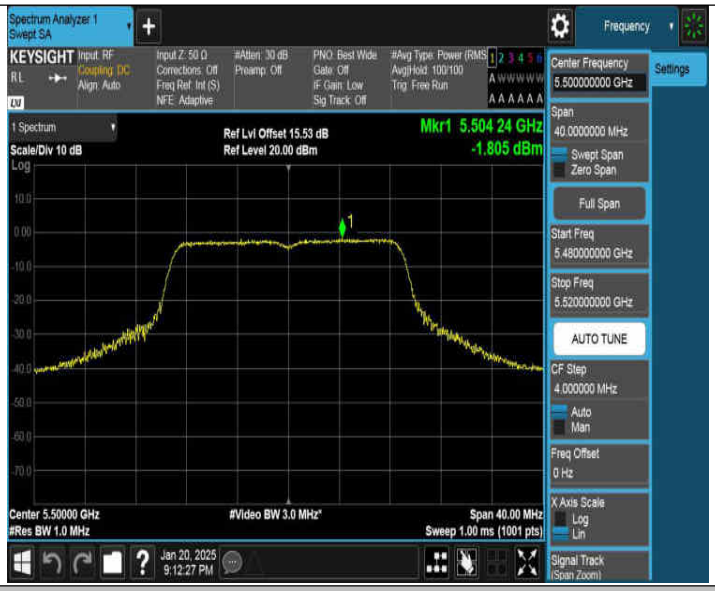
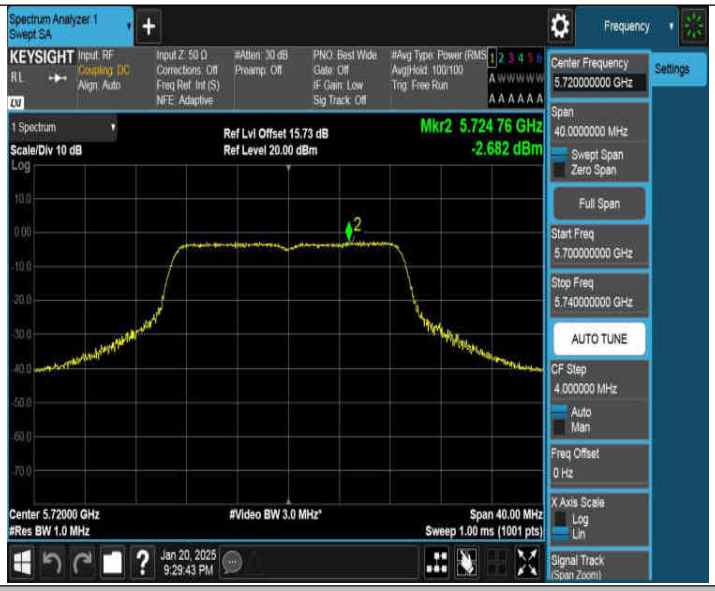


11AC20SISO_Ant1_5580

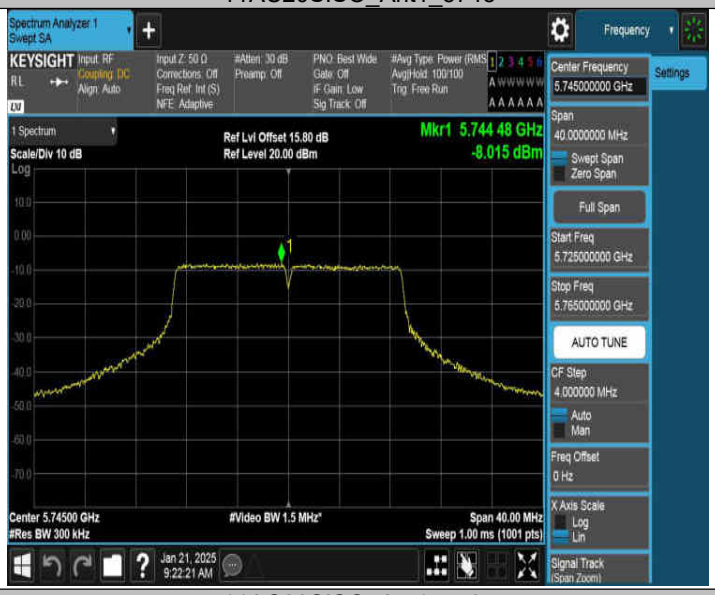
11AC20SISO_Ant1_5700

11AC20SISO_Ant1_5720_UNII-2C

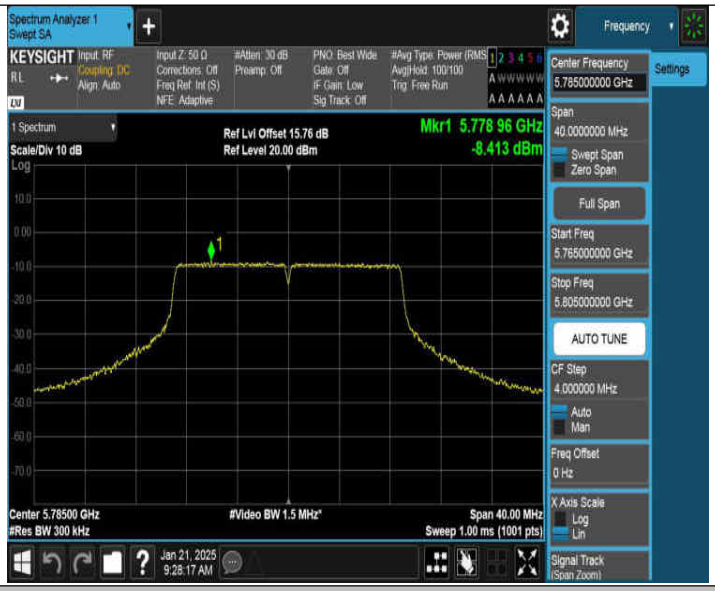


11AC20SISO_Ant1_5720_UNII-3

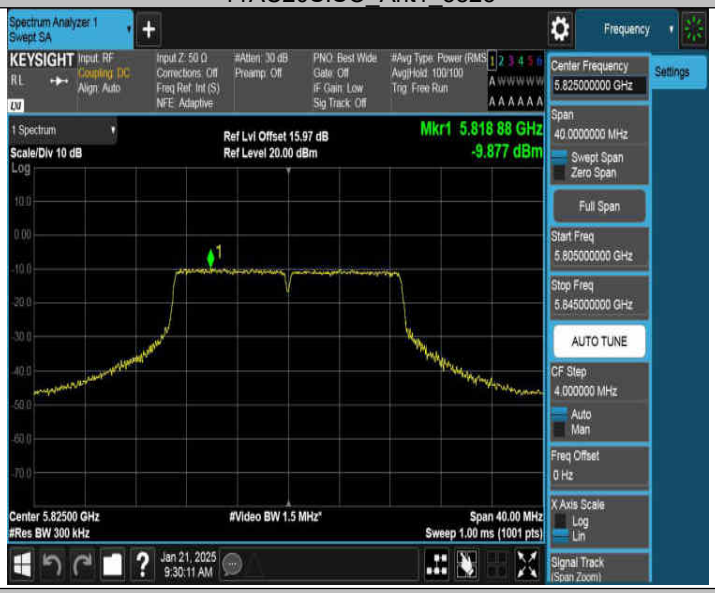
11AC20SISO_Ant1_5745



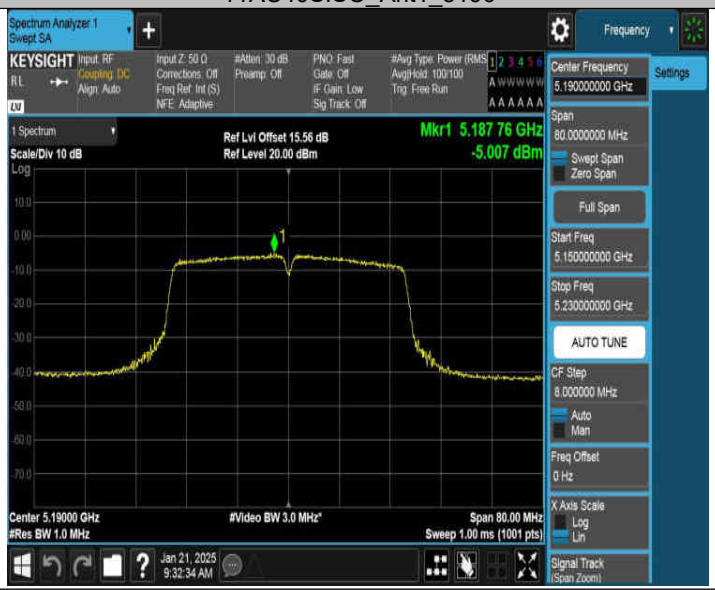
11AC20SISO_Ant1_5785



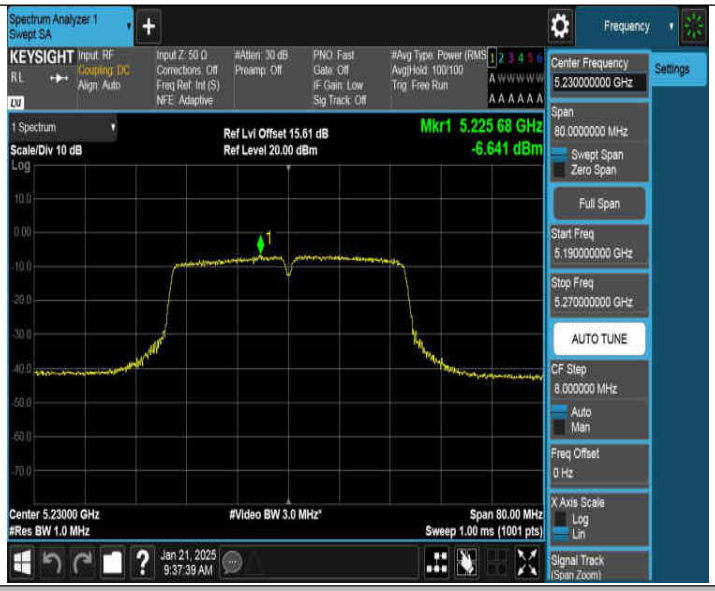
11AC20SISO_Ant1_5825



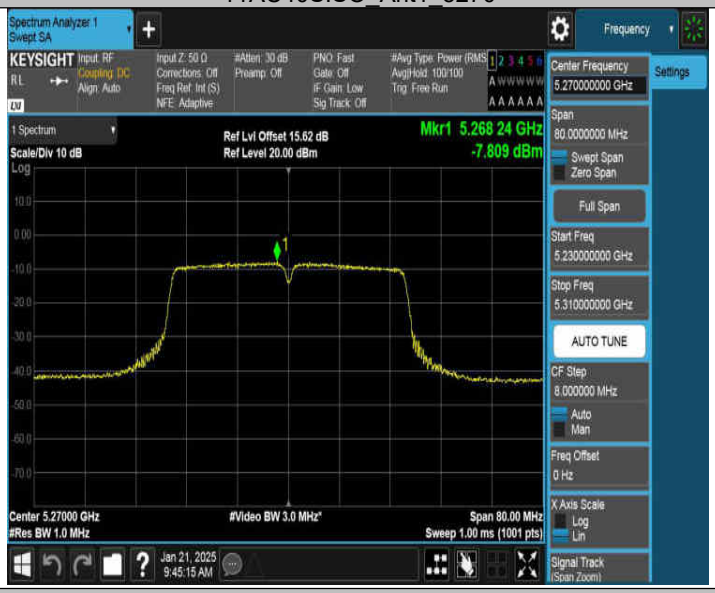
11AC40SISO_Ant1_5190



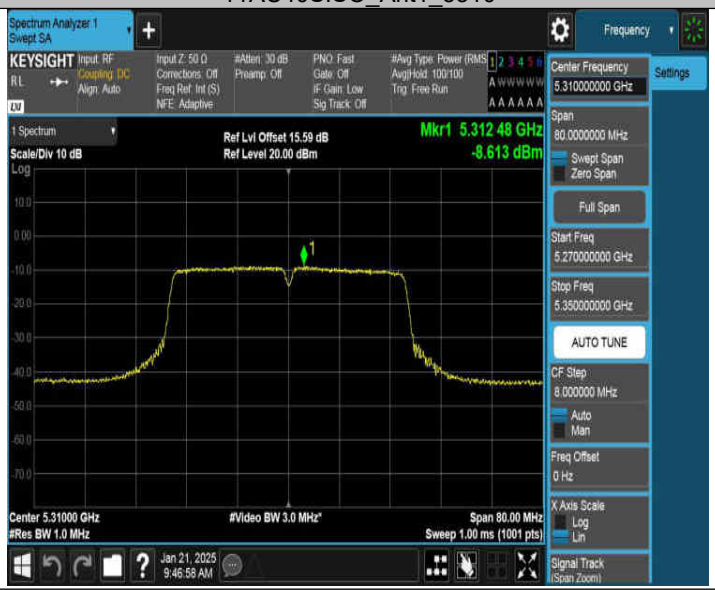
11AC40SISO_Ant1_5230



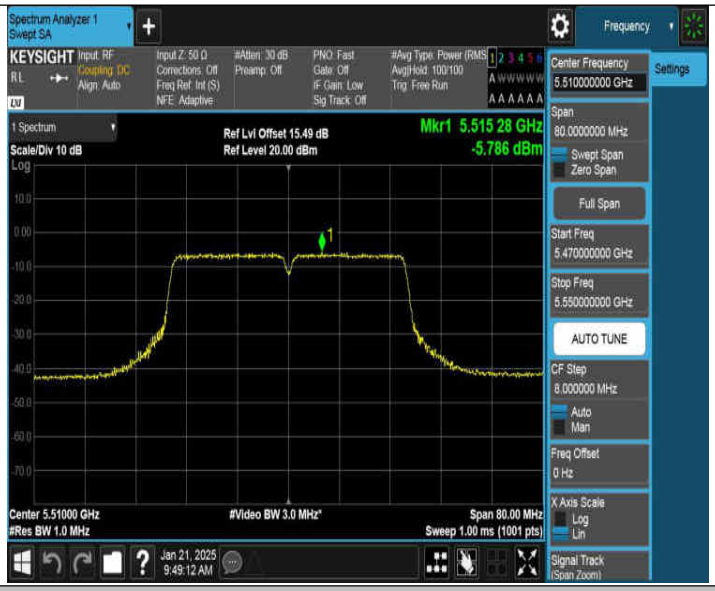
11AC40SISO_Ant1_5270



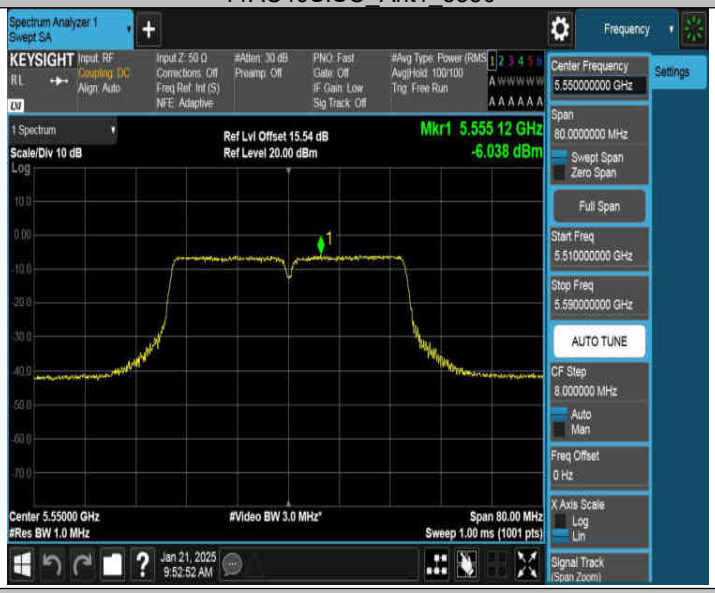
11AC40SISO_Ant1_5310



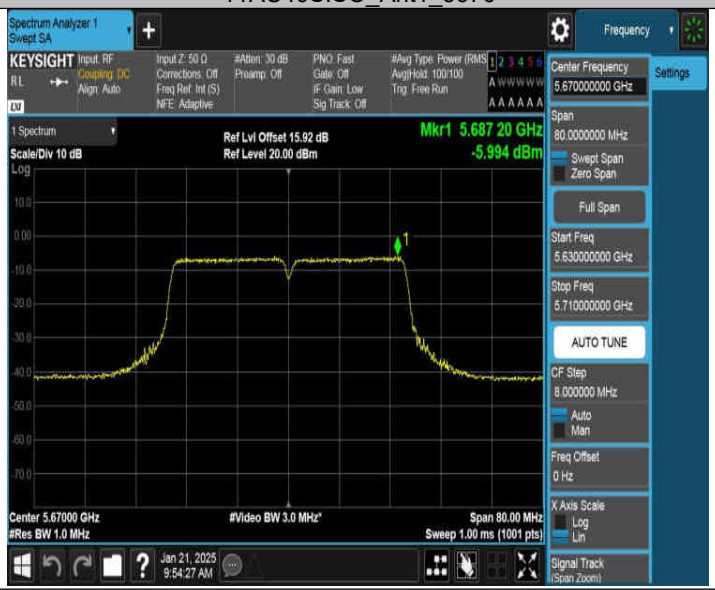
11AC40SISO_Ant1_5510



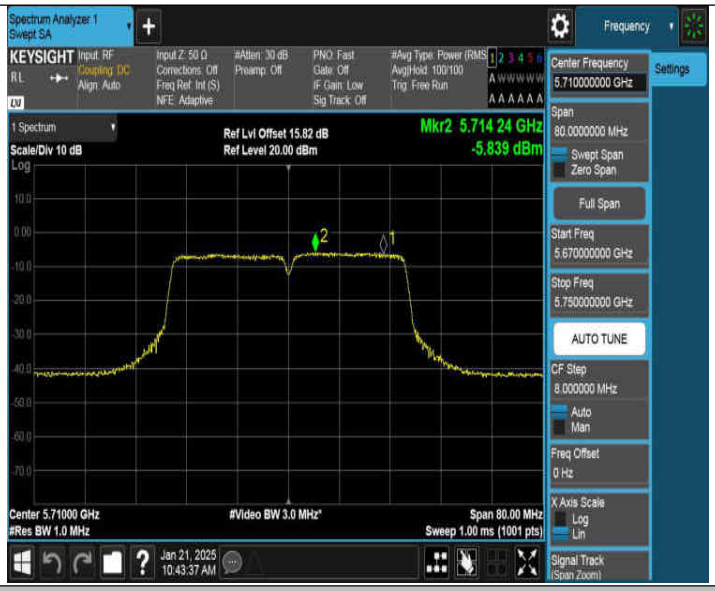
11AC40SISO_Ant1_5550



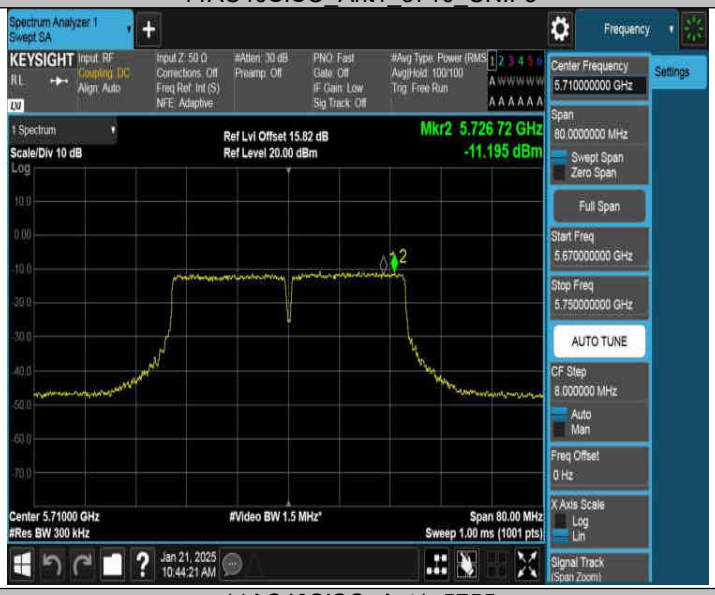
11AC40SISO_Ant1_5670



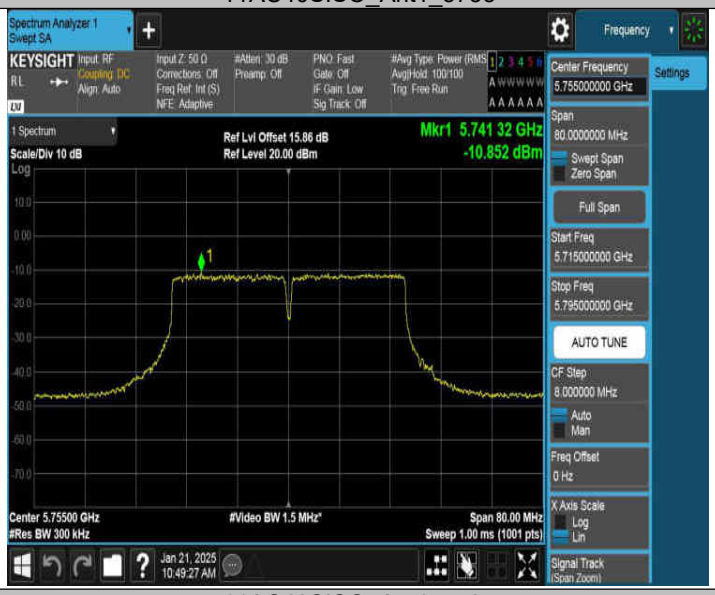
11AC40SISO_Ant1_5710_UNII-2C



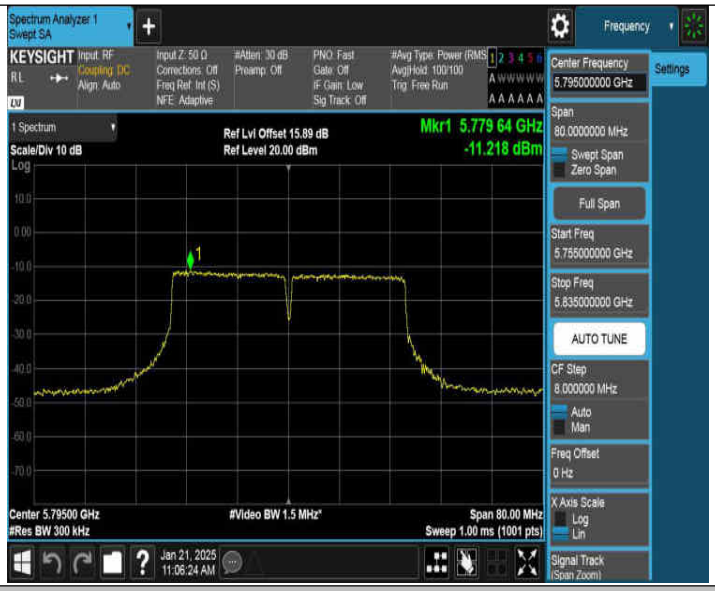
11AC40SISO_Ant1_5710_UNII-3



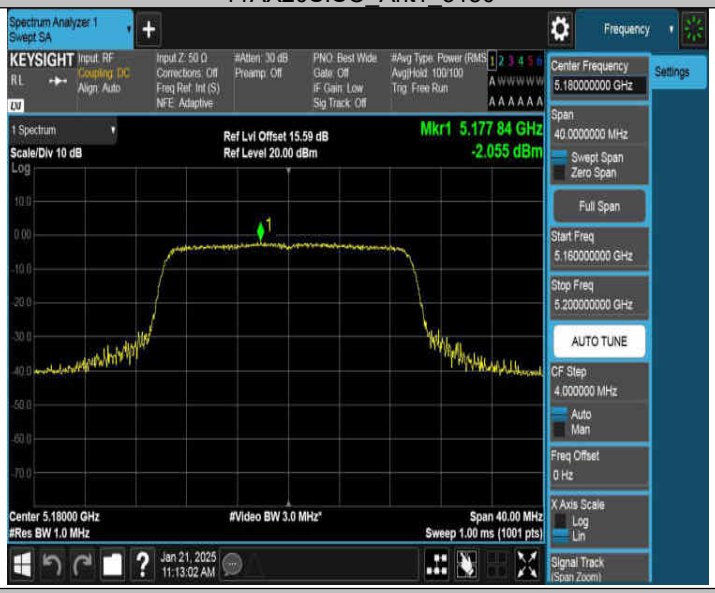
11AC40SISO_Ant1_5755



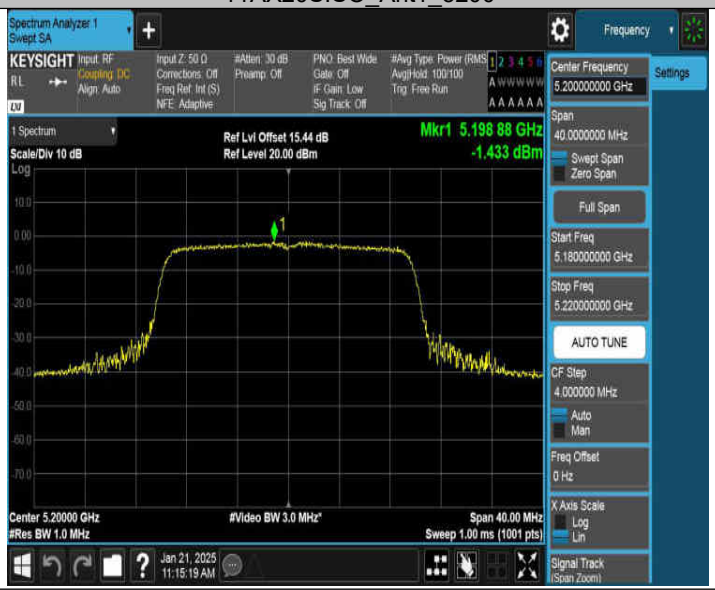
11AC40SISO_Ant1_5795



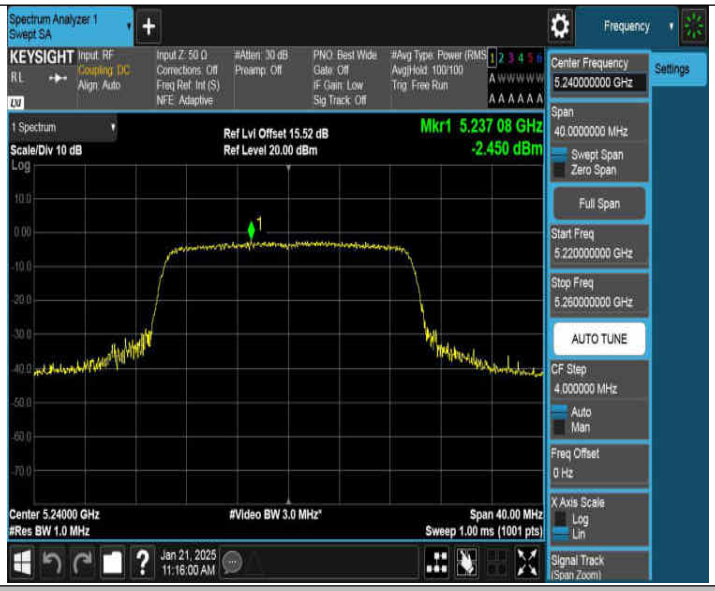
11AX20SISO_Ant1_5180



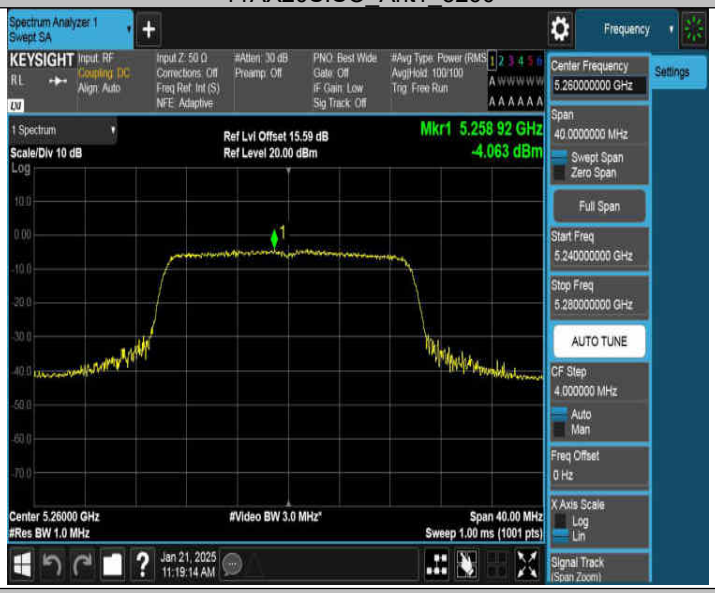
11AX20SISO_Ant1_5200



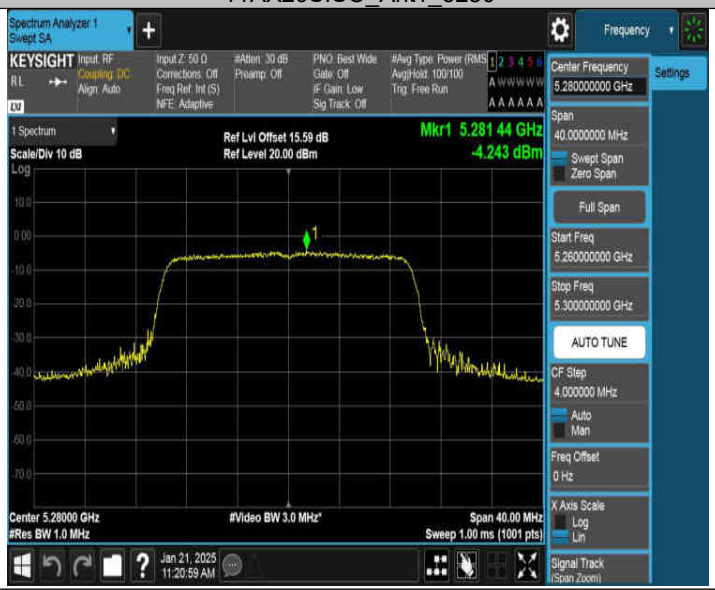
11AX20SISO_Ant1_5240



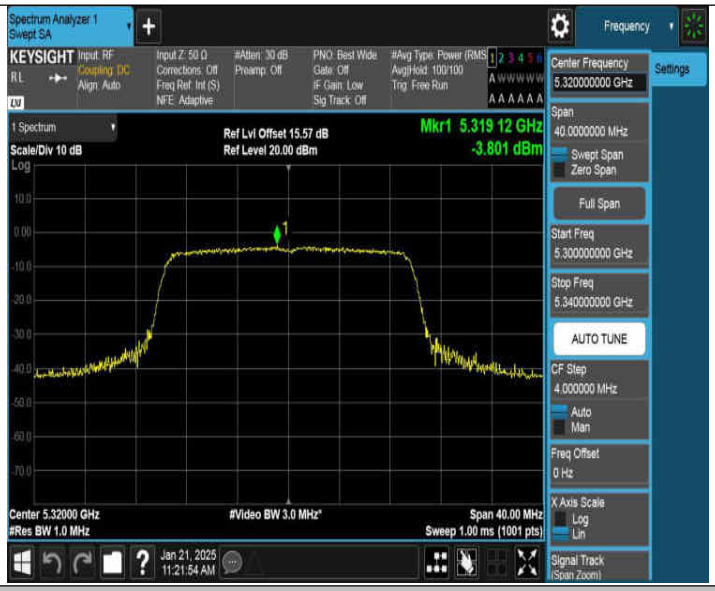
11AX20SISO_Ant1_5260



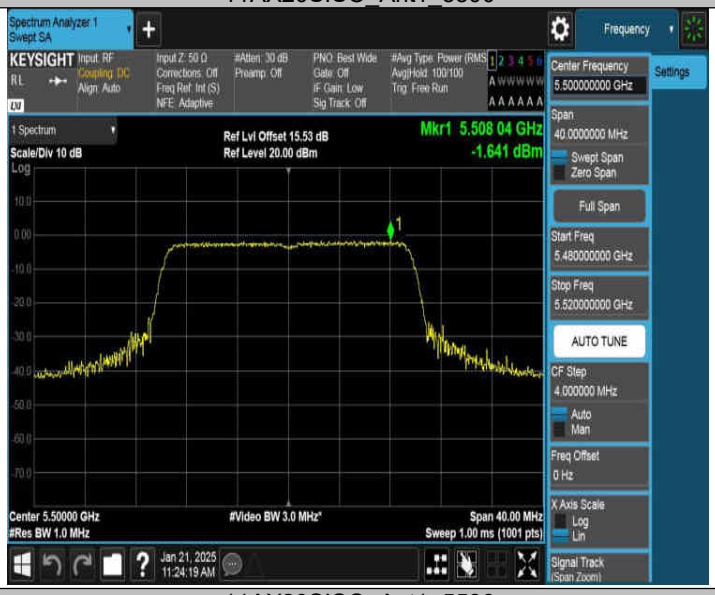
11AX20SISO_Ant1_5280



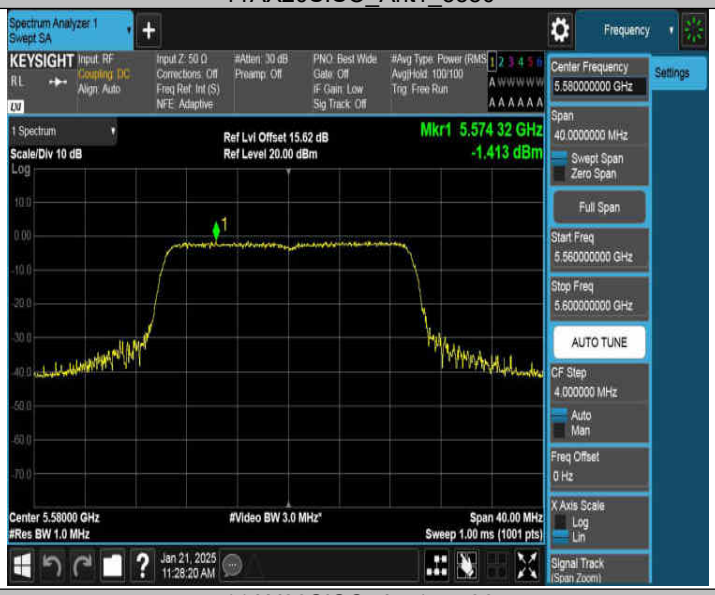
11AX20SISO_Ant1_5320



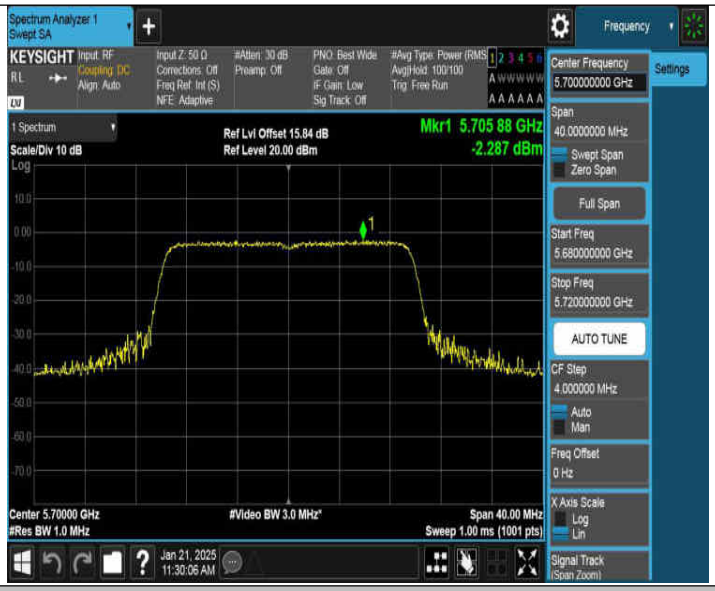
11AX20SISO_Ant1_5500



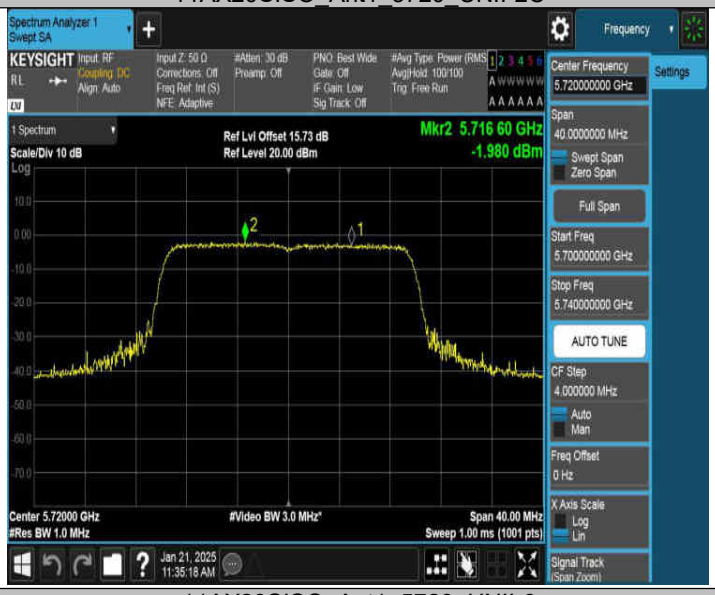
11AX20SISO_Ant1_5580



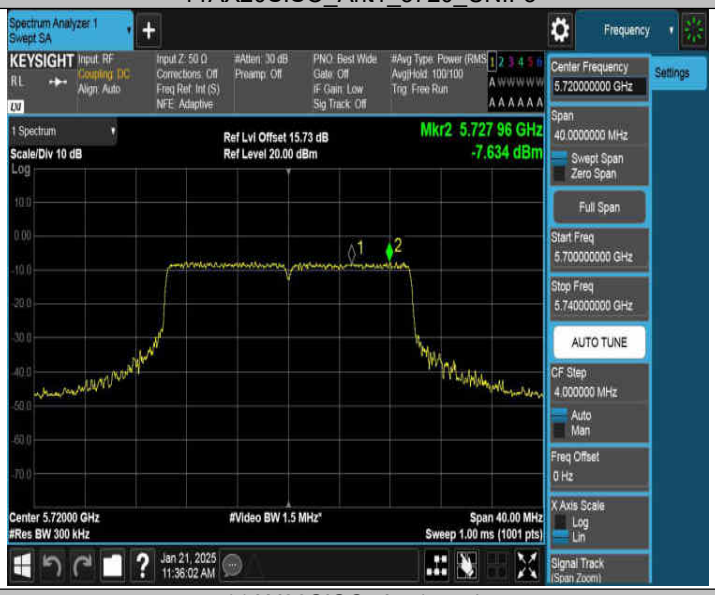
11AX20SISO_Ant1_5700



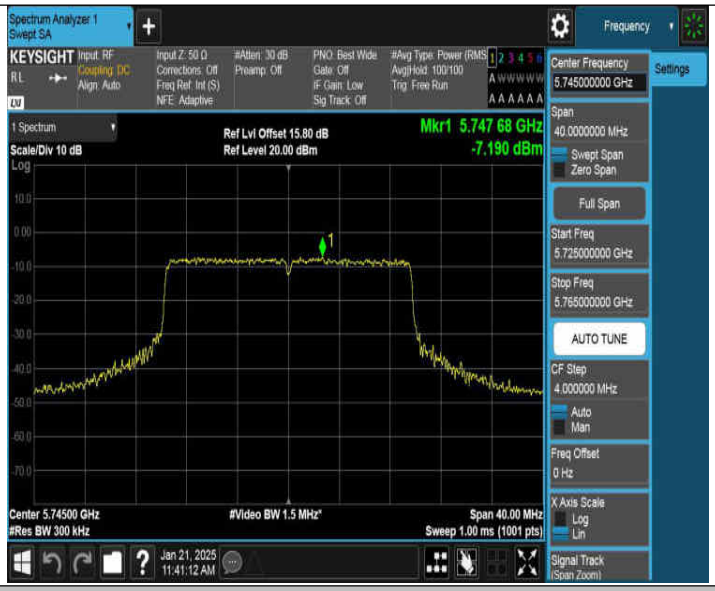
11AX20SISO_Ant1_5720_UNII-2C



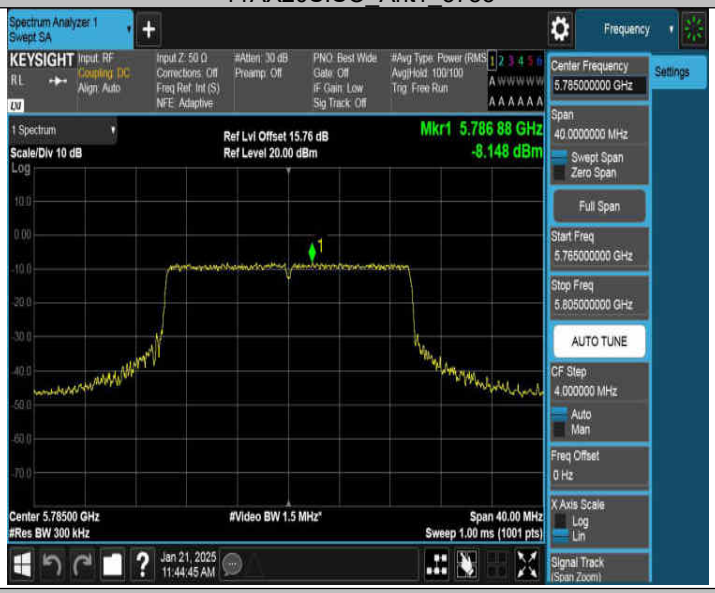
11AX20SISO_Ant1_5720_UNII-3



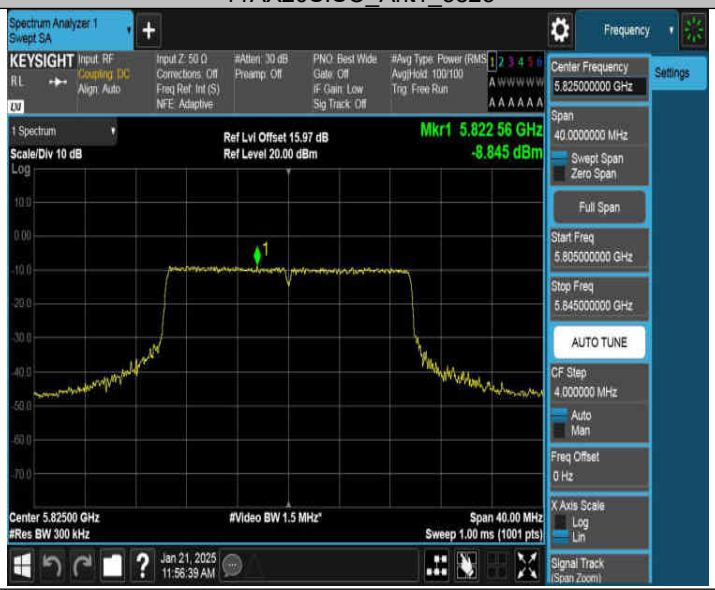
11AX20SISO_Ant1_5745



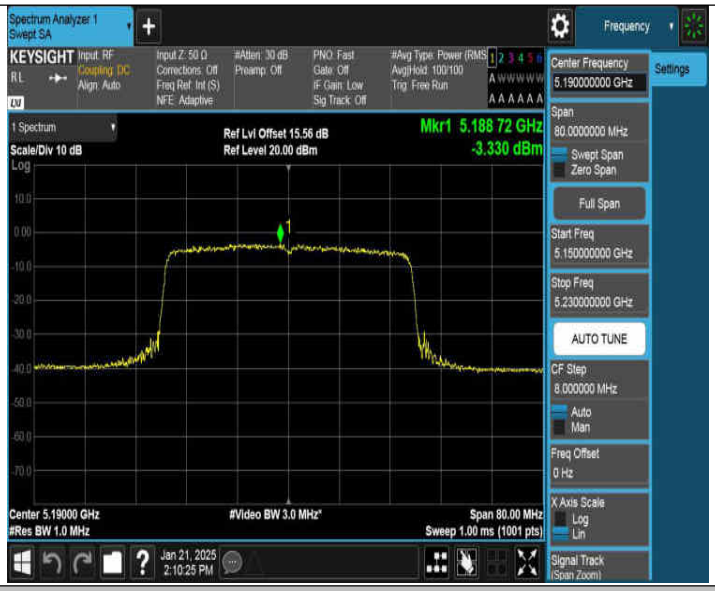
11AX20SISO_Ant1_5785



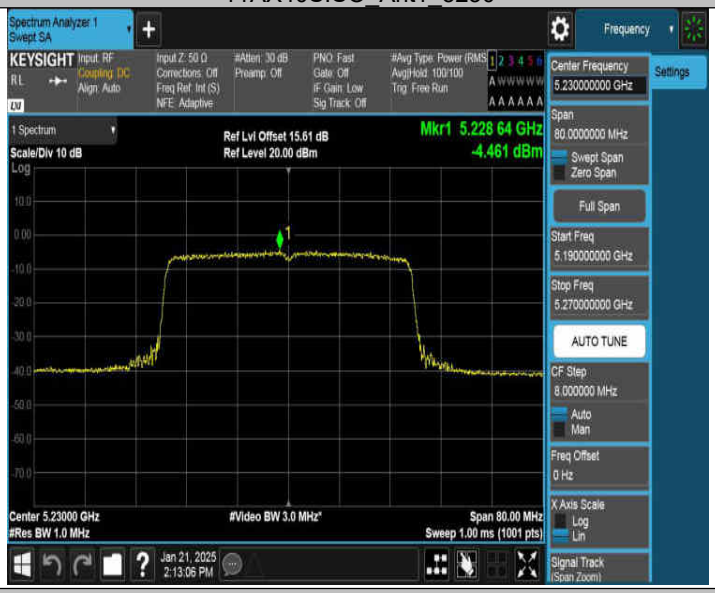
11AX20SISO_Ant1_5825



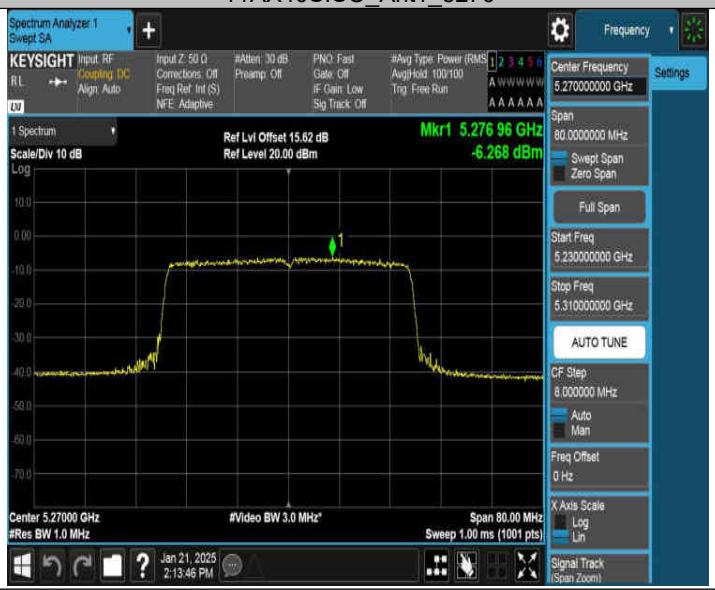
11AX40SISO_Ant1_5190



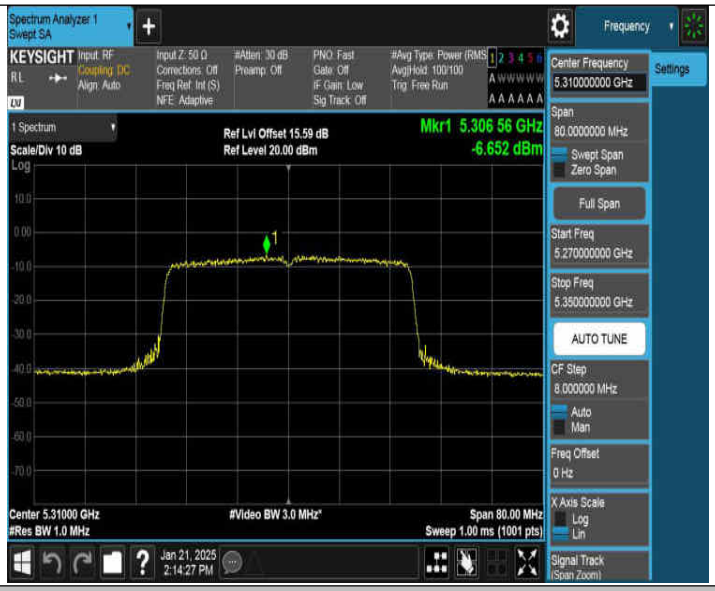
11AX40SISO_Ant1_5230



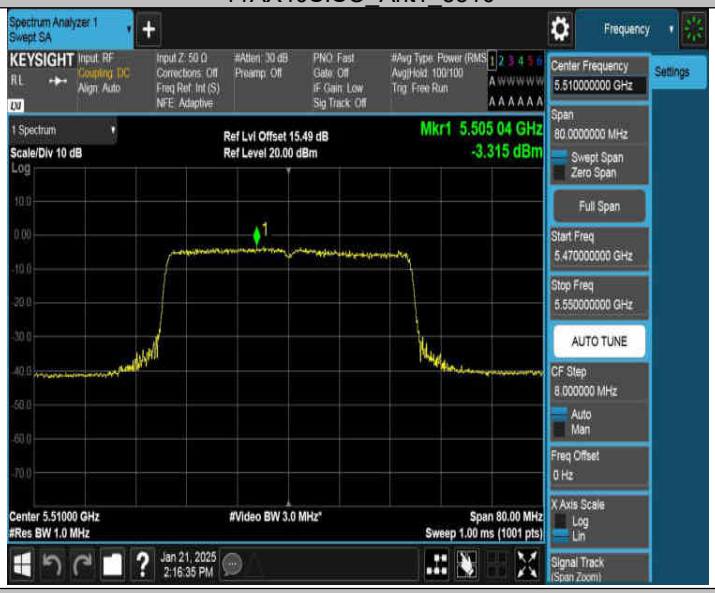
11AX40SISO_Ant1_5270



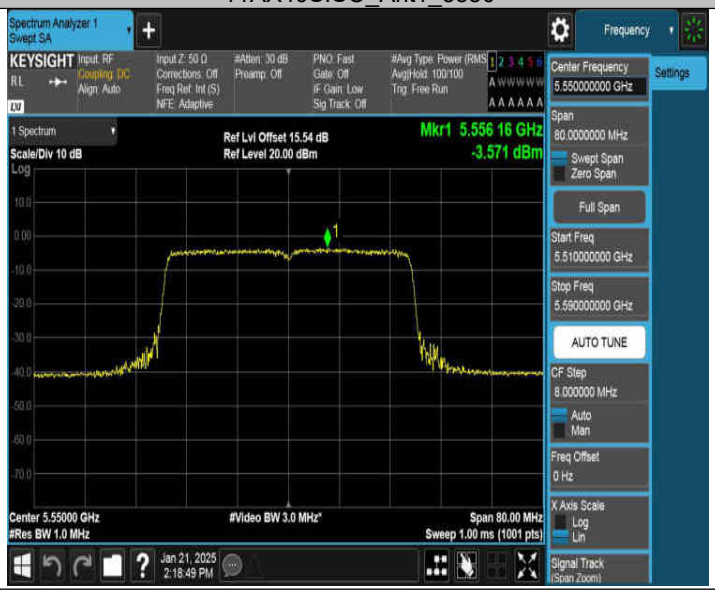
11AX40SISO_Ant1_5310



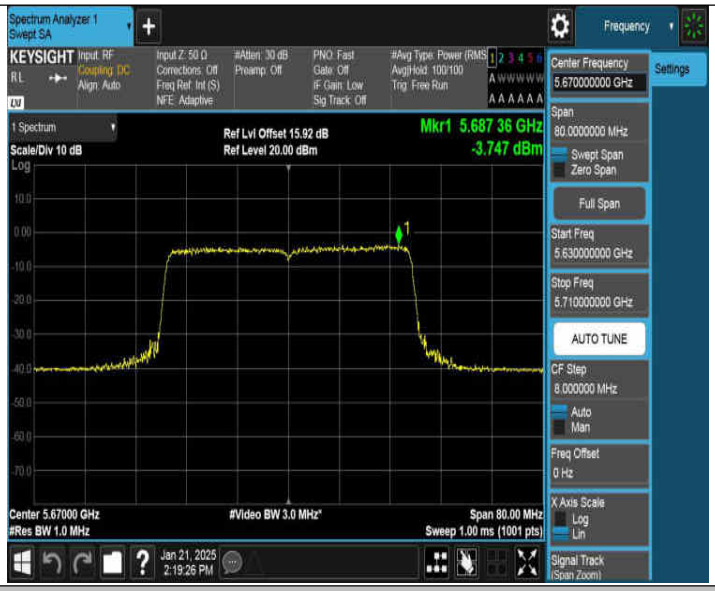
11AX40SISO_Ant1_5510



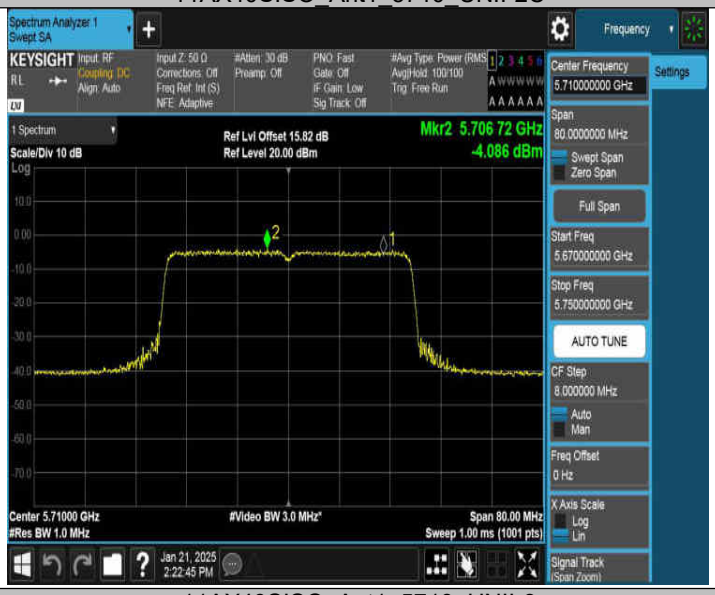
11AX40SISO_Ant1_5550



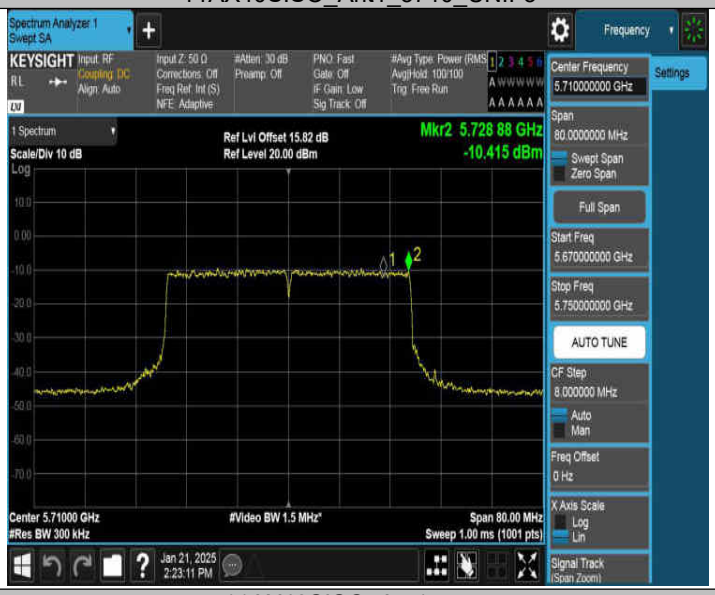
11AX40SISO_Ant1_5670



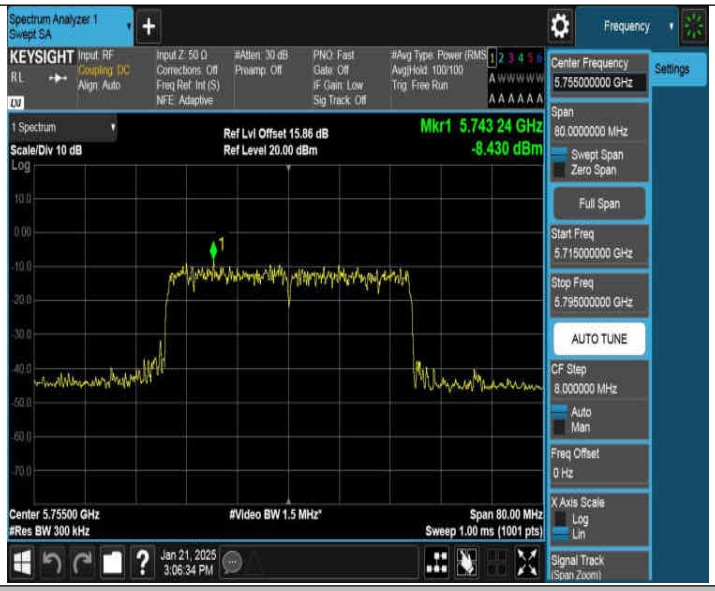
11AX40SISO_Ant1_5710_UNII-2C



11AX40SISO_Ant1_5710_UNII-3



11AX40SISO_Ant1_5755



11AX40SISO_Ant1_5795

12. Frequency Stability Measurement

12.1. Block Diagram of Test Setup

Same as section 8.1

12.2. Limit of Frequency Stability

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

12.3. Test Procedures

(1) To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.

(2) The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10 dB lower than the measured peak value.

(3) The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

12.4. Test Result

Voltage								
Test Mode	Ant.	Freq. (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11N20SISO	Ant1	5180	NV	NT	-14000.00	-2.702703	20	PASS
			LV	NT	-14000.00	-2.702703	20	PASS
			HV	NT	-14000.00	-2.702703	20	PASS
		5200	NV	NT	-13000.00	-2.500000	20	PASS
			LV	NT	-14000.00	-2.692308	20	PASS
			HV	NT	-14000.00	-2.692308	20	PASS
		5240	NV	NT	-14000.00	-2.671756	20	PASS
			LV	NT	-14000.00	-2.671756	20	PASS
			HV	NT	-14000.00	-2.671756	20	PASS
		5260	NV	NT	-14000.00	-2.661597	20	PASS
			LV	NT	-14000.00	-2.661597	20	PASS
			HV	NT	-14000.00	-2.661597	20	PASS
		5280	NV	NT	-14000.00	-2.651515	20	PASS
			LV	NT	-14000.00	-2.651515	20	PASS
			HV	NT	-14000.00	-2.651515	20	PASS
		5320	NV	NT	-14000.00	-2.631579	20	PASS
			LV	NT	-14000.00	-2.631579	20	PASS
			HV	NT	-14000.00	-2.631579	20	PASS
		5500	NV	NT	-15000.00	-2.727273	20	PASS
			LV	NT	-15000.00	-2.727273	20	PASS
			HV	NT	-14000.00	-2.545455	20	PASS
		5580	NV	NT	-15000.00	-2.688172	20	PASS
			LV	NT	-14000.00	-2.508961	20	PASS
			HV	NT	-15000.00	-2.688172	20	PASS
		5700	NV	NT	-15000.00	-2.631579	20	PASS
			LV	NT	-15000.00	-2.631579	20	PASS
			HV	NT	-15000.00	-2.631579	20	PASS
		5720	NV	NT	-15000.00	-2.622378	20	PASS
			LV	NT	-15000.00	-2.622378	20	PASS
			HV	NT	-15000.00	-2.622378	20	PASS
		5745	NV	NT	-16000.00	-2.785030	20	PASS
			LV	NT	-15000.00	-2.610966	20	PASS

			HV	NT	-15000.00	-2.610966	20	PASS
		5785	NV	NT	-16000.00	-2.765774	20	PASS
			LV	NT	-15000.00	-2.592913	20	PASS
			HV	NT	-15000.00	-2.592913	20	PASS
		5825	NV	NT	-15000.00	-2.575107	20	PASS
			LV	NT	-16000.00	-2.746781	20	PASS
			HV	NT	-15000.00	-2.575107	20	PASS
11N40SISO	Ant1	5190	NV	NT	-14000.00	-2.697495	20	PASS
			LV	NT	-13000.00	-2.504817	20	PASS
			HV	NT	-14000.00	-2.697495	20	PASS
		5230	NV	NT	-14000.00	-2.676864	20	PASS
			LV	NT	-14000.00	-2.676864	20	PASS
			HV	NT	-14000.00	-2.676864	20	PASS
		5270	NV	NT	-14000.00	-2.656546	20	PASS
			LV	NT	-14000.00	-2.656546	20	PASS
			HV	NT	-14000.00	-2.656546	20	PASS
		5310	NV	NT	-14000.00	-2.636535	20	PASS
			LV	NT	-14000.00	-2.636535	20	PASS
			HV	NT	-14000.00	-2.636535	20	PASS
		5510	NV	NT	-15000.00	-2.722323	20	PASS
			LV	NT	-15000.00	-2.722323	20	PASS
			HV	NT	-15000.00	-2.722323	20	PASS
		5550	NV	NT	-14000.00	-2.522523	20	PASS
			LV	NT	-15000.00	-2.702703	20	PASS
			HV	NT	-14000.00	-2.522523	20	PASS
		5670	NV	NT	-15000.00	-2.645503	20	PASS
			LV	NT	-15000.00	-2.645503	20	PASS
			HV	NT	-15000.00	-2.645503	20	PASS
		5710	NV	NT	-15000.00	-2.626970	20	PASS
			LV	NT	-15000.00	-2.626970	20	PASS
			HV	NT	-15000.00	-2.626970	20	PASS
		5755	NV	NT	-15000.00	-2.606429	20	PASS
			LV	NT	-15000.00	-2.606429	20	PASS
			HV	NT	-15000.00	-2.606429	20	PASS
		5795	NV	NT	-15000.00	-2.588438	20	PASS
			LV	NT	-15000.00	-2.588438	20	PASS
			HV	NT	-15000.00	-2.588438	20	PASS

Temperature								
Test Mode	Antenna	Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11N20SISO	Ant1	5180	NV	-30	-14000.00	-2.702703	20	PASS
			NV	-20	-14000.00	-2.702703	20	PASS
			NV	-10	-14000.00	-2.702703	20	PASS
			NV	0	-14000.00	-2.702703	20	PASS
			NV	10	-14000.00	-2.702703	20	PASS
			NV	20	-14000.00	-2.702703	20	PASS
			NV	30	-14000.00	-2.702703	20	PASS
			NV	40	-14000.00	-2.702703	20	PASS
			NV	50	-14000.00	-2.702703	20	PASS
		5200	NV	-30	-14000.00	-2.692308	20	PASS
			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	-13000.00	-2.500000	20	PASS
			NV	50	-14000.00	-2.692308	20	PASS

		5240	NV	-30	-14000.00	-2.671756	20	PASS
			NV	-20	-14000.00	-2.671756	20	PASS
			NV	-10	-14000.00	-2.671756	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	-30	-14000.00	-2.661597	20	PASS
			NV	-20	-14000.00	-2.661597	20	PASS
			NV	-10	-14000.00	-2.661597	20	PASS
			NV	0	-14000.00	-2.661597	20	PASS
			NV	10	-14000.00	-2.661597	20	PASS
			NV	20	-14000.00	-2.661597	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	-30	-14000.00	-2.651515	20	PASS
			NV	-20	-14000.00	-2.651515	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	-30	-14000.00	-2.631579	20	PASS
			NV	-20	-14000.00	-2.631579	20	PASS
			NV	-10	-14000.00	-2.631579	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	-30	-15000.00	-2.727273	20	PASS
			NV	-20	-15000.00	-2.727273	20	PASS
			NV	-10	-15000.00	-2.727273	20	PASS
			NV	0	-15000.00	-2.727273	20	PASS
			NV	10	-14000.00	-2.545455	20	PASS
			NV	20	-15000.00	-2.727273	20	PASS
			NV	30	-14000.00	-2.545455	20	PASS
			NV	40	-15000.00	-2.727273	20	PASS
			NV	50	-14000.00	-2.545455	20	PASS
		5580	NV	-30	-15000.00	-2.688172	20	PASS
			NV	-20	-15000.00	-2.688172	20	PASS
			NV	-10	-15000.00	-2.688172	20	PASS
			NV	0	-15000.00	-2.688172	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	-30	-15000.00	-2.631579	20	PASS
			NV	-20	-15000.00	-2.631579	20	PASS
			NV	-10	-15000.00	-2.631579	20	PASS
			NV	0	-15000.00	-2.631579	20	PASS
			NV	10	-15000.00	-2.631579	20	PASS
			NV	20	-15000.00	-2.631579	20	PASS

			NV	30	-15000.00	-2.631579	20	PASS
			NV	40	-15000.00	-2.631579	20	PASS
			NV	50	-15000.00	-2.631579	20	PASS
		5720	NV	-30	-15000.00	-2.622378	20	PASS
			NV	-20	-15000.00	-2.622378	20	PASS
			NV	-10	-15000.00	-2.622378	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	-15000.00	-2.622378	20	PASS
			NV	40	-15000.00	-2.622378	20	PASS
			NV	50	-15000.00	-2.622378	20	PASS
		5745	NV	-30	-15000.00	-2.610966	20	PASS
			NV	-20	-15000.00	-2.610966	20	PASS
			NV	-10	-15000.00	-2.610966	20	PASS
			NV	0	-15000.00	-2.610966	20	PASS
			NV	10	-16000.00	-2.785030	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	-16000.00	-2.785030	20	PASS
		5785	NV	-30	-15000.00	-2.592913	20	PASS
			NV	-20	-15000.00	-2.592913	20	PASS
			NV	-10	-15000.00	-2.592913	20	PASS
			NV	0	-15000.00	-2.592913	20	PASS
			NV	10	-15000.00	-2.592913	20	PASS
			NV	20	-15000.00	-2.592913	20	PASS
			NV	30	-15000.00	-2.592913	20	PASS
			NV	40	-15000.00	-2.592913	20	PASS
			NV	50	-15000.00	-2.592913	20	PASS
		5825	NV	-30	-15000.00	-2.575107	20	PASS
			NV	-20	-15000.00	-2.575107	20	PASS
			NV	-10	-15000.00	-2.575107	20	PASS
			NV	0	-15000.00	-2.575107	20	PASS
			NV	10	-15000.00	-2.575107	20	PASS
			NV	20	-15000.00	-2.575107	20	PASS
			NV	30	-16000.00	-2.746781	20	PASS
			NV	40	-15000.00	-2.575107	20	PASS
			NV	50	-15000.00	-2.575107	20	PASS
11N40SISO	Ant1	5190	NV	-30	-14000.00	-2.697495	20	PASS
			NV	-20	-14000.00	-2.697495	20	PASS
			NV	-10	-14000.00	-2.697495	20	PASS
			NV	0	-14000.00	-2.697495	20	PASS
			NV	10	-14000.00	-2.697495	20	PASS
			NV	20	-14000.00	-2.697495	20	PASS
			NV	30	-14000.00	-2.697495	20	PASS
			NV	40	-14000.00	-2.697495	20	PASS
			NV	50	-14000.00	-2.697495	20	PASS
		5230	NV	-30	-14000.00	-2.676864	20	PASS
			NV	-20	-14000.00	-2.676864	20	PASS
			NV	-10	-14000.00	-2.676864	20	PASS
			NV	0	-13000.00	-2.485660	20	PASS
			NV	10	-14000.00	-2.676864	20	PASS
			NV	20	-14000.00	-2.676864	20	PASS
			NV	30	-14000.00	-2.676864	20	PASS
			NV	40	-14000.00	-2.676864	20	PASS
			NV	50	-14000.00	-2.676864	20	PASS
		5270	NV	-30	-14000.00	-2.656546	20	PASS
			NV	-20	-14000.00	-2.656546	20	PASS
			NV	-10	-14000.00	-2.656546	20	PASS

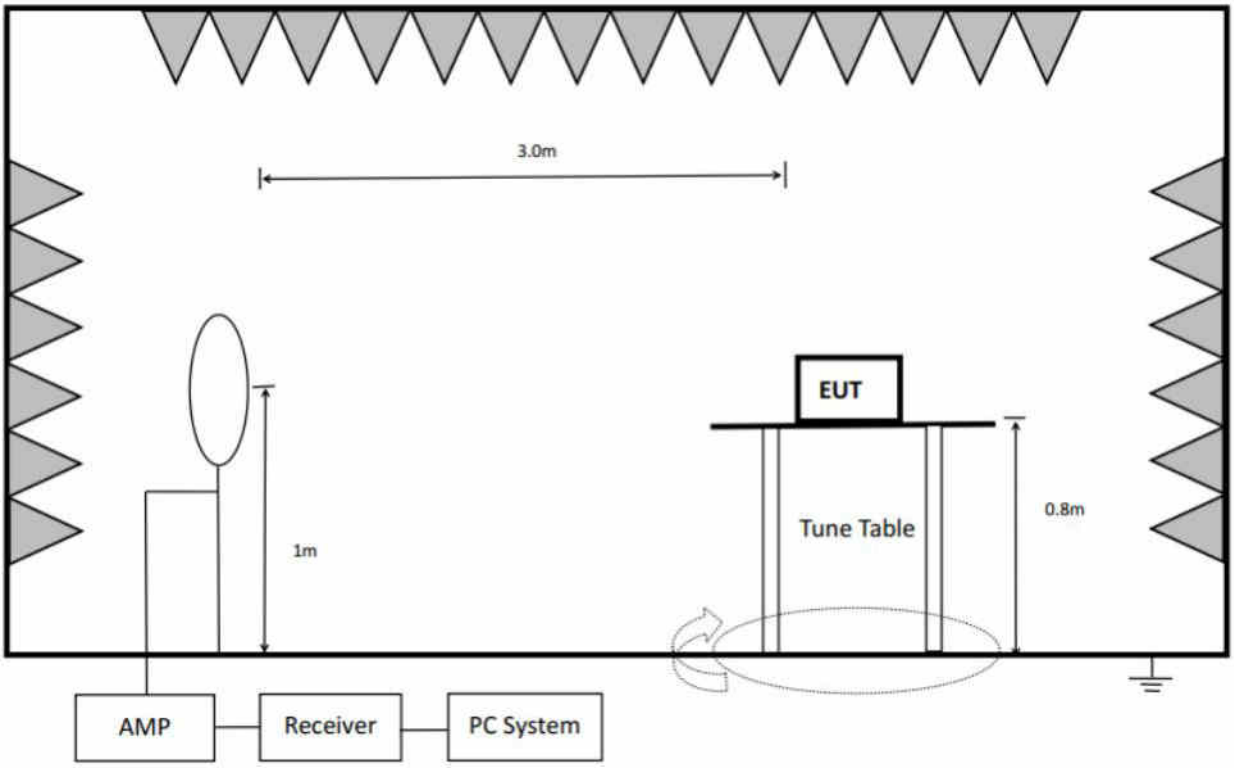
			NV	0	-14000.00	-2.656546	20	PASS
			NV	10	-14000.00	-2.656546	20	PASS
			NV	20	-14000.00	-2.656546	20	PASS
			NV	30	-14000.00	-2.656546	20	PASS
			NV	40	-14000.00	-2.656546	20	PASS
			NV	50	-14000.00	-2.656546	20	PASS
		5310	NV	-30	-14000.00	-2.636535	20	PASS
			NV	-20	-14000.00	-2.636535	20	PASS
			NV	-10	-14000.00	-2.636535	20	PASS
			NV	0	-14000.00	-2.636535	20	PASS
			NV	10	-14000.00	-2.636535	20	PASS
			NV	20	-14000.00	-2.636535	20	PASS
			NV	30	-14000.00	-2.636535	20	PASS
			NV	40	-14000.00	-2.636535	20	PASS
			NV	50	-14000.00	-2.636535	20	PASS
		5510	NV	-30	-15000.00	-2.722323	20	PASS
			NV	-20	-14000.00	-2.540835	20	PASS
			NV	-10	-14000.00	-2.540835	20	PASS
			NV	0	-15000.00	-2.722323	20	PASS
			NV	10	-15000.00	-2.722323	20	PASS
			NV	20	-14000.00	-2.540835	20	PASS
			NV	30	-14000.00	-2.540835	20	PASS
			NV	40	-14000.00	-2.540835	20	PASS
			NV	50	-15000.00	-2.722323	20	PASS
		5550	NV	-30	-14000.00	-2.522523	20	PASS
			NV	-20	-15000.00	-2.702703	20	PASS
			NV	-10	-15000.00	-2.702703	20	PASS
			NV	0	-14000.00	-2.522523	20	PASS
			NV	10	-15000.00	-2.702703	20	PASS
			NV	20	-15000.00	-2.702703	20	PASS
			NV	30	-15000.00	-2.702703	20	PASS
			NV	40	-14000.00	-2.522523	20	PASS
			NV	50	-15000.00	-2.702703	20	PASS
		5670	NV	-30	-15000.00	-2.645503	20	PASS
			NV	-20	-15000.00	-2.645503	20	PASS
			NV	-10	-15000.00	-2.645503	20	PASS
			NV	0	-15000.00	-2.645503	20	PASS
			NV	10	-15000.00	-2.645503	20	PASS
			NV	20	-15000.00	-2.645503	20	PASS
			NV	30	-15000.00	-2.645503	20	PASS
			NV	40	-15000.00	-2.645503	20	PASS
			NV	50	-15000.00	-2.645503	20	PASS
		5710	NV	-30	-15000.00	-2.626970	20	PASS
			NV	-20	-15000.00	-2.626970	20	PASS
			NV	-10	-15000.00	-2.626970	20	PASS
			NV	0	-15000.00	-2.626970	20	PASS
			NV	10	-15000.00	-2.626970	20	PASS
			NV	20	-15000.00	-2.626970	20	PASS
			NV	30	-15000.00	-2.626970	20	PASS
			NV	40	-15000.00	-2.626970	20	PASS
			NV	50	-15000.00	-2.626970	20	PASS
		5755	NV	-30	-15000.00	-2.606429	20	PASS
			NV	-20	-15000.00	-2.606429	20	PASS
			NV	-10	-15000.00	-2.606429	20	PASS
			NV	0	-15000.00	-2.606429	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	-15000.00	-2.606429	20	PASS

		5795	NV	-30	-15000.00	-2.588438	20	PASS
			NV	-20	-15000.00	-2.588438	20	PASS
			NV	-10	-15000.00	-2.588438	20	PASS
			NV	0	-15000.00	-2.588438	20	PASS
			NV	10	-15000.00	-2.588438	20	PASS
			NV	20	-15000.00	-2.588438	20	PASS
			NV	30	-15000.00	-2.588438	20	PASS
			NV	40	-15000.00	-2.588438	20	PASS
			NV	50	-15000.00	-2.588438	20	PASS

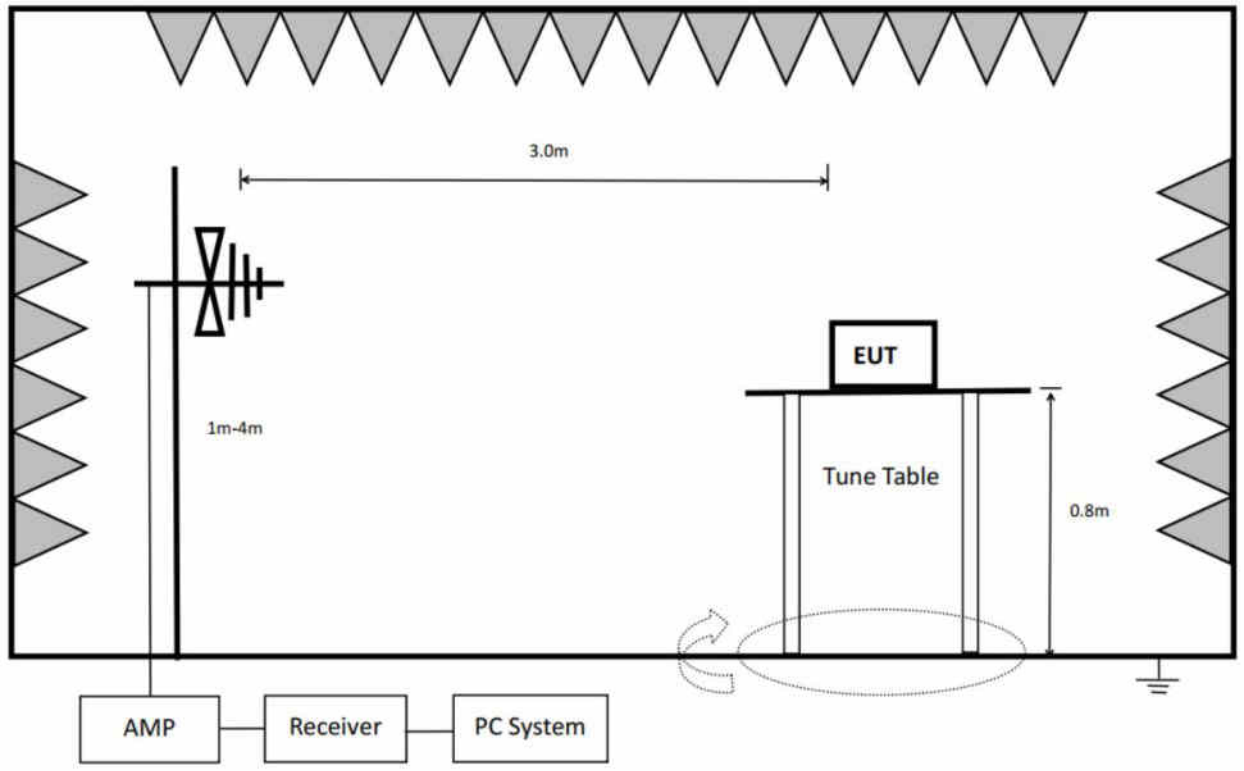
13. Radiated Emission

13.1. Block Diagram of Test Setup

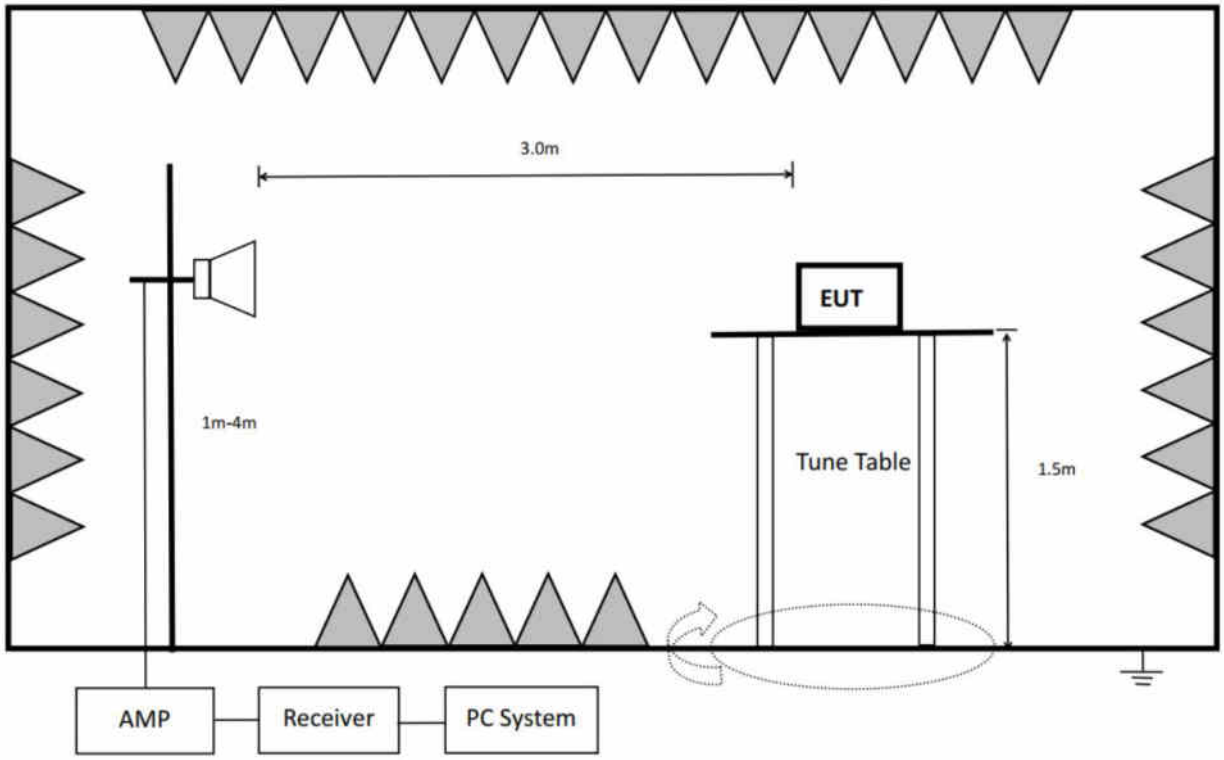
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



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_Ant1_High_5825

11N20SISO_Ant1_Low_5745

11N20SISO_Ant1_High_5825

11N40SISO_Ant1_Low_5755

11N40SISO_Ant1_High_5795

11AC20SISO_Ant1_Low_5745

11AC20SISO_Ant1_High_5825

11AC40SISO_Ant1_Low_5755

11AC40SISO_Ant1_High_5795

11AX20SISO_Ant1_Low_5745

11AX20SISO_Ant1_High_5825

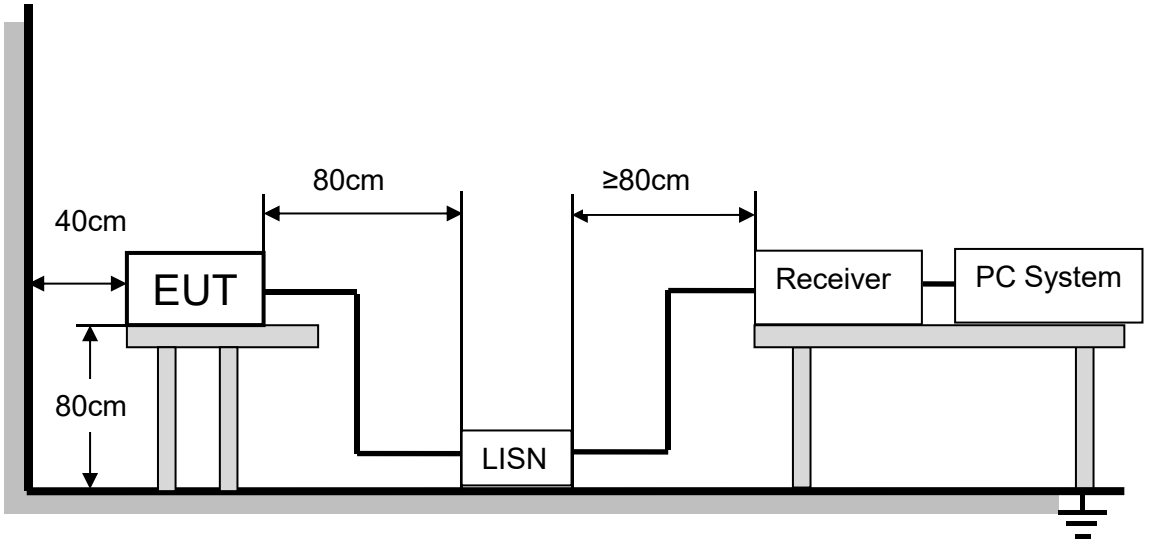
11AX40SISO_Ant1_Low_5755

11AX40SISO_Ant1_High_5795


Spectrum Analyzer 1
Swept SA
KEYSIGHT
PASS
Frequency
Settings
Center Frequency
5.852500000 GHz
Span
165.000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
5.770000000 GHz
Stop Freq
5.935000000 GHz
AUTO TUNE
CF Step
16.500000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
1 Spectrum
Ref Lvl Offset 21.74 dB
Ref Level 20.00 dBm
Mkr4 5.927 740 GHz
-34.43 dBm
Scale/Div 10 dB
Trace 1 Pass
Start 5.77000 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Stop 5.93500 GHz
Sweep 6.07 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 5.854 810 GHz -34.50 dBm
2 N 1 f 5.859 265 GHz -29.08 dBm
3 N 1 f 5.924 275 GHz -33.95 dBm
4 N 1 f 5.927 740 GHz -34.43 dBm
5
6
Jan 21, 2025
3:15:36 PM

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

Pass. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded worse case.

14.5. Original Test Data

AC Power Line Conducted Emission Test Data Refer to appendix C

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:

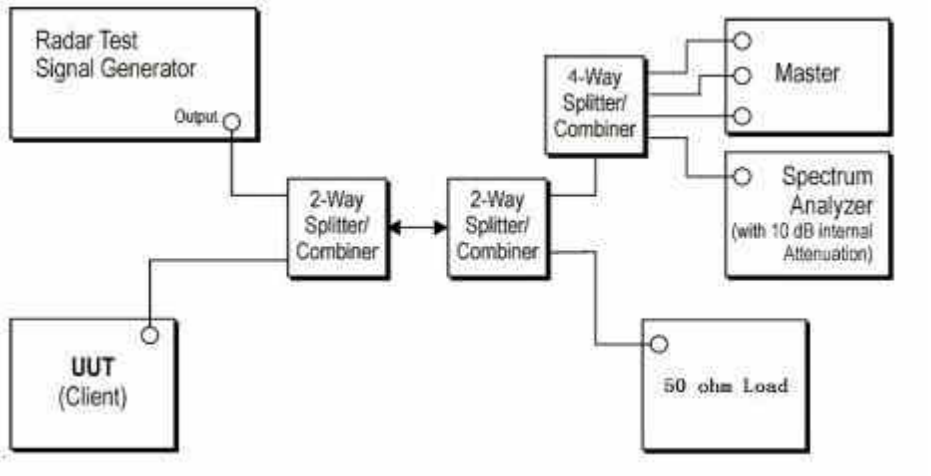
A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

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.

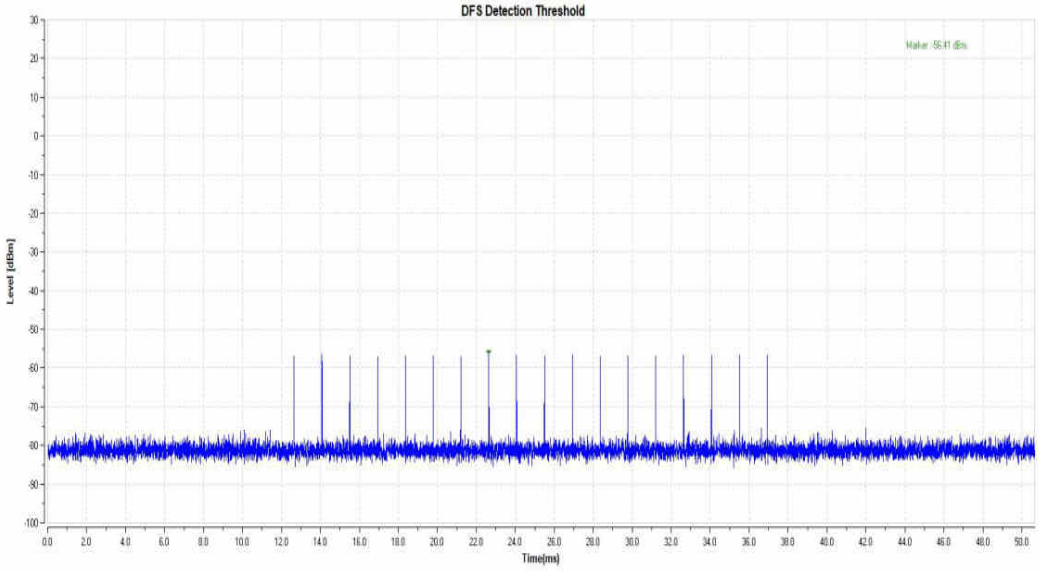
Conducted Calibration Setup:



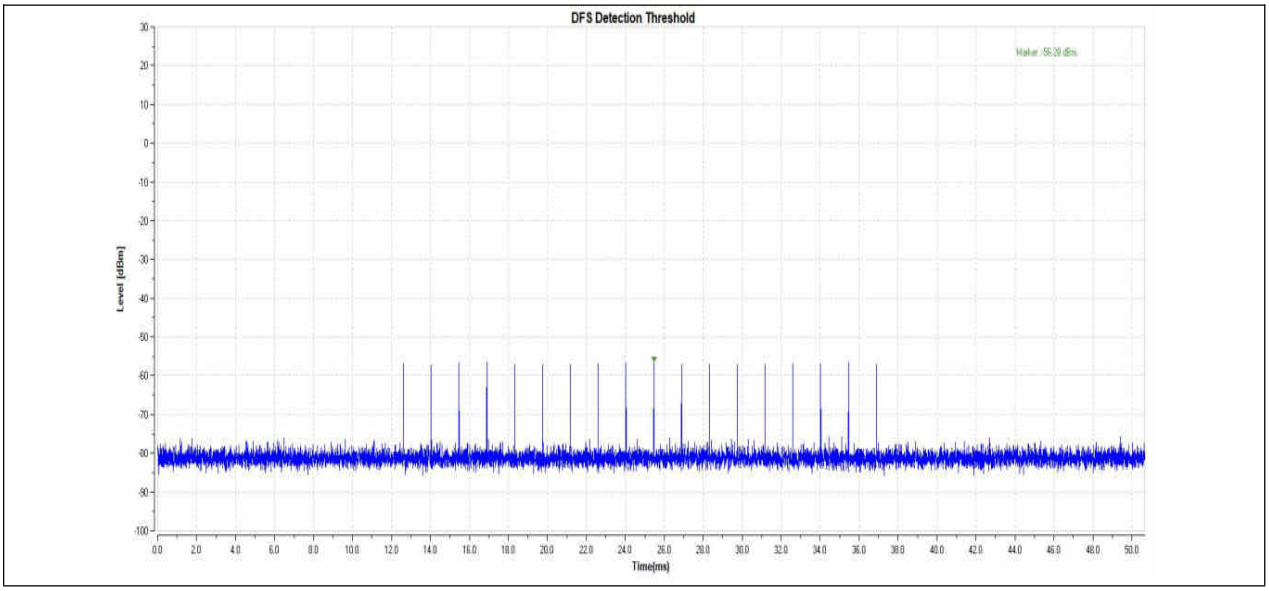
Note: 1. Use the software "Web" to set the frequency channel.
2. EUT is not support TPC and not with Radar detection.
Radar Waveform Calibration Result:
Radar Type 0

Test Mode	Frequency (dbm)	Radar Type	Result	Limit (dbm)	Verdict
11N40SISO	5270	Type0	-56.41	-56.15	PASS
	5510	Type0	-56.28	-56.15	PASS

11N40SISO_5270_Type0



11N40SISO_5510_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.

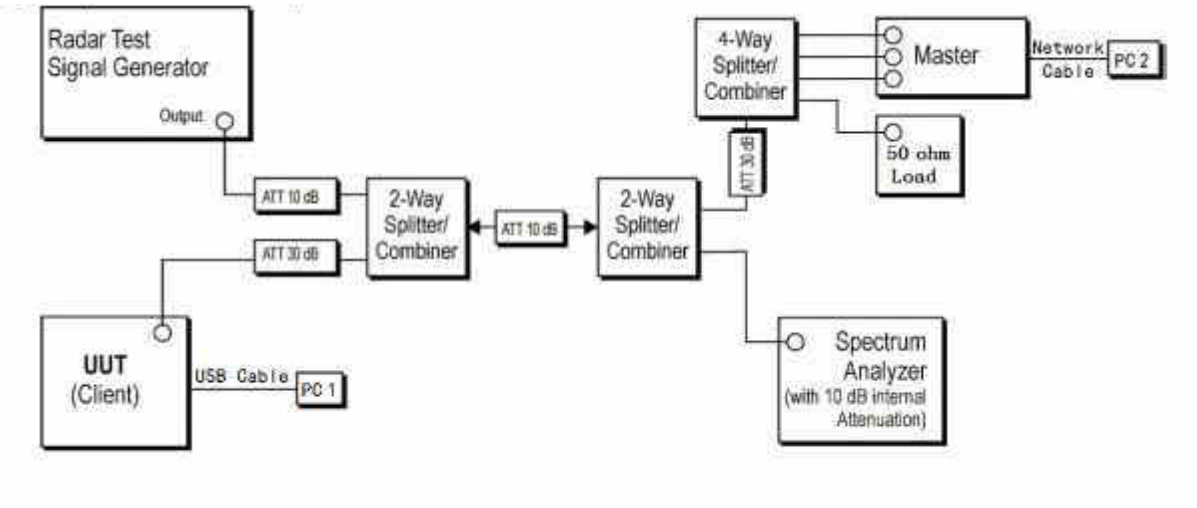
Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the

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

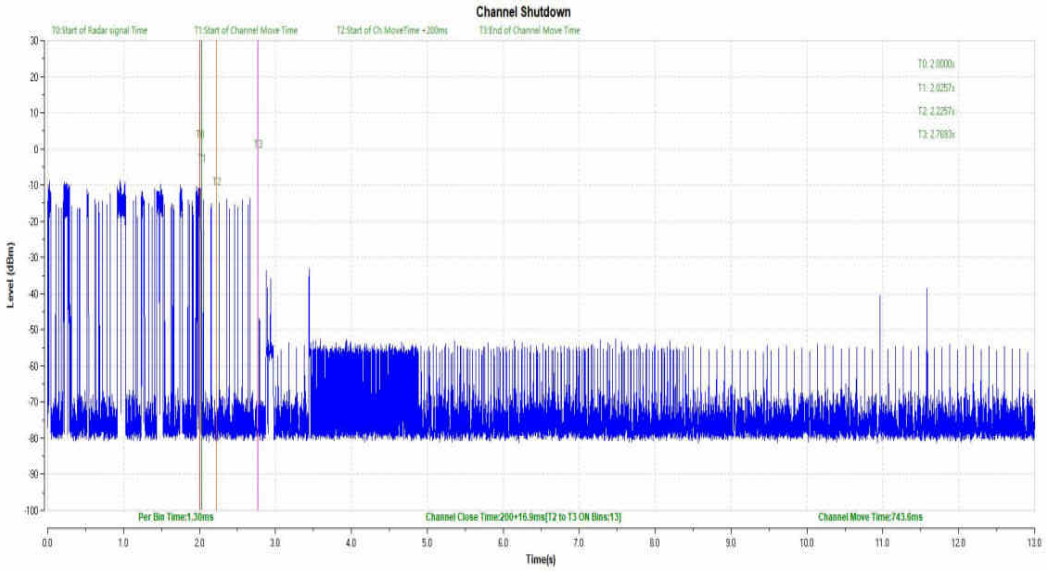
Setup for Client with injection at the Master



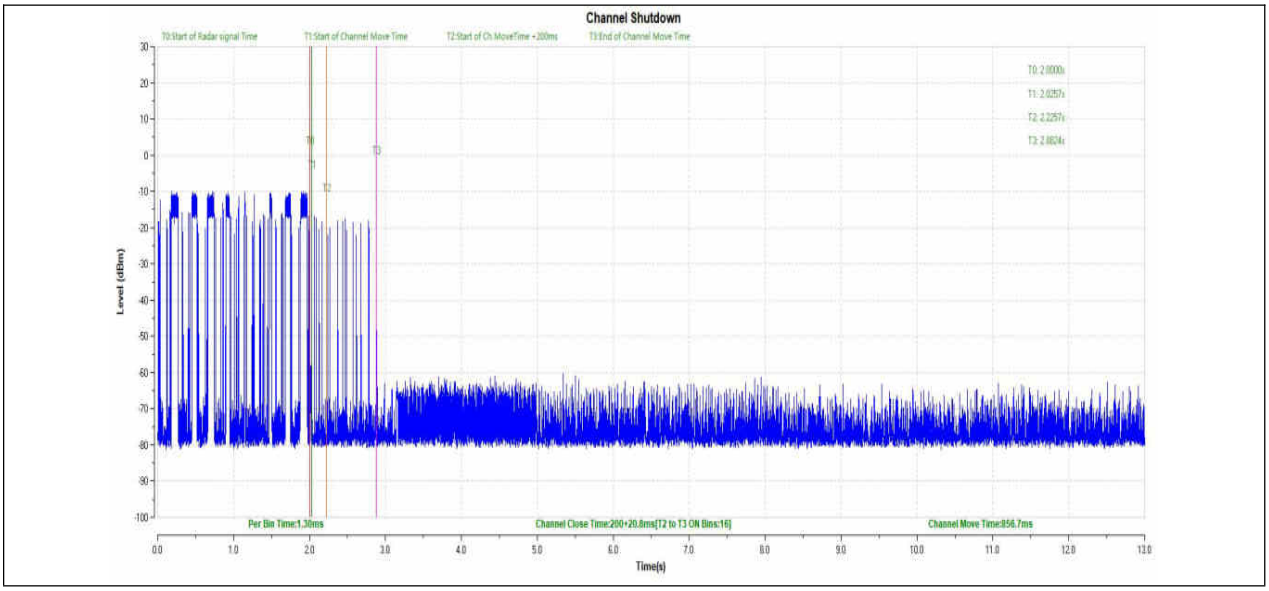
15.7. Test Result

BW/Channel	Test Item	Test Result	Limit	Results
40M/5270MHz	Channel Move Time	0.745	＜10s	pass
	Channel Closing Transmission Time	0.217	＜0.26s	pass
40M/5510MHz	Channel Move Time	0.857	＜10s	pass
	Channel Closing Transmission Time	0.221	＜0.26s	pass

11N40SISO_5270



11N40SISO_5510


Channel Shutdown
T0:Start of Radar signal Time
T1:Start of Channel Move Time
T2:Start of Ch.MoveTime +200ms
T3:End of Channel Move Time
T0: 2.0000s
T1: 2.0257s
T2: 2.2257s
T3: 2.8824s
Level (dBm)
Per Bin Time:1.30ms
Channel Close Time:200+20.8ms[T2 to T3 ON Bins:16]
Channel Move Time:856.7ms
Time(s)

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 antenna used for this product is FPC antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 5.85 dBi

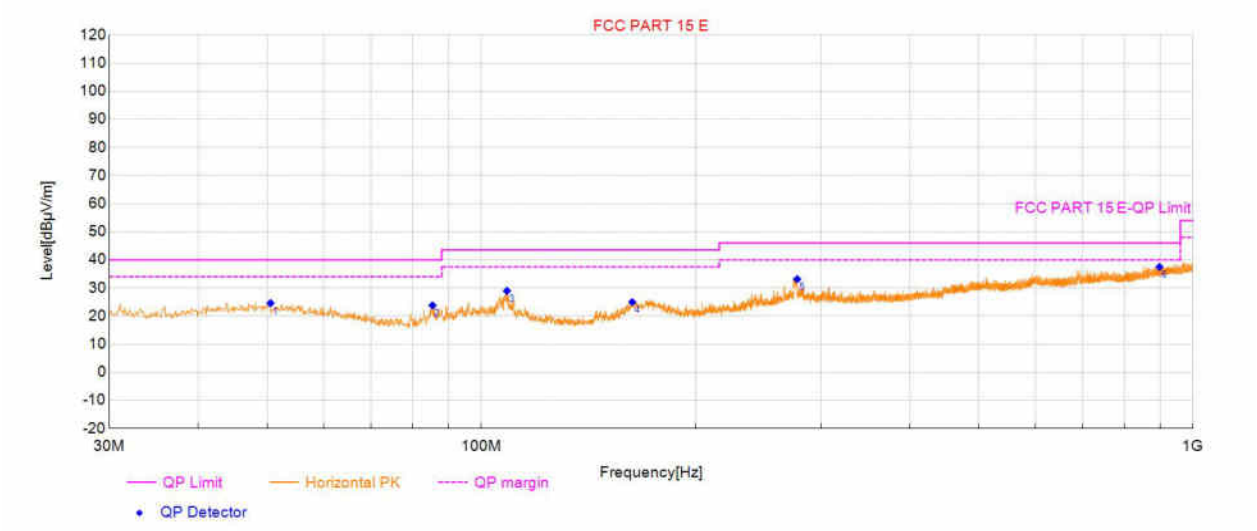
APPENDIX A – Radiated Emission Below 1GHz Test Data

Test Report

Project Information			
EUT:	Smart Projector		
Customer:			
Model:	N2mini	SN:	
Mode:	11A_5580	Voltage:	AC120V/60Hz
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set:2 0 4 13		
Test Standard: FCC PART 15 E			

Start of Test:2025-02-06 16:18:42

Test Graph



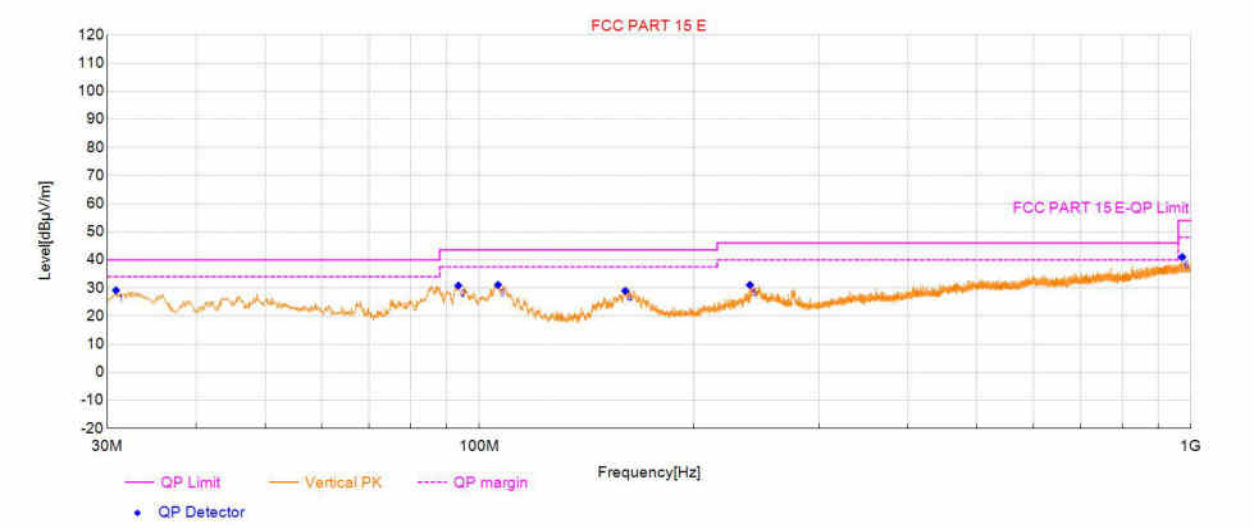
Final Data List								
NO.	Frequency (MHz)	QP Value (dBµV/m)	QP Limit (dBµV/m)	QP Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	50.5661	24.59	40.00	15.41	100	27	Horizontal	PASS
2	85.3925	23.78	40.00	16.22	100	358	Horizontal	PASS
3	108.6749	28.96	43.50	14.54	100	358	Horizontal	PASS
4	163.0003	24.98	43.50	18.52	100	294	Horizontal	PASS
5	277.8598	33.14	46.00	12.86	100	107	Horizontal	PASS
6	897.0727	37.47	46.00	8.53	100	272	Horizontal	PASS

Test Report

Project Information			
EUT:	Smart Projector		
Customer:			
Model:	N2mini	SN:	
Mode:	11A_5580	Voltage:	AC120V/60Hz
Environment:	Temp: 25℃; Humi:60%	Engineer:	
Remark:	Power Set:2 0 4 13		
Test Standard: FCC PART 15 E			

Start of Test:2025-02-06 16:19:24

Test Graph



Final Data List								
NO.	Frequency (MHz)	QP Value (dBµV/m)	QP Limit (dBµV/m)	QP Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	30.8731	29.12	40.00	10.88	100	146	Vertical	PASS
2	93.4443	30.83	43.50	12.67	100	219	Vertical	PASS
3	106.2496	31.10	43.50	12.40	100	359	Vertical	PASS
4	160.3810	28.98	43.50	14.52	100	223	Vertical	PASS
5	240.0260	31.07	46.00	14.93	100	188	Vertical	PASS
6	971.9642	41.01	54.00	12.99	100	331	Vertical	PASS

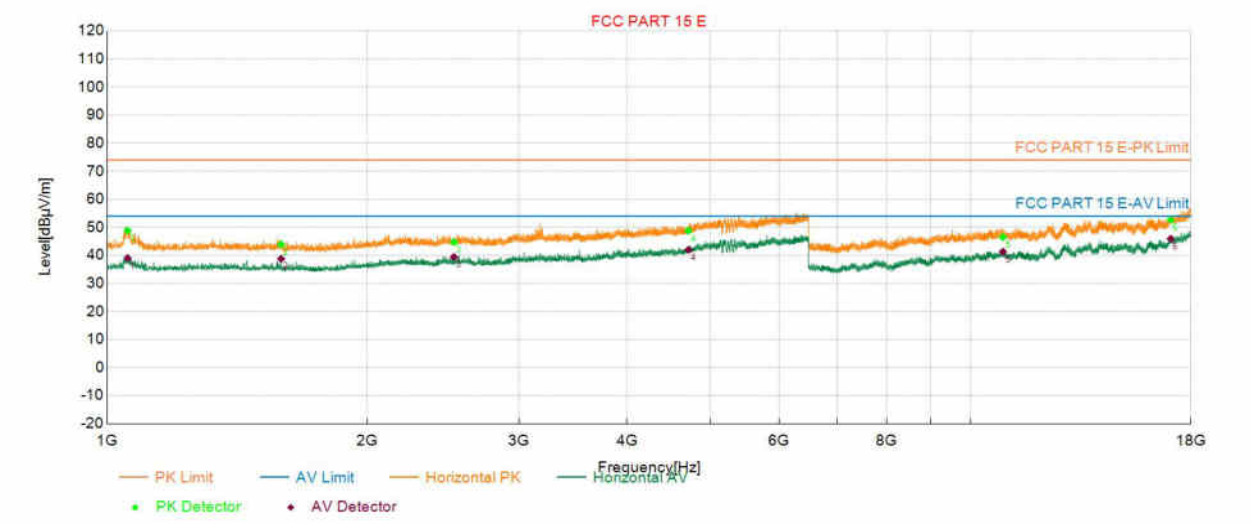
APPENDIX B – Radiated Emission Above 1GHz Test Data

Test Report

Project Information			
Customer:			
EUT:	Smart Projector		
Model:	N2mini	SN:	
Mode:	11A_5180	Voltage:	AC120V/60Hz
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set:2 0 4 13		
Test Standard: FCC PART 15 E			

Start of Test:2025-01-22 10:51:45

Test Graph



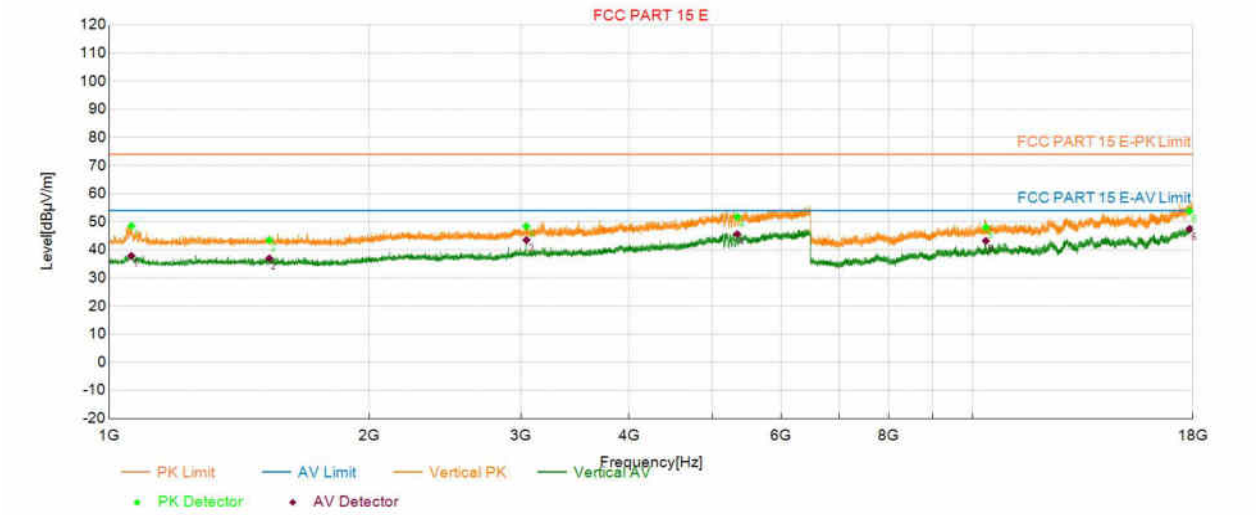
PK Final Data List										
NO.	Frequency (MHz)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1056.1056	48.84	74.00	25.16	39.03	54.00	14.97	150	37	Horizontal
2	1590.2090	43.94	74.00	30.06	38.80	54.00	15.20	150	0	Horizontal
3	2521.4521	44.74	74.00	29.26	39.43	54.00	14.57	150	343	Horizontal
4	4711.7712	48.76	74.00	25.24	41.99	54.00	12.01	150	52	Horizontal
5	10900.3400	46.51	74.00	27.49	41.30	54.00	12.70	150	234	Horizontal
6	17053.4553	52.62	74.00	21.38	45.93	54.00	8.07	150	170	Horizontal

Test Report

Project Information			
Customer:			
EUT:	Smart Projector		
Model:	N2mini	SN:	
Mode:	11A_5180	Voltage:	AC120V/60Hz
Environment:	Temp: 25℃; Humi:60%	Engineer:	Soho Liu
Remark:	Power Set:2 0 4 13		
Test Standard: FCC PART 15 E			

Start of Test:2025-01-22 10:53:04

Test Graph



PK Final Data List

NO.	Frequency (MHz)	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	1061.0561	48.54	74.00	25.46	37.86	54.00	16.14	150	300	Vertical
2	1533.0033	43.45	74.00	30.55	36.94	54.00	17.06	150	120	Vertical
3	3042.9043	48.36	74.00	25.64	43.48	54.00	10.52	150	358	Vertical
4	5338.8339	51.75	74.00	22.25	45.58	54.00	8.42	150	307	Vertical
5	10359.7860	47.99	74.00	26.01	43.20	54.00	10.80	150	189	Vertical
6	17837.8338	53.80	74.00	20.20	47.47	54.00	6.53	150	168	Vertical