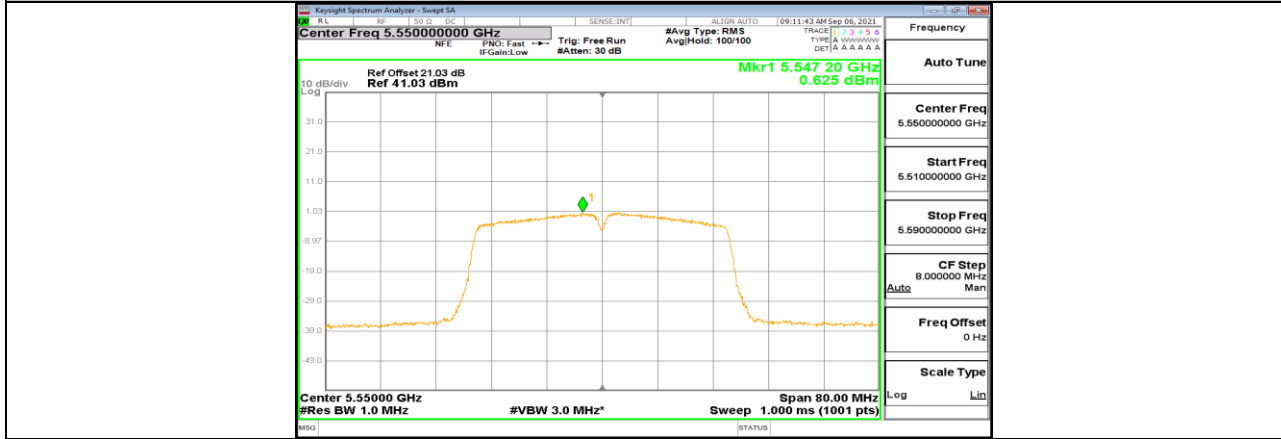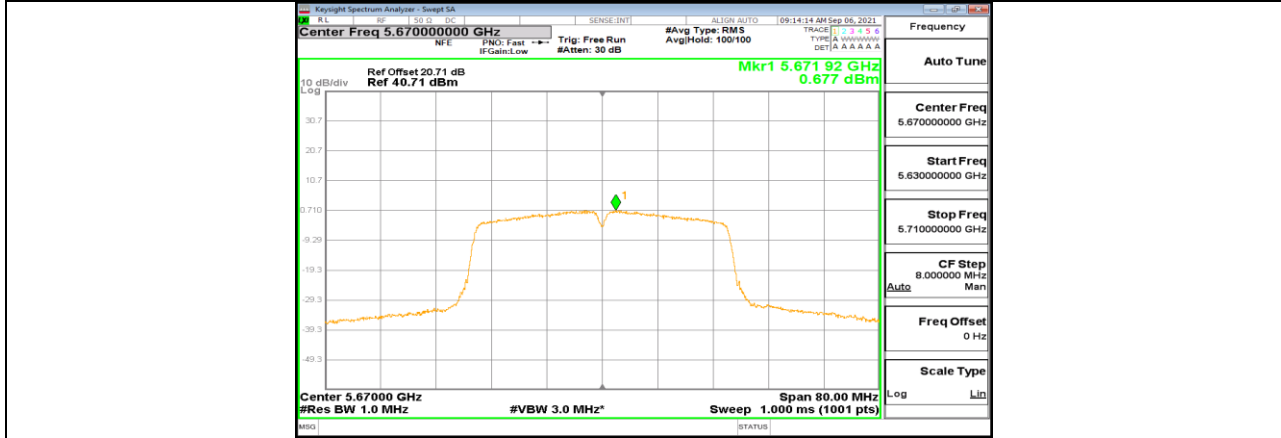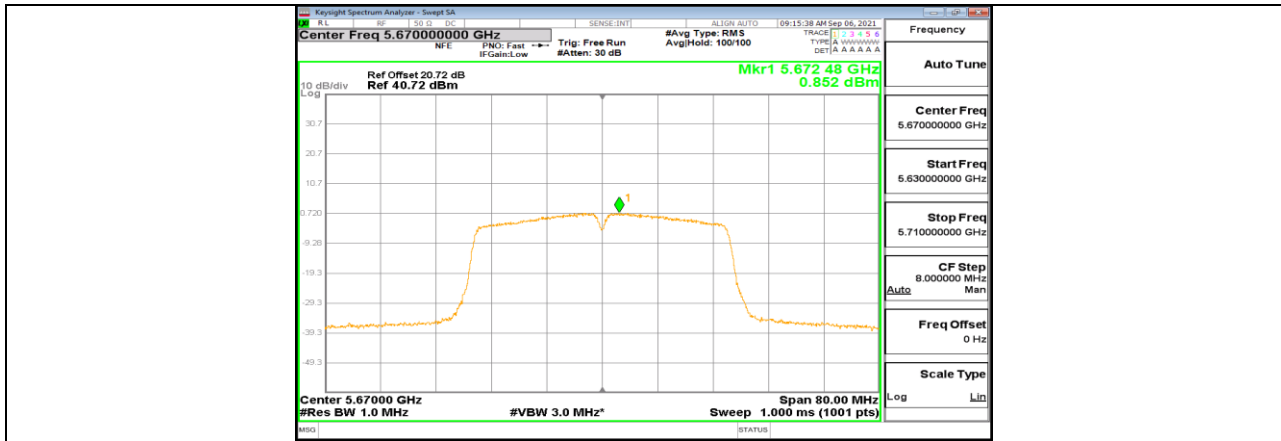11N40MIMO_Ant1_5550

11N40MIMO_Ant2_5550

11N40MIMO_Ant1_5670

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11N40MIMO_Ant2_5670

11N40MIMO_Ant1_5710_UNII-2C

11N40MIMO_Ant2_5710_UNII-2C

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11N40MIMO_Ant1_5710_UNII-3

11N40MIMO_Ant2_5710_UNII-3

11N40MIMO_Ant1_5755

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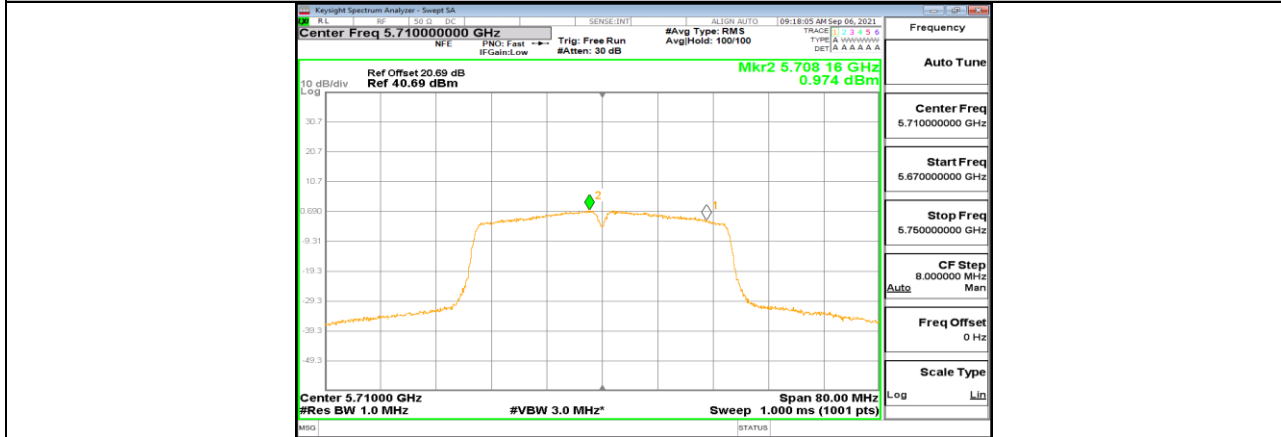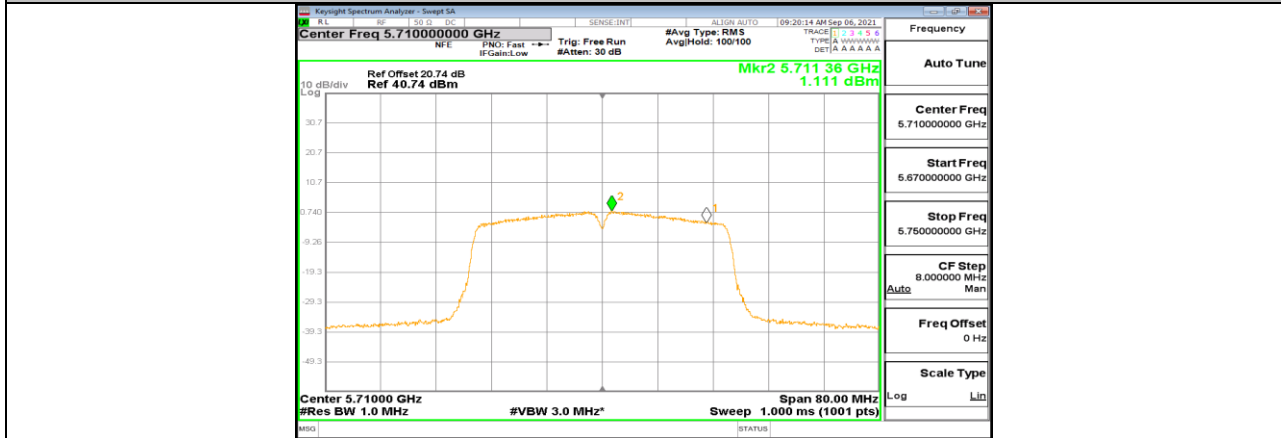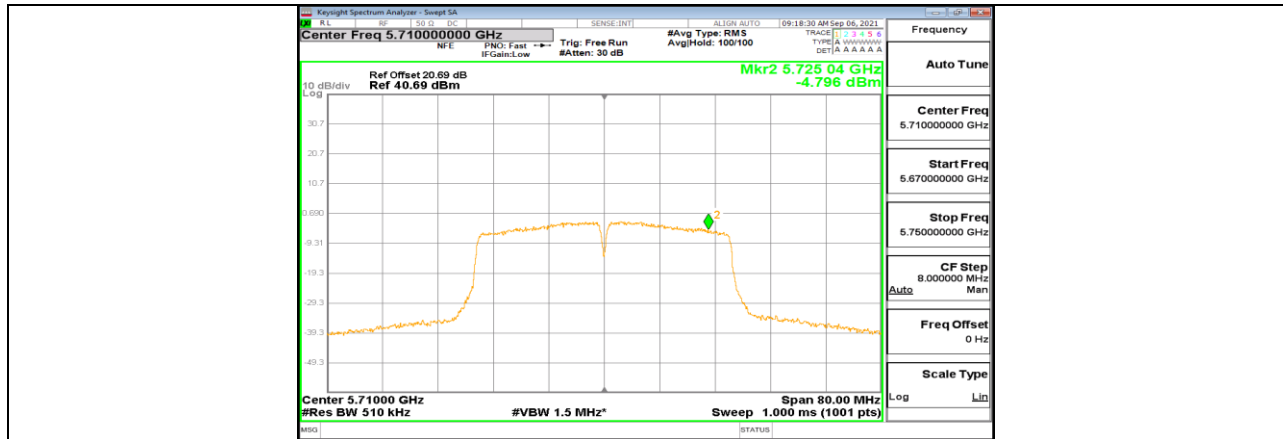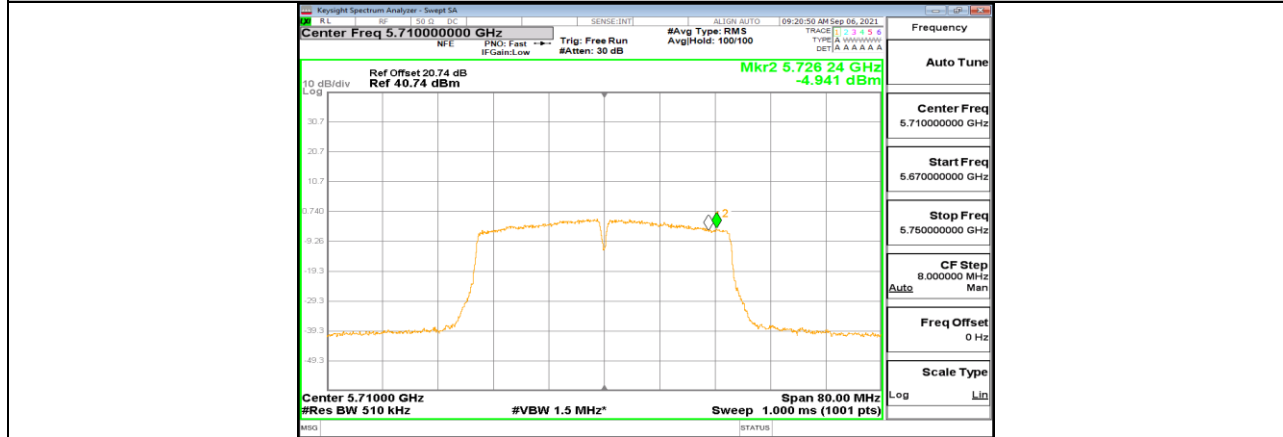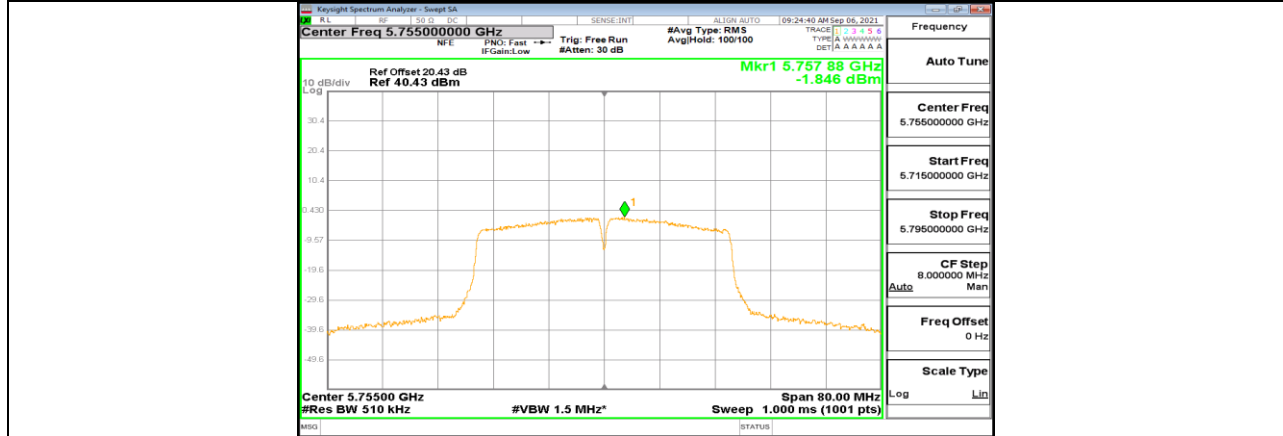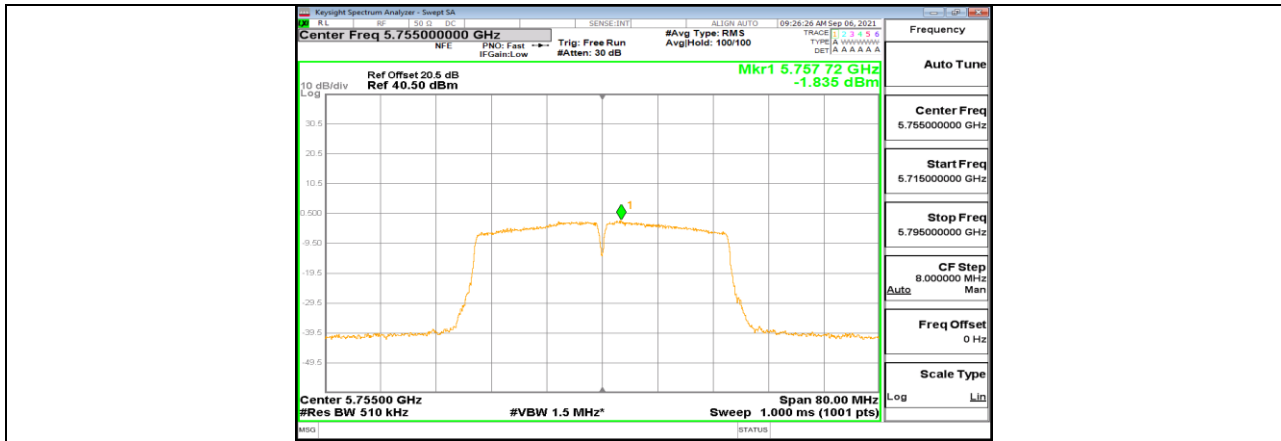
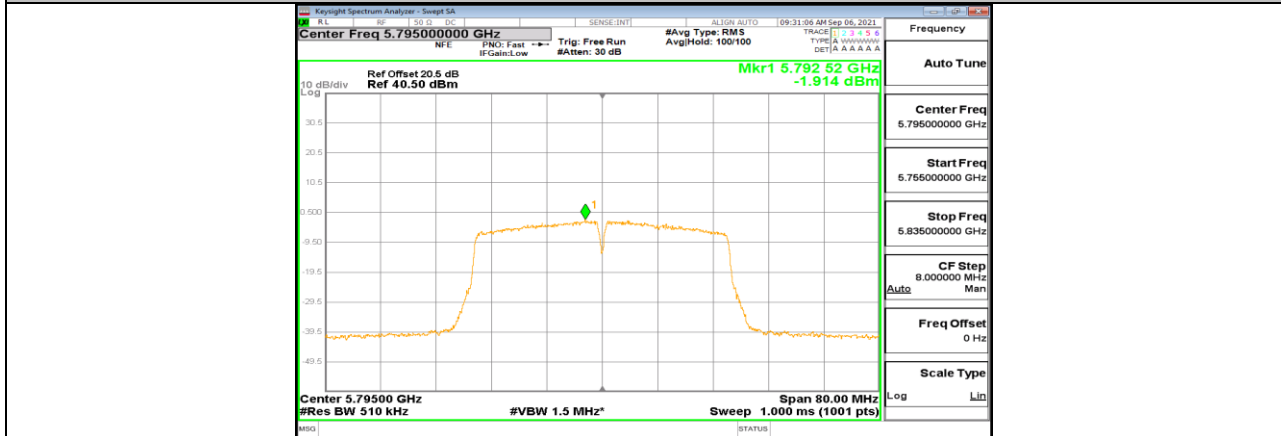11N40MIMO_Ant2_5755
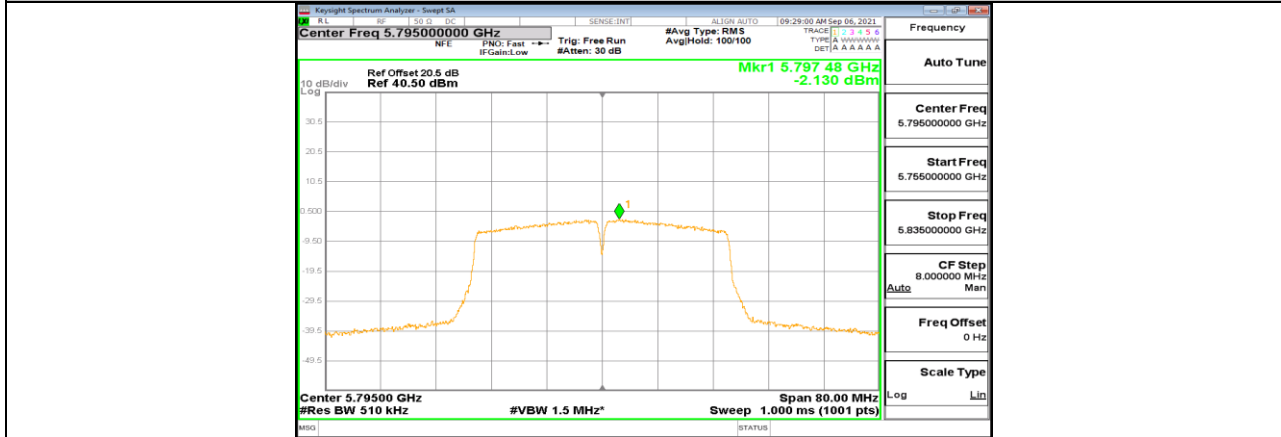
11N40MIMO_Ant1_5795

11N40MIMO_Ant2_5795

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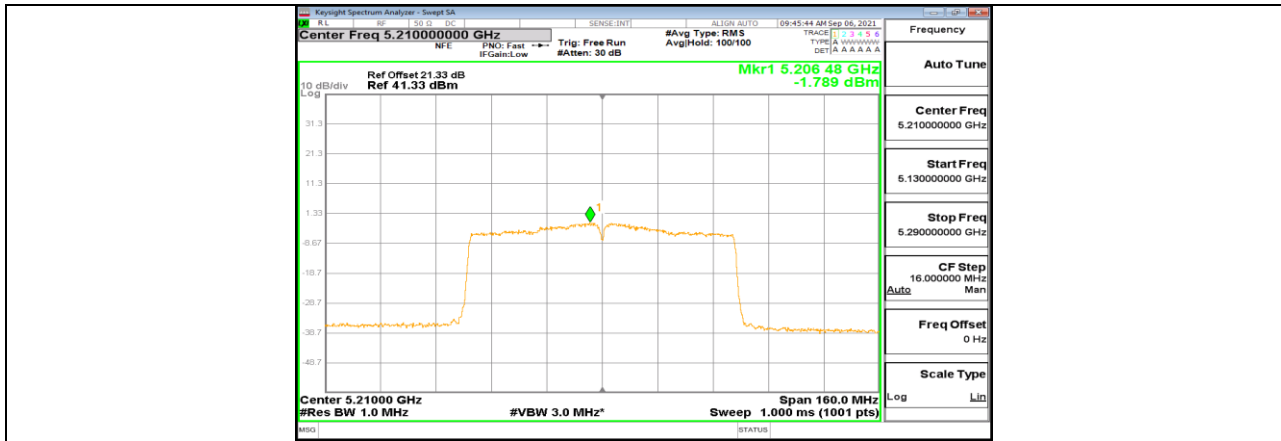
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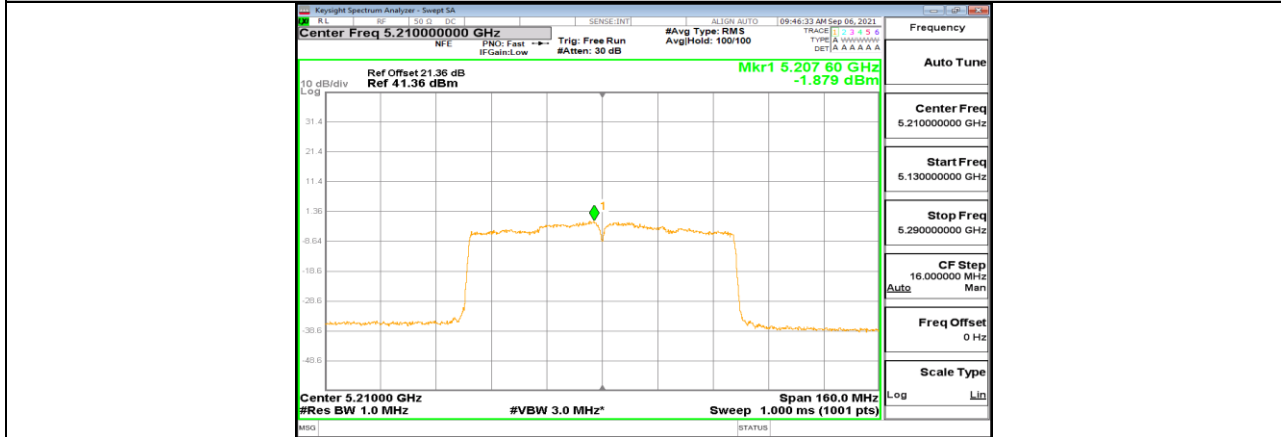
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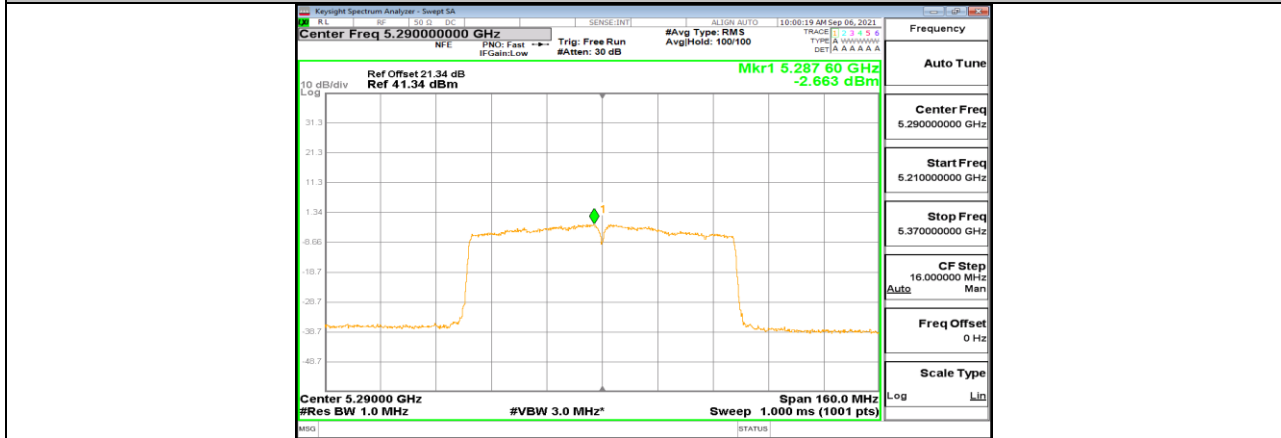
11AC80MIMO_Ant1_5290

11AC80MIMO_Ant2_5290
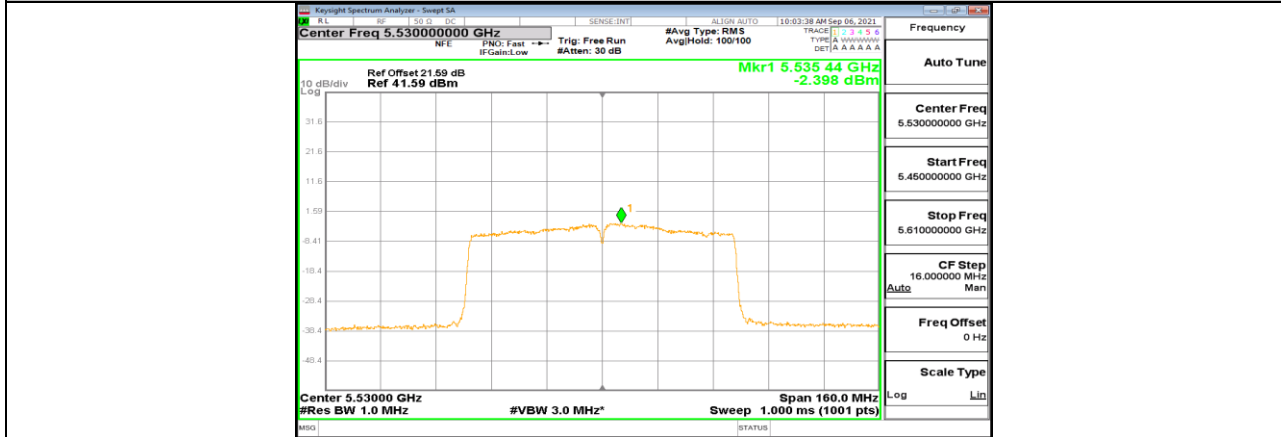
11AC80MIMO_Ant1_5530

11AC80MIMO_Ant2_5530

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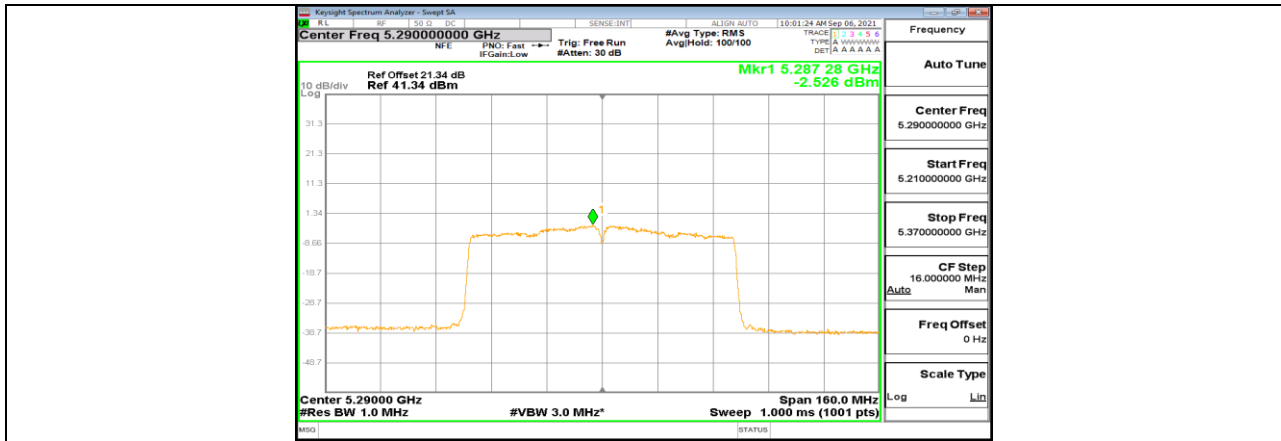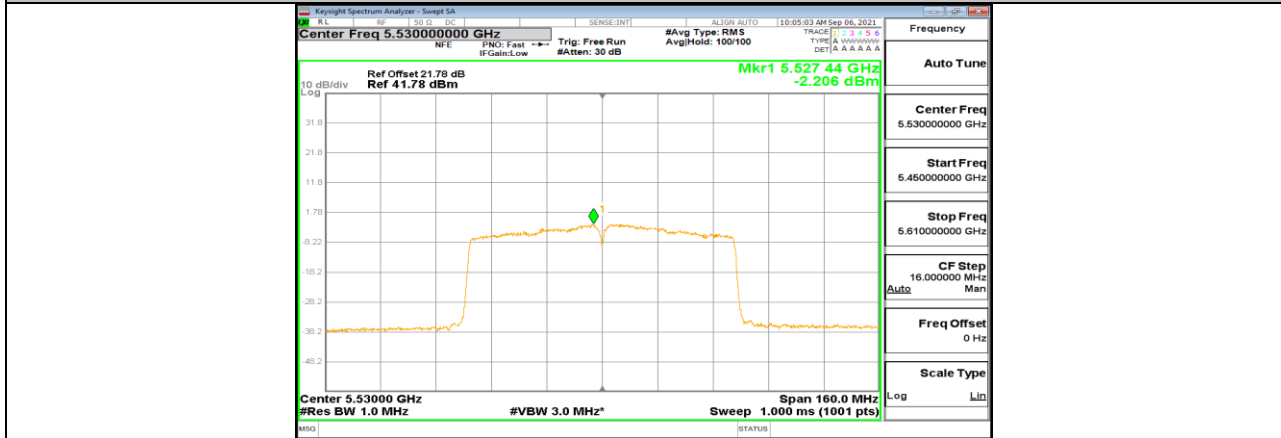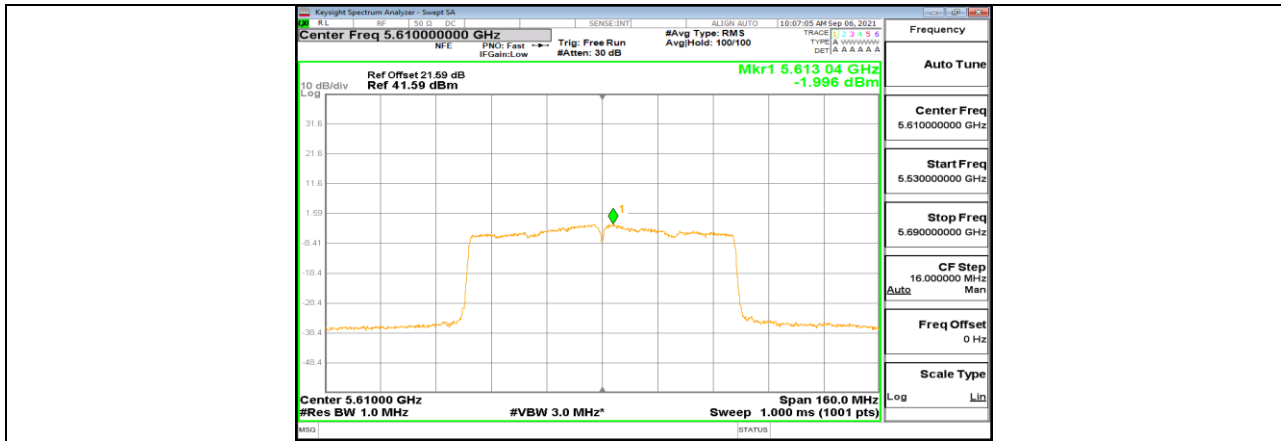
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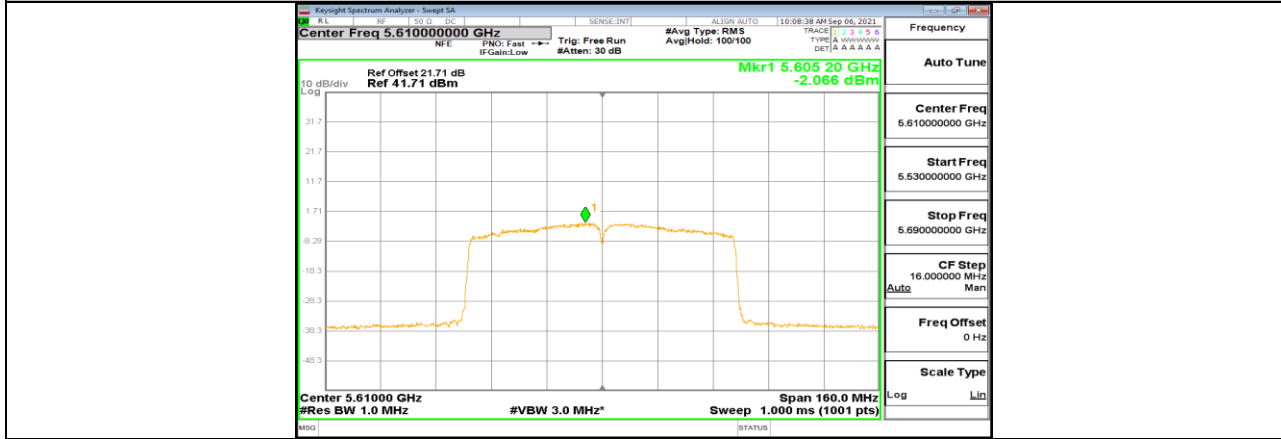
11AC80MIMO_Ant2_5610

11AC80MIMO_Ant1_5690_UNII-2C

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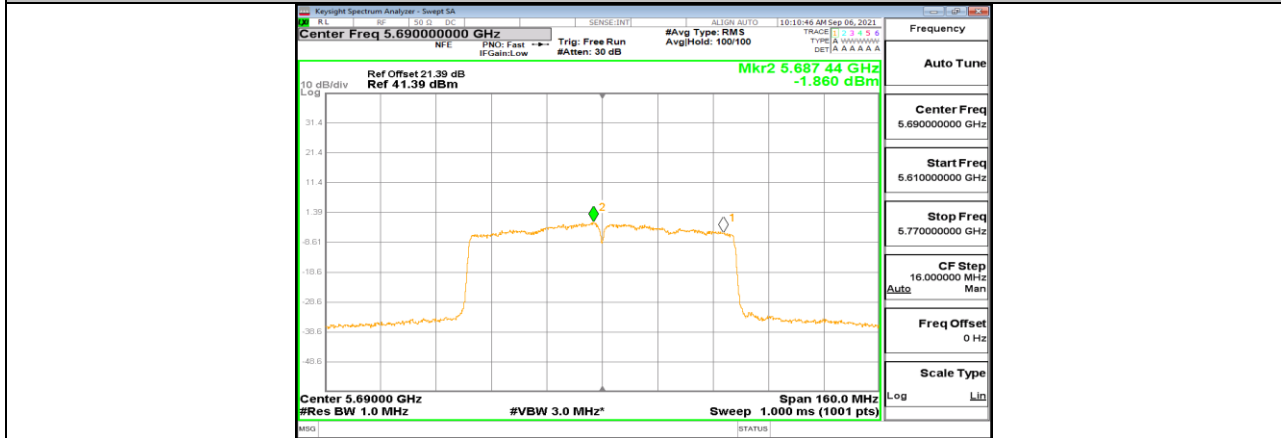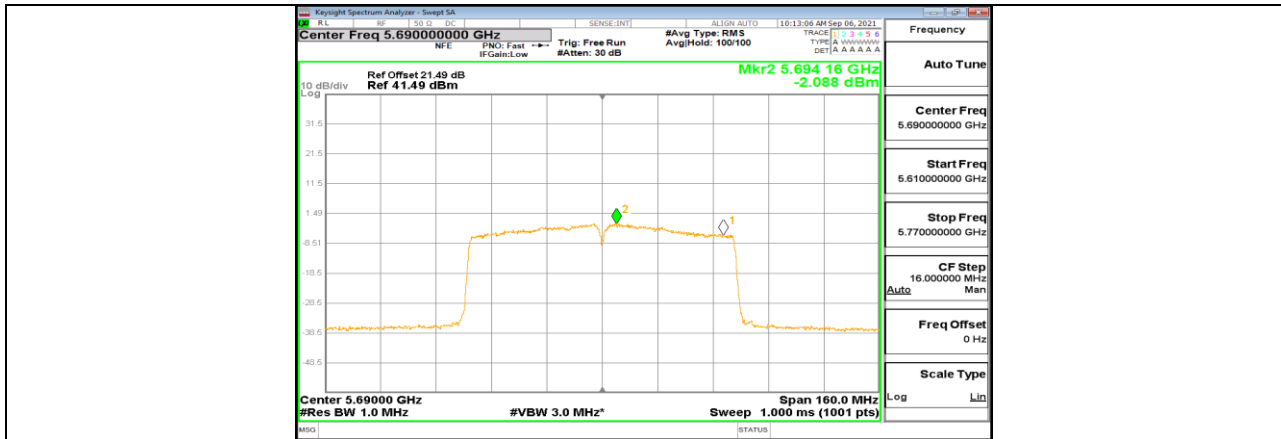
11AC80MIMO_Ant2_5690_UNII-2C
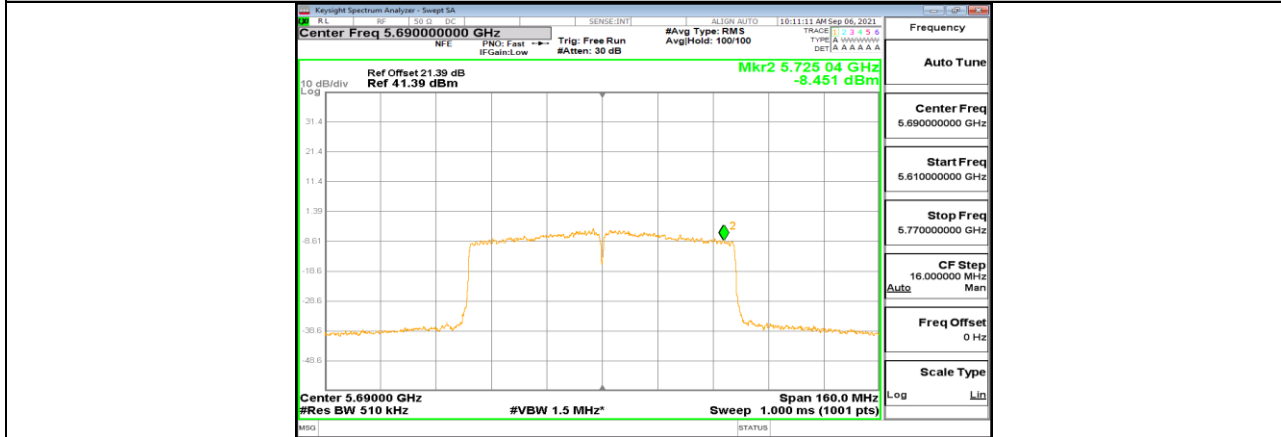
11AC80MIMO_Ant1_5690_UNII-3
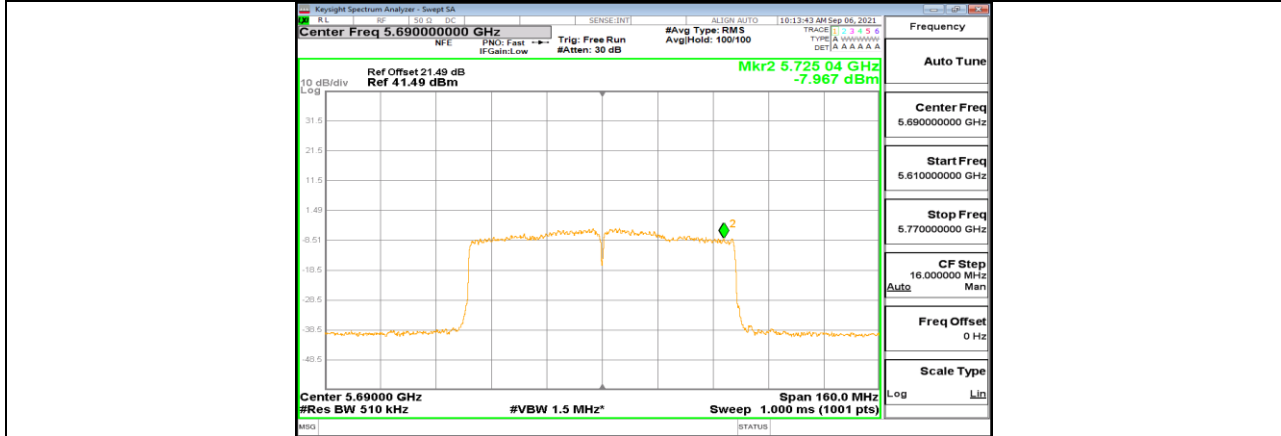
11AC80MIMO_Ant2_5690_UNII-3

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11AC80MIMO_Ant1_5775

11AC80MIMO_Ant2_5775

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12.6. Appendix D: Frequency Stability
12.6.1. Test Result

Frequency Error vs. Voltage									
802.11a:5200MHz									
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	5200.0219	4.21	5200.0228	4.39	5200.0153	2.95	5199.9832	-3.24
TN	VN	5200.0196	3.76	5200.0033	0.64	5200.0095	1.83	5199.9790	-4.03
TN	VH	5199.9827	-3.33	5199.9798	-3.88	5199.9893	-2.06	5200.0162	3.12

Frequency Error vs. Temperature									
802.11a:5200MHz									
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	5199.9791	-4.03	5199.9765	-4.52	5199.9882	-2.26	5200.0062	1.18
60	VN	5200.0009	0.17	5199.9966	-0.65	5199.9822	-3.42	5199.9946	-1.04
50	VN	5200.0028	0.53	5199.9912	-1.69	5199.9864	-2.61	5199.9973	-0.52
40	VN	5199.9903	-1.87	5199.9999	-0.01	5200.0086	1.66	5200.0171	3.30
30	VN	5199.9915	-1.64	5200.0052	1.00	5199.9982	-0.35	5199.9996	-0.07
20	VN	5199.9973	-0.52	5199.9970	-0.58	5199.9777	-4.29	5199.9958	-0.80
10	VN	5200.0108	2.08	5199.9866	-2.59	5200.0065	1.25	5200.0243	4.67
0	VN	5200.0203	3.90	5200.0110	2.11	5200.0049	0.95	5199.9938	-1.19

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	5824.9868	-2.27	5824.9857	-2.45	5824.9941	-1.02	5825.0102	1.76
TN	VN	5825.0049	0.83	5824.9900	-1.71	5824.9823	-3.04	5825.0005	0.09
TN	VH	5824.9966	-0.58	5824.9985	-0.25	5824.9759	-4.13	5824.9753	-4.25
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)
60	VN	5824.9827	-2.96	5824.9960	-0.69	5824.9829	-2.93	5824.9820	-3.09
50	VN	5824.9761	-4.10	5825.0250	4.29	5825.0069	1.18	5824.9805	-3.35
40	VN	5825.0147	2.52	5824.9816	-3.16	5824.9890	-1.90	5825.0143	2.46
30	VN	5824.9934	-1.13	5824.9937	-1.09	5824.9922	-1.34	5825.0178	3.05
20	VN	5824.9753	-4.24	5825.0043	0.74	5824.9876	-2.14	5824.9945	-0.94
10	VN	5825.0155	2.66	5824.9986	-0.24	5825.0227	3.90	5824.9916	-1.44
0	VN	5824.9950	-0.85	5824.9840	-2.75	5825.0130	2.23	5825.0171	2.94

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

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12.7. Appendix E: Duty Cycle
12.7.1. Test Result

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	1.40	1.44	0.9722	97.22	0.12	0.71	1
11N20 MIMO	1.30	1.35	0.9630	96.30	0.16	0.77	1
11N40 MIMO	0.65	0.69	0.9420	94.20	0.26	1.54	2
11AC80 MIMO	0.18	0.23	0.7826	78.26	1.06	5.56	10

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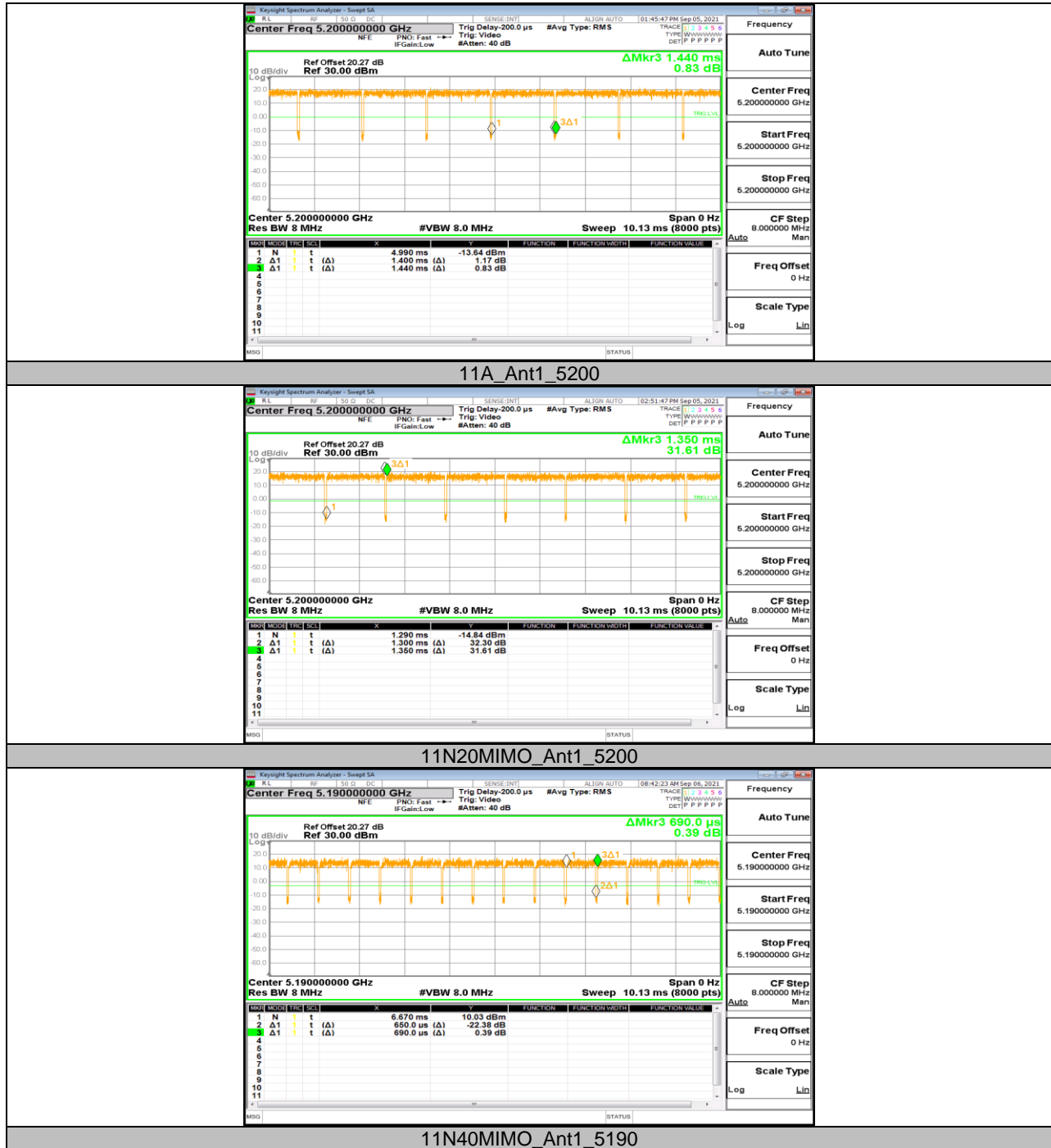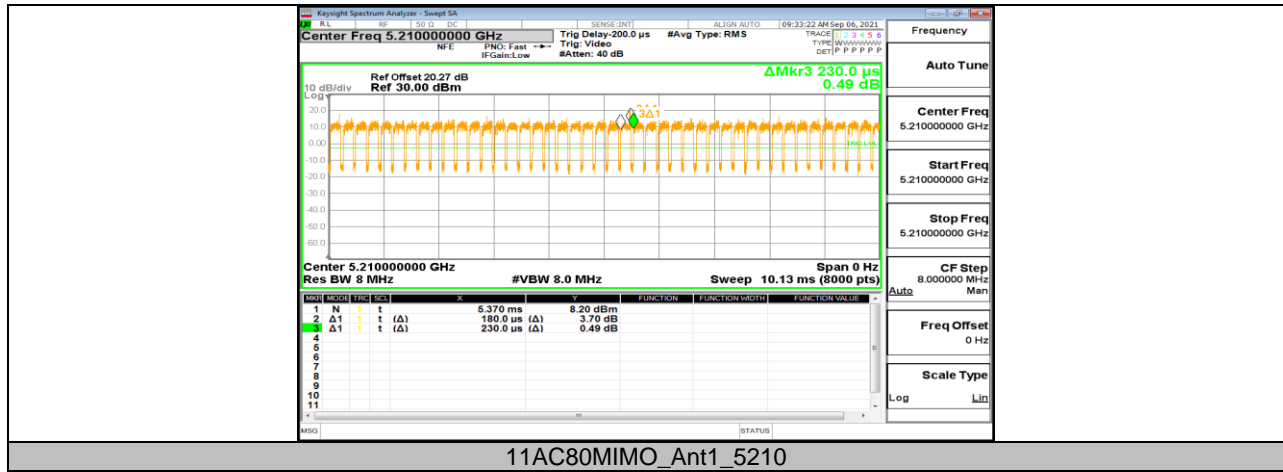Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

12.7.2. Test Graphs

11A_Ant1_5200

11N20MIMO_Ant1_5200

11N40MIMO_Ant1_5190

11AC80MIMO_Ant1_5210

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12.1. Appendix F: Dynamic Frequency Selection

DFS Detection Thresholds

Test Mode	Channel	Radar Type	Result	Limit[dbm]	Verdict
11AC80MIMO	5530	Type0	-61.56	-57.70	PASS

11AC80MIMO_5530_Type0
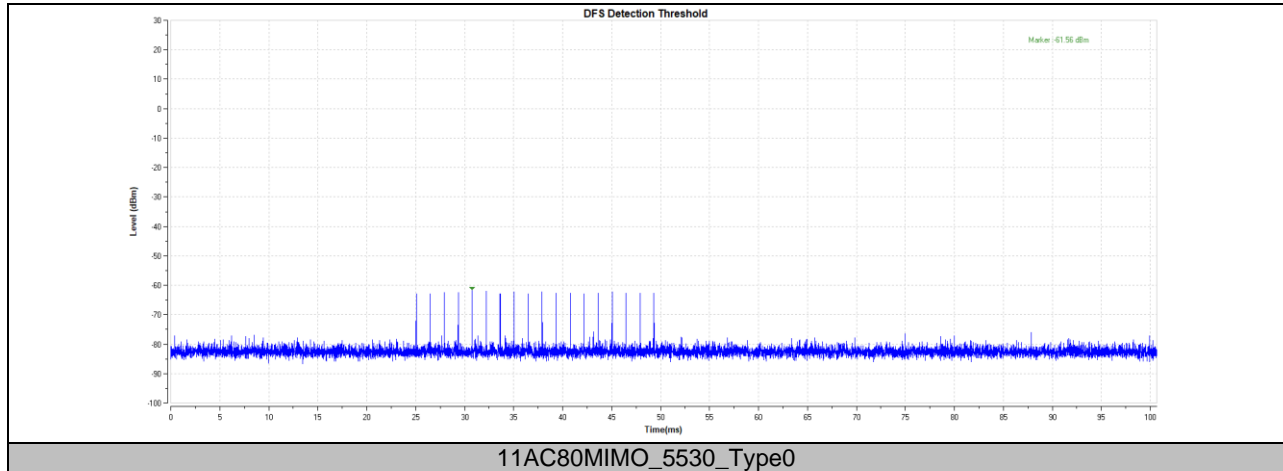
Cannel Move Time and Channel Closing Transmission Time

Test Mode	Channel	CCT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11AC80MIMO	5530	200+5.2	200+60	520	10000	PASS
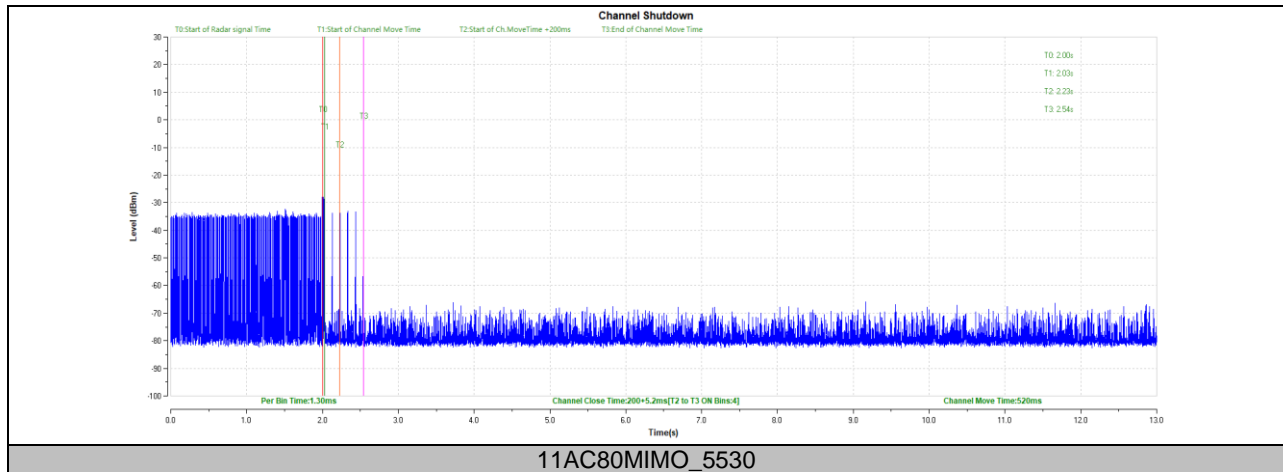
11AC80MIMO_5530

Non-Occupancy Period

Test Mode	Channel	Result	Limit[s]	Verdict
11AC80MIMO	5500	see test graph	>=1800	PASS
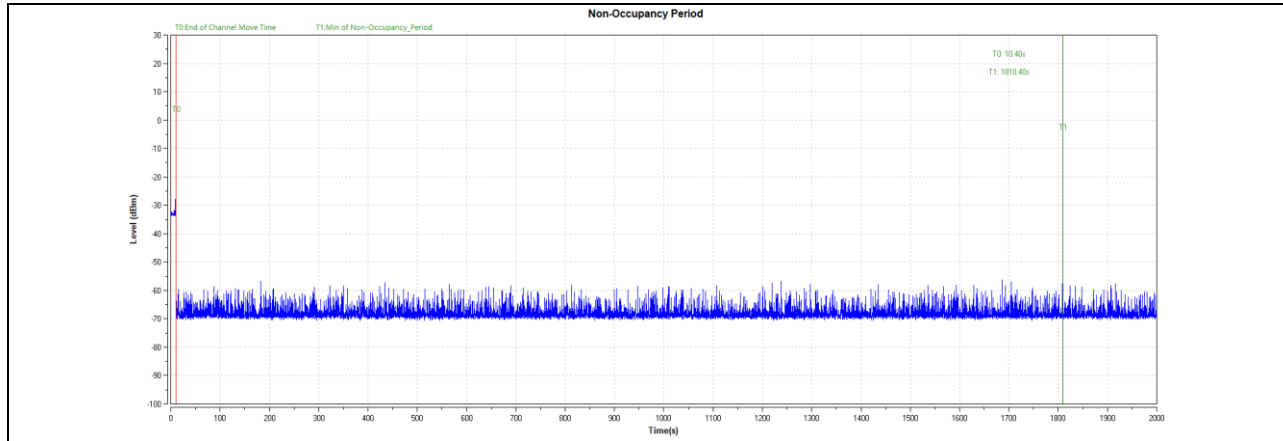
Note: All the modes had been tested, but only the worst data was recorded in the report.

END OF REPORT