















11.3. APPENDIX C: 6DB EMISSION BANDWIDTH

11.3.1. Test Result

Test Mode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5720	16.320	5711.800	5728.120	0.5	PASS
	Ant2	5720	16.080	5711.840	5727.920	0.5	PASS
	Ant1	5720_UNII- 3	3.12	5725	5728.120	0.5	PASS
	Ant2	5720_UNII- 3	2.92	5725	5727.920	0.5	PASS
11N20MIMO	Ant1	5720	17.560	5711.200	5728.760	0.5	PASS
	Ant2	5720	15.800	5712.080	5727.880	0.5	PASS
	Ant1	5720_UNII- 3	3.76	5725	5728.760	0.5	PASS
	Ant2	5720_UNII- 3	2.88	5725	5727.880	0.5	PASS
11N40MIMO	Ant1	5710	34.160	5692.160	5726.320	0.5	PASS
	Ant2	5710	34.480	5691.840	5726.320	0.5	PASS
	Ant1	5710_UNII- 3	1.32	5725	5726.320	0.5	PASS
	Ant2	5710_UNII- 3	1.32	5725	5726.320	0.5	PASS
11AC80MIMO	Ant1	5690	75.520	5651.920	5727.440	0.5	PASS
	Ant2	5690	75.360	5652.240	5727.600	0.5	PASS
	Ant1	5690_UNII- 3	2.44	5725	5727.440	0.5	PASS
	Ant2	5690_UNII- 3	2.6	5725	5727.600	0.5	PASS

11.3.2. Test Graphs







**11.4. APPENDIX D: MAXIMUM CONDUCTED OUTPUT POWER****11.4.1. Test Result**

Test Mode	Antenna	Channel	Power [dBm]	FCC Limit [dBm]	ISED Limit [dBm]	EIRP [dBm]	EIRP Limit for ISED [dBm]	Verdict
11A	Ant1	5260	14.65	≤23.98	≤23.23	18.52	≤29.23	PASS
	Ant2	5260	14.16	≤23.86	≤23.21	18.03	≤29.21	PASS
	Ant1	5280	14.62	≤23.91	≤23.19	18.49	≤29.19	PASS
	Ant2	5280	14.24	≤23.80	≤23.17	18.11	≤29.17	PASS
	Ant1	5320	14.56	≤23.98	≤23.18	18.43	≤29.18	PASS
	Ant2	5320	14.39	≤23.90	≤23.20	18.26	≤29.20	PASS
	Ant1	5500	14.37	≤23.90	≤23.19	18.24	≤29.19	PASS
	Ant2	5500	14.03	≤23.77	≤23.20	17.90	≤29.20	PASS
	Ant1	5580	14.58	≤23.81	≤23.19	18.45	≤29.19	PASS
	Ant2	5580	14.20	≤23.93	≤23.18	18.07	≤29.18	PASS
	Ant1	5700	14.50	≤23.90	≤23.19	18.37	≤29.19	PASS
	Ant2	5700	14.12	≤23.88	≤23.19	17.99	≤29.19	PASS
	Ant1	5720_UNII-2C	13.38	≤22.64	≤22.24	17.25	≤28.24	PASS
	Ant2	5720_UNII-2C	12.80	≤22.75	≤22.25	16.67	≤28.25	PASS
11N20MIMO	Ant1	5720_UNII-3	5.37	≤30.00	≤30.00	9.24	---	PASS
	Ant2	5720_UNII-3	4.95	≤30.00	≤30.00	8.82	---	PASS
	Ant1	5260	13.99	≤23.95	≤23.48	17.86	≤29.48	PASS
	Ant2	5260	12.52	≤23.96	≤23.45	16.39	≤29.45	PASS
	total	5260	16.33	≤23.98	≤23.45	20.20	≤29.45	PASS
	Ant1	5280	13.99	≤23.98	≤23.48	17.86	≤29.48	PASS
	Ant2	5280	12.47	≤23.95	≤23.45	16.34	≤29.45	PASS
	total	5280	16.31	≤23.98	≤23.45	20.18	≤29.45	PASS
	Ant1	5320	14.16	≤23.98	≤23.48	18.03	≤29.48	PASS
	Ant2	5320	12.62	≤23.97	≤23.46	16.49	≤29.46	PASS
	total	5320	16.47	≤23.98	≤23.46	20.34	≤29.46	PASS
	Ant1	5500	13.60	≤23.97	≤23.48	17.47	≤29.48	PASS
	Ant2	5500	13.26	≤23.98	≤23.44	17.13	≤29.44	PASS
	total	5500	16.44	≤23.98	≤23.44	20.31	≤29.44	PASS
	Ant1	5580	13.83	≤23.93	≤23.48	17.70	≤29.48	PASS
	Ant2	5580	13.84	≤23.98	≤23.47	17.71	≤29.47	PASS
	total	5580	16.85	≤23.98	≤23.47	20.72	≤29.47	PASS
	Ant1	5700	12.93	≤23.98	≤23.48	16.80	≤29.48	PASS
	Ant2	5700	13.41	≤23.98	≤23.44	17.28	≤29.44	PASS
	total	5700	16.19	≤23.98	≤23.44	20.06	≤29.44	PASS
	Ant1	5720_UNII-2C	11.74	≤23.98	≤22.42	15.61	≤28.42	PASS
	Ant2	5720_UNII-2C	12.14	≤23.98	≤22.40	16.01	≤28.40	PASS
	total	5720_UNII-2C	14.95	≤23.98	≤22.40	18.82	≤28.40	PASS
	Ant1	5720_UNII-3	4.59	≤30.00	≤30.00	8.46	---	PASS
	Ant2	5720_UNII-3	4.86	≤30.00	≤30.00	8.73	---	PASS
	total	5720_UNII-3	7.74	≤30.00	≤30.00	11.61	---	PASS
11N40MIMO	Ant1	5270	13.19	≤23.98	≤23.98	17.06	≤30.00	PASS
	Ant2	5270	11.41	≤23.98	≤23.98	15.28	≤30.00	PASS
	total	5270	15.40	≤23.98	≤23.98	19.27	≤30.00	PASS
	Ant1	5310	13.29	≤23.98	≤23.98	17.16	≤30.00	PASS
	Ant2	5310	11.32	≤23.98	≤23.98	15.19	≤30.00	PASS
	total	5310	15.43	≤23.98	≤23.98	19.30	≤30.00	PASS
	Ant1	5510	12.36	≤23.98	≤23.98	16.23	≤30.00	PASS
	Ant2	5510	12.01	≤23.98	≤23.98	15.88	≤30.00	PASS
	total	5510	15.20	≤23.98	≤23.98	19.07	≤30.00	PASS
	Ant1	5550	12.23	≤23.98	≤23.98	16.10	≤30.00	PASS



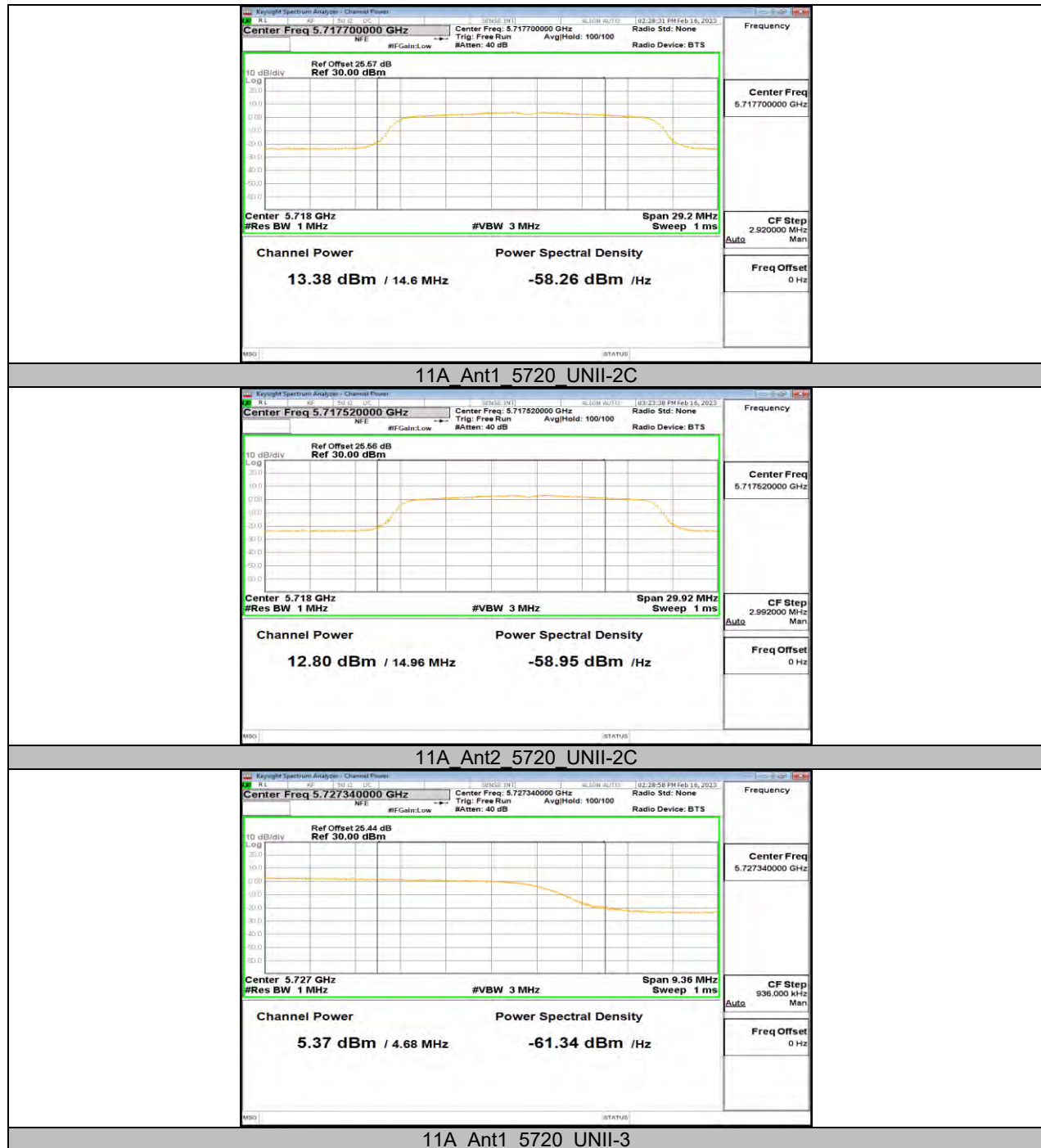
	Ant2	5550	12.00	≤23.98	≤23.98	15.87	≤30.00	PASS
	total	5550	15.13	≤23.98	≤23.98	19.00	≤30.00	PASS
	Ant1	5670	13.03	≤23.98	≤23.98	16.90	≤30.00	PASS
	Ant2	5670	12.12	≤23.98	≤23.98	15.99	≤30.00	PASS
	total	5670	15.61	≤23.98	≤23.98	19.48	≤30.00	PASS
	Ant1	5710_UNII-2C	12.43	≤23.98	≤23.98	16.30	≤30.00	PASS
	Ant2	5710_UNII-2C	12.61	≤23.98	≤23.98	16.48	≤30.00	PASS
	total	5710_UNII-2C	15.53	≤23.98	≤23.98	19.40	≤30.00	PASS
	Ant1	5710_UNII-3	-0.28	≤30.00	≤30.00	3.59	---	PASS
	Ant2	5710_UNII-3	0.16	≤30.00	≤30.00	4.03	---	PASS
	total	5710_UNII-3	2.96	≤30.00	≤30.00	6.83	---	PASS
11AC80MIMO	Ant1	5290	12.97	≤23.98	≤23.98	16.84	≤30.00	PASS
	Ant2	5290	12.13	≤23.98	≤23.98	16.00	≤30.00	PASS
	total	5290	15.58	≤23.98	≤23.98	19.45	≤30.00	PASS
	Ant1	5530	11.82	≤23.98	≤23.98	15.69	≤30.00	PASS
	Ant2	5530	10.55	≤23.98	≤23.98	14.42	≤30.00	PASS
	total	5530	14.24	≤23.98	≤23.98	18.11	≤30.00	PASS
	Ant1	5610	13.07	≤23.98	≤23.98	16.94	≤30.00	PASS
	Ant2	5610	12.96	≤23.98	≤23.98	16.83	≤30.00	PASS
	total	5610	16.03	≤23.98	≤23.98	19.90	≤30.00	PASS
	Ant1	5690_UNII-2C	13.35	≤23.98	≤23.98	17.22	≤30.00	PASS
	Ant2	5690_UNII-2C	12.07	≤23.98	≤23.98	15.94	≤30.00	PASS
	total	5690_UNII-2C	15.77	≤23.98	≤23.98	19.64	≤30.00	PASS
	Ant1	5690_UNII-3	-2.36	≤30.00	≤30.00	1.51	---	PASS
	Ant2	5690_UNII-3	-3.20	≤30.00	≤30.00	0.67	---	PASS
	total	5690_UNII-3	0.25	≤30.00	≤30.00	4.12	---	PASS

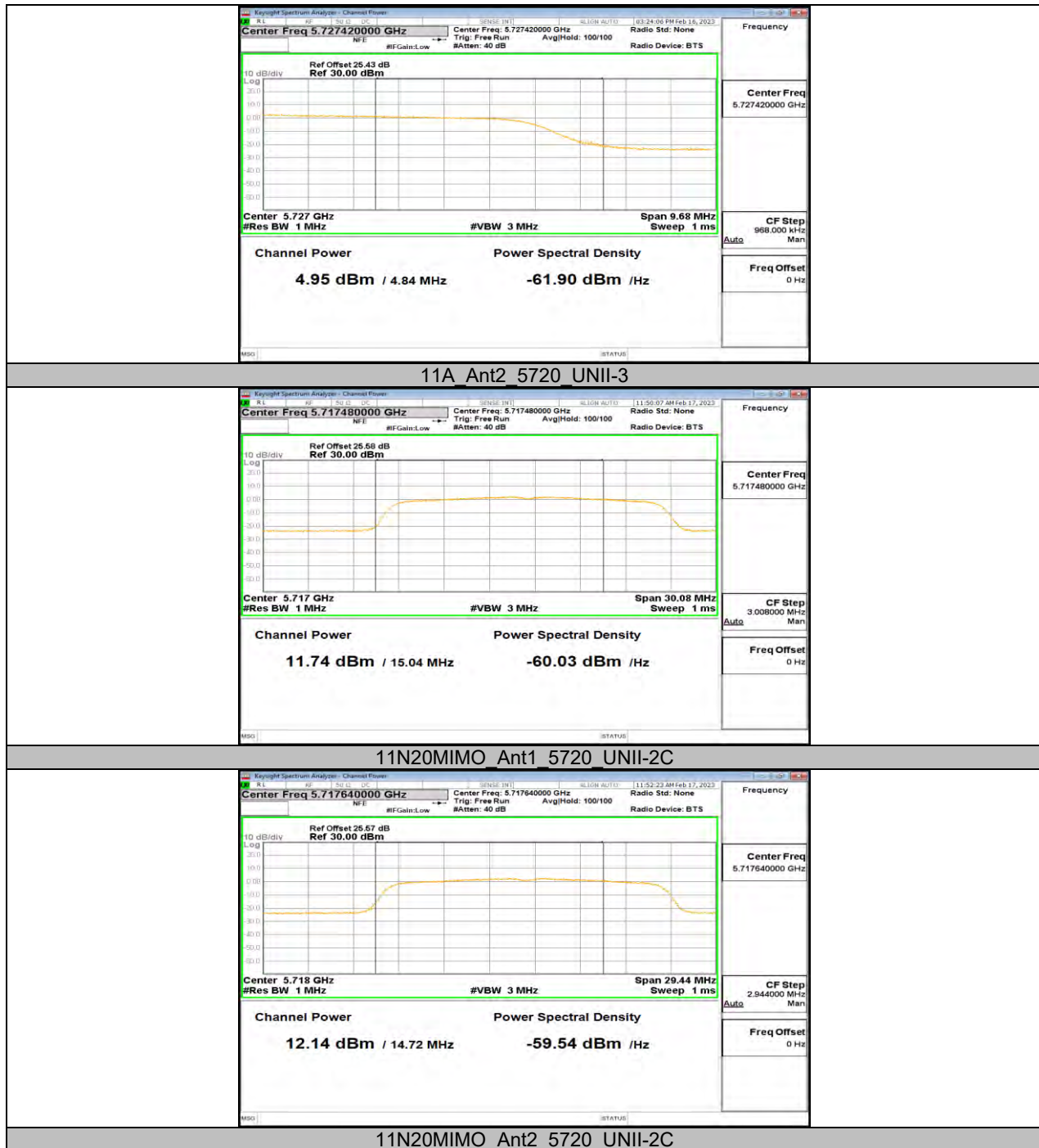
Note: 1. Conducted Power=Meas. Level+ Correction Factor

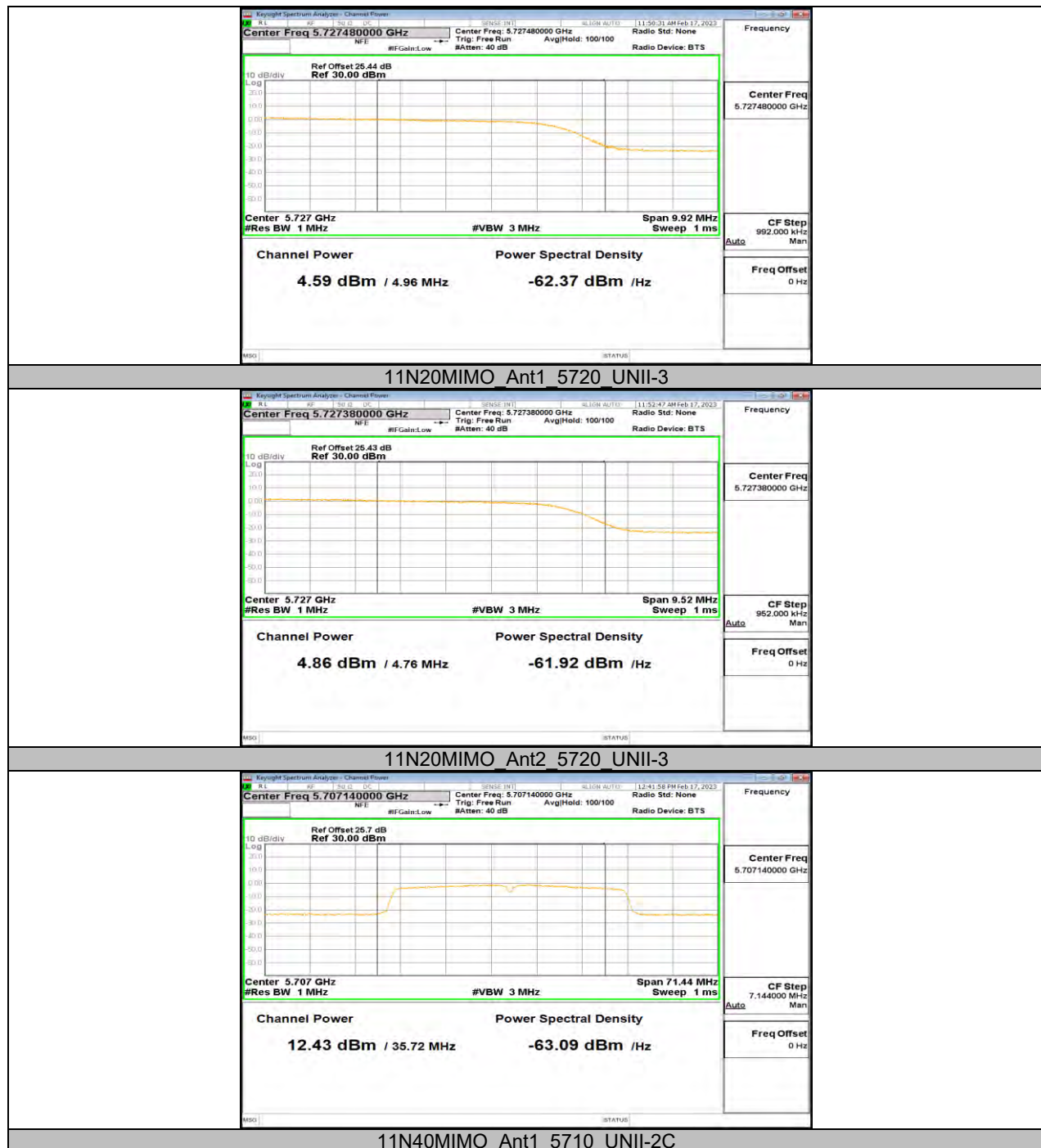
2. The Duty Cycle Factor (refer to section 7.1) had already compensated to the test data.

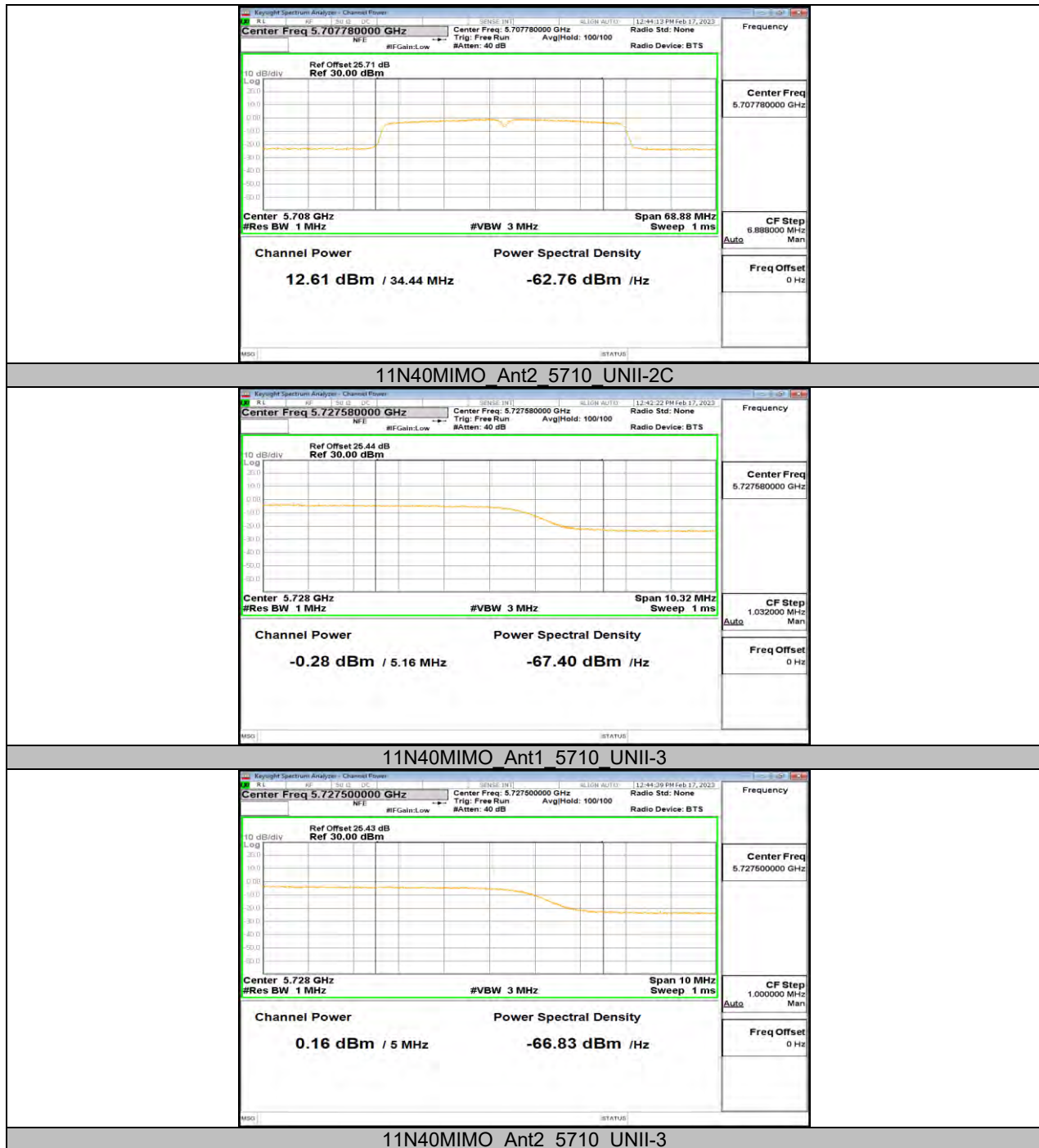


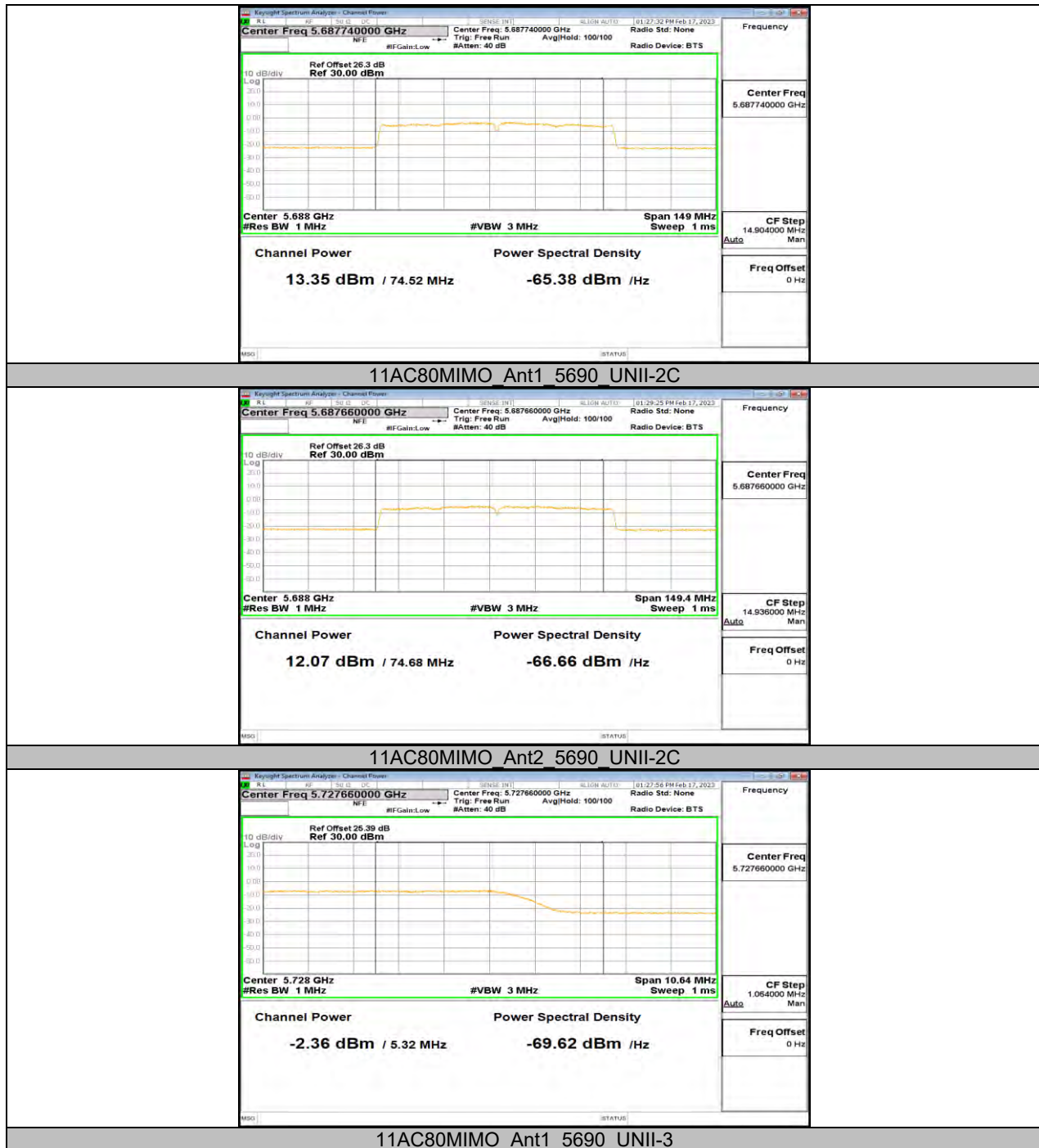
11.4.2. Test Graphs

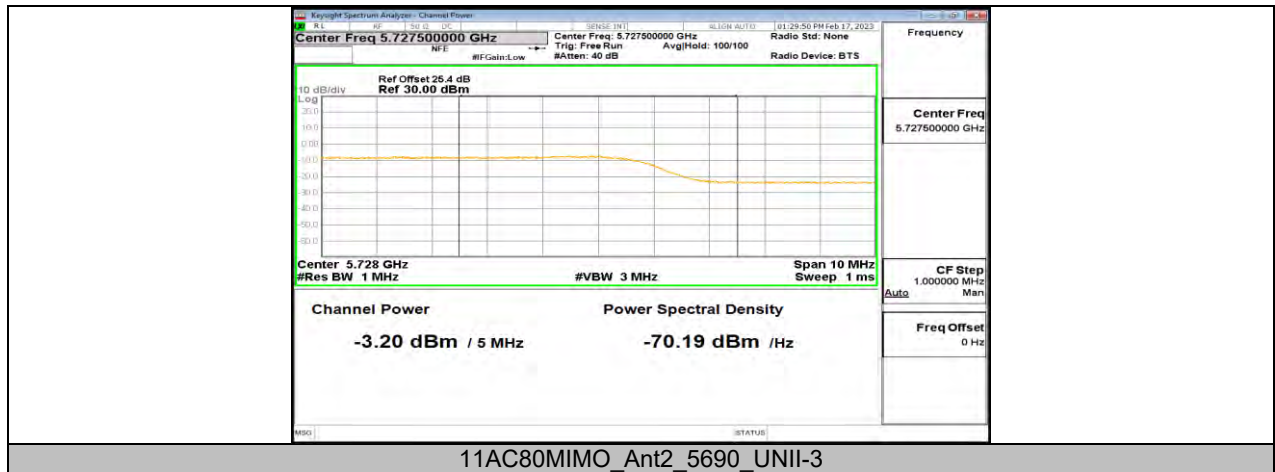












**11.5. APPENDIX E: MAXIMUM POWER SPECTRAL DENSITY****11.5.1. Test Result**

Test Mode	Antenna	Channel	Power [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5260	4.53	≤11.00	PASS
	Ant2	5260	4.25	≤11.00	PASS
	Ant1	5280	4.56	≤11.00	PASS
	Ant2	5280	4.02	≤11.00	PASS
	Ant1	5320	4.43	≤11.00	PASS
	Ant2	5320	4.37	≤11.00	PASS
	Ant1	5500	4.37	≤11.00	PASS
	Ant2	5500	3.9	≤11.00	PASS
	Ant1	5580	4.49	≤11.00	PASS
	Ant2	5580	4.02	≤11.00	PASS
	Ant1	5700	4.29	≤11.00	PASS
	Ant2	5700	4.08	≤11.00	PASS
	Ant1	5720 UNII-2C	4.28	≤11.00	PASS
	Ant2	5720 UNII-2C	3.58	≤11.00	PASS
	Ant1	5720 UNII-3	-0.74	≤30.00	PASS
	Ant2	5720 UNII-3	-1.22	≤30.00	PASS
11N20MIMO	Ant1	5260	3.57	≤10.10	PASS
	Ant2	5260	2.32	≤10.10	PASS
	total	5260	6.01	≤10.10	PASS
	Ant1	5280	3.58	≤10.10	PASS
	Ant2	5280	2.32	≤10.10	PASS
	total	5280	6.01	≤10.10	PASS
	Ant1	5320	4.27	≤10.10	PASS
	Ant2	5320	2.37	≤10.10	PASS
	total	5320	6.43	≤10.10	PASS
	Ant1	5500	3.14	≤10.10	PASS
	Ant2	5500	2.94	≤10.10	PASS
	total	5500	6.05	≤10.10	PASS
	Ant1	5580	3.9	≤10.10	PASS
	Ant2	5580	3.82	≤10.10	PASS
	total	5580	6.87	≤10.10	PASS
	Ant1	5700	2.55	≤10.10	PASS
	Ant2	5700	3.05	≤10.10	PASS
	total	5700	5.82	≤10.10	PASS
	Ant1	5720 UNII-2C	2.58	≤10.10	PASS
	Ant2	5720 UNII-2C	2.92	≤10.10	PASS
	total	5720 UNII-2C	5.76	≤10.10	PASS
	Ant1	5720 UNII-3	-2.33	≤29.10	PASS
	Ant2	5720 UNII-3	-2.17	≤29.10	PASS
	total	5720 UNII-3	0.76	≤29.10	PASS
11N40MIMO	Ant1	5270	-0.58	≤10.10	PASS
	Ant2	5270	-2.19	≤10.10	PASS
	total	5270	1.70	≤10.10	PASS
	Ant1	5310	-0.48	≤10.10	PASS
	Ant2	5310	-2.52	≤10.10	PASS
	total	5310	1.63	≤10.10	PASS
	Ant1	5510	-1.38	≤10.10	PASS
	Ant2	5510	-1.8	≤10.10	PASS
	total	5510	1.43	≤10.10	PASS
	Ant1	5550	-1.47	≤10.10	PASS
	Ant2	5550	-1.85	≤10.10	PASS
	total	5550	1.35	≤10.10	PASS
	Ant1	5670	-0.74	≤10.10	PASS
	Ant2	5670	-1.67	≤10.10	PASS
	total	5670	1.83	≤10.10	PASS
	Ant1	5710 UNII-2C	-0.97	≤10.10	PASS
	Ant2	5710 UNII-2C	-0.74	≤10.10	PASS



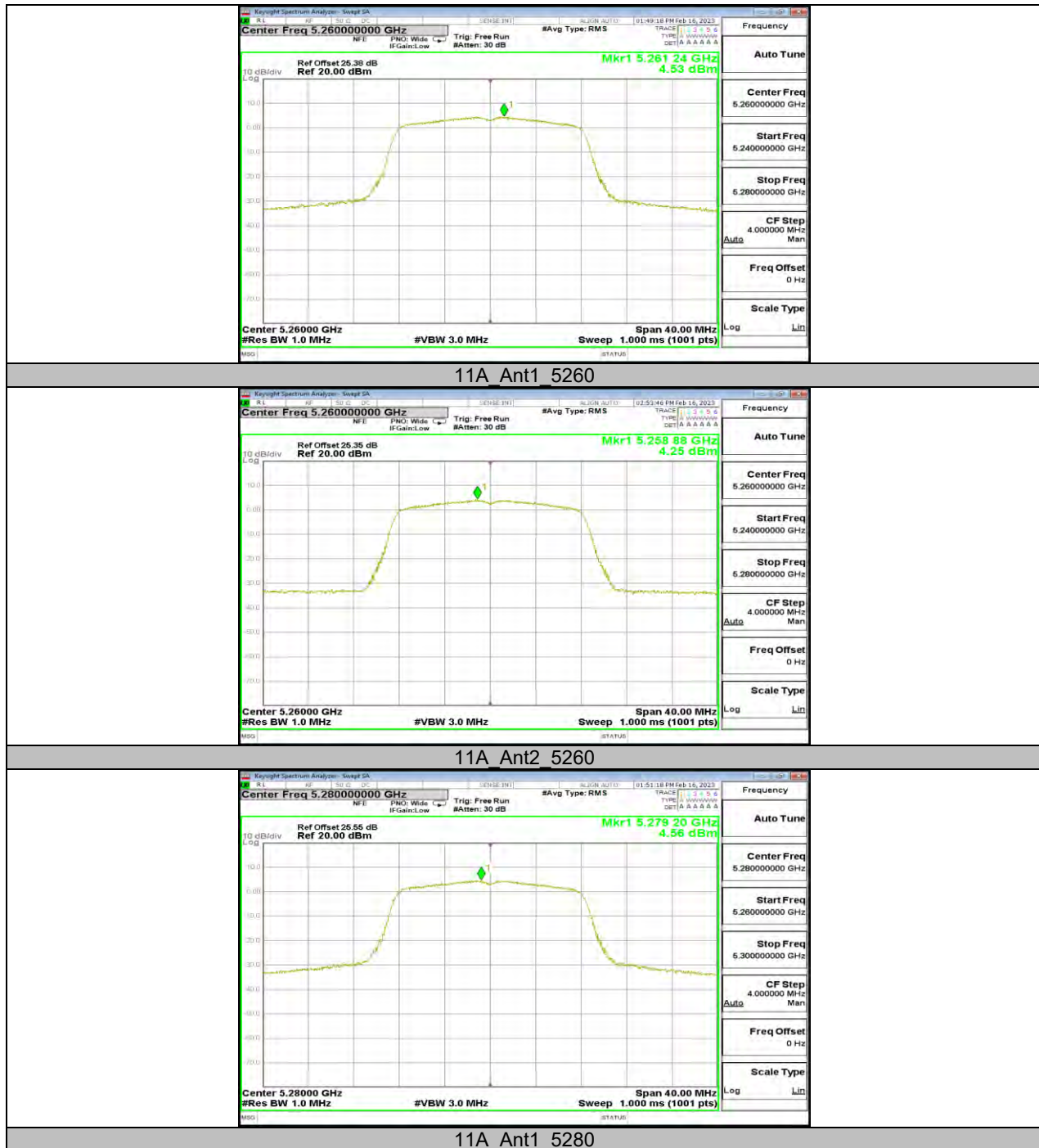
	total	5710 UNII-2C	2.16	≤ 10.10	PASS
	Ant1	5710 UNII-3	-6.26	≤ 29.10	PASS
	Ant2	5710 UNII-3	-6.41	≤ 29.10	PASS
	total	5710 UNII-3	-3.33	≤ 29.10	PASS
11AC80MIMO	Ant1	5290	-2.91	≤ 10.10	PASS
	Ant2	5290	-5.07	≤ 10.10	PASS
	total	5290	-0.85	≤ 10.10	PASS
	Ant1	5530	-5.47	≤ 10.10	PASS
	Ant2	5530	-6.21	≤ 10.10	PASS
	total	5530	-2.81	≤ 10.10	PASS
	Ant1	5610	-3.67	≤ 10.10	PASS
	Ant2	5610	-4.05	≤ 10.10	PASS
	total	5610	-0.85	≤ 10.10	PASS
	Ant1	5690 UNII-2C	1.31	≤ 10.10	PASS
	Ant2	5690 UNII-2C	-4.38	≤ 10.10	PASS
	total	5690 UNII-2C	2.35	≤ 10.10	PASS
	Ant1	5690 UNII-3	-3.73	≤ 29.10	PASS
	Ant2	5690 UNII-3	-9.76	≤ 29.10	PASS
	total	5690 UNII-3	-2.76	≤ 29.10	PASS

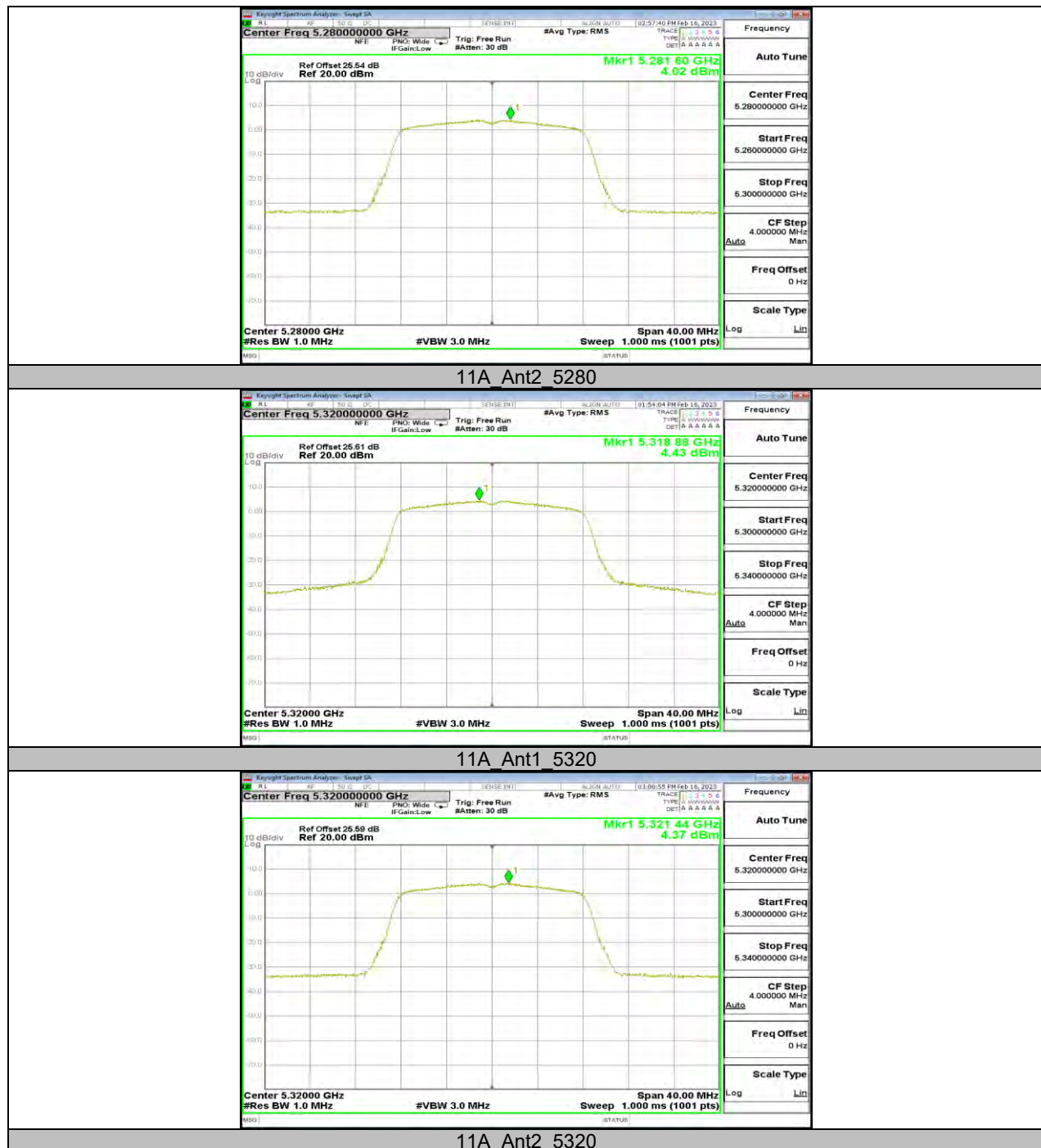
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

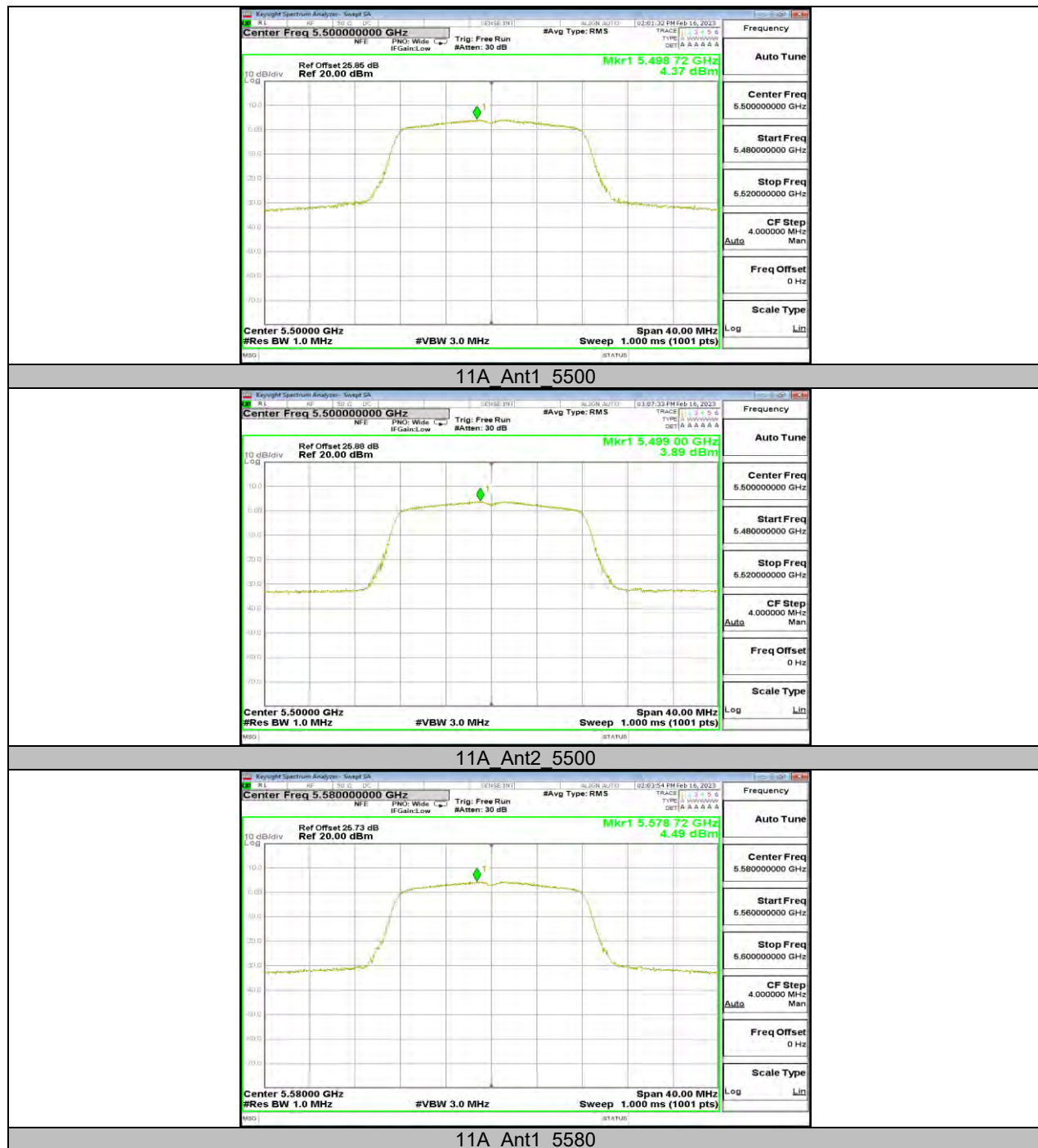
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

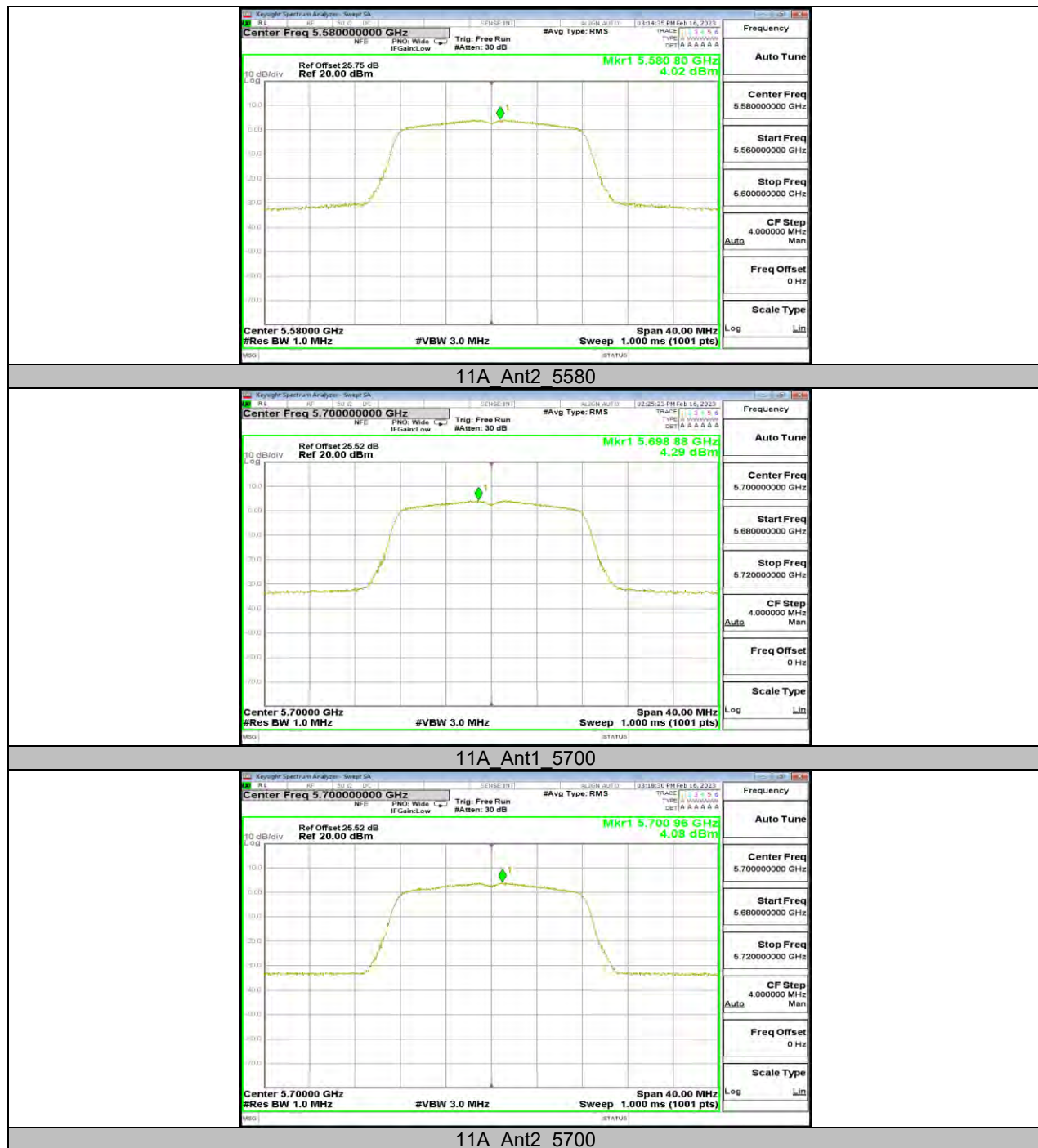


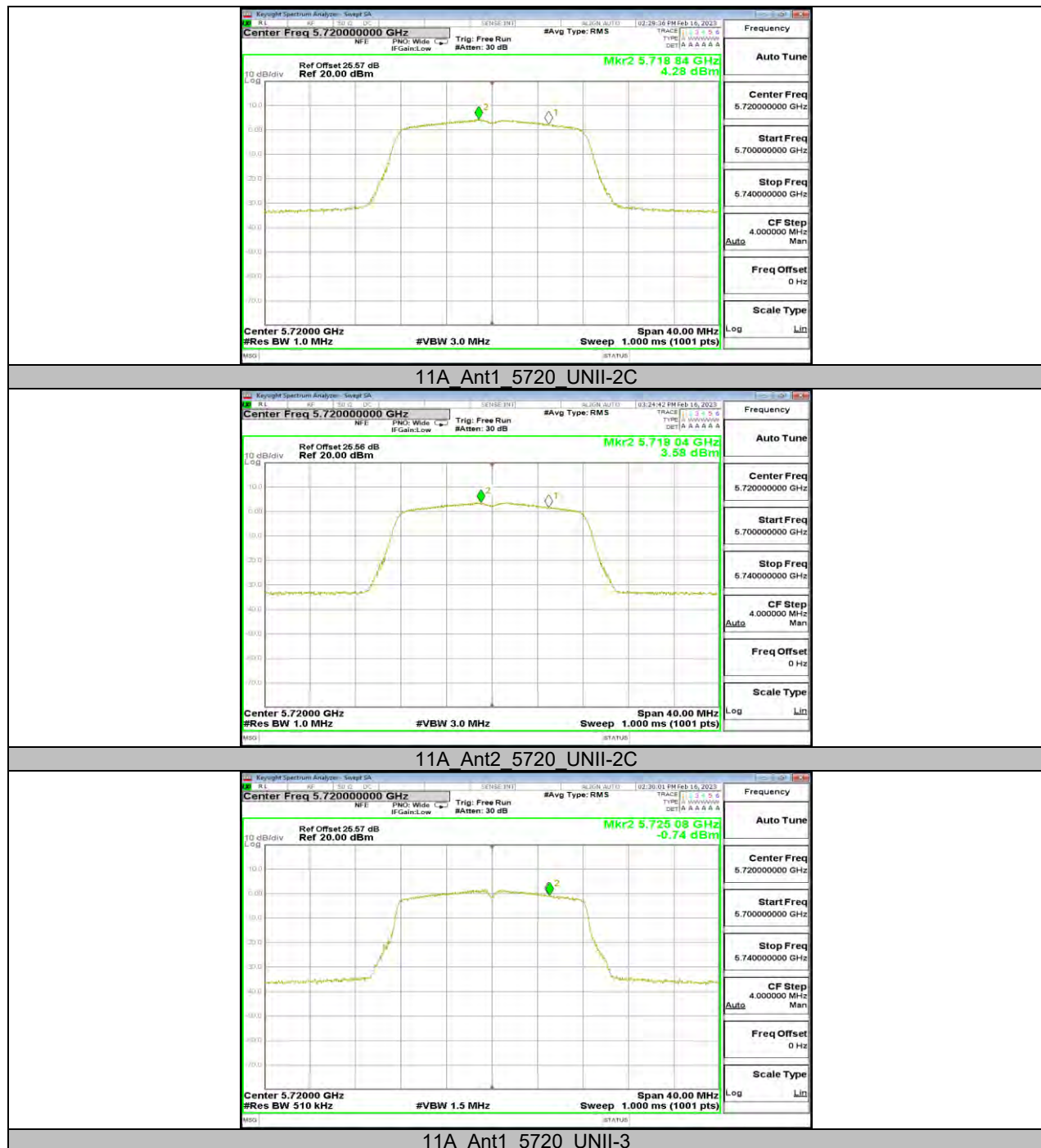
11.5.2. Test Graphs

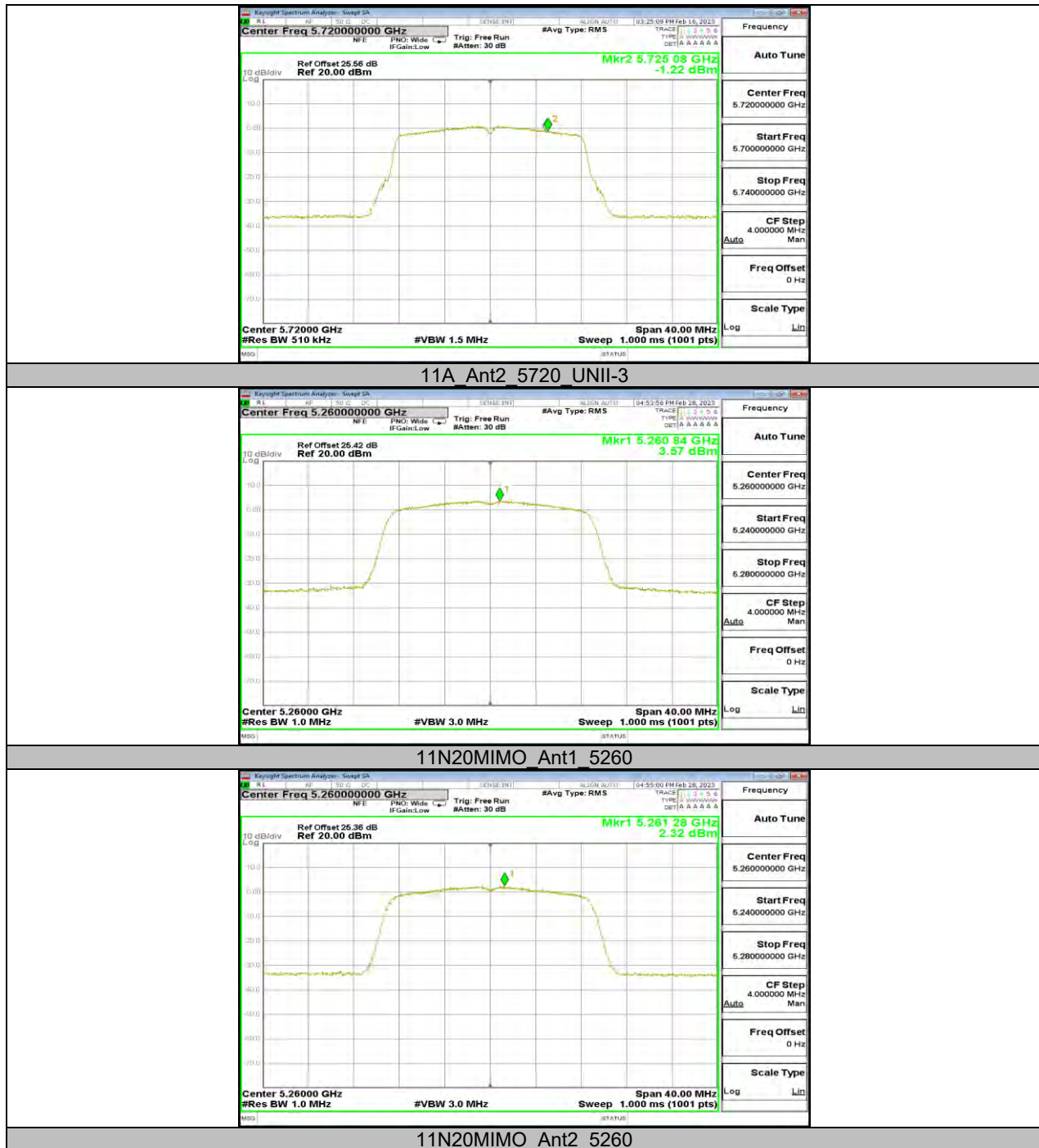


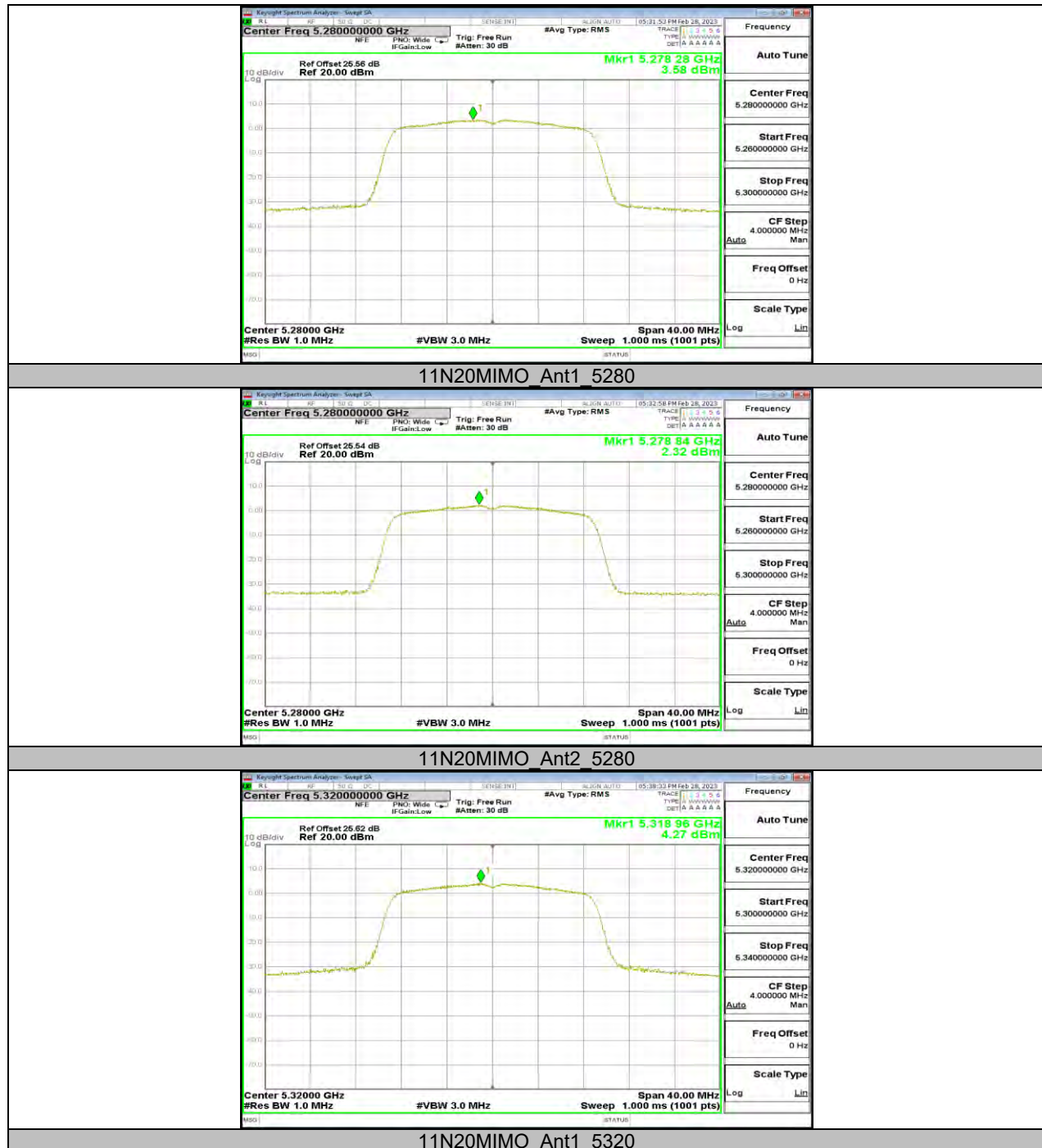


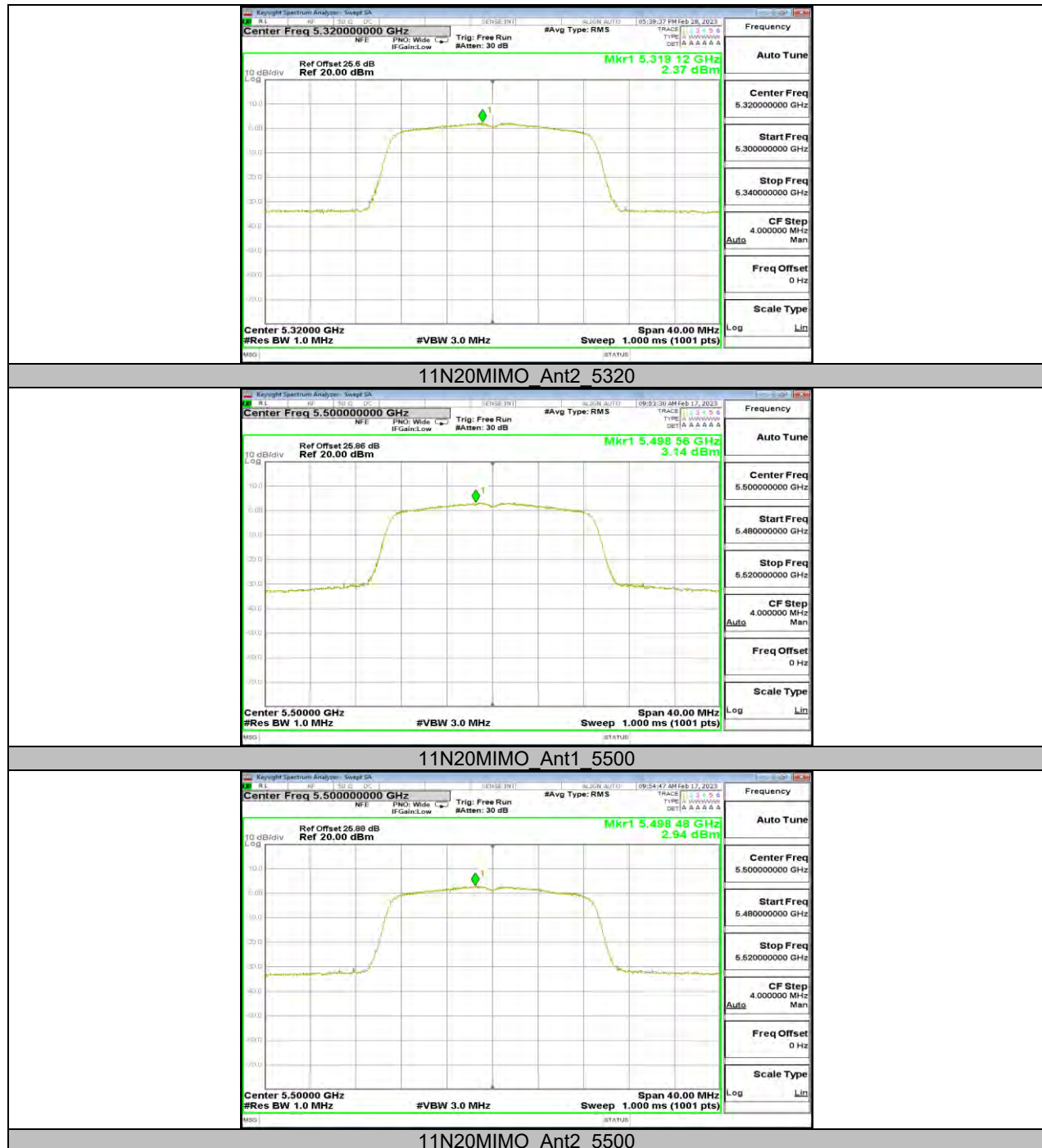


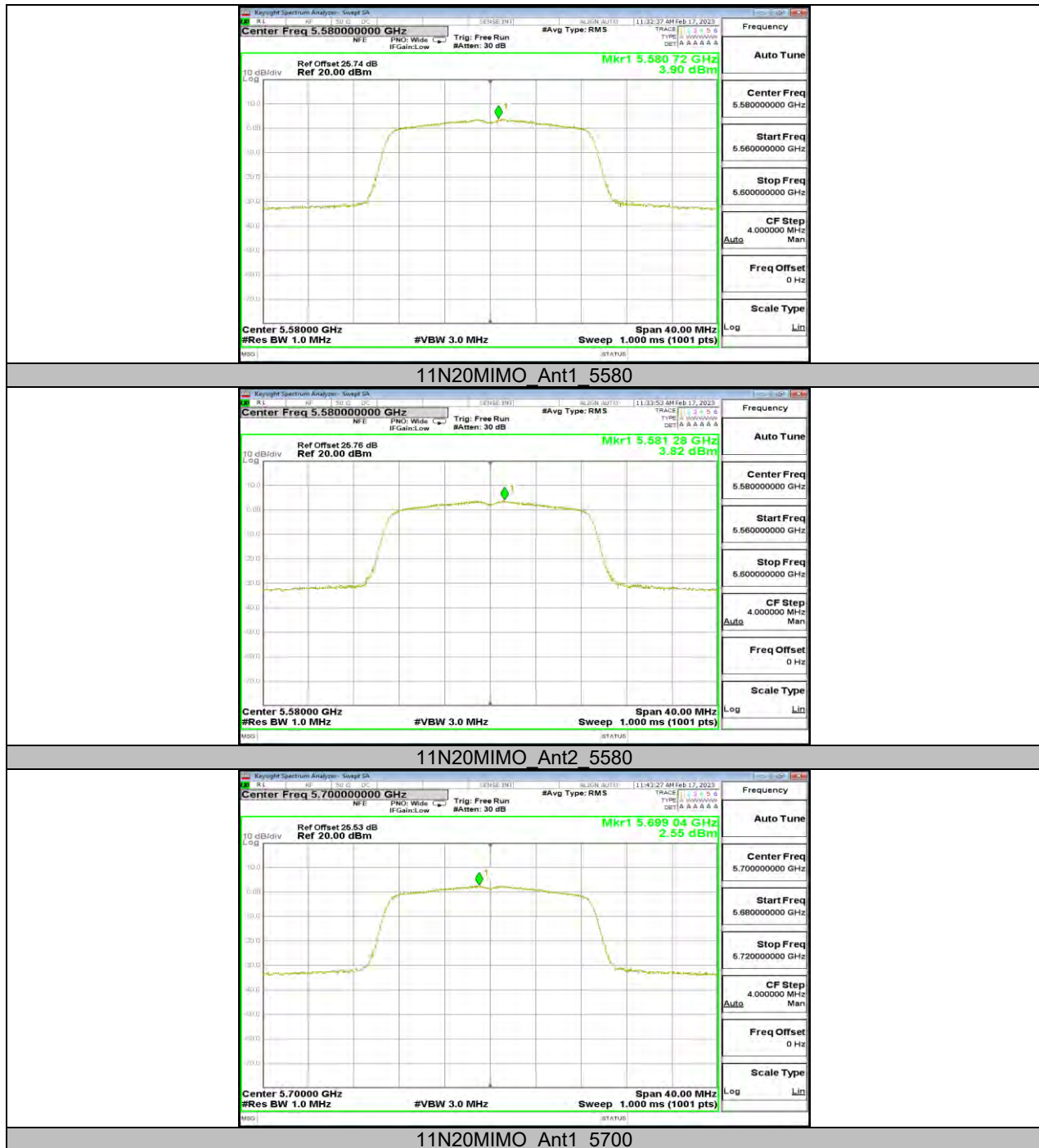


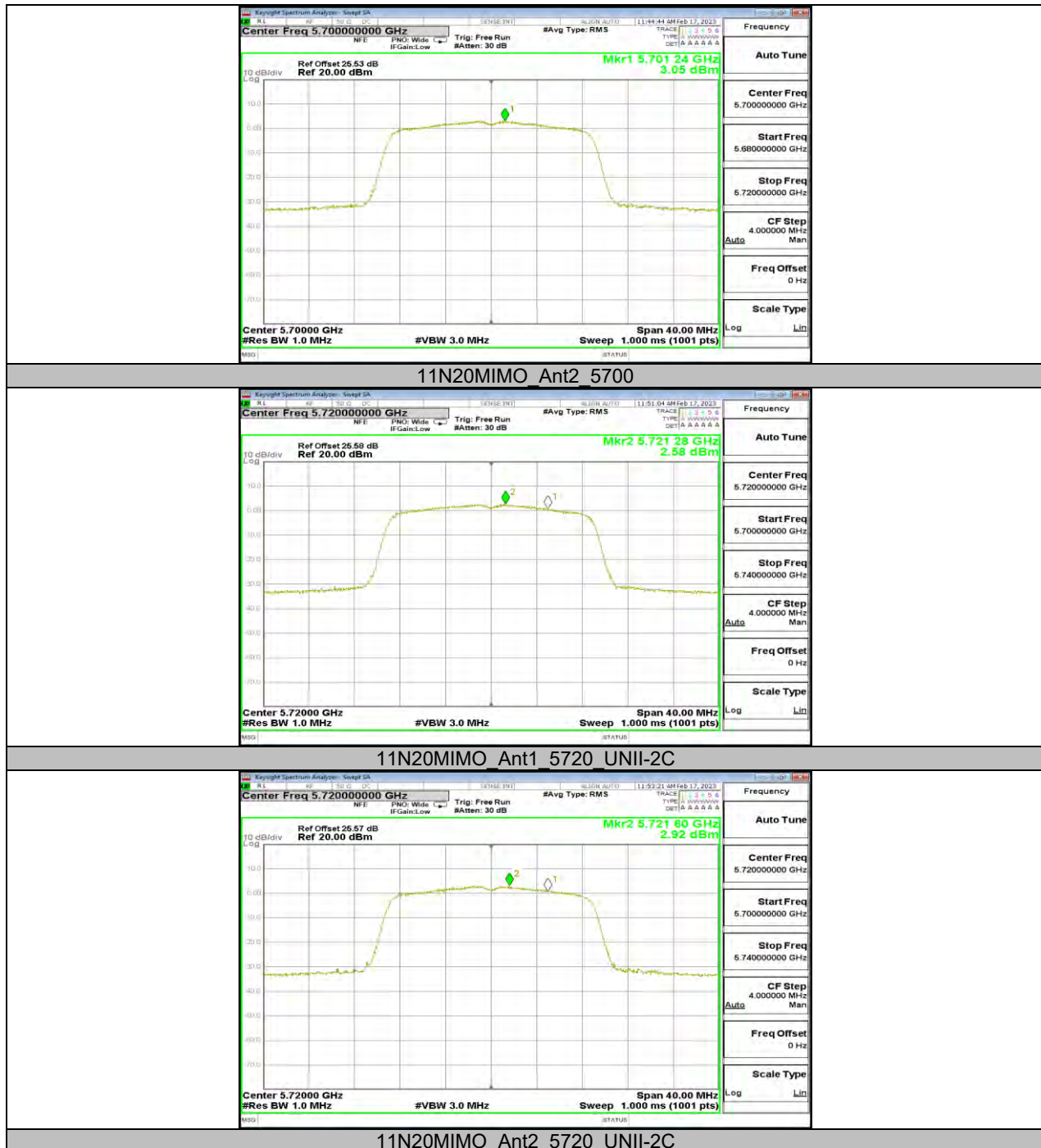


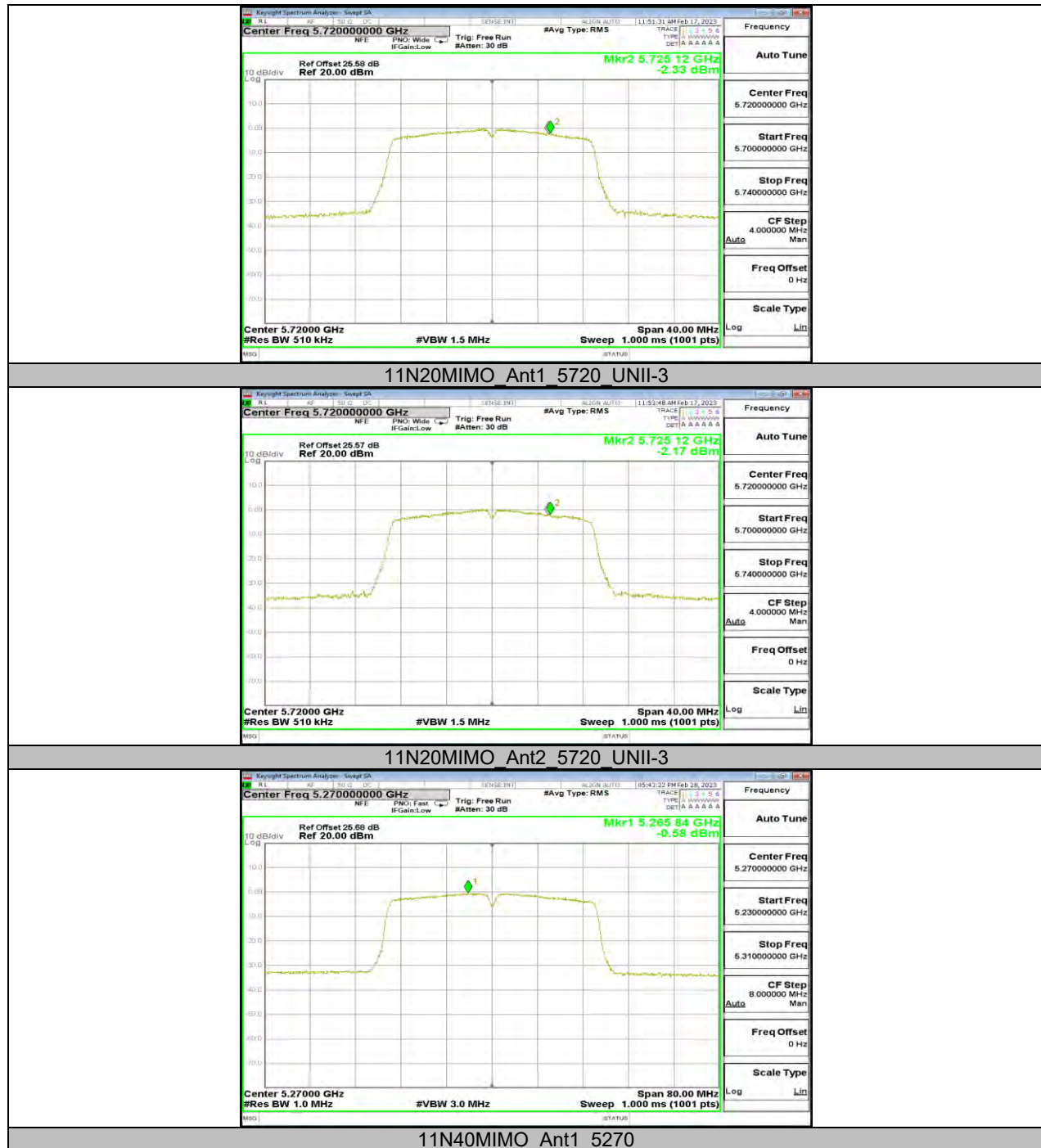


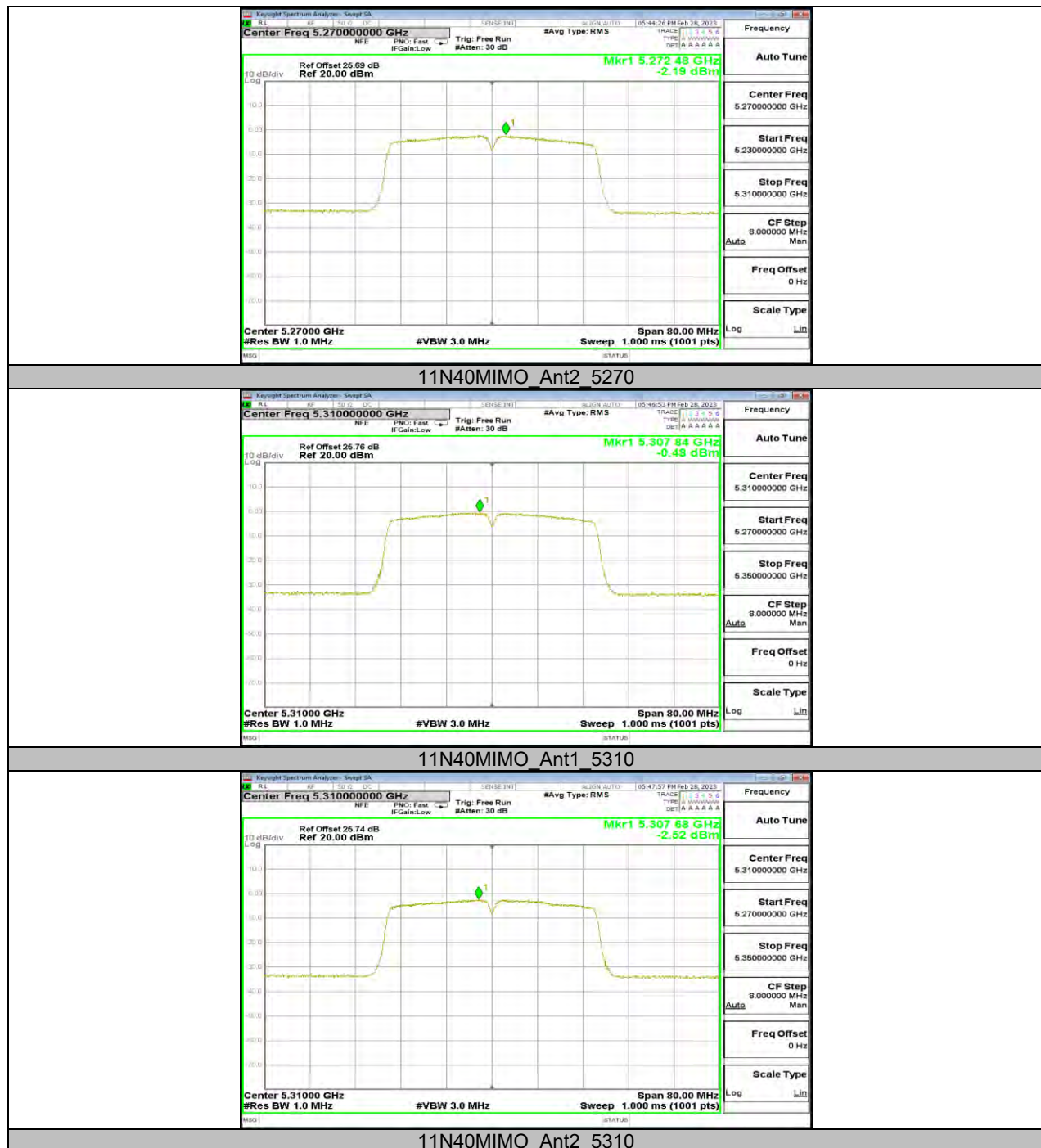


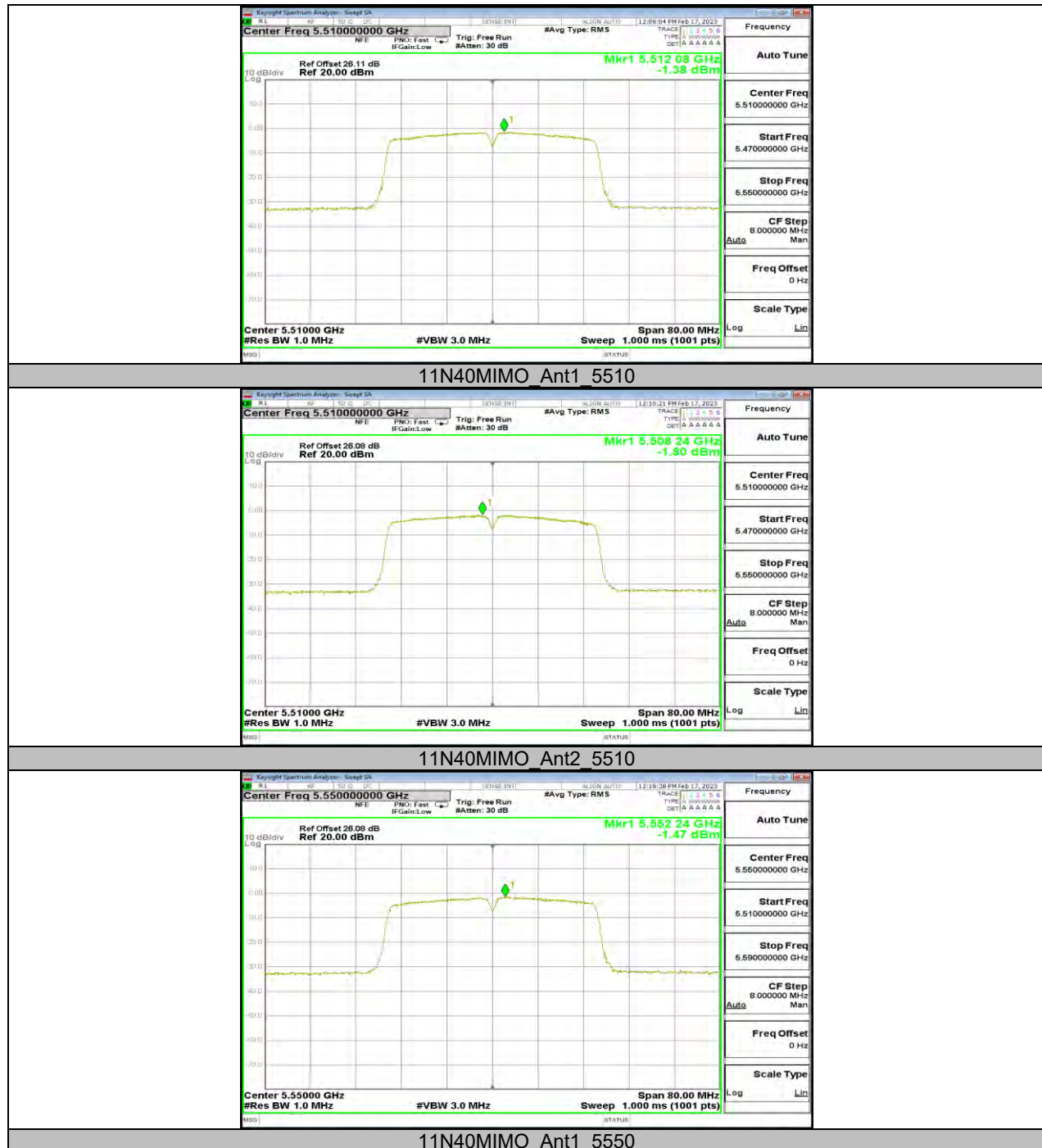


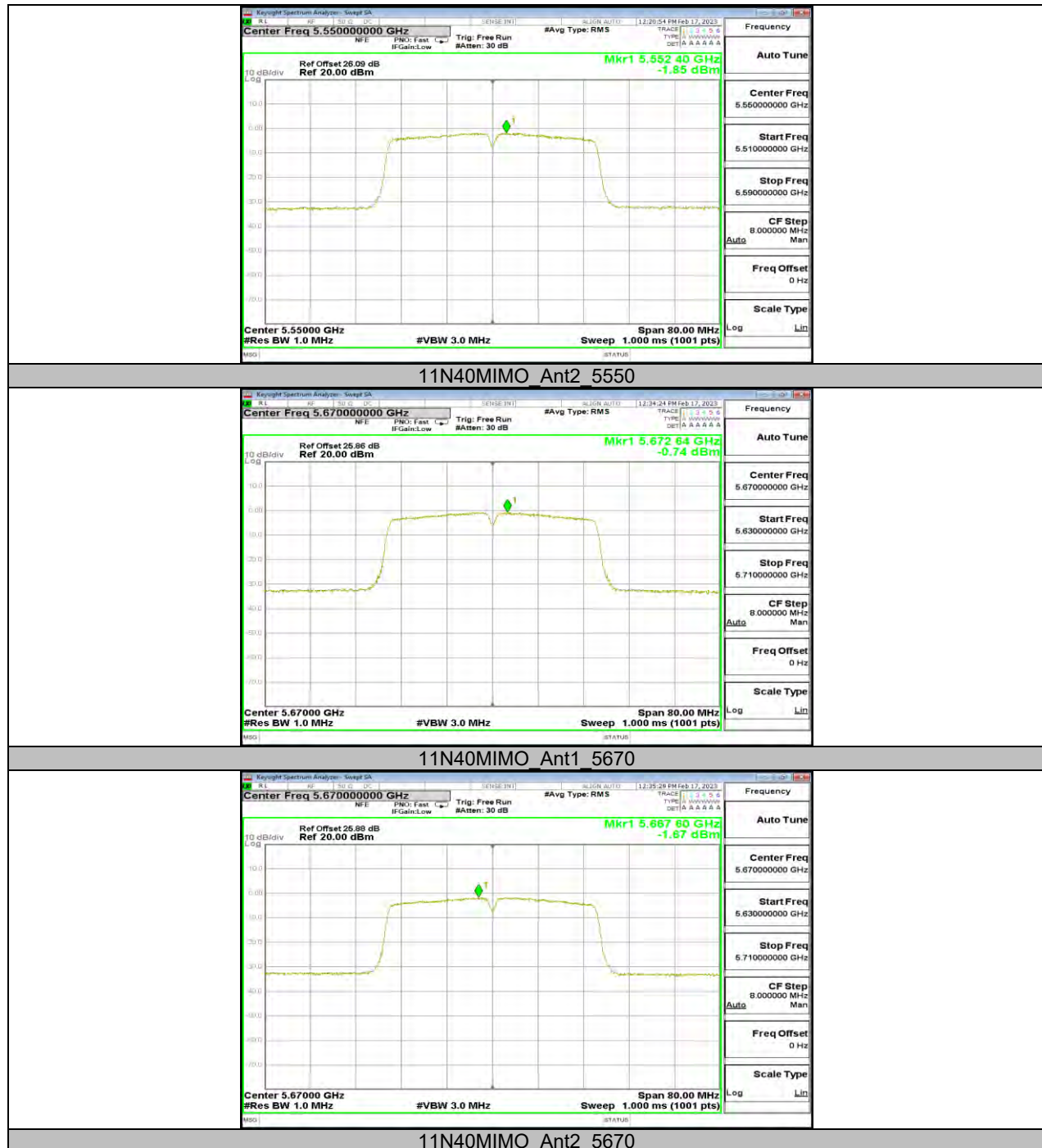


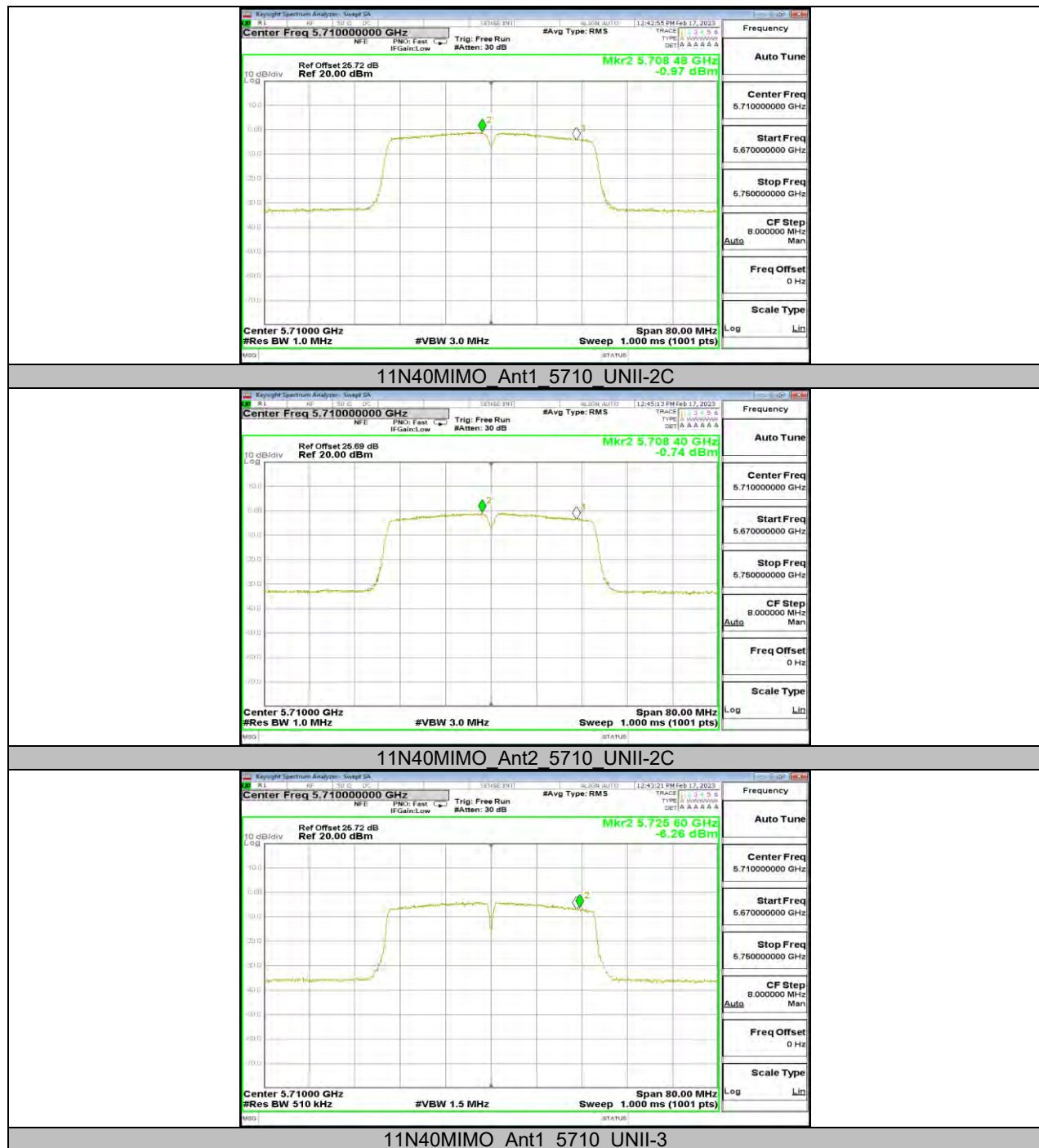


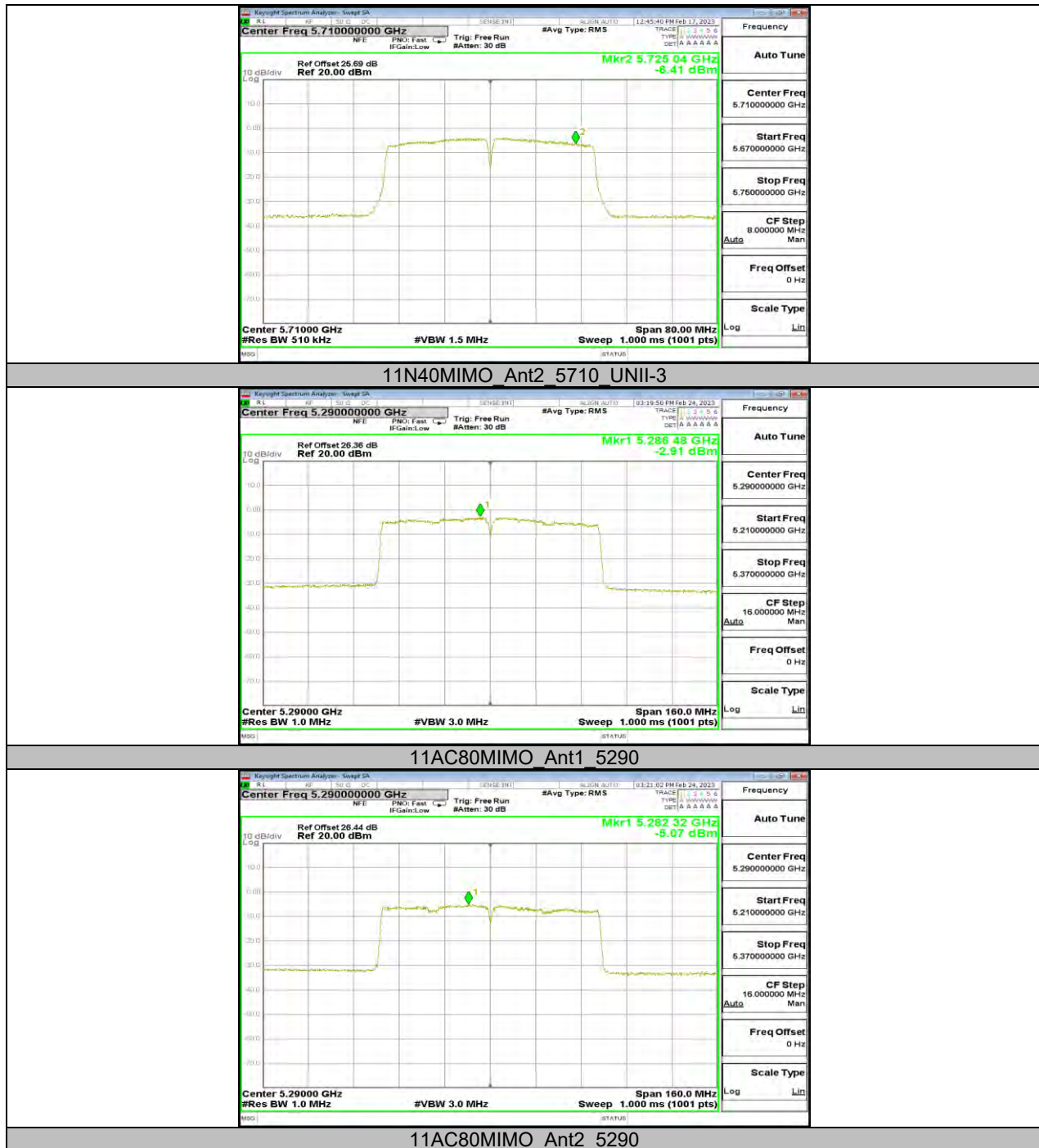


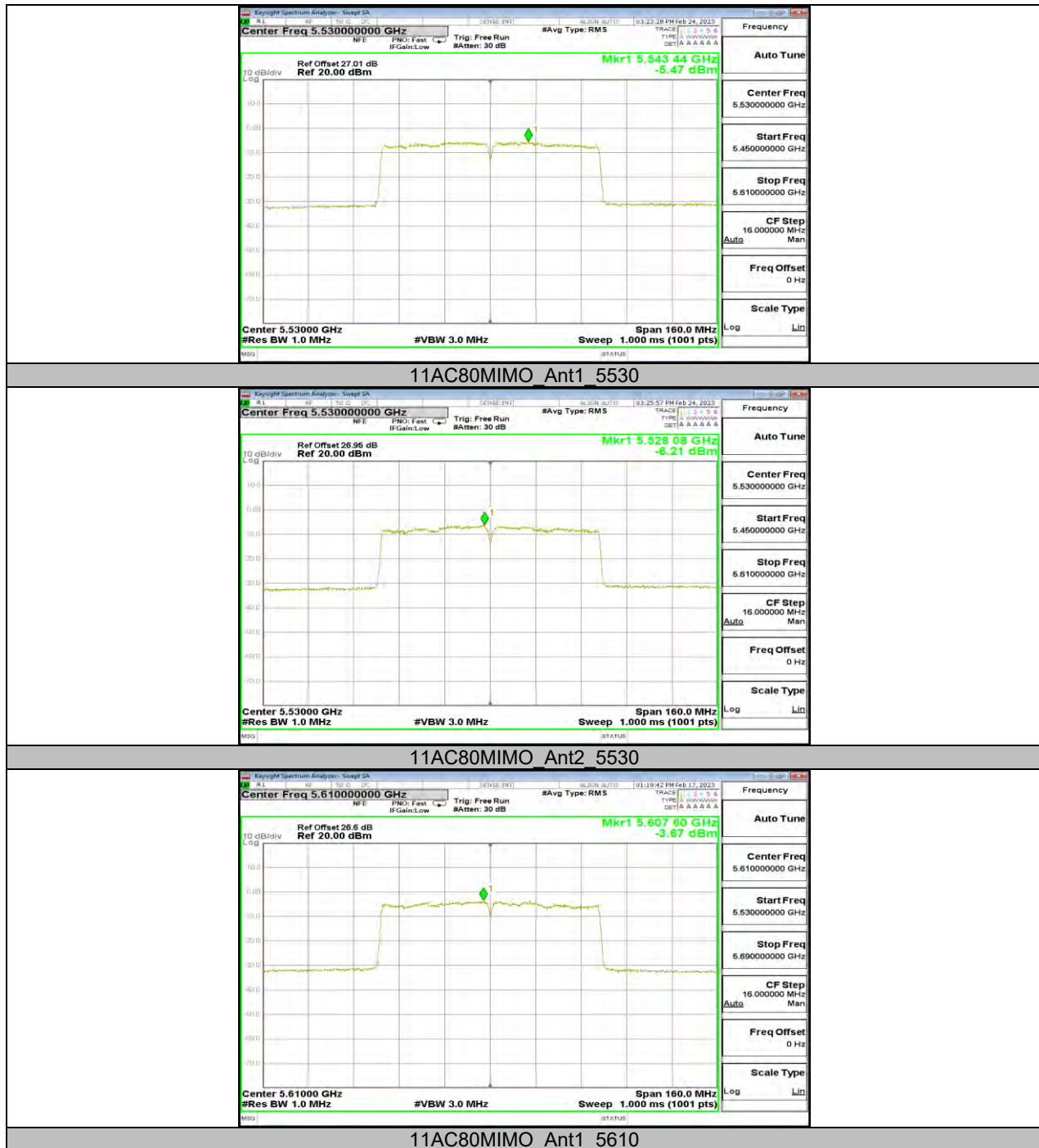




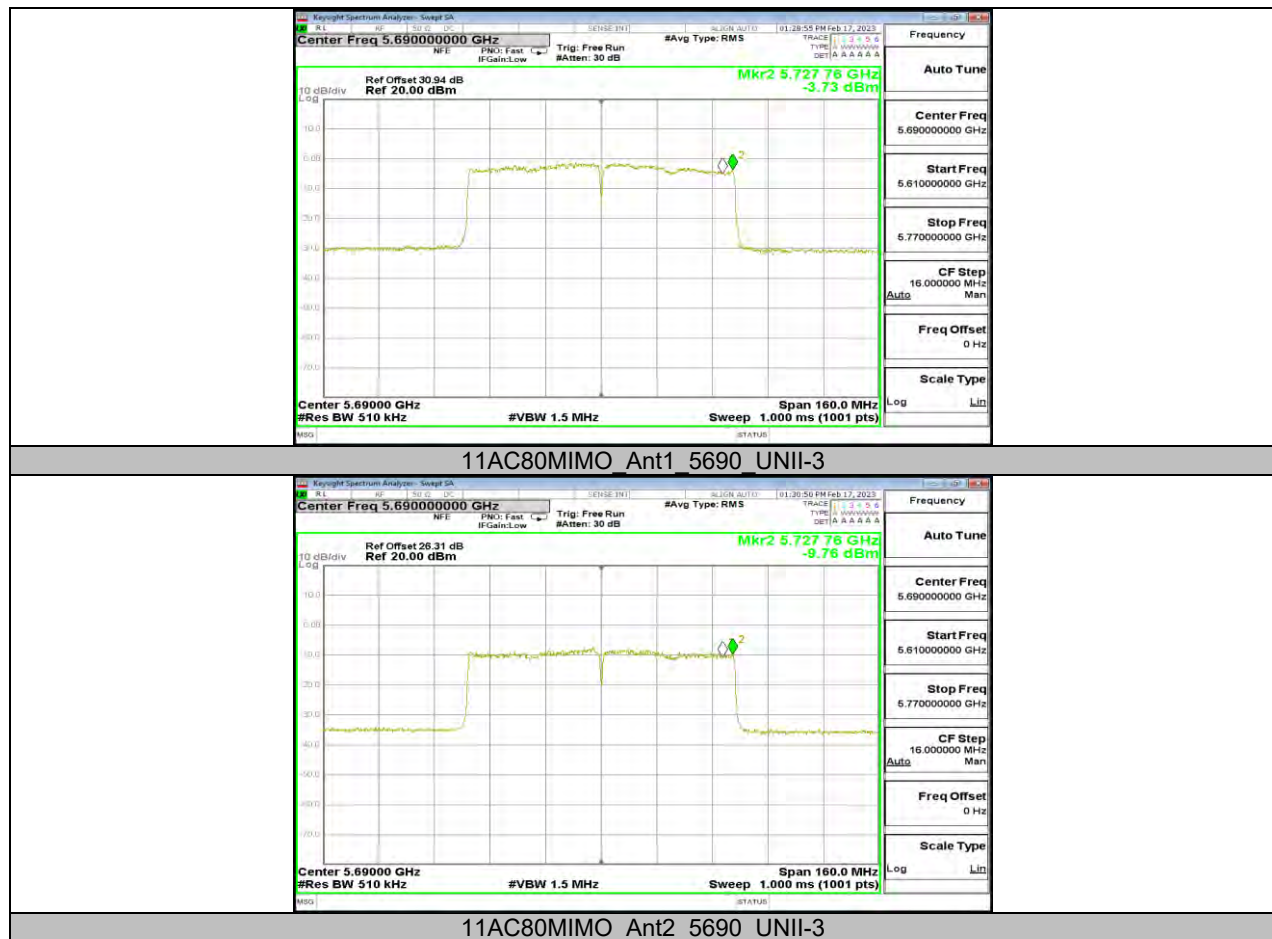
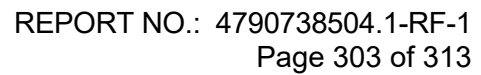














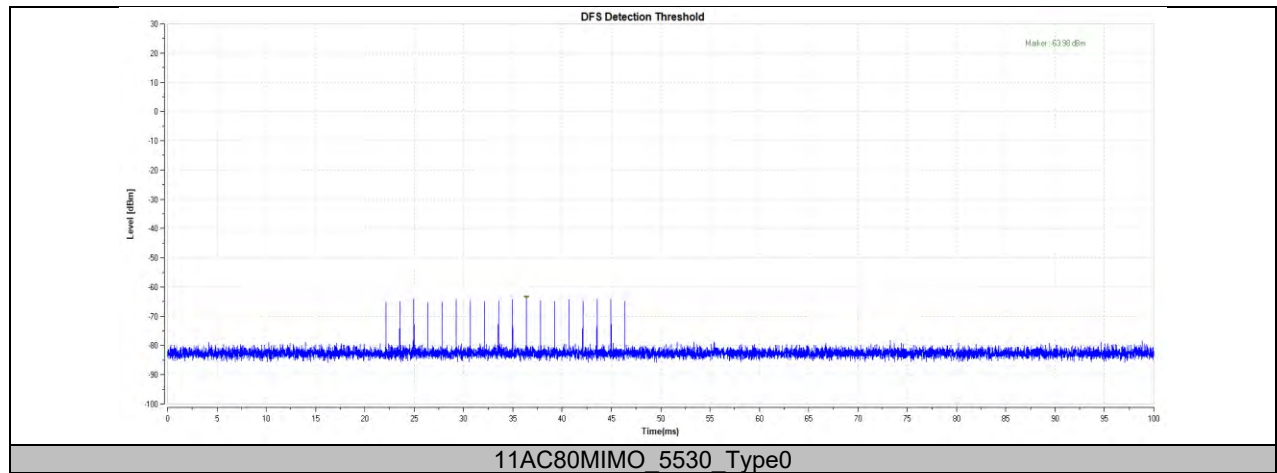
11.6. APPENDIX F: DFS DETECTION THRESHOLDS

11.6.1. Test Result

Test Mode	Channel	Radar Type	Result	Limit[dbm]	Verdict
11AC80MIMO	5530	Type0	-63.98	-62.00	PASS



11.6.2. Test Graphs



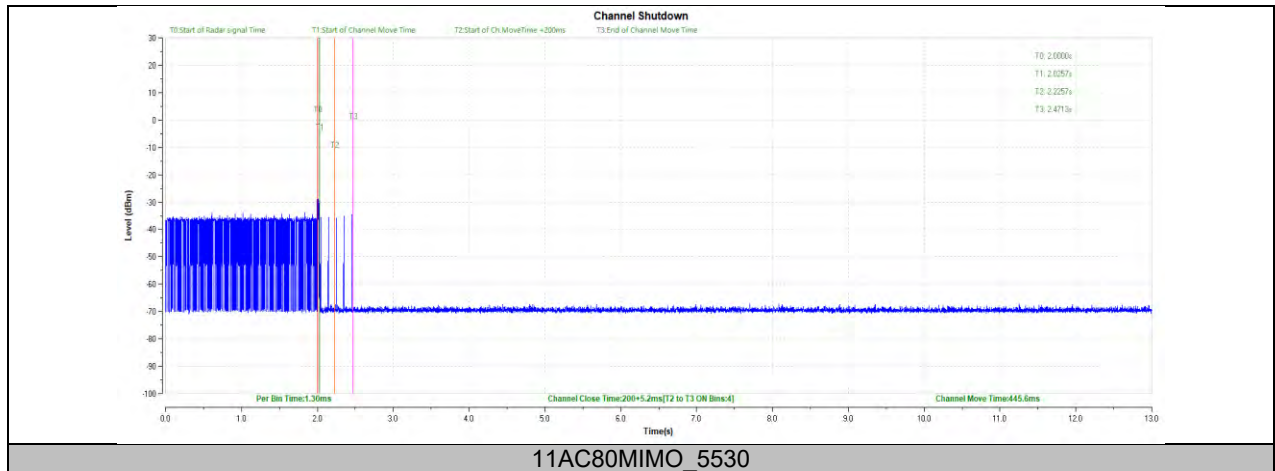


11.7. APPENDIX G: CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME

11.7.1. Test Result

Test Mode	Channel	CCT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11AC80MIMO	5530	200+5.2	200+60	445.6	10000	PASS

11.7.2. Test Graphs





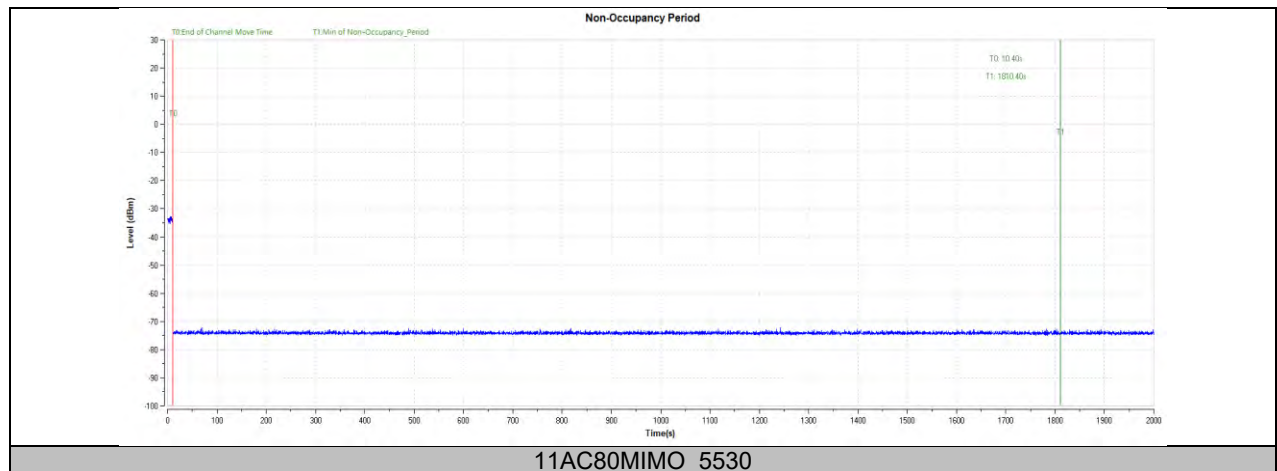
11.8. APPENDIX H: NON-OCCUPANCY PERIOD

Test Result

Test Mode	Channel	Result	Limit[s]	Verdict
11AC80MIMO	5530	see test graph	≥1800	PASS



11.8.1. Test Graphs





11.9. APPENDIX I: FREQUENCY STABILITY

11.9.1. Test Result

Frequency Error vs. Voltage									
802.11a:5260MHz									
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	5259.9932	-1.30	5260.0034	0.65	5260.0130	2.46	5259.9787	-4.05
TN	VN	5259.9937	-1.20	5260.0032	0.60	5259.9833	-3.17	5259.9807	-3.68
TN	VH	5259.9868	-2.51	5260.0246	4.68	5259.9940	-1.14	5259.9806	-3.68
Frequency Error vs. Temperature									
802.11a:5260MHz									
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	5259.9857	-2.71	5259.9980	-0.38	5259.9836	-3.12	5260.0197	3.74
60	VN	5260.0186	3.54	5259.9903	-1.85	5260.0109	2.08	5259.9861	-2.64
50	VN	5260.0214	4.07	5259.9766	-4.44	5259.9867	-2.52	5259.9852	-2.82
40	VN	5260.0169	3.21	5260.0244	4.63	5260.0107	2.03	5260.0190	3.61
30	VN	5259.9760	-4.56	5259.9805	-3.70	5259.9859	-2.69	5259.9958	-0.80
20	VN	5260.0003	0.07	5259.9779	-4.20	5260.0045	0.86	5259.9801	-3.78
10	VN	5259.9843	-2.98	5260.0205	3.91	5260.0064	1.22	5260.0084	1.60
0	VN	5260.0174	3.31	5259.9762	-4.52	5259.9943	-1.09	5259.9906	-1.80

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.



11.10. APPENDIX J: DUTY CYCLE

11.10.1. 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	1.42	0.9789	97.89	0.09	0.72	1
11N20MIMO	1.30	1.34	0.9701	97.01	0.13	0.77	1
11N40MIMO	0.64	0.68	0.9412	94.12	0.26	1.56	2
11AC80MIMO	0.94	1.57	0.5987	59.87	2.23	1.06	2

Note:

For 11AC80MIMO mode, On Time= $0.1888\text{ms} \times 5 = 0.94\text{ms}$

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

Where: x is Duty Cycle (Linear)

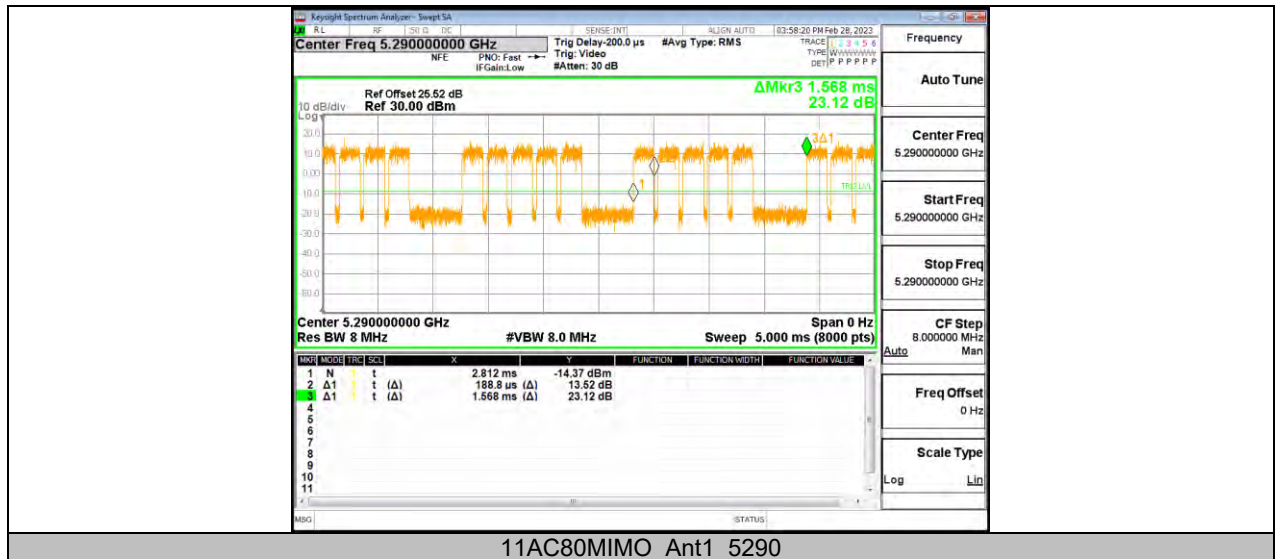
Where: T is On Time

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



11.10.2. Test Graphs





END OF REPORT