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Appendix for 5G WIFI

FCC ID: 2AR9L0081

Applicant: Fujian Newland Communication Science Technology Co., Ltd.

Address: F5, Hongzhuo Bldg., 1, Rujiangxi Rd., Fuzhou, Fujian, China

Product Name: Router

Trade Mark: Claro, NEWLAND

Product Model: NL-81

Listed Model(s): NL-82, NL-WR8103

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Appendix A1: Emission Bandwidth

Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.40	5170.76	5189.16	---	PASS
	Ant2	5180	18.40	5170.72	5189.12	---	PASS
	Ant1	5200	18.36	5190.76	5209.12	---	PASS
	Ant2	5200	18.40	5190.72	5209.12	---	PASS
	Ant1	5240	18.52	5230.76	5249.28	---	PASS
	Ant2	5240	18.64	5230.60	5249.24	---	PASS
	Ant1	5745	18.52	5735.76	5754.28	---	PASS
	Ant2	5745	18.88	5735.28	5754.16	---	PASS
	Ant1	5785	18.56	5775.68	5794.24	---	PASS
	Ant2	5785	18.64	5775.64	5794.28	---	PASS
	Ant1	5825	18.44	5815.76	5834.20	---	PASS
	Ant2	5825	18.44	5815.64	5834.08	---	PASS
11N20MIMO	Ant1	5180	19.40	5170.20	5189.60	---	PASS
	Ant2	5180	19.32	5170.28	5189.60	---	PASS
	Ant1	5200	19.36	5190.32	5209.68	---	PASS
	Ant2	5200	19.44	5190.24	5209.68	---	PASS
	Ant1	5240	19.40	5230.32	5249.72	---	PASS
	Ant2	5240	19.40	5230.32	5249.72	---	PASS
	Ant1	5745	19.28	5735.40	5754.68	---	PASS
	Ant2	5745	19.48	5735.16	5754.64	---	PASS
	Ant1	5785	19.40	5775.20	5794.60	---	PASS
	Ant2	5785	19.32	5775.40	5794.72	---	PASS
	Ant1	5825	19.40	5815.32	5834.72	---	PASS
	Ant2	5825	19.36	5815.32	5834.68	---	PASS
11N40MIMO	Ant1	5190	41.84	5169.36	5211.20	---	PASS
	Ant2	5190	41.12	5169.36	5210.48	---	PASS
	Ant1	5230	40.24	5209.68	5249.92	---	PASS
	Ant2	5230	40.32	5209.68	5250.00	---	PASS
	Ant1	5755	40.72	5734.68	5775.40	---	PASS
	Ant2	5755	40.88	5734.60	5775.48	---	PASS
	Ant1	5795	41.36	5774.84	5816.20	---	PASS
	Ant2	5795	39.84	5775.00	5814.84	---	PASS
11AC20MIMO	Ant1	5180	19.20	5170.48	5189.68	---	PASS
	Ant2	5180	19.36	5170.32	5189.68	---	PASS
	Ant1	5200	19.28	5190.28	5209.56	---	PASS
	Ant2	5200	19.32	5190.32	5209.64	---	PASS
	Ant1	5240	19.28	5230.32	5249.60	---	PASS

	Ant2	5240	19.48	5230.24	5249.72	---	PASS
	Ant1	5745	19.24	5735.44	5754.68	---	PASS
	Ant2	5745	19.32	5735.32	5754.64	---	PASS
	Ant1	5785	19.28	5775.36	5794.64	---	PASS
	Ant2	5785	19.56	5775.24	5794.80	---	PASS
	Ant1	5825	19.36	5815.28	5834.64	---	PASS
	Ant2	5825	19.24	5815.40	5834.64	---	PASS
11AC40MIMO	Ant1	5190	41.36	5169.12	5210.48	---	PASS
	Ant2	5190	40.24	5169.76	5210.00	---	PASS
	Ant1	5230	40.08	5210.00	5250.08	---	PASS
	Ant2	5230	41.12	5209.60	5250.72	---	PASS
	Ant1	5755	40.64	5734.68	5775.32	---	PASS
	Ant2	5755	40.08	5735.56	5775.64	---	PASS
	Ant1	5795	40.32	5774.60	5814.92	---	PASS
	Ant2	5795	40.08	5775.16	5815.24	---	PASS
11AC80MIMO	Ant1	5210	79.52	5170.48	5250.00	---	PASS
	Ant2	5210	79.04	5170.48	5249.52	---	PASS
	Ant1	5775	86.40	5734.20	5820.60	---	PASS
	Ant2	5775	79.68	5735.00	5814.68	---	PASS

Test Graphs

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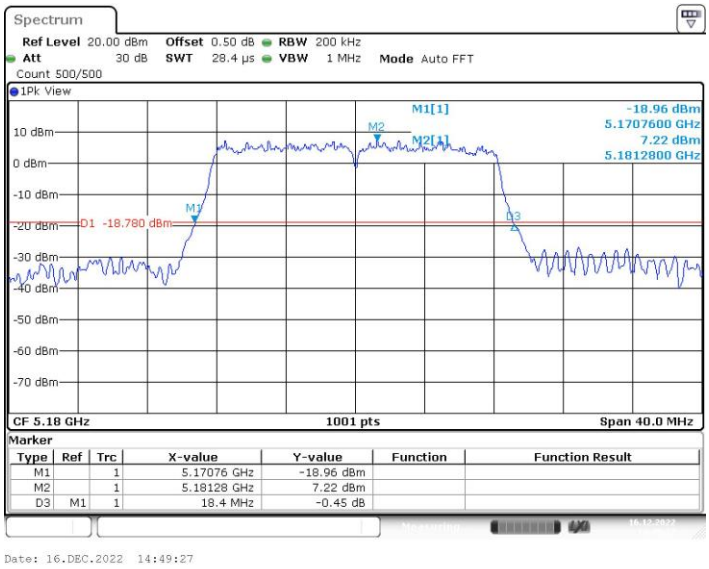

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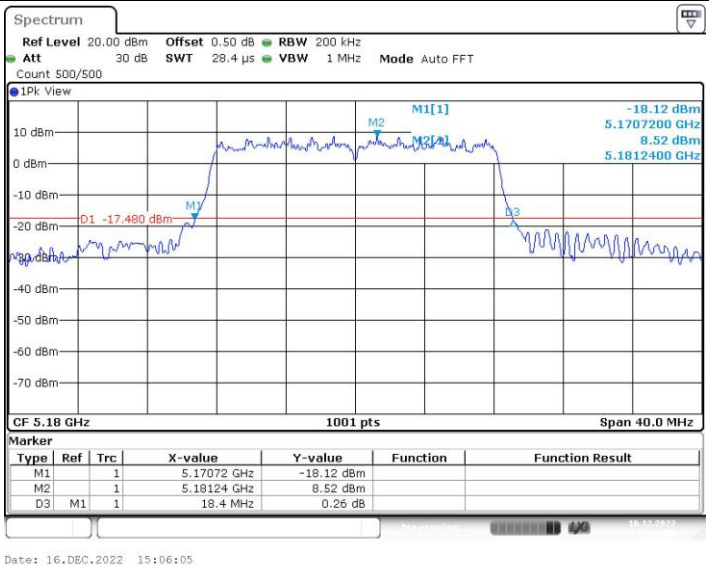

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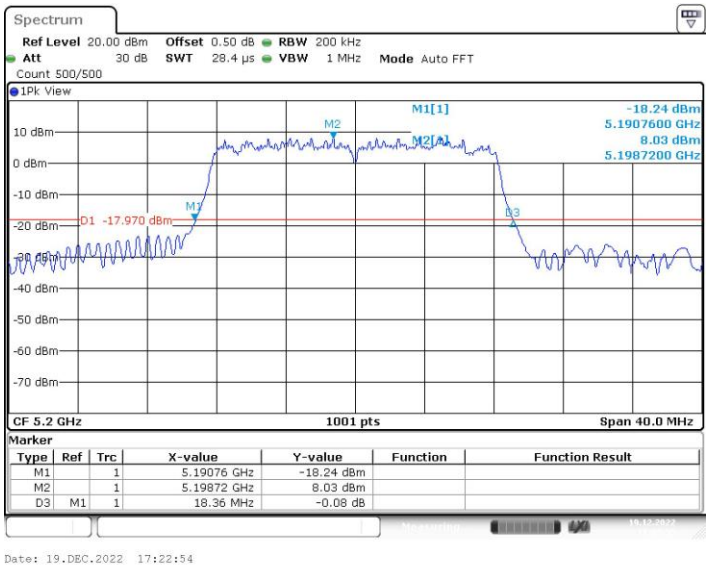

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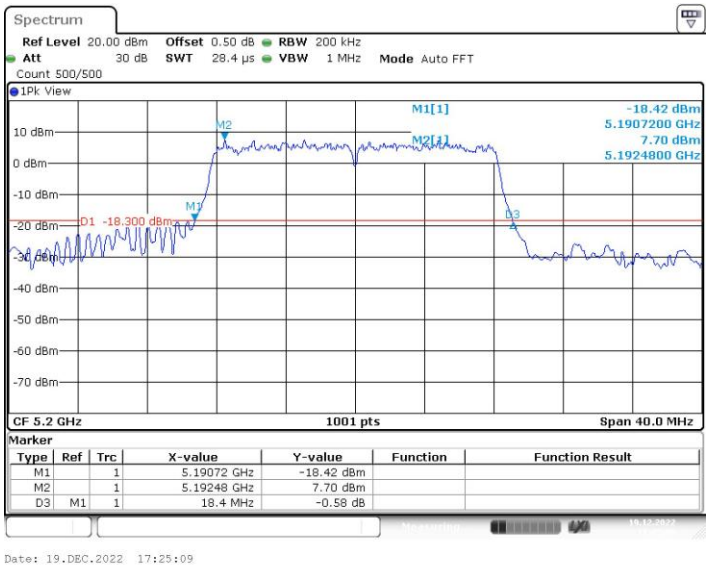

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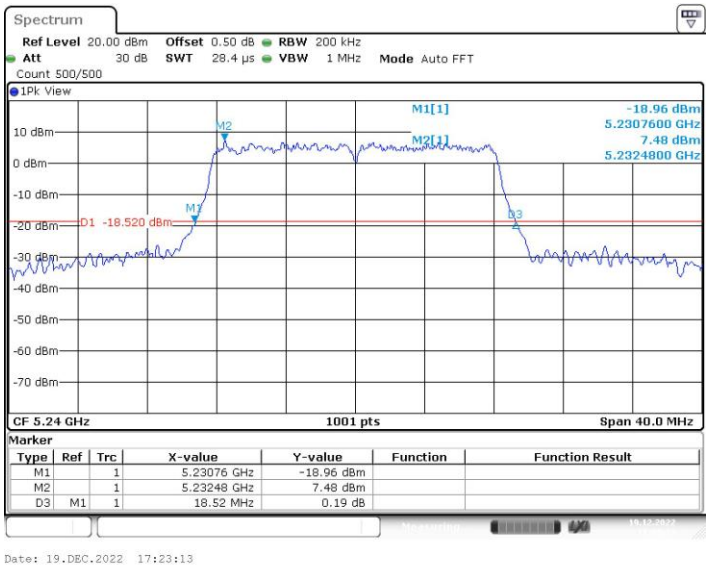

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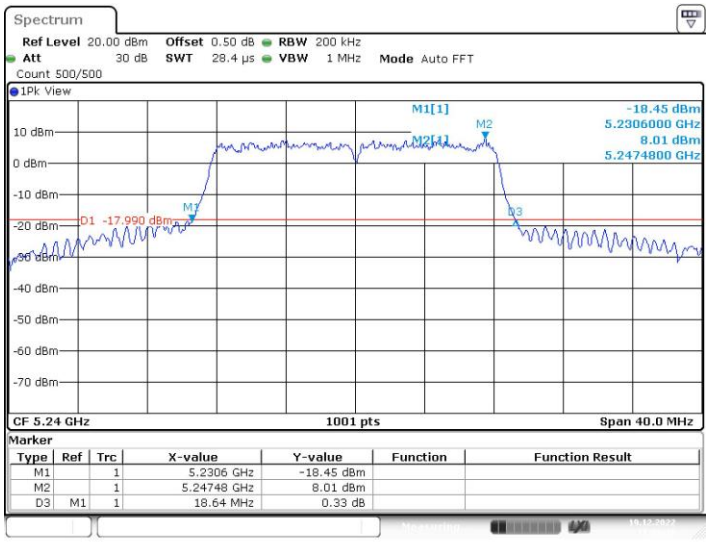

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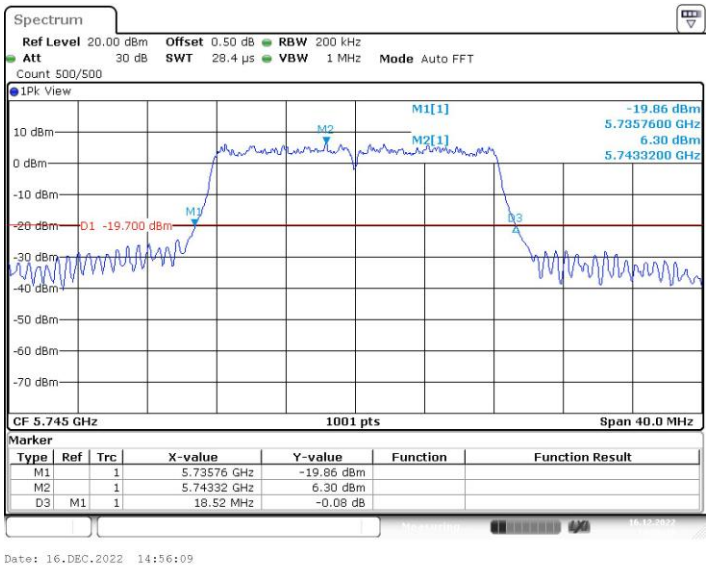

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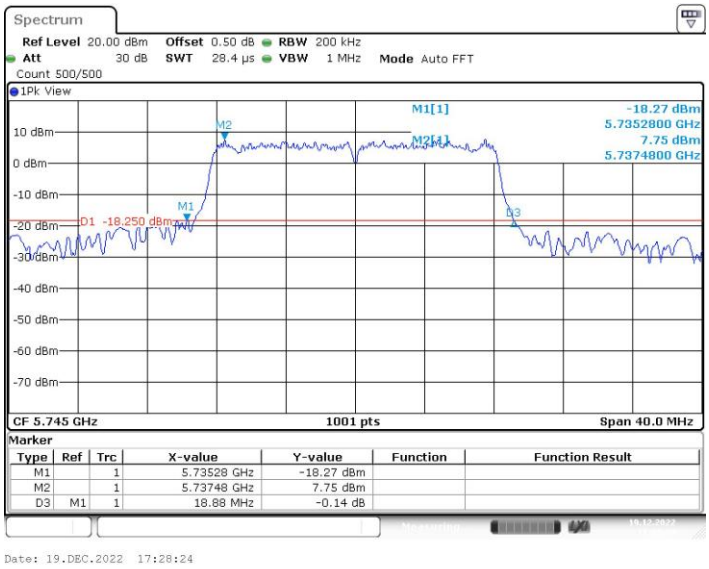

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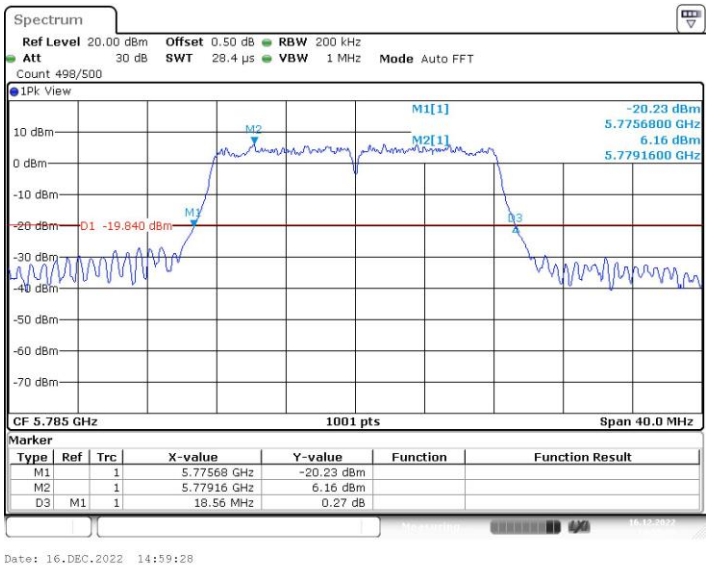

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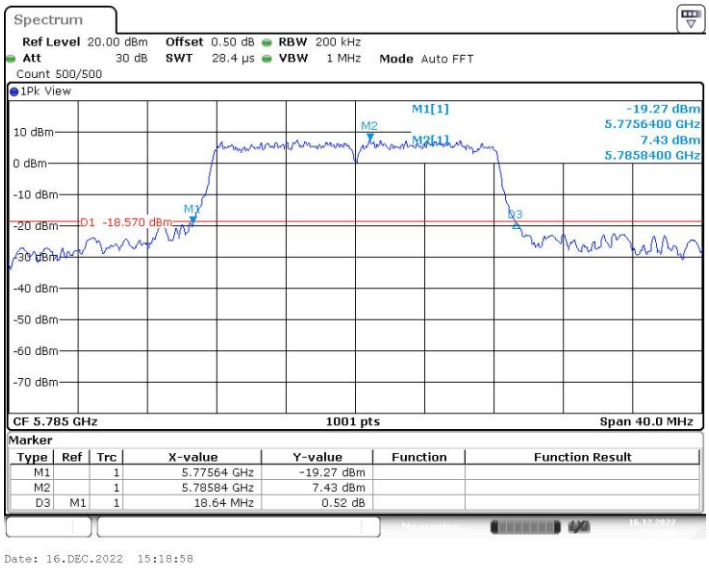

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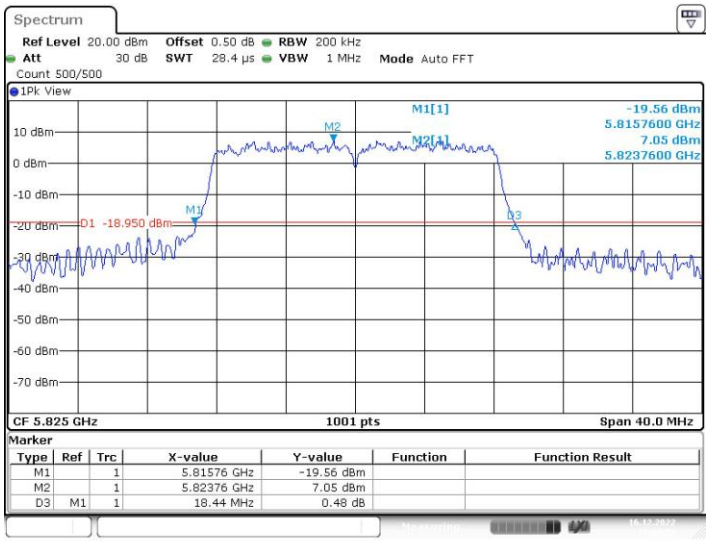

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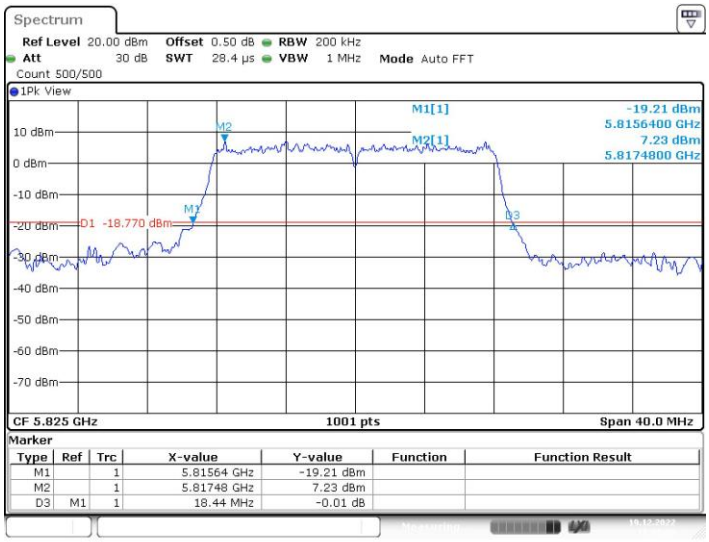

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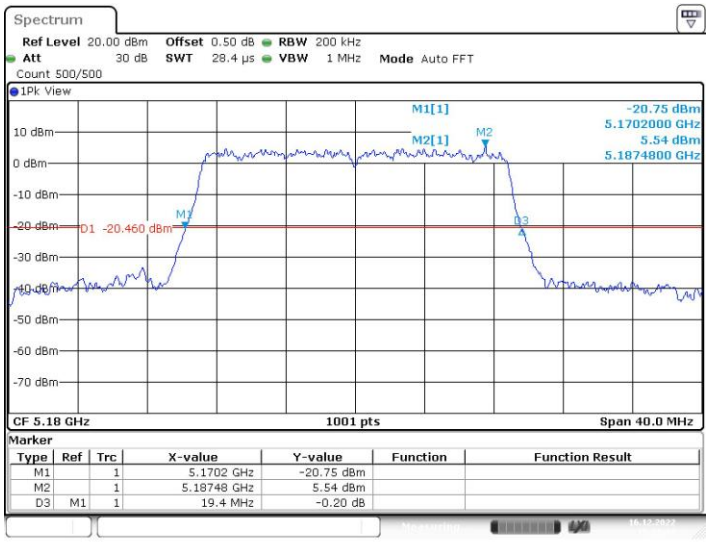

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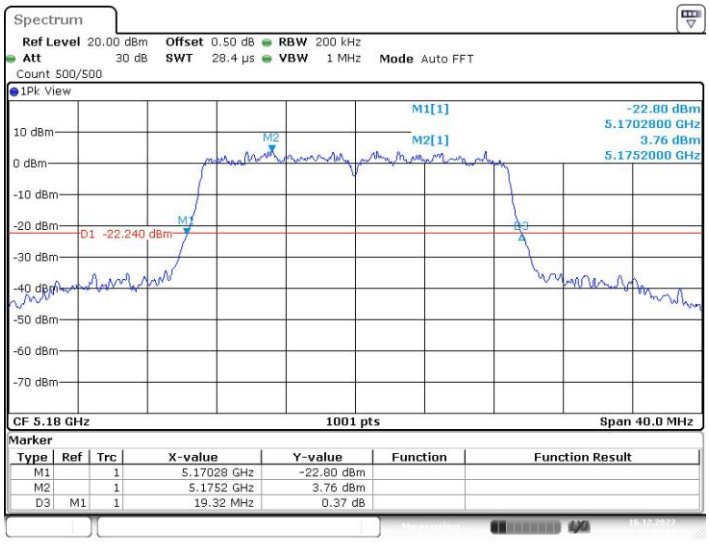

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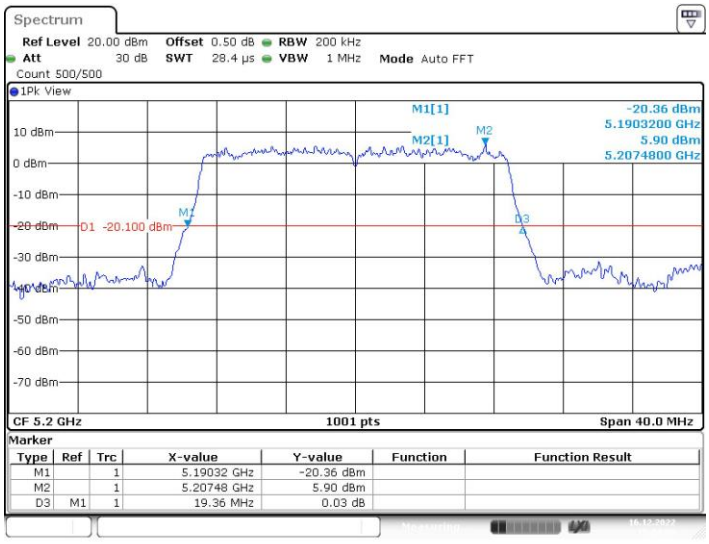

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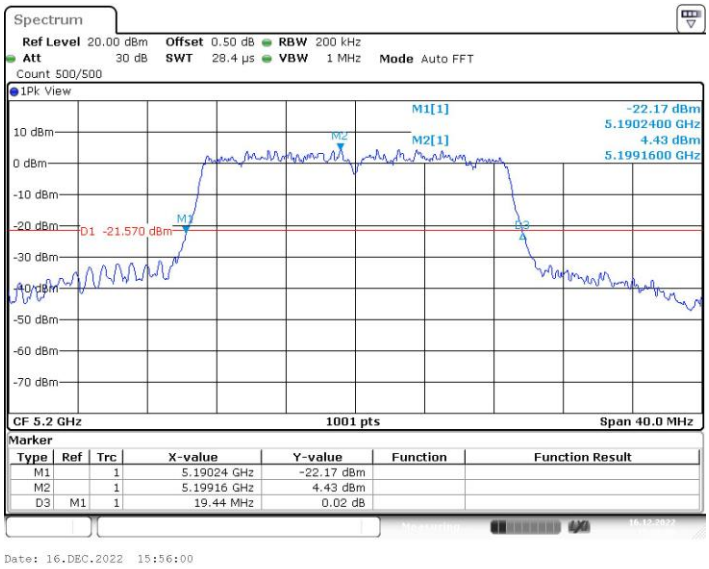

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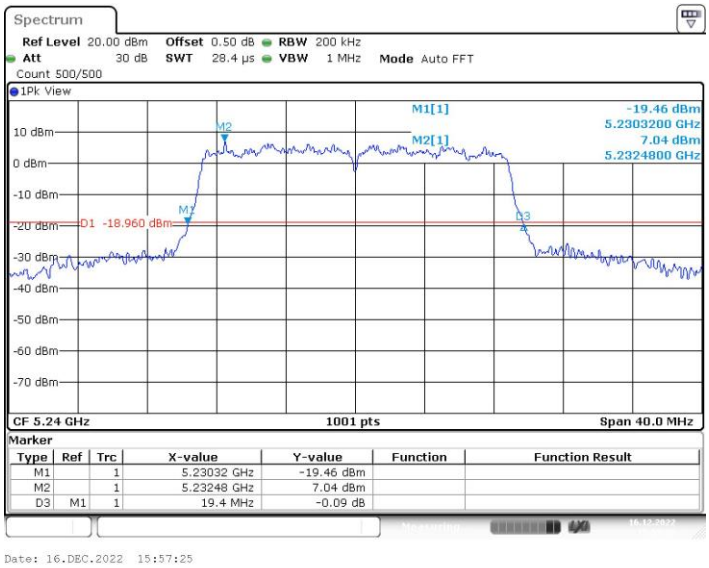

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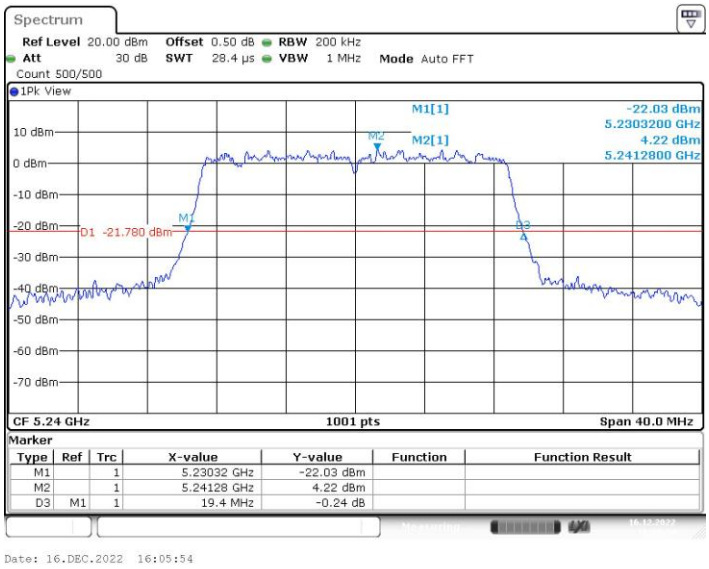

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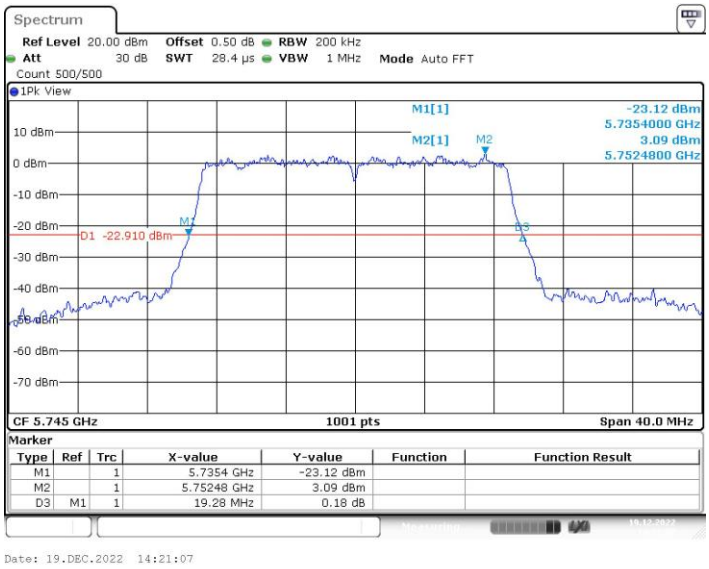

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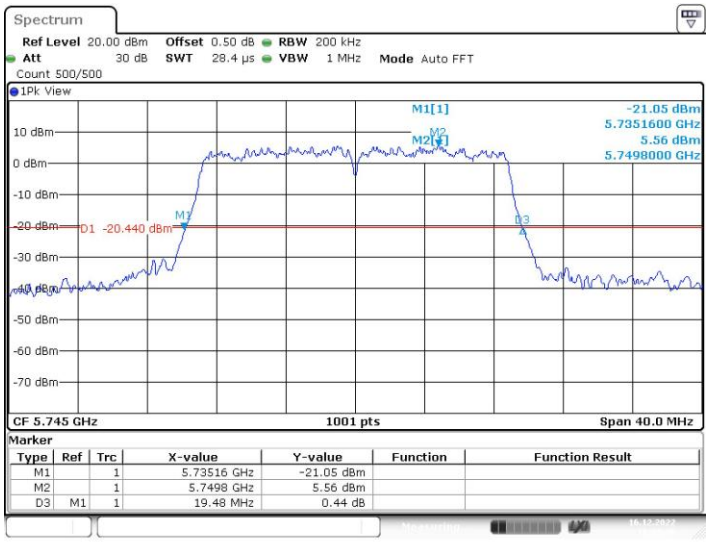

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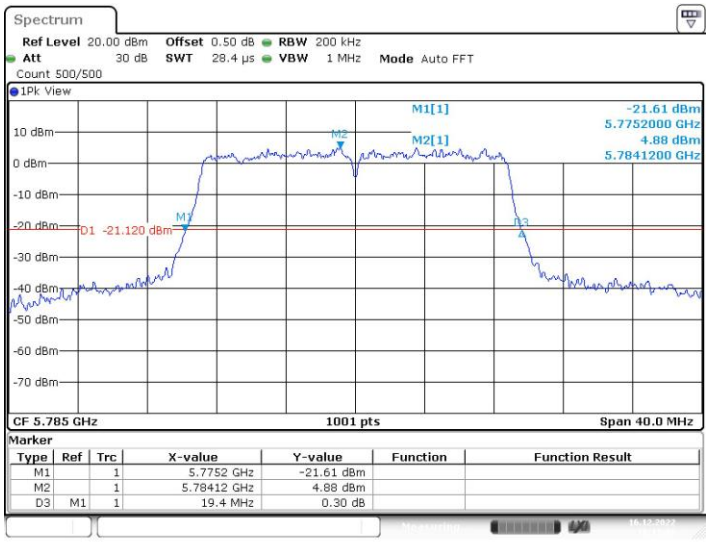

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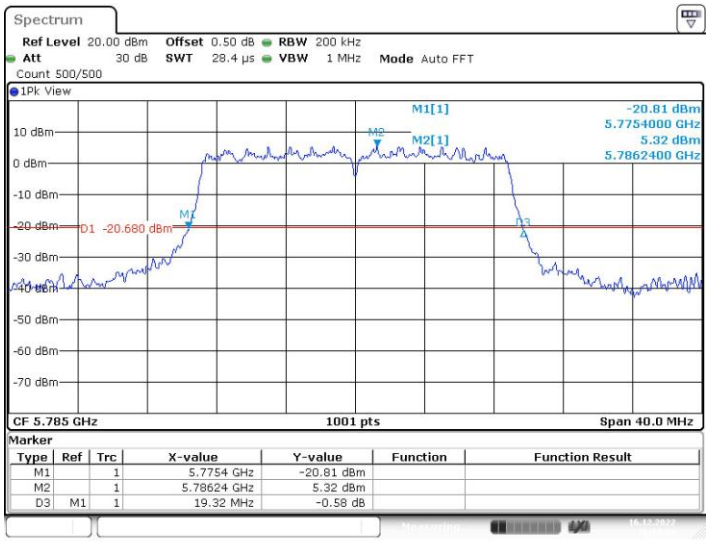

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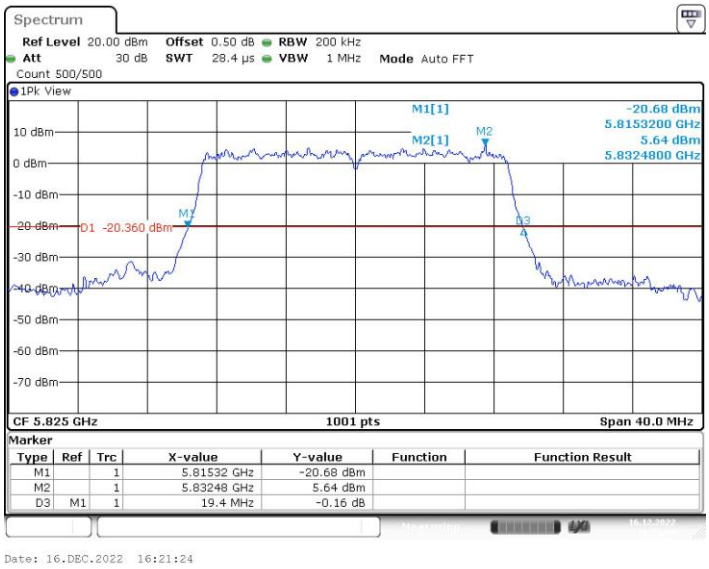

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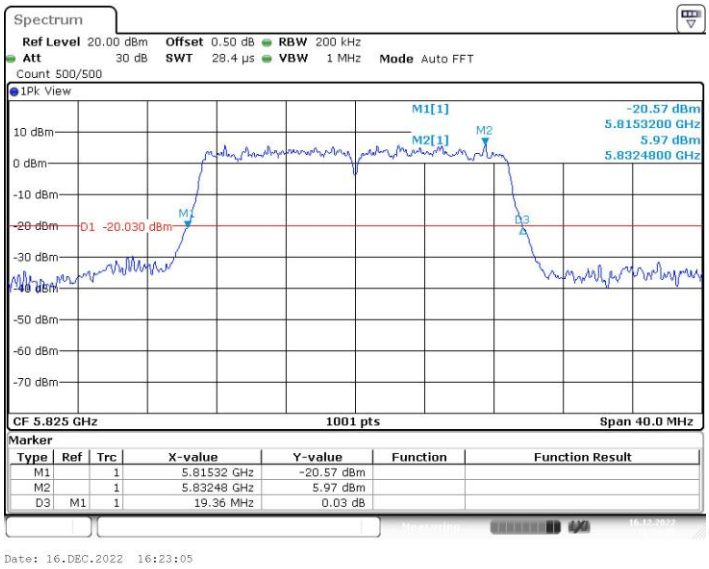

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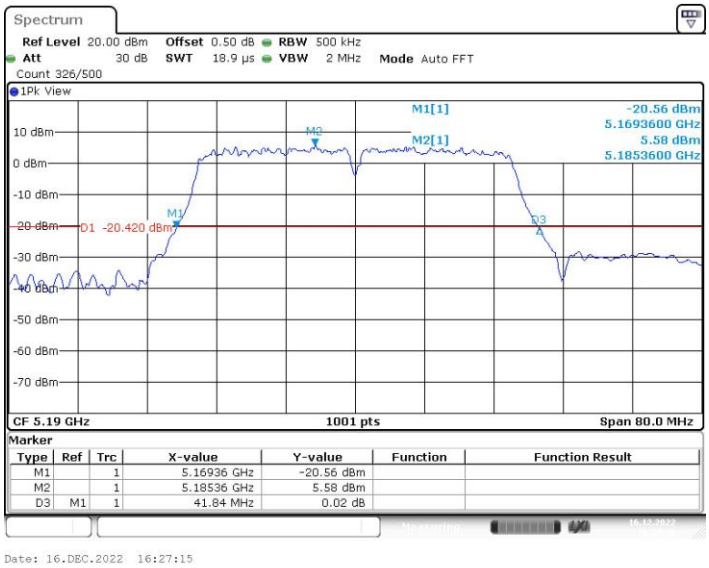

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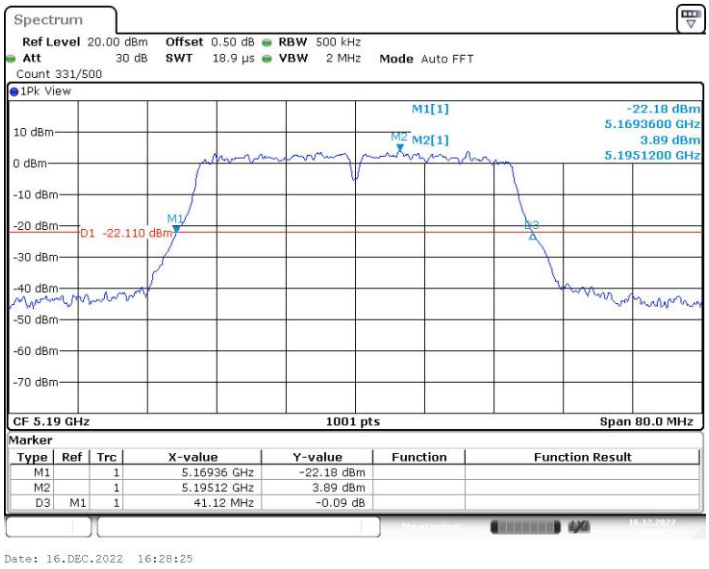

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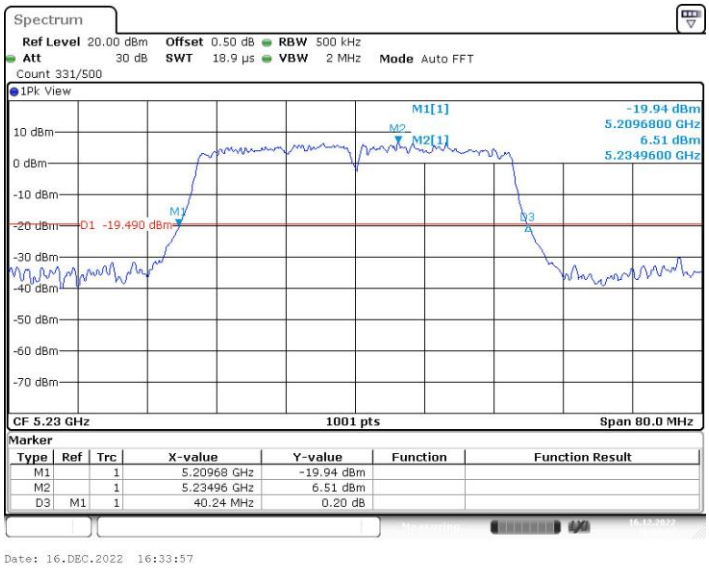

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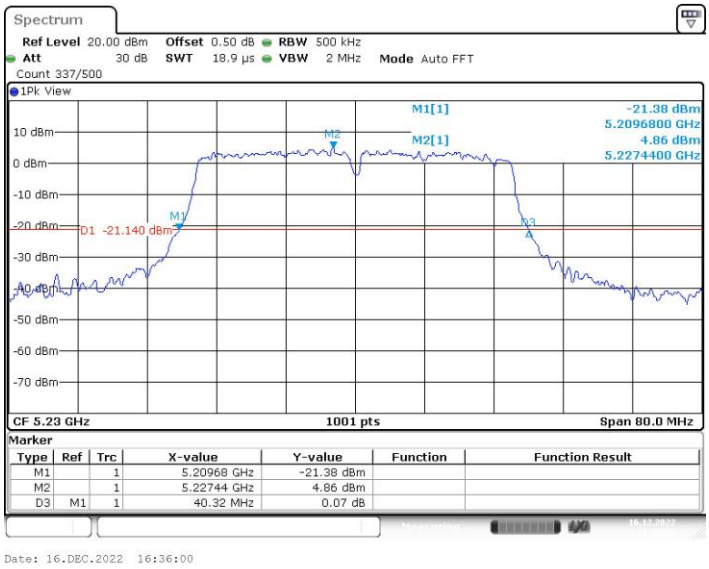

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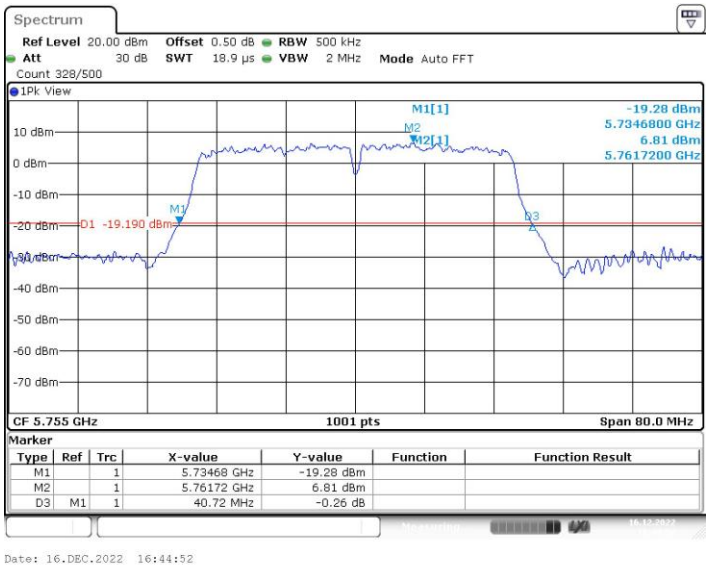

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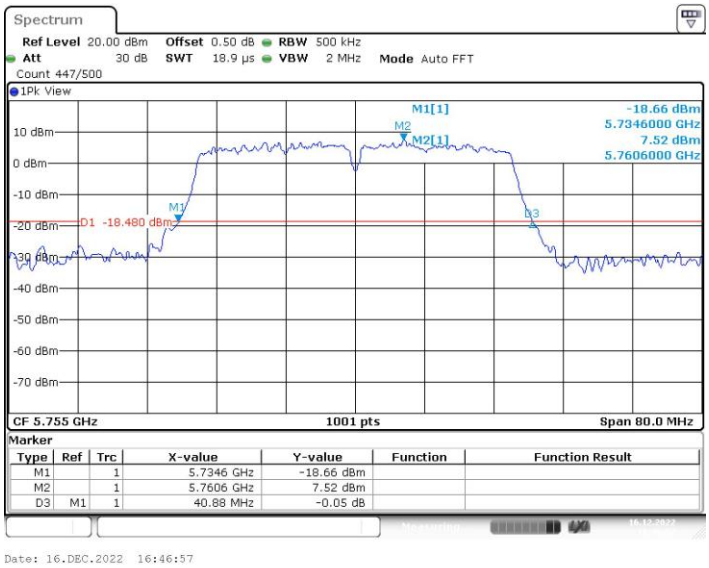

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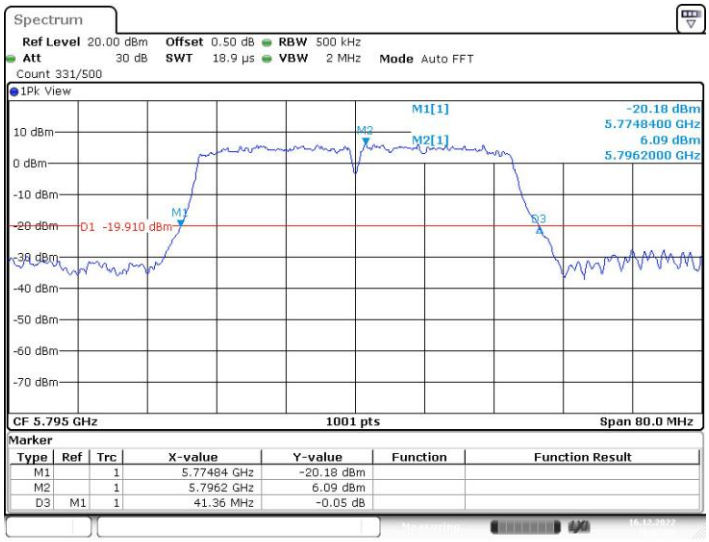

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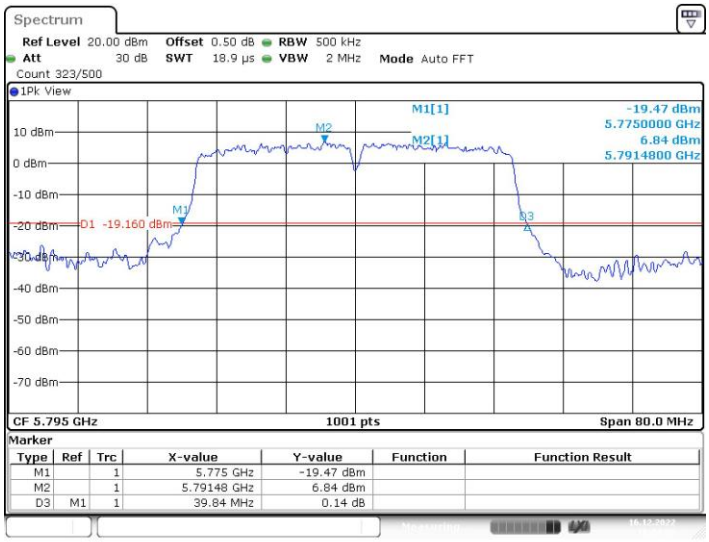

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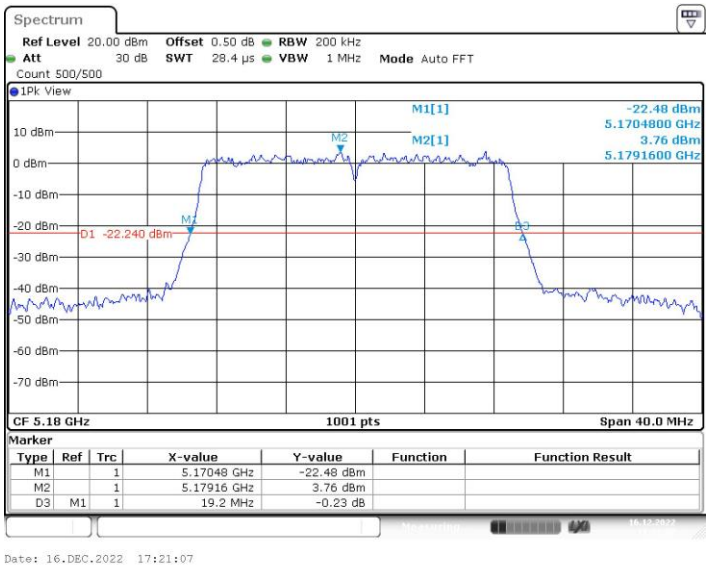

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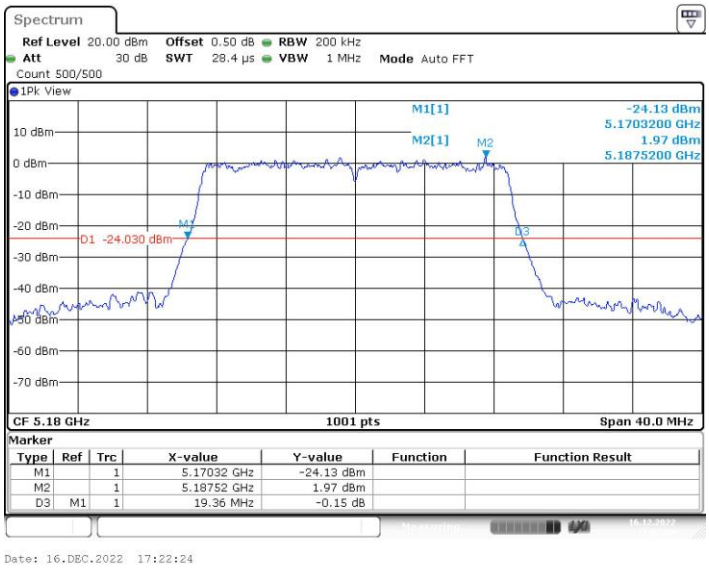

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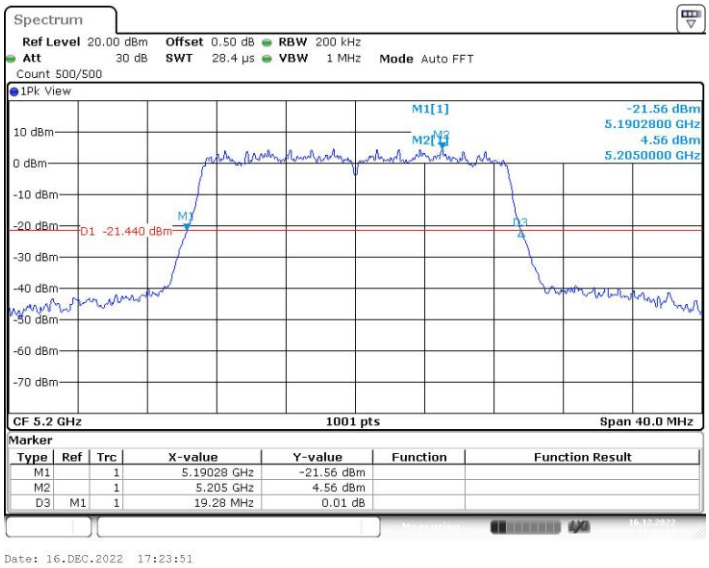

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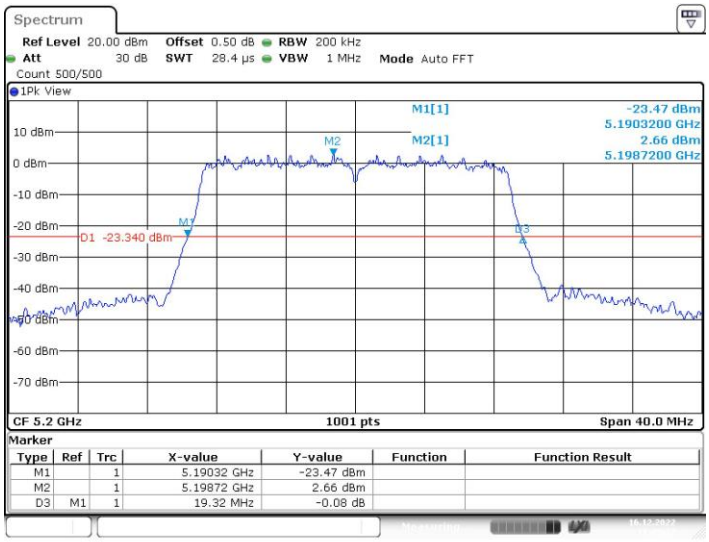

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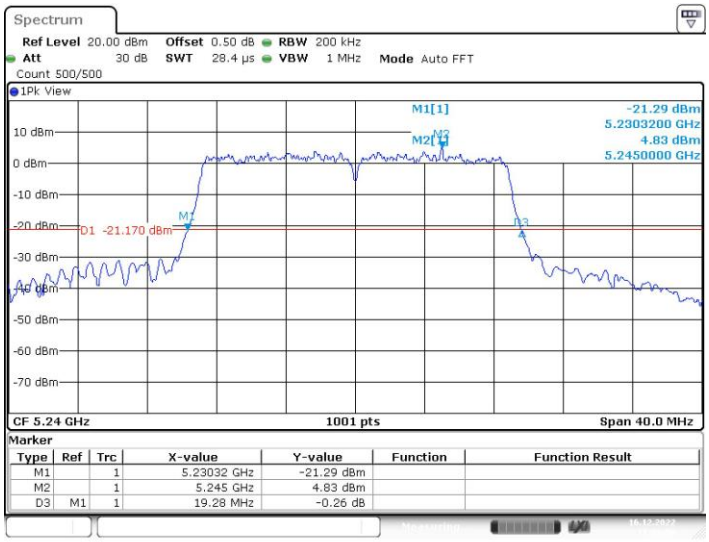

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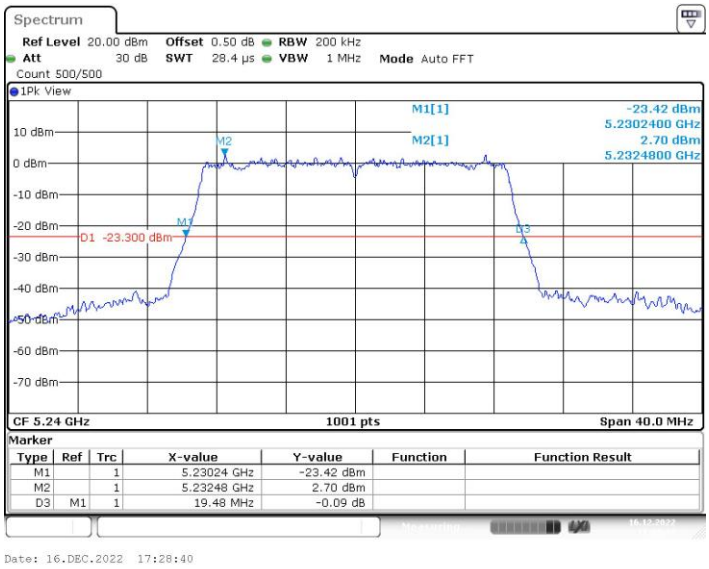

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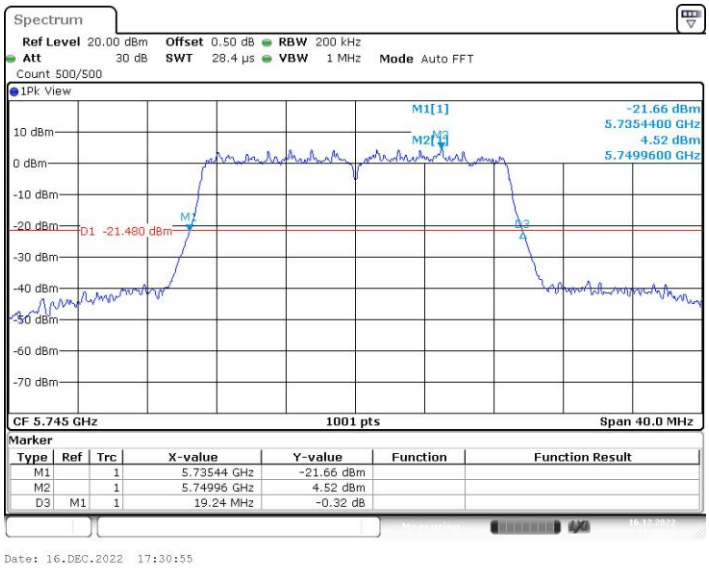

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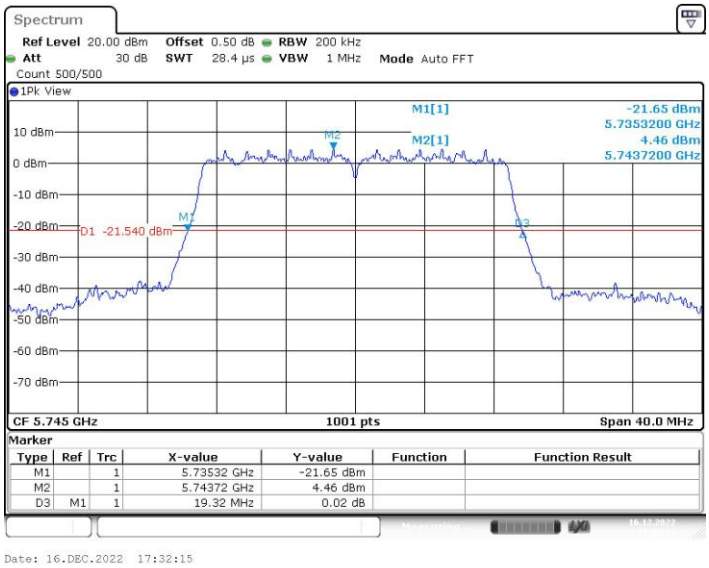

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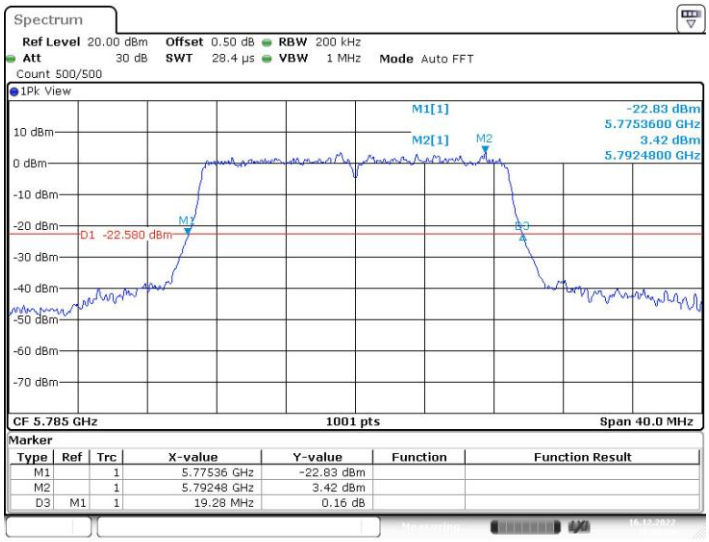

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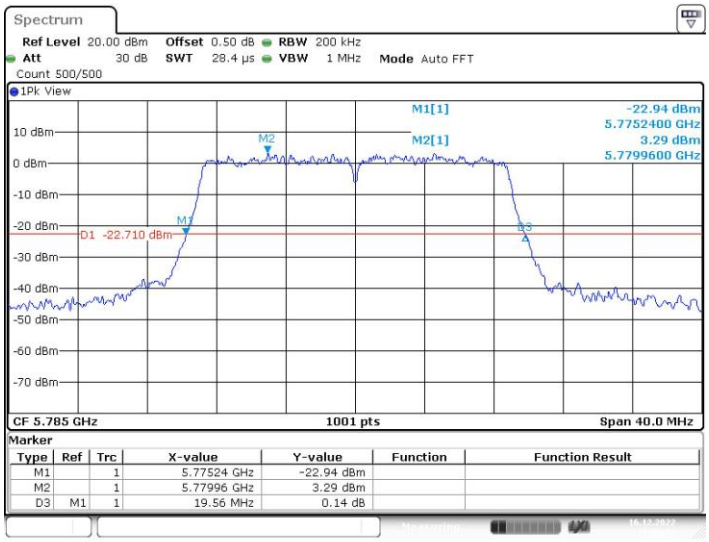

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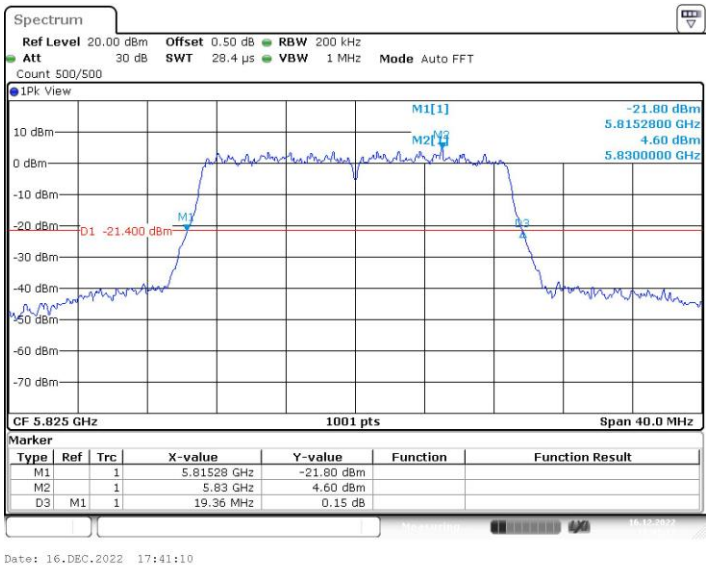

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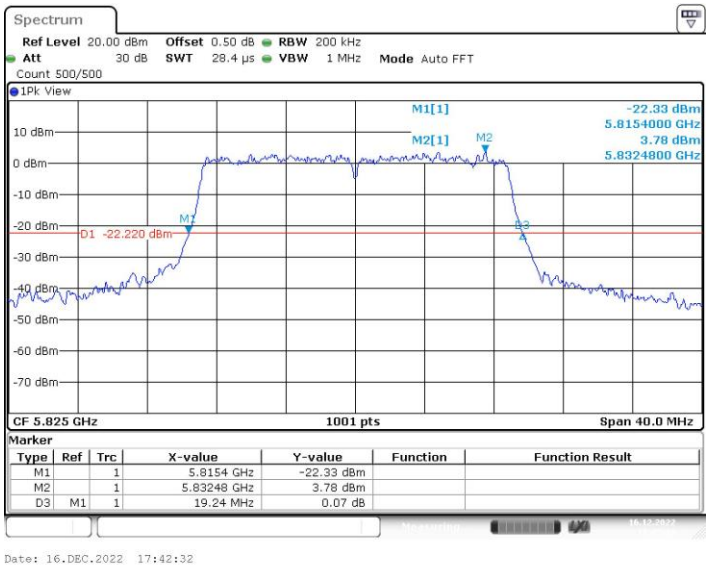

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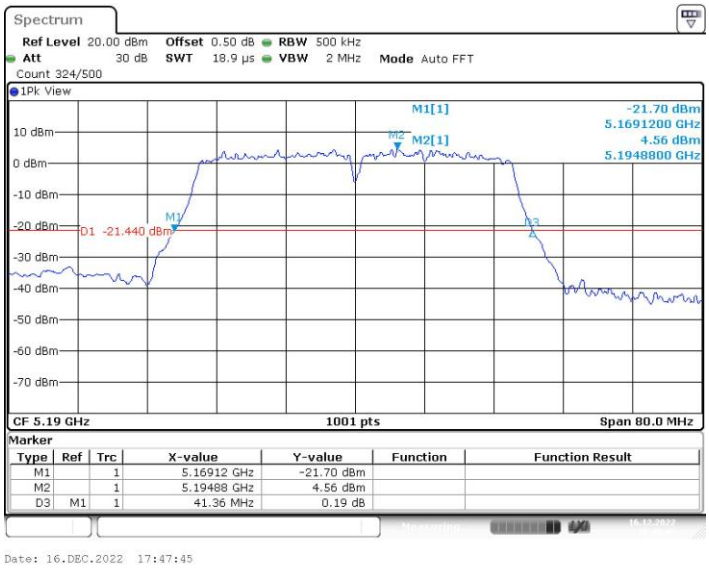

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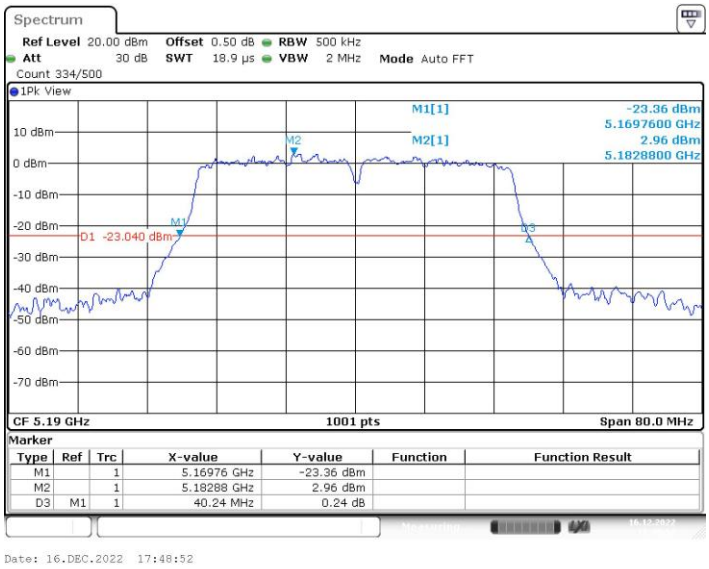

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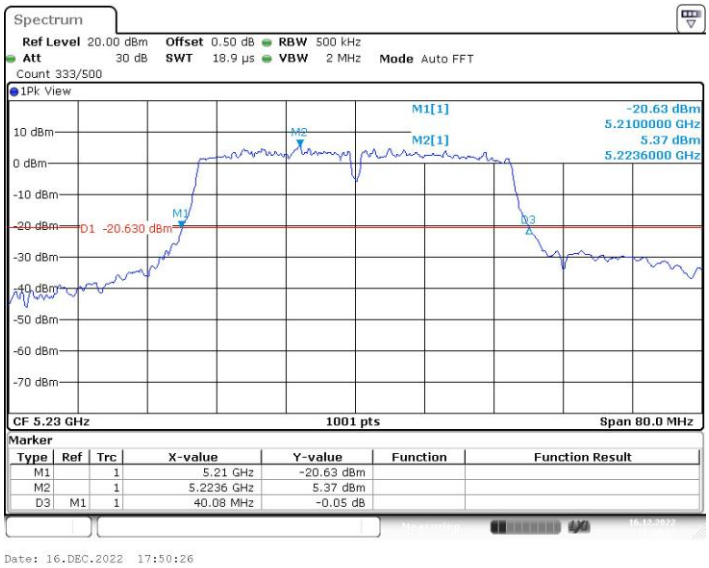

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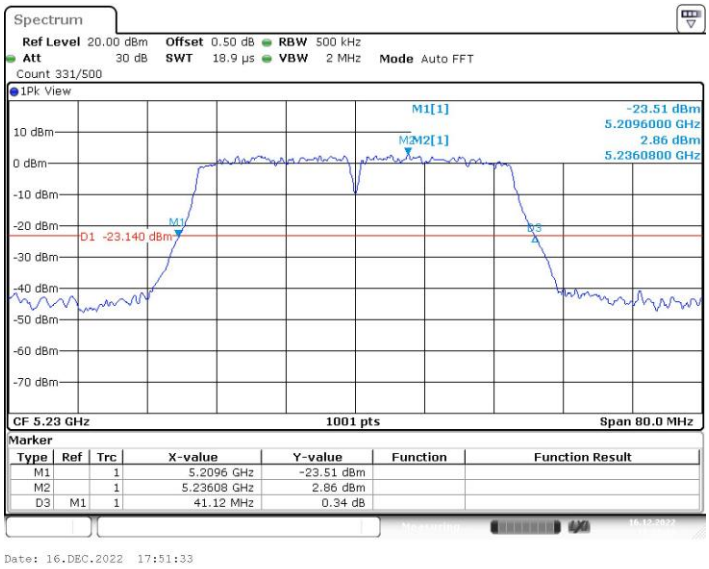

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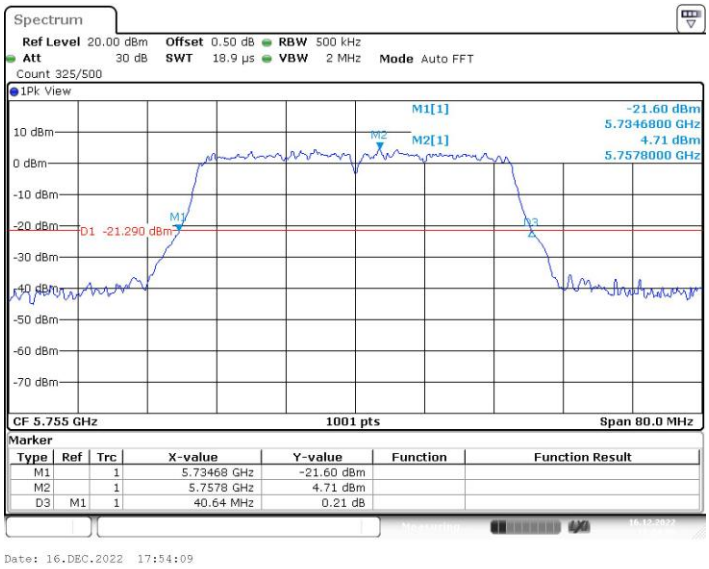

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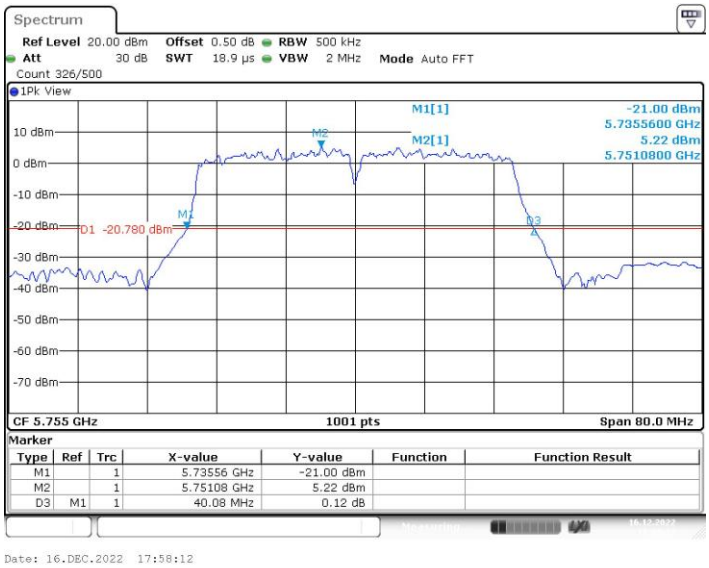

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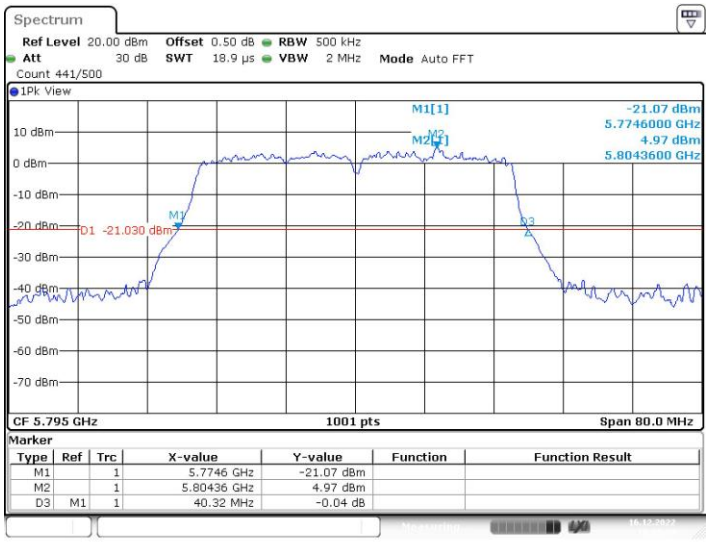

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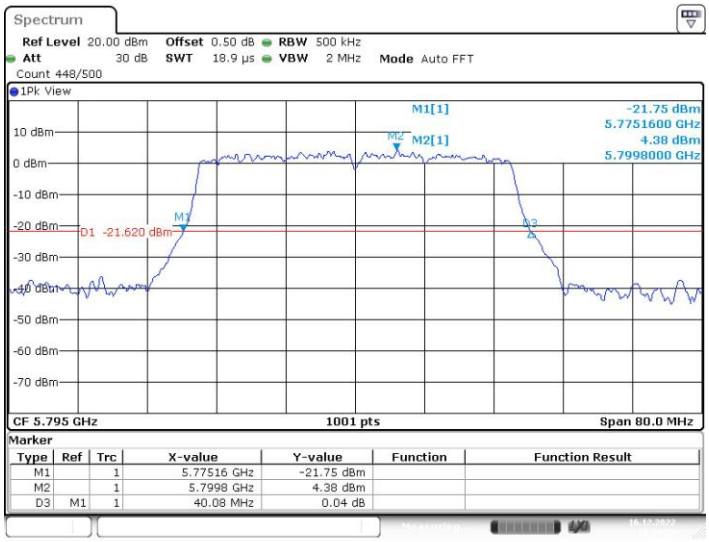

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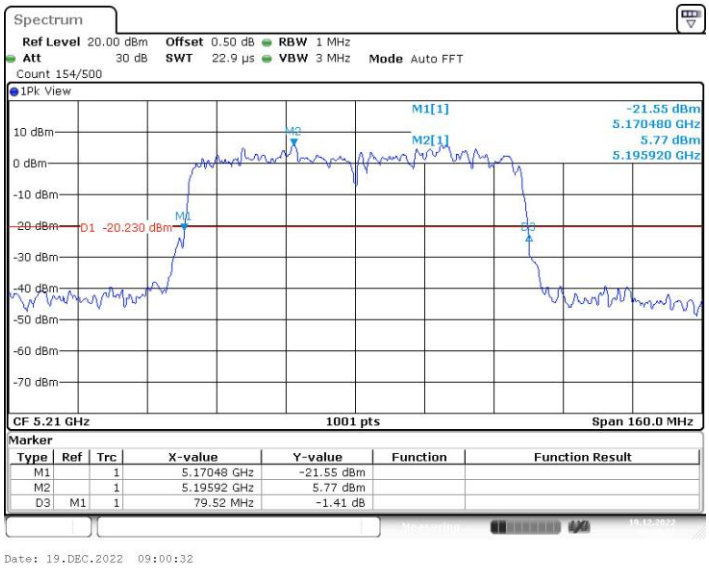

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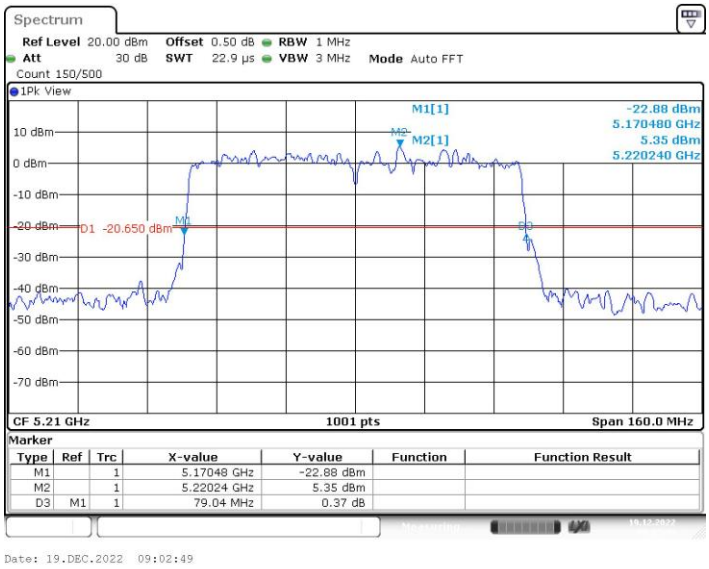

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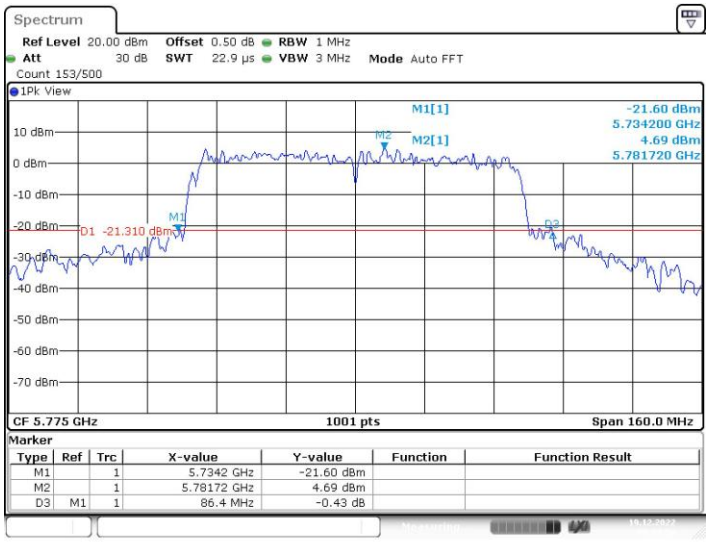

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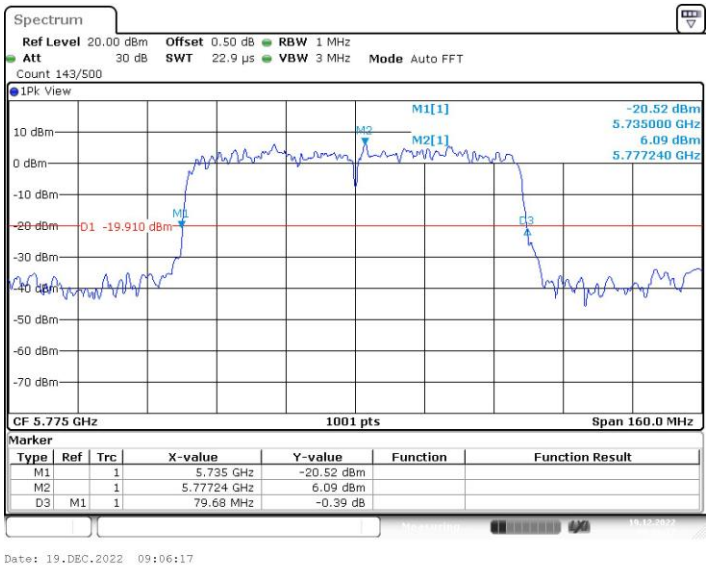

Appendix A2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.583	5171.688	5188.272	---	PASS
	Ant2	5180	16.743	5171.528	5188.272	---	PASS
	Ant1	5200	16.743	5191.608	5208.352	---	PASS
	Ant2	5200	16.943	5191.489	5208.432	---	PASS
	Ant1	5240	16.703	5231.648	5248.352	---	PASS
	Ant2	5240	16.983	5231.489	5248.472	---	PASS
	Ant1	5745	16.583	5736.688	5753.272	---	PASS
	Ant2	5745	16.663	5736.648	5753.312	---	PASS
	Ant1	5785	16.543	5776.728	5793.272	---	PASS
	Ant2	5785	16.703	5776.608	5793.312	---	PASS
	Ant1	5825	16.663	5816.648	5833.312	---	PASS
	Ant2	5825	16.783	5816.528	5833.312	---	PASS
11N20MIMO	Ant1	5180	17.702	5171.129	5188.831	---	PASS
	Ant2	5180	17.702	5171.129	5188.831	---	PASS
	Ant1	5200	17.702	5191.129	5208.831	---	PASS
	Ant2	5200	17.742	5191.129	5208.871	---	PASS
	Ant1	5240	17.742	5231.129	5248.871	---	PASS
	Ant2	5240	17.822	5231.089	5248.911	---	PASS
	Ant1	5745	17.702	5736.129	5753.831	---	PASS
	Ant2	5745	17.702	5736.169	5753.871	---	PASS
	Ant1	5785	17.742	5776.089	5793.831	---	PASS
	Ant2	5785	17.742	5776.089	5793.831	---	PASS
	Ant1	5825	17.742	5816.129	5833.871	---	PASS
	Ant2	5825	17.782	5816.089	5833.871	---	PASS
11N40MIMO	Ant1	5190	36.284	5171.778	5208.062	---	PASS
	Ant2	5190	36.124	5171.938	5208.062	---	PASS
	Ant1	5230	36.683	5211.938	5248.621	---	PASS
	Ant2	5230	36.444	5211.778	5248.222	---	PASS
	Ant1	5755	36.683	5736.858	5773.541	---	PASS
	Ant2	5755	36.124	5736.938	5773.062	---	PASS
	Ant1	5795	36.603	5776.778	5813.382	---	PASS
	Ant2	5795	36.204	5776.938	5813.142	---	PASS
11AC20MIMO	Ant1	5180	17.782	5171.089	5188.871	---	PASS
	Ant2	5180	17.702	5171.089	5188.791	---	PASS
	Ant1	5200	17.702	5191.129	5208.831	---	PASS
	Ant2	5200	17.742	5191.089	5208.831	---	PASS
	Ant1	5240	17.742	5231.089	5248.831	---	PASS
	Ant2	5240	17.742	5231.089	5248.831	---	PASS

	Ant1	5745	17.702	5736.129	5753.831	---	PASS
	Ant2	5745	17.742	5736.089	5753.831	---	PASS
	Ant1	5785	17.702	5776.129	5793.831	---	PASS
	Ant2	5785	17.702	5776.129	5793.831	---	PASS
	Ant1	5825	17.702	5816.129	5833.831	---	PASS
	Ant2	5825	17.662	5816.169	5833.831	---	PASS
11AC40MIMO	Ant1	5190	36.444	5171.938	5208.382	---	PASS
	Ant2	5190	36.364	5171.698	5208.062	---	PASS
	Ant1	5230	36.284	5211.778	5248.062	---	PASS
	Ant2	5230	36.284	5211.858	5248.142	---	PASS
	Ant1	5755	36.204	5736.938	5773.142	---	PASS
	Ant2	5755	36.204	5736.938	5773.142	---	PASS
	Ant1	5795	36.204	5776.938	5813.142	---	PASS
	Ant2	5795	36.204	5776.938	5813.142	---	PASS
11AC80MIMO	Ant1	5210	75.125	5172.438	5247.562	---	PASS
	Ant2	5210	75.445	5172.438	5247.882	---	PASS
	Ant1	5775	74.965	5737.118	5812.083	---	PASS
	Ant2	5775	74.486	5737.917	5812.403	---	PASS

Test Graphs

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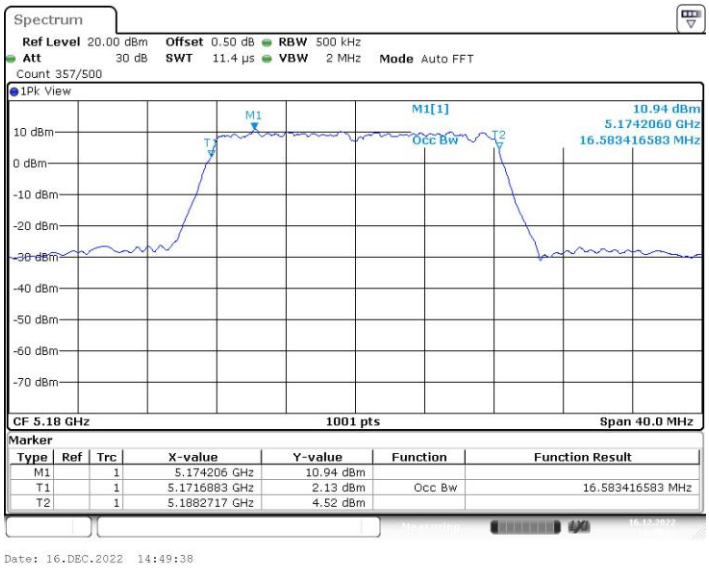

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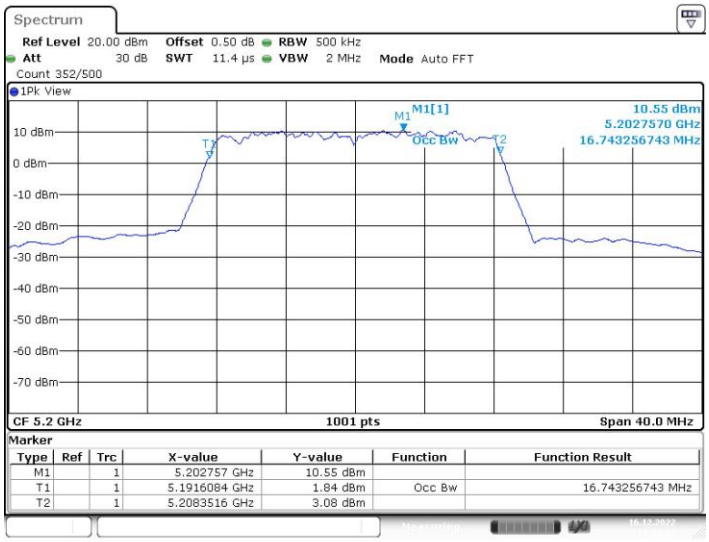

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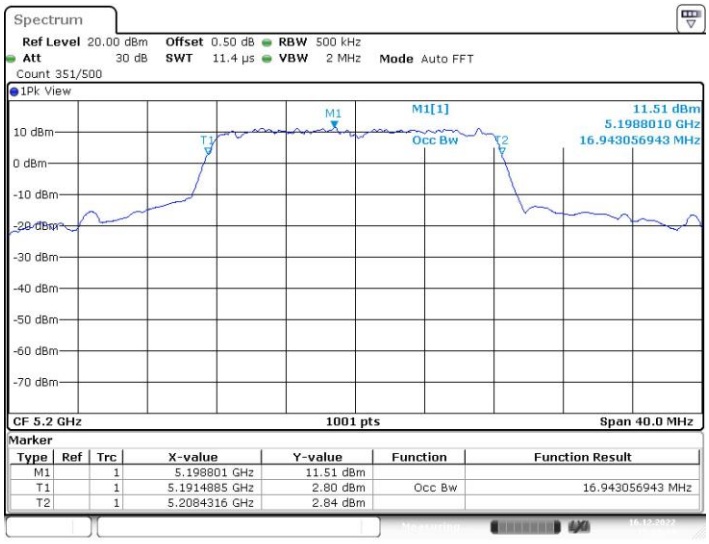

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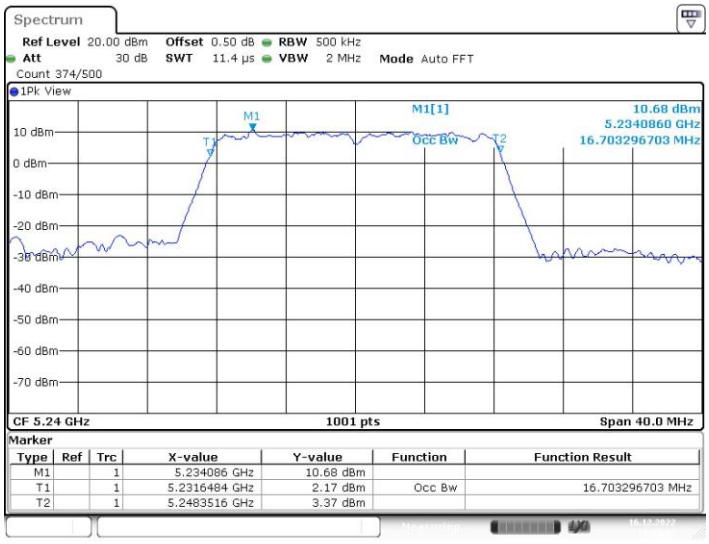

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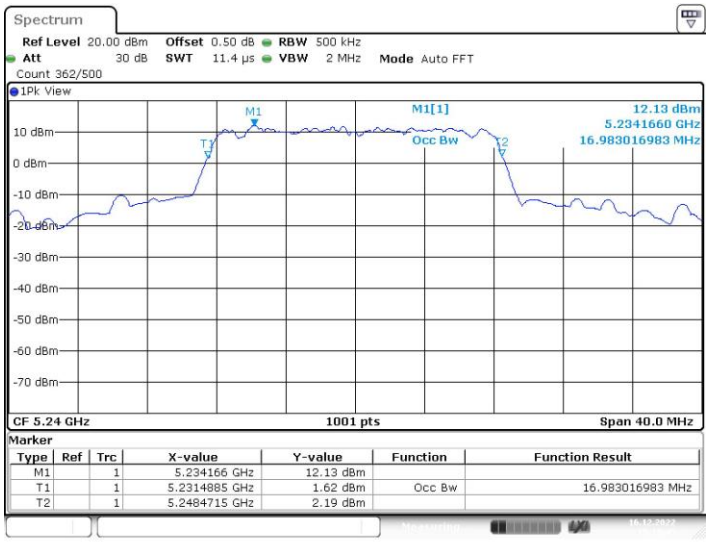

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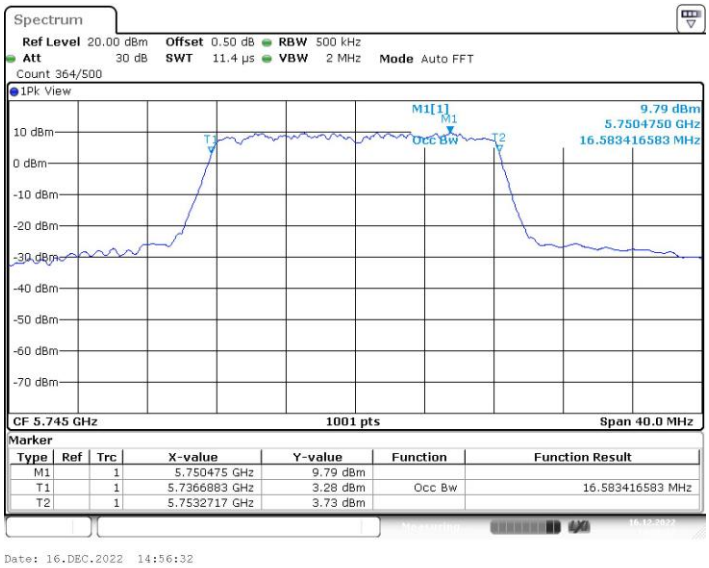

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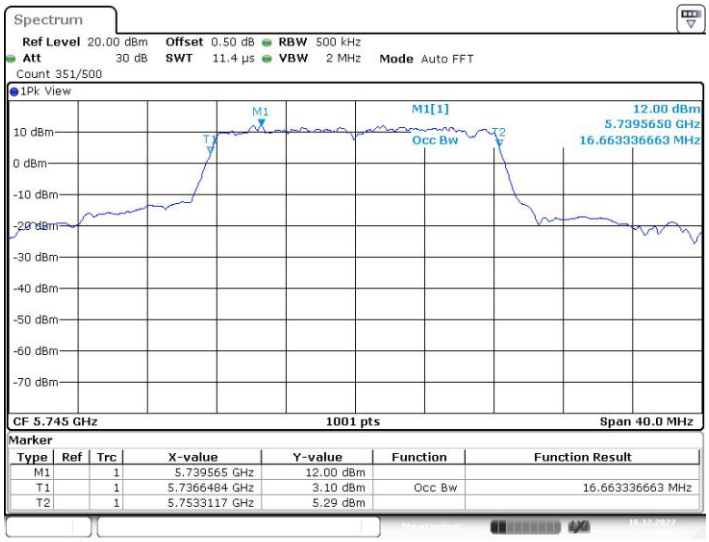

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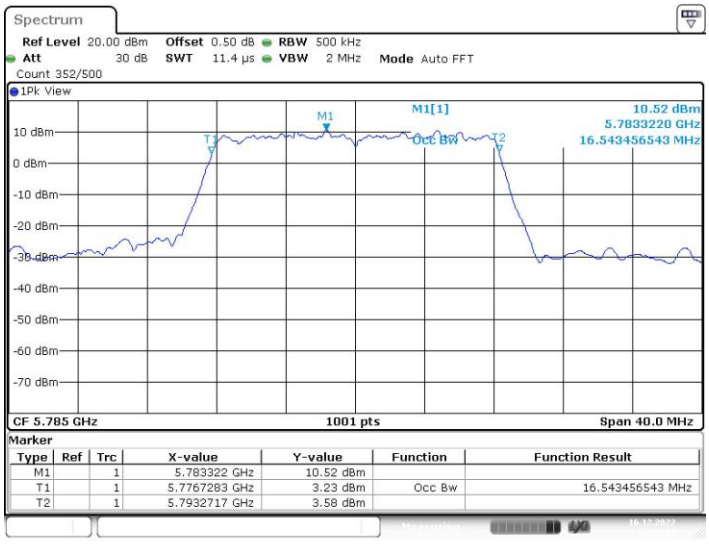

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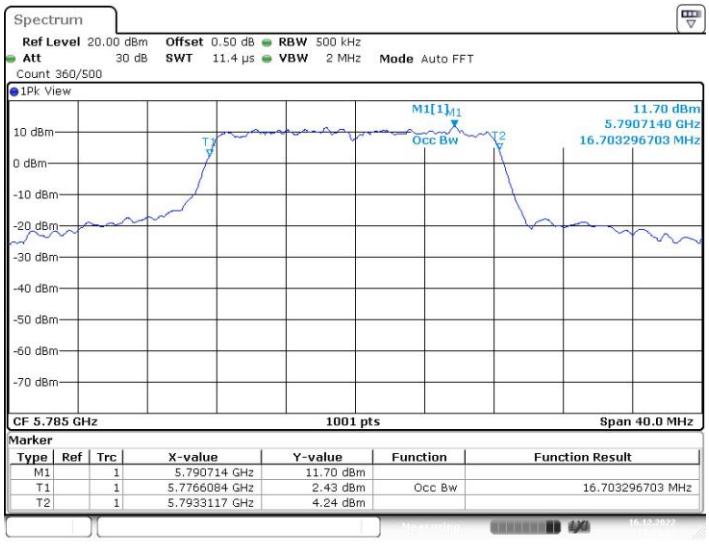

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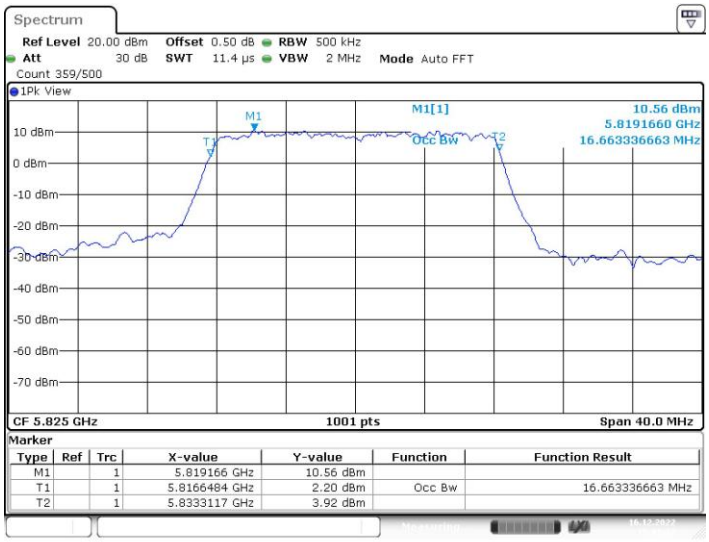

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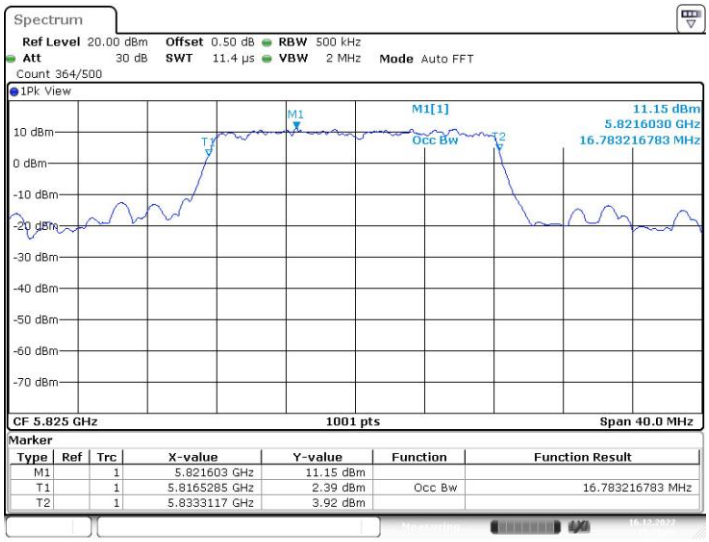

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