Appendix E

RF Test Data for 5G WIFI (Conducted Measurement)

Product Name: Vivi Wireless Presentation

Trade Mark: Vivi

Test Model: VWP-210-16

Environmental Conditions

Temperature:	22.5 ° C
Relative Humidity:	53%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Li Huan

Appendix E.1: Duty Cycle

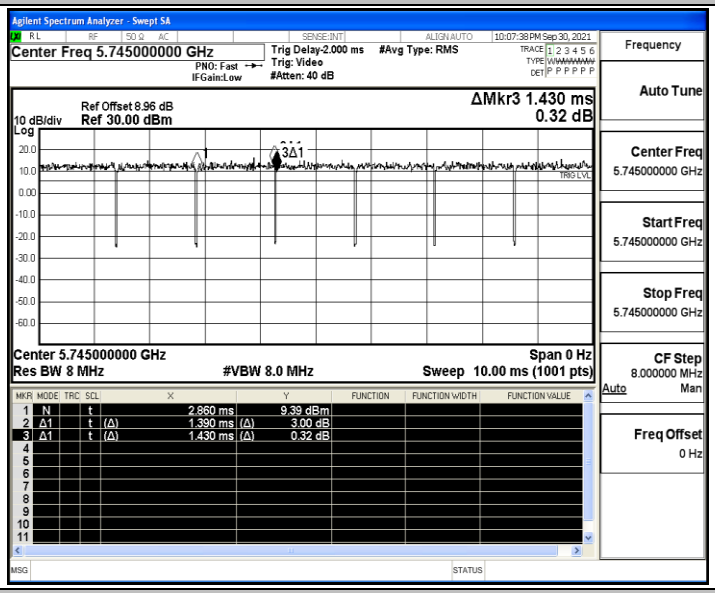
Test Result

ANT 1

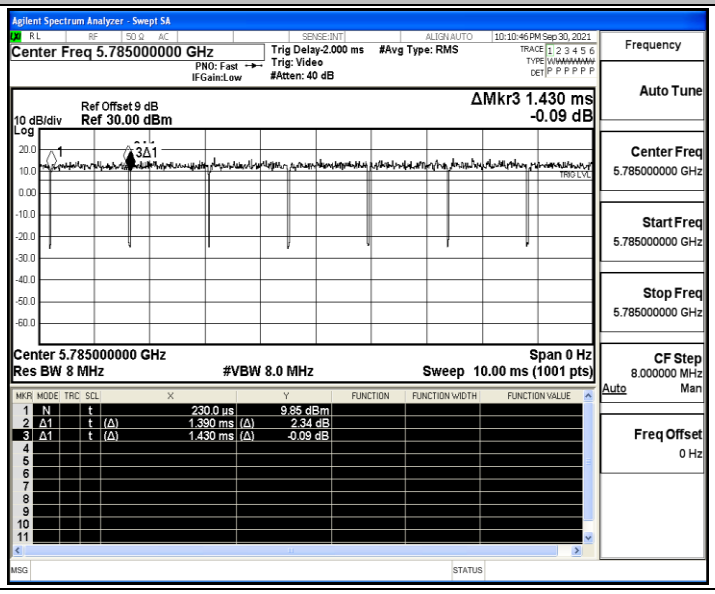
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T VBW(KHz)	Verdict
11A	Ant1	5745	1.39	1.43	97.20	0.72	PASS
		5785	1.39	1.43	97.20	0.72	PASS
		5825	1.39	1.43	97.20	0.72	PASS
11N20SISO	Ant1	5745	1.30	1.34	97.01	0.77	PASS
		5785	1.30	1.34	97.01	0.77	PASS
		5825	1.30	1.34	97.01	0.77	PASS
11N40SISO	Ant1	5755	0.64	0.68	94.12	1.56	PASS
		5795	0.64	0.68	94.12	1.56	PASS
11AC20SISO	Ant1	5745	1.31	1.35	97.04	0.76	PASS
		5785	1.31	1.35	97.04	0.76	PASS
		5825	1.31	1.35	97.04	0.76	PASS
11AC40SISO	Ant1	5755	0.65	0.69	94.20	1.54	PASS
		5795	0.65	0.69	94.20	1.54	PASS
11AC80SISO	Ant1	5775	0.32	0.36	88.89	3.13	PASS

Test Graphs

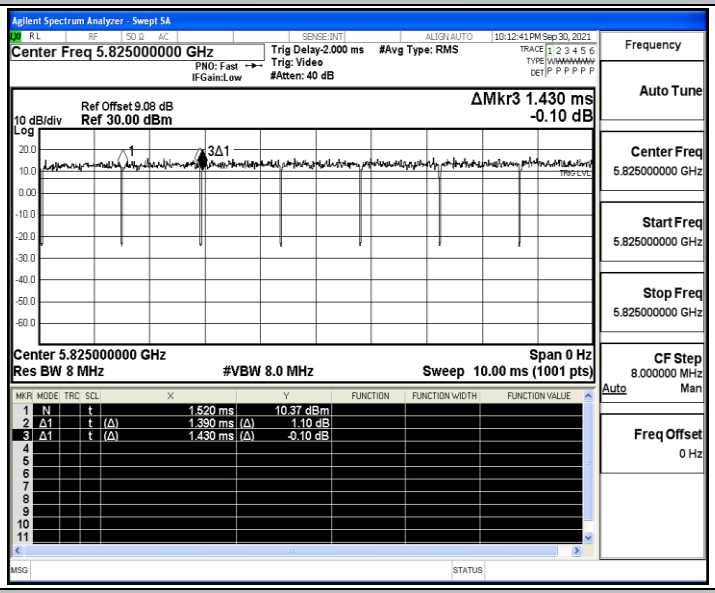
11A_Ant1_5745



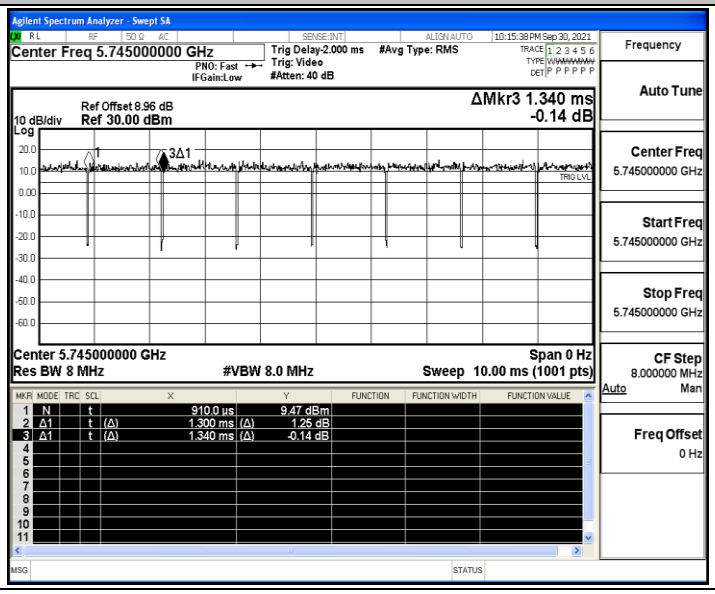
11A_Ant1_5785



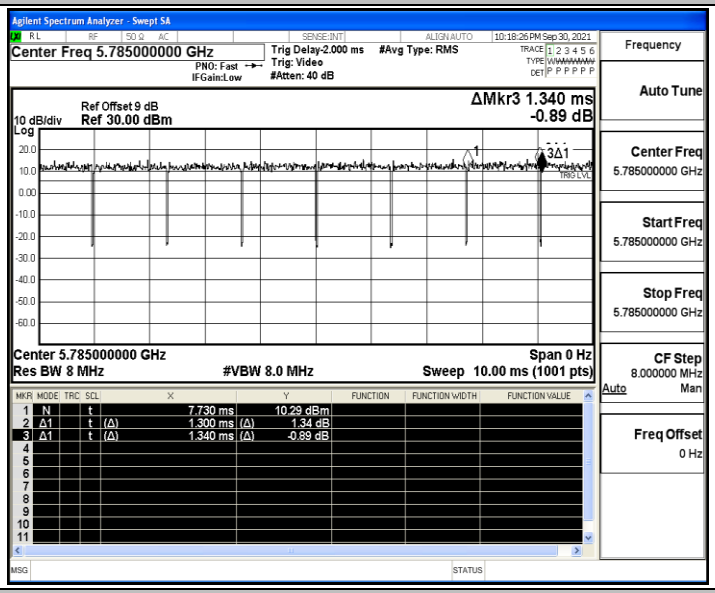
11A_Ant1_5825



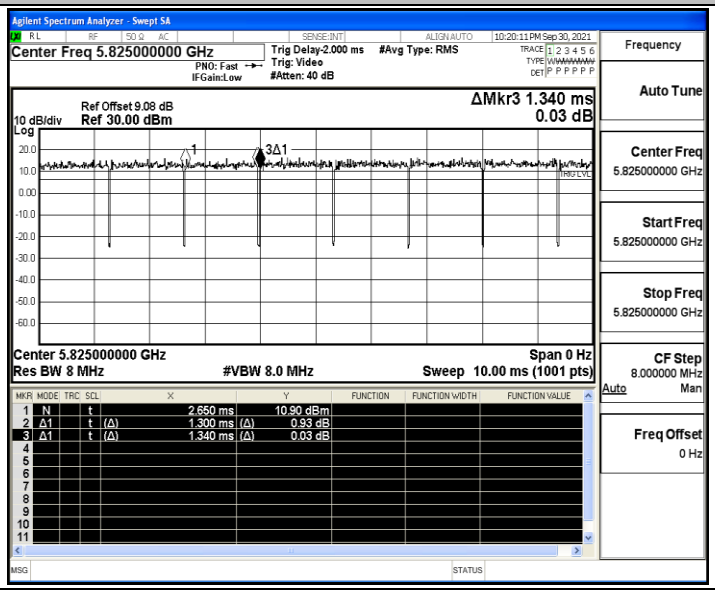
11N20SISO_Ant1_5745



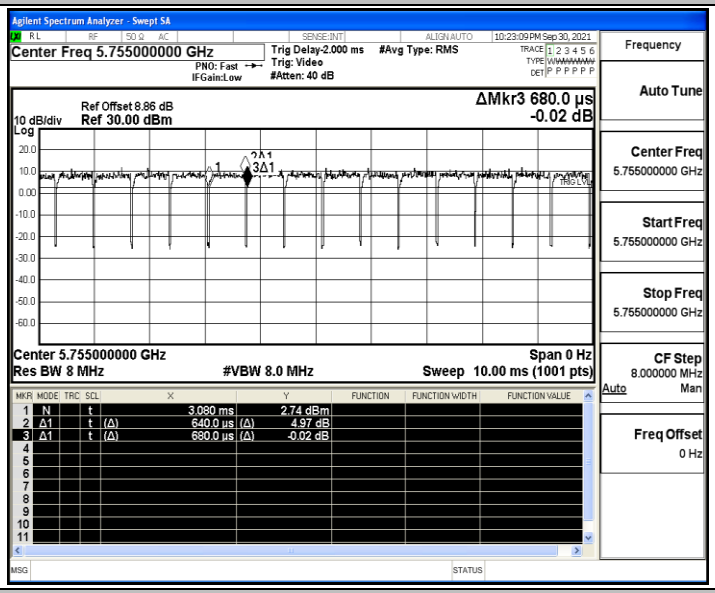
11N20SISO_Ant1_5785



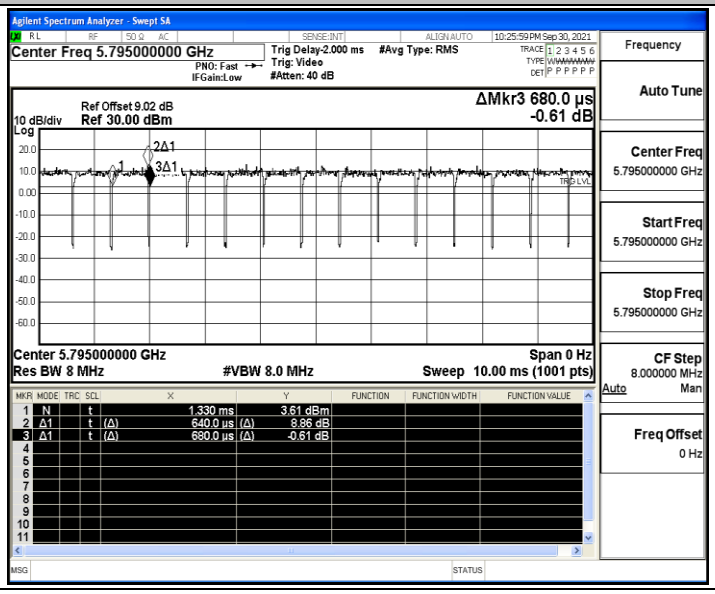
11N20SISO_Ant1_5825



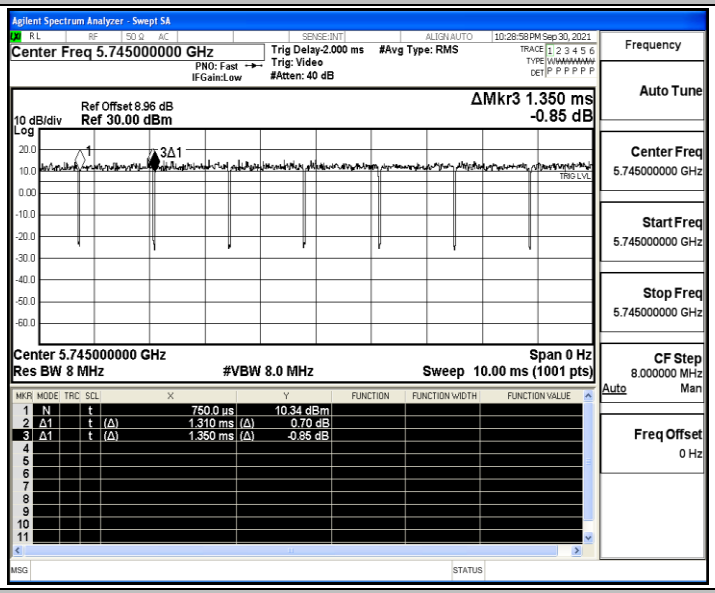
11N40SISO_Ant1_5755



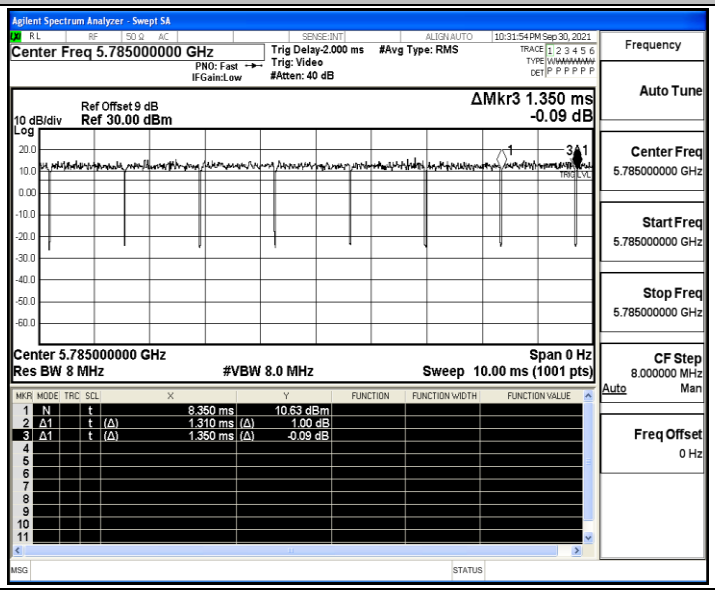
11N40SISO_Ant1_5795



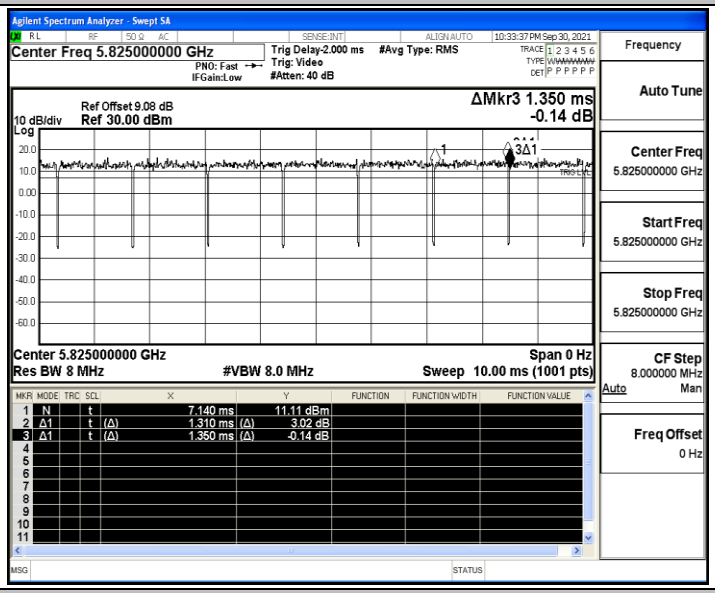
11AC20SISO_Ant1_5745



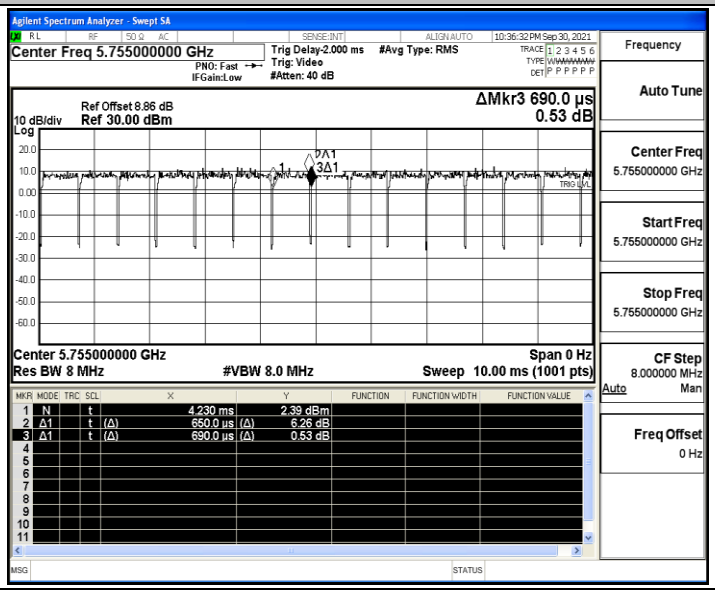
11AC20SISO_Ant1_5785



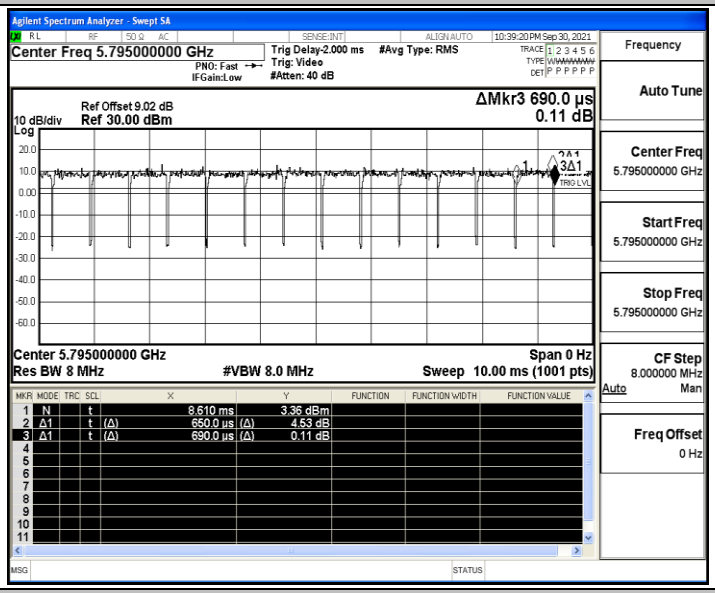
11AC20SISO_Ant1_5825



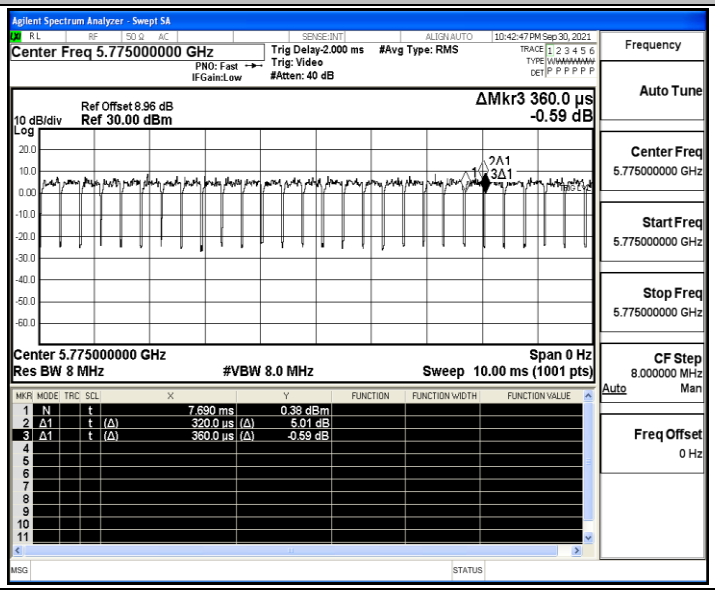
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775

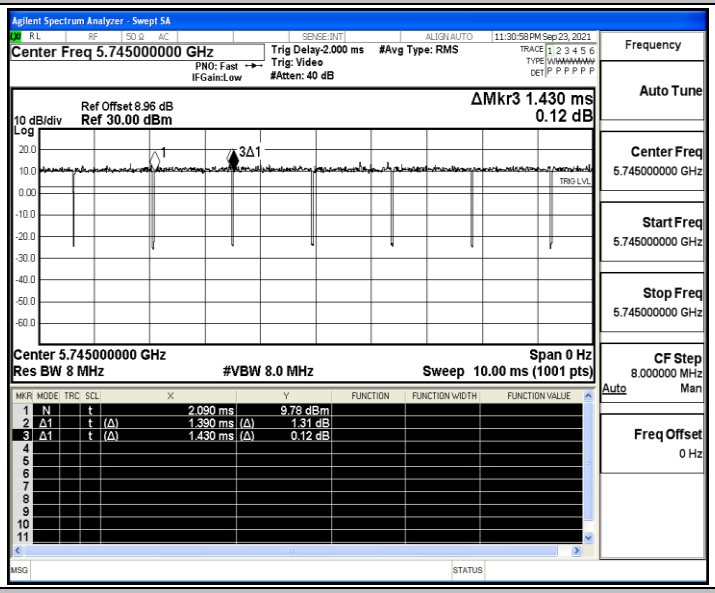


ANT 2

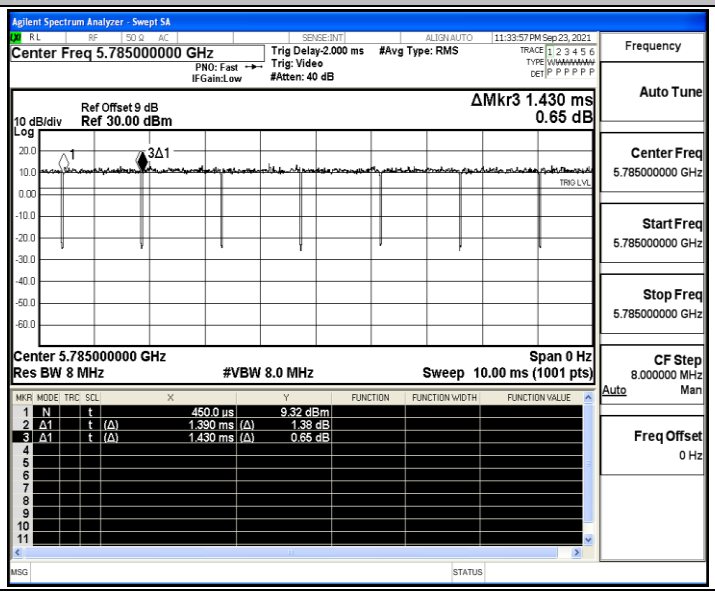
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T VBW(KHz)	Verdict
11A	Ant2	5745	1.39	1.43	97.20	0.72	PASS
		5785	1.39	1.43	97.20	0.72	PASS
		5825	1.39	1.84	75.54	0.72	PASS
11N20SISO	Ant2	5745	1.31	1.35	97.04	0.76	PASS
		5785	1.30	1.34	97.01	0.77	PASS
		5825	1.30	1.34	97.01	0.77	PASS
11N40SISO	Ant2	5755	0.64	0.68	94.12	1.56	PASS
		5795	0.64	0.68	94.12	1.56	PASS
11AC20SISO	Ant2	5745	1.31	1.35	97.04	0.76	PASS
		5785	1.31	1.35	97.04	0.76	PASS
		5825	1.31	1.35	97.04	0.76	PASS
11AC40SISO	Ant2	5755	0.65	0.69	94.20	1.54	PASS
		5795	0.65	0.69	94.20	1.54	PASS
11AC80SISO	Ant2	5775	0.32	0.36	88.89	3.13	PASS

Test Graphs

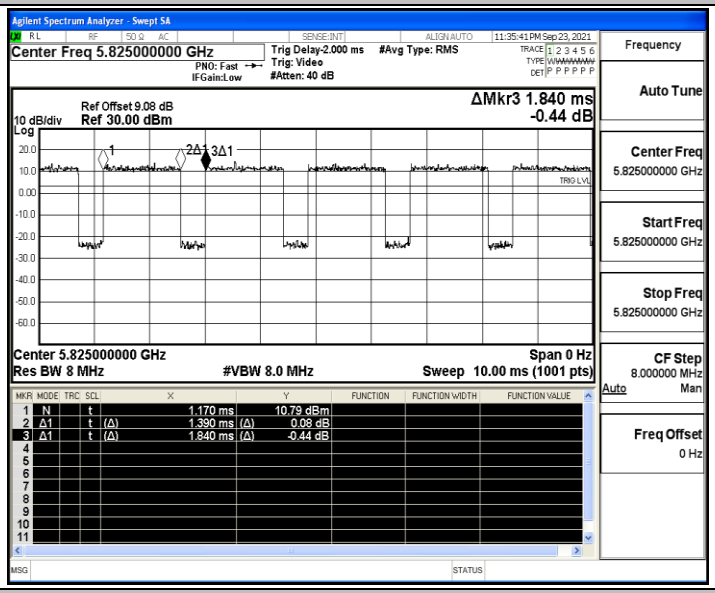
11A_Ant2_5745



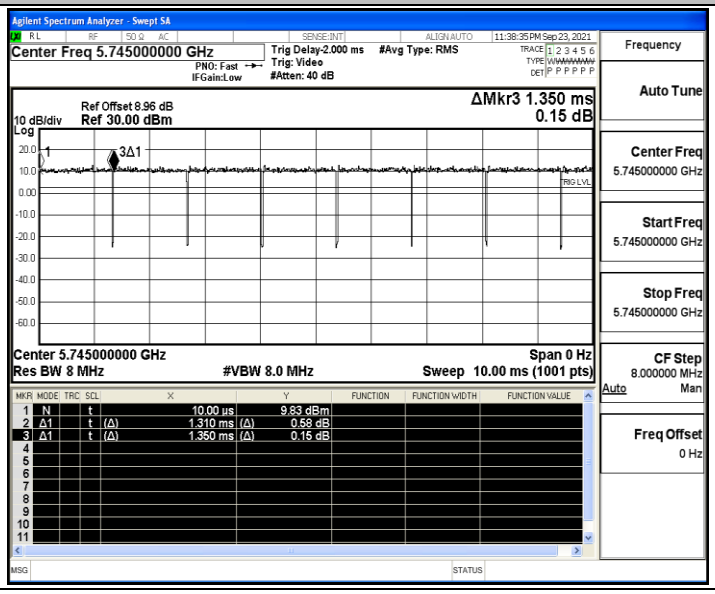
11A_Ant2_5785



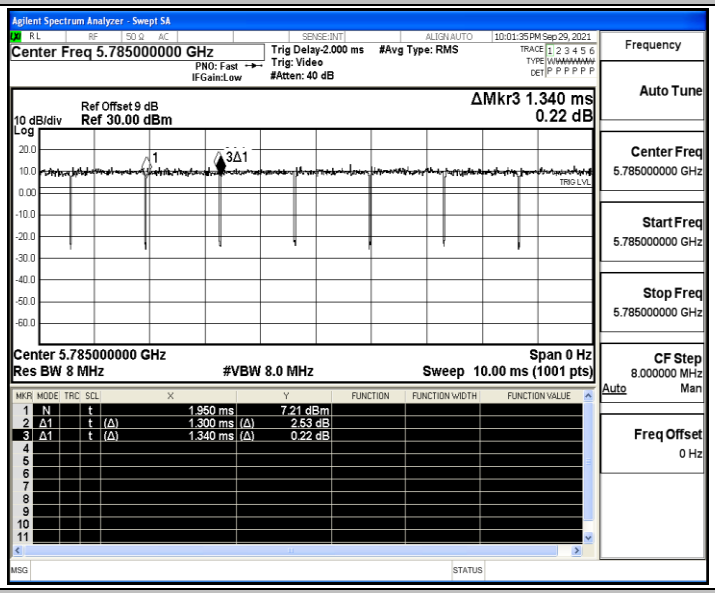
11A_Ant2_5825



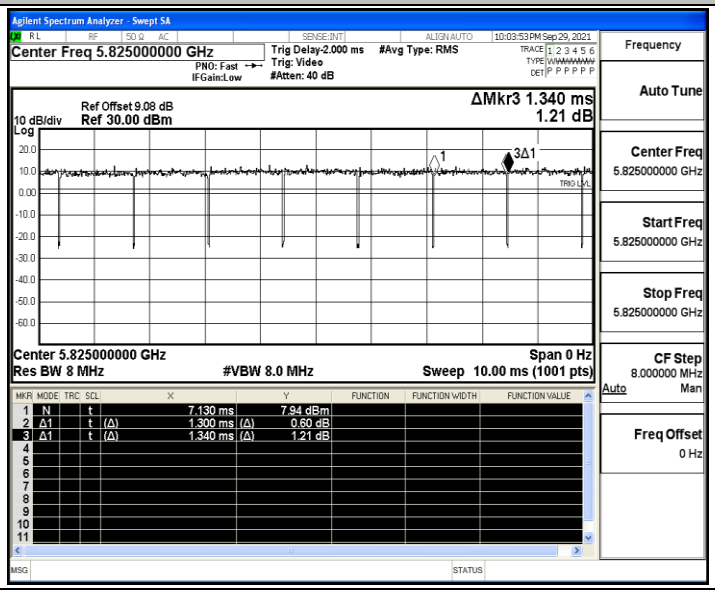
11N20SISO_Ant2_5745



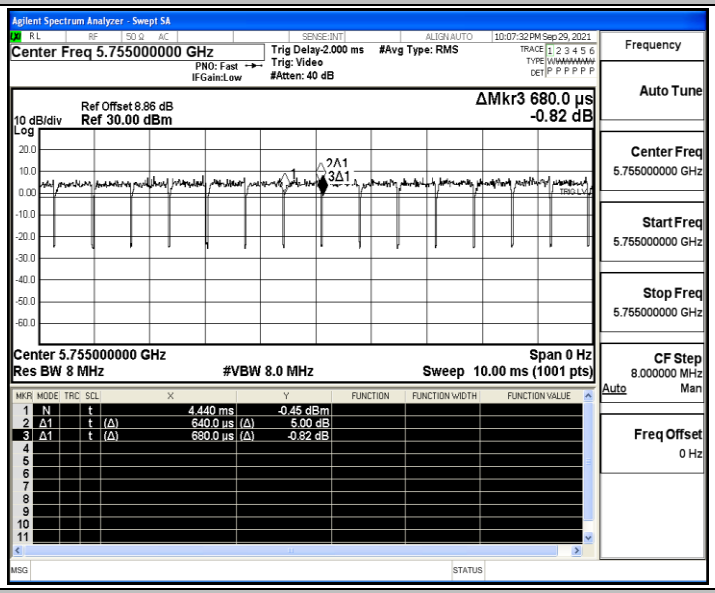
11N20SISO_Ant2_5785



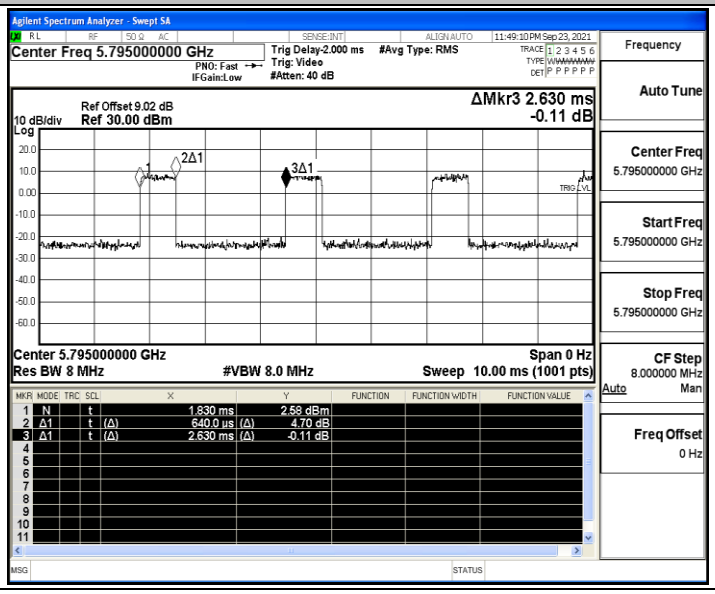
11N20SISO_Ant2_5825



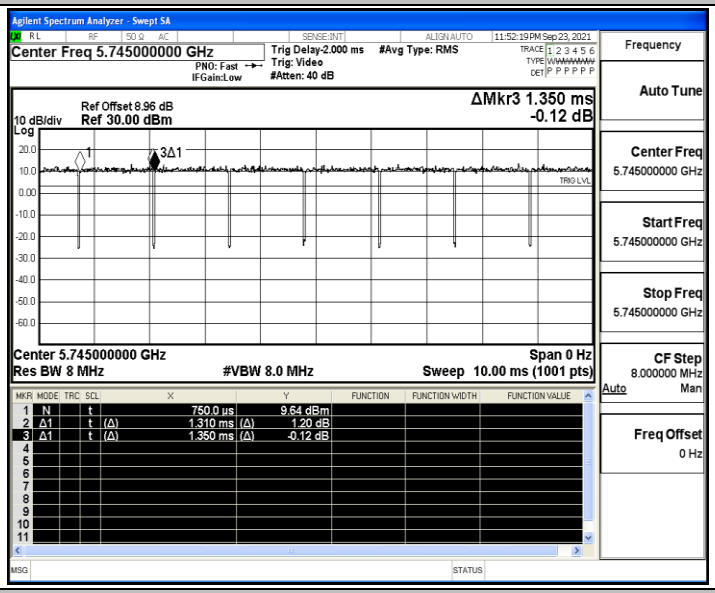
11N40SISO_Ant2_5755



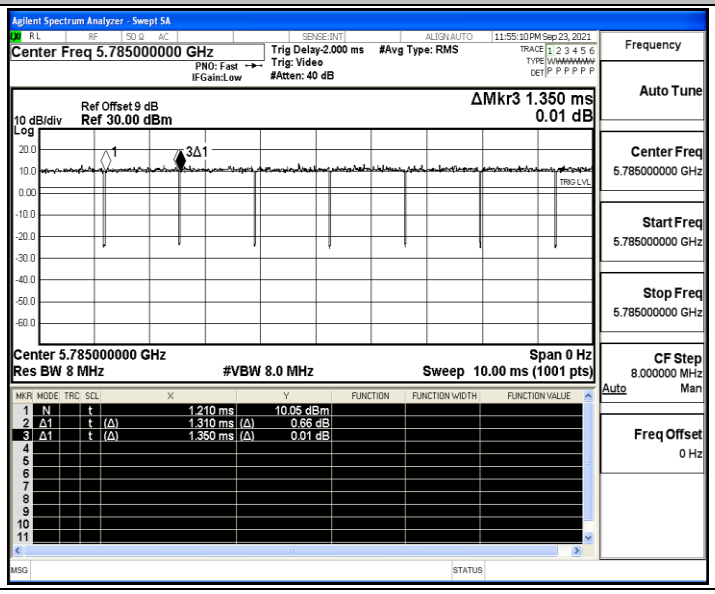
11N40SISO_Ant2_5795



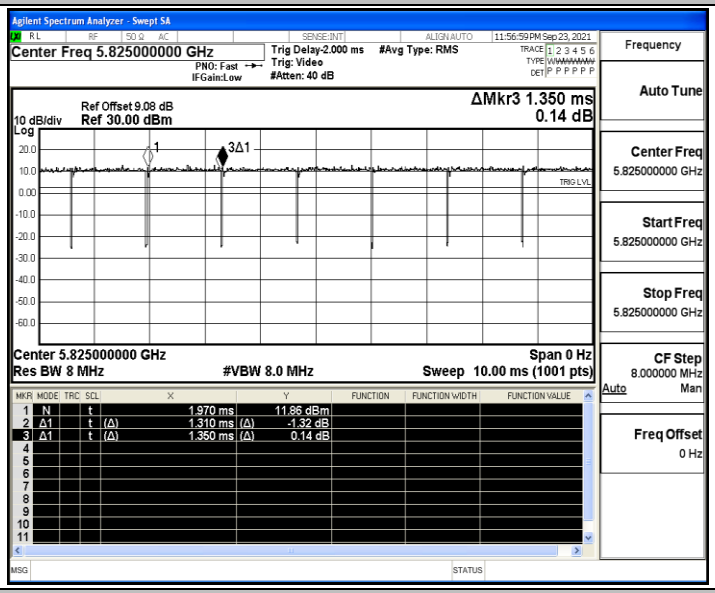
11AC20SISO_Ant2_5745



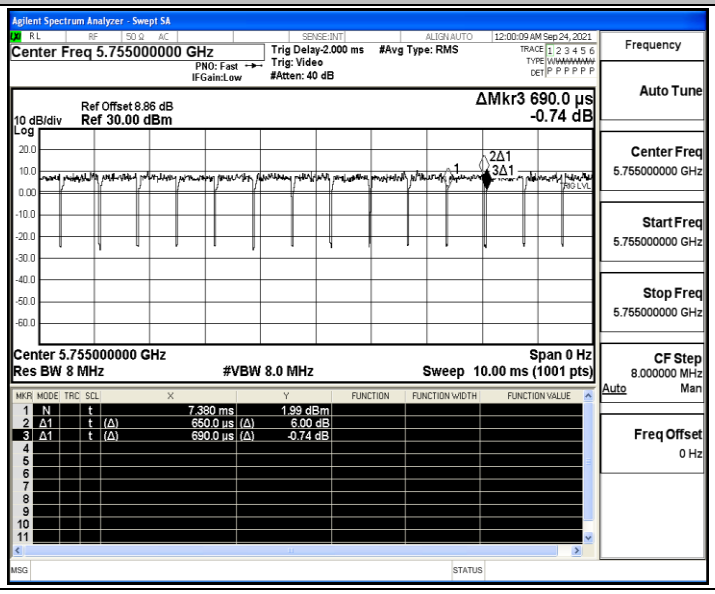
11AC20SISO_Ant2_5785



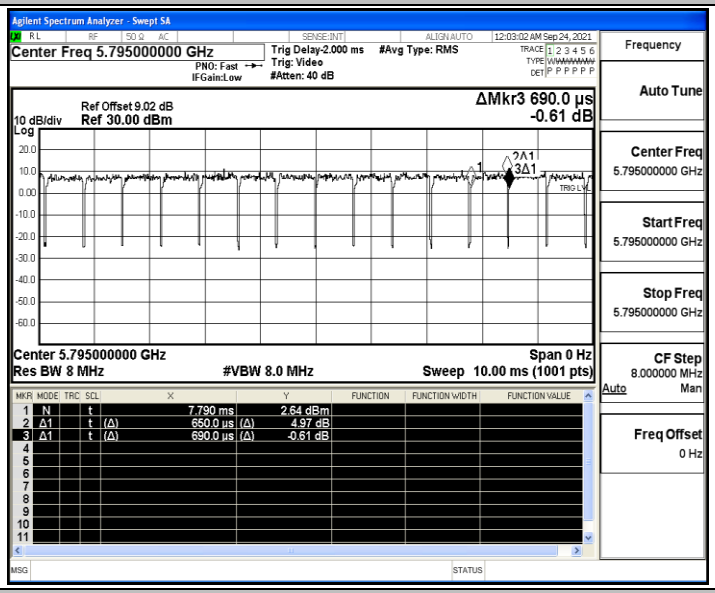
11AC20SISO_Ant2_5825



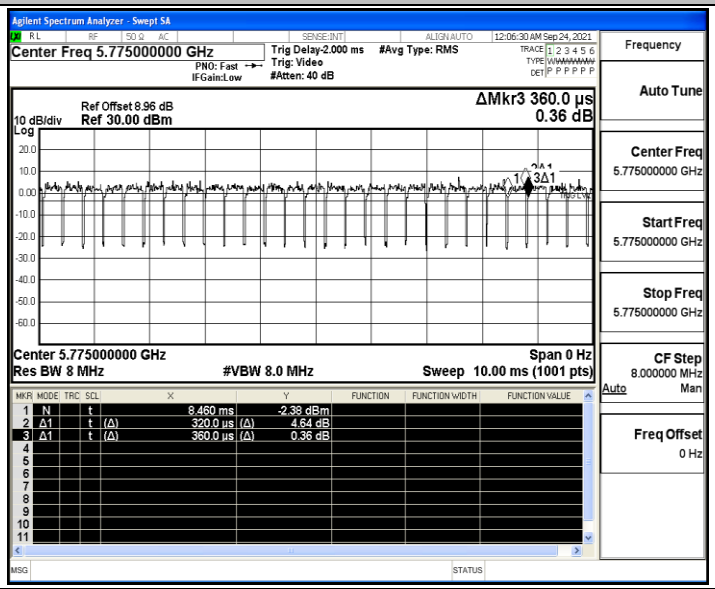
11AC40SISO_Ant2_5755



11AC40SISO_Ant2_5795



11AC80SISO_Ant2_5775



Appendix E.2: Maximum conducted output power

Test Result

ANT 1

TestMode	Antenna	Channel	Result[dBm]	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit[dBm]	Verdict
11A	Ant1	5745	8.09	0.12	8.21	≤30	PASS
		5785	8.45	0.12	8.57	≤30	PASS
		5825	9.03	0.12	9.15	≤30	PASS
11N20SISO	Ant1	5745	8.04	0.13	8.17	≤30	PASS
		5785	8.32	0.13	8.45	≤30	PASS
		5825	9.02	0.13	9.15	≤30	PASS
11N40SISO	Ant1	5755	8.49	0.26	8.75	≤30	PASS
		5795	9.15	0.26	9.41	≤30	PASS
11AC20SISO	Ant1	5745	8.13	0.13	8.26	≤30	PASS
		5785	8.51	0.13	8.64	≤30	PASS
		5825	9.17	0.13	9.30	≤30	PASS
11AC40SISO	Ant1	5755	8.47	0.26	8.73	≤30	PASS
		5795	9.08	0.26	9.34	≤30	PASS
11AC80SISO	Ant1	5775	8.50	0.51	9.01	≤30	PASS

ANT 2

TestMode	Antenna	Channel	Result[dBm]	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit[dBm]	Verdict
11A	Ant2	5745	6.83	0.12	6.95	≤30	PASS
		5785	6.98	0.12	7.10	≤30	PASS
		5825	8.33	1.22	9.55	≤30	PASS
11N20SISO	Ant2	5745	6.01	0.13	6.14	≤30	PASS
		5785	5.89	0.13	6.02	≤30	PASS
		5825	6.06	0.13	6.19	≤30	PASS
11N40SISO	Ant2	5755	4.74	0.26	5.00	≤30	PASS
		5795	5.85	0.26	6.11	≤30	PASS
11AC20SISO	Ant2	5745	5.73	0.13	5.86	≤30	PASS
		5785	5.57	0.13	5.70	≤30	PASS
		5825	6.86	0.13	6.99	≤30	PASS
11AC40SISO	Ant2	5755	4.61	0.26	4.87	≤30	PASS
		5795	5.30	0.26	5.56	≤30	PASS
11AC80SISO	Ant2	5775	4.51	0.51	5.02	≤30	PASS

MIMO

TestMode	Channel	Report Conducted Power (dBm)			Limit (dBm)	Verdict
		Ant 1	Ant 2	Sum		
11N20SISO	5745	8.17	6.14	10.28	≤29.99	PASS
	5785	8.45	6.02	10.41		PASS
	5825	9.15	6.19	10.93		PASS
11N40SISO	5755	8.75	5.00	10.28	≤29.99	PASS
	5795	9.41	6.11	11.08		PASS
11AC20SISO	5745	8.26	5.86	10.23	≤29.99	PASS
	5785	8.64	5.70	10.42		PASS
	5825	9.30	6.99	11.31		PASS
11AC40SISO	5755	8.73	4.87	10.23	≤29.99	PASS
	5795	9.34	5.56	10.86		PASS
11AC80SISO	5775	9.01	5.02	10.47	≤29.99	PASS

Appendix E.3: Maximum power spectral density

Test Result

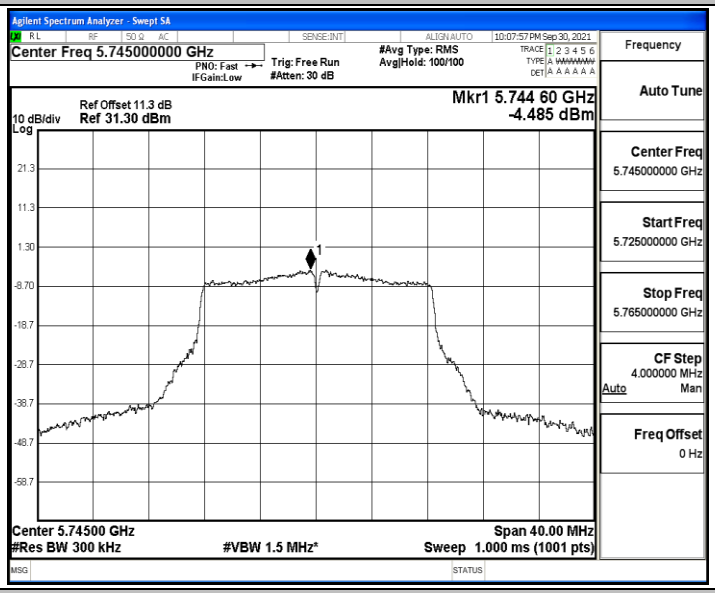
ANT 1

TestMode	Antenna	Channel	Result [dBm/300kHz]	Duty Cycle Factor(dB)	RBW Factor (dB)	Report power spectral density [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
11A	Ant1	5745	-4.49	0.12	2.218	-2.152	≤30	PASS
		5785	-4.07	0.12	2.218	-1.732	≤30	PASS
		5825	-3.84	0.12	2.218	-1.502	≤30	PASS
11N20SISO	Ant1	5745	-4.63	0.13	2.218	-2.282	≤30	PASS
		5785	-4.82	0.13	2.218	-2.472	≤30	PASS
		5825	-3.98	0.13	2.218	-1.632	≤30	PASS
11N40SISO	Ant1	5755	-8.49	0.26	2.218	-6.012	≤30	PASS
		5795	-8.21	0.26	2.218	-5.732	≤30	PASS
11AC20SISO	Ant1	5745	-4.91	0.13	2.218	-2.562	≤30	PASS
		5785	-4.32	0.13	2.218	-1.972	≤30	PASS
		5825	-3.83	0.13	2.218	-1.482	≤30	PASS
11AC40SISO	Ant1	5755	-8.76	0.26	2.218	-6.282	≤30	PASS
		5795	-7.89	0.26	2.218	-5.412	≤30	PASS
11AC80SISO	Ant1	5775	-11.33	0.51	2.218	-8.602	≤30	PASS

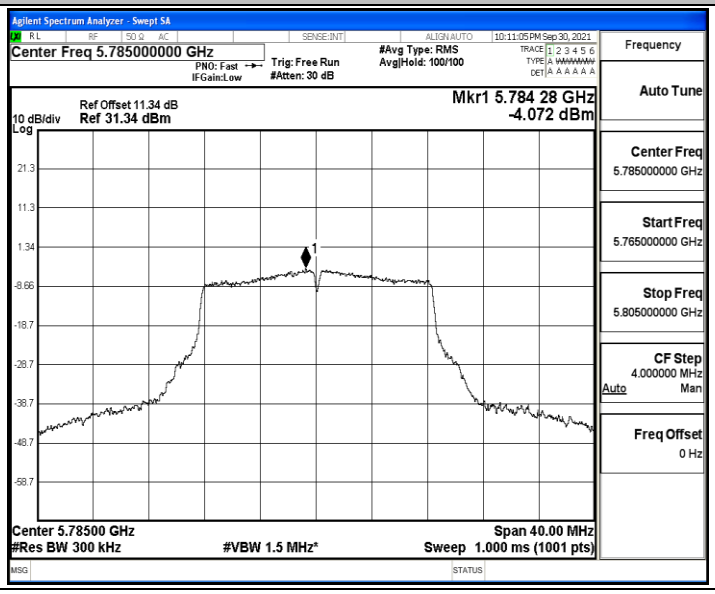
Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

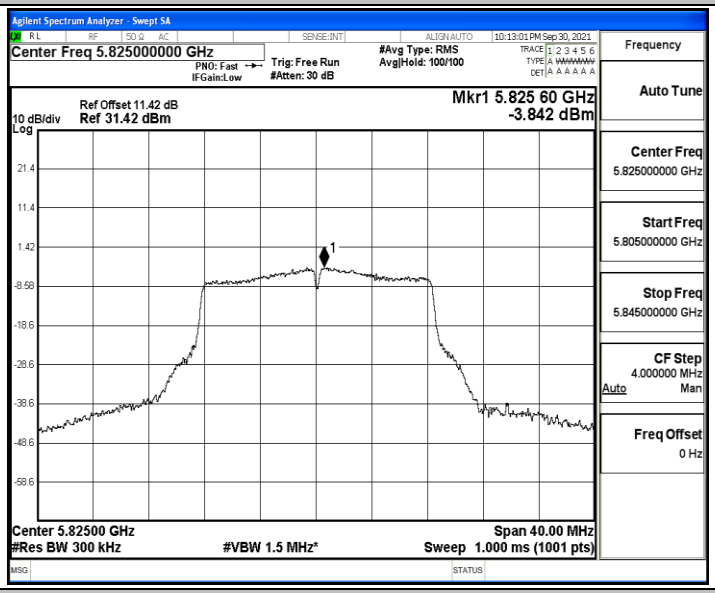
Test Graphs

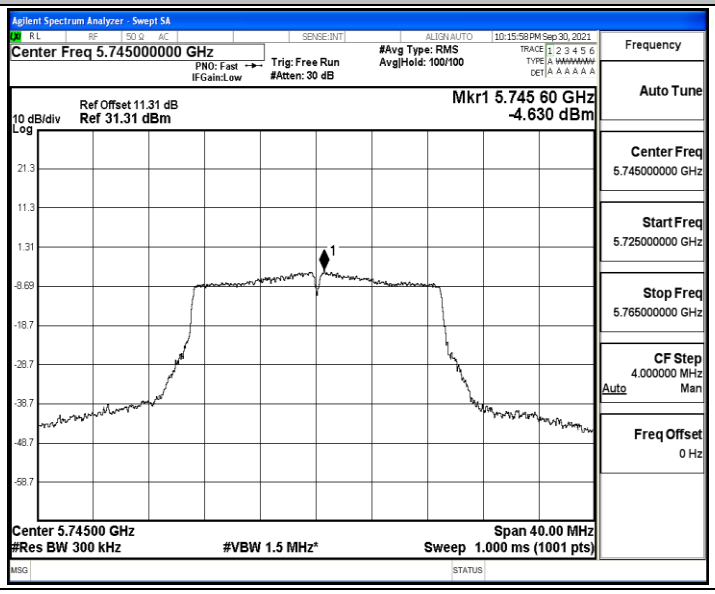
11A_Ant1_5745

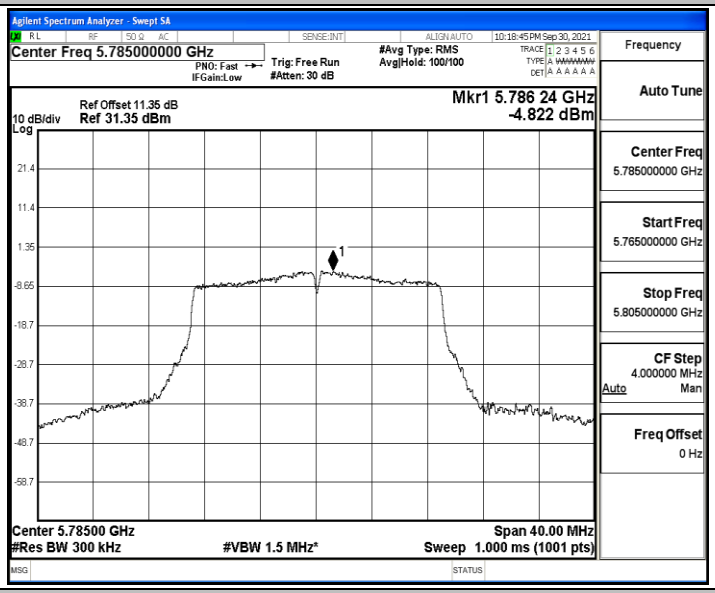


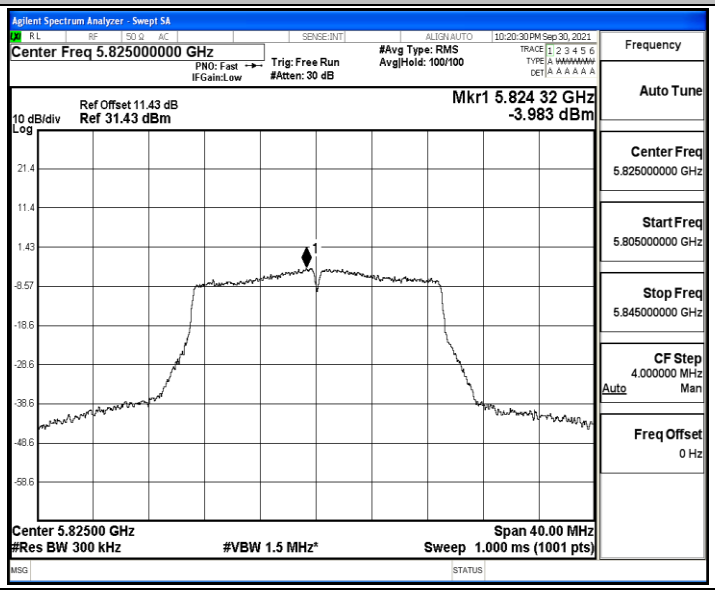
11A_Ant1_5785



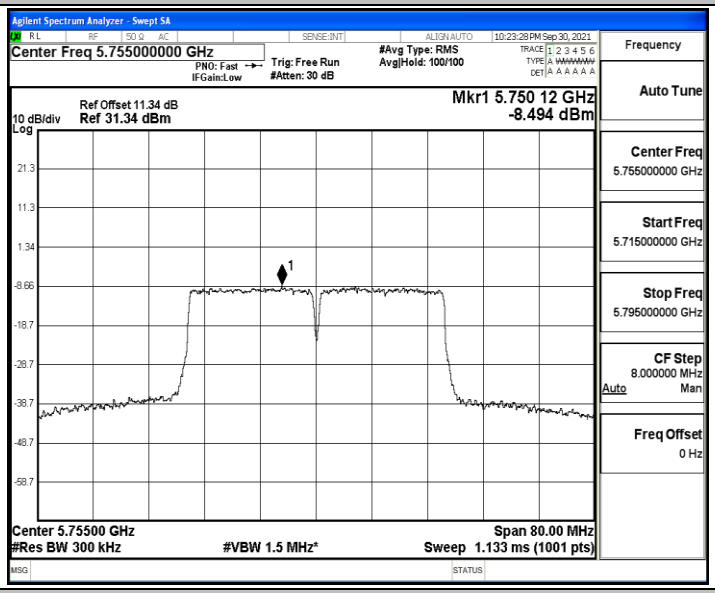
11A_Ant1_5825


11N20SISO_Ant1_5745


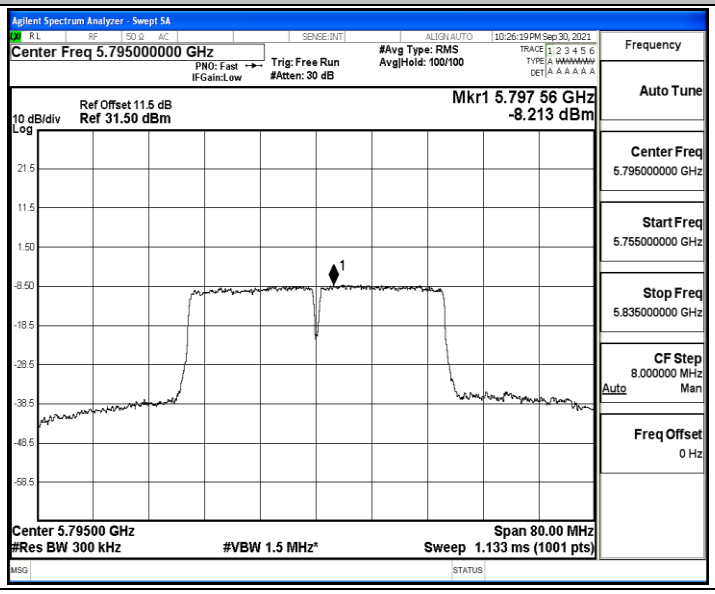
11N20SISO_Ant1_5785


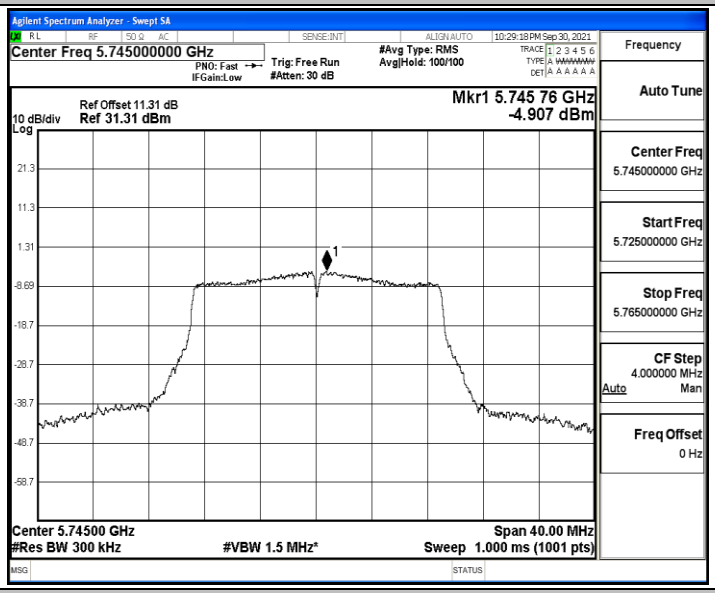
11N20SISO_Ant1_5825


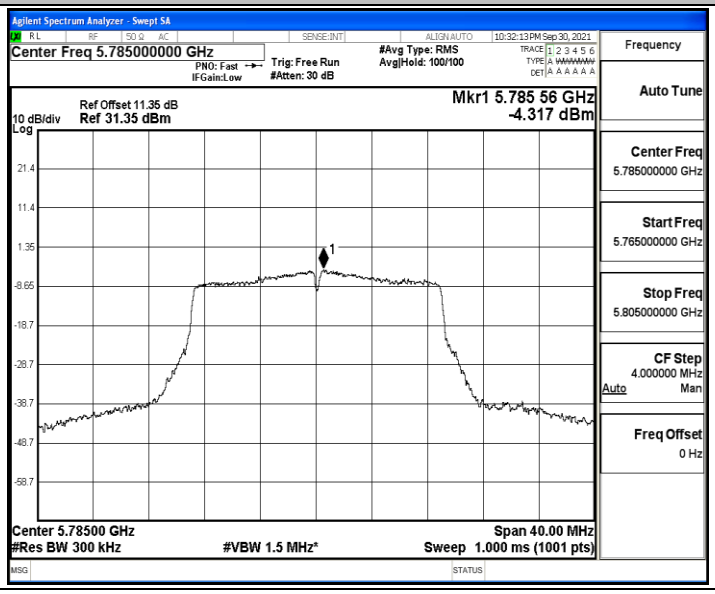
11N40SISO_Ant1_5755

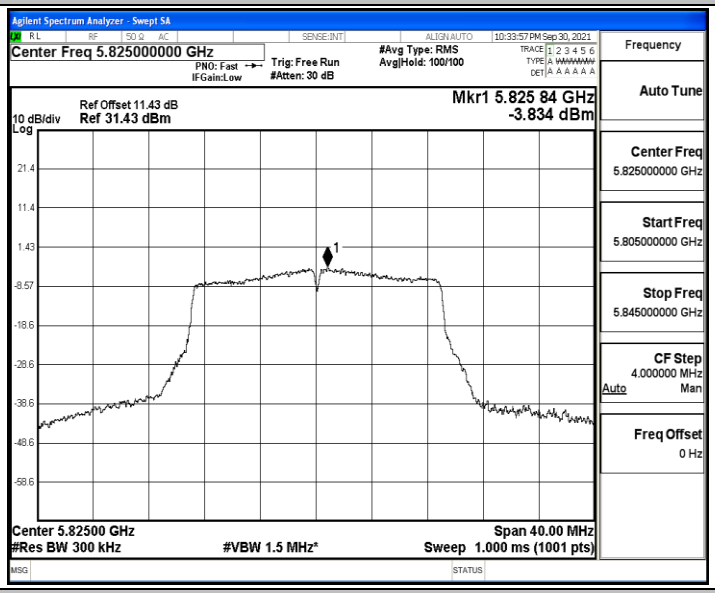


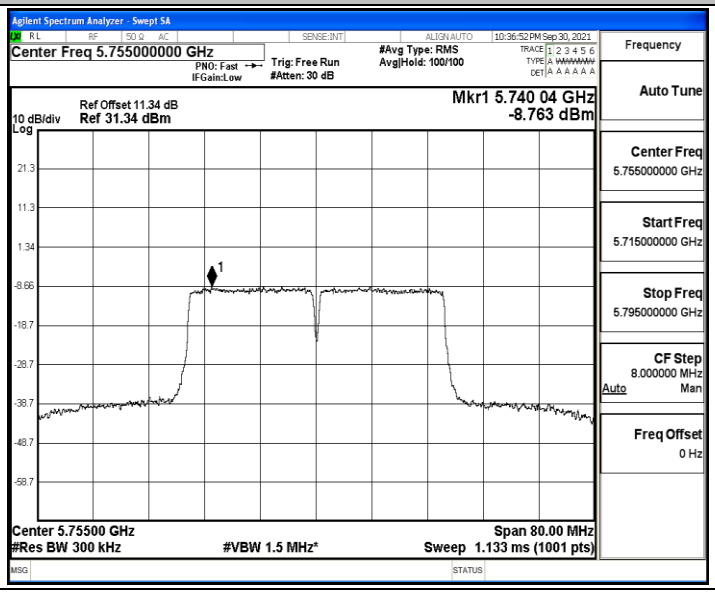
11N40SISO_Ant1_5795



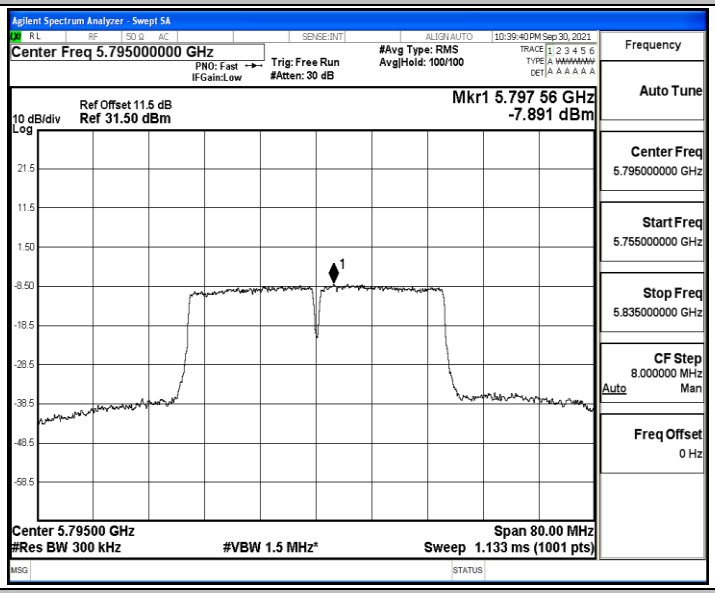
11AC20SISO_Ant1_5745


11AC20SISO_Ant1_5785


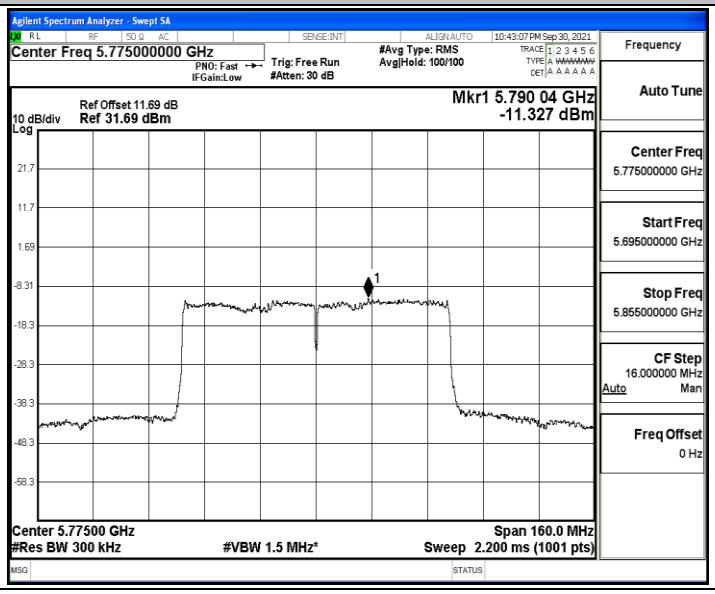
11AC20SISO_Ant1_5825


11AC40SISO_Ant1_5755


11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



ANT 2

TestMode	Antenna	Channel	Result [dBm/300kHz]	Duty Cycle Factor(dB)	RBW Factor (dB)	Report power spectral density [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
11A	Ant2	5745	-5.42	0.12	2.218	-3.08	≤30	PASS
		5785	-5.75	0.12	2.218	-3.41	≤30	PASS
		5825	-4.62	1.22	2.218	-1.18	≤30	PASS
11N20SISO	Ant2	5745	-6.9	0.13	2.218	-4.55	≤30	PASS
		5785	-6.94	0.13	2.218	-4.59	≤30	PASS
		5825	-6.69	0.13	2.218	-4.34	≤30	PASS
11N40SISO	Ant2	5755	-12.61	0.26	2.218	-10.13	≤30	PASS
		5795	-11.49	0.26	2.218	-9.01	≤30	PASS
11AC20SISO	Ant2	5745	-7.23	0.13	2.218	-4.88	≤30	PASS
		5785	-8.14	0.13	2.218	-5.79	≤30	PASS
		5825	-5.52	0.13	2.218	-3.17	≤30	PASS
11AC40SISO	Ant2	5755	-11.43	0.26	2.218	-8.95	≤30	PASS
		5795	-10.9	0.26	2.218	-8.42	≤30	PASS
11AC80SISO	Ant2	5775	-14.8	0.51	2.218	-12.07	≤30	PASS

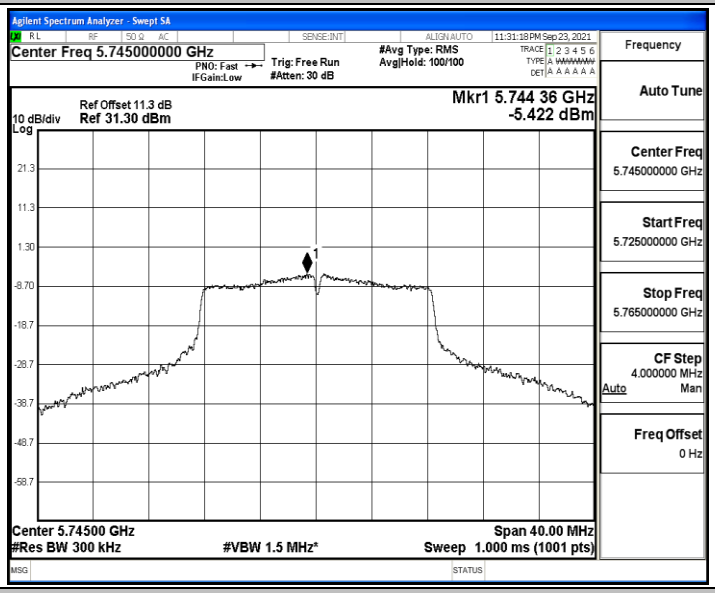
Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

MIMO

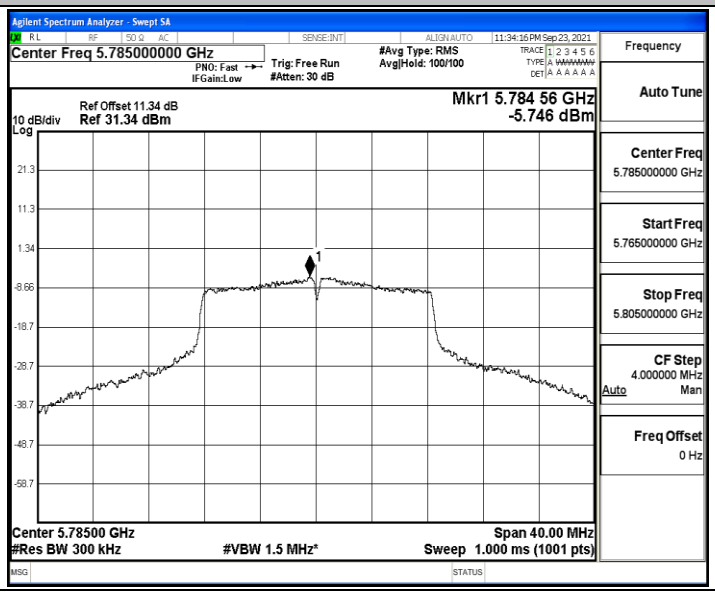
TestMode	Channel	Report power spectral density [dBm/500KHz]			Limit [dBm/500KHz]	Verdict
		Ant 1	Ant 2	Sum		
11N20SISO	5745	-2.282	-4.55	-0.26	≤29.99	PASS
	5785	-2.472	-4.59	-0.39		PASS
	5825	-1.632	-4.34	0.23		PASS
11N40SISO	5755	-6.012	-10.13	-4.59	≤29.99	PASS
	5795	-5.732	-9.01	-4.06		PASS
11AC20SISO	5745	-2.562	-4.88	-0.56	≤29.99	PASS
	5785	-1.972	-5.79	-0.46		PASS
	5825	-1.482	-3.17	0.77		PASS
11AC40SISO	5755	-6.282	-8.95	-4.40	≤29.99	PASS
	5795	-5.412	-8.42	-3.65		PASS
11AC80SISO	5775	-8.602	-12.07	-6.99	≤29.99	PASS

Test Graphs

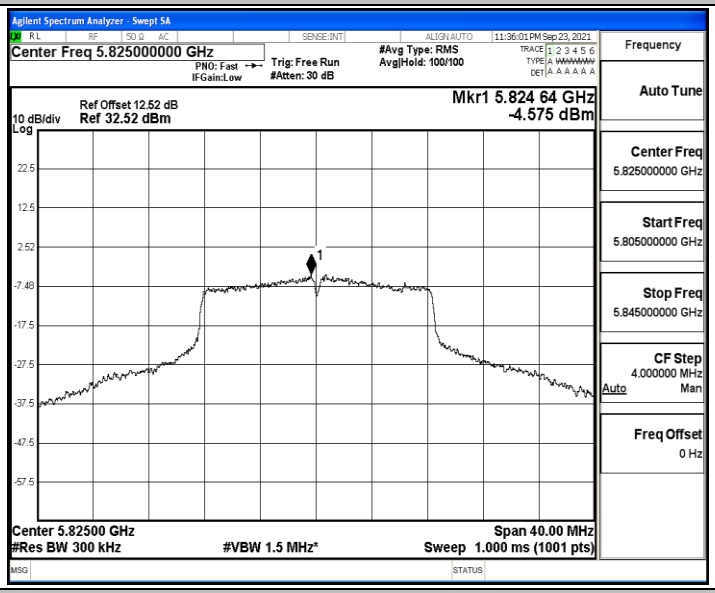
11A_Ant2_5745



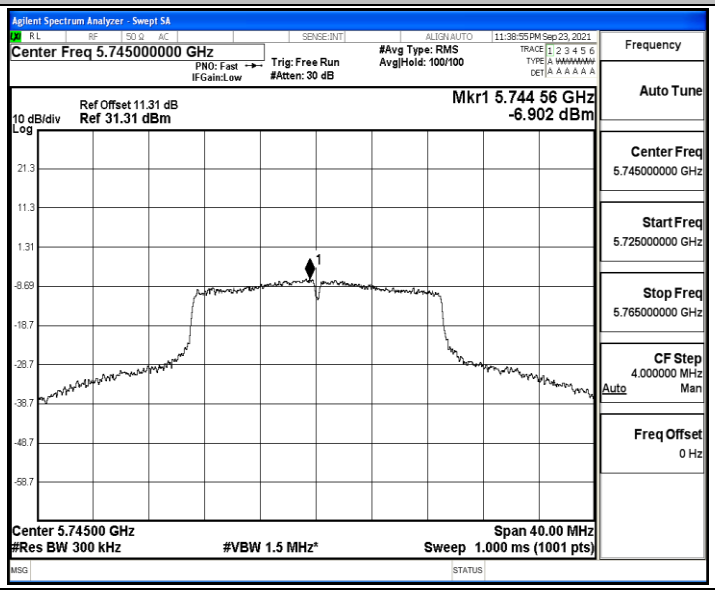
11A_Ant2_5785



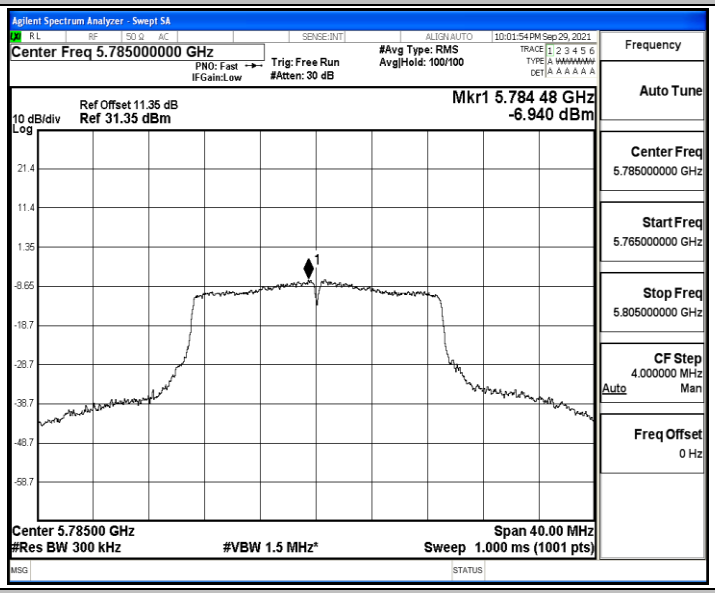
11A_Ant2_5825



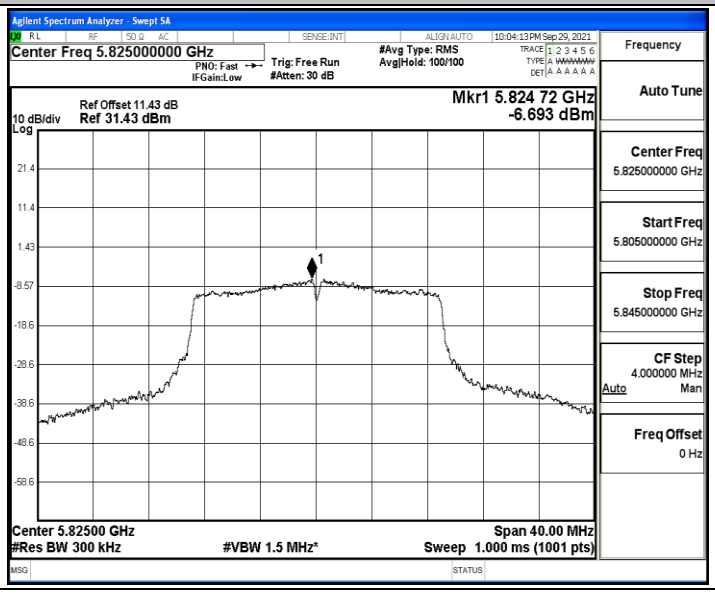
11N20SISO_Ant2_5745



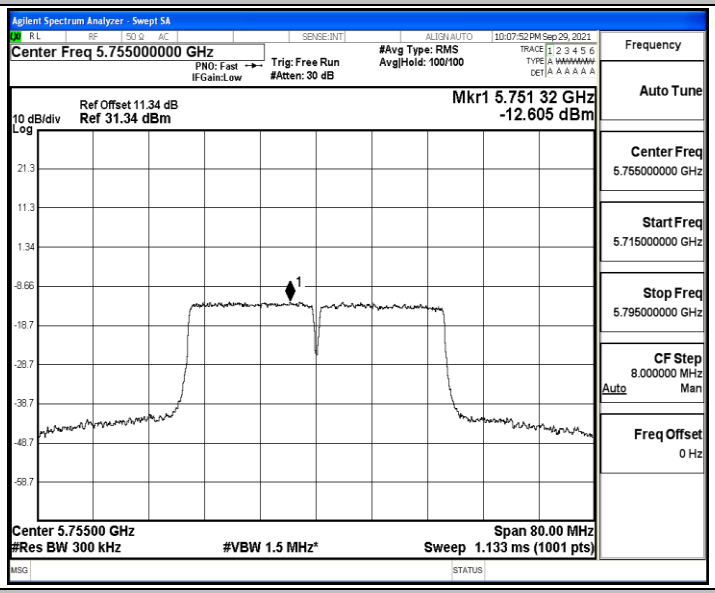
11N20SISO_Ant2_5785



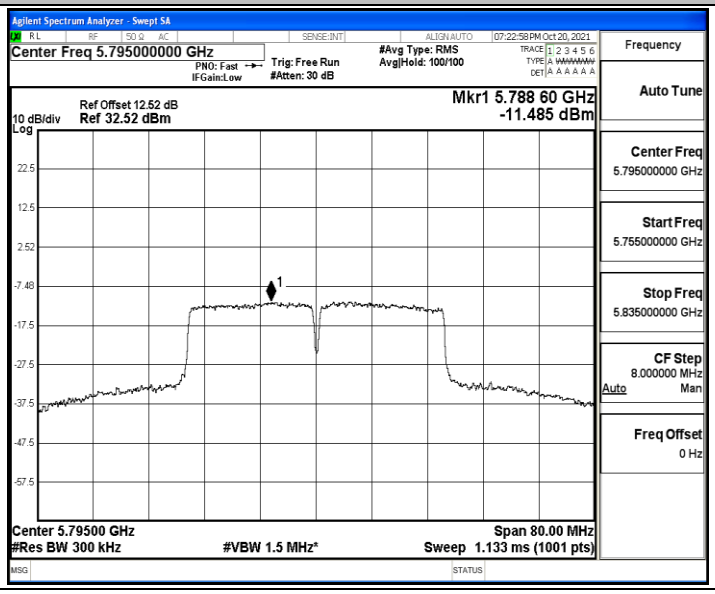
11N20SISO_Ant2_5825



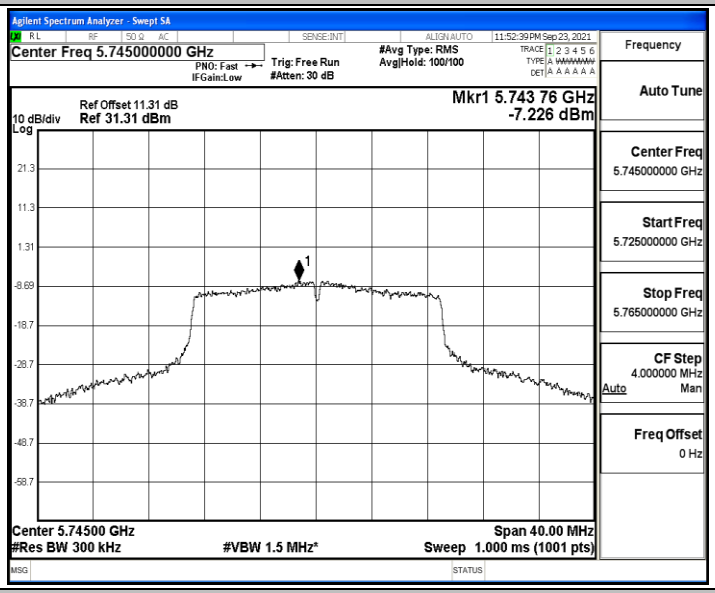
11N40SISO_Ant2_5755



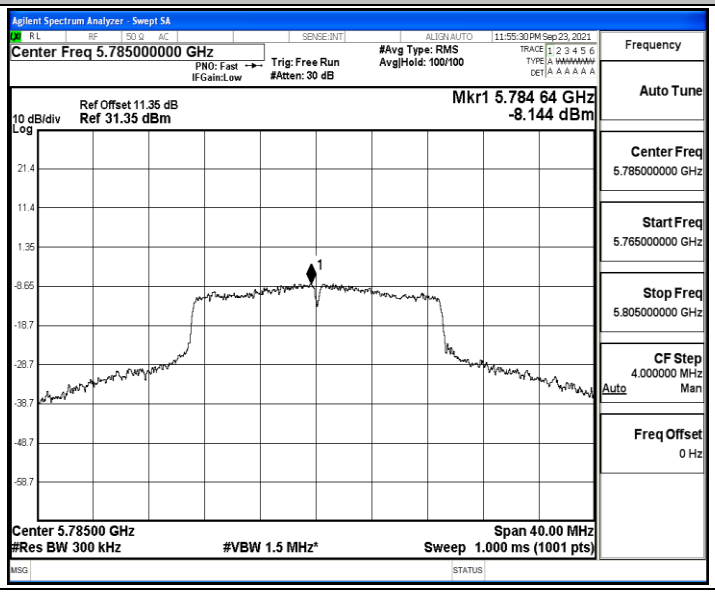
11N40SISO_Ant2_5795



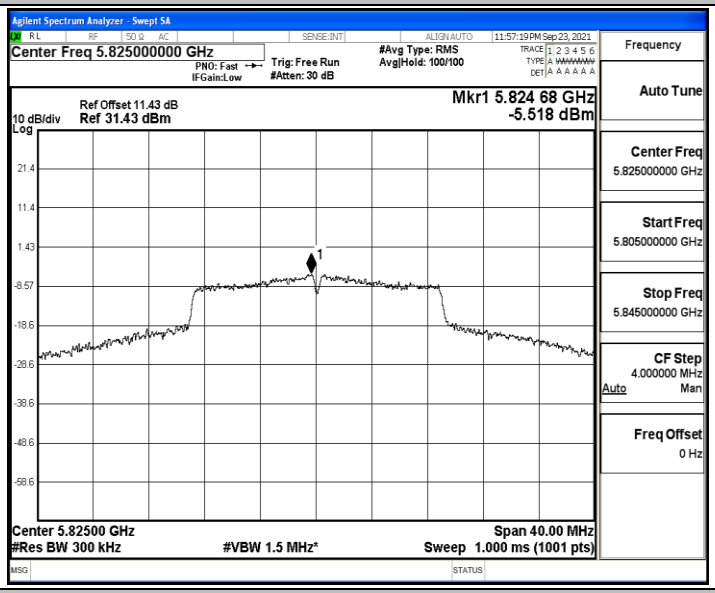
11AC20SISO_Ant2_5745



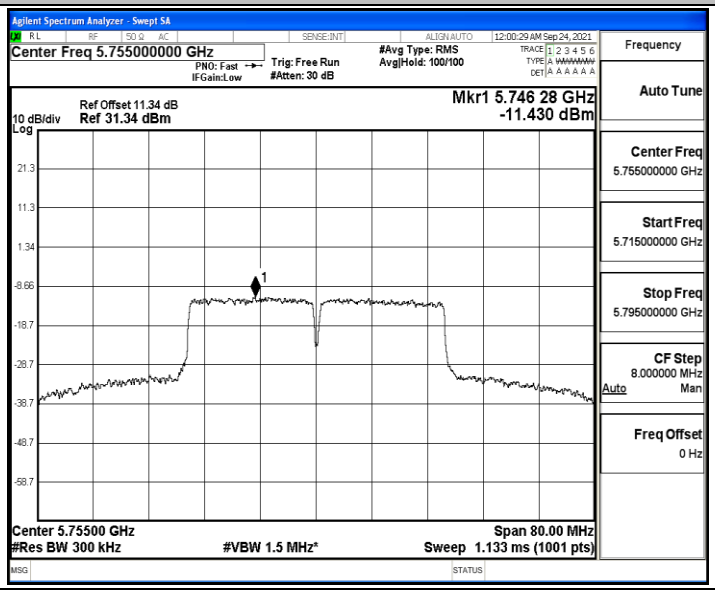
11AC20SISO_Ant2_5785

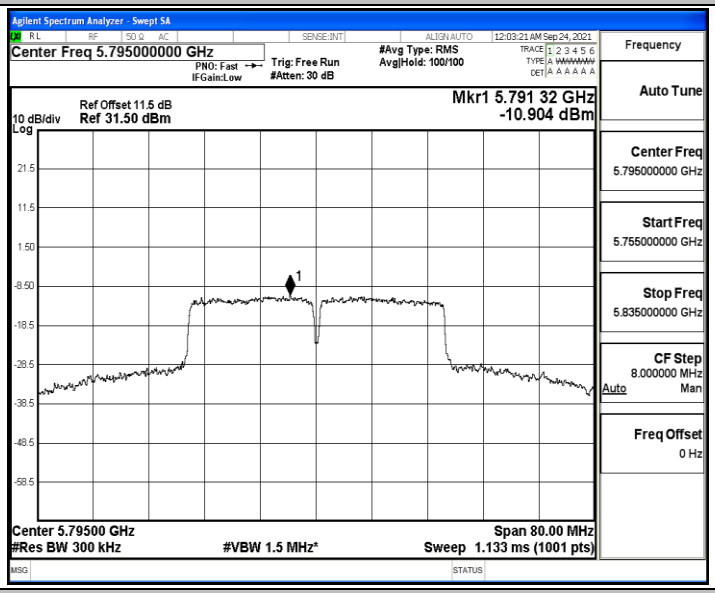


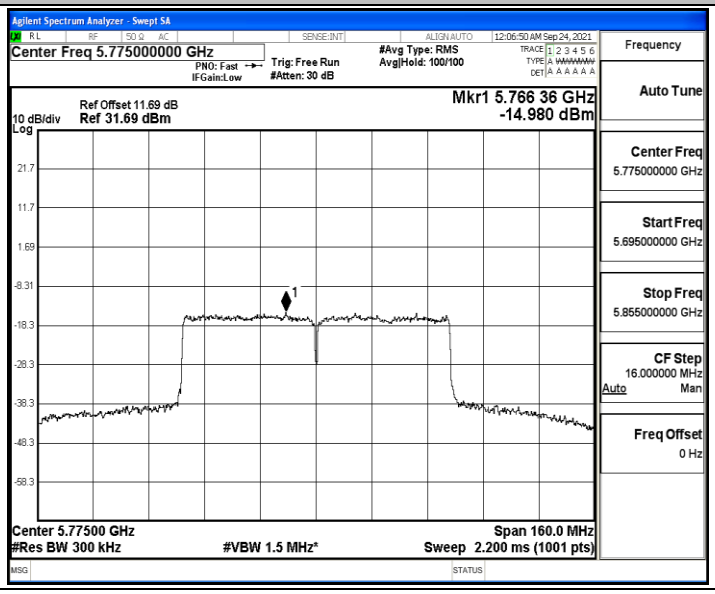
11AC20SISO_Ant2_5825



11AC40SISO_Ant2_5755



11AC40SISO_Ant2_5795


11AC80SISO_Ant2_5775


Appendix E.4.1: Min emission bandwidth

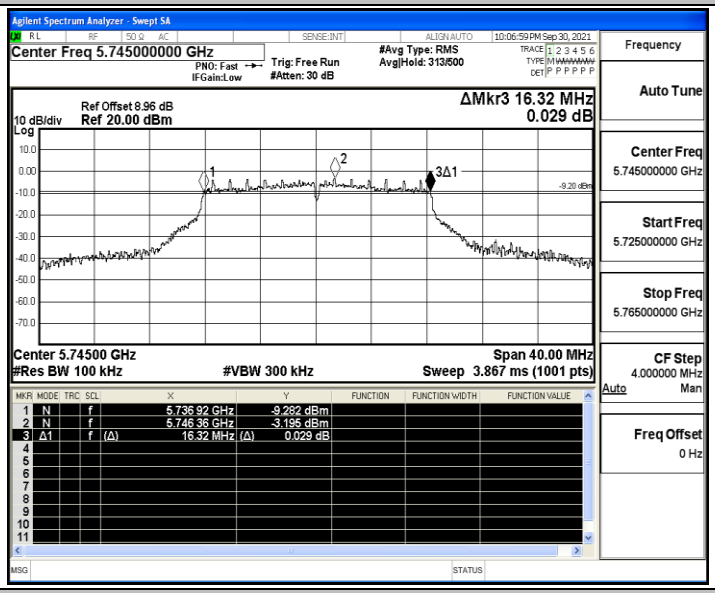
Test Result

ANT 1

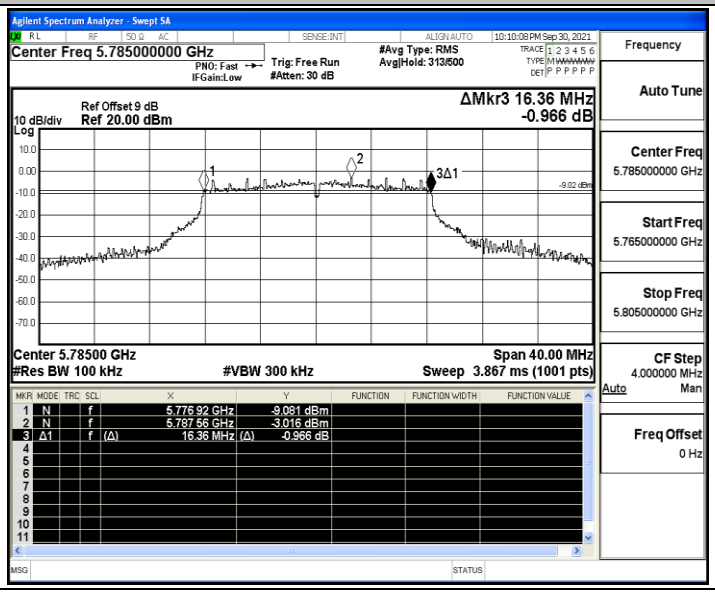
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.920	5753.240	0.5	PASS
		5785	16.360	5776.920	5793.280	0.5	PASS
		5825	16.120	5817.160	5833.280	0.5	PASS
11N20SISO	Ant1	5745	17.640	5736.240	5753.880	0.5	PASS
		5785	17.640	5776.280	5793.920	0.5	PASS
		5825	17.240	5816.640	5833.880	0.5	PASS
11N40SISO	Ant1	5755	36.480	5736.840	5773.320	0.5	PASS
		5795	36.240	5777.080	5813.320	0.5	PASS
11AC20SISO	Ant1	5745	17.360	5736.280	5753.640	0.5	PASS
		5785	17.360	5776.520	5793.880	0.5	PASS
		5825	16.720	5817.160	5833.880	0.5	PASS
11AC40SISO	Ant1	5755	36.480	5736.840	5773.320	0.5	PASS
		5795	36.320	5777.000	5813.320	0.5	PASS
11AC80SISO	Ant1	5775	76.640	5736.760	5813.400	0.5	PASS

Test Graphs

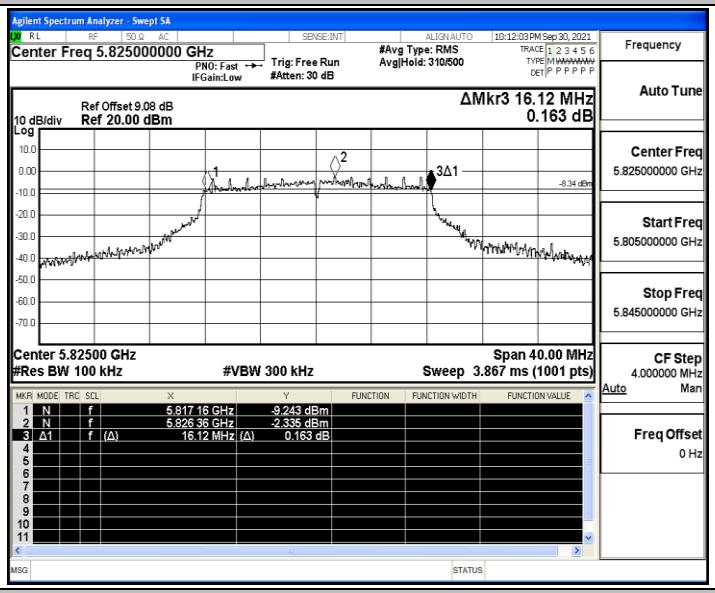
11A_Ant1_5745



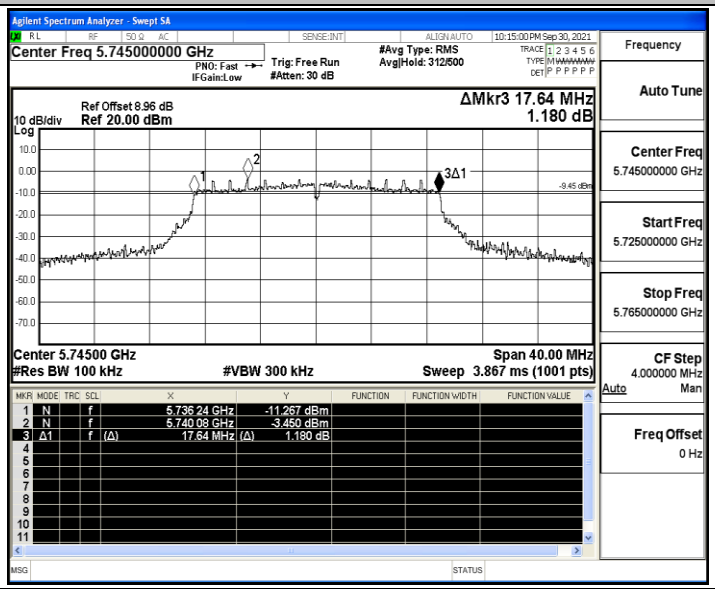
11A_Ant1_5785



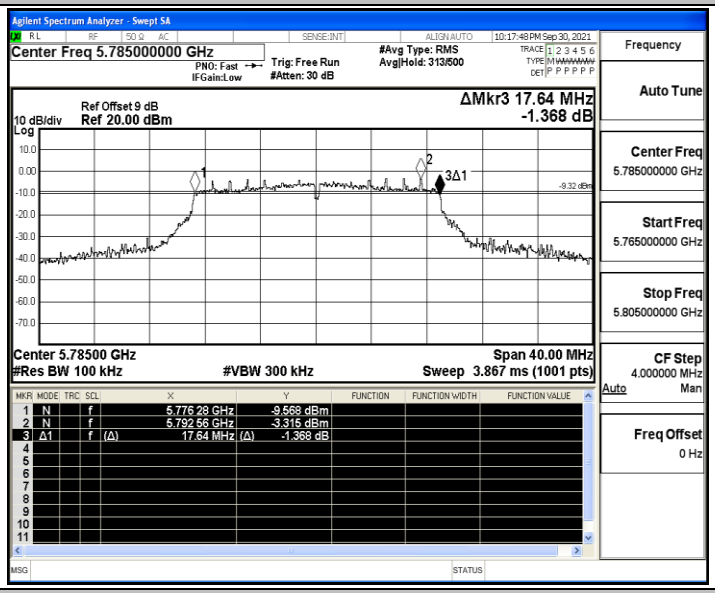
11A_Ant1_5825



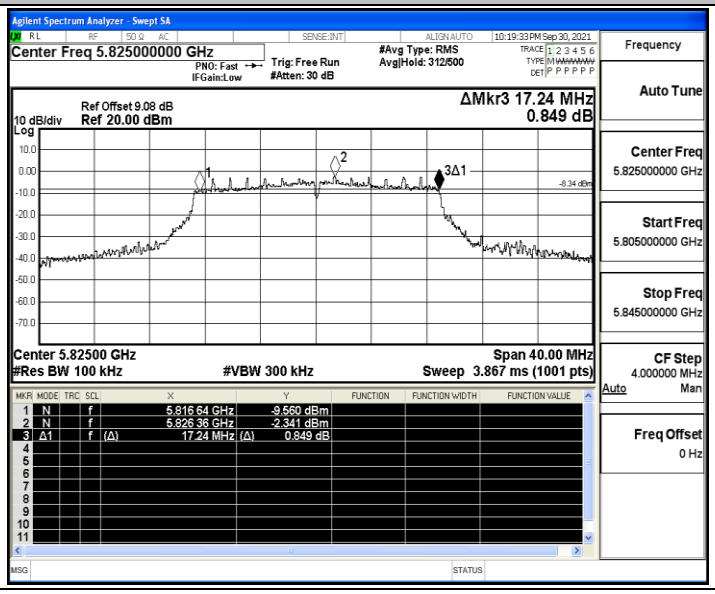
11N20SISO_Ant1_5745



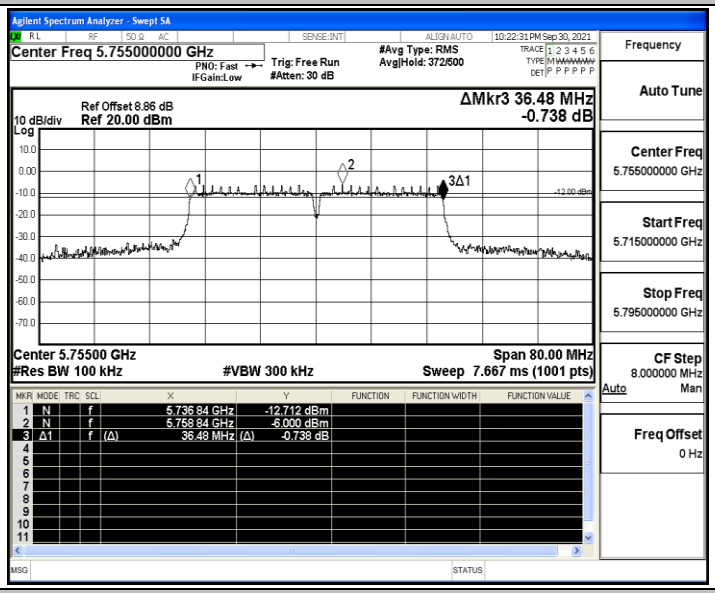
11N20SISO_Ant1_5785



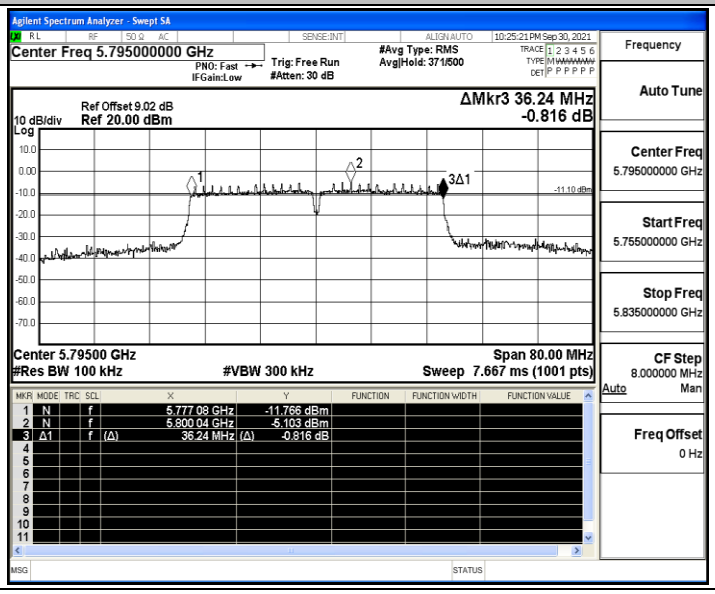
11N20SISO_Ant1_5825



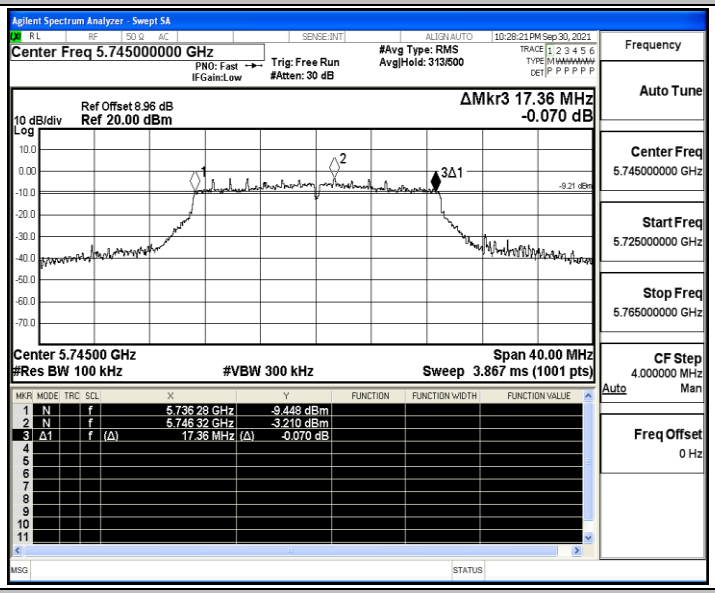
11N40SISO_Ant1_5755



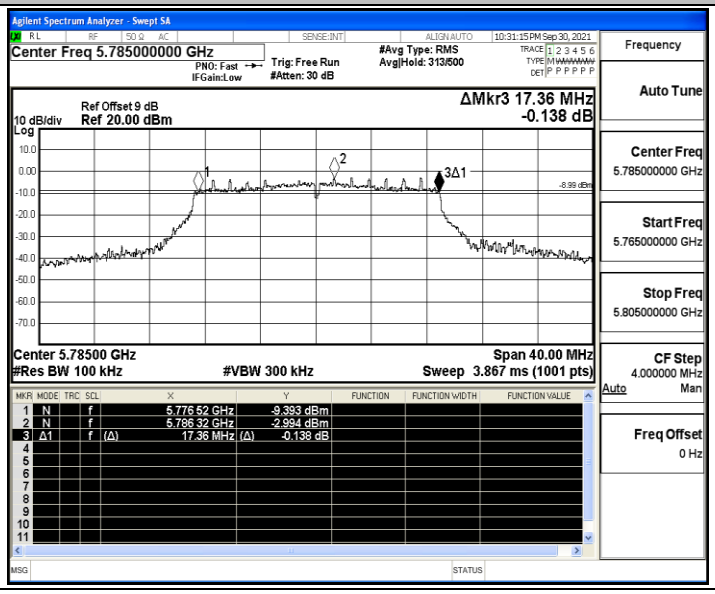
11N40SISO_Ant1_5795



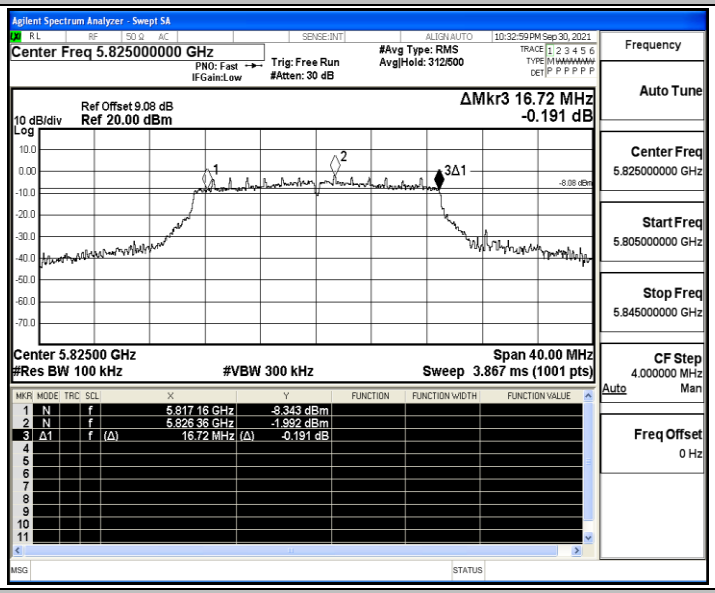
11AC20SISO_Ant1_5745



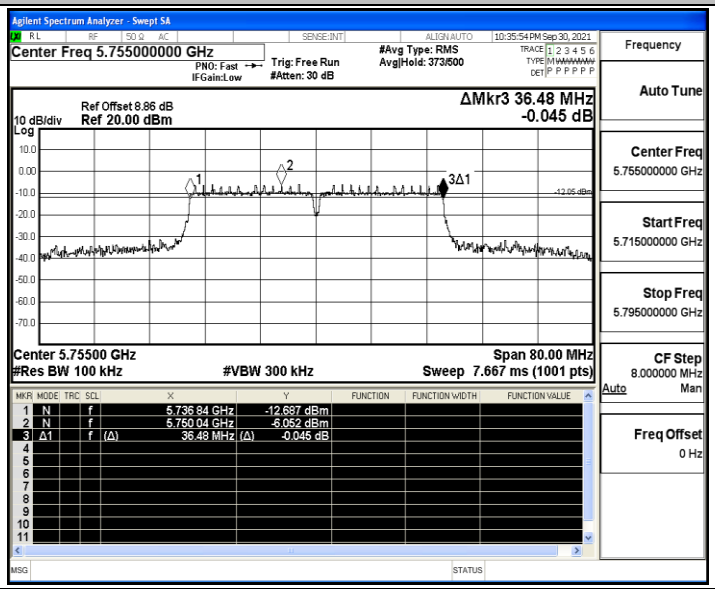
11AC20SISO_Ant1_5785



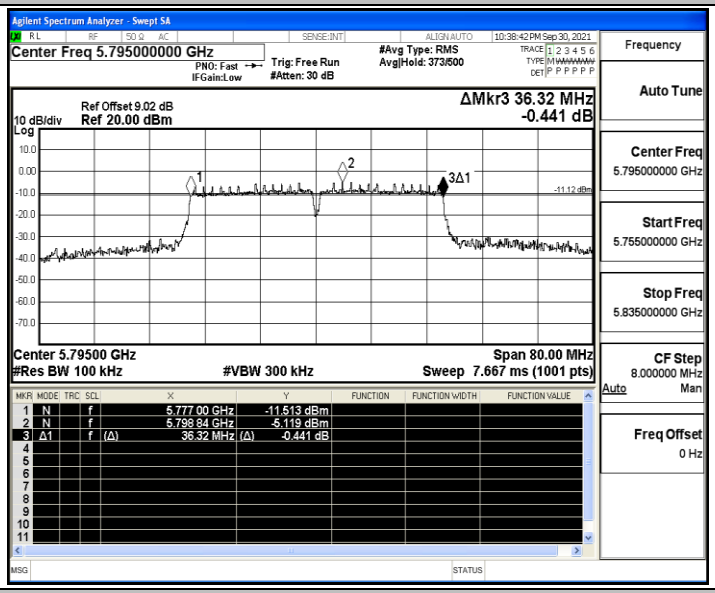
11AC20SISO_Ant1_5825



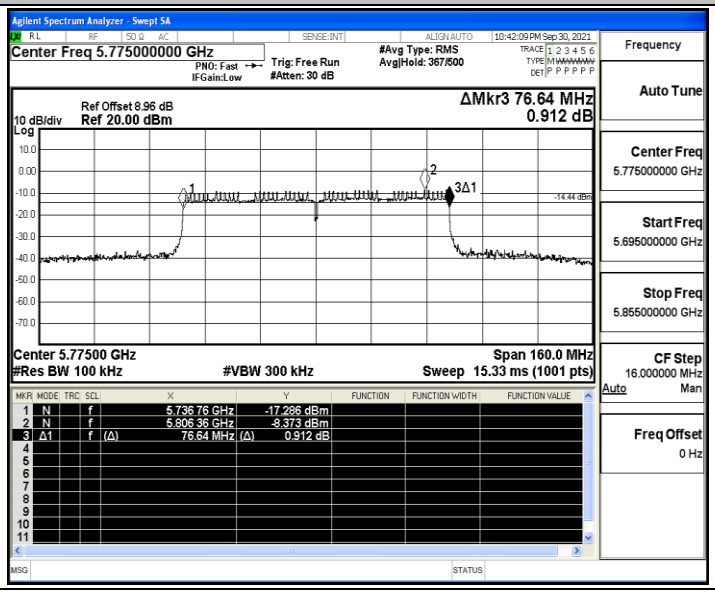
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775

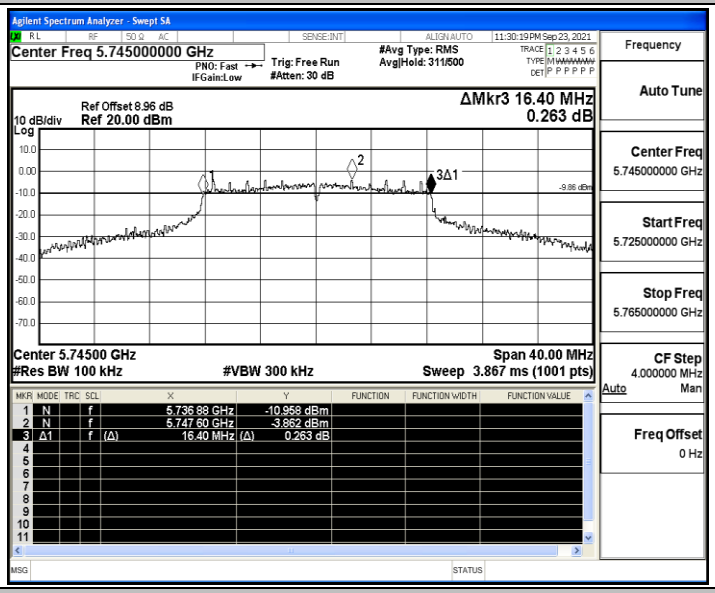


ANT 2

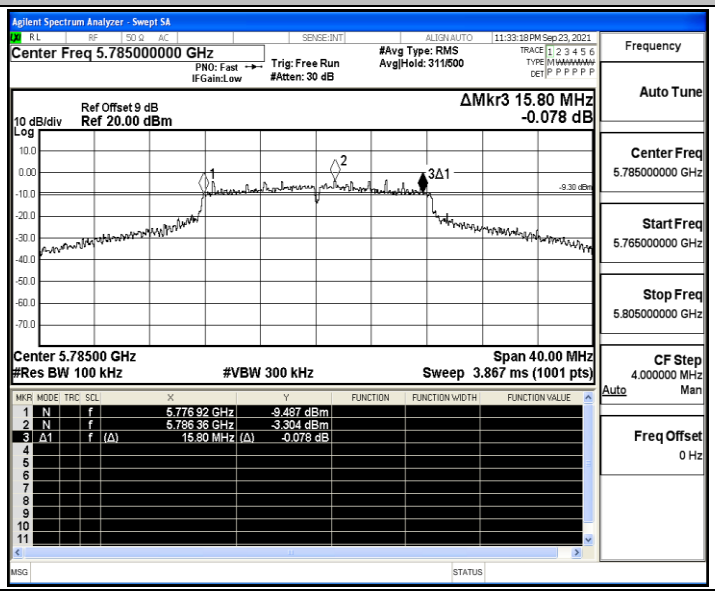
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant2	5745	16.400	5736.880	5753.280	0.5	PASS
		5785	15.800	5776.920	5792.720	0.5	PASS
		5825	15.840	5817.160	5833.000	0.5	PASS
11N20SISO	Ant2	5745	17.240	5736.280	5753.520	0.5	PASS
		5785	17.600	5776.280	5793.880	0.5	PASS
		5825	17.720	5816.240	5833.960	0.5	PASS
11N40SISO	Ant2	5755	36.560	5736.760	5773.320	0.5	PASS
		5795	36.480	5776.840	5813.320	0.5	PASS
11AC20SISO	Ant2	5745	17.600	5736.280	5753.880	0.5	PASS
		5785	17.600	5776.280	5793.880	0.5	PASS
		5825	17.680	5816.240	5833.920	0.5	PASS
11AC40SISO	Ant2	5755	36.480	5736.840	5773.320	0.5	PASS
		5795	36.480	5776.840	5813.320	0.5	PASS
11AC80SISO	Ant2	5775	76.640	5736.760	5813.400	0.5	PASS

Test Graphs

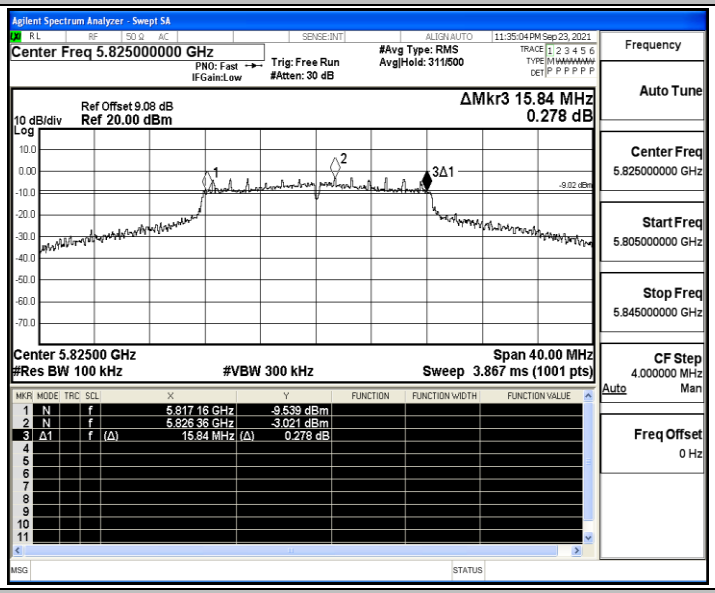
11A_Ant2_5745



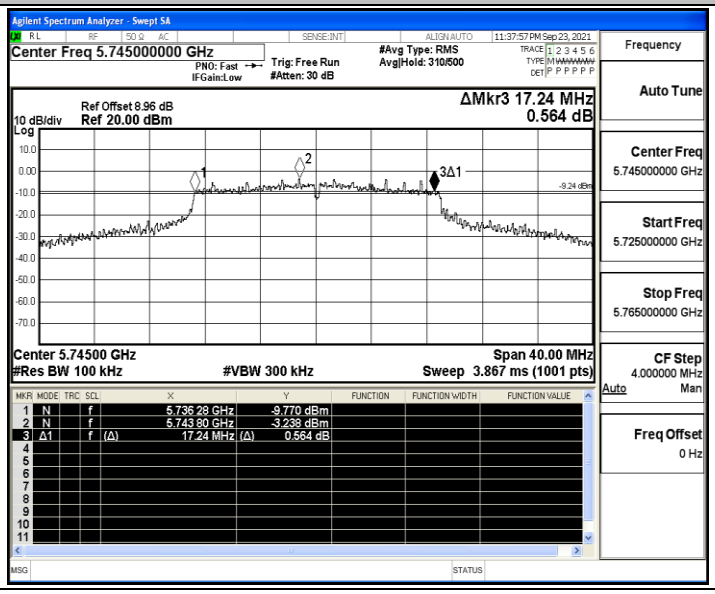
11A_Ant2_5785



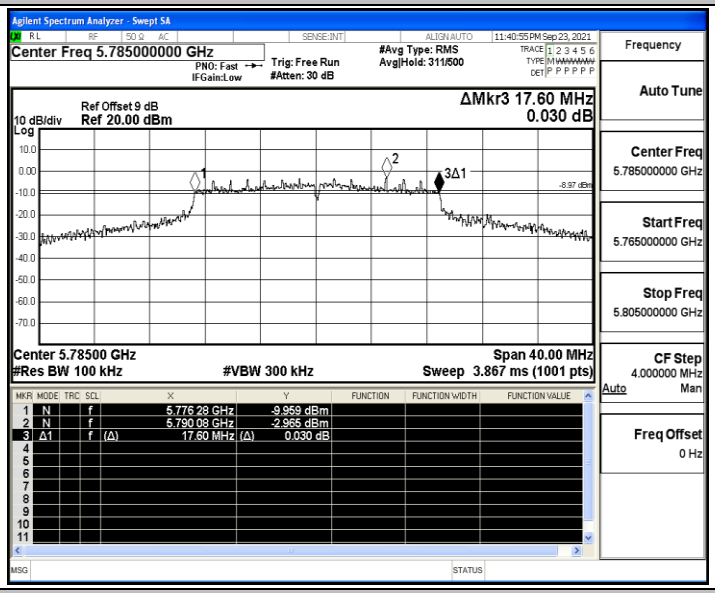
11A_Ant2_5825



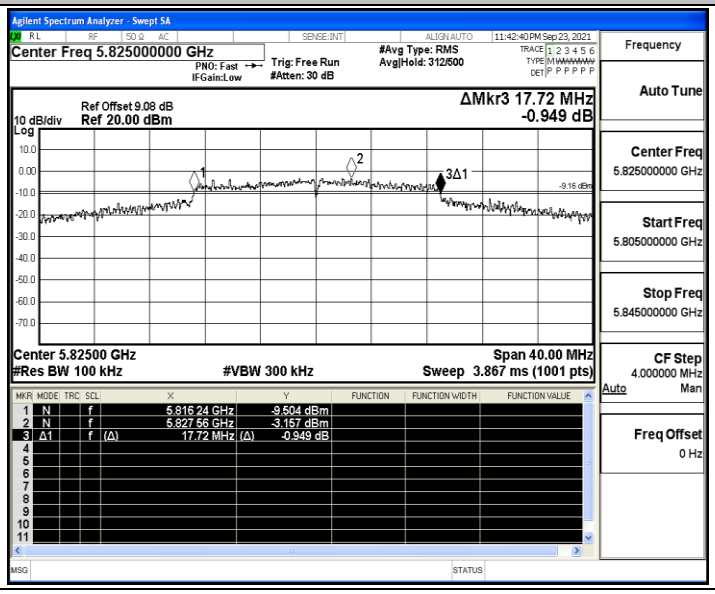
11N20SISO_Ant2_5745



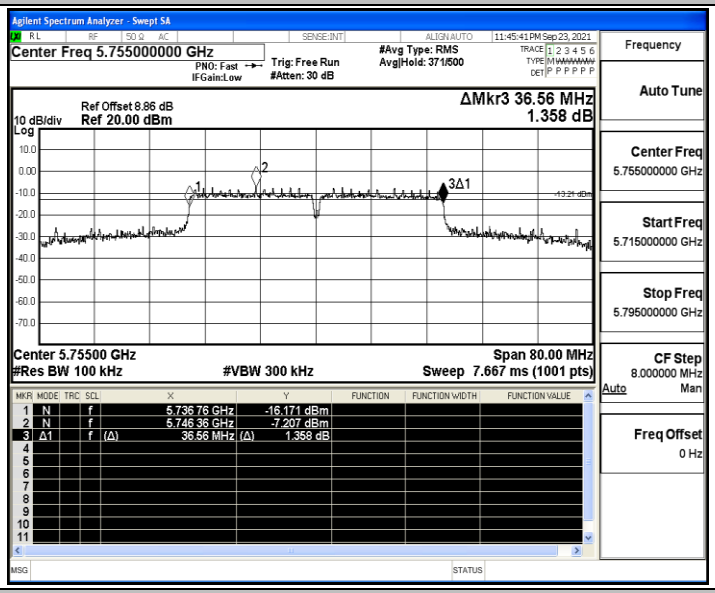
11N20SISO_Ant2_5785



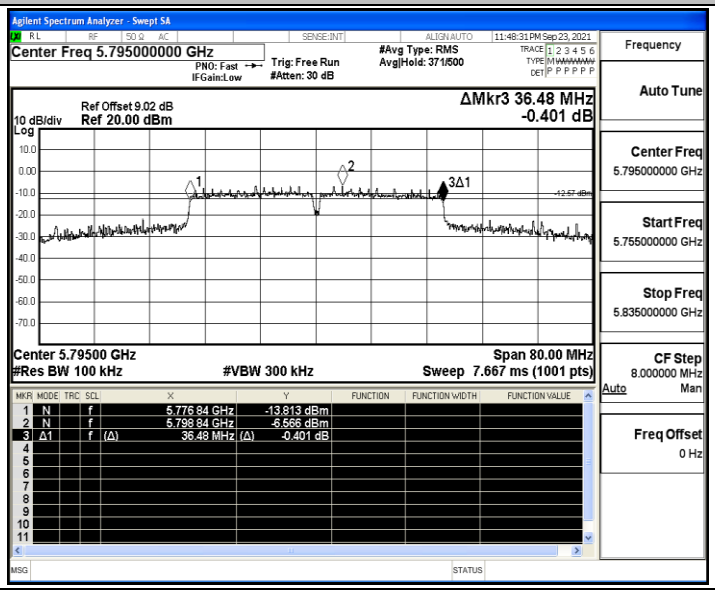
11N20SISO_Ant2_5825



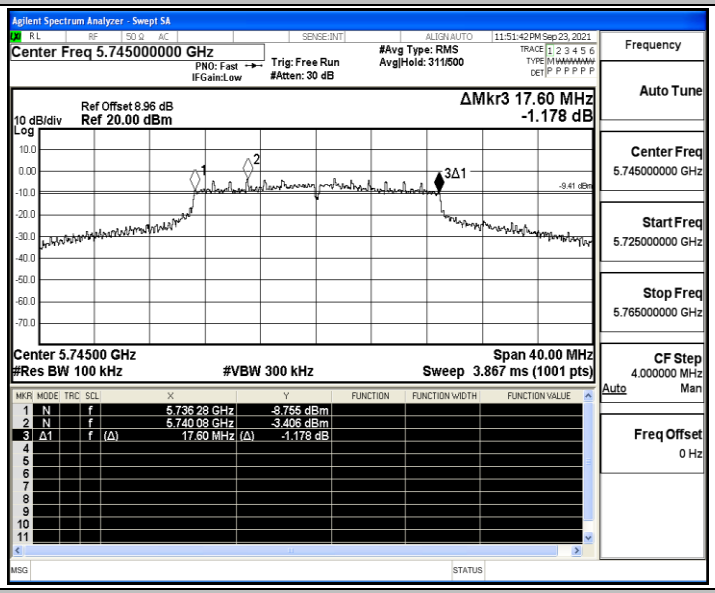
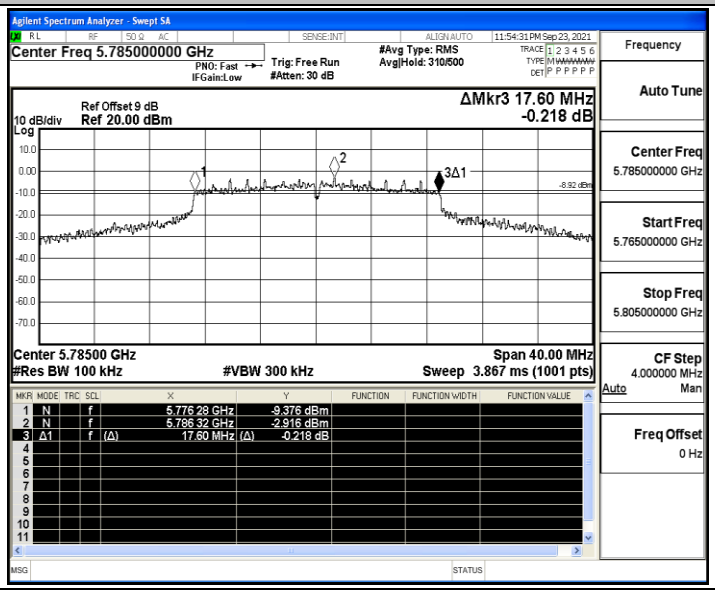
11N40SISO_Ant2_5755



11N40SISO_Ant2_5795



11AC20SISO_Ant2_5745



11AC20SISO_Ant2_5785