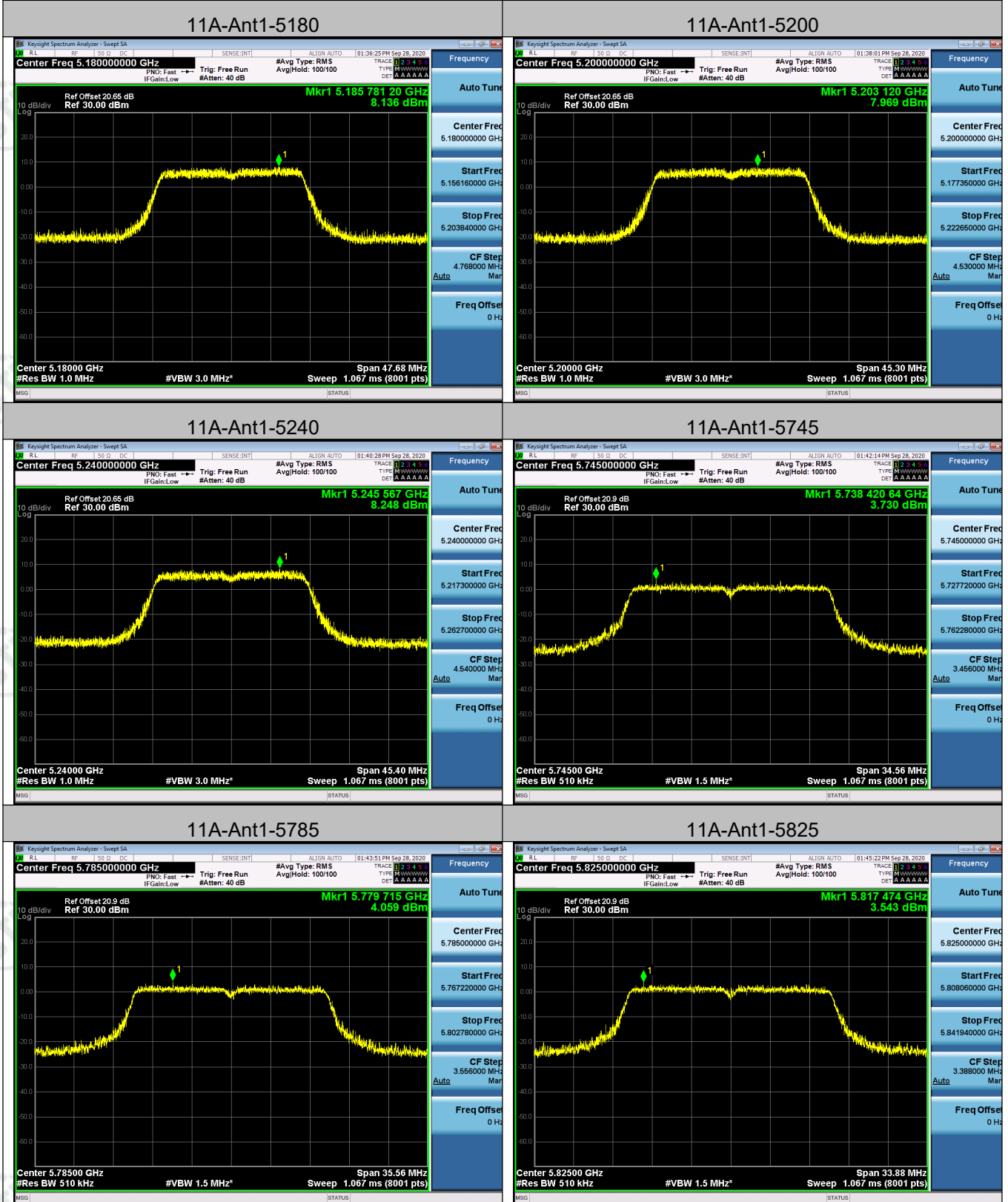
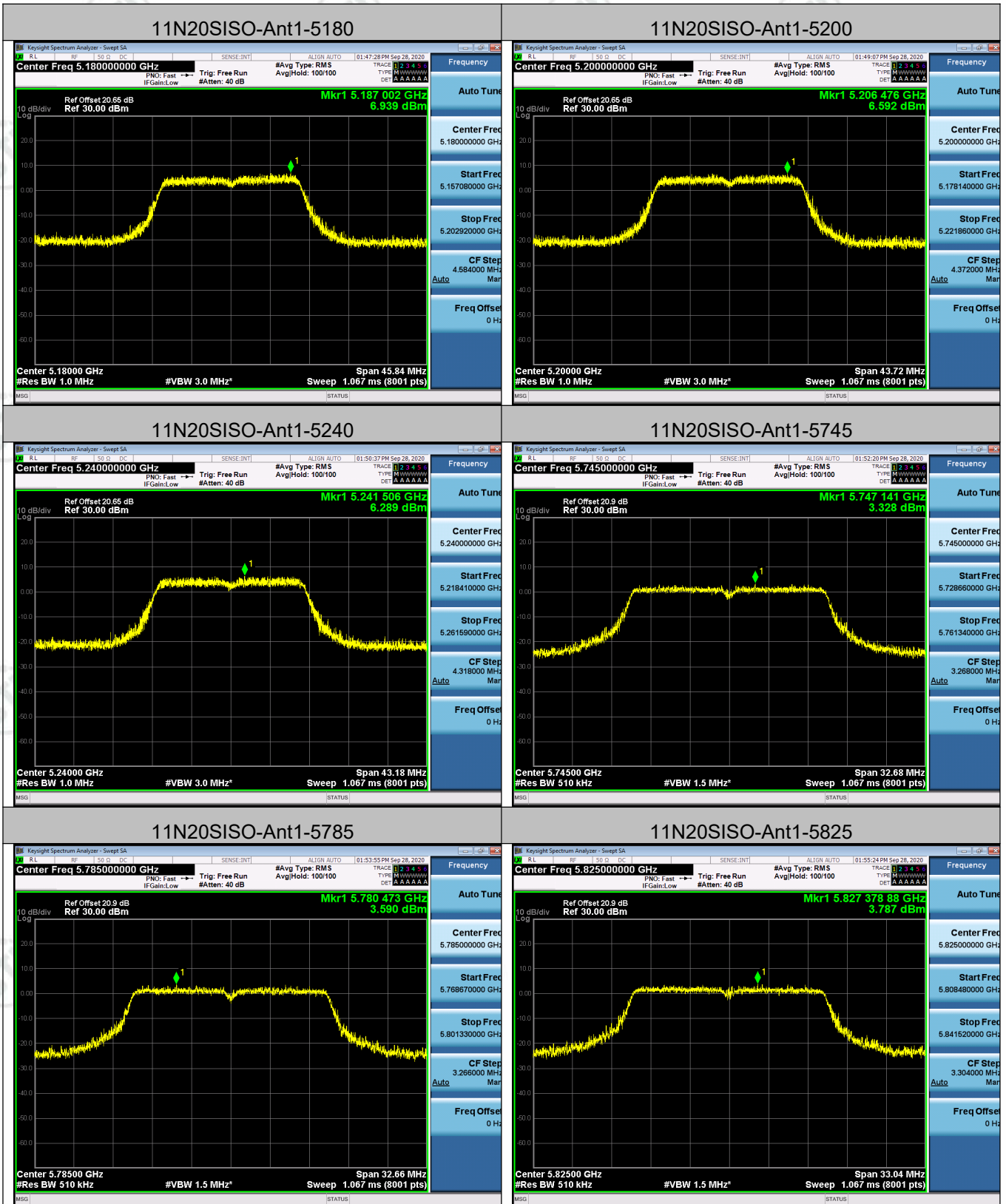
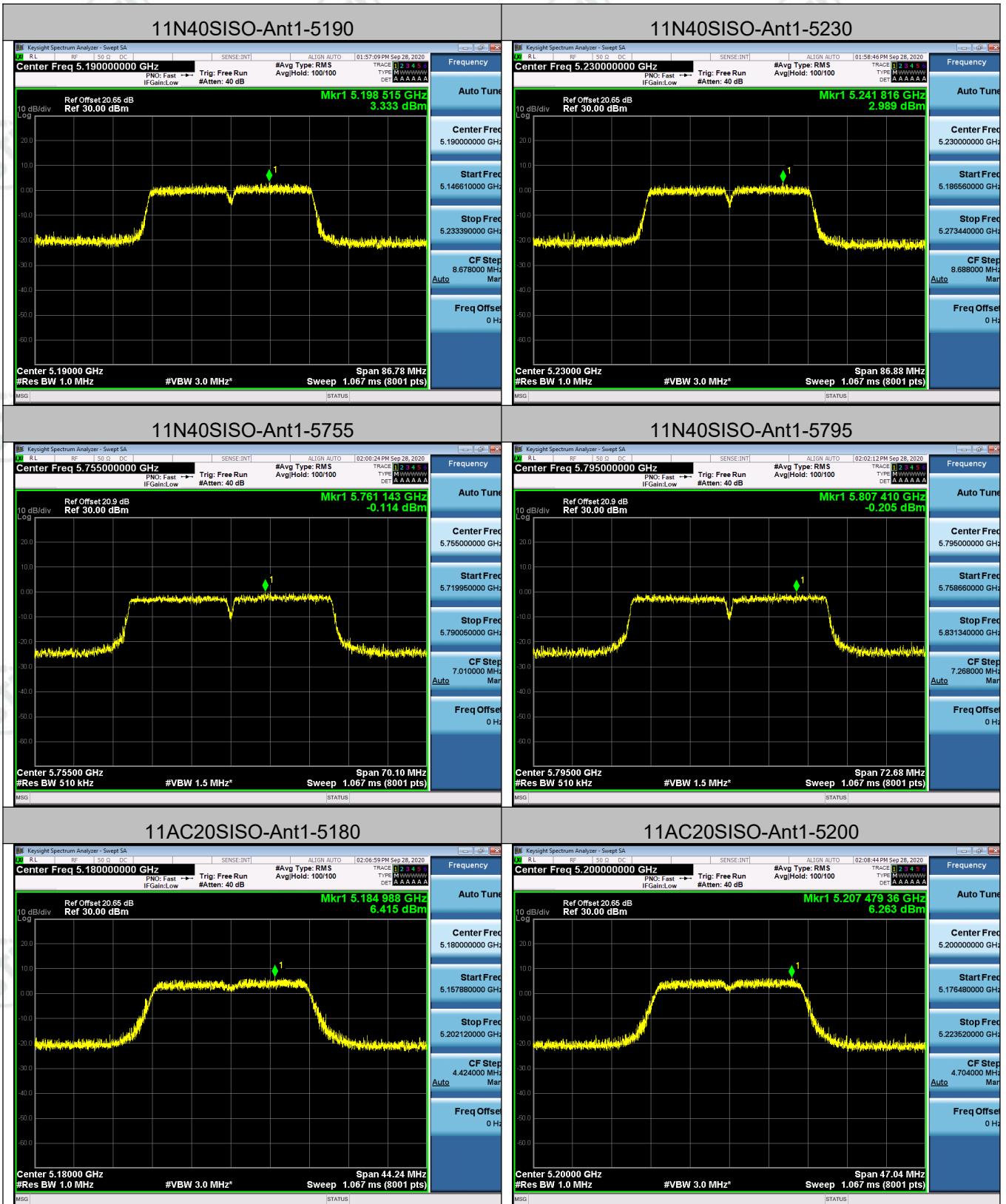
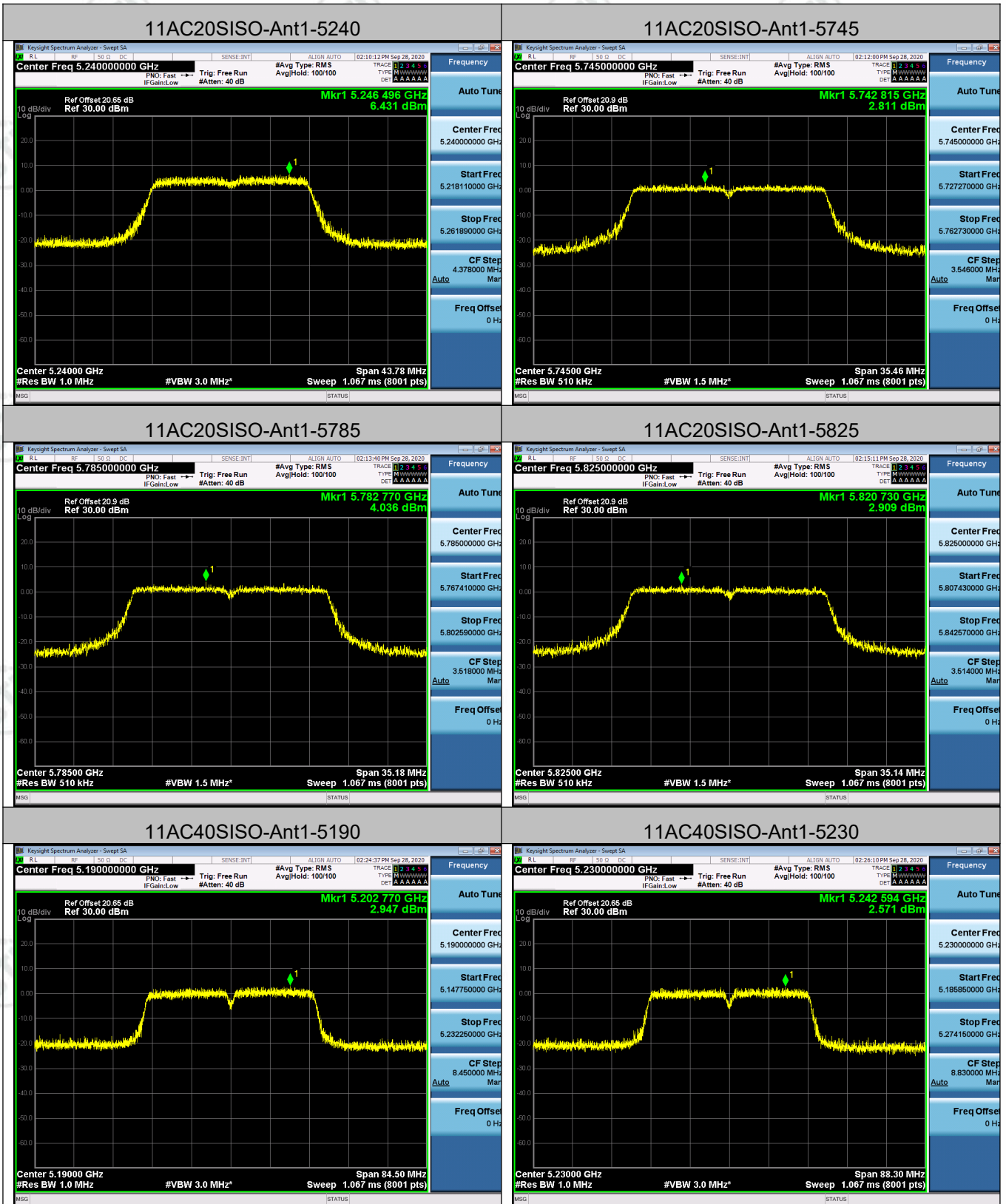


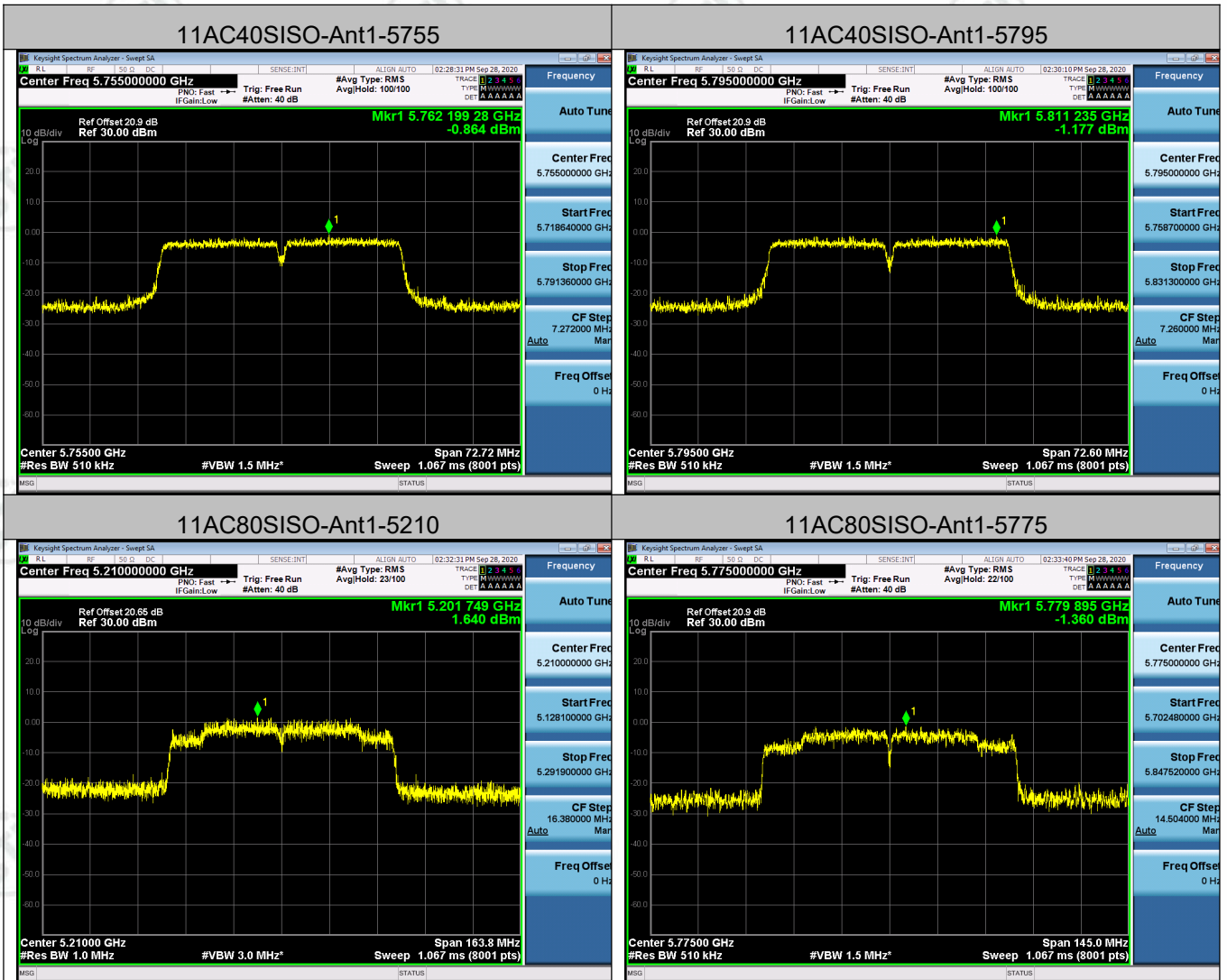
**Test Graph**











## Appendix D): Band Edge Measurements

**Result Table**

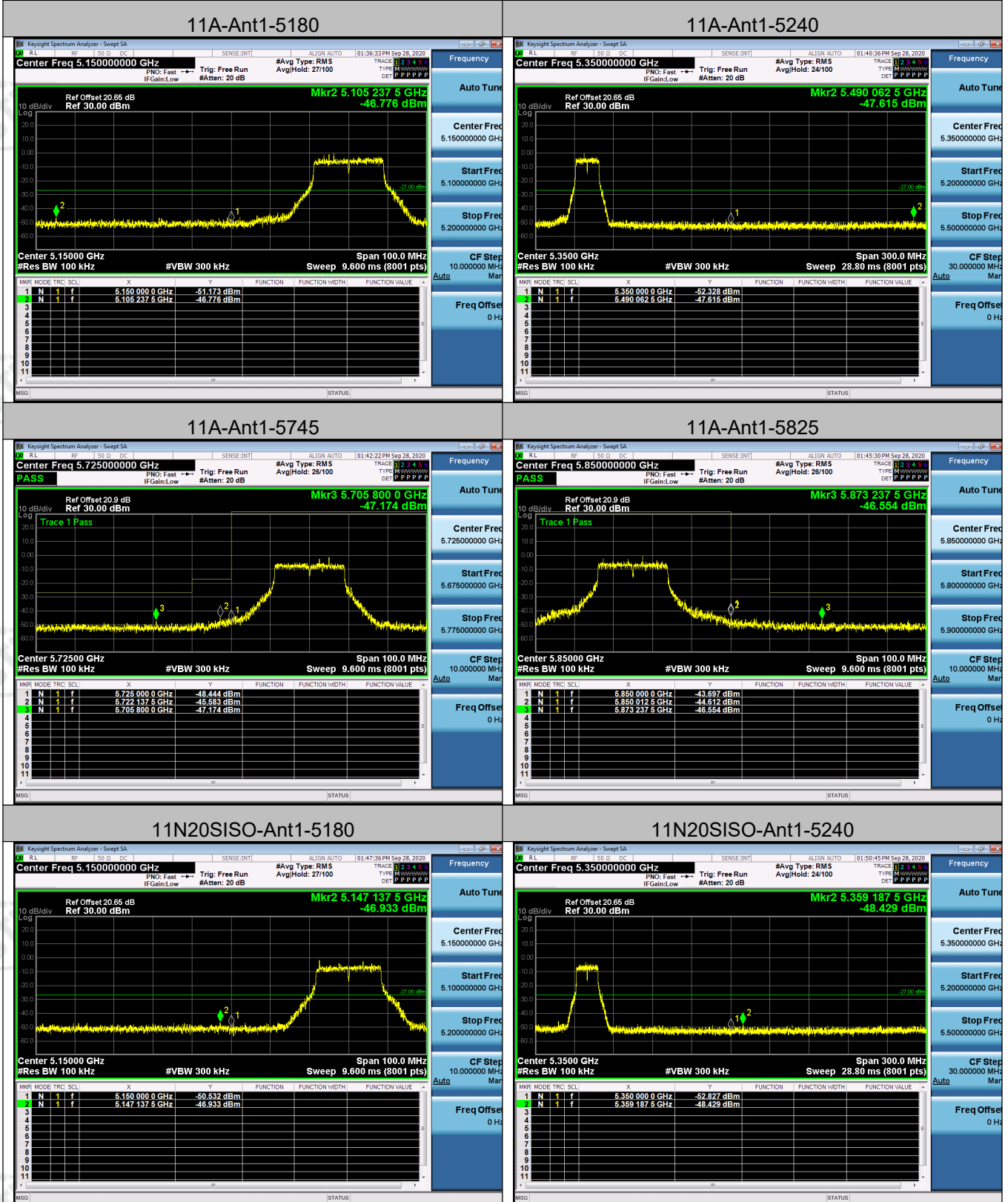
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11A	Ant1	5180	-46.776		PASS
11A	Ant1	5240	-47.615		PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			Below 5715	5715-5725	
11A	Ant1	5745	-47.174	-45.583	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			5850-5860	Above 5860	
11A	Ant1	5825	-44.612	-46.554	PASS

Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11N20SISO	Ant1	5180	-46.933		PASS
11N20SISO	Ant1	5240	-48.429		PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			Below 5715	5715-5725	
11N20SISO	Ant1	5745	-48.561	-46.032	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			5850-5860	Above 5860	
11N20SISO	Ant1	5825	-45.692	-47.521	PASS

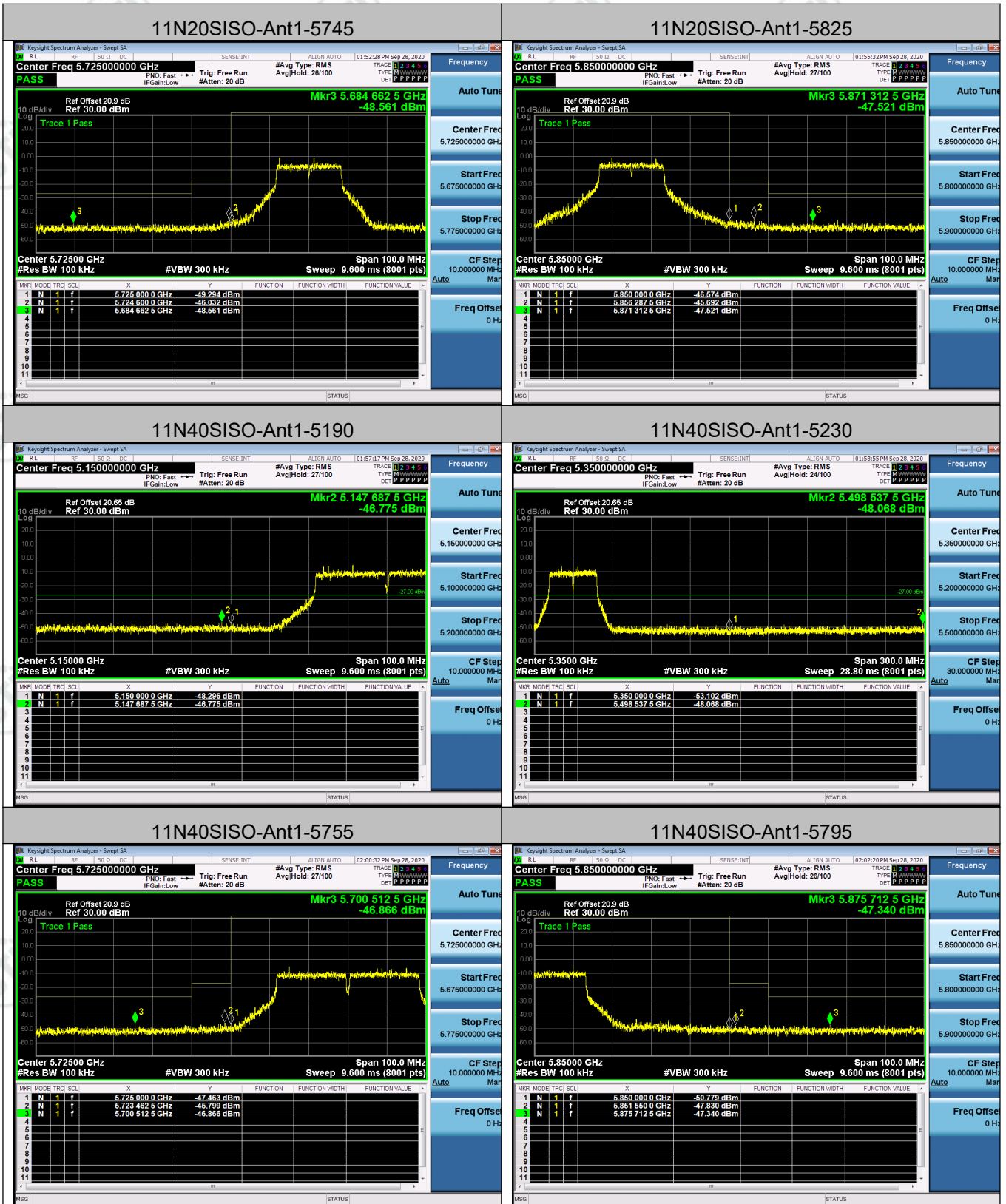


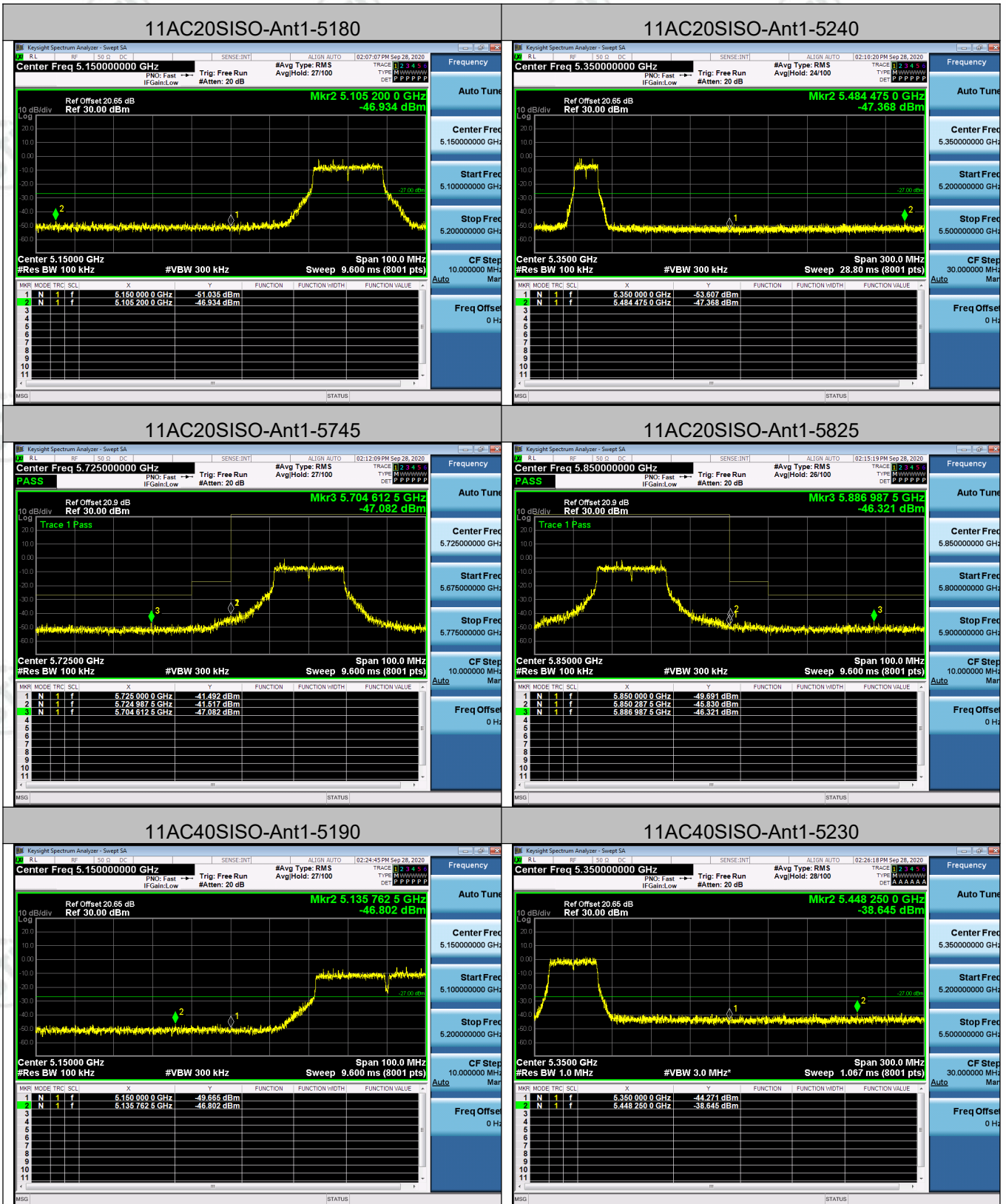
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11N40SISO	Ant1	5190	-48.296		PASS
11N40SISO	Ant1	5230	-53.102		PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			Below 5715	5715-5725	
11N40SISO	Ant1	5755	-46.866	-45.799	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			5850-5860	Above 5860	
11N40SISO	Ant1	5795	-47.83	-47.34	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11AC20SISO	Ant1	5180	-46.934		PASS
11AC20SISO	Ant1	5240	-47.368		PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			Below 5715	5715-5725	
11AC20SISO	Ant1	5745	-47.082	-41.517	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			5850-5860	Above 5860	
11AC20SISO	Ant1	5825	-44.612	-46.554	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11AC40SISO	Ant1	5190	-49.665		PASS
11AC40SISO	Ant1	5230	-44.271		PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			Below 5715	5715-5725	
11AC40SISO	Ant1	5755	-46.412	-47.926	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			5850-5860	Above 5860	
11AC40SISO	Ant1	5795	-46.823	-47.333	PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11AC80SISO	Ant1	5210	-49.961		PASS
Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
			5850-5860	Above 5860	
11AC80SISO	Ant1	5775	-35.511	-38.033	PASS

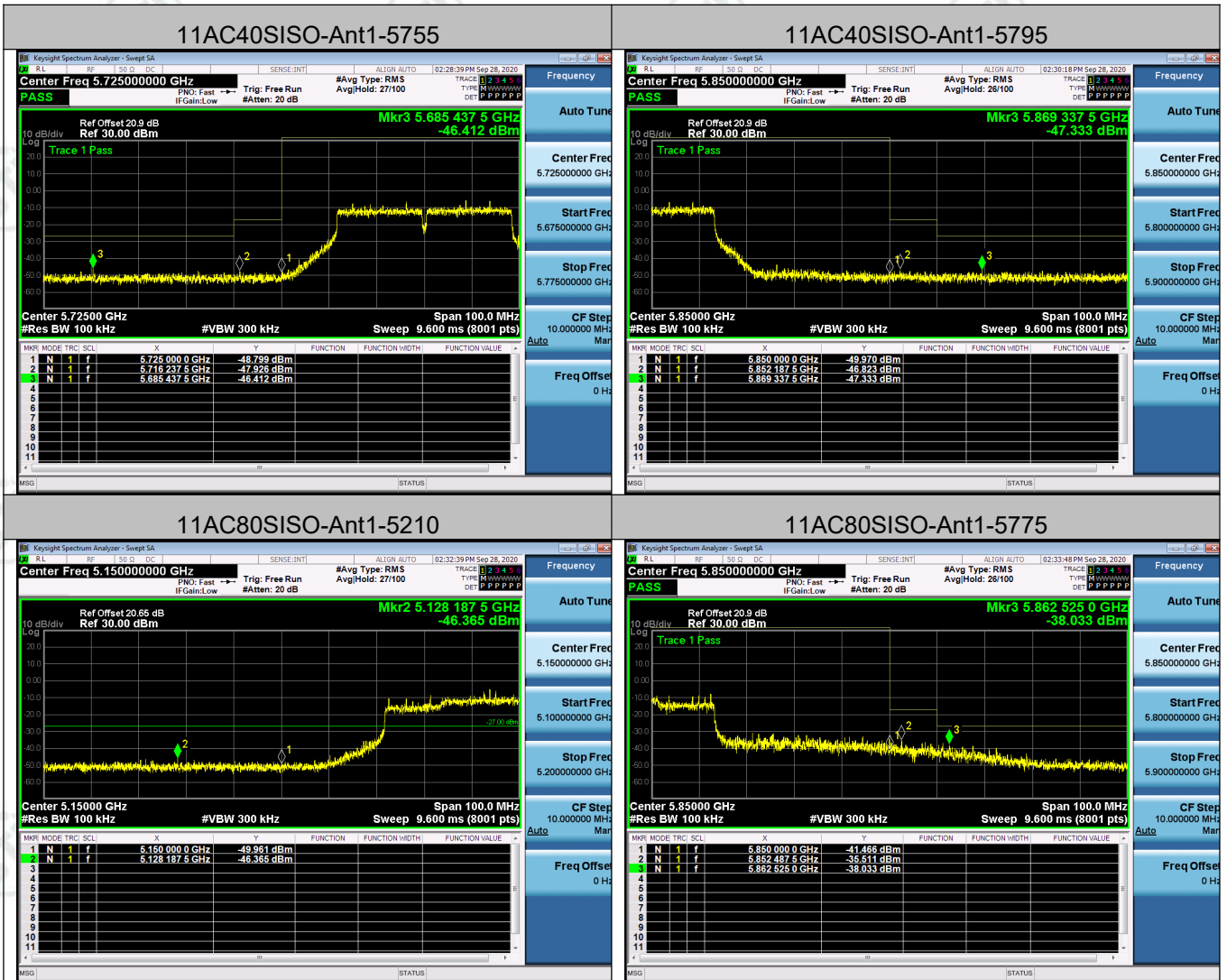
**Test Graph**











## Appendix E): Frequency Stability

### Frequency Error vs. Voltage:

Voltage vs. Frequency Stability								
Test Mode	Test	Ant	Temp.	Volt.	Deviation[MHz]	Deviation[ppm]	Limit[ppm]	Verdict
11A	5180	Ant1	TN	VL	5180.05	8.68726	20	PASS
11A	5180	Ant1	TN	VN	5180.08	14.47876	20	PASS
11A	5180	Ant1	TN	VH	5180.03	5.79151	20	PASS
11A	5200	Ant1	TN	VL	5199.97	-5.76923	20	PASS
11A	5200	Ant1	TN	VN	5199.96	-8.65385	20	PASS
11A	5200	Ant1	TN	VH	5200.09	17.30769	20	PASS
11A	5240	Ant1	TN	VL	5240.00	0.00000	20	PASS
11A	5240	Ant1	TN	VN	5239.93	-14.31298	20	PASS
11A	5240	Ant1	TN	VH	5240.00	0.00000	20	PASS
11A	5745	Ant1	TN	VL	5745.00	0.00000	20	PASS
11A	5745	Ant1	TN	VN	5745.02	2.61097	20	PASS
11A	5745	Ant1	TN	VH	5744.93	-13.05483	20	PASS
11A	5785	Ant1	TN	VL	5784.93	-12.96456	20	PASS
11A	5785	Ant1	TN	VN	5784.93	-12.96456	20	PASS
11A	5785	Ant1	TN	VH	5785.00	0.00000	20	PASS
11A	5825	Ant1	TN	VL	5824.97	-5.15022	20	PASS
11A	5825	Ant1	TN	VN	5824.97	-5.15022	20	PASS
11A	5825	Ant1	TN	VH	5824.97	-5.15022	20	PASS
11N20	5180	Ant1	TN	VL	5180.00	0.00000	20	PASS
11N20	5180	Ant1	TN	VN	5179.93	-14.47876	20	PASS
11N20	5180	Ant1	TN	VH	5179.99	-2.89575	20	PASS
11N20	5200	Ant1	TN	VL	5200.05	8.65385	20	PASS
11N20	5200	Ant1	TN	VN	5199.97	-5.76923	20	PASS
11N20	5200	Ant1	TN	VH	5200.03	5.76923	20	PASS
11N20	5240	Ant1	TN	VL	5239.94	-11.45038	20	PASS
11N20	5240	Ant1	TN	VN	5239.97	-5.72519	20	PASS
11N20	5240	Ant1	TN	VH	5239.93	-14.31298	20	PASS
11N20	5745	Ant1	TN	VL	5745.00	0.00000	20	PASS
11N20	5745	Ant1	TN	VN	5744.97	-5.22193	20	PASS
11N20	5745	Ant1	TN	VH	5745.00	0.00000	20	PASS
11N20	5785	Ant1	TN	VL	5784.97	-5.18583	20	PASS
11N20	5785	Ant1	TN	VN	5784.96	-7.77874	20	PASS

11N20	5785	Ant1	TN	VH	5785.02	2.59291	20	PASS
11N20	5825	Ant1	TN	VL	5824.96	-7.72532	20	PASS
11N20	5825	Ant1	TN	VN	5824.90	-18.02575	20	PASS
11N20	5825	Ant1	TN	VH	5824.96	-7.72532	20	PASS
11N40	5190	Ant1	TN	VL	5189.91	-17.34104	20	PASS
11N40	5190	Ant1	TN	VN	5190.03	5.78035	20	PASS
11N40	5190	Ant1	TN	VH	5189.97	-5.78035	20	PASS
11N40	5230	Ant1	TN	VL	5229.94	-11.47228	20	PASS
11N40	5230	Ant1	TN	VN	5229.91	-17.20841	20	PASS
11N40	5230	Ant1	TN	VH	5229.94	-11.47228	20	PASS
11N40	5755	Ant1	TN	VL	5755.03	5.21286	20	PASS
11N40	5755	Ant1	TN	VN	5755.00	0.00000	20	PASS
11N40	5755	Ant1	TN	VH	5755.00	0.00000	20	PASS
11N40	5795	Ant1	TN	VL	5795.03	5.17688	20	PASS
11N40	5795	Ant1	TN	VN	5794.94	-10.35375	20	PASS
11N40	5795	Ant1	TN	VH	5795.03	5.17688	20	PASS
11AC20	5180	Ant1	TN	VL	5179.94	-11.58301	20	PASS
11AC20	5180	Ant1	TN	VN	5179.96	-8.68726	20	PASS
11AC20	5180	Ant1	TN	VH	5180.05	8.68726	20	PASS
11AC20	5200	Ant1	TN	VL	5200.00	0.00000	20	PASS
11AC20	5200	Ant1	TN	VN	5200.00	0.00000	20	PASS
11AC20	5200	Ant1	TN	VH	5200.02	2.88462	20	PASS
11AC20	5240	Ant1	TN	VL	5240.00	0.00000	20	PASS
11AC20	5240	Ant1	TN	VN	5240.03	5.72519	20	PASS
11AC20	5240	Ant1	TN	VH	5239.99	-2.86260	20	PASS
11AC20	5745	Ant1	TN	VL	5745.00	0.00000	20	PASS
11AC20	5745	Ant1	TN	VN	5744.96	-7.83290	20	PASS
11AC20	5745	Ant1	TN	VH	5744.97	-5.22193	20	PASS
11AC20	5785	Ant1	TN	VL	5784.93	-12.96456	20	PASS
11AC20	5785	Ant1	TN	VN	5784.97	-5.18583	20	PASS
11AC20	5785	Ant1	TN	VH	5784.93	-12.96456	20	PASS
11AC20	5825	Ant1	TN	VL	5824.90	-18.02575	20	PASS
11AC20	5825	Ant1	TN	VN	5824.97	-5.15022	20	PASS
11AC20	5825	Ant1	TN	VH	5824.96	-7.72532	20	PASS
11AC40	5190	Ant1	TN	VL	5190.08	15.41426	20	PASS
11AC40	5190	Ant1	TN	VN	5190.00	0.00000	20	PASS
11AC40	5190	Ant1	TN	VH	5190.08	15.41426	20	PASS



11AC40	5230	Ant1	TN	VL	5230.00	0.00000	20	PASS
11AC40	5230	Ant1	TN	VN	5229.92	-15.29637	20	PASS
11AC40	5230	Ant1	TN	VH	5229.96	-7.64818	20	PASS
11AC40	5755	Ant1	TN	VL	5754.92	-13.90096	20	PASS
11AC40	5755	Ant1	TN	VN	5755.00	0.00000	20	PASS
11AC40	5755	Ant1	TN	VH	5755.00	0.00000	20	PASS
11AC40	5795	Ant1	TN	VL	5795.04	6.90250	20	PASS
11AC40	5795	Ant1	TN	VN	5795.04	6.90250	20	PASS
11AC40	5795	Ant1	TN	VH	5795.00	0.00000	20	PASS
11AC80	5210	Ant1	TN	VL	5210.00	0.00000	20	PASS
11AC80	5210	Ant1	TN	VN	5210.00	0.00000	20	PASS
11AC80	5210	Ant1	TN	VH	5210.08	15.35509	20	PASS
11AC80	5775	Ant1	TN	VL	5775.08	13.85281	20	PASS
11AC80	5775	Ant1	TN	VN	5775.00	0.00000	20	PASS
11AC80	5775	Ant1	TN	VH	5775.00	0.00000	20	PASS



**Frequency Error vs. Temperature:**

Temperature vs. Frequency Stability								
Test Mode	Test	Ant	Volt.	Temp.	Deviation[MHz]	Deviation[ppm]	Limit[ppm]	Verdict
11A	5180	Ant1	VN	-30	5180.02	2.89575	20	PASS
11A	5180	Ant1	VN	-20	5179.99	-2.89575	20	PASS
11A	5180	Ant1	VN	-10	5180.09	17.37452	20	PASS
11A	5180	Ant1	VN	0	5179.99	-2.89575	20	PASS
11A	5180	Ant1	VN	10	5180.06	11.58301	20	PASS
11A	5180	Ant1	VN	20	5180.03	5.79151	20	PASS
11A	5180	Ant1	VN	30	5180.03	5.79151	20	PASS
11A	5180	Ant1	VN	40	5180.00	0.00000	20	PASS
11A	5180	Ant1	VN	50	5179.99	-2.89575	20	PASS
11A	5200	Ant1	VN	-30	5200.03	5.76923	20	PASS
11A	5200	Ant1	VN	-20	5199.96	-8.65385	20	PASS
11A	5200	Ant1	VN	-10	5199.97	-5.76923	20	PASS
11A	5200	Ant1	VN	0	5200.00	0.00000	20	PASS
11A	5200	Ant1	VN	10	5199.99	-2.88462	20	PASS
11A	5200	Ant1	VN	20	5200.05	8.65385	20	PASS
11A	5200	Ant1	VN	30	5199.96	-8.65385	20	PASS
11A	5200	Ant1	VN	40	5200.05	8.65385	20	PASS
11A	5200	Ant1	VN	50	5199.97	-5.76923	20	PASS
11A	5240	Ant1	VN	-30	5239.91	-17.17557	20	PASS
11A	5240	Ant1	VN	-20	5240.02	2.86260	20	PASS
11A	5240	Ant1	VN	-10	5240.00	0.00000	20	PASS
11A	5240	Ant1	VN	0	5239.97	-5.72519	20	PASS
11A	5240	Ant1	VN	10	5240.03	5.72519	20	PASS
11A	5240	Ant1	VN	20	5239.99	-2.86260	20	PASS
11A	5240	Ant1	VN	30	5240.00	0.00000	20	PASS
11A	5240	Ant1	VN	40	5240.03	5.72519	20	PASS
11A	5240	Ant1	VN	50	5240.02	2.86260	20	PASS
11A	5745	Ant1	VN	-30	5744.91	-15.66580	20	PASS
11A	5745	Ant1	VN	-20	5744.99	-2.61097	20	PASS
11A	5745	Ant1	VN	-10	5744.99	-2.61097	20	PASS
11A	5745	Ant1	VN	0	5744.94	-10.44386	20	PASS
11A	5745	Ant1	VN	10	5744.94	-10.44386	20	PASS
11A	5745	Ant1	VN	20	5744.91	-15.66580	20	PASS
11A	5745	Ant1	VN	30	5745.02	2.61097	20	PASS

11A	5745	Ant1	VN	40	5744.91	-15.66580	20	PASS
11A	5745	Ant1	VN	50	5744.91	-15.66580	20	PASS
11A	5785	Ant1	VN	-30	5784.93	-12.96456	20	PASS
11A	5785	Ant1	VN	-20	5785.00	0.00000	20	PASS
11A	5785	Ant1	VN	-10	5784.93	-12.96456	20	PASS
11A	5785	Ant1	VN	0	5784.96	-7.77874	20	PASS
11A	5785	Ant1	VN	10	5784.94	-10.37165	20	PASS
11A	5785	Ant1	VN	20	5784.93	-12.96456	20	PASS
11A	5785	Ant1	VN	30	5784.96	-7.77874	20	PASS
11A	5785	Ant1	VN	40	5785.05	7.77874	20	PASS
11A	5785	Ant1	VN	50	5784.94	-10.37165	20	PASS
11A	5825	Ant1	VN	-30	5824.97	-5.15022	20	PASS
11A	5825	Ant1	VN	-20	5824.97	-5.15022	20	PASS
11A	5825	Ant1	VN	-10	5824.90	-18.02575	20	PASS
11A	5825	Ant1	VN	0	5824.99	-2.57511	20	PASS
11A	5825	Ant1	VN	10	5825.00	0.00000	20	PASS
11A	5825	Ant1	VN	20	5825.06	10.30043	20	PASS
11A	5825	Ant1	VN	30	5824.96	-7.72532	20	PASS
11A	5825	Ant1	VN	40	5824.97	-5.15022	20	PASS
11A	5825	Ant1	VN	50	5825.00	0.00000	20	PASS
11N20	5180	Ant1	VN	-30	5180.02	2.89575	20	PASS
11N20	5180	Ant1	VN	-20	5180.02	2.89575	20	PASS
11N20	5180	Ant1	VN	-10	5179.94	-11.58301	20	PASS
11N20	5180	Ant1	VN	0	5179.99	-2.89575	20	PASS
11N20	5180	Ant1	VN	10	5180.02	2.89575	20	PASS
11N20	5180	Ant1	VN	20	5180.02	2.89575	20	PASS
11N20	5180	Ant1	VN	30	5179.97	-5.79151	20	PASS
11N20	5180	Ant1	VN	40	5180.03	5.79151	20	PASS
11N20	5180	Ant1	VN	50	5180.03	5.79151	20	PASS
11N20	5200	Ant1	VN	-30	5200.05	8.65385	20	PASS
11N20	5200	Ant1	VN	-20	5200.08	14.42308	20	PASS
11N20	5200	Ant1	VN	-10	5199.96	-8.65385	20	PASS
11N20	5200	Ant1	VN	0	5200.08	14.42308	20	PASS
11N20	5200	Ant1	VN	10	5199.94	-11.53846	20	PASS
11N20	5200	Ant1	VN	20	5200.08	14.42308	20	PASS
11N20	5200	Ant1	VN	30	5199.93	-14.42308	20	PASS
11N20	5200	Ant1	VN	40	5200.02	2.88462	20	PASS

11N20	5200	Ant1	VN	50	5199.99	-2.88462	20	PASS
11N20	5240	Ant1	VN	-30	5239.99	-2.86260	20	PASS
11N20	5240	Ant1	VN	-20	5239.97	-5.72519	20	PASS
11N20	5240	Ant1	VN	-10	5239.96	-8.58779	20	PASS
11N20	5240	Ant1	VN	0	5240.00	0.00000	20	PASS
11N20	5240	Ant1	VN	10	5239.91	-17.17557	20	PASS
11N20	5240	Ant1	VN	20	5240.00	0.00000	20	PASS
11N20	5240	Ant1	VN	30	5239.96	-8.58779	20	PASS
11N20	5240	Ant1	VN	40	5239.97	-5.72519	20	PASS
11N20	5240	Ant1	VN	50	5240.00	0.00000	20	PASS
11N20	5745	Ant1	VN	-30	5744.97	-5.22193	20	PASS
11N20	5745	Ant1	VN	-20	5744.99	-2.61097	20	PASS
11N20	5745	Ant1	VN	-10	5745.05	7.83290	20	PASS
11N20	5745	Ant1	VN	0	5744.93	-13.05483	20	PASS
11N20	5745	Ant1	VN	10	5744.96	-7.83290	20	PASS
11N20	5745	Ant1	VN	20	5745.05	7.83290	20	PASS
11N20	5745	Ant1	VN	30	5744.97	-5.22193	20	PASS
11N20	5745	Ant1	VN	40	5744.90	-18.27676	20	PASS
11N20	5745	Ant1	VN	50	5744.94	-10.44386	20	PASS
11N20	5785	Ant1	VN	-30	5784.90	-18.15039	20	PASS
11N20	5785	Ant1	VN	-20	5784.99	-2.59291	20	PASS
11N20	5785	Ant1	VN	-10	5784.93	-12.96456	20	PASS
11N20	5785	Ant1	VN	0	5784.90	-18.15039	20	PASS
11N20	5785	Ant1	VN	10	5785.06	10.37165	20	PASS
11N20	5785	Ant1	VN	20	5784.93	-12.96456	20	PASS
11N20	5785	Ant1	VN	30	5784.91	-15.55748	20	PASS
11N20	5785	Ant1	VN	40	5784.96	-7.77874	20	PASS
11N20	5785	Ant1	VN	50	5785.00	0.00000	20	PASS
11N20	5825	Ant1	VN	-30	5825.00	0.00000	20	PASS
11N20	5825	Ant1	VN	-20	5825.00	0.00000	20	PASS
11N20	5825	Ant1	VN	-10	5825.00	0.00000	20	PASS
11N20	5825	Ant1	VN	0	5824.94	-10.30043	20	PASS
11N20	5825	Ant1	VN	10	5824.94	-10.30043	20	PASS
11N20	5825	Ant1	VN	20	5825.00	0.00000	20	PASS
11N20	5825	Ant1	VN	30	5824.94	-10.30043	20	PASS
11N20	5825	Ant1	VN	40	5824.99	-2.57511	20	PASS
11N20	5825	Ant1	VN	50	5824.94	-10.30043	20	PASS

11N40	5190	Ant1	VN	-30	5189.97	-5.78035	20	PASS
11N40	5190	Ant1	VN	-20	5189.97	-5.78035	20	PASS
11N40	5190	Ant1	VN	-10	5190.03	5.78035	20	PASS
11N40	5190	Ant1	VN	0	5190.06	11.56069	20	PASS
11N40	5190	Ant1	VN	10	5190.00	0.00000	20	PASS
11N40	5190	Ant1	VN	20	5190.00	0.00000	20	PASS
11N40	5190	Ant1	VN	30	5189.97	-5.78035	20	PASS
11N40	5190	Ant1	VN	40	5190.03	5.78035	20	PASS
11N40	5190	Ant1	VN	50	5189.97	-5.78035	20	PASS
11N40	5230	Ant1	VN	-30	5230.00	0.00000	20	PASS
11N40	5230	Ant1	VN	-20	5229.97	-5.73614	20	PASS
11N40	5230	Ant1	VN	-10	5230.00	0.00000	20	PASS
11N40	5230	Ant1	VN	0	5230.00	0.00000	20	PASS
11N40	5230	Ant1	VN	10	5230.00	0.00000	20	PASS
11N40	5230	Ant1	VN	20	5230.00	0.00000	20	PASS
11N40	5230	Ant1	VN	30	5229.94	-11.47228	20	PASS
11N40	5230	Ant1	VN	40	5229.91	-17.20841	20	PASS
11N40	5230	Ant1	VN	50	5229.94	-11.47228	20	PASS
11N40	5755	Ant1	VN	-30	5754.97	-5.21286	20	PASS
11N40	5755	Ant1	VN	-20	5755.03	5.21286	20	PASS
11N40	5755	Ant1	VN	-10	5755.03	5.21286	20	PASS
11N40	5755	Ant1	VN	0	5754.91	-15.63858	20	PASS
11N40	5755	Ant1	VN	10	5754.97	-5.21286	20	PASS
11N40	5755	Ant1	VN	20	5755.00	0.00000	20	PASS
11N40	5755	Ant1	VN	30	5754.91	-15.63858	20	PASS
11N40	5755	Ant1	VN	40	5754.97	-5.21286	20	PASS
11N40	5755	Ant1	VN	50	5755.03	5.21286	20	PASS
11N40	5795	Ant1	VN	-30	5795.00	0.00000	20	PASS
11N40	5795	Ant1	VN	-20	5794.97	-5.17688	20	PASS
11N40	5795	Ant1	VN	-10	5794.97	-5.17688	20	PASS
11N40	5795	Ant1	VN	0	5794.97	-5.17688	20	PASS
11N40	5795	Ant1	VN	10	5795.00	0.00000	20	PASS
11N40	5795	Ant1	VN	20	5795.03	5.17688	20	PASS
11N40	5795	Ant1	VN	30	5794.97	-5.17688	20	PASS
11N40	5795	Ant1	VN	40	5795.03	5.17688	20	PASS
11N40	5795	Ant1	VN	50	5794.91	-15.53063	20	PASS
11AC20	5180	Ant1	VN	-30	5179.97	-5.79151	20	PASS



11AC20	5180	Ant1	VN	-20	5180.06	11.58301	20	PASS
11AC20	5180	Ant1	VN	-10	5179.97	-5.79151	20	PASS
11AC20	5180	Ant1	VN	0	5179.99	-2.89575	20	PASS
11AC20	5180	Ant1	VN	10	5180.00	0.00000	20	PASS
11AC20	5180	Ant1	VN	20	5180.02	2.89575	20	PASS
11AC20	5180	Ant1	VN	30	5179.97	-5.79151	20	PASS
11AC20	5180	Ant1	VN	40	5180.02	2.89575	20	PASS
11AC20	5180	Ant1	VN	50	5180.02	2.89575	20	PASS
11AC20	5200	Ant1	VN	-30	5199.96	-8.65385	20	PASS
11AC20	5200	Ant1	VN	-20	5199.97	-5.76923	20	PASS
11AC20	5200	Ant1	VN	-10	5199.96	-8.65385	20	PASS
11AC20	5200	Ant1	VN	0	5200.02	2.88462	20	PASS
11AC20	5200	Ant1	VN	10	5199.94	-11.53846	20	PASS
11AC20	5200	Ant1	VN	20	5200.00	0.00000	20	PASS
11AC20	5200	Ant1	VN	30	5199.94	-11.53846	20	PASS
11AC20	5200	Ant1	VN	40	5200.02	2.88462	20	PASS
11AC20	5200	Ant1	VN	50	5200.00	0.00000	20	PASS
11AC20	5240	Ant1	VN	-30	5240.03	5.72519	20	PASS
11AC20	5240	Ant1	VN	-20	5240.03	5.72519	20	PASS
11AC20	5240	Ant1	VN	-10	5240.05	8.58779	20	PASS
11AC20	5240	Ant1	VN	0	5239.94	-11.45038	20	PASS
11AC20	5240	Ant1	VN	10	5239.99	-2.86260	20	PASS
11AC20	5240	Ant1	VN	20	5240.02	2.86260	20	PASS
11AC20	5240	Ant1	VN	30	5240.00	0.00000	20	PASS
11AC20	5240	Ant1	VN	40	5240.03	5.72519	20	PASS
11AC20	5240	Ant1	VN	50	5239.96	-8.58779	20	PASS
11AC20	5745	Ant1	VN	-30	5744.99	-2.61097	20	PASS
11AC20	5745	Ant1	VN	-20	5744.90	-18.27676	20	PASS
11AC20	5745	Ant1	VN	-10	5744.94	-10.44386	20	PASS
11AC20	5745	Ant1	VN	0	5744.93	-13.05483	20	PASS
11AC20	5745	Ant1	VN	10	5745.03	5.22193	20	PASS
11AC20	5745	Ant1	VN	20	5744.97	-5.22193	20	PASS
11AC20	5745	Ant1	VN	30	5744.97	-5.22193	20	PASS
11AC20	5745	Ant1	VN	40	5744.93	-13.05483	20	PASS
11AC20	5745	Ant1	VN	50	5744.96	-7.83290	20	PASS
11AC20	5785	Ant1	VN	-30	5784.97	-5.18583	20	PASS
11AC20	5785	Ant1	VN	-20	5785.02	2.59291	20	PASS

11AC20	5785	Ant1	VN	-10	5785.00	0.00000	20	PASS
11AC20	5785	Ant1	VN	0	5784.90	-18.15039	20	PASS
11AC20	5785	Ant1	VN	10	5784.99	-2.59291	20	PASS
11AC20	5785	Ant1	VN	20	5784.96	-7.77874	20	PASS
11AC20	5785	Ant1	VN	30	5784.93	-12.96456	20	PASS
11AC20	5785	Ant1	VN	40	5784.90	-18.15039	20	PASS
11AC20	5785	Ant1	VN	50	5785.02	2.59291	20	PASS
11AC20	5825	Ant1	VN	-30	5824.94	-10.30043	20	PASS
11AC20	5825	Ant1	VN	-20	5824.94	-10.30043	20	PASS
11AC20	5825	Ant1	VN	-10	5825.00	0.00000	20	PASS
11AC20	5825	Ant1	VN	0	5824.94	-10.30043	20	PASS
11AC20	5825	Ant1	VN	10	5824.97	-5.15022	20	PASS
11AC20	5825	Ant1	VN	20	5824.93	-12.87554	20	PASS
11AC20	5825	Ant1	VN	30	5824.94	-10.30043	20	PASS
11AC20	5825	Ant1	VN	40	5825.02	2.57511	20	PASS
11AC20	5825	Ant1	VN	50	5824.94	-10.30043	20	PASS
11AC40	5190	Ant1	VN	-30	5190.04	7.70713	20	PASS
11AC40	5190	Ant1	VN	-20	5189.92	-15.41426	20	PASS
11AC40	5190	Ant1	VN	-10	5190.00	0.00000	20	PASS
11AC40	5190	Ant1	VN	0	5190.04	7.70713	20	PASS
11AC40	5190	Ant1	VN	10	5190.00	0.00000	20	PASS
11AC40	5190	Ant1	VN	20	5190.04	7.70713	20	PASS
11AC40	5190	Ant1	VN	30	5190.04	7.70713	20	PASS
11AC40	5190	Ant1	VN	40	5190.08	15.41426	20	PASS
11AC40	5190	Ant1	VN	50	5190.00	0.00000	20	PASS
11AC40	5230	Ant1	VN	-30	5229.96	-7.64818	20	PASS
11AC40	5230	Ant1	VN	-20	5230.00	0.00000	20	PASS
11AC40	5230	Ant1	VN	-10	5229.96	-7.64818	20	PASS
11AC40	5230	Ant1	VN	0	5229.96	-7.64818	20	PASS
11AC40	5230	Ant1	VN	10	5230.00	0.00000	20	PASS
11AC40	5230	Ant1	VN	20	5230.04	7.64818	20	PASS
11AC40	5230	Ant1	VN	30	5230.00	0.00000	20	PASS
11AC40	5230	Ant1	VN	40	5230.00	0.00000	20	PASS
11AC40	5230	Ant1	VN	50	5229.96	-7.64818	20	PASS
11AC40	5755	Ant1	VN	-30	5755.00	0.00000	20	PASS
11AC40	5755	Ant1	VN	-20	5755.00	0.00000	20	PASS
11AC40	5755	Ant1	VN	-10	5754.92	-13.90096	20	PASS



11AC40	5755	Ant1	VN	0	5755.00	0.00000	20	PASS
11AC40	5755	Ant1	VN	10	5755.00	0.00000	20	PASS
11AC40	5755	Ant1	VN	20	5755.08	13.90096	20	PASS
11AC40	5755	Ant1	VN	30	5755.00	0.00000	20	PASS
11AC40	5755	Ant1	VN	40	5754.92	-13.90096	20	PASS
11AC40	5755	Ant1	VN	50	5755.04	6.95048	20	PASS
11AC40	5795	Ant1	VN	-30	5795.00	0.00000	20	PASS
11AC40	5795	Ant1	VN	-20	5794.96	-6.90250	20	PASS
11AC40	5795	Ant1	VN	-10	5794.92	-13.80500	20	PASS
11AC40	5795	Ant1	VN	0	5795.00	0.00000	20	PASS
11AC40	5795	Ant1	VN	10	5794.92	-13.80500	20	PASS
11AC40	5795	Ant1	VN	20	5794.92	-13.80500	20	PASS
11AC40	5795	Ant1	VN	30	5795.00	0.00000	20	PASS
11AC40	5795	Ant1	VN	40	5795.00	0.00000	20	PASS
11AC40	5795	Ant1	VN	50	5795.08	13.80500	20	PASS
11AC80	5210	Ant1	VN	-30	5210.00	0.00000	20	PASS
11AC80	5210	Ant1	VN	-20	5210.00	0.00000	20	PASS
11AC80	5210	Ant1	VN	-10	5210.00	0.00000	20	PASS
11AC80	5210	Ant1	VN	0	5209.92	-15.35509	20	PASS
11AC80	5210	Ant1	VN	10	5210.00	0.00000	20	PASS
11AC80	5210	Ant1	VN	20	5209.92	-15.35509	20	PASS
11AC80	5210	Ant1	VN	30	5210.08	15.35509	20	PASS
11AC80	5210	Ant1	VN	40	5210.08	15.35509	20	PASS
11AC80	5210	Ant1	VN	50	5210.00	0.00000	20	PASS
11AC80	5775	Ant1	VN	-30	5775.00	0.00000	20	PASS
11AC80	5775	Ant1	VN	-20	5775.08	13.85281	20	PASS
11AC80	5775	Ant1	VN	-10	5775.00	0.00000	20	PASS
11AC80	5775	Ant1	VN	0	5775.08	13.85281	20	PASS
11AC80	5775	Ant1	VN	10	5775.08	13.85281	20	PASS
11AC80	5775	Ant1	VN	20	5774.92	-13.85281	20	PASS
11AC80	5775	Ant1	VN	30	5775.08	13.85281	20	PASS
11AC80	5775	Ant1	VN	40	5775.00	0.00000	20	PASS
11AC80	5775	Ant1	VN	50	5775.08	13.85281	20	PASS

## Appendix F) Antenna Requirement

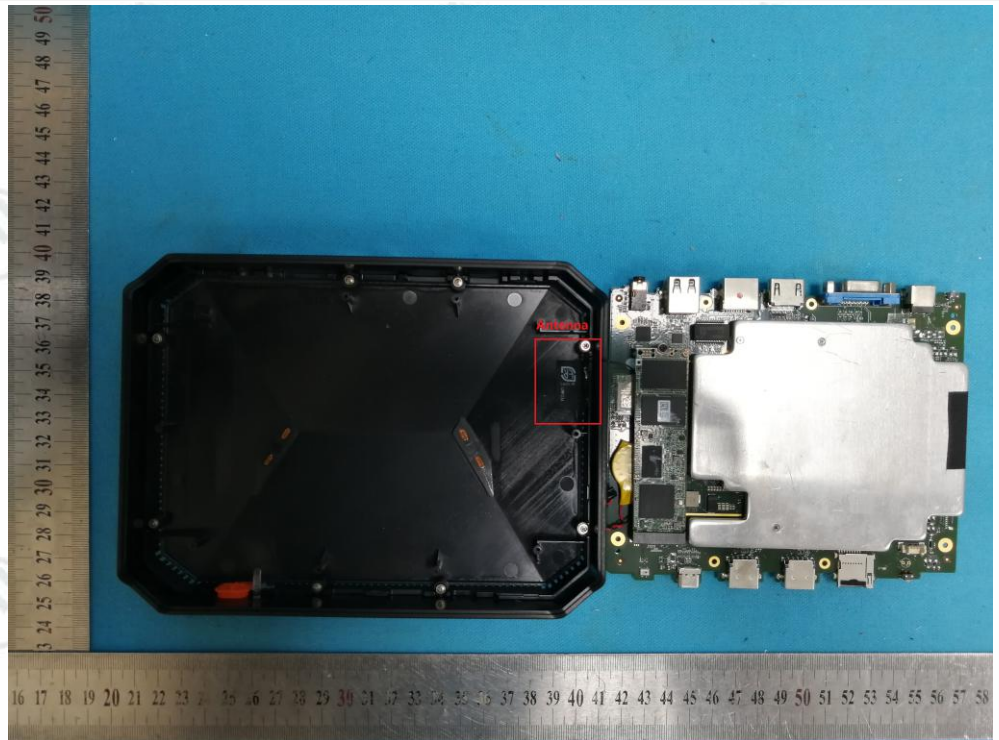
### 15.203 requirement:

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.

### 15.407(a)(1) (2) requirement:

The conducted output power limit specified in paragraph (a) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (a) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### EUT Antenna:



The antenna is FPC antenna. The best case gain of the antenna is 2.18dBi.

## Appendix G) AC Power Line Conducted Emission

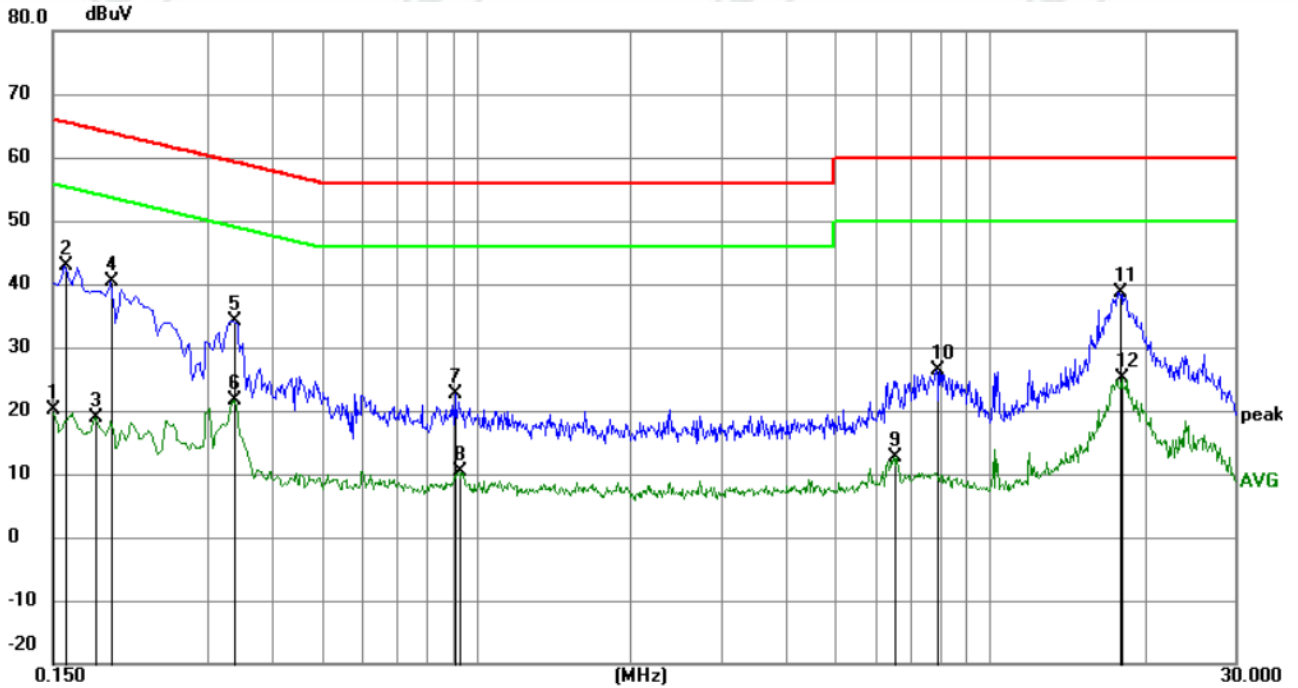
<p>Test Procedure:</p>	<p>Test frequency range :150KHz-30MHz</p> <ol style="list-style-type: none"> <li>1)The mains terminal disturbance voltage test was conducted in a shielded room.</li> <li>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.</li> <li>3)The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,</li> <li>4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.</li> <li>5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.</li> </ol>														
<p>Limit:</p>	<table border="1" data-bbox="497 1167 1366 1386"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBμV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> <p>* The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. NOTE : The lower limit is applicable at the transition frequency</p>	Frequency range (MHz)	Limit (dBμV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBμV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													

### Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

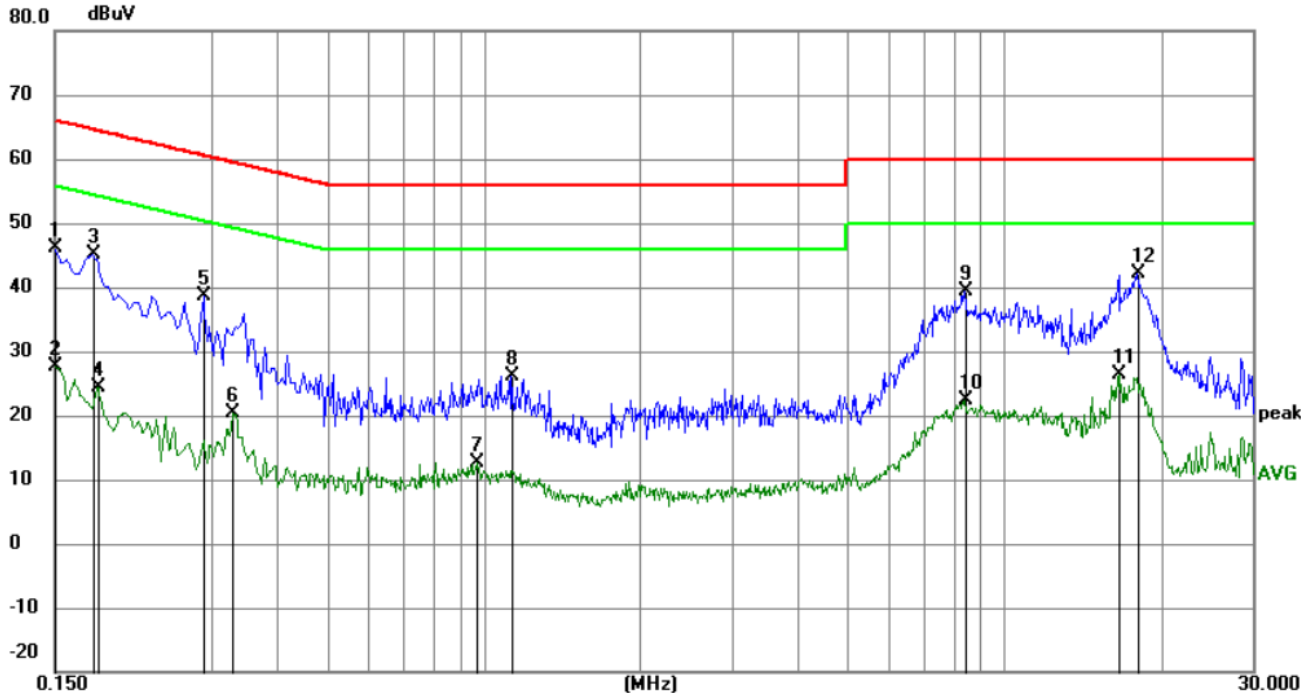
Live line:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	10.29	9.87	20.16	56.00	-35.84	AVG	
2		0.1590	33.06	9.87	42.93	65.52	-22.59	QP	
3		0.1815	8.92	9.87	18.79	54.42	-35.63	AVG	
4		0.1949	30.49	9.87	40.36	63.83	-23.47	QP	
5		0.3390	24.17	10.03	34.20	59.23	-25.03	QP	
6		0.3390	11.64	10.03	21.67	49.23	-27.56	AVG	
7		0.9105	12.76	9.85	22.61	56.00	-33.39	QP	
8		0.9240	0.44	9.85	10.29	46.00	-35.71	AVG	
9		6.4995	2.91	9.79	12.70	50.00	-37.30	AVG	
10		7.8765	16.66	9.79	26.45	60.00	-33.55	QP	
11	*	17.8890	28.75	9.95	38.70	60.00	-21.30	QP	
12		18.1050	15.26	9.95	25.21	50.00	-24.79	AVG	



Neutral line:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	36.36	9.87	46.23	66.00	-19.77	QP	
2		0.1500	17.84	9.87	27.71	56.00	-28.29	AVG	
3		0.1770	35.17	9.87	45.04	64.63	-19.59	QP	
4		0.1815	14.48	9.87	24.35	54.42	-30.07	AVG	
5		0.2895	28.66	10.05	38.71	60.54	-21.83	QP	
6		0.3300	10.25	10.04	20.29	49.45	-29.16	AVG	
7		0.9735	2.81	9.84	12.65	46.00	-33.35	AVG	
8		1.1310	16.42	9.82	26.24	56.00	-29.76	QP	
9		8.3895	29.58	9.79	39.37	60.00	-20.63	QP	
10		8.3895	12.65	9.79	22.44	50.00	-27.56	AVG	
11		16.5795	16.38	9.94	26.32	50.00	-23.68	AVG	
12	*	17.9880	32.25	9.95	42.20	60.00	-17.80	QP	

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.

## Appendix H) Restricted bands around fundamental frequency (Radiated Emission)

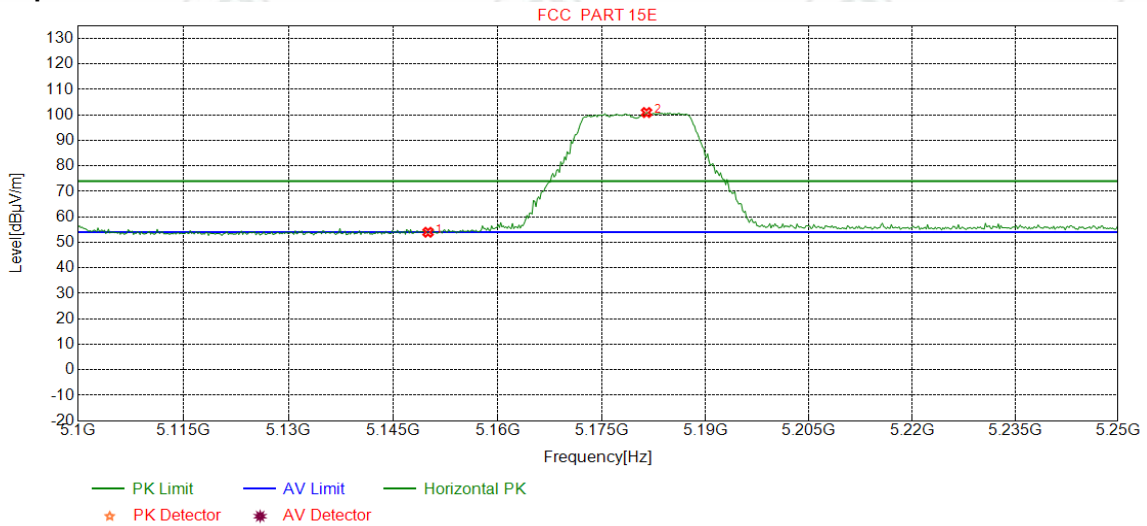
Receiver Setup:	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Detector</th> <th>RBW</th> <th>VBW</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>30MHz-1GHz</td> <td>Quasi-peak</td> <td>120kHz</td> <td>300kHz</td> <td>Quasi-peak</td> </tr> <tr> <td rowspan="2">Above 1GHz</td> <td>Peak</td> <td>1MHz</td> <td>3MHz</td> <td>Peak</td> </tr> <tr> <td>Peak</td> <td>1MHz</td> <td>10Hz</td> <td>Average</td> </tr> </tbody> </table>	Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	Above 1GHz	Peak	1MHz	3MHz	Peak	Peak	1MHz	10Hz	Average	
Frequency	Detector	RBW	VBW	Remark																	
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak																	
Above 1GHz	Peak	1MHz	3MHz	Peak																	
	Peak	1MHz	10Hz	Average																	
Test Procedure:	<p><b>Below 1GHz test procedure as below:</b></p> <ol style="list-style-type: none"> <li>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> <li>For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel</li> </ol> <p><b>Above 1GHz test procedure as below:</b></p> <ol style="list-style-type: none"> <li>Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre( Above 18GHz the distance is 1 meter and table is 1.5 metre).</li> <li>Test the EUT in the lowest channel , the Highest channel</li> <li>The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.</li> <li>Repeat above procedures until all frequencies measured was complete.</li> </ol>																				
Limit:	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Limit (dB<math>\mu</math>V/m @3cm)</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>30MHz-88MHz</td> <td>40.0</td> <td>Quasi-peak Value</td> </tr> <tr> <td>88MHz-216MHz</td> <td>43.5</td> <td>Quasi-peak Value</td> </tr> <tr> <td>216MHz-960MHz</td> <td>46.0</td> <td>Quasi-peak Value</td> </tr> <tr> <td>960MHz-1GHz</td> <td>54.0</td> <td>Quasi-peak Value</td> </tr> <tr> <td rowspan="2">Above 1GHz</td> <td>54.0</td> <td>Average Value</td> </tr> <tr> <td>74.0</td> <td>Peak Value</td> </tr> </tbody> </table>	Frequency	Limit (dB $\mu$ V/m @3cm)	Remark	30MHz-88MHz	40.0	Quasi-peak Value	88MHz-216MHz	43.5	Quasi-peak Value	216MHz-960MHz	46.0	Quasi-peak Value	960MHz-1GHz	54.0	Quasi-peak Value	Above 1GHz	54.0	Average Value	74.0	Peak Value
Frequency	Limit (dB $\mu$ V/m @3cm)	Remark																			
30MHz-88MHz	40.0	Quasi-peak Value																			
88MHz-216MHz	43.5	Quasi-peak Value																			
216MHz-960MHz	46.0	Quasi-peak Value																			
960MHz-1GHz	54.0	Quasi-peak Value																			
Above 1GHz	54.0	Average Value																			
	74.0	Peak Value																			



**Test plot as follows:**

Mode:	802.11a(HT20Mbps) Transmitting	Channel	5180
Remark:	PK		

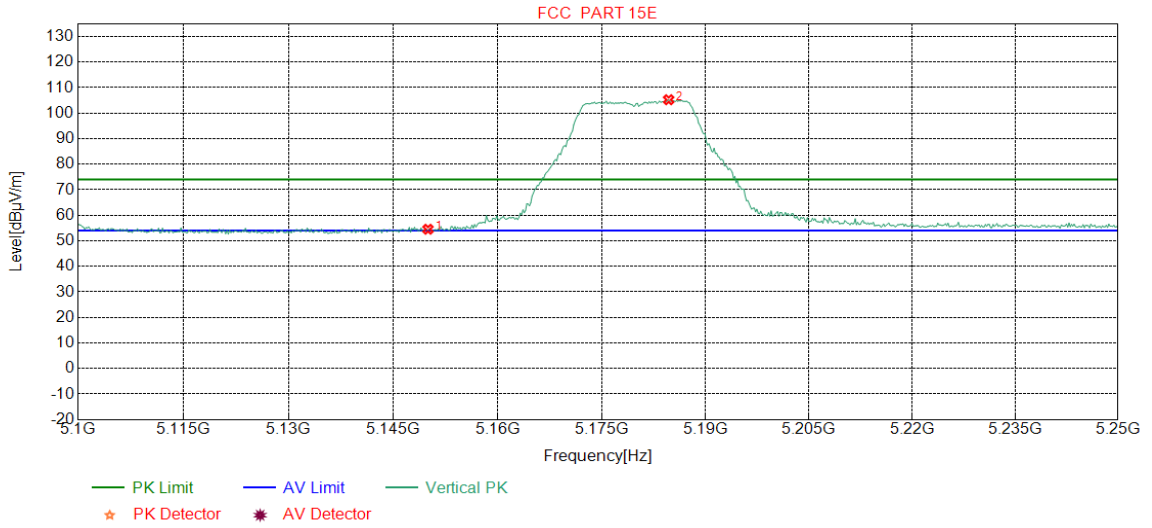
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	46.99	53.98	74.00	20.02	Pass	Horizontal
2	5181.4768	34.68	15.39	-42.73	93.63	100.97	74.00	-26.97	Pass	Horizontal

Mode:	802.11a(HT20Mbps) Transmitting	Channel:	5180
Remark:	PK		

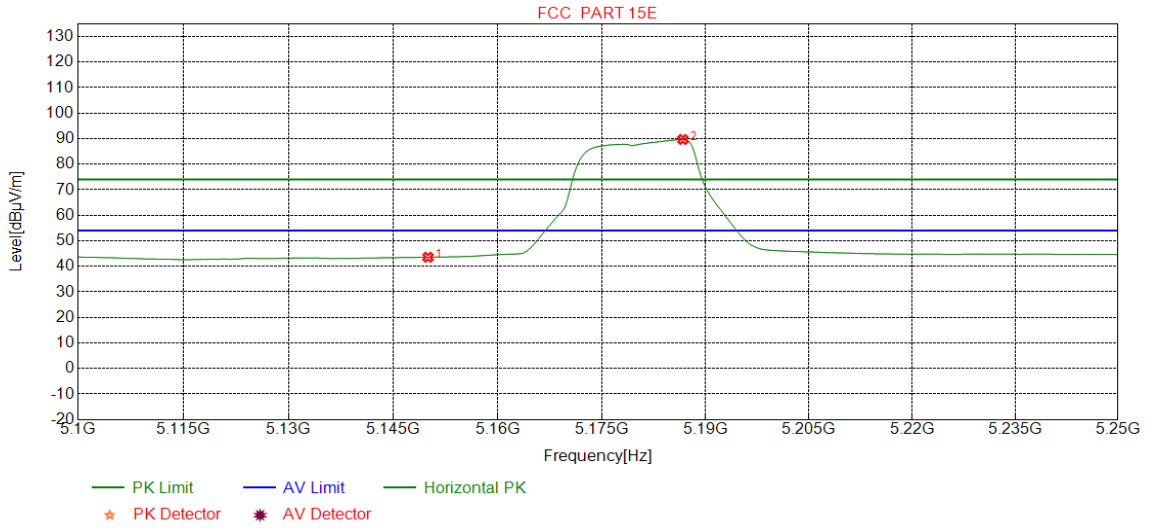
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	47.56	54.55	74.00	19.45	Pass	Vertical
2	5184.6683	34.68	15.42	-42.72	97.90	105.28	74.00	-31.28	Pass	Vertical

Mode:	802.11a(HT20Mbps) Transmitting	Channel:	5180
Remark:	AV		

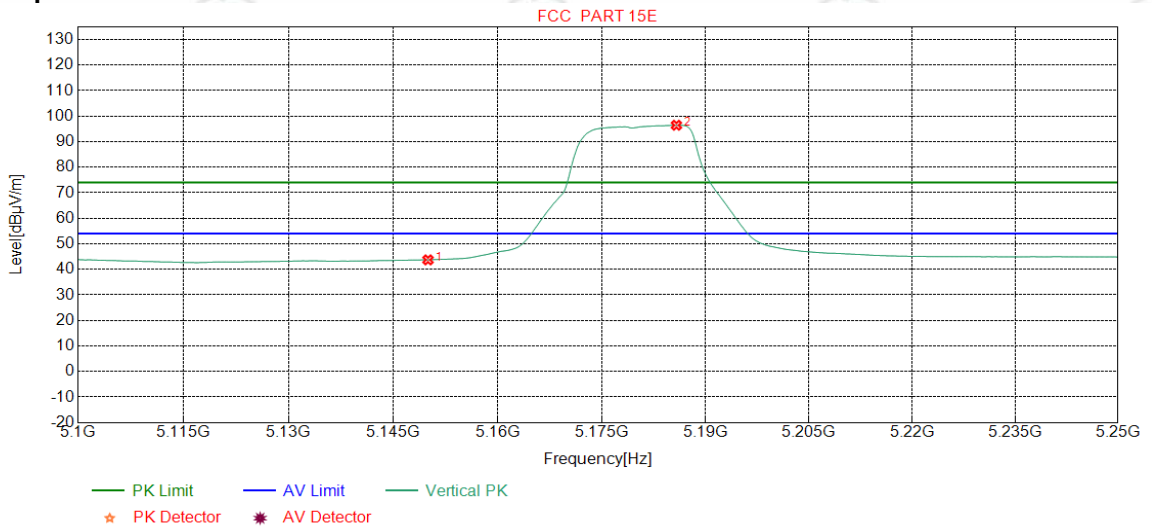
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	36.59	43.58	54.00	10.42	Pass	Horizontal
2	5186.7334	34.69	15.44	-42.73	82.31	89.71	54.00	-35.71	Pass	Horizontal

Mode:	802.11a(HT20Mbps) Transmitting	Channel:	5180
Remark:	AV		

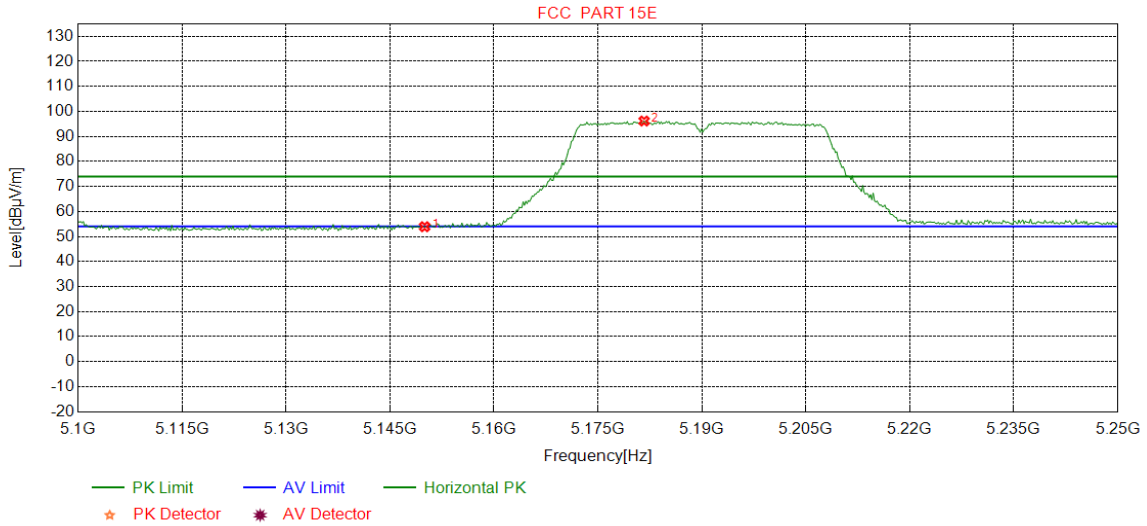
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	36.74	43.73	54.00	10.27	Pass	Vertical
2	5185.7947	34.69	15.43	-42.73	89.07	96.46	54.00	-42.46	Pass	Vertical

Mode:	802.11n(HT40Mbps) Transmitting	Channel:	5190
Remark:	PK		

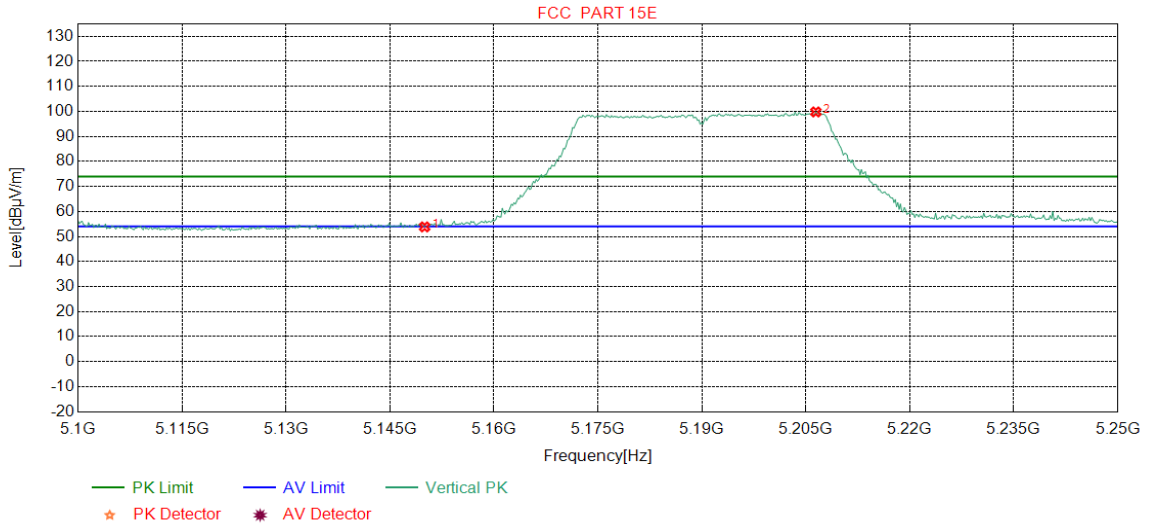
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBuV]	Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	46.92	53.91	74.00	20.09	Pass	Horizontal
2	5181.6646	34.68	15.39	-42.73	88.82	96.16	74.00	-22.16	Pass	Horizontal

Mode:	802.11n(HT40Mbps) Transmitting	Channel:	5190
Remark:	PK		

**Test Graph**

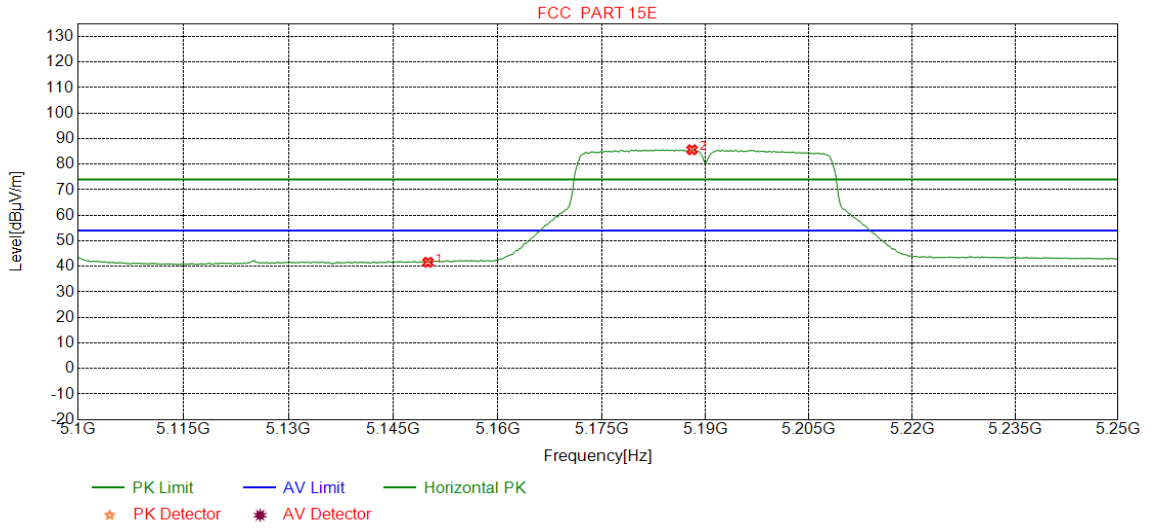


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	46.85	53.84	74.00	20.16	Pass	Vertical
2	5206.4456	34.71	15.54	-42.72	92.26	99.79	74.00	-25.79	Pass	Vertical



Mode:	802.11n(HT40Mbps) Transmitting	Channel:	5190
Remark:	AV		

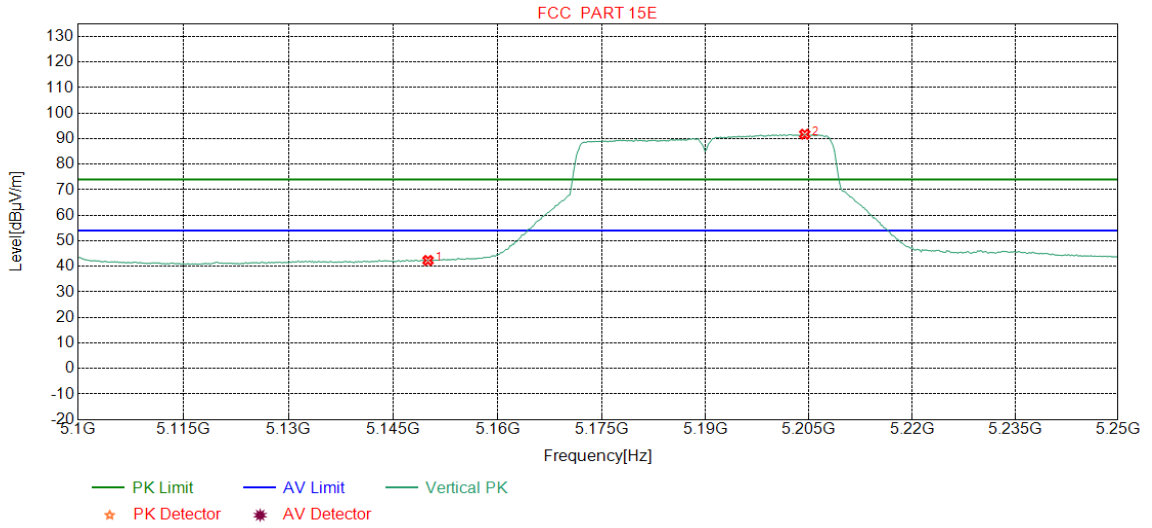
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	34.62	41.61	54.00	12.39	Pass	Horizontal
2	5188.0476	34.69	15.45	-42.72	78.25	85.67	54.00	-31.67	Pass	Horizontal

Mode:	802.11n(HT40Mbps) Transmitting	Channel:	5190
Remark:	AV		

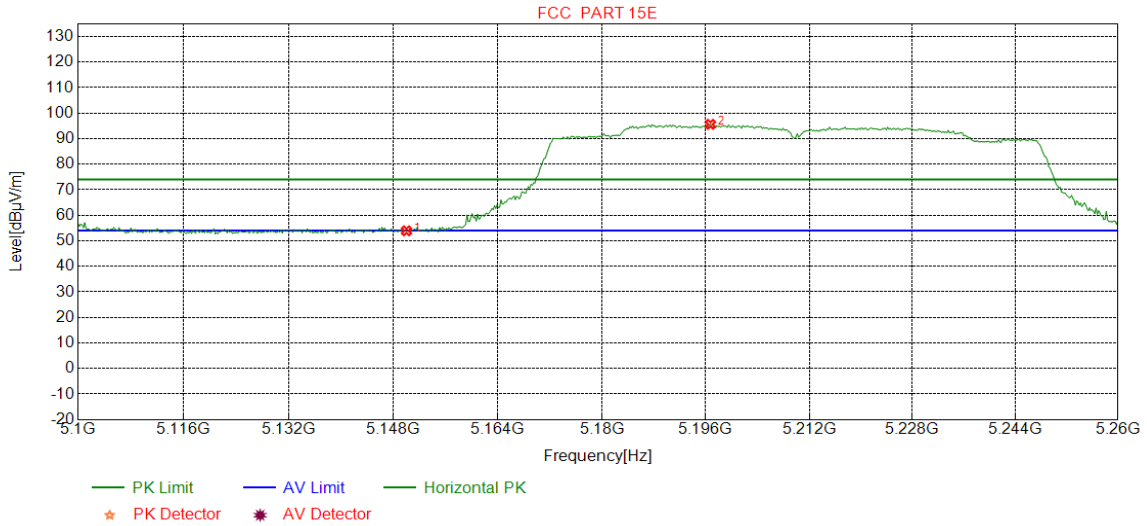
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	35.34	42.33	54.00	11.67	Pass	Vertical
2	5204.3805	34.70	15.55	-42.71	84.21	91.75	54.00	-37.75	Pass	Vertical

Mode:	802.11ac(VHT80Mbps) Transmitting	Channel:	5210
Remark:	PK		

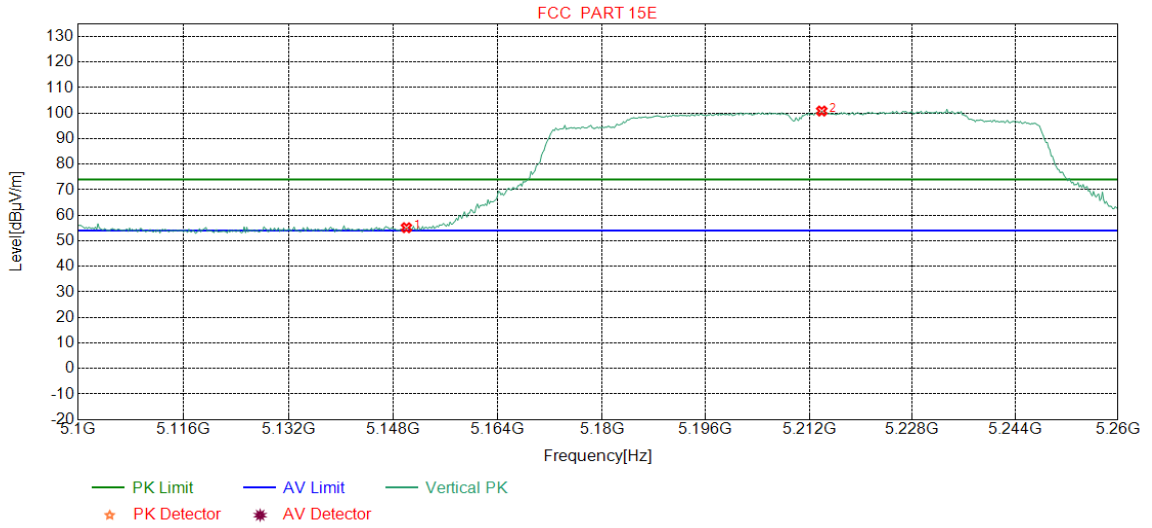
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	46.94	53.93	74.00	20.07	Pass	Horizontal
2	5196.7209	34.70	15.54	-42.73	88.13	95.64	74.00	-21.64	Pass	Horizontal

Mode:	802.11ac(VHT80Mbps) Transmitting	Channel:	5210
Remark:	PK		

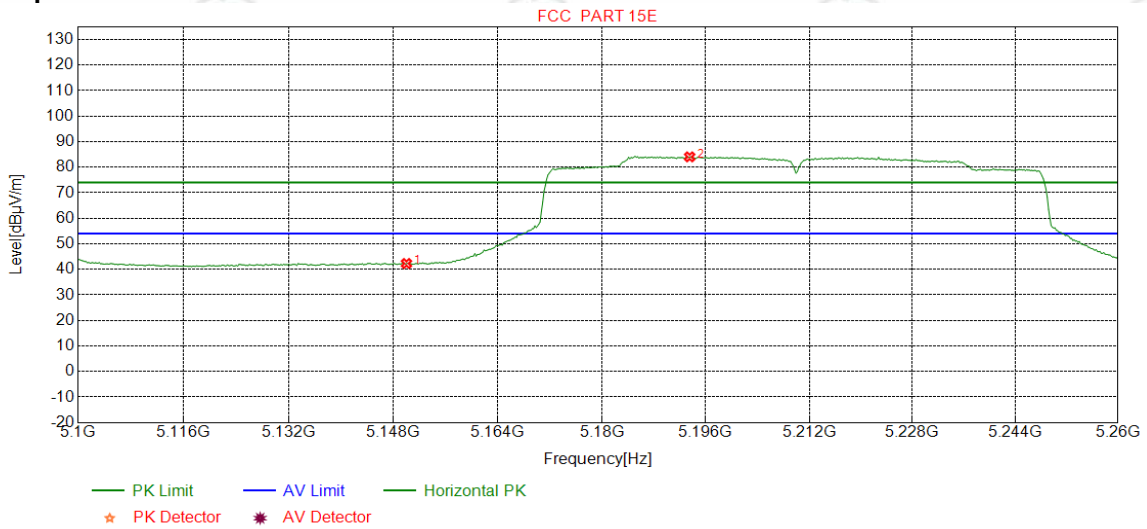
**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	48.16	55.15	74.00	18.85	Pass	Vertical
2	5213.9424	34.71	15.51	-42.71	93.34	100.85	74.00	-26.85	Pass	Vertical

Mode:	802.11ac(VHT80Mbps) Transmitting	Channel:	5210
Remark:	AV		

**Test Graph**

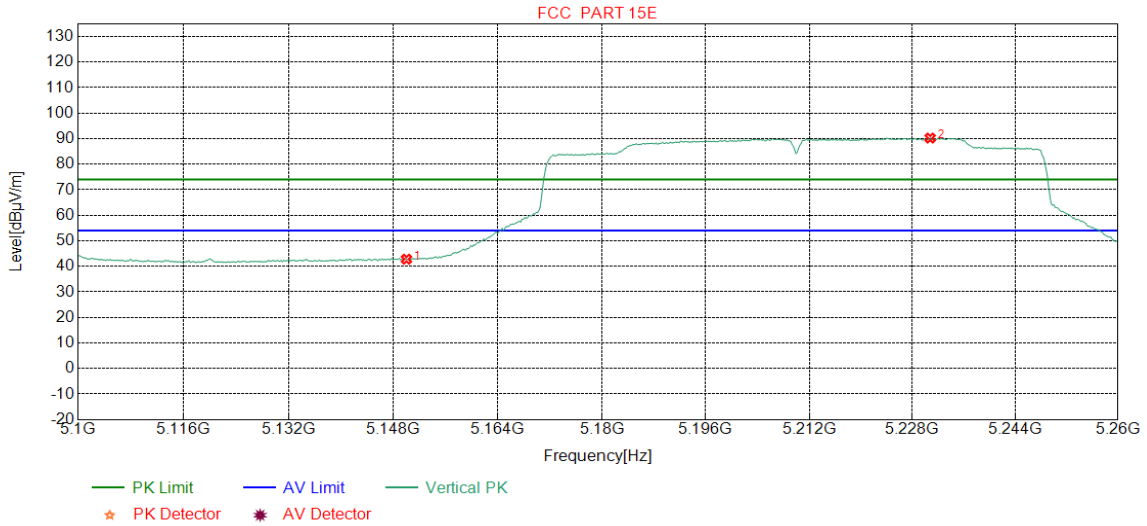


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	35.32	42.31	54.00	11.69	Pass	Horizontal
2	5193.5169	34.69	15.51	-42.72	76.60	84.08	54.00	-30.08	Pass	Horizontal



Mode:	802.11ac(VHT80Mbps) Transmitting	Channel:	5210
Remark:	AV		

**Test Graph**



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	5150.0000	34.65	15.08	-42.74	35.83	42.82	54.00	11.18	Pass	Vertical
2	5230.7635	34.73	15.43	-42.70	82.81	90.27	54.00	-36.27	Pass	Vertical

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

## Appendix I) Unwanted Emissions in the Restricted Bands (Radiated Emission)

<b>Receiver Setup:</b>	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average	
<b>Test Procedure:</b>					
<b>Below 1GHz test procedure as below:</b>					
a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.					
<b>Above 1GHz test procedure as below:</b>					
g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre( Above 18GHz the distance is 1 meter and table is 1.5 metre) h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. j. Repeat above procedures until all frequencies measured was complete.					
<b>Limit:</b>	Frequency	Field strength (microvolt/meter)	Limit (dB $\mu$ V/cm)	Remark	Measurement distance (cm)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				
<b>Test result:</b>	PASS				

## Radiated Spurious Emissions test Data:

### Radiated Emission below 1GHz

Mode:			802.11a(HT20Mbps)					Channel:		5745	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	46.2976	13.20	0.76	-31.81	40.28	22.43	40.00	17.57	Pass	H	PK
2	208.8859	11.13	1.71	-31.94	42.27	23.17	43.50	20.33	Pass	H	PK
3	304.0524	13.29	2.07	-31.60	40.70	24.46	46.00	21.54	Pass	H	PK
4	519.9960	17.40	2.73	-31.93	38.10	26.30	46.00	19.70	Pass	H	PK
5	600.0290	19.00	2.96	-31.50	42.67	33.13	46.00	12.87	Pass	H	PK
6	909.9750	22.16	3.60	-31.48	34.74	29.02	46.00	16.98	Pass	H	PK
7	46.2976	13.20	0.76	-31.81	39.95	22.10	40.00	17.90	Pass	V	PK
8	130.0170	7.70	1.33	-32.02	45.66	22.67	43.50	20.83	Pass	V	PK
9	195.0135	10.43	1.64	-31.94	47.60	27.73	43.50	15.77	Pass	V	PK
10	208.8859	11.13	1.71	-31.94	44.39	25.29	43.50	18.21	Pass	V	PK
11	600.0290	19.00	2.96	-31.50	42.32	32.78	46.00	13.22	Pass	V	PK
12	909.9750	22.16	3.60	-31.48	35.76	30.04	46.00	15.96	Pass	V	PK

**Transmitter Emission above 1GHz**

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5180	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1784.9285	30.28	3.86	-42.70	53.57	45.01	74.00	28.99	Pass	H	PK
2	2385.5886	32.24	4.65	-43.13	54.14	47.90	74.00	26.10	Pass	H	PK
3	3128.7129	33.25	5.50	-43.10	53.31	48.96	74.00	25.04	Pass	H	PK
4	3757.9758	33.61	5.92	-43.05	52.88	49.36	74.00	24.64	Pass	H	PK
5	6491.7492	35.90	8.64	-42.51	50.62	52.65	74.00	21.35	Pass	H	PK
6	10360.000	38.30	7.29	-42.03	46.80	50.36	74.00	23.64	Pass	H	PK
7	1281.6282	28.18	3.26	-42.80	53.58	42.22	74.00	31.78	Pass	V	PK
8	2221.1221	32.01	4.43	-43.16	52.07	45.35	74.00	28.65	Pass	V	PK
9	4164.4664	34.03	6.26	-42.93	50.30	47.66	74.00	26.34	Pass	V	PK
10	6454.8955	35.89	8.48	-42.51	50.27	52.13	74.00	21.87	Pass	V	PK
11	7545.4023	36.58	6.42	-42.11	49.02	49.91	74.00	24.09	Pass	V	PK
12	8926.0463	37.54	6.88	-42.00	49.06	51.48	74.00	22.52	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5200	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1309.1309	28.21	3.33	-42.78	54.31	43.07	74.00	30.93	Pass	H	PK
2	1708.4708	29.78	3.89	-42.67	54.03	45.03	74.00	28.97	Pass	H	PK
3	2135.8636	31.89	4.40	-43.17	54.38	47.50	74.00	26.50	Pass	H	PK
4	3403.7404	33.36	5.77	-43.10	52.65	48.68	74.00	25.32	Pass	H	PK
5	6486.2486	35.90	8.61	-42.50	49.80	51.81	74.00	22.19	Pass	H	PK
6	9220.4610	37.66	6.64	-42.05	49.65	51.90	74.00	22.10	Pass	H	PK
7	1281.0781	28.18	3.26	-42.80	54.33	42.97	74.00	31.03	Pass	V	PK
8	1776.1276	30.22	3.87	-42.70	51.65	43.04	74.00	30.96	Pass	V	PK
9	2816.8317	32.91	5.03	-43.10	52.08	46.92	74.00	27.08	Pass	V	PK
10	3757.9758	33.61	5.92	-43.05	52.31	48.79	74.00	25.21	Pass	V	PK
11	6491.7492	35.90	8.64	-42.51	49.29	51.32	74.00	22.68	Pass	V	PK
12	9098.5549	37.68	6.65	-42.02	49.34	51.65	74.00	22.35	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5240		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	Remark	
1	1224.4224	28.12	3.09	-42.86	53.11	41.46	74.00	32.54	Pass	H	PK	
2	1878.9879	30.90	4.09	-42.90	52.83	44.92	74.00	29.08	Pass	H	PK	
3	2476.8977	32.37	4.71	-43.11	53.05	47.02	74.00	26.98	Pass	H	PK	
4	3758.5259	33.61	5.92	-43.05	52.63	49.11	74.00	24.89	Pass	H	PK	
5	6491.1991	35.90	8.63	-42.50	49.47	51.50	74.00	22.50	Pass	H	PK	
6	9165.8333	37.67	6.61	-42.03	48.94	51.19	74.00	22.81	Pass	H	PK	
7	1366.3366	28.27	3.33	-42.72	51.84	40.72	74.00	33.28	Pass	V	PK	
8	1935.6436	31.28	4.14	-43.04	52.11	44.49	74.00	29.51	Pass	V	PK	
9	2807.4807	32.89	5.03	-43.10	52.39	47.21	74.00	26.79	Pass	V	PK	
10	4107.2607	33.95	6.25	-42.96	50.19	47.43	74.00	26.57	Pass	V	PK	
11	6430.6931	35.89	8.48	-42.52	50.27	52.12	74.00	21.88	Pass	V	PK	
12	9288.3144	37.64	6.68	-42.05	49.44	51.71	74.00	22.29	Pass	V	PK	

Mode:			802.11 n(HT40 ) Transmitting					Channel:		5190		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	Remark	
1	1376.2376	28.28	3.33	-42.71	52.28	41.18	74.00	32.82	Pass	H	PK	
2	1708.4708	29.78	3.89	-42.67	53.41	44.41	74.00	29.59	Pass	H	PK	
3	2107.2607	31.85	4.53	-43.18	51.99	45.19	74.00	28.81	Pass	H	PK	
4	3412.5413	33.37	5.76	-43.10	52.23	48.26	74.00	25.74	Pass	H	PK	
5	6477.9978	35.90	8.58	-42.51	49.94	51.91	74.00	22.09	Pass	H	PK	
6	9092.2296	37.68	6.67	-42.02	49.73	52.06	74.00	21.94	Pass	H	PK	
7	1366.8867	28.27	3.33	-42.72	51.75	40.63	74.00	33.37	Pass	V	PK	
8	1780.5281	30.25	3.87	-42.70	52.08	43.50	74.00	30.50	Pass	V	PK	
9	2982.3982	33.17	5.30	-43.10	50.50	45.87	74.00	28.13	Pass	V	PK	
10	3843.7844	33.68	6.29	-43.04	50.74	47.67	74.00	26.33	Pass	V	PK	
11	6491.7492	35.90	8.64	-42.51	50.61	52.64	74.00	21.36	Pass	V	PK	
12	9746.6123	37.70	6.86	-42.10	48.67	51.13	74.00	22.87	Pass	V	PK	



Mode:			802.11 n(HT40 ) Transmitting					Channel:		5230	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1778.8779	30.24	3.87	-42.70	57.57	48.98	74.00	25.02	Pass	H	PK
2	2674.9175	32.68	4.86	-43.10	58.20	52.64	74.00	21.36	Pass	H	PK
3	2836.0836	32.94	5.04	-43.11	58.00	52.87	74.00	21.13	Pass	H	PK
4	6491.1991	35.90	8.63	-42.50	51.24	53.27	74.00	20.73	Pass	H	PK
5	8481.5491	36.59	6.66	-42.00	49.15	50.40	74.00	23.60	Pass	H	PK
6	9717.2859	37.69	6.89	-42.11	48.33	50.80	74.00	23.20	Pass	H	PK
7	1788.2288	30.30	3.86	-42.70	52.29	43.75	74.00	30.25	Pass	V	PK
8	2562.7063	32.50	4.83	-43.10	57.65	51.88	74.00	22.12	Pass	V	PK
9	2821.7822	32.91	5.03	-43.09	58.42	53.27	74.00	20.73	Pass	V	PK
10	4176.0176	34.05	6.26	-42.93	52.79	50.17	74.00	23.83	Pass	V	PK
11	6405.9406	35.88	8.50	-42.51	50.10	51.97	74.00	22.03	Pass	V	PK
12	8999.6500	37.70	6.83	-42.00	48.62	51.15	74.00	22.85	Pass	V	PK

Mode:			802.11ac(VHT80 )					Channel:		5210	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1366.8867	28.27	3.33	-42.72	58.33	47.21	74.00	26.79	Pass	H	PK
2	1926.2926	31.21	4.16	-43.02	56.34	48.69	74.00	25.31	Pass	H	PK
3	2836.6337	32.94	5.04	-43.10	57.90	52.78	74.00	21.22	Pass	H	PK
4	6491.7492	35.90	8.64	-42.51	49.79	51.82	74.00	22.18	Pass	H	PK
5	9142.2571	37.67	6.62	-42.02	49.22	51.49	74.00	22.51	Pass	H	PK
6	11246.287	38.75	7.71	-42.00	48.40	52.86	74.00	21.14	Pass	H	PK
7	1780.5281	30.25	3.87	-42.70	52.38	43.80	74.00	30.20	Pass	V	PK
8	2562.7063	32.50	4.83	-43.10	56.93	51.16	74.00	22.84	Pass	V	PK
9	2830.0330	32.93	5.04	-43.11	58.69	53.55	74.00	20.45	Pass	V	PK
10	4161.7162	34.03	6.26	-42.94	52.77	50.12	74.00	23.88	Pass	V	PK
11	6405.9406	35.88	8.50	-42.51	49.86	51.73	74.00	22.27	Pass	V	PK
12	8925.4713	37.54	6.88	-42.00	49.22	51.64	74.00	22.36	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5745		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark	
1	2135.3135	31.89	3.71	-43.17	56.44	48.87	74.00	25.13	Pass	H	PK	
2	2562.1562	32.50	4.34	-43.10	57.54	51.28	74.00	22.72	Pass	H	PK	
3	2979.6480	33.17	4.57	-43.10	57.09	51.73	74.00	22.27	Pass	H	PK	
4	4159.5160	34.02	5.36	-42.94	51.38	47.82	74.00	26.18	Pass	H	PK	
5	6491.7492	35.90	7.49	-42.50	49.15	50.04	74.00	23.96	Pass	H	PK	
6	9154.3770	37.67	6.62	-42.03	49.05	51.31	74.00	22.69	Pass	H	PK	
7	1777.2277	30.23	3.32	-42.70	52.34	43.19	74.00	30.81	Pass	V	PK	
8	2562.1562	32.50	4.34	-43.10	53.28	47.02	74.00	26.98	Pass	V	PK	
9	2833.3333	32.93	4.43	-43.10	57.91	52.17	74.00	21.83	Pass	V	PK	
10	4163.3663	34.03	5.36	-42.94	52.57	49.02	74.00	24.98	Pass	V	PK	
11	6491.7492	35.90	7.49	-42.50	50.53	51.42	74.00	22.58	Pass	V	PK	
12	9169.7113	37.67	6.61	-42.04	49.33	51.57	74.00	22.43	Pass	V	PK	

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5785		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark	
1	1338.8339	28.24	2.94	-42.75	56.56	44.99	74.00	29.01	Pass	H	PK	
2	2562.7063	32.50	4.34	-43.10	58.14	51.88	74.00	22.12	Pass	H	PK	
3	2835.5336	32.94	4.44	-43.11	57.69	51.96	74.00	22.04	Pass	H	PK	
4	5015.9516	34.52	5.95	-42.79	50.86	48.54	74.00	25.46	Pass	H	PK	
5	6491.7492	35.90	7.49	-42.50	50.84	51.73	74.00	22.27	Pass	H	PK	
6	9146.7098	37.67	6.62	-42.03	49.59	51.85	74.00	22.15	Pass	H	PK	
7	1788.2288	30.30	3.33	-42.70	54.69	45.62	74.00	28.38	Pass	V	PK	
8	2810.2310	32.90	4.35	-43.11	58.25	52.39	74.00	21.61	Pass	V	PK	
9	4165.5666	34.03	5.36	-42.93	52.07	48.53	74.00	25.47	Pass	V	PK	
10	5020.9021	34.52	5.95	-42.79	50.29	47.97	74.00	26.03	Pass	V	PK	
11	6491.1991	35.90	7.48	-42.50	50.82	51.70	74.00	22.30	Pass	V	PK	
12	7582.6055	36.57	6.63	-42.12	49.26	50.34	74.00	23.66	Pass	V	PK	

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5825	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1184.8185	28.08	2.82	-42.90	60.08	48.08	74.00	25.92	Pass	H	PK
2	1931.2431	31.25	3.59	-43.03	57.40	49.21	74.00	24.79	Pass	H	PK
3	2562.7063	32.50	4.34	-43.10	59.12	52.86	74.00	21.14	Pass	H	PK
4	2967.5468	33.15	4.57	-43.10	58.47	53.09	74.00	20.91	Pass	H	PK
5	6491.7492	35.90	7.49	-42.50	49.76	50.65	74.00	23.35	Pass	H	PK
6	9131.3754	37.67	6.63	-42.02	49.50	51.78	74.00	22.22	Pass	H	PK
7	1784.9285	30.28	3.33	-42.70	52.71	43.62	74.00	30.38	Pass	V	PK
8	2562.1562	32.50	4.34	-43.10	53.90	47.64	74.00	26.36	Pass	V	PK
9	2834.4334	32.94	4.43	-43.10	58.84	53.11	74.00	20.89	Pass	V	PK
10	3758.5259	33.61	5.00	-43.05	51.37	46.93	74.00	27.07	Pass	V	PK
11	6491.1991	35.90	7.48	-42.50	50.76	51.64	74.00	22.36	Pass	V	PK
12	9000.2667	37.70	6.83	-42.00	49.21	51.74	74.00	22.26	Pass	V	PK

Mode:			802.11 n(HT40 ) Transmitting					Channel:		5755	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1933.9934	31.26	3.60	-43.04	54.80	46.62	74.00	27.38	Pass	H	PK
2	2562.1562	32.50	4.34	-43.10	56.52	50.26	74.00	23.74	Pass	H	PK
3	2810.2310	32.90	4.35	-43.11	58.00	52.14	74.00	21.86	Pass	H	PK
4	4527.5028	34.50	5.84	-42.80	50.90	48.44	74.00	25.56	Pass	H	PK
5	6491.1991	35.90	7.48	-42.50	49.94	50.82	74.00	23.18	Pass	H	PK
6	7877.0251	36.45	6.58	-42.18	49.15	50.00	74.00	24.00	Pass	H	PK
7	1787.6788	30.30	3.33	-42.71	52.23	43.15	74.00	30.85	Pass	V	PK
8	2562.7063	32.50	4.34	-43.10	54.22	47.96	74.00	26.04	Pass	V	PK
9	2833.3333	32.93	4.43	-43.10	59.10	53.36	74.00	20.64	Pass	V	PK
10	4163.9164	34.03	5.36	-42.93	52.47	48.93	74.00	25.07	Pass	V	PK
11	6491.7492	35.90	7.49	-42.50	51.08	51.97	74.00	22.03	Pass	V	PK
12	8986.4658	37.67	6.84	-42.00	49.17	51.68	74.00	22.32	Pass	V	PK

Mode:			802.11 n(HT40 ) Transmitting					Channel:		5795	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1281.0781	28.18	2.90	-42.81	59.02	47.29	74.00	26.71	Pass	H	PK
2	2050.0550	31.77	3.65	-43.19	56.82	49.05	74.00	24.95	Pass	H	PK
3	2562.7063	32.50	4.34	-43.10	58.85	52.59	74.00	21.41	Pass	H	PK
4	4178.2178	34.05	5.37	-42.93	51.50	47.99	74.00	26.01	Pass	H	PK
5	6491.1991	35.90	7.48	-42.50	50.19	51.07	74.00	22.93	Pass	H	PK
6	9214.9477	37.66	6.63	-42.05	49.12	51.36	74.00	22.64	Pass	H	PK
7	1854.2354	30.74	3.56	-42.84	50.71	42.17	74.00	31.83	Pass	V	PK
8	2562.1562	32.50	4.34	-43.10	54.21	47.95	74.00	26.05	Pass	V	PK
9	2809.1309	32.89	4.34	-43.09	58.31	52.45	74.00	21.55	Pass	V	PK
10	4143.5644	34.00	5.36	-42.95	52.91	49.32	74.00	24.68	Pass	V	PK
11	6884.8923	36.05	6.44	-42.27	49.76	49.98	74.00	24.02	Pass	V	PK
12	9137.5092	37.67	6.63	-42.03	48.99	51.26	74.00	22.74	Pass	V	PK

**Radiated Emission above 18GHz:**

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5745	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	19916.716	38.97	0.00	-62.26	69.18	45.89	74.00	28.11	Pass	H	PK
2	21206.848	38.56	0.00	-63.20	69.78	45.14	74.00	28.86	Pass	H	PK
3	24386.415	40.38	0.00	-60.27	66.61	46.72	74.00	27.28	Pass	H	PK
4	26953.478	40.38	0.00	-60.51	67.45	47.32	74.00	26.68	Pass	H	PK
5	31404.696	41.58	0.00	-58.98	65.25	47.85	74.00	26.15	Pass	H	PK
6	35554.942	43.11	0.00	-57.84	63.51	48.78	74.00	25.22	Pass	H	PK
7	19682.627	38.97	0.00	-62.78	69.70	45.89	74.00	28.11	Pass	V	PK
8	21836.953	38.36	0.00	-63.15	70.13	45.34	74.00	28.66	Pass	V	PK
9	24388.175	40.38	0.00	-60.26	66.74	46.86	74.00	27.14	Pass	V	PK
10	26602.344	40.39	0.00	-59.81	67.33	47.91	74.00	26.09	Pass	V	PK
11	29916.556	40.80	0.00	-60.41	67.46	47.85	74.00	26.15	Pass	V	PK
12	33332.853	42.13	0.00	-58.23	64.84	48.74	74.00	25.26	Pass	V	PK

**Note:**

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

2) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.



## Appendix J) Unwanted Emissions that fall Outside of the Restricted Bands

<b>Receiver Setup:</b>	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak
<b>Test Procedure:</b>					
<p>a) The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>c) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p> <p>d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>e) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>f) Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel</p> <p>j) Test the EUT in the lowest channel or/and the middle channel , the Highest channel</p> <p>h) The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.</p> <p>i) Repeat above procedures until all frequencies measured was complete.</p>					
Limit:	Transmitter Operation Frequency(MHz)	Limit (EIRP)	Limit (dBμV/m)@3m	Measurement distance (cm)	
	5150-5350	-27dBm/MHz	68.2dBuV/m	3	
	5470-5725	-27dBm/MHz	68.2dBuV/m	3	
	<b>Note:</b> (i) $EIRP = ((E \cdot d)^2) / 30$ where: • E is the field strength in V/m; • d is the measurement distance in meters; • EIRP is the equivalent isotropically radiated power in watts. (ii) Working in dB units, the above equation is equivalent to: $EIRP[dBm] = E[dB\mu V/m] + 20 \log(d[meters]) - 104.77$ (iii) Or, if d is 3 meters: $EIRP[dBm] = E[dB\mu V/m] - 95.2$				
Test result:	PASS				

**Test Data:**

For the all emission,out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit. Refer to test item“Unwanted Emissions in the Restricted Bands (Radiated Emission)” test result.

**Radiated Emission above 68.2GHz:**

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5180	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1784.9285	30.28	3.86	-42.70	53.57	45.01	68.20	23.19	Pass	H	PK
2	3114.4114	33.25	5.51	-43.10	52.47	48.13	68.20	20.07	Pass	H	PK
3	5172.1672	34.67	7.54	-42.73	57.37	56.85	68.20	11.35	Pass	H	PK
4	6491.7492	35.90	8.64	-42.51	50.62	52.65	68.20	15.55	Pass	H	PK
5	9725.9113	37.69	6.88	-42.10	48.83	51.30	68.20	16.90	Pass	H	PK
6	13165.1583	39.53	7.81	-41.86	49.93	55.41	68.20	12.79	Pass	H	PK
7	1784.9285	30.28	3.86	-42.70	51.21	42.65	68.20	25.55	Pass	V	PK
8	3084.1584	33.23	5.51	-43.09	51.01	46.66	68.20	21.54	Pass	V	PK
9	4164.4664	34.03	6.26	-42.93	50.30	47.66	68.20	20.54	Pass	V	PK
10	5173.2673	34.67	7.54	-42.73	60.72	60.20	68.20	8.00	Pass	V	PK
11	7545.4023	36.58	6.42	-42.11	49.02	49.91	68.20	18.29	Pass	V	PK
12	11243.4122	38.75	7.70	-42.00	49.17	53.62	68.20	14.58	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5200	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1386.1386	28.29	3.33	-42.70	53.85	42.77	68.20	25.43	Pass	H	PK
2	2135.8636	31.89	4.40	-43.17	54.38	47.50	68.20	20.70	Pass	H	PK
3	3403.7404	33.36	5.77	-43.10	52.65	48.68	68.20	19.52	Pass	H	PK
4	5206.8207	34.71	7.44	-42.72	58.20	57.63	68.20	10.57	Pass	H	PK
5	9220.4610	37.66	6.64	-42.05	49.65	51.90	68.20	16.30	Pass	H	PK
6	11253.187	38.75	7.71	-41.99	48.68	53.15	68.20	15.05	Pass	H	PK
7	1453.2453	28.35	3.44	-42.91	51.29	40.17	68.20	28.03	Pass	V	PK
8	2476.8977	32.37	4.71	-43.11	51.79	45.76	68.20	22.44	Pass	V	PK
9	3757.9758	33.61	5.92	-43.05	52.31	48.79	68.20	19.41	Pass	V	PK
10	5207.3707	34.71	7.44	-42.72	61.63	61.06	68.20	7.14	Pass	V	PK
11	8447.0474	36.58	6.70	-42.02	48.76	50.02	68.20	18.18	Pass	V	PK
12	11830.516	39.16	7.69	-41.93	49.52	54.44	68.20	13.76	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5240		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark	
1	1638.0638	29.31	3.78	-42.81	51.95	42.23	68.20	25.97	Pass	H	PK	
2	2813.5314	32.90	5.03	-43.10	51.26	46.09	68.20	22.11	Pass	H	PK	
3	3758.5259	33.61	5.92	-43.05	52.63	49.11	68.20	19.09	Pass	H	PK	
4	5233.2233	34.73	7.45	-42.71	57.10	56.57	68.20	11.63	Pass	H	PK	
5	7442.4721	36.54	6.48	-42.11	48.65	49.56	68.20	18.64	Pass	H	PK	
6	11230.761	38.74	7.66	-42.00	49.21	53.61	68.20	14.59	Pass	H	PK	
7	1935.6436	31.28	4.14	-43.04	52.11	44.49	68.20	23.71	Pass	V	PK	
8	2674.3674	32.68	4.86	-43.10	52.00	46.44	68.20	21.76	Pass	V	PK	
9	4107.2607	33.95	6.25	-42.96	50.19	47.43	68.20	20.77	Pass	V	PK	
10	5232.6733	34.73	7.45	-42.71	63.34	62.81	68.20	5.39	Pass	V	PK	
11	6430.6931	35.89	8.48	-42.52	50.27	52.12	68.20	16.08	Pass	V	PK	
12	9288.3144	37.64	6.68	-42.05	49.44	51.71	68.20	16.49	Pass	V	PK	

Mode:			802.11n(HT40 )					Channel:		5190		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark	
1	1708.4708	29.78	3.89	-42.67	53.41	44.41	68.20	23.79	Pass	H	PK	
2	2107.2607	31.85	4.53	-43.18	51.99	45.19	68.20	23.01	Pass	H	PK	
3	3412.5413	33.37	5.76	-43.10	52.23	48.26	68.20	19.94	Pass	H	PK	
4	5194.1694	34.69	7.46	-42.72	53.90	53.33	68.20	14.87	Pass	H	PK	
5	6477.9978	35.90	8.58	-42.51	49.94	51.91	68.20	16.29	Pass	H	PK	
6	9092.2296	37.68	6.67	-42.02	49.73	52.06	68.20	16.14	Pass	H	PK	
7	1780.5281	30.25	3.87	-42.70	52.08	43.50	68.20	24.70	Pass	V	PK	
8	2982.3982	33.17	5.30	-43.10	50.50	45.87	68.20	22.33	Pass	V	PK	
9	4607.2607	34.50	6.76	-42.80	49.93	48.39	68.20	19.81	Pass	V	PK	
10	5207.9208	34.71	7.44	-42.72	57.59	57.02	68.20	11.18	Pass	V	PK	
11	6491.7492	35.90	8.64	-42.51	50.61	52.64	68.20	15.56	Pass	V	PK	
12	8896.7198	37.47	6.91	-42.00	48.65	51.03	68.20	17.17	Pass	V	PK	

Mode:			802.11n(HT40 )					Channel:		5230	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1366.8867	28.27	3.33	-42.72	57.38	46.26	68.20	21.94	Pass	H	PK
2	1778.8779	30.24	3.87	-42.70	57.57	48.98	68.20	19.22	Pass	H	PK
3	3117.1617	33.25	5.51	-43.10	55.98	51.64	68.20	16.56	Pass	H	PK
4	5220.0220	34.72	7.44	-42.71	56.44	55.89	68.20	12.31	Pass	H	PK
5	6349.2849	35.87	8.69	-42.53	49.45	51.48	68.20	16.72	Pass	H	PK
6	8481.5491	36.59	6.66	-42.00	49.15	50.40	68.20	17.80	Pass	H	PK
7	1788.2288	30.30	3.86	-42.70	52.29	43.75	68.20	24.45	Pass	V	PK
8	2821.7822	32.91	5.03	-43.09	58.42	53.27	68.20	14.93	Pass	V	PK
9	4176.0176	34.05	6.26	-42.93	52.79	50.17	68.20	18.03	Pass	V	PK
10	5214.5215	34.71	7.44	-42.71	62.74	62.18	68.20	6.02	Pass	V	PK
11	6405.9406	35.88	8.50	-42.51	50.10	51.97	68.20	16.23	Pass	V	PK
12	9224.4862	37.66	6.64	-42.05	48.92	51.17	68.20	17.03	Pass	V	PK

Mode:			802.11ac(VHT80 )					Channel:		5210	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1366.8867	28.27	3.33	-42.72	58.33	47.21	68.20	20.99	Pass	H	PK
2	2686.4686	32.70	4.88	-43.11	58.41	52.88	68.20	15.32	Pass	H	PK
3	5213.9714	34.71	7.44	-42.71	55.30	54.74	68.20	13.46	Pass	H	PK
4	6491.7492	35.90	8.64	-42.51	49.79	51.82	68.20	16.38	Pass	H	PK
5	9142.2571	37.67	6.62	-42.02	49.22	51.49	68.20	16.71	Pass	H	PK
6	11246.287	38.75	7.71	-42.00	48.40	52.86	68.20	15.34	Pass	H	PK
7	2562.7063	32.50	4.83	-43.10	56.93	51.16	68.20	17.04	Pass	V	PK
8	2830.0330	32.93	5.04	-43.11	58.69	53.55	68.20	14.65	Pass	V	PK
9	4161.7162	34.03	6.26	-42.94	52.77	50.12	68.20	18.08	Pass	V	PK
10	5217.2717	34.72	7.44	-42.71	60.45	59.90	68.20	8.30	Pass	V	PK
11	6405.9406	35.88	8.50	-42.51	49.86	51.73	68.20	16.47	Pass	V	PK
12	8925.4713	37.54	6.88	-42.00	49.22	51.64	68.20	16.56	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5745	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2135.3135	31.89	3.71	-43.17	56.44	48.87	68.20	19.33	Pass	H	PK
2	2833.3333	32.93	4.43	-43.10	58.47	52.73	68.20	15.47	Pass	H	PK
3	2971.3971	33.15	4.57	-43.09	57.44	52.07	68.20	16.13	Pass	H	PK
4	5737.6238	35.38	6.99	-42.60	58.29	58.06	68.20	10.14	Pass	H	PK
5	7632.4422	36.55	6.43	-42.13	49.36	50.21	68.20	17.99	Pass	H	PK
6	10297.553	38.22	7.18	-42.04	49.02	52.38	68.20	15.82	Pass	H	PK
7	1777.2277	30.23	3.32	-42.70	52.34	43.19	68.20	25.01	Pass	V	PK
8	2833.3333	32.93	4.43	-43.10	57.91	52.17	68.20	16.03	Pass	V	PK
9	4163.3663	34.03	5.36	-42.94	52.57	49.02	68.20	19.18	Pass	V	PK
10	5699.6700	35.32	6.98	-42.60	64.92	64.62	68.20	3.58	Pass	V	PK
11	6491.7492	35.90	7.49	-42.50	50.53	51.42	68.20	16.78	Pass	V	PK
12	9169.7113	37.67	6.61	-42.04	49.33	51.57	68.20	16.63	Pass	V	PK

Mode:			802.11 a(HT20 ) Transmitting					Channel:		5785	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1191.4191	28.09	2.84	-42.89	57.97	46.01	68.20	22.19	Pass	H	PK
2	2562.7063	32.50	4.34	-43.10	58.14	51.88	68.20	16.32	Pass	H	PK
3	5787.6788	35.46	7.00	-42.60	55.16	55.02	68.20	13.18	Pass	H	PK
4	6491.7492	35.90	7.49	-42.50	50.84	51.73	68.20	16.47	Pass	H	PK
5	9146.7098	37.67	6.62	-42.03	49.59	51.85	68.20	16.35	Pass	H	PK
6	11215.314	38.73	7.62	-42.00	48.75	53.10	68.20	15.10	Pass	H	PK
7	2810.2310	32.90	4.35	-43.11	58.25	52.39	68.20	15.81	Pass	V	PK
8	4165.5666	34.03	5.36	-42.93	52.07	48.53	68.20	19.67	Pass	V	PK
9	5778.3278	35.45	7.00	-42.60	60.40	60.25	68.20	7.95	Pass	V	PK
10	6491.1991	35.90	7.48	-42.50	50.82	51.70	68.20	16.50	Pass	V	PK
11	9012.5342	37.70	6.81	-42.01	49.21	51.71	68.20	16.49	Pass	V	PK
12	10406.427	38.37	7.54	-42.02	49.00	52.89	68.20	15.31	Pass	V	PK



Mode:			802.11 a(HT20 ) Transmitting					Channel:		5825	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	Remark
1	1184.8185	28.08	2.82	-42.90	60.08	48.08	68.20	20.12	Pass	H	PK
2	1931.2431	31.25	3.59	-43.03	57.40	49.21	68.20	18.99	Pass	H	PK
3	2562.7063	32.50	4.34	-43.10	59.12	52.86	68.20	15.34	Pass	H	PK
4	2984.0484	33.17	4.57	-43.10	58.32	52.96	68.20	15.24	Pass	H	PK
5	4165.5666	34.03	5.36	-42.93	51.96	48.42	68.20	19.78	Pass	H	PK
6	5821.7822	35.51	7.01	-42.60	52.00	51.92	68.20	16.28	Pass	H	PK
7	2562.1562	32.50	4.34	-43.10	53.90	47.64	68.20	20.56	Pass	V	PK
8	2834.4334	32.94	4.43	-43.10	58.84	53.11	68.20	15.09	Pass	V	PK
9	4162.8163	34.03	5.36	-42.94	52.23	48.68	68.20	19.52	Pass	V	PK
10	5821.2321	35.51	7.01	-42.60	59.86	59.78	68.20	8.42	Pass	V	PK
11	6491.1991	35.90	7.48	-42.50	50.76	51.64	68.20	16.56	Pass	V	PK
12	9000.2667	37.70	6.83	-42.00	49.21	51.74	68.20	16.46	Pass	V	PK

Mode:			802.11n(HT40 )					Channel:		5755	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	Remark
1	2826.1826	32.92	4.40	-43.09	58.64	52.87	68.20	15.33	Pass	H	PK
2	2975.7976	33.16	4.57	-43.10	57.24	51.87	68.20	16.33	Pass	H	PK
3	5694.1694	35.31	6.98	-42.60	56.07	55.76	68.20	12.44	Pass	H	PK
4	6491.1991	35.90	7.48	-42.50	49.94	50.82	68.20	17.38	Pass	H	PK
5	9013.3009	37.70	6.81	-42.01	49.61	52.11	68.20	16.09	Pass	H	PK
6	10397.226	38.36	7.52	-42.02	49.45	53.31	68.20	14.89	Pass	H	PK
7	2562.7063	32.50	4.34	-43.10	54.22	47.96	68.20	20.24	Pass	V	PK
8	2833.3333	32.93	4.43	-43.10	59.10	53.36	68.20	14.84	Pass	V	PK
9	4163.9164	34.03	5.36	-42.93	52.47	48.93	68.20	19.27	Pass	V	PK
10	5702.9703	35.32	6.98	-42.59	61.99	61.70	68.20	6.50	Pass	V	PK
11	6491.7492	35.90	7.49	-42.50	51.08	51.97	68.20	16.23	Pass	V	PK
12	8986.4658	37.67	6.84	-42.00	49.17	51.68	68.20	16.52	Pass	V	PK

Mode:			802.11n(HT40 )					Channel:		5795		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark	
1	1934.5435	31.27	3.60	-43.04	54.92	46.75	68.20	21.45	Pass	H	PK	
2	2828.9329	32.93	4.41	-43.10	58.46	52.70	68.20	15.50	Pass	H	PK	
3	4178.2178	34.05	5.37	-42.93	51.50	47.99	68.20	20.21	Pass	H	PK	
4	5799.2299	35.48	7.00	-42.60	52.48	52.36	68.20	15.84	Pass	H	PK	
5	9214.9477	37.66	6.63	-42.05	49.12	51.36	68.20	16.84	Pass	H	PK	
6	11258.250	38.75	7.71	-42.00	49.94	54.40	68.20	13.80	Pass	H	PK	
7	1944.4444	31.33	3.63	-43.07	50.52	42.41	68.20	25.79	Pass	V	PK	
8	2809.1309	32.89	4.34	-43.09	58.31	52.45	68.20	15.75	Pass	V	PK	
9	4143.5644	34.00	5.36	-42.95	52.91	49.32	68.20	18.88	Pass	V	PK	
10	5798.1298	35.48	7.00	-42.60	60.61	60.49	68.20	7.71	Pass	V	PK	
11	8815.4877	37.29	6.92	-41.99	47.93	50.15	68.20	18.05	Pass	V	PK	
12	13095.306	39.56	7.90	-41.87	49.66	55.25	68.20	12.95	Pass	V	PK	

Mode:			802.11ac(VHT80 )					Channel:		5775		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark	
1	1181.4191	28.09	2.84	-42.89	57.97	46.01	68.20	22.19	Pass	H	PK	
2	2542.7163	32.50	4.34	-43.10	58.14	51.88	68.20	16.32	Pass	H	PK	
3	5797.6488	35.46	7.00	-42.60	55.16	55.02	68.20	13.18	Pass	H	PK	
4	6481.7442	35.90	7.49	-42.50	50.84	51.73	68.20	16.47	Pass	H	PK	
5	9145.7498	37.67	6.62	-42.03	49.59	51.85	68.20	16.35	Pass	H	PK	
6	11205.304	38.73	7.62	-42.00	48.75	53.10	68.20	15.10	Pass	H	PK	
7	1790.5241	30.25	3.87	-42.70	52.08	43.50	68.20	24.70	Pass	V	PK	
8	2882.3482	33.17	5.30	-43.10	50.50	45.87	68.20	22.33	Pass	V	PK	
9	4647.2507	34.50	6.76	-42.80	49.93	48.39	68.20	19.81	Pass	V	PK	
10	5227.9218	34.71	7.44	-42.72	57.59	57.02	68.20	11.18	Pass	V	PK	
11	6498.7494	35.90	8.64	-42.51	50.61	52.64	68.20	15.56	Pass	V	PK	
12	8696.7148	37.47	6.91	-42.00	48.65	51.03	68.20	17.17	Pass	V	PK	

**Note:**

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

2) Scan from 1GHz to 25GHz, the disturbance above 13GHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.