

11.4 Test Result

5150-5250MHz:MHz

ANT1+ANT2

Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm)	Result
802.11a	5180	-2.255	-2.274	/	11	Pass
	5200	-1.417	-2.179	/	11	Pass
	5240	-2.569	-0.649	/	11	Pass
802.11n(HT20)	5180	-2.635	-2.632	0.377	11	Pass
	5200	-2.030	-2.620	0.695	11	Pass
	5240	-3.090	-2.008	0.495	11	Pass
802.11n(HT40)	5190	-6.275	-6.157	-3.205	11	Pass
	5230	-5.775	-5.178	-2.456	11	Pass
802.11ac(VH20)	5210	-7.818	-6.033	-3.824	11	Pass
	5180	-2.073	-2.584	0.689	11	Pass
	5200	-2.212	-2.048	0.881	11	Pass
802.11ac(VH40)	5240	-2.117	-2.394	0.757	11	Pass
	5190	-5.687	-5.492	-2.578	11	Pass
802.11ac(VH80)	5230	-4.662	-4.510	-1.575	11	Pass

5250-5350 MHz:MHz

ANT1+ANT2

Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm)	Result
802.11a	5260	2.960	2.377	/	11	Pass
	5280	2.585	2.463	/	11	Pass
	5320	2.571	2.367	/	11	Pass
802.11n(HT20)	5260	2.123	2.050	5.097	11	Pass
	5280	2.265	1.880	5.087	11	Pass
	5320	2.232	1.898	5.079	11	Pass
802.11n(HT40)	5270	-1.150	-0.791	2.044	11	Pass
	5310	-0.954	-0.767	2.151	11	Pass
802.11ac(VH20)	5260	-3.558	-3.323	-0.429	11	Pass
	5280	2.156	2.136	5.156	11	Pass
	5320	2.236	1.978	5.119	11	Pass
802.11ac(VH40)	5270	1.969	1.823	4.907	11	Pass
	5310	-1.155	-0.890	1.990	11	Pass
802.11ac(VH80)	5290	-1.020	-0.783	2.110	11	Pass

5470-5725MHz:
ANT1+ANT2

Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm)	Result
802.11a	5500	2.127	2.949	/	30	Pass
	5580	3.930	2.265	/	30	Pass
	5700	3.953	2.603	/	30	Pass
802.11n(HT20)	5500	1.356	2.573	5.017	30	Pass
	5580	3.607	2.050	5.908	30	Pass
	5700	3.020	1.973	5.538	30	Pass
802.11n(HT40)	5510	-0.897	-1.021	2.052	30	Pass
	5670	-0.345	-1.452	2.147	30	Pass
802.11ac(VH20)	5530	-1.978	-2.591	0.737	30	Pass
	5500	2.461	2.141	5.314	30	Pass
	5580	2.577	2.969	5.788	30	Pass
802.11ac(VH40)	5700	2.696	2.494	5.606	30	Pass
	5510	-1.071	-0.858	2.047	30	Pass
802.11ac(VH80)	5670	-0.477	-1.373	2.108	30	Pass

5725-5850MHz:
ANT1+ANT2

Test mode	Test Channel (MHz)	PSD [dBm/MHz] ANT 1	PSD [dBm/MHz] ANT 2	PSD [dBm/MHz] Total	Limit (dBm)	Result
802.11a	5745	-4.411	-6.090	/	30	Pass
	5785	-5.251	-6.308	/	30	Pass
	5825	-5.468	-6.939	/	30	Pass
802.11n(HT20)	5745	-5.950	-6.826	-3.356	30	Pass
	5785	-5.989	-7.177	-3.532	30	Pass
	5825	-6.209	-7.295	-3.708	30	Pass
802.11n(HT40)	5755	-9.067	-9.383	-6.212	30	Pass
	5795	-10.254	-10.312	-7.273	30	Pass
802.11ac(VH20)	5745	-11.124	-11.448	-8.273	30	Pass
	5785	-5.304	-6.715	-2.942	30	Pass
	5825	-5.180	-7.124	-3.034	30	Pass
802.11ac(VH40)	5755	-6.142	-7.094	-3.582	30	Pass
	5795	-9.865	-9.933	-6.889	30	Pass
802.11ac(VH80)	5775	-10.587	-10.517	-7.542	30	Pass

Test Graph: 5150-5250MHz ANT1





802.11ac(VH80)-5210



802.11n(HT20)-5180



802.11n(HT20)-5200



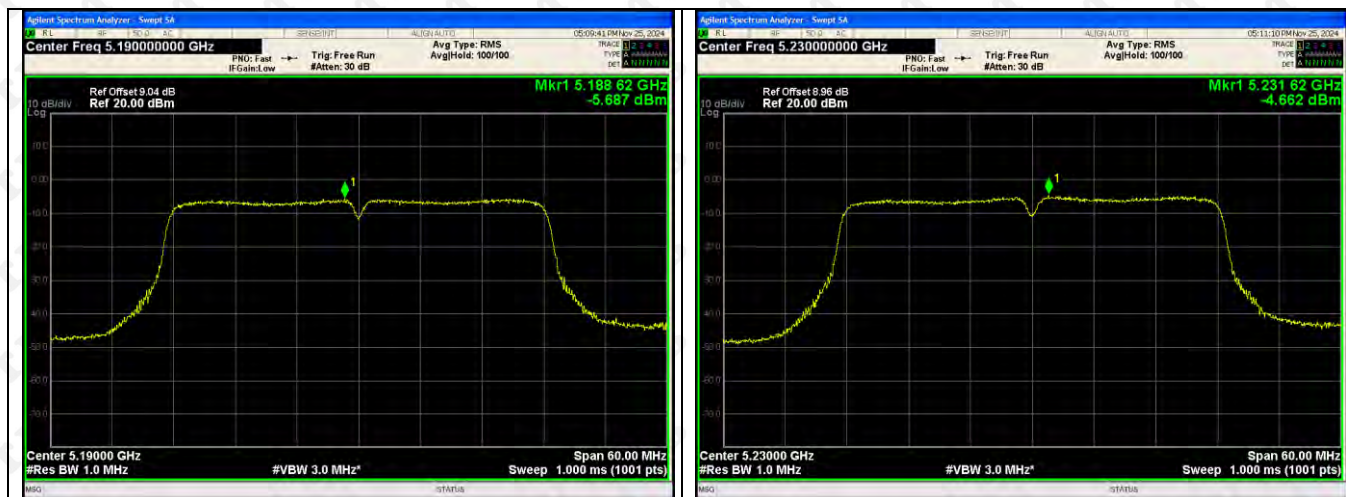
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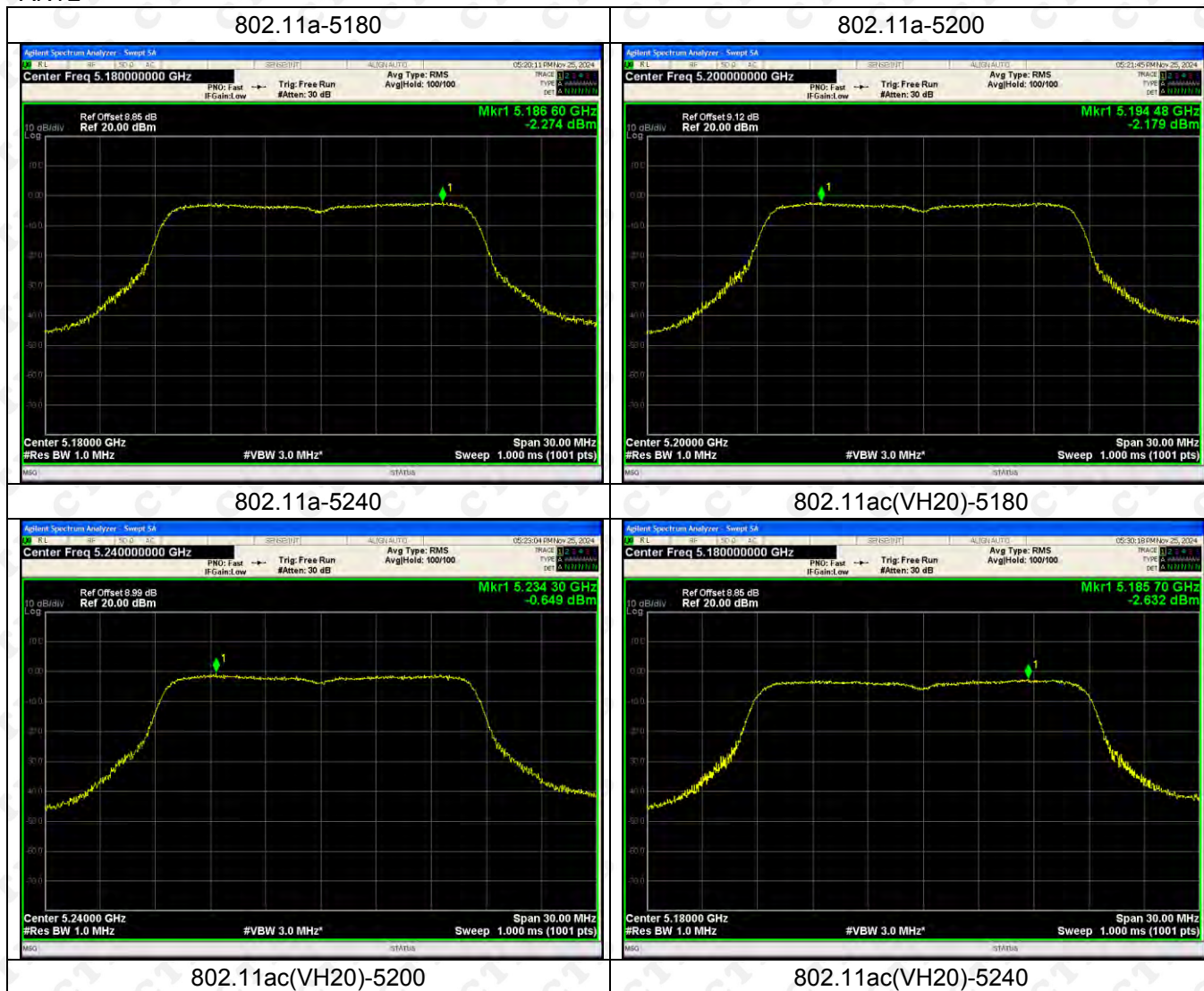
802.11n(HT40)-5190



802.11n(HT40)-5230



ANT2





802.11ac(VH40)-5190



802.11ac(VH40)-5230



802.11ac(VH80)-5210



802.11n(HT20)-5180



802.11n(HT20)-5200



802.11n(HT20)-5240



802.11n(HT40)-5190



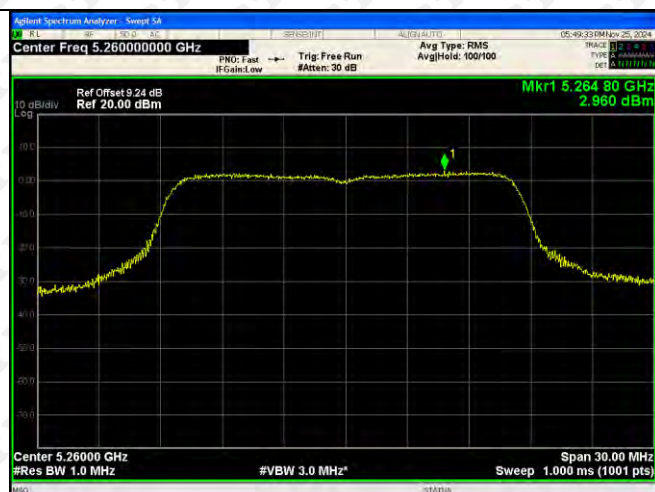
802.11n(HT40)-5230



5250-5350MHz

ANT1

802.11a-5260



802.11a-5280



802.11a-5320



802.11ac(VH20)-5260



802.11ac(VH20)-5280



802.11ac(VH20)-5320



802.11ac(VH40)-5270

802.11ac(VH40)-5310



802.11ac(VH80)-5290



802.11n(HT20)-5260



802.11n(HT20)-5280



802.11n(HT20)-5320



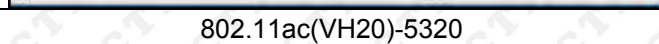
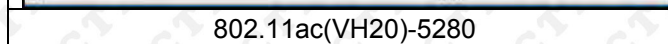
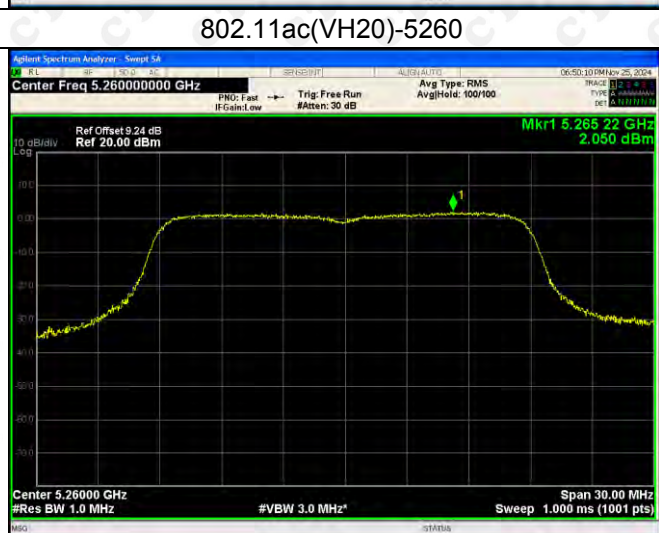
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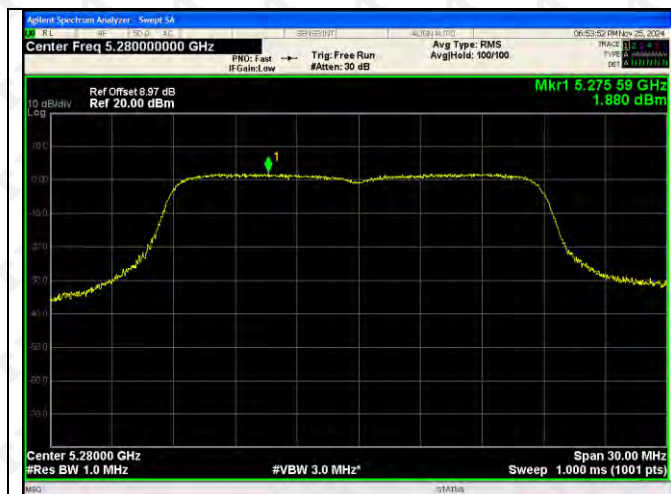


802.11n(HT40)-5310



ANT2





802.11ac(VH40)-5270



802.11ac(VH40)-5310



802.11ac(VH80)-5290



802.11n(HT20)-5260



802.11n(HT20)-5280



802.11n(HT20)-5320



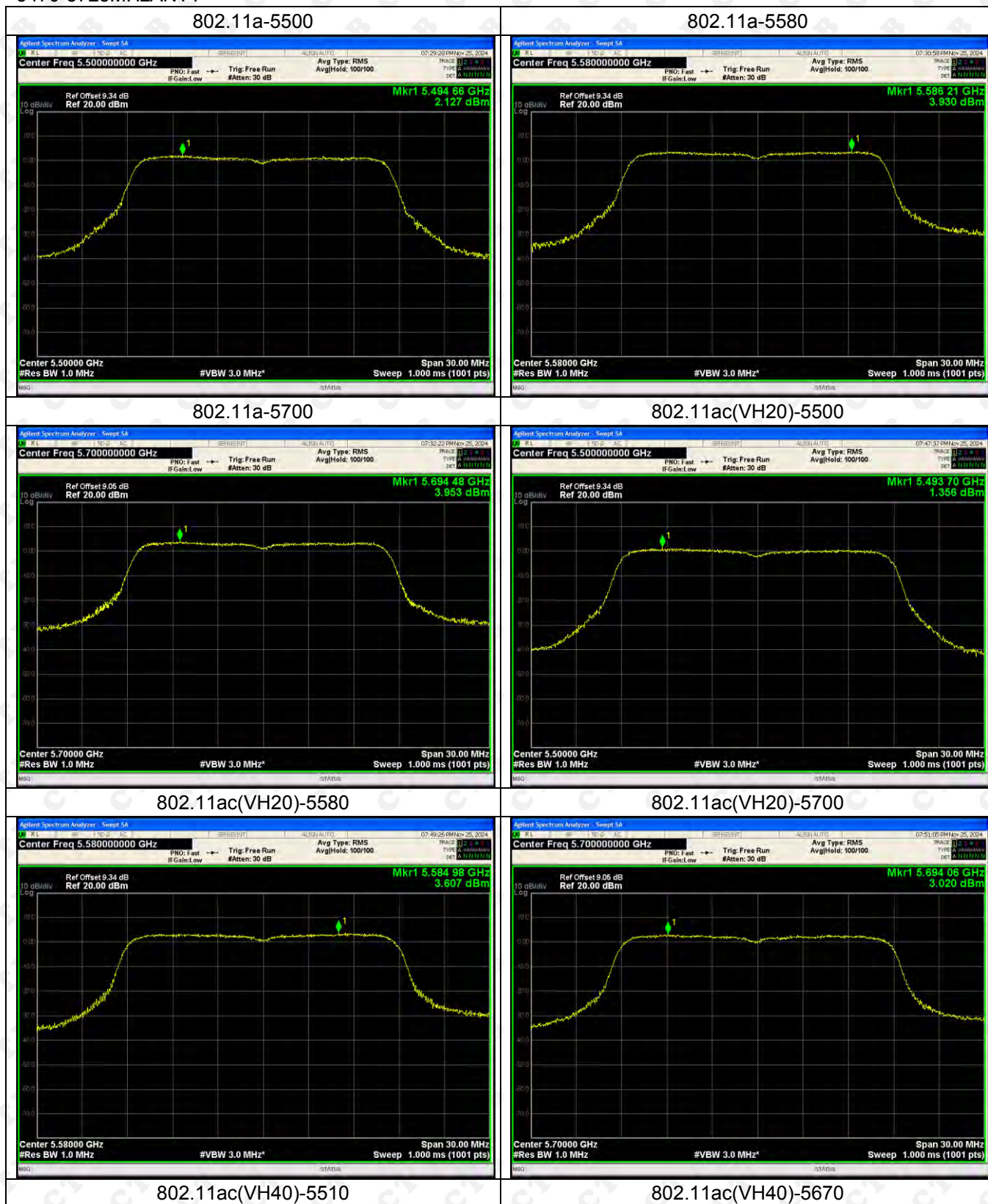
802.11n(HT40)-5270



802.11n(HT40)-5310



5470-5725MHzANT1





802.11ac(VH80)-5530



802.11n(HT20)-5500



802.11n(HT20)-5580



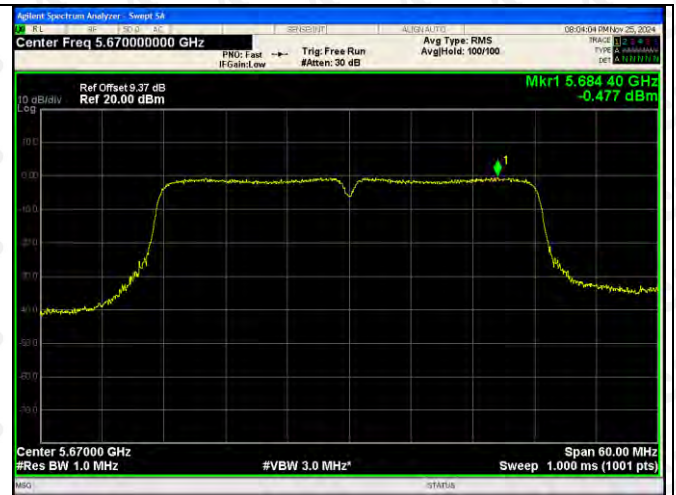
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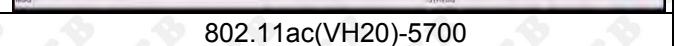
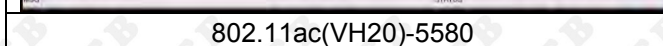
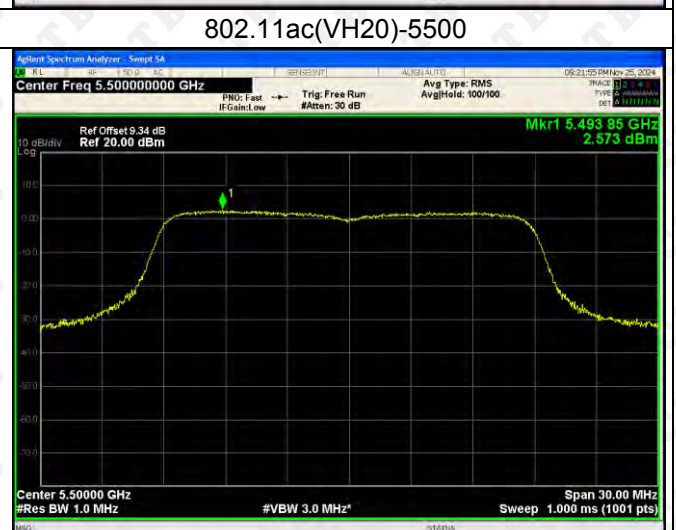
802.11n(HT40)-5510



802.11n(HT40)-5670



ANT2





802.11ac(VH40)-5510



802.11ac(VH40)-5670



802.11ac(VH80)-5530



802.11n(HT20)-5500



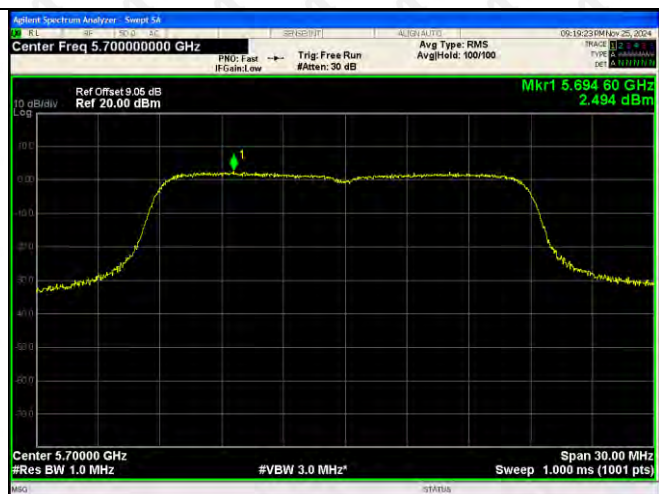
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802.11n(HT20)-5700



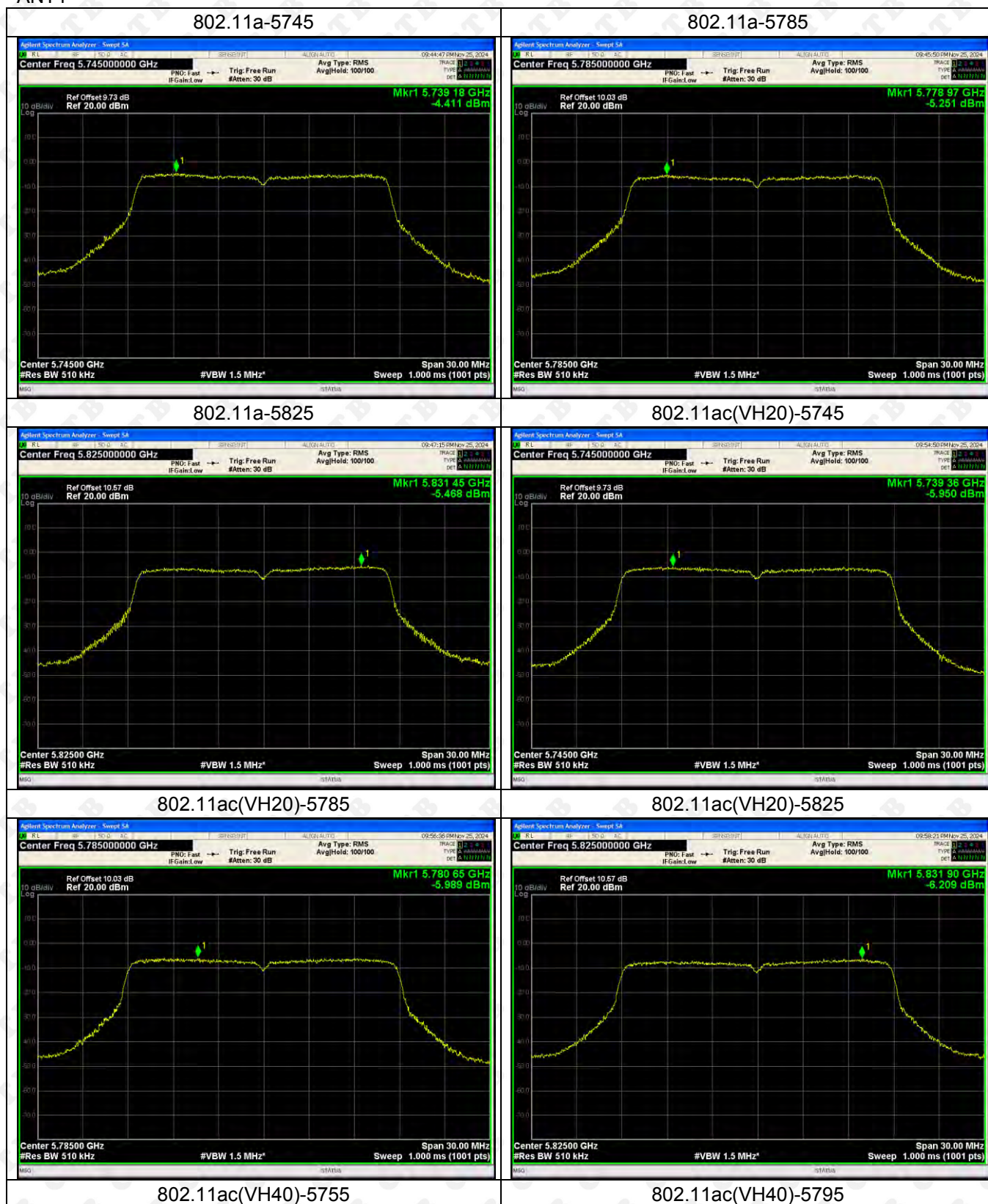
802.11n(HT40)-5510



802.11n(HT40)-5670



5725-5850MHz:
ANT1





802.11ac(VH80)-5775



802.11n(HT20)-5745



802.11n(HT20)-5785



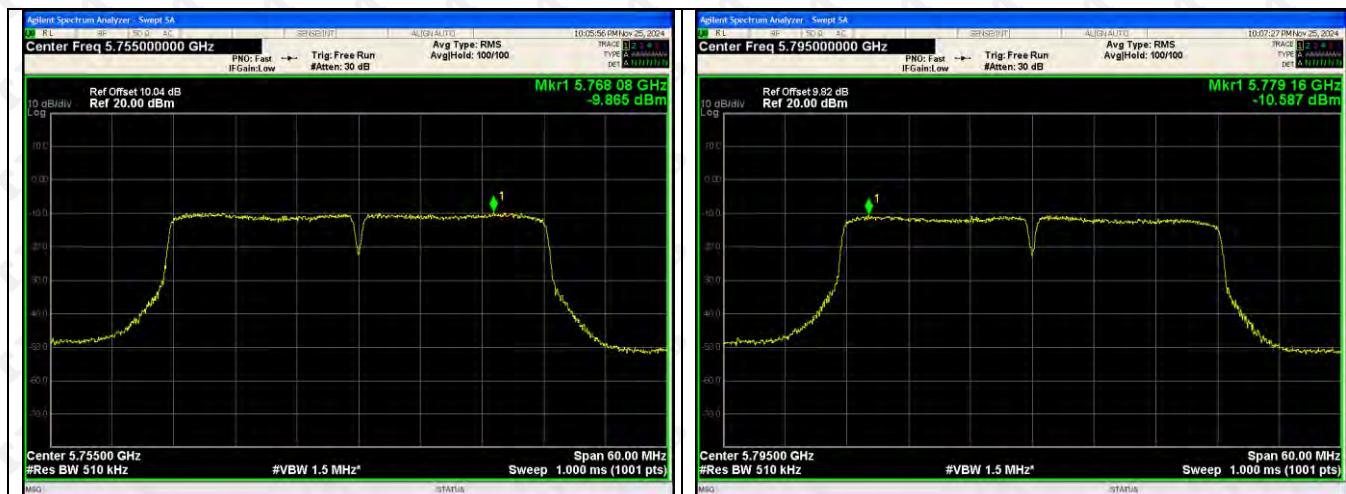
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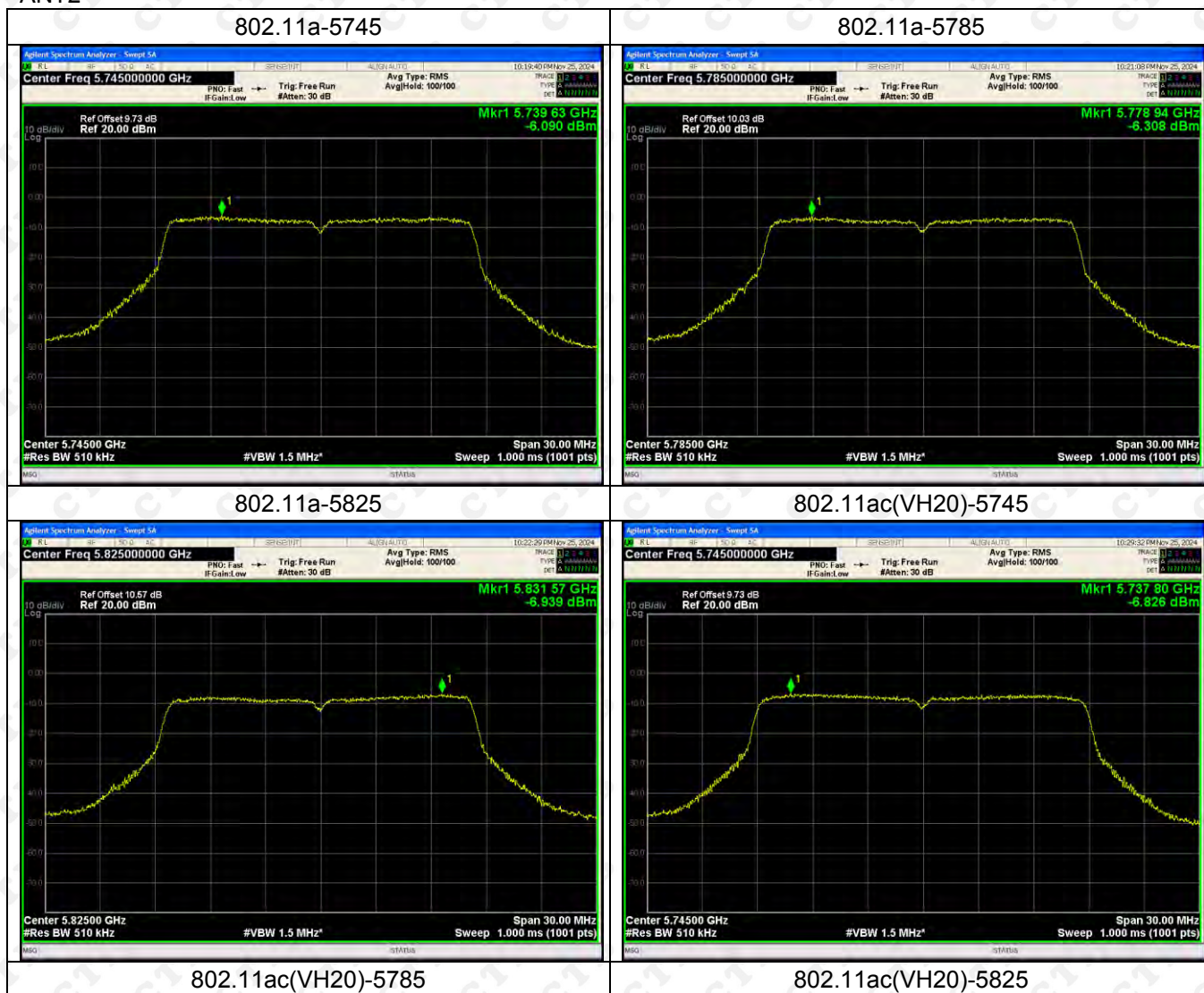
802.11n(HT40)-5795



802.11n(HT40)-5825



ANT2





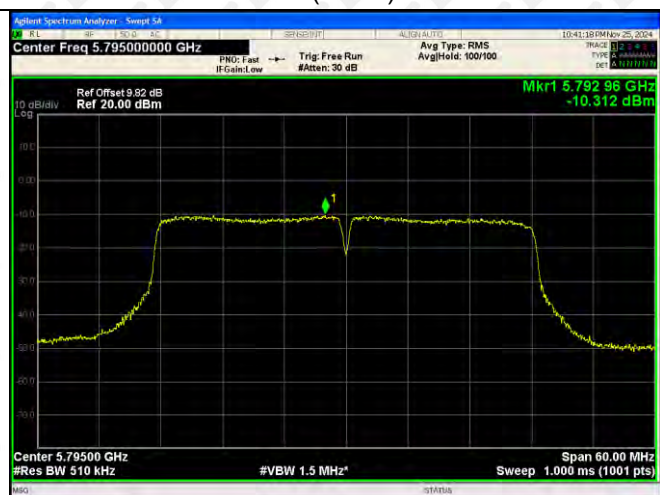
802.11ac(VH40)-5755



802.11ac(VH40)-5795



802.11ac(VH80)-5775



802.11n(HT20)-5745



802.11n(HT20)-5785



802.11n(HT20)-5825



802.11n(HT40)-5795

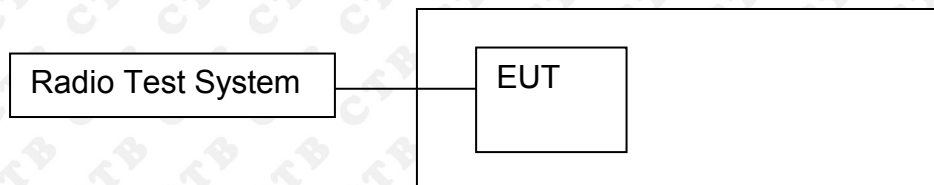


802.11n(HT40)-5825



12. FREQUENCY STABILITY

12.1 Block Diagram Of Test Setup



12.2 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

12.3 Test procedure

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

12.4 Test Result

TX Frequency (5150-5250MHz)

ANT1

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5180.1023	5180	0.1023	19.7522
		V max (V)	132	5180.0333	5180	0.0333	6.4359
		V min (V)	108	5180.0331	5180	0.0331	6.3820
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5180.0440	5180	0.0440	8.5004
		T (°C)	10	5180.0263	5180	0.0263	5.0688
		T (°C)	20	5180.0439	5180	0.0439	8.4726
		T (°C)	30	5180.0139	5180	0.0139	2.6868
		T (°C)	40	5180.0273	5180	0.0273	5.2691
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5200.0230	5200	0.0230	4.4146
		V max (V)	132	5200.0280	5200	0.0280	5.3795
		V min (V)	108	5200.0373	5200	0.0373	7.1710
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5200.0172	5200	0.0172	3.3116
		T (°C)	10	5200.0284	5200	0.0284	5.4629
		T (°C)	20	5200.0343	5200	0.0343	6.5975
		T (°C)	30	5200.0107	5200	0.0107	2.0517
		T (°C)	40	5200.0273	5200	0.0273	5.2578
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5240.0147	5240	0.0147	2.8006
		V max (V)	132	5240.0450	5240	0.0450	8.5946
		V min (V)	108	5240.0300	5240	0.0300	5.7164
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5240.0372	5240	0.0372	7.1074
		T (°C)	10	5240.0458	5240	0.0458	8.7460
		T (°C)	20	5240.0126	5240	0.0126	2.4045
		T (°C)	30	5240.0532	5240	0.0532	10.1591
		T (°C)	40	5240.0070	5240	0.0070	1.3332
Limits				±20ppm			
Result				Complies			

TX Frequency (5250-5350MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5260.0125	5260	0.0125	2.3747
		V max (V)	132	5260.0514	5260	0.0514	9.7625
		V min (V)	108	5260.0313	5260	0.0313	5.9597
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5260.0050	5260	0.0050	0.9414
		T (°C)	10	5260.0478	5260	0.0478	9.0846
		T (°C)	20	5260.0053	5260	0.0053	1.0043
		T (°C)	30	5260.0101	5260	0.0101	1.9165
		T (°C)	40	5260.0477	5260	0.0477	9.0631
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5280.0691	5280	0.0691	13.0841
		V max (V)	132	5280.0092	5280	0.0092	1.7389
		V min (V)	108	5280.0500	5280	0.0500	9.4764
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5280.0399	5280	0.0399	7.5617
		T (°C)	10	5280.0143	5280	0.0143	2.7097
		T (°C)	20	5280.0863	5280	0.0863	16.3510
		T (°C)	30	5280.0461	5280	0.0461	8.7257
		T (°C)	40	5280.0397	5280	0.0397	7.5149
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5320.0511	5320	0.0511	9.6098
		V max (V)	132	5320.0006	5320	0.0006	0.1165
		V min (V)	108	5320.0036	5320	0.0036	0.6813
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5320.0241	5320	0.0241	4.5360
		T (°C)	10	5320.0164	5320	0.0164	3.0882
		T (°C)	20	5320.0704	5320	0.0704	13.2242
		T (°C)	30	5320.0241	5320	0.0241	4.5370
		T (°C)	40	5320.0915	5320	0.0915	17.2022
Limits				±20ppm			
Result				Complies			

TX Frequency (5470-5725MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5500.0634	5500	0.0634	11.5342
		V max (V)	132	5500.0523	5500	0.0523	9.5019
		V min (V)	108	5500.0513	5500	0.0513	9.3328
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5500.0344	5500	0.0344	6.2608
		T (°C)	10	5500.0755	5500	0.0755	13.7347
		T (°C)	20	5500.0249	5500	0.0249	4.5303
		T (°C)	30	5500.0150	5500	0.0150	2.7354
		T (°C)	40	5500.0624	5500	0.0624	11.3542
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5580.0744	5580	0.0744	13.3287
		V max (V)	132	5580.0009	5580	0.0009	0.1634
		V min (V)	108	5580.0540	5580	0.0540	9.6805
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5580.0670	5580	0.0670	12.0031
		T (°C)	10	5580.0406	5580	0.0406	7.2708
		T (°C)	20	5580.0889	5580	0.0889	15.9393
		T (°C)	30	5580.0054	5580	0.0054	0.9600
		T (°C)	40	5580.0254	5580	0.0254	4.5492
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5700.0481	5700	0.0481	8.4307
		V max (V)	132	5700.0012	5700	0.0012	0.2137
		V min (V)	108	5700.0157	5700	0.0157	2.7547
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5700.0006	5700	0.0006	0.0975
		T (°C)	10	5700.0683	5700	0.0683	11.9782
		T (°C)	20	5700.0177	5700	0.0177	3.0993
		T (°C)	30	5700.0363	5700	0.0363	6.3757
		T (°C)	40	5700.0355	5700	0.0355	6.2285
Limits				±20ppm			
Result				Complies			

TX Frequency (5725-5850MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5745.0474	5745	0.0474	8.2428
		V max (V)	132	5745.0357	5745	0.0357	6.2063
		V min (V)	108	5745.0474	5745	0.0474	8.2428
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5745.0166	5745	0.0166	2.8885
		T (°C)	10	5745.0682	5745	0.0682	11.8682
		T (°C)	20	5745.0872	5745	0.0872	15.1732
		T (°C)	30	5745.0378	5745	0.0378	6.5864
		T (°C)	40	5745.0784	5745	0.0784	13.6500
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5785.0808	5785	0.0808	13.9719
		V max (V)	132	5785.0212	5785	0.0212	3.6569
		V min (V)	108	5785.0868	5785	0.0868	15.0116
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5785.0266	5785	0.0266	4.6066
		T (°C)	10	5785.0700	5785	0.0700	12.0969
		T (°C)	20	5785.0757	5785	0.0757	13.0926
		T (°C)	30	5785.0800	5785	0.0800	13.8335
		T (°C)	40	5785.0854	5785	0.0854	14.7626
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5825.0567	5825	0.0567	9.7303
		V max (V)	132	5825.0043	5825	0.0043	0.7298
		V min (V)	108	5825.0691	5825	0.0691	11.8665
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5825.0395	5825	0.0395	6.7760
		T (°C)	10	5825.0231	5825	0.0231	3.9682
		T (°C)	20	5825.0636	5825	0.0636	10.9250
		T (°C)	30	5825.0615	5825	0.0615	10.5648
		T (°C)	40	5825.0819	5825	0.0819	14.0524
Limits				±20ppm			
Result				Complies			

ANT2:

TX Frequency (5150-5250MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5180.0677	5180	0.0677	13.0608
		V max (V)	132	5180.0351	5180	0.0351	6.7728
		V min (V)	108	5180.0808	5180	0.0808	15.6027
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5180.0394	5180	0.0394	7.6001
		T (°C)	10	5180.0560	5180	0.0560	10.8106
		T (°C)	20	5180.0028	5180	0.0028	0.5405
		T (°C)	30	5180.0673	5180	0.0673	13.0017
		T (°C)	40	5180.0737	5180	0.0737	14.2236
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5200.0704	5200	0.0704	13.5323
		V max (V)	132	5200.0668	5200	0.0668	12.8458
		V min (V)	108	5200.0279	5200	0.0279	5.3725
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5200.0036	5200	0.0036	0.6979
		T (°C)	10	5200.0129	5200	0.0129	2.4859
		T (°C)	20	5200.0535	5200	0.0535	10.2825
		T (°C)	30	5200.0254	5200	0.0254	4.8926
		T (°C)	40	5200.0509	5200	0.0509	9.7811
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5240.0430	5240	0.0430	8.2129
		V max (V)	132	5240.0856	5240	0.0856	16.3353
		V min (V)	108	5240.0684	5240	0.0684	13.0540
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5240.0842	5240	0.0842	16.0704
		T (°C)	10	5240.0663	5240	0.0663	12.6550
		T (°C)	20	5240.0507	5240	0.0507	9.6709
		T (°C)	30	5240.0216	5240	0.0216	4.1311
		T (°C)	40	5240.0203	5240	0.0203	3.8705
Limits				±20ppm			
Result				Complies			

TX Frequency (5250-5350MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (° C)	20	V nom (V)	120	5260.0886	5260	0.0886	16.8371
		V max (V)	132	5260.0705	5260	0.0705	13.3968
		V min (V)	108	5260.0074	5260	0.0074	1.3975
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5260.0718	5260	0.0718	13.6448
		T (°C)	10	5260.0620	5260	0.0620	11.7957
		T (°C)	20	5260.0894	5260	0.0894	17.0055
		T (°C)	30	5260.0375	5260	0.0375	7.1270
		T (°C)	40	5260.0458	5260	0.0458	8.7059
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5280.0868	5280	0.0868	16.4333
		V max (V)	132	5280.0103	5280	0.0103	1.9469
		V min (V)	108	5280.0165	5280	0.0165	3.1331
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5280.0121	5280	0.0121	2.2982
		T (°C)	10	5280.0770	5280	0.0770	14.5750
		T (°C)	20	5280.0018	5280	0.0018	0.3427
		T (°C)	30	5280.0203	5280	0.0203	3.8503
		T (°C)	40	5280.0368	5280	0.0368	6.9751
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5320.0492	5320	0.0492	9.2414
		V max (V)	132	5320.0126	5320	0.0126	2.3702
		V min (V)	108	5320.0834	5320	0.0834	15.6719
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5320.0668	5320	0.0668	12.5488
		T (°C)	-10	5320.0321	5320	0.0321	6.0327
		T (°C)	0	5320.0103	5320	0.0103	1.9382
		T (°C)	10	5320.0093	5320	0.0093	1.7413
		T (°C)	20	5320.0930	5320	0.0930	17.4769
		T (°C)	30	5320.0612	5320	0.0612	11.4968
		T (°C)	40	5320.0119	5320	0.0119	2.2452
		T (°C)	50	5320.0540	5320	0.0540	10.1515
		T (°C)	60	5320.0005	5320	0.0005	0.1020
		T (°C)	70	5320.0145	5320	0.0145	2.7244
Limits				±20ppm			
Result				Complies			

TX Frequency (5470-5725MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (° C)	20	V nom (V)	120	5500.0891	5500	0.0891	16.2057
		V max (V)	132	5500.0722	5500	0.0722	13.1349
		V min (V)	108	5500.0454	5500	0.0454	8.2522
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5500.0788	5500	0.0788	14.3267
		T (°C)	10	5500.0720	5500	0.0720	13.0897
		T (°C)	20	5500.0182	5500	0.0182	3.3030
		T (°C)	30	5500.0130	5500	0.0130	2.3694
		T (°C)	40	5500.0307	5500	0.0307	5.5795
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (° C)	20	V nom (V)	120	5580.0234	5580	0.0234	4.1881
		V max (V)	132	5580.0817	5580	0.0817	14.6500
		V min (V)	108	5580.0400	5580	0.0400	7.1606
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5580.0710	5580	0.0710	12.7214
		T (°C)	10	5580.0874	5580	0.0874	15.6651
		T (°C)	20	5580.0343	5580	0.0343	6.1550
		T (°C)	30	5580.0928	5580	0.0928	16.6319
		T (°C)	40	5580.0240	5580	0.0240	4.2966
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (° C)	20	V nom (V)	120	5700.0839	5700	0.0839	14.7256
		V max (V)	132	5700.0027	5700	0.0027	0.4718
		V min (V)	108	5700.0330	5700	0.0330	5.7929
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5700.0348	5700	0.0348	6.1036
		T (°C)	10	5700.0847	5700	0.0847	14.8642
		T (°C)	20	5700.0299	5700	0.0299	5.2461
		T (°C)	30	5700.0814	5700	0.0814	14.2750
		T (°C)	40	5700.0450	5700	0.0450	7.9011
Limits				±20ppm			
Result				Complies			

TX Frequency (5725-5850MHz)

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5745.0269	5745	0.0269	4.6886
		V max (V)	132	5745.0607	5745	0.0607	10.5644
		V min (V)	108	5745.0645	5745	0.0645	11.2247
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5745.0106	5745	0.0106	1.8453
		T (°C)	10	5745.0310	5745	0.0310	5.3921
		T (°C)	20	5745.0830	5745	0.0830	14.4542
		T (°C)	30	5745.0258	5745	0.0258	4.4870
		T (°C)	40	5745.0636	5745	0.0636	11.0789
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (° C)	20	V nom (V)	120	5785.0391	5785	0.0391	6.7540
		V max (V)	132	5785.0218	5785	0.0218	3.7728
		V min (V)	108	5785.0340	5785	0.0340	5.8749
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5785.0580	5785	0.0580	10.0173
		T (°C)	10	5785.0256	5785	0.0256	4.4204
		T (°C)	20	5785.0362	5785	0.0362	6.2532
		T (°C)	30	5785.0732	5785	0.0732	12.6455
		T (°C)	40	5785.0066	5785	0.0066	1.1413
		T (°C)	50	5785.0670	5785	0.0670	11.5845
Limits				±20ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5825.0188	5825	0.0188	3.2345
		V max (V)	132	5825.0824	5825	0.0824	14.1453
		V min (V)	108	5825.0900	5825	0.0900	15.4462
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	0	5825.0326	5825	0.0326	5.5896
		T (°C)	10	5825.0714	5825	0.0714	12.2614
		T (°C)	20	5825.0167	5825	0.0167	2.8658
		T (°C)	30	5825.0231	5825	0.0231	3.9646
		T (°C)	40	5825.0221	5825	0.0221	3.7936
Limits				±20ppm			
Result				Complies			

13. OPERATION IN THE ABSENCE OF INFORMATION TO THE TRANSMIT

13.1 Requirement

15.407(c) requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signal ling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

13.2 Test Results

Operation in the absence of information to the transmit:

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ASK message transmitting from remote device and verify whether it shall resend or discontinue transmission. (manufacturer declare)

14. ANTENNA REQUIREMENT

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is FPC antenna and no consideration of replacement. The best case gain of the antenna is

WiFi (5.2G): ANT1: 0.71dBi, ANT2: 0.67dBi

WiFi (5.3G): ANT1: 0.69dBi, ANT2: 0.64dBi

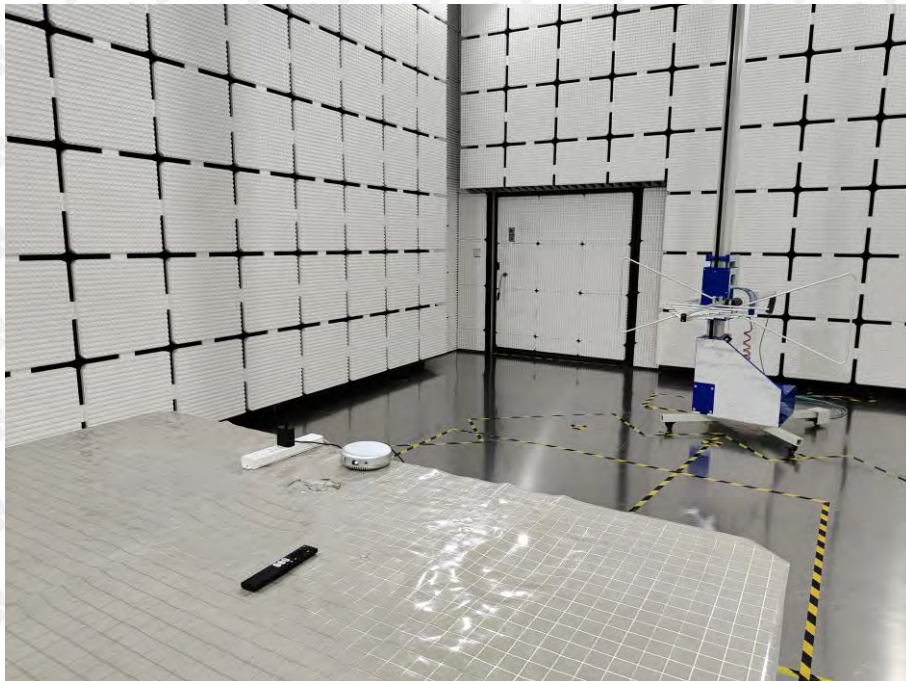
WiFi (5.6G): ANT1: 0.91dBi, ANT2: 0.87dBi

WiFi (5.8G): ANT1: 0.72dBi, ANT2: 0.68dBi

15. EUT TEST SETUP PHOTOGRAPHS

Spurious emissions

Below 1GHz



Above 1GHz



Conducted Emission



***** END OF REPORT *****