FCC AND ISED CERTIFICATION TEST REPORT

Applicant	:	Sound Extreme Inc.
Address of Applicant	:	9212 Fry Road, Suite 105-351, Cypress, TX 77433, USA
Manufacturer	:	Shenzhen Maxmade Auto Electronics Co., Ltd.
Address of Manufacturer	:	Floor 1-4, Building 2, No.26, Puzai Road, Pingdi Avenue, Longgang District, Shenzhen City, Guangdong Province, P. R. China - 518117
Equipment under Test	:	Bluetooth Media Player
Model No.	:	SEI-CPAA101
Trade Mark	:	SOUNDEXTREME BY ECOXGEAR, E-Z-GO, CUSHMAN
FCC ID	:	2BADE-SEICPAA101
IC	:	30122-SEICPAA101
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart E, RSS-247 Issue 3 August 2023, ANSI C63.10:2013, 789033 D02 General U-NII Test Procedures New Rules v02r01, 662911 D01 Multiple Transmitter Output v02r01, RSS-Gen Issue 5 April 2018
Report No.	:	DDT-RE25050721-1E04
Issue Date	:	2025/07/23
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

Test Report Declare

Applicant	:	Sound Extreme Inc.
Address of Applicant	:	9212 Fry Road, Suite 105-351, Cypress, TX 77433, USA
Equipment under Test	:	Bluetooth Media Player
Model No.	:	SEI-CPAA101
Manufacturer	:	Shenzhen Maxmade Auto Electronics Co., Ltd.
Address of Manufacturer	:	Floor 1-4, Building 2, No.26, Puzai Road, Pingdi Avenue, Longgang District, Shenzhen City, Guangdong Province, P. R. China - 518117

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart E,
RSS-247 Issue 3 August 2023,
ANSI C63.10:2013,
789033 D02 General U-NII Test Procedures New Rules v02r01,
662911 D01 Multiple Transmitter Output v02r01,
RSS-Gen Issue 5 April 2018

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-RE25050721-1E04		
Date of Receipt:	2025/05/20	**Date of Test:**	2025/05/20 - 2025/7/23

Created: Chen Ziqin	Reviewed: Ella Gong	Approved: Damon Hu
Chen Ziqin	Ella Gong	GUANGDONG DONGDIAN TESTING SERVICE CO.,LTD. 广东东电检测技术有限公司 Certificate and Report Seal 检验检测专用章
2025/07/23	2025/07/23	2025/07/23

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

Revision History

Version	Revision Content	Issue Date	Approved
V0	Initial issue	2025/07/23	Damon Hu

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	6/26db Bandwidth and 99% Bandwidth	FCC 15.407 (e); RSS-247 Clause 6.2, RSS-GEN Clause 6.7	/	Pass
2	Output Power	FCC 15.407 (a); RSS-247 Clause 6.2	/	Pass
3	Power Spectral Density	FCC 15.407 (a); RSS-247 Clause 6.2	/	Pass
4	Frequency Stability Measurement	FCC 15.407 (g); RSS-247 Clause 6.2; RSS-GEN Clause 8.11	/	Pass
5	Radiated Emission	FCC 15.407 (b); FCC 15.209; FCC 15.205; RSS-247 Clause 6.2; RSS-GEN Clause 8.9	/	Pass
6	Band Edge Compliance	FCC 15.407 (b); FCC 15.209; FCC 15.205; RSS-247 Clause 6.2; RSS-GEN Clause 8.10	/	Pass
7	Power Line Conducted Emissions	FCC Part 15: 15.207(a), RSS-Gen Issue 5 clause 8.8	/	Pass
8	Dynamic Frequency Selection	FCC 15.407 (h); RSS-247 Clause 6.8	/	Pass
9	Antenna Requirement	FCC Part 15: 15.203, RSS-Gen Issue 5 clause 6.8	/	Pass
Note: N/A is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.				

2. General Test Information

2.1. Description of EUT

EUT Name	:	Bluetooth Media Player
Model Number	:	SEI-CPAA101
Difference of model number	:	/
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	DC 12V
Hardware Version	:	2-B345-1307-W1-R2-0
Software Version	:	EZGO DASH
Antenna Type	:	FPC Antenna
Max Antenna Gain(dBi)	:	U-NII-1: 4.94 dBi U-NII-3: 6.91 dBi

Radio Technology	:	IEEE 802.11a/n/ac
Operation frequency	:	U-NII-1: 5180 MHz to 5240 MHz U-NII-3: 5745 MHz to 5825 MHz
Modulation	:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)

Channel information							
IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE802.11ac (VHT40)		IEEE 802.11ac (VHT80)		/	
UNII-1							
CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
36	5180	38	5190	42	5210	50	5250 （Straddle）
40	5200	46	5230	/	/	/	/
44	5220	/	/	/	/	/	/
48	5240	/	/	/	/	/	/
UNII-3							
149	5745	151	5755	155	5775	/	/
153	5765	159	5795	/	/	/	/
157	5785	/	/	/	/	/	/
161	5805	/	/	/	/	/	/
165	5825	/	/	/	/	/	/
Note: Band 5600-5650MHz will be disabled when shipped to Canada.							

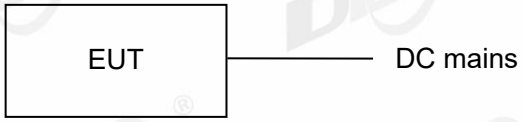
Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's 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
Connecting cable	N/A	N/A	length: 0.3m, unshielded
GNSS antenna	N/A	N/A	length: 2.95m, shielded
MIC	N/A	N/A	length: 3.00m, unshielded

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: Xshell5.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: 2 dB (According to the manufacturer's claims)

Tested mode, Tx Power Setting, Data rate, Channel, and Frequency					
Tested mode	Tx Power Setting		Data rate (Mpbs) (see Note)	Test Channel	Frequency (MHz)
	ANT1	/			
IEEE 802.11a	58	/	6	LCH: CH36	5180
	58	/	6	MCH: CH40	5200
	58	/	6	HCH: CH48	5240
	58	/	6	LCH: CH149	5745
	58	/	6	MCH: CH157	5785
	58	/	6	HCH: CH165	5825
IEEE 802.11n HT20	58	/	MCS 0	LCH: CH36	5180
	58	/	MCS 0	MCH: CH40	5200
	58	/	MCS 0	HCH: CH48	5240
	58	/	MCS 0	LCH: CH149	5745
	58	/	MCS 0	MCH: CH157	5785
	58	/	MCS 0	HCH: CH165	5825
IEEE 802.11n HT40	58	/	MCS 0	LCH: CH38	5190
	58	/	MCS 0	HCH: CH46	5230
	58	/	MCS 0	LCH: CH151	5755

	58	/	MCS 0	HCH: CH159	5795
IEEE 802.11ac VHT20	58	/	MCS 0	LCH: CH36	5180
	58	/	MCS 0	MCH: CH40	5200
	58	/	MCS 0	HCH: CH48	5240
	58	/	MCS 0	LCH: CH149	5745
	58	/	MCS 0	MCH: CH157	5785
	58	/	MCS 0	HCH: CH165	5825
IEEE 802.11 ac VHT40	58	/	MCS 0	LCH: CH38	5190
	58	/	MCS 0	HCH: CH46	5230
	58	/	MCS 0	LCH: CH159	5755
	58	/	MCS 0	HCH: CH36	5795
IEEE 802.11ac VHT80	58	/	MCS 0	CH42	5210
	58	/	MCS 0	CH155	5775
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℃ to +35 ℃
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

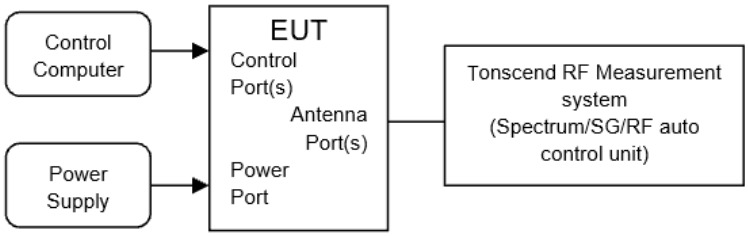
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.40 dB (3.6 GHz ≤ f < 8 GHz)
	1.66 dB (8 GHz ≤ f < 26.5 GHz)
Uncertainty for radio frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 ℃
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
☒RF Connected Test (RF Measurement System 3#)				
SIGNAL ANALYZER	R&S	FSV40	101407	2025/07/08
Wideband Radio Communication Tester	R&S	CMW500	117491	2026/03/28
EXG Analog Signal Generator	KEYSIGHT	N5173B	MY62153058	2026/07/06
MXG Vector Signal Generator	Agilent	N5182A	MY48180912	2026/03/28
RF Control Unit	Tonscend	JS0806-2	20C8060230	2026/03/28
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2026/03/28
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A

4. 26dB Bandwidth

4.1. Block diagram of test setup



4.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
26 dB Bandwidth	---	5150 - 5250
	---	5250 - 5350
	---	For FCC: 5470 - 5725 For IC: 5470 - 5600 5650 - 5725

4.3. Test procedure

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	approximately 1% of the emission bandwidth.
VBW	> RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

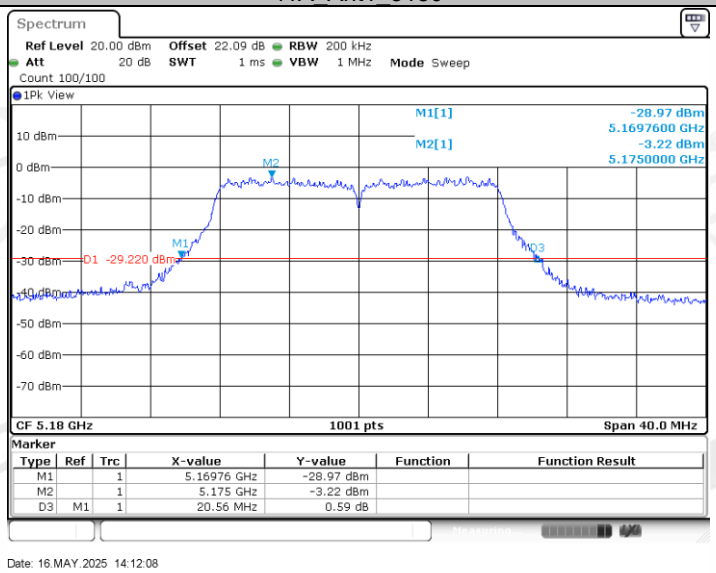
4.4. Test result

Test Engineer:	Zeng Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7-26.2℃,38.2-45.2%RH	Test Date:	2025.05.16-2025.06.12
Test Power Supply:	DC 12V	Sample Number:	S25050721-001

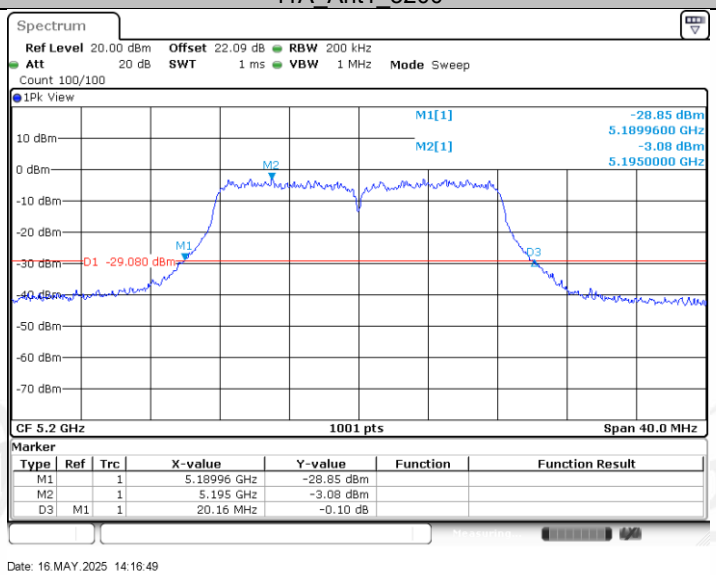
Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.56	5169.76	5190.32	---	---
		5200	20.16	5189.96	5210.12	---	---
		5240	20.92	5229.60	5250.52	---	---
		5745	20.24	5735.00	5755.24	---	---
		5785	20.84	5774.56	5795.40	---	---
		5825	21.00	5814.36	5835.36	---	---
11N20SISO	Ant1	5180	20.68	5169.76	5190.44	---	---
		5200	20.64	5189.72	5210.36	---	---
		5240	20.68	5229.68	5250.36	---	---
		5745	20.52	5734.84	5755.36	---	---
		5785	20.84	5774.80	5795.64	---	---
		5825	20.48	5815.00	5835.48	---	---
11N40SISO	Ant1	5190	41.92	5169.28	5211.20	---	---
		5230	43.04	5208.40	5251.44	---	---
		5755	42.00	5733.88	5775.88	---	---
		5795	42.72	5774.44	5817.16	---	---
11AC20SISO	Ant1	5180	20.52	5169.64	5190.16	---	---
		5200	20.84	5189.64	5210.48	---	---
		5240	20.52	5229.72	5250.24	---	---
		5745	20.68	5734.68	5755.36	---	---
		5785	21.72	5774.56	5796.28	---	---
		5825	21.12	5814.48	5835.60	---	---
11AC40SISO	Ant1	5190	41.36	5169.36	5210.72	---	---
		5230	41.52	5208.96	5250.48	---	---
		5755	41.84	5734.44	5776.28	---	---
		5795	42.32	5773.72	5816.04	---	---
11AC80SISO	Ant1	5210	81.60	5169.36	5250.96	---	---
		5775	83.52	5733.72	5817.24	---	---

4.5. Test graphs

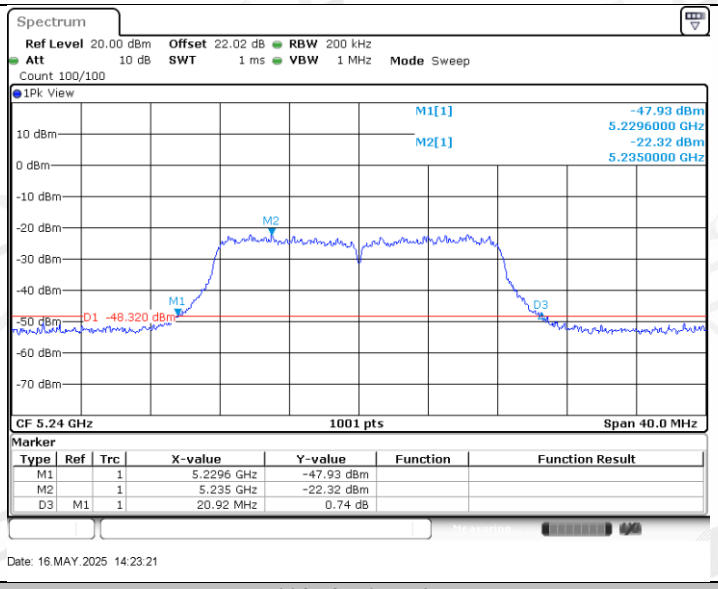
11A_Ant1_5180



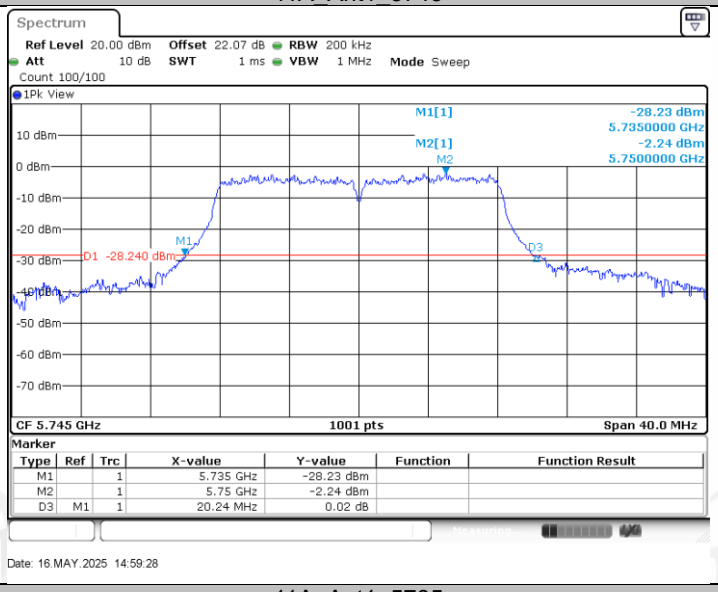
11A_Ant1_5200



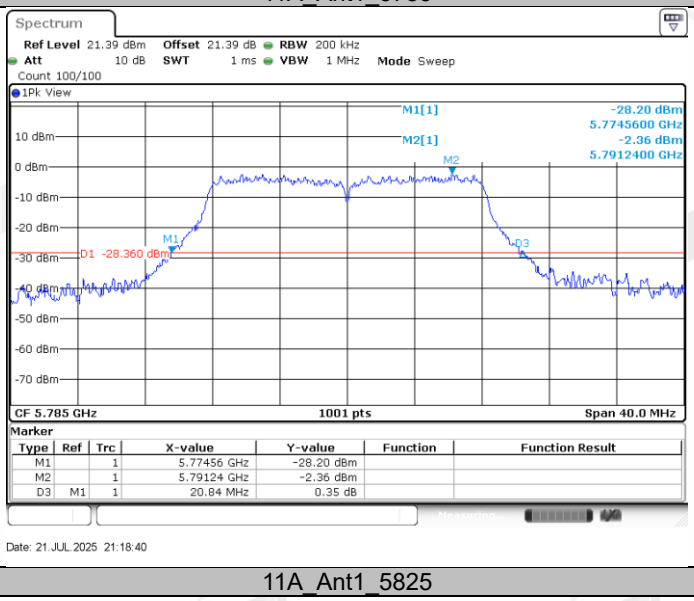
11A_Ant1_5240



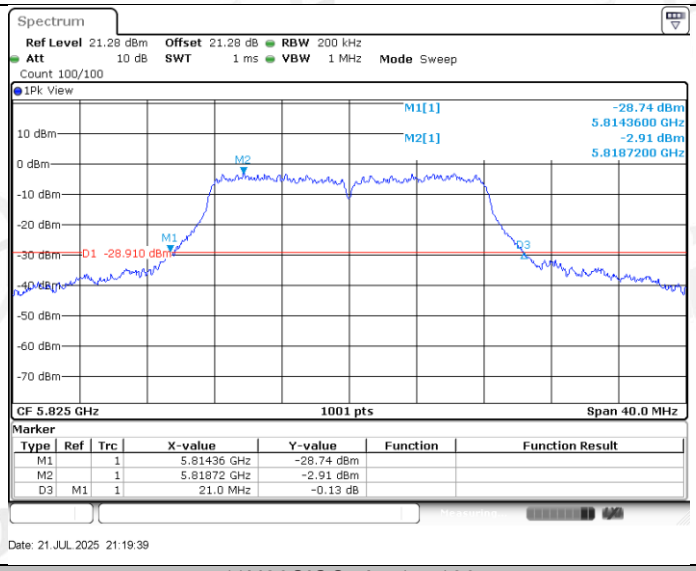
11A_Ant1_5745



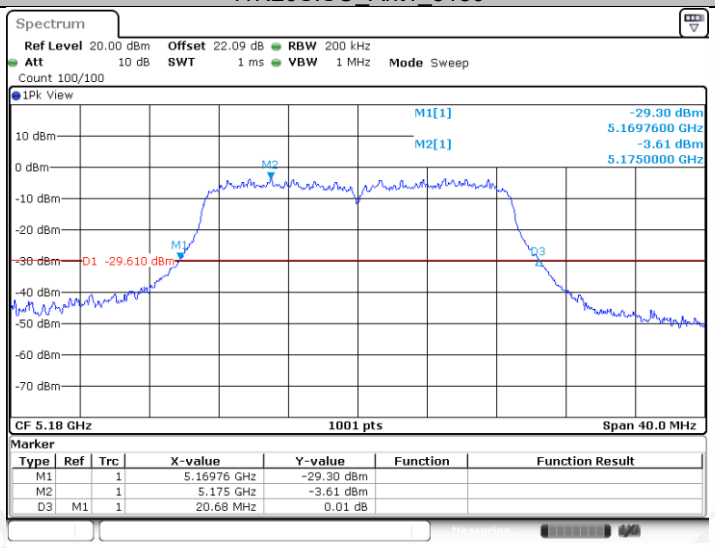
11A_Ant1_5785



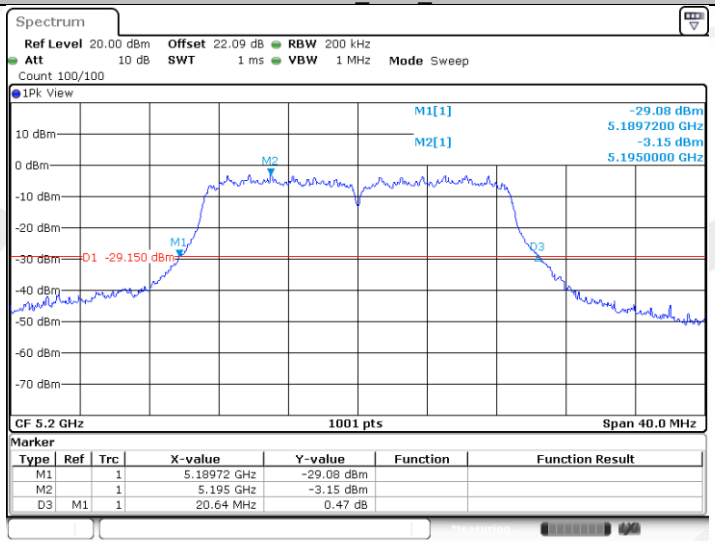
11A_Ant1_5825



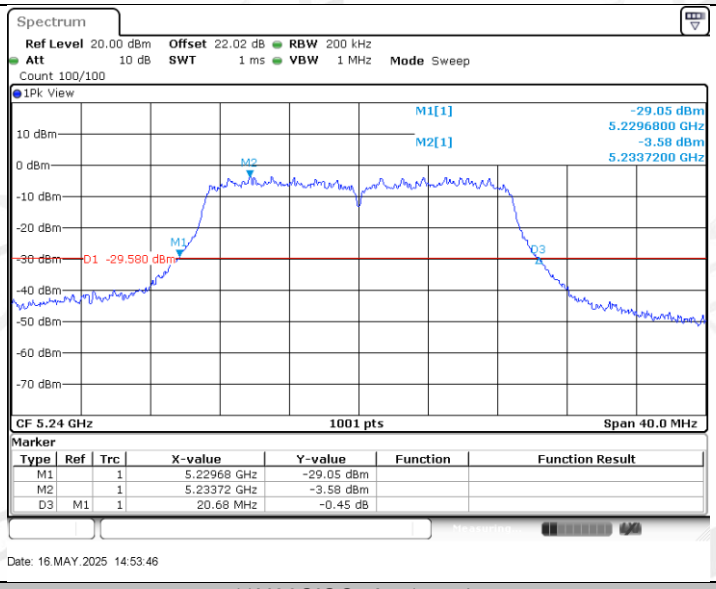
11N20SISO_Ant1_5180



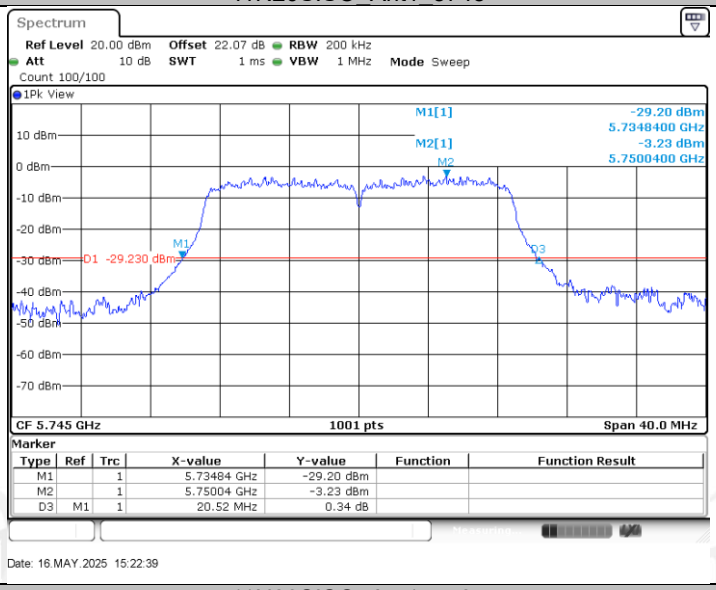
11N20SISO_Ant1_5200



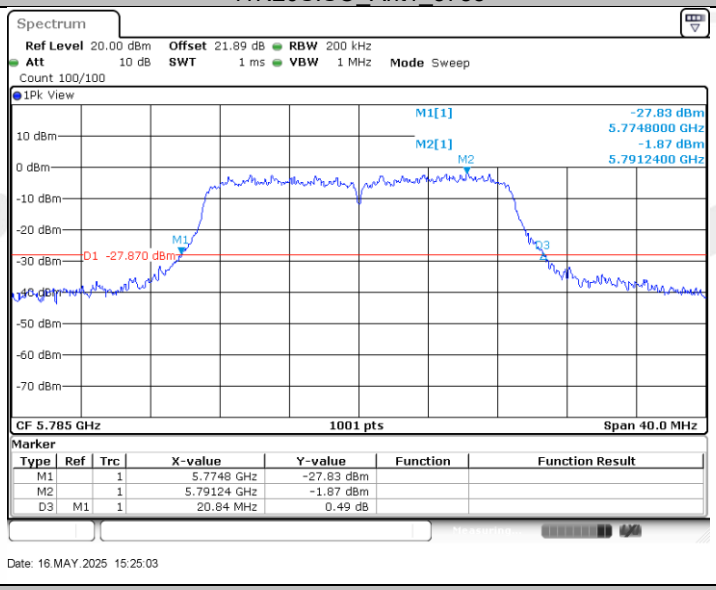
11N20SISO_Ant1_5240



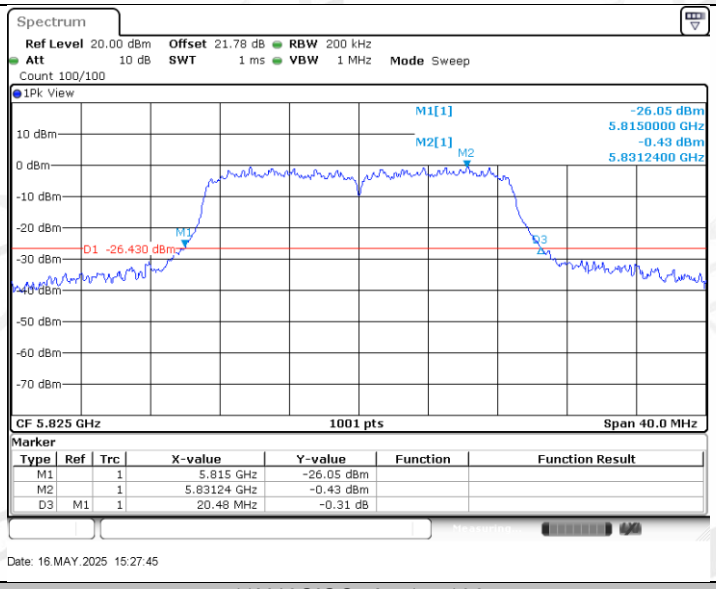
11N20SISO_Ant1_5745



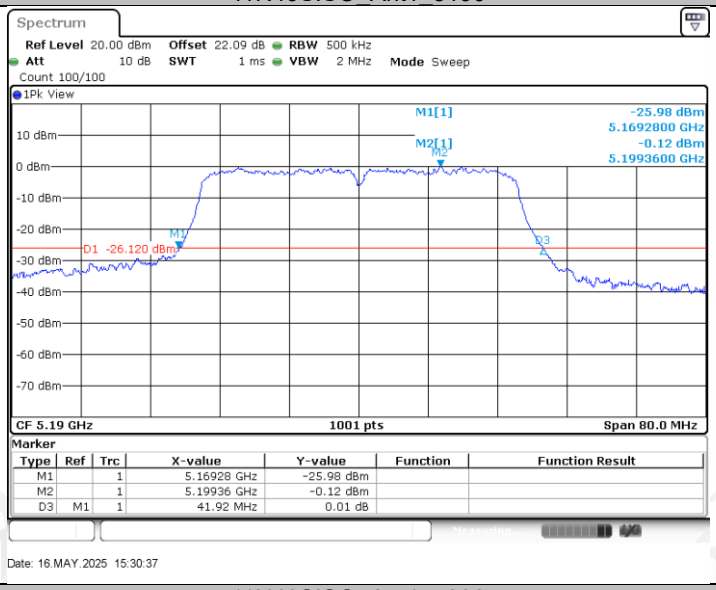
11N20SISO_Ant1_5785



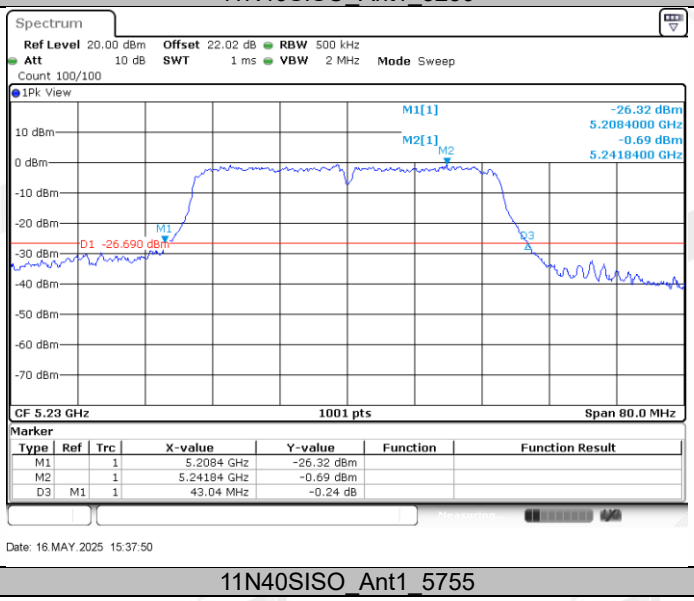
11N20SISO_Ant1_5825



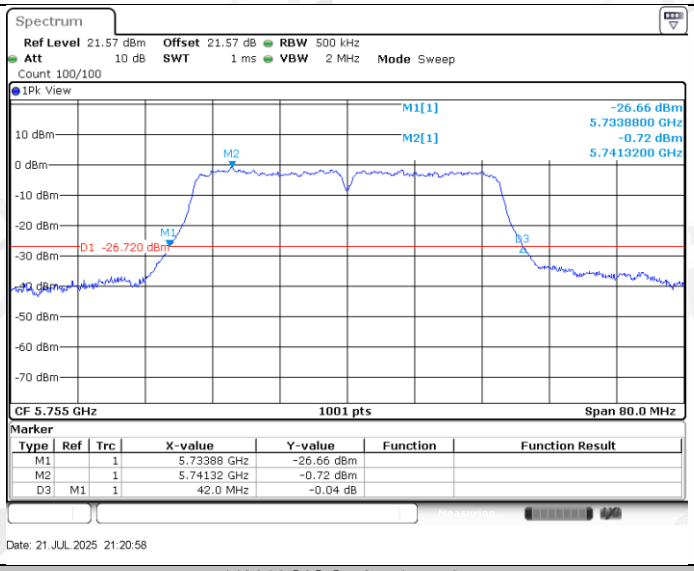
11N40SISO_Ant1_5190



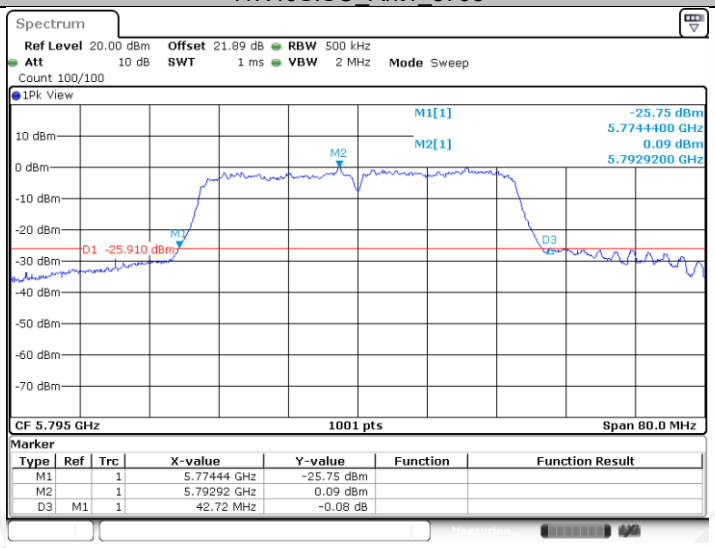
11N40SISO_Ant1_5230



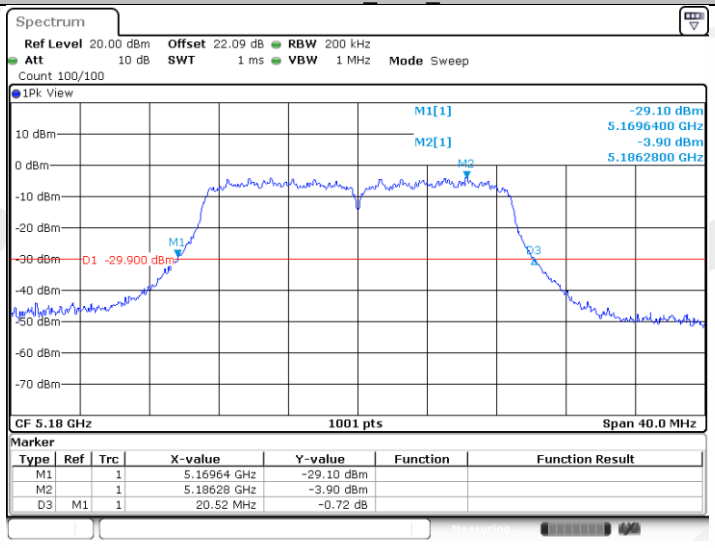
11N40SISO_Ant1_5755



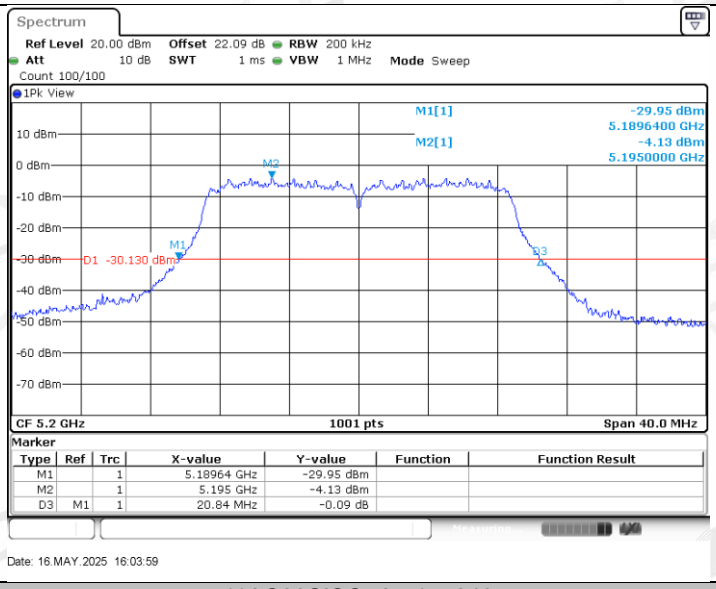
11N40SISO_Ant1_5795



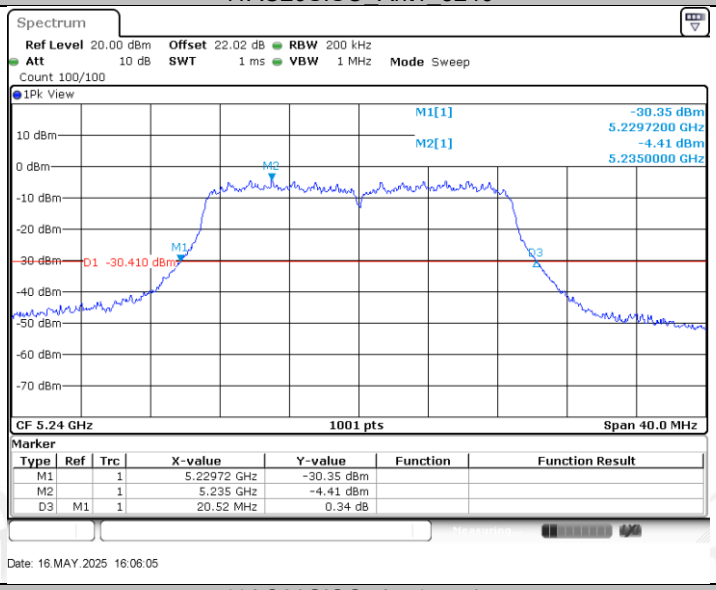
11AC20SISO_Ant1_5180



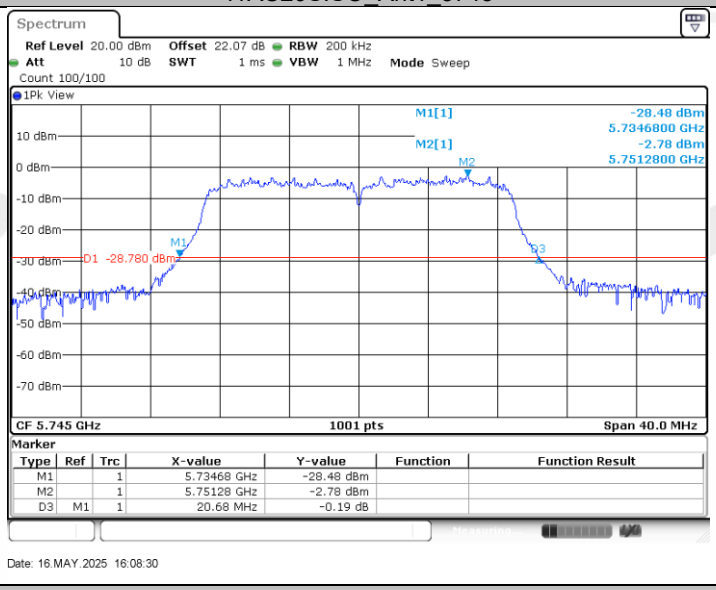
11AC20SISO_Ant1_5200



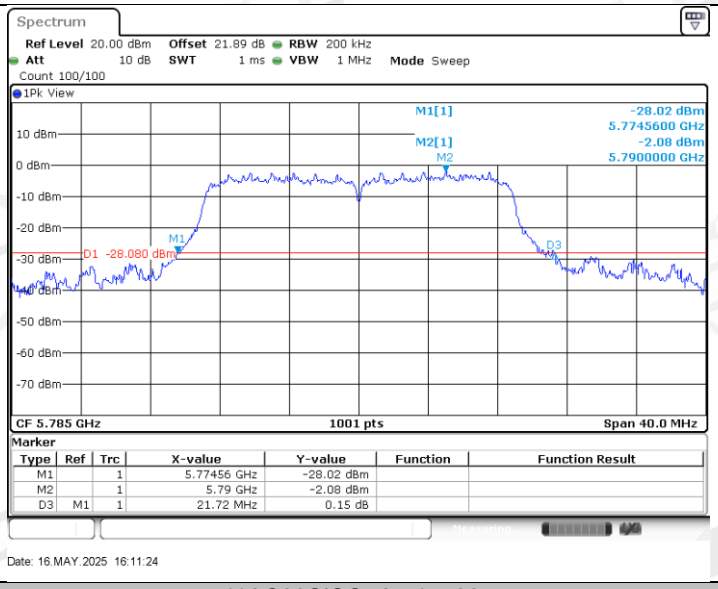
11AC20SISO_Ant1_5240



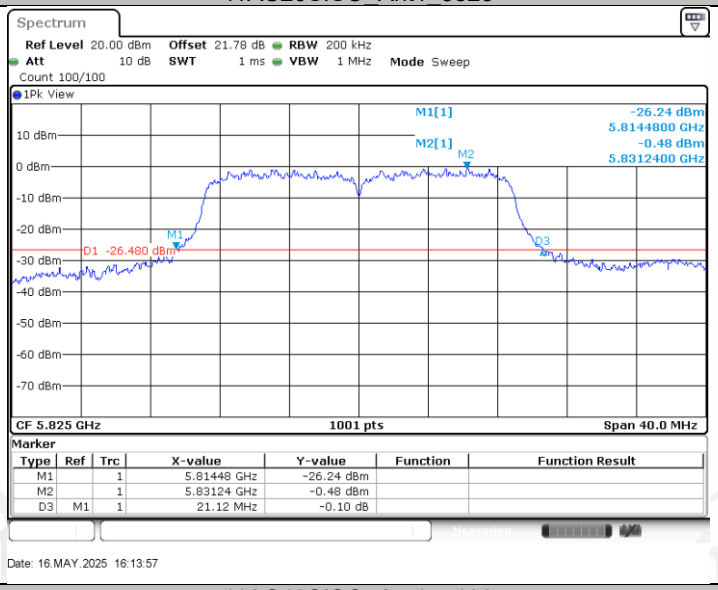
11AC20SISO_Ant1_5745



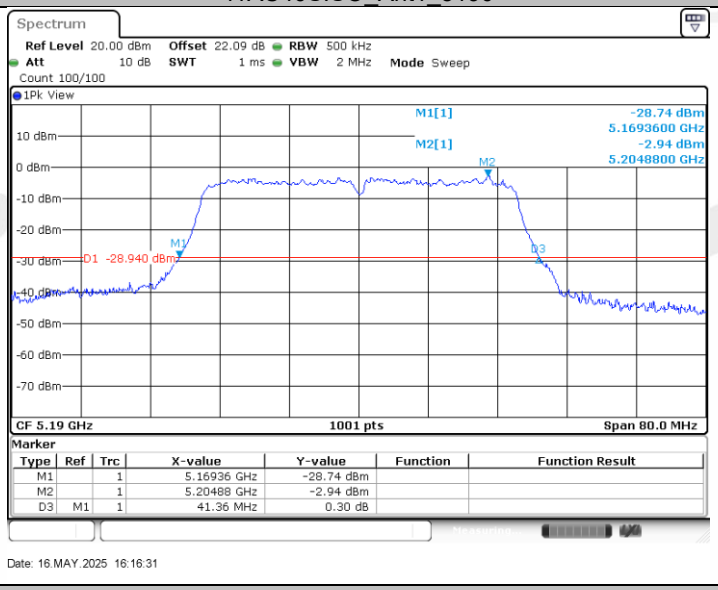
11AC20SISO_Ant1_5785



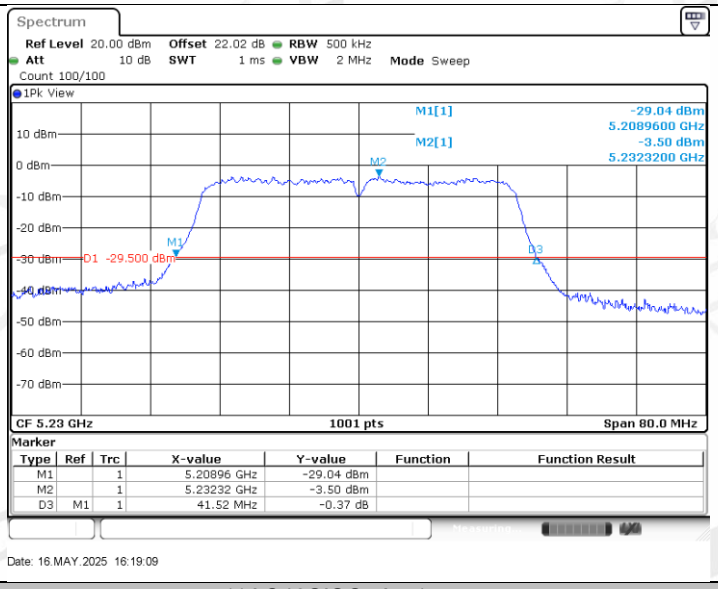
11AC20SISO_Ant1_5825



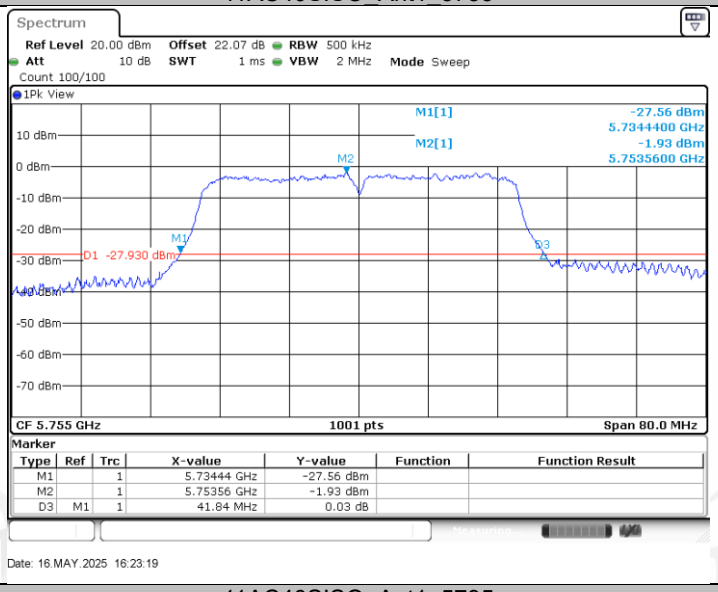
11AC40SISO_Ant1_5190



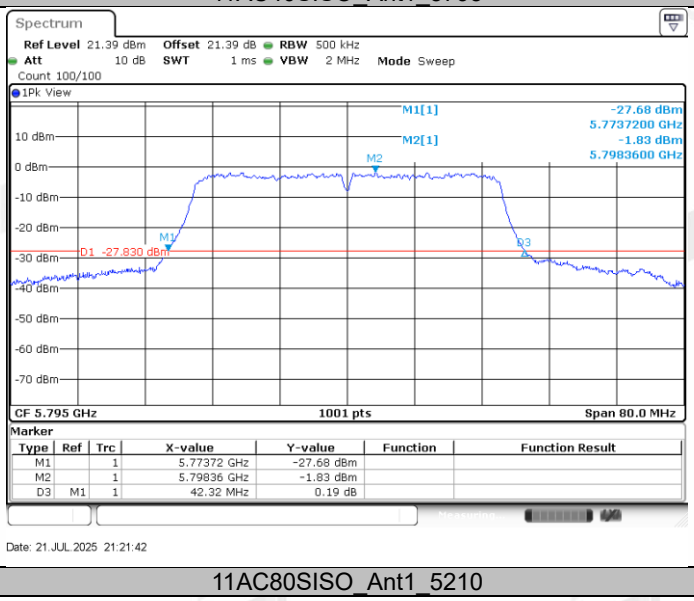
11AC40SISO_Ant1_5230



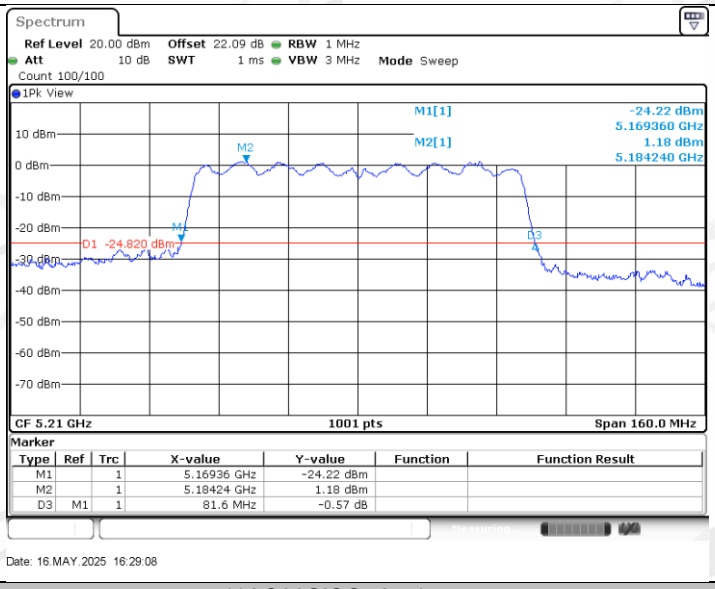
11AC40SISO_Ant1_5755



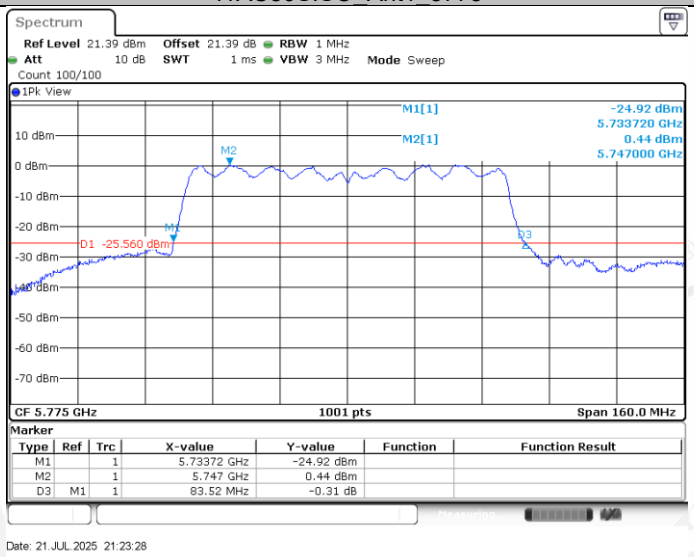
11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5210

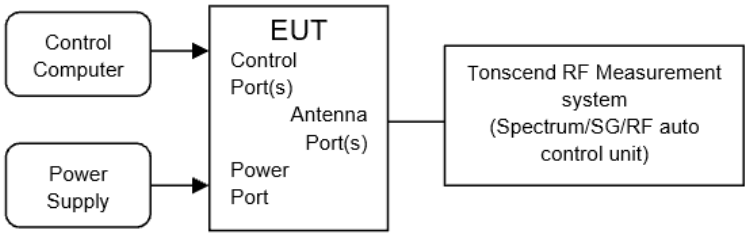


11AC80SISO_Ant1_5775



5. 6dB Bandwidth

5.1. Block diagram of test setup



5.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
6 dB Bandwidth	Minimum 500 kHz	5725 - 5850

5.3. Test procedure

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth: RBW=100 kHz For 26 dB Bandwidth: approximately 1% of the emission bandwidth.
VBW	For 6 dB Bandwidth: VBW=300 kHz For 26 dB Bandwidth: >3 RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

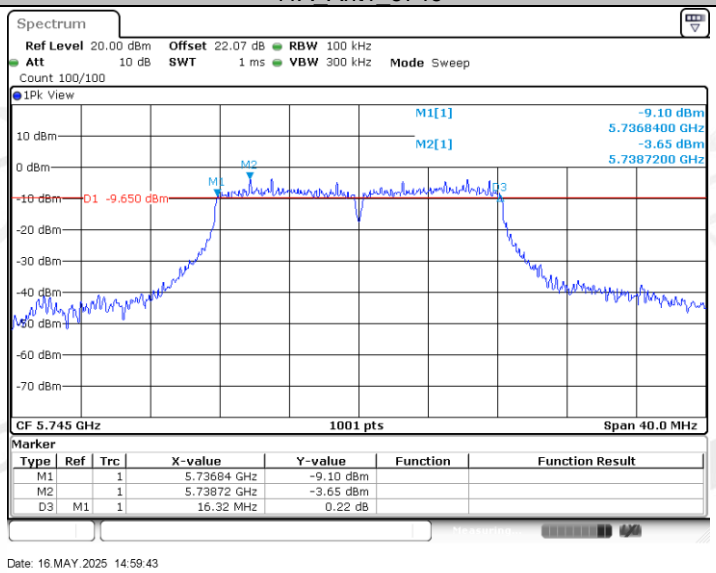
5.4. Test result B4

Test Engineer:	Zeng Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7-26.2℃,38.2-45.2%RH	Test Date:	2025.05.16-2025.06.12
Test Power Supply:	DC 12V	Sample Number:	S25050721-001

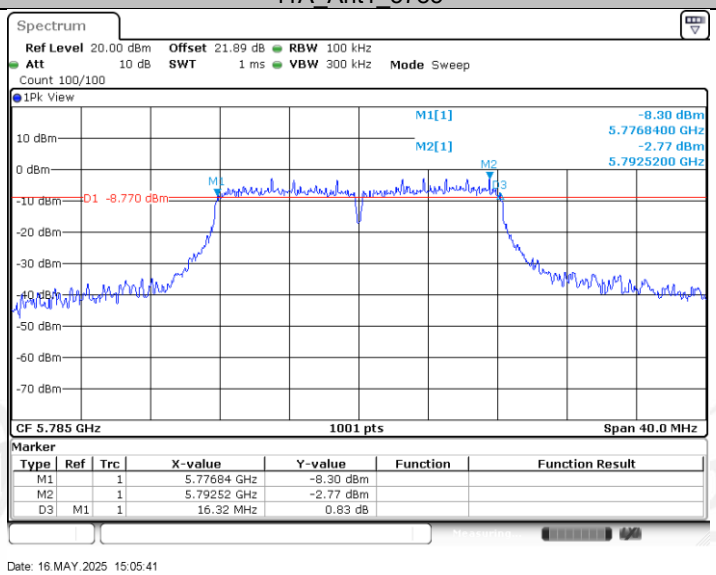
Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.32	5736.84	5753.16	0.5	PASS
		5785	16.32	5776.84	5793.16	0.5	PASS
		5825	16.32	5816.84	5833.16	0.5	PASS
11N20SISO	Ant1	5745	17.16	5736.60	5753.76	0.5	PASS
		5785	17.04	5776.48	5793.52	0.5	PASS
		5825	17.08	5816.48	5833.56	0.5	PASS
11N40SISO	Ant1	5755	35.20	5737.40	5772.60	0.5	PASS
		5795	35.28	5777.48	5812.76	0.5	PASS
11AC20SISO	Ant1	5745	17.04	5736.48	5753.52	0.5	PASS
		5785	17.04	5776.48	5793.52	0.5	PASS
		5825	16.92	5816.60	5833.52	0.5	PASS
11AC40SISO	Ant1	5755	35.20	5737.40	5772.60	0.5	PASS
		5795	35.12	5777.48	5812.60	0.5	PASS
11AC80SISO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS

5.5. Test graphs B4

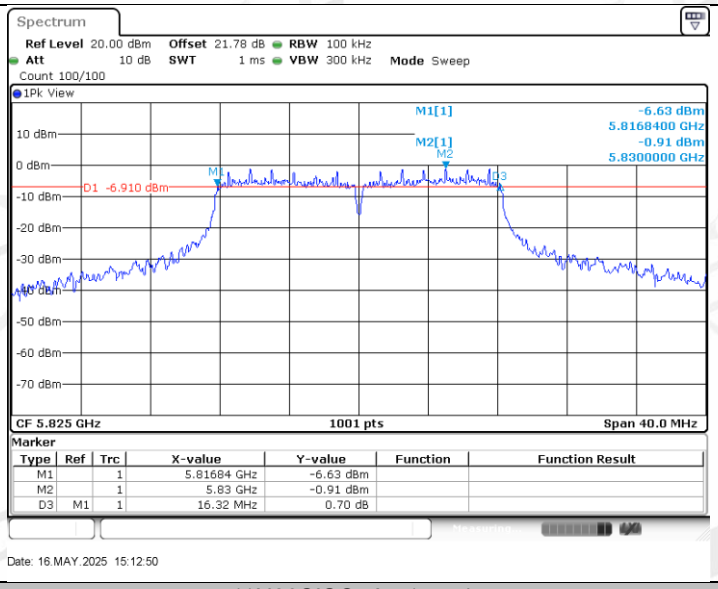
11A_Ant1_5745



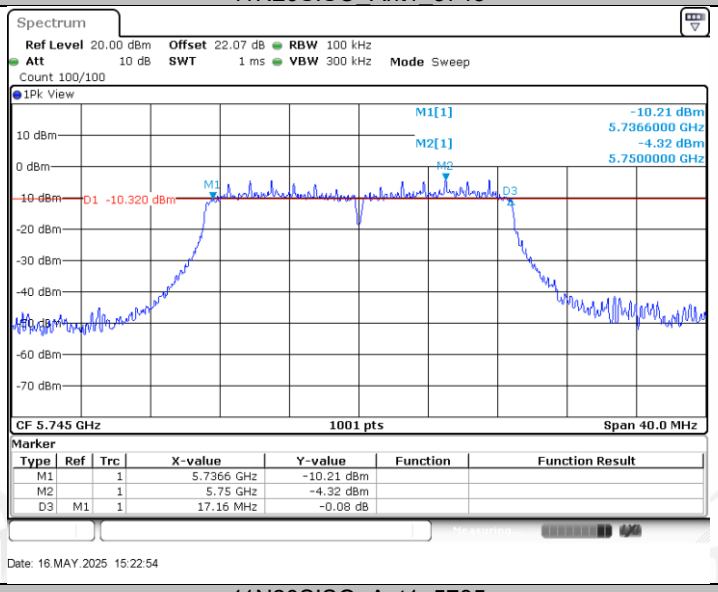
11A_Ant1_5785



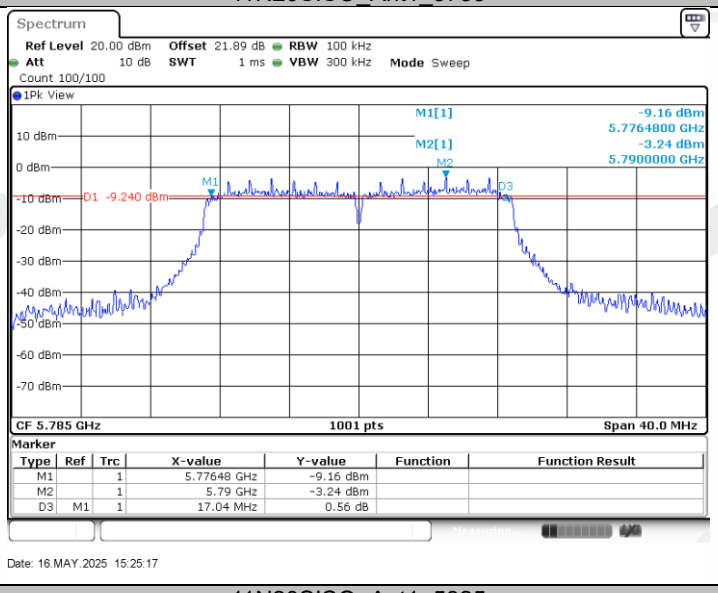
11A_Ant1_5825



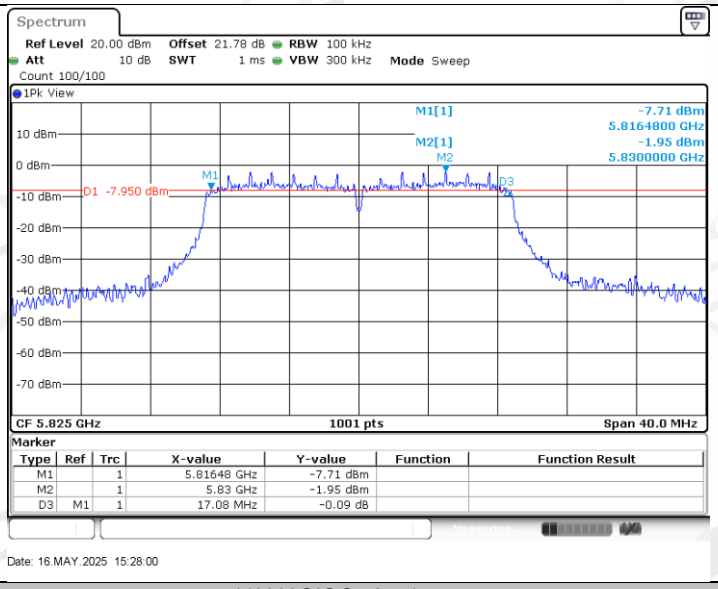
11N20SISO_Ant1_5745



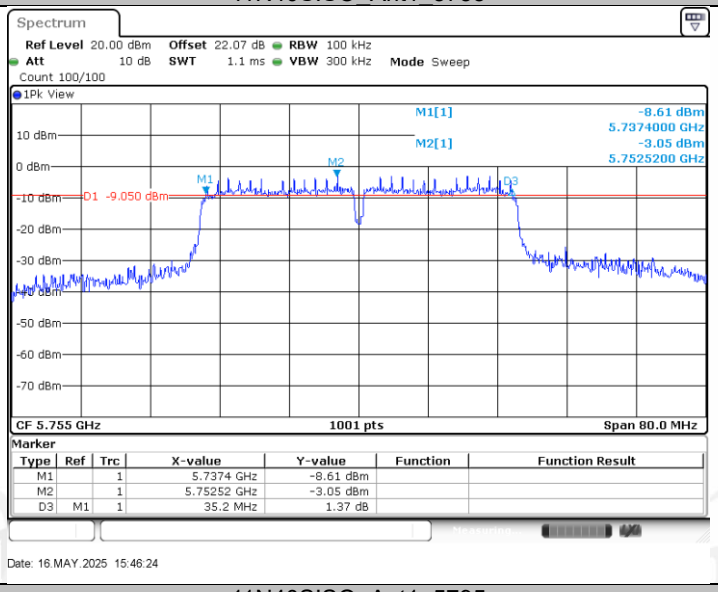
11N20SISO_Ant1_5785



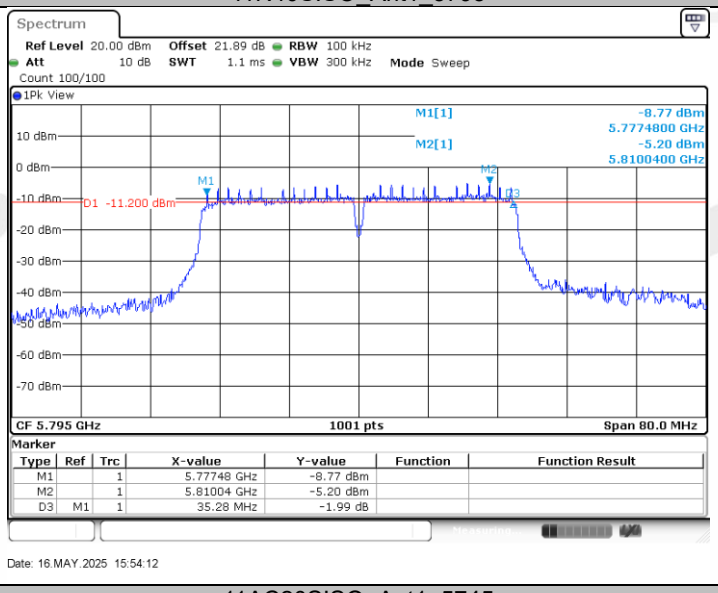
11N20SISO_Ant1_5825



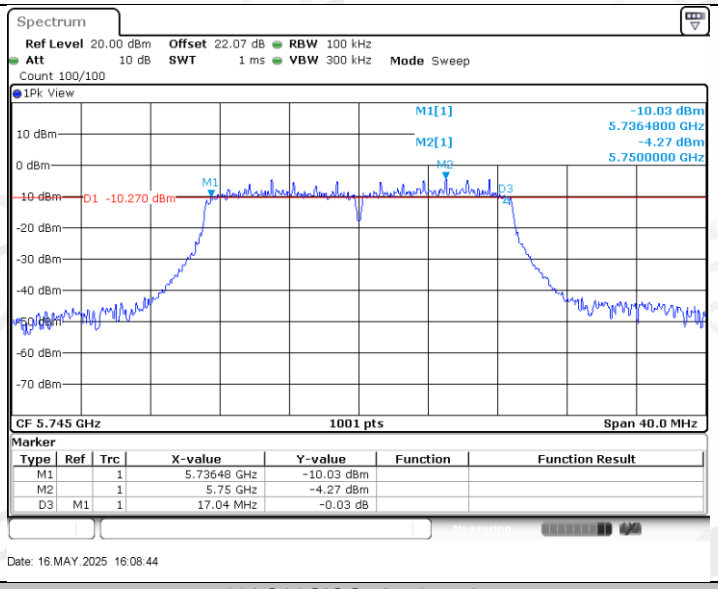
11N40SISO_Ant1_5755



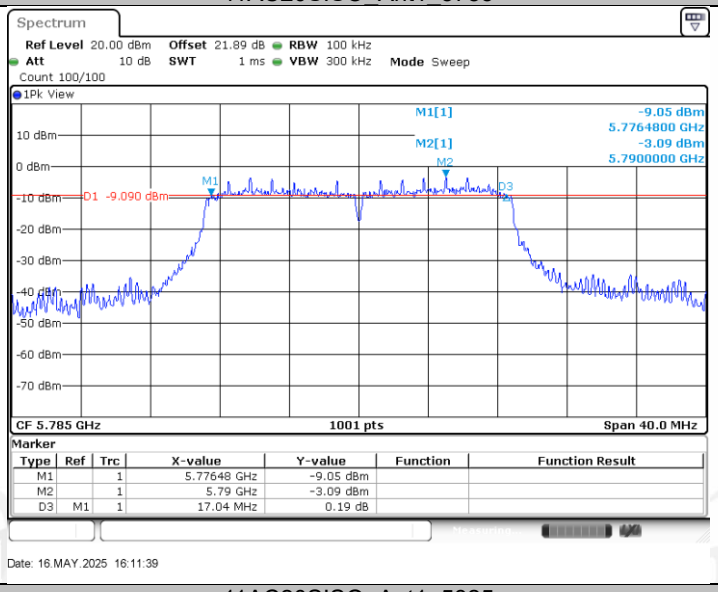
11N40SISO_Ant1_5795



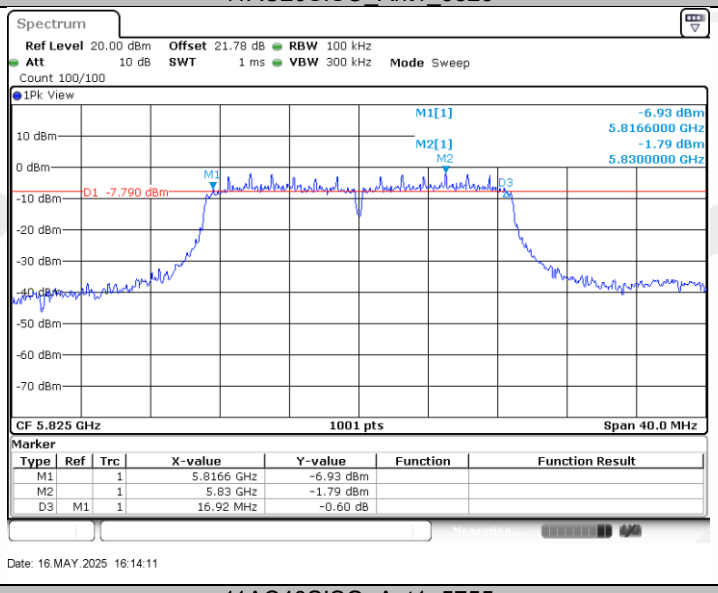
11AC20SISO_Ant1_5745



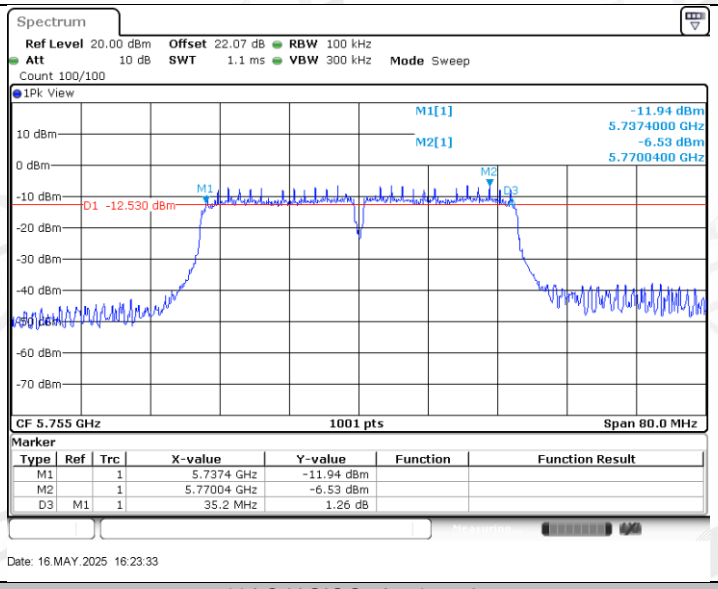
11AC20SISO_Ant1_5785



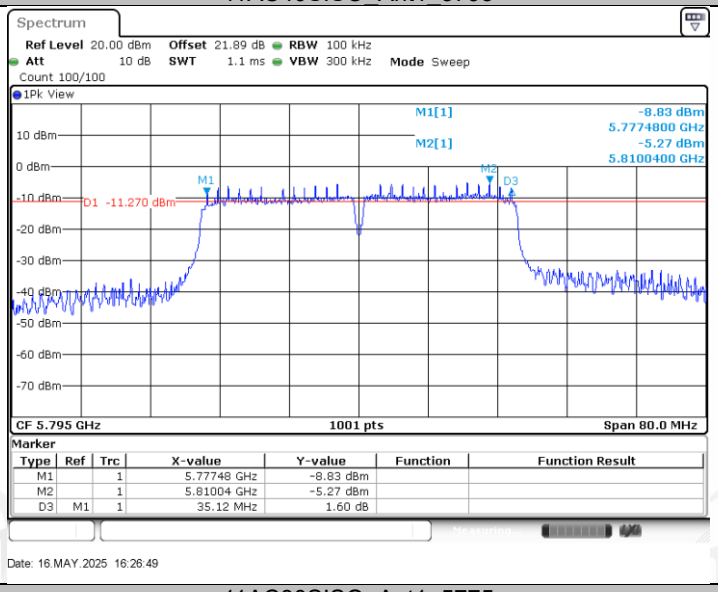
11AC20SISO_Ant1_5825



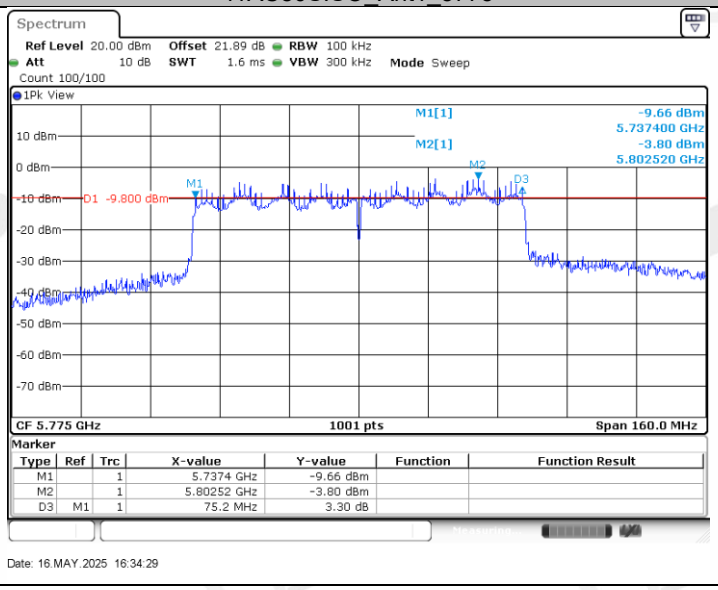
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795

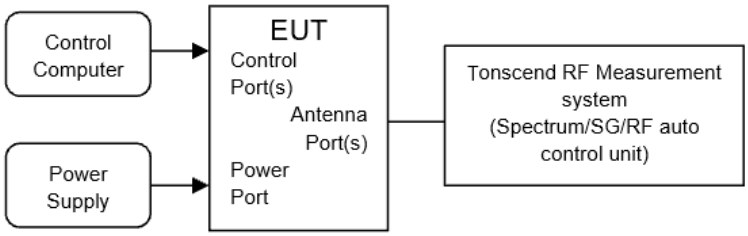


11AC80SISO_Ant1_5775



6. 99% Bandwidth

6.1. Block diagram of test setup



6.2. Limits

Just for Report.

6.3. Test procedure

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	1% to 5% of the OBW
VBW	approximately three times the RBW
Trace	Max hold

Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

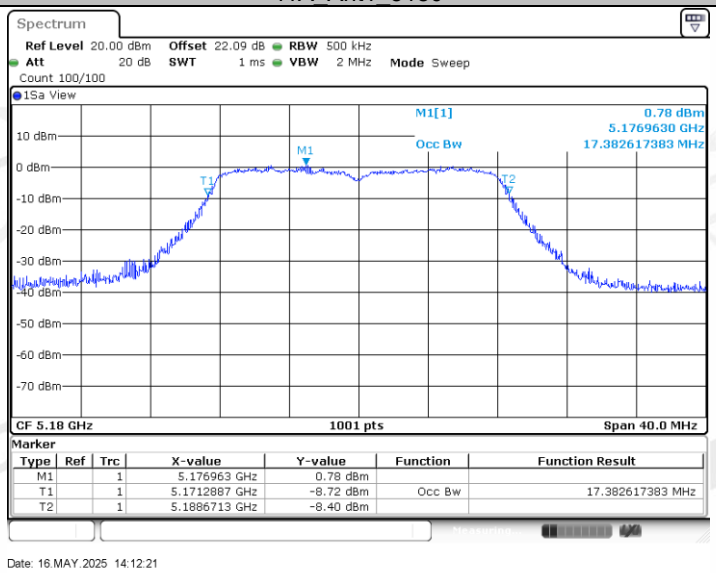
6.4. Test result

Test Engineer:	Zeng Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7-26.2℃,38.2-45.2%RH	Test Date:	2025.05.16-2025.06.12
Test Power Supply:	DC 12V	Sample Number:	S25050721-001

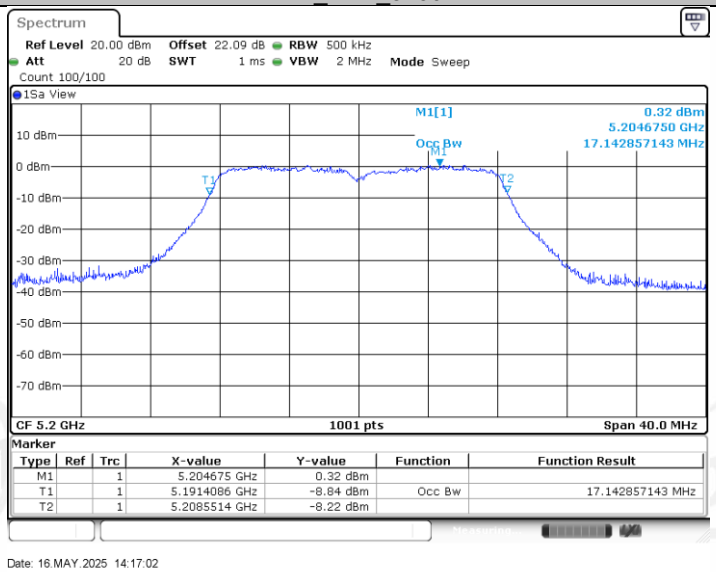
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.383	5171.2887	5188.6713	---	---
		5200	17.143	5191.4086	5208.5514	---	---
		5240	17.463	5231.2488	5248.7113	---	---
		5745	17.263	5736.4086	5753.6713	---	---
		5785	17.383	5776.4086	5793.7912	---	---
		5825	17.782	5816.2488	5834.0310	---	---
11N20SISO	Ant1	5180	18.062	5171.0090	5189.0709	---	---
		5200	18.062	5190.9690	5209.0310	---	---
		5240	18.142	5230.8891	5249.0310	---	---
		5745	18.022	5736.0490	5754.0709	---	---
		5785	18.262	5775.9690	5794.2308	---	---
		5825	18.142	5816.0490	5834.1908	---	---
11N40SISO	Ant1	5190	36.523	5171.7782	5208.3017	---	---
		5230	36.523	5211.6983	5248.2218	---	---
		5755	37.722	5736.6983	5774.4206	---	---
		5795	36.843	5776.7782	5813.6214	---	---
11AC20SISO	Ant1	5180	18.062	5170.8891	5188.9510	---	---
		5200	18.182	5190.9291	5209.1109	---	---
		5240	18.022	5230.9690	5248.9910	---	---
		5745	18.262	5735.8891	5754.1508	---	---
		5785	18.342	5775.8891	5794.2308	---	---
		5825	18.262	5815.9690	5834.2308	---	---
11AC40SISO	Ant1	5190	36.364	5171.8581	5208.2218	---	---
		5230	36.444	5211.6983	5248.1419	---	---
		5755	36.603	5736.8581	5773.4615	---	---
		5795	36.923	5776.6983	5813.6214	---	---
11AC80SISO	Ant1	5210	75.764	5172.1179	5247.8821	---	---
		5775	79.92	5737.1179	5817.0380	---	---

6.5. Test graphs

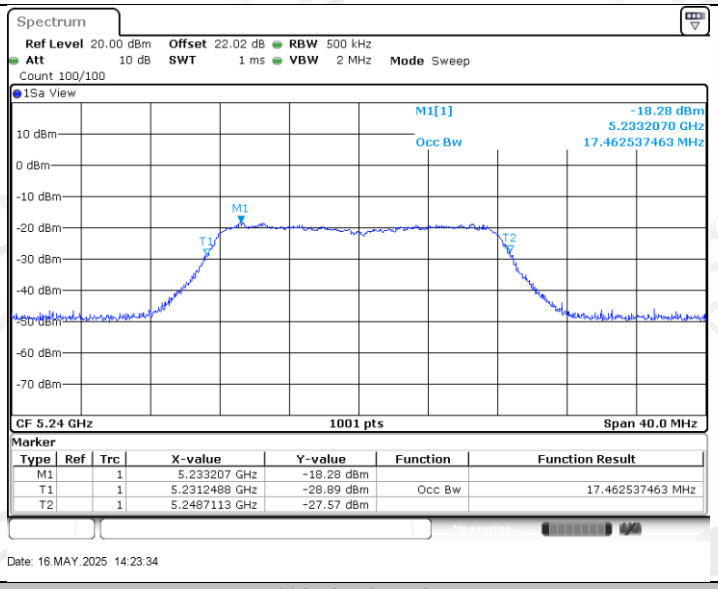
11A_Ant1_5180



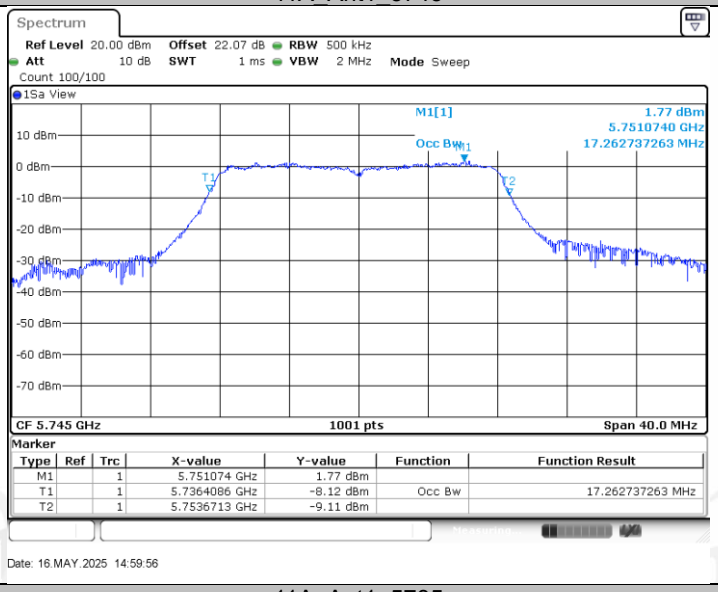
11A_Ant1_5200



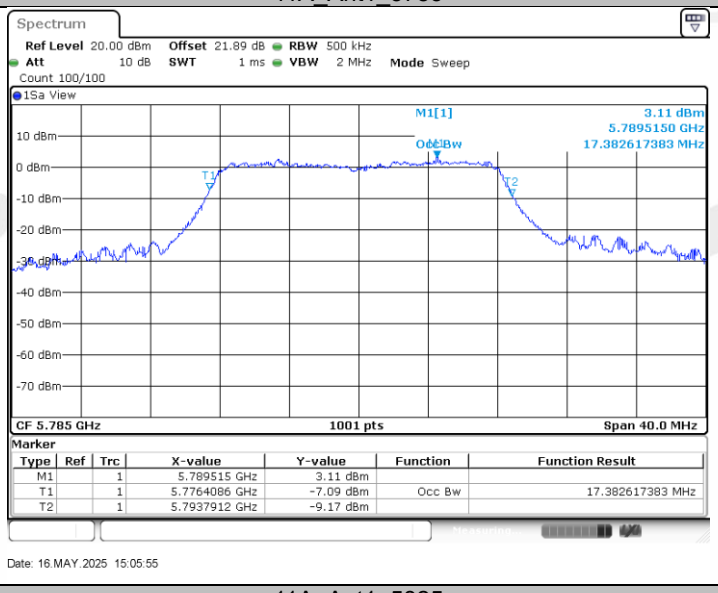
11A_Ant1_5240



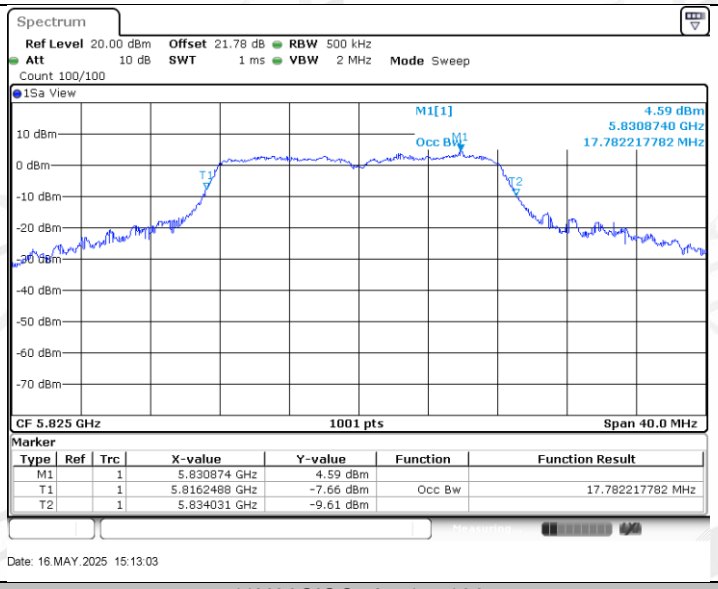
11A_Ant1_5745



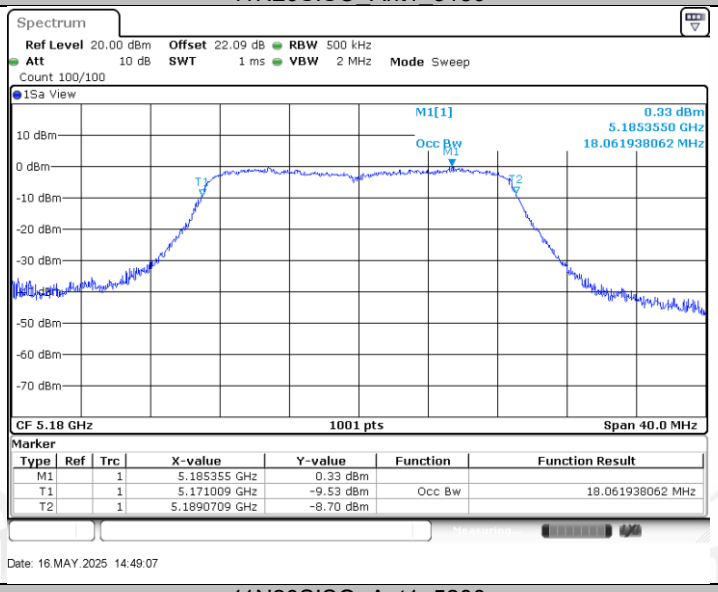
11A_Ant1_5785



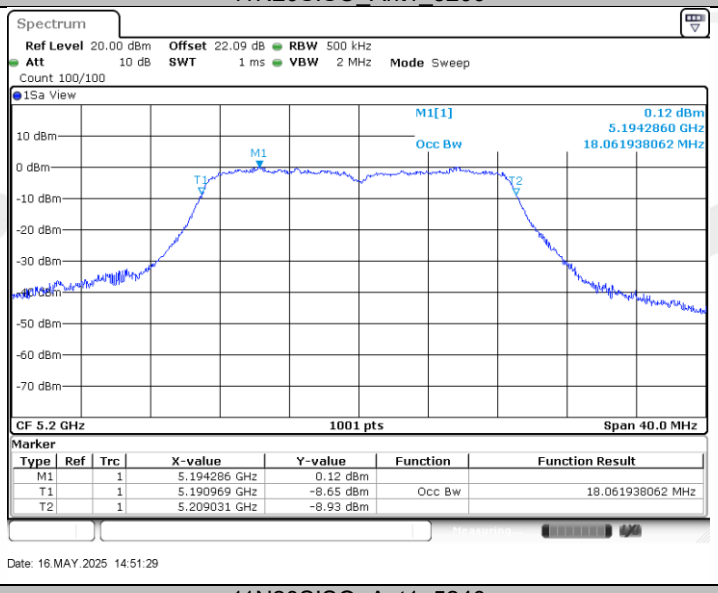
11A_Ant1_5825



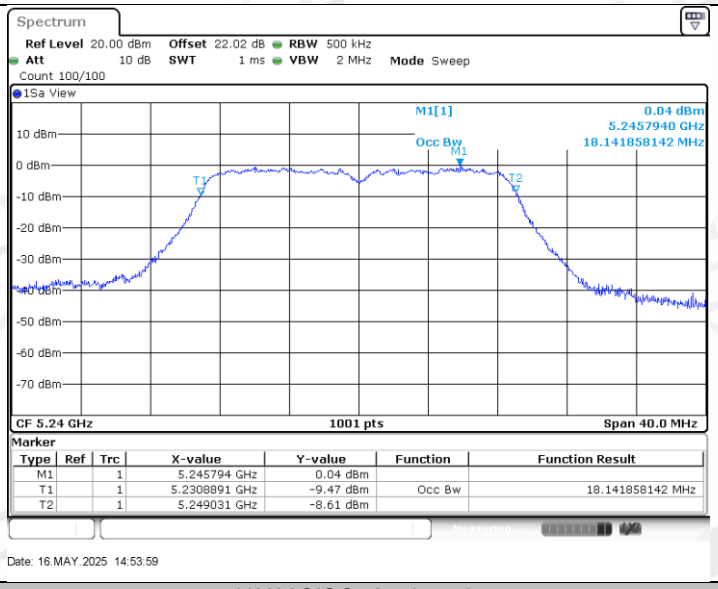
11N20SISO_Ant1_5180



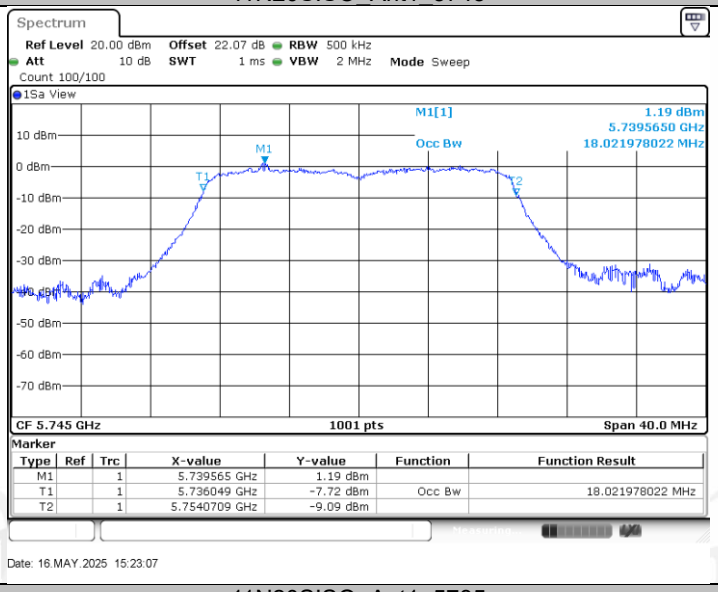
11N20SISO_Ant1_5200



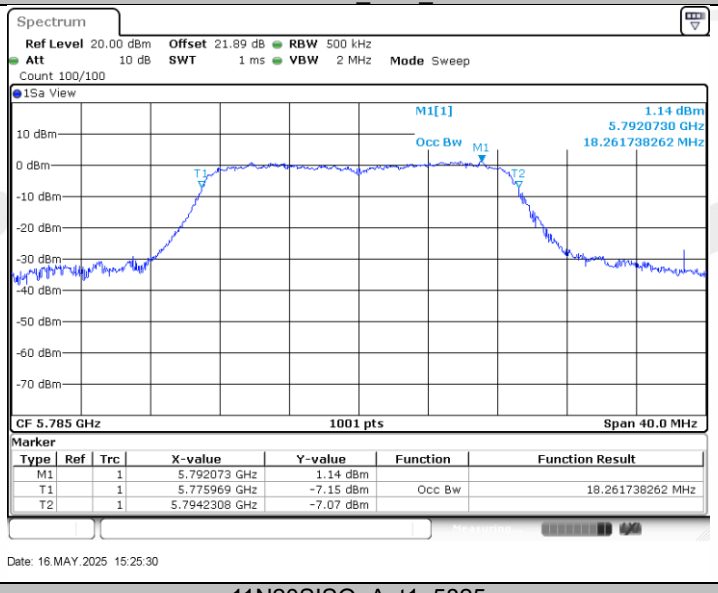
11N20SISO_Ant1_5240



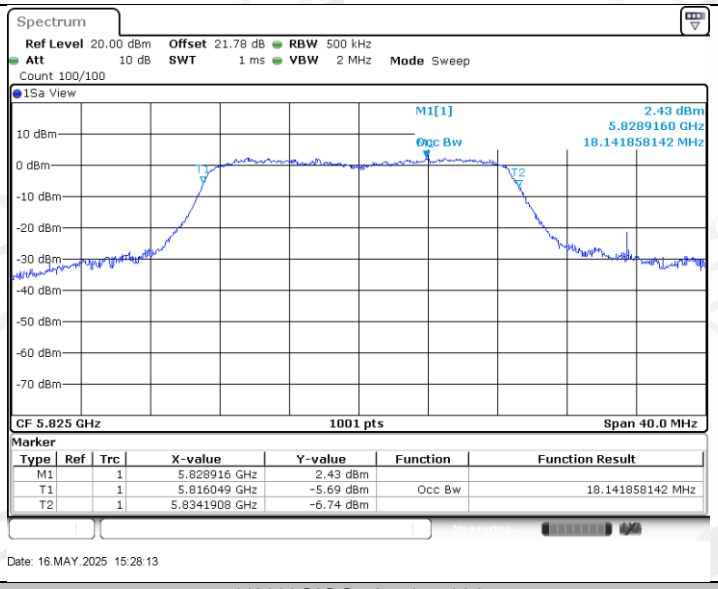
11N20SISO_Ant1_5745



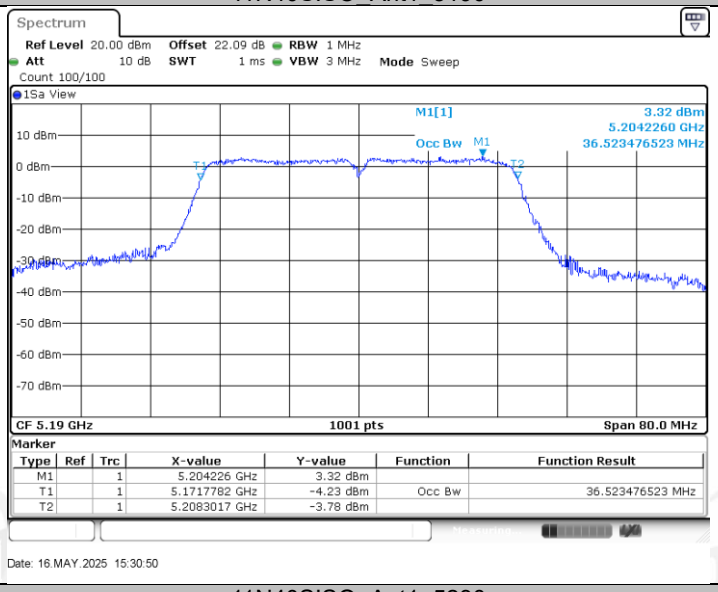
11N20SISO_Ant1_5785



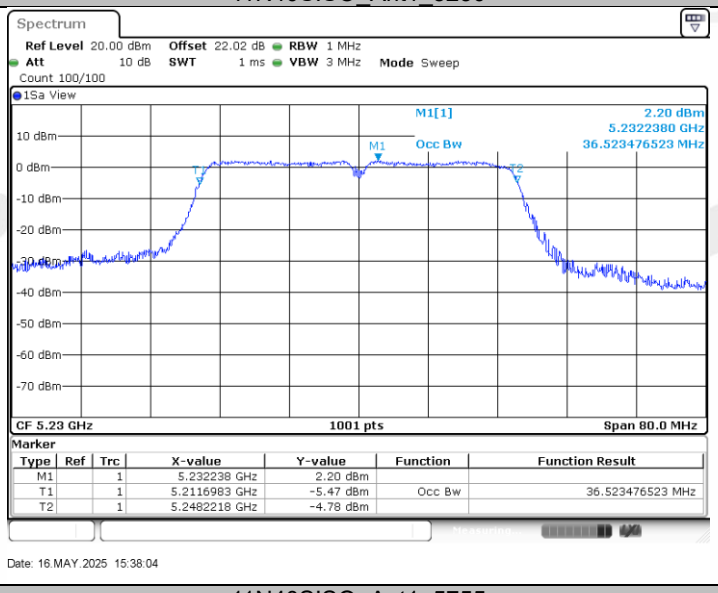
11N20SISO_Ant1_5825



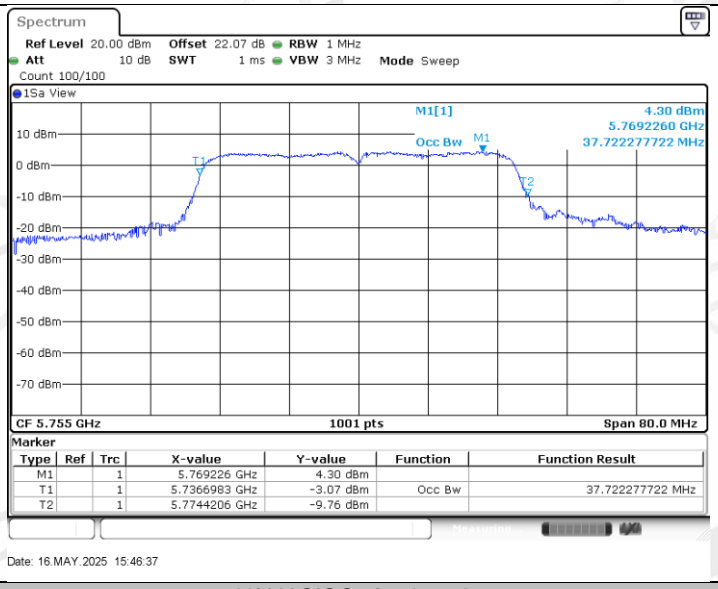
11N40SISO_Ant1_5190



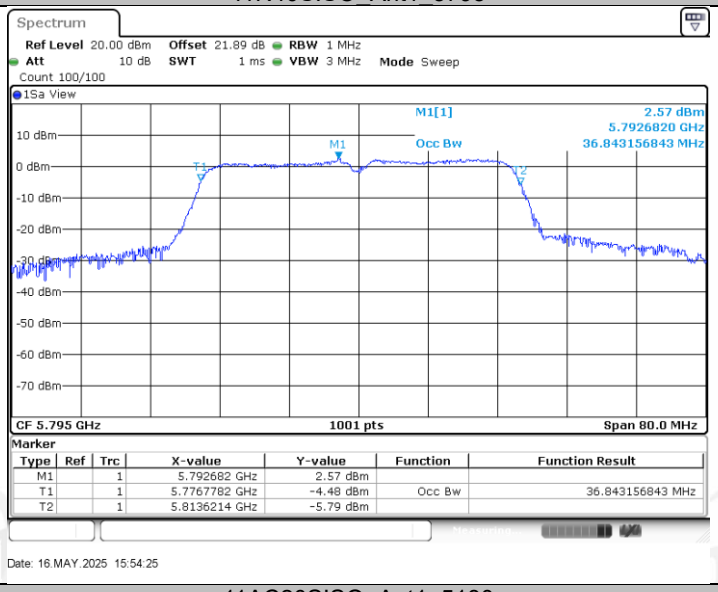
11N40SISO_Ant1_5230



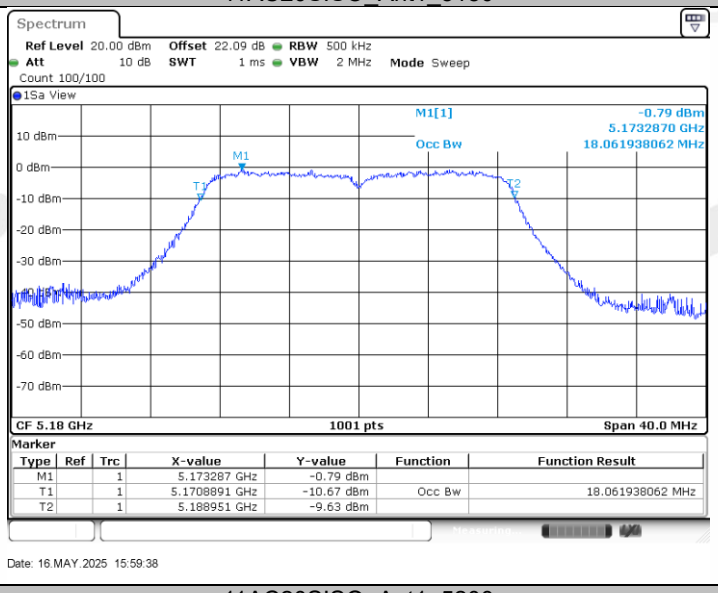
11N40SISO_Ant1_5755



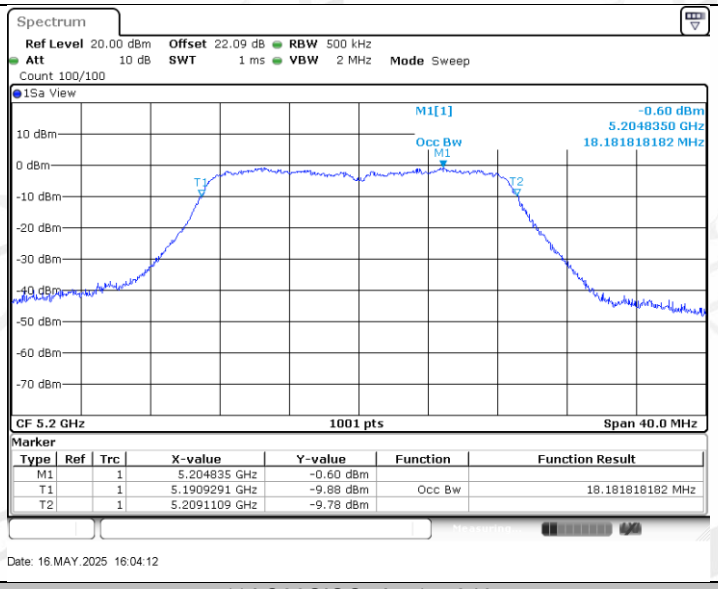
11N40SISO_Ant1_5795



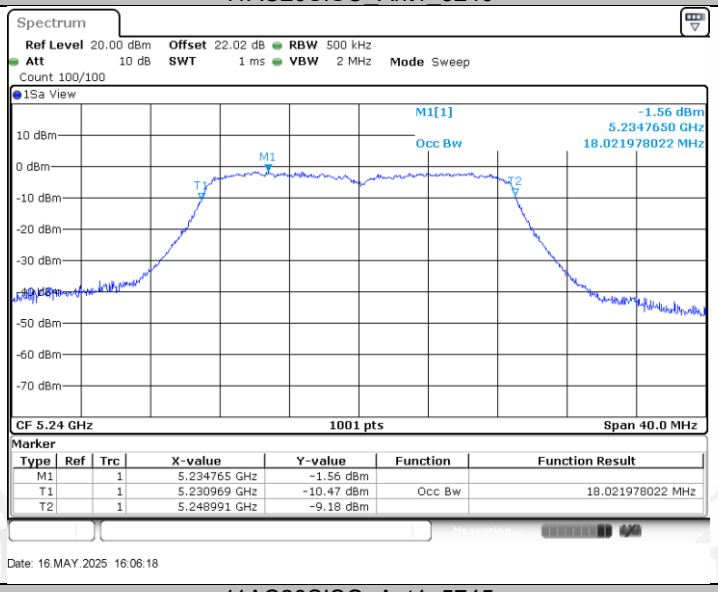
11AC20SISO_Ant1_5180



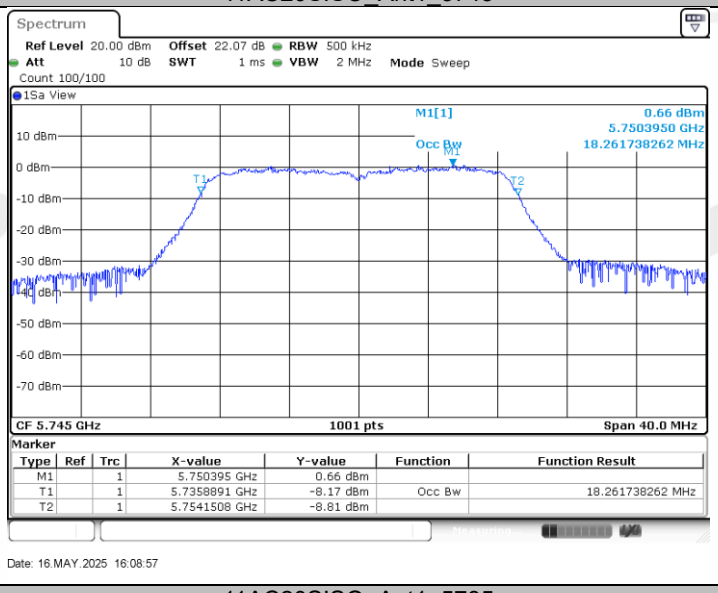
11AC20SISO_Ant1_5200



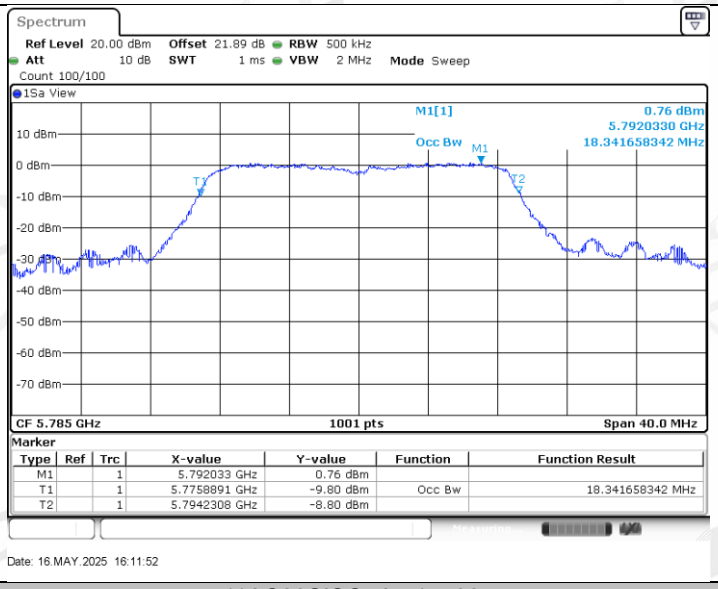
11AC20SISO_Ant1_5240



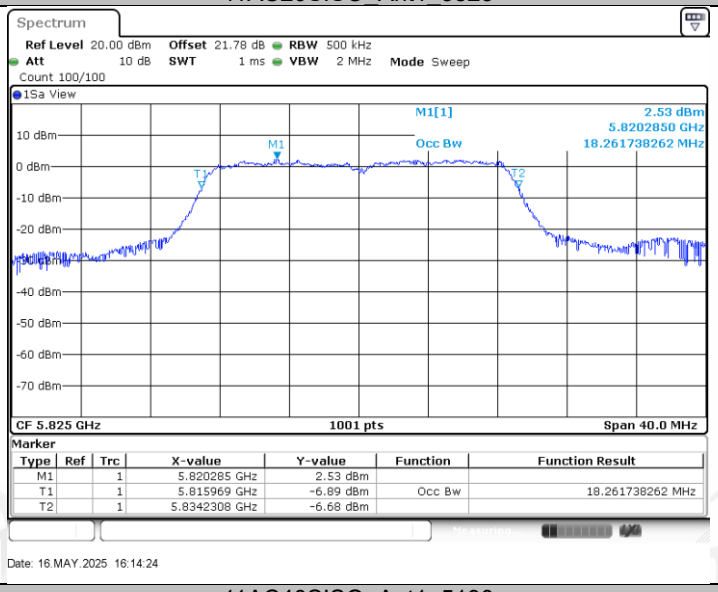
11AC20SISO_Ant1_5745



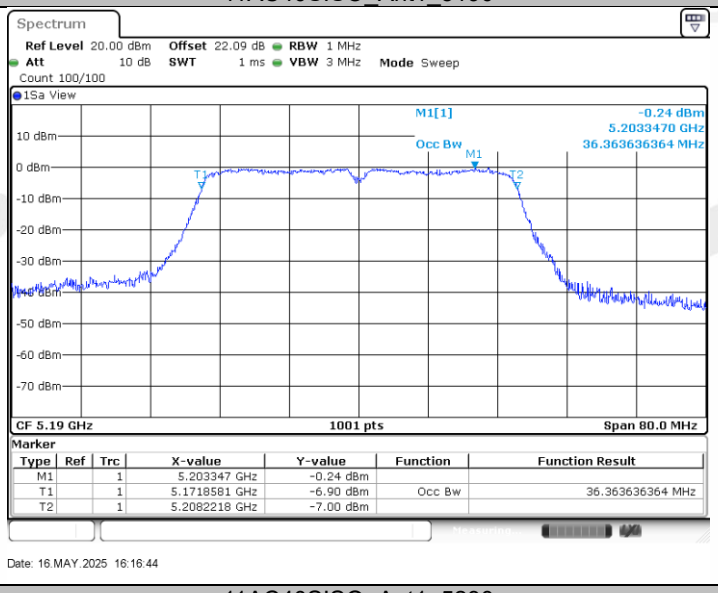
11AC20SISO_Ant1_5785



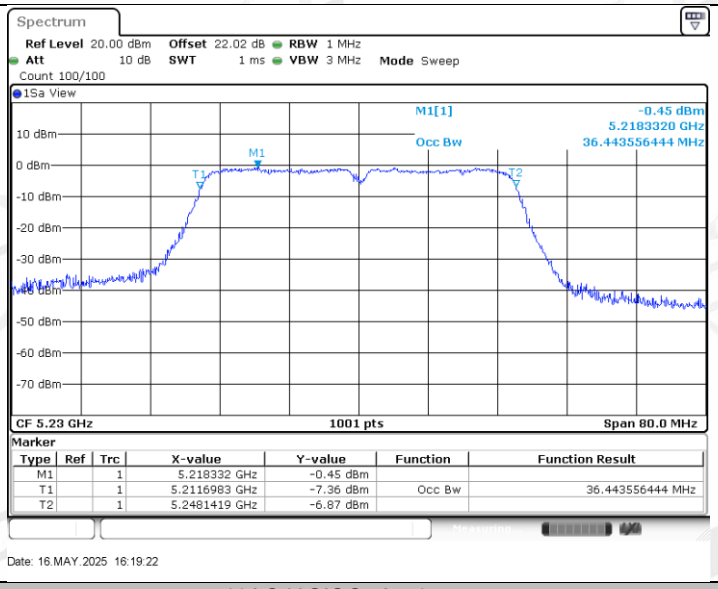
11AC20SISO_Ant1_5825



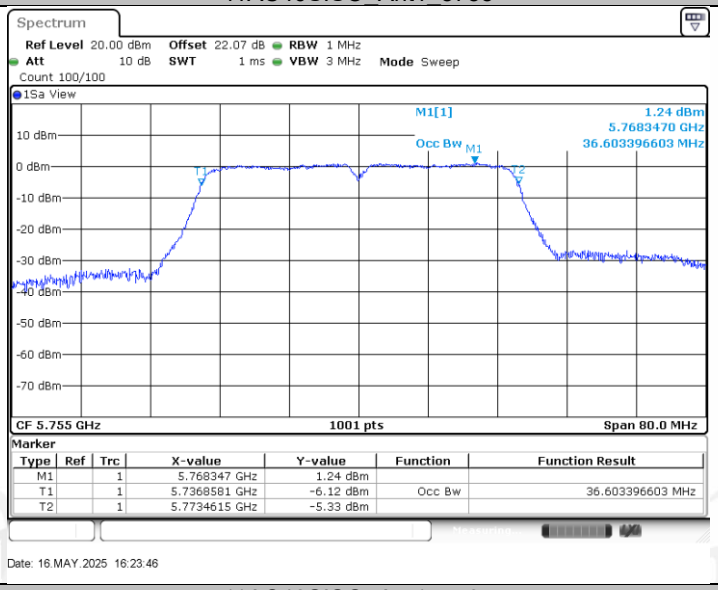
11AC40SISO_Ant1_5190



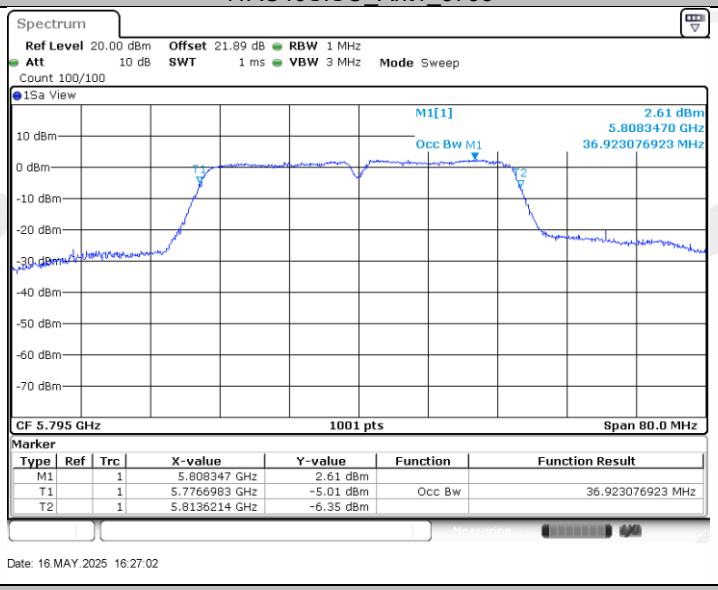
11AC40SISO_Ant1_5230



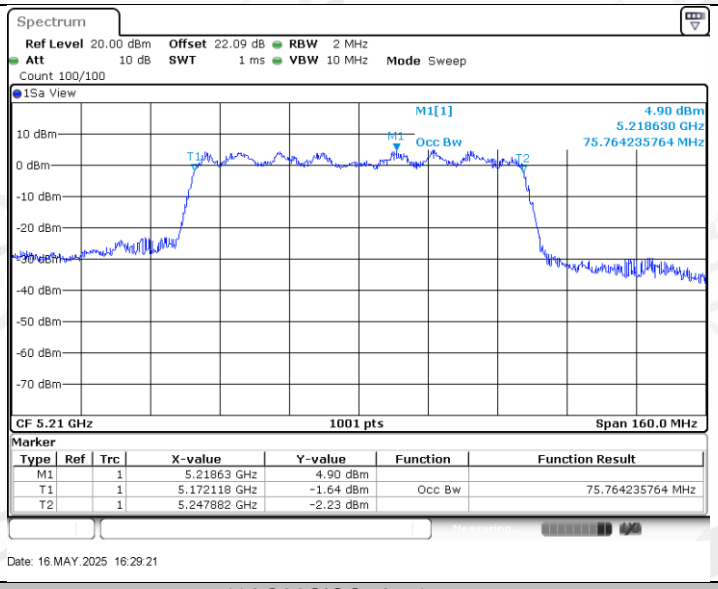
11AC40SISO_Ant1_5755



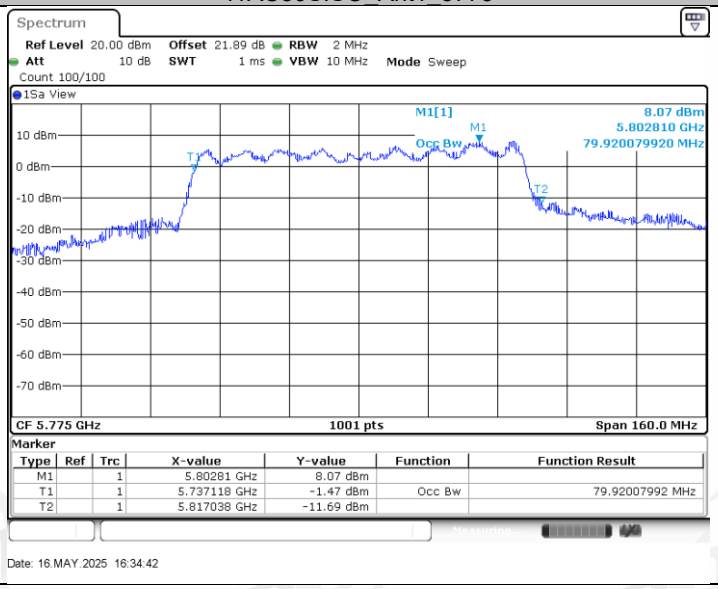
11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5210

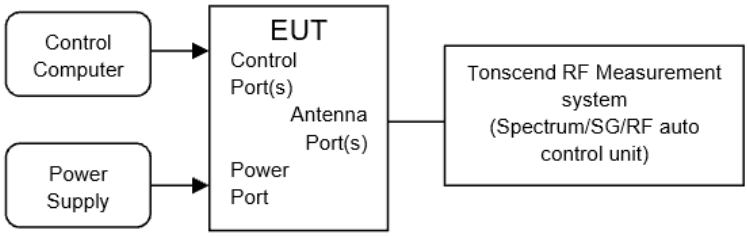


11AC80SISO_Ant1_5775



7. Duty Cycle

7.1. Block diagram of test setup



7.2. Limit

Just for Report.

7.3. 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

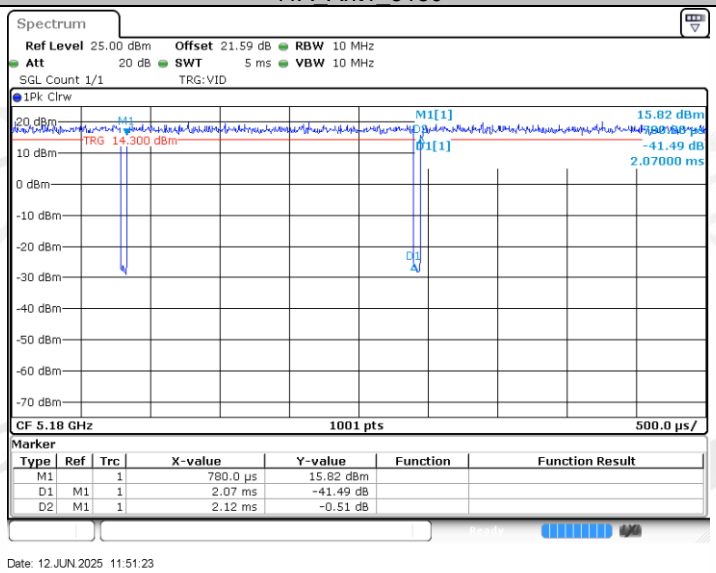
7.4. Test result

Test Engineer:	Zeng Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7-26.2℃,38.2-45.2%RH	Test Date:	2025.05.16-2025.06.12
Test Power Supply:	DC 12V	Sample Number:	S25050721-001

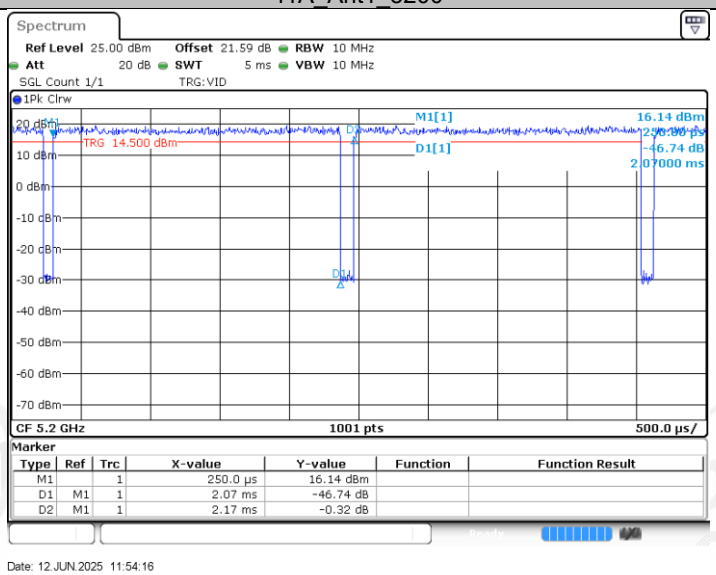
Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.07	2.12	97.64
		5200	2.07	2.17	95.39
		5240	2.07	2.11	98.10
		5745	2.06	2.21	93.21
		5785	2.07	2.13	97.18
		5825	2.07	2.18	94.95
11N20SISO	Ant1	5180	1.93	1.96	98.47
		5200	1.93	2.04	94.61
		5240	1.92	2.06	93.20
		5745	1.92	2.08	92.31
		5785	1.93	2.02	95.54
		5825	1.93	2.09	92.34
11N40SISO	Ant1	5190	0.94	1.14	82.46
		5230	1.92	2.01	95.52
		5755	0.95	1.05	90.48
		5795	0.95	1.12	84.82
11AC20SISO	Ant1	5180	1.93	2.10	91.90
		5200	1.93	2.10	91.90
		5240	1.94	2.09	92.82
		5745	1.93	2.02	95.54
		5785	1.93	2.06	93.69
		5825	2.07	2.19	94.52
11AC40SISO	Ant1	5190	0.95	1.07	88.79
		5230	0.95	1.09	87.16
		5755	0.95	1.12	84.82
		5795	0.95	1.08	87.96
11AC80SISO	Ant1	5210	0.46	0.62	74.19
		5775	0.46	0.63	73.02

7.5. Test graphs

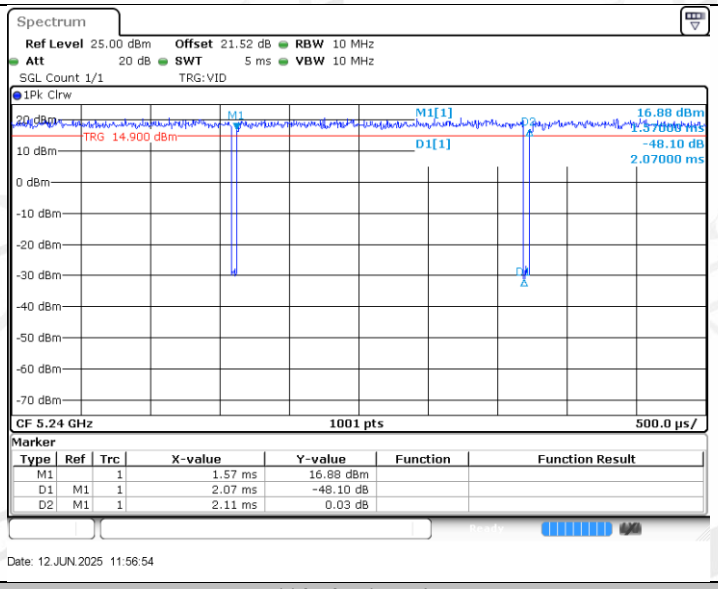
11A_Ant1_5180



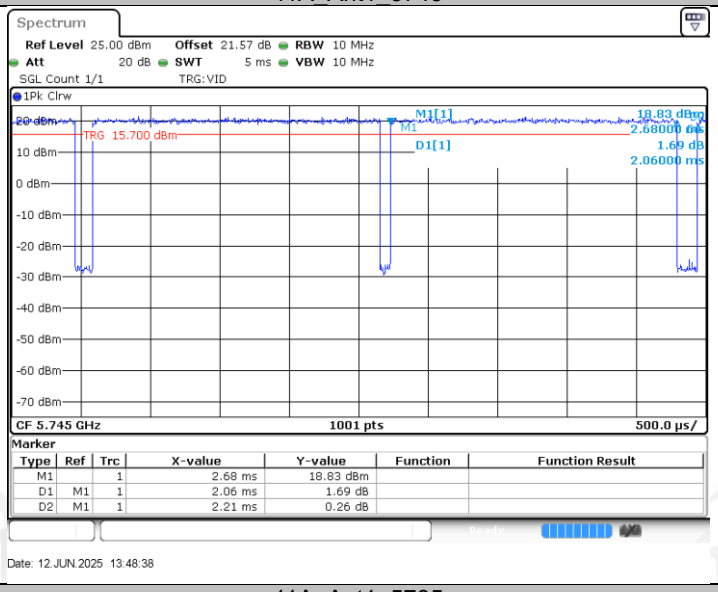
11A_Ant1_5200



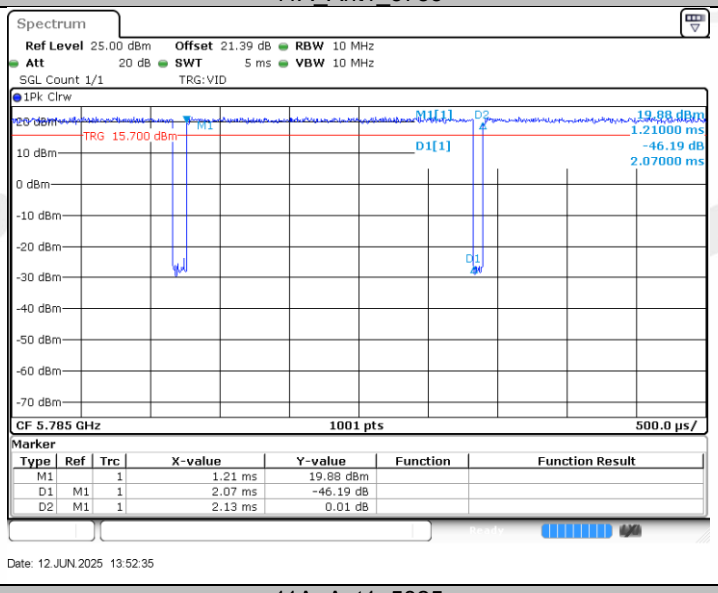
11A_Ant1_5240



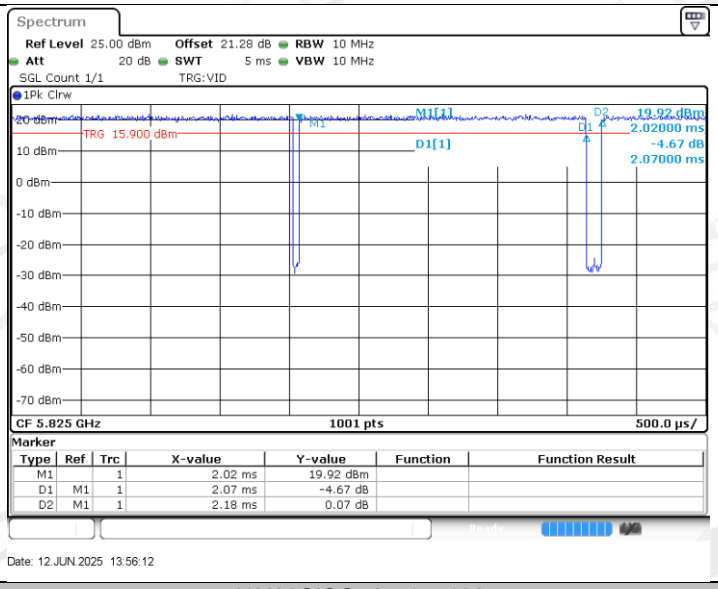
11A_Ant1_5745



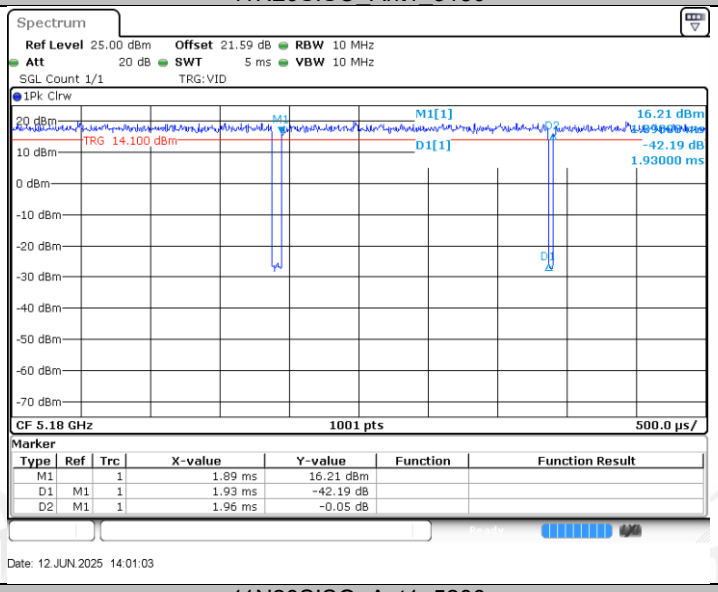
11A_Ant1_5785



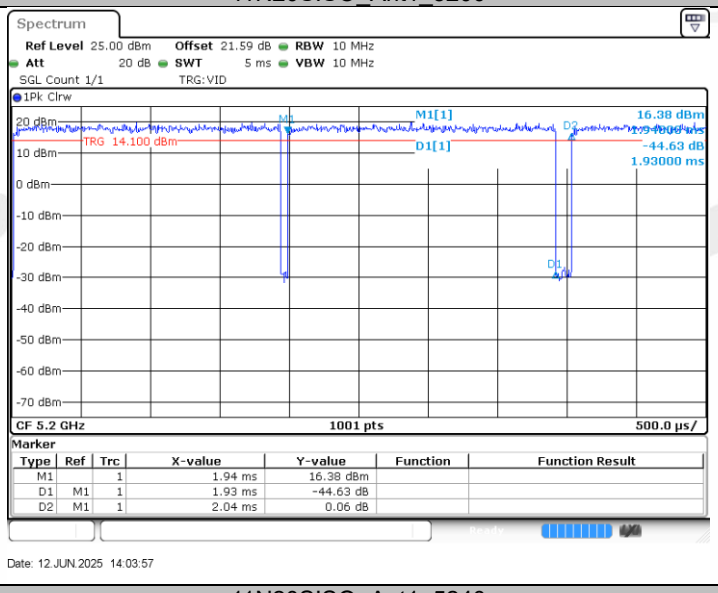
11A_Ant1_5825



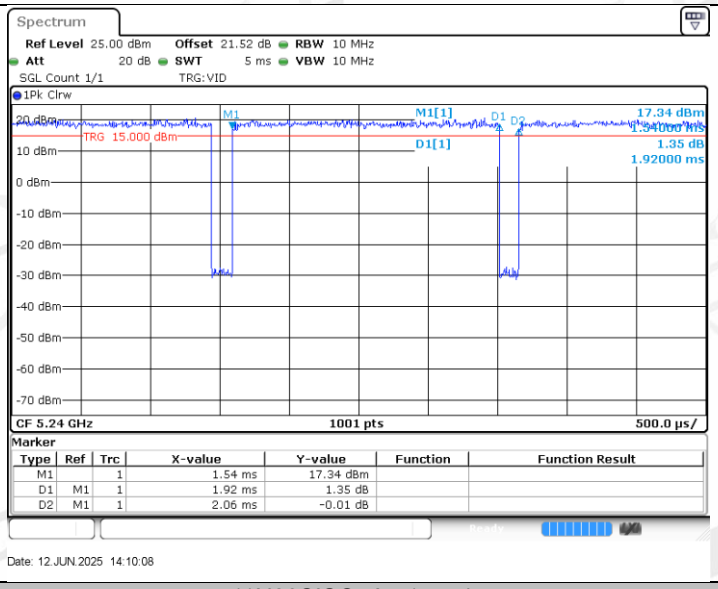
11N20SISO_Ant1_5180



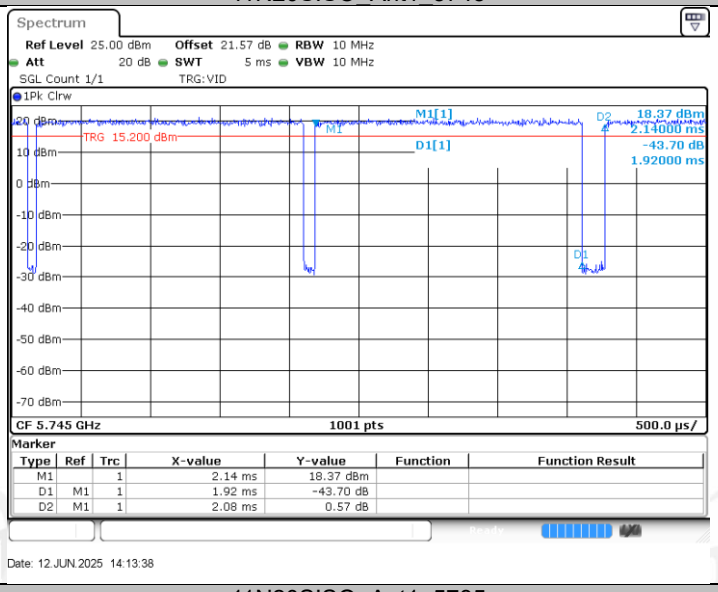
11N20SISO_Ant1_5200



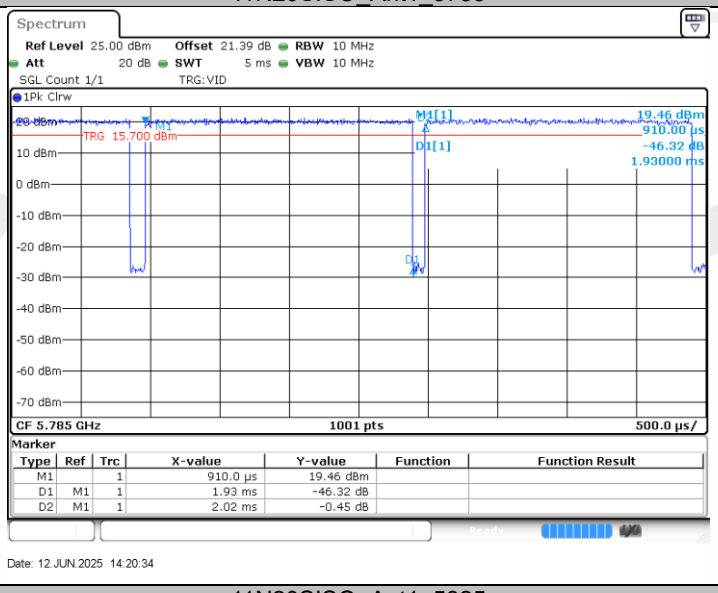
11N20SISO_Ant1_5240



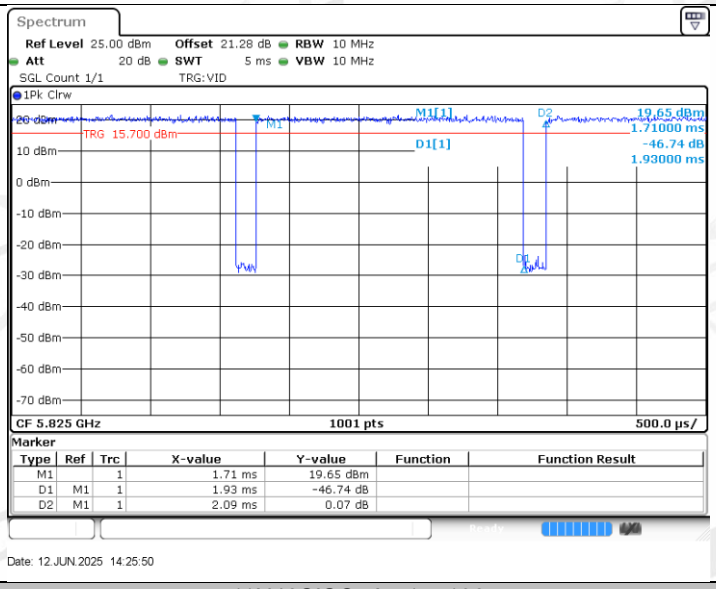
11N20SISO_Ant1_5745



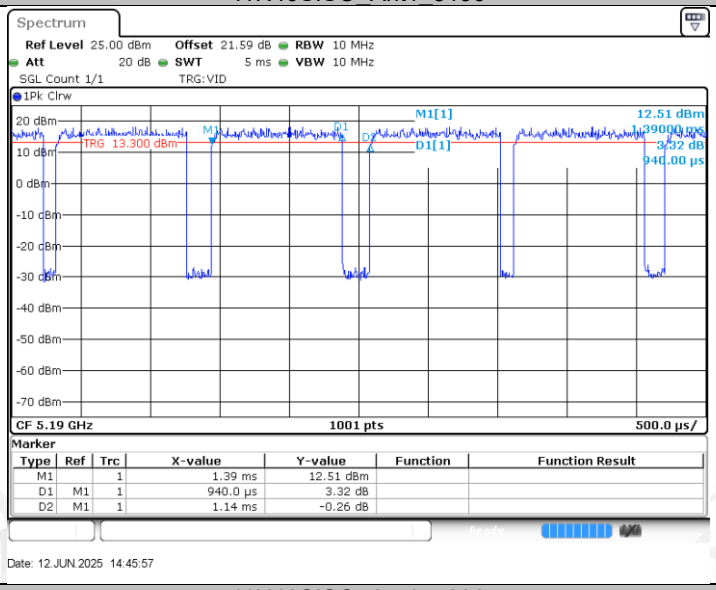
11N20SISO_Ant1_5785



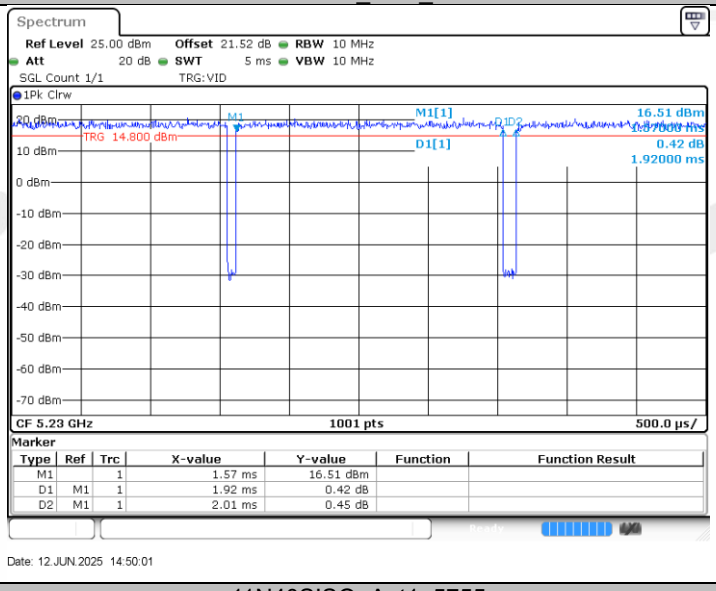
11N20SISO_Ant1_5825



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755