

Appendix G

RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: Car Radio

Test Model: A5

Environmental Conditions

Temperature:	26.2°C
Relative Humidity:	57.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

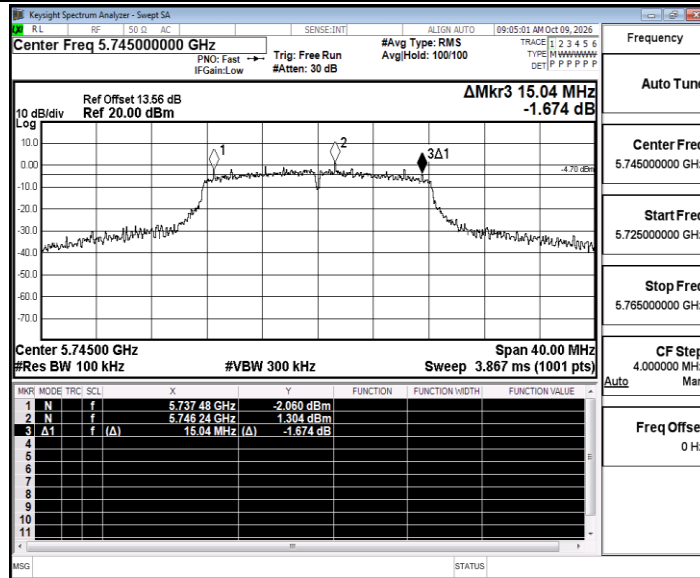
G.1 Min emission bandwidth

Test Result B4

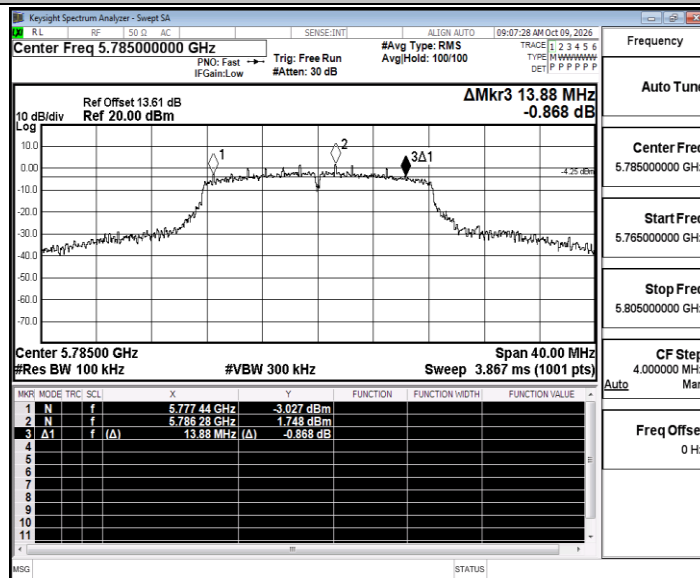
TestMode	Antenna	Freq (MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	15.040	5737.480	5752.520	0.5	PASS
		5785	13.880	5777.440	5791.320	0.5	PASS
		5825	15.000	5817.480	5832.480	0.5	PASS
11N20SISO	Ant1	5745	13.760	5738.720	5752.480	0.5	PASS
		5785	13.920	5778.640	5792.560	0.5	PASS
		5825	15.040	5817.440	5832.480	0.5	PASS
11N40SISO	Ant1	5755	34.960	5737.560	5772.520	0.5	PASS
		5795	35.120	5777.400	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	15.080	5737.440	5752.520	0.5	PASS
		5785	13.800	5778.720	5792.520	0.5	PASS
		5825	15.120	5817.440	5832.560	0.5	PASS
11AC40SISO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
		5795	35.120	5777.400	5812.520	0.5	PASS

Test Graphs B4

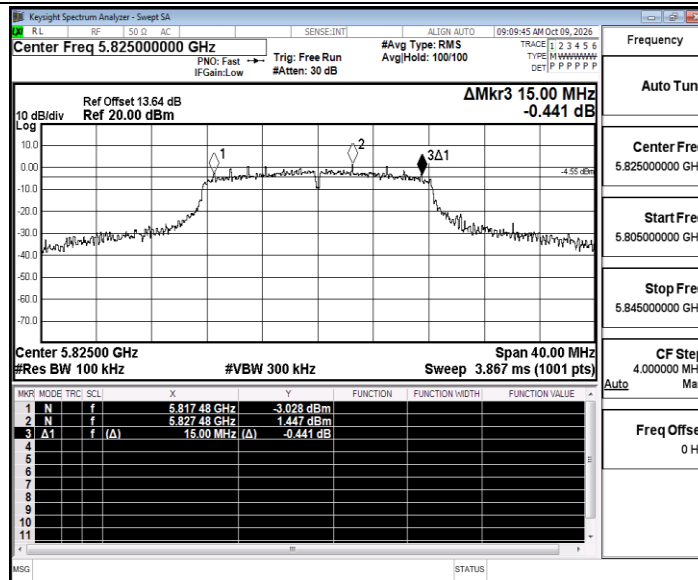
11A_Ant1_5745



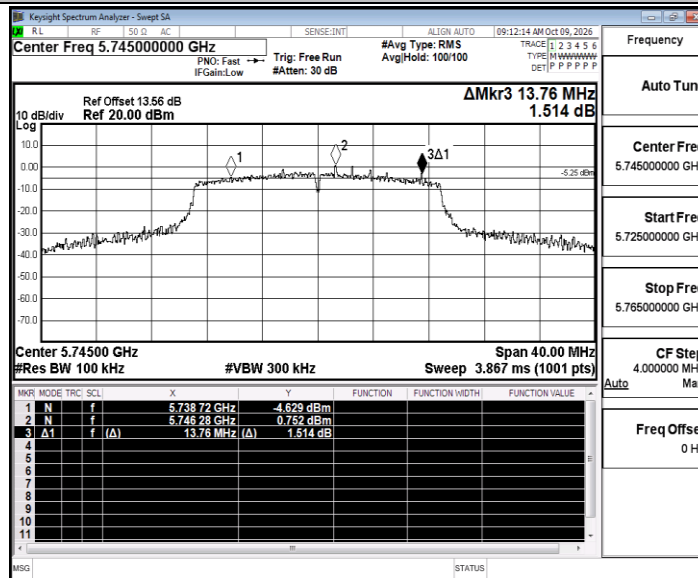
11A_Ant1_5785



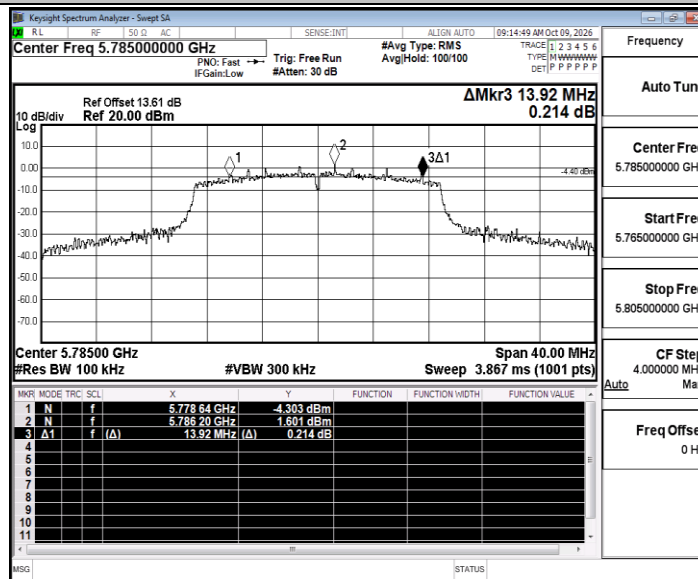
11A_Ant1_5825



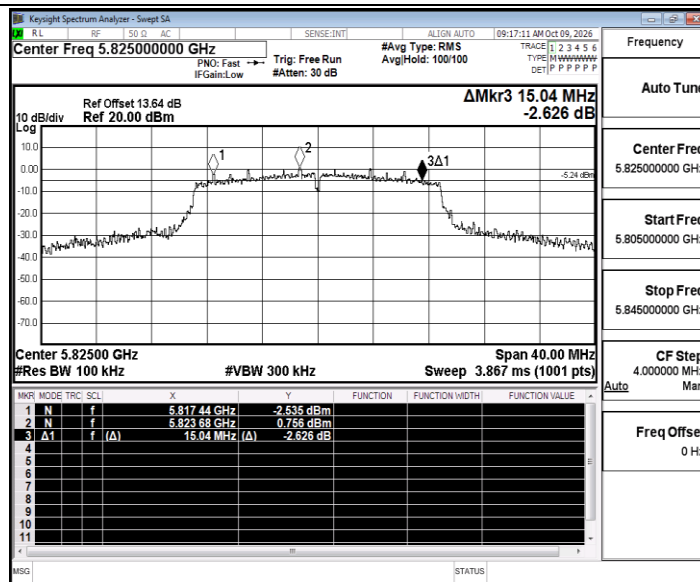
11N20SISO_Ant1_5745



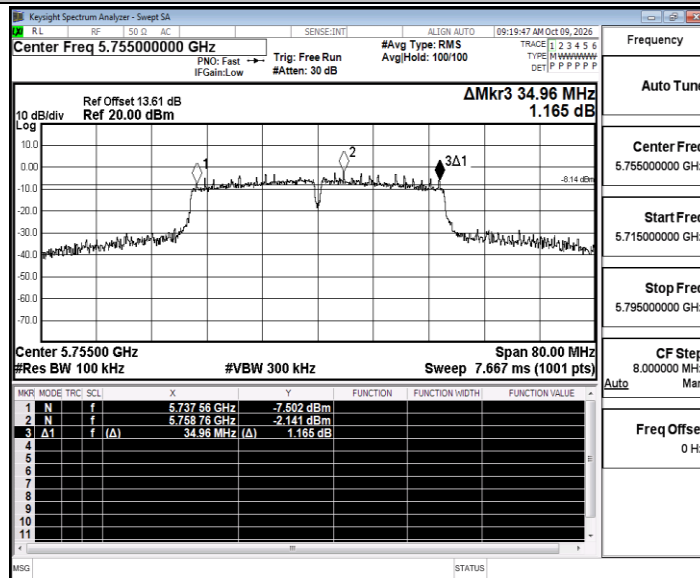
11N20SISO_Ant1_5785



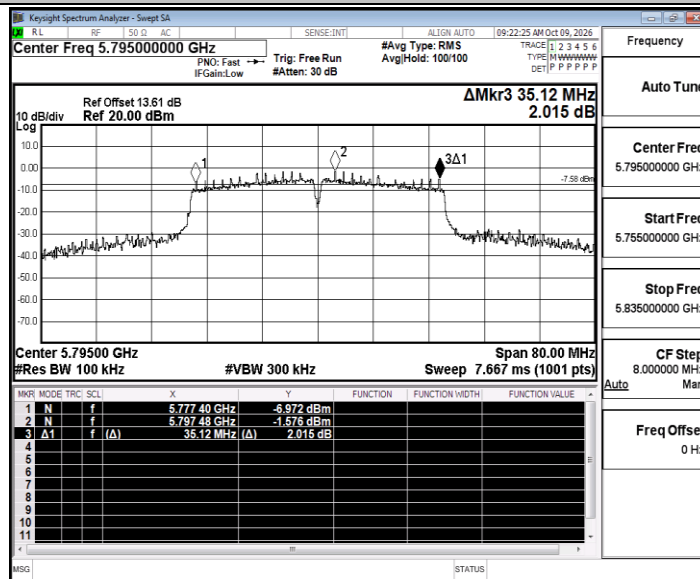
11N20SISO_Ant1_5825



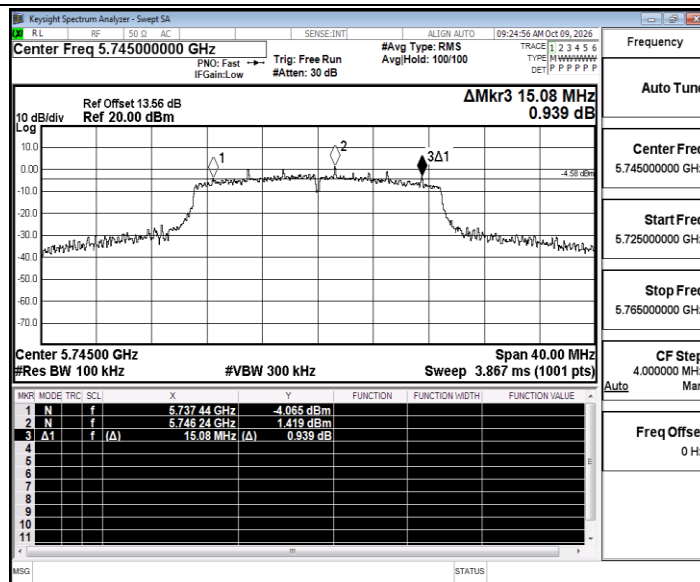
11N40SISO_Ant1_5755



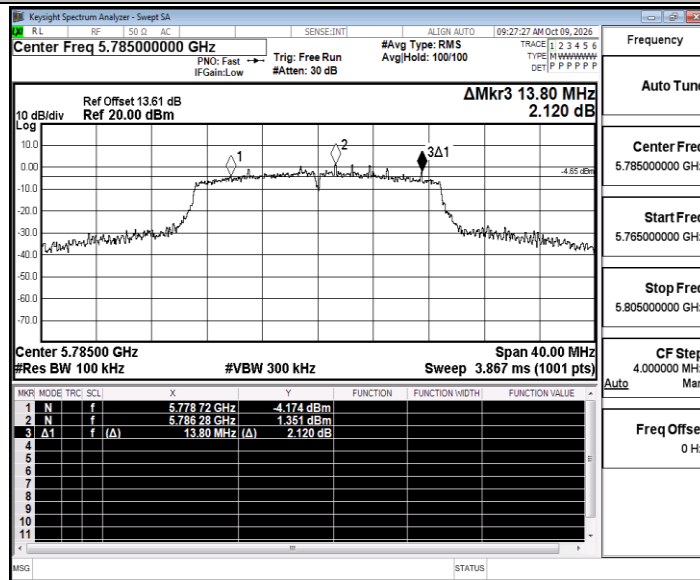
11N40SISO_Ant1_5795



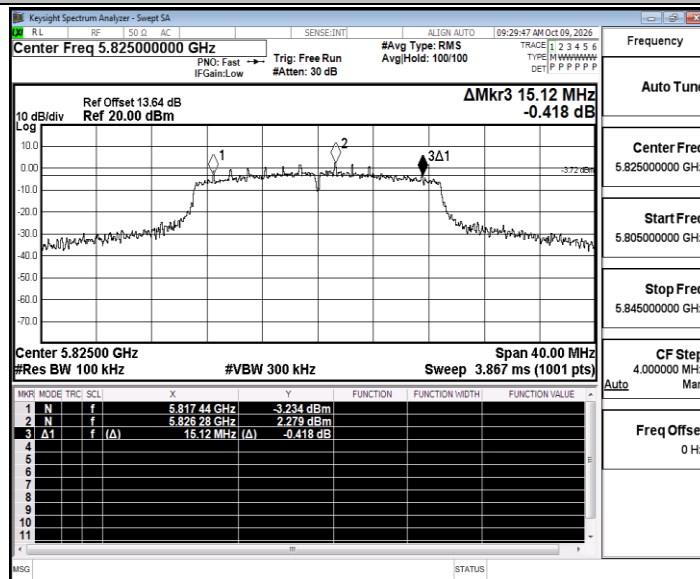
11AC20SISO_Ant1_5745



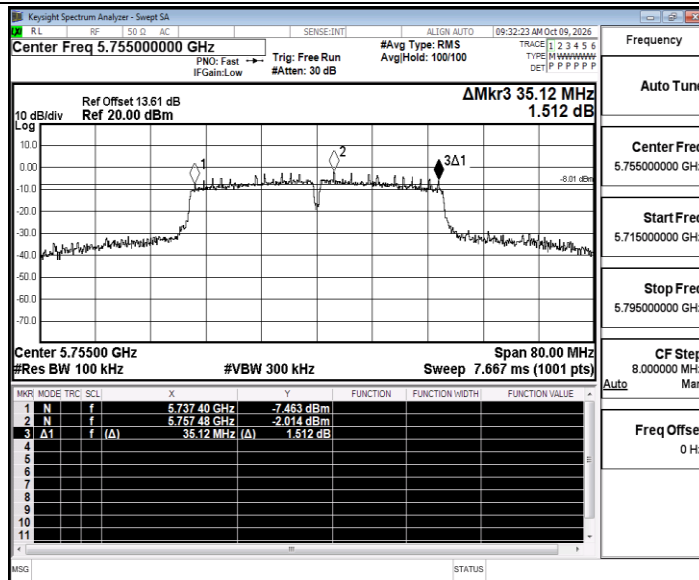
11AC20SISO_Ant1_5785



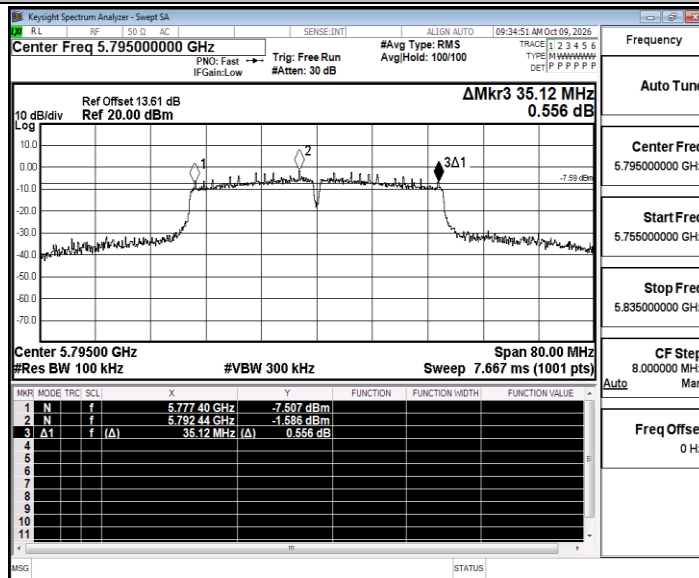
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



G.2 Maximum conducted output power

Test Result

Test Mode	Antenna	Freq(MHz)	TPC Mode	Measured Power [dBm]	DC Factor [dB]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	NA	16.37	0.15	16.52	≤30.00	PASS
		5785	NA	16.14	0.12	16.26	≤30.00	PASS
		5825	NA	16.21	0.15	16.36	≤30.00	PASS
11N20SISO	Ant1	5745	NA	16.17	0.17	16.34	≤30.00	PASS
		5785	NA	16.1	0.13	16.23	≤30.00	PASS
		5825	NA	16.17	0.16	16.33	≤30.00	PASS
11N40SISO	Ant1	5755	NA	15.86	0.26	16.12	≤30.00	PASS
		5795	NA	16.03	0.33	16.36	≤30.00	PASS
11AC20SISO	Ant1	5745	NA	16.31	0.13	16.44	≤30.00	PASS
		5785	NA	16.0	0.16	16.16	≤30.00	PASS
		5825	NA	16.22	0.16	16.38	≤30.00	PASS
11AC40SISO	Ant1	5755	NA	15.91	0.32	16.23	≤30.00	PASS
		5795	NA	15.92	0.32	16.24	≤30.00	PASS

G.3 Maximum power spectral density

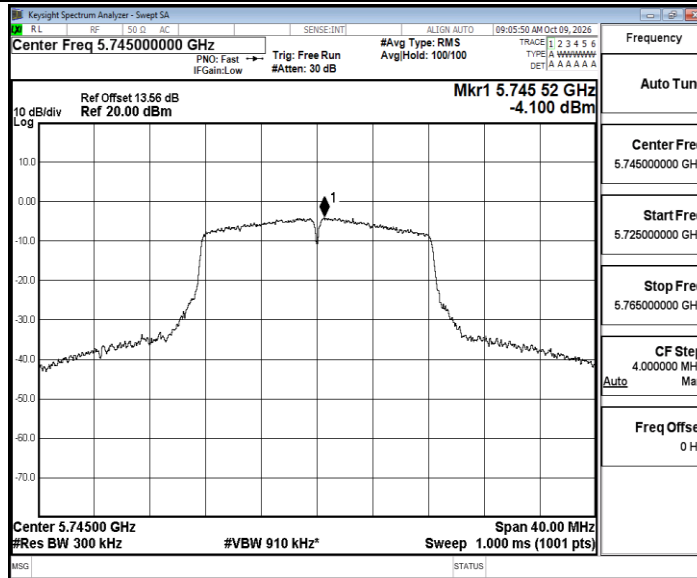
Test Result

TestMode	Antenna	Freq (MHz)	Conducted PSD (dBm/500KHz)	Duty Factor (dB)	RBW Factor(dB)	Total PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
11A	Ant1	5745	-4.1	0.15	2.22	-1.73	≤30.00	PASS
		5785	-3.29	0.12	2.22	-0.95	≤30.00	PASS
		5825	-3.11	0.15	2.22	-0.74	≤30.00	PASS
11N20SISO	Ant1	5745	-4.3	0.17	2.22	-1.91	≤30.00	PASS
		5785	-3.89	0.13	2.22	-1.54	≤30.00	PASS
		5825	-3.33	0.16	2.22	-0.95	≤30.00	PASS
11N40SISO	Ant1	5755	-7.7	0.26	2.22	-5.22	≤30.00	PASS
		5795	-7.28	0.33	2.22	-4.73	≤30.00	PASS
11AC20SISO	Ant1	5745	-4.36	0.13	2.22	-2.01	≤30.00	PASS
		5785	-3.35	0.16	2.22	-0.97	≤30.00	PASS
		5825	-3.25	0.16	2.22	-0.87	≤30.00	PASS
11AC40SISO	Ant1	5755	-7.59	0.32	2.22	-5.05	≤30.00	PASS
		5795	-7.34	0.32	2.22	-4.8	≤30.00	PASS

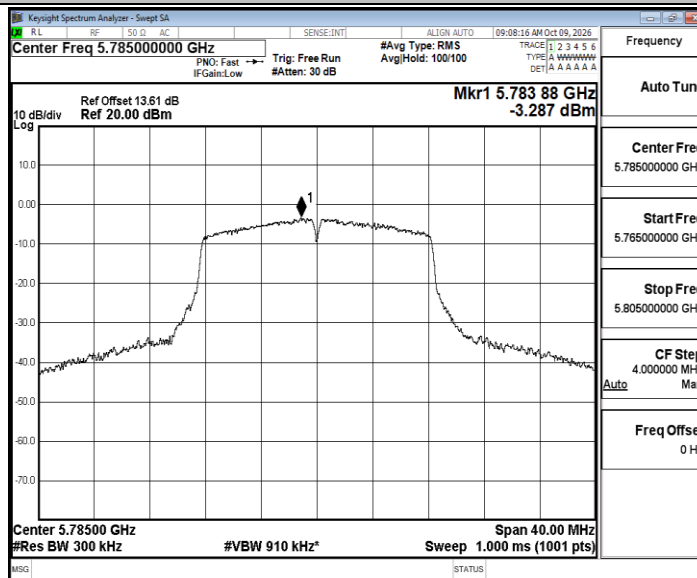
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

Test Graphs

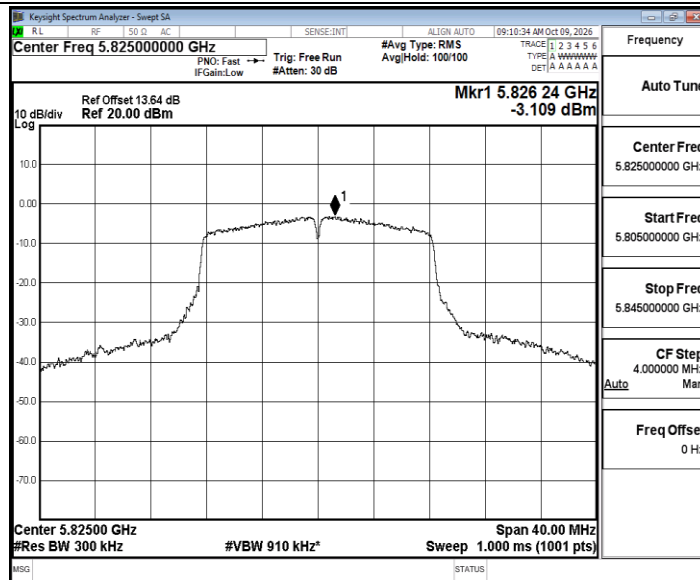
11A_Ant1_5745



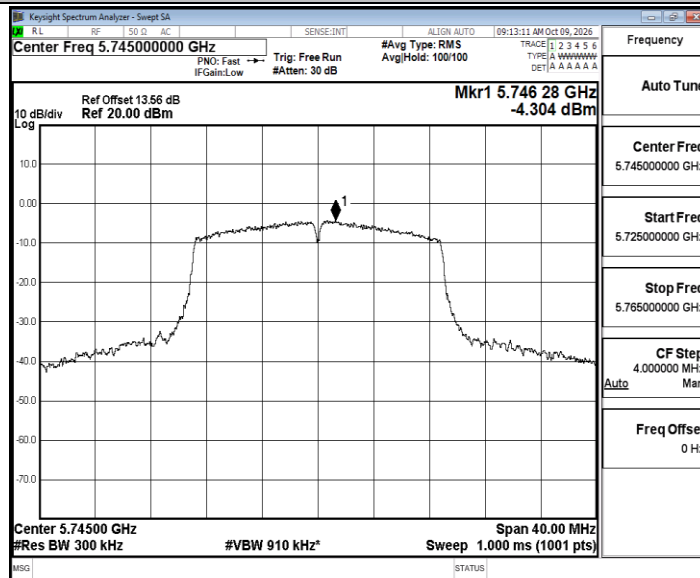
11A_Ant1_5785



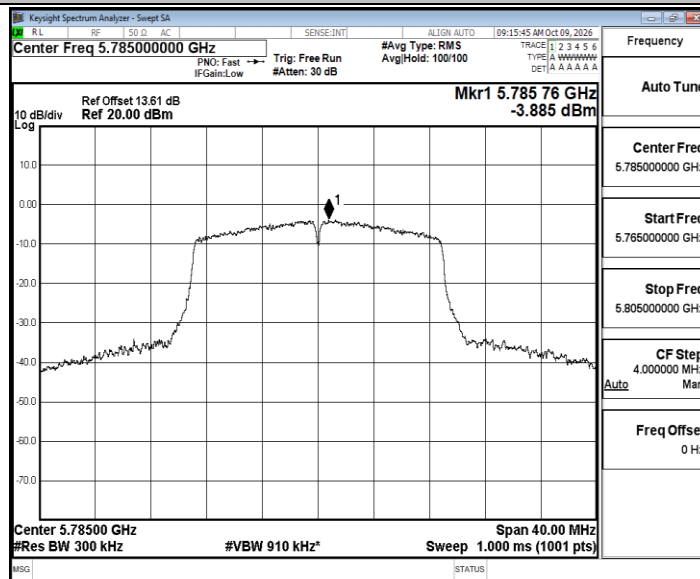
11A_Ant1_5825



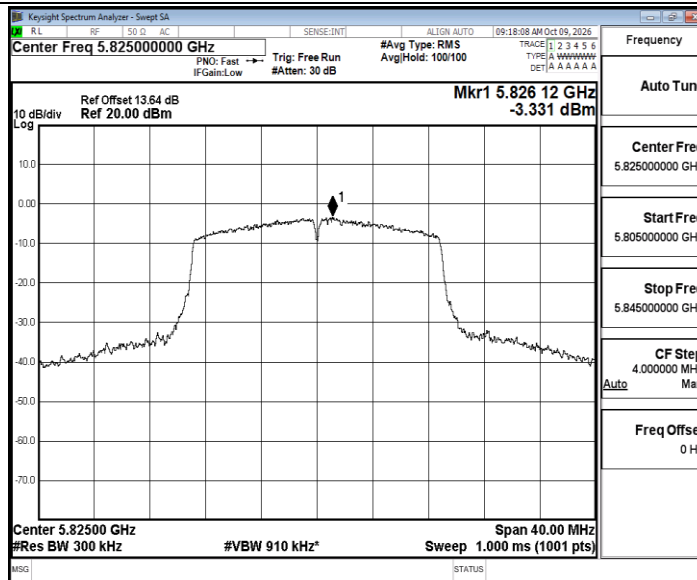
11N20SISO_Ant1_5745



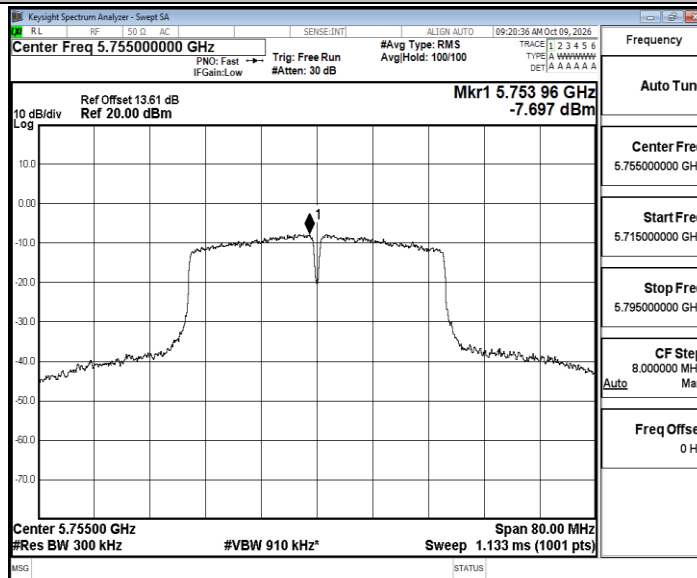
11N20SISO_Ant1_5785



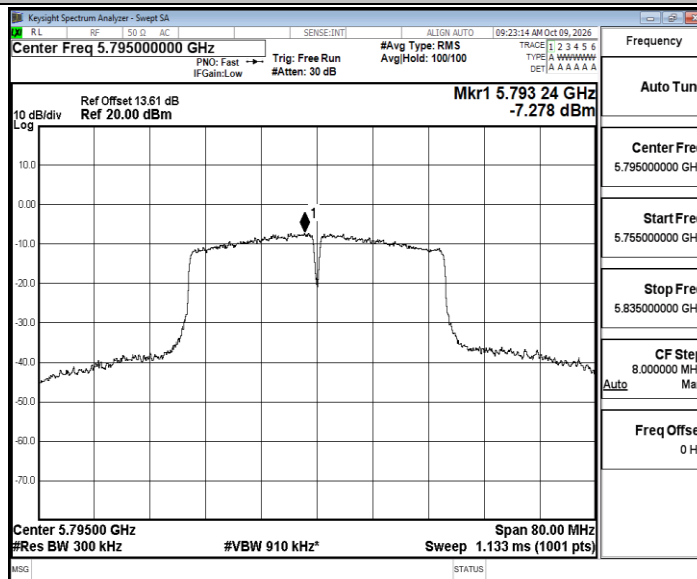
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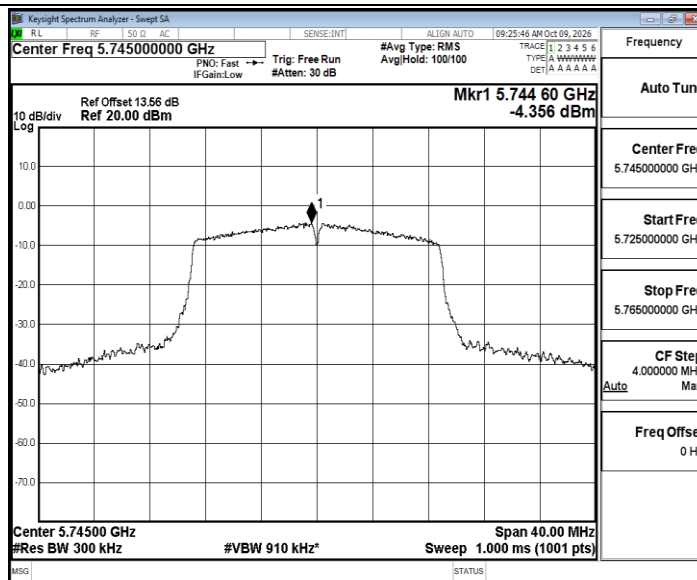
11N40SISO_Ant1_5755



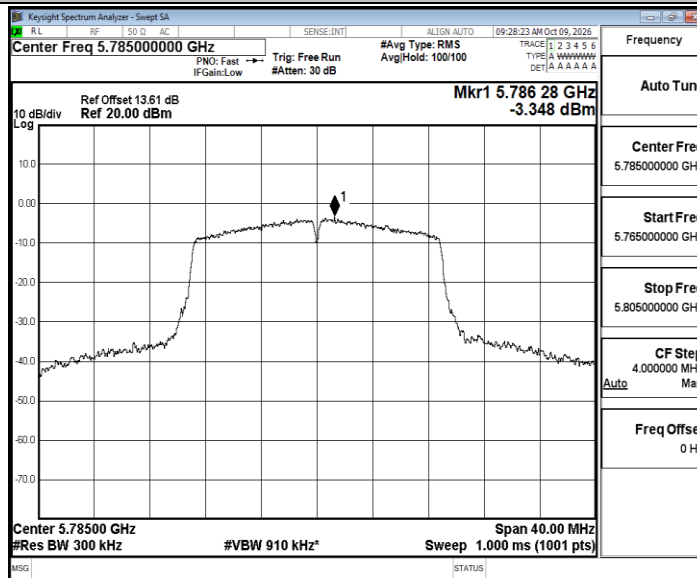
11N40SISO_Ant1_5795



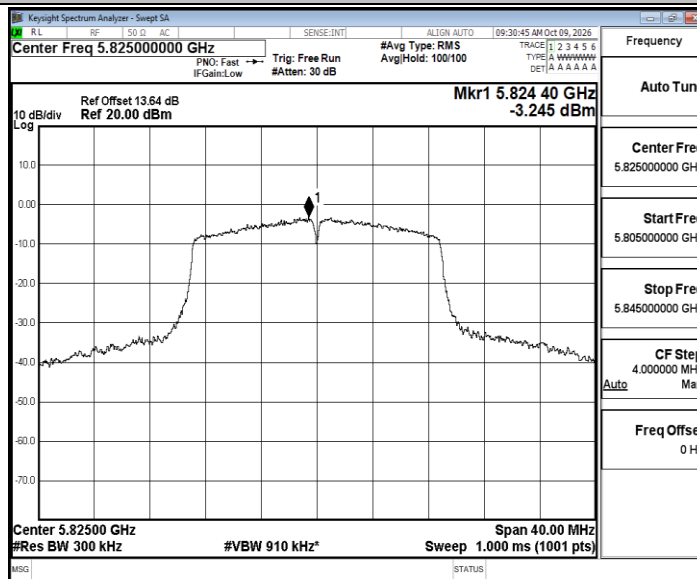
11AC20SISO_Ant1_5745



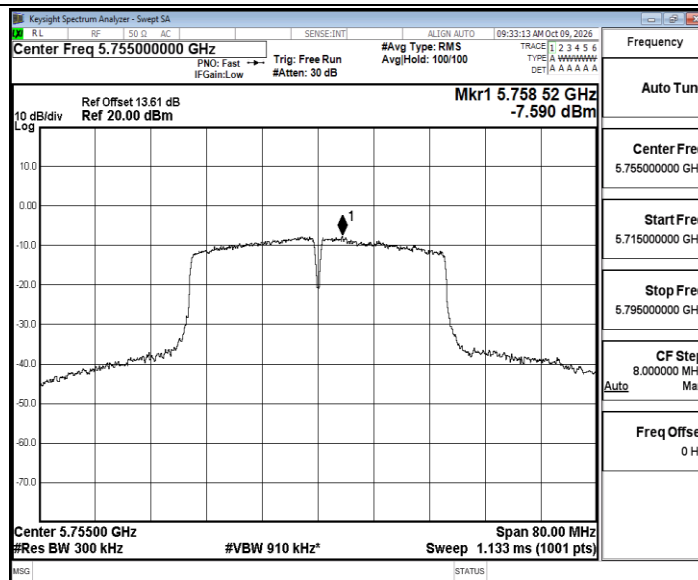
11AC20SISO_Ant1_5785



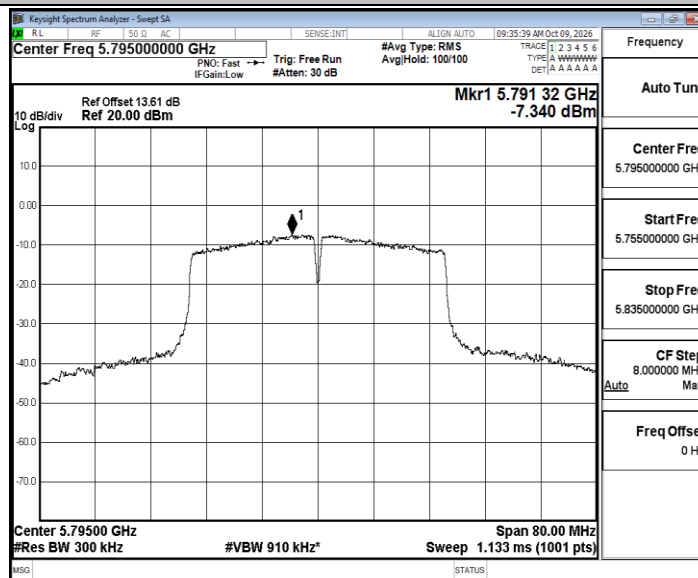
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



G.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm/ MHz]	Limit [dBm/MHz]	Gain [dBi]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-45.453	≤-29.93	2.93	PASS
				Peak	5700.000	-41.780	≤7.07	2.93	PASS
				Peak	5720.000	-29.270	≤12.67	2.93	PASS
				Peak	5725.000	-18.490	≤24.07	2.93	PASS
		High	5825	Peak	5850.000	-28.420	≤24.07	2.93	PASS
				Peak	5855.000	-30.490	≤12.67	2.93	PASS
				Peak	5875.000	-38.680	≤7.07	2.93	PASS
				Peak	5925.000	-45.770	≤-29.93	2.93	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-47.139	≤-29.93	2.93	PASS
				Peak	5700.000	-41.830	≤7.07	2.93	PASS
				Peak	5720.000	-26.010	≤12.67	2.93	PASS
				Peak	5725.000	-20.380	≤24.07	2.93	PASS
		High	5825	Peak	5850.000	-26.298	≤24.07	2.93	PASS
				Peak	5855.000	-28.280	≤12.67	2.93	PASS
				Peak	5875.000	-39.280	≤7.07	2.93	PASS
				Peak	5925.000	-46.960	≤-29.93	2.93	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-45.139	≤-29.93	2.93	PASS
				Peak	5700.000	-37.410	≤7.07	2.93	PASS
				Peak	5720.000	-25.200	≤12.67	2.93	PASS
				Peak	5725.000	-21.250	≤24.07	2.93	PASS
		High	5795	Peak	5850.000	-31.176	≤24.07	2.93	PASS
				Peak	5855.000	-32.920	≤12.67	2.93	PASS
				Peak	5875.000	-36.870	≤7.07	2.93	PASS
				Peak	5925.000	-43.560	≤-29.93	2.93	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-45.075	≤-29.93	2.93	PASS
				Peak	5700.000	-40.060	≤7.07	2.93	PASS
				Peak	5720.000	-27.550	≤12.67	2.93	PASS
				Peak	5725.000	-22.520	≤24.07	2.93	PASS
		High	5825	Peak	5850.000	-26.969	≤24.07	2.93	PASS
				Peak	5855.000	-29.720	≤12.67	2.93	PASS
				Peak	5875.000	-39.990	≤7.07	2.93	PASS
				Peak	5925.000	-44.550	≤-29.93	2.93	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-46.266	≤-29.93	2.93	PASS
				Peak	5700.000	-35.440	≤7.07	2.93	PASS
				Peak	5720.000	-19.410	≤12.67	2.93	PASS
				Peak	5725.000	-20.030	≤24.07	2.93	PASS
		High	5795	Peak	5850.000	-31.486	≤24.07	2.93	PASS
				Peak	5855.000	-32.570	≤12.67	2.93	PASS

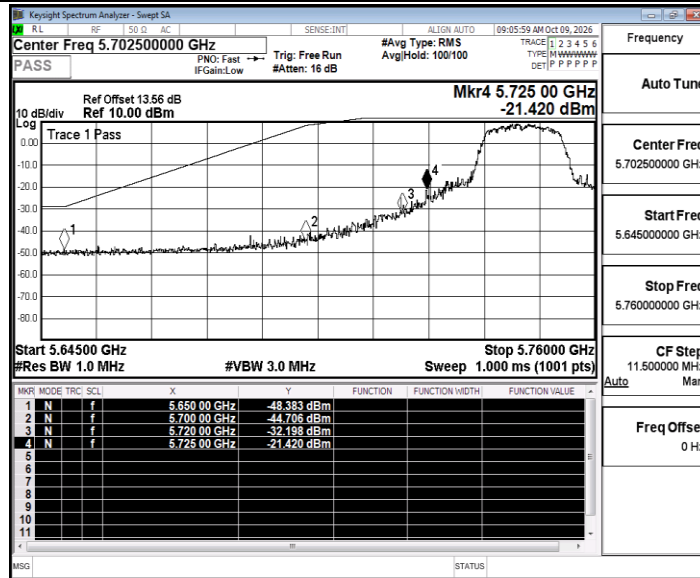
				Peak	5875.000	-37.770	≤ 7.07	2.93	PASS
				Peak	5925.000	-45.490	≤ -29.93	2.93	PASS

Note:

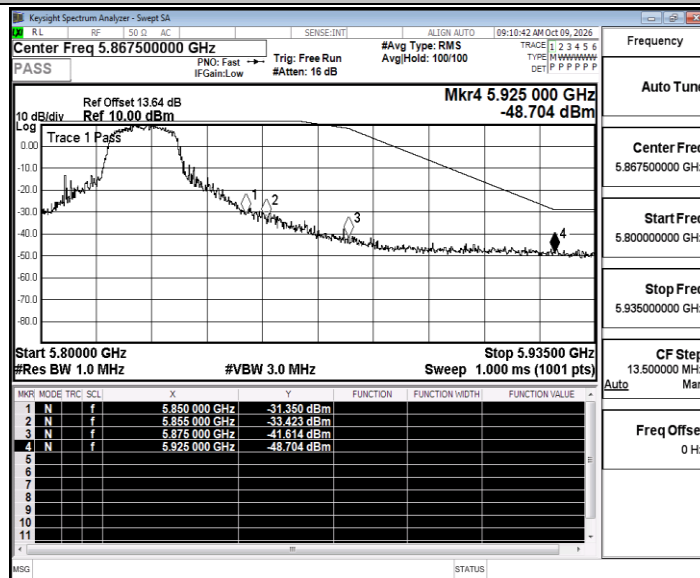
1. The Antenna Gain is compensated in the graph.

Test Graphs

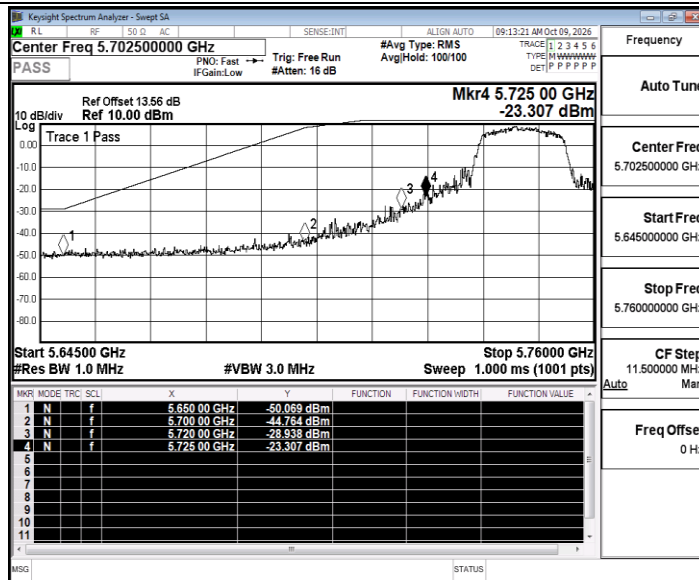
11A_Ant1_Low_5745_Peak



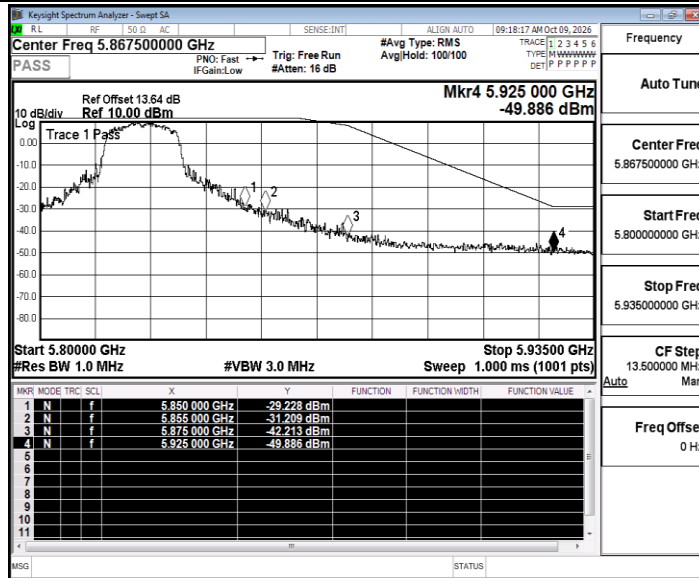
11A_Ant1_High_5825_Peak



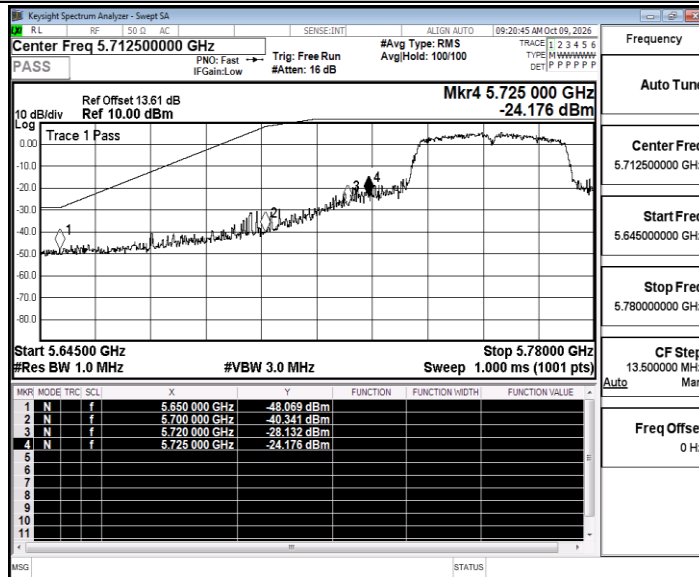
11N20SISO_Ant1_Low_5745_Peak



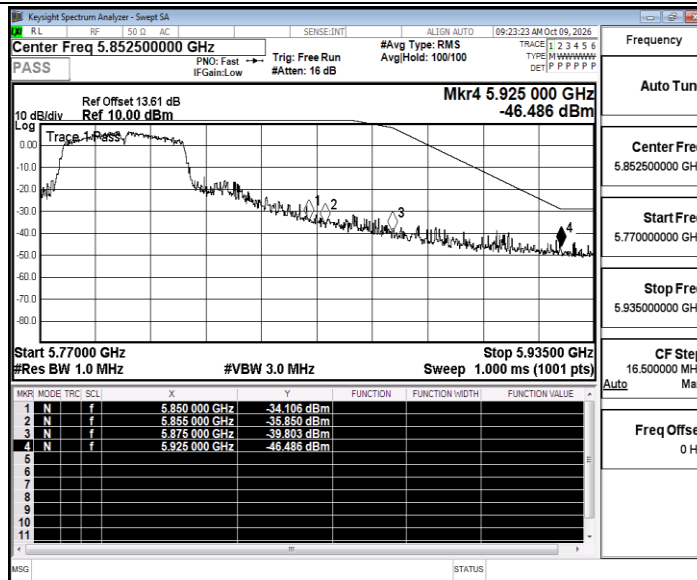
11N20SISO_Ant1_High_5825_Peak



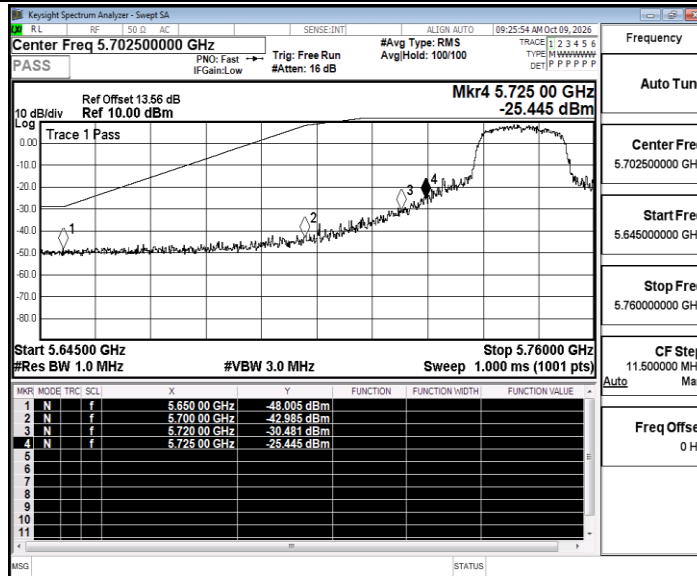
11N40SISO_Ant1_Low_5755_Peak



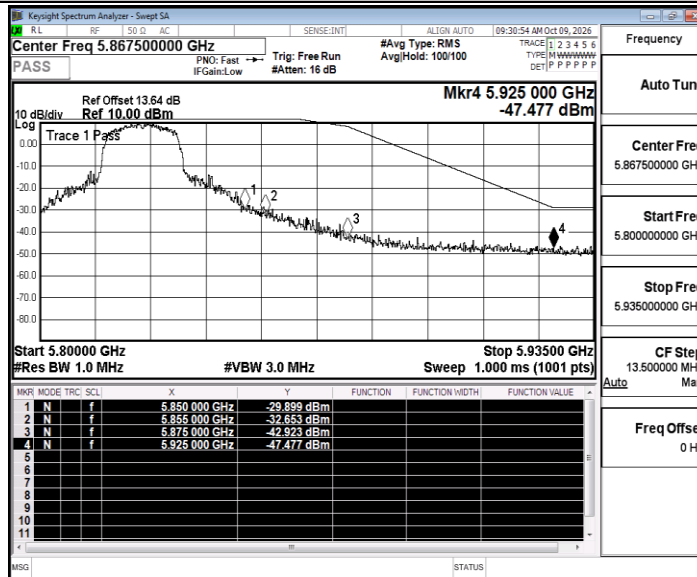
11N40SISO_Ant1_High_5795_Peak



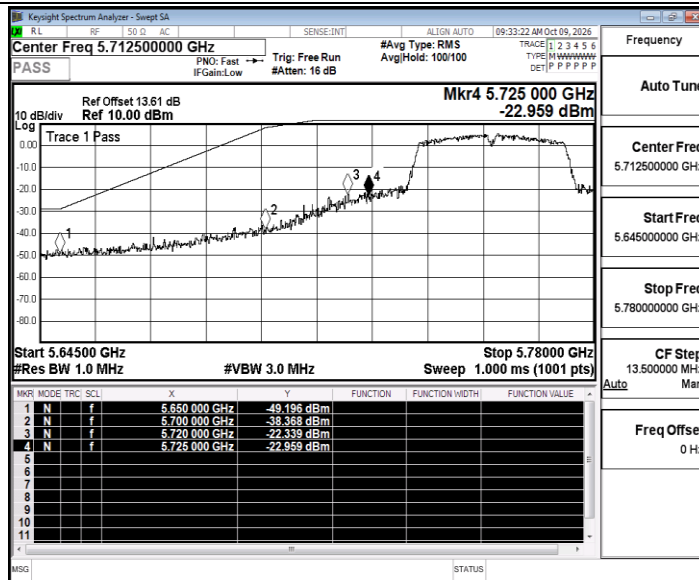
11AC20SISO_Ant1_Low_5745_Peak



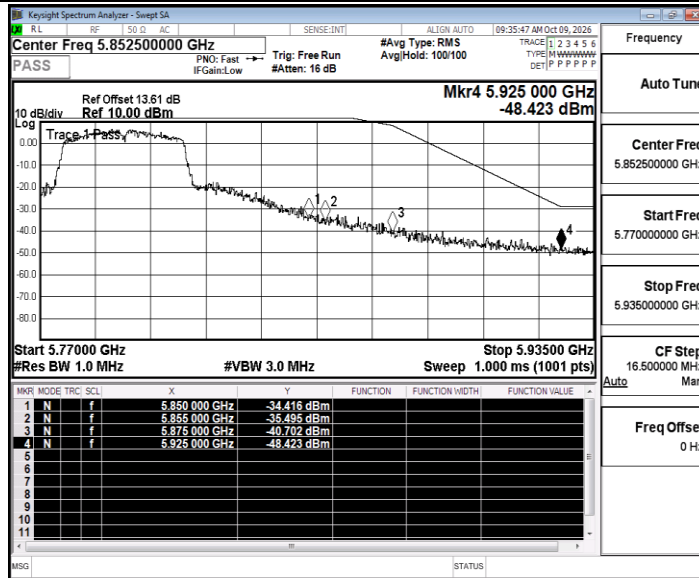
11AC20SISO_Ant1_High_5825_Peak



11AC40SISO_Ant1_Low_5755_Peak



11AC40SISO_Ant1_High_5795_Peak



G.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Freq (MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	NT	-20000.00	-3.481288	20	PASS
			LV	NT	-20000.00	-3.481288	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5785	NV	NT	-20000.00	-3.457217	20	PASS
			LV	NT	-20000.00	-3.457217	20	PASS
			HV	NT	-20000.00	-3.457217	20	PASS
		5825	NV	NT	-60000.00	-10.300429	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-60000.00	-10.300429	20	PASS
11N20SISO	Ant1	5745	NV	NT	0.00	0.000000	20	PASS
			LV	NT	20000.00	3.481288	20	PASS
			HV	NT	-60000.00	-10.443864	20	PASS
		5785	NV	NT	-20000.00	-3.457217	20	PASS
			LV	NT	-20000.00	-3.457217	20	PASS
			HV	NT	-60000.00	-10.371651	20	PASS
		5825	NV	NT	-60000.00	-10.300429	20	PASS
			LV	NT	20000.00	3.433476	20	PASS
			HV	NT	-40000.00	-6.866953	20	PASS
11N40SISO	Ant1	5755	NV	NT	40000.00	6.950478	20	PASS
			LV	NT	40000.00	6.950478	20	PASS
			HV	NT	-80000.00	-13.900956	20	PASS
		5795	NV	NT	0.00	0.000000	20	PASS
			LV	NT	40000.00	6.902502	20	PASS
			HV	NT	-20000.00	-3.457217	20	PASS
11AC20SISO	Ant1	5745	NV	NT	-20000.00	-3.481288	20	PASS
			LV	NT	-60000.00	-10.443864	20	PASS
			HV	NT	20000.00	3.481288	20	PASS
		5785	NV	NT	-20000.00	-3.457217	20	PASS
			LV	NT	20000.00	3.457217	20	PASS
			HV	NT	-60000.00	-10.371651	20	PASS
		5825	NV	NT	-40000.00	-6.866953	20	PASS
			LV	NT	-60000.00	-10.300429	20	PASS
			HV	NT	80000.00	13.733906	20	PASS
11AC40SISO	Ant1	5755	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-20000.00	-3.457217	20	PASS
			HV	NT	-20000.00	-3.457217	20	PASS
		5795	NV	NT	-20000.00	-3.457217	20	PASS

			LV	NT	-20000.00	-3.457217	20	PASS
			HV	NT	-20000.00	-3.457217	20	PASS

Temperature								
TestMode	Antenna	Freq (MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	-60000.00	-10.443864	20	PASS
			NV	-20	-20000.00	-3.481288	20	PASS
			NV	-10	-20000.00	-3.481288	20	PASS
			NV	0	-40000.00	-6.962576	20	PASS
			NV	10	20000.00	3.481288	20	PASS
			NV	20	20000.00	3.481288	20	PASS
			NV	30	20000.00	3.481288	20	PASS
			NV	40	20000.00	3.481288	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5785	NV	-30	20000.00	3.457217	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-20000.00	-3.457217	20	PASS
			NV	0	-80000.00	-13.828868	20	PASS
			NV	10	-20000.00	-3.457217	20	PASS
			NV	20	80000.00	13.828868	20	PASS
			NV	30	-20000.00	-3.457217	20	PASS
			NV	40	20000.00	3.457217	20	PASS
			NV	50	-20000.00	-3.457217	20	PASS
		5825	NV	-30	-60000.00	-10.300429	20	PASS
			NV	-20	40000.00	6.866953	20	PASS
			NV	-10	60000.00	10.300429	20	PASS
			NV	0	20000.00	3.481288	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	20000.00	3.433476	20	PASS
			NV	30	-20000.00	-3.433476	20	PASS
			NV	40	-20000.00	-3.433476	20	PASS
			NV	50	20000.00	3.481288	20	PASS
11N20SISO	Ant1	5745	NV	-30	-40000.00	-6.962576	20	PASS
			NV	-20	-20000.00	-3.481288	20	PASS
			NV	-10	-40000.00	-6.962576	20	PASS
			NV	0	-60000.00	-10.443864	20	PASS
			NV	10	-20000.00	-3.481288	20	PASS
			NV	20	-20000.00	-3.481288	20	PASS
			NV	30	20000.00	3.481288	20	PASS
			NV	40	20000.00	3.481288	20	PASS
			NV	50	20000.00	3.481288	20	PASS
		5785	NV	-30	40000.00	6.914434	20	PASS
			NV	-20	60000.00	10.371651	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	20000.00	3.481288	20	PASS
			NV	10	-60000.00	-10.371651	20	PASS
			NV	-30	-40000.00	-6.962576	20	PASS

			NV	20	20000.00	3.481288	20	PASS
			NV	30	40000.00	6.914434	20	PASS
			NV	40	20000.00	3.457217	20	PASS
			NV	50	20000.00	3.481288	20	PASS
		5825	NV	-30	-60000.00	-10.300429	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	-20000.00	-3.433476	20	PASS
			NV	20	-40000.00	-6.866953	20	PASS
			NV	30	-40000.00	-6.866953	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11N40SISO	Ant1	5755	NV	-30	40000.00	6.950478	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	20000.00	3.481288	20	PASS
			NV	0	-40000.00	-6.950478	20	PASS
			NV	10	20000.00	3.481288	20	PASS
			NV	20	20000.00	3.481288	20	PASS
			NV	30	20000.00	3.481288	20	PASS
			NV	40	20000.00	3.481288	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5795	NV	-30	20000.00	3.481288	20	PASS
			NV	-20	20000.00	3.481288	20	PASS
			NV	-10	-80000.00	-13.805004	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	20000.00	3.481288	20	PASS
			NV	20	20000.00	3.481288	20	PASS
			NV	30	20000.00	3.481288	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11AC20SISO	Ant1	5745	NV	-30	-20000.00	-3.481288	20	PASS
			NV	-20	20000.00	3.481288	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	-20000.00	-3.481288	20	PASS
			NV	30	-60000.00	-10.443864	20	PASS
			NV	40	-20000.00	-3.481288	20	PASS
			NV	50	-100000.00	-17.406440	20	PASS
		5785	NV	-30	20000.00	3.457217	20	PASS
			NV	-20	100000.00	17.286085	20	PASS
			NV	-10	-40000.00	-6.914434	20	PASS
			NV	0	40000.00	6.914434	20	PASS

			NV	10	20000.00	3.457217	20	PASS
			NV	20	20000.00	3.481288	20	PASS
			NV	30	-80000.00	-13.828868	20	PASS
			NV	40	20000.00	3.457217	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5825	NV	-30	100000.00	17.167382	20	PASS
			NV	-20	-40000.00	-6.866953	20	PASS
			NV	-10	20000.00	3.481288	20	PASS
			NV	0	-20000.00	-3.433476	20	PASS
			NV	10	20000.00	3.433476	20	PASS
			NV	20	20000.00	3.481288	20	PASS
			NV	30	-40000.00	-6.866953	20	PASS
			NV	40	-20000.00	-3.433476	20	PASS
			NV	50	-20000.00	-3.433476	20	PASS
11AC40SISO	Ant1	5755	NV	-30	20000.00	3.481288	20	PASS
			NV	-20	-40000.00	-6.950478	20	PASS
			NV	-10	-40000.00	-6.950478	20	PASS
			NV	0	80000.00	13.900956	20	PASS
			NV	10	-40000.00	-6.950478	20	PASS
			NV	20	-40000.00	-6.950478	20	PASS
			NV	30	20000.00	3.481288	20	PASS
			NV	40	-40000.00	-6.950478	20	PASS
			NV	50	-40000.00	-6.950478	20	PASS
		5795	NV	-30	20000.00	3.481288	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	20000.00	3.481288	20	PASS
			NV	0	-40000.00	-6.902502	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	40000.00	6.902502	20	PASS
			NV	40	20000.00	3.481288	20	PASS
			NV	50	0.00	0.000000	20	PASS

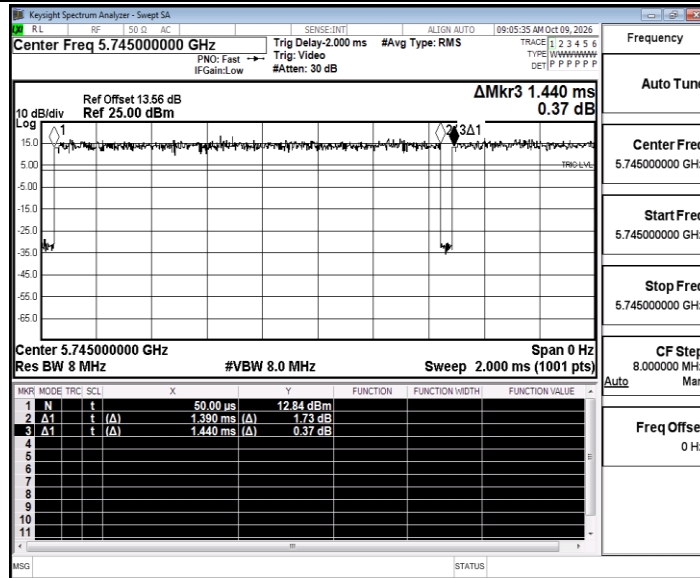
G.6 Duty Cycle

Test Result

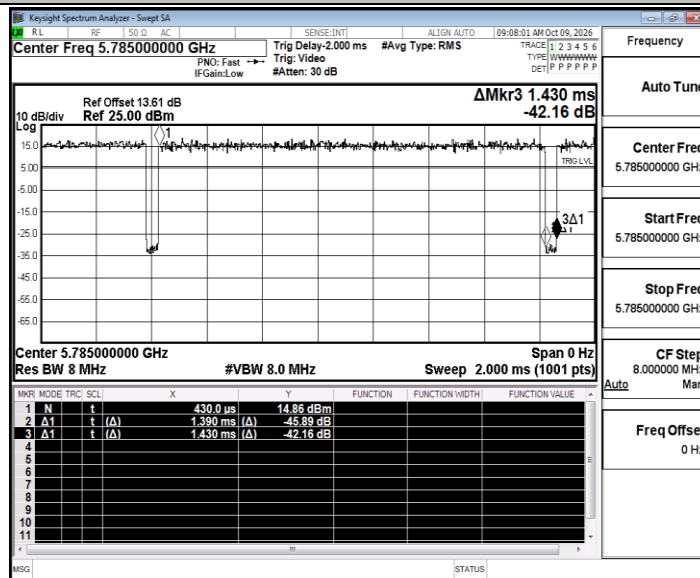
TestMode	Antenna	Freq (MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	Limit	Verdict
11A	Ant1	5745	1.39	1.44	96.53	0.15	---	---
		5785	1.39	1.43	97.20	0.12	---	---
		5825	1.39	1.44	96.53	0.15	---	---
11N20SISO	Ant1	5745	1.29	1.34	96.27	0.17	---	---
		5785	1.30	1.34	97.01	0.13	---	---
		5825	1.30	1.35	96.30	0.16	---	---
11N40SISO	Ant1	5755	0.65	0.69	94.20	0.26	---	---
		5795	0.64	0.69	92.75	0.33	---	---
11AC20SISO	Ant1	5745	1.31	1.35	97.04	0.13	---	---
		5785	1.31	1.36	96.32	0.16	---	---
		5825	1.30	1.35	96.30	0.16	---	---
11AC40SISO	Ant1	5755	0.65	0.70	92.86	0.32	---	---
		5795	0.65	0.70	92.86	0.32	---	---

Test Graphs

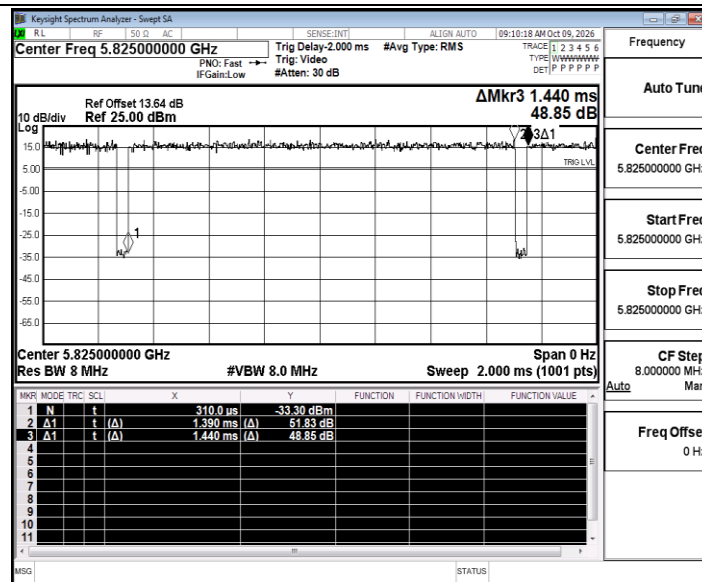
11A_Ant1_5745



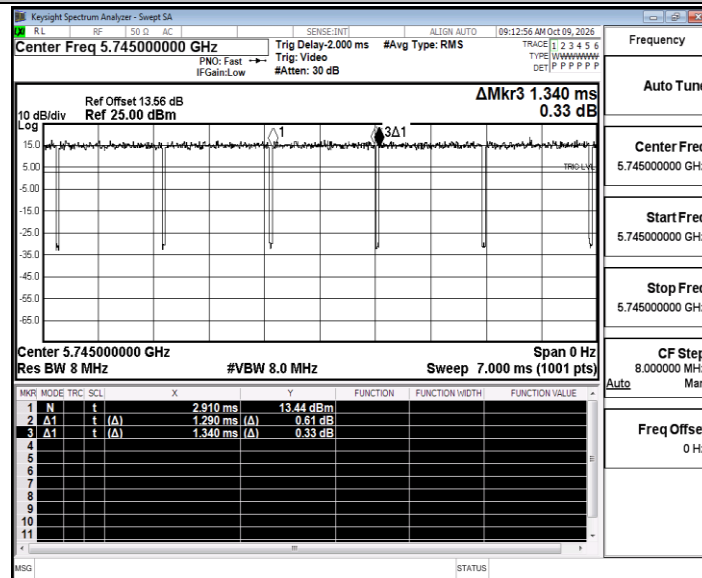
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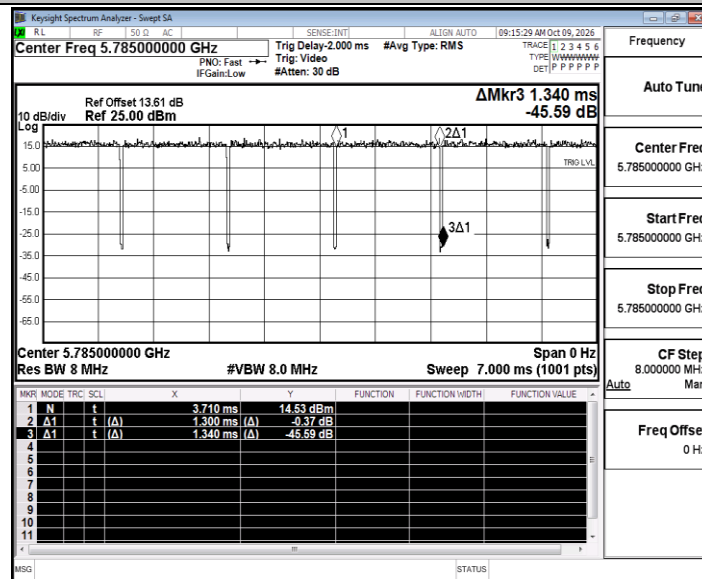
11A_Ant1_5825



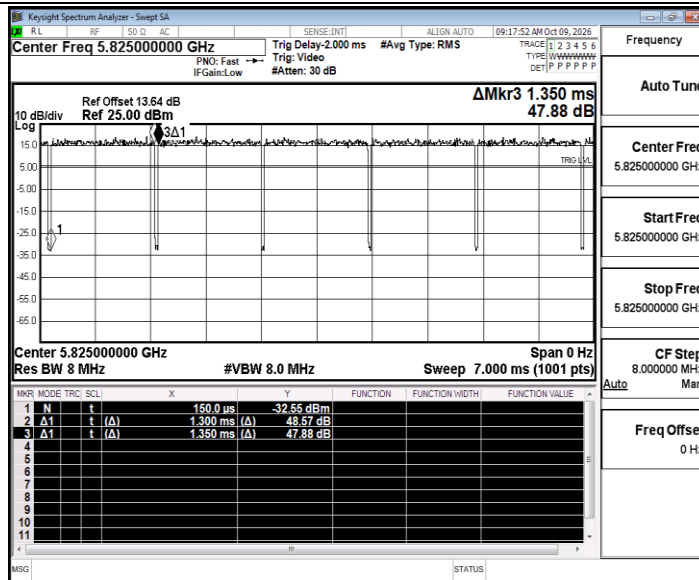
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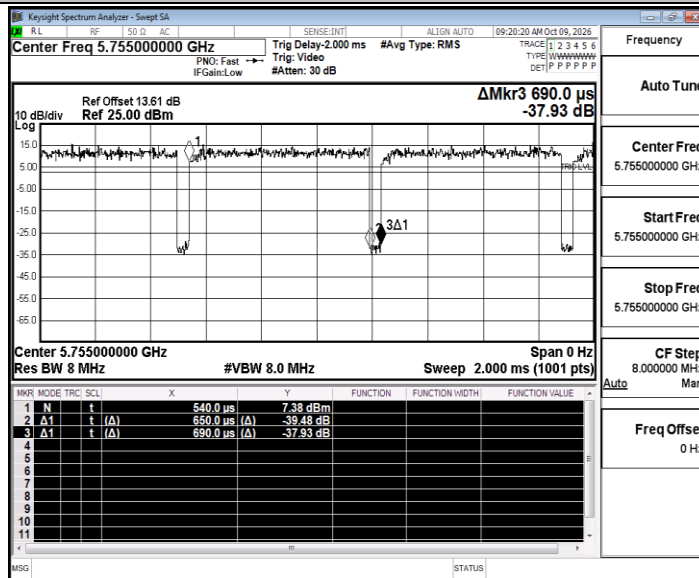
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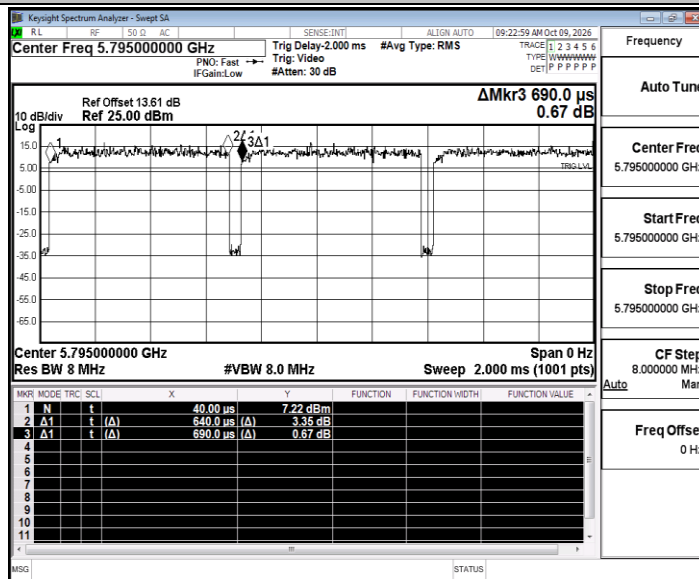
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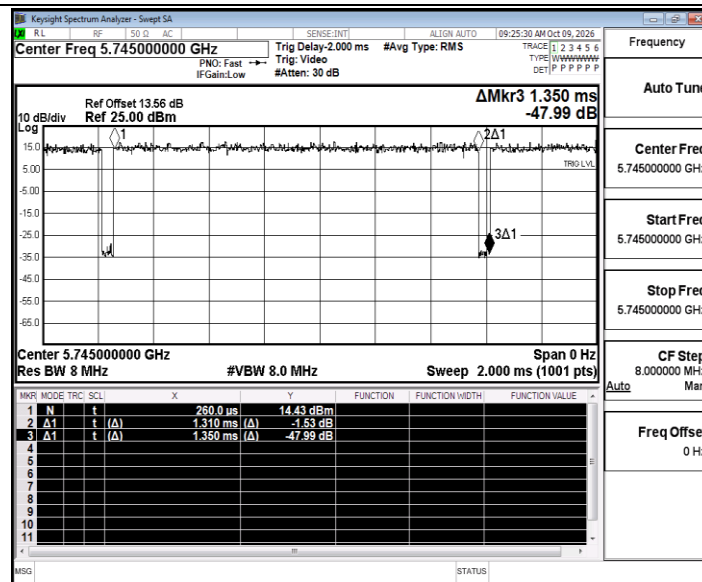
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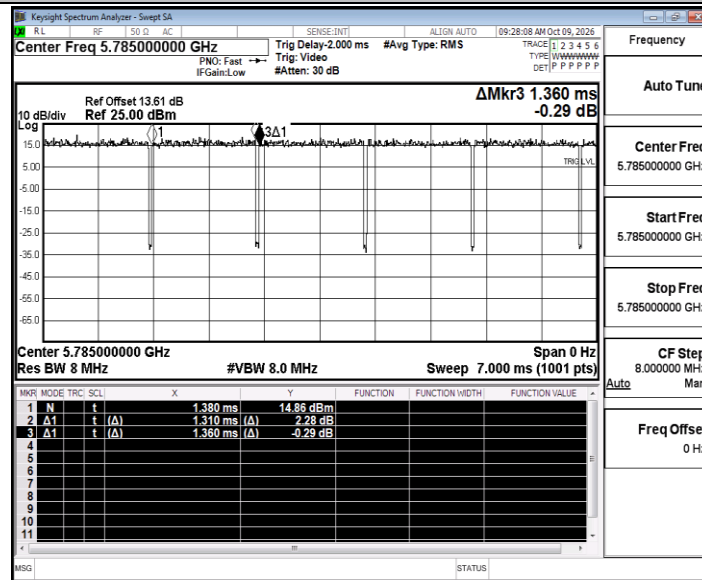
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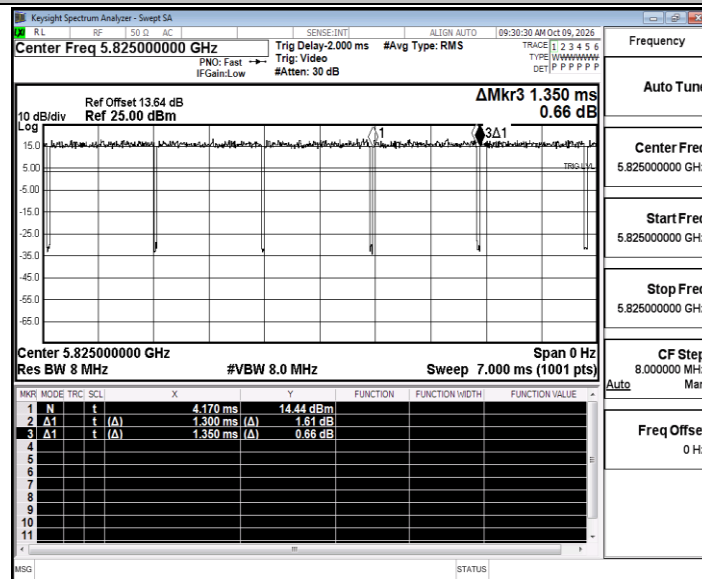
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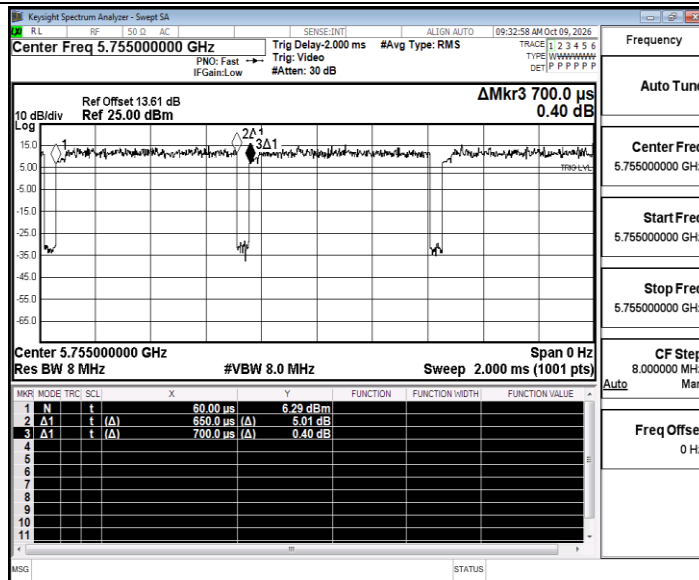
11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795

