



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755





Report No.: PTC22062406203E-FC04





11AC20SISO Ant1 5745



11AC20SISO Ant1 5785



11AC20SISO Ant1 5825



11AC40SISO Ant1 5190





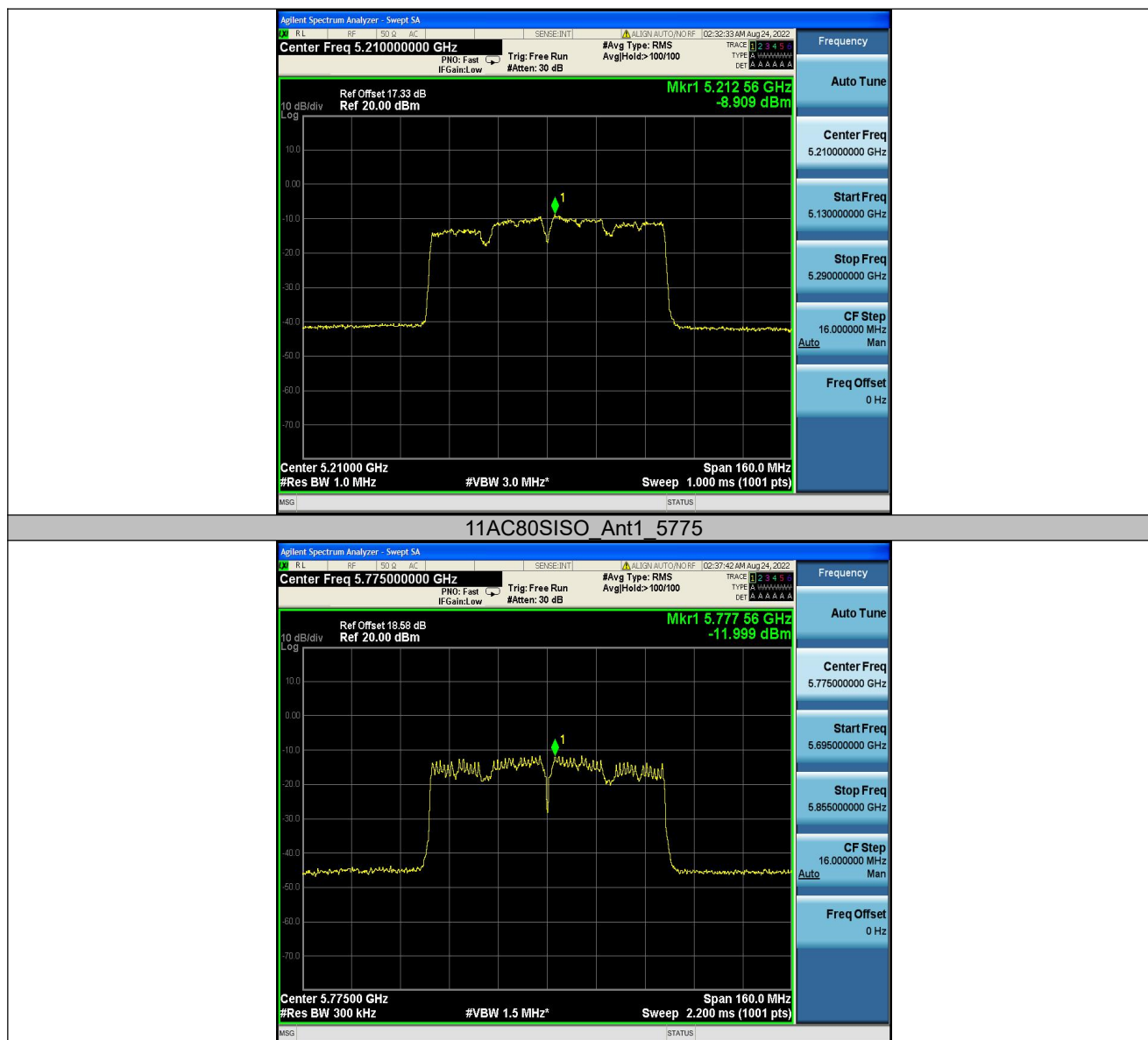
Report No.: PTC22062406203E-FC04



11AC40SISO Ant1 5795



11AC80SISO Ant1 5210



Note. The Duty Cycle Factor is included in the test graphs parameter Settings.



9.3 Antenna Requirement

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

9.4 Result

The EUT'S antenna, permanent attached antenna, is IFA Antenna. The antenna's gain is 5G WiFi Band 1: 2.37dBi, 5G WiFi Band 4: 3.74dBi and meets the requirement.



10 Frequency Stability

Test Requirement : FCC Part15 E Section 15.407 (g)

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

10.1 Test Procedure

1. The EUT is installed in an environment test chamber with external power source.
 2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
 3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
 4. When temperature is stabled, measure the frequency stability.
 5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage.
- Change setting of chamber and external power source to complete all conditions.

10.2 Test Result

Voltage								
TestMode	Antenna	Frequency [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	60000.00	11.583012	20	PASS
			LV	NT	60000.00	11.583012	20	PASS
			HV	NT	60000.00	11.583012	20	PASS
		5220	NV	NT	60000.00	11.494253	20	PASS
			LV	NT	60000.00	11.494253	20	PASS
			HV	NT	60000.00	11.494253	20	PASS
		5240	NV	NT	60000.00	11.450382	20	PASS
			LV	NT	60000.00	11.450382	20	PASS
			HV	NT	60000.00	11.450382	20	PASS
		5745	NV	NT	60000.00	10.443864	20	PASS
			LV	NT	60000.00	10.443864	20	PASS
			HV	NT	60000.00	10.443864	20	PASS
		5785	NV	NT	60000.00	10.371651	20	PASS
			LV	NT	60000.00	10.371651	20	PASS
			HV	NT	60000.00	10.371651	20	PASS
		5825	NV	NT	60000.00	10.300429	20	PASS
			LV	NT	60000.00	10.300429	20	PASS
			HV	NT	60000.00	10.300429	20	PASS
11N20SISO	Ant1	5180	NV	NT	60000.00	11.583012	20	PASS
			LV	NT	60000.00	11.583012	20	PASS
			HV	NT	60000.00	11.583012	20	PASS
		5220	NV	NT	60000.00	11.494253	20	PASS
			LV	NT	60000.00	11.494253	20	PASS
			HV	NT	60000.00	11.494253	20	PASS
		5240	NV	NT	60000.00	11.450382	20	PASS
			LV	NT	60000.00	11.450382	20	PASS
			HV	NT	60000.00	11.450382	20	PASS
		5745	NV	NT	60000.00	10.443864	20	PASS
			LV	NT	60000.00	10.443864	20	PASS
			HV	NT	60000.00	10.443864	20	PASS
		5785	NV	NT	60000.00	10.371651	20	PASS
			LV	NT	60000.00	10.371651	20	PASS
			HV	NT	60000.00	10.371651	20	PASS
			NV	NT	60000.00	10.371651	20	PASS
			LV	NT	60000.00	10.371651	20	PASS
			HV	NT	60000.00	10.371651	20	PASS



		5825	HV	NT	60000.00	10.371651	20	PASS
			NV	NT	60000.00	10.300429	20	PASS
			LV	NT	60000.00	10.300429	20	PASS
11N40SISO	Ant1	5190	HV	NT	60000.00	10.300429	20	PASS
			NV	NT	80000.00	15.414258	20	PASS
			LV	NT	80000.00	15.414258	20	PASS
		5230	HV	NT	80000.00	15.414258	20	PASS
			NV	NT	80000.00	15.296367	20	PASS
			LV	NT	80000.00	15.296367	20	PASS
		5755	HV	NT	80000.00	15.296367	20	PASS
			NV	NT	80000.00	13.900956	20	PASS
			LV	NT	80000.00	13.900956	20	PASS
		5795	HV	NT	80000.00	13.900956	20	PASS
			NV	NT	80000.00	13.805004	20	PASS
			LV	NT	80000.00	13.805004	20	PASS
11AC20SISO	Ant1	5180	HV	NT	80000.00	13.805004	20	PASS
			NV	NT	60000.00	11.583012	20	PASS
			LV	NT	60000.00	11.583012	20	PASS
		5220	HV	NT	60000.00	11.583012	20	PASS
			NV	NT	60000.00	11.494253	20	PASS
			LV	NT	60000.00	11.494253	20	PASS
		5240	HV	NT	60000.00	11.494253	20	PASS
			NV	NT	60000.00	11.450382	20	PASS
			LV	NT	60000.00	11.450382	20	PASS
		5745	HV	NT	60000.00	11.450382	20	PASS
			NV	NT	60000.00	10.443864	20	PASS
			LV	NT	60000.00	10.443864	20	PASS
		5785	HV	NT	60000.00	10.443864	20	PASS
			NV	NT	60000.00	10.371651	20	PASS
			LV	NT	60000.00	10.371651	20	PASS
11AC40SISO	Ant1	5190	HV	NT	60000.00	10.371651	20	PASS
			NV	NT	80000.00	10.300429	20	PASS
			LV	NT	80000.00	10.300429	20	PASS
		5230	HV	NT	80000.00	10.300429	20	PASS
			NV	NT	80000.00	15.296367	20	PASS
			LV	NT	80000.00	15.296367	20	PASS
		5755	HV	NT	80000.00	15.296367	20	PASS
			NV	NT	80000.00	13.900956	20	PASS
			LV	NT	80000.00	13.900956	20	PASS
11AC80SISO	Ant1	5210	HV	NT	80000.00	13.900956	20	PASS
			NV	NT	80000.00	13.805004	20	PASS
			LV	NT	80000.00	13.805004	20	PASS
		5775	HV	NT	80000.00	13.805004	20	PASS
			NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS



TestMode	Antenna	Channel	Temperature					
			Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	40000.00	7.722008	20	PASS
			NV	-20	40000.00	7.722008	20	PASS
			NV	-10	40000.00	7.722008	20	PASS
			NV	0	40000.00	7.722008	20	PASS
			NV	10	40000.00	7.722008	20	PASS
			NV	20	40000.00	7.722008	20	PASS
			NV	30	40000.00	7.722008	20	PASS
			NV	40	40000.00	7.722008	20	PASS
		5220	NV	50	40000.00	7.722008	20	PASS
			NV	-30	40000.00	7.662835	20	PASS
			NV	-20	40000.00	7.662835	20	PASS
			NV	-10	40000.00	7.662835	20	PASS
			NV	0	40000.00	7.662835	20	PASS
			NV	10	40000.00	7.662835	20	PASS
			NV	20	40000.00	7.662835	20	PASS
			NV	30	40000.00	7.662835	20	PASS
		5240	NV	40	40000.00	7.662835	20	PASS
			NV	50	40000.00	7.662835	20	PASS
			NV	-30	40000.00	7.633588	20	PASS
			NV	-20	40000.00	7.633588	20	PASS
			NV	-10	40000.00	7.633588	20	PASS
			NV	0	40000.00	7.633588	20	PASS
			NV	10	40000.00	7.633588	20	PASS
			NV	20	40000.00	7.633588	20	PASS
		5745	NV	30	40000.00	7.633588	20	PASS
			NV	40	40000.00	7.633588	20	PASS
			NV	50	40000.00	7.633588	20	PASS
			NV	-30	40000.00	6.962576	20	PASS
			NV	-20	40000.00	6.962576	20	PASS
			NV	-10	40000.00	6.962576	20	PASS
			NV	0	40000.00	6.962576	20	PASS
			NV	10	40000.00	6.962576	20	PASS
		5785	NV	20	40000.00	6.962576	20	PASS
			NV	30	40000.00	6.962576	20	PASS
			NV	40	40000.00	6.962576	20	PASS
			NV	50	40000.00	6.962576	20	PASS
			NV	-30	40000.00	6.914434	20	PASS
			NV	-20	40000.00	6.914434	20	PASS
			NV	-10	40000.00	6.914434	20	PASS
			NV	0	40000.00	6.914434	20	PASS
		5825	NV	10	40000.00	6.914434	20	PASS
			NV	20	40000.00	6.914434	20	PASS
			NV	30	40000.00	6.914434	20	PASS
			NV	40	40000.00	6.914434	20	PASS
			NV	50	40000.00	6.914434	20	PASS
			NV	-30	40000.00	6.866953	20	PASS
		5825	NV	-20	40000.00	6.866953	20	PASS
			NV	-10	40000.00	6.866953	20	PASS
			NV	0	40000.00	6.866953	20	PASS
			NV	10	40000.00	6.866953	20	PASS
			NV	20	40000.00	6.866953	20	PASS
			NV	20	40000.00	6.866953	20	PASS



			NV	30	40000.00	6.866953	20	PASS
			NV	40	40000.00	6.866953	20	PASS
			NV	50	40000.00	6.866953	20	PASS
11N20SISO	Ant1	5180	NV	-30	40000.00	7.722008	20	PASS
			NV	-20	40000.00	7.722008	20	PASS
			NV	-10	40000.00	7.722008	20	PASS
			NV	0	40000.00	7.722008	20	PASS
			NV	10	40000.00	7.722008	20	PASS
			NV	20	40000.00	7.722008	20	PASS
			NV	30	40000.00	7.722008	20	PASS
			NV	40	40000.00	7.722008	20	PASS
			NV	50	40000.00	7.722008	20	PASS
			NV	-30	40000.00	7.662835	20	PASS
		5220	NV	-20	40000.00	7.662835	20	PASS
			NV	-10	40000.00	7.662835	20	PASS
			NV	0	40000.00	7.662835	20	PASS
			NV	10	40000.00	7.662835	20	PASS
			NV	20	40000.00	7.662835	20	PASS
			NV	30	40000.00	7.662835	20	PASS
			NV	40	40000.00	7.662835	20	PASS
			NV	50	40000.00	7.662835	20	PASS
		5240	NV	-30	40000.00	7.633588	20	PASS
			NV	-20	40000.00	7.633588	20	PASS
			NV	-10	40000.00	7.633588	20	PASS
			NV	0	40000.00	7.633588	20	PASS
			NV	10	40000.00	7.633588	20	PASS
			NV	20	40000.00	7.633588	20	PASS
			NV	30	40000.00	7.633588	20	PASS
			NV	40	40000.00	7.633588	20	PASS
		5745	NV	-30	40000.00	6.962576	20	PASS
			NV	-20	40000.00	6.962576	20	PASS
			NV	-10	40000.00	6.962576	20	PASS
			NV	0	40000.00	6.962576	20	PASS
			NV	10	40000.00	6.962576	20	PASS
			NV	20	40000.00	6.962576	20	PASS
			NV	30	40000.00	6.962576	20	PASS
			NV	40	40000.00	6.962576	20	PASS
		5785	NV	-30	40000.00	6.914434	20	PASS
			NV	-20	40000.00	6.914434	20	PASS
			NV	-10	40000.00	6.914434	20	PASS
			NV	0	40000.00	6.914434	20	PASS
			NV	10	40000.00	6.914434	20	PASS
			NV	20	40000.00	6.914434	20	PASS
			NV	30	40000.00	6.914434	20	PASS
			NV	40	40000.00	6.914434	20	PASS
		5825	NV	50	40000.00	6.914434	20	PASS
			NV	-30	40000.00	6.866953	20	PASS
			NV	-20	40000.00	6.866953	20	PASS
			NV	-10	40000.00	6.866953	20	PASS
			NV	0	40000.00	6.866953	20	PASS
			NV	10	40000.00	6.866953	20	PASS
			NV	20	40000.00	6.866953	20	PASS
			NV	30	40000.00	6.866953	20	PASS
			NV	40	40000.00	6.866953	20	PASS



			NV	50	40000.00	6.866953	20	PASS
11N40SISO	Ant1	5190	NV	-30	40000.00	7.707129	20	PASS
			NV	-20	40000.00	7.707129	20	PASS
			NV	-10	40000.00	7.707129	20	PASS
			NV	0	40000.00	7.707129	20	PASS
			NV	10	40000.00	7.707129	20	PASS
			NV	20	40000.00	7.707129	20	PASS
			NV	30	40000.00	7.707129	20	PASS
			NV	40	40000.00	7.707129	20	PASS
			NV	50	40000.00	7.707129	20	PASS
		5230	NV	-30	40000.00	7.648184	20	PASS
			NV	-20	40000.00	7.648184	20	PASS
			NV	-10	40000.00	7.648184	20	PASS
			NV	0	40000.00	7.648184	20	PASS
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			NV	30	40000.00	7.648184	20	PASS
			NV	40	40000.00	7.648184	20	PASS
			NV	50	40000.00	7.648184	20	PASS
		5755	NV	-30	40000.00	6.950478	20	PASS
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			NV	50	40000.00	6.950478	20	PASS
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			NV	-10	40000.00	6.902502	20	PASS
			NV	0	40000.00	6.902502	20	PASS
			NV	10	40000.00	6.902502	20	PASS
			NV	20	40000.00	6.902502	20	PASS
			NV	30	40000.00	6.902502	20	PASS
			NV	40	40000.00	6.902502	20	PASS
			NV	50	40000.00	6.902502	20	PASS
11AC20SISO	Ant1	5180	NV	-30	40000.00	7.722008	20	PASS
			NV	-20	40000.00	7.722008	20	PASS
			NV	-10	40000.00	7.722008	20	PASS
			NV	0	40000.00	7.722008	20	PASS
			NV	10	40000.00	7.722008	20	PASS
			NV	20	40000.00	7.722008	20	PASS
			NV	30	40000.00	7.722008	20	PASS
			NV	40	40000.00	7.722008	20	PASS
		5220	NV	50	40000.00	7.722008	20	PASS
			NV	-30	40000.00	7.662835	20	PASS
			NV	-20	40000.00	7.662835	20	PASS
			NV	-10	40000.00	7.662835	20	PASS
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			NV	10	40000.00	7.662835	20	PASS
			NV	20	40000.00	7.662835	20	PASS
			NV	30	40000.00	7.662835	20	PASS
			NV	40	40000.00	7.662835	20	PASS
			NV	50	40000.00	7.662835	20	PASS
		5240	NV	-30	40000.00	7.633588	20	PASS



			NV	-20	40000.00	7.633588	20	PASS
			NV	-10	40000.00	7.633588	20	PASS
			NV	0	40000.00	7.633588	20	PASS
			NV	10	40000.00	7.633588	20	PASS
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			NV	30	40000.00	7.633588	20	PASS
			NV	40	40000.00	7.633588	20	PASS
			NV	50	40000.00	7.633588	20	PASS
		5745	NV	-30	40000.00	6.962576	20	PASS
			NV	-20	40000.00	6.962576	20	PASS
			NV	-10	40000.00	6.962576	20	PASS
			NV	0	40000.00	6.962576	20	PASS
			NV	10	40000.00	6.962576	20	PASS
			NV	20	40000.00	6.962576	20	PASS
			NV	30	40000.00	6.962576	20	PASS
			NV	40	40000.00	6.962576	20	PASS
			NV	50	40000.00	6.962576	20	PASS
		5785	NV	-30	40000.00	6.914434	20	PASS
			NV	-20	40000.00	6.914434	20	PASS
			NV	-10	40000.00	6.914434	20	PASS
			NV	0	40000.00	6.914434	20	PASS
			NV	10	40000.00	6.914434	20	PASS
			NV	20	40000.00	6.914434	20	PASS
			NV	30	40000.00	6.914434	20	PASS
			NV	40	40000.00	6.914434	20	PASS
			NV	50	40000.00	6.914434	20	PASS
		5825	NV	-30	40000.00	6.866953	20	PASS
			NV	-20	40000.00	6.866953	20	PASS
			NV	-10	40000.00	6.866953	20	PASS
			NV	0	40000.00	6.866953	20	PASS
			NV	10	40000.00	6.866953	20	PASS
			NV	20	40000.00	6.866953	20	PASS
			NV	30	40000.00	6.866953	20	PASS
			NV	40	40000.00	6.866953	20	PASS
			NV	50	40000.00	6.866953	20	PASS
11AC40SIS O	Ant1	5190	NV	-30	40000.00	7.707129	20	PASS
			NV	-20	40000.00	7.707129	20	PASS
			NV	-10	40000.00	7.707129	20	PASS
			NV	0	40000.00	7.707129	20	PASS
			NV	10	40000.00	7.707129	20	PASS
			NV	20	40000.00	7.707129	20	PASS
			NV	30	40000.00	7.707129	20	PASS
			NV	40	40000.00	7.707129	20	PASS
			NV	50	40000.00	7.707129	20	PASS
		5230	NV	-30	40000.00	7.648184	20	PASS
			NV	-20	40000.00	7.648184	20	PASS
			NV	-10	40000.00	7.648184	20	PASS
			NV	0	40000.00	7.648184	20	PASS
			NV	10	40000.00	7.648184	20	PASS
			NV	20	40000.00	7.648184	20	PASS
			NV	30	40000.00	7.648184	20	PASS
			NV	40	40000.00	7.648184	20	PASS
			NV	50	40000.00	7.648184	20	PASS
		5755	NV	-30	40000.00	6.950478	20	PASS
			NV	-20	40000.00	6.950478	20	PASS
			NV	-10	40000.00	6.950478	20	PASS



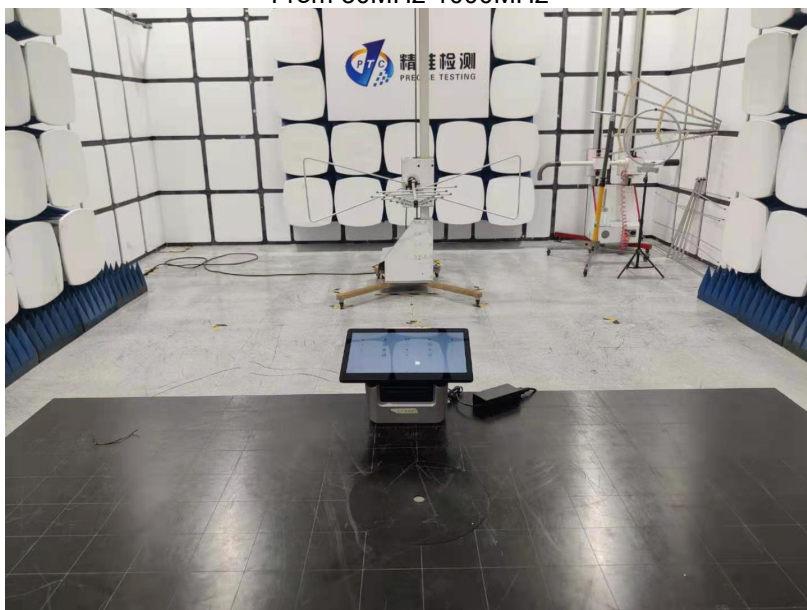
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			NV	30	40000.00	6.950478	20	PASS
			NV	40	40000.00	6.950478	20	PASS
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		5795	NV	-30	40000.00	6.902502	20	PASS
			NV	-20	40000.00	6.902502	20	PASS
			NV	-10	40000.00	6.902502	20	PASS
			NV	0	40000.00	6.902502	20	PASS
			NV	10	40000.00	6.902502	20	PASS
			NV	20	40000.00	6.902502	20	PASS
			NV	30	40000.00	6.902502	20	PASS
			NV	40	40000.00	6.902502	20	PASS
			NV	50	40000.00	6.902502	20	PASS
11AC80SIS O	Ant1	5210	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
		5775	NV	50	0.00	0.000000	20	PASS
			NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS

11 Test Setup

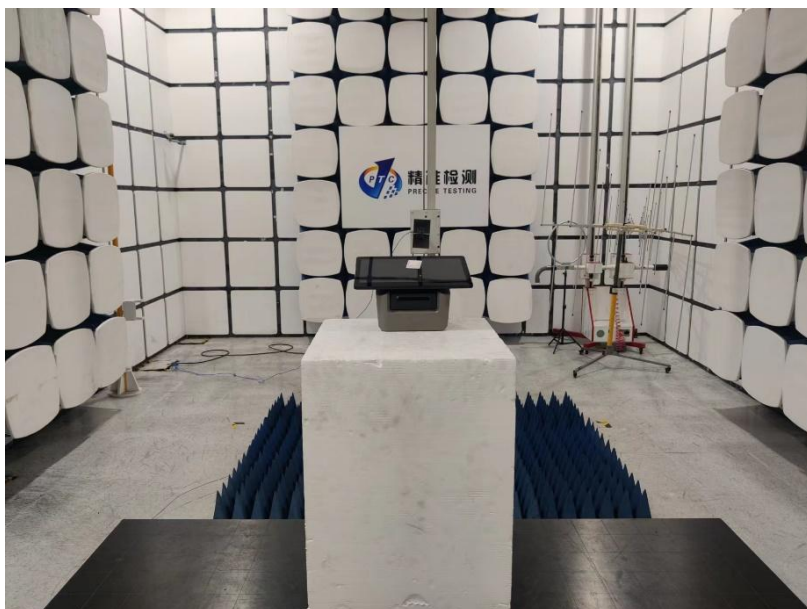
Conducted Emissions



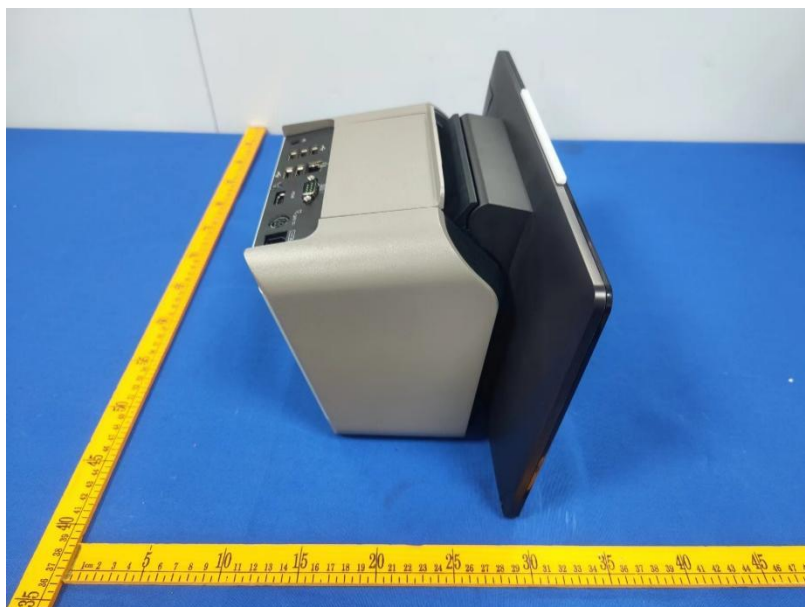
Radiated Spurious Emissions
From 30MHz-1000MHz

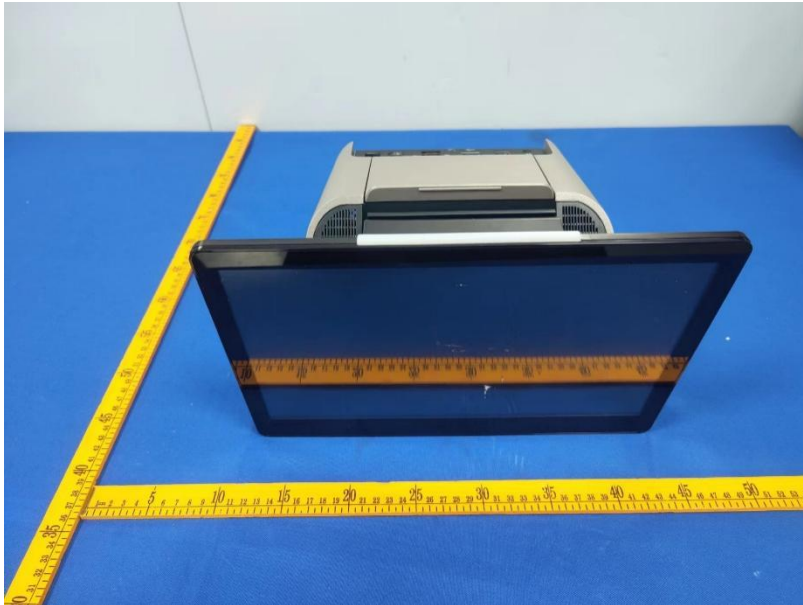


Test frequency from Above 1GHz



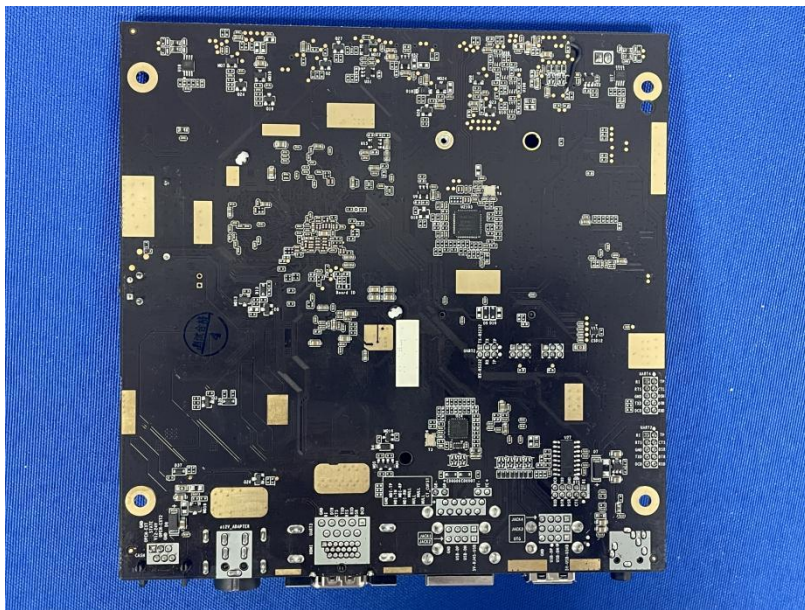
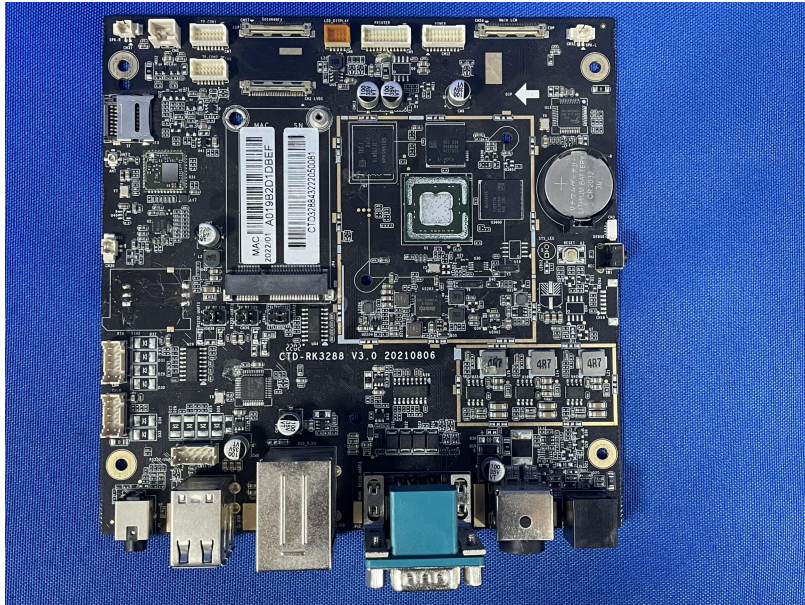
12 EUT PHOTOS

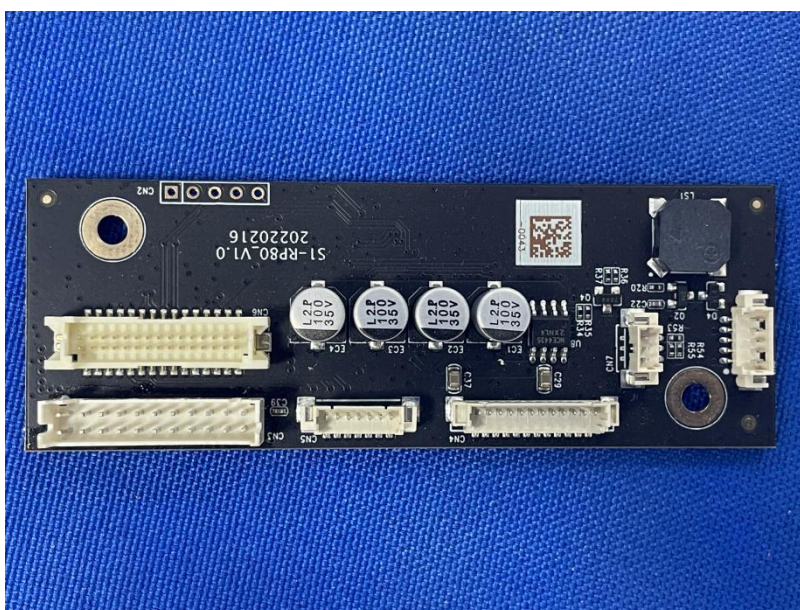
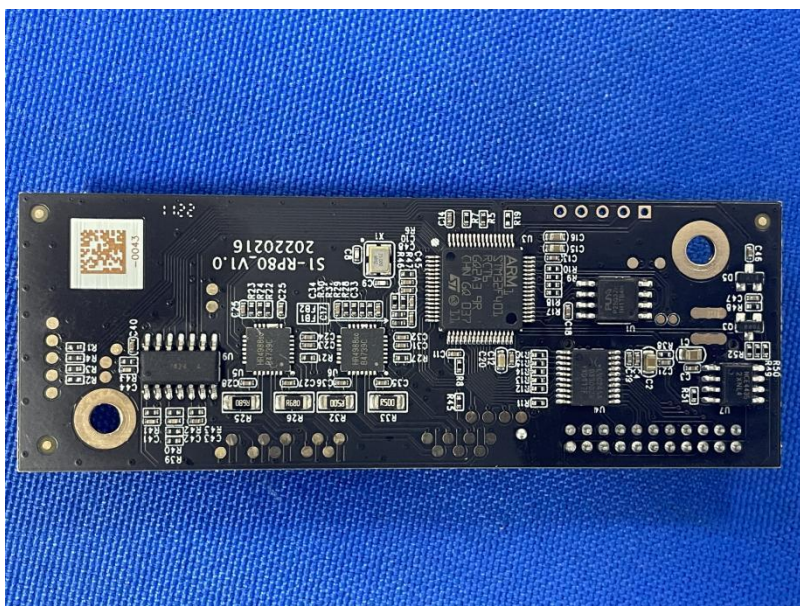














*******THE END REPORT*******