



Appendix D

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: Fivestars-Pegasus

Test Model: SBC2.0a

HVIN: SBC2.0a

Environmental Conditions

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



D.1 Occupied channel bandwidth

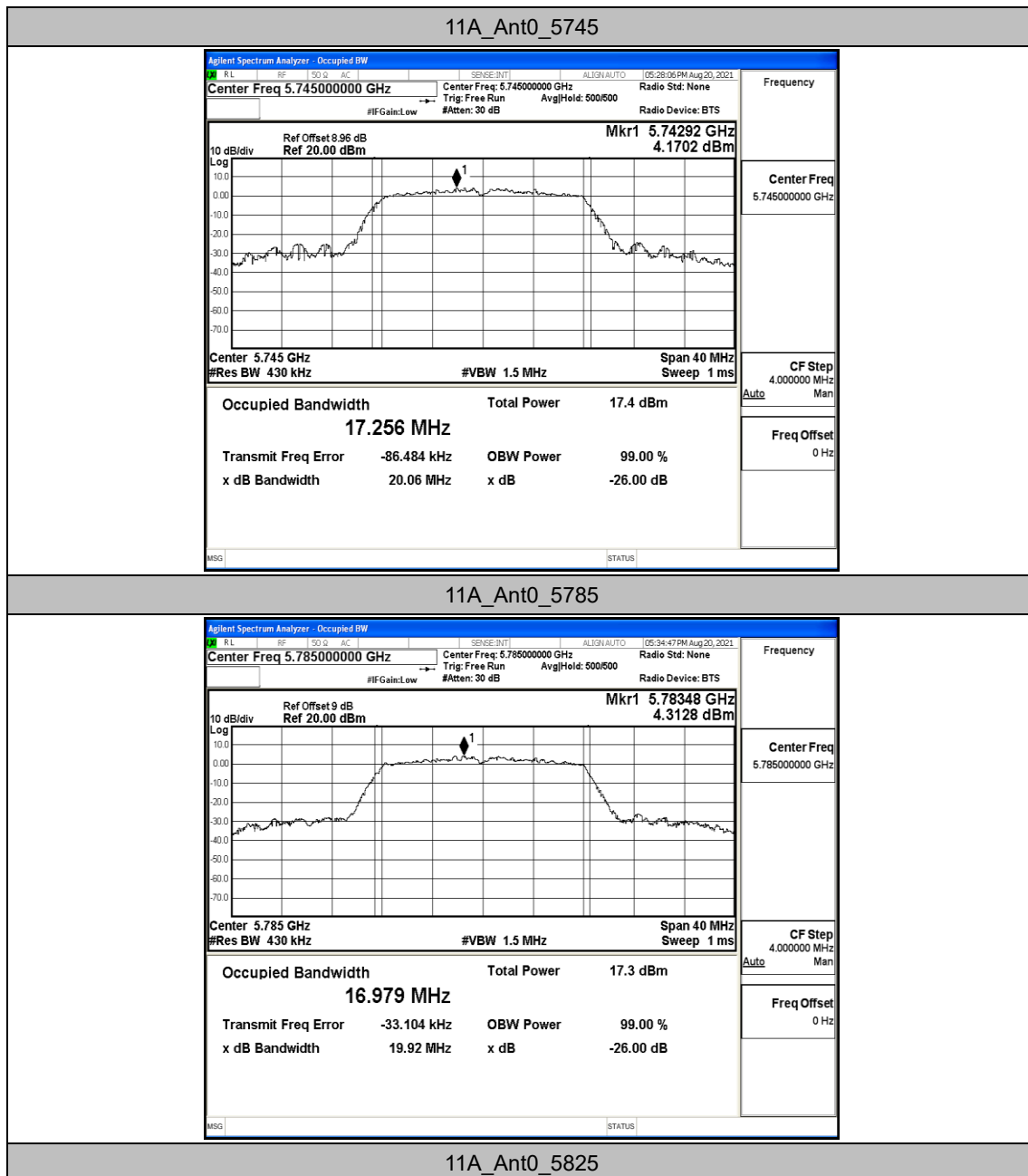
Test Result

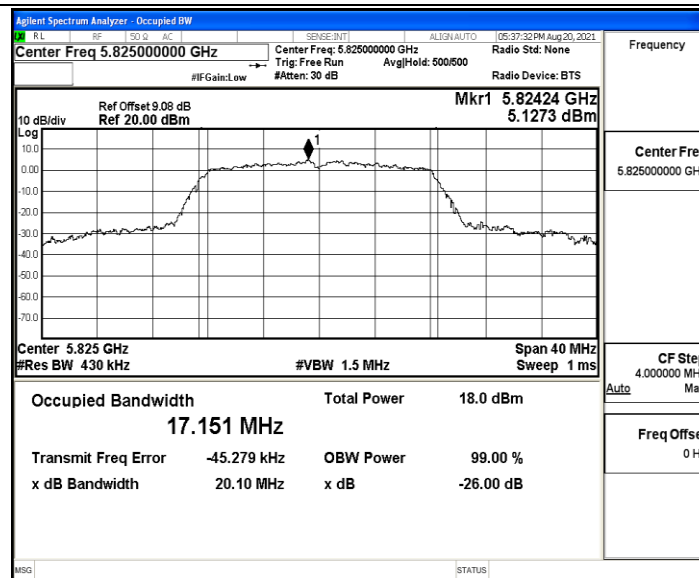
ANT0

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant0	5745	17.256	5736.286	5753.542	---	PASS
		5785	16.979	5776.477	5793.456	---	PASS
		5825	17.151	5816.379	5833.530	---	PASS
11N20SISO	Ant0	5745	17.763	5736.114	5753.877	---	PASS
		5785	17.840	5776.104	5793.944	---	PASS
		5825	17.856	5816.077	5833.933	---	PASS
11N40SISO	Ant0	5755	36.284	5736.891	5773.175	---	PASS
		5795	36.248	5776.913	5813.161	---	PASS
11AC20SISO	Ant0	5745	17.826	5736.104	5753.930	---	PASS
		5785	17.887	5776.090	5793.977	---	PASS
		5825	17.895	5816.037	5833.932	---	PASS
11AC40SISO	Ant0	5755	36.274	5736.884	5773.158	---	PASS
		5795	36.314	5776.855	5813.169	---	PASS
11AC80SISO	Ant0	5775	75.211	5737.499	5812.710	---	PASS

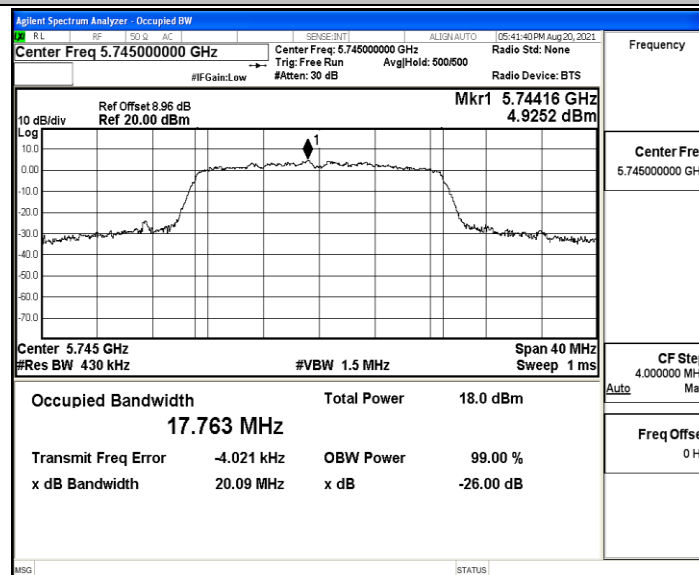


Test Graphs

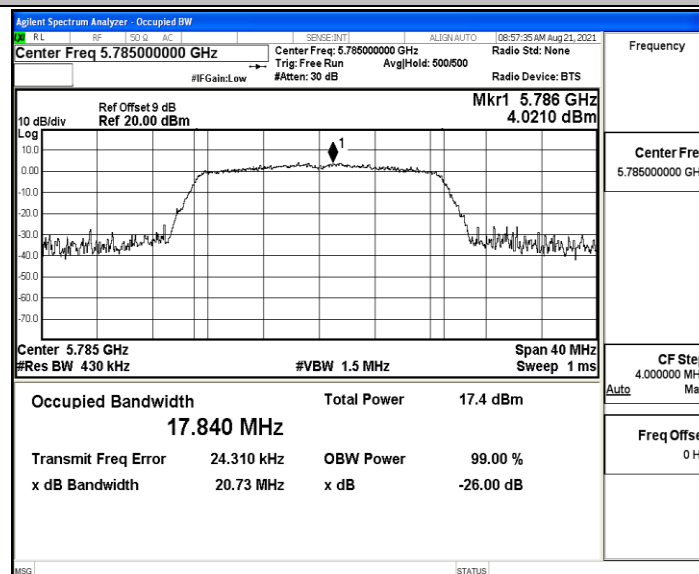




11N20SISO_Ant0_5745

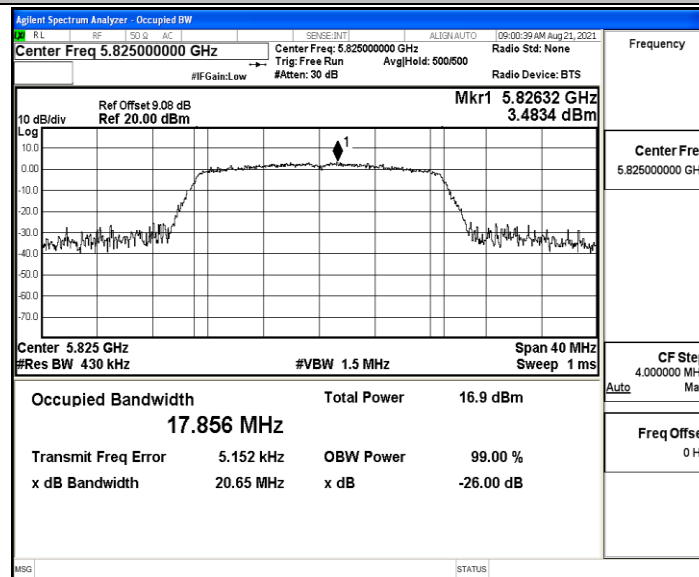


11N20SISO_Ant0_5785

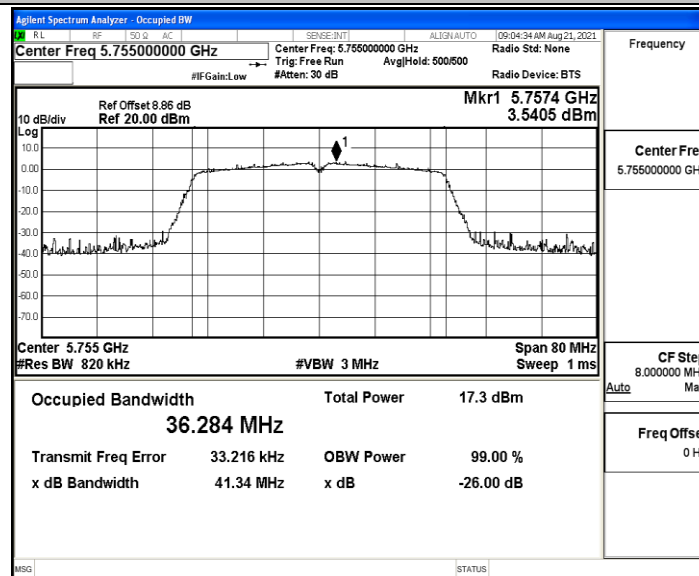




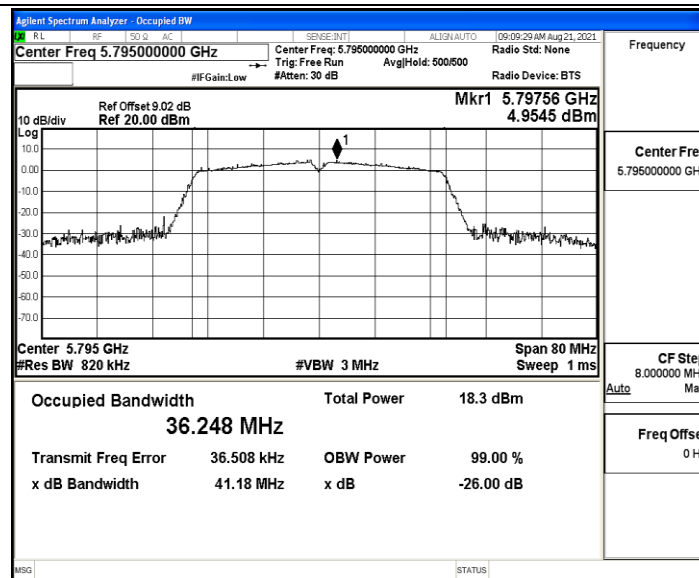
11N20SISO_Ant0_5825



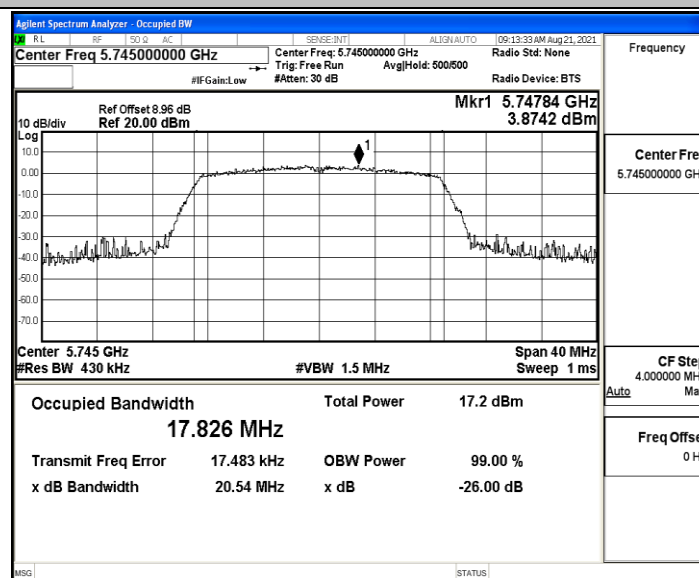
11N40SISO_Ant0_5755



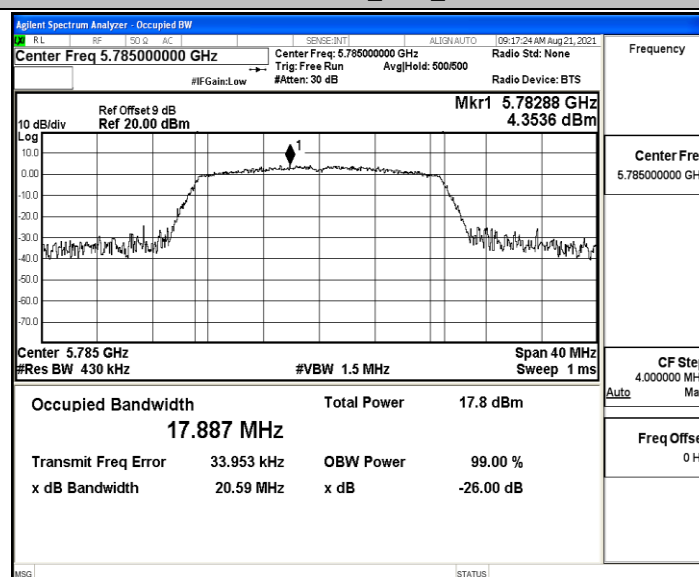
11N40SISO_Ant0_5795



11AC20SISO_Ant0_5745

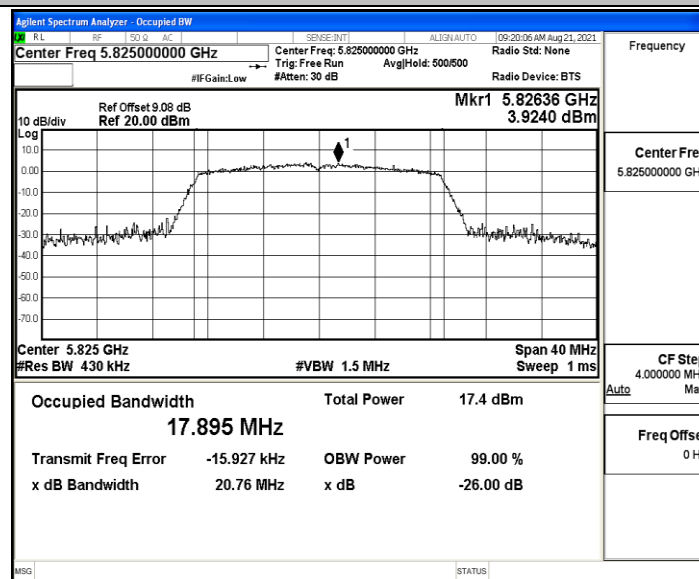


11AC20SISO_Ant0_5785

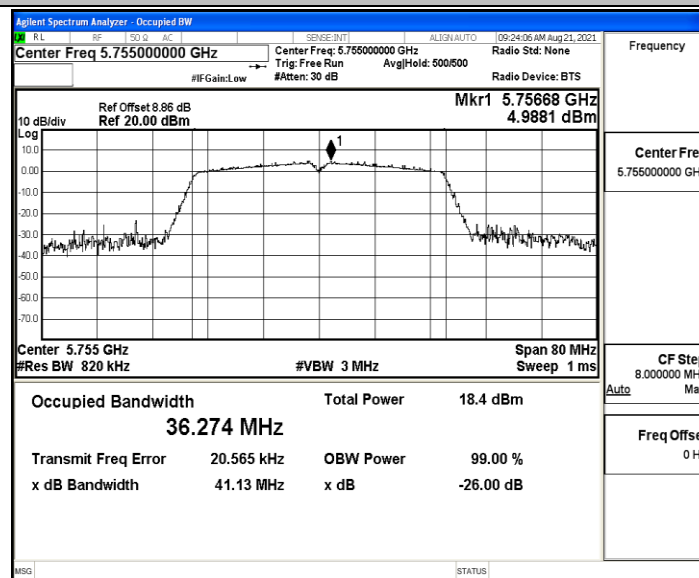




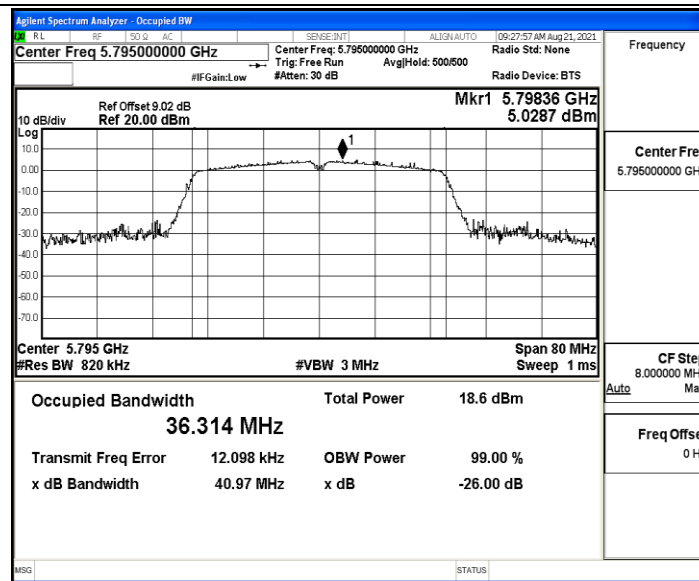
11AC20SISO_Ant0_5825



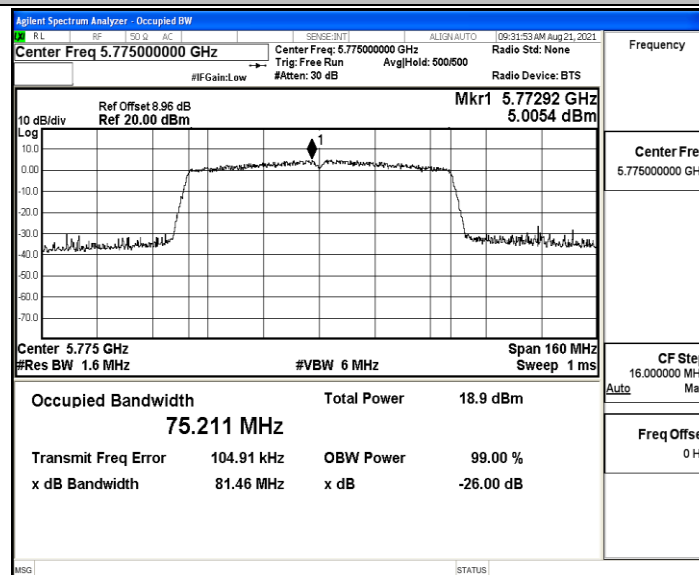
11AC40SISO_Ant0_5755



11AC40SISO_Ant0_5795



11AC80SISO_Ant0_5775





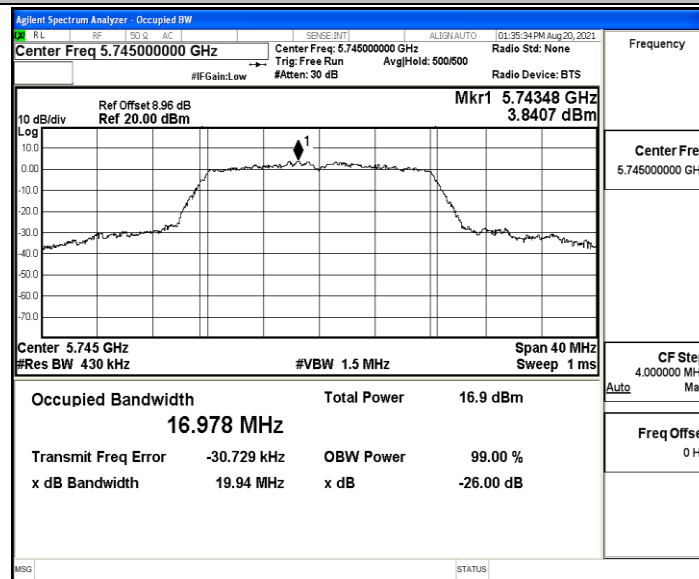
ANT1

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.978	5736.480	5753.458	---	PASS
		5785	16.969	5776.474	5793.443	---	PASS
		5825	17.124	5816.414	5833.538	---	PASS
11N20SISO	Ant1	5745	17.770	5736.102	5753.872	---	PASS
		5785	17.757	5776.130	5793.887	---	PASS
		5825	17.754	5816.120	5833.874	---	PASS
11N40SISO	Ant1	5755	36.213	5736.929	5773.142	---	PASS
		5795	36.204	5776.958	5813.162	---	PASS
11AC20SISO	Ant1	5745	17.777	5736.100	5753.877	---	PASS
		5785	17.770	5776.111	5793.881	---	PASS
		5825	17.773	5816.119	5833.892	---	PASS
11AC40SISO	Ant1	5755	36.197	5736.942	5773.139	---	PASS
		5795	36.183	5776.956	5813.139	---	PASS
11AC80SISO	Ant1	5775	75.197	5737.496	5812.693	---	PASS

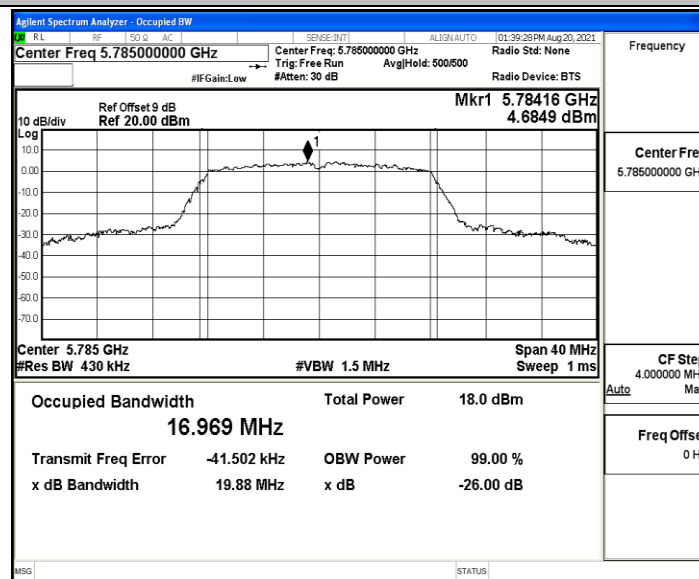


Test Graphs

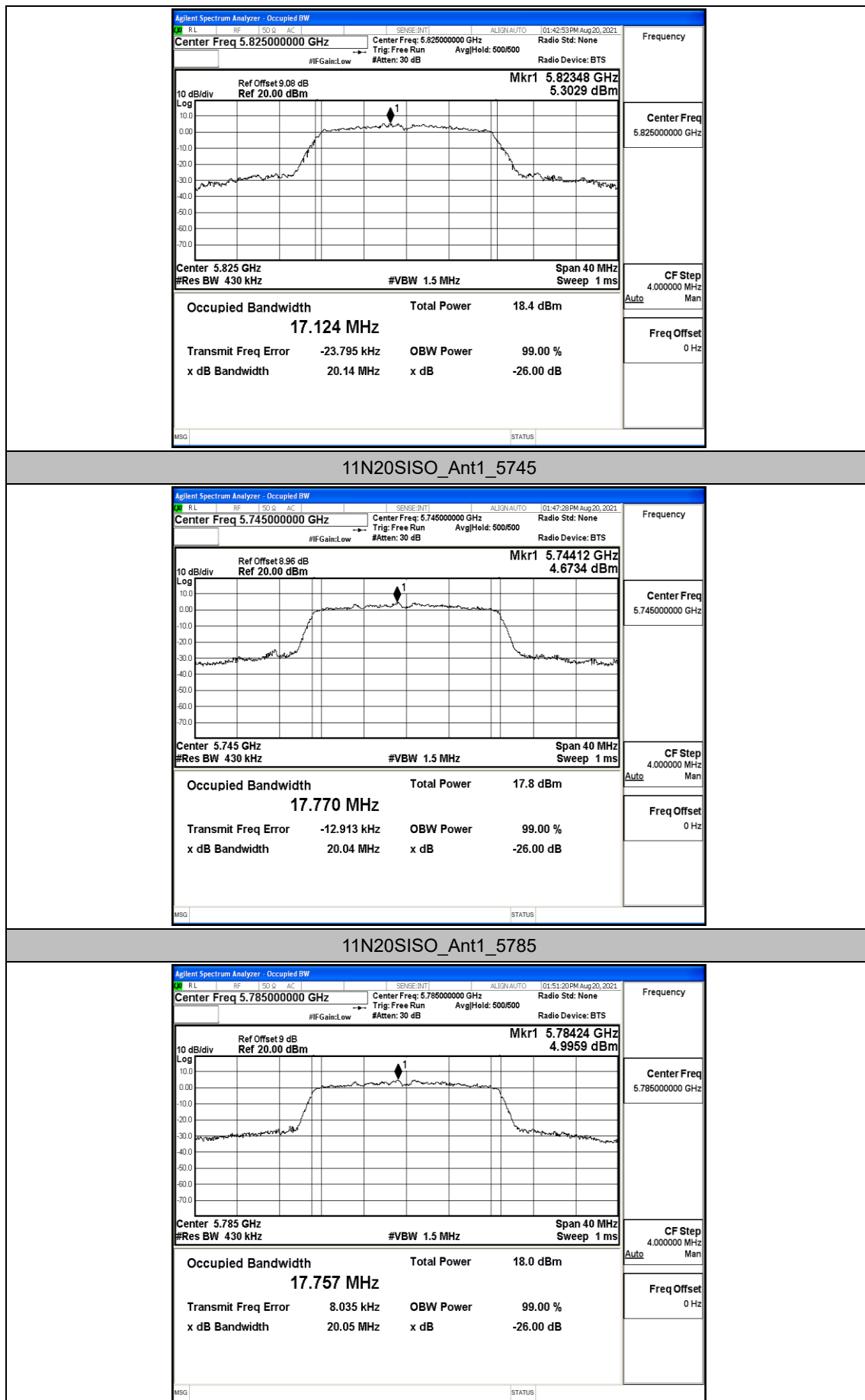
11A_Ant1_5745



11A_Ant1_5785

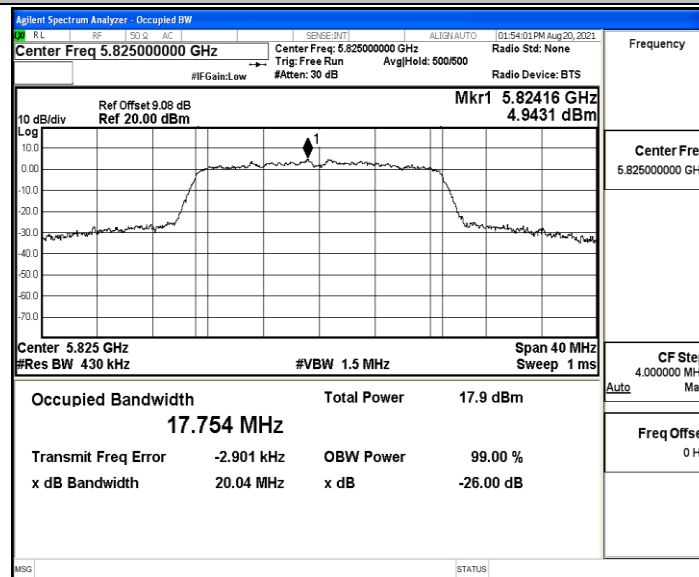


11A_Ant1_5825

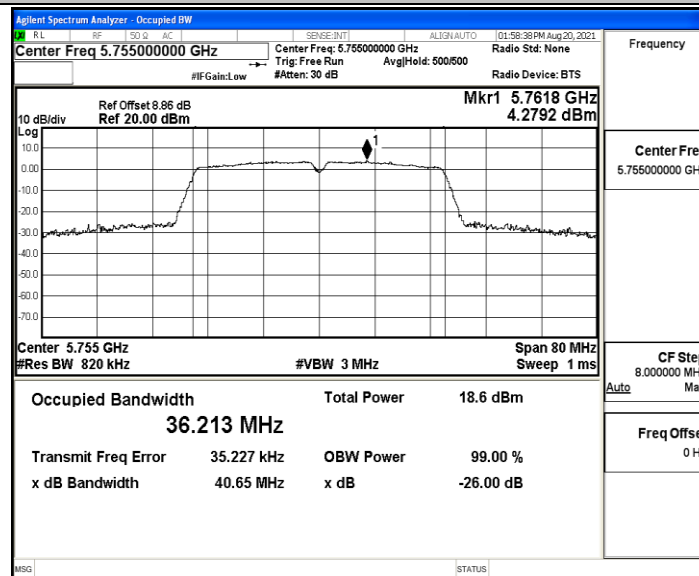




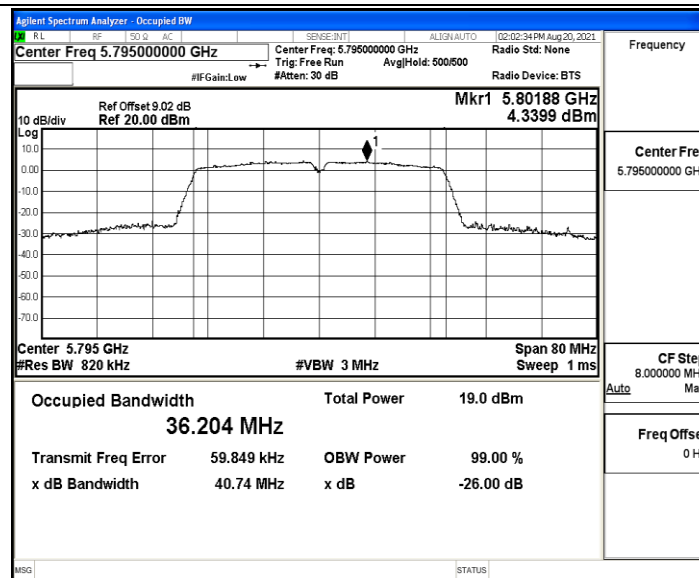
11N20SISO_Ant1_5825



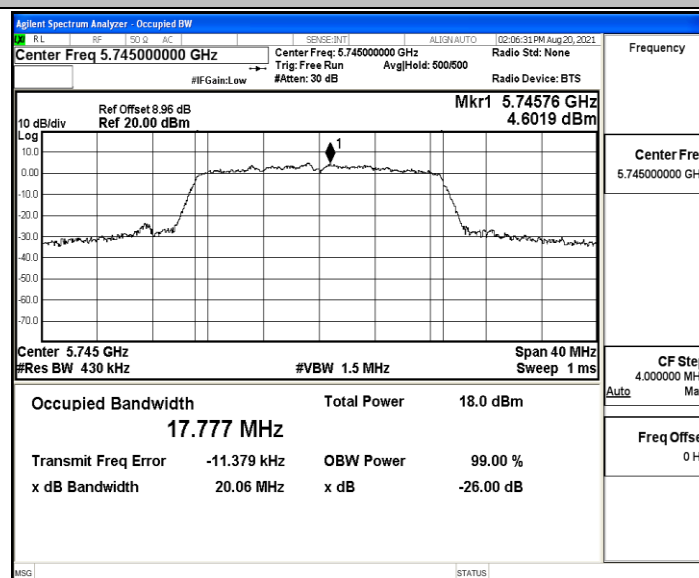
11N40SISO_Ant1_5755



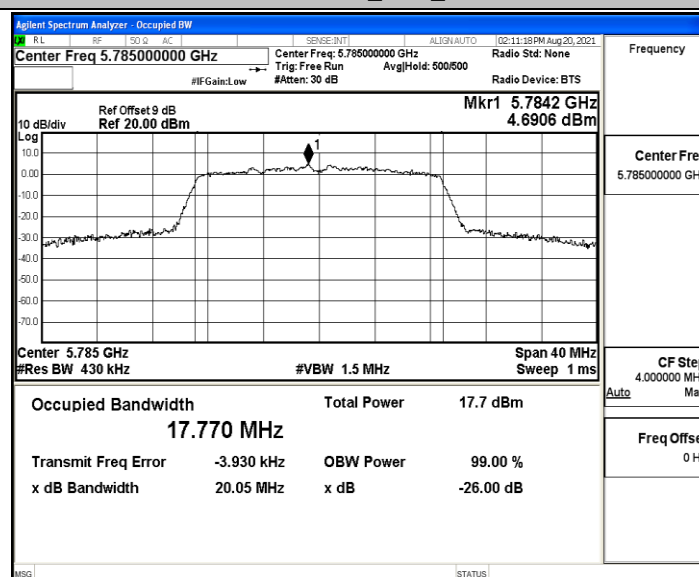
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

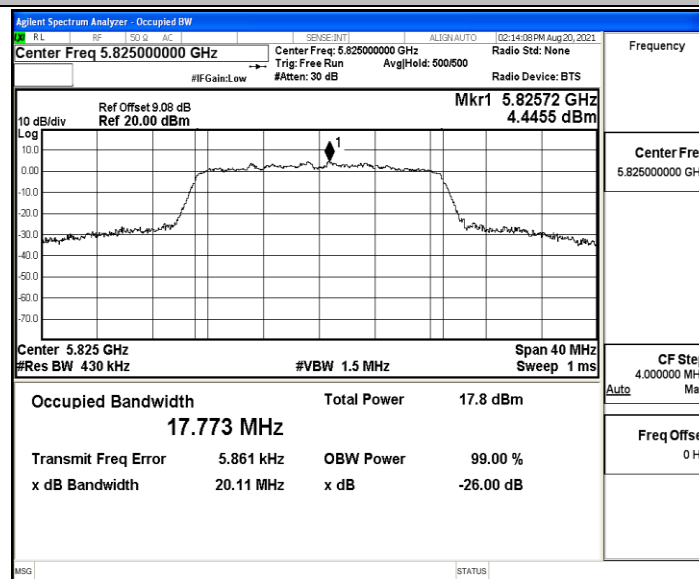


11AC20SISO_Ant1_5785

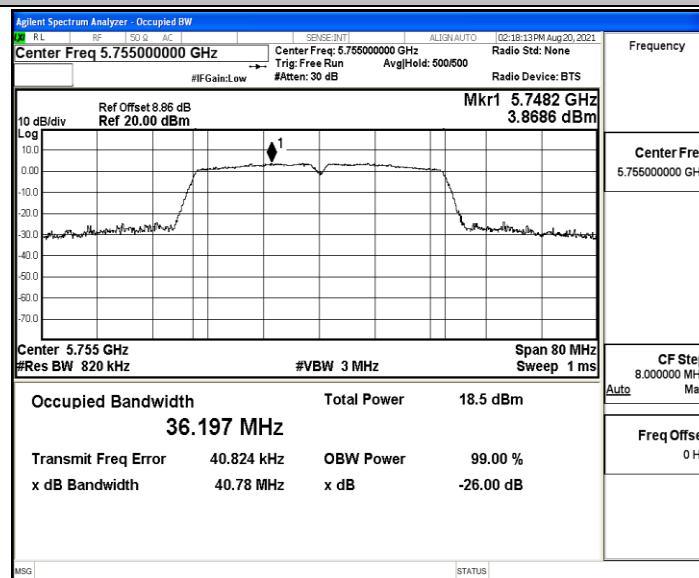




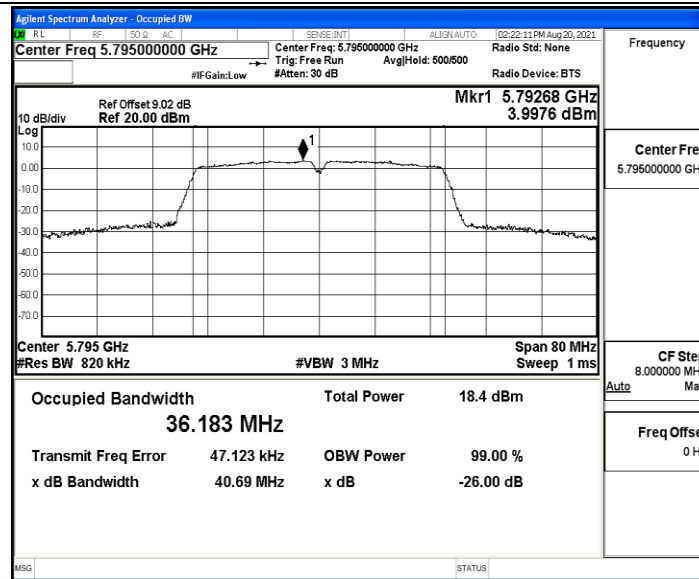
11AC20SISO_Ant1_5825



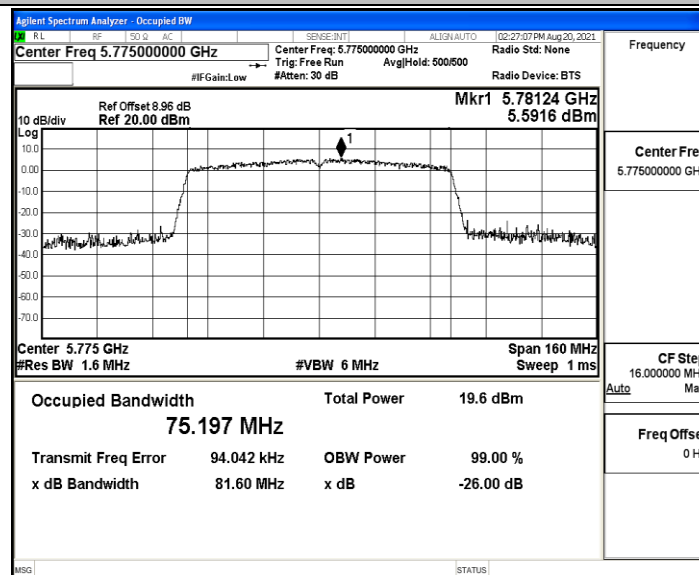
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775





D.2 Min emission bandwidth

Test Result

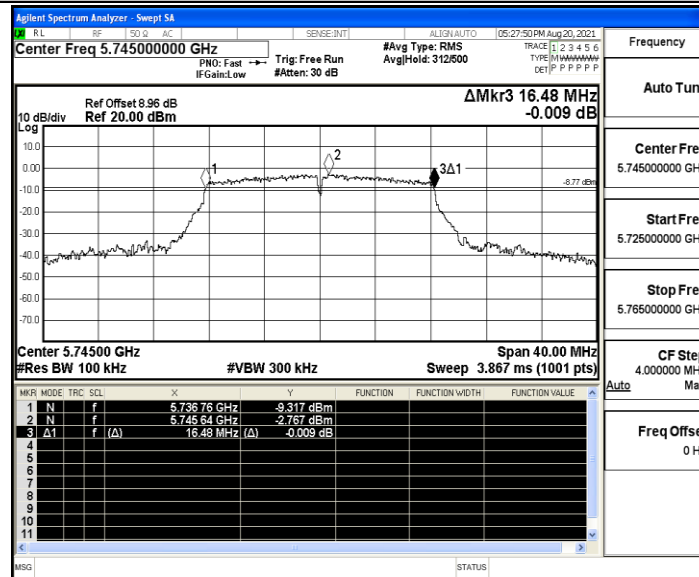
ANT0

TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant0	5745	16.480	5736.760	5753.240	0.5	PASS
		5785	16.480	5776.760	5793.240	0.5	PASS
		5825	16.480	5816.760	5833.240	0.5	PASS
11N20SISO	Ant0	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.360	5776.440	5793.800	0.5	PASS
		5825	17.640	5816.160	5833.800	0.5	PASS
11N40SISO	Ant0	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC20SISO	Ant0	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	Ant0	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	35.760	5777.160	5812.920	0.5	PASS
11AC80SISO	Ant0	5775	76.480	5736.760	5813.240	0.5	PASS

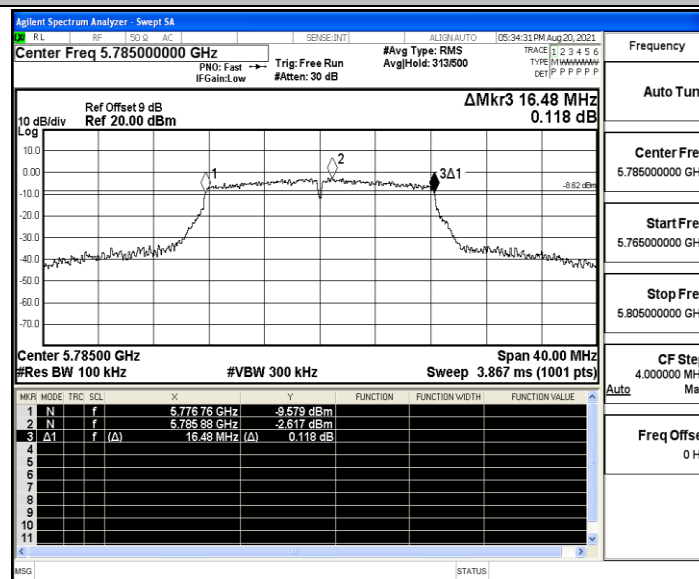


Test Graphs

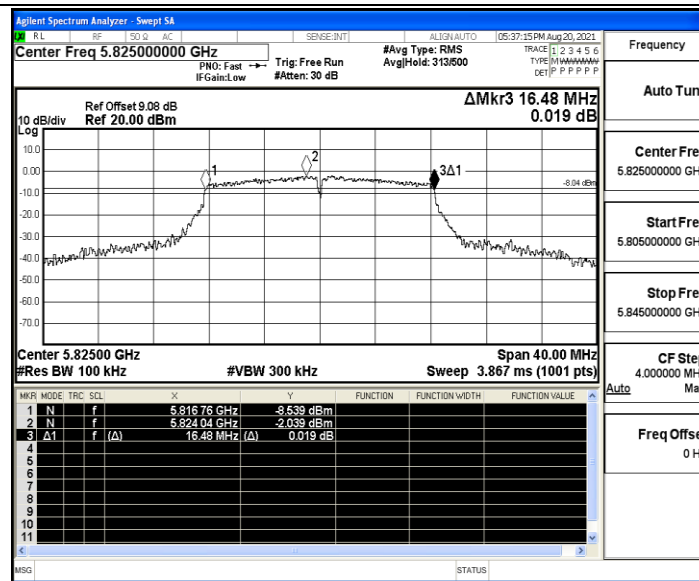
11A_Ant0_5745



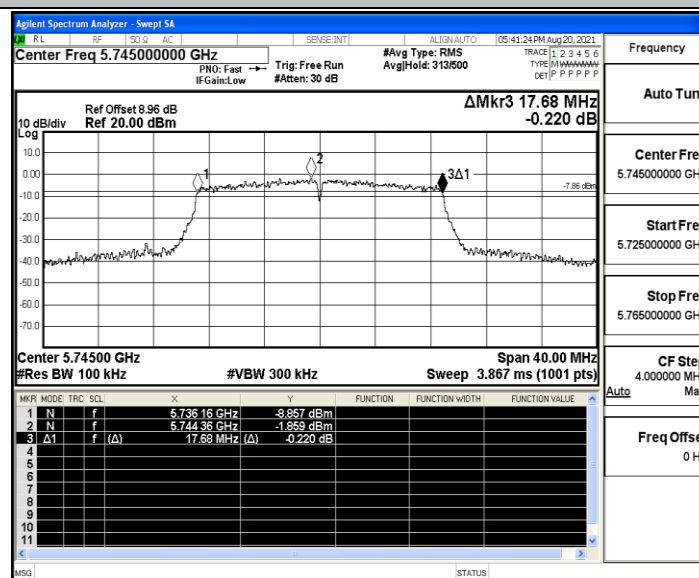
11A_Ant0_5785



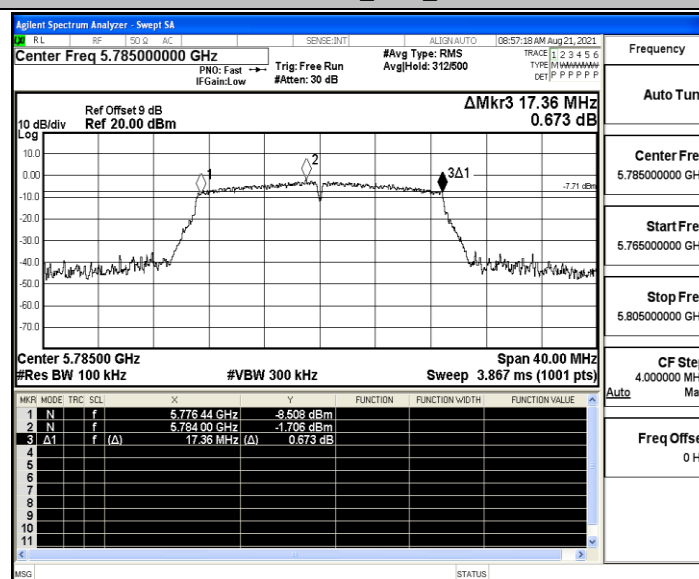
11A_Ant0_5825



11N20SISO_Ant0_5745

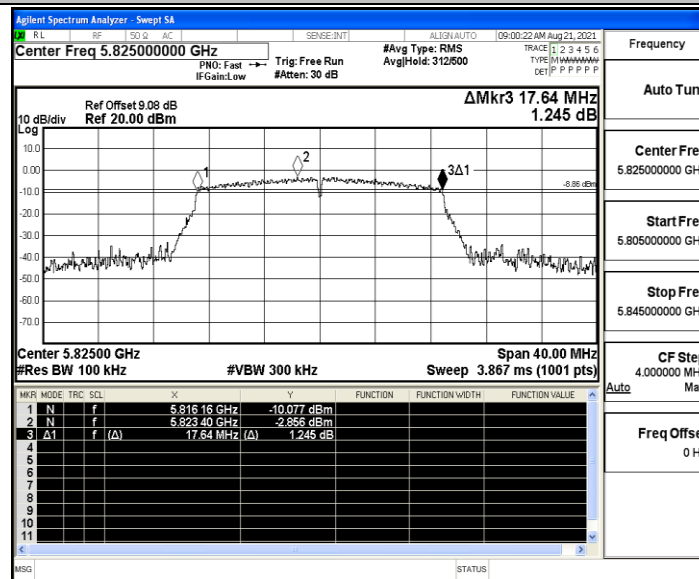


11N20SISO_Ant0_5785

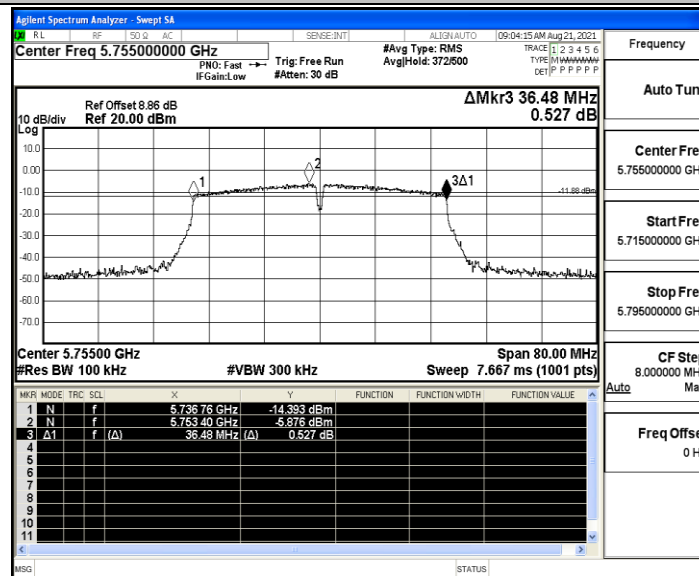




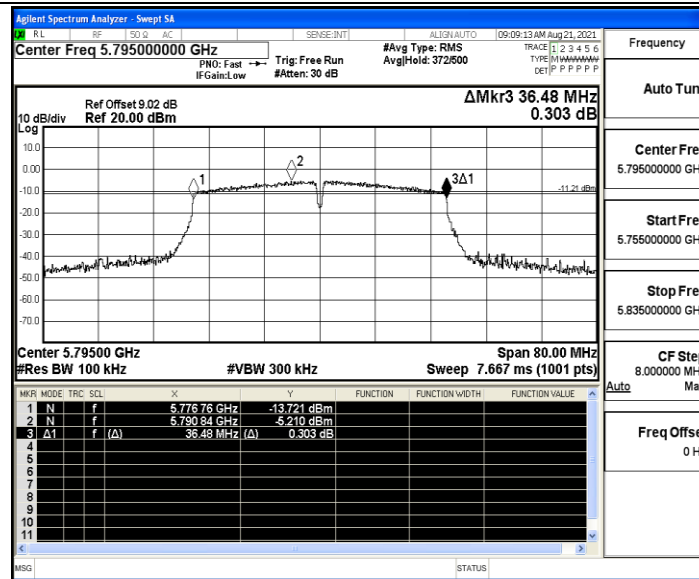
11N20SISO_Ant0_5825



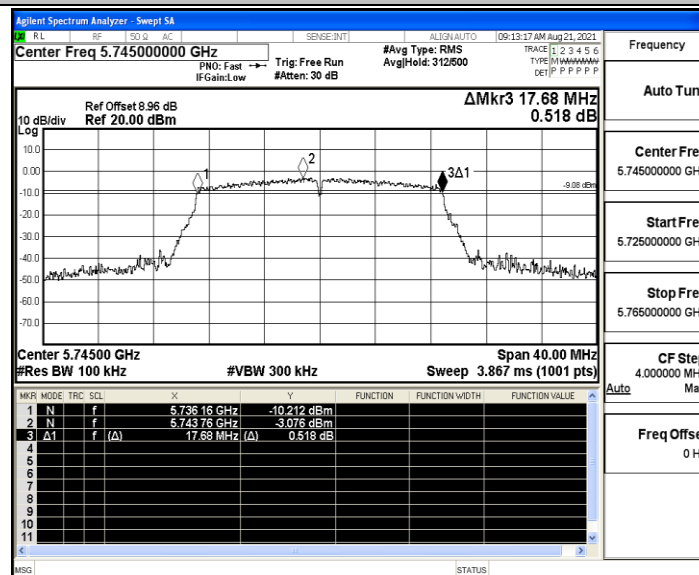
11N40SISO_Ant0_5755



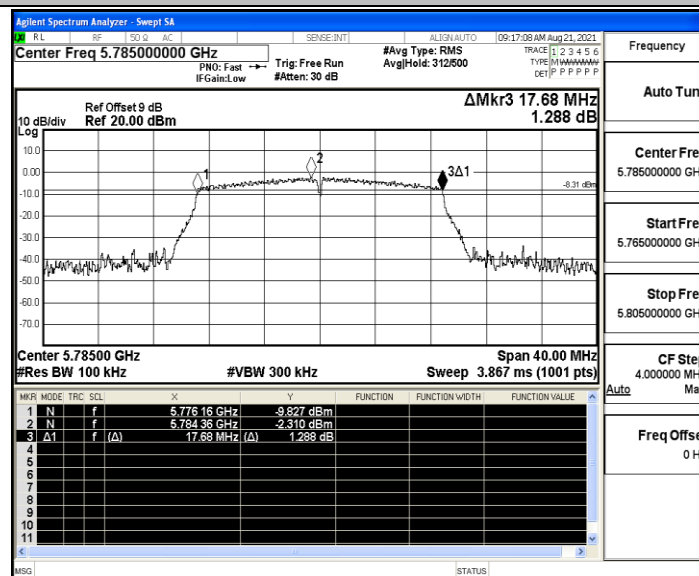
11N40SISO_Ant0_5795



11AC20SISO_Ant0_5745

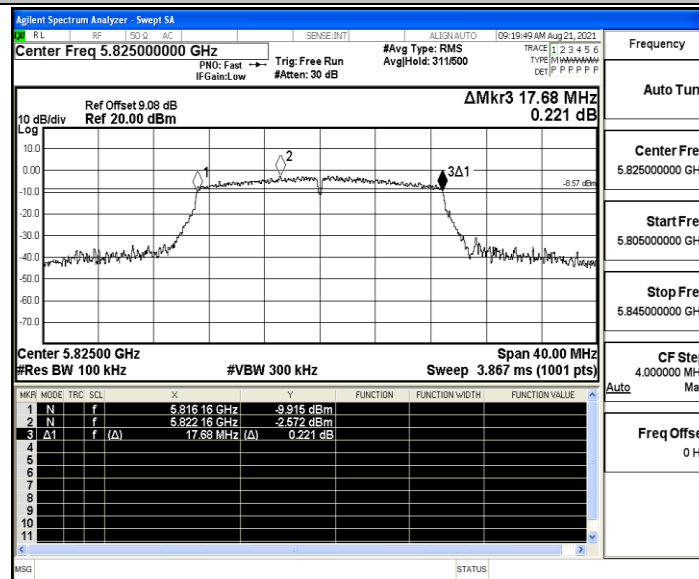


11AC20SISO_Ant0_5785

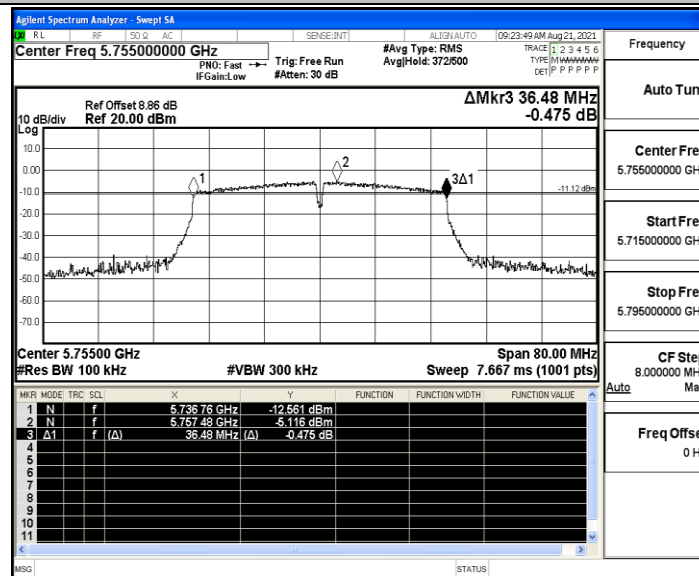




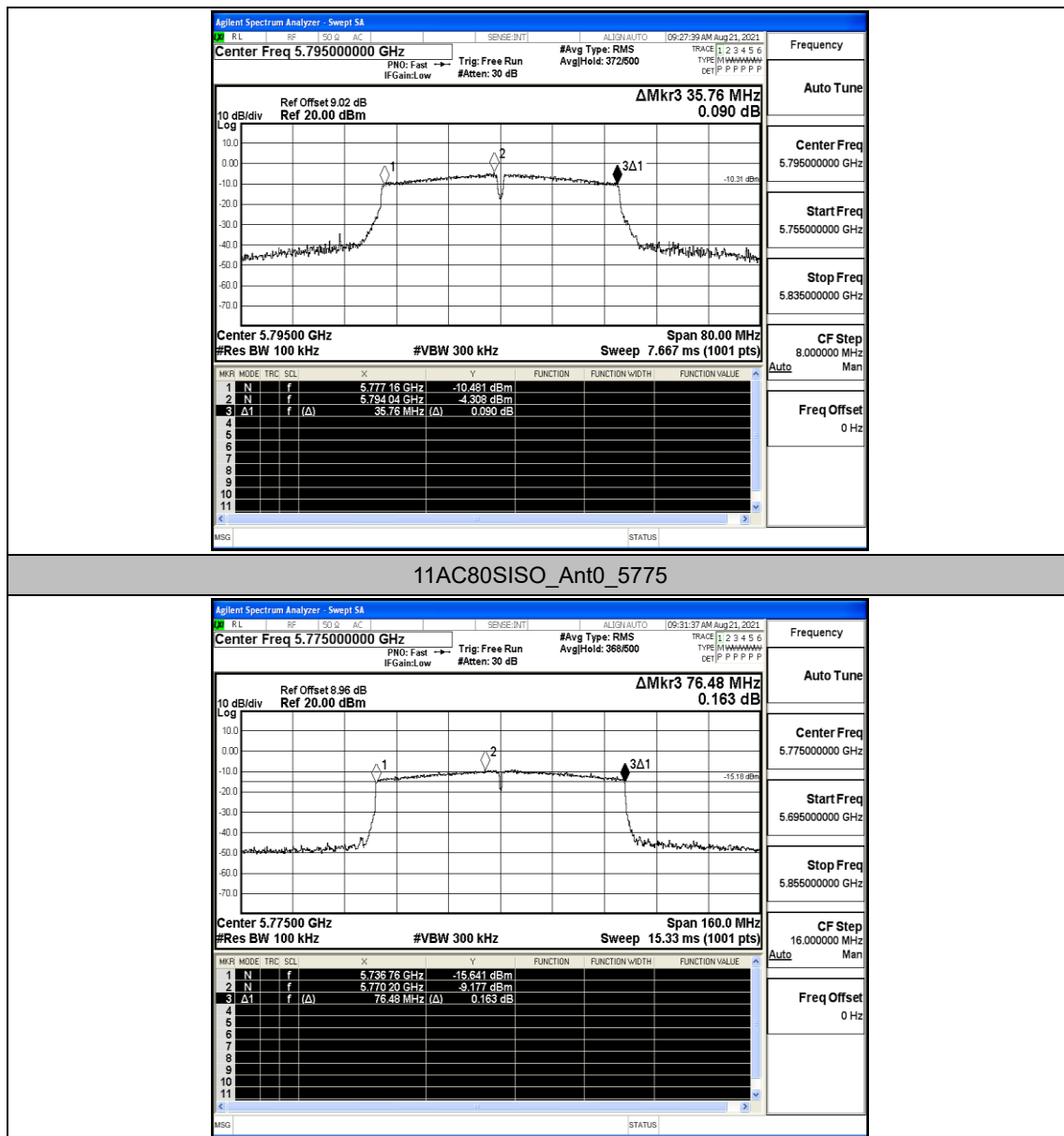
11AC20SISO_Ant0_5825



11AC40SISO_Ant0_5755



11AC40SISO_Ant0_5795



ANT1

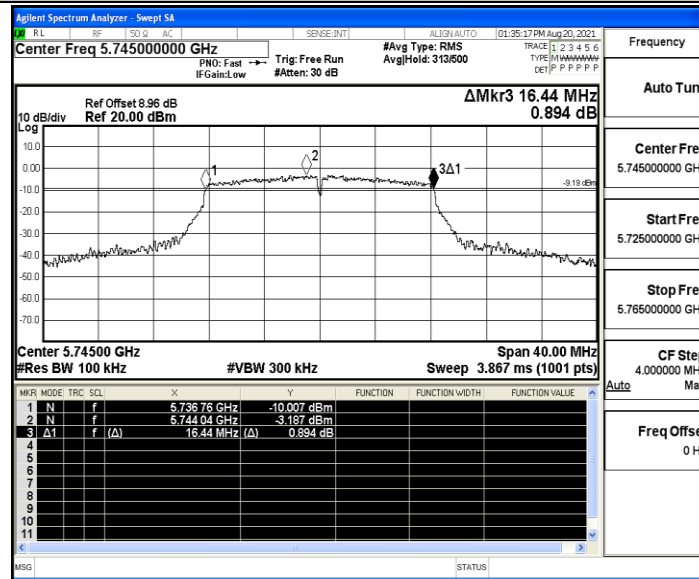


TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.440	5736.760	5753.200	0.5	PASS
		5785	16.480	5776.760	5793.240	0.5	PASS
		5825	16.480	5816.760	5833.240	0.5	PASS
11N20SISO	Ant1	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.680	5776.160	5793.840	0.5	PASS
		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	76.640	5736.760	5813.400	0.5	PASS

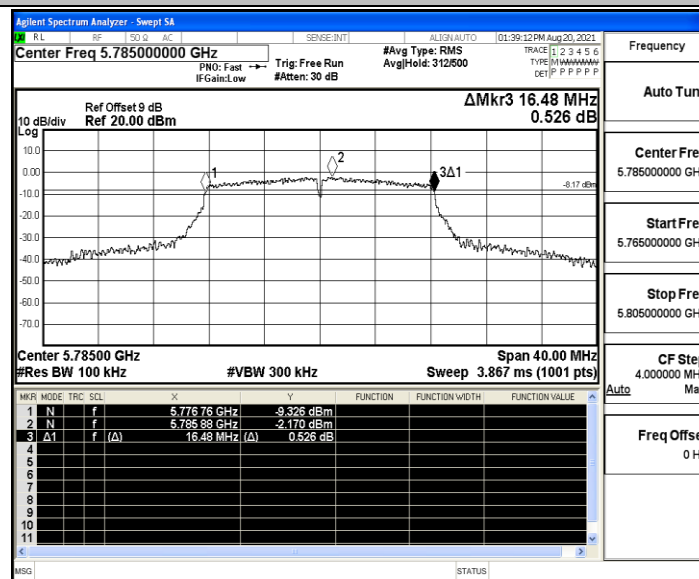


Test Graphs

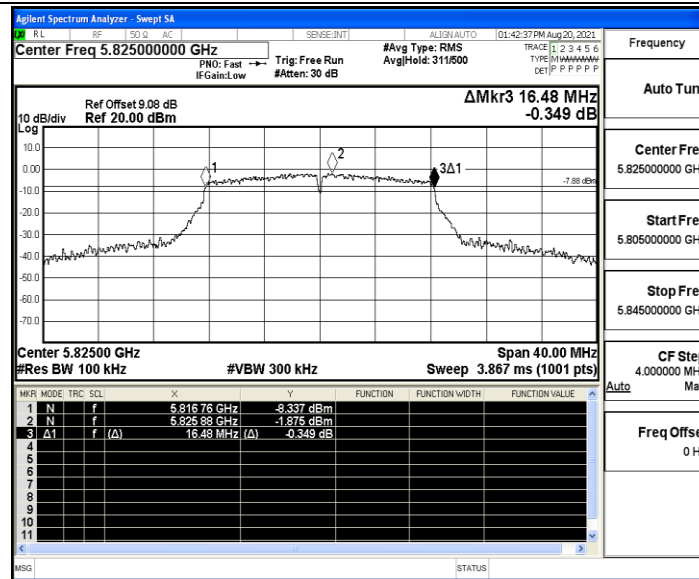
11A_Ant1_5745



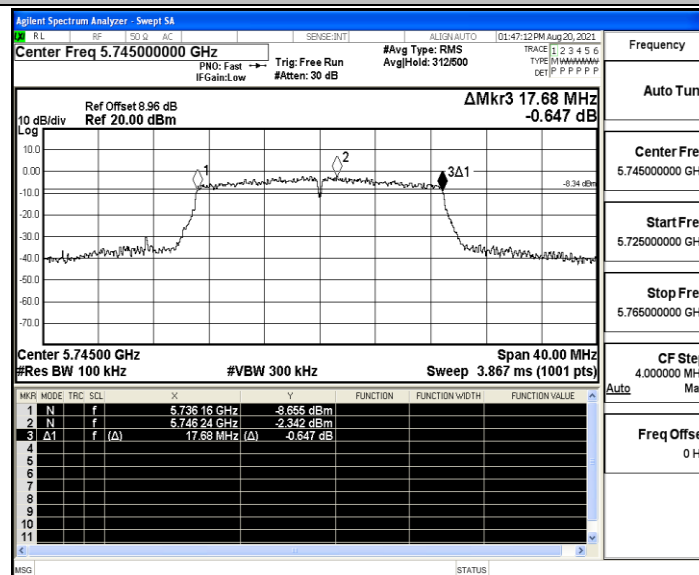
11A_Ant1_5785



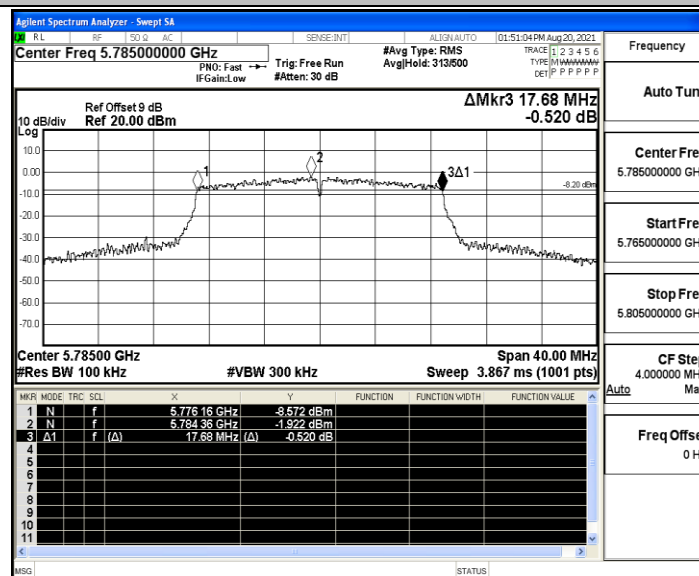
11A_Ant1_5825



11N20SISO_Ant1_5745

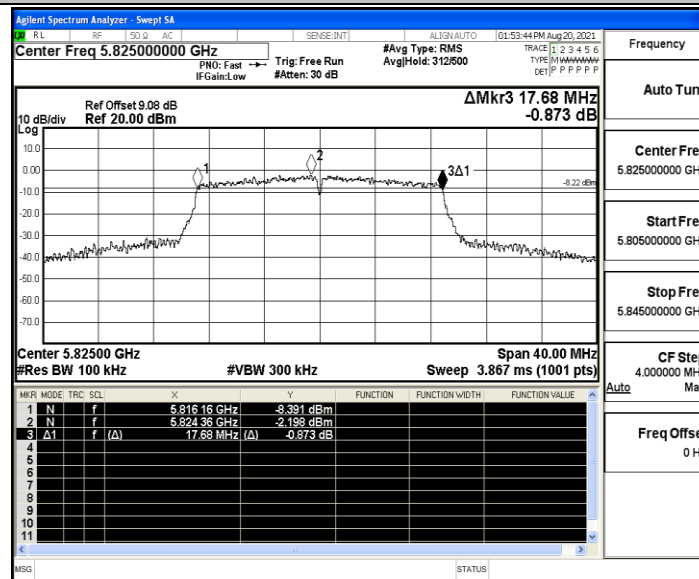


11N20SISO_Ant1_5785

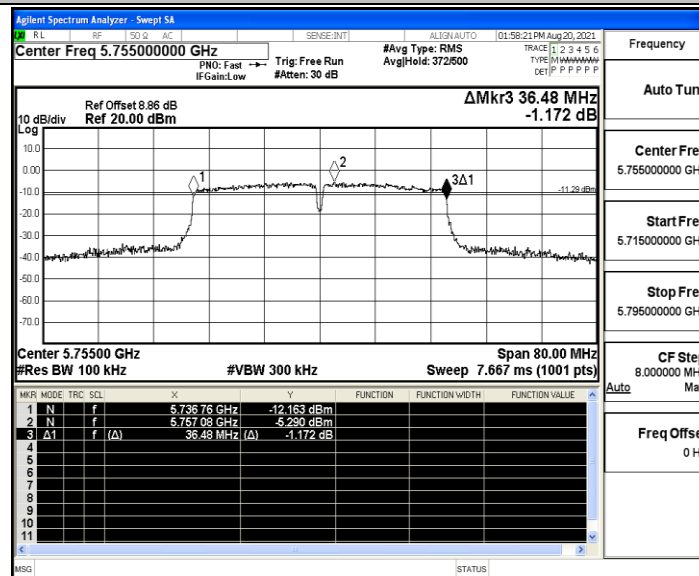




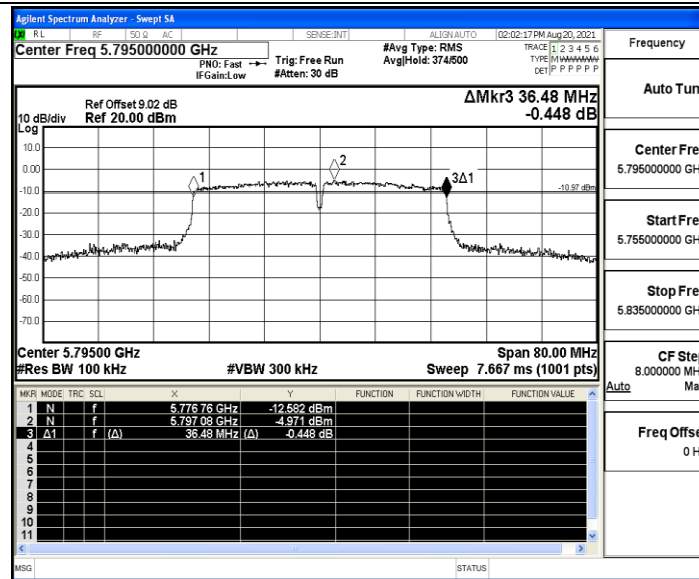
11N20SISO_Ant1_5825



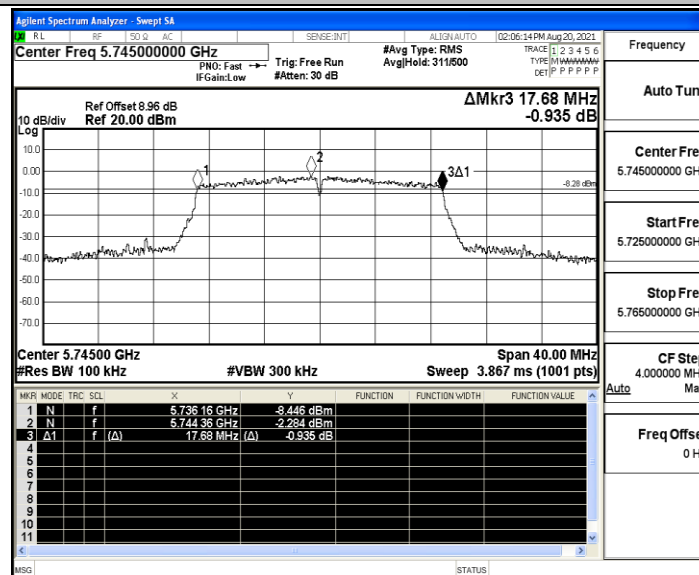
11N40SISO_Ant1_5755



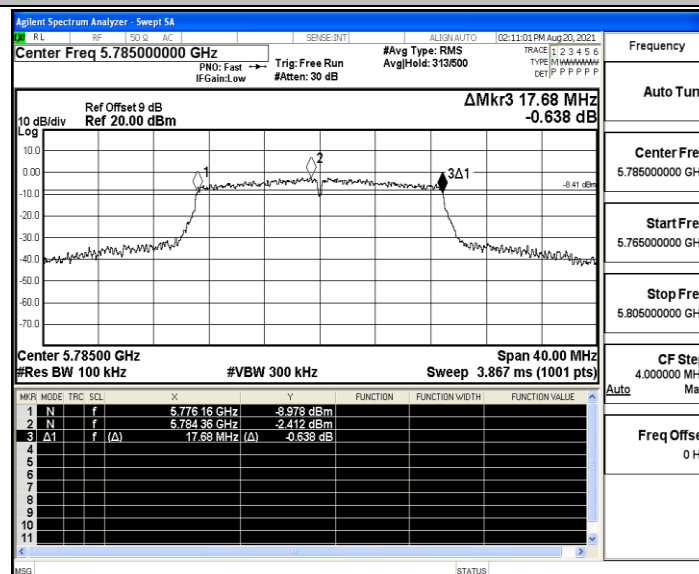
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

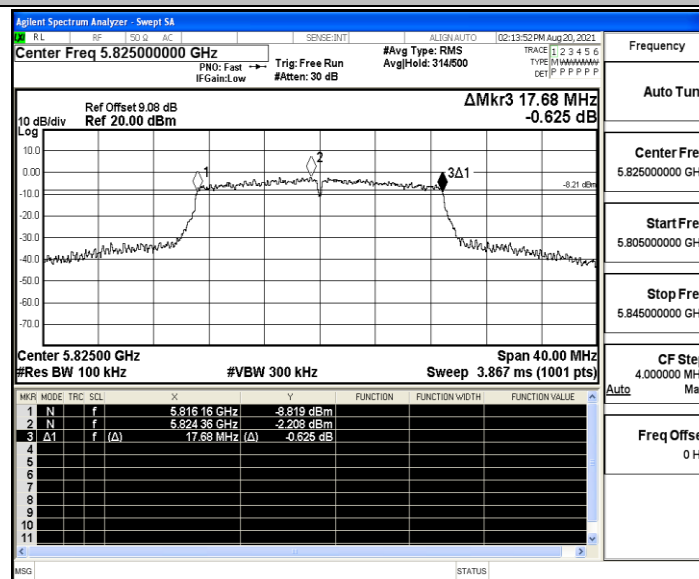


11AC20SISO_Ant1_5785

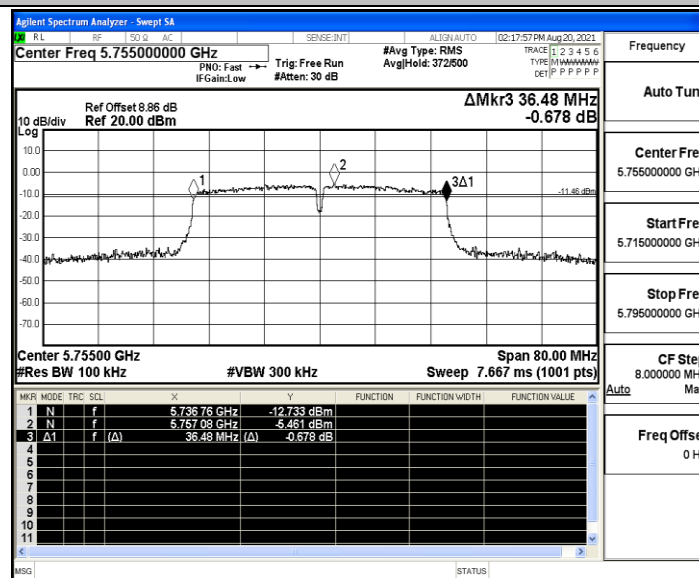




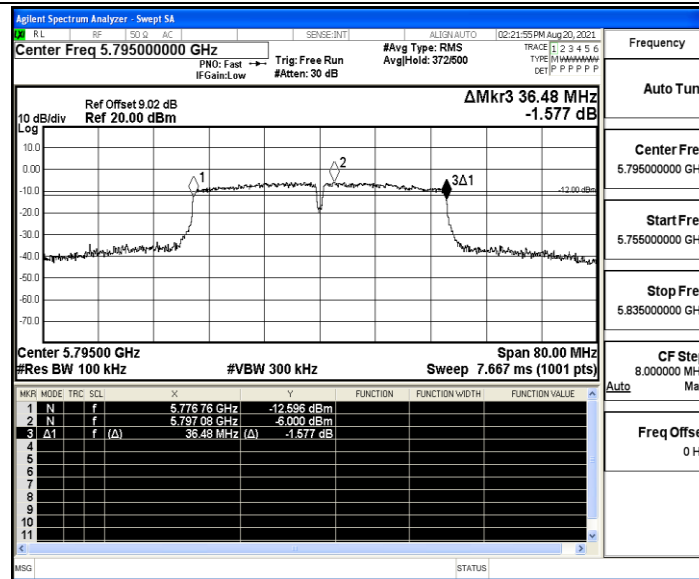
11AC20SISO_Ant1_5825



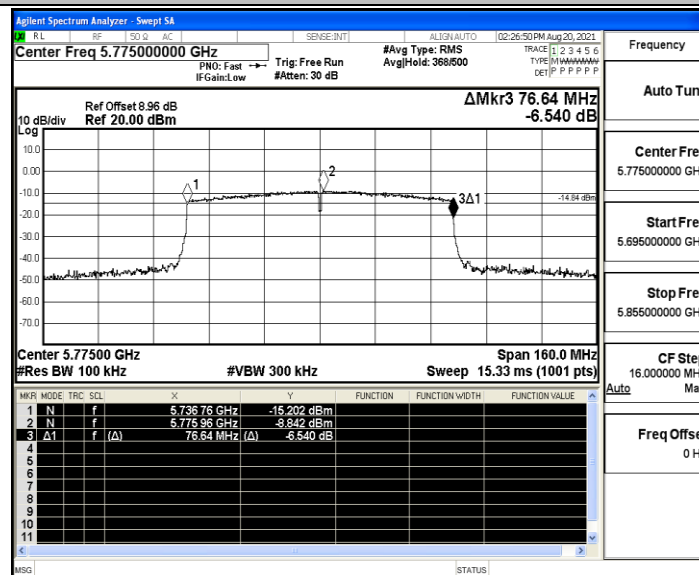
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775





D.3 Maximum conducted output power

Test Result

ANT0

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant0	5745	11.35	≤30	PASS
		5785	10.66	≤30	PASS
		5825	11.57	≤30	PASS
11N20SISO	Ant0	5745	11.27	≤30	PASS
		5785	10.49	≤30	PASS
		5825	10.14	≤30	PASS
11N40SISO	Ant0	5755	10.92	≤30	PASS
		5795	10.95	≤30	PASS
11AC20SISO	Ant0	5745	10.26	≤30	PASS
		5785	11.00	≤30	PASS
		5825	10.69	≤30	PASS
11AC40SISO	Ant0	5755	11.08	≤30	PASS
		5795	11.17	≤30	PASS
11AC80SISO	Ant0	5775	11.28	≤30	PASS

ANT1

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5745	10.09	≤30	PASS
		5785	11.33	≤30	PASS
		5825	11.58	≤30	PASS
11N20SISO	Ant1	5745	11.04	≤30	PASS
		5785	11.29	≤30	PASS
		5825	11.25	≤30	PASS
11N40SISO	Ant1	5755	11.35	≤30	PASS
		5795	11.87	≤30	PASS
11AC20SISO	Ant1	5745	11.30	≤30	PASS
		5785	11.03	≤30	PASS
		5825	11.15	≤30	PASS
11AC40SISO	Ant1	5755	11.29	≤30	PASS
		5795	11.30	≤30	PASS
11AC80SISO	Ant1	5775	10.56	≤30	PASS

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



MIMO

Test Mode	Channel	Frequency (MHz)	ANT 0 AVG Conducted Power (dBm)	ANT 1 AVG Conducted Power (dBm)	MIMO AVG Conducted Power (dBm)	Limit (dBm)	Verdict
11N20	149	5745	11.27	11.04	14.17	29.99	Pass
	157	5785	10.49	11.29	13.92		Pass
	165	5825	10.14	11.25	13.74		Pass
11N40	151	5755	10.92	11.35	14.15	29.99	Pass
	159	5795	10.95	11.87	14.44		Pass
11AC20	149	5745	10.26	11.30	13.82	29.99	Pass
	157	5785	11.00	11.03	14.03		Pass
	165	5825	10.69	11.15	13.94		Pass
11AC40	151	5755	11.08	11.29	14.20	29.99	Pass
	159	5795	11.17	11.30	14.25		Pass
11AC80	155	5775	11.28	10.56	13.95	29.99	Pass



D.4 Maximum power spectral density

Test Result

ANT0

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant0	5745	-1.69	≤30	PASS
		5785	-2.36	≤30	PASS
		5825	-1.45	≤30	PASS
11N20SISO	Ant0	5745	-1.67	≤30	PASS
		5785	-2.8	≤30	PASS
		5825	-2.91	≤30	PASS
11N40SISO	Ant0	5755	-5.27	≤30	PASS
		5795	-5.19	≤30	PASS
11AC20SISO	Ant0	5745	-2.89	≤30	PASS
		5785	-2.32	≤30	PASS
		5825	-2.48	≤30	PASS
11AC40SISO	Ant0	5755	-4.85	≤30	PASS
		5795	-5.03	≤30	PASS
11AC80SISO	Ant0	5775	-8.31	≤30	PASS

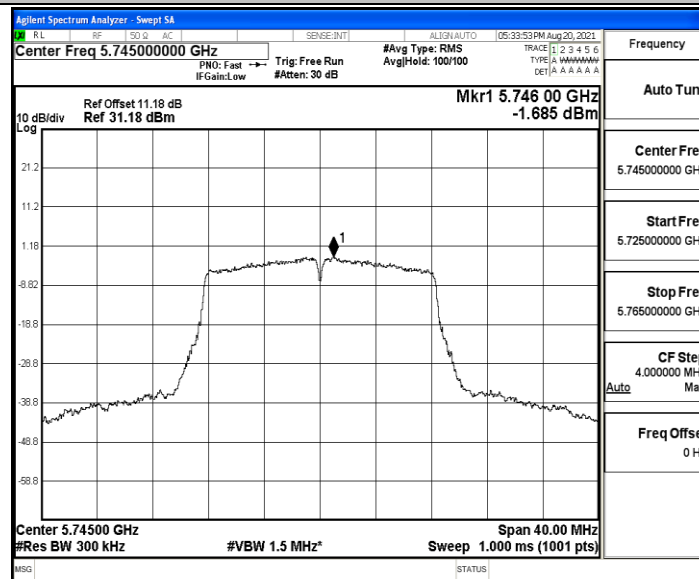
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

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

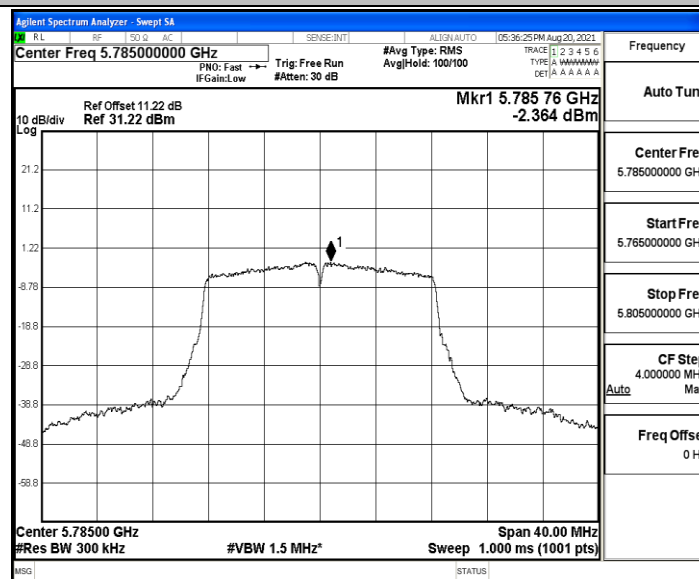


Test Graphs

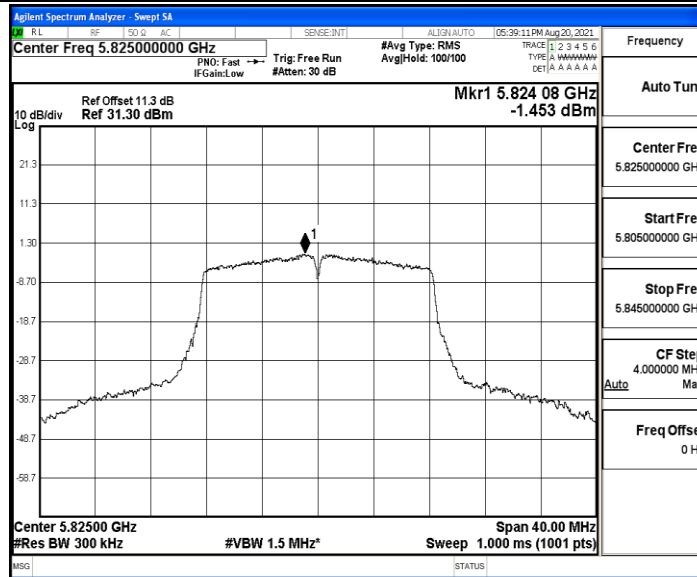
11A_Ant0_5745



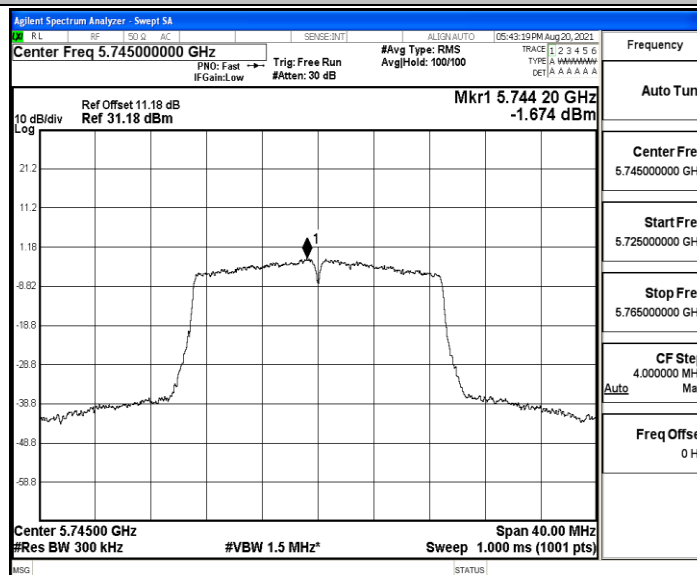
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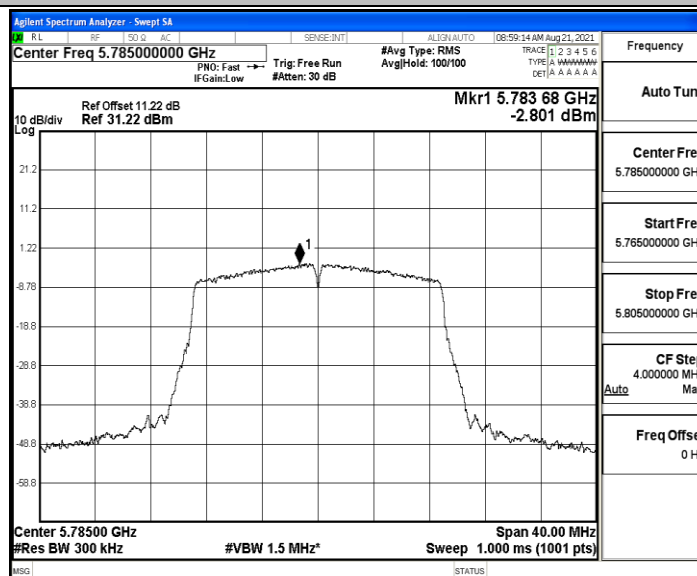
11A_Ant0_5825



11N20SISO_Ant0_5745

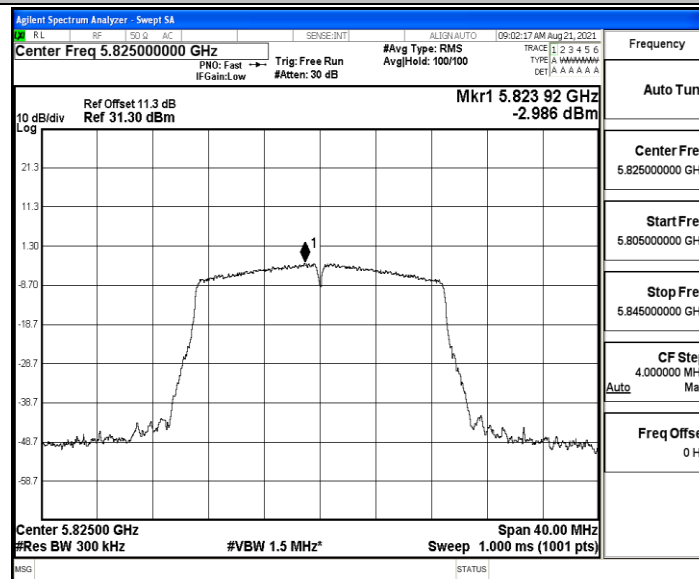


11N20SISO_Ant0_5785

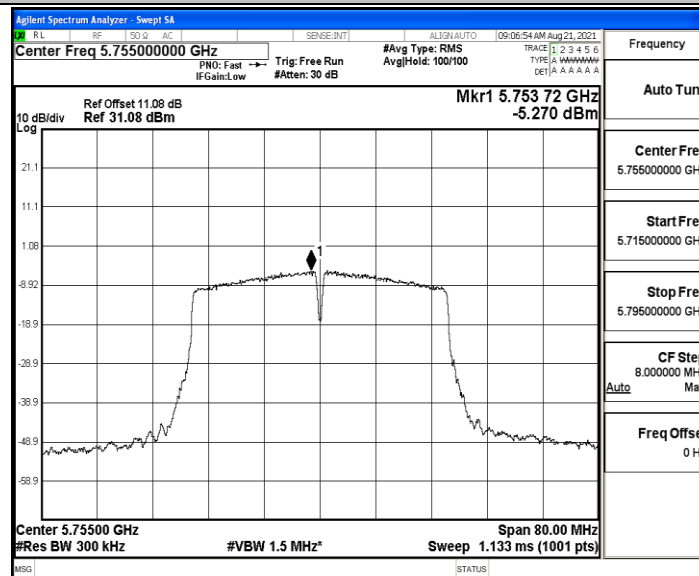




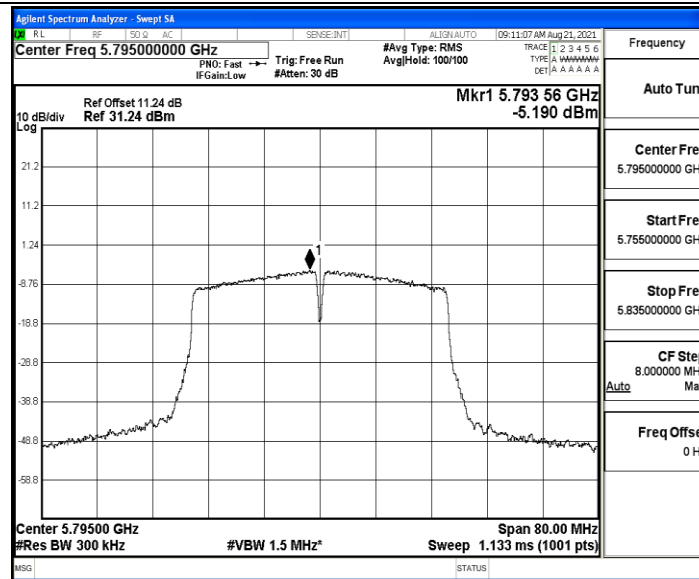
11N20SISO_Ant0_5825



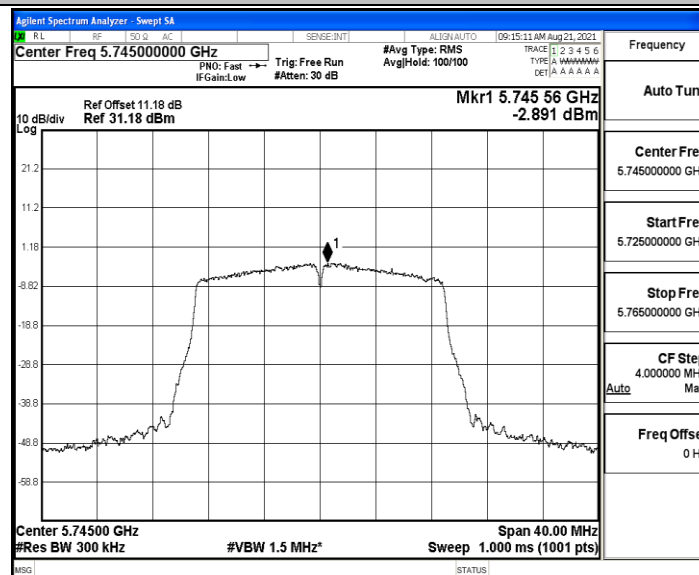
11N40SISO_Ant0_5755



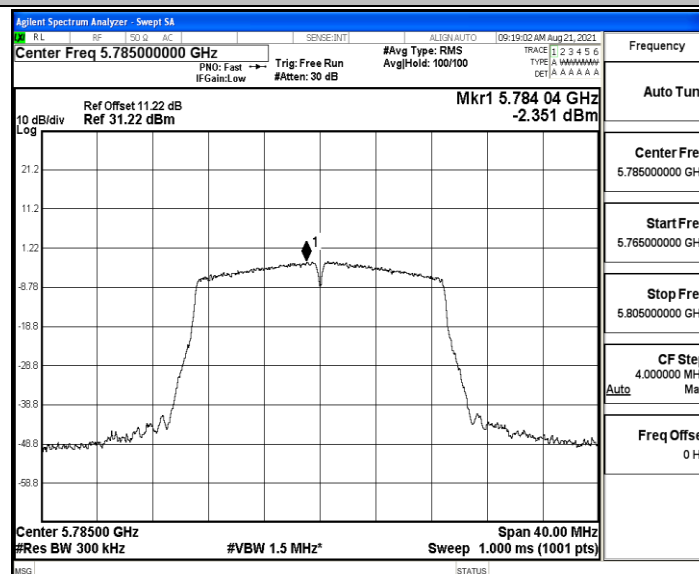
11N40SISO_Ant0_5795



11AC20SISO_Ant0_5745

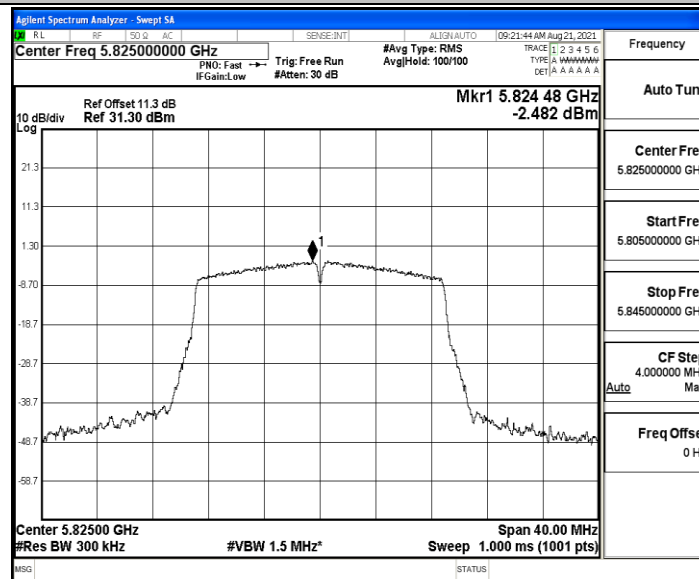


11AC20SISO_Ant0_5785

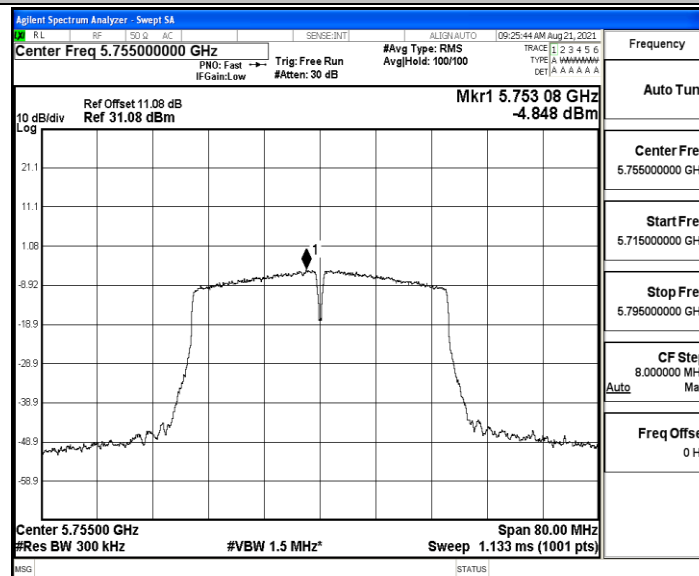




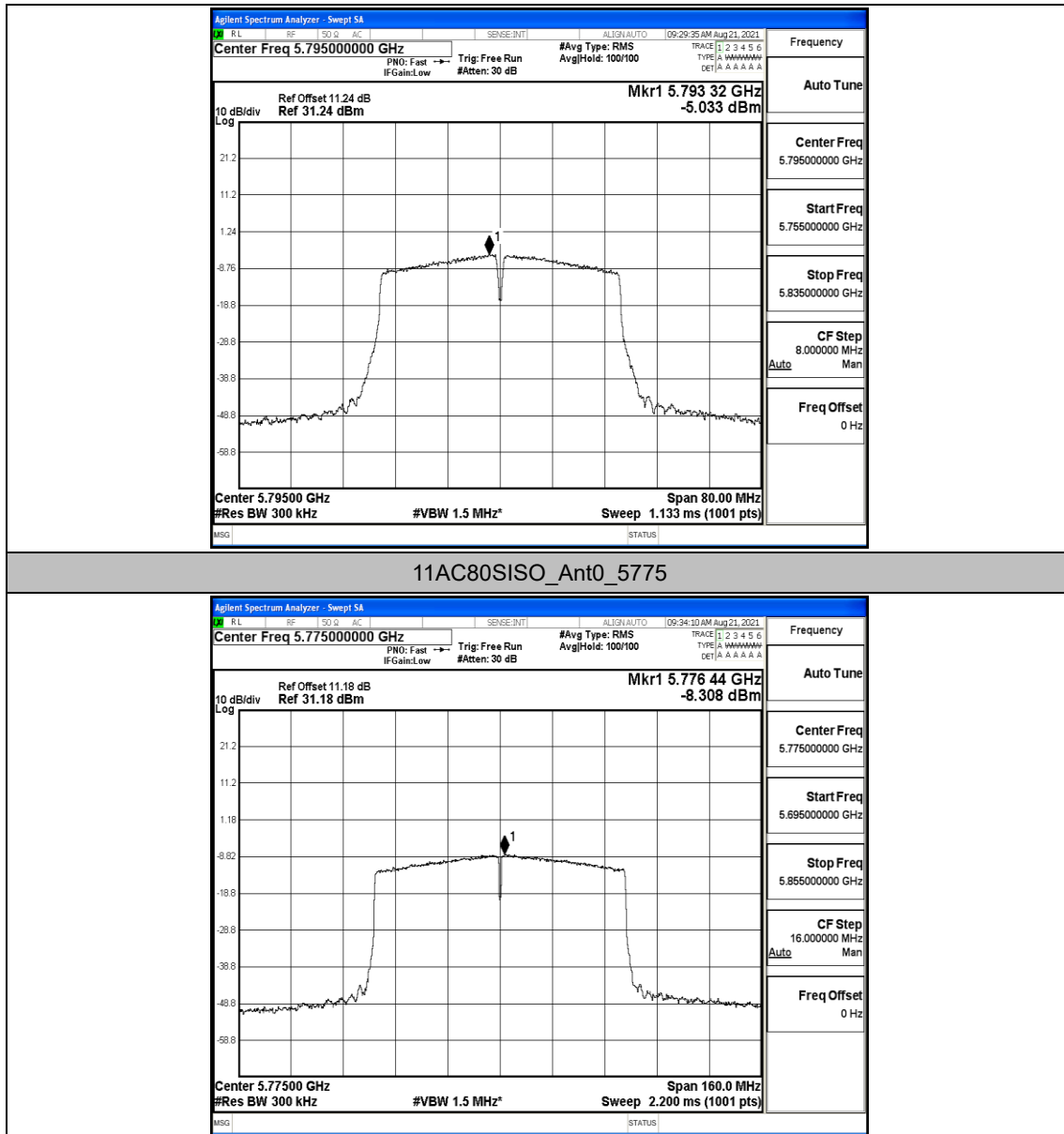
11AC20SISO_Ant0_5825



11AC40SISO_Ant0_5755



11AC40SISO_Ant0_5795





ANT1

TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5745	-2.8	≤30	PASS
		5785	-1.45	≤30	PASS
		5825	-1.23	≤30	PASS
11N20SISO	Ant1	5745	-2.09	≤30	PASS
		5785	-1.92	≤30	PASS
		5825	-2.06	≤30	PASS
11N40SISO	Ant1	5755	-5.4	≤30	PASS
		5795	-4.96	≤30	PASS
11AC20SISO	Ant1	5745	-1.88	≤30	PASS
		5785	-2.11	≤30	PASS
		5825	-1.89	≤30	PASS
11AC40SISO	Ant1	5755	-5.57	≤30	PASS
		5795	-5.51	≤30	PASS
11AC80SISO	Ant1	5775	-8.96	≤30	PASS

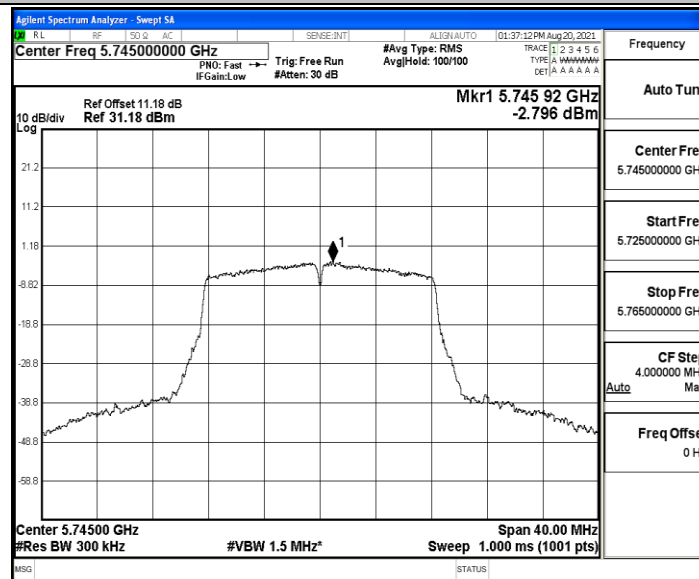
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

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

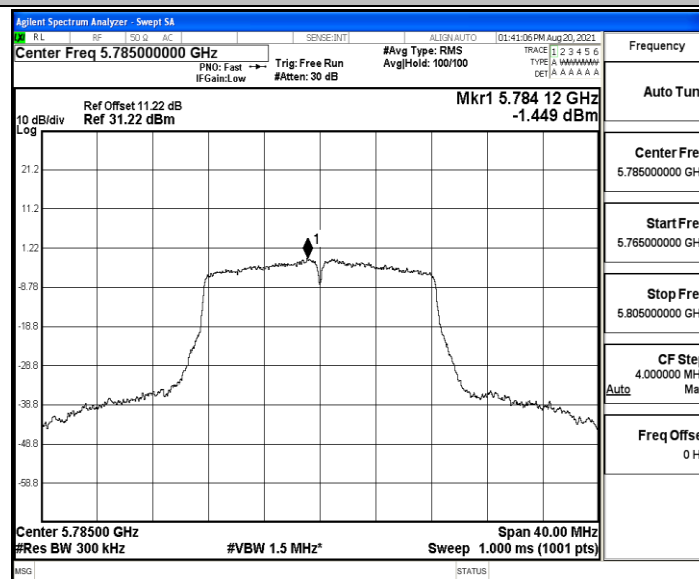


Test Graphs

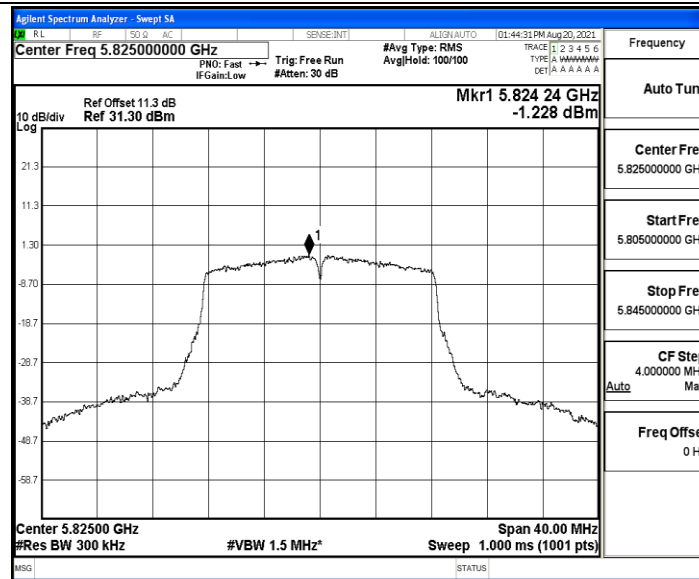
11A_Ant1_5745



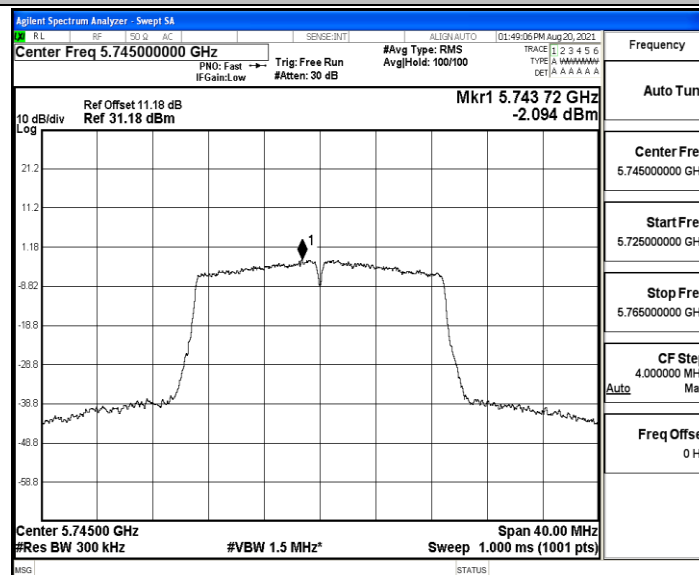
11A_Ant1_5785



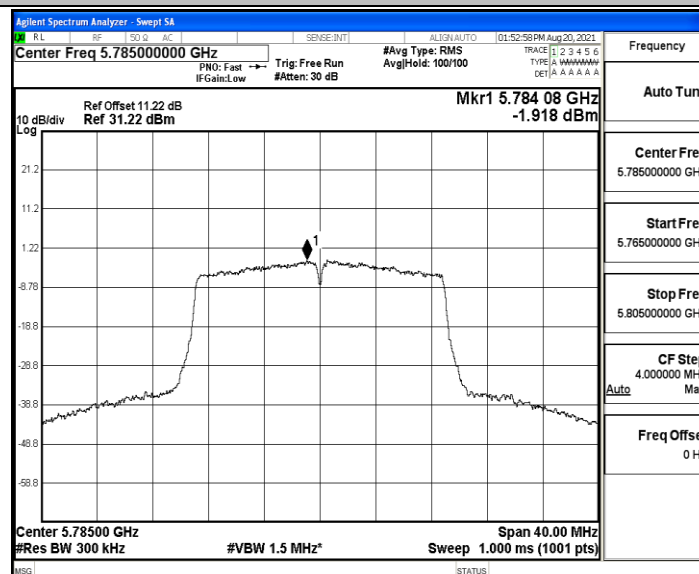
11A_Ant1_5825



11N20SISO_Ant1_5745

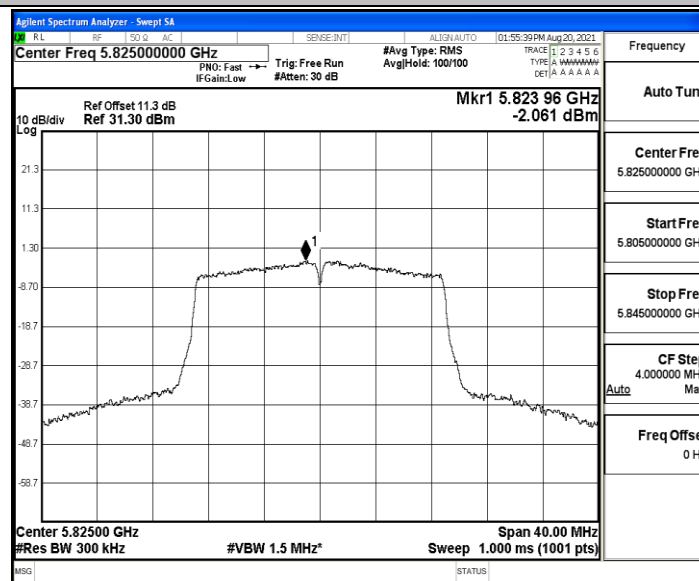


11N20SISO_Ant1_5785

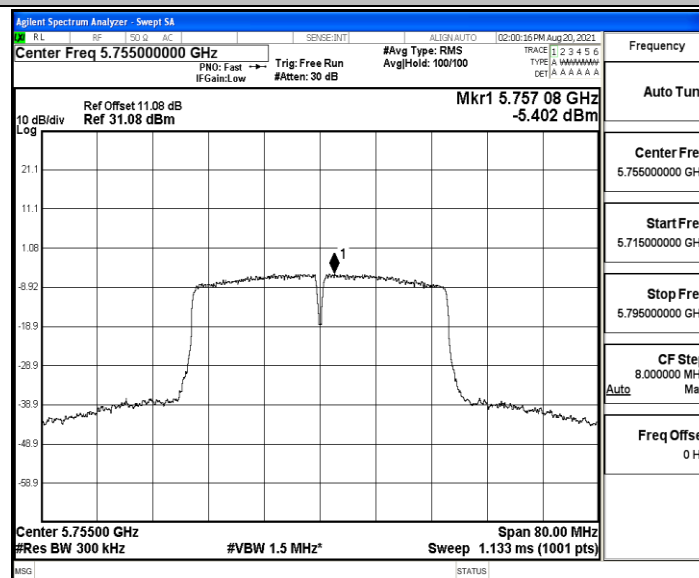




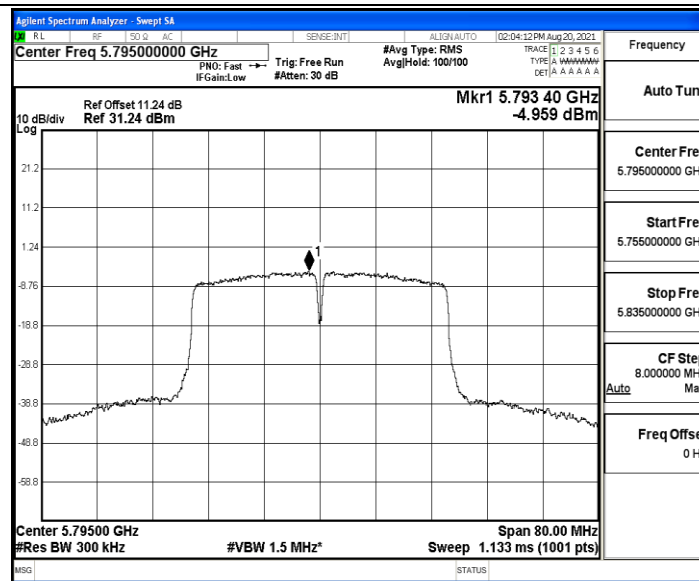
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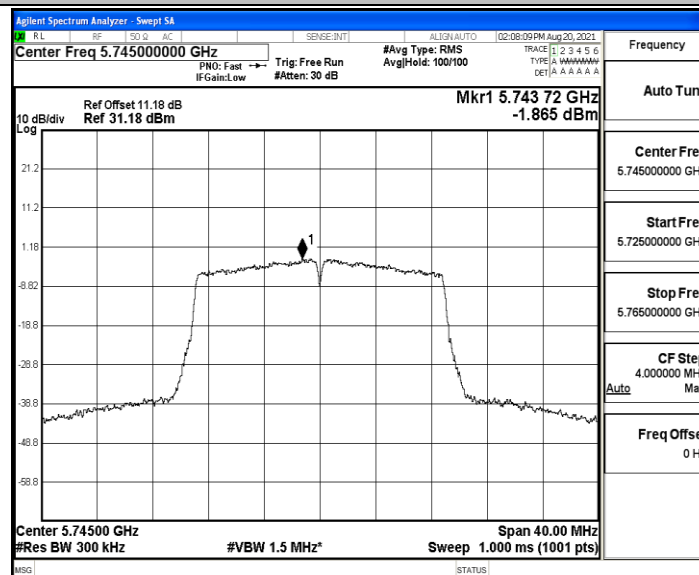
11N40SISO_Ant1_5755



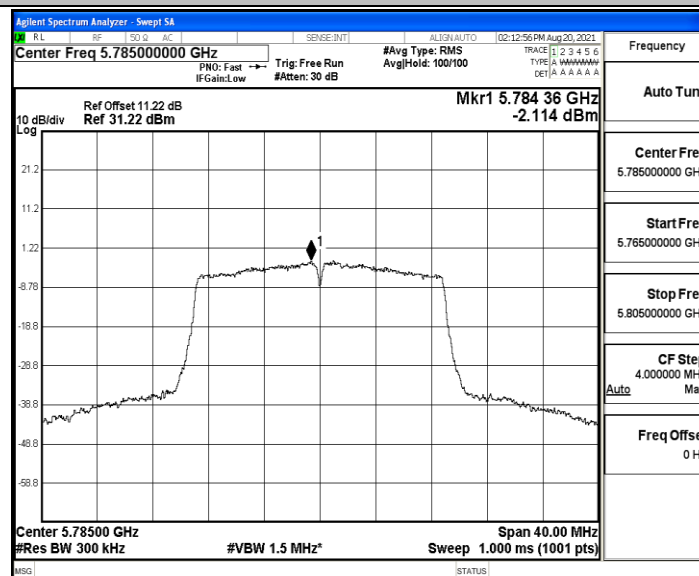
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745

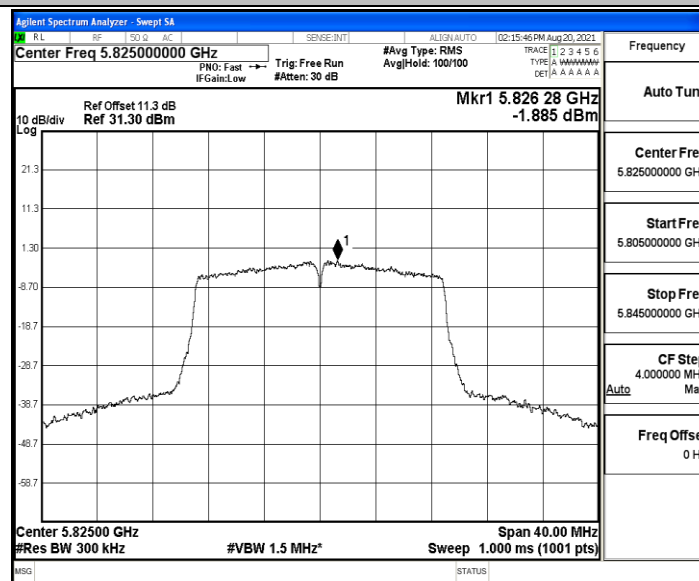


11AC20SISO_Ant1_5785

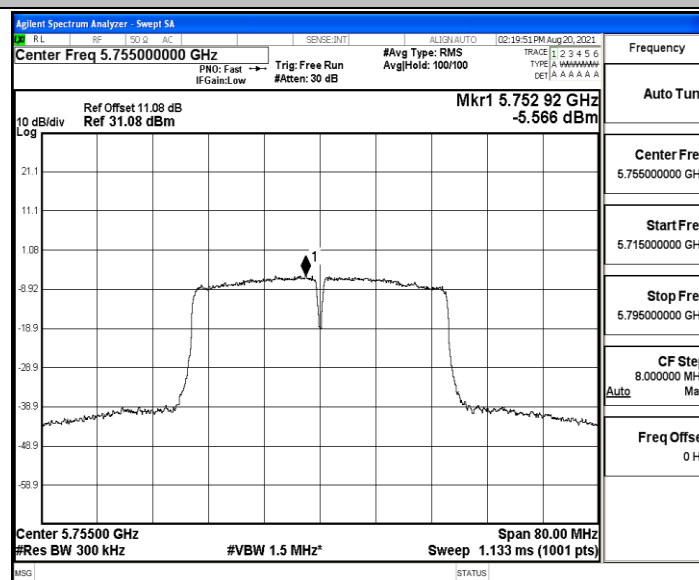




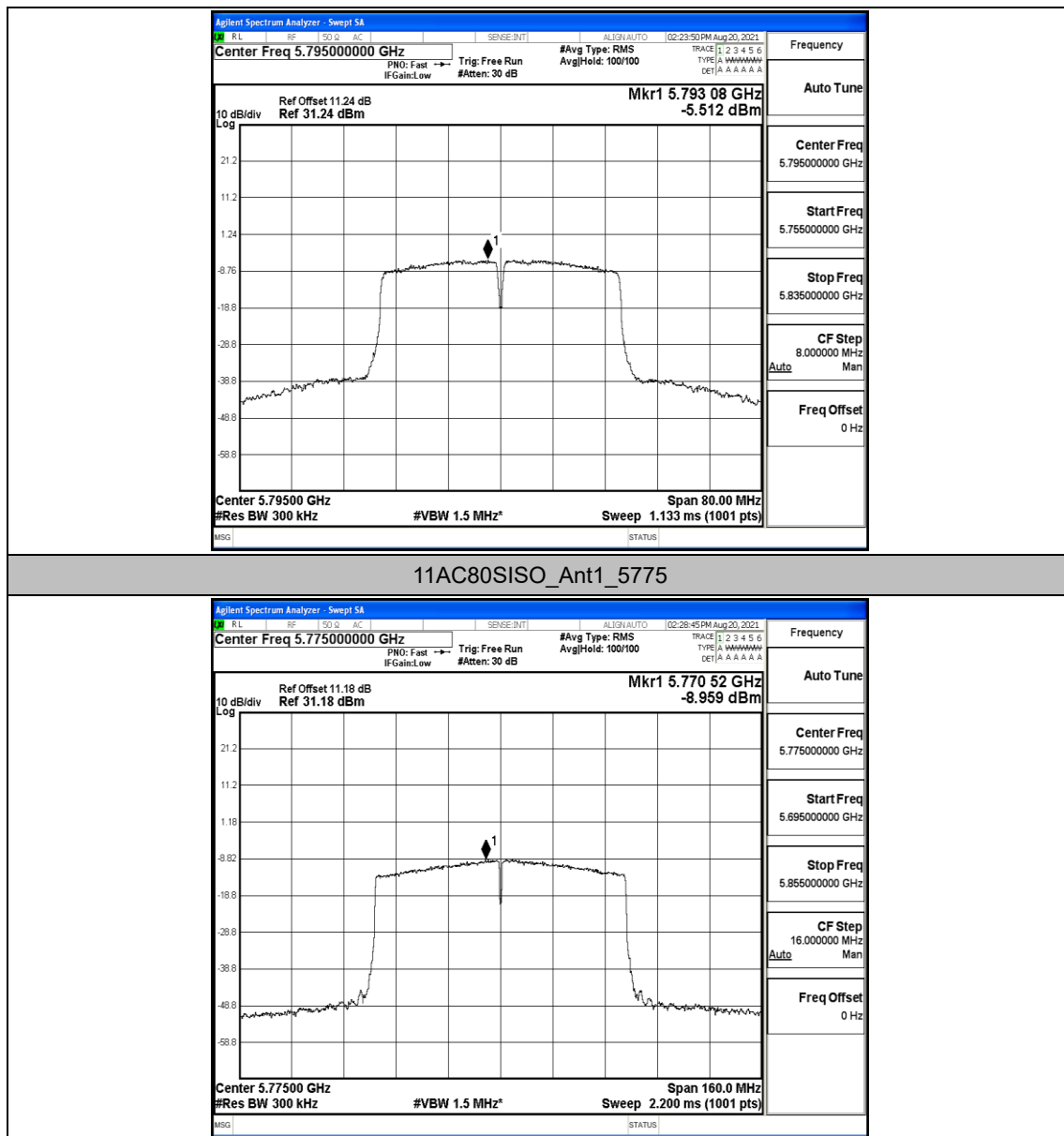
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795





MIMO

Test Mode	Channel	Frequency (MHz)	ANT 0 Power Density (dBm/500KHz)	ANT 1 Power Density (dBm/500KHz)	MIMO Power Density (dBm/500KHz)	Report Power Density (dBm/500KHz)	Verdict
11N20	149	5745	-1.67	-2.09	1.14	29.99	Pass
	157	5785	-2.8	-1.92	0.67		Pass
	165	5825	-2.91	-2.06	0.55		Pass
11N40	151	5755	-5.27	-5.4	-2.32	29.99	Pass
	159	5795	-5.19	-4.96	-2.06		Pass
11AC20	149	5745	-2.89	-1.88	0.65	29.99	Pass
	157	5785	-2.32	-2.11	0.80		Pass
	165	5825	-2.48	-1.89	0.84		Pass
11AC40	151	5755	-4.85	-5.57	-2.18	29.99	Pass
	159	5795	-5.03	-5.51	-2.25		Pass
11AC80	155	5775	-8.31	-8.96	-5.61	29.99	Pass