

RF Test Data for RLAN(5. 8G) (Conducted Measurement)

Product Name: Drone

Trade Mark: /

Test Model: 019

FCC ID: 2A45M-XIL019W

Environmental Conditions

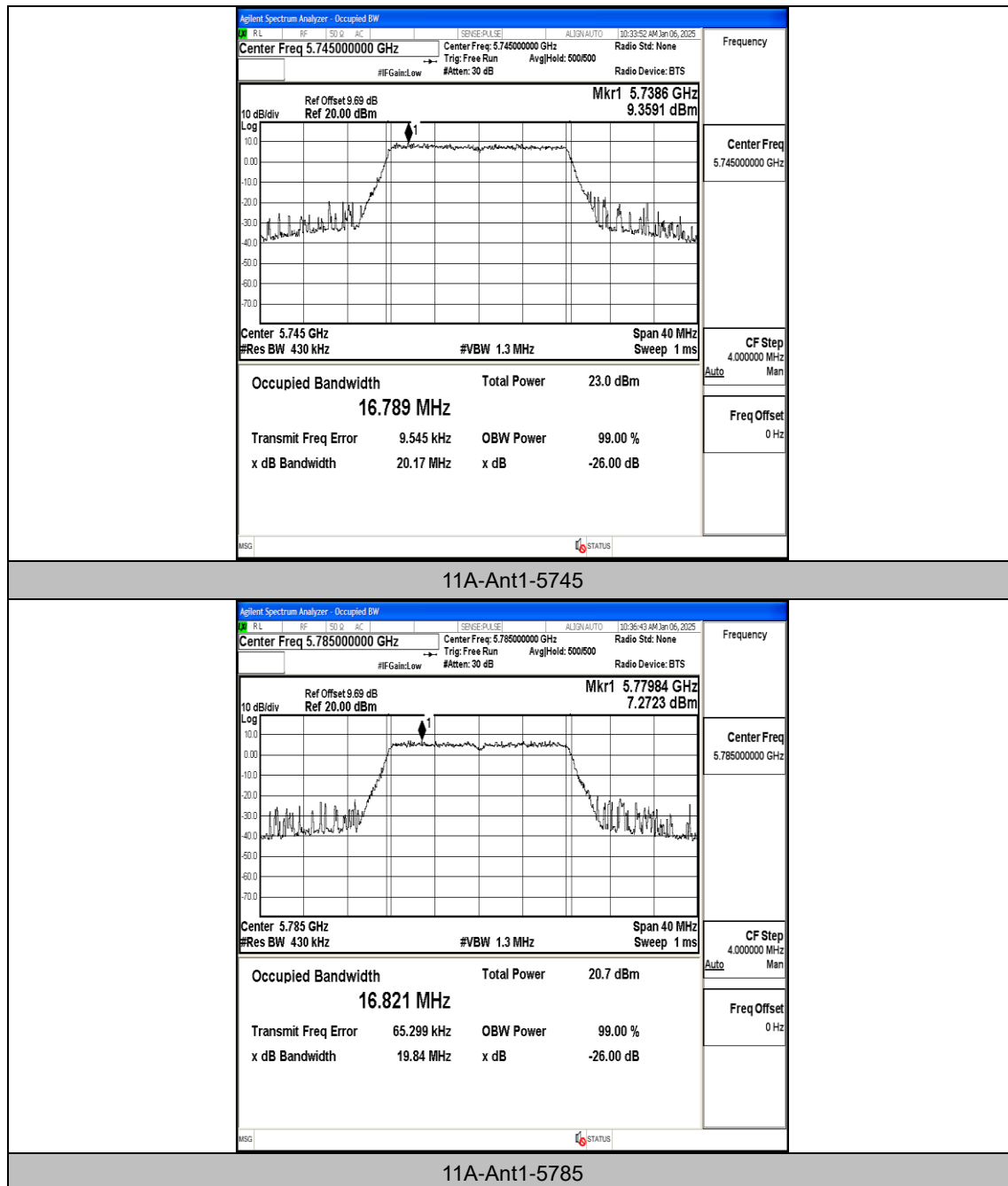
Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

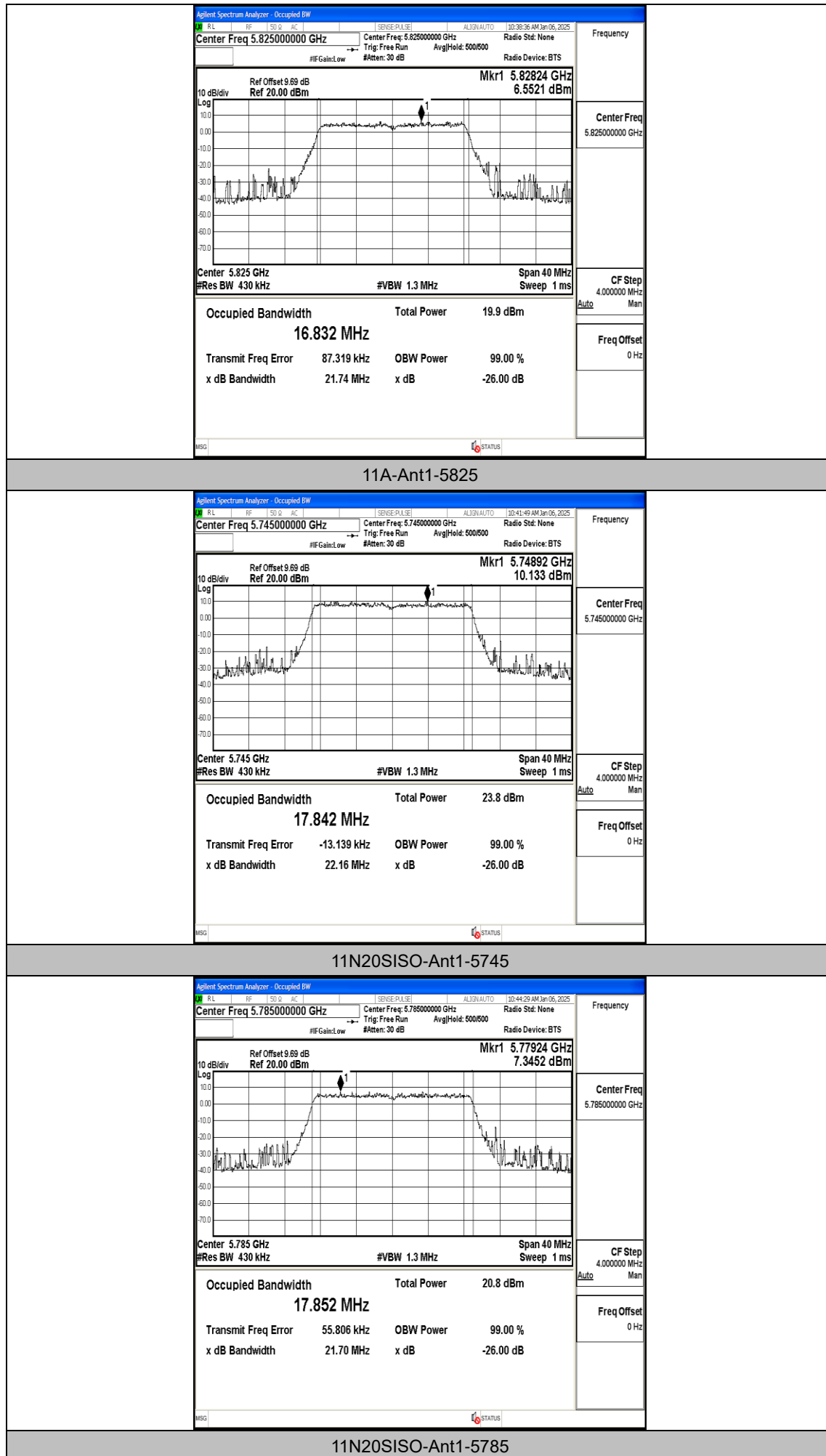
Appendix A2: Occupied channel bandwidth

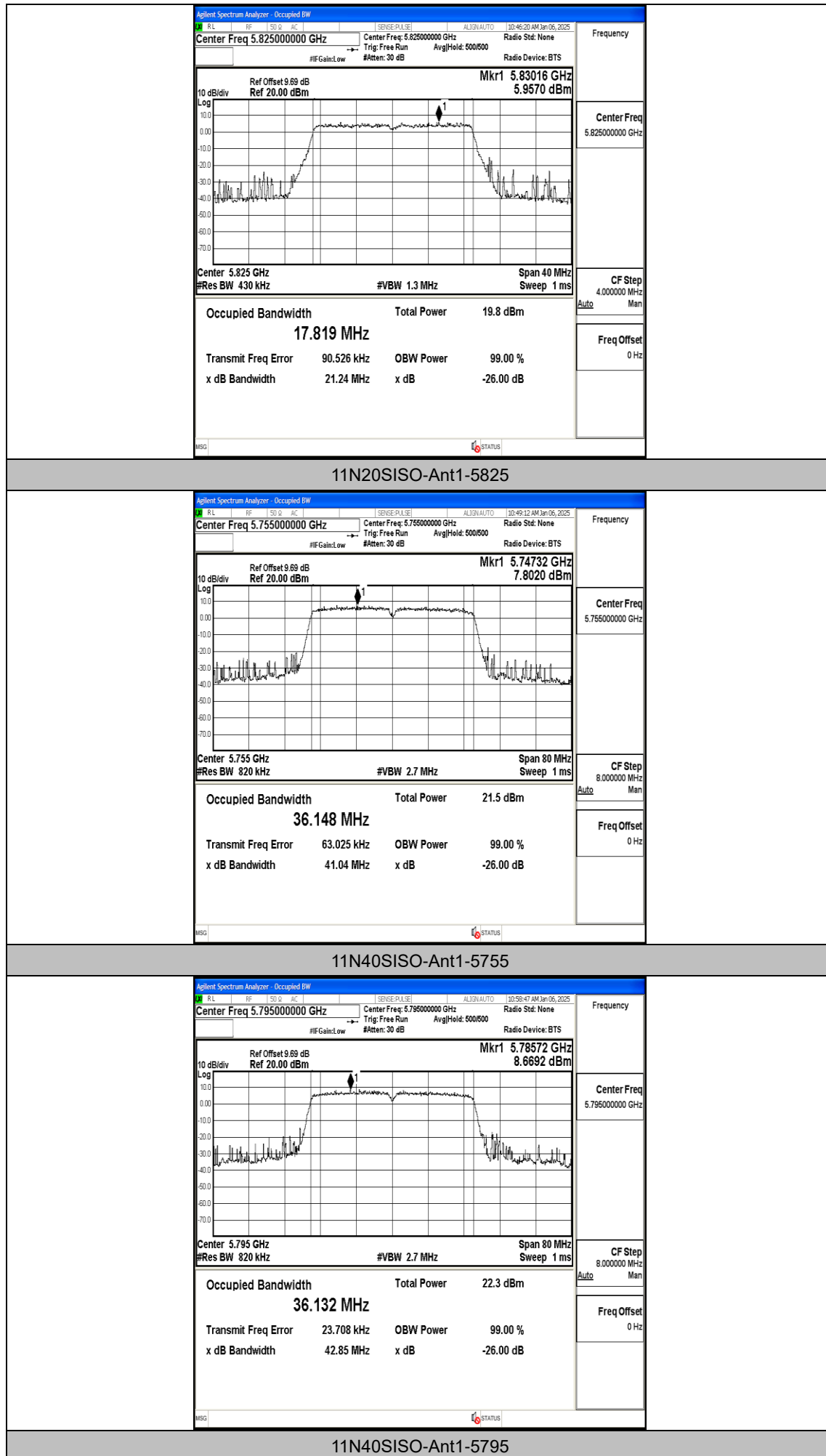
Test Result

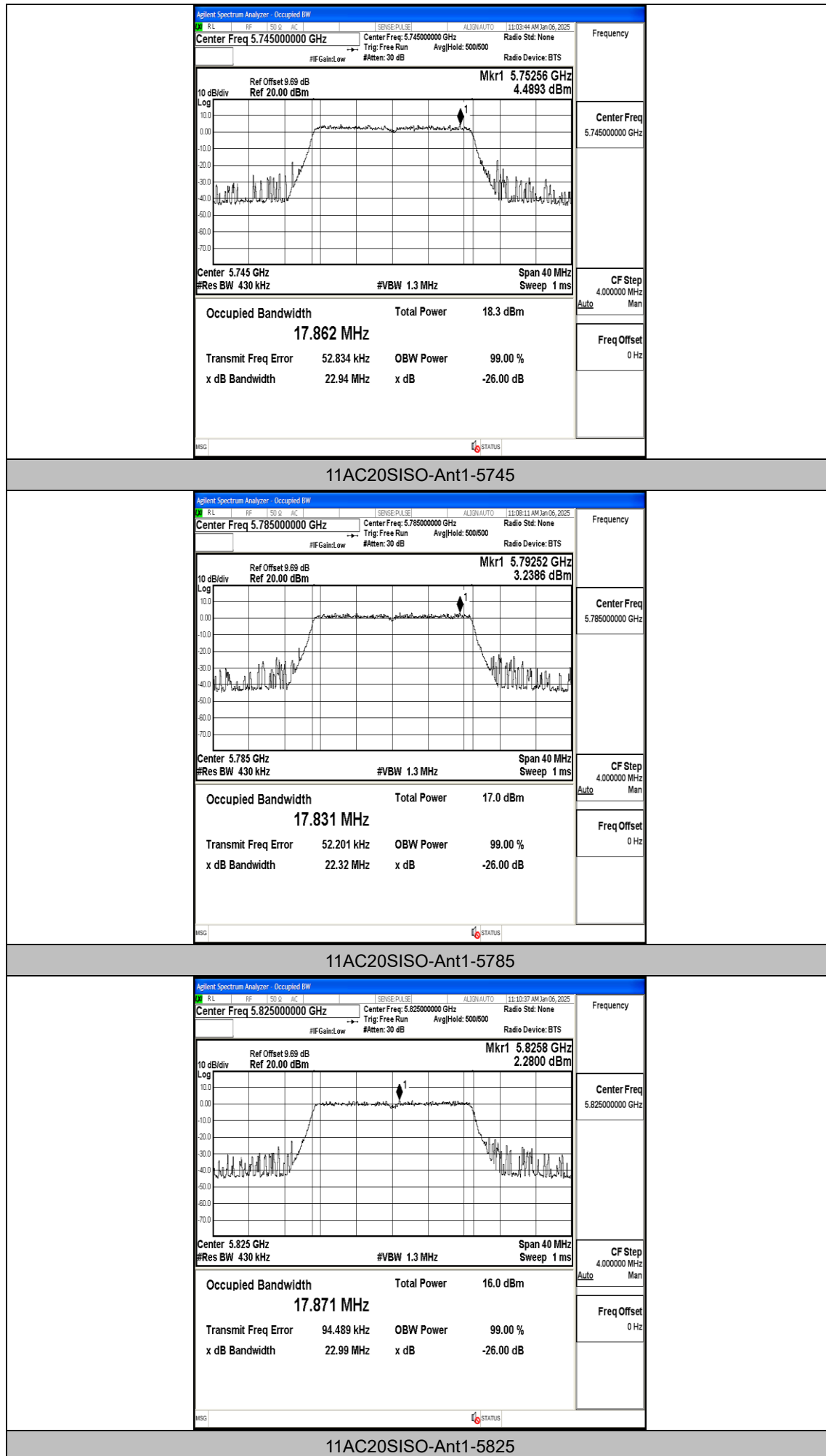
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.789	5736.6151	5753.4041	---	---
11A	Ant1	5785	16.821	5776.6548	5793.4758	---	---
11A	Ant1	5825	16.832	5816.6713	5833.5033	---	---
11N20SISO	Ant1	5745	17.842	5736.0659	5753.9079	---	---
11N20SISO	Ant1	5785	17.852	5776.1298	5793.9818	---	---
11N20SISO	Ant1	5825	17.819	5816.1810	5834.0000	---	---
11N40SISO	Ant1	5755	36.148	5736.9890	5773.1370	---	---
11N40SISO	Ant1	5795	36.132	5776.9577	5813.0897	---	---
11AC20SISO	Ant1	5745	17.862	5736.1218	5753.9838	---	---
11AC20SISO	Ant1	5785	17.831	5776.1367	5793.9677	---	---
11AC20SISO	Ant1	5825	17.871	5816.1590	5834.0300	---	---
11AC40SISO	Ant1	5755	36.061	5737.0236	5773.0846	---	---
11AC40SISO	Ant1	5795	36.145	5776.9903	5813.1353	---	---

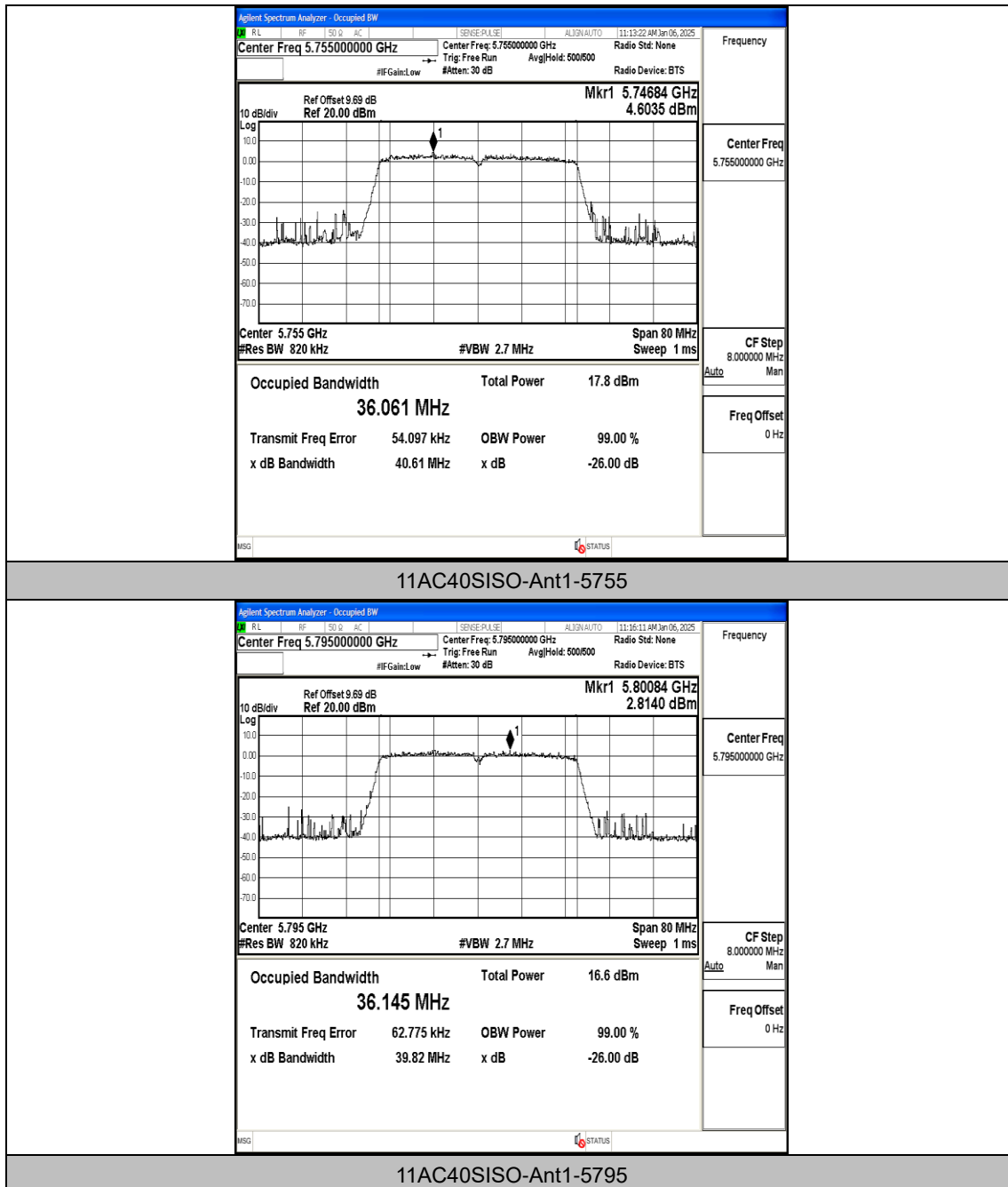
Test Graphs









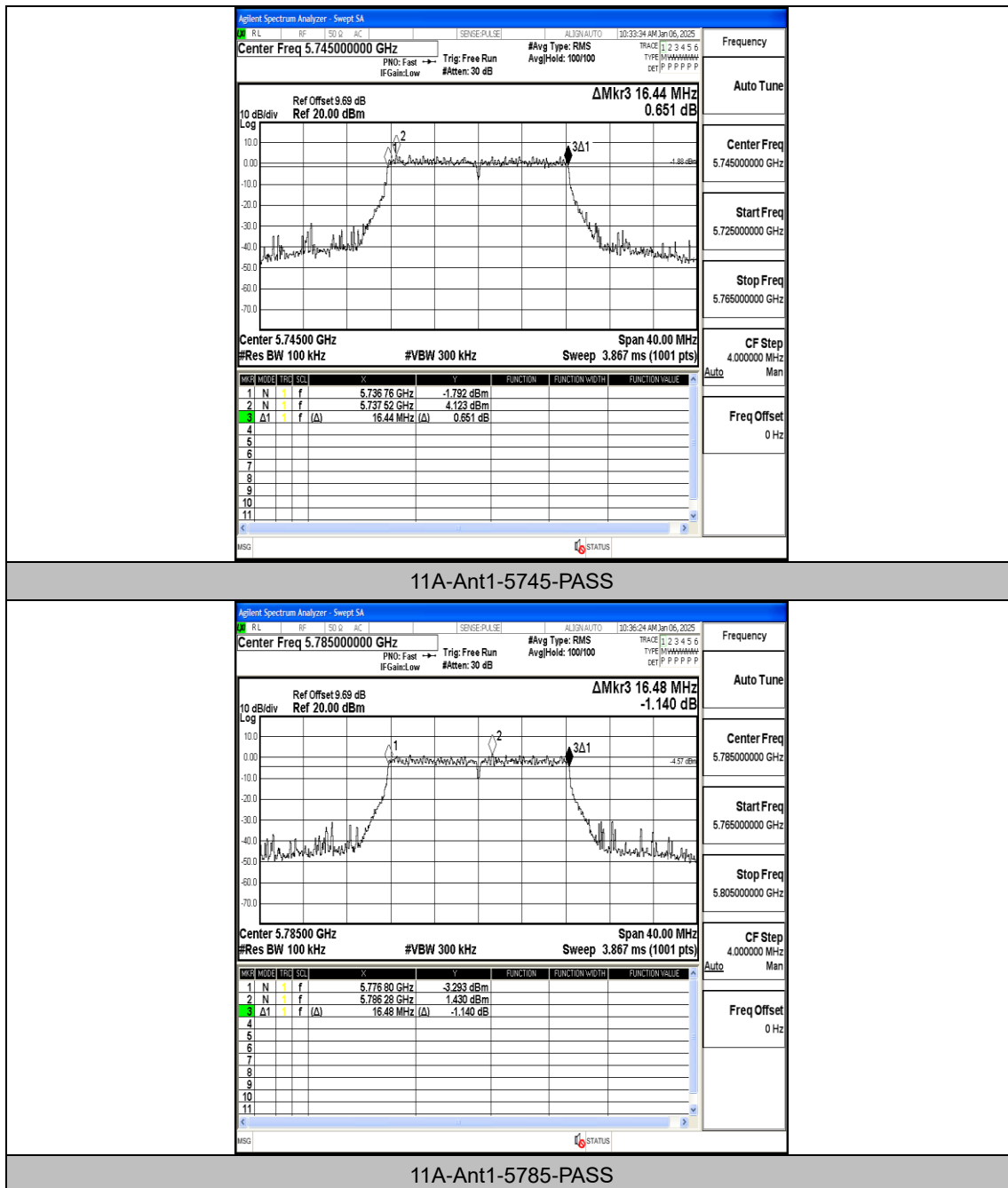


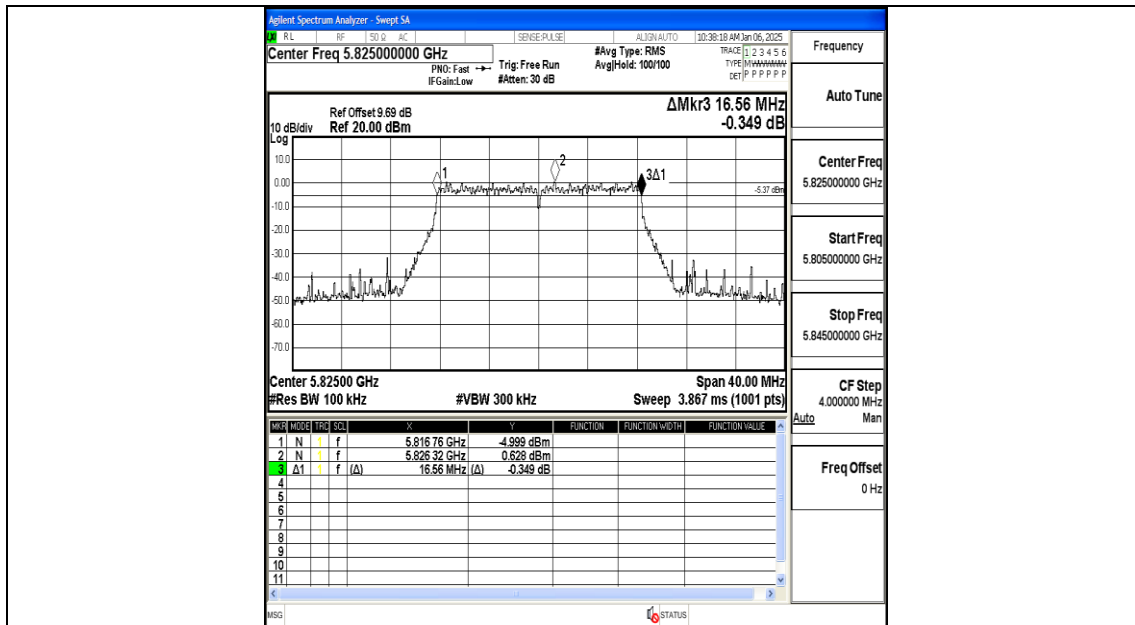
Appendix A: Min emission bandwidth

Test Result

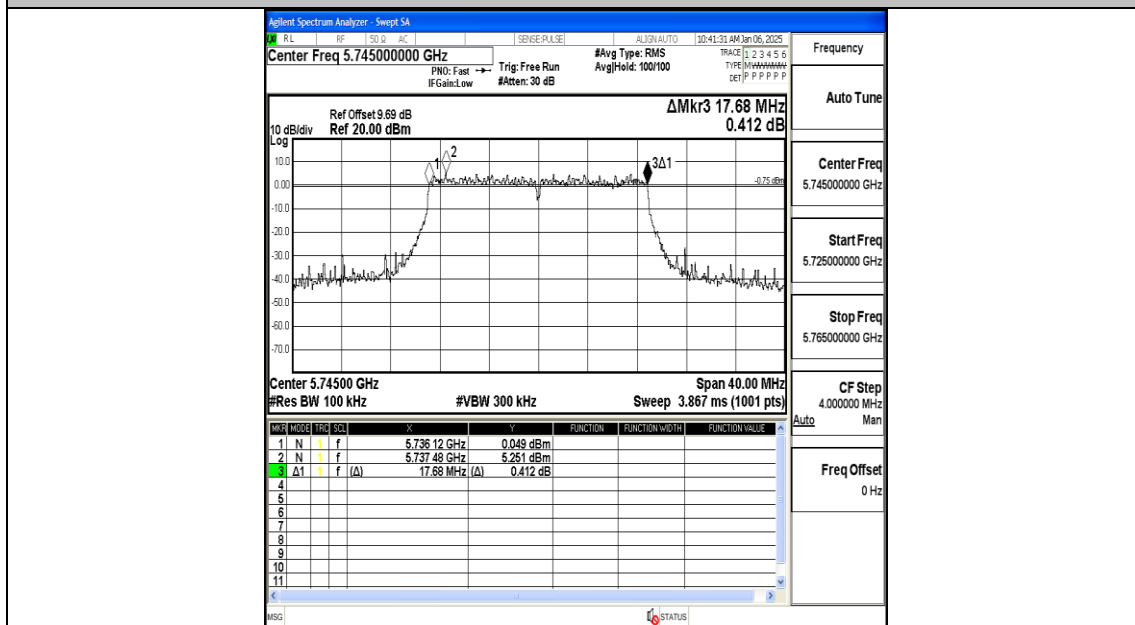
Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.440	5736.760	5753.200	0.5	PASS
11A	Ant1	5785	16.480	5776.800	5793.280	0.5	PASS
11A	Ant1	5825	16.560	5816.760	5833.320	0.5	PASS
11N20SISO	Ant1	5745	17.680	5736.120	5753.800	0.5	PASS
11N20SISO	Ant1	5785	17.720	5776.160	5793.880	0.5	PASS
11N20SISO	Ant1	5825	17.680	5816.240	5833.920	0.5	PASS
11N40SISO	Ant1	5755	36.320	5736.840	5773.160	0.5	PASS
11N40SISO	Ant1	5795	36.400	5776.760	5813.160	0.5	PASS
11AC20SISO	Ant1	5745	17.680	5736.200	5753.880	0.5	PASS
11AC20SISO	Ant1	5785	17.720	5776.160	5793.880	0.5	PASS
11AC20SISO	Ant1	5825	17.640	5816.240	5833.880	0.5	PASS
11AC40SISO	Ant1	5755	35.680	5736.920	5772.600	0.5	PASS
11AC40SISO	Ant1	5795	36.000	5776.920	5812.920	0.5	PASS

Test Graphs

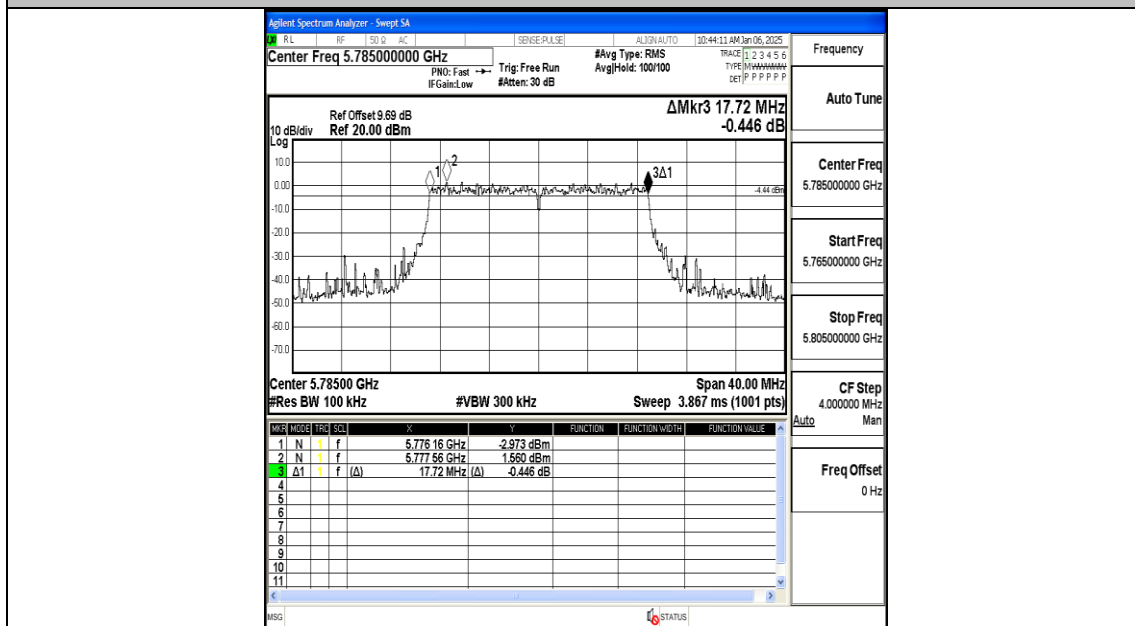




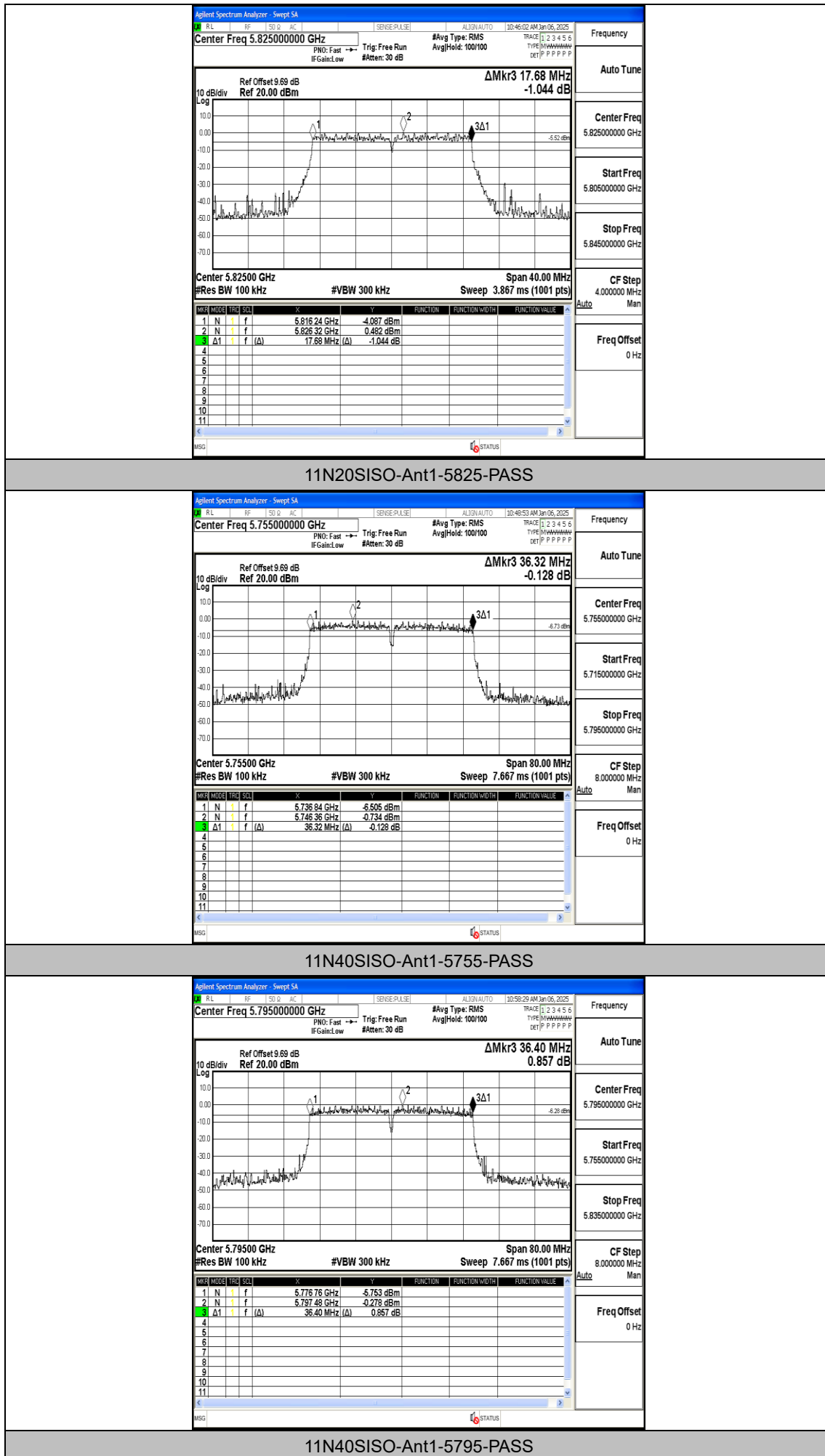
11A-Ant1-5825-PASS

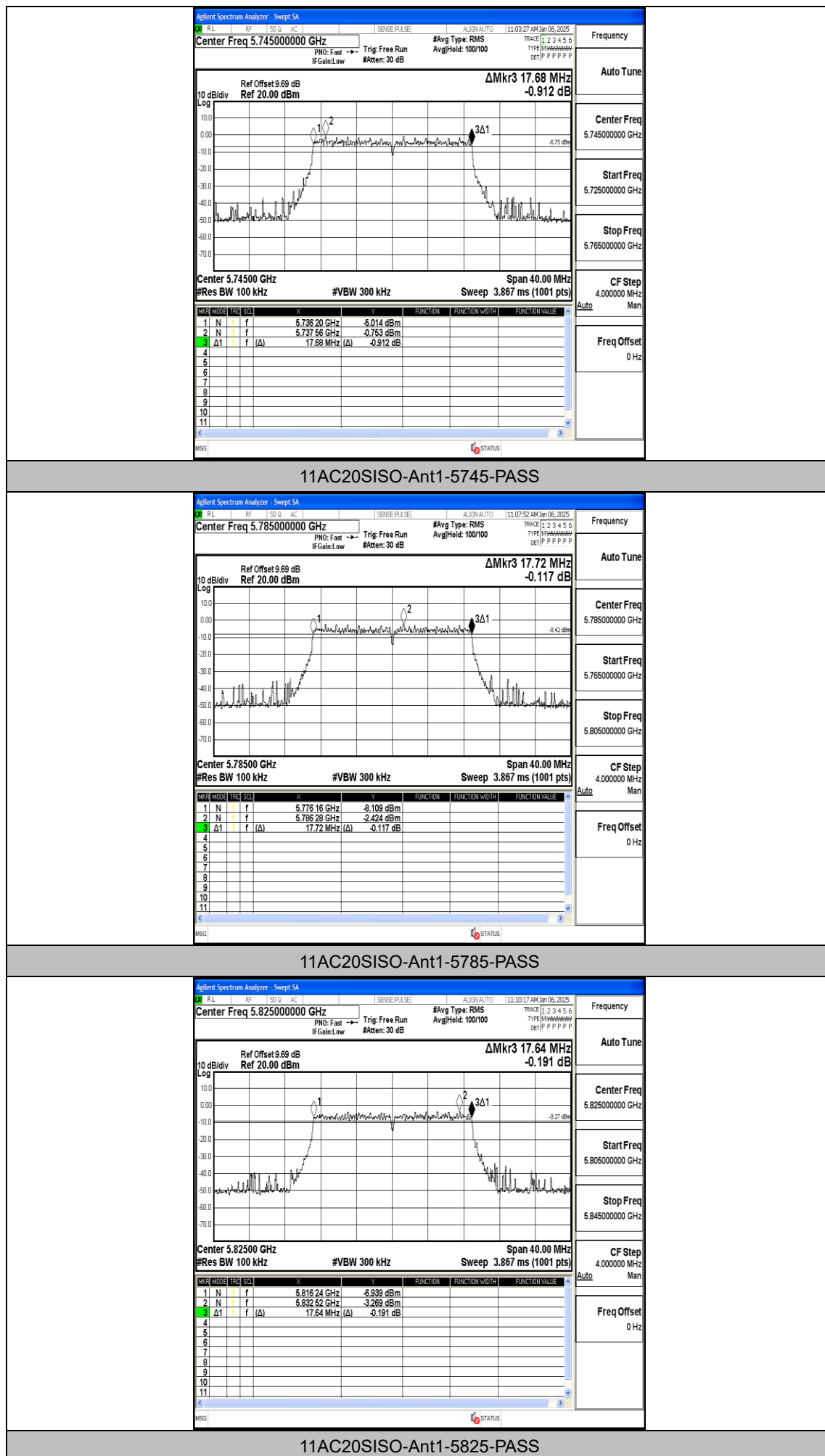


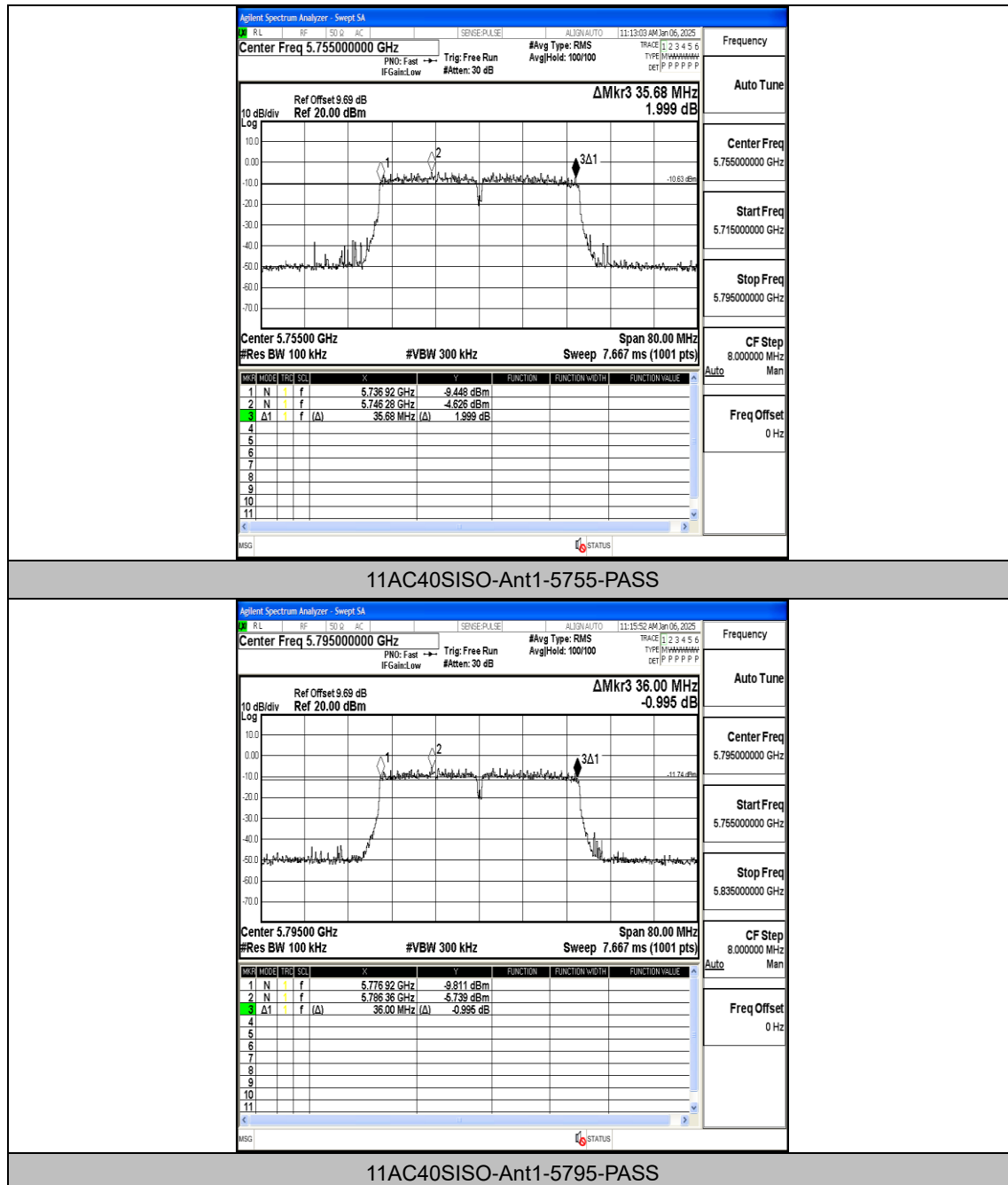
11N20SISO-Ant1-5745-PASS



11N20SISO-Ant1-5785-PASS







Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	16.63	≤30.00	PASS
11A	Ant1	5785	13.35	≤30.00	PASS
11A	Ant1	5825	13.07	≤30.00	PASS
11N20SISO	Ant1	5745	15.89	≤30.00	PASS
11N20SISO	Ant1	5785	13.50	≤30.00	PASS
11N20SISO	Ant1	5825	12.63	≤30.00	PASS
11N40SISO	Ant1	5755	14.05	≤30.00	PASS
11N40SISO	Ant1	5795	14.40	≤30.00	PASS
11AC20SISO	Ant1	5745	11.02	≤30.00	PASS
11AC20SISO	Ant1	5785	9.73	≤30.00	PASS
11AC20SISO	Ant1	5825	8.86	≤30.00	PASS
11AC40SISO	Ant1	5755	10.55	≤30.00	PASS
11AC40SISO	Ant1	5795	9.17	≤30.00	PASS

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

Appendix C: Maximum power spectral density

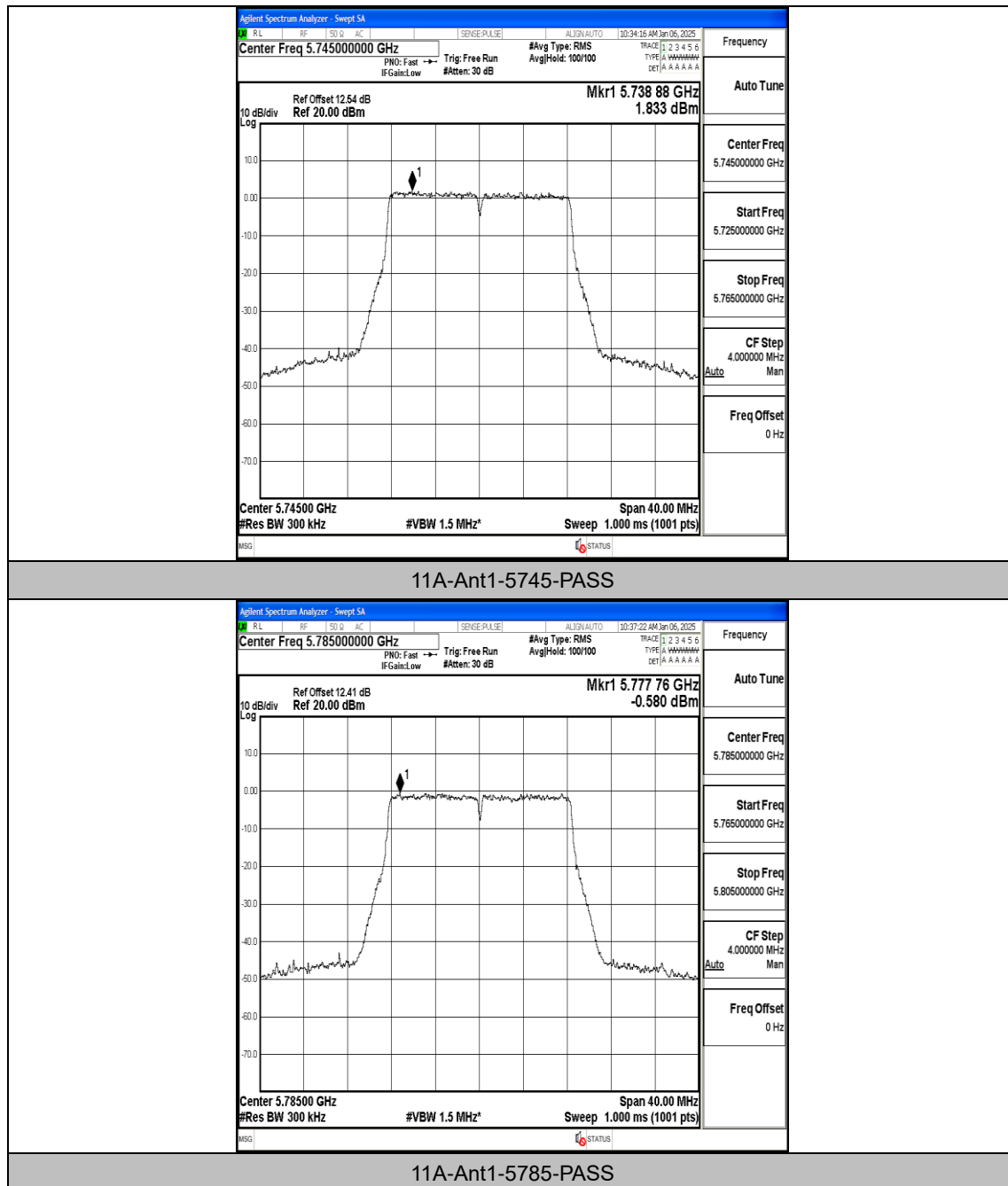
Test Result

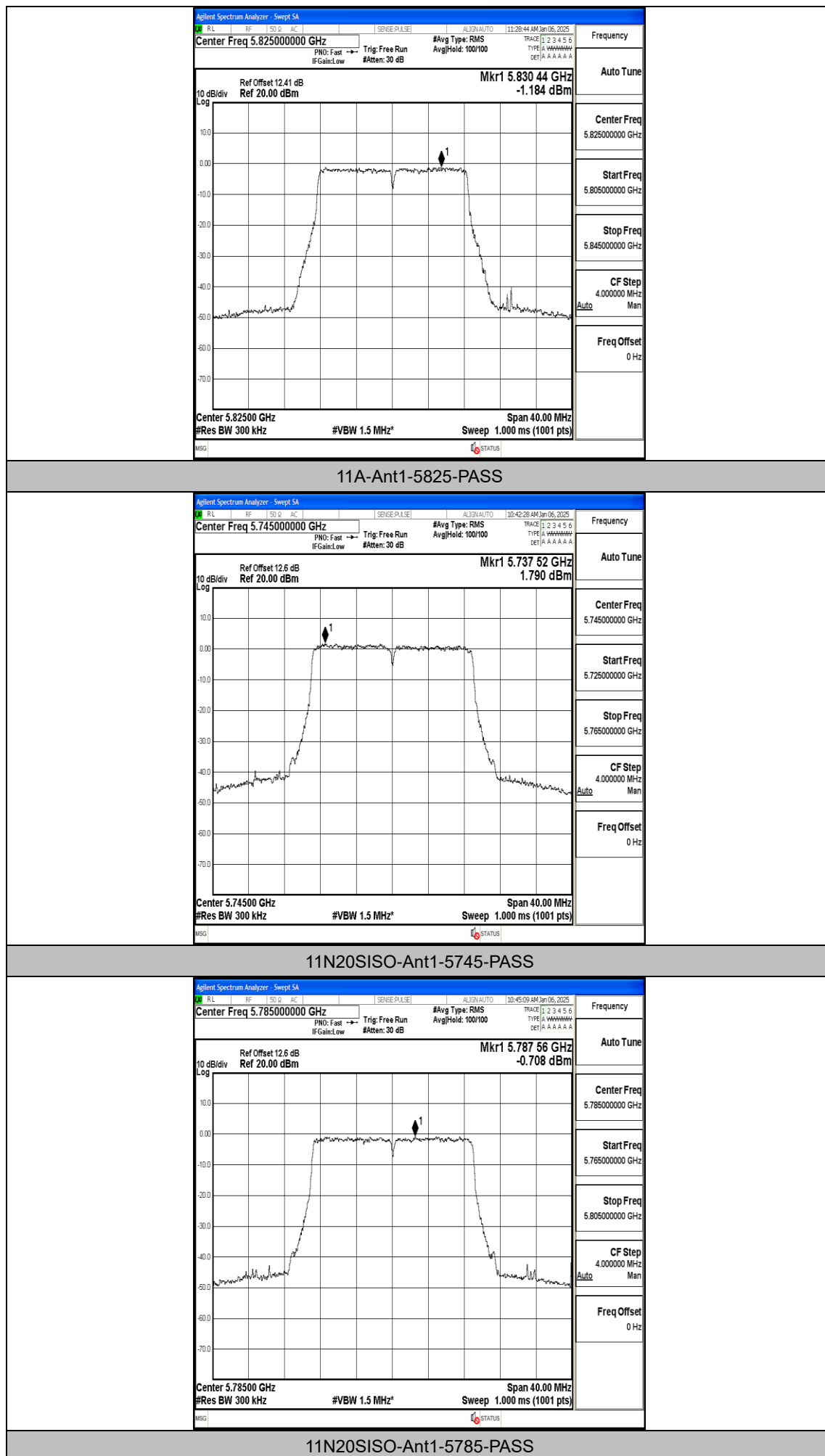
Frequency [MHz]	Test Mode	Antenna	Result [dBm/MHz]	DC Factor [dB]	RBW Factor [dB]	Limit [dBm/MHz]	Verdict
5745	11A	Ant1	1.83	0.63	2.22	≤30.00	PASS
5785	11A	Ant1	-0.58	0.50	2.22	≤30.00	PASS
5825	11A	Ant1	-1.18	0.50	2.22	≤30.00	PASS
5745	11N20SI SO	Ant1	1.79	0.69	2.22	≤30.00	PASS
5785	11N20SI SO	Ant1	-0.71	0.69	2.22	≤30.00	PASS
5825	11N20SI SO	Ant1	-1.22	0.69	2.22	≤30.00	PASS
5755	11N40SI SO	Ant1	-2.04	1.18	2.22	≤30.00	PASS
5795	11N40SI SO	Ant1	-2.27	0.97	2.22	≤30.00	PASS
5745	11AC20 SISO	Ant1	-3.21	0.69	2.22	≤30.00	PASS
5785	11AC20 SISO	Ant1	-4.43	0.69	2.22	≤30.00	PASS
5825	11AC20 SISO	Ant1	-4.83	0.69	2.22	≤30.00	PASS
5755	11AC40 SISO	Ant1	-5.75	1.41	2.22	≤30.00	PASS
5795	11AC40 SISO	Ant1	-5.57	1.17	2.22	≤30.00	PASS

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

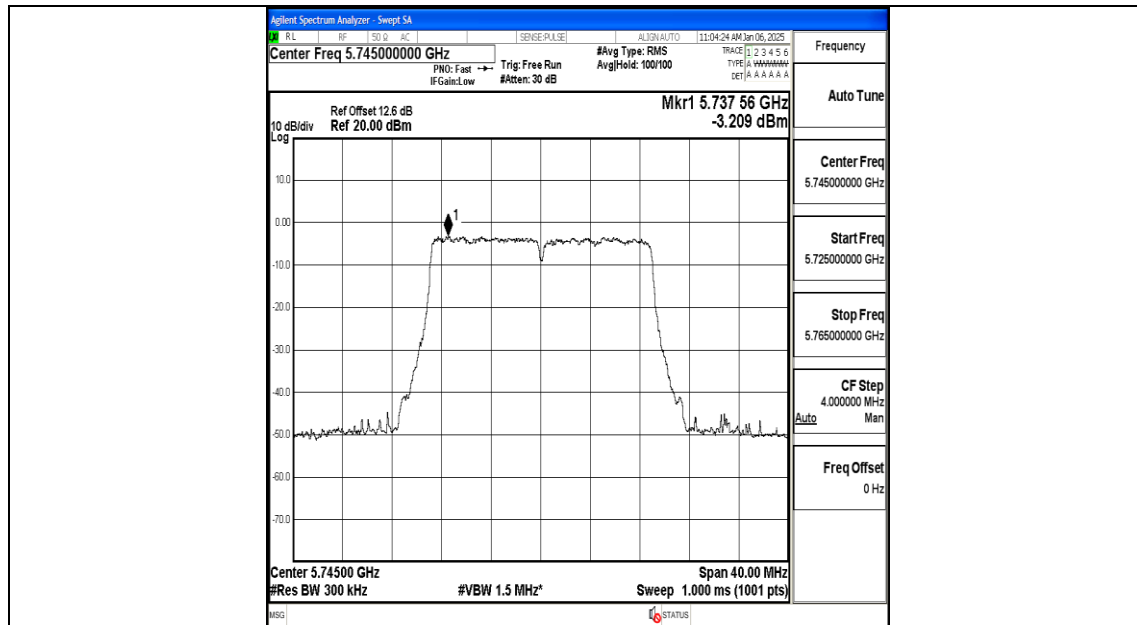
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

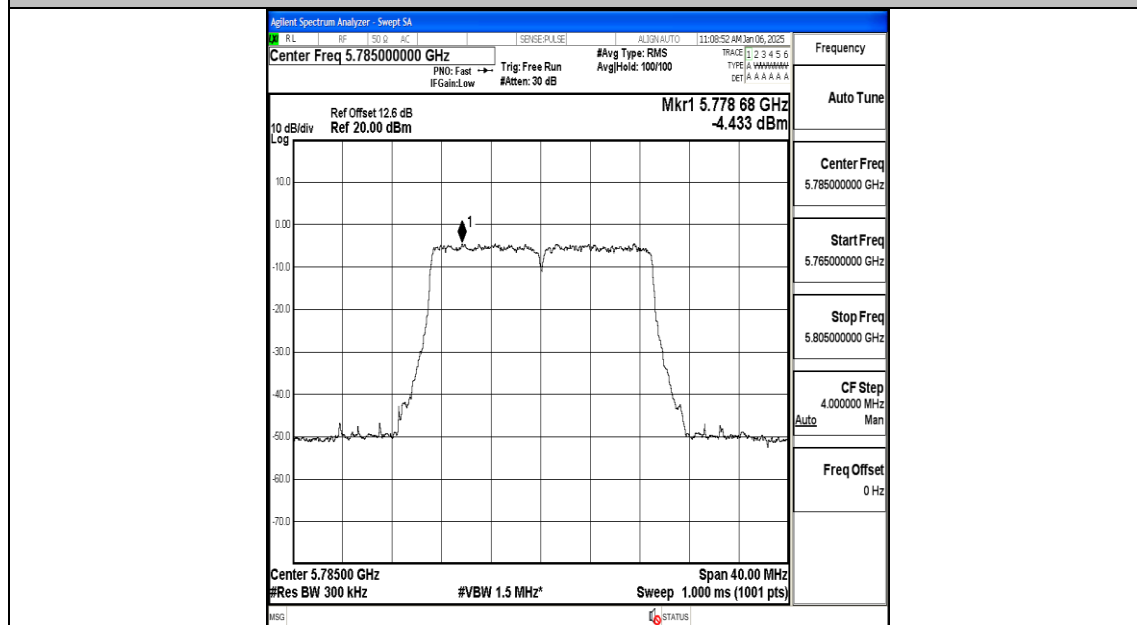




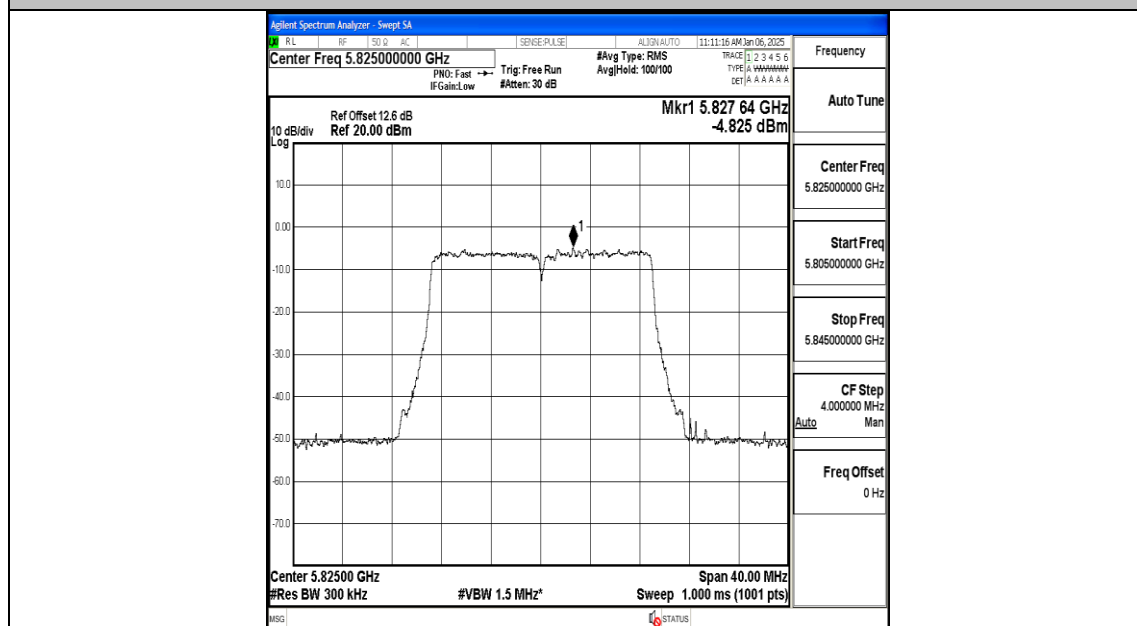




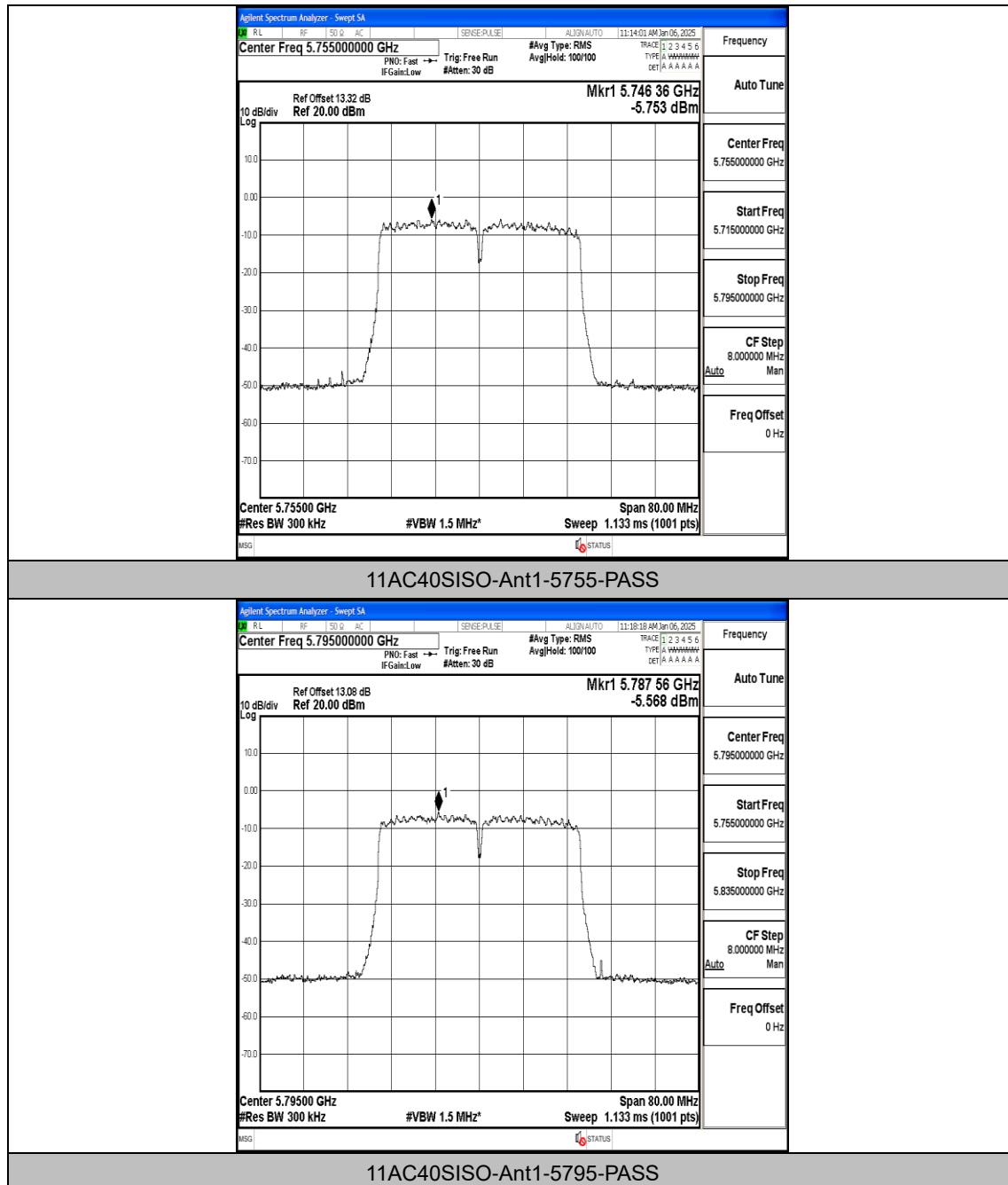
11AC20SISO-Ant1-5745-PASS



11AC20SISO-Ant1-5785-PASS



11AC20SISO-Ant1-5825-PASS



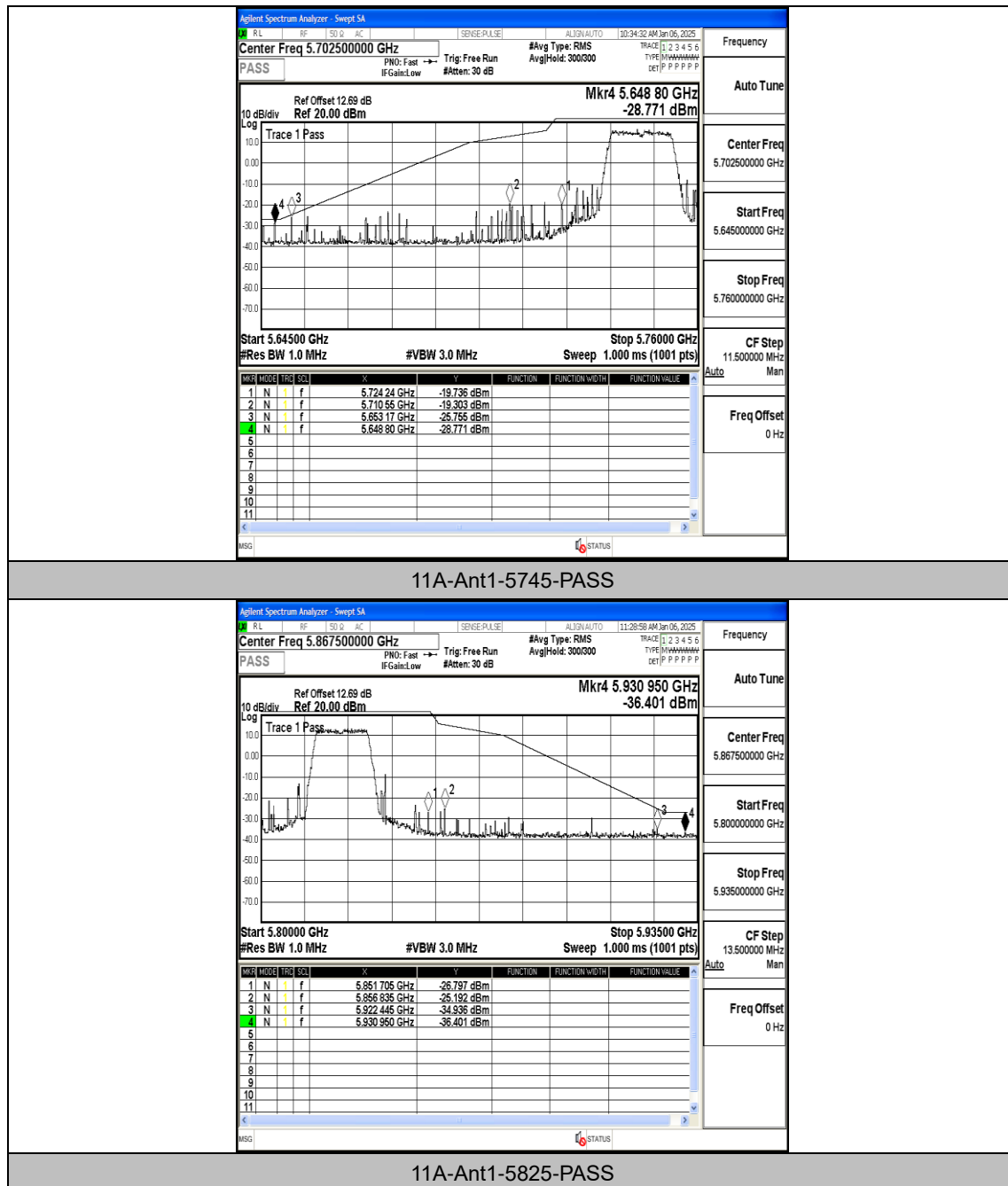
Appendix D: Band edge measurements

Test Result

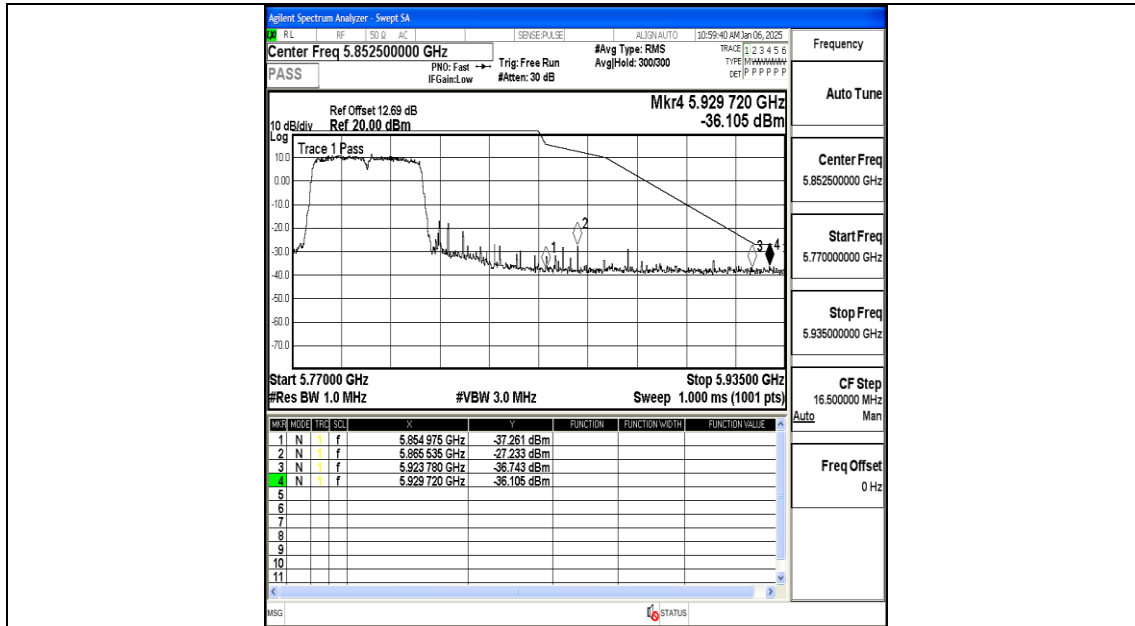
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-19.74	≤25.26	PASS
11A	Ant1	Low	5745	5700~5720	-19.3	≤12.95	PASS
11A	Ant1	Low	5745	5650~5700	-25.76	≤-24.66	PASS
11A	Ant1	Low	5745	5760~5650	-28.77	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-26.8	≤23.11	PASS
11A	Ant1	High	5825	5855~5875	-25.19	≤15.09	PASS
11A	Ant1	High	5825	5875~5925	-34.94	≤-25.11	PASS
11A	Ant1	High	5825	5925~5935	-36.4	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5720~5725	-16.67	≤16.08	PASS
11N20SI SO	Ant1	Low	5745	5700~5720	-20.35	≤10.41	PASS
11N20SI SO	Ant1	Low	5745	5650~5700	-24.88	≤-24.57	PASS
11N20SI SO	Ant1	Low	5745	5760~5650	-33.48	≤-27	PASS
11N20SI SO	Ant1	High	5825	5850~5855	-25.99	≤15.73	PASS
11N20SI SO	Ant1	High	5825	5855~5875	-24.34	≤13.88	PASS
11N20SI SO	Ant1	High	5825	5875~5925	-34.58	≤-24.51	PASS
11N20SI SO	Ant1	High	5825	5925~5935	-35.51	≤-27	PASS
11N40SI SO	Ant1	Low	5755	5720~5725	-21.76	≤18.51	PASS
11N40SI SO	Ant1	Low	5755	5700~5720	-25.95	≤10.48	PASS
11N40SI SO	Ant1	Low	5755	5650~5700	-31.06	≤-22.21	PASS
11N40SI SO	Ant1	Low	5755	5780~5650	-28.02	≤-27	PASS
11N40SI SO	Ant1	High	5795	5850~5855	-37.26	≤15.66	PASS
11N40SI SO	Ant1	High	5795	5855~5875	-27.23	≤12.65	PASS
11N40SI SO	Ant1	High	5795	5875~5925	-36.74	≤-26.10	PASS
11N40SI SO	Ant1	High	5795	5925~5935	-36.11	≤-27	PASS
11AC20S	Ant1	Low	5745	5720~5725	-20.73	≤24.73	PASS

ISO							
11AC20S ISO	Ant1	Low	5745	5700~5720	-21.94	≤ 13.63	PASS
11AC20S ISO	Ant1	Low	5745	5650~5700	-30.47	≤ -25.17	PASS
11AC20S ISO	Ant1	Low	5745	5760~5650	-31.37	≤ -27	PASS
11AC20S ISO	Ant1	High	5825	5850~5855	-30.83	≤ 21.57	PASS
11AC20S ISO	Ant1	High	5825	5855~5875	-29.42	≤ 13.65	PASS
11AC20S ISO	Ant1	High	5825	5875~5925	-37.86	≤ -26.91	PASS
11AC20S ISO	Ant1	High	5825	5925~5935	-36.13	≤ -27	PASS
11AC40S ISO	Ant1	Low	5755	5720~5725	-33.45	≤ 16.66	PASS
11AC40S ISO	Ant1	Low	5755	5700~5720	-23.25	≤ 14.29	PASS
11AC40S ISO	Ant1	Low	5755	5650~5700	-32.25	≤ -25.01	PASS
11AC40S ISO	Ant1	Low	5755	5780~5650	-33.55	≤ -27	PASS
11AC40S ISO	Ant1	High	5795	5850~5855	-30.29	≤ 19.04	PASS
11AC40S ISO	Ant1	High	5795	5855~5875	-36.14	≤ 10.02	PASS
11AC40S ISO	Ant1	High	5795	5875~5925	-37.16	≤ -25.85	PASS
11AC40S ISO	Ant1	High	5795	5925~5935	-36.97	≤ -27	PASS

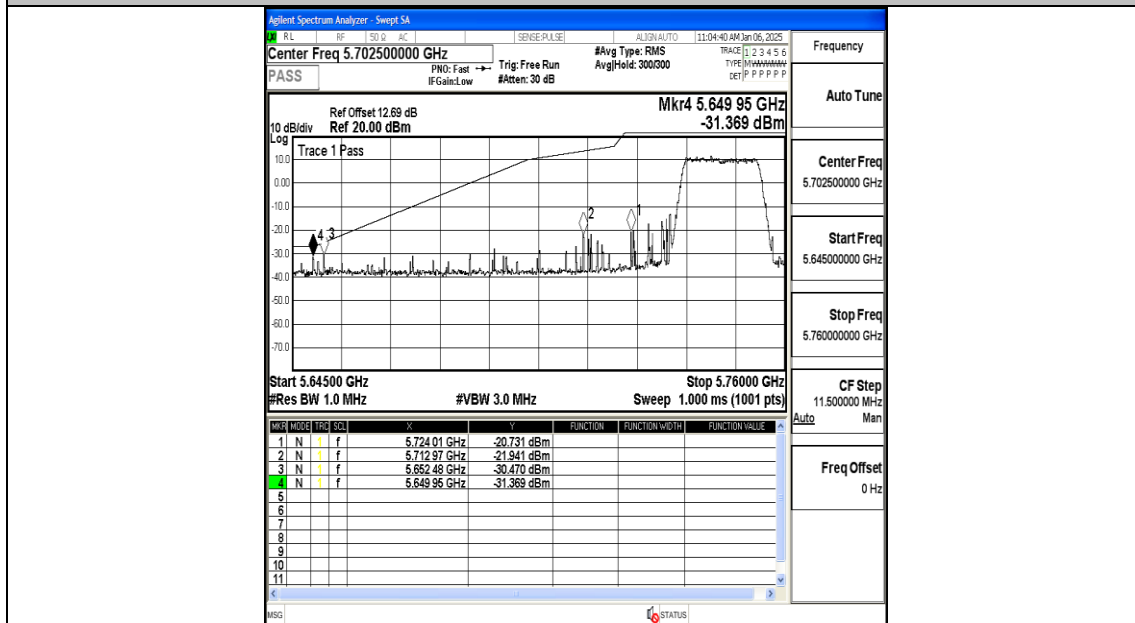
Test Graphs



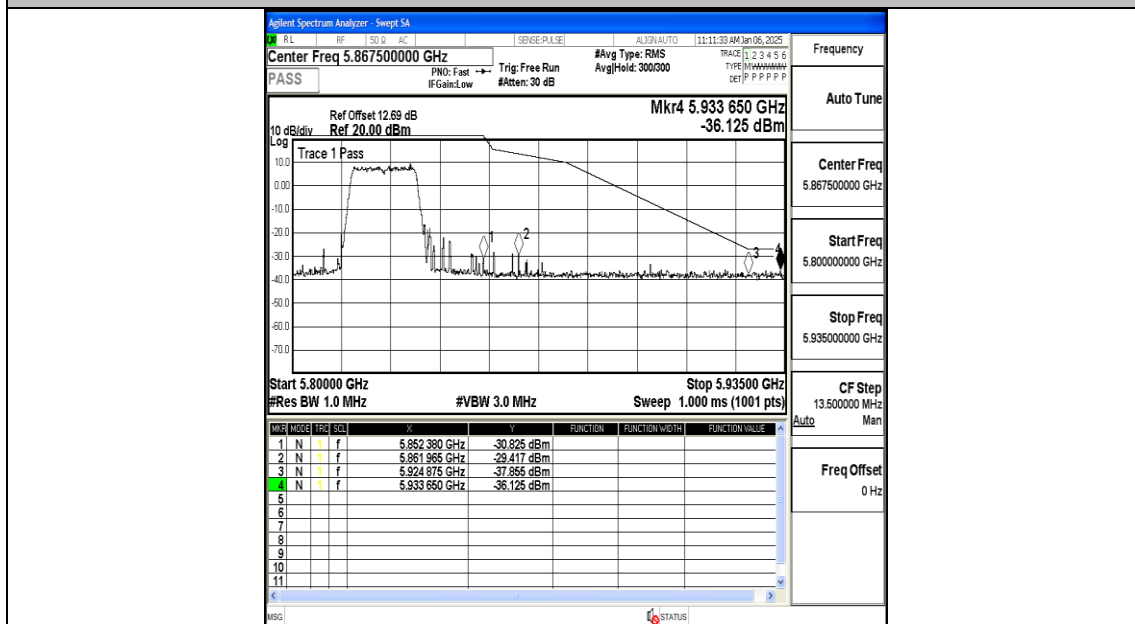




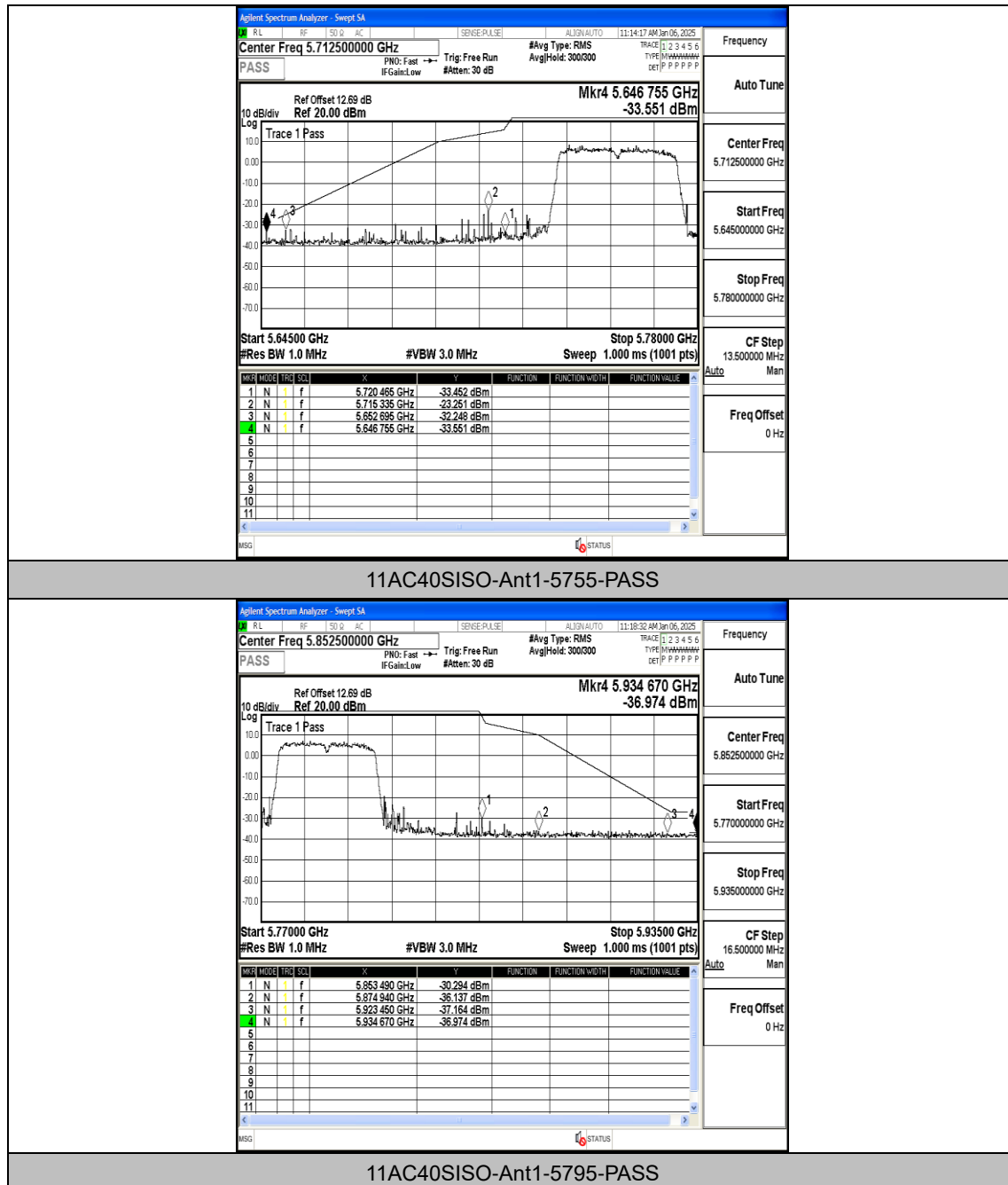
11N40SISO-Ant1-5795-PASS



11AC20SISO-Ant1-5745-PASS



11AC20SISO-Ant1-5825-PASS



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	12.54	5744.900978	5725 – 5850	PASS
5745	20	10.26	5745.041039	5725 – 5850	PASS
5745	50	11.40	5744.933548	5725 – 5850	PASS
5745	40	11.40	5745.050945	5725 – 5850	PASS
5745	30	11.40	5745.009926	5725 – 5850	PASS
5745	20	11.40	5744.907202	5725 – 5850	PASS
5745	10	11.40	5745.076732	5725 – 5850	PASS
5745	0	11.40	5745.084333	5725 – 5850	PASS
5745	-10	11.40	5744.903159	5725 – 5850	PASS
5745	-20	11.40	5745.033055	5725 – 5850	PASS
5745	-30	11.40	5745.059729	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	12.54	5784.918658	5725 – 5850	PASS
5785	20	10.26	5784.976167	5725 – 5850	PASS
5785	50	11.40	5785.027551	5725 – 5850	PASS
5785	40	11.40	5784.962090	5725 – 5850	PASS
5785	30	11.40	5784.990629	5725 – 5850	PASS
5785	20	11.40	5784.998354	5725 – 5850	PASS
5785	10	11.40	5785.012681	5725 – 5850	PASS
5785	0	11.40	5785.059765	5725 – 5850	PASS
5785	-10	11.40	5784.912339	5725 – 5850	PASS
5785	-20	11.40	5785.074352	5725 – 5850	PASS
5785	-30	11.40	5784.912952	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	12.54	5824.902968	5725 – 5850	PASS
5825	20	10.26	5824.910994	5725 – 5850	PASS
5825	50	11.40	5824.955446	5725 – 5850	PASS
5825	40	11.40	5824.950636	5725 – 5850	PASS
5825	30	11.40	5824.982370	5725 – 5850	PASS
5825	20	11.40	5825.085909	5725 – 5850	PASS
5825	10	11.40	5824.906989	5725 – 5850	PASS
5825	0	11.40	5825.008848	5725 – 5850	PASS
5825	-10	11.40	5824.975844	5725 – 5850	PASS
5825	-20	11.40	5824.953194	5725 – 5850	PASS
5825	-30	11.40	5825.032182	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	12.54	5755.085781	5725 – 5850	PASS
5755	20	10.26	5755.018576	5725 – 5850	PASS
5755	50	11.40	5754.997551	5725 – 5850	PASS
5755	40	11.40	5755.045244	5725 – 5850	PASS
5755	30	11.40	5755.005085	5725 – 5850	PASS
5755	20	11.40	5754.993754	5725 – 5850	PASS
5755	10	11.40	5755.045784	5725 – 5850	PASS
5755	0	11.40	5754.938192	5725 – 5850	PASS
5755	-10	11.40	5755.050014	5725 – 5850	PASS
5755	-20	11.40	5754.939851	5725 – 5850	PASS
5755	-30	11.40	5755.084397	5725 – 5850	PASS

Ant1

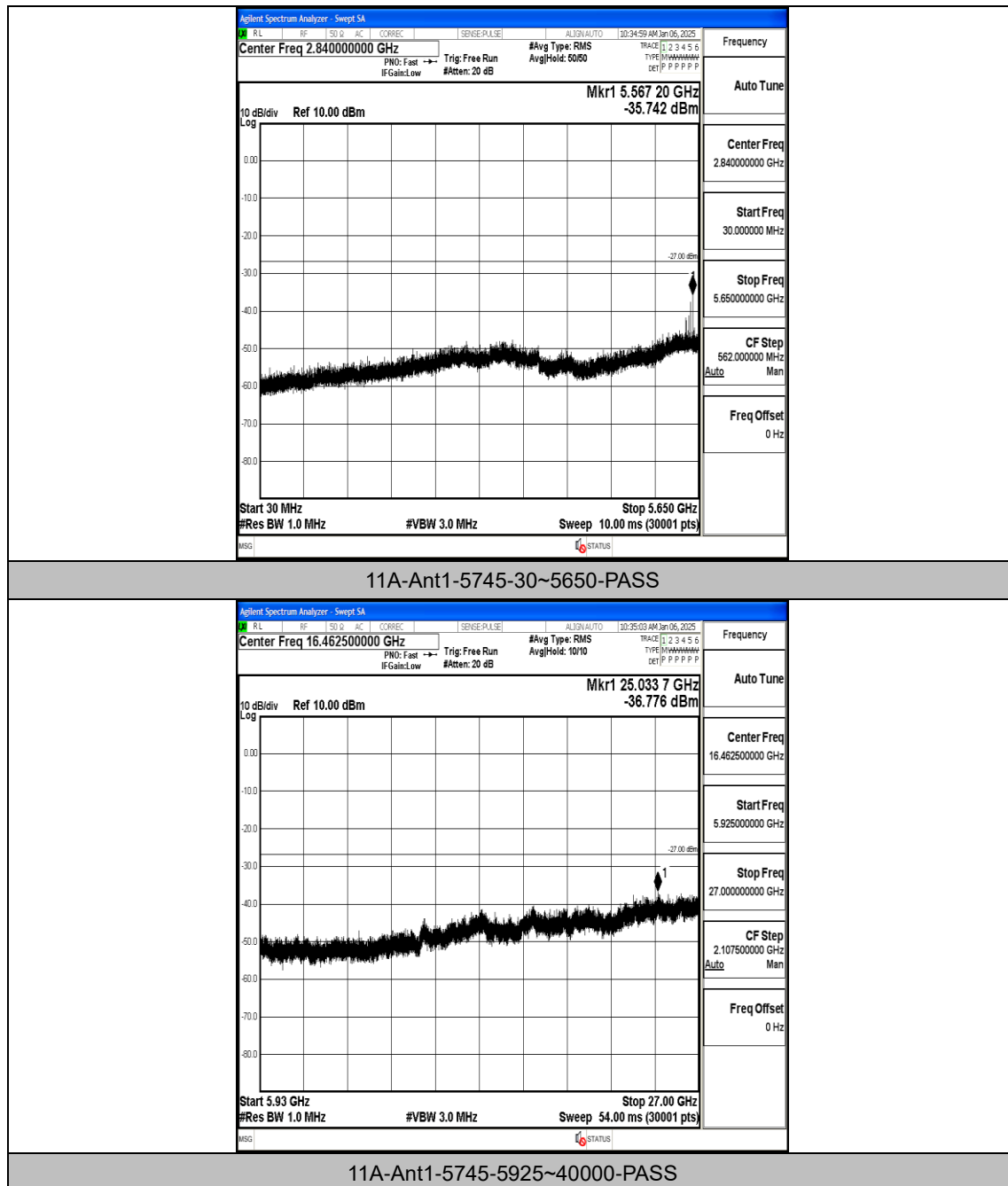
Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	12.54	5794.976560	5725 – 5850	PASS
5795	20	10.26	5794.980464	5725 – 5850	PASS
5795	50	11.40	5795.053547	5725 – 5850	PASS
5795	40	11.40	5795.071755	5725 – 5850	PASS
5795	30	11.40	5794.989789	5725 – 5850	PASS
5795	20	11.40	5794.909062	5725 – 5850	PASS
5795	10	11.40	5795.070606	5725 – 5850	PASS
5795	0	11.40	5794.943231	5725 – 5850	PASS
5795	-10	11.40	5794.943866	5725 – 5850	PASS
5795	-20	11.40	5795.024793	5725 – 5850	PASS
5795	-30	11.40	5795.006434	5725 – 5850	PASS

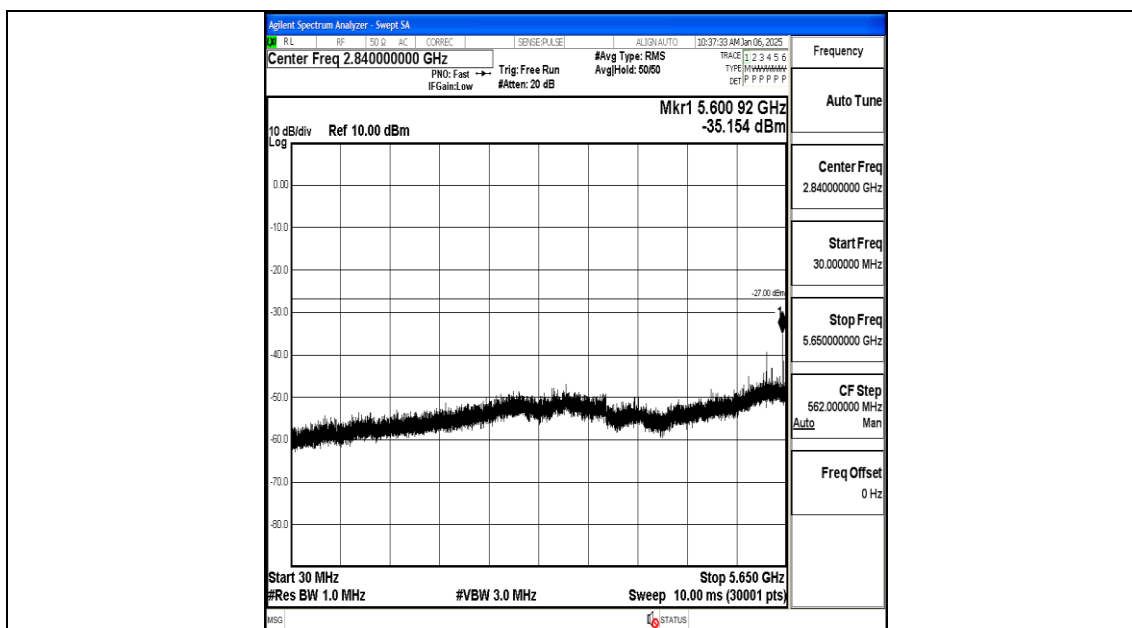
Appendix F: Conducted Spurious Emission

Test Result

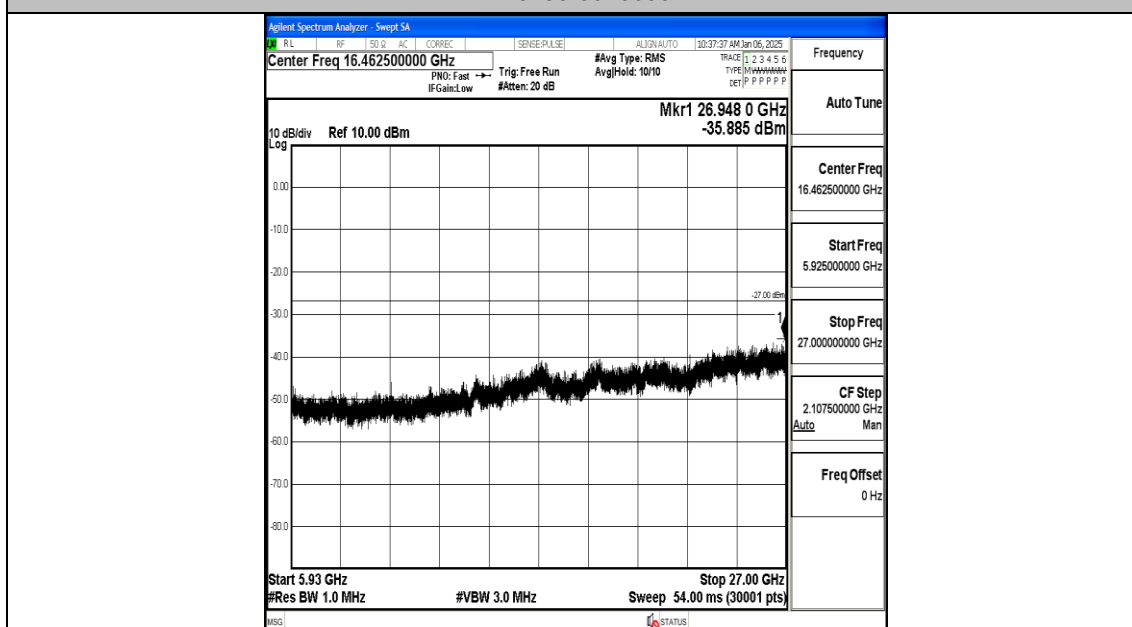
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5567.2	-35.74	≤-27	PASS
11A	Ant1	5745	5925~40000	25033.7	-36.78	≤-27	PASS
11A	Ant1	5785	30~5650	5600.92	-35.15	≤-27	PASS
11A	Ant1	5785	5925~40000	26948.02	-35.89	≤-27	PASS
11A	Ant1	5825	30~5650	5517.56	-39.96	≤-27	PASS
11A	Ant1	5825	5925~40000	26317.87	-37.12	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5561.02	-32.25	≤-27	PASS
11N20SISO	Ant1	5745	5925~40000	25007.01	-37.22	≤-27	PASS
11N20SISO	Ant1	5785	30~5650	5591.18	-36.22	≤-27	PASS
11N20SISO	Ant1	5785	5925~40000	26069.89	-36.42	≤-27	PASS
11N20SISO	Ant1	5825	30~5650	5635.76	-39.64	≤-27	PASS
11N20SISO	Ant1	5825	5925~40000	26867.23	-36.67	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	5630.52	-38.16	≤-27	PASS
11N40SISO	Ant1	5755	5925~40000	26125.39	-35.66	≤-27	PASS
11N40SISO	Ant1	5795	30~5650	5620.59	-38.51	≤-27	PASS
11N40SISO	Ant1	5795	5925~40000	26085.35	-36.57	≤-27	PASS
11AC20SISO	Ant1	5745	30~5650	5556.15	-40.25	≤-27	PASS
11AC20SISO	Ant1	5745	5925~40000	26168.94	-36.56	≤-27	PASS
11AC20SISO	Ant1	5785	30~5650	5552.77	-37.12	≤-27	PASS
11AC20SISO	Ant1	5785	5925~40000	25034.41	-35.38	≤-27	PASS
11AC20SISO	Ant1	5825	30~5650	5517.74	-43.98	≤-27	PASS
11AC20SISO	Ant1	5825	5925~40000	26857.39	-36.79	≤-27	PASS
11AC40SISO	Ant1	5755	30~5650	5538.72	-45.4	≤-27	PASS
11AC40SISO	Ant1	5755	5925~40000	26552.51	-36.43	≤-27	PASS
11AC40SISO	Ant1	5795	30~5650	5631.27	-42.24	≤-27	PASS
11AC40SISO	Ant1	5795	5925~40000	26097.99	-36.62	≤-27	PASS

Test Graphs

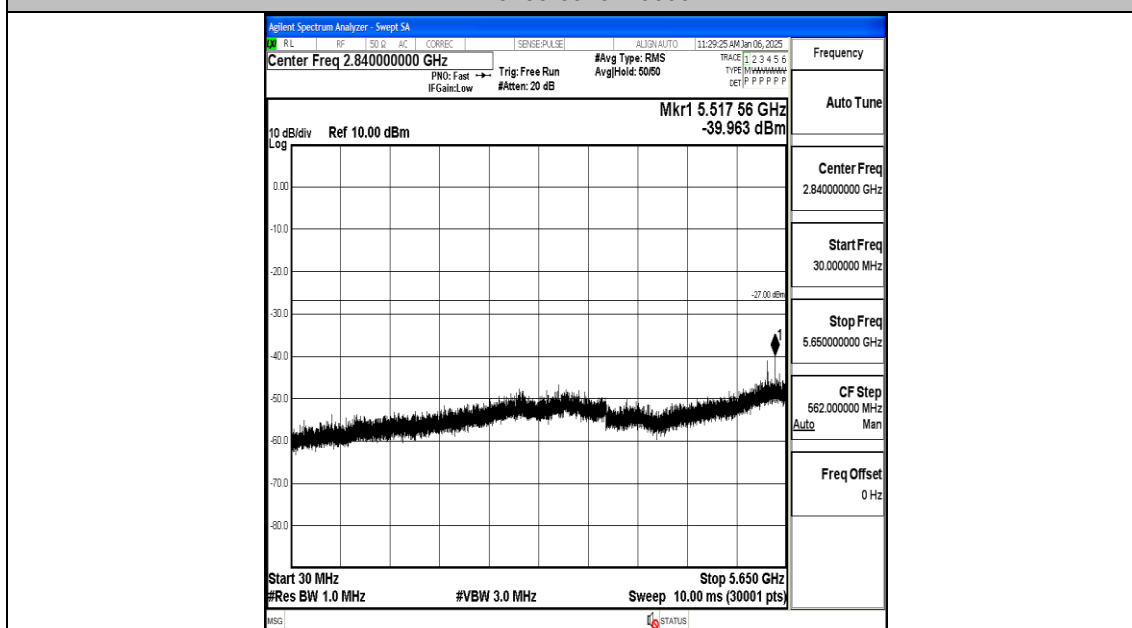




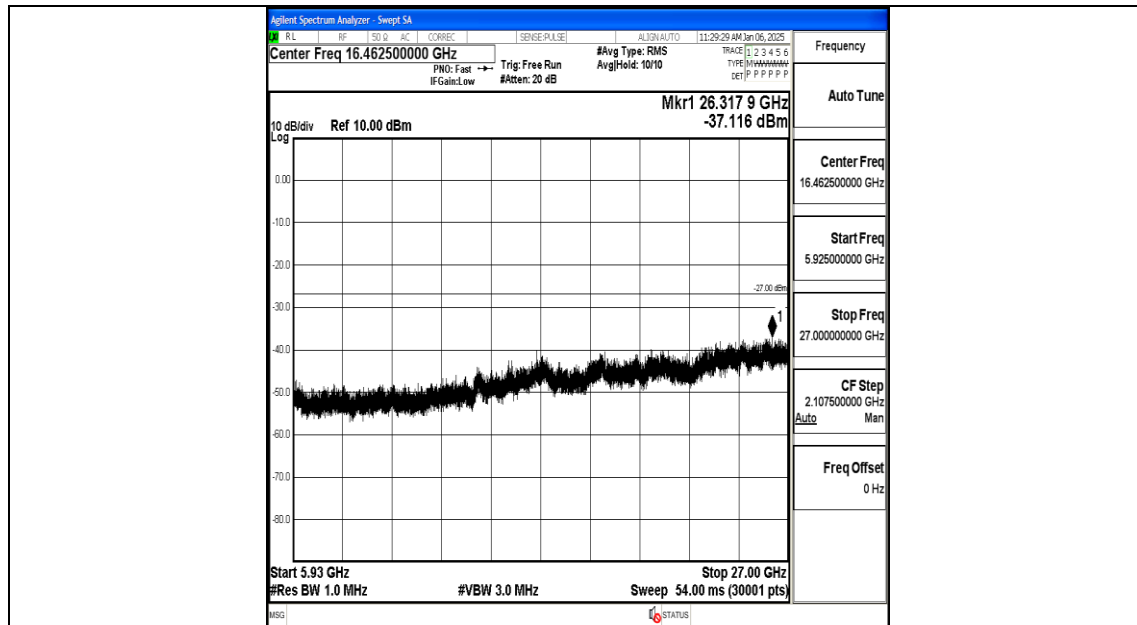
11A-Ant1-5785-30~5650-PASS



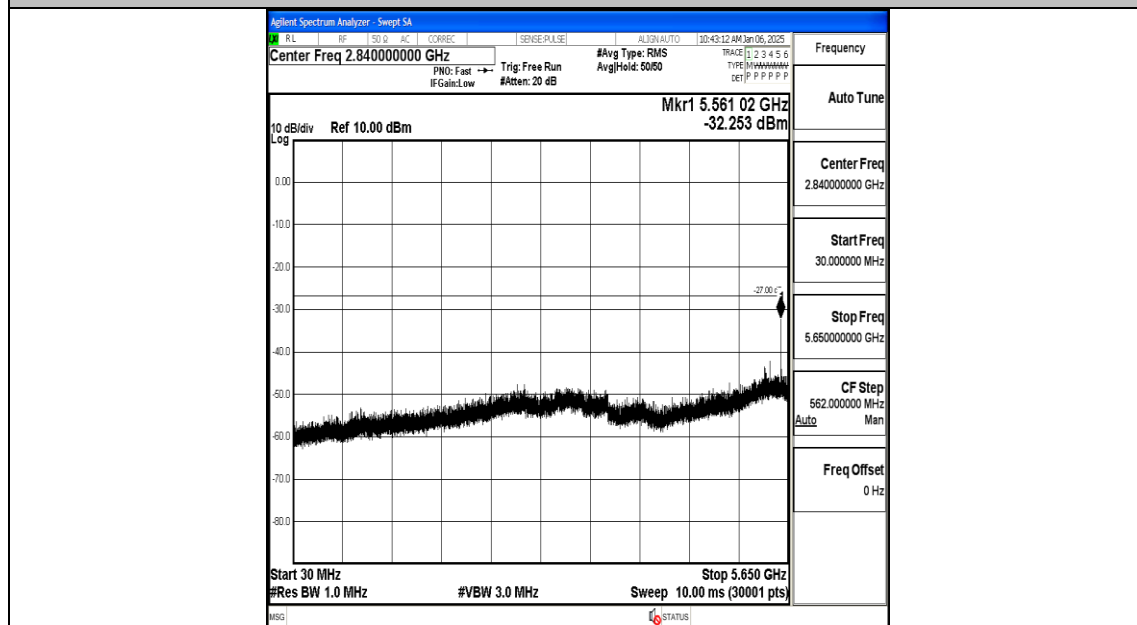
11A-Ant1-5785-5925~40000-PASS



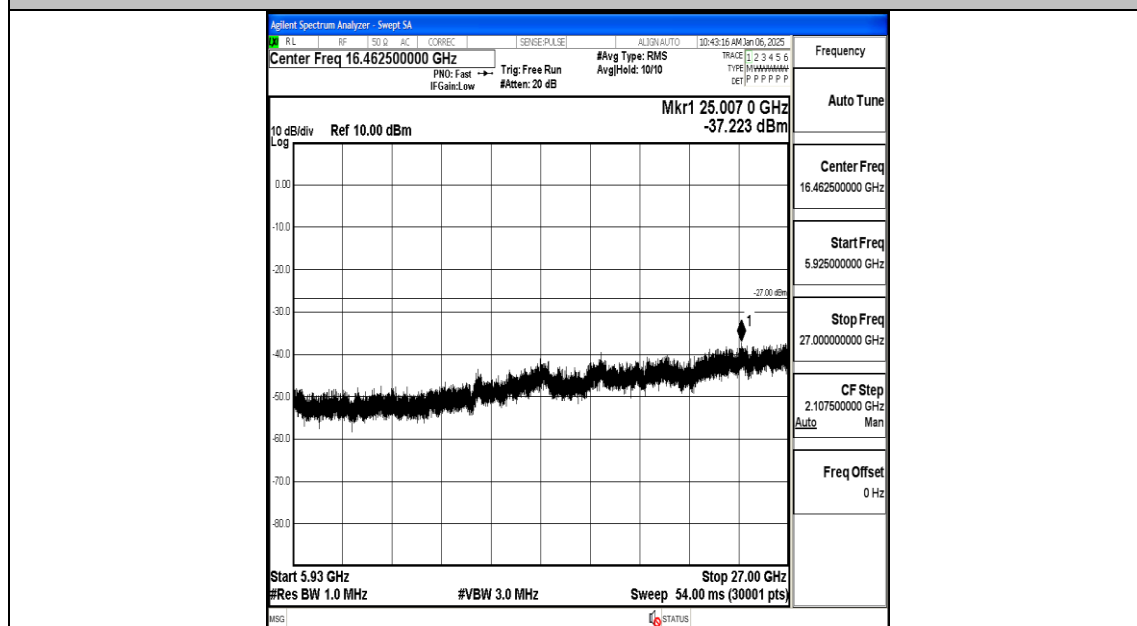
11A-Ant1-5825-30~5650-PASS



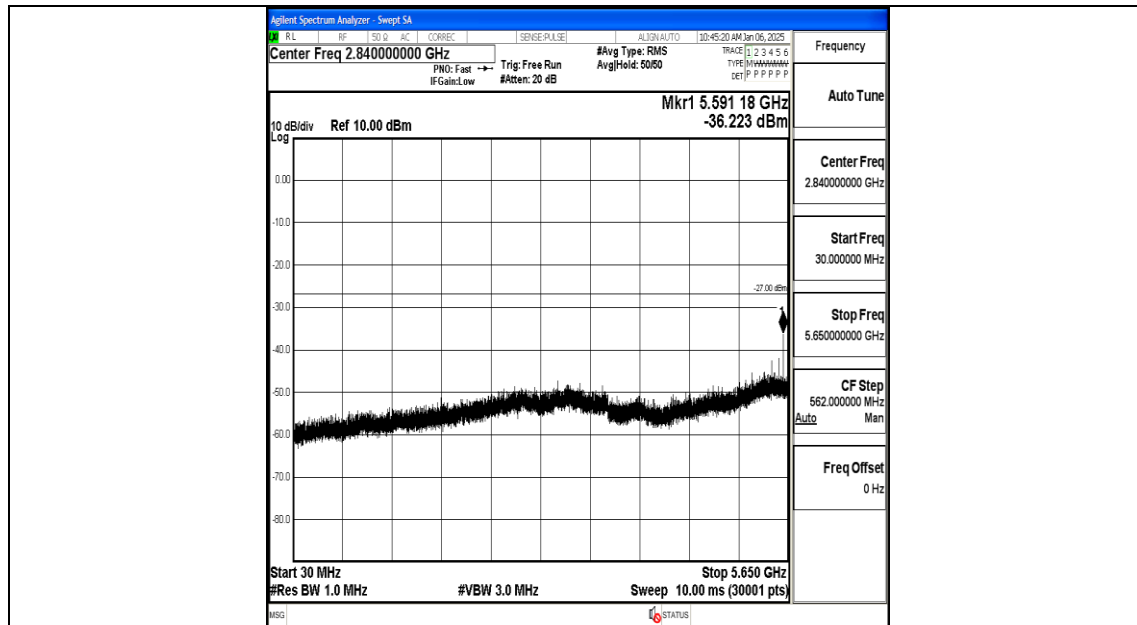
11A-Ant1-5825-5925~40000-PASS



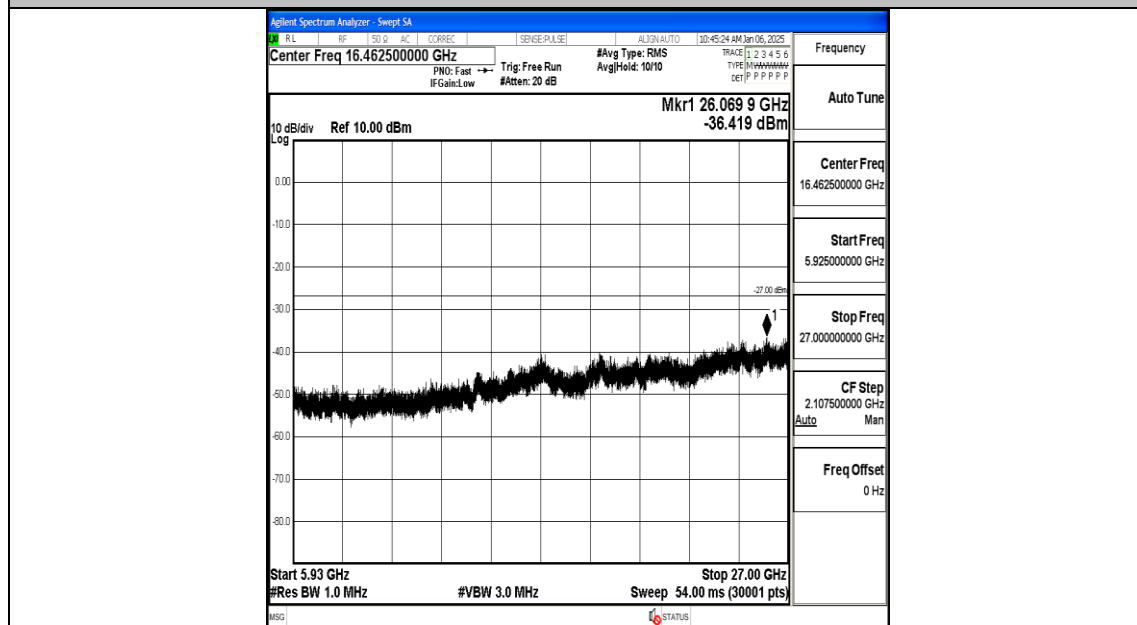
11N20SISO-Ant1-5745-30~5650-PASS



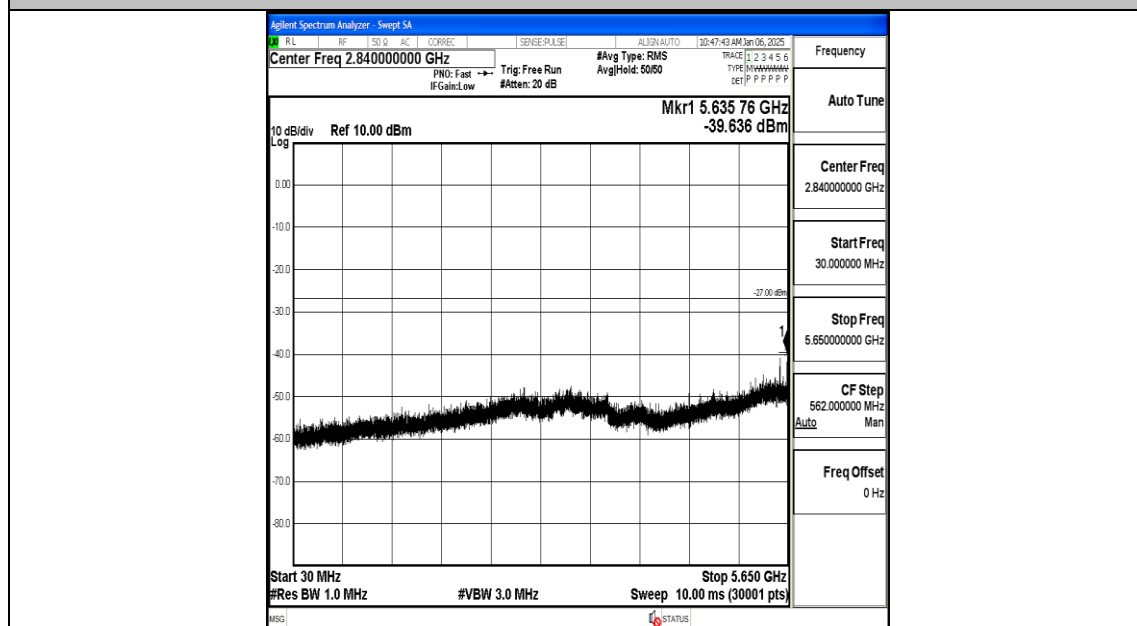
11N20SISO-Ant1-5745-5925~40000-PASS



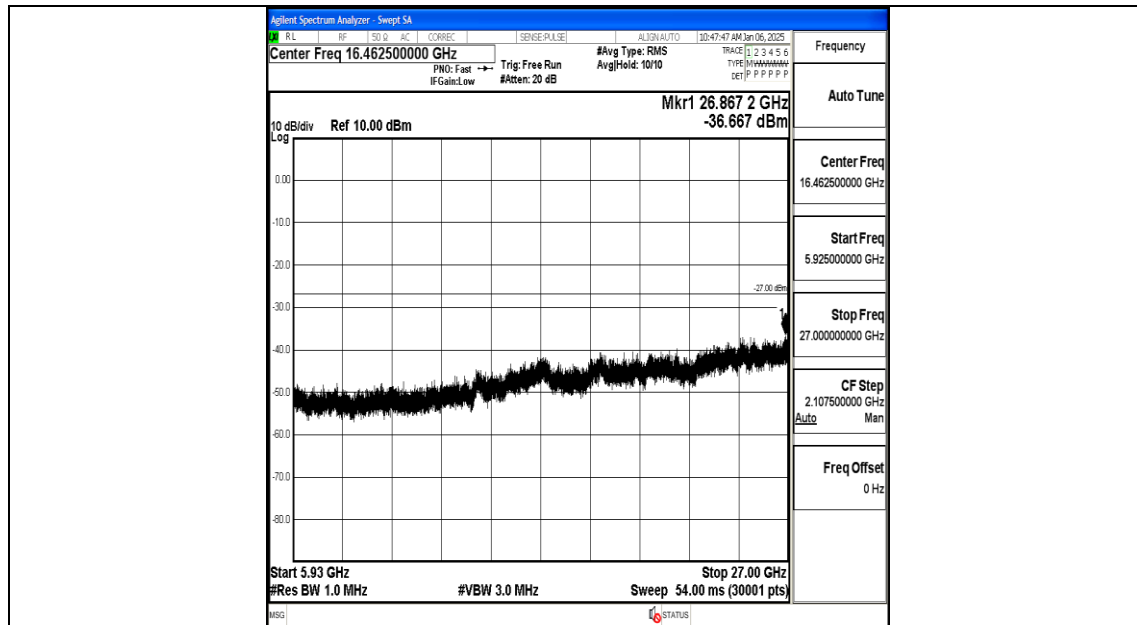
11N20SISO-Ant1-5785-30~5650-PASS



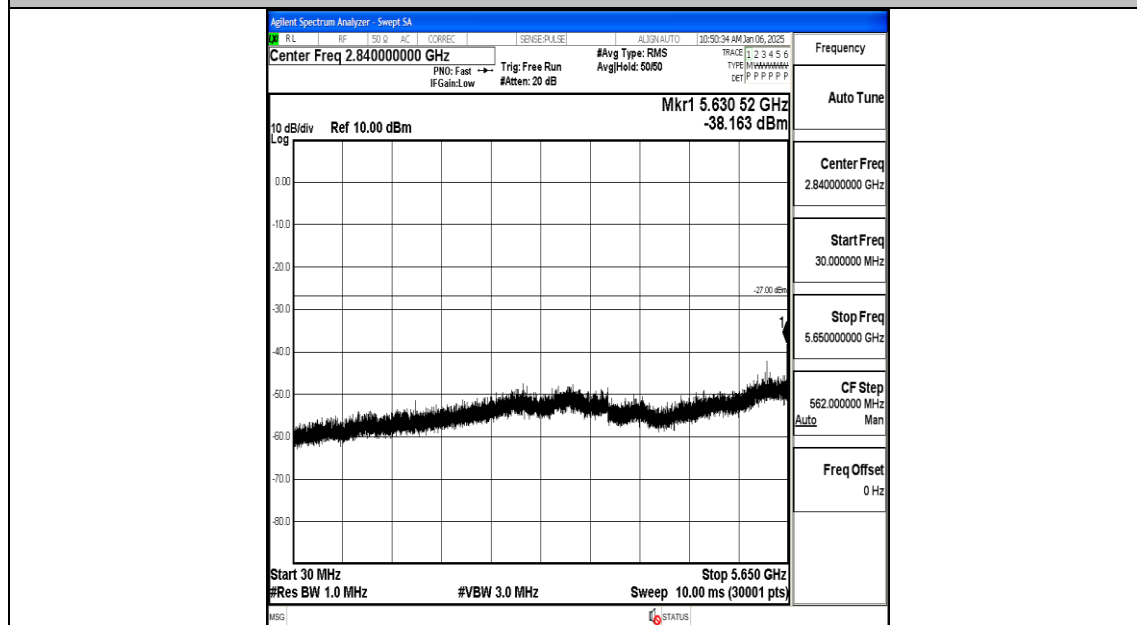
11N20SISO-Ant1-5785-5925~40000-PASS



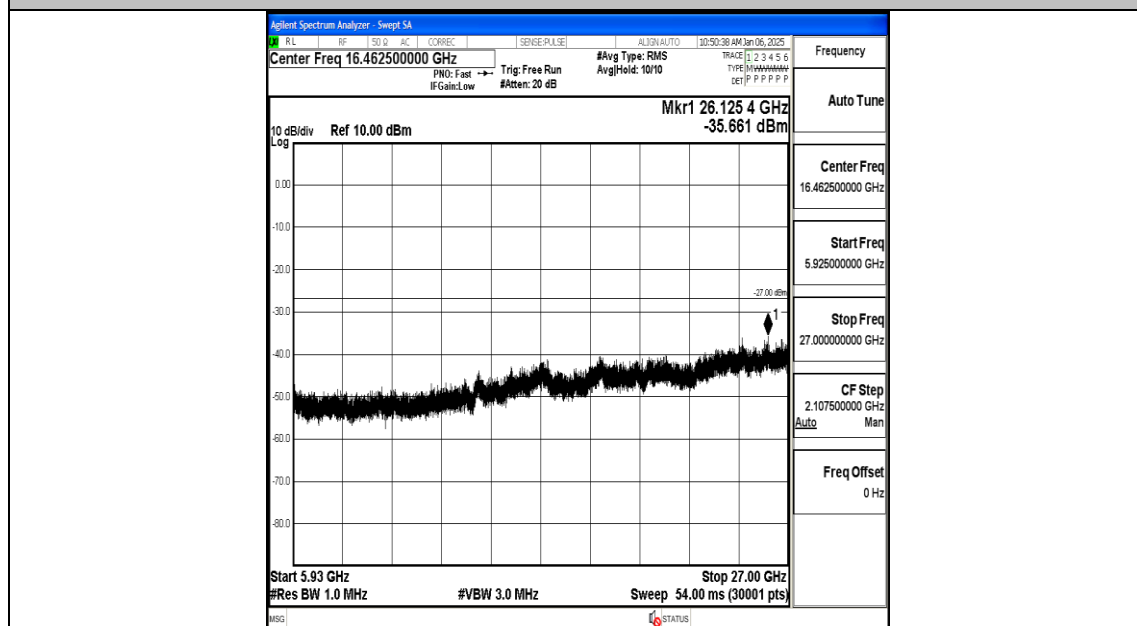
11N20SISO-Ant1-5825-30~5650-PASS



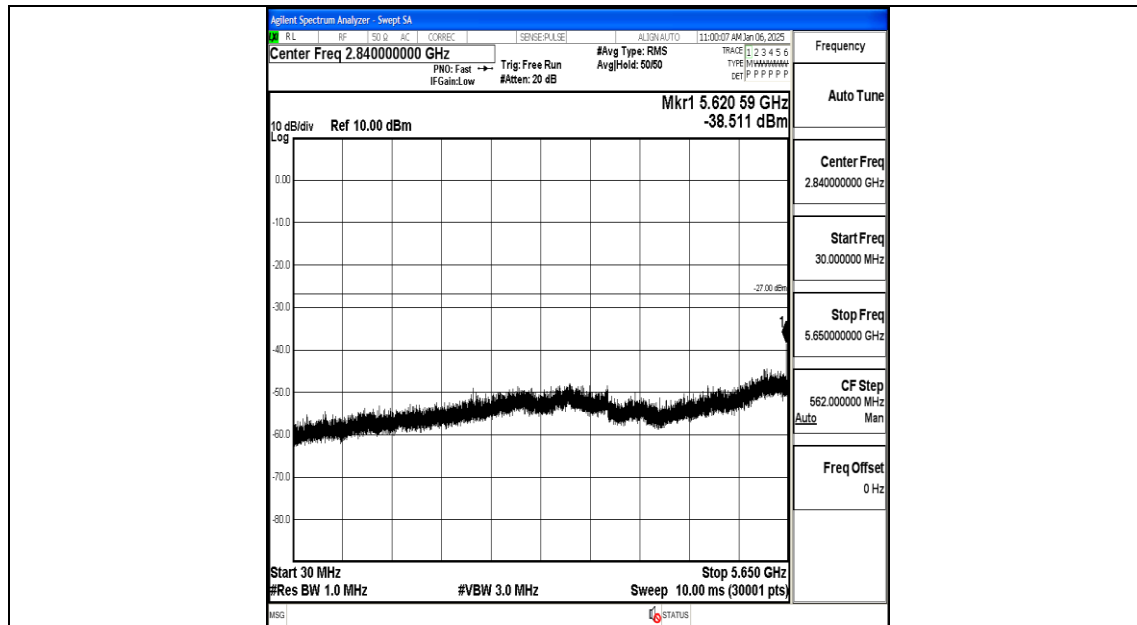
11N20SISO-Ant1-5825-5925~40000-PASS



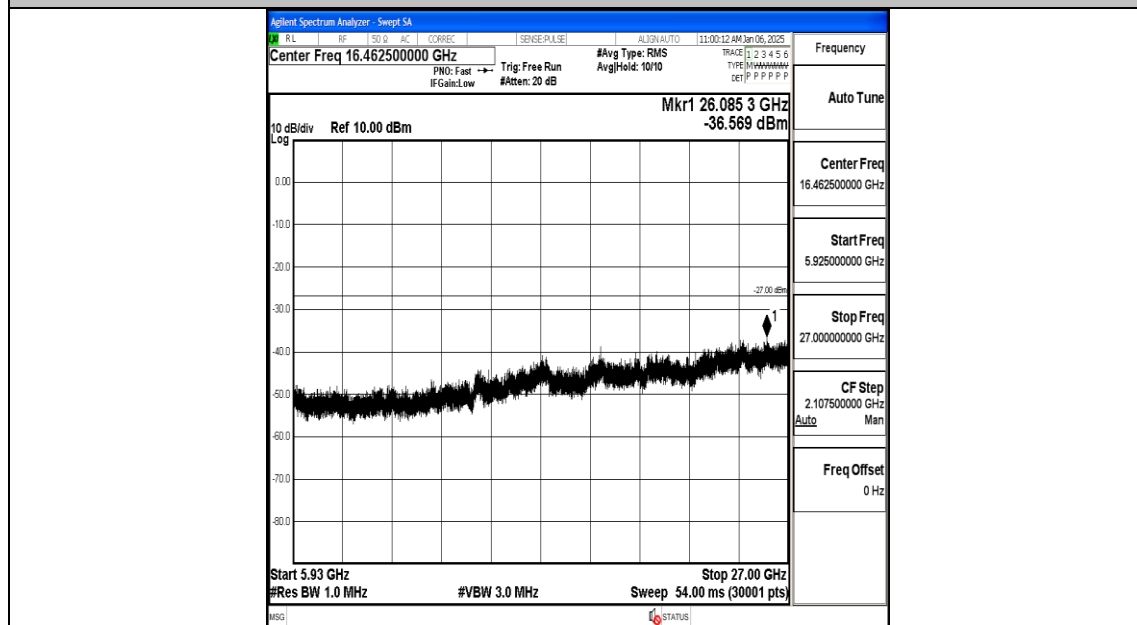
11N40SISO-Ant1-5755-30~5650-PASS



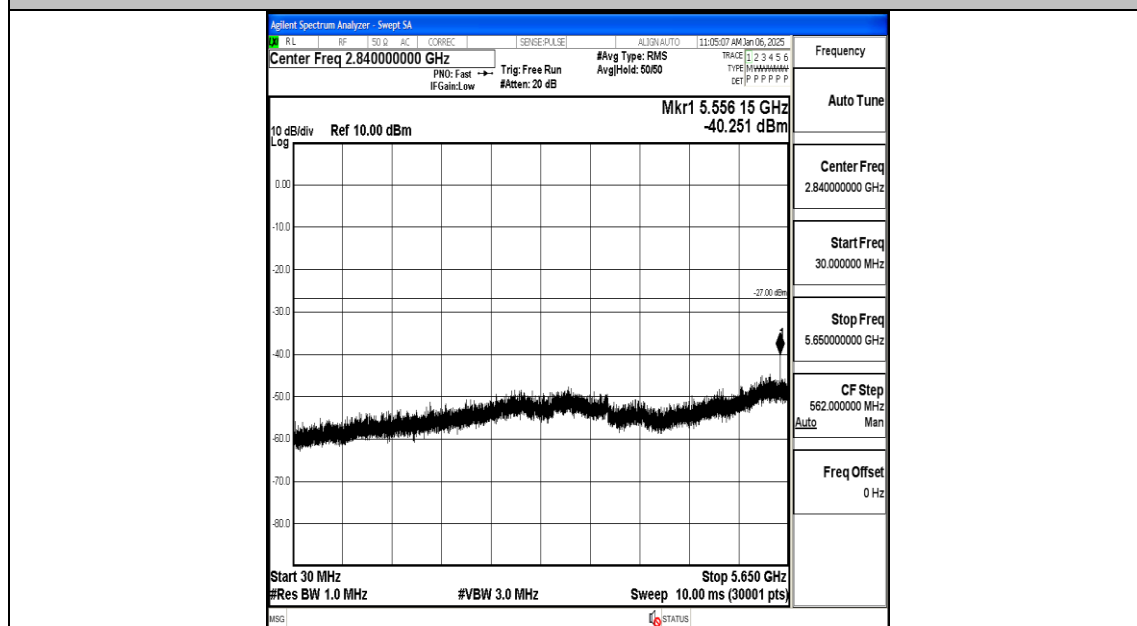
11N40SISO-Ant1-5755-5925~40000-PASS



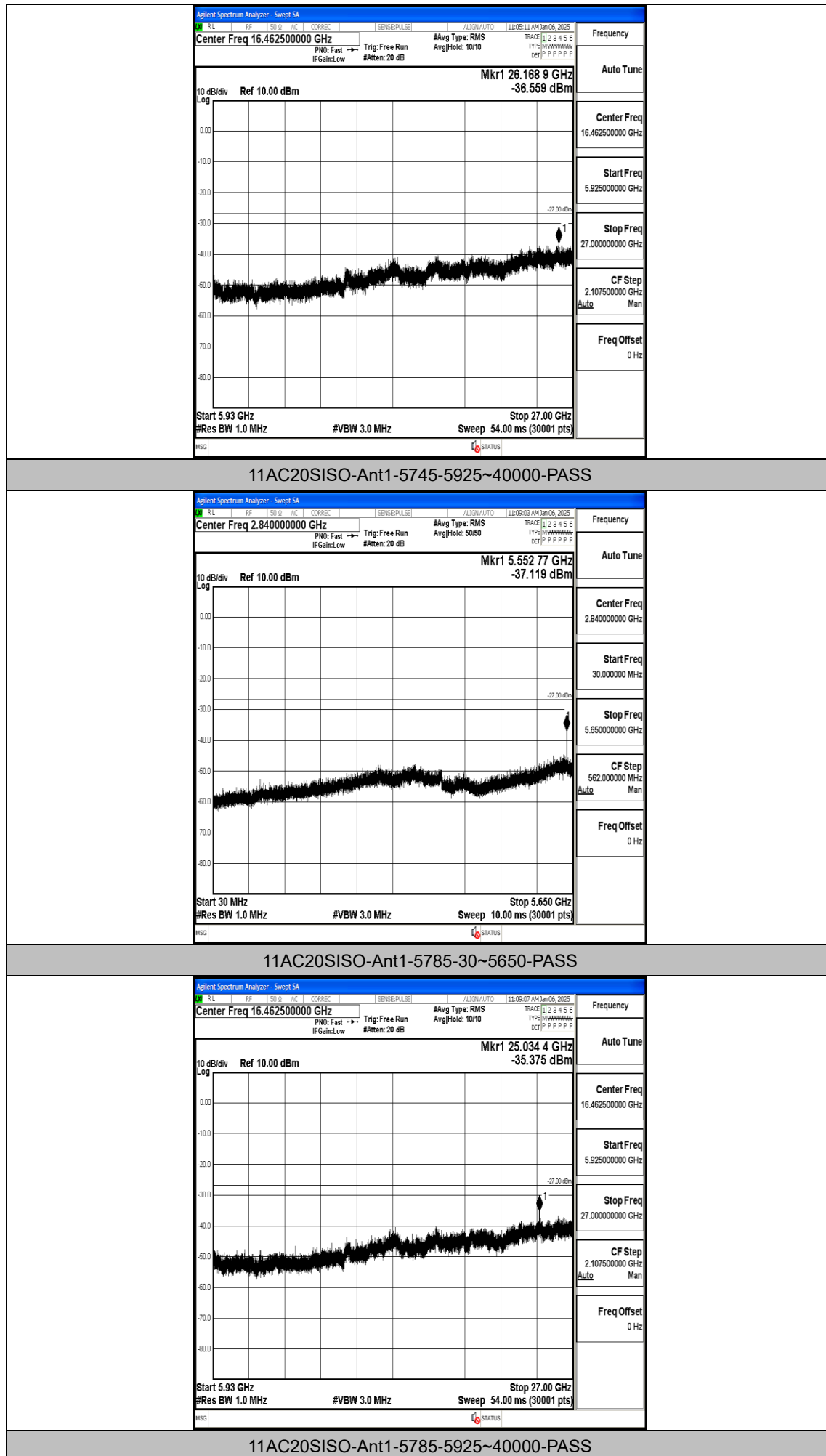
11N40SISO-Ant1-5795-30~5650-PASS

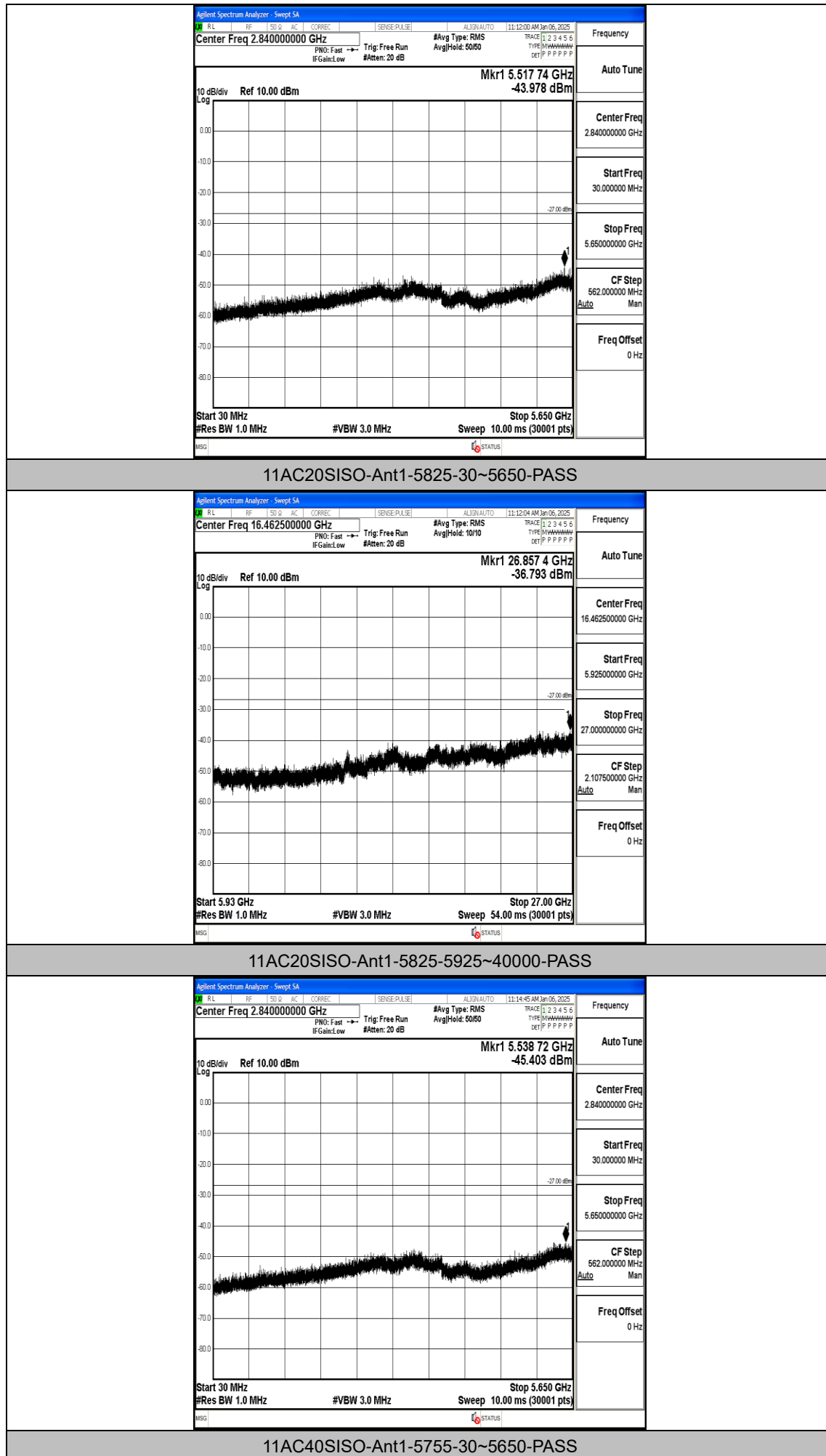


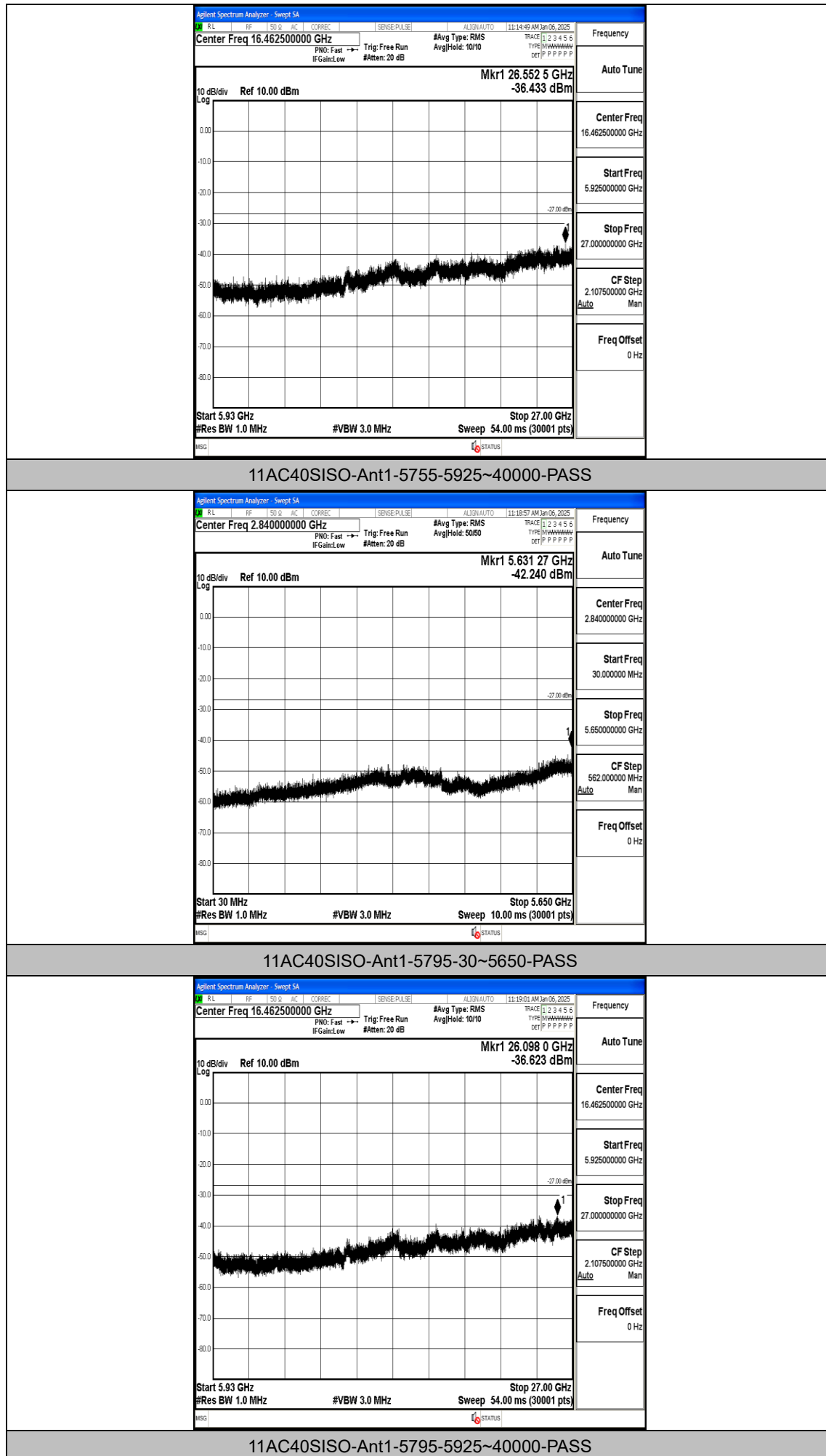
11N40SISO-Ant1-5795-5925~40000-PASS



11AC20SISO-Ant1-5745-30~5650-PASS





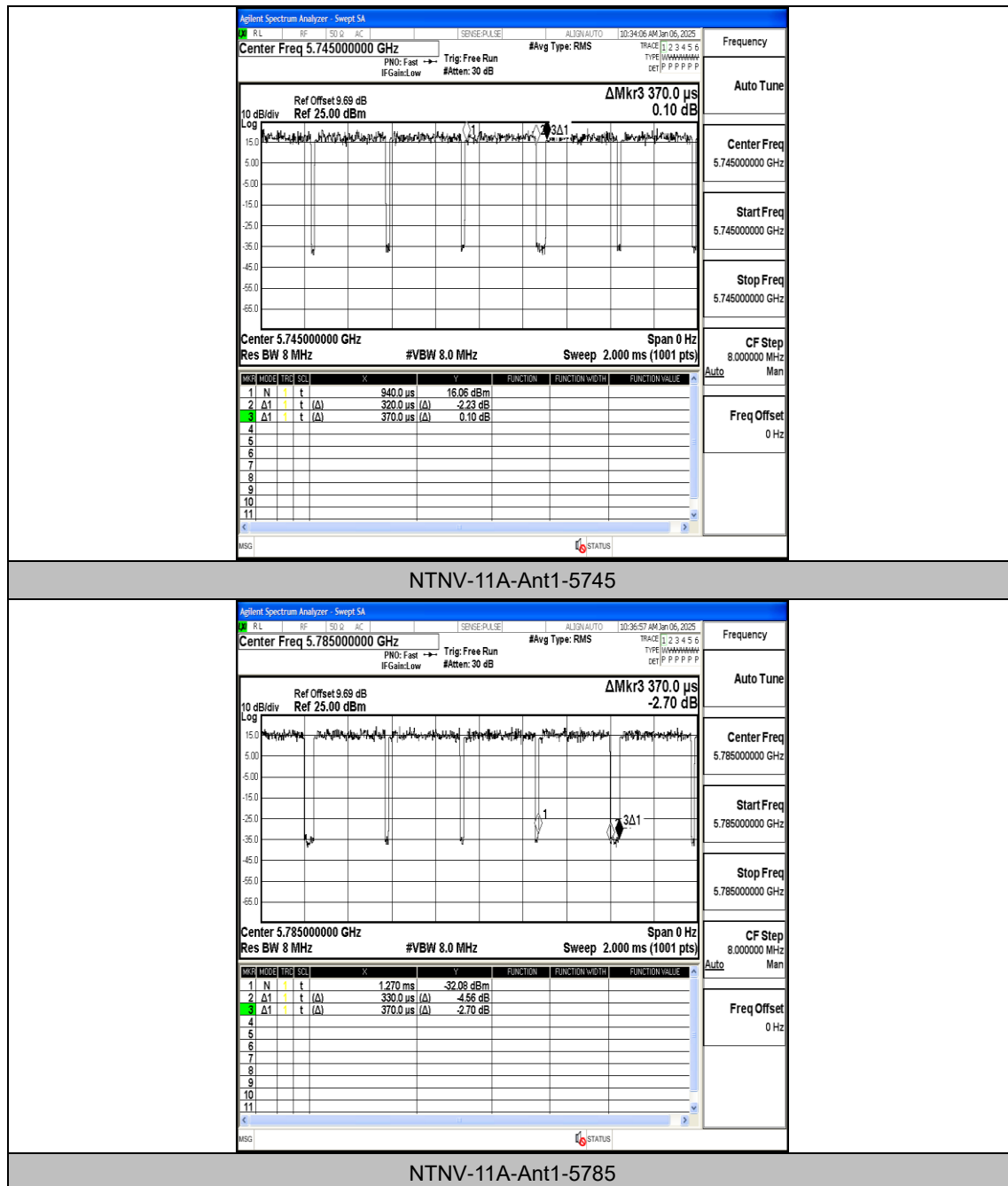


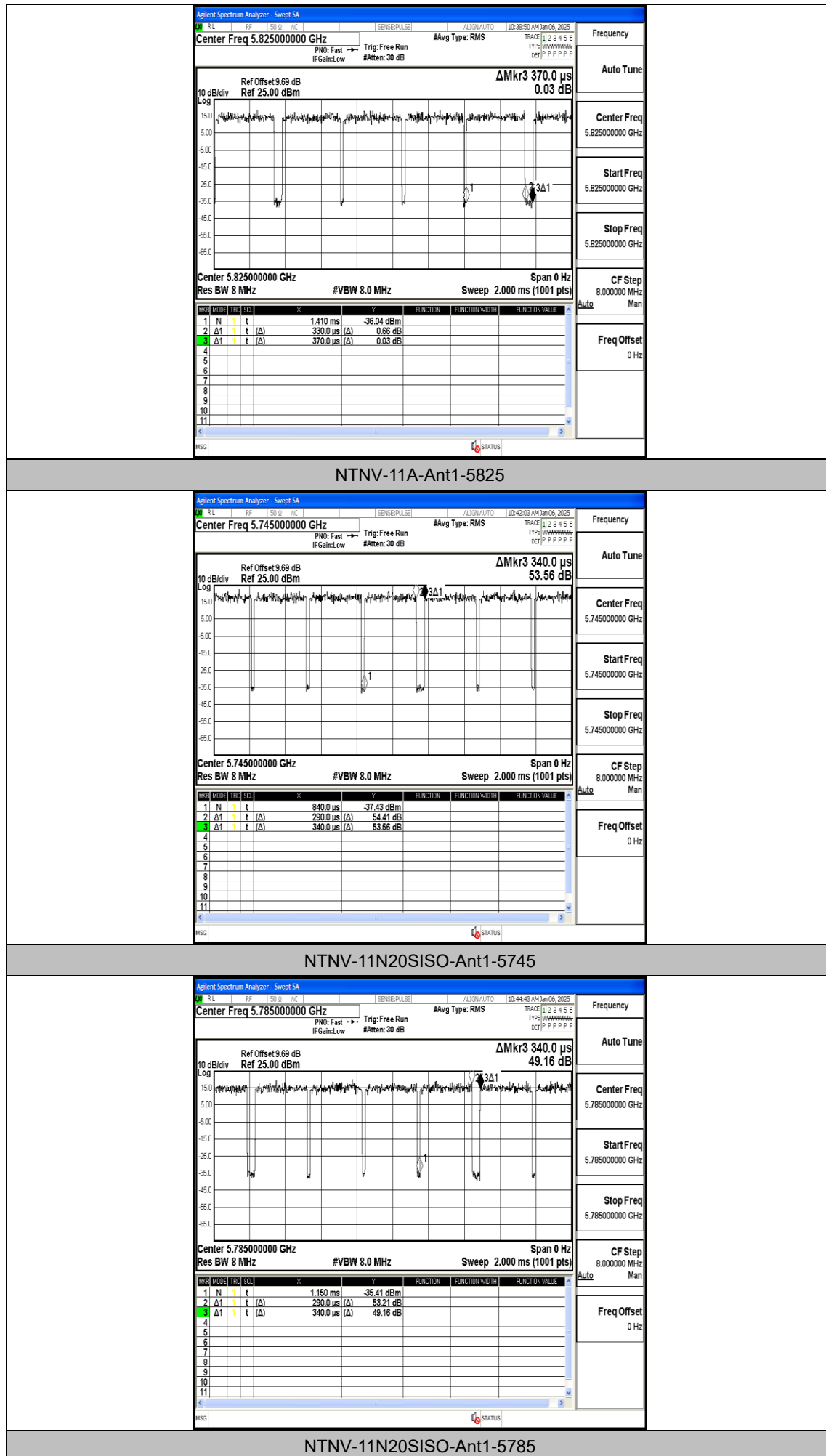
Appendix G: Duty Cycle

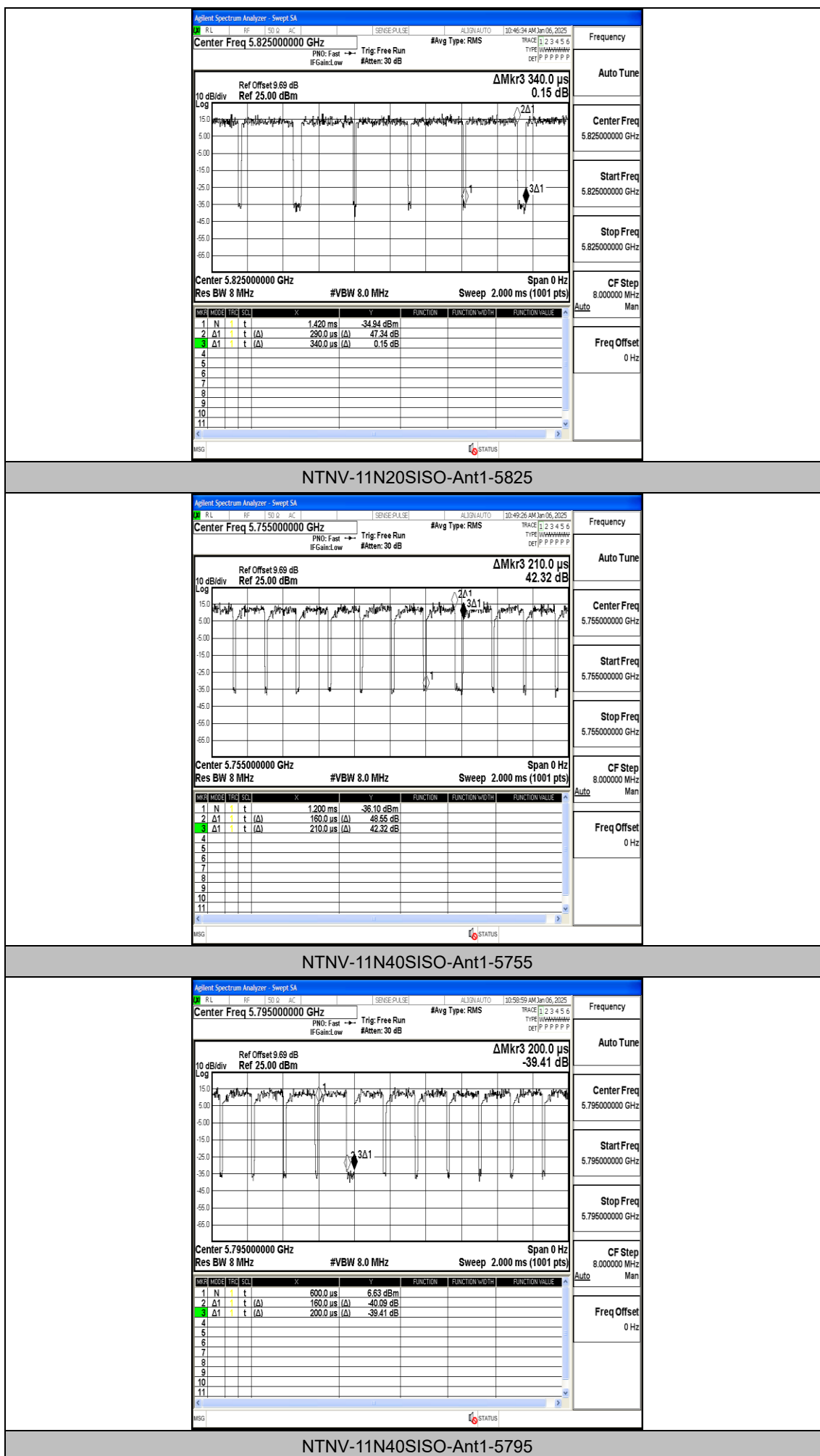
Test Result

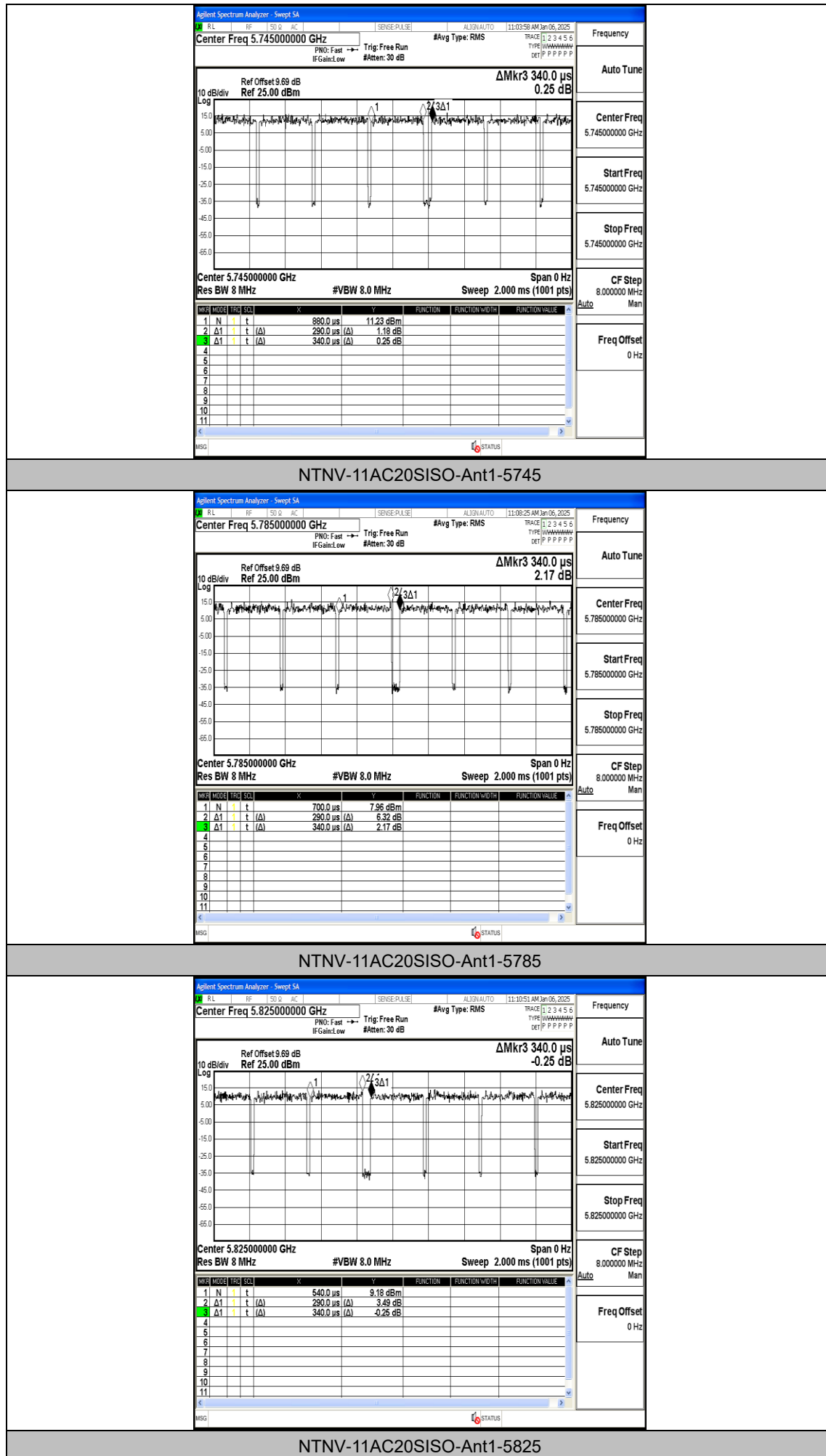
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	0.32	0.37	86.49	0.63	3.13
11A	Ant1	5785	0.33	0.37	89.19	0.50	3.03
11A	Ant1	5825	0.33	0.37	89.19	0.50	3.03
11N20SISO	Ant1	5745	0.29	0.34	85.29	0.69	3.45
11N20SISO	Ant1	5785	0.29	0.34	85.29	0.69	3.45
11N20SISO	Ant1	5825	0.29	0.34	85.29	0.69	3.45
11N40SISO	Ant1	5755	0.16	0.21	76.19	1.18	6.25
11N40SISO	Ant1	5795	0.16	0.20	80.00	0.97	6.25
11AC20SISO	Ant1	5745	0.29	0.34	85.29	0.69	3.45
11AC20SISO	Ant1	5785	0.29	0.34	85.29	0.69	3.45
11AC20SISO	Ant1	5825	0.29	0.34	85.29	0.69	3.45
11AC40SISO	Ant1	5755	0.13	0.18	72.22	1.41	7.69
11AC40SISO	Ant1	5795	0.13	0.17	76.47	1.17	7.69

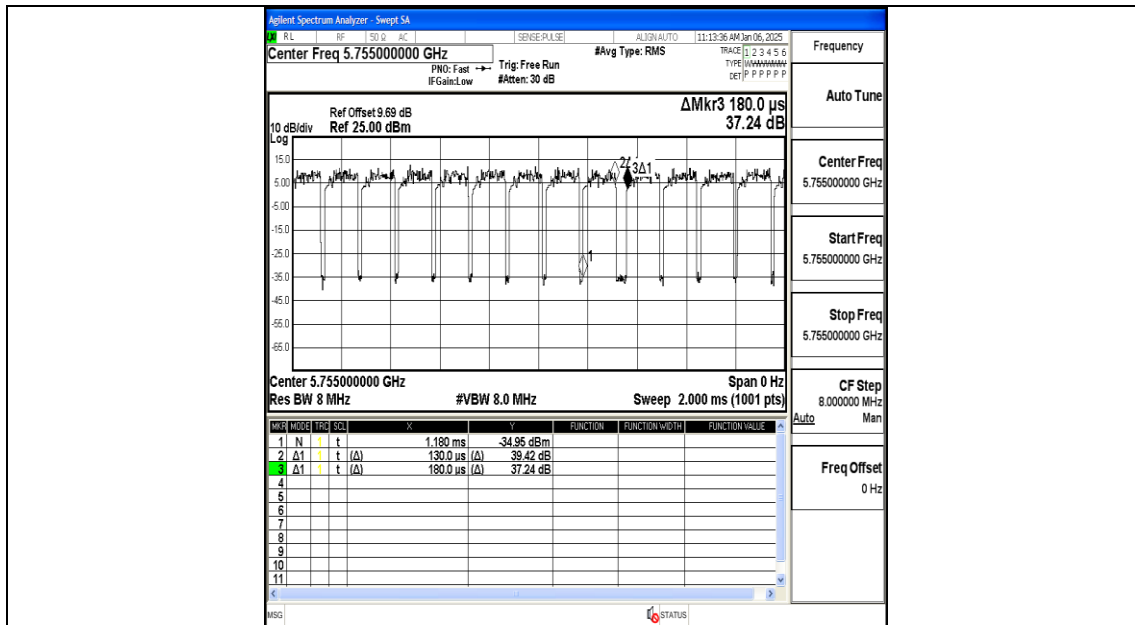
Test Graphs



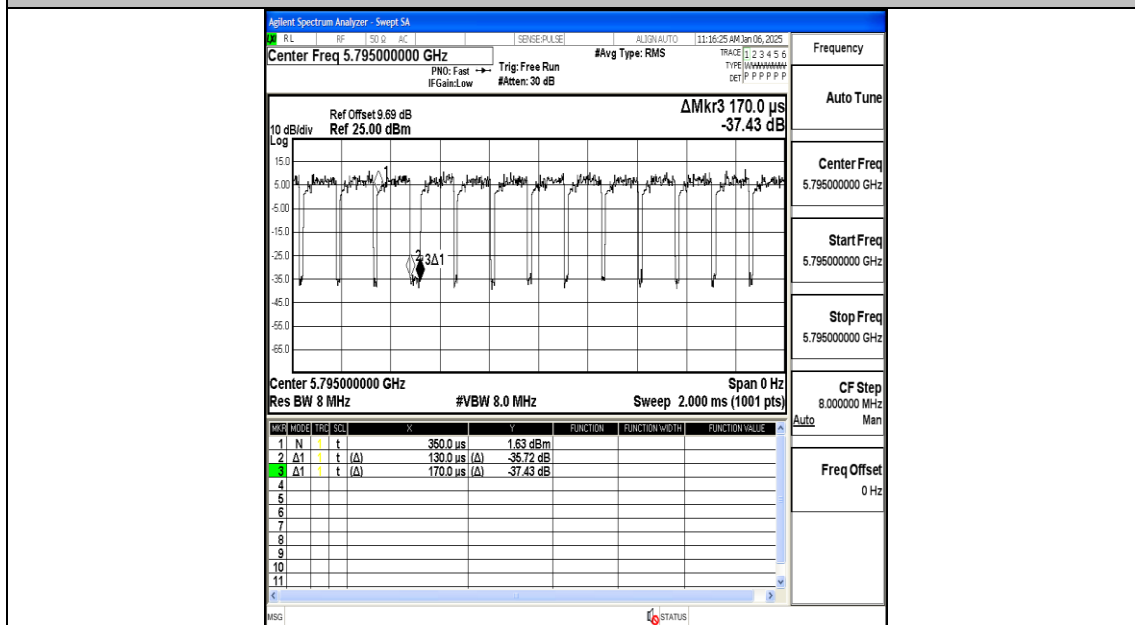








NTNV-11AC40SISO-Ant1-5755



NTNV-11AC40SISO-Ant1-5795