

RF Test Data for 5G Wi-Fi (Conducted Measurements)

General Description of EUT	
Product Name:	AI>Note
Test Model:	inkNote Color+
Sample ID:	HC-C-202311-0325-04-01-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 3.7V
Test Engineer:	Zhou Zhen
Note: For a more detailed features description, please refer to the report TBR-C-202311-0325-63	

Contents

1. Emission Bandwidth.....	3
1.1. Test Result.....	3
2.1. Test Graphs	4
2. Occupied channel bandwidth	9
2.1. Test Result.....	9
2.2. Test Graphs	10
3. Min emission bandwidth	19
3.1. Test Result.....	19
3.2. Test Graphs	20
4. Maximum conducted output power.....	25
4.1. Test Result.....	25
5. Maximum power spectral density	26
5.1. Test Result.....	26
5.2. Test Graphs	27
6. Band edge measurements	36
6.1. Test Result.....	36
6.2. Test Graphs	38
7. Emissions in Restricted Bands.....	46
7.1. Test Result.....	46
7.2. Test Graphs	49
8. Conducted Spurious Emission.....	60
8.1. Test Result.....	60
8.2. Test Graphs	62
9. Frequency Stability	80
9.1. Test Result.....	80
10. Duty Cycle	88
10.1. Test Result.....	88
10.2. Test Graphs.....	89

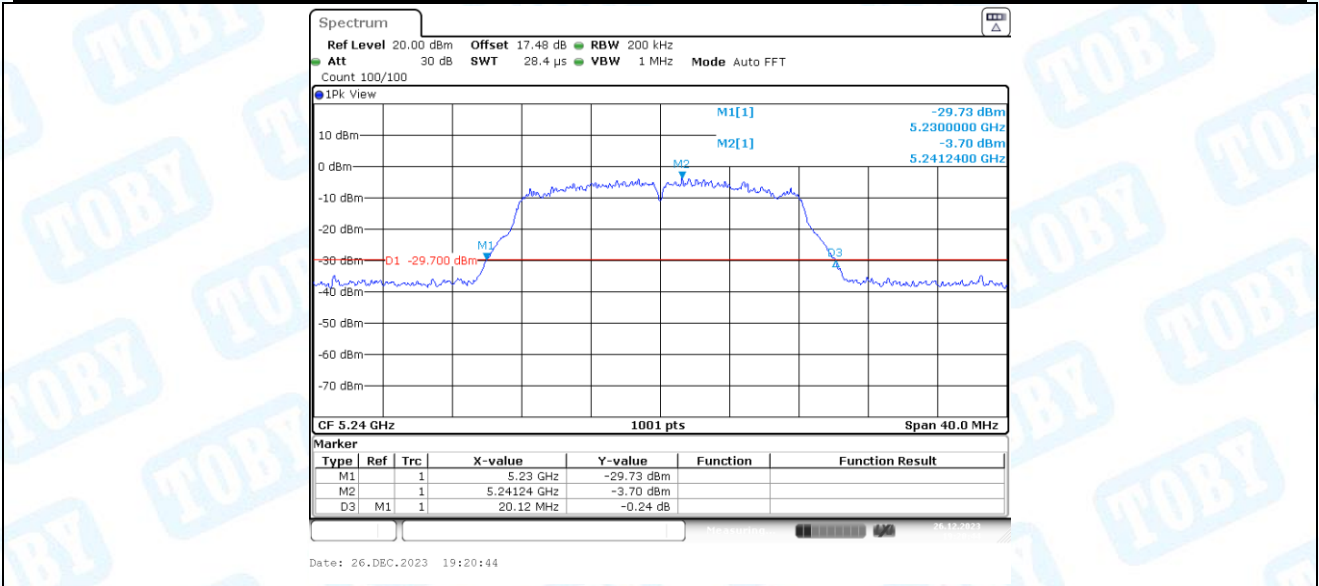
1. Emission Bandwidth

1.1. Test Result

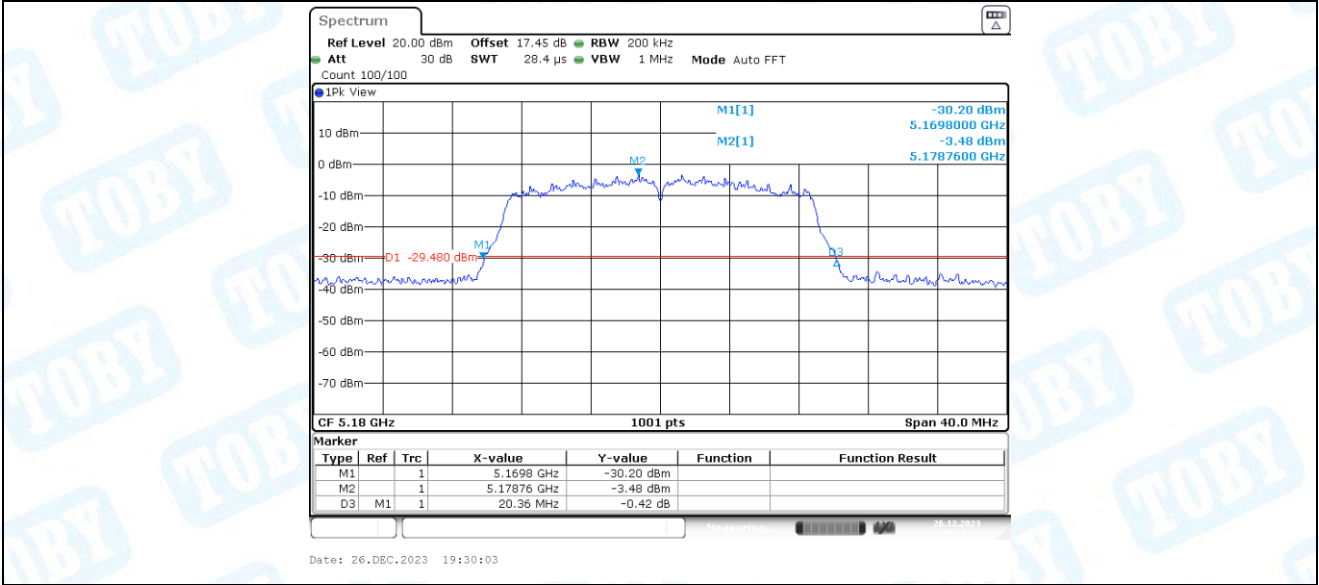
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.76	5170.08	5189.84	---	---
		5200	19.84	5190.08	5209.92	---	---
		5240	20.12	5230.00	5250.12	---	---
11N20SISO	Ant1	5180	20.36	5169.80	5190.16	---	---
		5200	20.08	5189.96	5210.04	---	---
		5240	20.24	5229.88	5250.12	---	---
11N40SISO	Ant1	5190	40.96	5169.36	5210.32	---	---
		5230	41.20	5209.44	5250.64	---	---
11AC20SISO	Ant1	5180	20.24	5169.92	5190.16	---	---
		5200	20.20	5189.88	5210.08	---	---
		5240	20.08	5229.92	5250.00	---	---
11AC40SISO	Ant1	5190	41.28	5169.28	5210.56	---	---
		5230	40.40	5209.76	5250.16	---	---

2.1. Test Graphs

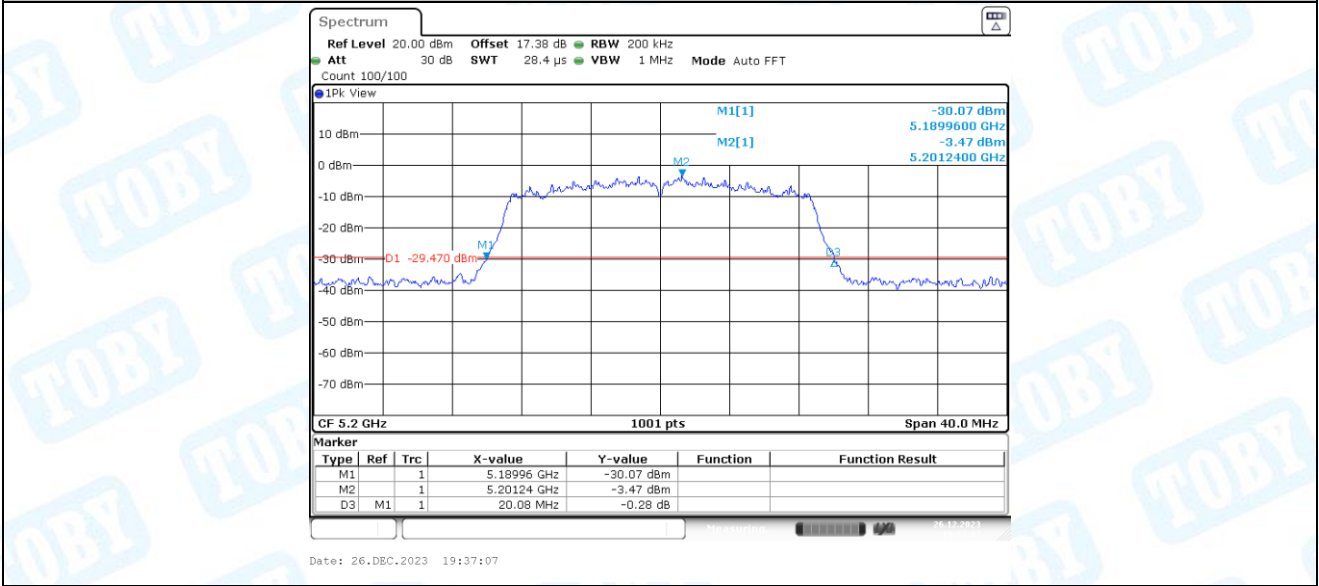




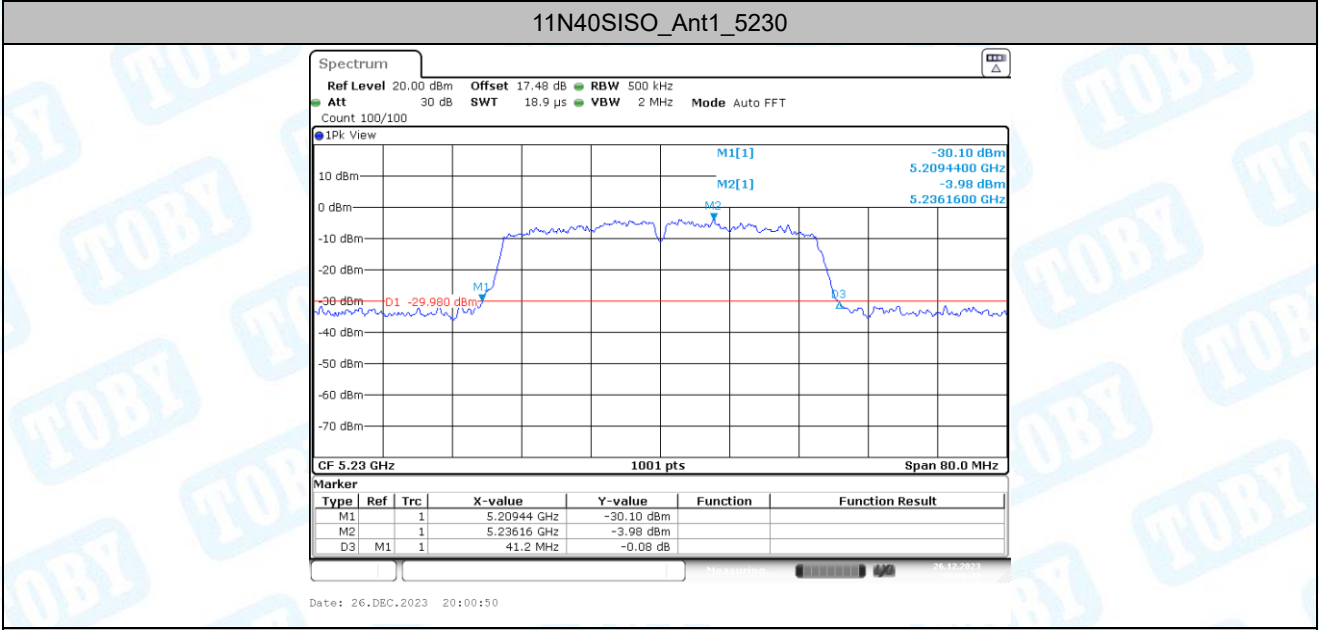
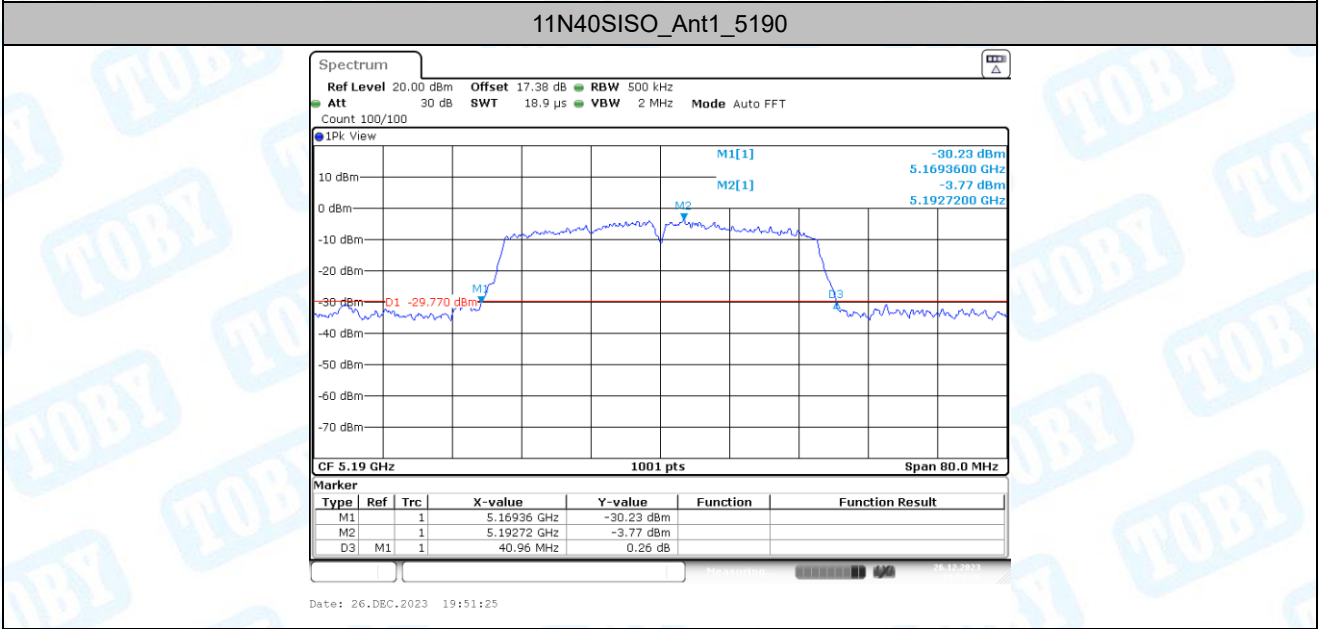
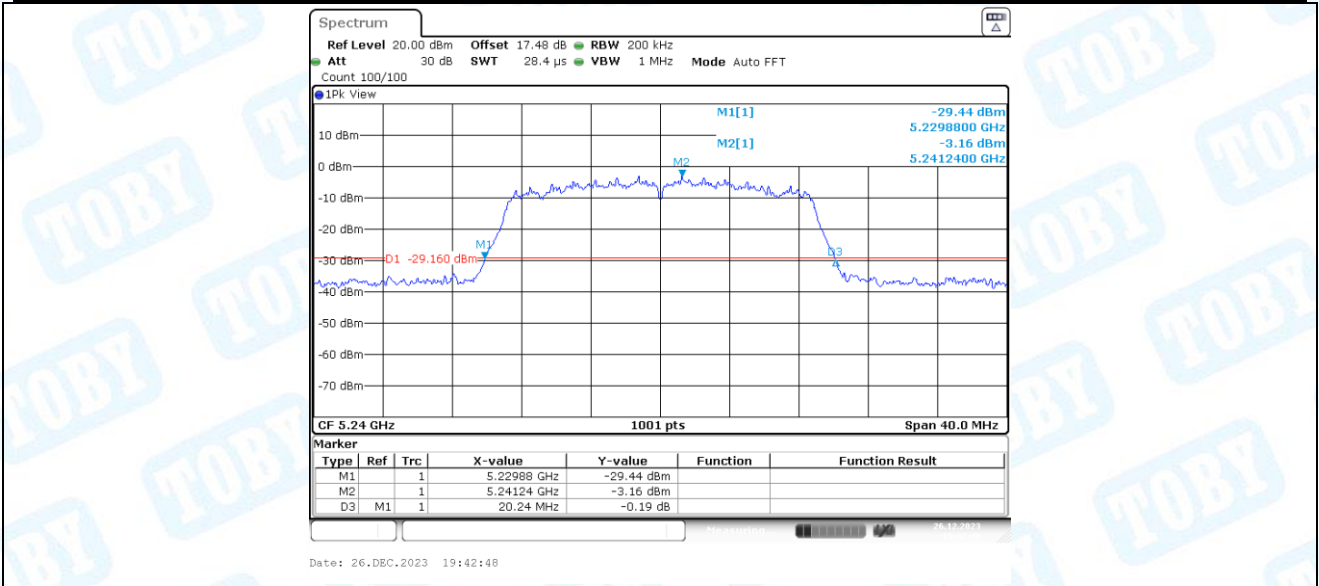
11N20SISO_Ant1_5180



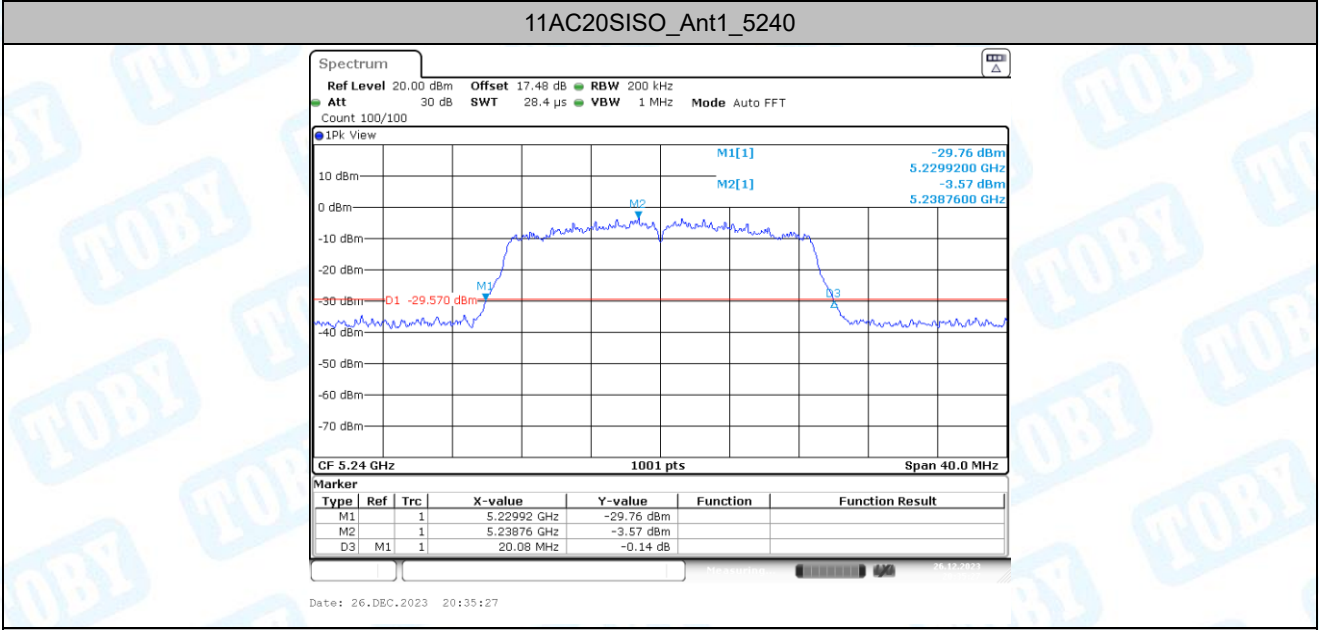
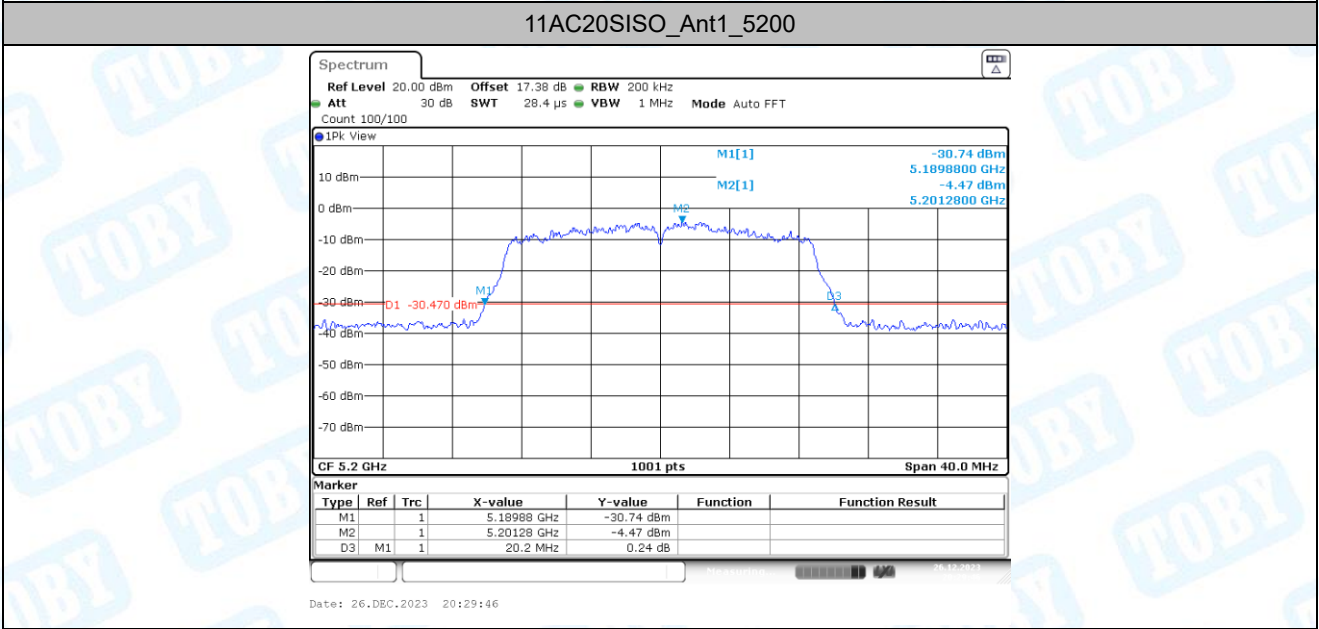
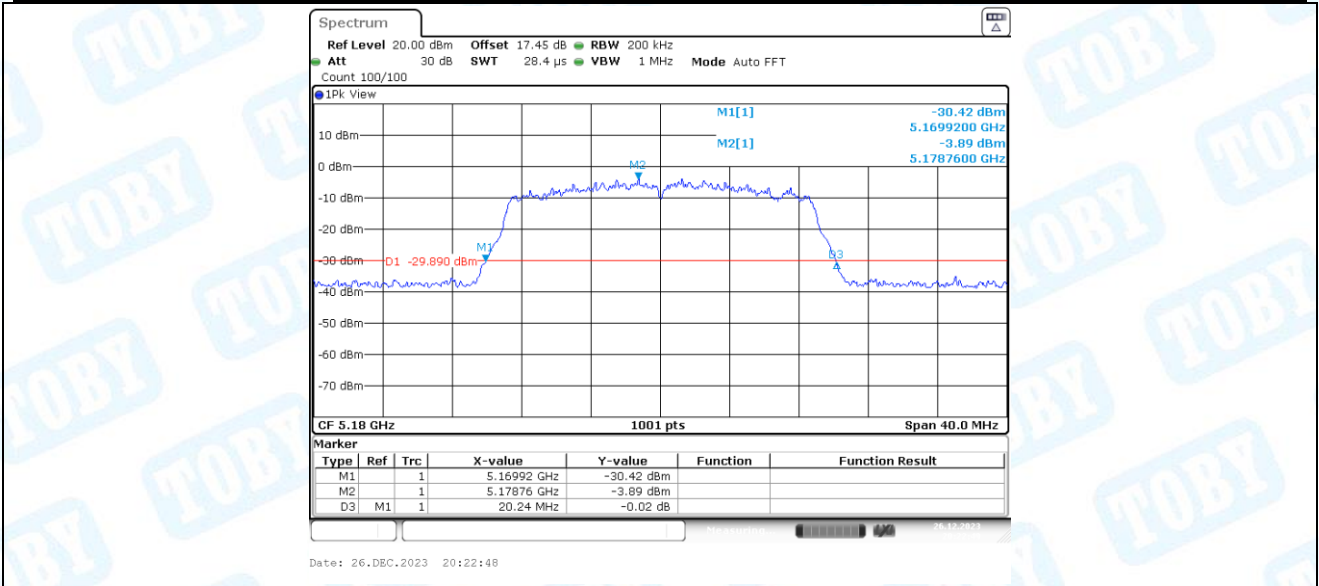
11N20SISO_Ant1_5200

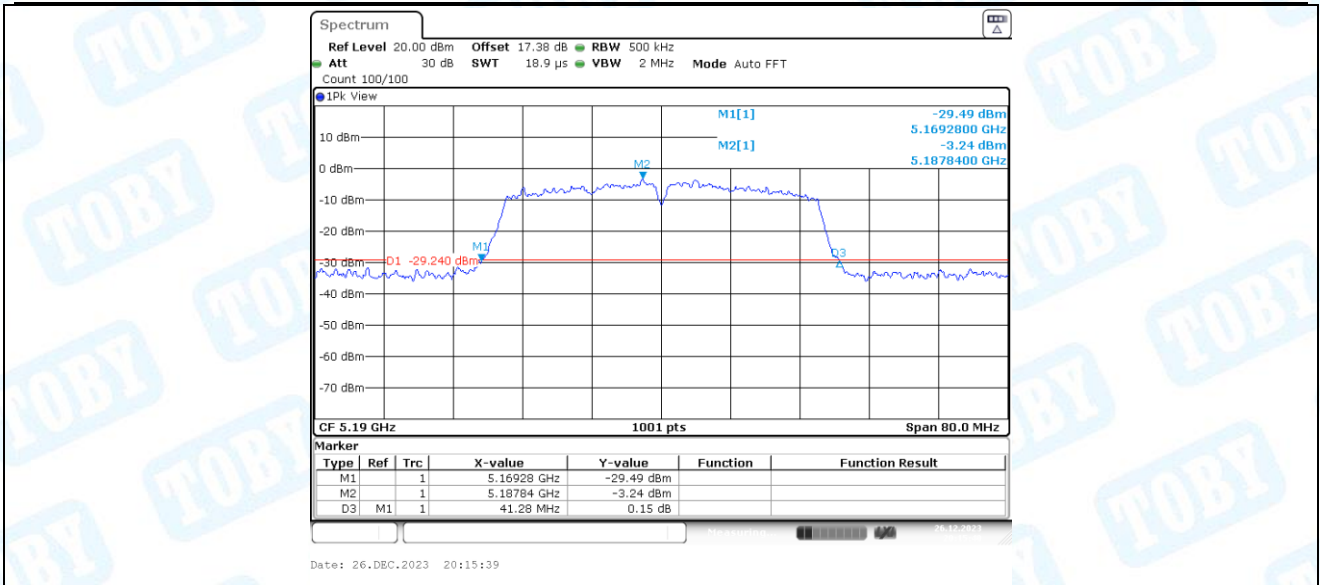


11N20SISO_Ant1_5240

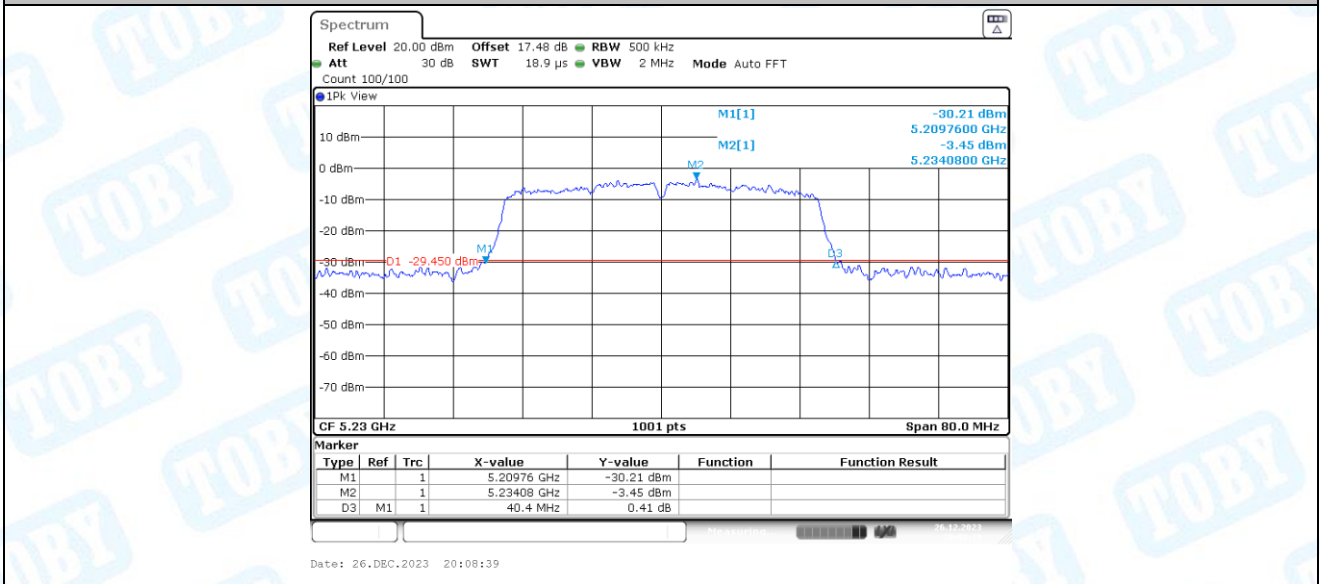


11AC20SISO_Ant1_5180





11AC40SISO_Ant1_5230



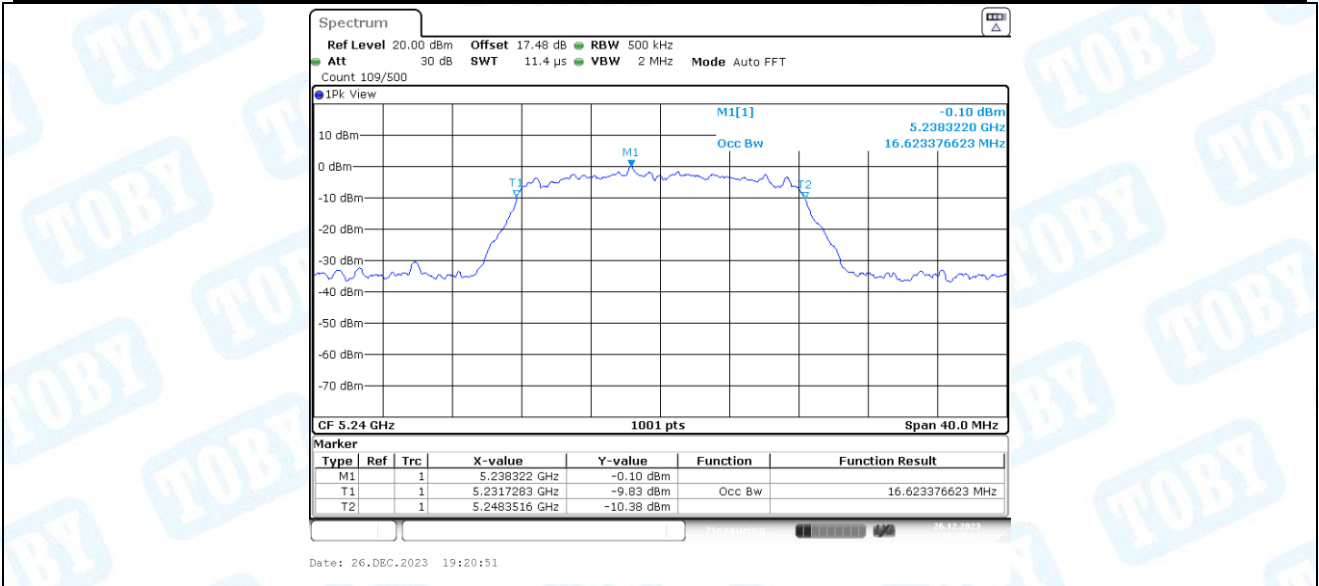
2. Occupied channel bandwidth

2.1. Test Result

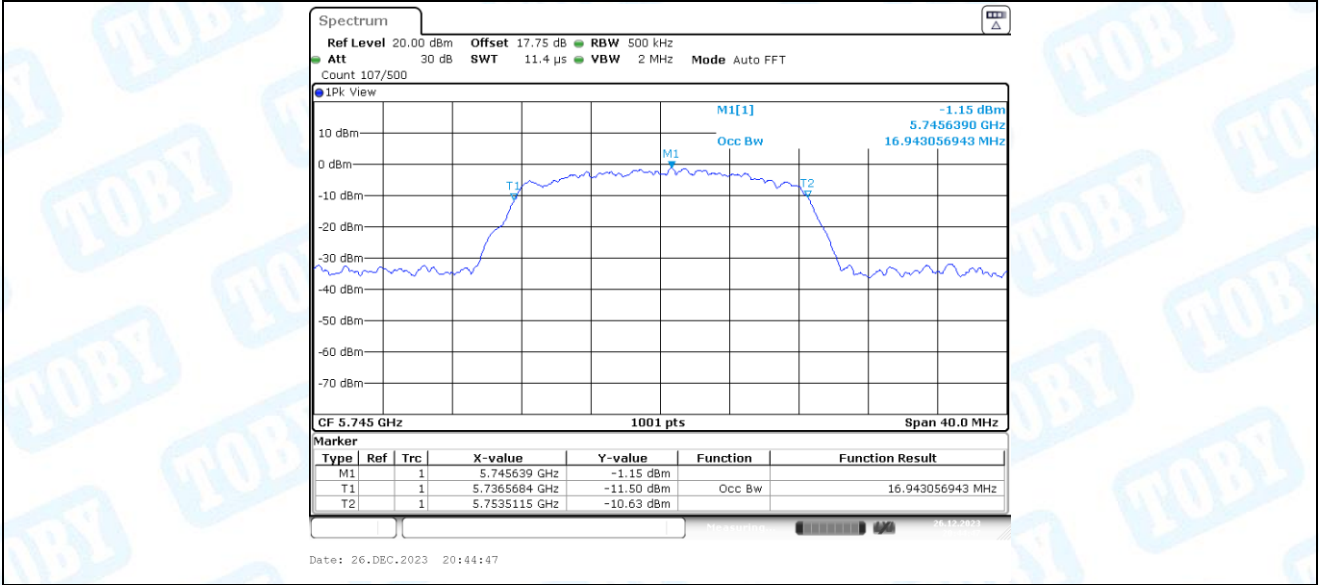
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.063	5171.4486	5188.5115	---	---
		5200	16.823	5191.5684	5208.3916	---	---
		5240	16.623	5231.7283	5248.3516	---	---
		5745	16.943	5736.5684	5753.5115	---	---
		5785	17.183	5776.4086	5793.5914	---	---
		5825	16.823	5816.4486	5833.2717	---	---
11N20SISO	Ant1	5180	17.782	5171.0889	5188.8711	---	---
		5200	18.182	5190.8092	5208.9910	---	---
		5240	17.862	5231.1289	5248.9910	---	---
		5745	17.742	5736.1688	5753.9111	---	---
		5785	17.982	5776.0490	5794.0310	---	---
		5825	17.902	5816.0090	5833.9111	---	---
11N40SISO	Ant1	5190	36.044	5172.0180	5208.0619	---	---
		5230	36.284	5211.7782	5248.0619	---	---
		5755	36.364	5736.6983	5773.0619	---	---
		5795	36.364	5776.6983	5813.0619	---	---
11AC20SISO	Ant1	5180	17.742	5171.1289	5188.8711	---	---
		5200	17.782	5191.1289	5208.9111	---	---
		5240	18.062	5230.9291	5248.9910	---	---
		5745	17.702	5736.0889	5753.7912	---	---
		5785	18.102	5776.1289	5794.2308	---	---
		5825	17.902	5816.0889	5833.9910	---	---
11AC40SISO	Ant1	5190	36.204	5171.9381	5208.1419	---	---
		5230	35.884	5212.0180	5247.9021	---	---
		5755	36.444	5736.6184	5773.0619	---	---
		5795	36.364	5776.9381	5813.3017	---	---

2.2. Test Graphs

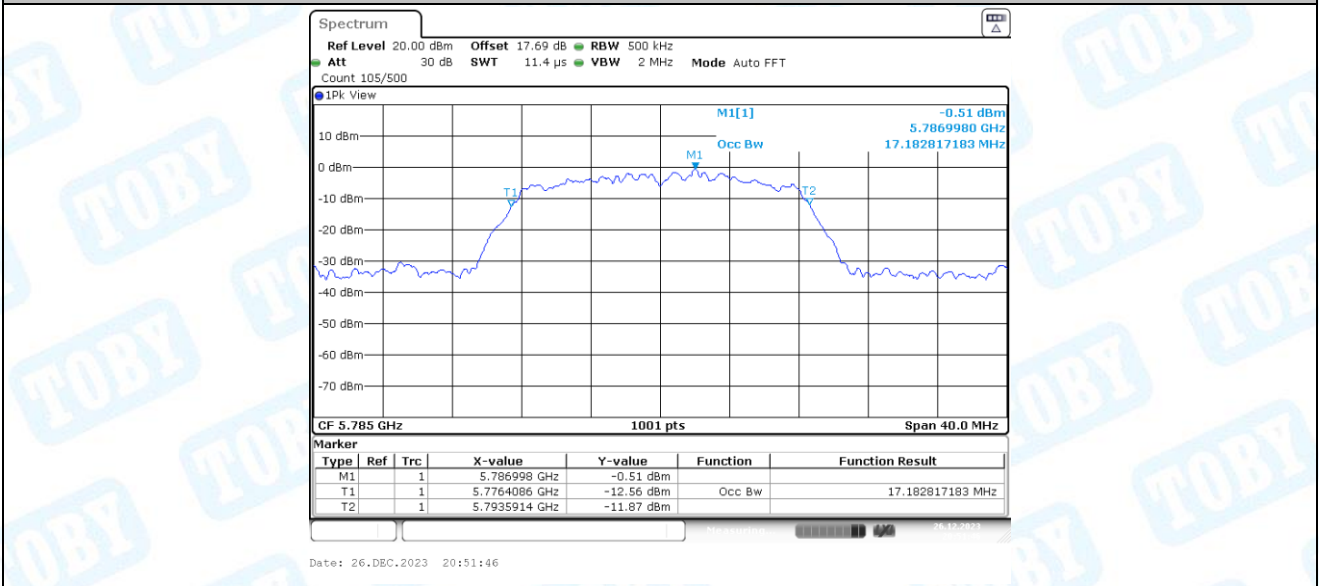




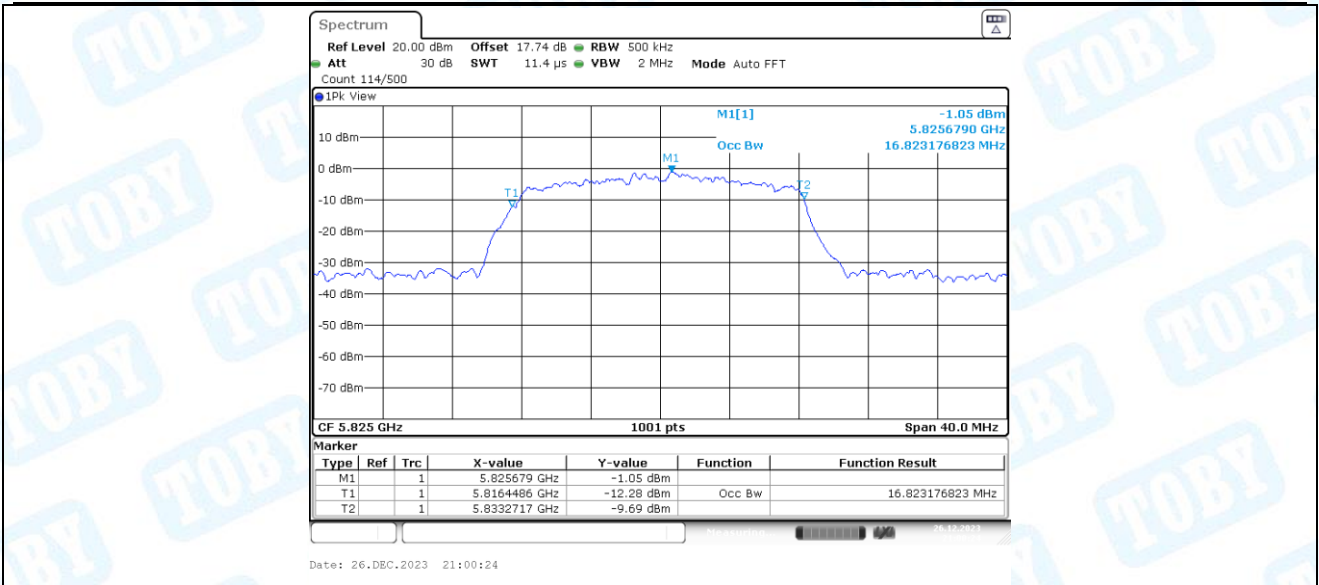
11A_Ant1_5745



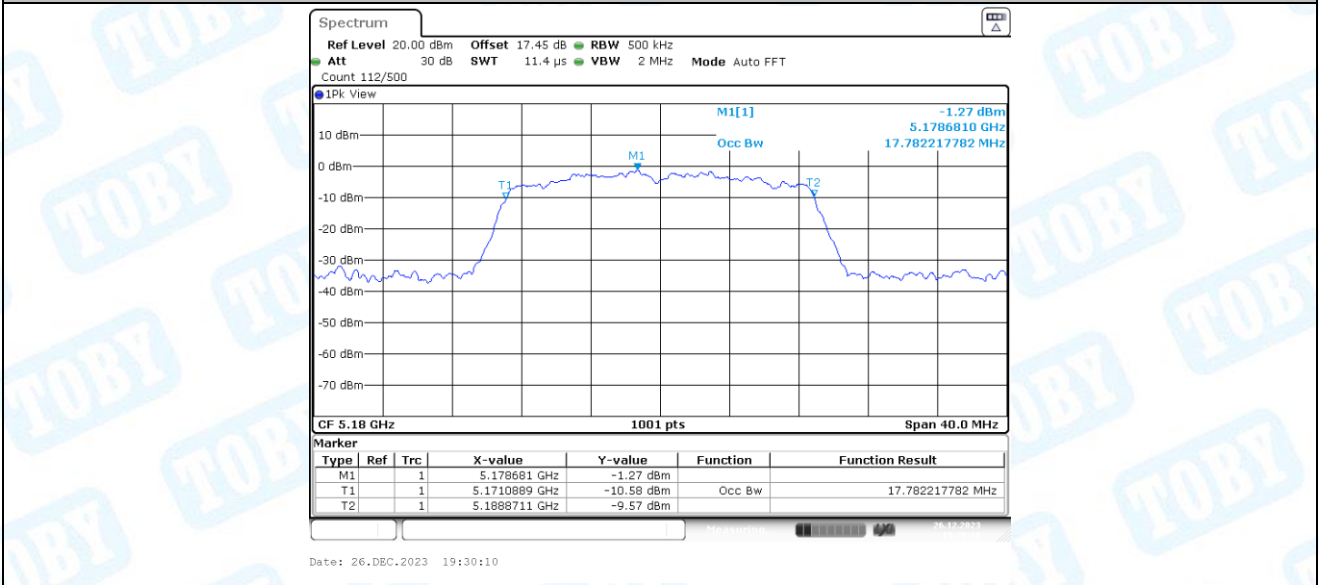
11A_Ant1_5785



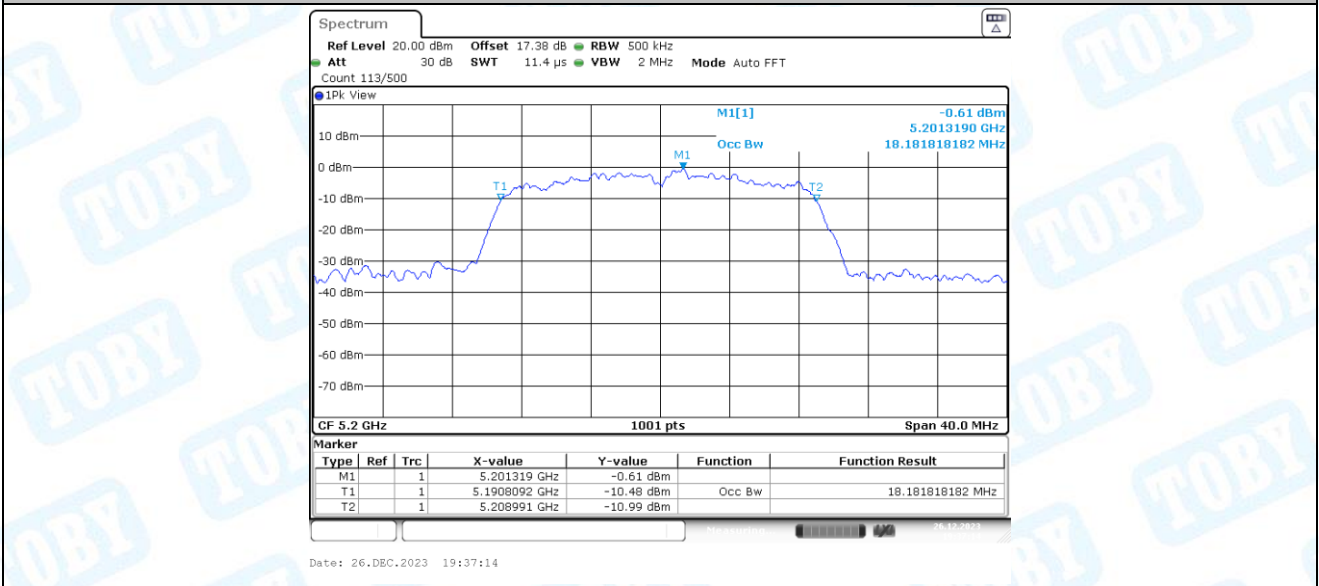
11A_Ant1_5825



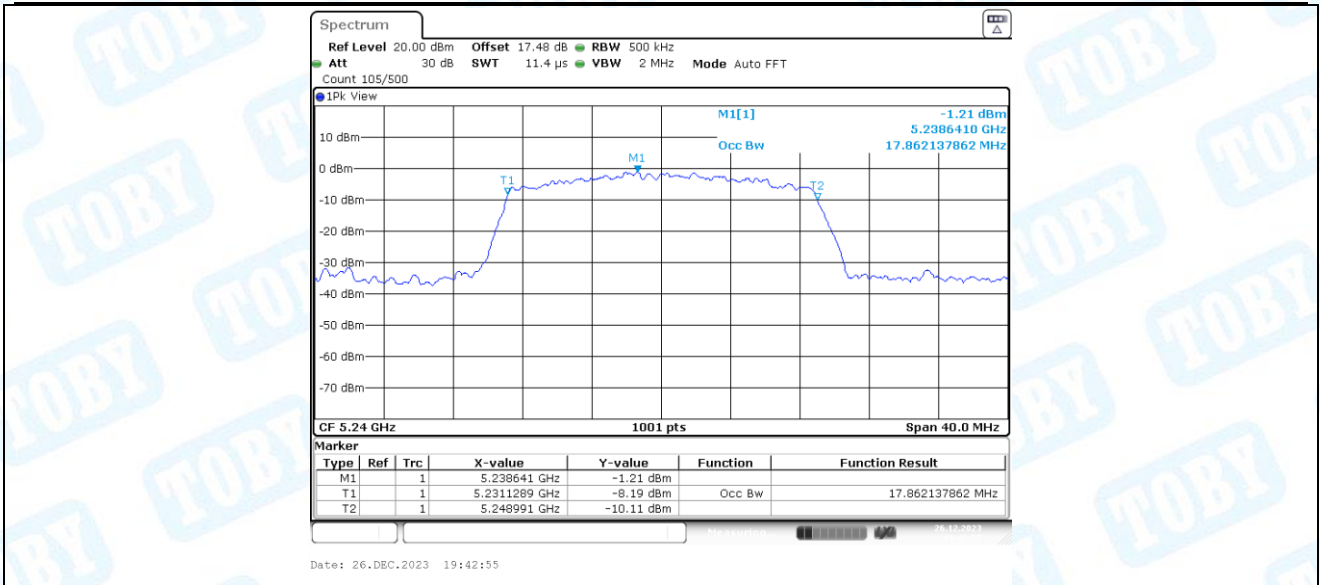
11N20SISO_Ant1_5180



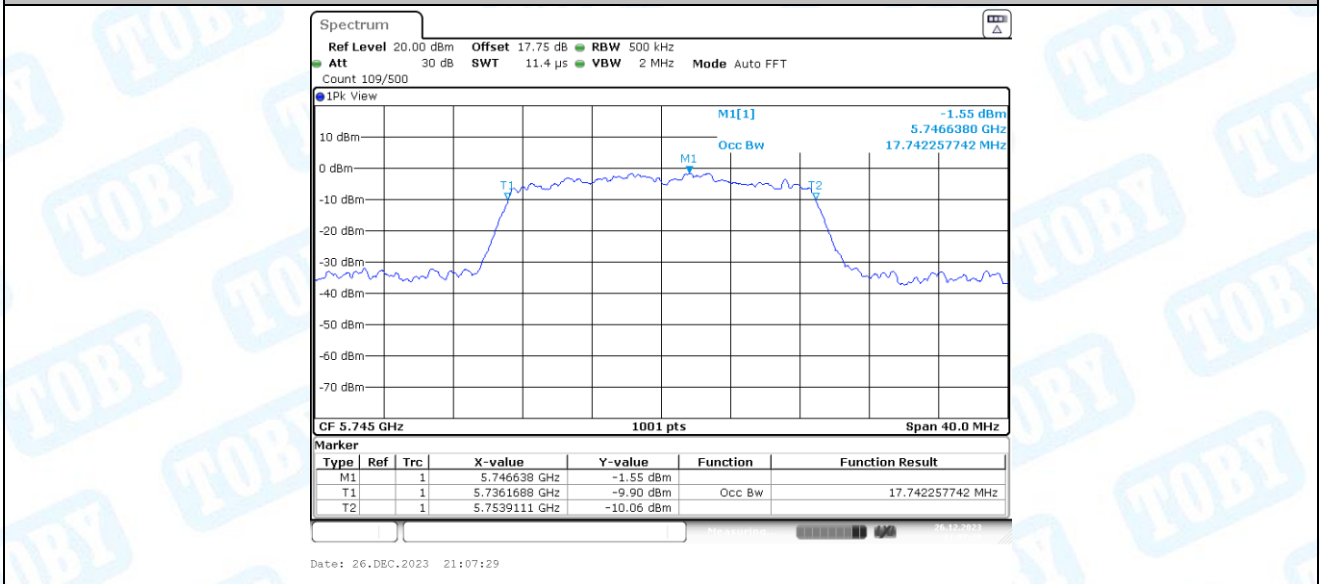
11N20SISO_Ant1_5200



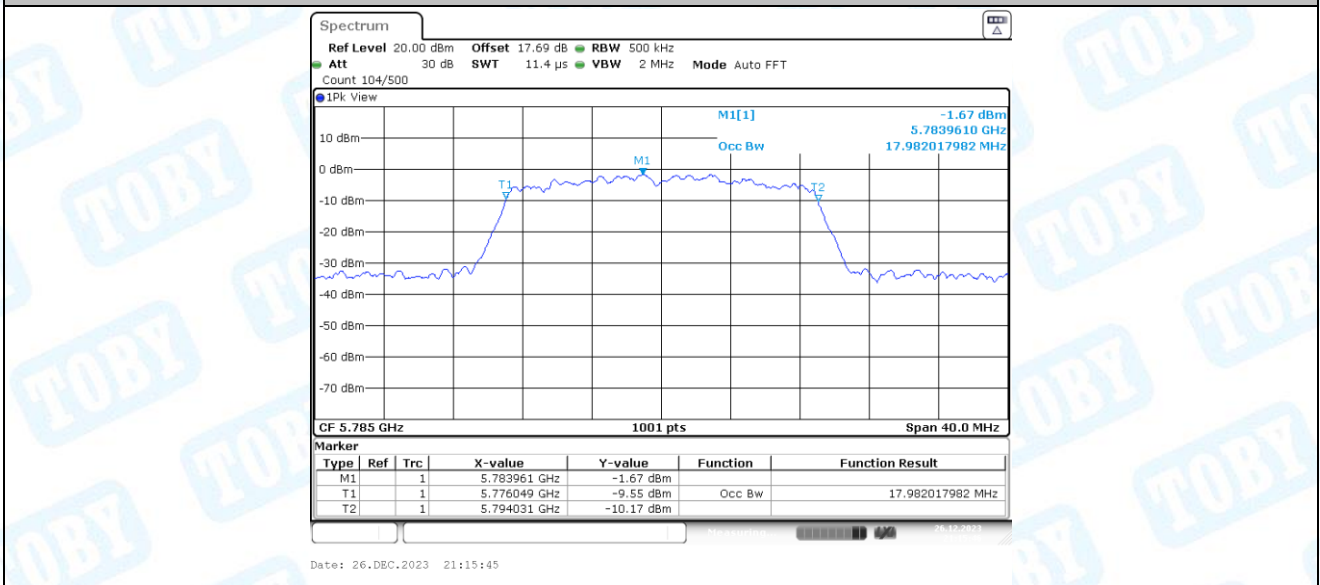
11N20SISO_Ant1_5240



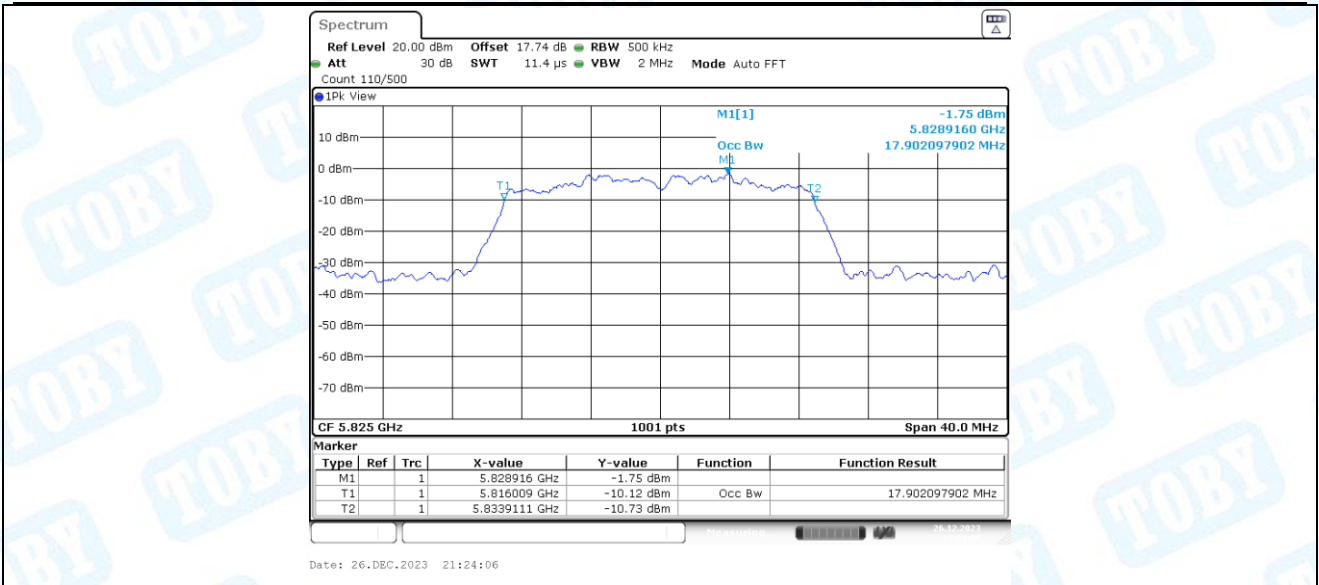
11N20SISO_Ant1_5745



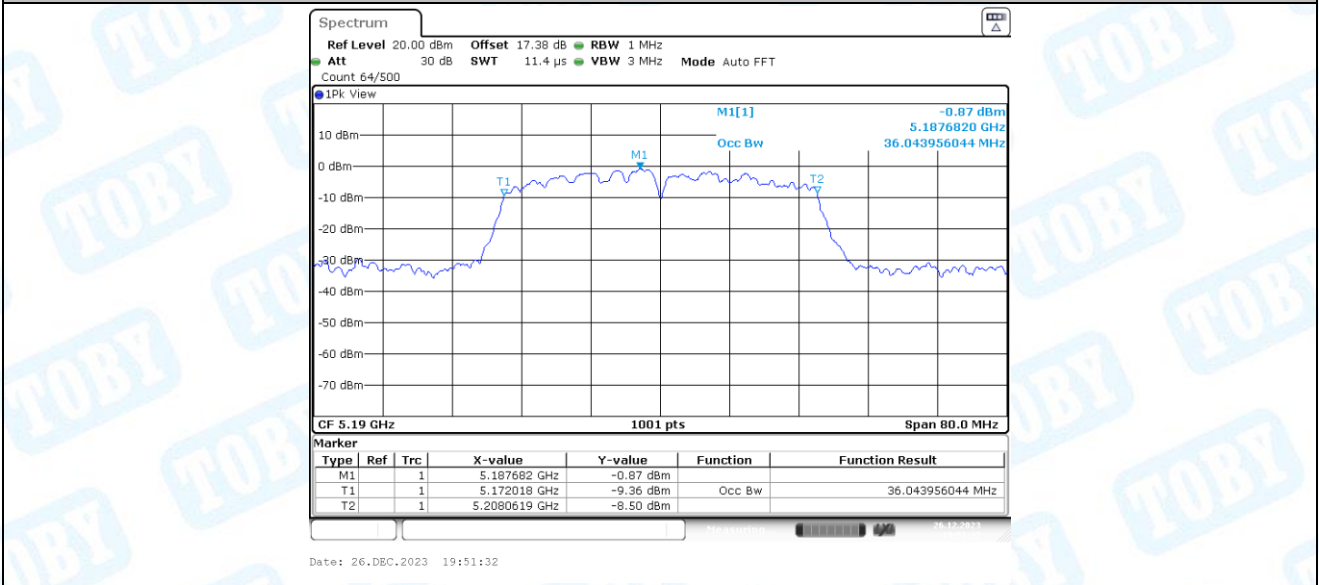
11N20SISO_Ant1_5785



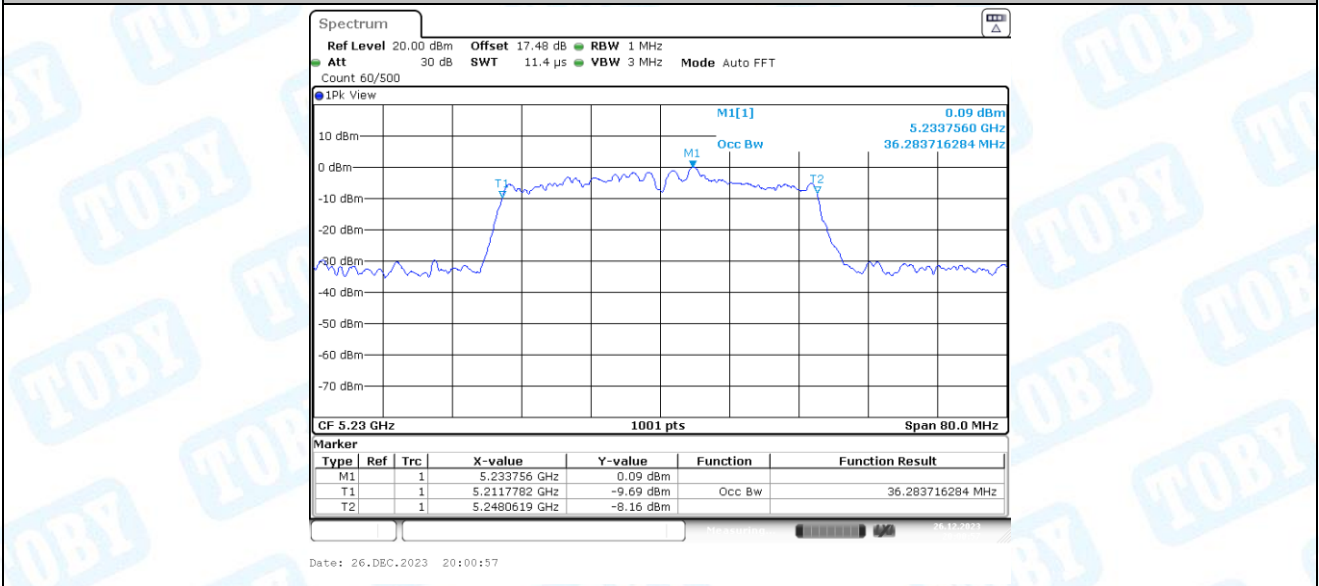
11N20SISO_Ant1_5825



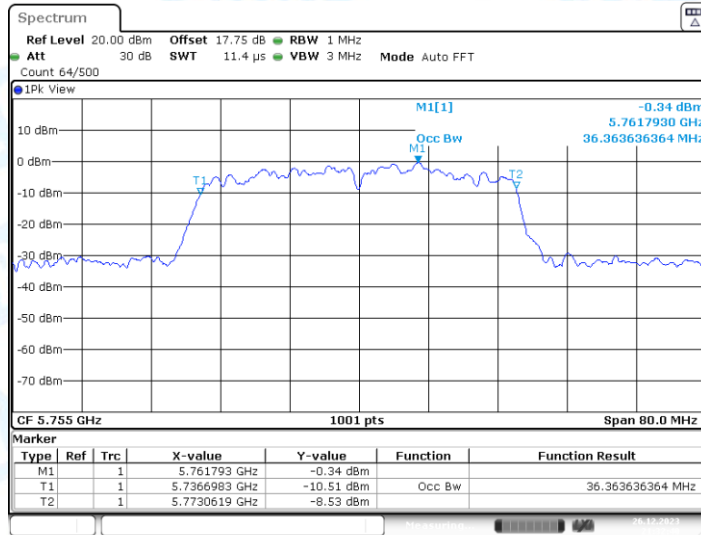
11N40SISO_Ant1_5190



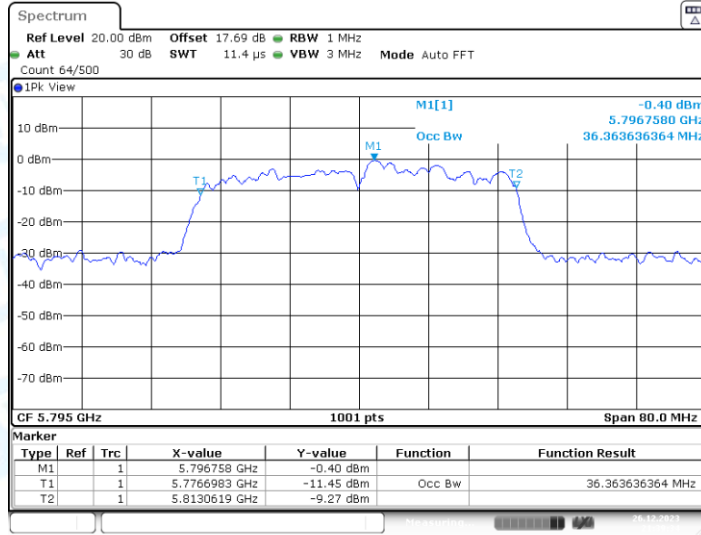
11N40SISO_Ant1_5230



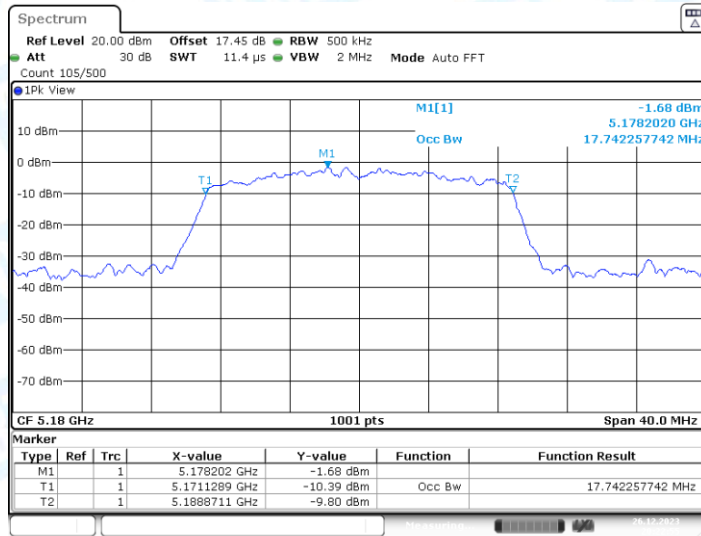
11N40SISO_Ant1_5755



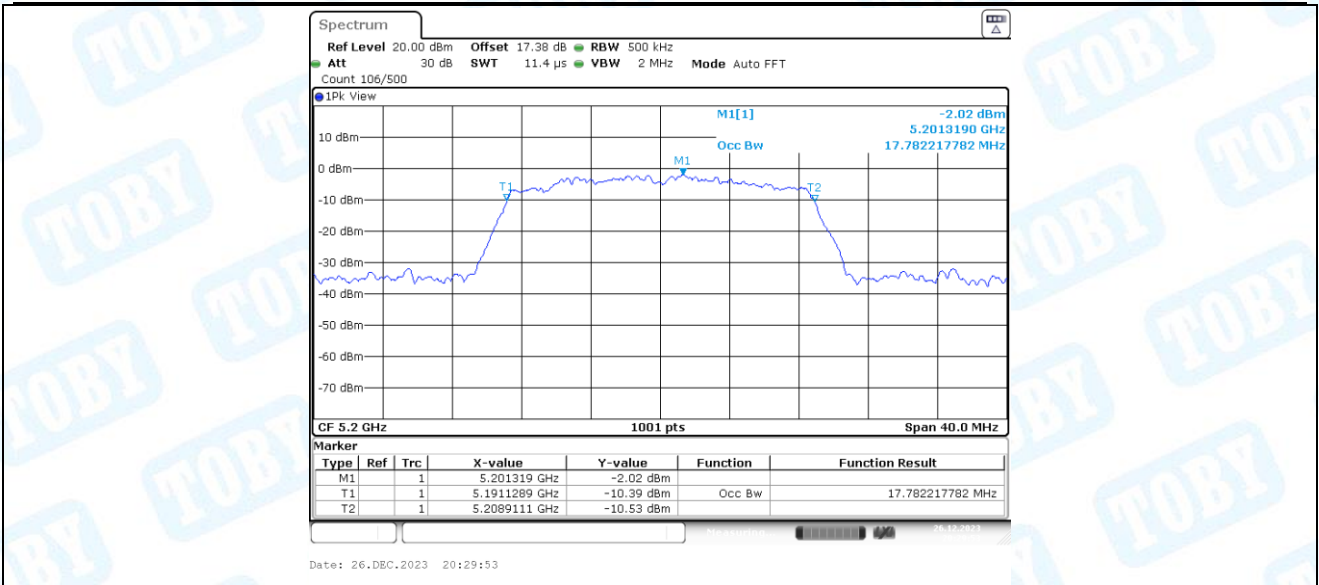
11N40SISO_Ant1_5795



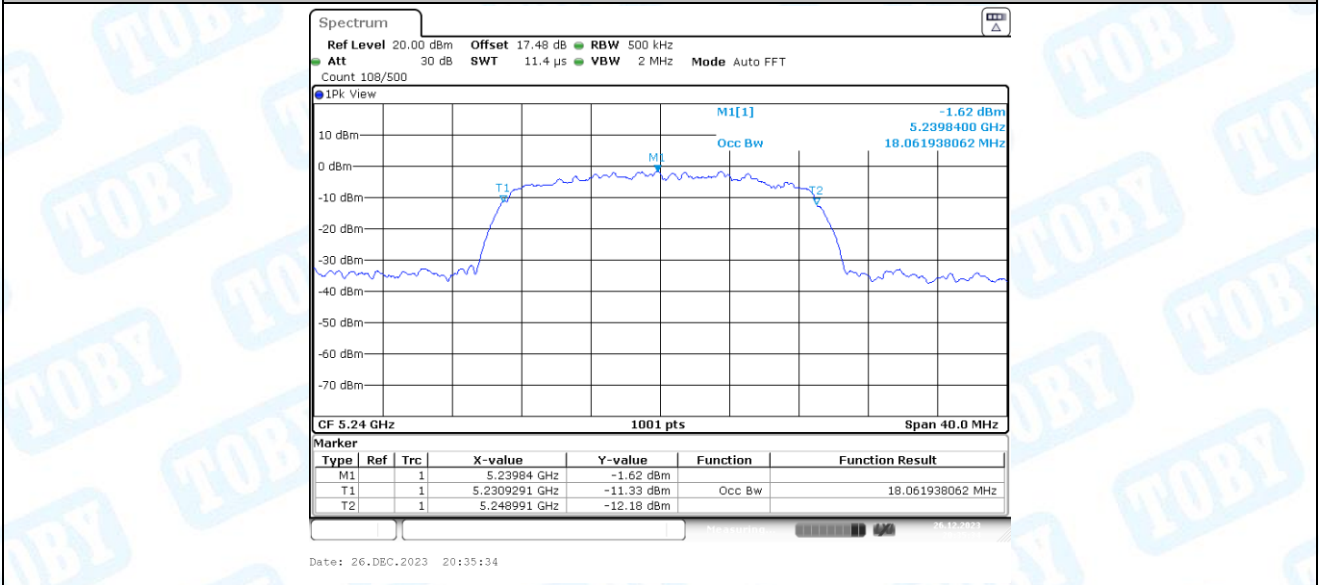
11AC20SISO_Ant1_5180



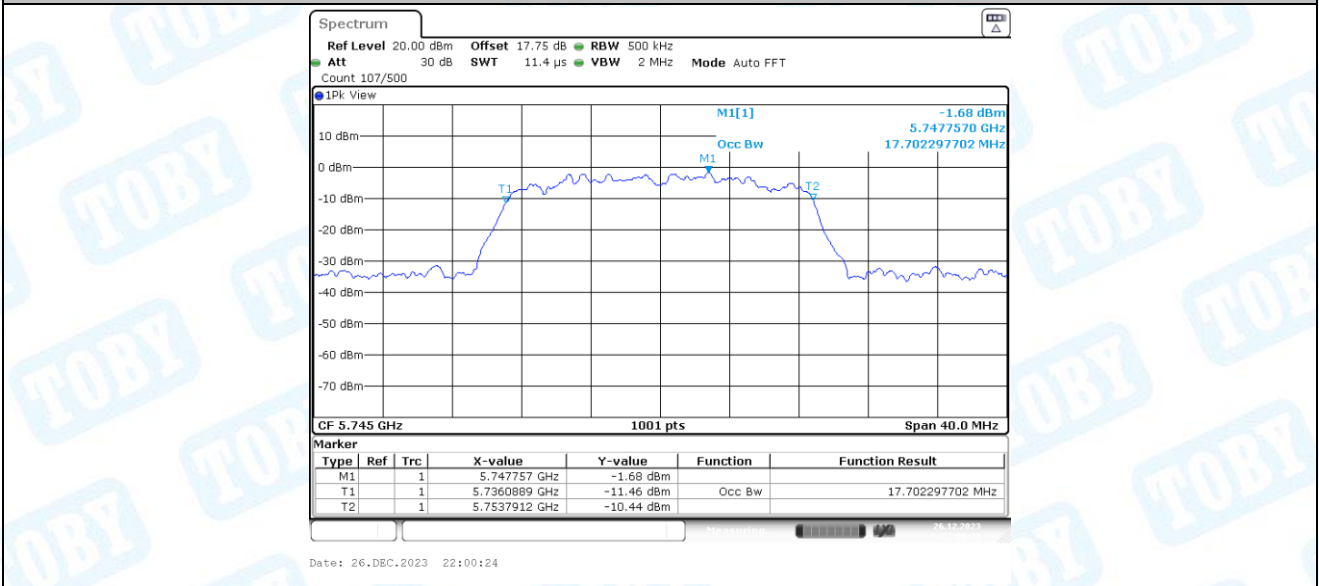
11AC20SISO_Ant1_5200



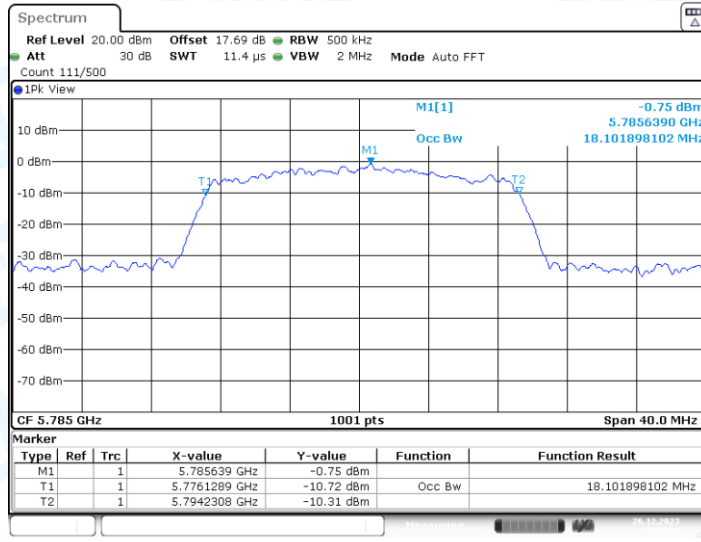
11AC20SISO_Ant1_5240



11AC20SISO_Ant1_5745

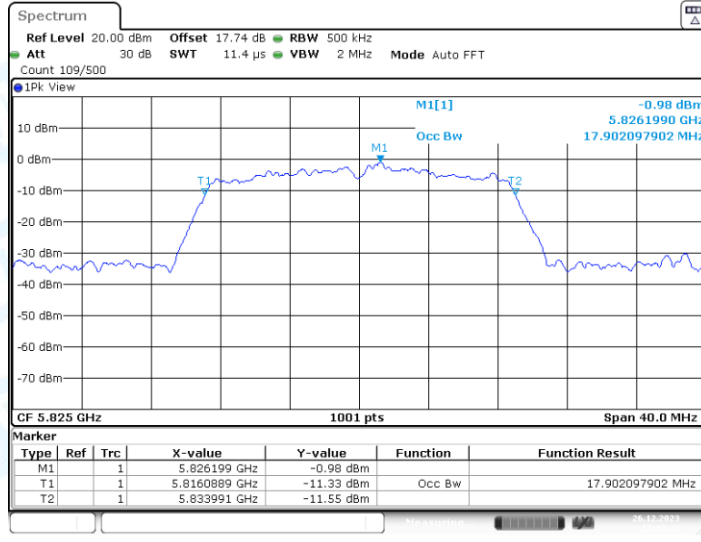


11AC20SISO_Ant1_5785



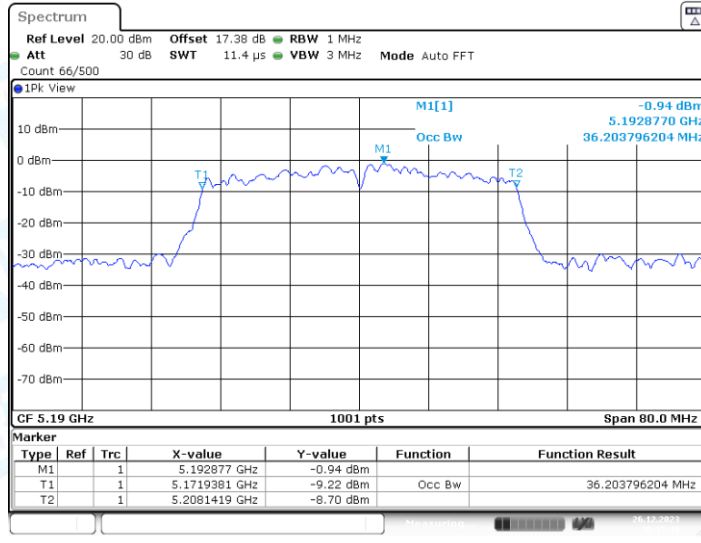
Date: 26.DEC.2023 22:07:50

11AC20SISO_Ant1_5825



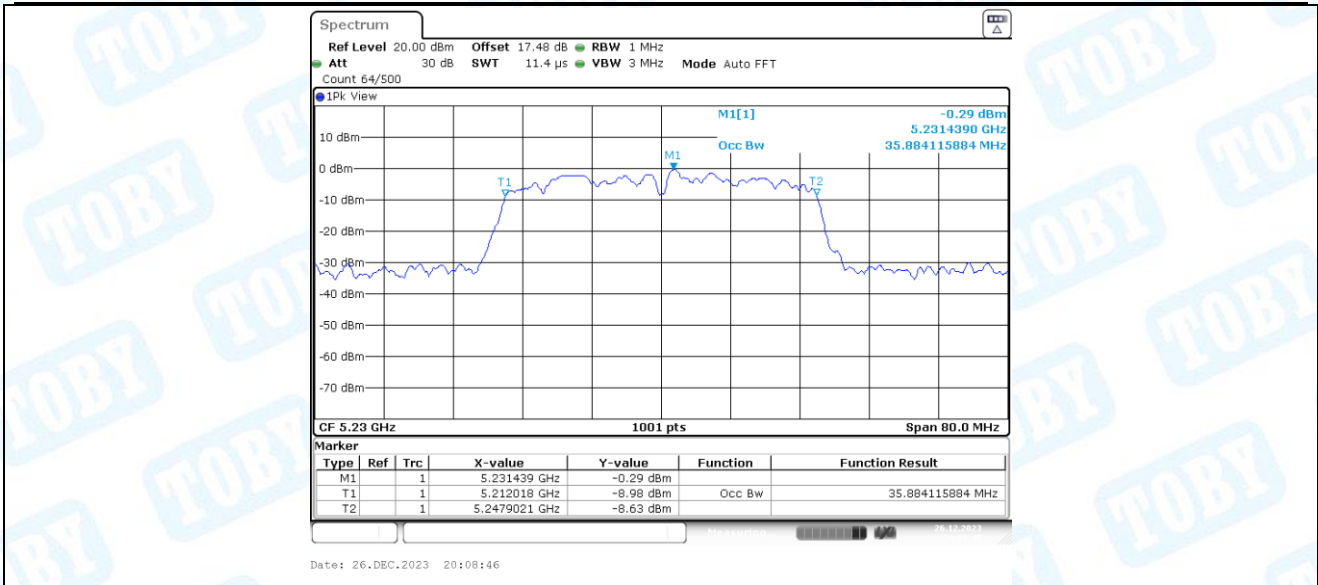
Date: 26.DEC.2023 22:13:28

11AC40SISO_Ant1_5190

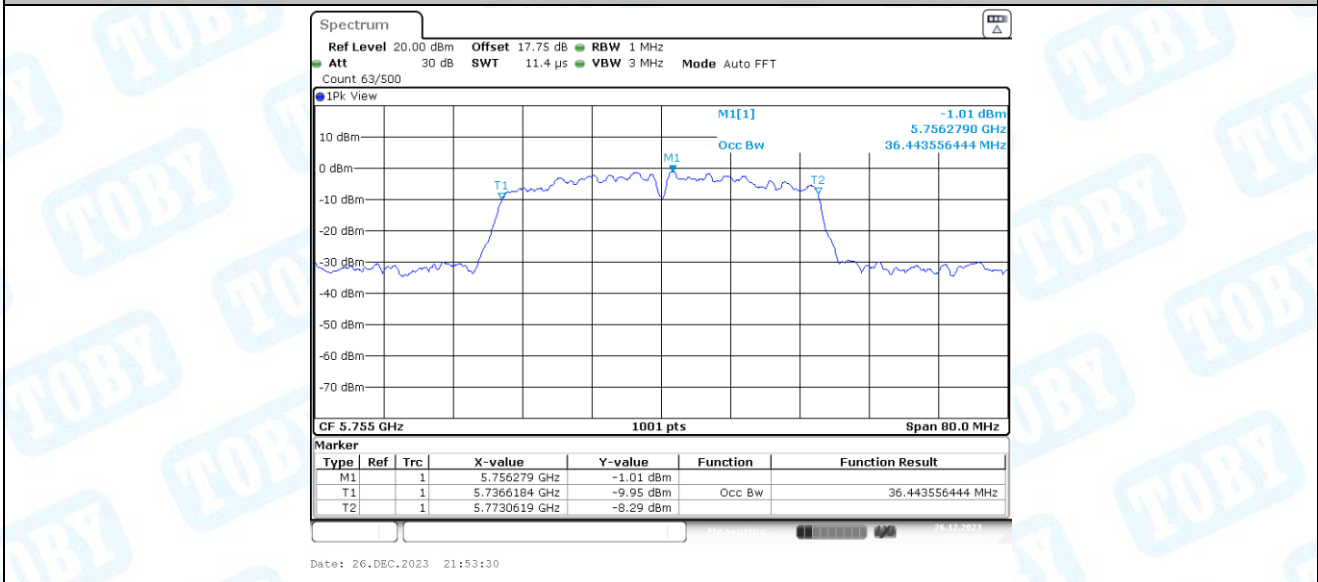


Date: 26.DEC.2023 20:15:46

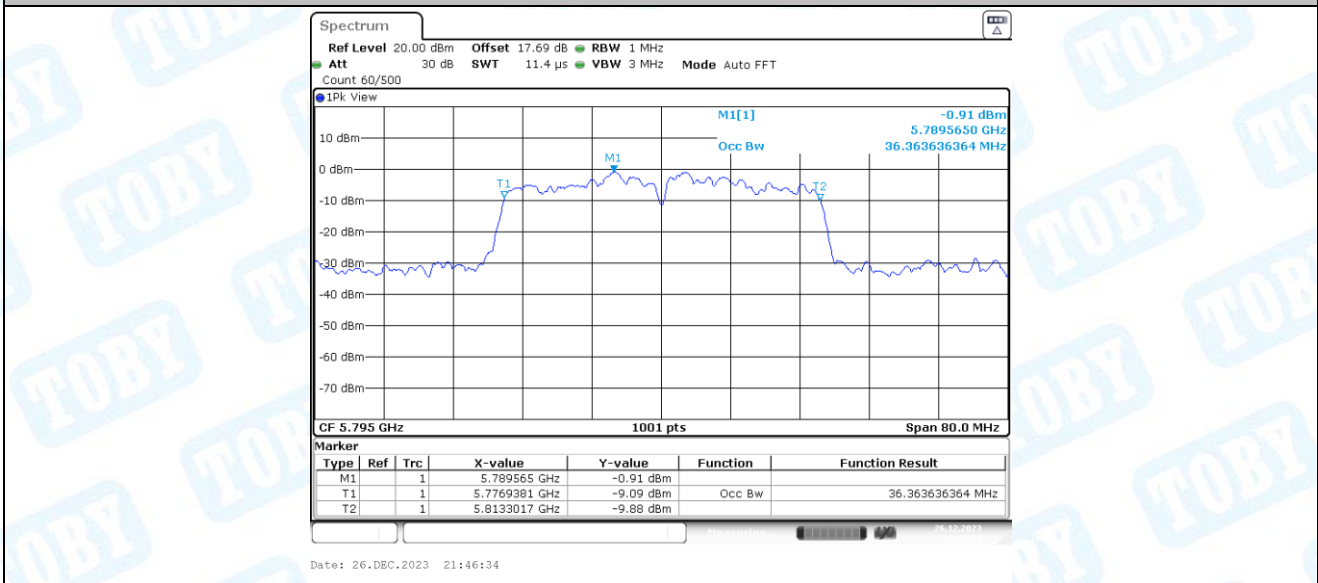
11AC40SISO_Ant1_5230



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795

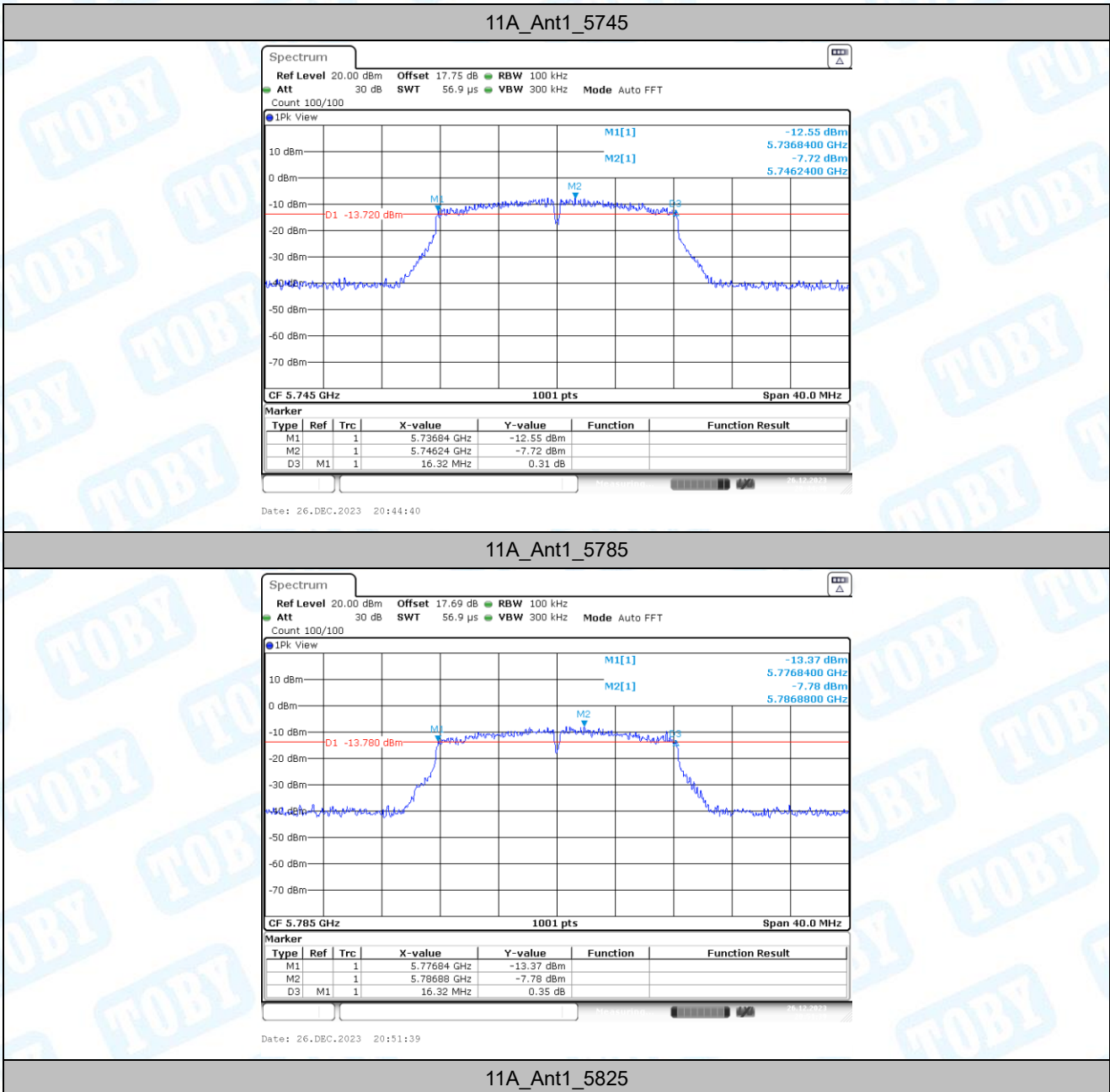


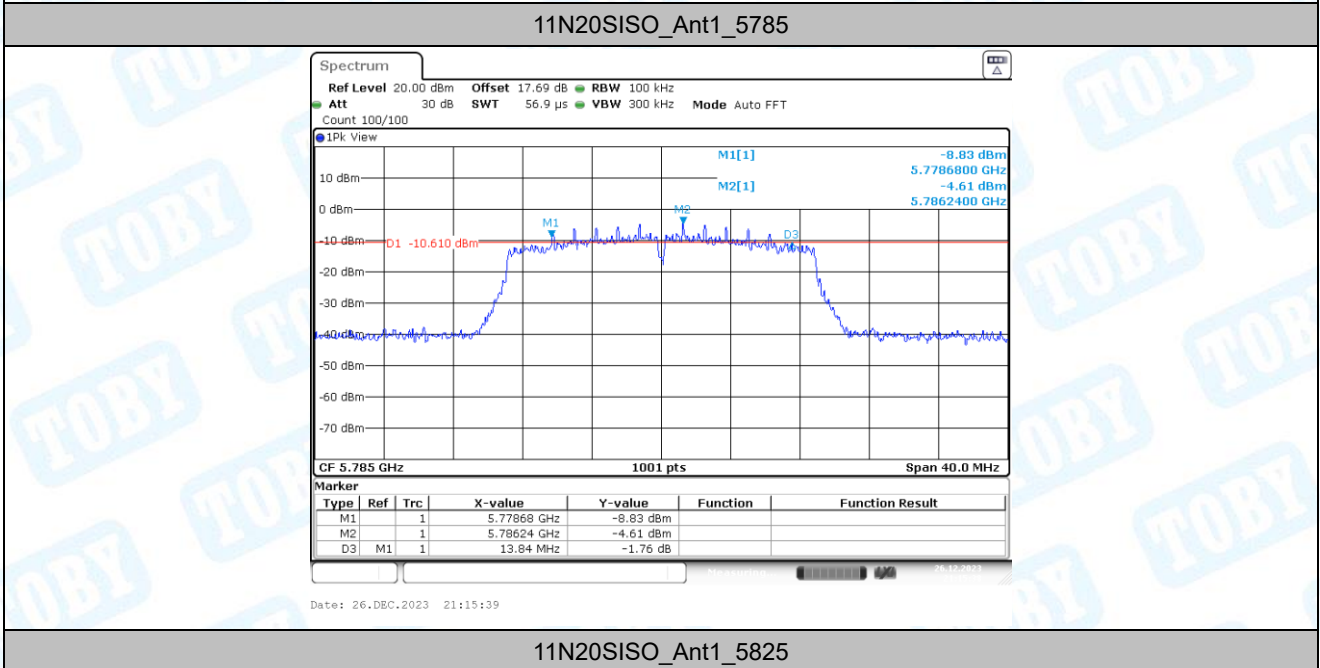
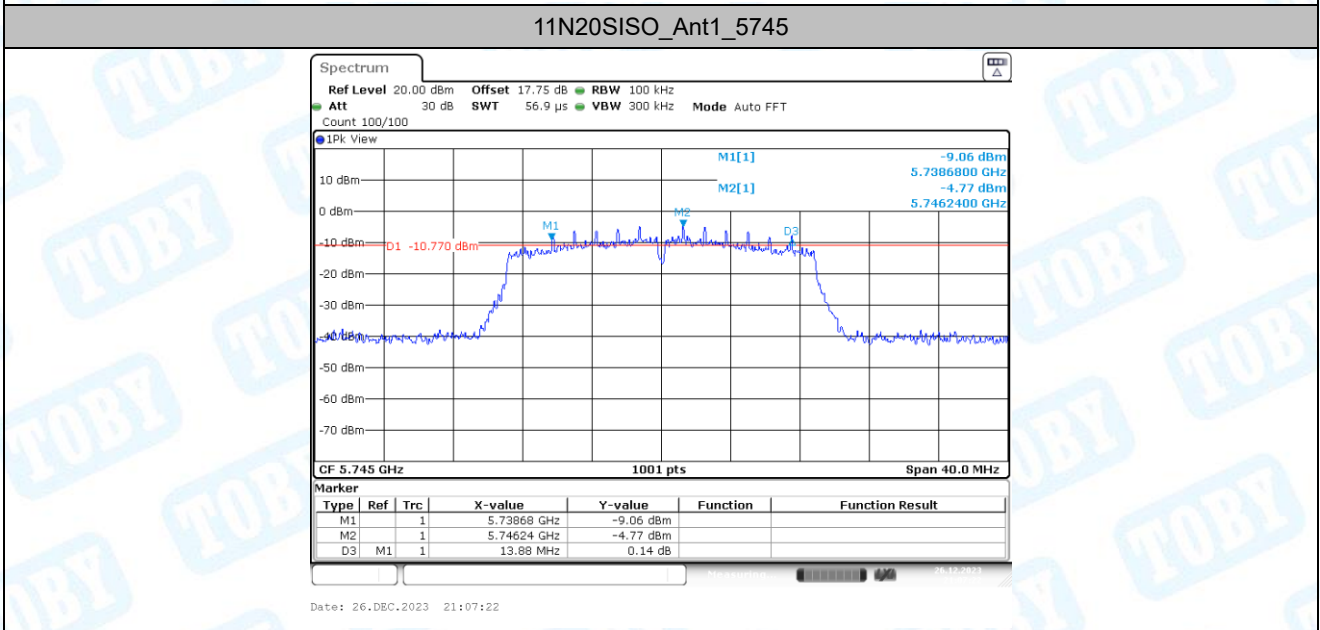
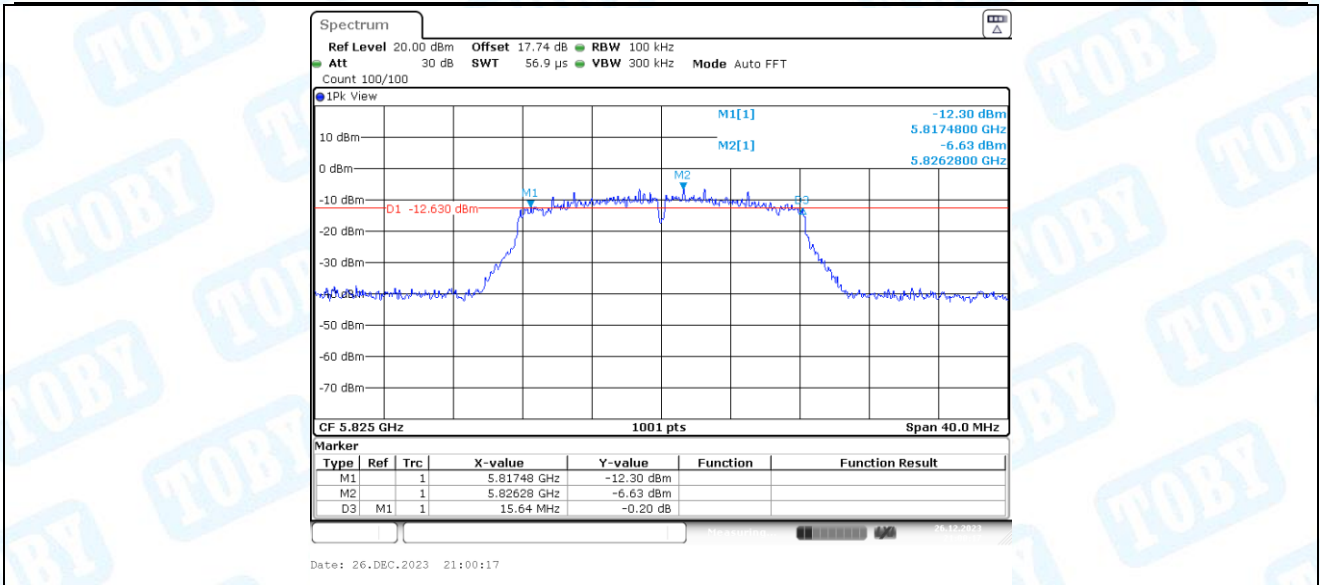
3. Min emission bandwidth

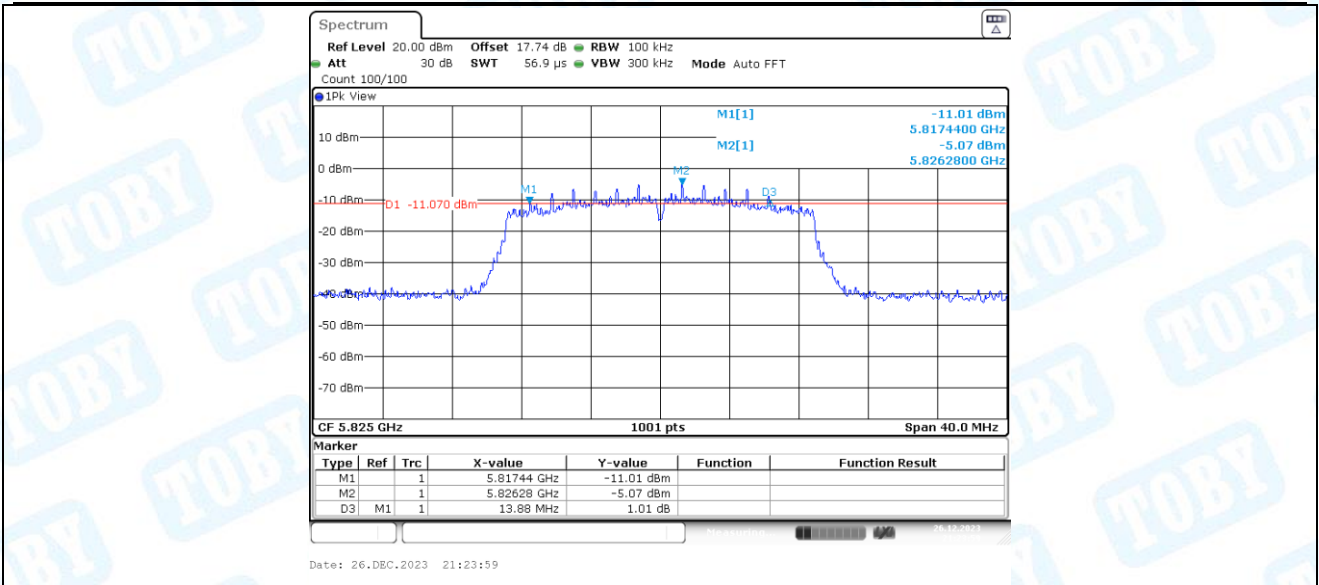
3.1. Test Result

TestMode	Antenna	Channel	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	15.64	5817.48	5833.12	0.5	PASS
11N20SISO	Ant1	5745	13.88	5738.68	5752.56	0.5	PASS
		5785	13.84	5778.68	5792.52	0.5	PASS
		5825	13.88	5817.44	5831.32	0.5	PASS
11N40SISO	Ant1	5755	35.20	5737.40	5772.60	0.5	PASS
		5795	32.56	5777.48	5810.04	0.5	PASS
11AC20SISO	Ant1	5745	13.88	5738.68	5752.56	0.5	PASS
		5785	17.60	5776.20	5793.80	0.5	PASS
		5825	13.80	5818.68	5832.48	0.5	PASS
11AC40SISO	Ant1	5755	33.52	5739.08	5772.60	0.5	PASS
		5795	35.04	5777.48	5812.52	0.5	PASS

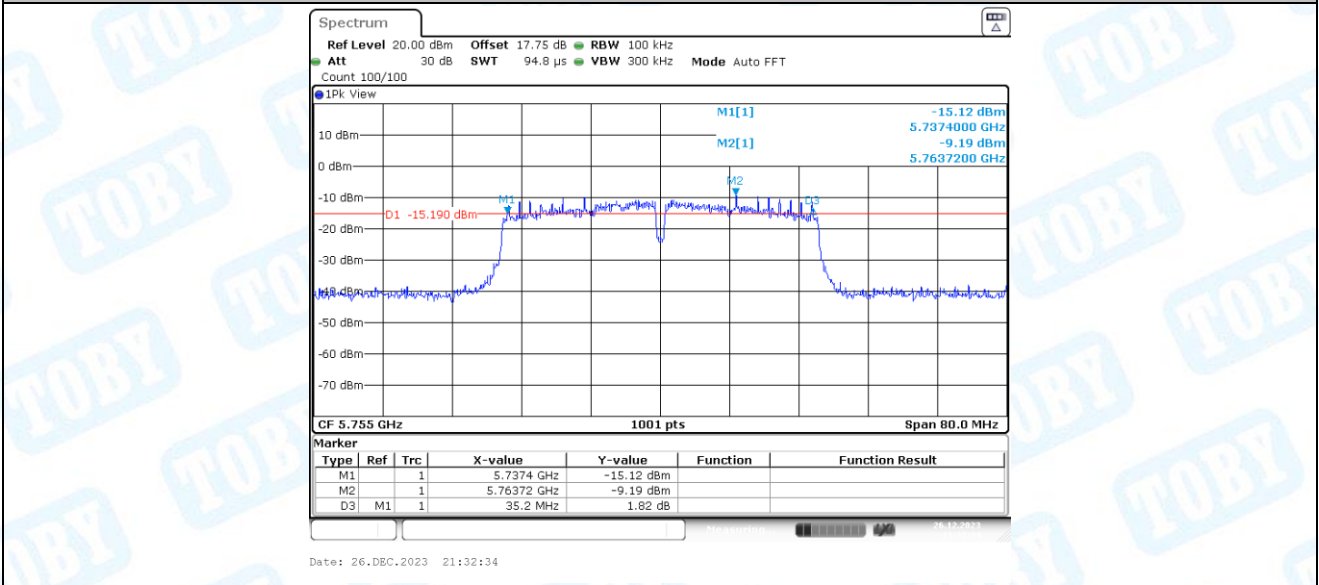
3.2. Test Graphs



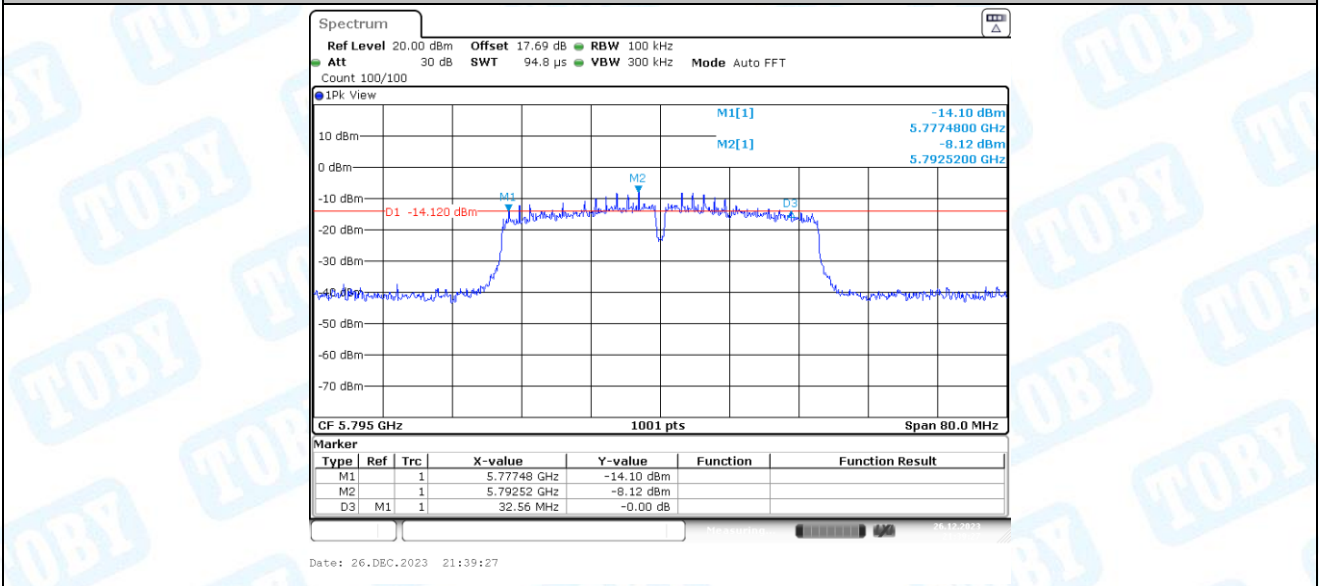




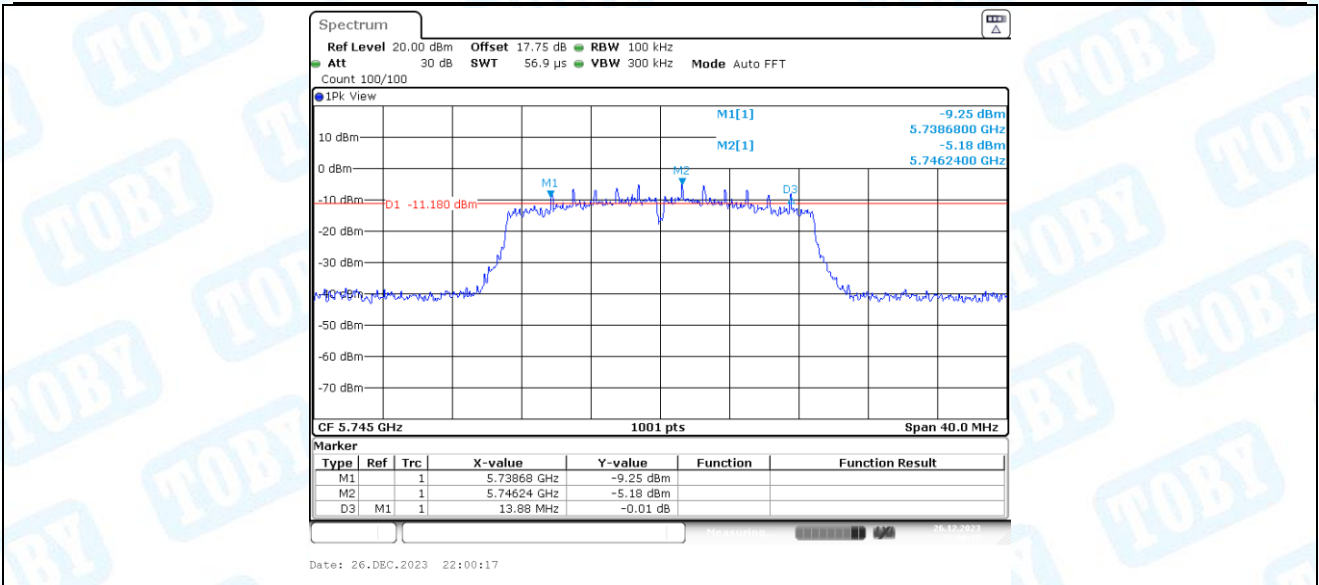
11N40SISO_Ant1_5755



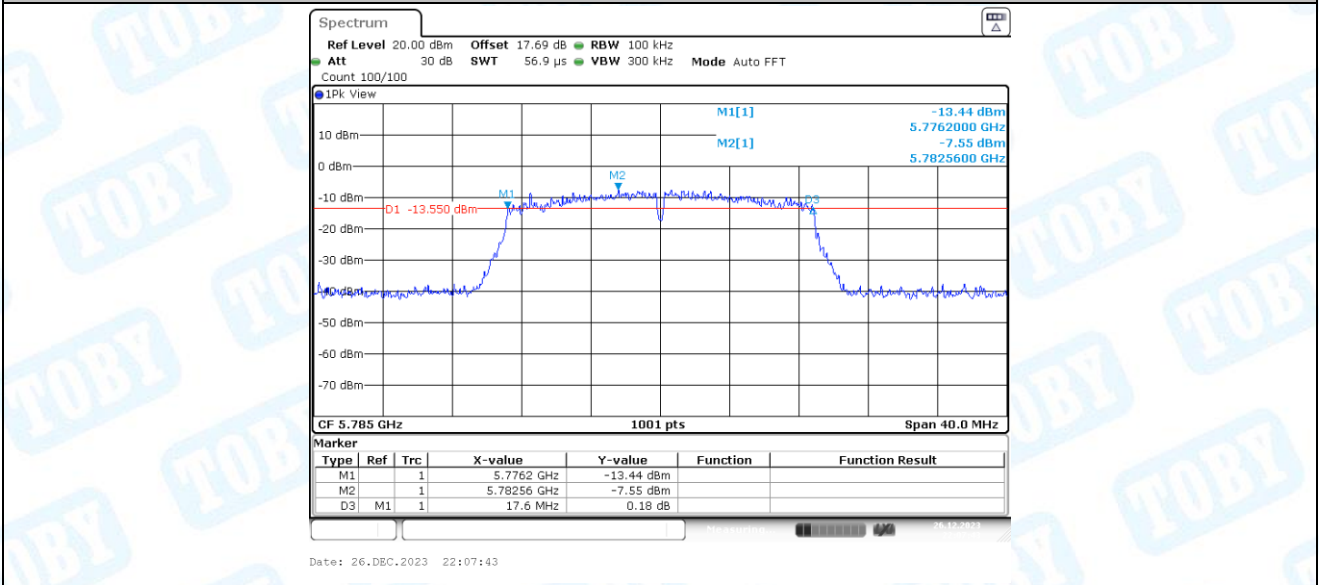
11N40SISO_Ant1_5795



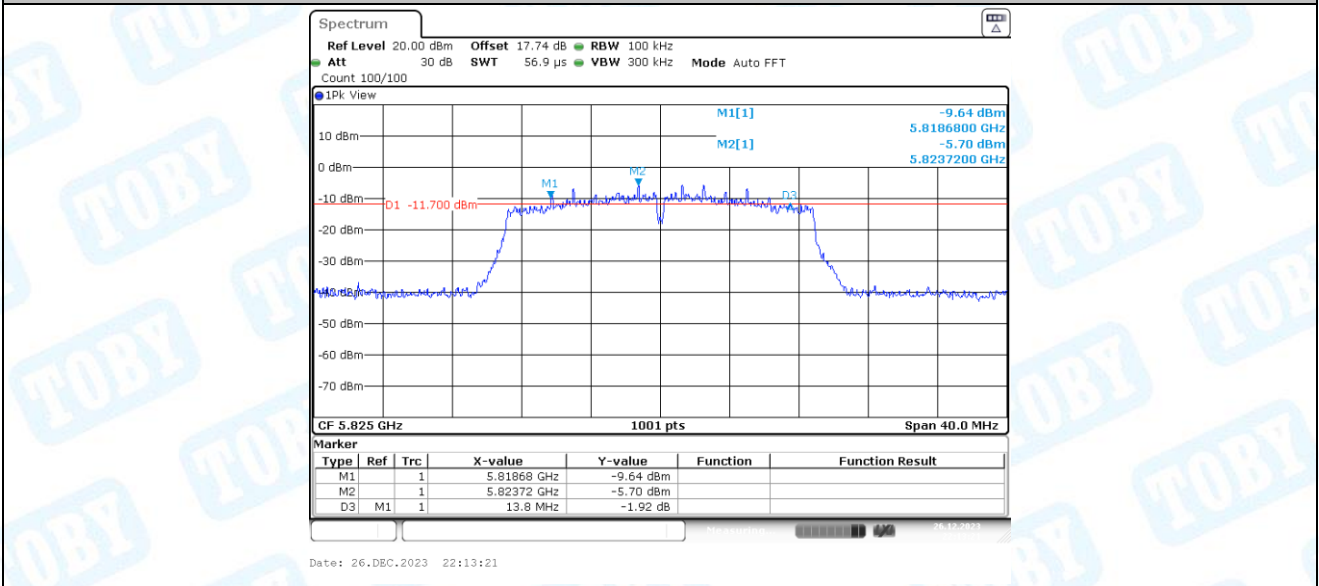
11AC20SISO_Ant1_5745



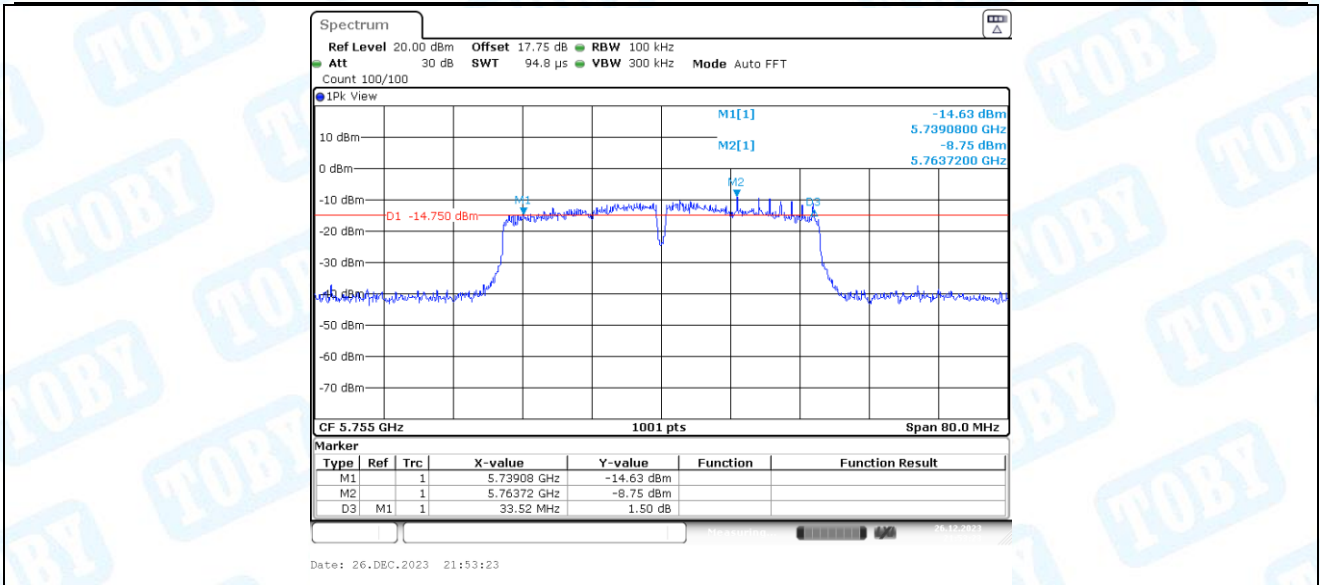
11AC20SISO_Ant1_5785



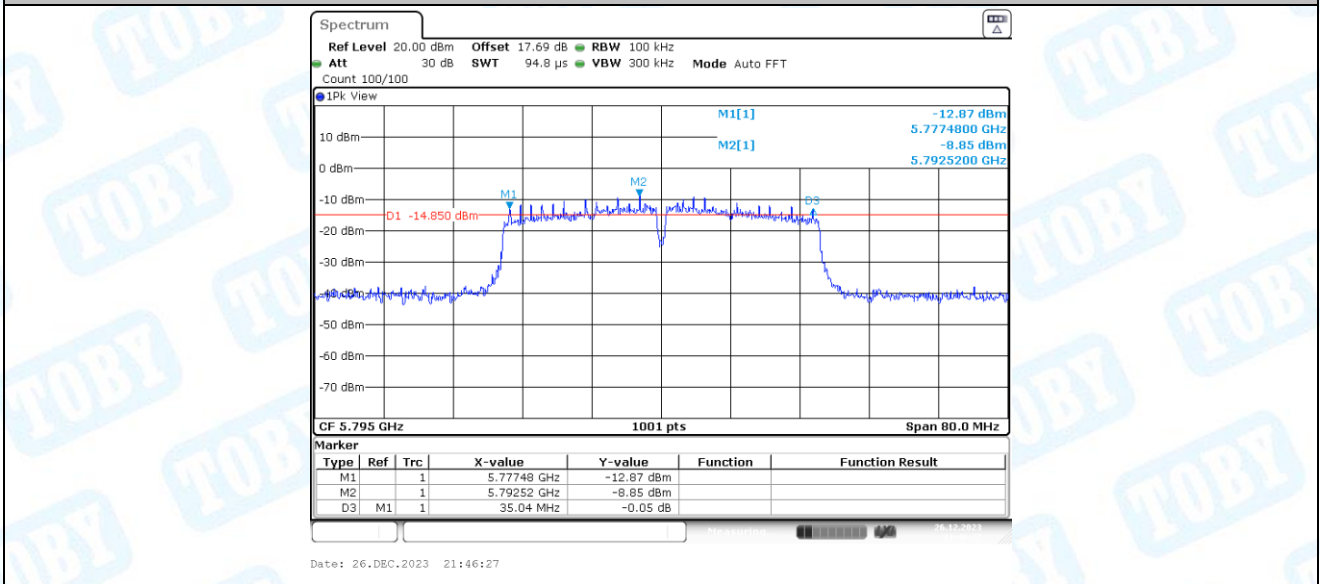
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



4. Maximum conducted output power

4.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	5.62	≤23.98	PASS
		5200	5.60	≤23.98	PASS
		5240	5.94	≤23.98	PASS
		5745	5.98	≤30.00	PASS
		5785	5.50	≤30.00	PASS
		5825	5.52	≤30.00	PASS
11N20SISO	Ant1	5180	5.88	≤23.98	PASS
		5200	6.12	≤23.98	PASS
		5240	6.28	≤23.98	PASS
		5745	5.85	≤30.00	PASS
		5785	6.13	≤30.00	PASS
		5825	5.40	≤30.00	PASS
11N40SISO	Ant1	5190	5.56	≤23.98	PASS
		5230	5.75	≤23.98	PASS
		5755	5.92	≤30.00	PASS
		5795	5.30	≤30.00	PASS
11AC20SISO	Ant1	5180	5.39	≤23.98	PASS
		5200	5.43	≤23.98	PASS
		5240	5.78	≤23.98	PASS
		5745	5.25	≤30.00	PASS
		5785	6.19	≤30.00	PASS
		5825	5.48	≤30.00	PASS
11AC40SISO	Ant1	5190	5.65	≤23.98	PASS
		5230	5.80	≤23.98	PASS
		5755	6.01	≤30.00	PASS
		5795	5.27	≤30.00	PASS

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

5. Maximum power spectral density

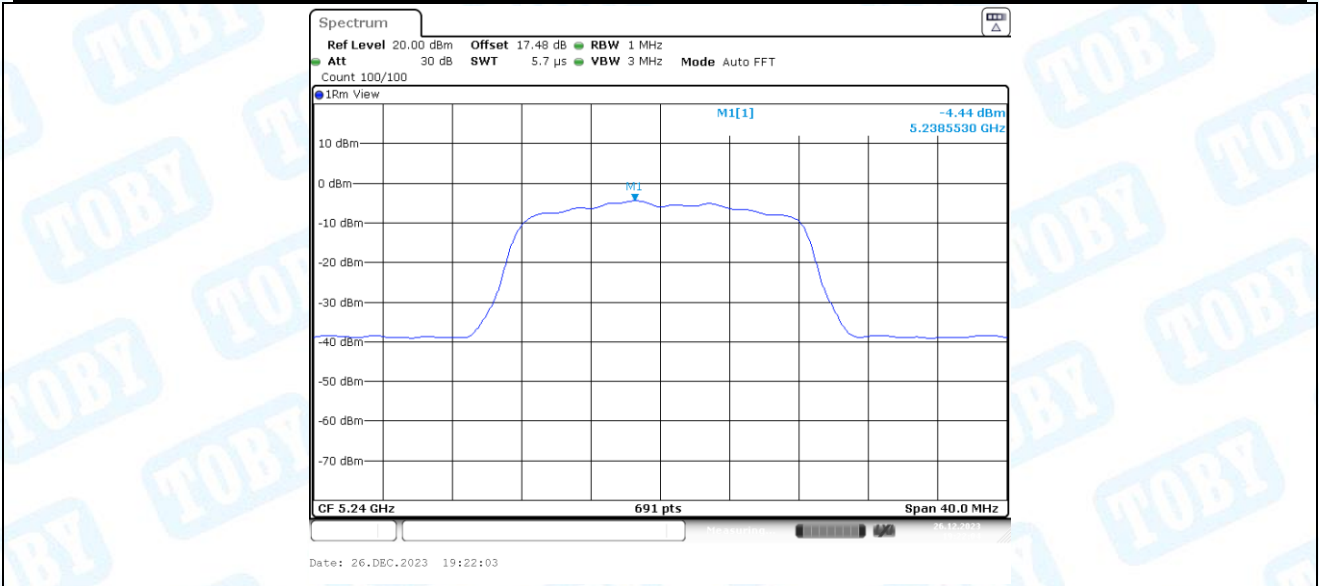
5.1. Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	-5.14	≤11.00	PASS
		5200	-4.92	≤11.00	PASS
		5240	-4.29	≤11.00	PASS
		5745	-7.47	≤30.00	PASS
		5785	-7.78	≤30.00	PASS
		5825	-7.78	≤30.00	PASS
11N20SISO	Ant1	5180	-4.68	≤11.00	PASS
		5200	-4.02	≤11.00	PASS
		5240	-4.41	≤11.00	PASS
		5745	-7.40	≤30.00	PASS
		5785	-7.59	≤30.00	PASS
		5825	-7.82	≤30.00	PASS
11N40SISO	Ant1	5190	-7.51	≤11.00	PASS
		5230	-7.52	≤11.00	PASS
		5755	-10.44	≤30.00	PASS
		5795	-11.12	≤30.00	PASS
11AC20SISO	Ant1	5180	-5.17	≤11.00	PASS
		5200	-5.34	≤11.00	PASS
		5240	-4.95	≤11.00	PASS
		5745	-8.64	≤30.00	PASS
		5785	-7.14	≤30.00	PASS
		5825	-7.87	≤30.00	PASS
11AC40SISO	Ant1	5190	-7.18	≤11.00	PASS
		5230	-7.83	≤11.00	PASS
		5755	-10.65	≤30.00	PASS
		5795	-11.10	≤30.00	PASS

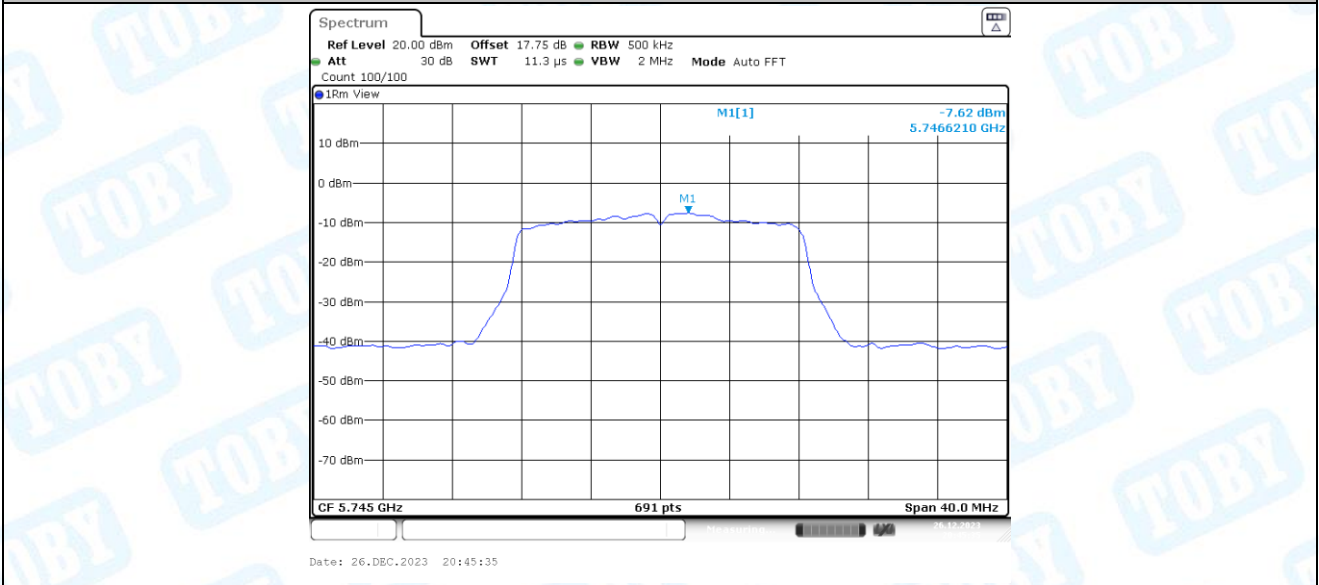
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
 2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

5.2. Test Graphs

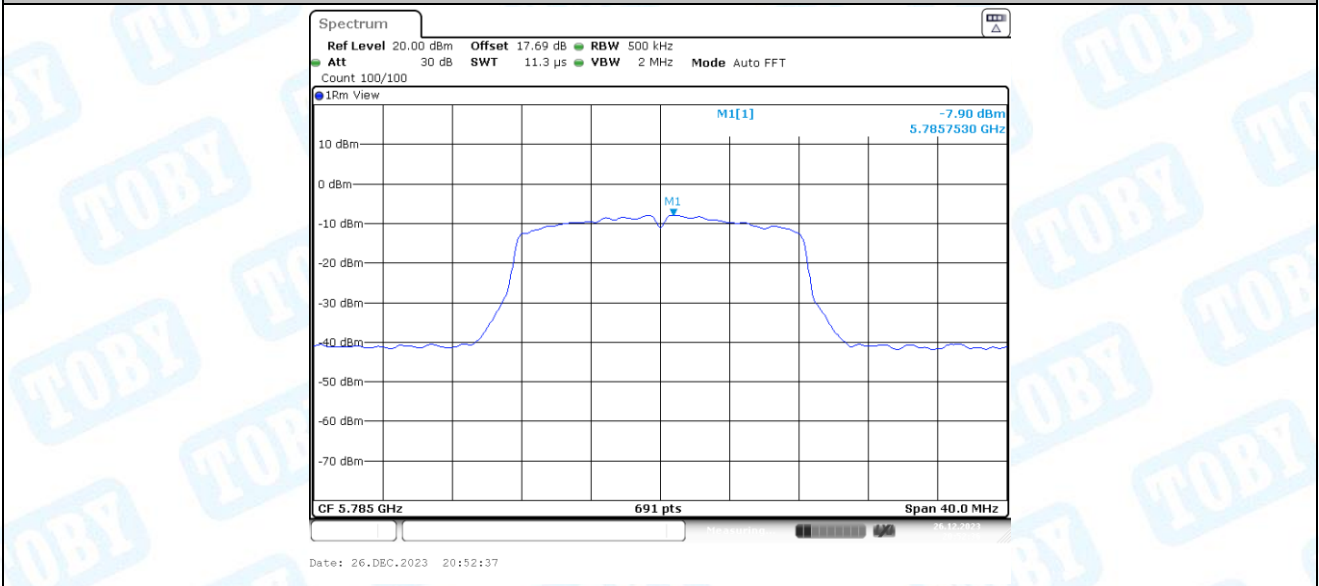




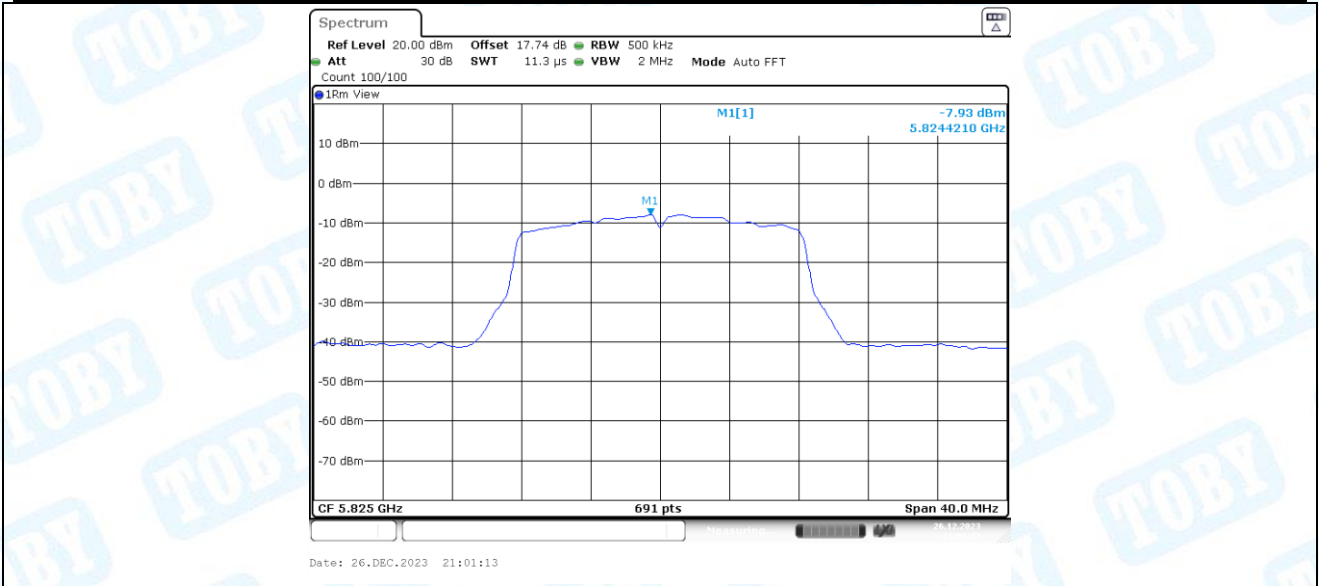
11A_Ant1_5745



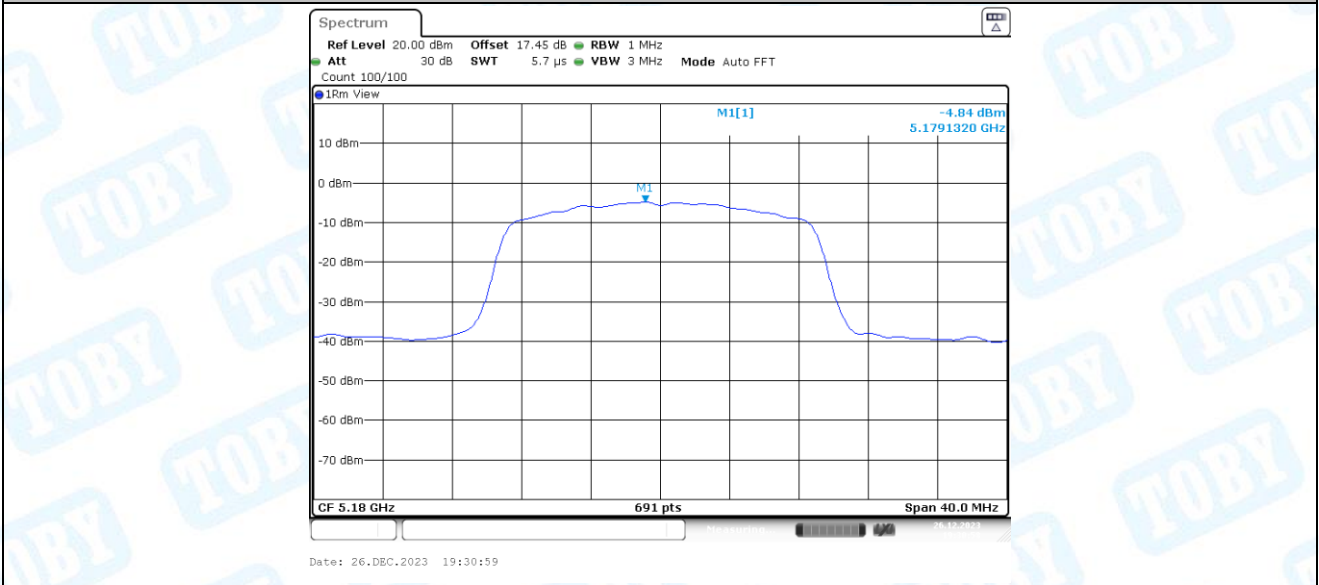
11A_Ant1_5785



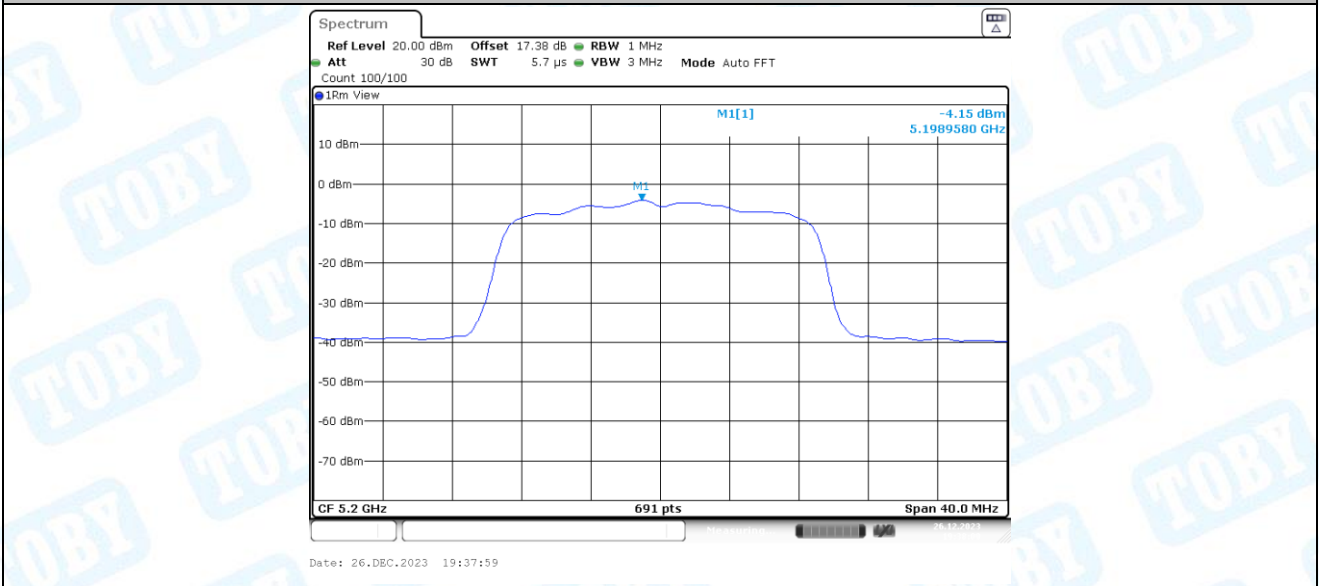
11A_Ant1_5825



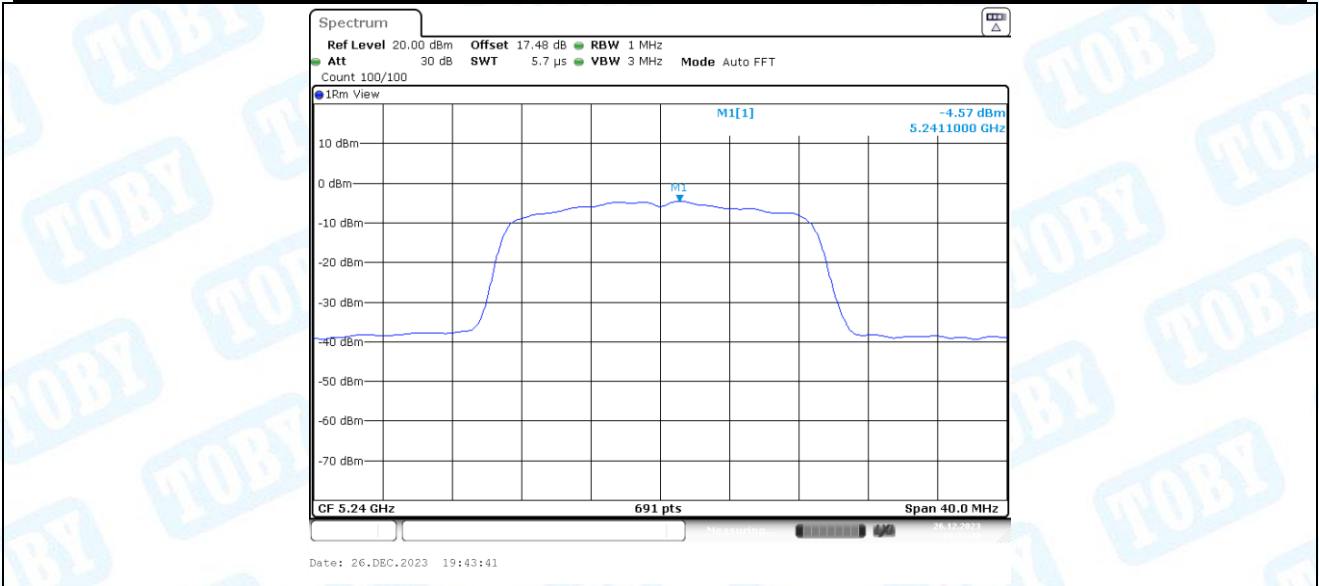
11N20SISO_Ant1_5180



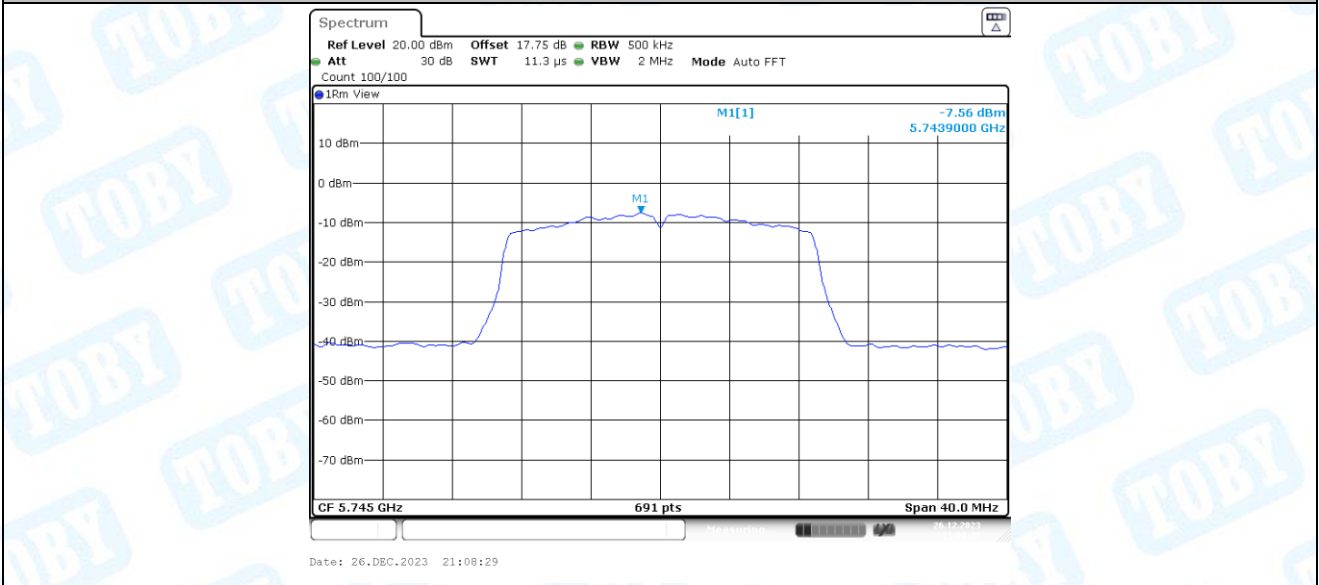
11N20SISO_Ant1_5200



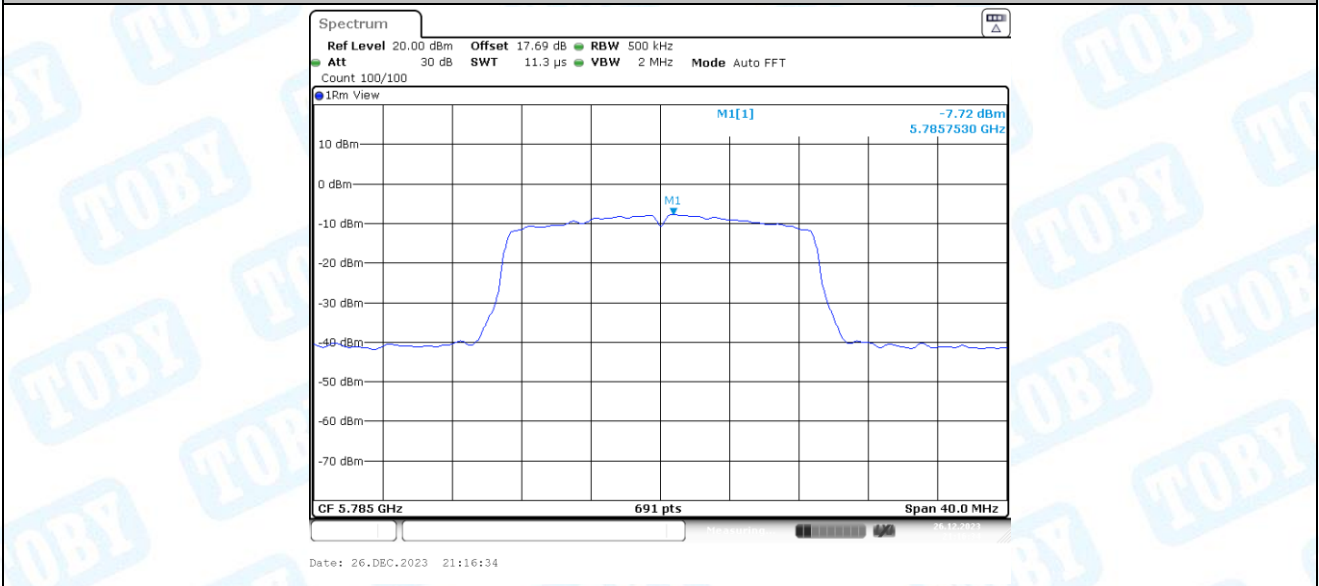
11N20SISO_Ant1_5240



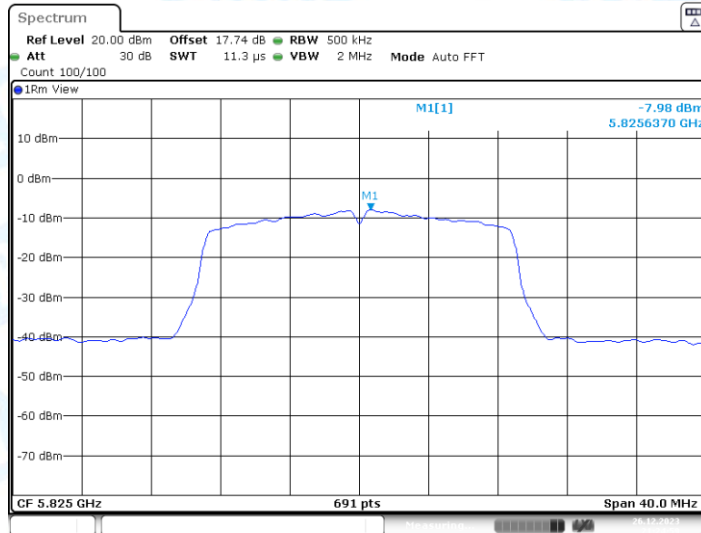
11N20SISO_Ant1_5745



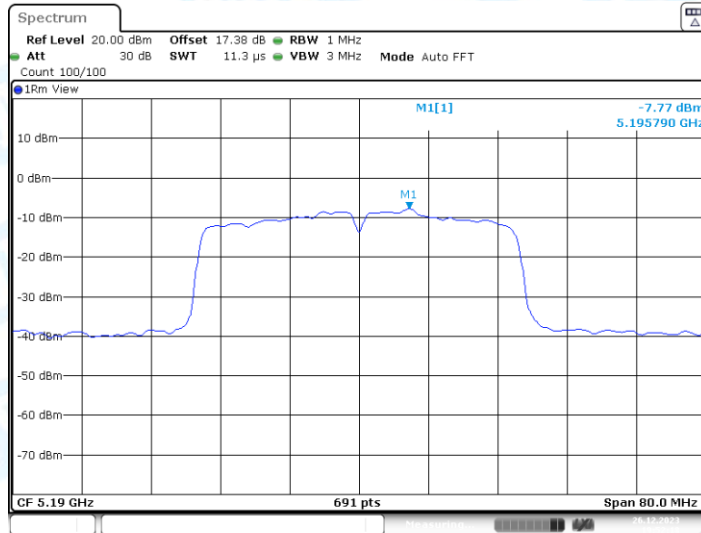
11N20SISO_Ant1_5785



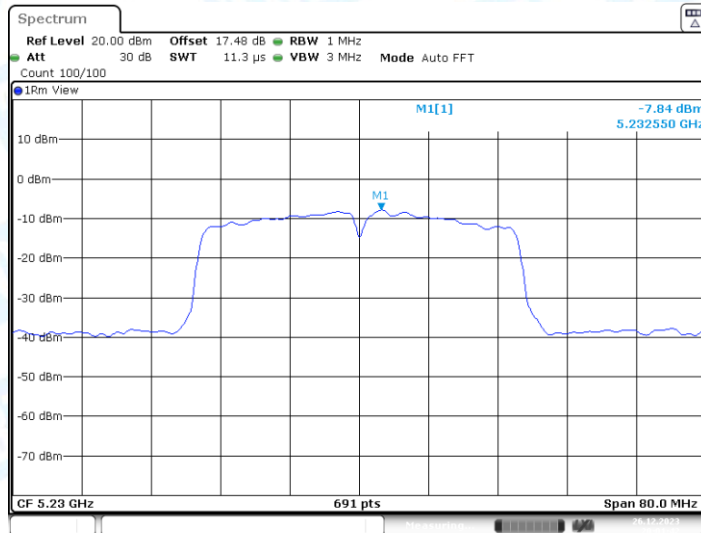
11N20SISO_Ant1_5825



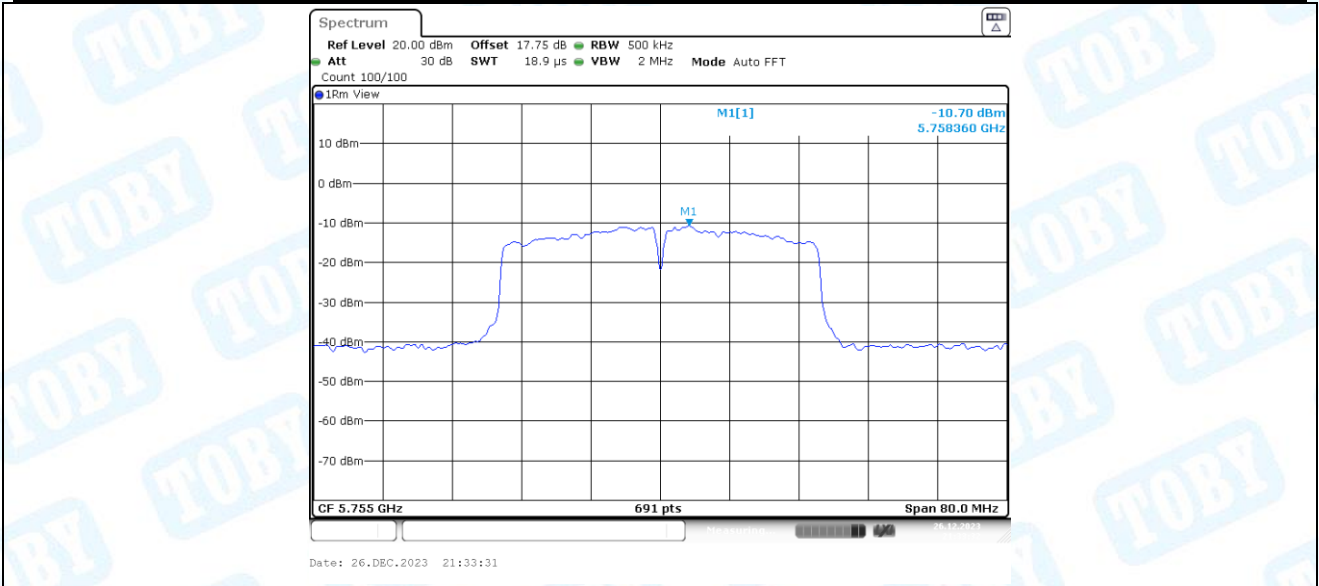
11N40SISO_Ant1_5190



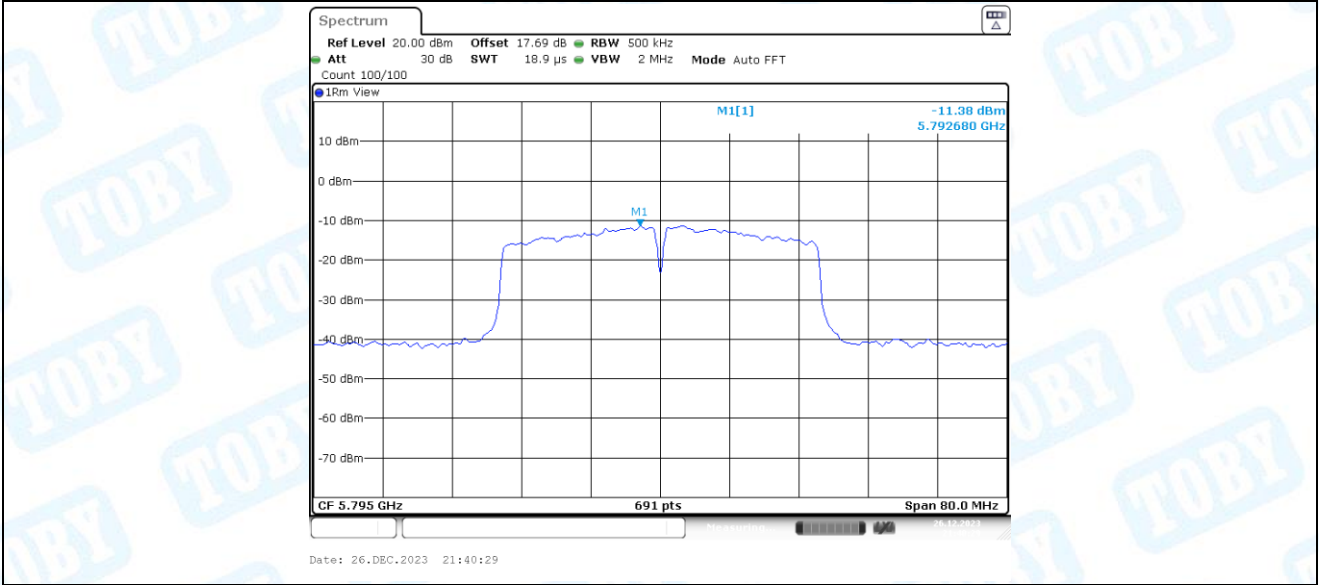
11N40SISO_Ant1_5230



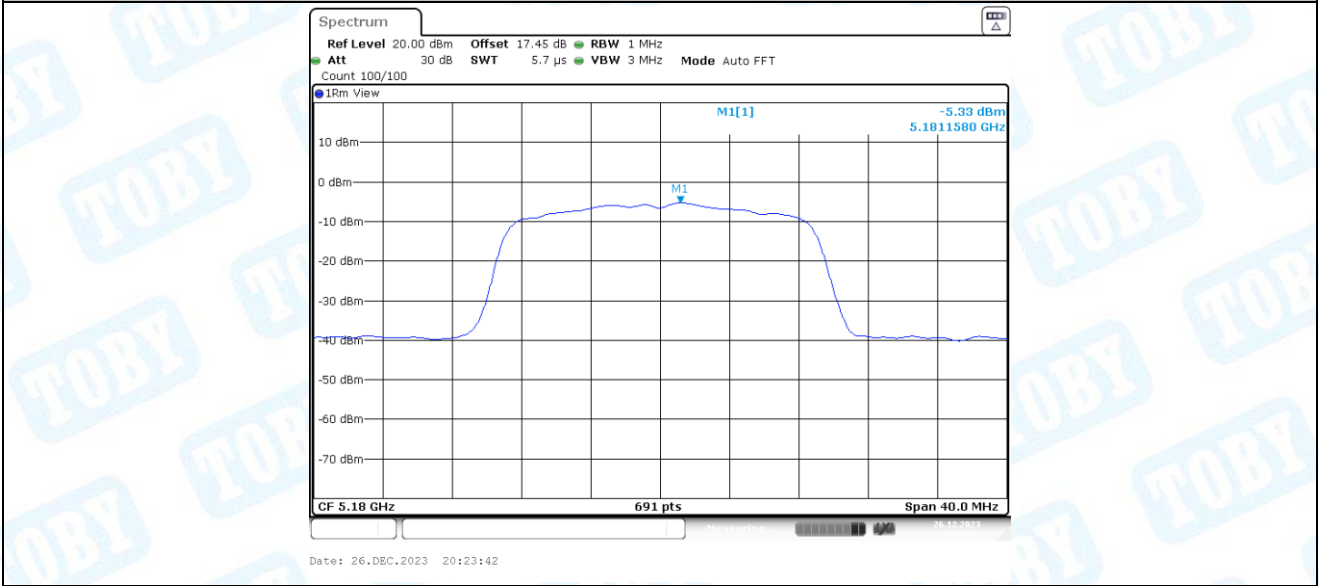
11N40SISO_Ant1_5755



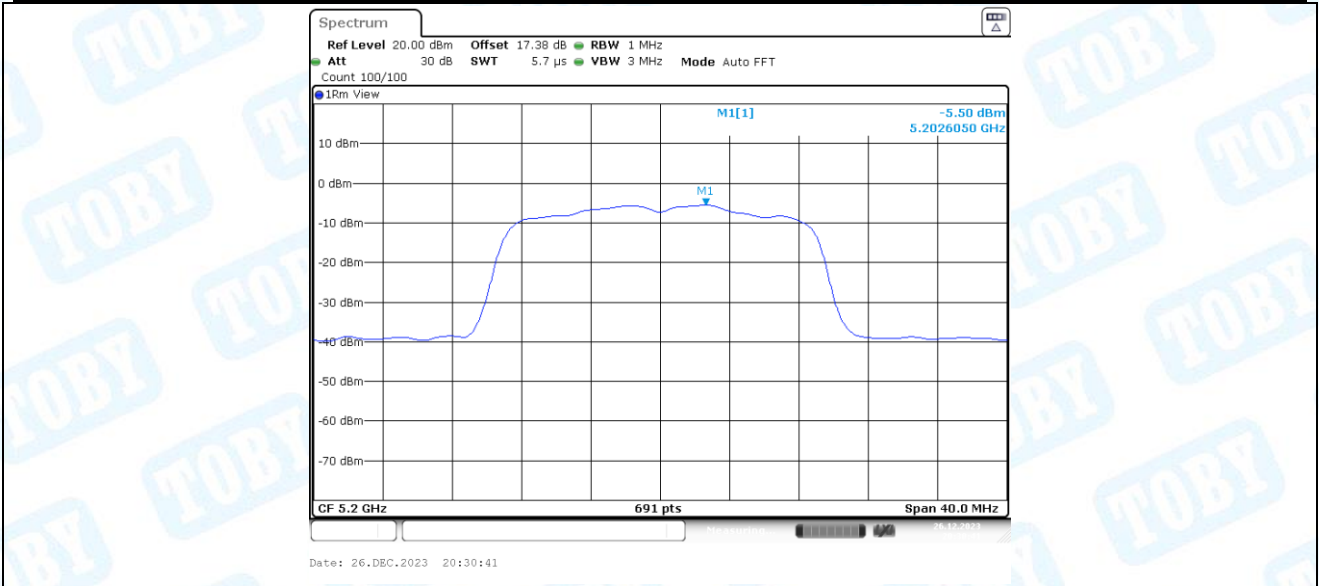
11N40SISO_Ant1_5795



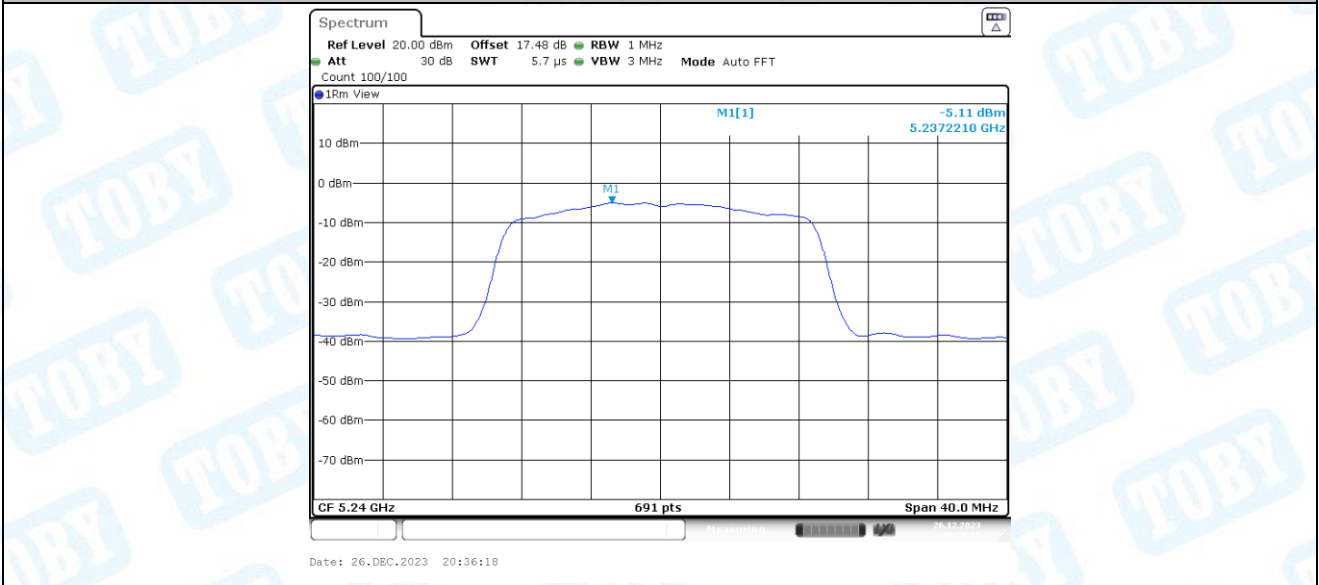
11AC20SISO_Ant1_5180



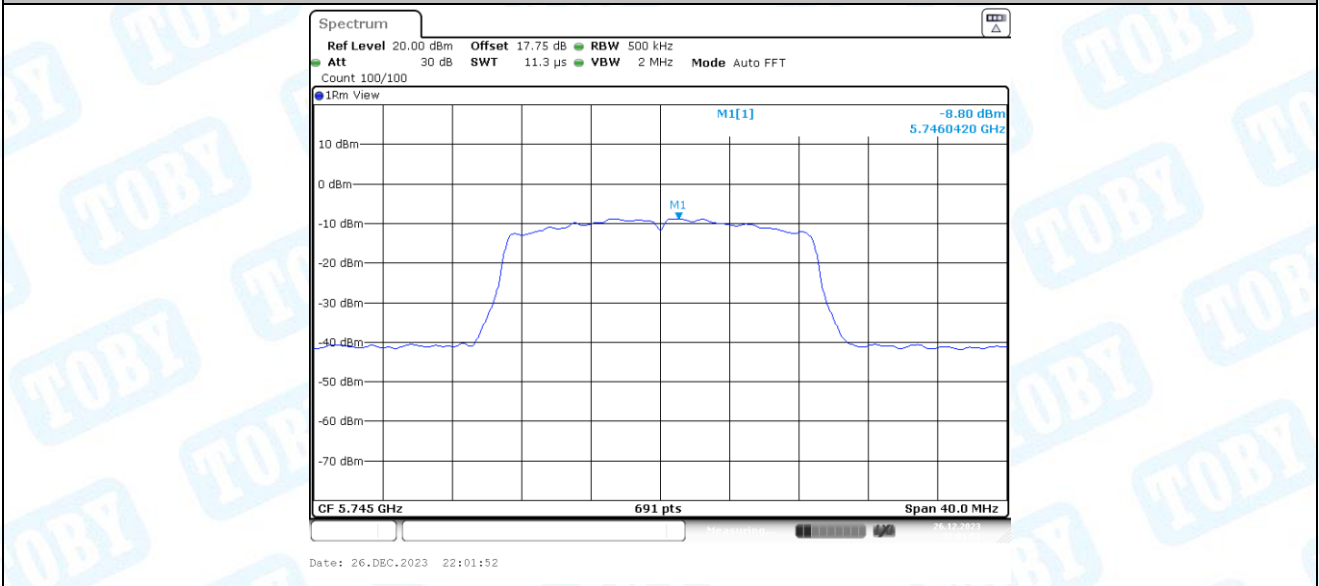
11AC20SISO_Ant1_5200



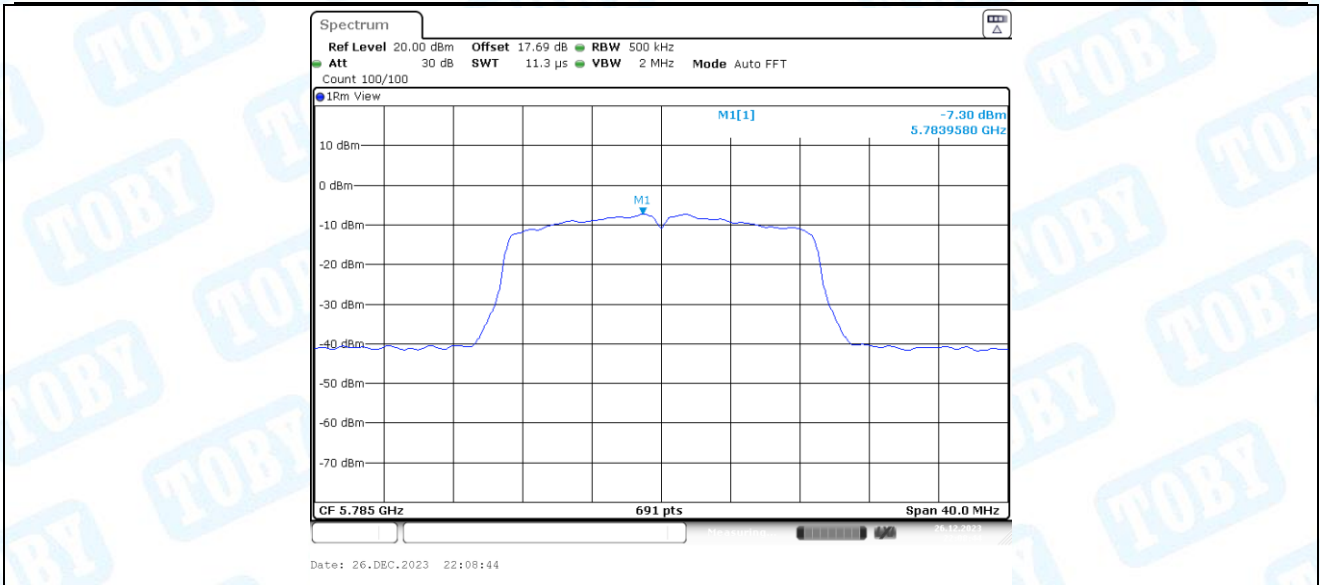
11AC20SISO_Ant1_5240



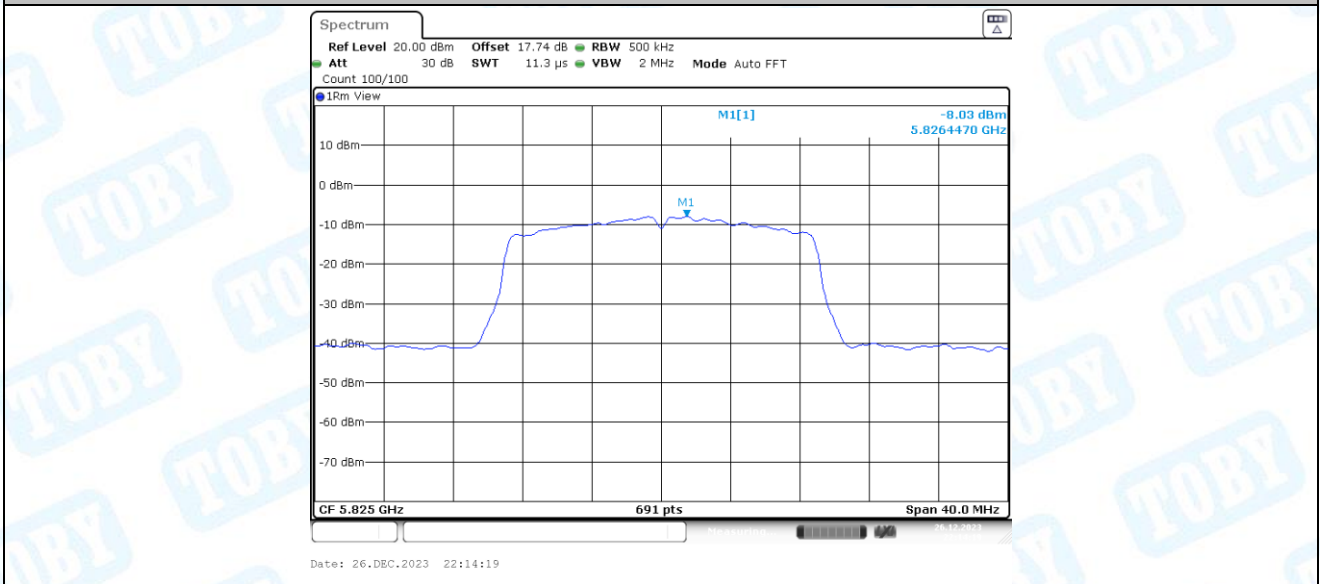
11AC20SISO_Ant1_5745



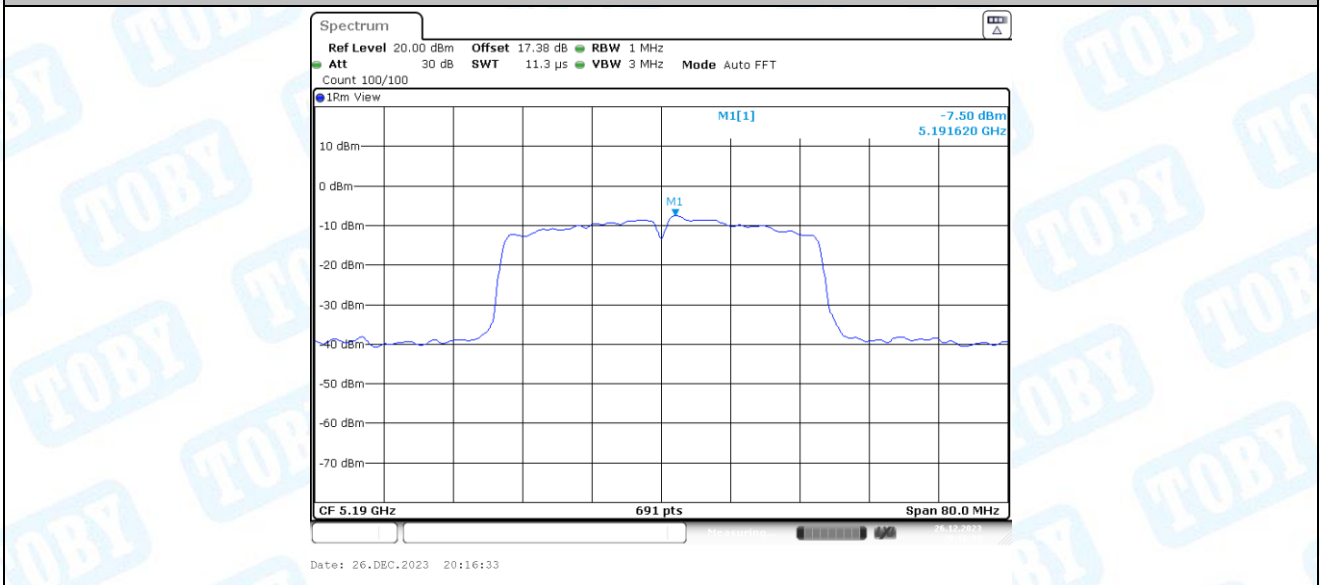
11AC20SISO_Ant1_5785



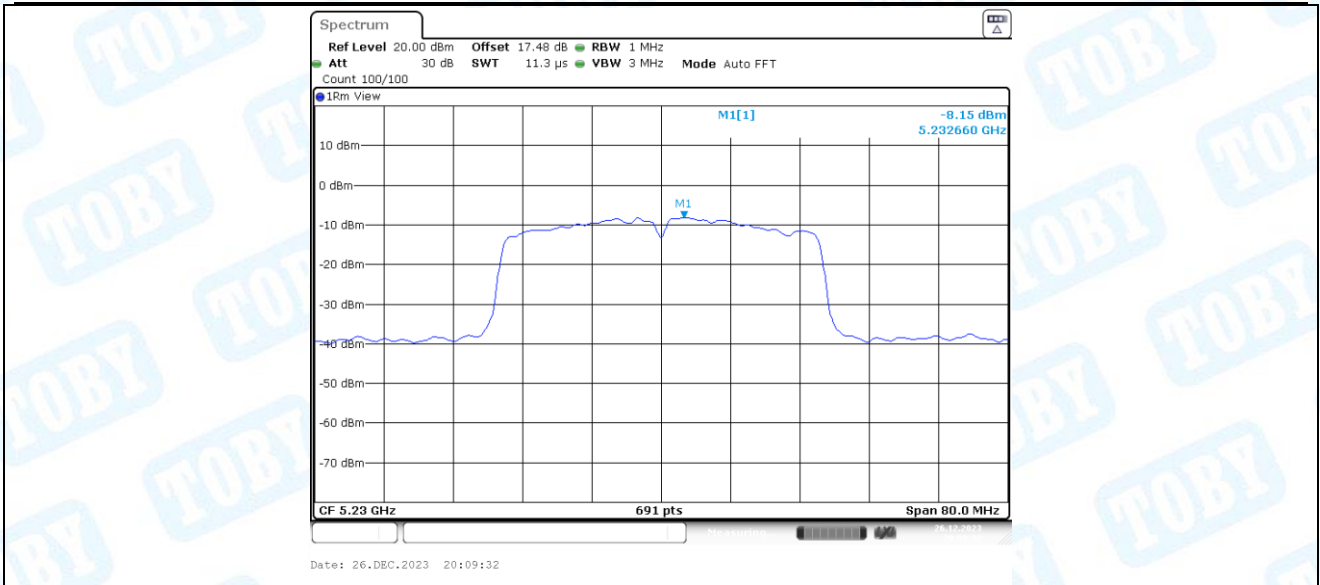
11AC20SISO_Ant1_5825



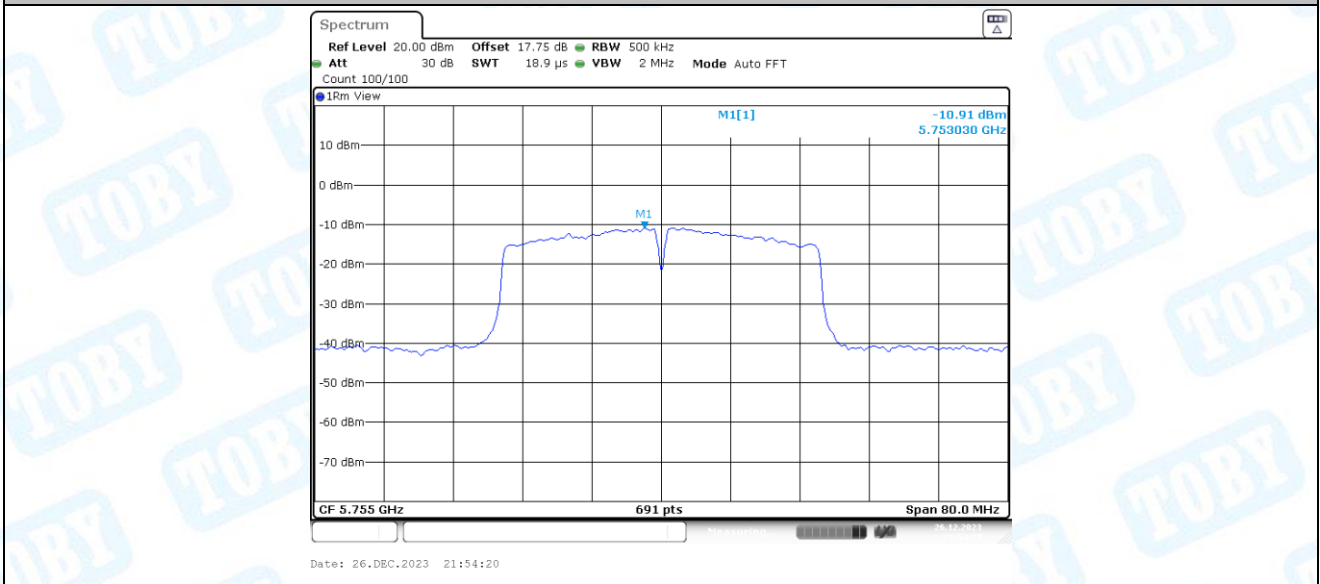
11AC40SISO_Ant1_5190



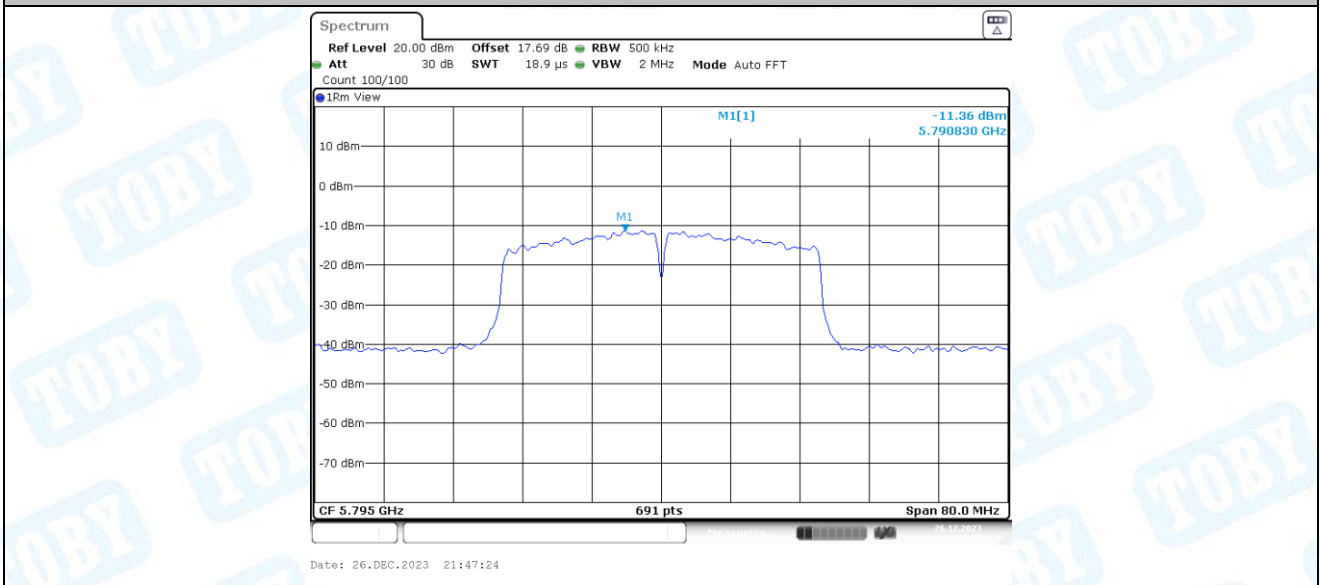
11AC40SISO_Ant1_5230



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



6. Band edge measurements

6.1. Test Result

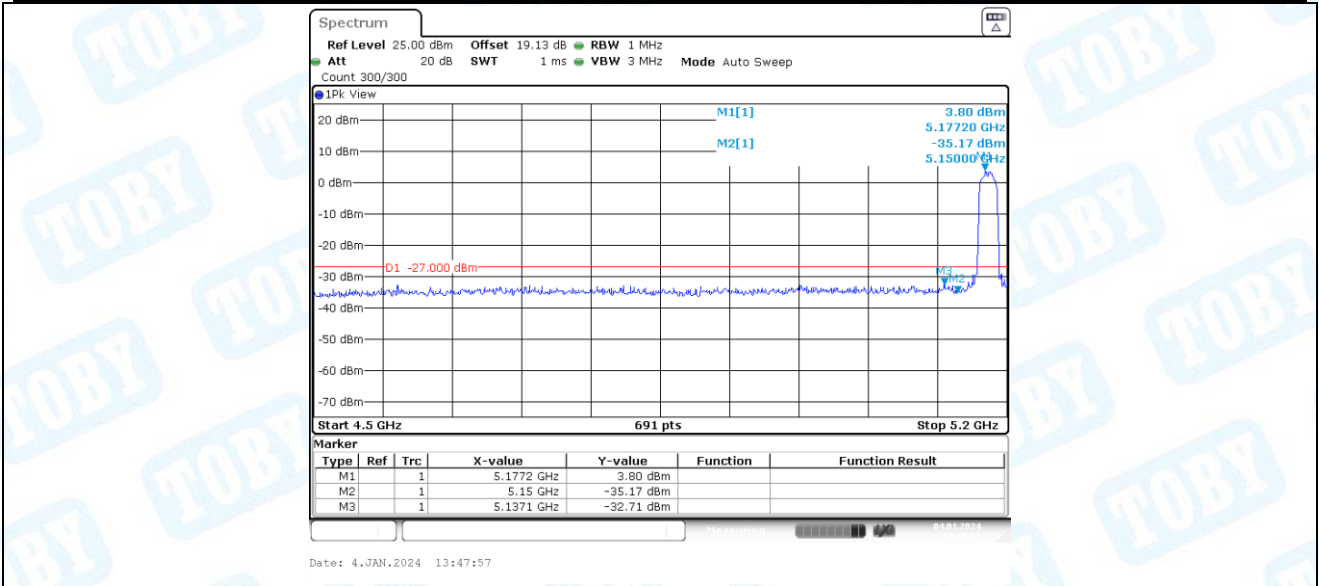
TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-32.64	≤-27	PASS
		High	5240	-35.87	≤-27	PASS
11N20SISO	Ant1	Low	5180	-32.71	≤-27	PASS
		High	5240	-36.54	≤-27	PASS
11N40SISO	Ant1	Low	5190	-31.23	≤-27	PASS
		High	5230	-35.63	≤-27	PASS
11AC20SISO	Ant1	Low	5180	-32.52	≤-27	PASS
		High	5240	-35.83	≤-27	PASS
11AC40SISO	Ant1	Low	5190	-32.32	≤-27	PASS
		High	5230	-36.19	≤-27	PASS

TestMode	Antenna	ChName	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-36.47	≤1.86	PASS
				5700~5720	-37.74	≤13.08	PASS
				5720~5725	-37.36	≤22.44	PASS
				5760~5650	-37.99	≤-27	PASS
		High	5825	5850~5855	-36.85	≤18.92	PASS
				5855~5875	-36.65	≤15.36	PASS
				5875~5925	-36.25	≤0.03	PASS
				5925~5935	-37.67	≤-27	PASS
11N20SISO	Ant1	Low	5745	5650~5700	-36.94	≤-18.12	PASS
				5700~5720	-37.91	≤13.73	PASS
				5720~5725	-36.76	≤23.20	PASS
				5760~5650	-37.91	≤-27	PASS
		High	5825	5850~5855	-35.88	≤16.69	PASS
				5855~5875	-36.69	≤10.38	PASS
				5875~5925	-36.64	≤-20.24	PASS
				5925~5935	-37.2	≤-27	PASS
11N40SISO	Ant1	Low	5755	5650~5700	-36.43	≤4.92	PASS
				5700~5720	-36.77	≤14.65	PASS
				5720~5725	-35.14	≤25.71	PASS
				5780~5650	-38.26	≤-27	PASS
		High	5795	5850~5855	-37.2	≤24.57	PASS
				5855~5875	-35.22	≤15.39	PASS
				5875~5925	-35.91	≤-11.09	PASS
				5925~5935	-36.63	≤-27	PASS
11AC20SISO	Ant1	Low	5745	5650~5700	-37.42	≤0.87	PASS
				5700~5720	-36.96	≤10.28	PASS
				5720~5725	-35.76	≤26.24	PASS

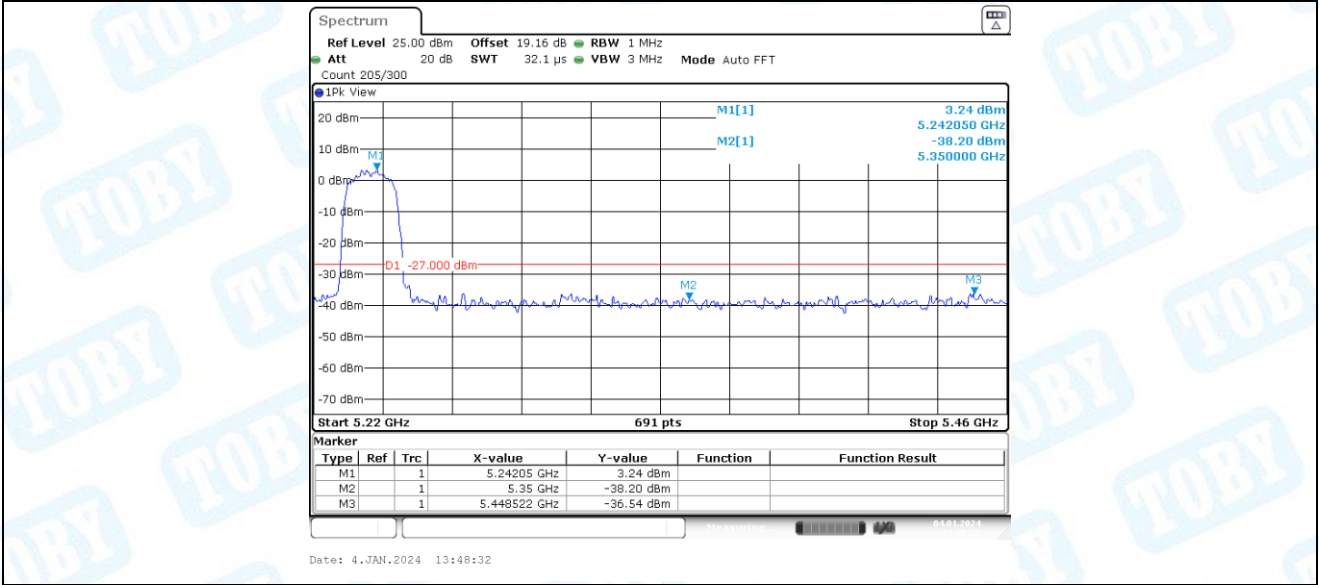
		High	5825	5760~5650	-37.94	≤-27	PASS
				5850~5855	-37.07	≤19.37	PASS
				5855~5875	-36.81	≤13.94	PASS
				5875~5925	-36.32	≤-15.47	PASS
				5925~5935	-37.48	≤-27	PASS
11AC40SISO	Ant1	Low	5755	5650~5700	-36.42	≤-18.68	PASS
				5700~5720	-36.4	≤15.31	PASS
				5720~5725	-36.57	≤24.82	PASS
				5780~5650	-38.61	≤-27	PASS
		High	5795	5850~5855	-37.83	≤25.66	PASS
				5855~5875	-35.29	≤14.32	PASS
				5875~5925	-36.73	≤-18.17	PASS
				5925~5935	-37.98	≤-27	PASS

6.2. Test Graphs

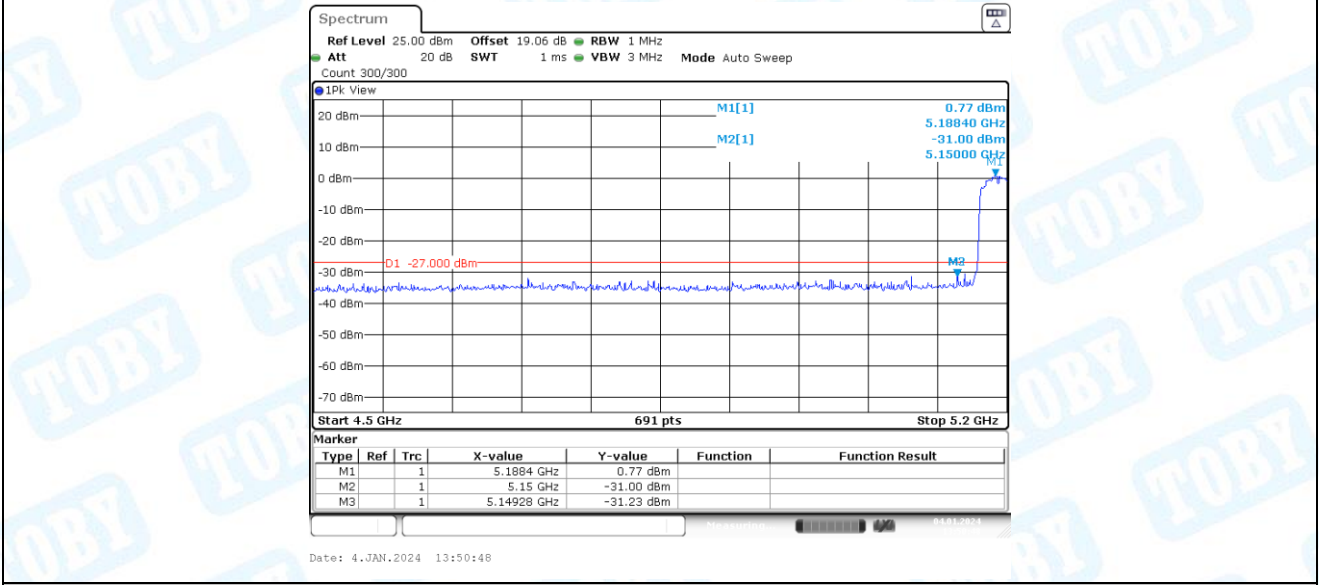




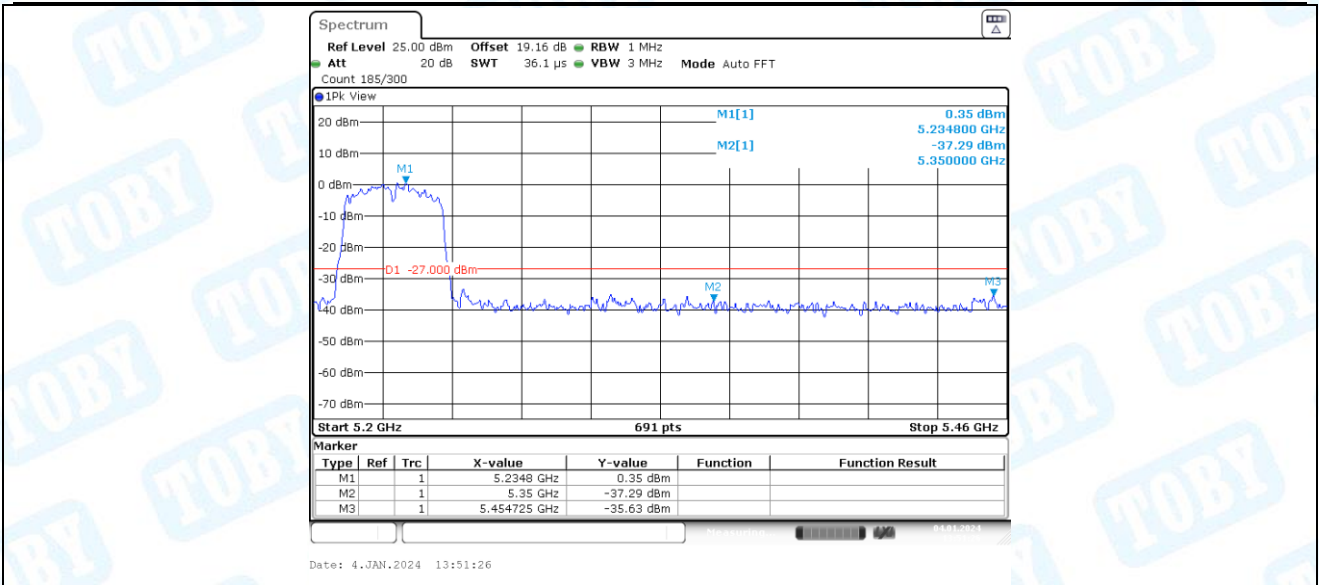
11N20SISO_Ant1_High_5240



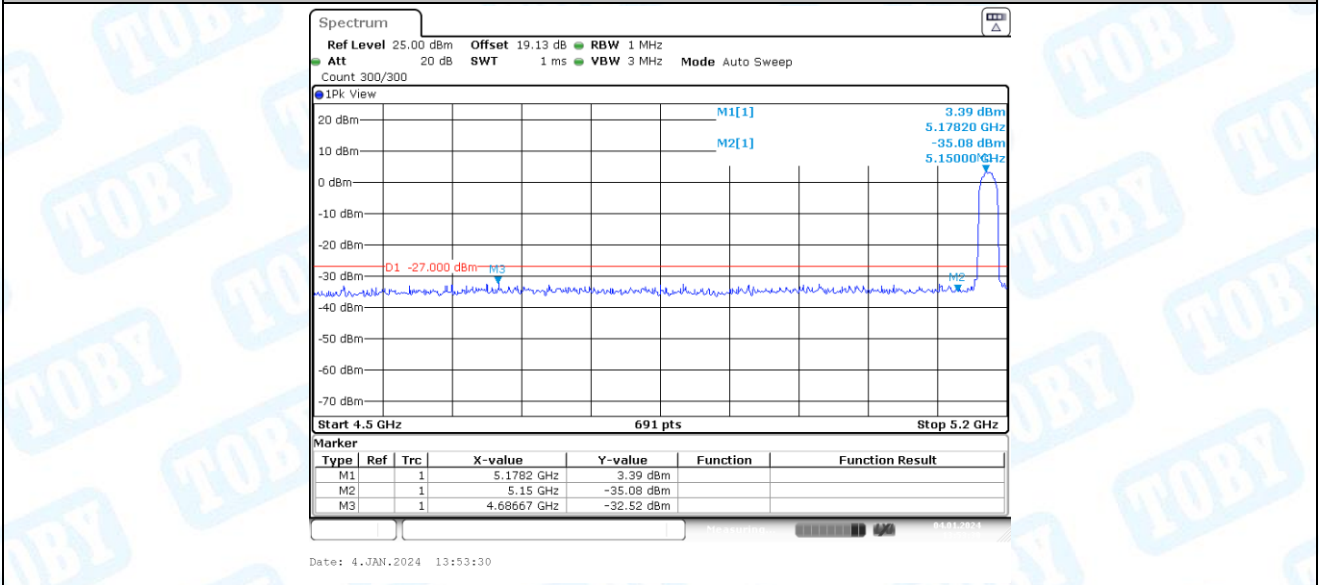
11N40SISO_Ant1_Low_5190



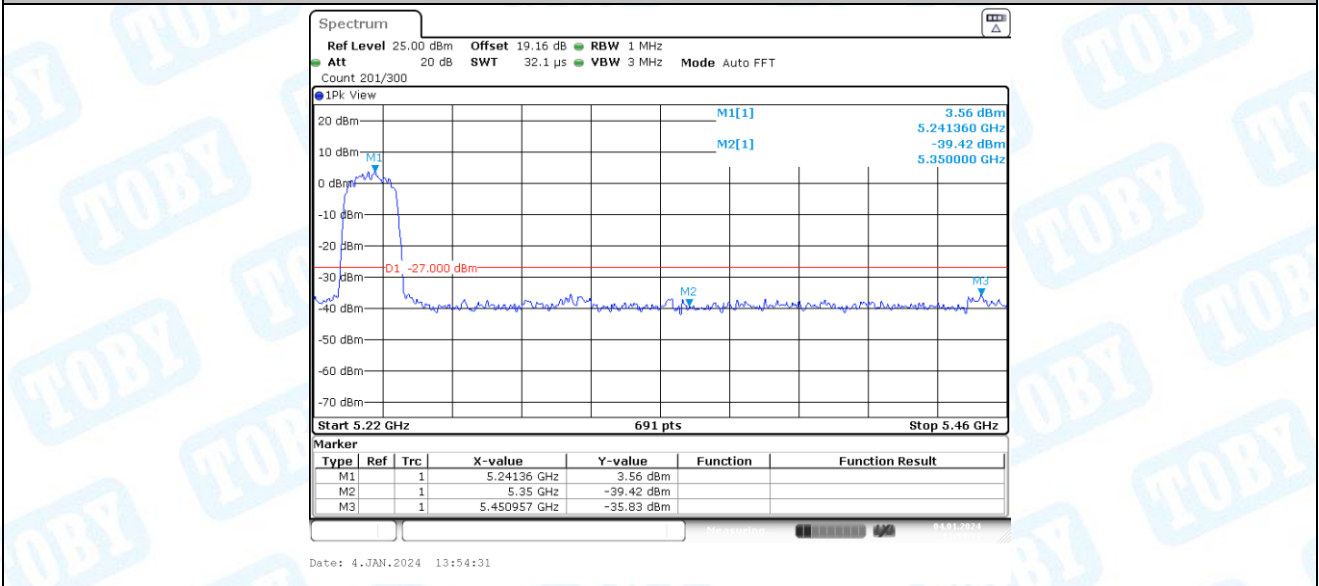
11N40SISO_Ant1_High_5230



11AC20SISO_Ant1_Low_5180



11AC20SISO_Ant1_High_5240



11AC40SISO_Ant1_Low_5190