			HV	NT	-3000.00	-0.544465	20	PASS
		5550	NV	NT	-5000.00	-0.900901	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-8000.00	-1.441441	20	PASS
		5670	NV	NT	-6000.00	-1.058201	20	PASS
			LV	NT	-8000.00	-1.410935	20	PASS
			HV	NT	-6000.00	-1.058201	20	PASS
		5710	NV	NT	-3000.00	-0.525394	20	PASS
			LV	NT	-2000.00	-0.350263	20	PASS
			HV	NT	-3000.00	-0.525394	20	PASS
		5755	NV	NT	-9000.00	-1.563858	20	PASS
			LV	NT	-5000.00	-0.868810	20	PASS
			HV	NT	-11000.00	-1.911381	20	PASS
		5795	NV	NT	-9000.00	-1.553063	20	PASS
			LV	NT	-10000.00	-1.725626	20	PASS
			HV	NT	-8000.00	-1.380500	20	PASS
11AC80 MIMO	Ant1	5210	NV	NT	-1000.00	-0.191939	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-2000.00	-0.383877	20	PASS
		5290	NV	NT	-6000.00	-1.134216	20	PASS
			LV	NT	-2000.00	-0.378072	20	PASS
			HV	NT	-9000.00	-1.701323	20	PASS
		5530	NV	NT	-8000.00	-1.446655	20	PASS
			LV	NT	-6000.00	-1.084991	20	PASS
			HV	NT	-9000.00	-1.627486	20	PASS
		5610	NV	NT	-9000.00	-1.604278	20	PASS
			LV	NT	-7000.00	-1.247772	20	PASS
			HV	NT	-11000.00	-1.960784	20	PASS
		5690	NV	NT	-10000.00	-1.757469	20	PASS
			LV	NT	-9000.00	-1.581722	20	PASS
			HV	NT	-11000.00	-1.933216	20	PASS
		5775	NV	NT	-12000.00	-2.077922	20	PASS
			LV	NT	-12000.00	-2.077922	20	PASS
			HV	NT	-12000.00	-2.077922	20	PASS

Temperature								
Test Mode	Antenna	Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-20	-6000.00	-1.158301	20	PASS
			NV	-10	-6000.00	-1.158301	20	PASS
			NV	0	-6000.00	-1.158301	20	PASS
			NV	10	-6000.00	-1.158301	20	PASS
			NV	20	-6000.00	-1.158301	20	PASS
			NV	30	-6000.00	-1.158301	20	PASS
			NV	40	-6000.00	-1.158301	20	PASS
			NV	50	-6000.00	-1.158301	20	PASS
		5200	NV	-20	-14000.00	-2.692308	20	PASS
			NV	-10	-14000.00	-2.692308	20	PASS
			NV	0	-14000.00	-2.692308	20	PASS
			NV	10	-14000.00	-2.692308	20	PASS
			NV	20	-14000.00	-2.692308	20	PASS
			NV	30	-14000.00	-2.692308	20	PASS
			NV	40	-14000.00	-2.692308	20	PASS
			NV	50	-14000.00	-2.692308	20	PASS
		5240	NV	-20	-13000.00	-2.480916	20	PASS
			NV	-10	-13000.00	-2.480916	20	PASS
			NV	0	-14000.00	-2.671756	20	PASS
			NV	10	-14000.00	-2.671756	20	PASS
			NV	20	-14000.00	-2.671756	20	PASS

			NV	30	-14000.00	-2.671756	20	PASS
			NV	40	-14000.00	-2.671756	20	PASS
			NV	50	-14000.00	-2.671756	20	PASS
		5260	NV	-20	-12000.00	-2.281369	20	PASS
			NV	-10	-13000.00	-2.471483	20	PASS
			NV	0	-13000.00	-2.471483	20	PASS
			NV	10	-13000.00	-2.471483	20	PASS
			NV	20	-13000.00	-2.471483	20	PASS
			NV	30	-14000.00	-2.661597	20	PASS
			NV	40	-14000.00	-2.661597	20	PASS
			NV	50	-14000.00	-2.661597	20	PASS
		5280	NV	-20	-13000.00	-2.462121	20	PASS
			NV	-10	-14000.00	-2.651515	20	PASS
			NV	0	-14000.00	-2.651515	20	PASS
			NV	10	-14000.00	-2.651515	20	PASS
			NV	20	-14000.00	-2.651515	20	PASS
			NV	30	-14000.00	-2.651515	20	PASS
			NV	40	-14000.00	-2.651515	20	PASS
			NV	50	-14000.00	-2.651515	20	PASS
		5320	NV	-20	-13000.00	-2.443609	20	PASS
			NV	-10	-13000.00	-2.443609	20	PASS
			NV	0	-14000.00	-2.631579	20	PASS
			NV	10	-14000.00	-2.631579	20	PASS
			NV	20	-14000.00	-2.631579	20	PASS
			NV	30	-14000.00	-2.631579	20	PASS
			NV	40	-14000.00	-2.631579	20	PASS
			NV	50	-14000.00	-2.631579	20	PASS
		5500	NV	-20	-13000.00	-2.363636	20	PASS
			NV	-10	-13000.00	-2.363636	20	PASS
			NV	0	-13000.00	-2.363636	20	PASS
			NV	10	-13000.00	-2.363636	20	PASS
			NV	20	-13000.00	-2.363636	20	PASS
			NV	30	-12000.00	-2.181818	20	PASS
			NV	40	-12000.00	-2.181818	20	PASS
			NV	50	-12000.00	-2.181818	20	PASS
		5580	NV	-20	-12000.00	-2.150538	20	PASS
			NV	-10	-13000.00	-2.329749	20	PASS
			NV	0	-14000.00	-2.508961	20	PASS
			NV	10	-15000.00	-2.688172	20	PASS
			NV	20	-15000.00	-2.688172	20	PASS
			NV	30	-15000.00	-2.688172	20	PASS
			NV	40	-15000.00	-2.688172	20	PASS
			NV	50	-15000.00	-2.688172	20	PASS
		5700	NV	-20	-10000.00	-1.754386	20	PASS
			NV	-10	-10000.00	-1.754386	20	PASS
			NV	0	-9000.00	-1.578947	20	PASS
			NV	10	-8000.00	-1.403509	20	PASS
			NV	20	-9000.00	-1.578947	20	PASS
			NV	30	-9000.00	-1.578947	20	PASS
			NV	40	-9000.00	-1.578947	20	PASS
			NV	50	-9000.00	-1.578947	20	PASS
		5720	NV	-20	-13000.00	-2.272727	20	PASS
			NV	-10	-14000.00	-2.447552	20	PASS
			NV	0	-15000.00	-2.622378	20	PASS
			NV	10	-15000.00	-2.622378	20	PASS
			NV	20	-15000.00	-2.622378	20	PASS
			NV	30	-16000.00	-2.797203	20	PASS
			NV	40	-16000.00	-2.797203	20	PASS
			NV	50	-16000.00	-2.797203	20	PASS
		5745	NV	-20	-14000.00	-2.436902	20	PASS

			NV	-10	-15000.00	-2.610966	20	PASS
			NV	0	-15000.00	-2.610966	20	PASS
			NV	10	-15000.00	-2.610966	20	PASS
			NV	20	-15000.00	-2.610966	20	PASS
			NV	30	-15000.00	-2.610966	20	PASS
			NV	40	-15000.00	-2.610966	20	PASS
			NV	50	-15000.00	-2.610966	20	PASS
		5785	NV	-20	-9000.00	-1.555748	20	PASS
			NV	-10	-8000.00	-1.382887	20	PASS
			NV	0	-8000.00	-1.382887	20	PASS
			NV	10	-8000.00	-1.382887	20	PASS
			NV	20	-7000.00	-1.210026	20	PASS
			NV	30	-7000.00	-1.210026	20	PASS
			NV	40	-7000.00	-1.210026	20	PASS
			NV	50	-7000.00	-1.210026	20	PASS
		5825	NV	-20	-12000.00	-2.060086	20	PASS
			NV	-10	-13000.00	-2.231760	20	PASS
			NV	0	-14000.00	-2.403433	20	PASS
			NV	10	-14000.00	-2.403433	20	PASS
			NV	20	-14000.00	-2.403433	20	PASS
			NV	30	-14000.00	-2.403433	20	PASS
			NV	40	-15000.00	-2.575107	20	PASS
			NV	50	-15000.00	-2.575107	20	PASS
11N20MIMO	Ant1	5180	NV	-20	-12000.00	-2.316602	20	PASS
			NV	-10	-12000.00	-2.316602	20	PASS
			NV	0	-13000.00	-2.509653	20	PASS
			NV	10	-13000.00	-2.509653	20	PASS
			NV	20	-13000.00	-2.509653	20	PASS
			NV	30	-13000.00	-2.509653	20	PASS
			NV	40	-13000.00	-2.509653	20	PASS
			NV	50	-13000.00	-2.509653	20	PASS
		5200	NV	-20	-11000.00	-2.115385	20	PASS
			NV	-10	-12000.00	-2.307692	20	PASS
			NV	0	-12000.00	-2.307692	20	PASS
			NV	10	-12000.00	-2.307692	20	PASS
			NV	20	-12000.00	-2.307692	20	PASS
			NV	30	-12000.00	-2.307692	20	PASS
			NV	40	-12000.00	-2.307692	20	PASS
			NV	50	-12000.00	-2.307692	20	PASS
		5240	NV	-20	-12000.00	-2.290076	20	PASS
			NV	-10	-13000.00	-2.480916	20	PASS
			NV	0	-13000.00	-2.480916	20	PASS
			NV	10	-13000.00	-2.480916	20	PASS
			NV	20	-13000.00	-2.480916	20	PASS
			NV	30	-13000.00	-2.480916	20	PASS
			NV	40	-13000.00	-2.480916	20	PASS
			NV	50	-13000.00	-2.480916	20	PASS
		5260	NV	-20	-11000.00	-2.091255	20	PASS
			NV	-10	-11000.00	-2.091255	20	PASS
			NV	0	-11000.00	-2.091255	20	PASS
			NV	10	-11000.00	-2.091255	20	PASS
			NV	20	-12000.00	-2.281369	20	PASS
			NV	30	-12000.00	-2.281369	20	PASS
			NV	40	-12000.00	-2.281369	20	PASS
			NV	50	-12000.00	-2.281369	20	PASS
		5280	NV	-20	-10000.00	-1.893939	20	PASS
			NV	-10	-10000.00	-1.893939	20	PASS
			NV	0	-10000.00	-1.893939	20	PASS
			NV	10	-11000.00	-2.083333	20	PASS
			NV	20	-11000.00	-2.083333	20	PASS

			NV	30	-11000.00	-2.083333	20	PASS
			NV	40	-11000.00	-2.083333	20	PASS
			NV	50	-11000.00	-2.083333	20	PASS
		5320	NV	-20	-12000.00	-2.255639	20	PASS
			NV	-10	-13000.00	-2.443609	20	PASS
			NV	0	-13000.00	-2.443609	20	PASS
			NV	10	-13000.00	-2.443609	20	PASS
			NV	20	-13000.00	-2.443609	20	PASS
			NV	30	-13000.00	-2.443609	20	PASS
			NV	40	-13000.00	-2.443609	20	PASS
			NV	50	-13000.00	-2.443609	20	PASS
		5500	NV	-20	-4000.00	-0.727273	20	PASS
			NV	-10	-3000.00	-0.545455	20	PASS
			NV	0	-3000.00	-0.545455	20	PASS
			NV	10	-2000.00	-0.363636	20	PASS
			NV	20	-3000.00	-0.545455	20	PASS
			NV	30	-3000.00	-0.545455	20	PASS
			NV	40	-3000.00	-0.545455	20	PASS
			NV	50	-3000.00	-0.545455	20	PASS
		5580	NV	-20	-8000.00	-1.433692	20	PASS
			NV	-10	-9000.00	-1.612903	20	PASS
			NV	0	-10000.00	-1.792115	20	PASS
			NV	10	-10000.00	-1.792115	20	PASS
			NV	20	-11000.00	-1.971326	20	PASS
			NV	30	-11000.00	-1.971326	20	PASS
			NV	40	-11000.00	-1.971326	20	PASS
			NV	50	-11000.00	-1.971326	20	PASS
		5700	NV	-20	-5000.00	-0.877193	20	PASS
			NV	-10	-5000.00	-0.877193	20	PASS
			NV	0	-5000.00	-0.877193	20	PASS
			NV	10	-4000.00	-0.701754	20	PASS
			NV	20	-4000.00	-0.701754	20	PASS
			NV	30	-4000.00	-0.701754	20	PASS
			NV	40	-4000.00	-0.701754	20	PASS
			NV	50	-3000.00	-0.526316	20	PASS
		5720	NV	-20	-11000.00	-1.923077	20	PASS
			NV	-10	-13000.00	-2.272727	20	PASS
			NV	0	-14000.00	-2.447552	20	PASS
			NV	10	-15000.00	-2.622378	20	PASS
			NV	20	-15000.00	-2.622378	20	PASS
			NV	30	-15000.00	-2.622378	20	PASS
			NV	40	-16000.00	-2.797203	20	PASS
			NV	50	-16000.00	-2.797203	20	PASS
		5745	NV	-20	-14000.00	-2.436902	20	PASS
			NV	-10	-14000.00	-2.436902	20	PASS
			NV	0	-14000.00	-2.436902	20	PASS
			NV	10	-14000.00	-2.436902	20	PASS
			NV	20	-14000.00	-2.436902	20	PASS
			NV	30	-14000.00	-2.436902	20	PASS
			NV	40	-14000.00	-2.436902	20	PASS
			NV	50	-14000.00	-2.436902	20	PASS
		5785	NV	-20	-13000.00	-2.247191	20	PASS
			NV	-10	-13000.00	-2.247191	20	PASS
			NV	0	-13000.00	-2.247191	20	PASS
			NV	10	-13000.00	-2.247191	20	PASS
			NV	20	-13000.00	-2.247191	20	PASS
			NV	30	-12000.00	-2.074330	20	PASS
			NV	40	-12000.00	-2.074330	20	PASS
			NV	50	-12000.00	-2.074330	20	PASS
		5825	NV	-20	-11000.00	-1.888412	20	PASS

			NV	-10	-11000.00	-1.888412	20	PASS
			NV	0	-12000.00	-2.060086	20	PASS
			NV	10	-12000.00	-2.060086	20	PASS
			NV	20	-12000.00	-2.060086	20	PASS
			NV	30	-12000.00	-2.060086	20	PASS
			NV	40	-11000.00	-1.888412	20	PASS
			NV	50	-11000.00	-1.888412	20	PASS
11N40MIMO	Ant1	5190	NV	-20	-9000.00	-1.734104	20	PASS
			NV	-10	-9000.00	-1.734104	20	PASS
			NV	0	-9000.00	-1.734104	20	PASS
			NV	10	-9000.00	-1.734104	20	PASS
			NV	20	-10000.00	-1.926782	20	PASS
			NV	30	-10000.00	-1.926782	20	PASS
			NV	40	-10000.00	-1.926782	20	PASS
			NV	50	-10000.00	-1.926782	20	PASS
		5230	NV	-20	-9000.00	-1.720841	20	PASS
			NV	-10	-9000.00	-1.720841	20	PASS
			NV	0	-10000.00	-1.912046	20	PASS
			NV	10	-10000.00	-1.912046	20	PASS
			NV	20	-10000.00	-1.912046	20	PASS
			NV	30	-10000.00	-1.912046	20	PASS
			NV	40	-10000.00	-1.912046	20	PASS
			NV	50	-10000.00	-1.912046	20	PASS
		5270	NV	-20	-9000.00	-1.707780	20	PASS
			NV	-10	-10000.00	-1.897533	20	PASS
			NV	0	-10000.00	-1.897533	20	PASS
			NV	10	-10000.00	-1.897533	20	PASS
			NV	20	-10000.00	-1.897533	20	PASS
			NV	30	-11000.00	-2.087287	20	PASS
			NV	40	-10000.00	-1.897533	20	PASS
			NV	50	-11000.00	-2.087287	20	PASS
		5310	NV	-20	-9000.00	-1.694915	20	PASS
			NV	-10	-10000.00	-1.883239	20	PASS
			NV	0	-10000.00	-1.883239	20	PASS
			NV	10	-10000.00	-1.883239	20	PASS
			NV	20	-11000.00	-2.071563	20	PASS
			NV	30	-11000.00	-2.071563	20	PASS
			NV	40	-11000.00	-2.071563	20	PASS
			NV	50	-11000.00	-2.071563	20	PASS
		5510	NV	-20	-3000.00	-0.544465	20	PASS
			NV	-10	-2000.00	-0.362976	20	PASS
			NV	0	-4000.00	-0.725953	20	PASS
			NV	10	-3000.00	-0.544465	20	PASS
			NV	20	-2000.00	-0.362976	20	PASS
			NV	30	-3000.00	-0.544465	20	PASS
			NV	40	-3000.00	-0.544465	20	PASS
			NV	50	-3000.00	-0.544465	20	PASS
		5550	NV	-20	-10000.00	-1.801802	20	PASS
			NV	-10	-12000.00	-2.162162	20	PASS
			NV	0	-13000.00	-2.342342	20	PASS
			NV	10	-14000.00	-2.522523	20	PASS
			NV	20	-14000.00	-2.522523	20	PASS
			NV	30	-14000.00	-2.522523	20	PASS
			NV	40	-15000.00	-2.702703	20	PASS
			NV	50	-15000.00	-2.702703	20	PASS
		5670	NV	-20	-7000.00	-1.234568	20	PASS
			NV	-10	-4000.00	-0.705467	20	PASS
			NV	0	-5000.00	-0.881834	20	PASS
			NV	10	-5000.00	-0.881834	20	PASS
			NV	20	-5000.00	-0.881834	20	PASS

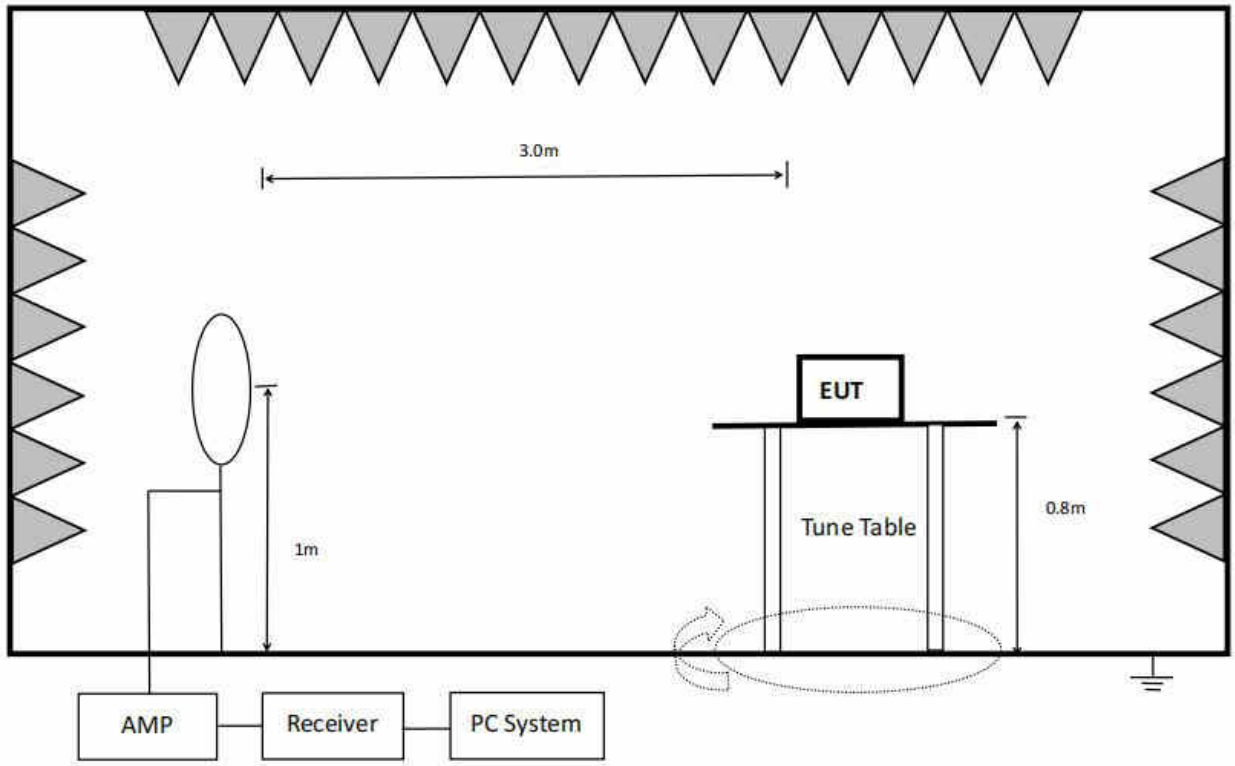
			NV	30	-3000.00	-0.529101	20	PASS
			NV	40	-4000.00	-0.705467	20	PASS
			NV	50	-4000.00	-0.705467	20	PASS
		5710	NV	-20	-3000.00	-0.525394	20	PASS
			NV	-10	-4000.00	-0.700525	20	PASS
			NV	0	-4000.00	-0.700525	20	PASS
			NV	10	-4000.00	-0.700525	20	PASS
			NV	20	-4000.00	-0.700525	20	PASS
			NV	30	-4000.00	-0.700525	20	PASS
			NV	40	-4000.00	-0.700525	20	PASS
			NV	50	-4000.00	-0.700525	20	PASS
		5755	NV	-20	-13000.00	-2.258905	20	PASS
			NV	-10	-14000.00	-2.432667	20	PASS
			NV	0	-14000.00	-2.432667	20	PASS
			NV	10	-15000.00	-2.606429	20	PASS
			NV	20	-15000.00	-2.606429	20	PASS
			NV	30	-15000.00	-2.606429	20	PASS
			NV	40	-15000.00	-2.606429	20	PASS
			NV	50	-16000.00	-2.780191	20	PASS
		5795	NV	-20	-7000.00	-1.207938	20	PASS
			NV	-10	-6000.00	-1.035375	20	PASS
			NV	0	-5000.00	-0.862813	20	PASS
			NV	10	-6000.00	-1.035375	20	PASS
			NV	20	-5000.00	-0.862813	20	PASS
			NV	30	-5000.00	-0.862813	20	PASS
			NV	40	-5000.00	-0.862813	20	PASS
			NV	50	-5000.00	-0.862813	20	PASS
11AC80MIMO	Ant1	5210	NV	-20	-2000.00	-0.383877	20	PASS
			NV	-10	-3000.00	-0.575816	20	PASS
			NV	0	-3000.00	-0.575816	20	PASS
			NV	10	-2000.00	-0.383877	20	PASS
			NV	20	-2000.00	-0.383877	20	PASS
			NV	30	-3000.00	-0.575816	20	PASS
			NV	40	-4000.00	-0.767754	20	PASS
			NV	50	-3000.00	-0.575816	20	PASS
		5290	NV	-20	-10000.00	-1.890359	20	PASS
			NV	-10	-10000.00	-1.890359	20	PASS
			NV	0	-11000.00	-2.079395	20	PASS
			NV	10	-11000.00	-2.079395	20	PASS
			NV	20	-11000.00	-2.079395	20	PASS
			NV	30	-12000.00	-2.268431	20	PASS
			NV	40	-11000.00	-2.079395	20	PASS
			NV	50	-12000.00	-2.268431	20	PASS
		5530	NV	-20	-10000.00	-1.808318	20	PASS
			NV	-10	-11000.00	-1.989150	20	PASS
			NV	0	-11000.00	-1.989150	20	PASS
			NV	10	-11000.00	-1.989150	20	PASS
			NV	20	-12000.00	-2.169982	20	PASS
			NV	30	-12000.00	-2.169982	20	PASS
			NV	40	-12000.00	-2.169982	20	PASS
			NV	50	-12000.00	-2.169982	20	PASS
		5610	NV	-20	-12000.00	-2.139037	20	PASS
			NV	-10	-13000.00	-2.317291	20	PASS
			NV	0	-14000.00	-2.495544	20	PASS
			NV	10	-14000.00	-2.495544	20	PASS
			NV	20	-14000.00	-2.495544	20	PASS
			NV	30	-14000.00	-2.495544	20	PASS
			NV	40	-14000.00	-2.495544	20	PASS
			NV	50	-14000.00	-2.495544	20	PASS
		5690	NV	-20	-11000.00	-1.933216	20	PASS

			NV	-10	-12000.00	-2.108963	20	PASS
			NV	0	-12000.00	-2.108963	20	PASS
			NV	10	-12000.00	-2.108963	20	PASS
			NV	20	-12000.00	-2.108963	20	PASS
			NV	30	-12000.00	-2.108963	20	PASS
			NV	40	-12000.00	-2.108963	20	PASS
			NV	50	-12000.00	-2.108963	20	PASS
		5775	NV	-20	-12000.00	-2.077922	20	PASS
			NV	-10	-12000.00	-2.077922	20	PASS
			NV	0	-13000.00	-2.251082	20	PASS
			NV	10	-13000.00	-2.251082	20	PASS
			NV	20	-12000.00	-2.077922	20	PASS
			NV	30	-12000.00	-2.077922	20	PASS
			NV	40	-12000.00	-2.077922	20	PASS
			NV	50	-12000.00	-2.077922	20	PASS

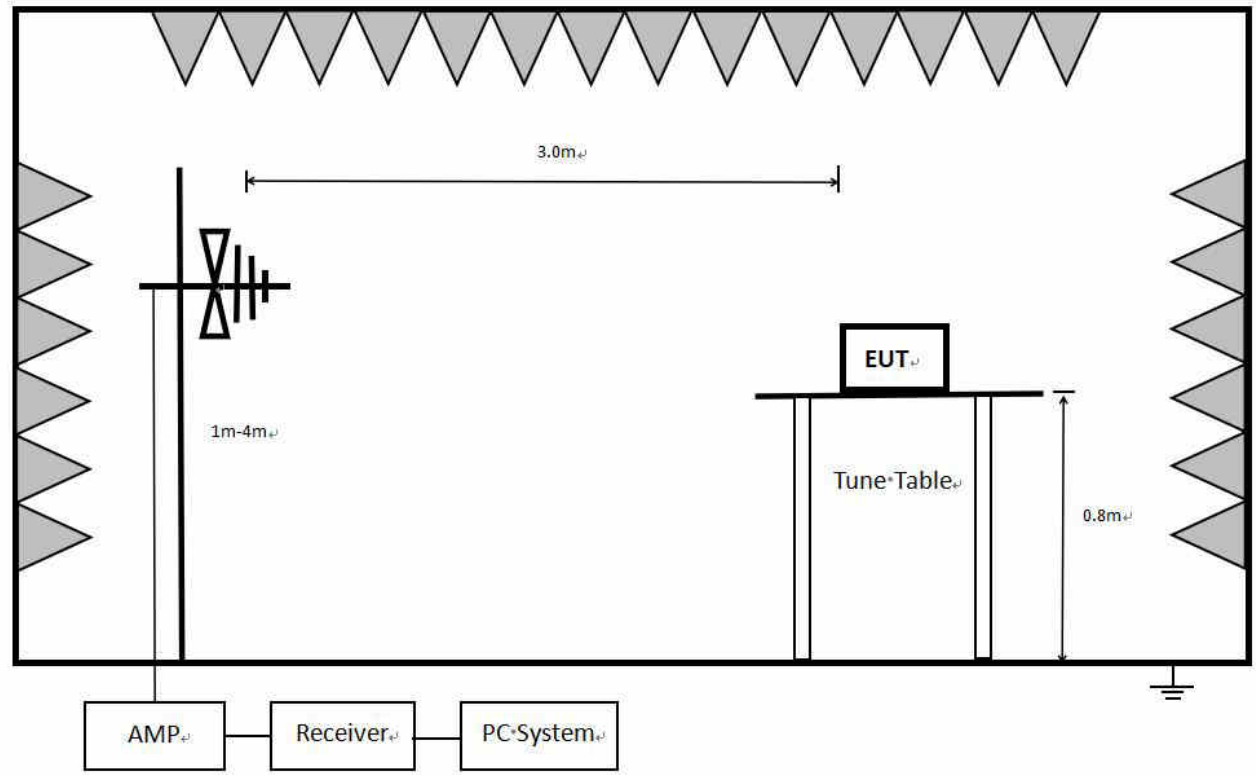
13. Radiated Emission

13.1. Block Diagram of Test Setup

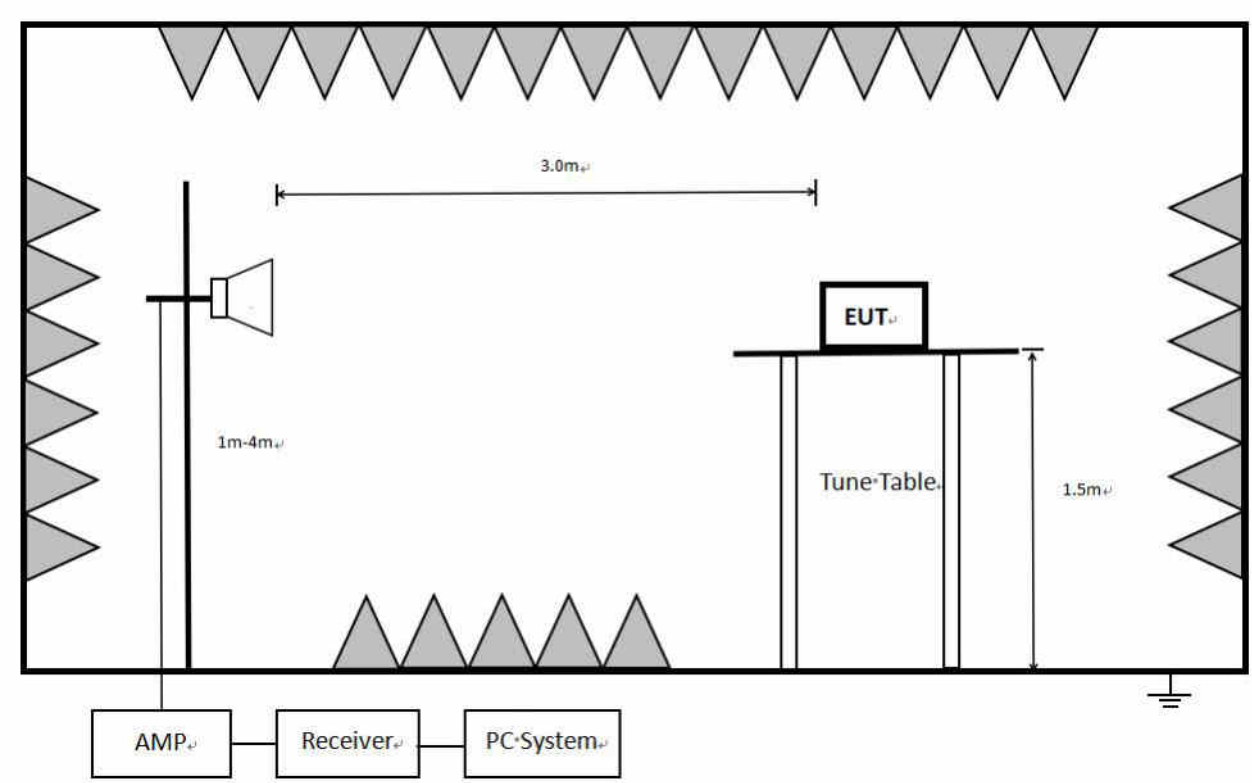
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



In 3 m Anechoic Chamber, test setup diagram for 30 MHz – 1 GHz:



In 3 m Anechoic Chamber, test setup diagram for frequency above 1 GHz:



Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.

13.2. Limit

(1) FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

(2) FCC 15.209 Limit.

Frequency MHz	Distance Meters	Field strengths limit	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm / MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm / MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/ MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm / MHz.

(5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(6) The provisions of §15.205 apply to intentional radiators operating under this section.

-27 dBm/MHz Limit=95.2+EIRP (dBm)=95.2-27=68.2 dBμV/m

Note:

(1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000MHz.Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$Limit_{3m}(dBuV/m) = Limit_{30m}(dBuV/m) + 40Log(30m/3m)$

(3) Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions or comply with 15.209 limits.

13.3. Test Procedure

Below 30 MHz：

The setting of the spectrum Analyzer

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of 1 meter height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KdB 414788.

Below 1 GHz and above 30 MHz：

The setting of the spectrum Analyzer

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1 GHz：

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video

bandwidth with peak detector for AVG measurements. For the Duty Cycle please refer to clause 8.1.ON TIME AND DUTY CYCLE.

7. Restriction band: Investigated frequency range from 5.15-5.25 GHz, 5250-5350 GHz, 5470-5725 GHz, 5.725-5.85 GHz.

All restriction band should comply with 15.209, other emission should be at least 20 dB below the fundamental.

Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 2: The EUT does not support simultaneous transmission.

Note 3: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

13.4. Test Result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9kHz to 40GHz were comply with 15.209 limit.

Note1: According exploratory test, the emission levels are 20 dB below the limit detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11a mode.

Note3: For below test data, when the limit tabular marked “/” means this frequency point is the fundamental emission and no need comply with this limit.

Note 4: As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit

Note 5: For emissions Above 1 GHz, all mode have been tested, 11a mode is worse case and recorded in report.

13.5. Original Test Data

Below 1 GHz and above 30 MHz test data Refer to appendix A

Above 1 GHz test data Refer to appendix B

11A_Ant1_Low_5745

11A_Ant2_Low_5745

11A_Ant1_High_5825

11A_Ant2_High_5825

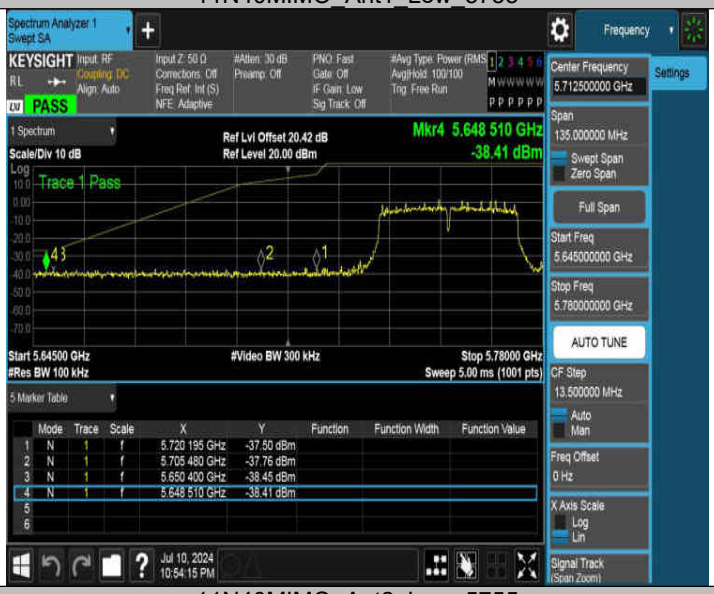
11N20MIMO_Ant1_Low_5745

11N20MIMO_Ant2_Low_5745

11N20MIMO_Ant1_High_5825

11N20MIMO_Ant2_High_5825

11N40MIMO_Ant1_Low_5755



11N40MIMO_Ant2_Low_5755

11N40MIMO_Ant1_High_5795

11N40MIMO_Ant2_High_5795

11AC20MIMO_Ant1_Low_5745

11AC20MIMO_Ant2_Low_5745

11AC20MIMO_Ant1_High_5825

11AC20MIMO_Ant2_High_5825

11AC40MIMO_Ant1_Low_5755

11AC40MIMO_Ant2_Low_5755

11AC40MIMO_Ant1_High_5795

11AC40MIMO_Ant2_High_5795

11AC80MIMO_Ant1_Low_5775

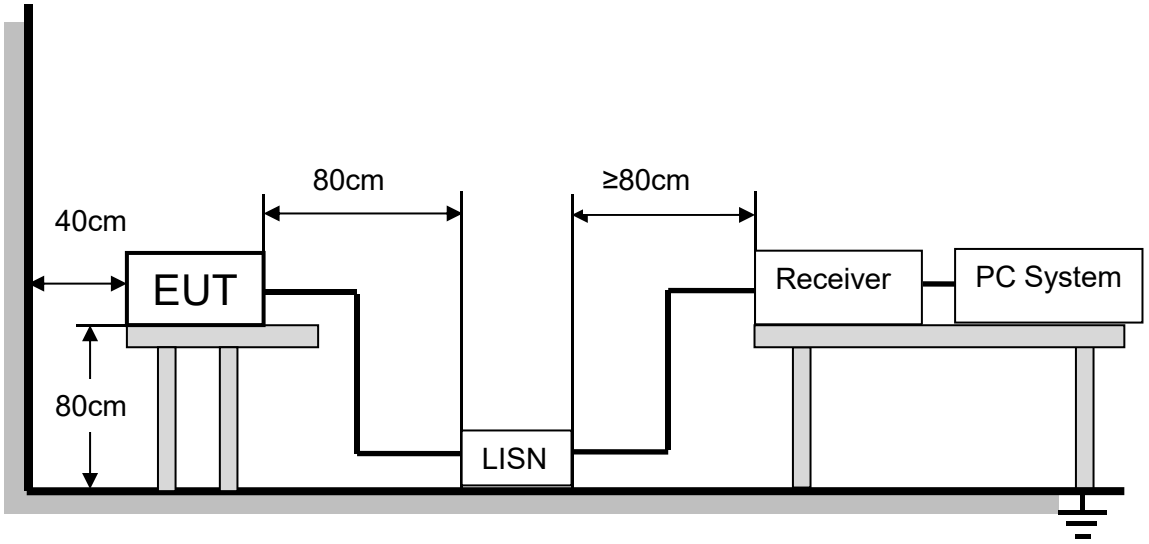
11AC80MIMO_Ant1_High_5775

11AC80MIMO_Ant2_Low_5775

11AC80MIMO_Ant2_High_5775

14. AC Power Line Conducted Emissions

14.1. Block Diagram of Test Setup



The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through an Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

14.2. Limits

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8.

Frequency (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

14.3. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

14.4. Test Result

According to 15.207&RSS-GEN Clause 8.8, power Line Conducted Emission is not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

15. Dynamic Frequency Selection

15.1. Applicability of DFS Requirements

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands.

Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a U-NII device operating in Master Mode.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	☐Master	☒Client Without Radar Detection	☐Client with Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

15.2. Limit

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the	

test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KdB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

15.3. Parameters of Radar Test Waveform

This section provides the parameters for required test waveforms, minimum percentage of successful detection, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.

Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a

Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with

Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

15.4. Calibration of Radar Waveform

Radar Waveform Calibration Procedure:

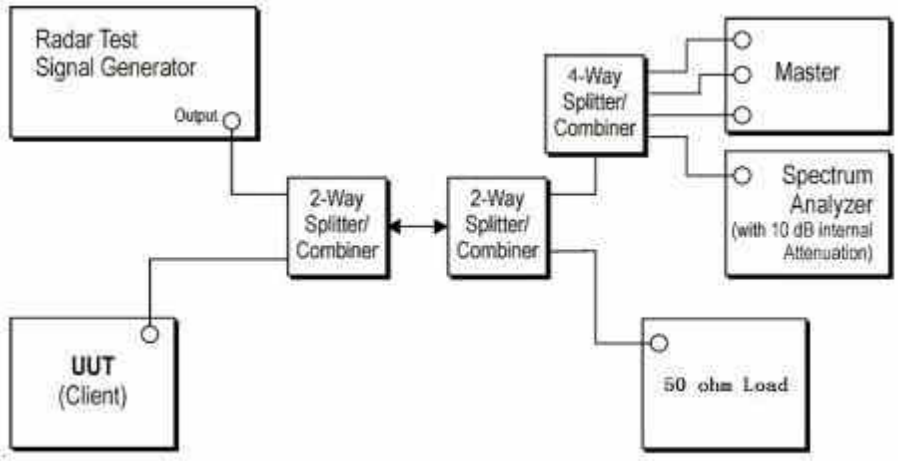
A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

The interference Radar Detection Threshold Level is -62dBm + 0dBi +1dB = -61dBm that had been taken into account the output power range and antenna gain.

The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB.

The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was - -62dBm + 0dBi +1dB = -61dBm. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup:



Note: 1. Use the software "Web" to set the frequency channel.

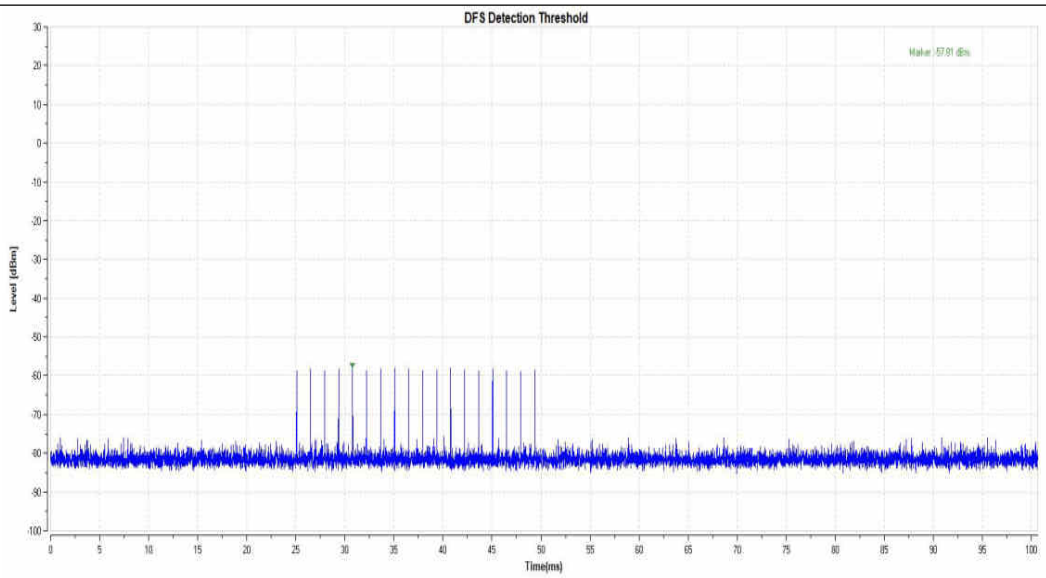
2. EUT is not support TPC and not with Radar detection.

Radar Waveform Calibration Result:

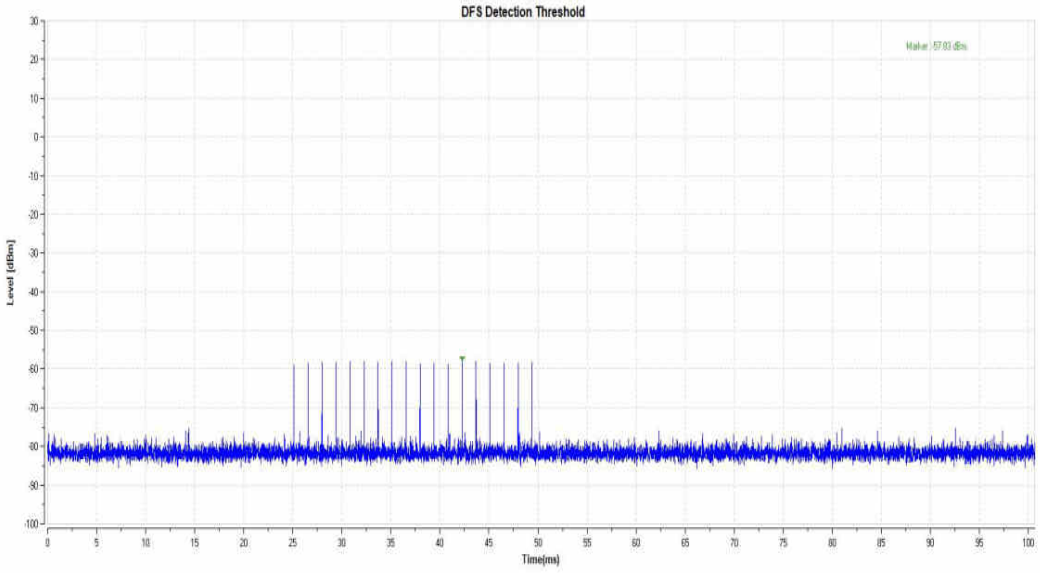
Radar Type 0

TestMode	Frequency[dbm]	Radar Type	Result	Limit[dbm]	Verdict
11A	5260	Type0	-57.81	-57.44	PASS
	5500	Type0	-57.83	-57.44	PASS
11AC80MIMO	5290	Type0	-57.65	-57.44	PASS
	5530	Type0	-57.73	-57.44	PASS

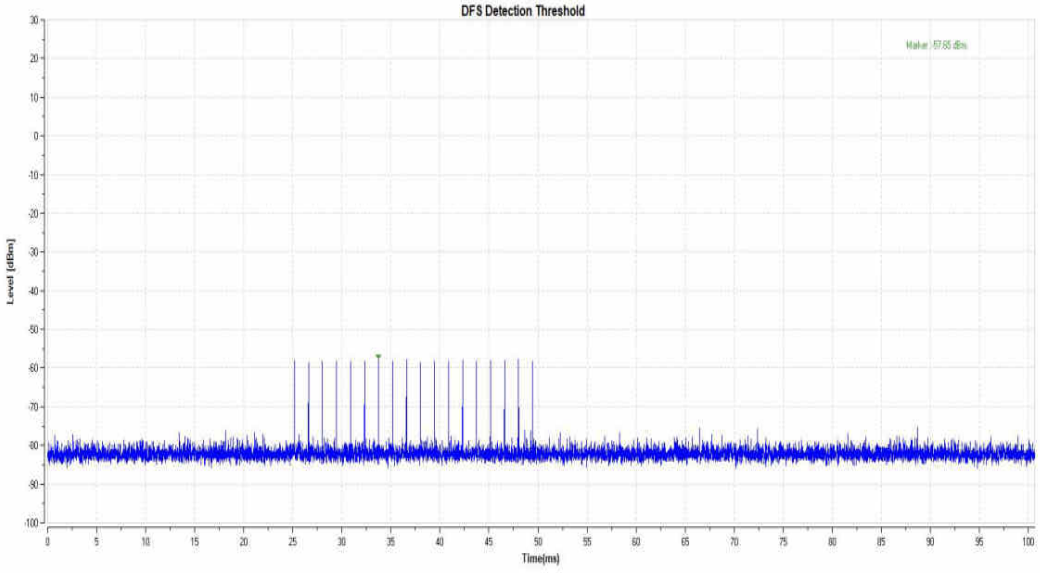
11A_5260_Type0



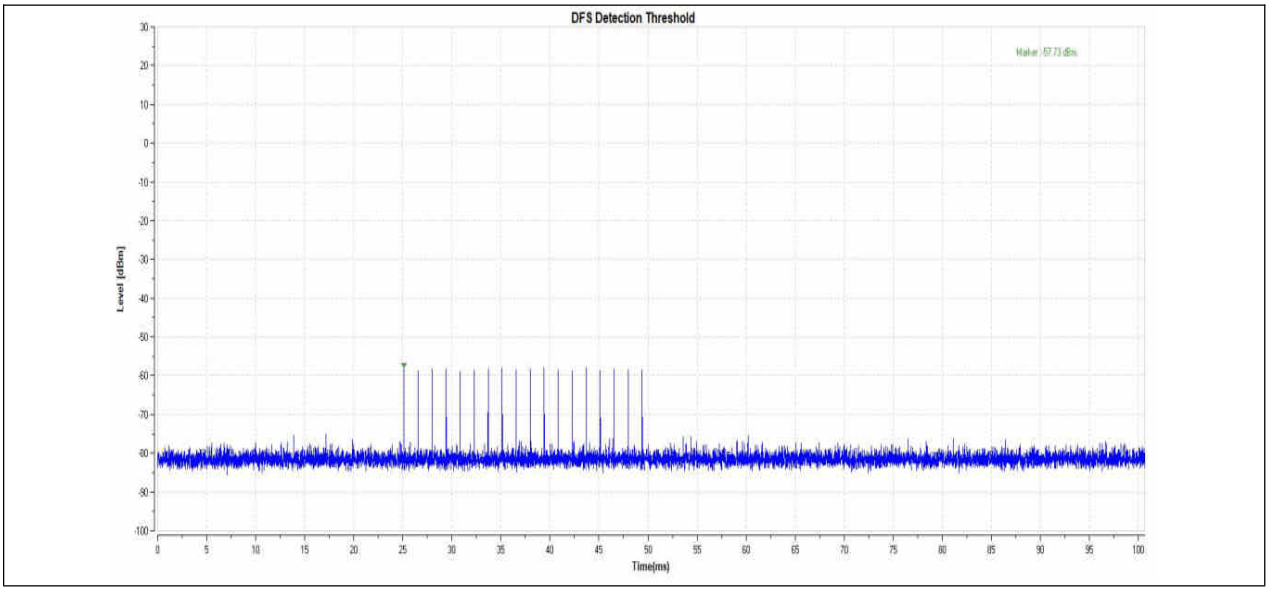
11A_5500_Type0



11AC80MIMO_5290_Type0



11AC80MIMO_5530_Type0



15.5. Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period

Block diagram of test setup Test Procedure:

The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.

The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

EUT will associate with the master at channel. The file “iperf.exe” specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Test Software in order to properly load the network for the entire period of the test.

When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

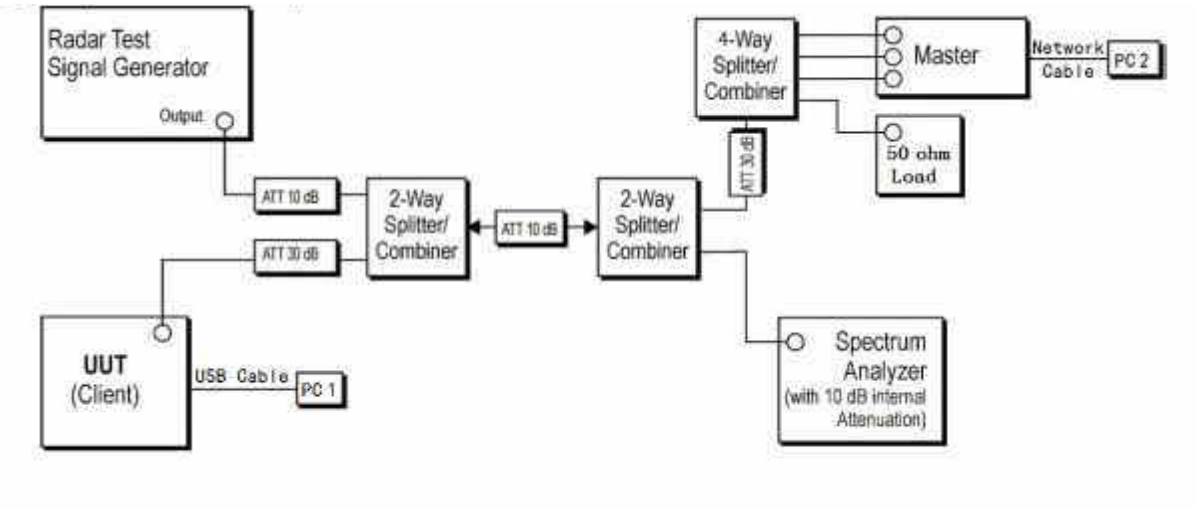
Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

15.6. Test Setup

Setup for Client with injection at the Master

Master Name	Brand Name	Model Name	FCC ID	Run-up Time(s)
ROG Rapture Tri-band Gaming Router	ASUS	GT-AXE11000	MSQ-RTAXJF00	90

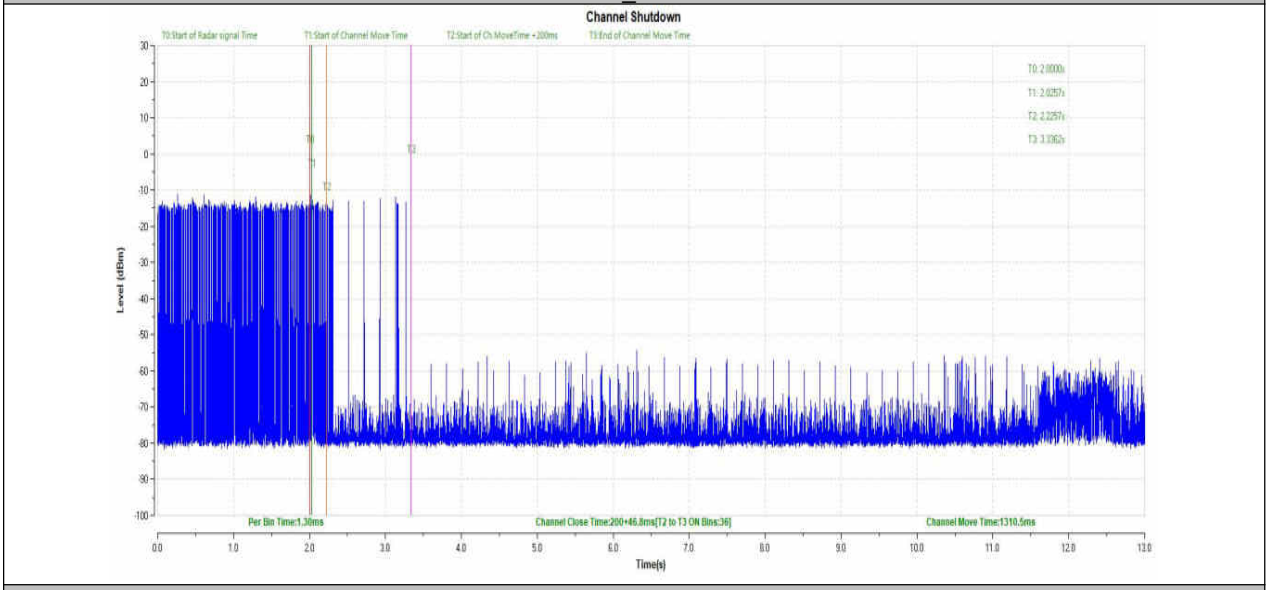


15.7. Test Result

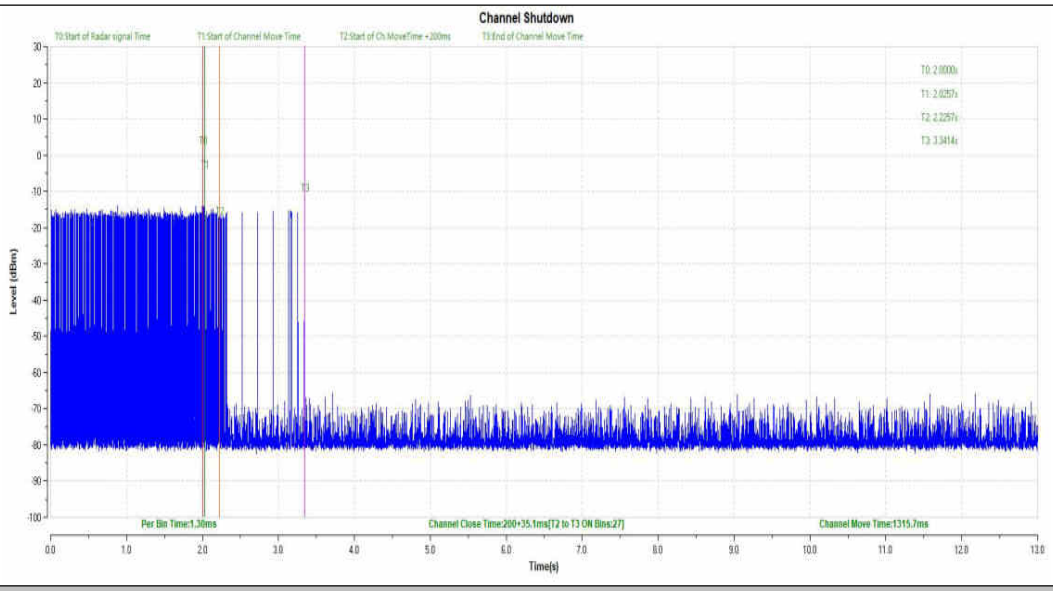
TestMode	Frequency[MHz]	CCTT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11A	5260	200+46.8	200+60	1310.5	10000	PASS
	5500	200+35.1	200+60	1315.7	10000	PASS
11AC80MIMO	5290	200+32.5	200+60	1246.7	10000	PASS
	5530	200+33.8	200+60	1400.2	10000	PASS

15.8. Original Test Data

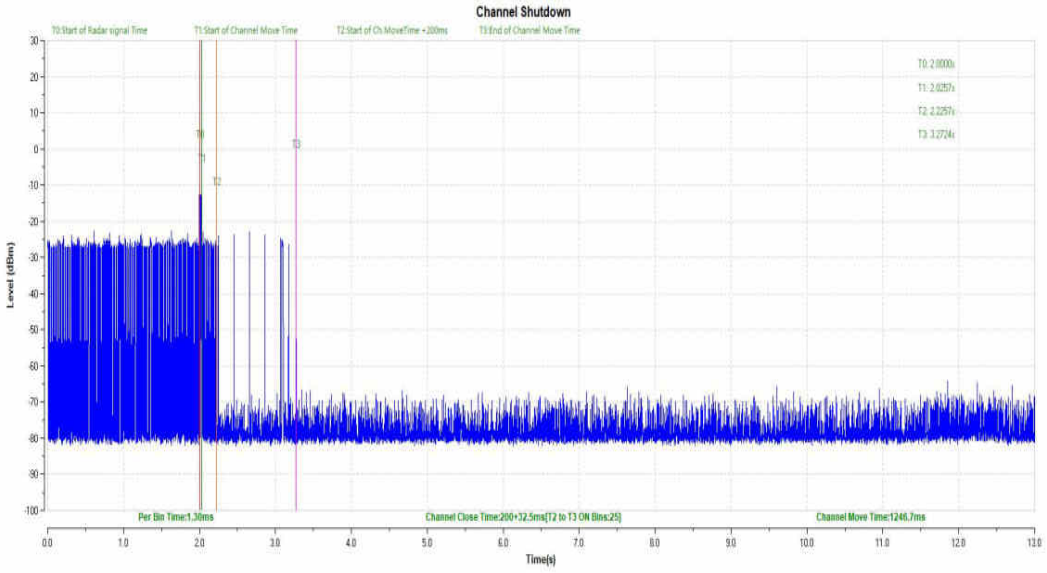
11A_5260



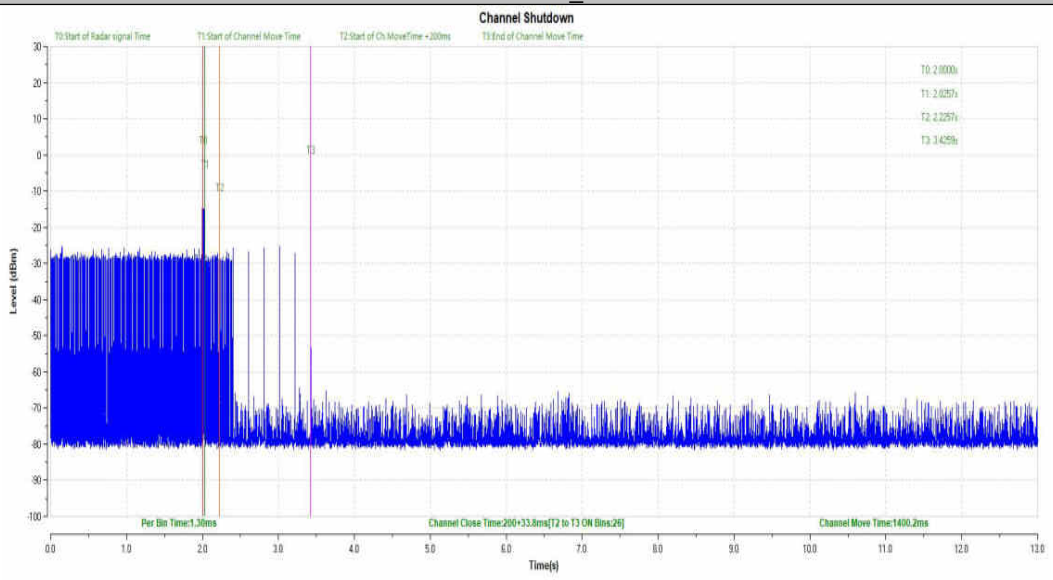
11A_5500



11AC80MIMO_5290



11AC80MIMO_5530



16. Antenna Requirements

16.1. Applicable Requirements

Please refer to FCC §15.203

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 shall be considered sufficient to comply with the provisions of this section. 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.

Please refer to FCC §15.247(b)(4)

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.

16.2. Result

The device support 2T2R MIMO, the antennas both used for this product are dedicated Shrapnel antennas and other than that furnished by the responsible party shall be used with the device, maximum antenna gain is 4.56 dBi for antenna 1, 2.80 dBi for antenna 2.

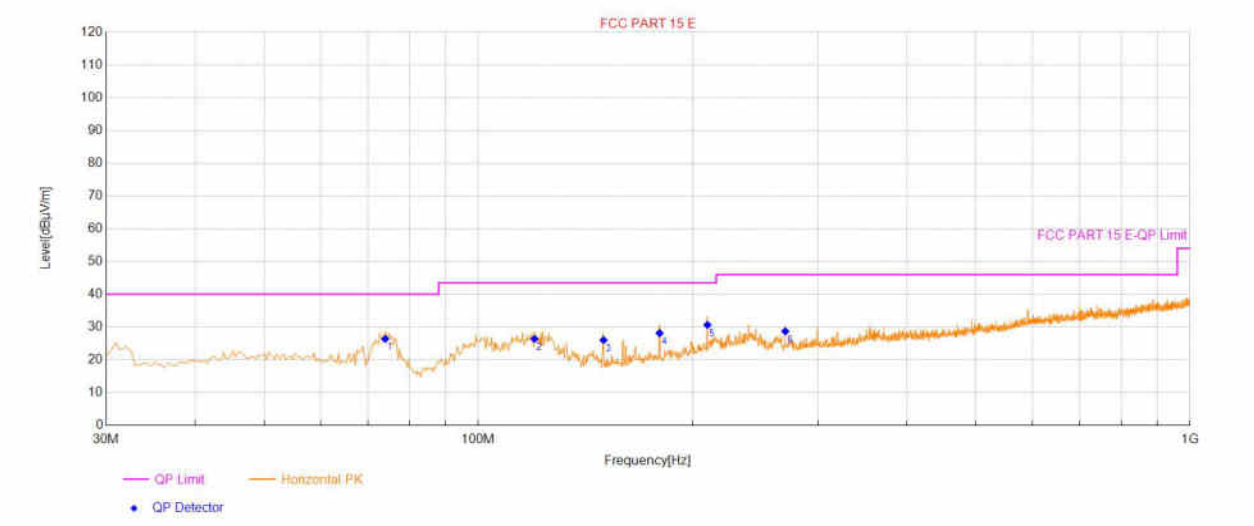
APPENDIX A – Radiated Emission Below 1GHz Test Data

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5825	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：Default		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-08 11:22:50

Test Graph



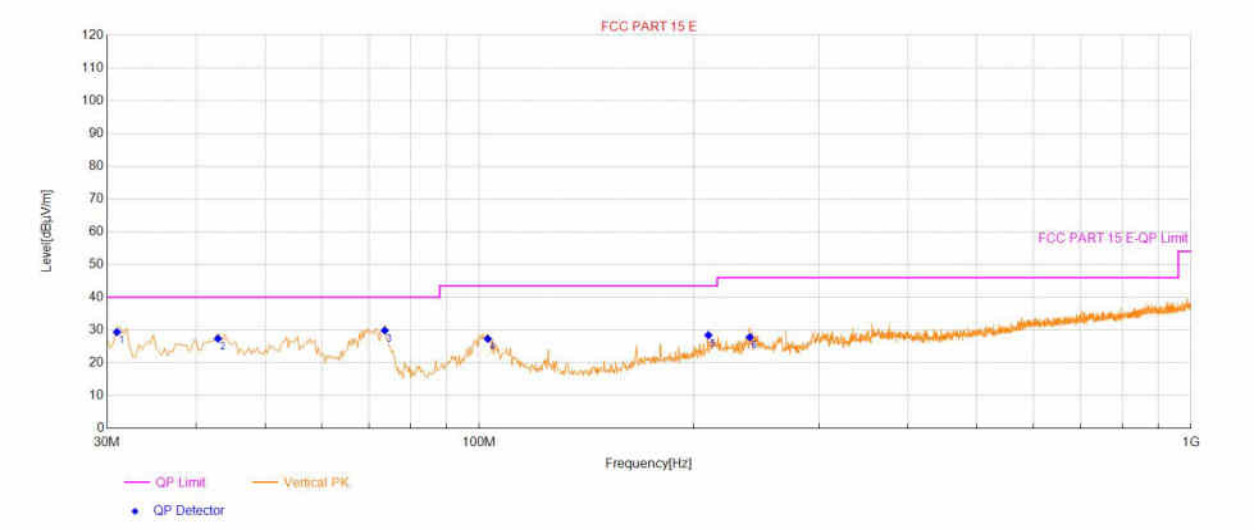
Final Data List									
NO.	Frequency (MHz)	Factor (dB/m)	QP Value (dBµV/m)	QP Limit (dBµV/m)	QP Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	73.99	16.56	26.42	40.00	13.58	100	82	Horizontal	PASS
2	119.92	17.98	26.39	43.50	17.11	100	359	Horizontal	PASS
3	150.00	17.07	26.05	43.50	17.45	100	65	Horizontal	PASS
4	179.75	18.38	28.16	43.50	15.34	100	82	Horizontal	PASS
5	209.83	20.81	30.66	43.50	12.84	100	250	Horizontal	PASS
6	269.99	22.38	28.71	46.00	17.29	100	75	Horizontal	PASS

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5825	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：Default		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-08 11:23:36

Test Graph



Final Data List

NO.	Frequency (MHz)	Factor (dB/m)	QP Value (dBµV/m)	QP Limit (dBµV/m)	QP Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	30.97	17.73	29.40	40.00	10.60	100	0	Vertical	PASS
2	42.94	20.44	27.38	40.00	12.62	100	35	Vertical	PASS
3	73.66	16.66	29.89	40.00	10.11	100	271	Vertical	PASS
4	102.77	19.84	27.33	43.50	16.17	100	160	Vertical	PASS
5	209.83	20.81	28.44	43.50	15.06	100	102	Vertical	PASS
6	239.91	21.67	27.82	46.00	18.18	100	102	Vertical	PASS

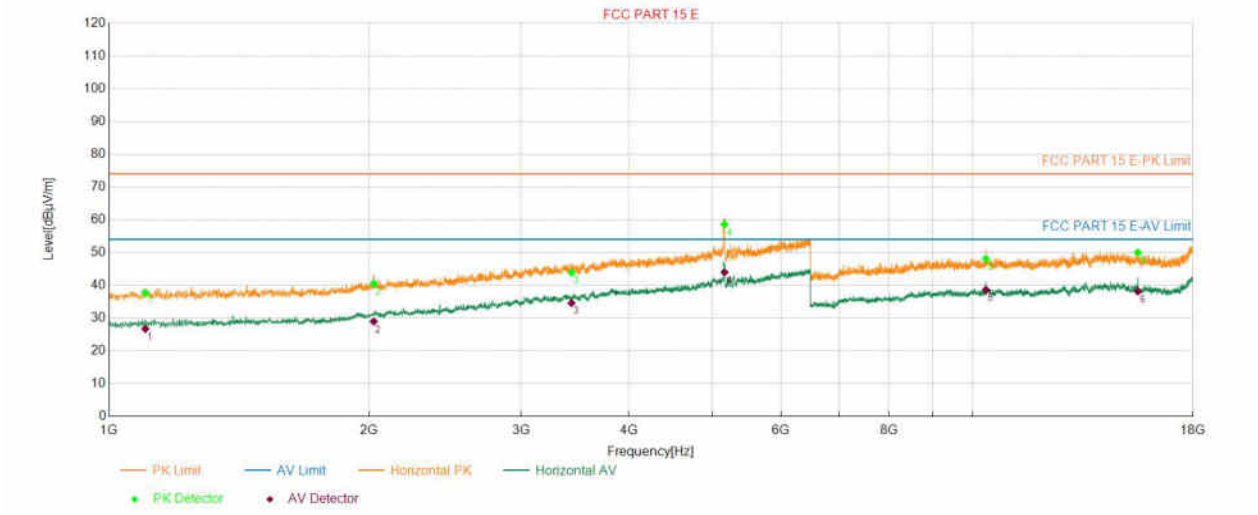
APPENDIX B – Radiated Emission Above 1GHz Test Data

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5180	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：95		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 21:28:04

Test Graph



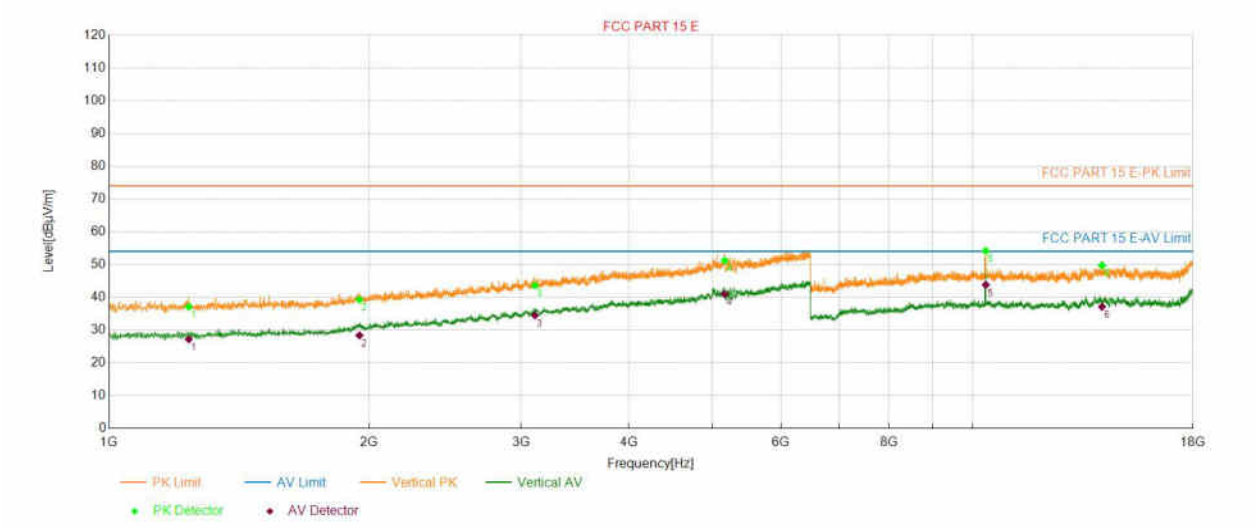
PK Final Data List											
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1101.22	-0.81	37.75	74.00	36.25	26.73	54.00	27.27	150	49	Horizontal
2	2025.41	2.93	40.52	74.00	33.48	28.95	54.00	25.05	150	111	Horizontal
3	3431.49	9.61	43.89	74.00	30.11	34.59	54.00	19.41	150	120	Horizontal
4	5159.93	16.74	58.61	74.00	15.39	43.97	54.00	10.03	150	142	Horizontal
5	10360.17	9.12	48.13	74.00	25.87	38.65	54.00	15.35	150	81	Horizontal
6	15536.21	14.53	50.00	74.00	24.00	38.14	54.00	15.86	150	100	Horizontal

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5180	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：95		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 21:29:46

Test Graph



PK Final Data List

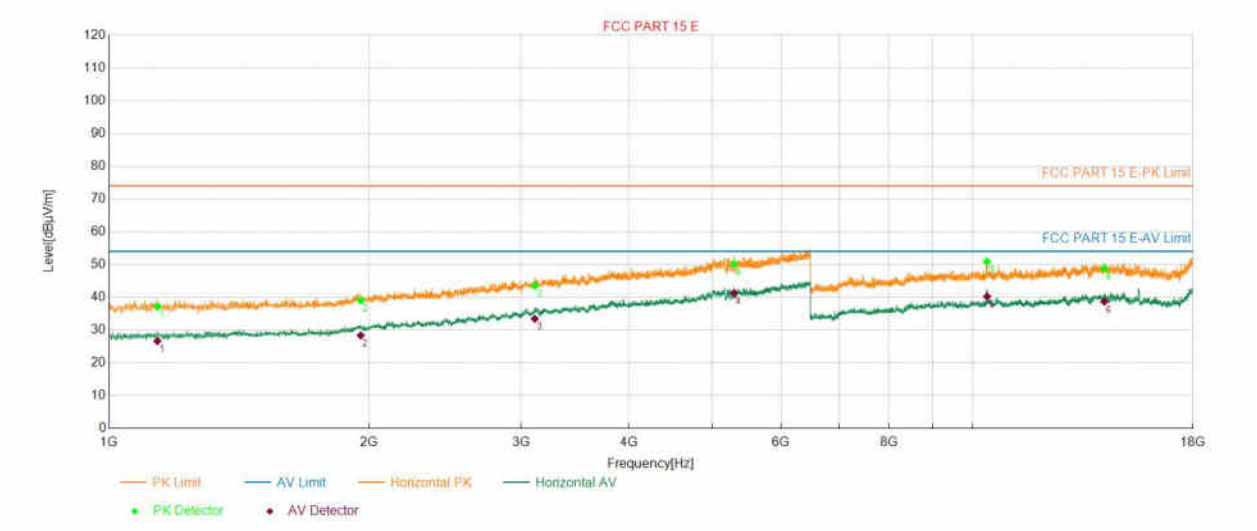
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1236.55	-0.32	37.13	74.00	36.87	27.20	54.00	26.80	150	322	Vertical
2	1949.49	2.33	39.30	74.00	34.70	28.40	54.00	25.60	150	248	Vertical
3	3112.42	8.62	43.60	74.00	30.40	34.51	54.00	19.49	150	217	Vertical
4	5162.13	16.75	51.22	74.00	22.78	40.95	54.00	13.05	150	92	Vertical
5	10357.87	9.11	54.15	74.00	19.85	43.82	54.00	10.18	150	259	Vertical
6	14121.42	15.00	49.70	74.00	24.30	37.12	54.00	16.88	150	0	Vertical

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5200	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：95		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 21:58:53

Test Graph



PK Final Data List

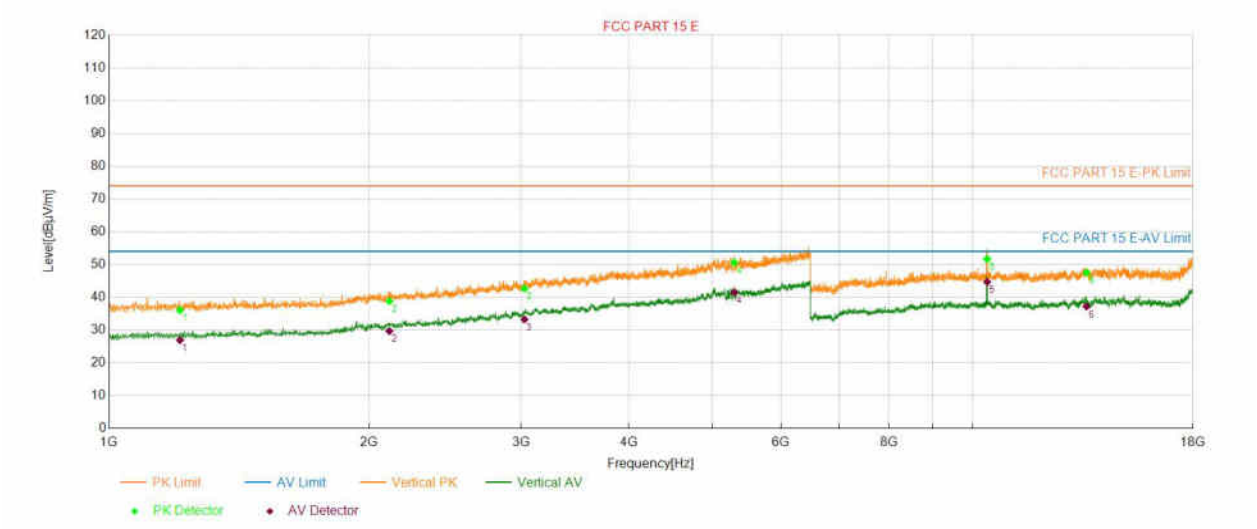
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1137.53	-0.68	37.23	74.00	36.77	26.67	54.00	27.33	150	90	Horizontal
2	1956.09	2.39	39.07	74.00	34.93	28.38	54.00	25.62	150	112	Horizontal
3	3111.32	8.62	43.55	74.00	30.45	33.47	54.00	20.53	150	48	Horizontal
4	5294.16	17.09	50.16	74.00	23.84	41.30	54.00	12.70	150	215	Horizontal
5	10394.68	9.22	50.84	74.00	23.16	40.23	54.00	13.77	150	81	Horizontal
6	14206.54	14.23	48.83	74.00	25.17	38.69	54.00	15.31	150	12	Horizontal

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5200	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：95		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:00:22

Test Graph



PK Final Data List

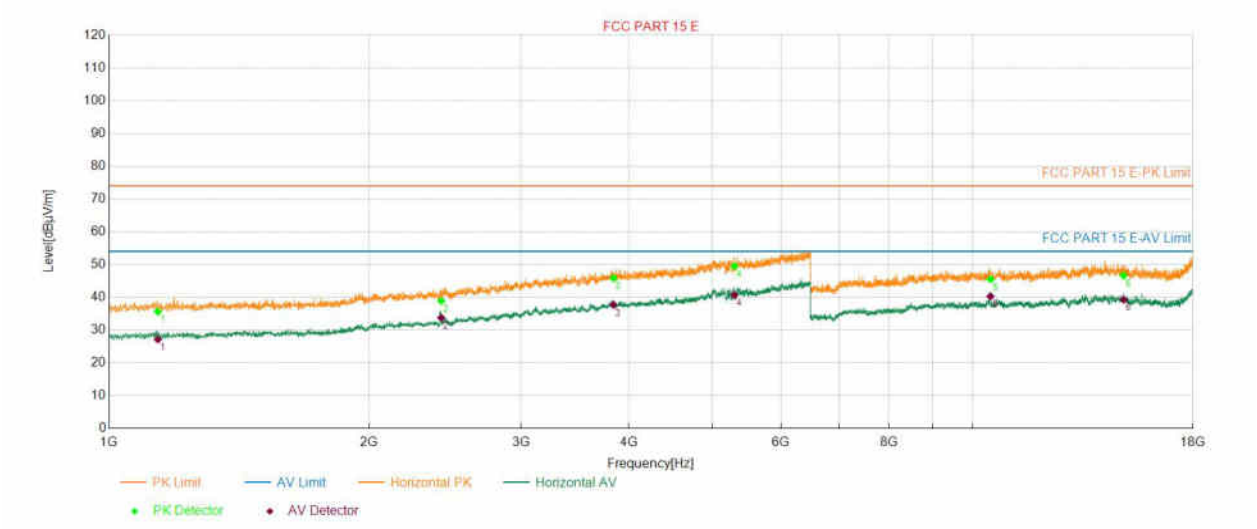
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1207.94	-0.43	36.11	74.00	37.89	26.97	54.00	27.03	150	331	Vertical
2	2111.22	3.35	38.82	74.00	35.18	29.71	54.00	24.29	150	164	Vertical
3	3026.61	8.30	42.70	74.00	31.30	33.25	54.00	20.75	150	155	Vertical
4	5297.46	17.10	50.55	74.00	23.45	41.49	54.00	12.51	150	360	Vertical
5	10396.98	9.22	51.68	74.00	22.32	44.70	54.00	9.30	150	258	Vertical
6	13550.91	14.12	47.50	74.00	26.50	37.21	54.00	16.79	150	358	Vertical

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5240	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：90		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:03:51

Test Graph



PK Final Data List

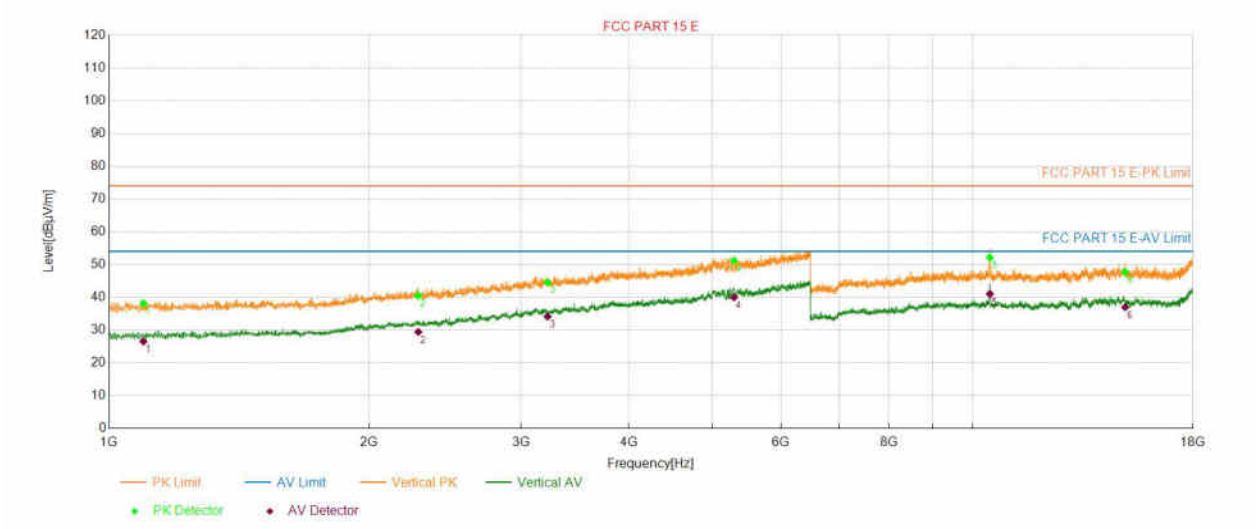
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1138.63	-0.68	35.64	74.00	38.36	27.18	54.00	26.82	150	113	Horizontal
2	2424.78	4.54	38.90	74.00	35.10	33.77	54.00	20.23	150	174	Horizontal
3	3837.47	11.21	45.87	74.00	28.13	37.70	54.00	16.30	150	91	Horizontal
4	5298.56	17.10	49.48	74.00	24.52	40.71	54.00	13.29	150	132	Horizontal
5	10486.70	9.78	45.50	74.00	28.50	40.27	54.00	13.73	150	78	Horizontal
6	14958.79	15.01	46.63	74.00	27.37	39.26	54.00	14.74	150	247	Horizontal

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5240	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：90		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:05:20

Test Graph



PK Final Data List

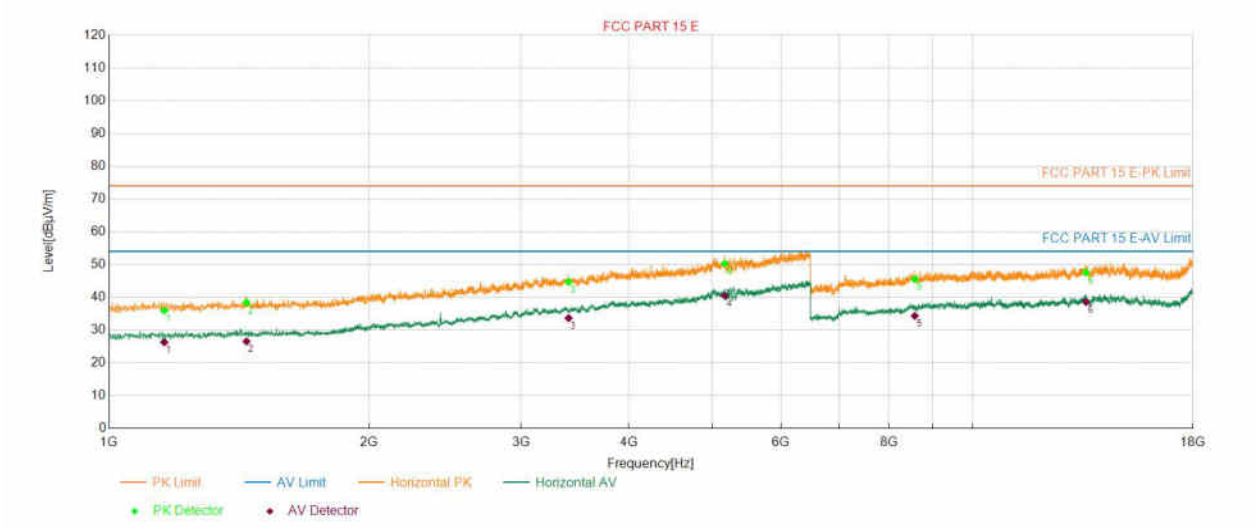
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1095.72	-0.83	38.15	74.00	35.85	26.55	54.00	27.45	150	225	Vertical
2	2280.66	4.02	40.50	74.00	33.50	29.44	54.00	24.56	150	321	Vertical
3	3219.14	8.92	44.61	74.00	29.39	34.14	54.00	19.86	150	2	Vertical
4	5293.06	17.09	51.17	74.00	22.83	40.00	54.00	14.00	150	225	Vertical
5	10470.59	9.67	52.15	74.00	21.85	41.05	54.00	12.95	150	259	Vertical
6	15020.90	15.12	47.77	74.00	26.23	37.00	54.00	17.00	150	1	Vertical

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5260	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:08:27

Test Graph



PK Final Data List

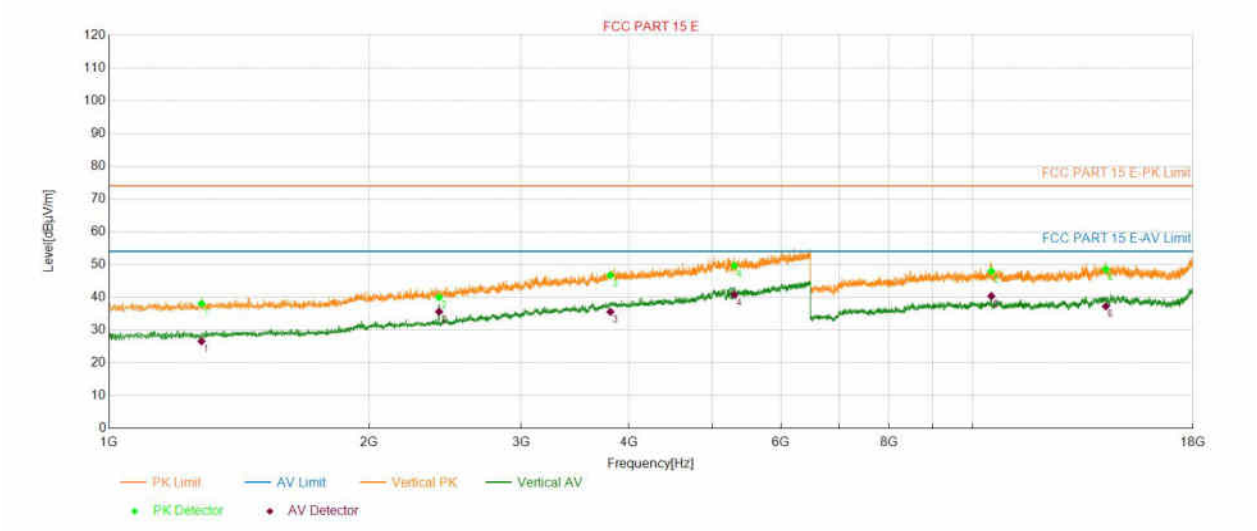
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1158.43	-0.60	35.99	74.00	38.01	26.31	54.00	27.69	150	78	Horizontal
2	1442.29	0.25	38.42	74.00	35.58	26.57	54.00	27.43	150	205	Horizontal
3	3405.08	9.62	44.71	74.00	29.29	33.66	54.00	20.34	150	2	Horizontal
4	5163.23	16.75	50.27	74.00	23.73	40.51	54.00	13.49	150	224	Horizontal
5	8570.41	6.47	45.56	74.00	28.44	34.34	54.00	19.66	150	208	Horizontal
6	13530.21	14.32	47.59	74.00	26.41	38.59	54.00	15.41	150	0	Horizontal

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5260	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:09:57

Test Graph



PK Final Data List

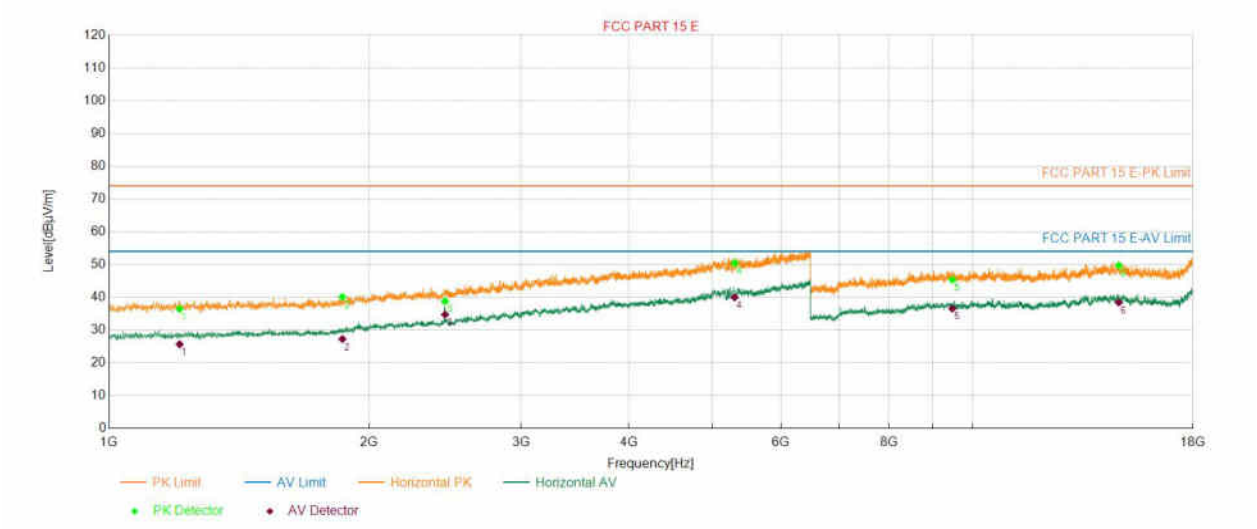
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1279.46	-0.18	38.11	74.00	35.89	26.59	54.00	27.41	150	270	Vertical
2	2410.48	4.46	40.01	74.00	33.99	35.63	54.00	18.37	150	341	Vertical
3	3806.66	11.17	46.73	74.00	27.27	35.57	54.00	18.43	150	358	Vertical
4	5298.56	17.10	49.61	74.00	24.39	40.86	54.00	13.14	150	347	Vertical
5	10512.00	9.80	47.96	74.00	26.04	40.36	54.00	13.64	150	269	Vertical
6	14266.35	14.21	48.56	74.00	25.44	37.27	54.00	16.73	150	206	Vertical

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5280	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:13:33

Test Graph



PK Final Data List

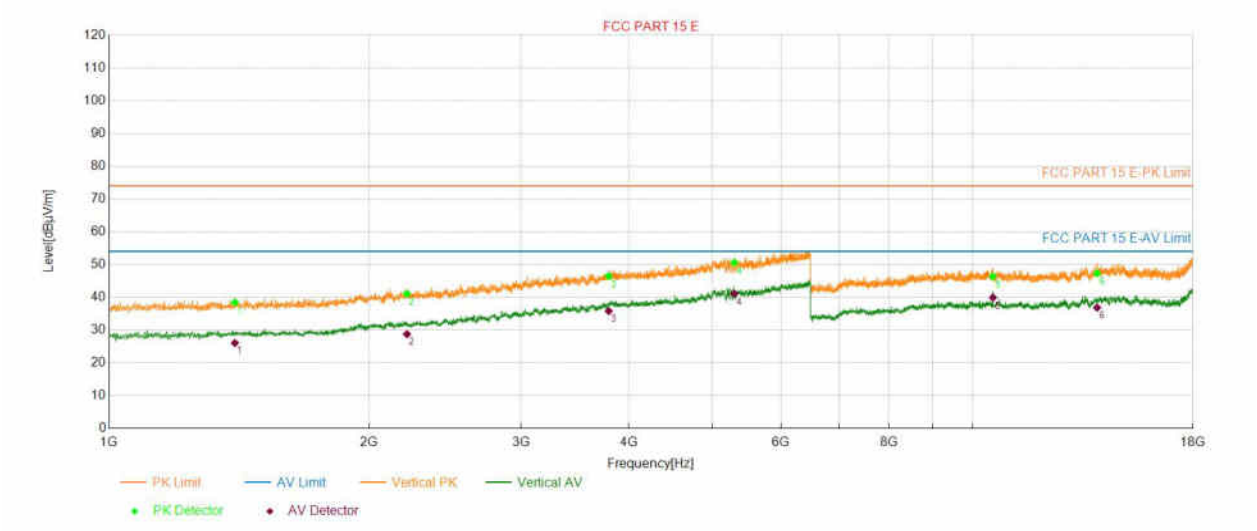
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1206.84	-0.43	36.45	74.00	37.55	25.69	54.00	28.31	150	120	Horizontal
2	1862.57	1.44	40.12	74.00	33.88	27.26	54.00	26.74	150	17	Horizontal
3	2448.99	4.68	38.80	74.00	35.20	34.73	54.00	19.27	150	91	Horizontal
4	5301.86	17.11	50.43	74.00	23.57	40.02	54.00	13.98	150	9	Horizontal
5	9474.49	8.24	45.39	74.00	28.61	36.56	54.00	17.44	150	314	Horizontal
6	14767.85	15.08	49.68	74.00	24.32	38.42	54.00	15.58	150	249	Horizontal

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5280	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:15:02

Test Graph



PK Final Data List

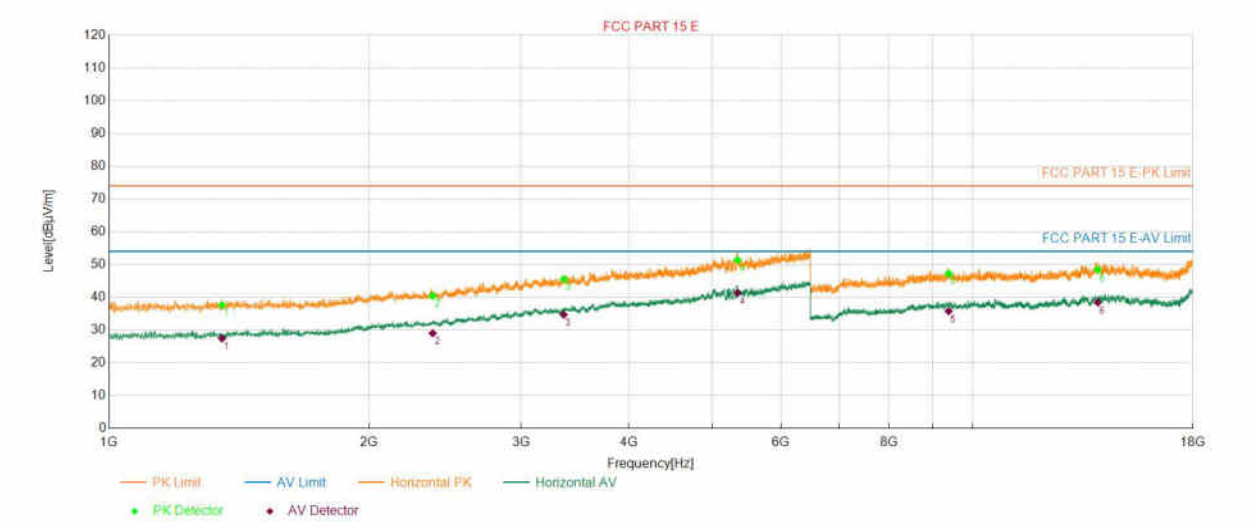
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1398.28	0.16	38.45	74.00	35.55	26.06	54.00	27.94	150	267	Vertical
2	2212.44	3.87	41.12	74.00	32.88	28.77	54.00	25.23	150	258	Vertical
3	3790.16	11.09	46.43	74.00	27.57	35.81	54.00	18.19	150	173	Vertical
4	5297.46	17.10	50.58	74.00	23.42	41.11	54.00	12.89	150	185	Vertical
5	10558.01	9.58	46.41	74.00	27.59	39.91	54.00	14.09	150	240	Vertical
6	13937.39	14.78	47.33	74.00	26.67	36.85	54.00	17.15	150	230	Vertical

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5320	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:18:15

Test Graph



PK Final Data List

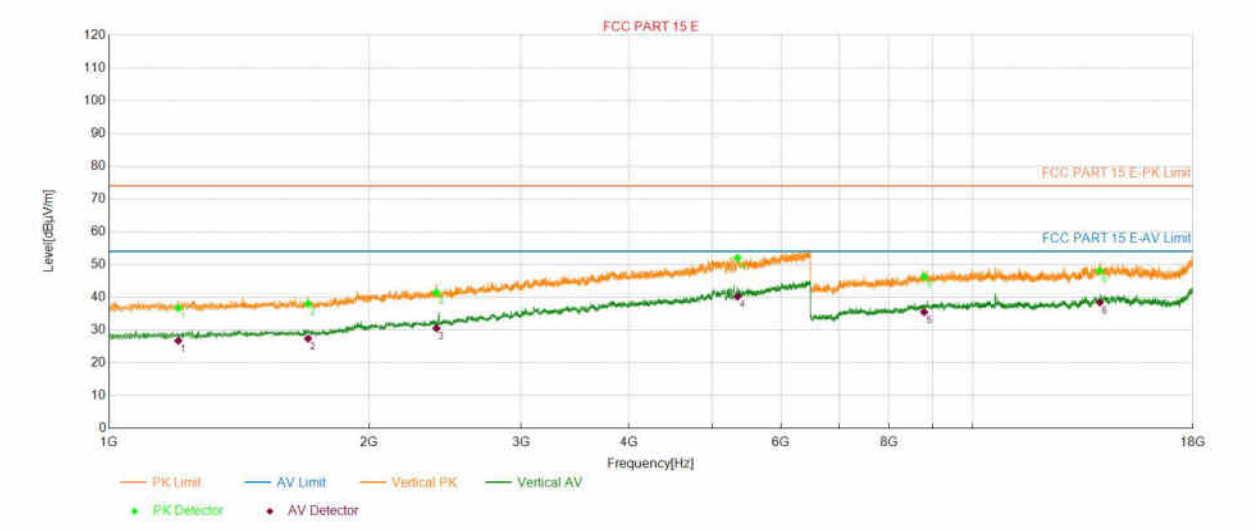
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1350.97	0.03	37.62	74.00	36.38	27.46	54.00	26.54	150	360	Horizontal
2	2369.77	4.30	40.43	74.00	33.57	29.04	54.00	24.96	150	122	Horizontal
3	3361.07	9.40	45.56	74.00	28.44	34.70	54.00	19.30	150	144	Horizontal
4	5344.77	17.23	51.33	74.00	22.67	41.38	54.00	12.62	150	60	Horizontal
5	9380.18	8.10	47.24	74.00	26.76	35.78	54.00	18.22	150	39	Horizontal
6	13964.99	14.81	48.39	74.00	25.61	38.41	54.00	15.59	150	164	Horizontal

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5320	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:19:44

Test Graph



PK Final Data List

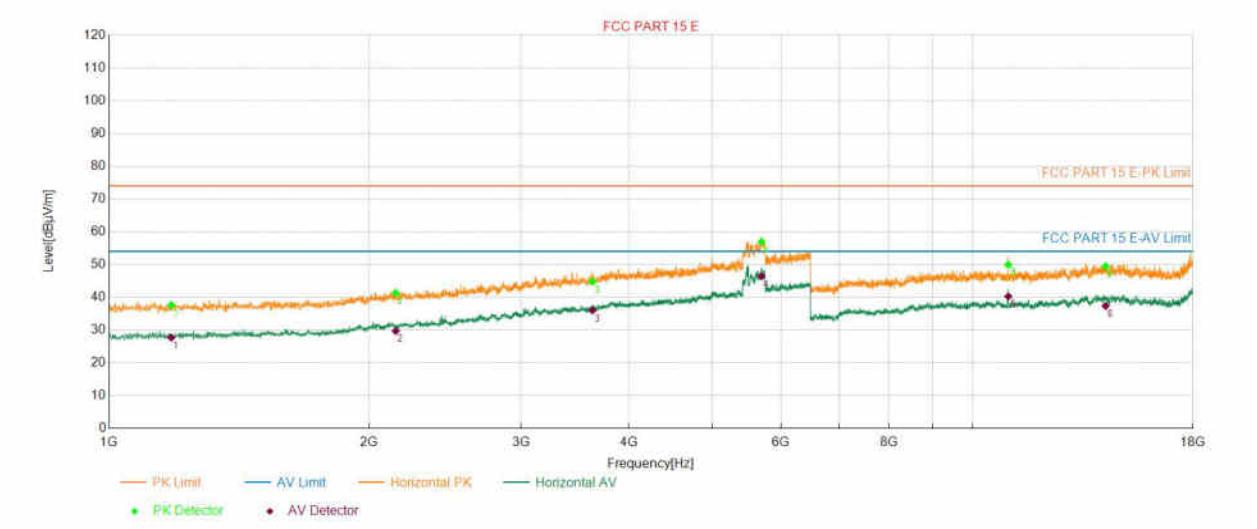
NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1202.44	-0.44	36.74	74.00	37.26	26.78	54.00	27.22	150	360	Vertical
2	1699.74	0.65	38.03	74.00	35.97	27.41	54.00	26.59	150	79	Vertical
3	2393.98	4.38	41.44	74.00	32.56	30.57	54.00	23.43	150	182	Vertical
4	5344.77	17.23	52.05	74.00	21.95	40.25	54.00	13.75	150	359	Vertical
5	8788.96	6.93	46.34	74.00	27.66	35.51	54.00	18.49	150	71	Vertical
6	14036.31	14.97	48.11	74.00	25.89	38.45	54.00	15.55	150	166	Vertical

Test Report

Project Information			
Customer:	IEEE 802.11b/g/n/a/ac 2T2RUSB WiFi Module Integrated BT		
EUT:			
Model:	SKI.WB822CU.8	SN:	
Mode:	11A_5500	Voltage:	DC 3.3V
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set：85		
Test Standard: FCC PART 15 E			

Start of Test:2024-07-02 22:27:36

Test Graph



PK Final Data List

NO.	Frequency (MHz)	Factor (dB/m)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1180.44	-0.58	37.56	74.00	36.44	27.71	54.00	26.29	150	196	Horizontal
2	2147.53	3.49	41.32	74.00	32.68	29.74	54.00	24.26	150	360	Horizontal
3	3628.43	9.79	44.78	74.00	29.22	36.00	54.00	18.00	150	217	Horizontal
4	5695.74	23.54	56.89	74.00	17.11	46.43	54.00	7.57	150	236	Horizontal
5	10999.70	9.91	49.95	74.00	24.05	40.29	54.00	13.71	150	165	Horizontal
6	14257.15	14.21	49.45	74.00	24.55	37.38	54.00	16.62	150	291	Horizontal