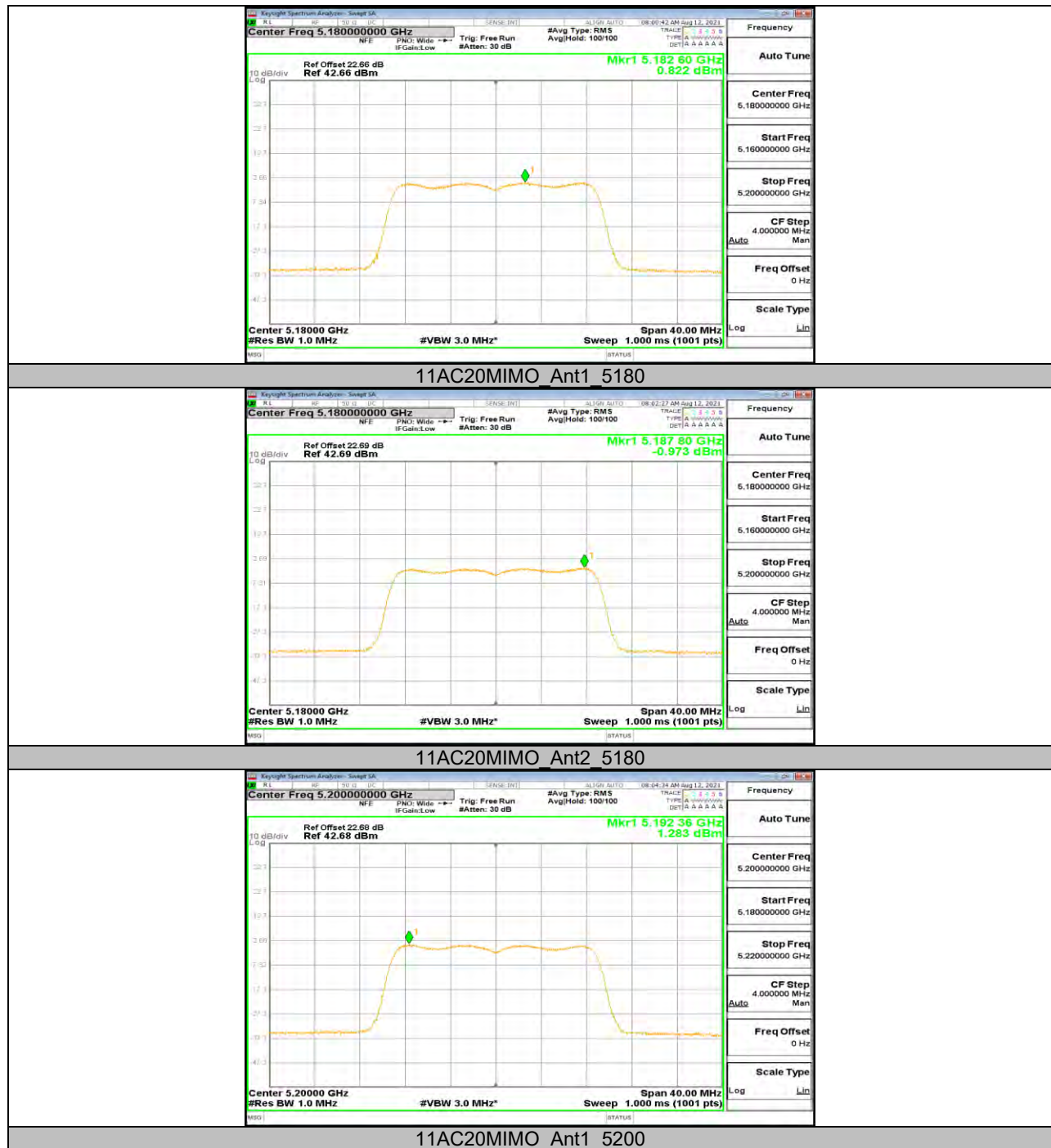
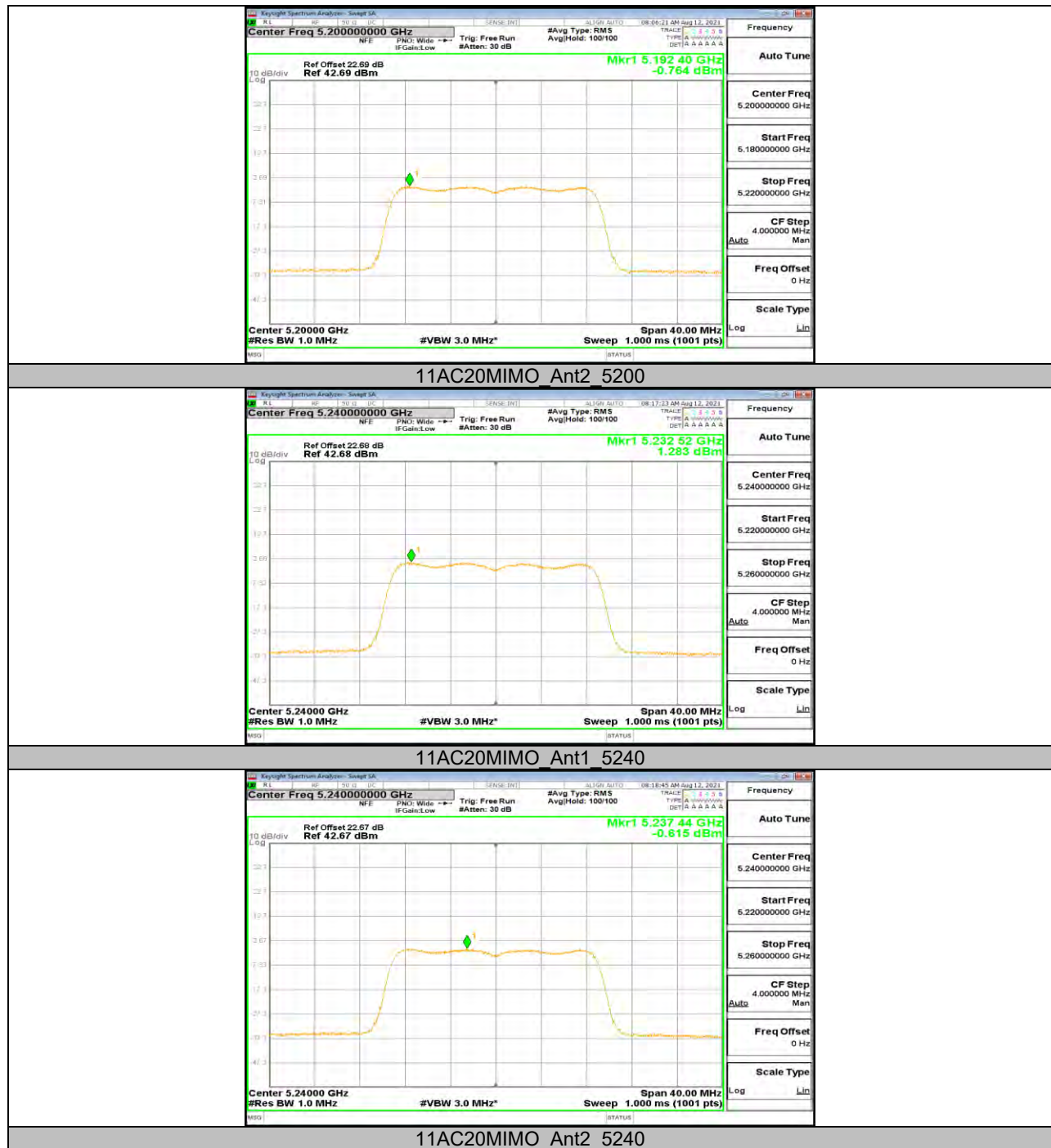
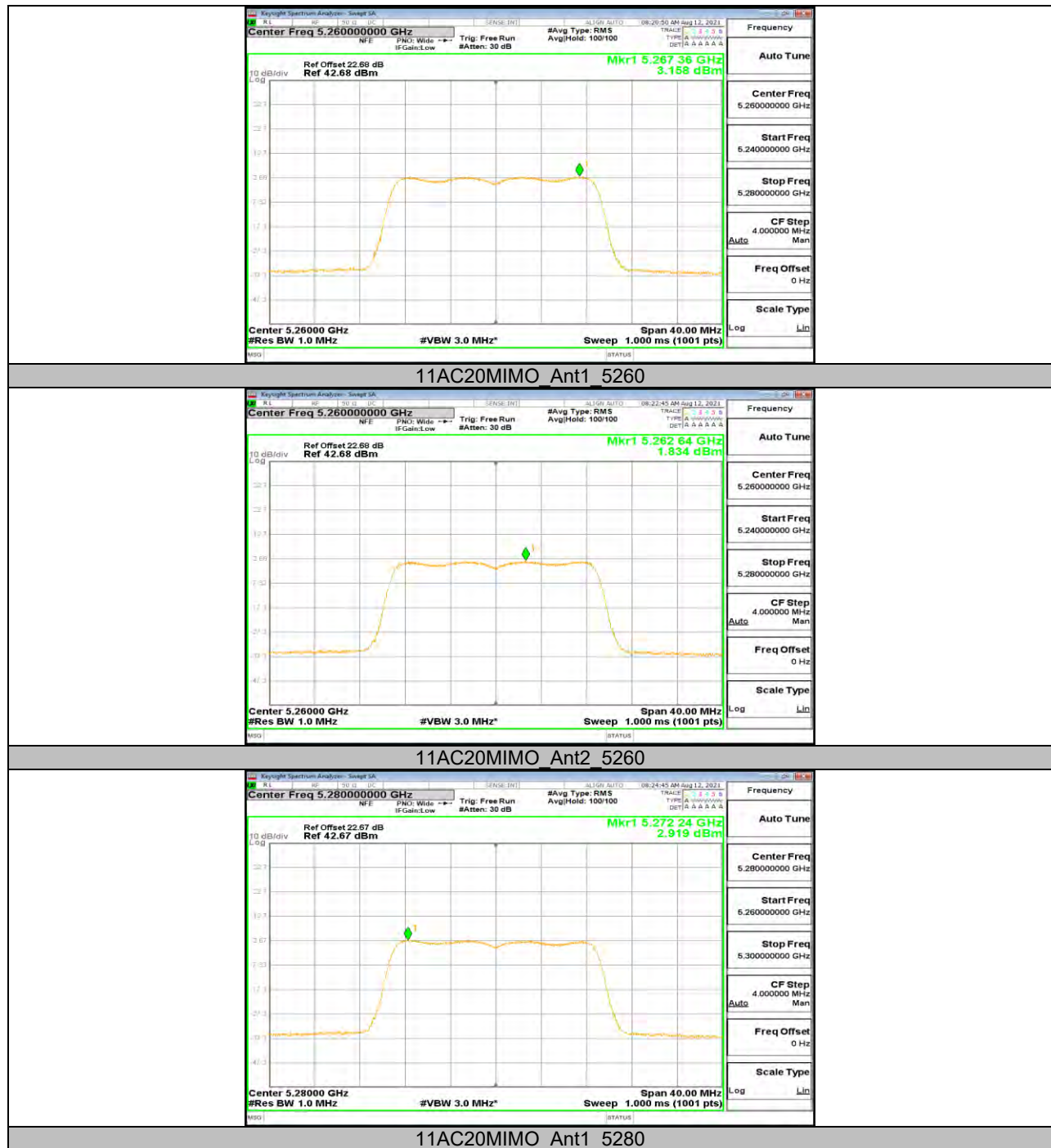
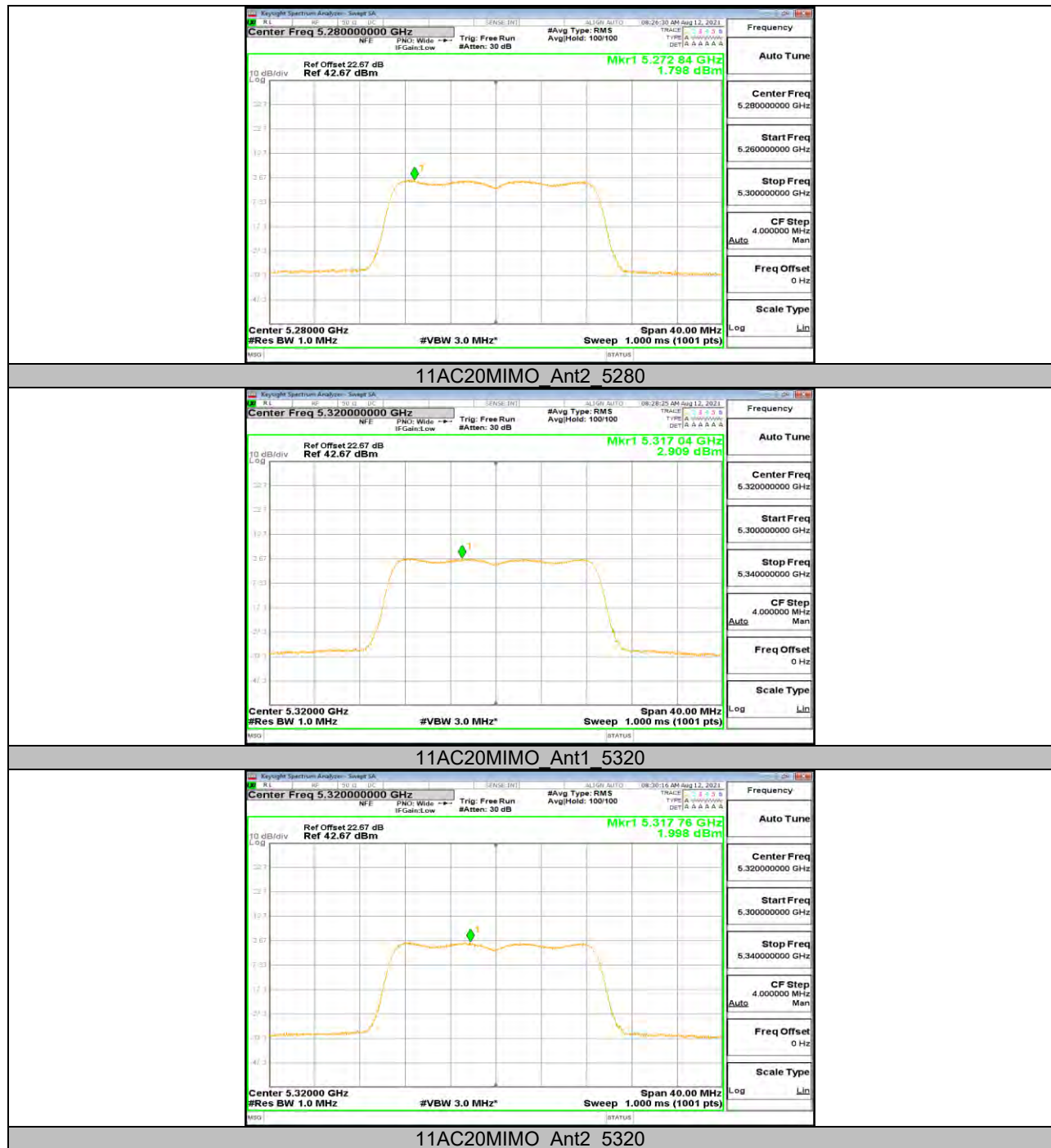


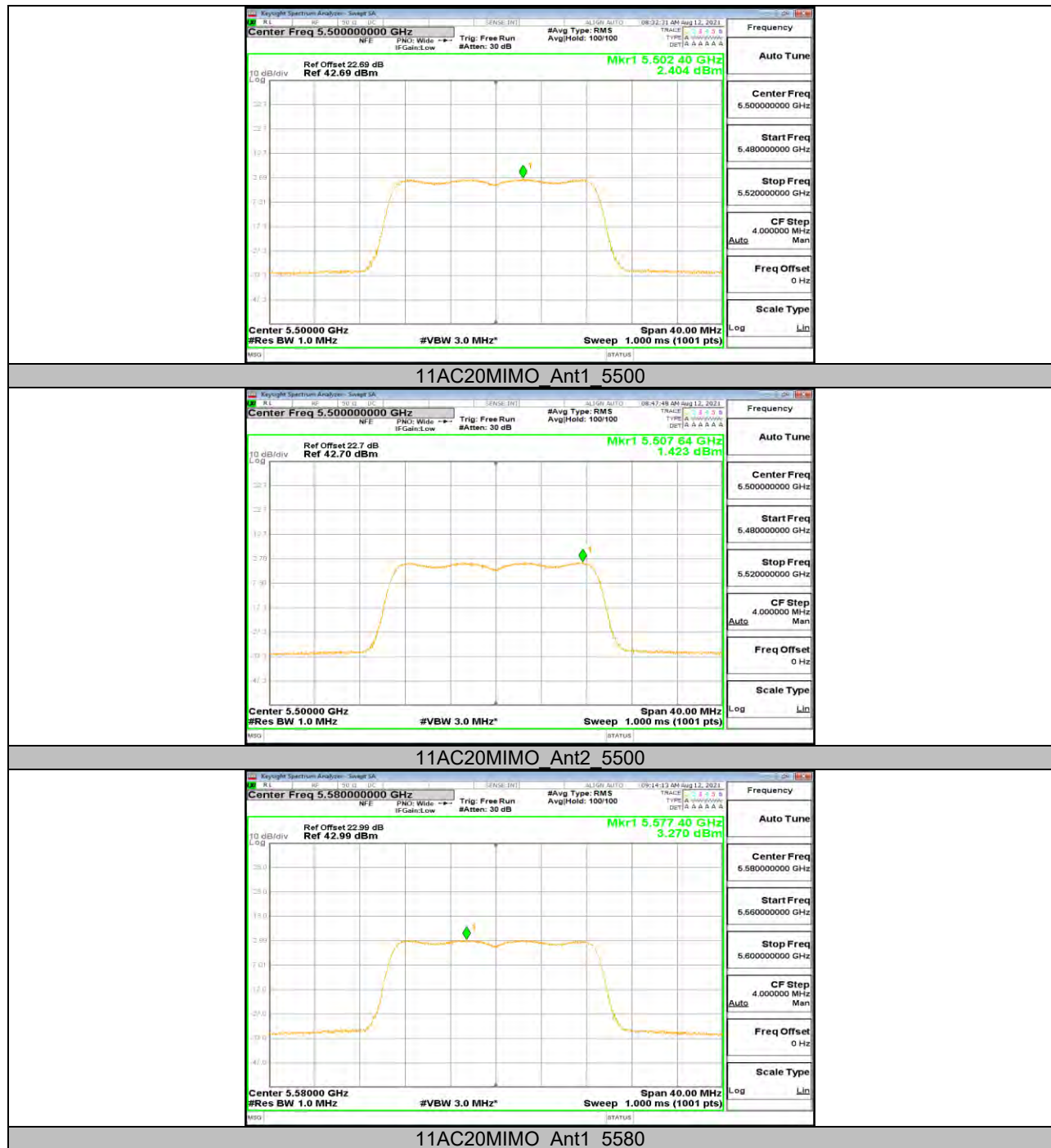




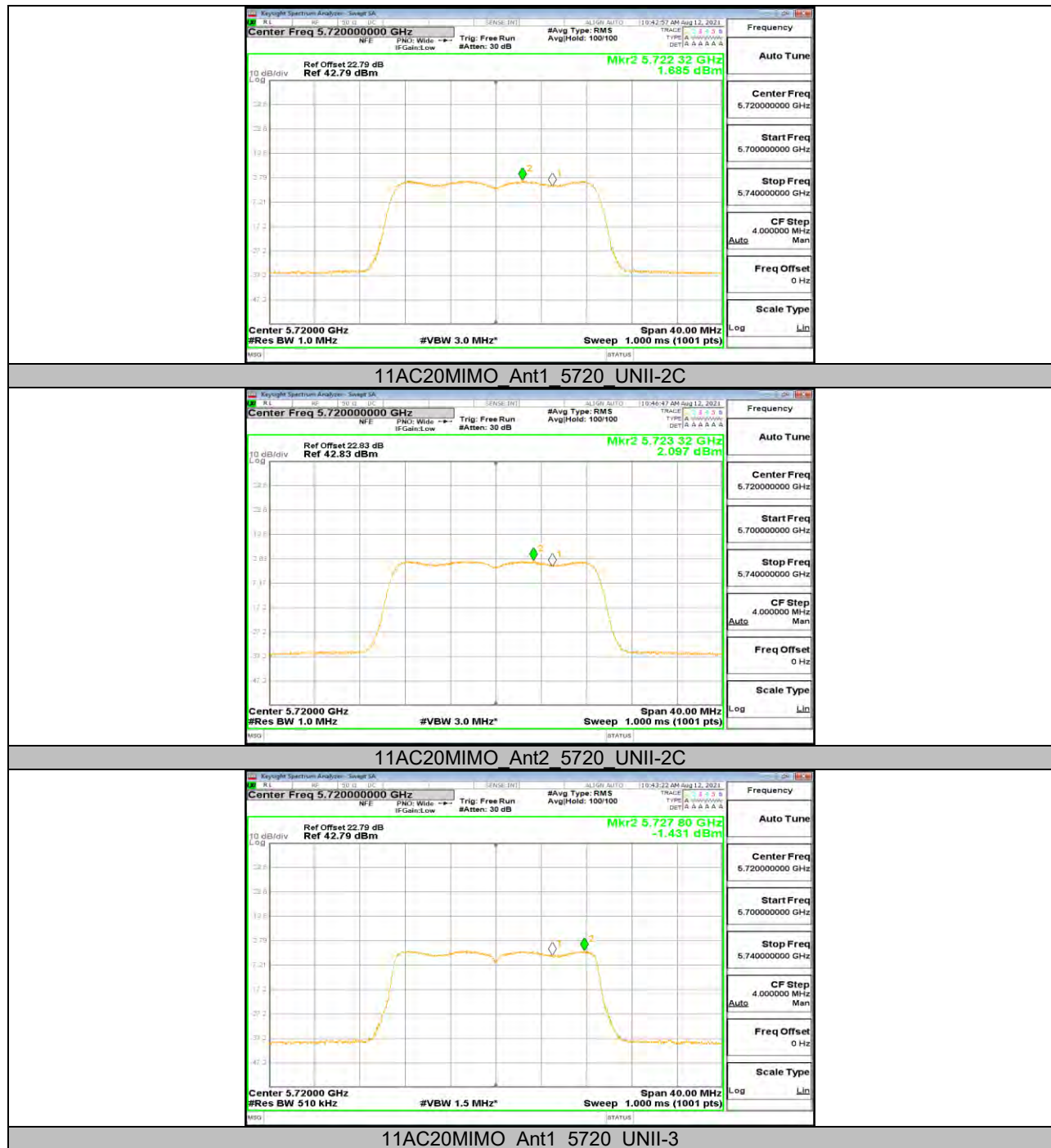


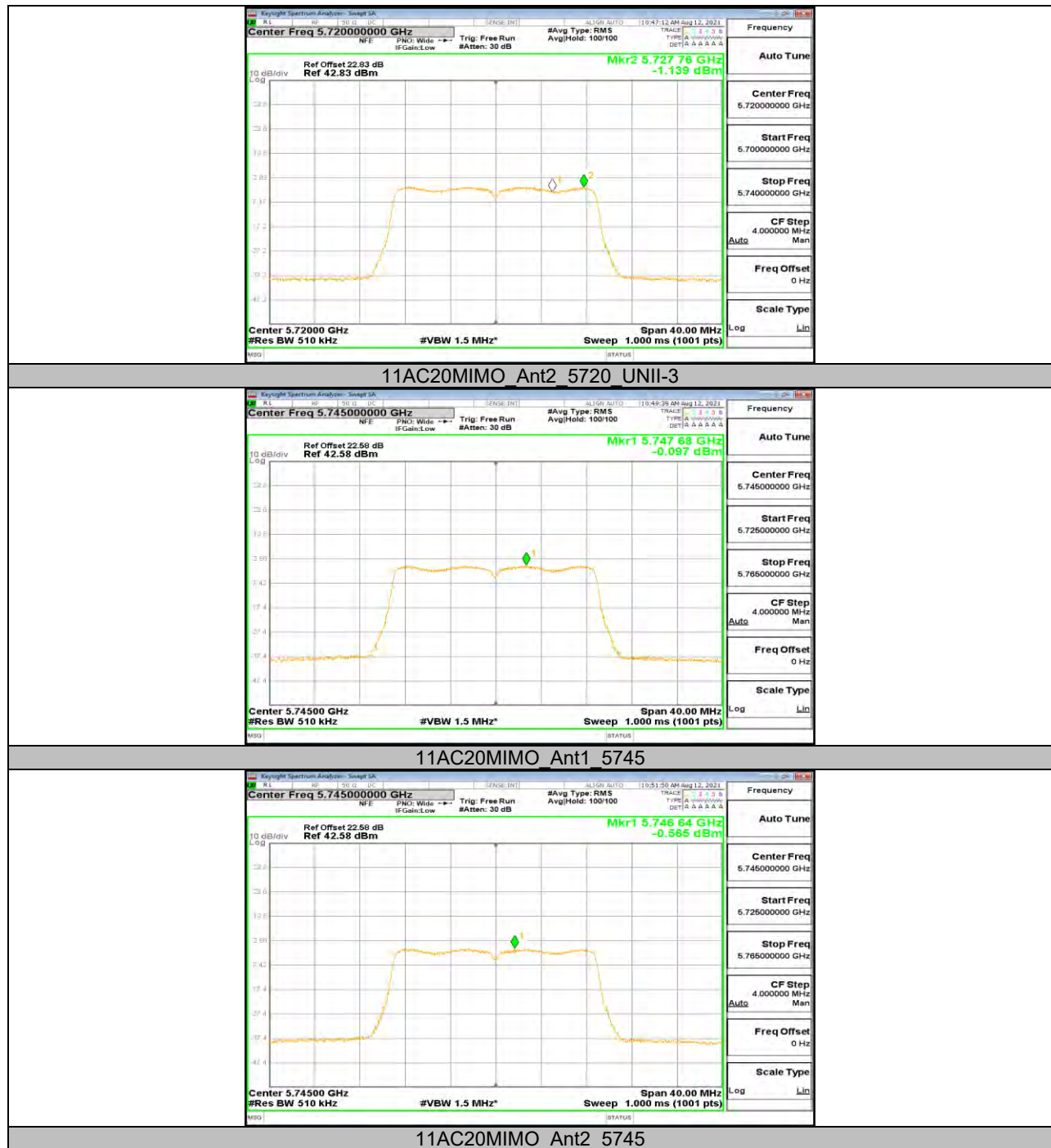


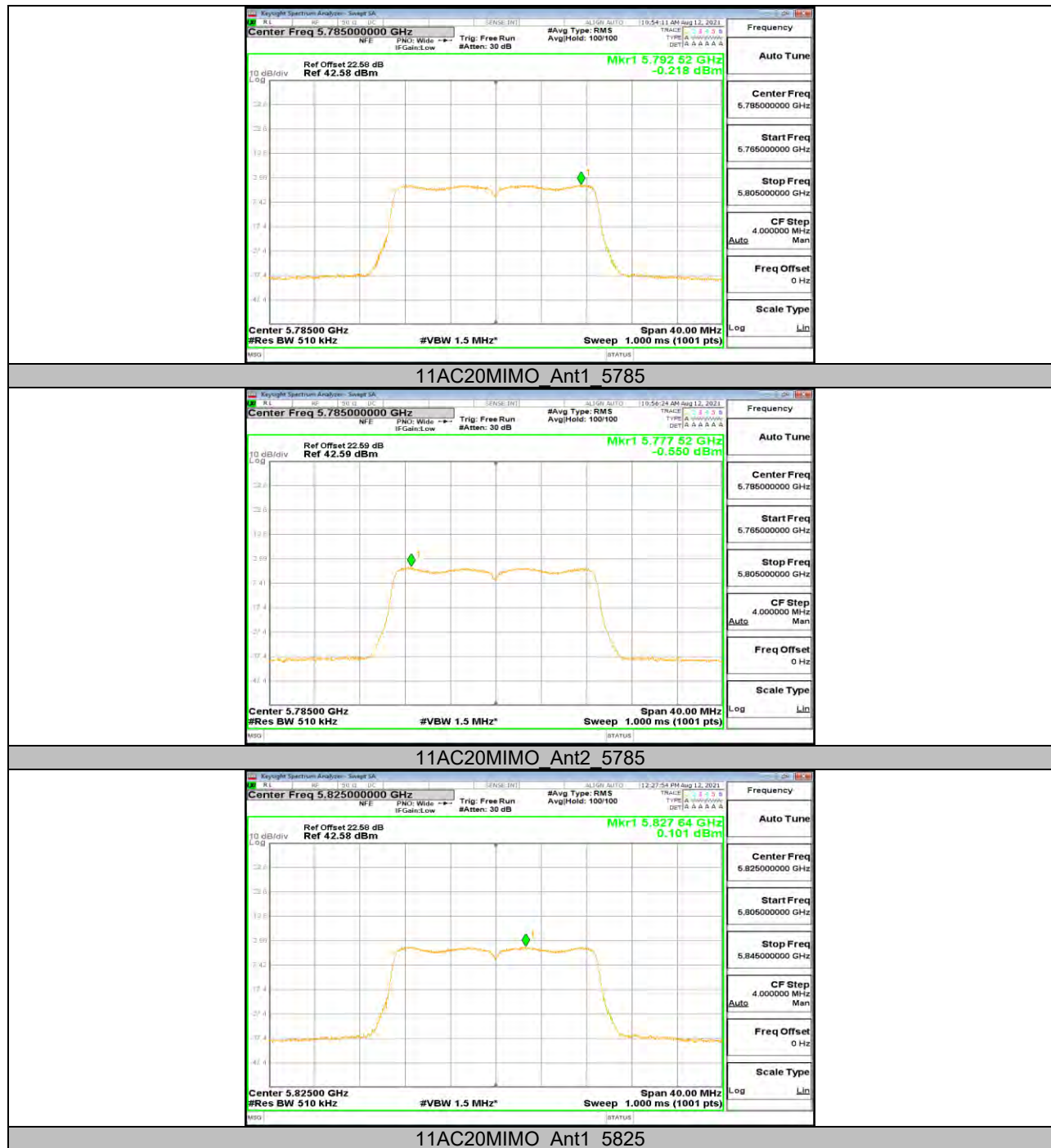


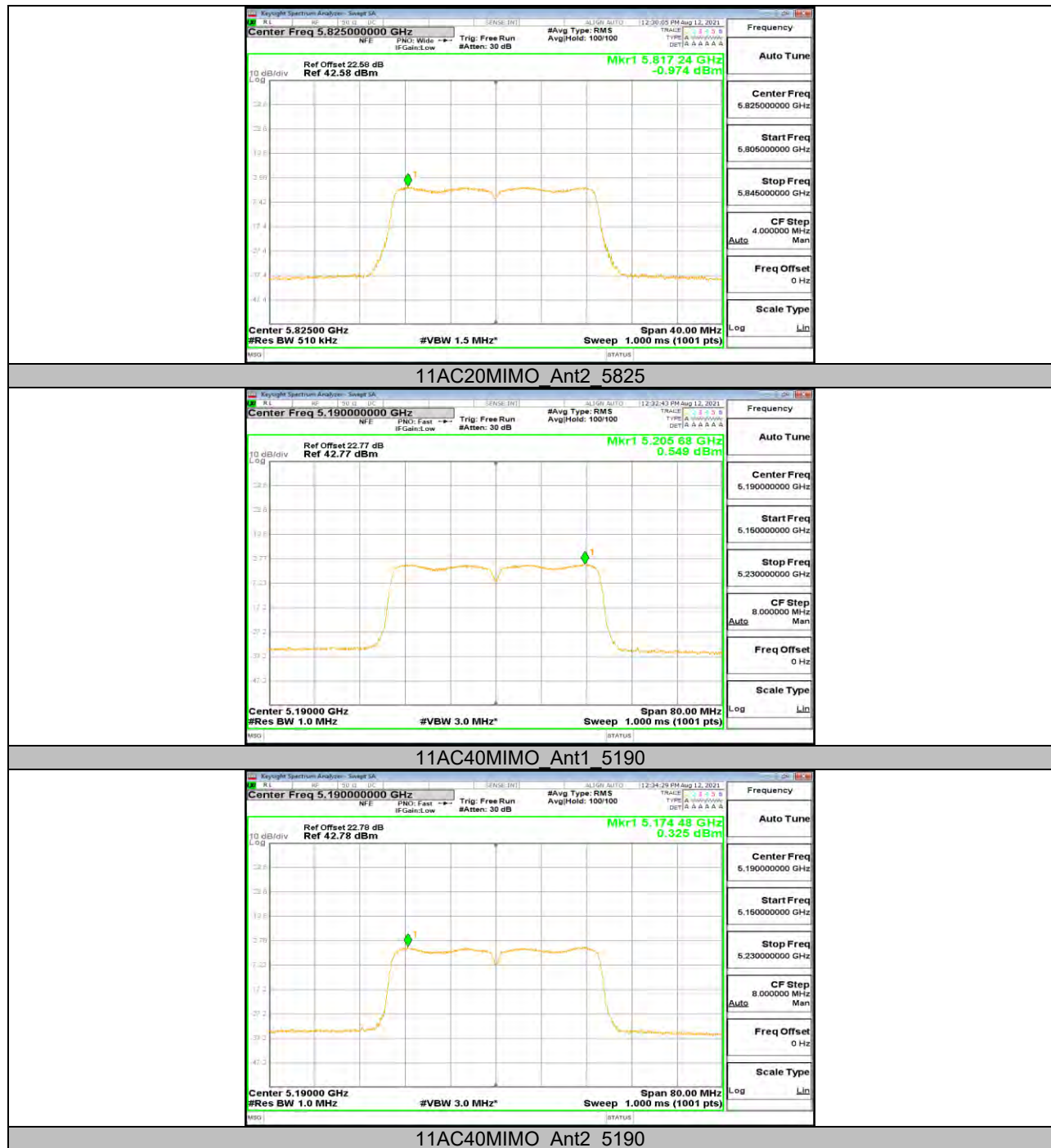


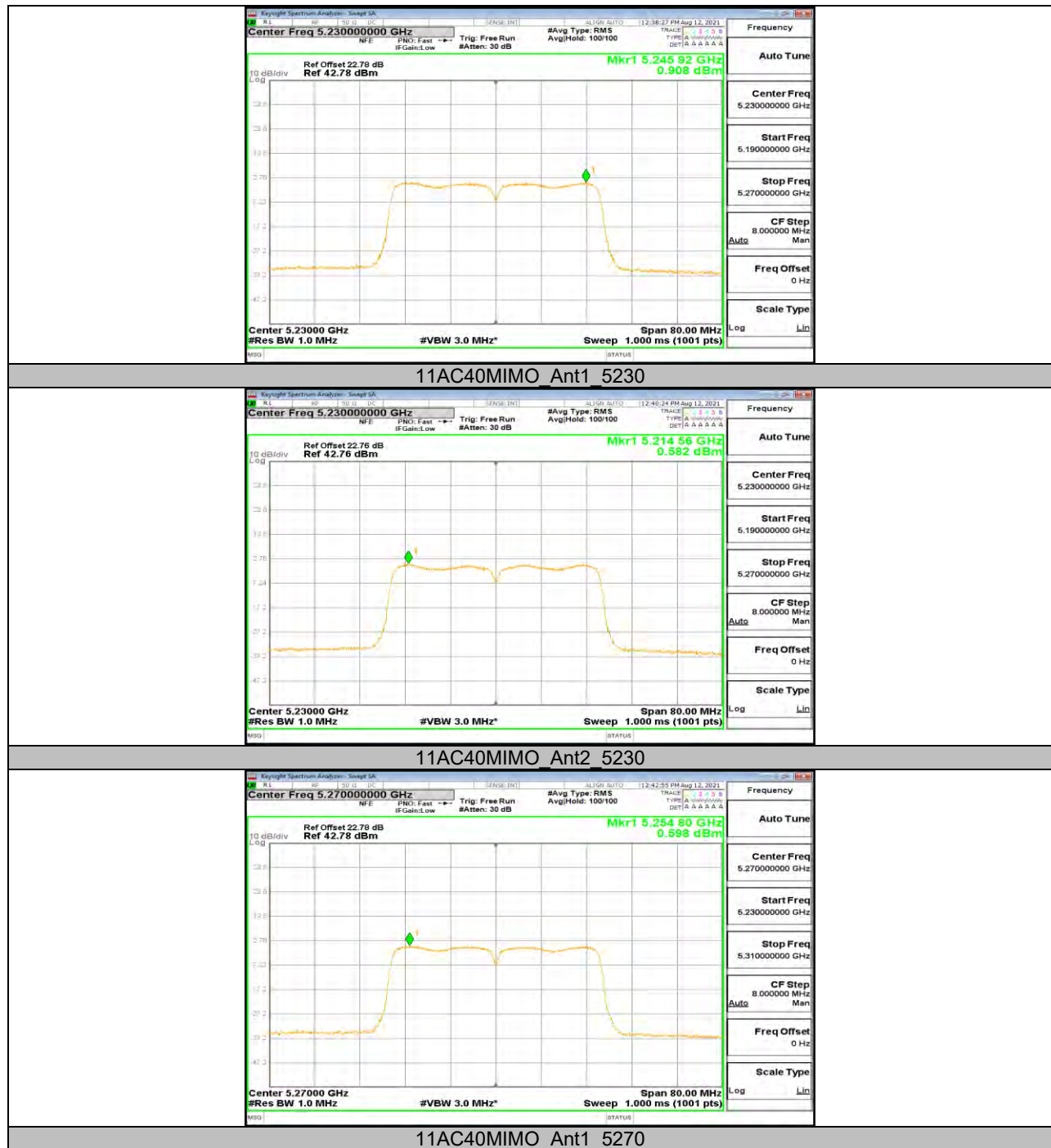


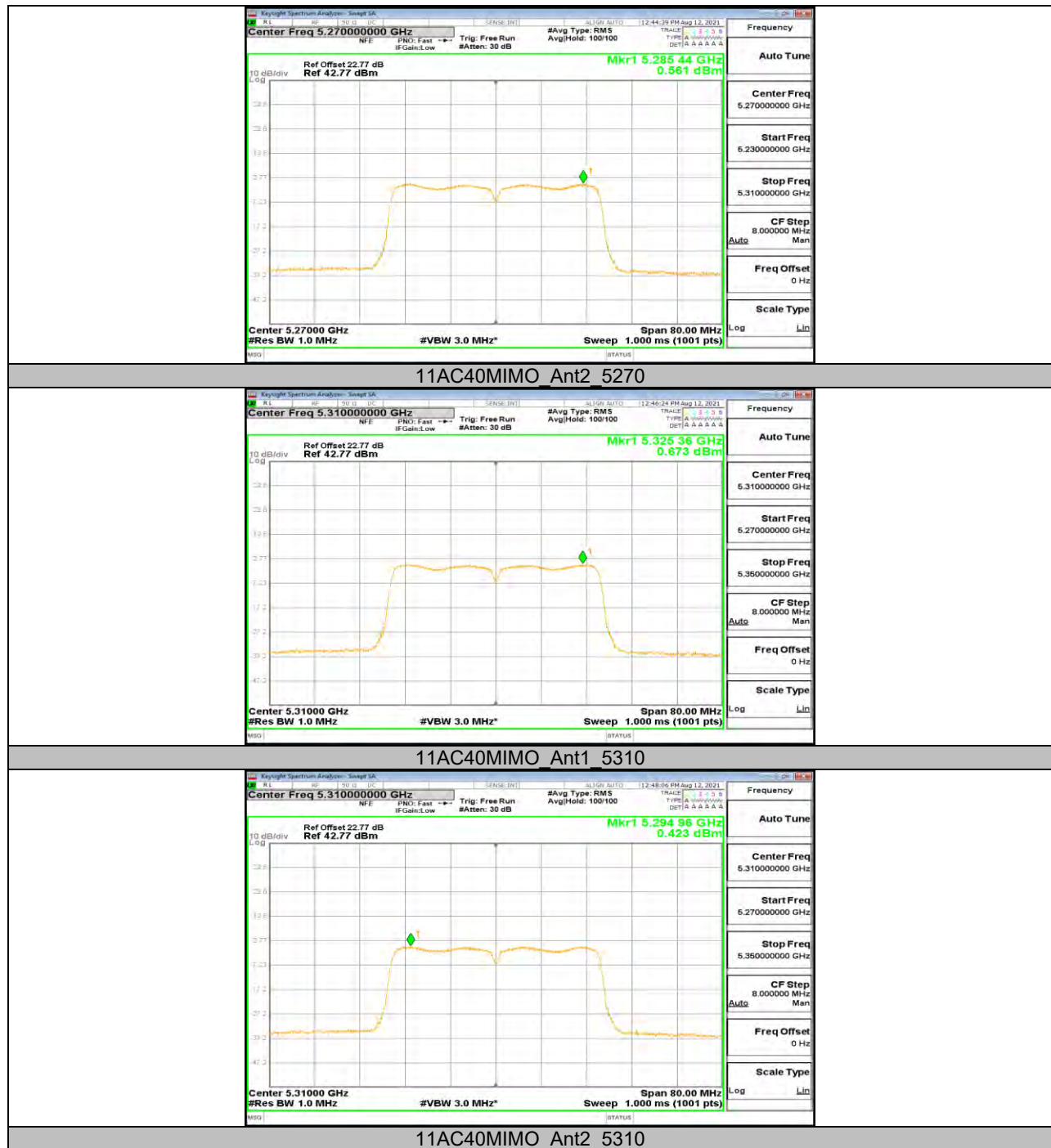


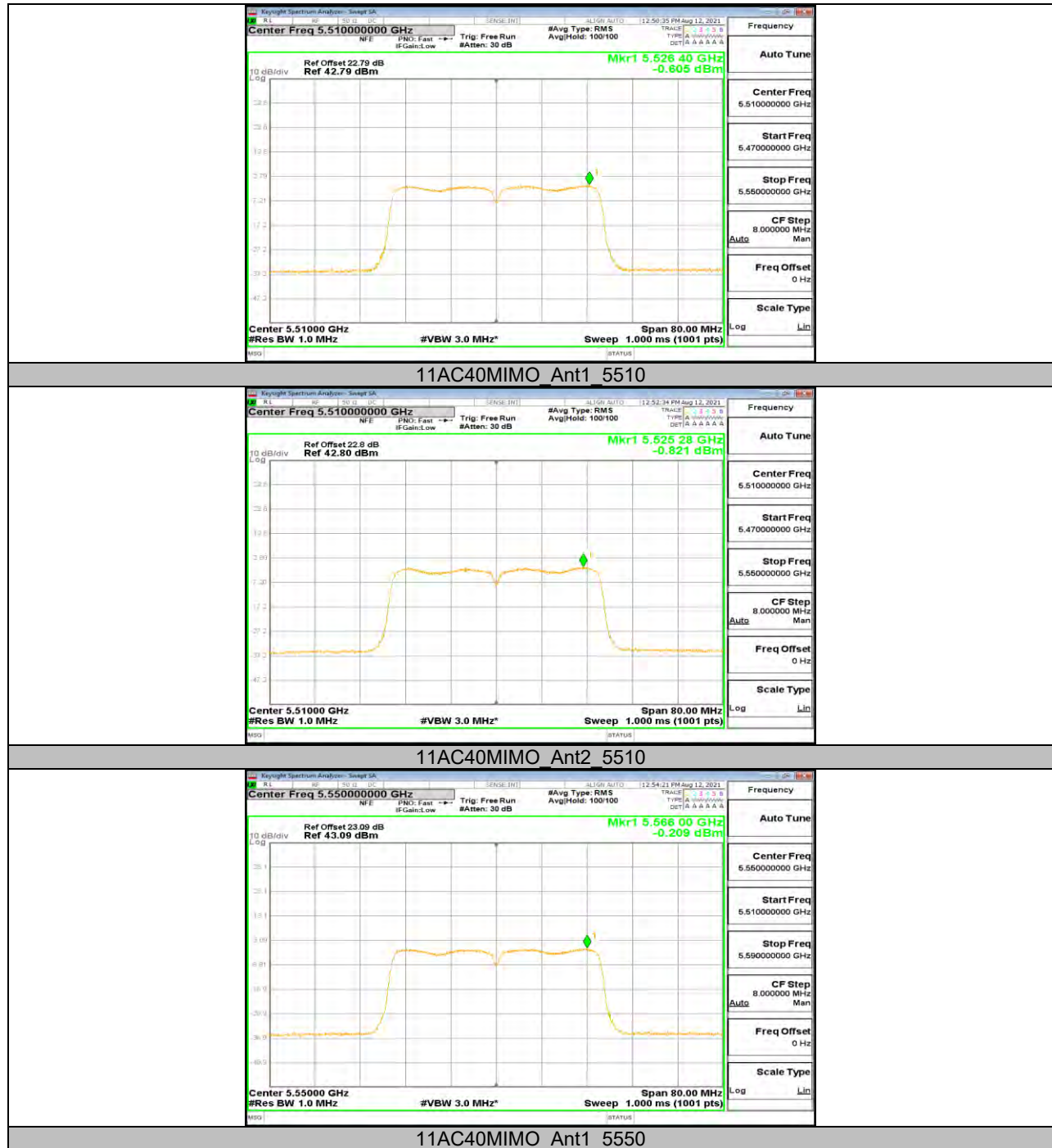


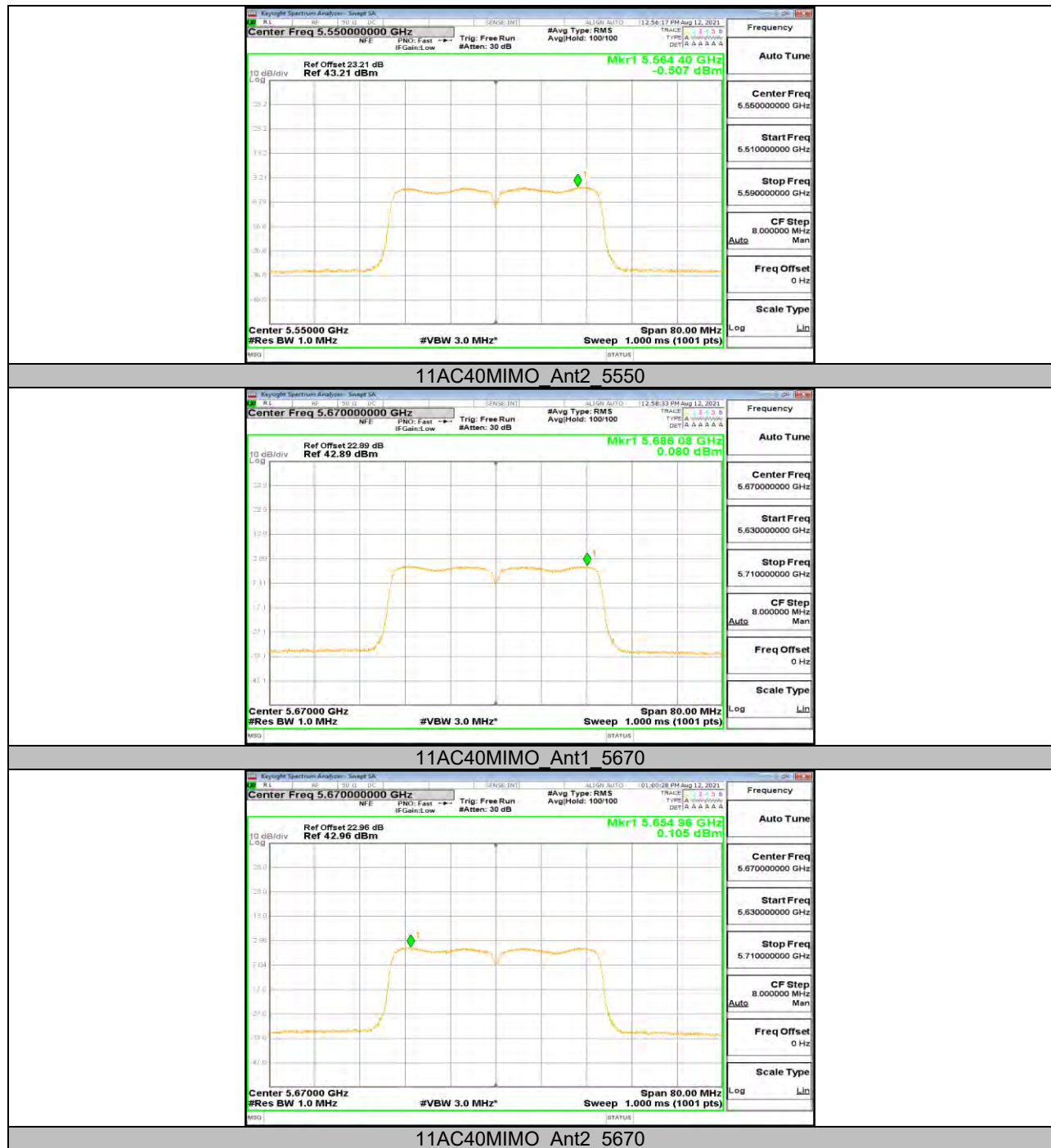


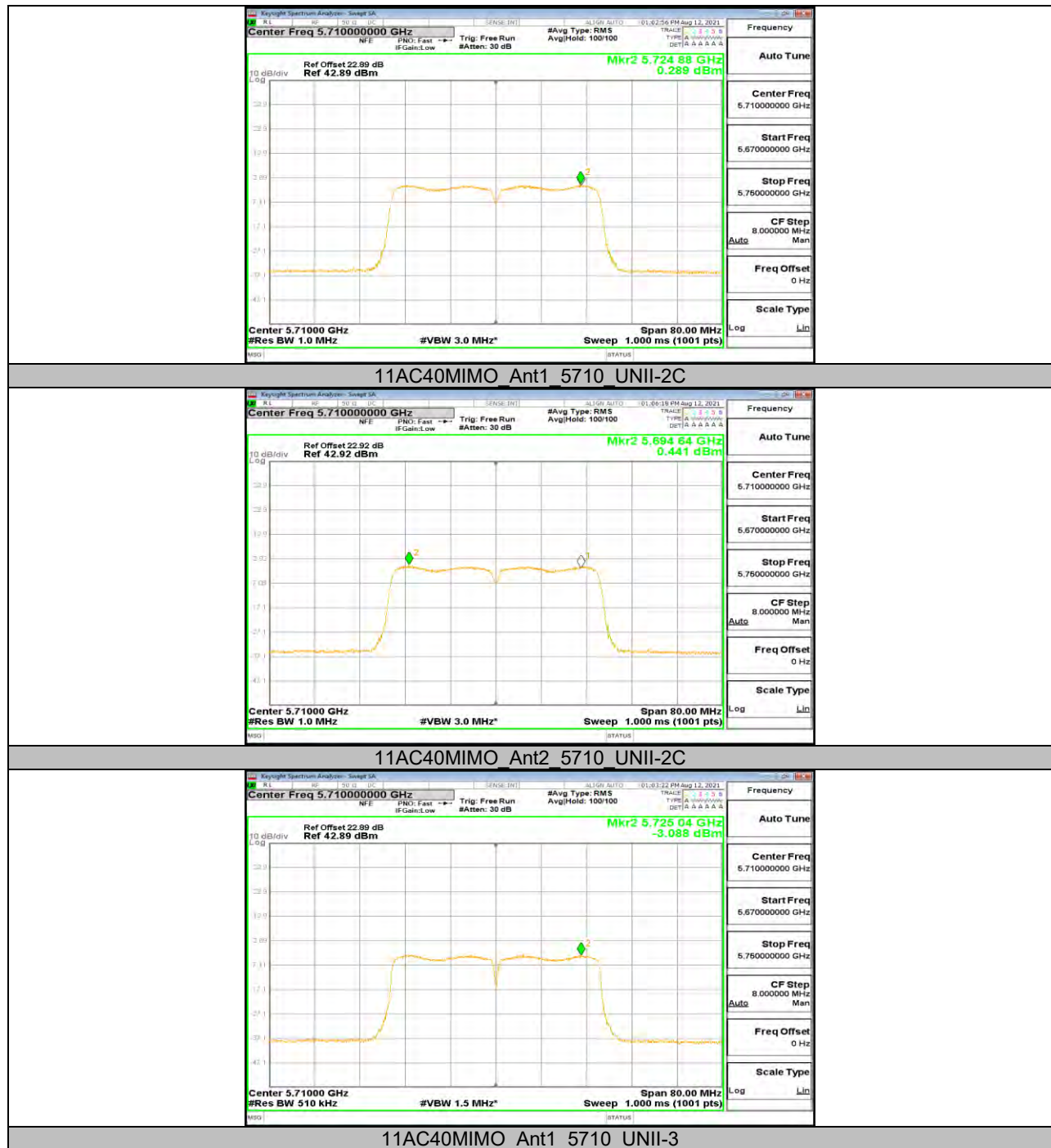




























12.6. Appendix D: Duty Cycle

12.6.1. 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)
11A20	3.11	3.21	0.9688	96.88	0.14	0.32	1
11N20MIMO	4.76	4.87	0.9774	97.74	0.10	0.21	1
11N40MIMO	2.32	2.42	0.9587	95.87	0.18	0.43	1
11AC20MIMO	4.78	4.88	0.9795	97.95	0.09	0.21	1
11AC40MIMO	2.33	2.42	0.9628	96.28	0.16	0.43	1
11AC80MIMO	1.09	1.19	0.9160	91.60	0.38	0.92	1

Note:

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

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.

12.6.2. Test Graphs







12.7. Appendix E: Frequency Stability

12.7.1. Test Result

Frequency Error vs. Voltage									
802.11a20:5200MHz									
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	5200.0096	1.84	5200.0105	2.02	5199.9805	-3.75	5200.0235	4.52
TN	VN	5200.0071	1.36	5199.9967	-0.64	5199.9967	-0.63	5199.9865	-2.59
TN	VH	5200.0232	4.45	5199.9851	-2.86	5200.0123	2.37	5200.0202	3.89
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)
85	VN	5200.0082	1.57	5200.0194	3.74	5200.0123	2.36	5200.0182	3.50
80	VN	5200.0123	2.36	5199.9993	-0.13	5199.9840	-3.08	5199.9880	-2.31
70	VN	5200.0027	0.52	5199.9999	-0.01	5199.9971	-0.55	5199.9809	-3.67
60	VN	5200.0204	3.92	5200.0097	1.87	5199.9931	-1.33	5199.9885	-2.22
50	VN	5199.9938	-1.20	5199.9754	-4.74	5199.9875	-2.41	5199.9796	-3.93
40	VN	5199.9857	-2.75	5199.9881	-2.29	5199.9869	-2.52	5199.9798	-3.88
30	VN	5200.0131	2.52	5199.9934	-1.27	5199.9962	-0.73	5200.0151	2.91
20	VN	5200.0205	3.94	5199.9906	-1.81	5200.0240	4.62	5199.9811	-3.63
10	VN	5199.9978	-0.41	5200.0178	3.42	5200.0219	4.22	5200.0027	0.53
0	VN	5200.0176	3.38	5199.9777	-4.28	5199.9841	-3.05	5200.0243	4.68
-10	VN	5200.0029	0.56	5199.9940	-1.15	5200.0024	0.46	5199.9887	-2.18
-20	VN	5200.0200	3.84	5199.9995	-0.09	5199.9830	-3.27	5200.0233	4.49
-30	VN	5199.9920	-1.53	5200.0042	0.81	5199.9977	-0.44	5199.9779	-4.24



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	5824.9991	-0.16	5824.9859	-2.42	5825.0207	3.56	5825.0200	3.43
TN	VN	5824.9995	-0.08	5825.0120	2.06	5824.9988	-0.21	5825.0079	1.35
TN	VH	5825.0159	2.73	5824.9944	-0.95	5824.9862	-2.37	5825.0164	2.82
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)
85	VN	5824.9872	-2.20	5825.0044	0.75	5824.9765	-4.04	5825.0158	2.71
80	VN	5825.0024	0.42	5824.9804	-3.36	5824.9933	-1.15	5825.0176	3.02
70	VN	5825.0180	3.09	5824.9781	-3.76	5824.9863	-2.35	5824.9846	-2.64
60	VN	5824.9901	-1.69	5825.0215	3.70	5825.0074	1.27	5824.9995	-0.08
50	VN	5825.0033	0.56	5824.9949	-0.88	5824.9857	-2.46	5825.0183	3.15
40	VN	5825.0154	2.65	5825.0024	0.41	5825.0046	0.80	5825.0005	0.09
30	VN	5825.0218	3.74	5824.9959	-0.70	5824.9776	-3.85	5825.0023	0.39
20	VN	5824.9908	-1.57	5824.9845	-2.66	5825.0198	3.40	5825.0160	2.75
10	VN	5825.0006	0.10	5824.9876	-2.12	5824.9844	-2.67	5824.9906	-1.61
0	VN	5824.9900	-1.71	5825.0041	0.70	5824.9864	-2.33	5825.0097	1.66
-10	VN	5824.9974	-0.45	5825.0180	3.09	5824.9763	-4.06	5825.0139	2.39
-20	VN	5825.0115	1.98	5824.9753	-4.25	5824.9905	-1.64	5824.9905	-1.63
-30	VN	5824.9861	-2.39	5825.0179	3.07	5825.0036	0.61	5825.0041	0.70

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

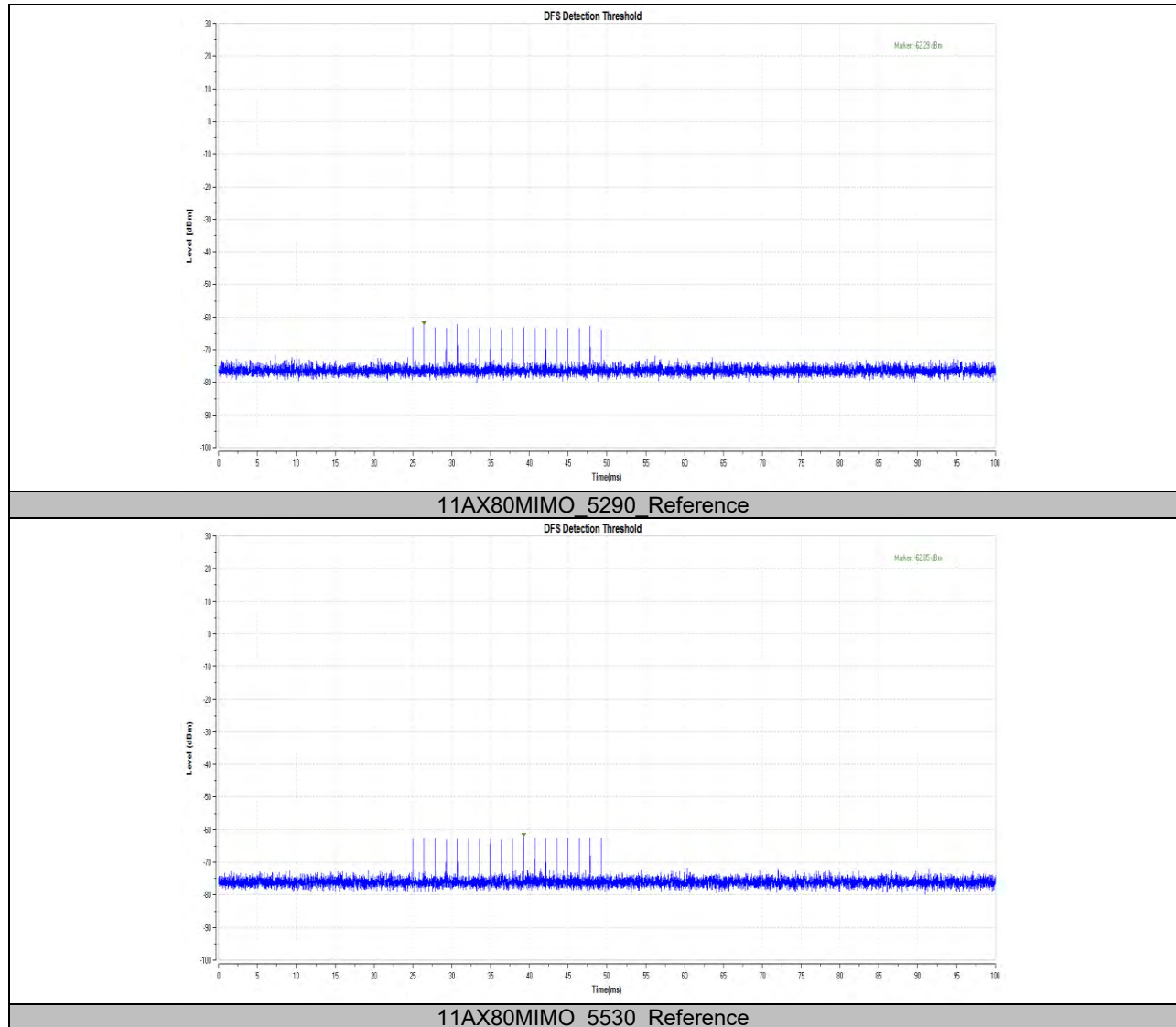


12.8. Appendix F: DFS Detection Thresholds

12.8.1. Test Result

Test Mode	Channel	Radar Type	Result	Verdict
11AX80MIMO	5290	Reference	-62.29	PASS
	5530	Reference	-62.05	PASS

12.8.1. Test Graphs





12.9. Appendix G: DYNAMIC FREQUENCY SELECTION

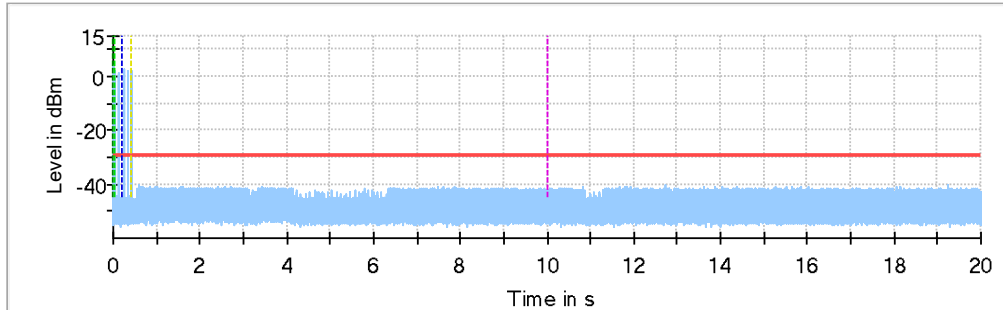
12.9.1. Test Result

802.11ac VHT80 Mode

BW/Channel	Test Item	Test Result (ms)	Limit	Results
80MHz / 5290MHz	Channel Move Time	0.414	< 10 s	pass
	Channel Closing Transmission Time	0.900	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.	pass
	Non-Occupancy Period	Nothing appears	If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.	pass

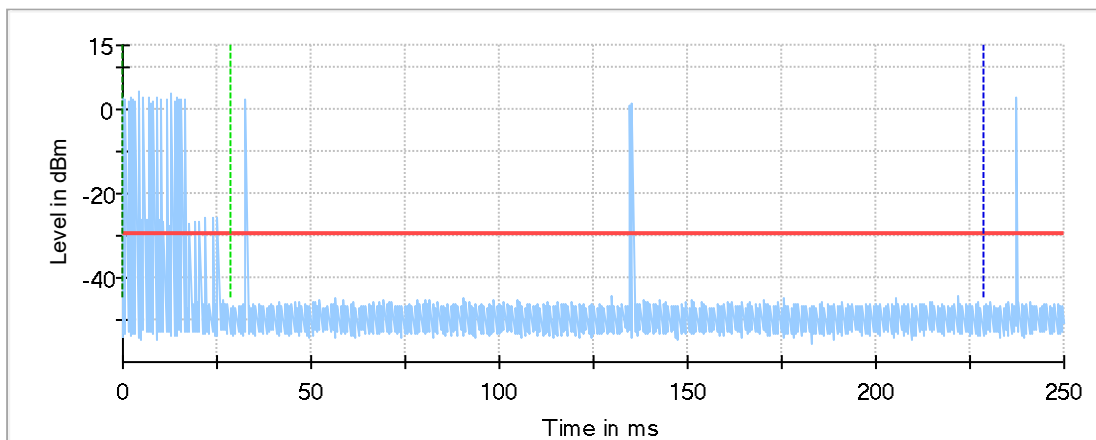
Channel Move Time & Channel Closing Transmission Time

Channel Move Time



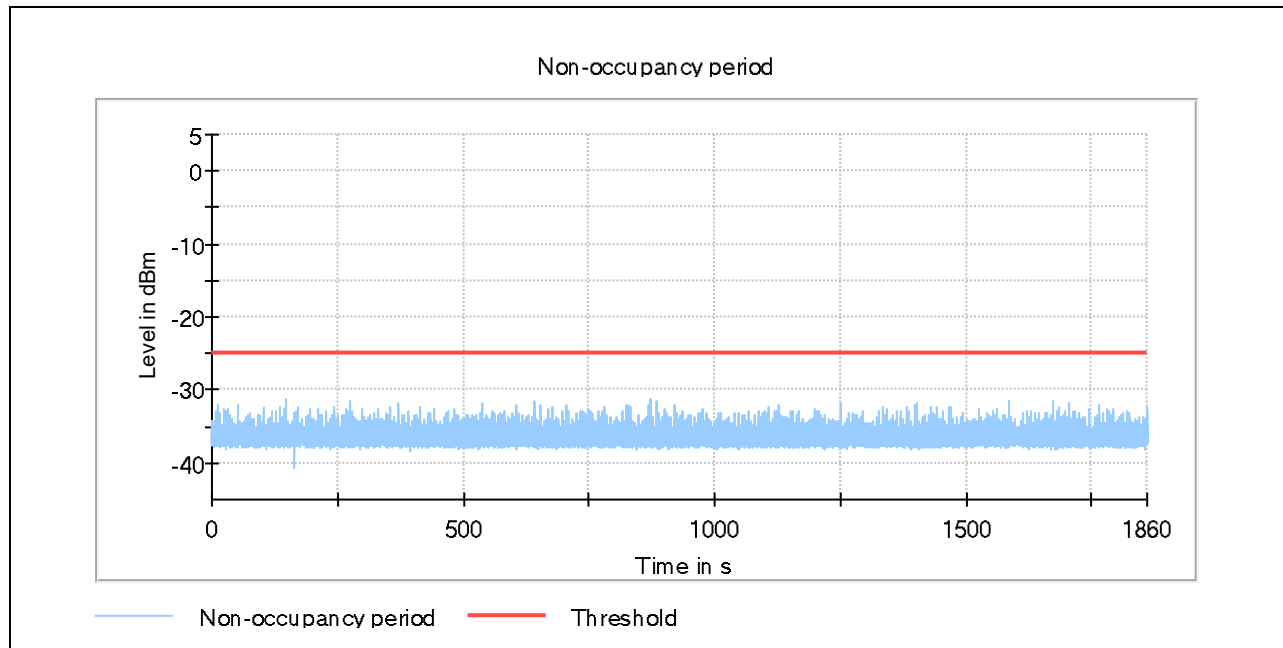
- Channel Move Time
- Threshold
- - - Start of Radar
- - - Tripper at end of Radar
- - - First 200ms of Channel Closing Tx Time
- | 10sec Channel Move Time Limit
- - - Last measured edge of Channel Closing Tx Time

Channel Move Time first 200ms

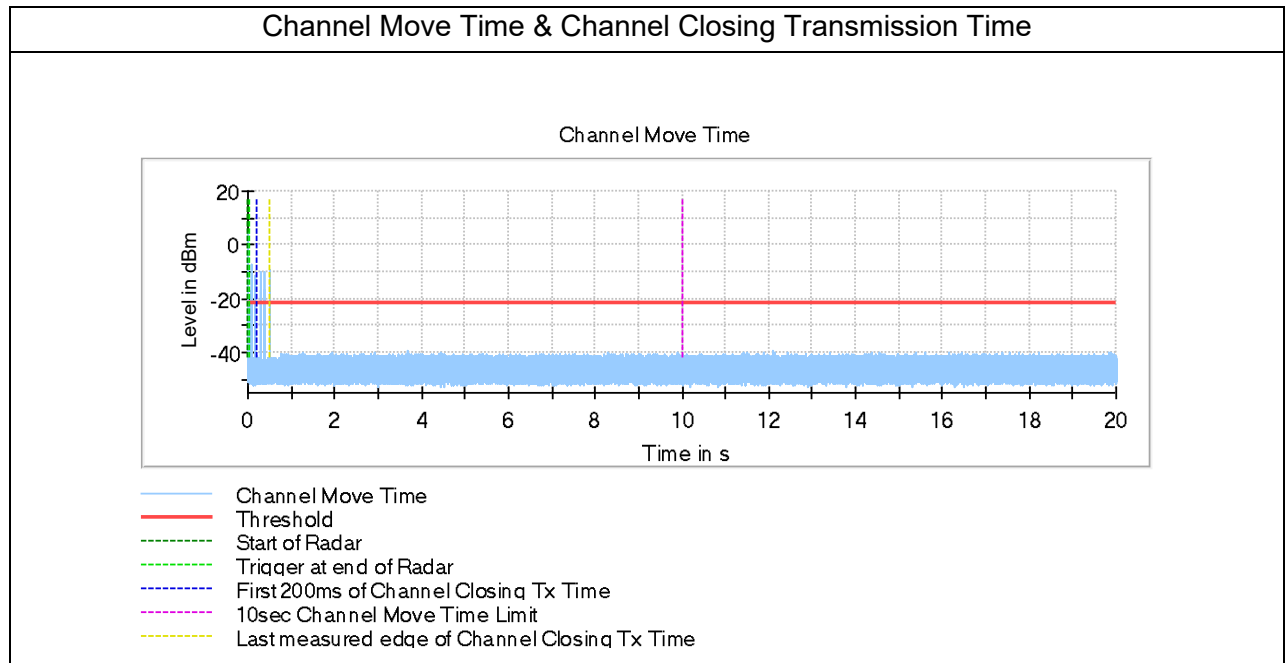


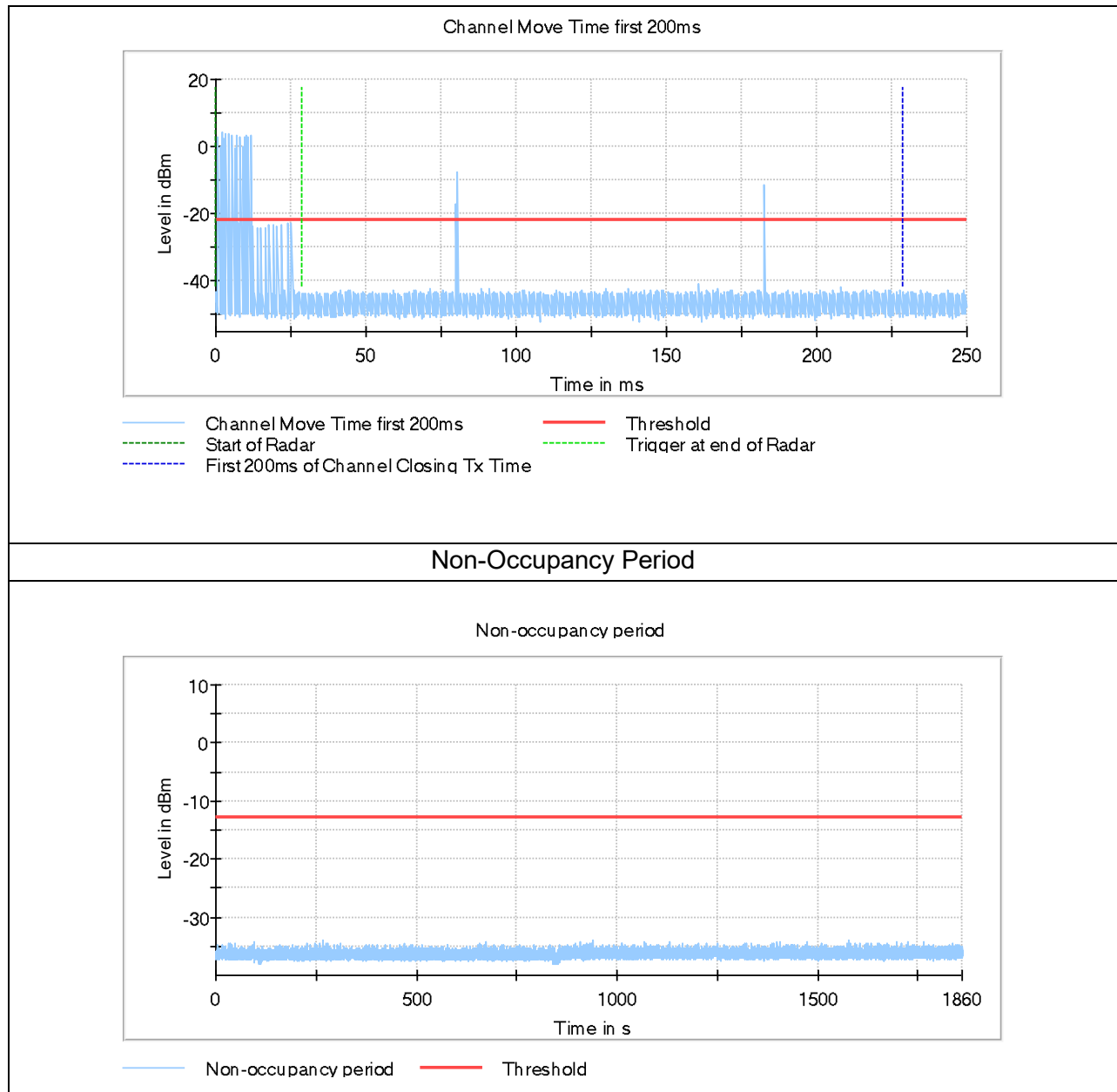
- Channel Move Time first 200ms
- Threshold
- - - Start of Radar
- - - Tripper at end of Radar
- - - First 200ms of Channel Closing Tx Time

Non-Occupancy Period



BW/Channel	Test Item	Test Result	Limit	Results
80MHz / 5530MHz	Channel Move Time	0.461	< 10 s	pass
	Channel Closing Transmission Time	1.476	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.	pass
	Non-Occupancy Period	Nothing appears	If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.	pass





END OF REPORT