



Appendix E

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: Smart TV Box

Test Model: T95MAX+

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan





E.1 6dB bandwidth

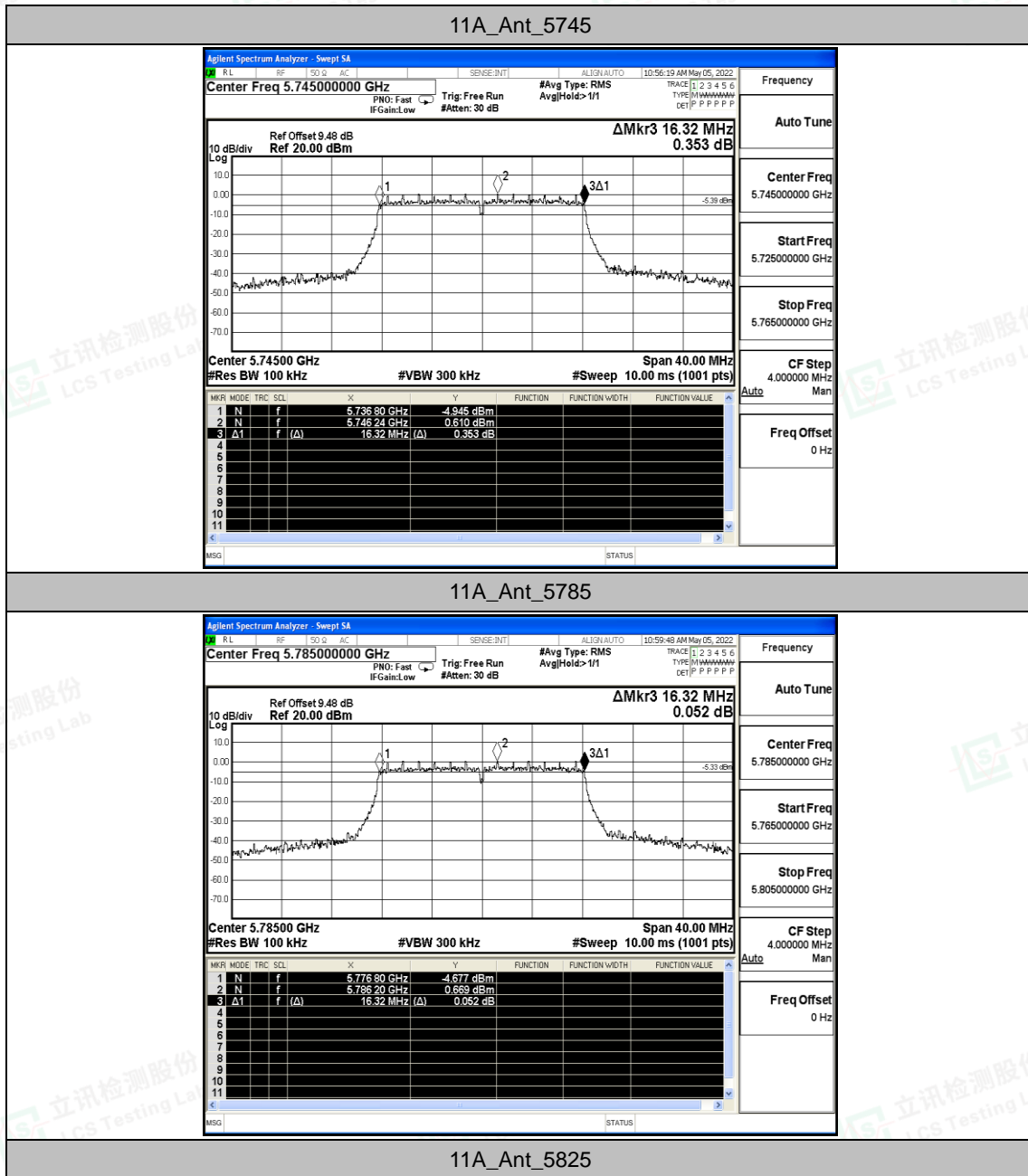
Test Result

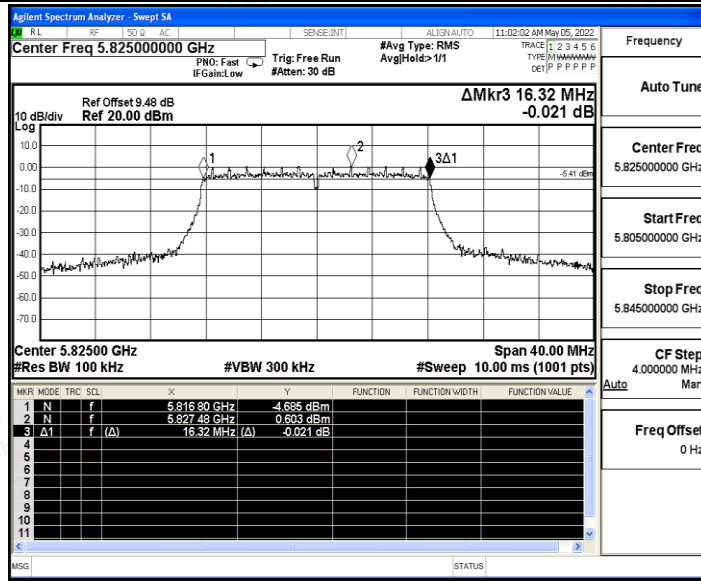
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant	5745	16.320	5736.800	5753.120	0.5	PASS
		5785	16.320	5776.800	5793.120	0.5	PASS
		5825	16.320	5816.800	5833.120	0.5	PASS
11N20SISO	Ant	5745	17.520	5736.200	5753.720	0.5	PASS
		5785	17.280	5776.440	5793.720	0.5	PASS
		5825	17.520	5816.200	5833.720	0.5	PASS
11N40SISO	Ant	5755	35.120	5737.400	5772.520	0.5	PASS
		5795	35.040	5777.480	5812.520	0.5	PASS
11AC20SISO	Ant	5745	17.280	5736.440	5753.720	0.5	PASS
		5785	17.280	5776.440	5793.720	0.5	PASS
		5825	17.280	5816.440	5833.720	0.5	PASS
11AC40SISO	Ant	5755	35.120	5737.400	5772.520	0.5	PASS
		5795	35.120	5777.400	5812.520	0.5	PASS



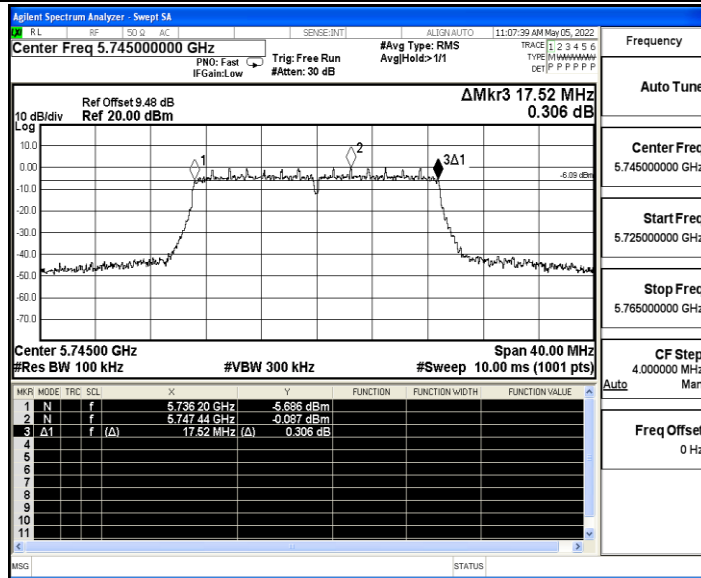


Test Graphs



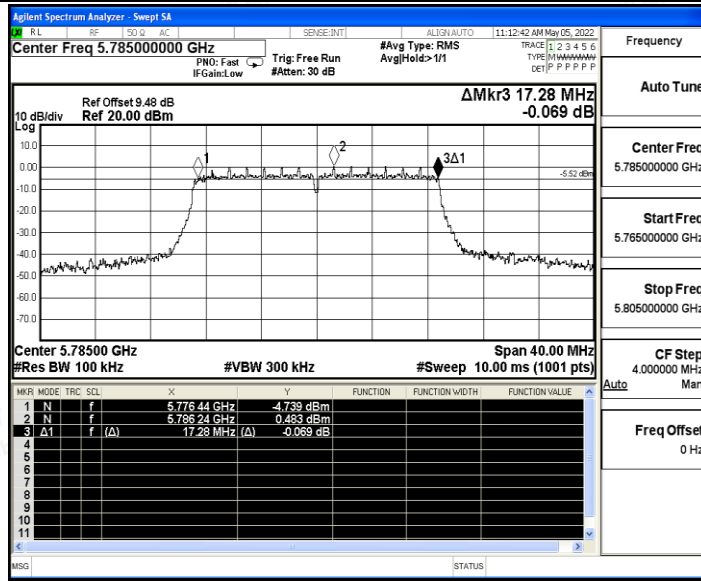


11N20SISO_Ant_5745

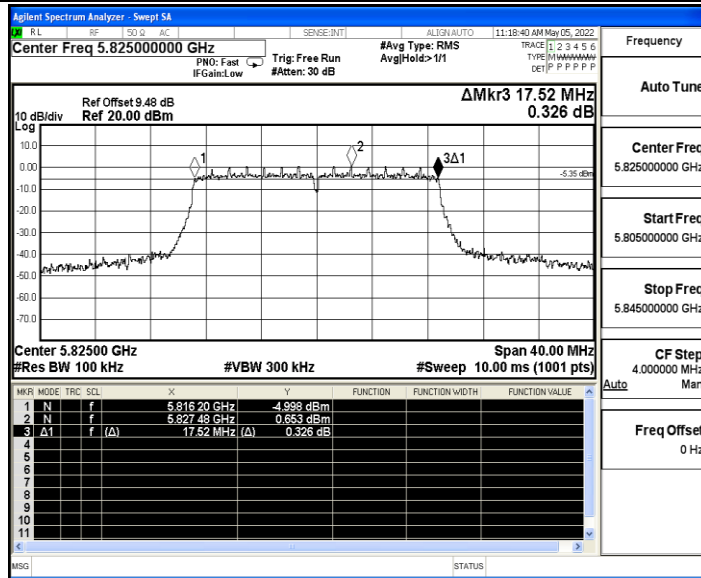


11N20SISO_Ant_5785



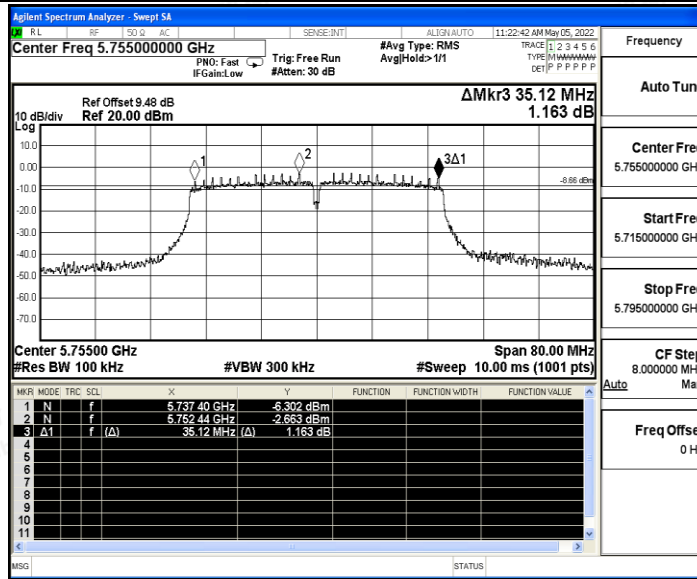


11N20SISO_Ant_5825

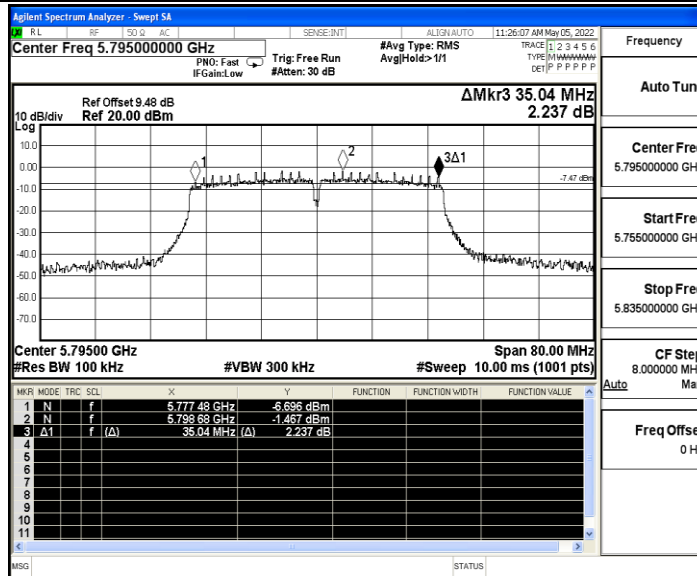


11N40SISO_Ant_5755



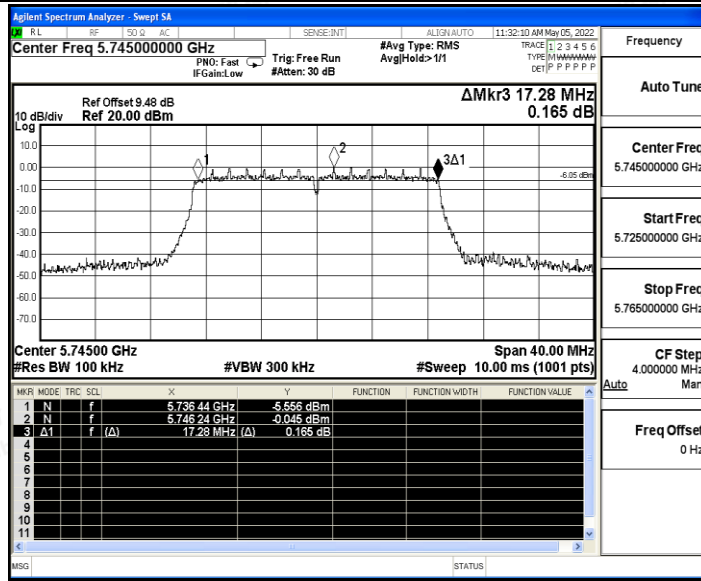


11N40SISO_Ant_5795

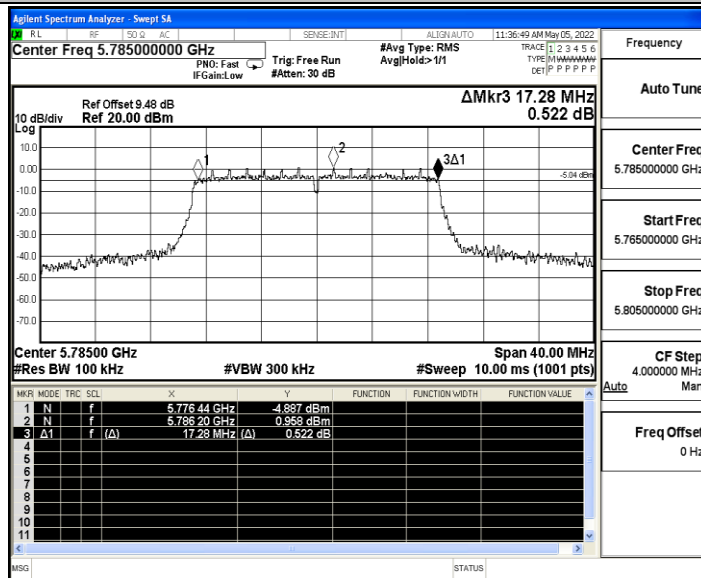


11AC20SISO_Ant_5745



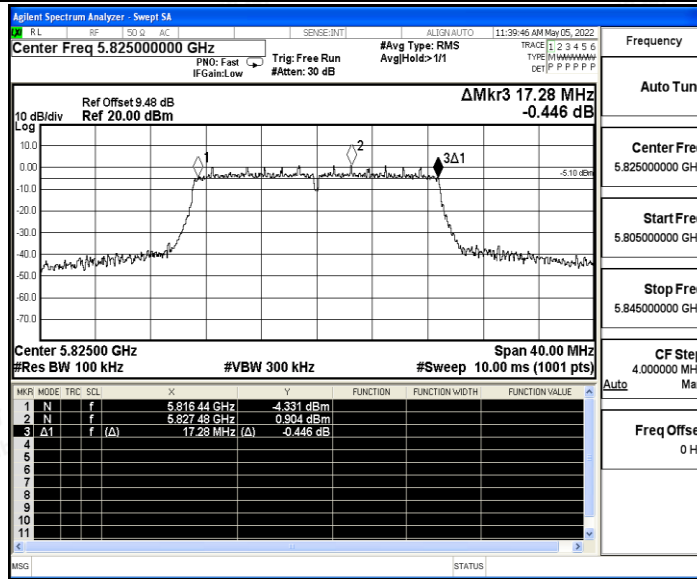


11AC20SISO_Ant_5785

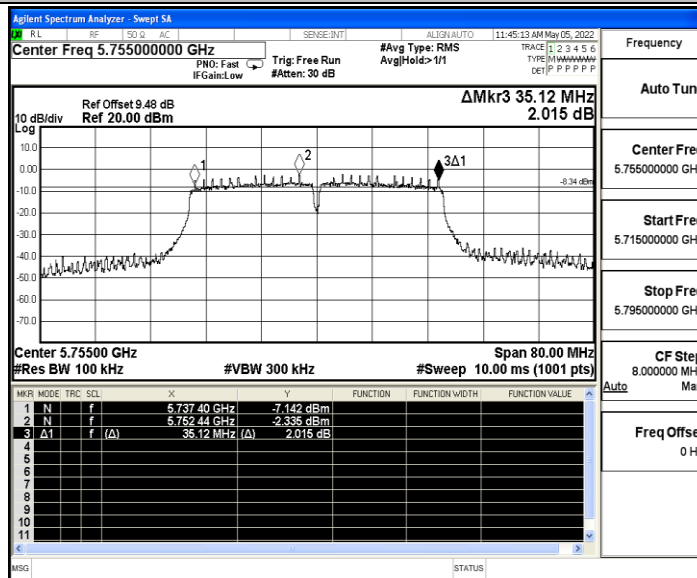


11AC20SISO_Ant_5825



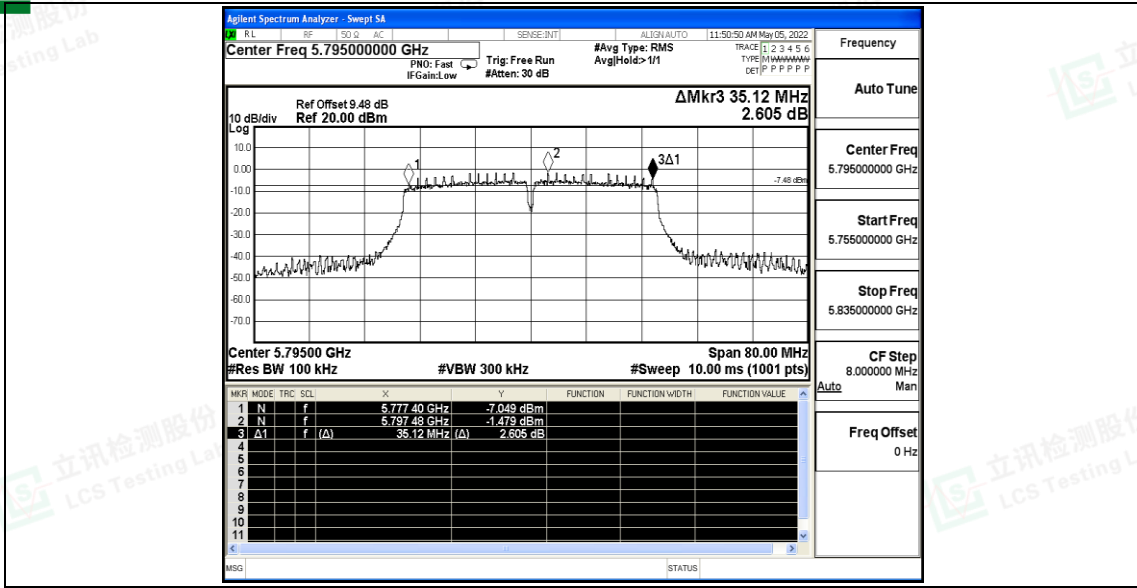


11AC40SISO_Ant_5755



11AC40SISO_Ant_5795







E.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant	5745	11.40	≤30.00	PASS
		5785	11.96	≤30.00	PASS
		5825	11.99	≤30.00	PASS
11N20SISO	Ant	5745	11.13	≤30.00	PASS
		5785	11.76	≤30.00	PASS
		5825	11.93	≤30.00	PASS
11N40SISO	Ant	5755	11.03	≤30.00	PASS
		5795	12.13	≤30.00	PASS
11AC20SISO	Ant	5745	11.22	≤30.00	PASS
		5785	12.29	≤30.00	PASS
		5825	12.21	≤30.00	PASS
11AC40SISO	Ant	5755	11.48	≤30.00	PASS
		5795	12.30	≤30.00	PASS

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



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E.3 Maximum power spectral density

Test Result

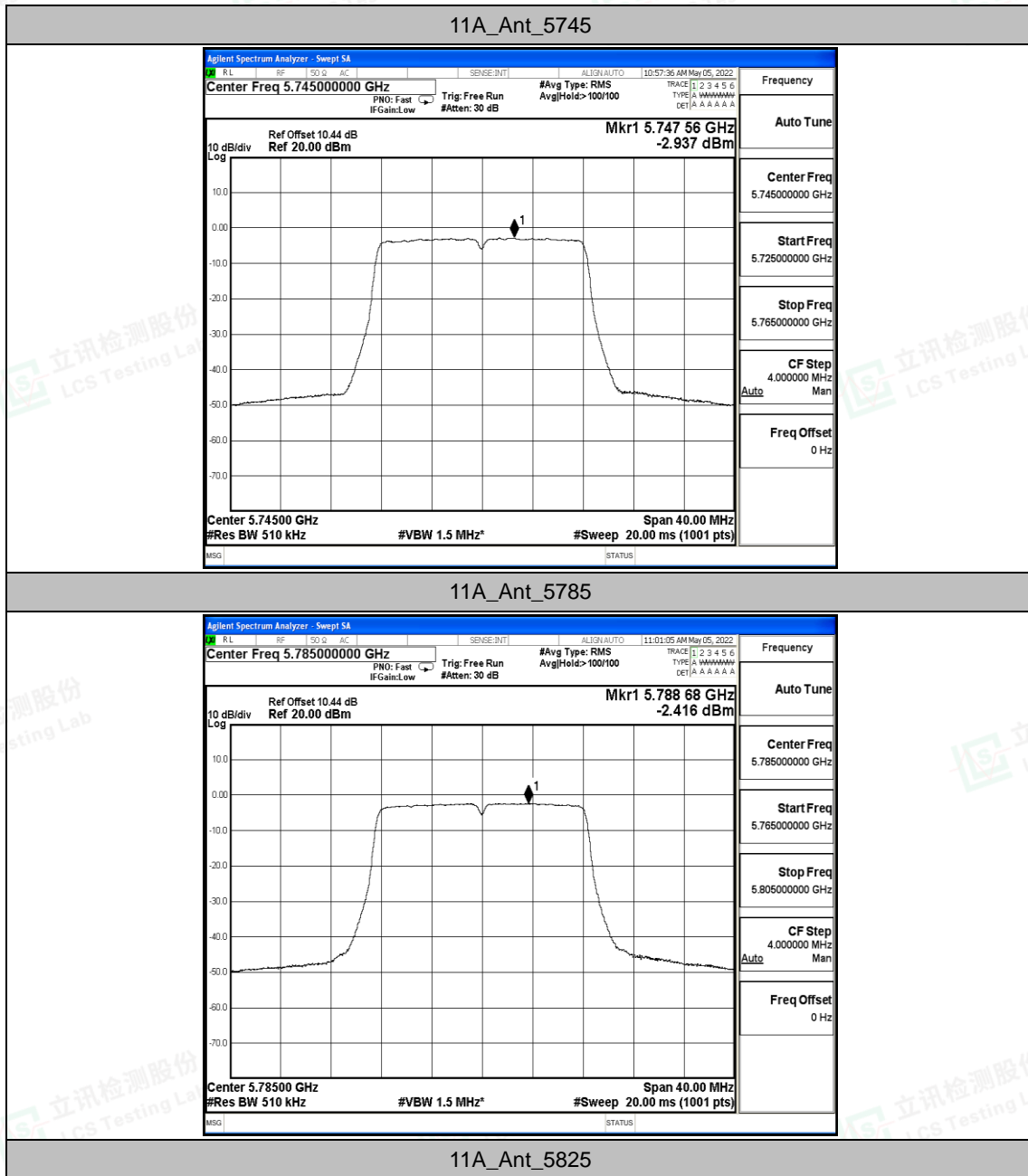
TestMode	Antenna	Channel	Result [dBm/500KHz]	Limit[dBm/500KHz]	Verdict
11A	Ant	5745	-2.94	≤30.00	PASS
		5785	-2.42	≤30.00	PASS
		5825	-2.20	≤30.00	PASS
11N20SISO	Ant	5745	-3.34	≤30.00	PASS
		5785	-2.65	≤30.00	PASS
		5825	-2.85	≤30.00	PASS
11N40SISO	Ant	5755	-6.20	≤30.00	PASS
		5795	-4.85	≤30.00	PASS
11AC20SISO	Ant	5745	-3.48	≤30.00	PASS
		5785	-2.23	≤30.00	PASS
		5825	-2.45	≤30.00	PASS
11AC40SISO	Ant	5755	-5.61	≤30.00	PASS
		5795	-4.63	≤30.00	PASS

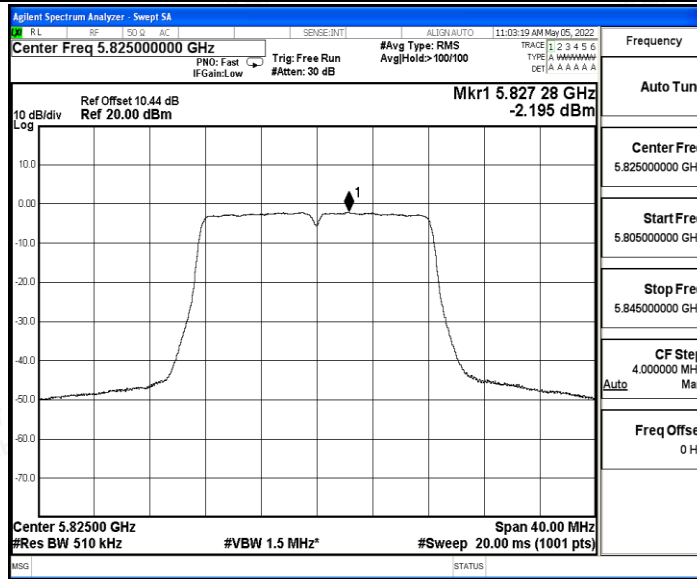
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
 2.The Duty Cycle Factor and RBW Factor is compensated in the graph.



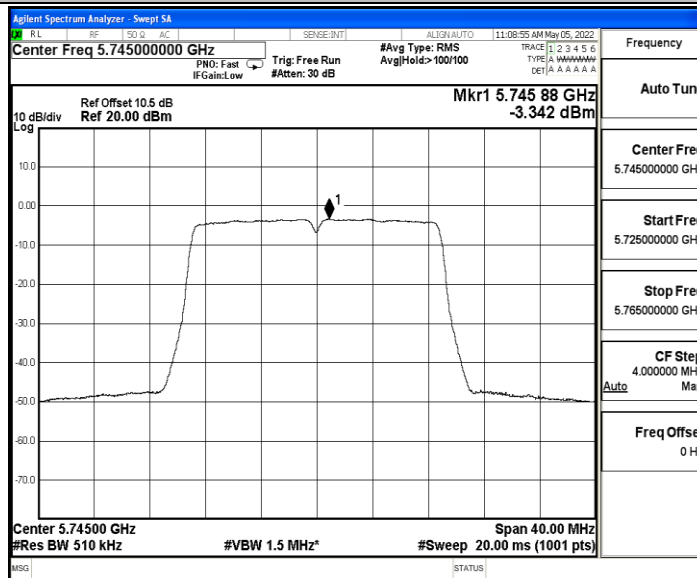


Test Graphs



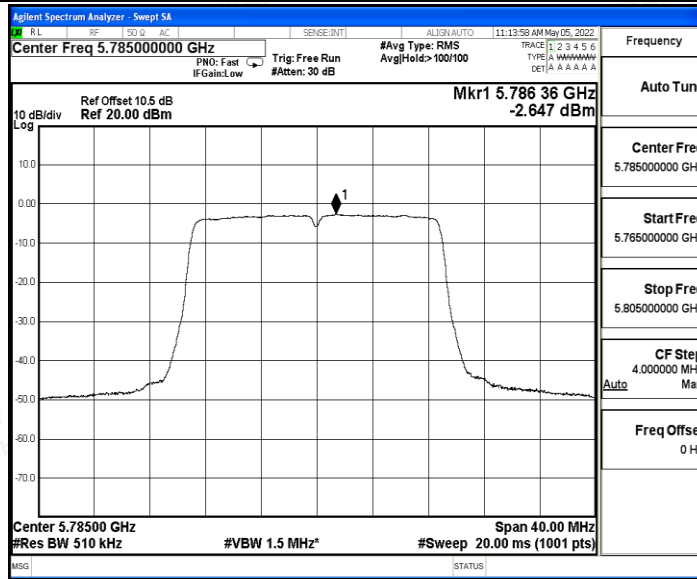


11N20SISO_Ant_5745

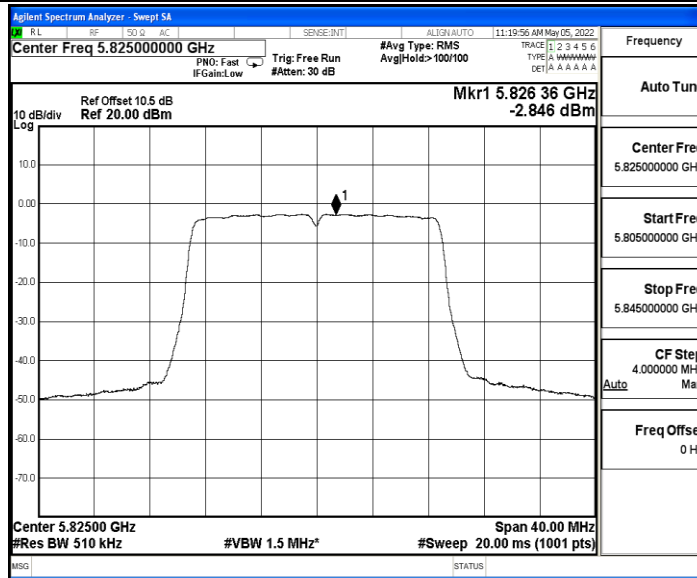


11N20SISO_Ant_5785



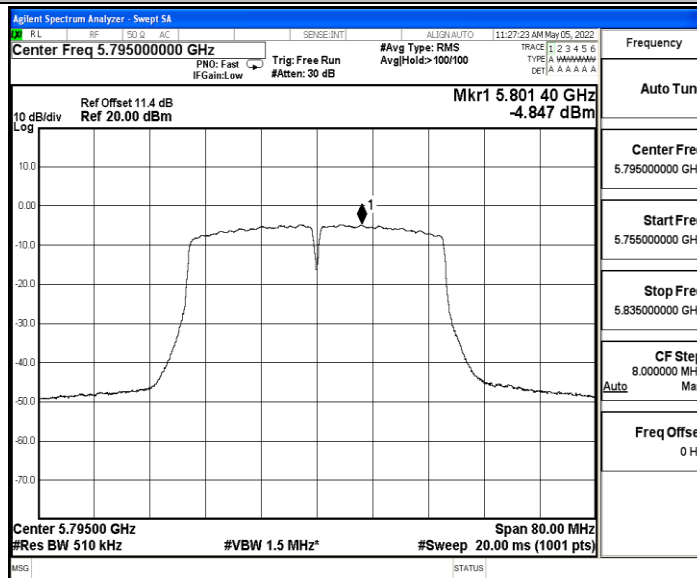
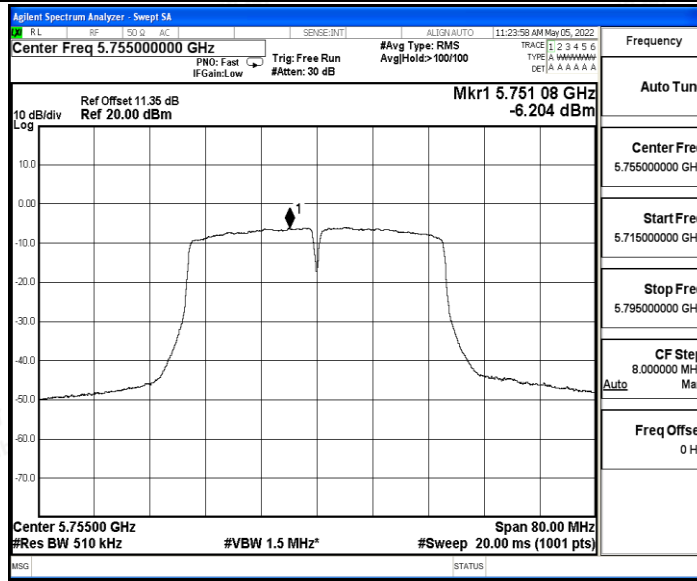


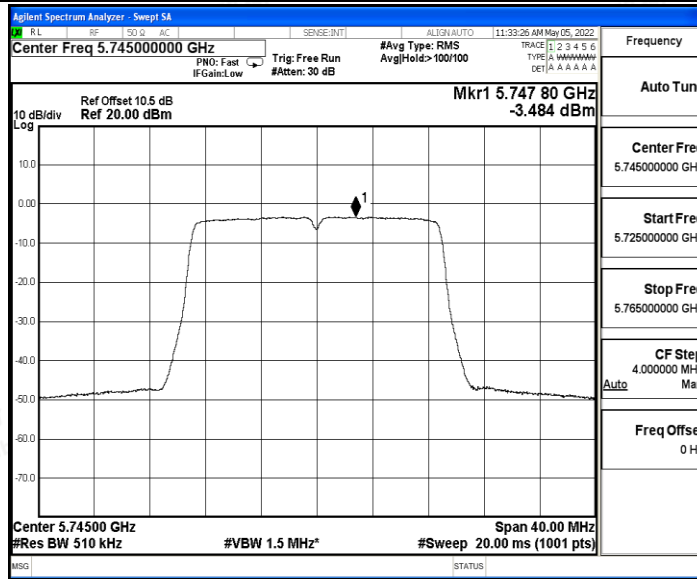
11N20SISO_Ant_5825



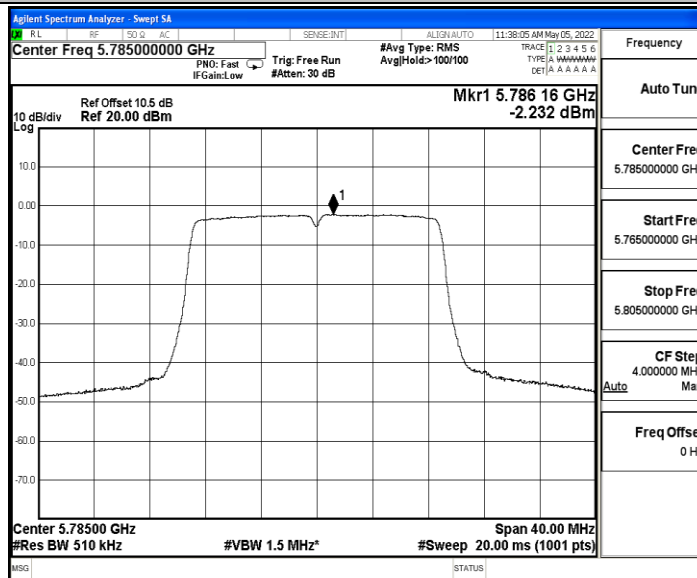
11N40SISO_Ant_5755





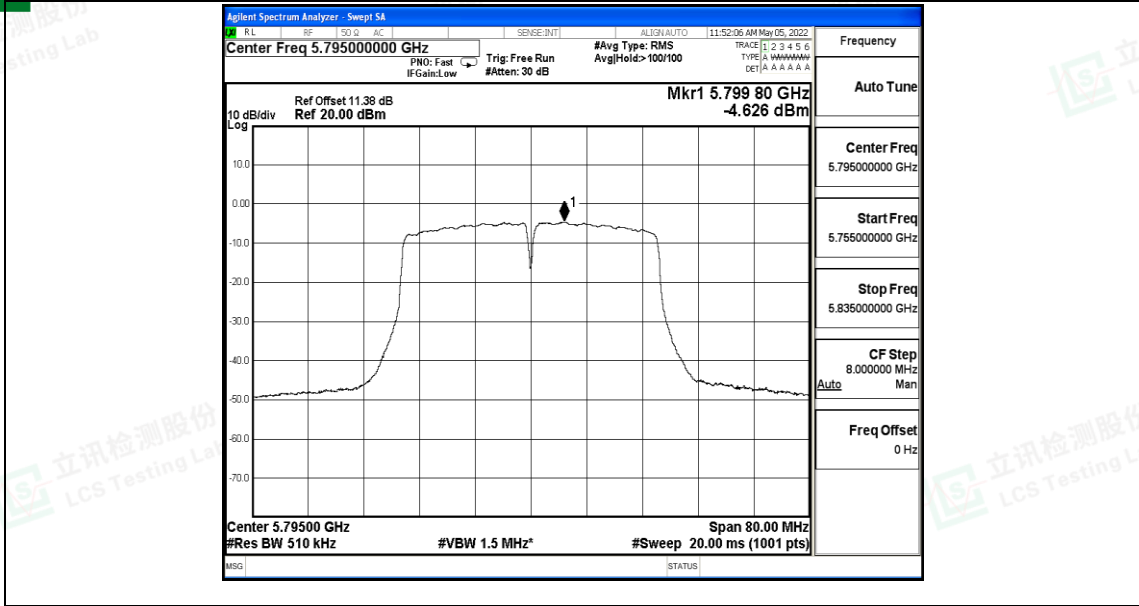


11AC20SISO_Ant_5785



11AC20SISO_Ant_5825





**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	Ant	Low	5745	Peak	5650.000	-38.537	≤-27.00	---	---	PASS
				Peak	5700.000	-38.76	≤10.00	---	---	PASS
				Peak	5720.000	-35.69	≤15.60	---	---	PASS
				Peak	5725.000	-35.19	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-36.696	≤15.60	---	---	PASS
				Peak	5855.000	-37.72	≤27.00	---	---	PASS
				Peak	5875.000	-38.29	≤15.60	---	---	PASS
				Peak	5925.000	-38.81	≤10.00	---	---	PASS
11N20SIS O	Ant	Low	5745	Peak	5650.000	-38.361	≤-27.00	---	---	PASS
				Peak	5700.000	-39.07	≤10.00	---	---	PASS
				Peak	5720.000	-36.98	≤15.60	---	---	PASS
				Peak	5725.000	-34.47	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-35.502	≤15.60	---	---	PASS
				Peak	5855.000	-36.35	≤27.00	---	---	PASS
				Peak	5875.000	-37.58	≤15.60	---	---	PASS
				Peak	5925.000	-39.77	≤10.00	---	---	PASS
11N40SIS O	Ant	Low	5755	Peak	5650.000	-38.647	≤-27.00	---	---	PASS
				Peak	5700.000	-36.25	≤10.00	---	---	PASS
				Peak	5720.000	-29.06	≤15.60	---	---	PASS
				Peak	5725.000	-29.22	≤27.00	---	---	PASS
		High	5795	Peak	5850.000	-37.947	≤15.60	---	---	PASS
				Peak	5855.000	-37.57	≤27.00	---	---	PASS
				Peak	5875.000	-37.1	≤15.60	---	---	PASS
				Peak	5925.000	-38.38	≤10.00	---	---	PASS
11AC20SI SO	Ant	Low	5745	Peak	5650.000	-38.824	≤-27.00	---	---	PASS
				Peak	5700.000	-37.99	≤10.00	---	---	PASS
				Peak	5720.000	-36.3	≤15.60	---	---	PASS
				Peak	5725.000	-33.46	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-34.539	≤15.60	---	---	PASS
				Peak	5855.000	-36.94	≤27.00	---	---	PASS
				Peak	5875.000	-37.55	≤15.60	---	---	PASS
				Peak	5925.000	-39.03	≤10.00	---	---	PASS
11AC40SI SO	Ant	Low	5755	Peak	5650.000	-39.171	≤-27.00	---	---	PASS
				Peak	5700.000	-37.63	≤10.00	---	---	PASS



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	High	5795	Peak	5720.000	-27.4	≤15.60	---	---	PASS
			Peak	5725.000	-26.81	≤27.00	---	---	PASS
			Peak	5850.000	-37.434	≤15.60	---	---	PASS
			Peak	5855.000	-37.12	≤27.00	---	---	PASS
			Peak	5875.000	-36.58	≤15.60	---	---	PASS
			Peak	5925.000	-37.02	≤10.00	---	---	PASS

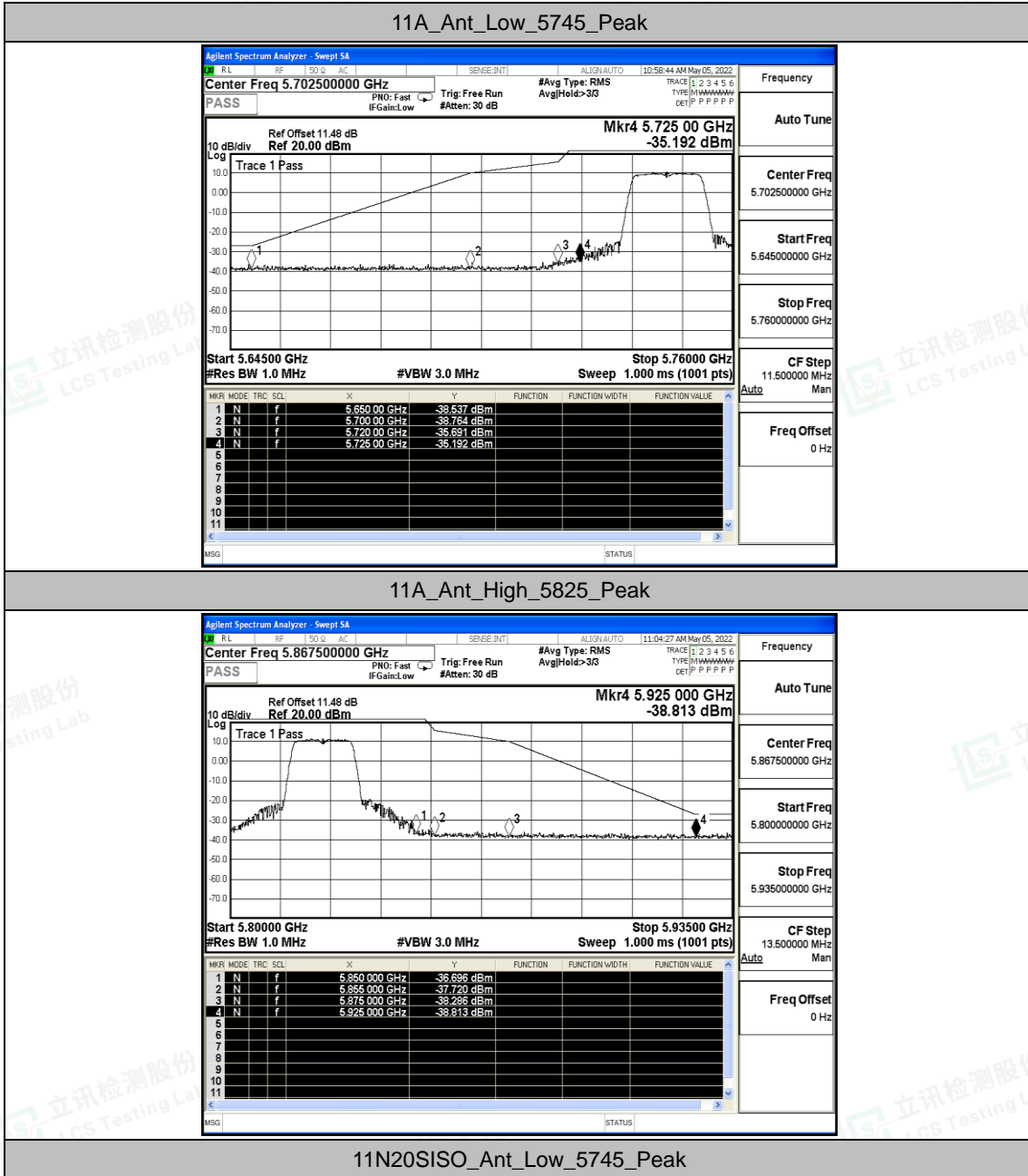
Note:

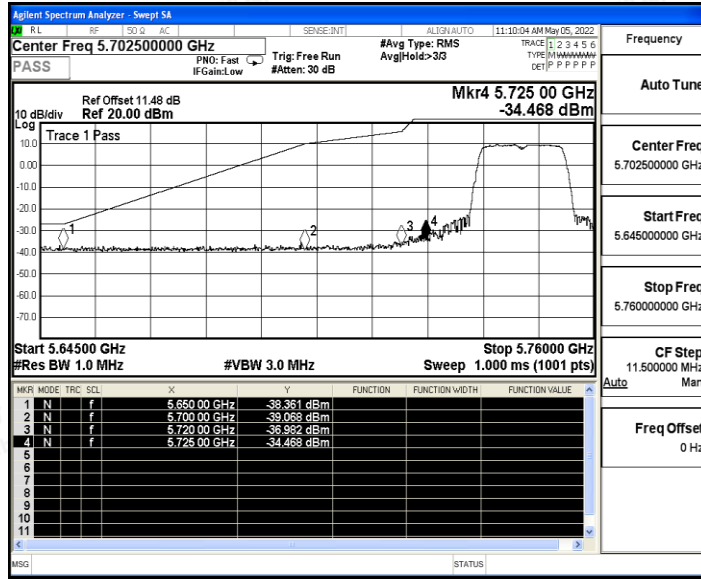
1. The Antenna Gain is compensated in the graph.



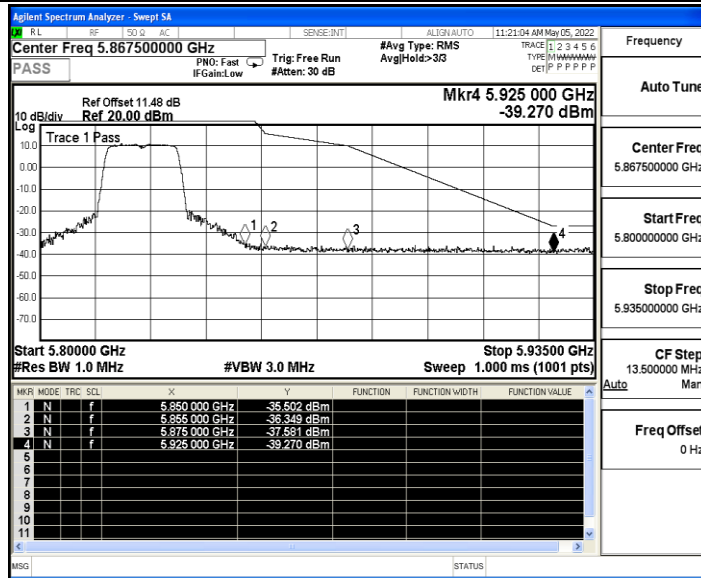


Test Graphs



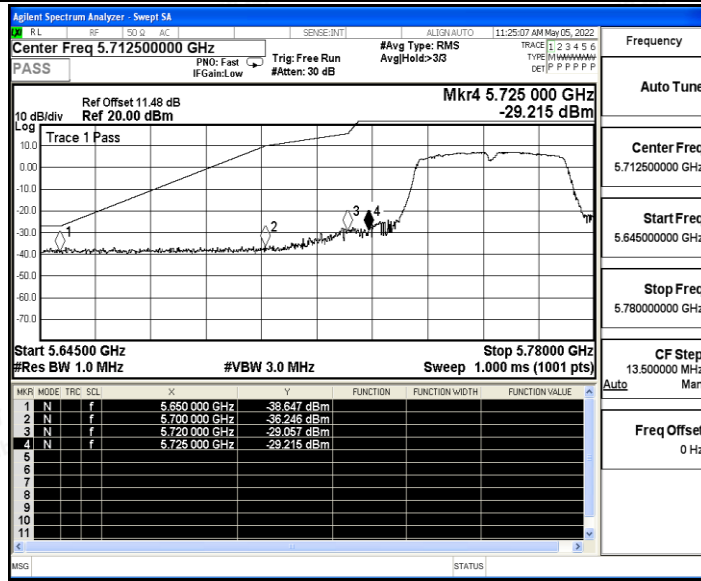


11N20SISO_Ant_High_5825_Peak

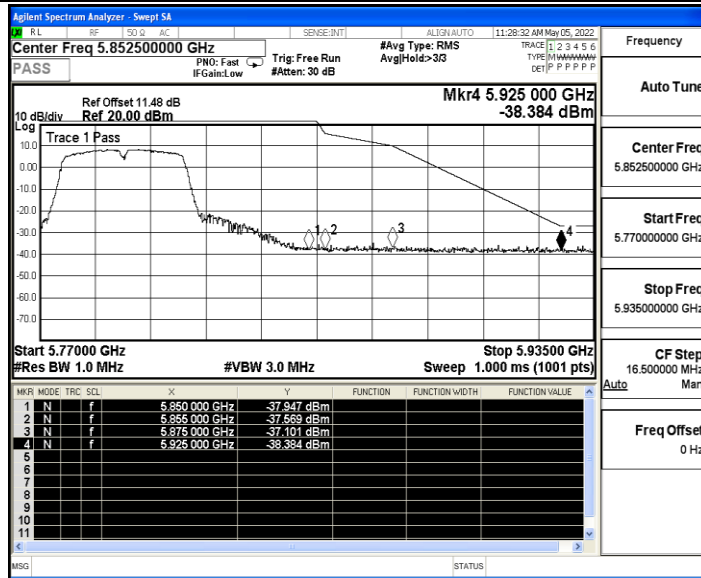


11N40SISO_Ant_Low_5755_Peak



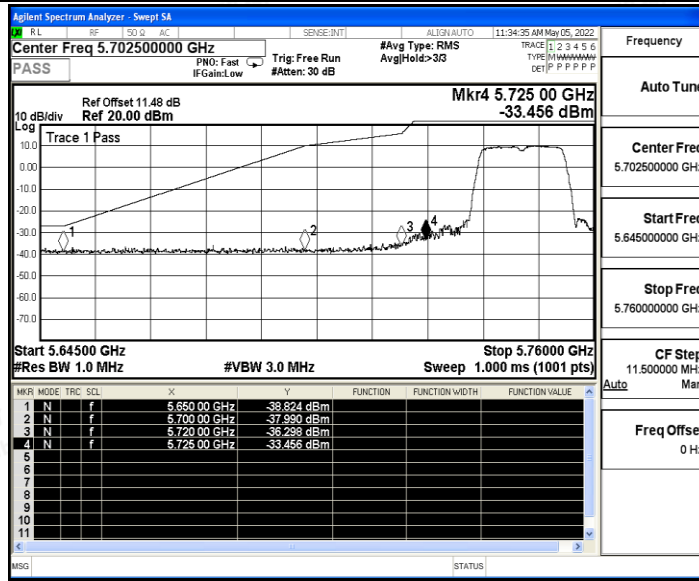


11N40SISO_Ant_High_5795_Peak

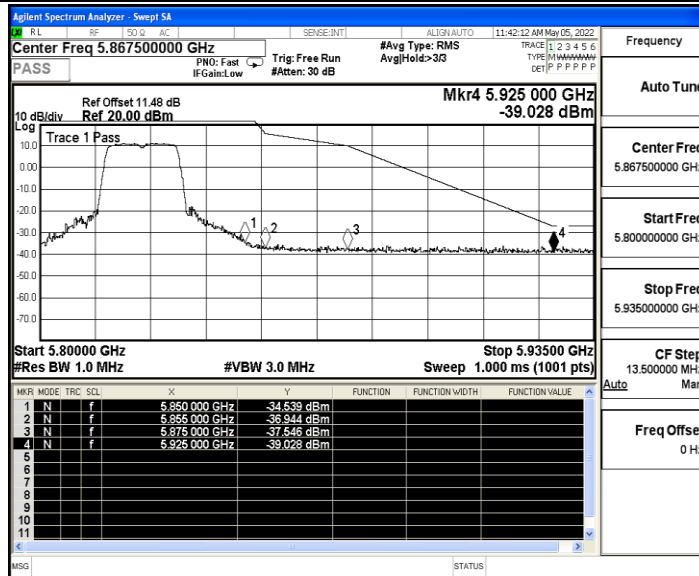


11AC20SISO_Ant_Low_5745_Peak



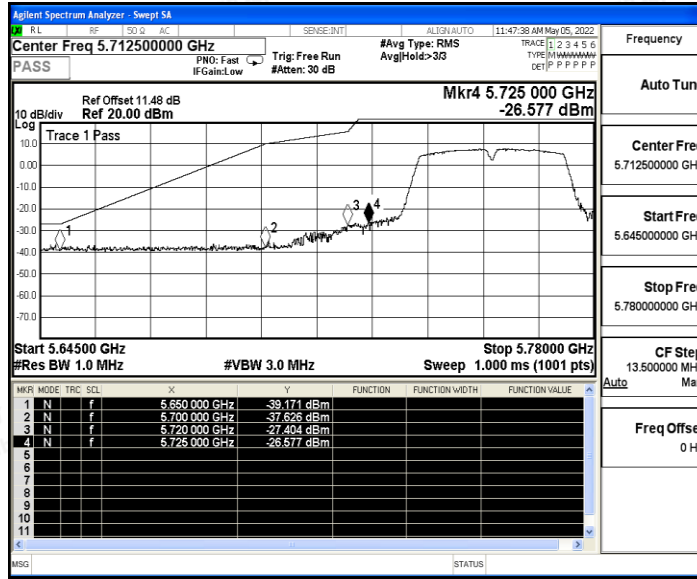


11AC20ISO_Ant_High_5825_Peak

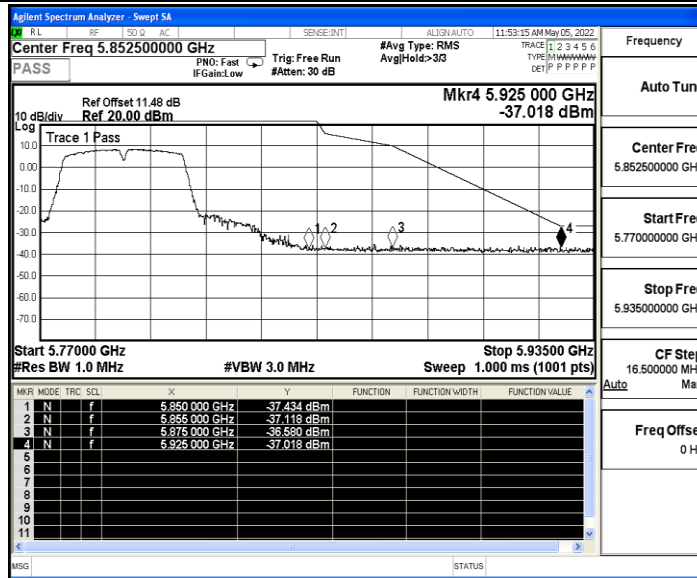


11AC40ISO_Ant_Low_5755_Peak





11AC40SISO_Ant_High_5795_Peak





E.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20S ISO	Ant	5745	NV	NT	-16000	-2.78503	20	PASS
			LV	NT	-17000	-2.959095	20	PASS
			HV	NT	-17000	-2.959095	20	PASS
		5785	NV	NT	-18000	-3.111495	20	PASS
			LV	NT	-19000	-3.284356	20	PASS
			HV	NT	-20000	-3.457217	20	PASS
		5825	NV	NT	-23000	-3.948498	20	PASS
			LV	NT	-23000	-3.948498	20	PASS
			HV	NT	-24000	-4.120172	20	PASS
11AC40S ISO	Ant	5755	NV	NT	-23000	-3.996525	20	PASS
			LV	NT	-24000	-4.170287	20	PASS
			HV	NT	-25000	-4.344049	20	PASS
		5795	NV	NT	-27000	-4.659189	20	PASS
			LV	NT	-27000	-4.659189	20	PASS
			HV	NT	-28000	-4.831752	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20S ISO	Ant	5745	NV	-30	-18000	-3.133159	20	PASS
			NV	-20	-18000	-3.133159	20	PASS
			NV	-10	-19000	-3.307224	20	PASS
			NV	0	-19000	-3.307224	20	PASS
			NV	10	-20000	-3.481288	20	PASS
			NV	20	-20000	-3.481288	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	-21000	-3.630078	20	PASS
			NV	-20	-21000	-3.630078	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	-23000	-3.975799	20	PASS
			NV	50	-23000	-3.975799	20	PASS
		5825	NV	-30	-25000	-4.291845	20	PASS
			NV	-20	-25000	-4.291845	20	PASS
			NV	-10	-25000	-4.291845	20	PASS
			NV	0	-25000	-4.291845	20	PASS
			NV	10	-25000	-4.291845	20	PASS
			NV	20	-25000	-4.291845	20	PASS
			NV	30	-25000	-4.291845	20	PASS
			NV	40	-25000	-4.291845	20	PASS
			NV	50	-26000	-4.463519	20	PASS
			11AC40S ISO	Ant	5755	NV	-30	-25000
NV	-20	-25000				-4.344049	20	PASS
NV	-10	-26000				-4.517811	20	PASS
NV	0	-26000				-4.517811	20	PASS
NV	10	-26000				-4.517811	20	PASS
NV	20	-27000				-4.691573	20	PASS
NV	30	-27000				-4.691573	20	PASS
NV	40	-27000				-4.691573	20	PASS
5795	NV	50			-27000	-4.691573	20	PASS
	NV	-30			-28000	-4.831752	20	PASS
	NV	-20			-28000	-4.831752	20	PASS
	NV	-10			-28000	-4.831752	20	PASS
	NV	0			-28000	-4.831752	20	PASS
	NV	10			-28000	-4.831752	20	PASS
NV	20	-28000	-4.831752	20	PASS			
NV	30	-28000	-4.831752	20	PASS			
NV	40	-28000	-4.831752	20	PASS			
NV	50	-28000	-4.831752	20	PASS			





E.6 Duty Cycle

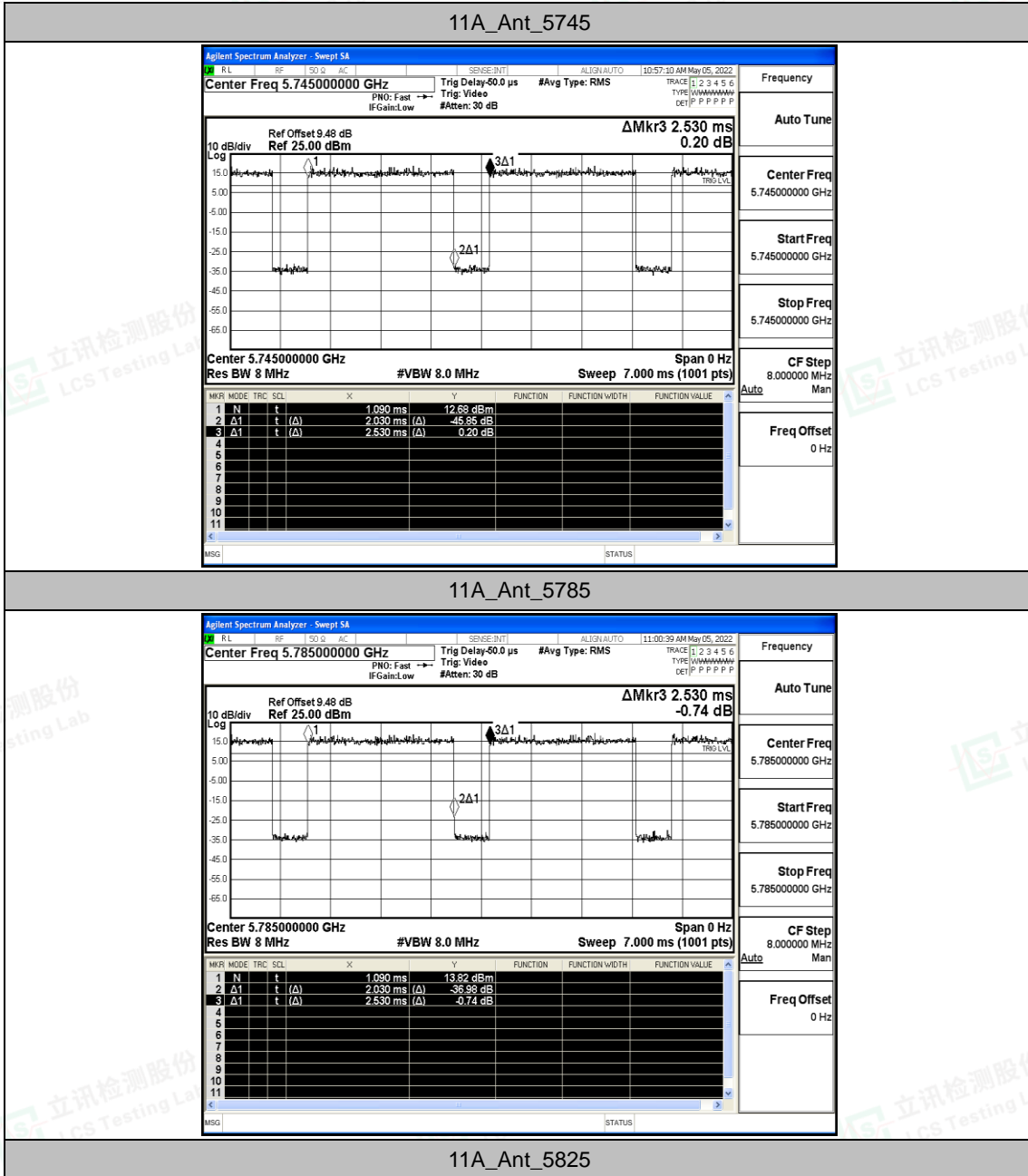
Test Result

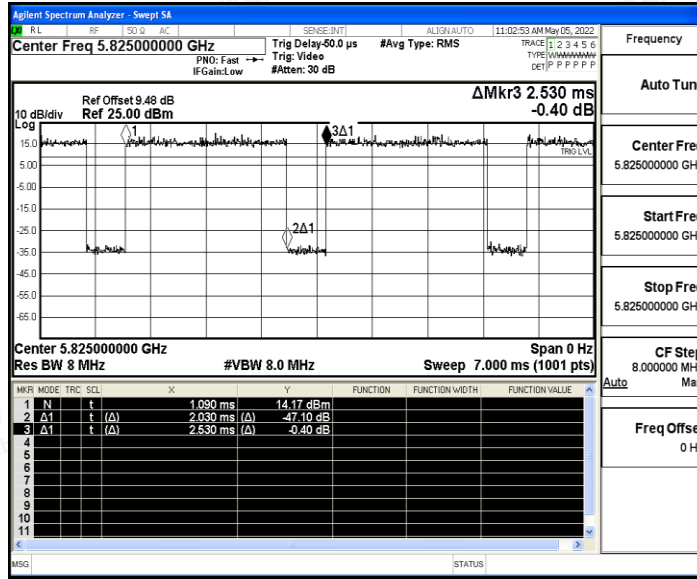
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11A	Ant	5745	2.03	2.53	80.24	---	---
		5785	2.03	2.53	80.24	---	---
		5825	2.03	2.53	80.24	---	---
11N20SISO	Ant	5745	1.89	2.39	79.08	---	---
		5785	1.89	2.39	79.08	---	---
		5825	1.89	2.39	79.08	---	---
11N40SISO	Ant	5755	0.93	1.43	65.03	---	---
		5795	0.92	1.43	64.34	---	---
11AC20SISO	Ant	5745	1.89	2.39	79.08	---	---
		5785	1.89	2.39	79.08	---	---
		5825	1.89	2.39	79.08	---	---
11AC40SISO	Ant	5755	0.94	1.44	65.28	---	---
		5795	0.93	1.44	64.58	---	---



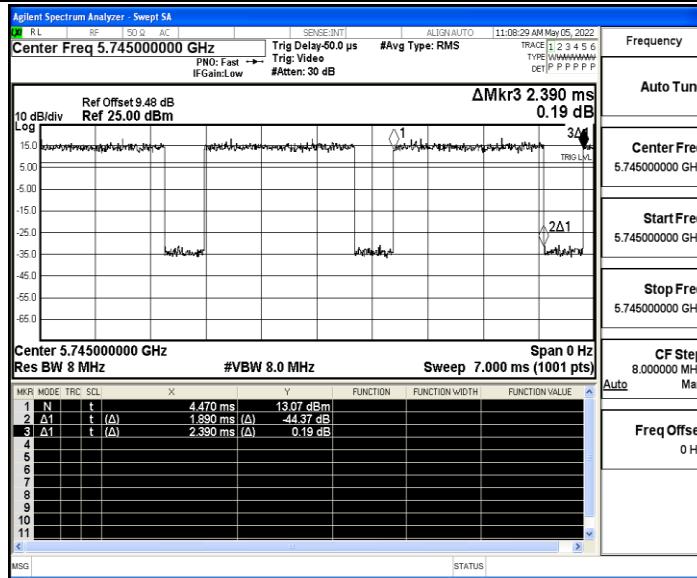


Test Graphs



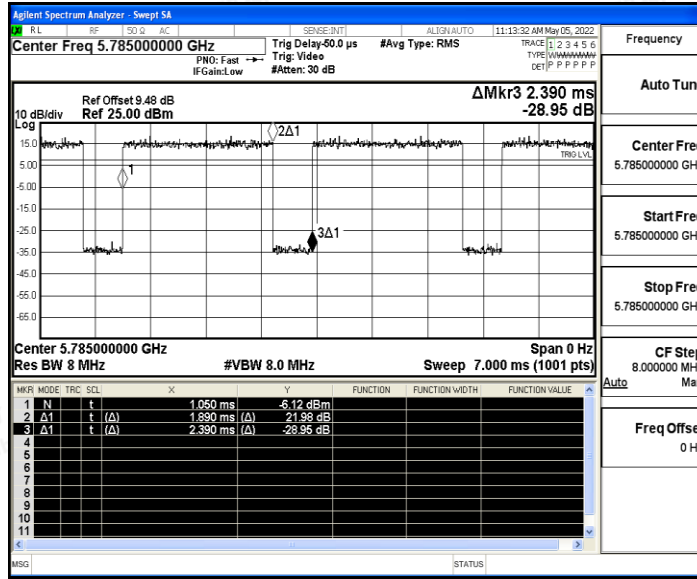


11N20SISO_Ant_5745

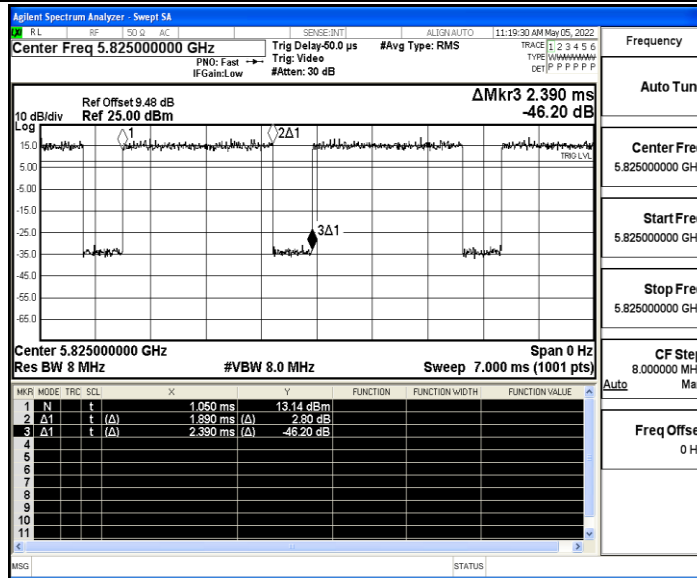


11N20SISO_Ant_5785



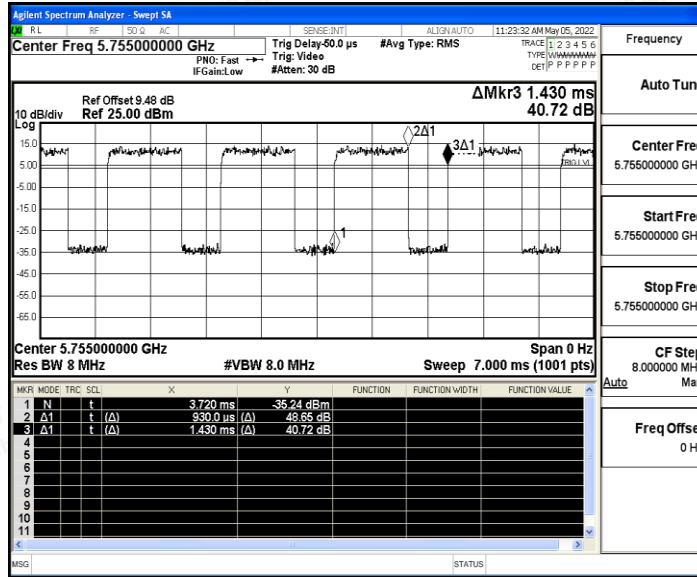


11N20SISO_Ant_5825

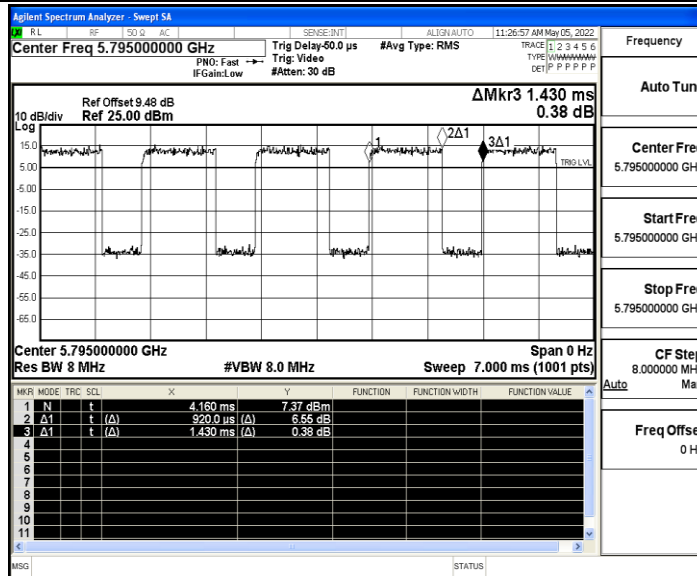


11N40SISO_Ant_5755



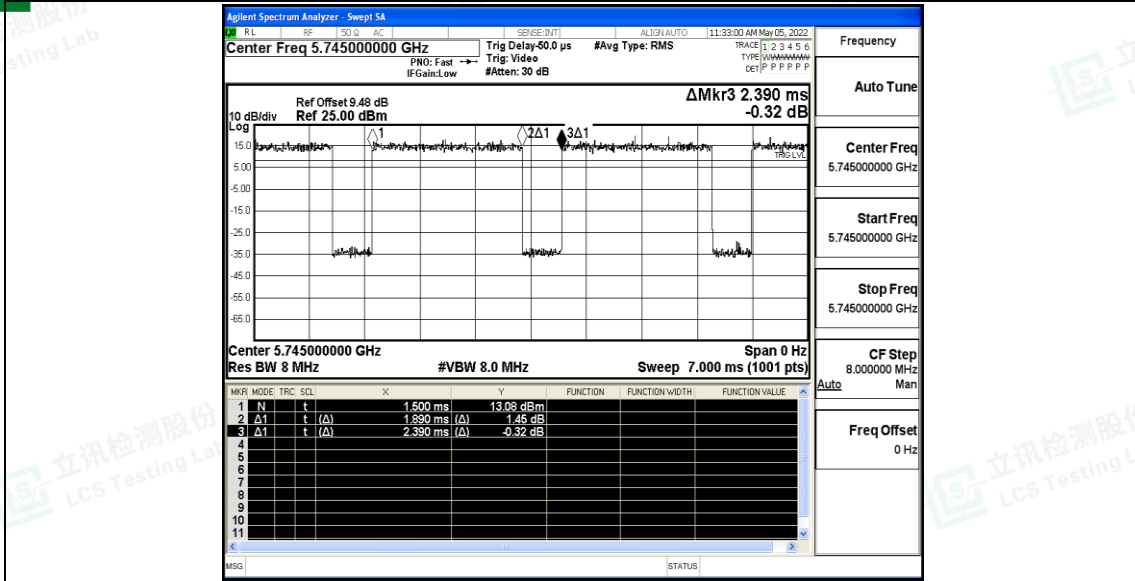


11N40SISO_Ant_5795

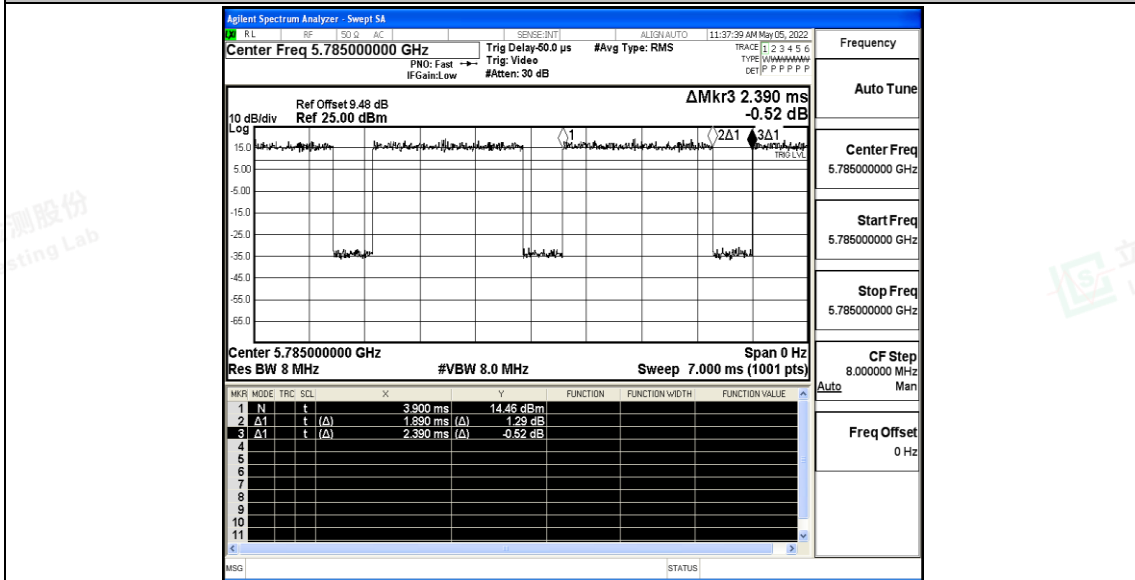


11AC20SISO_Ant_5745



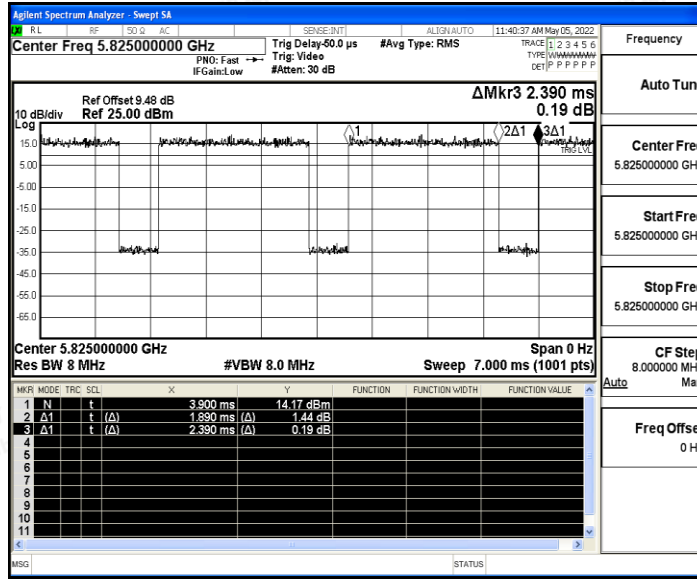


11AC20SISO_Ant_5785

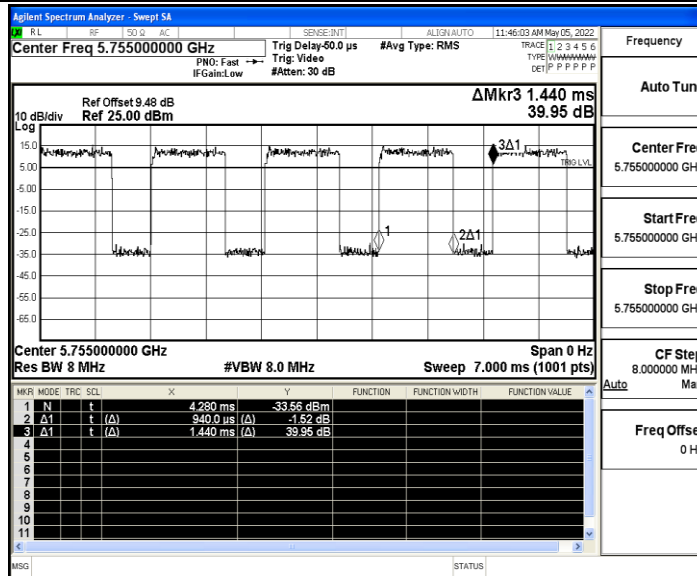


11AC20SISO_Ant_5825





11AC40SISO_Ant_5755



11AC40SISO_Ant_5795



