



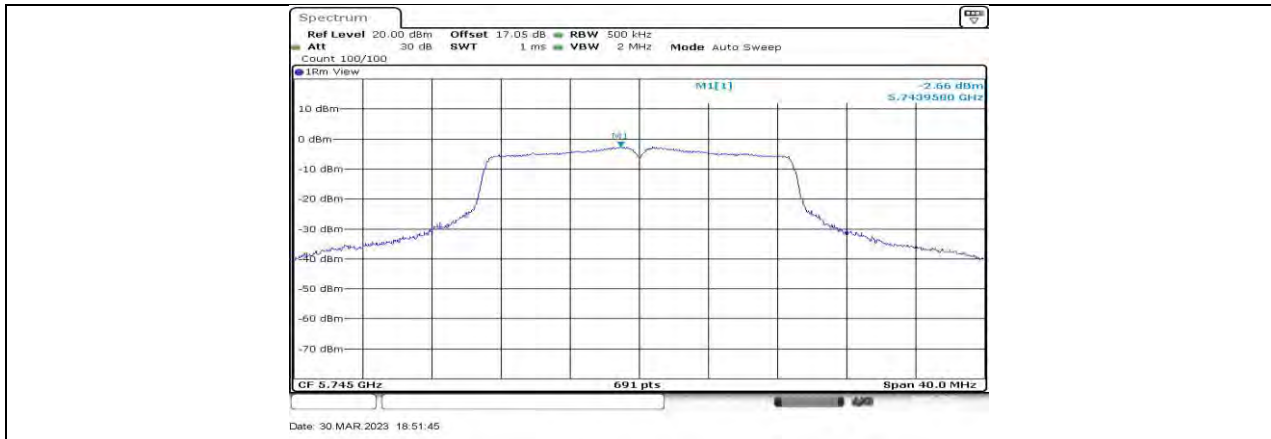
11N20MIMO Ant1\_5720\_UNII-3



11N20MIMO Ant2\_5720\_UNII-3



11N20MIMO Ant1\_5745



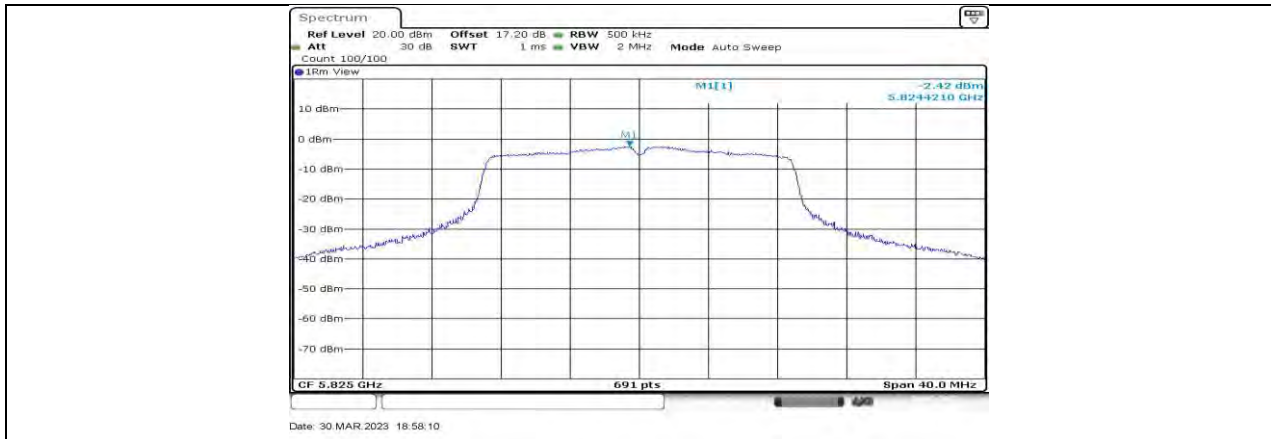
11N20MIMO Ant2 5745



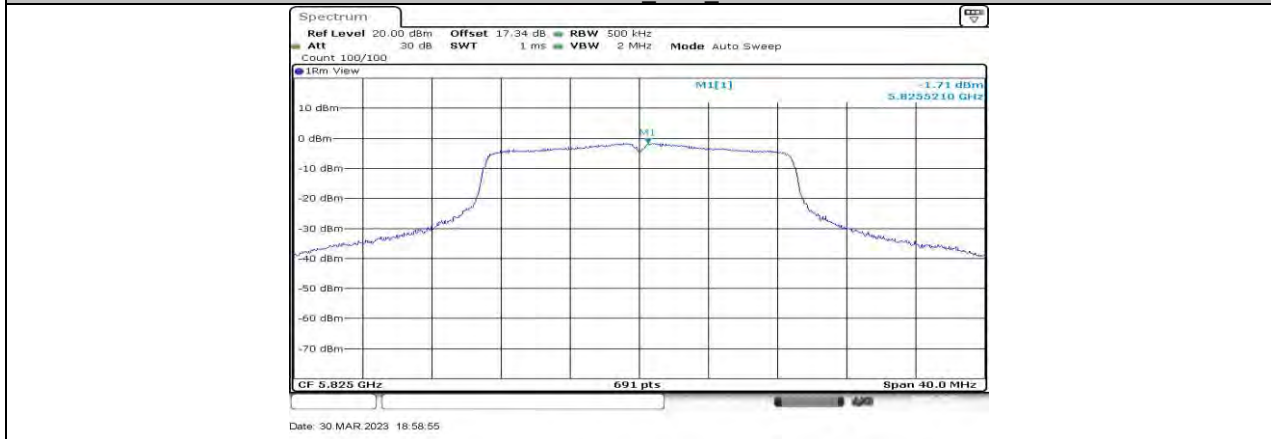
11N20MIMO Ant1 5785



11N20MIMO Ant2 5785



11N20MIMO\_Ant1\_5825



11N20MIMO\_Ant2\_5825



11N40MIMO\_Ant1\_5190



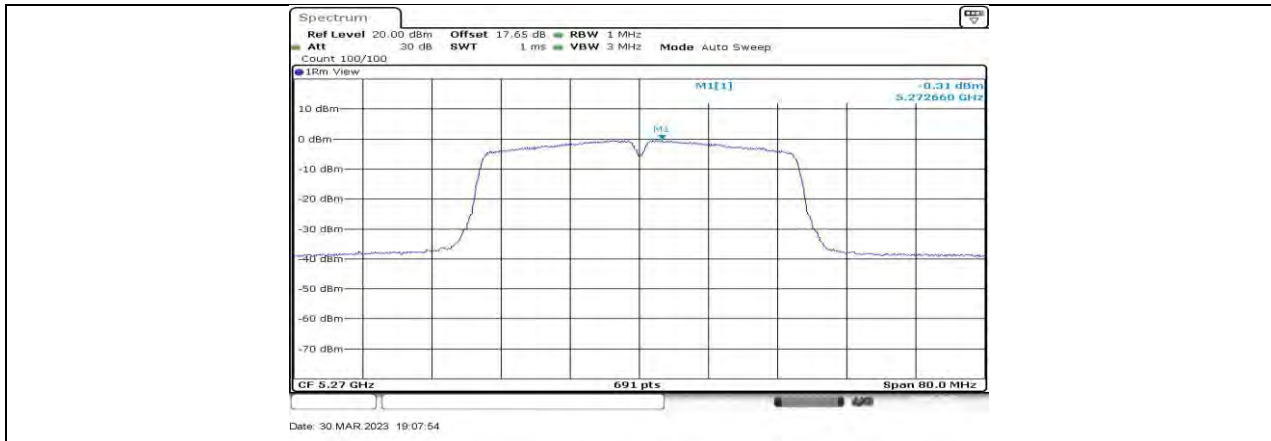
11N40MIMO\_Ant2\_5190



11N40MIMO\_Ant1\_5230



11N40MIMO\_Ant2\_5230



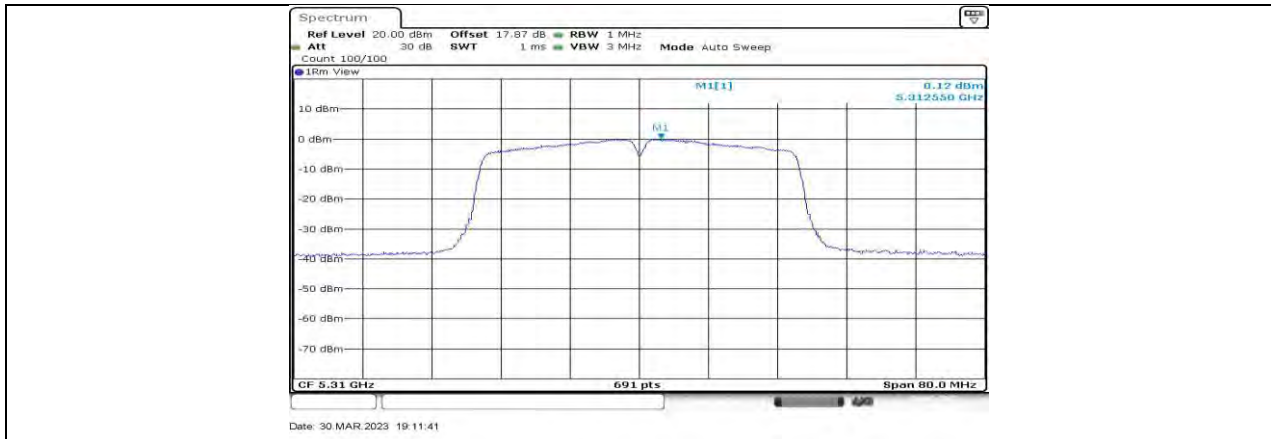
11N40MIMO Ant1 5270



11N40MIMO Ant2 5270



11N40MIMO Ant1 5310



11N40MIMO\_Ant2\_5310



11N40MIMO\_Ant1\_5510



11N40MIMO\_Ant2\_5510



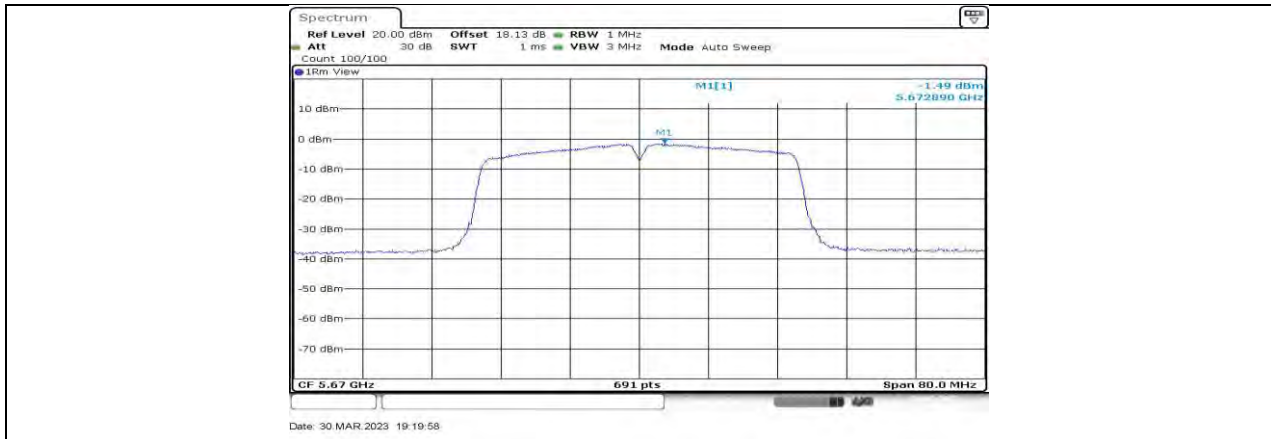
11N40MIMO\_Ant1\_5550



11N40MIMO\_Ant2\_5550



11N40MIMO\_Ant1\_5670



11N40MIMO Ant2 5670



11N40MIMO Ant1 5710 UNII-2C



11N40MIMO Ant2 5710 UNII-2C







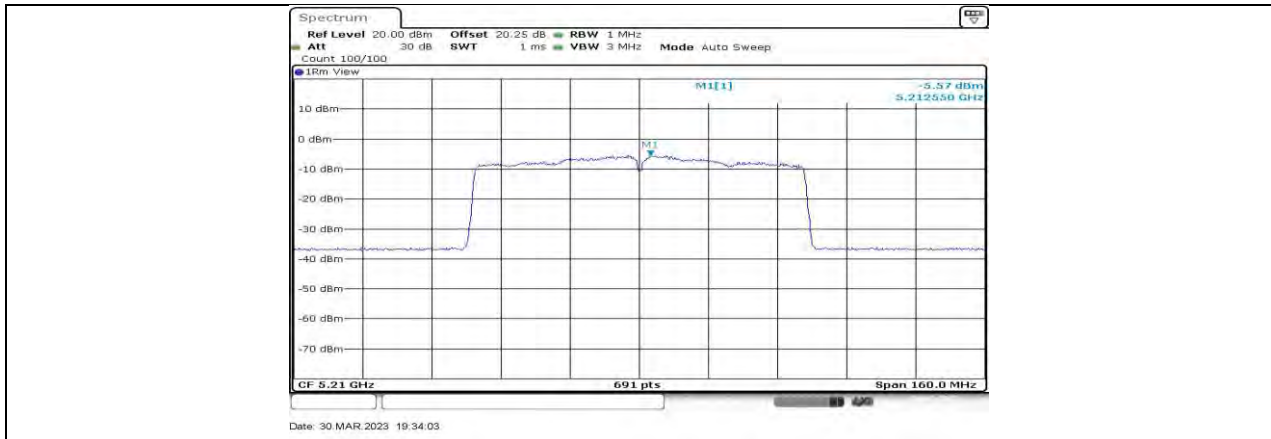
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11N40MIMO Ant1 5795



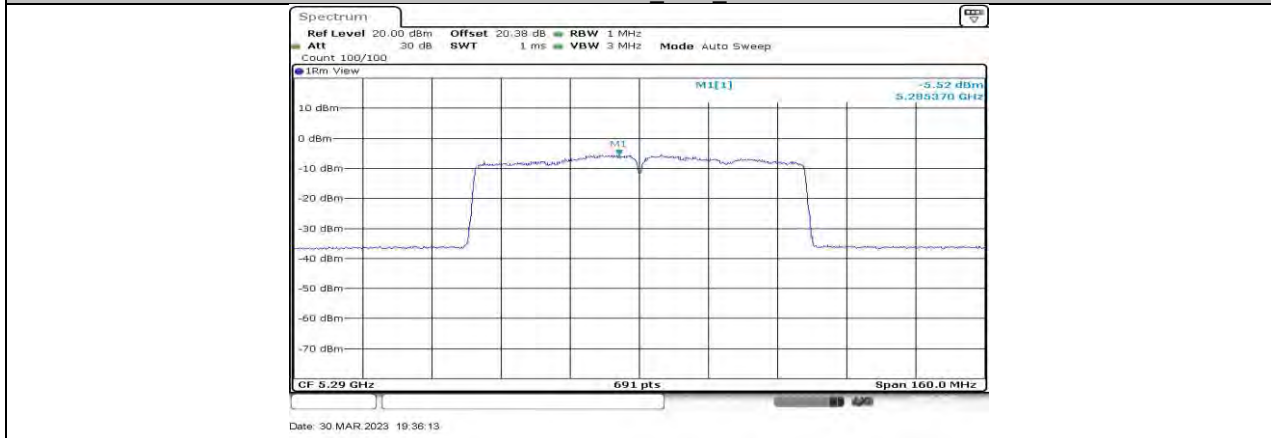
11N40MIMO Ant2 5795



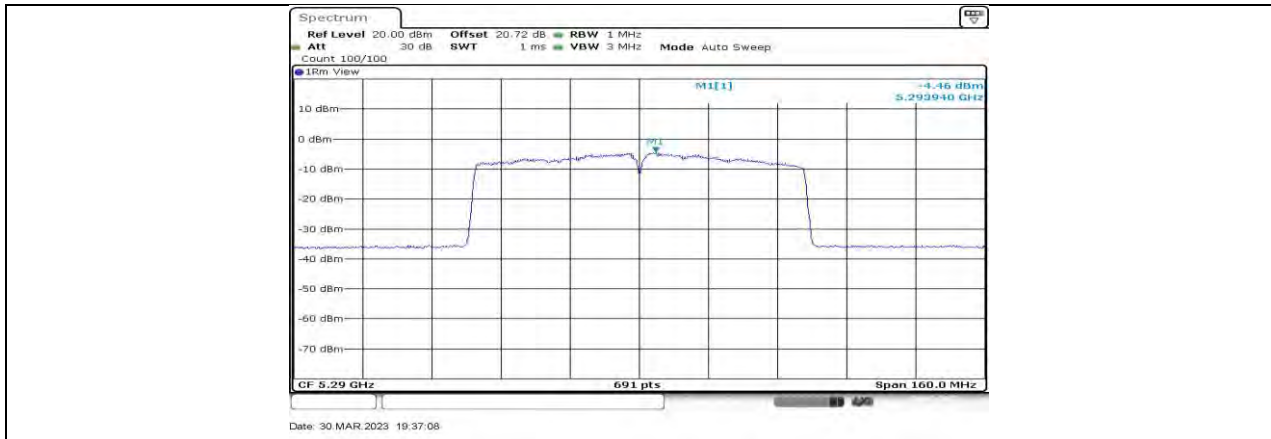
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11AC80MIMO\_Ant2\_5210



11AC80MIMO\_Ant1\_5290



11AC80MIMO\_Ant2\_5290



11AC80MIMO\_Ant1\_5530



11AC80MIMO\_Ant2\_5530



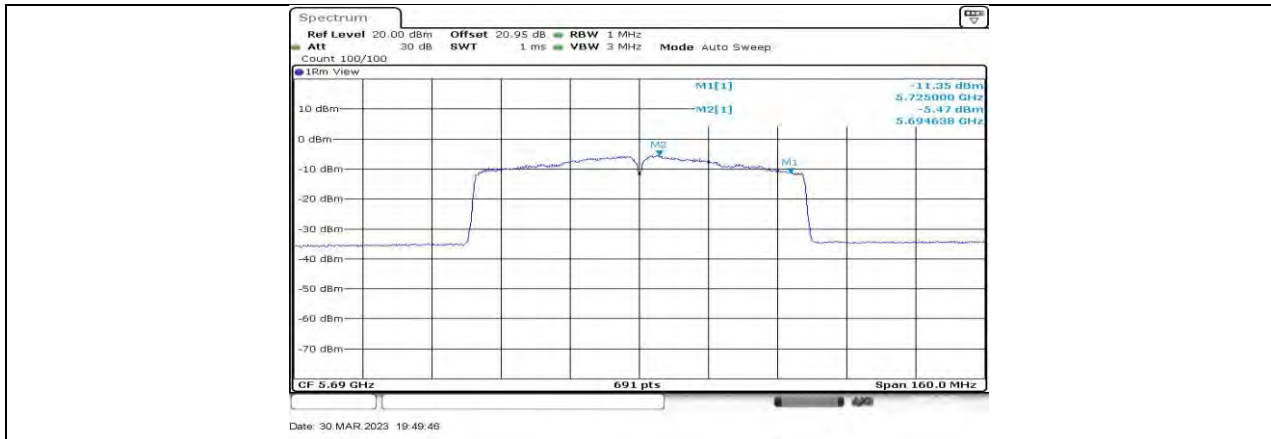
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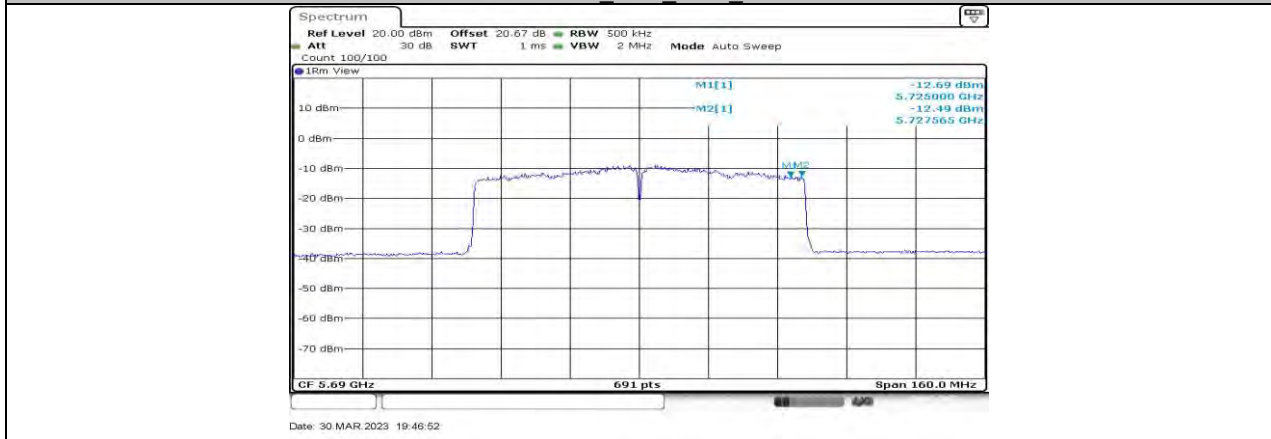
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11AC80MIMO\_Ant1\_5690\_UNII-2C



11AC80MIMO\_Ant2\_5690\_UNII-2C



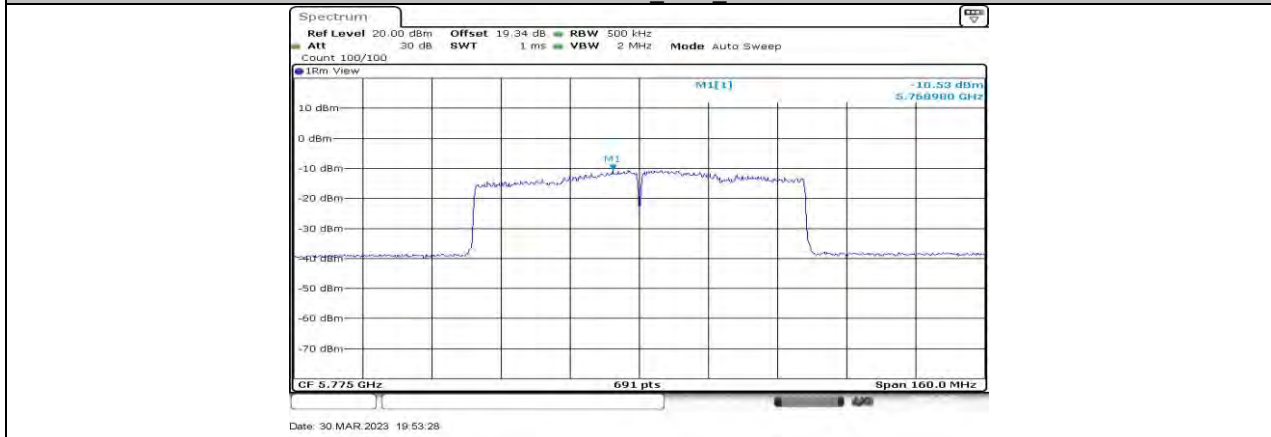
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11AC80MIMO\_Ant2\_5690\_UNII-3



11AC80MIMO\_Ant1\_5775



11AC80MIMO\_Ant2\_5775



11AX20MIMO\_Ant1\_5180



11AX20MIMO\_Ant2\_5180

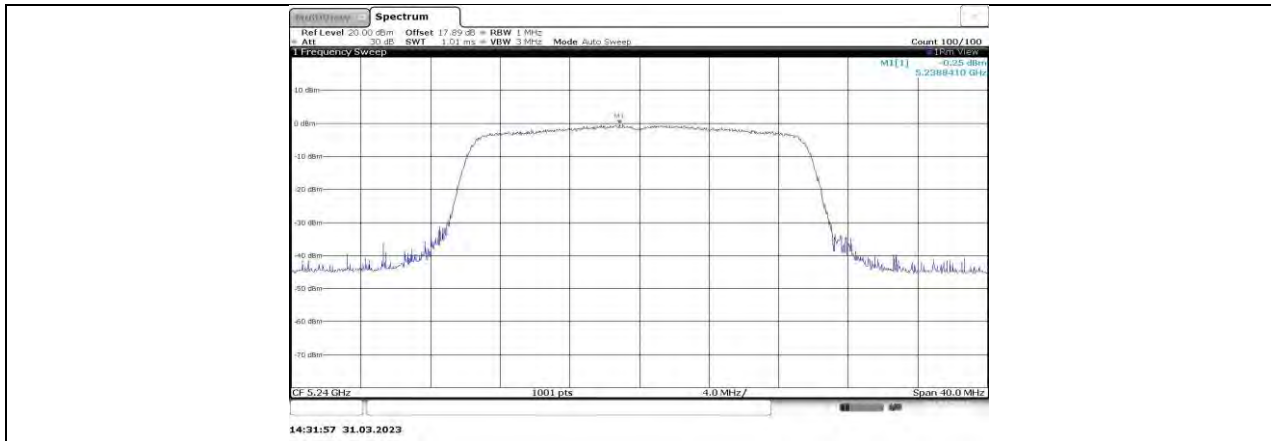


11AX20MIMO\_Ant1\_5200



11AX20MIMO\_Ant2\_5200





11AX20MIMO\_Ant1\_5240



11AX20MIMO\_Ant2\_5240



11AX20MIMO\_Ant1\_5260



11AX20MIMO\_Ant2\_5260



11AX20MIMO\_Ant1\_5280



11AX20MIMO\_Ant2\_5280



11AX20MIMO\_Ant1\_5320



11AX20MIMO\_Ant2\_5320



11AX20MIMO\_Ant1\_5500



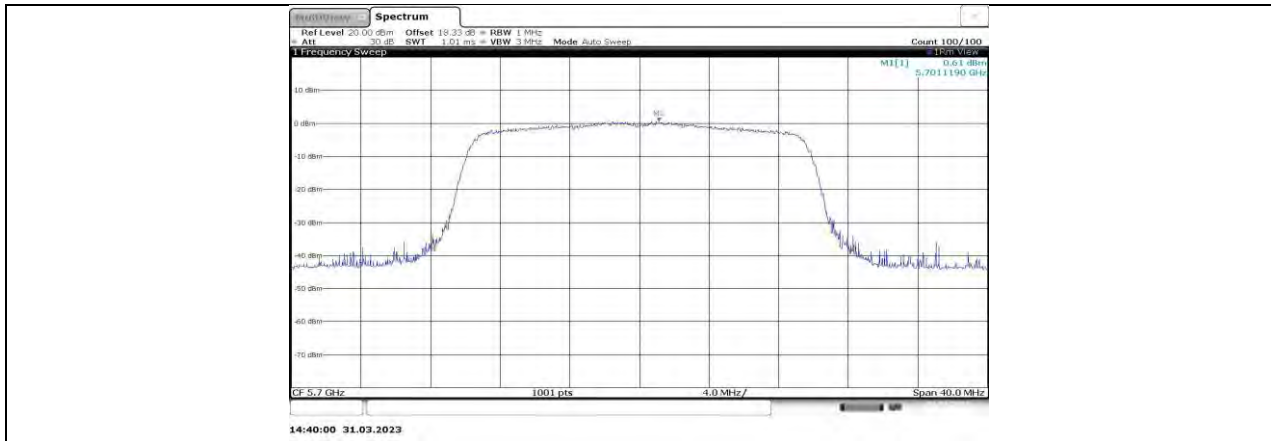
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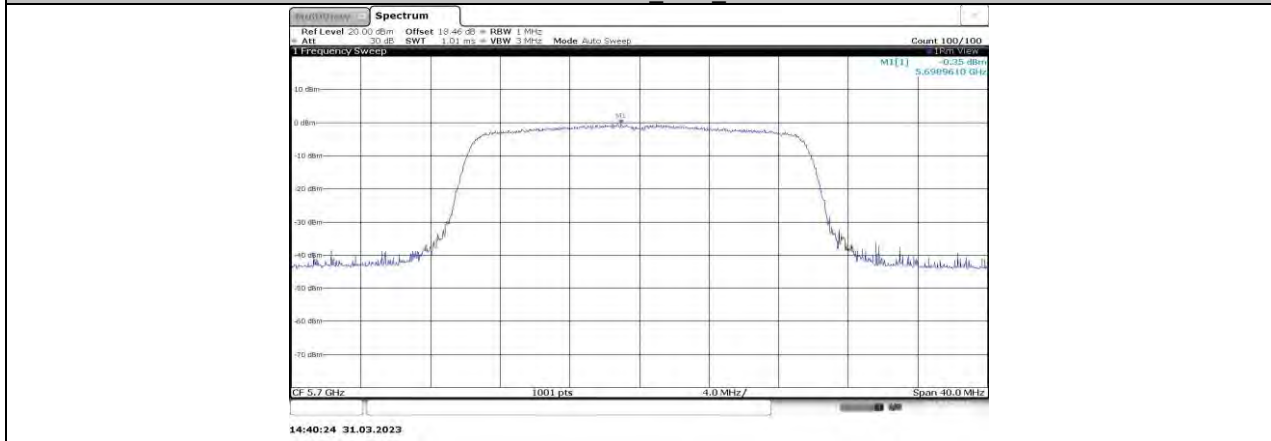
11AX20MIMO\_Ant1\_5580



11AX20MIMO\_Ant2\_5580



11AX20MIMO\_Ant1\_5700



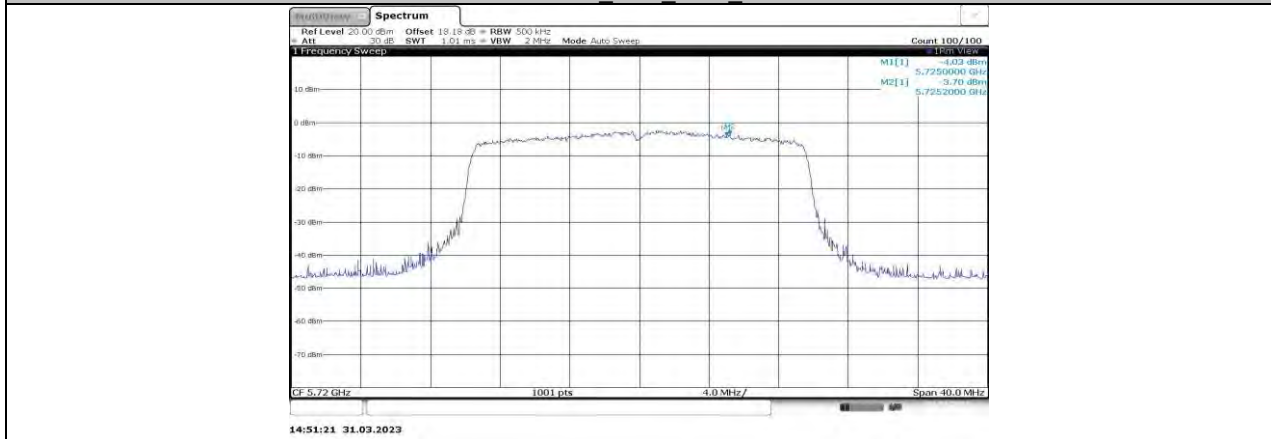
11AX20MIMO\_Ant2\_5700



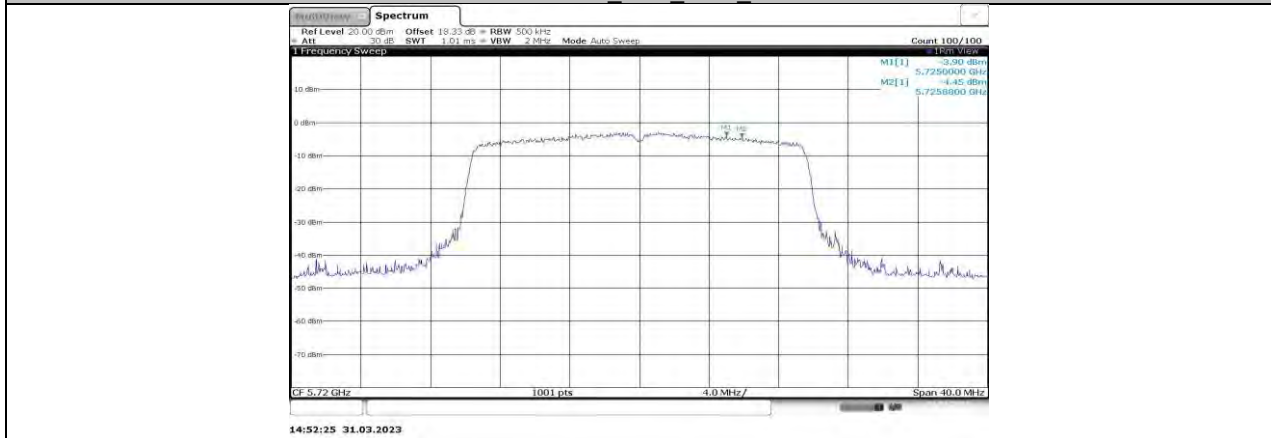
11AX20MIMO\_Ant1\_5720\_UNII-2C



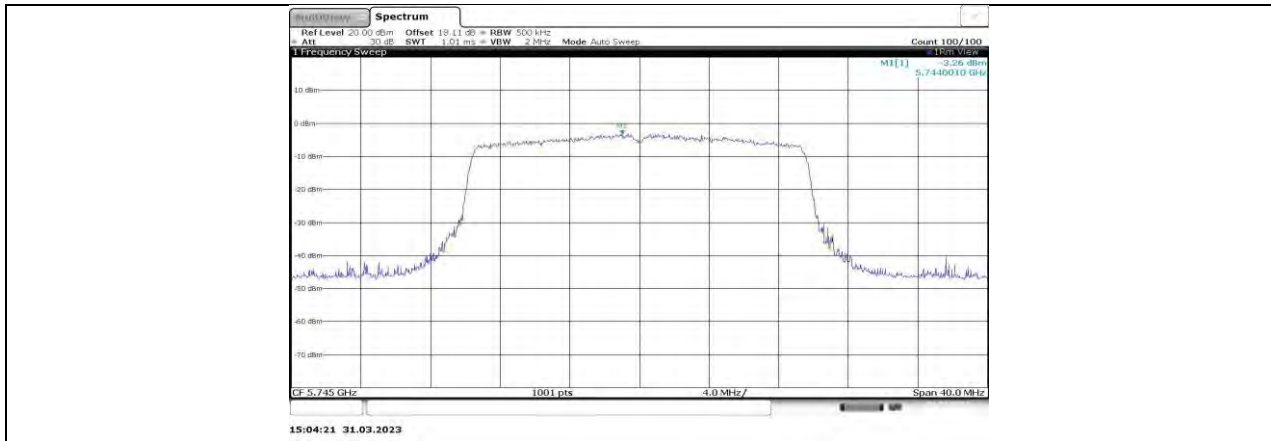
11AX20MIMO\_Ant2\_5720\_UNII-2C



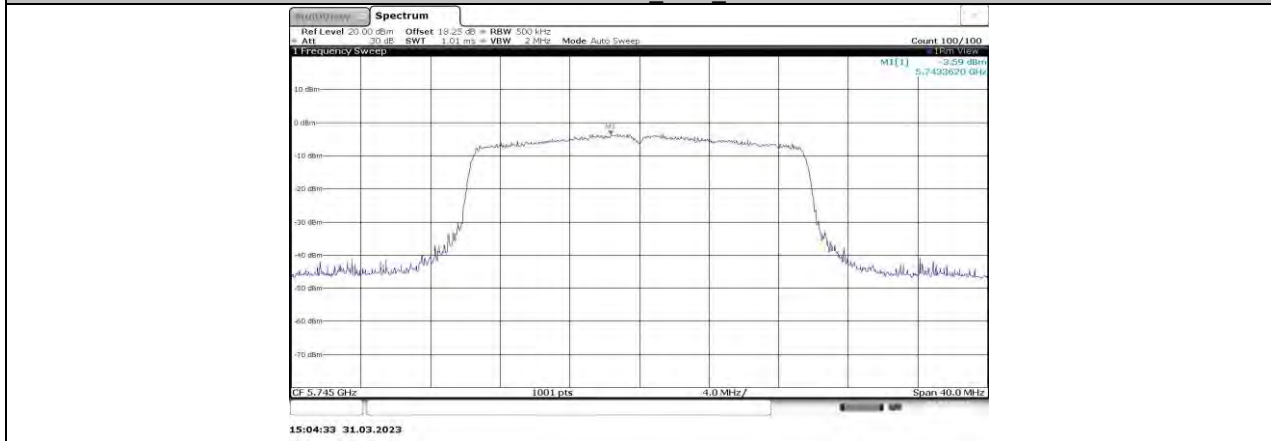
11AX20MIMO\_Ant1\_5720\_UNII-3



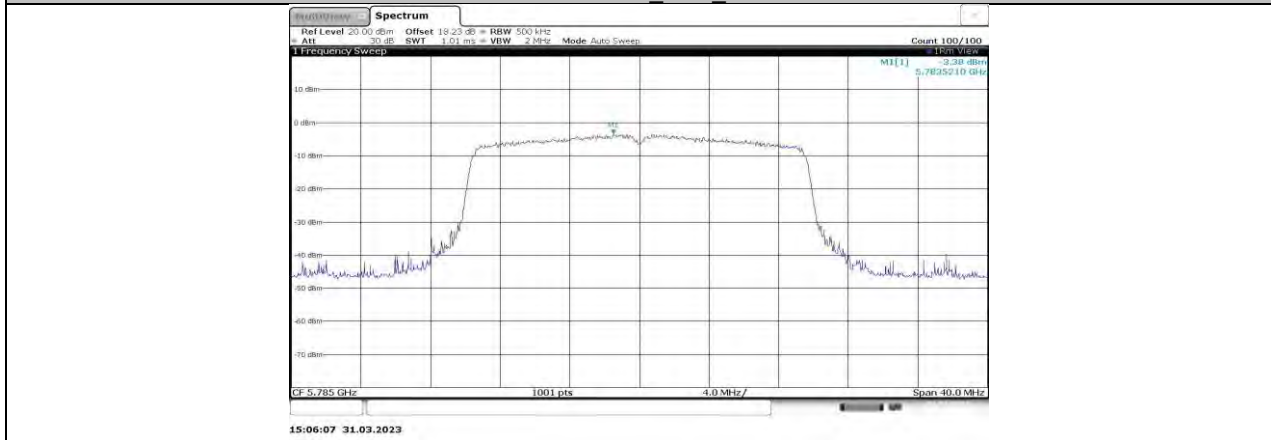
11AX20MIMO\_Ant2\_5720\_UNII-3



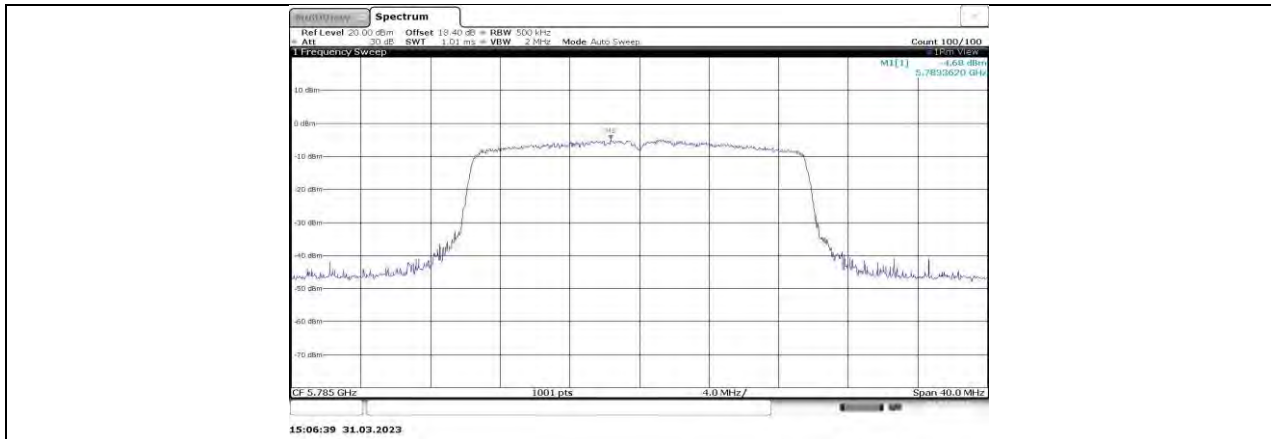
11AX20MIMO\_Ant1\_5745



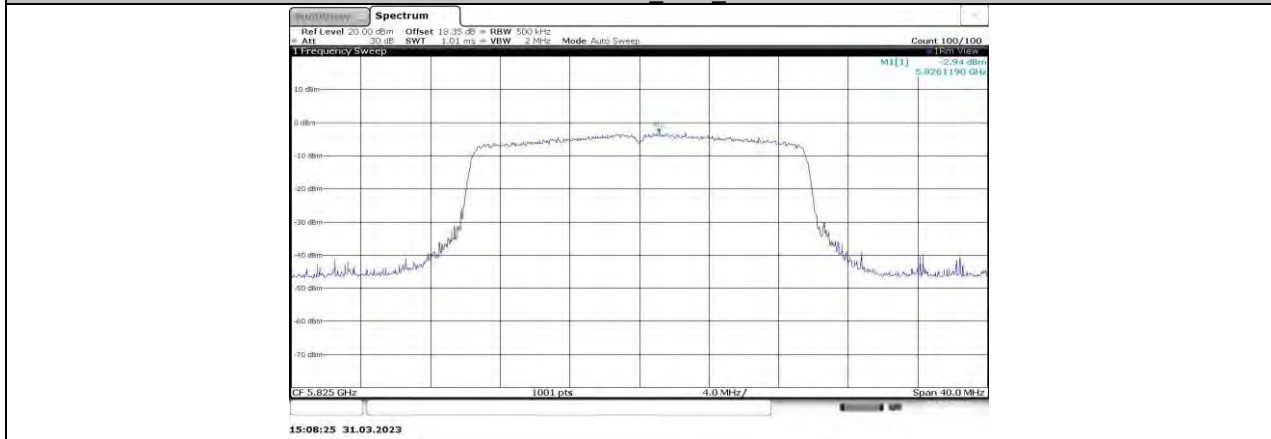
11AX20MIMO\_Ant2\_5745



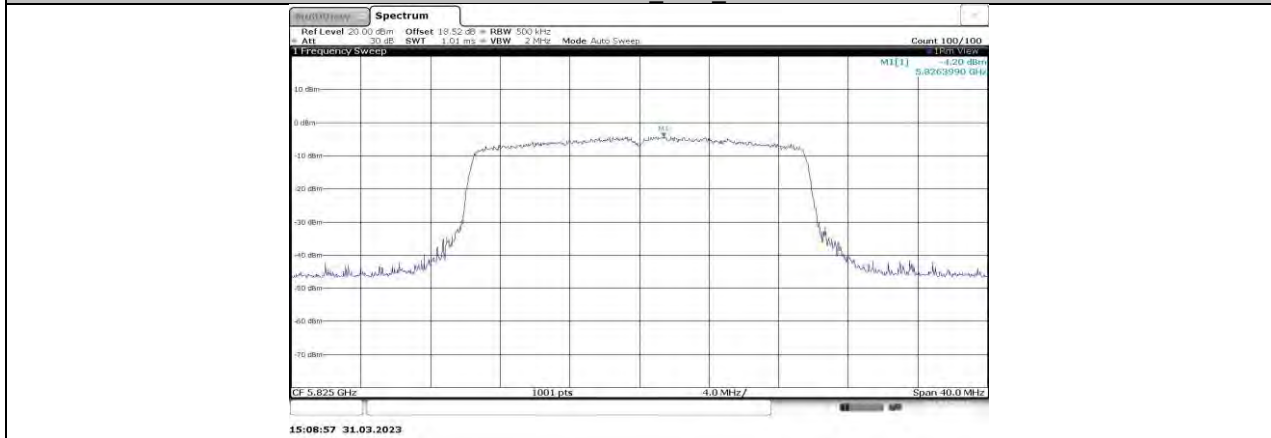
11AX20MIMO\_Ant1\_5785



11AX20MIMO\_Ant2\_5785



11AX20MIMO\_Ant1\_5825



11AX20MIMO\_Ant2\_5825





11AX40MIMO\_Ant1\_5190



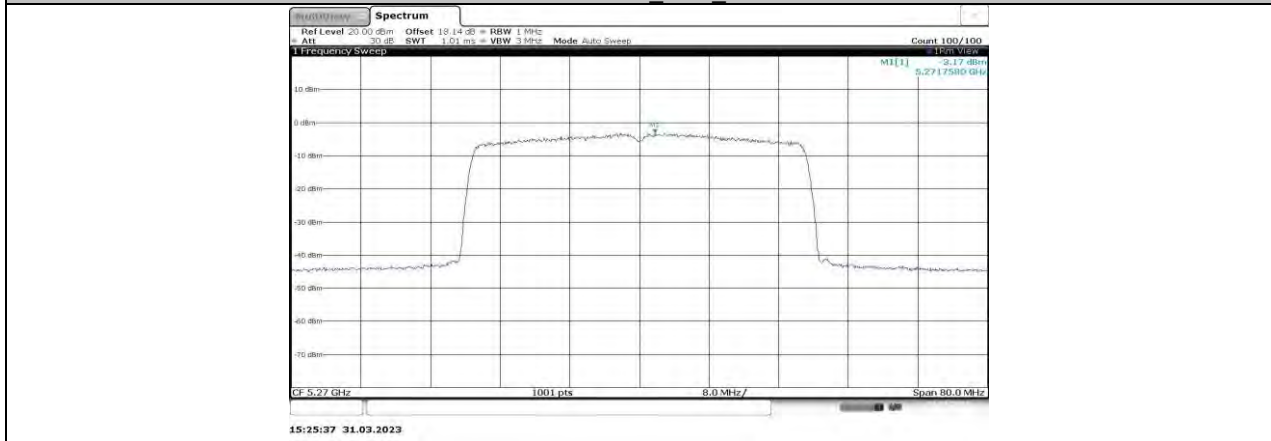
11AX40MIMO\_Ant2\_5190



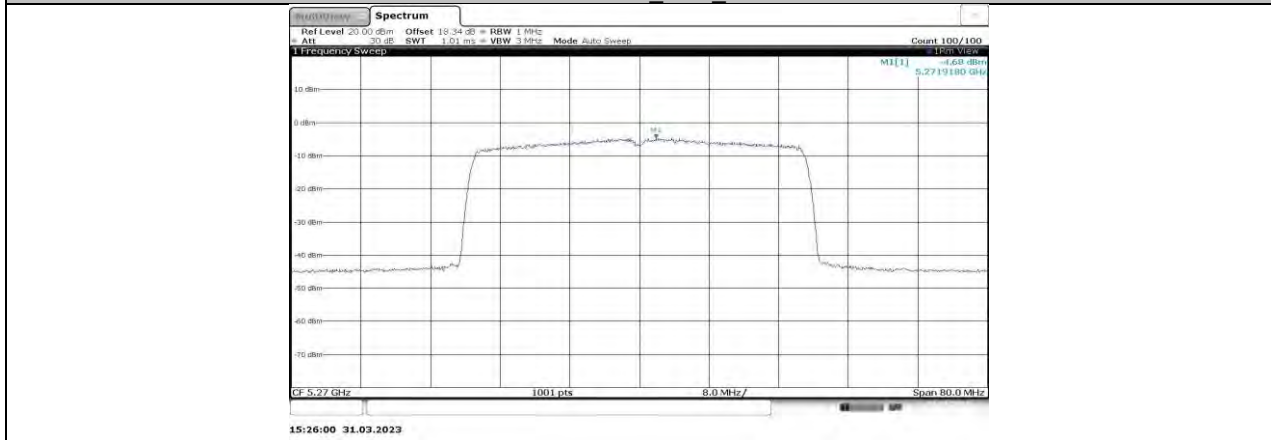
11AX40MIMO\_Ant1\_5230



11AX40MIMO\_Ant2\_5230



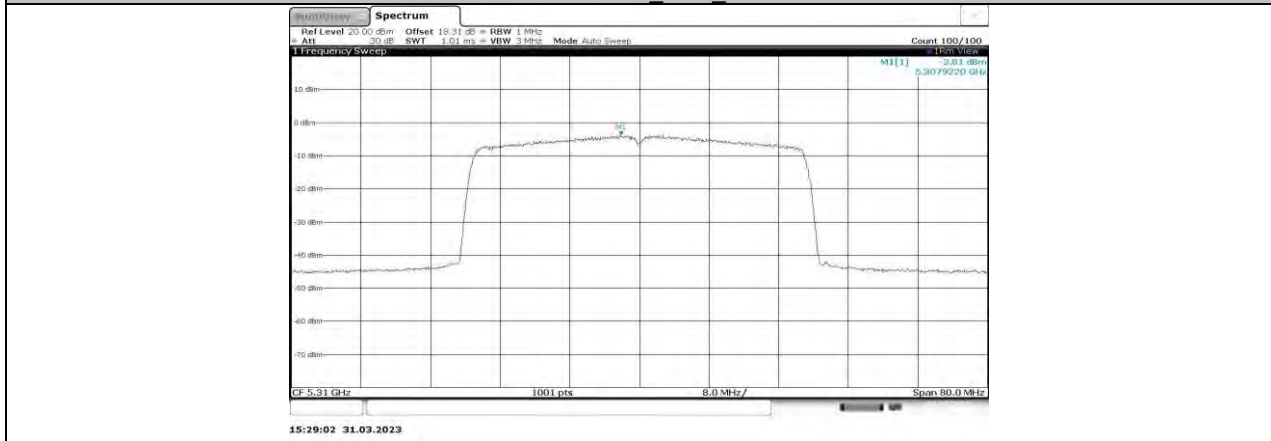
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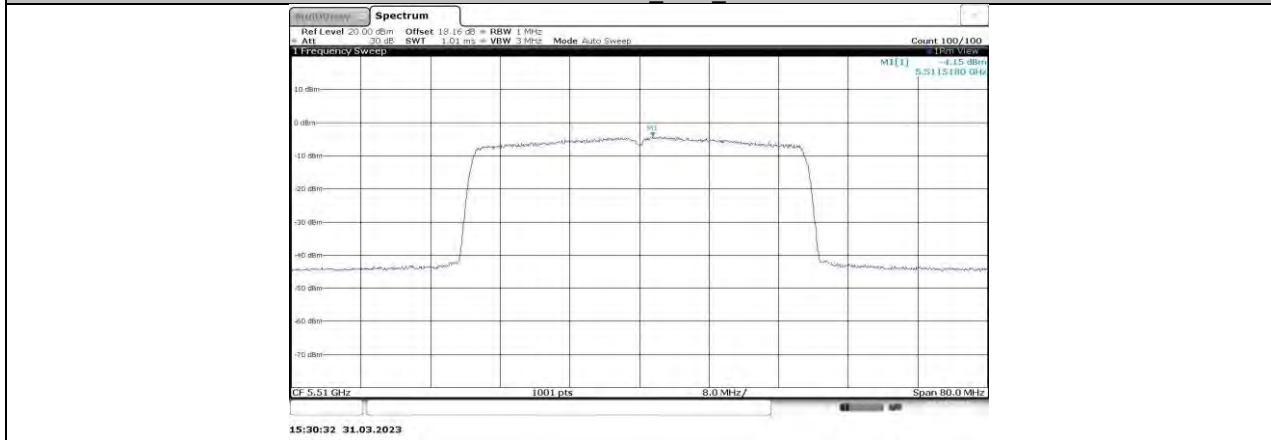
11AX40MIMO\_Ant2\_5270



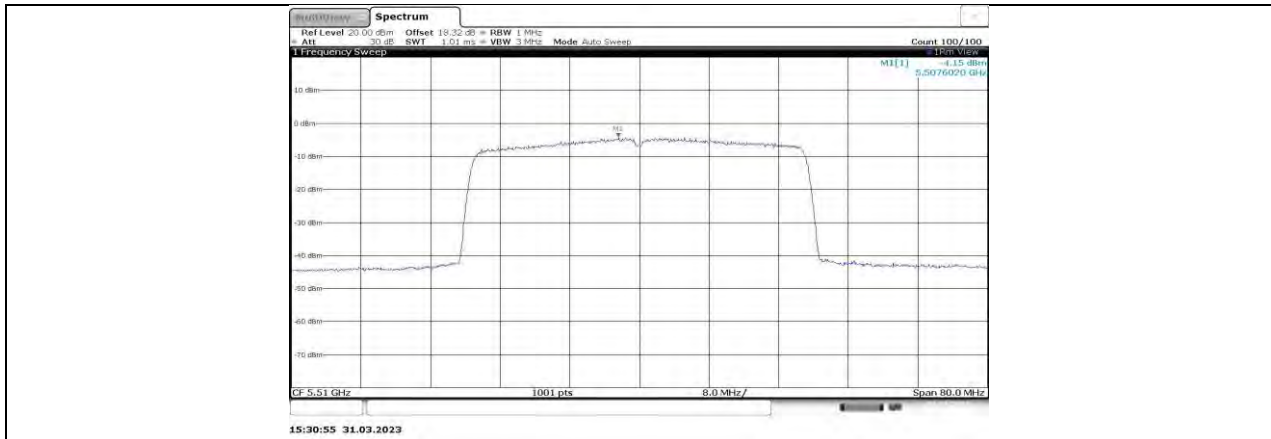
11AX40MIMO\_Ant1\_5310



11AX40MIMO\_Ant2\_5310



11AX40MIMO\_Ant1\_5510



11AX40MIMO\_Ant2\_5510



11AX40MIMO\_Ant1\_5550



11AX40MIMO\_Ant2\_5550



11AX40MIMO\_Ant1\_5670



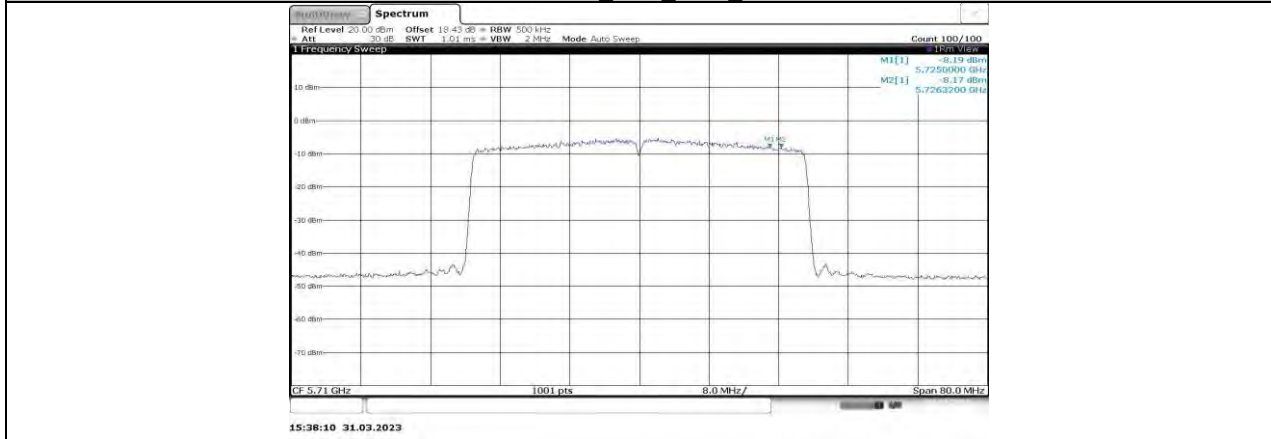
11AX40MIMO\_Ant2\_5670



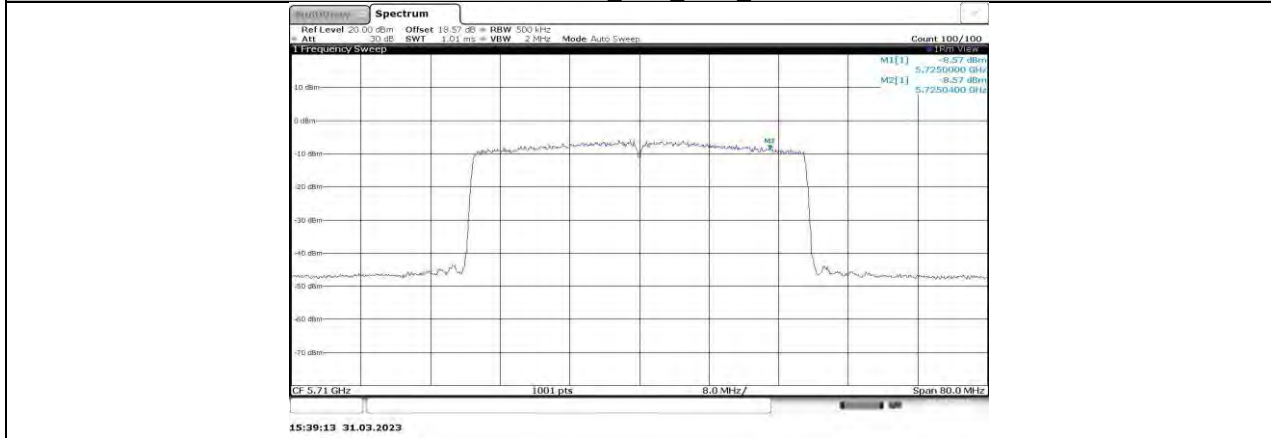
11AX40MIMO\_Ant1\_5710\_UNII-2C



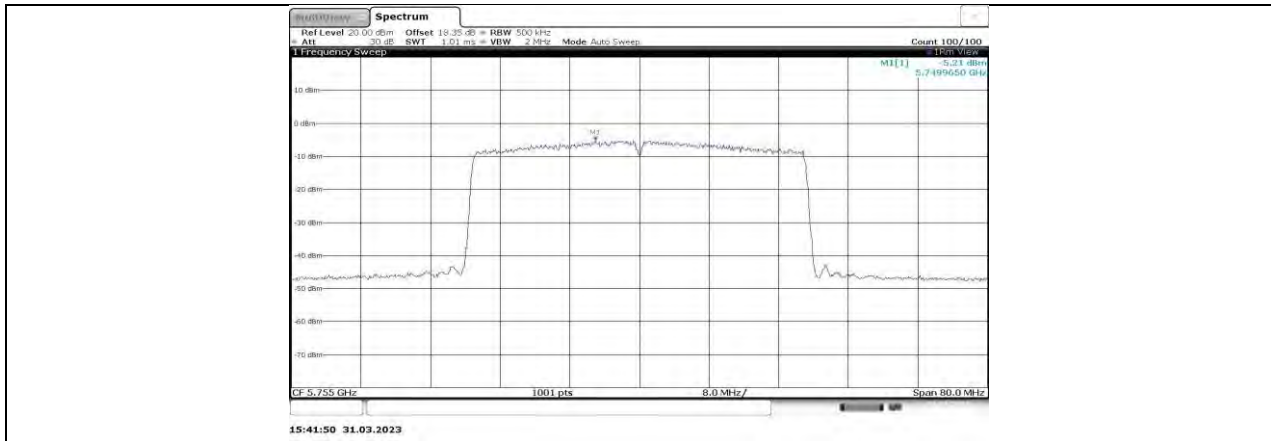
11AX40MIMO\_Ant2\_5710\_UNII-2C



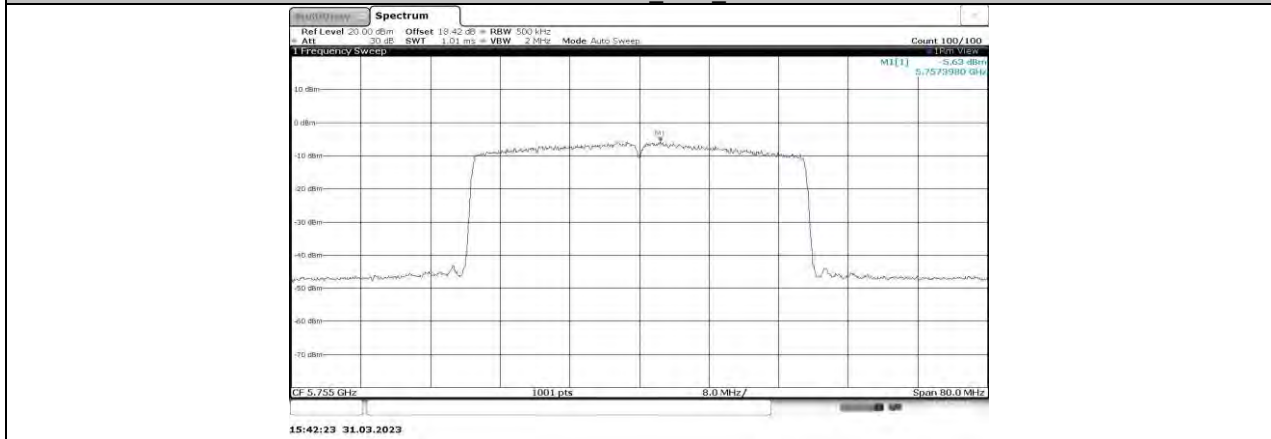
11AX40MIMO\_Ant1\_5710\_UNII-3



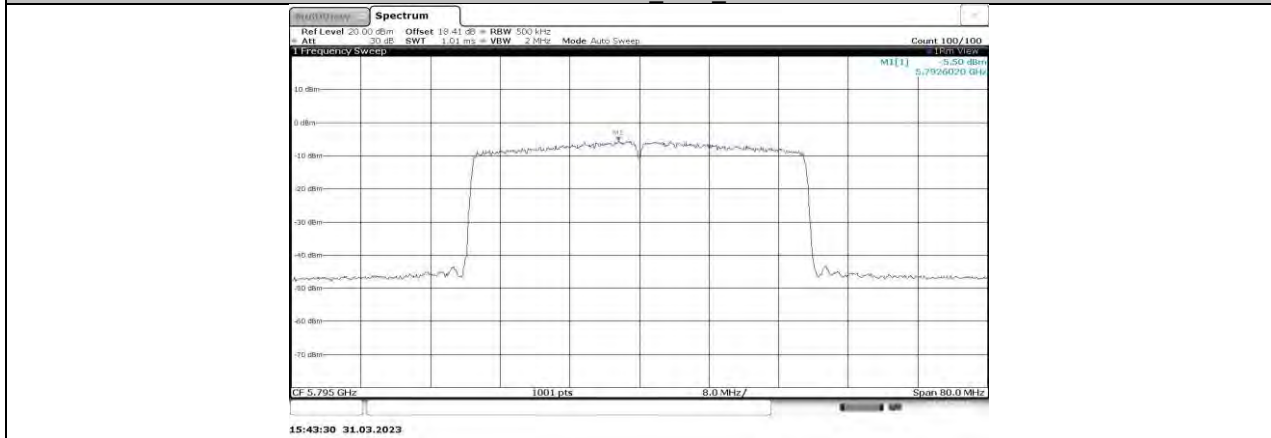
11AX40MIMO\_Ant2\_5710\_UNII-3



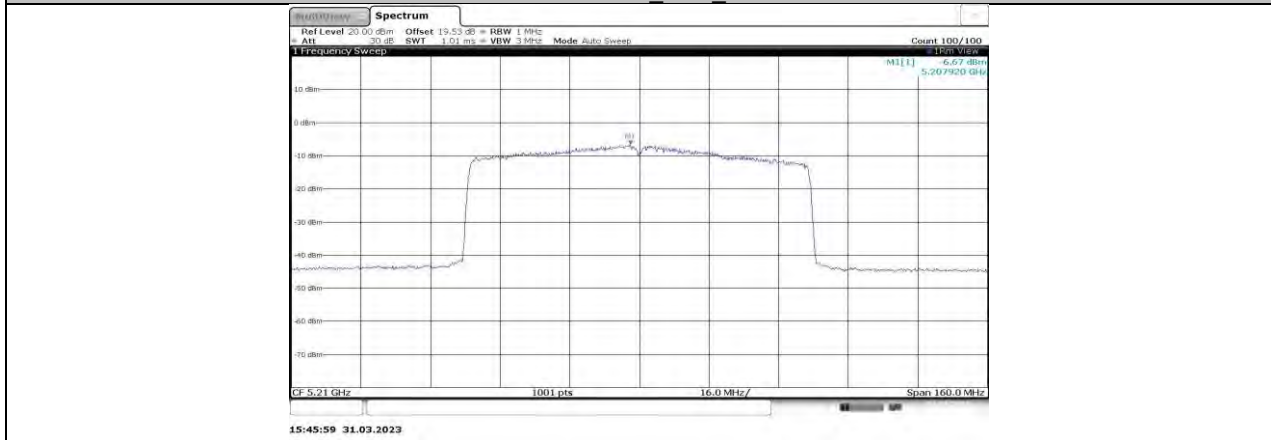
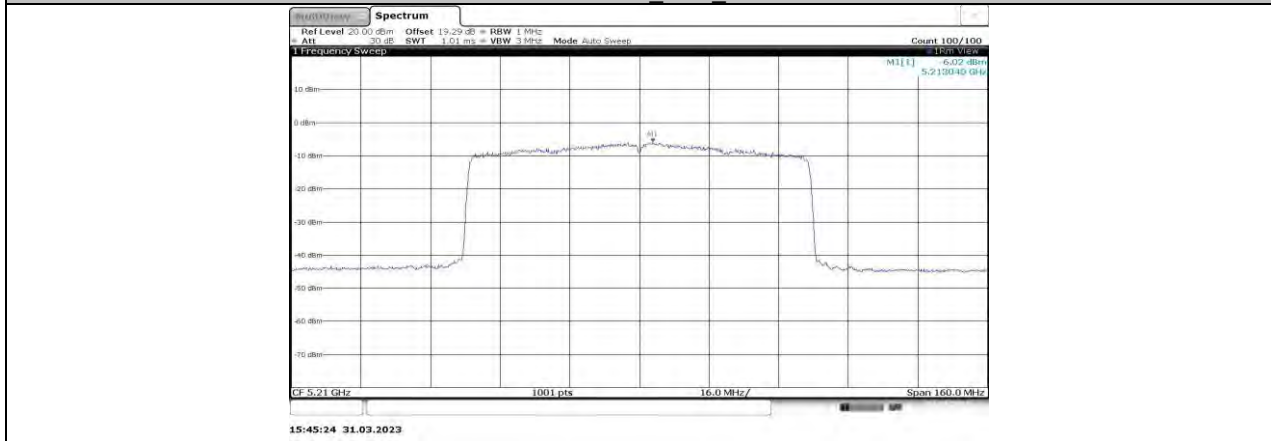
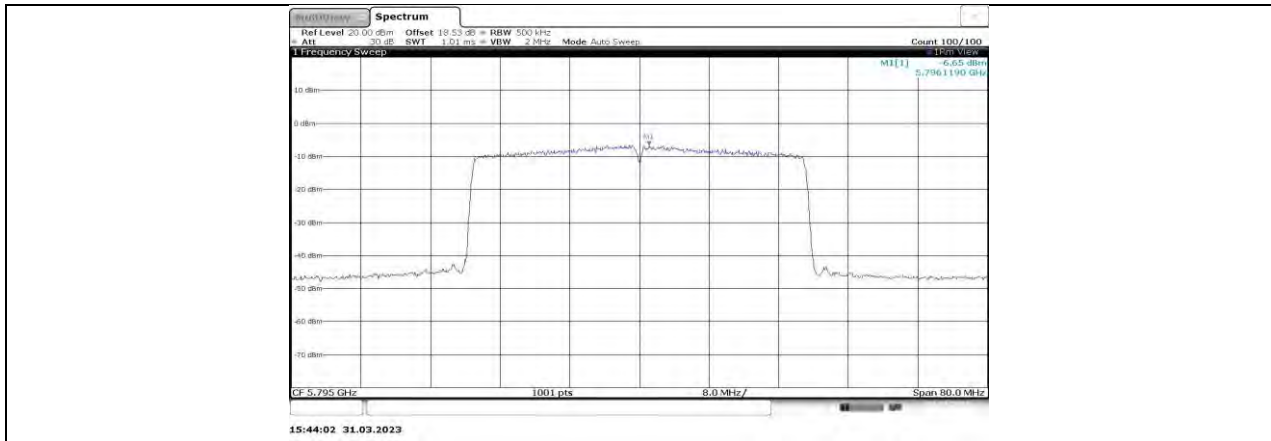
11AX40MIMO\_Ant1\_5755



11AX40MIMO\_Ant2\_5755



11AX40MIMO\_Ant1\_5795



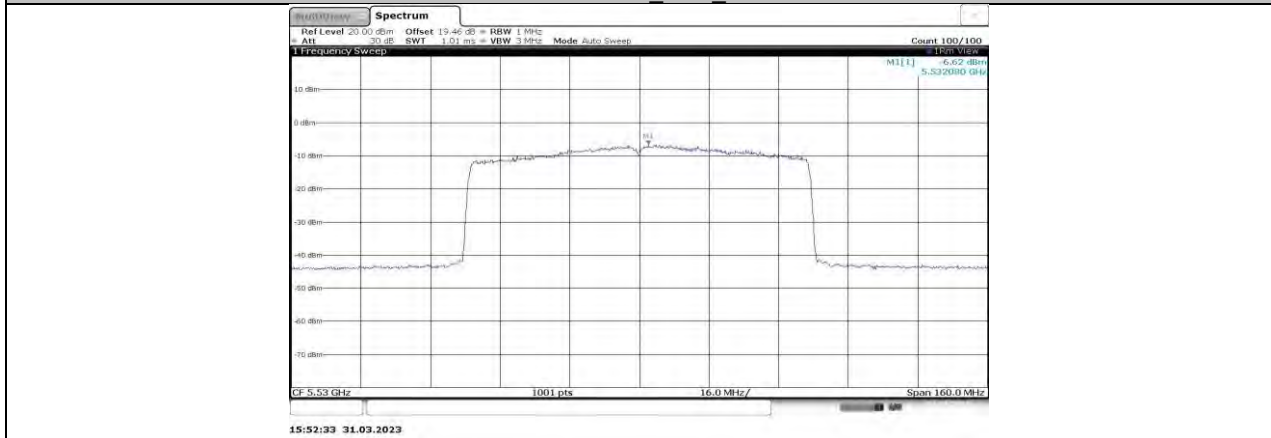




11AX80MIMO\_Ant1\_5290



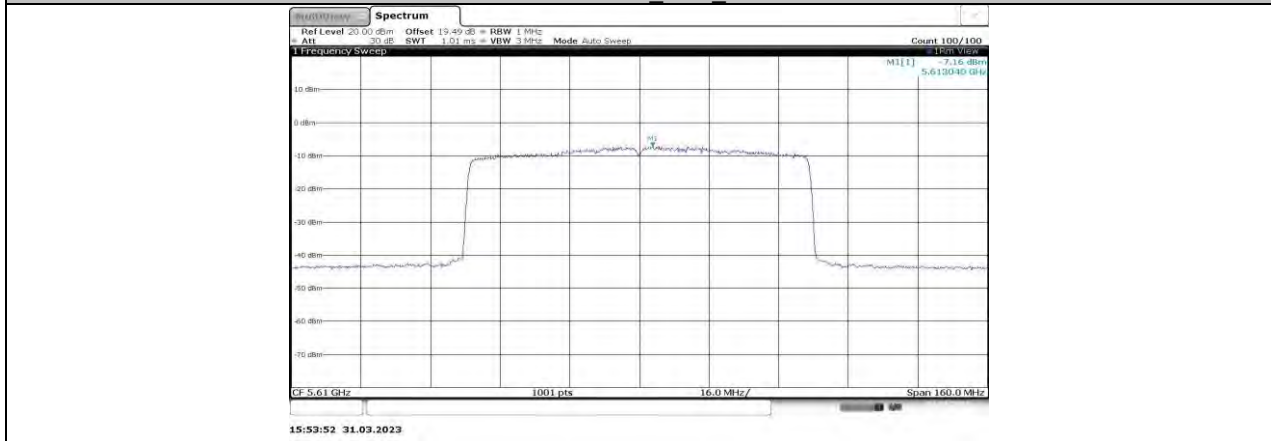
11AX80MIMO\_Ant2\_5290



11AX80MIMO\_Ant1\_5530



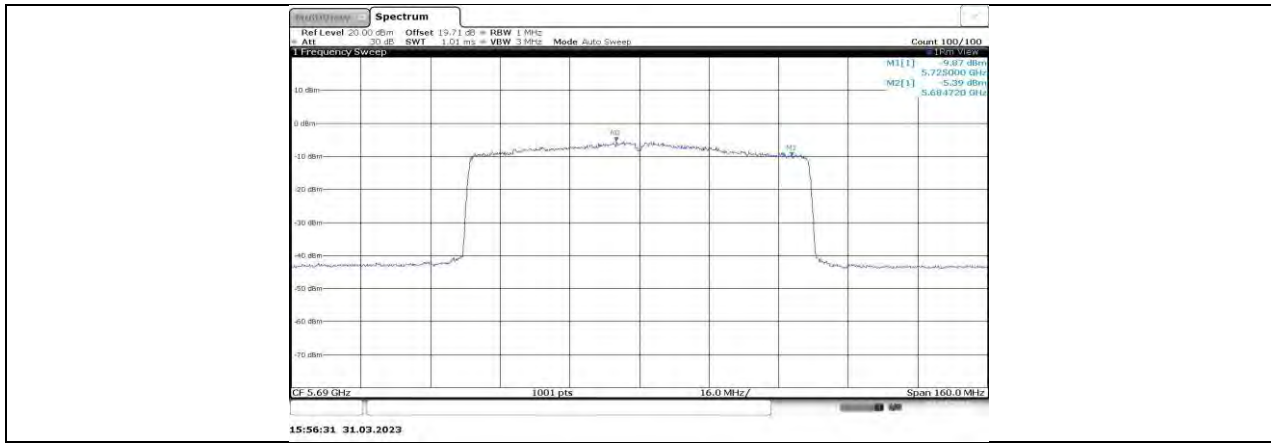
11AX80MIMO\_Ant2\_5530



11AX80MIMO\_Ant1\_5610



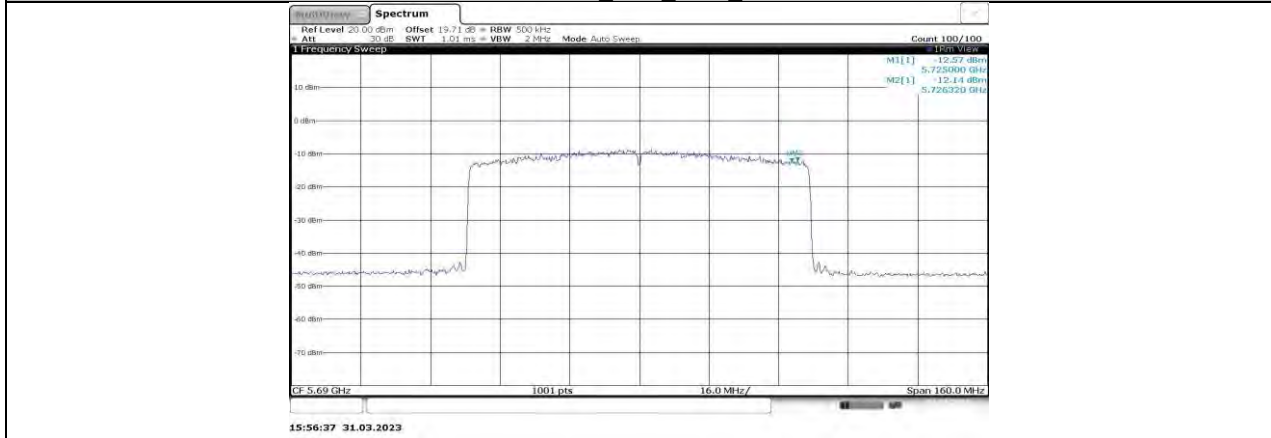
11AX80MIMO\_Ant2\_5610



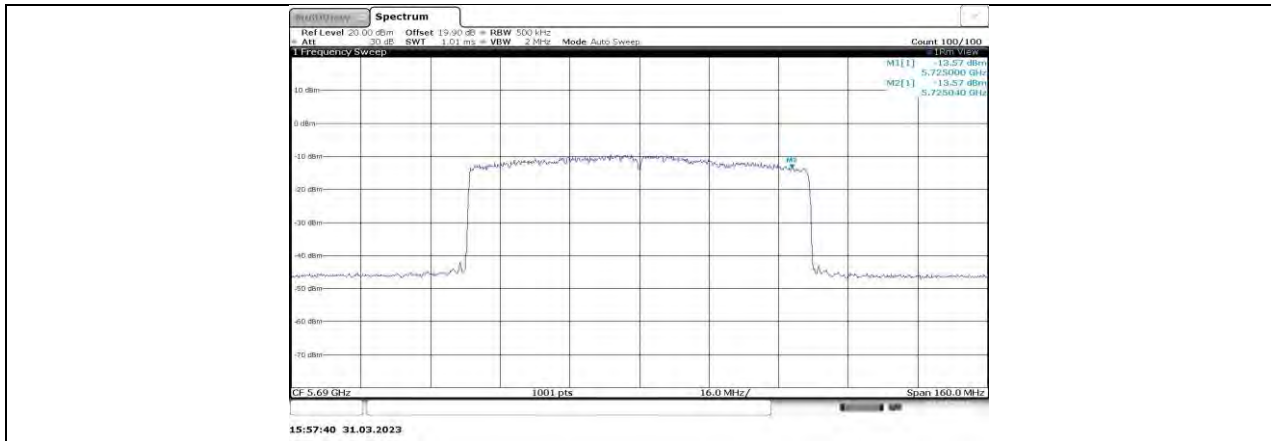
11AX80MIMO\_Ant1\_5690\_UNII-2C



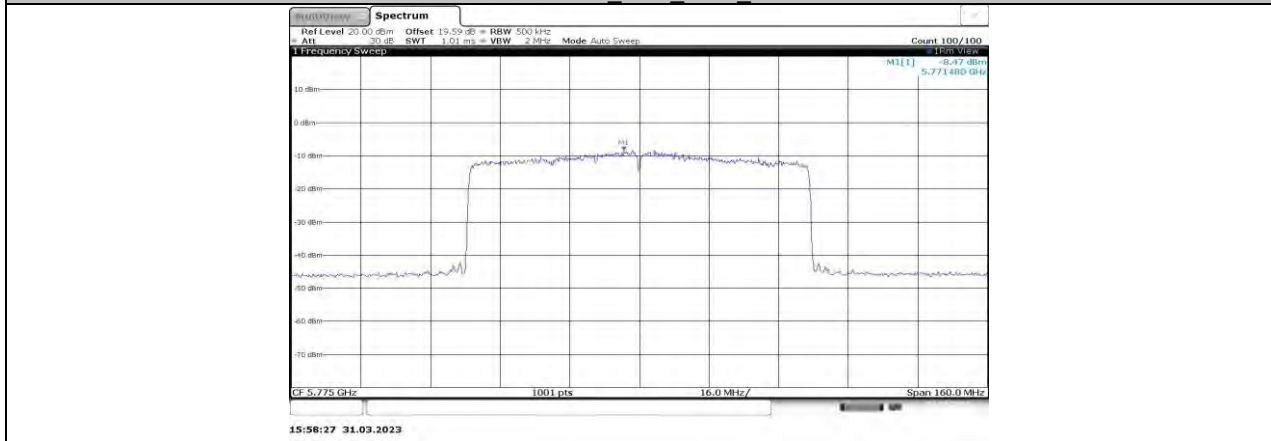
11AX80MIMO\_Ant2\_5690\_UNII-2C



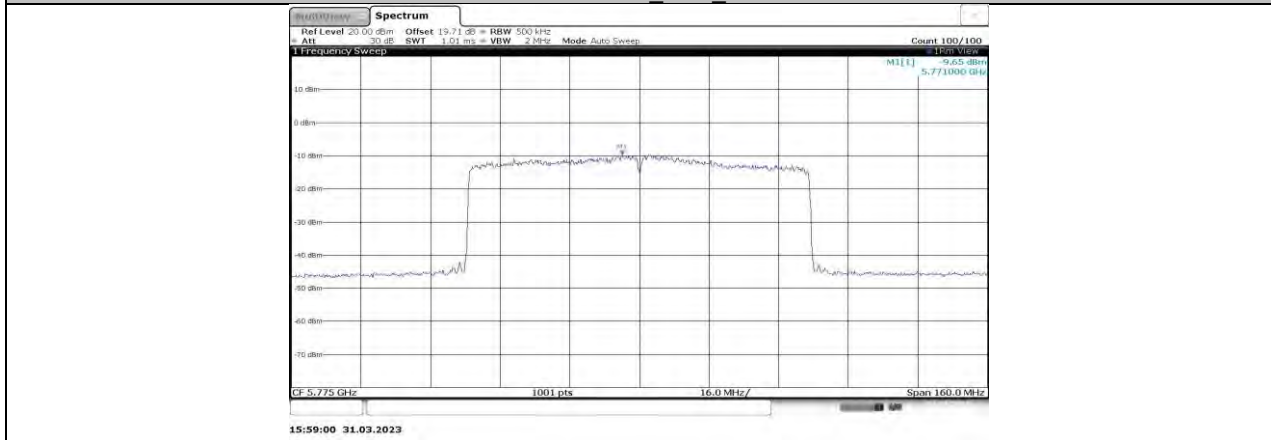
11AX80MIMO\_Ant1\_5690\_UNII-3



11AX80MIMO\_Ant2\_5690\_UNII-3



11AX80MIMO\_Ant1\_5775



11AX80MIMO\_Ant2\_5775

## 11.6. APPENDIX F: FREQUENCY STABILITY

### 11.6.1. Test Result

Frequency Error vs. Voltage									
802.11a20:5180MHz									
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	5180.0157	3.04	5179.9845	-2.99	5180.0021	0.40	5180.0229	4.42
TN	VN	5179.9852	-2.85	5179.9786	-4.12	5179.9921	-1.52	5179.9997	-0.05
TN	VH	5180.0045	0.87	5180.0099	1.91	5179.9970	-0.58	5179.9771	-4.41

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	5180.0080	1.55	5180.0022	0.42	5180.0104	2.01	5179.9988	-0.23
60	VN	5179.9802	-3.82	5180.0128	2.47	5180.0198	3.83	5180.0106	2.04
50	VN	5180.0091	1.76	5179.9978	-0.43	5179.9769	-4.45	5179.9759	-4.66
40	VN	5179.9889	-2.14	5180.0174	3.37	5179.9982	-0.36	5179.9940	-1.15
30	VN	5179.9816	-3.56	5180.0133	2.57	5180.0240	4.63	5180.0185	3.57
20	VN	5179.9917	-1.61	5179.9780	-4.25	5180.0159	3.06	5180.0024	0.45
10	VN	5180.0086	1.67	5179.9888	-2.16	5179.9852	-2.86	5179.9874	-2.43
0	VN	5179.9835	-3.18	5179.9951	-0.94	5179.9805	-3.75	5179.9807	-3.73

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	5824.9832	-2.89	5824.9965	-0.60	5825.0122	2.09	5824.9831	-2.90
TN	VN	5824.9772	-3.91	5824.9981	-0.33	5825.0141	2.41	5825.0039	0.67
TN	VH	5824.9763	-4.07	5824.9834	-2.85	5825.0133	2.29	5825.0145	2.48

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	5824.9864	-2.33	5824.9915	-1.46	5824.9788	-3.64	5824.9778	-3.81
60	VN	5824.9826	-2.98	5824.9811	-3.24	5825.0030	0.51	5825.0034	0.58
50	VN	5824.9900	-1.71	5825.0096	1.64	5825.0074	1.27	5824.9980	-0.34
40	VN	5825.0087	1.50	5824.9875	-2.15	5824.9835	-2.83	5825.0248	4.26
30	VN	5824.9887	-1.95	5824.9903	-1.67	5824.9956	-0.75	5825.0126	2.17
20	VN	5825.0030	0.52	5824.9866	-2.30	5825.0208	3.57	5825.0212	3.64
10	VN	5825.0140	2.40	5824.9785	-3.69	5825.0212	3.64	5824.9785	-3.68
0	VN	5824.9917	-1.42	5824.9882	-2.03	5824.9963	-0.64	5824.9836	-2.82

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 10 TEST ENVIRONMENT.

## 11.7. APPENDIX G: 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	1.39	1.76	0.7898	78.98	1.02	0.72	1
11N20MIMO	1.28	1.66	0.7711	77.11	1.13	0.78	1
11N40MIMO	0.64	1.00	0.6400	64.00	1.94	1.56	2
11AC80MIMO	0.19	0.55	0.3455	34.55	4.62	5.26	6
11AX20MIMO	1.03	1.43	0.7203	72.03	1.42	0.97	1
11AX40MIMO	0.56	0.98	0.5714	57.14	2.43	1.79	2
11AX80MIMO	0.31	0.72	0.4306	43.06	3.66	3.23	4

Note:

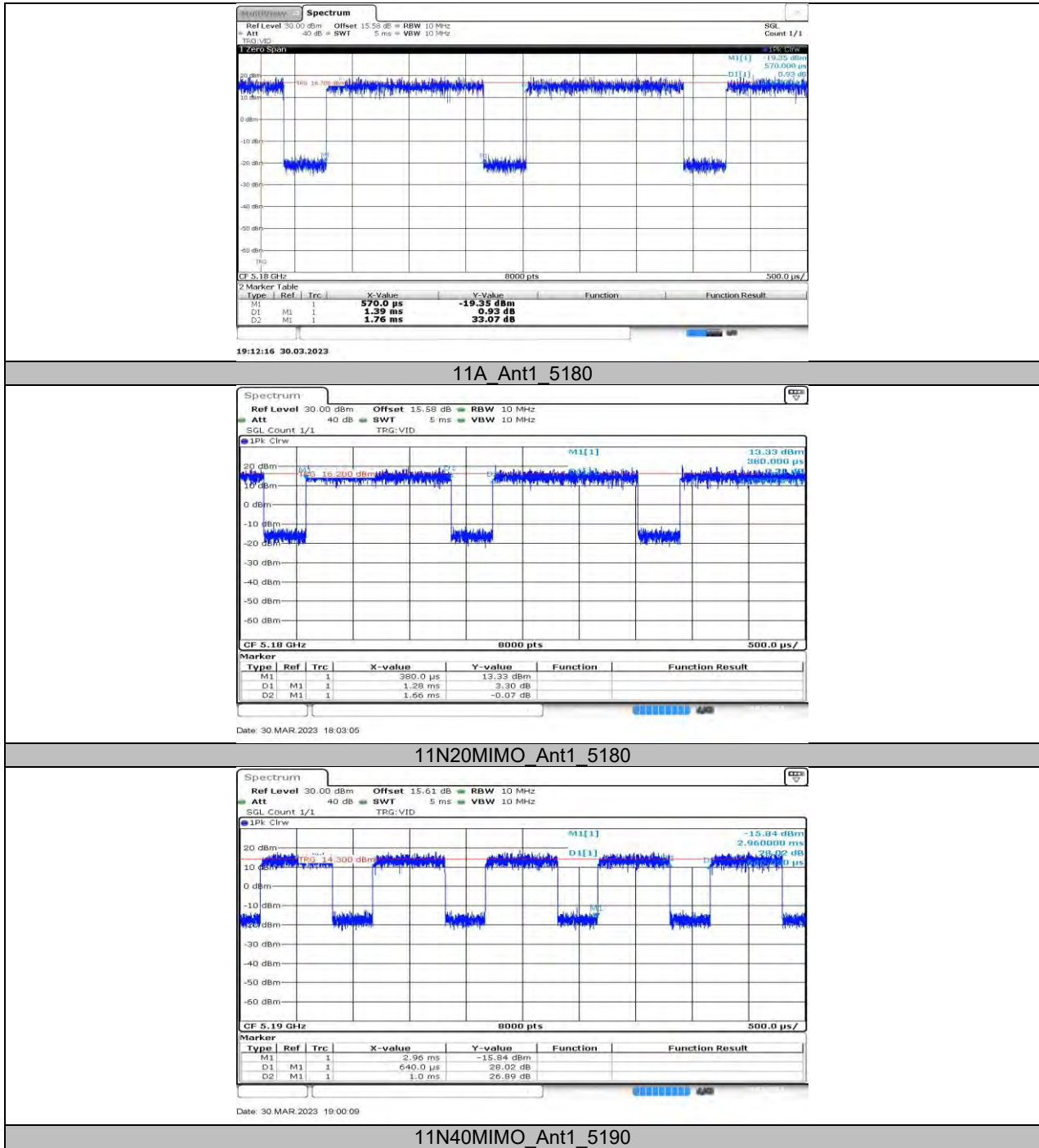
Duty Cycle Correction Factor=10log (1/x).

Where: x is Duty Cycle (Linear)

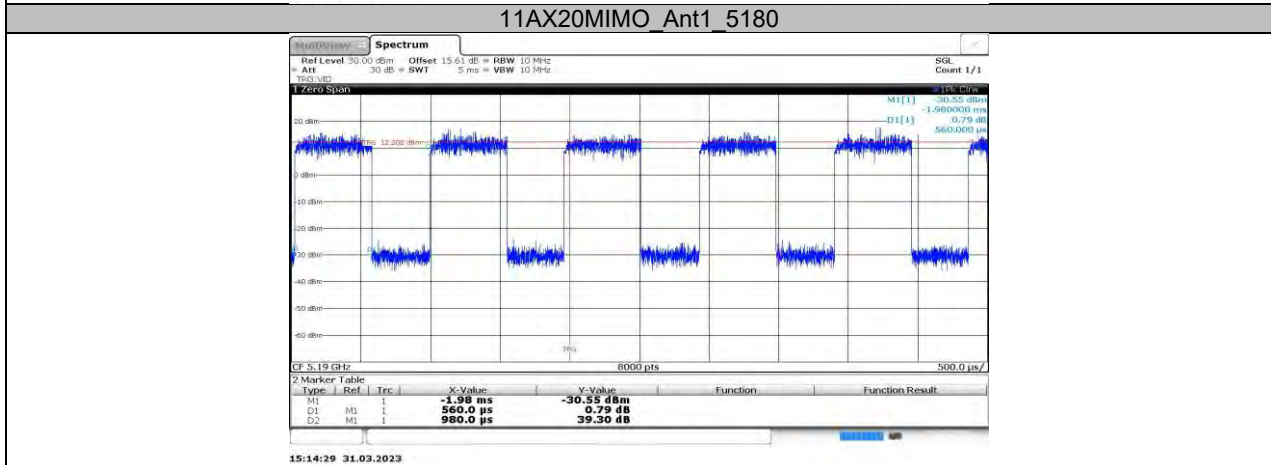
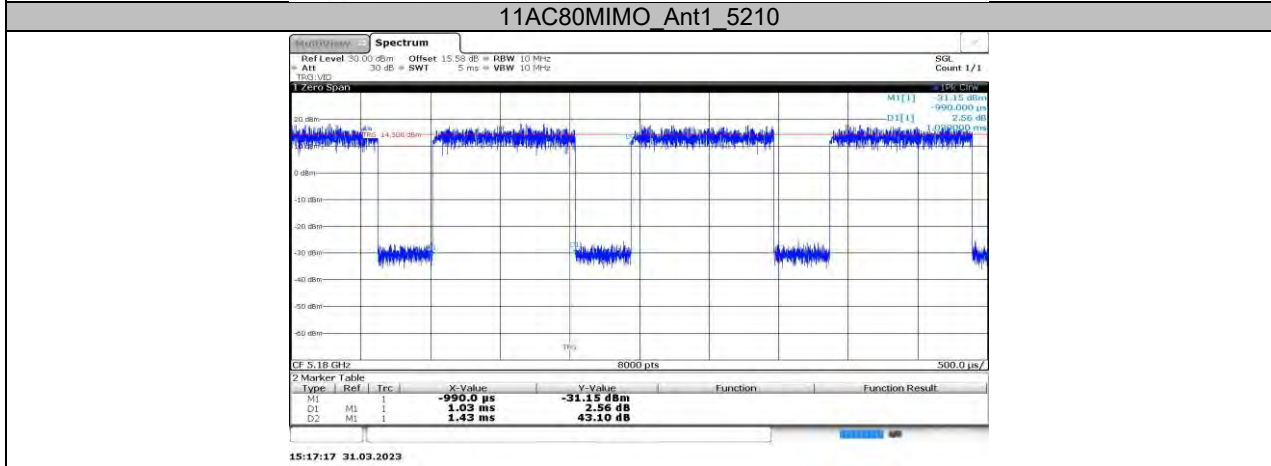
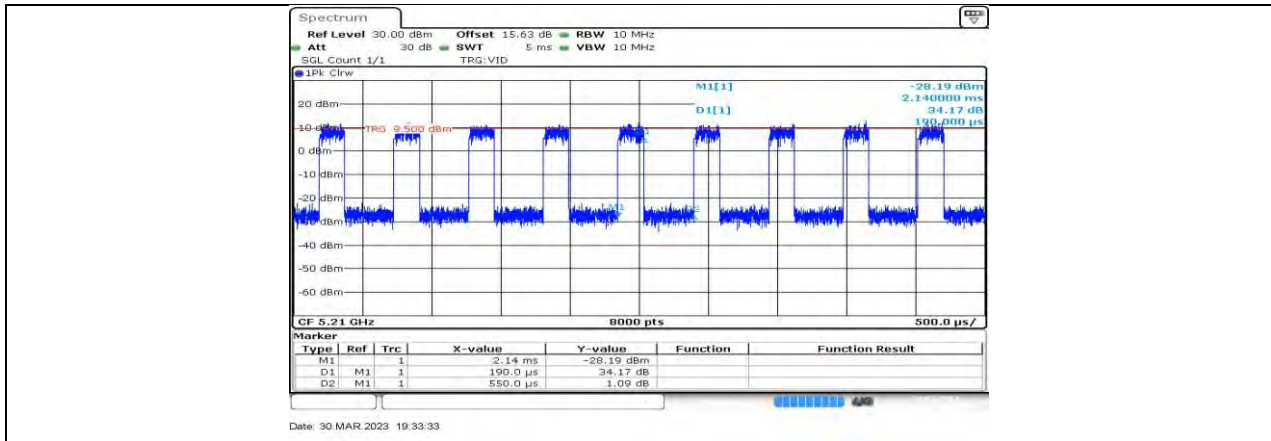
Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used.

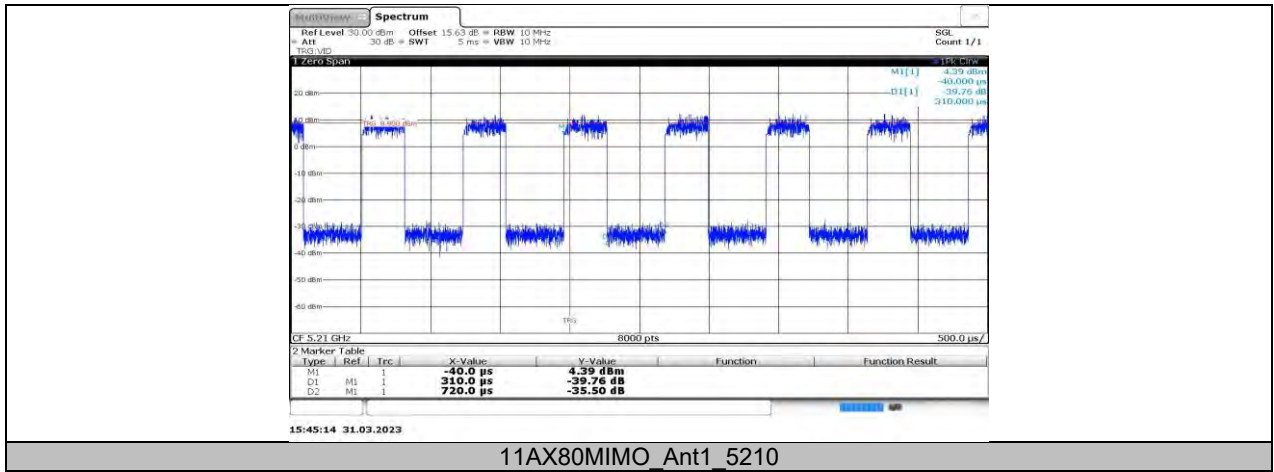
### 11.7.2. Test Graphs







11AX40MIMO\_Ant1\_5190

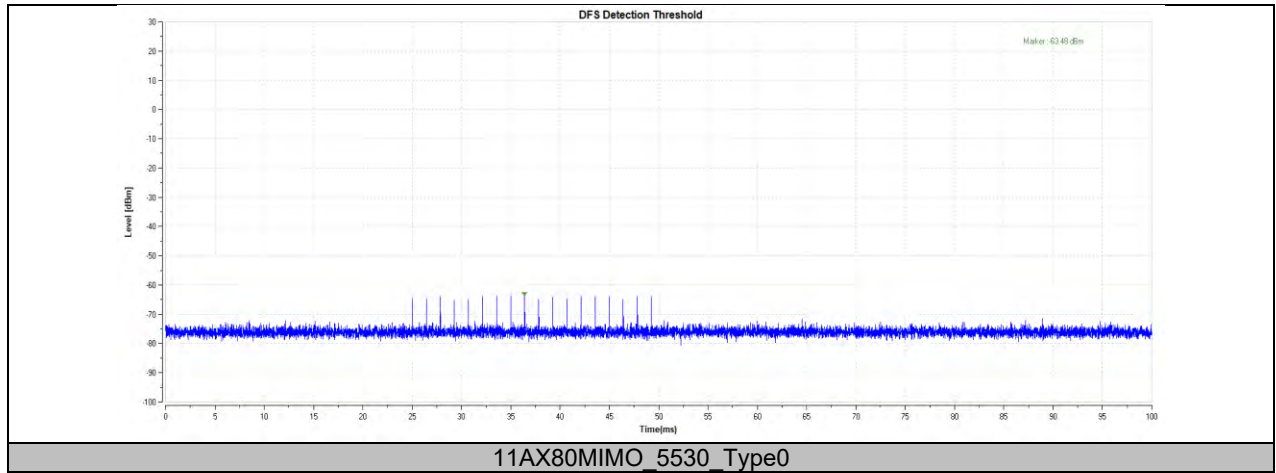


## 11.8. APPENDIX H: DFS DETECTION THRESHOLDS

### 11.8.1. Test Result

Test Mode	Channel	Radar Type	Result	Limit[dbm]	Verdict
11AX80MIMO	5530	Type0	-63.48	-58.55	PASS

### 11.8.2. Test Graphs

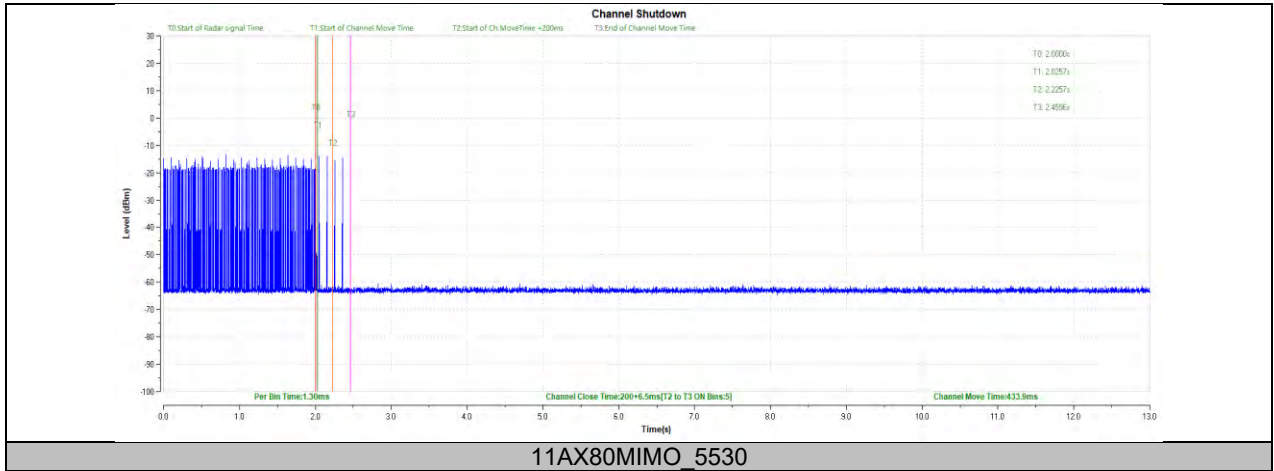


## 11.9. APPENDIX I: CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME

### 11.9.1. Test Result

Test Mode	Channel	CCT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11AX80MIMO	5530	200+6.5	200+60	433.9	10000	PASS

### 11.9.2. Test Graphs

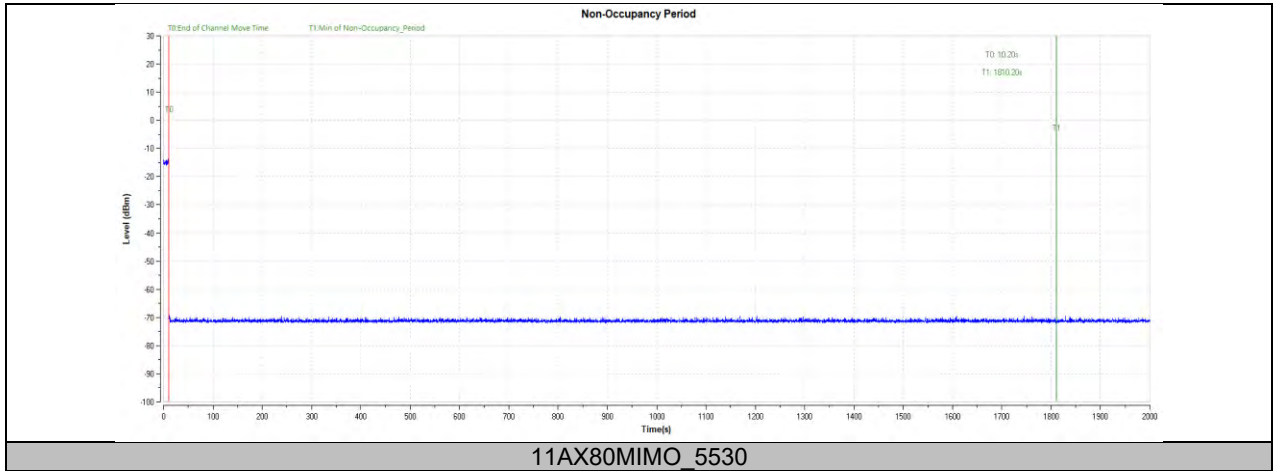


## 11.10. APPENDIX J: NON-OCCUPANCY PERIOD

### Test Result

Test Mode	Channel	Result	Limit[s]	Verdict
11AX80MIMO	5530	see test graph	≥1800	PASS

### 11.10.1. Test Graphs



**END OF REPORT**