Appendix E

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: Smart TV Box

Test Model: T95PLUS

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan

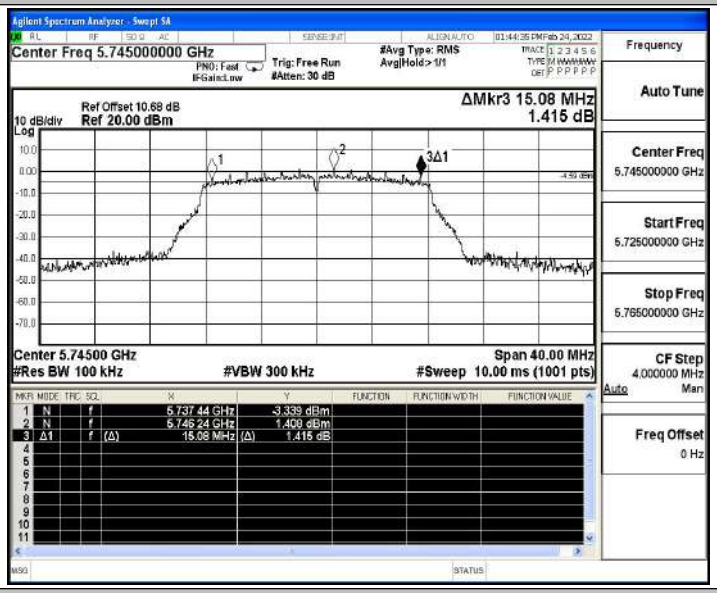
E.1 Min emission bandwidth

Test Result

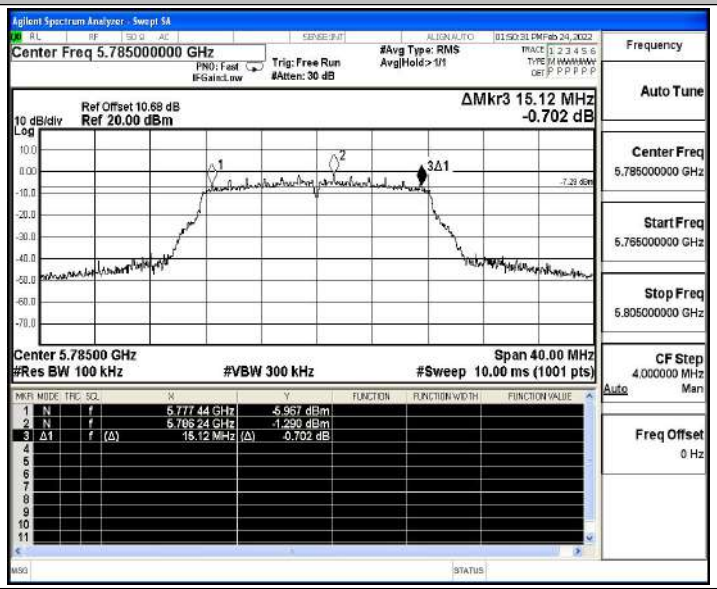
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.080	5737.440	5752.520	0.5	PASS
		5785	15.120	5777.440	5792.560	0.5	PASS
		5825	15.080	5817.440	5832.520	0.5	PASS
11N20SISO	Ant1	5745	15.120	5737.440	5752.560	0.5	PASS
		5785	15.120	5777.440	5792.560	0.5	PASS
		5825	15.120	5817.440	5832.560	0.5	PASS
11N40SISO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
		5795	35.040	5777.480	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	15.080	5737.440	5752.520	0.5	PASS
		5785	15.080	5777.440	5792.520	0.5	PASS
		5825	15.080	5817.480	5832.560	0.5	PASS
11AC40SISO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
		5795	35.040	5777.480	5812.520	0.5	PASS
11AC80SISO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS

Test Graphs

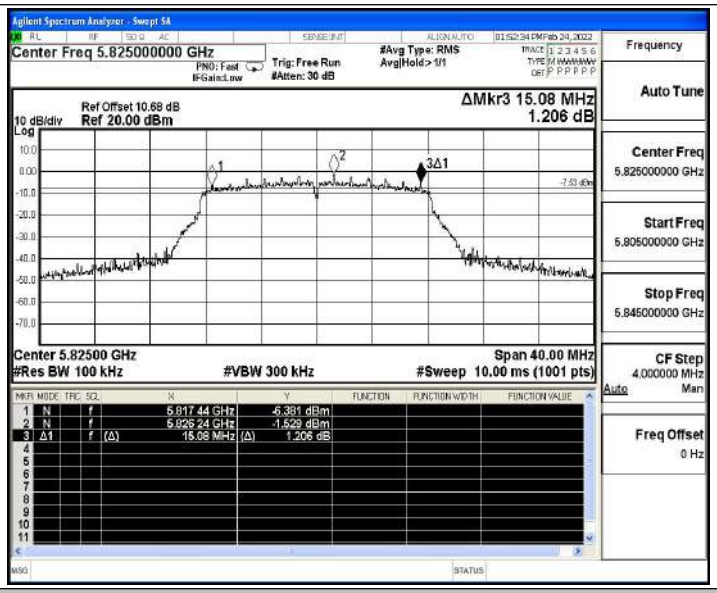
11A_Ant1_5745



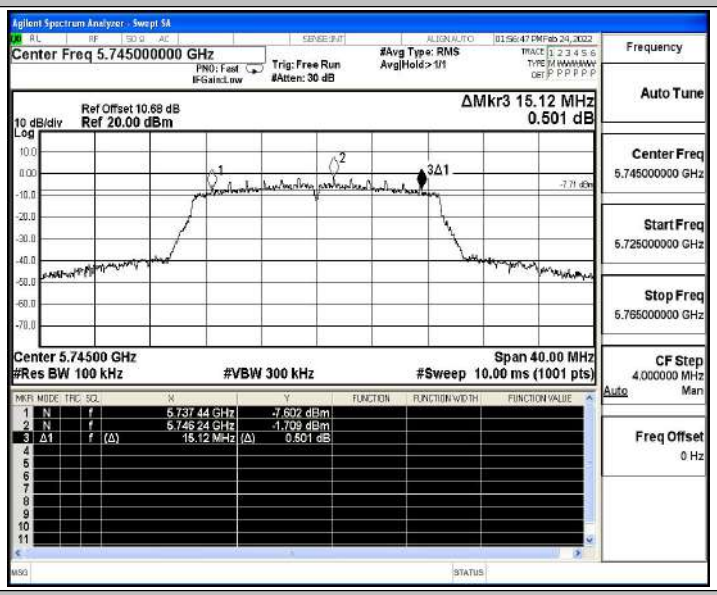
11A_Ant1_5785



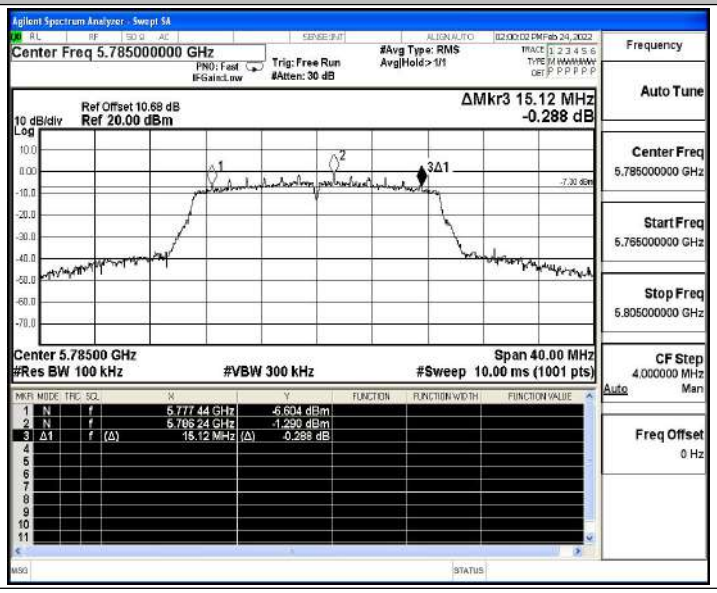
11A_Ant1_5825



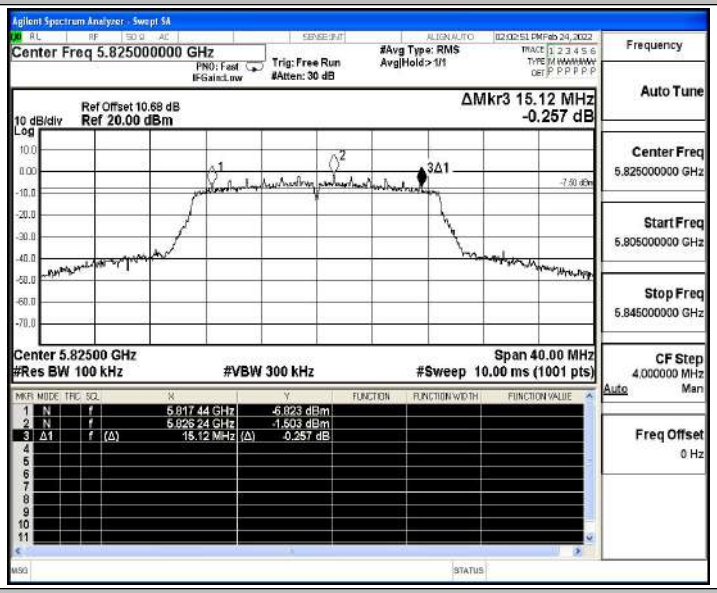
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



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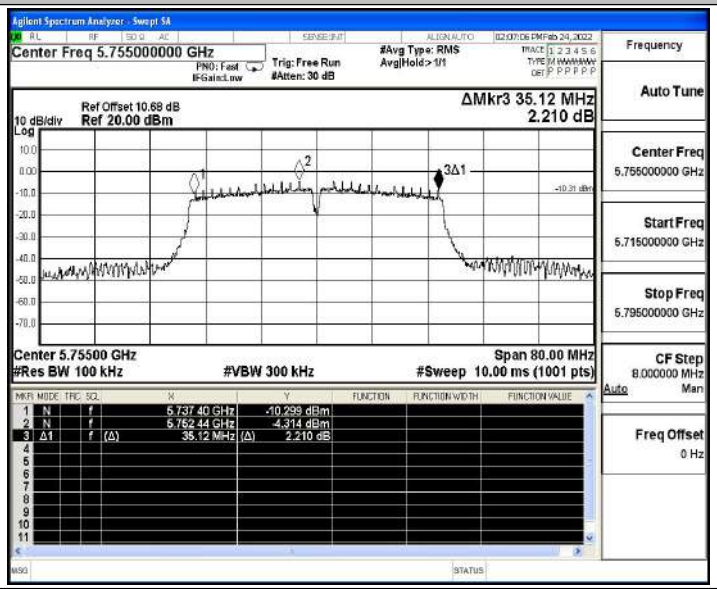
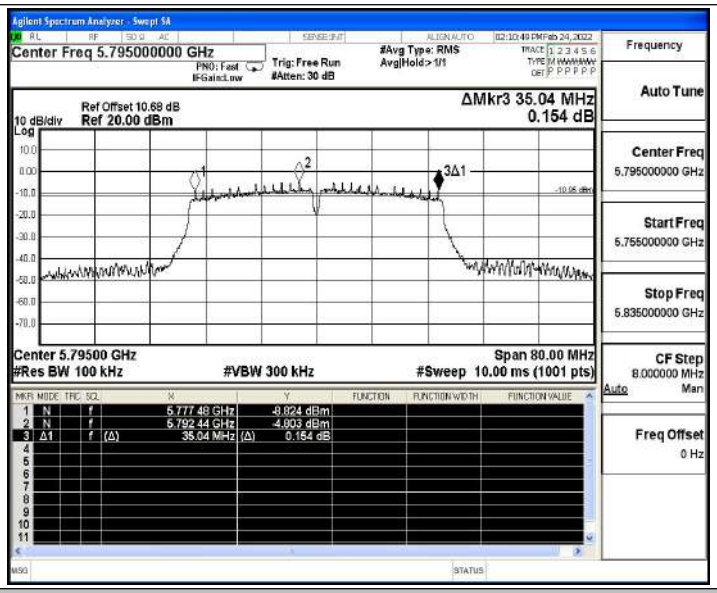
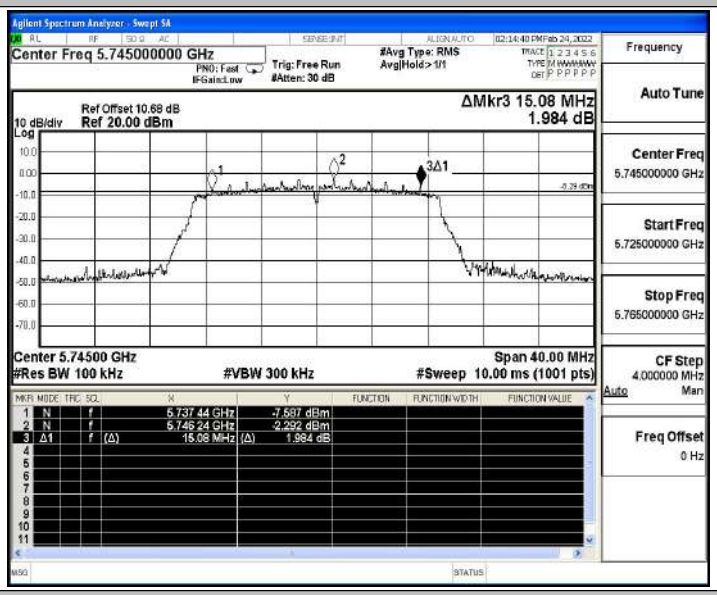


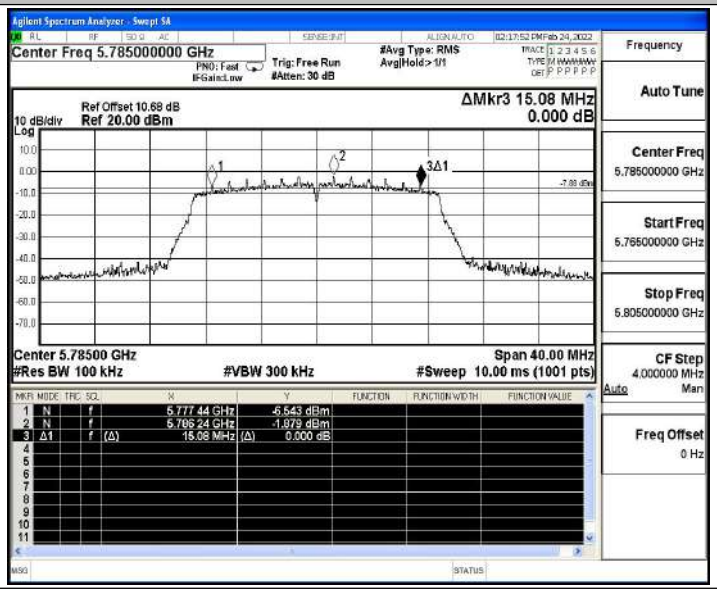
11N40SISO_Ant1_5795



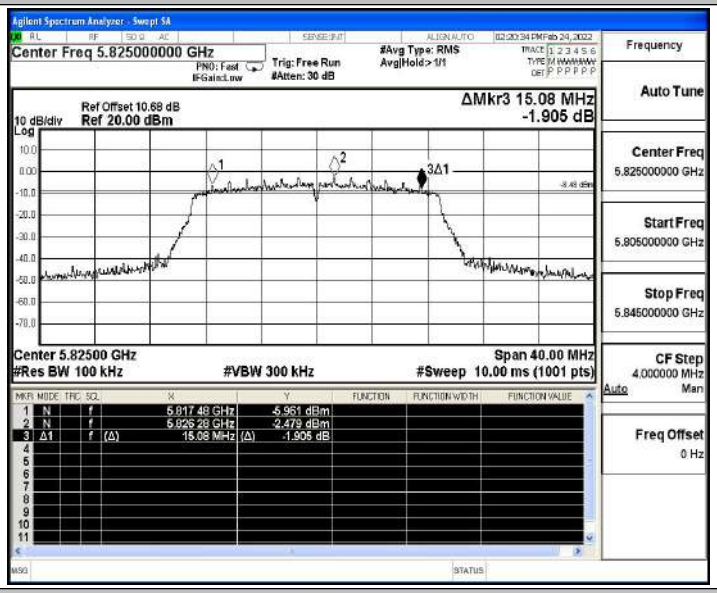
11AC20SISO_Ant1_5745



11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



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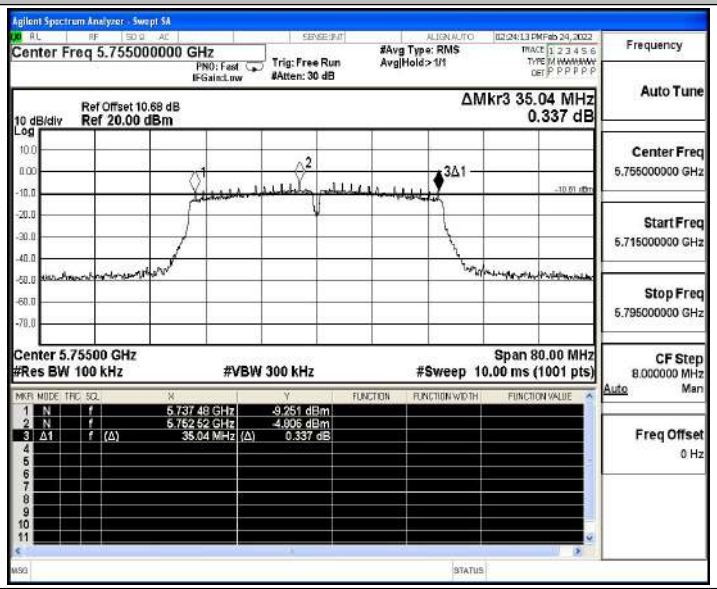
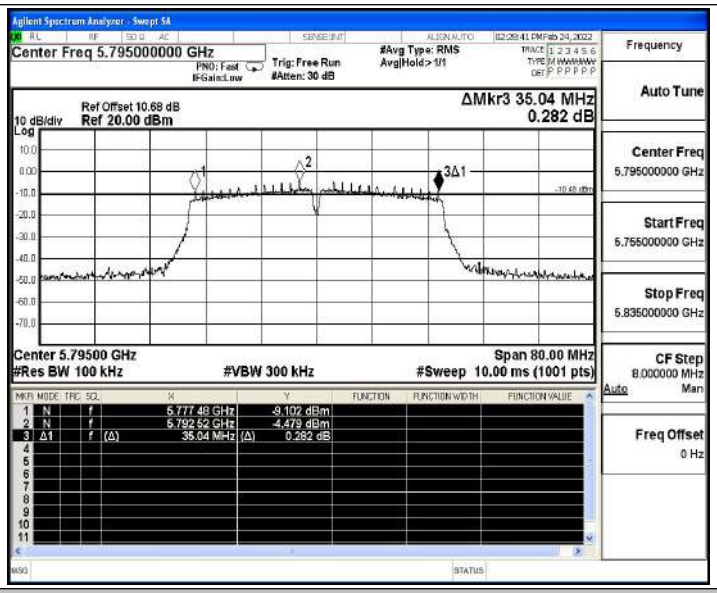
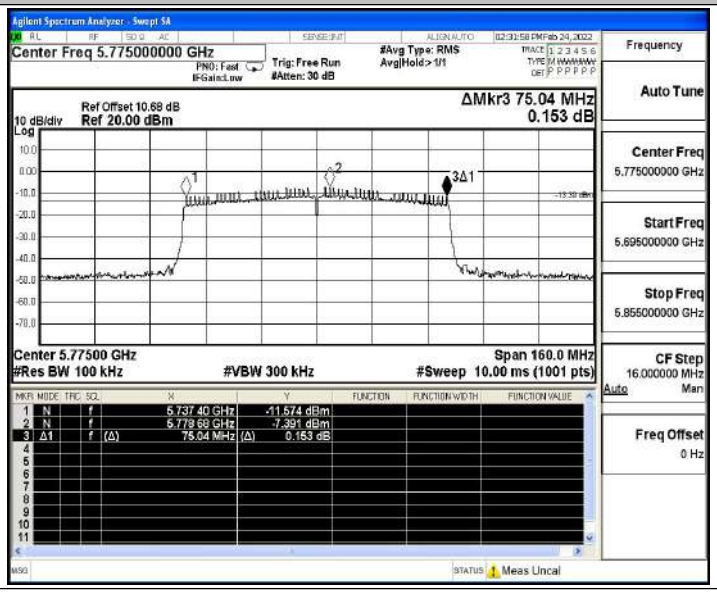


11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



E.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5745	8.95	≤30.00	PASS
		5785	9.17	≤30.00	PASS
		5825	8.96	≤30.00	PASS
11N20SISO	Ant1	5745	8.70	≤30.00	PASS
		5785	9.04	≤30.00	PASS
		5825	8.87	≤30.00	PASS
11N40SISO	Ant1	5755	8.77	≤30.00	PASS
		5795	8.41	≤30.00	PASS
11AC20SISO	Ant1	5745	8.15	≤30.00	PASS
		5785	8.48	≤30.00	PASS
		5825	8.31	≤30.00	PASS
11AC40SISO	Ant1	5755	8.24	≤30.00	PASS
		5795	8.50	≤30.00	PASS
11AC80SISO	Ant1	5775	8.27	≤30.00	PASS

Note：The Duty Cycle Factor is compensated in the graph.

E.3 Maximum power spectral density

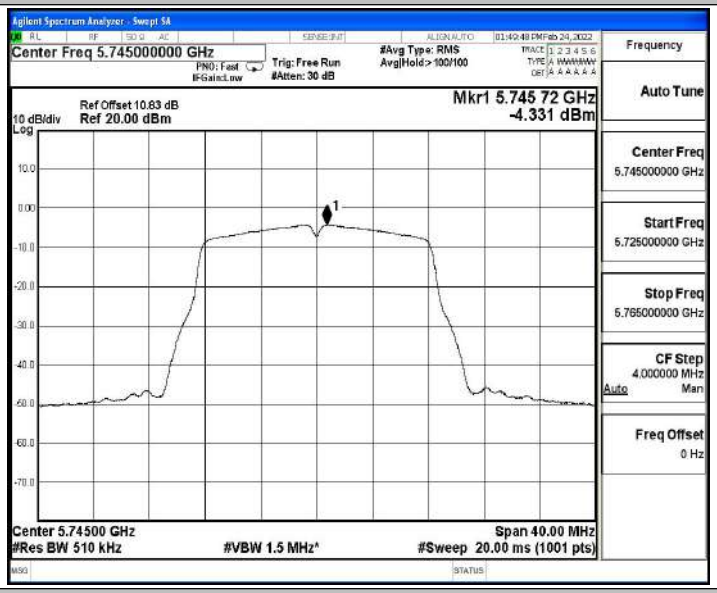
Test Result

TestMode	Antenna	Channel	Result [dBm/500kHz]	Limit[dBm/500kHz]	Verdict
11A	Ant1	5745	-4.33	≤30.00	PASS
		5785	-3.87	≤30.00	PASS
		5825	-4.2	≤30.00	PASS
11N20SISO	Ant1	5745	-4.66	≤30.00	PASS
		5785	-4.32	≤30.00	PASS
		5825	-4.53	≤30.00	PASS
11N40SISO	Ant1	5755	-7.6	≤30.00	PASS
		5795	-7.96	≤30.00	PASS
11AC20SISO	Ant1	5745	-5.12	≤30.00	PASS
		5785	-4.86	≤30.00	PASS
		5825	-5.09	≤30.00	PASS
11AC40SISO	Ant1	5755	-8.19	≤30.00	PASS
		5795	-7.7	≤30.00	PASS
11AC80SISO	Ant1	5775	-11.17	≤30.00	PASS

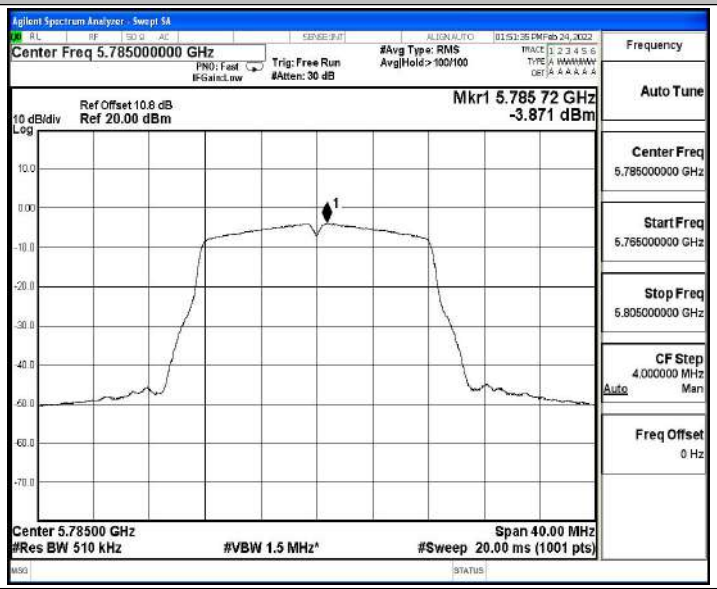
Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

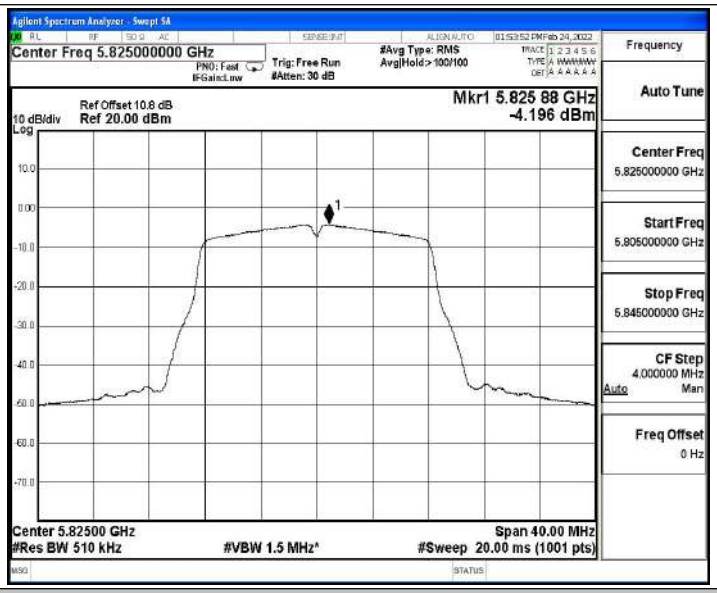
11A_Ant1_5745



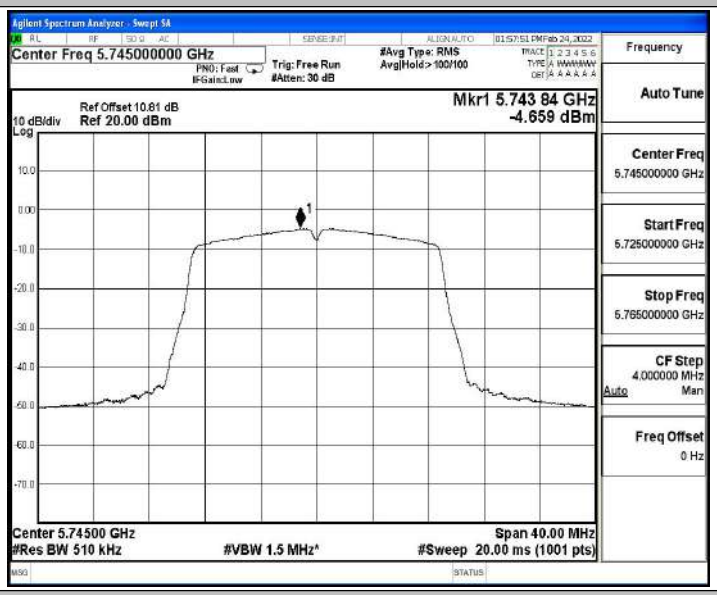
11A_Ant1_5785



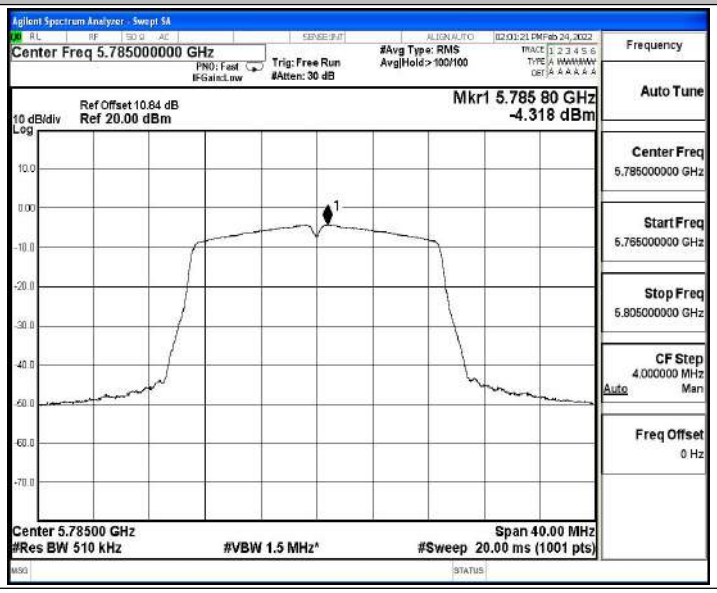
11A_Ant1_5825



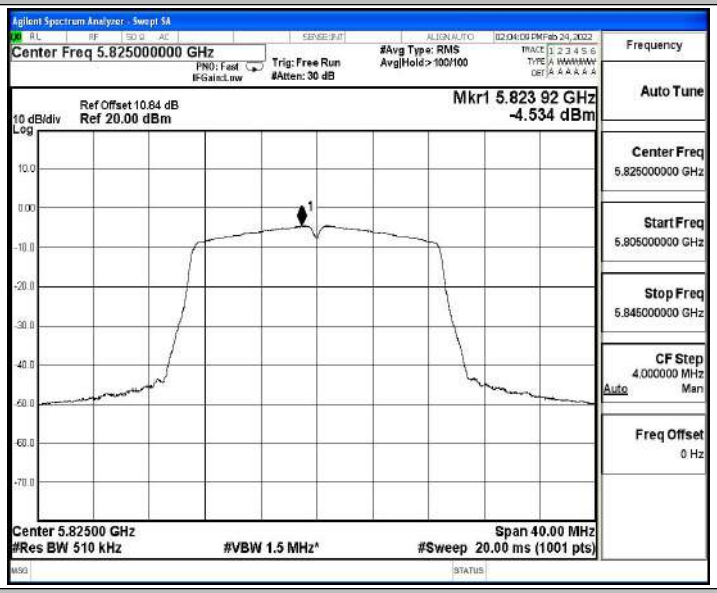
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



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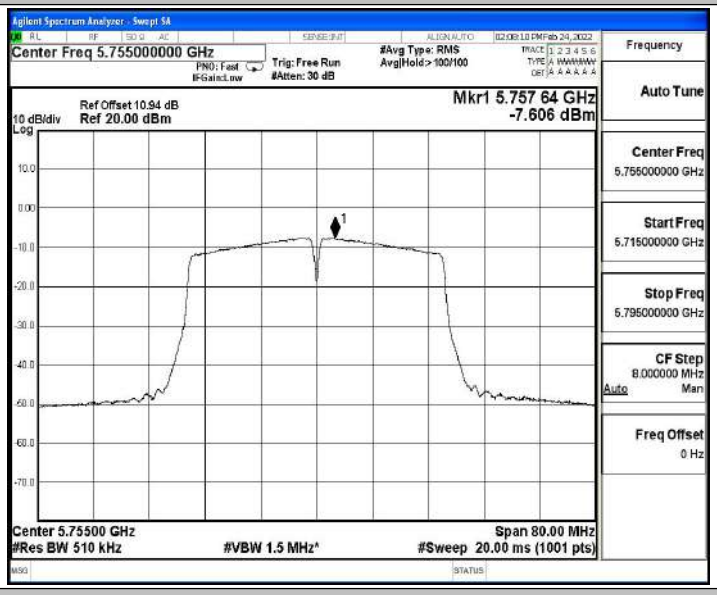
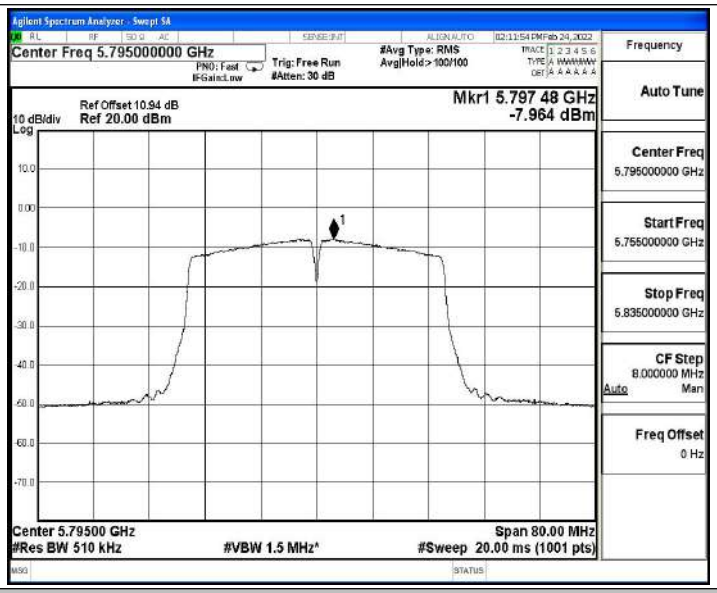
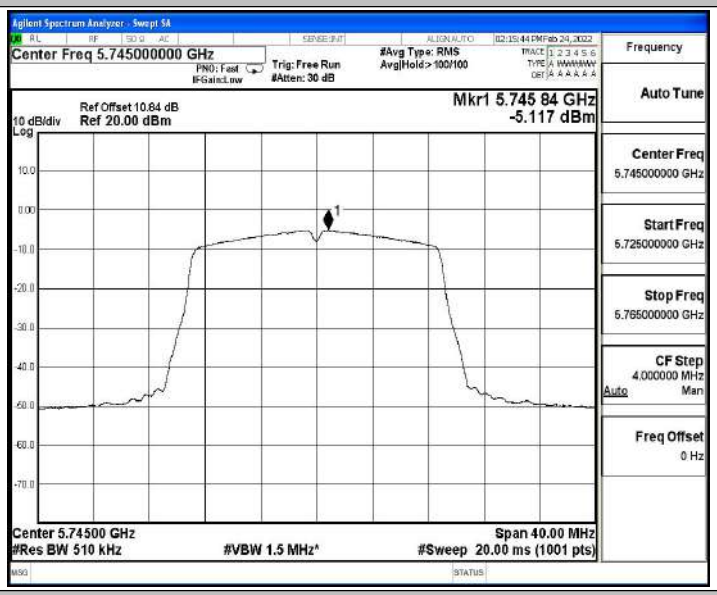


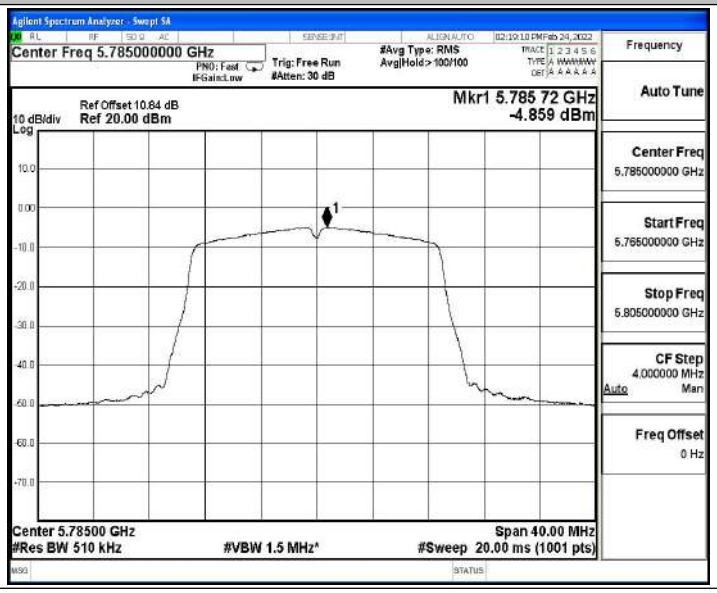
11N40SISO_Ant1_5795



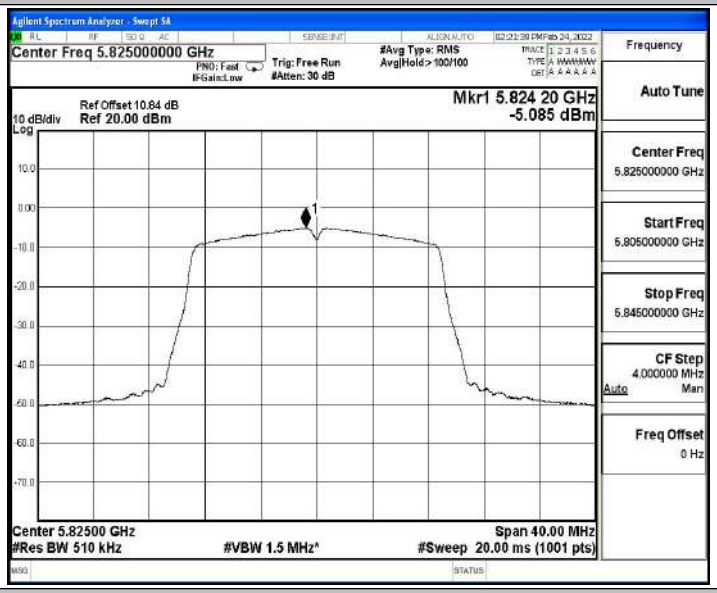
11AC20SISO_Ant1_5745



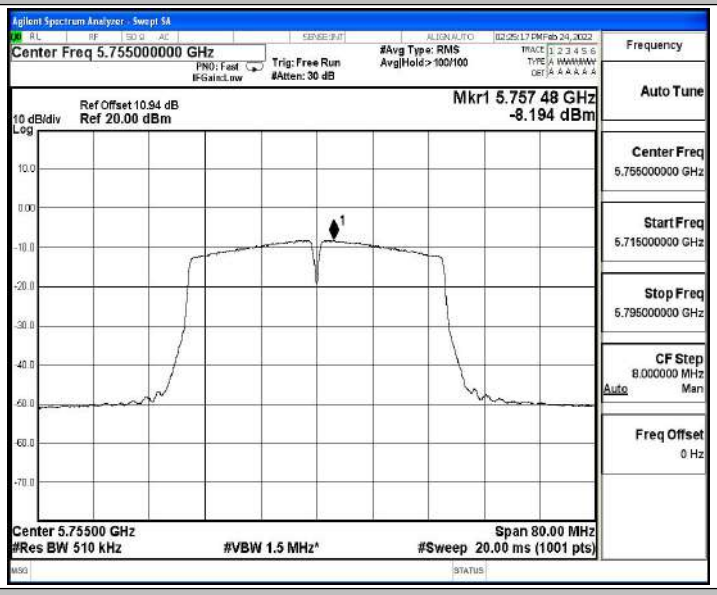
11AC20SISO_Ant1_5785



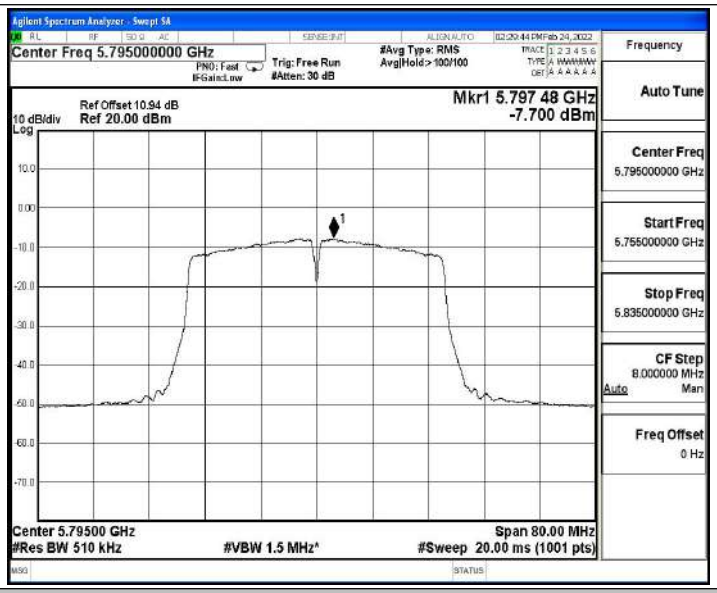
11AC20SISO_Ant1_5825



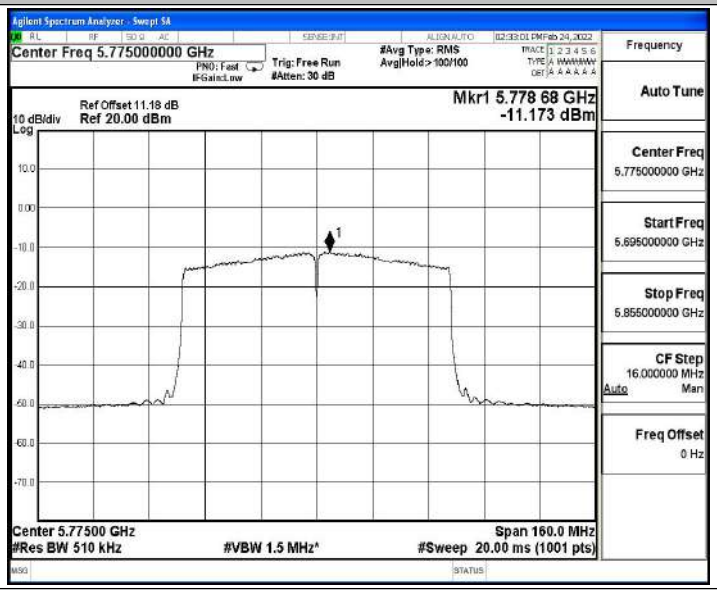
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



E.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-37.129	≤-27.00	---	---	PASS
				Peak	5700.000	-35.11	≤10.00	---	---	PASS
				Peak	5720.000	-29.38	≤15.60	---	---	PASS
				Peak	5725.000	-25.69	≤27.00	- --	- --	PASS
		High	5825	Peak	5850.000	-36.041	≤15.60	---	---	PASS
				Peak	5855.000	-36.6	≤27.00	---	---	PASS
				Peak	5875.000	-37.14	≤15.60	---	---	PASS
				Peak	5925.000	-36.87	≤10.00	- --	- --	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-37.985	≤-27.00	---	---	PASS
				Peak	5700.000	-37.23	≤10.00	---	---	PASS
				Peak	5720.000	-36.26	≤15.60	---	---	PASS
				Peak	5725.000	-29.45	≤27.00	- --	- --	PASS
		High	5825	Peak	5850.000	-35.942	≤15.60	---	---	PASS
				Peak	5855.000	-36.68	≤27.00	---	---	PASS
				Peak	5875.000	-37.5	≤15.60	---	---	PASS
				Peak	5925.000	-37.61	≤10.00	- --	- --	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-37.276	≤-27.00	---	---	PASS
				Peak	5700.000	-36.31	≤10.00	---	---	PASS
				Peak	5720.000	-27.68	≤15.60	---	---	PASS
				Peak	5725.000	-26.13	≤27.00	- --	- --	PASS
		High	5795	Peak	5850.000	-37.2	≤15.60	---	---	PASS
				Peak	5855.000	-37.97	≤27.00	---	---	PASS
				Peak	5875.000	-36.39	≤15.60	---	---	PASS
				Peak	5925.000	-38.07	≤10.00	- --	- --	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-37.618	≤-27.00	---	---	PASS
				Peak	5700.000	-37.16	≤10.00	---	---	PASS
				Peak	5720.000	-35.76	≤15.60	---	---	PASS
				Peak	5725.000	-32.59	≤27.00	- --	- --	PASS
		High	5825	Peak	5850.000	-36.405	≤15.60	---	---	PASS
				Peak	5855.000	-37.88	≤27.00	---	---	PASS
				Peak	5875.000	-36.69	≤15.60	---	---	PASS
				Peak	5925.000	-37.23	≤10.00	- --	- --	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-36.241	≤-27.00	---	---	PASS
				Peak	5700.000	-37.56	≤10.00	---	---	PASS
				Peak	5720.000	-36.31	≤15.60	---	---	PASS
				Peak	5725.000	-33.76	≤27.00	- --	- --	PASS
		High	5795	Peak	5850.000	-36.454	≤15.60	---	---	PASS

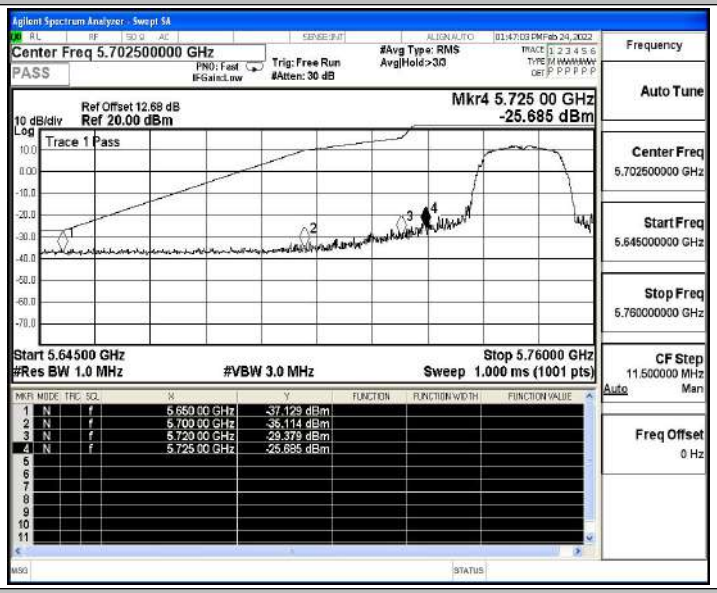
				Peak	5855.000	-36.76	≤27.00	---	---	PASS
				Peak	5875.000	-37.76	≤15.60	---	---	PASS
				Peak	5925.000	-37.06	≤10.00	- --	- --	PASS
11AC80S ISO	Ant1	Low	5775	Peak	5650.000	-36.911	≤-27.00	---	---	PASS
				Peak	5700.000	-35.87	≤10.00	---	---	PASS
				Peak	5720.000	-35	≤15.60	---	---	PASS
				Peak	5725.000	-34.05	≤27.00	- --	- --	PASS
		High	5775	Peak	5850.000	-37.139	≤15.60	---	---	PASS
				Peak	5855.000	-36.15	≤27.00	---	---	PASS
				Peak	5875.000	-37.2	≤15.60	---	---	PASS
				Peak	5925.000	-37.23	≤10.00	- --	- --	PASS

Note：

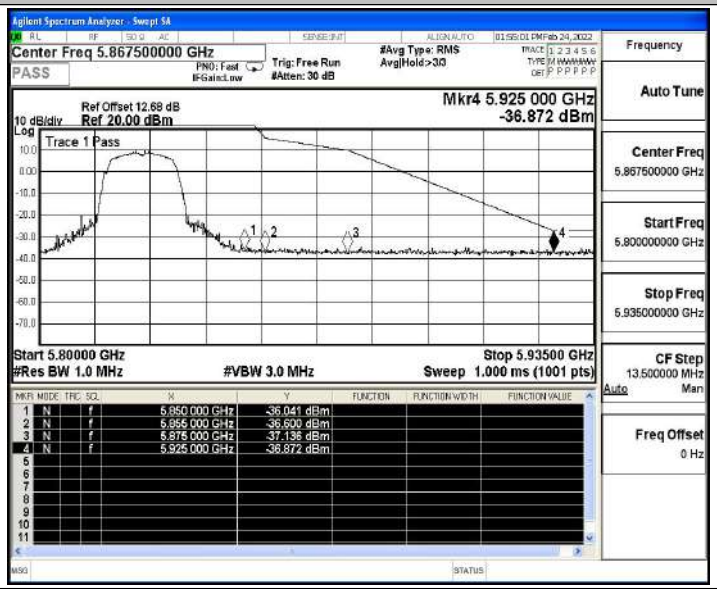
1. The Antenna Gain is compensated in the graph.

Test Graphs

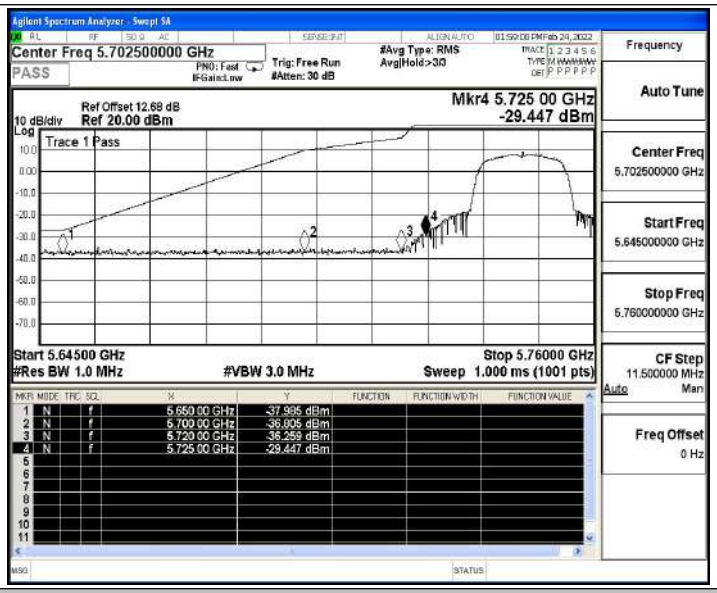
11A_Ant1_Low_5745_Peak



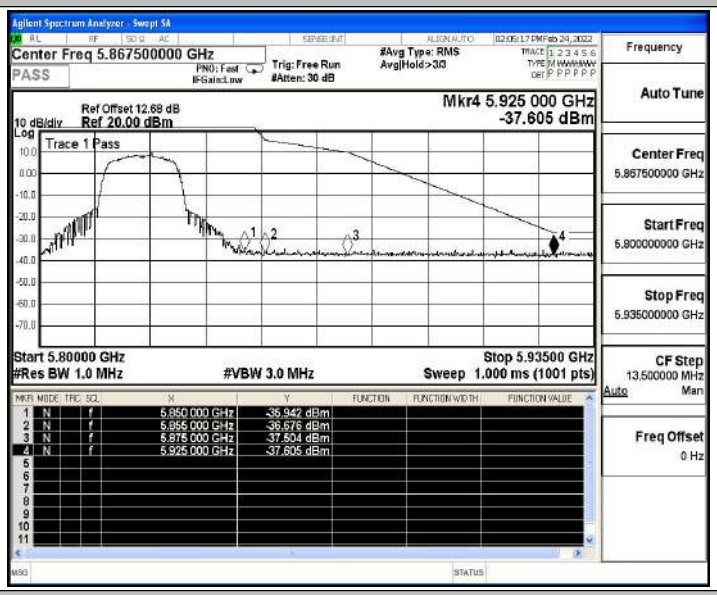
11A_Ant1_High_5825_Peak



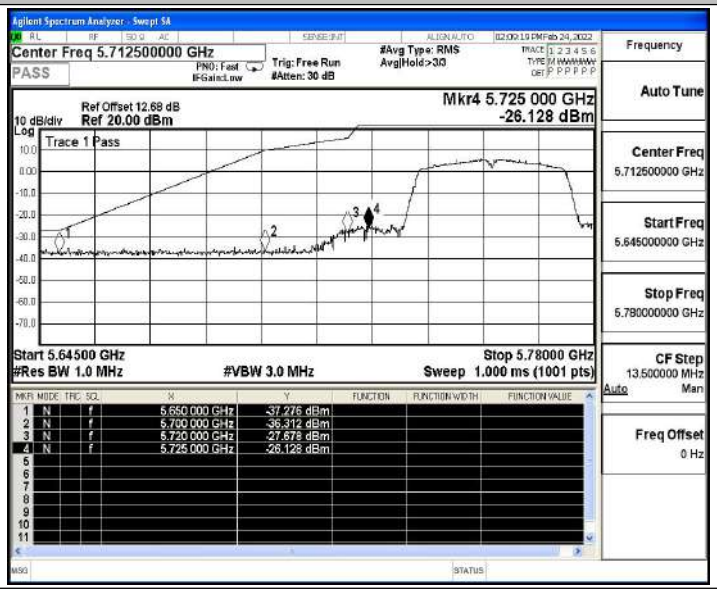
11N20SISO_Ant1_Low_5745_Peak



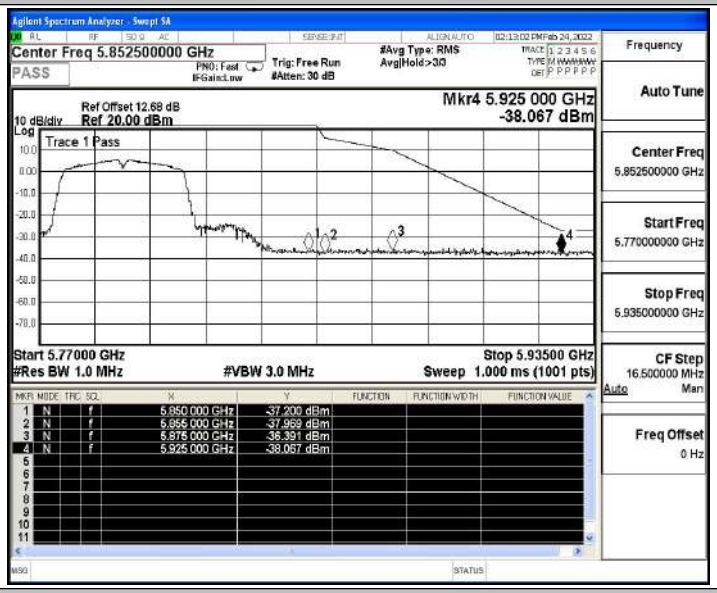
11N20SISO_Ant1_High_5825_Peak



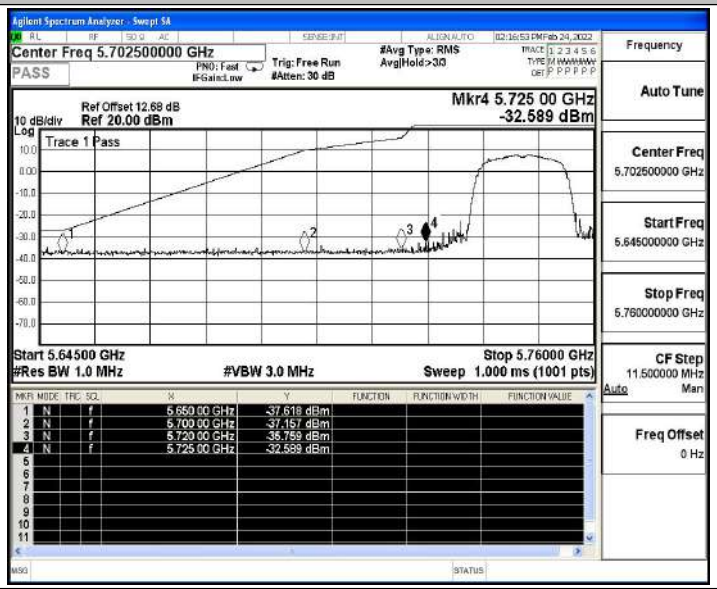
11N40SISO_Ant1_Low_5755_Peak



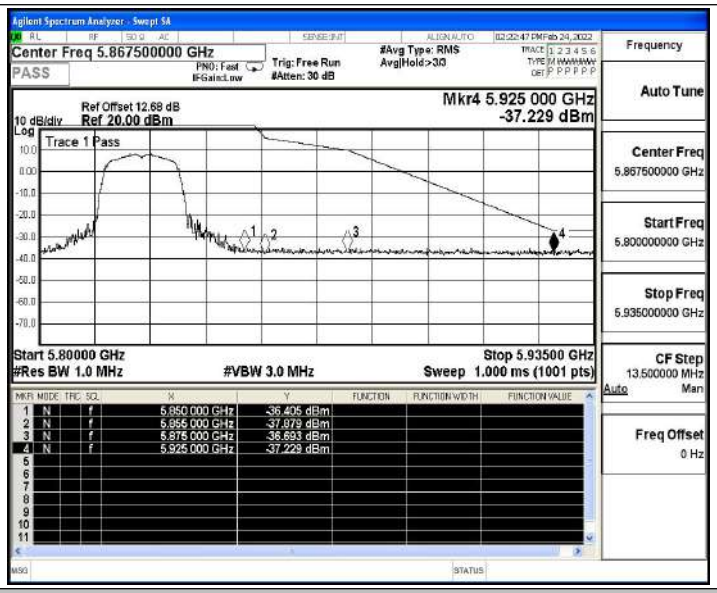
11N40SISO_Ant1_High_5795_Peak



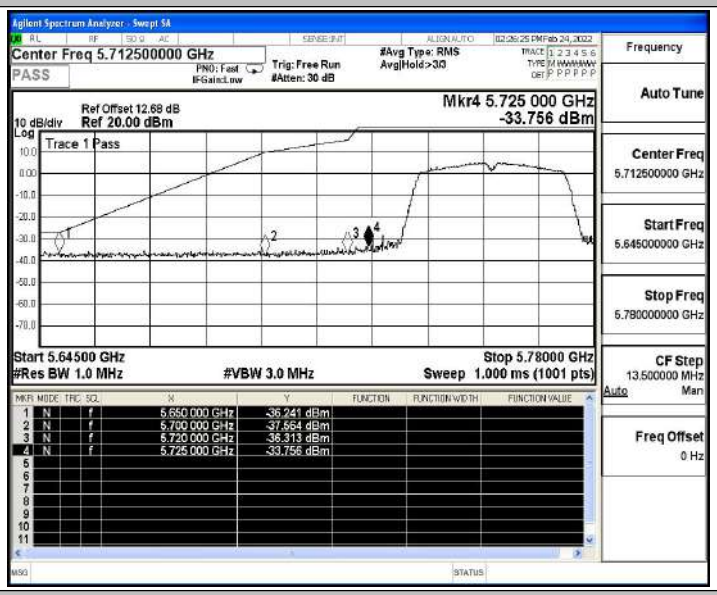
11AC20SISO_Ant1_Low_5745_Peak



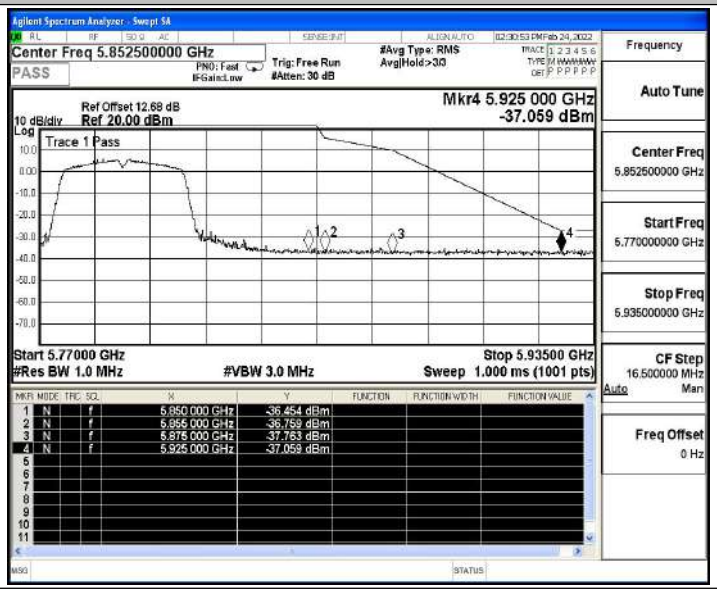
11AC20SISO_Ant1_High_5825_Peak



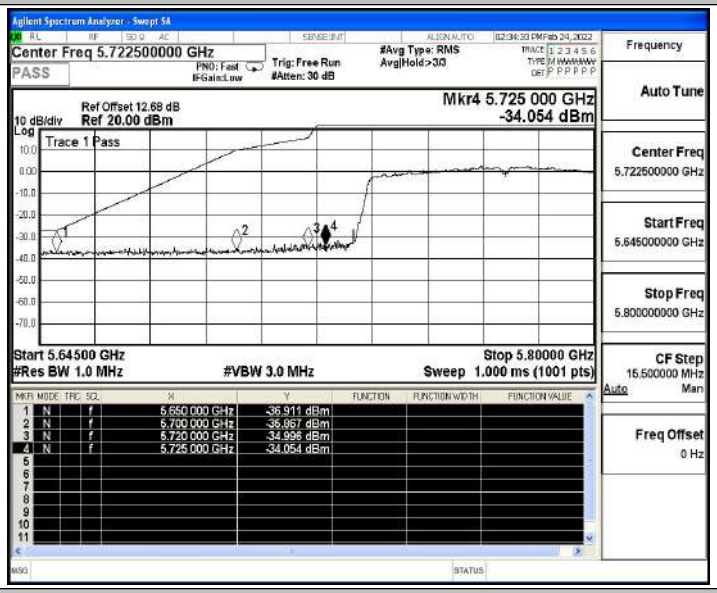
11AC40SISO_Ant1_Low_5755_Peak



11AC40SISO_Ant1_High_5795_Peak



11AC80SISO_Ant1_Low_5775_Peak



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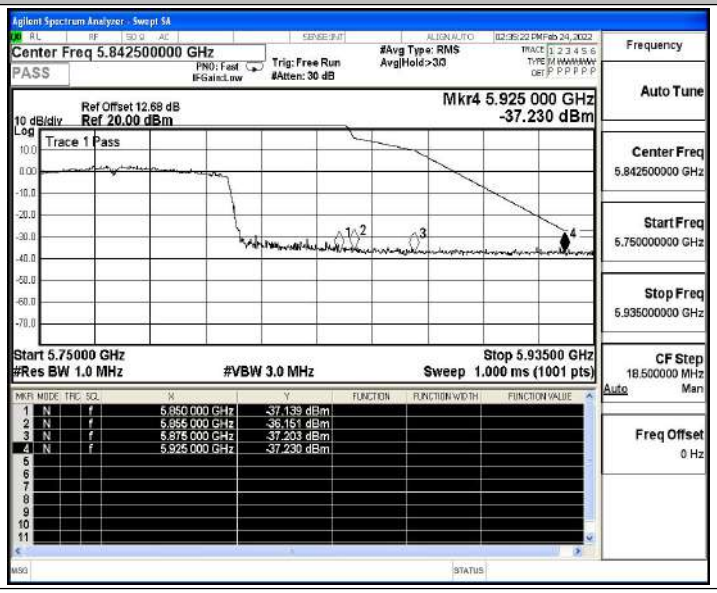


E.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5745	NV	NT	-17000	-2.959095	20	PASS
			LV	NT	-19000	-3.307224	20	PASS
			HV	NT	-20000	-3.481288	20	PASS
		5785	NV	NT	-21000	-3.630078	20	PASS
			LV	NT	-22000	-3.802939	20	PASS
			HV	NT	-22000	-3.802939	20	PASS
		5825	NV	NT	-22000	-3.776824	20	PASS
			LV	NT	-22000	-3.776824	20	PASS
			HV	NT	-22000	-3.776824	20	PASS
11AC40SISO	Ant1	5755	NV	NT	-21000	-3.649001	20	PASS
			LV	NT	-22000	-3.822763	20	PASS
			HV	NT	-22000	-3.822763	20	PASS
		5795	NV	NT	-23000	-3.968939	20	PASS
			LV	NT	-22000	-3.796376	20	PASS
			HV	NT	-22000	-3.796376	20	PASS
11AC80SISO	Ant1	5775	NV	NT	-20000	-3.463203	20	PASS
			LV	NT	-21000	-3.636364	20	PASS
			HV	NT	-21000	-3.636364	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5745	NV	-30	-20000	-3.481288	20	PASS
			NV	-20	-20000	-3.481288	20	PASS
			NV	-10	-21000	-3.655352	20	PASS
			NV	0	-21000	-3.655352	20	PASS
			NV	10	-21000	-3.655352	20	PASS
			NV	20	-21000	-3.655352	20	PASS
			NV	30	-21000	-3.655352	20	PASS
			NV	40	-21000	-3.655352	20	PASS
			NV	50	-21000	-3.655352	20	PASS
		5785	NV	-30	-22000	-3.802939	20	PASS
			NV	-20	-22000	-3.802939	20	PASS
			NV	-10	-22000	-3.802939	20	PASS
			NV	0	-22000	-3.802939	20	PASS
			NV	10	-22000	-3.802939	20	PASS

			NV	20	-22000	-3.802939	20	PASS
			NV	30	-22000	-3.802939	20	PASS
			NV	40	-22000	-3.802939	20	PASS
			NV	50	-22000	-3.802939	20	PASS
		5825	NV	-30	-22000	-3.776824	20	PASS
			NV	-20	-22000	-3.776824	20	PASS
			NV	-10	-22000	-3.776824	20	PASS
			NV	0	-22000	-3.776824	20	PASS
			NV	10	-22000	-3.776824	20	PASS
			NV	20	-23000	-3.948498	20	PASS
			NV	30	-23000	-3.948498	20	PASS
			NV	40	-22000	-3.776824	20	PASS
			NV	50	-22000	-3.776824	20	PASS
11AC40SISO	Ant1	5755	NV	-30	-22000	-3.822763	20	PASS
			NV	-20	-22000	-3.822763	20	PASS
			NV	-10	-22000	-3.822763	20	PASS
			NV	0	-22000	-3.822763	20	PASS
			NV	10	-22000	-3.822763	20	PASS
			NV	20	-22000	-3.822763	20	PASS
			NV	30	-22000	-3.822763	20	PASS
			NV	40	-22000	-3.822763	20	PASS
			NV	50	-22000	-3.822763	20	PASS
		5795	NV	-30	-22000	-3.796376	20	PASS
			NV	-20	-23000	-3.968939	20	PASS
			NV	-10	-23000	-3.968939	20	PASS
			NV	0	-22000	-3.796376	20	PASS
			NV	10	-23000	-3.968939	20	PASS
			NV	20	-23000	-3.968939	20	PASS
			NV	30	-23000	-3.968939	20	PASS
			NV	40	-22000	-3.796376	20	PASS
			NV	50	-23000	-3.968939	20	PASS
11AC80SISO	Ant1	5775	NV	-30	-21000	-3.636364	20	PASS
			NV	-20	-22000	-3.809524	20	PASS
			NV	-10	-22000	-3.809524	20	PASS
			NV	0	-22000	-3.809524	20	PASS
			NV	10	-22000	-3.809524	20	PASS
			NV	20	-22000	-3.809524	20	PASS
			NV	30	-22000	-3.809524	20	PASS
			NV	40	-22000	-3.809524	20	PASS
			NV	50	-22000	-3.809524	20	PASS

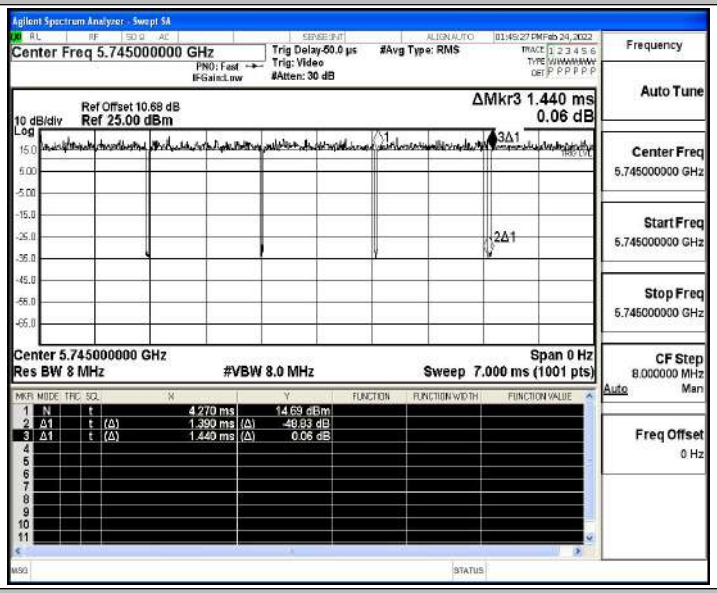
E.6 Duty Cycle

Test Result

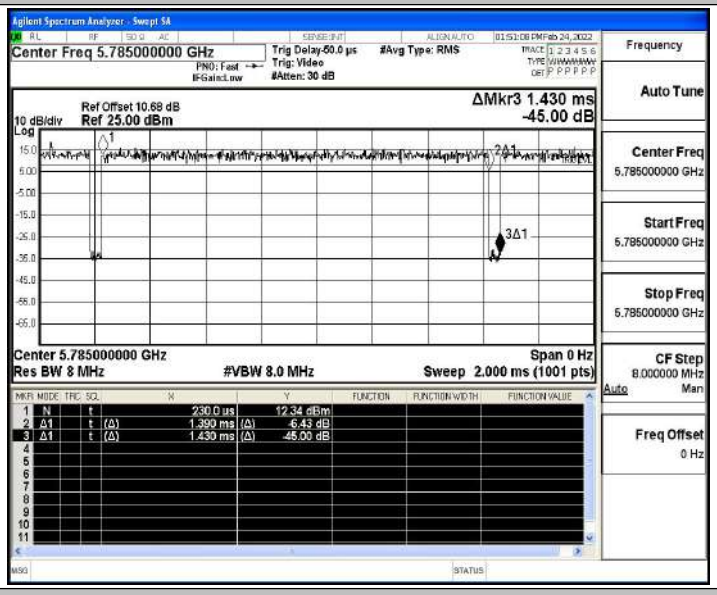
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	xFactor
11A	Ant1	5745	1.39	1.44	96.53	0.12
		5785	1.39	1.43	97.20	0.12
		5825	1.39	1.43	97.20	0.12
11N20SISO	Ant1	5745	1.30	1.34	97.01	0.13
		5785	1.30	1.35	96.30	0.13
		5825	1.30	1.35	96.30	0.13
11N40SISO	Ant1	5755	0.65	0.69	94.20	0.26
		5795	0.65	0.69	94.20	0.26
11AC20SISO	Ant1	5745	1.31	1.36	96.32	0.13
		5785	1.31	1.36	96.32	0.13
		5825	1.31	1.36	96.32	0.13
11AC40SISO	Ant1	5755	0.65	0.69	94.20	0.26
		5795	0.65	0.69	94.20	0.26
11AC80SISO	Ant1	5775	0.33	0.37	89.19	0.51

Test Graphs

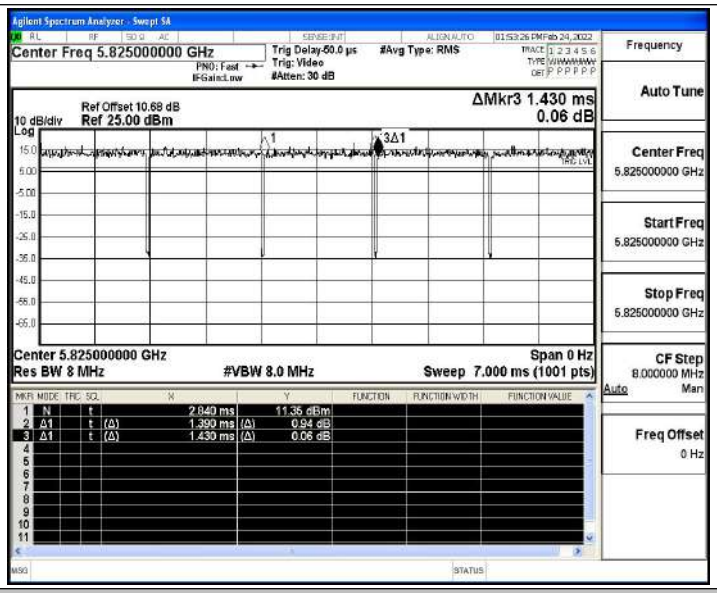
11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



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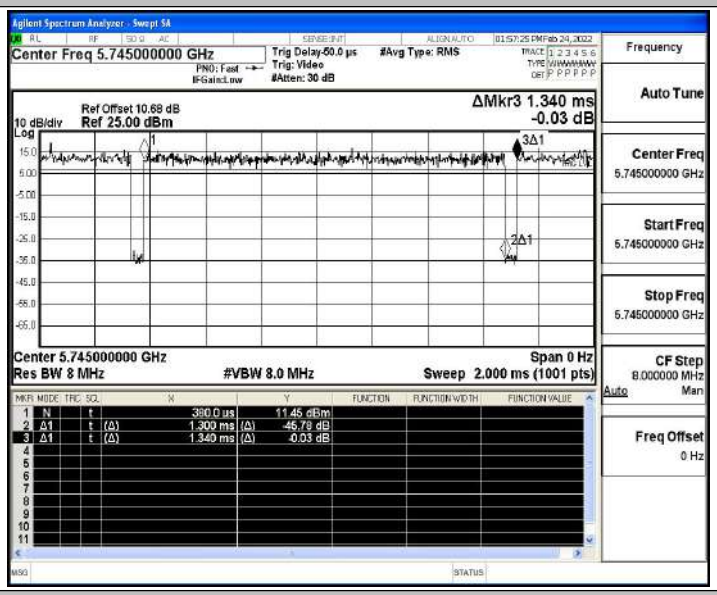

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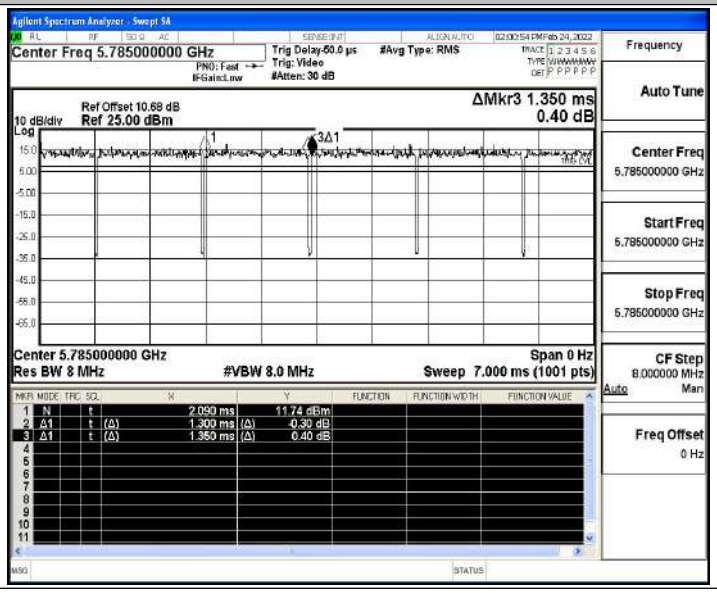

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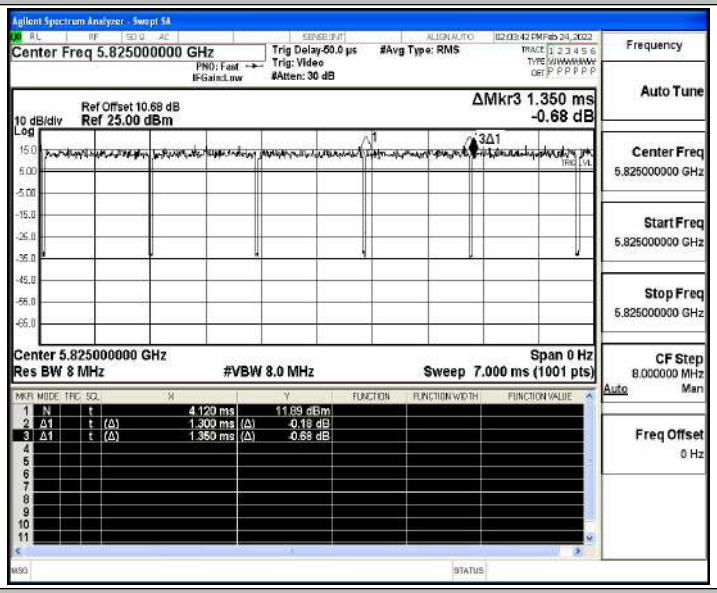

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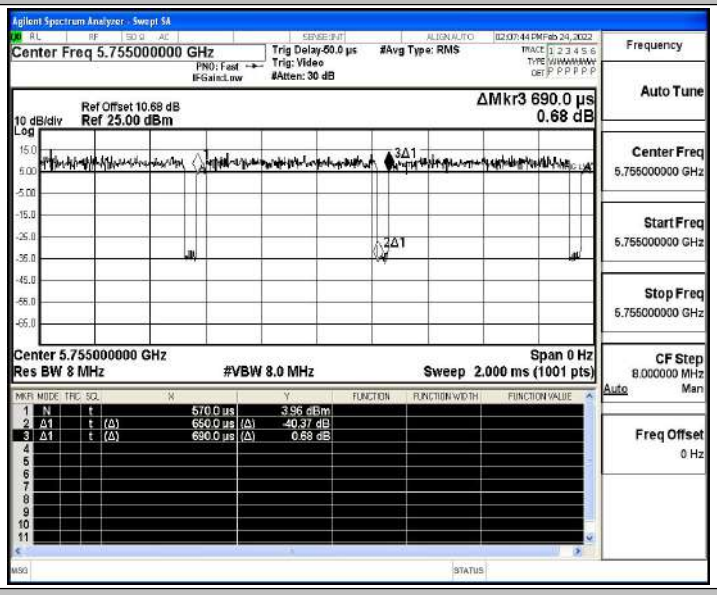

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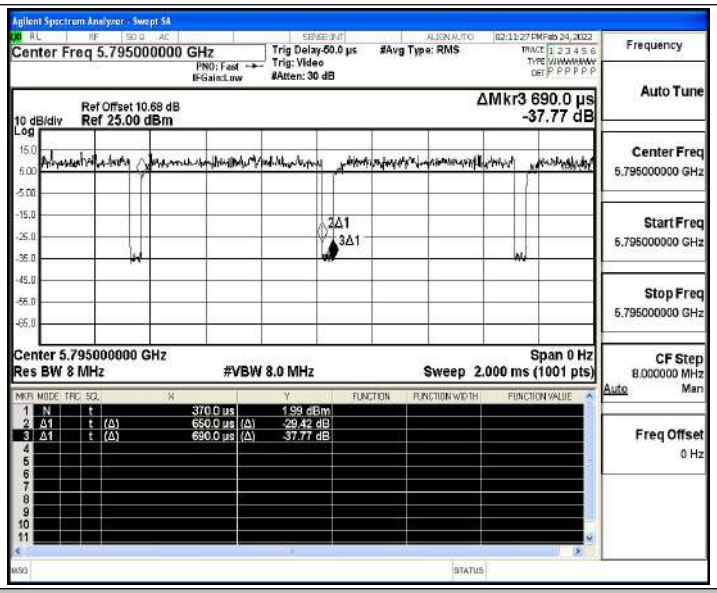

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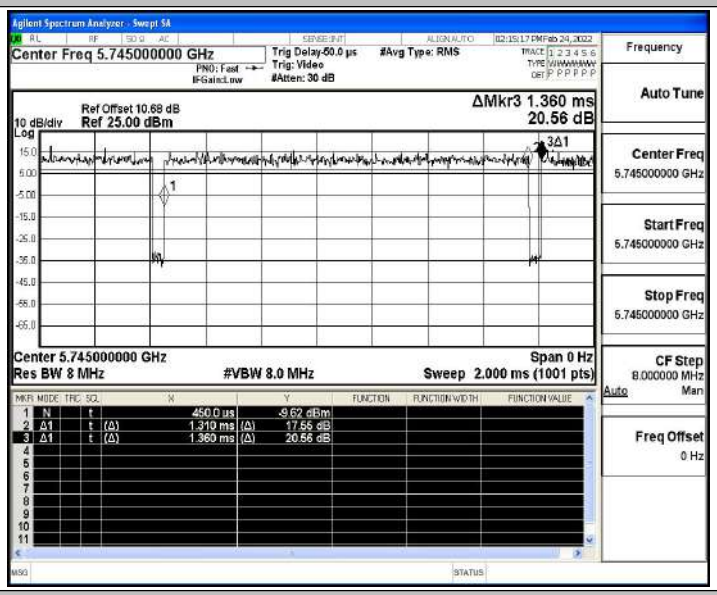

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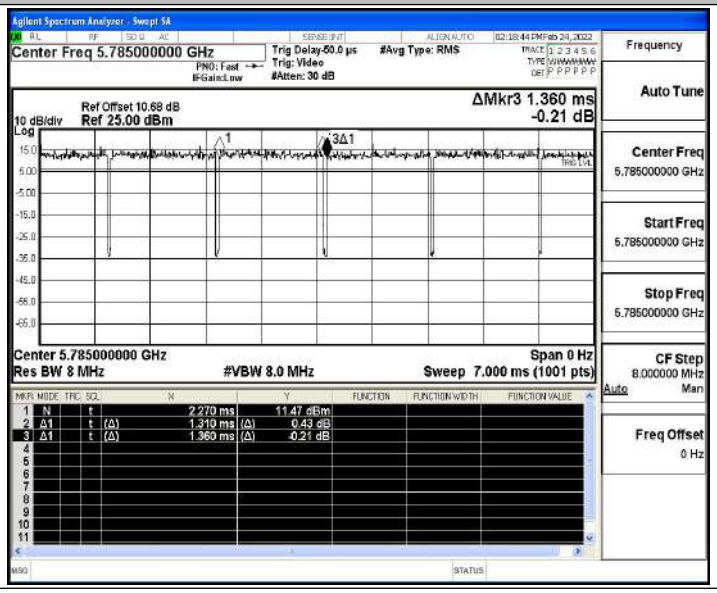

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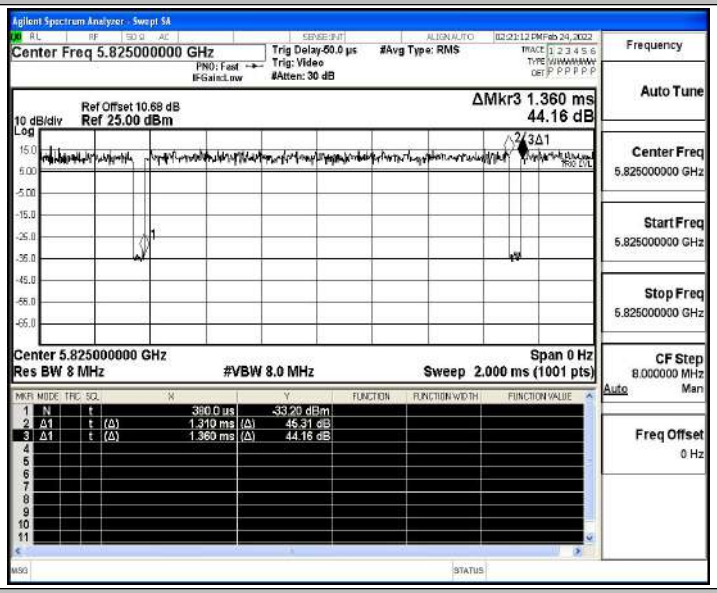

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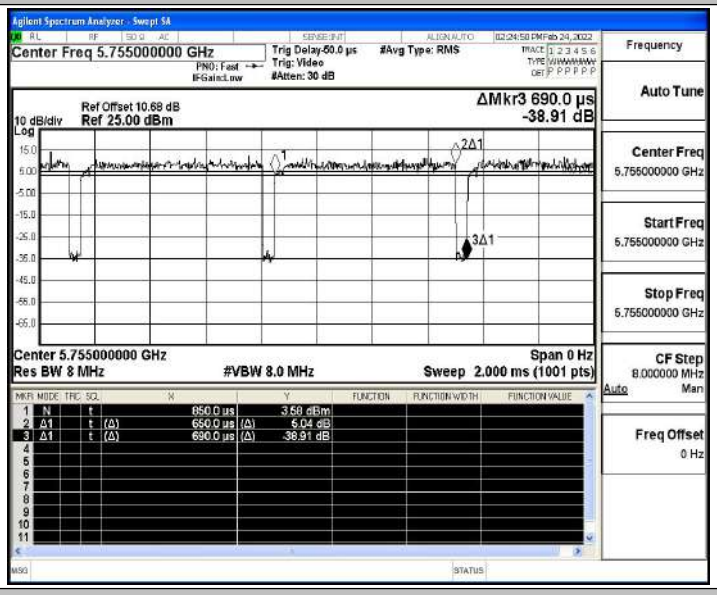

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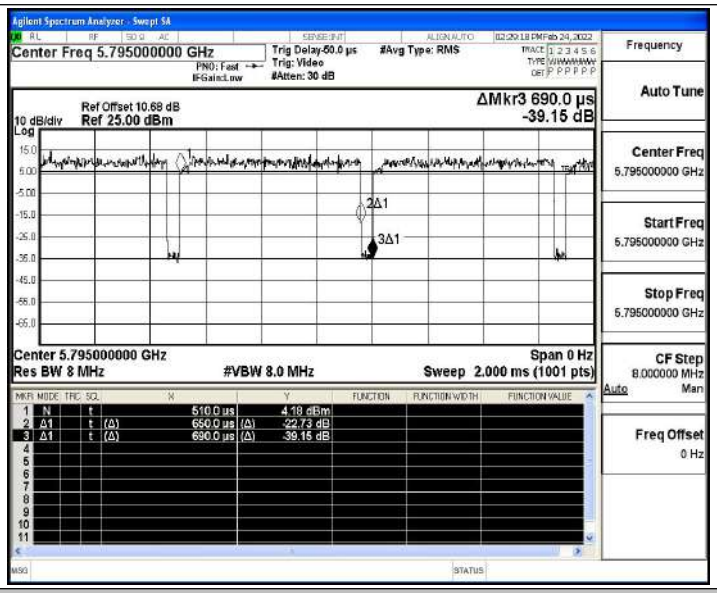
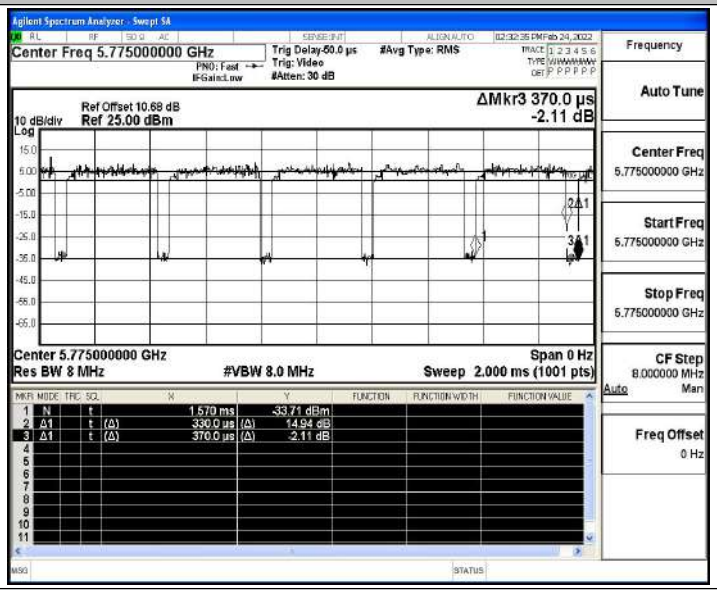
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