

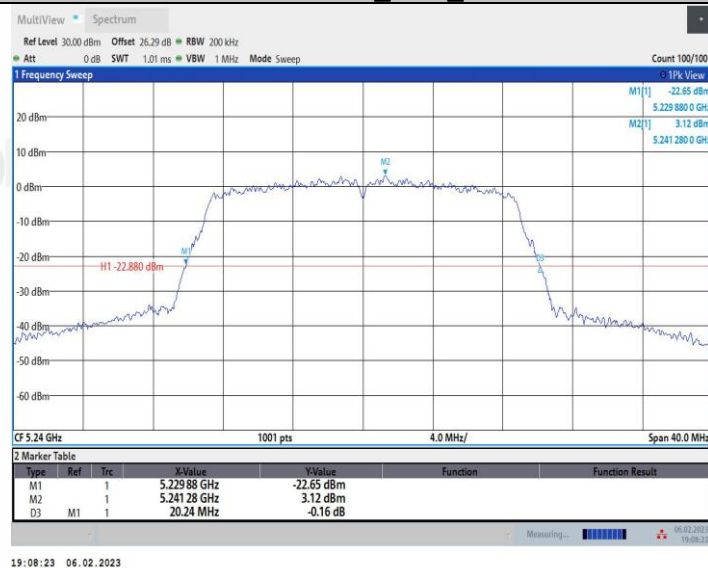
11AC20MIMO_Ant1_5200



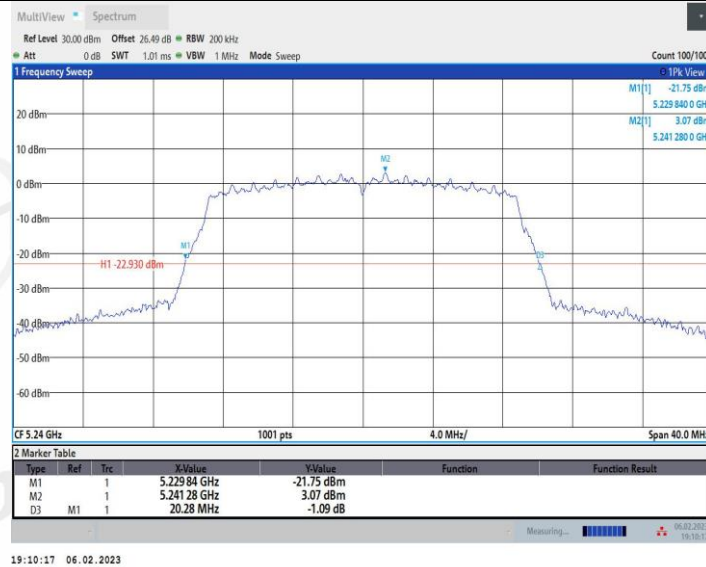
11AC20MIMO_Ant2_5200



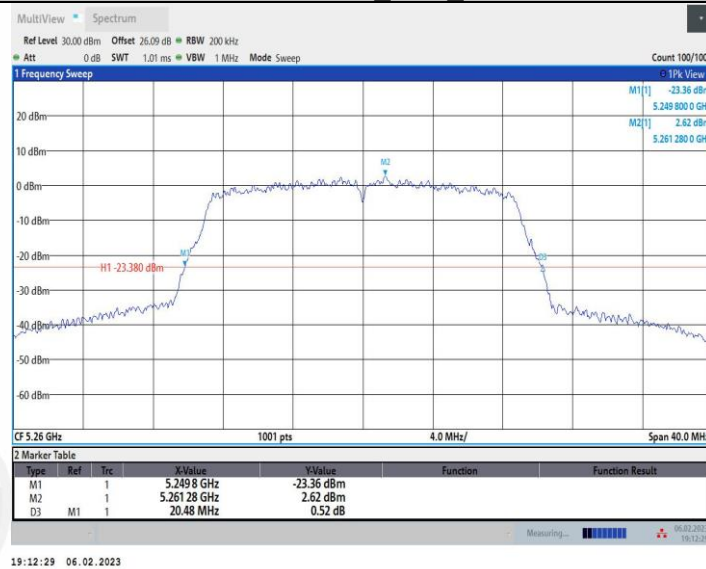
11AC20MIMO_Ant1_5240



11AC20MIMO_Ant2_5240



11AC20MIMO_Ant1_5260



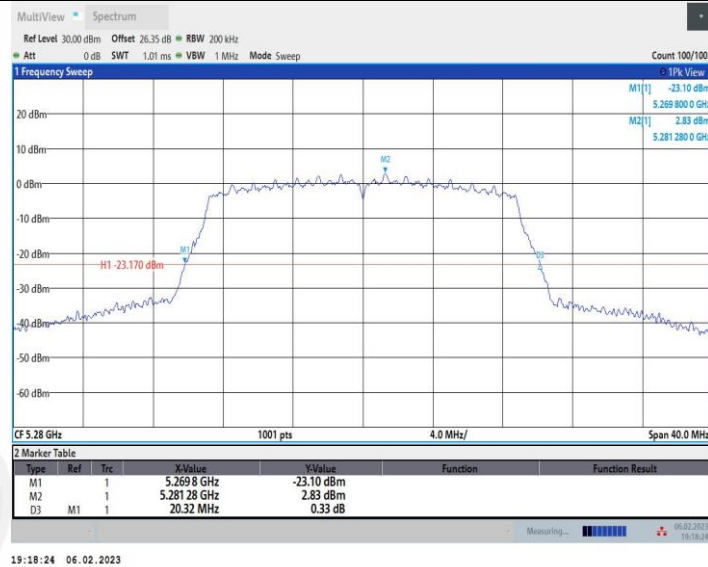
11AC20MIMO_Ant2_5260



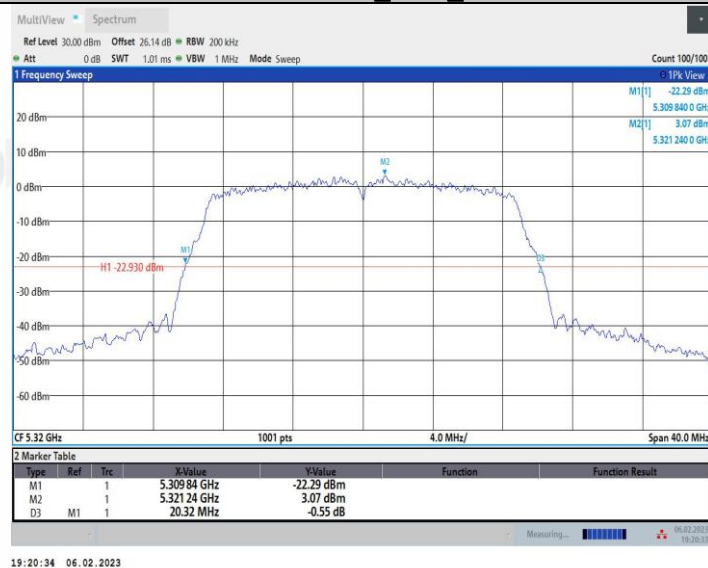
11AC20MIMO_Ant1_5280



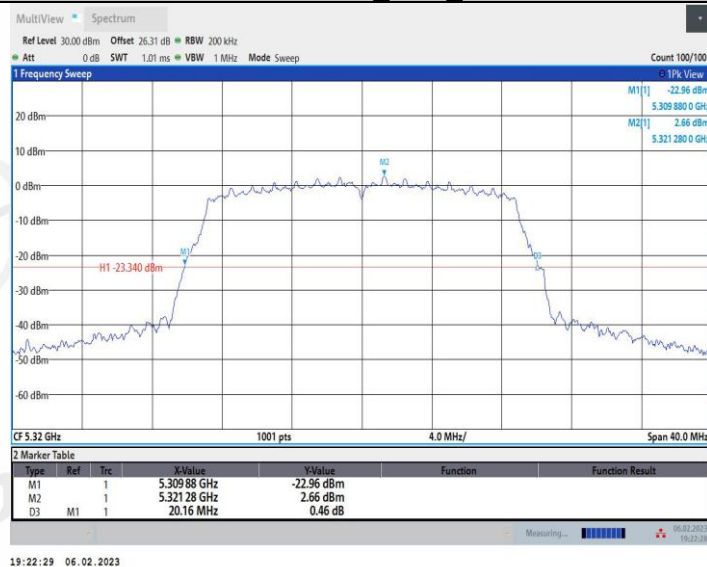
11AC20MIMO_Ant2_5280



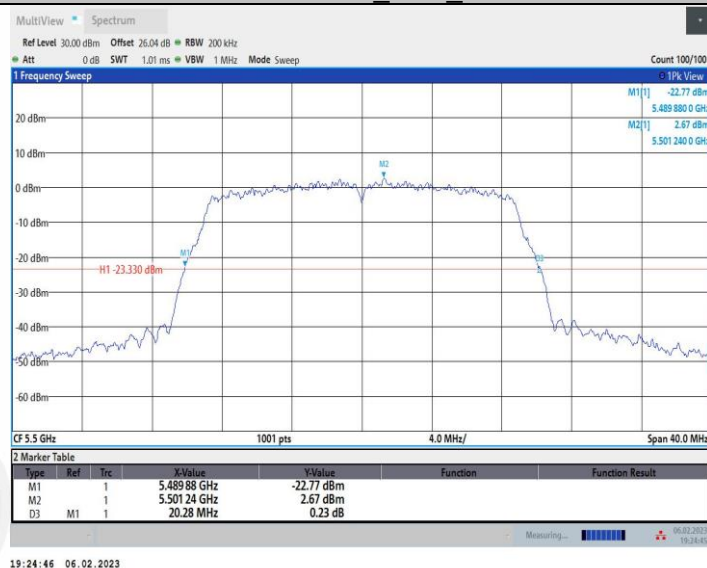
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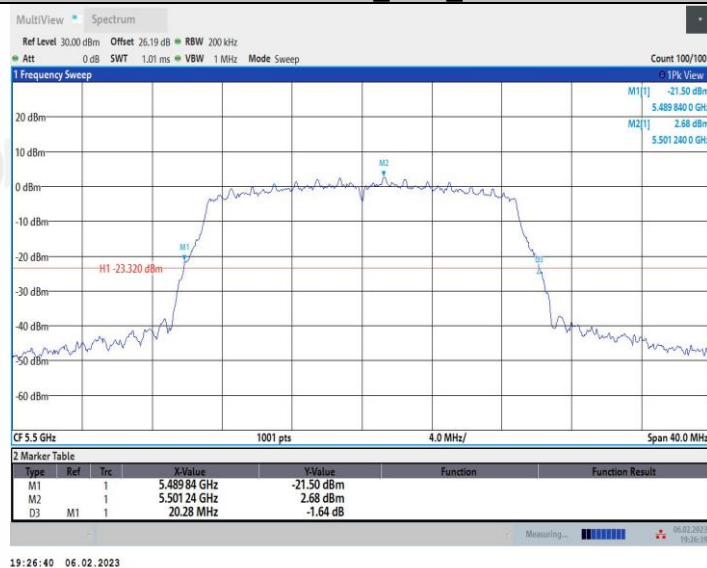
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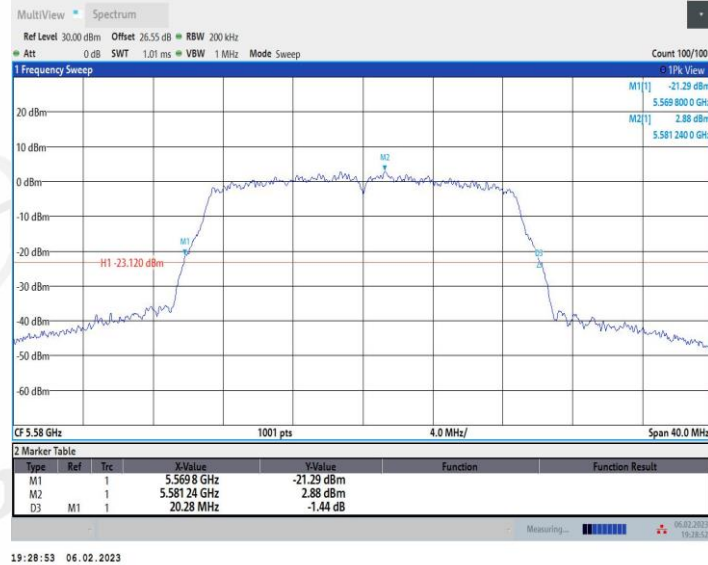
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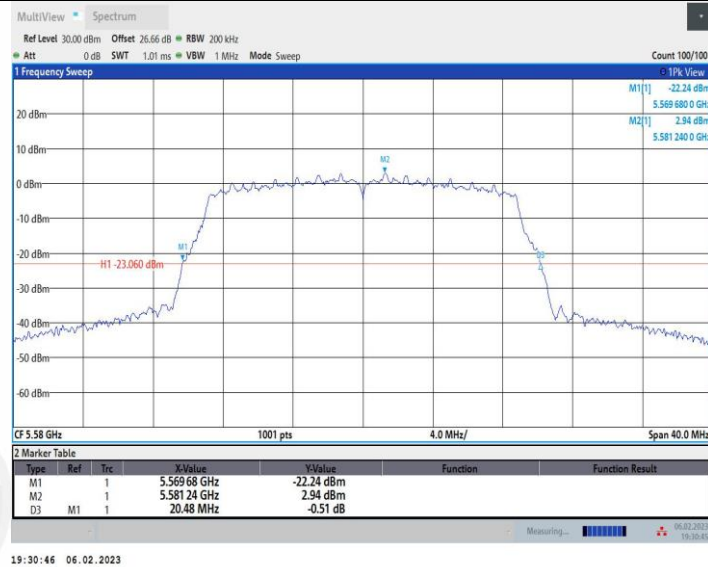
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11AC20MIMO_Ant1_5580



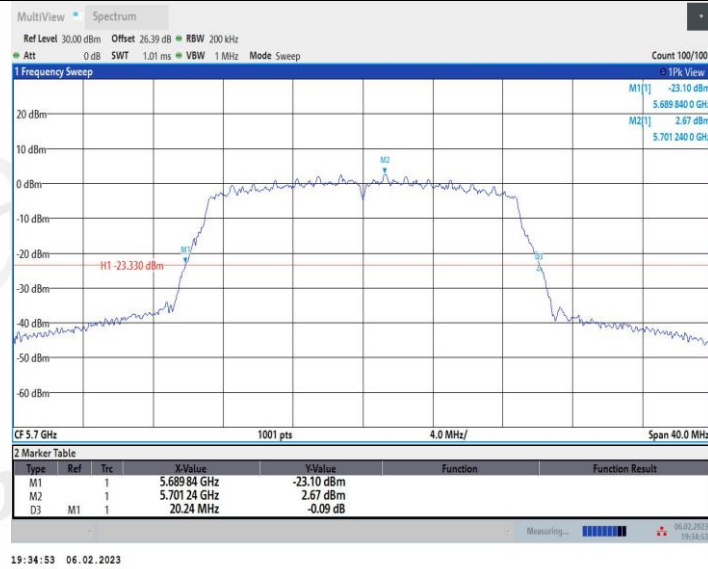
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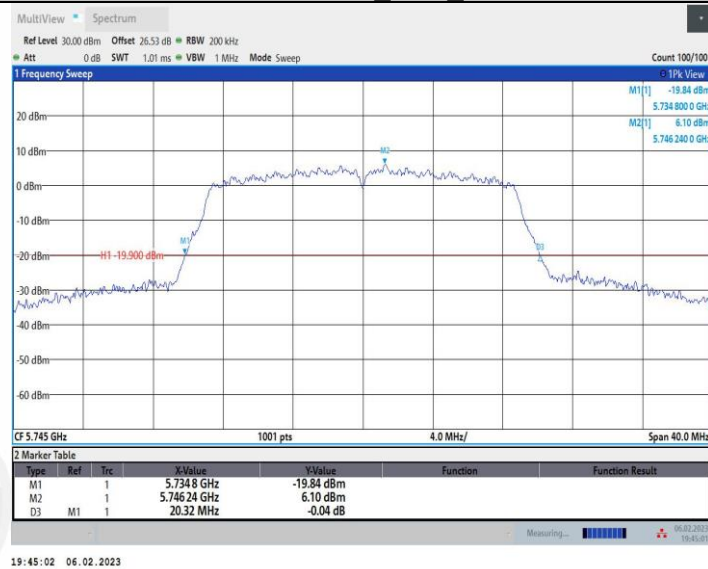
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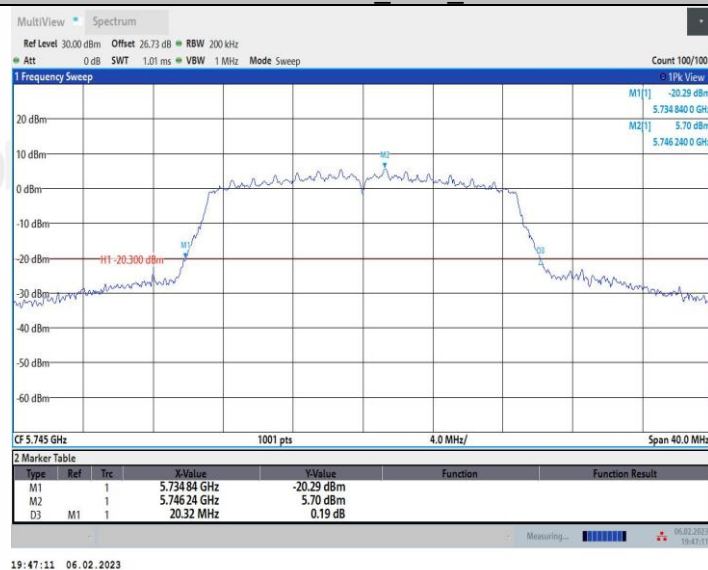
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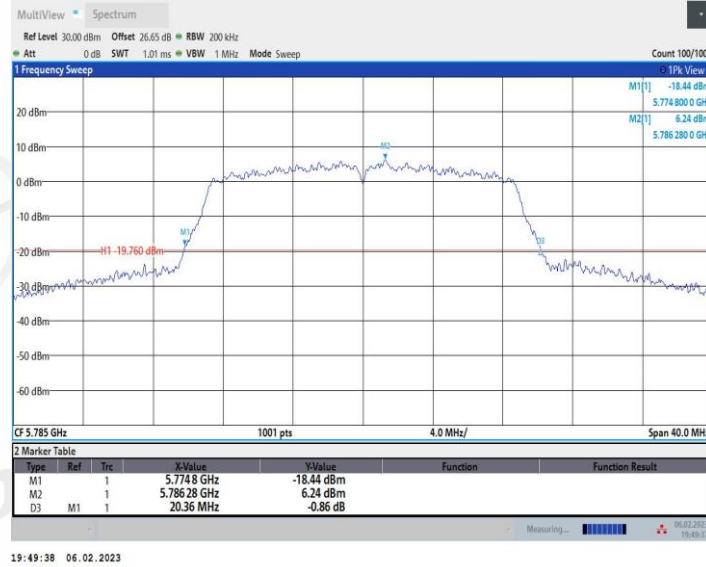
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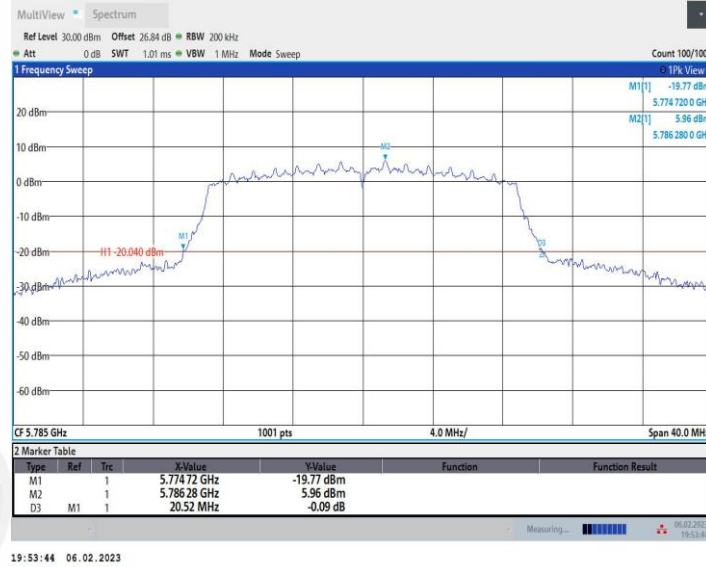
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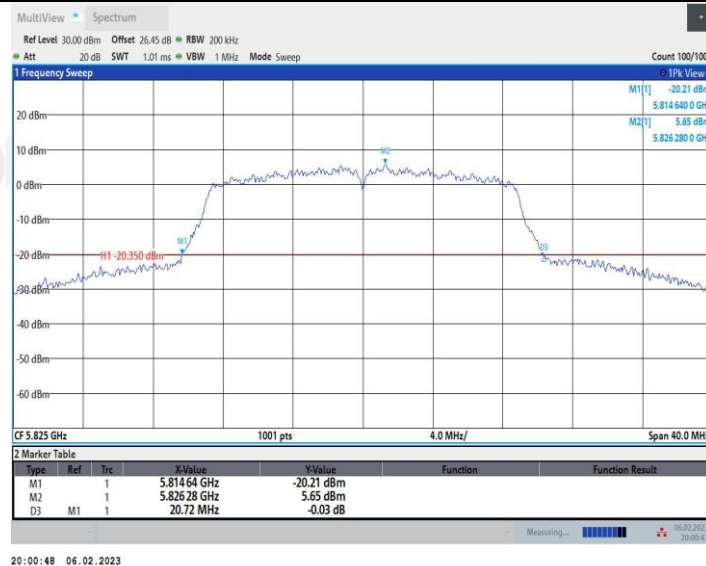
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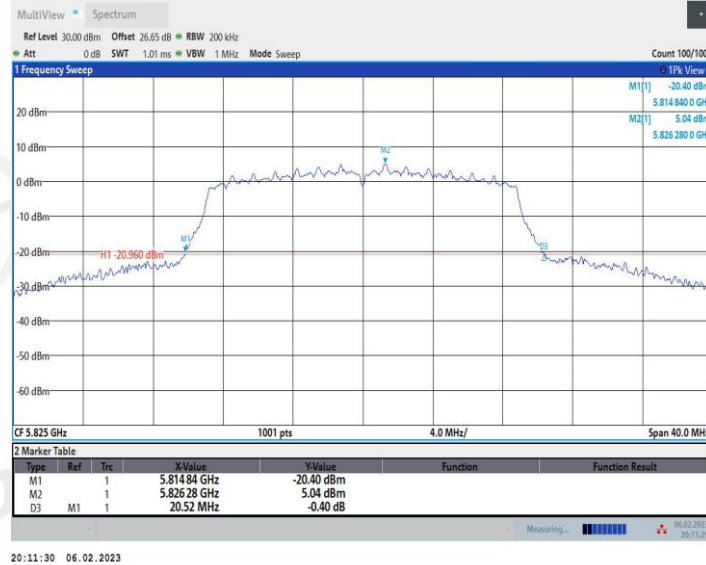
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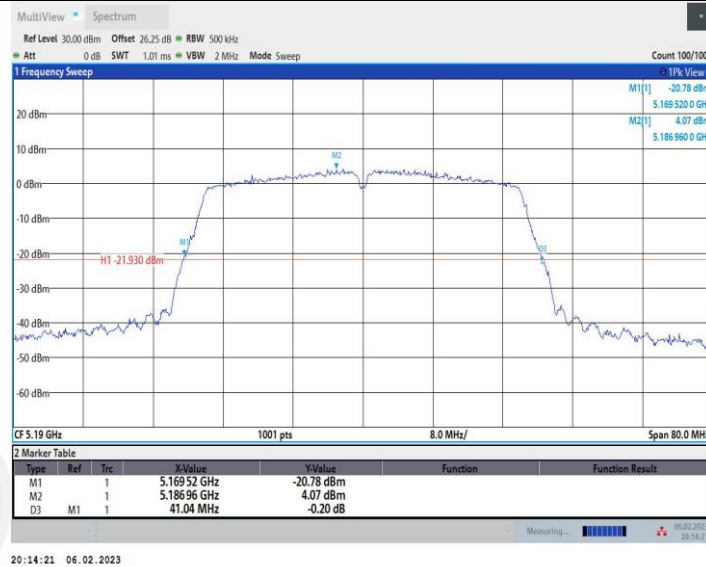
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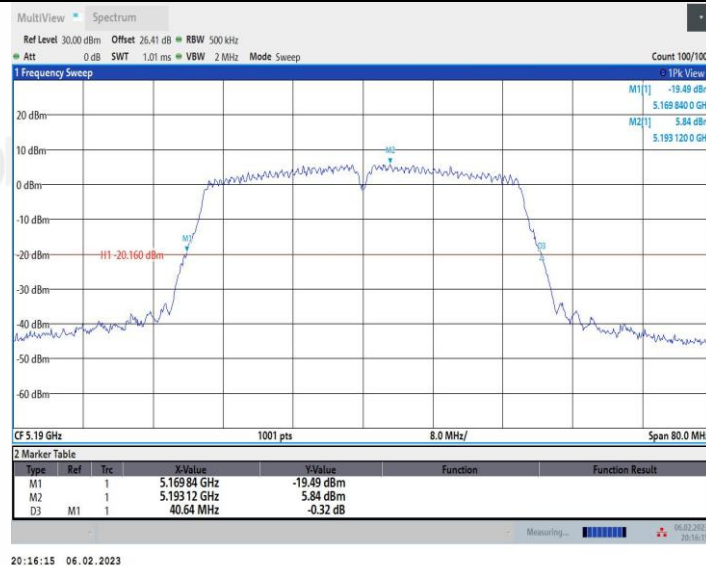
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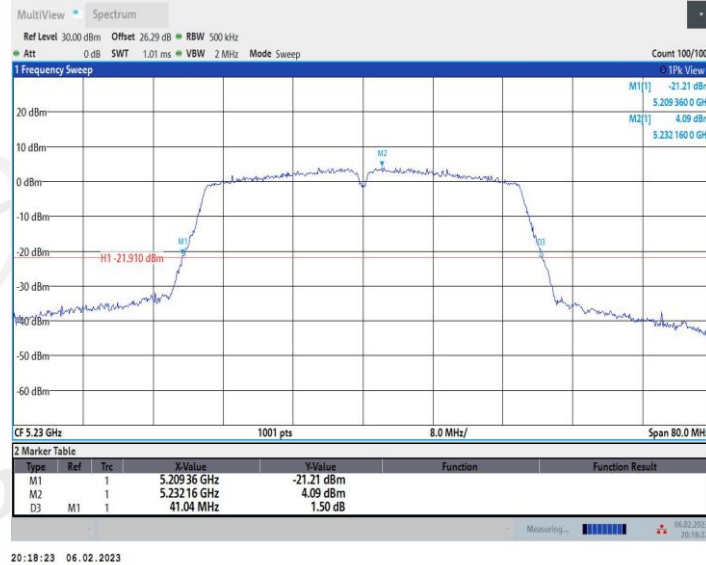
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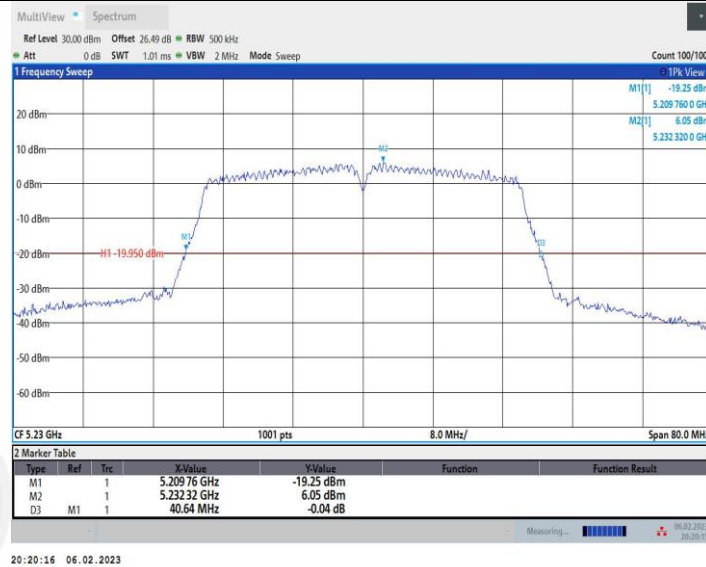
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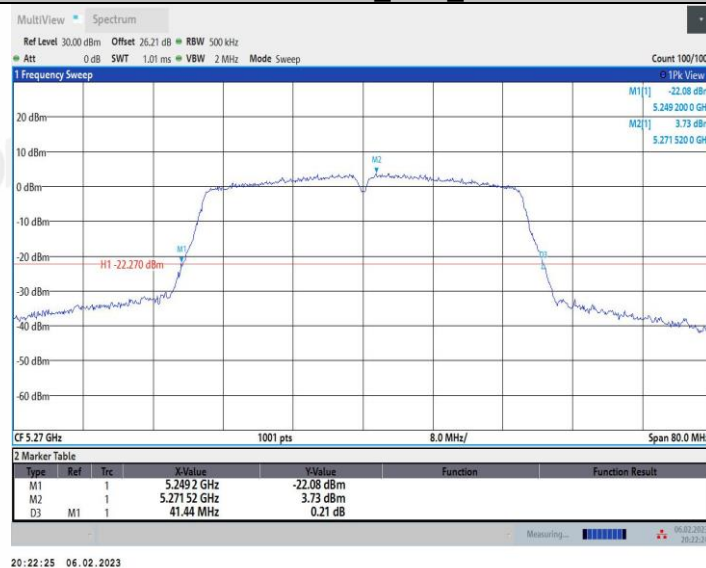
11AC40MIMO_Ant1_5230



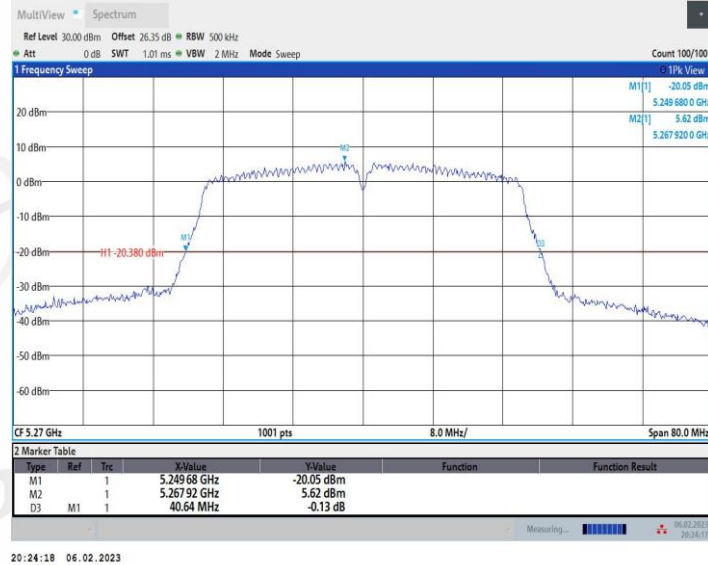
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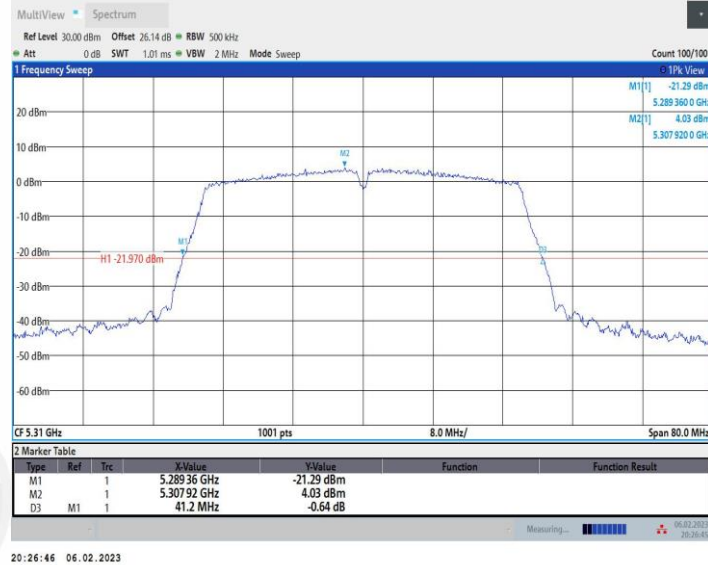
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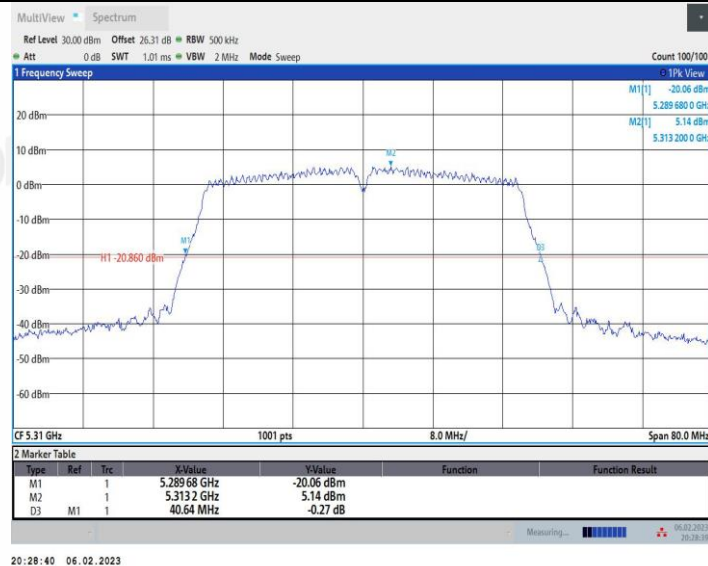
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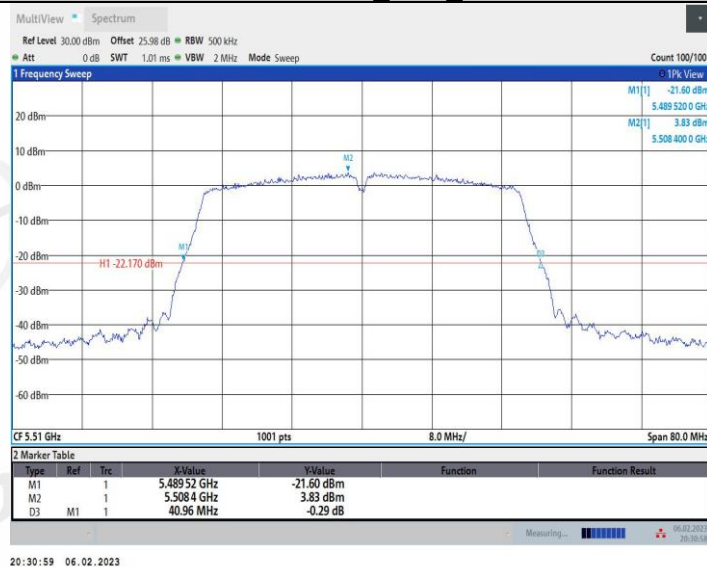
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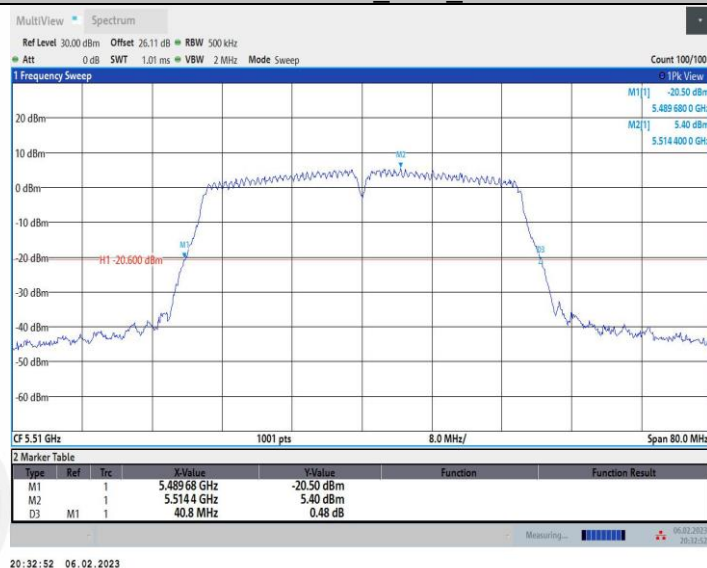
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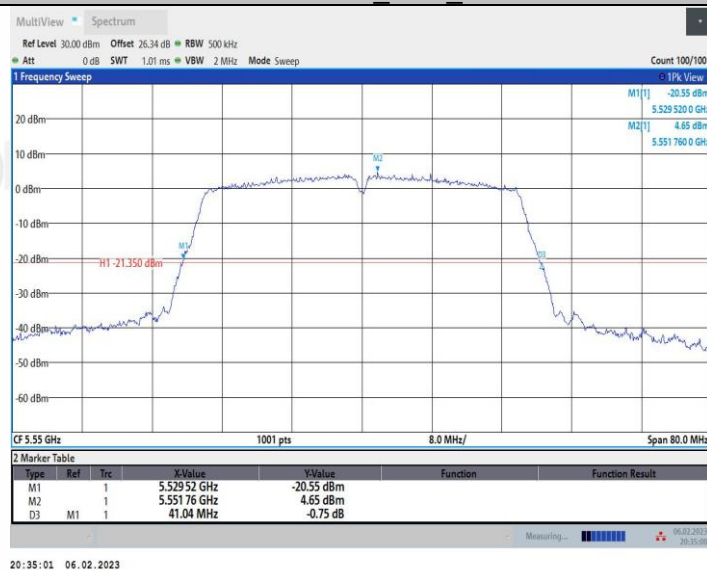
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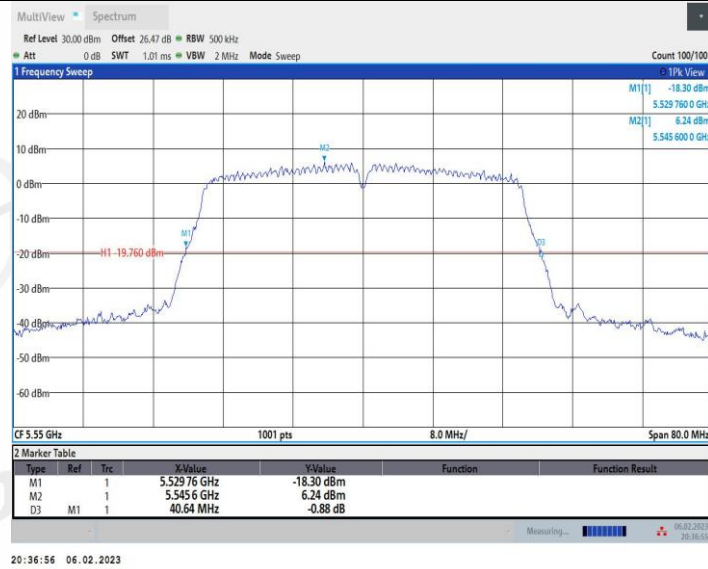
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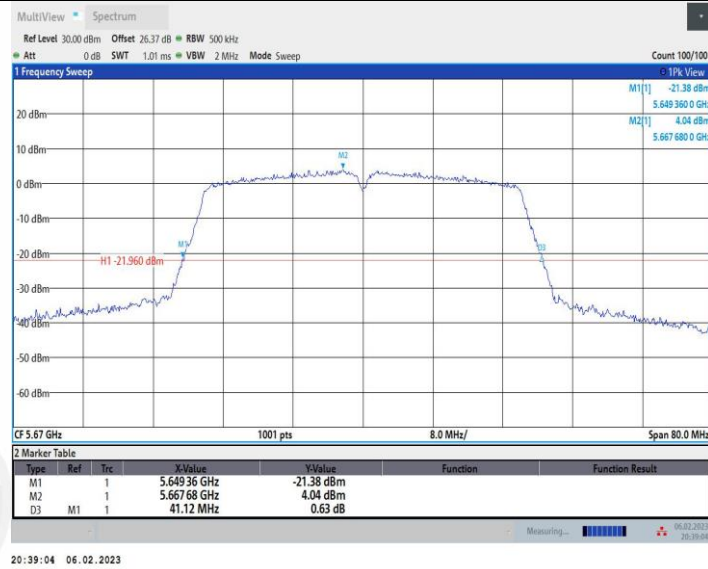
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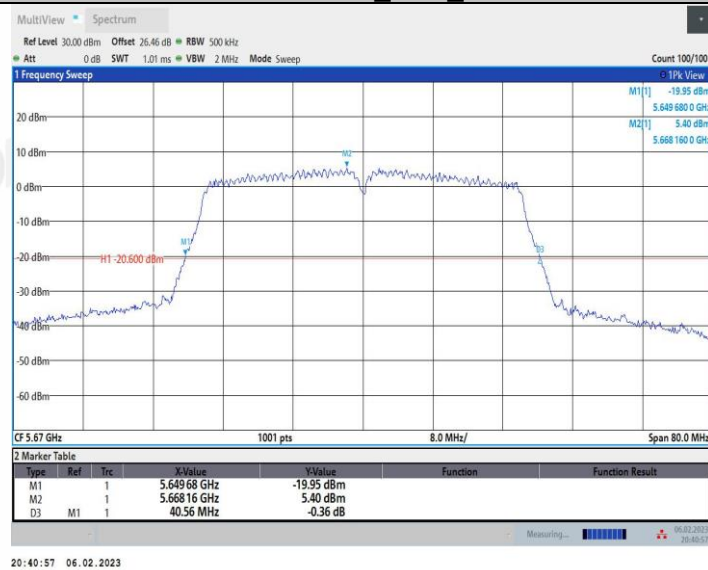
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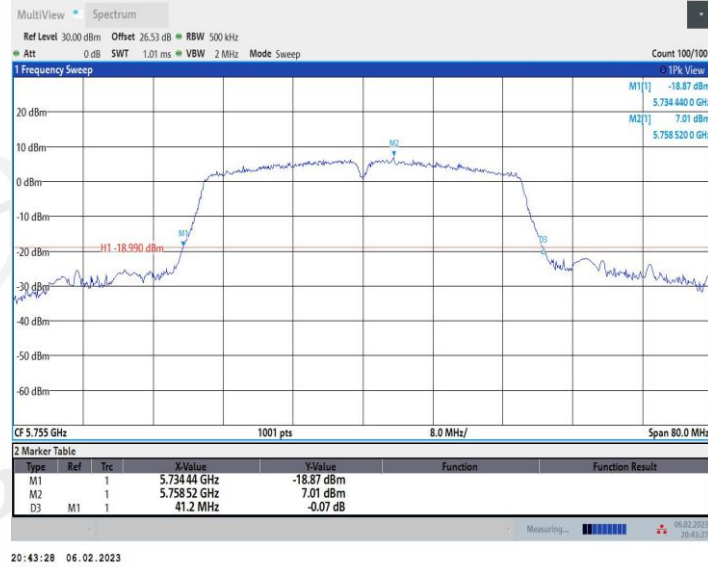
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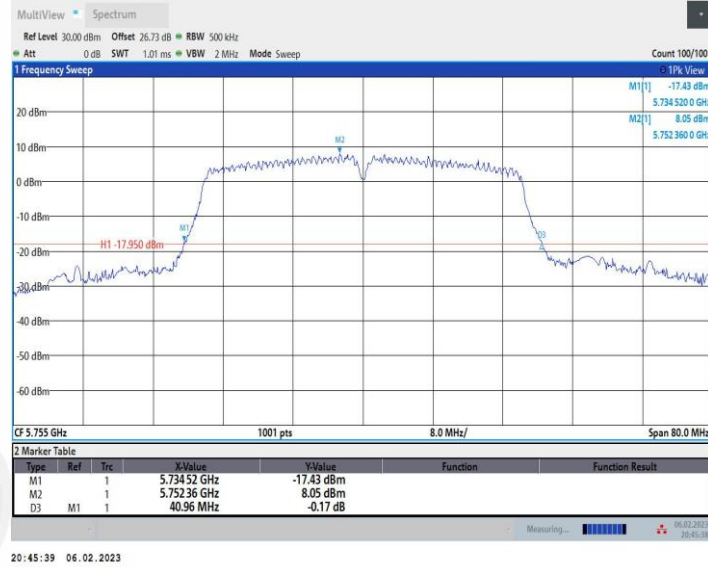
11AC40MIMO_Ant2_5670



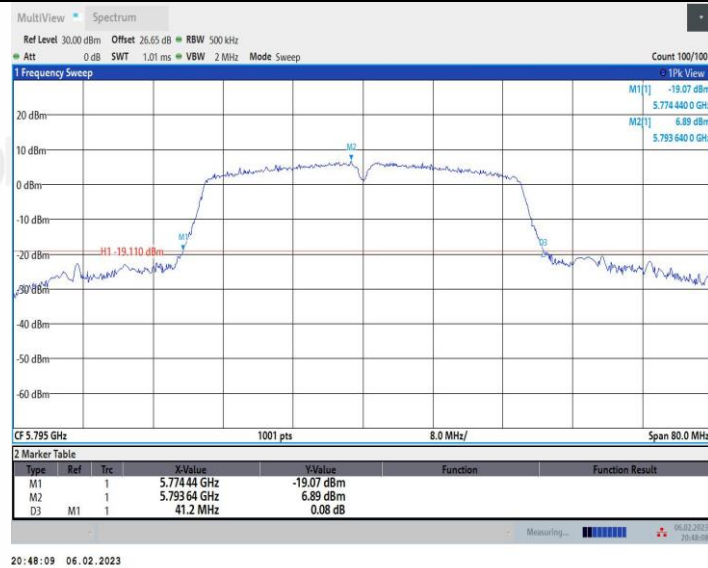
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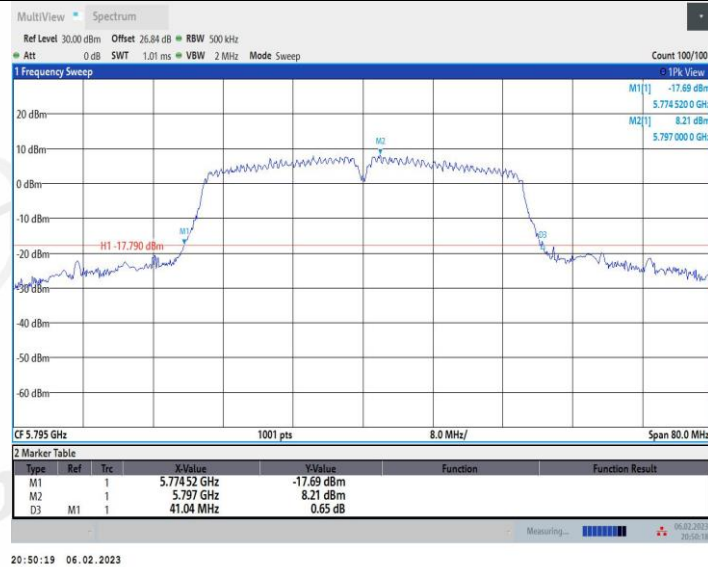
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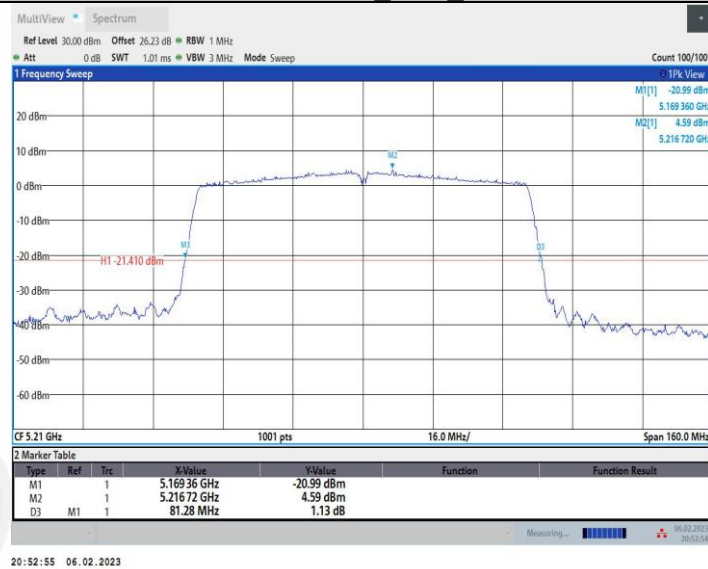
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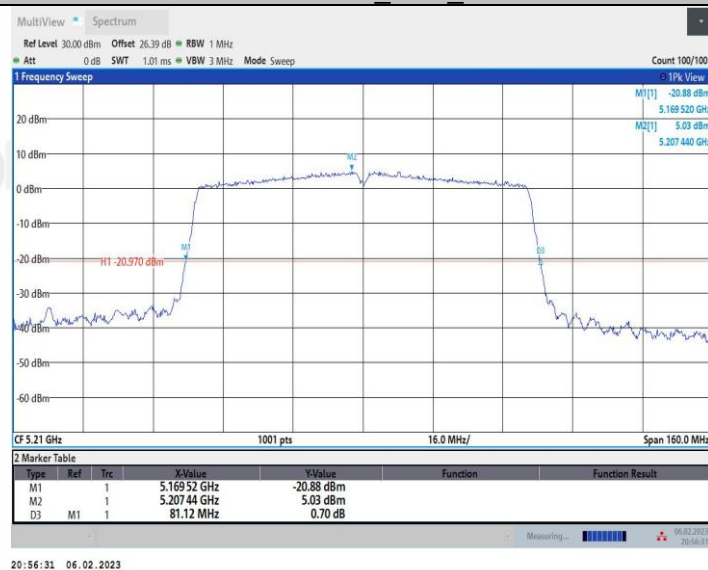
11AC40MIMO_Ant2_5795



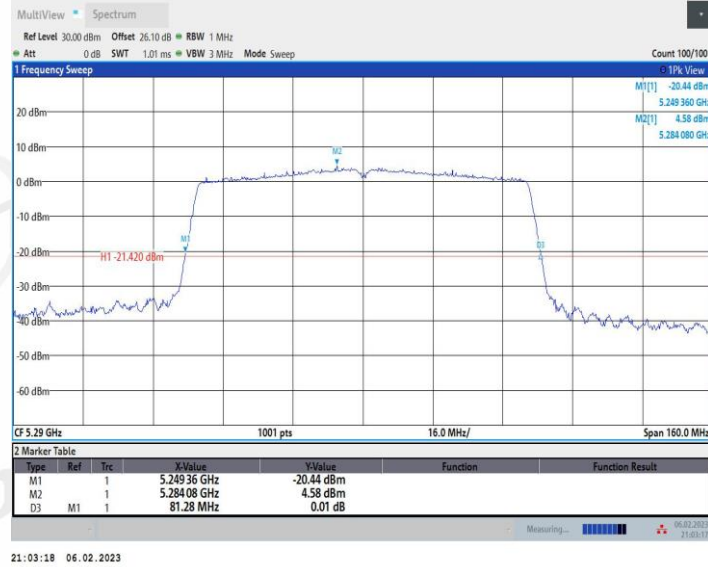
11AC80MIMO_Ant1_5210



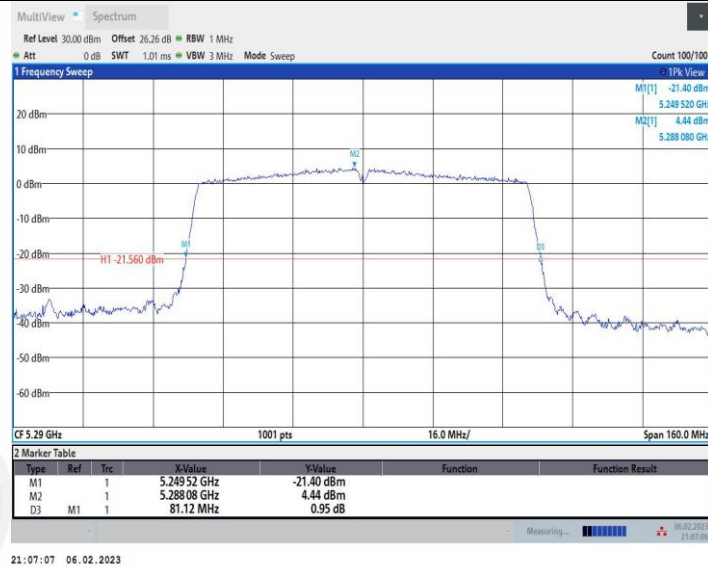
11AC80MIMO_Ant2_5210



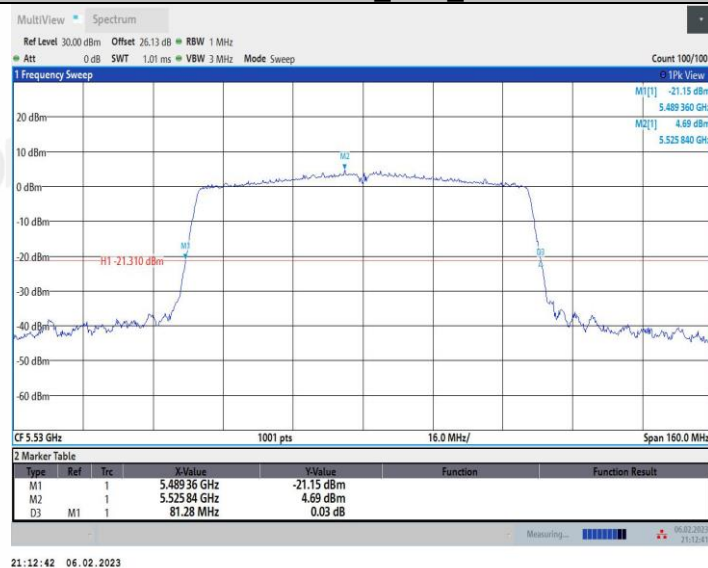
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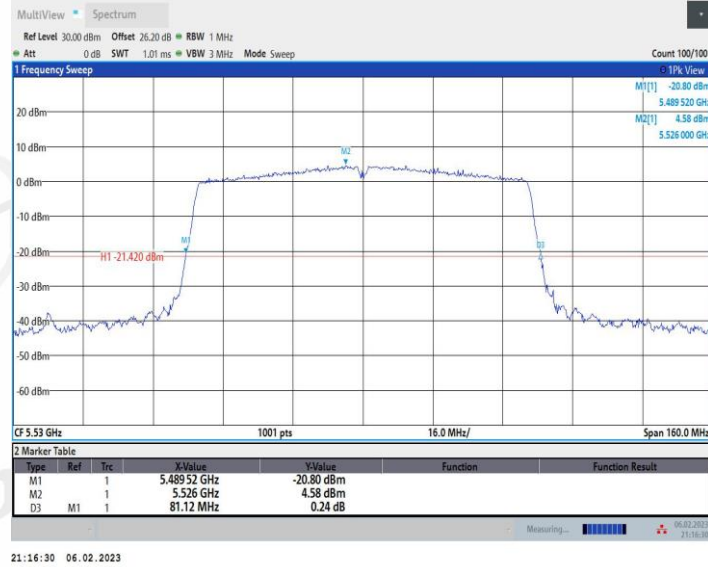
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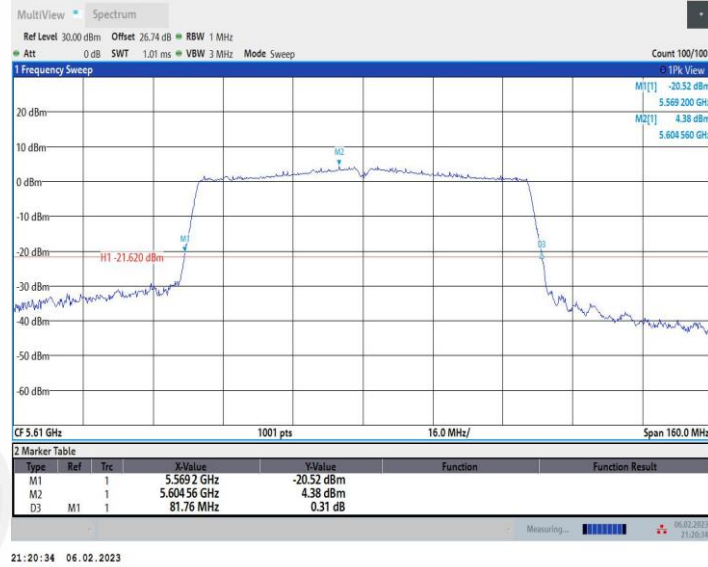
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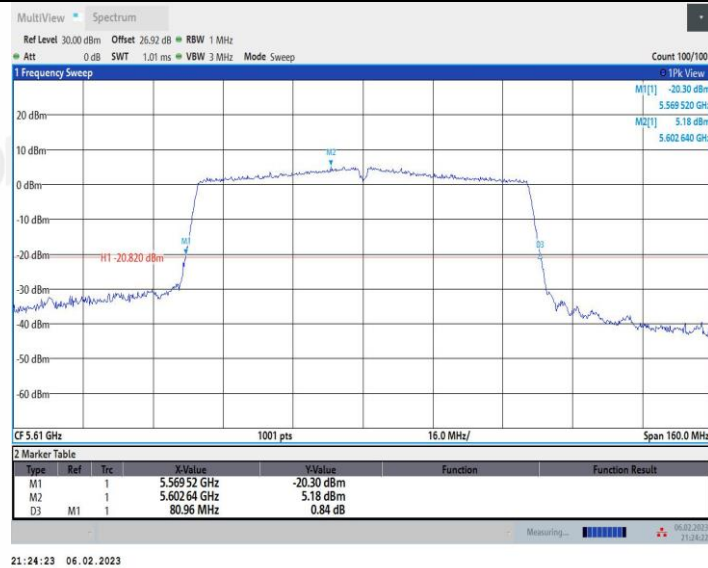
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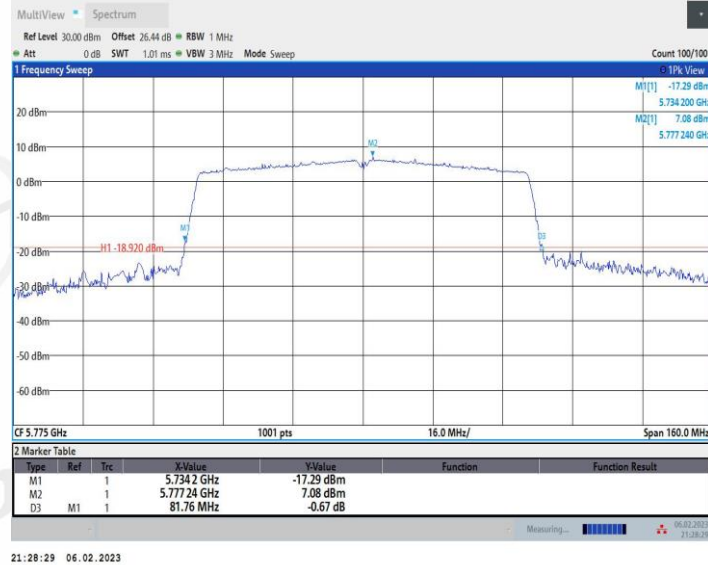
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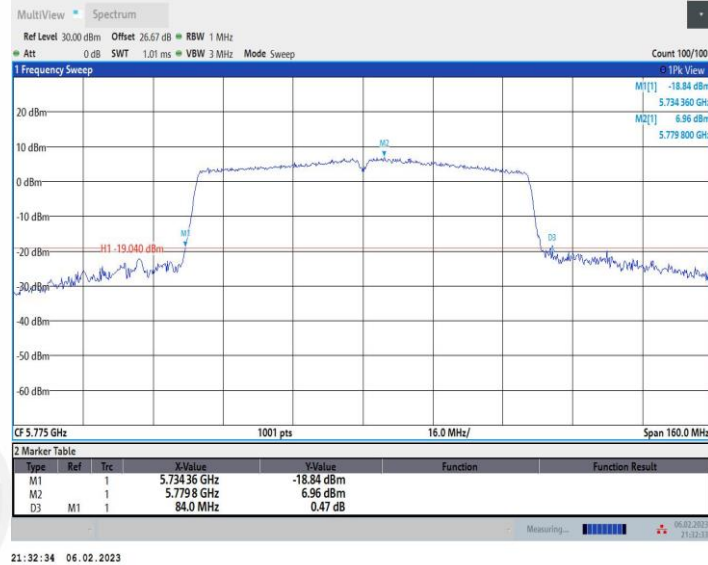
11AC80MIMO_Ant2_5610



11AC80MIMO_Ant1_5775

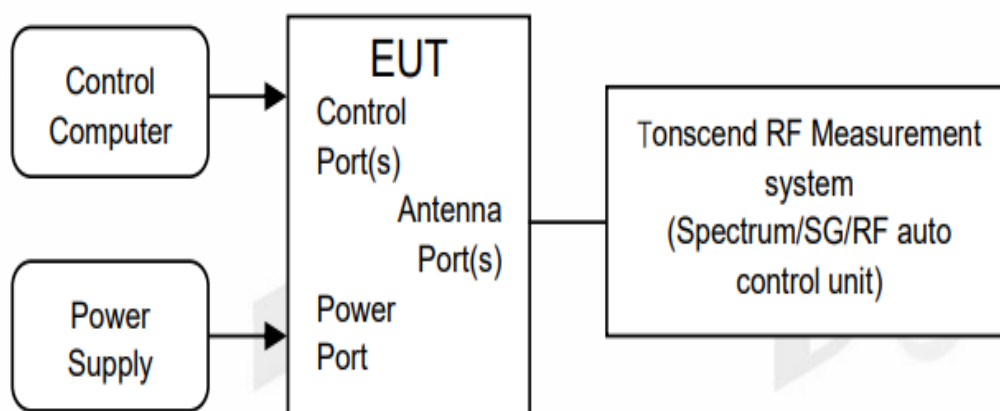


11AC80MIMO_Ant2_5775



5. 6dB Bandwidth

5.1. Block diagram of test setup



5.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
6 dB Bandwidth	Minimum 500 kHz	5725 - 5850

5.3. Test procedure

Connect EUT's antenna output to spectrum analyzer by RF cable.

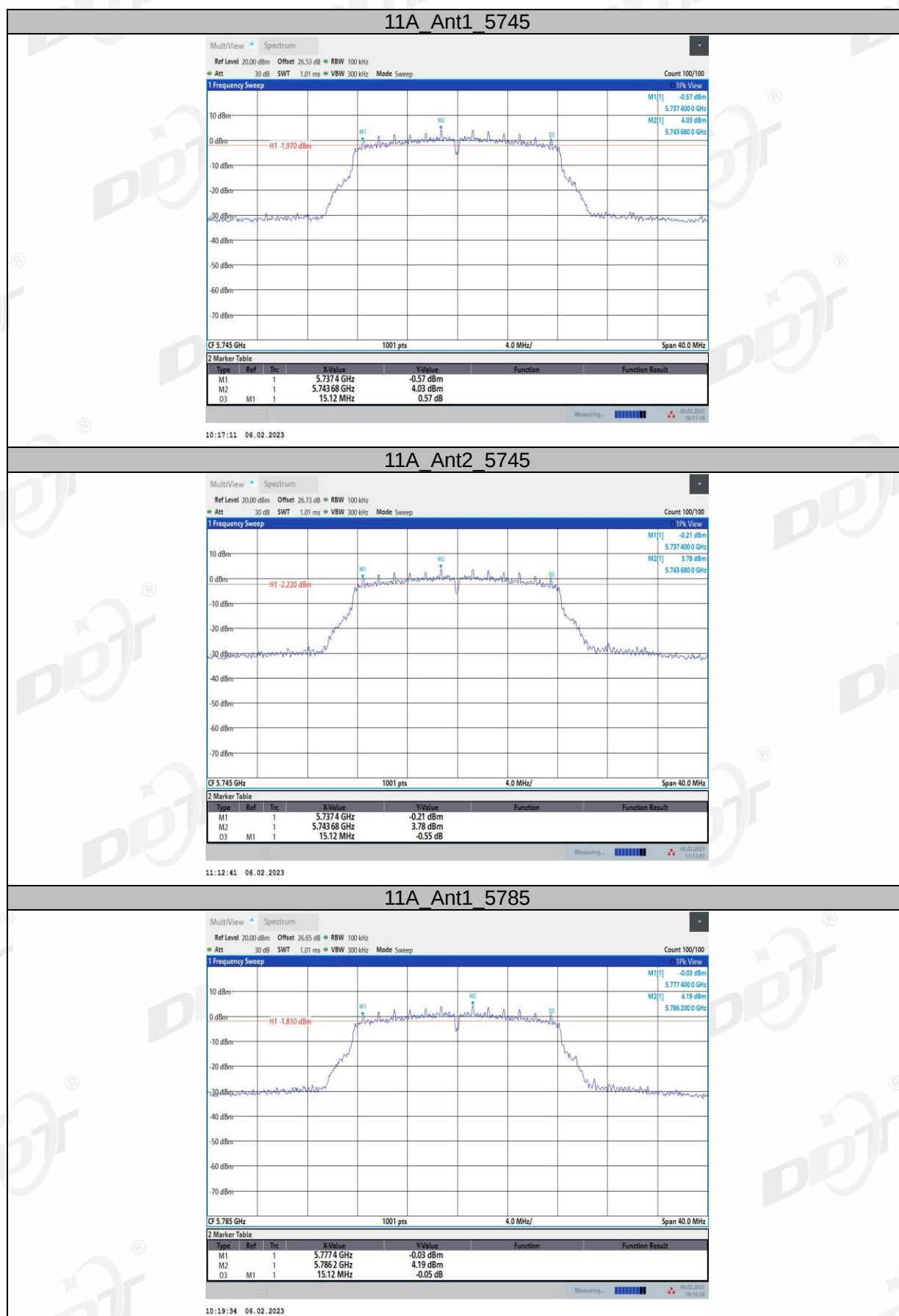
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth: RBW=100 kHz For 26 dB Bandwidth: approximately 1% of the emission bandwidth.
VBW	For 6 dB Bandwidth: VBW=300 kHz For 26 dB Bandwidth: >3 RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

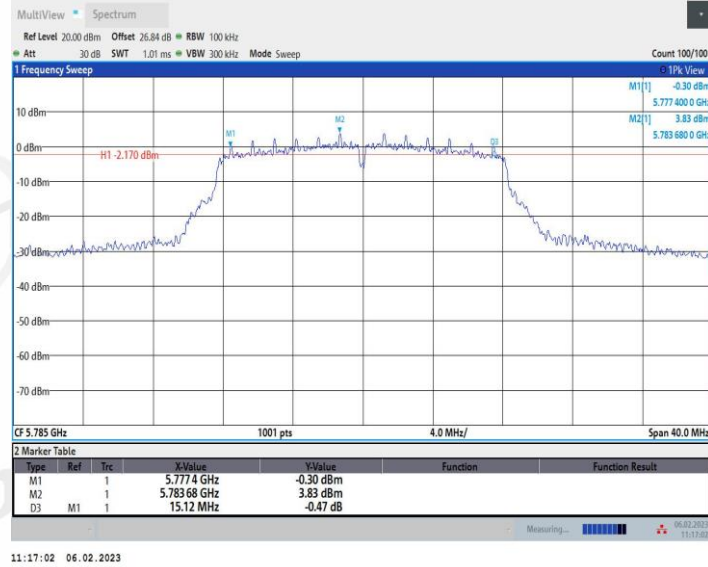
5.4. Test result

Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
	Ant2	5745	15.12	5737.40	5752.52	0.5	PASS
	Ant1	5785	15.12	5777.40	5792.52	0.5	PASS
	Ant2	5785	15.12	5777.40	5792.52	0.5	PASS
	Ant1	5825	15.12	5817.40	5832.52	0.5	PASS
	Ant2	5825	15.12	5817.40	5832.52	0.5	PASS
11N20MIMO	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
	Ant2	5745	16.28	5736.80	5753.08	0.5	PASS
	Ant1	5785	15.12	5777.40	5792.52	0.5	PASS
	Ant2	5785	16.28	5776.84	5793.12	0.5	PASS
	Ant1	5825	15.12	5817.40	5832.52	0.5	PASS
	Ant2	5825	16.32	5816.80	5833.12	0.5	PASS
11N40MIMO	Ant1	5755	35.20	5737.40	5772.60	0.5	PASS
	Ant2	5755	35.20	5737.40	5772.60	0.5	PASS
	Ant1	5795	35.20	5777.40	5812.60	0.5	PASS
	Ant2	5795	35.12	5777.40	5812.52	0.5	PASS
11AC20MIMO	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
	Ant2	5745	16.88	5736.20	5753.08	0.5	PASS
	Ant1	5785	15.12	5777.40	5792.52	0.5	PASS
	Ant2	5785	16.32	5776.80	5793.12	0.5	PASS
	Ant1	5825	15.12	5817.40	5832.52	0.5	PASS
	Ant2	5825	16.32	5816.80	5833.12	0.5	PASS
11AC40MIMO	Ant1	5755	35.20	5737.40	5772.60	0.5	PASS
	Ant2	5755	35.12	5737.40	5772.52	0.5	PASS
	Ant1	5795	35.20	5777.40	5812.60	0.5	PASS
	Ant2	5795	35.12	5777.40	5812.52	0.5	PASS
11AC80MIMO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS
	Ant2	5775	75.20	5737.40	5812.60	0.5	PASS

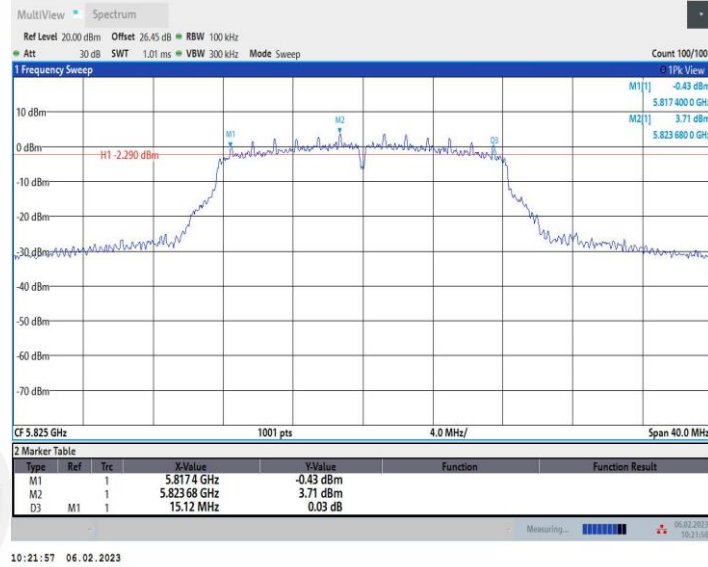
5.5. Test graphs



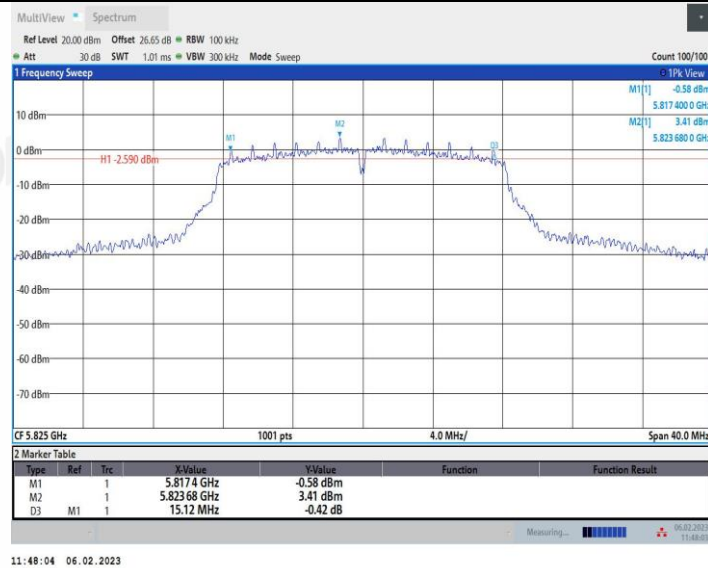
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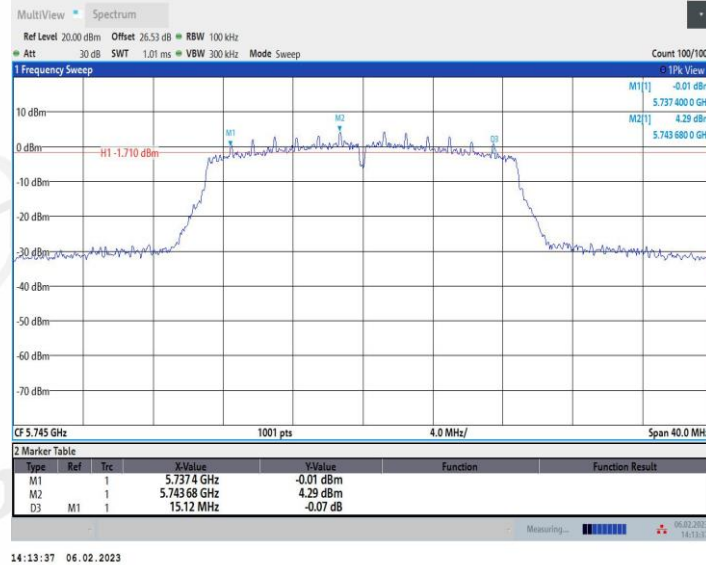
11A_Ant1_5825



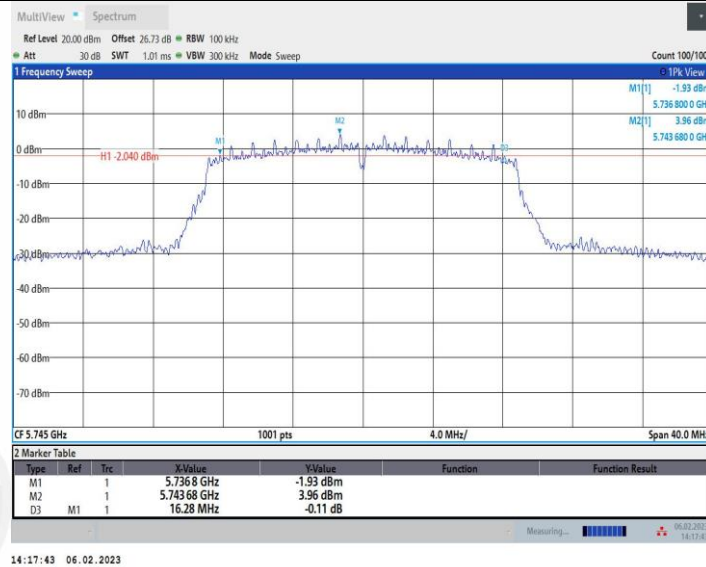
11A_Ant2_5825



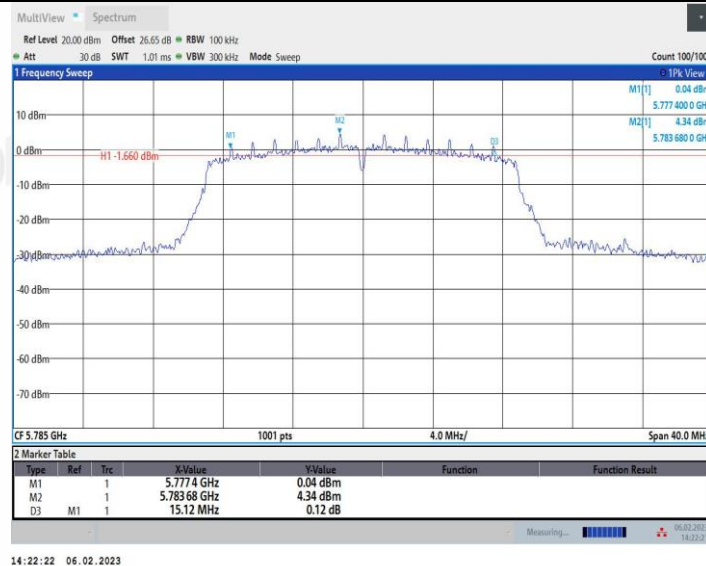
11N20MIMO_Ant1_5745



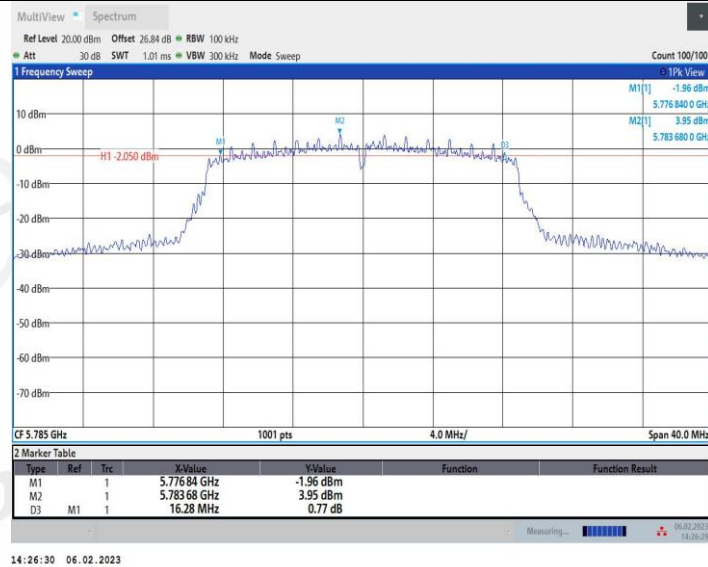
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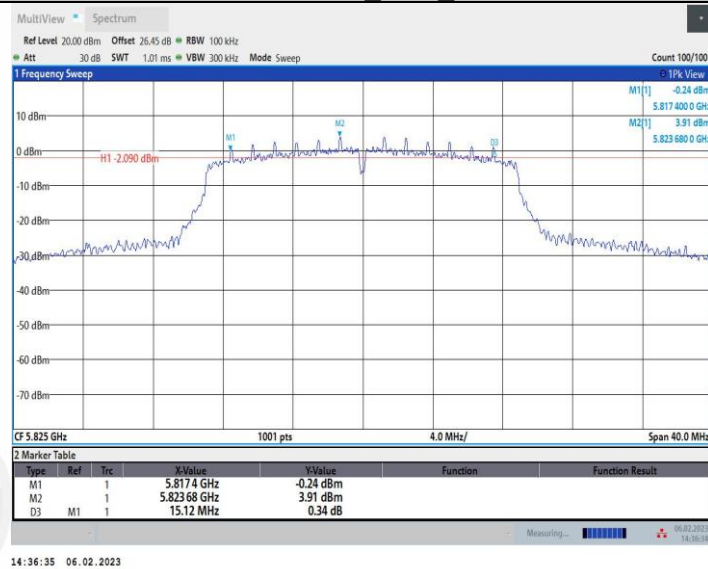
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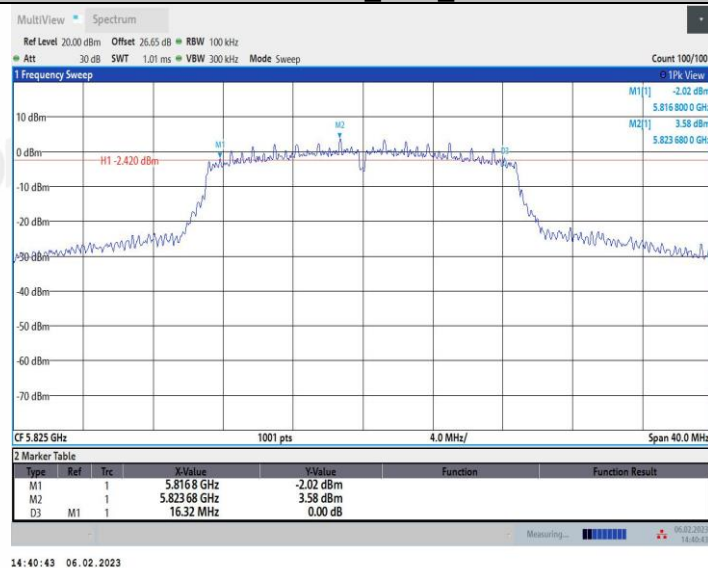
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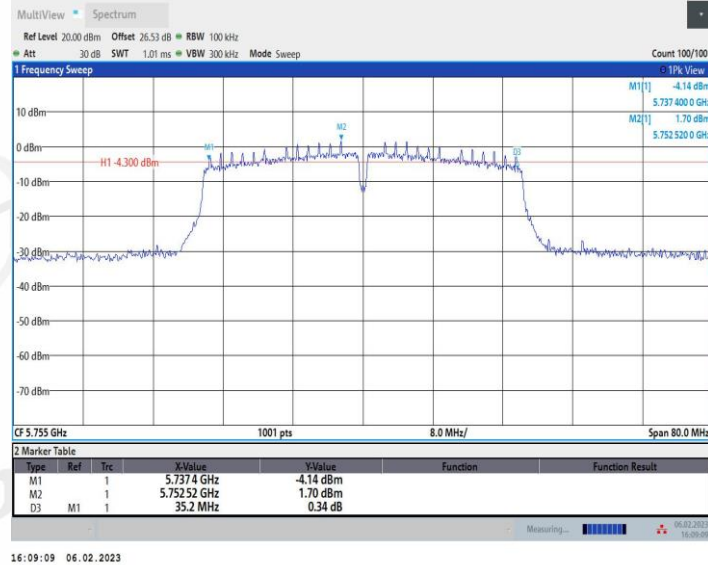
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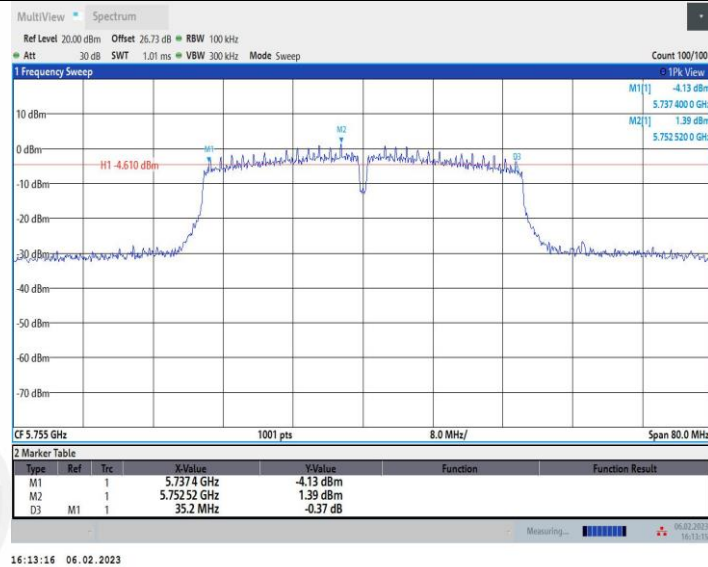
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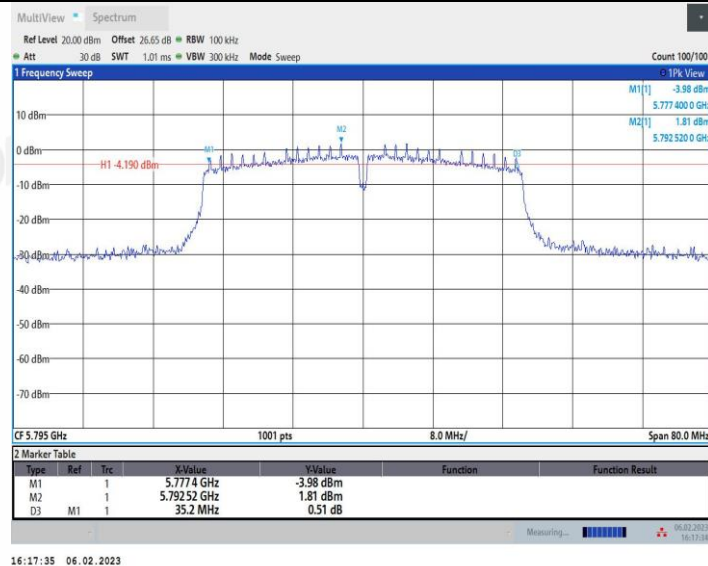
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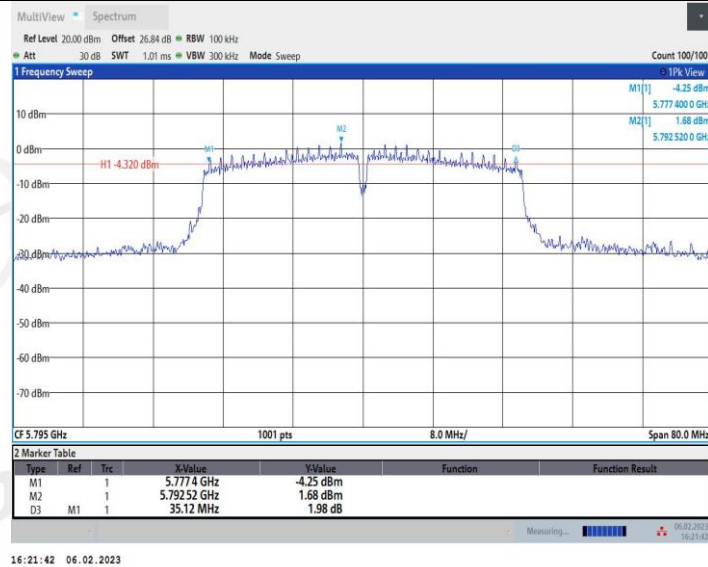
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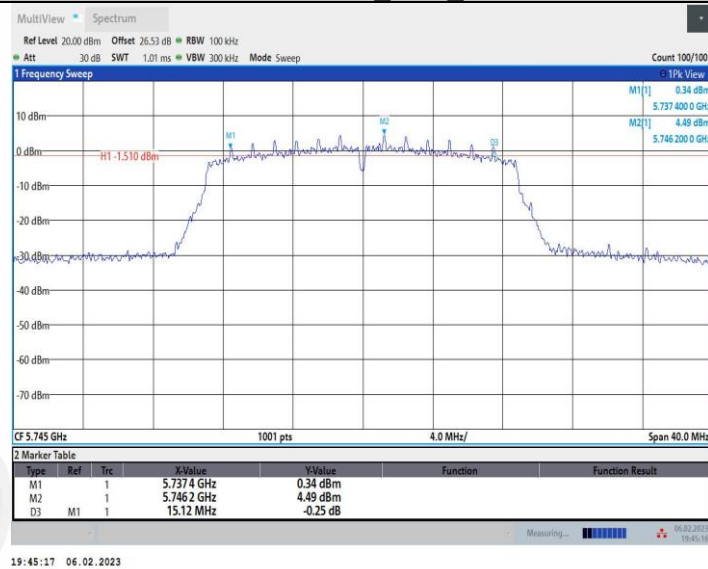
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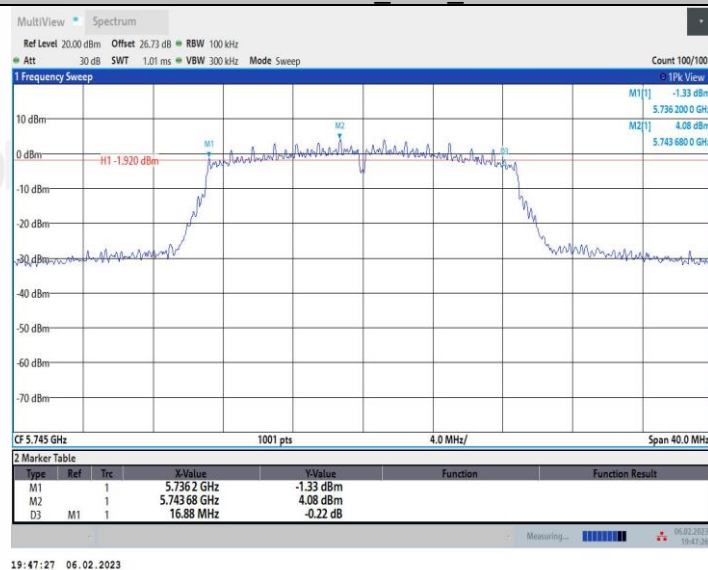
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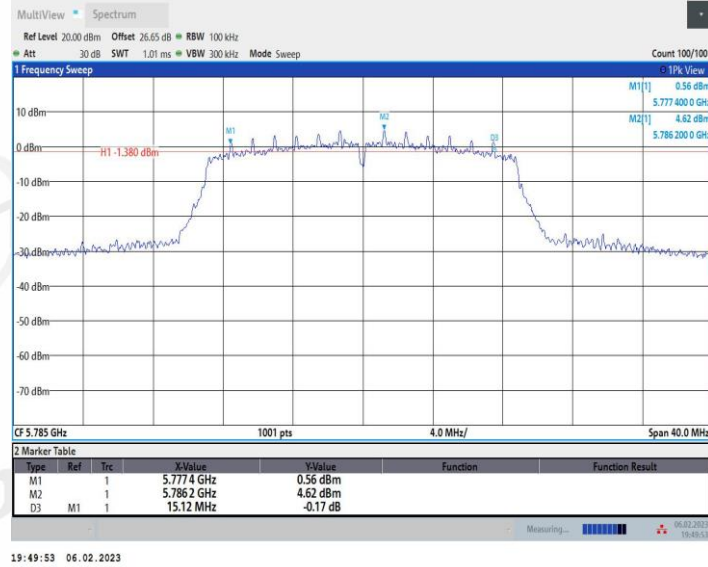
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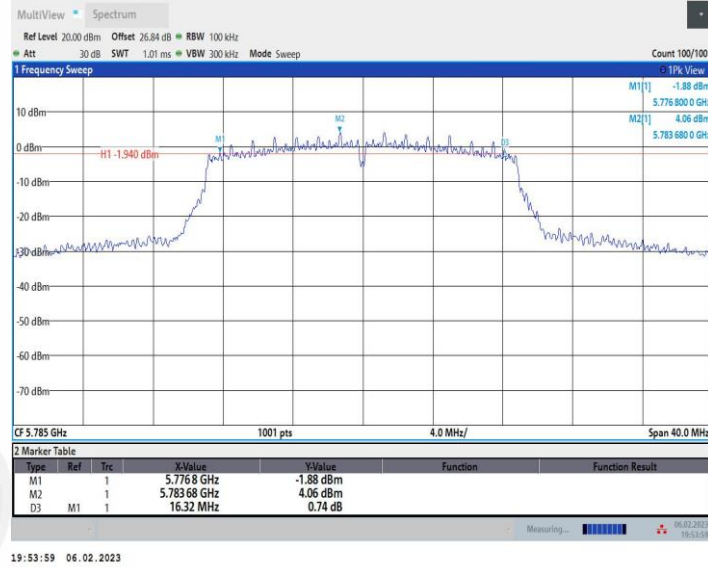
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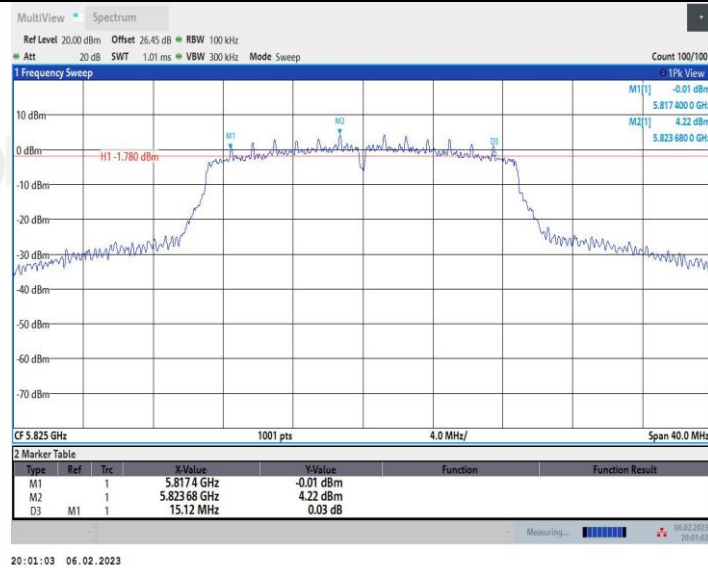
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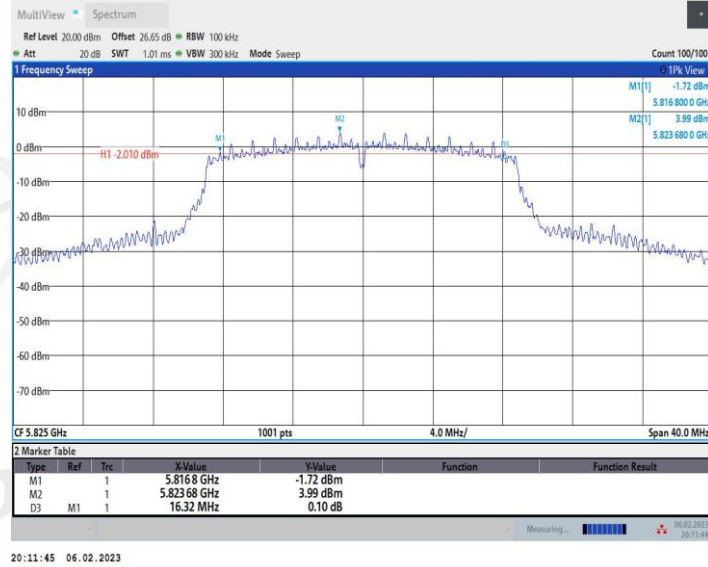
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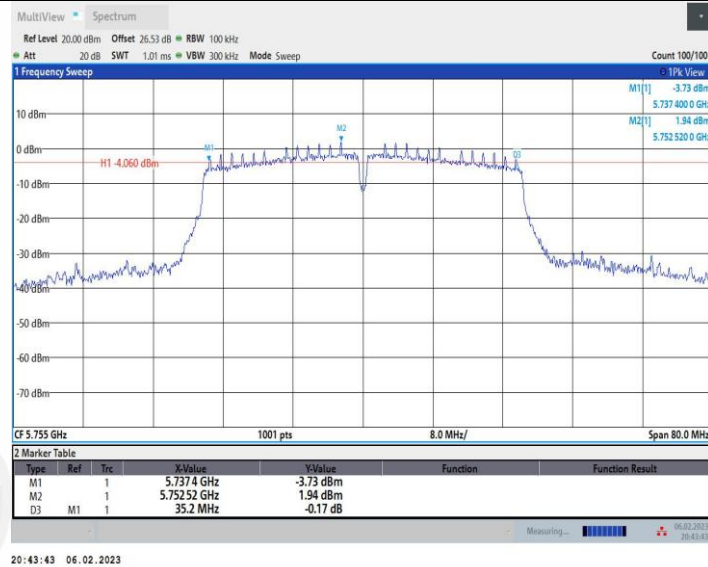
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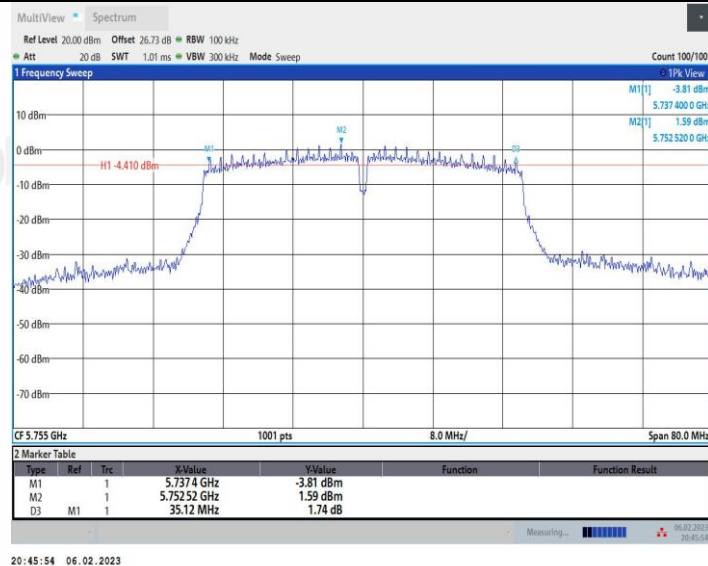
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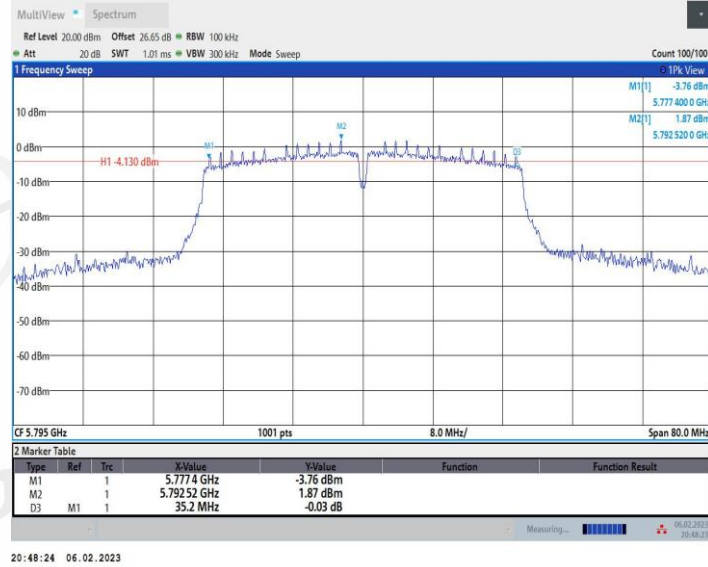
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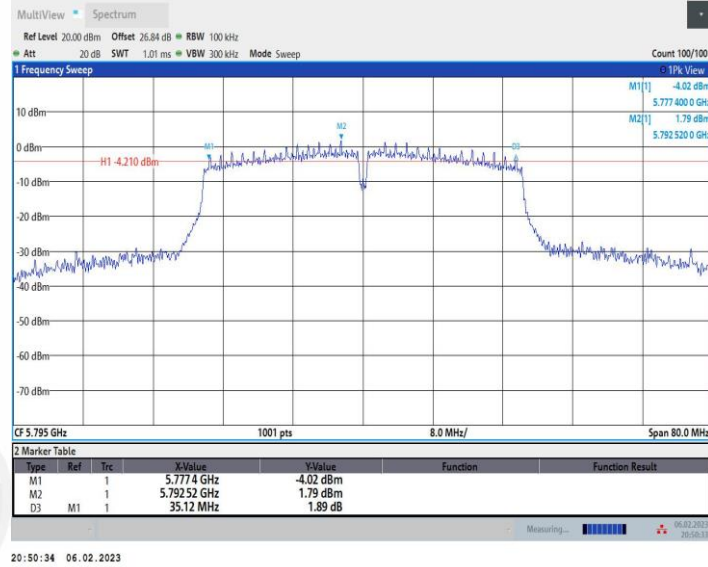
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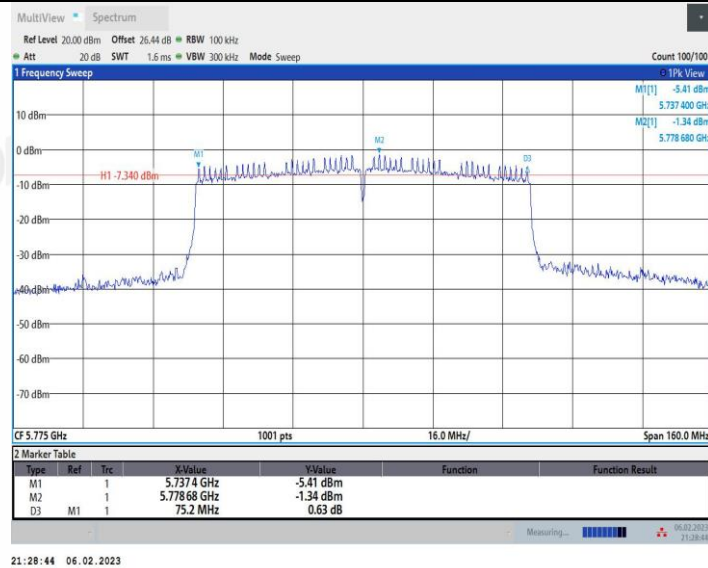
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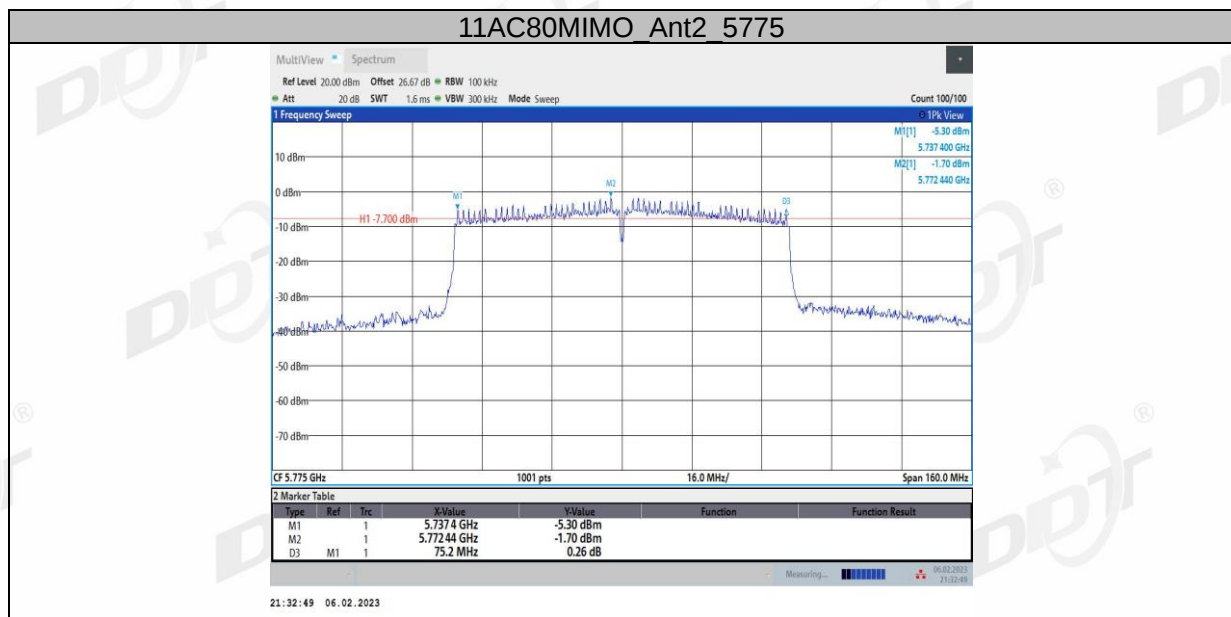


11AC40MIMO_Ant2_5795



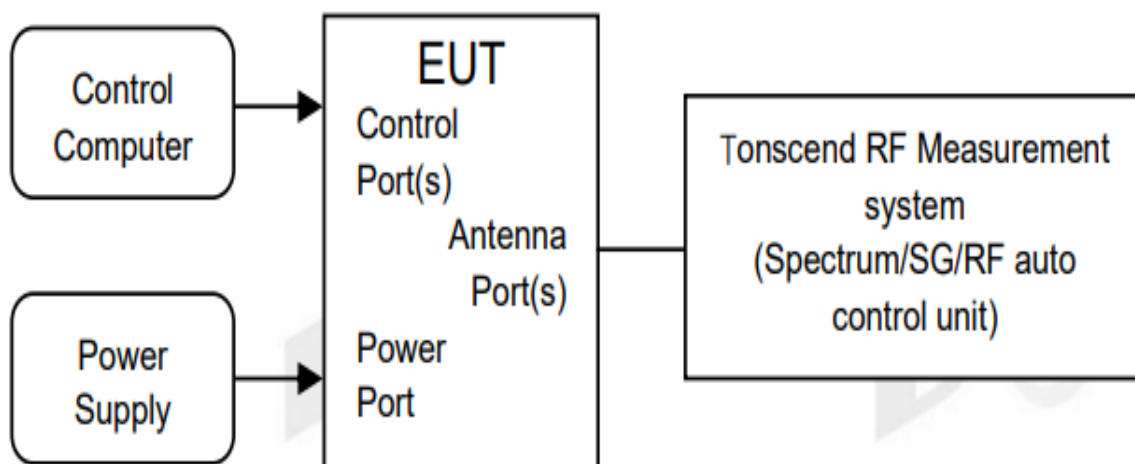
11AC80MIMO_Ant1_5775





6. 99% Bandwidth

6.1. Block diagram of test setup



6.2. Limits

Just for Report.

6.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	1% to 5% of the OBW
VBW	approximately three times the RBW
Trace	Max hold

(2) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

6.4. Test result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	17.152	5171.4138	5188.5659	---	---
	Ant2	5180	17.178	5171.3895	5188.5672	---	---
	Ant1	5200	17.122	5191.3895	5208.5112	---	---
	Ant2	5200	17.197	5191.3383	5208.5353	---	---
	Ant1	5240	17.166	5231.3962	5248.5621	---	---
	Ant2	5240	17.171	5231.3640	5248.5346	---	---
	Ant1	5260	17.225	5251.3555	5268.5803	---	---
	Ant2	5260	17.149	5251.3737	5268.5226	---	---
	Ant1	5280	17.151	5271.3763	5288.5269	---	---
	Ant2	5280	17.174	5271.3411	5288.5146	---	---
	Ant1	5320	17.133	5311.4200	5328.5528	---	---
	Ant2	5320	17.104	5311.4114	5328.5157	---	---
	Ant1	5500	17.128	5491.4210	5508.5492	---	---
	Ant2	5500	17.119	5491.4300	5508.5491	---	---
	Ant1	5580	17.211	5571.3353	5588.5467	---	---
	Ant2	5580	17.241	5571.3239	5588.5651	---	---
	Ant1	5700	17.225	5691.3380	5708.5626	---	---
	Ant2	5700	17.199	5691.3493	5708.5484	---	---
	Ant1	5745	17.166	5736.3941	5753.5598	---	---
	Ant2	5745	17.236	5736.3347	5753.5703	---	---
	Ant1	5785	17.240	5776.3488	5793.5890	---	---
	Ant2	5785	17.285	5776.3371	5793.6223	---	---
	Ant1	5825	17.346	5816.3325	5833.6781	---	---
	Ant2	5825	17.448	5816.2749	5833.7227	---	---
11N20MIMO	Ant1	5180	17.995	5170.9903	5188.9857	---	---
	Ant2	5180	17.770	5171.0812	5188.8507	---	---
	Ant1	5200	18.013	5190.9640	5208.9767	---	---
	Ant2	5200	17.752	5191.0921	5208.8439	---	---

	Ant1	5240	18.006	5230.9601	5248.9657	---	---
	Ant2	5240	17.768	5231.0746	5248.8424	---	---
	Ant1	5260	18.021	5250.9570	5268.9776	---	---
	Ant2	5260	17.822	5251.0615	5268.8840	---	---
	Ant1	5280	17.970	5270.9922	5288.9623	---	---
	Ant2	5280	17.763	5271.0887	5288.8517	---	---
	Ant1	5320	17.975	5310.9864	5328.9614	---	---
	Ant2	5320	17.786	5311.0800	5328.8661	---	---
	Ant1	5500	18.016	5490.9754	5508.9916	---	---
	Ant2	5500	17.750	5491.0944	5508.8440	---	---
	Ant1	5580	17.993	5570.9397	5588.9323	---	---
	Ant2	5580	17.754	5571.0931	5588.8471	---	---
	Ant1	5700	17.993	5690.9510	5708.9443	---	---
	Ant2	5700	17.754	5691.0979	5708.8524	---	---
	Ant1	5745	18.059	5735.9485	5754.0072	---	---
	Ant2	5745	17.805	5736.0712	5753.8761	---	---
	Ant1	5785	18.120	5775.9380	5794.0583	---	---
	Ant2	5785	17.878	5776.0558	5793.9342	---	---
	Ant1	5825	18.214	5815.8923	5834.1061	---	---
	Ant2	5825	17.993	5816.0184	5834.0116	---	---
11N40MIMO	Ant1	5190	36.261	5171.8426	5208.1033	---	---
	Ant2	5190	36.271	5171.8349	5208.1055	---	---
	Ant1	5230	36.343	5211.8146	5248.1575	---	---
	Ant2	5230	36.349	5211.7678	5248.1168	---	---
	Ant1	5270	36.487	5251.6904	5288.1772	---	---
	Ant2	5270	36.289	5251.7892	5288.0780	---	---
	Ant1	5310	36.321	5291.8168	5328.1379	---	---
	Ant2	5310	36.336	5291.8027	5328.1388	---	---
	Ant1	5510	36.319	5491.8508	5528.1696	---	---
	Ant2	5510	36.265	5491.9040	5528.1686	---	---

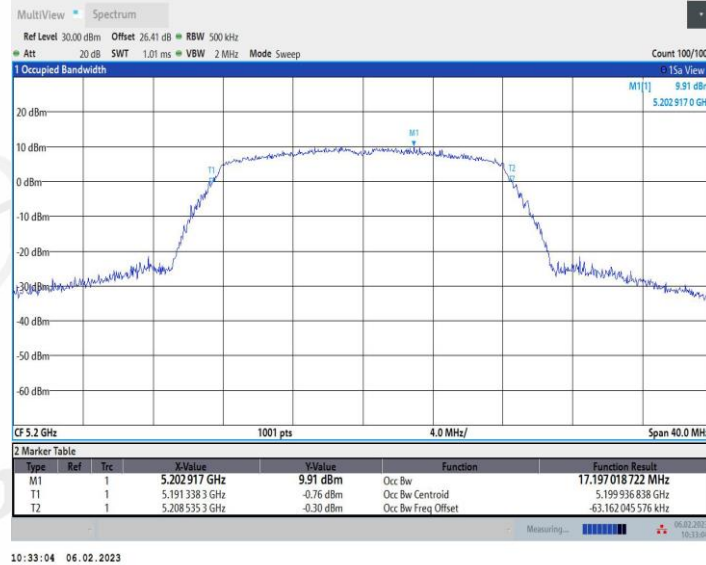
	Ant1	5550	36.345	5531.7759	5568.1208	---	---
	Ant2	5550	36.305	5531.7919	5568.0973	---	---
	Ant1	5670	36.339	5651.7499	5688.0894	---	---
	Ant2	5670	36.305	5651.7674	5688.0719	---	---
	Ant1	5755	36.469	5736.7228	5773.1917	---	---
	Ant2	5755	36.501	5736.7194	5773.2202	---	---
	Ant1	5795	36.543	5776.6978	5813.2411	---	---
	Ant2	5795	36.461	5776.7308	5813.1914	---	---
11AC20MIMO	Ant1	5180	18.010	5170.9941	5189.0043	---	---
	Ant2	5180	17.780	5171.0806	5188.8606	---	---
	Ant1	5200	17.996	5190.9436	5208.9399	---	---
	Ant2	5200	17.812	5191.0647	5208.8766	---	---
	Ant1	5240	17.987	5230.9975	5248.9849	---	---
	Ant2	5240	17.796	5231.0722	5248.8679	---	---
	Ant1	5260	18.025	5250.9502	5268.9755	---	---
	Ant2	5260	17.771	5251.0791	5268.8504	---	---
	Ant1	5280	18.009	5270.9838	5288.9927	---	---
	Ant2	5280	17.793	5271.0516	5288.8441	---	---
	Ant1	5320	17.994	5310.9734	5328.9677	---	---
	Ant2	5320	17.793	5311.0787	5328.8721	---	---
	Ant1	5500	17.998	5490.9828	5508.9812	---	---
	Ant2	5500	17.762	5491.0976	5508.8599	---	---
	Ant1	5580	17.988	5570.9640	5588.9515	---	---
	Ant2	5580	17.782	5571.0736	5588.8556	---	---
	Ant1	5700	18.030	5690.9322	5708.9626	---	---
	Ant2	5700	17.775	5691.0771	5708.8516	---	---
	Ant1	5745	18.029	5735.9645	5753.9938	---	---
	Ant2	5745	17.819	5736.0496	5753.8683	---	---
	Ant1	5785	18.152	5775.9141	5794.0664	---	---
	Ant2	5785	17.890	5776.0332	5793.9232	---	---

	Ant1	5825	18.217	5815.8841	5834.1016	---	---
	Ant2	5825	17.965	5815.9983	5833.9636	---	---
11AC40MIMO	Ant1	5190	36.326	5171.8283	5208.1546	---	---
	Ant2	5190	36.202	5171.9005	5208.1024	---	---
	Ant1	5230	36.302	5211.7985	5248.1008	---	---
	Ant2	5230	36.347	5211.7618	5248.1090	---	---
	Ant1	5270	36.398	5251.7871	5288.1852	---	---
	Ant2	5270	36.291	5251.8155	5288.1062	---	---
	Ant1	5310	36.410	5291.7435	5328.1535	---	---
	Ant2	5310	36.320	5291.7759	5328.0964	---	---
	Ant1	5510	36.363	5491.7625	5528.1254	---	---
	Ant2	5510	36.247	5491.9018	5528.1493	---	---
	Ant1	5550	36.335	5531.7802	5568.1149	---	---
	Ant2	5550	36.193	5531.8536	5568.0466	---	---
	Ant1	5670	36.330	5651.7834	5688.1136	---	---
	Ant2	5670	36.329	5651.7311	5688.0605	---	---
	Ant1	5755	36.416	5736.7794	5773.1949	---	---
	Ant2	5755	36.408	5736.7313	5773.1391	---	---
	Ant1	5795	36.546	5776.7032	5813.2494	---	---
	Ant2	5795	36.427	5776.7679	5813.1947	---	---
11AC80MIMO	Ant1	5210	75.669	5172.1620	5247.8311	---	---
	Ant2	5210	75.461	5172.2193	5247.6804	---	---
	Ant1	5290	75.617	5252.1810	5327.7978	---	---
	Ant2	5290	75.601	5252.1376	5327.7383	---	---
	Ant1	5530	75.452	5492.2732	5567.7249	---	---
	Ant2	5530	75.333	5492.3533	5567.6861	---	---
	Ant1	5610	75.798	5572.0074	5647.8058	---	---
	Ant2	5610	75.658	5572.1352	5647.7927	---	---
	Ant1	5775	75.789	5737.0728	5812.8616	---	---
	Ant2	5775	75.605	5737.1144	5812.7195	---	---

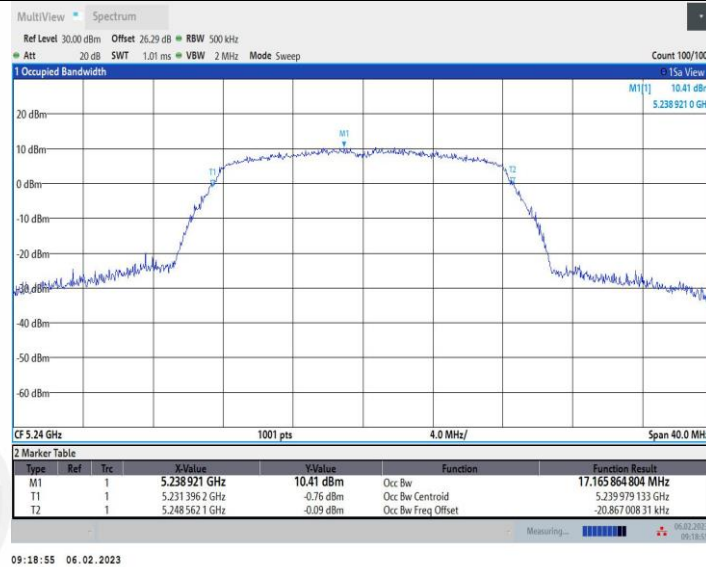
6.5. Test graphs



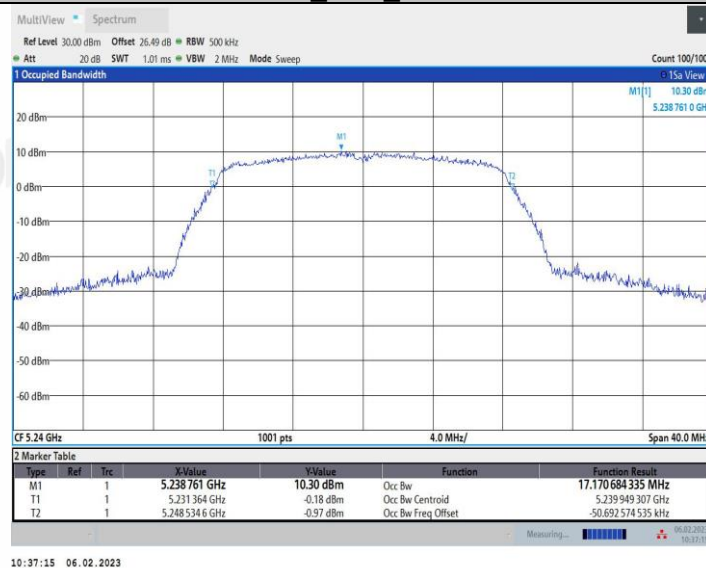
11A_Ant2_5200



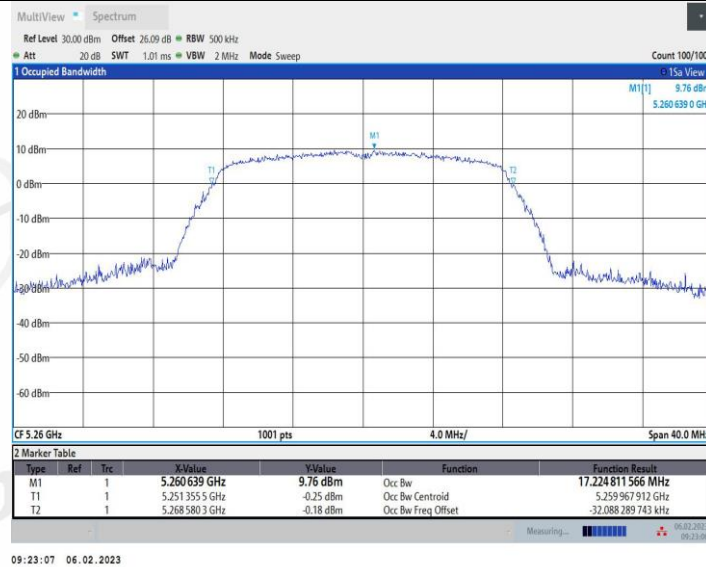
11A_Ant1_5240



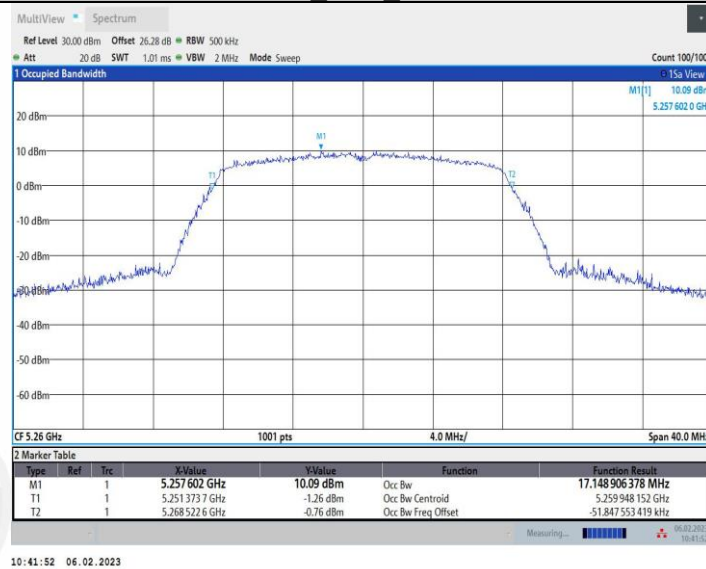
11A_Ant2_5240



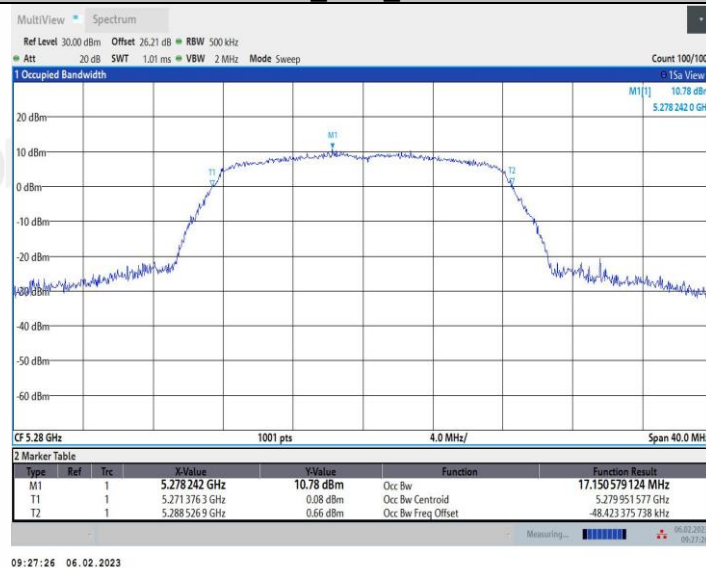
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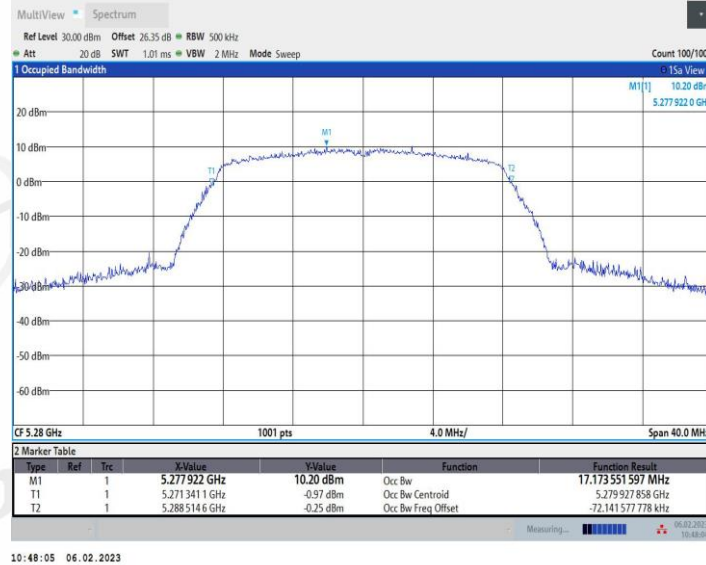
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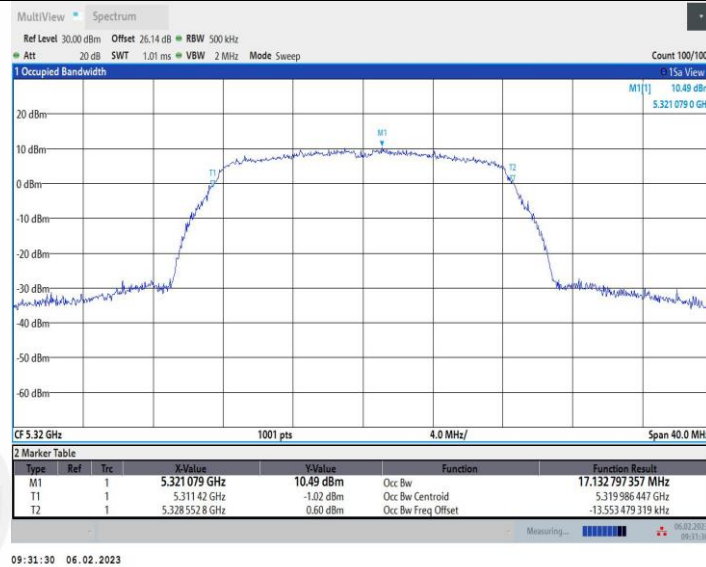
11A_Ant1_5280



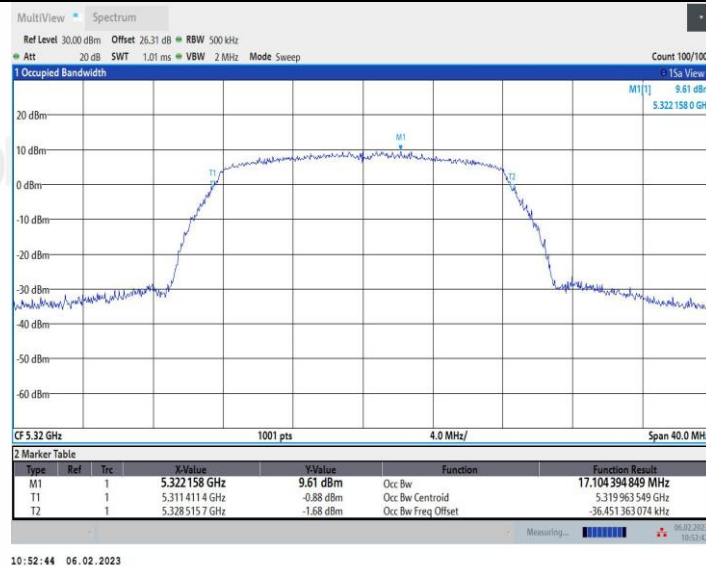
11A_Ant2_5280



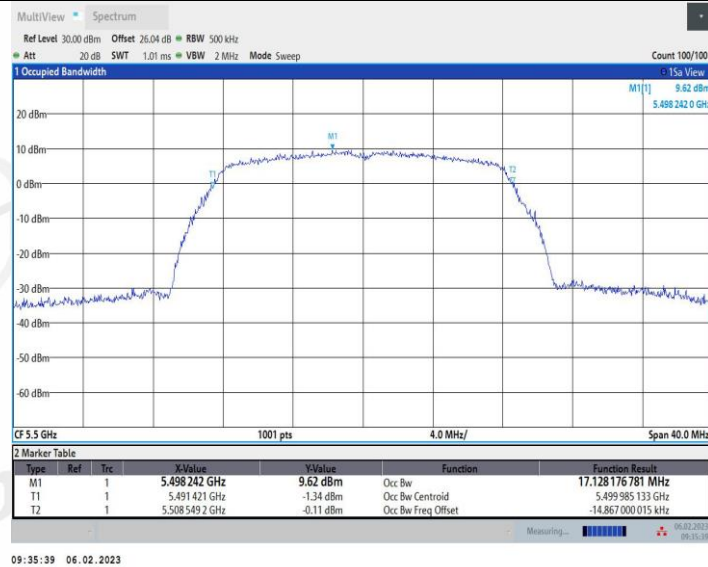
11A_Ant1_5320



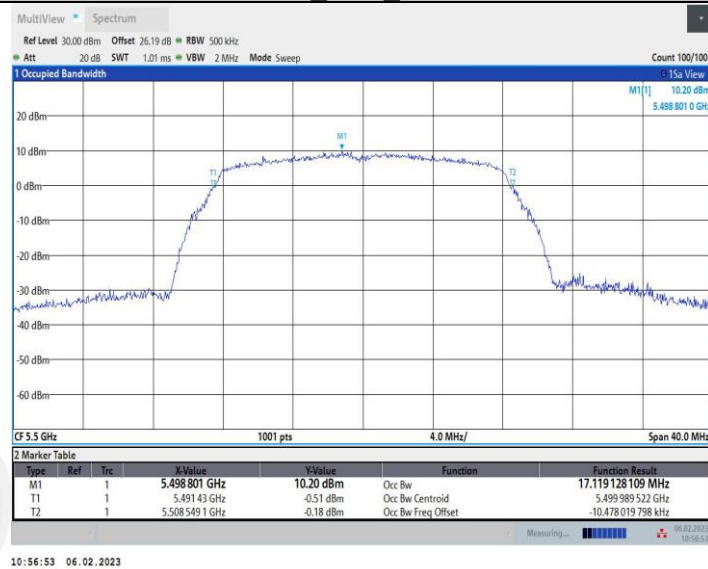
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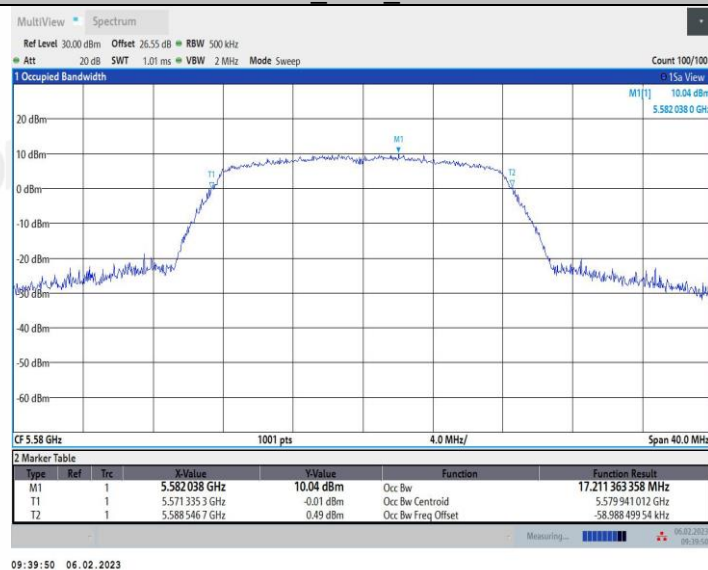
11A_Ant1_5500



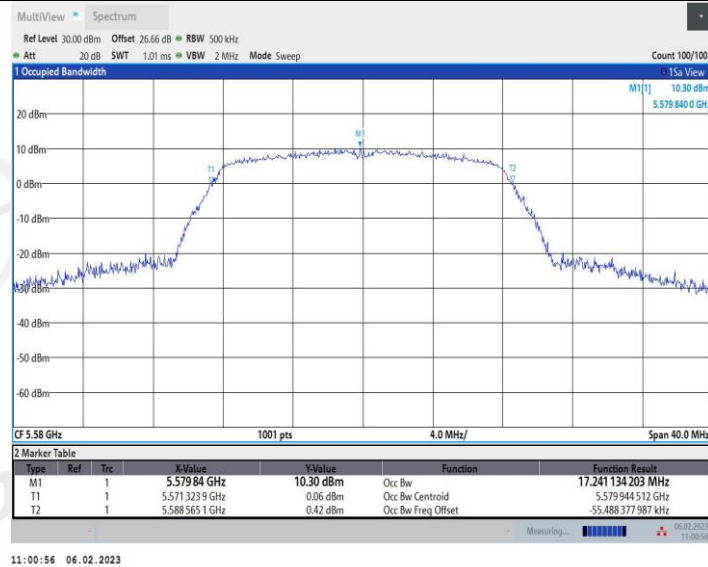
11A_Ant2_5500



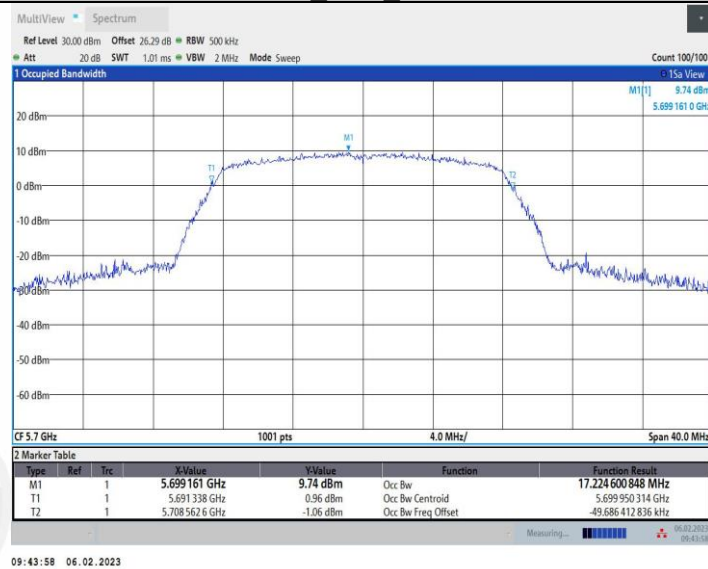
11A_Ant1_5580



11A_Ant2_5580



11A_Ant1_5700



11A_Ant2_5700

