



Appendix E

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: TABLET PC

Test Model: BELLATRIX

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>Taylor Hu</i> Taylor Hu
Supervised by:	<i>Li Huan</i> Li Huan





E.1 Min emission bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant	5745	15.120	5737.440	5752.560	0.5	PASS
		5785	15.080	5777.440	5792.520	0.5	PASS
		5825	15.280	5817.240	5832.520	0.5	PASS
11N20SISO	Ant	5745	15.040	5737.440	5752.480	0.5	PASS
		5785	15.040	5777.440	5792.480	0.5	PASS
		5825	15.080	5817.440	5832.520	0.5	PASS
11N40SISO	Ant	5755	32.480	5737.560	5770.040	0.5	PASS
		5795	33.840	5778.680	5812.520	0.5	PASS
11AC20SISO	Ant	5745	15.680	5736.840	5752.520	0.5	PASS
		5785	15.080	5777.440	5792.520	0.5	PASS
		5825	15.080	5817.440	5832.520	0.5	PASS
11AC40SISO	Ant	5755	35.040	5737.480	5772.520	0.5	PASS
		5795	35.120	5777.400	5812.520	0.5	PASS
11AC80SISO	Ant	5775	75.200	5737.400	5812.600	0.5	PASS

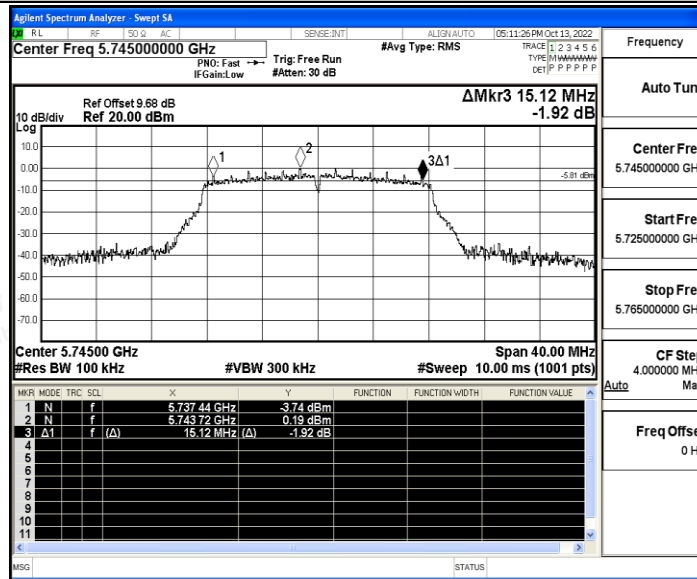


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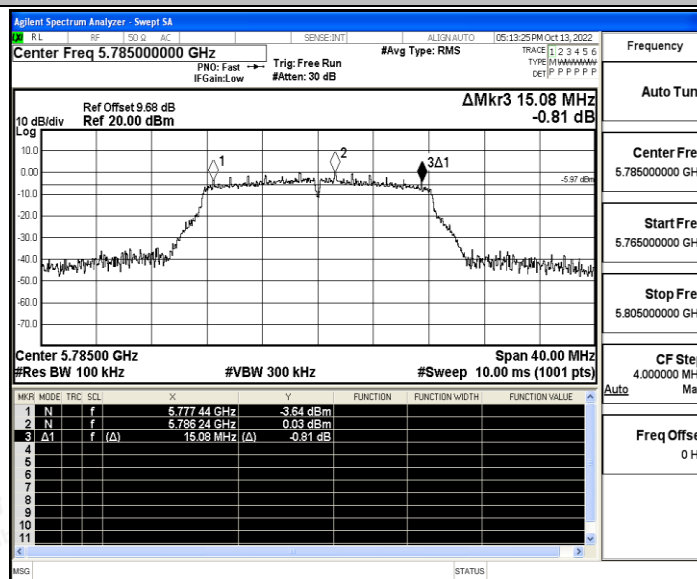


Test Graphs

11A_Ant_5745

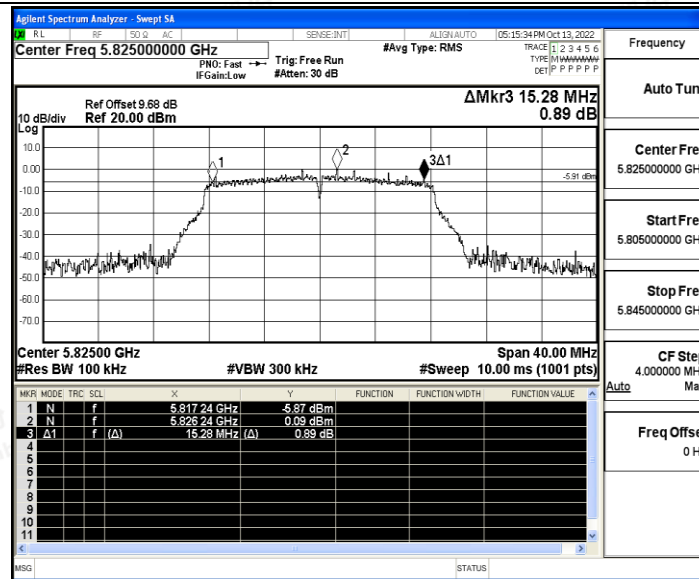


11A_Ant_5785

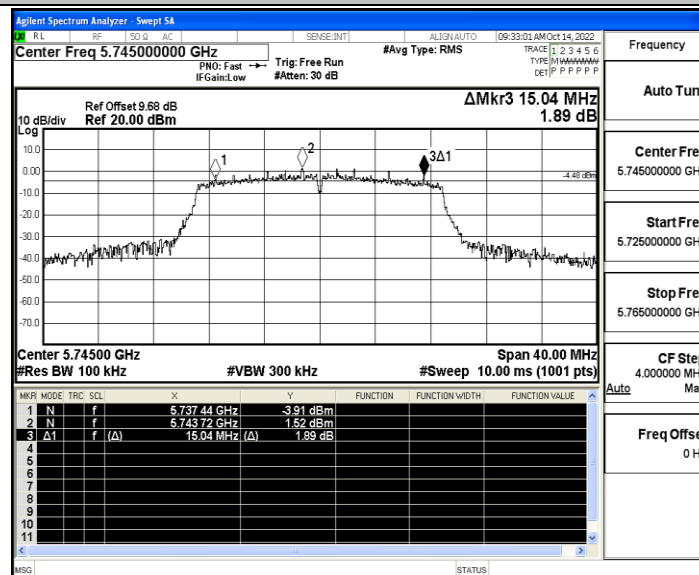


11A_Ant_5825



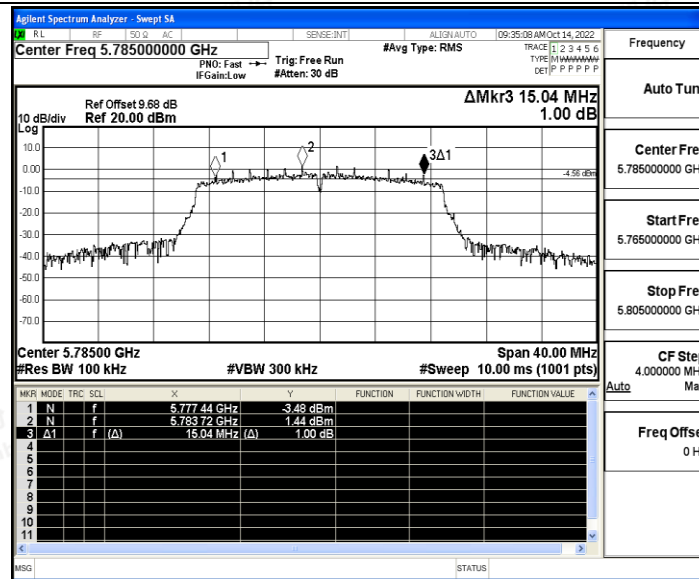


11N20SISO_Ant_5745

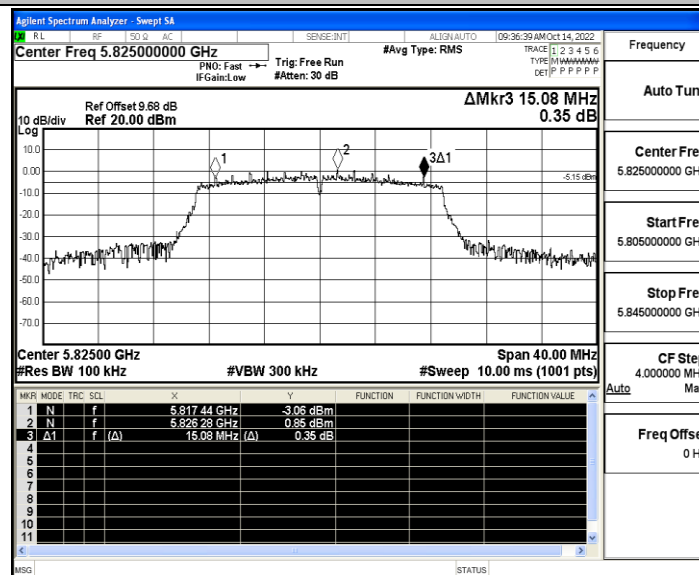


11N20SISO_Ant_5785





11N20SISO_Ant_5825



11N40SISO_Ant_5755

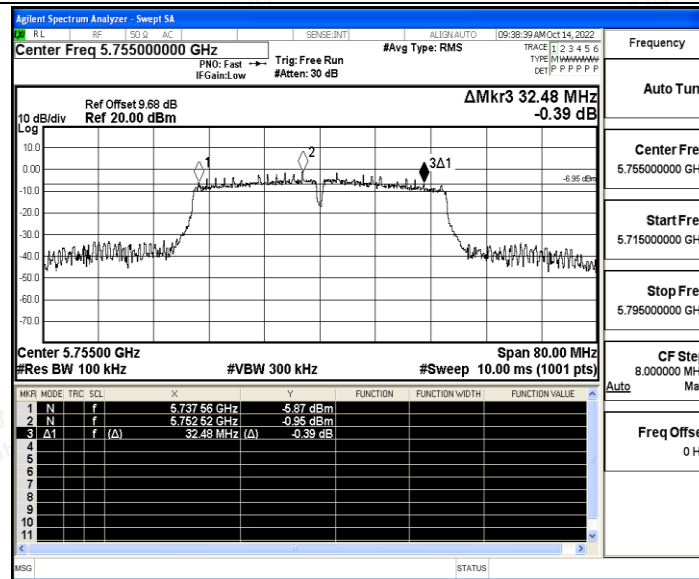


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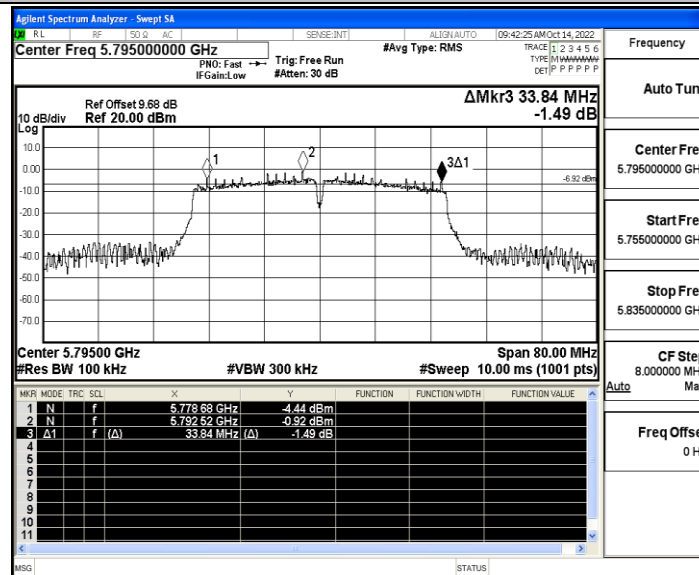
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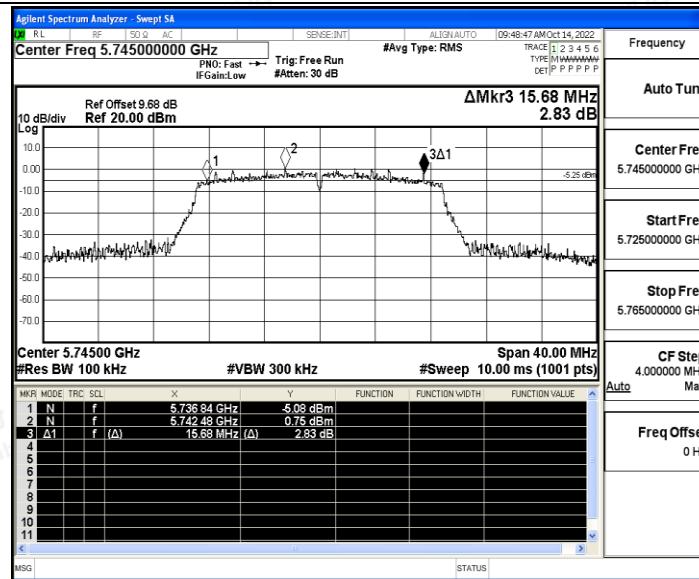


11N40SISO_Ant_5795

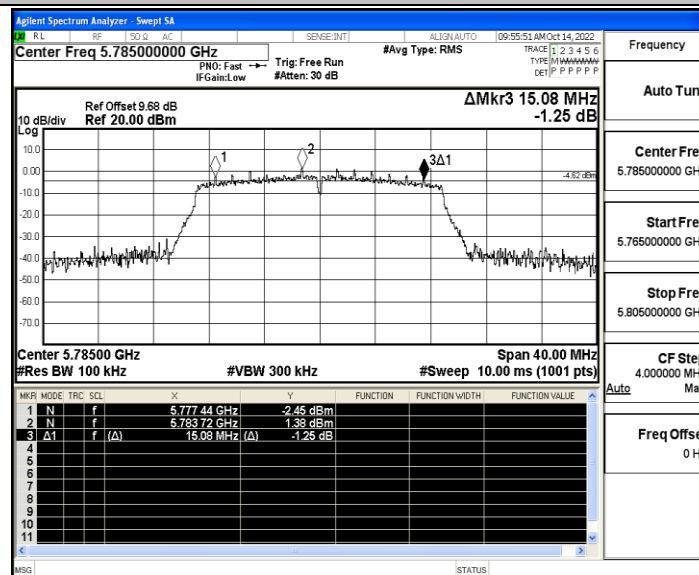


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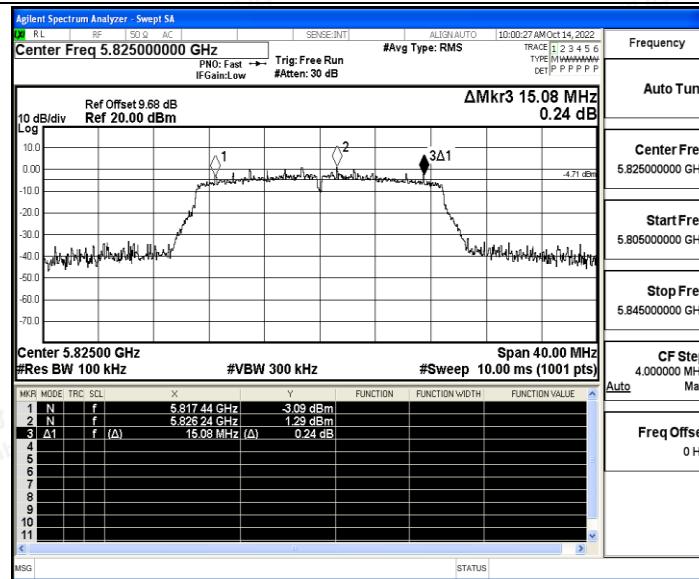


11AC20SISO_Ant_5785

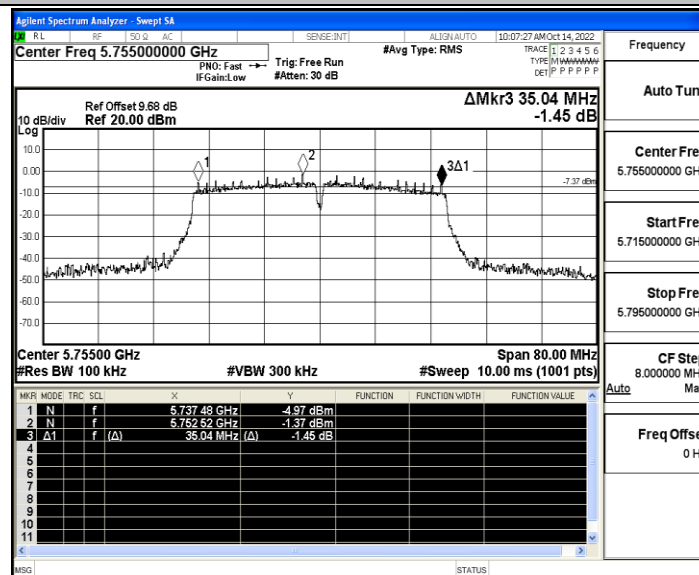


11AC20SISO_Ant_5825





11AC40SISO_Ant_5755



11AC40SISO_Ant_5795







E.2 Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[M Hz]	Channel Power [dBm]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant	5745	10.90	0.15	11.05	≤30.00	PASS
		5785	10.73	0.12	10.85	≤30.00	PASS
		5825	10.64	0.12	10.76	≤30.00	PASS
11N20SISO	Ant	5745	12.19	0.13	12.32	≤30.00	PASS
		5785	12.05	0.13	12.18	≤30.00	PASS
		5825	11.64	0.13	11.77	≤30.00	PASS
11N40SISO	Ant	5755	11.79	0.32	12.11	≤30.00	PASS
		5795	11.75	0.32	12.07	≤30.00	PASS
11AC20SISO	Ant	5745	12.20	0.16	12.36	≤30.00	PASS
		5785	11.90	0.13	12.03	≤30.00	PASS
		5825	11.67	0.16	11.83	≤30.00	PASS
11AC40SISO	Ant	5755	11.37	0.26	11.63	≤30.00	PASS
		5795	11.20	0.32	11.52	≤30.00	PASS
11AC80SISO	Ant	5775	11.01	0.63	11.64	≤30.00	PASS

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





E.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/500KHz]	DC Factor [dBm]	Total Result [dBm/500KHz]	Limit[dBm/500KHz]	Verdict
11A	Ant	5745	-2.11	0.15	-1.96	≤30.00	PASS
		5785	-2.32	0.12	-2.20	≤30.00	PASS
		5825	-2.42	0.12	-2.30	≤30.00	PASS
11N20SISO	Ant	5745	-1.04	0.13	-0.91	≤30.00	PASS
		5785	-1.24	0.13	-1.11	≤30.00	PASS
		5825	-1.57	0.13	-1.44	≤30.00	PASS
11N40SISO	Ant	5755	-4.27	0.32	-3.95	≤30.00	PASS
		5795	-4.3	0.32	-3.98	≤30.00	PASS
11AC20SISO	Ant	5745	-1	0.16	-0.84	≤30.00	PASS
		5785	-1.39	0.13	-1.26	≤30.00	PASS
		5825	-1.54	0.16	-1.38	≤30.00	PASS
11AC40SISO	Ant	5755	-4.75	0.26	-4.49	≤30.00	PASS
		5795	-4.87	0.32	-4.55	≤30.00	PASS
11AC80SISO	Ant	5775	-7.64	0.63	-7.01	≤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.



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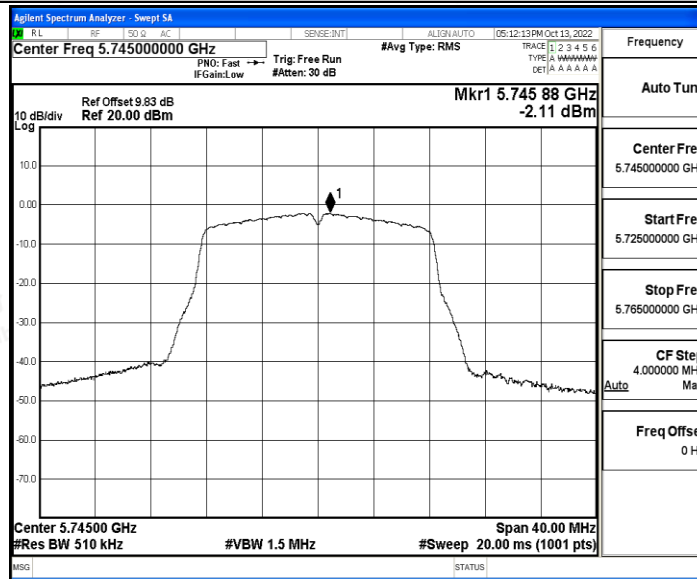
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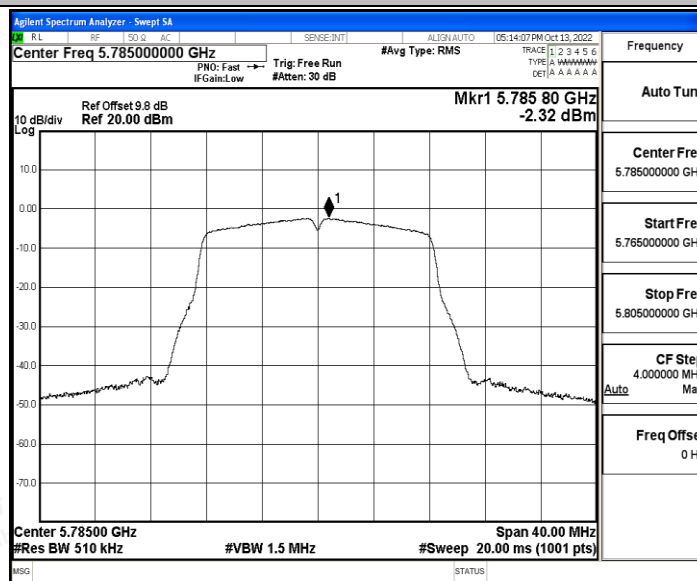


Test Graphs

11A_Ant_5745

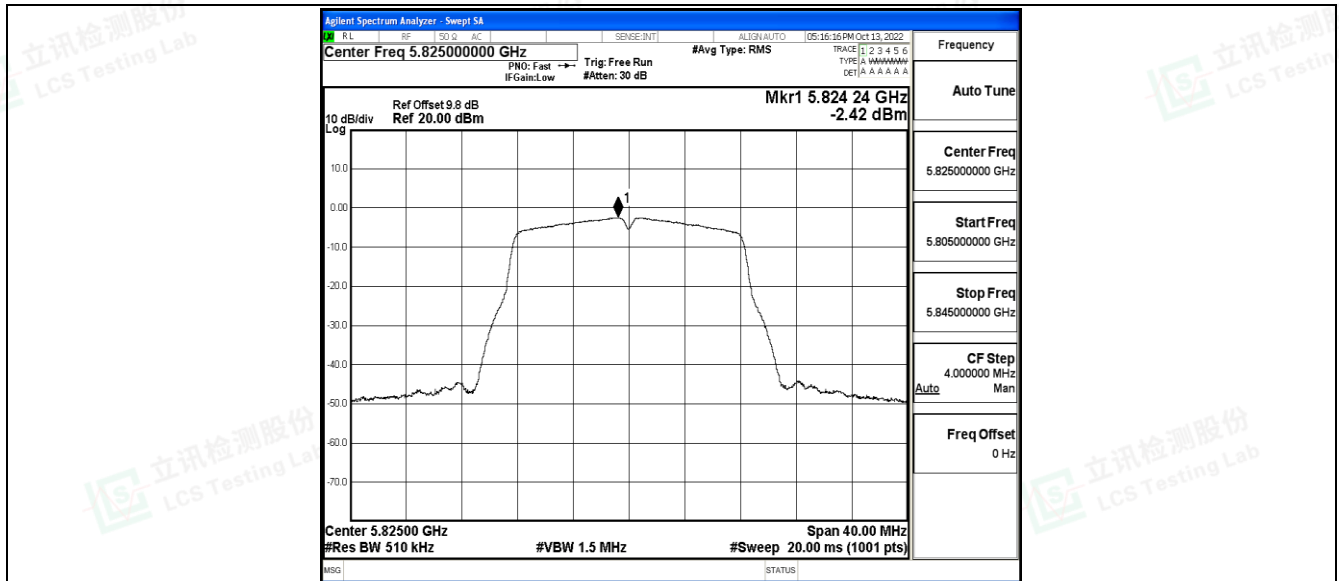


11A_Ant_5785

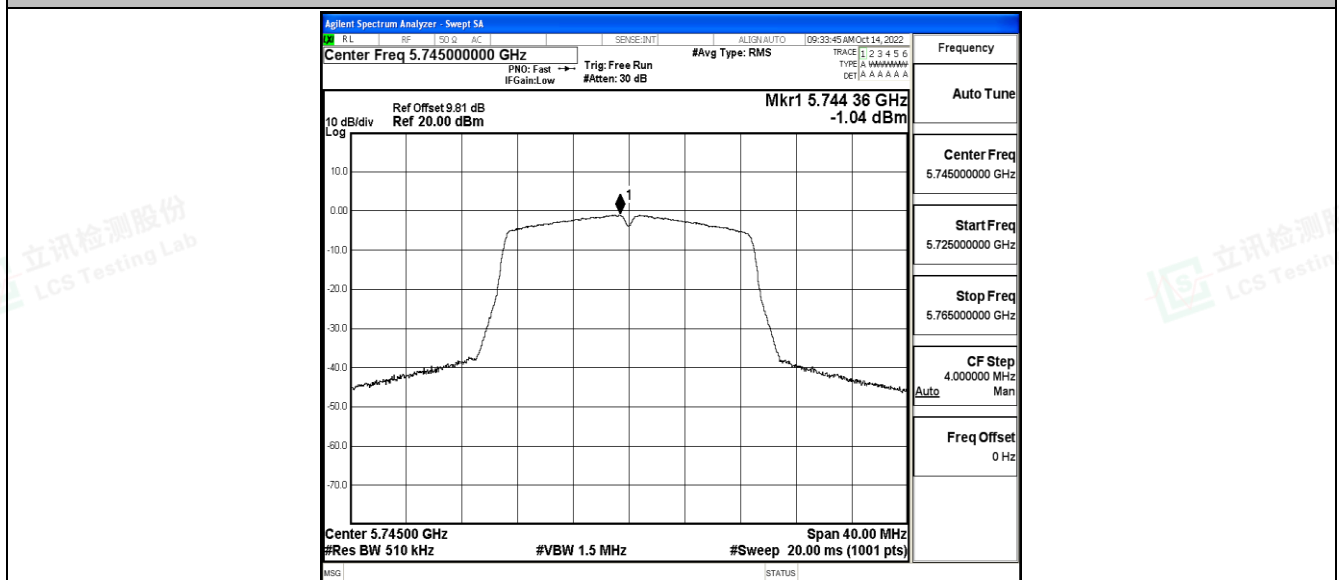


11A_Ant_5825



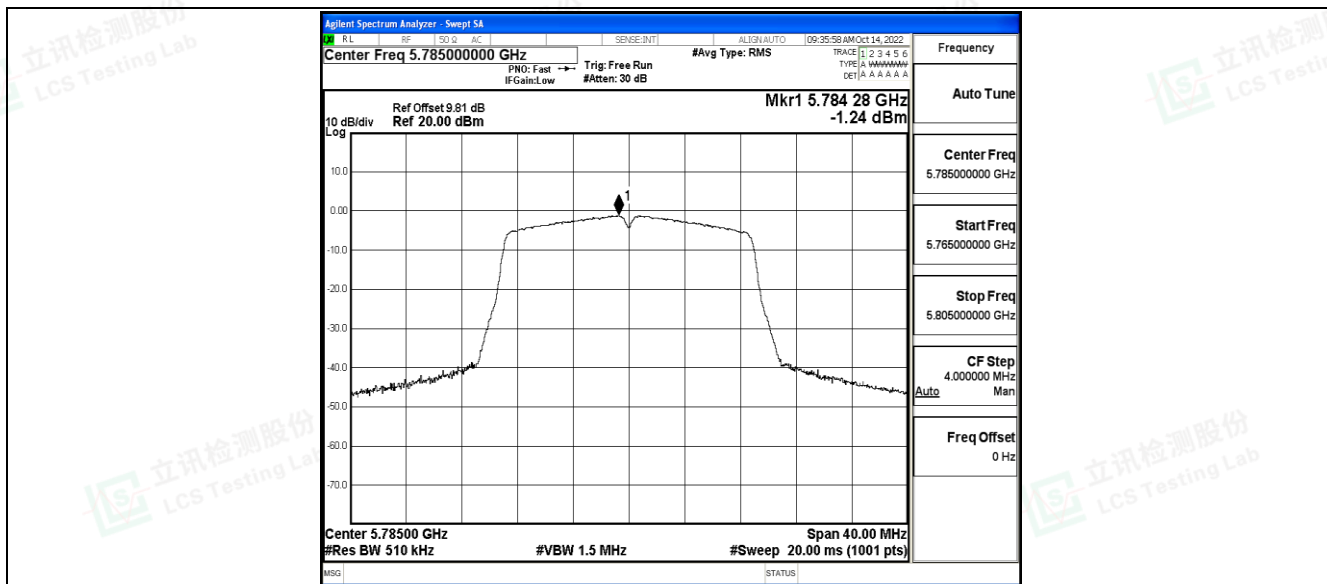


11N20SISO_Ant_5745

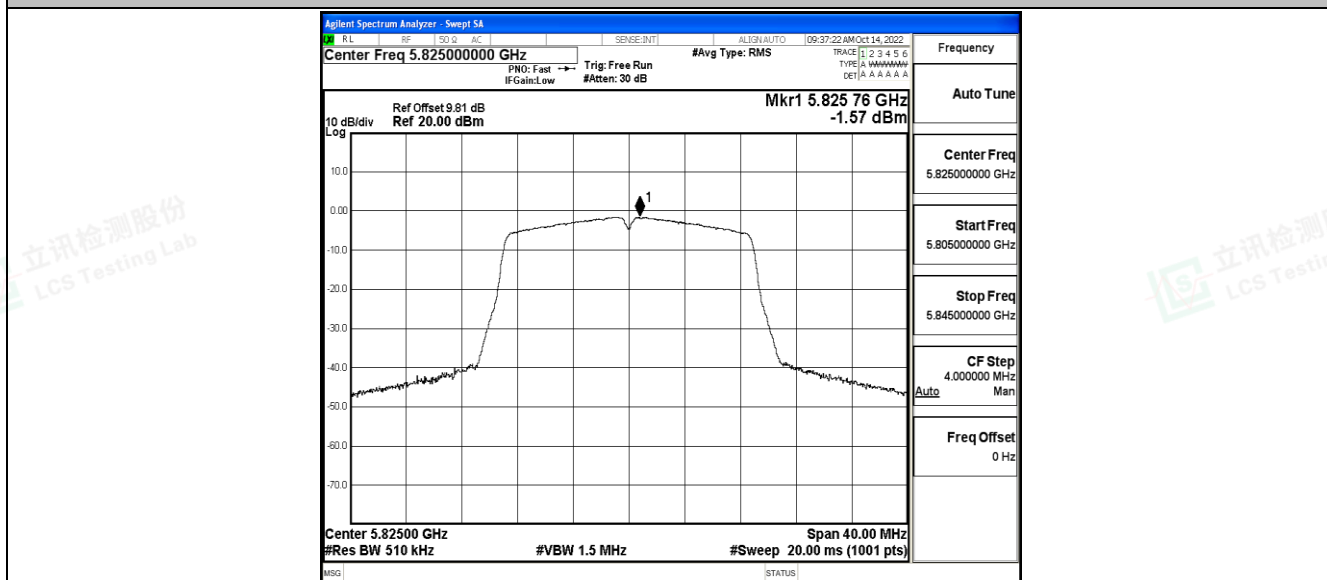


11N20SISO_Ant_5785



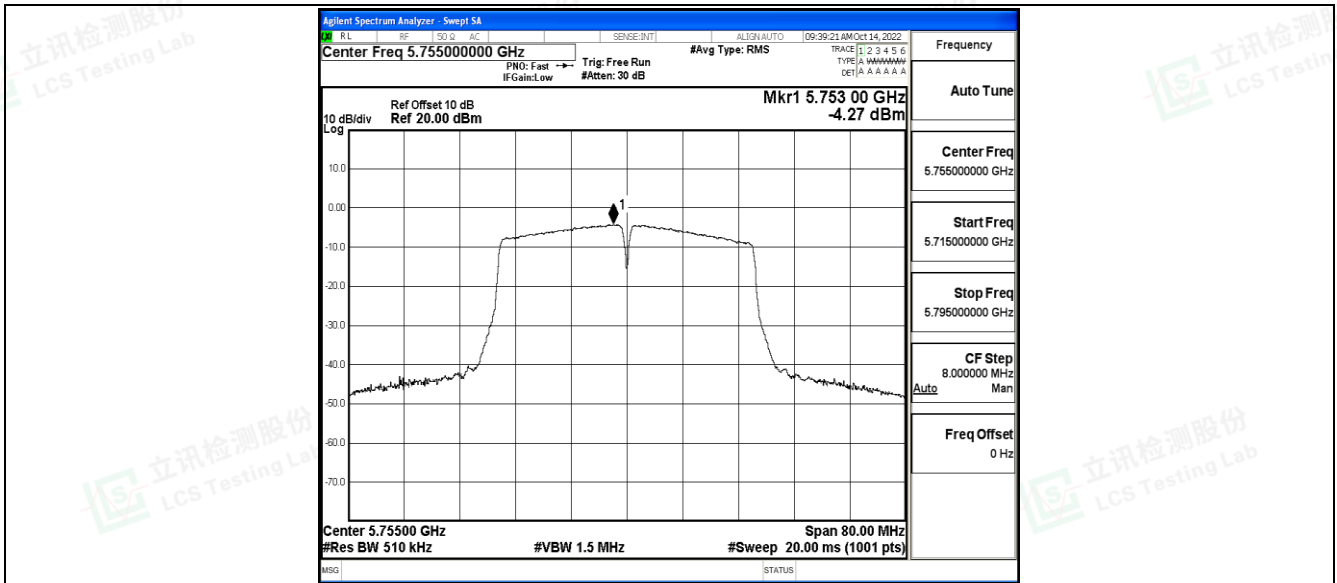


11N20SISO_Ant_5825

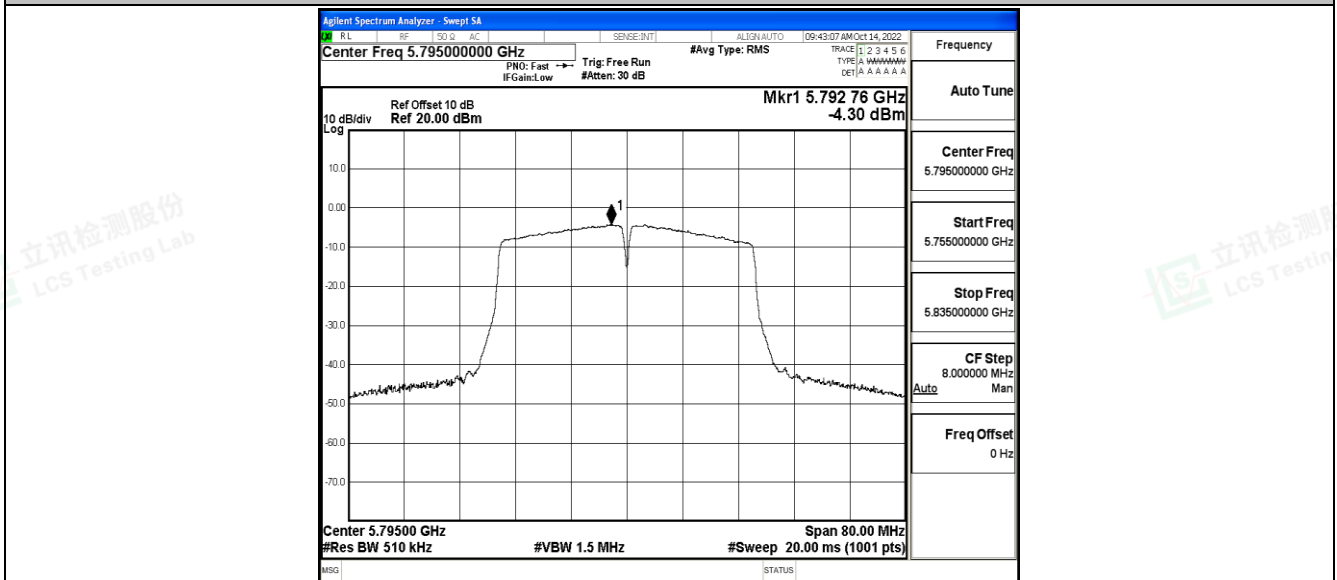


11N40SISO_Ant_5755



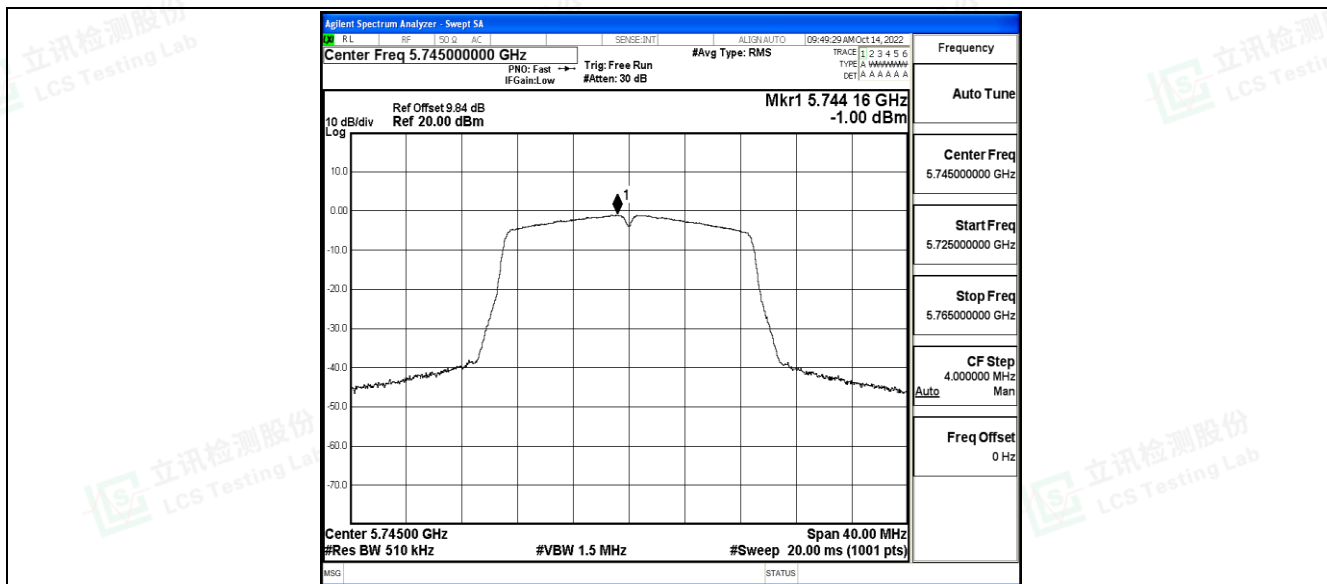


11N40SISO_Ant_5795

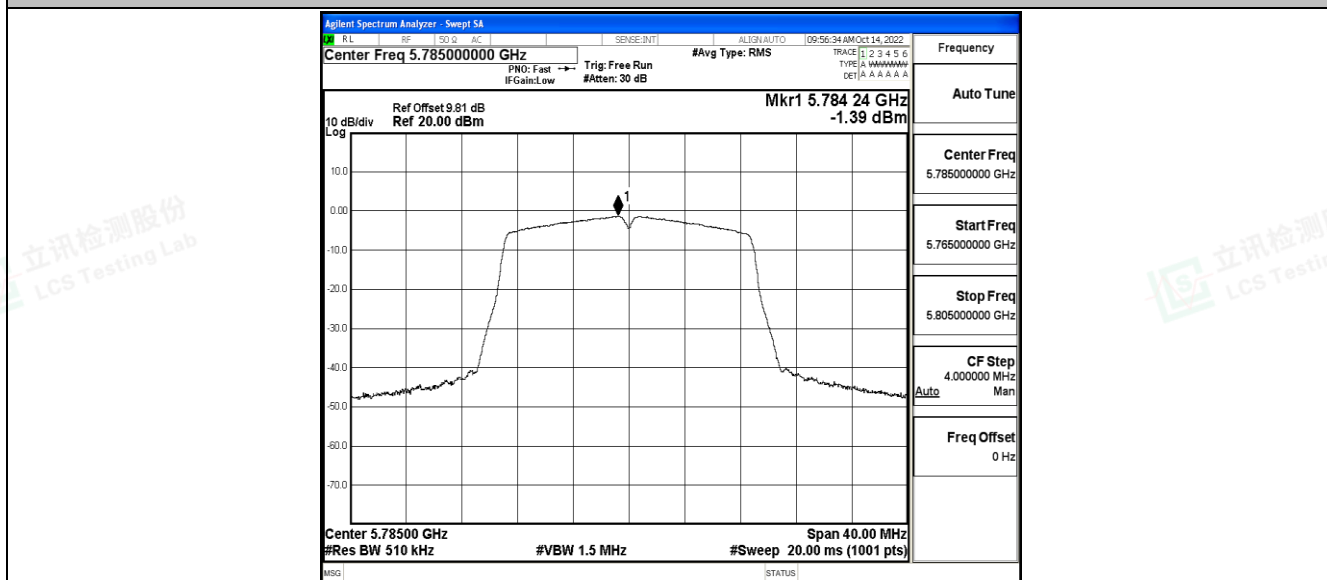


11AC20SISO_Ant_5745



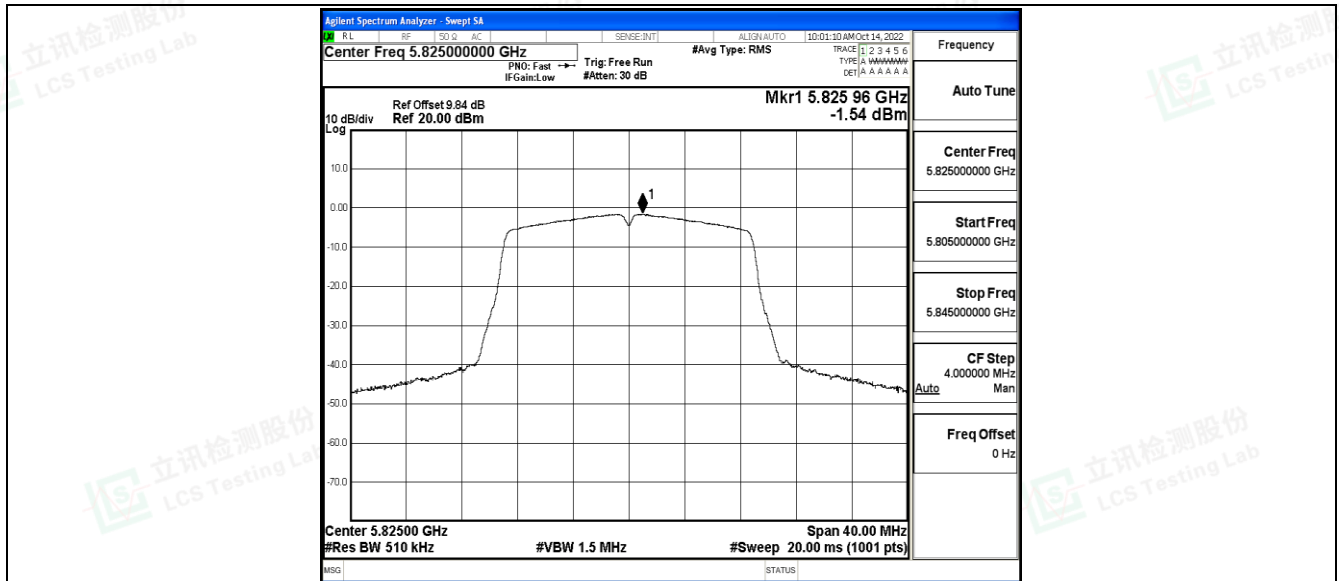


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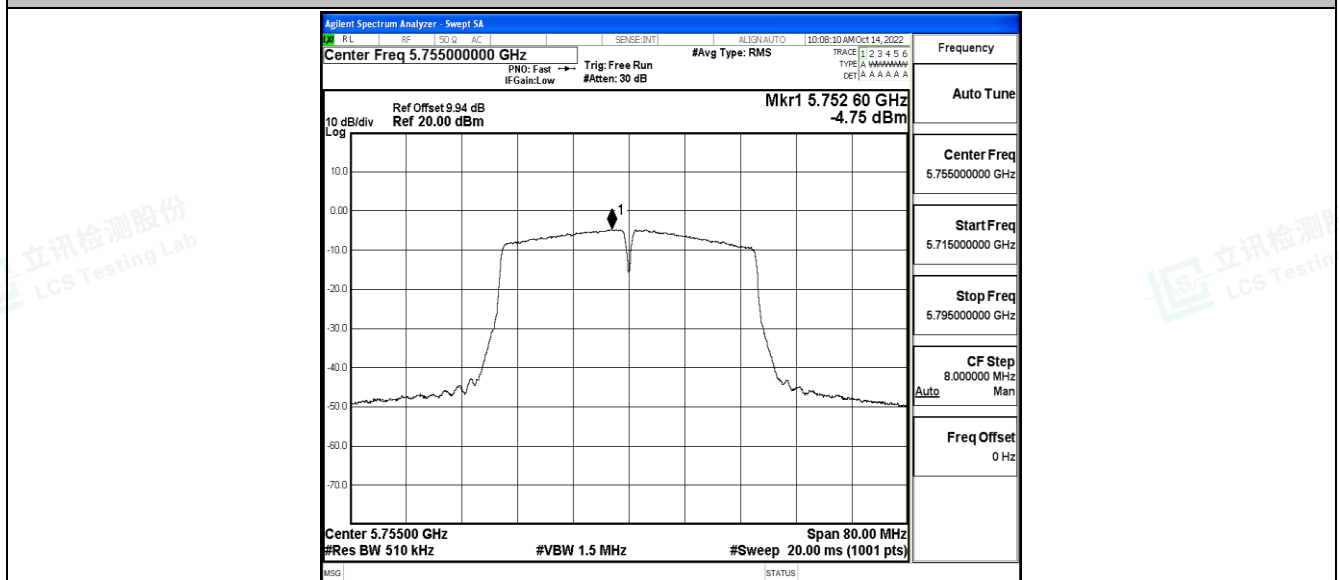


11AC20SISO_Ant_5825



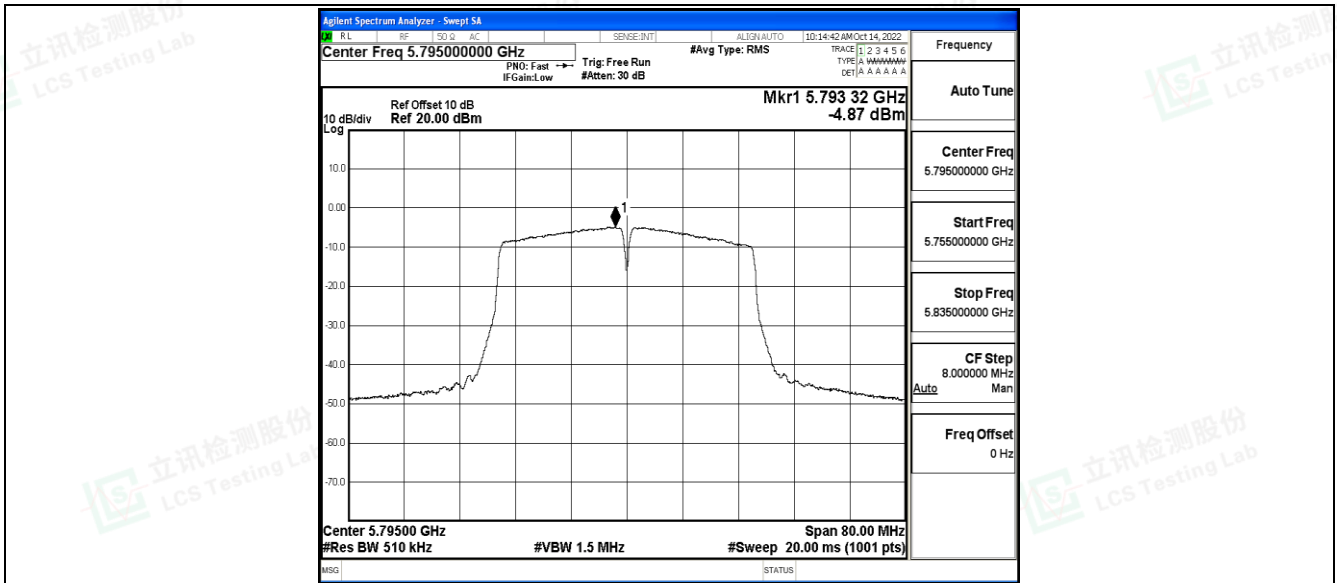


11AC40SISO_Ant_5755

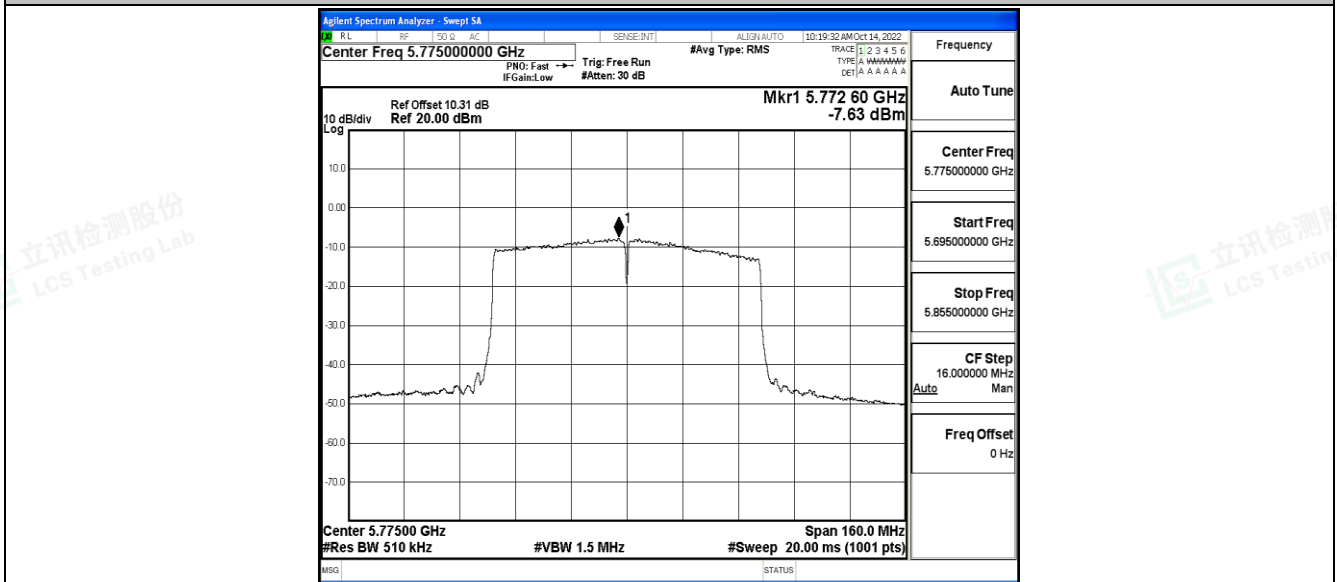


11AC40SISO_Ant_5795





11AC80SISO_Ant_5775





E.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant	Low	5745	Peak	5650.000	-45.011	≤-27.00	---	---	PASS
				Peak	5700.000	-44.79	≤10.00	---	---	PASS
				Peak	5720.000	-44.33	≤15.60	---	---	PASS
				Peak	5725.000	-28.18	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-39.107	≤15.60	---	---	PASS
				Peak	5855.000	-42.11	≤27.00	---	---	PASS
				Peak	5875.000	-43.85	≤15.60	---	---	PASS
				Peak	5925.000	-43.1	≤10.00	---	---	PASS
11N20SI SO	Ant	Low	5745	Peak	5650.000	-43.538	≤-27.00	---	---	PASS
				Peak	5700.000	-43.76	≤10.00	---	---	PASS
				Peak	5720.000	-39.75	≤15.60	---	---	PASS
				Peak	5725.000	-37.88	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-37.64	≤15.60	---	---	PASS
				Peak	5855.000	-41.6	≤27.00	---	---	PASS
				Peak	5875.000	-40.69	≤15.60	---	---	PASS
				Peak	5925.000	-40.25	≤10.00	---	---	PASS
11N40SI SO	Ant	Low	5755	Peak	5650.000	-42.222	≤-27.00	---	---	PASS
				Peak	5700.000	-40.17	≤10.00	---	---	PASS
				Peak	5720.000	-35.72	≤15.60	---	---	PASS
				Peak	5725.000	-40.54	≤27.00	---	---	PASS
		High	5795	Peak	5850.000	-44.849	≤15.60	---	---	PASS
				Peak	5855.000	-40.68	≤27.00	---	---	PASS
				Peak	5875.000	-41.43	≤15.60	---	---	PASS
				Peak	5925.000	-44.1	≤10.00	---	---	PASS
11AC20S ISO	Ant	Low	5745	Peak	5650.000	-41.443	≤-27.00	---	---	PASS
				Peak	5700.000	-41.98	≤10.00	---	---	PASS
				Peak	5720.000	-29.89	≤15.60	---	---	PASS
				Peak	5725.000	-31.25	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-42.522	≤15.60	---	---	PASS
				Peak	5855.000	-38.86	≤27.00	---	---	PASS
				Peak	5875.000	-43.5	≤15.60	---	---	PASS
				Peak	5925.000	-43.12	≤10.00	---	---	PASS
11AC40S ISO	Ant	Low	5755	Peak	5650.000	-45.319	≤-27.00	---	---	PASS
				Peak	5700.000	-40.78	≤10.00	---	---	PASS
				Peak	5720.000	-39.7	≤15.60	---	---	PASS



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		High	5795	Peak	5725.000	-36.43	≤ 27.00	- - -	- - -	PASS
				Peak	5850.000	-44.284	≤ 15.60	---	---	PASS
				Peak	5855.000	-43.29	≤ 27.00	---	---	PASS
				Peak	5875.000	-43.5	≤ 15.60	---	---	PASS
				Peak	5925.000	-45.24	≤ 10.00	- - -	- - -	PASS
11AC80S ISO	Ant	Low	5775	Peak	5650.000	-43.016	≤ -27.00	---	---	PASS
				Peak	5700.000	-37.94	≤ 10.00	---	---	PASS
				Peak	5720.000	-31.36	≤ 15.60	---	---	PASS
				Peak	5725.000	-37.67	≤ 27.00	- - -	- - -	PASS
		High	5775	Peak	5850.000	-40.915	≤ 15.60	---	---	PASS
				Peak	5855.000	-44.73	≤ 27.00	---	---	PASS
				Peak	5875.000	-42.38	≤ 15.60	---	---	PASS
				Peak	5925.000	-43.12	≤ 10.00	- - -	- - -	PASS

Note:

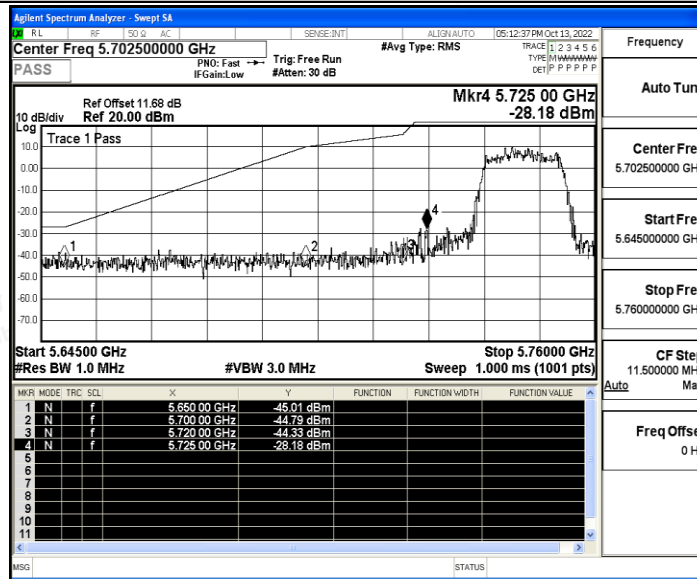
1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



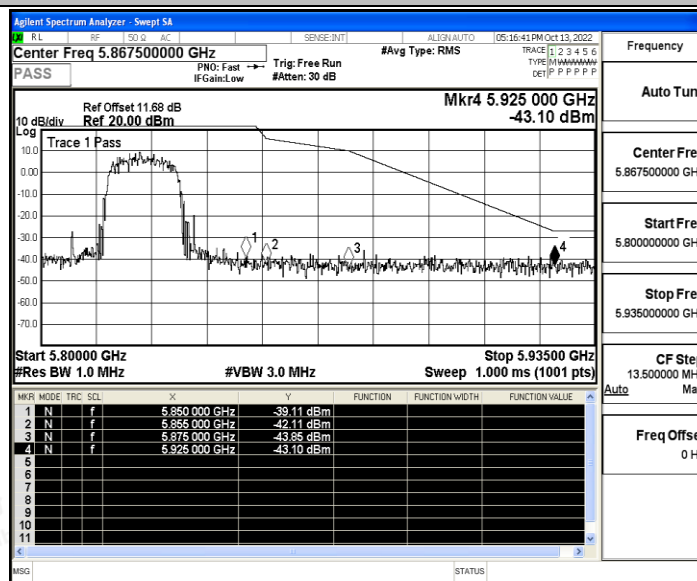


Test Graphs

11A_Ant_Low_5745_Peak

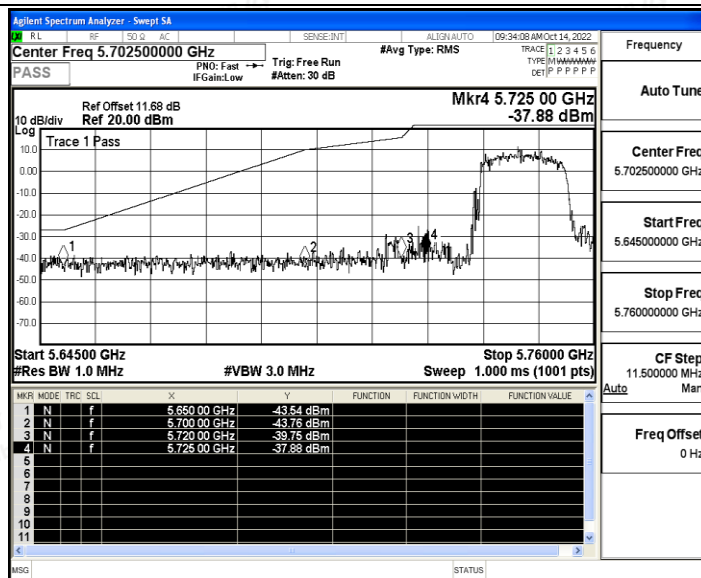


11A_Ant_High_5825_Peak

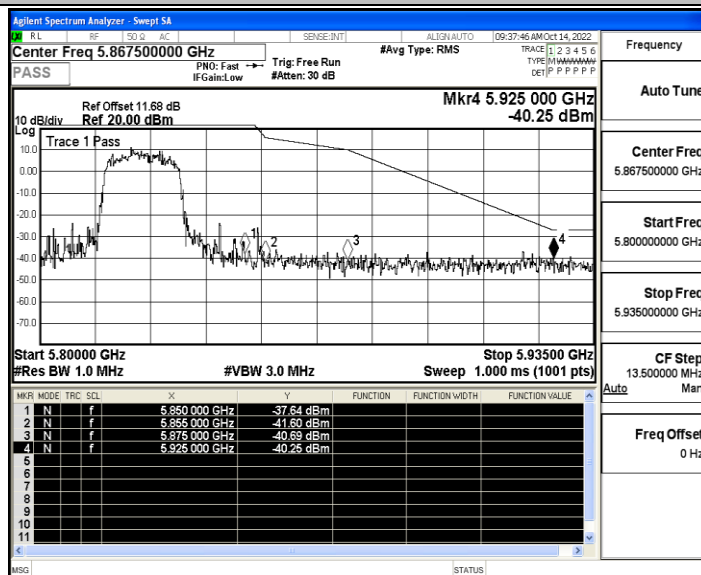


11N20SISO_Ant_Low_5745_Peak



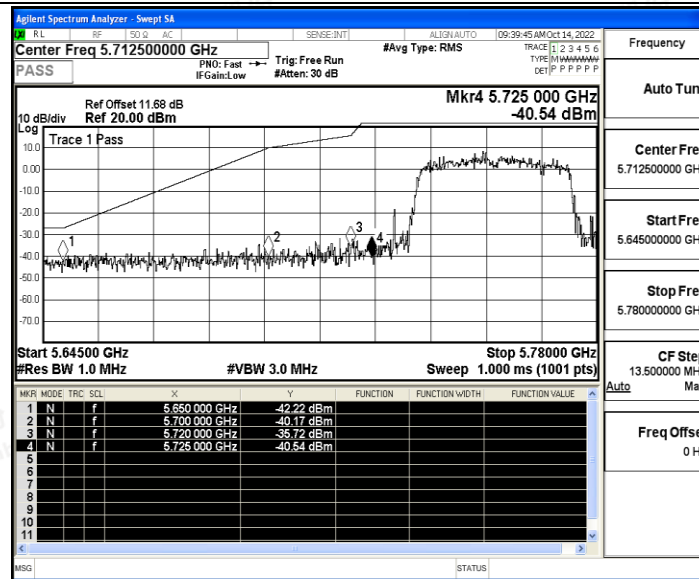


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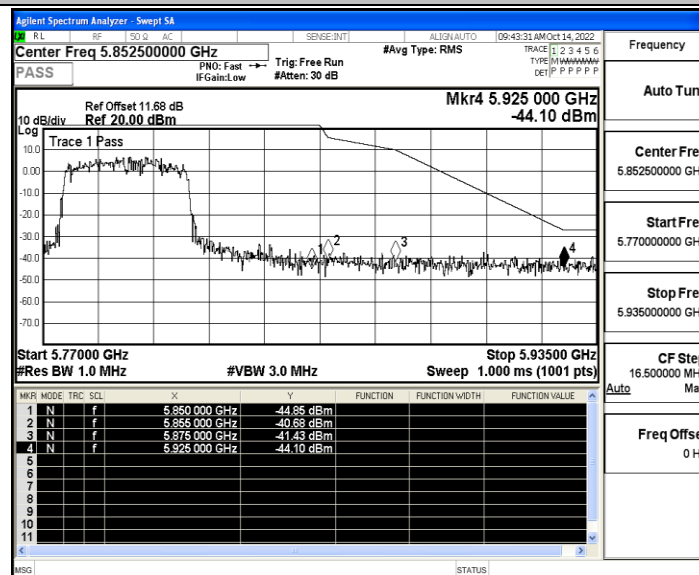


11N40SISO_Ant_Low_5755_Peak





11N40SISO_Ant_High_5795_Peak



11AC20SISO_Ant_Low_5745_Peak

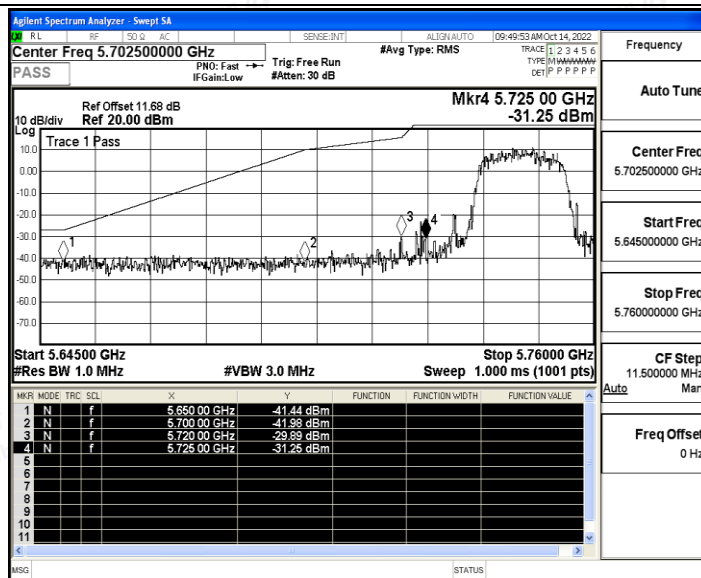


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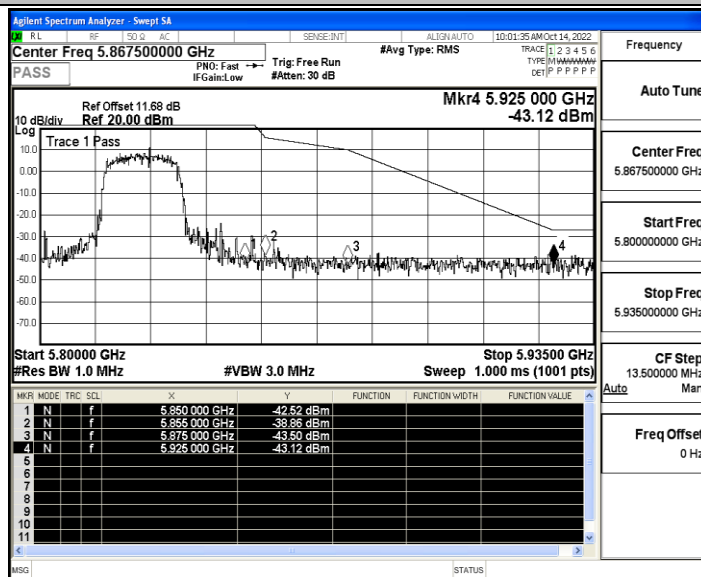
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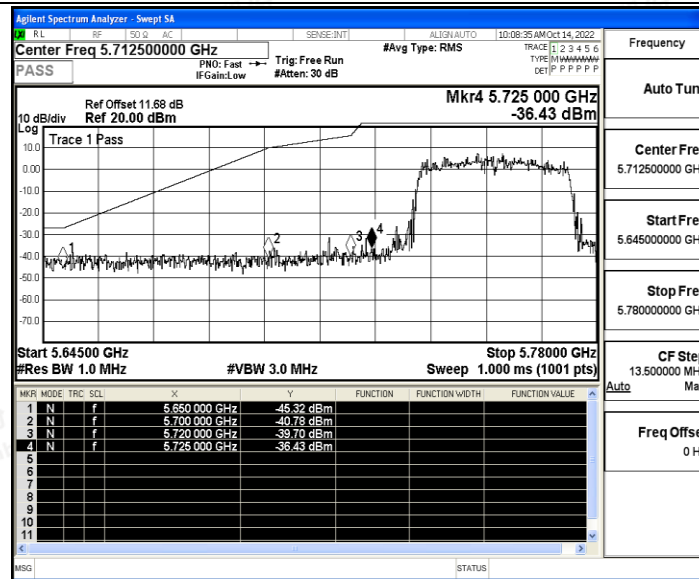


11AC20SISO_Ant_High_5825_Peak

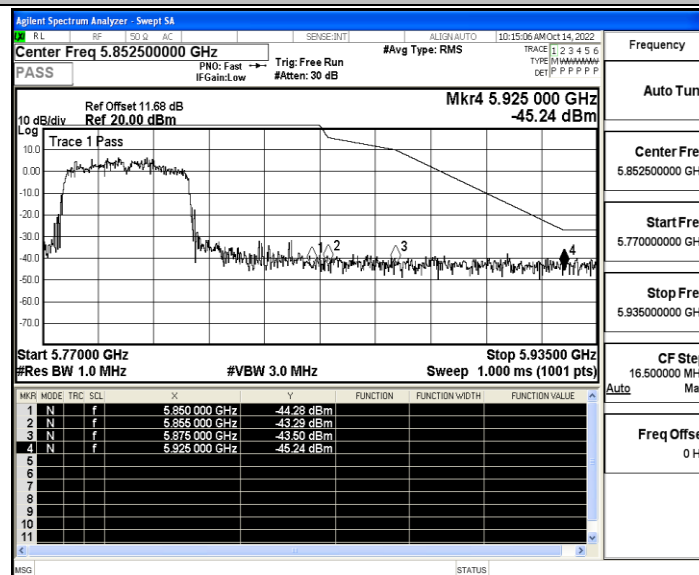


11AC40SISO_Ant_Low_5755_Peak



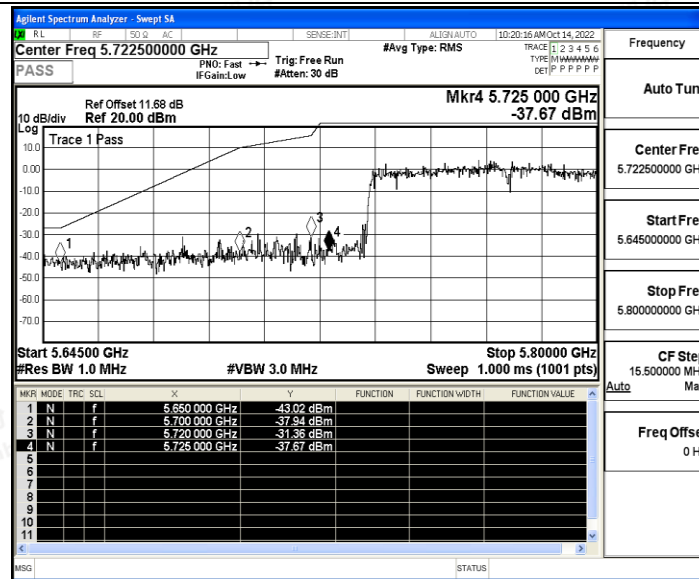


11AC40SISO_Ant_High_5795_Peak

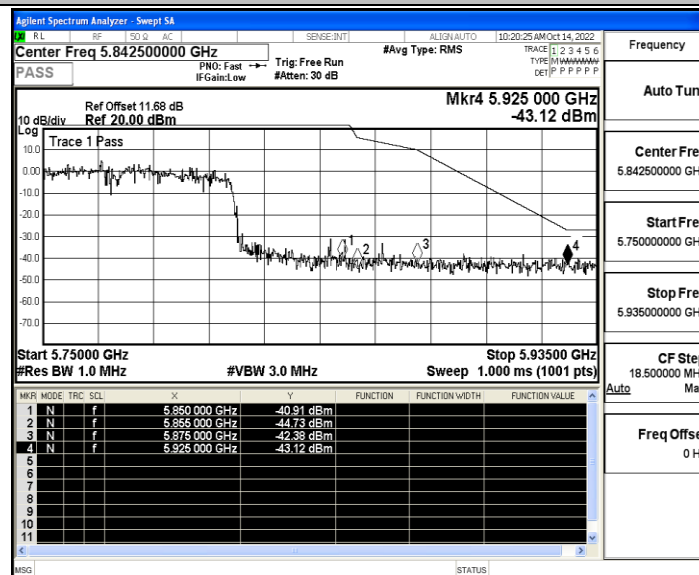


11AC80SISO_Ant_Low_5775_Peak





11AC80SISO_Ant_High_5775_Peak





E.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Frequency [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SIS O	Ant	5745	NV	NT	-20000.00	-3.481288	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-20000.00	-3.481288	20	PASS
		5785	NV	NT	-40000.00	-6.914434	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-20000.00	-3.457217	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
11AC40SIS O	Ant	5755	NV	NT	-40000.00	-6.950478	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5795	NV	NT	-40000.00	-6.902502	20	PASS
			LV	NT	-40000.00	-6.902502	20	PASS
			HV	NT	-40000.00	-6.902502	20	PASS
11AC80SIS O	Ant	5775	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-80000.00	-13.852814	20	PASS
			HV	NT	0.00	0.000000	20	PASS

Temperature								
TestMode	Antenna	Frequency [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SIS O	Ant	5745	NV	-30	-40000.00	-6.962576	20	PASS
			NV	-20	-20000.00	-3.481288	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	-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	0.00	0.000000	20	PASS
			NV	-20	-20000.00	-3.457217	20	PASS
			NV	-10	-20000.00	-3.457217	20	PASS



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			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	-20000.00	-3.457217	20	PASS
			NV	50	-20000.00	-3.457217	20	PASS
		5825	NV	-30	-40000.00	-6.866953	20	PASS
			NV	-20	-40000.00	-6.866953	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	-20000.00	-3.433476	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
11AC40SIS O	Ant	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
			NV	0	-40000.00	-6.950478	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-40000.00	-6.950478	20	PASS
			NV	30	-40000.00	-6.950478	20	PASS
			NV	40	-40000.00	-6.950478	20	PASS
			NV	50	-40000.00	-6.950478	20	PASS
		5795	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-40000.00	-6.902502	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	-40000.00	-6.902502	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-80000.00	-13.805004	20	PASS
			NV	50	-40000.00	-6.902502	20	PASS
11AC80SIS O	Ant	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	-80000.00	-13.852814	20	PASS
			NV	10	-80000.00	-13.852814	20	PASS
			NV	20	-80000.00	-13.852814	20	PASS
			NV	30	-80000.00	-13.852814	20	PASS



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			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS



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E.6 Duty Cycle

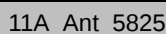
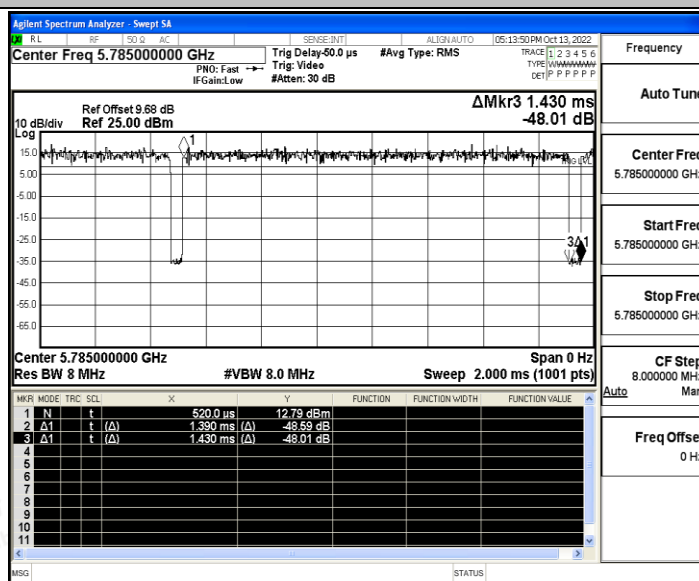
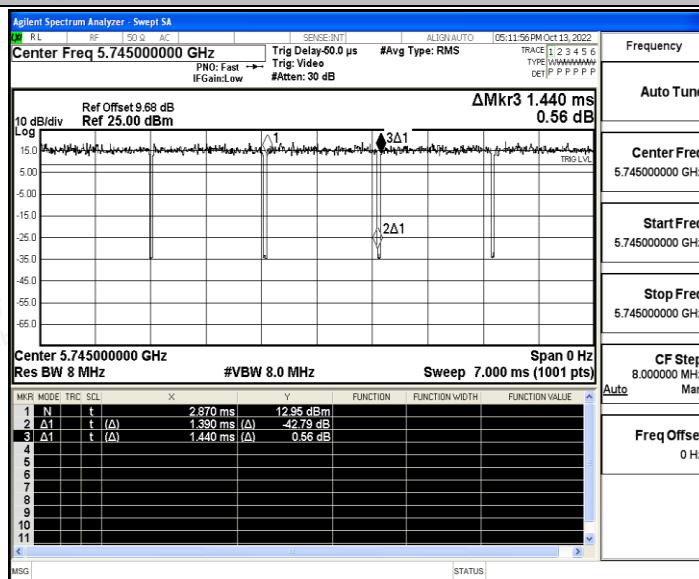
Test Result

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11A	Ant	5745	1.39	1.44	96.53	0.15
		5785	1.39	1.43	97.20	0.12
		5825	1.39	1.43	97.20	0.12
11N20SISO	Ant	5745	1.30	1.34	97.01	0.13
		5785	1.30	1.34	97.01	0.13
		5825	1.30	1.34	97.01	0.13
11N40SISO	Ant	5755	0.65	0.70	92.86	0.32
		5795	0.65	0.70	92.86	0.32
11AC20SISO	Ant	5745	1.31	1.36	96.32	0.16
		5785	1.32	1.36	97.06	0.13
		5825	1.31	1.36	96.32	0.16
11AC40SISO	Ant	5755	0.65	0.69	94.20	0.26
		5795	0.65	0.70	92.86	0.32
11AC80SISO	Ant	5775	0.32	0.37	86.49	0.63

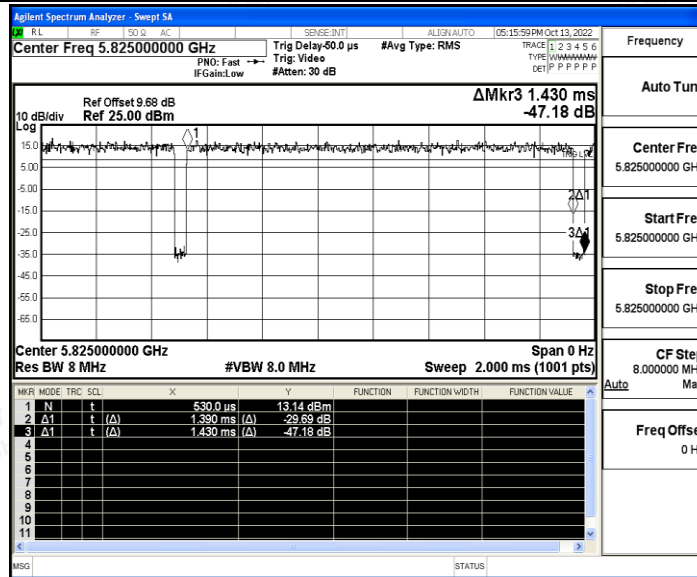




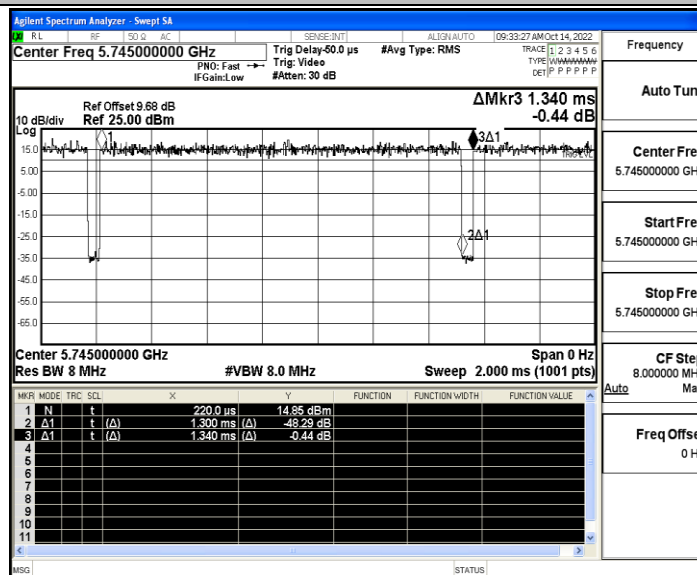
Test Graphs



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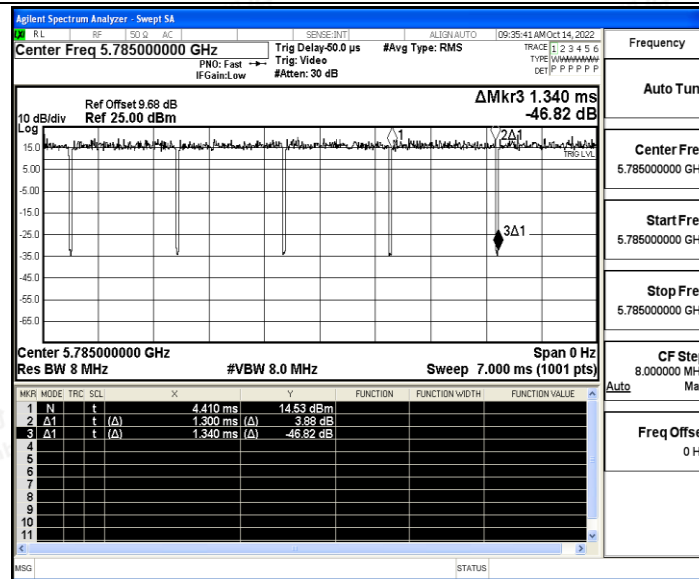


11N20SISO_Ant_5745

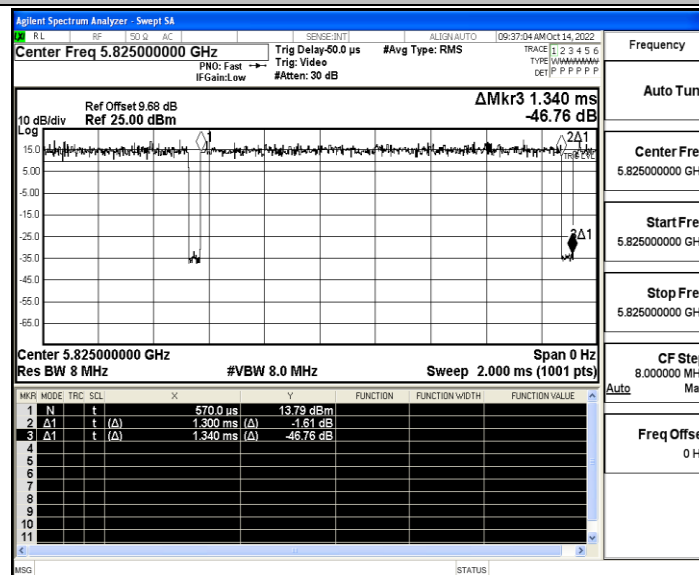


11N20SISO_Ant_5785



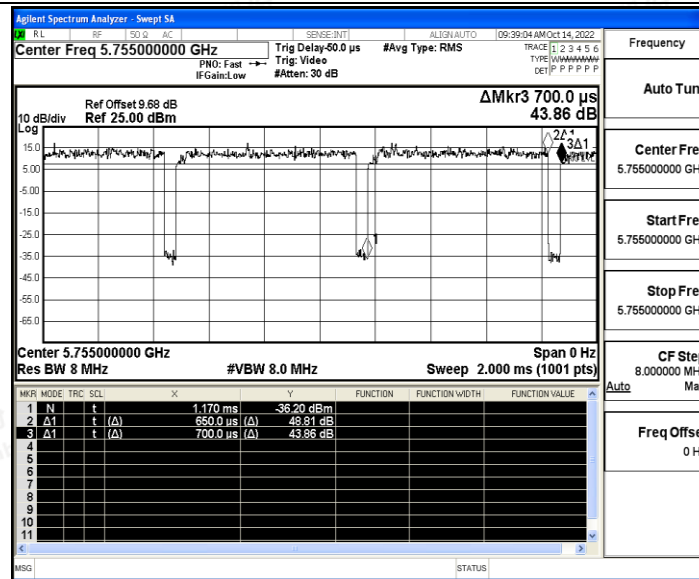


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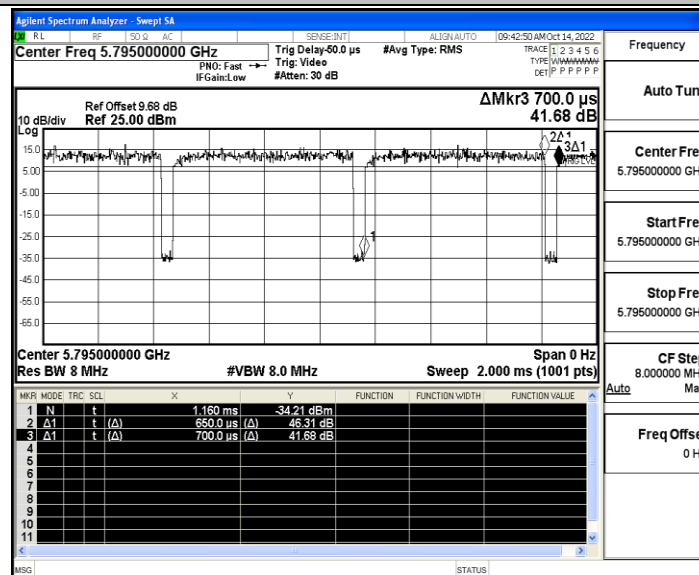


11N40SISO_Ant_5755



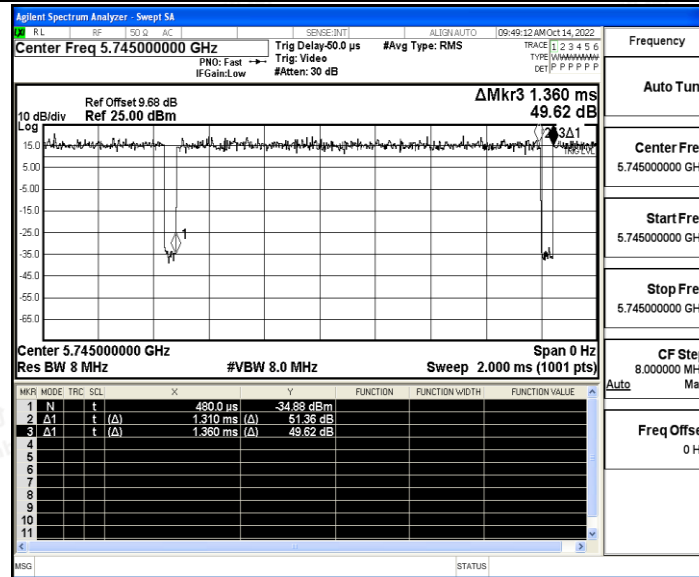


11N40SISO_Ant_5795

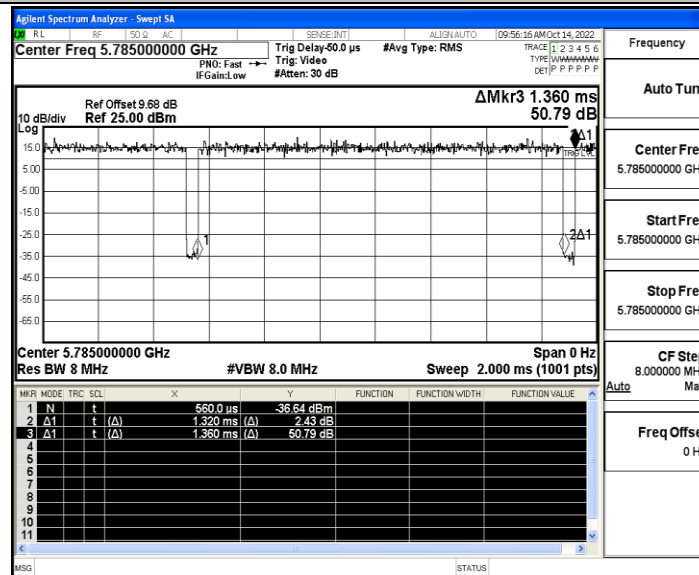


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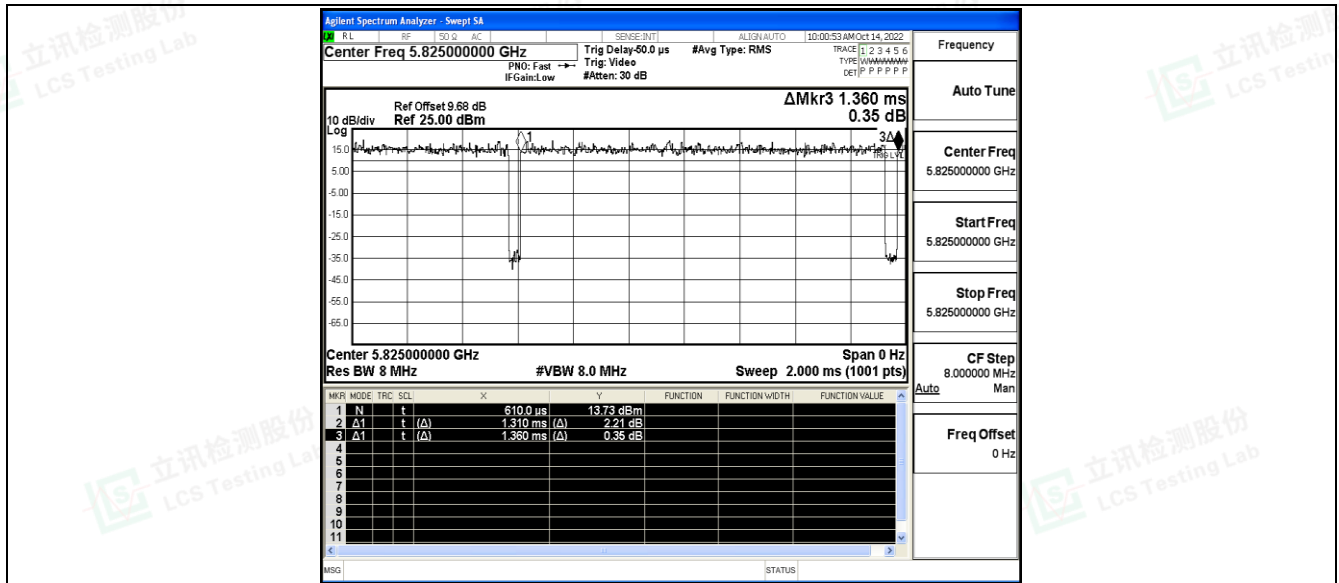


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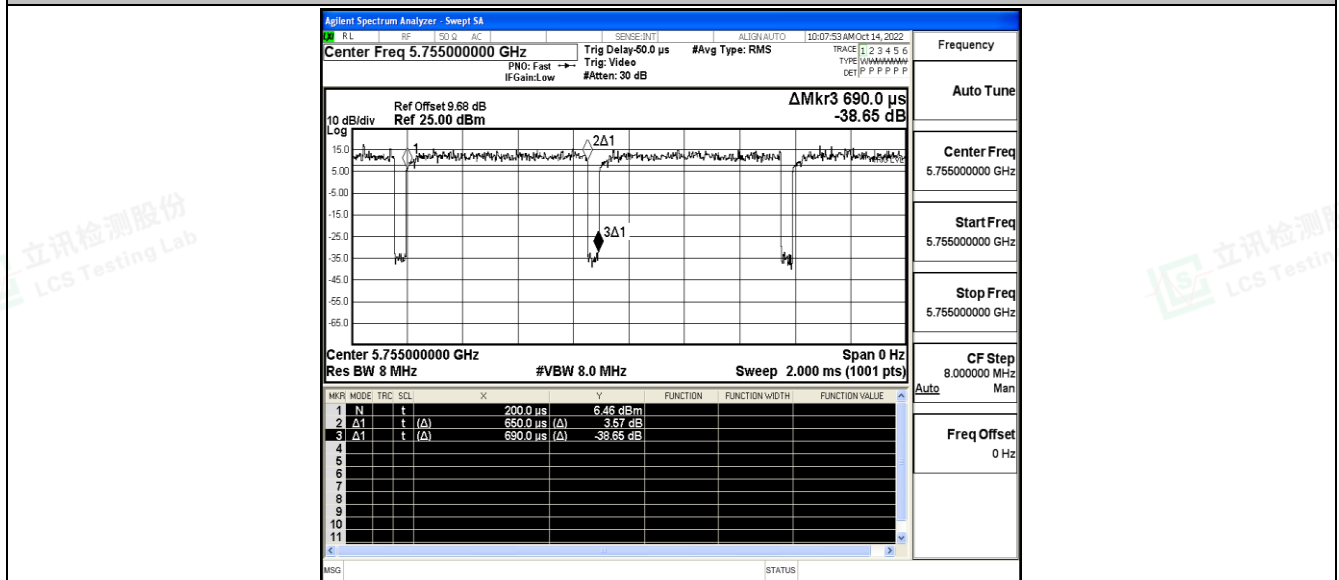


11AC20SISO_Ant_5825





11AC40SISO_Ant_5755



11AC40SISO_Ant_5795



