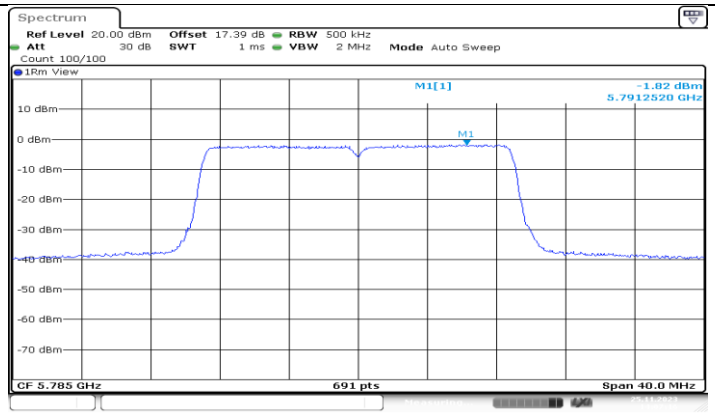
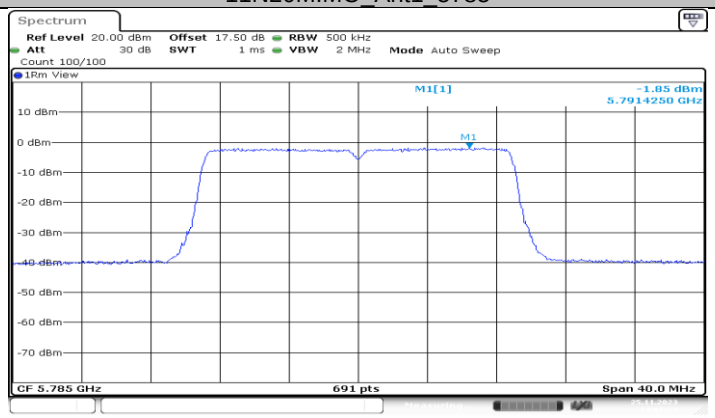
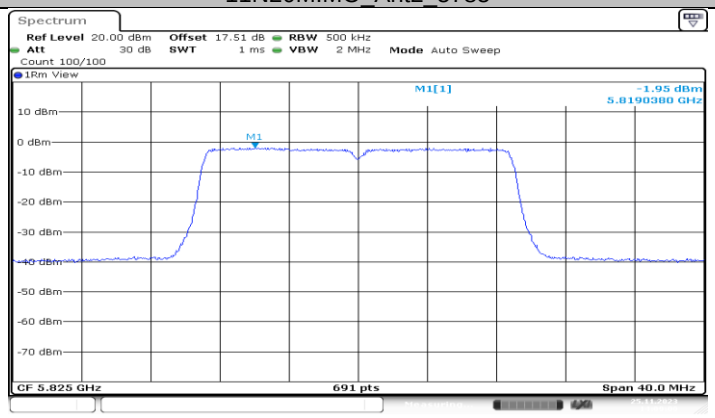


11N20MIMO_Ant1_5785



11N20MIMO_Ant2_5785



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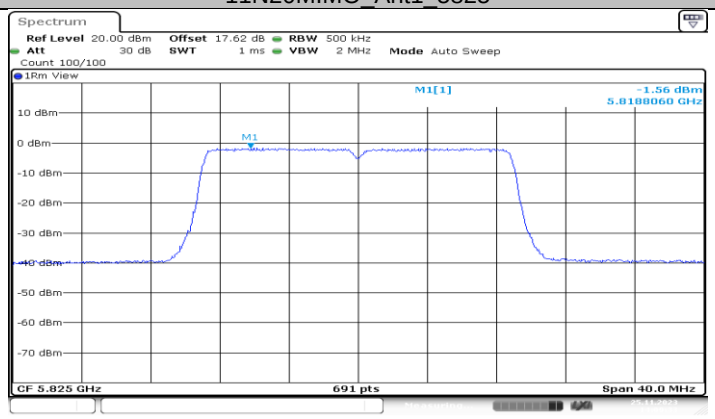

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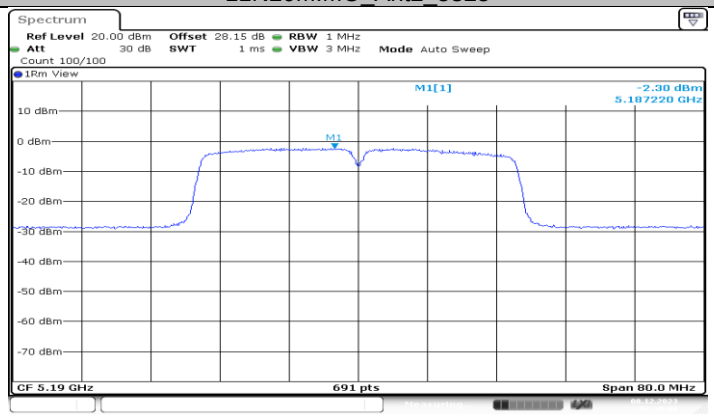
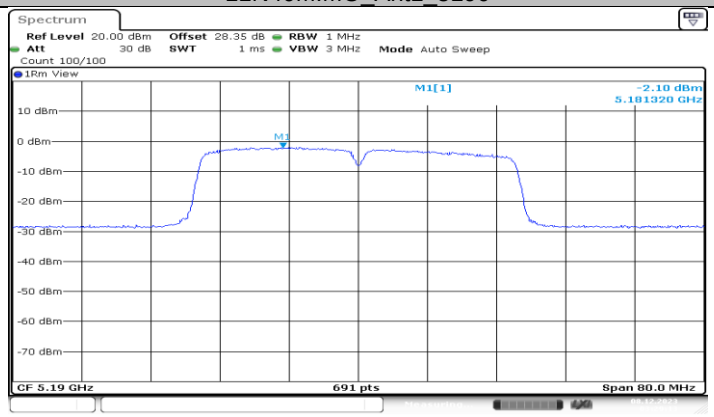


11N40MIMO_Ant1_5190



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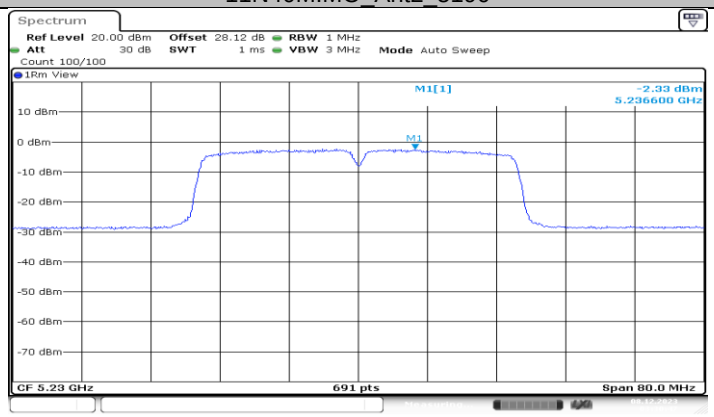

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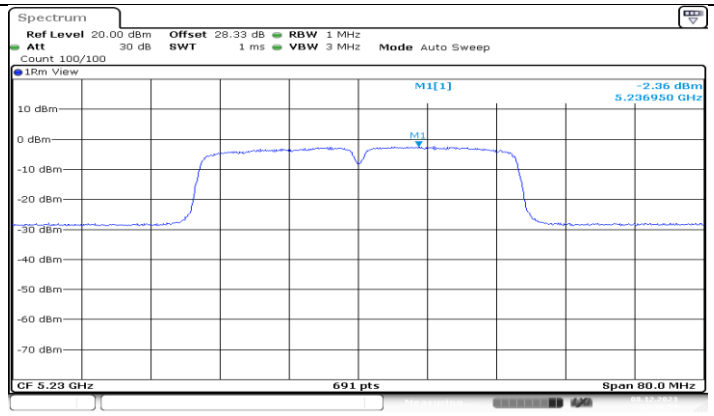

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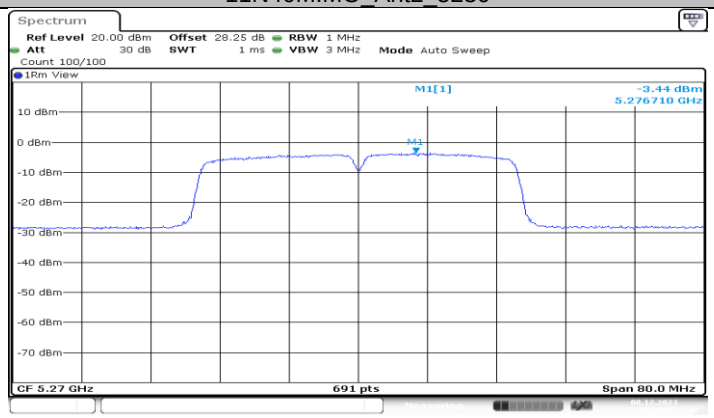

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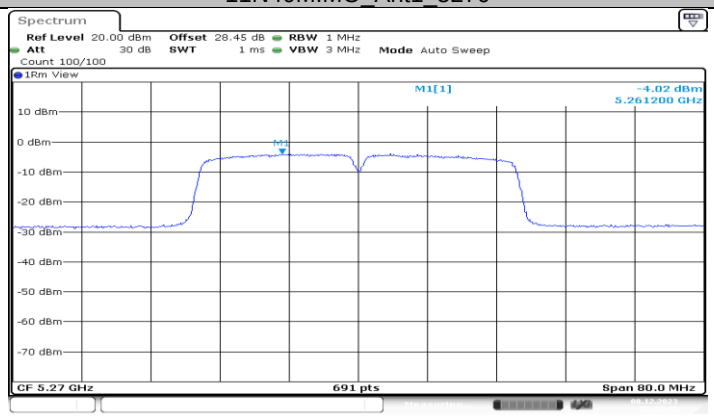

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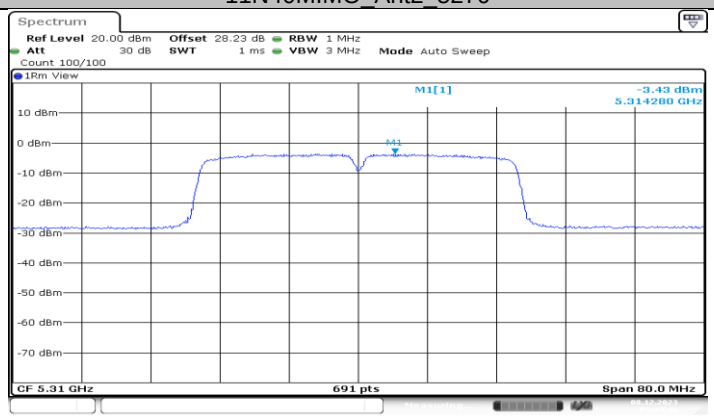

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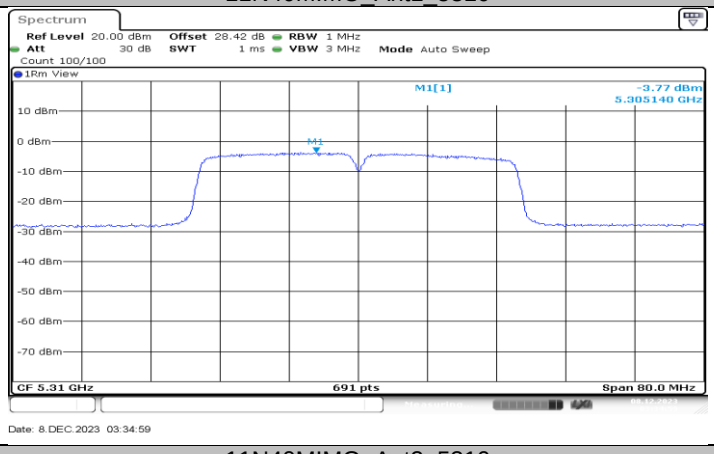

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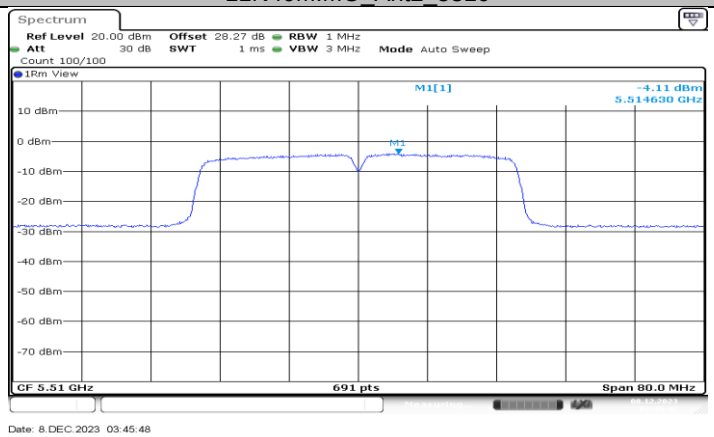

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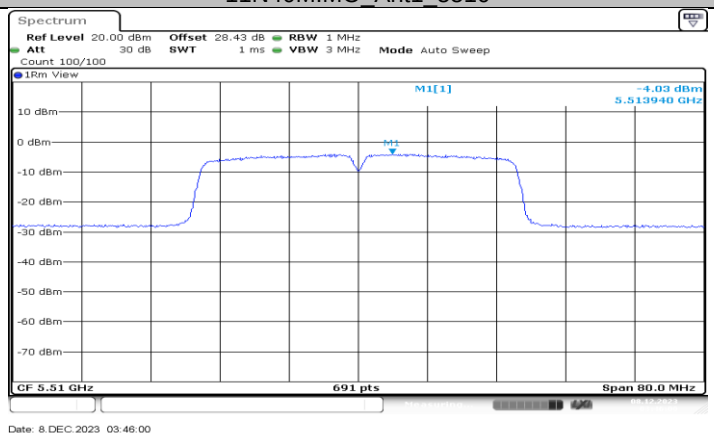

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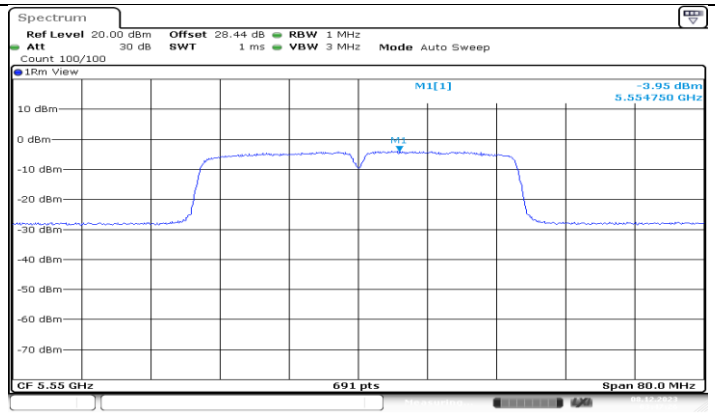

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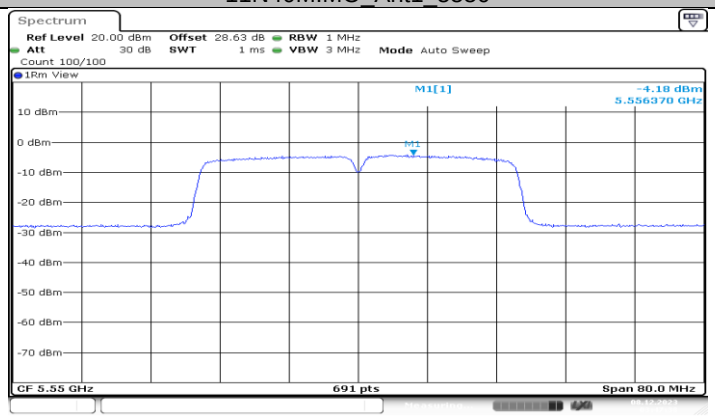
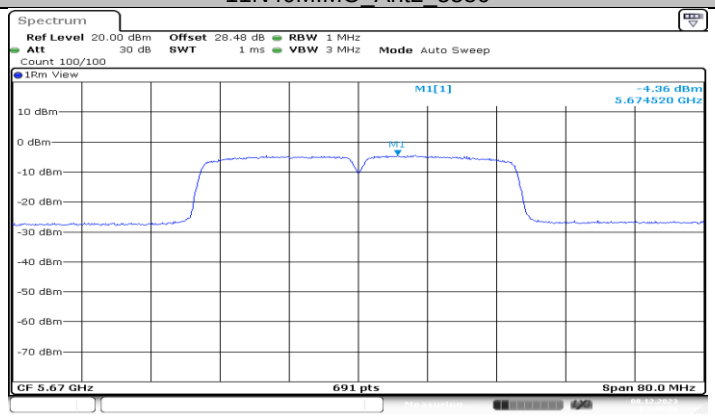


11N40MIMO_Ant2_5550



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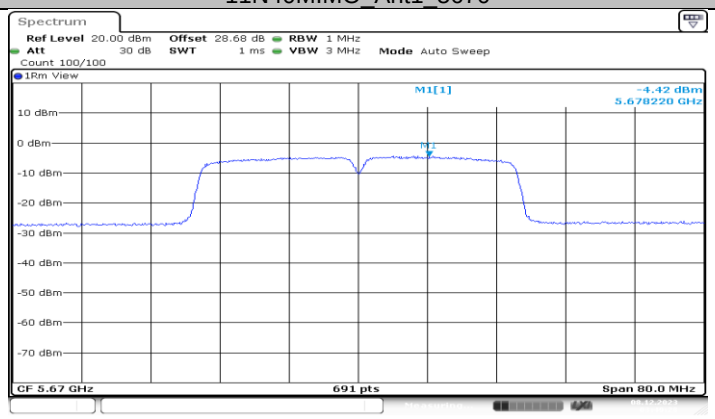
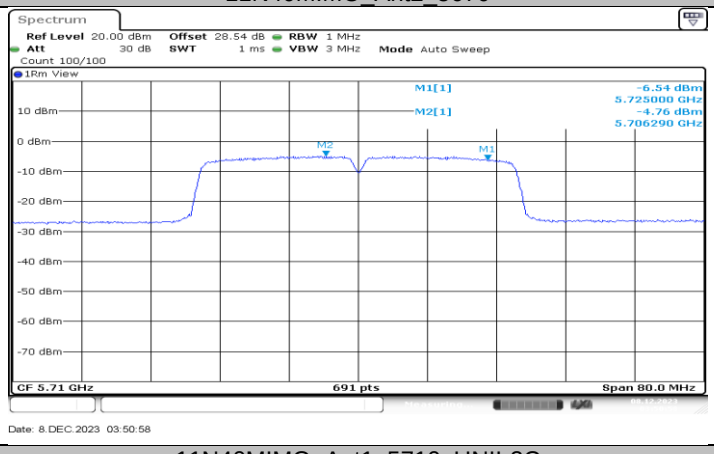
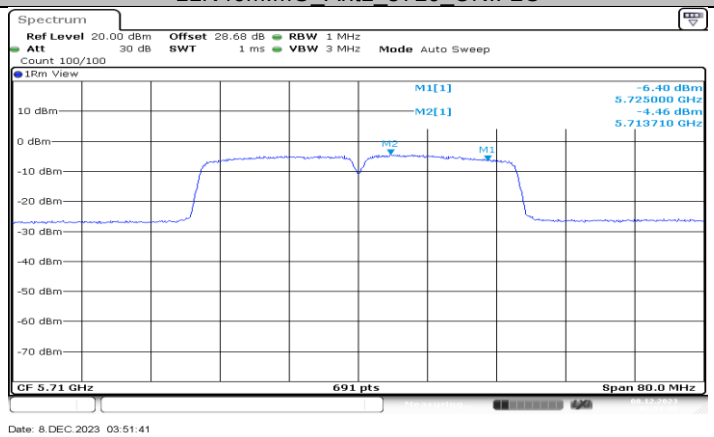


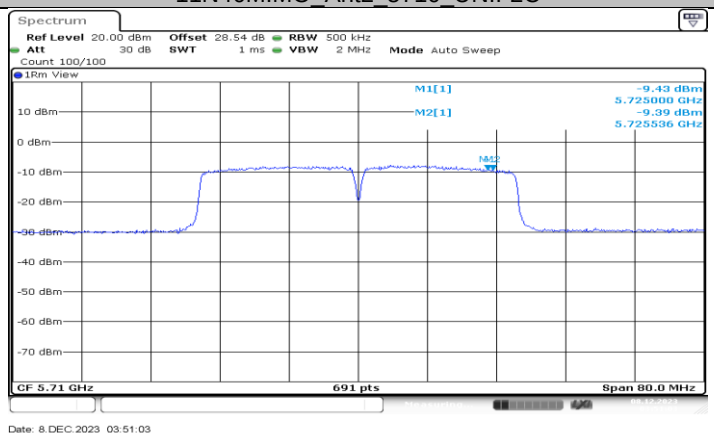
11N40MIMO_Ant2_5670



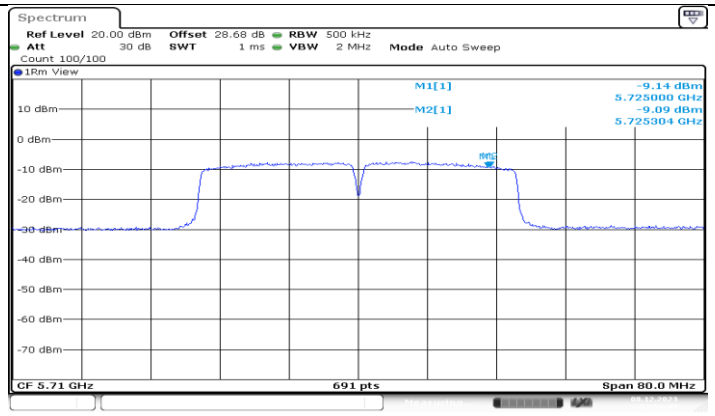
11N40MIMO_Ant1_5710_UNII-2C



11N40MIMO_Ant2_5710_UNII-2C



11N40MIMO_Ant1_5710_UNII-3



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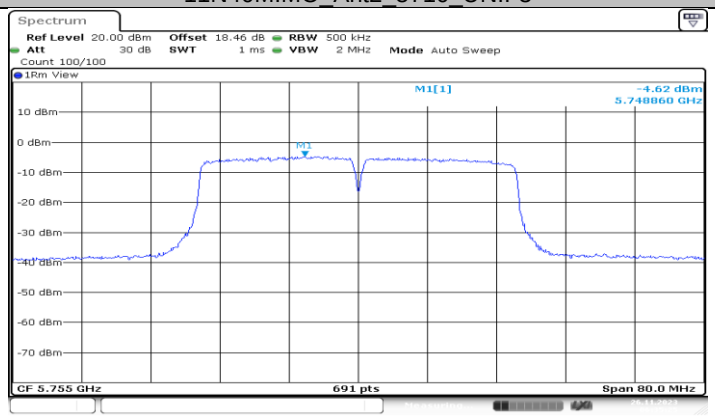

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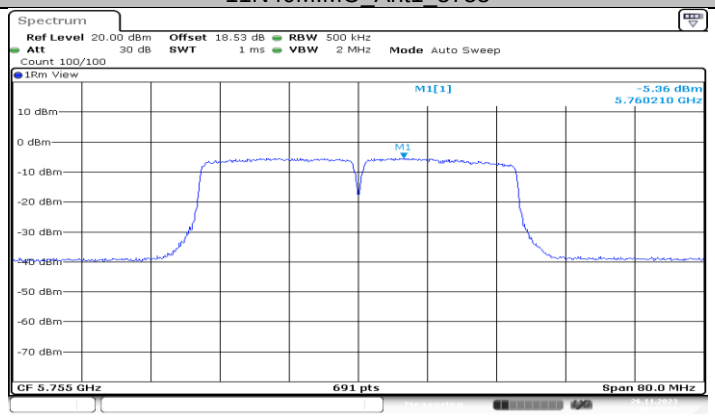

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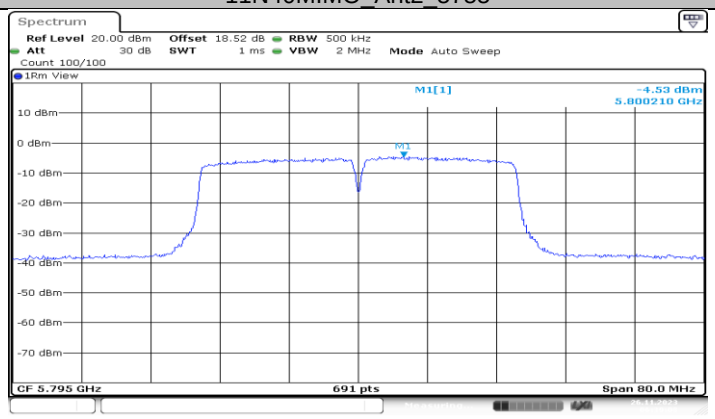

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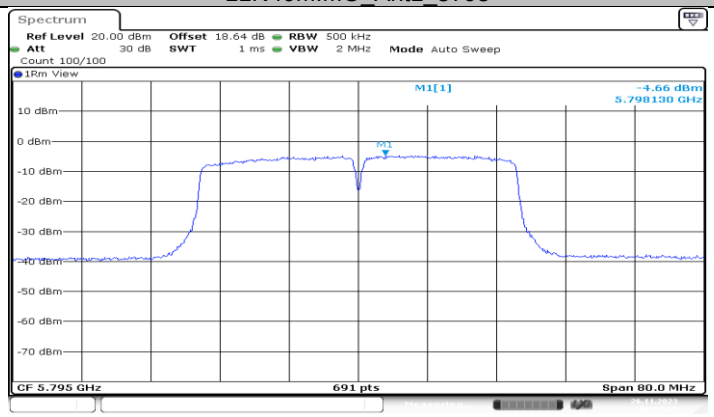

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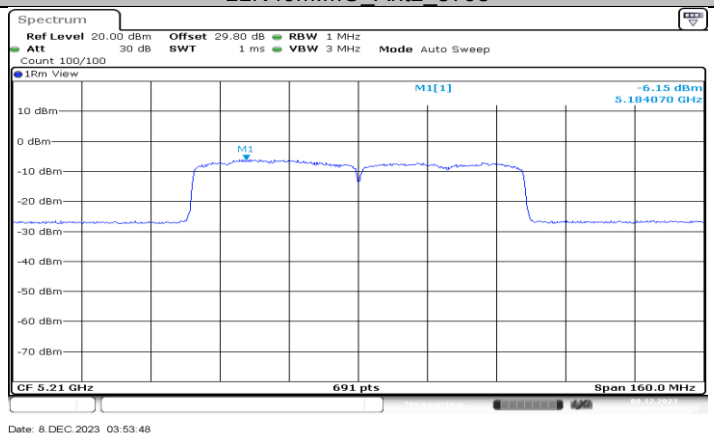
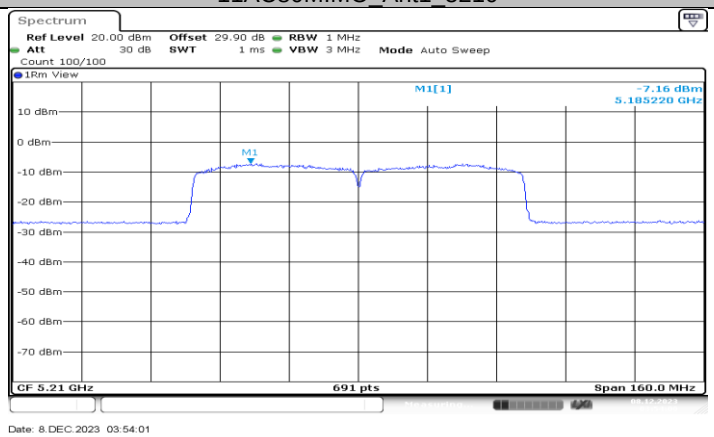
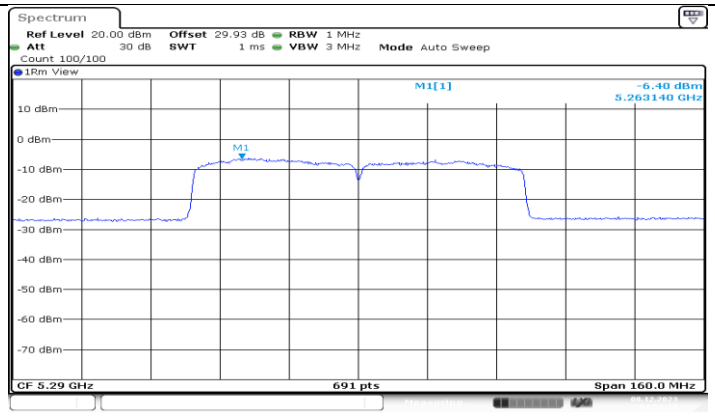


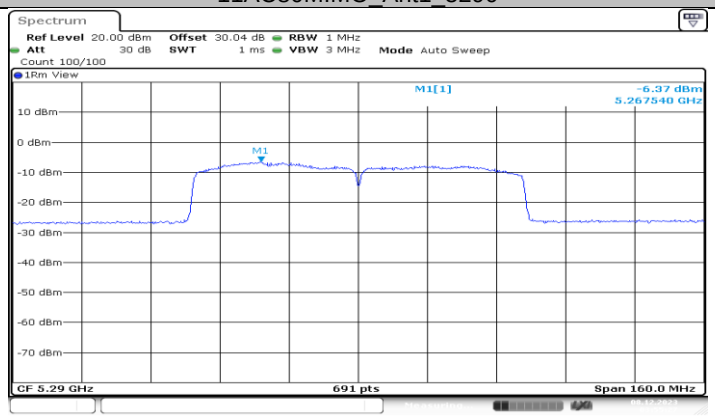
11AC80MIMO_Ant1_5210



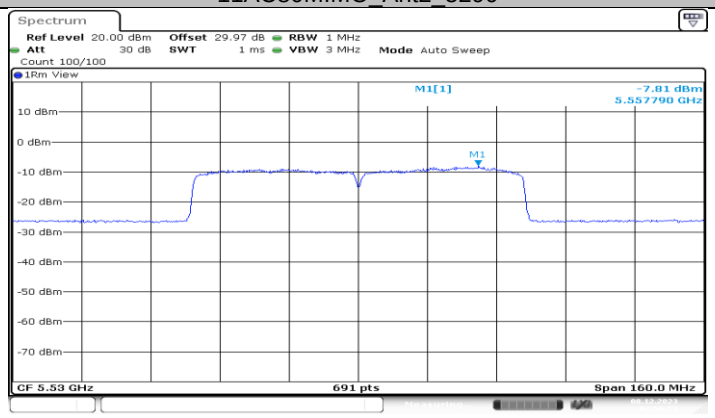
11AC80MIMO_Ant2_5210



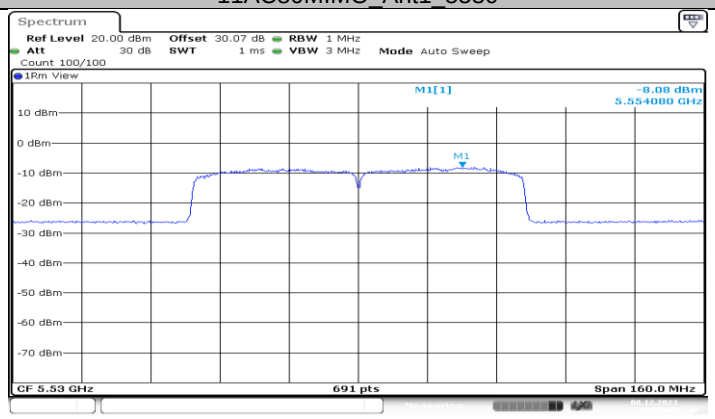
11AC80MIMO_Ant1_5290



11AC80MIMO_Ant2_5290



11AC80MIMO_Ant1_5530



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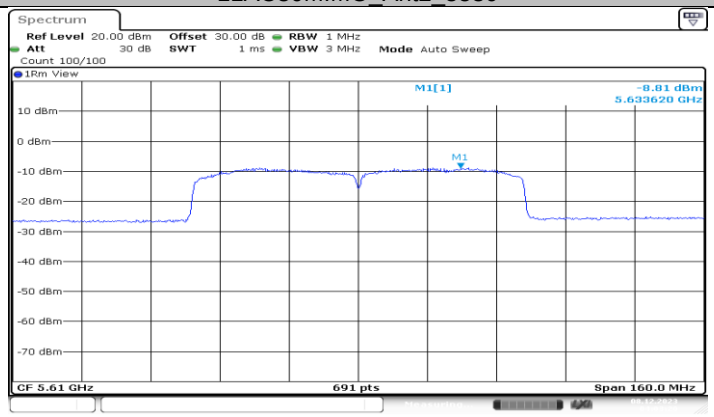

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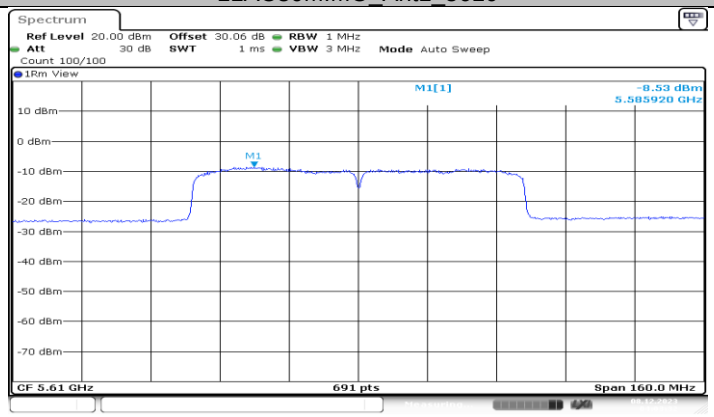

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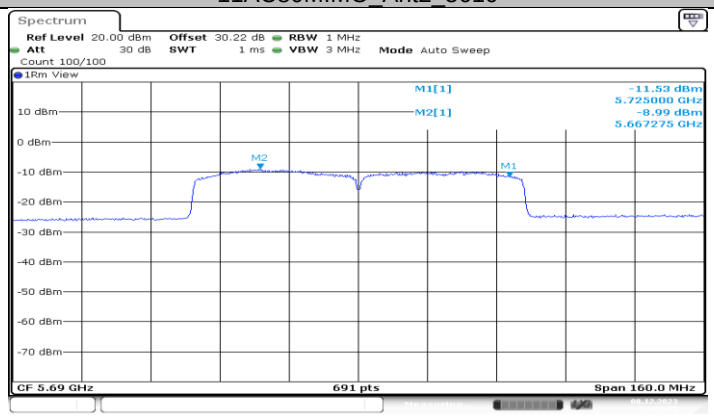
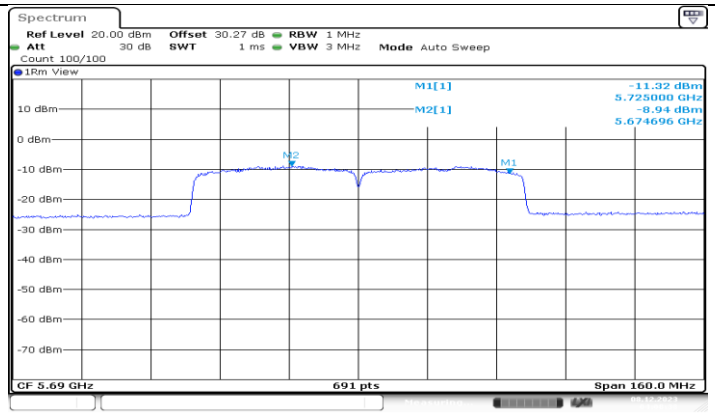
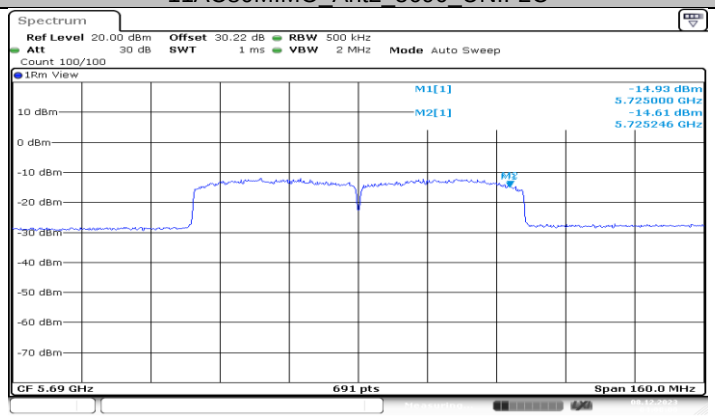


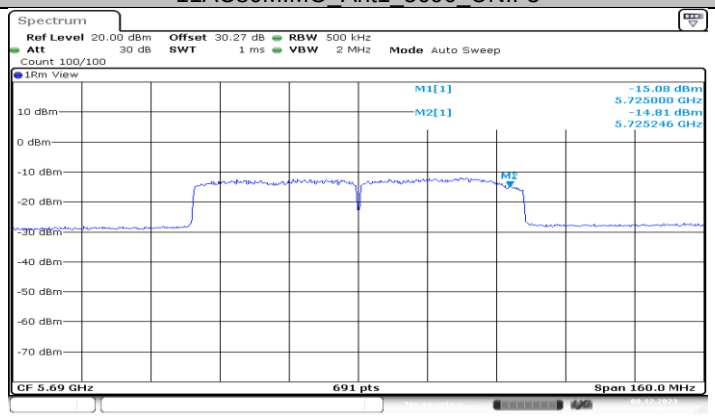
11AC80MIMO_Ant1_5690_UNII-2C



11AC80MIMO_Ant2_5690_UNII-2C



11AC80MIMO_Ant1_5690_UNII-3



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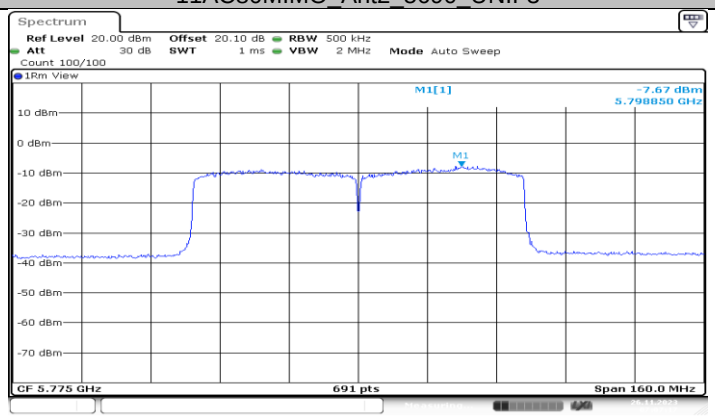
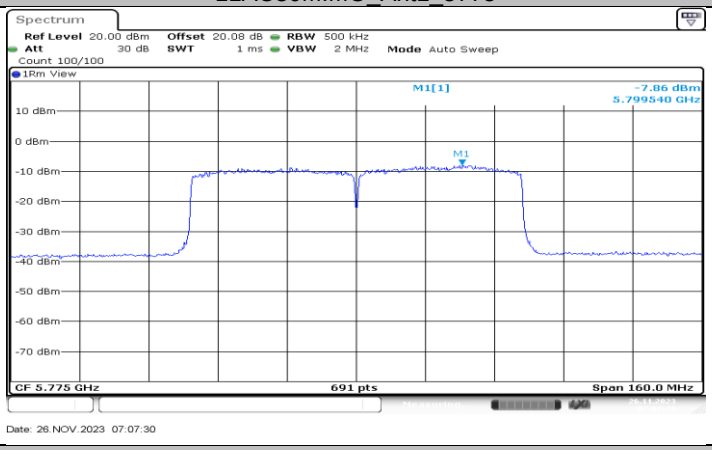


11AC80MIMO_Ant1_5775

11AC80MIMO_Ant2_5775

11.6. APPENDIX D: FREQUENCY STABILITY

11.6.1. Test Result

Frequency Error vs. Voltage									
802.11a:5180MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5180.0181	3.50	5180.0126	2.43	5179.9958	-0.81	5179.9800	-3.87
TN	VN	5180.0031	0.59	5179.9904	-1.85	5180.0059	1.14	5179.9876	-2.39
TN	VH	5179.9821	-3.46	5179.9919	-1.57	5179.9829	-3.31	5180.0099	1.91
Frequency Error vs. Temperature									
802.11a:5180MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
70	VN	5179.9904	-1.86	5180.0202	3.90	5180.0162	3.12	5179.9788	-4.10
60	VN	5180.0220	4.24	5179.9967	-0.65	5180.0062	1.20	5179.9761	-4.62
50	VN	5179.9832	-3.24	5179.9863	-2.64	5180.0076	1.47	5179.9811	-3.65
40	VN	5179.9903	-1.87	5179.9979	-0.41	5180.0249	4.80	5180.0234	4.51
30	VN	5180.0099	1.91	5179.9920	-1.55	5180.0053	1.03	5180.0052	1.01
20	VN	5179.9858	-2.74	5179.9780	-4.26	5180.0143	2.77	5180.0220	4.24
10	VN	5180.0137	2.64	5179.9836	-3.16	5180.0181	3.50	5179.9803	-3.80
0	VN	5179.9964	-0.70	5179.9927	-1.41	5179.9837	-3.15	5179.9888	-2.16

Note:
1. All antennas, test modes and test channels have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 7.5 TEST ENVIRONMENT.

Frequency Error vs. Voltage									
802.11a:5825MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5825.0089	1.54	5824.9883	-2.00	5825.0077	1.32	5825.0147	2.52
TN	VN	5824.9919	-1.38	5824.9799	-3.44	5824.9762	-4.08	5824.9918	-1.40
TN	VH	5824.9839	-2.77	5824.9907	-1.60	5825.0232	3.98	5825.0212	3.65
Frequency Error vs. Temperature									
802.11a:5825MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
70	VN	5825.0001	0.02	5825.0152	2.61	5824.9944	-0.97	5825.0181	3.10
60	VN	5825.0001	0.02	5825.0178	3.05	5825.0234	4.02	5825.0144	2.46
50	VN	5824.9864	-2.34	5825.0021	0.37	5825.0055	0.94	5824.9990	-0.17
40	VN	5824.9946	-0.93	5825.0094	1.62	5824.9880	-2.06	5825.0043	0.74
30	VN	5824.9783	-3.72	5824.9982	-0.31	5824.9754	-4.23	5825.0210	3.60
20	VN	5824.9877	-2.11	5825.0165	2.84	5824.9887	-1.94	5825.0208	3.58
10	VN	5824.9863	-2.35	5825.0109	1.88	5825.0091	1.56	5825.0188	3.23
0	VN	5825.0235	4.03	5824.9774	-3.87	5824.9848	-2.61	5825.0206	3.53

Note:
1. All antennas, test modes and test channels have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 7.5 TEST ENVIRONMENT.

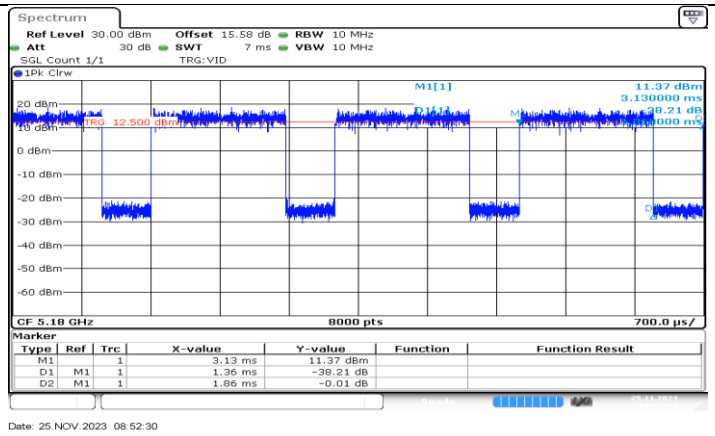
11.7. APPENDIX E: DUTY CYCLE

11.7.1. Test Result

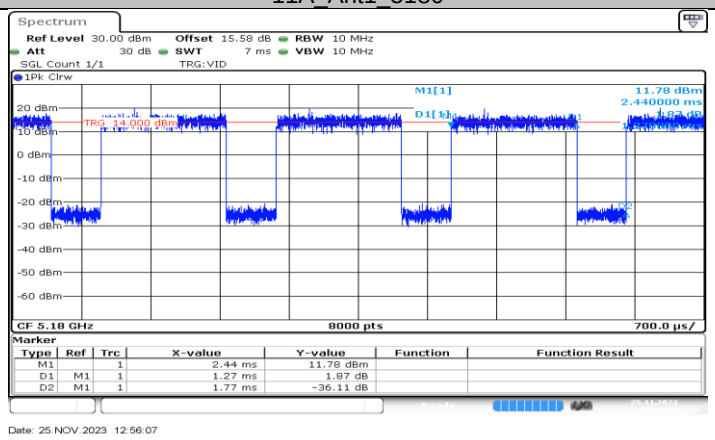
Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11A	1.36	1.86	0.7312	73.12	1.36	0.74	1
11N20MIMO	1.27	1.77	0.7175	71.75	1.44	0.79	1
11N40MIMO	0.63	1.13	0.5575	55.75	2.54	1.59	2
11AC80MIMO	0.31	0.81	0.3827	38.27	4.17	3.23	4

Note:
Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

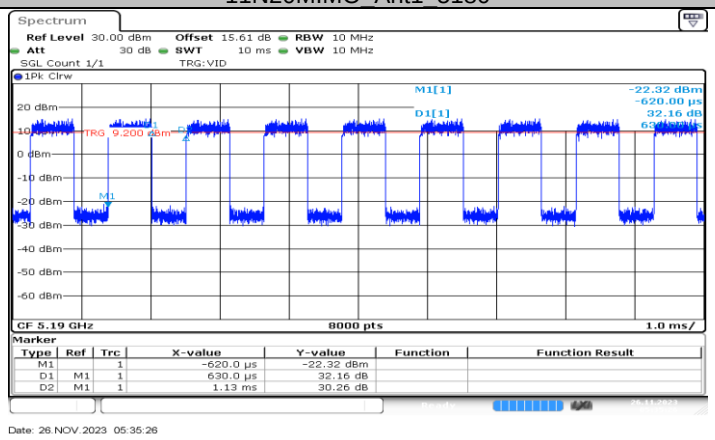
11.7.2. Test Graphs



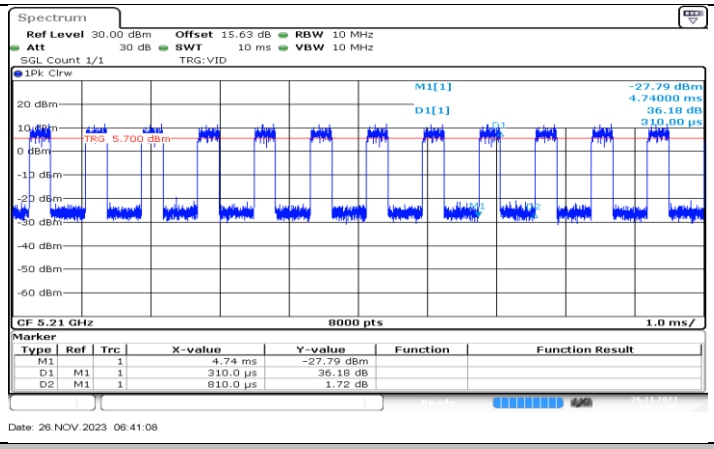
11A_Ant1_5180



11N20MIMO_Ant1_5180



11N40MIMO_Ant1_5190



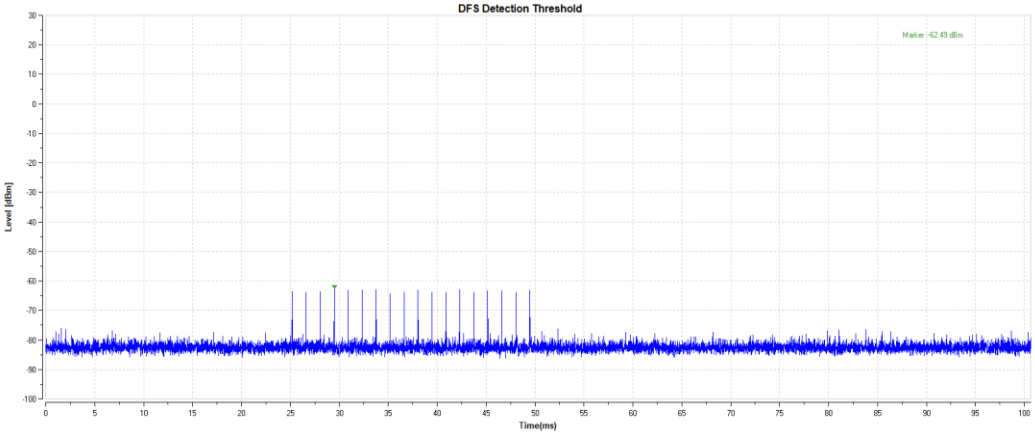
11AC80MIMO_Ant1_5210

11.8. APPENDIX F: CALIBRATION

Mode	Frequency (MHz)	Type	Result	Verdict
ac80	5530	DFS_FCC_T0	See test Graph	Pass

Test Graphs

5530MHz DFS_FCC_T0



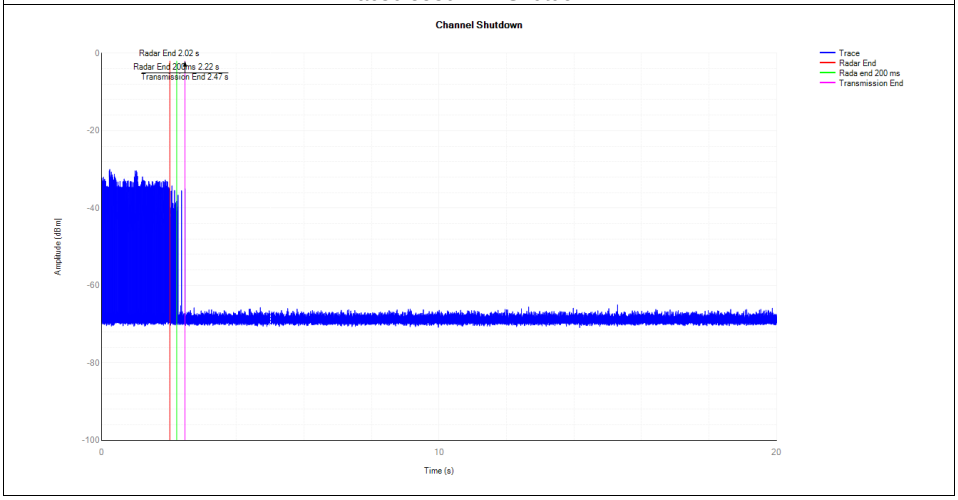
11.9. APPENDIX G: SHUTDOWN TIME

Mode	Frequency (MHz)	Channel Move Time (s)	Limit Channel Move Time (s)	Close Transmission Time (s)	Limit Close Transmission Time (s)	Close Transmission Time after 200ms(s)	Limit Close Transmission Time after 200ms (s)	Verdict
ac80	5530	0.446	10	0.041	0.26	0.008	0.06	Pass

Note: All modes have been tested, only the worst data recorded in the report.

Test Graphs

ac80 5530MHz Shutdown



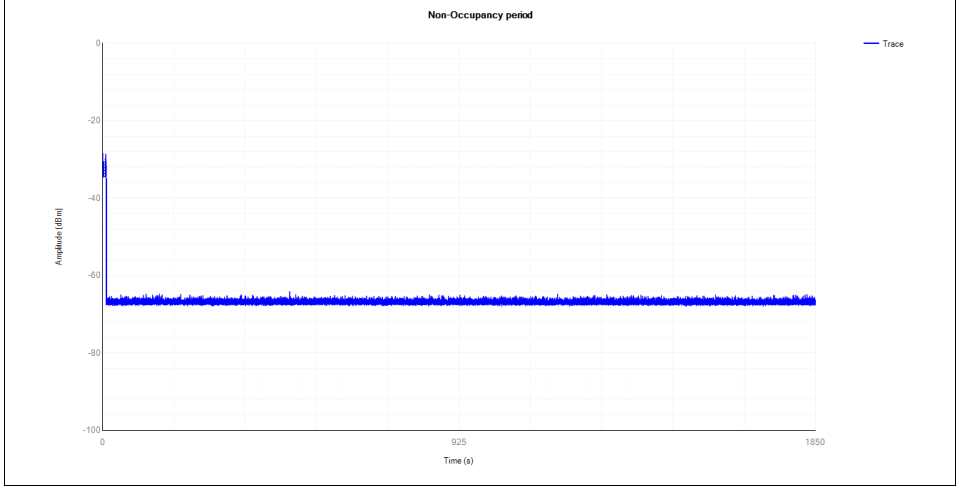
11.10. APPENDIX H: NON-OCCUPANCY

Mode	Frequency (MHz)	Result	Verdict
ac80	5530	See test Graph	Pass

Note: All modes have been tested, only the worst data recorded in the report.

Test Graphs

ac80 5530MHz Non-Occupancy



END OF REPORT