



Appendix E

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: MCMP1021

Trade Mark: N/A

Test Model: MCMP1021

Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



E.1 Occupied channel bandwidth

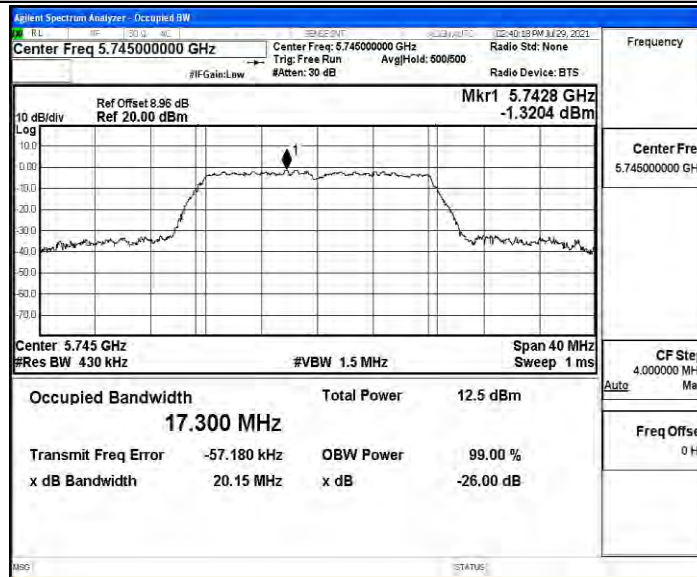
Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	17.300	5736.293	5753.593	---	PASS
		5785	17.429	5776.271	5793.700	---	PASS
		5825	17.450	5816.203	5833.653	---	PASS
11N20SISO	Ant1	5745	17.852	5736.087	5753.939	---	PASS
		5785	18.033	5776.015	5794.048	---	PASS
		5825	17.976	5816.002	5833.978	---	PASS
11N40SISO	Ant1	5755	36.841	5736.583	5773.424	---	PASS
		5795	36.620	5776.700	5813.320	---	PASS
11AC20SISO	Ant1	5745	18.081	5735.973	5754.054	---	PASS
		5785	18.034	5776.004	5794.038	---	PASS
		5825	17.999	5815.990	5833.989	---	PASS
11AC40SISO	Ant1	5755	36.556	5736.742	5773.298	---	PASS
		5795	36.766	5776.629	5813.395	---	PASS
11AC80SISO	Ant1	5775	76.685	5737.360	5814.045	---	PASS

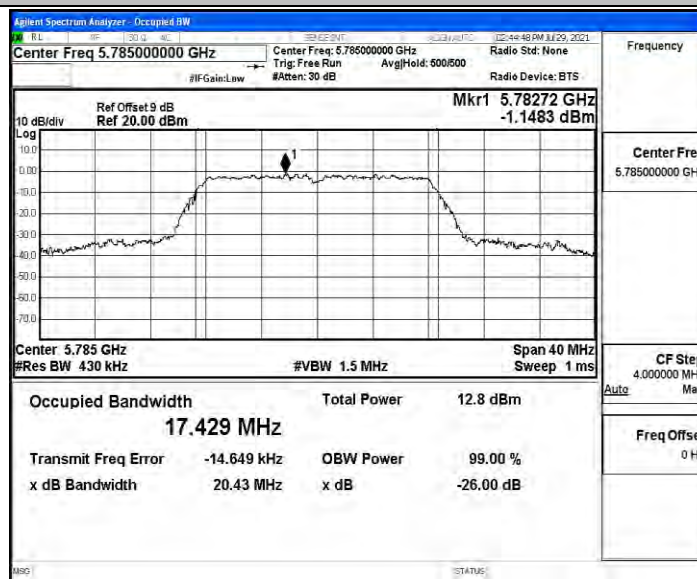


Test Graphs

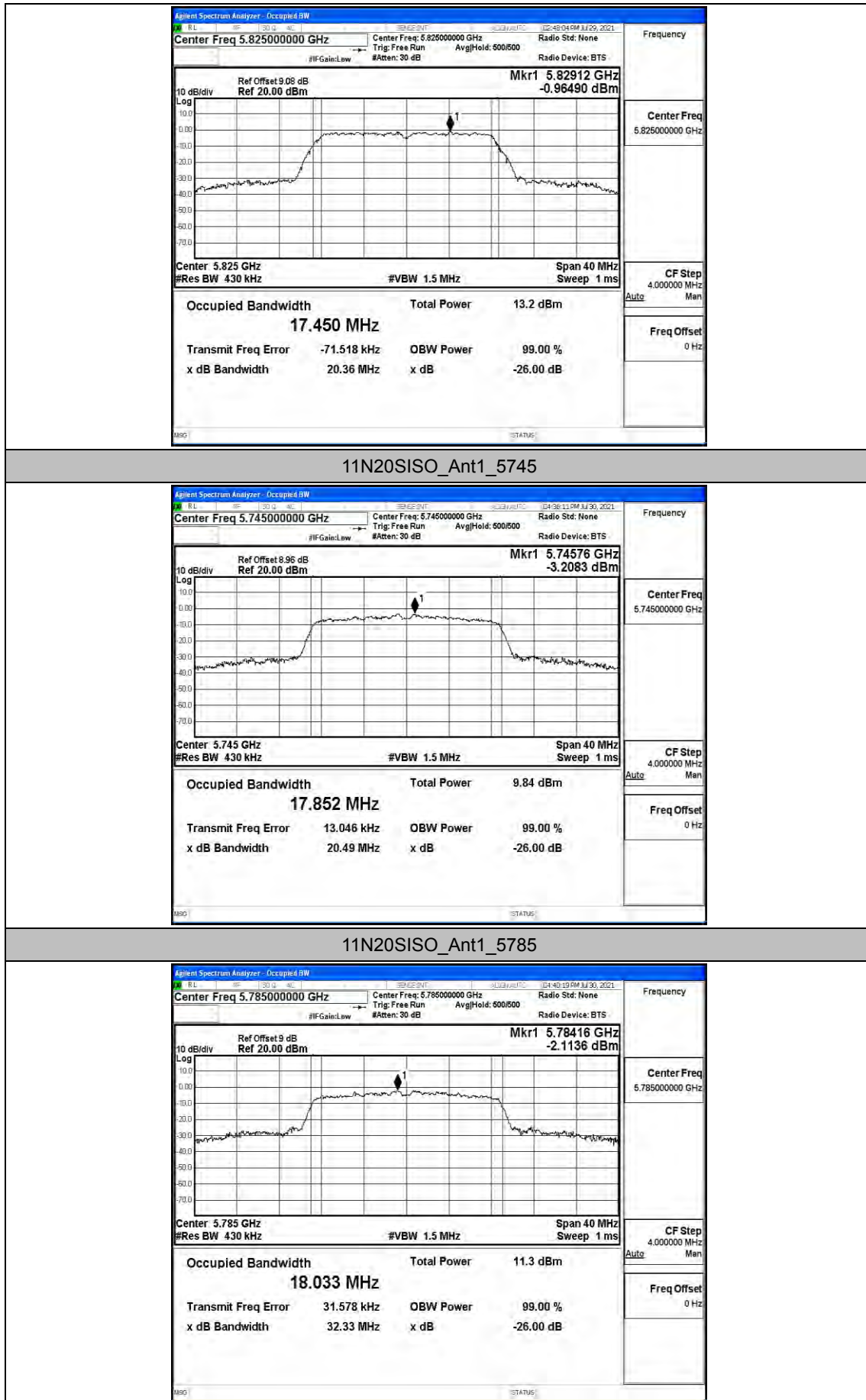
11A_Ant1_5745



11A_Ant1_5785

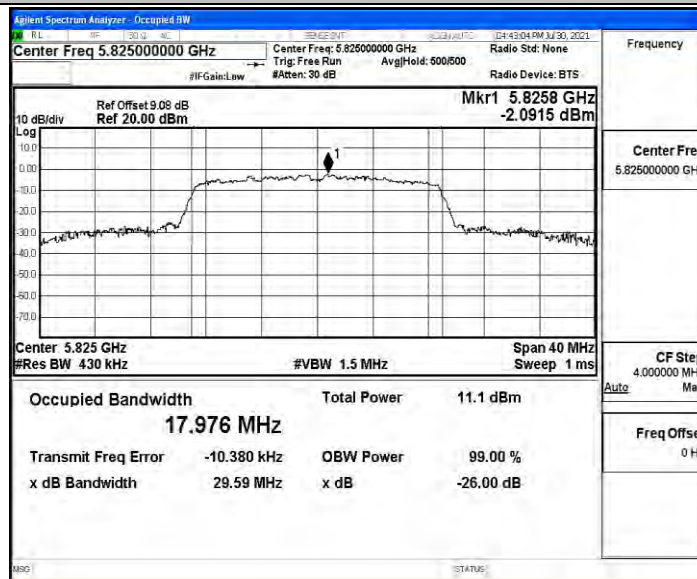


11A_Ant1_5825

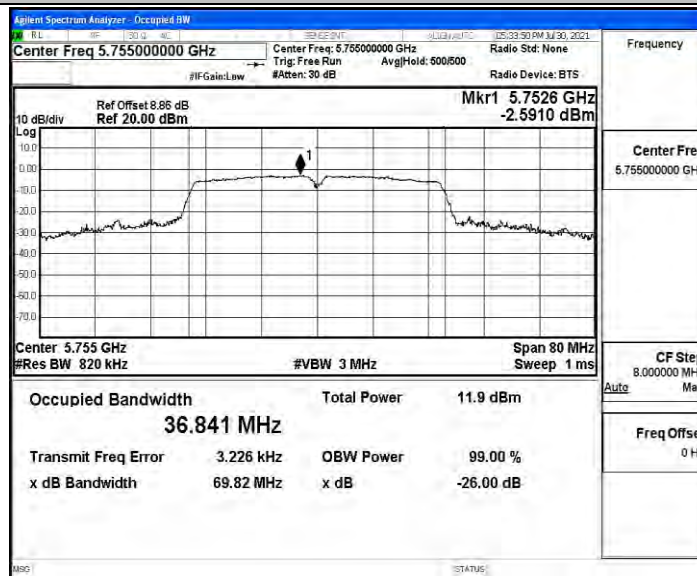




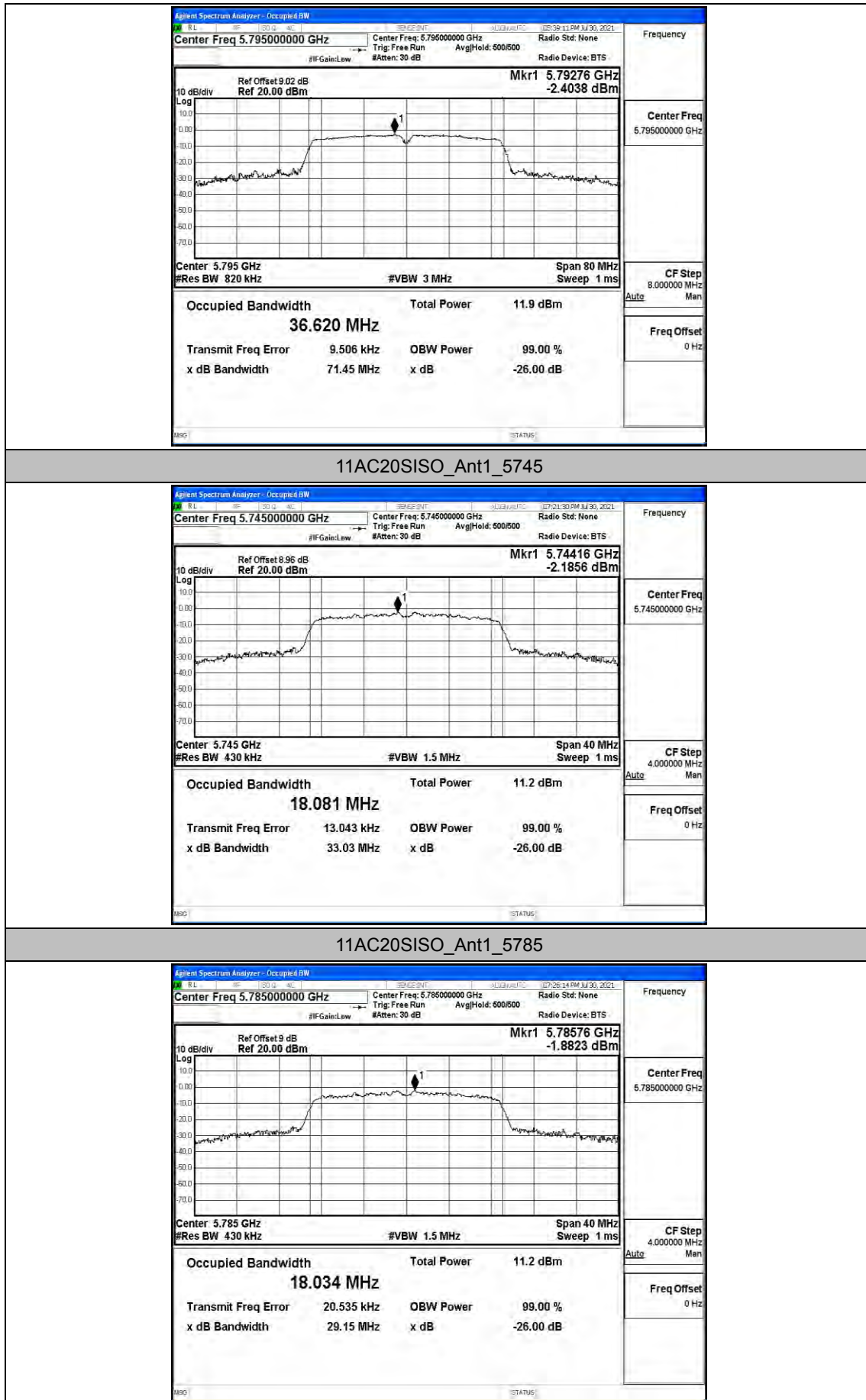
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755

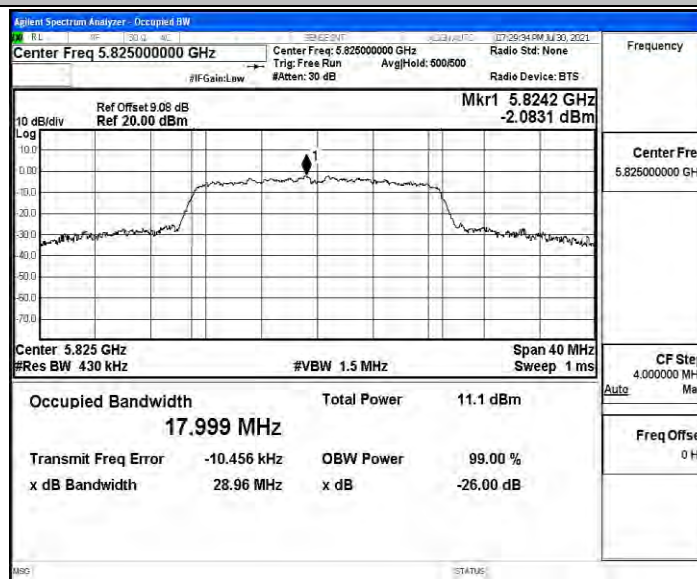


11N40SISO_Ant1_5795

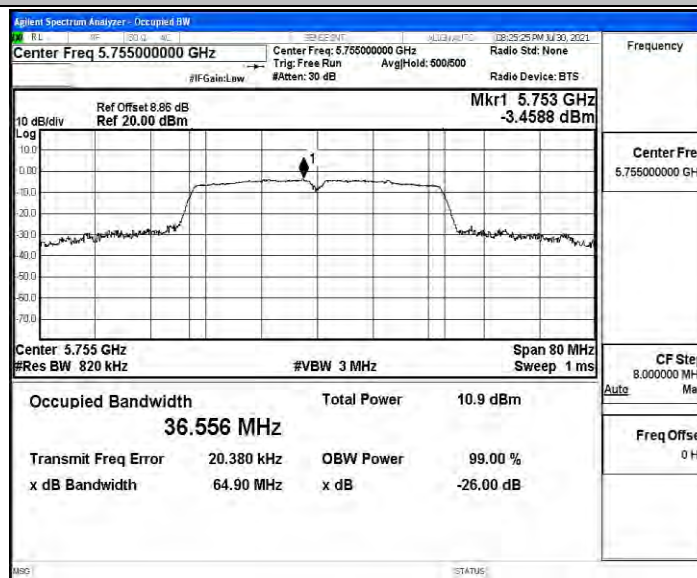




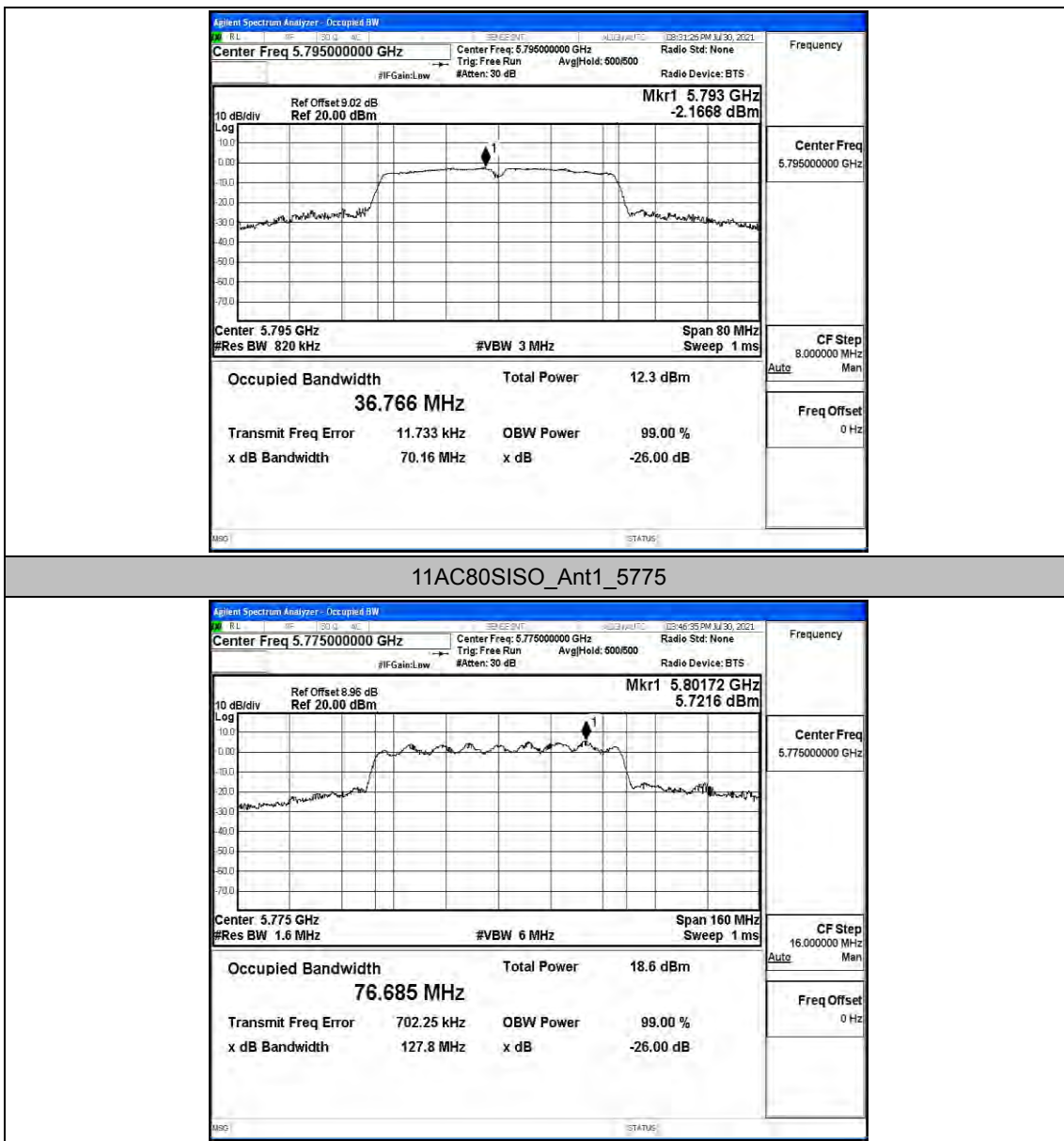
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795





E.2 Min emission bandwidth

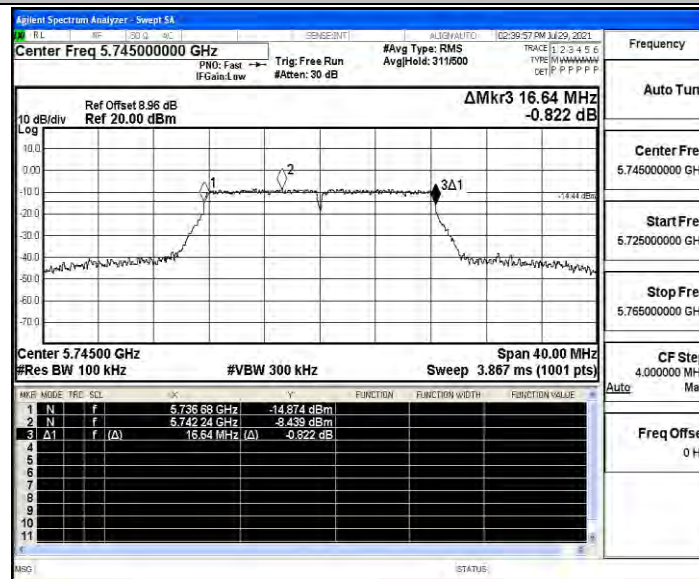
Test Result

Test Mode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.640	5736.680	5753.320	0.5	PASS
		5785	16.680	5776.640	5793.320	0.5	PASS
		5825	16.680	5816.640	5833.320	0.5	PASS
11N20SISO	Ant1	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.680	5776.160	5793.840	0.5	PASS
		5825	17.680	5816.160	5833.840	0.5	PASS
11N40SISO	Ant1	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC20SISO	Ant1	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.680	5776.160	5793.840	0.5	PASS
		5825	17.680	5816.160	5833.840	0.5	PASS
11AC40SISO	Ant1	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC80SISO	Ant1	5775	63.200	5747.480	5810.680	0.5	PASS

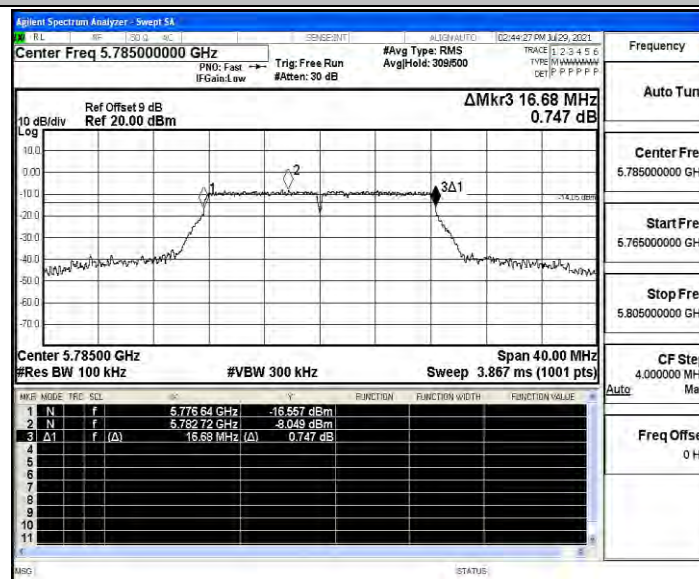


Test Graphs

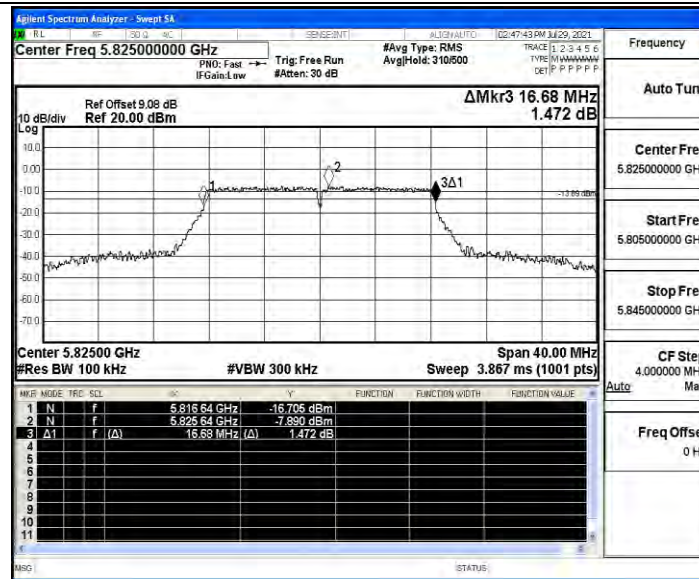
11A_Ant1_5745



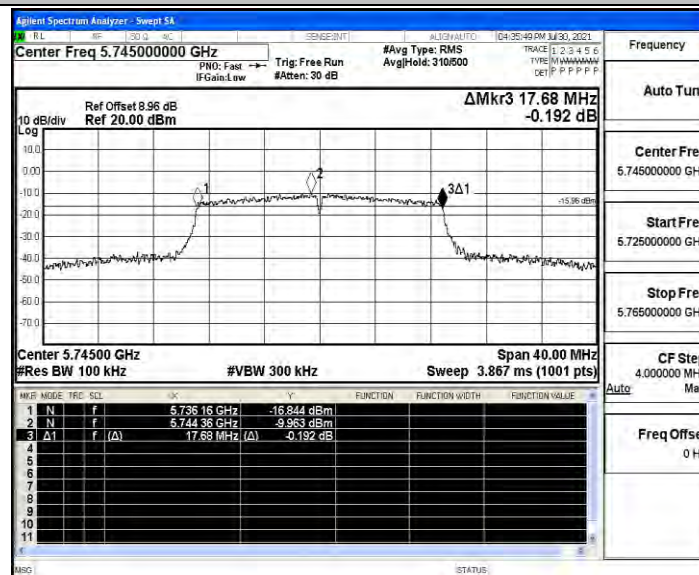
11A_Ant1_5785



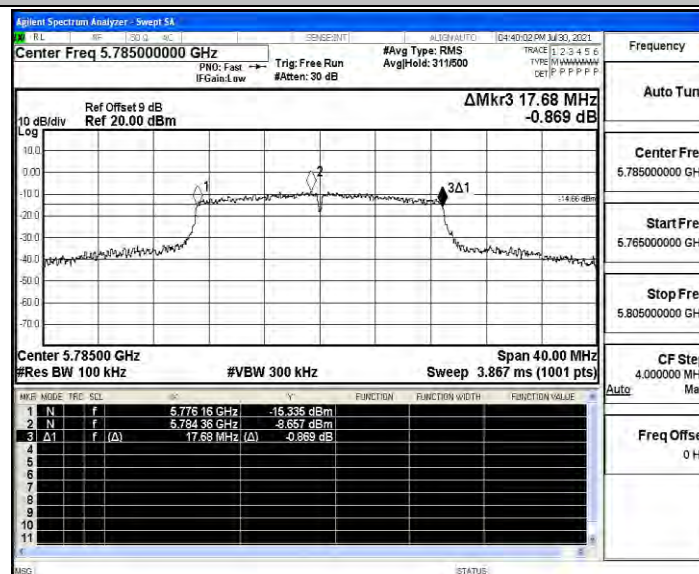
11A_Ant1_5825



11N20SISO_Ant1_5745

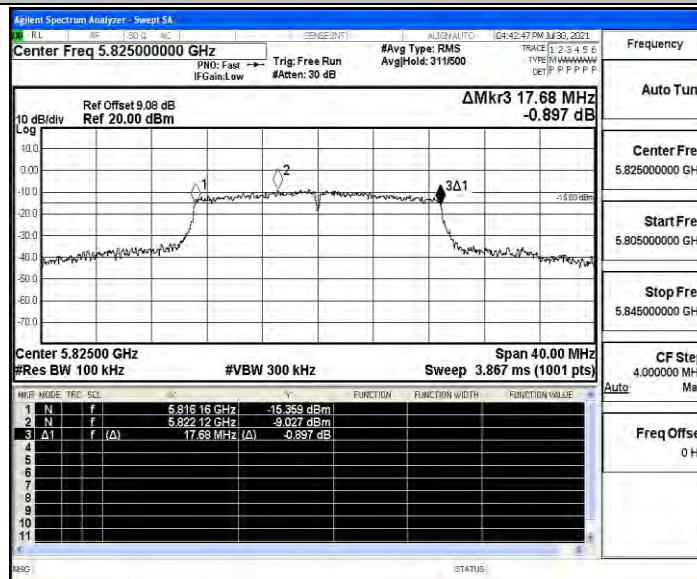


11N20SISO_Ant1_5785

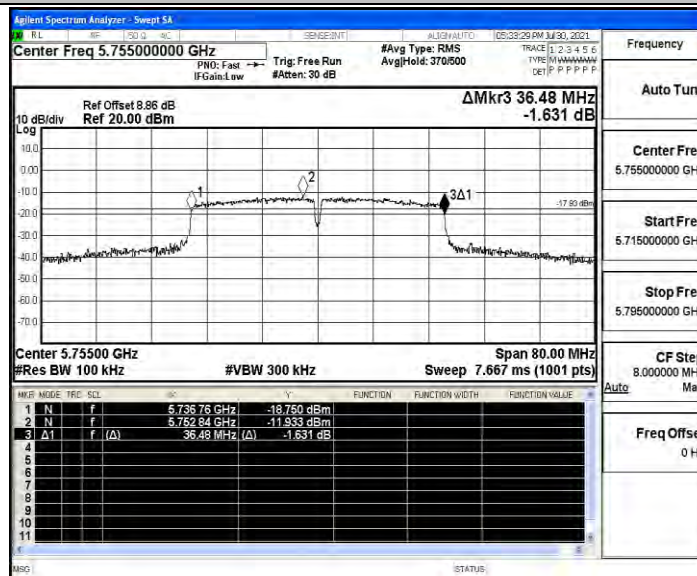




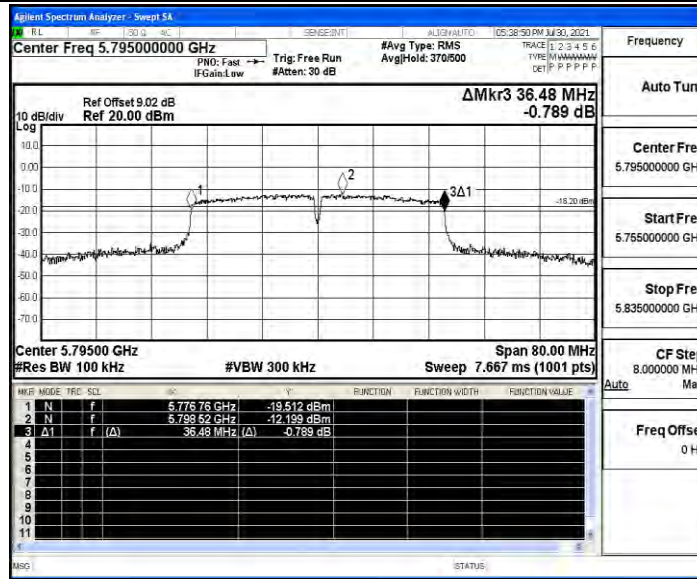
11N20SISO_Ant1_5825



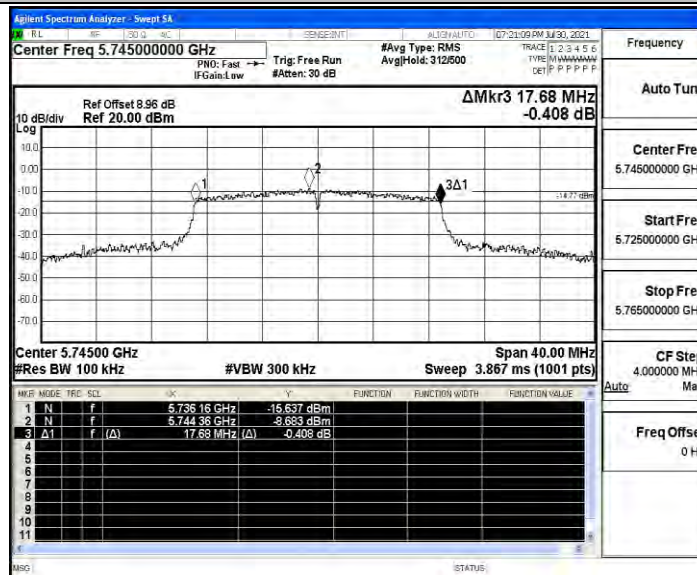
11N40SISO_Ant1_5755



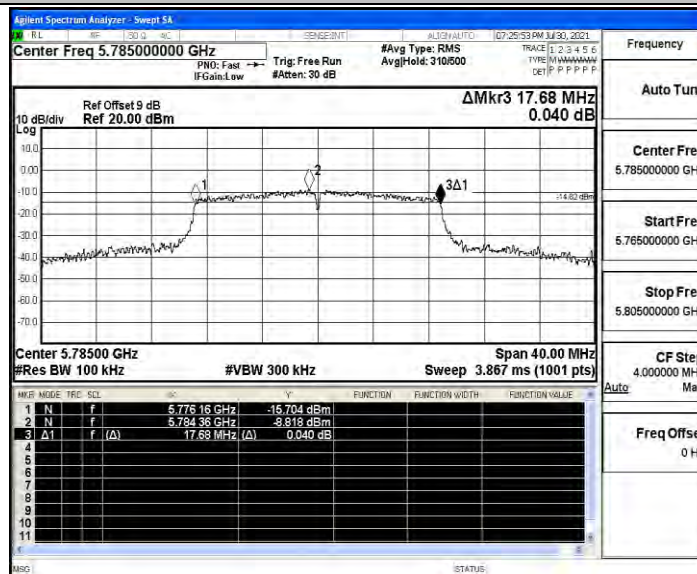
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

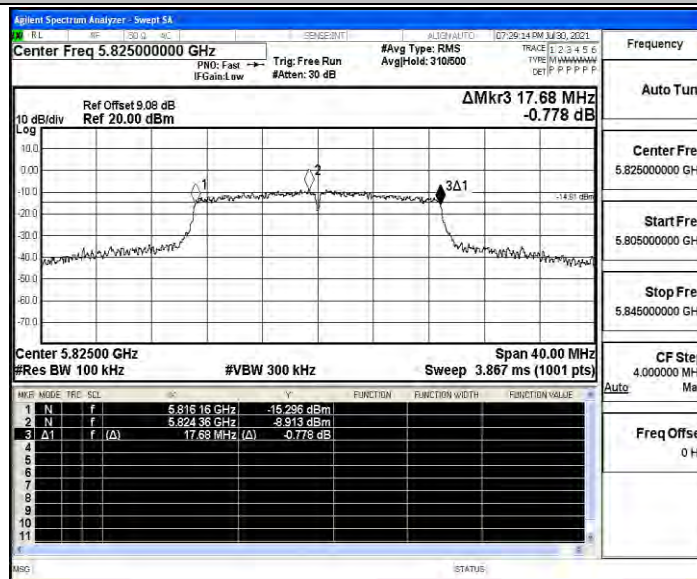


11AC20SISO_Ant1_5785

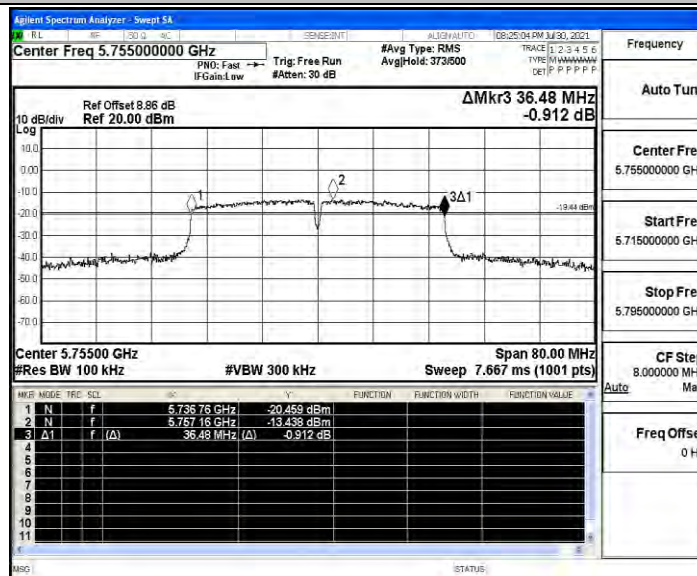




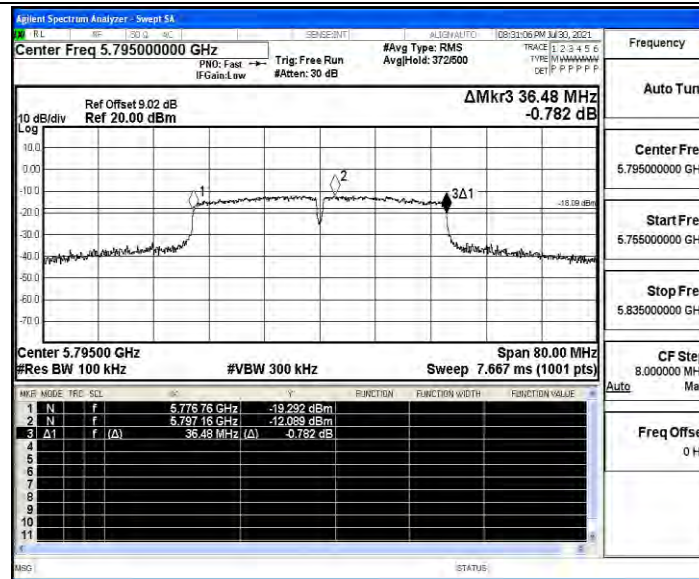
11AC20SISO_Ant1_5825



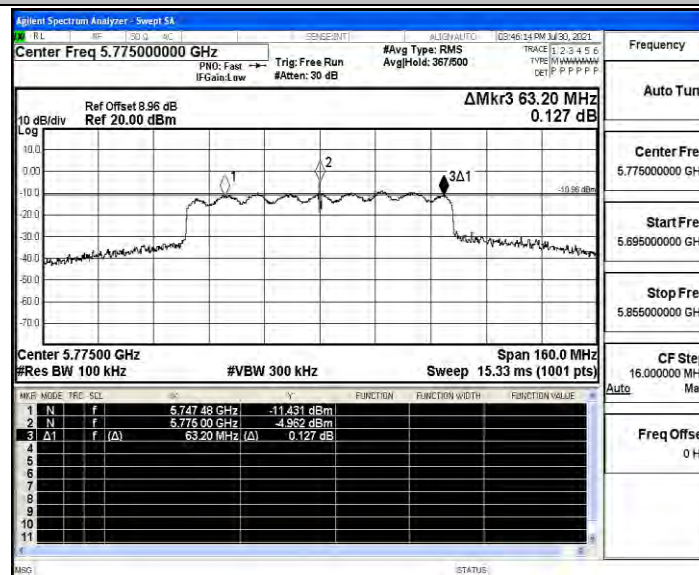
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775





E.3 Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Power [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	11.11	≤30	---	---	PASS
		5785	11.21	≤30	---	---	PASS
		5825	11.54	≤30	---	---	PASS
11N20SISO	Ant1	5745	10.91	≤30	---	---	PASS
		5785	11.07	≤30	---	---	PASS
		5825	10.73	≤30	---	---	PASS
11N40SISO	Ant1	5755	10.75	≤30	---	---	PASS
		5795	10.83	≤30	---	---	PASS
11AC20SISO	Ant1	5745	10.65	≤30	---	---	PASS
		5785	10.49	≤30	---	---	PASS
		5825	10.39	≤30	---	---	PASS
11AC40SISO	Ant1	5755	11.30	≤30	---	---	PASS
		5795	10.22	≤30	---	---	PASS
11AC80SISO	Ant1	5775	10.41	≤30	---	---	PASS



E.4 Maximum power spectral density

Test Result

Test Mode	Antenna	Channel	Power [dBm/MHz]	Limit [dBm/MHz]	EIRP [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5745	-8.12	≤ 30	---	---	PASS
		5785	-7.91	≤ 30	---	---	PASS
		5825	-7.46	≤ 30	---	---	PASS
11N20SISO	Ant1	5745	-9.84	≤ 30	---	---	PASS
		5785	-8.36	≤ 30	---	---	PASS
		5825	-8.79	≤ 30	---	---	PASS
11N40SISO	Ant1	5755	-11.63	≤ 30	---	---	PASS
		5795	-12.27	≤ 30	---	---	PASS
11AC20SISO	Ant1	5745	-8.76	≤ 30	---	---	PASS
		5785	-8.87	≤ 30	---	---	PASS
		5825	-8.82	≤ 30	---	---	PASS
11AC40SISO	Ant1	5755	-12.74	≤ 30	---	---	PASS
		5795	-11.6	≤ 30	---	---	PASS
11AC80SISO	Ant1	5775	-3.81	≤ 30	---	---	PASS

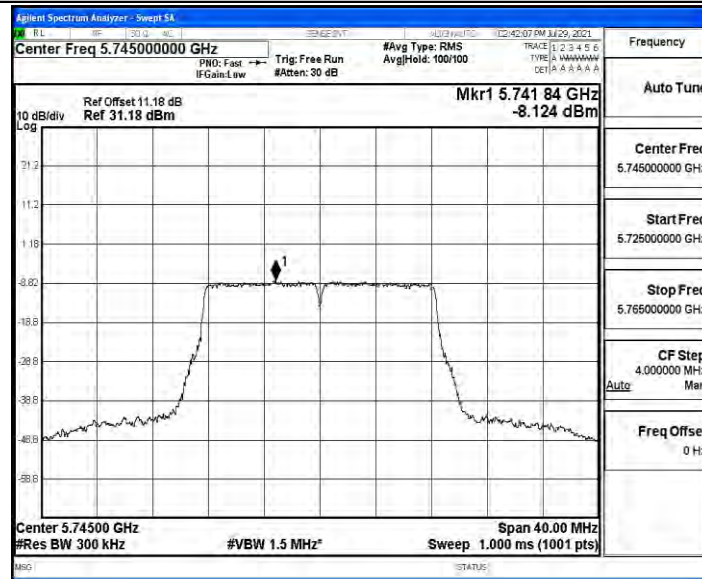
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

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

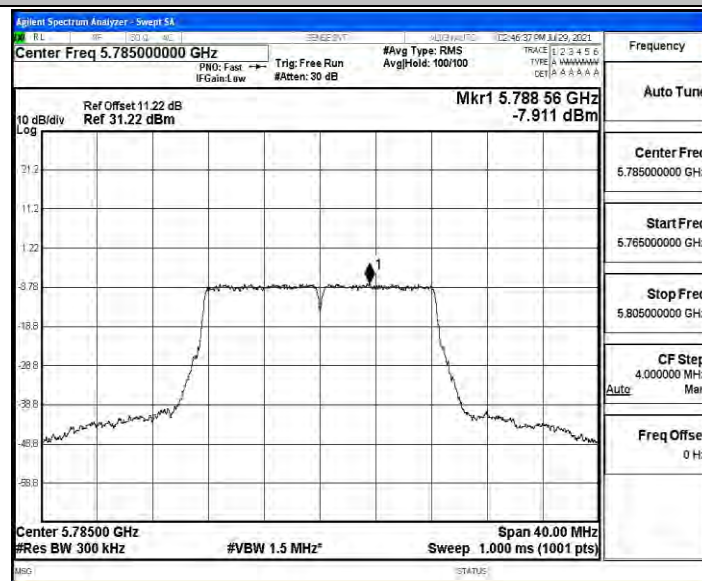


Test Graphs

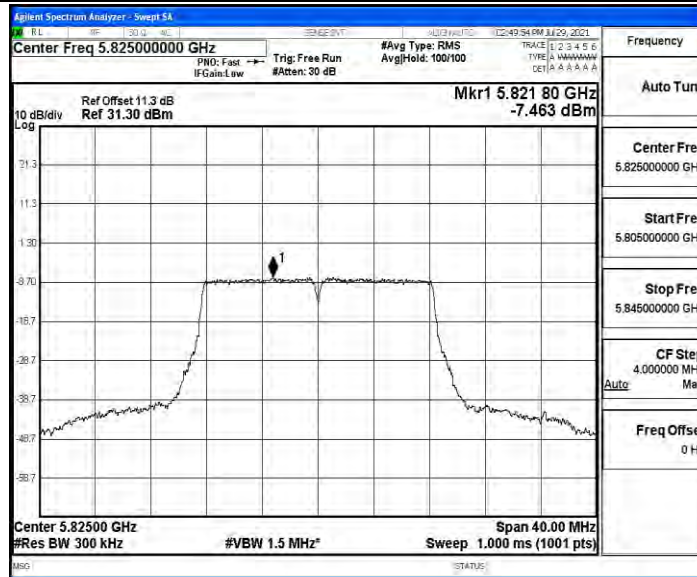
11A_Ant1_5745



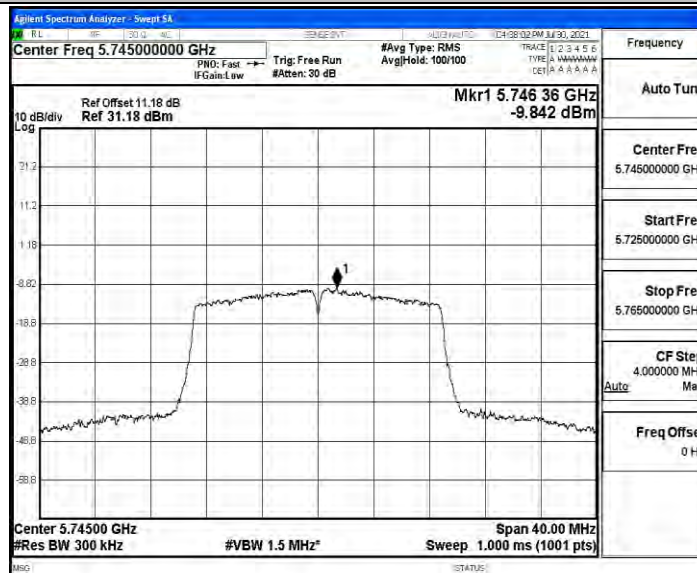
11A_Ant1_5785



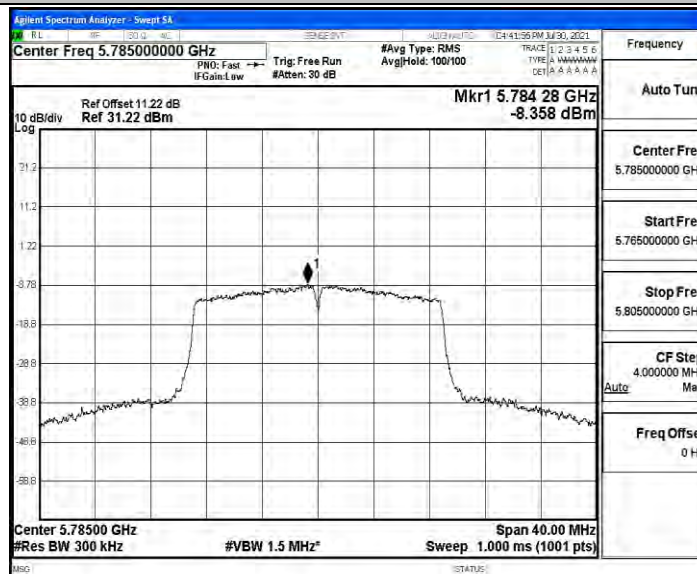
11A_Ant1_5825



11N20SISO_Ant1_5745

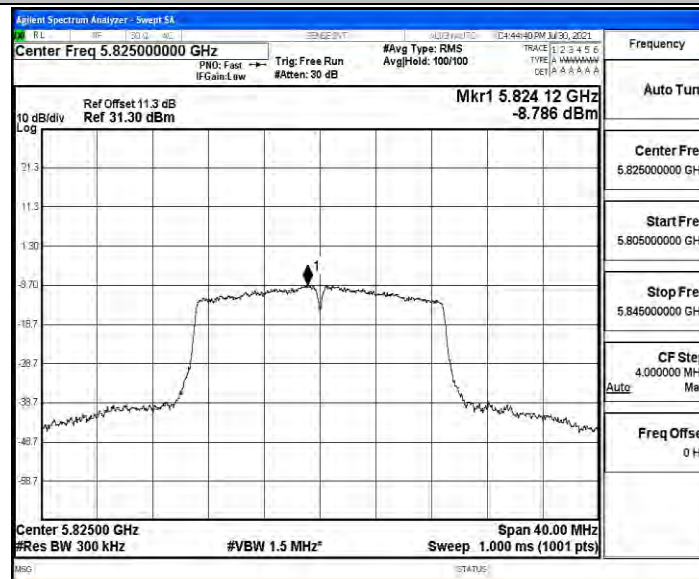


11N20SISO_Ant1_5785

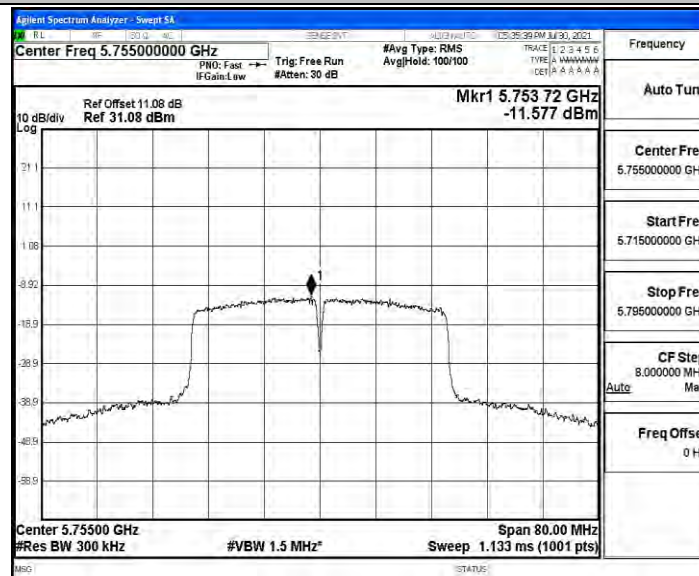




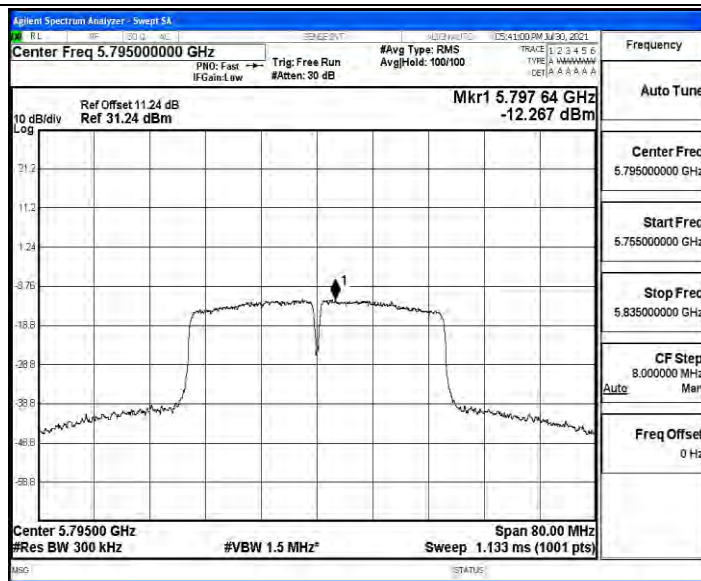
11N20SISO_Ant1_5825



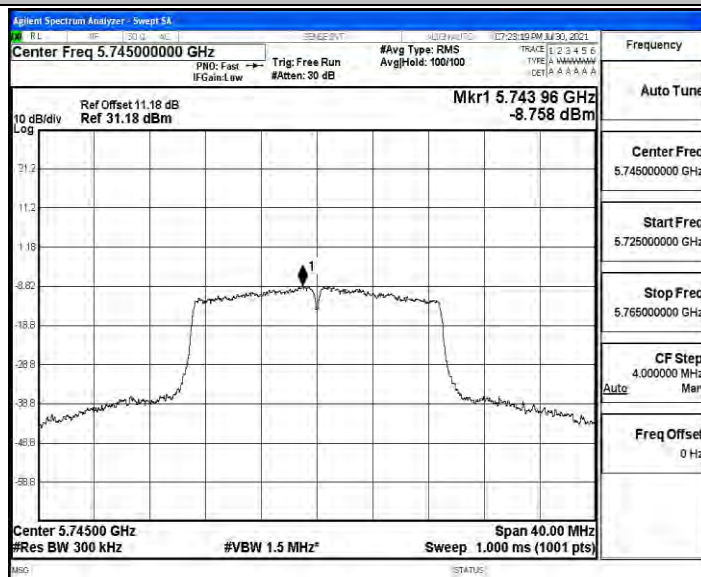
11N40SISO_Ant1_5755



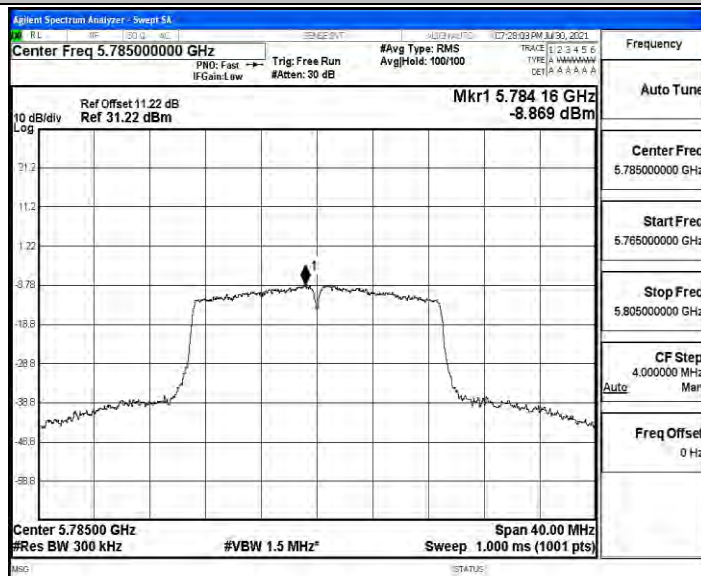
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

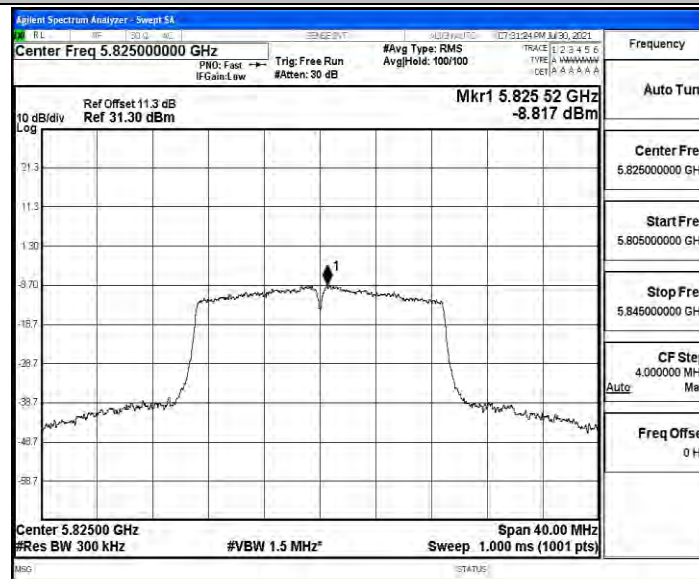


11AC20SISO_Ant1_5785

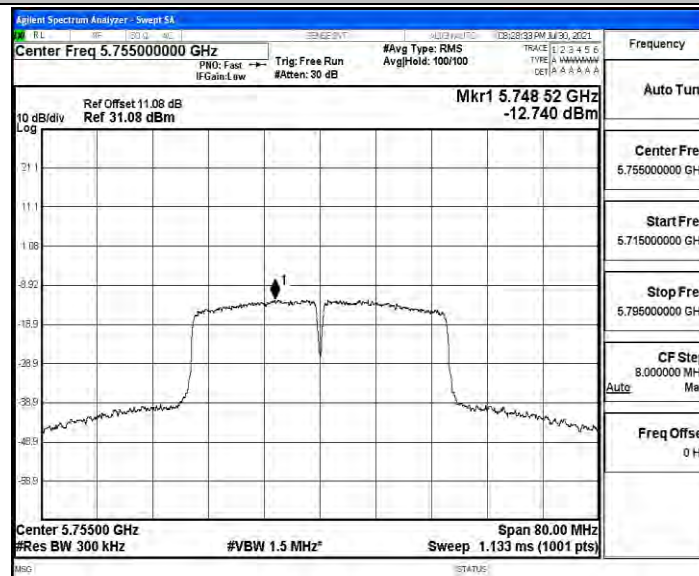




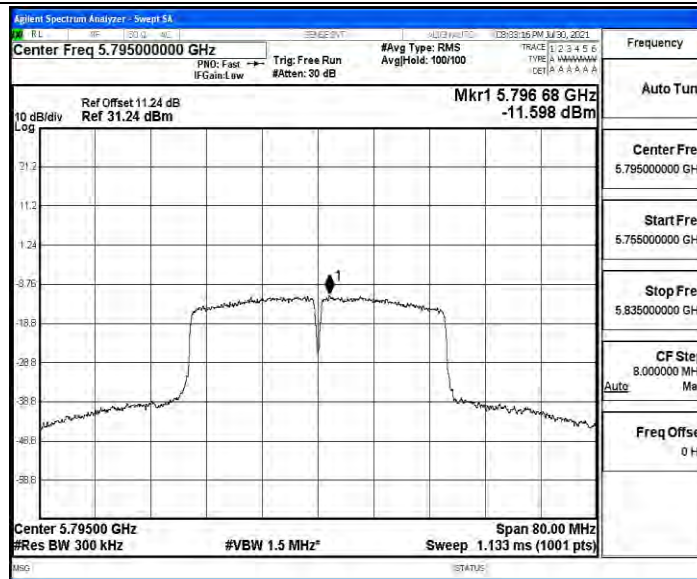
11AC20SISO_Ant1_5825



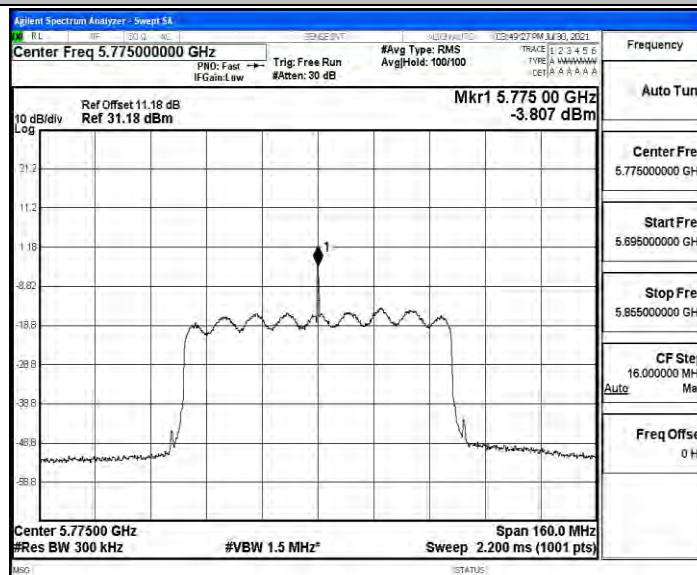
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775





E.5 Emissions in Restricted Bands

Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq [MHz]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-43.172	≤-27.00	PASS
				Peak	5700.000	-43.04	≤10.00	PASS
				Peak	5720.000	-42.27	≤15.60	PASS
				Peak	5725.000	-36.52	≤27.00	PASS
		High	5825	Peak	5850.000	-39.06	≤15.60	PASS
				Peak	5855.000	-42.9	≤27.00	PASS
				Peak	5875.000	-41.35	≤15.60	PASS
				Peak	5925.000	-45.07	≤10.00	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-42.876	≤-27.00	PASS
				Peak	5700.000	-43.18	≤10.00	PASS
				Peak	5720.000	-41.47	≤15.60	PASS
				Peak	5725.000	-34.59	≤27.00	PASS
		High	5825	Peak	5850.000	-39.775	≤15.60	PASS
				Peak	5855.000	-41.63	≤27.00	PASS
				Peak	5875.000	-38.82	≤15.60	PASS
				Peak	5925.000	-41.43	≤10.00	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-43.796	≤-27.00	PASS
				Peak	5700.000	-42.28	≤10.00	PASS
				Peak	5720.000	-34.01	≤15.60	PASS
				Peak	5725.000	-27.4	≤27.00	PASS
		High	5795	Peak	5850.000	-42.723	≤15.60	PASS
				Peak	5855.000	-42.73	≤27.00	PASS
				Peak	5875.000	-40.73	≤15.60	PASS
				Peak	5925.000	-41.67	≤10.00	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-42.421	≤-27.00	PASS
				Peak	5700.000	-42.24	≤10.00	PASS
				Peak	5720.000	-36.77	≤15.60	PASS
				Peak	5725.000	-29.34	≤27.00	PASS
		High	5825	Peak	5850.000	-39.621	≤15.60	PASS
				Peak	5855.000	-42.62	≤27.00	PASS
				Peak	5875.000	-42.9	≤15.60	PASS
				Peak	5925.000	-42.45	≤10.00	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-43.36	≤-27.00	PASS
				Peak	5700.000	-41.95	≤10.00	PASS
				Peak	5720.000	-28.9	≤15.60	PASS
				Peak	5725.000	-29.92	≤27.00	PASS
		High	5795	Peak	5850.000	-40.401	≤15.60	PASS



				Peak	5855.000	-40.11	≤27.00	PASS
				Peak	5875.000	-41.41	≤15.60	PASS
				Peak	5925.000	-44.31	≤10.00	PASS
11AC80SI SO	Ant1	Low	5775	Peak	5650.000	-44.986	≤-27.00	PASS
				Peak	5700.000	-42.37	≤10.00	PASS
				Peak	5720.000	-42.31	≤15.60	PASS
				Peak	5725.000	-39.4	≤27.00	PASS
		High	5775	Peak	5850.000	-41.12	≤15.60	PASS
				Peak	5855.000	-41.89	≤27.00	PASS
				Peak	5875.000	-41.84	≤15.60	PASS
				Peak	5925.000	-39.72	≤10.00	PASS

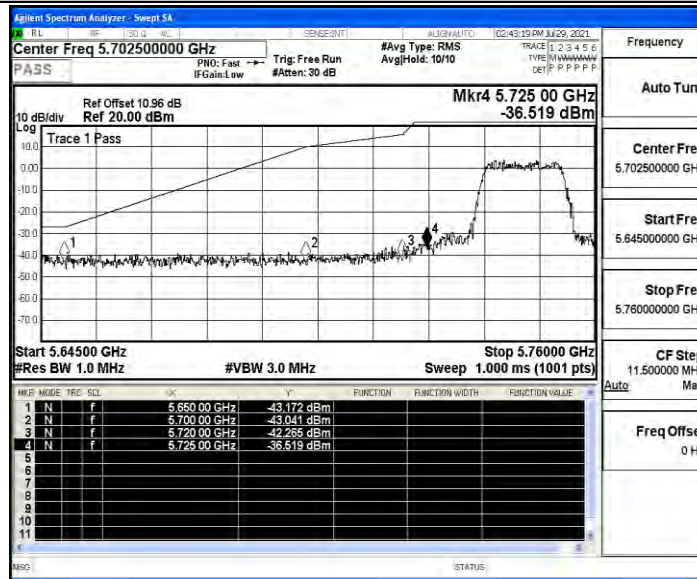
Note:

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.

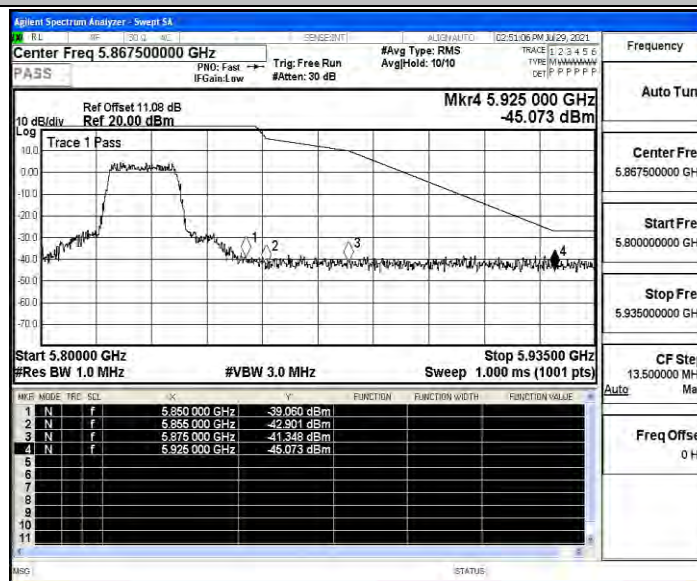


Test Graphs

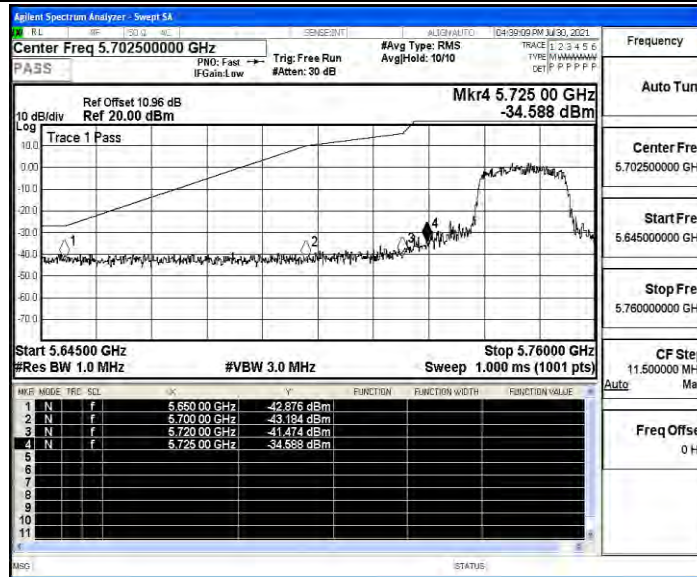
11A_Ant1_Low_5745_Peak



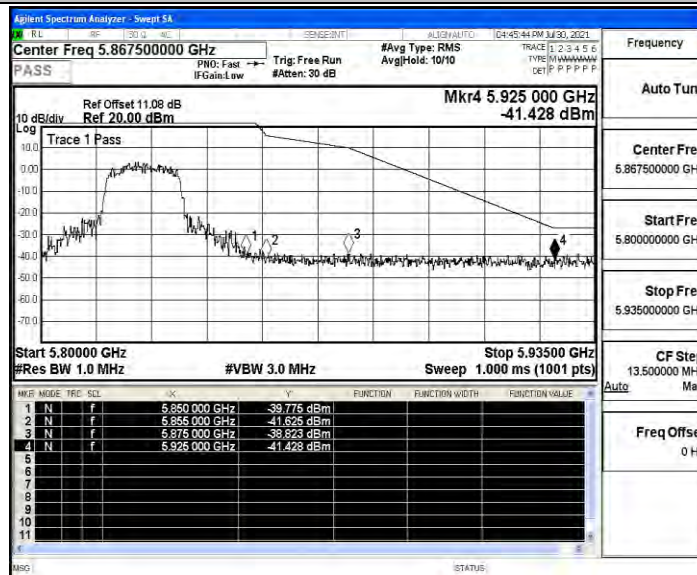
11A_Ant1_High_5825_Peak



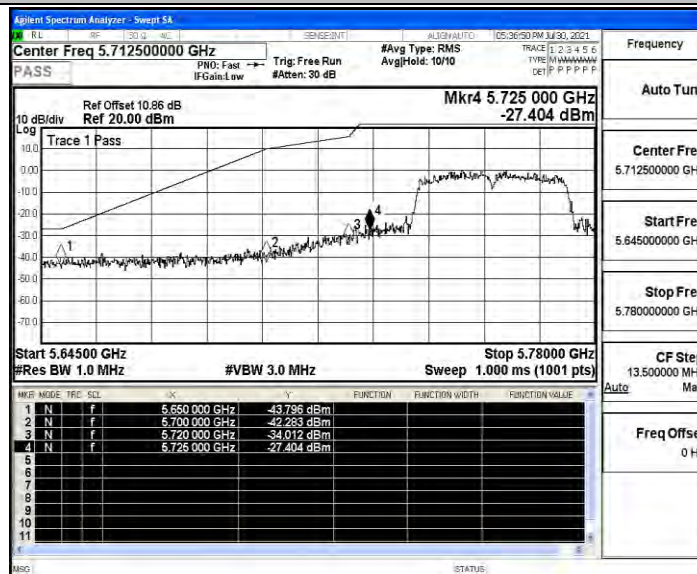
11N20SISO_Ant1_Low_5745_Peak



11N20SISO_Ant1_High_5825_Peak

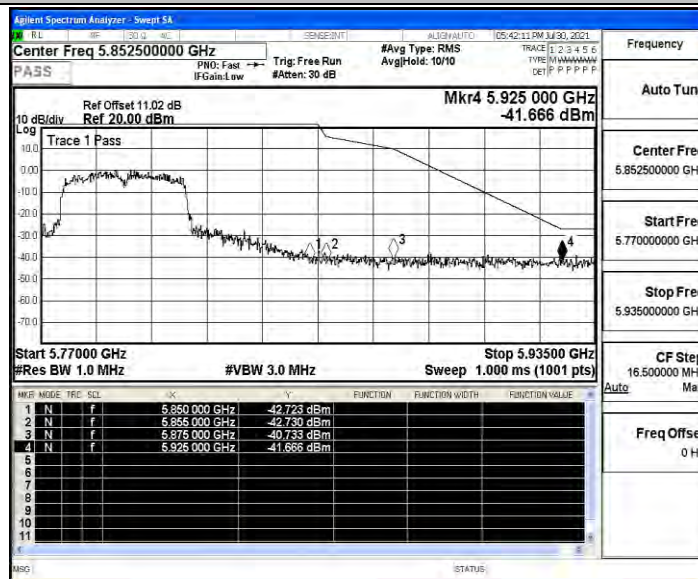


11N40SISO_Ant1_Low_5755_Peak

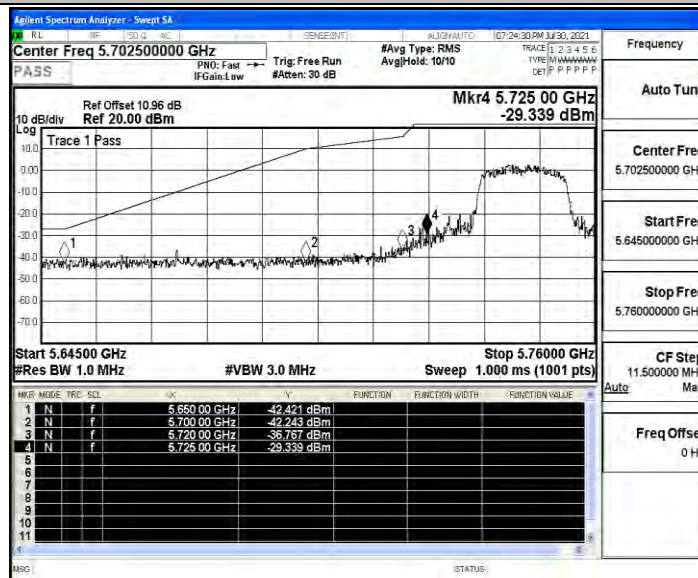




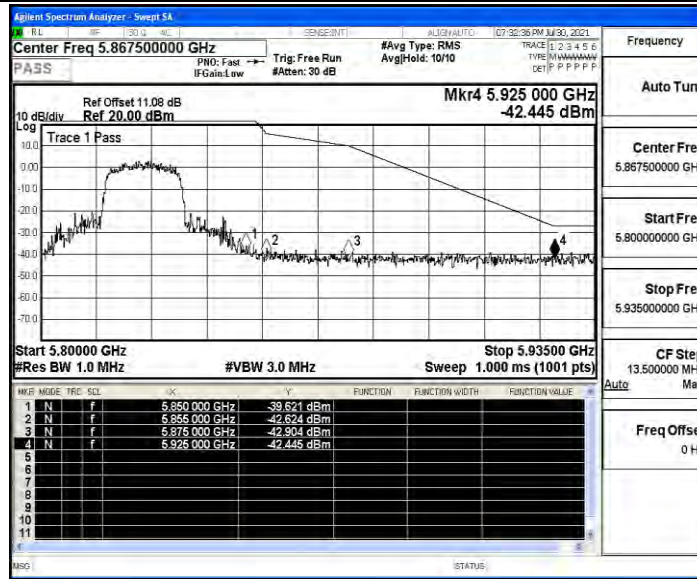
11N40SISO_Ant1_High_5795_Peak



11AC20SISO_Ant1_Low_5745_Peak



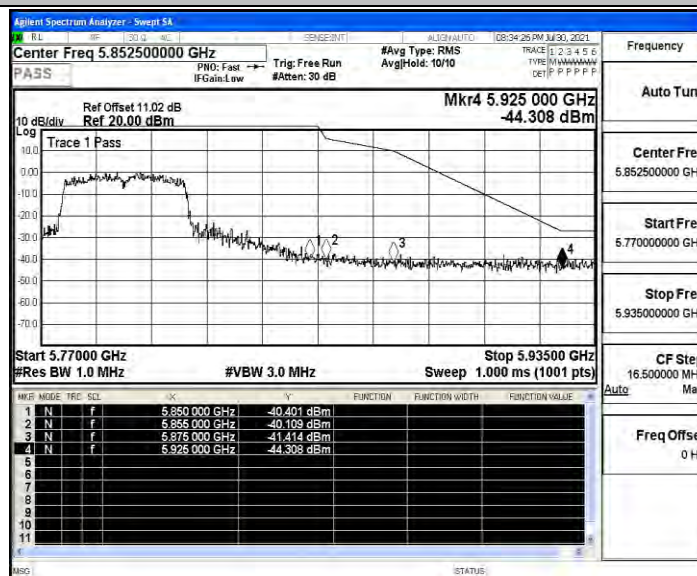
11AC20SISO_Ant1_High_5825_Peak



11AC40SISO_Ant1_Low_5755_Peak

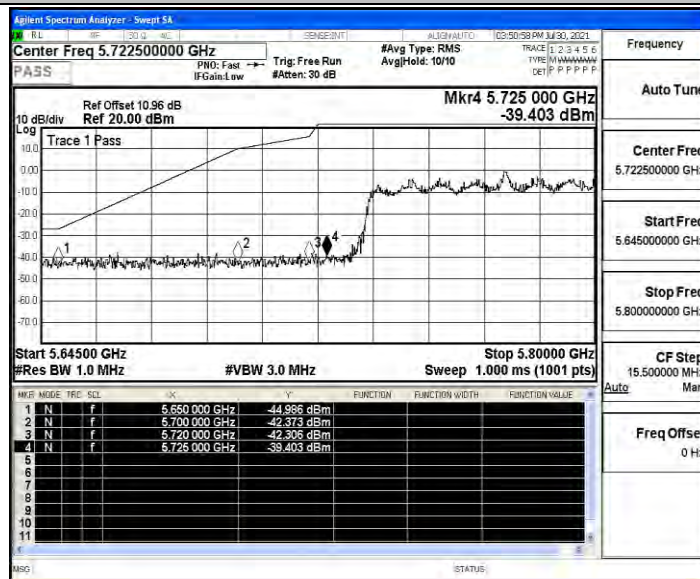


11AC40SISO_Ant1_High_5795_Peak

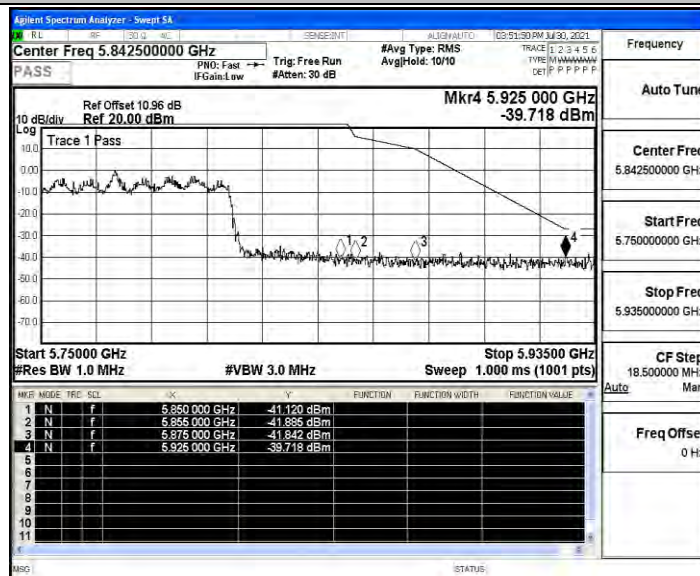




11AC80SISO_Ant1_Low_5775_Peak



11AC80SISO_Ant1_High_5775_Peak





E.6 Frequency Stability

Test Result

Voltage								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5785	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5825	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
11N20SI SO	Ant1	5745	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5785	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5825	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
11N40SI SO	Ant1	5755	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
		5795	NV	NT	0	0	20	PASS
			LV	NT	0	0	20	PASS
			HV	NT	0	0	20	PASS
11AC20S ISO	Ant1	5745	NV	NT	-8000	-1.392515	20	PASS
			LV	NT	-9000	-1.56658	20	PASS
			HV	NT	-9000	-1.56658	20	PASS
		5785	NV	NT	-9000	-1.555748	20	PASS
			LV	NT	-9000	-1.555748	20	PASS
			HV	NT	-9000	-1.555748	20	PASS
		5825	NV	NT	-9000	-1.545064	20	PASS
			LV	NT	-10000	-1.716738	20	PASS
			HV	NT	-10000	-1.716738	20	PASS
11AC40S ISO	Ant1	5755	NV	NT	-9000	-1.563858	20	PASS
			LV	NT	-9000	-1.563858	20	PASS
			HV	NT	-9000	-1.563858	20	PASS



		5795	NV	NT	-9000	-1.553063	20	PASS
			LV	NT	-9000	-1.553063	20	PASS
			HV	NT	-9000	-1.553063	20	PASS
11AC80S ISO	Ant1	5775	NV	NT	-34000	-5.887446	20	PASS
			LV	NT	-36000	-6.233766	20	PASS
			HV	NT	-36000	-6.233766	20	PASS

Temperature								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
		5785	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
		5825	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
11N20SI SO	Ant1	5745	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS



			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
		5785	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
			NV	-30	0	0	20	PASS
		5825	NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
11N40SI SO	Ant1	5755	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
		5795	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
11AC20S ISO	Ant1	5745	NV	-30	-9000	-1.56658	20	PASS
			NV	-20	-9000	-1.56658	20	PASS
			NV	-10	-9000	-1.56658	20	PASS



			NV	0	-9000	-1.56658	20	PASS
			NV	10	-9000	-1.56658	20	PASS
			NV	20	-9000	-1.56658	20	PASS
			NV	30	-9000	-1.56658	20	PASS
			NV	40	-9000	-1.56658	20	PASS
			NV	50	-9000	-1.56658	20	PASS
		5785	NV	-30	-9000	-1.555748	20	PASS
			NV	-20	-9000	-1.555748	20	PASS
			NV	-10	-9000	-1.555748	20	PASS
			NV	0	-10000	-1.728608	20	PASS
			NV	10	-9000	-1.555748	20	PASS
			NV	20	-9000	-1.555748	20	PASS
			NV	30	-9000	-1.555748	20	PASS
			NV	40	-9000	-1.555748	20	PASS
			NV	50	-9000	-1.555748	20	PASS
		5825	NV	-30	-10000	-1.716738	20	PASS
			NV	-20	-10000	-1.716738	20	PASS
			NV	-10	-10000	-1.716738	20	PASS
			NV	0	-10000	-1.716738	20	PASS
			NV	10	-10000	-1.716738	20	PASS
			NV	20	-10000	-1.716738	20	PASS
			NV	30	-10000	-1.716738	20	PASS
			NV	40	-10000	-1.716738	20	PASS
			NV	50	-10000	-1.716738	20	PASS
11AC40S ISO	Ant1	5755	NV	-30	-9000	-1.563858	20	PASS
			NV	-20	-9000	-1.563858	20	PASS
			NV	-10	-9000	-1.563858	20	PASS
			NV	0	-9000	-1.563858	20	PASS
			NV	10	-9000	-1.563858	20	PASS
			NV	20	-9000	-1.563858	20	PASS
			NV	30	-9000	-1.563858	20	PASS
			NV	40	-9000	-1.563858	20	PASS
			NV	50	-9000	-1.563858	20	PASS
		5795	NV	-30	-9000	-1.553063	20	PASS
			NV	-20	-9000	-1.553063	20	PASS
			NV	-10	-9000	-1.553063	20	PASS
			NV	0	-9000	-1.553063	20	PASS
			NV	10	-9000	-1.553063	20	PASS
			NV	20	-9000	-1.553063	20	PASS
			NV	30	-9000	-1.553063	20	PASS
			NV	40	-9000	-1.553063	20	PASS
			NV	50	-9000	-1.553063	20	PASS



11AC80S ISO	Ant1	5775	NV	-30	-36000	-6.233766	20	PASS
			NV	-20	-36000	-6.233766	20	PASS
			NV	-10	-36000	-6.233766	20	PASS
			NV	0	-36000	-6.233766	20	PASS
			NV	10	-36000	-6.233766	20	PASS
			NV	20	-36000	-6.233766	20	PASS
			NV	30	-36000	-6.233766	20	PASS
			NV	40	-36000	-6.233766	20	PASS
			NV	50	-36000	-6.233766	20	PASS



E.7 Duty Cycle

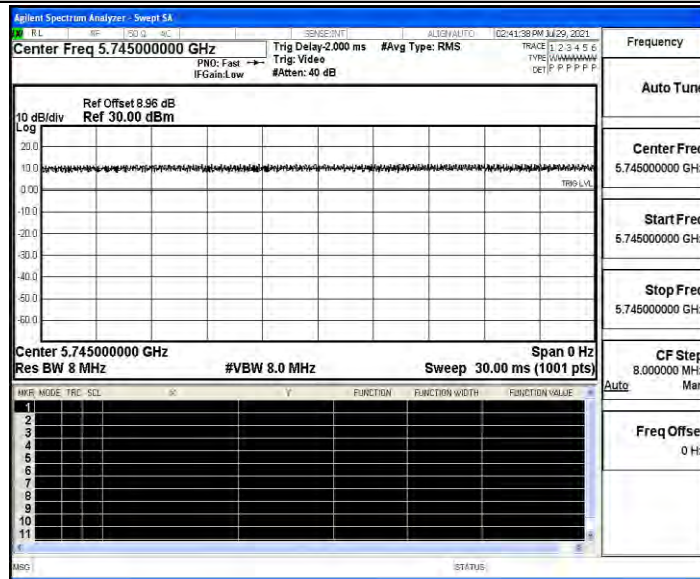
Test Result

Test Mode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
11A	Ant1	5745	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5785	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5825	30.00	30.00	1.0000	100.00	0.00	---	PASS
11N20SISO	Ant1	5745	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5785	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5825	30.00	30.00	1.0000	100.00	0.00	---	PASS
11N40SISO	Ant1	5755	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5795	30.00	30.00	1.0000	100.00	0.00	---	PASS
11AC20SISO	Ant1	5745	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5785	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5825	30.00	30.00	1.0000	100.00	0.00	---	PASS
11AC40SISO	Ant1	5755	30.00	30.00	1.0000	100.00	0.00	---	PASS
		5795	30.00	30.00	1.0000	100.00	0.00	---	PASS
11AC80SISO	Ant1	5775	30.00	30.00	1.0000	100.00	0.00	---	PASS

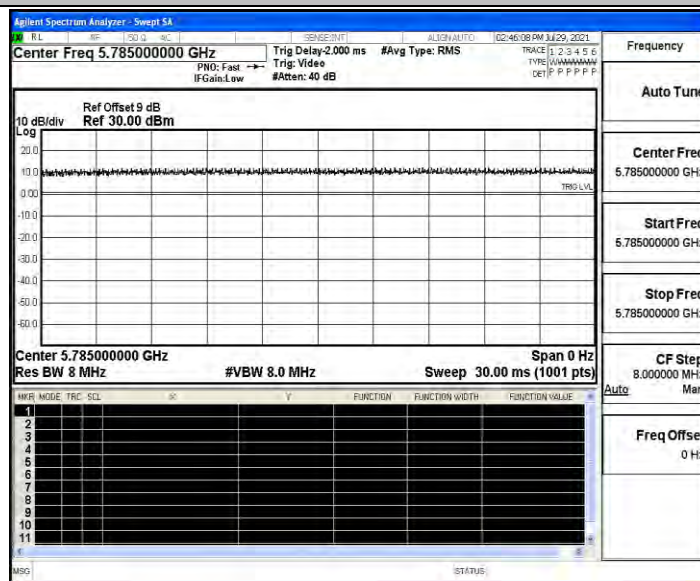


Test Graphs

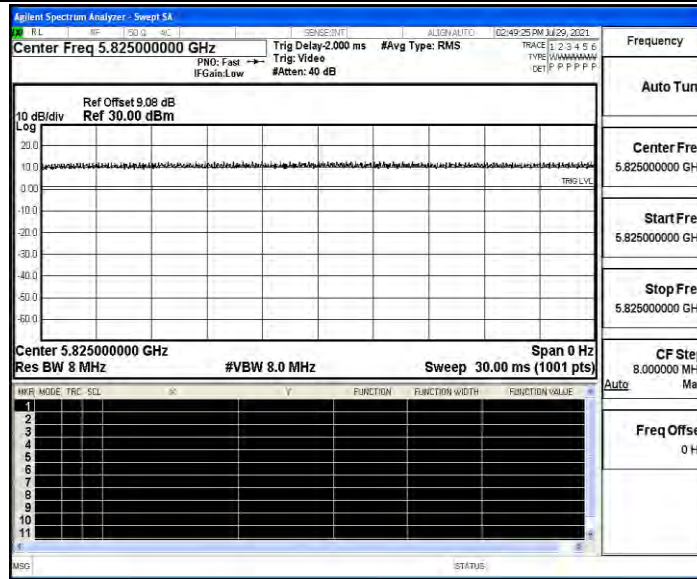
11A_Ant1_5745



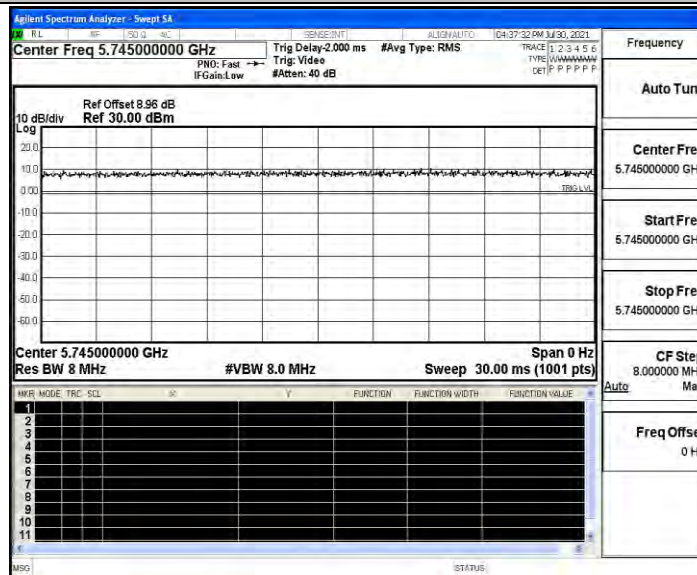
11A_Ant1_5785



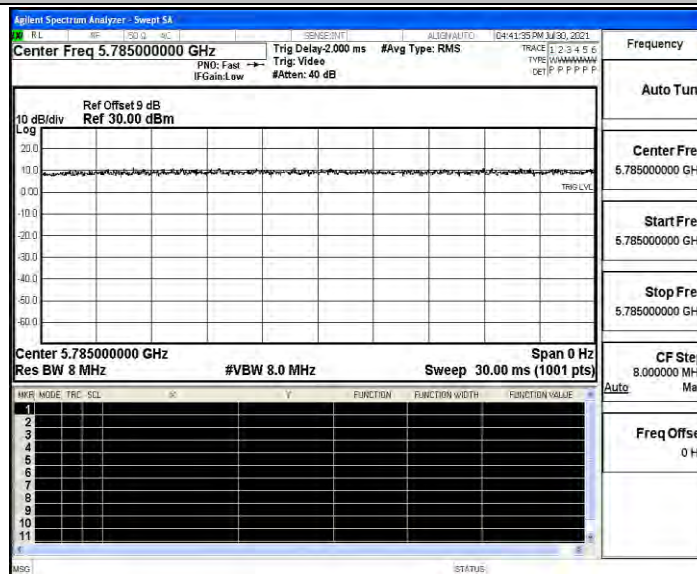
11A_Ant1_5825



11N20SISO_Ant1_5745

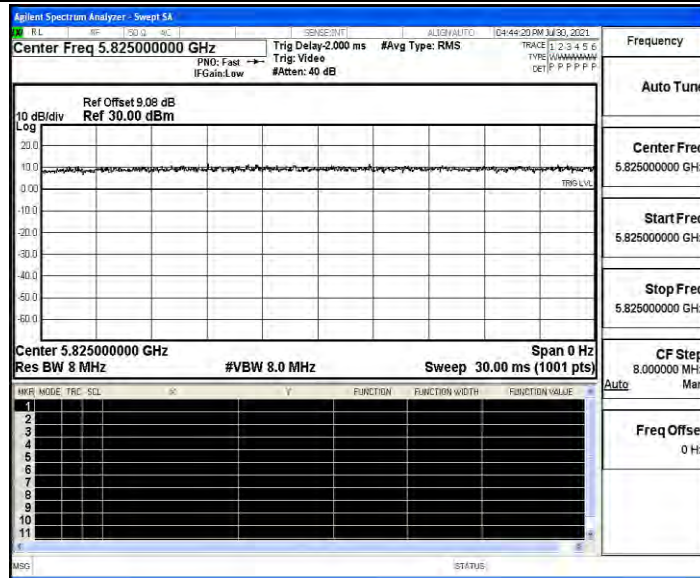


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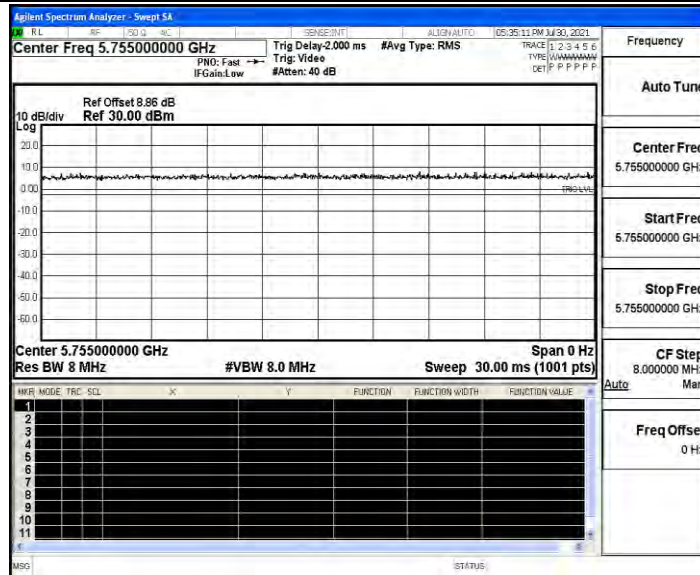




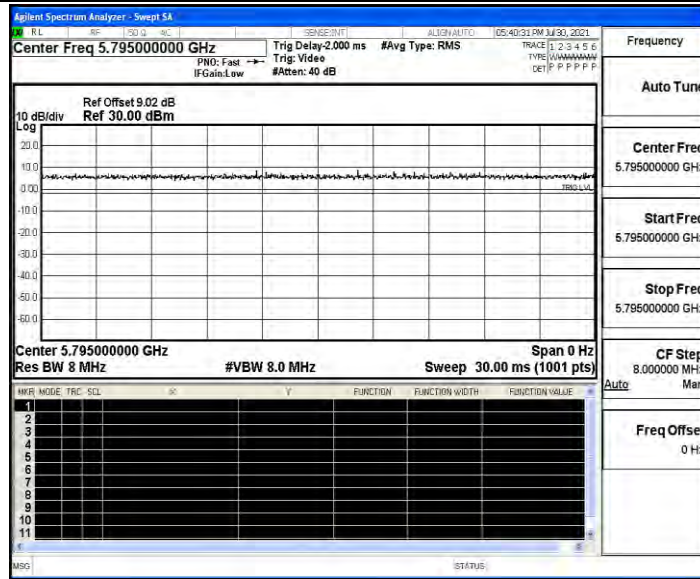
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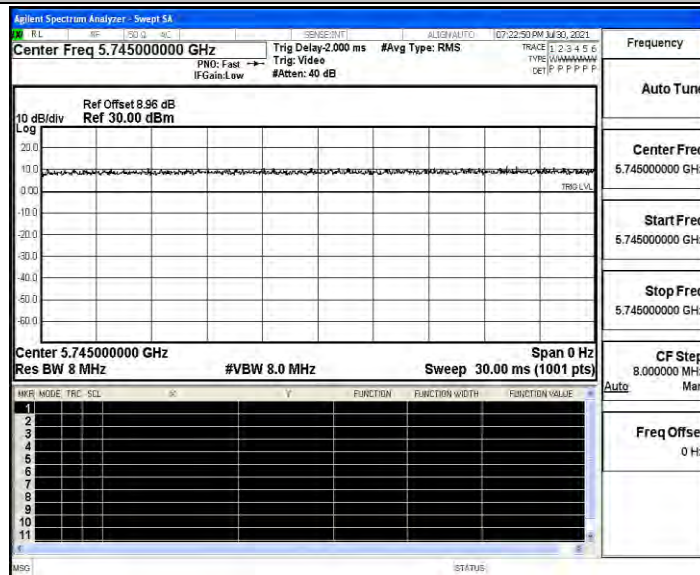
11N40SISO_Ant1_5755



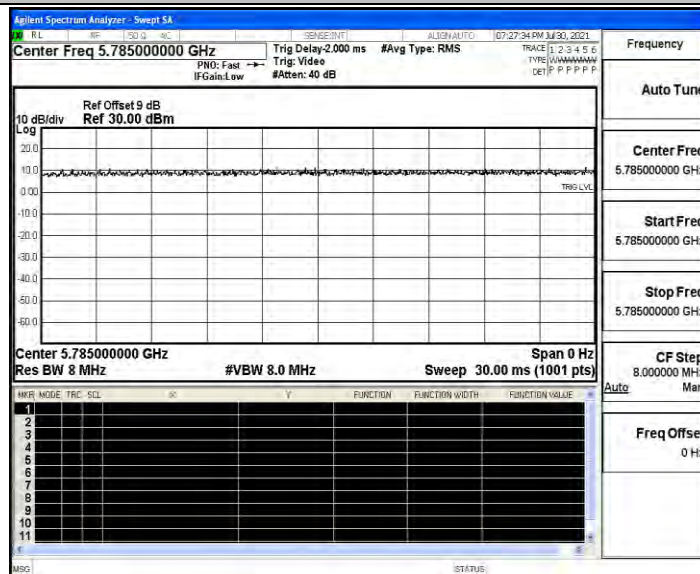
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

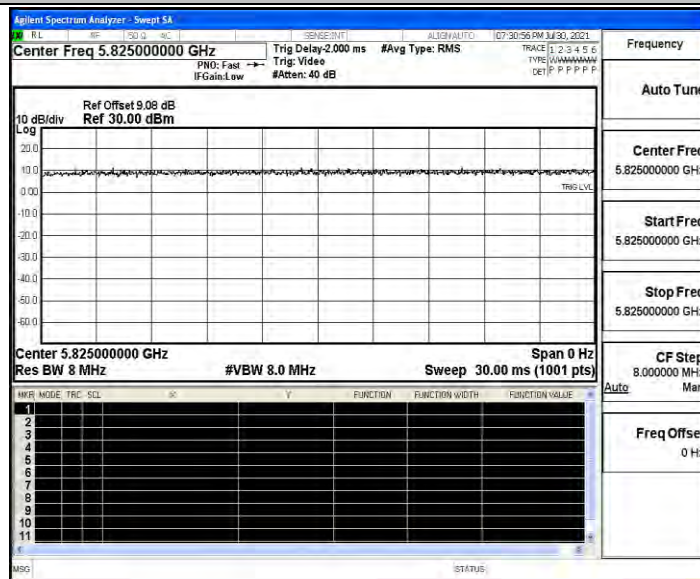


11AC20SISO_Ant1_5785

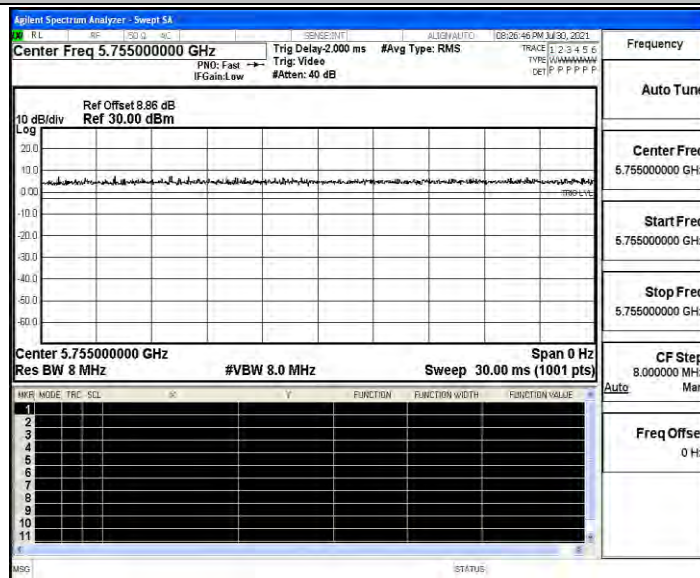




11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795

