



RADIO TEST REPORT

Applicant	:	KID Company
Address of Applicant	:	129 1st Street, Los Altos, CA 94022
Manufacturer	:	KID Company
Address of Manufacturer	:	129 1st Street, Los Altos, CA 94022
Equipment under Test	:	AI Speaker
Model No.	:	KID
FCC ID	:	2BSB6KID
Test Standard(s)	:	47 CFR Part 15 Subpart E, ANSI C63.10-2020, ANSI C63 10-2020+Cor.1-2023+C63.10a- 2024+Errata to C63.10a-2024, 789033 D02 General U-NII Test Procedures New Rules v02r01, 662911 D01 Multiple Transmitter Output v02r01
Report No.	:	DDT-RE25091019-1E04
Issue Date	:	2025/12/02
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

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Test Report Declare

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Manufacturer	:	KID Company
Address of Manufacturer	:	129 1st Street, Los Altos, CA 94022

Test Standard Used:
47 CFR Part 15 Subpart E,
ANSI C63.10-2020,
ANSI C63 10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024,
789033 D02 General U-NII Test Procedures New Rules v02r01,
662911 D01 Multiple Transmitter Output v02r01

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-RE25091019-1E04		
Date of Receipt:	2025/09/19	Date of Test:	2025/09/19 - 2025/11/18

Created: Chen Ziqin	Reviewed: Zoe Peng	Approved: Ella Gong
		
2025/11/14	2025/12/02	2025/12/02

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	2025/12/02	Ella Gong

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	6/26db Bandwidth and 99% Bandwidth	47 CFR Part 15 15.407 (e)	/	Pass
2	Output Power	47 CFR Part 15 15.407 (a)	/	Pass
3	Power Spectral Density	47 CFR Part 15 15.407 (a)	/	Pass
4	Frequency Stability Measurement	47 CFR Part 15 15.407 (g)	/	Pass
5	Radiated Emission	47 CFR Part 15 15.407 (b), 47 CFR Part 15 15.209, 47 CFR Part 15 15.205	/	Pass
6	Band Edge Compliance	47 CFR Part 15 15.407 (b), 47 CFR Part 15 15.209, 47 CFR Part 15 15.205	/	Pass
7	Dynamic Frequency Selection	47 CFR Part 15 15.407 (h)	/	Pass
8	Antenna Requirement	47 CFR Part 15.203	/	Pass
9	Power Line Conducted Emissions	47 CFR Part 15 15.207(a)	/	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	: AI Speaker
Model Number	: KID
Difference of model number	: /
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 5V from USB cable or DC 7.4V built-in battery
Antenna Type	: FPC Antenna
Max Antenna Gain(dBi)	: 4.58

Radio Technology	: IEEE 802.11a/n/ac
Operation frequency	: U-NII-1: 5180 MHz to 5240 MHz U-NII-2A: 5260 MHz to 5320 MHz U-NII-2C: 5500 MHz to 5720 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-2A							
52	5260	54	5270	58	5290	50	5250 (Straddle)
56	5280	62	5310	/	/	/	/
60	5300	/	/	/	/	/	/
64	5320	/	/	/	/	/	/
UNII-2C							
100	5500	102	5510	106	5530	114	5570
104	5520	110	5550	122	5610	/	/
108	5540	118	5590	138	5690 (Straddle)	/	/
112	5560	126	5630	/	/	/	/
116	5580	134	5670	/	/	/	/

120	5600	142	5710 (Straddle)	/	/	/	/
124	5620	/	/	/	/	/	/
128	5640	/	/	/	/	/	/
132	5660	/	/	/	/	/	/
136	5680	/	/	/	/	/	/
140	5700	/	/	/	/	/	/
144	5720 (Straddle)	/	/	/	/	/	/
UNII-3							
149	5745	151	5755	155	5775	/	/
153	5765	159	5795	/	/	/	/
157	5785	/	/	/	/	/	/
161	5805	/	/	/	/	/	/
165	5825	/	/	/	/	/	/

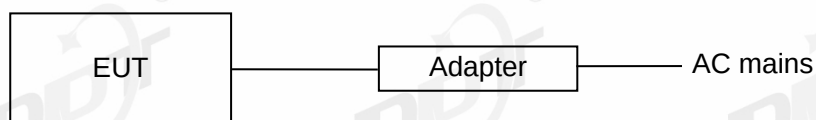
Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's 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
USB-C cable	N/A	N/A	Length: 1.02m

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: /

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 (Mbps) (see Note)	Test Channel	Frequency (MHz)
	ANT1	/			
IEEE 802.11a	10	/	6	LCH: CH36	5180
	10	/	6	MCH: CH40	5200
	10	/	6	HCH: CH48	5240
	10	/	6	LCH: CH52	5260
	10	/	6	MCH: CH56	5280
	10	/	6	HCH: CH64	5320
	10	/	6	LCH: CH100	5500
	10	/	6	MCH: CH116	5580
	10	/	6	HCH: CH140	5700
	10	/	6	Straddle: CH144	5720
	10	/	6	LCH: CH149	5745
	10	/	6	MCH: CH157	5785
	10	/	6	HCH: CH165	5825
	10	/	MCS 0	LCH: CH36	5180
IEEE 802.11n HT20	10	/	MCS 0	MCH: CH40	5200
	10	/	MCS 0	HCH: CH48	5240
	10	/	MCS 0	LCH: CH52	5260
	10	/	MCS 0	MCH: CH56	5280
	10	/	MCS 0	HCH: CH64	5320
	10	/	MCS 0	LCH: CH100	5500
	10	/	MCS 0	MCH: CH116	5580
	10	/	MCS 0	HCH: CH140	5700
	10	/	MCS 0	Straddle: CH144	5720
	10	/	MCS 0	LCH: CH149	5745
	10	/	MCS 0	MCH: CH157	5785
	10	/	MCS 0	HCH: CH165	5825
	10	/	MCS 0	LCH: CH38	5190
IEEE 802.11n HT40	10	/	MCS 0	HCH: CH46	5230
	10	/	MCS 0	LCH: CH54	5270
	10	/	MCS 0	HCH: CH62	5310

	10	/	MCS 0	LCH: CH102	5510
	10	/	MCS 0	MCH: CH110	5550
	10	/	MCS 0	HCH: CH134	5670
	10	/	MCS 0	LCH: CH151	5755
	10	/	MCS 0	HCH: CH159	5795
IEEE 802.11ac VHT20	10	/	MCS 0	LCH: CH36	5180
	10	/	MCS 0	MCH: CH40	5200
	10	/	MCS 0	HCH: CH48	5240
	10	/	MCS 0	LCH: CH52	5260
	10	/	MCS 0	MCH: CH56	5280
	10	/	MCS 0	HCH: CH64	5320
	10	/	MCS 0	LCH: CH100	5500
	10	/	MCS 0	MCH: CH116	5580
	10	/	MCS 0	HCH: CH140	5700
	10	/	MCS 0	Straddle: CH144	5720
	10	/	MCS 0	LCH: CH149	5745
	10	/	MCS 0	MCH: CH157	5785
	10	/	MCS 0	HCH: CH165	5825
IEEE 802.11 ac VHT40	10	/	MCS 0	LCH: CH38	5190
	10	/	MCS 0	HCH: CH46	5230
	10	/	MCS 0	LCH: CH54	5270
	10	/	MCS 0	HCH: CH62	5310
	10	/	MCS 0	LCH: CH102	5510
	10	/	MCS 0	MCH: CH110	5550
	10	/	MCS 0	HCH: CH134	5670
	10	/	MCS 0	Straddle: CH151	5710
	10	/	MCS 0	LCH: CH159	5755
	10	/	MCS 0	HCH: CH36	5795
IEEE 802.11ac VHT80	10	/	MCS 0	CH42	5210
	10	/	MCS 0	CH58	5290
	10	/	MCS 0	LCH: CH106	5530
	10	/	MCS 0	HCH: CH122	5610
	10	/	MCS 0	Straddle: CH138	5690
	10	/	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°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

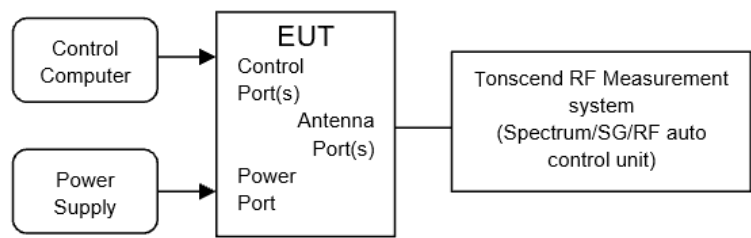
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$); 1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f <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

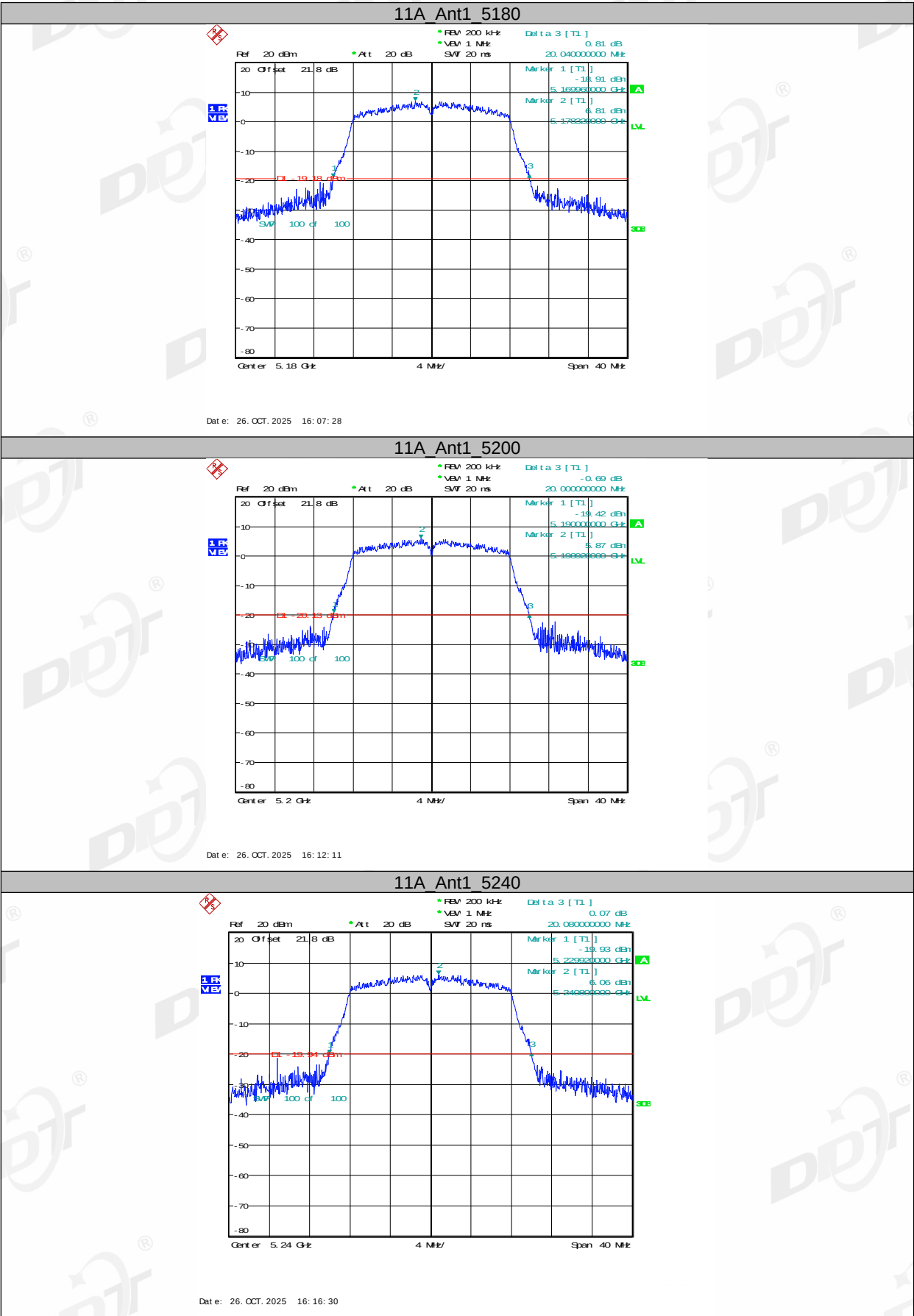
4.4. Test result

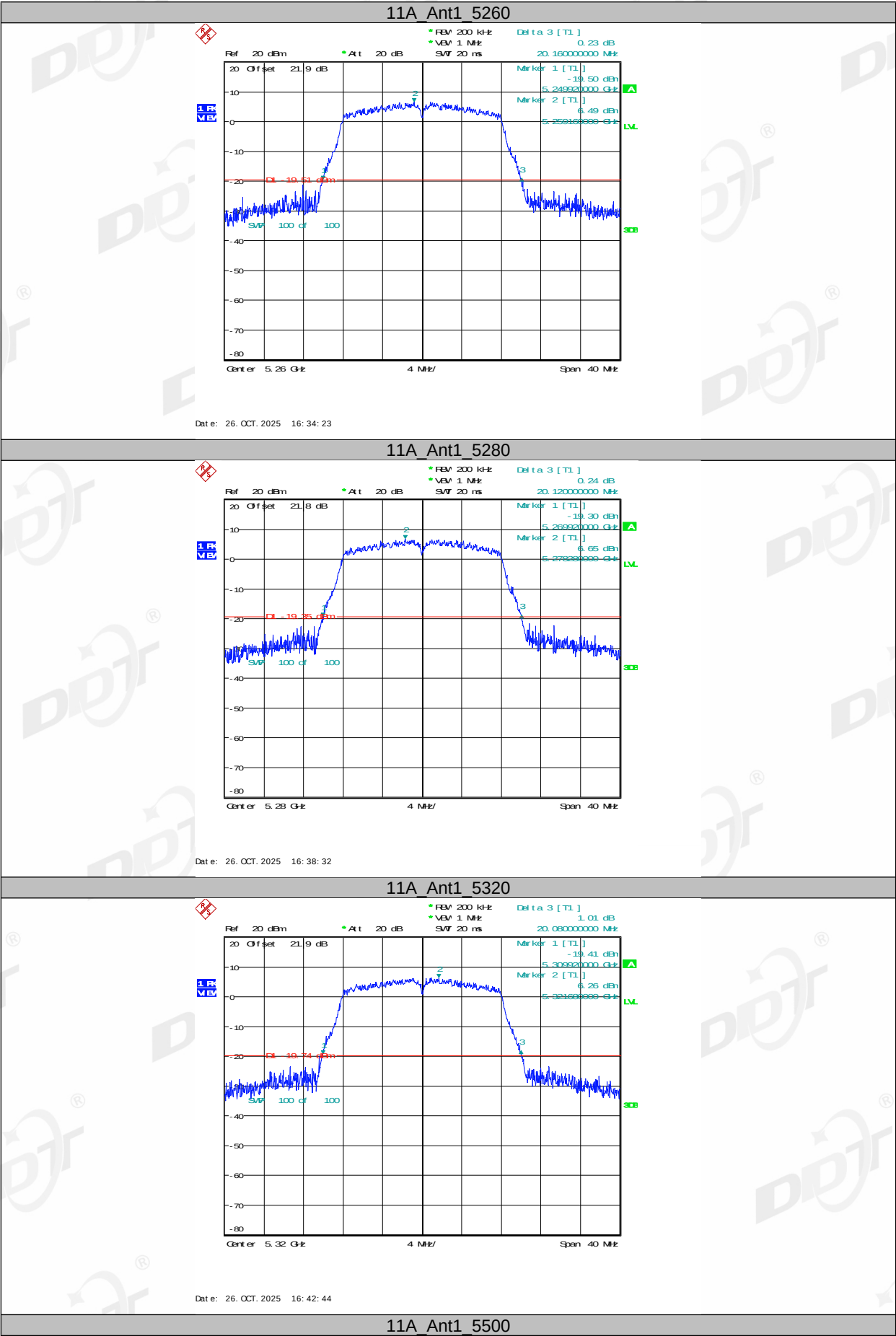
Test Engineer:	Zhongyao	Test Site:	RF Measurement System 1#
Ambient Condition:	25℃,45%RH	Test Date:	2025.10.26-2025.10.28
Test Power Supply:	Battery	Sample Number:	S25091019-002

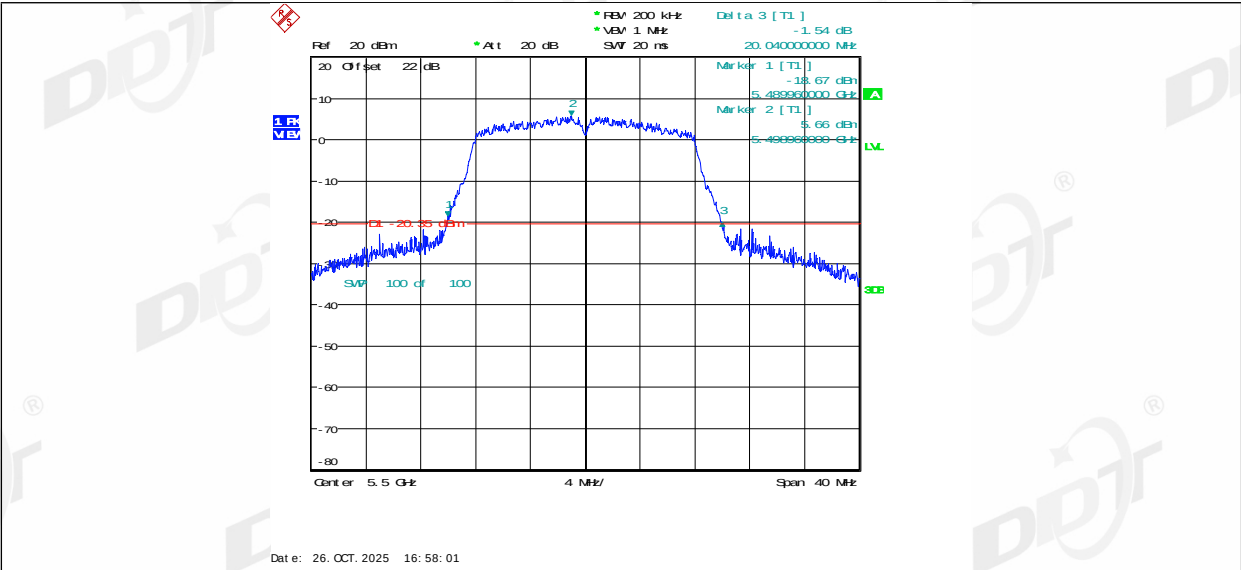
Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.04	5169.96	5190.00	---	---
		5200	20.00	5190.00	5210.00	---	---
		5240	20.08	5229.92	5250.00	---	---
		5260	20.16	5249.92	5270.08	---	---
		5280	20.12	5269.92	5290.04	---	---
		5320	20.08	5309.92	5330.00	---	---
		5500	20.04	5489.96	5510.00	---	---
		5580	20.16	5569.92	5590.08	---	---
		5700	20.08	5689.92	5710.00	---	---
		5720	20.20	5709.80	5730.00	---	---
		5720 UNII-2C	15.2	5709.80	5725	---	---
		5720 UNII-3	5	5725	5730.00	---	---
		5745	20.04	5735.04	5755.08	---	---
		5785	20.04	5774.96	5795.00	---	---
		5825	20.04	5814.92	5834.96	---	---
11N20SIS O	Ant1	5180	20.40	5169.80	5190.20	---	---
		5200	20.52	5189.72	5210.24	---	---
		5240	20.36	5229.80	5250.16	---	---
		5260	20.36	5249.80	5270.16	---	---
		5280	20.48	5269.76	5290.24	---	---
		5320	20.48	5309.80	5330.28	---	---
		5500	20.36	5489.80	5510.16	---	---
		5580	20.56	5569.72	5590.28	---	---
		5700	20.36	5689.80	5710.16	---	---
		5720	20.44	5709.76	5730.20	---	---
		5720 UNII-2C	15.24	5709.76	5725	---	---
		5720 UNII-3	5.2	5725	5730.20	---	---
		5745	20.36	5734.84	5755.20	---	---
		5785	20.56	5774.80	5795.36	---	---
		5825	20.40	5814.76	5835.16	---	---
11N40SIS O	Ant1	5190	40.80	5169.68	5210.48	---	---
		5230	41.04	5209.44	5250.48	---	---
		5270	40.96	5249.60	5290.56	---	---
		5310	41.28	5289.28	5330.56	---	---
		5510	41.28	5489.28	5530.56	---	---
		5550	40.72	5529.68	5570.40	---	---
		5670	40.88	5649.44	5690.32	---	---
		5710	40.88	5689.44	5730.32	---	---
		5710 UNII-2C	35.56	5689.44	5725	---	---
		5710 UNII-3	5.32	5725	5730.32	---	---
		5755	40.96	5734.52	5775.48	---	---
		5795	41.04	5774.44	5815.48	---	---
		5180	20.44	5169.76	5190.20	---	---
		5200	20.52	5189.68	5210.20	---	---
		5240	20.64	5229.76	5250.40	---	---
11AC20Si SO	Ant1	5260	20.52	5249.68	5270.20	---	---
		5280	20.44	5269.80	5290.24	---	---
		5320	20.48	5309.80	5330.28	---	---
		5500	20.96	5489.24	5510.20	---	---
		5580	20.72	5569.68	5590.40	---	---
		5700	20.48	5689.68	5710.16	---	---
		5720	21.76	5708.40	5730.16	---	---
		5720 UNII-2C	16.6	5708.40	5725	---	---
		5720 UNII-3	5.16	5725	5730.16	---	---
		5745	20.48	5734.72	5755.20	---	---

11AC40SI SO	Ant1	5785	20.64	5774.52	5795.16	---	---
		5825	20.36	5814.80	5835.16	---	---
		5190	40.72	5169.68	5210.40	---	---
		5230	41.04	5209.52	5250.56	---	---
		5270	40.96	5249.52	5290.48	---	---
		5310	41.12	5289.36	5330.48	---	---
		5510	40.88	5489.52	5530.40	---	---
		5550	40.96	5529.44	5570.40	---	---
		5670	41.12	5649.44	5690.56	---	---
		5710	40.80	5689.60	5730.40	---	---
		5710 UNII-2C	35.4	5689.60	5725	---	---
		5710 UNII-3	5.4	5725	5730.40	---	---
		5755	40.96	5734.60	5775.56	---	---
		5795	40.88	5774.44	5815.32	---	---
11AC80SI SO	Ant1	5210	81.28	5169.36	5250.64	---	---
		5290	81.76	5249.20	5330.96	---	---
		5530	81.28	5489.36	5570.64	---	---
		5610	81.44	5569.20	5650.64	---	---
		5690	81.28	5649.20	5730.48	---	---
		5690 UNII-2C	75.8	5649.20	5725	---	---
		5690 UNII-3	5.48	5725	5730.48	---	---
		5775	81.28	5734.36	5815.64	---	---

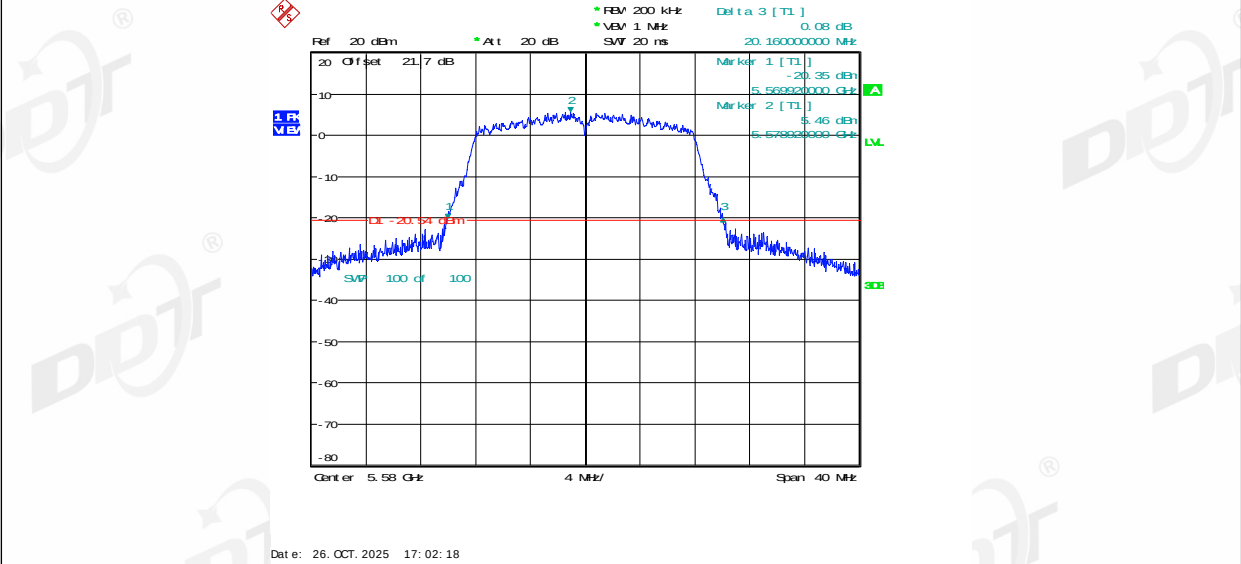
4.5. Test graphs



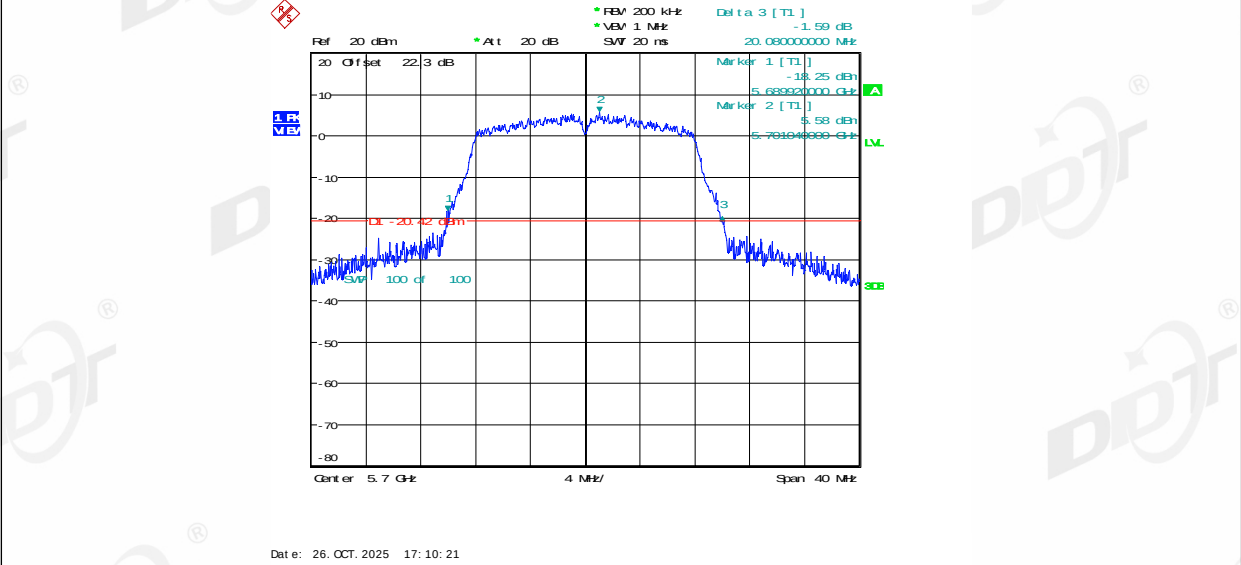




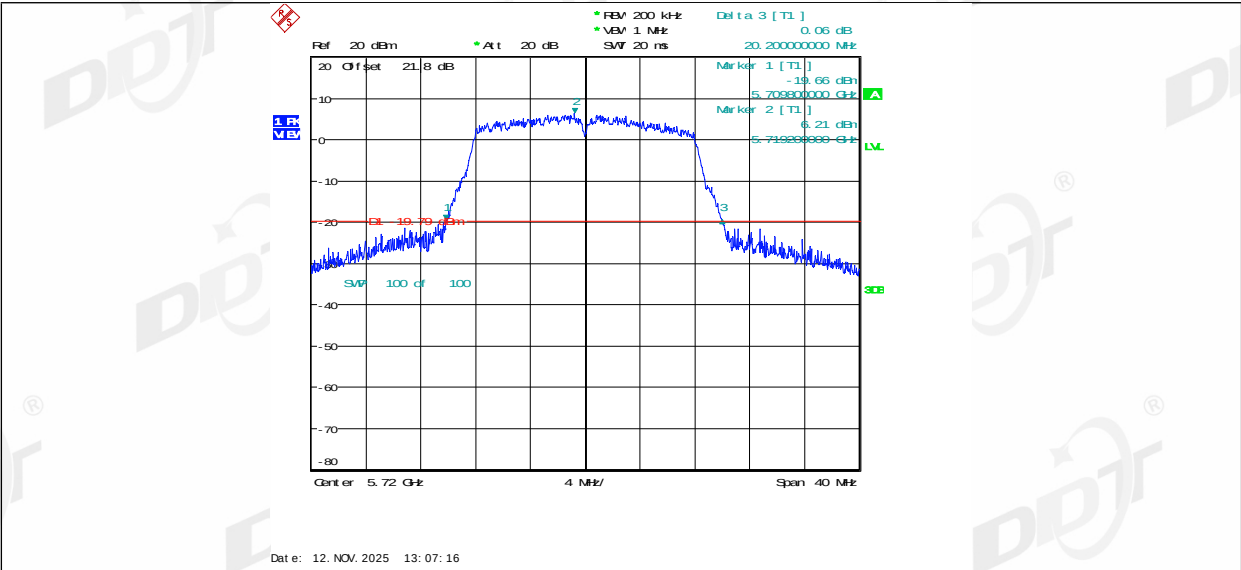
11A_Ant1_5580



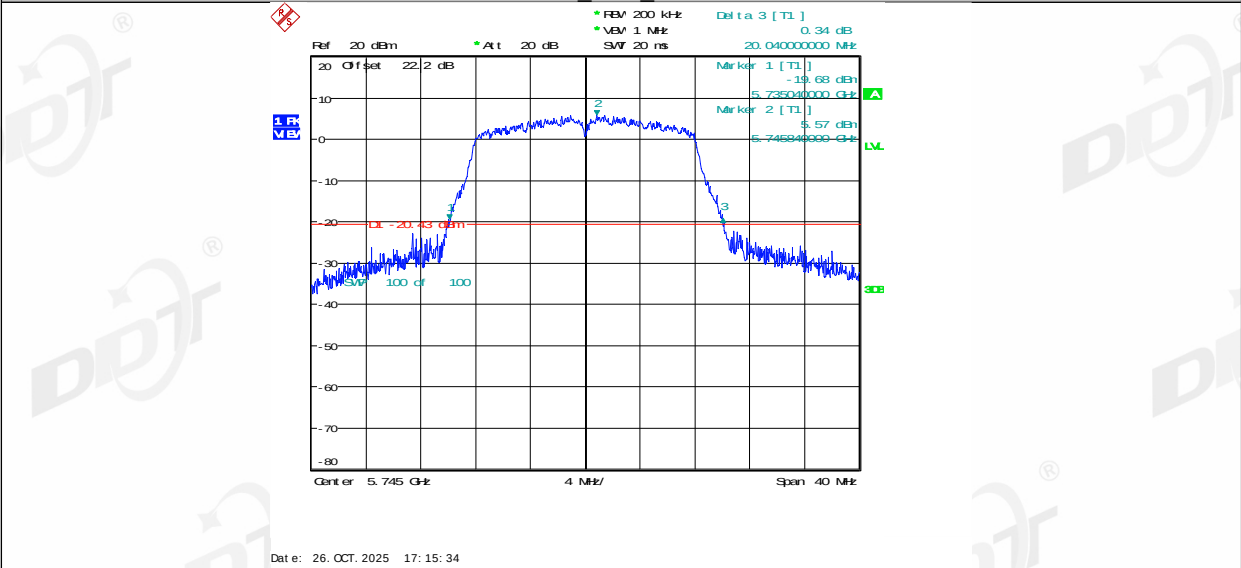
11A_Ant1_5700



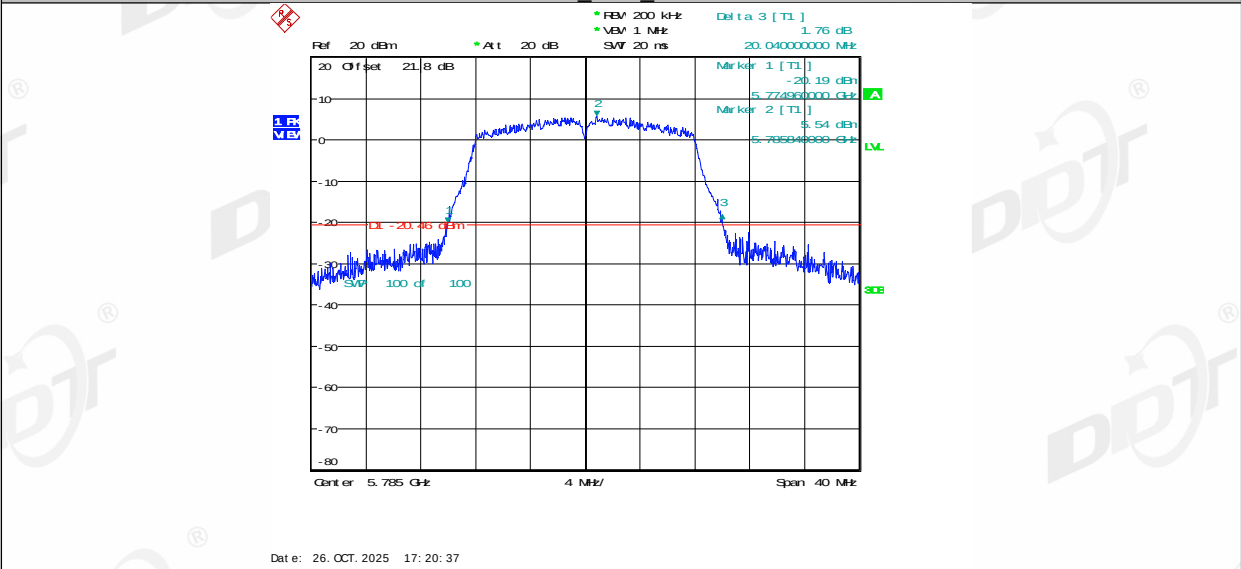
11A_Ant1_5720



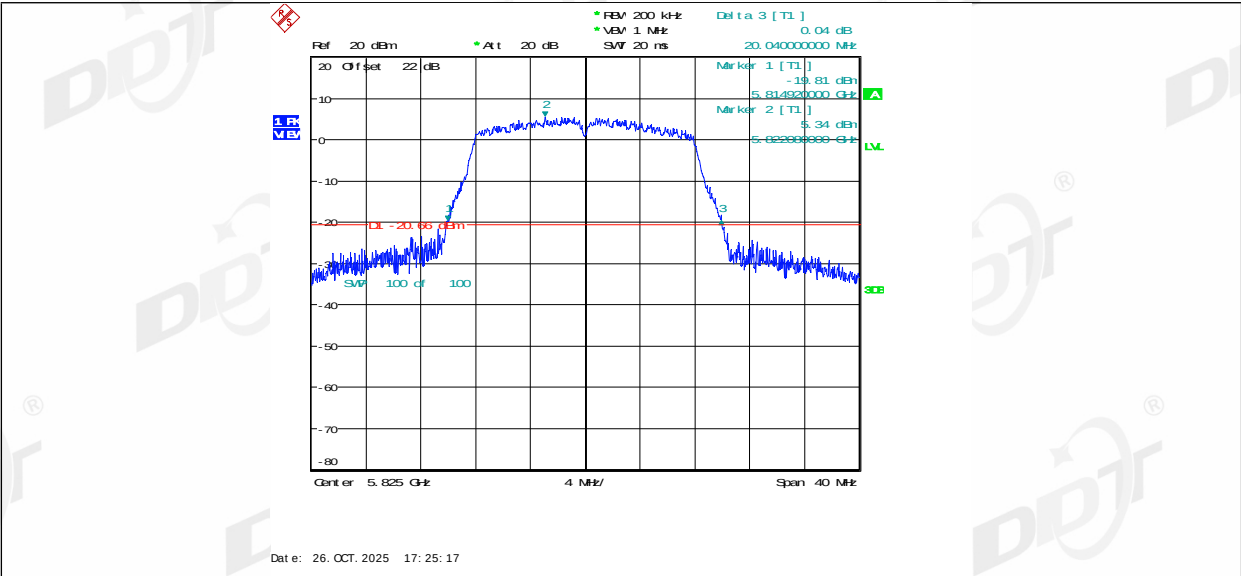
11A_Ant1_5745



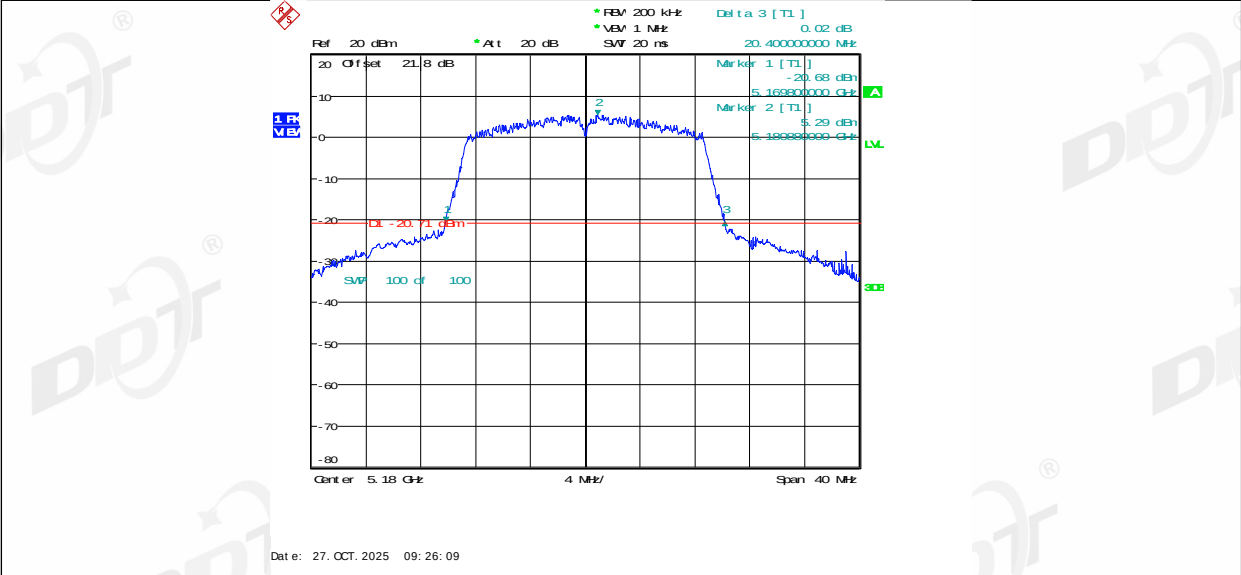
11A_Ant1_5785



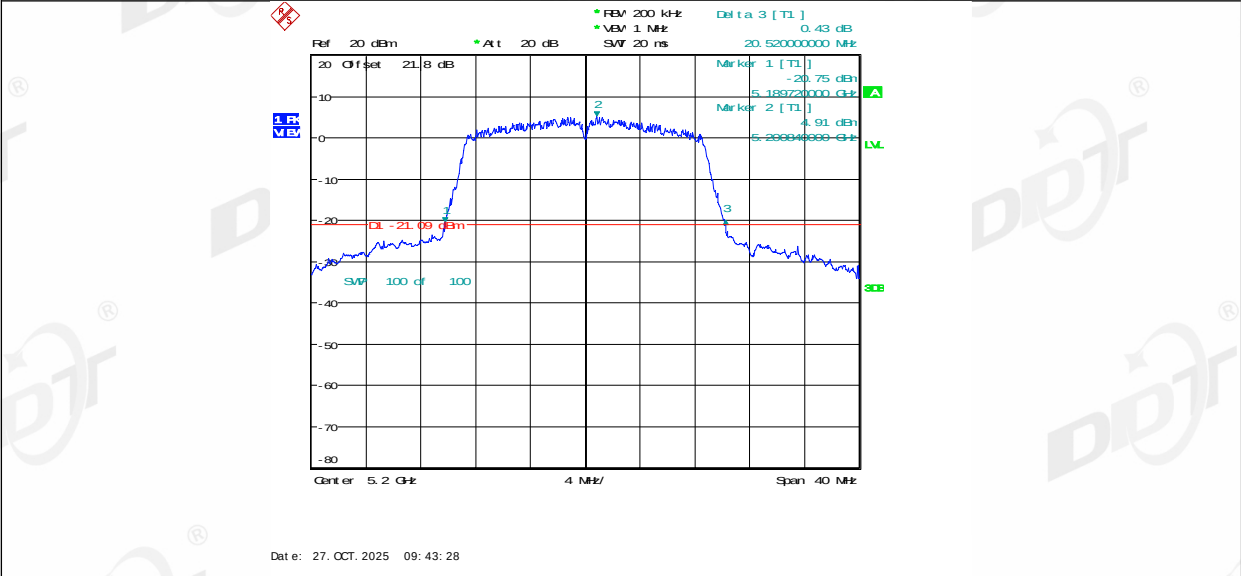
11A_Ant1_5825



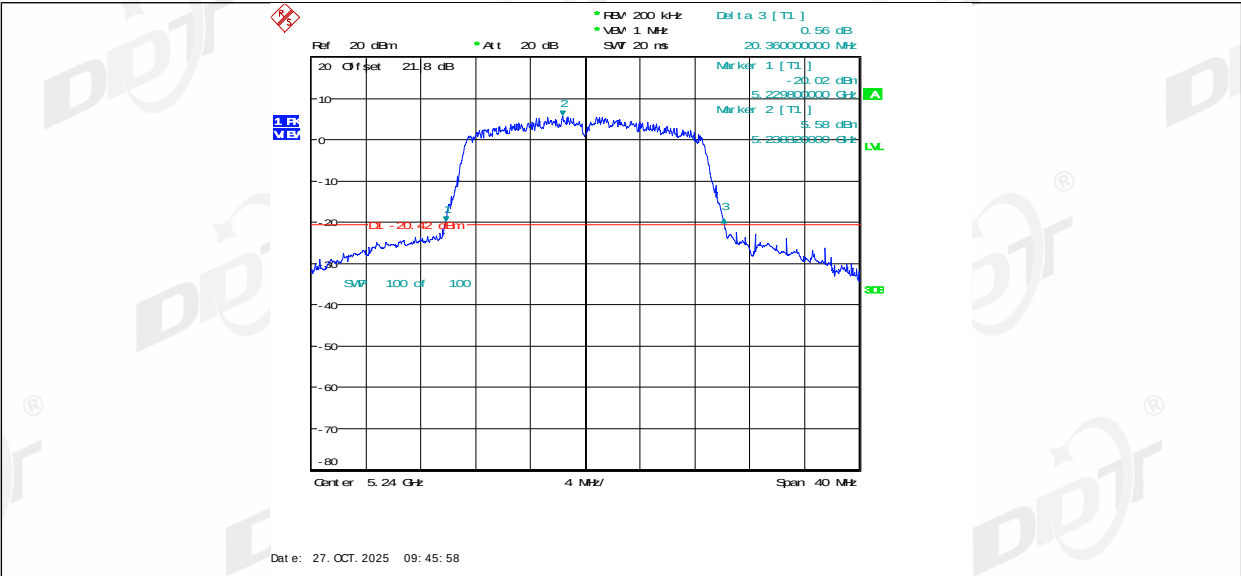
11N20SISO Ant1 5180



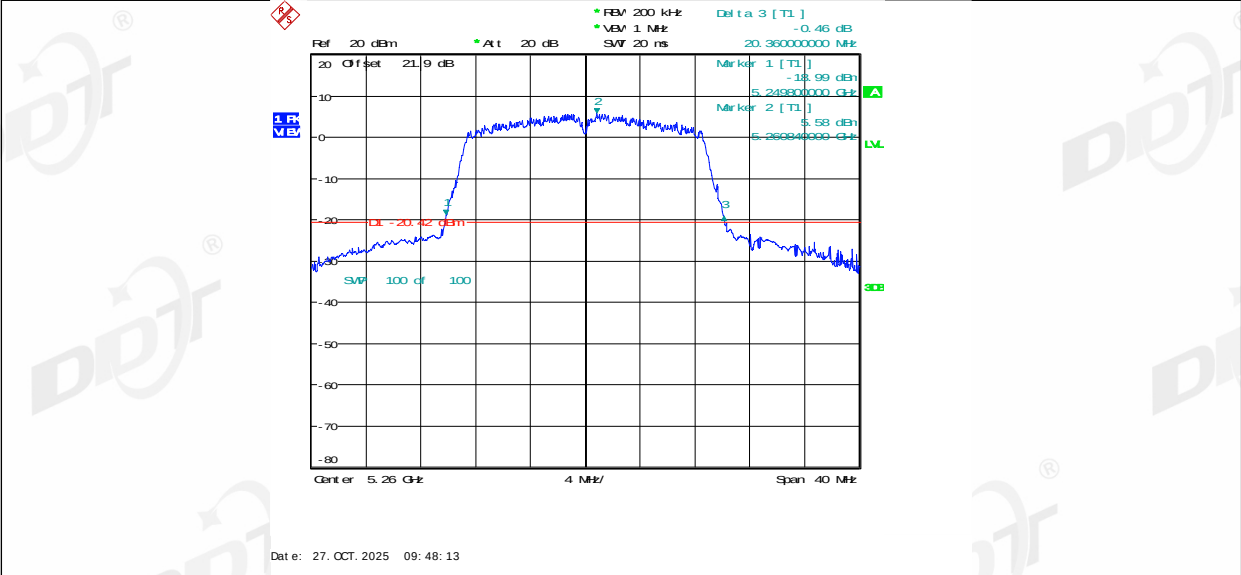
11N20SISO Ant1 5200



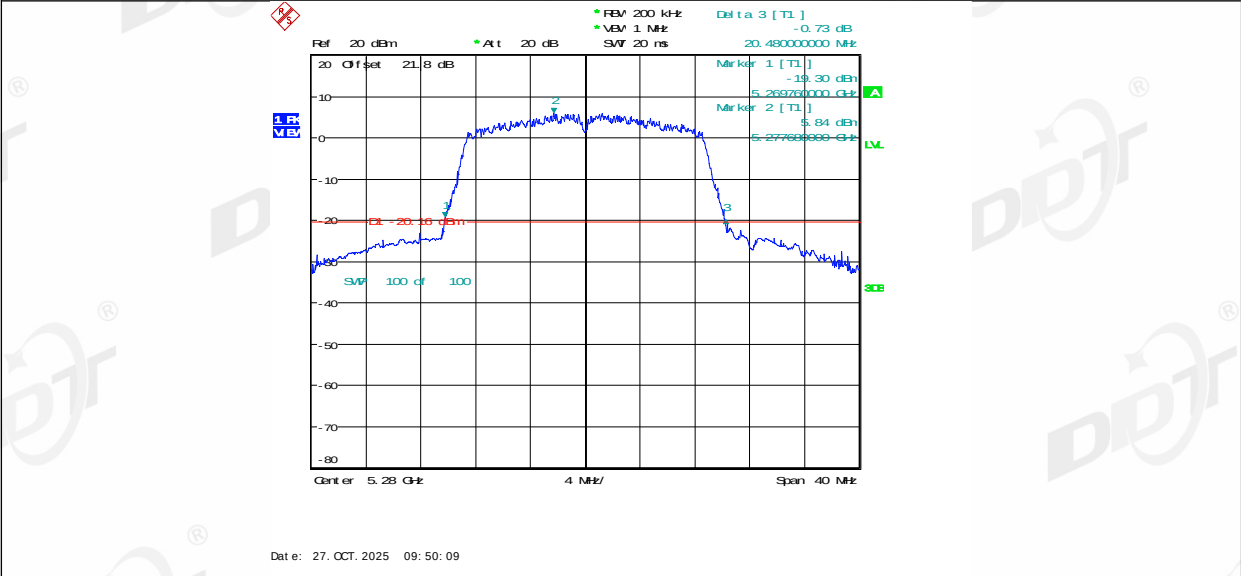
11N20SISO Ant1 5240



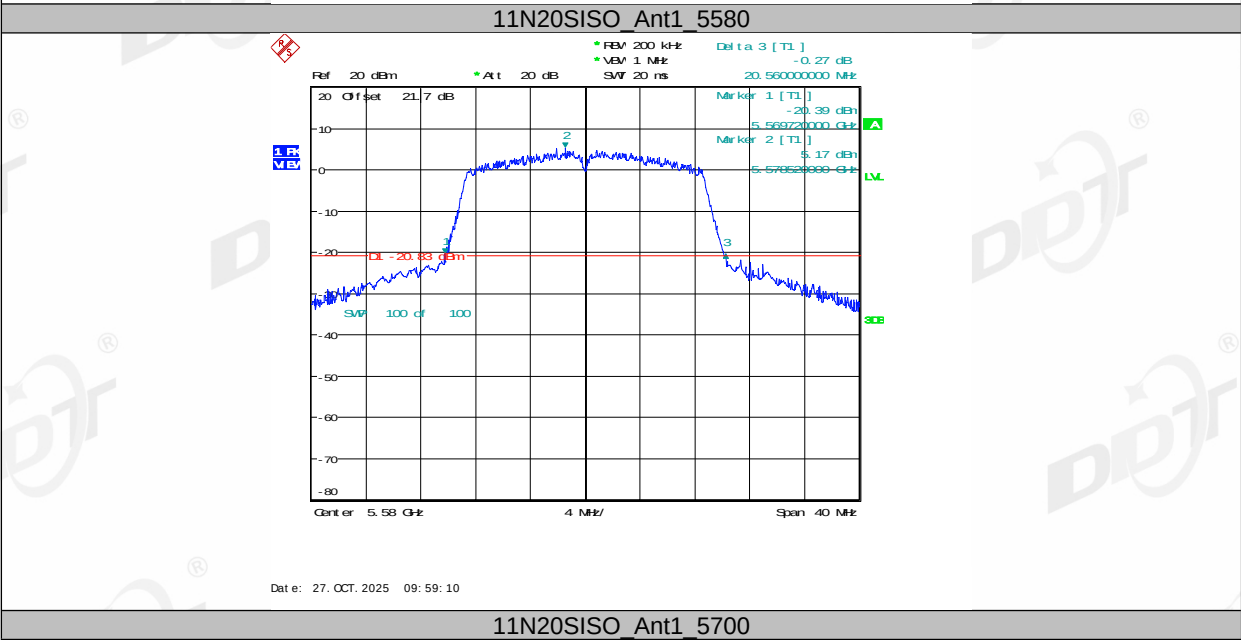
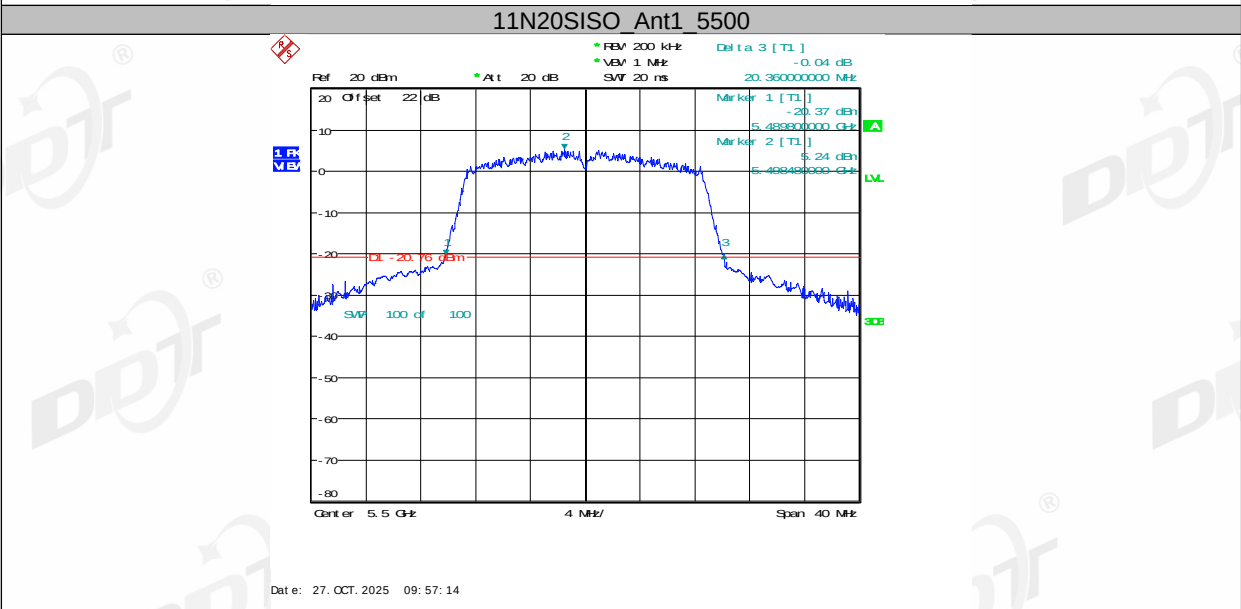
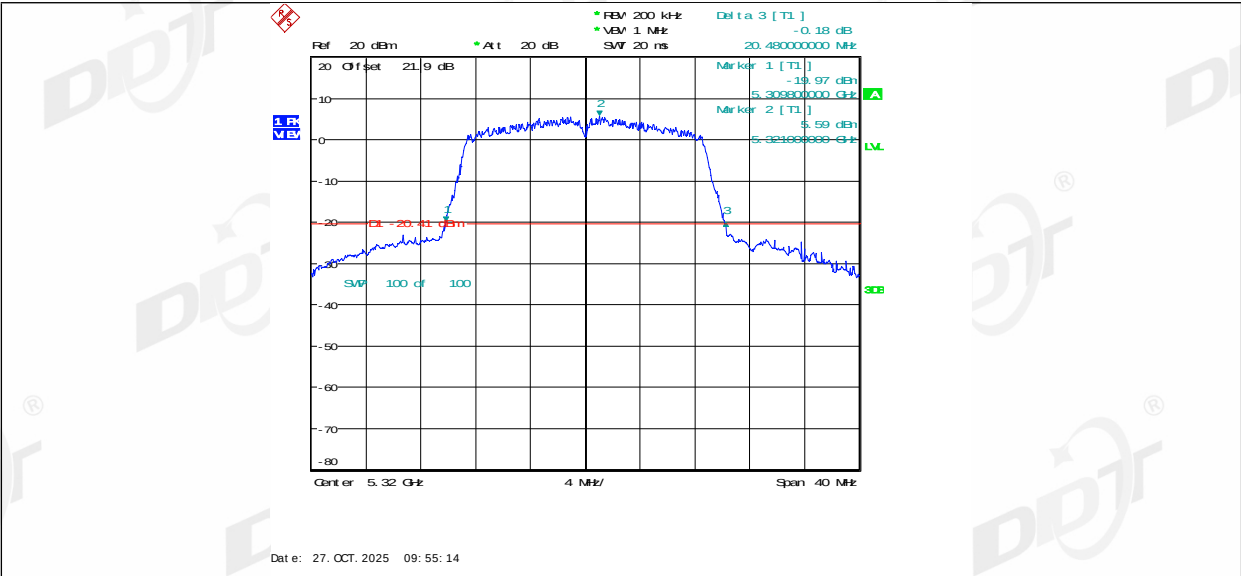
11N20SISO Ant1 5260

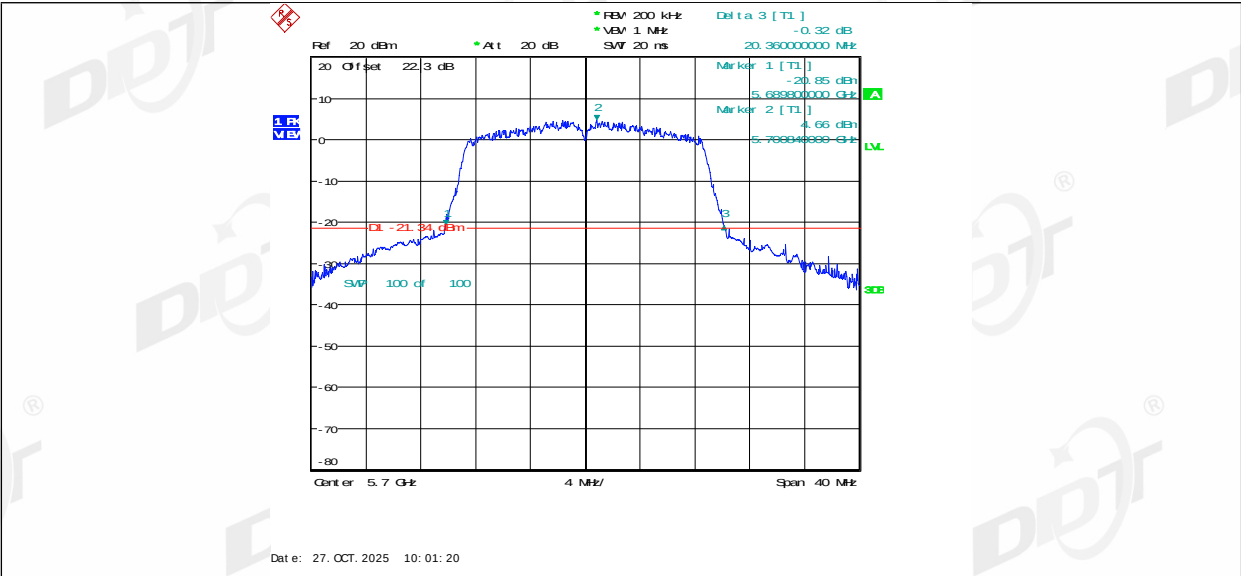


11N20SISO Ant1 5280

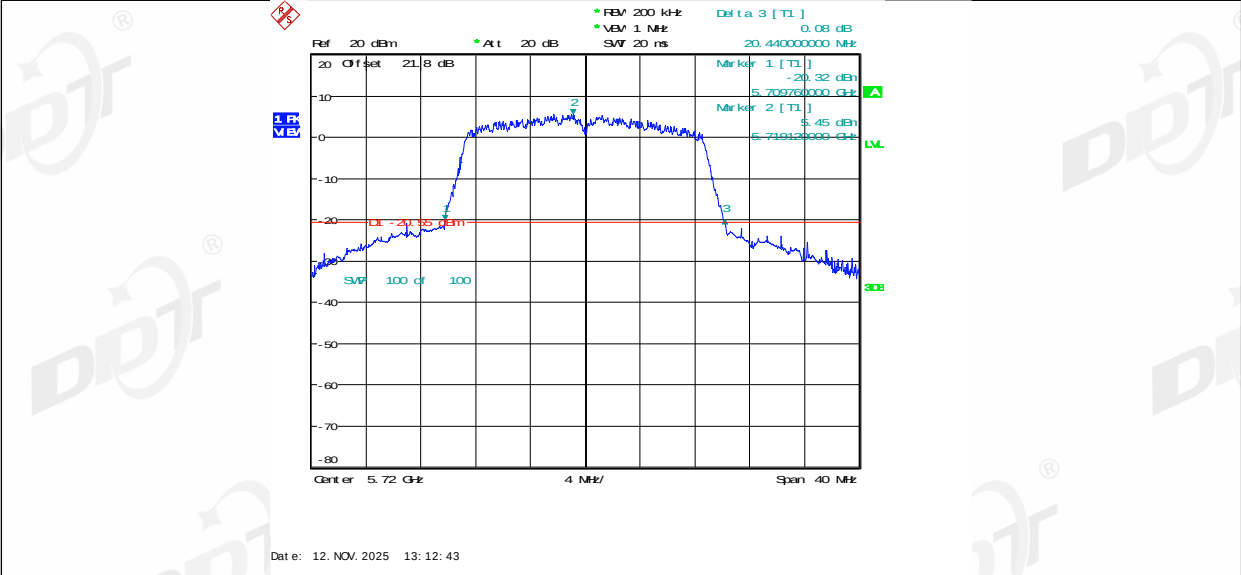


11N20SISO Ant1 5320

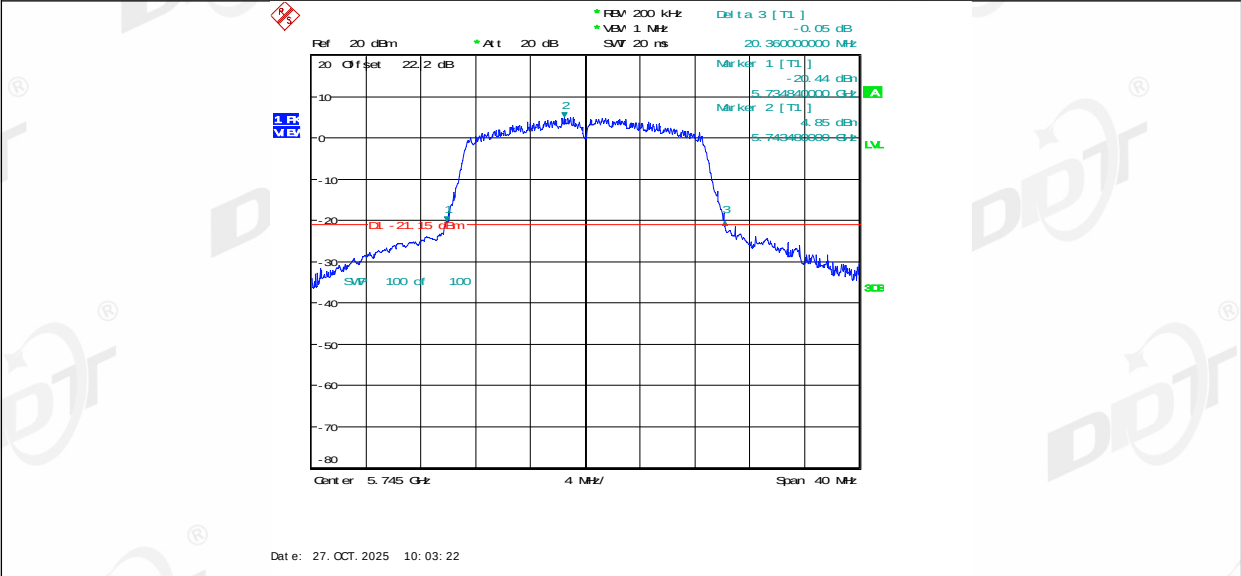




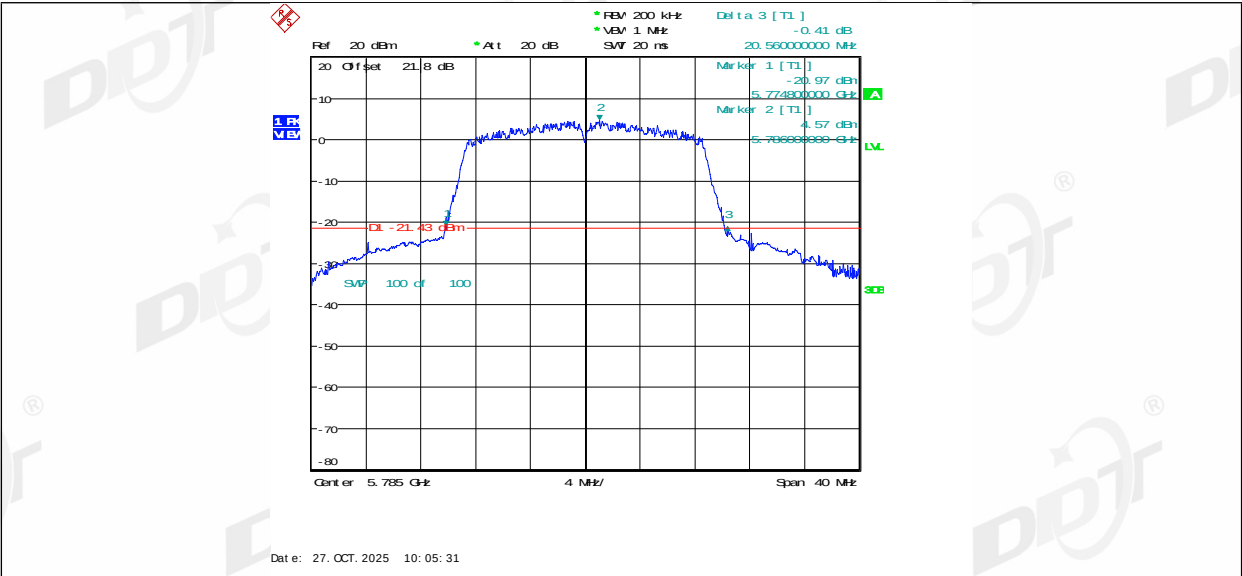
11N20SISO Ant1 5720



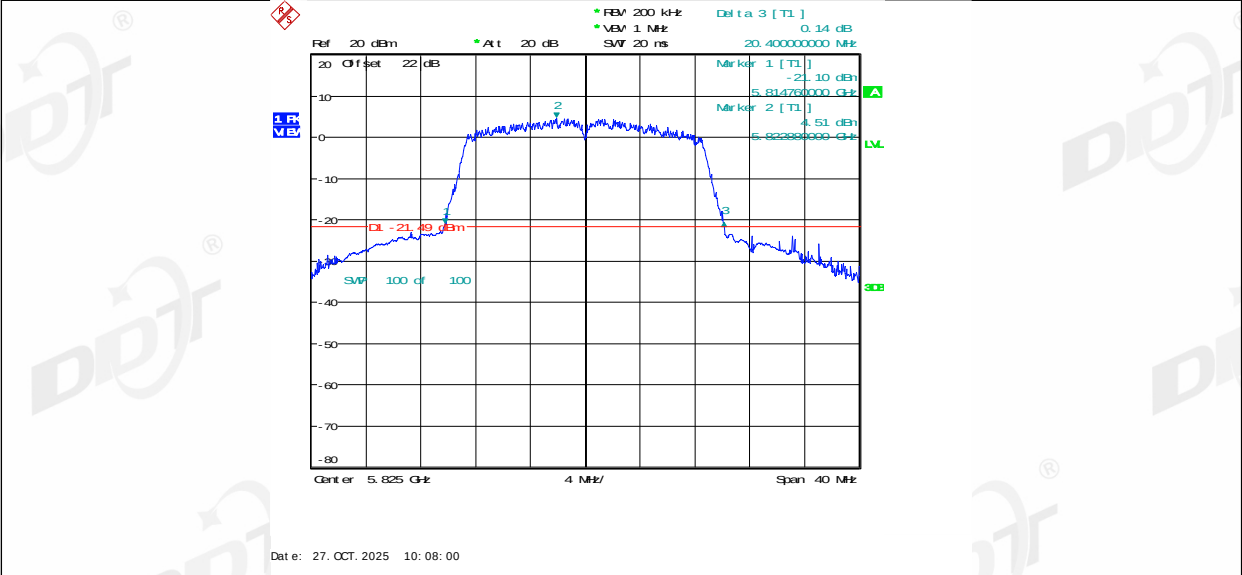
11N20SISO Ant1 5745



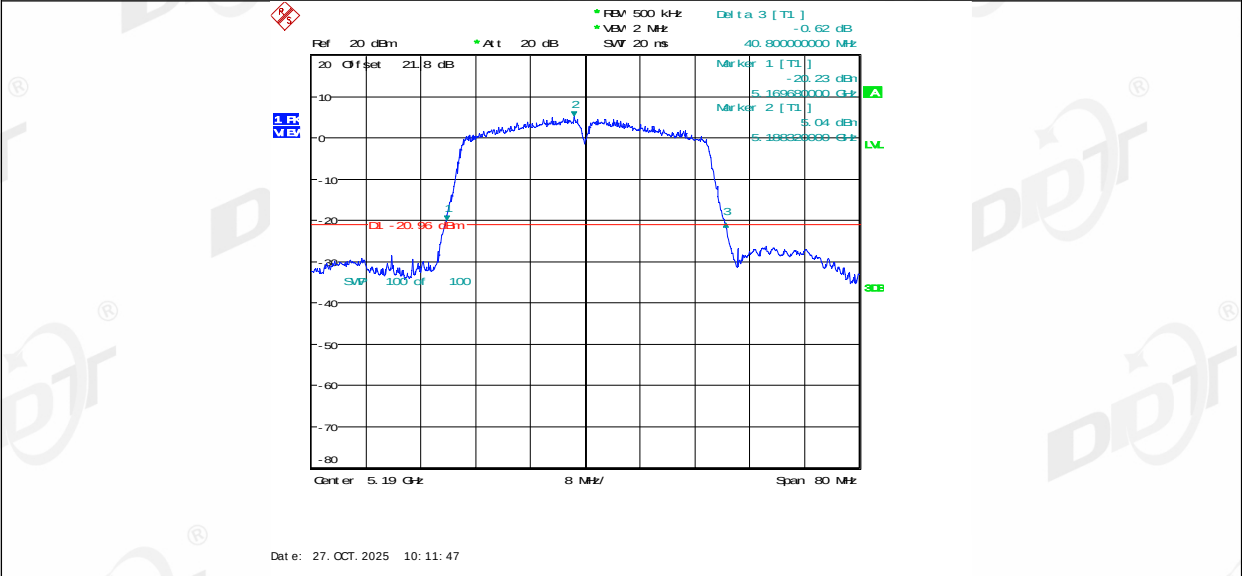
11N20SISO Ant1 5785



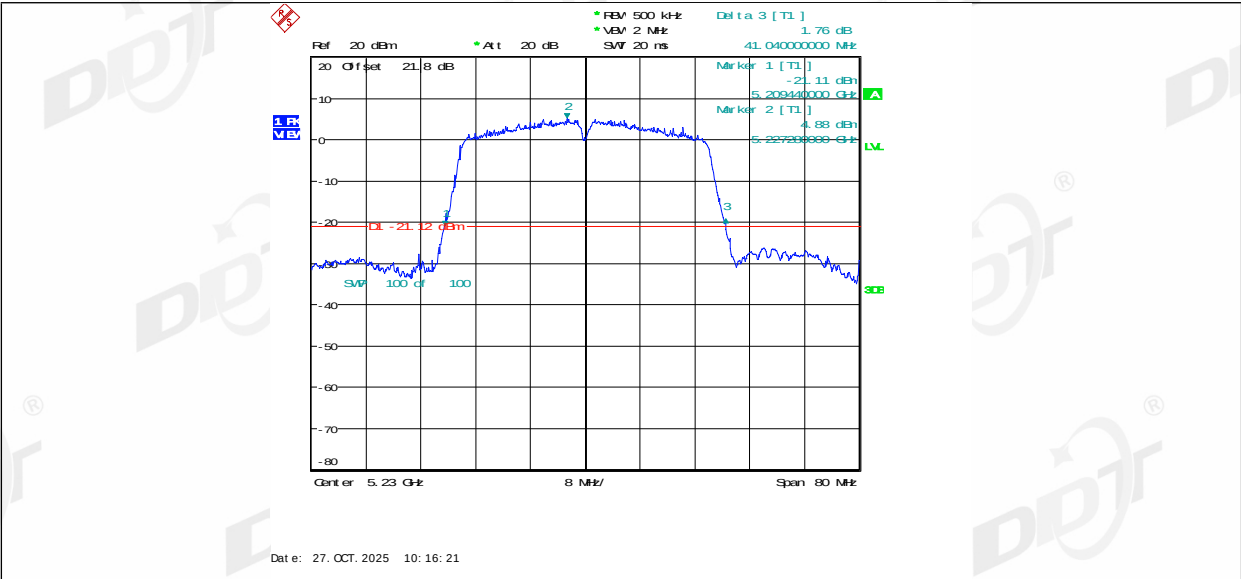
11N20SISO Ant1 5825



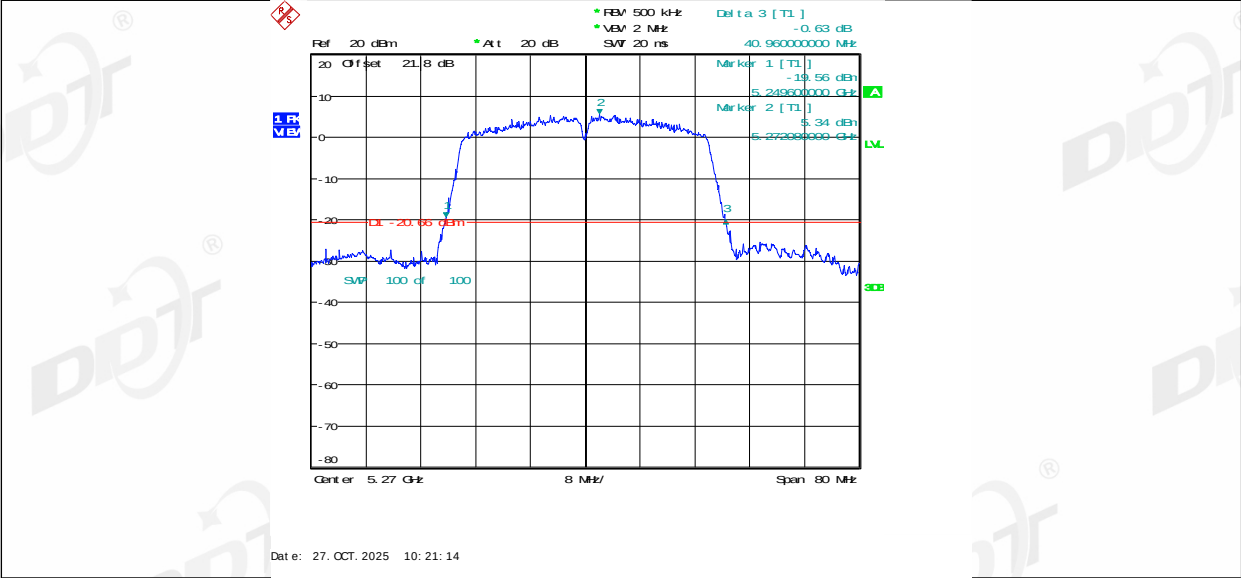
11N40SISO Ant1 5190



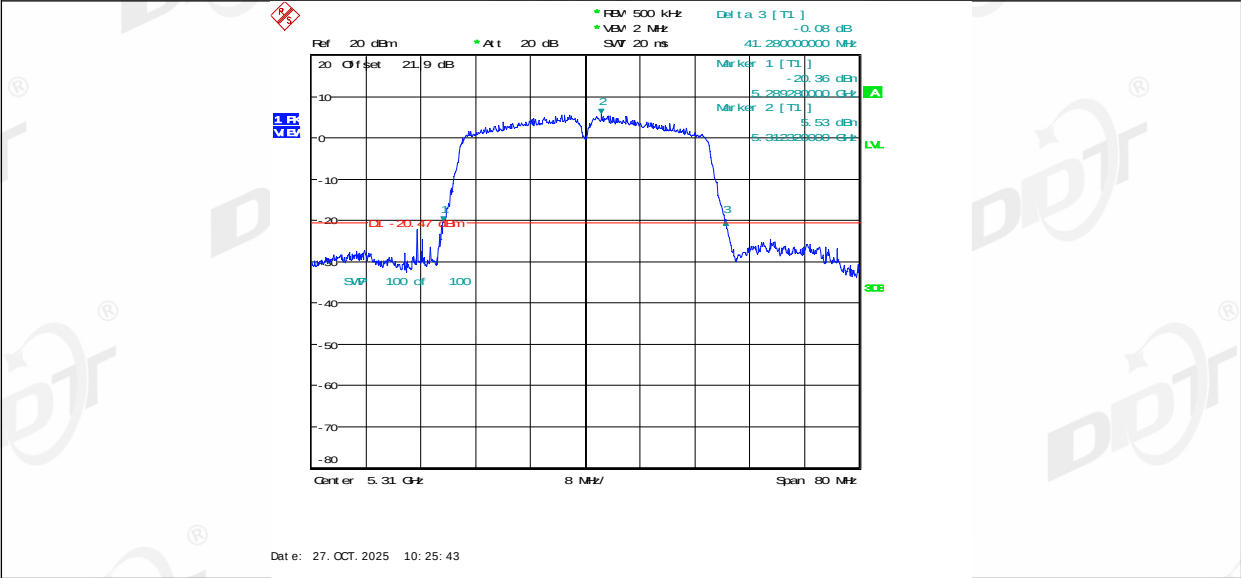
11N40SISO Ant1 5230



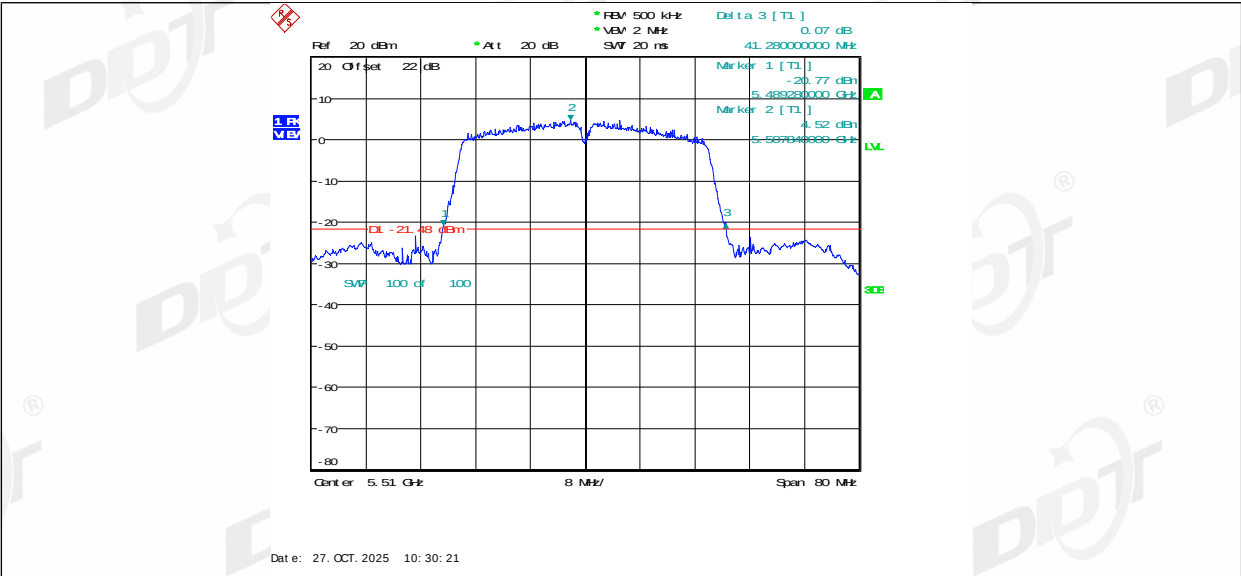
11N40SISO_Ant1_5270



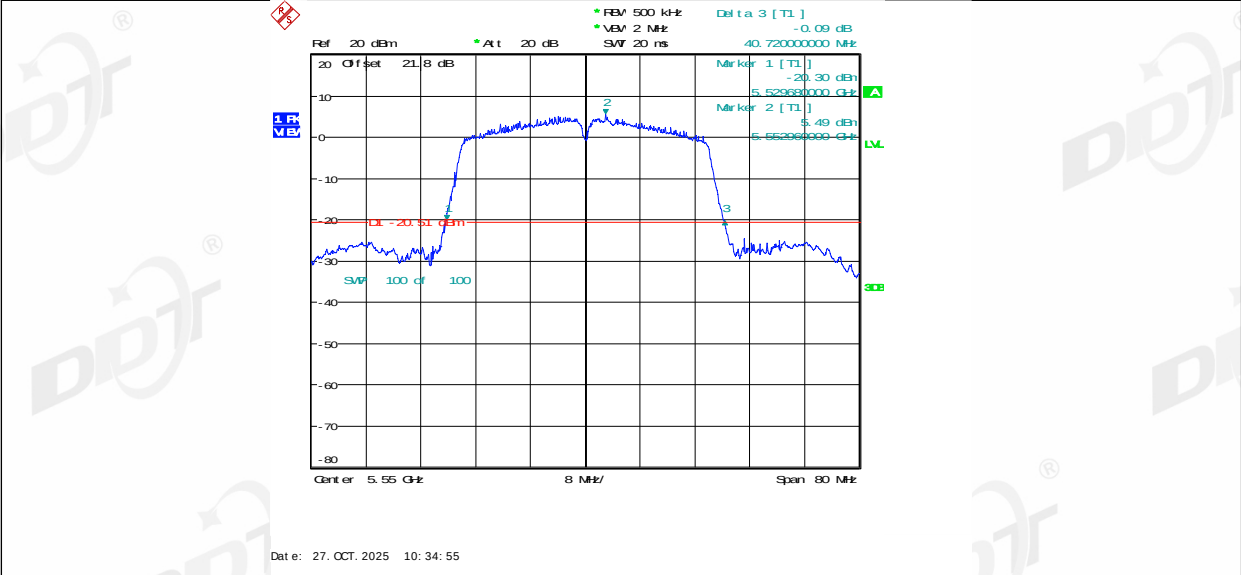
11N40SISO_Ant1_5310



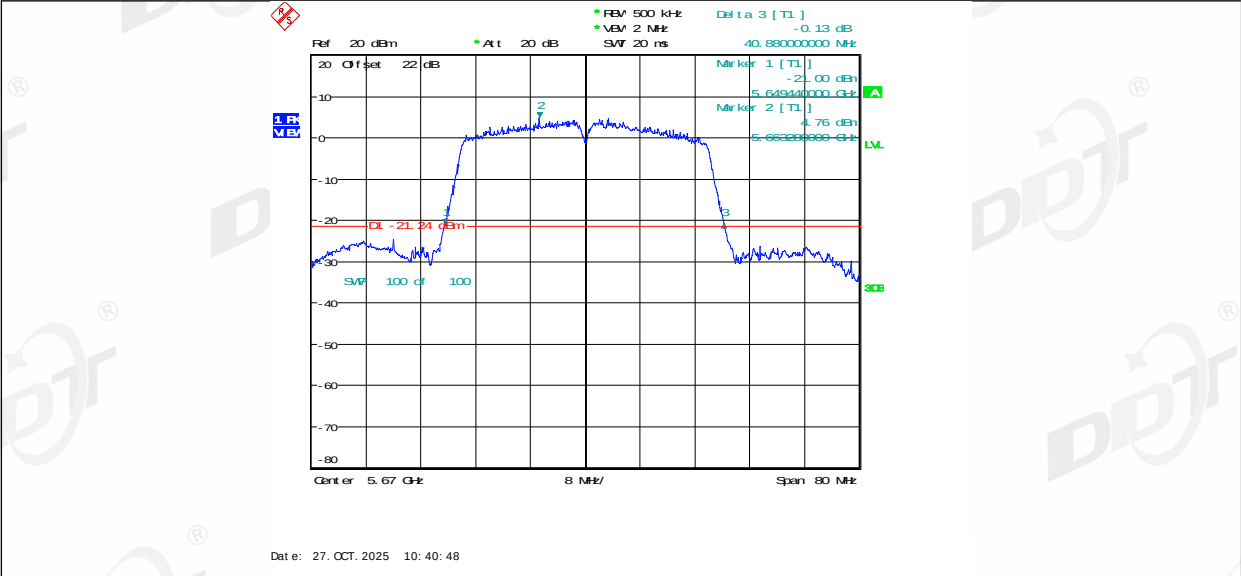
11N40SISO_Ant1_5510



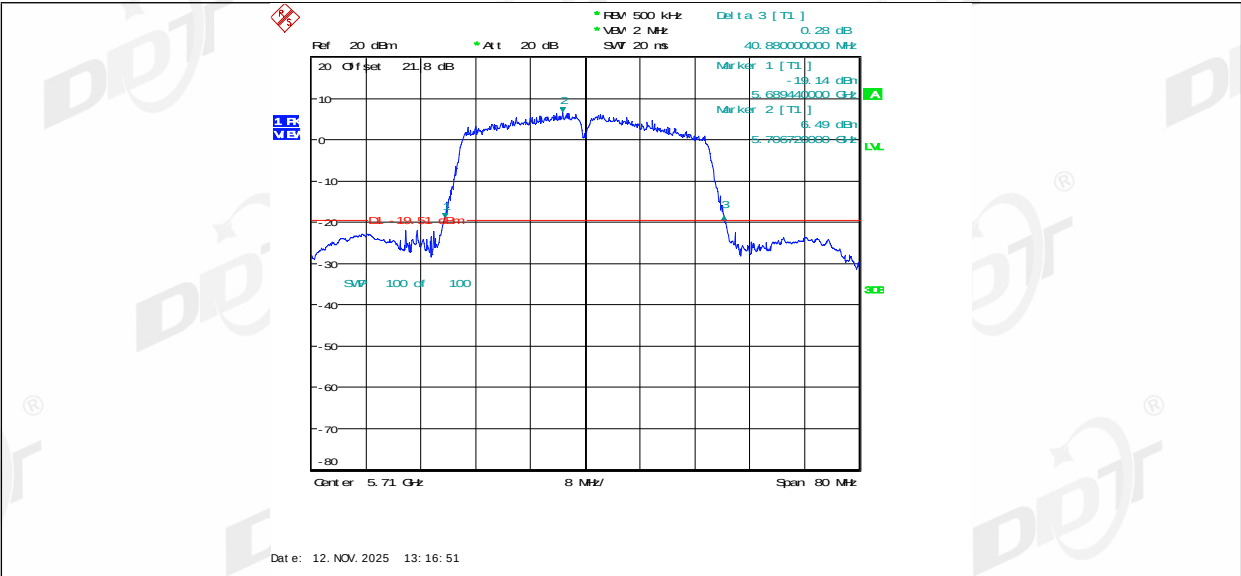
11N40SISO_Ant1_5550



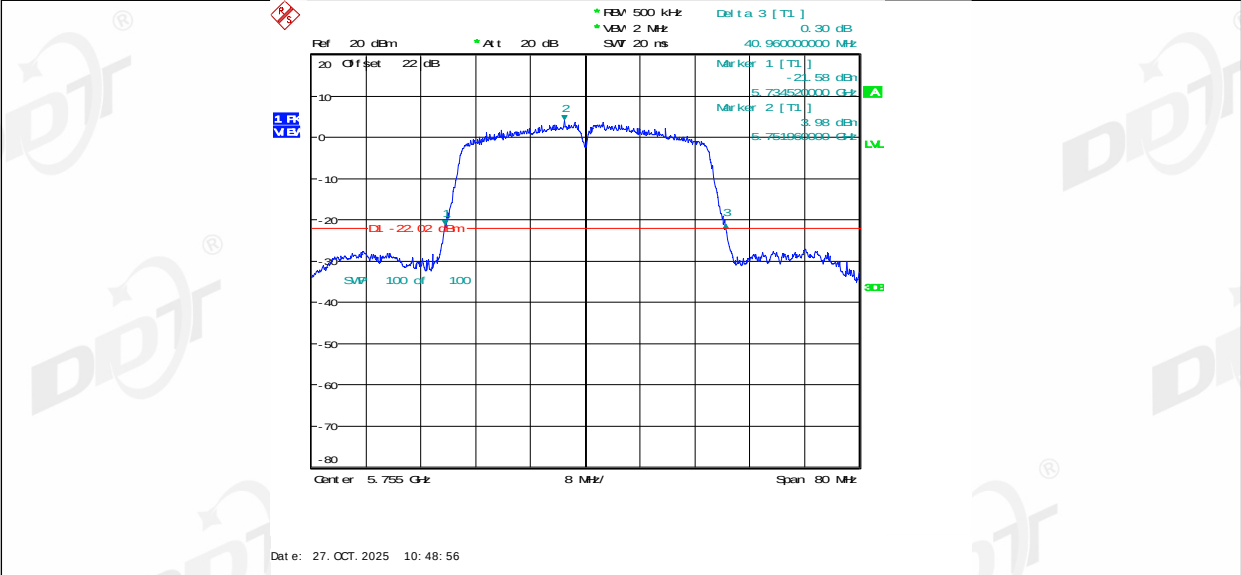
11N40SISO_Ant1_5670



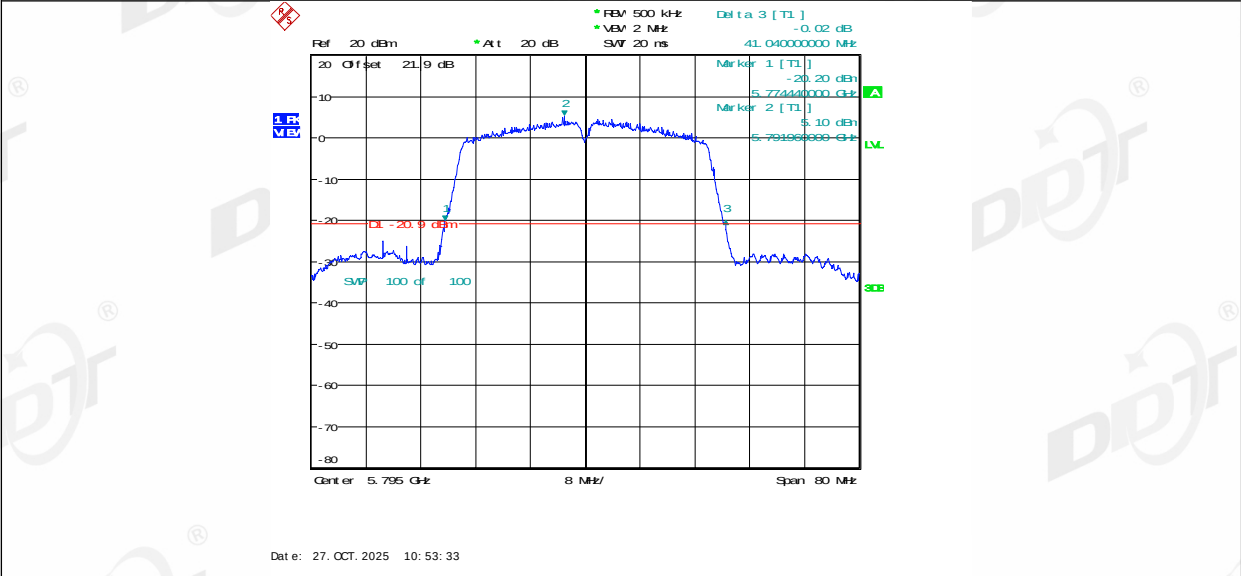
11N40SISO_Ant1_5710



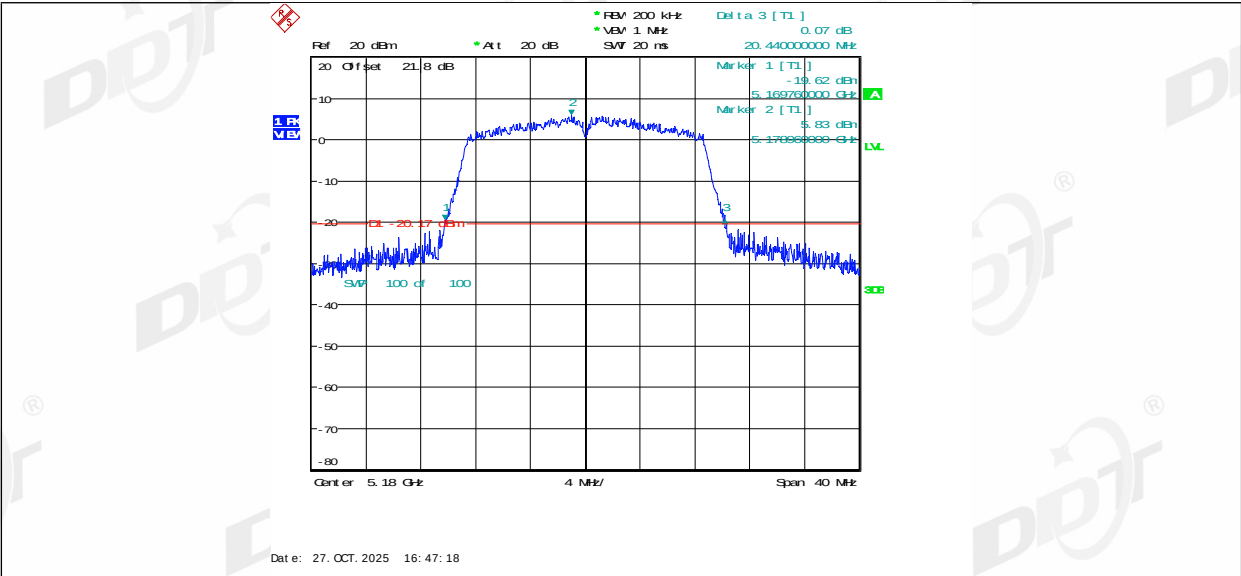
11N40SISO Ant1 5755



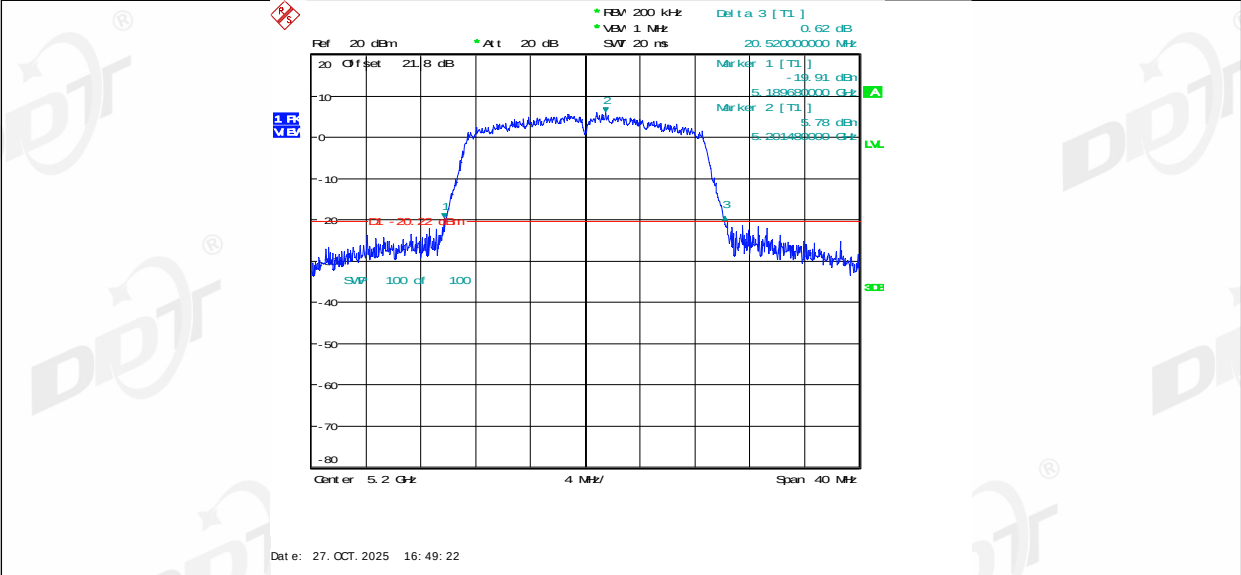
11N40SISO Ant1 5795



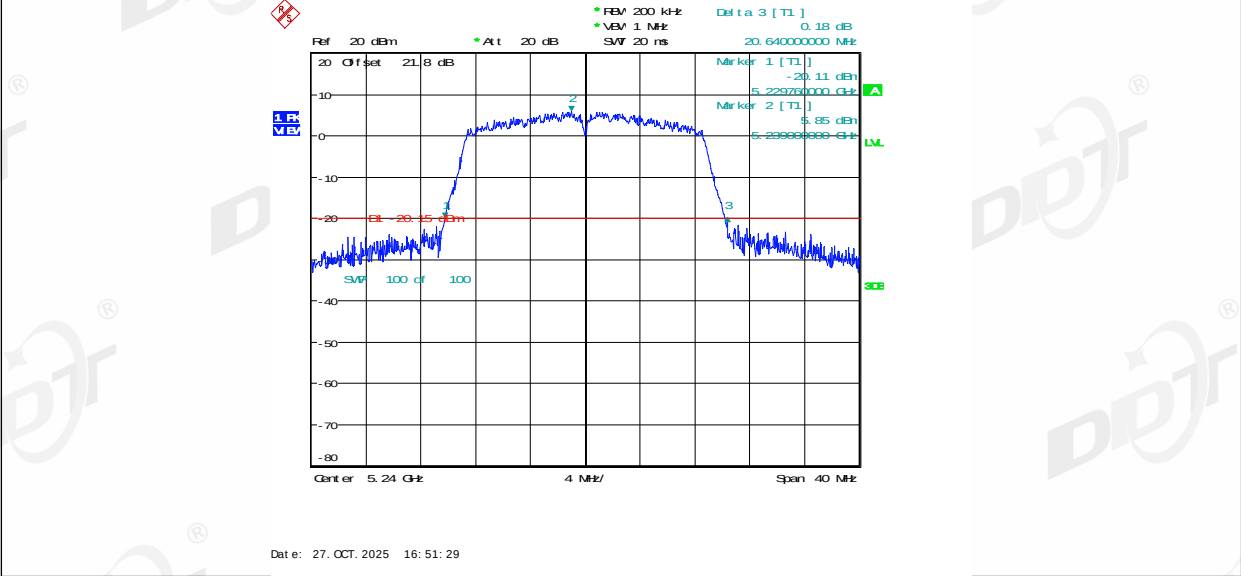
11AC20SISO Ant1 5180



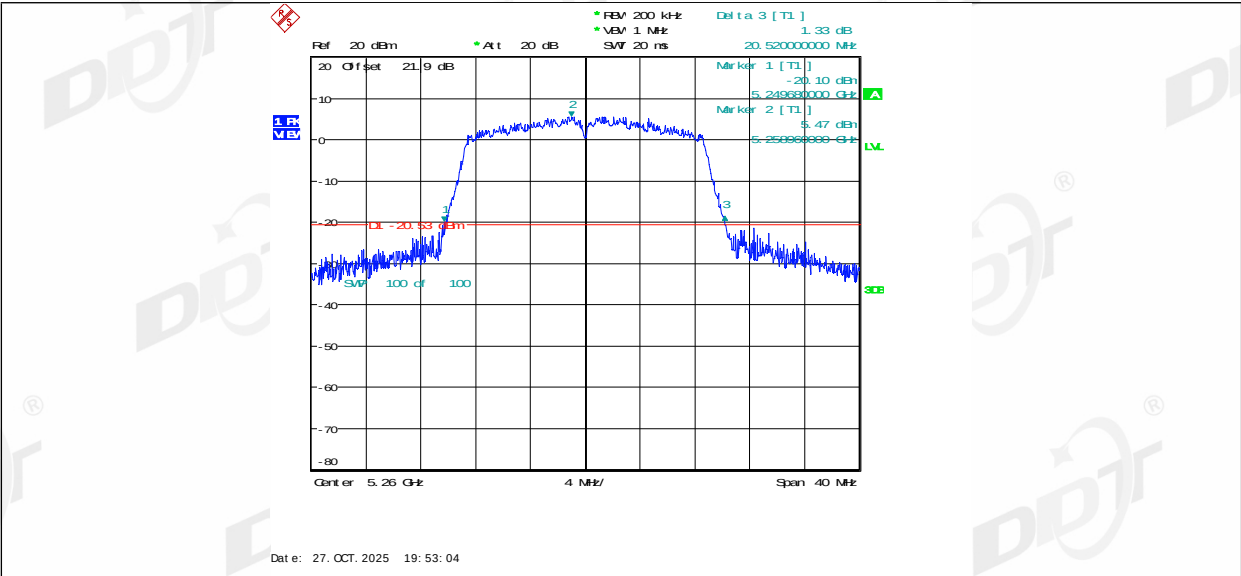
11AC20SISO Ant1 5200



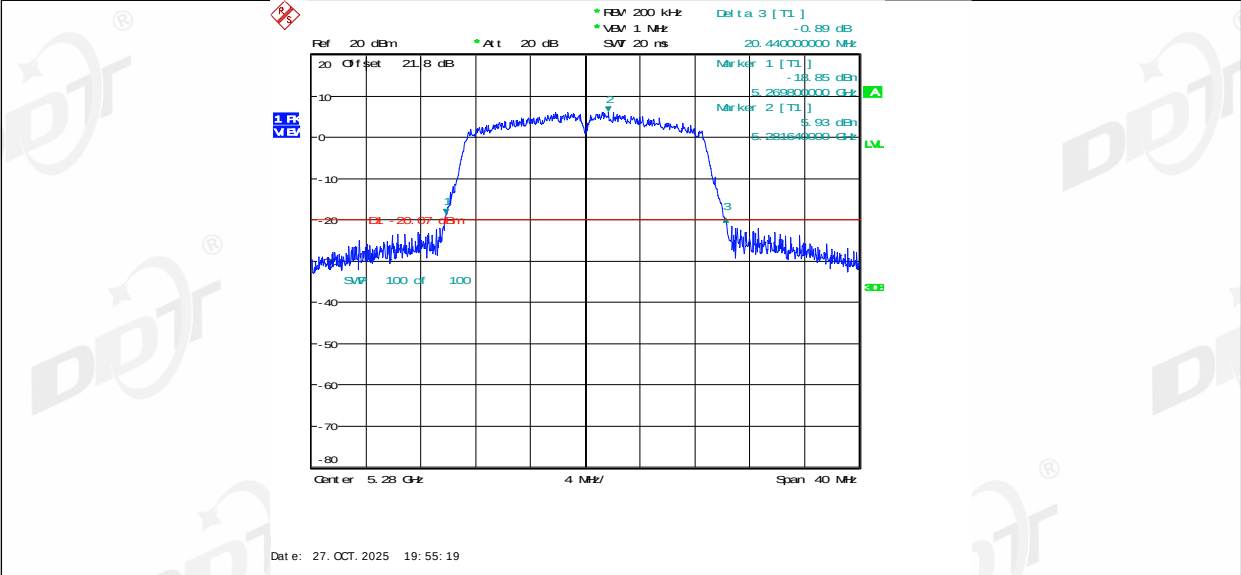
11AC20SISO Ant1 5240



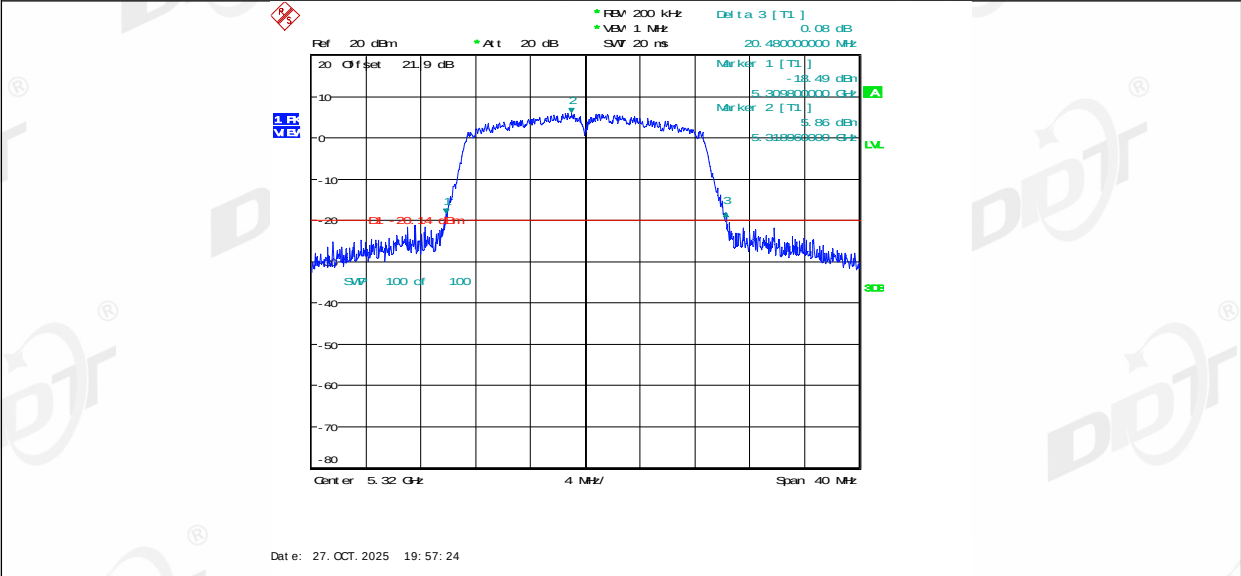
11AC20SISO Ant1 5260



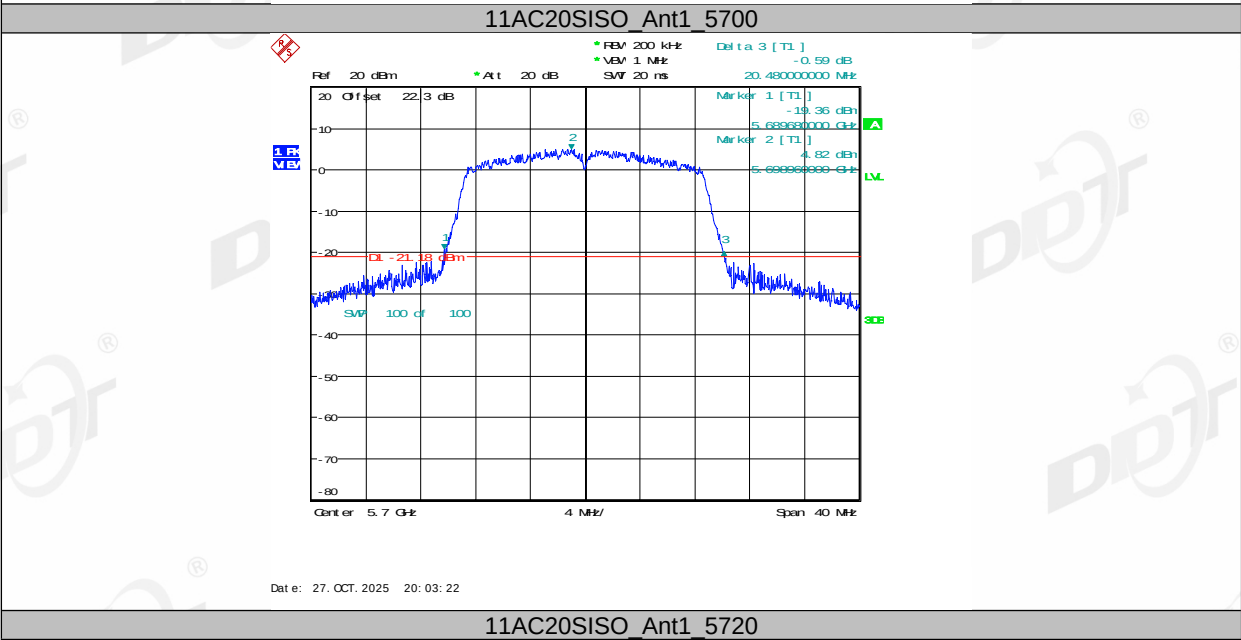
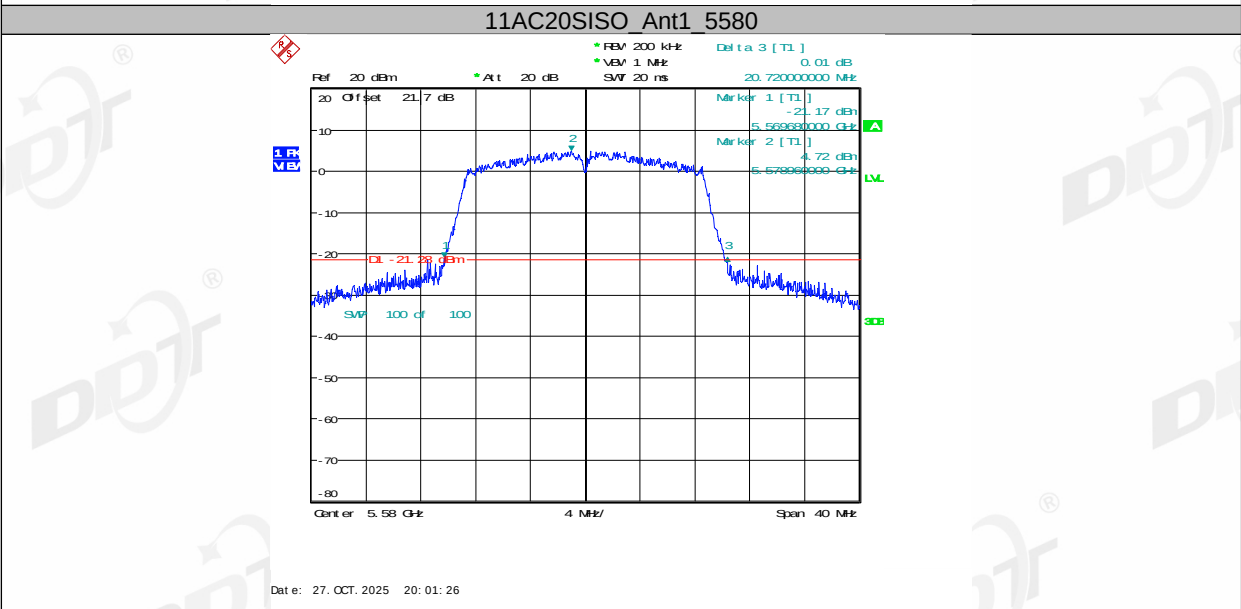
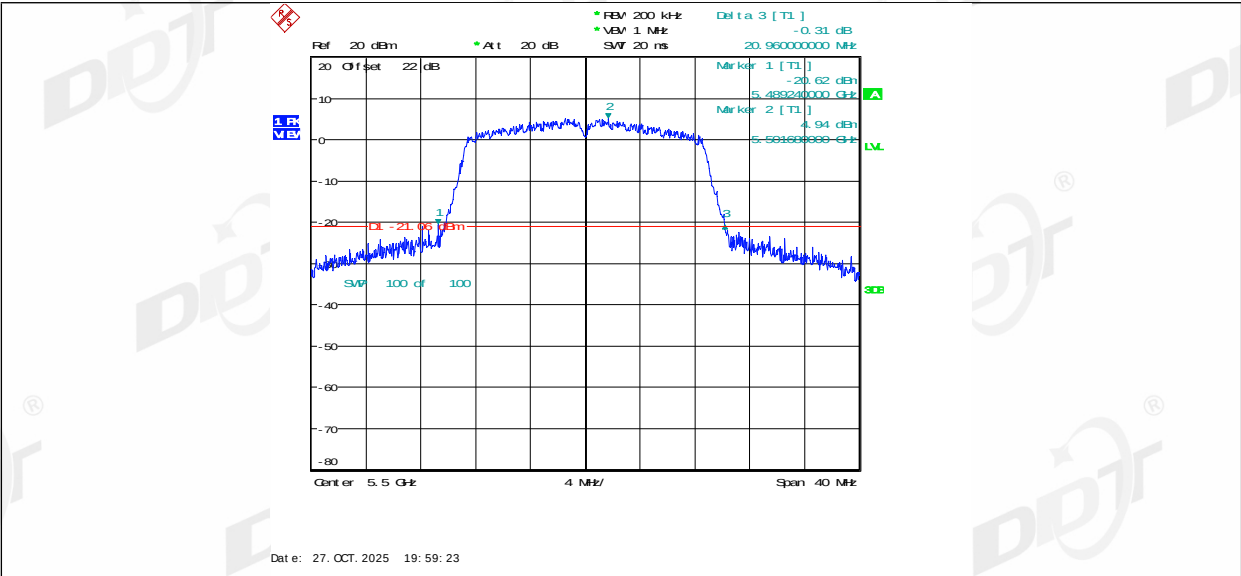
11AC20SISO Ant1 5280

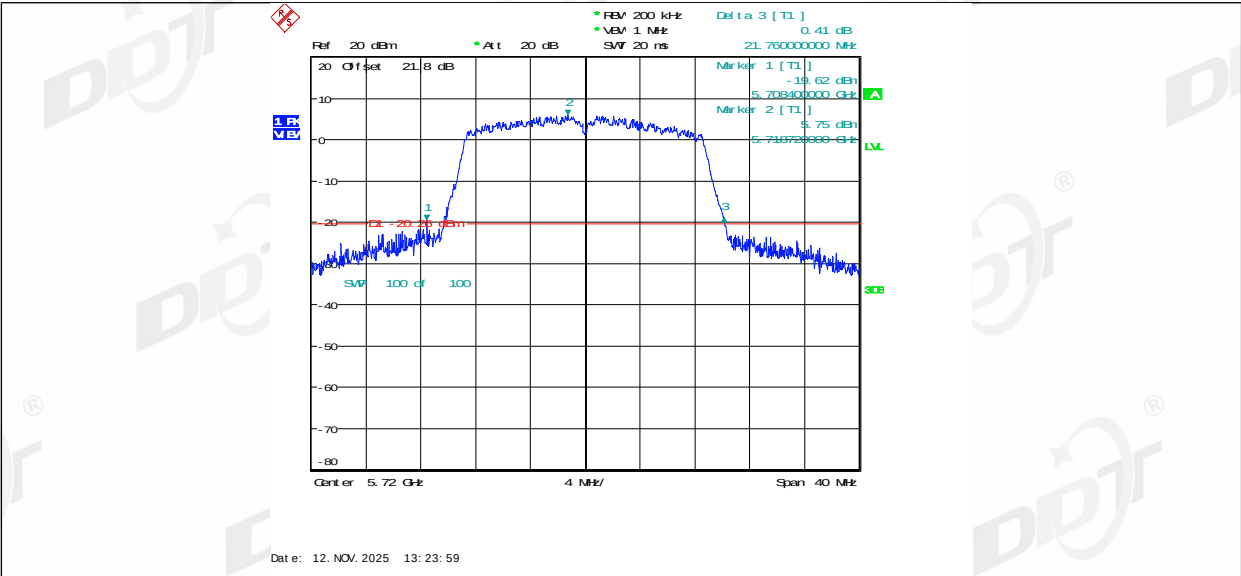


11AC20SISO Ant1 5320

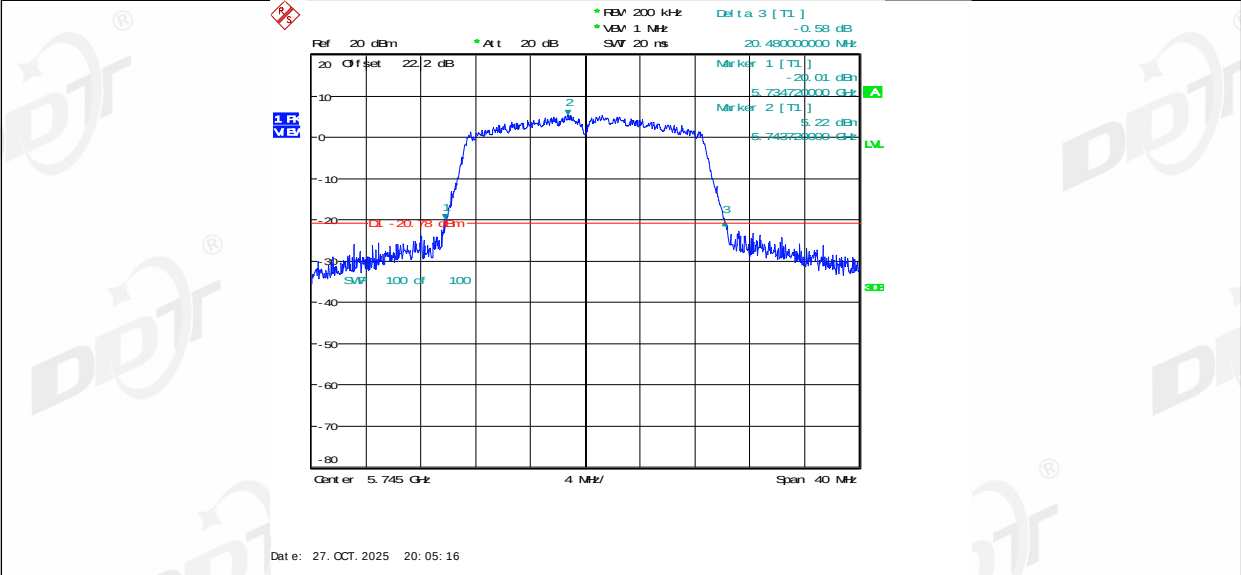


11AC20SISO Ant1 5500

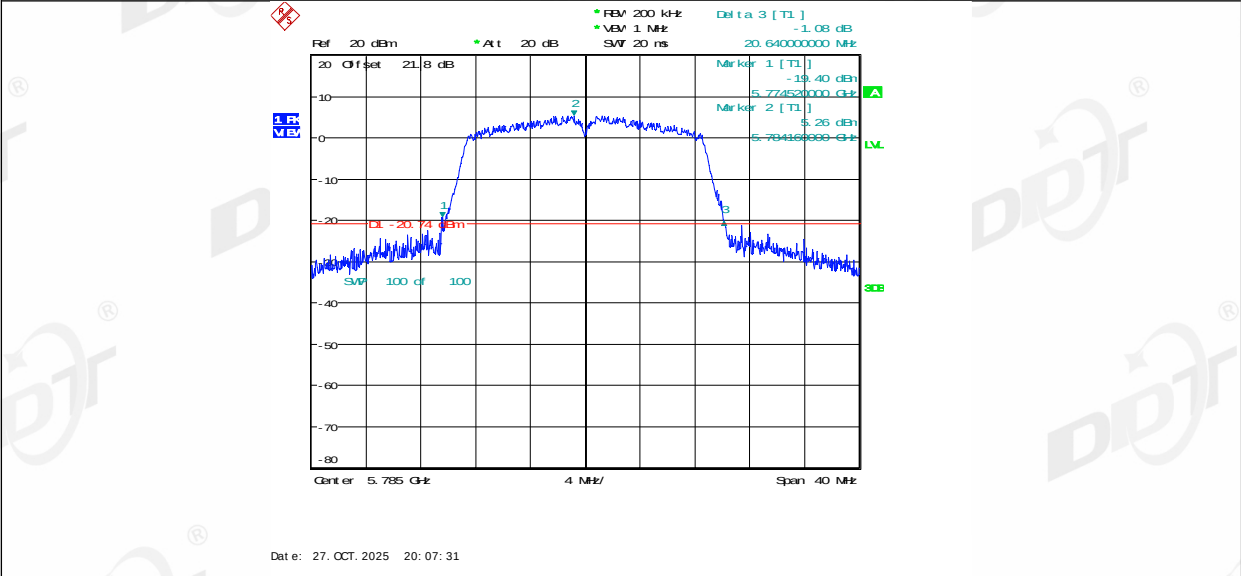




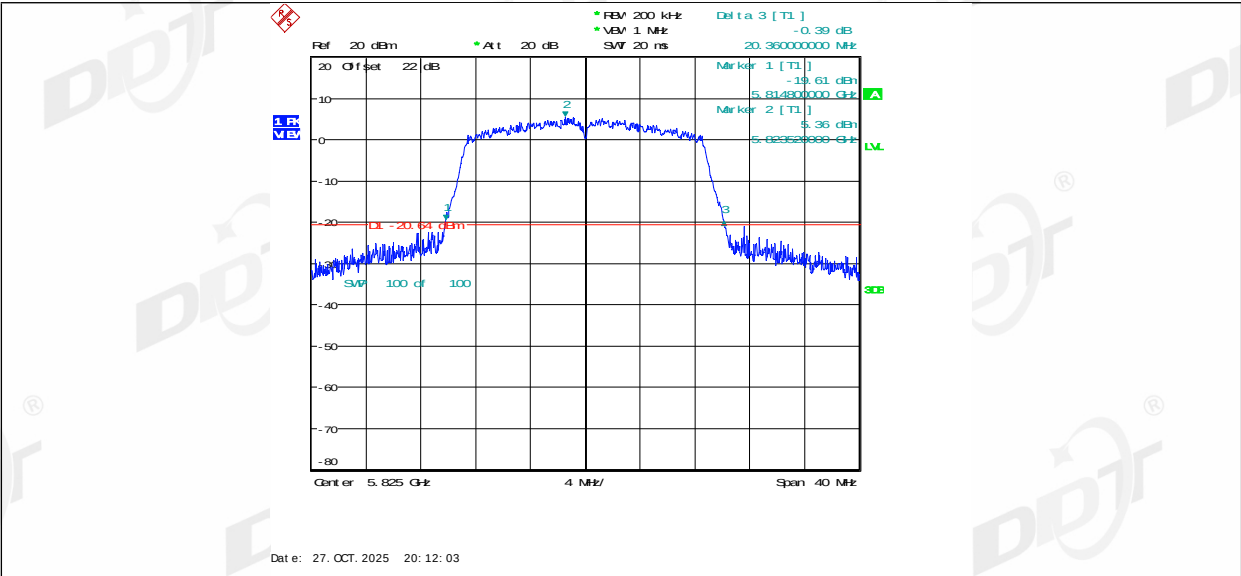
11AC20SISO Ant1 5745



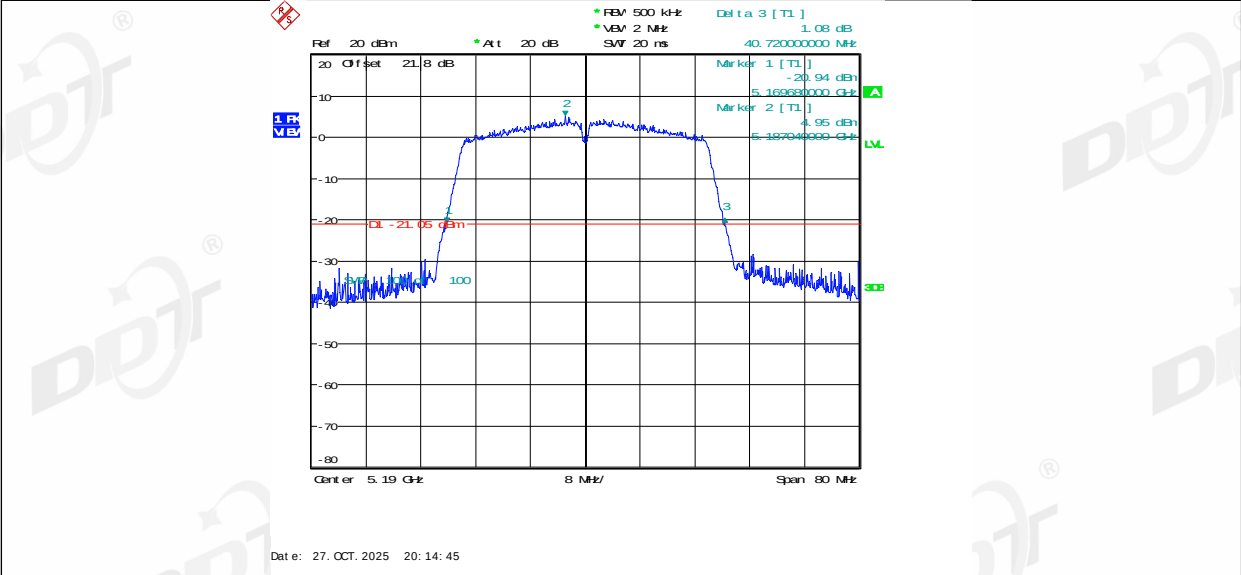
11AC20SISO Ant1 5785



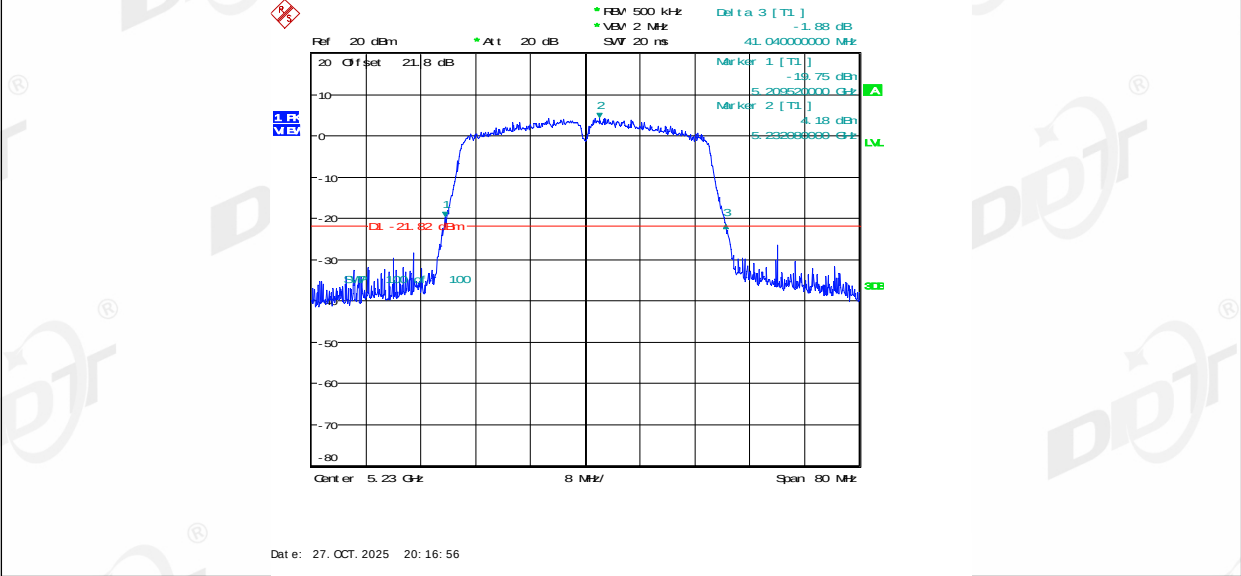
11AC20SISO Ant1 5825



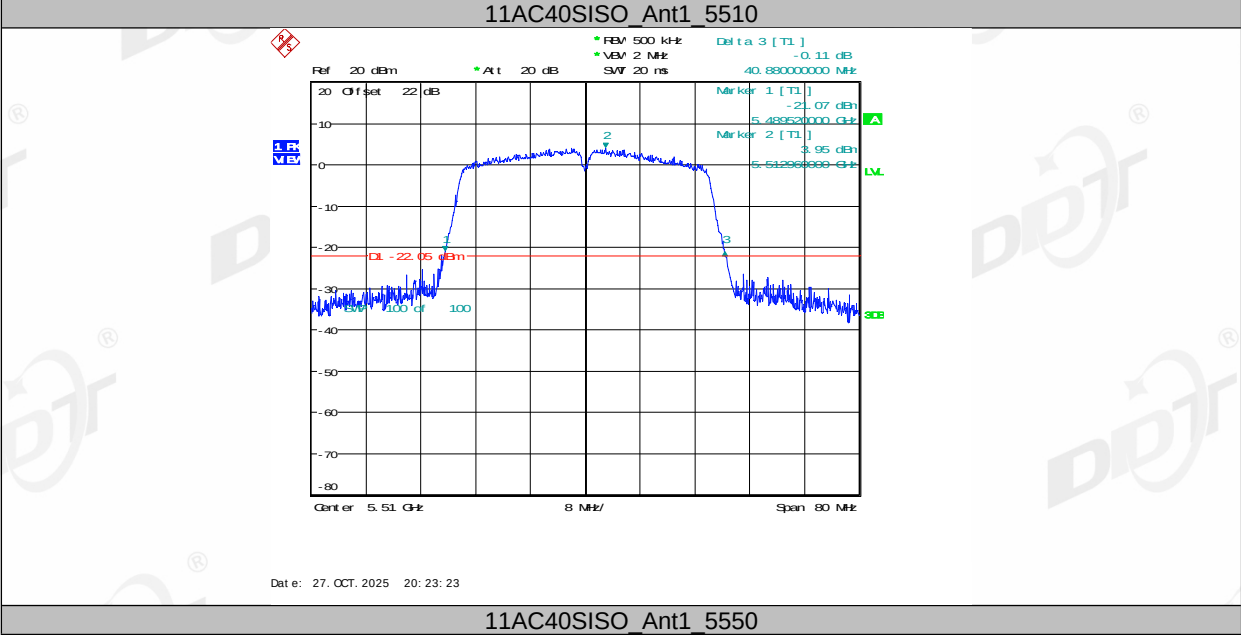
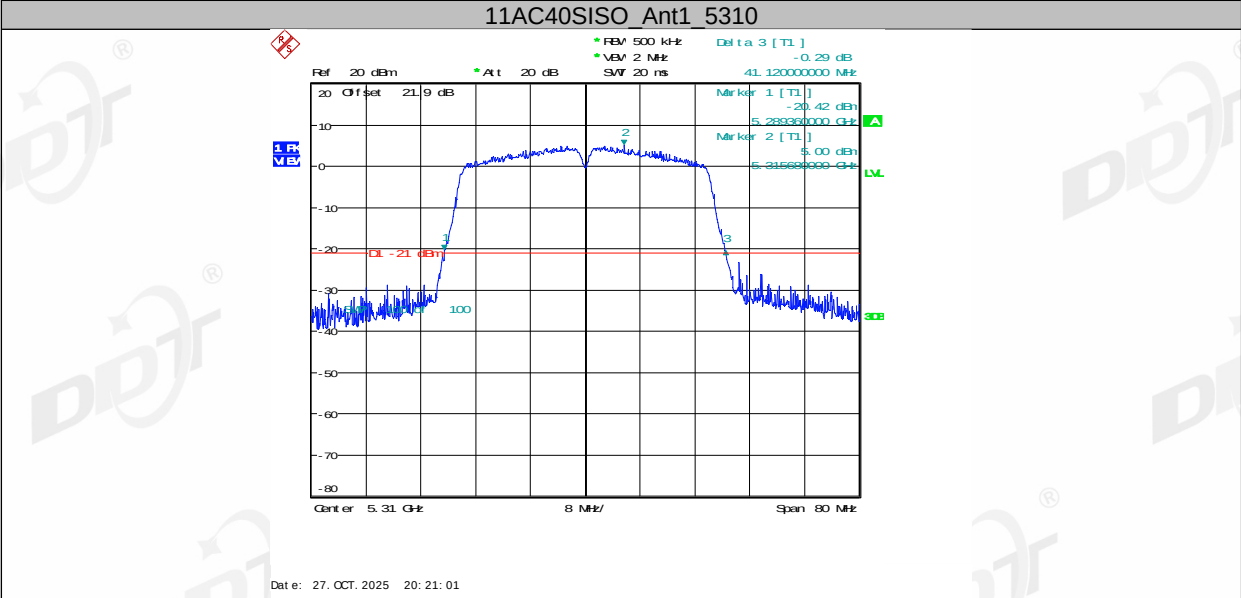
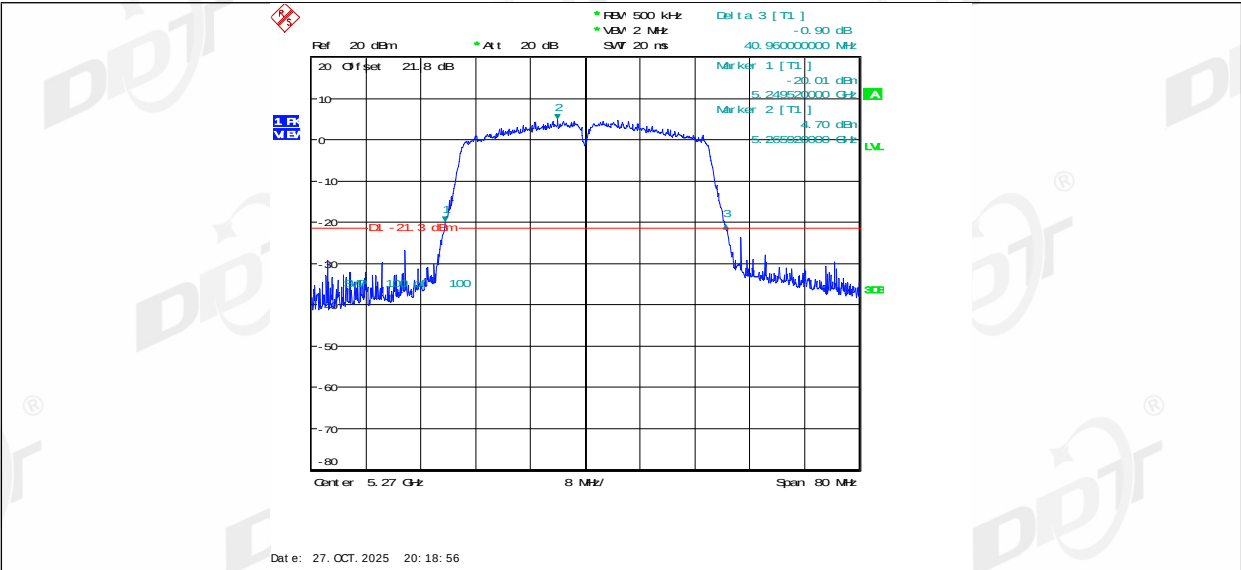
11AC40SISO Ant1 5190

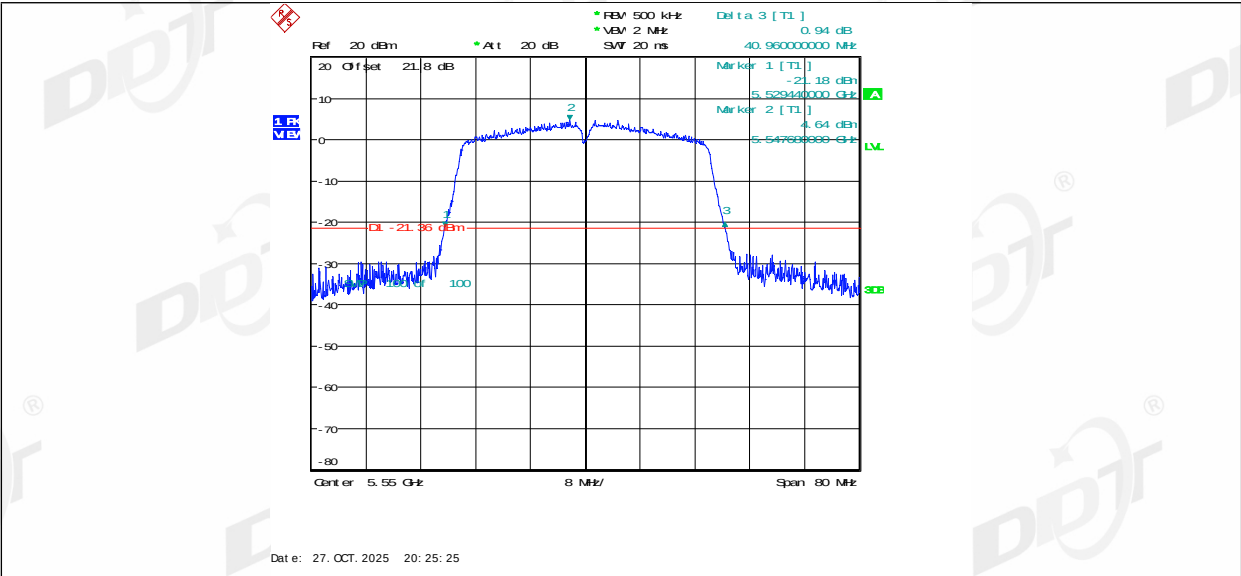


11AC40SISO Ant1 5230

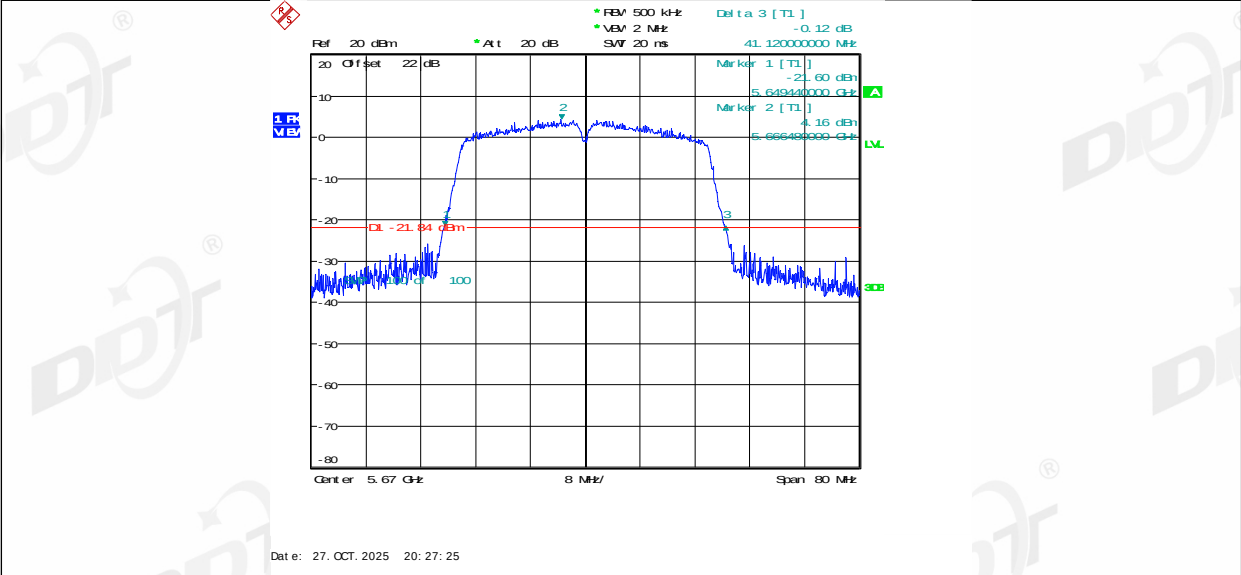


11AC40SISO Ant1 5270

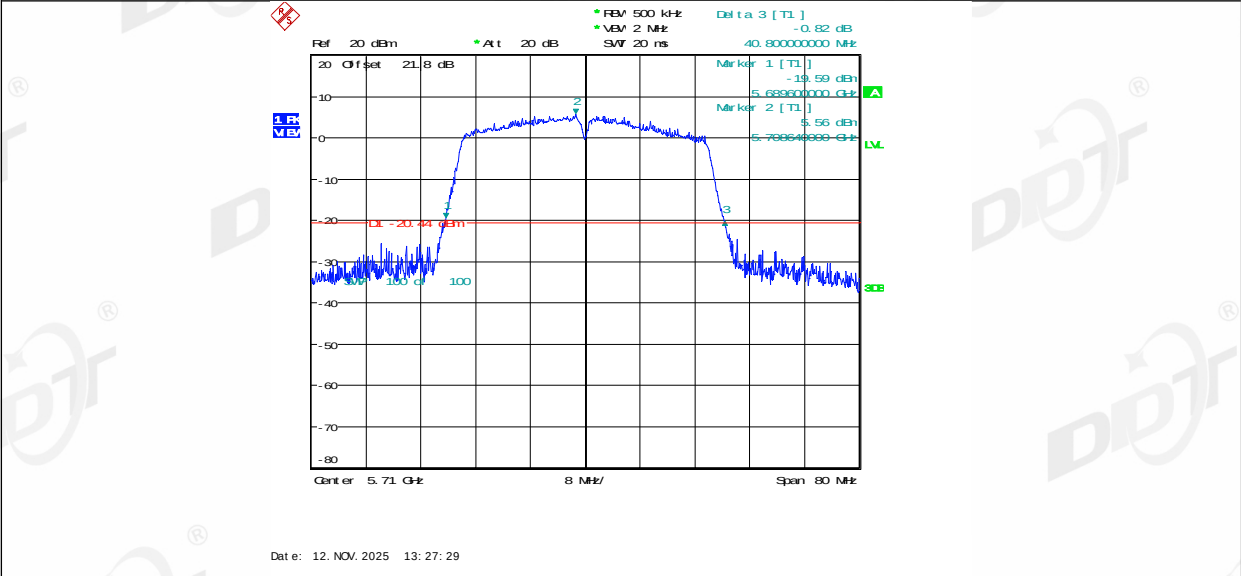




11AC40SISO_Ant1_5670



11AC40SISO_Ant1_5710



11AC40SISO_Ant1_5755

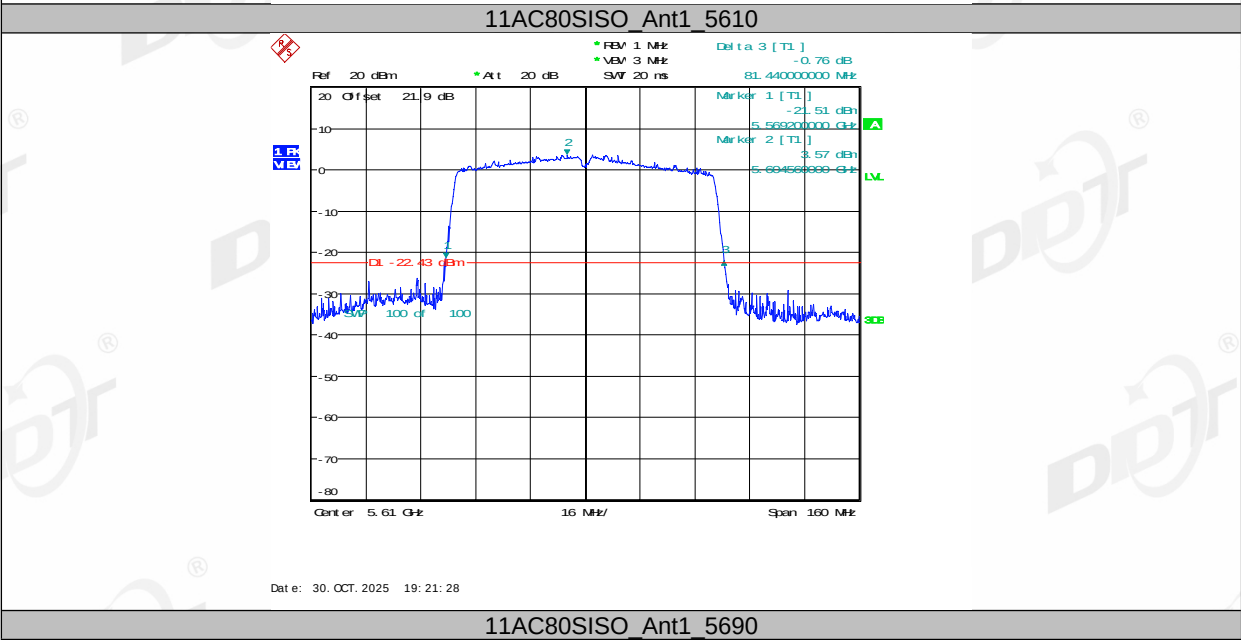
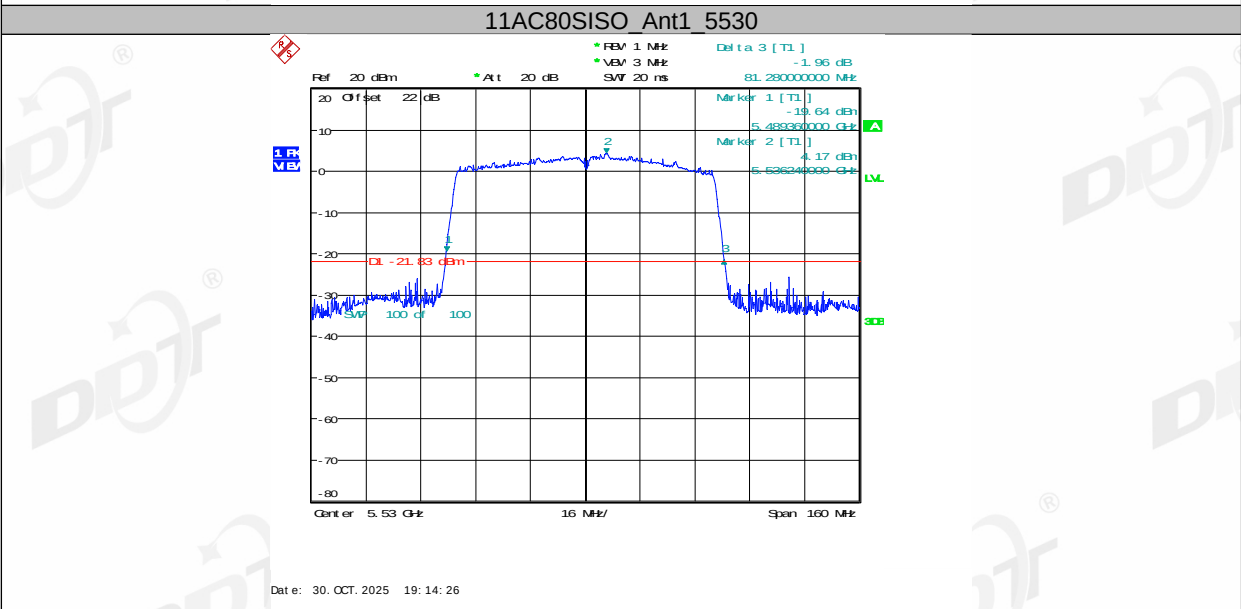
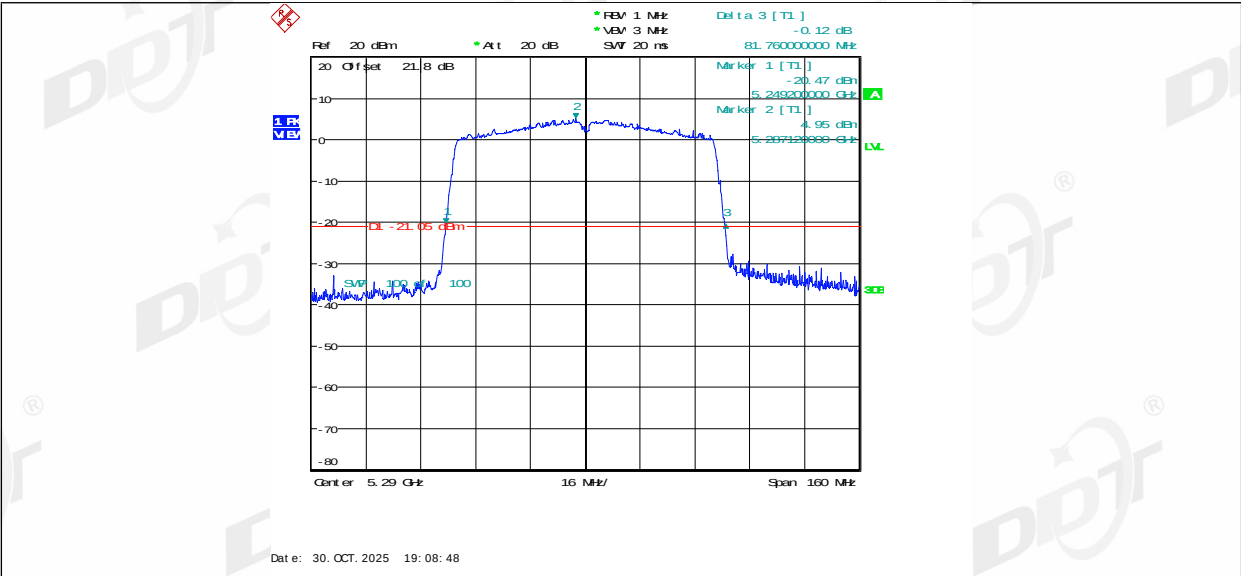


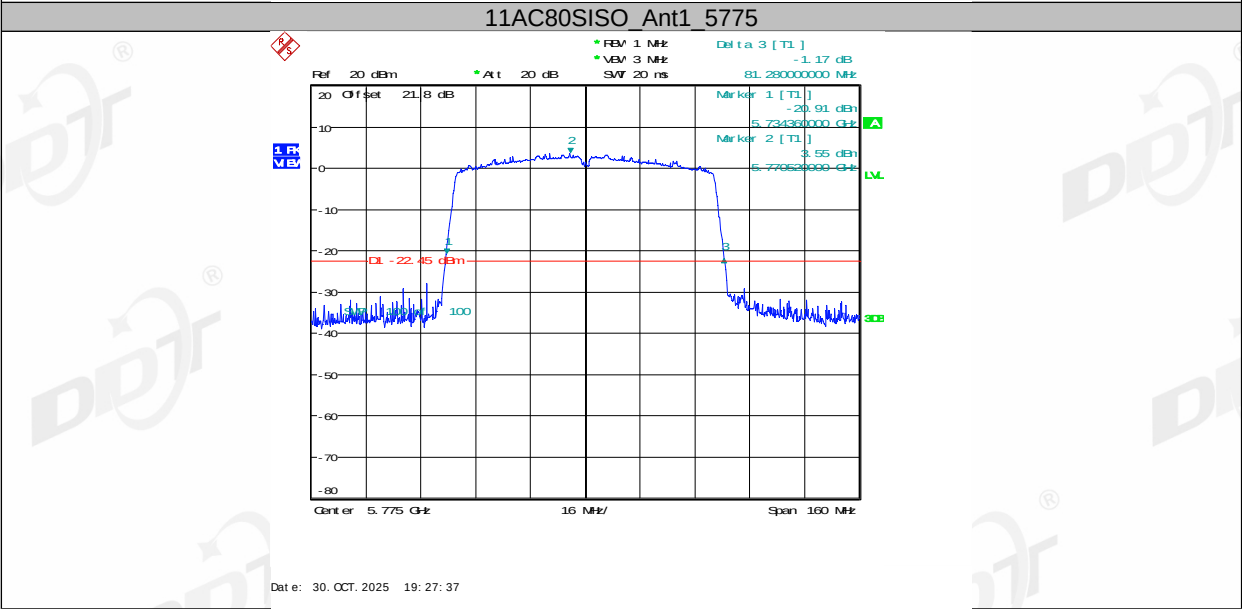
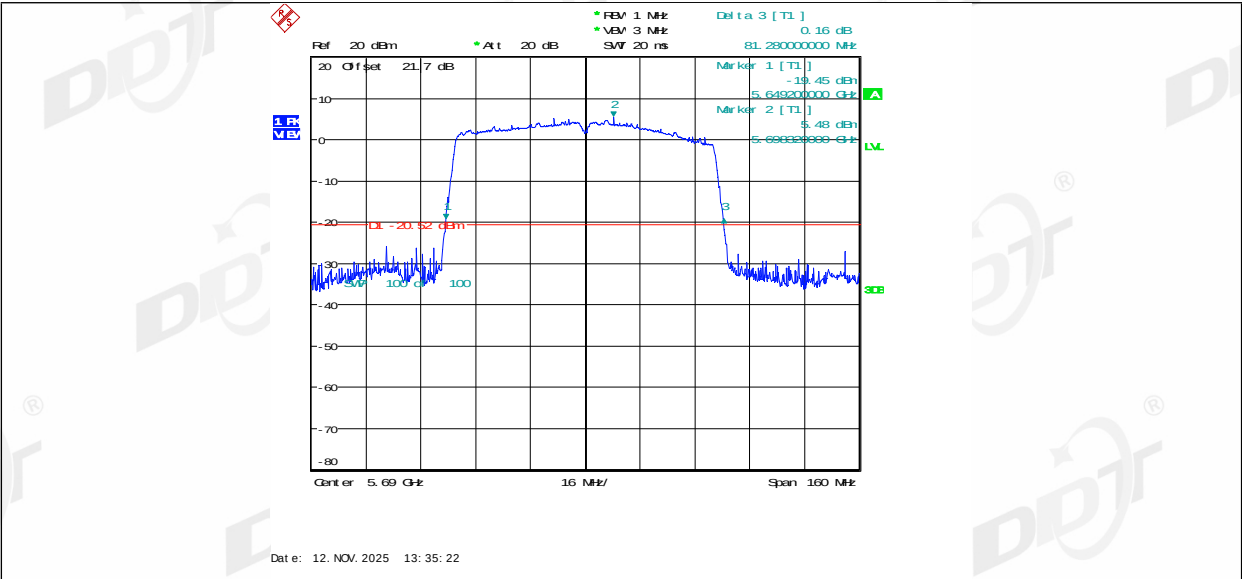
RBW 500 kHz
 VBW 2 MHz
 SWR 20 ns
 Delta 3 [T1] 1.11 dB
 40.98000000 MHz
 Ref 20 dBm
 Att 20 dB
 Offset 21.9 dB
 Mir korr 1 [T1] -20.55 dBm
 5.779999999 GHz
 Mir korr 2 [T1] -4.00 dBm
 5.799999999 GHz
 CL -21.9 dBm
 100
 Center 5.705 GHz
 8 MHz
 Span 80 MHz

Date: 27. OCT. 2025 20:33:07

Date: 30. OCT. 2025 18:54:07

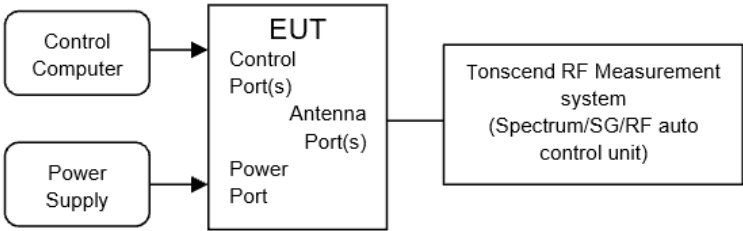
11AC80SISO Ant1 5290





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

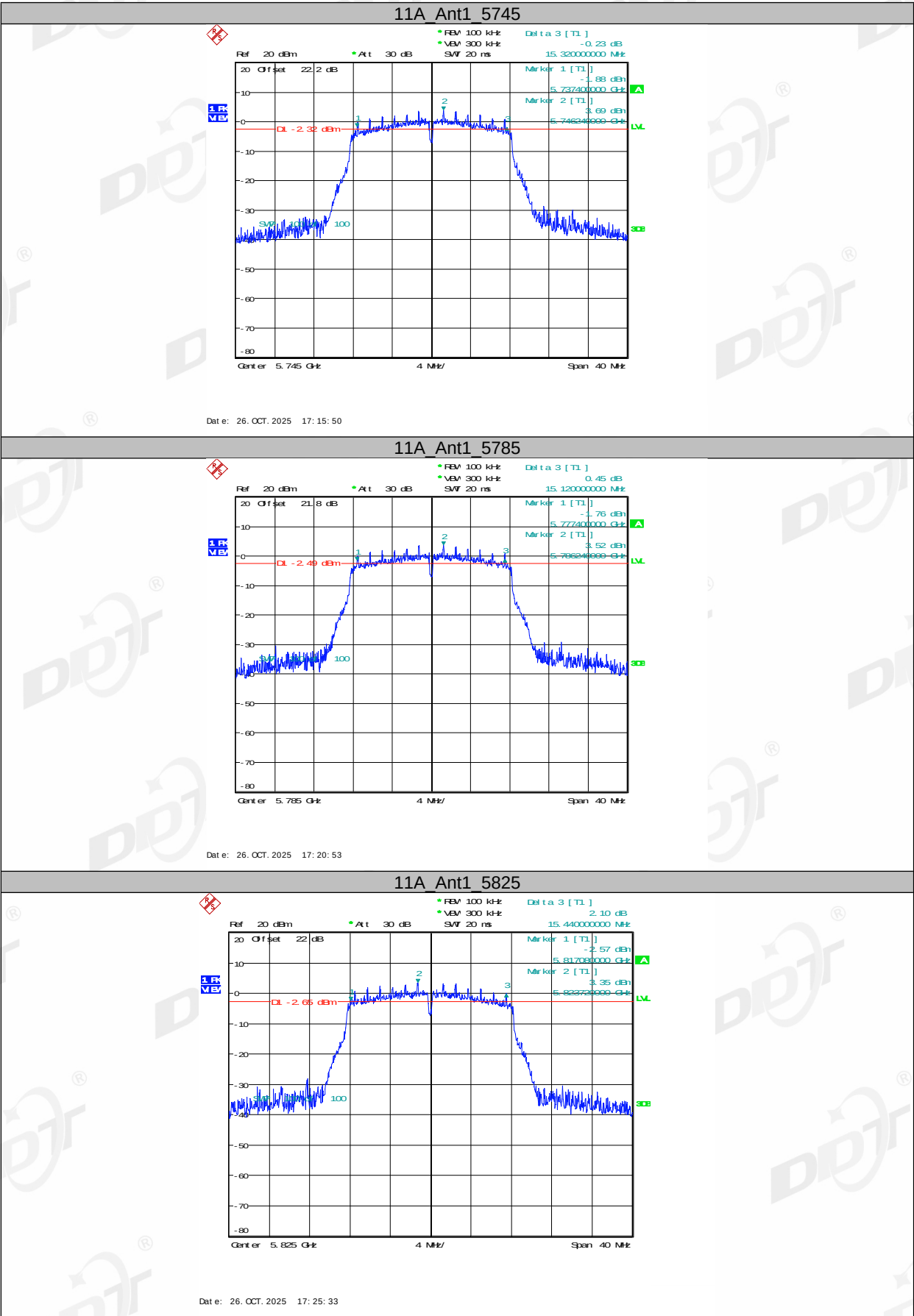
Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

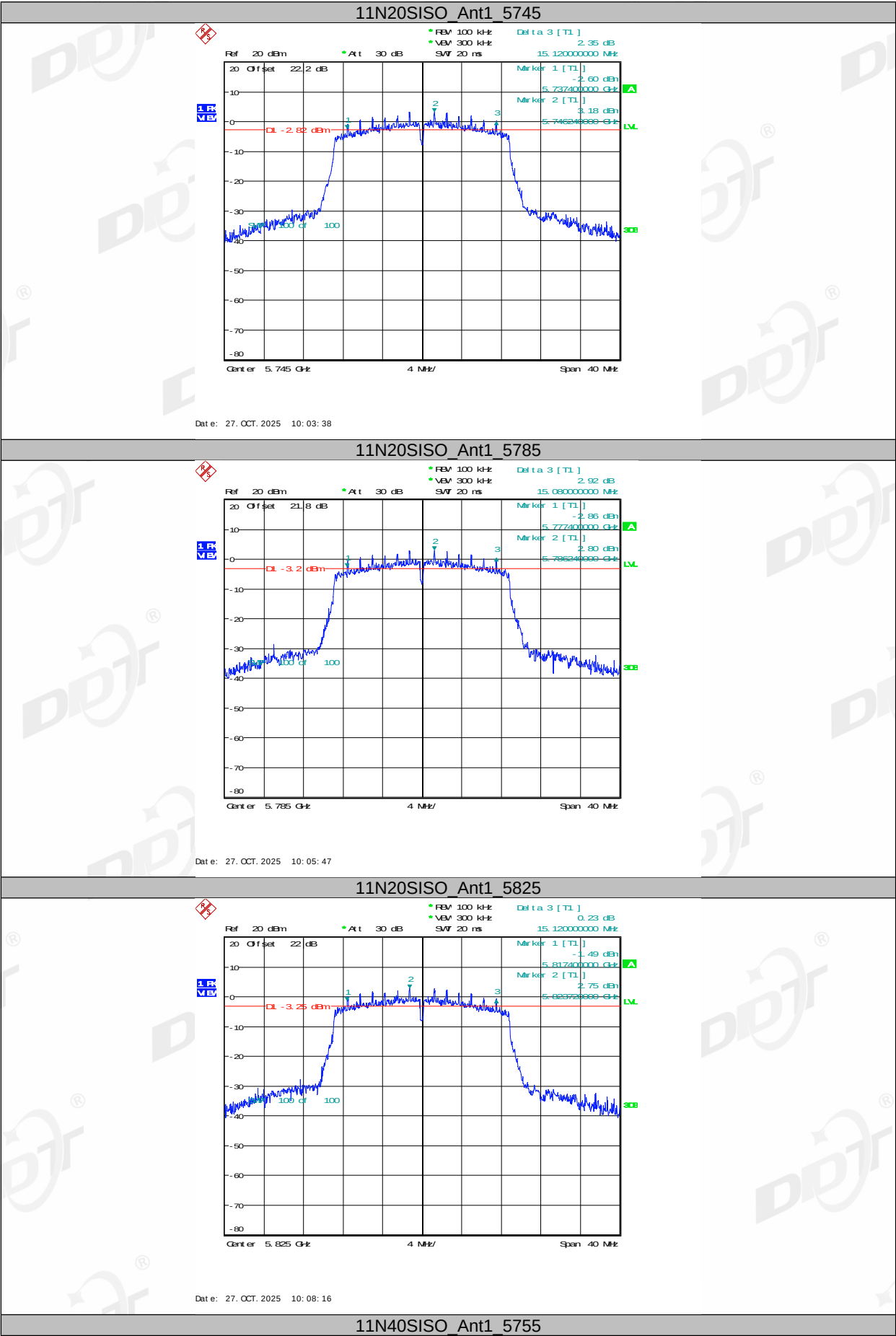
5.4. Test result B4

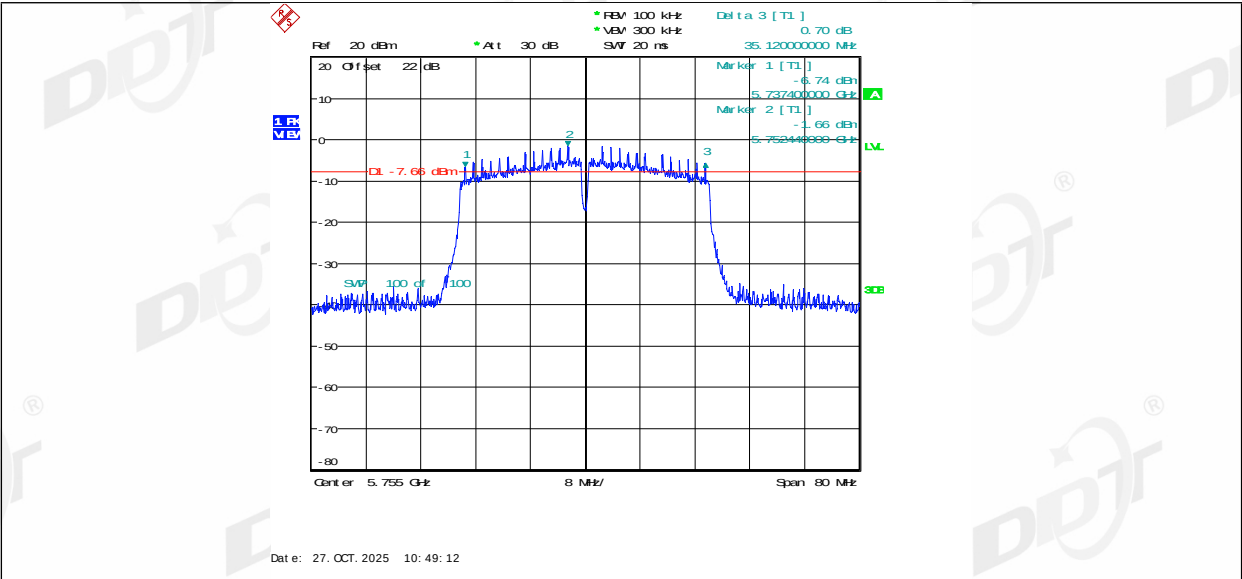
Test Engineer:	Zhongyao	Test Site:	RF Measurement System 1#
Ambient Condition:	25℃,45%RH	Test Date:	2025.10.26-2025.10.28
Test Power Supply:	Battery	Sample Number:	S25091019-002

Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.32	5737.40	5752.72	0.5	PASS
		5785	15.12	5777.40	5792.52	0.5	PASS
		5825	15.44	5817.08	5832.52	0.5	PASS
11N20SISO	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
		5785	15.08	5777.40	5792.48	0.5	PASS
		5825	15.12	5817.40	5832.52	0.5	PASS
11N40SISO	Ant1	5755	35.12	5737.40	5772.52	0.5	PASS
		5795	35.12	5777.40	5812.52	0.5	PASS
11AC20SISO	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
		5785	15.12	5777.40	5792.52	0.5	PASS
		5825	15.12	5817.40	5832.52	0.5	PASS
11AC40SISO	Ant1	5755	35.12	5737.40	5772.52	0.5	PASS
		5795	35.12	5777.40	5812.52	0.5	PASS
11AC80SISO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS

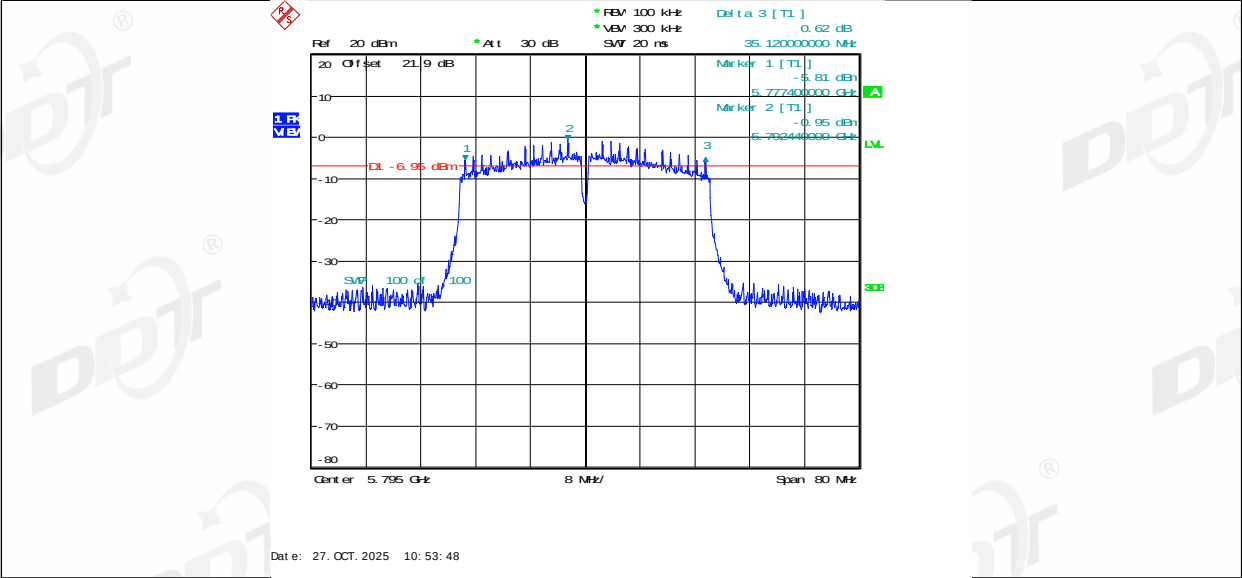
5.5. Test graphs B4



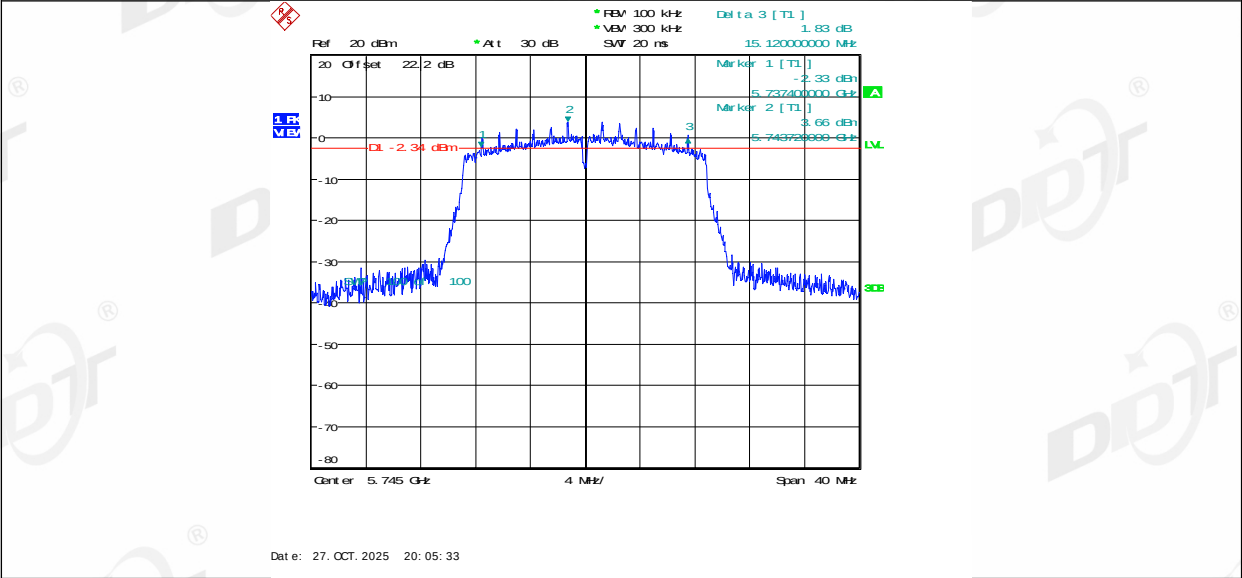




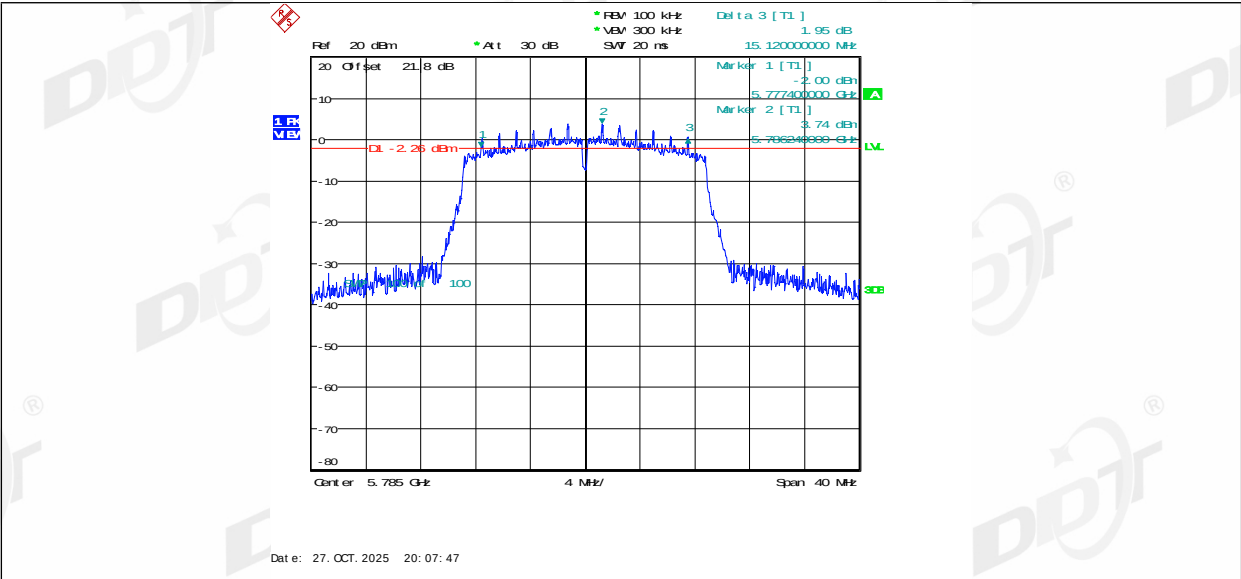
11N40SISO Ant1 5795



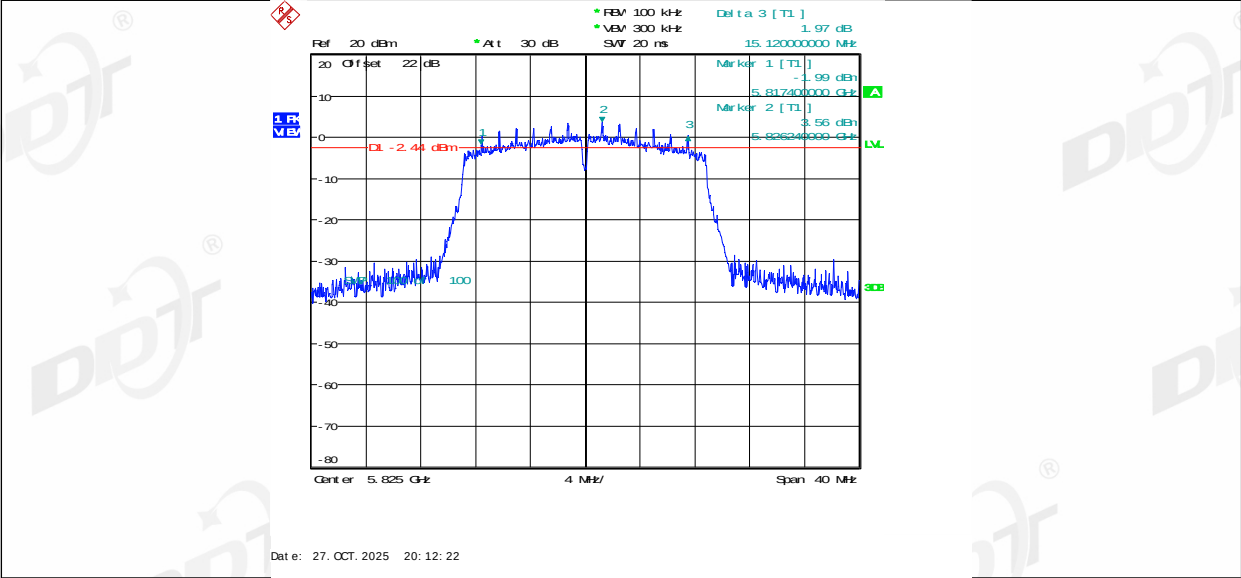
11AC20SISO Ant1 5745



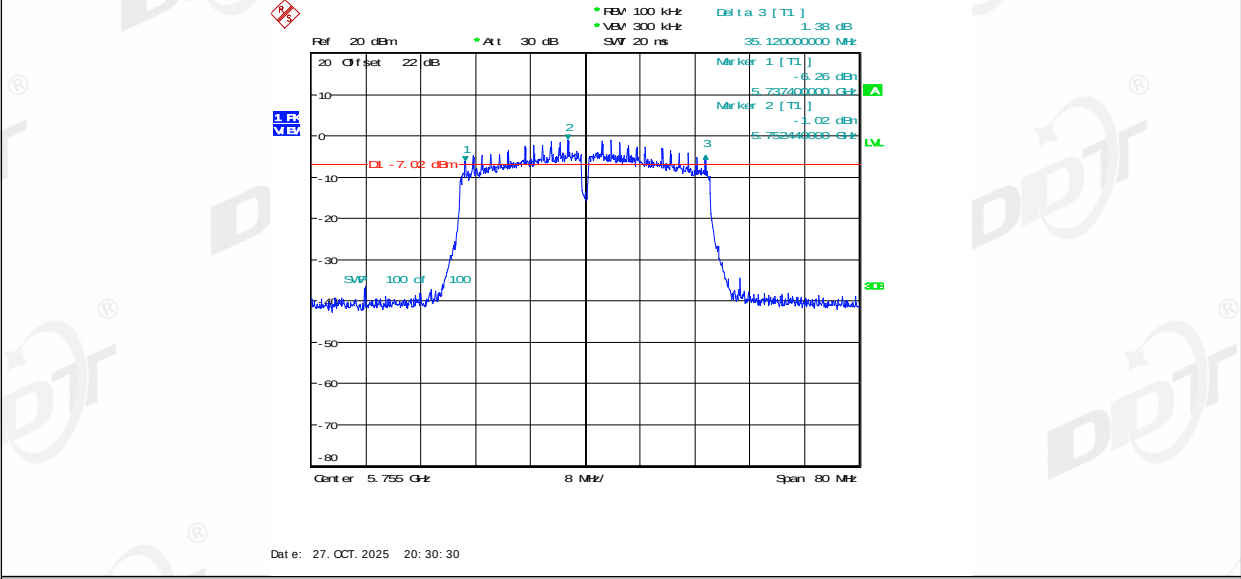
11AC20SISO Ant1 5785



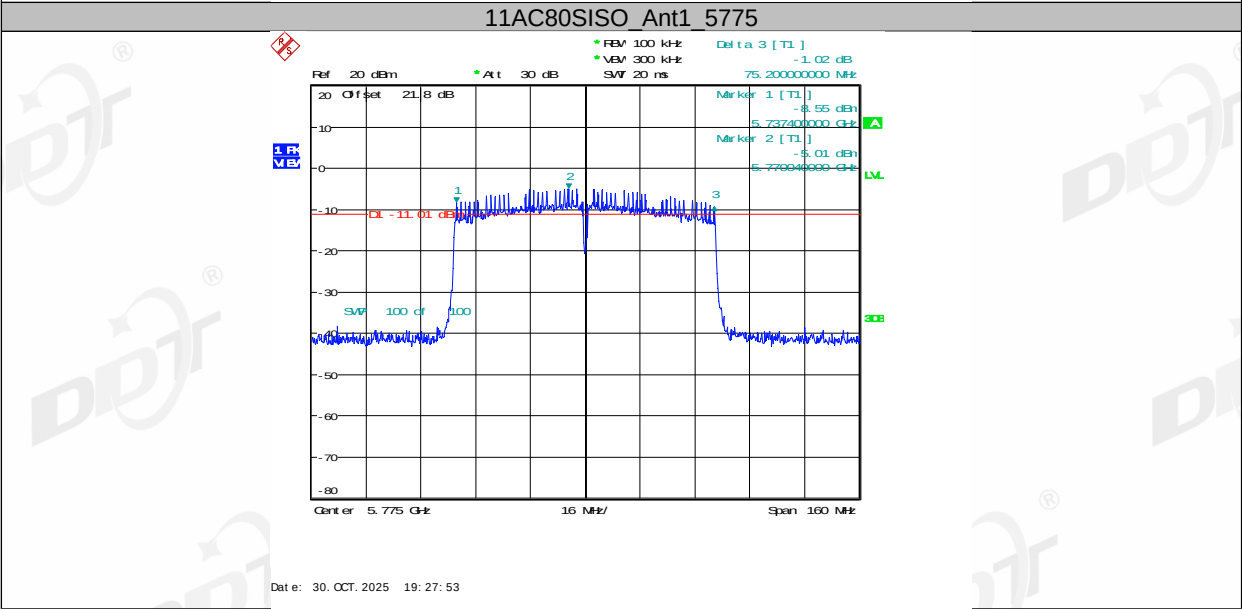
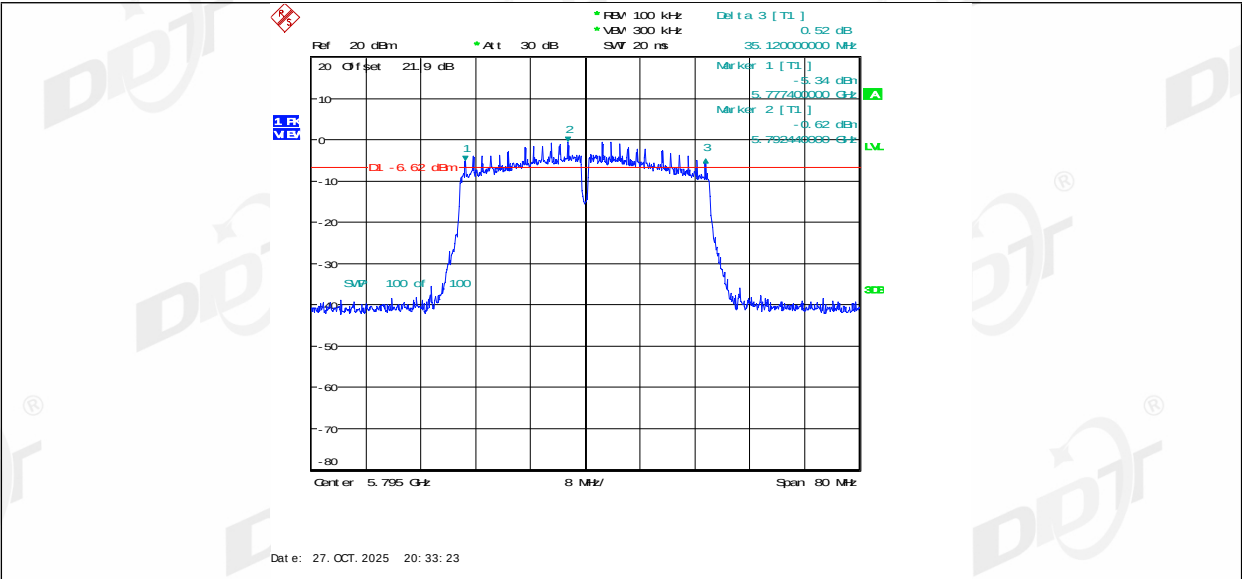
11AC20SISO Ant1 5825



11AC40SISO Ant1 5755

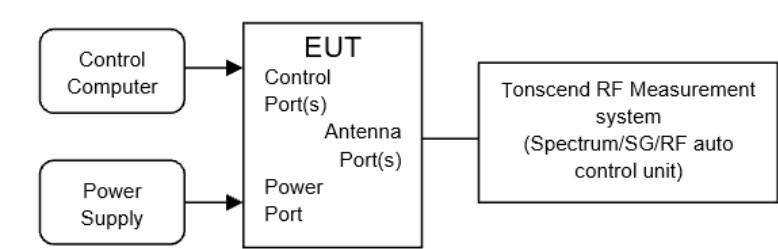


11AC40SISO Ant1 5795



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.

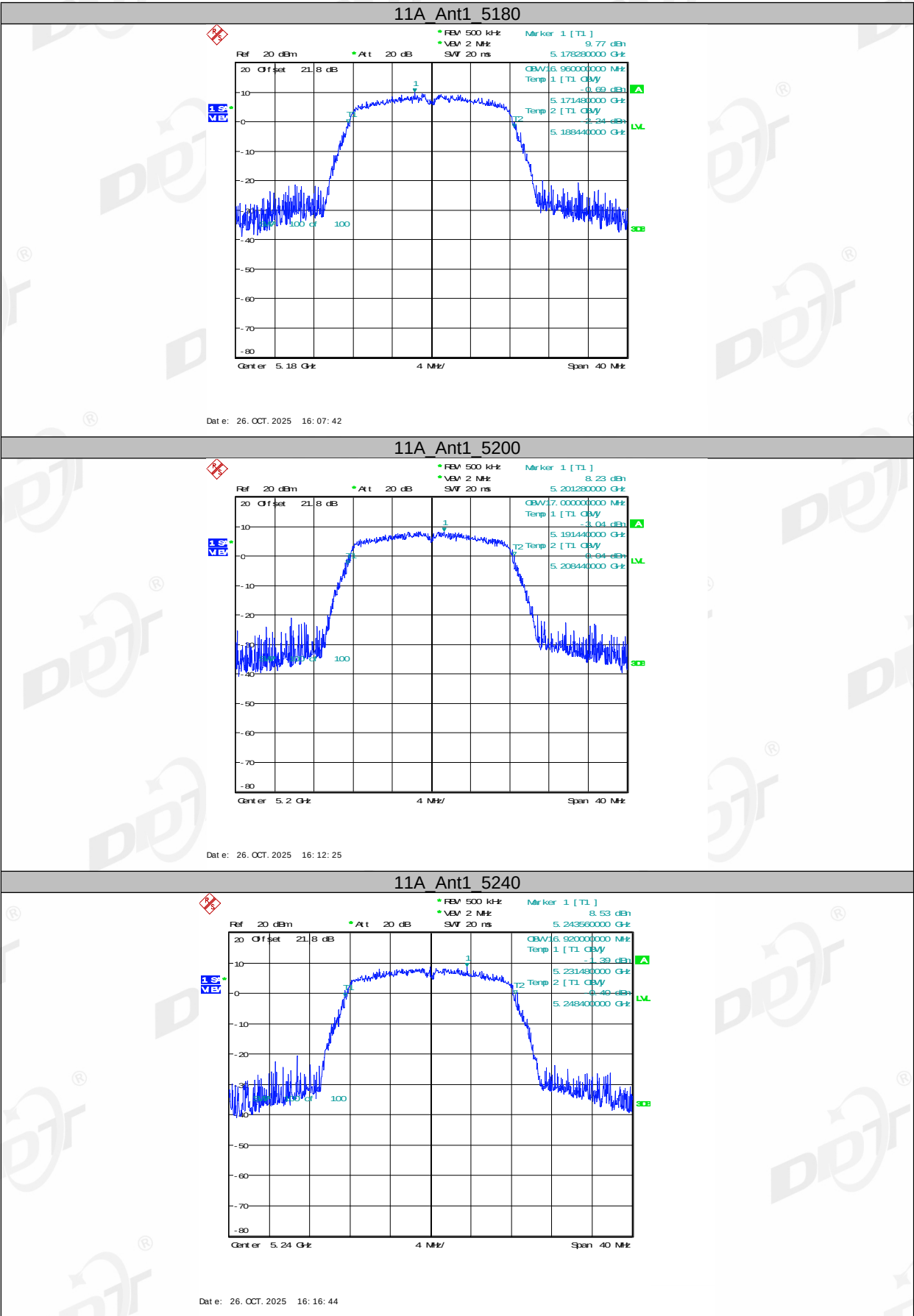
6.4. Test result

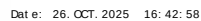
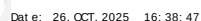
Test Engineer:	Zhongyao	Test Site:	RF Measurement System 1#
Ambient Condition:	25℃,45%RH	Test Date:	2025.10.26-2025.10.28
Test Power Supply:	Battery	Sample Number:	S25091019-002

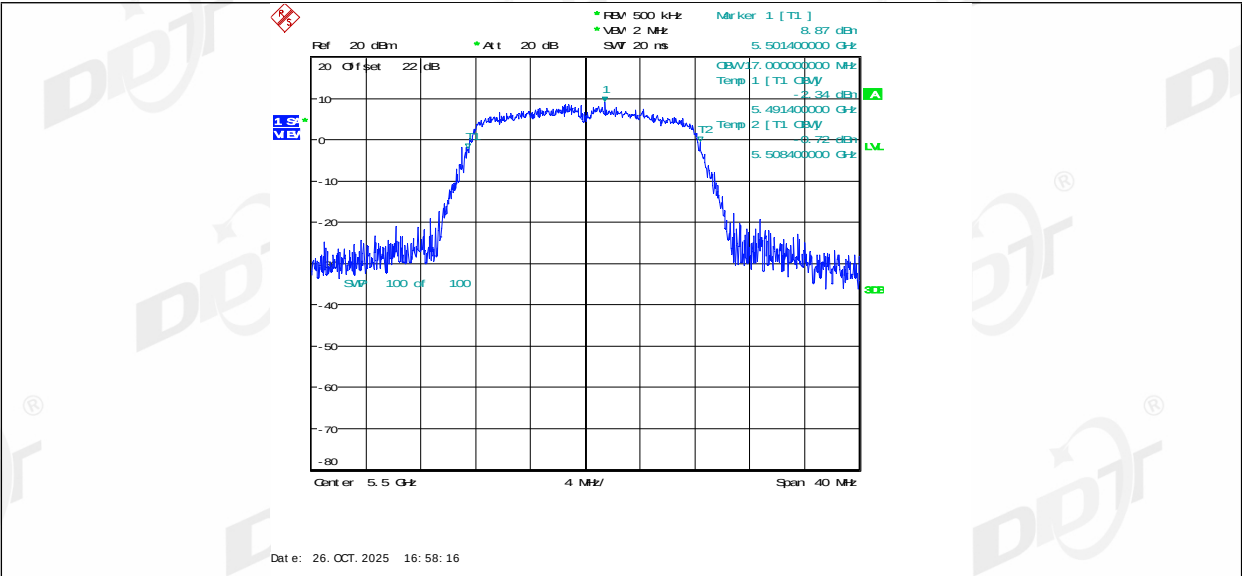
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	16.960	5171.4800	5188.4400
		5200	17.000	5191.4400	5208.4400
		5240	16.920	5231.4800	5248.4000
		5260	16.960	5251.4800	5268.4400
		5280	17.000	5271.4800	5288.4800
		5320	16.960	5311.4800	5328.4400
		5500	17.000	5491.4000	5508.4000
		5580	17.000	5571.4400	5588.4400
		5700	17.000	5691.4400	5708.4400
		5720	17.040	5711.4000	5728.4400
		5720 UNII-2C	13.6	5711.4000	5725
		5720 UNII-3	3.44	5725	5728.4400
		5745	16.920	5736.6000	5753.5200
		5785	17.040	5776.4400	5793.4800
		5825	17.000	5816.4000	5833.4000
11N20SISO	Ant1	5180	17.880	5171.0400	5188.9200
		5200	17.960	5190.9600	5208.9200
		5240	17.880	5231.0000	5248.8800
		5260	17.920	5251.0000	5268.9200
		5280	17.920	5271.0000	5288.9200
		5320	17.880	5311.0000	5328.8800
		5500	17.920	5490.9600	5508.8800
		5580	17.960	5570.9600	5588.9200
		5700	18.000	5690.9600	5708.9600
		5720	17.960	5710.9200	5728.8800
		5720 UNII-2C	14.08	5710.9200	5725
		5720 UNII-3	3.88	5725	5728.8800
		5745	17.880	5736.0400	5753.9200
		5785	18.000	5775.9600	5793.9600
		5825	17.960	5815.9200	5833.8800
11N40SISO	Ant1	5190	36.080	5171.9200	5208.0000
		5230	36.160	5211.8400	5248.0000
		5270	36.320	5251.8400	5288.1600
		5310	36.320	5291.7600	5328.0800
		5510	36.400	5491.6800	5528.0800
		5550	36.160	5531.8400	5568.0000
		5670	36.240	5651.7600	5688.0000
		5710	36.240	5691.7600	5728.0000
		5710 UNII-2C	33.24	5691.7600	5725
		5710 UNII-3	3	5725	5728.0000
		5755	36.240	5736.8400	5773.0800
		5795	36.160	5776.8400	5813.0000
11AC20SISO	Ant1	5180	17.920	5171.0400	5188.9600
		5200	17.920	5191.0000	5208.9200
		5240	17.920	5231.0000	5248.9200
		5260	17.880	5251.0400	5268.9200
		5280	17.880	5271.0400	5288.9200
		5320	17.920	5310.9600	5328.8800
		5500	17.960	5490.9600	5508.9200
		5580	17.920	5571.0000	5588.9200
		5700	17.960	5690.9600	5708.9200
		5720	17.960	5710.9200	5728.8800
		5720 UNII-2C	14.08	5710.9200	5725
		5720 UNII-3	3.88	5725	5728.8800
		5745	17.880	5736.0400	5753.9200
		5785	17.920	5776.0000	5793.9200

11AC40SISO	Ant1	5825	17.880	5816.0000	5833.8800
		5190	36.080	5171.9200	5208.0000
		5230	36.240	5211.8400	5248.0800
		5270	36.160	5251.9200	5288.0800
		5310	36.240	5291.8400	5328.0800
		5510	36.240	5491.7600	5528.0000
		5550	36.160	5531.8400	5568.0000
		5670	36.160	5651.8400	5688.0000
		5710	36.080	5691.8400	5727.9200
		5710 UNII-2C	33.16	5691.8400	5725
		5710 UNII-3	2.92	5725	5727.9200
		5755	36.080	5736.9200	5773.0000
		5795	36.160	5776.8400	5813.0000
		5210	75.680	5172.0800	5247.7600
11AC80SISO	Ant1	5290	75.520	5252.2400	5327.7600
		5530	75.680	5491.9200	5567.6000
		5610	75.680	5571.9200	5647.6000
		5690	75.520	5651.9200	5727.4400
		5690 UNII-2C	73.08	5651.9200	5725
		5690 UNII-3	2.44	5725	5727.4400
		5775	75.680	5737.0800	5812.7600

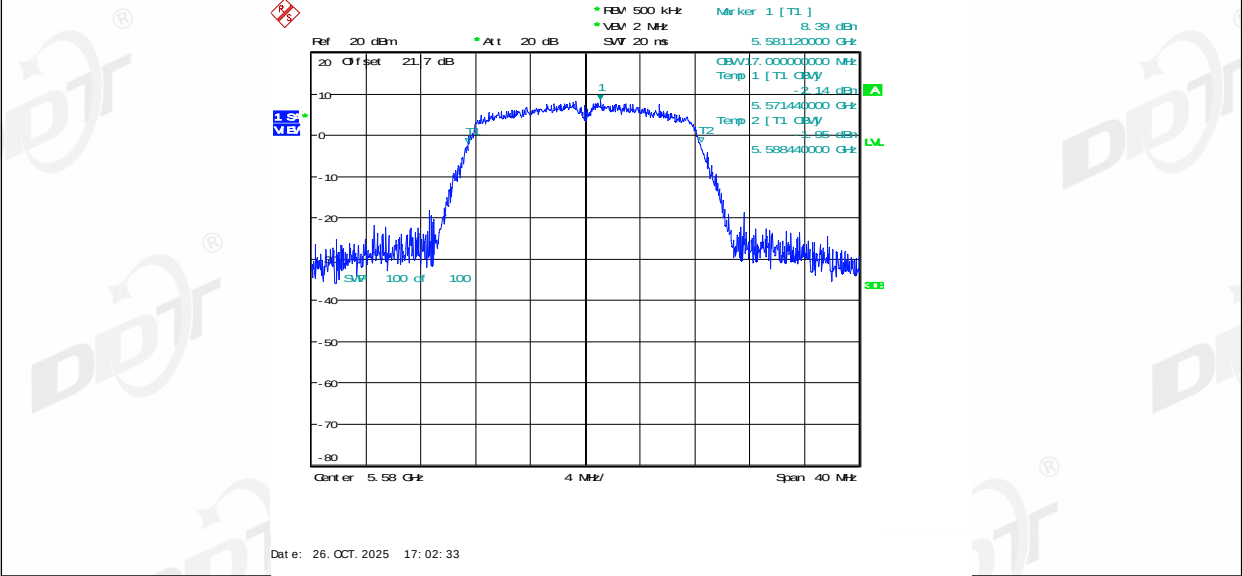
6.5. Test graphs



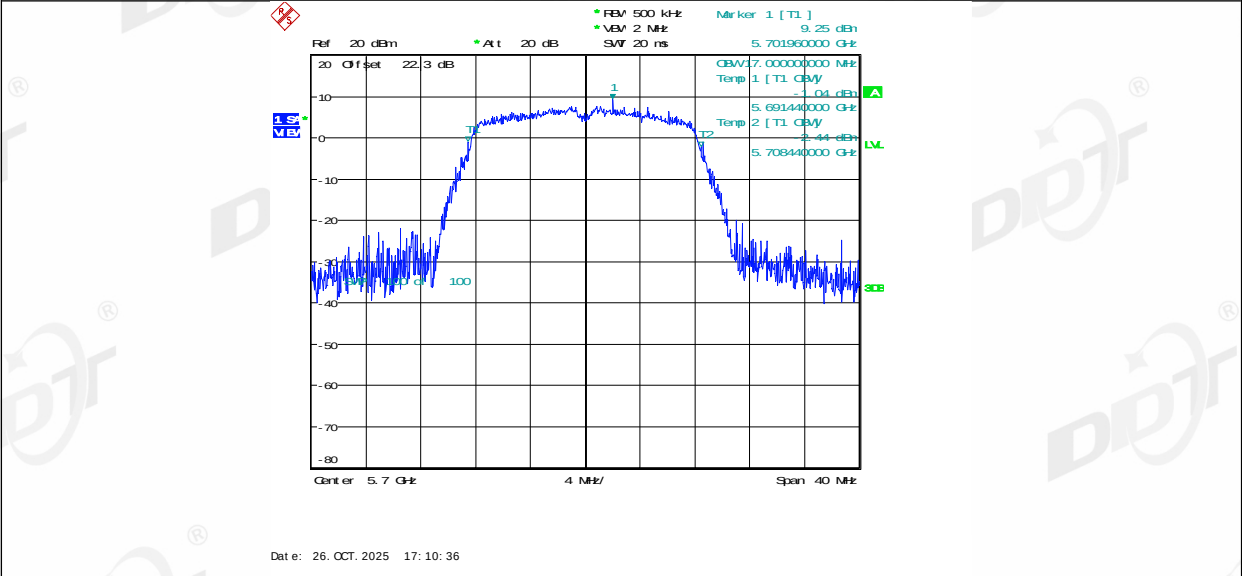




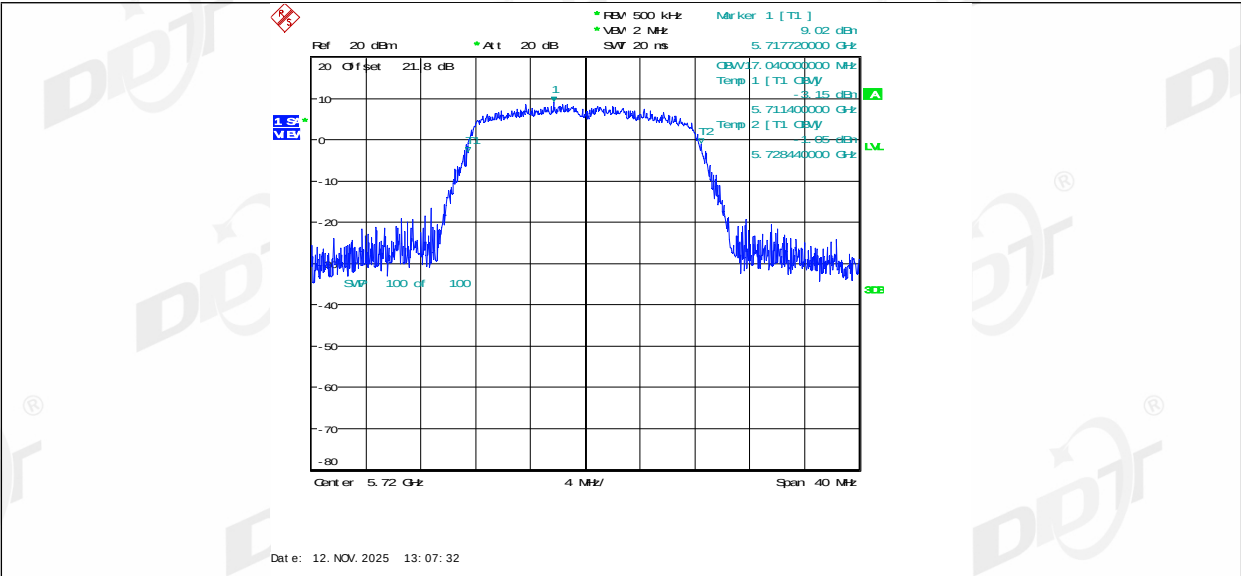
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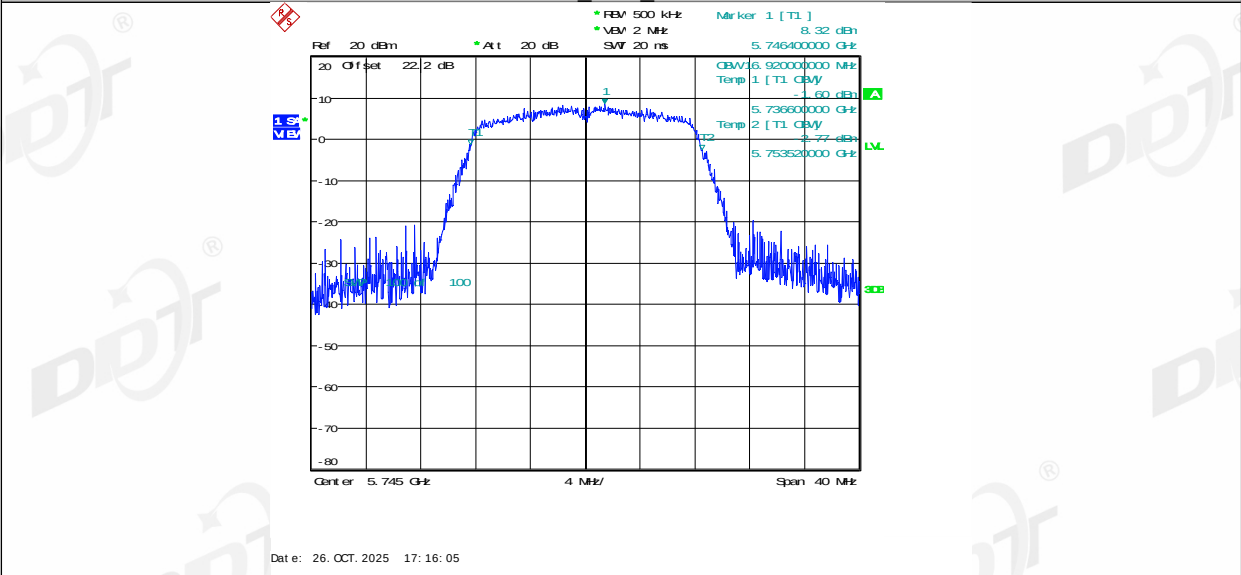
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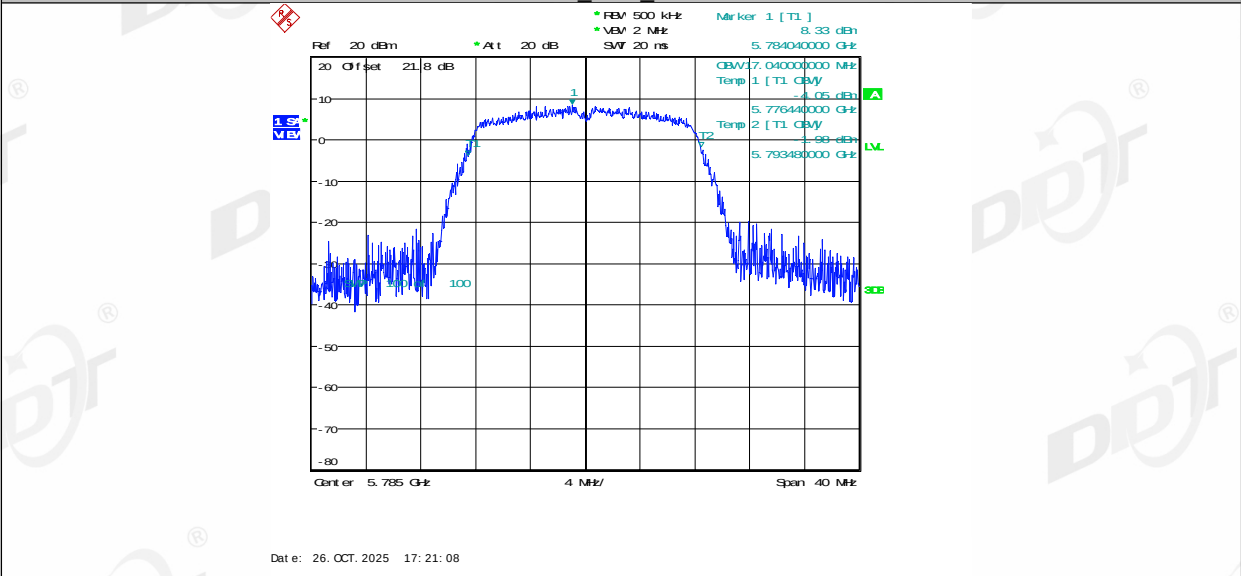
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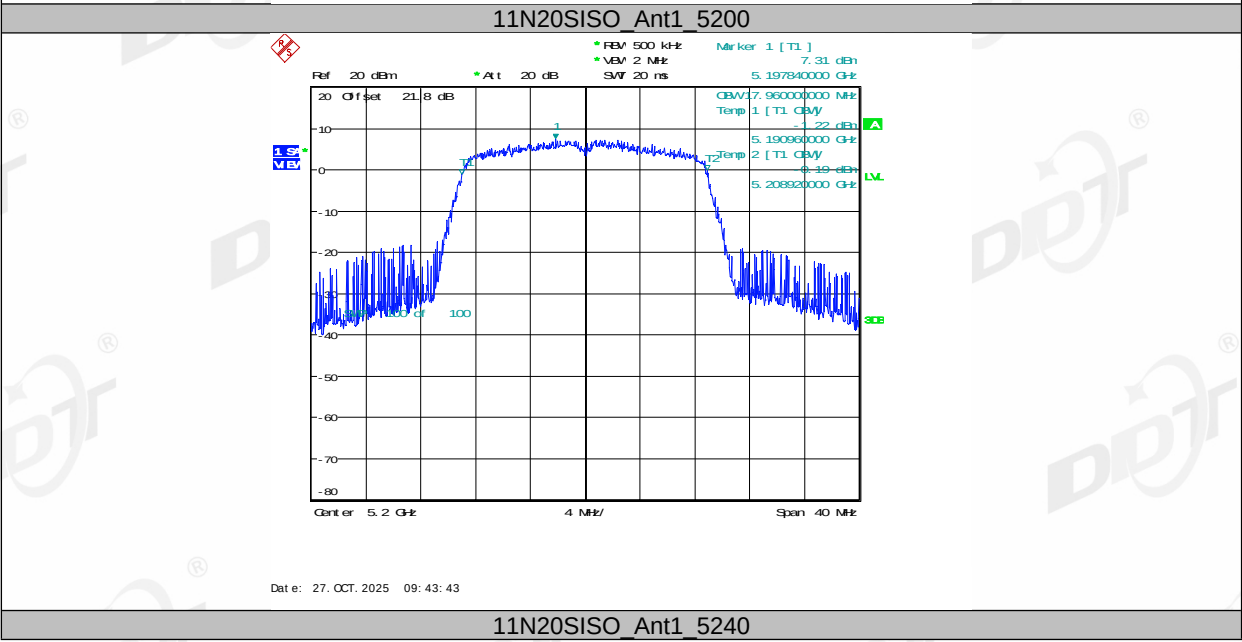
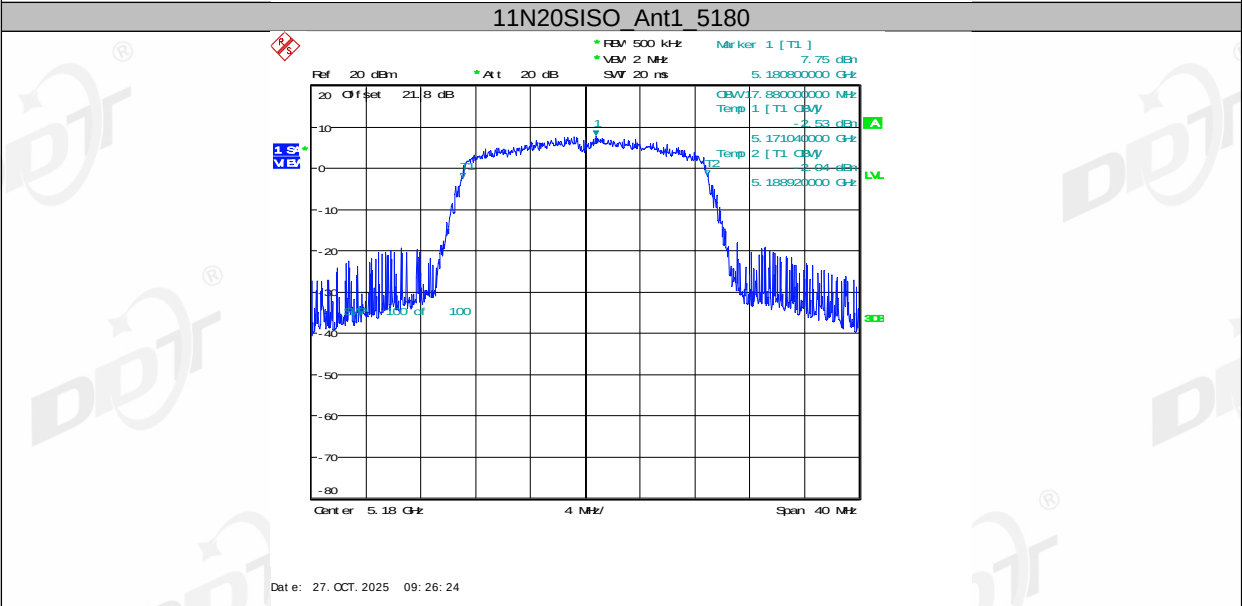
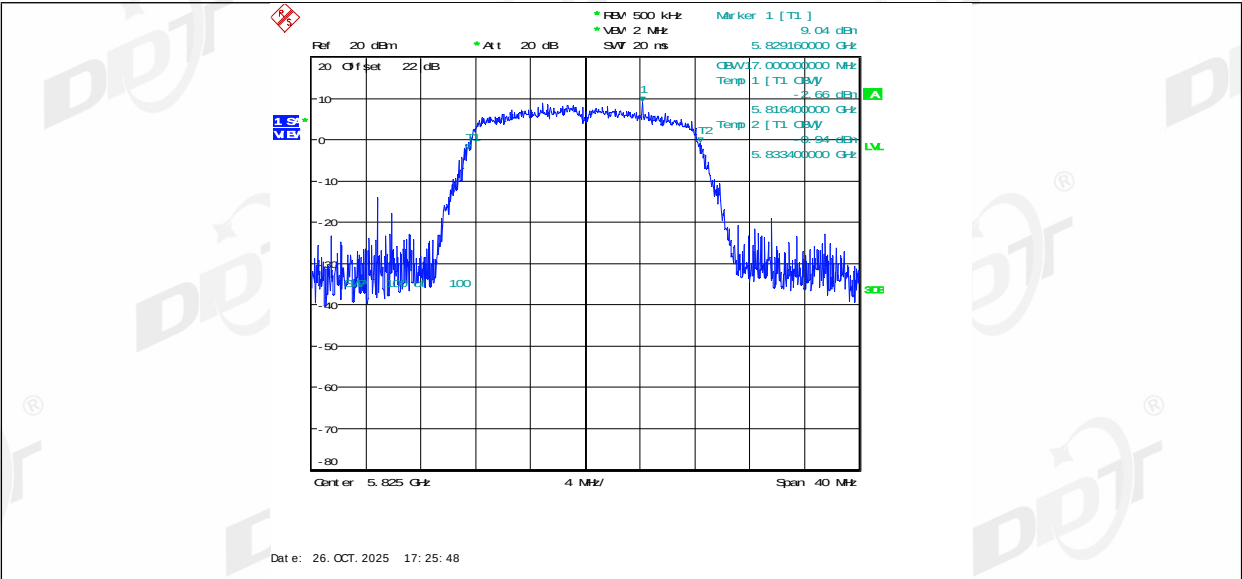
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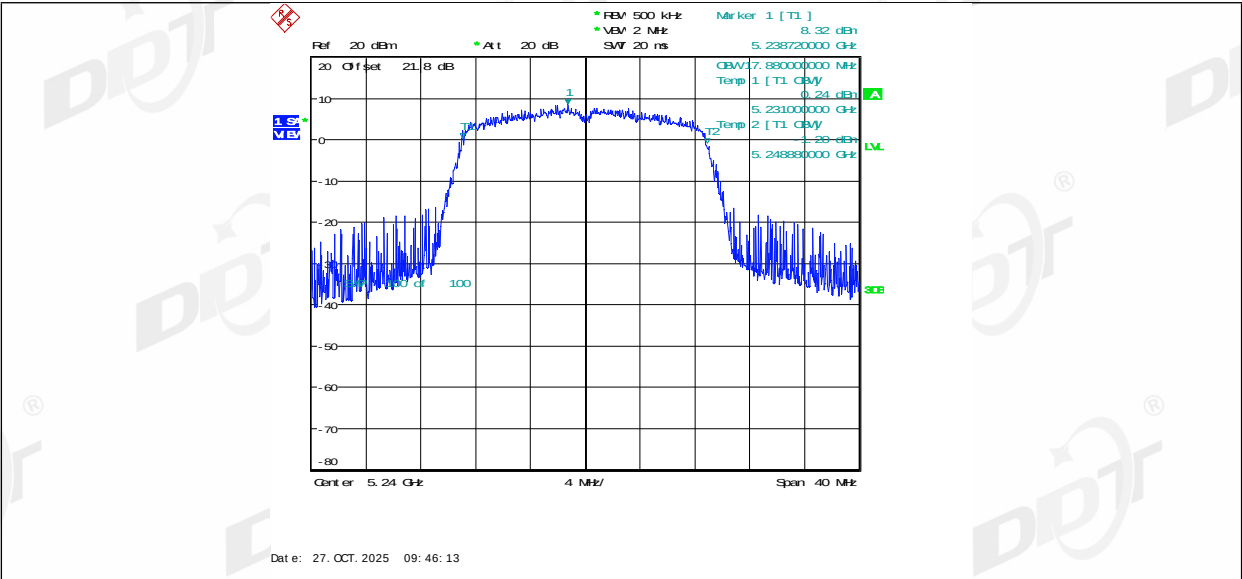


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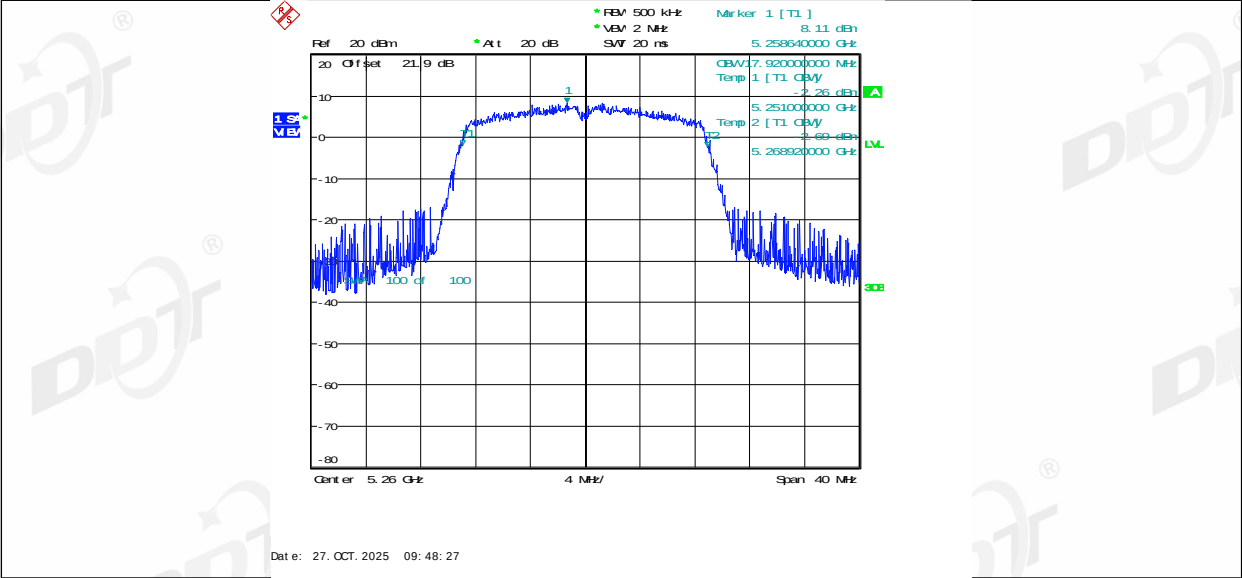


11A_Ant1_5825

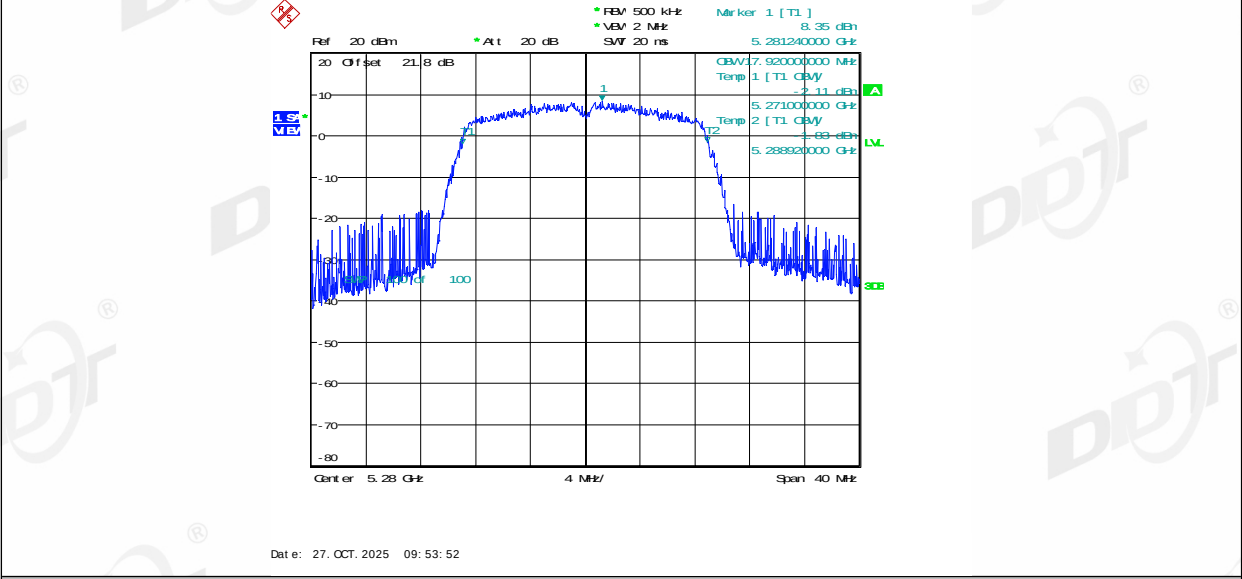




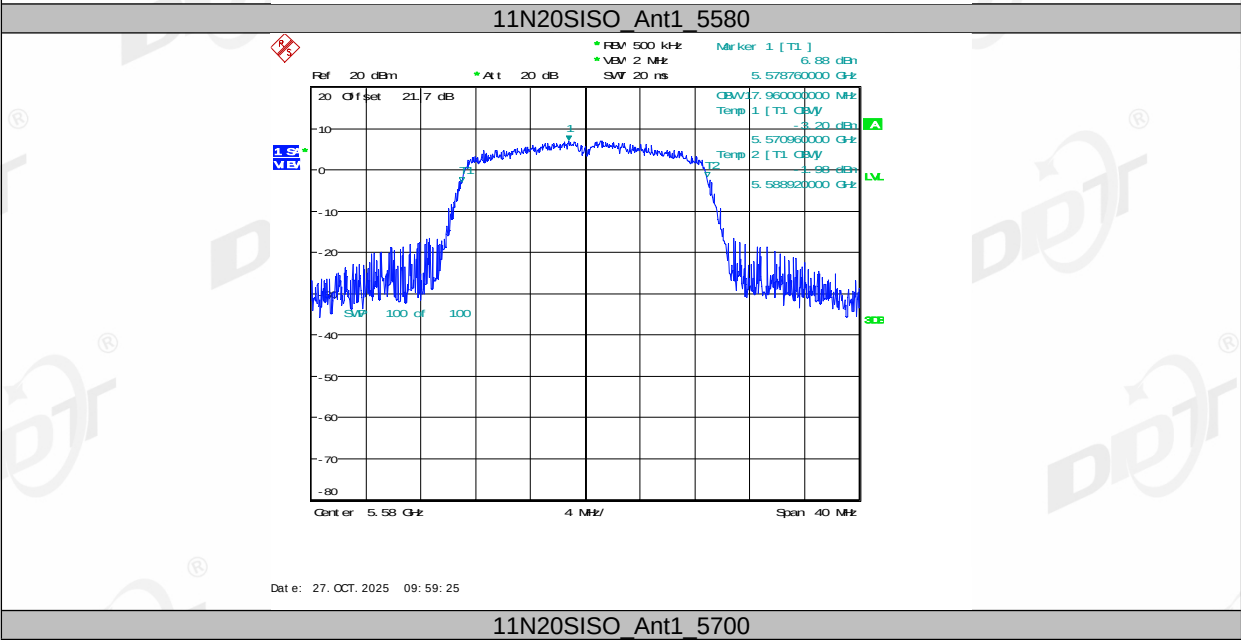
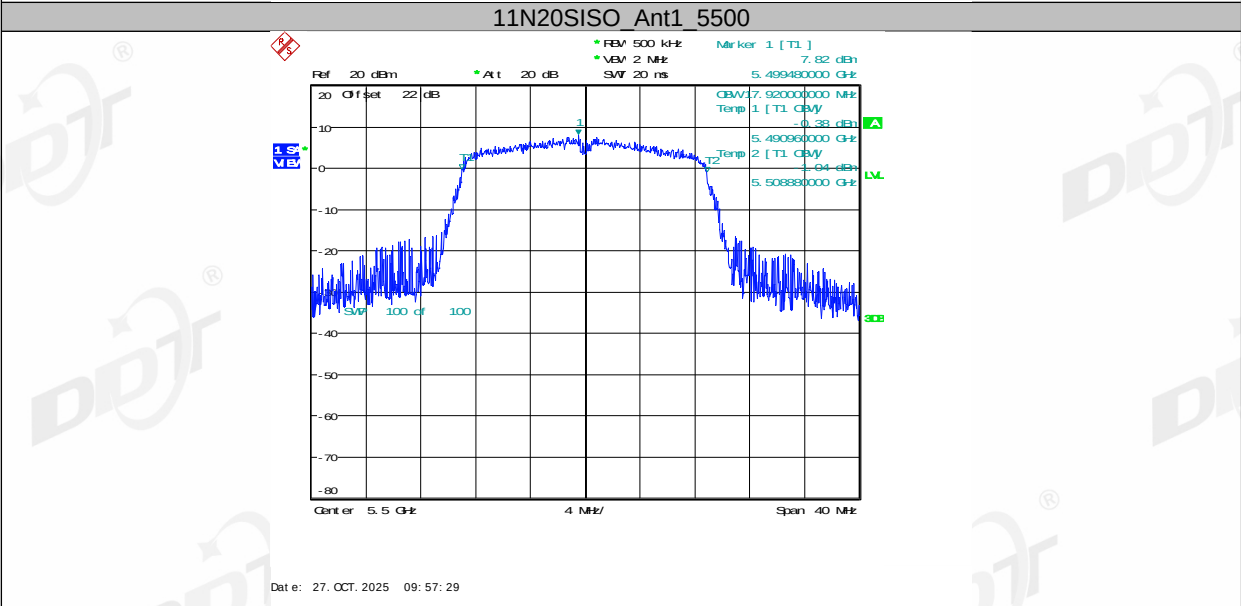
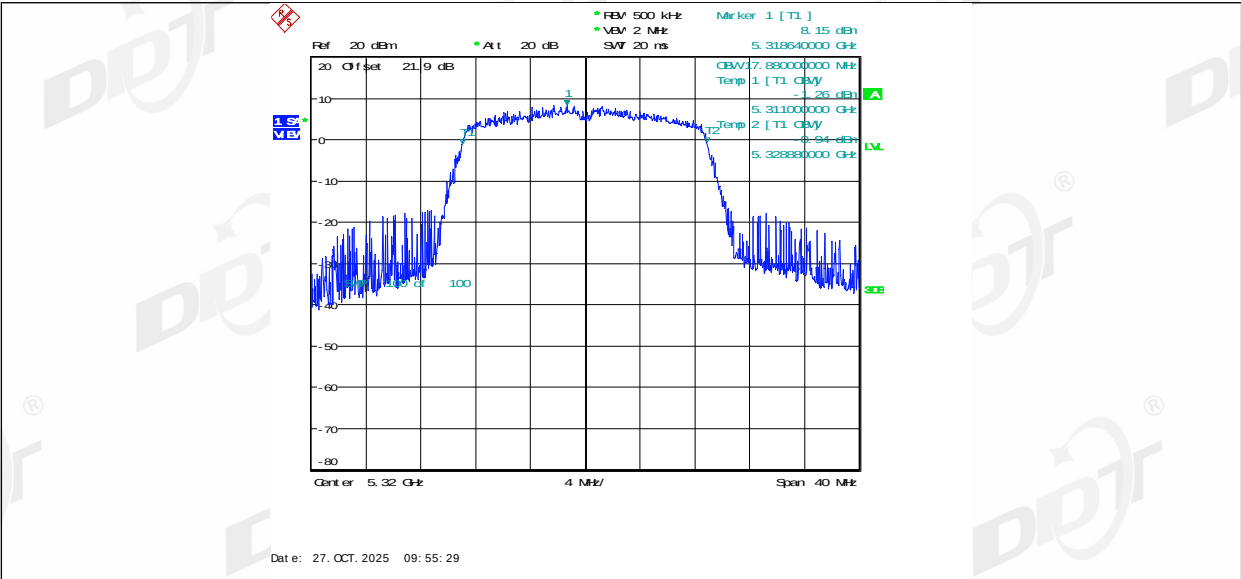
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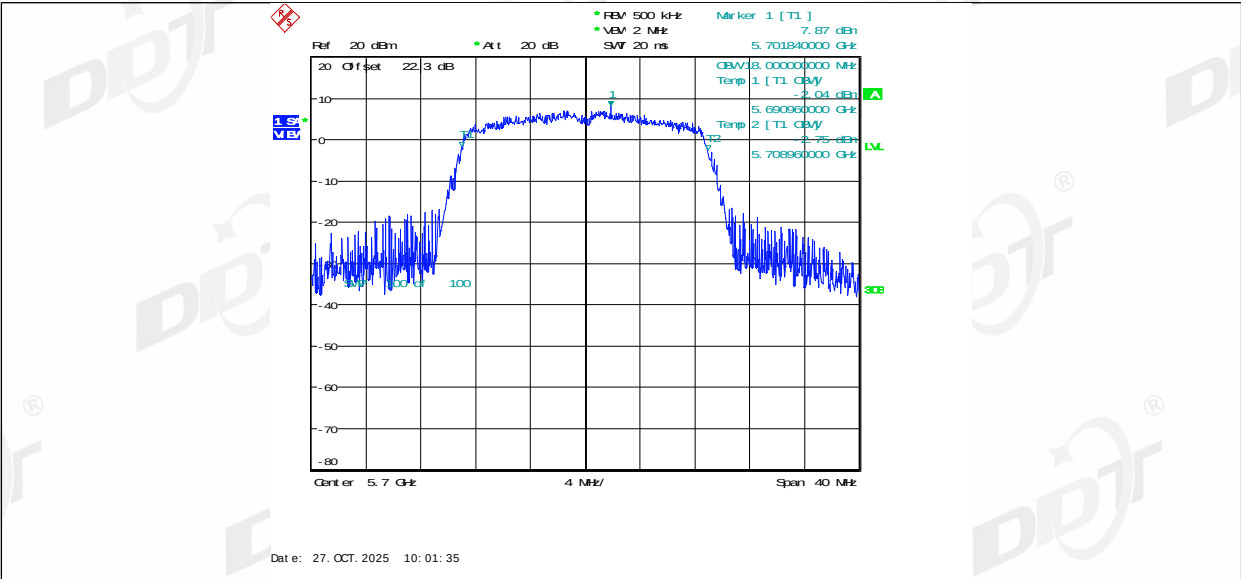


11N20SISO_Ant1_5280

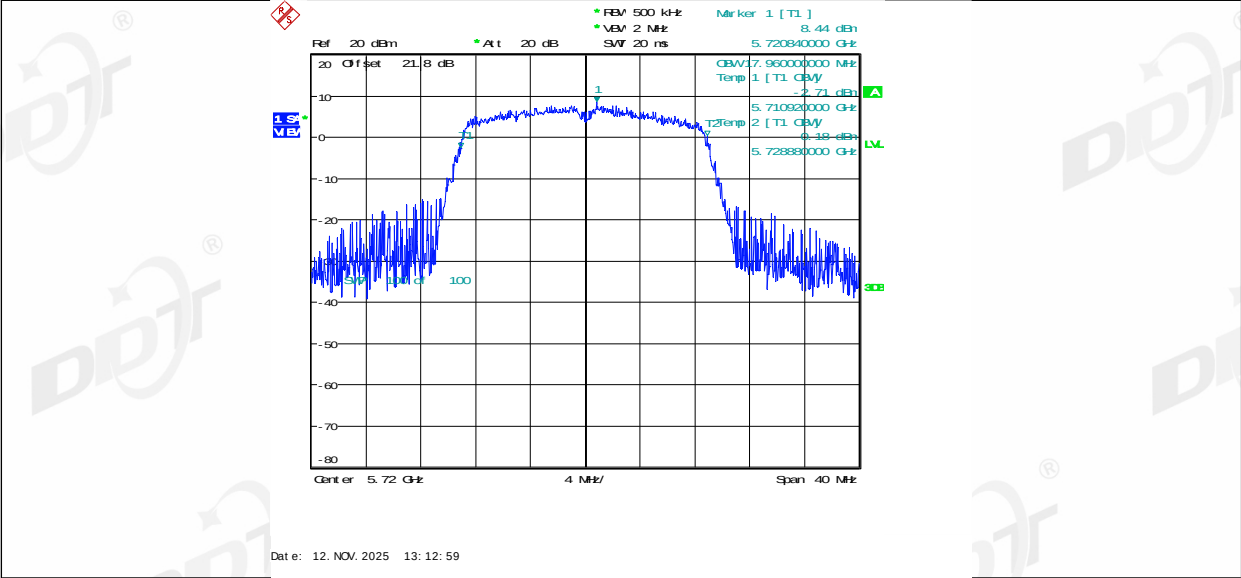


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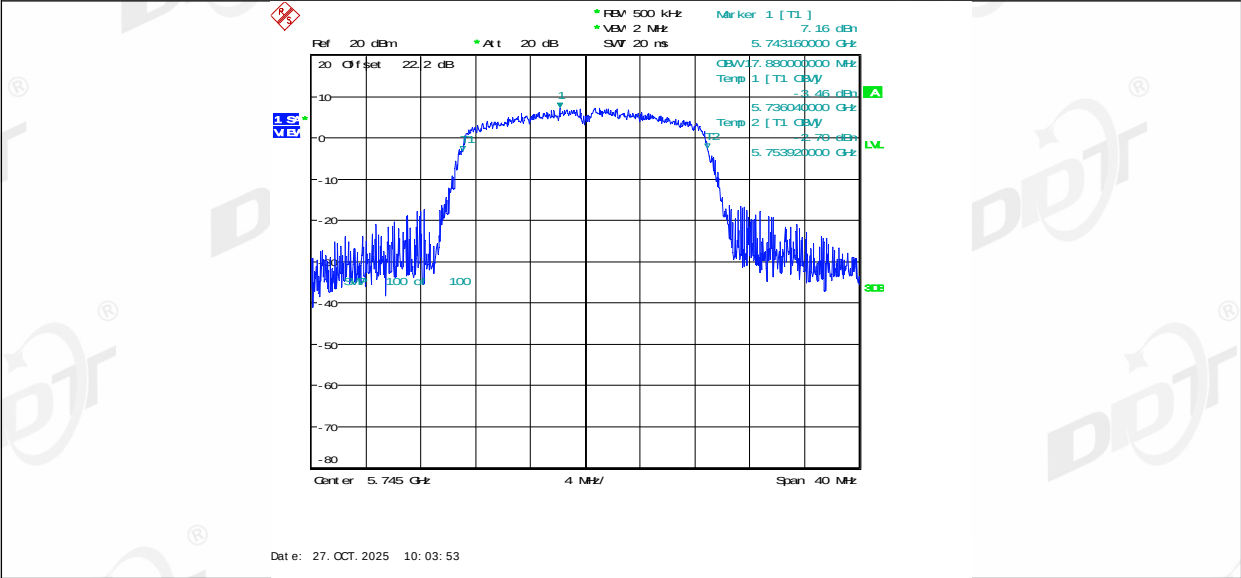




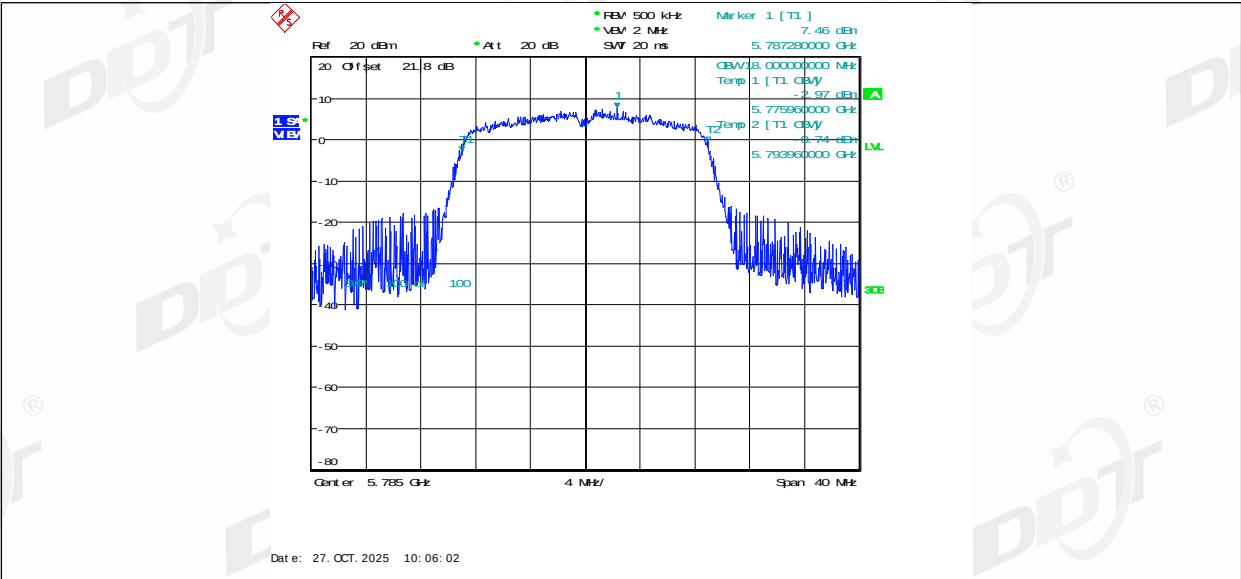
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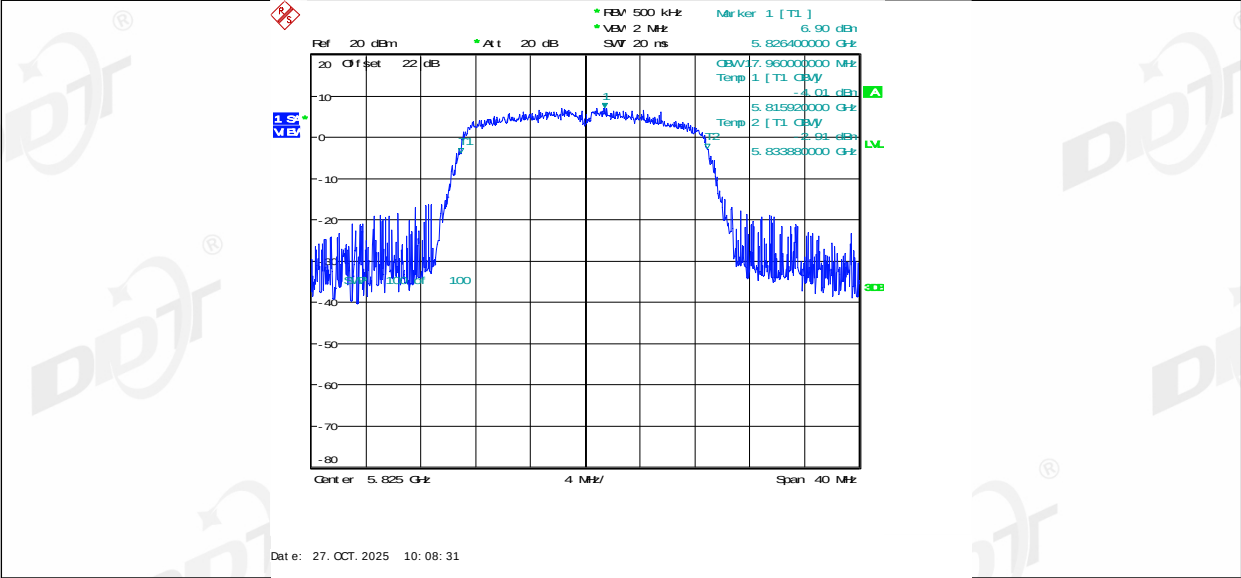
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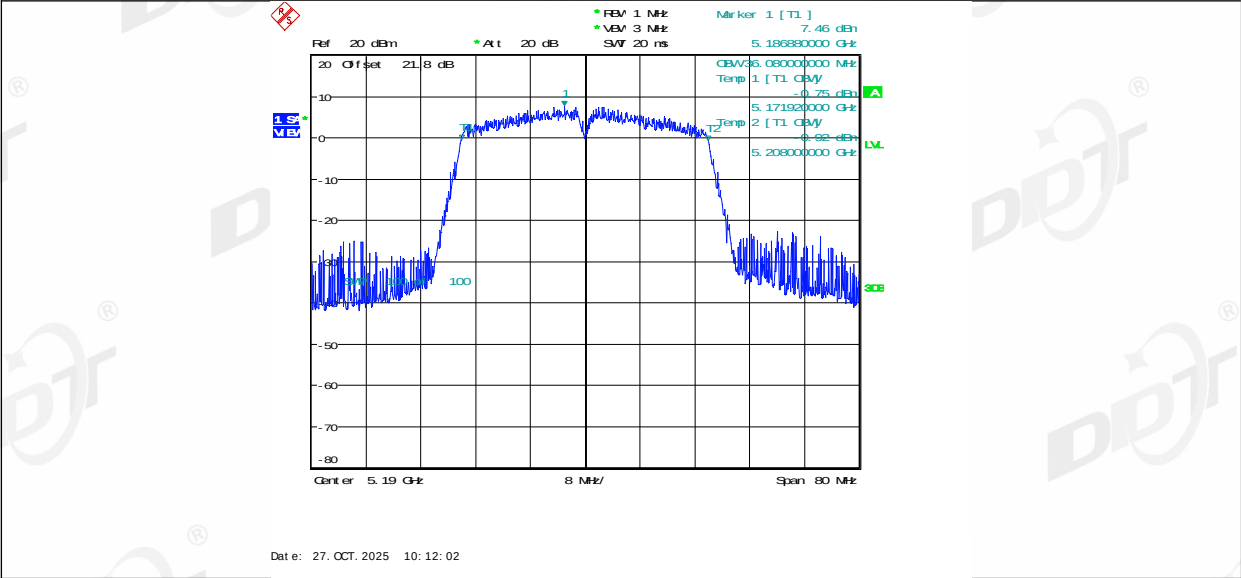
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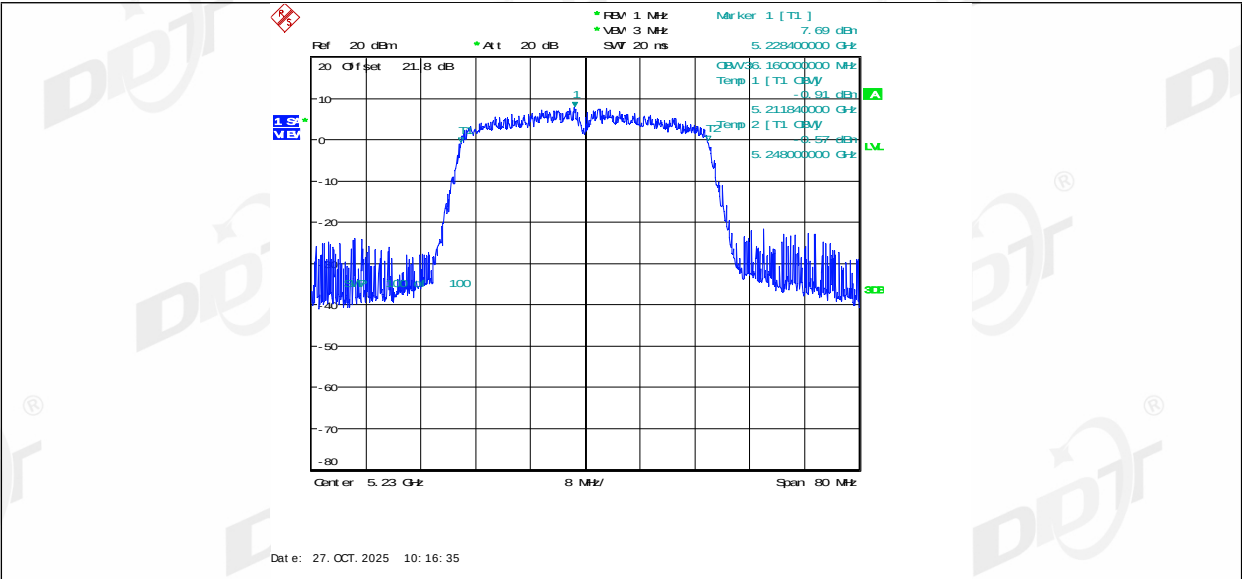
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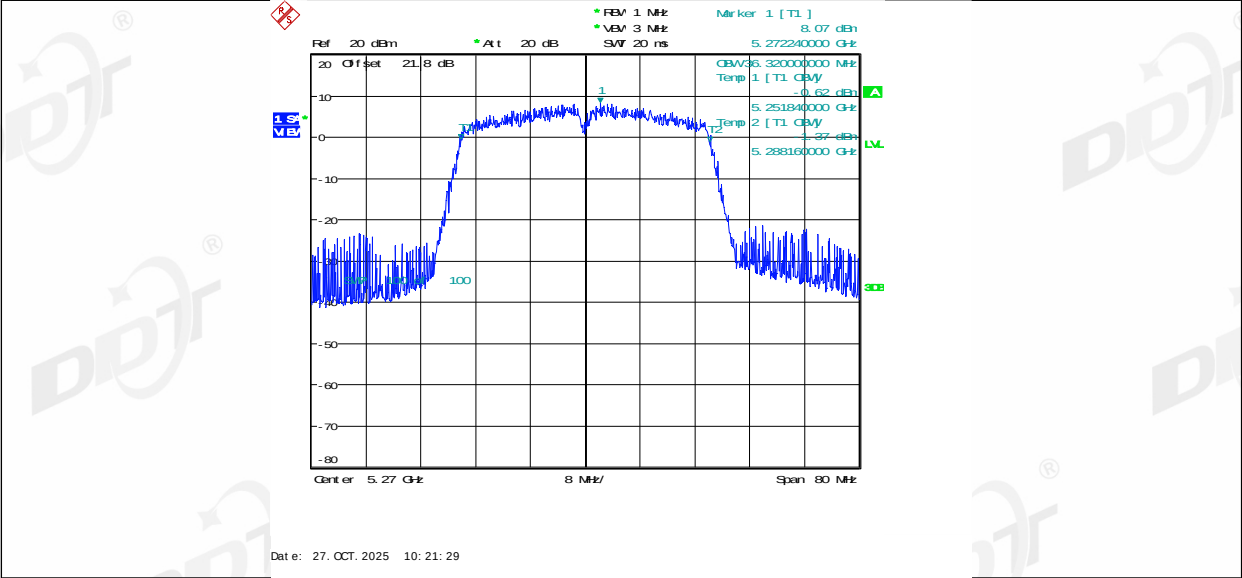
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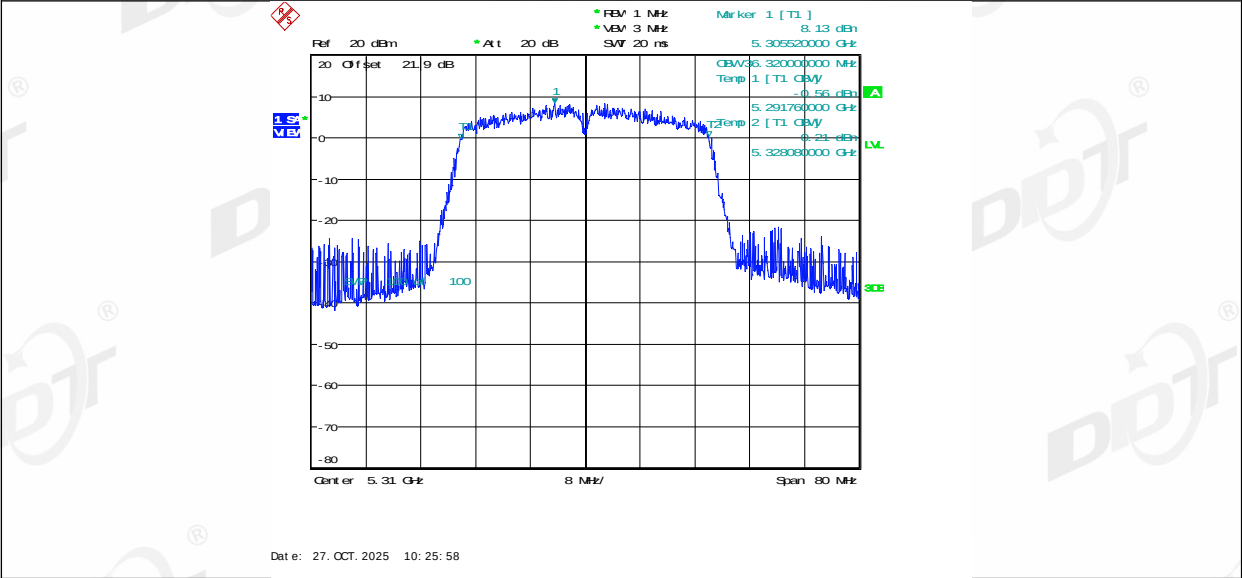
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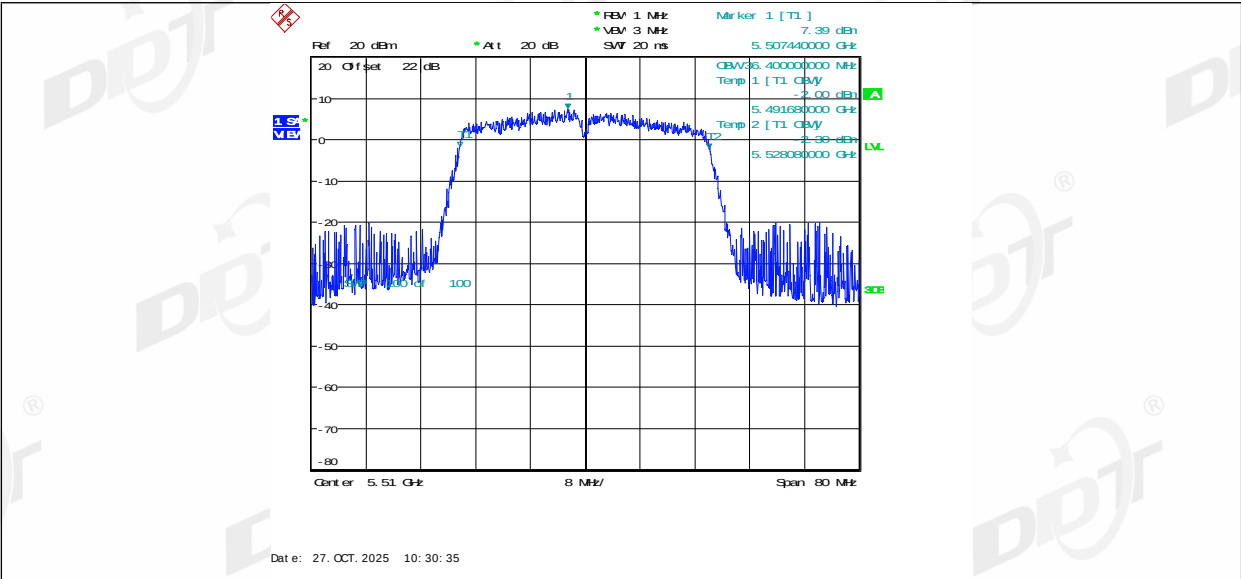
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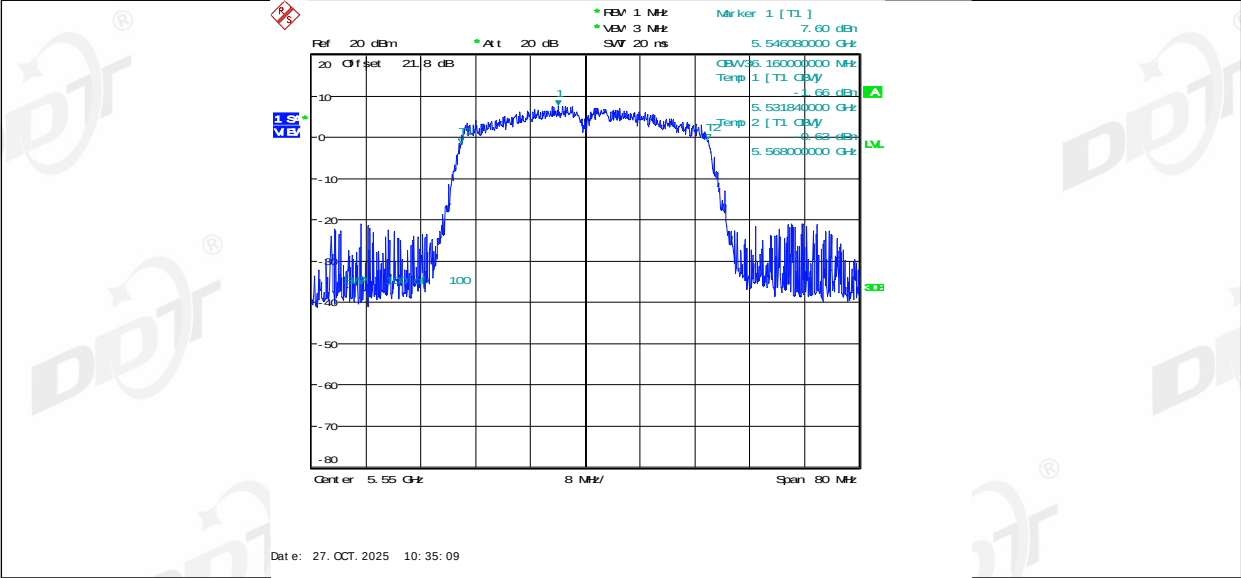
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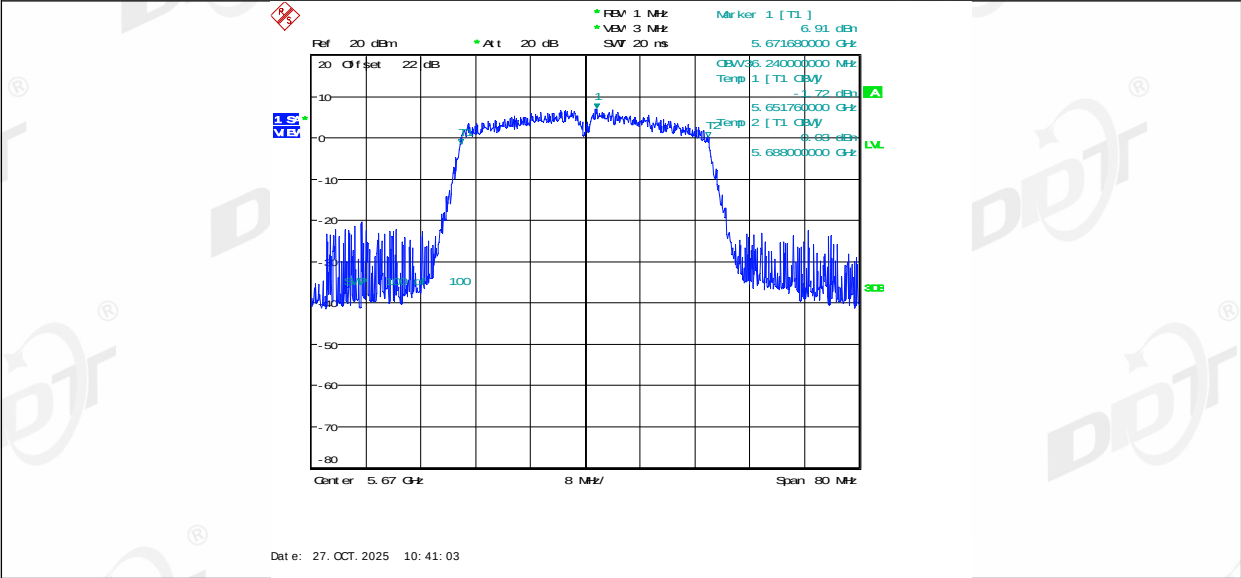
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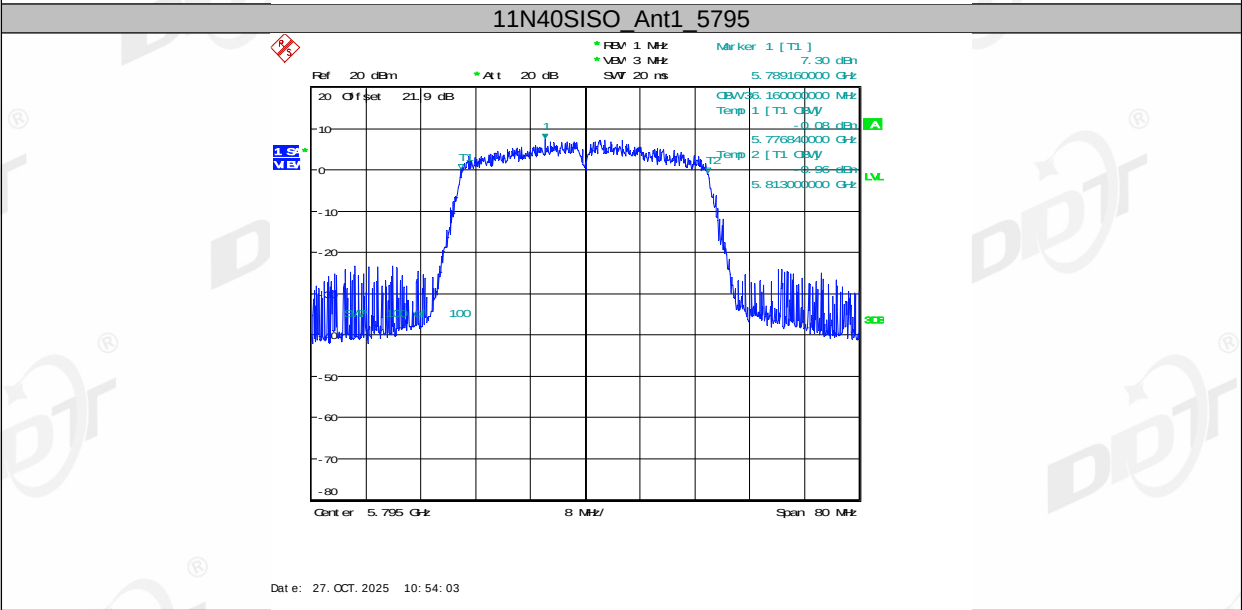
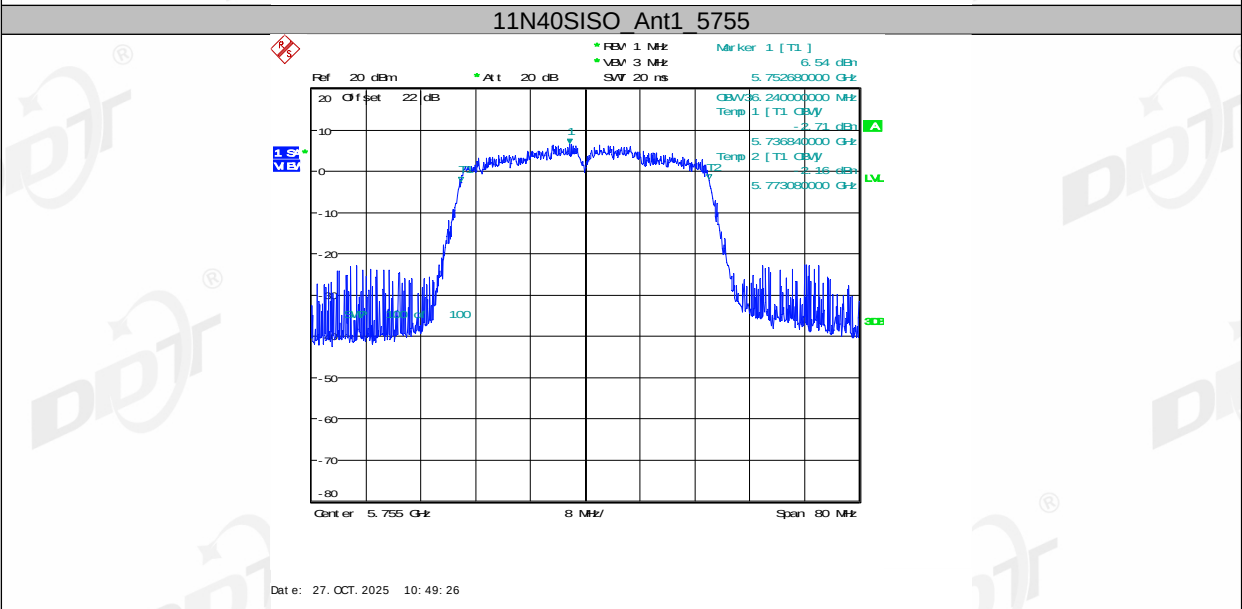
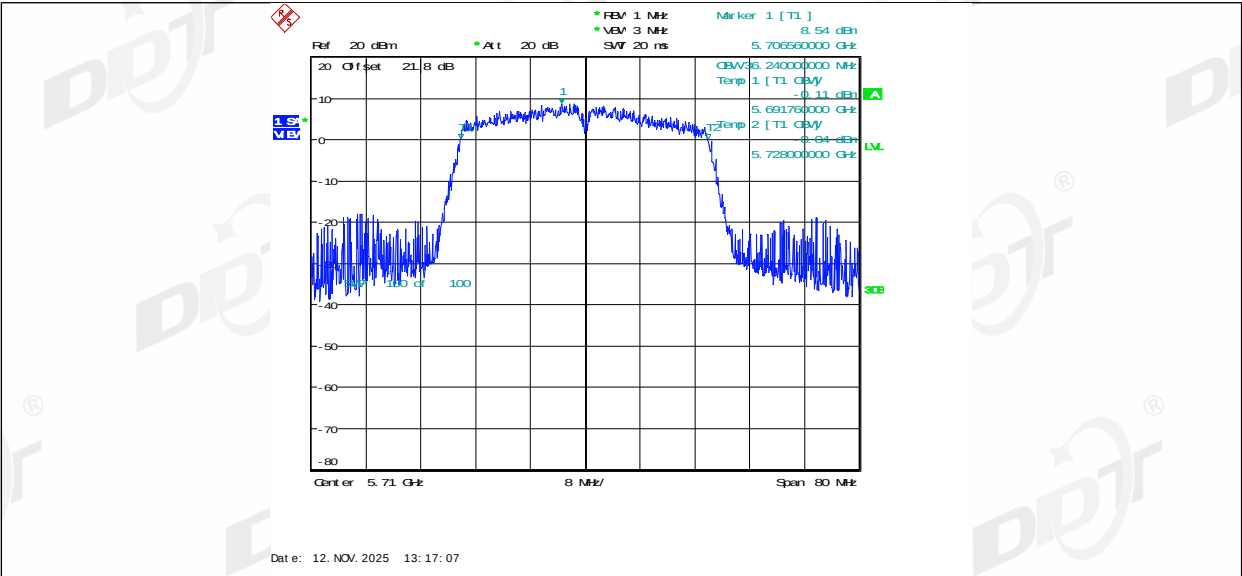
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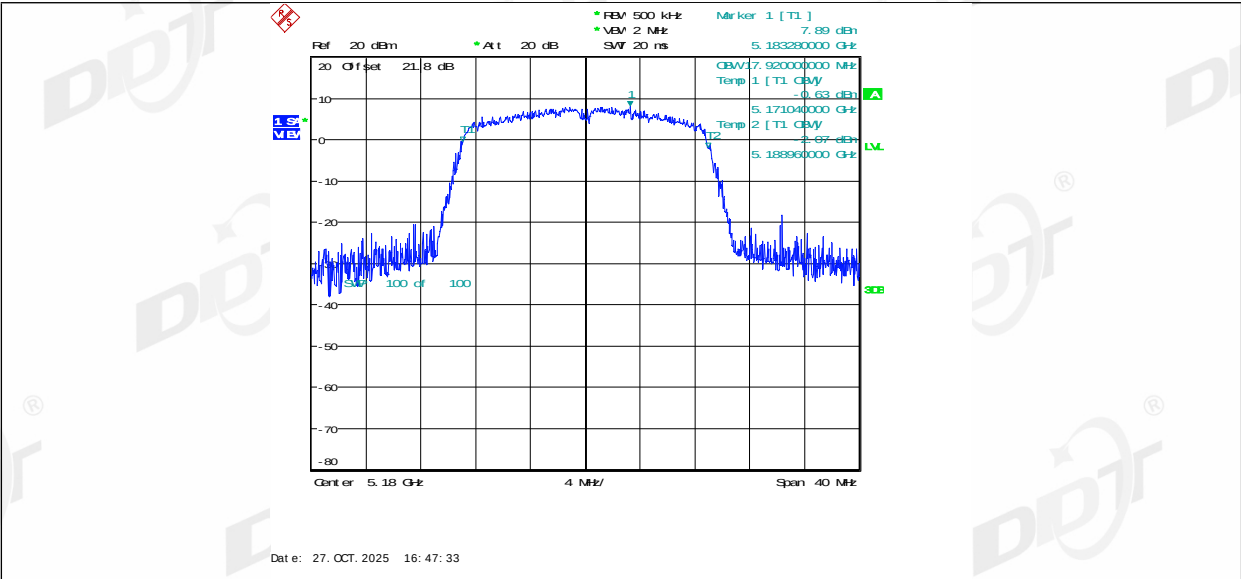


11N40SISO_Ant1_5670

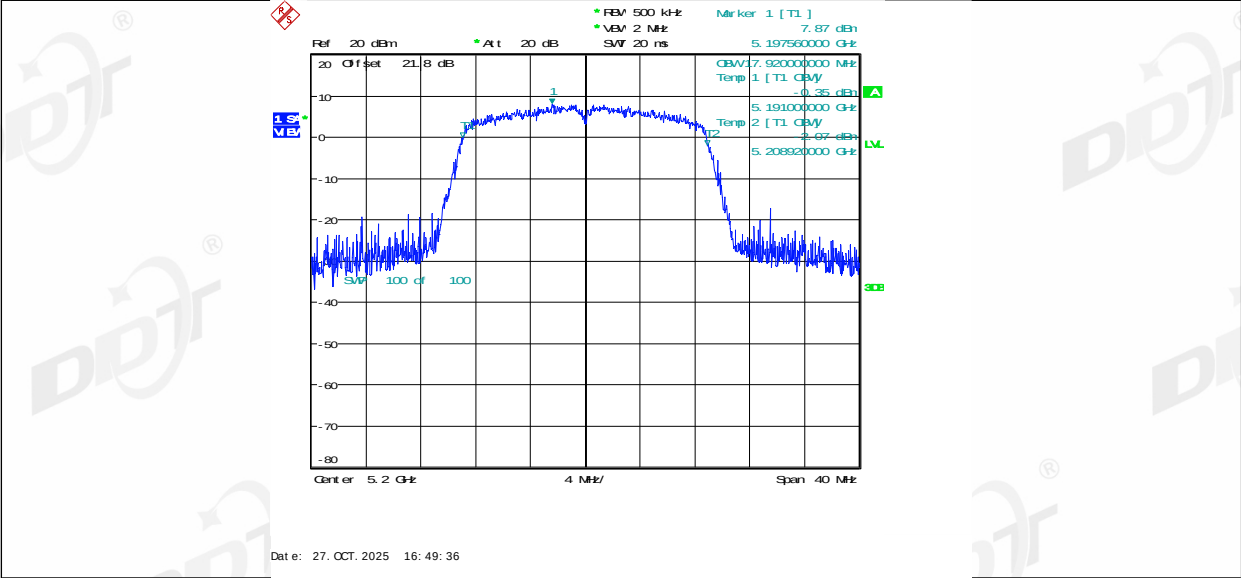


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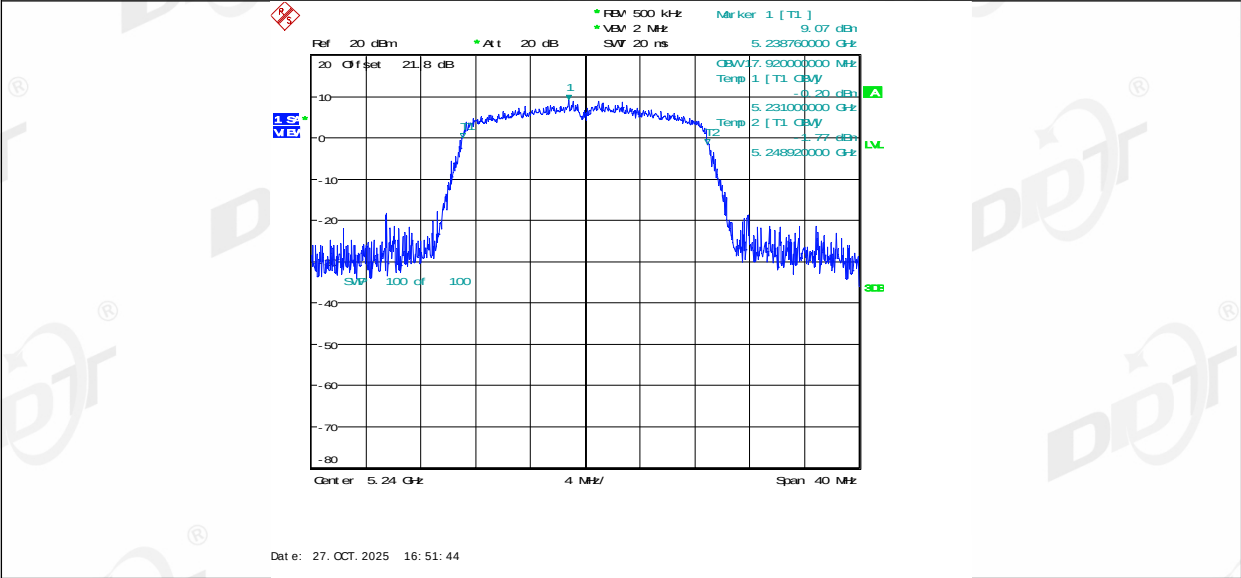




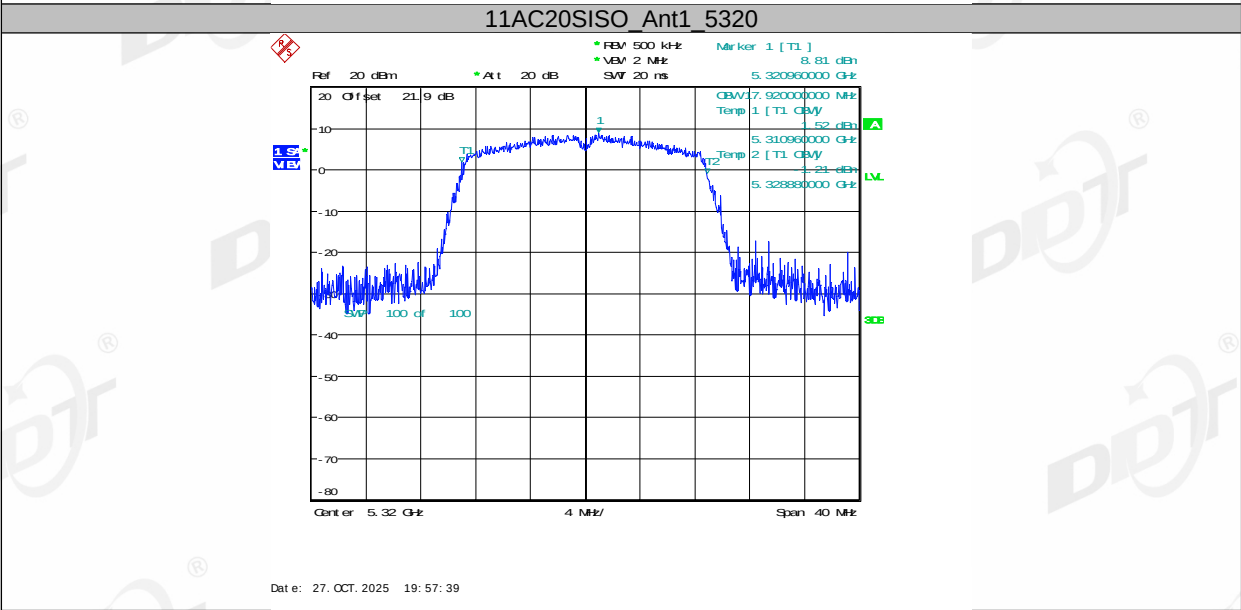
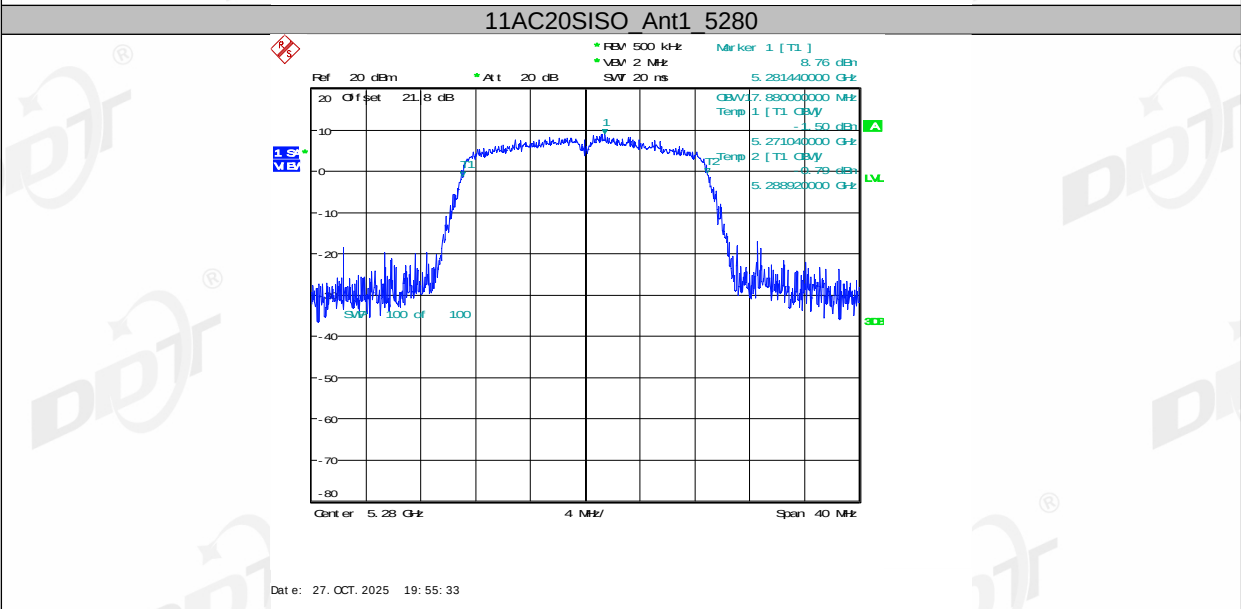
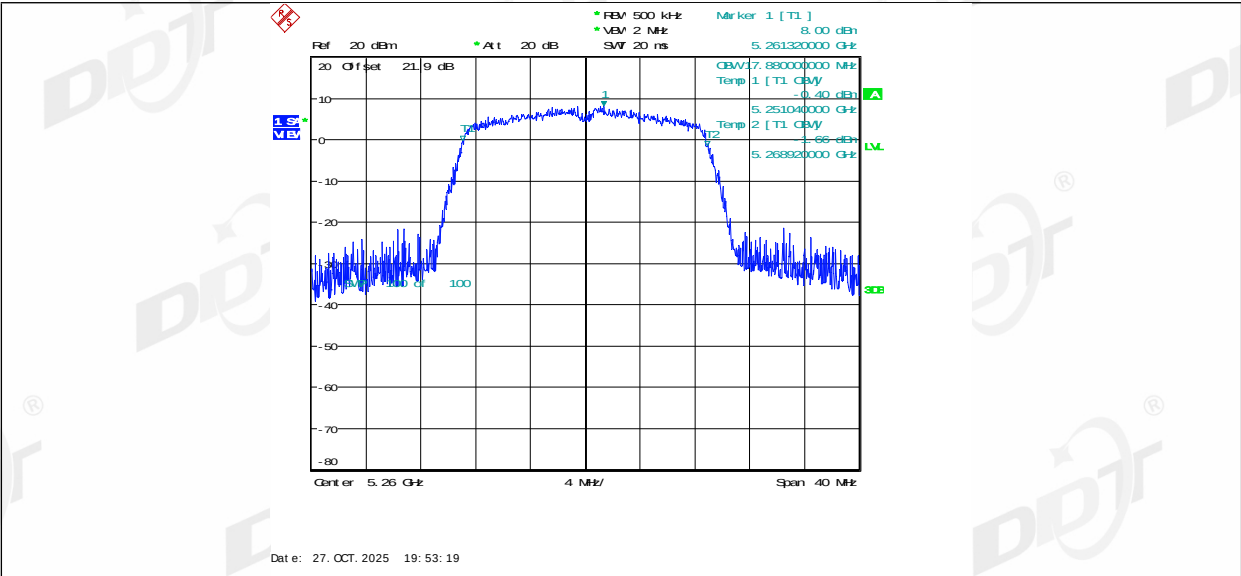
11AC20SISO Ant1 5200

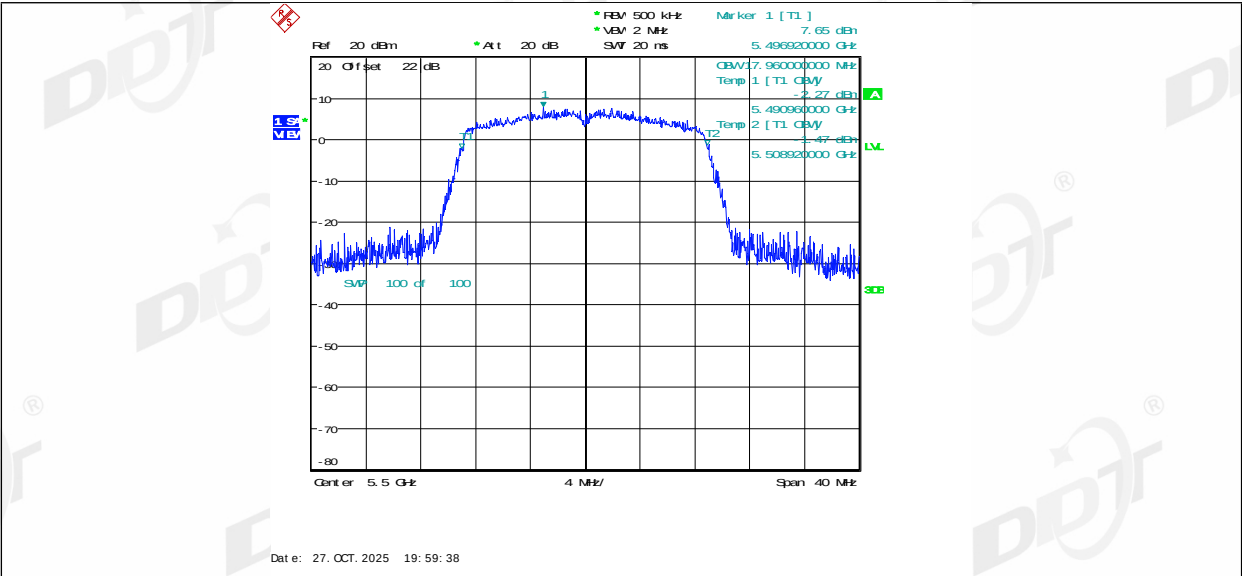


11AC20SISO Ant1 5240

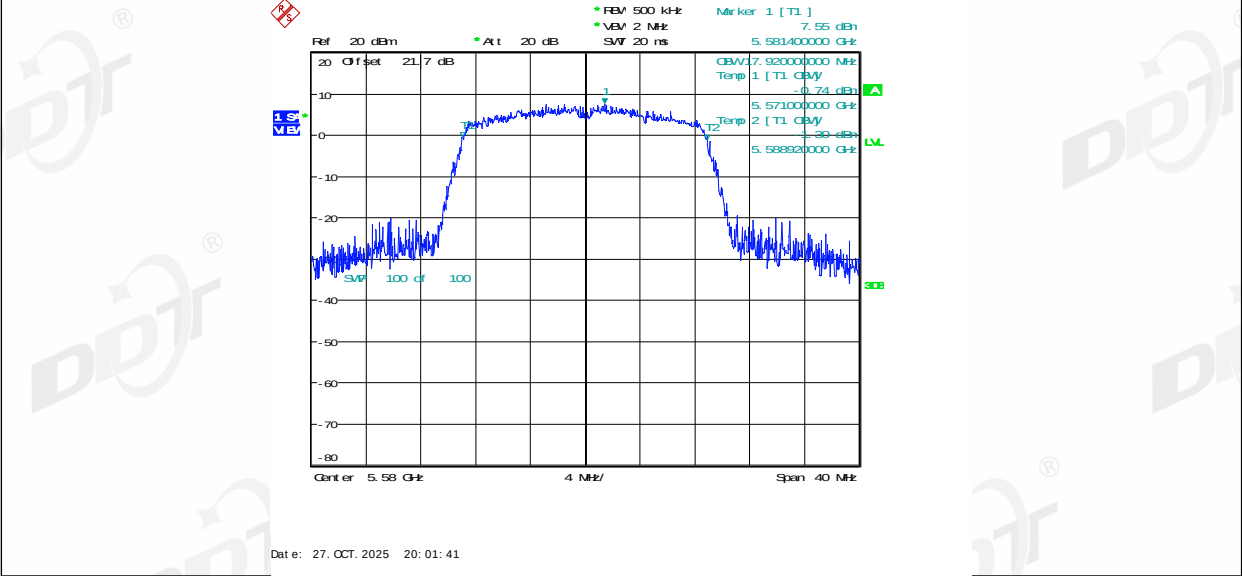


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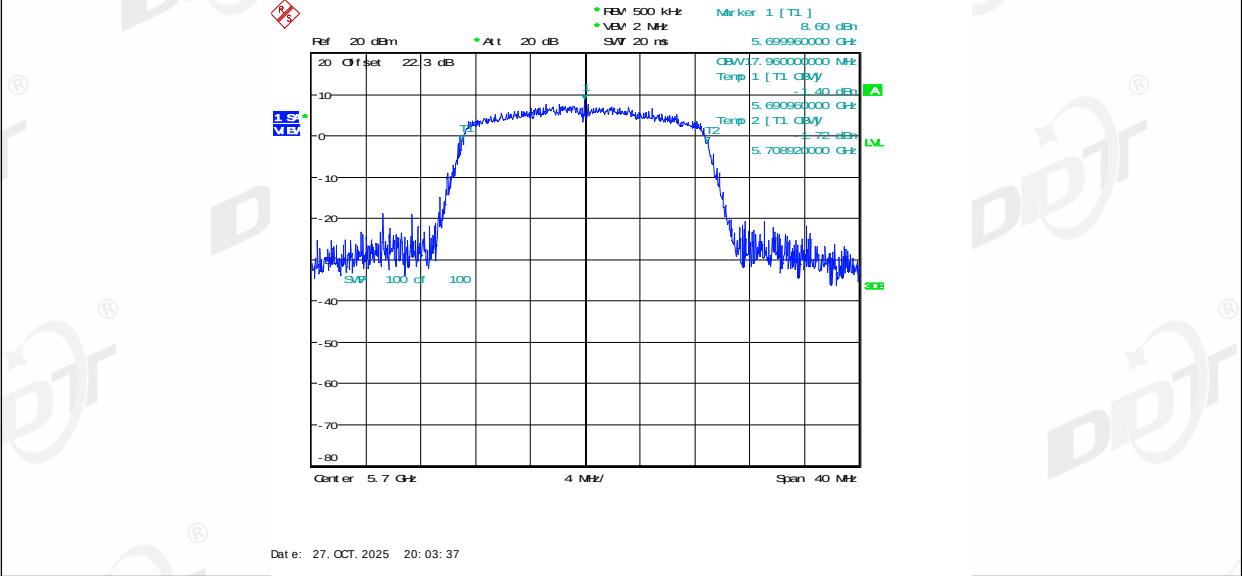




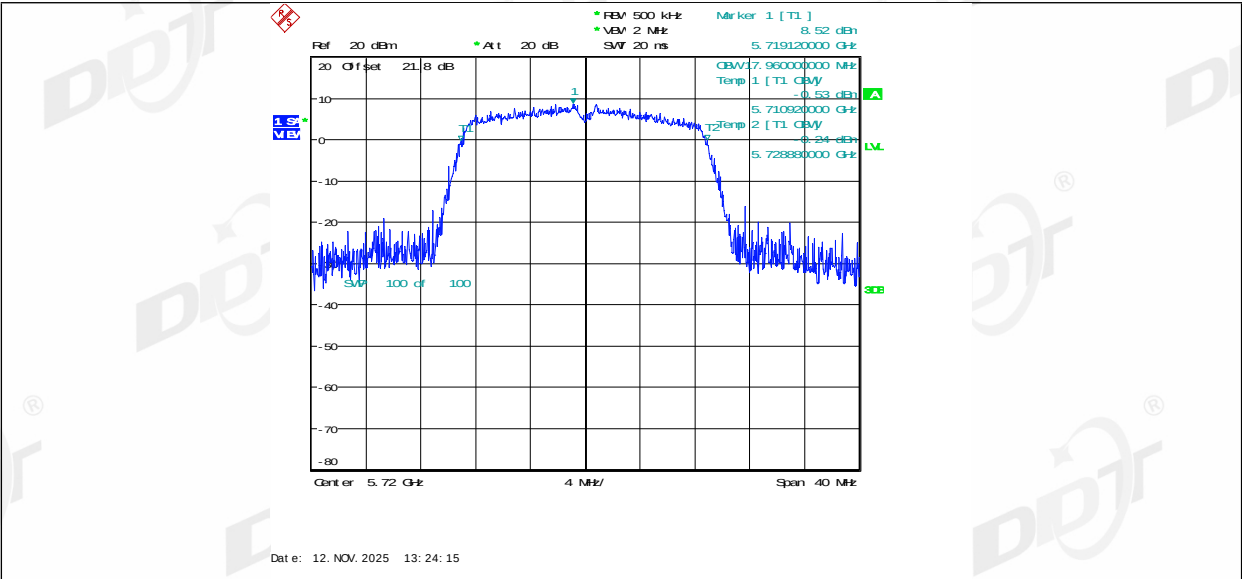
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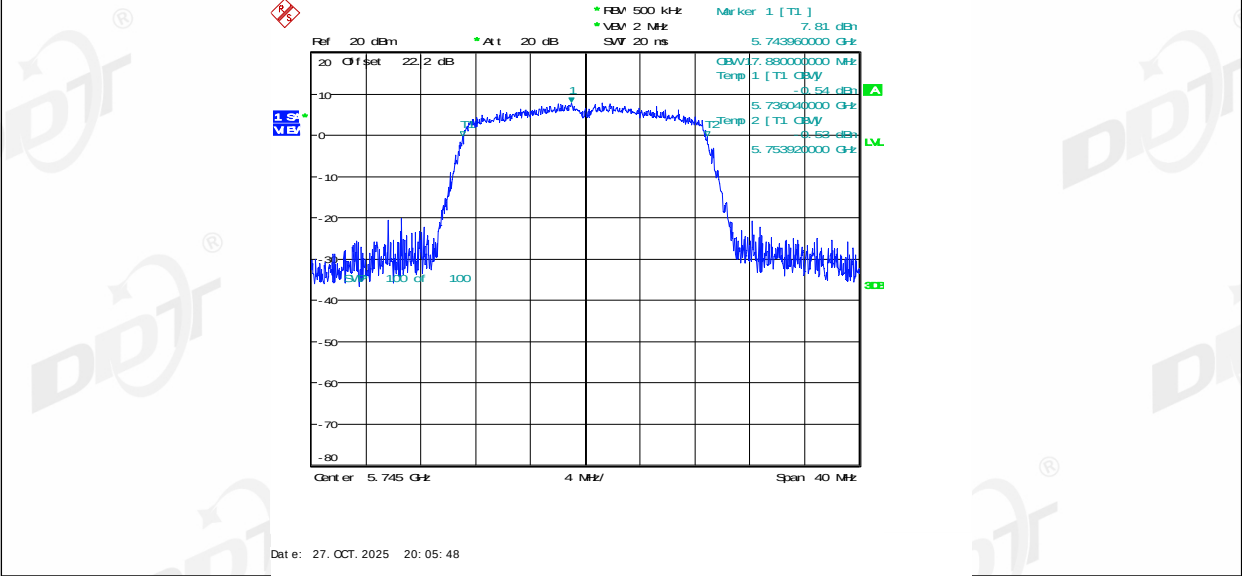
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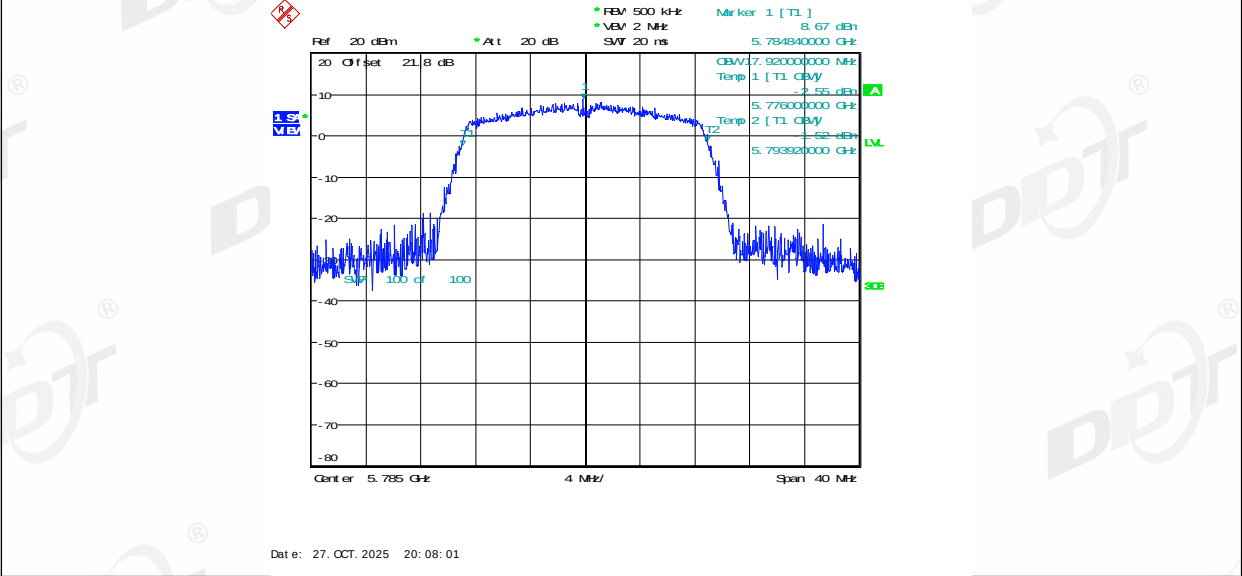
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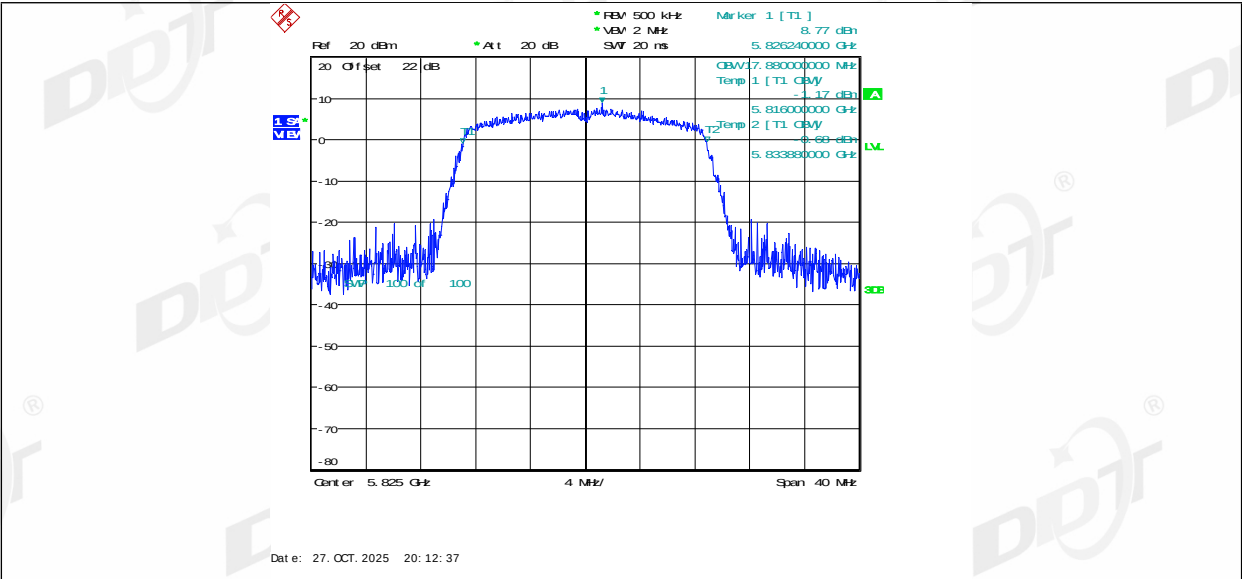
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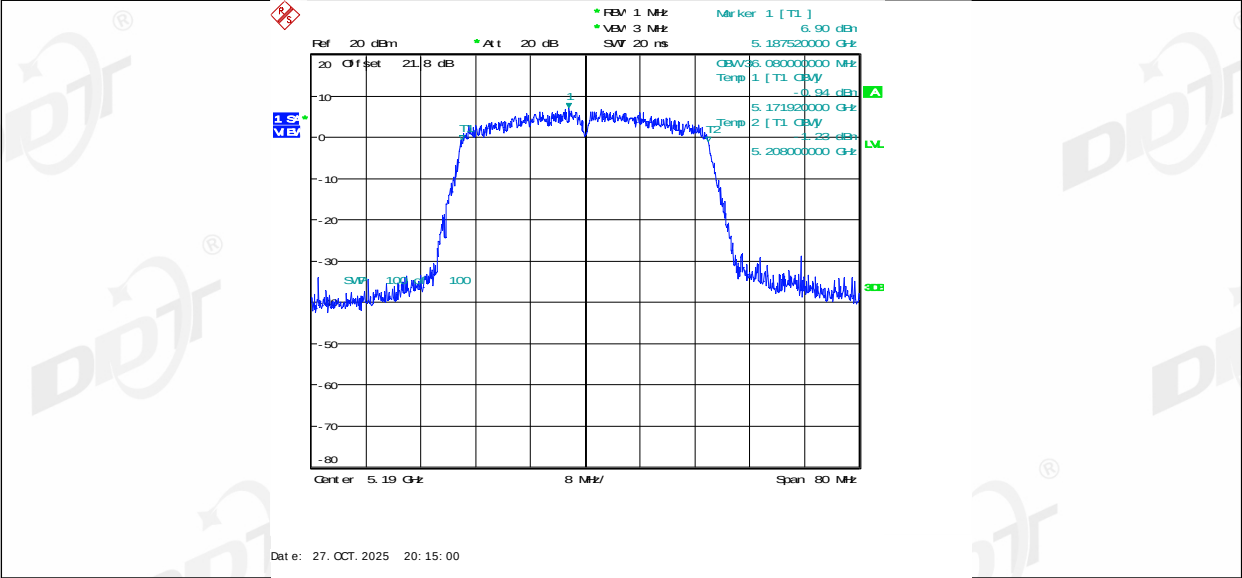
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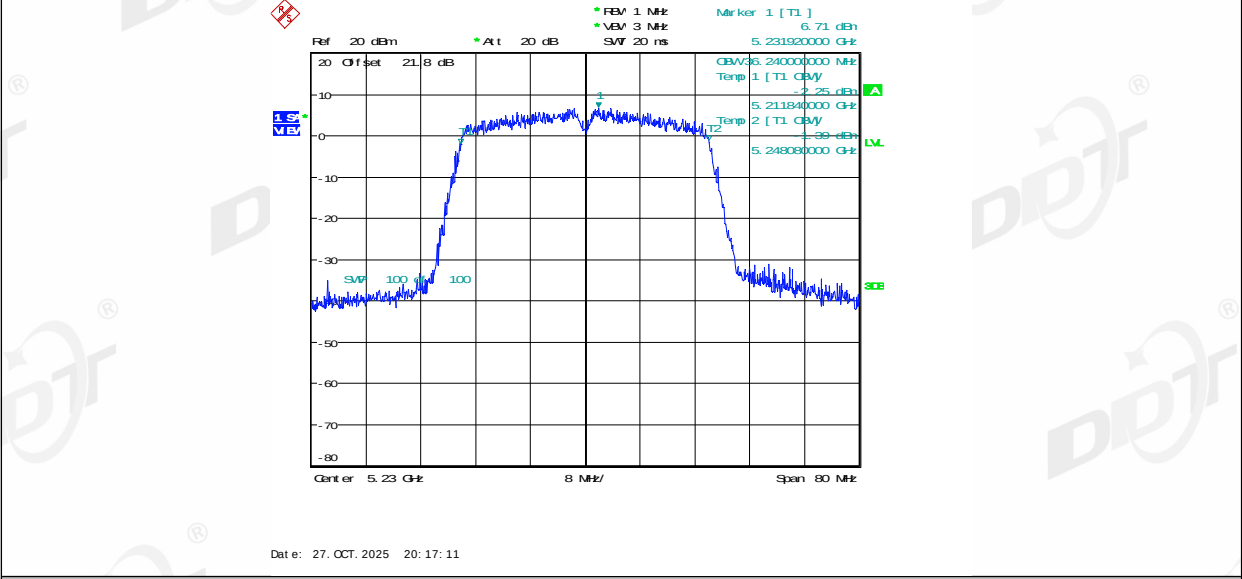
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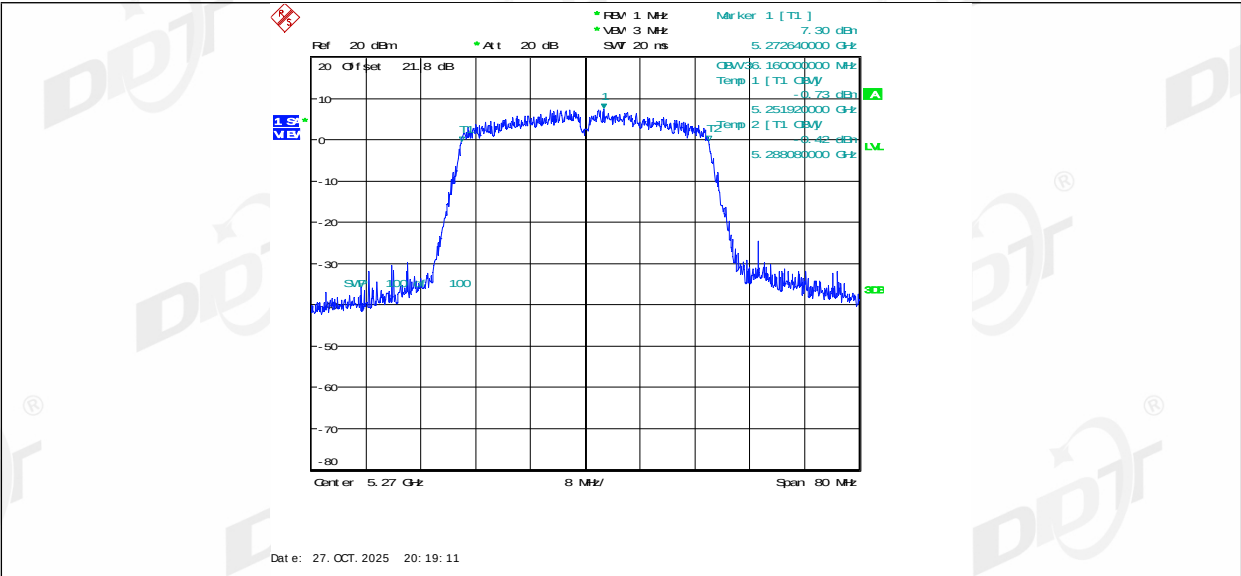
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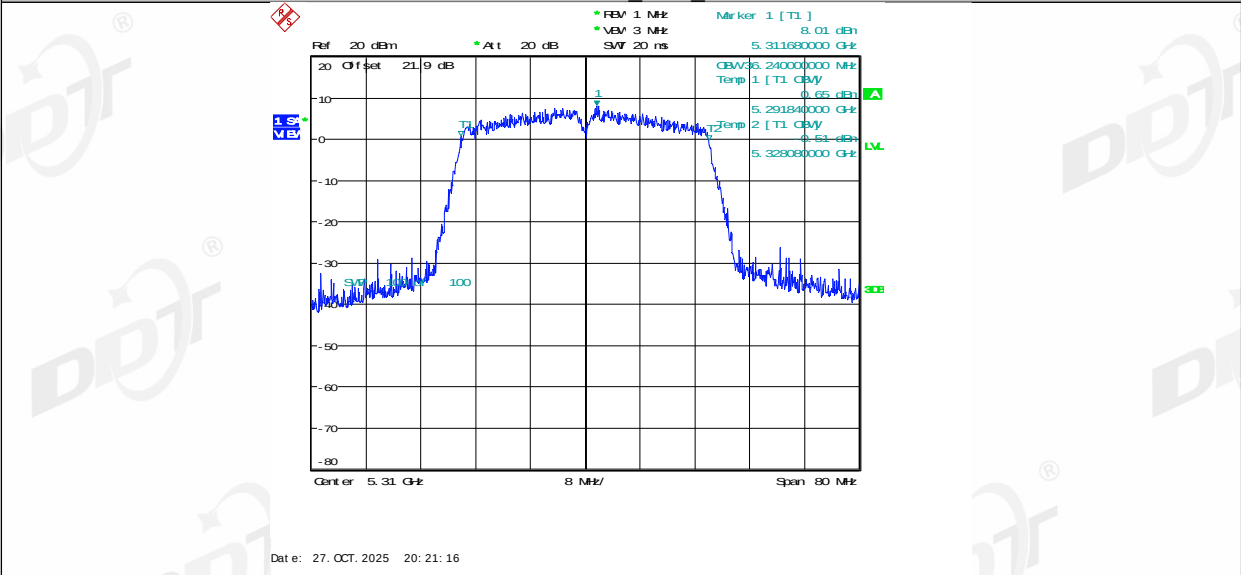
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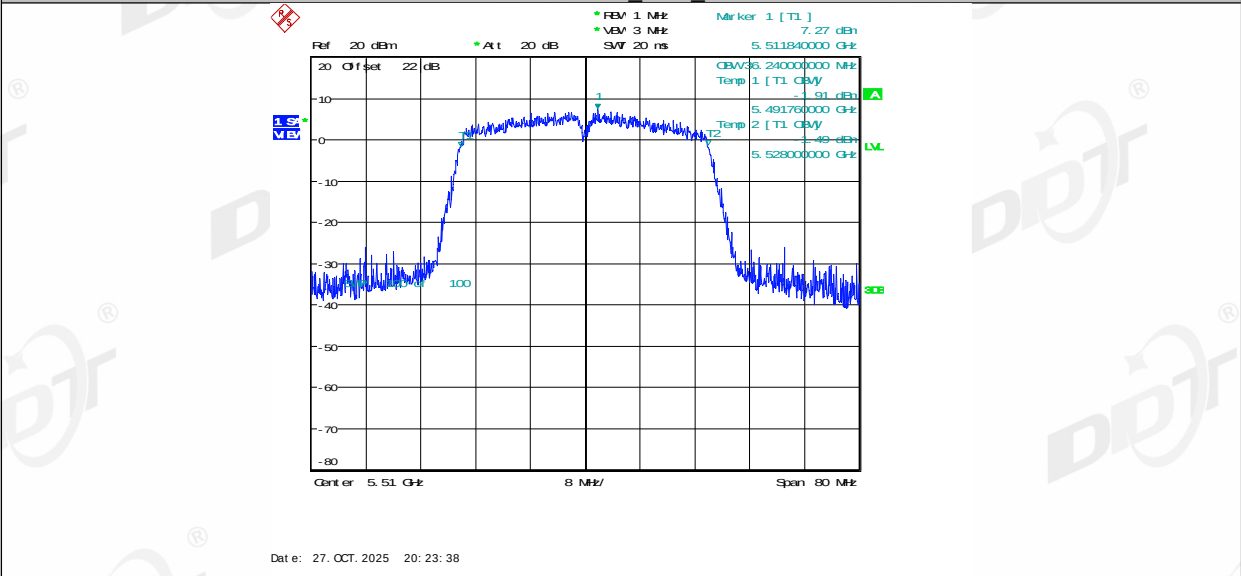
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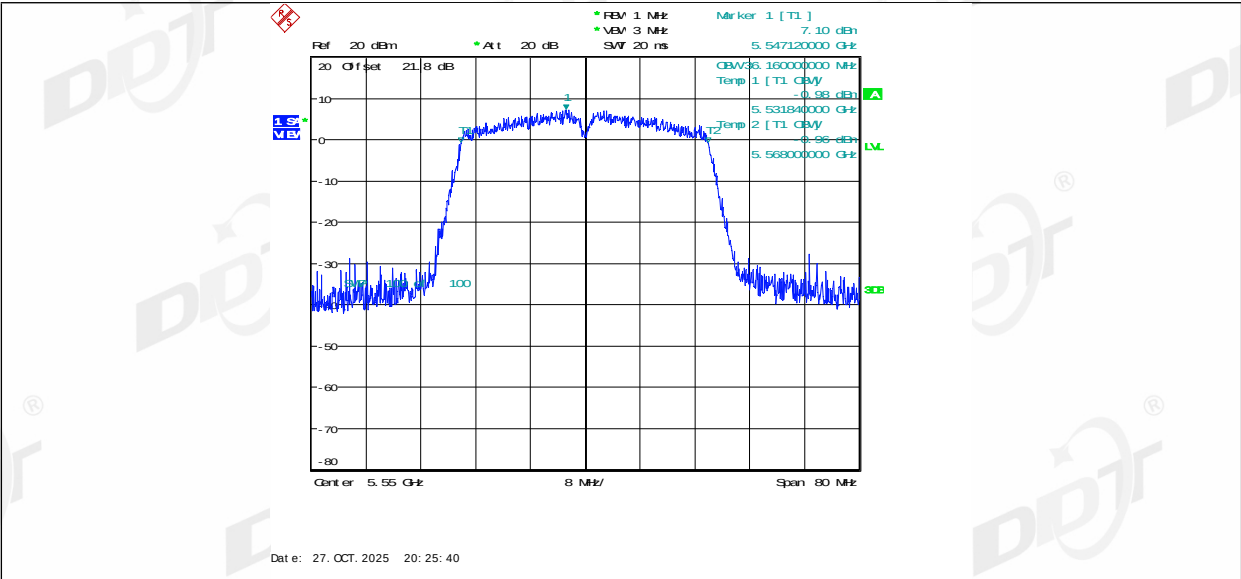
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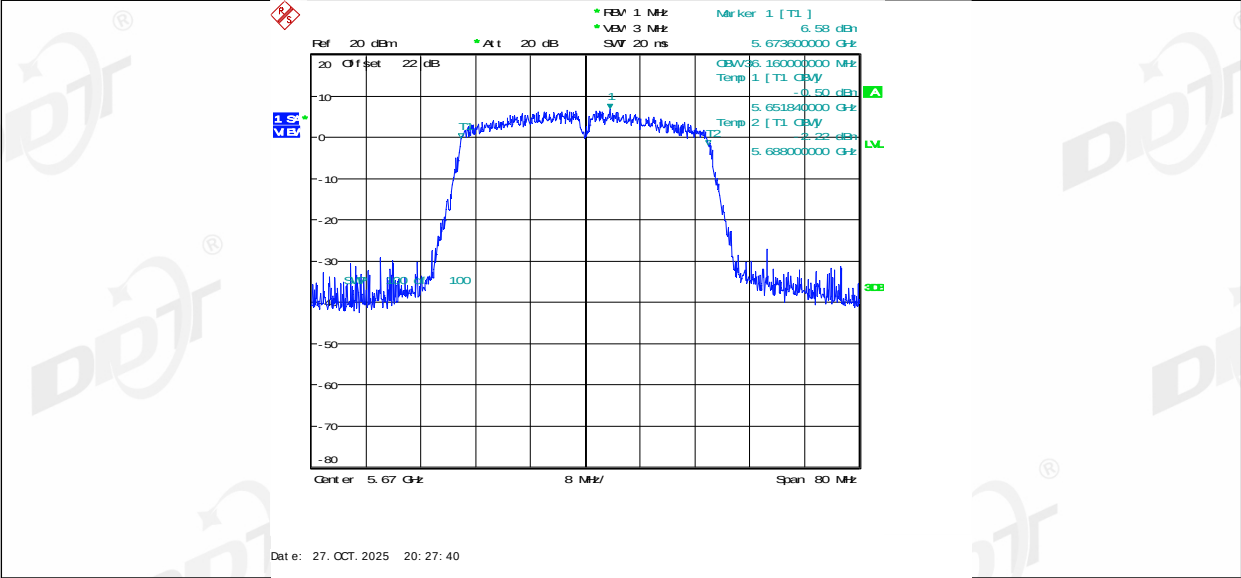
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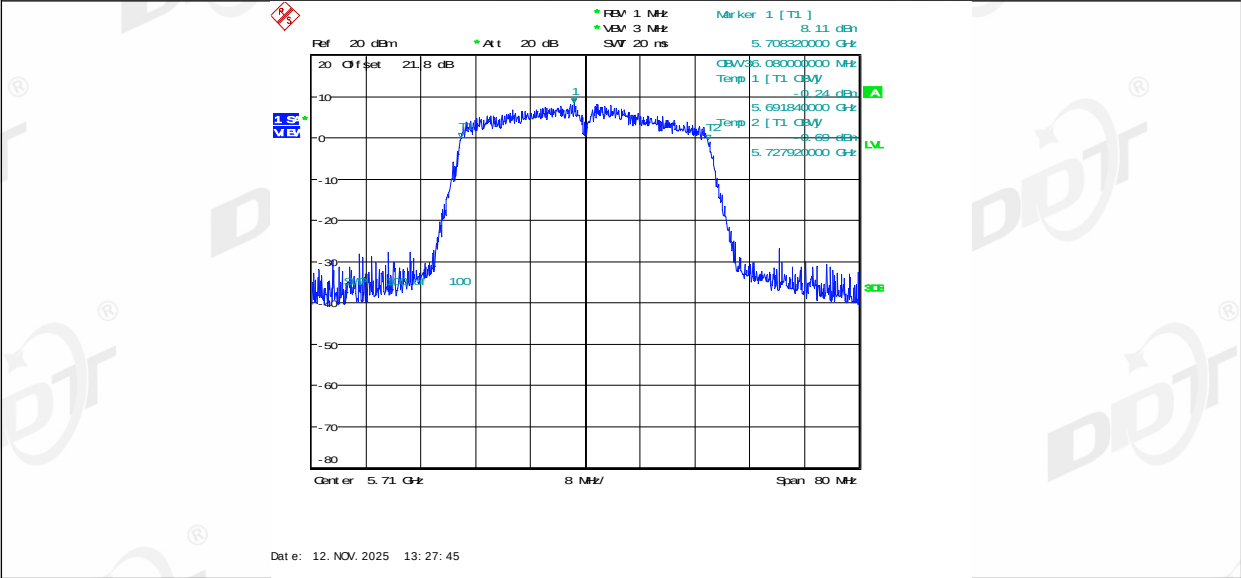
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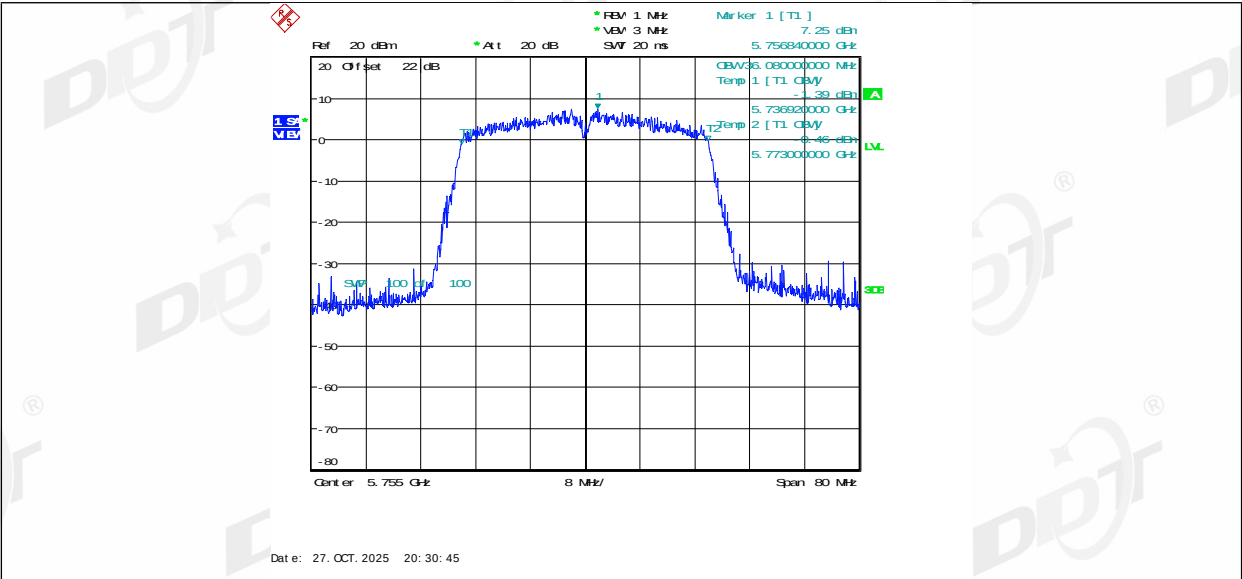
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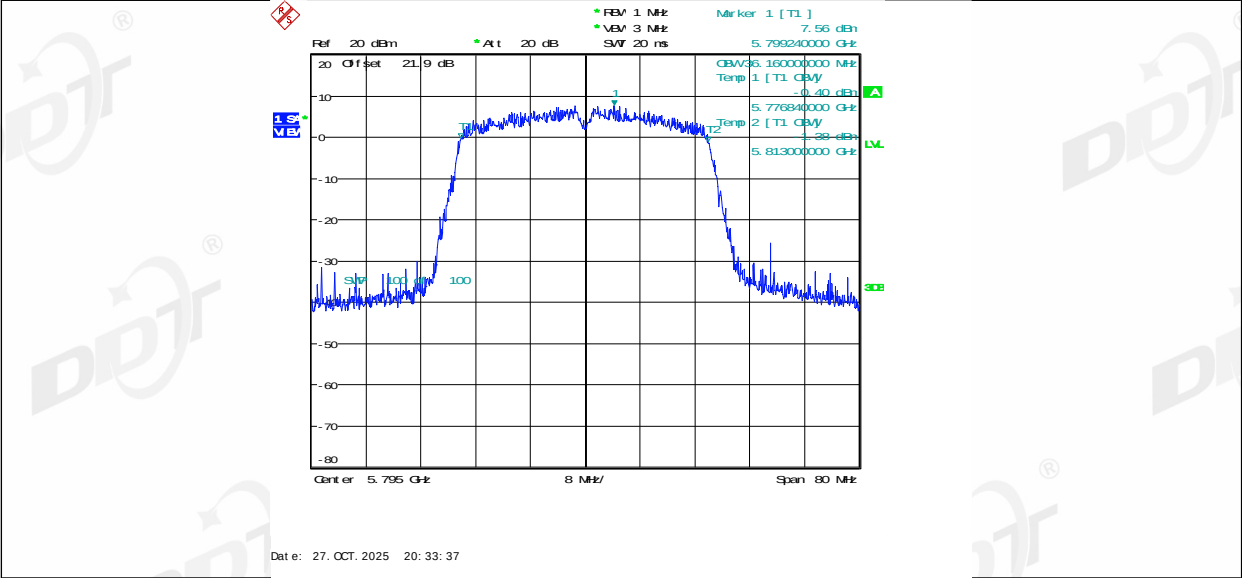
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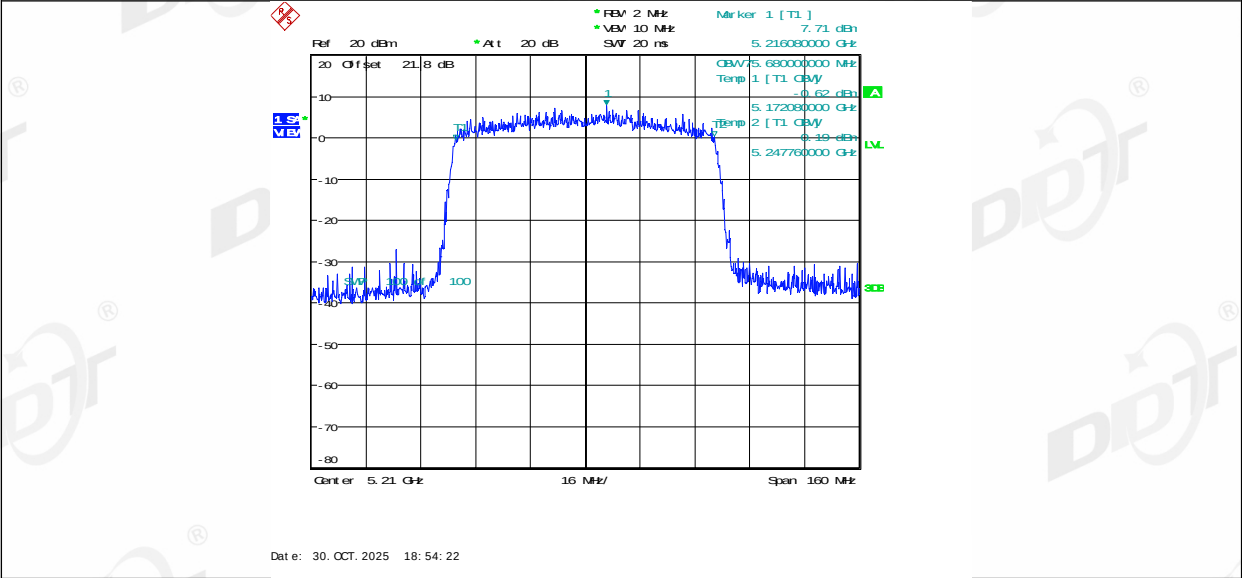
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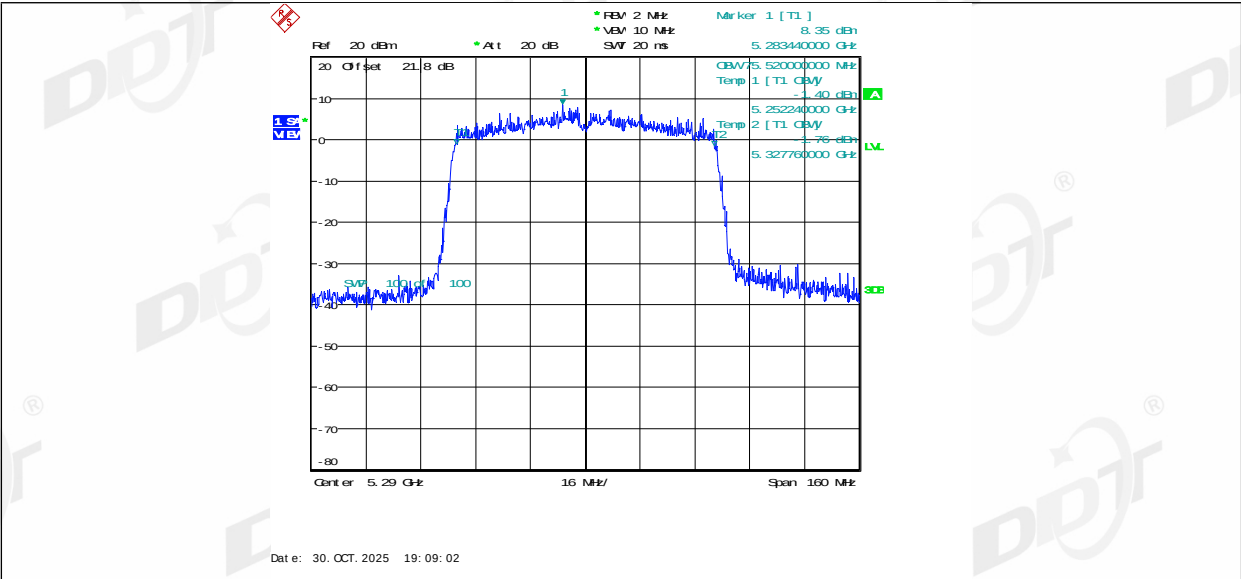
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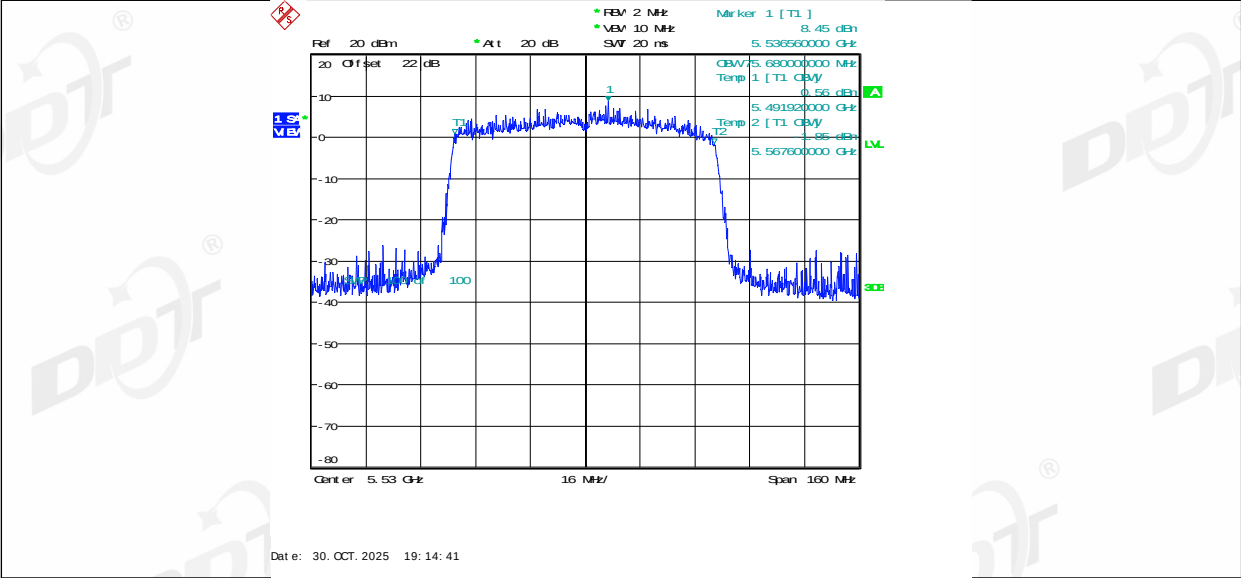
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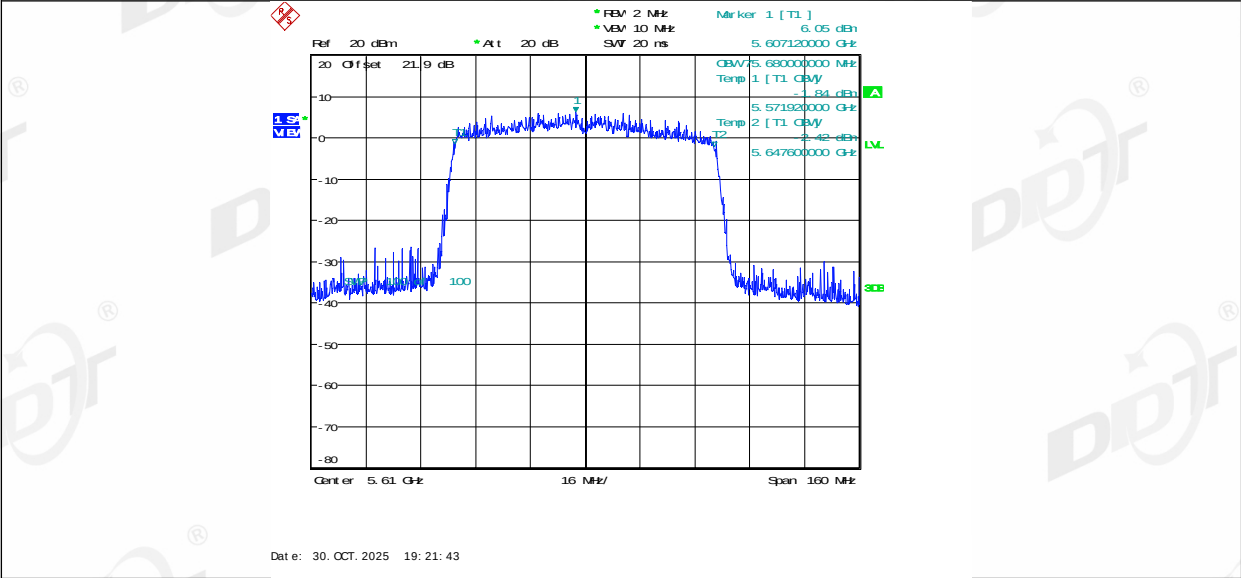
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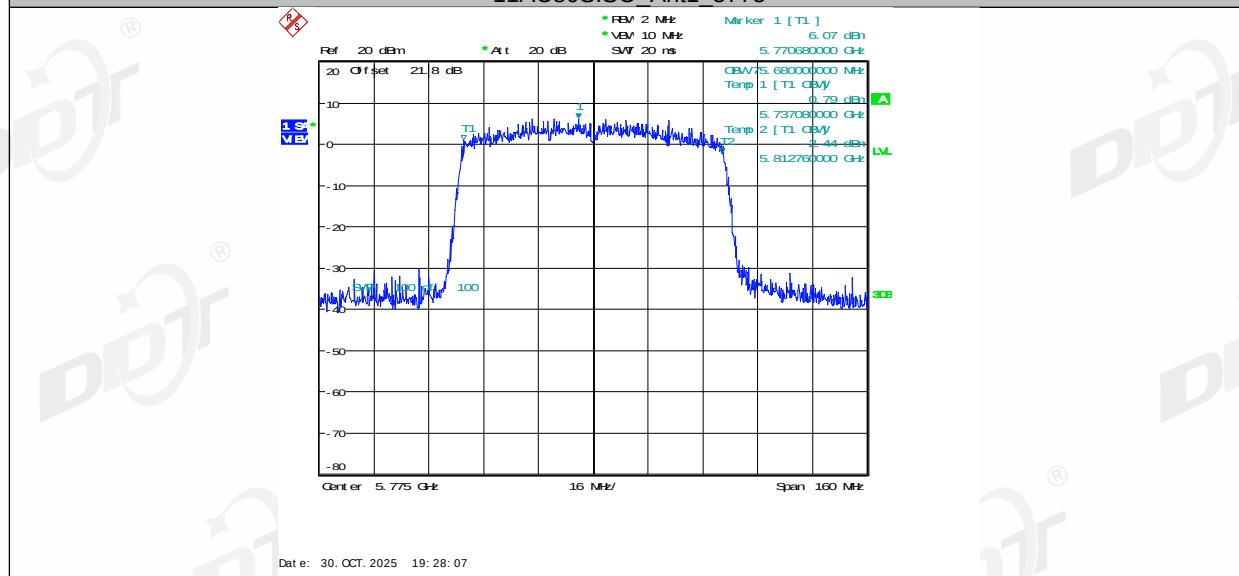
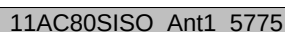
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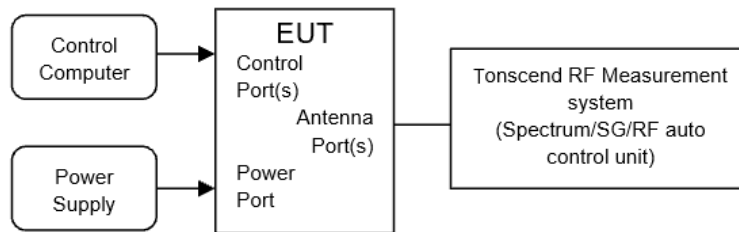


11AC80SISO Ant1 5690



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:
$$\text{Duty cycle} = \text{Pulse's on time} / \text{Burst cycle}$$

7.4. Test result

Test Engineer:	Zhongyao	Test Site:	RF Measurement System 1#
Ambient Condition:	25℃,45%RH	Test Date:	2025.10.26-2025.10.28
Test Power Supply:	Battery	Sample Number:	S25091019-002

Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.40	1.45	96.55
		5200	1.40	1.45	96.55
		5240	1.40	1.44	97.22
		5260	1.40	1.45	96.55
		5280	1.40	1.44	97.22
		5320	1.40	1.45	96.55
		5500	1.40	1.44	97.22
		5580	1.40	1.44	97.22
		5700	1.40	1.44	97.22
		5720	1.40	1.44	97.22
		5745	1.40	1.44	97.22
		5785	1.40	1.44	97.22
		5825	1.40	1.44	97.22
		5180	1.31	1.35	97.04
11N20SISO	Ant1	5200	1.30	1.35	96.30
		5240	1.30	1.35	96.30
		5260	1.31	1.35	97.04
		5280	1.31	1.35	97.04
		5320	1.31	1.35	97.04
		5500	1.31	1.35	97.04
		5580	1.31	1.35	97.04
		5700	1.31	1.35	97.04
		5720	1.30	1.35	96.30
		5745	1.31	1.35	97.04
		5785	1.30	1.35	96.30
		5825	1.31	1.35	97.04
		5190	0.65	0.69	94.20
11N40SISO	Ant1	5230	0.65	0.70	92.86
		5270	0.65	0.69	94.20
		5310	0.65	0.70	92.86
		5510	0.65	0.69	94.20
		5550	0.65	0.69	94.20
		5670	0.65	0.69	94.20
		5710	0.65	0.69	94.20
		5755	0.65	0.70	92.86
		5795	0.65	0.69	94.20
		5180	1.32	1.36	97.06
11AC20SISO	Ant1	5200	1.32	1.36	97.06
		5240	1.32	1.37	96.35
		5260	1.32	1.37	96.35
		5280	1.32	1.36	97.06
		5320	1.32	1.36	97.06
		5500	1.32	1.36	97.06
		5580	1.32	1.37	96.35
		5700	1.32	1.36	97.06
		5720	1.32	1.37	96.35
		5745	1.32	1.36	97.06
		5785	1.32	1.36	97.06
		5825	1.32	1.36	97.06
		5190	0.66	0.70	94.29
11AC40SISO	Ant1	5230	0.66	0.70	94.29
		5270	0.65	0.70	92.86
		5310	0.66	0.70	94.29
		5510	0.65	0.70	92.86
		5550	0.66	0.70	94.29
		5190	0.66	0.70	94.29

		5670	0.66	0.70	94.29
		5710	0.65	0.70	92.86
		5755	0.66	0.70	94.29
		5795	0.65	0.70	92.86
11AC80SISO	Ant1	5210	0.32	0.37	86.49
		5290	0.32	0.37	86.49
		5530	0.33	0.37	89.19
		5610	0.32	0.37	86.49
		5690	0.33	0.37	89.19
		5775	0.33	0.37	89.19

11A_Ant1_5180

Ref: 30 dBm, Att: 25 dB, RBW: 10 MHz, VBW: 10 MHz, SRF: 5 ns, Delta 2 [T1]: -0.27 dB, 1.450000 ns

30 Offset 21.8 dB, 1.27 dB, 1.300000 ns, 2.25 dB, 1.400000 ns

1 R+ CURV

SWR 1 c 1

Center 5.18 GHz, 500 μ s

Date: 26. OCT. 2025 16:20:05

11A_Ant1_5200

Ref: 30 dBm, Att: 25 dB, RBW: 10 MHz, VBW: 10 MHz, SRF: 5 ns, Delta 2 [T1]: -0.35 dB, 1.450000 ns

30 Offset 21.8 dB, 1.00 dB, 1.300000 ns, -2.35 dB, 1.400000 ns

1 R+ CURV

SWR 1 c 1

Center 5.2 GHz, 500 μ s

Date: 26. OCT. 2025 16:24:56

11A_Ant1_5240

Ref: 30 dBm, Att: 25 dB, RBW: 10 MHz, VBW: 10 MHz, SRF: 5 ns, Delta 2 [T1]: 0.25 dB, 1.440000 ns

30 Offset 21.8 dB, 16.79 dB, 20.000000 μ s, 42.04 dB, 1.400000 ns

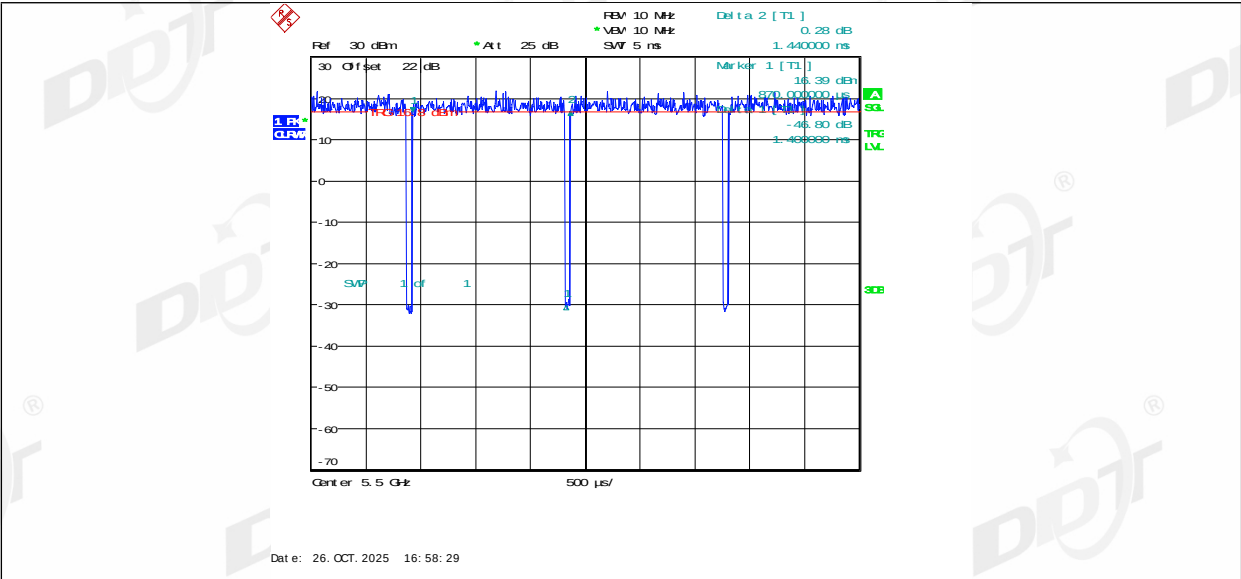
1 R+ CURV

SWR 1 c 1

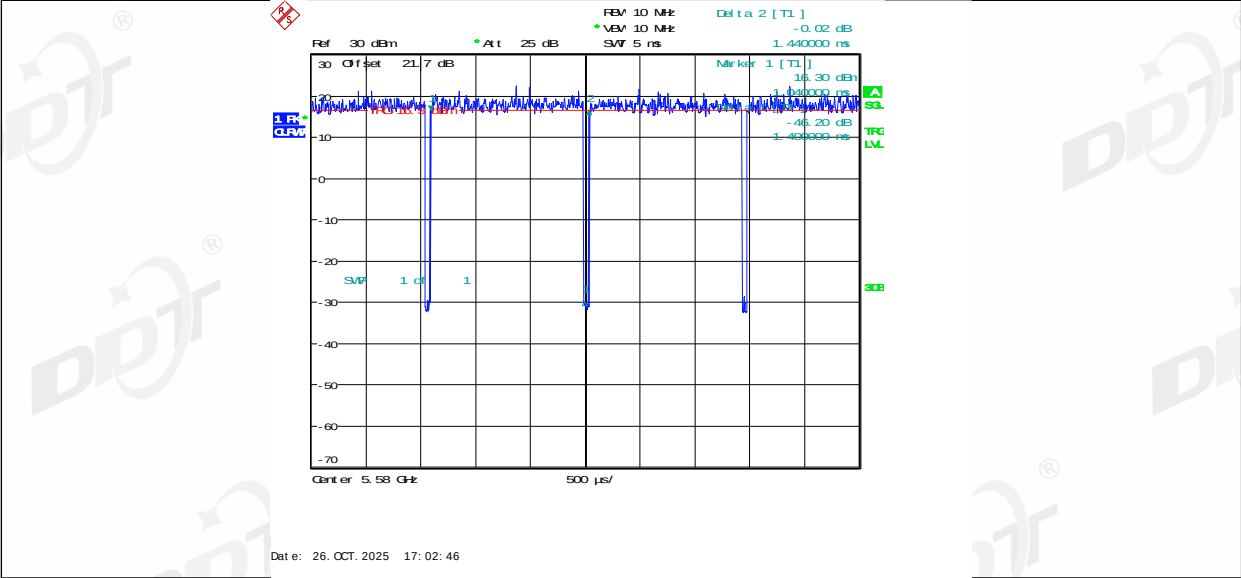
Center 5.24 GHz, 500 μ s

Date: 26. OCT. 2025 16:29:11

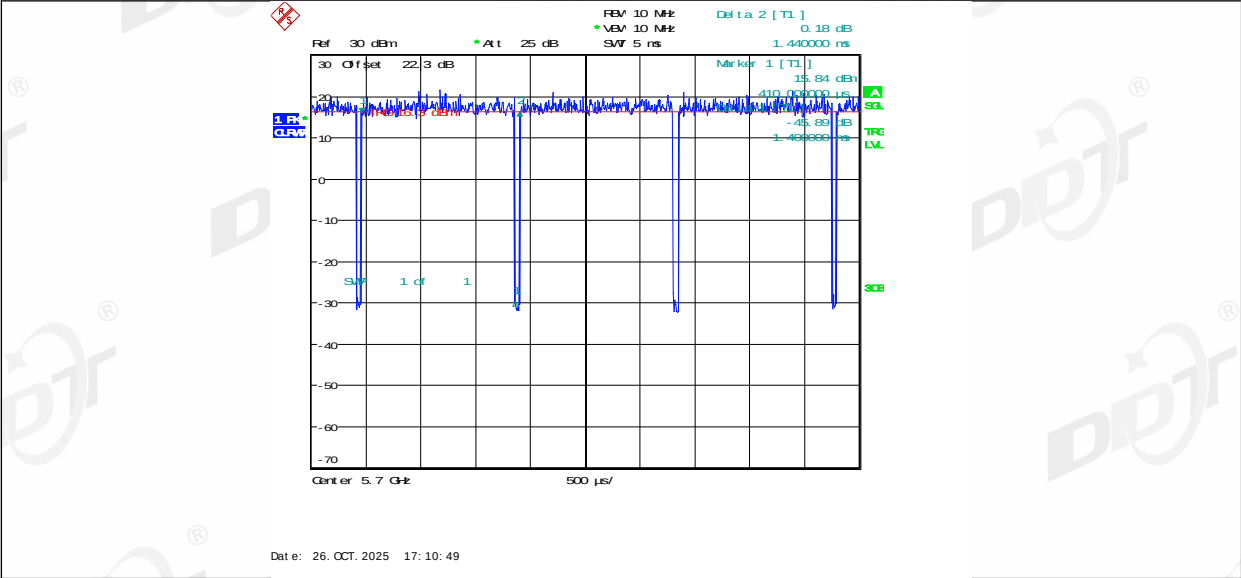




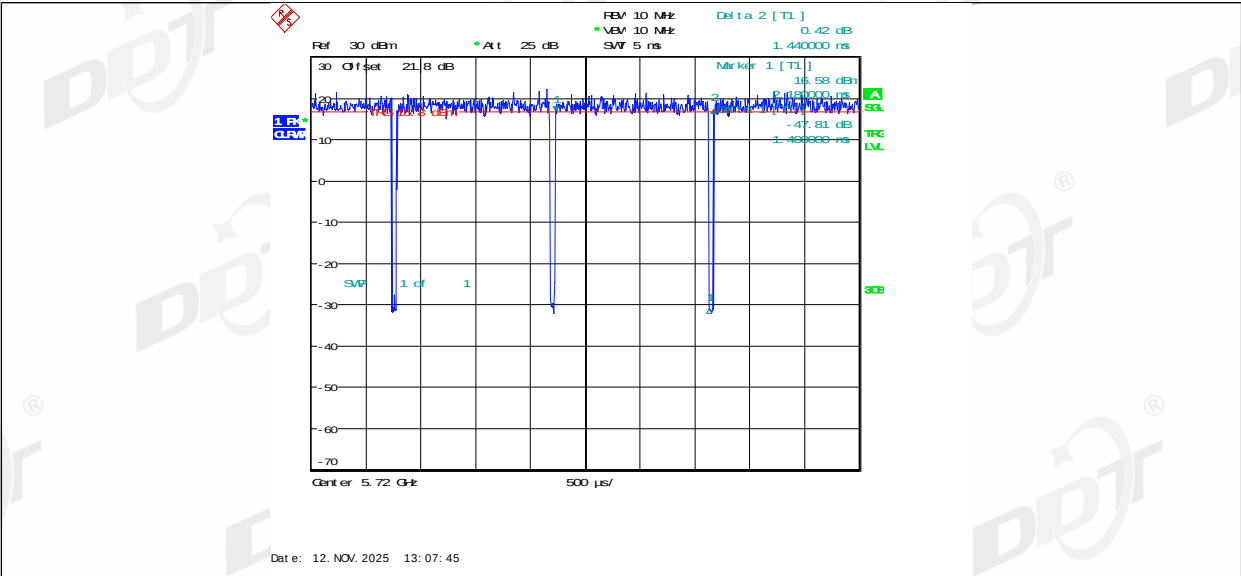
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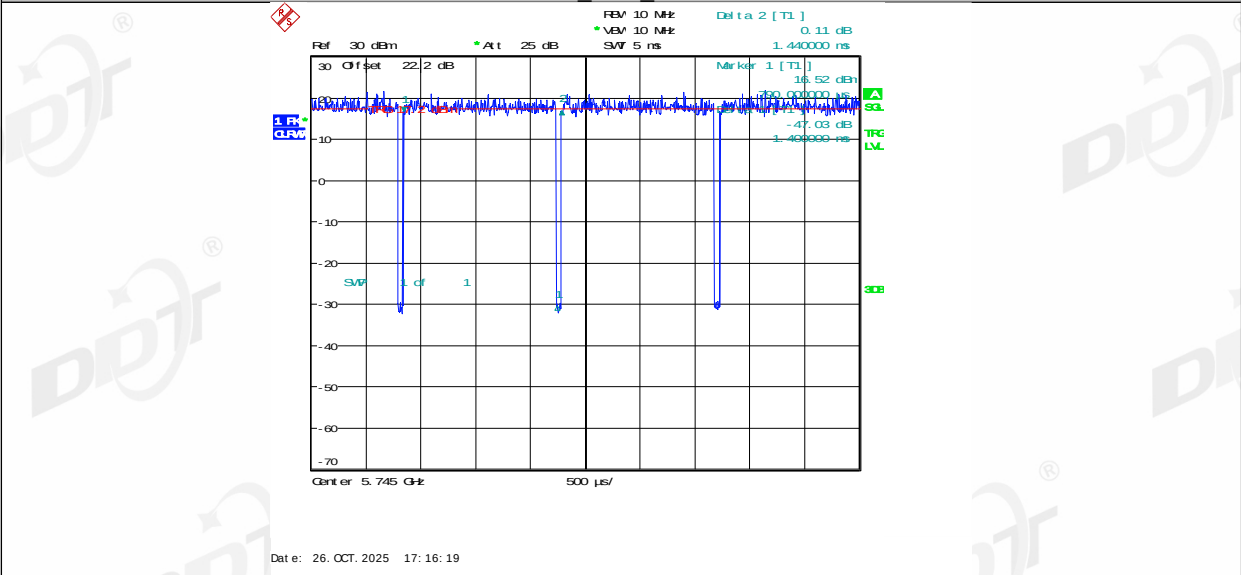
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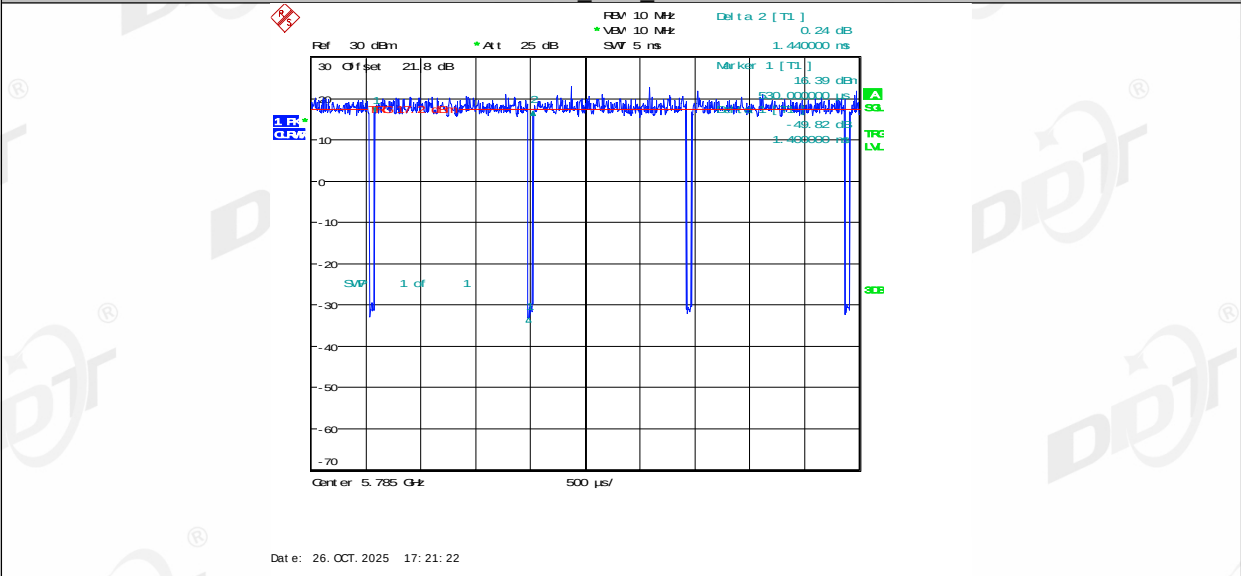
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11A_Ant1_5745



11A_Ant1_5785



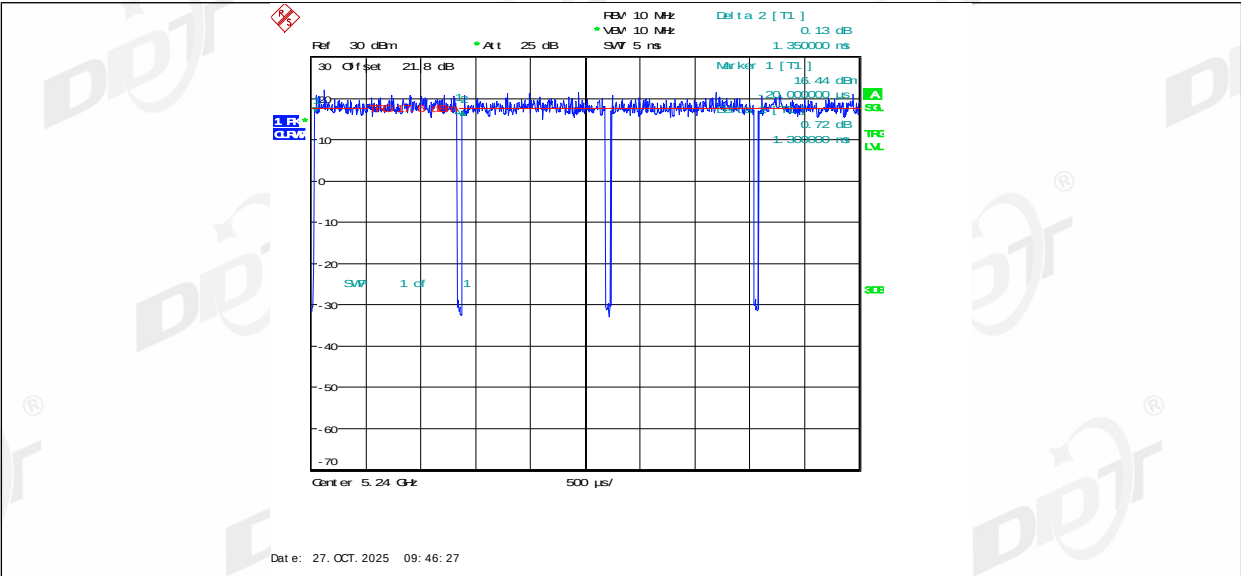
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[illegible]

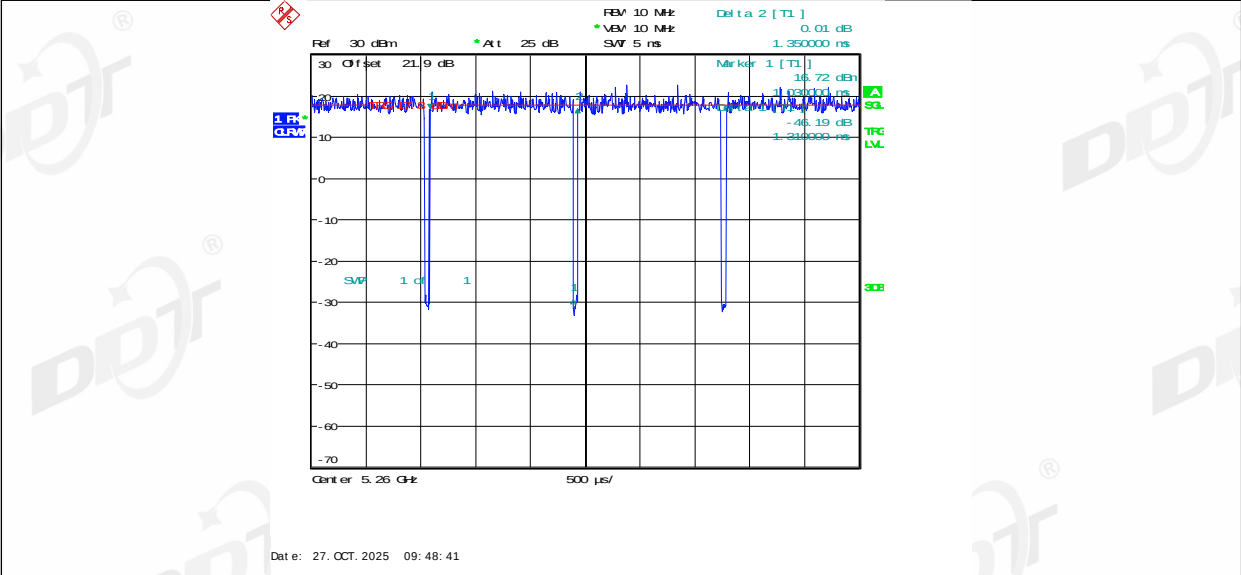
Date: 27. OCT. 2025 09:26:38

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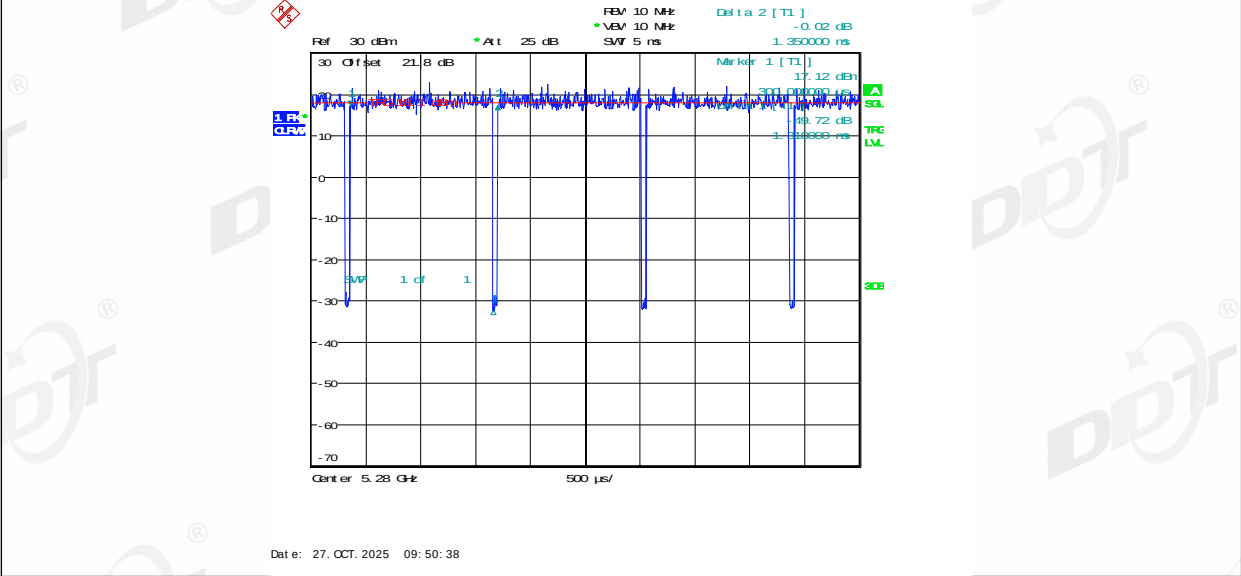
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11N20SISO_Ant1_5260



11N20SISO_Ant1_5280



11N20SISO_Ant1_5320