

Appendix E

RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: Tablet

Test Model: HPD-AD610

Environmental Conditions

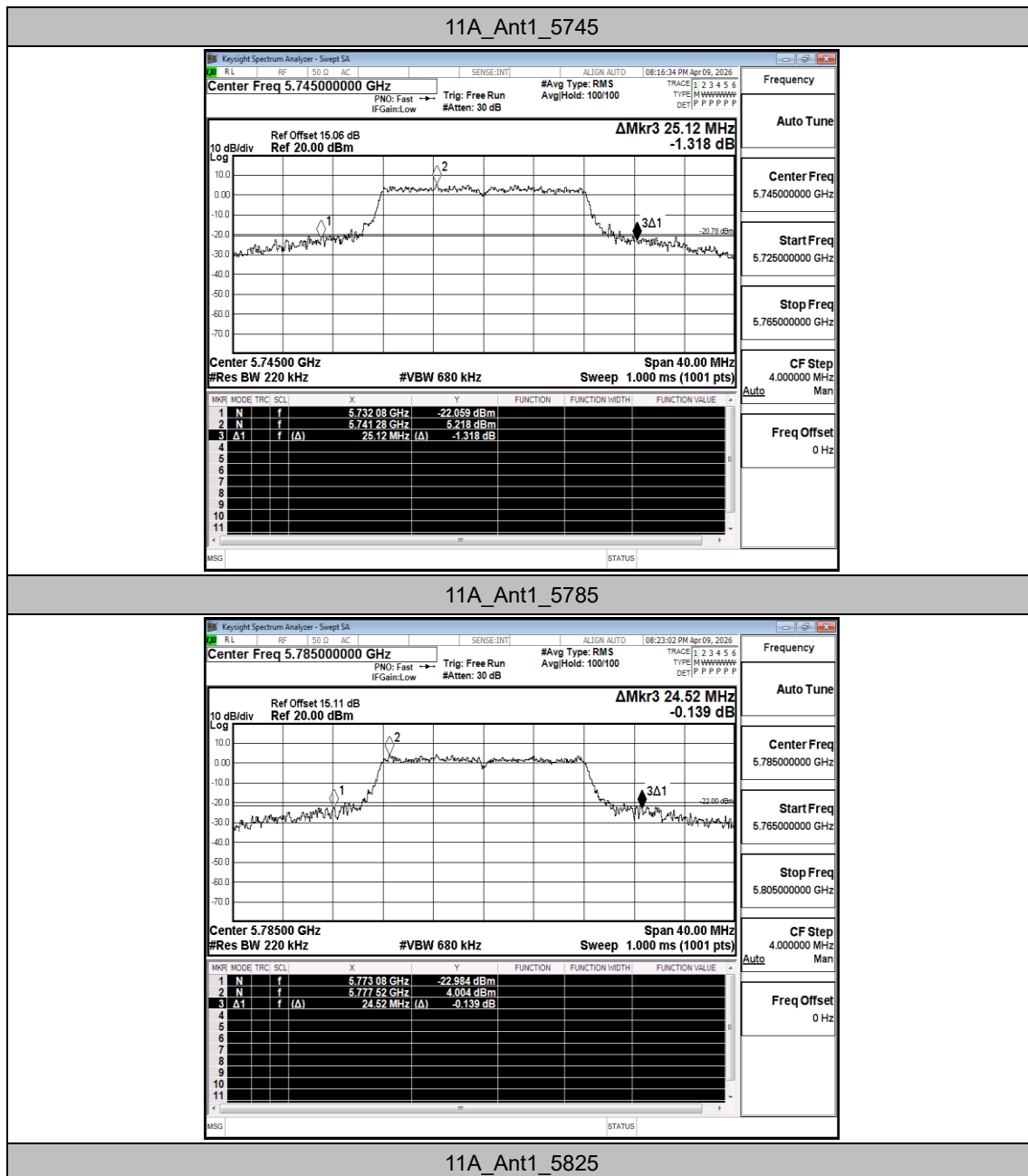
Temperature:	24.7°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

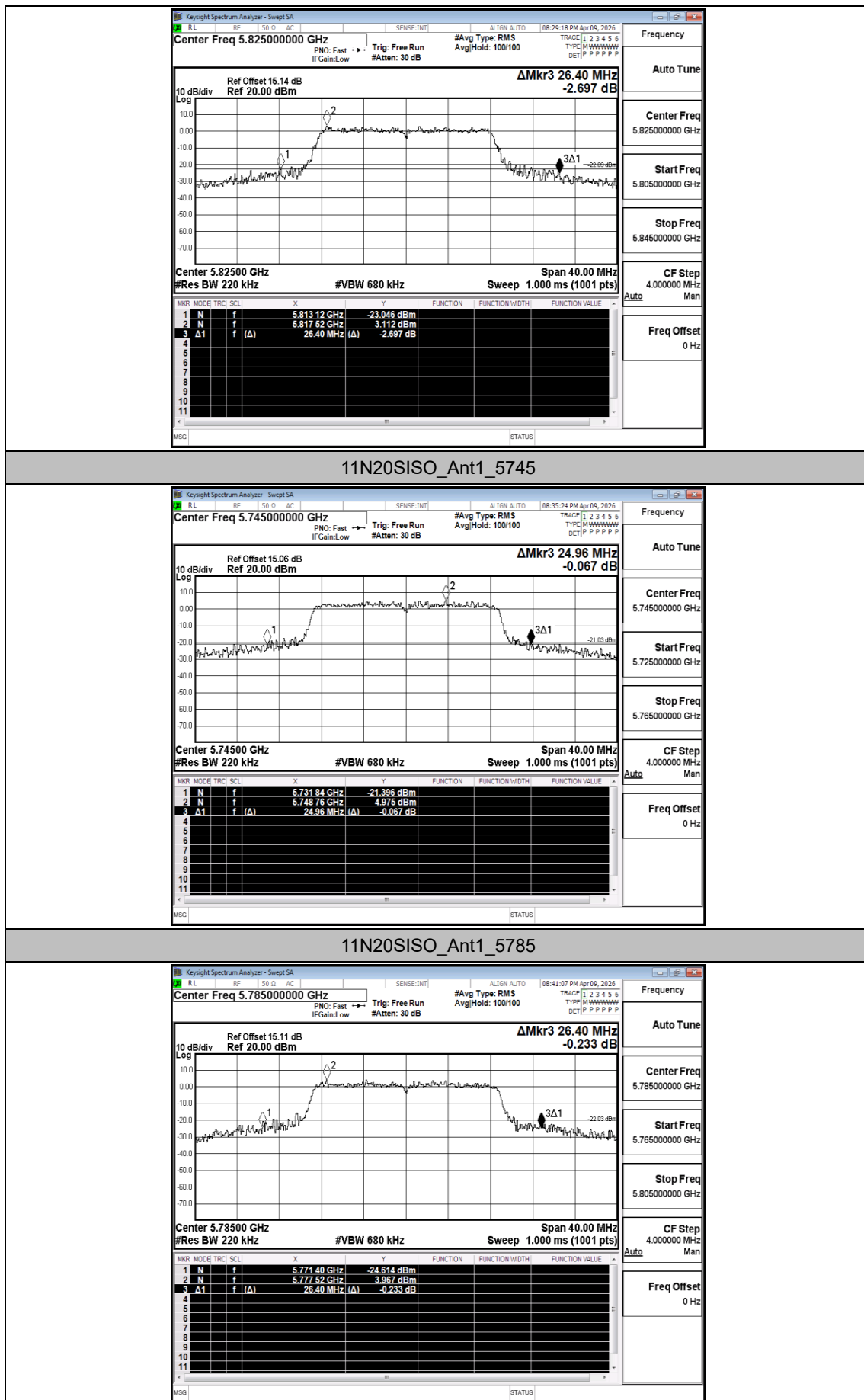
E.1 Emission Bandwidth

Test Result

TestMode	Antenna	Freq (MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	25.120	5732.080	5757.200	---	---
		5785	24.520	5773.080	5797.600	---	---
		5825	26.400	5813.120	5839.520	---	---
11N20SISO	Ant1	5745	24.960	5731.840	5756.800	---	---
		5785	26.400	5771.400	5797.800	---	---
		5825	27.240	5811.040	5838.280	---	---
11N40SISO	Ant1	5755	58.240	5725.800	5784.040	---	---
		5795	52.640	5768.440	5821.080	---	---
11AC20SISO	Ant1	5745	27.280	5731.440	5758.720	---	---
		5785	25.480	5771.800	5797.280	---	---
		5825	28.440	5810.080	5838.520	---	---
11AC40SISO	Ant1	5755	68.880	5718.200	5787.080	---	---
		5795	60.880	5766.520	5827.400	---	---
11AC80SISO	Ant1	5775	97.920	5718.040	5815.960	---	---

Test Graphs



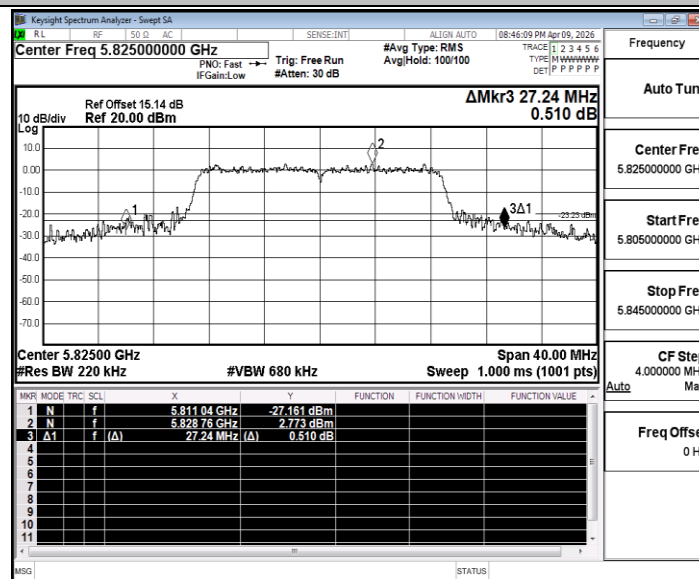


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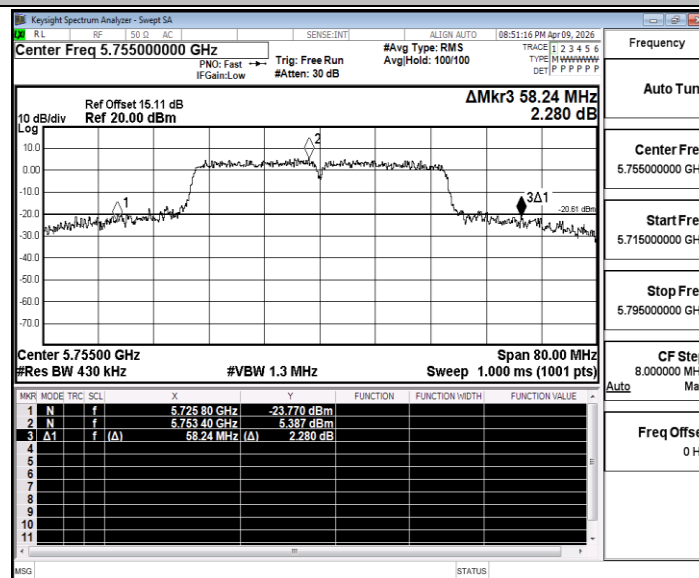
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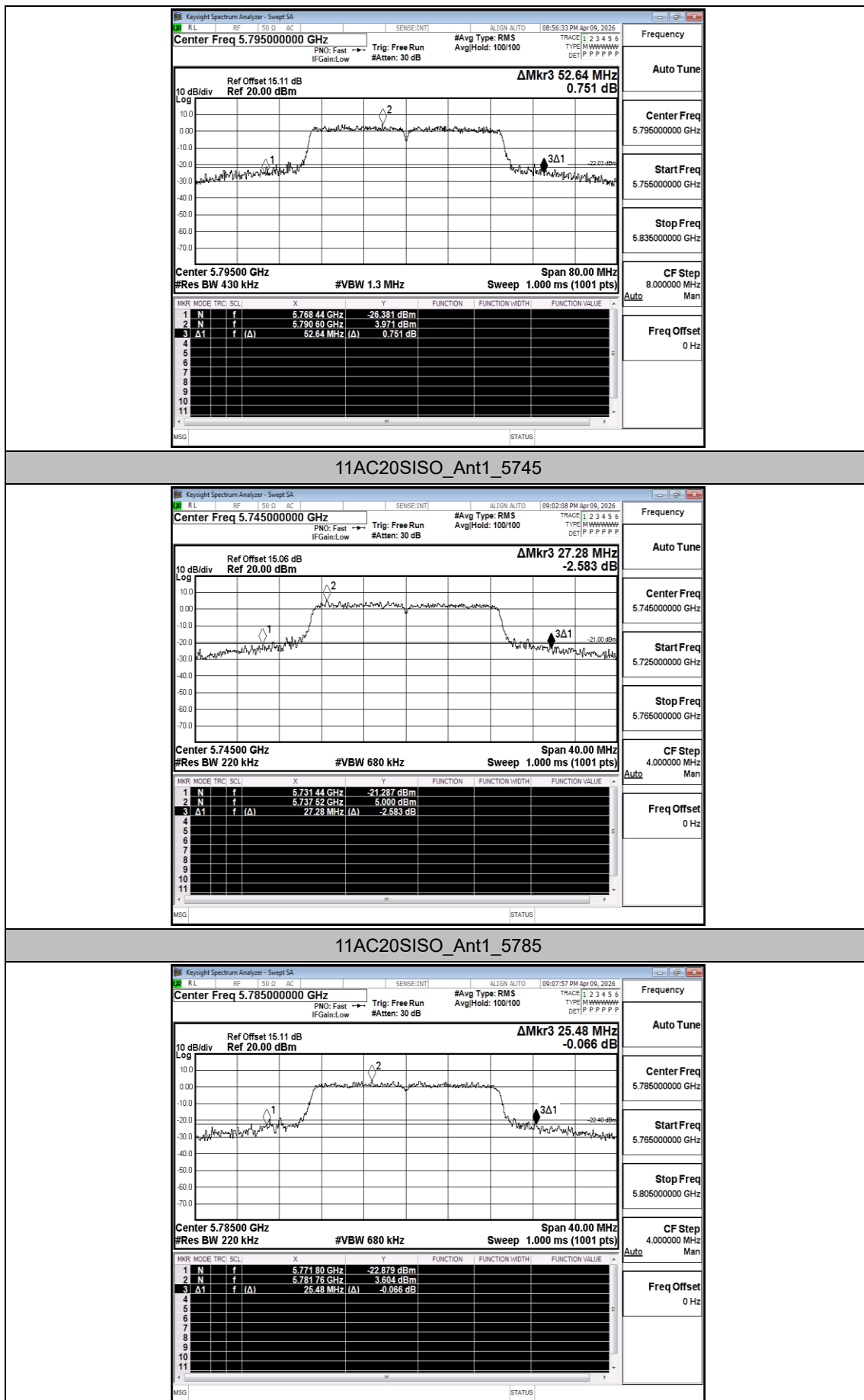
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

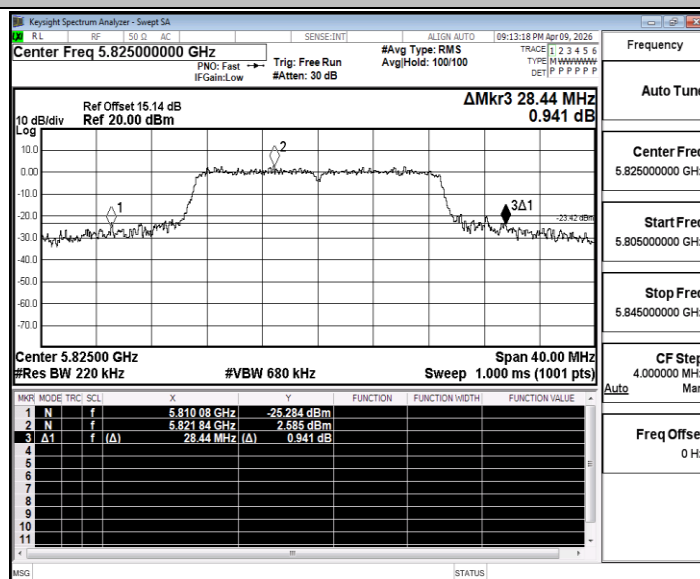


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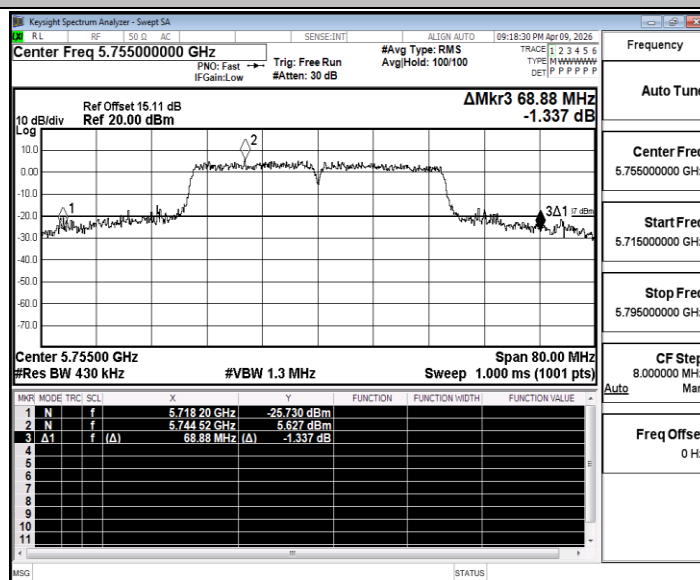
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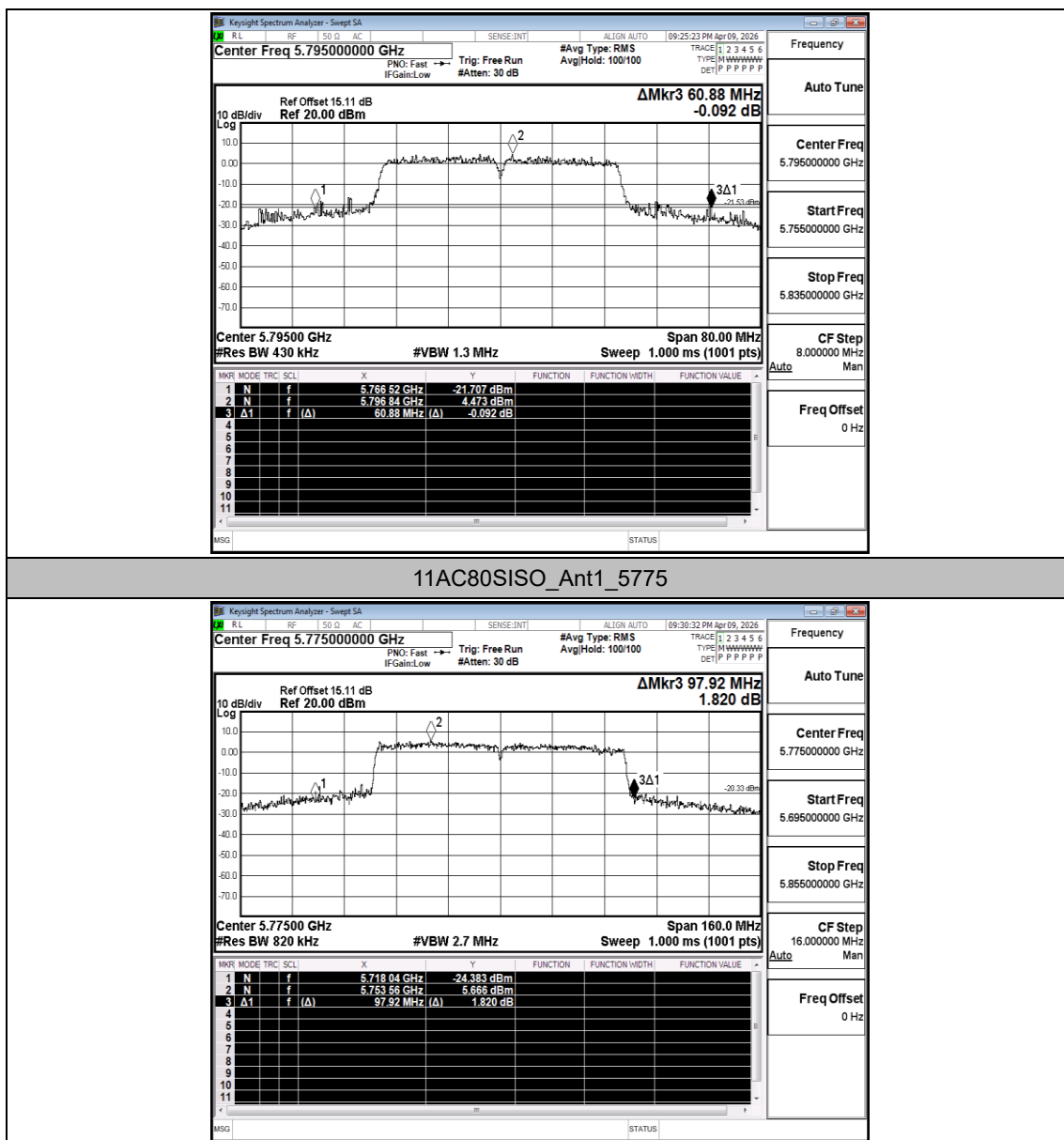
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



E.2 Maximum conducted output power

Test Result

Test Mode	Antenna	Freq (MHz)	Measured Power [dBm]	DC Factor [dB]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	16.16	0.74	16.90	≤30.00	PASS
		5785	14.63	0.82	15.45	≤30.00	PASS
		5825	13.74	0.67	14.41	≤30.00	PASS
11N20SISO	Ant1	5745	15.97	0.69	16.66	≤30.00	PASS
		5785	14.53	0.65	15.18	≤30.00	PASS
		5825	13.62	0.81	14.43	≤30.00	PASS
11N40SISO	Ant1	5755	15.50	1.21	16.71	≤30.00	PASS
		5795	14.10	1.43	15.53	≤30.00	PASS
11AC20SISO	Ant1	5745	15.85	0.62	16.47	≤30.00	PASS
		5785	14.56	0.62	15.18	≤30.00	PASS
		5825	13.55	0.67	14.22	≤30.00	PASS
11AC40SISO	Ant1	5755	15.45	1.19	16.64	≤30.00	PASS
		5795	14.20	1.48	15.68	≤30.00	PASS
11AC80SISO	Ant1	5775	14.06	2.86	16.92	≤30.00	PASS

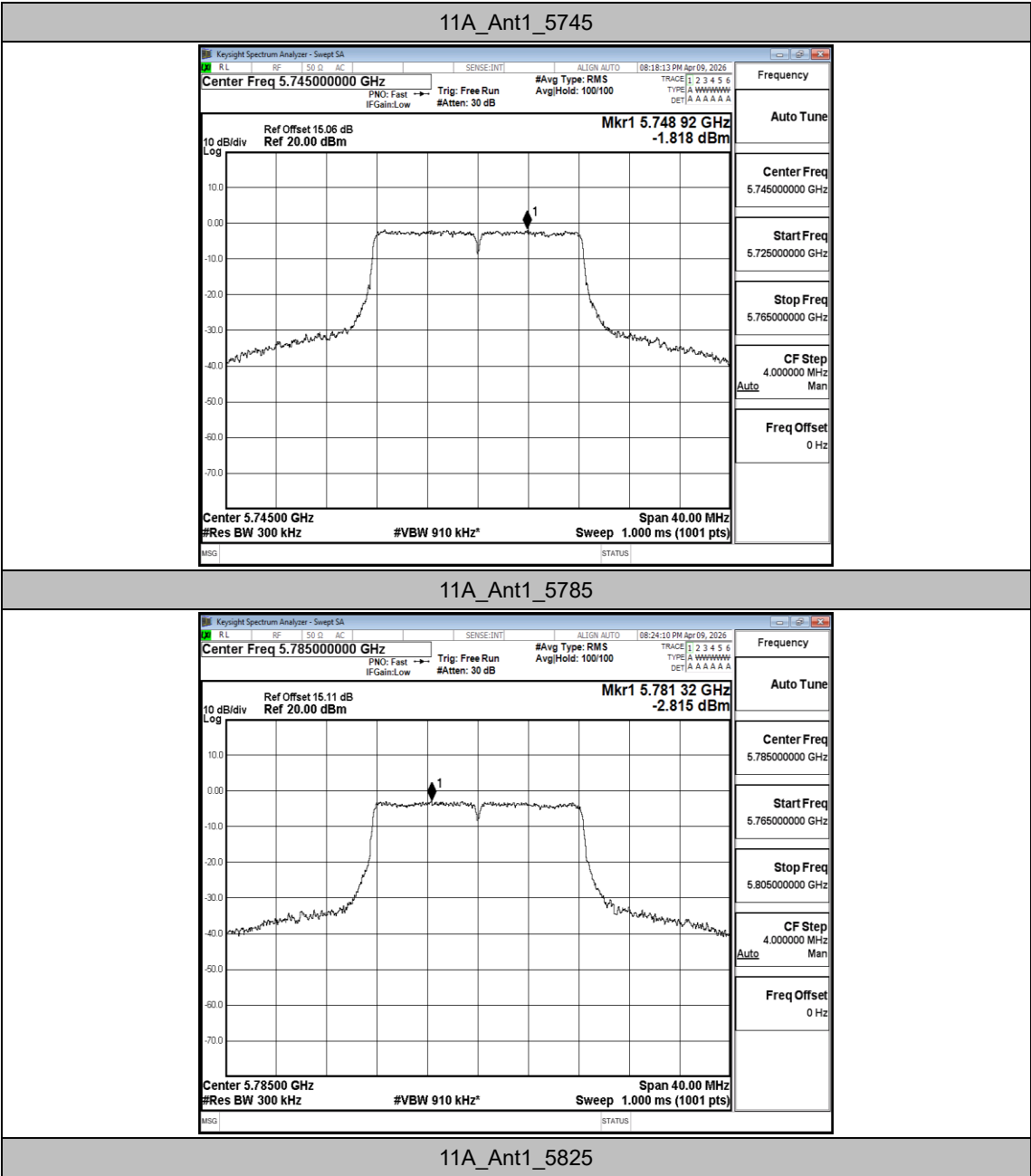
E.3 Maximum power spectral density

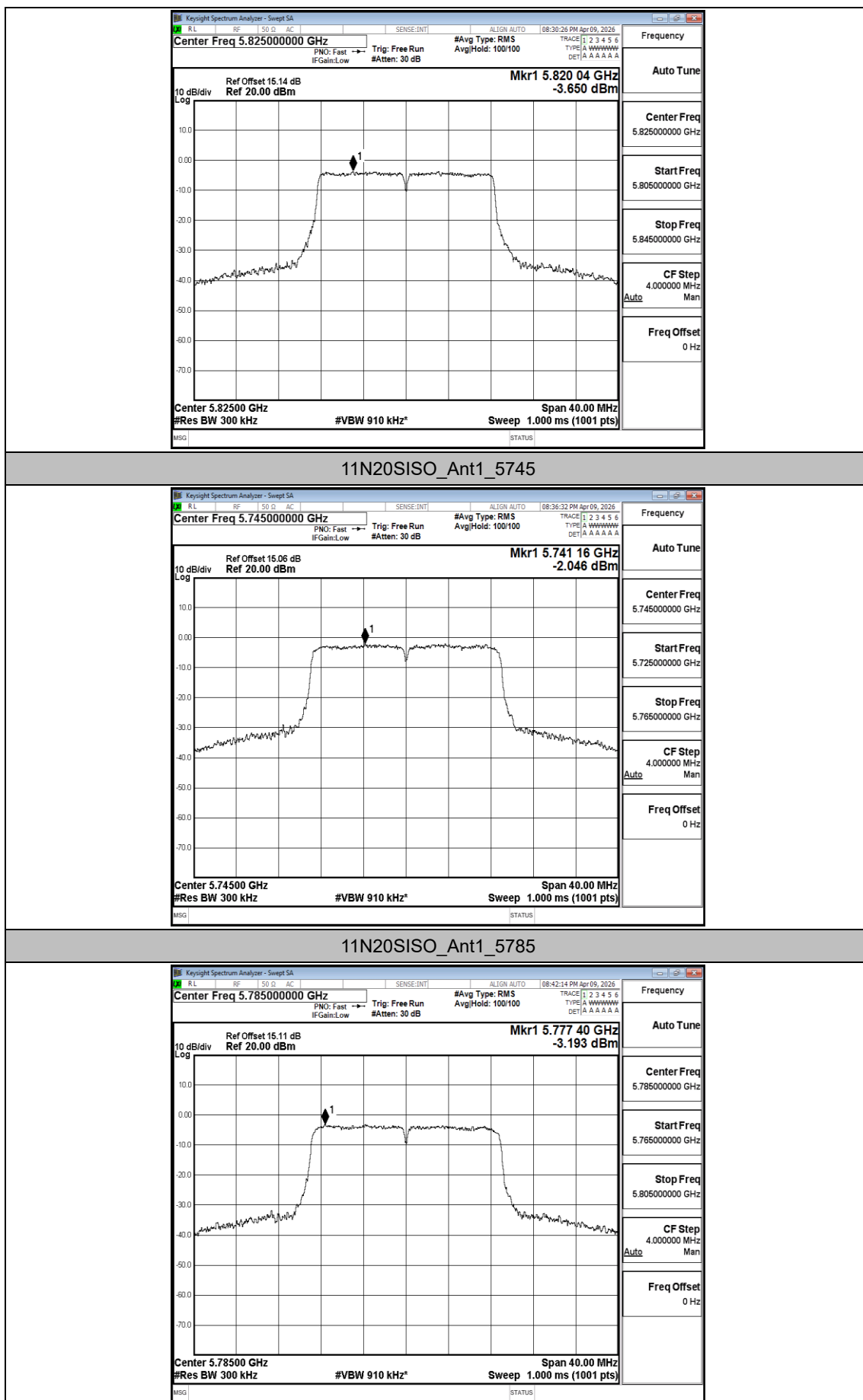
Test Result

TestMode	Antenna	Freq (MHz)	Raw Data [dBm/MHz]	DC Factor	RBW Factor	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5745	-1.82	0.74	2.22	1.14	≤30.00	PASS
		5785	-2.82	0.82	2.22	0.22	≤30.00	PASS
		5825	-3.65	0.67	2.22	-0.76	≤30.00	PASS
11N20SISO	Ant1	5745	-2.05	0.69	2.22	0.86	≤30.00	PASS
		5785	-3.19	0.65	2.22	-0.32	≤30.00	PASS
		5825	-4.05	0.81	2.22	-1.02	≤30.00	PASS
11N40SISO	Ant1	5755	-5.26	1.21	2.22	-1.83	≤30.00	PASS
		5795	-6.3	1.43	2.22	-2.65	≤30.00	PASS
11AC20SISO	Ant1	5745	-2.29	0.62	2.22	0.55	≤30.00	PASS
		5785	-3.27	0.62	2.22	-0.43	≤30.00	PASS
		5825	-4.3	0.67	2.22	-1.41	≤30.00	PASS
11AC40SISO	Ant1	5755	-5.25	1.19	2.22	-1.84	≤30.00	PASS
		5795	-6.38	1.48	2.22	-2.68	≤30.00	PASS
11AC80SISO	Ant1	5775	-8.82	2.86	2.22	-3.74	≤30.00	PASS

Note1. The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

Test Graphs



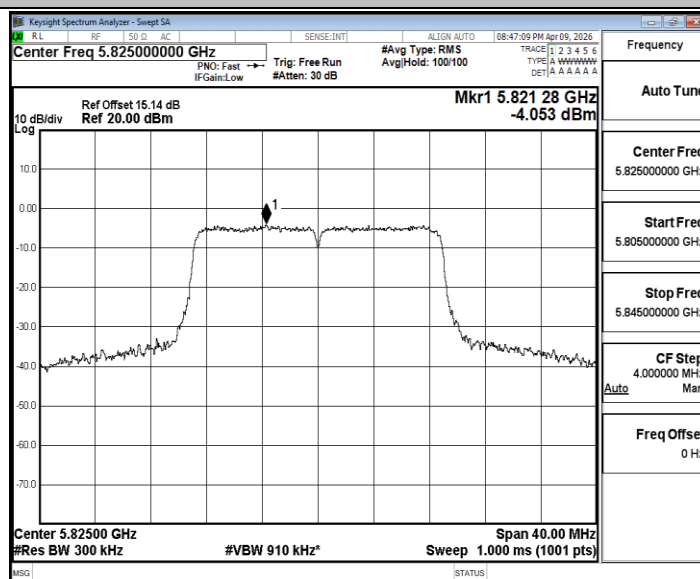


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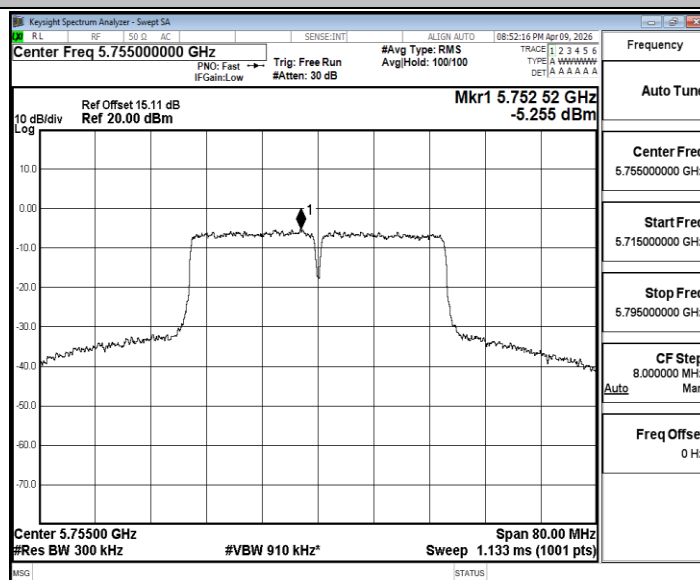
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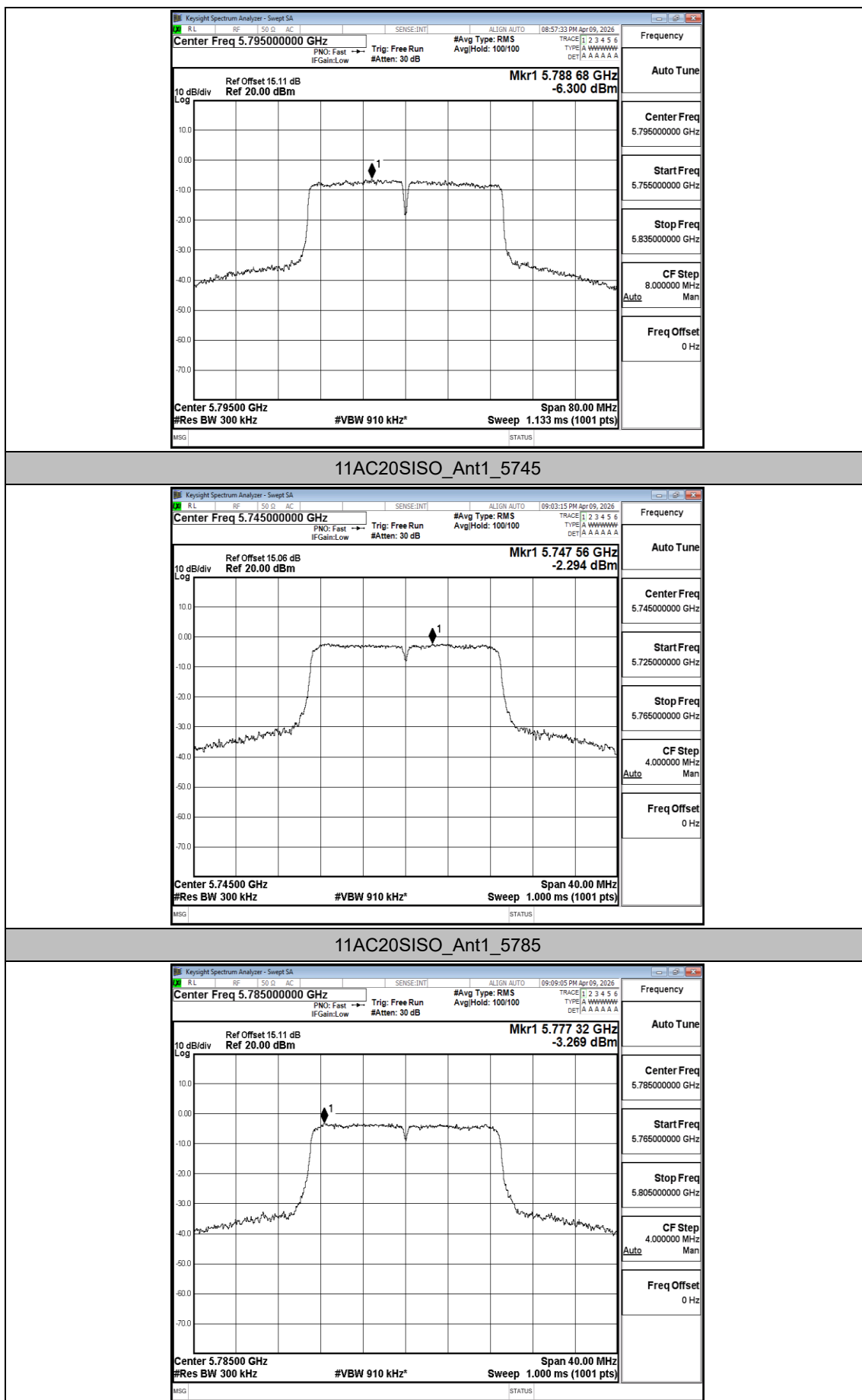
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

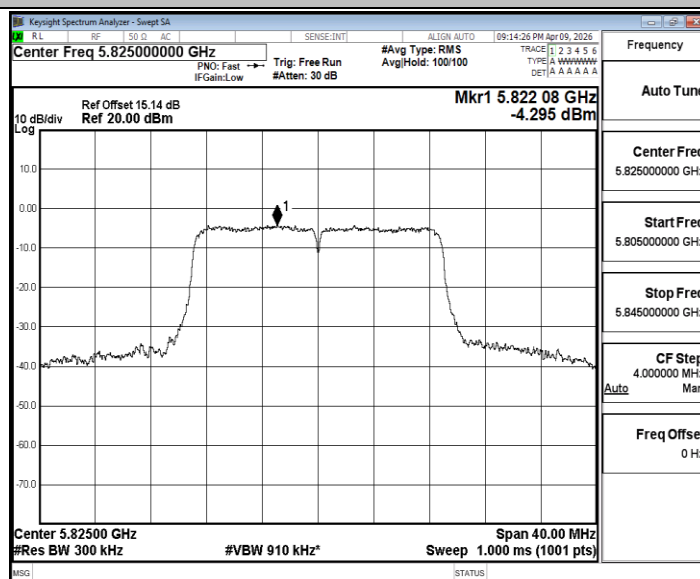


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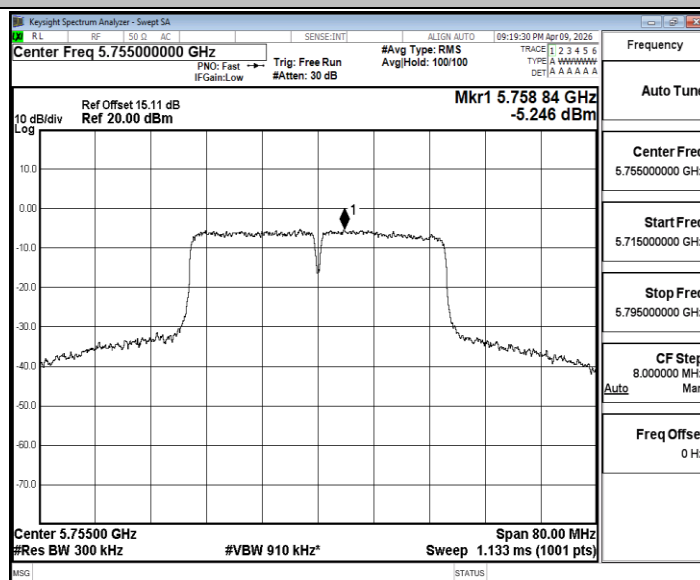
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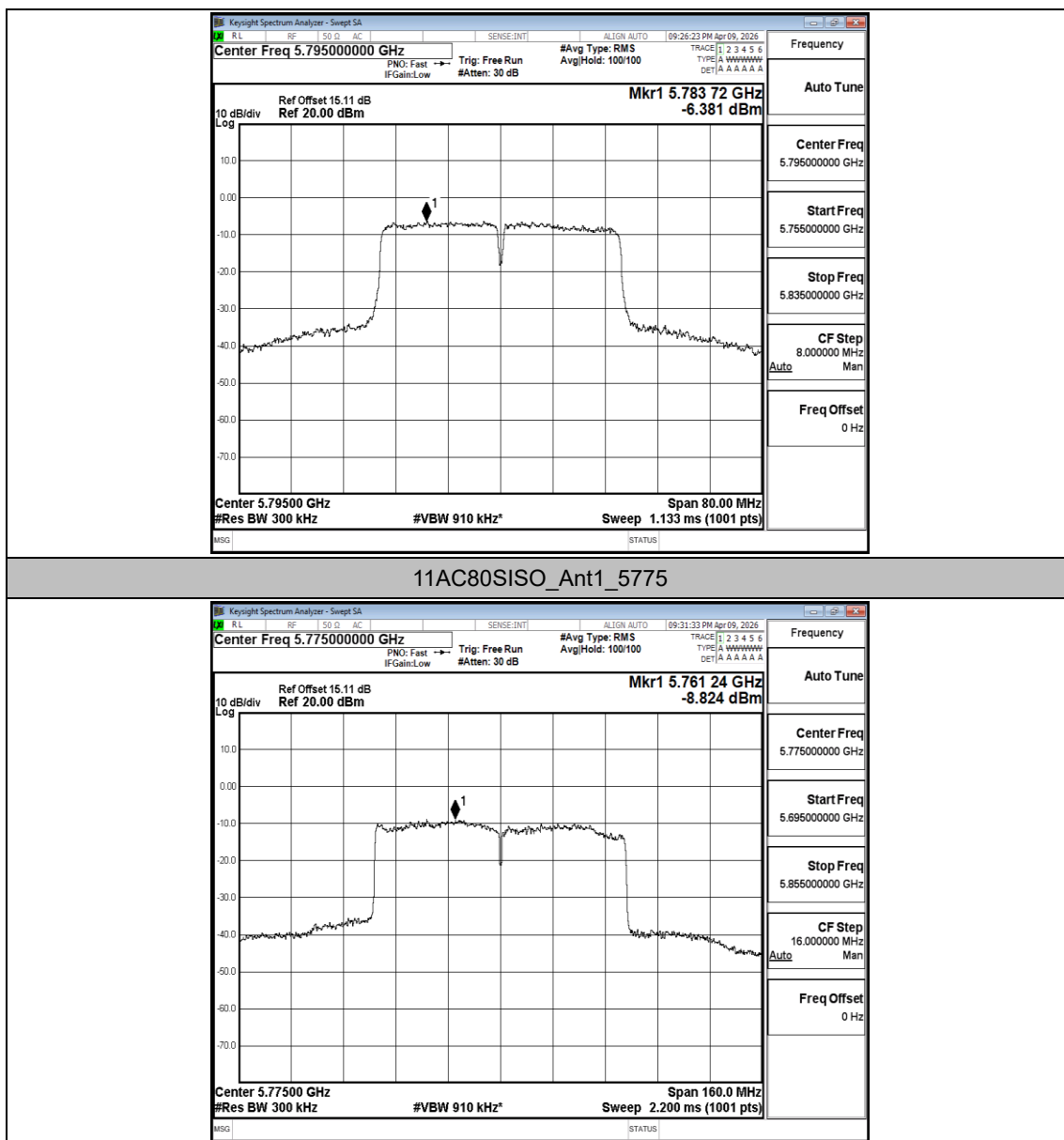
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



E.4 Emissions in Restricted Bands

Test Result

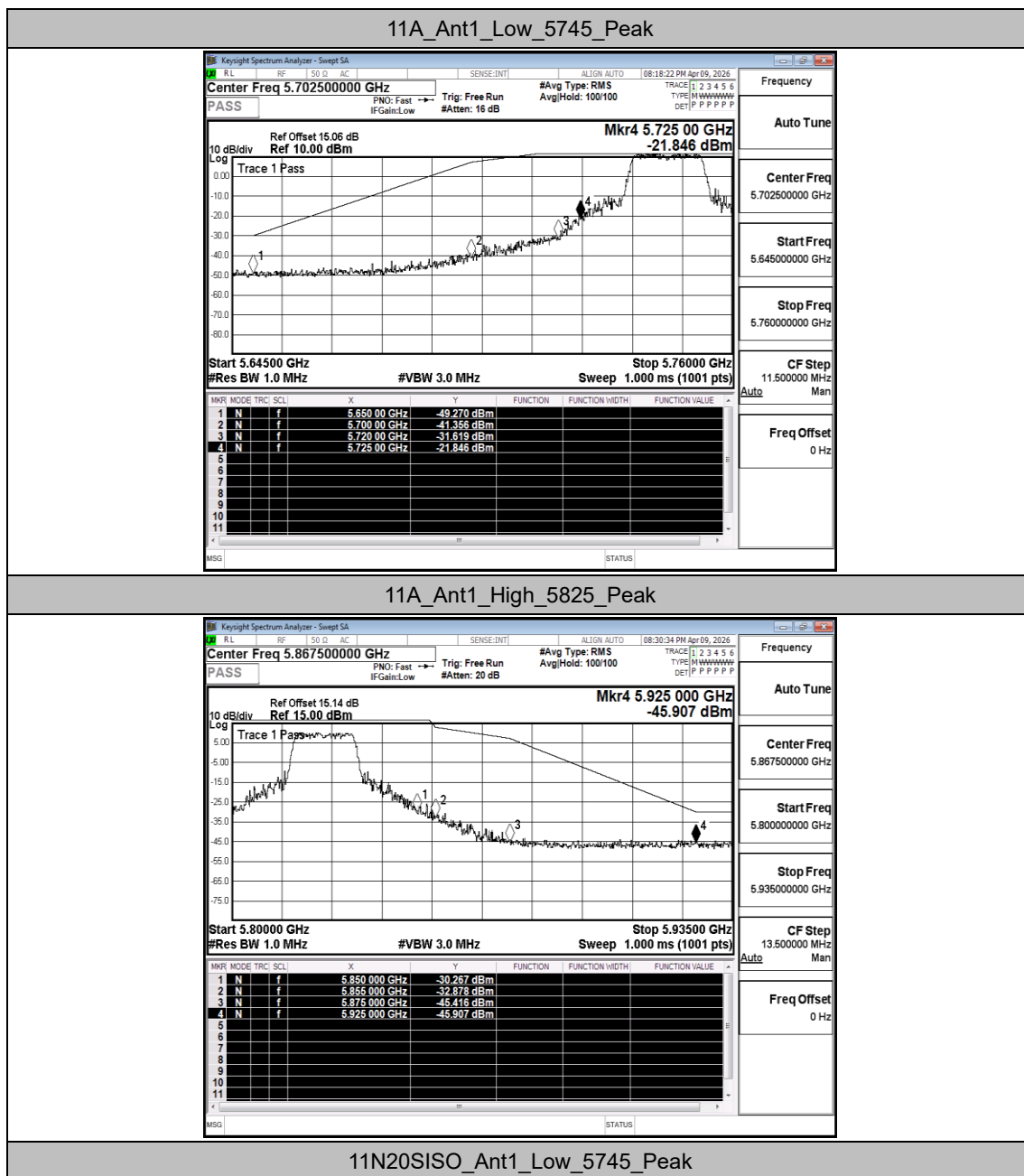
TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-49.27	≤-29.93	2.93	PASS
				Peak	5700.000	-41.36	≤7.07	2.93	PASS
				Peak	5720.000	-31.62	≤12.67	2.93	PASS
				Peak	5725.000	-21.85	≤24.07	2.93	PASS
		High	5825	Peak	5850.000	-30.267	≤24.07	2.93	PASS
				Peak	5855.000	-32.88	≤12.67	2.93	PASS
				Peak	5875.000	-45.42	≤7.07	2.93	PASS
				Peak	5925.000	-45.91	≤-27.00	2.93	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-45.961	≤-29.93	2.93	PASS
				Peak	5700.000	-41.22	≤7.07	2.93	PASS
				Peak	5720.000	-30.29	≤12.67	2.93	PASS
				Peak	5725.000	-21.69	≤24.07	2.93	PASS
		High	5825	Peak	5850.000	-27.552	≤24.07	2.93	PASS
				Peak	5855.000	-34.59	≤12.67	2.93	PASS
				Peak	5875.000	-44.7	≤7.07	2.93	PASS
				Peak	5925.000	-46.41	≤-27.00	2.93	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-41.951	≤-29.93	2.93	PASS
				Peak	5700.000	-34.25	≤7.07	2.93	PASS
				Peak	5720.000	-22.76	≤12.67	2.93	PASS
				Peak	5725.000	-16.88	≤24.07	2.93	PASS
		High	5795	Peak	5850.000	-35.294	≤24.07	2.93	PASS
				Peak	5855.000	-35.48	≤12.67	2.93	PASS
				Peak	5875.000	-43.57	≤7.07	2.93	PASS
				Peak	5925.000	-47.06	≤-27.00	2.93	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-48.1	≤-29.93	2.93	PASS
				Peak	5700.000	-39.76	≤7.07	2.93	PASS
				Peak	5720.000	-28.54	≤12.67	2.93	PASS
				Peak	5725.000	-22.21	≤24.07	2.93	PASS
		High	5825	Peak	5850.000	-27.477	≤24.07	2.93	PASS
				Peak	5855.000	-30.55	≤12.67	2.93	PASS
				Peak	5875.000	-45.88	≤7.07	2.93	PASS
				Peak	5925.000	-46.6	≤-27.00	2.93	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-44.488	≤-29.93	2.93	PASS
				Peak	5700.000	-32.35	≤7.07	2.93	PASS
				Peak	5720.000	-20.1	≤12.67	2.93	PASS
				Peak	5725.000	-17.2	≤24.07	2.93	PASS
		High	5795	Peak	5850.000	-32.676	≤24.07	2.93	PASS

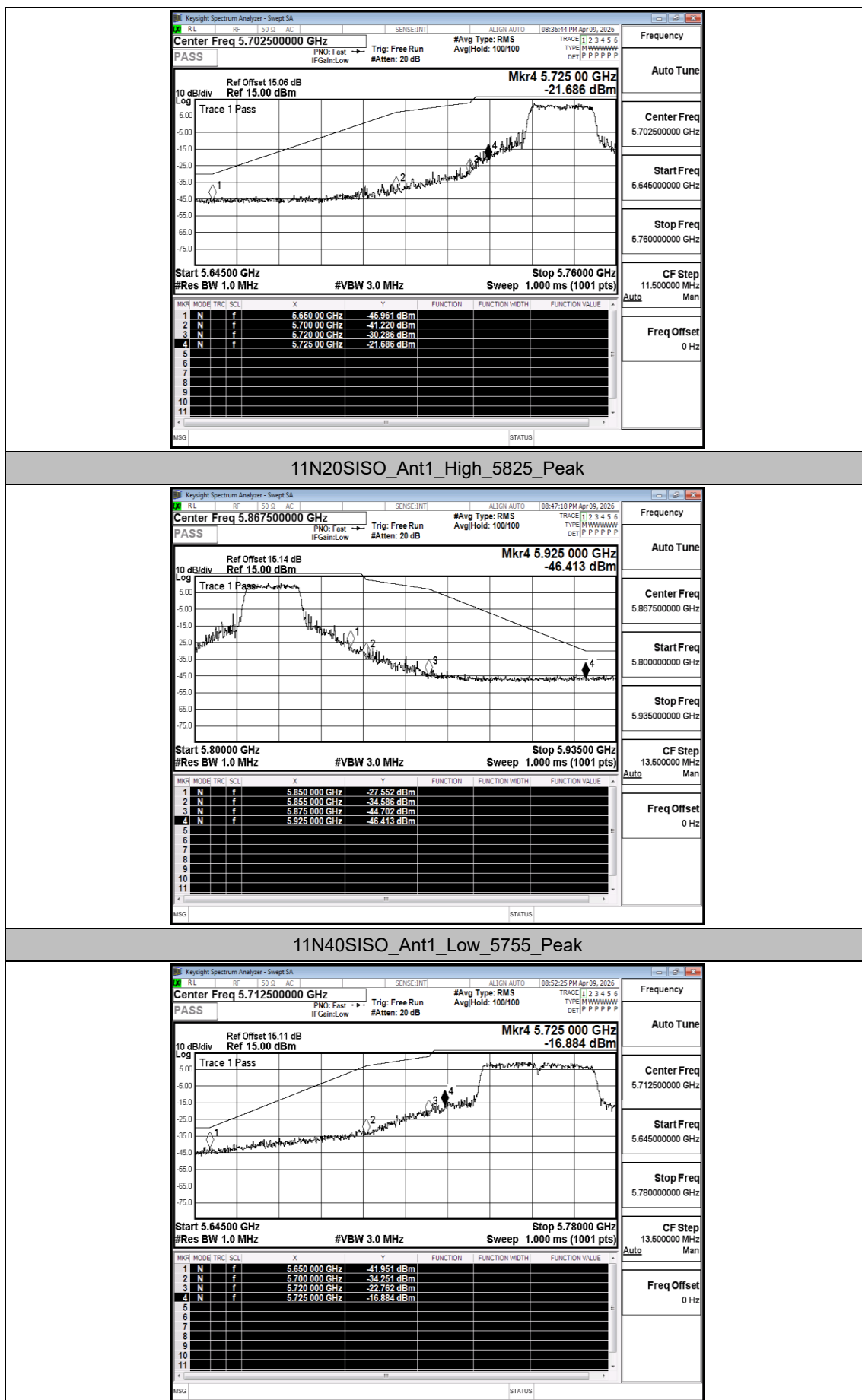
11AC80SISO	Ant1			Peak	5855.000	-36.44	≤12.67	2.93	PASS
				Peak	5875.000	-40.03	≤7.07	2.93	PASS
				Peak	5925.000	-46.55	≤-27.00	2.93	PASS
		Low	5775	Peak	5650.000	-37.541	≤-29.93	2.93	PASS
				Peak	5700.000	-24.65	≤7.07	2.93	PASS
				Peak	5720.000	-15.5	≤12.67	2.93	PASS
				Peak	5725.000	-19.33	≤24.07	2.93	PASS
		High	5775	Peak	5850.000	-28.725	≤24.07	2.93	PASS
				Peak	5855.000	-27.4	≤12.67	2.93	PASS
				Peak	5875.000	-34.41	≤7.07	2.93	PASS
				Peak	5925.000	-43.31	≤-27.00	2.93	PASS

Note:

1. The Antenna Gain is compensated in the graph.

Test Graphs



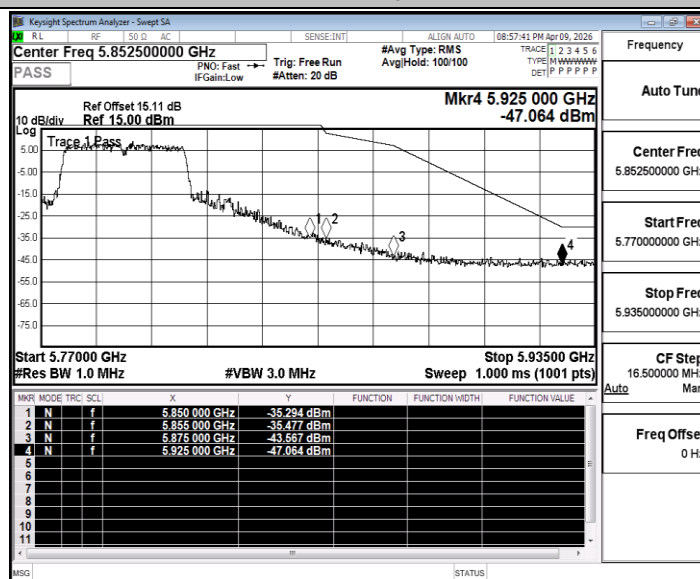


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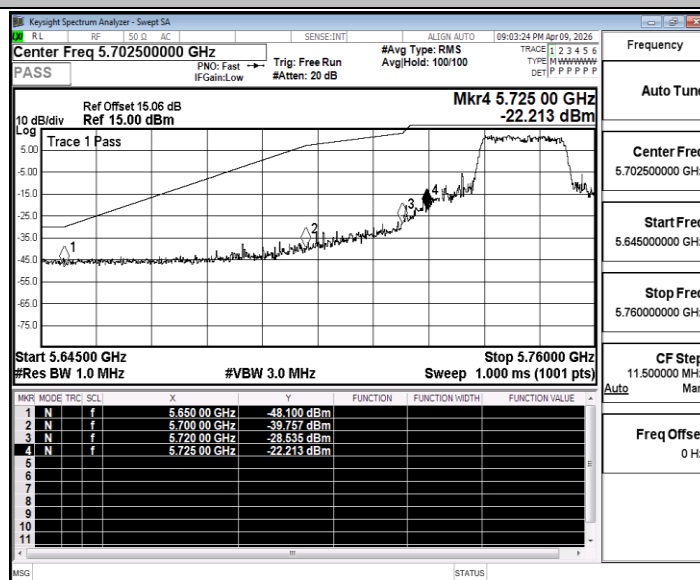
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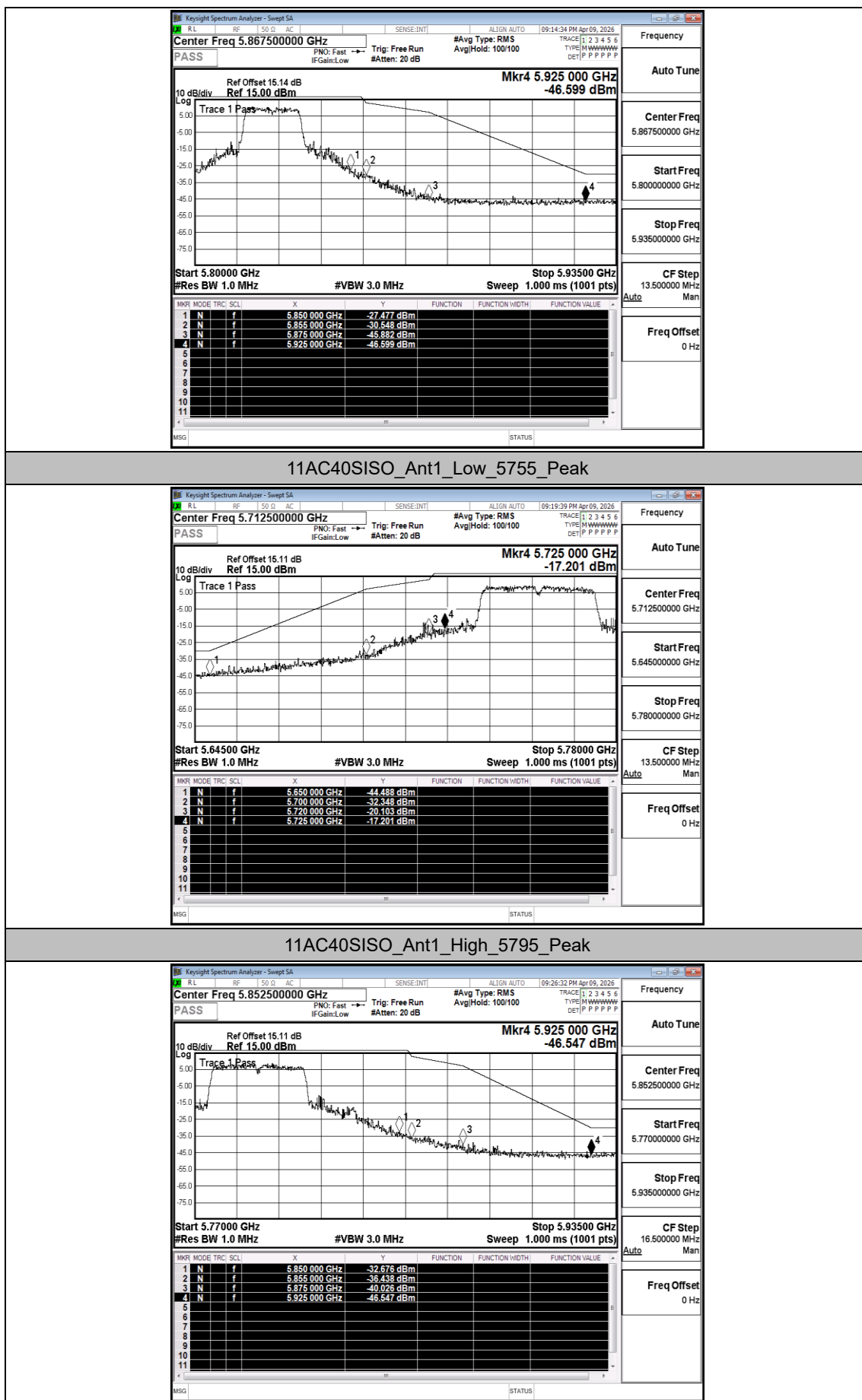
11N40SISO_Ant1_High_5795_Peak



11AC20SISO_Ant1_Low_5745_Peak



11AC20SISO_Ant1_High_5825_Peak

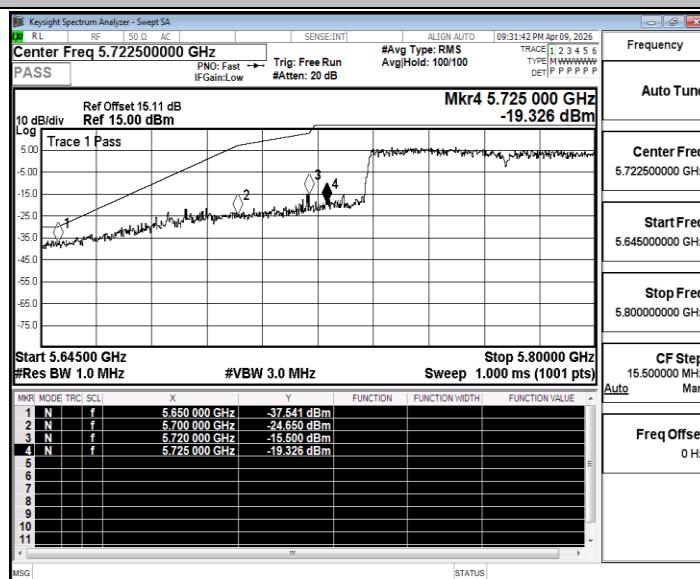


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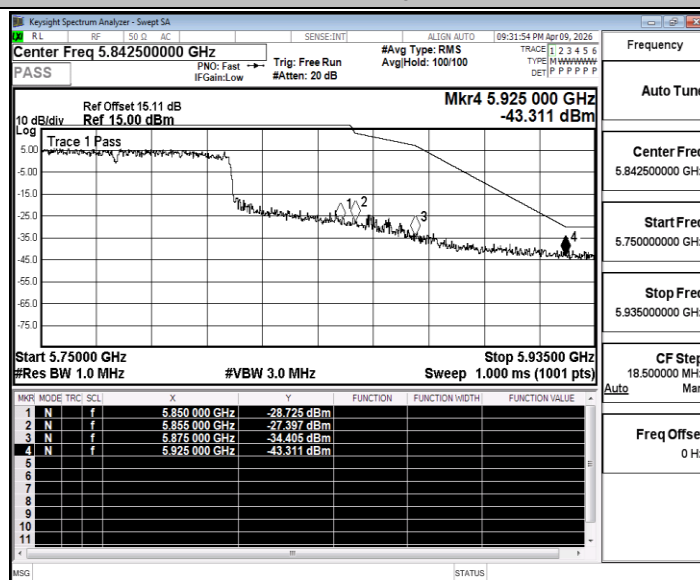
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11AC80SISO_Ant1_Low_5775_Peak



11AC80SISO_Ant1_High_5775_Peak



E.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	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5785	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11N20SISO	Ant1	5745	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5785	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	20000.00	3.457217	20	PASS
		5825	NV	NT	-20000.00	-3.433476	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11N40SISO	Ant1	5755	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5795	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-40000.00	-6.902502	20	PASS
			HV	NT	-40000.00	-6.902502	20	PASS
11AC20SISO	Ant1	5745	NV	NT	0.00	0.000000	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	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	20000.00	3.433476	20	PASS
			HV	NT	-20000.00	-3.433476	20	PASS
11AC40SISO	Ant1	5755	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-40000.00	-6.950478	20	PASS
			HV	NT	0.00	0.000000	20	PASS

		5795	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-40000.00	-6.902502	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11AC80SISO	Ant1	5775	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS

Temperature								
TestMode	Antenna	Freq (MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-20000.00	-3.481288	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	20000.00	3.481288	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-20000.00	-3.481288	20	PASS
		5785	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-20000.00	-3.457217	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
		5825	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
11N20SISO	Ant1	5745	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	20000.00	3.481288	20	PASS
			NV	10	20000.00	3.481288	20	PASS

			NV	20	0.00	0.000000	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
		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	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-20000.00	-3.457217	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	20000.00	3.457217	20	PASS
		5825	NV	-30	20000.00	3.433476	20	PASS
			NV	-20	20000.00	3.433476	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	20000.00	3.433476	20	PASS
			NV	30	20000.00	3.433476	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	20000.00	3.433476	20	PASS
11N40SISO	Ant1	5755	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
		5795	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	-40000.00	-6.902502	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	-40000.00	-6.902502	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
11AC20SISO	Ant1	5745	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	0.00	0.000000	20	PASS		
			NV	10	0.00	0.000000	20	PASS		
			NV	20	0.00	0.000000	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	0.00	0.000000	20	PASS		
			NV	-20	-20000.00	-3.457217	20	PASS		
			NV	-10	0.00	0.000000	20	PASS		
			NV	0	0.00	0.000000	20	PASS		
			NV	10	-20000.00	-3.457217	20	PASS		
			NV	20	0.00	0.000000	20	PASS		
			NV	30	0.00	0.000000	20	PASS		
			NV	40	-20000.00	-3.457217	20	PASS		
			NV	50	0.00	0.000000	20	PASS		
		5825	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	-20000.00	-3.433476	20	PASS		
			NV	40	-20000.00	-3.433476	20	PASS		
			NV	50	20000.00	3.433476	20	PASS		
		11AC40SISO	Ant1	5755	NV	-30	-40000.00	-6.950478	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				-40000.00	-6.950478	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		
5795	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	-40000.00	-6.902502	20	PASS		
	NV			30	0.00	0.000000	20	PASS		
	NV			40	0.00	0.000000	20	PASS		

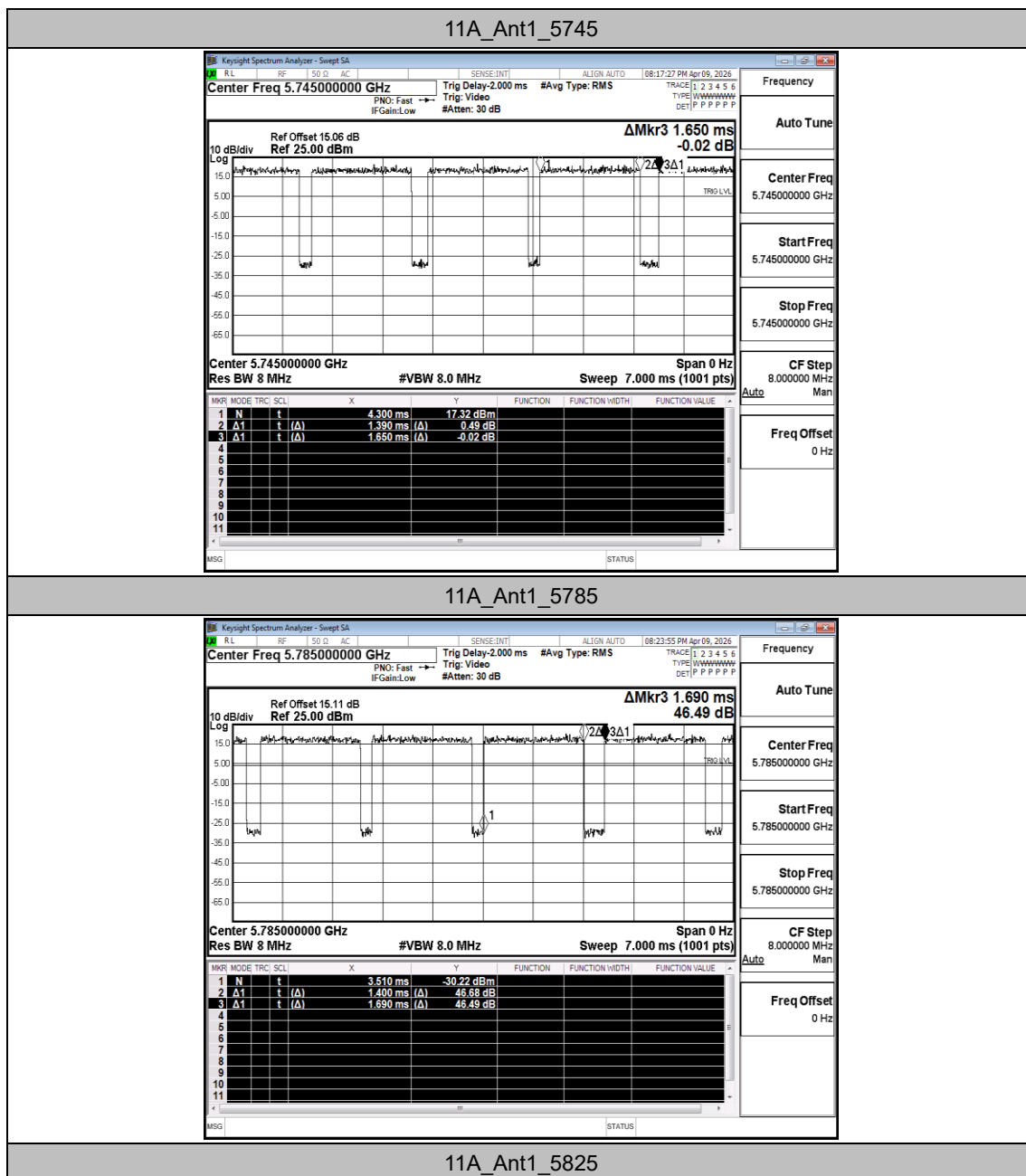
			NV	50	-40000.00	-6.902502	20	PASS
11AC80SISO	Ant1	5775	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
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			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS

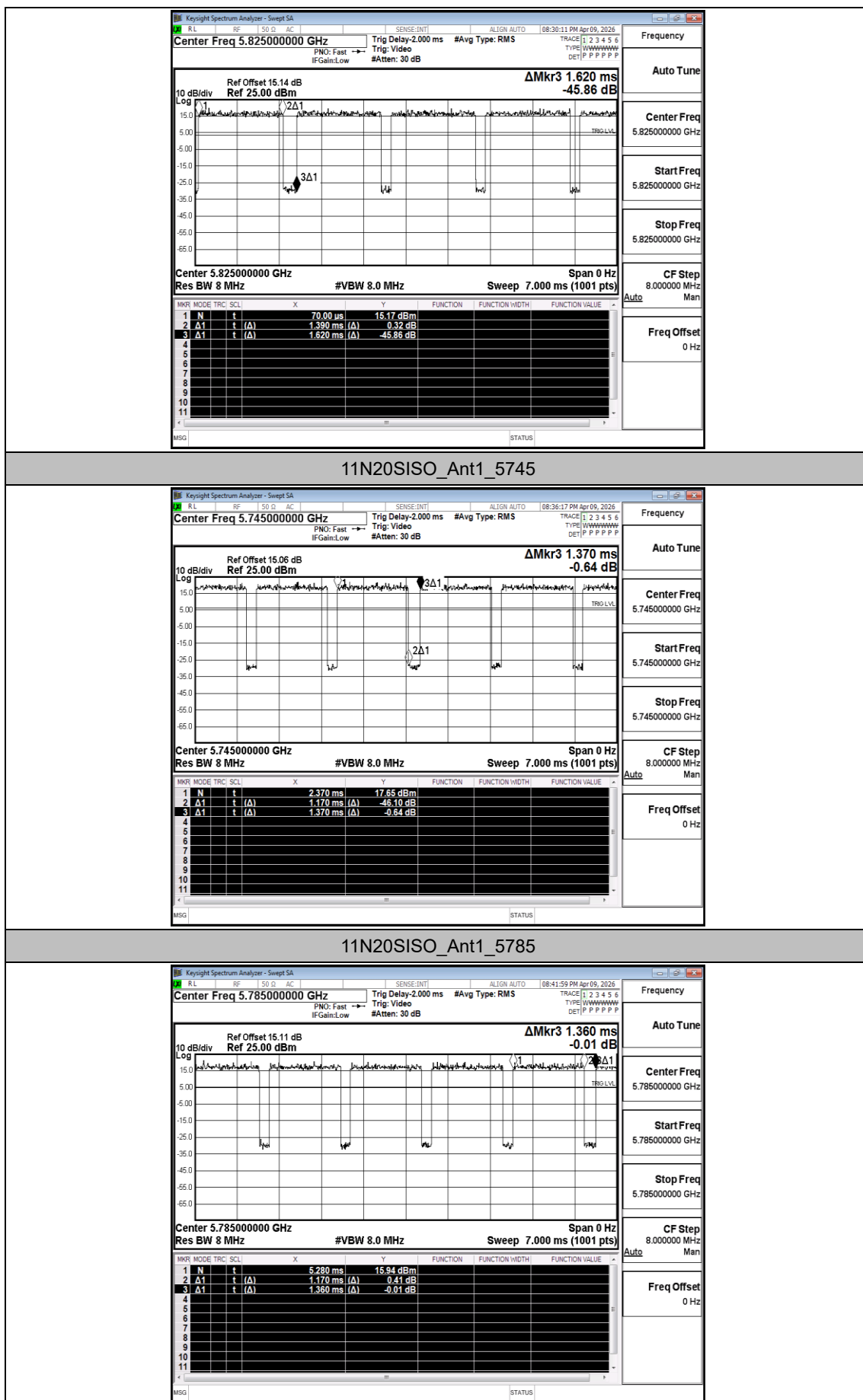
E.6 Duty Cycle

Test Result

TestMode	Antenna	Freq (MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	Limit	Verdict
11A	Ant1	5745	1.39	1.65	84.24	0.74	---	---
		5785	1.40	1.69	82.84	0.82	---	---
		5825	1.39	1.62	85.80	0.67	---	---
11N20SISO	Ant1	5745	1.17	1.37	85.40	0.69	---	---
		5785	1.17	1.36	86.03	0.65	---	---
		5825	1.17	1.41	82.98	0.81	---	---
11N40SISO	Ant1	5755	0.59	0.78	75.64	1.21	---	---
		5795	0.59	0.82	71.95	1.43	---	---
11AC20SISO	Ant1	5745	1.18	1.36	86.76	0.62	---	---
		5785	1.18	1.36	86.76	0.62	---	---
		5825	1.19	1.39	85.61	0.67	---	---
11AC40SISO	Ant1	5755	0.60	0.79	75.95	1.19	---	---
		5795	0.59	0.83	71.08	1.48	---	---
11AC80SISO	Ant1	5775	0.29	0.56	51.79	2.86	---	---

Test Graphs



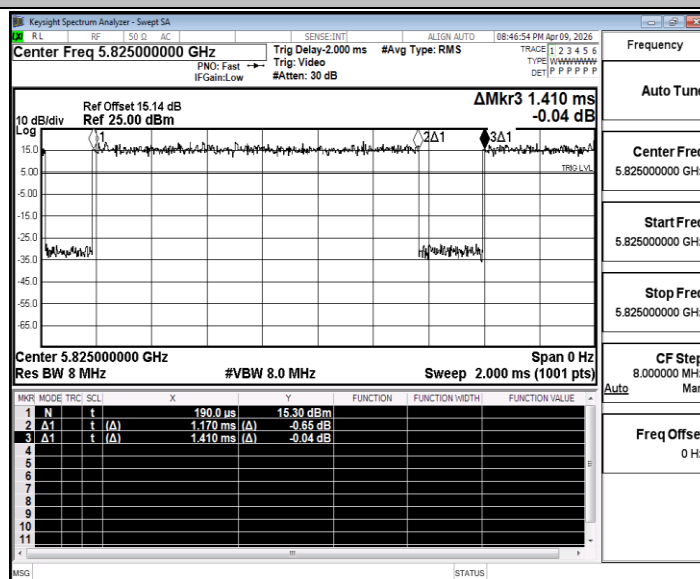


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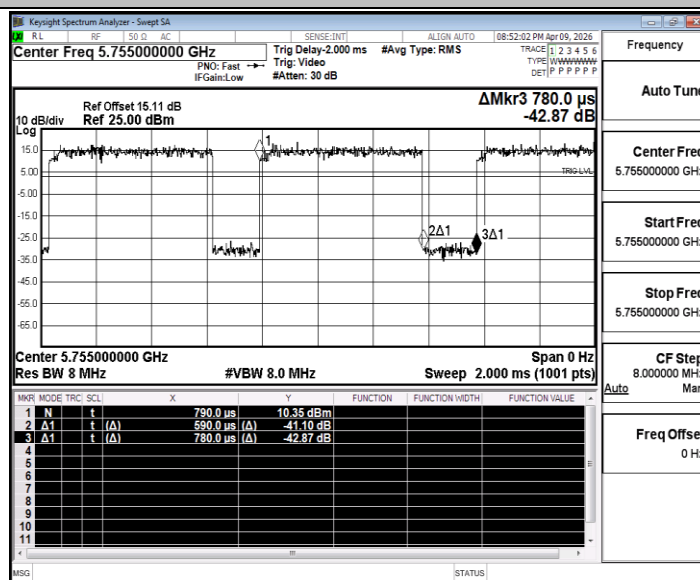
Add: No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China

Tel: +(86) 020-39166689 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

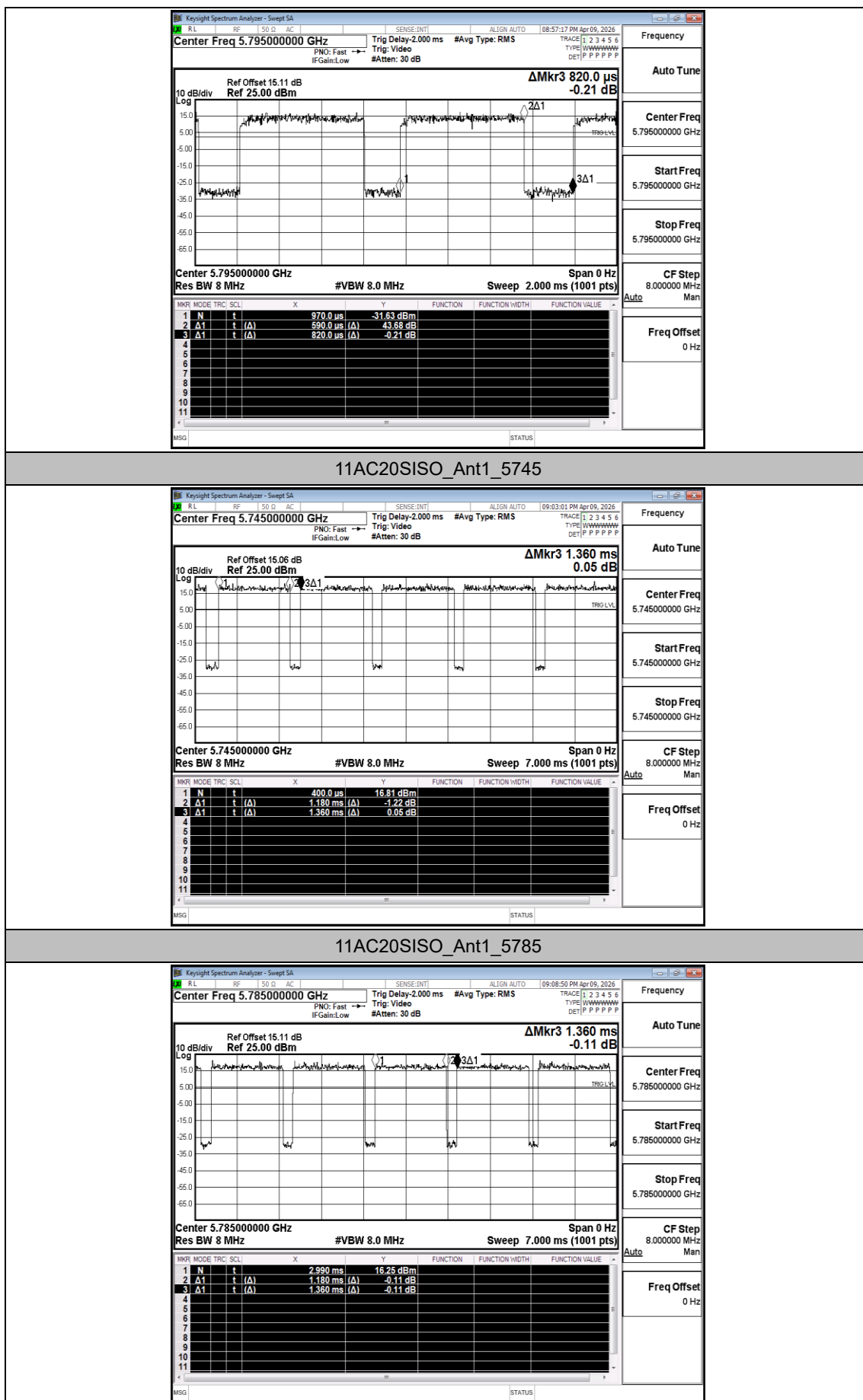
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

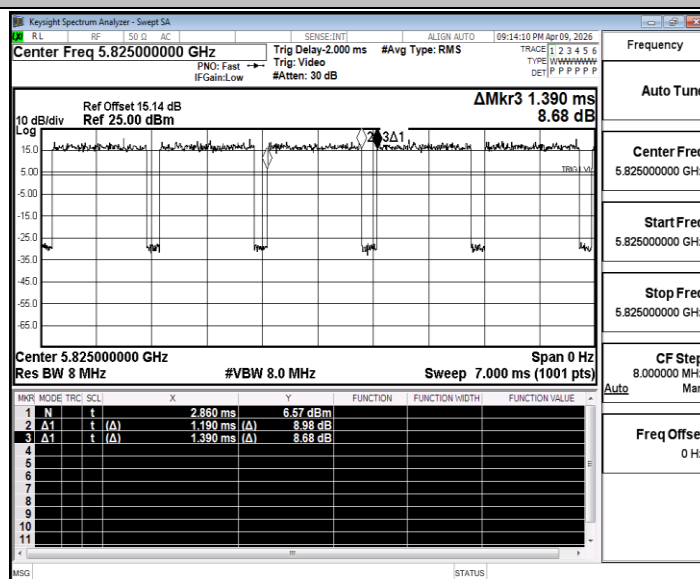


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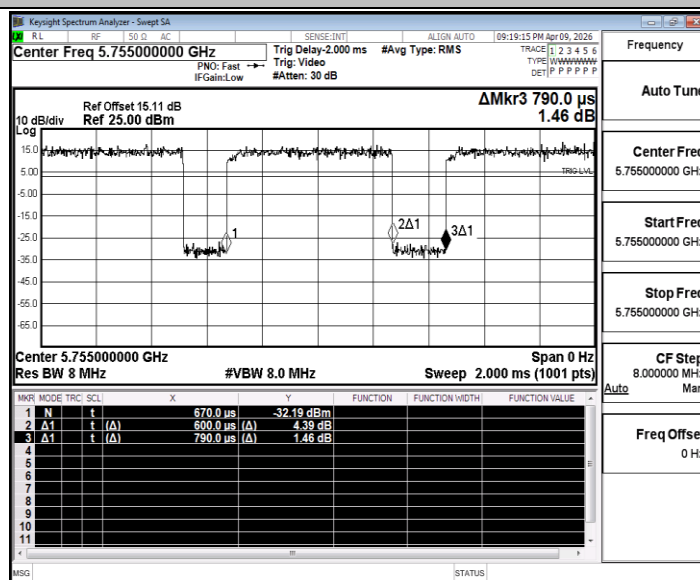
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11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795

