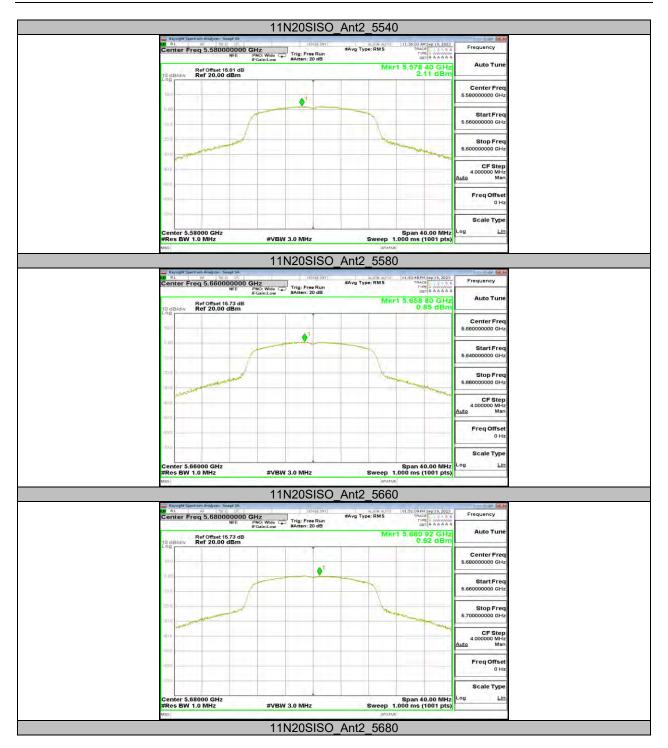
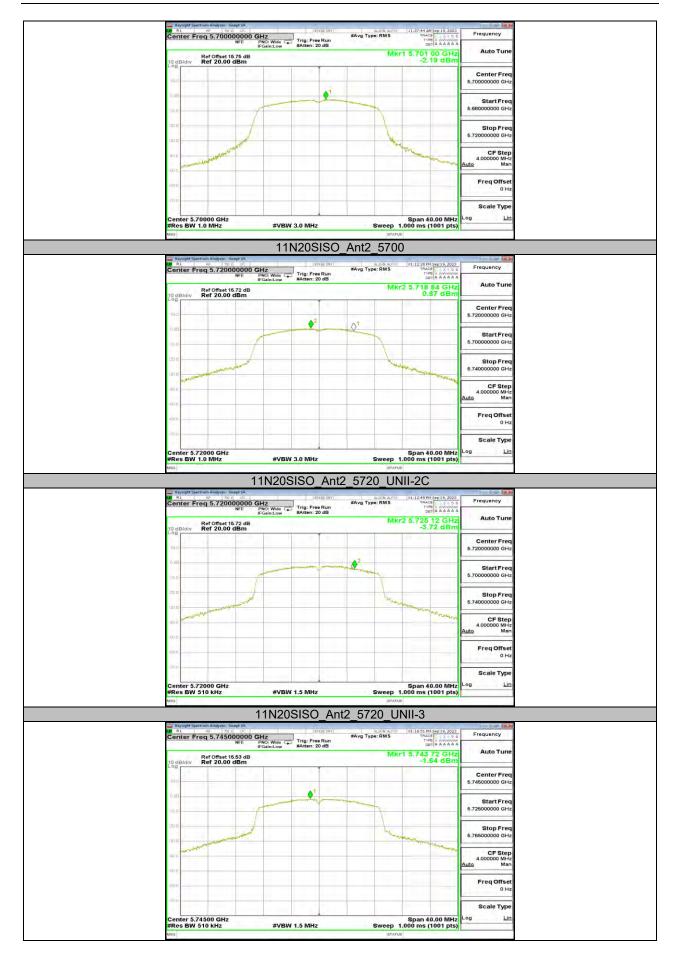


Solutions

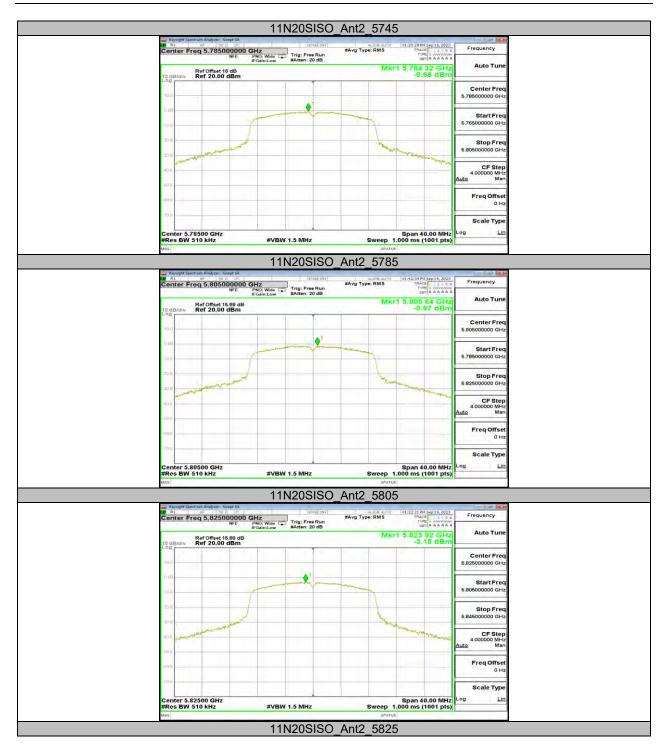














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10.6. APPENDIX F1: FREQUENCY STABILITY 10.6.1. Test Result

	Frequency Error vs. Voltage									
	802.11a:5200MHz									
_	Volt.	0 Minute		2 Minute		5 Minute		10 Minute		
Temp.		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	
TN	VL	5200. 0165	3.17	5200.0166	3.18	5200. 0165	3.17	5200.0236	4.54	
TN	VN	5200.0163	3.14	5200.0107	2.06	5200.0016	0.31	5200.0210	4.03	
TN	VH	5199. 9764	-4.54	5199. 9983	-0.32	5200.0086	1.65	5200.0139	2.67	
	Frequency Error vs. Temperature									

802.11a:5200MHz

_	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
Temp.		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
60	VN	5200.0063	1.22	5200. 0160	3.08	5199. 9823	-3.40	5199. 9885	-2.21
50	VN	5200.0109	2.09	5200. 0026	0.49	5200. 0123	2.36	5200. 0188	3.62
40	VN	5199. 9972	-0.54	5200. 0222	4.26	5199. 9785	-4.14	5200. 0247	4.75
30	VN	5199. 9768	-4.47	5200. 0192	3.70	5199. 9921	-1.52	5200.0010	0.19
20	VN	5199. 9969	-0.60	5200. 0204	3.91	5200. 0169	3.25	5200. 0232	4.47
10	VN	5200.0042	0.80	5199. 9994	-0.12	5199. 9878	-2.35	5199. 9971	-0.56
0	VN	5200. 0157	3.01	5200.0097	1.86	5199. 9906	-1.82	5199. 9873	-2.45
-10	VN	5199. 9903	-1.86	5200. 0192	3.69	5200.0014	0.26	5199. 9936	-1.22
-20	VN	5199. 9911	-1.72	5200. 0205	3.95	5200.0042	0.81	5199. 9932	-1.30
-30	VN	5199. 9911	-1.72	5199. 9863	-2.64	5199. 9804	-3.77	5200.0100	1.91

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.



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10.7. APPENDIX G1: DUTY CYCLE 10.7.1. 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	1.51	0.9007	90.07	0.45	0.74	1
11N20SISO	1.27	1.39	0.9137	91.37	0.39	0.79	1

Note:

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

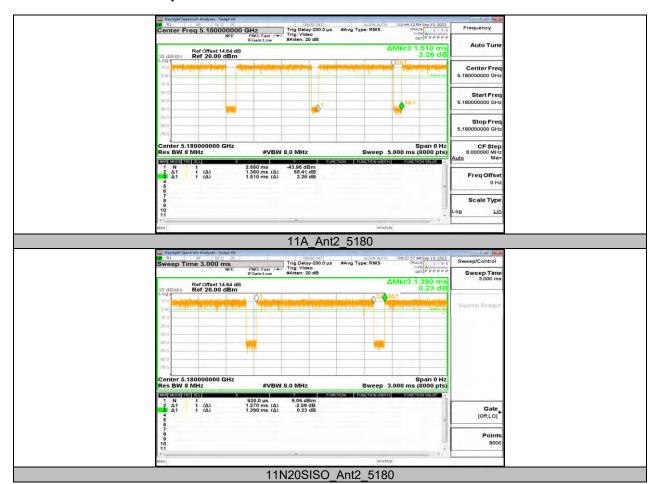
Where: x is Duty Cycle (Linear)

Where: T is On Time

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



10.7.2. Test Graphs





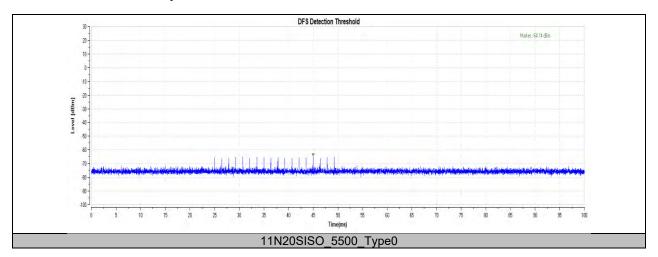
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10.8. APPENDIX H1: DFS DETECTION THRESHOLDS 10.8.1. Test Result

Test Mode	Channel	Radar Type	Result	Verdict
11N20SISO	5500	Type0	-64.14	PASS



10.8.2. Test Graphs





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10.9. APPENDIX I1: CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME

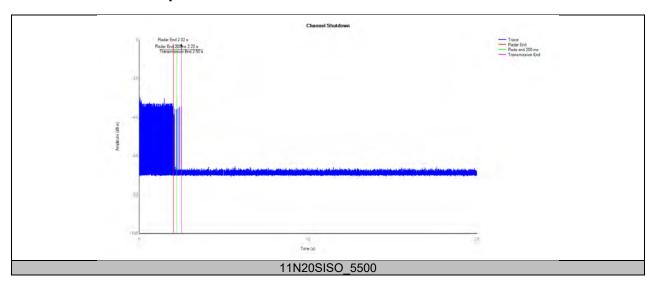
10.9.1. Test Result

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
11N20 SISO	5530	0.472	10	0.017	0.26	0.003	0.06	Pass

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



10.9.2. Test Graphs





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10.10. APPENDIX J1: NON-OCCUPANCY PERIOD

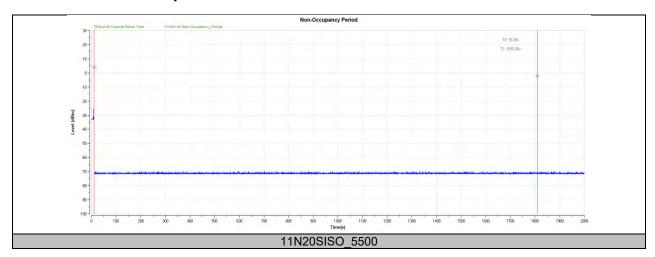
Test Result

Test Mode	Channel	Result	Limit[s]	Verdict
11N20SISO	5500	see test graph	≥1800	PASS

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



10.10.1. Test Graphs



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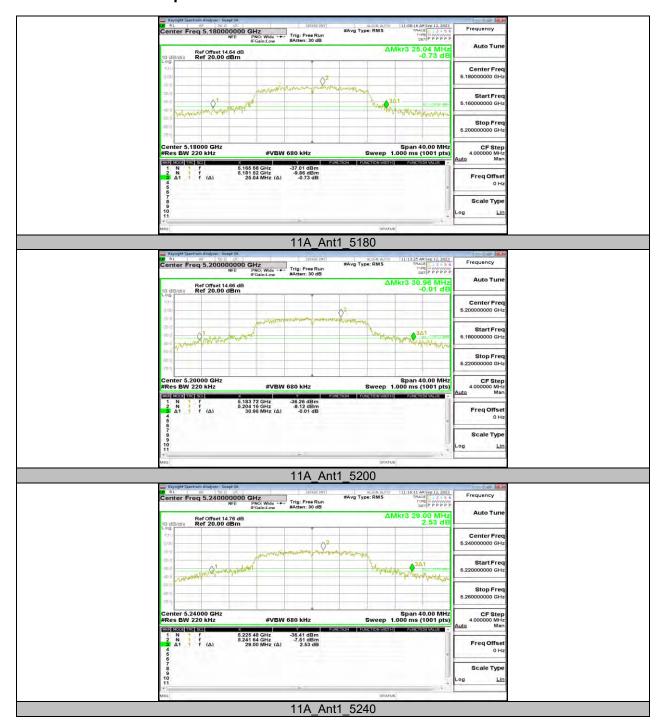
11. TEST DATA FOR INTERNAL ANTENNA

11.1. APPENDIX A2: EMISSION BANDWIDTH 11.1.1. Test Result

Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
		5180	25.040	5165.680	5190.720	PASS
		5200	30.960	5183.720	5214.680	PASS
		5240	29.000	5225.480	5254.480	PASS
		5260	28.840	5245.240	5274.080	PASS
		5280	29.280	5265.200	5294.480	PASS
		5320	23.040	5308.600	5331.640	PASS
		5500	21.480	5489.320	5510.800	PASS
		5520	31.080	5504.200	5535.280	PASS
		5540	30.400	5523.280	5553.680	PASS
444	A := 44	5580	25.680	5567.000	5592.680	PASS
11A	Ant1	5660	28.000	5645.960	5673.960	PASS
		5680	28.240	5665.320	5693.560	PASS
		5700	22.800	5689.200	5712.000	PASS
		5720	27.600	5706.880	5734.480	PASS
		5720_UNII-2C	18.12	5706.880	5725	PASS
		5720_UNII-3	9.48	5725	5734.480	PASS
		5745	30.040	5728.280	5758.320	PASS
		5785	25.800	5770.520	5796.320	PASS
		5805	29.400	5789.160	5818.560	PASS
		5825	20.640	5814.240	5834.880	PASS
		5180	22.040	5169.760	5191.800	PASS
		5200	27.680	5186.920	5214.600	PASS
		5220	25.080	5206.840	5231.920	PASS
		5240	27.880	5226.960	5254.840	PASS
		5260	27.960	5245.920	5273.880	PASS
		5280	26.680	5266.000	5292.680	PASS
		5320	21.400	5309.680	5331.080	PASS
		5500	21.200	5489.920	5511.120	PASS
		5520	29.720	5506.200	5535.920	PASS
		5580	26.480	5566.920	5593.400	PASS
11N20SISO	Ant1	5640	27.560	5627.280	5654.840	PASS
		5660	23.720	5647.760	5671.480	PASS
		5680	25.240	5666.920	5692.160	PASS
		5700	21.160	5689.680	5710.840	PASS
		5720	26.000	5707.800	5733.800	PASS
		5720 UNII-2C	17.2	5707.800	5725	PASS
		5720 UNII-3	8.8	5725	5733.800	PASS
		5745	23.880	5731.960	5755.840	PASS
		5785	25.640	5770.920	5796.560	PASS
		5805	26.240	5793.680	5819.920	PASS
		5825	21.960	5814.560	5836.520	PASS



11.1.2. Test Graphs



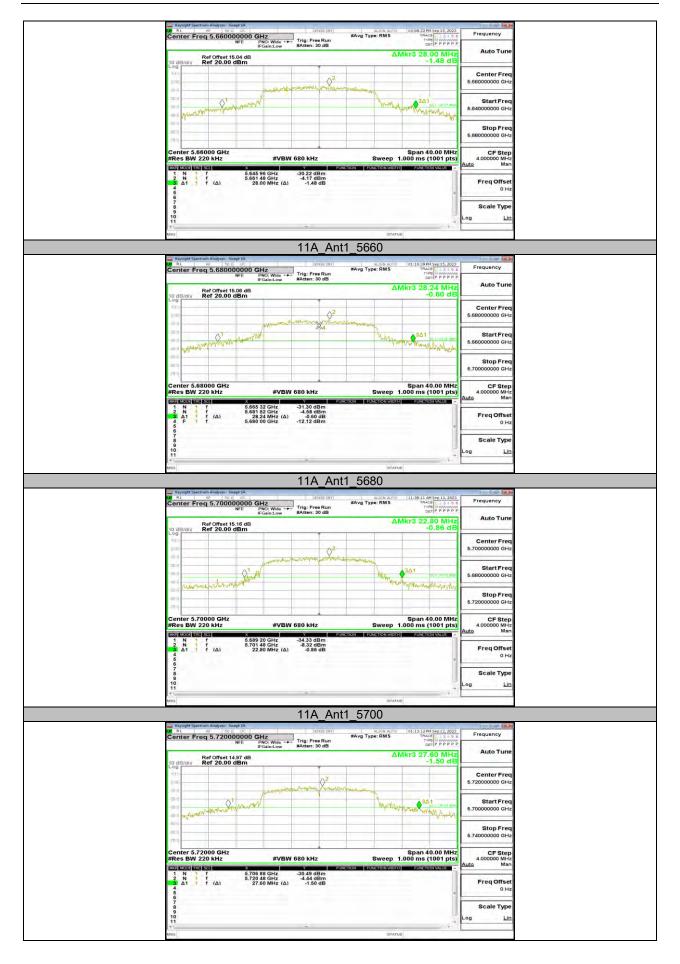




























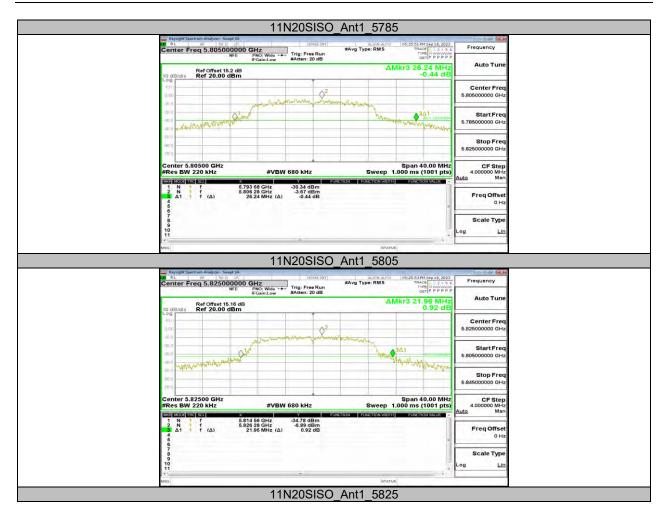












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11.2. APPENDIX B2: OCCUPIED CHANNEL BANDWIDTH 11.2.1. Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
		5180	16.633	5171.7400	5188.3730	PASS
		5200	17.340	5191.5145	5208.8545	PASS
		5240	17.243	5231.4304	5248.6734	PASS
		5260	17.228	5251.4965	5268.7245	PASS
		5280	16.862	5271.5766	5288.4386	PASS
		5320	16.523	5311.7251	5328.2481	PASS
		5500	16.527	5491.7734	5508.3004	PASS
		5520	17.238	5511.5488	5528.7868	PASS
		5540	16.727	5531.6590	5548.3860	PASS
11A	Ant1	5580	17.074	5571.4918	5588.5658	PASS
IIA	Anti	5660	16.838	5651.6504	5668.4884	PASS
		5680	16.949	5671.5137	5688.4627	PASS
		5700	16.484	5691.8387	5708.3227	PASS
		5720	17.026	5711.5922	5728.6182	PASS
		5720_UNII-2C	13.408	5711.5922	5725	PASS
		5720 UNII-3	3.618	5725	5728.6182	PASS
		<u>5</u> 745	16.989	5736.5890	5753.5780	PASS
		5785	16.924	5776.4627	5793.3867	PASS
		5805	17.072	5796.5417	5813.6137	PASS
		5825	16.513	5816.7571	5833.2701	PASS
		5180	17.765	5171.1437	5188.9087	PASS
		5200	18.206	5190.9271	5209.1331	PASS
		5220	18.220	5210.8880	5229.1080	PASS
		5240	18.040	5231.0507	5249.0907	PASS
		5260	18.278	5250.8940	5269.1720	PASS
		5280	18.135	5270.9589	5289.0939	PASS
		5320	17.837	5311.1035	5328.9405	PASS
		5500	17.783	5491.1807	5508.9637	PASS
		5520	18.389	5510.8047	5529.1937	PASS
		5580	18.227	5570.8530	5589.0800	PASS
11N20SISO	Ant1	5640	18.247	5630.9396	5649.1866	PASS
		5660	18.025	5650.9716	5668.9966	PASS
		5680	18.244	5670.7610	5689.0050	PASS
		5700	17.735	5691.1959	5708.9309	PASS
		5720	18.362	5710.8764	5729.2384	PASS
		5720 UNII-2C	14.124	5710.8764	5725	PASS
		5720 UNII-3	4.238	5725	5729.2384	PASS
		5745	18.137	5735.9128	5754.0498	PASS
		5785	18.190	5775.7891	5793.9791	PASS
		5805	18.176	5795.8823	5814.0583	PASS
		5825	17.881	5816.0676	5833.9486	PASS



11.2.2. Test Graphs

















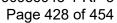














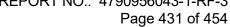


















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11.3. APPENDIX C2: MIN EMISSION BANDWIDTH 11.3.1. Test Result

Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
		5720	15.640	5712.280	5727.920	≥0.5	PASS
		5720_UNII-3	2.92	5725	5727.920	≥0.5	PASS
11A	Ant1	5745	15.120	5737.240	5752.360	≥0.5	PASS
IIA	Anti	5785	15.080	5777.480	5792.560	≥0.5	PASS
		5805	16.320	5796.880	5813.200	≥0.5	PASS
		5825	15.920	5817.240	5833.160	≥0.5	PASS
		5720	17.200	5711.600	5728.800	≥0.5	PASS
	Ant1	5720_UNII-3	3.8	5725	5728.800	≥0.5	PASS
11N20SISO		5745	15.120	5737.480	5752.600	≥0.5	PASS
1111/205150		5785	15.000	5777.520	5792.520	≥0.5	PASS
		5805	13.800	5797.520	5811.320	≥0.5	PASS
		5825	14.920	5817.600	5832.520	≥0.5	PASS



11.3.2. Test Graphs











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11.4. APPENDIX D2: MAXIMUM CONDUCTED OUTPUT POWER 11.4.1. Test Result

Test Mode	Antenna	Frequency[MHz]	Power [dBm]	FCC Limit [dBm]	ISED Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
		5180	0.90	≤23.98		2.90	≤22.21	PASS
		5200	2.56	≤23.98		4.56	≤22.39	PASS
		5240	2.92	≤23.98		4.92	≤22.37	PASS
		5260	2.90	≤23.98	≤23.36	4.90	≤29.36	PASS
		5280	3.00	≤23.98	≤23.27	5.00	≤29.27	PASS
		5320	2.43	≤23.98	≤23.18	4.43	≤29.18	PASS
		5500	4.77	≤23.98	≤23.18	6.77	≤29.18	PASS
		5520	8.53	≤23.98	≤23.36	10.53	≤29.36	PASS
		5540	8.17	≤23.98	≤23.23	10.17	≤29.23	PASS
11A	Ant1	5580	7.14	≤23.98	≤23.32	9.14	≤29.32	PASS
		5660	6.39	≤23.98	≤23.26	8.39	≤29.26	PASS
		5680	5.42	≤23.98	≤23.29	7.42	≤29.29	PASS
		5700	1.38	≤23.98	≤23.17	3.38	≤29.17	PASS
		5720 UNII-2C	4.84	≤23.58	≤22.27	6.84	≤28.27	PASS
		5720 UNII-3	-4.28	≤30.00	≤30.00	-2.28		PASS
		<u> </u>	5.25	≤30.00	≤30.00	7.25		PASS
		5785	6.37	≤30.00	≤30.00	8.37		PASS
		5805	6.01	≤30.00	≤30.00	8.01		PASS
		5825	2.93	≤30.00	≤30.00	4.93		PASS
		5180	1.56	≤23.98		3.56	≤22.50	PASS
		5200	2.25	≤23.98		4.25	≤22.60	PASS
		5220	2.49	≤23.98		4.49	≤22.61	PASS
		5240	3.46	≤23.98		5.46	≤22.56	PASS
		5260	2.81	≤23.98	≤23.62	4.81	≤29.62	PASS
		5280	2.66	≤23.98	≤23.59	4.66	≤29.59	PASS
		5320	2.80	≤23.98	≤23.51	4.80	≤29.51	PASS
		5500	4.97	≤23.98	≤23.50	6.97	≤29.50	PASS
		5520	8.16	≤23.98	≤23.65	10.16	≤29.65	PASS
441000100	A 4.4	5580	8.26	≤23.98	≤23.61	10.26	≤29.61	PASS
11N20SISO	Ant1	5640	6.02	≤23.98	≤23.61	8.02	≤29.61	PASS
		5660	6.05	≤23.98	≤23.56	8.05	≤29.56	PASS
		5680	4.86	≤23.98	≤23.61	6.86	≤29.61	PASS
		5700	1.93	≤23.98	≤23.49	3.93	≤29.49	PASS
		5720_UNII-2C	5.14	≤23.36	≤22.50	7.14	≤28.50	PASS
		5720_UNII-3	-7.71	≤30.00	≤30.00	-5.71		PASS
		5745	6.03	≤30.00	≤30.00	8.03		PASS
		5785	6.60	≤30.00	≤30.00	8.60		PASS
		5805	5.96	≤30.00	≤30.00	7.96		PASS
		5825	2.96	≤30.00	≤30.00	4.96		PASS

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

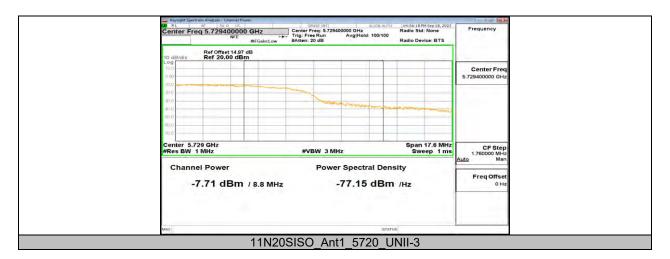
2. The Duty Cycle Factor (refer to section 7.1) had already compensated to the test data.



11.4.2. Test Graphs







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11.5. APPENDIX E2: MAXIMUM POWER SPECTRAL DENSITY 11.5.1. Test Result

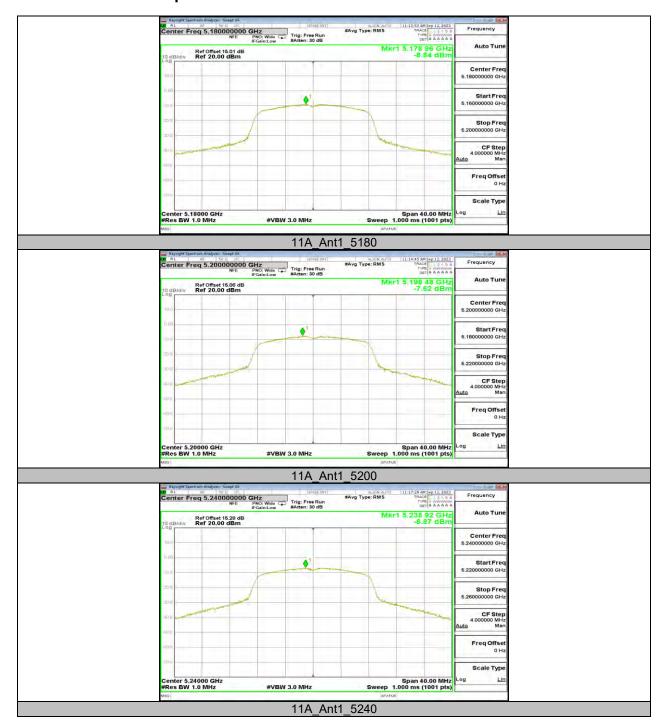
Test Mode	Antenna	Frequency[MHz]	Power [dBm/MHz]	Limit [dBm/MHz]	EIRP [dBm/MHz]	Limit [dBm/MHz]	Verdict
		5180	-8.84	≤11.00	-6.84	≤10.00	PASS
		5200	-7.62	≤11.00	-5.62	≤10.00	PASS
		5240	-6.87	≤11.00	-4.87	≤10.00	PASS
		5260	-6.95	≤11.00	-4.95		PASS
		5280	-6.98	≤11.00	-4.98		PASS
		5320	-7.55	≤11.00	-5.55		PASS
		5500	-4.97	≤11.00	-2.97		PASS
		5520	-0.81	≤11.00	1.19		PASS
		5540	-2.02	≤11.00	-0.02		PASS
11A	Ant1	5580	-2.83	≤11.00	-0.83		PASS
		5660	-3.03	≤11.00	-1.03		PASS
		5680	-4.85	≤11.00	-2.85		PASS
		5700	-8.61	≤11.00	-6.61		PASS
		5720_UNII-2C	-4.58	≤11.00	-2.58		PASS
		5720 UNII-3	-8.9	≤30.00	-6.90		PASS
		5745	-7.33	≤30.00	-5.33		PASS
		5785	-6.36	≤30.00	-4.36		PASS
		5805	-6.72	≤30.00	-4.72		PASS
		5825	-9.76	≤30.00	-7.76		PASS
		5180	-8.56	≤11.00	-6.56	≤10.00	PASS
		5200	-6.36	≤11.00	-4.36	≤10.00	PASS
		5220	-9.74	≤11.00	-7.74	≤10.00	PASS
		5240	-9.16	≤11.00	-7.16		PASS
		5260	-8.56	≤11.00	-6.56		PASS
		5280	-8.7	≤11.00	-6.70		PASS
		5320	-9.09	≤11.00	-7.09		PASS
		5500	-2.04	≤11.00	-0.04		PASS
		5520	-2.41	≤11.00	-0.41		PASS
11N20SISO	Ant1	5580	-3.19	≤11.00	-1.19		PASS
1111203130	Anti	5640	-6.13	≤11.00	-4.13		PASS
		5660	-4.99	≤11.00	-2.99		PASS
		5680	-6.78	≤11.00	-4.78		PASS
		5700	-8.57	≤11.00	-6.57		PASS
		5720_UNII-2C	-4.55	≤11.00	-2.55		PASS
		5720_UNII-3	-10.04	≤30.00	-8.04		PASS
		5745	-7.57	≤30.00	-5.57		PASS
		5785	-7.44	≤30.00	-5.44		PASS
		5805	-8	≤30.00	-6.00		PASS
		5825	-8.31	≤30.00	-6.31		PASS

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

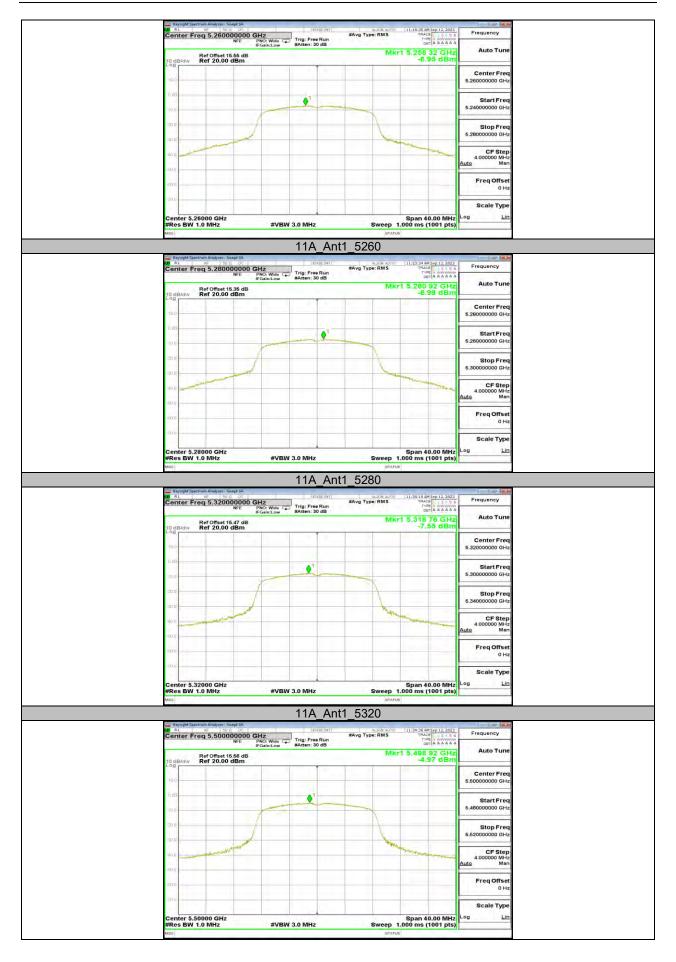
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.



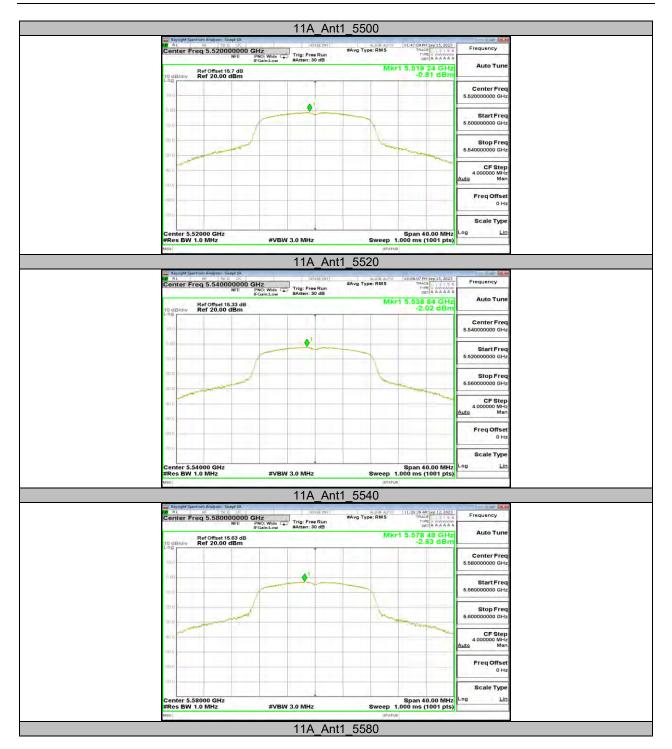
11.5.2. Test Graphs



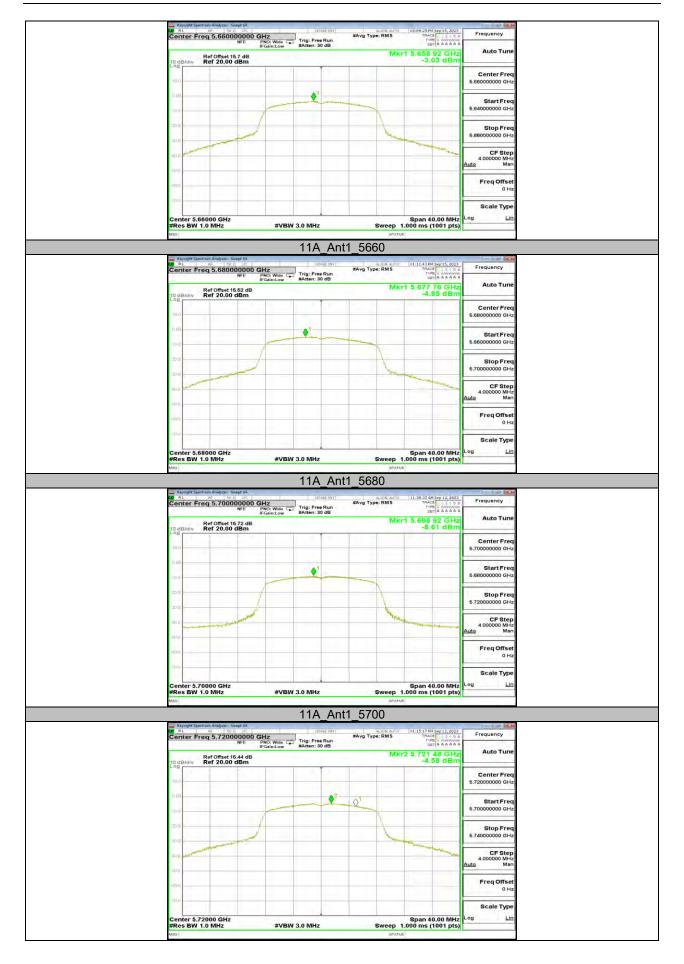




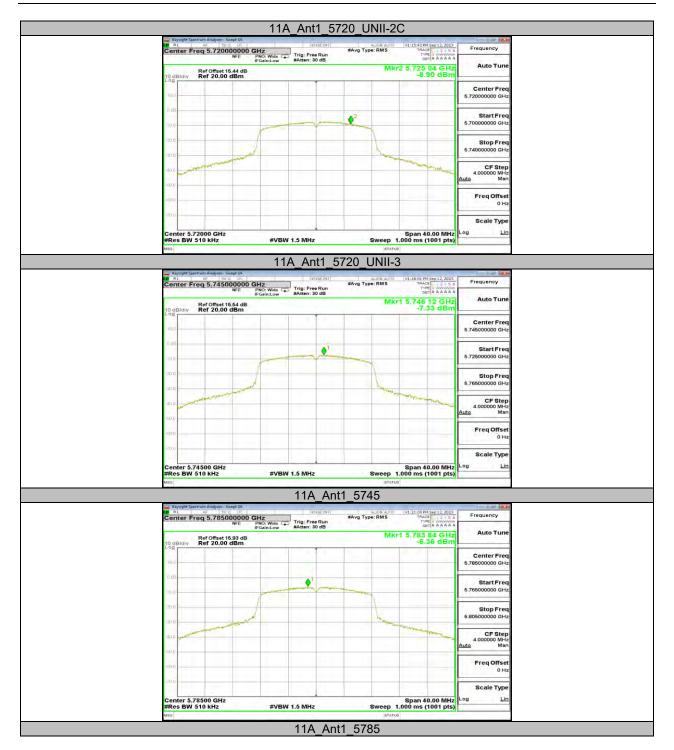




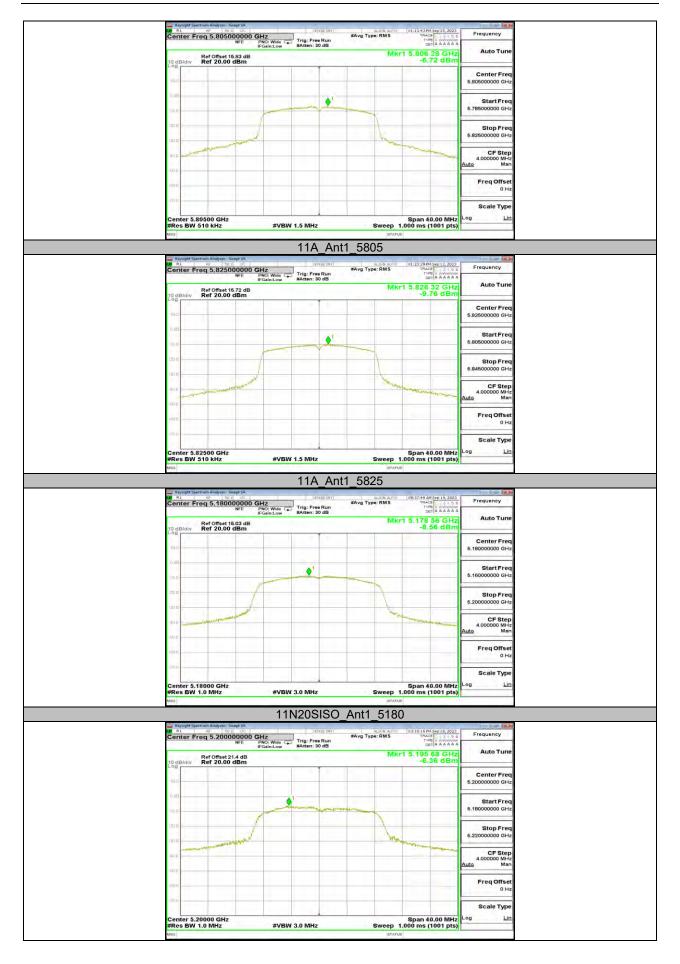




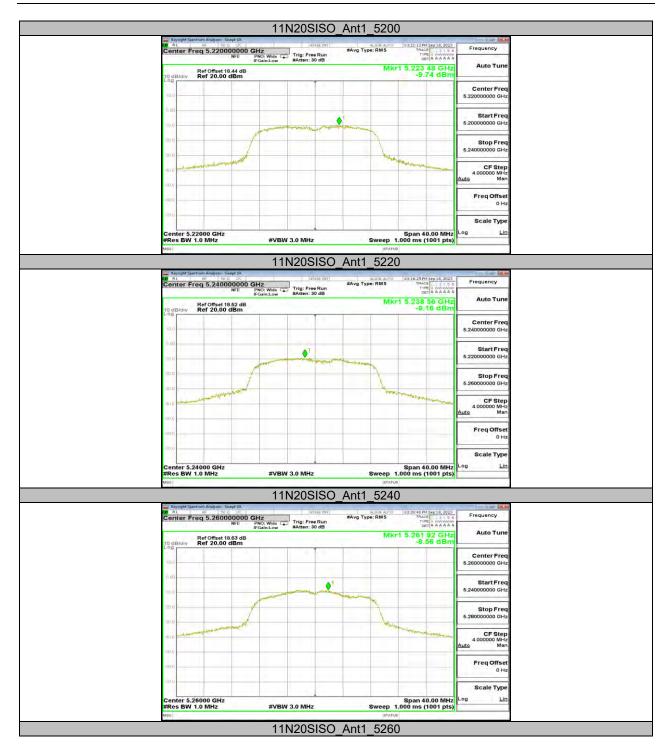




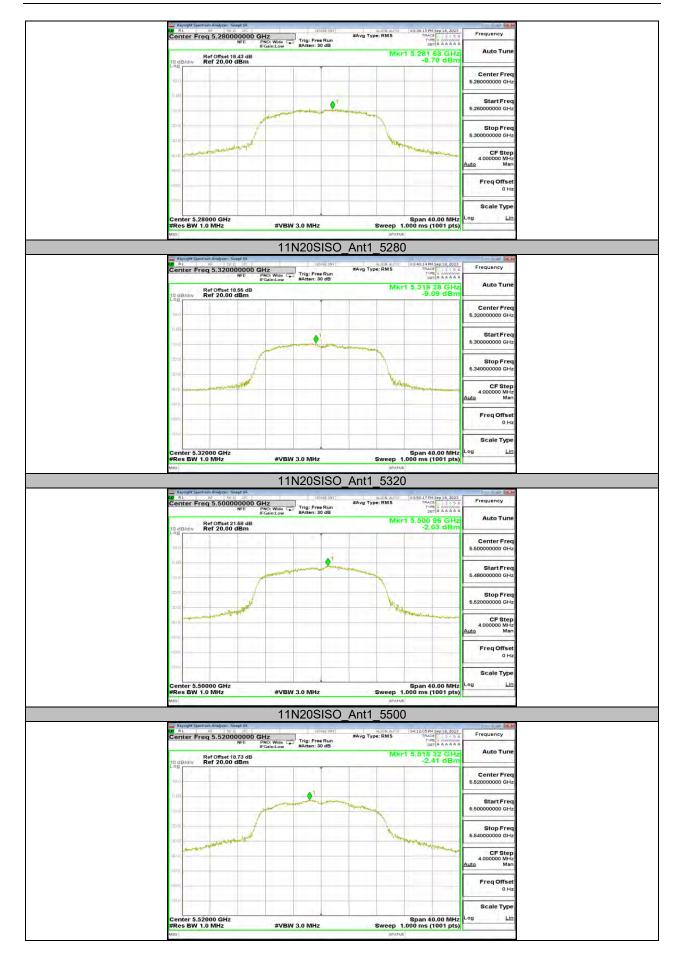




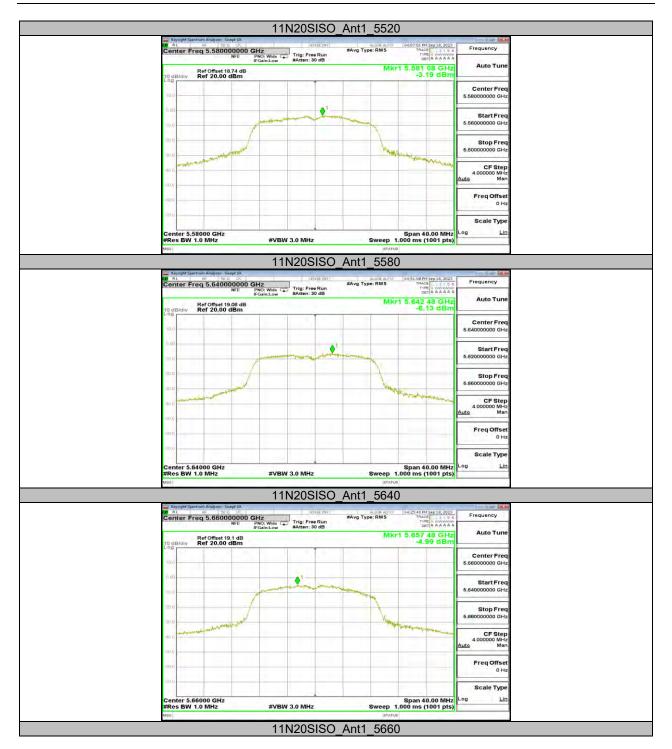




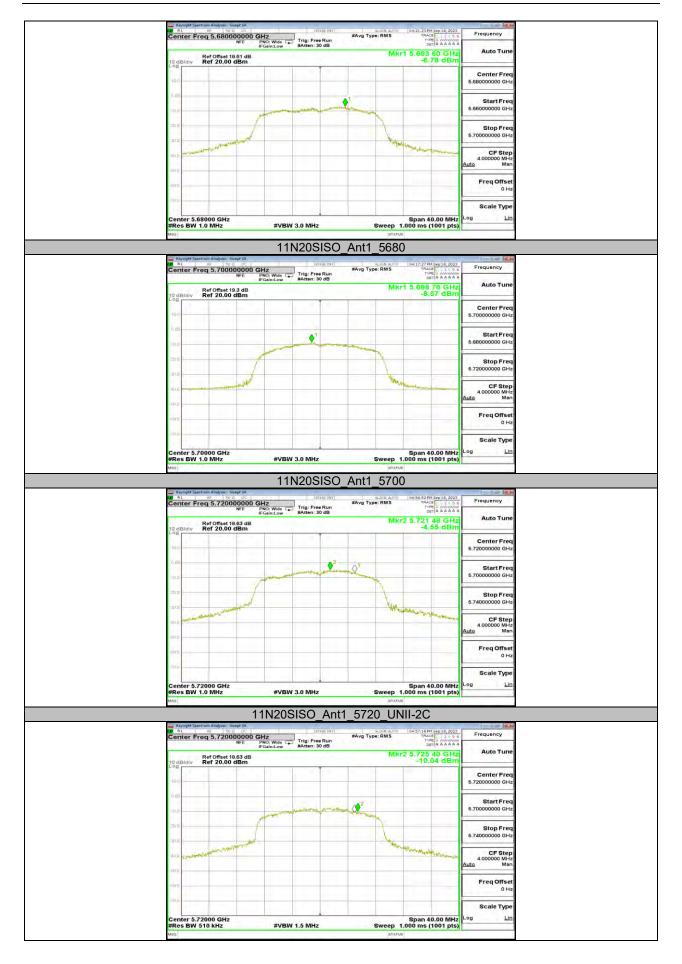




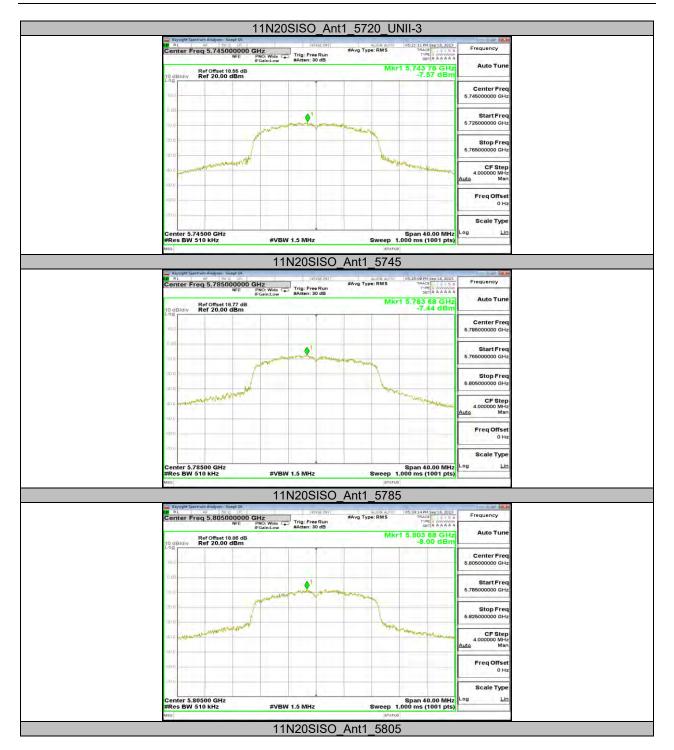


















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11.6. APPENDIX F2: FREQUENCY STABILITY 11.6.1. Test Result

	Frequency Error vs. Voltage										
	802.11a:5200MHz										
								10 Mir	Minute		
Temp.	Volt.	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)		
TN	VL	5200.0211	4.05	5199. 9848	-2.91	5199. 9982	-0.34	5200. 0204	3.93		
TN	VN	5199. 9981	-0.37	5200.0039	0.74	5199. 9777	-4.28	5199. 9757	-4.67		
TN	VH	5200.0246	4.73	5199. 9750	-4.80	5200.0096	1.85	5200.0230	4.43		
	Frequency Error vs. Temperature										

802.11a:5200MHz

_	Volt.	0 Min	ute	2 Min	2 Minute		5 Minute		10 Minute	
Temp.		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	
60	VN	5200.0064	1.23	5199. 9910	-1.72	5199. 9949	-0.98	5199. 9951	-0.94	
50	VN	5200.0003	0.06	5200.0114	2.19	5199. 9840	-3.07	5200.0045	0.86	
40	VN	5200. 0127	2.44	5200. 0206	3.96	5200. 0142	2.73	5200. 0129	2.49	
30	VN	5200. 0220	4.23	5199. 9838	-3.12	5199. 9810	-3.66	5200. 0143	2.75	
20	VN	5199. 9945	-1.06	5199. 9835	-3.18	5200. 0204	3.93	5200.0020	0.38	
10	VN	5200.0082	1.58	5200. 0055	1.05	5199. 9812	-3.61	5199. 9996	-0.08	
0	VN	5200. 0163	3.13	5199. 9945	-1.05	5200. 0220	4.23	5199. 9801	-3.82	
-10	VN	5199. 9765	-4.53	5199. 9937	-1.20	5199. 9892	-2.09	5200.0085	1.63	
-20	VN	5199. 9926	-1.42	5200. 0117	2.25	5199. 9916	-1.62	5200. 0226	4.35	
-30	VN	5199. 9924	-1.46	5199. 9792	-4.00	5199. 9999	-0.01	5200. 0151	2.90	

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.



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11.7. APPENDIX G2: 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	1.48	0.9189	91.89	0.37	0.74	1
11N20SISO	1.28	1.40	0.9143	91.43	0.39	0.78	1

Note:

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

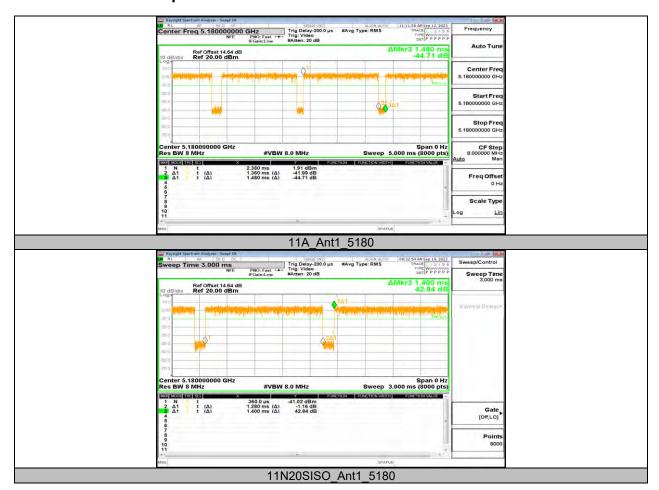
Where: x is Duty Cycle (Linear)

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



END OF REPORT