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Appendix for 5G WIFI

Applicant: Launch Tech Co., Ltd.

Address: Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Longgang, Shenzhen, Guangdong, P.R. China

Product Name: AUTO Smart Diagnostic Tool

Model: X-431 PRO3 V5.0, X-431 V+ V5.0, X-431 PRO5 V2.0, X-431 PRO V5.0, X-431 V V5.0, X-431 IMMO Pro

FCC ID: XUJX431PROV5

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Appendix A1: Emission Bandwidth

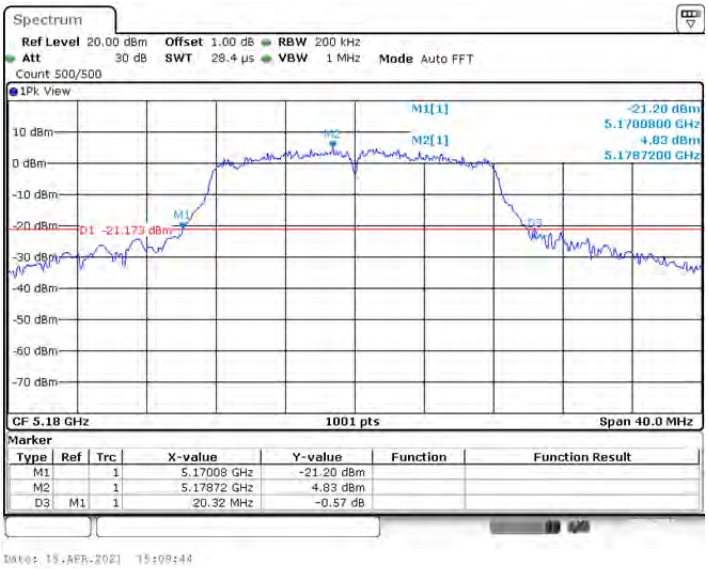
Test Result

Test Mode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
802.11a	Ant1	5180	20.320	5170.080	5190.400	PASS
		5200	19.720	5190.160	5209.880	PASS
		5240	19.960	5229.960	5249.920	PASS
		5260	19.880	5250.040	5269.920	PASS
		5280	19.600	5270.120	5289.720	PASS
		5320	19.880	5310.120	5330.000	PASS
		5745	19.760	5735.120	5754.880	PASS
		5785	19.800	5775.040	5794.840	PASS
		5825	19.800	5815.000	5834.800	PASS
802.11n(HT20)	Ant1	5180	20.760	5169.360	5190.120	PASS
		5200	20.280	5189.880	5210.160	PASS
		5240	20.200	5229.880	5250.080	PASS
		5260	20.120	5249.880	5270.000	PASS
		5280	20.800	5269.240	5290.040	PASS
		5320	20.680	5309.280	5329.960	PASS
		5745	20.680	5734.400	5755.080	PASS
		5785	20.080	5774.800	5794.880	PASS
		5825	20.720	5814.400	5835.120	PASS
802.11n(HT40)	Ant1	5190	40.800	5169.440	5210.240	PASS
		5230	40.640	5209.600	5250.240	PASS
		5270	40.560	5249.600	5290.160	PASS
		5310	40.800	5289.280	5330.080	PASS
		5755	40.880	5734.280	5775.160	PASS
		5795	40.640	5774.680	5815.320	PASS
802.11ac(VHT20)	Ant1	5180	20.240	5169.840	5190.080	PASS
		5200	20.120	5189.960	5210.080	PASS
		5240	20.080	5229.920	5250.000	PASS
		5260	20.120	5249.960	5270.080	PASS
		5280	20.120	5269.920	5290.040	PASS
		5320	20.360	5309.800	5330.160	PASS
		5745	20.360	5734.680	5755.040	PASS
		5785	20.160	5774.920	5795.080	PASS
		5825	20.040	5814.920	5834.960	PASS
802.11ac(VHT40)	Ant1	5190	40.640	5169.680	5210.320	PASS
		5230	40.240	5209.680	5249.920	PASS
		5270	40.240	5249.920	5290.160	PASS
		5310	40.320	5289.760	5330.080	PASS
		5755	40.320	5734.760	5775.080	PASS
		5795	40.320	5774.680	5815.000	PASS
802.11ac(VHT80)	Ant1	5210	79.840	5170.160	5250.000	PASS
		5290	80.000	5249.840	5329.840	PASS

		5775	80.800	5734.200	5815.000	PASS

Test Graphs

802.11a_Ant1_5180



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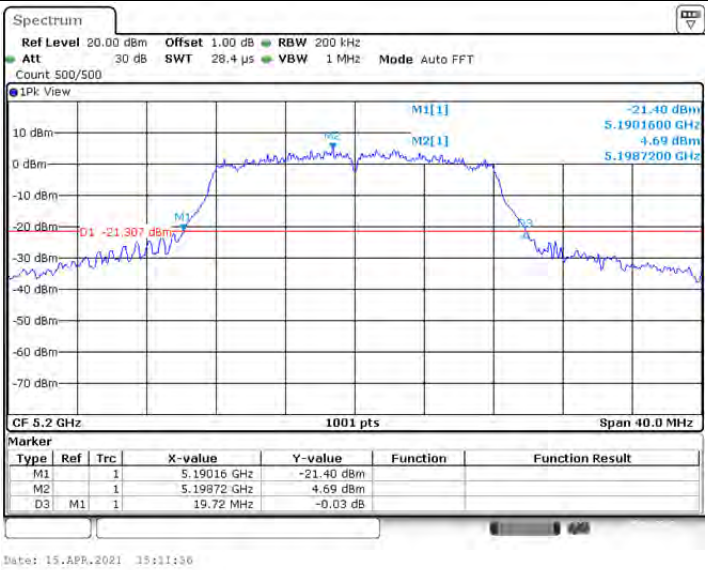

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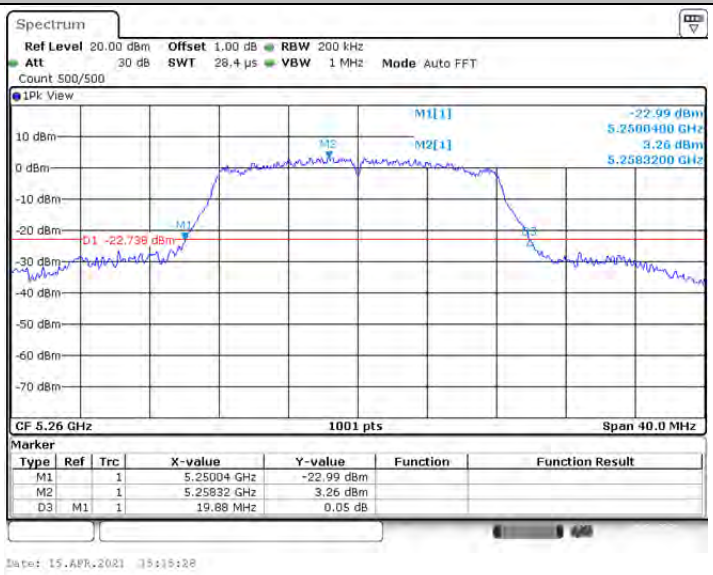
802.11a_Ant1_5260



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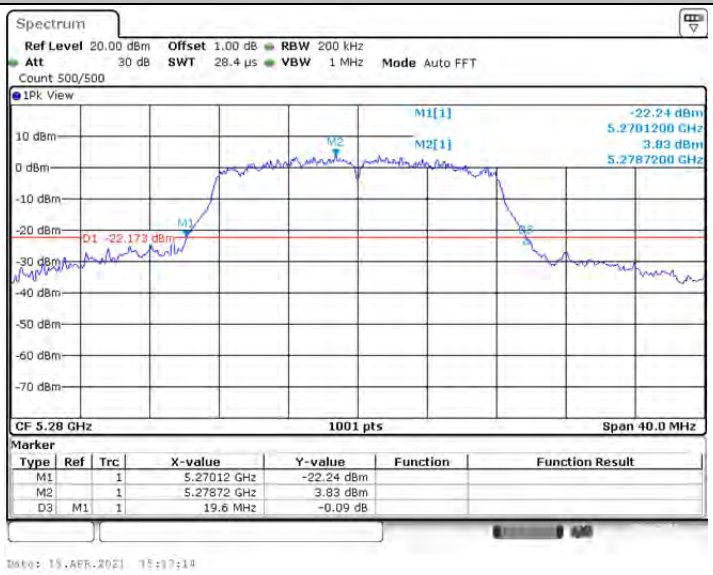

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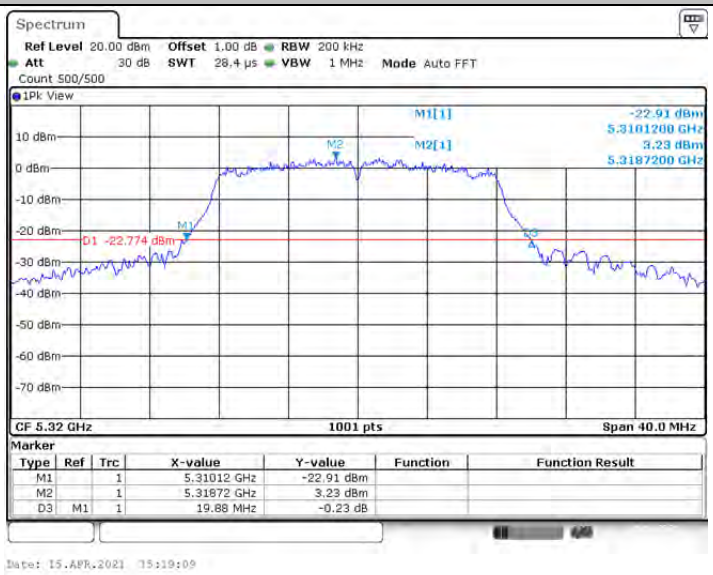

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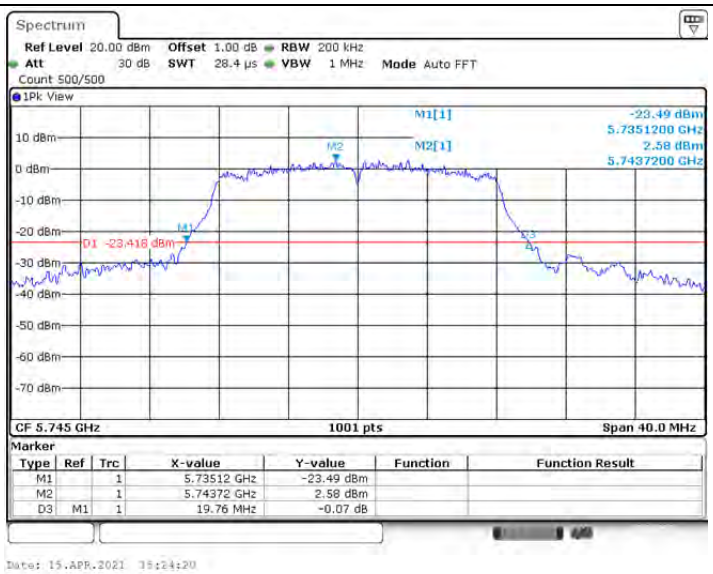

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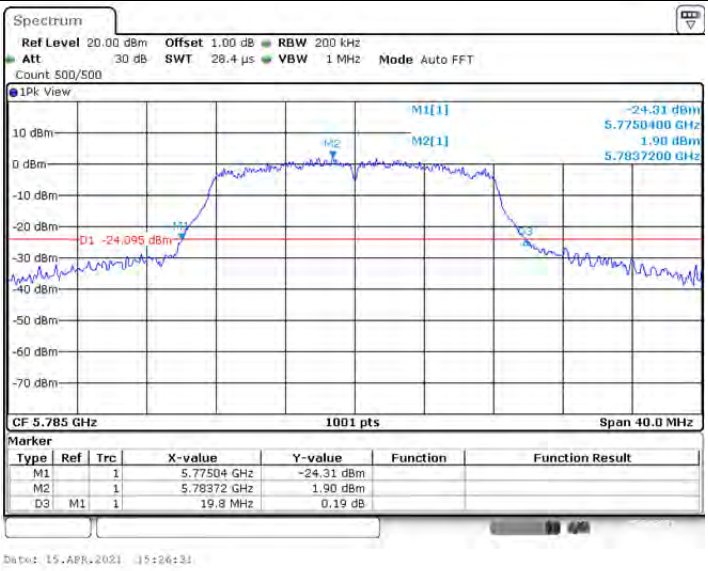

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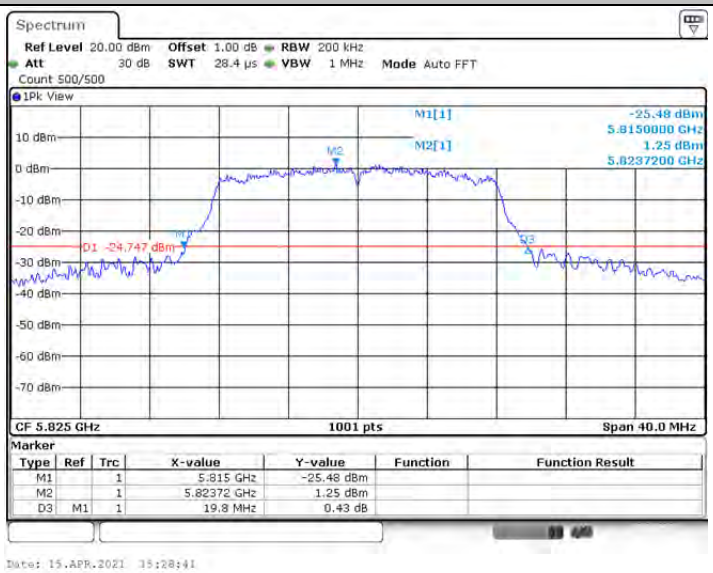

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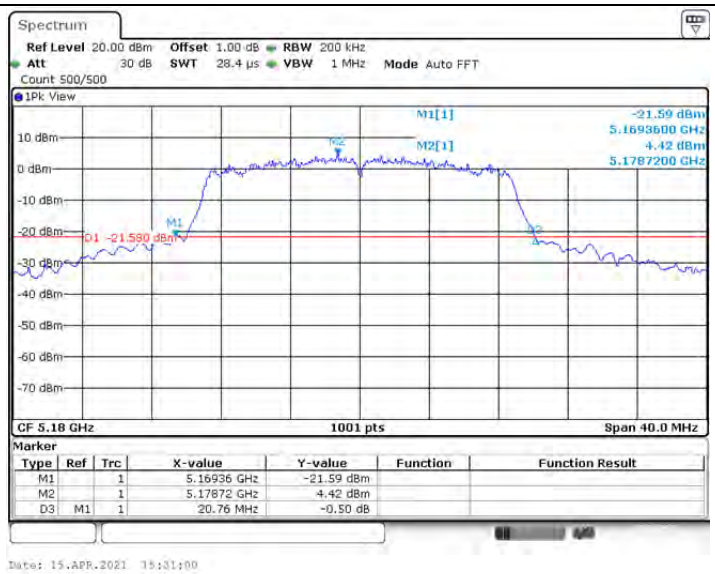

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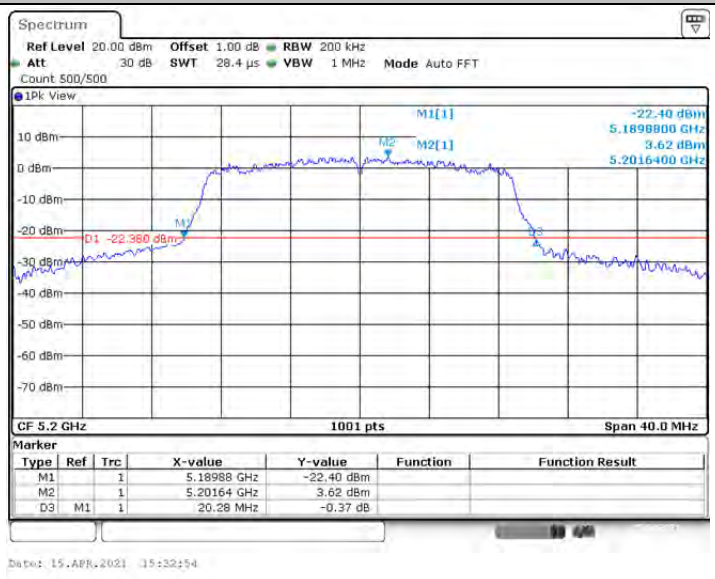

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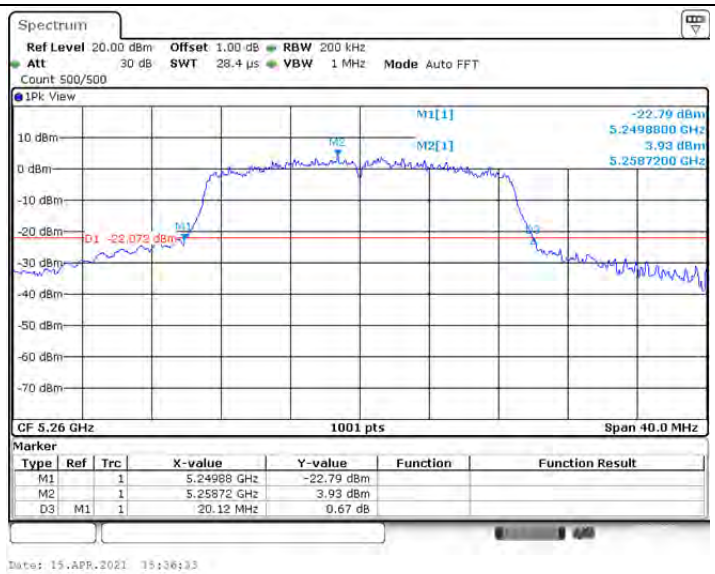

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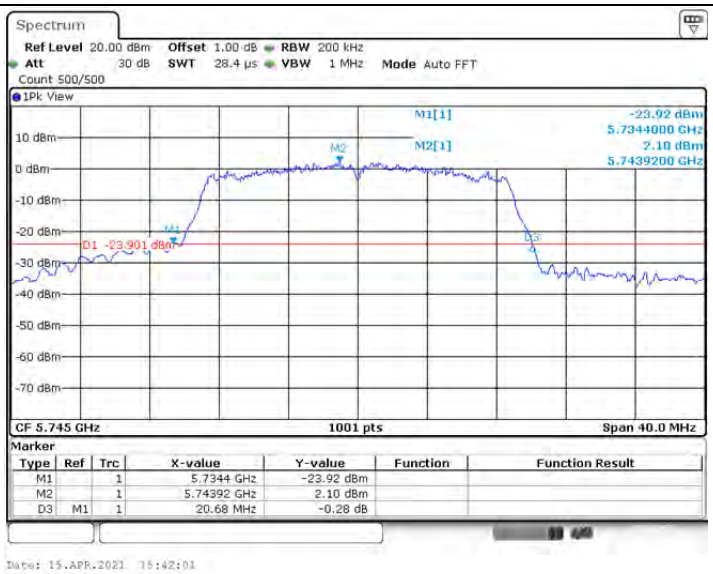
802.11n(HT20)_Ant1_5320

802.11n(HT20)_Ant1_5745



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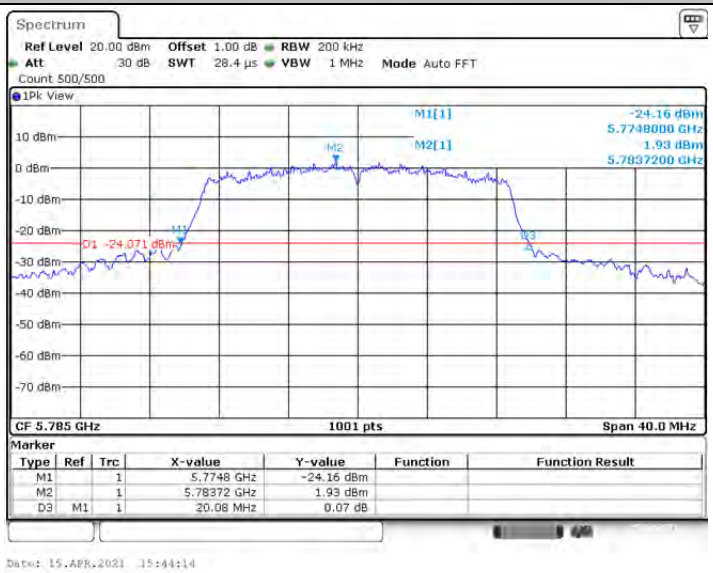

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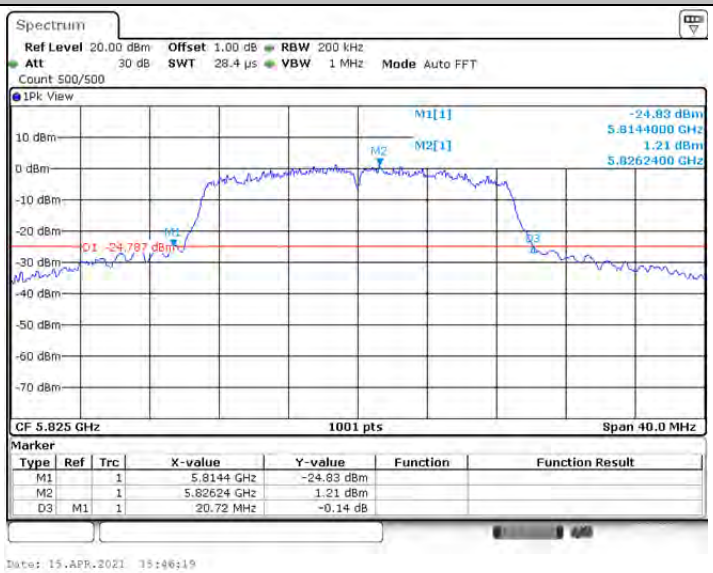

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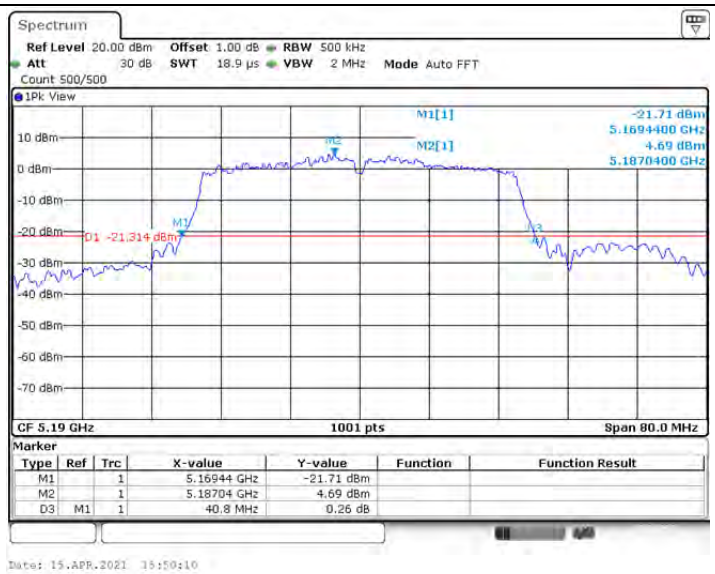

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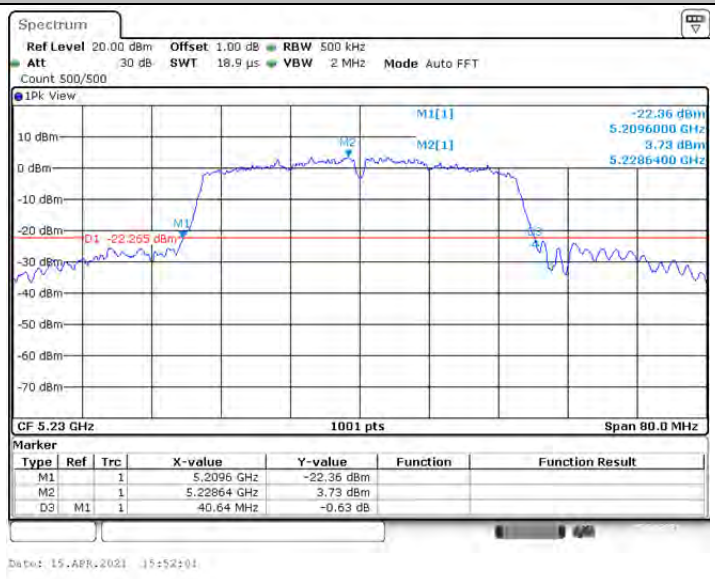

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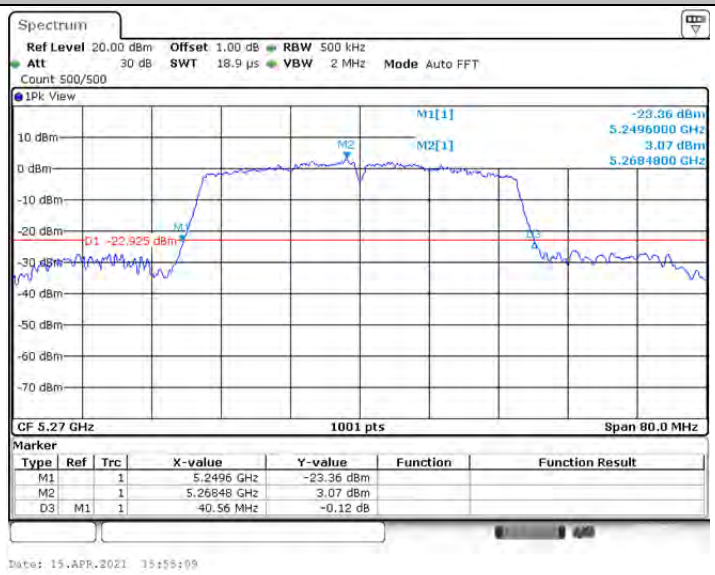

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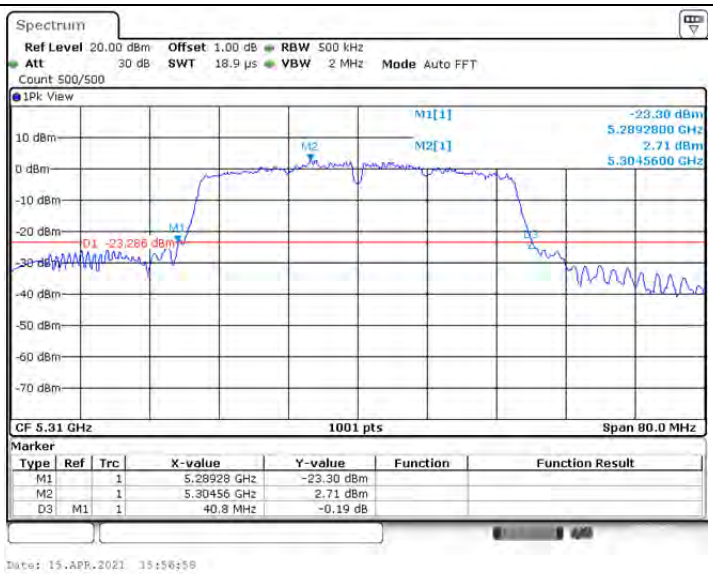

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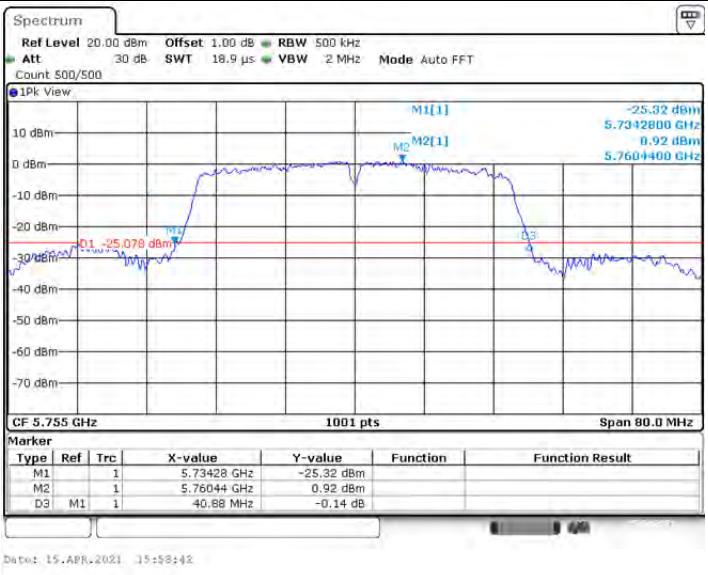

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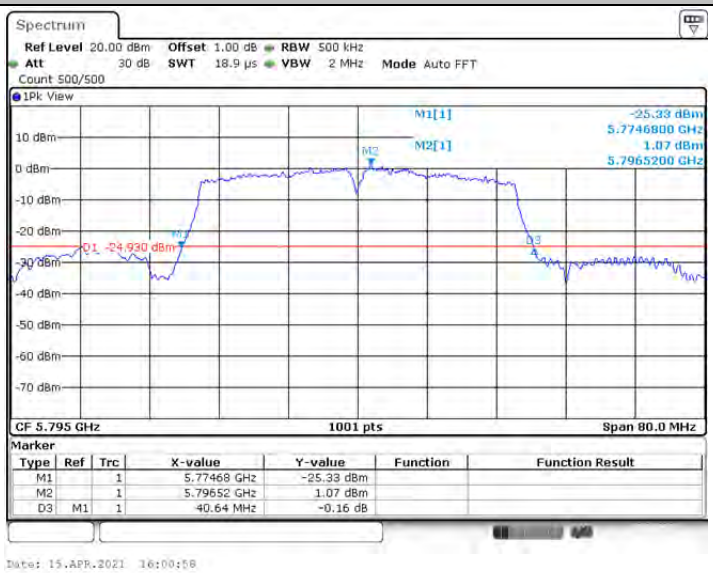

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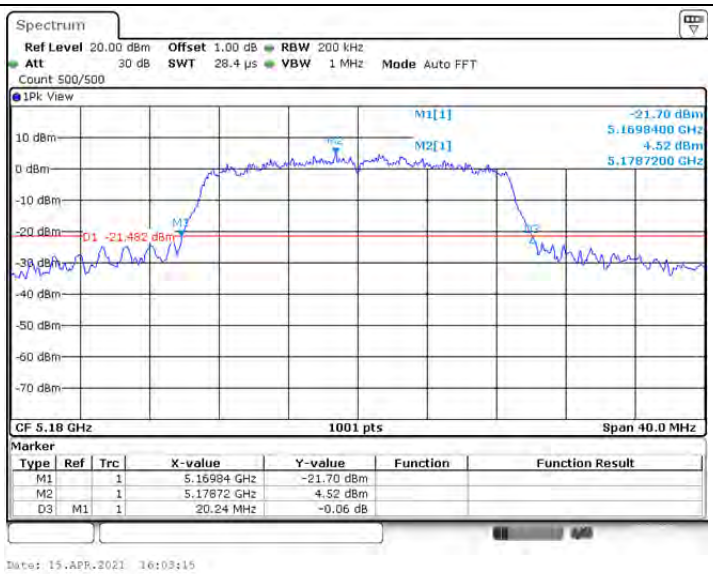

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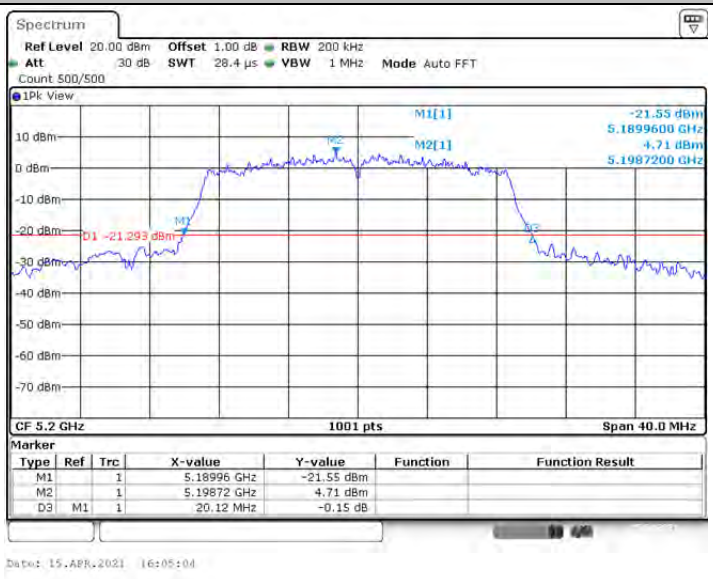

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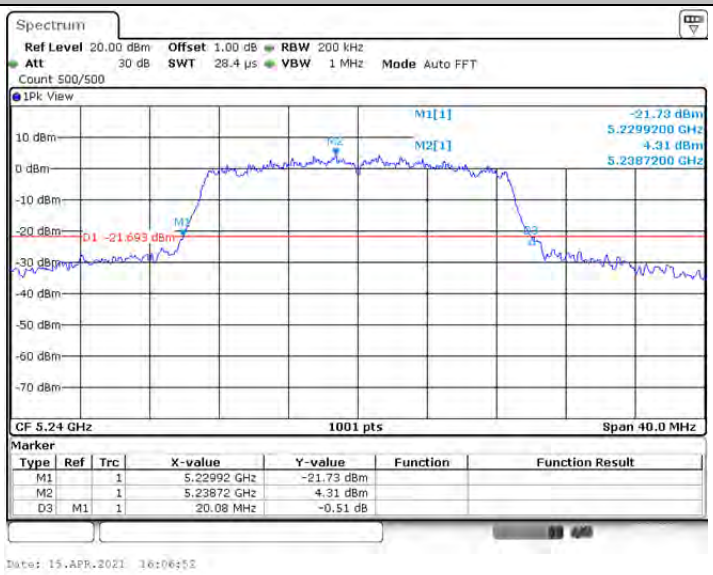

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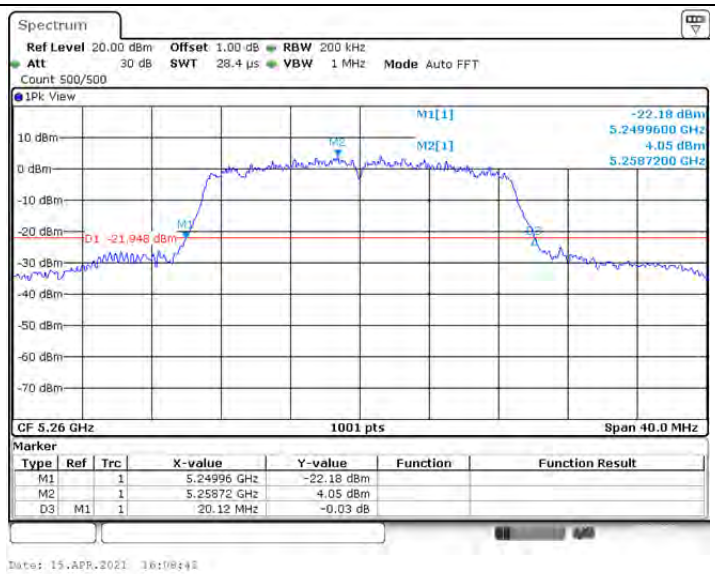

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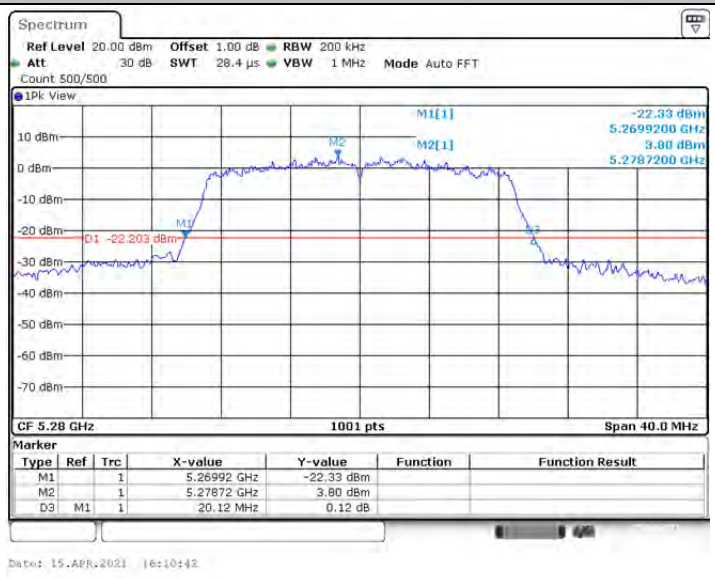

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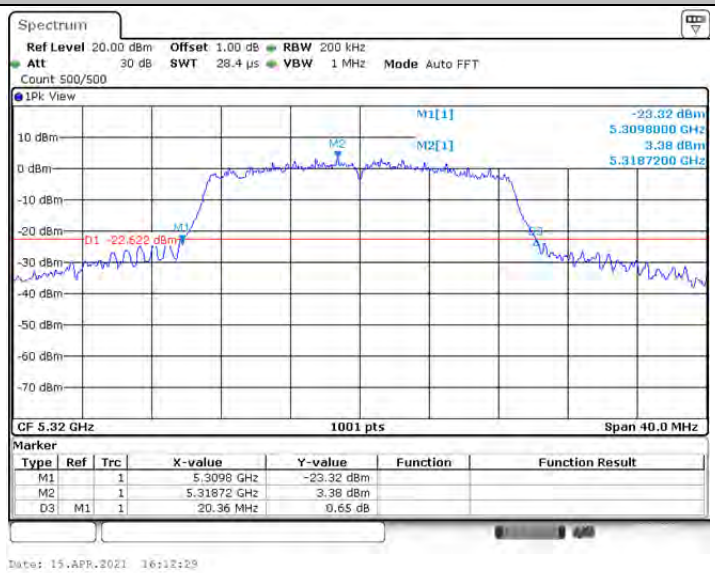

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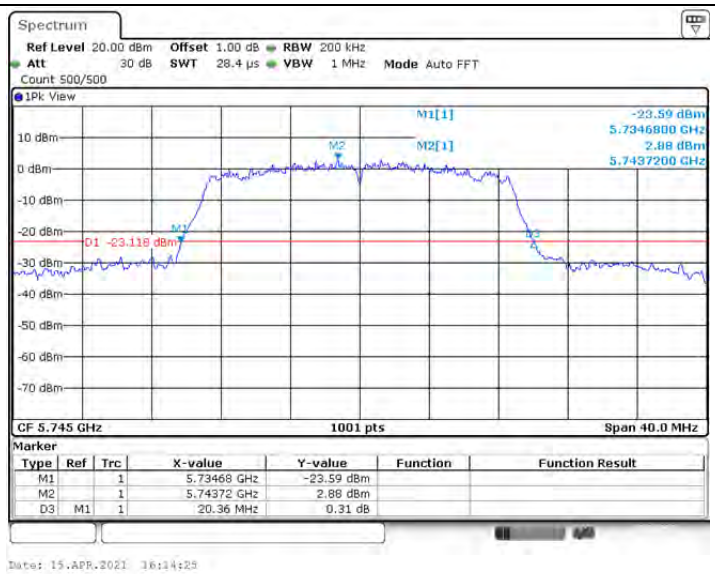

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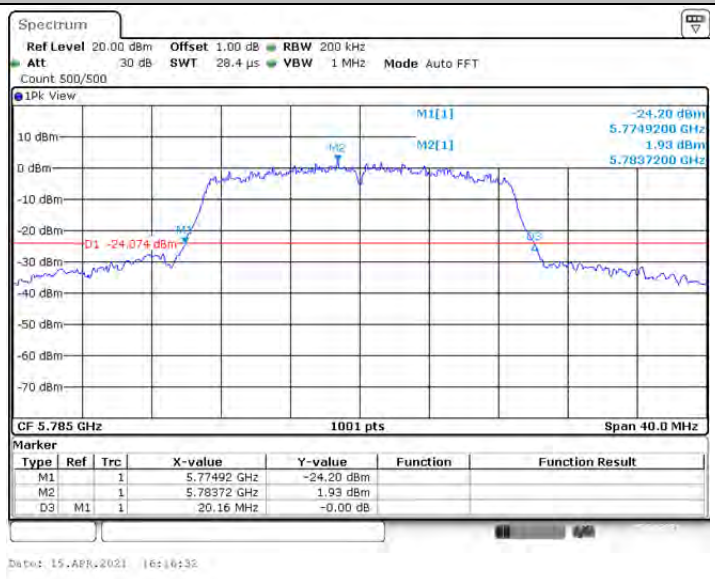

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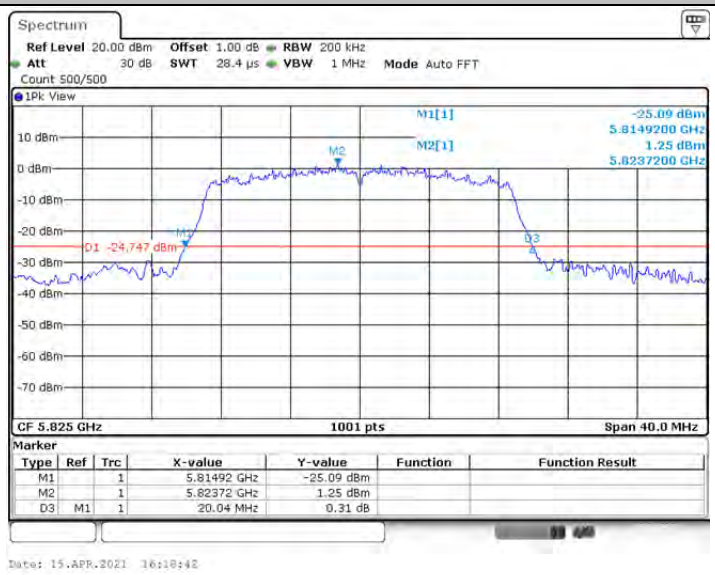

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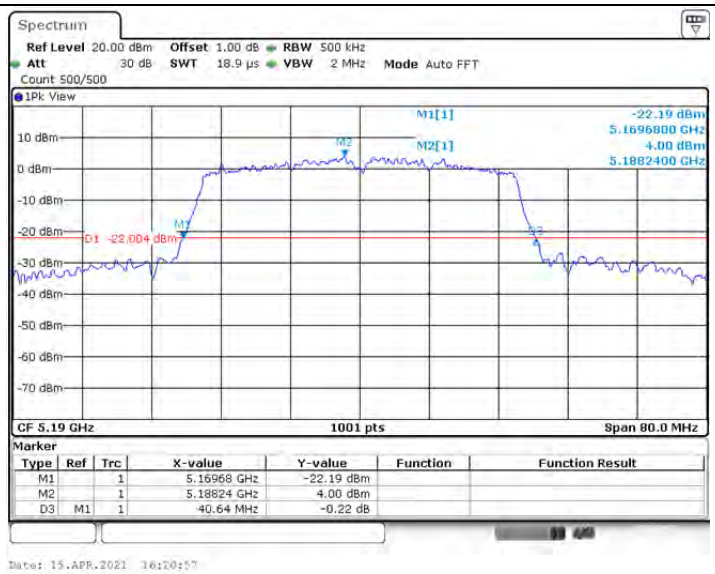

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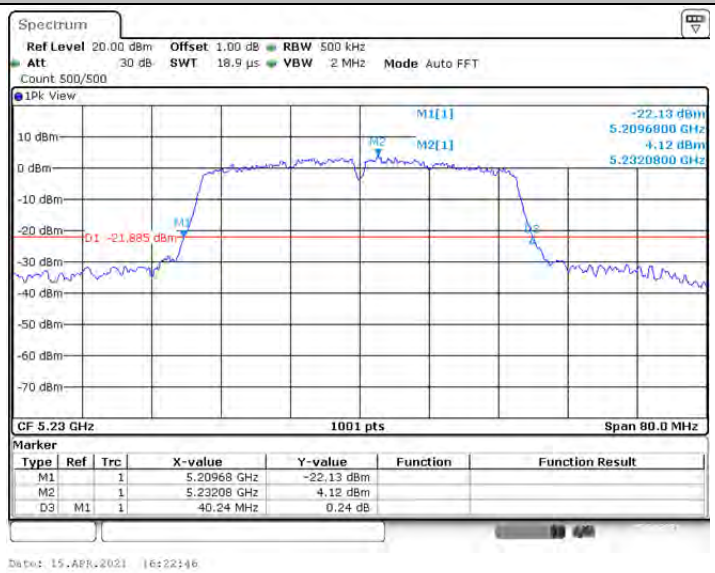

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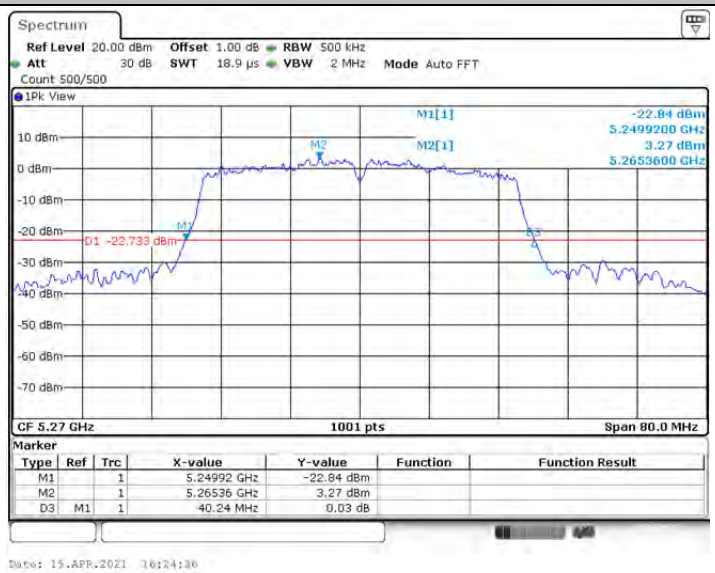

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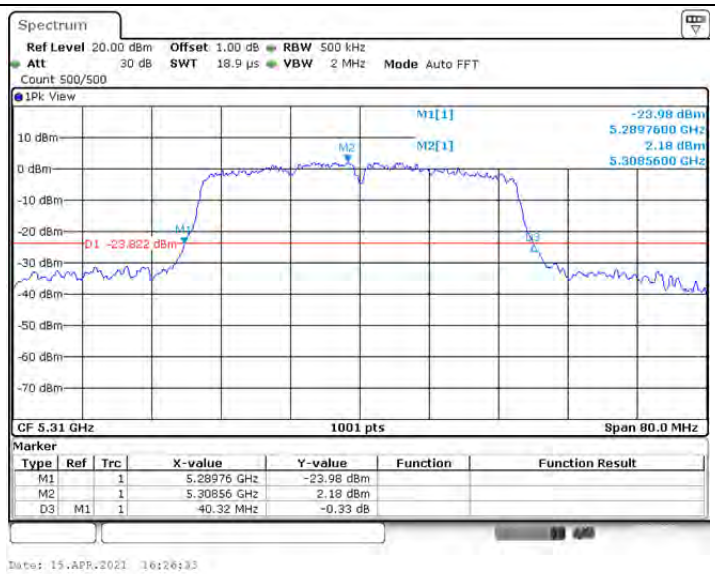

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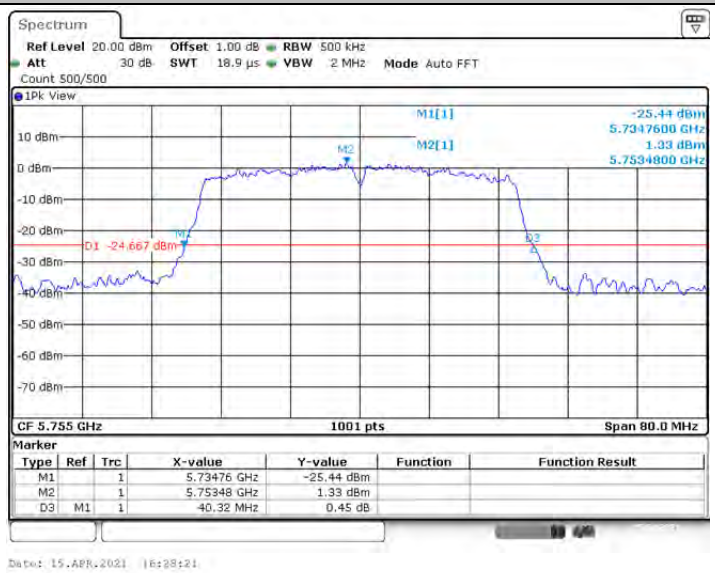

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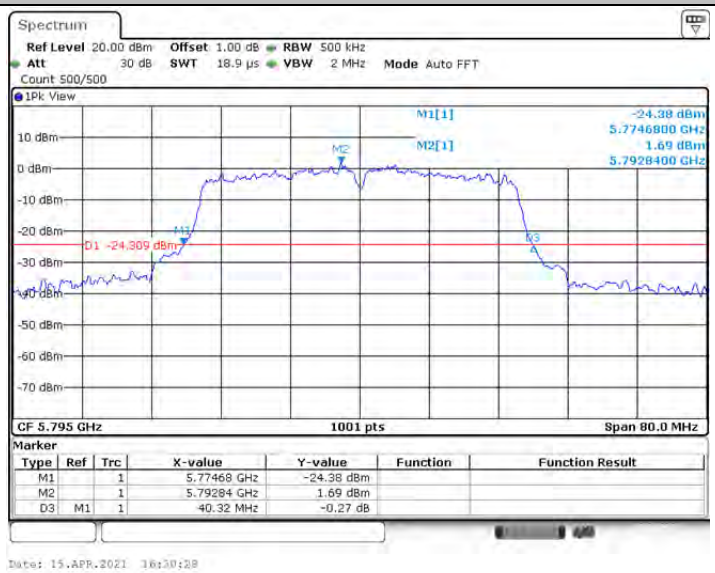
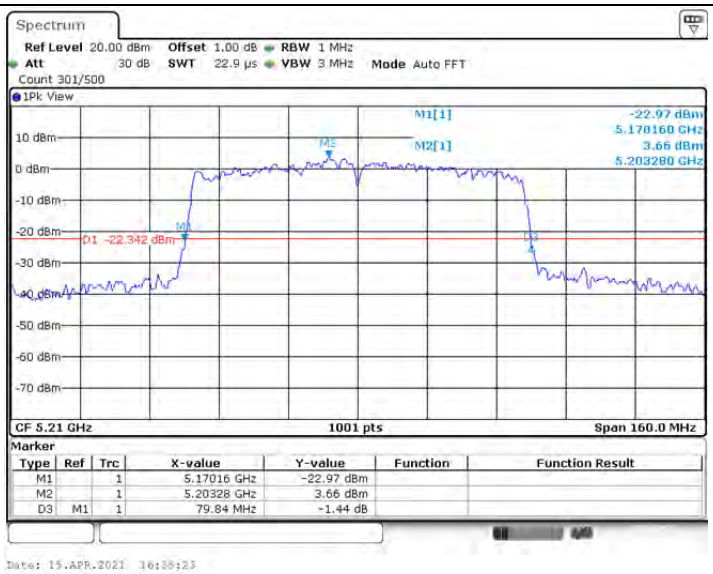


802.11ac(VHT80)_Ant1_5210



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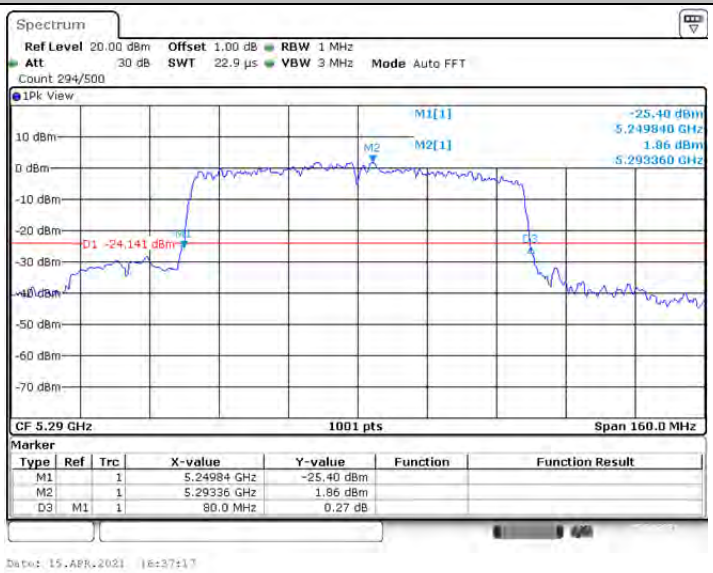

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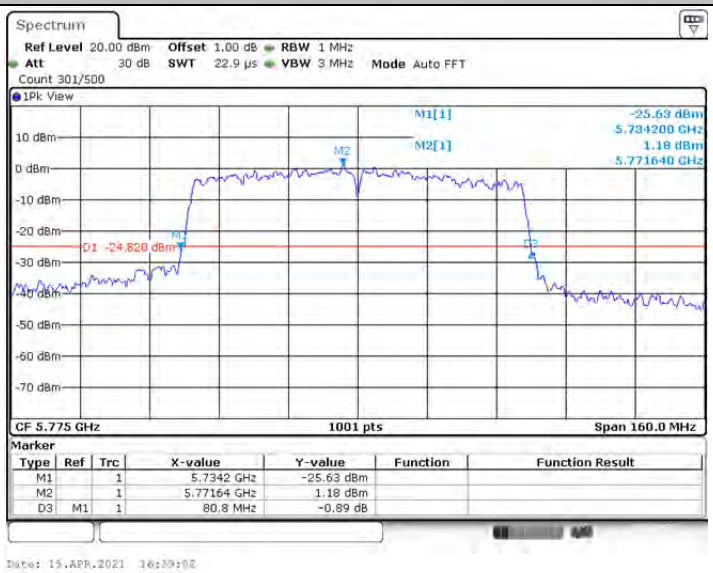


Appendix A2: Occupied channel bandwidth

Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
802.11a	Ant1	5180	16.903	5171.528	5188.432	PASS
		5200	17.023	5191.489	5208.511	PASS
		5240	17.183	5231.409	5248.591	PASS
		5260	16.943	5251.449	5268.392	PASS
		5280	17.263	5271.289	5288.551	PASS
		5320	17.143	5311.249	5328.392	PASS
		5745	16.943	5736.449	5753.392	PASS
		5785	16.783	5776.528	5793.312	PASS
		5825	17.103	5816.449	5833.551	PASS
802.11n(HT20)	Ant1	5180	18.022	5170.969	5188.991	PASS
		5200	18.142	5190.889	5209.031	PASS
		5240	17.942	5230.969	5248.911	PASS
		5260	18.022	5250.849	5268.871	PASS
		5280	18.062	5270.889	5288.951	PASS
		5320	18.142	5310.809	5328.951	PASS
		5745	17.982	5735.889	5753.871	PASS
		5785	18.142	5775.929	5794.071	PASS
		5825	18.022	5815.969	5833.991	PASS
802.11n(HT40)	Ant1	5190	36.603	5171.778	5208.382	PASS
		5230	36.124	5211.858	5247.982	PASS
		5270	36.284	5251.698	5287.982	PASS
		5310	36.204	5291.858	5328.062	PASS
		5755	36.204	5736.858	5773.062	PASS
		5795	36.204	5776.778	5812.982	PASS
802.11ac(VHT20)	Ant1	5180	17.942	5171.009	5188.951	PASS
		5200	18.102	5190.929	5209.031	PASS
		5240	17.942	5231.009	5248.951	PASS
		5260	17.782	5251.089	5268.871	PASS
		5280	17.862	5271.009	5288.871	PASS
		5320	17.902	5311.009	5328.911	PASS
		5745	17.862	5736.009	5753.871	PASS
		5785	17.982	5775.969	5793.951	PASS
		5825	17.982	5816.009	5833.991	PASS
802.11ac(VHT40)	Ant1	5190	36.284	5171.778	5208.062	PASS
		5230	36.284	5211.938	5248.222	PASS
		5270	36.124	5251.778	5287.902	PASS
		5310	36.044	5291.938	5327.982	PASS
		5755	36.044	5736.938	5772.982	PASS
		5795	36.523	5776.778	5813.302	PASS
802.11ac(VHT80)	Ant1	5210	75.604	5172.278	5247.882	PASS
		5290	75.604	5252.118	5327.722	PASS

		5775	75.604	5737.118	5812.722	PASS

Test Graphs

802.11a_Ant1_5180

802.11a_Ant1_5200

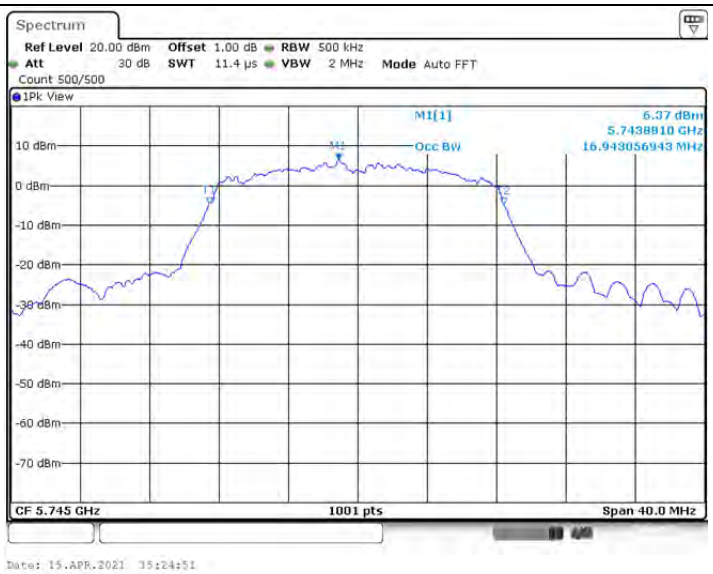
802.11a_Ant1_5240

802.11a_Ant1_5260

802.11a_Ant1_5280

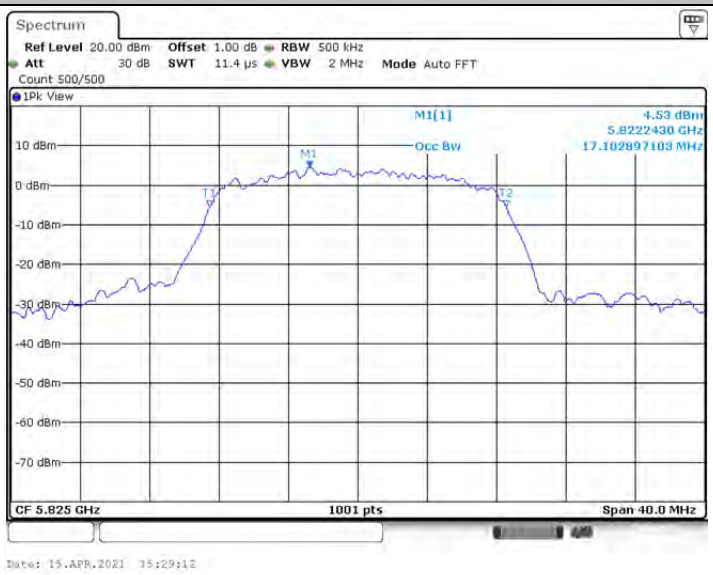
802.11a_Ant1_5320

802.11a_Ant1_5745



802.11a_Ant1_5785

802.11a_Ant1_5825



802.11n(HT20)_Ant1_5180

802.11n(HT20)_Ant1_5200

802.11n(HT20)_Ant1_5240

802.11n(HT20)_Ant1_5260

802.11n(HT20)_Ant1_5280

802.11n(HT20)_Ant1_5320

802.11n(HT20)_Ant1_5745

802.11n(HT20)_Ant1_5785

802.11n(HT20)_Ant1_5825

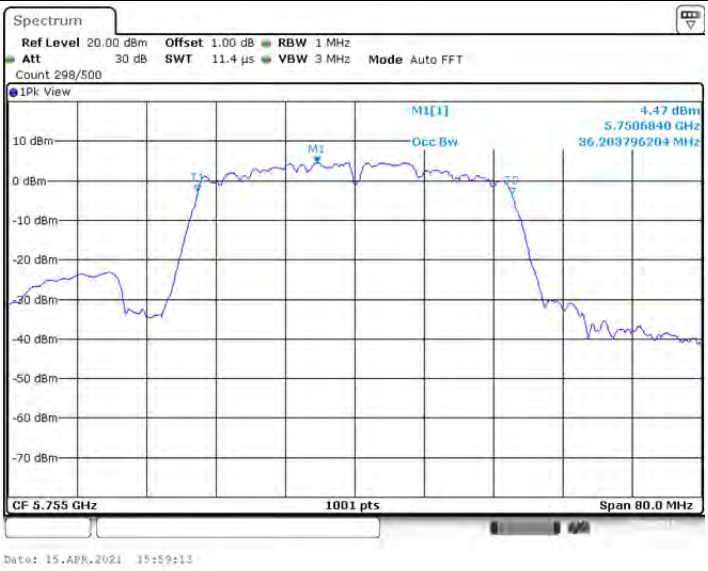
802.11n(HT40)_Ant1_5190

802.11n(HT40)_Ant1_5230

802.11n(HT40)_Ant1_5270

802.11n(HT40)_Ant1_5310

802.11n(HT40)_Ant1_5755



802.11n(HT40)_Ant1_5795

802.11ac(VHT20)_Ant1_5180

802.11ac(VHT20)_Ant1_5200

802.11ac(VHT20)_Ant1_5240

802.11ac(VHT20)_Ant1_5260

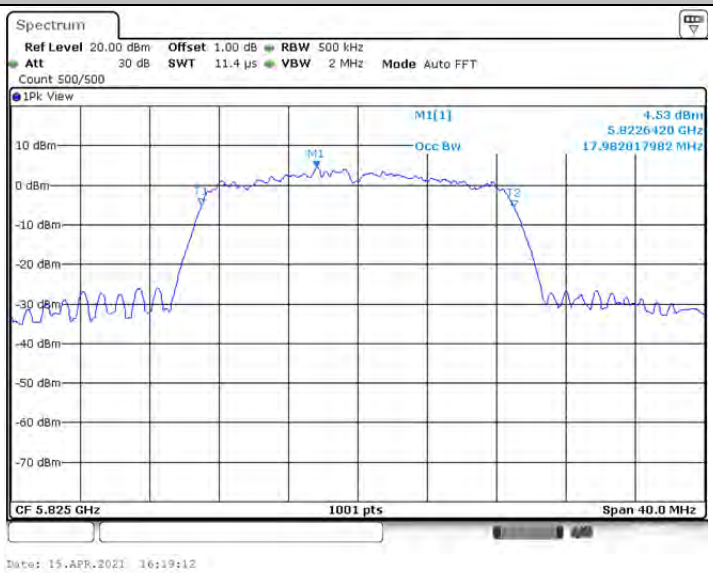
802.11ac(VHT20)_Ant1_5280

802.11ac(VHT20)_Ant1_5320

802.11ac(VHT20)_Ant1_5745

802.11ac(VHT20)_Ant1_5785

802.11ac(VHT20)_Ant1_5825



802.11ac(VHT40)_Ant1_5190

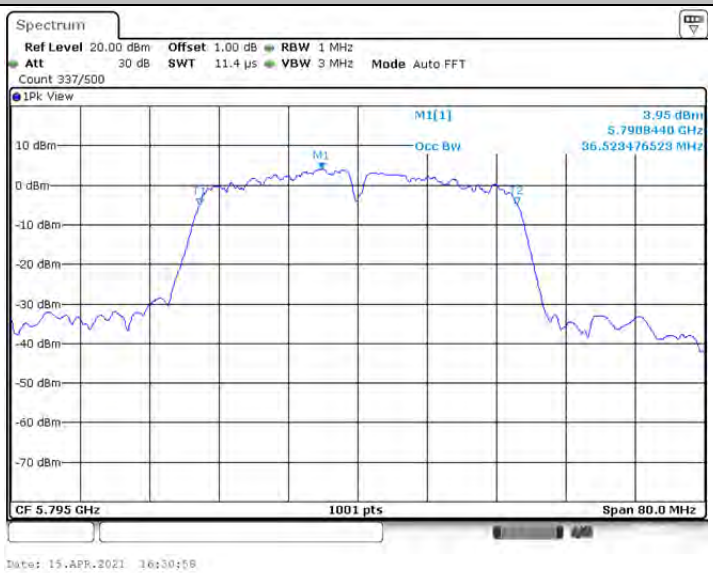
802.11ac(VHT40)_Ant1_5230

802.11ac(VHT40)_Ant1_5270

802.11ac(VHT40)_Ant1_5310

802.11ac(VHT40)_Ant1_5755

802.11ac(VHT40)_Ant1_5795



802.11ac(VHT80)_Ant1_5210

802.11ac(VHT80)_Ant1_5290

802.11ac(VHT80)_Ant1_5775

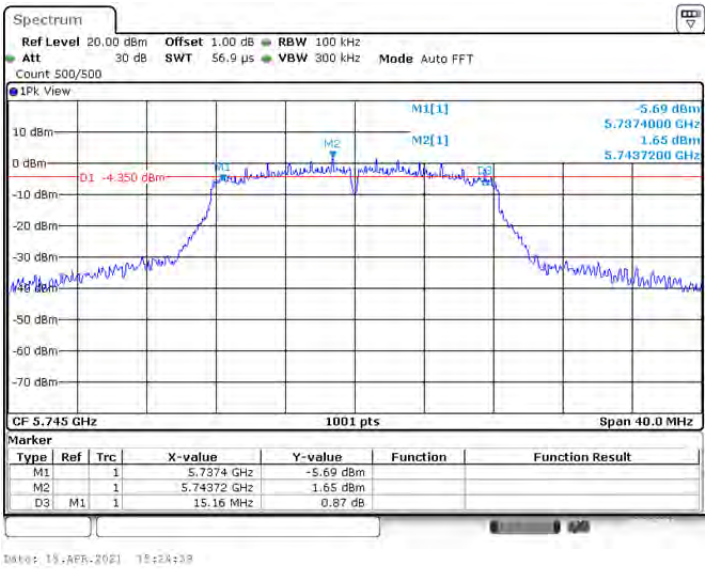
Appendix A3: Min emission bandwidth

Test Result

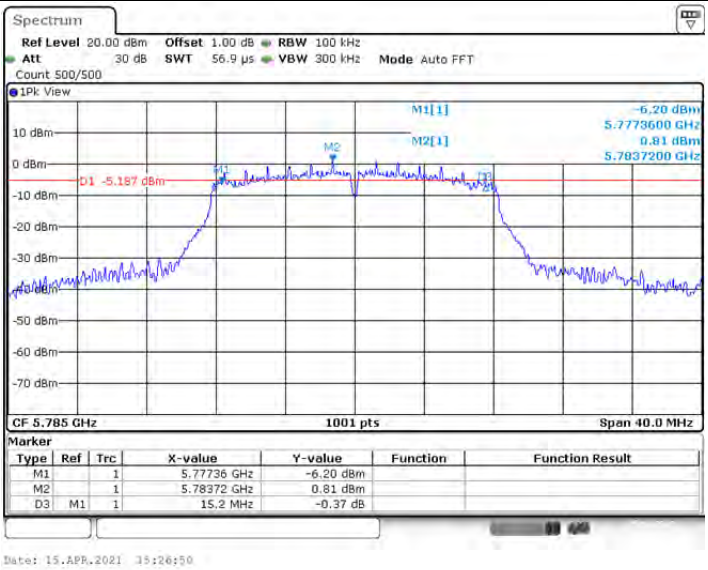
Test Mode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
802.11a	Ant1	5745	15.160	5737.400	5752.560	>=0.5	PASS
		5785	15.200	5777.360	5792.560	>=0.5	PASS
		5825	15.200	5817.360	5832.560	>=0.5	PASS
802.11n(HT20)	Ant1	5745	15.480	5737.080	5752.560	>=0.5	PASS
		5785	15.200	5777.360	5792.560	>=0.5	PASS
		5825	15.200	5817.360	5832.560	>=0.5	PASS
802.11n(HT40)	Ant1	5755	35.280	5737.320	5772.600	>=0.5	PASS
		5795	35.280	5777.320	5812.600	>=0.5	PASS
802.11ac(VHT20)	Ant1	5745	15.200	5737.360	5752.560	>=0.5	PASS
		5785	15.200	5777.360	5792.560	>=0.5	PASS
		5825	15.160	5817.360	5832.520	>=0.5	PASS
802.11ac(VHT40)	Ant1	5755	35.280	5737.320	5772.600	>=0.5	PASS
		5795	35.280	5777.320	5812.600	>=0.5	PASS
802.11ac(VHT80)	Ant1	5775	75.520	5737.240	5812.760	>=0.5	PASS

Test Graphs

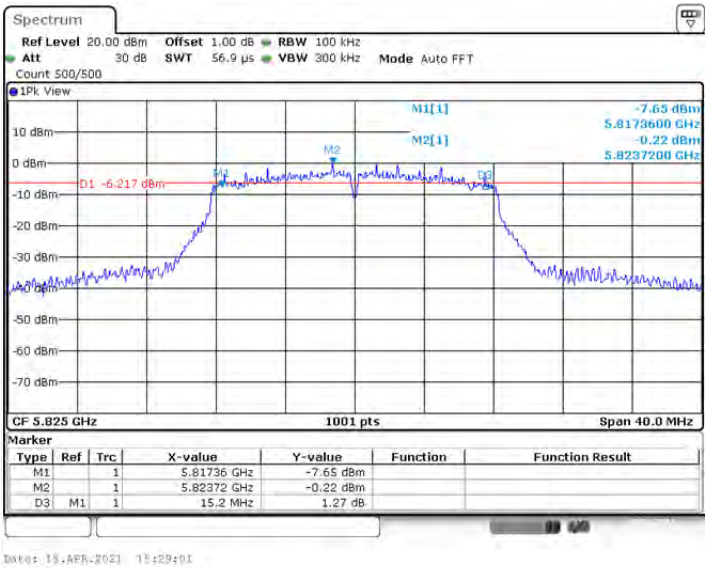
802.11a_Ant1_5745



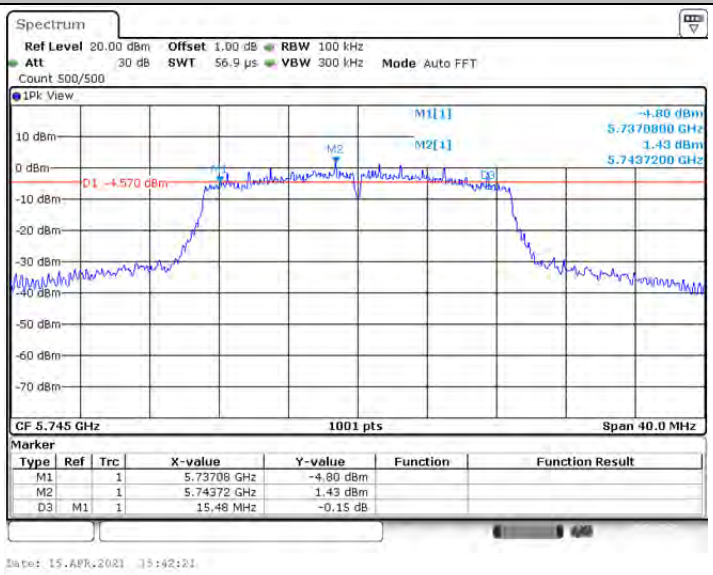
802.11a_Ant1_5785



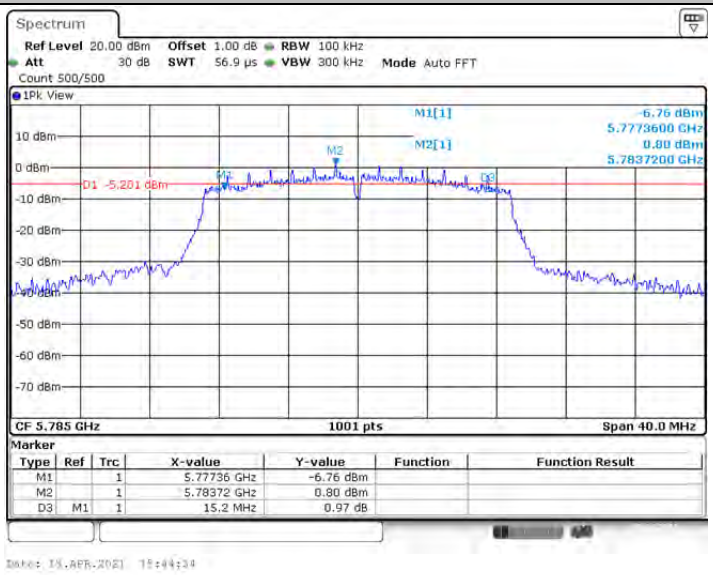
802.11a_Ant1_5825



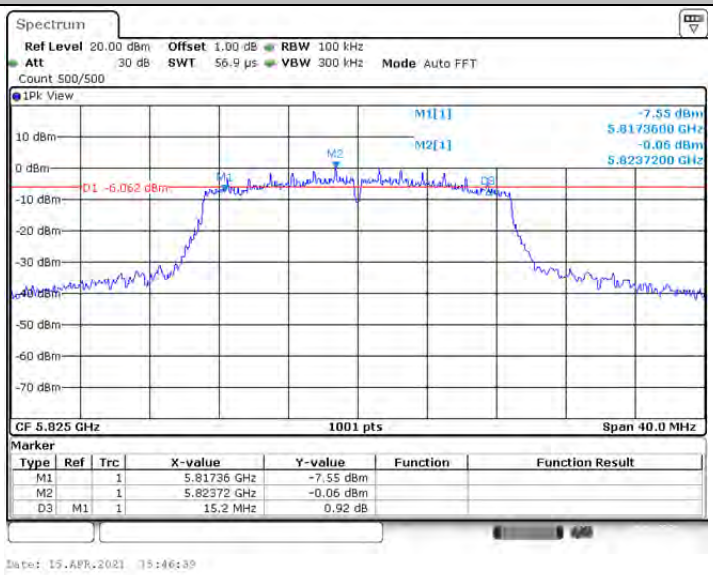
802.11n(HT20)_Ant1_5745



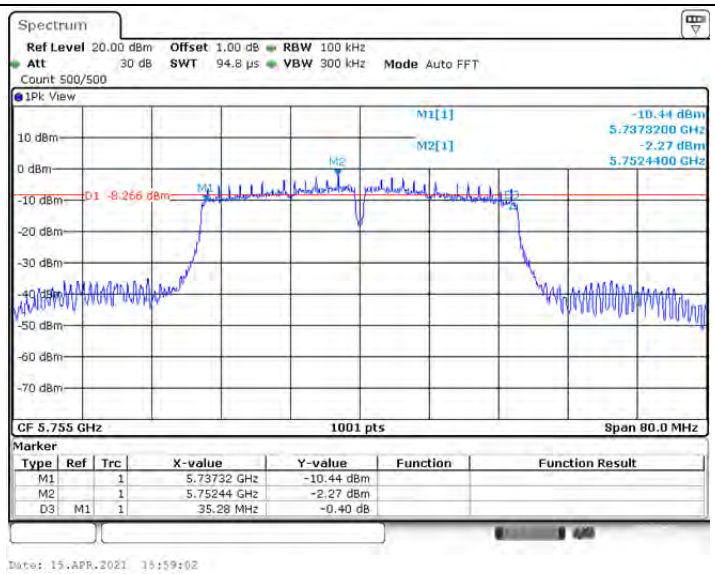
802.11n(HT20)_Ant1_5785



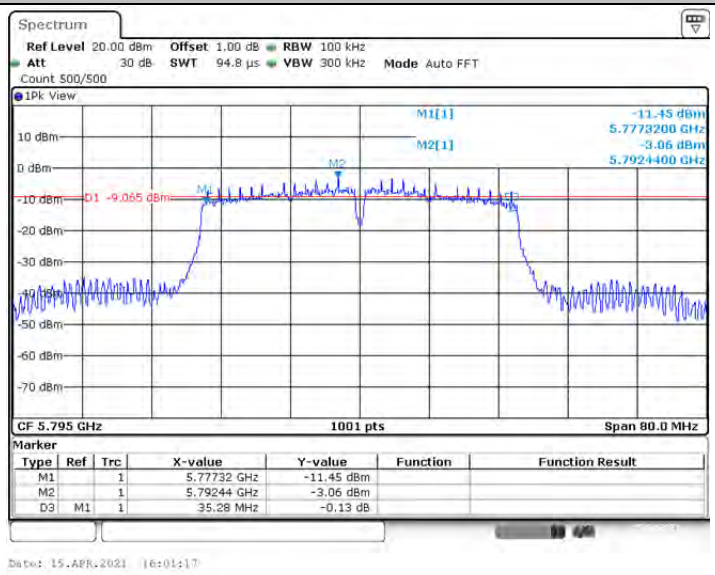
802.11n(HT20)_Ant1_5825



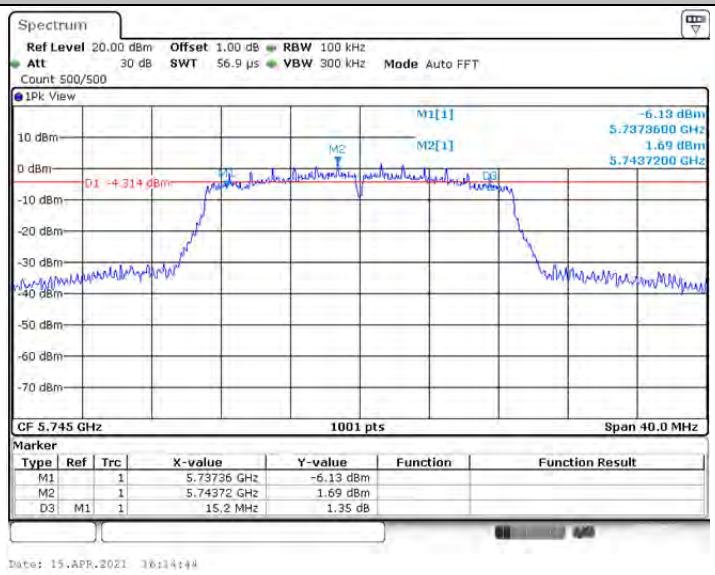
802.11n(HT40)_Ant1_5755



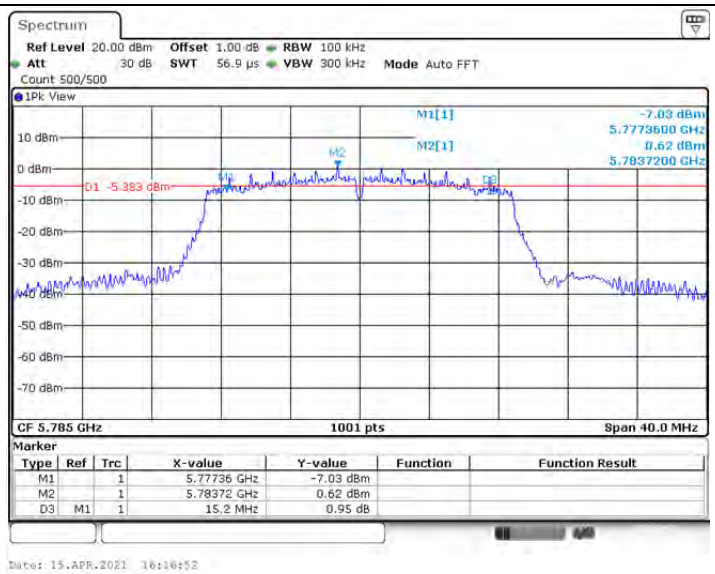
802.11n(HT40)_Ant1_5795



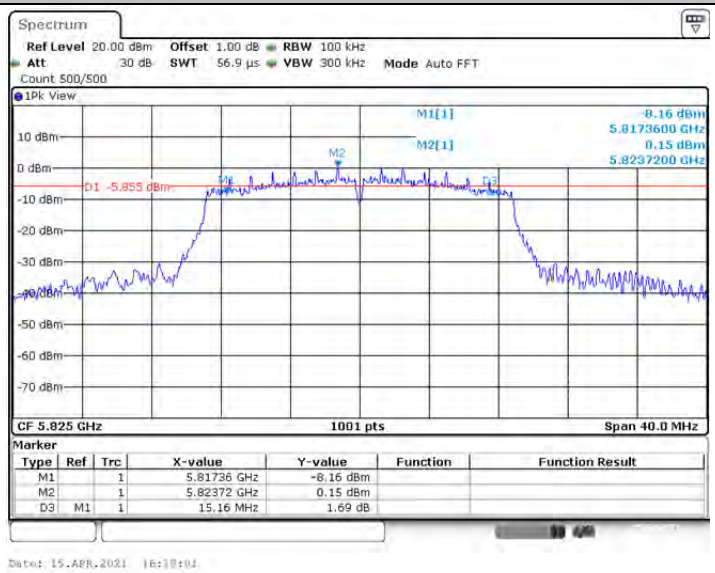
802.11ac(VHT20)_Ant1_5745



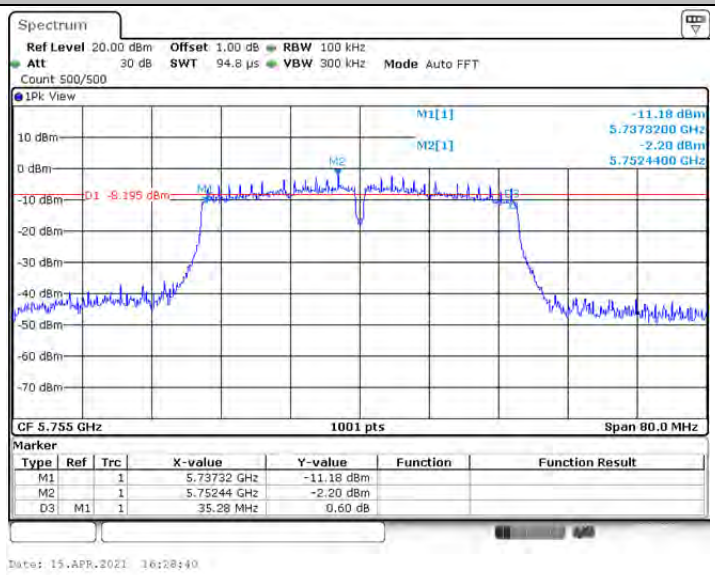
802.11ac(VHT20)_Ant1_5785



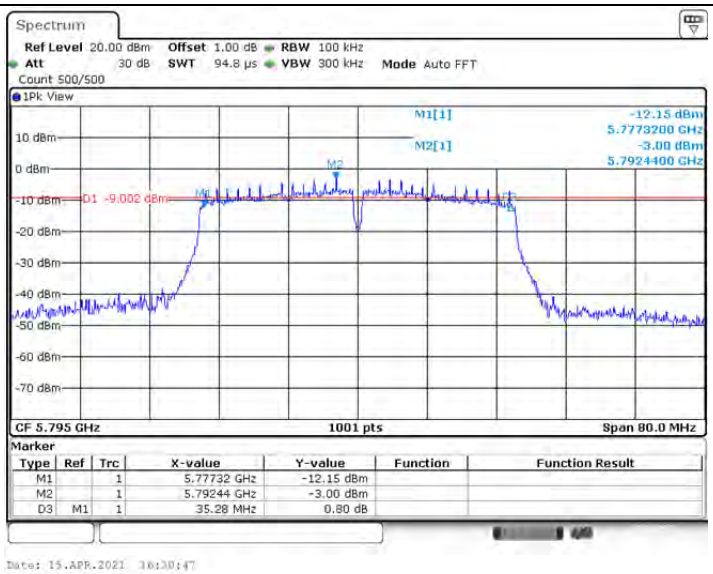
802.11ac(VHT20)_Ant1_5825



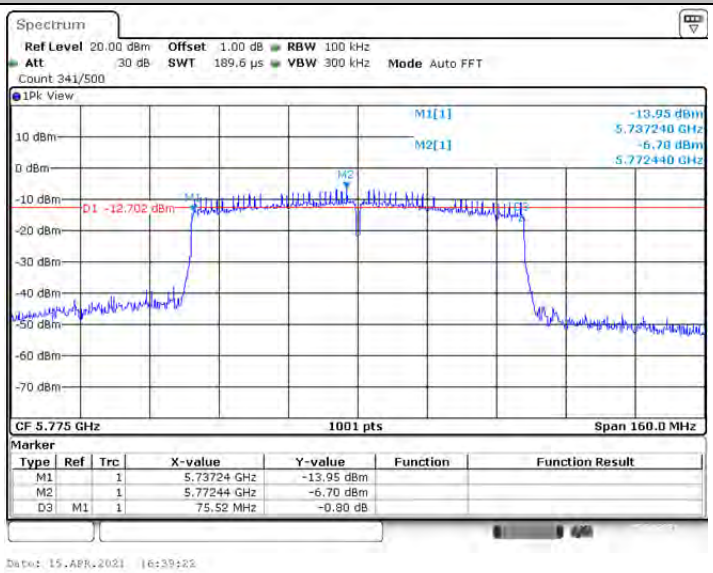
802.11ac(VHT40)_Ant1_5755



802.11ac(VHT40)_Ant1_5795



802.11ac(VHT80)_Ant1_5775



Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
802.11a	Ant1	5180	13.91	<=24	PASS
		5200	13.60	<=24	PASS
		5240	13.34	<=24	PASS
		5260	13.15	<=24	PASS
		5280	12.82	<=24	PASS
		5320	12.38	<=24	PASS
		5745	11.95	<=30	PASS
		5785	11.01	<=30	PASS
		5825	10.38	<=30	PASS
802.11n(HT20)	Ant1	5180	13.77	<=24	PASS
		5200	13.59	<=24	PASS
		5240	13.15	<=24	PASS
		5260	12.99	<=24	PASS
		5280	12.73	<=24	PASS
		5320	12.15	<=24	PASS
		5745	11.80	<=30	PASS
		5785	10.92	<=30	PASS
		5825	10.25	<=30	PASS
802.11n(HT40)	Ant1	5190	12.97	<=24	PASS
		5230	12.50	<=24	PASS
		5270	12.09	<=24	PASS
		5310	11.52	<=24	PASS
		5755	10.70	<=30	PASS
		5795	9.85	<=30	PASS
802.11ac(VHT20)	Ant1	5180	13.83	<=24	PASS
		5200	13.52	<=24	PASS
		5240	13.17	<=24	PASS
		5260	12.99	<=24	PASS
		5280	12.80	<=24	PASS
		5320	12.21	<=24	PASS
		5745	11.89	<=30	PASS
		5785	10.91	<=30	PASS
		5825	10.17	<=30	PASS
802.11ac(VHT40)	Ant1	5190	12.77	<=24	PASS
		5230	12.56	<=24	PASS
		5270	11.95	<=24	PASS
		5310	11.43	<=24	PASS
		5755	10.78	<=30	PASS
		5795	9.84	<=30	PASS
802.11ac(VHT80)	Ant1	5210	11.92	<=24	PASS
		5290	11.07	<=24	PASS
		5775	9.51	<=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
802.11a	Ant1	5180	3.24	<=11	PASS
		5200	2.96	<=11	PASS
		5240	2.75	<=11	PASS
		5260	2.45	<=11	PASS
		5280	2.17	<=11	PASS
		5320	1.68	<=11	PASS
		5745	-1.42	<=30	PASS
		5785	-2.28	<=30	PASS
		5825	-2.95	<=30	PASS
802.11n(HT20)	Ant1	5180	2.91	<=11	PASS
		5200	2.72	<=11	PASS
		5240	2.36	<=11	PASS
		5260	2.07	<=11	PASS
		5280	1.95	<=11	PASS
		5320	1.32	<=11	PASS
		5745	-1.79	<=30	PASS
		5785	-2.61	<=30	PASS
		5825	-3.26	<=30	PASS
802.11n(HT40)	Ant1	5190	-0.7	<=11	PASS
		5230	-1.07	<=11	PASS
		5270	-1.65	<=11	PASS
		5310	-2.2	<=11	PASS
		5755	-5.79	<=30	PASS
		5795	-6.64	<=30	PASS
802.11ac(VHT20)	Ant1	5180	3.08	<=11	PASS
		5200	2.7	<=11	PASS
		5240	2.47	<=11	PASS
		5260	2.13	<=11	PASS
		5280	2.02	<=11	PASS
		5320	1.32	<=11	PASS
		5745	-1.66	<=30	PASS
		5785	-2.62	<=30	PASS
		5825	-3.39	<=30	PASS
802.11ac(VHT40)	Ant1	5190	-0.68	<=11	PASS
		5230	-1.11	<=11	PASS
		5270	-1.79	<=11	PASS
		5310	-2.33	<=11	PASS
		5755	-5.77	<=30	PASS
		5795	-6.71	<=30	PASS
802.11ac(VHT80)	Ant1	5210	-4.96	<=11	PASS
		5290	-6.01	<=11	PASS

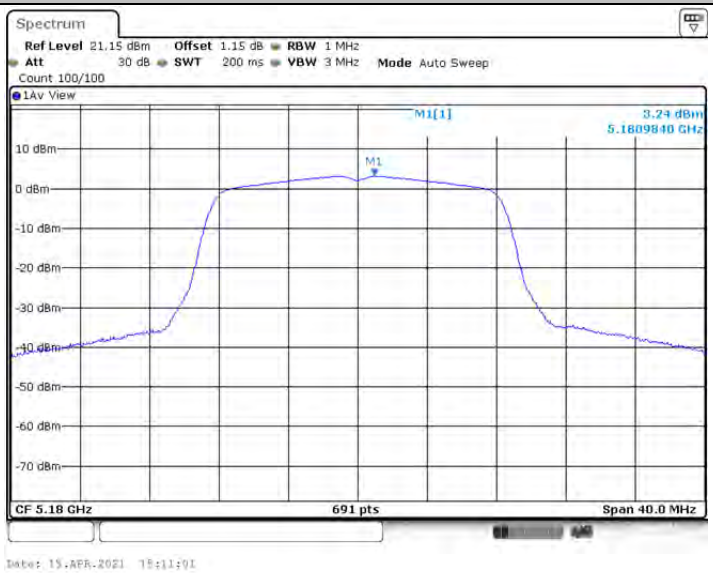
		5775	-10.46	<=30	PASS

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

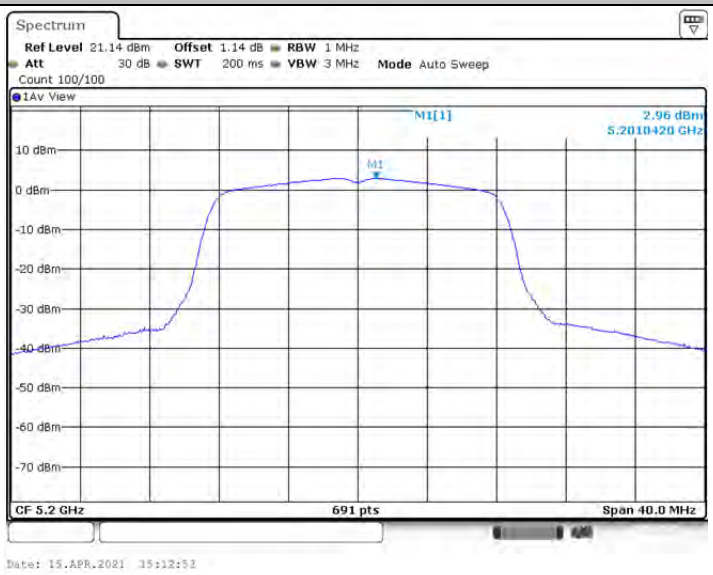
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

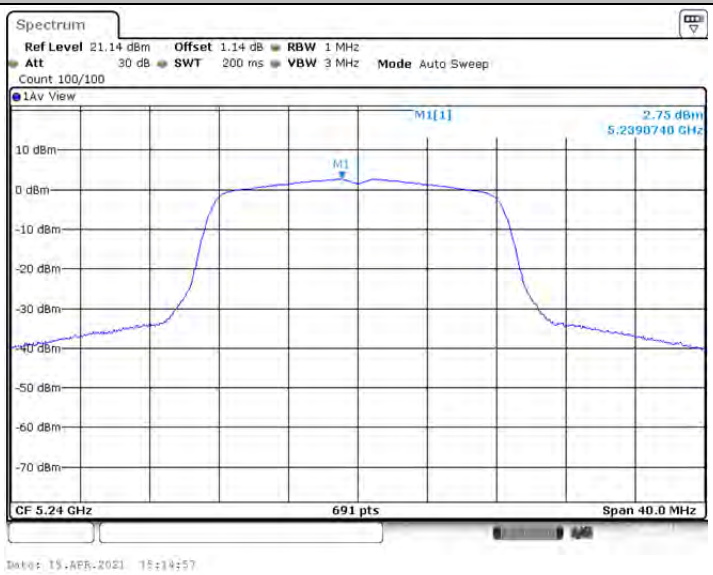
802.11a_Ant1_5180



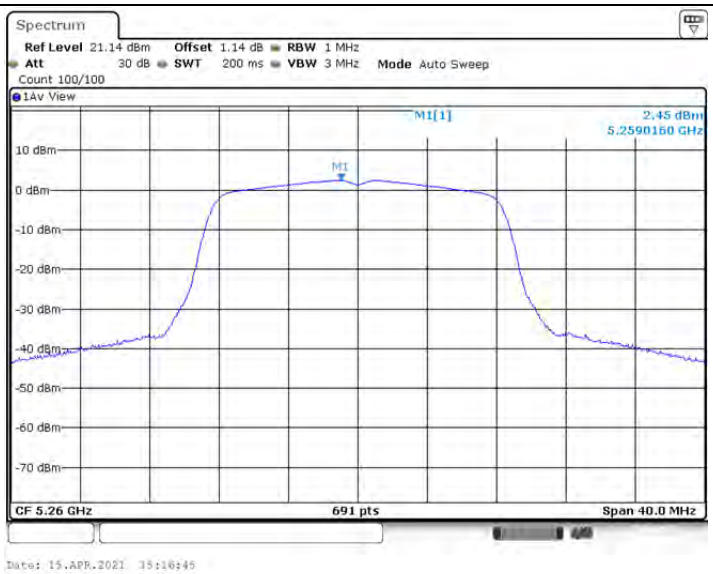
802.11a_Ant1_5200



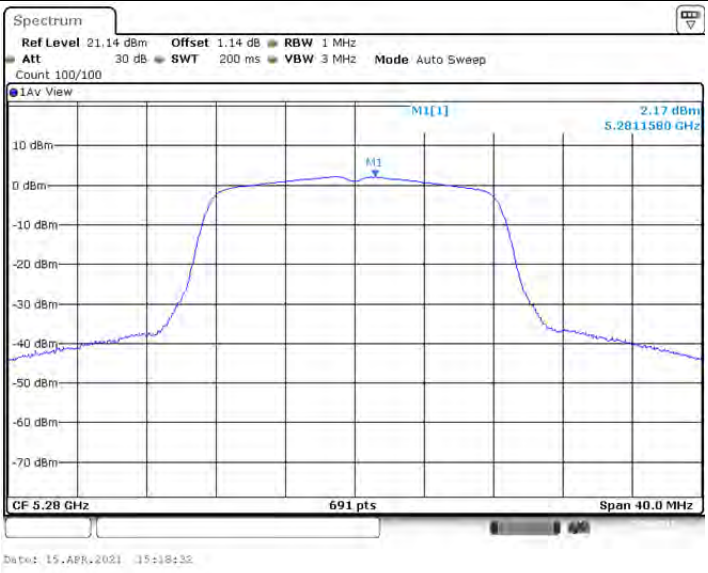
802.11a_Ant1_5240



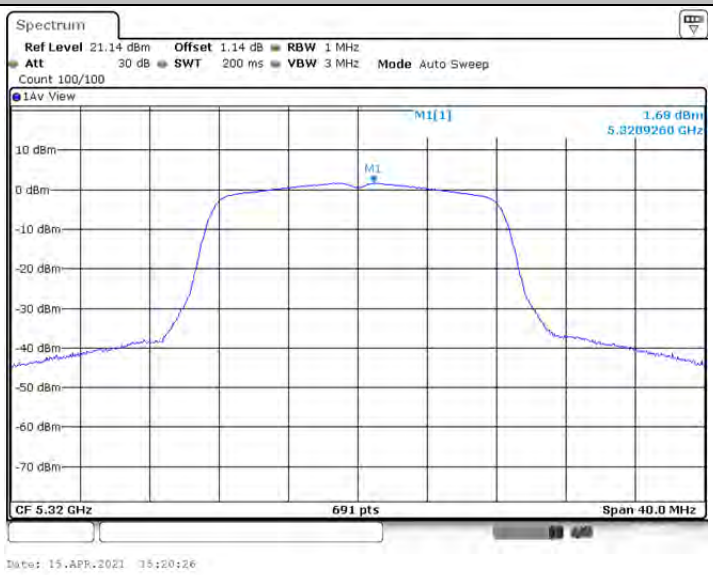
802.11a_Ant1_5260



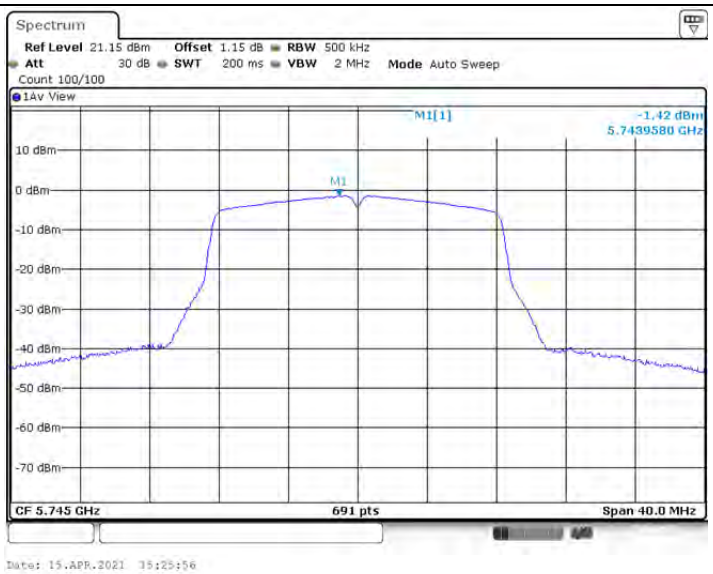
802.11a_Ant1_5280



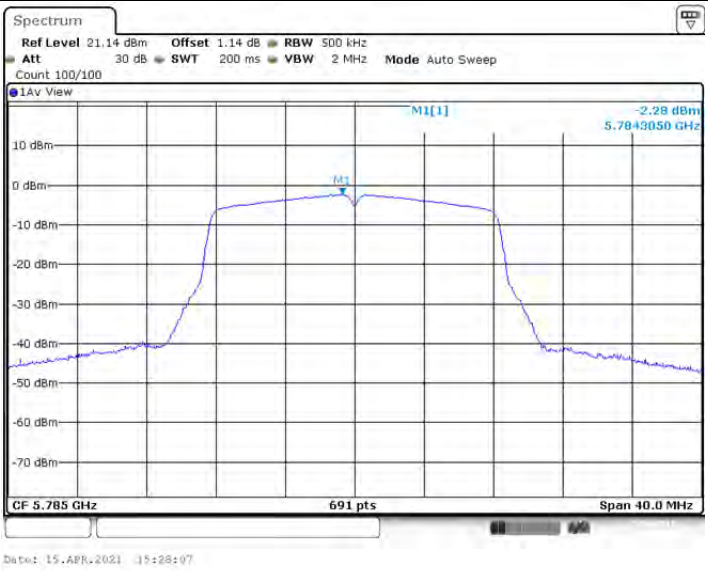
802.11a_Ant1_5320



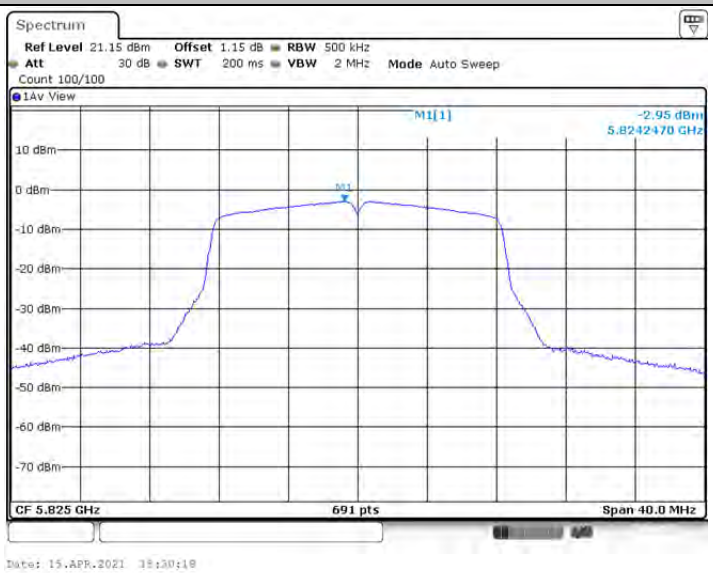
802.11a_Ant1_5745



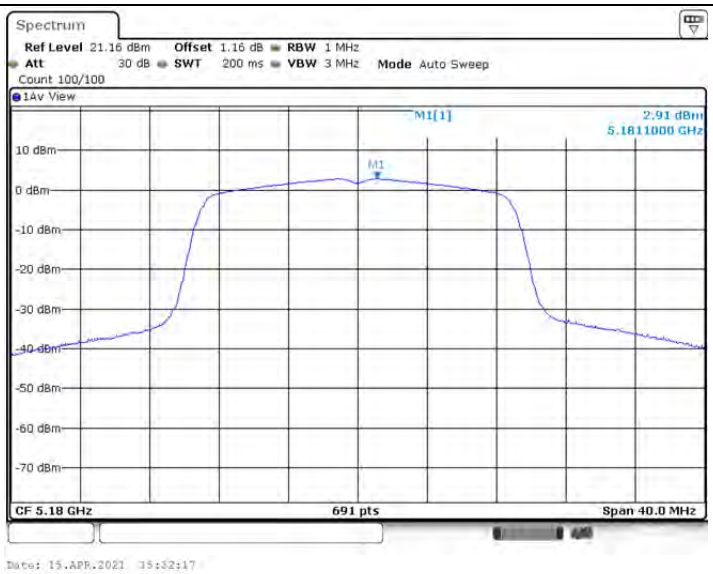
802.11a_Ant1_5785



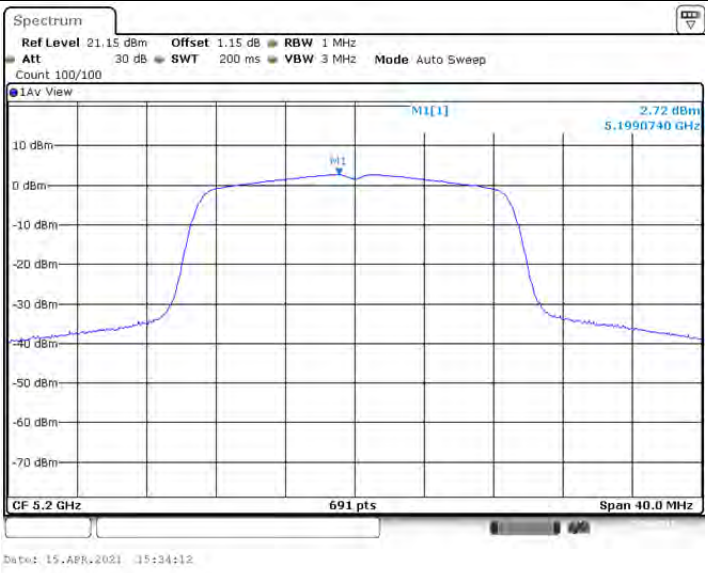
802.11a_Ant1_5825



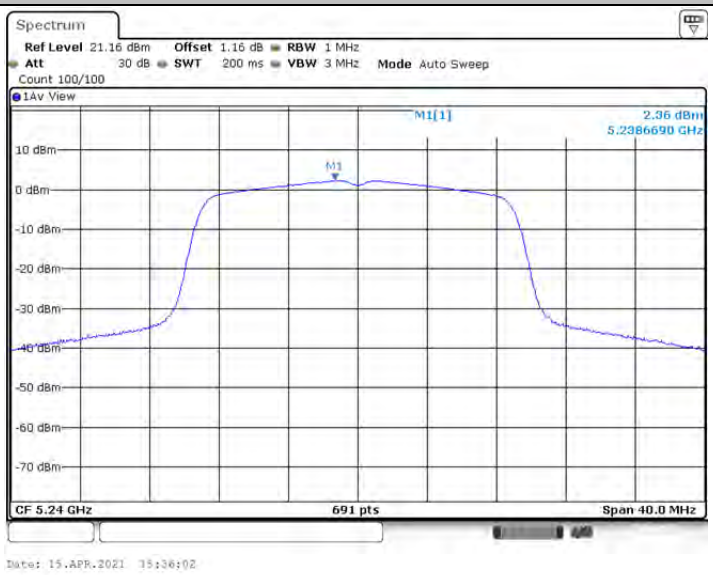
802.11n(HT20)_Ant1_5180



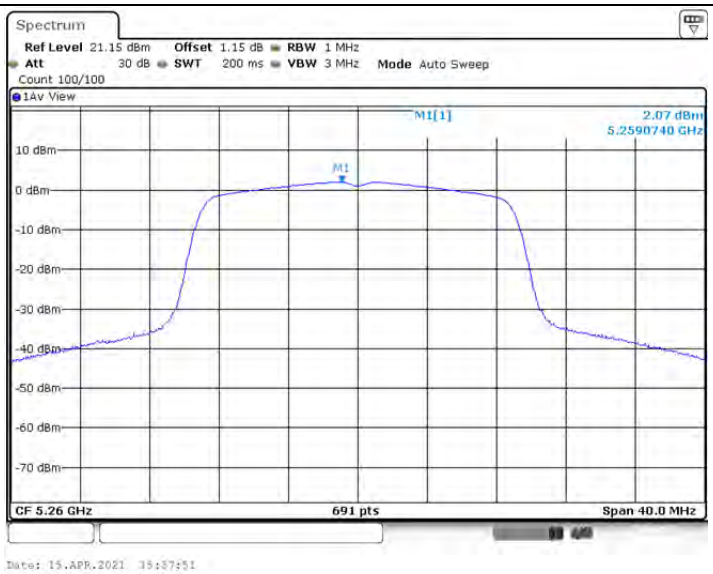
802.11n(HT20)_Ant1_5200



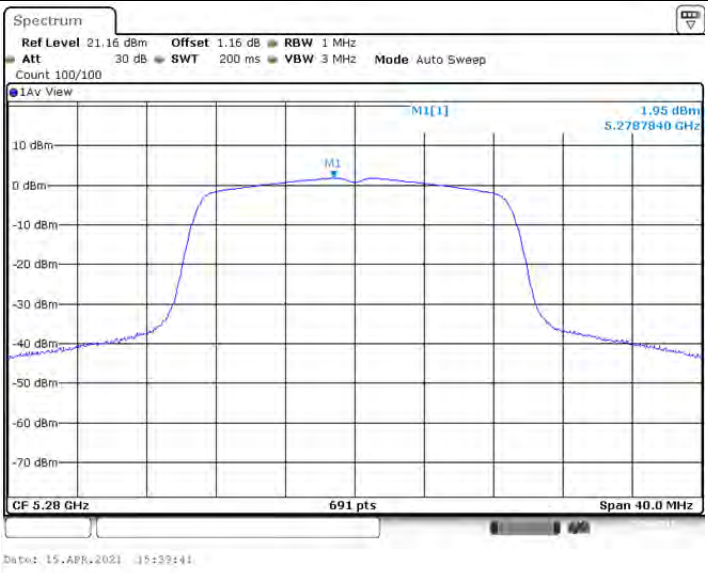
802.11n(HT20)_Ant1_5240



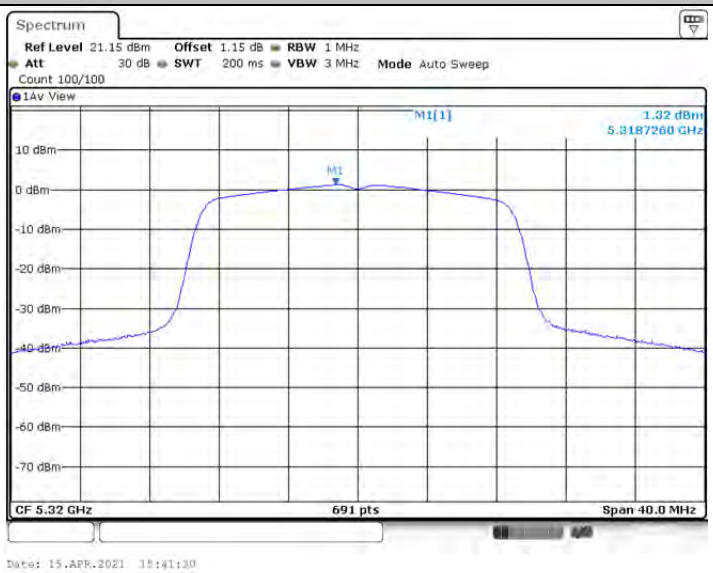
802.11n(HT20)_Ant1_5260



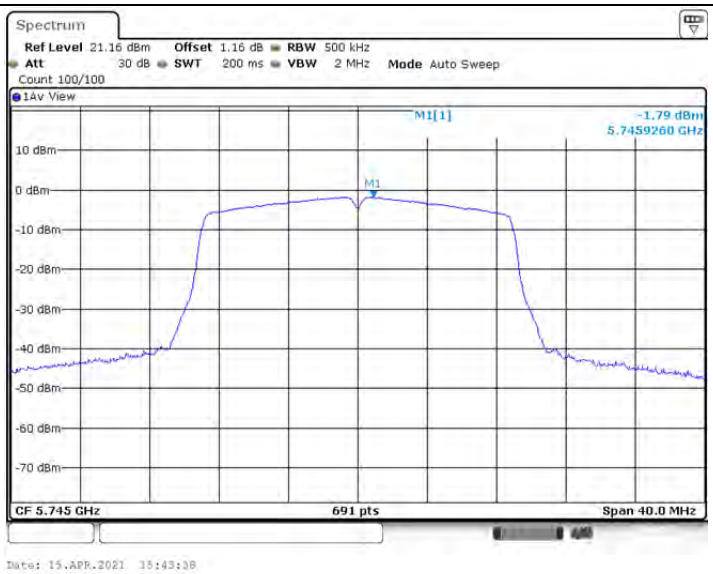
802.11n(HT20)_Ant1_5280



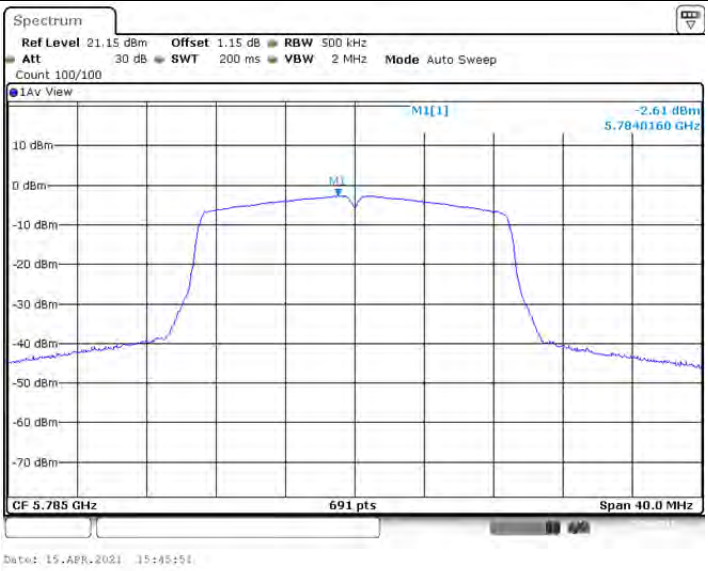
802.11n(HT20)_Ant1_5320



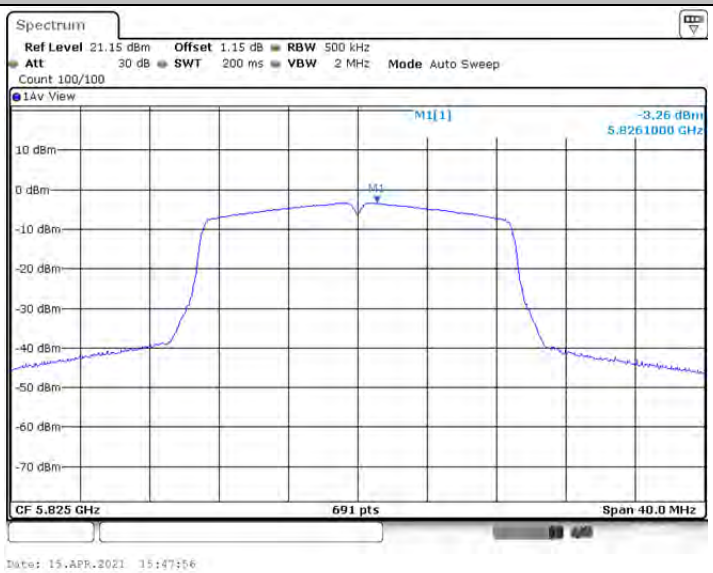
802.11n(HT20)_Ant1_5745



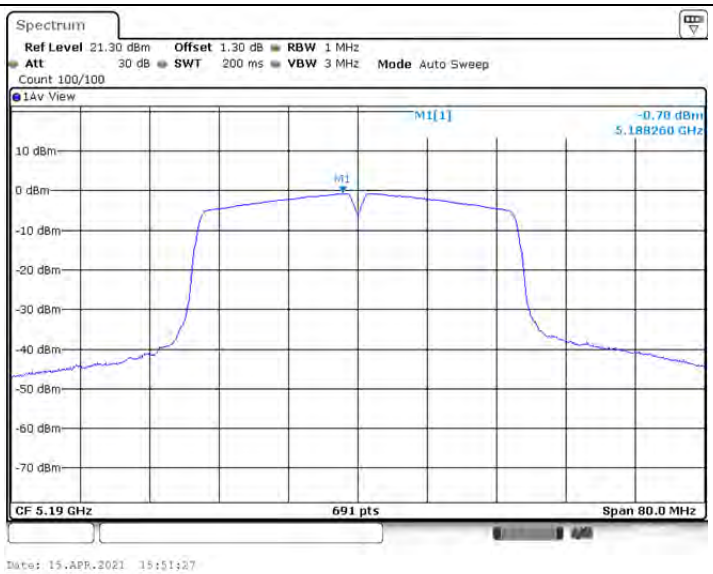
802.11n(HT20)_Ant1_5785



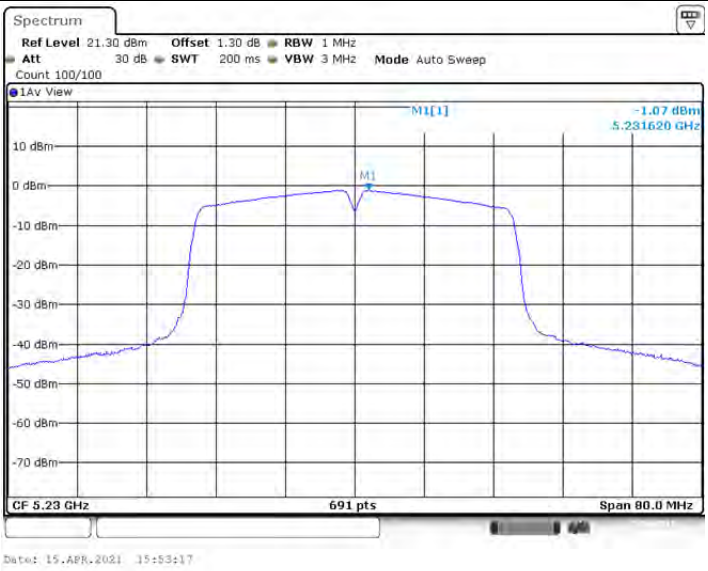
802.11n(HT20)_Ant1_5825



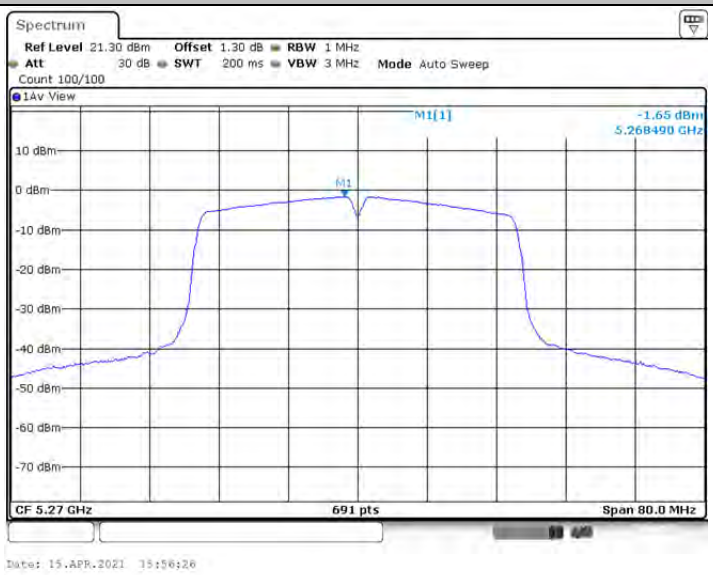
802.11n(HT40)_Ant1_5190



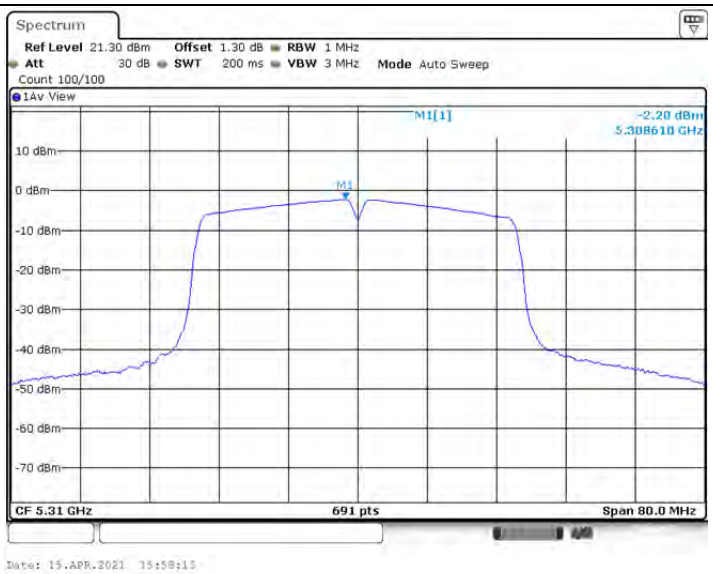
802.11n(HT40)_Ant1_5230



802.11n(HT40)_Ant1_5270

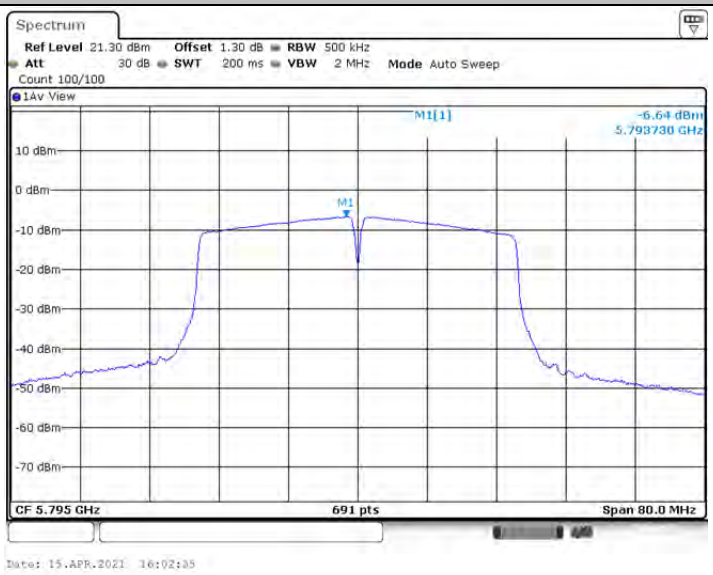


802.11n(HT40)_Ant1_5310

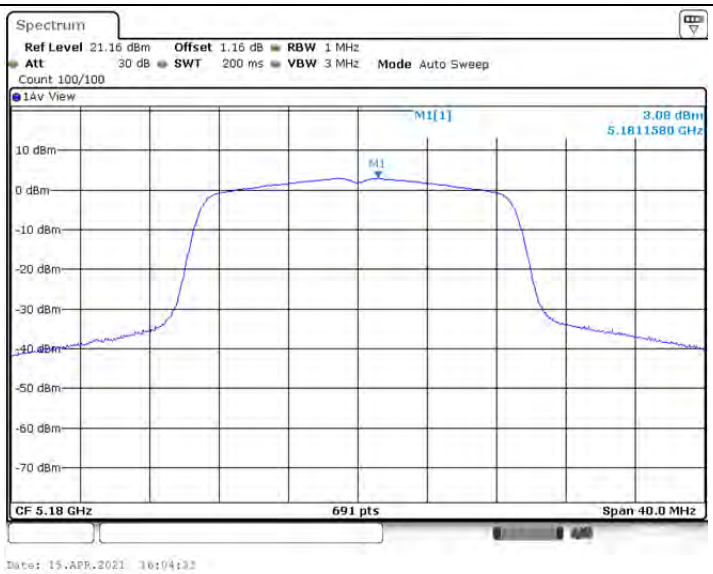


802.11n(HT40)_Ant1_5755

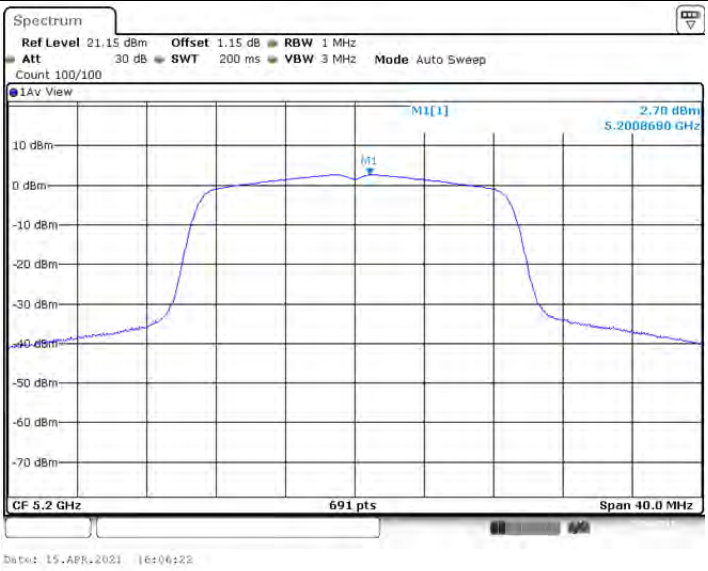
802.11n(HT40)_Ant1_5795



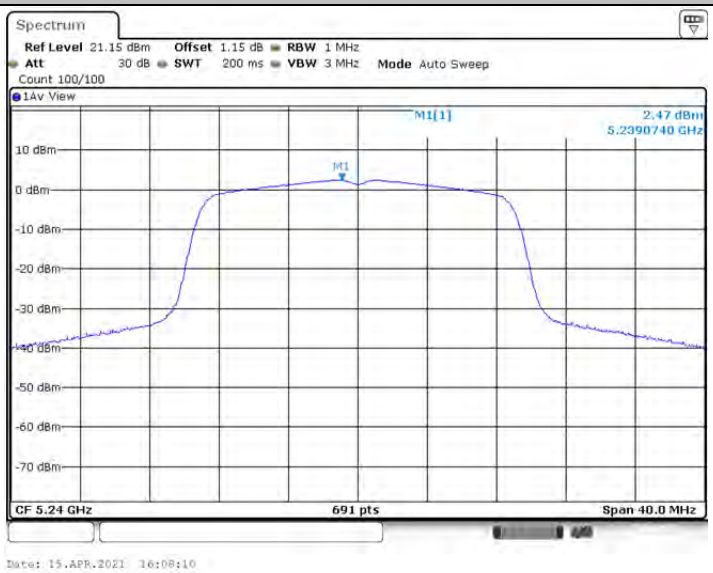
802.11ac(VHT20)_Ant1_5180



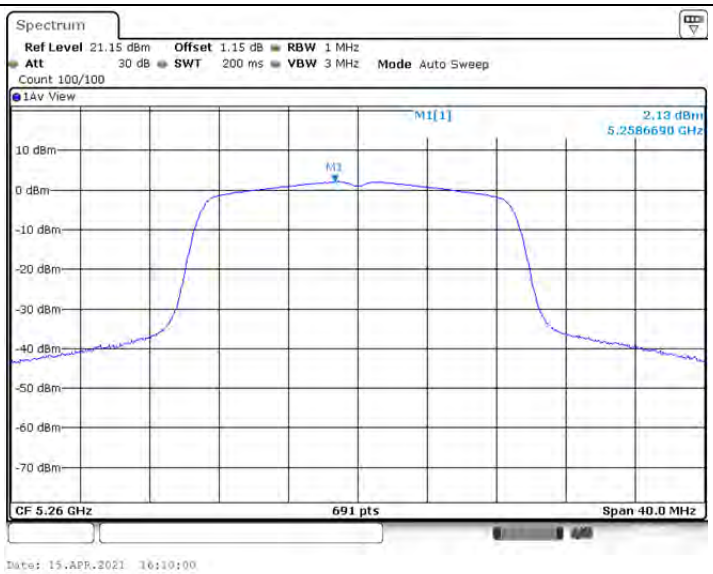
802.11ac(VHT20)_Ant1_5200



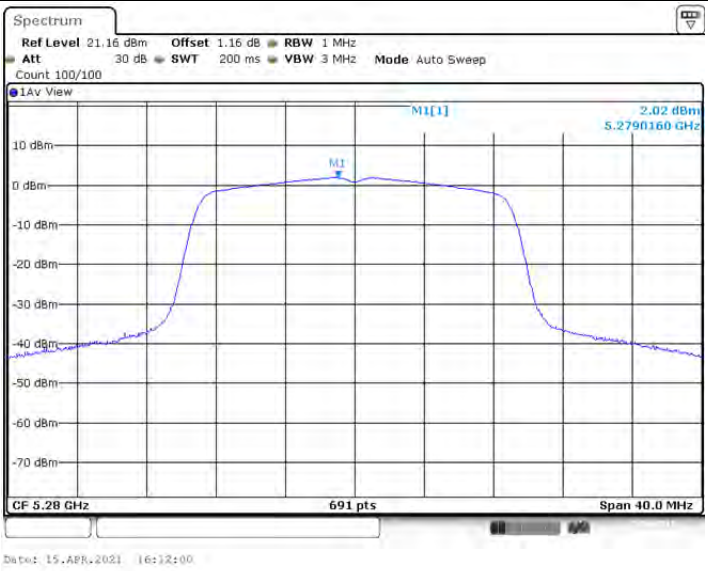
802.11ac(VHT20)_Ant1_5240



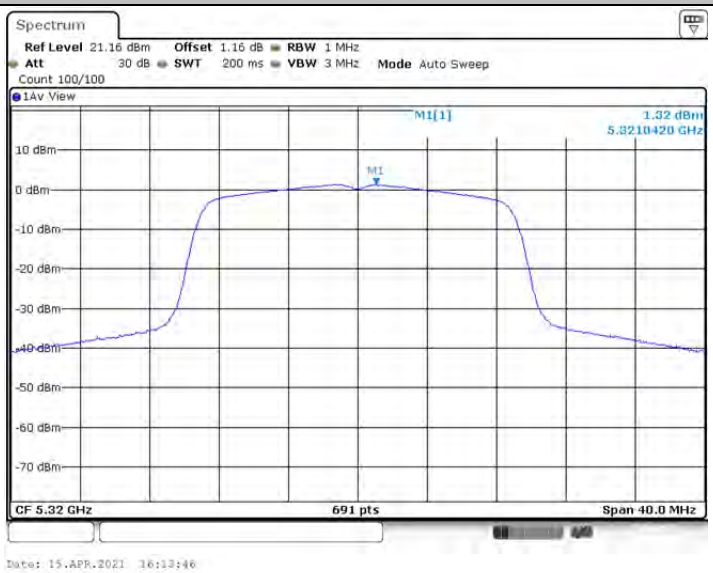
802.11ac(VHT20)_Ant1_5260



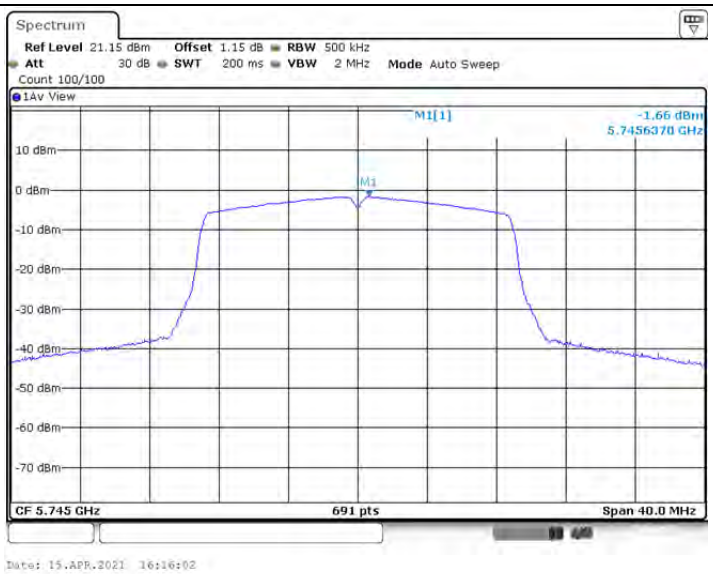
802.11ac(VHT20)_Ant1_5280



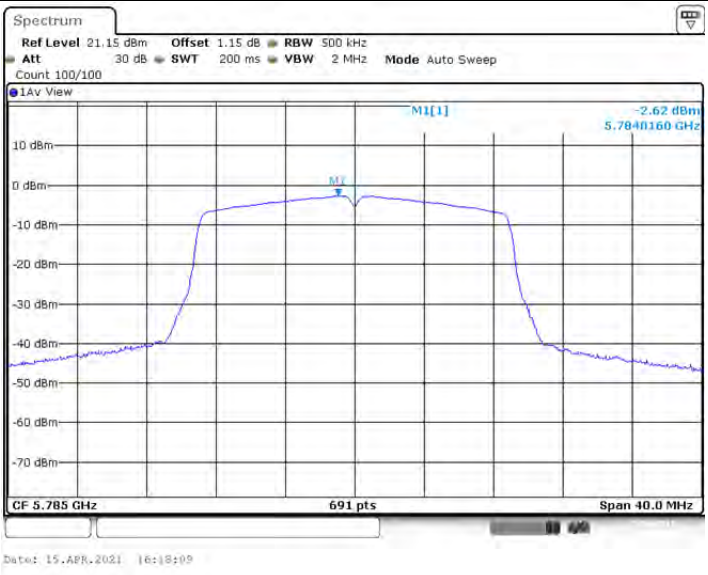
802.11ac(VHT20)_Ant1_5320



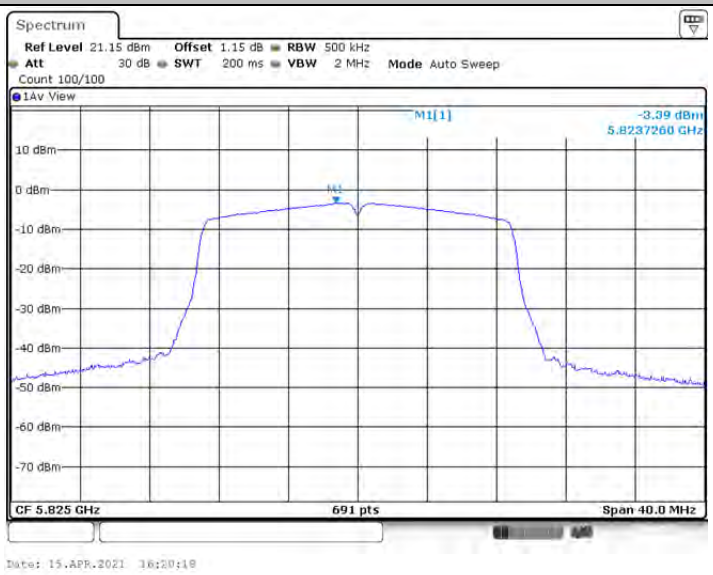
802.11ac(VHT20)_Ant1_5745



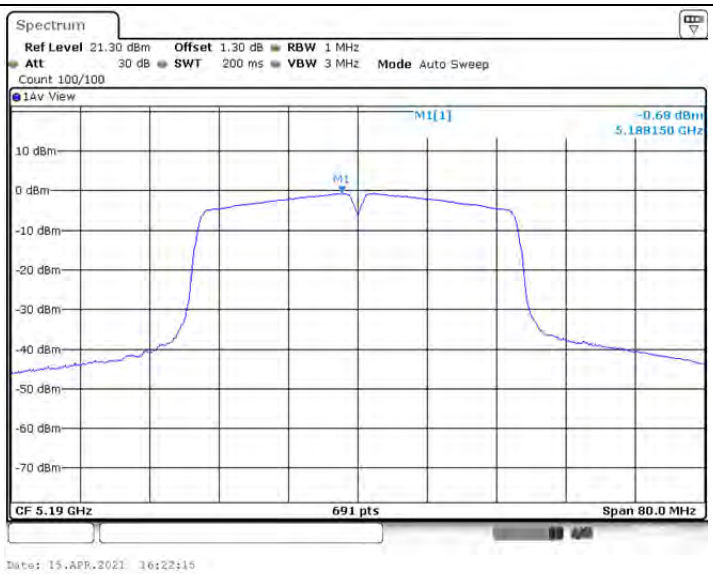
802.11ac(VHT20)_Ant1_5785



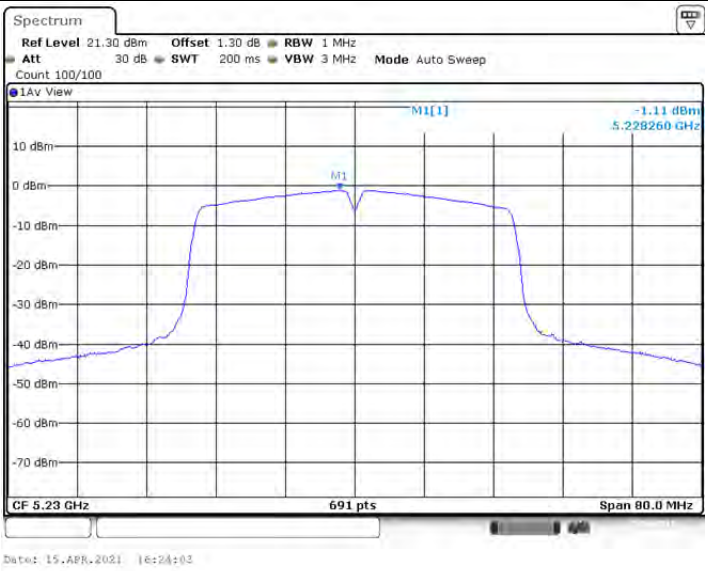
802.11ac(VHT20)_Ant1_5825



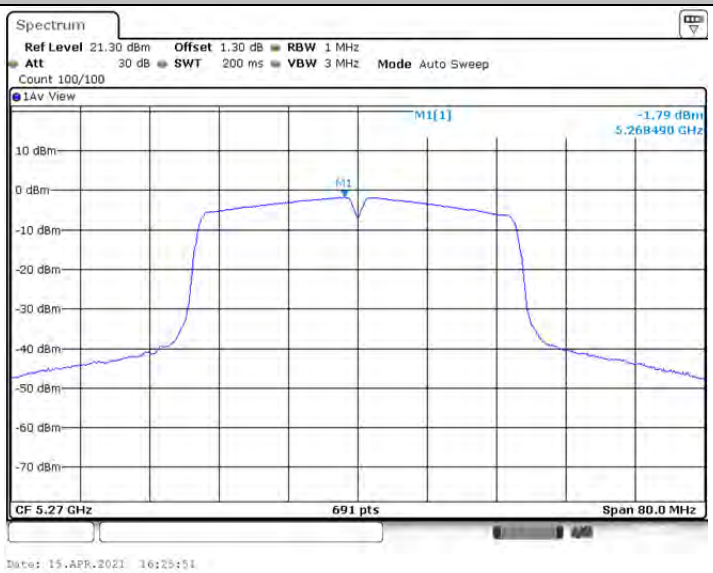
802.11ac(VHT40)_Ant1_5190



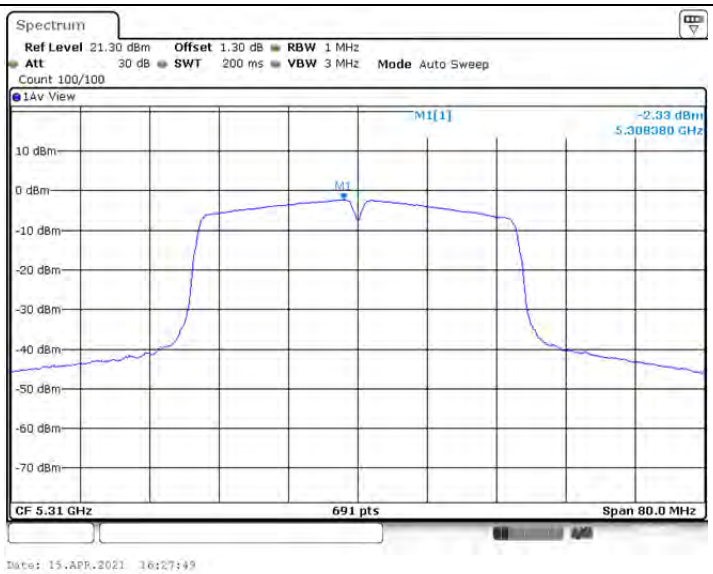
802.11ac(VHT40)_Ant1_5230



802.11ac(VHT40)_Ant1_5270



802.11ac(VHT40)_Ant1_5310

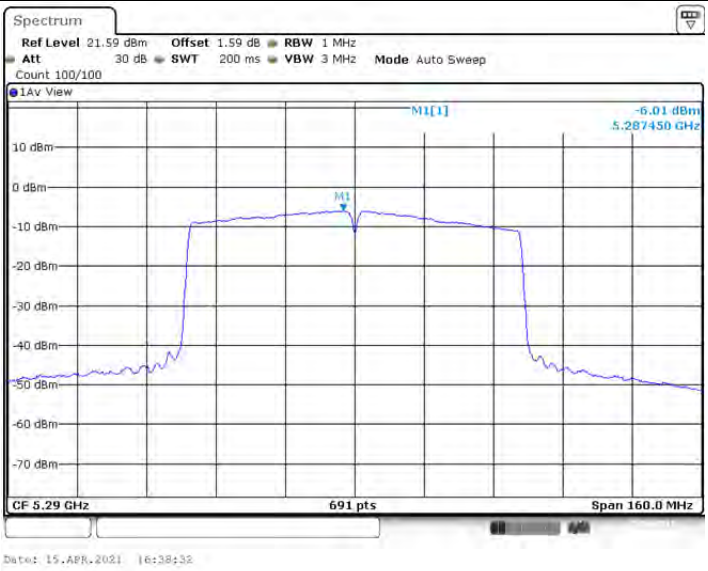


802.11ac(VHT40)_Ant1_5755

802.11ac(VHT40)_Ant1_5795

802.11ac(VHT80)_Ant1_5210

802.11ac(VHT80)_Ant1_5290



802.11ac(VHT80)_Ant1_5775

Appendix D: Frequency Stability

Test Result

Voltage								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20MHz	Ant1	5180	NV	NT	-20000	-3.861004	20	PASS
			LV	NT	-21000	-4.054054	20	PASS
			HV	NT	-21000	-4.054054	20	PASS
		5200	NV	NT	-12000	-2.307692	20	PASS
			LV	NT	-13000	-2.500000	20	PASS
			HV	NT	-14000	-2.692308	20	PASS
		5240	NV	NT	-22000	-4.198473	20	PASS
			LV	NT	-22000	-4.198473	20	PASS
			HV	NT	-22000	-4.198473	20	PASS
		5260	NV	NT	-22000	-4.182510	20	PASS
			LV	NT	-22000	-4.182510	20	PASS
			HV	NT	-22000	-4.182510	20	PASS
		5280	NV	NT	-25000	-4.734848	20	PASS
			LV	NT	-25000	-4.734848	20	PASS
			HV	NT	-25000	-4.734848	20	PASS
		5320	NV	NT	-26000	-4.887218	20	PASS
			LV	NT	-26000	-4.887218	20	PASS
			HV	NT	-26000	-4.887218	20	PASS
		5745	NV	NT	-22000	-3.829417	20	PASS
			LV	NT	-22000	-3.829417	20	PASS
			HV	NT	-23000	-4.003481	20	PASS
		5785	NV	NT	-28000	-4.840104	20	PASS
			LV	NT	-28000	-4.840104	20	PASS
			HV	NT	-28000	-4.840104	20	PASS
		5825	NV	NT	-30000	-5.150215	20	PASS
			LV	NT	-30000	-5.150215	20	PASS
			HV	NT	-30000	-5.150215	20	PASS
40MHz	Ant1	5190	NV	NT	-27000	-5.202312	20	PASS
			LV	NT	-27000	-5.202312	20	PASS
			HV	NT	-26000	-5.009634	20	PASS
		5230	NV	NT	-26000	-4.971319	20	PASS
			LV	NT	-26000	-4.971319	20	PASS
			HV	NT	-26000	-4.971319	20	PASS
		5270	NV	NT	-26000	-4.933586	20	PASS
			LV	NT	-26000	-4.933586	20	PASS
			HV	NT	-26000	-4.933586	20	PASS
		5310	NV	NT	-27000	-5.084746	20	PASS
			LV	NT	-27000	-5.084746	20	PASS
			HV	NT	-27000	-5.084746	20	PASS
		5755	NV	NT	-29000	-5.039096	20	PASS

			LV	NT	-29000	-5.039096	20	PASS
			HV	NT	-29000	-5.039096	20	PASS
		5795	NV	NT	-30000	-5.176877	20	PASS
			LV	NT	-30000	-5.176877	20	PASS
			HV	NT	-30000	-5.176877	20	PASS
80MHz	Ant1	5210	NV	NT	-28000	-5.374280	20	PASS
			LV	NT	-27000	-5.182342	20	PASS
			HV	NT	-27000	-5.182342	20	PASS
		5290	NV	NT	-27000	-5.103970	20	PASS
			LV	NT	-27000	-5.103970	20	PASS
			HV	NT	-27000	-5.103970	20	PASS
		5775	NV	NT	-30000	-5.194805	20	PASS
			LV	NT	-30000	-5.194805	20	PASS
			HV	NT	-30000	-5.194805	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20MHz	Ant1	5180	NV	0	-23000	-4.440154	20	PASS
			NV	10	-23000	-4.440154	20	PASS
			NV	20	-23000	-4.440154	20	PASS
			NV	30	-24000	-4.633205	20	PASS
			NV	40	-24000	-4.633205	20	PASS
			NV	50	-24000	-4.633205	20	PASS
		5200	NV	0	-18000	-3.461538	20	PASS
			NV	10	-19000	-3.653846	20	PASS
			NV	20	-19000	-3.653846	20	PASS
			NV	30	-20000	-3.846154	20	PASS
			NV	40	-20000	-3.846154	20	PASS
			NV	50	-21000	-4.038462	20	PASS
		5240	NV	0	-23000	-4.389313	20	PASS
			NV	10	-23000	-4.389313	20	PASS
			NV	20	-24000	-4.580153	20	PASS
			NV	30	-24000	-4.580153	20	PASS
			NV	40	-24000	-4.580153	20	PASS
			NV	50	-24000	-4.580153	20	PASS
		5260	NV	0	-23000	-4.372624	20	PASS
			NV	10	-24000	-4.562738	20	PASS
			NV	20	-24000	-4.562738	20	PASS
			NV	30	-24000	-4.562738	20	PASS
			NV	40	-24000	-4.562738	20	PASS
			NV	50	-24000	-4.562738	20	PASS
		5280	NV	0	-25000	-4.734848	20	PASS
			NV	10	-25000	-4.734848	20	PASS
			NV	20	-25000	-4.734848	20	PASS
			NV	30	-25000	-4.734848	20	PASS

			NV	40	-26000	-4.924242	20	PASS
			NV	50	-26000	-4.924242	20	PASS
		5320	NV	0	-26000	-4.887218	20	PASS
			NV	10	-26000	-4.887218	20	PASS
			NV	20	-26000	-4.887218	20	PASS
			NV	30	-26000	-4.887218	20	PASS
			NV	40	-26000	-4.887218	20	PASS
			NV	50	-27000	-5.075188	20	PASS
		5745	NV	0	-25000	-4.35161	20	PASS
			NV	10	-26000	-4.525674	20	PASS
			NV	20	-26000	-4.525674	20	PASS
			NV	30	-27000	-4.699739	20	PASS
			NV	40	-27000	-4.699739	20	PASS
			NV	50	-27000	-4.699739	20	PASS
		5785	NV	0	-29000	-5.012965	20	PASS
			NV	10	-29000	-5.012965	20	PASS
			NV	20	-29000	-5.012965	20	PASS
			NV	30	-29000	-5.012965	20	PASS
			NV	40	-29000	-5.012965	20	PASS
			NV	50	-29000	-5.012965	20	PASS
		5825	NV	0	-30000	-5.150215	20	PASS
			NV	10	-30000	-5.150215	20	PASS
			NV	20	-30000	-5.150215	20	PASS
			NV	30	-30000	-5.150215	20	PASS
			NV	40	-30000	-5.150215	20	PASS
			NV	50	-30000	-5.150215	20	PASS
40MHz	Ant1	5190	NV	0	-26000	-5.009634	20	PASS
			NV	10	-26000	-5.009634	20	PASS
			NV	20	-26000	-5.009634	20	PASS
			NV	30	-26000	-5.009634	20	PASS
			NV	40	-26000	-5.009634	20	PASS
			NV	50	-26000	-5.009634	20	PASS
		5230	NV	0	-26000	-4.971319	20	PASS
			NV	10	-26000	-4.971319	20	PASS
			NV	20	-26000	-4.971319	20	PASS
			NV	30	-26000	-4.971319	20	PASS
			NV	40	-26000	-4.971319	20	PASS
			NV	50	-26000	-4.971319	20	PASS
		5270	NV	0	-26000	-4.933586	20	PASS
			NV	10	-26000	-4.933586	20	PASS
			NV	20	-26000	-4.933586	20	PASS
			NV	30	-26000	-4.933586	20	PASS
			NV	40	-27000	-5.12334	20	PASS
			NV	50	-26000	-4.933586	20	PASS
		5310	NV	0	-27000	-5.084746	20	PASS
			NV	10	-27000	-5.084746	20	PASS

			NV	20	-27000	-5.084746	20	PASS
			NV	30	-27000	-5.084746	20	PASS
			NV	40	-27000	-5.084746	20	PASS
			NV	50	-27000	-5.084746	20	PASS
		5755	NV	0	-30000	-5.212858	20	PASS
			NV	10	-30000	-5.212858	20	PASS
			NV	20	-30000	-5.212858	20	PASS
			NV	30	-30000	-5.212858	20	PASS
			NV	40	-30000	-5.212858	20	PASS
			NV	50	-30000	-5.212858	20	PASS
		5795	NV	0	-30000	-5.176877	20	PASS
			NV	10	-30000	-5.176877	20	PASS
			NV	20	-30000	-5.176877	20	PASS
			NV	30	-30000	-5.176877	20	PASS
			NV	40	-30000	-5.176877	20	PASS
			NV	50	-30000	-5.176877	20	PASS
80MHz	Ant1	5210	NV	0	-27000	-5.182342	20	PASS
			NV	10	-27000	-5.182342	20	PASS
			NV	20	-27000	-5.182342	20	PASS
			NV	30	-27000	-5.182342	20	PASS
			NV	40	-27000	-5.182342	20	PASS
			NV	50	-27000	-5.182342	20	PASS
		5290	NV	0	-27000	-5.103970	20	PASS
			NV	10	-27000	-5.103970	20	PASS
			NV	20	-27000	-5.103970	20	PASS
			NV	30	-27000	-5.103970	20	PASS
			NV	40	-27000	-5.103970	20	PASS
			NV	50	-27000	-5.103970	20	PASS
		5775	NV	0	-30000	-5.194805	20	PASS
			NV	10	-30000	-5.194805	20	PASS
			NV	20	-30000	-5.194805	20	PASS
			NV	30	-30000	-5.194805	20	PASS
			NV	40	-30000	-5.194805	20	PASS
			NV	50	-30000	-5.194805	20	PASS

Appendix E: Duty Cycle

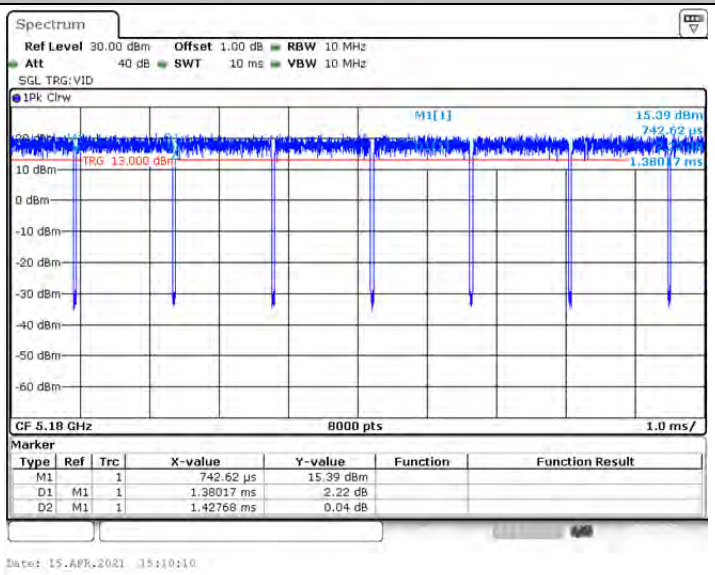
Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
802.11a	Ant1	5180	1.38	1.43	96.67	0.72	1
		5200	1.38	1.43	96.76	0.72	1
		5240	1.38	1.43	96.76	0.72	1
		5260	1.38	1.43	96.76	0.72	1
		5280	1.38	1.43	96.76	0.72	1
		5320	1.38	1.43	96.76	0.72	1
		5745	1.38	1.43	96.67	0.72	1
		5785	1.38	1.43	96.76	0.72	1
		5825	1.38	1.43	96.67	0.72	1
802.11n(HT20)	Ant1	5180	1.29	1.34	96.45	0.78	1
		5200	1.29	1.34	96.54	0.78	1
		5240	1.29	1.34	96.45	0.78	1
		5260	1.29	1.34	96.54	0.78	1
		5280	1.29	1.34	96.45	0.78	1
		5320	1.29	1.34	96.54	0.78	1
		5745	1.29	1.34	96.45	0.78	1
		5785	1.29	1.34	96.54	0.78	1
		5825	1.29	1.34	96.54	0.78	1
802.11n(HT40)	Ant1	5190	0.64	0.69	93.27	1.56	3
		5230	0.64	0.69	93.27	1.56	3
		5270	0.64	0.69	93.27	1.56	3
		5310	0.64	0.69	93.27	1.56	3
		5755	0.64	0.69	93.10	1.56	3
		5795	0.64	0.69	93.27	1.56	3
802.11ac(VHT20)	Ant1	5180	1.30	1.35	96.48	0.77	1
		5200	1.30	1.35	96.57	0.77	1
		5240	1.30	1.35	96.57	0.77	1
		5260	1.30	1.35	96.57	0.77	1
		5280	1.30	1.35	96.48	0.77	1
		5320	1.30	1.35	96.48	0.77	1
		5745	1.30	1.35	96.57	0.77	1
		5785	1.30	1.35	96.57	0.77	1
		5825	1.30	1.35	96.57	0.77	1
802.11ac(VHT40)	Ant1	5190	0.65	0.69	93.31	1.54	3
		5230	0.65	0.69	93.31	1.54	3
		5270	0.65	0.69	93.31	1.54	3
		5310	0.65	0.69	93.31	1.54	3
		5755	0.65	0.69	93.31	1.54	3
		5795	0.65	0.69	93.31	1.54	3

802.11ac(VHT80)	Ant1	5210	0.32	0.37	87.37	2.70	3
		5290	0.32	0.37	87.37	2.70	3
		5775	0.32	0.37	87.37	2.70	3

Test Graphs

802.11a_Ant1_5180



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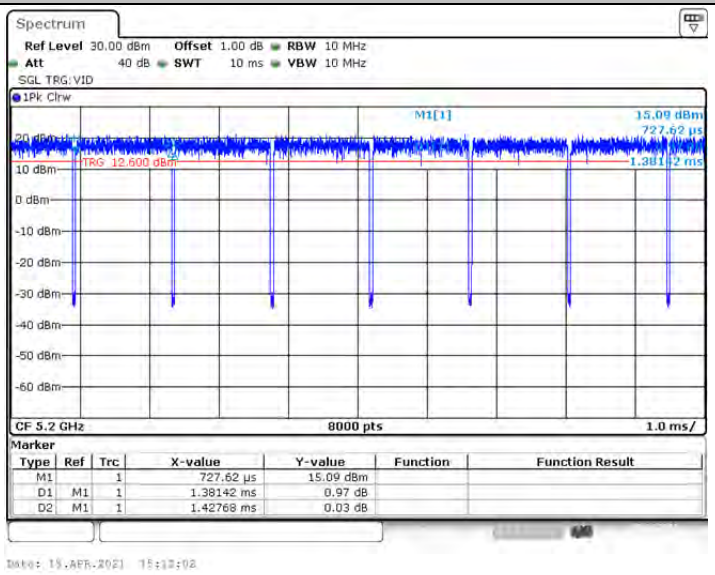

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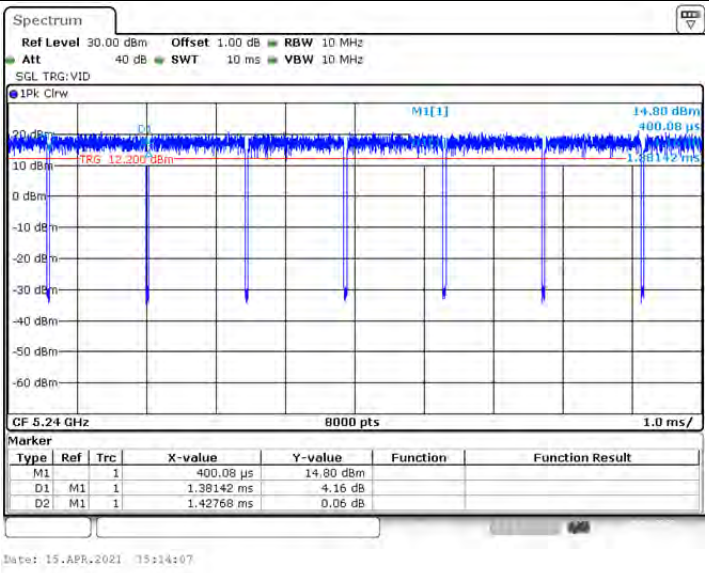

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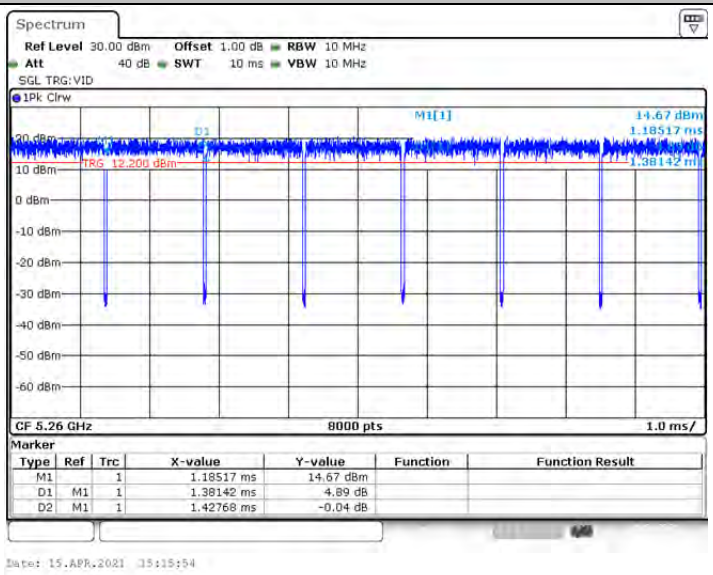

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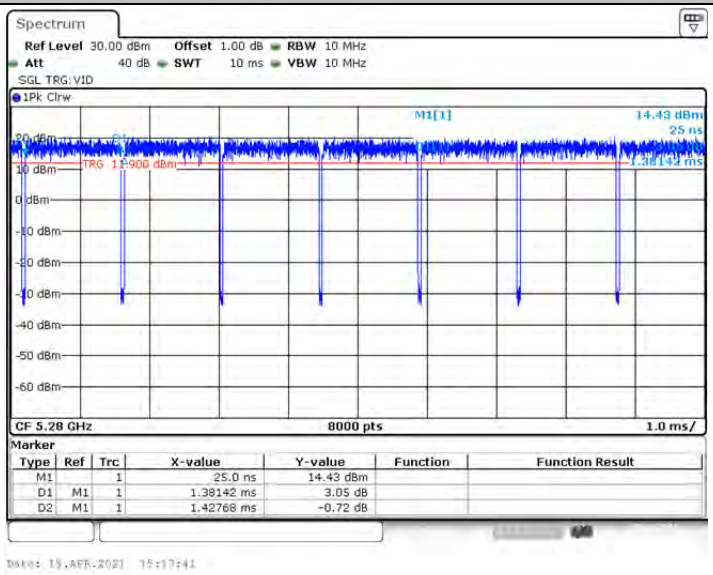

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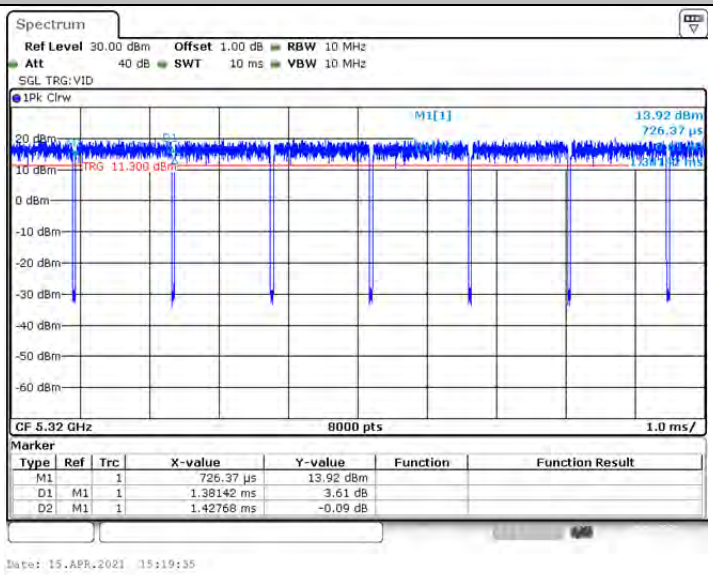

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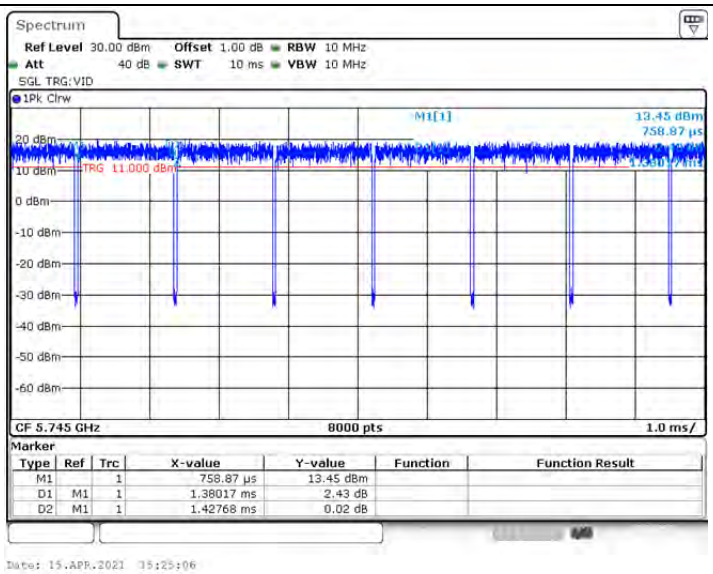
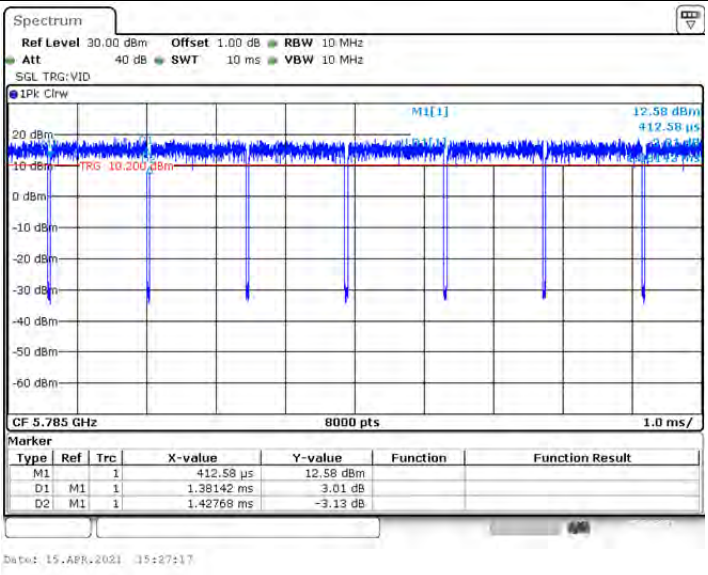


802.11a_Ant1_5785



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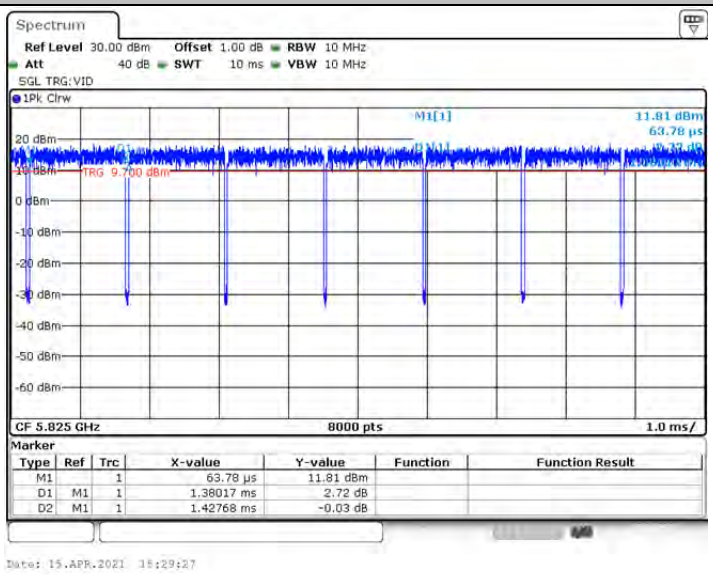
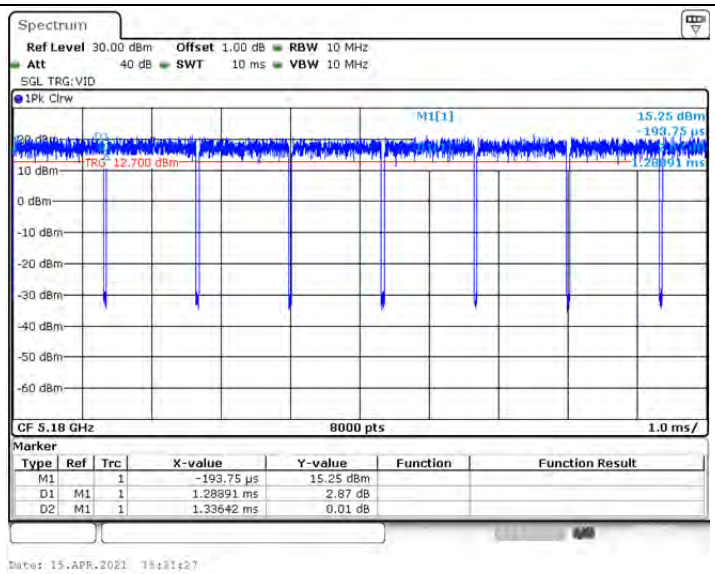


802.11n(HT20)_Ant1_5180



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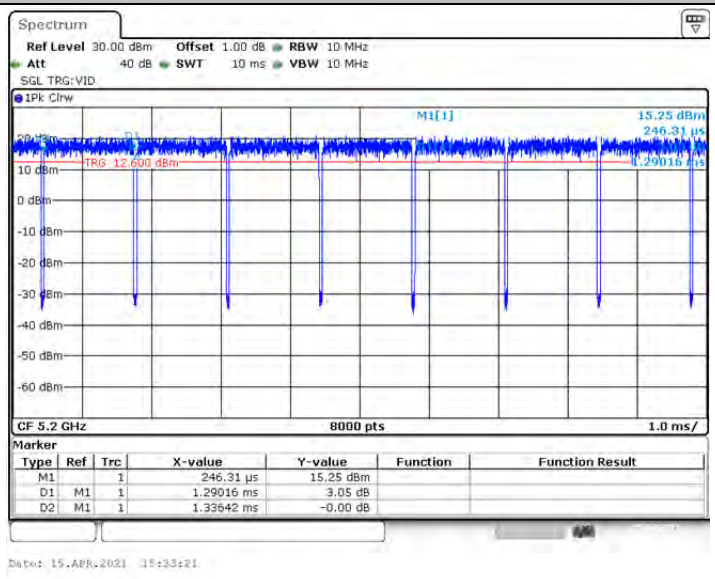

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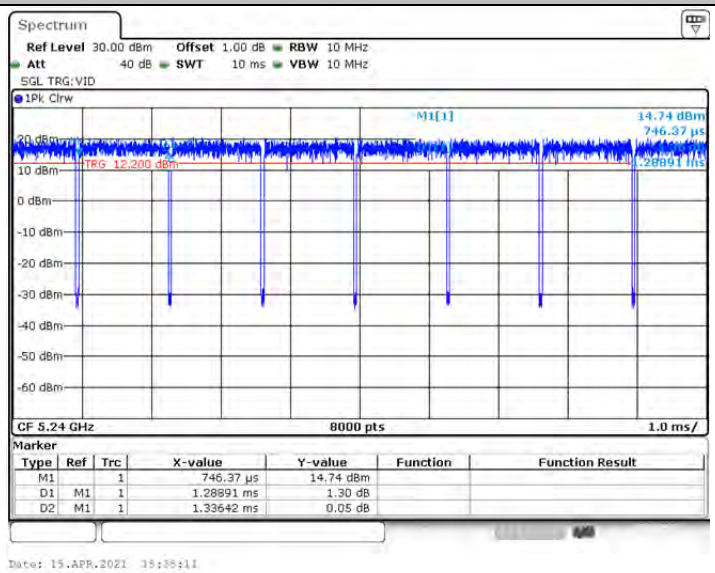

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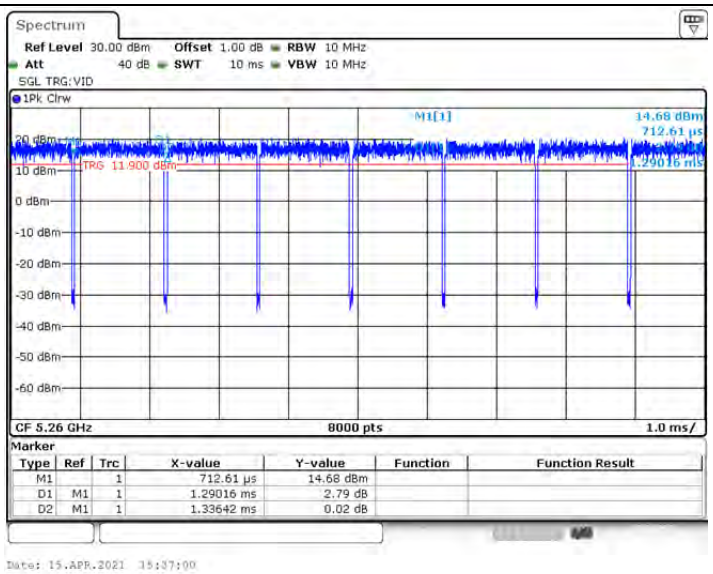

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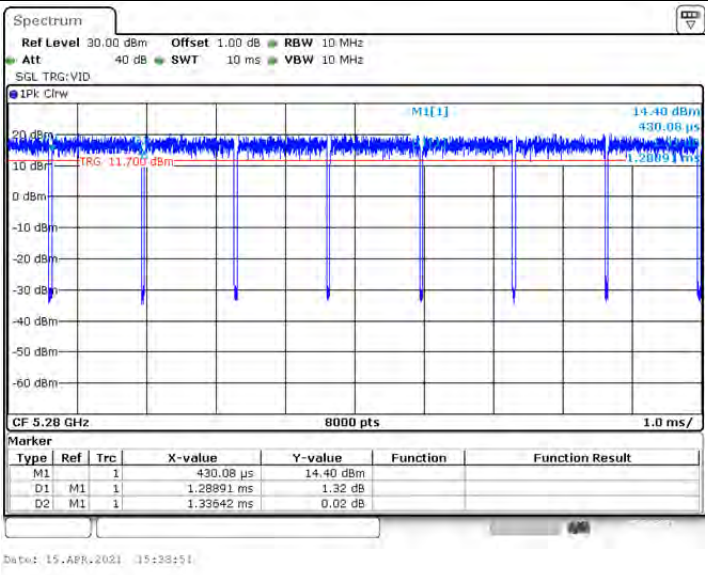

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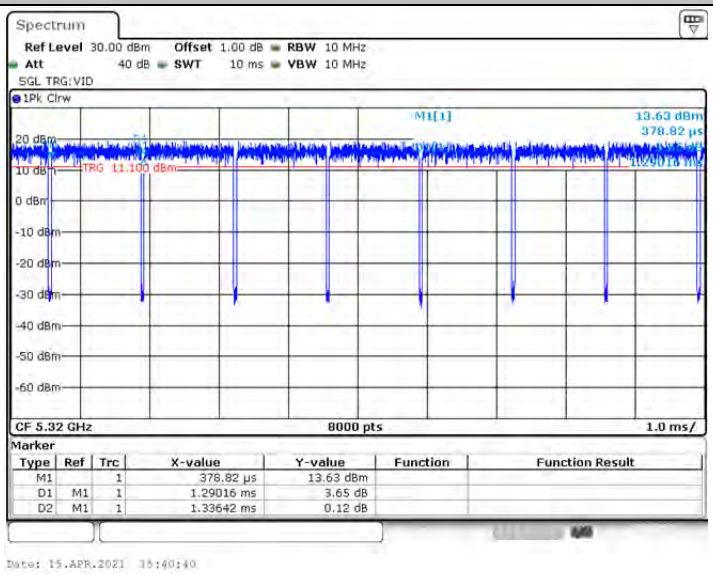

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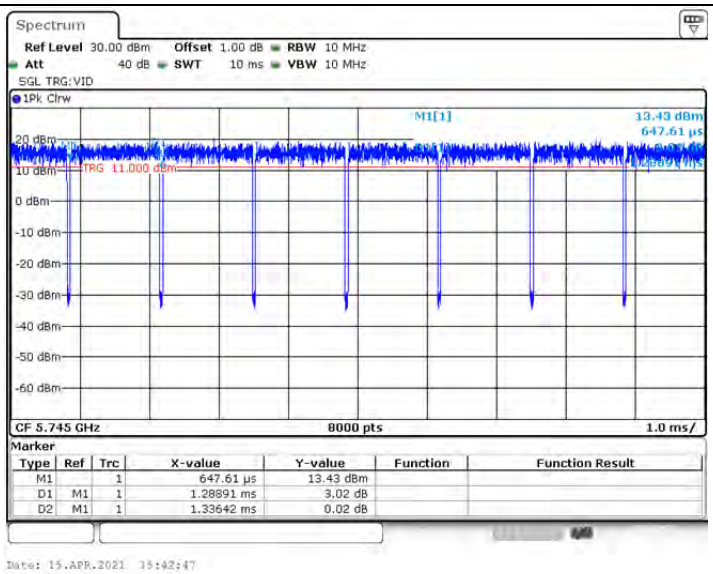

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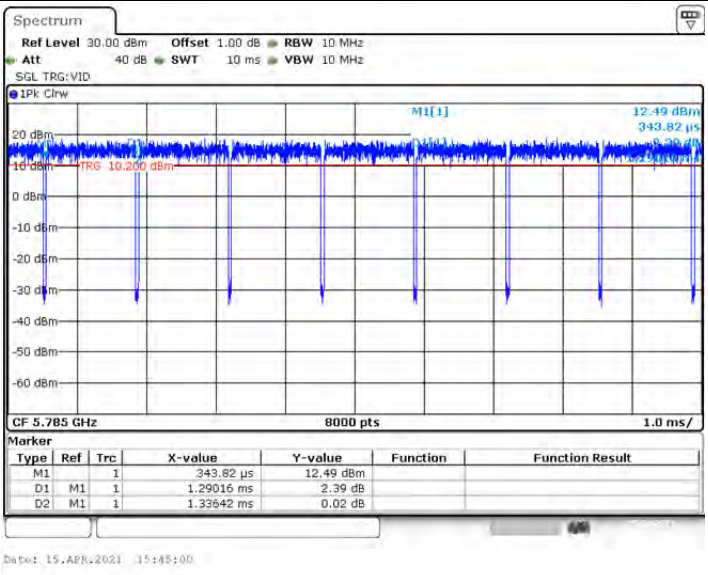

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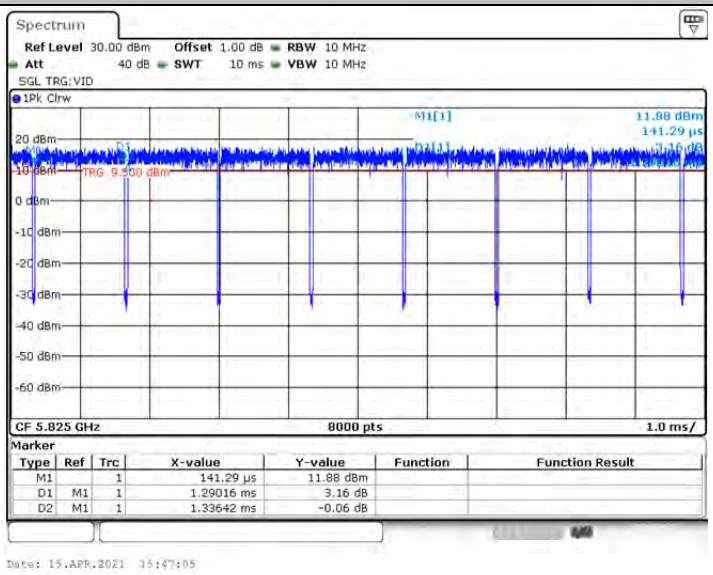

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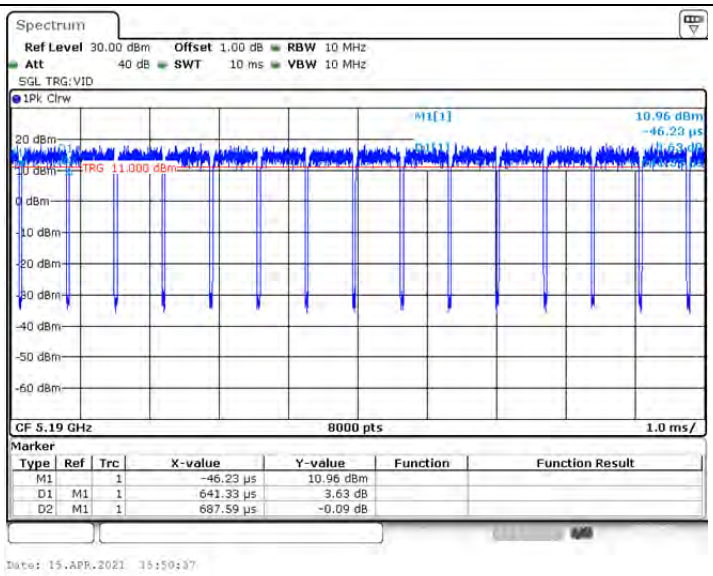

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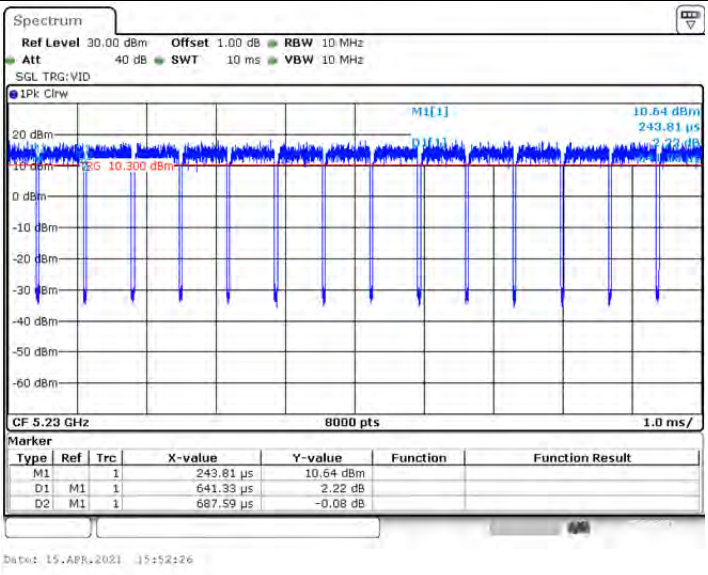

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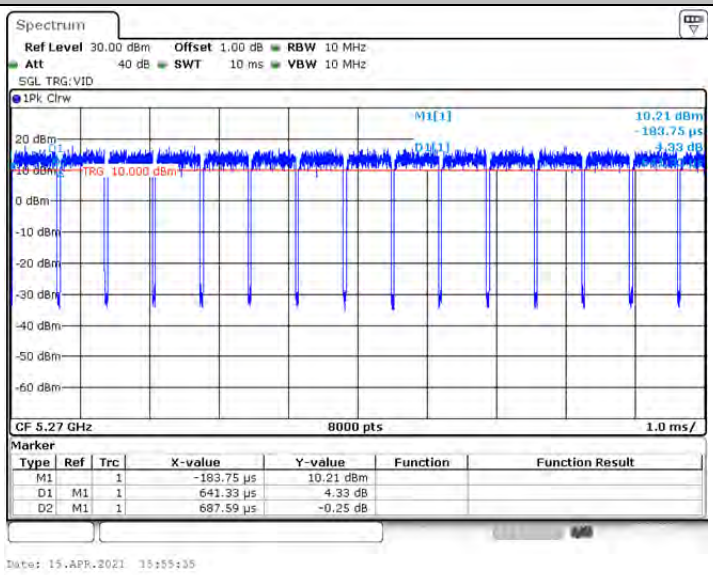

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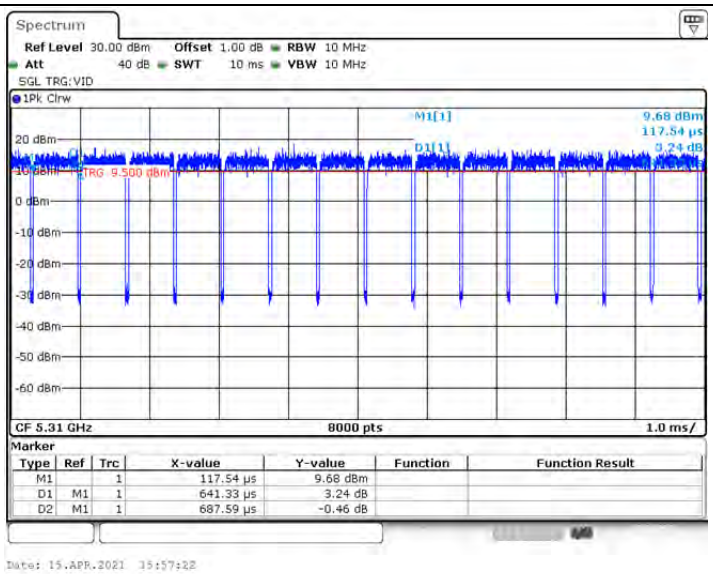

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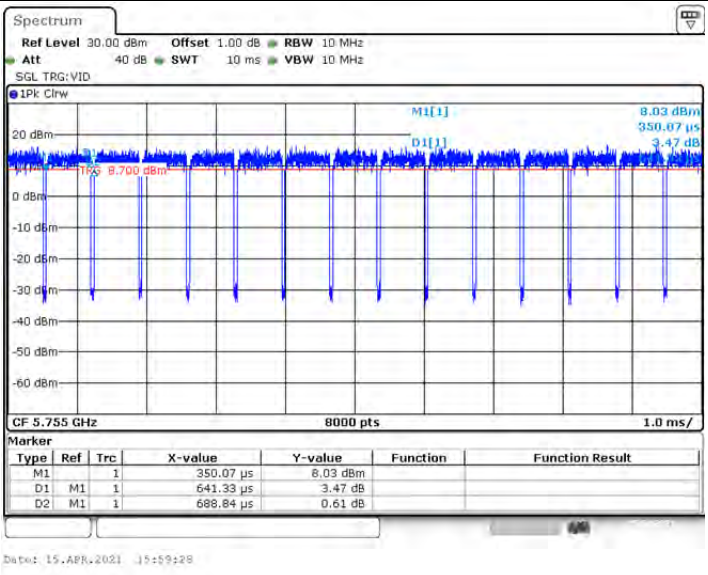

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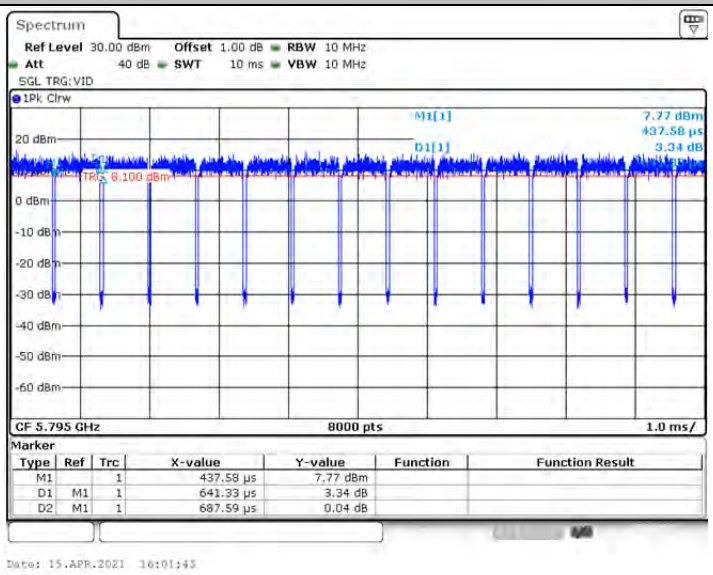

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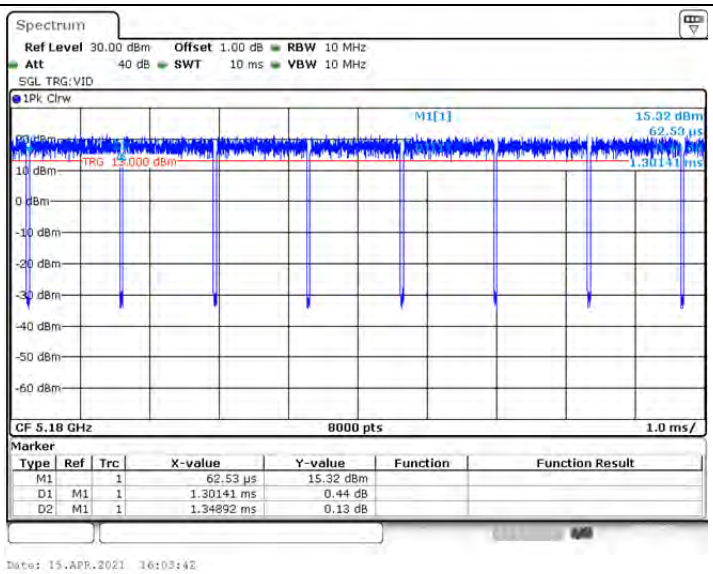

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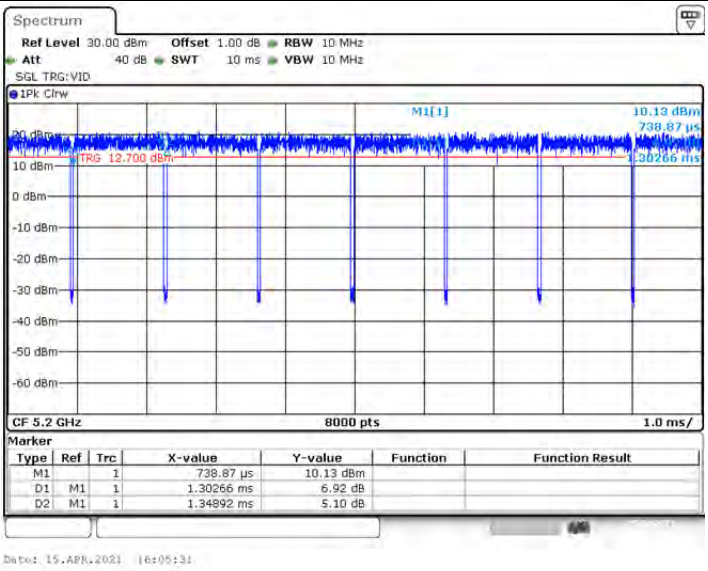

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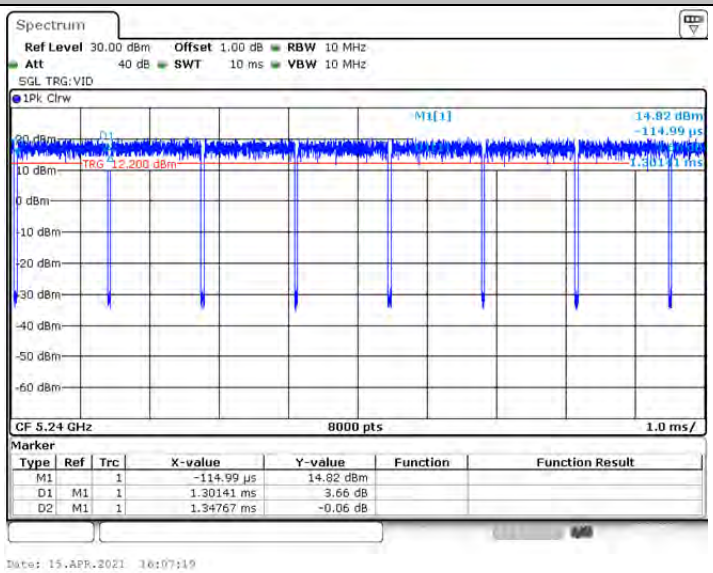

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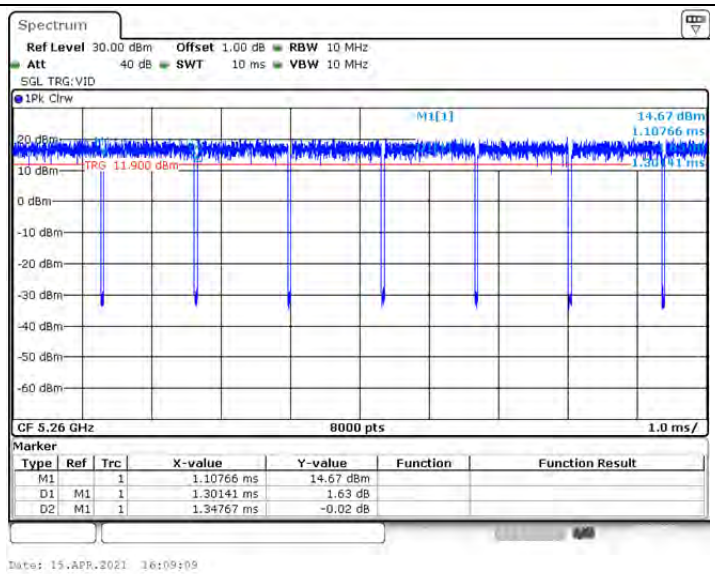

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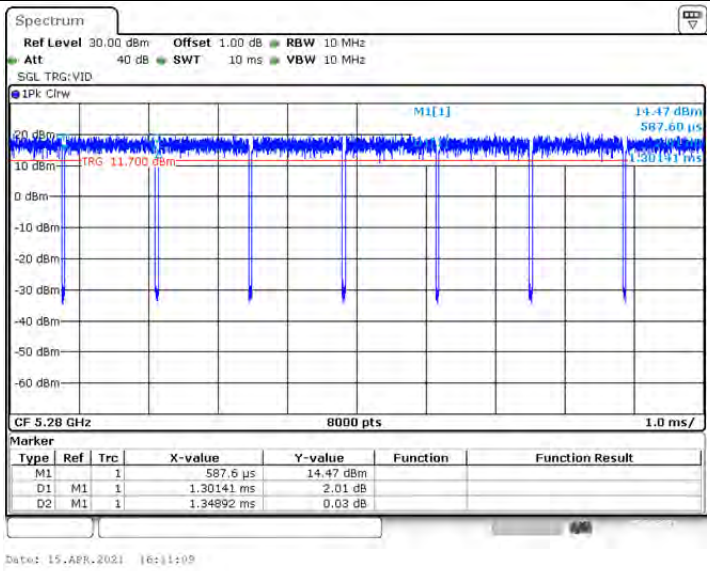

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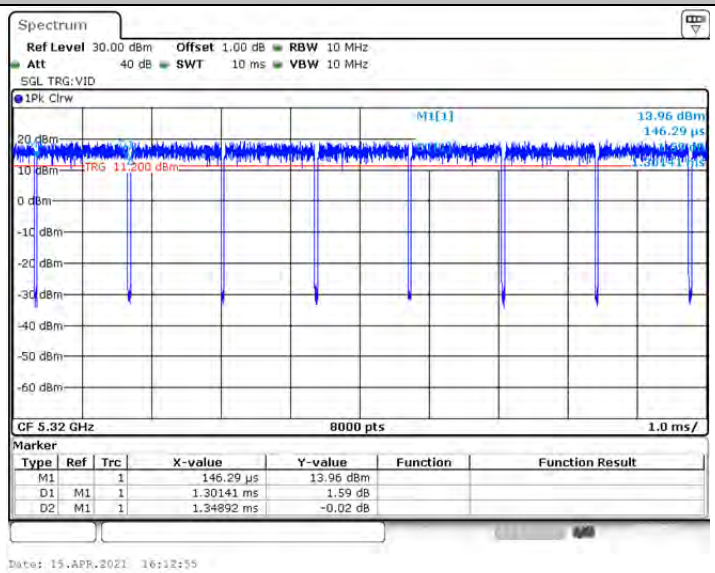

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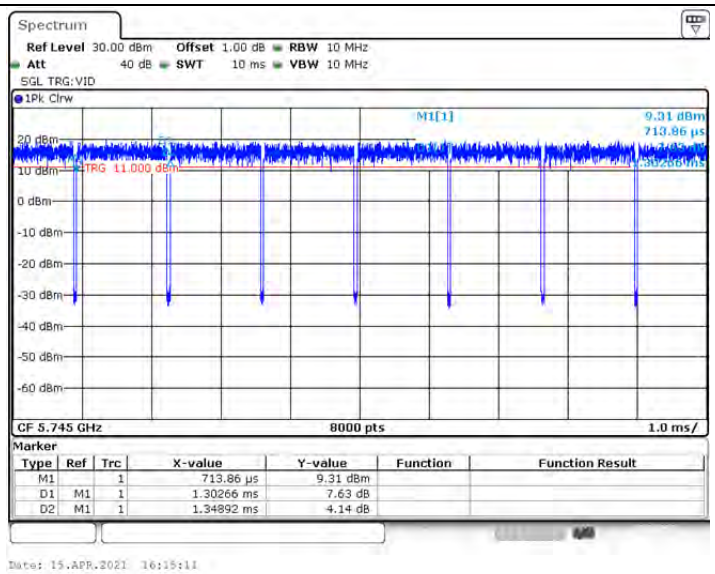

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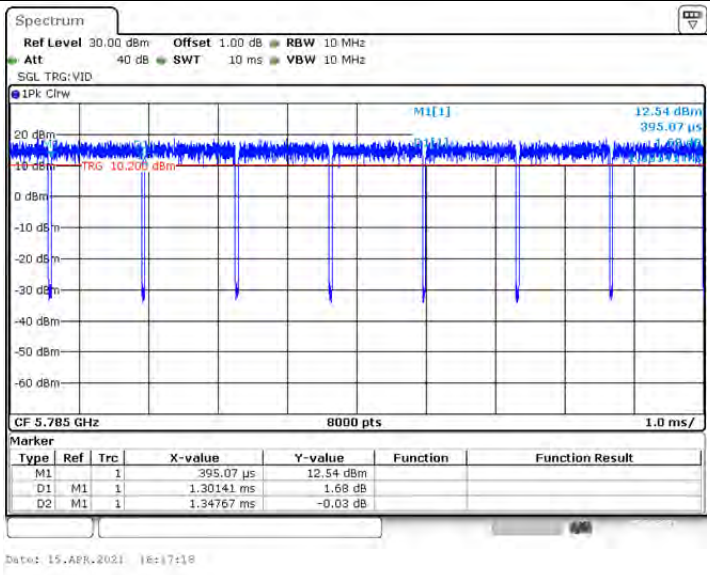

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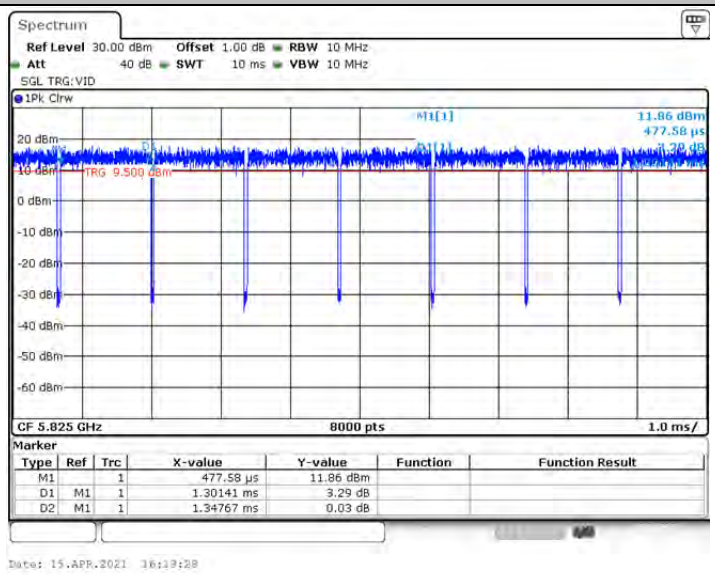

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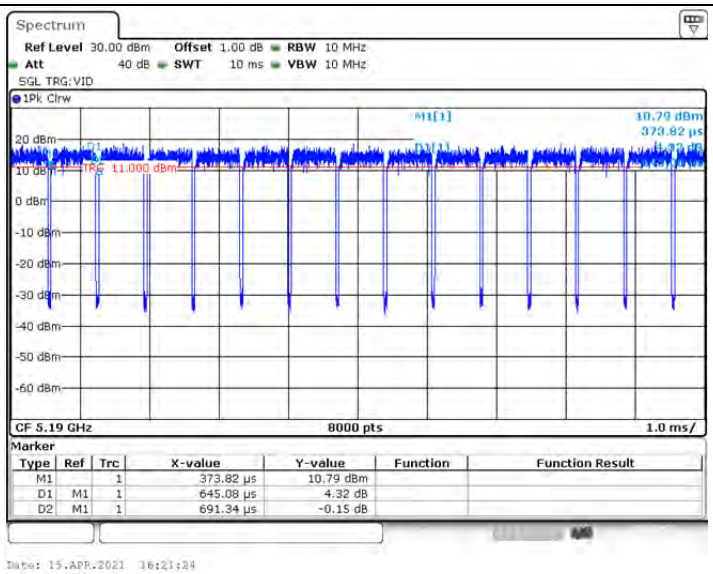

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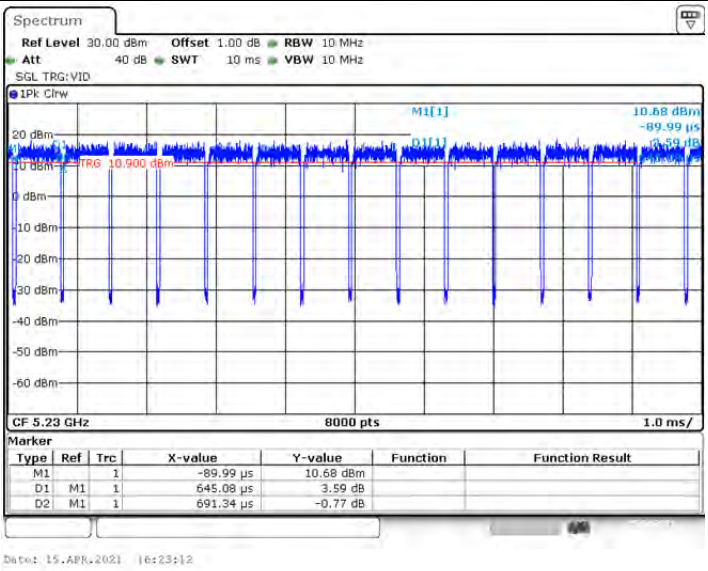

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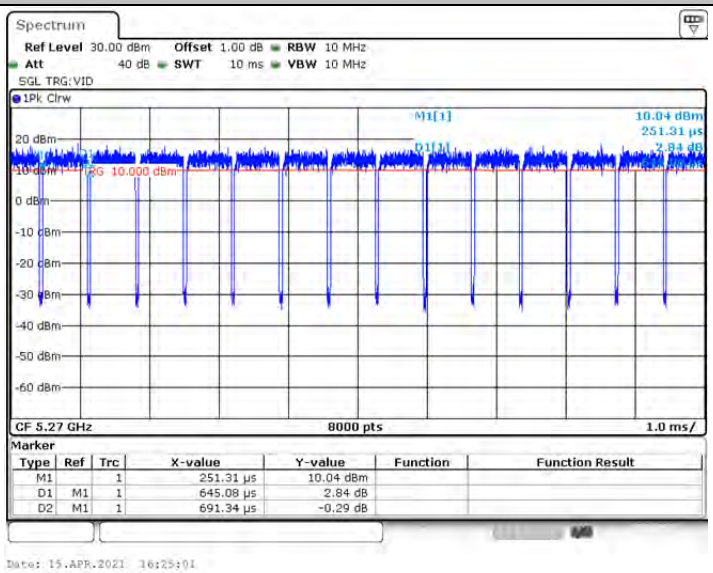

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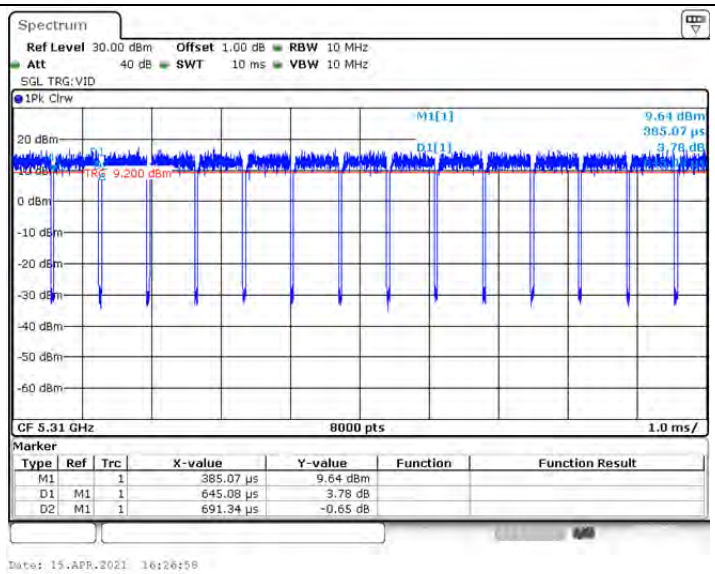

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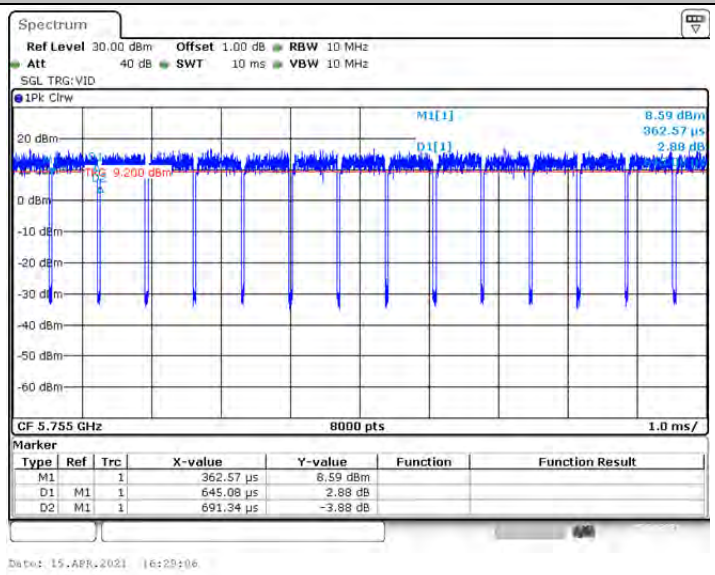

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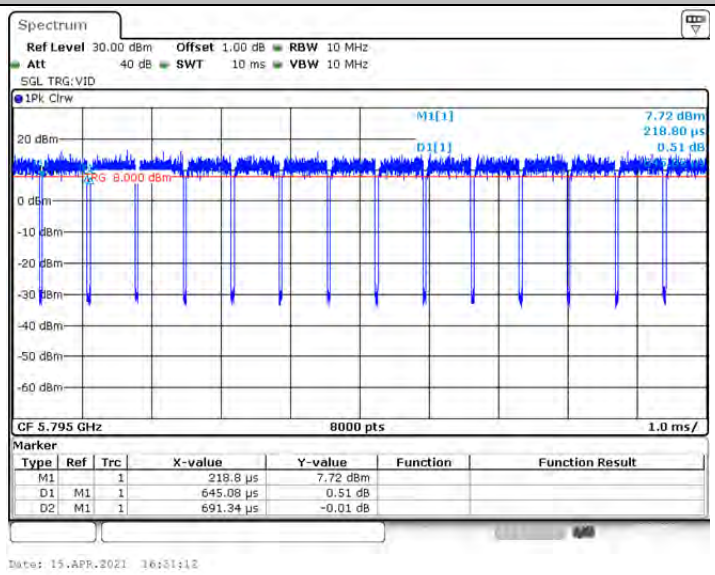

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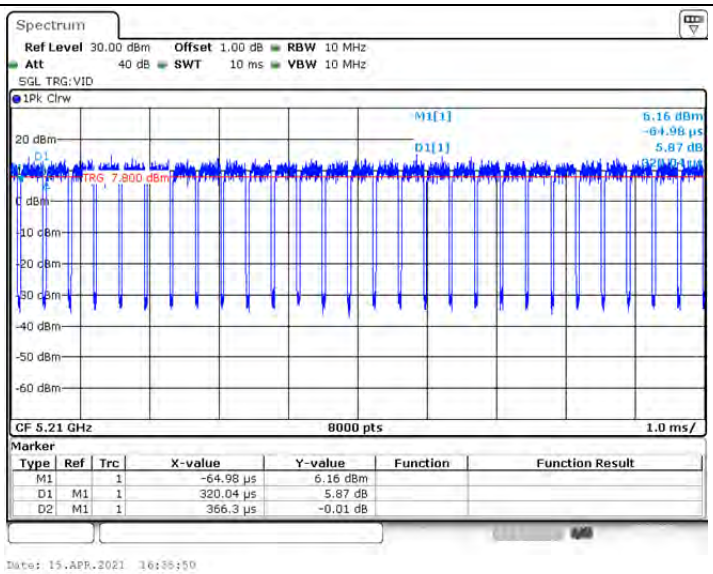

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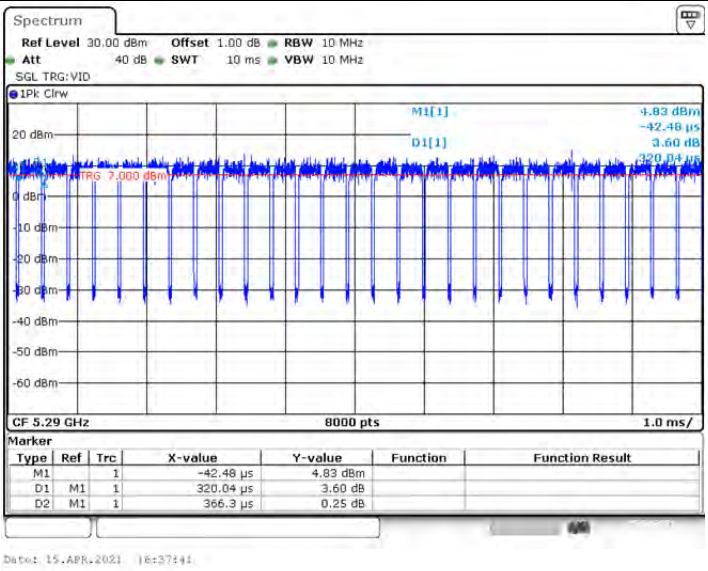

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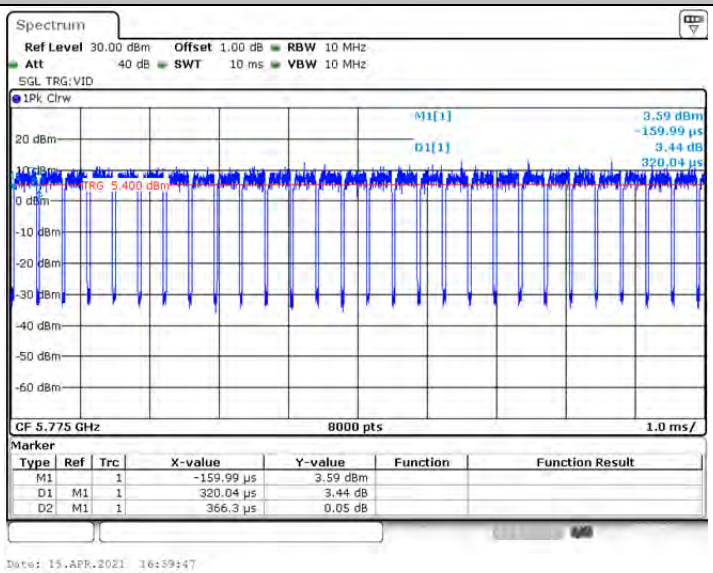

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