



802.11ax(HE80)-5210



802.11n(HT20)-5180



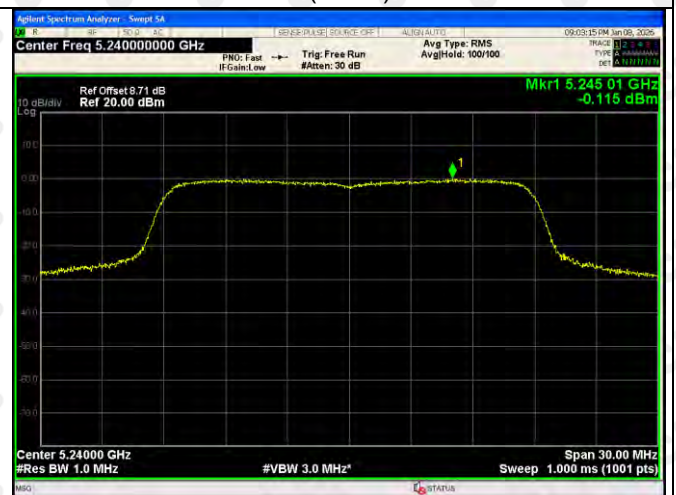
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802.11n(HT20)-5240



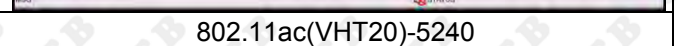
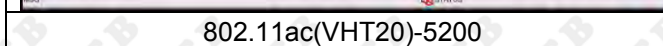
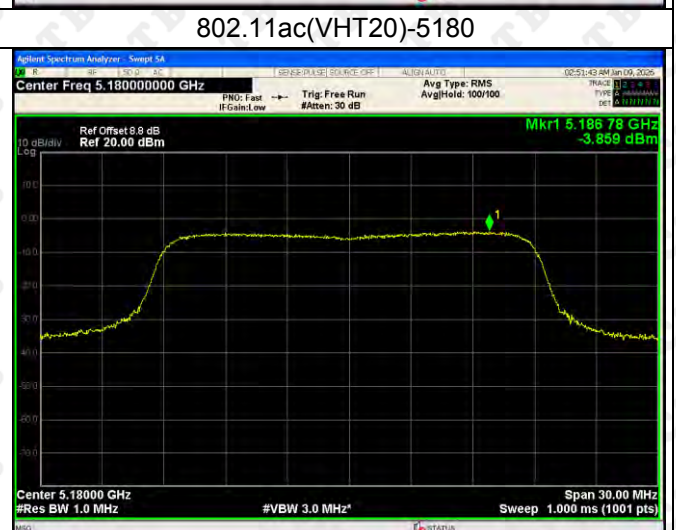
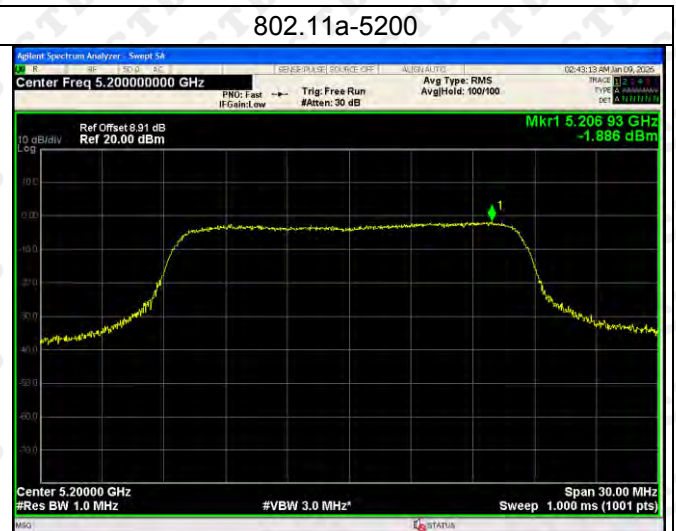
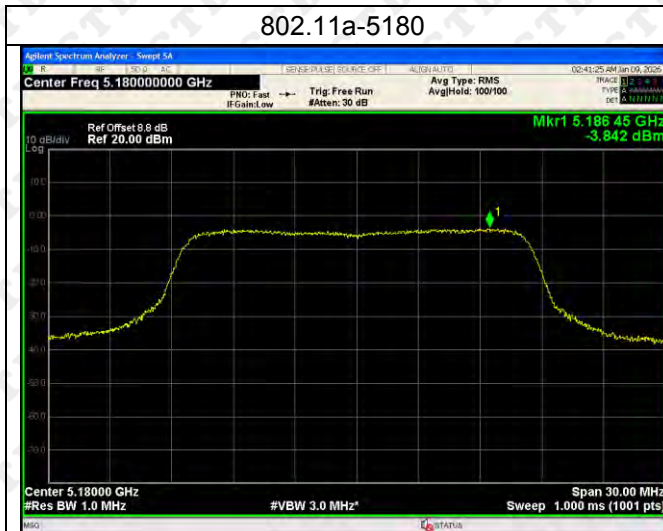
802.11n(HT40)-5190



802.11n(HT40)-5230



ANT2





802.11ac(VHT40)-5190



802.11ac(VHT40)-5230



802.11ac(VHT80)-5210



802.11ax(HE20)-5180



802.11ax(HE20)-5200



802.11ax(HE20)-5240



802.11ax(HE40)-5190



802.11ax(HE40)-5230



802.11ax(HE80)-5210



802.11n(HT20)-5180



802.11n(HT20)-5200



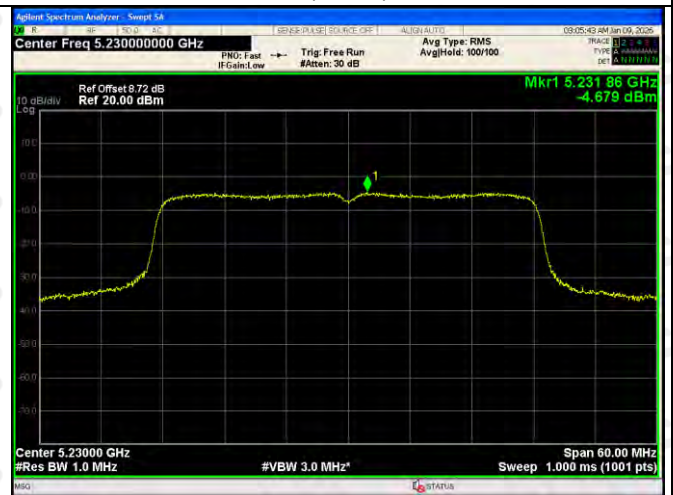
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802.11n(HT40)-5190



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



802.11ax(VH20)-5260



802.11ax(VH20)-5280



802.11ax(VH20)-5320



802.11ax(VH40)-5270



802.11ax(VH40)-5310



802.11ac(VH80)-5290



802.11n(HT20)-5260



802.11n(HT20)-5280



802.11n(HT20)-5320



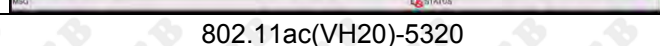
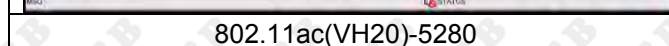
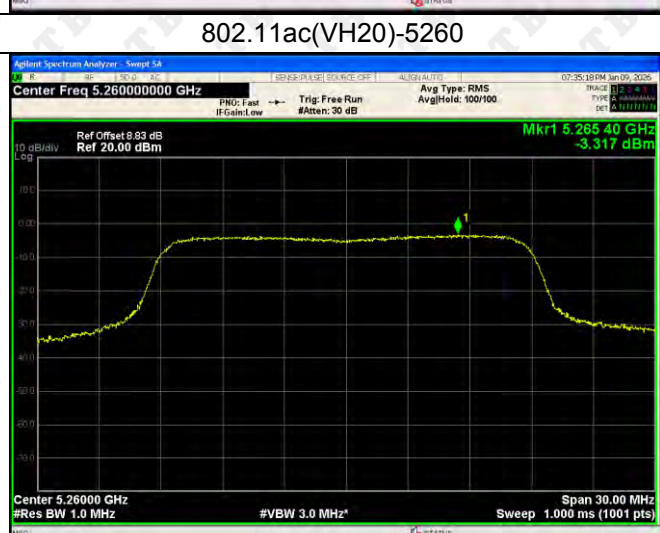
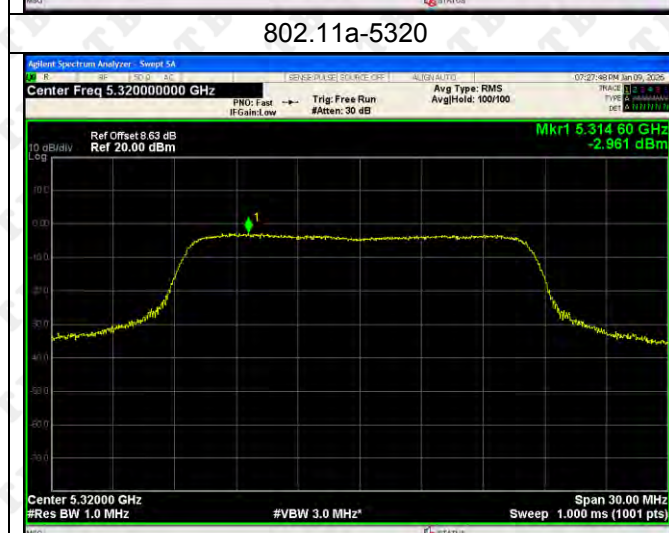
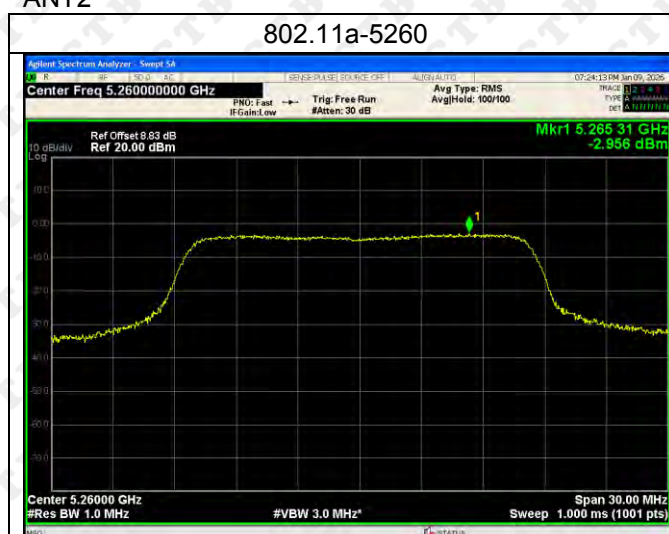
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802.11n(HT40)-5310



ANT2





802.11ac(VH40)-5270



802.11ac(VH40)-5310



802.11ac(VH80)-5290



802.11ax(VH20)-5260



802.11ax(VH20)-5280



802.11ax(VH20)-5320



802.11ax(VH40)-5270



802.11ax(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



5470-5725MHz
ANT1

802.11a-5500



802.11a-5580



802.11a-5700



802.11ac(VH20)-5500



802.11ac(VH20)-5580



802.11ac(VH20)-5700



802.11ac(VH40)-5510

802.11ac(VH40)-5670



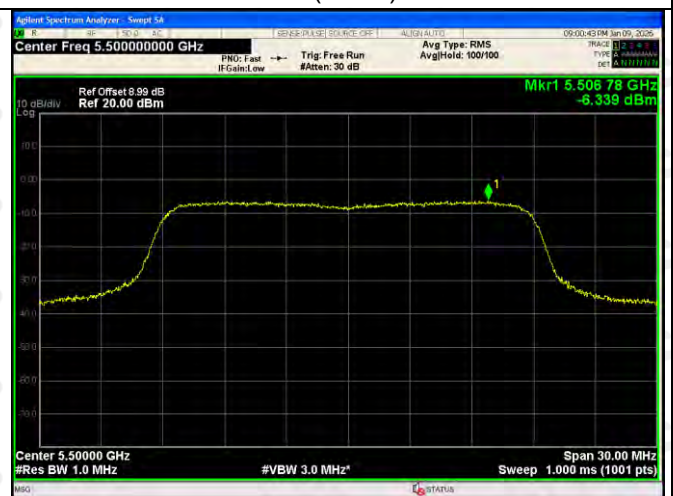
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802.11ax(VH20)-5500



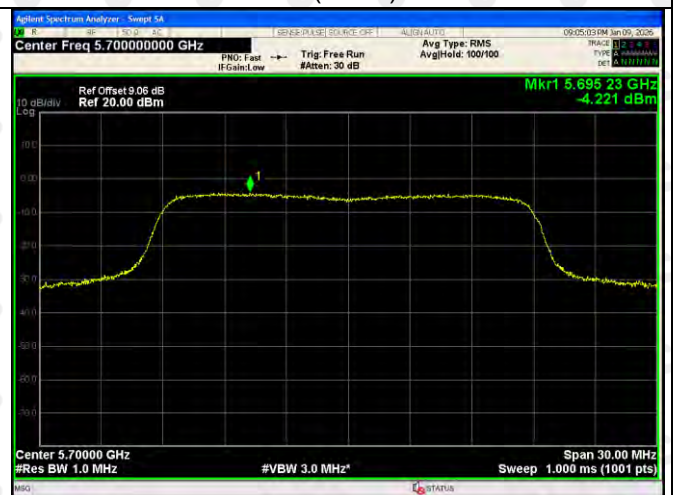
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802.11ax(VH20)-5700



802.11ax(VH40)-5510



802.11ax(VH40)-5670



802.11ax(VH80)-5530



802.11n(HT20)-5500



802.11n(HT20)-5580



802.11n(HT20)-5700



802.11n(HT40)-5510



802.11n(HT40)-5670



ANT2

802.11a-5500



802.11a-5580



802.11a-5700



802.11ac(VH20)-5500



802.11ac(VH20)-5580

802.11ac(VH20)-5700



802.11ac(VH40)-5510



802.11ac(VH40)-5670



802.11ac(VH80)-5530



802.11ax(VH20)-5500



802.11ax(VH20)-5580



802.11ax(VH20)-5700



802.11ax(VH40)-5510



802.11ax(VH40)-5670



802.11ax(VH80)-5530



802.11n(HT20)-5500



802.11n(HT20)-5580



802.11n(HT20)-5700



802.11n(HT40)-5510



802.11n(HT40)-5670



5725-5850MHz
ANT1

802.11a-5745



802.11a-5785



802.11a-5825



802.11ac(VH20)-5745



802.11ac(VH20)-5785



802.11ac(VH20)-5825



802.11ac(VH40)-5755

802.11ac(VH40)-5795



802.11ac(VH80)-5775



802.11ax(VH20)-5745



802.11ax(VH20)-5785



802.11ax(VH20)-5825



802.11ax(VH40)-5755



802.11ax(VH40)-5795



802.11ax(VH80)-5775



802.11n(HT20)-5745



802.11n(HT20)-5785



802.11n(HT20)-5825



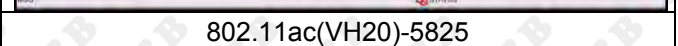
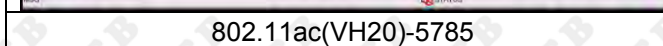
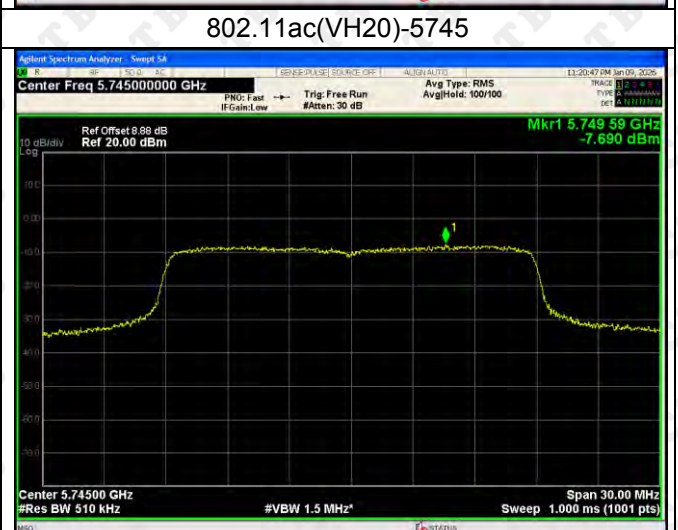
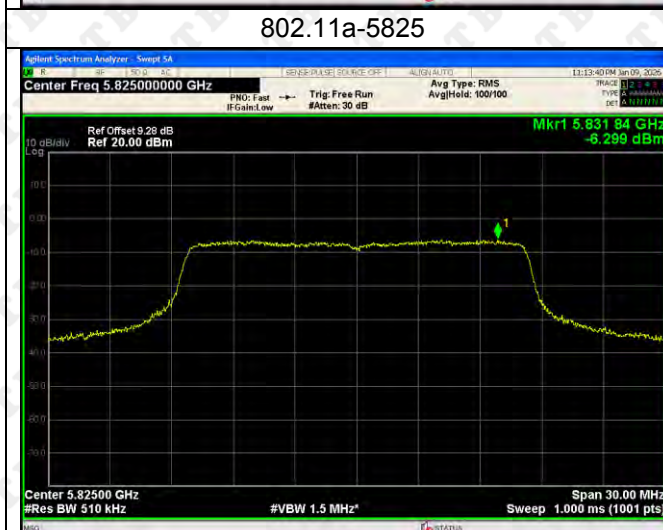
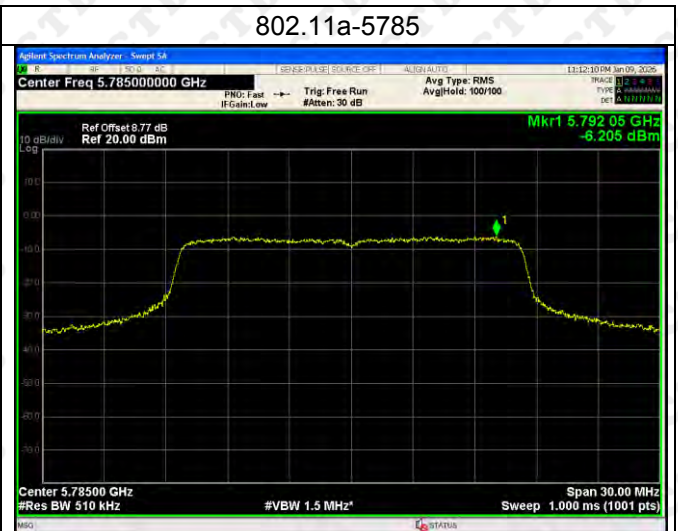
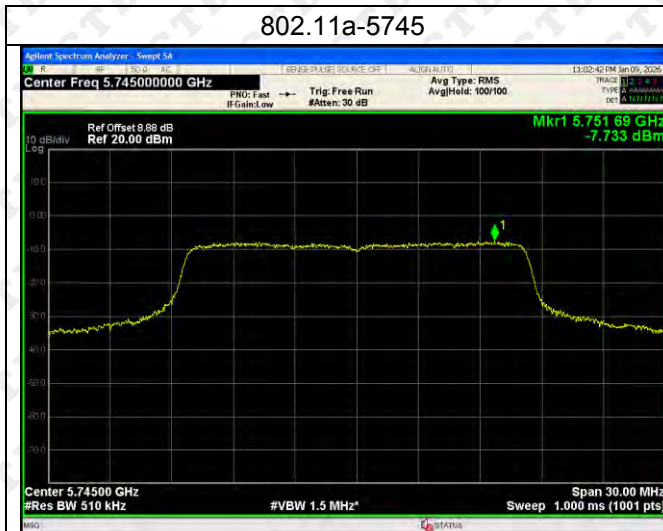
802.11n(HT40)-5775



802.11n(HT40)-5795



ANT2





802.11ac(VH40)-5755



802.11ac(VH40)-5795



802.11ac(VH80)-5775



802.11ax(VH20)-5745



802.11ax(VH20)-5785



802.11ax(VH20)-5825



802.11ax(VH40)-5755



802.11ax(VH40)-5795



802.11ax(VH80)-5775



802.11n(HT20)-5745



802.11n(HT20)-5785



802.11n(HT20)-5825



802.11n(HT40)-5775

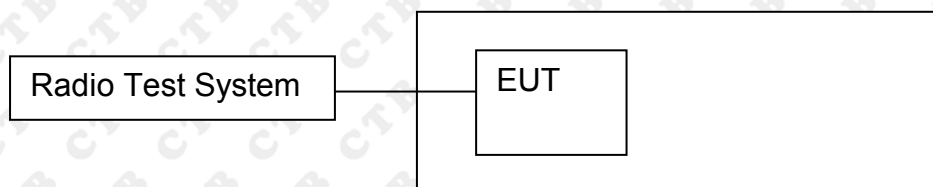


802.11n(HT40)-5795



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)	12	5180.0831	5180	0.0831	16.0435
		V max (V)	13.2	5180.0830	5180	0.0830	16.0228
		V min (V)	10.8	5180.0698	5180	0.0698	13.4674
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5180.0254	5180	0.0254	4.8941
		T (°C)	10	5180.0321	5180	0.0321	6.2026
		T (°C)	20	5180.0507	5180	0.0507	9.7830
		T (°C)	30	5180.0432	5180	0.0432	8.3477
		T (°C)	40	5180.0467	5180	0.0467	9.0241
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)	12	5200.0096	5200	0.0096	1.8458
		V max (V)	13.2	5200.0169	5200	0.0169	3.2438
		V min (V)	10.8	5200.0251	5200	0.0251	4.8320
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5200.0142	5200	0.0142	2.7223
		T (°C)	10	5200.0308	5200	0.0308	5.9192
		T (°C)	20	5200.0262	5200	0.0262	5.0440
		T (°C)	30	5200.0430	5200	0.0430	8.2598
		T (°C)	40	5200.0318	5200	0.0318	6.1227
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)	12	5240.0142	5240	0.0142	2.7080
		V max (V)	13.2	5240.0054	5240	0.0054	1.0295
		V min (V)	10.8	5240.0330	5240	0.0330	6.2961
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5240.0217	5240	0.0217	4.1367
		T (°C)	10	5240.0351	5240	0.0351	6.7041
		T (°C)	20	5240.0087	5240	0.0087	1.6554
		T (°C)	30	5240.0441	5240	0.0441	8.4186
		T (°C)	40	5240.0535	5240	0.0535	10.2098
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)	12	5260.0075	5260	0.0075	1.4275
		V max (V)	13.2	5260.0403	5260	0.0403	7.6546
		V min (V)	10.8	5260.0125	5260	0.0125	2.3858
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5260.0751	5260	0.0751	14.2713
		T (°C)	10	5260.0095	5260	0.0095	1.8016
		T (°C)	20	5260.0401	5260	0.0401	7.6208
		T (°C)	30	5260.0895	5260	0.0895	17.0183
		T (°C)	40	5260.0636	5260	0.0636	12.0932
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)	12	5280.0165	5280	0.0165	3.1303
		V max (V)	13.2	5280.0161	5280	0.0161	3.0407
		V min (V)	10.8	5280.0314	5280	0.0314	5.9415
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5280.0046	5280	0.0046	0.8747
		T (°C)	10	5280.0847	5280	0.0847	16.0496
		T (°C)	20	5280.0040	5280	0.0040	0.7575
		T (°C)	30	5280.0591	5280	0.0591	11.1924
		T (°C)	40	5280.0558	5280	0.0558	10.5607
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)	12	5320.0169	5320	0.0169	3.1742
		V max (V)	13.2	5320.0547	5320	0.0547	10.2807
		V min (V)	10.8	5320.0485	5320	0.0485	9.1189
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5320.0333	5320	0.0333	6.2531
		T (°C)	10	5320.0312	5320	0.0312	5.8659
		T (°C)	20	5320.0479	5320	0.0479	9.0002
		T (°C)	30	5320.0536	5320	0.0536	10.0844
		T (°C)	40	5320.0110	5320	0.0110	2.0641
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)	12	5500.0846	5500	0.0846	15.3882
		V max (V)	13.2	5500.0835	5500	0.0835	15.1823
		V min (V)	10.8	5550.0688	5500	50.0688	9103.4157
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5500.0738	5500	0.0738	13.4093
		T (°C)	10	5500.0793	5500	0.0793	14.4261
		T (°C)	20	5500.0131	5500	0.0131	2.3756
		T (°C)	30	5500.0491	5500	0.0491	8.9357
		T (°C)	40	5500.0445	5500	0.0445	8.0941
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)	12	5580.0397	5580	0.0397	7.1121
		V max (V)	13.2	5580.0255	5580	0.0255	4.5709
		V min (V)	10.8	5580.0109	5580	0.0109	1.9555
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5580.0608	5580	0.0608	10.8942
		T (°C)	10	5580.0598	5580	0.0598	10.7211
		T (°C)	20	5580.0070	5580	0.0070	1.2503
		T (°C)	30	5580.0410	5580	0.0410	7.3463
		T (°C)	40	5580.0753	5580	0.0753	13.5035
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)	12	5700.0387	5700	0.0387	6.7947
		V max (V)	13.2	5700.0300	5700	0.0300	5.2667
		V min (V)	10.8	5700.0346	5700	0.0346	6.0710
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5700.0623	5700	0.0623	10.9348
		T (°C)	10	5700.0111	5700	0.0111	1.9485
		T (°C)	20	5700.0125	5700	0.0125	2.1865
		T (°C)	30	5700.0868	5700	0.0868	15.2258
		T (°C)	40	5700.0550	5700	0.0550	9.6516
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)	12	5745.0686	5745	0.0686	11.9350
		V max (V)	13.2	5745.0311	5745	0.0311	5.4191
		V min (V)	10.8	5745.0686	5745	0.0686	11.9350
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5745.0356	5745	0.0356	6.2001
		T (°C)	10	5745.0742	5745	0.0742	12.9137
		T (°C)	20	5745.0823	5745	0.0823	14.3223
		T (°C)	30	5745.0018	5745	0.0018	0.3101
		T (°C)	40	5745.0712	5745	0.0712	12.3871
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)	12	5785.0697	5785	0.0697	12.0435
		V max (V)	13.2	5785.0443	5785	0.0443	7.6512
		V min (V)	10.8	5785.0698	5785	0.0698	12.0679
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5785.0043	5785	0.0043	0.7504
		T (°C)	10	5785.0525	5785	0.0525	9.0789
		T (°C)	20	5785.0092	5785	0.0092	1.5973
		T (°C)	30	5785.0238	5785	0.0238	4.1064
		T (°C)	40	5785.0113	5785	0.0113	1.9527
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)	12	5825.0788	5825	0.0788	13.5284
		V max (V)	13.2	5825.0349	5825	0.0349	5.9926
		V min (V)	10.8	5825.0233	5825	0.0233	3.9974
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5825.0064	5825	0.0064	1.0923
		T (°C)	10	5825.0734	5825	0.0734	12.5937
		T (°C)	20	5825.0795	5825	0.0795	13.6504
		T (°C)	30	5825.0518	5825	0.0518	8.9000
		T (°C)	40	5825.0386	5825	0.0386	6.6201
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)	12	5180.0216	5180	0.0216	4.1748
		V max (V)	13.2	5180.0724	5180	0.0724	13.9685
		V min (V)	10.8	5180.0405	5180	0.0405	7.8223
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5180.0003	5180	0.0003	0.0513
		T (°C)	10	5180.0700	5180	0.0700	13.5204
		T (°C)	20	5180.0759	5180	0.0759	14.6541
		T (°C)	30	5180.0315	5180	0.0315	6.0809
		T (°C)	40	5180.0728	5180	0.0728	14.0634
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)	12	5200.0157	5200	0.0157	3.0261
		V max (V)	13.2	5200.0485	5200	0.0485	9.3304
		V min (V)	10.8	5200.0588	5200	0.0588	11.3035
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5200.0019	5200	0.0019	0.3617
		T (°C)	10	5200.0255	5200	0.0255	4.9090
		T (°C)	20	5200.0806	5200	0.0806	15.4955
		T (°C)	30	5200.0312	5200	0.0312	5.9938
		T (°C)	40	5200.0282	5200	0.0282	5.4182
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)	12	5240.0460	5240	0.0460	8.7732
		V max (V)	13.2	5240.0695	5240	0.0695	13.2584
		V min (V)	10.8	5240.0103	5240	0.0103	1.9589
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5240.0069	5240	0.0069	1.3228
		T (°C)	10	5240.0273	5240	0.0273	5.2151
		T (°C)	20	5240.0227	5240	0.0227	4.3316
		T (°C)	30	5240.0755	5240	0.0755	14.4008
		T (°C)	40	5240.0880	5240	0.0880	16.7950
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)	12	5260.0445	5260	0.0445	8.4531
		V max (V)	13.2	5260.0676	5260	0.0676	12.8490
		V min (V)	10.8	5260.0514	5260	0.0514	9.7650
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5260.0475	5260	0.0475	9.0335
		T (°C)	10	5260.0329	5260	0.0329	6.2613
		T (°C)	20	5260.0234	5260	0.0234	4.4485
		T (°C)	30	5260.0377	5260	0.0377	7.1716
		T (°C)	40	5260.0112	5260	0.0112	2.1249
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)	12	5280.0704	5280	0.0704	13.3355
		V max (V)	13.2	5280.0812	5280	0.0812	15.3722
		V min (V)	10.8	5280.0854	5280	0.0854	16.1732
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5280.0662	5280	0.0662	12.5400
		T (°C)	10	5280.0895	5280	0.0895	16.9485
		T (°C)	20	5280.0393	5280	0.0393	7.4364
		T (°C)	30	5280.0594	5280	0.0594	11.2484
		T (°C)	40	5280.0058	5280	0.0058	1.1053
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)	12	5320.0272	5320	0.0272	5.1148
		V max (V)	13.2	5320.0167	5320	0.0167	3.1401
		V min (V)	10.8	5320.0126	5320	0.0126	2.3747
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5320.0889	5320	0.0889	16.7045
		T (°C)	-10	5320.0421	5320	0.0421	7.9172
		T (°C)	0	5320.0025	5320	0.0025	0.4636
		T (°C)	10	5320.0054	5320	0.0054	1.0121
		T (°C)	20	5320.0838	5320	0.0838	15.7483
		T (°C)	30	5320.0381	5320	0.0381	7.1562
		T (°C)	40	5320.0154	5320	0.0154	2.8943
		T (°C)	50	5320.0328	5320	0.0328	6.1614
		T (°C)	60	5320.0791	5320	0.0791	14.8611
		T (°C)	70	5320.0262	5320	0.0262	4.9328
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)	12	5500.0851	5500	0.0851	15.4760
		V max (V)	13.2	5500.0583	5500	0.0583	10.6025
		V min (V)	10.8	5500.0922	5500	0.0922	16.7712
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5500.0917	5500	0.0917	16.6745
		T (°C)	10	5500.0538	5500	0.0538	9.7805
		T (°C)	20	5500.0009	5500	0.0009	0.1696
		T (°C)	30	5500.0647	5500	0.0647	11.7629
		T (°C)	40	5500.0077	5500	0.0077	1.4001
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)	12	5580.0777	5580	0.0777	13.9266
		V max (V)	13.2	5580.0456	5580	0.0456	8.1708
		V min (V)	10.8	5580.0510	5580	0.0510	9.1486
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5580.0050	5580	0.0050	0.8899
		T (°C)	10	5580.0693	5580	0.0693	12.4274
		T (°C)	20	5580.0007	5580	0.0007	0.1175
		T (°C)	30	5580.0012	5580	0.0012	0.2202
		T (°C)	40	5580.0266	5580	0.0266	4.7673
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)	12	5700.0738	5700	0.0738	12.9510
		V max (V)	13.2	5700.0394	5700	0.0394	6.9059
		V min (V)	10.8	5700.0821	5700	0.0821	14.3955
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5700.0193	5700	0.0193	3.3924
		T (°C)	10	5700.0056	5700	0.0056	0.9739
		T (°C)	20	5700.0368	5700	0.0368	6.4596
		T (°C)	30	5700.0094	5700	0.0094	1.6523
		T (°C)	40	5700.0791	5700	0.0791	13.8823
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)	12	5745.0659	5745	0.0659	11.4662
		V max (V)	13.2	5745.0500	5745	0.0500	8.7068
		V min (V)	10.8	5745.0587	5745	0.0587	10.2103
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5745.0107	5745	0.0107	1.8608
		T (°C)	10	5745.0010	5745	0.0010	0.1723
		T (°C)	20	5745.0856	5745	0.0856	14.8978
		T (°C)	30	5745.0689	5745	0.0689	11.9909
		T (°C)	40	5745.0298	5745	0.0298	5.1898
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)	12	5785.0397	5785	0.0397	6.8546
		V max (V)	13.2	5785.0859	5785	0.0859	14.8495
		V min (V)	10.8	5785.0599	5785	0.0599	10.3543
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5785.0537	5785	0.0537	9.2869
		T (°C)	10	5785.0471	5785	0.0471	8.1491
		T (°C)	20	5785.0816	5785	0.0816	14.1066
		T (°C)	30	5785.0925	5785	0.0925	15.9920
		T (°C)	40	5785.0082	5785	0.0082	1.4132
		T (°C)	50	5785.0084	5785	0.0084	1.4470
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)	12	5825.0240	5825	0.0240	4.1211
		V max (V)	13.2	5825.0475	5825	0.0475	8.1604
		V min (V)	10.8	5825.0400	5825	0.0400	6.8612
Limits				±20ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	0	5825.0570	5825	0.0570	9.7870
		T (°C)	10	5825.0851	5825	0.0851	14.6150
		T (°C)	20	5825.0092	5825	0.0092	1.5858
		T (°C)	30	5825.0204	5825	0.0204	3.5054
		T (°C)	40	5825.0389	5825	0.0389	6.6696
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 External antenna and no consideration of replacement. The best case gain of the antenna is WiFi (5.2G): 4.21dBi, WiFi (5.3G): 4.52dBi , WiFi (5.6G): 4.45dBi, WiFi (5.8G): 4.65dBi.

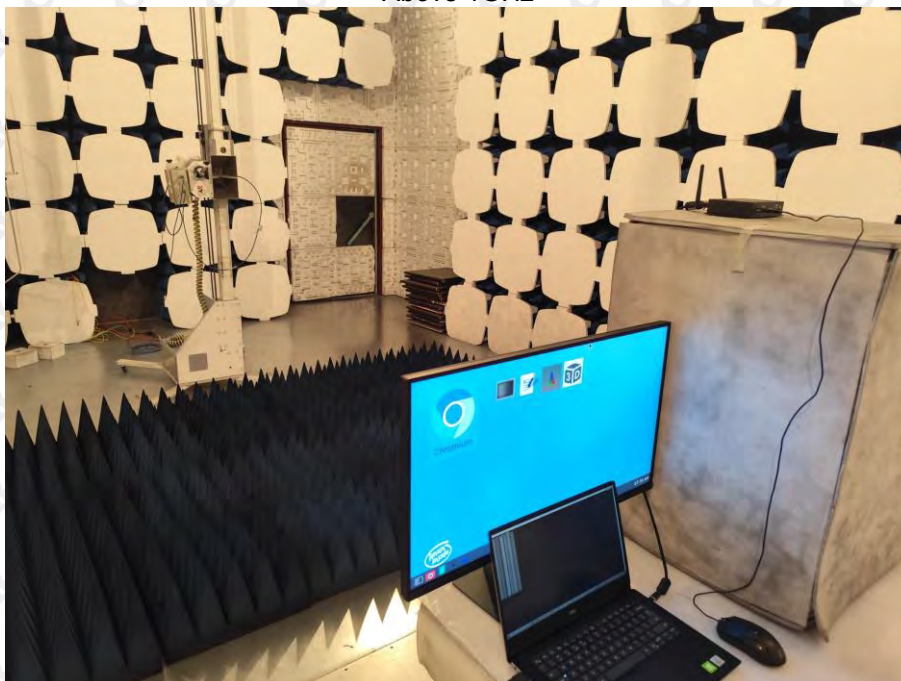
15. EUT TEST SETUP PHOTOGRAPHS

Spurious emissions

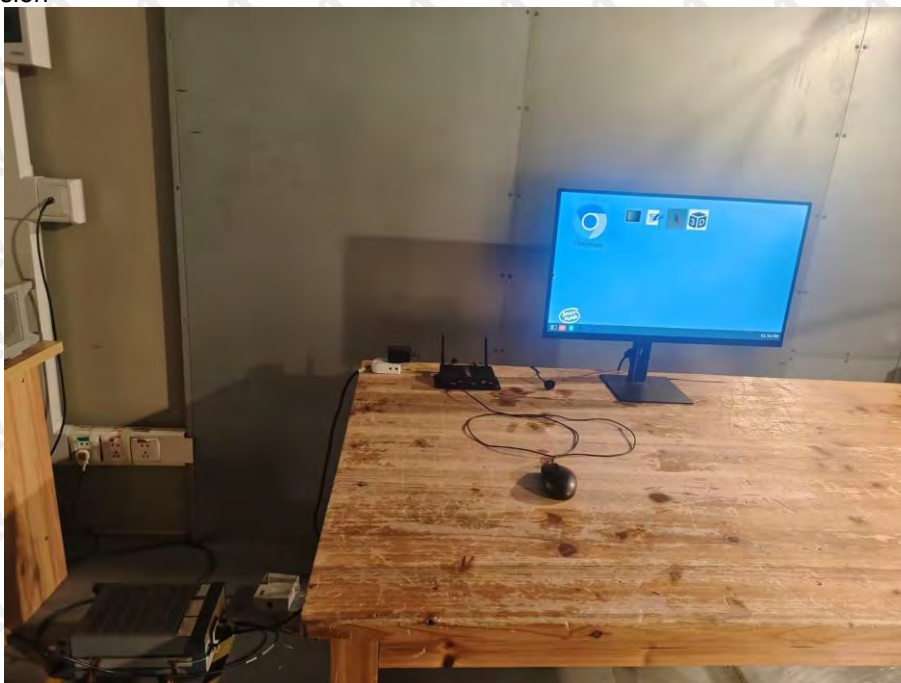
Below 1GHz



Above 1GHz



Conducted Emission



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