



Appendix E

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: Aeye-P4

Test Model: JBV-ME20301A

Environmental Conditions

Temperature:	21.1 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan



E.1 6dB bandwidth

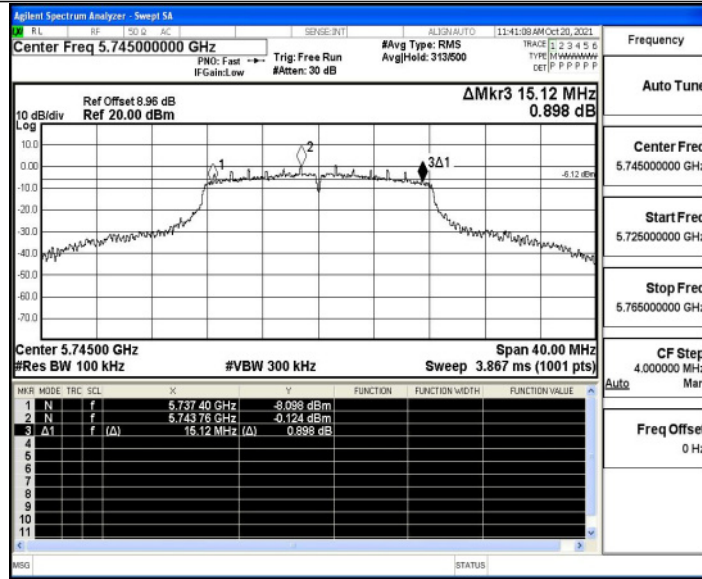
Test Result

TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.120	5737.400	5752.520	0.5	PASS
		5785	15.160	5777.400	5792.560	0.5	PASS
		5825	15.200	5817.400	5832.600	0.5	PASS
11N20SISO	Ant1	5745	15.120	5737.400	5752.520	0.5	PASS
		5785	15.160	5777.440	5792.600	0.5	PASS
		5825	15.200	5817.400	5832.600	0.5	PASS
11N40SISO	Ant1	5755	35.200	5737.400	5772.600	0.5	PASS
		5795	35.200	5777.400	5812.600	0.5	PASS
11AC20SISO	Ant1	5745	15.080	5737.440	5752.520	0.5	PASS
		5785	15.200	5777.400	5792.600	0.5	PASS
		5825	15.120	5817.440	5832.560	0.5	PASS
11AC40SISO	Ant1	5755	35.200	5737.400	5772.600	0.5	PASS
		5795	35.200	5777.400	5812.600	0.5	PASS
11AC80SISO	Ant1	5775	75.680	5737.080	5812.760	0.5	PASS

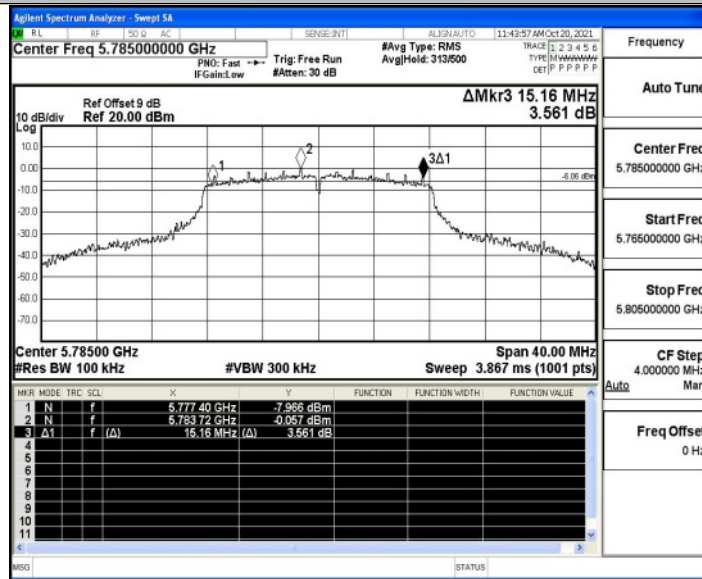


Test Graphs

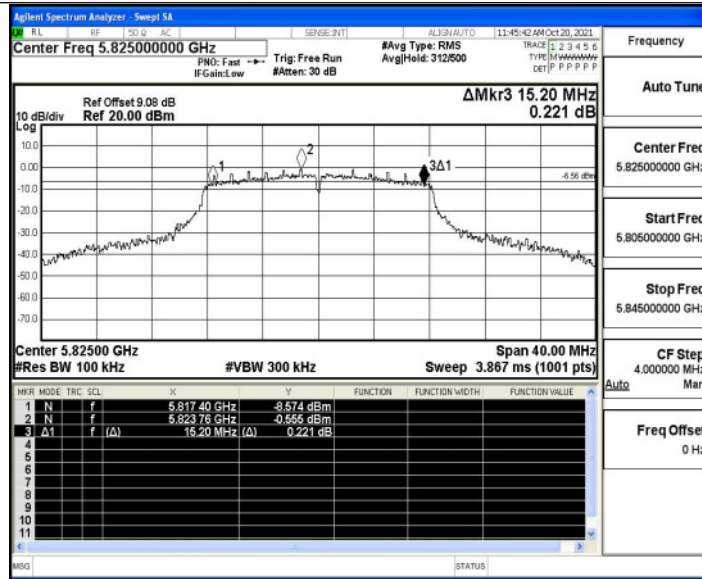
11A_Ant1_5745



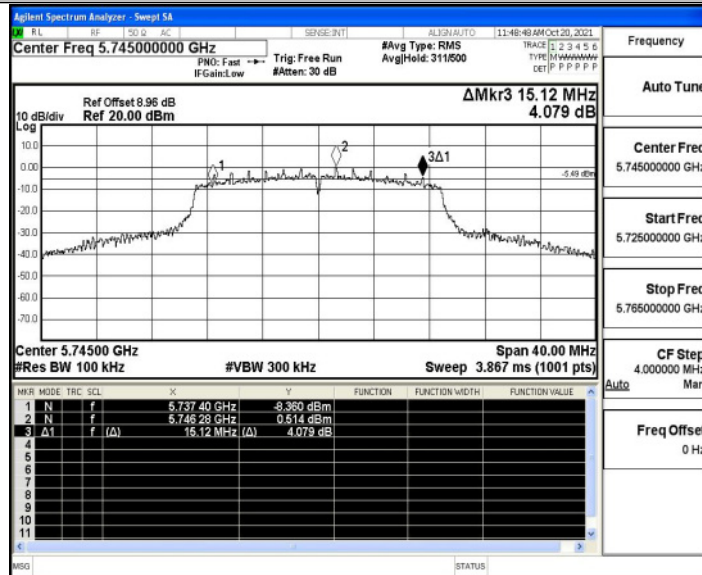
11A_Ant1_5785



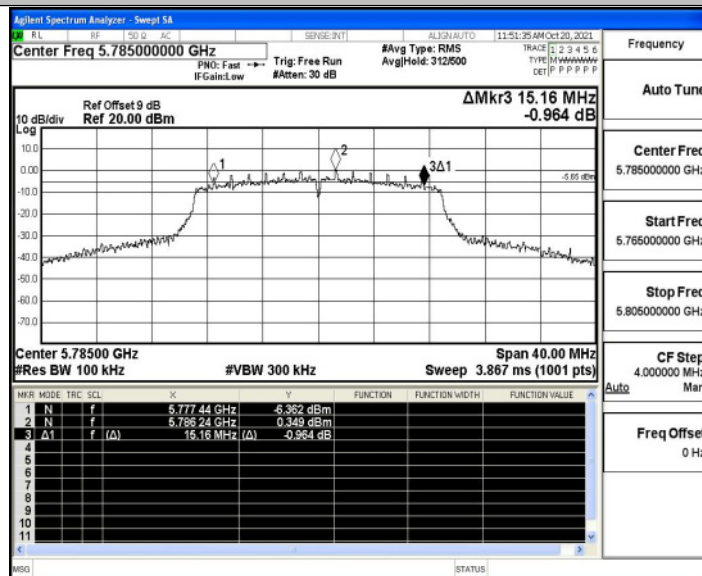
11A_Ant1_5825



11N20SISO_Ant1_5745

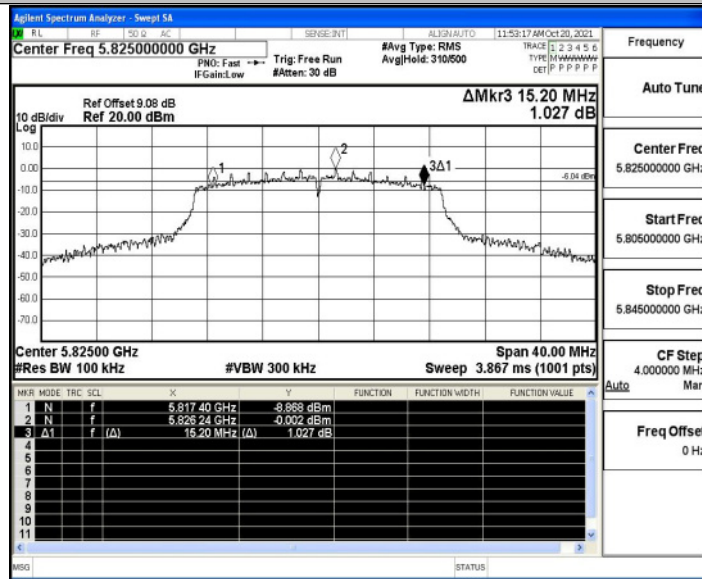


11N20SISO_Ant1_5785

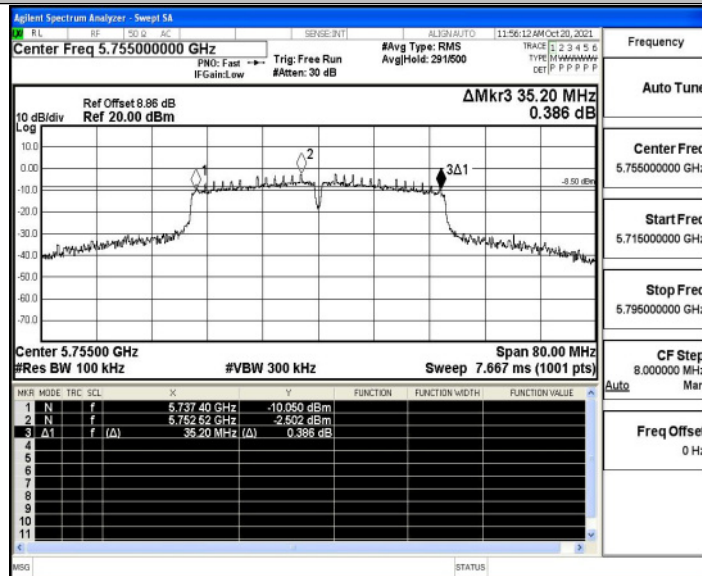




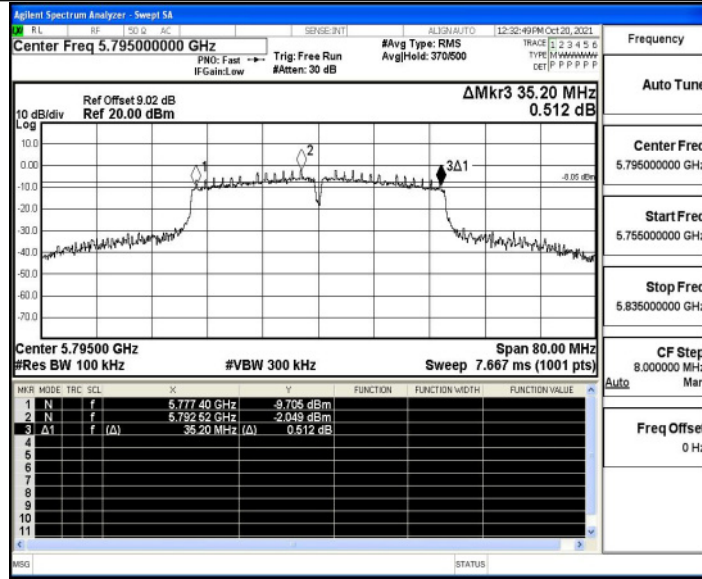
11N20SISO_Ant1_5825



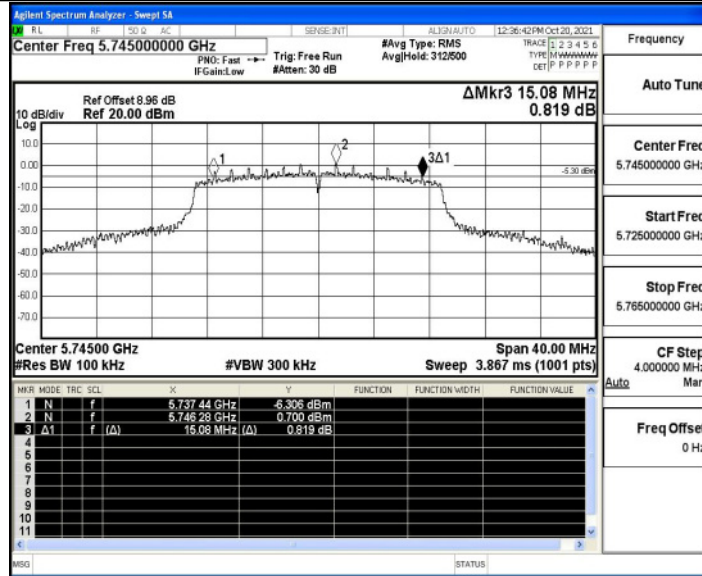
11N40SISO_Ant1_5755



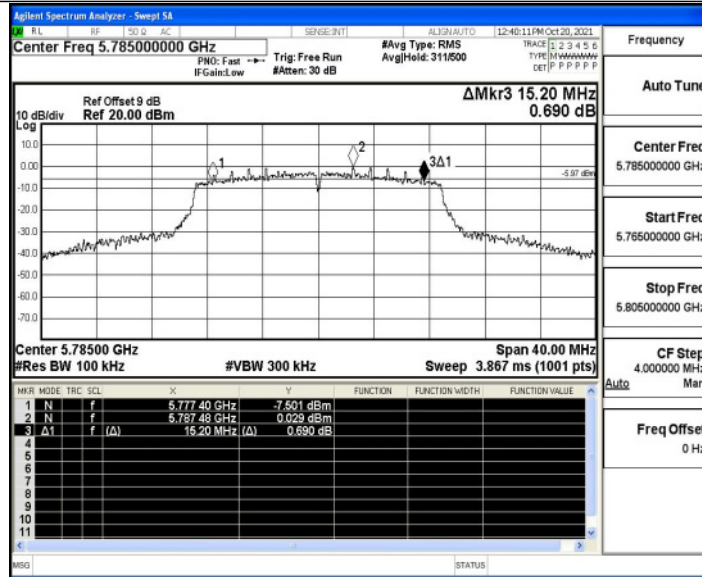
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

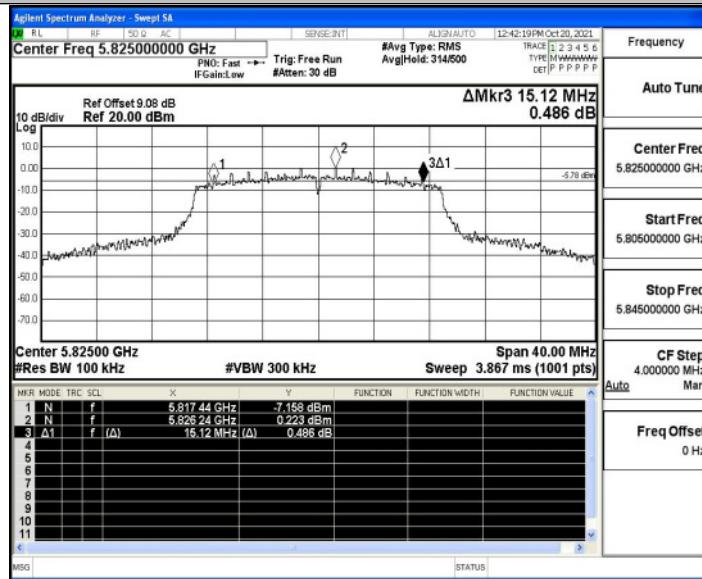


11AC20SISO_Ant1_5785

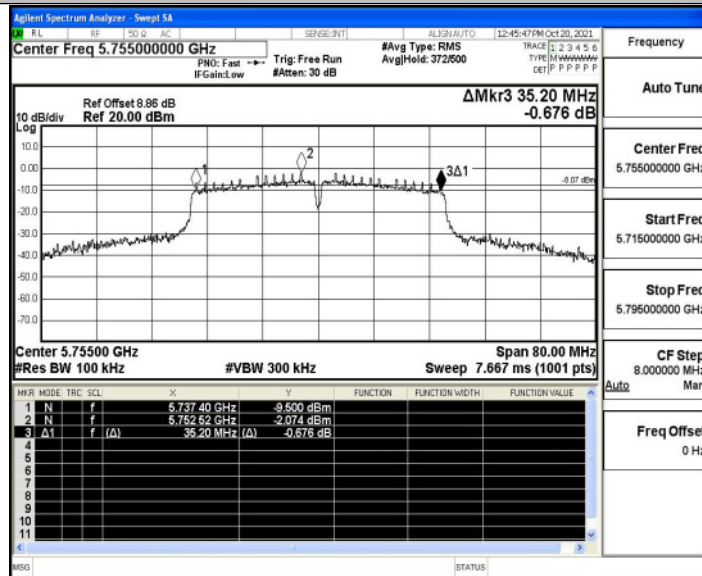




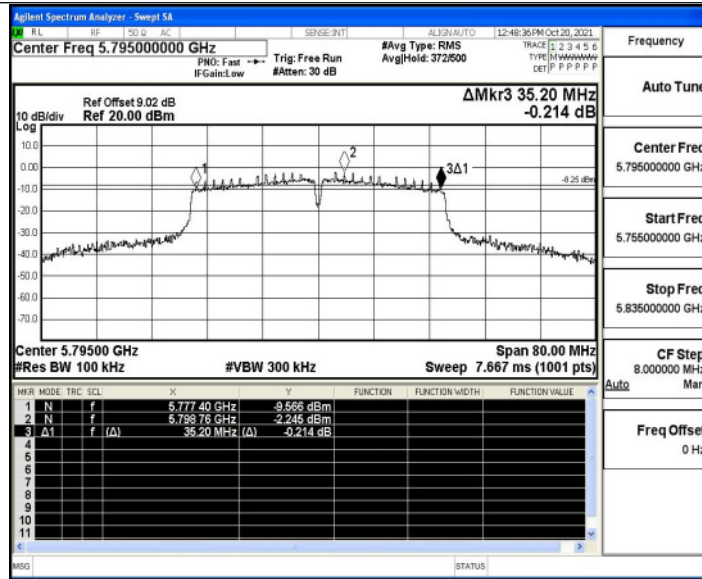
11AC20SISO_Ant1_5825



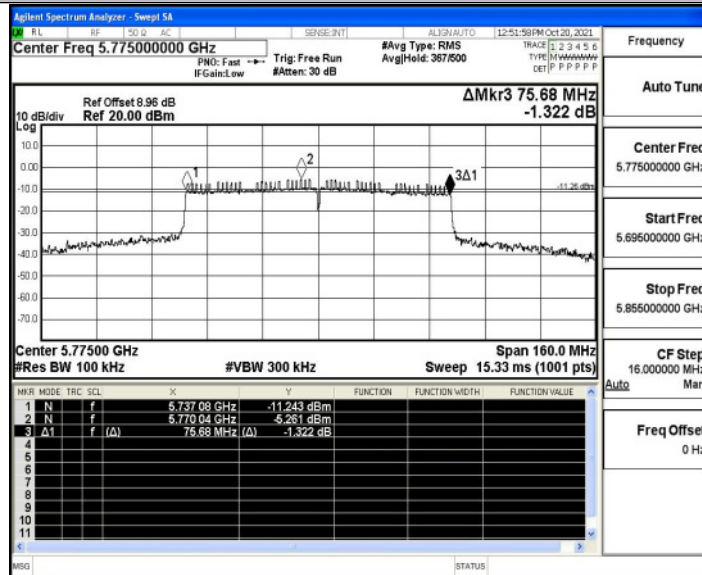
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775





E.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5745	10.26	≤30	PASS
		5785	10.48	≤30	PASS
		5825	10.19	≤30	PASS
11N20SISO	Ant1	5745	10.32	≤30	PASS
		5785	10.45	≤30	PASS
		5825	10.00	≤30	PASS
11N40SISO	Ant1	5755	10.46	≤30	PASS
		5795	10.97	≤30	PASS
11AC20SISO	Ant1	5745	10.50	≤30	PASS
		5785	10.76	≤30	PASS
		5825	10.42	≤30	PASS
11AC40SISO	Ant1	5755	10.71	≤30	PASS
		5795	11.13	≤30	PASS
11AC80SISO	Ant1	5775	10.80	≤30	PASS

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



E.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result [dBm/500 KHz]	Limit[dBm/M500 KHz]	Verdict
11A	Ant1	5745	-2.51	≤30	PASS
		5785	-2.17	≤30	PASS
		5825	-2.52	≤30	PASS
11N20SISO	Ant1	5745	-2.28	≤30	PASS
		5785	-2.43	≤30	PASS
		5825	-2.8	≤30	PASS
11N40SISO	Ant1	5755	-5.26	≤30	PASS
		5795	-5.01	≤30	PASS
11AC20SISO	Ant1	5745	-2.13	≤30	PASS
		5785	-2.12	≤30	PASS
		5825	-2.36	≤30	PASS
11AC40SISO	Ant1	5755	-5.28	≤30	PASS
		5795	-5.08	≤30	PASS
11AC80SISO	Ant1	5775	-8.78	≤30	PASS

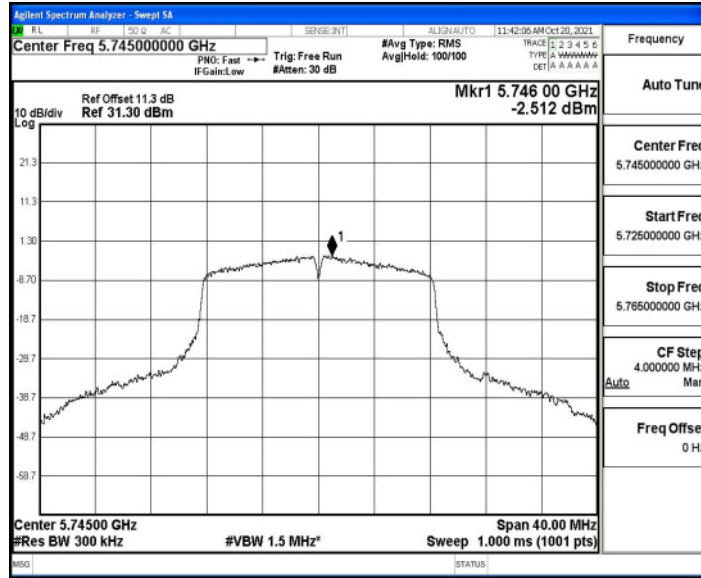
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

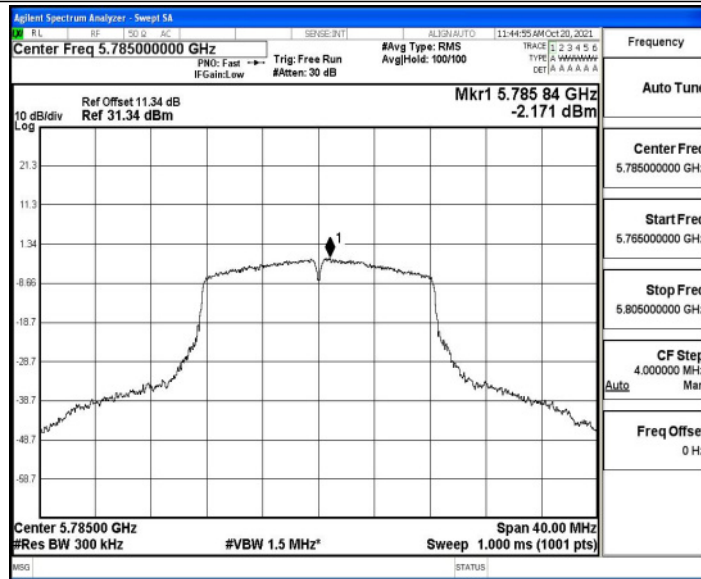


Test Graphs

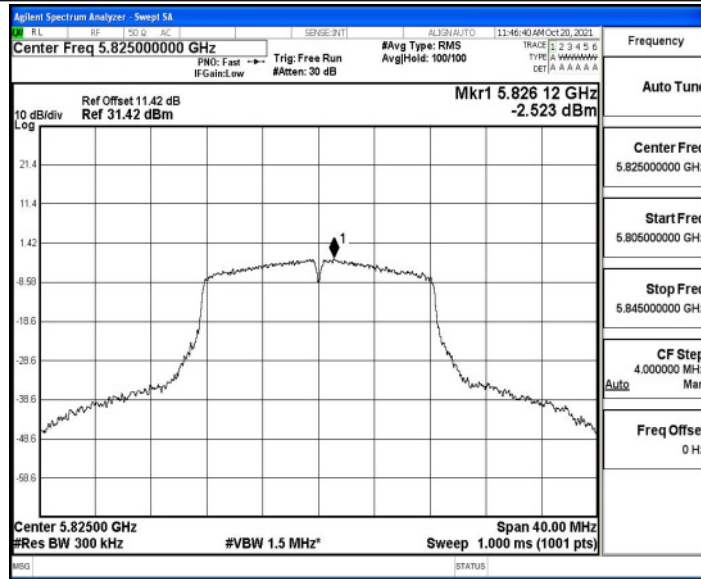
11A_Ant1_5745



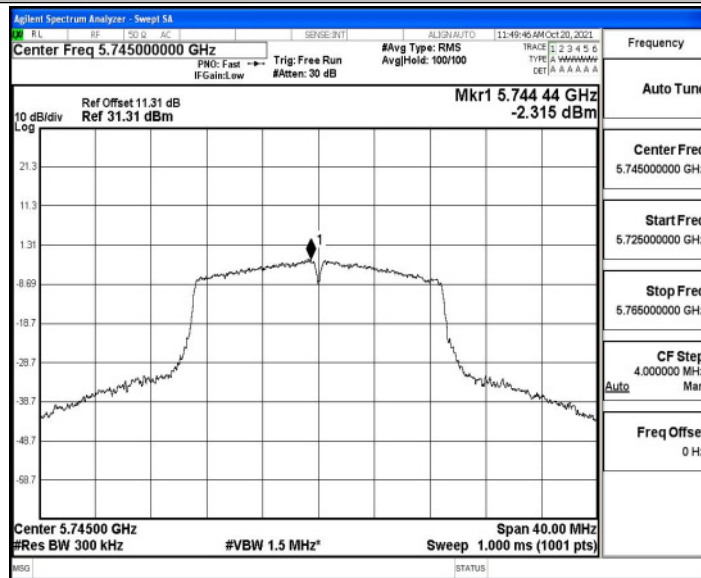
11A_Ant1_5785



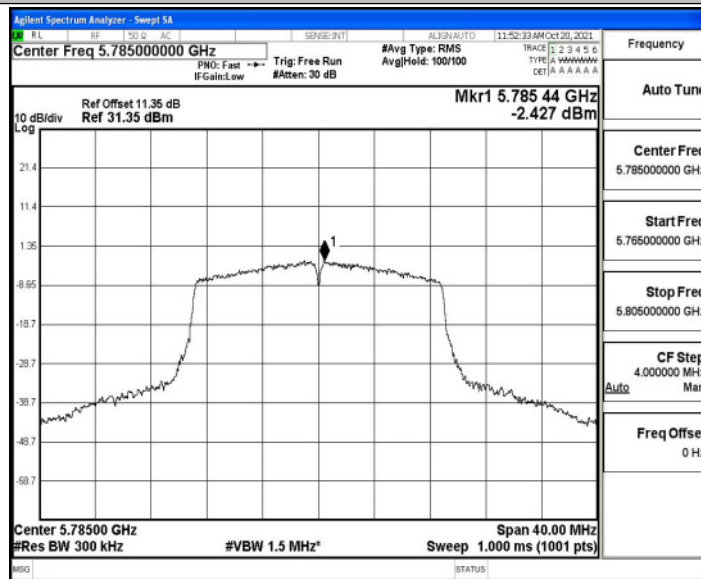
11A_Ant1_5825



11N20SISO_Ant1_5745

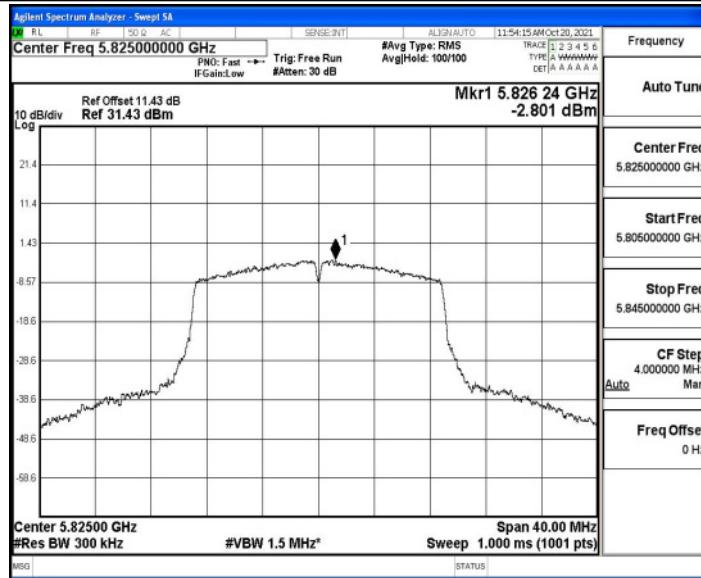


11N20SISO_Ant1_5785

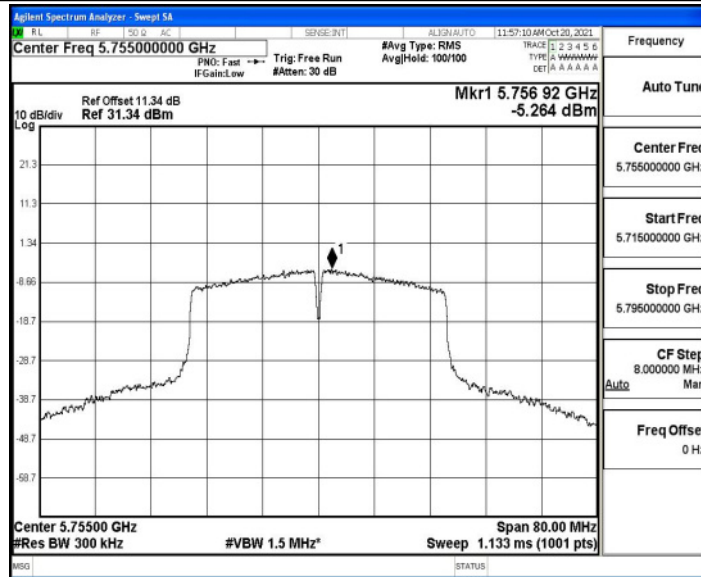




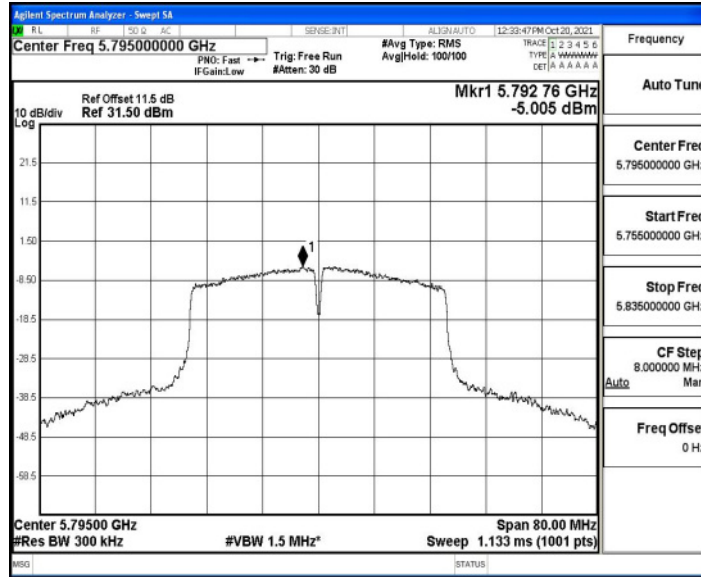
11N20SISO_Ant1_5825



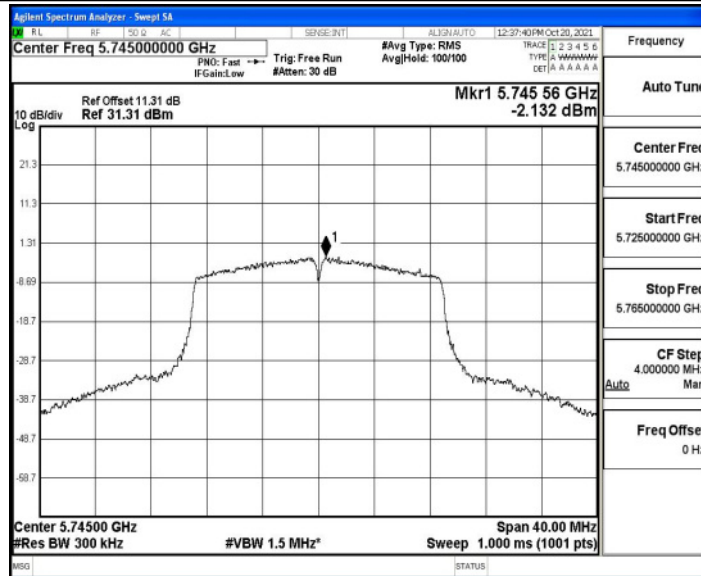
11N40SISO_Ant1_5755



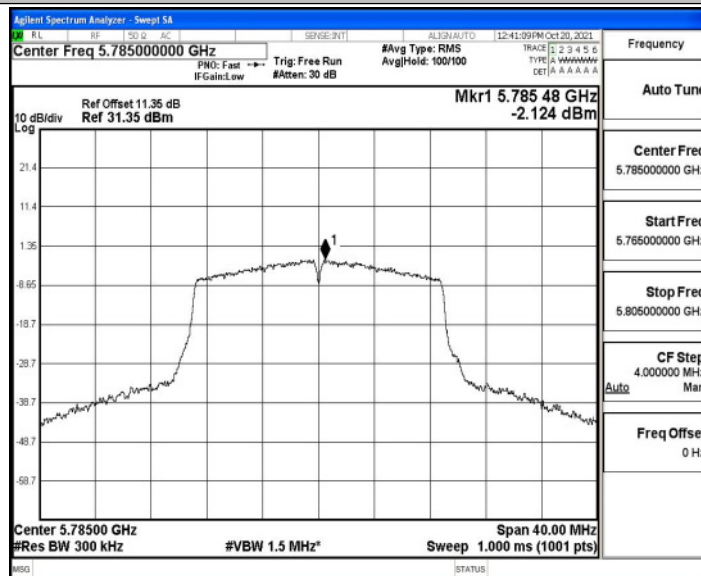
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

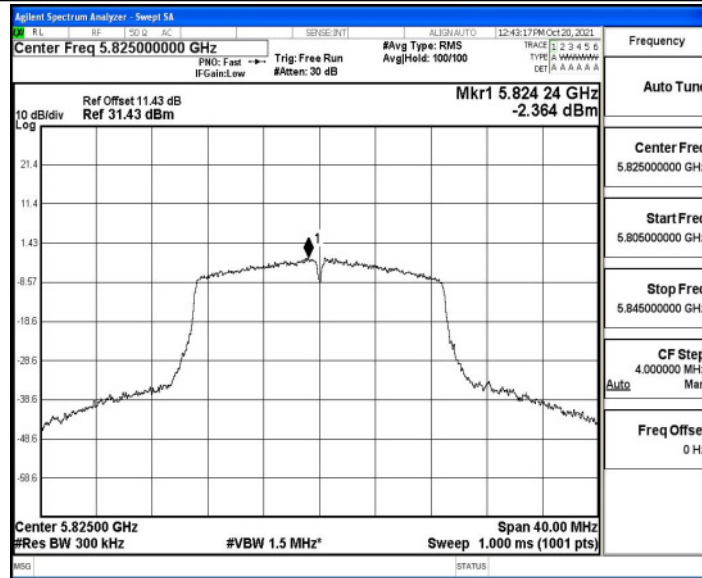


11AC20SISO_Ant1_5785

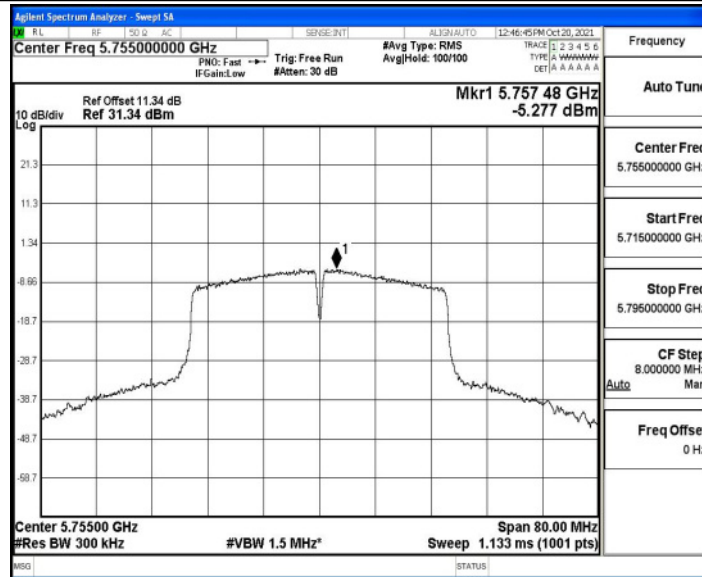




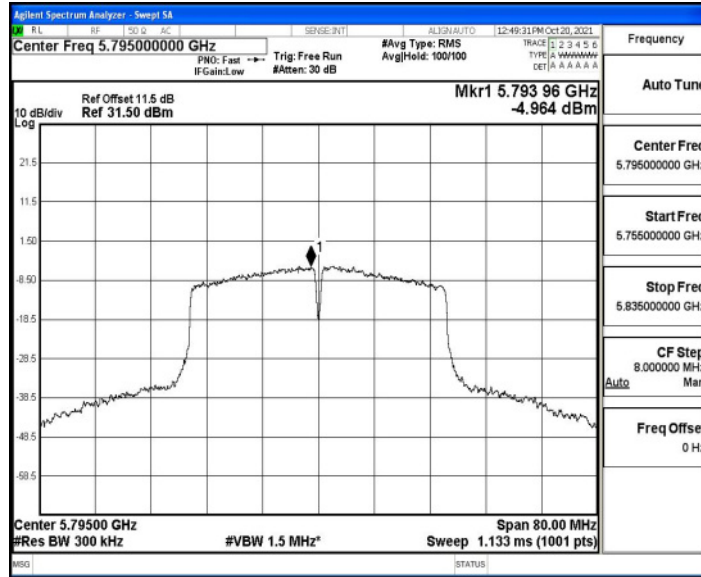
11AC20SISO_Ant1_5825



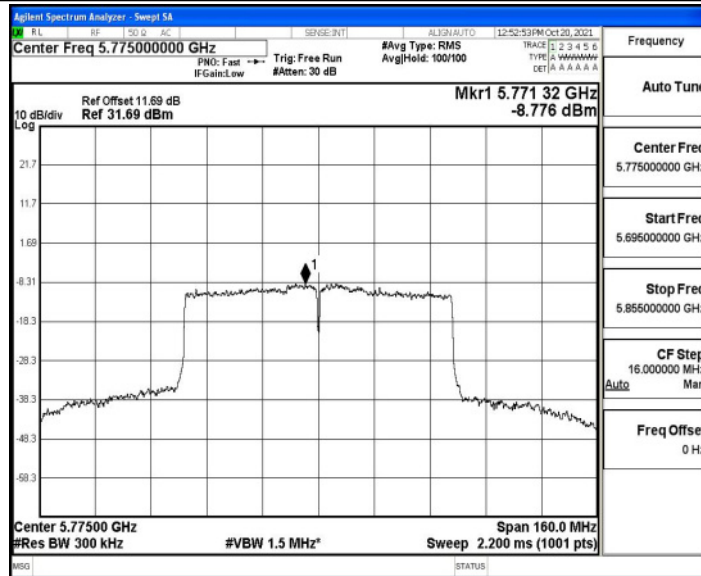
11AC40SISO_Ant1_5755



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	-40.561	≤-27.00	---	---	PASS
				Peak	5700.000	-39.01	≤10.00	---	---	PASS
				Peak	5720.000	-39.72	≤15.60	---	---	PASS
				Peak	5725.000	-27.41	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-37.868	≤15.60	---	---	PASS
				Peak	5855.000	-40.24	≤27.00	---	---	PASS
				Peak	5875.000	-40.23	≤15.60	---	---	PASS
				Peak	5925.000	-40.26	≤10.00	---	---	PASS
11N20SI SO	Ant1	Low	5745	Peak	5650.000	-39.679	≤-27.00	---	---	PASS
				Peak	5700.000	-40.46	≤10.00	---	---	PASS
				Peak	5720.000	-35.91	≤15.60	---	---	PASS
				Peak	5725.000	-26.28	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-38.805	≤15.60	---	---	PASS
				Peak	5855.000	-37.65	≤27.00	---	---	PASS
				Peak	5875.000	-40.26	≤15.60	---	---	PASS
				Peak	5925.000	-38.24	≤10.00	---	---	PASS
11N40SI SO	Ant1	Low	5755	Peak	5650.000	-38.96	≤-27.00	---	---	PASS
				Peak	5700.000	-34.26	≤10.00	---	---	PASS
				Peak	5720.000	-24.86	≤15.60	---	---	PASS
				Peak	5725.000	-22.34	≤27.00	---	---	PASS
		High	5795	Peak	5850.000	-37.095	≤15.60	---	---	PASS
				Peak	5855.000	-40.39	≤27.00	---	---	PASS
				Peak	5875.000	-37.77	≤15.60	---	---	PASS
				Peak	5925.000	-39.6	≤10.00	---	---	PASS
11AC20S ISO	Ant1	Low	5745	Peak	5650.000	-38.277	≤-27.00	---	---	PASS
				Peak	5700.000	-38.81	≤10.00	---	---	PASS
				Peak	5720.000	-36.95	≤15.60	---	---	PASS
				Peak	5725.000	-27.33	≤27.00	---	---	PASS
		High	5825	Peak	5850.000	-38.713	≤15.60	---	---	PASS
				Peak	5855.000	-38.51	≤27.00	---	---	PASS
				Peak	5875.000	-39.52	≤15.60	---	---	PASS
				Peak	5925.000	-40.2	≤10.00	---	---	PASS
11AC40S ISO	Ant1	Low	5755	Peak	5650.000	-37.874	≤-27.00	---	---	PASS
				Peak	5700.000	-38.82	≤10.00	---	---	PASS
				Peak	5720.000	-26.14	≤15.60	---	---	PASS
				Peak	5725.000	-24.01	≤27.00	---	---	PASS



11AC80S ISO	Ant1	High	5795	Peak	5850.000	-39.038	≤15.60	---	---	PASS
				Peak	5855.000	-37.85	≤27.00	---	---	PASS
				Peak	5875.000	-39.54	≤15.60	---	---	PASS
				Peak	5925.000	-40.76	≤10.00	---	---	PASS
	Ant1	Low	5775	Peak	5650.000	-37.567	≤-27.00	---	---	PASS
				Peak	5700.000	-28.45	≤10.00	---	---	PASS
				Peak	5720.000	-23.77	≤15.60	---	---	PASS
				Peak	5725.000	-22.77	≤27.00	---	---	PASS
Ant1	High	5775	Peak	5850.000	-30.831	≤15.60	---	---	PASS	
			Peak	5855.000	-32.52	≤27.00	---	---	PASS	
			Peak	5875.000	-36.55	≤15.60	---	---	PASS	
			Peak	5925.000	-42.32	≤10.00	---	---	PASS	

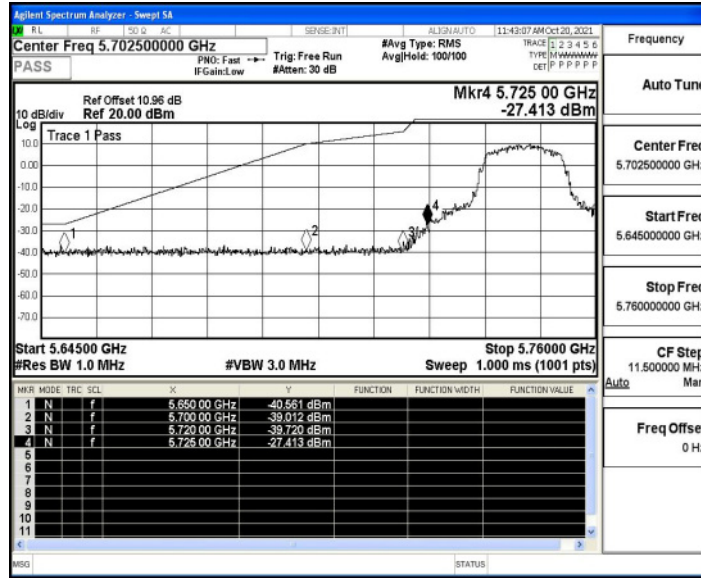
Note:

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.

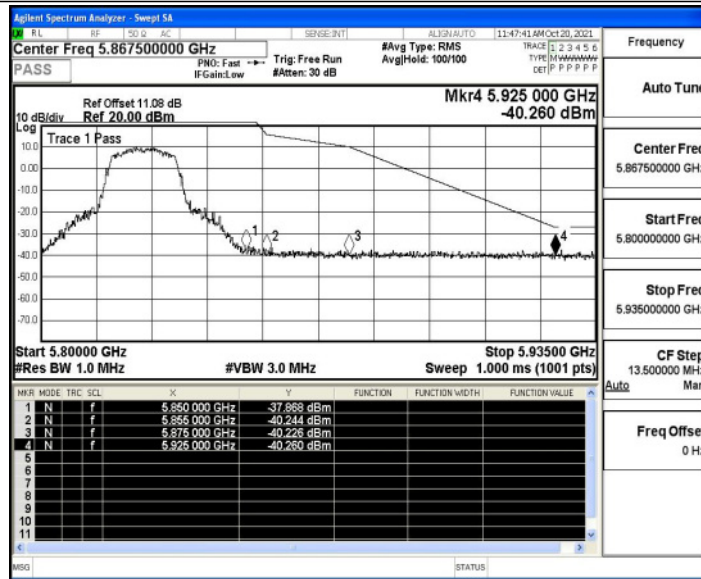


Test Graphs

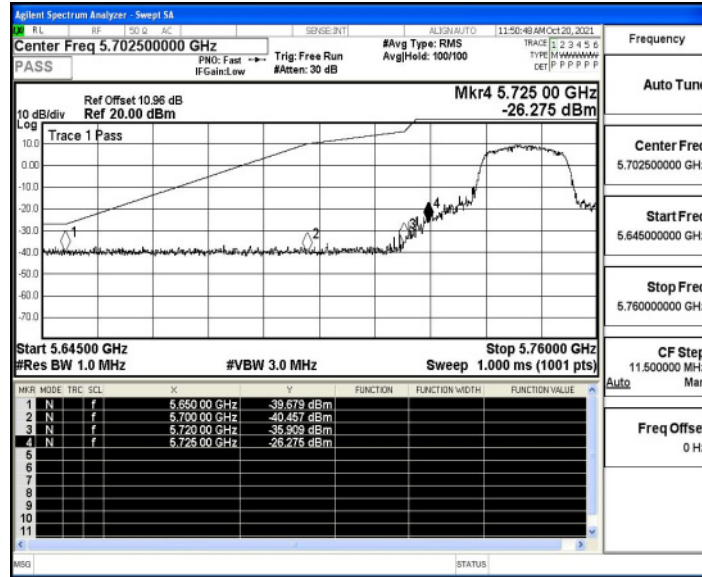
11A_Ant1_Low_5745_Peak



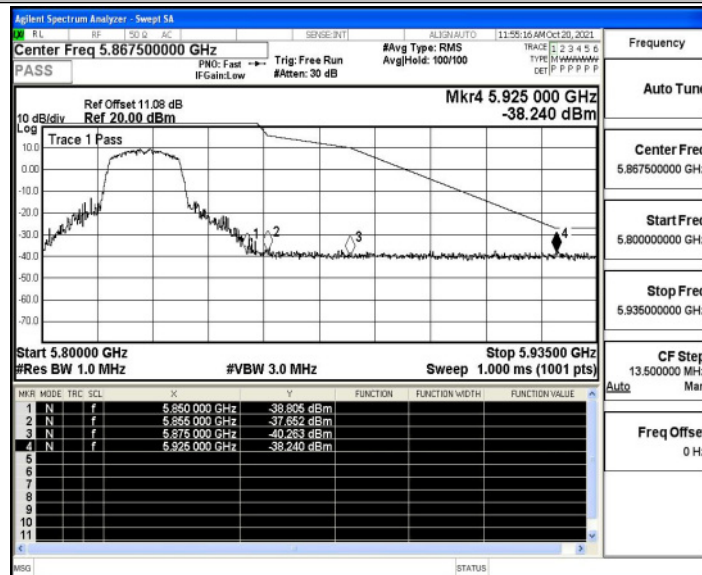
11A_Ant1_High_5825_Peak



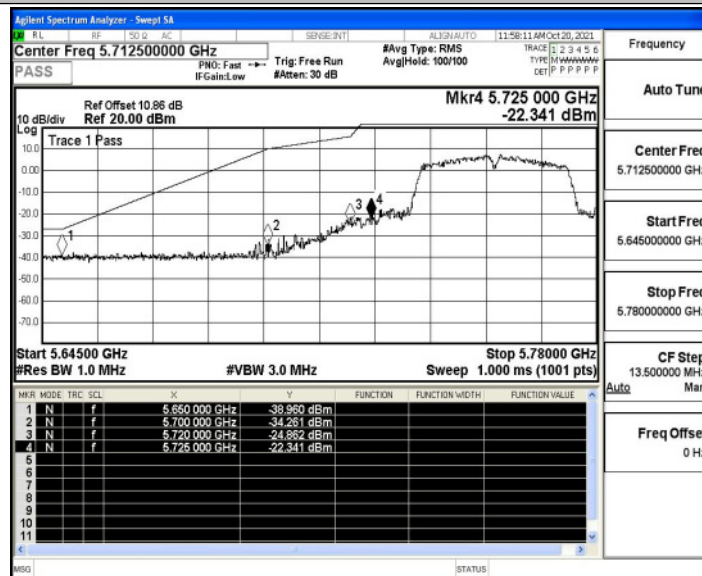
11N20SISO_Ant1_Low_5745_Peak



11N20SISO_Ant1_High_5825_Peak

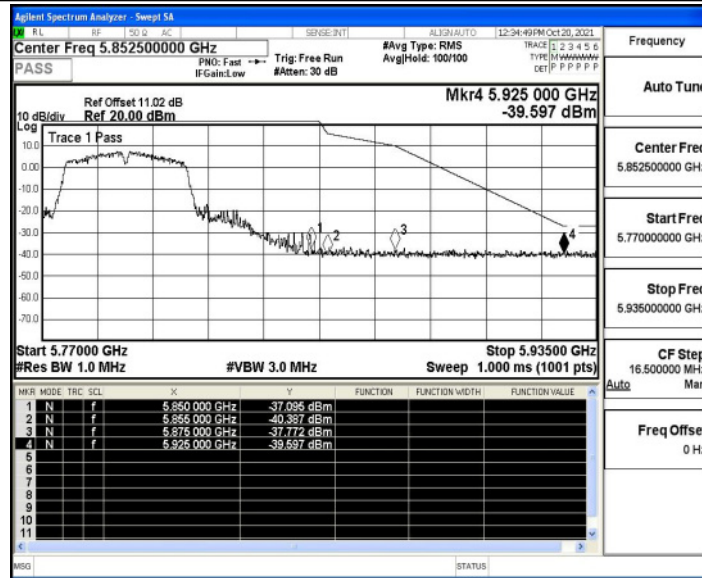


11N40SISO_Ant1_Low_5755_Peak

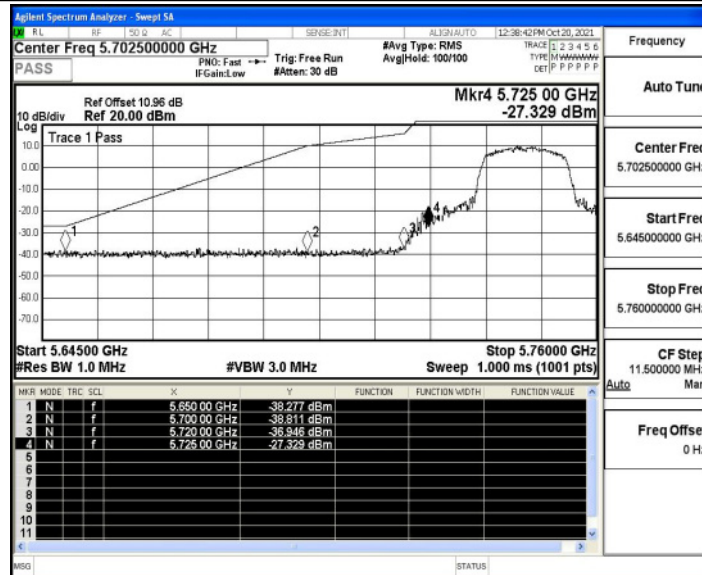




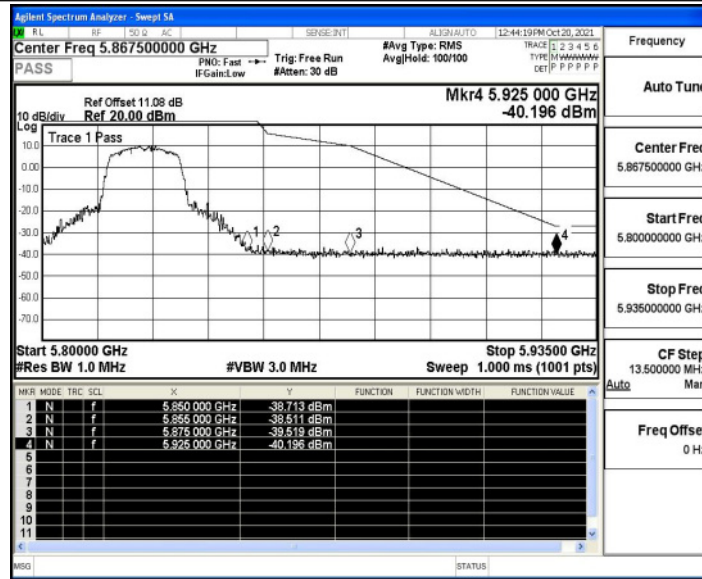
11N40SISO_Ant1_High_5795_Peak



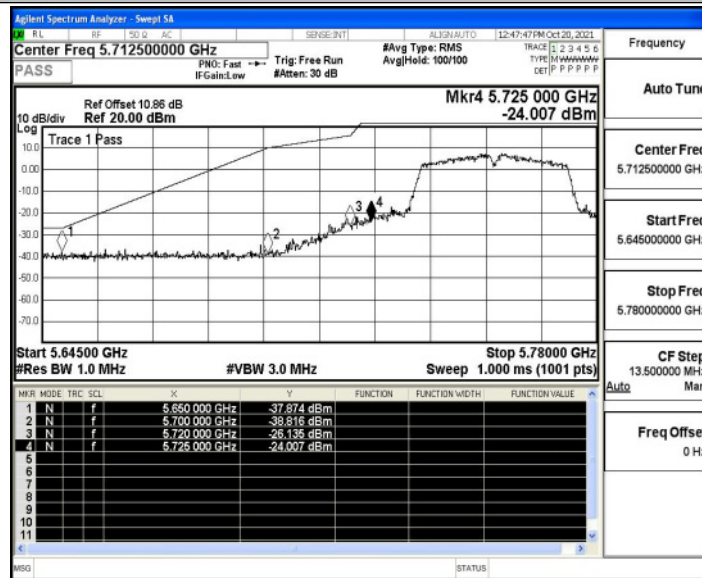
11AC20SISO_Ant1_Low_5745_Peak



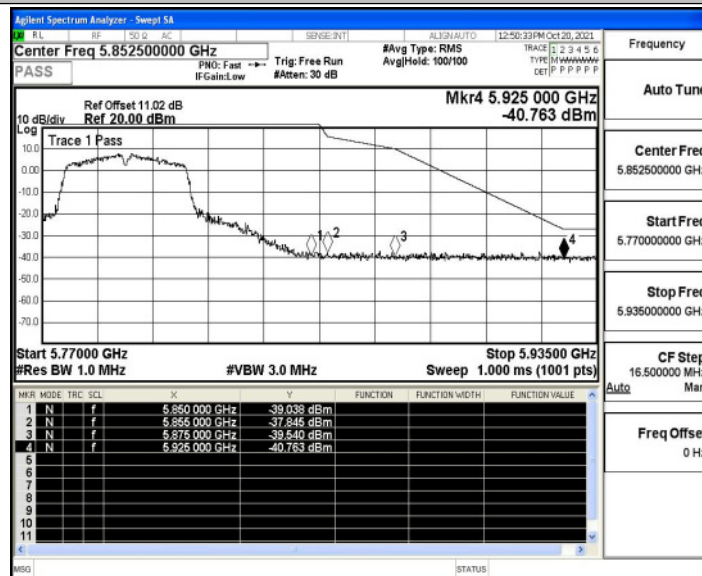
11AC20SISO_Ant1_High_5825_Peak



11AC40ISO_Ant1_Low_5755_Peak

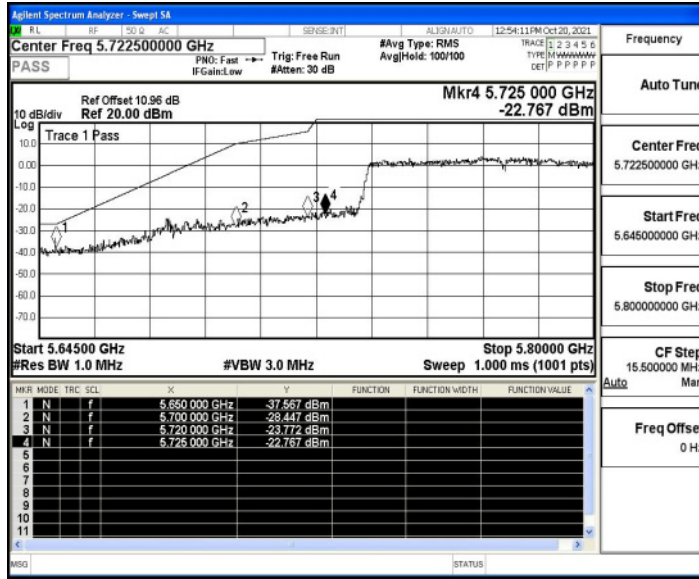


11AC40ISO_Ant1_High_5795_Peak

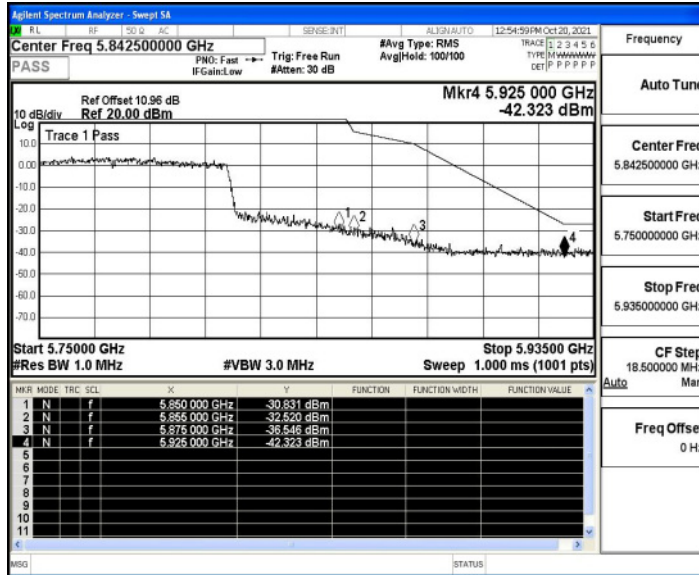




11AC80SISO_Ant1_Low_5775_Peak



11AC80SISO_Ant1_High_5775_Peak





E.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SI SO	Ant1	5745	NV	NT	-10000	-1.740644	20	PASS
			LV	NT	-13000	-2.262837	20	PASS
			HV	NT	-15000	-2.610966	20	PASS
		5785	NV	NT	-19000	-3.284356	20	PASS
			LV	NT	-21000	-3.630078	20	PASS
			HV	NT	-22000	-3.802939	20	PASS
		5825	NV	NT	-21000	-3.60515	20	PASS
			LV	NT	-23000	-3.948498	20	PASS
			HV	NT	-24000	-4.120172	20	PASS
11AC40SI SO	Ant1	5755	NV	NT	-20000	-3.475239	20	PASS
			LV	NT	-23000	-3.996525	20	PASS
			HV	NT	-24000	-4.170287	20	PASS
		5795	NV	NT	-25000	-4.314064	20	PASS
			LV	NT	-26000	-4.486626	20	PASS
			HV	NT	-26000	-4.486626	20	PASS
11AC80SI SO	Ant1	5775	NV	NT	-19000	-3.290043	20	PASS
			LV	NT	-23000	-3.982684	20	PASS
			HV	NT	-24000	-4.155844	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SI SO	Ant1	5745	NV	-30	-16000	-2.78503	20	PASS
			NV	-20	-17000	-2.959095	20	PASS
			NV	-10	-18000	-3.133159	20	PASS
			NV	0	-19000	-3.307224	20	PASS
			NV	10	-19000	-3.307224	20	PASS
			NV	20	-20000	-3.481288	20	PASS
			NV	30	-20000	-3.481288	20	PASS
			NV	40	-21000	-3.655352	20	PASS
		5785	NV	50	-21000	-3.655352	20	PASS
			NV	-30	-22000	-3.802939	20	PASS
			NV	-20	-22000	-3.802939	20	PASS
			NV	-10	-23000	-3.975799	20	PASS
			NV	0	-23000	-3.975799	20	PASS
			NV	10	-23000	-3.975799	20	PASS



			NV	10	-23000	-3.975799	20	PASS
			NV	20	-23000	-3.975799	20	PASS
			NV	30	-24000	-4.14866	20	PASS
			NV	40	-24000	-4.14866	20	PASS
			NV	50	-24000	-4.14866	20	PASS
		5825	NV	-30	-24000	-4.120172	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	-26000	-4.463519	20	PASS
			NV	50	-26000	-4.463519	20	PASS
11AC40SI SO	Ant1	5755	NV	-30	-25000	-4.344049	20	PASS
			NV	-20	-25000	-4.344049	20	PASS
			NV	-10	-25000	-4.344049	20	PASS
			NV	0	-26000	-4.517811	20	PASS
			NV	10	-26000	-4.517811	20	PASS
			NV	20	-26000	-4.517811	20	PASS
			NV	30	-26000	-4.517811	20	PASS
			NV	40	-26000	-4.517811	20	PASS
			NV	50	-26000	-4.517811	20	PASS
		5795	NV	-30	-26000	-4.486626	20	PASS
			NV	-20	-27000	-4.659189	20	PASS
			NV	-10	-27000	-4.659189	20	PASS
			NV	0	-27000	-4.659189	20	PASS
			NV	10	-27000	-4.659189	20	PASS
			NV	20	-27000	-4.659189	20	PASS
			NV	30	-27000	-4.659189	20	PASS
			NV	40	-27000	-4.659189	20	PASS
			NV	50	-27000	-4.659189	20	PASS
11AC80SI SO	Ant1	5775	NV	-30	-25000	-4.329004	20	PASS
			NV	-20	-25000	-4.329004	20	PASS
			NV	-10	-26000	-4.502165	20	PASS
			NV	0	-26000	-4.502165	20	PASS
			NV	10	-26000	-4.502165	20	PASS
			NV	20	-27000	-4.675325	20	PASS
			NV	30	-27000	-4.675325	20	PASS
			NV	40	-27000	-4.675325	20	PASS
			NV	50	-27000	-4.675325	20	PASS



E.6 Duty Cycle

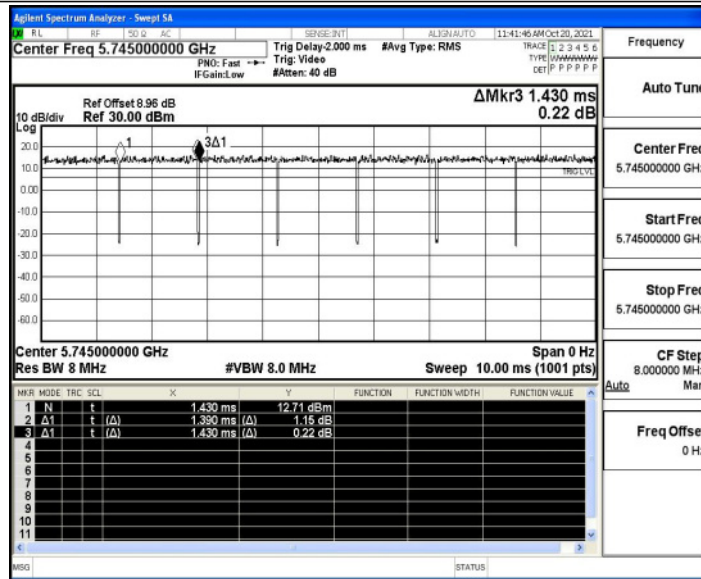
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[KHz]	xFactor
11A	Ant1	5745	1.39	1.43	97.20	0.72	0.12
		5785	1.39	1.43	97.20	0.72	0.12
		5825	1.39	1.43	97.20	0.72	0.12
11N20SISO	Ant1	5745	1.30	1.34	97.01	0.77	0.13
		5785	1.30	1.34	97.01	0.77	0.13
		5825	1.30	1.34	97.01	0.77	0.13
11N40SISO	Ant1	5755	0.64	0.68	94.12	1.57	0.26
		5795	0.64	0.68	94.12	1.57	0.26
11AC20SISO	Ant1	5745	1.31	1.35	97.04	0.77	0.13
		5785	1.31	1.35	97.04	0.77	0.13
		5825	1.31	1.35	97.04	0.77	0.13
11AC40SISO	Ant1	5755	0.65	0.69	94.20	1.54	0.26
		5795	0.65	0.69	94.20	1.54	0.26
11AC80SISO	Ant1	5775	0.32	0.36	88.89	3.13	0.51

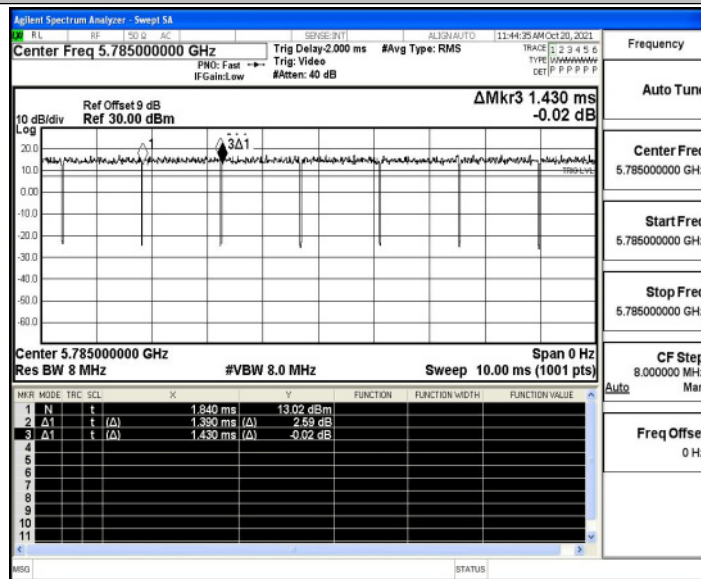


Test Graphs

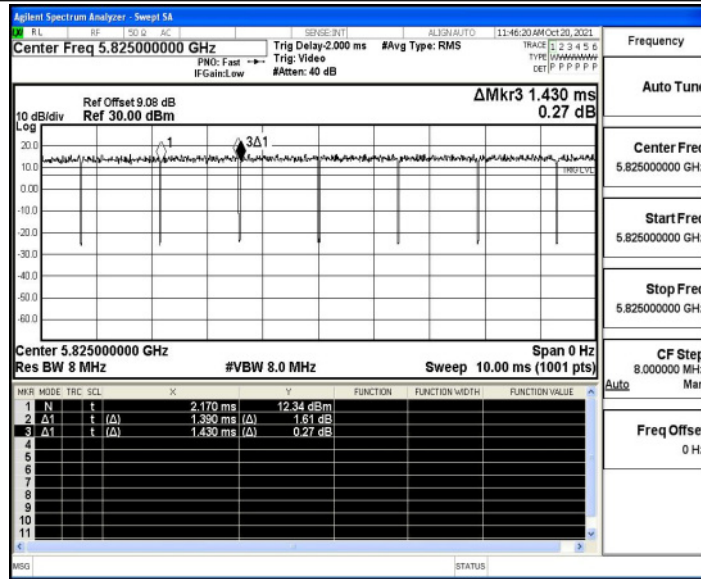
11A_Ant1_5745



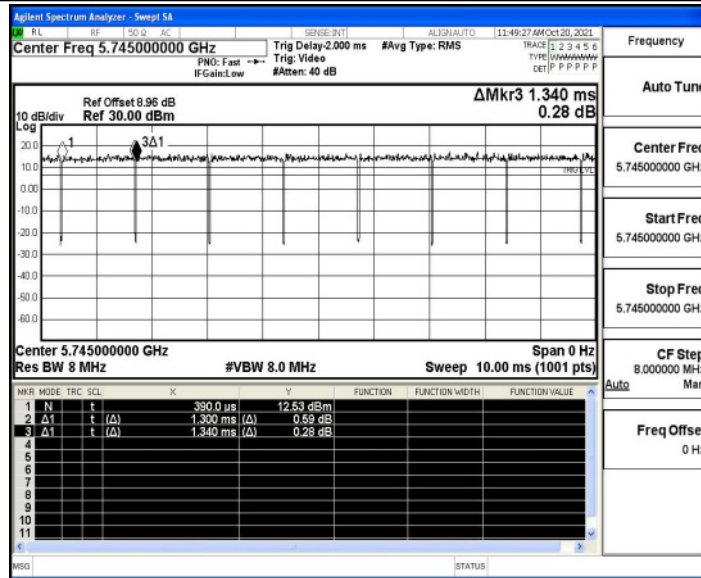
11A_Ant1_5785



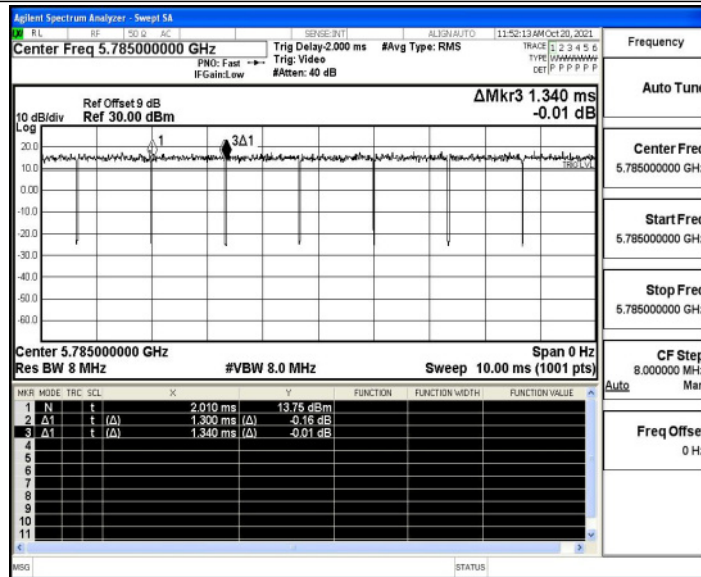
11A_Ant1_5825



11N20SISO_Ant1_5745

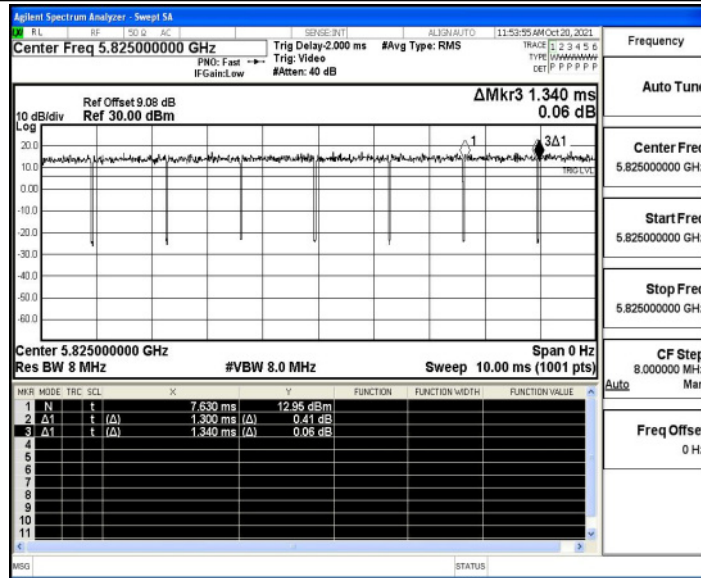


11N20SISO_Ant1_5785

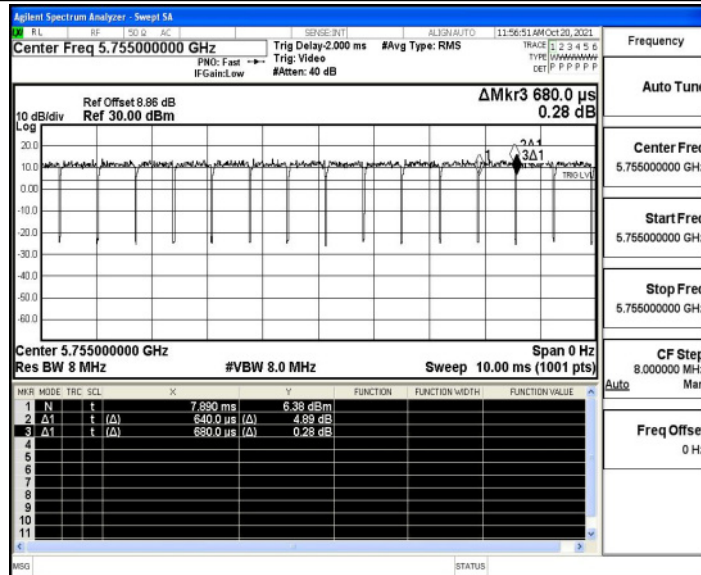




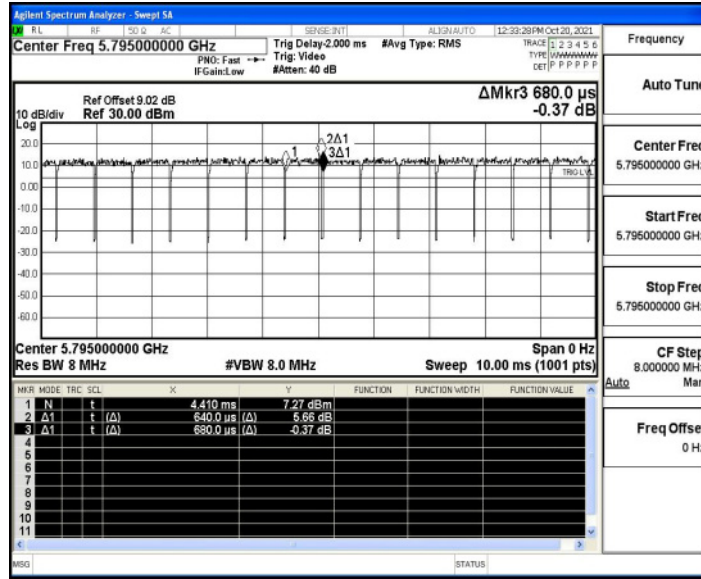
11N20SISO_Ant1_5825



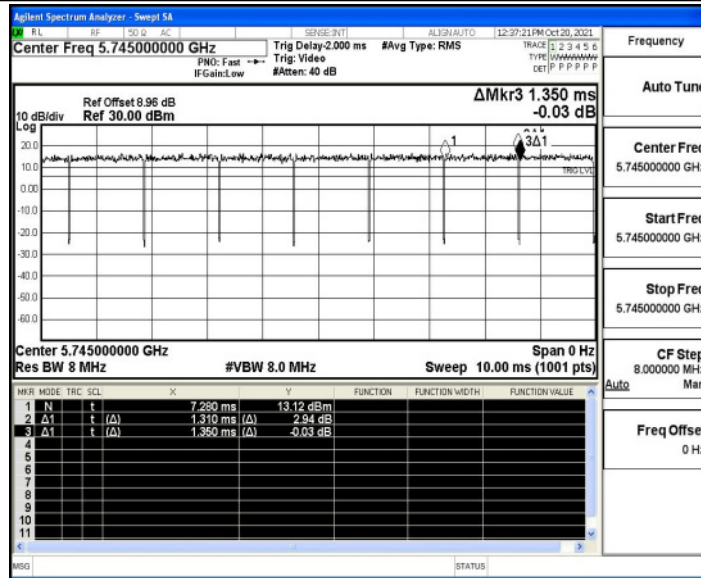
11N40SISO_Ant1_5755



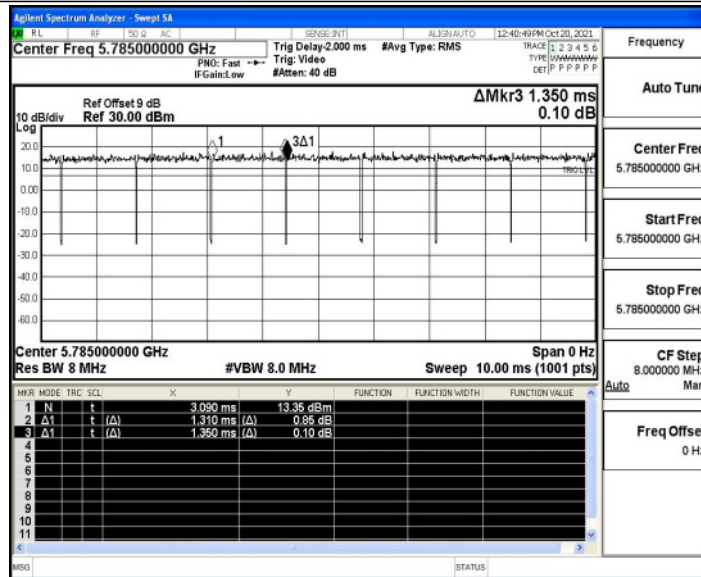
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

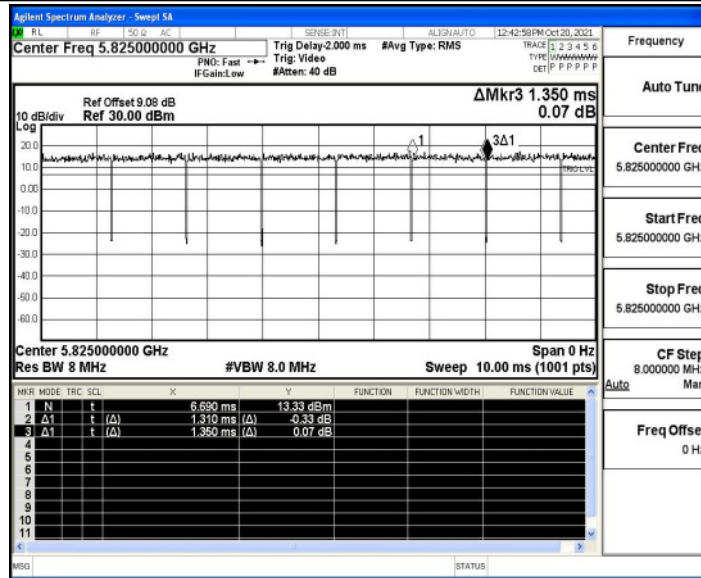


11AC20SISO_Ant1_5785

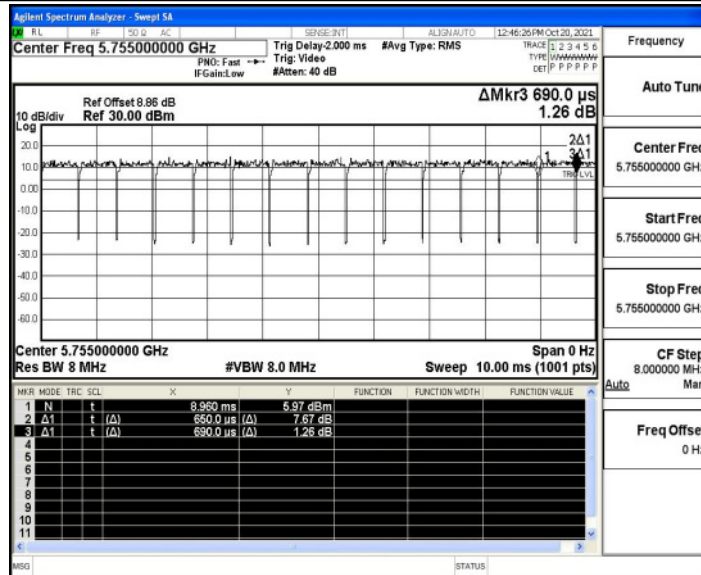




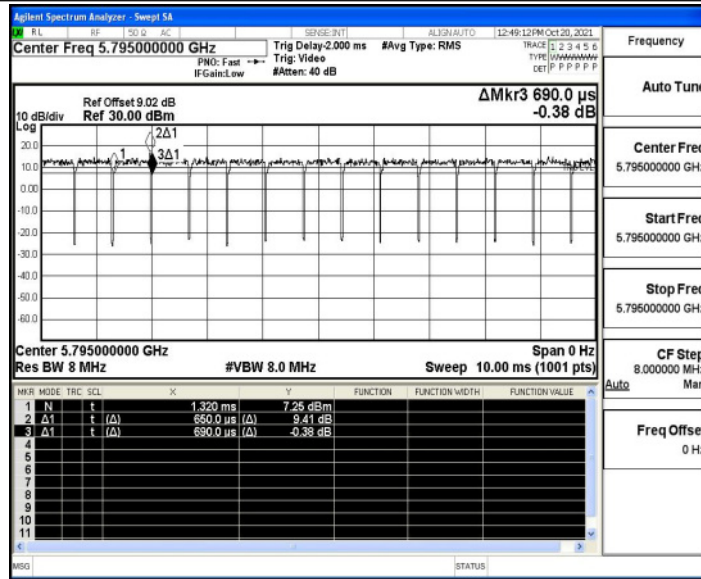
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775

