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Appendix for 5G WIFI

Applicant: Fanvil Technology Co., Ltd

**Address: 4F, Block A, Building 1#, GaoXinQi Hi-Tech Park
(Phase-II), 67th District, Bao'An, Shenzhen, China**

Model: X7A

FCC ID: 2APPZ-X7A

TABLE OF CONTENTS

Appendix A1: Emission Bandwidth	3
Appendix A2: Occupied channel bandwidth.....	9
Appendix A3: Min emission bandwidth	20
Appendix B: Maximum conducted output power.....	26
Appendix C: Maximum power spectral density	27
Appendix D: Frequency Stability	38
Appendix E: Duty Cycle	42

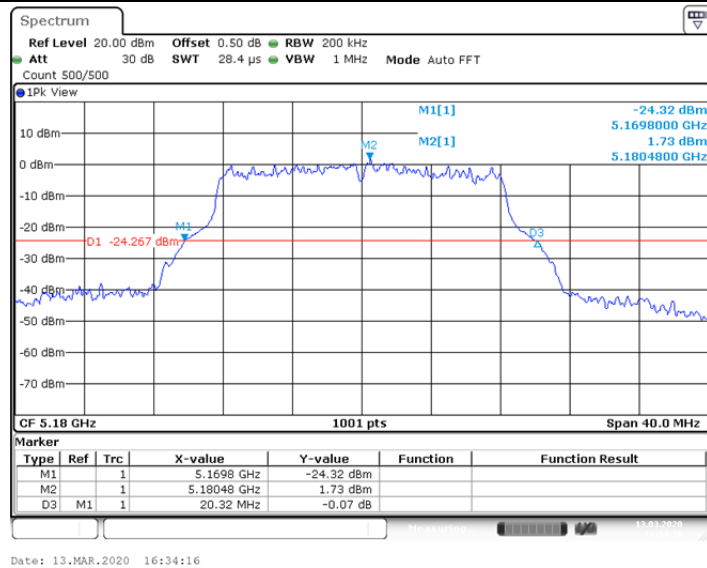
Appendix A1: Emission Bandwidth

Test Result

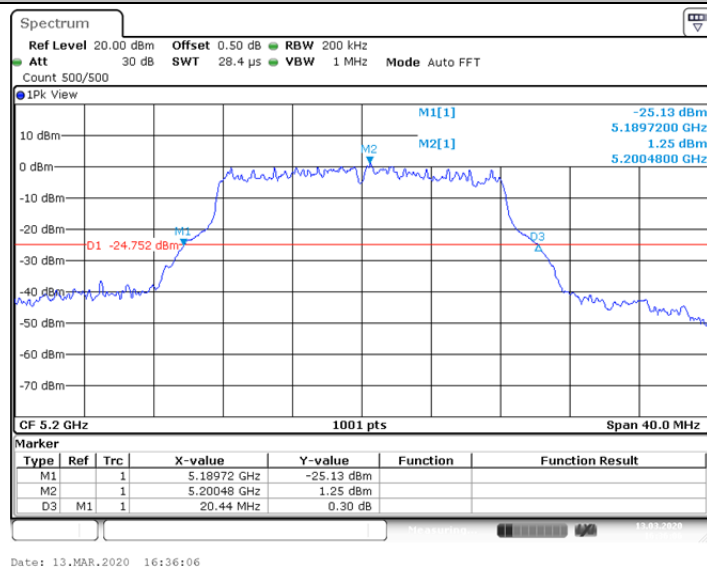
Test Mode	Antenna	Channel	26db EBW [MHz]	FL [MHz]	FH [MHz]	Verdict
11A	Ant1	5180	20.320	5169.800	5190.120	PASS
		5200	20.440	5189.720	5210.160	PASS
		5240	20.360	5229.800	5250.160	PASS
11N20SISO	Ant1	5180	21.120	5169.440	5190.560	PASS
		5200	21.320	5189.360	5210.680	PASS
		5240	20.960	5229.520	5250.480	PASS
11N40SISO	Ant1	5190	39.440	5170.160	5209.600	PASS
		5230	39.040	5210.480	5249.520	PASS
11AC20SISO	Ant1	5180	21.080	5169.360	5190.440	PASS
		5200	21.320	5189.280	5210.600	PASS
		5240	21.160	5229.240	5250.400	PASS
11AC40SISO	Ant1	5190	40.000	5169.920	5209.920	PASS
		5230	39.840	5209.920	5249.760	PASS
11AC80SISO	Ant1	5210	80.960	5169.840	5250.800	PASS

Test Graphs

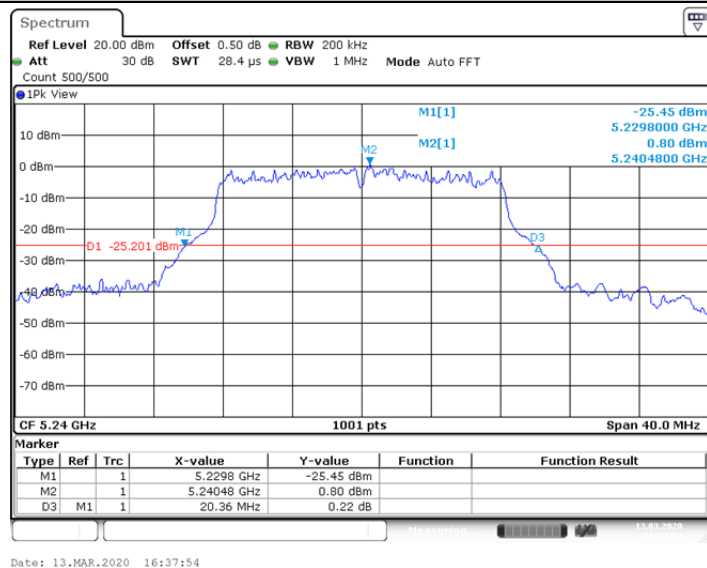
11A_Ant1_5180



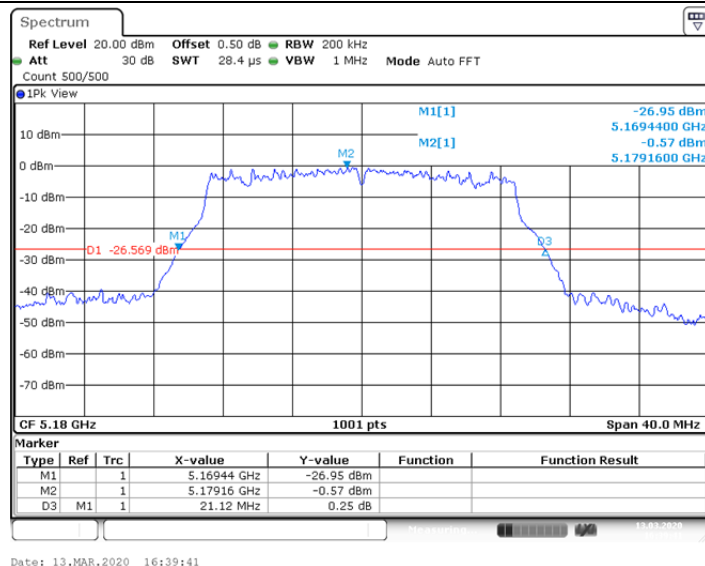
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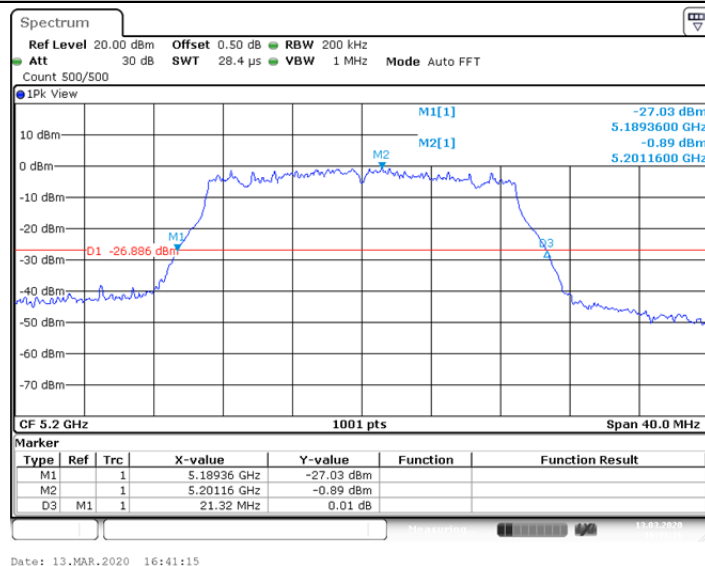
11A_Ant1_5240



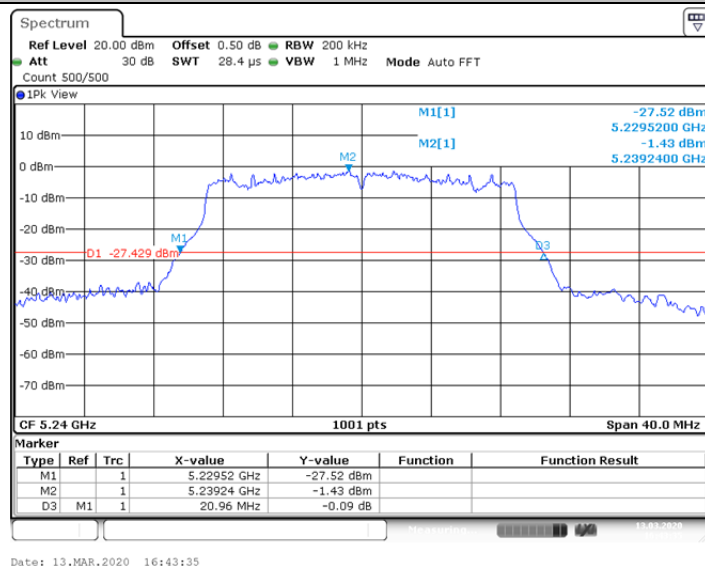
11N20SISO_Ant1_5180



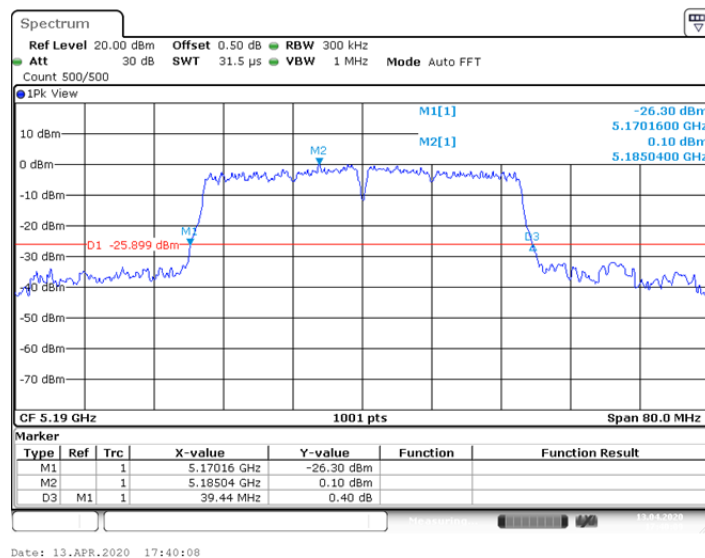
11N20SISO_Ant1_5200



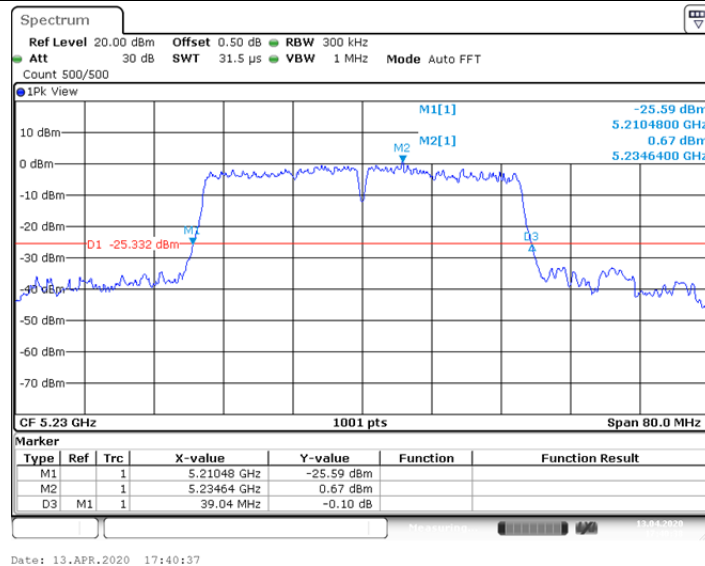
11N20SISO_Ant1_5240



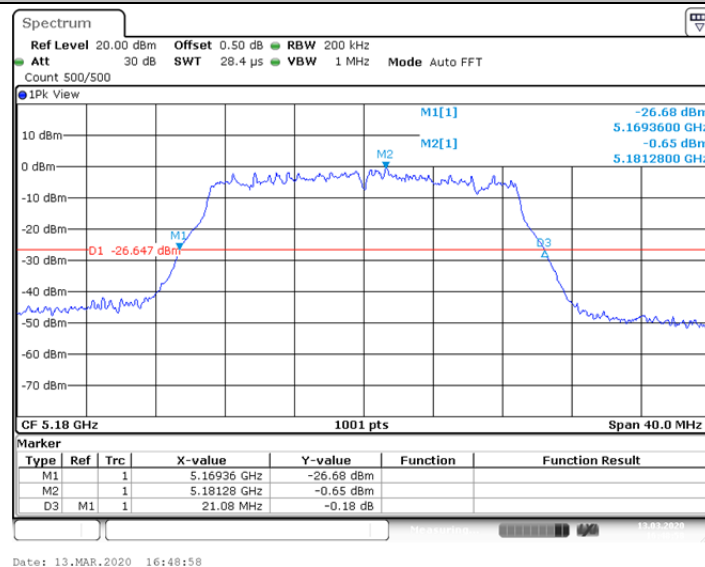
11N40SISO_Ant1_5190



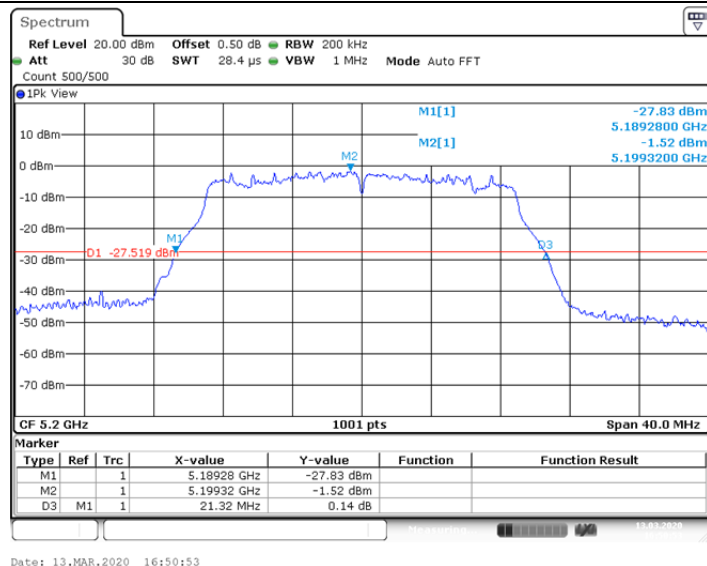
11N40SISO_Ant1_5230



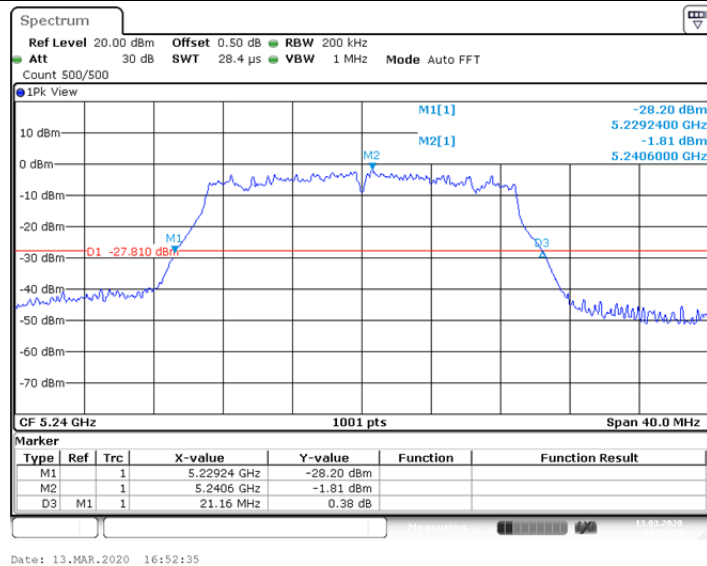
11AC20SISO_Ant1_5180



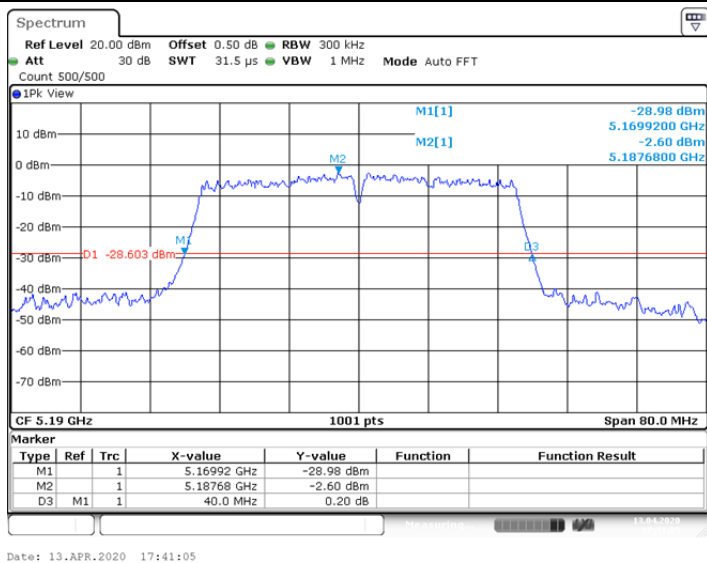
11AC20SISO_Ant1_5200



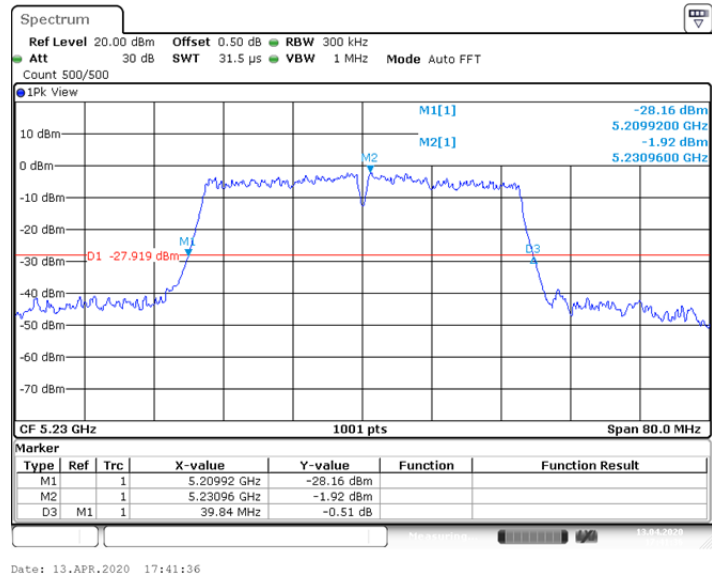
11AC20SISO_Ant1_5240



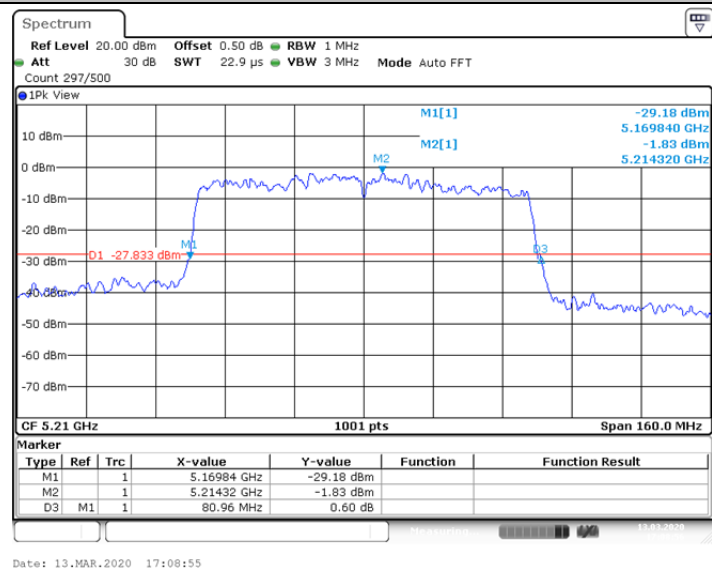
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210



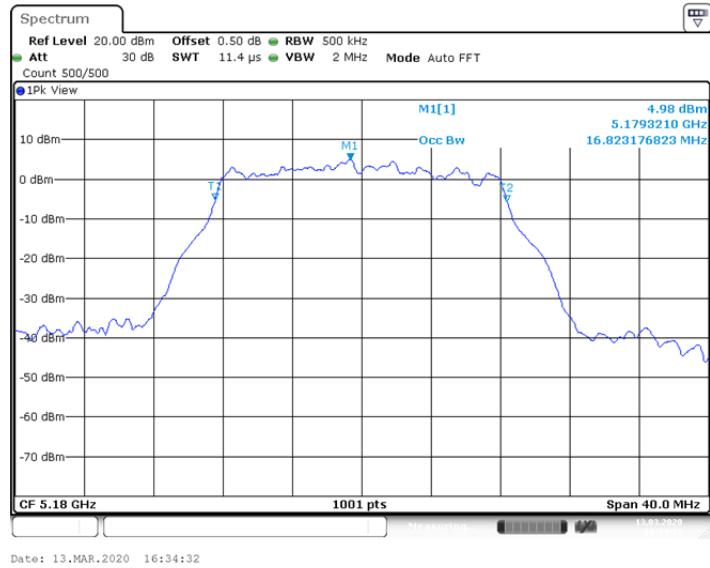
Appendix A2: Occupied channel bandwidth

Test Result

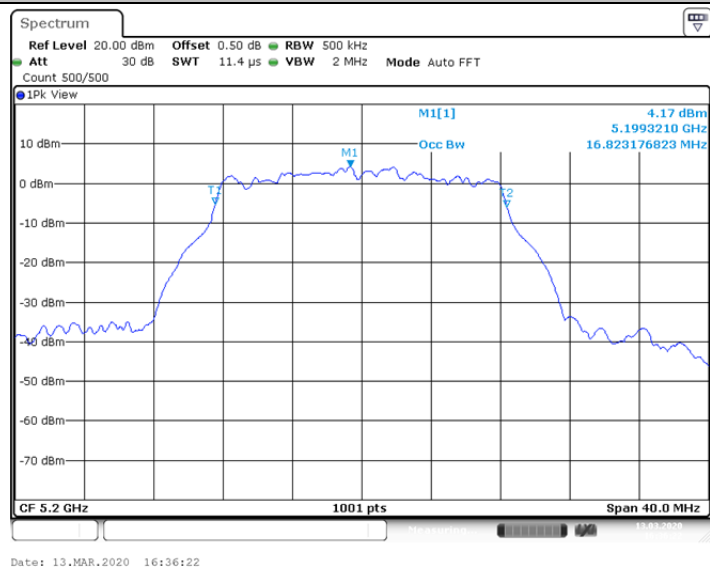
Test Mode	Antenna	Channel	OCB [MHz]	FL [MHz]	FH [MHz]	Verdict
11A	Ant1	5180	16.823	5171.528	5188.352	PASS
		5200	16.823	5191.528	5208.352	PASS
		5240	16.863	5231.528	5248.392	PASS
11N20SISO	Ant1	5180	18.062	5170.969	5189.031	PASS
		5200	18.182	5190.889	5209.071	PASS
		5240	18.022	5230.849	5248.871	PASS
11N40SISO	Ant1	5190	36.444	5171.698	5208.142	PASS
		5230	36.444	5211.698	5248.142	PASS
11AC20SISO	Ant1	5180	18.142	5170.849	5188.991	PASS
		5200	18.022	5190.929	5208.951	PASS
		5240	18.422	5230.649	5249.071	PASS
11AC40SISO	Ant1	5190	36.444	5171.778	5208.222	PASS
		5230	36.364	5211.778	5248.142	PASS
11AC80SISO	Ant1	5210	75.445	5171.958	5247.403	PASS
11A	Ant1	5745	16.823	5736.528	5753.352	PASS
		5785	16.863	5776.489	5793.352	PASS
		5825	16.823	5816.568	5833.392	PASS
11N20SISO	Ant1	5745	18.182	5735.809	5753.991	PASS
		5785	18.302	5775.809	5794.111	PASS
		5825	18.142	5815.849	5833.991	PASS
11N40SISO	Ant1	5755	36.284	5736.858	5773.142	PASS
		5795	36.364	5776.778	5813.142	PASS
11AC20SISO	Ant1	5745	18.102	5735.849	5753.951	PASS
		5785	18.022	5775.969	5793.991	PASS
		5825	18.501	5815.649	5834.151	PASS
11AC40SISO	Ant1	5755	36.364	5736.778	5773.142	PASS
		5795	36.364	5776.778	5813.142	PASS
11AC80SISO	Ant1	5775	75.924	5737.118	5813.042	PASS

Test Graphs

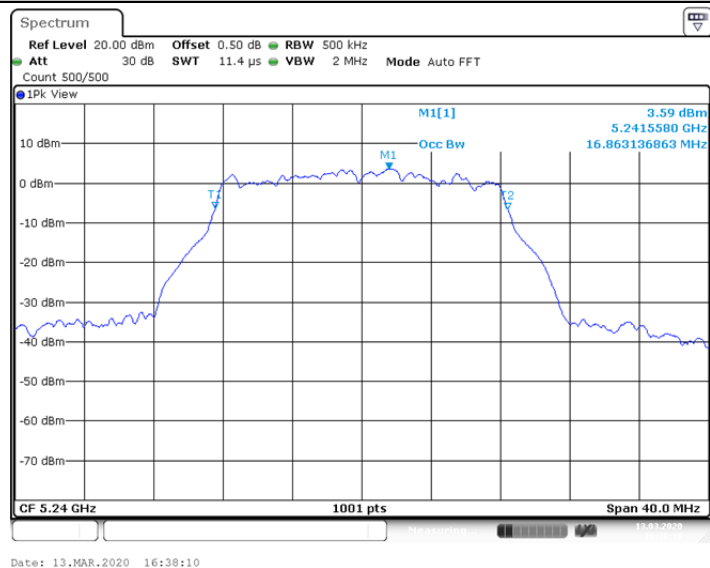
11A_Ant1_5180



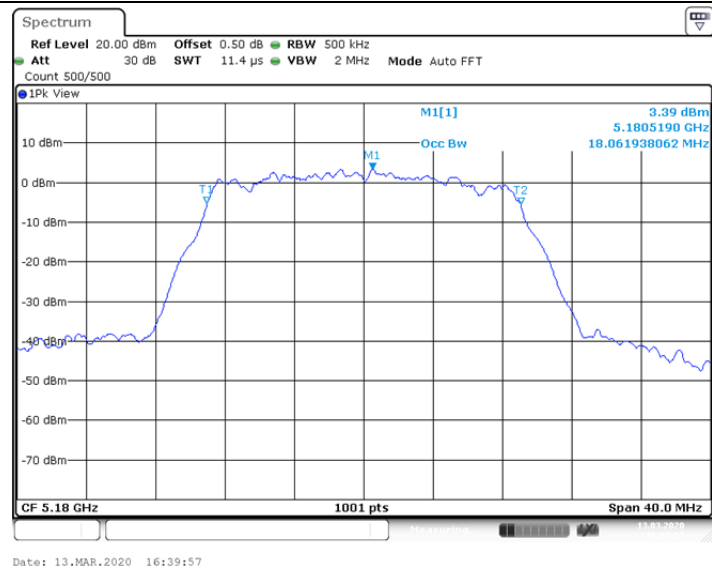
11A_Ant1_5200



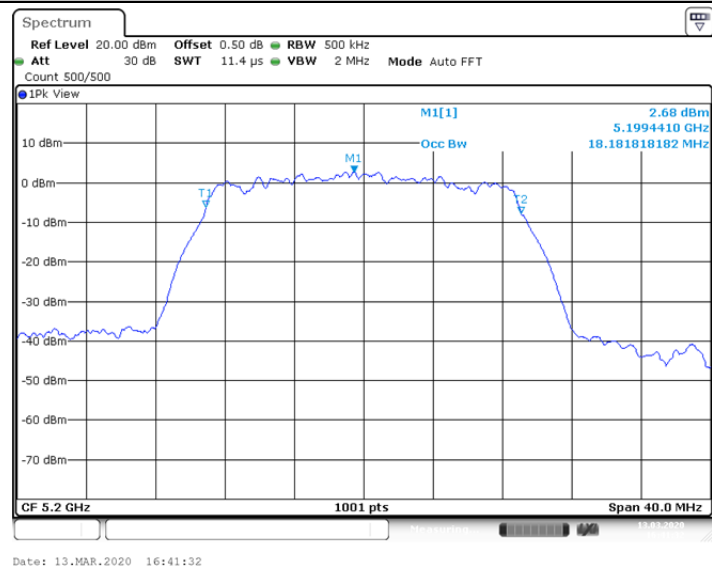
11A_Ant1_5240



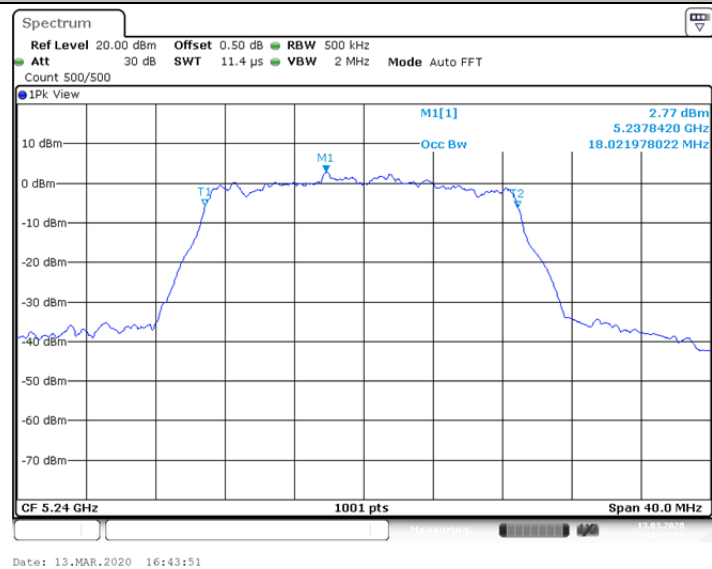
11N20SISO_Ant1_5180



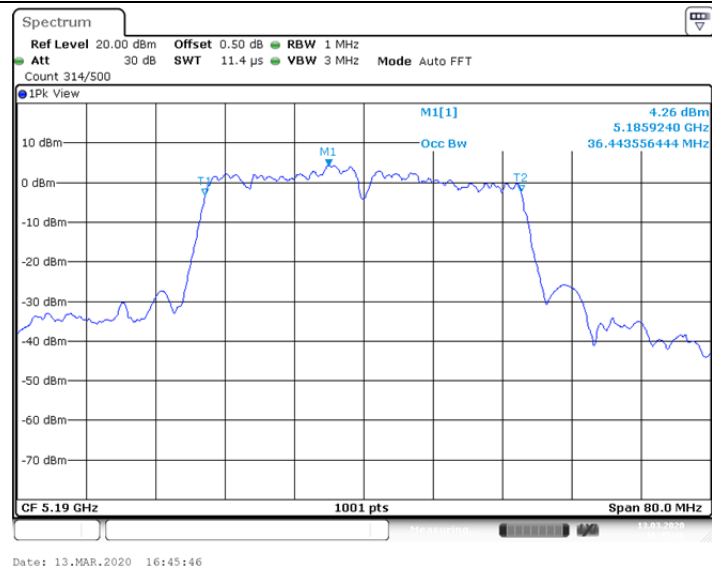
11N20SISO_Ant1_5200



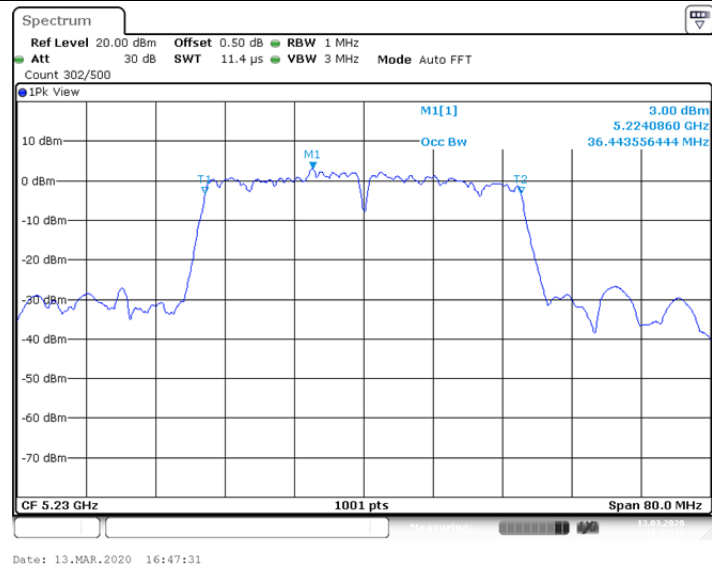
11N20SISO_Ant1_5240



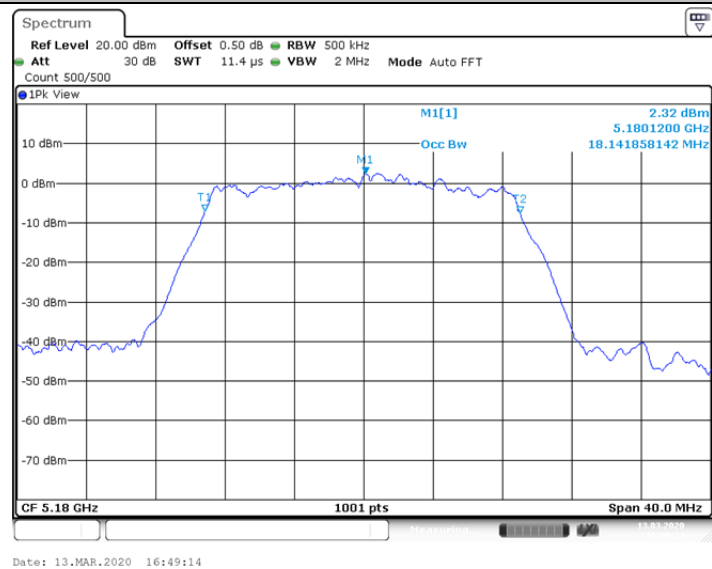
11N40SISO_Ant1_5190



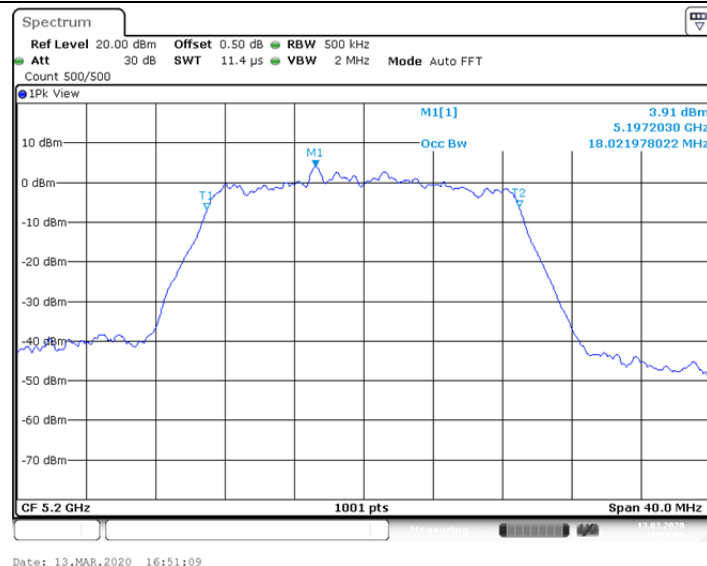
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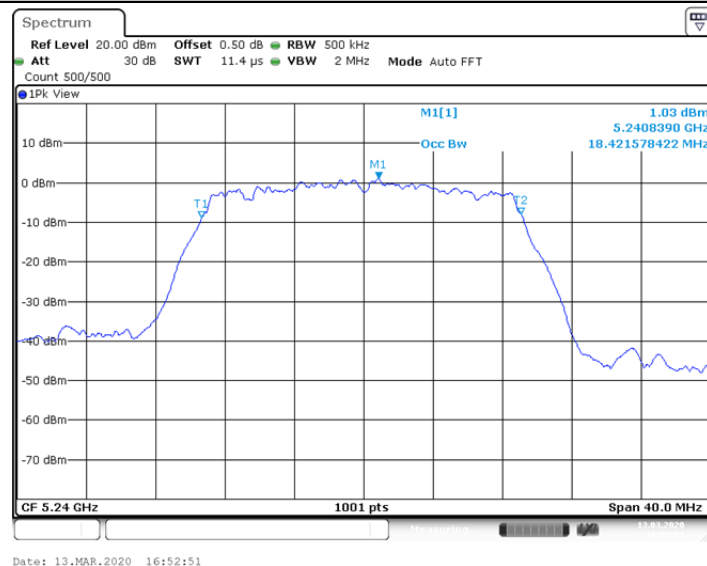
11AC20SISO_Ant1_5180



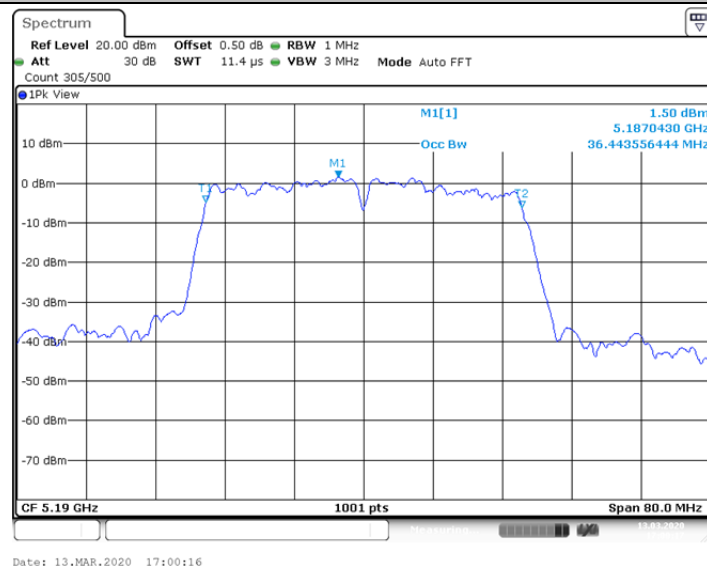
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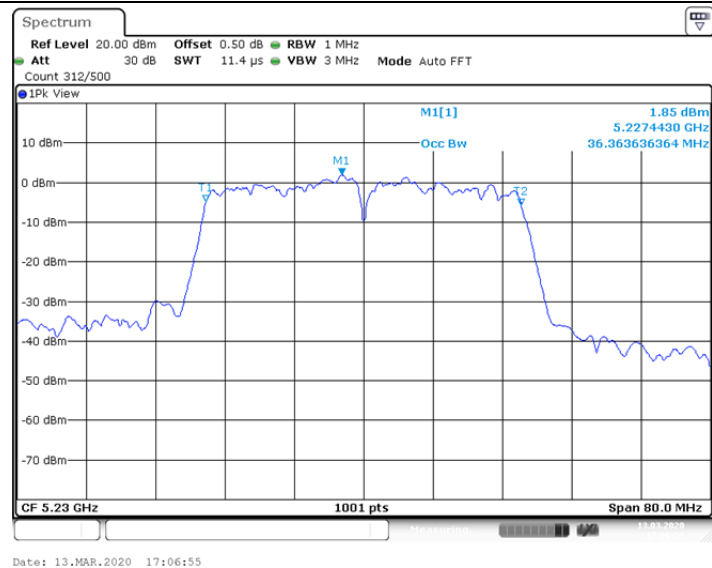
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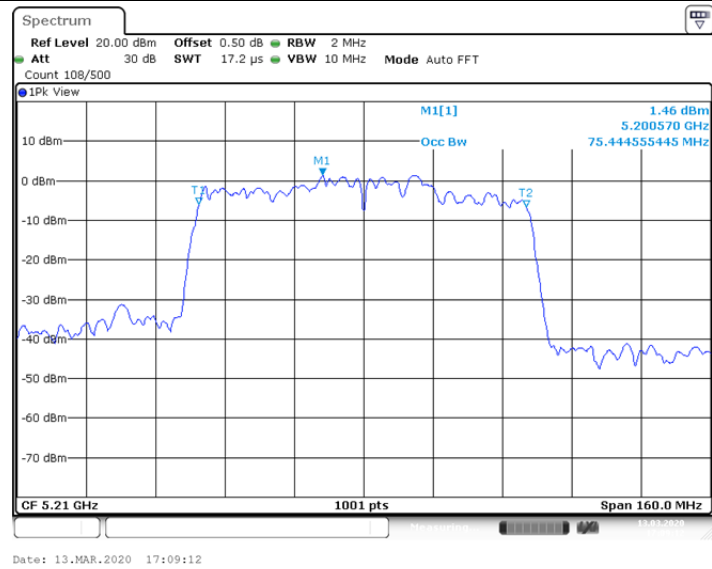
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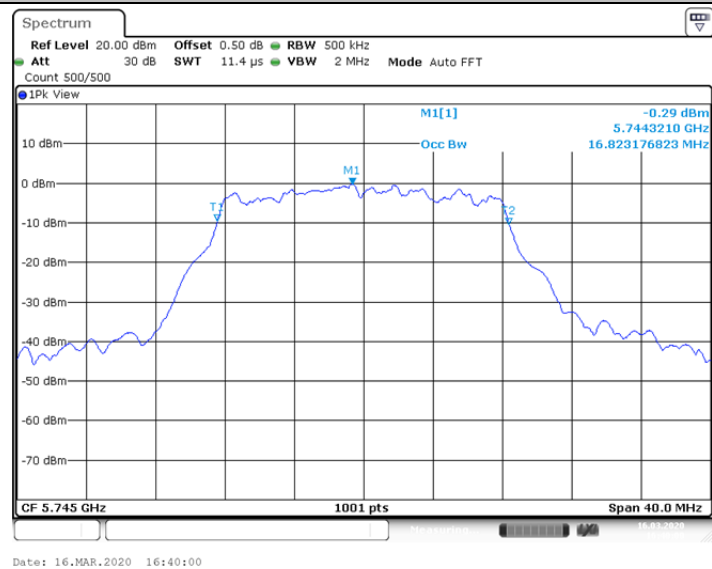
11AC40SISO_Ant1_5230



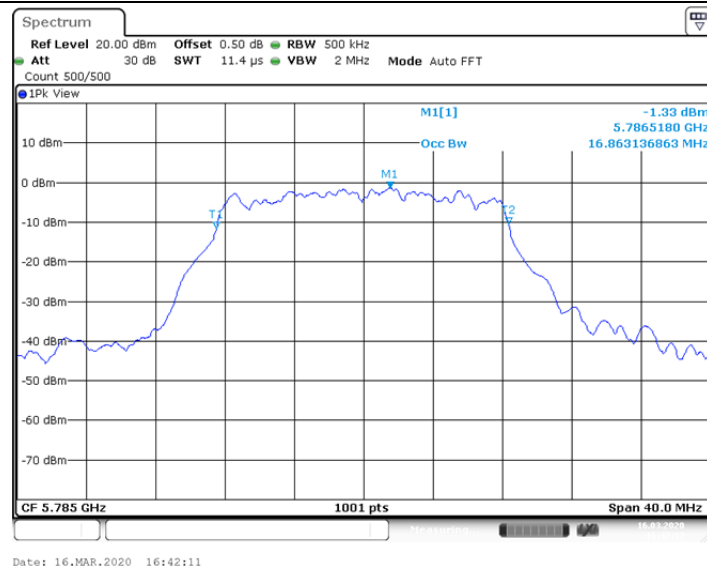
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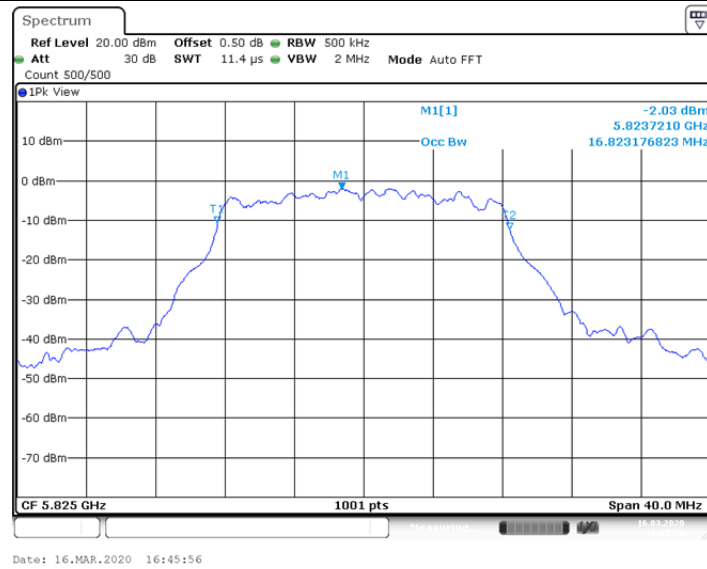
11A_Ant1_5745



11A_Ant1_5785



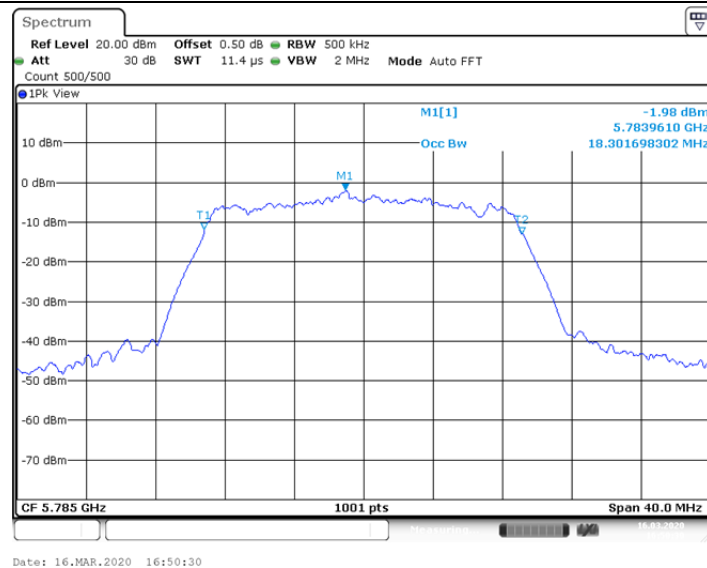
11A_Ant1_5825



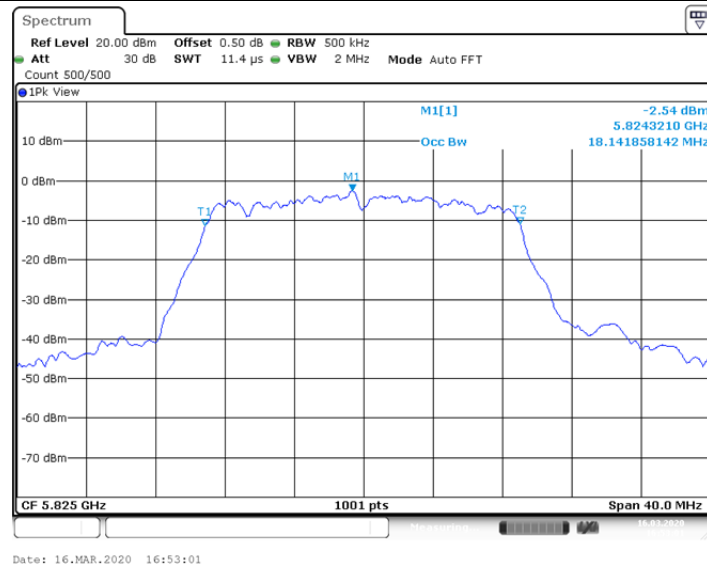
11N20SISO_Ant1_5745



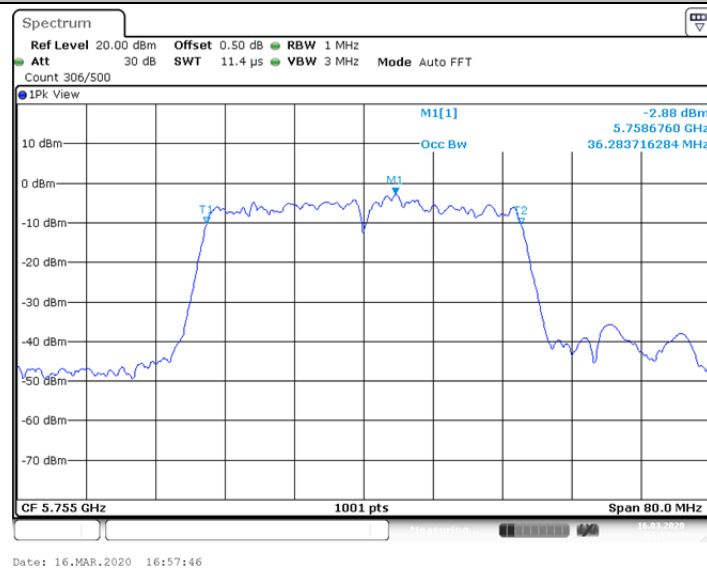
11N20SISO_Ant1_5785



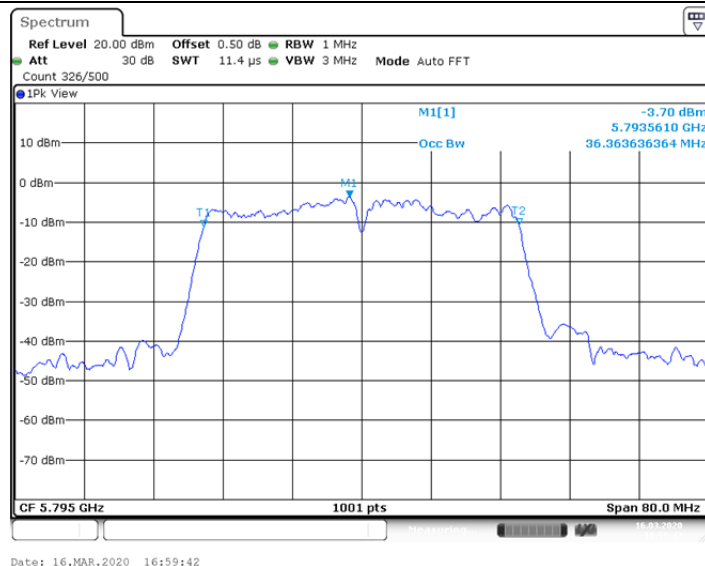
11N20SISO_Ant1_5825



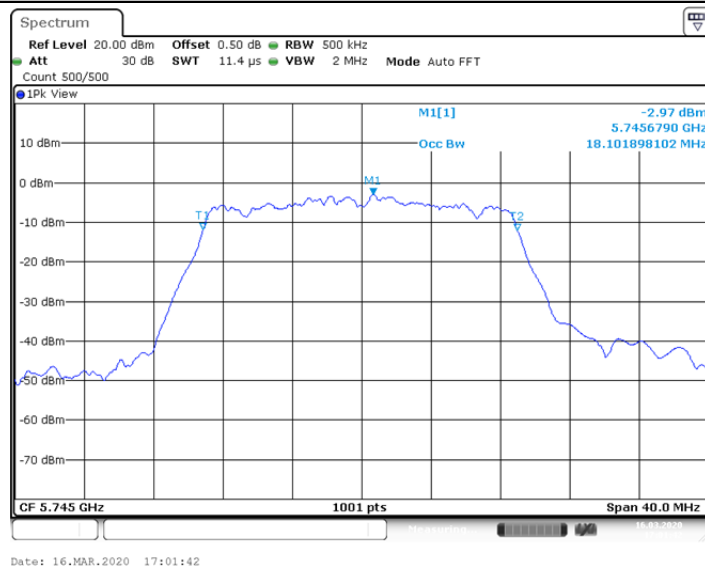
11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



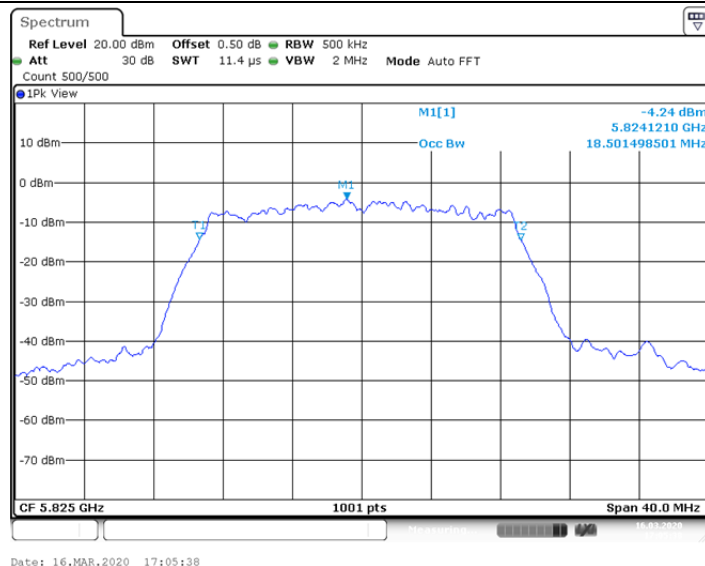
11AC20SISO_Ant1_5745



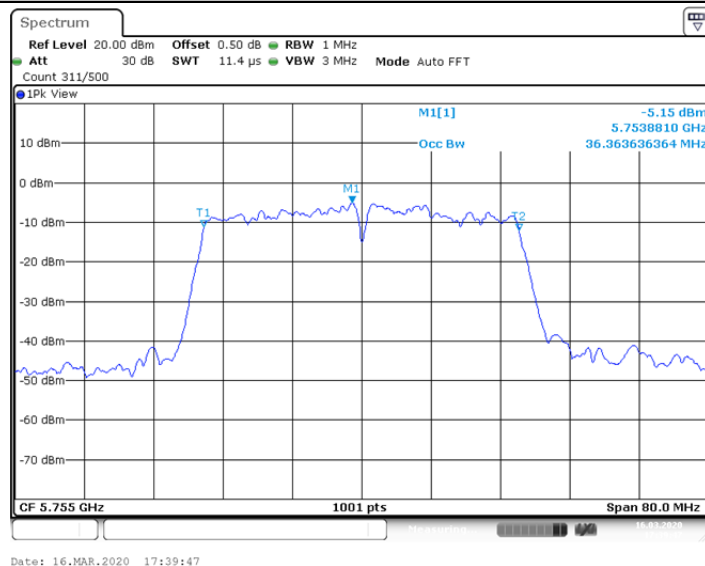
11AC20SISO_Ant1_5785



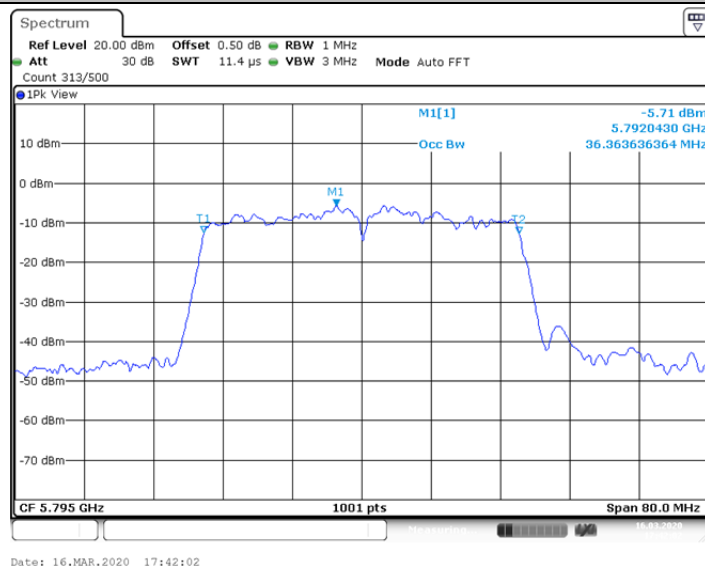
11AC20SISO_Ant1_5825



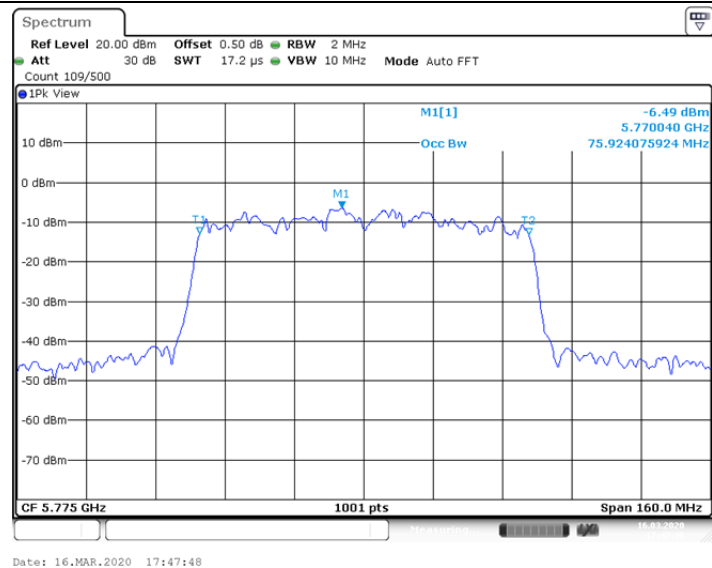
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



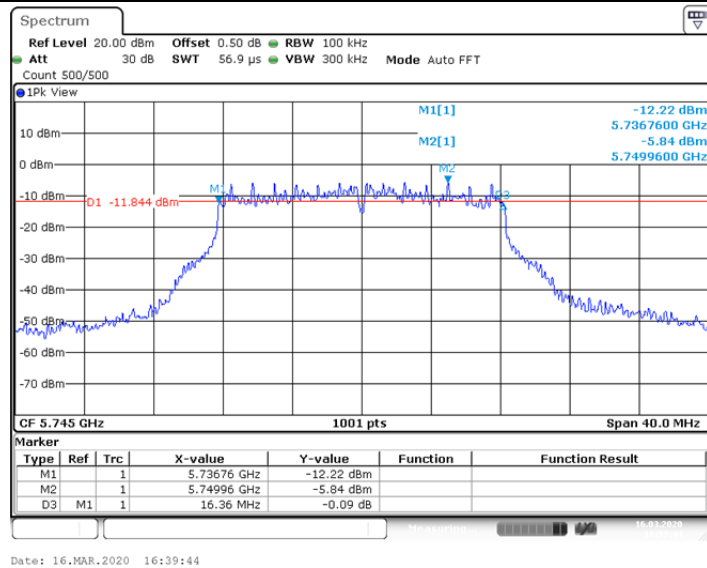
Appendix A3: Min emission bandwidth

Test Result

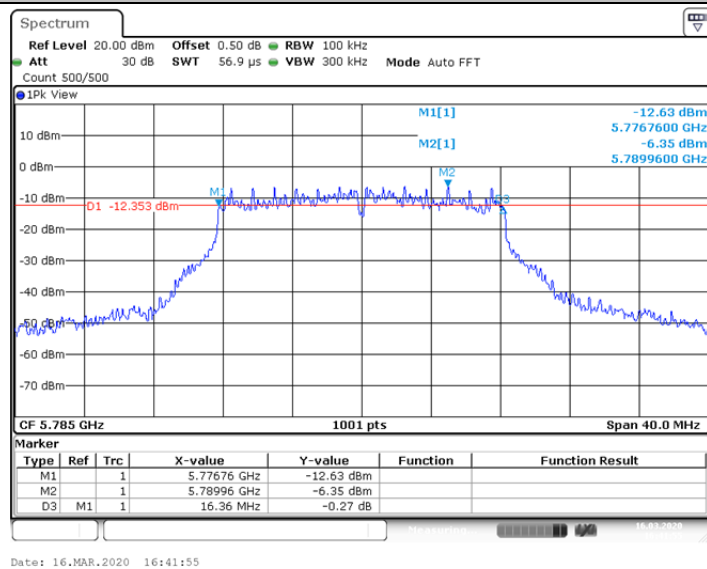
TestMode	Antenna	Channel	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.360	5736.760	5753.120	0.5	PASS
		5785	16.360	5776.760	5793.120	0.5	PASS
		5825	16.360	5816.760	5833.120	0.5	PASS
11N20SISO	Ant1	5745	17.800	5736.080	5753.880	0.5	PASS
		5785	17.800	5776.080	5793.880	0.5	PASS
		5825	17.760	5816.080	5833.840	0.5	PASS
11N40SISO	Ant1	5755	36.560	5736.680	5773.240	0.5	PASS
		5795	36.560	5776.680	5813.240	0.5	PASS
11AC20SISO	Ant1	5745	17.760	5736.080	5753.840	0.5	PASS
		5785	17.720	5776.120	5793.840	0.5	PASS
		5825	17.760	5816.080	5833.840	0.5	PASS
11AC40SISO	Ant1	5755	36.560	5736.680	5773.240	0.5	PASS
		5795	36.560	5776.680	5813.240	0.5	PASS
11AC80SISO	Ant1	5775	75.520	5737.240	5812.760	0.5	PASS

Test Graphs

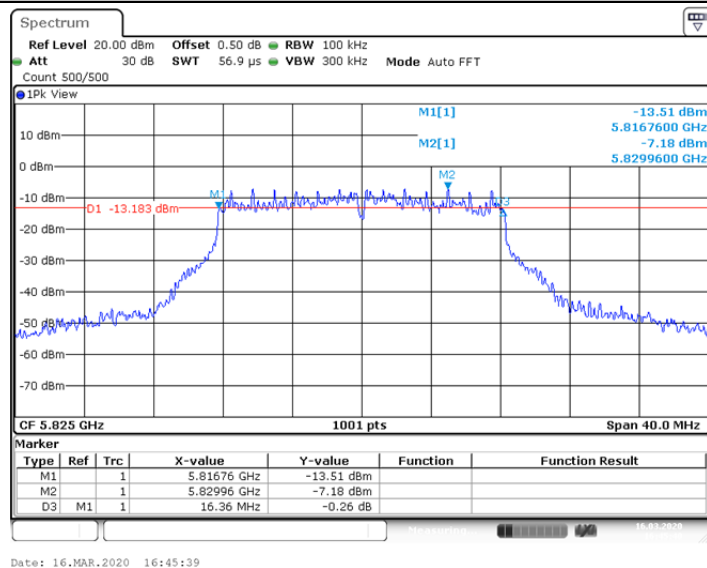
11A_Ant1_5745



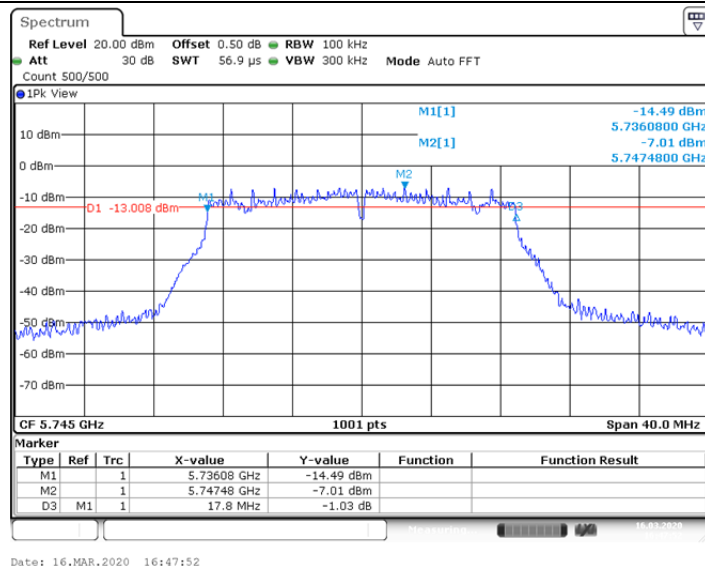
11A_Ant1_5785



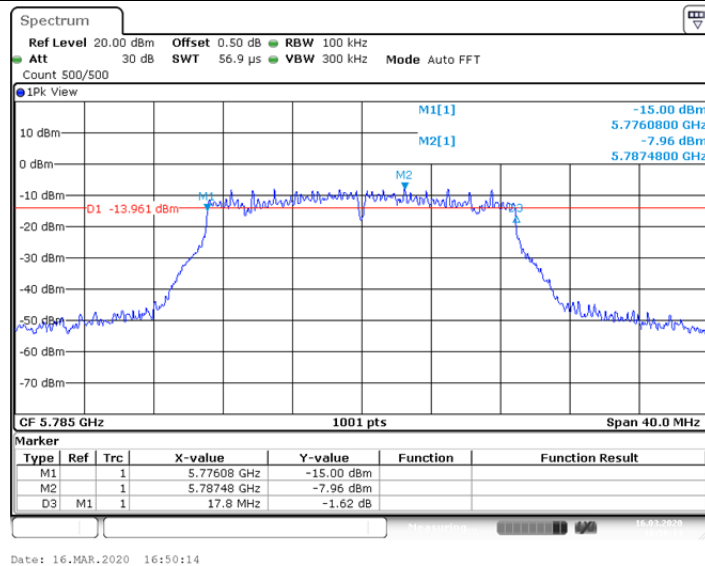
11A_Ant1_5825



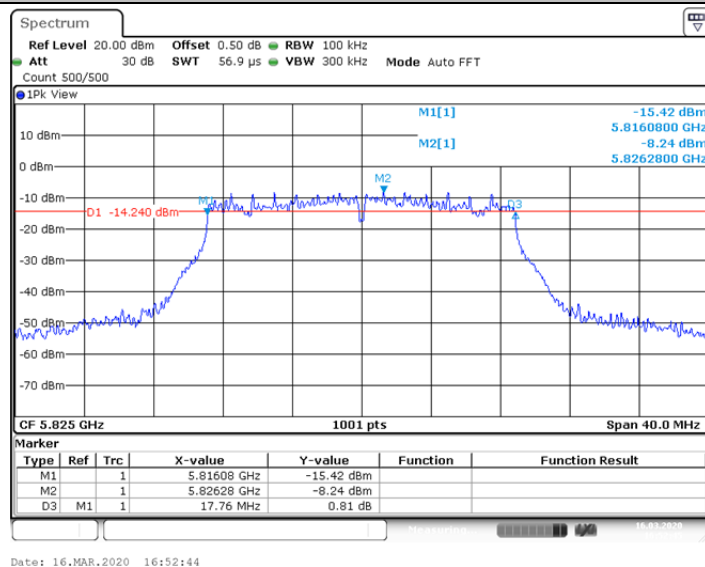
11N20SISO_Ant1_5745



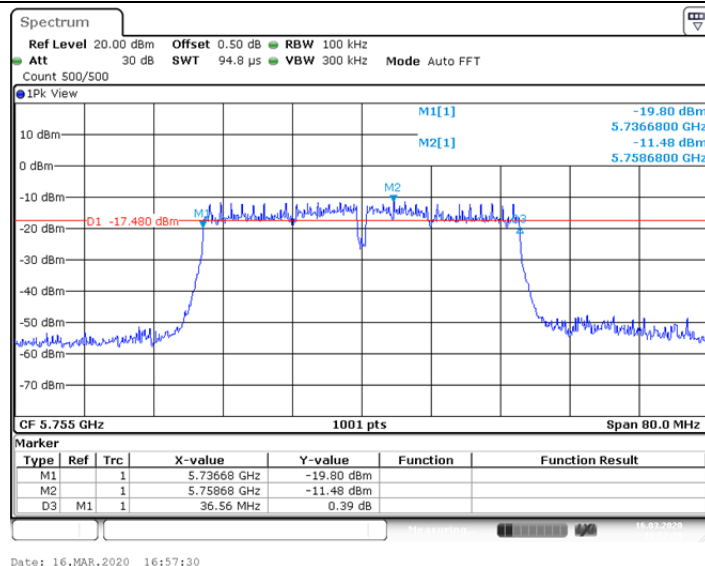
11N20SISO_Ant1_5785



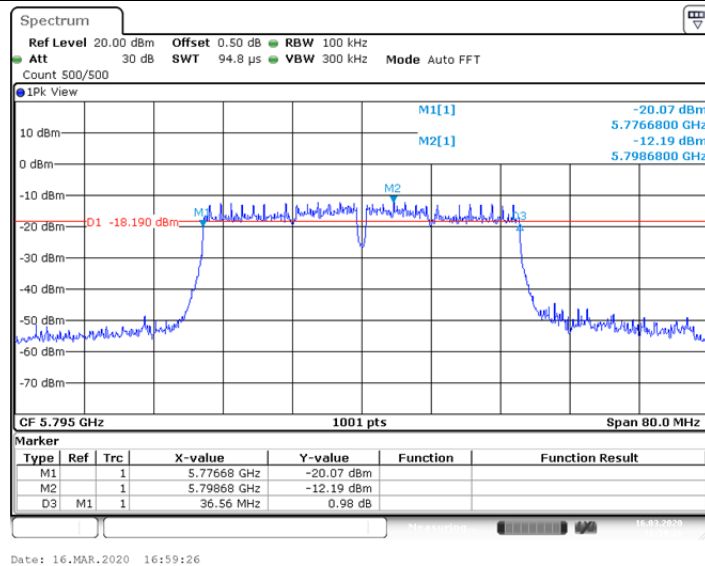
11N20SISO_Ant1_5825



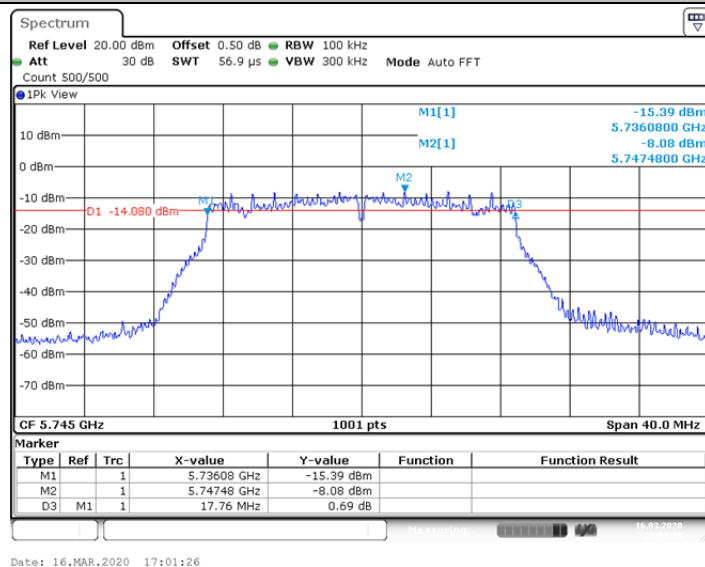
11N40SISO_Ant1_5755



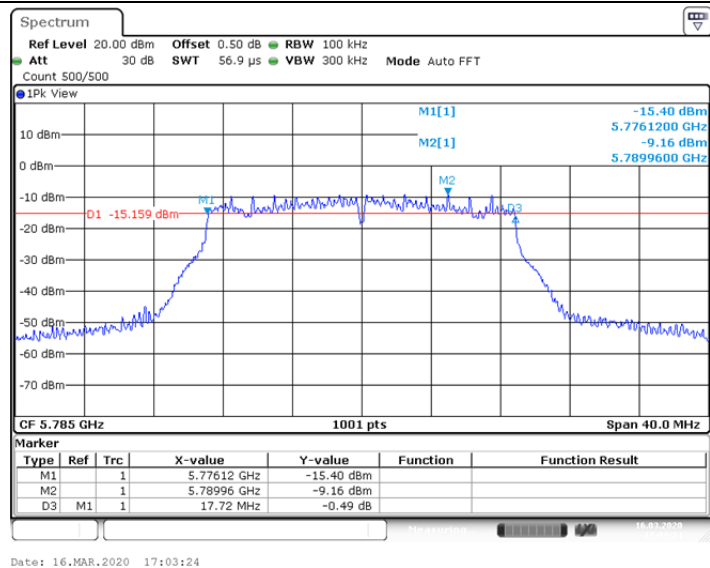
11N40SISO_Ant1_5795



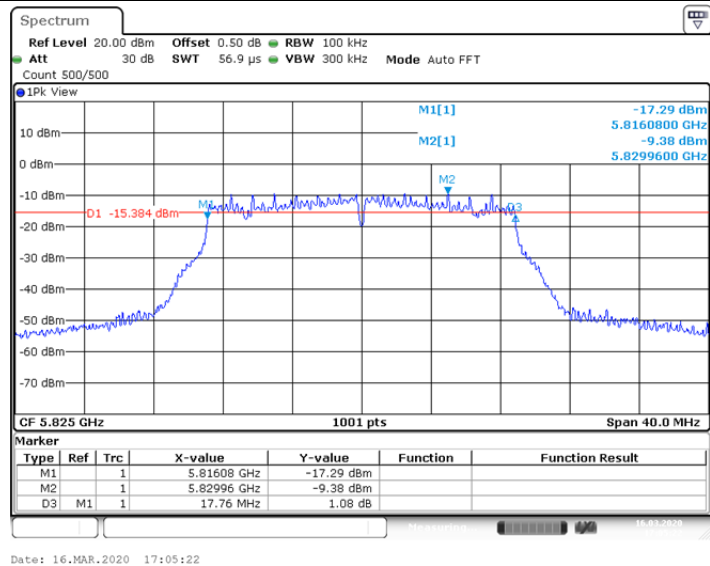
11AC20SISO_Ant1_5745



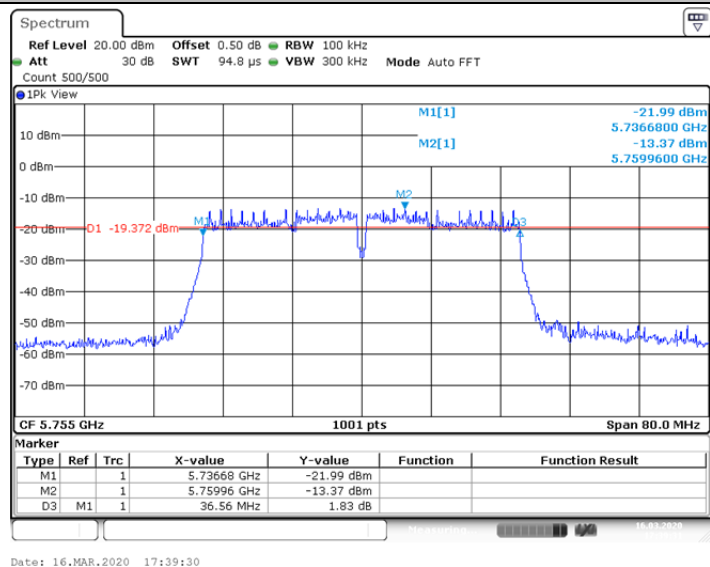
11AC20SISO_Ant1_5785



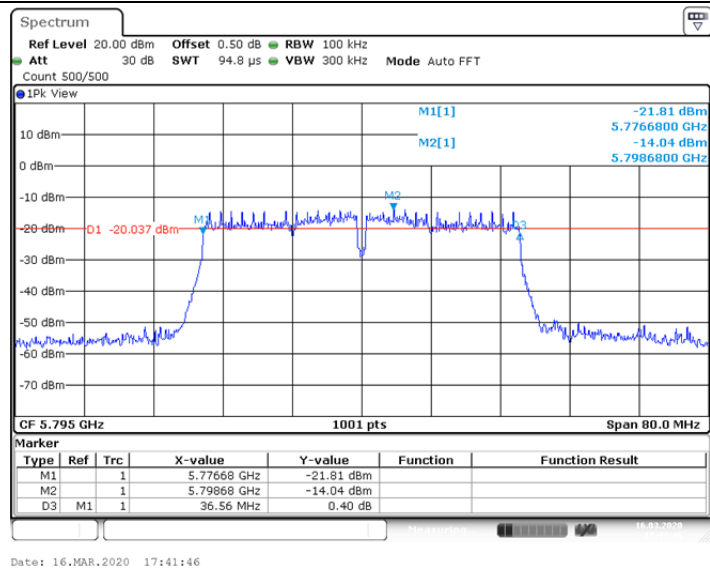
11AC20SISO_Ant1_5825



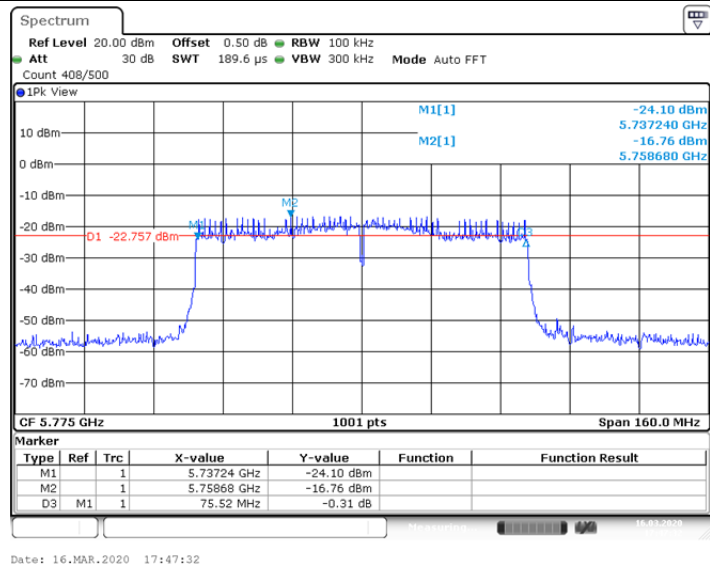
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	15.83	<=30	PASS
		5200	15.59	<=30	PASS
		5240	15.01	<=30	PASS
11N20SISO	Ant1	5180	14.86	<=30	PASS
		5200	14.64	<=30	PASS
		5240	14.01	<=30	PASS
11N40SISO	Ant1	5190	14.33	<=30	PASS
		5230	14.87	<=30	PASS
11AC20SISO	Ant1	5180	13.70	<=30	PASS
		5200	13.78	<=30	PASS
		5240	12.99	<=30	PASS
11AC40SISO	Ant1	5190	13.63	<=30	PASS
		5230	13.53	<=30	PASS
11AC80SISO	Ant1	5210	10.66	<=30	PASS
11A	Ant1	5745	11.28	<=30	PASS
		5785	10.22	<=30	PASS
		5825	9.88	<=30	PASS
11N20SISO	Ant1	5745	10.33	<=30	PASS
		5785	9.36	<=30	PASS
		5825	8.98	<=30	PASS
11N40SISO	Ant1	5755	8.98	<=30	PASS
		5795	8.27	<=30	PASS
11AC20SISO	Ant1	5745	9.09	<=30	PASS
		5785	8.10	<=30	PASS
		5825	7.84	<=30	PASS
11AC40SISO	Ant1	5755	7.23	<=30	PASS
		5795	6.45	<=30	PASS
11AC80SISO	Ant1	5775	6.56	<=30	PASS

Note: Test results increased RF cable loss by 0.5dB.

The Duty Cycle Factor is compensated in the graph.

Appendix C: Maximum power spectral density

Test Result

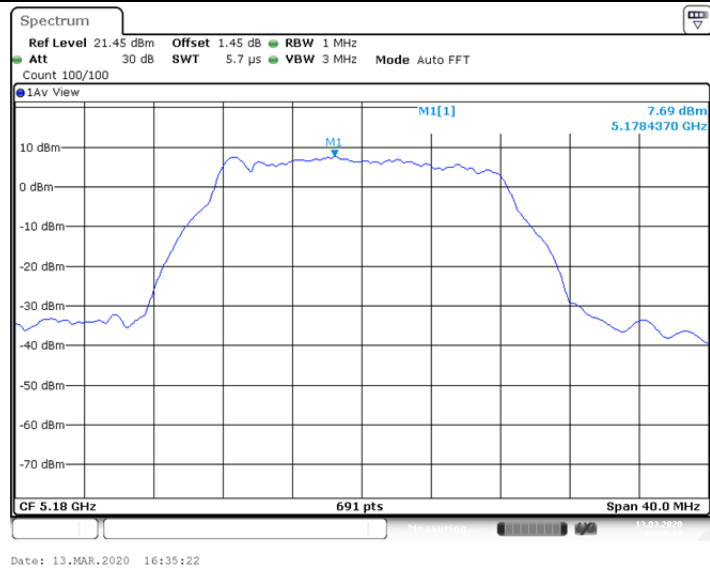
Test Mode	Antenna	Channel	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	7.69	≤ 17	PASS
		5200	8.42	≤ 17	PASS
		5240	7.7	≤ 17	PASS
11N20SISO	Ant1	5180	7.99	≤ 17	PASS
		5200	7.35	≤ 17	PASS
		5240	5.74	≤ 17	PASS
11N40SISO	Ant1	5190	4.62	≤ 17	PASS
		5230	4.74	≤ 17	PASS
11AC20SISO	Ant1	5180	6.99	≤ 17	PASS
		5200	6.09	≤ 17	PASS
		5240	4.69	≤ 17	PASS
11AC40SISO	Ant1	5190	3.26	≤ 17	PASS
		5230	3.35	≤ 17	PASS
11AC80SISO	Ant1	5210	-2.69	≤ 17	PASS
11A	Ant1	5745	1.14	≤ 30	PASS
		5785	-0.57	≤ 30	PASS
		5825	-1.09	≤ 30	PASS
11N20SISO	Ant1	5745	-0.89	≤ 30	PASS
		5785	-1.49	≤ 30	PASS
		5825	-1.07	≤ 30	PASS
11N40SISO	Ant1	5755	-5.87	≤ 30	PASS
		5795	-5.23	≤ 30	PASS
11AC20SISO	Ant1	5745	-2.55	≤ 30	PASS
		5785	-2.61	≤ 30	PASS
		5825	-2.99	≤ 30	PASS
11AC40SISO	Ant1	5755	-6.77	≤ 30	PASS
		5795	-7.92	≤ 30	PASS
11AC80SISO	Ant1	5775	-9.82	≤ 30	PASS

Note: 1. The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

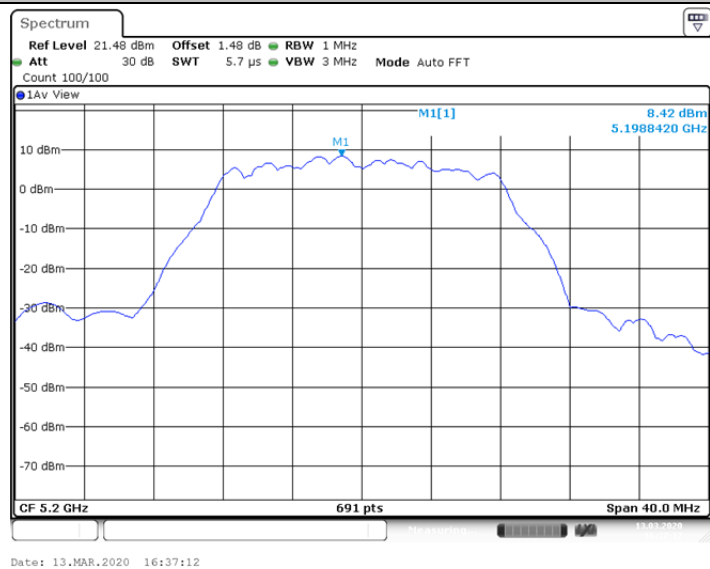
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

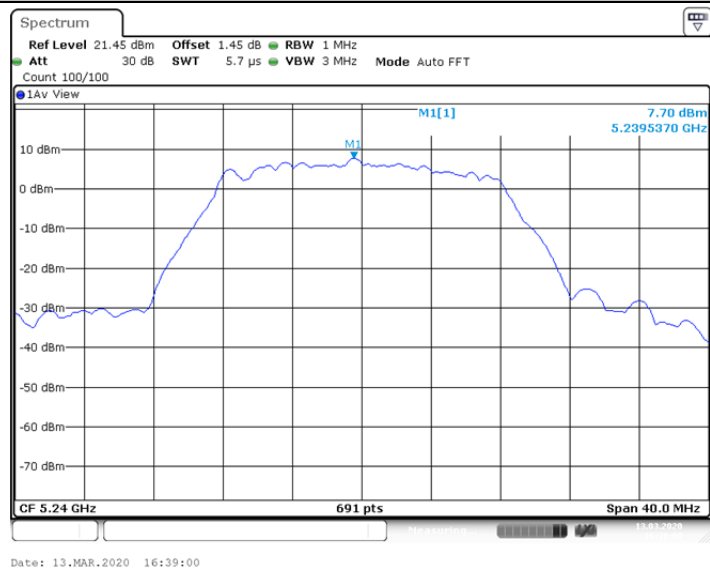
11A_Ant1_5180



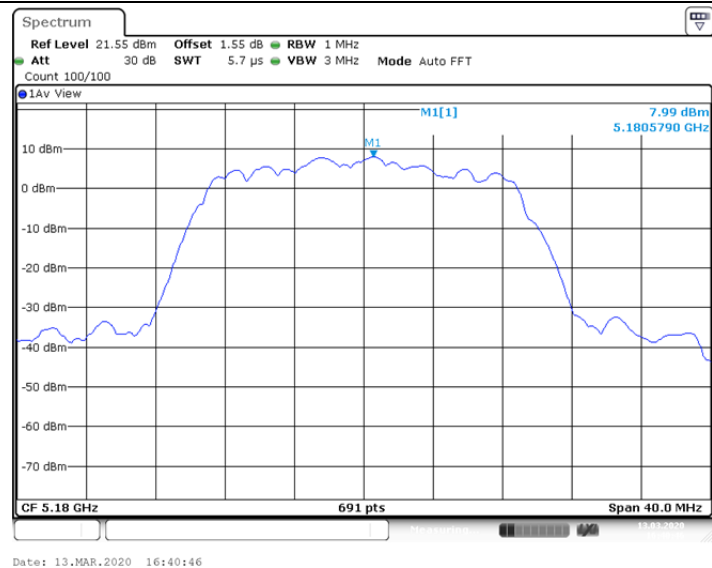
11A_Ant1_5200



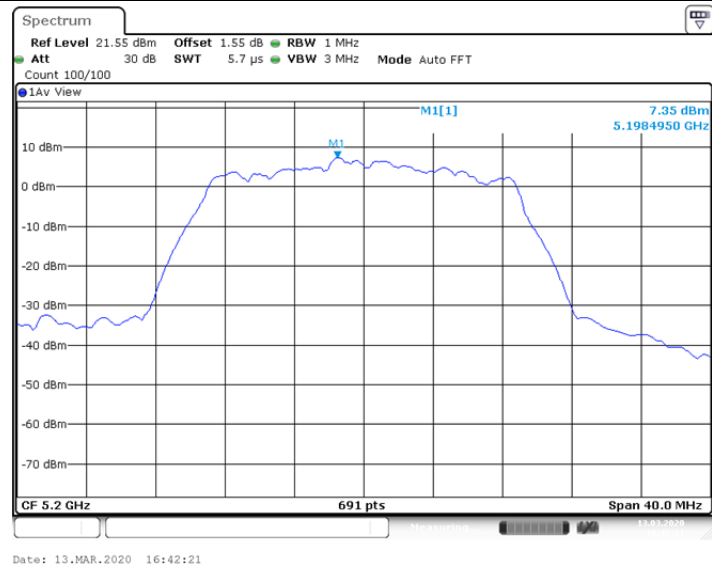
11A_Ant1_5240



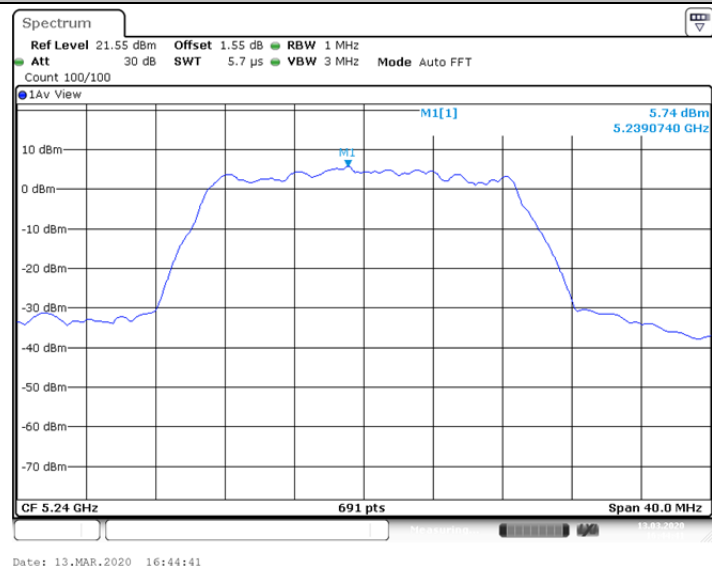
11N20SISO_Ant1_5180



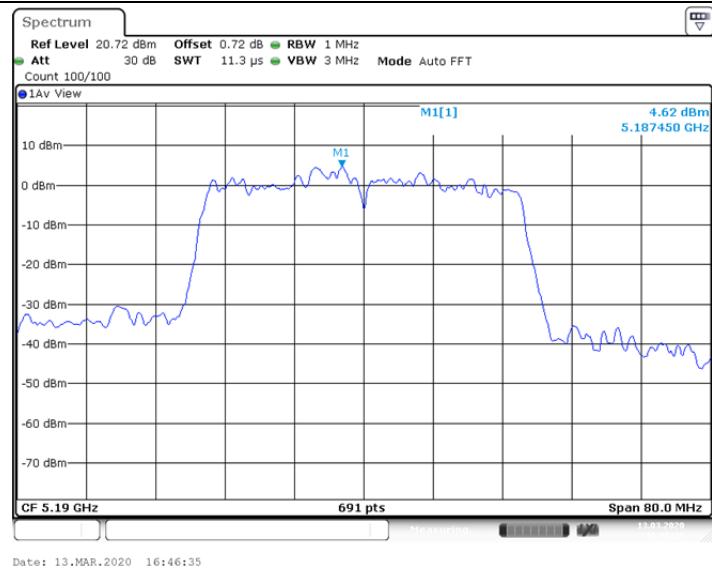
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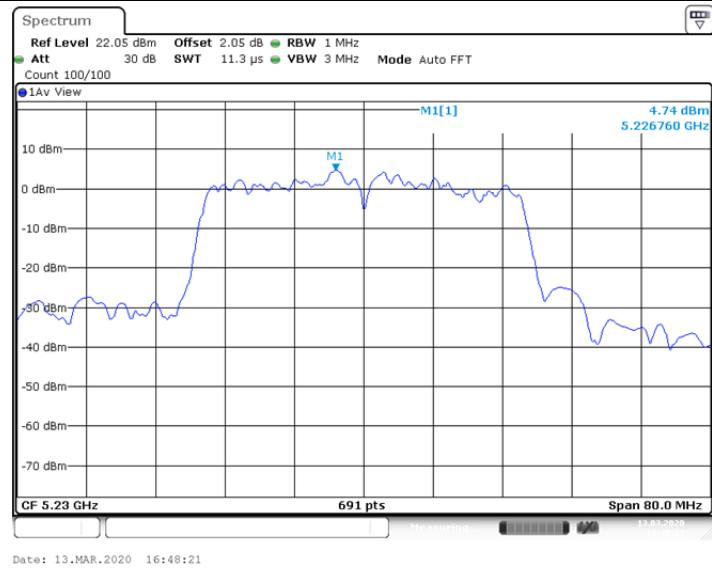
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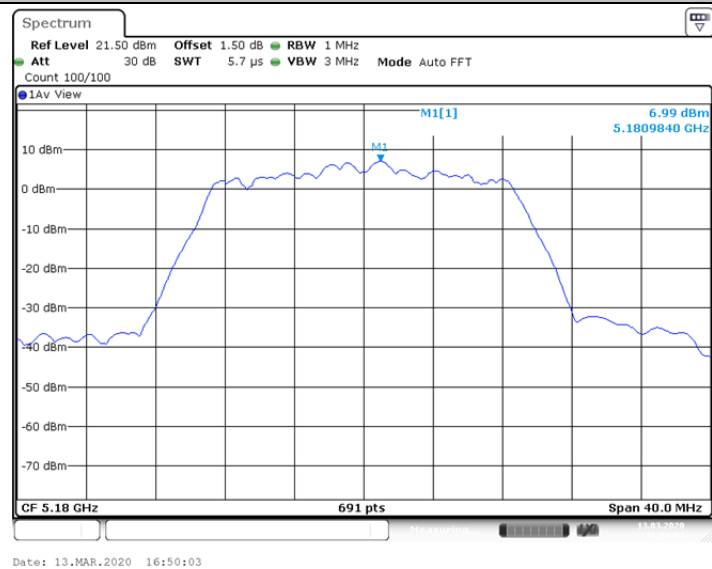
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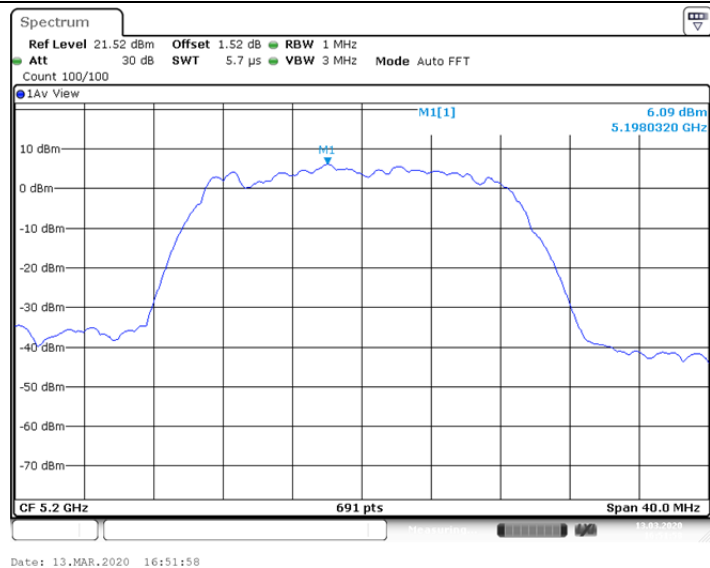
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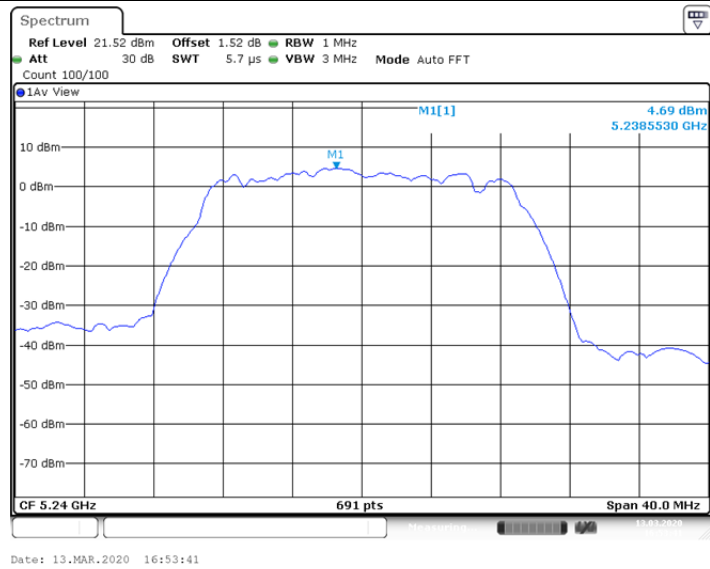
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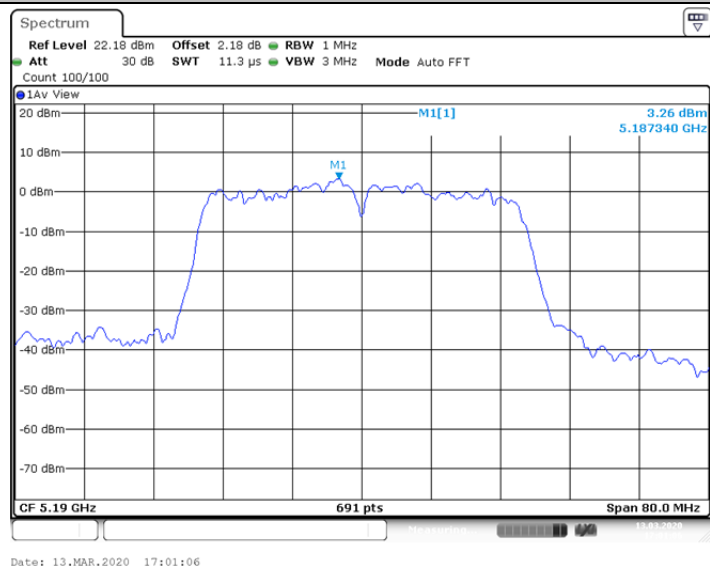
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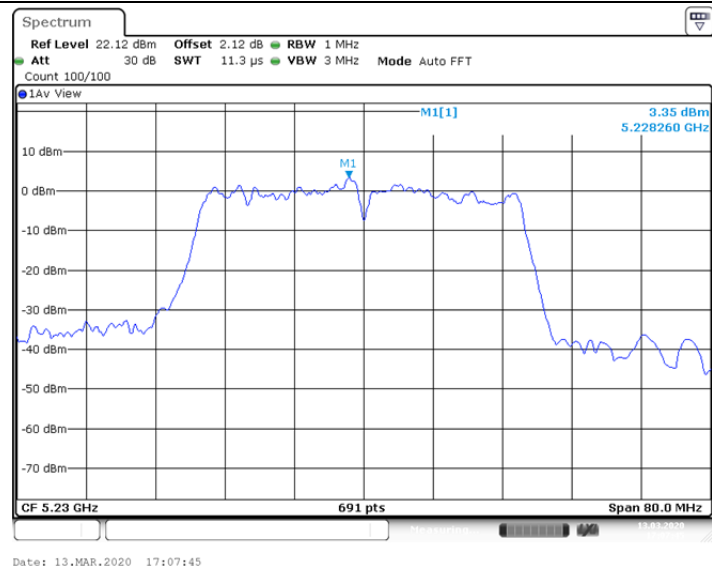
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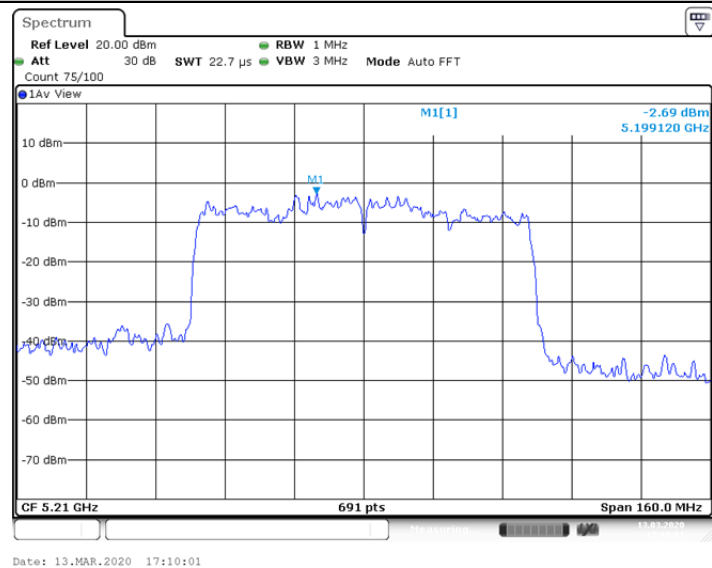
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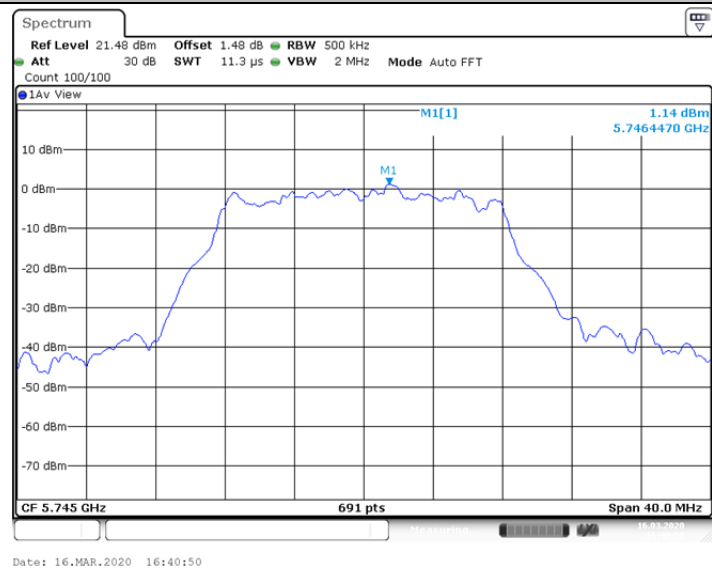
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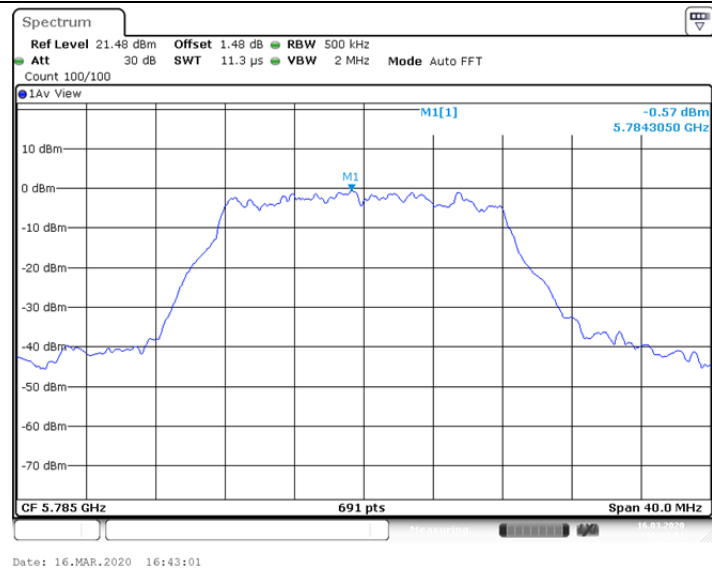
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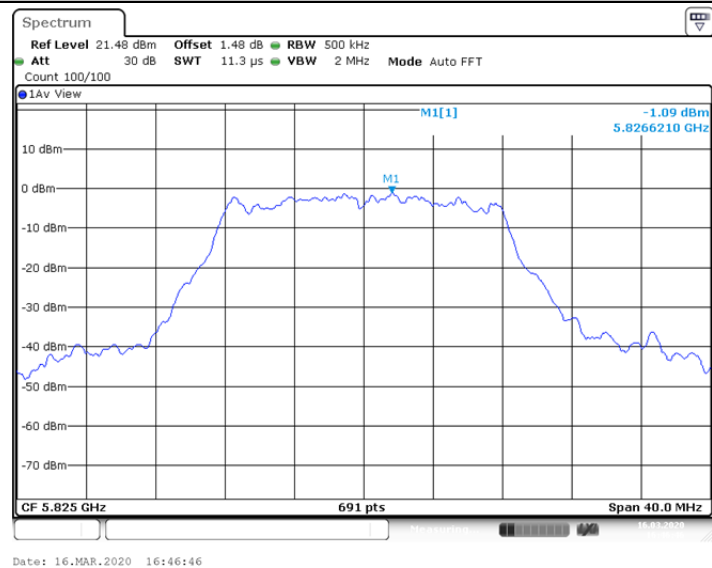
11A_Ant1_5745



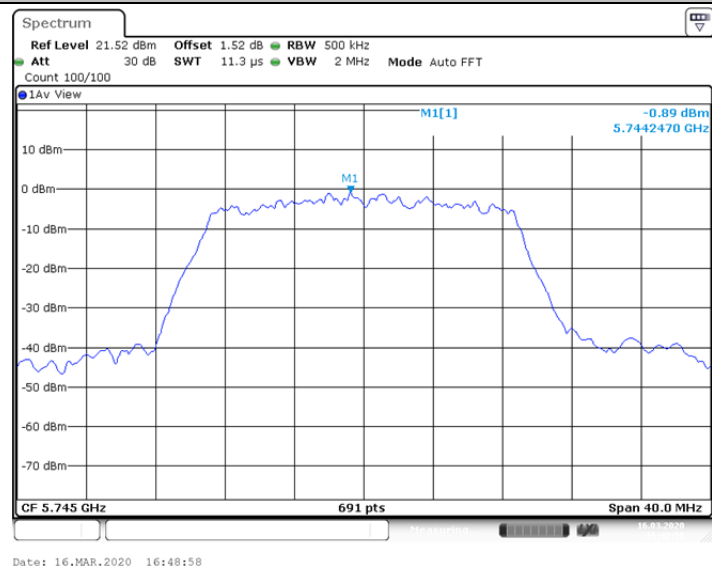
11A_Ant1_5785



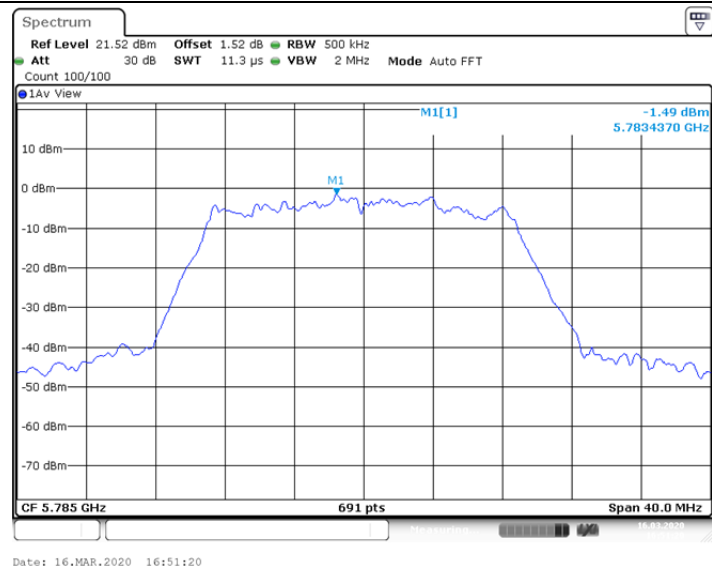
11A_Ant1_5825



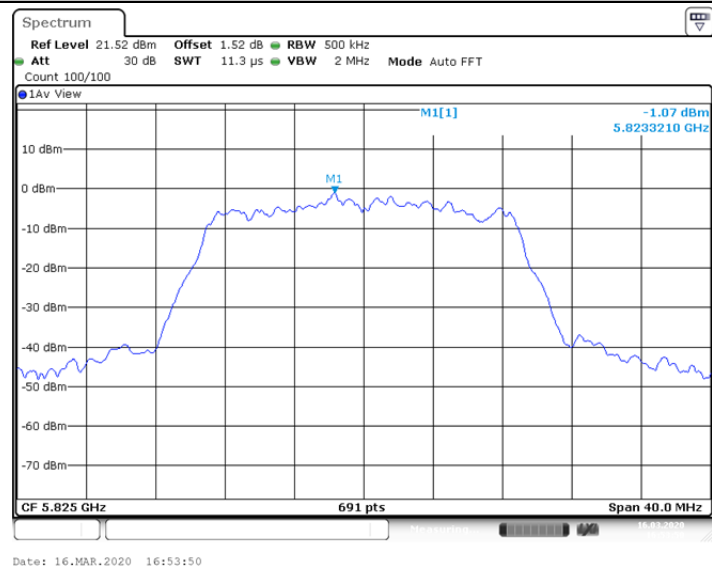
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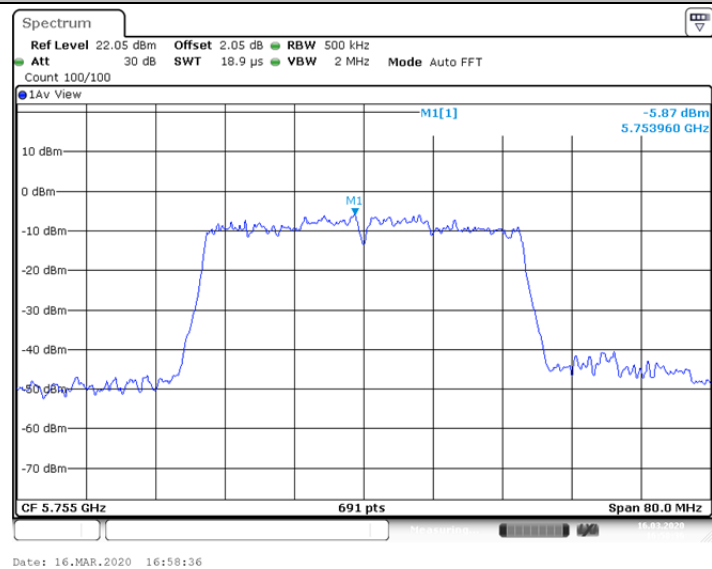
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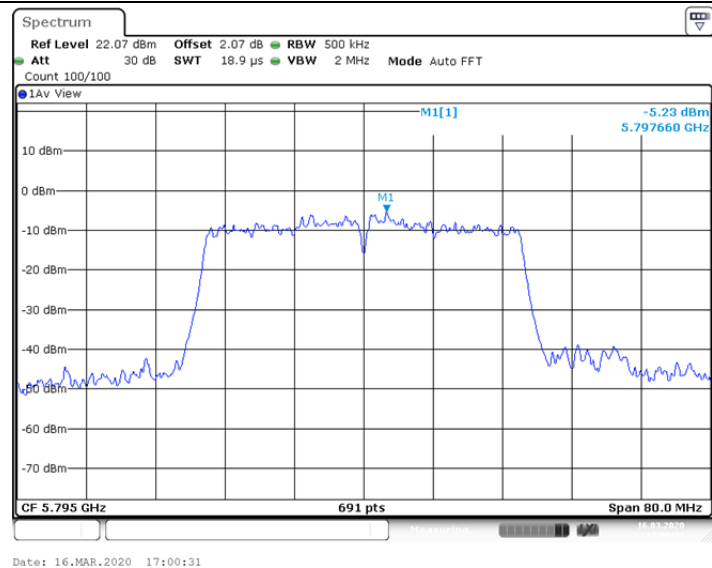
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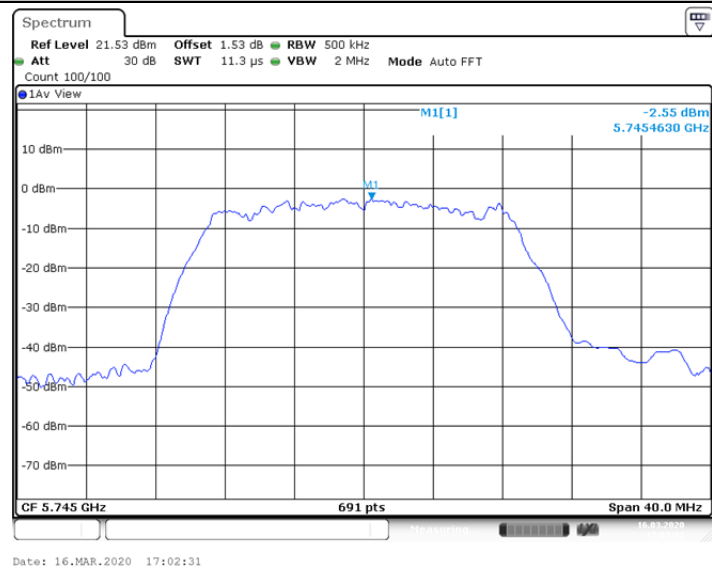
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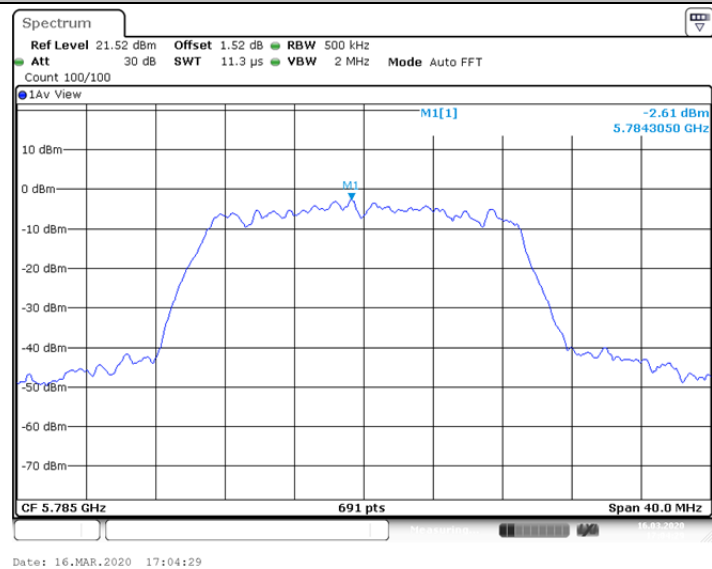
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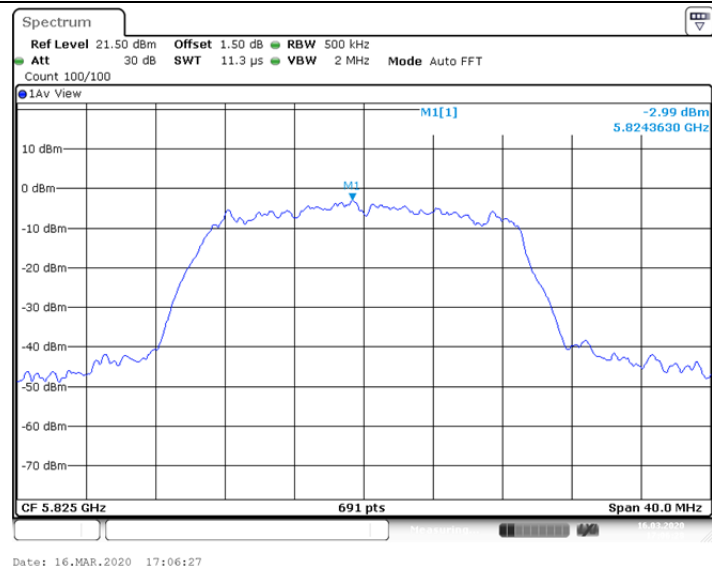
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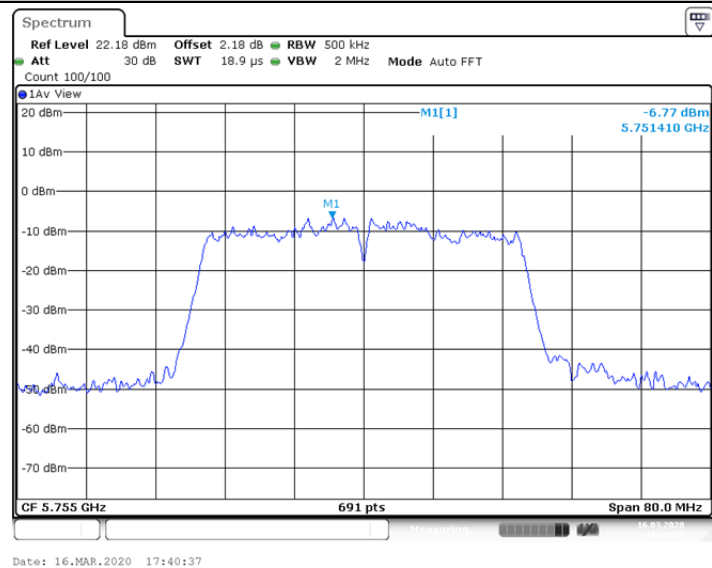
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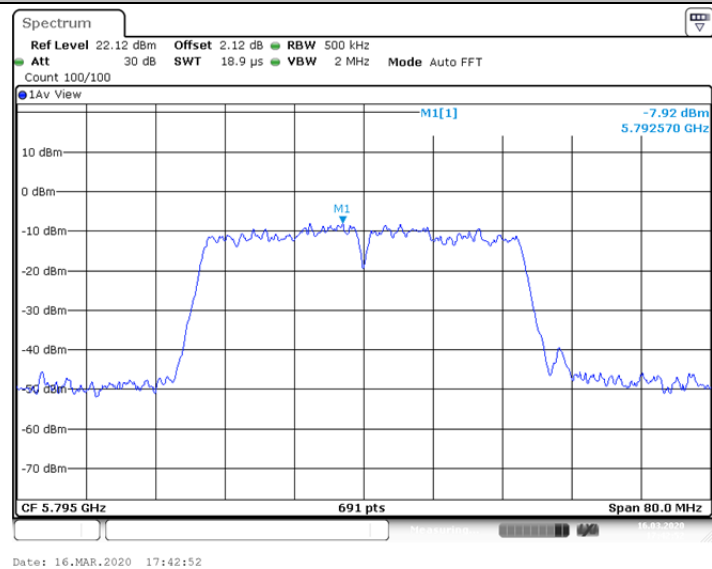
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775

