

11N40MIMO_Ant1_5795



11N40MIMO_Ant2_5795



11AC20MIMO_Ant1_5180



11AC20MIMO Ant2 5180



11AC20MIMO Ant1 5200



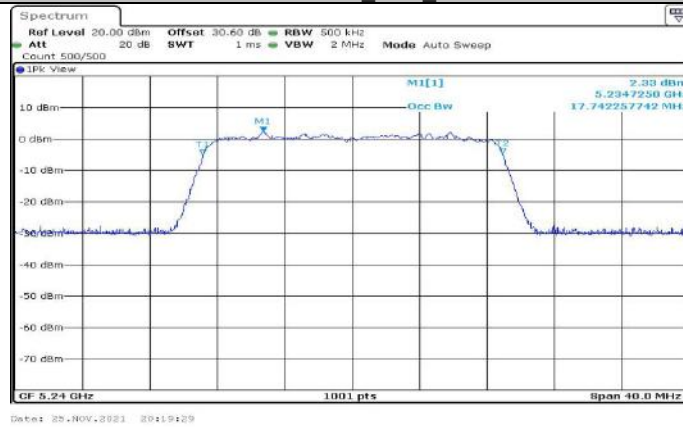
11AC20MIMO Ant2 5200



11AC20MIMO_Ant1_5240



11AC20MIMO_Ant2_5240



11AC20MIMO_Ant1_5745



11AC20MIMO Ant2_5745



11AC20MIMO Ant1_5785



11AC20MIMO Ant2_5785



11AC20MIMO Ant1 5825

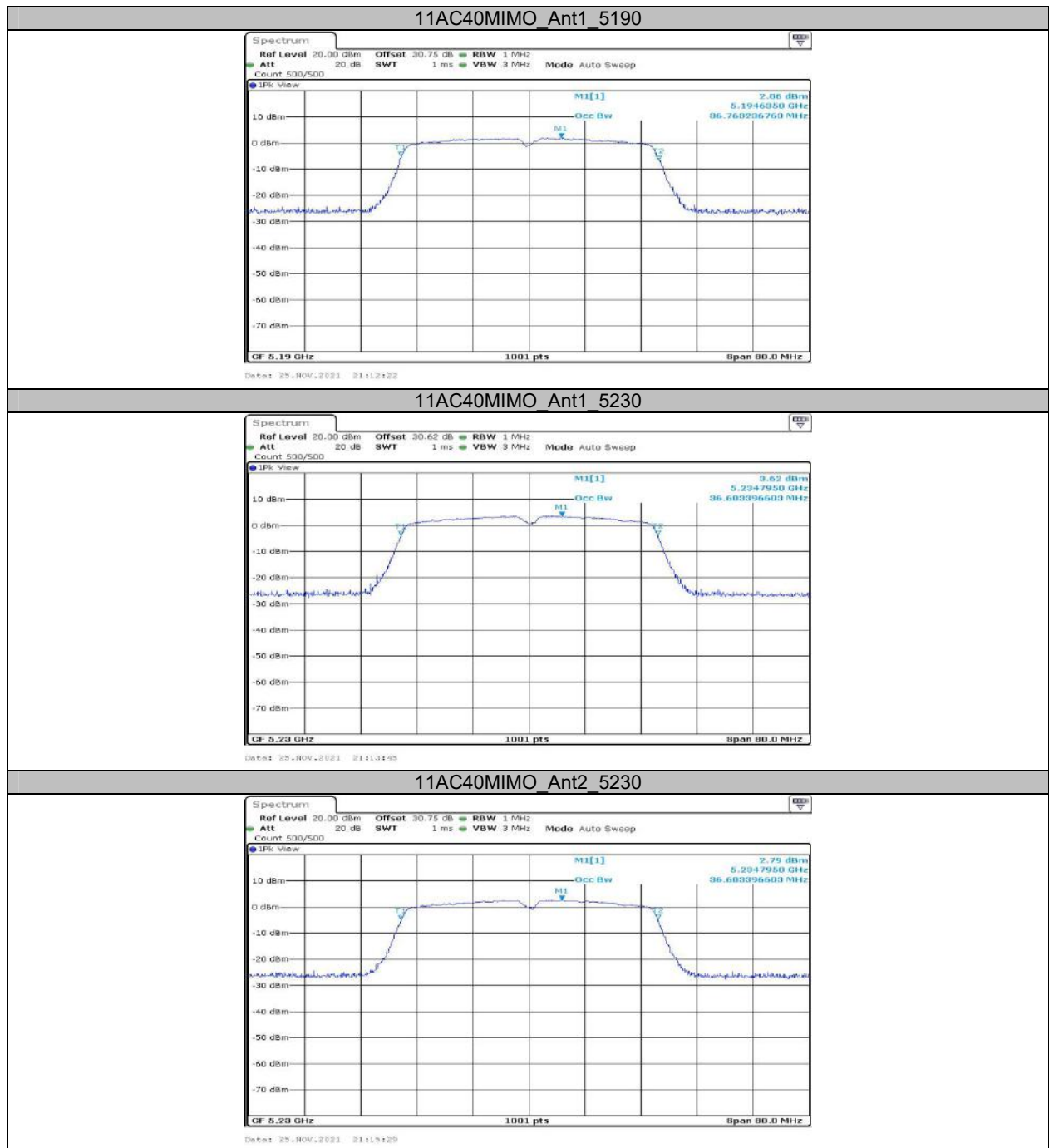


11AC20MIMO Ant2 5825



11AC40MIMO Ant1 5190





11AC40MIMO_Ant1_5755



11AC40MIMO_Ant2_5755



11AC40MIMO_Ant1_5795



11AC40MIMO Ant2 5795

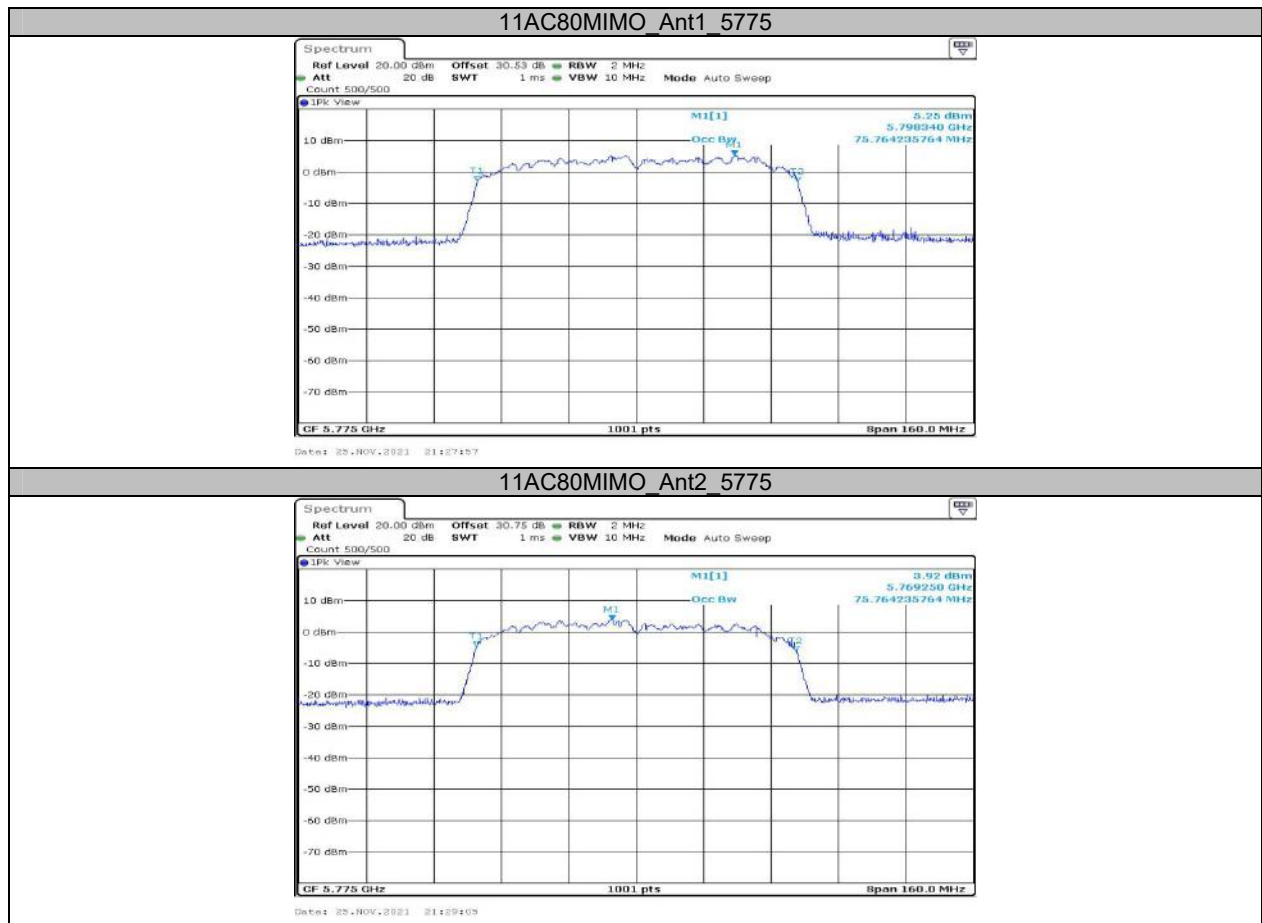


11AC80MIMO Ant1 5210



11AC80MIMO Ant2 5210

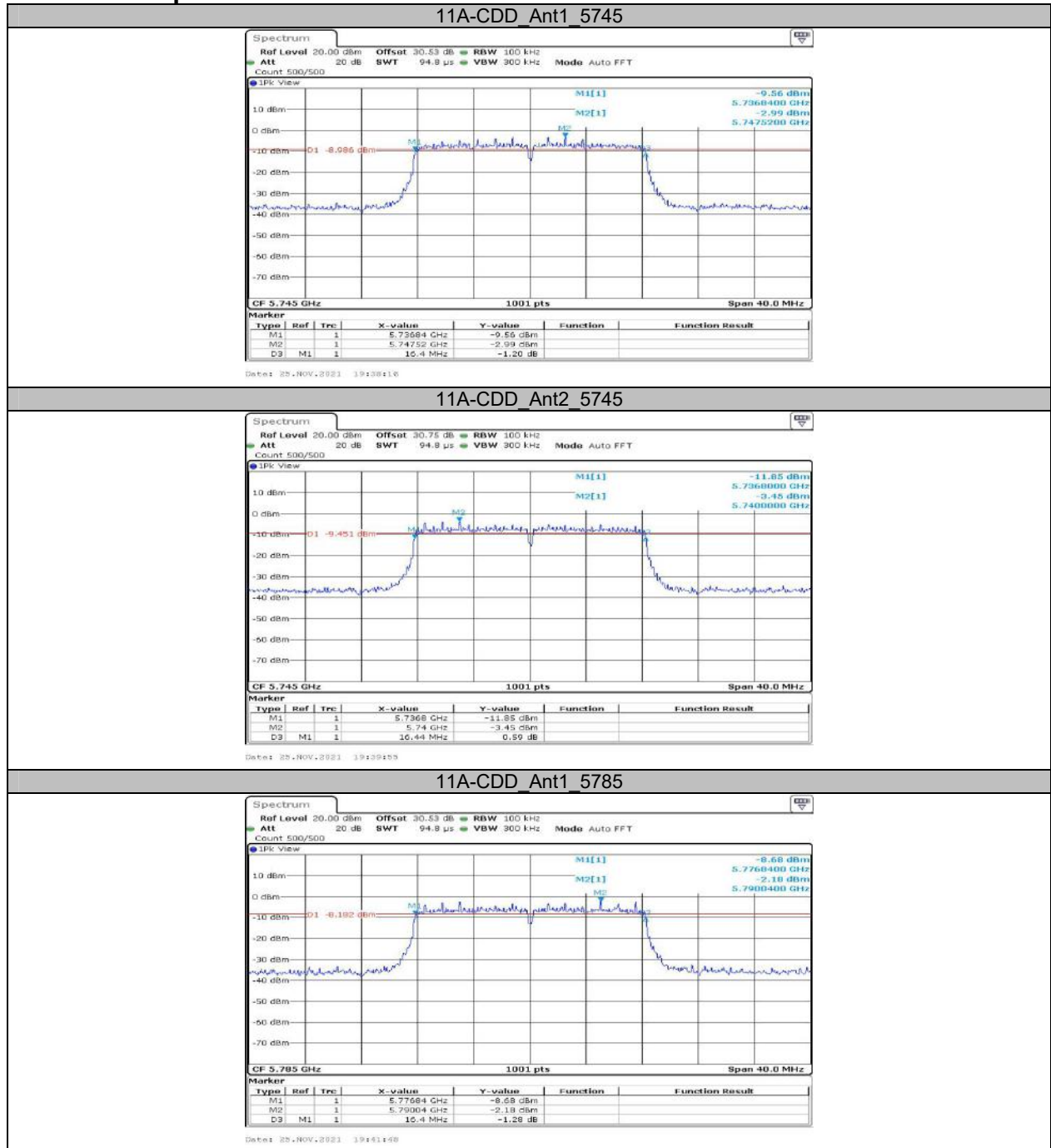




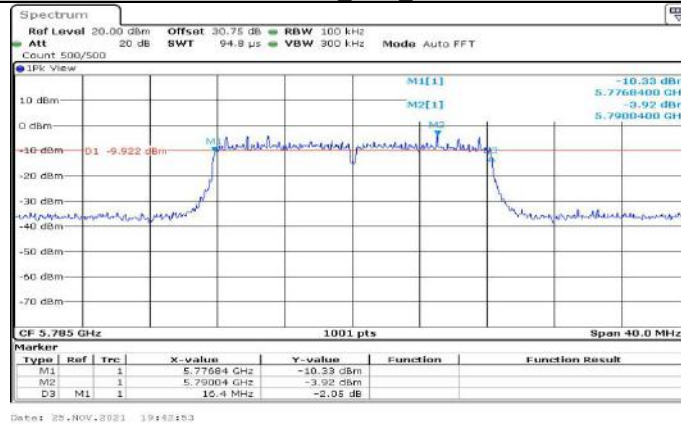
Appendix A3: Min emission bandwidth Test Result

Test Mode	Antenna	Channel	6db EBW [MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5745	16.400	0.5	PASS
	Ant2	5745	16.440	0.5	PASS
	Ant1	5785	16.400	0.5	PASS
	Ant2	5785	16.400	0.5	PASS
	Ant1	5825	16.400	0.5	PASS
	Ant2	5825	16.400	0.5	PASS
11N20MIMO	Ant1	5745	17.640	0.5	PASS
	Ant2	5745	17.640	0.5	PASS
	Ant1	5785	17.640	0.5	PASS
	Ant2	5785	17.400	0.5	PASS
	Ant1	5825	17.600	0.5	PASS
	Ant2	5825	17.360	0.5	PASS
11N40MIMO	Ant1	5755	35.280	0.5	PASS
	Ant2	5755	35.280	0.5	PASS
	Ant1	5795	35.280	0.5	PASS
	Ant2	5795	35.280	0.5	PASS
11AC20MIMO	Ant1	5745	17.640	0.5	PASS
	Ant2	5745	17.600	0.5	PASS
	Ant1	5785	17.640	0.5	PASS
	Ant2	5785	17.240	0.5	PASS
	Ant1	5825	17.360	0.5	PASS
	Ant2	5825	17.400	0.5	PASS
11AC40MIMO	Ant1	5755	35.280	0.5	PASS
	Ant2	5755	35.280	0.5	PASS
	Ant1	5795	35.280	0.5	PASS
	Ant2	5795	35.280	0.5	PASS
11AC80MIMO	Ant1	5775	74.240	0.5	PASS
	Ant2	5775	72.800	0.5	PASS

Test Graphs



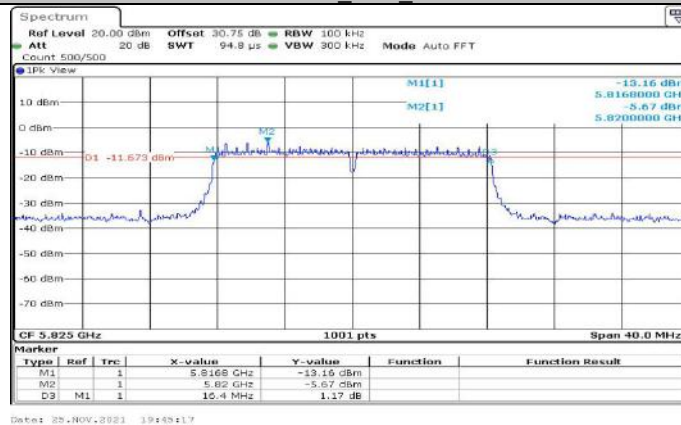
11A-CDD_Ant2_5785



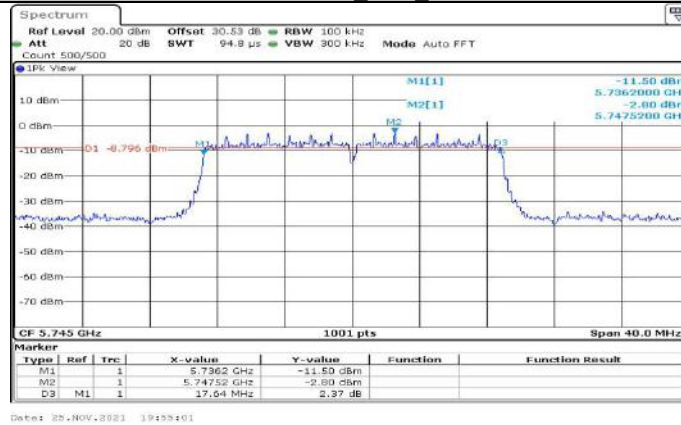
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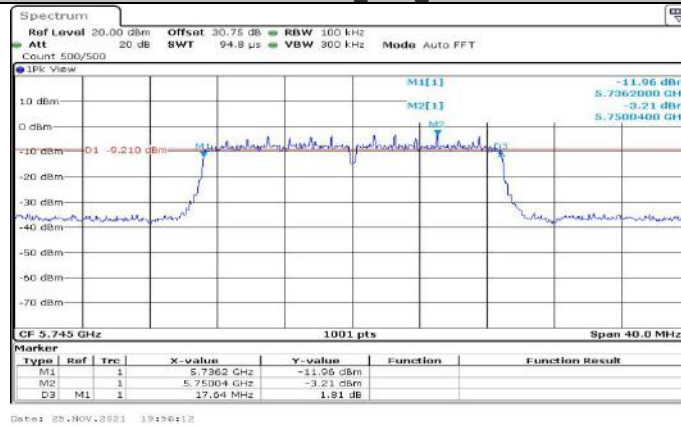
11A-CDD_Ant1_5825



11N20MIMO_Ant1_5745



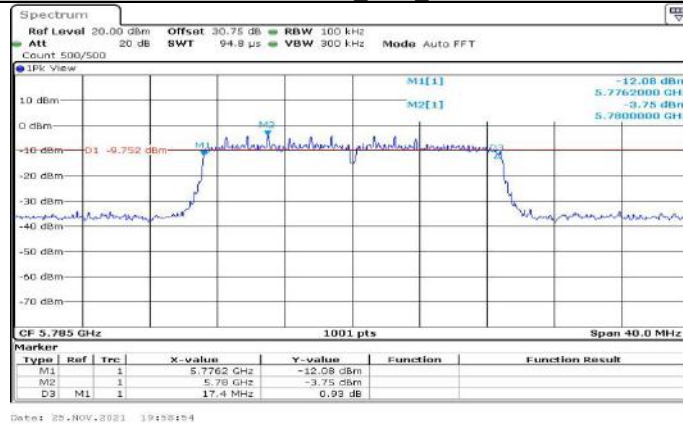
11N20MIMO_Ant2_5745



11N20MIMO_Ant1_5785



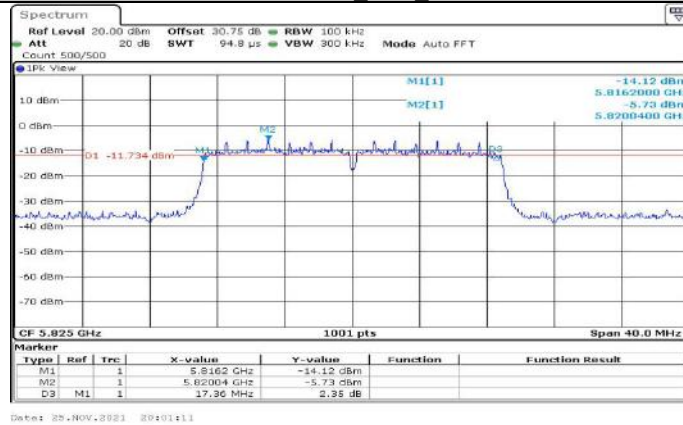
11N20MIMO_Ant2_5785



11N20MIMO_Ant1_5825



11N20MIMO_Ant2_5825



11N40MIMO_Ant1_5755



11N40MIMO_Ant2_5755



11N40MIMO_Ant1_5795



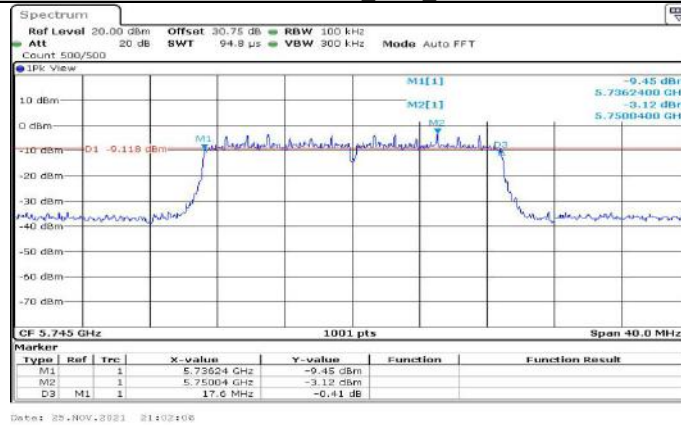
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11AC20MIMO_Ant1_5745



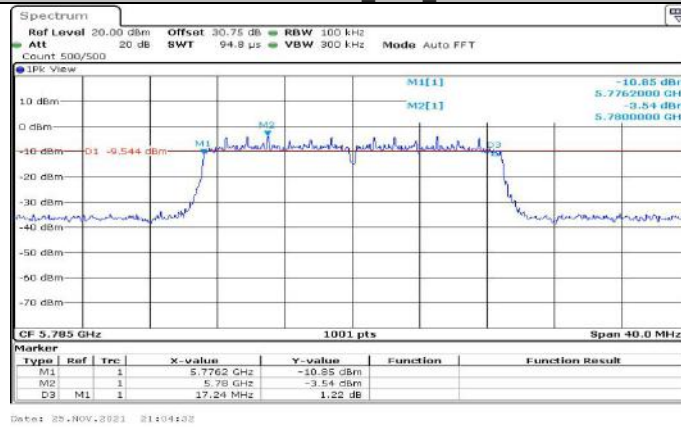
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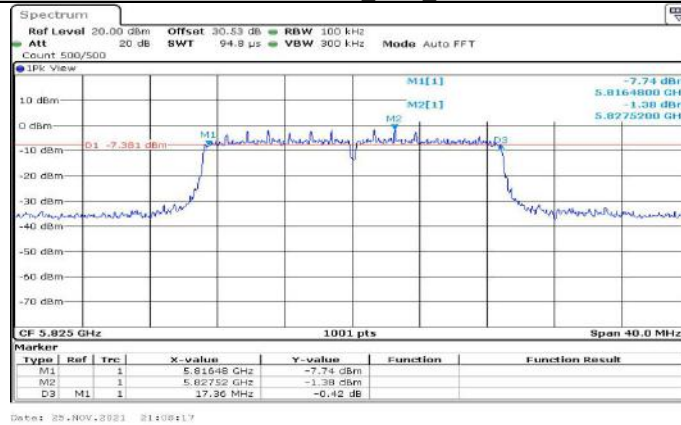
11AC20MIMO Ant1 5785



11AC20MIMO Ant2 5785



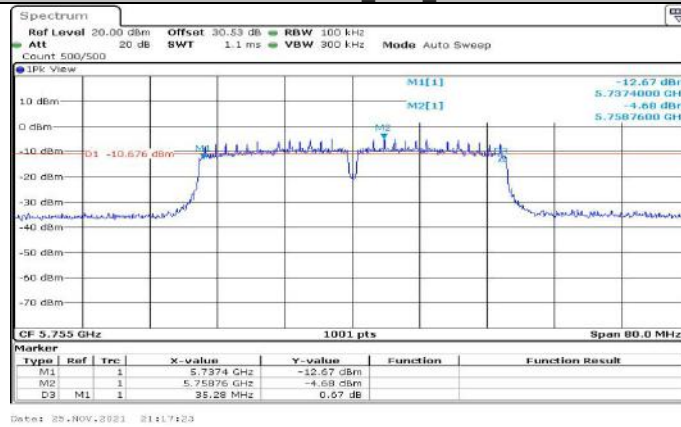
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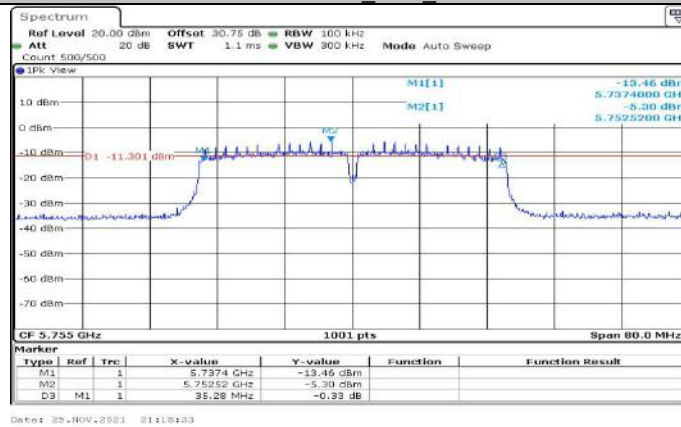
11AC20MIMO Ant2 5825



11AC40MIMO Ant1 5755



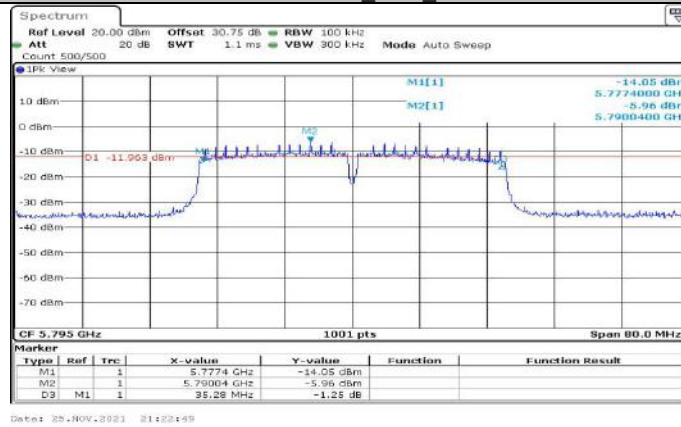
11AC40MIMO Ant2 5755



11AC40MIMO Ant1 5795

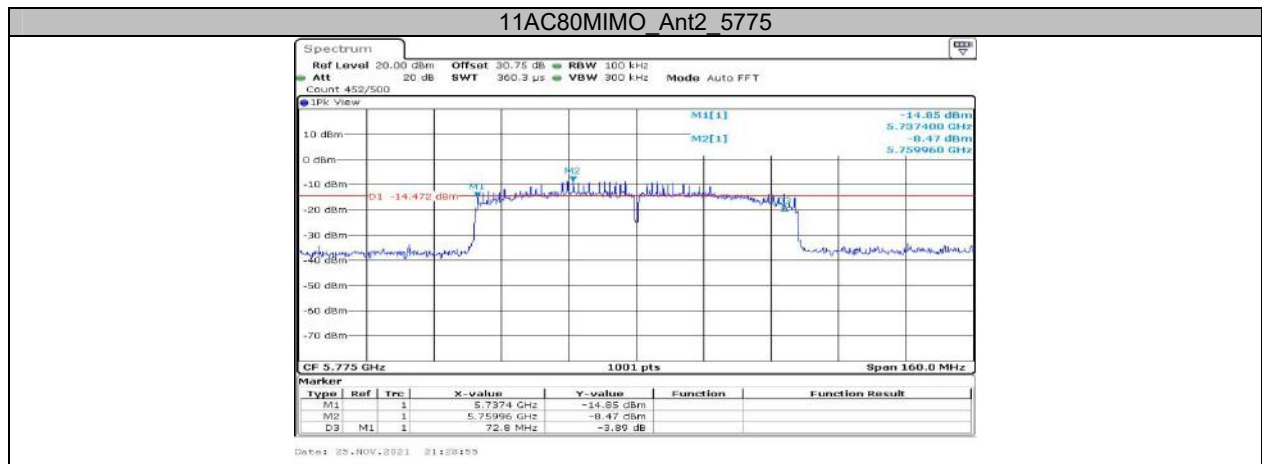


11AC40MIMO Ant2 5795



11AC80MIMO Ant1 5775





Appendix B: Maximum conducted output power Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A-CDD	Ant1	5180	11.30	≤23.33	PASS
	Ant2	5180	10.00	≤23.33	PASS
	total	5180	13.7	≤23.33	PASS
	Ant1	5200	10.15	≤23.33	PASS
	Ant2	5200	9.51	≤23.33	PASS
	total	5200	12.9	≤23.33	PASS
	Ant1	5240	9.89	≤23.33	PASS
	Ant2	5240	9.47	≤23.33	PASS
	total	5240	12.7	≤23.33	PASS
	Ant1	5745	9.67	≤29.52	PASS
	Ant2	5745	9.48	≤29.52	PASS
	total	5745	12.6	≤29.52	PASS
	Ant1	5785	10.25	≤29.52	PASS
	Ant2	5785	8.45	≤29.52	PASS
	total	5785	12.5	≤29.52	PASS
	Ant1	5825	10.68	≤29.52	PASS
	Ant2	5825	6.91	≤29.52	PASS
	total	5825	12.2	≤29.52	PASS
11N20MIMO	Ant1	5180	9.17	≤23.33	PASS
	Ant2	5180	8.91	≤23.33	PASS
	total	5180	12.1	≤23.33	PASS
	Ant1	5200	9.42	≤23.33	PASS
	Ant2	5200	9.16	≤23.33	PASS
	total	5200	12.3	≤23.33	PASS
	Ant1	5240	10.09	≤23.33	PASS
	Ant2	5240	9.49	≤23.33	PASS
	total	5240	12.8	≤23.33	PASS
	Ant1	5745	9.54	≤29.52	PASS
	Ant2	5745	9.38	≤29.52	PASS
	total	5745	12.5	≤29.52	PASS
	Ant1	5785	10.38	≤29.52	PASS
	Ant2	5785	8.59	≤29.52	PASS
	total	5785	12.6	≤29.52	PASS
	Ant1	5825	10.26	≤29.52	PASS
	Ant2	5825	6.64	≤29.52	PASS
	total	5825	11.8	≤29.52	PASS
11N40MIMO	Ant1	5190	9.65	≤23.33	PASS
	Ant2	5190	9.15	≤23.33	PASS
	total	5190	12.4	≤23.33	PASS
	Ant1	5230	9.89	≤23.33	PASS
	Ant2	5230	9.29	≤23.33	PASS
	total	5230	12.6	≤23.33	PASS
	Ant1	5755	10.15	≤29.52	PASS
	Ant2	5755	9.77	≤29.52	PASS
	total	5755	13.0	≤29.52	PASS
	Ant1	5795	10.36	≤29.52	PASS
	Ant2	5795	8.09	≤29.52	PASS
	total	5795	12.4	≤29.52	PASS
11AC20MIMO	Ant1	5180	9.20	≤23.33	PASS
	Ant2	5180	9.25	≤23.33	PASS
	total	5180	12.2	≤23.33	PASS
	Ant1	5200	9.77	≤23.33	PASS
	Ant2	5200	9.10	≤23.33	PASS
	total	5200	12.5	≤23.33	PASS
	Ant1	5240	9.81	≤23.33	PASS

	Ant2	5240	9.20	≤23.33	PASS
	total	5240	12.5	≤23.33	PASS
	Ant1	5745	9.91	≤29.52	PASS
	Ant2	5745	9.31	≤29.52	PASS
	total	5745	12.6	≤29.52	PASS
	Ant1	5785	10.47	≤29.52	PASS
	Ant2	5785	8.66	≤29.52	PASS
	total	5785	12.7	≤29.52	PASS
	Ant1	5825	10.47	≤29.52	PASS
	Ant2	5825	6.62	≤29.52	PASS
11AC40MIMO	total	5825	12.0	≤29.52	PASS
	Ant1	5190	9.45	≤23.33	PASS
	Ant2	5190	9.14	≤23.33	PASS
	total	5190	12.3	≤23.33	PASS
	Ant1	5230	10.09	≤23.33	PASS
	Ant2	5230	9.46	≤23.33	PASS
	total	5230	12.8	≤23.33	PASS
	Ant1	5755	10.16	≤29.52	PASS
	Ant2	5755	9.43	≤29.52	PASS
	total	5755	12.8	≤29.52	PASS
11AC80MIMO	Ant1	5795	10.60	≤29.52	PASS
	Ant2	5795	8.35	≤29.52	PASS
	total	5795	12.6	≤29.52	PASS
	Ant1	5210	10.06	≤23.33	PASS
	Ant2	5210	9.43	≤23.33	PASS
	total	5210	12.8	≤23.33	PASS
	Ant1	5775	10.79	≤29.52	PASS
	Ant2	5775	9.45	≤29.52	PASS
	total	5775	13.2	≤29.52	PASS

Note: EUT employ CDD (Cyclic delay diversity)

Directional gain = $G_{ANT} + \text{Array Gain}$

For power measurements:

$\text{Array Gain} = 0\text{dB}$ for $N_{ANT} < 4$

For 5150-5250MHz:

$G_{ANT} = 6.65\text{dBi}$ (the higher gain of two antennas which is the worst case)

Directional gain = $6.65\text{dBi} + 0\text{dB} = 6.65\text{dBi} > 6\text{dBi}$

So, the limit should be reduced 0.65dB

For 5725-5850MHz:

$G_{ANT} = 6.48\text{dBi}$

Directional gain = $6.48\text{dBi} + 0\text{dB} = 6.48\text{dBi} > 6\text{dBi}$

So, the limit should be reduced 0.48dB

Appendix C: Maximum power spectral density Test Result

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A-CDD	Ant1	5180	-3.84	≤7.35	PASS
	Ant2	5180	-3.95	≤7.35	PASS
	total	5180	-0.88	≤7.35	PASS
	Ant1	5200	-4.39	≤7.35	PASS
	Ant2	5200	-4.60	≤7.35	PASS
	total	5200	-1.48	≤7.35	PASS
	Ant1	5240	-3.75	≤7.35	PASS
	Ant2	5240	-4.03	≤7.35	PASS
	total	5240	-0.88	≤7.35	PASS
	Ant1	5745	-5.44	≤26.52	PASS
	Ant2	5745	-5.78	≤26.52	PASS
	total	5745	-2.60	≤26.52	PASS
	Ant1	5785	-4.64	≤26.52	PASS
	Ant2	5785	-6.65	≤26.52	PASS
	total	5785	-2.52	≤26.52	PASS
	Ant1	5825	-4.15	≤26.52	PASS
	Ant2	5825	-8.07	≤26.52	PASS
	total	5825	-2.67	≤26.52	PASS
11N20MIMO	Ant1	5180	-2.81	≤7.35	PASS
	Ant2	5180	-3.38	≤7.35	PASS
	total	5180	-0.08	≤7.35	PASS
	Ant1	5200	-2.75	≤7.35	PASS
	Ant2	5200	-3.42	≤7.35	PASS
	total	5200	-0.06	≤7.35	PASS
	Ant1	5240	-3.93	≤7.35	PASS
	Ant2	5240	-3.94	≤7.35	PASS
	total	5240	-0.92	≤7.35	PASS
	Ant1	5745	-5.79	≤26.52	PASS
	Ant2	5745	-6.14	≤26.52	PASS
	total	5745	-2.95	≤26.52	PASS
	Ant1	5785	-5.04	≤26.52	PASS
	Ant2	5785	-6.99	≤26.52	PASS
	total	5785	-2.90	≤26.52	PASS
	Ant1	5825	-5	≤26.52	PASS
	Ant2	5825	-8.35	≤26.52	PASS
	total	5825	-3.35	≤26.52	PASS
11N40MIMO	Ant1	5190	-5.26	≤7.35	PASS
	Ant2	5190	-5.76	≤7.35	PASS
	total	5190	-2.49	≤7.35	PASS
	Ant1	5230	-4.77	≤7.35	PASS
	Ant2	5230	-5.34	≤7.35	PASS
	total	5230	-2.04	≤7.35	PASS
	Ant1	5755	-8.02	≤26.52	PASS
	Ant2	5755	-8.59	≤26.52	PASS
	total	5755	-5.29	≤26.52	PASS
	Ant1	5795	-7.61	≤26.52	PASS
	Ant2	5795	-10.15	≤26.52	PASS
	total	5795	-5.69	≤26.52	PASS
11AC20MIMO	Ant1	5180	-2.54	≤7.35	PASS
	Ant2	5180	-3.15	≤7.35	PASS
	total	5180	0.18	≤7.35	PASS
	Ant1	5200	-2.46	≤7.35	PASS
	Ant2	5200	-3.37	≤7.35	PASS
	total	5200	0.12	≤7.35	PASS
	Ant1	5240	-2.85	≤7.35	PASS

	Ant2	5240	-3.07	≤ 7.35	PASS
	total	5240	0.05	≤ 7.35	PASS
	Ant1	5745	-5.52	≤ 26.52	PASS
	Ant2	5745	-6.19	≤ 26.52	PASS
	total	5745	-2.83	≤ 26.52	PASS
	Ant1	5785	-4.83	≤ 26.52	PASS
	Ant2	5785	-6.59	≤ 26.52	PASS
	total	5785	-2.61	≤ 26.52	PASS
	Ant1	5825	-4.55	≤ 26.52	PASS
	Ant2	5825	-8.73	≤ 26.52	PASS
11AC40MIMO	total	5825	-3.15	≤ 26.52	PASS
	Ant1	5190	-5.36	≤ 7.35	PASS
	Ant2	5190	-5.83	≤ 7.35	PASS
	total	5190	-2.58	≤ 7.35	PASS
	Ant1	5230	-4.15	≤ 7.35	PASS
	Ant2	5230	-5.31	≤ 7.35	PASS
	total	5230	-1.68	≤ 7.35	PASS
	Ant1	5755	-7.99	≤ 26.52	PASS
	Ant2	5755	-8.92	≤ 26.52	PASS
	total	5755	-5.42	≤ 26.52	PASS
11AC80MIMO	Ant1	5795	-7.5	≤ 26.52	PASS
	Ant2	5795	-9.76	≤ 26.52	PASS
	total	5795	-5.47	≤ 26.52	PASS
	Ant1	5210	-7.29	≤ 7.35	PASS
	Ant2	5210	-8.29	≤ 7.35	PASS
	total	5210	-4.75	≤ 7.35	PASS
	Ant1	5775	-10.07	≤ 26.52	PASS
	Ant2	5775	-11.77	≤ 26.52	PASS
	total	5775	-7.83	≤ 26.52	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 is compensated in the graph.

EUT employ CDD (Cyclic delay diversity)

Directional gain = G_{ANT} + Array Gain

For PSD measurements:

$$\text{Array Gain} = 10 \log(N_{ANT}) = 10 \log 2 = 3 \text{ dB}$$

For 5150-5250MHz:

G_{ANT} = 6.65dBi(the higher gain of two antennas which is the worst case)

Directional gain = 6.65dBi + 3dB = 9.65dBi > 6dBi

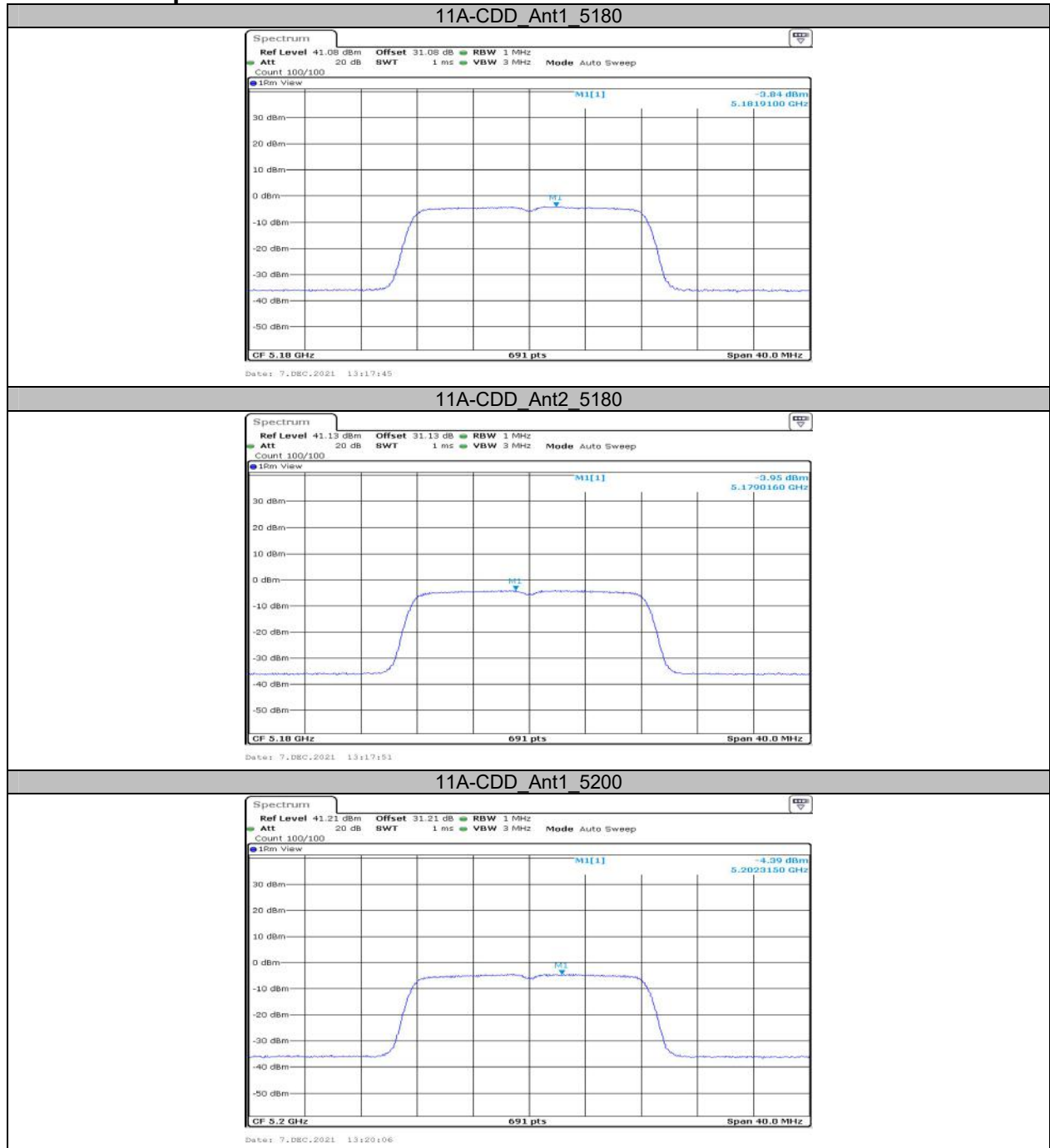
So, the limit should be reduced 3.65dB

For 5725-5850MHz:

G_{ANT} = 6.48dBi

Directional gain = 6.48dBi + 3dB = 9.48dBi > 6dBi

So, the limit should be reduced 3.48dB

Test Graphs

11A-CDD_Ant2_5200



11A-CDD_Ant1_5240



11A-CDD_Ant2_5240



11A-CDD_Ant1_5745



11A-CDD_Ant2_5745



11A-CDD_Ant1_5785



11A-CDD_Ant2_5785



11A-CDD_Ant1_5825



11A-CDD_Ant2_5825



11N20MIMO_Ant1_5180

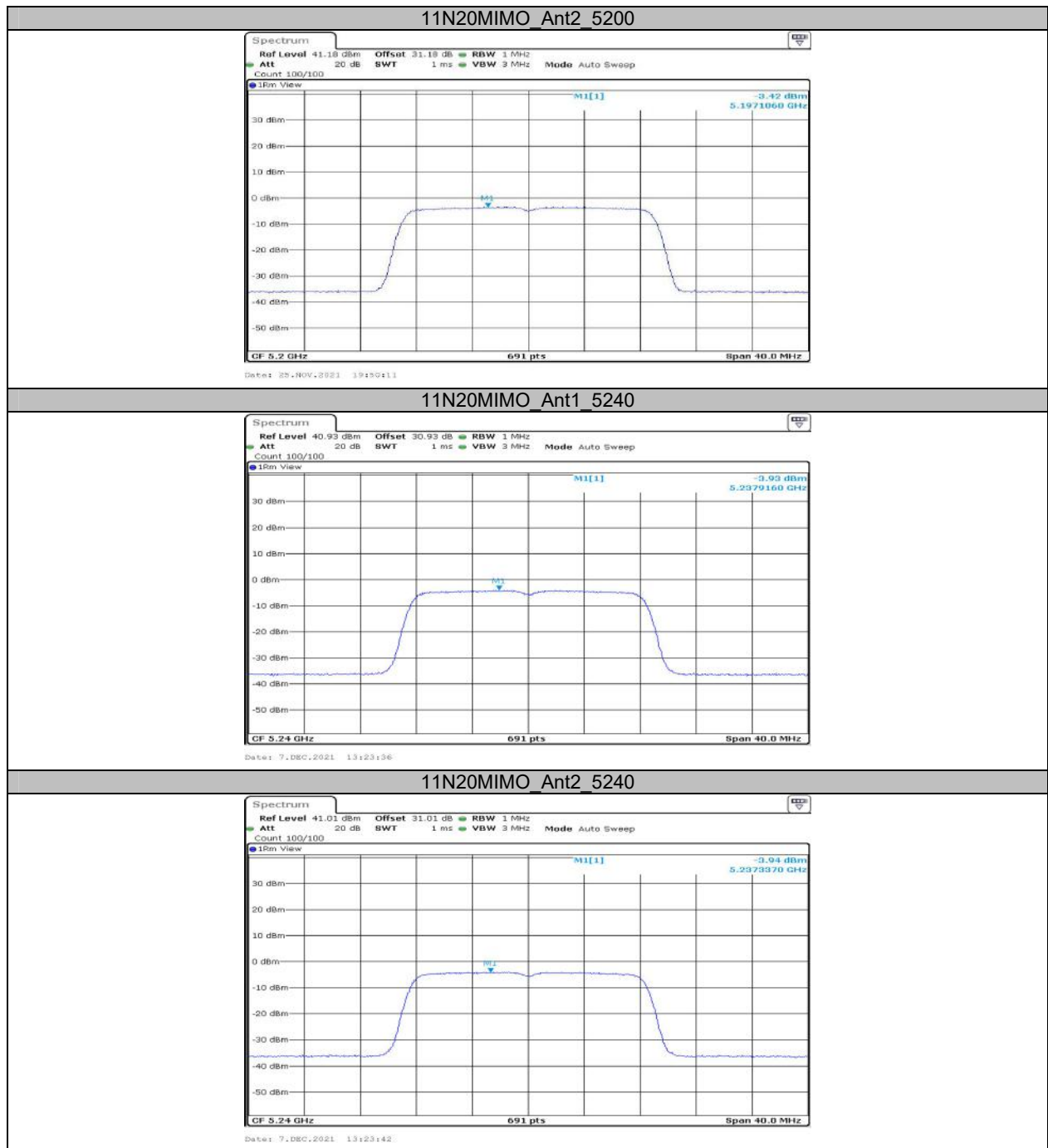


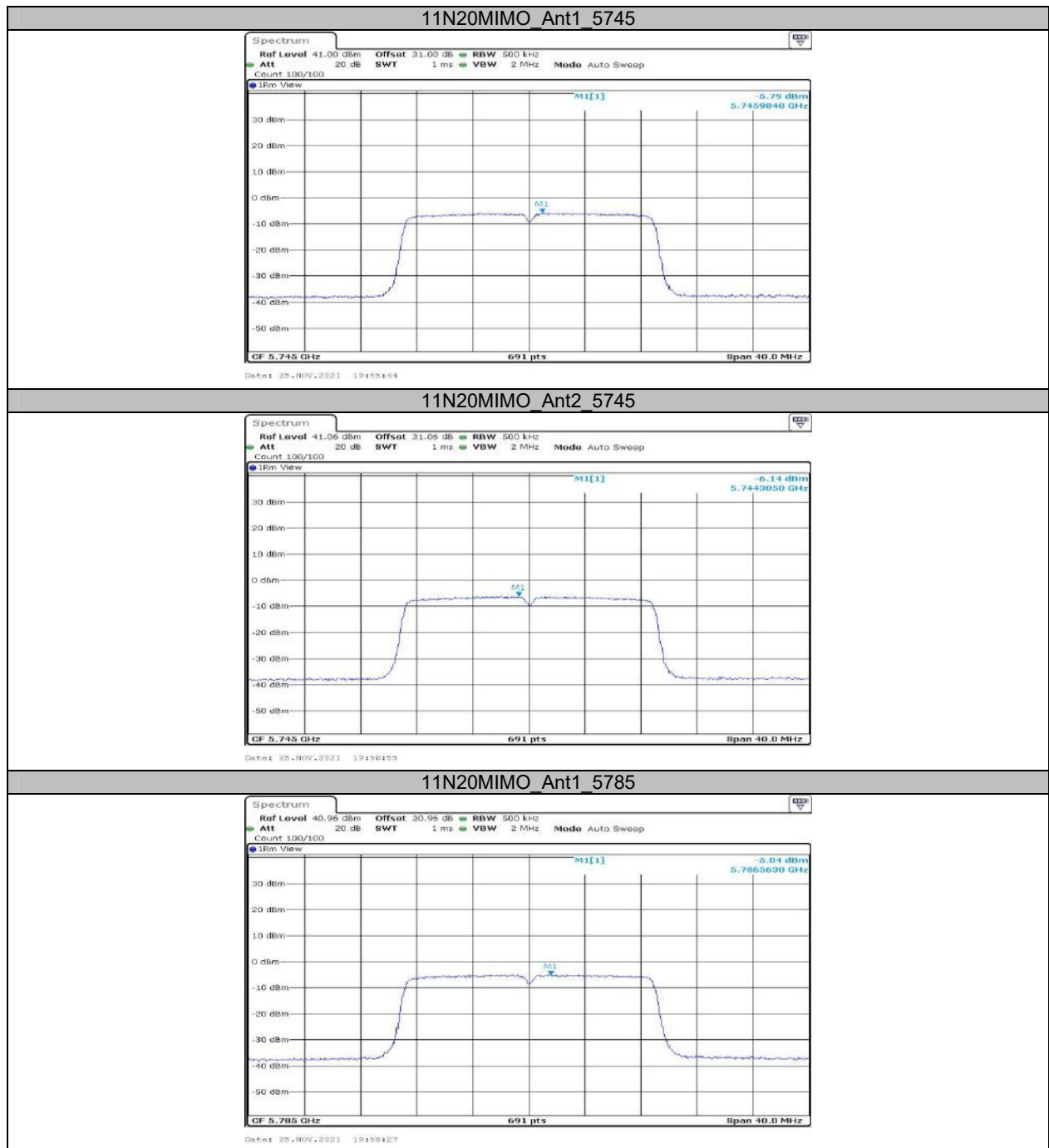
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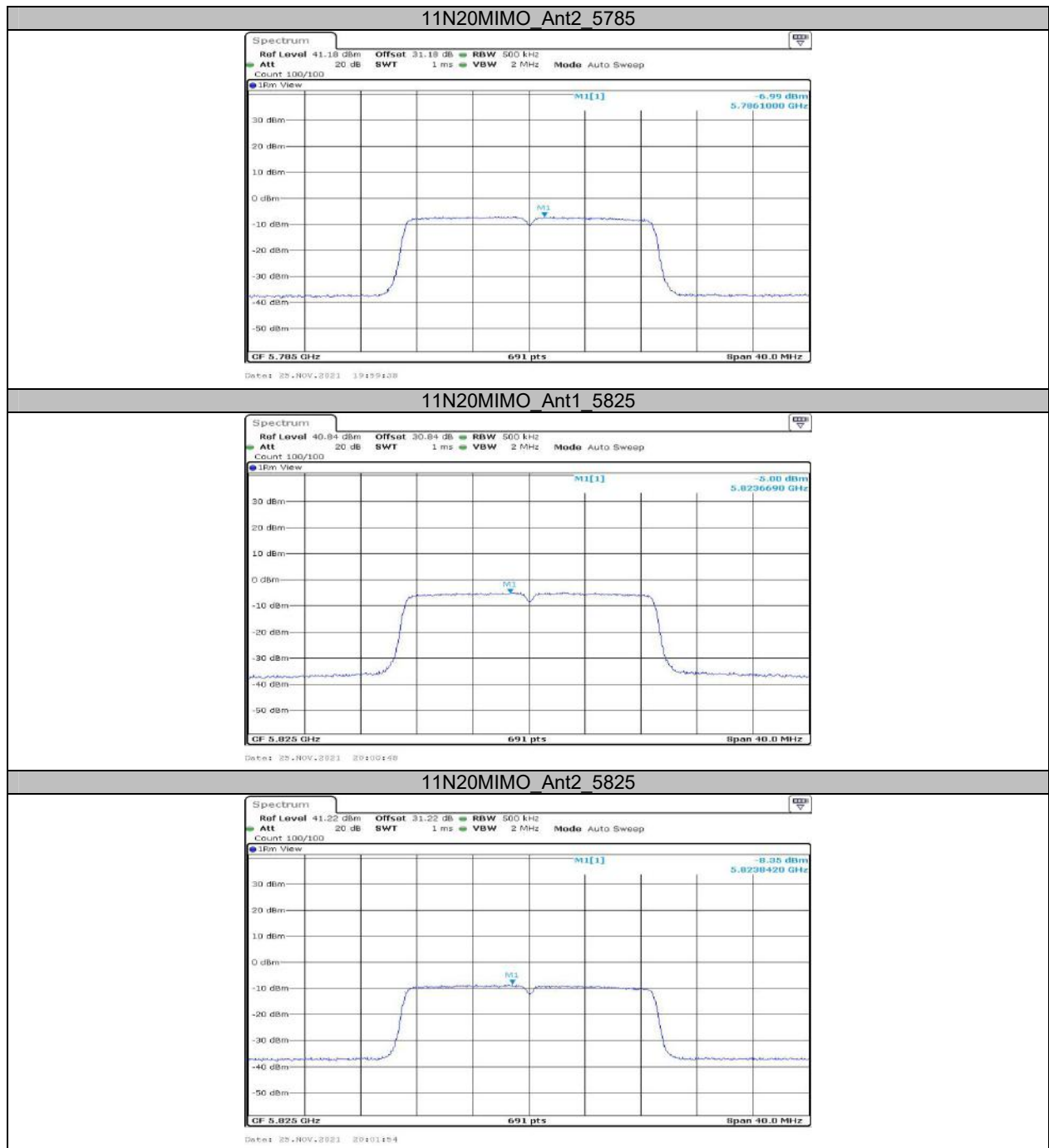


11N20MIMO_Ant1_5200









11N40MIMO_Ant1_5190



11N40MIMO_Ant2_5190



11N40MIMO_Ant1_5230



11N40MIMO_Ant2_5230



11N40MIMO_Ant1_5755



11N40MIMO_Ant2_5755



11N40MIMO_Ant1_5795

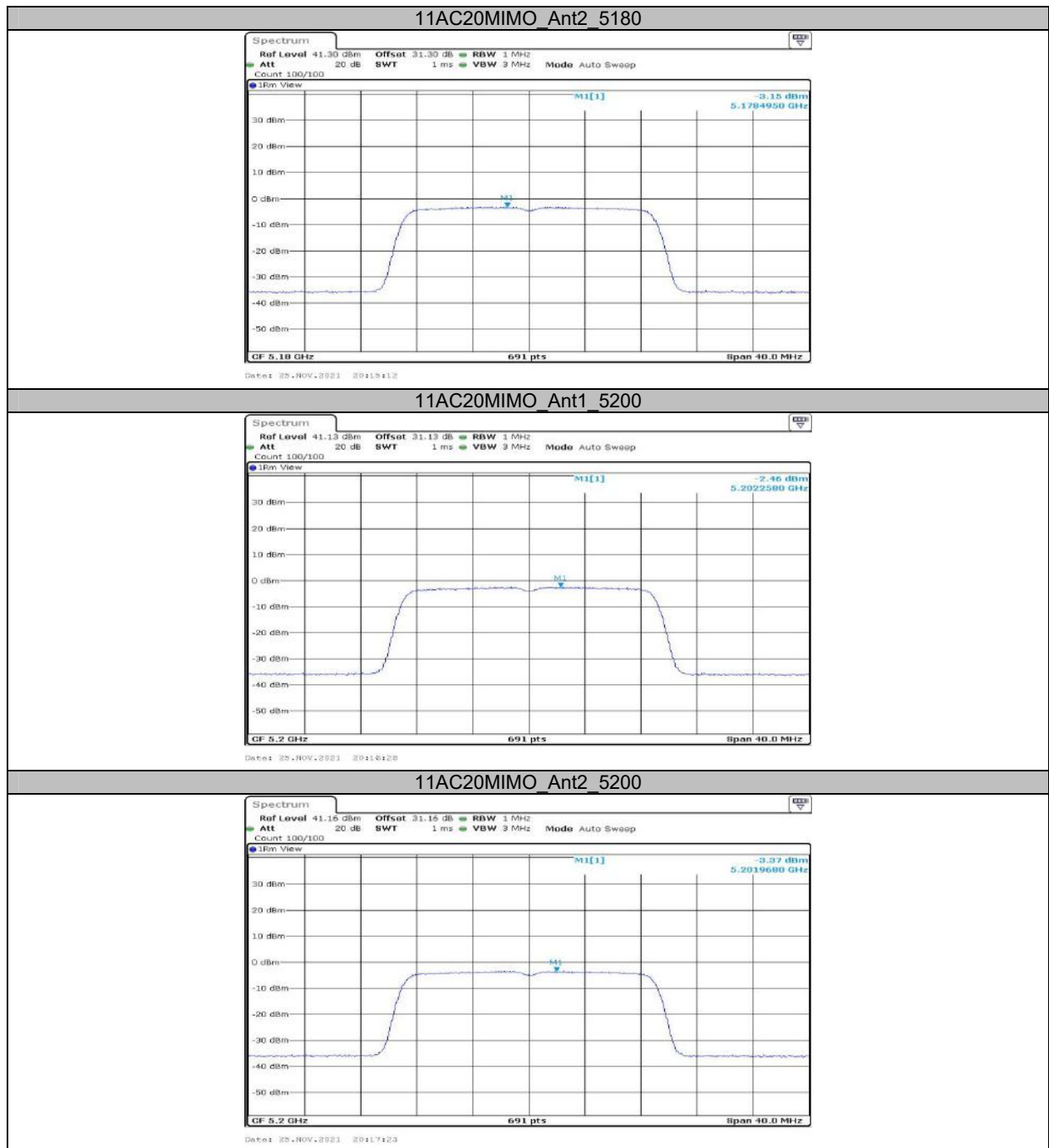


11N40MIMO_Ant2_5795



11AC20MIMO_Ant1_5180





11AC20MIMO_Ant1_5240



11AC20MIMO_Ant2_5240



11AC20MIMO_Ant1_5745



11AC20MIMO_Ant2_5745

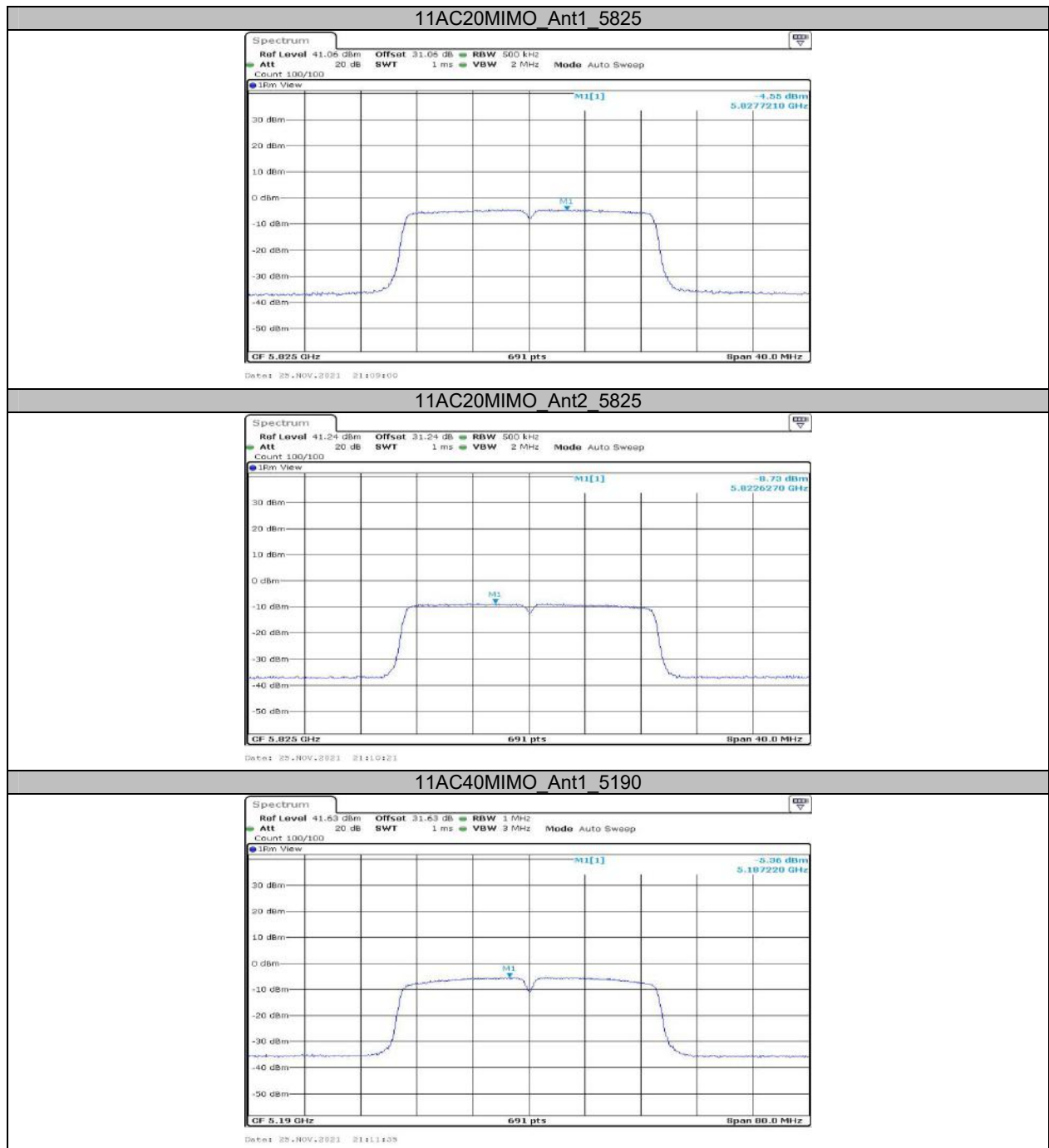


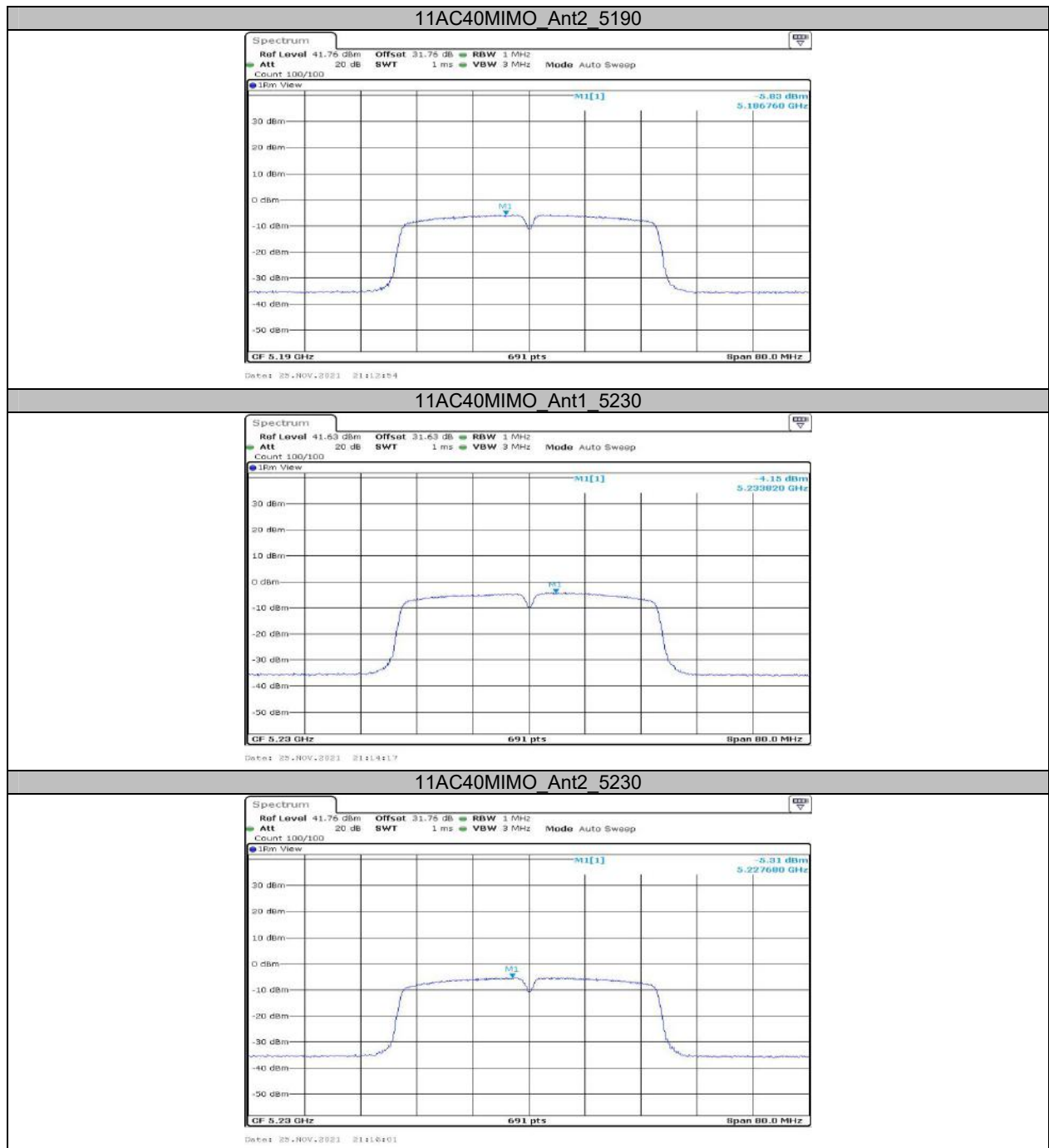
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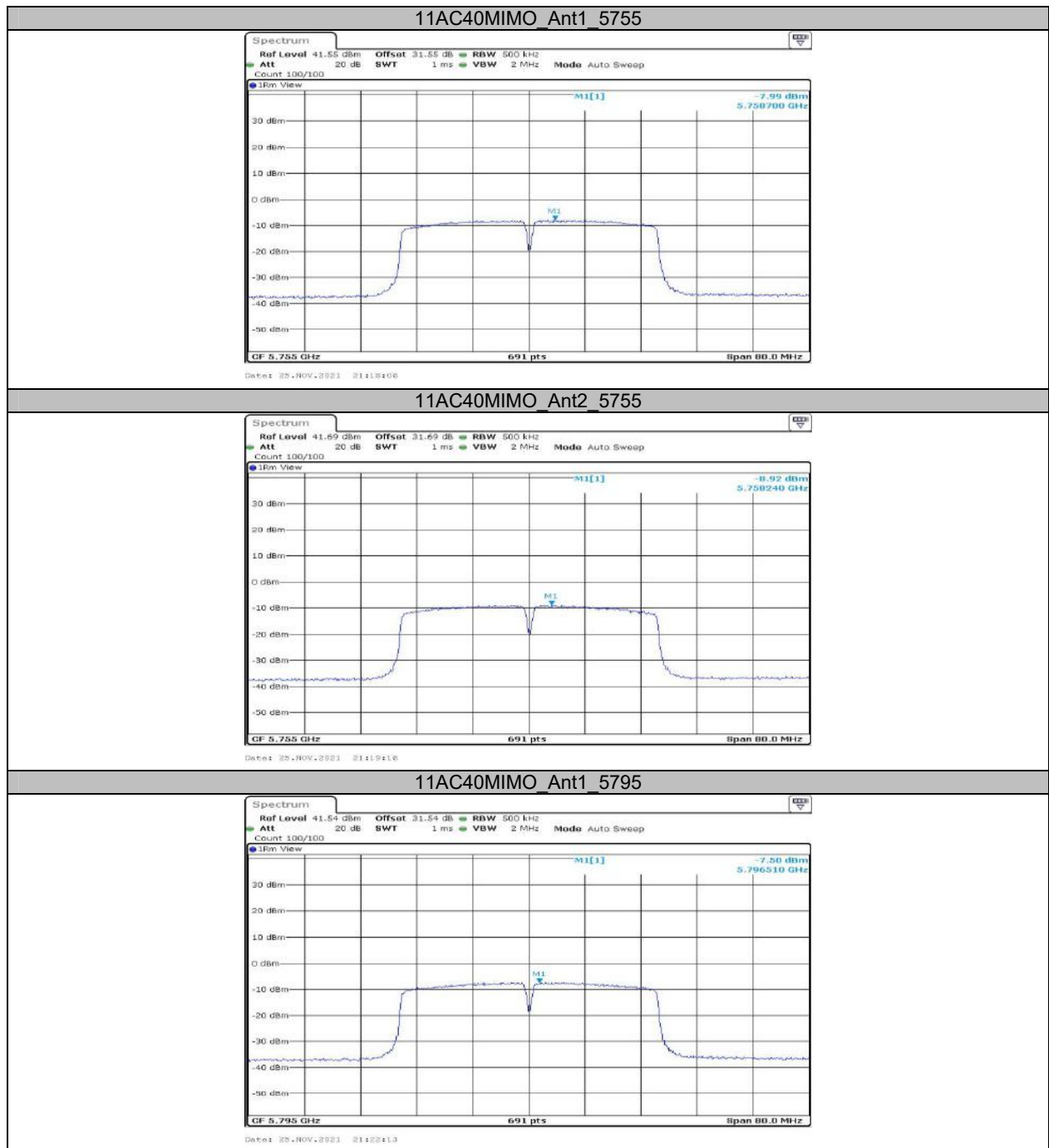


11AC20MIMO_Ant2_5785









11AC40MIMO Ant2_5795

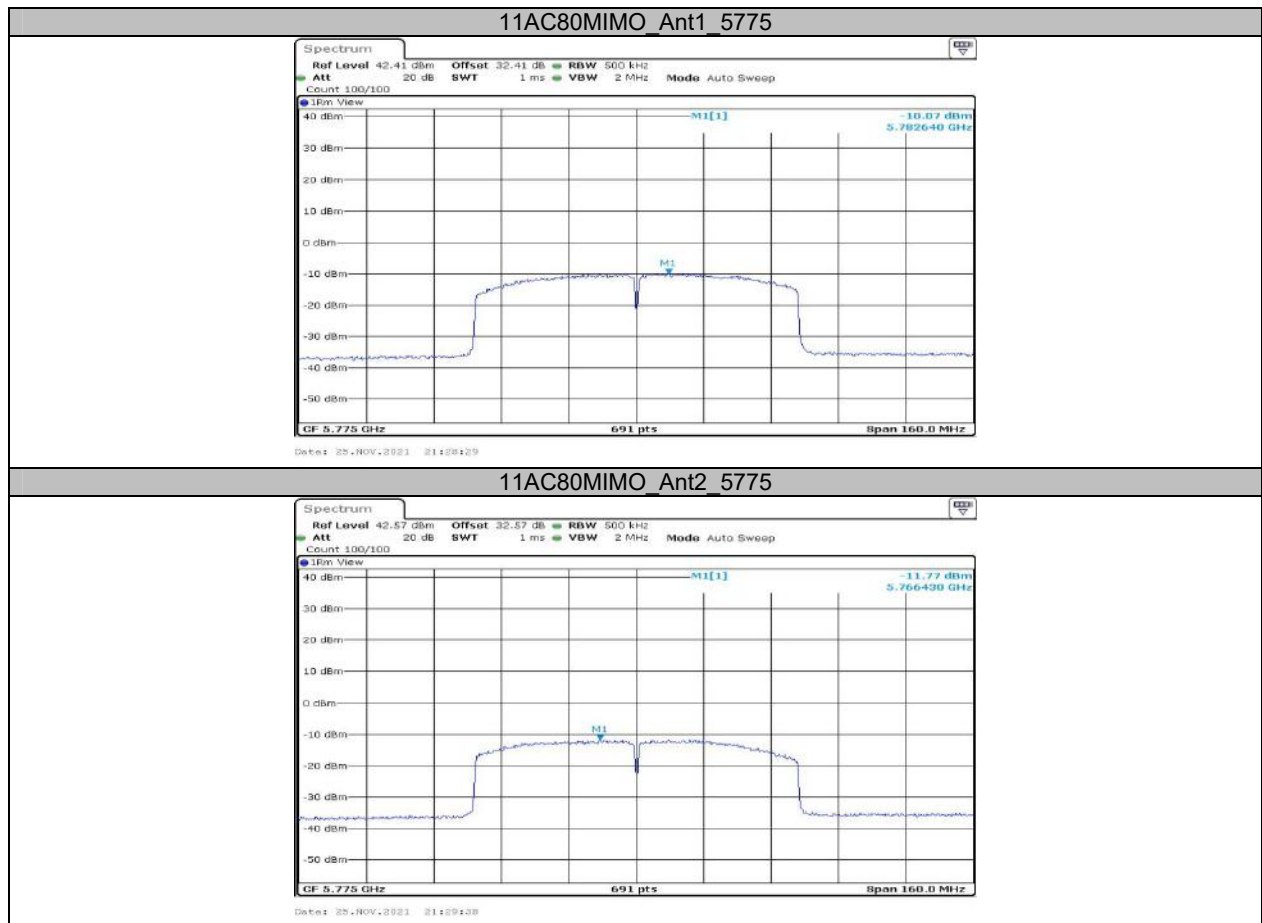


11AC80MIMO Ant1_5210



11AC80MIMO Ant2_5210



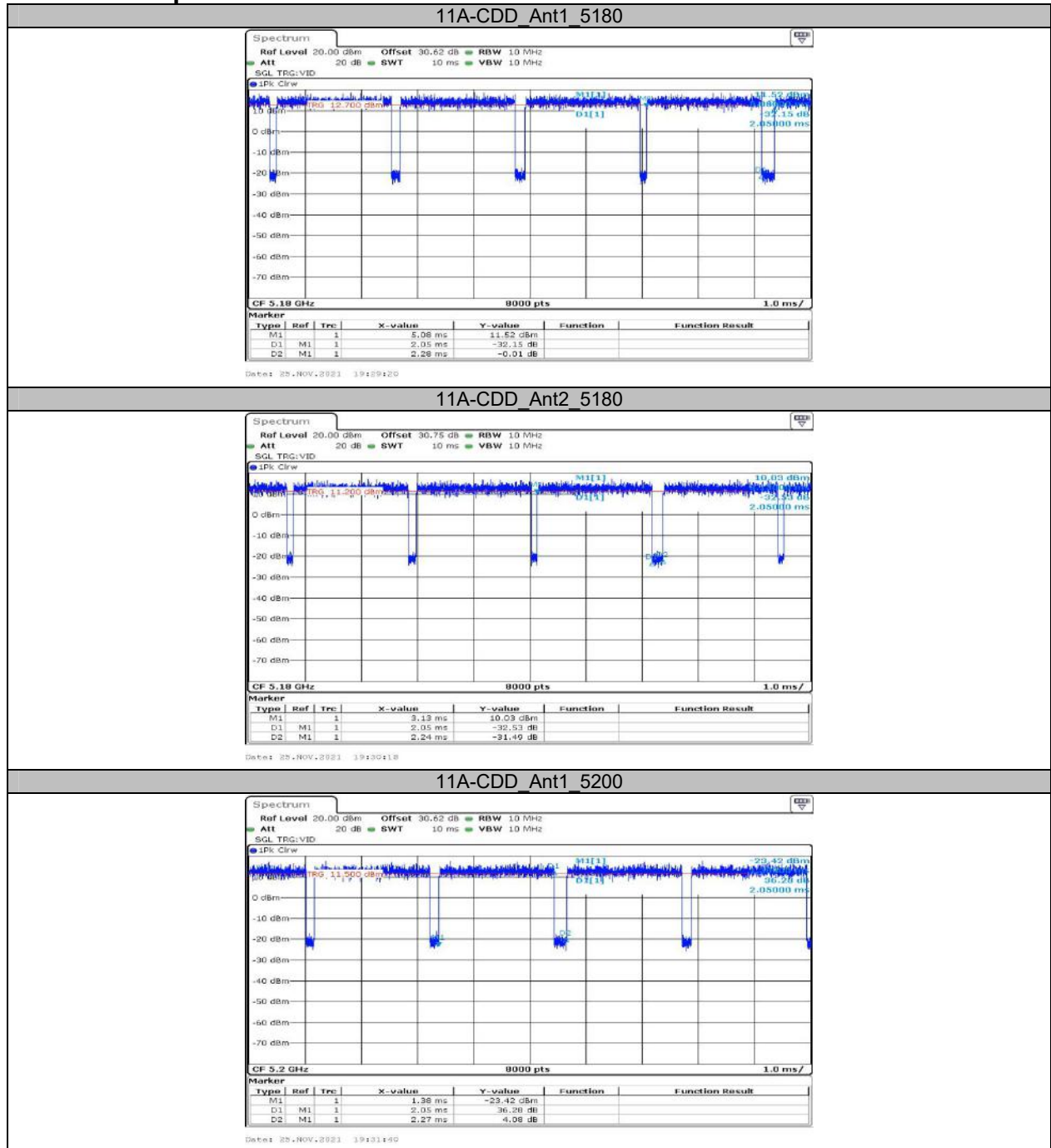


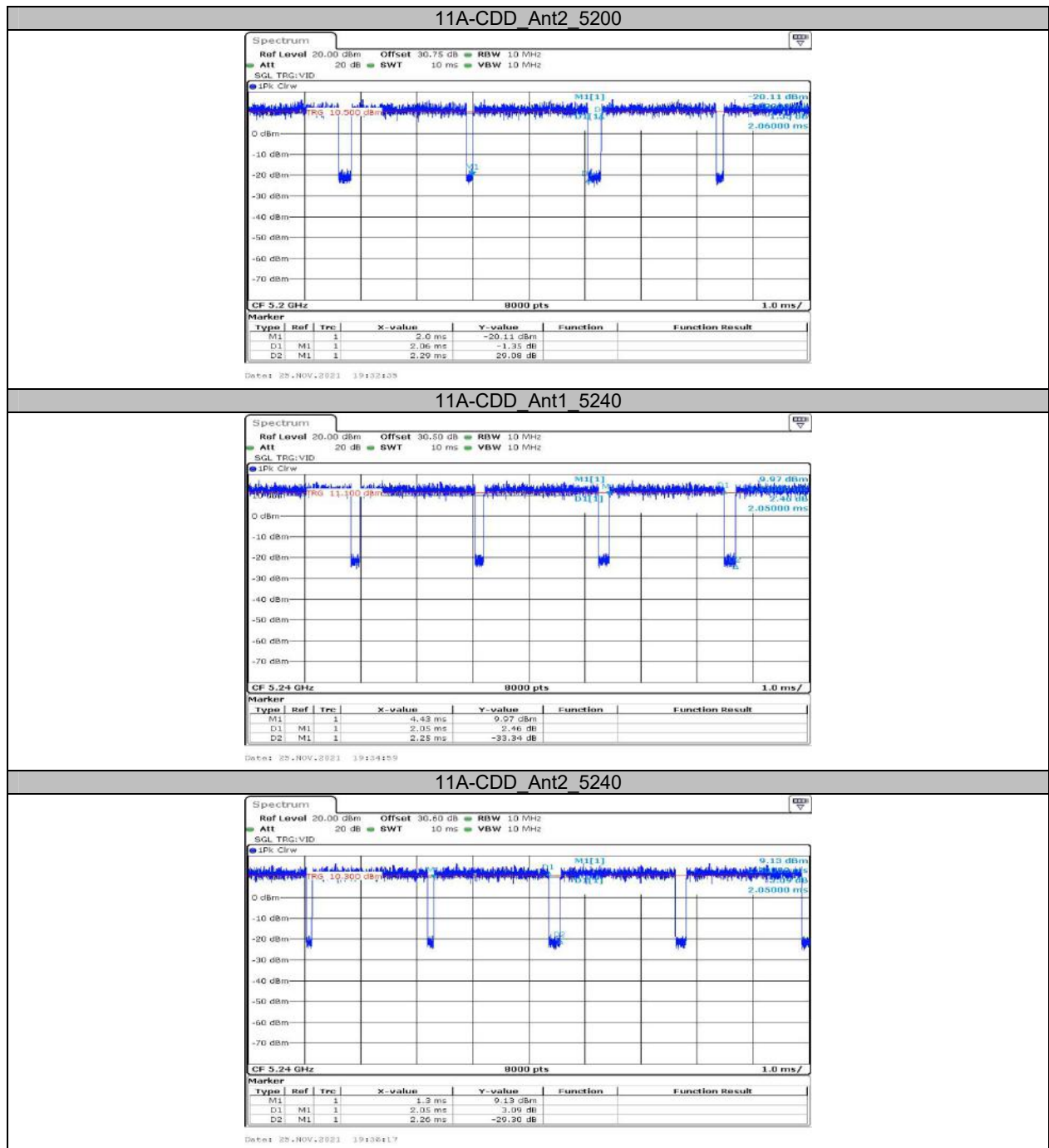
Appendix D: Duty Cycle Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A-CDD	Ant1	5180	2.05	2.28	89.91
	Ant2	5180	2.05	2.24	91.52
	Ant1	5200	2.05	2.27	90.31
	Ant2	5200	2.06	2.29	89.96
	Ant1	5240	2.05	2.25	91.11
	Ant2	5240	2.05	2.26	90.71
	Ant1	5745	2.05	2.28	89.91
	Ant2	5745	2.05	2.20	93.18
	Ant1	5785	2.05	2.28	89.91
	Ant2	5785	2.05	2.24	91.52
	Ant1	5825	2.05	2.28	89.91
	Ant2	5825	2.05	2.28	89.91
11N20MIMO	Ant1	5180	1.90	2.06	92.23
	Ant2	5180	1.91	2.09	91.39
	Ant1	5200	1.91	2.05	93.17
	Ant2	5200	1.91	2.11	90.52
	Ant1	5240	1.91	2.11	90.52
	Ant2	5240	1.91	2.10	90.95
	Ant1	5745	1.91	2.13	89.67
	Ant2	5745	1.91	2.05	93.17
	Ant1	5785	1.91	2.11	90.52
	Ant2	5785	1.91	2.11	90.52
	Ant1	5825	1.90	2.04	93.14
	Ant2	5825	1.91	2.13	89.67
11N40MIMO	Ant1	5190	0.94	1.16	81.03
	Ant2	5190	0.94	1.17	80.34
	Ant1	5230	0.94	1.15	81.74
	Ant2	5230	0.94	1.17	80.34
	Ant1	5755	0.94	1.17	80.34
	Ant2	5755	0.94	1.16	81.03
	Ant1	5795	0.94	1.13	83.19
	Ant2	5795	0.94	1.15	81.74
11AC20MIMO	Ant1	5180	1.92	2.07	92.75
	Ant2	5180	1.92	2.18	88.07
	Ant1	5200	1.92	2.16	88.89
	Ant2	5200	1.92	2.11	91.00
	Ant1	5240	1.92	2.12	90.57
	Ant2	5240	1.92	2.10	91.43
	Ant1	5745	1.92	2.17	88.48
	Ant2	5745	1.92	2.14	89.72
	Ant1	5785	1.92	2.16	88.89
	Ant2	5785	1.92	2.13	90.14
	Ant1	5825	1.92	2.17	88.48
	Ant2	5825	1.92	2.15	89.30
11AC40MIMO	Ant1	5190	0.95	1.20	79.17
	Ant2	5190	0.95	1.20	79.17
	Ant1	5230	0.95	1.20	79.17
	Ant2	5230	0.95	1.20	79.17
	Ant1	5755	0.94	1.19	78.99
	Ant2	5755	0.95	1.18	80.51
	Ant1	5795	0.95	1.20	79.17
	Ant2	5795	0.94	1.19	78.99
11AC80MIMO	Ant1	5210	0.46	0.71	64.79
	Ant2	5210	0.46	0.71	64.79

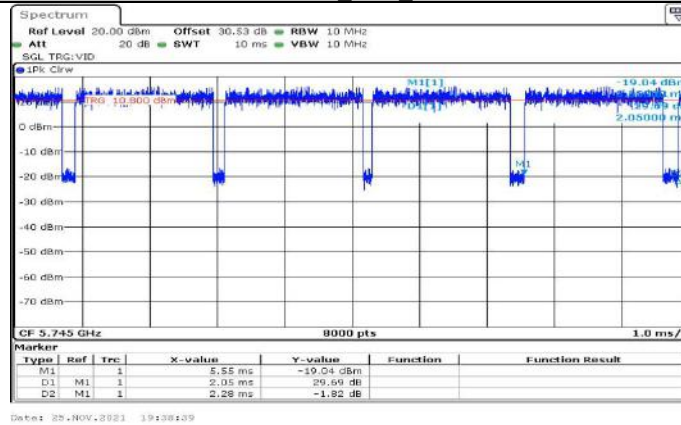
	Ant1	5775	0.46	0.71	64.79
	Ant2	5775	0.46	0.70	65.71

Test Graphs

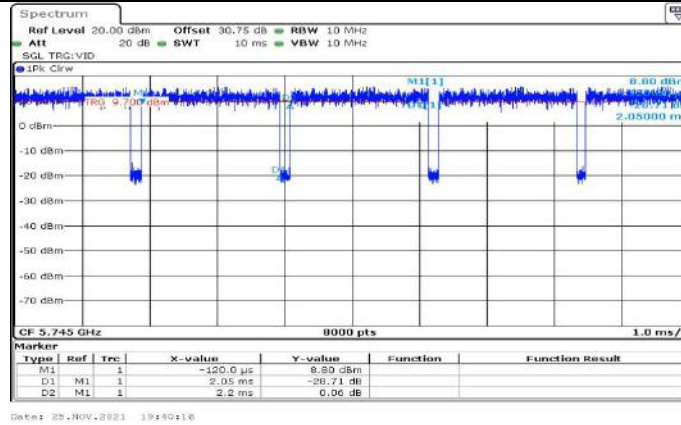




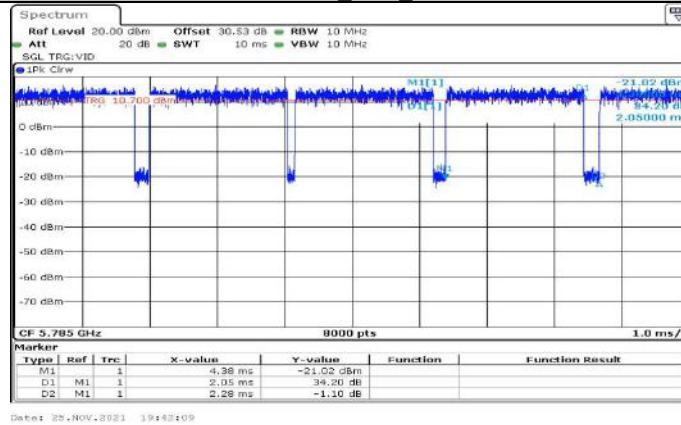
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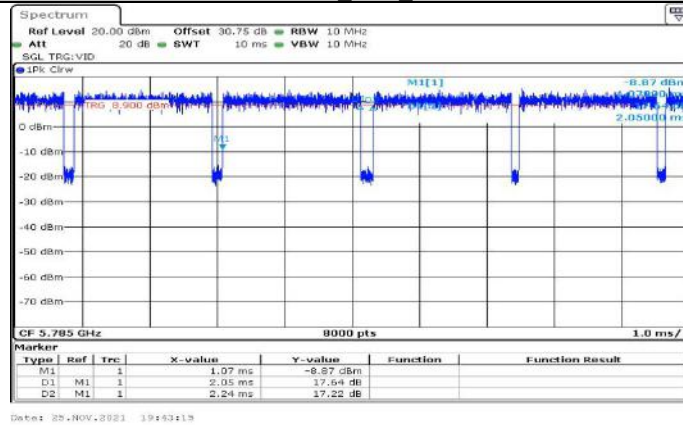
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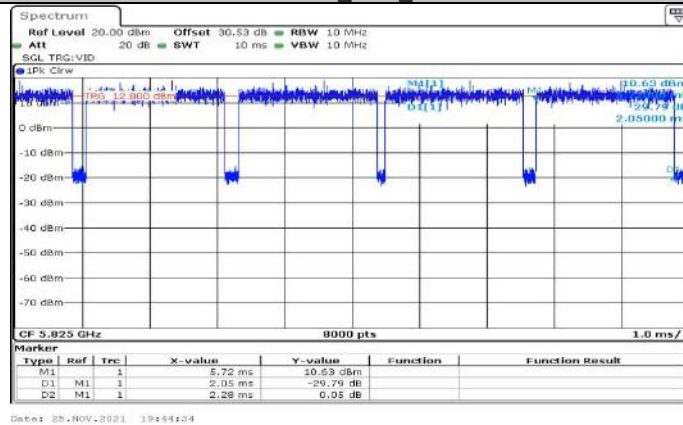
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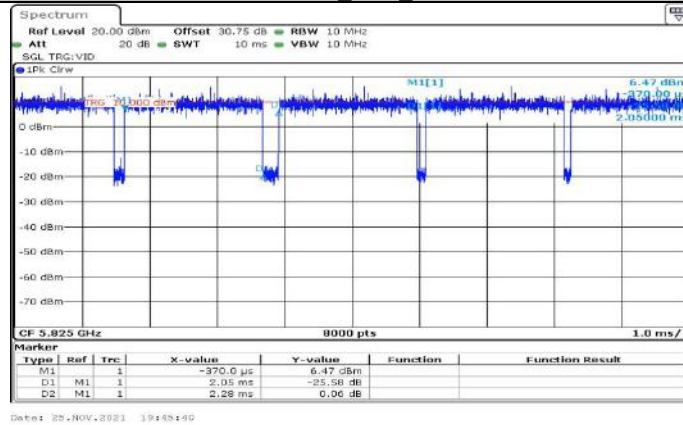
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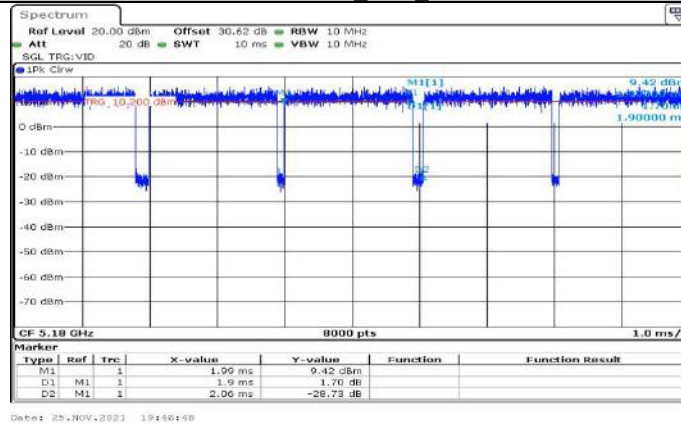
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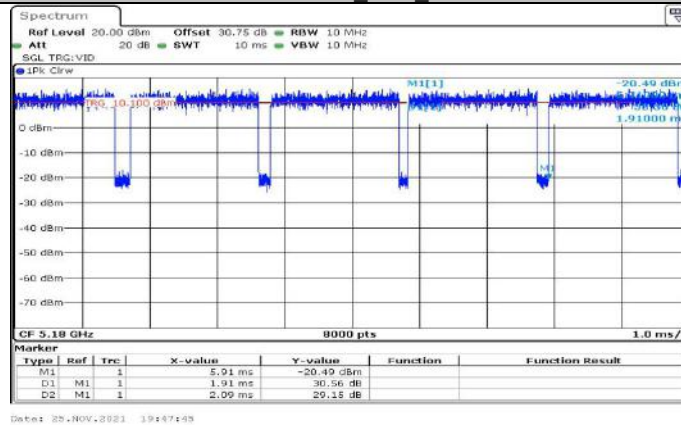
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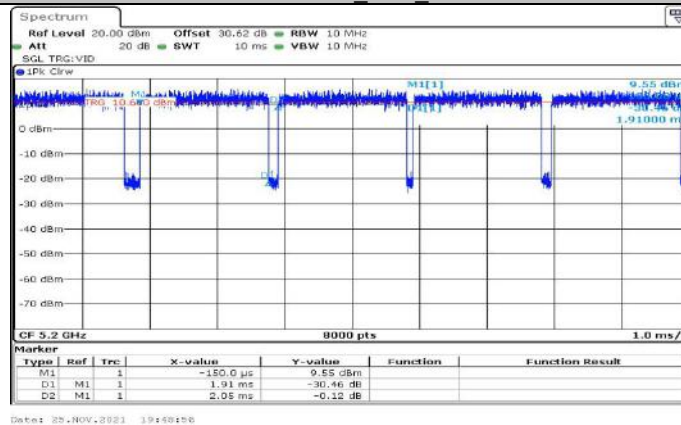
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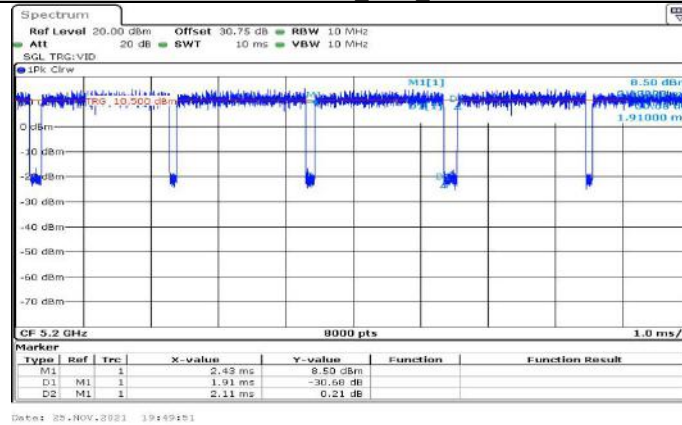
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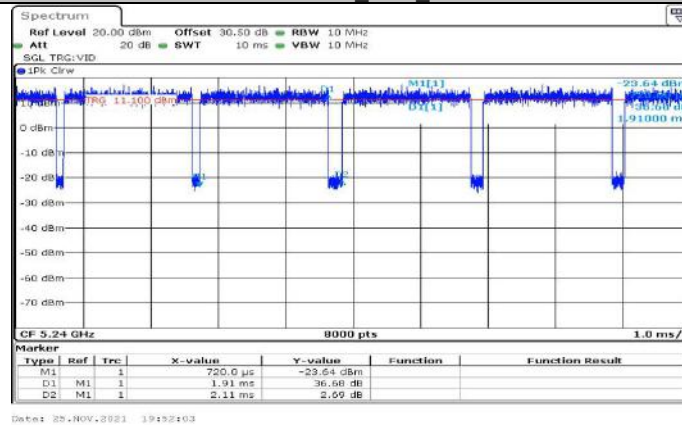
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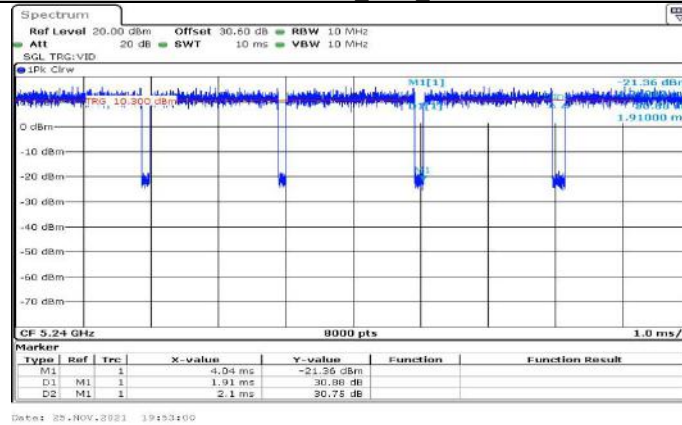
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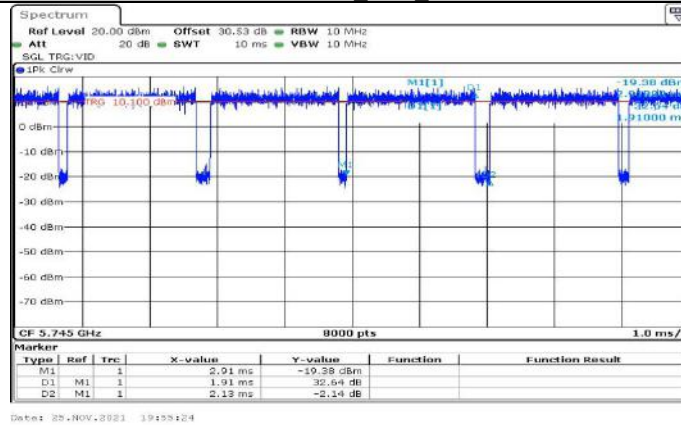
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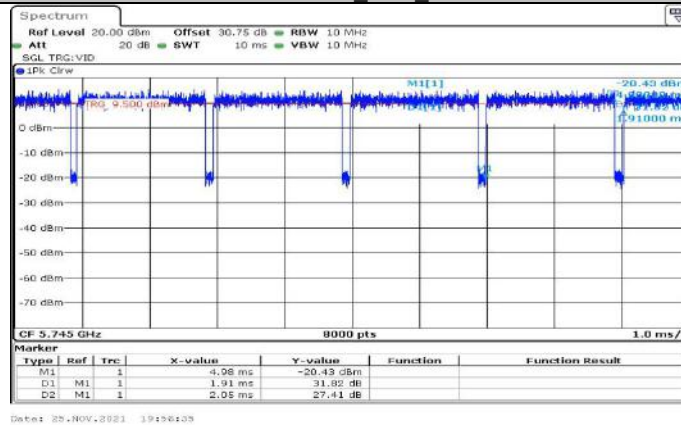
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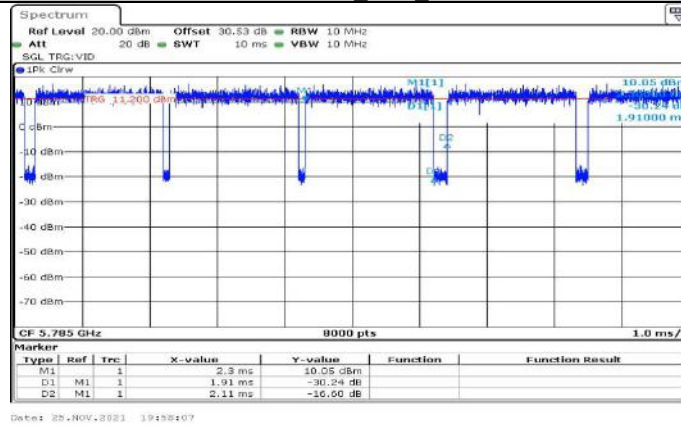
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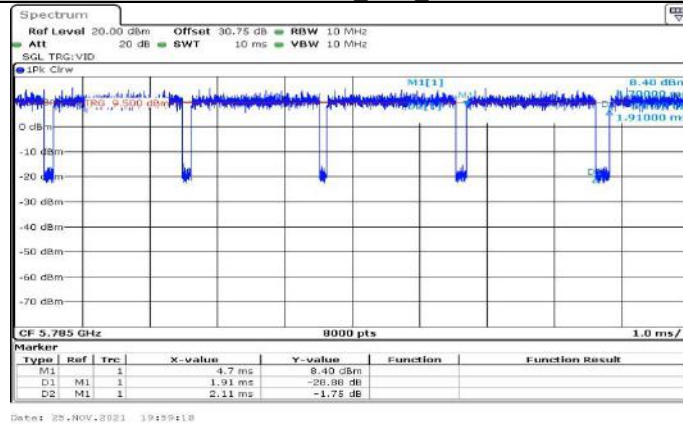
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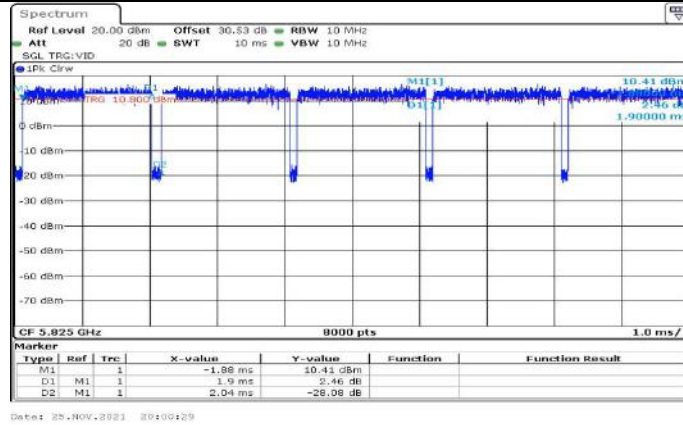
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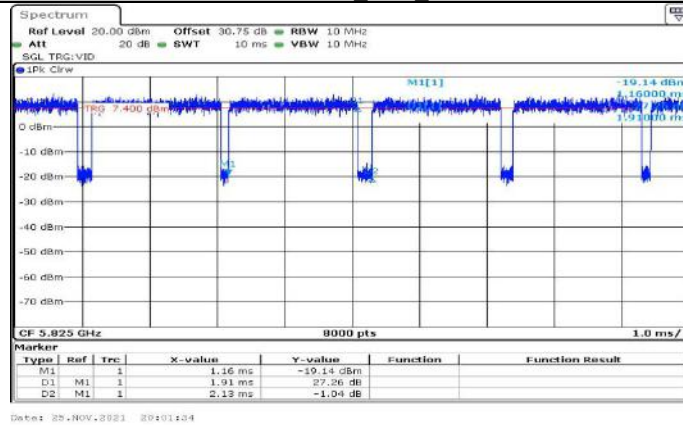
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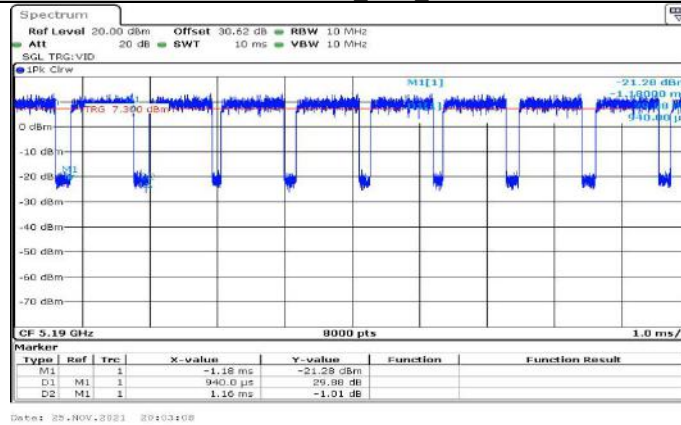
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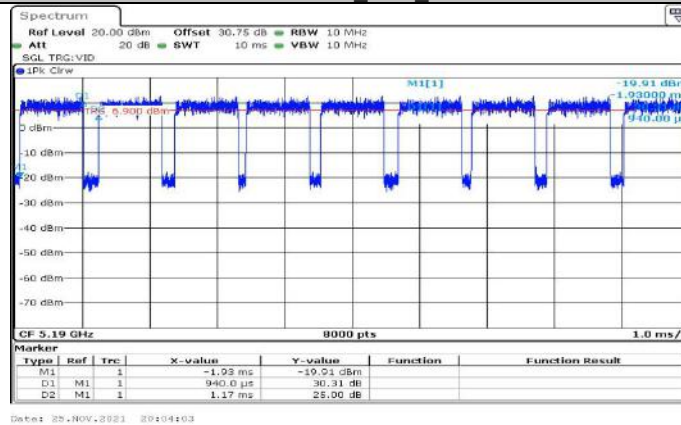
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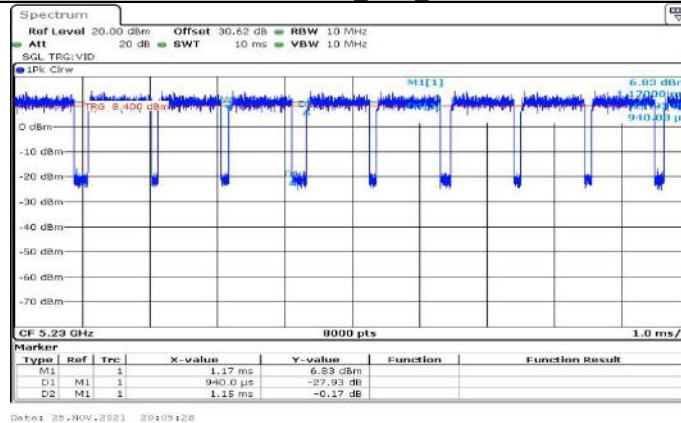
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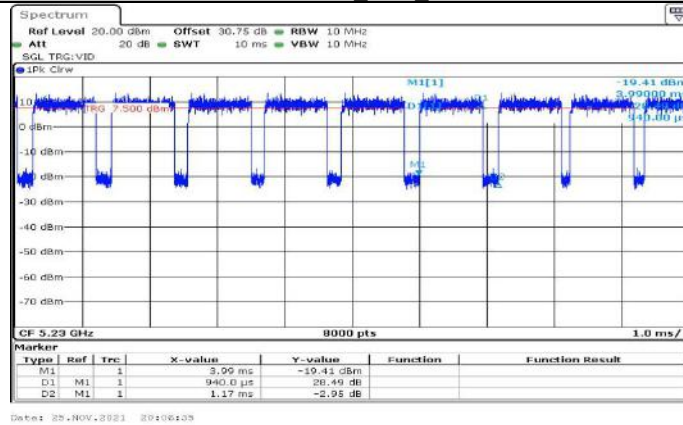
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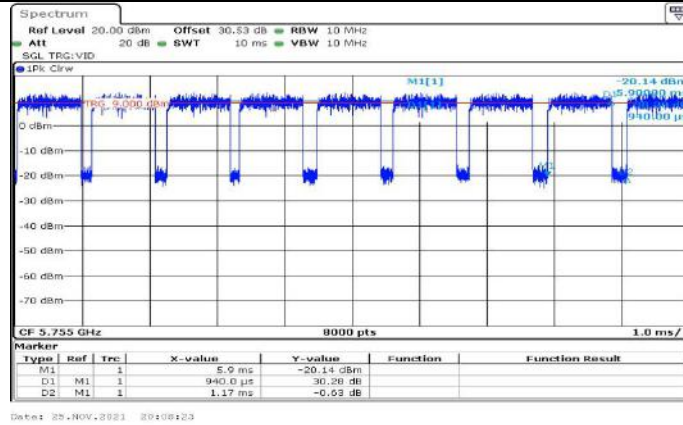
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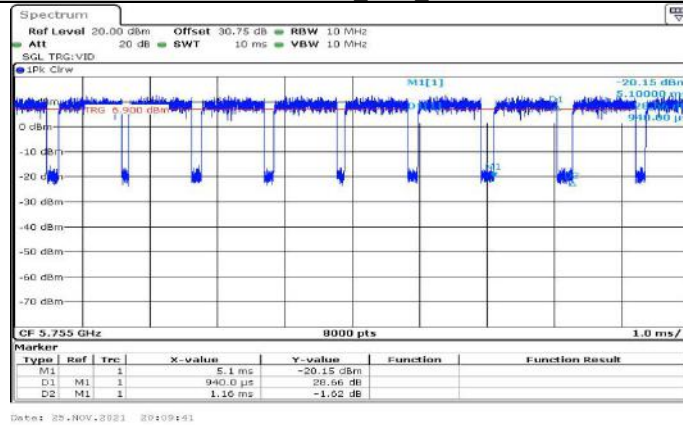
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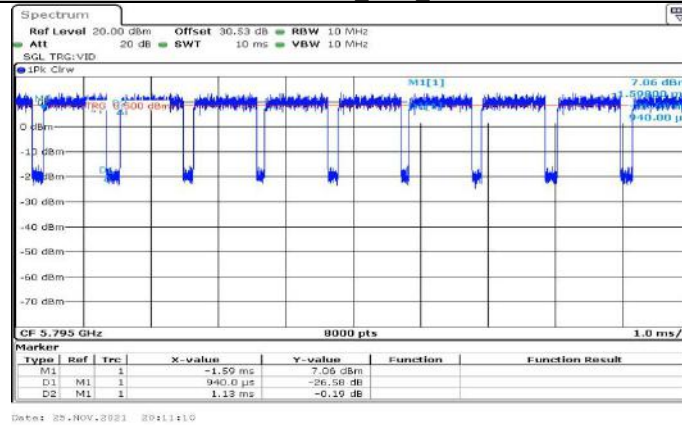
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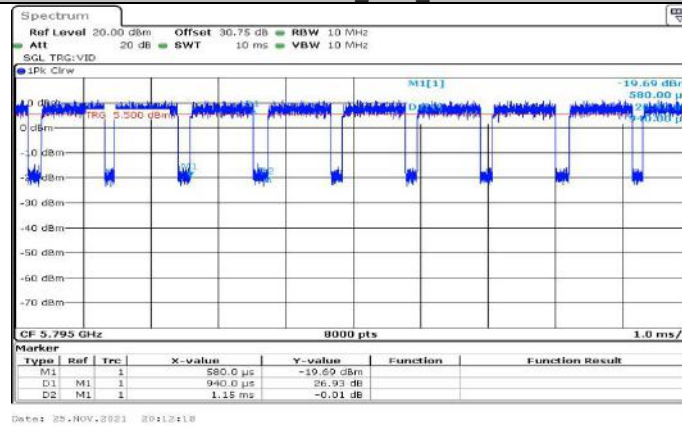
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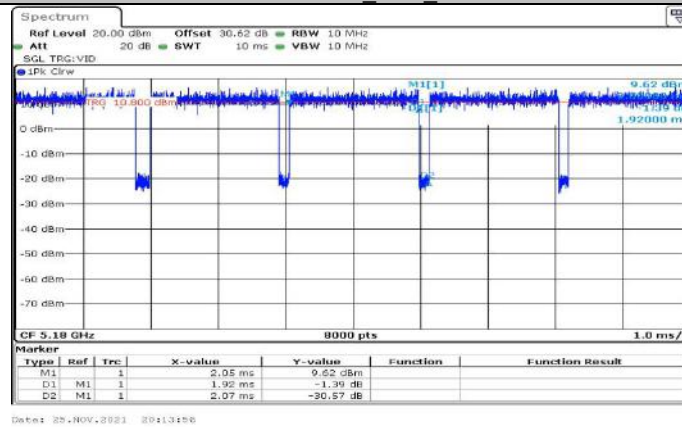
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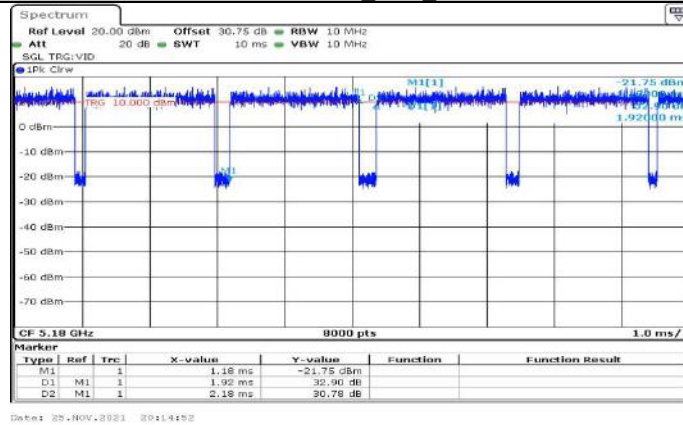
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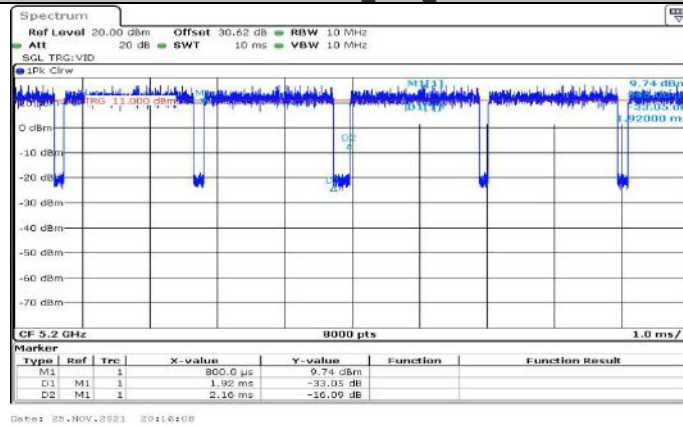
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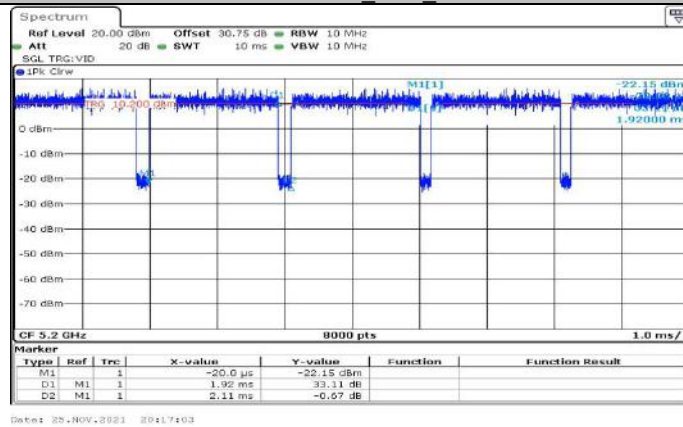
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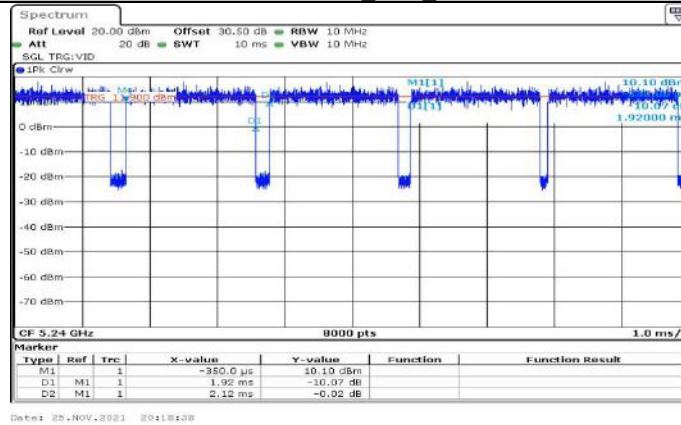
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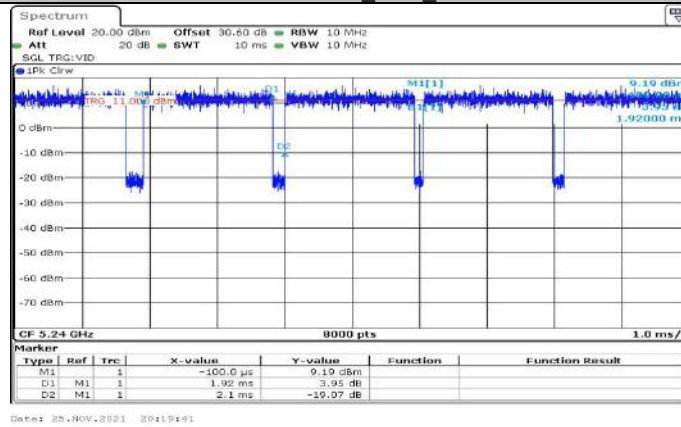
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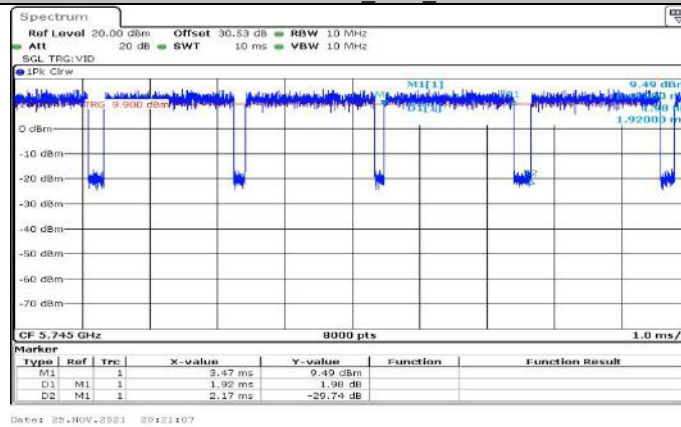
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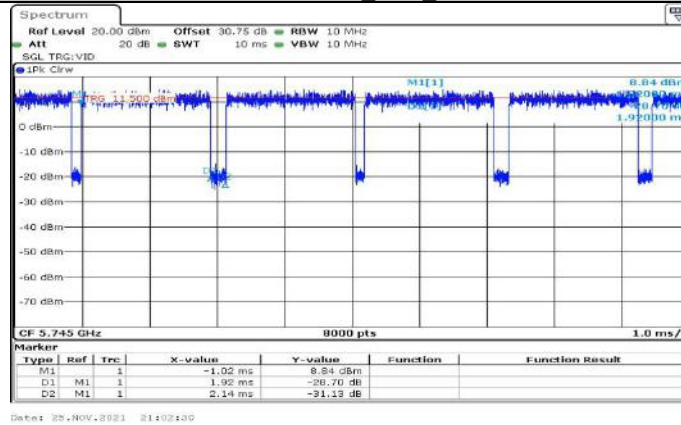
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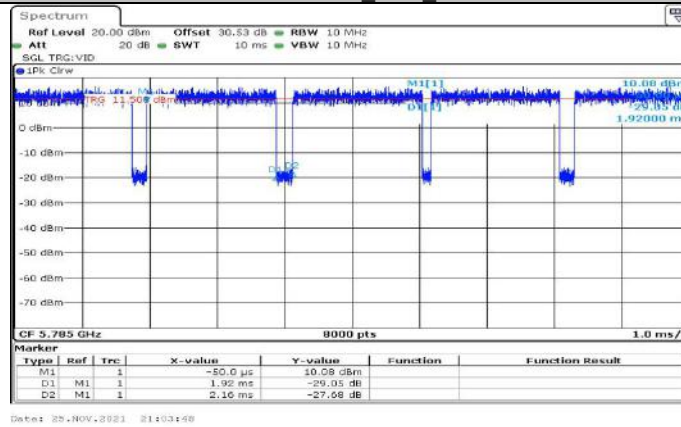
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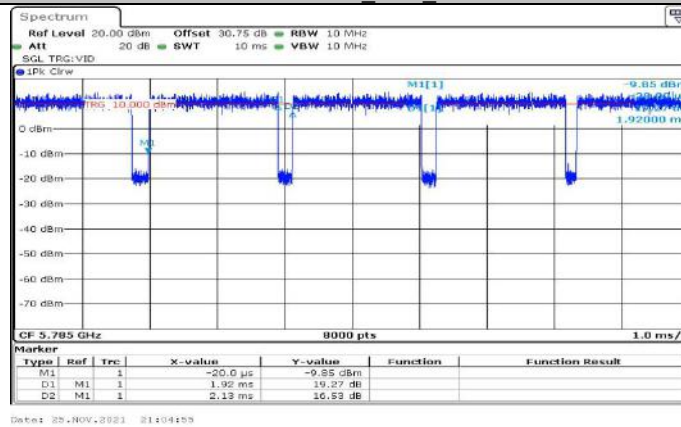
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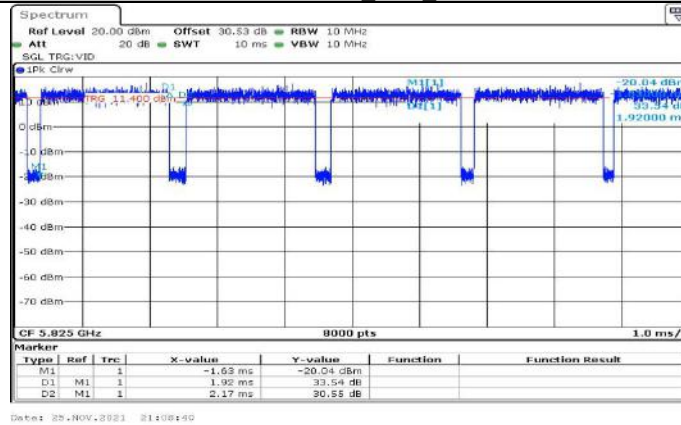
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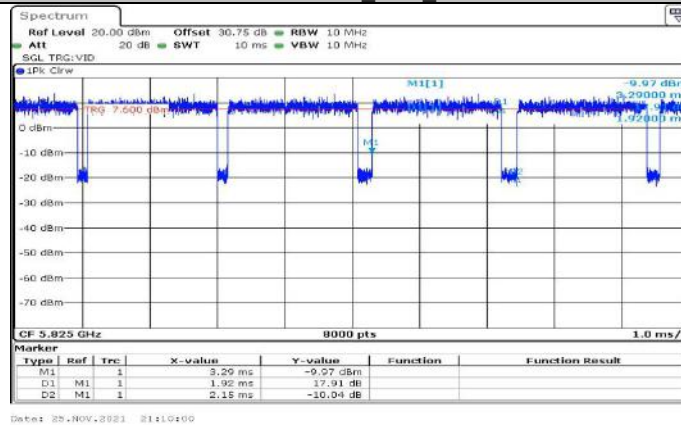
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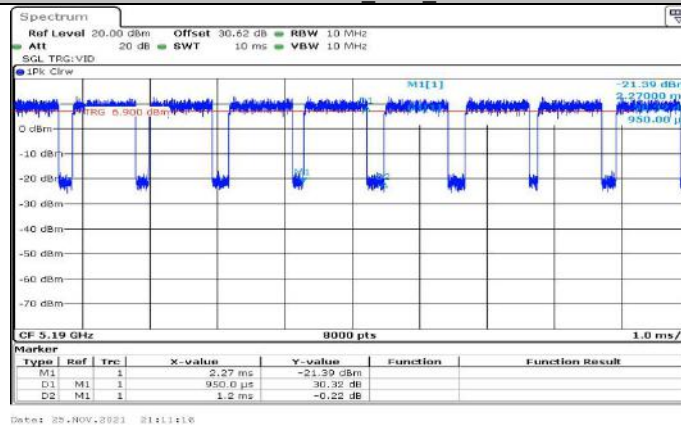
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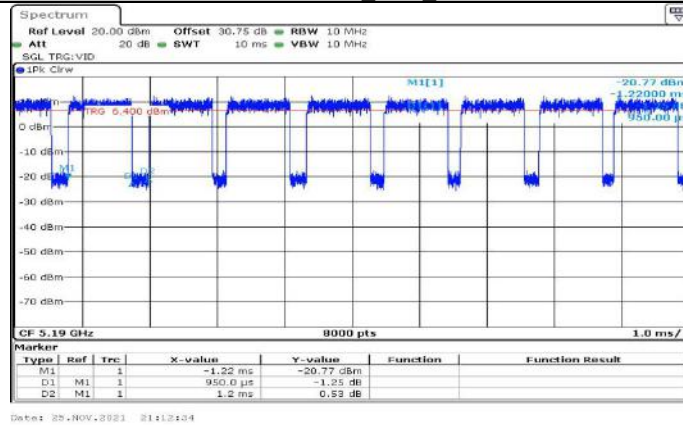
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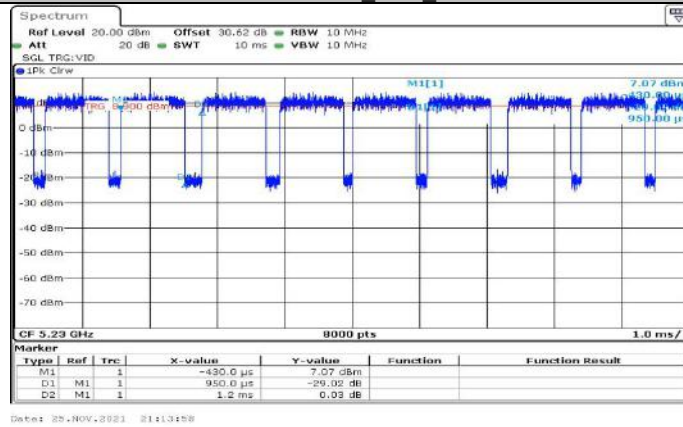
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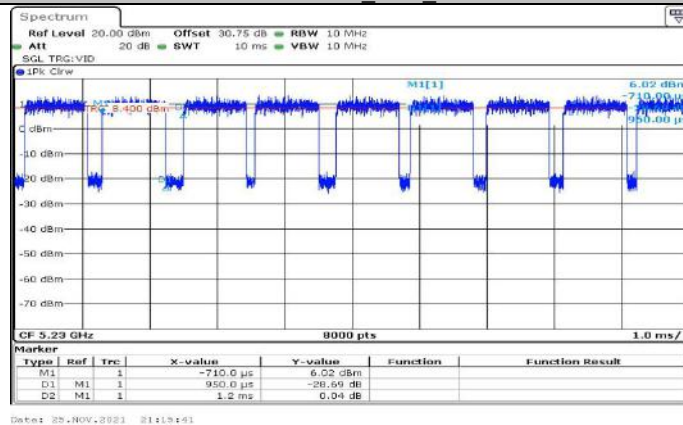
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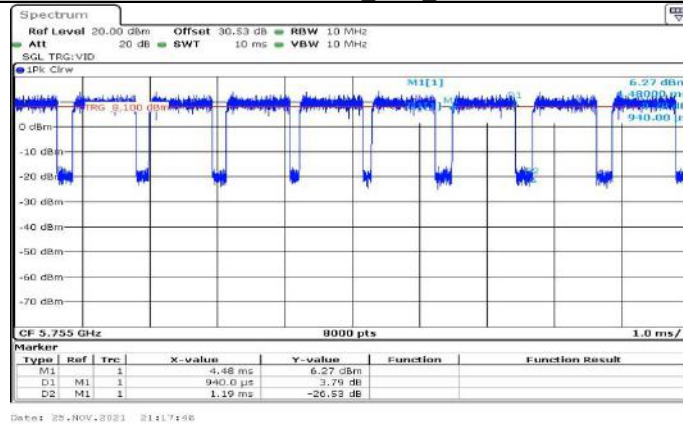
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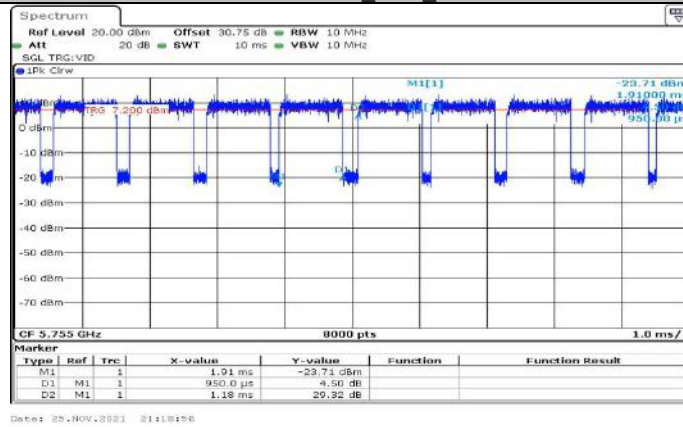
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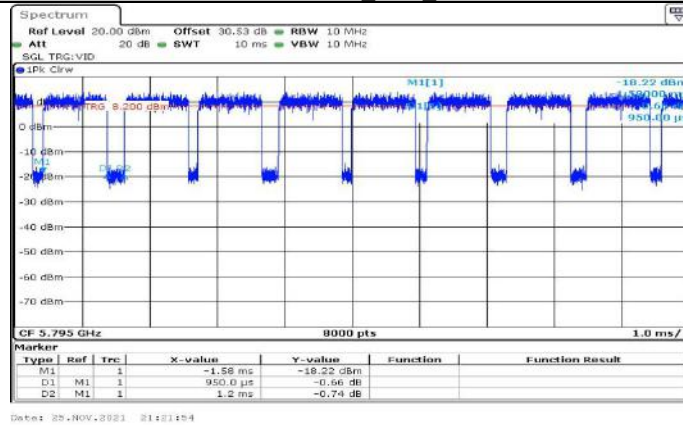
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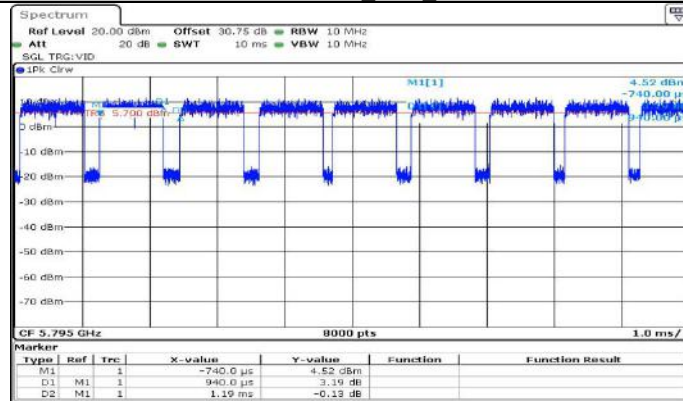
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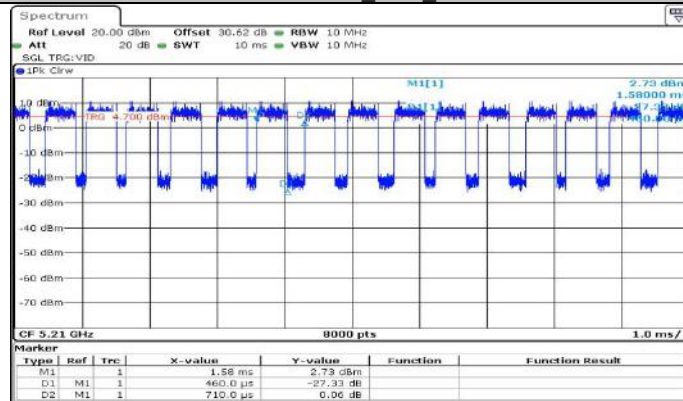


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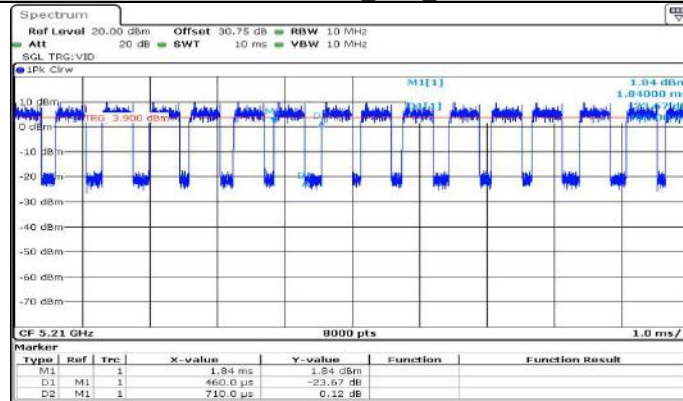
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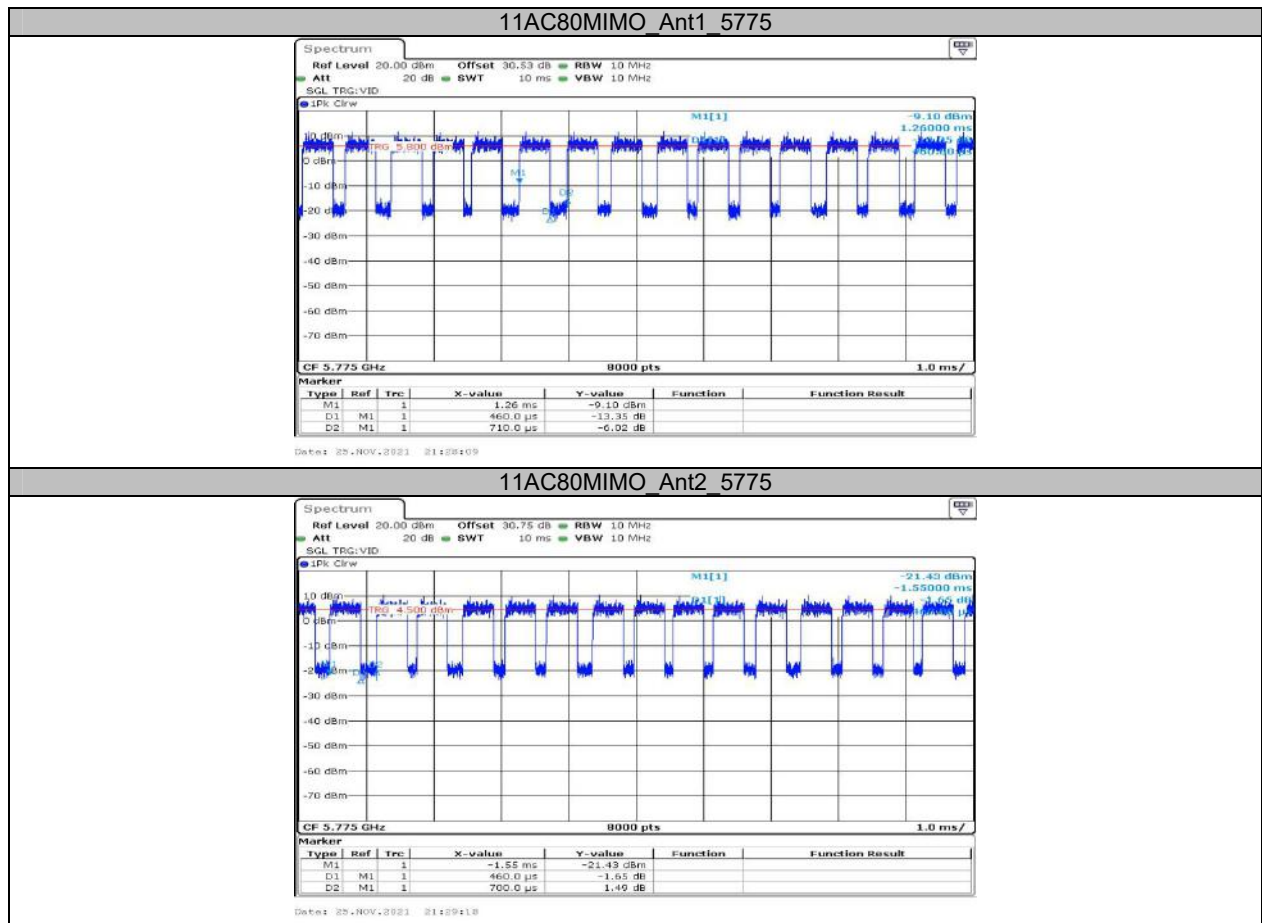


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11AC80MIMO Ant2 5210



Date: 25.NOV.2021 21:25:09



***** END OF REPORT *****