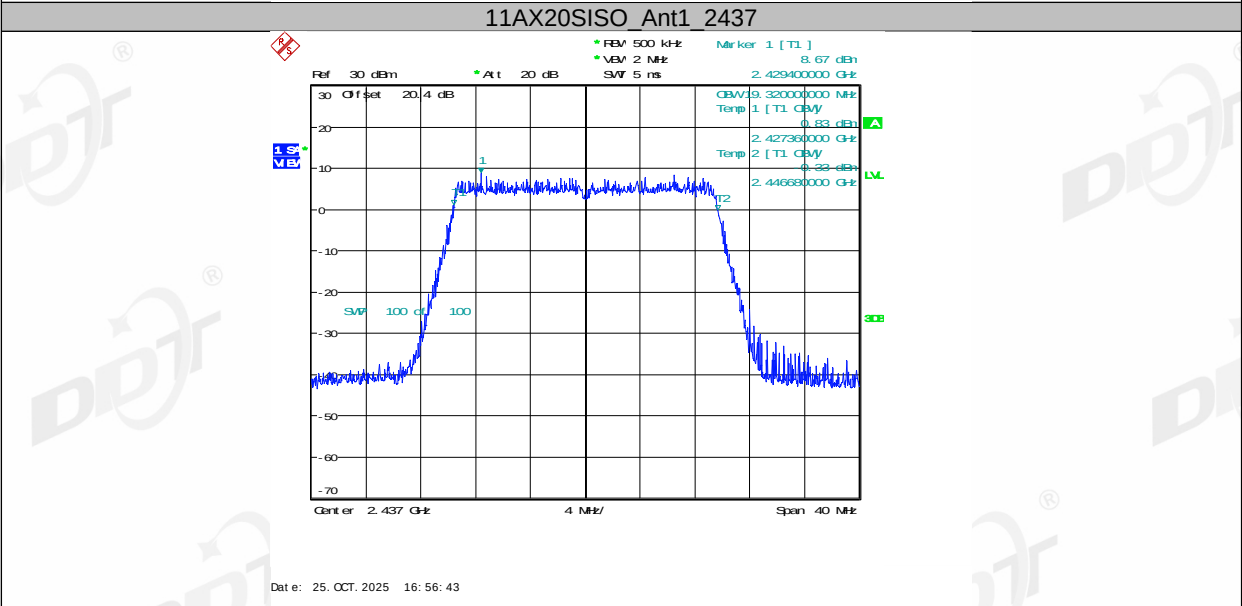
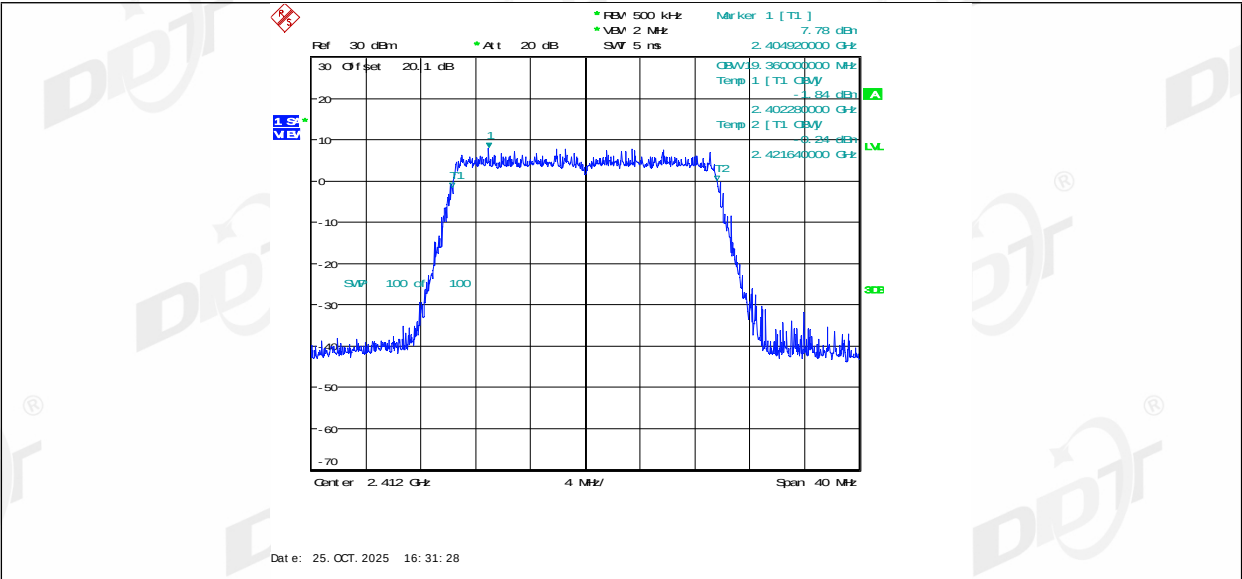
11N20SISO_Ant1_2437

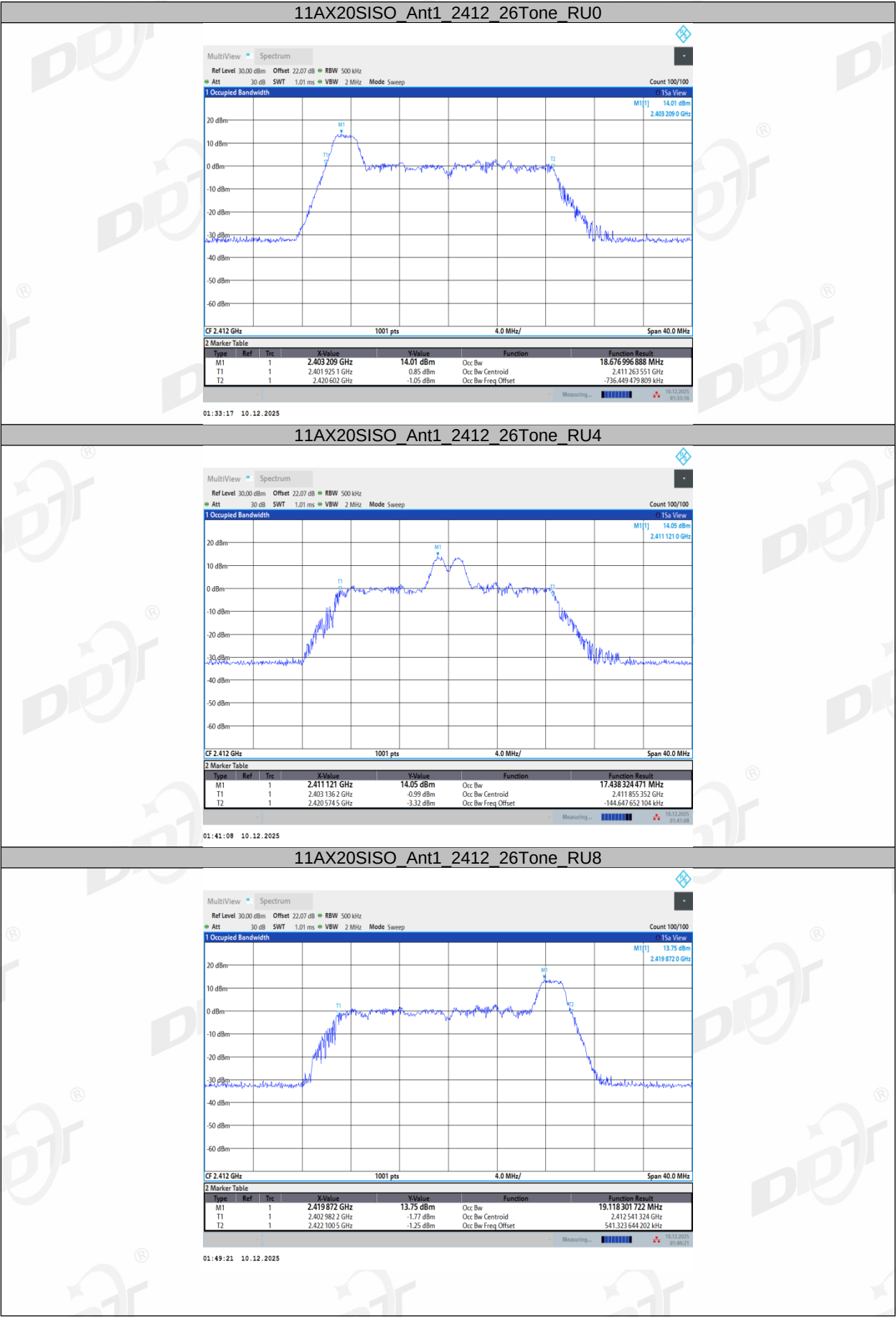


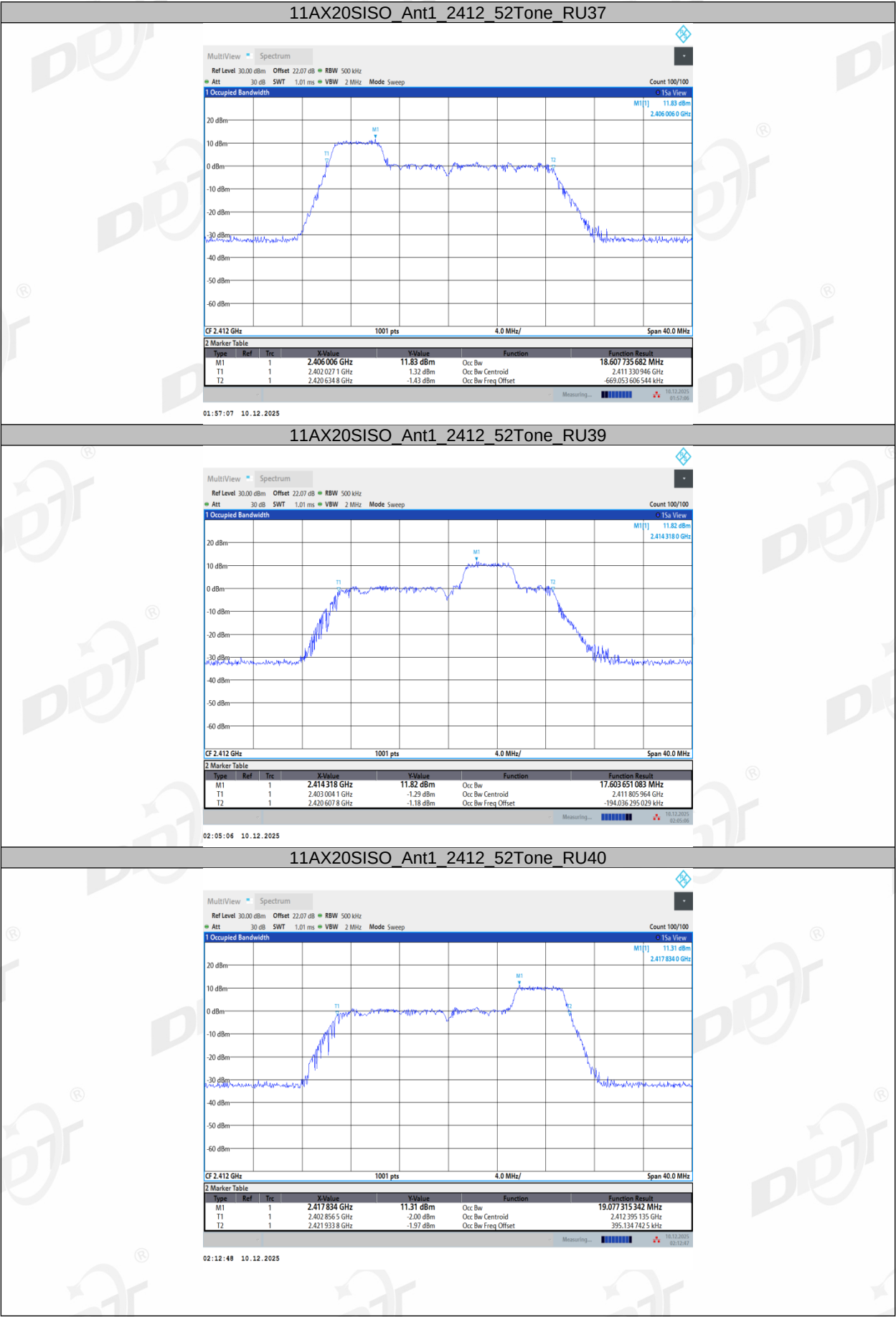
11N20SISO_Ant1_2462

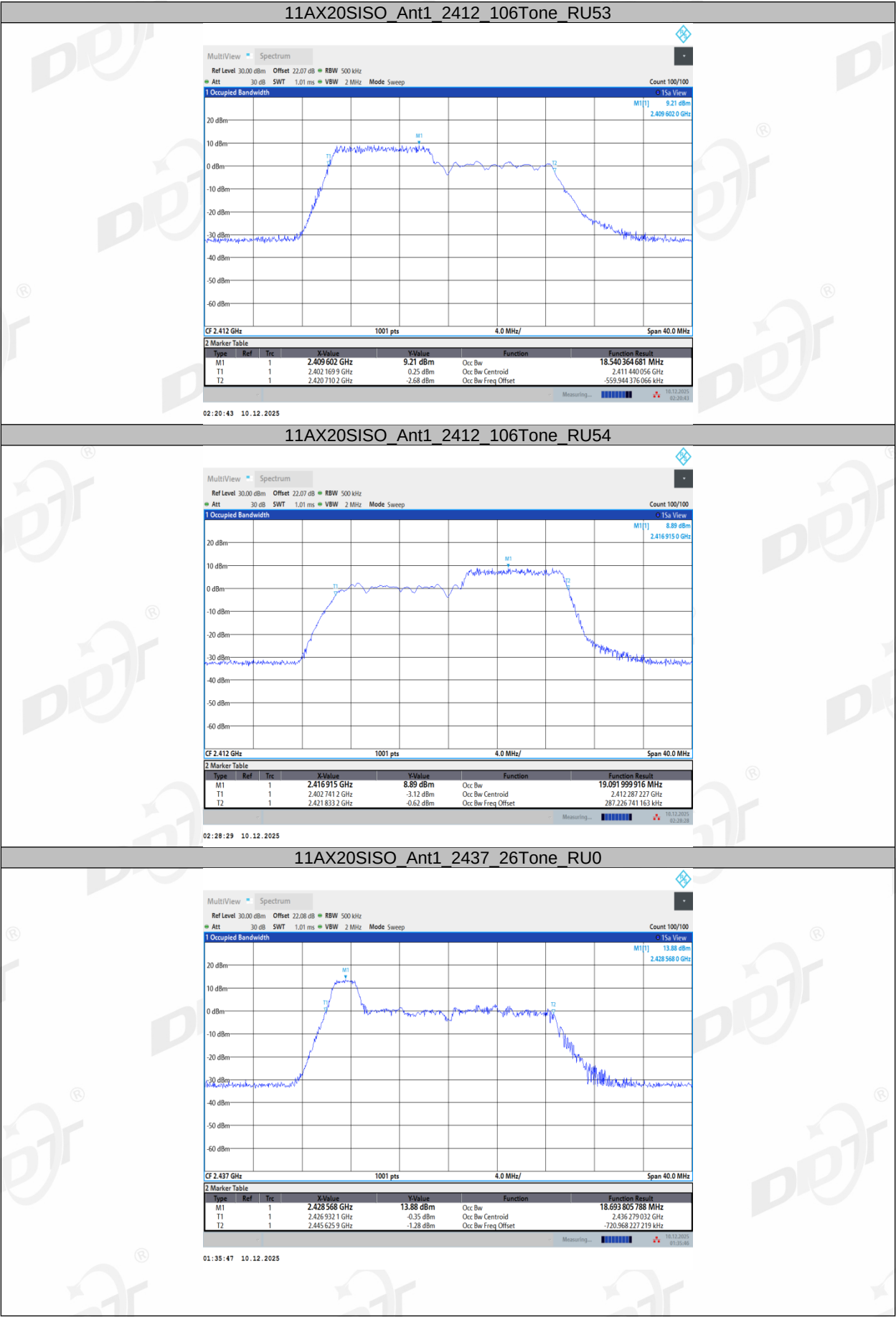


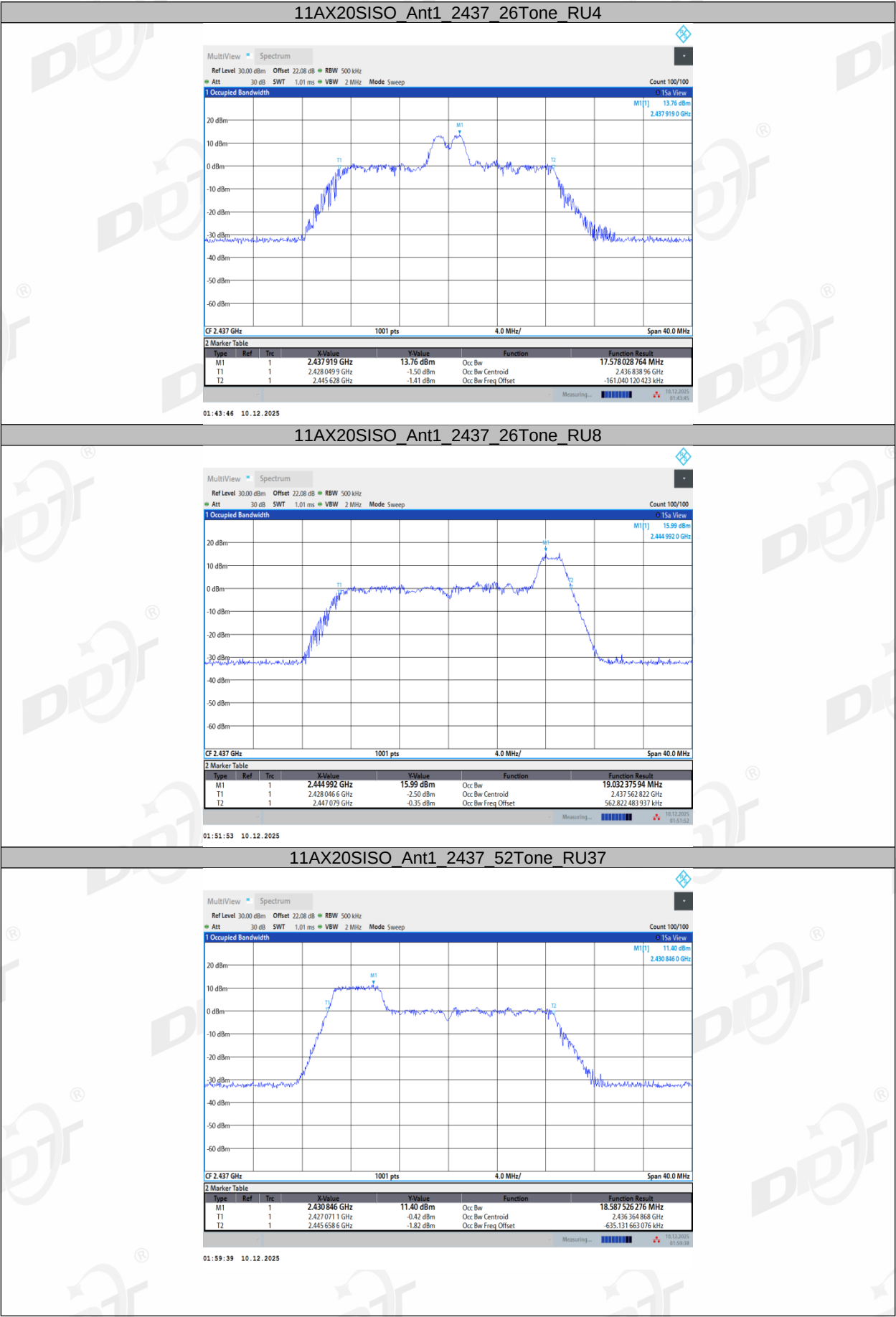
11AX20SISO_Ant1_2412

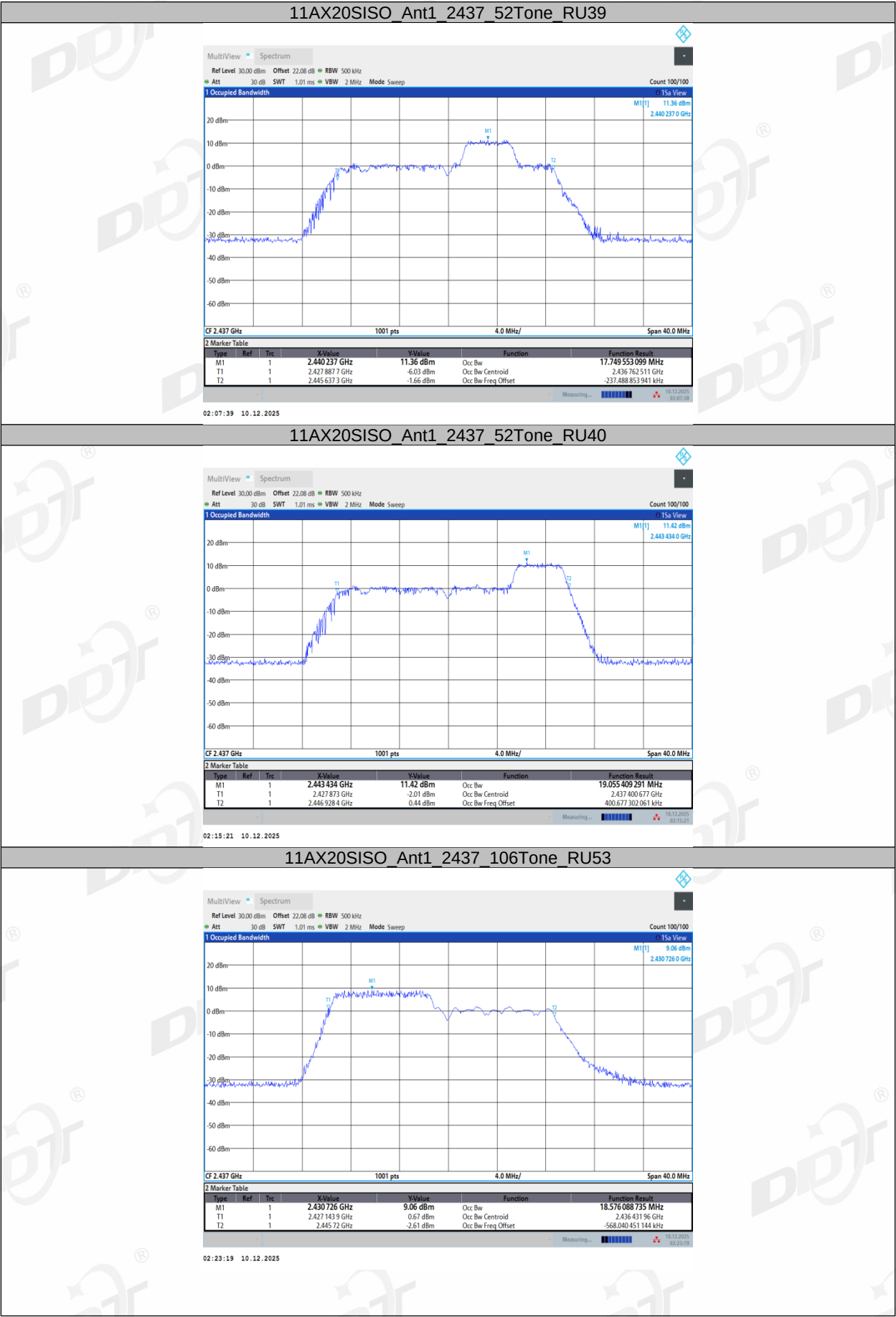


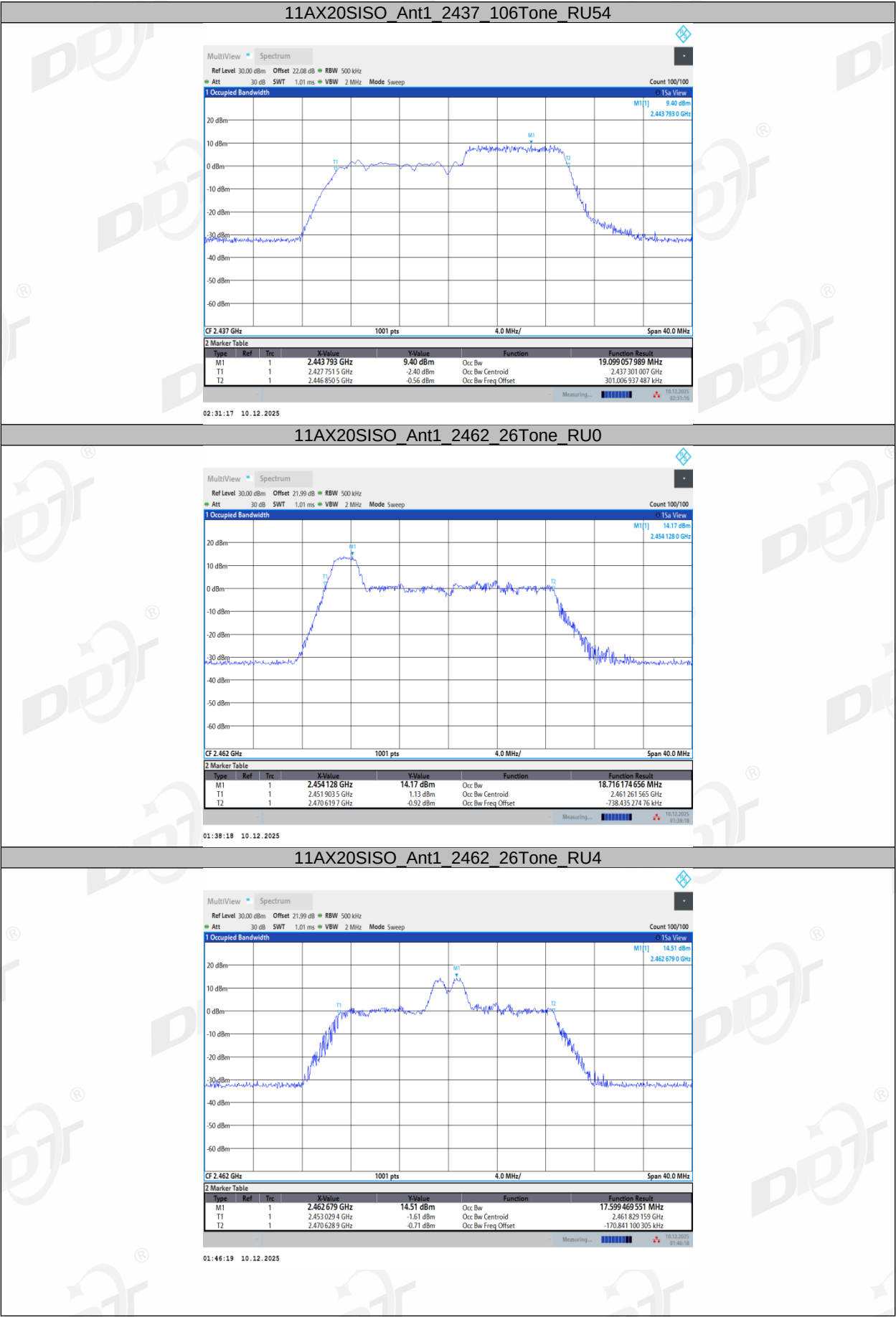


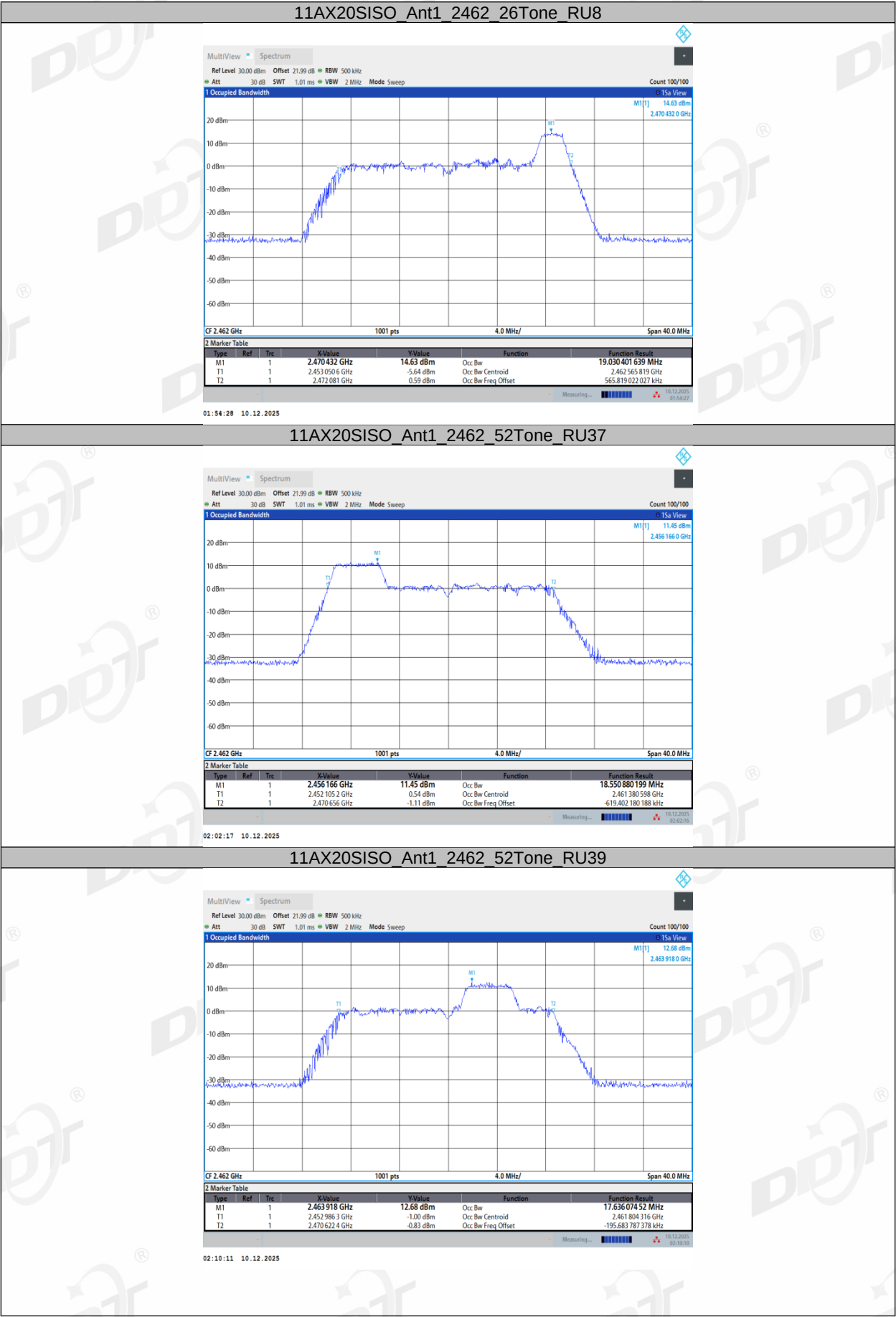


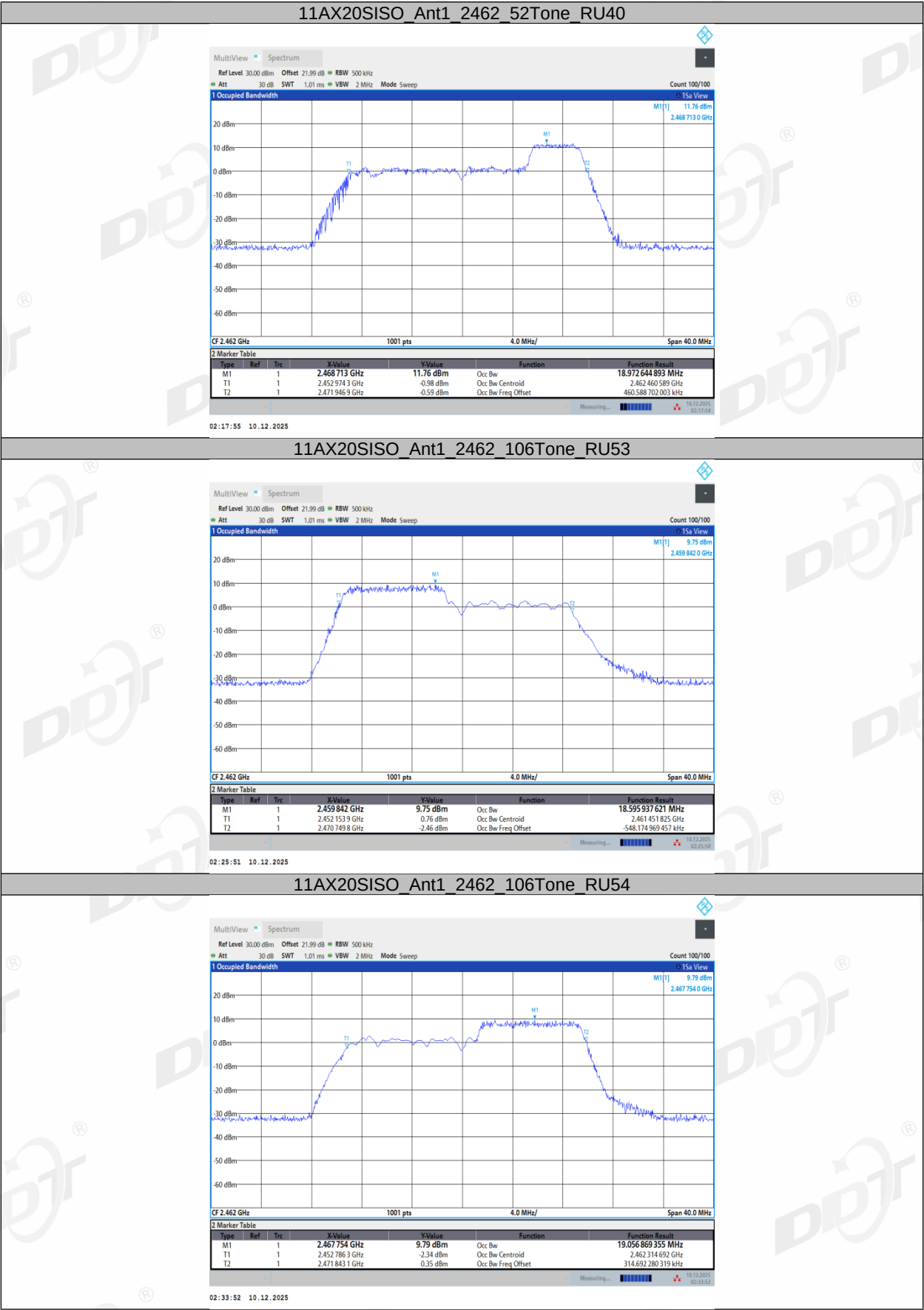






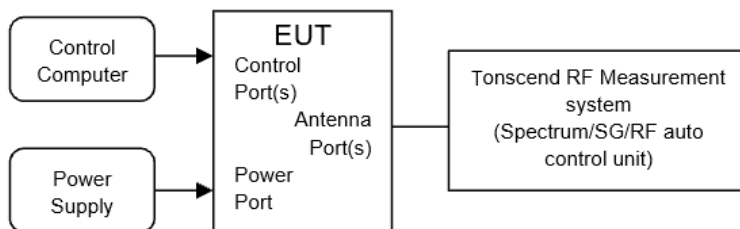






6. Conducted Output Power

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:	Wayne Huang	Test Site:	RF Measurement System 1# RF Measurement System 4#
Ambient Condition:	24.4℃, 47.3%RH-25.6℃,45.8%RH	Test Date:	2025.10.25-2025.12.10
Test Power Supply:	DC 12V	Sample Number:	S25060926-001

PCB B:

Test Mode	Antenna	Frequency [MHz]	Average Power [dBm]	Duty Cycle [%]	DC Factor [dB]	Result power [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	12.57	98.94	0	12.57	≤30.00	16.35	≤36.00	PASS
		2437	13.01	98.83	0	13.01	≤30.00	16.79	≤36.00	PASS
		2462	12.19	98.94	0	12.19	≤30.00	15.97	≤36.00	PASS
11G	Ant1	2412	12.24	93.33	0.30	12.54	≤30.00	16.32	≤36.00	PASS
		2437	12.50	93.38	0.30	12.80	≤30.00	16.58	≤36.00	PASS
		2462	12.64	93.38	0.30	12.94	≤30.00	16.72	≤36.00	PASS
11N20SISO	Ant1	2412	12.25	92.91	0.32	12.57	≤30.00	16.35	≤36.00	PASS
		2437	12.46	92.96	0.32	12.78	≤30.00	16.56	≤36.00	PASS
		2462	12.65	92.91	0.32	12.97	≤30.00	16.75	≤36.00	PASS
11AX20SISO	Ant1	2412	12.45	91.15	0.40	12.85	≤30.00	16.63	≤36.00	PASS
		2437	12.44	91.15	0.40	12.84	≤30.00	16.62	≤36.00	PASS
		2462	12.57	91.15	0.40	12.97	≤30.00	16.75	≤36.00	PASS

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result power [dBm]	Conducted Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	10.37	≤30.00	3.78	14.15	≤36.00	PASS
				RU4	10.55	≤30.00	3.78	14.33	≤36.00	PASS
				RU8	10.21	≤30.00	3.78	13.99	≤36.00	PASS
			52Tone	RU37	10.43	≤30.00	3.78	14.21	≤36.00	PASS
				RU39	10.47	≤30.00	3.78	14.25	≤36.00	PASS
				RU40	10.25	≤30.00	3.78	14.03	≤36.00	PASS
			106Tone	RU53	10.46	≤30.00	3.78	14.24	≤36.00	PASS
				RU54	10.36	≤30.00	3.78	14.14	≤36.00	PASS
			2437	26Tone	RU0	10.21	≤30.00	3.78	13.99	≤36.00

				RU4	10.40	≤30.00	3.78	14.18	≤36.00	PASS
				RU8	10.50	≤30.00	3.78	14.28	≤36.00	PASS
				52Tone	RU37	10.30	≤30.00	3.78	14.08	PASS
					RU39	10.35	≤30.00	3.78	14.13	PASS
					RU40	10.24	≤30.00	3.78	14.02	PASS
				106Tone	RU53	10.28	≤30.00	3.78	14.06	PASS
					RU54	10.56	≤30.00	3.78	14.34	PASS
		2462	26Tone	RU0	10.60	≤30.00	3.78	14.38	≤36.00	PASS
				RU4	11.07	≤30.00	3.78	14.85	≤36.00	PASS
				RU8	10.91	≤30.00	3.78	14.69	≤36.00	PASS
			52Tone	RU37	10.72	≤30.00	3.78	14.50	≤36.00	PASS
				RU39	11.08	≤30.00	3.78	14.86	≤36.00	PASS
				RU40	10.99	≤30.00	3.78	14.77	≤36.00	PASS
			106Tone	RU53	10.82	≤30.00	3.78	14.60	≤36.00	PASS
				RU54	10.97	≤30.00	3.78	14.75	≤36.00	PASS

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

PCB A:

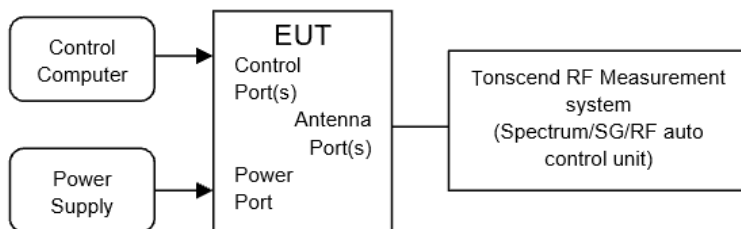
Test Mode	Antenna	Frequency [MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dB]	Result [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	11.75	98.94	0.00	11.75	≤30.00	15.53	≤36.00	PASS
		2437	12.50	98.83	0.00	12.50	≤30.00	16.28	≤36.00	PASS
		2462	12.21	98.83	0.00	12.21	≤30.00	15.99	≤36.00	PASS
11G	Ant1	2412	12.00	93.33	0.30	12.30	≤30.00	16.08	≤36.00	PASS
		2437	12.10	93.33	0.30	12.40	≤30.00	16.18	≤36.00	PASS
		2462	12.22	93.33	0.30	12.52	≤30.00	16.30	≤36.00	PASS
11N20SISO	Ant1	2412	11.92	92.91	0.32	12.24	≤30.00	16.02	≤36.00	PASS
		2437	12.07	92.91	0.32	12.39	≤30.00	16.17	≤36.00	PASS
		2462	12.28	92.91	0.32	12.60	≤30.00	16.38	≤36.00	PASS
11AX20SISO	Ant1	2412	11.92	91.07	0.41	12.33	≤30.00	16.11	≤36.00	PASS
		2437	12.20	91.07	0.41	12.61	≤30.00	16.39	≤36.00	PASS
		2462	12.22	91.07	0.41	12.63	≤30.00	16.41	≤36.00	PASS

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Average Power[dBm]	Conducted Limit[dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	8.91	≤30.00	3.78	12.69	≤36.00	PASS
				RU4	9.61	≤30.00	3.78	13.39	≤36.00	PASS
				RU8	9.40	≤30.00	3.78	13.18	≤36.00	PASS
			52Tone	RU37	9.57	≤30.00	3.78	13.35	≤36.00	PASS
				RU39	9.77	≤30.00	3.78	13.55	≤36.00	PASS
				RU40	9.72	≤30.00	3.78	13.50	≤36.00	PASS
			106Tone	RU53	10.14	≤30.00	3.78	13.92	≤36.00	PASS
				RU54	10.26	≤30.00	3.78	14.04	≤36.00	PASS
		2437	26Tone	RU0	9.26	≤30.00	3.78	13.04	≤36.00	PASS
				RU4	9.83	≤30.00	3.78	13.61	≤36.00	PASS
				RU8	9.21	≤30.00	3.78	12.99	≤36.00	PASS
			52Tone	RU37	9.47	≤30.00	3.78	13.25	≤36.00	PASS
				RU39	9.95	≤30.00	3.78	13.73	≤36.00	PASS
				RU40	9.86	≤30.00	3.78	13.64	≤36.00	PASS
			106Tone	RU53	10.09	≤30.00	3.78	13.87	≤36.00	PASS
				RU54	10.40	≤30.00	3.78	14.18	≤36.00	PASS
		2462	26Tone	RU0	9.53	≤30.00	3.78	13.31	≤36.00	PASS
				RU4	10.18	≤30.00	3.78	13.96	≤36.00	PASS
				RU8	9.32	≤30.00	3.78	13.10	≤36.00	PASS
			52Tone	RU37	9.80	≤30.00	3.78	13.58	≤36.00	PASS
				RU39	9.98	≤30.00	3.78	13.76	≤36.00	PASS
				RU40	9.66	≤30.00	3.78	13.44	≤36.00	PASS
			106Tone	RU53	10.50	≤30.00	3.78	14.28	≤36.00	PASS
				RU54	10.18	≤30.00	3.78	13.96	≤36.00	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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$

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:	Wayne Huang	Test Site:	RF Measurement System 1# RF Measurement System 4#
Ambient Condition:	24.4℃,47.3%RH-25.6℃,45.8%RH	Test Date:	2025.10.25-2025.12.10
Test Power Supply:	DC 12V	Sample Number:	S25060926-001

PCB B:

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-19.06	≤8.00	PASS
		2437	-17.65	≤8.00	PASS
		2462	-21.34	≤8.00	PASS
11G	Ant1	2412	-21.48	≤8.00	PASS
		2437	-20.26	≤8.00	PASS
		2462	-17.47	≤8.00	PASS
11N20SISO	Ant1	2412	-21.74	≤8.00	PASS
		2437	-21.40	≤8.00	PASS
		2462	-21.99	≤8.00	PASS
11AX20SISO	Ant1	2412	-20.76	≤8.00	PASS
		2437	-19.68	≤8.00	PASS
		2462	-20.19	≤8.00	PASS

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	-15.68	≤8.00	PASS
				RU4	-15.69	≤8.00	PASS
				RU8	-15.85	≤8.00	PASS
			52Tone	RU37	-16.98	≤8.00	PASS
				RU39	-17.60	≤8.00	PASS
				RU40	-17.13	≤8.00	PASS
			106Tone	RU53	-18.50	≤8.00	PASS
				RU54	-17.46	≤8.00	PASS
		2437	26Tone	RU0	-15.51	≤8.00	PASS
				RU4	-15.61	≤8.00	PASS

			52Tone	RU8	-15.12	≤8.00	PASS
				RU37	-17.42	≤8.00	PASS
				RU39	-17.80	≤8.00	PASS
				RU40	-17.38	≤8.00	PASS
			106Tone	RU53	-19.08	≤8.00	PASS
				RU54	-17.78	≤8.00	PASS
		2462	26Tone	RU0	-15.51	≤8.00	PASS
				RU4	-14.74	≤8.00	PASS
				RU8	-15.04	≤8.00	PASS
			52Tone	RU37	-16.30	≤8.00	PASS
				RU39	-17.57	≤8.00	PASS
				RU40	-17.41	≤8.00	PASS
			106Tone	RU53	-18.60	≤8.00	PASS
				RU54	-17.29	≤8.00	PASS

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

PCB A:

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-18.96	≤8.00	PASS
		2437	-17.95	≤8.00	PASS
		2462	-18.34	≤8.00	PASS
11G	Ant1	2412	-17.88	≤8.00	PASS
		2437	-17.86	≤8.00	PASS
		2462	-17.53	≤8.00	PASS
11N20SISO	Ant1	2412	-21.61	≤8.00	PASS
		2437	-21.38	≤8.00	PASS
		2462	-21.14	≤8.00	PASS
11AX20SISO	Ant1	2412	-20.47	≤8.00	PASS
		2437	-19.69	≤8.00	PASS
		2462	-20.93	≤8.00	PASS

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	-15.79	≤8.00	PASS
				RU4	-15.28	≤8.00	PASS
				RU8	-15.52	≤8.00	PASS
			52Tone	RU37	-16.94	≤8.00	PASS
				RU39	-16.55	≤8.00	PASS
				RU40	-16.65	≤8.00	PASS
			106Tone	RU53	-19.02	≤8.00	PASS
				RU54	-17.37	≤8.00	PASS
		2437	26Tone	RU0	-15.02	≤8.00	PASS
				RU4	-15.07	≤8.00	PASS
				RU8	-15.15	≤8.00	PASS
			52Tone	RU37	-16.78	≤8.00	PASS
				RU39	-17.49	≤8.00	PASS
				RU40	-17.02	≤8.00	PASS
			106Tone	RU53	-18.77	≤8.00	PASS
				RU54	-17.07	≤8.00	PASS
		2462	26Tone	RU0	-15.41	≤8.00	PASS
				RU4	-14.17	≤8.00	PASS
				RU8	-14.43	≤8.00	PASS
			52Tone	RU37	-16.69	≤8.00	PASS
				RU39	-16.80	≤8.00	PASS
				RU40	-16.80	≤8.00	PASS
			106Tone	RU53	-17.98	≤8.00	PASS
				RU54	-16.95	≤8.00	PASS

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