

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

Product Name: Drone

Trade Mark: Toladrone

Test Model: K600GPS

FCC ID: 2BOL2SDTD2

Environmental Conditions

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

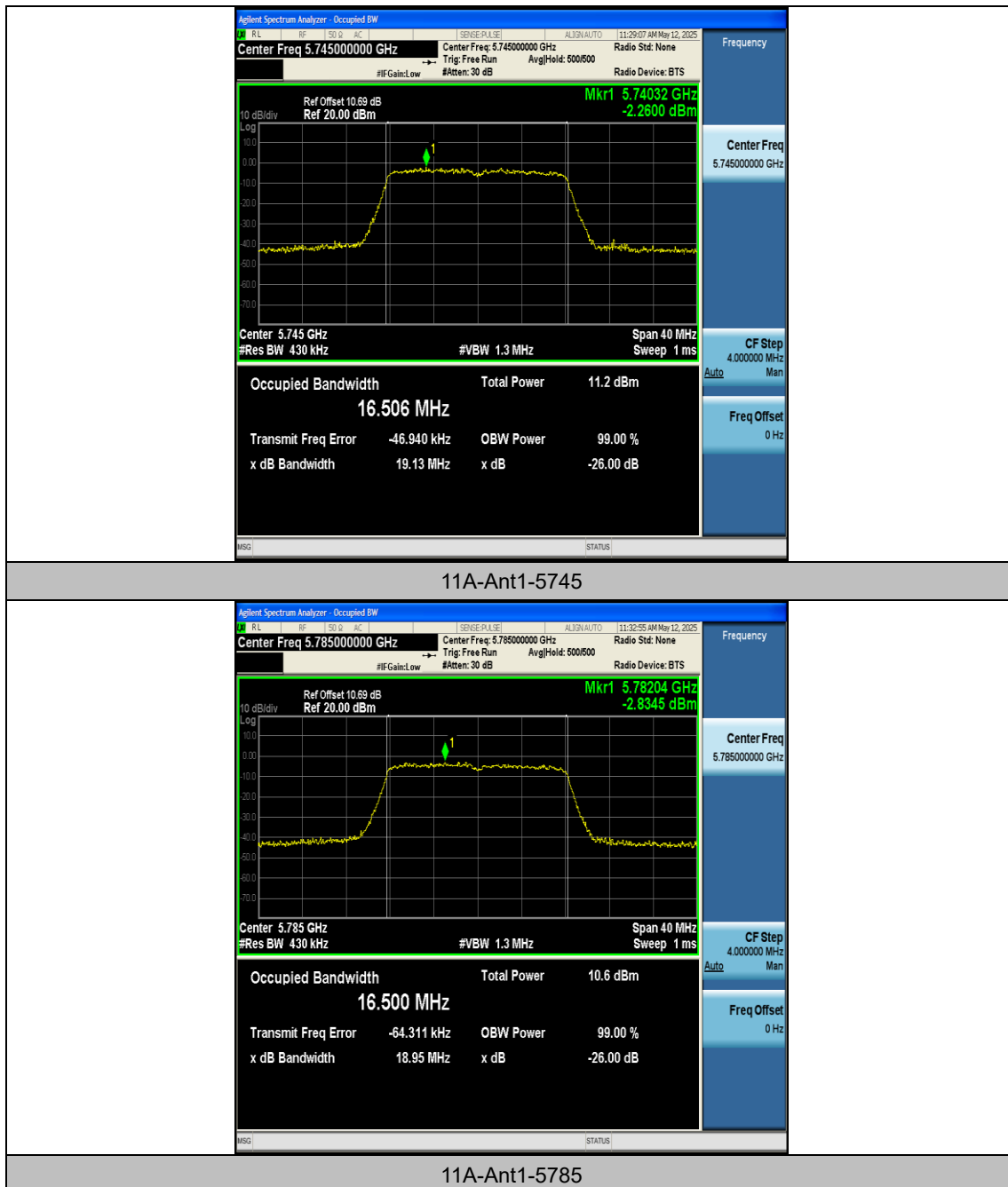
Appendix A2: Occupied channel bandwidth

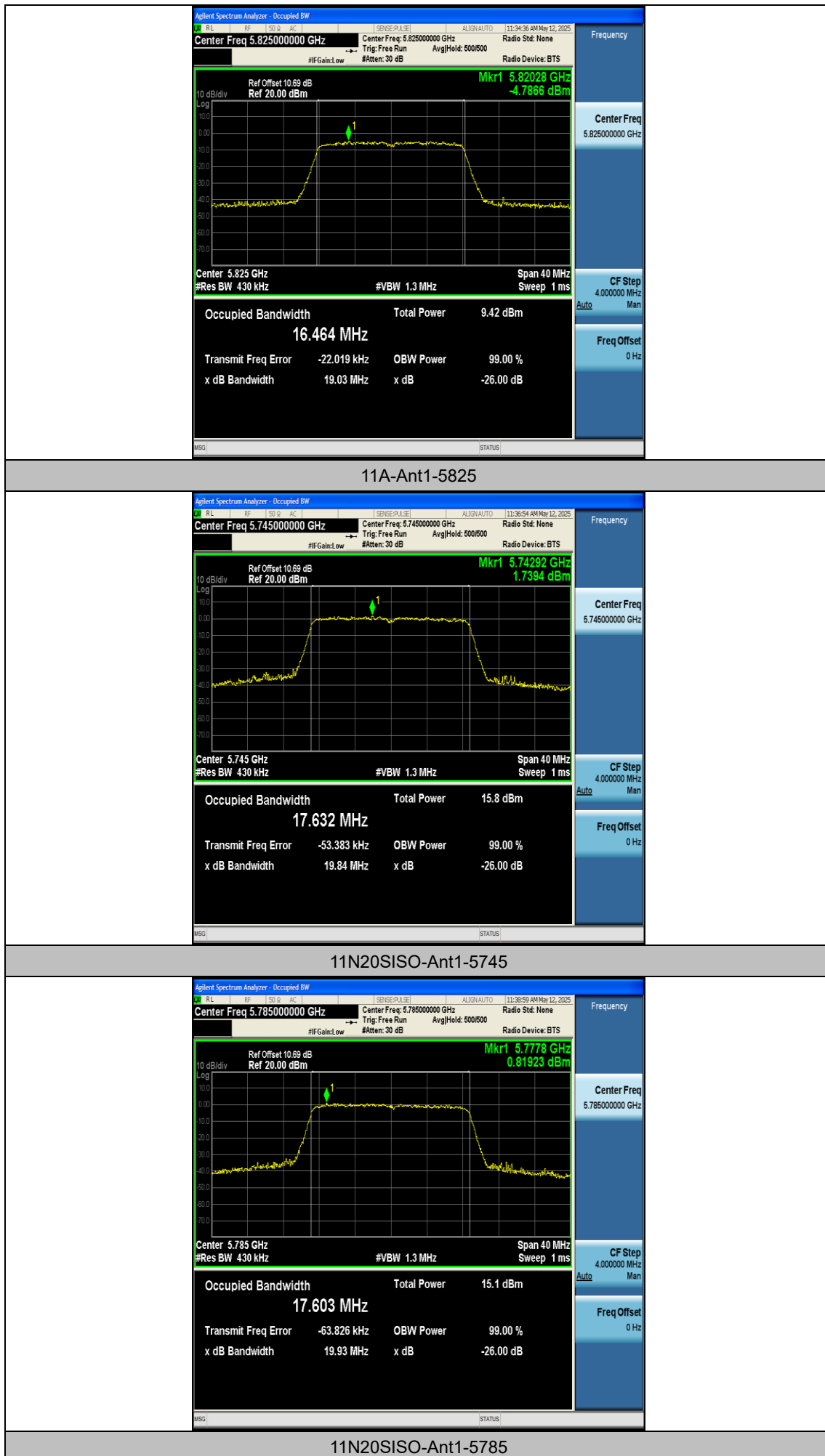
Test Result

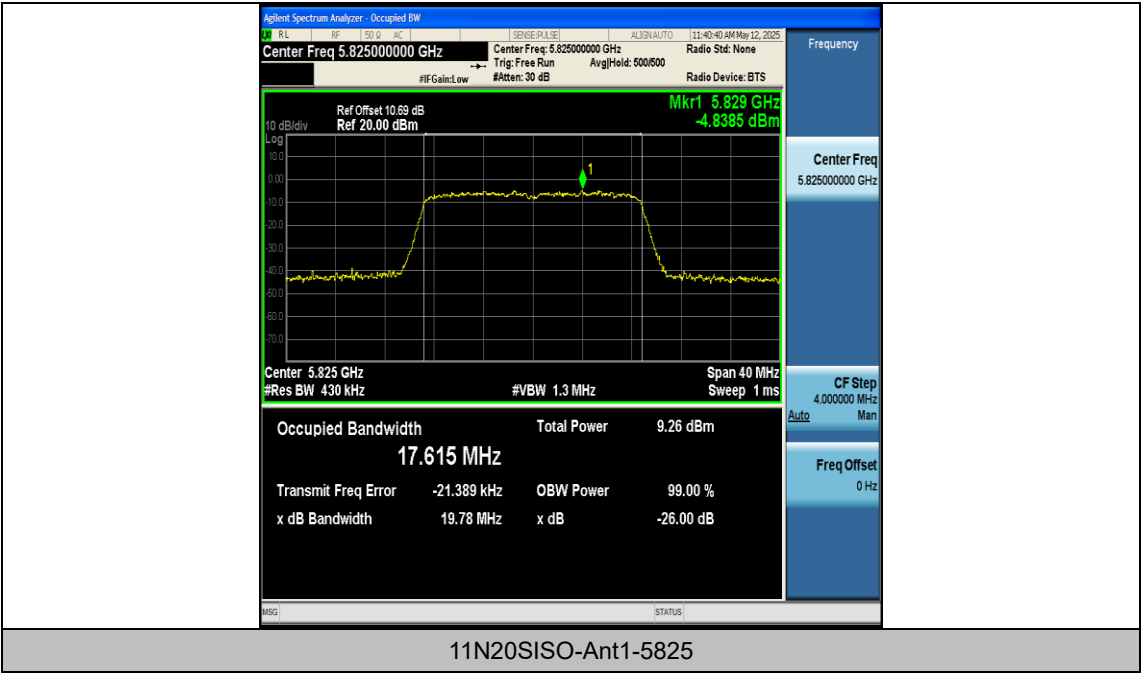
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.506	5736.7001	5753.2061	---	---
11A	Ant1	5785	16.500	5776.6857	5793.1857	---	---
11A	Ant1	5825	16.464	5816.7460	5833.2100	---	---
11N20SISO	Ant1	5745	17.632	5736.1306	5753.7626	---	---
11N20SISO	Ant1	5785	17.603	5776.1347	5793.7377	---	---
11N20SISO	Ant1	5825	17.615	5816.1711	5833.7861	---	---

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs







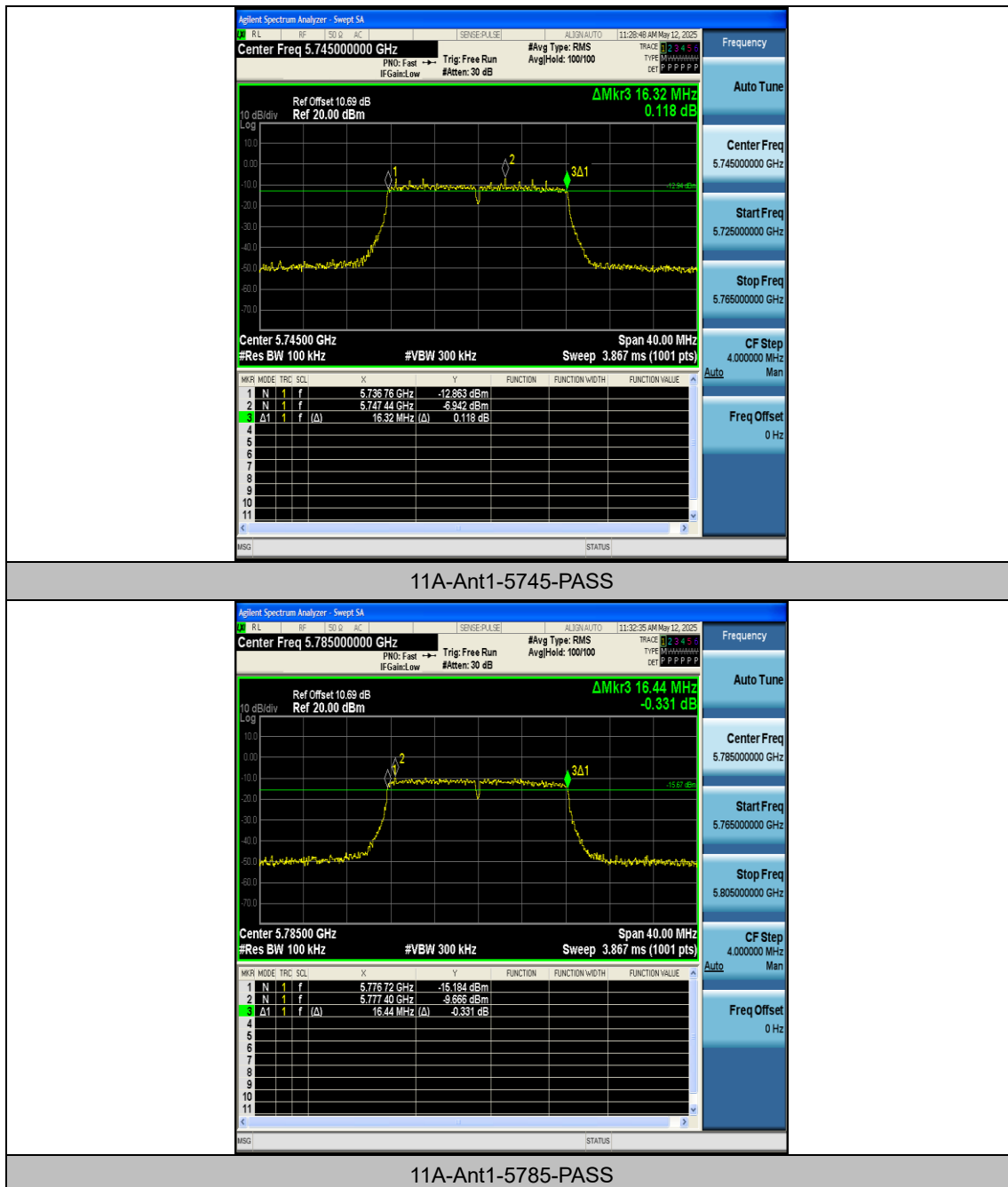
Appendix A: Min emission bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.320	5736.760	5753.080	0.5	PASS
11A	Ant1	5785	16.440	5776.720	5793.160	0.5	PASS
11A	Ant1	5825	16.280	5816.800	5833.080	0.5	PASS
11N20SISO	Ant1	5745	17.200	5736.160	5753.360	0.5	PASS
11N20SISO	Ant1	5785	17.200	5776.160	5793.360	0.5	PASS
11N20SISO	Ant1	5825	17.000	5816.360	5833.360	0.5	PASS

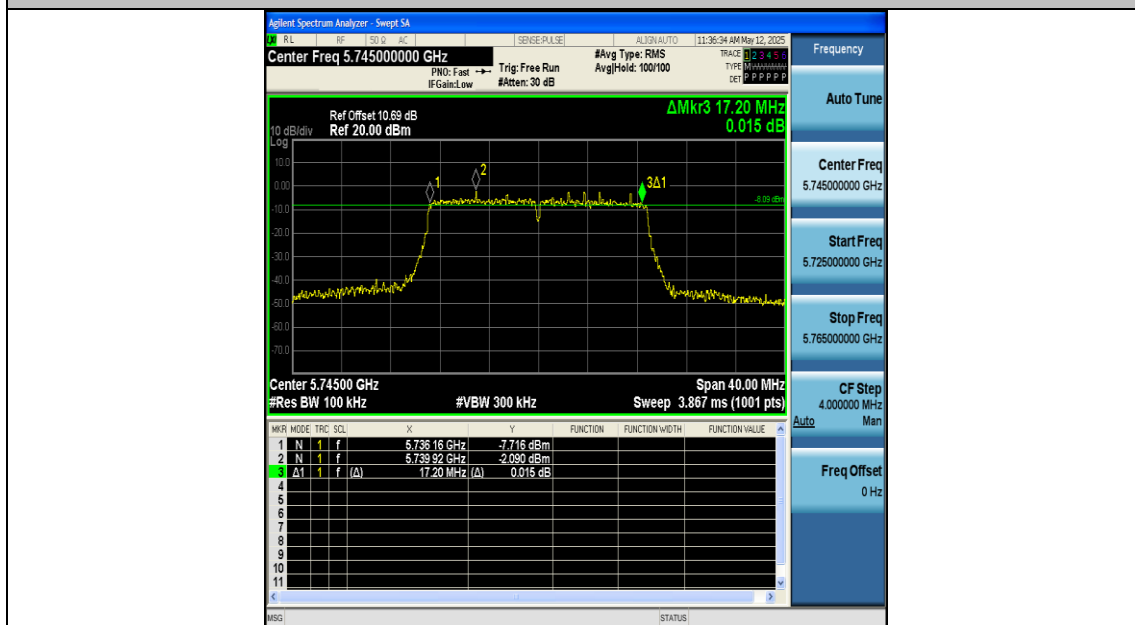
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





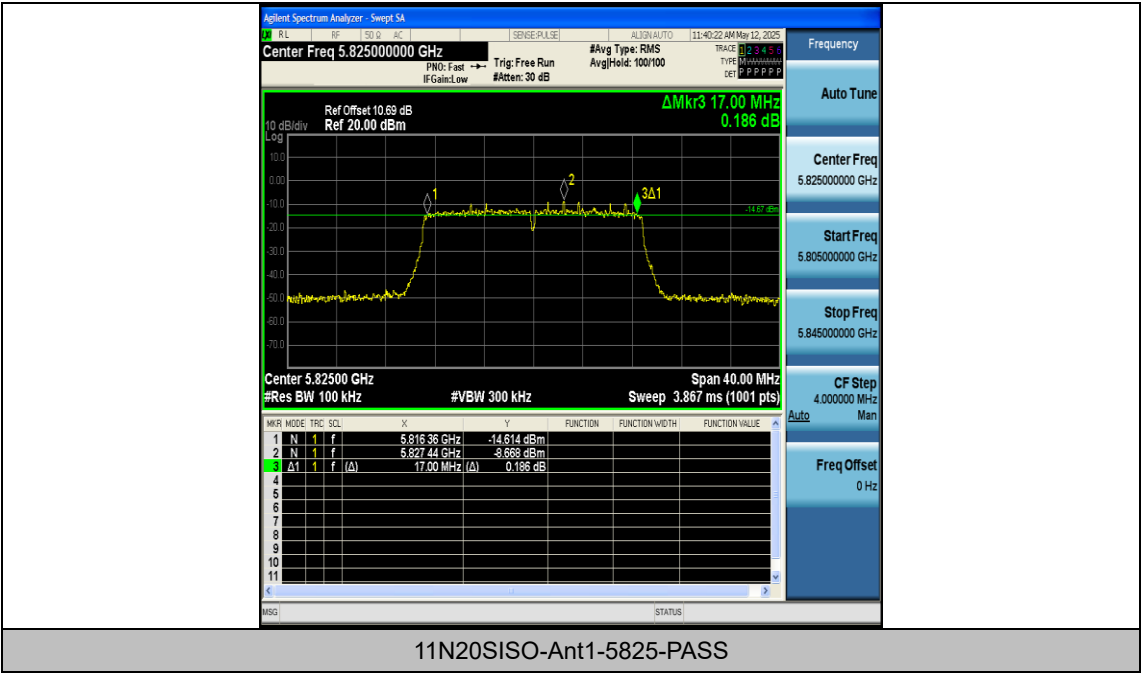
11A-Ant1-5825-PASS



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	4.58	≤30.00	PASS
11A	Ant1	5785	3.89	≤30.00	PASS
11A	Ant1	5825	2.89	≤30.00	PASS
11N20SISO	Ant1	5745	4.61	≤30.00	PASS
11N20SISO	Ant1	5785	3.93	≤30.00	PASS
11N20SISO	Ant1	5825	2.81	≤30.00	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

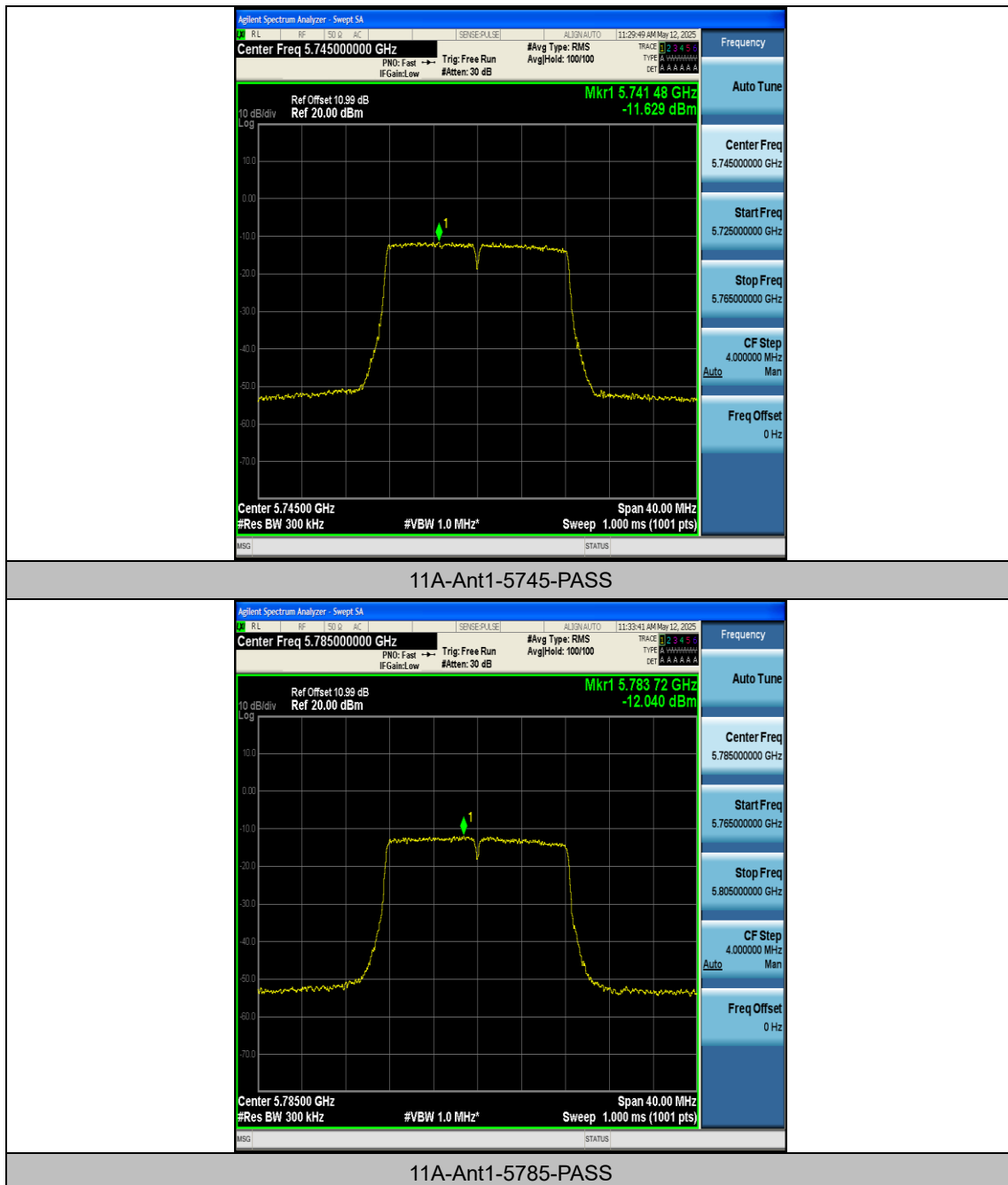
Appendix C: Maximum power spectral density

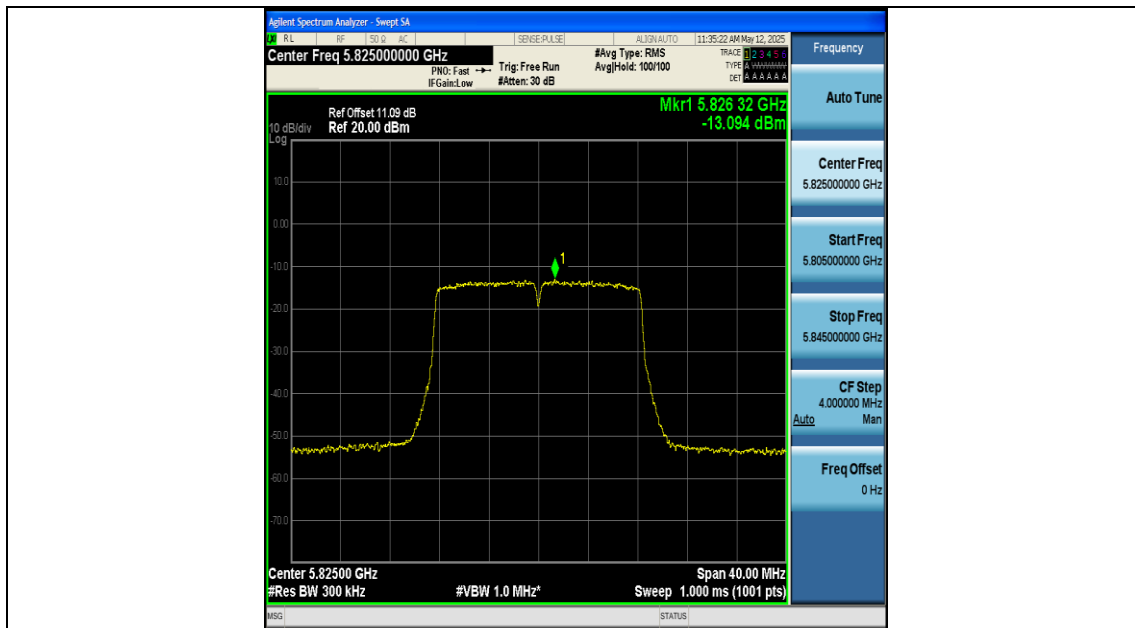
Test Result

Frequency [MHz]	Test Mode	Antenna	Result [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
5745	11A	Ant1	-11.63	≤30.00	PASS
5785	11A	Ant1	-12.04	≤30.00	PASS
5825	11A	Ant1	-13.09	≤30.00	PASS
5745	11N20SISO	Ant1	-11.56	≤30.00	PASS
5785	11N20SISO	Ant1	-12.21	≤30.00	PASS
5825	11N20SISO	Ant1	-13.76	≤30.00	PASS

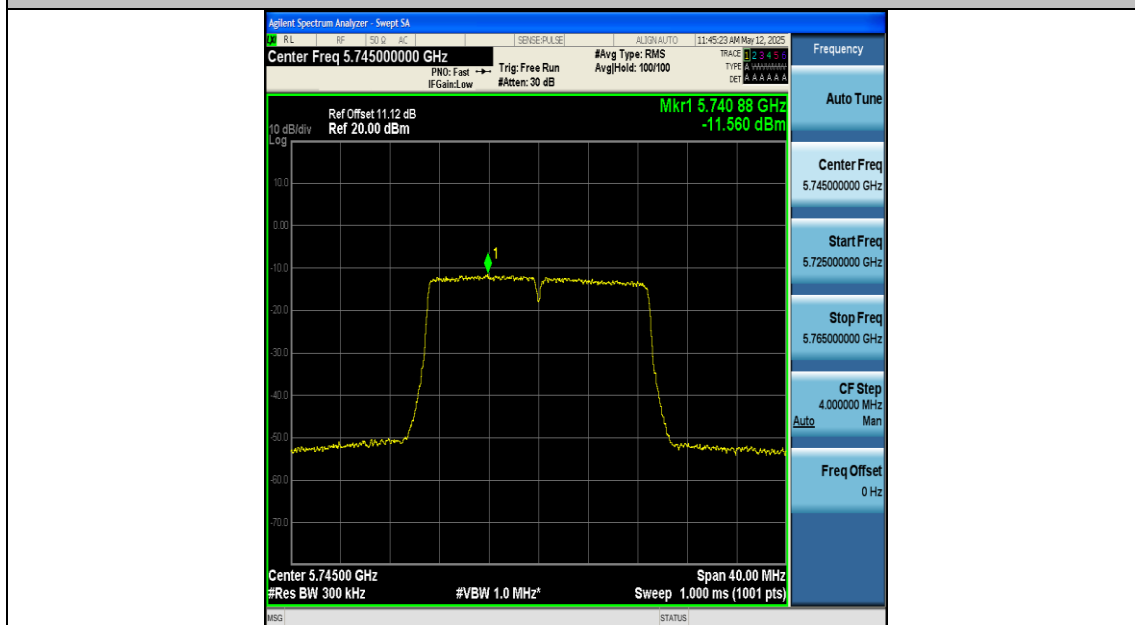
Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB) + RB Factor(dB)

Test Graphs

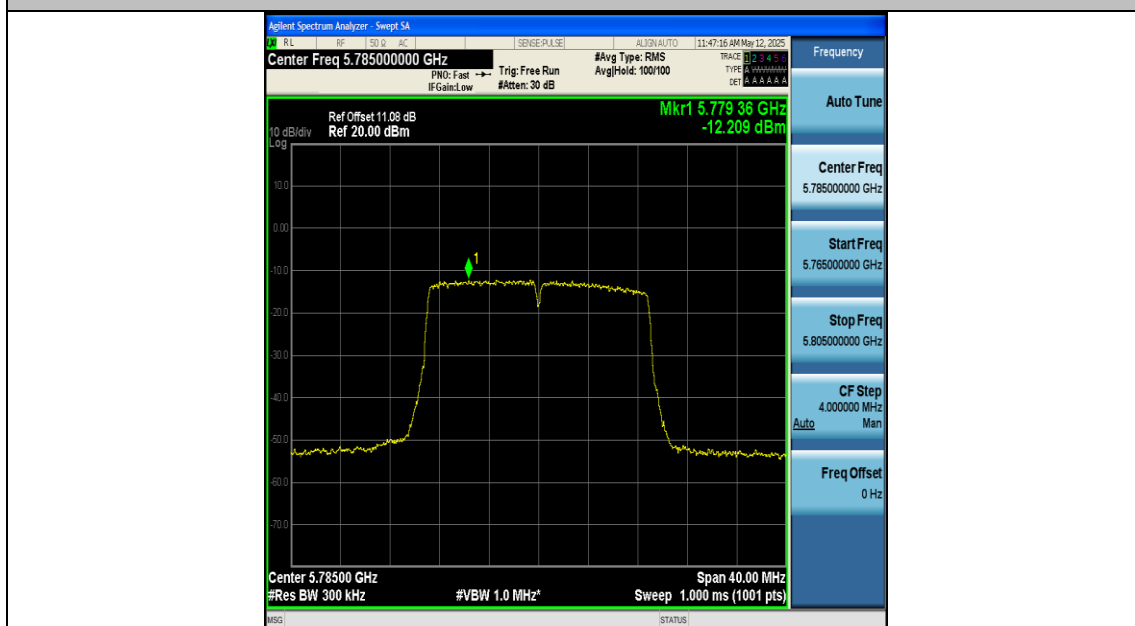




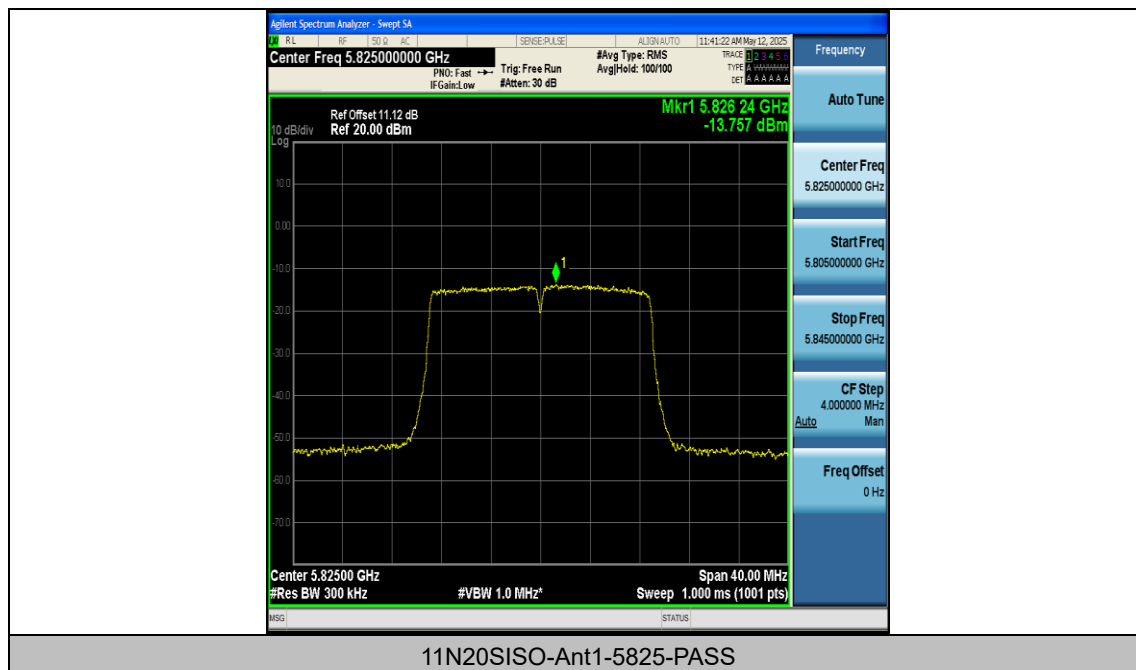
11A-Ant1-5825-PASS



11N20SISO-Ant1-5745-PASS



11N20SISO-Ant1-5785-PASS



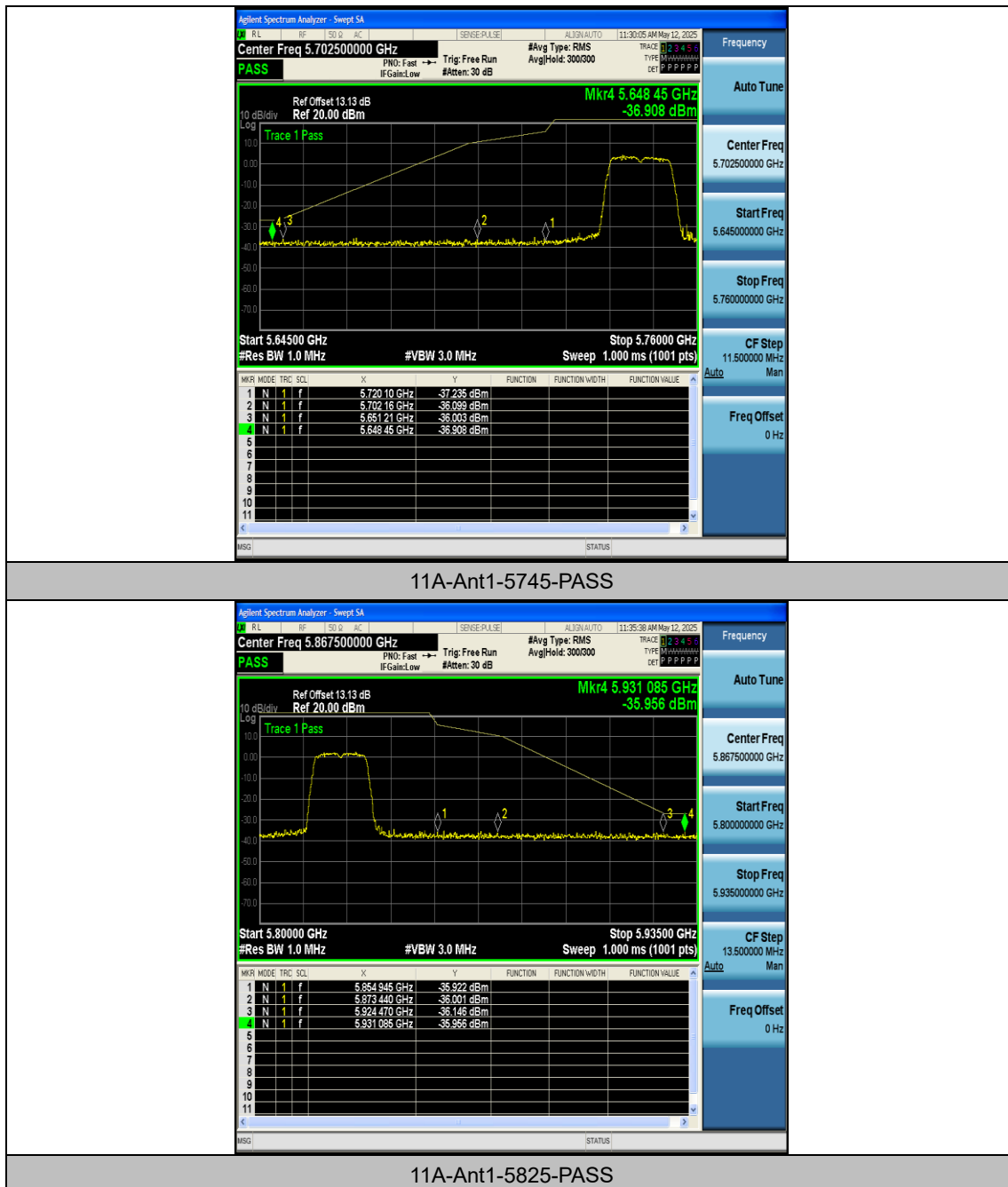
Appendix D: Band edge measurements

Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-37.24	≤15.82	PASS
11A	Ant1	Low	5745	5700~5720	-36.1	≤10.60	PASS
11A	Ant1	Low	5745	5650~5700	-36	≤-26.10	PASS
11A	Ant1	Low	5745	5760~5650	-36.91	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-35.92	≤15.73	PASS
11A	Ant1	High	5825	5855~5875	-36	≤10.44	PASS
11A	Ant1	High	5825	5875~5925	-36.15	≤-26.61	PASS
11A	Ant1	High	5825	5925~5935	-35.96	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5720~5725	-36.41	≤15.82	PASS
11N20SI SO	Ant1	Low	5745	5700~5720	-35.65	≤10.02	PASS
11N20SI SO	Ant1	Low	5745	5650~5700	-37.14	≤-26.79	PASS
11N20SI SO	Ant1	Low	5745	5760~5650	-36.21	≤-27	PASS
11N20SI SO	Ant1	High	5825	5850~5855	-35.87	≤15.73	PASS
11N20SI SO	Ant1	High	5825	5855~5875	-36.86	≤10.02	PASS
11N20SI SO	Ant1	High	5825	5875~5925	-37.06	≤-26.91	PASS
11N20SI SO	Ant1	High	5825	5925~5935	-36.25	≤-27	PASS

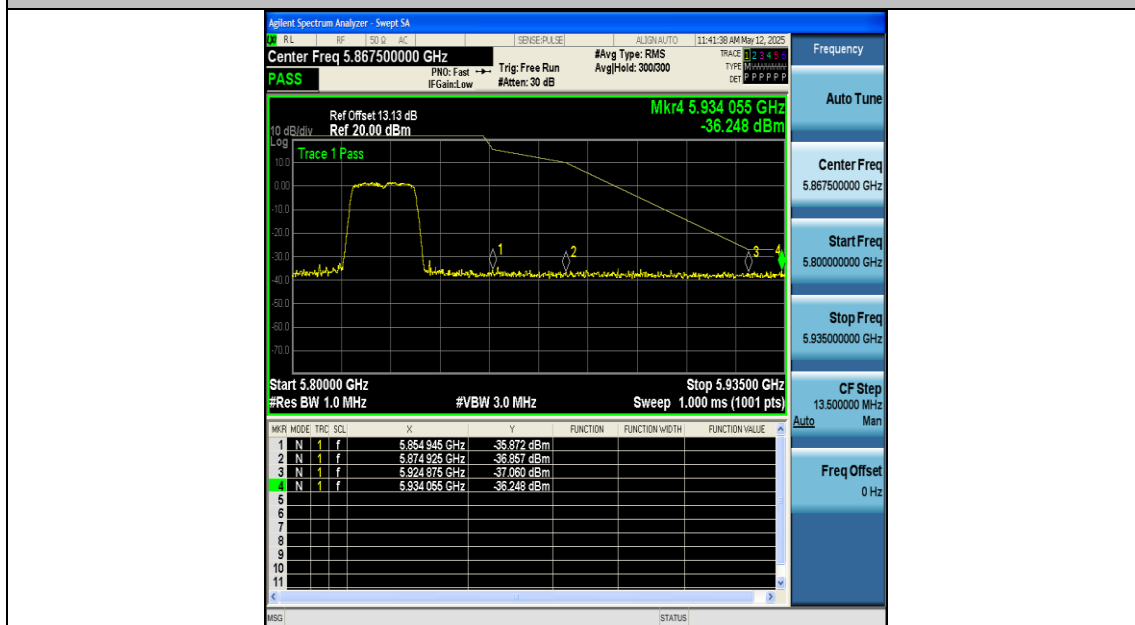
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





11N20SISO-Ant1-5745-PASS



11N20SISO-Ant1-5825-PASS

Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	4.07	5744.900978	5725 – 5850	PASS
5745	20	3.33	5745.041039	5725 – 5850	PASS
5745	50	3.70	5744.933548	5725 – 5850	PASS
5745	40	3.70	5745.050945	5725 – 5850	PASS
5745	30	3.70	5745.009926	5725 – 5850	PASS
5745	20	3.70	5744.907202	5725 – 5850	PASS
5745	10	3.70	5745.076732	5725 – 5850	PASS
5745	0	3.70	5745.084333	5725 – 5850	PASS
5745	-10	3.70	5744.903159	5725 – 5850	PASS
5745	-20	3.70	5745.033055	5725 – 5850	PASS
5745	-30	3.70	5745.059729	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	4.07	5784.918658	5725 – 5850	PASS
5785	20	3.33	5784.976167	5725 – 5850	PASS
5785	50	3.70	5785.027551	5725 – 5850	PASS
5785	40	3.70	5784.962090	5725 – 5850	PASS
5785	30	3.70	5784.990629	5725 – 5850	PASS
5785	20	3.70	5784.998354	5725 – 5850	PASS
5785	10	3.70	5785.012681	5725 – 5850	PASS
5785	0	3.70	5785.059765	5725 – 5850	PASS
5785	-10	3.70	5784.912339	5725 – 5850	PASS
5785	-20	3.70	5785.074352	5725 – 5850	PASS
5785	-30	3.70	5784.912952	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	4.07	5824.902968	5725 – 5850	PASS
5825	20	3.33	5824.910994	5725 – 5850	PASS
5825	50	3.70	5824.955446	5725 – 5850	PASS
5825	40	3.70	5824.950636	5725 – 5850	PASS
5825	30	3.70	5824.982370	5725 – 5850	PASS
5825	20	3.70	5825.085909	5725 – 5850	PASS
5825	10	3.70	5824.906989	5725 – 5850	PASS
5825	0	3.70	5825.008848	5725 – 5850	PASS
5825	-10	3.70	5824.975844	5725 – 5850	PASS
5825	-20	3.70	5824.953194	5725 – 5850	PASS
5825	-30	3.70	5825.032182	5725 – 5850	PASS

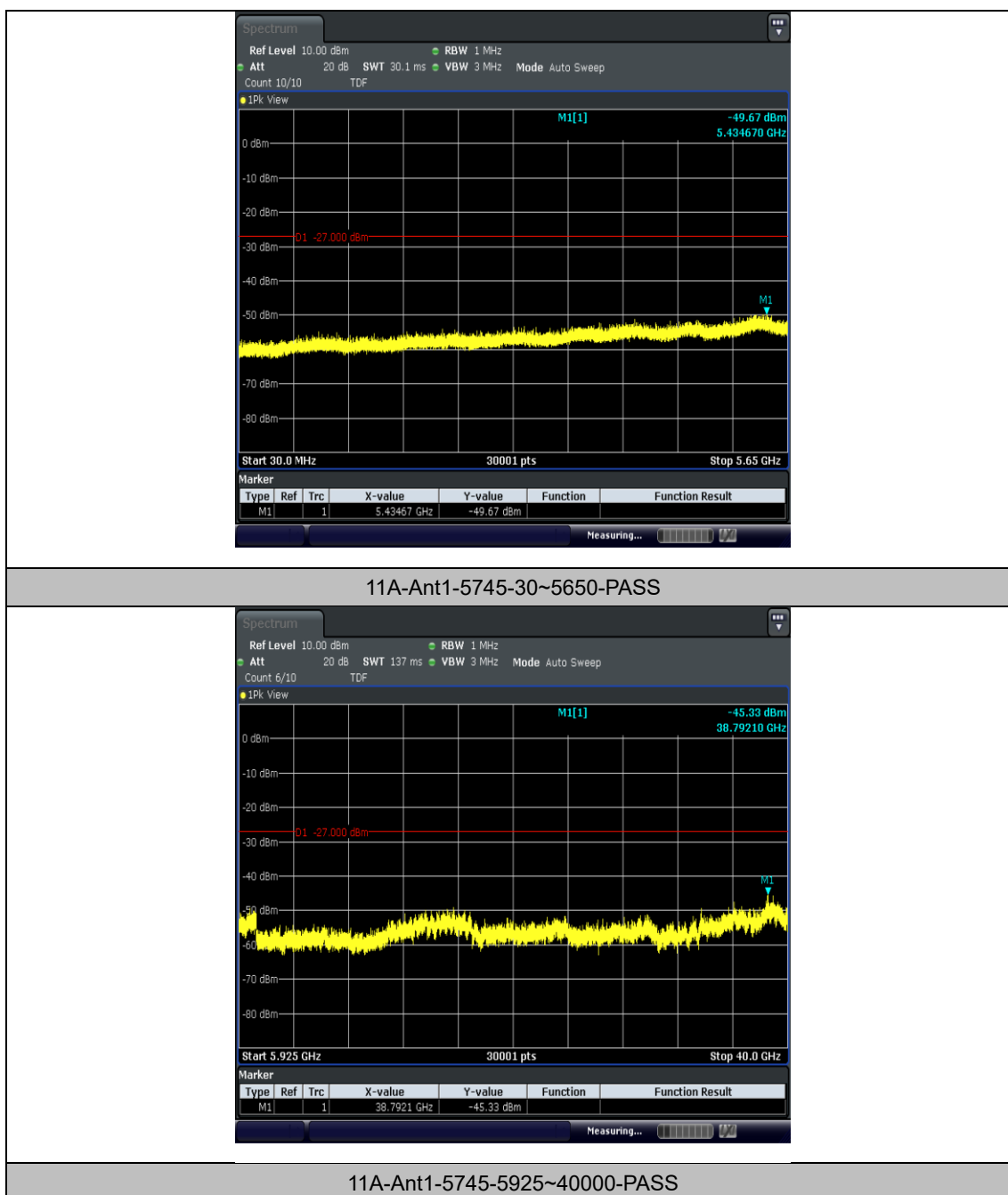
Appendix F: Conducted Spurious Emission

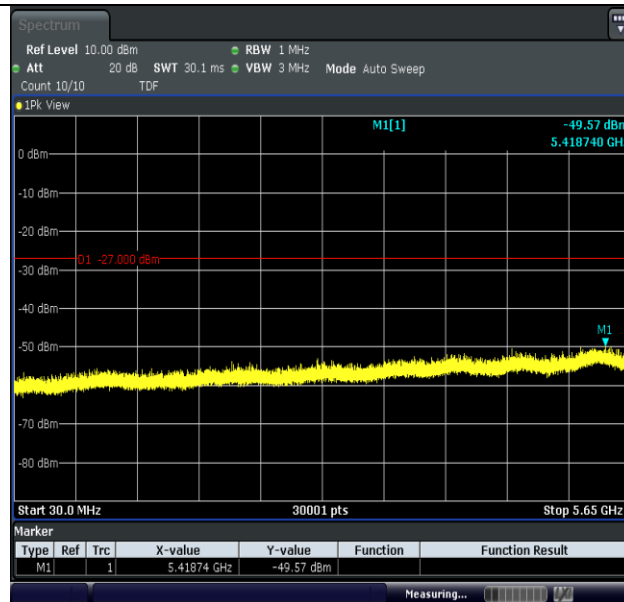
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5434.67	-49.67	≤-27	PASS
11A	Ant1	5745	5925~40000	38792.1	-45.33	≤-27	PASS
11A	Ant1	5785	30~5650	5418.74	-49.57	≤-27	PASS
11A	Ant1	5785	5925~40000	39053.3	-46.48	≤-27	PASS
11A	Ant1	5825	30~5650	5412.38	-49.55	≤-27	PASS
11A	Ant1	5825	5925~40000	38907.9	-45.73	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5413.5	-48.89	≤-27	PASS
11N20SISO	Ant1	5745	5925~40000	39103.3	-46.7	≤-27	PASS
11N20SISO	Ant1	5785	30~5650	5344.38	-49.29	≤-27	PASS
11N20SISO	Ant1	5785	5925~40000	39077.2	-45.67	≤-27	PASS
11N20SISO	Ant1	5825	30~5650	5324.52	-48.98	≤-27	PASS
11N20SISO	Ant1	5825	5925~40000	38785.3	-46.09	≤-27	PASS

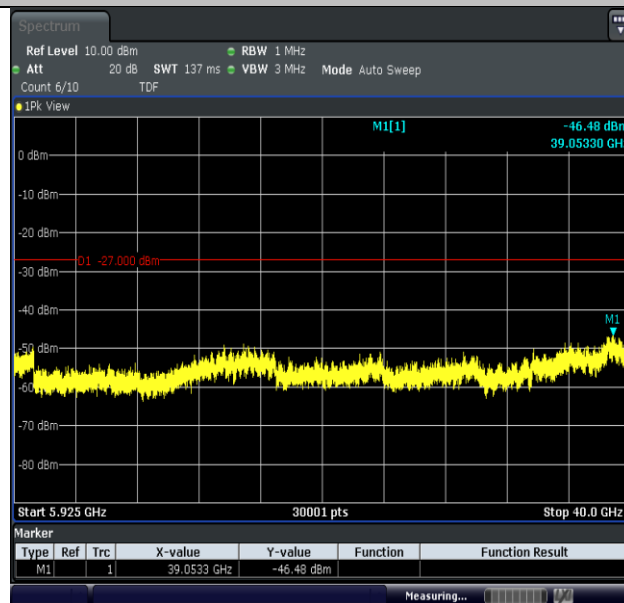
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 40 GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

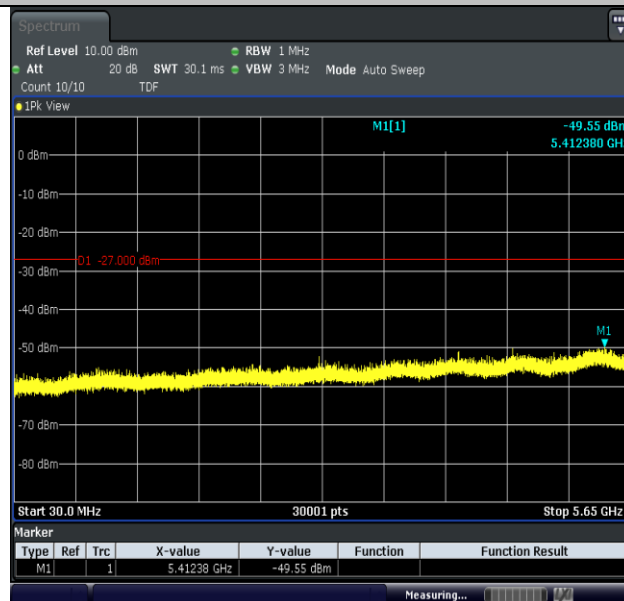




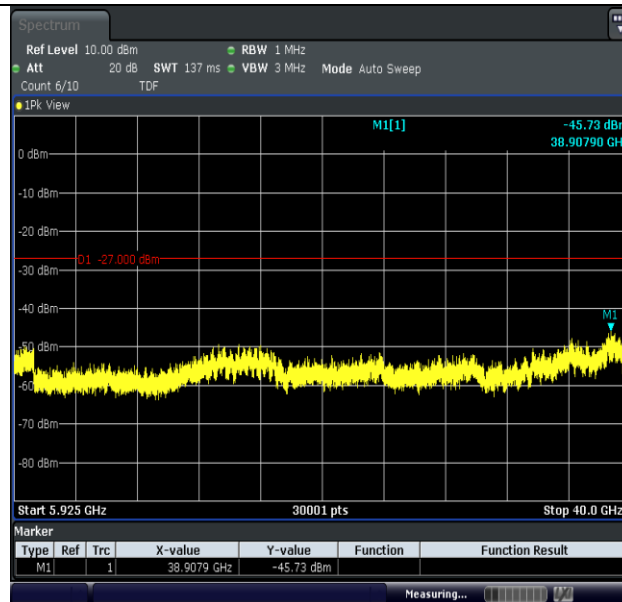
11A-Ant1-5785-30~5650-PASS



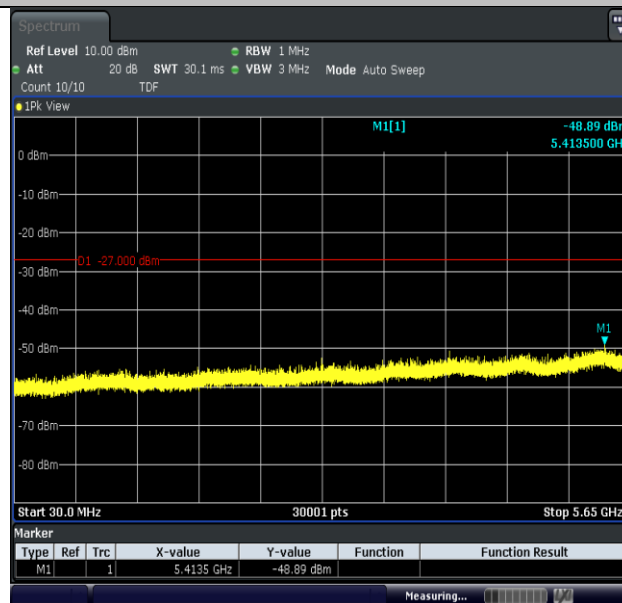
11A-Ant1-5785-5925~40000-PASS



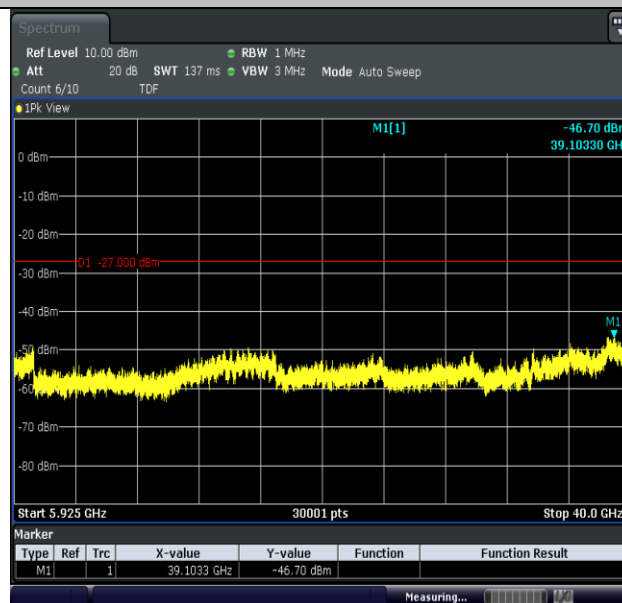
11A-Ant1-5825-30~5650-PASS



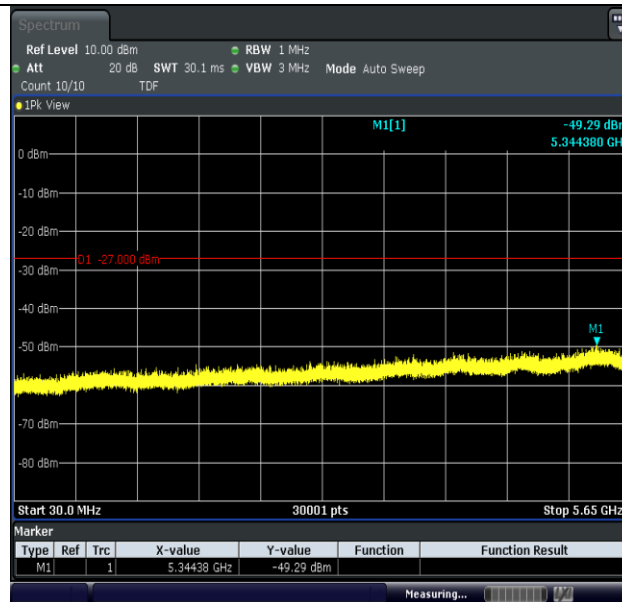
11A-Ant1-5825-5925~40000-PASS



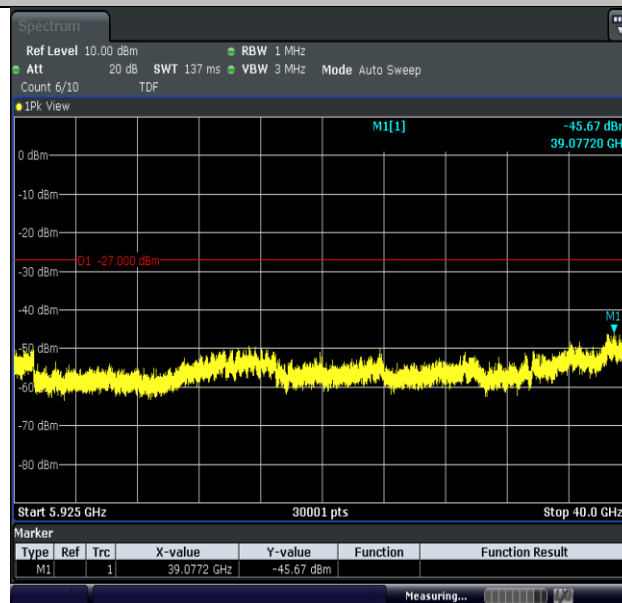
11N20SISO-Ant1-5745-30~5650-PASS



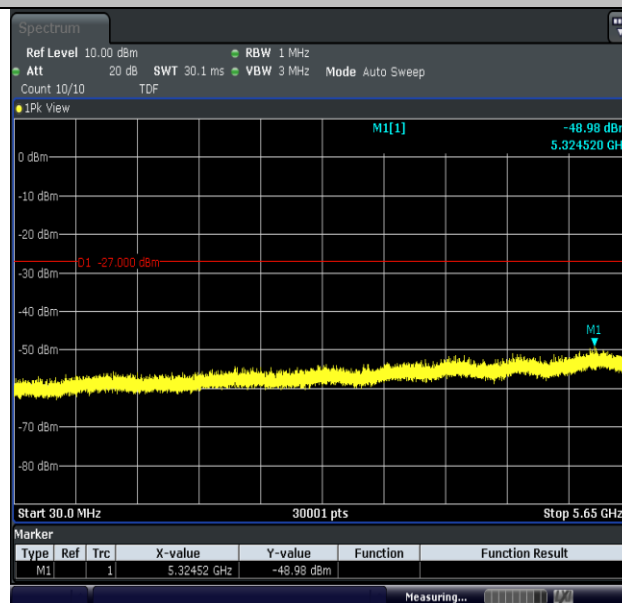
11N20SISO-Ant1-5745-5925~40000-PASS



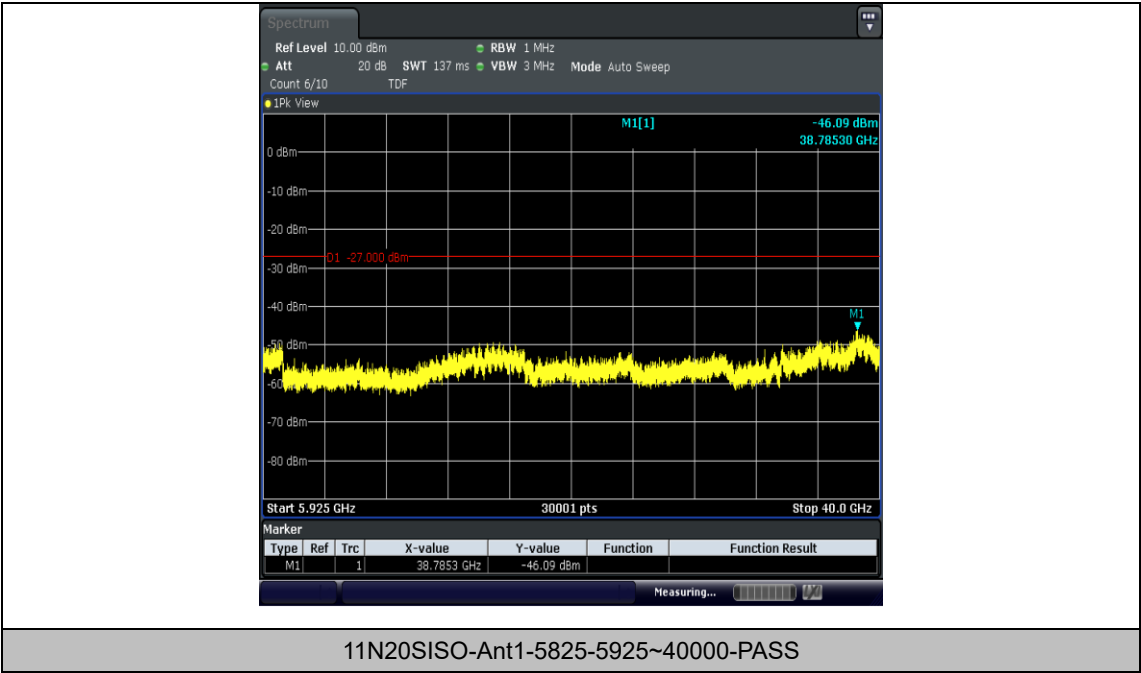
11N20SISO-Ant1-5785-30~5650-PASS



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



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



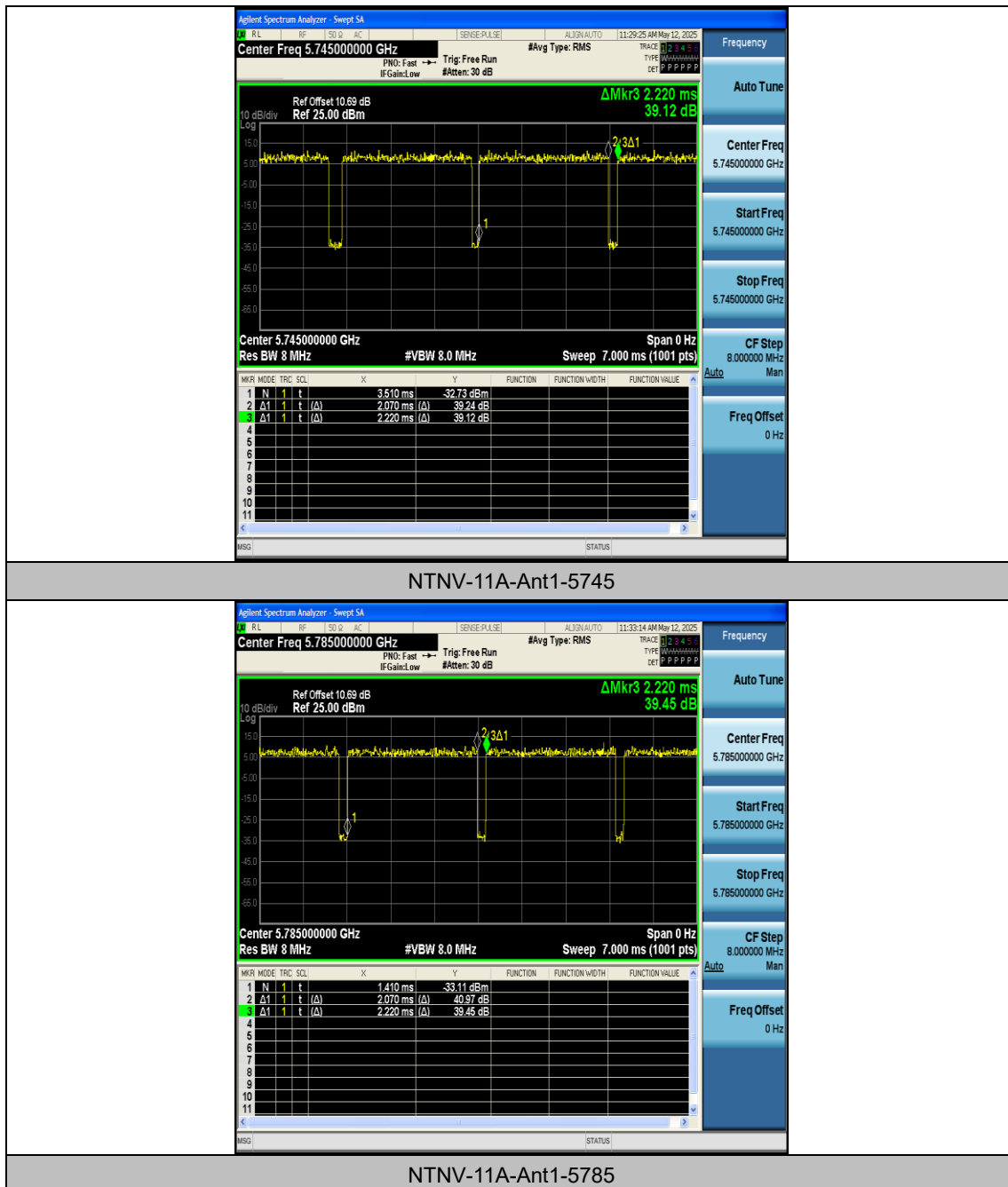
Appendix G: Duty Cycle

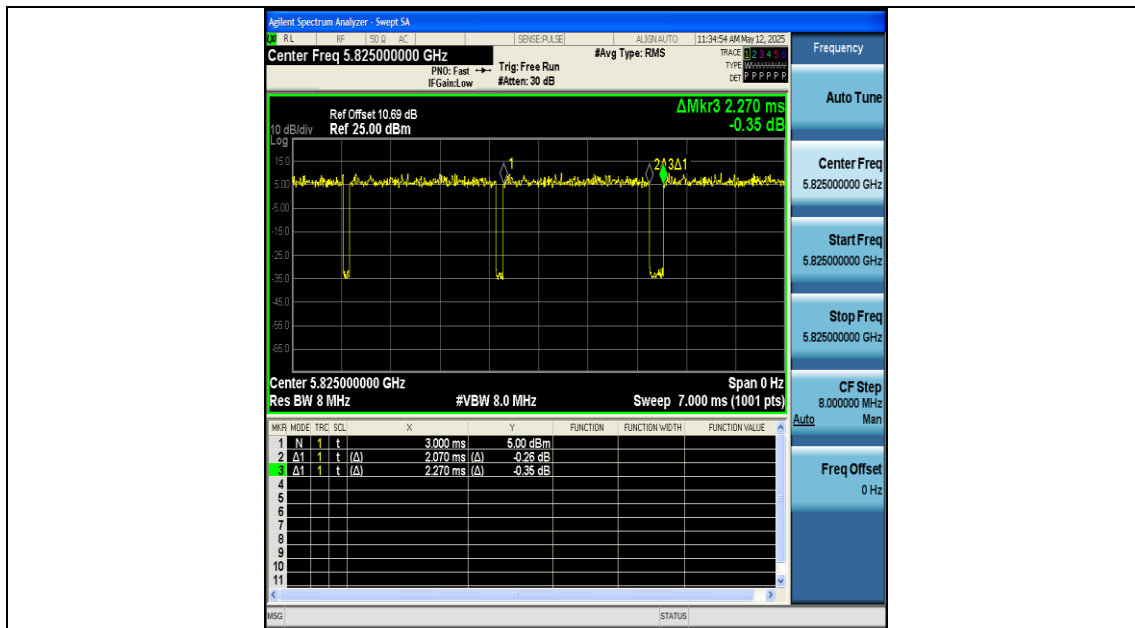
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	2.07	2.22	93.24	0.30	0.48
11A	Ant1	5785	2.07	2.22	93.24	0.30	0.48
11A	Ant1	5825	2.07	2.27	91.19	0.40	0.48
11N20SISO	Ant1	5745	1.92	2.10	91.43	0.39	0.52
11N20SISO	Ant1	5785	1.92	2.10	91.43	0.39	0.52
11N20SISO	Ant1	5825	1.92	2.12	90.57	0.43	0.52

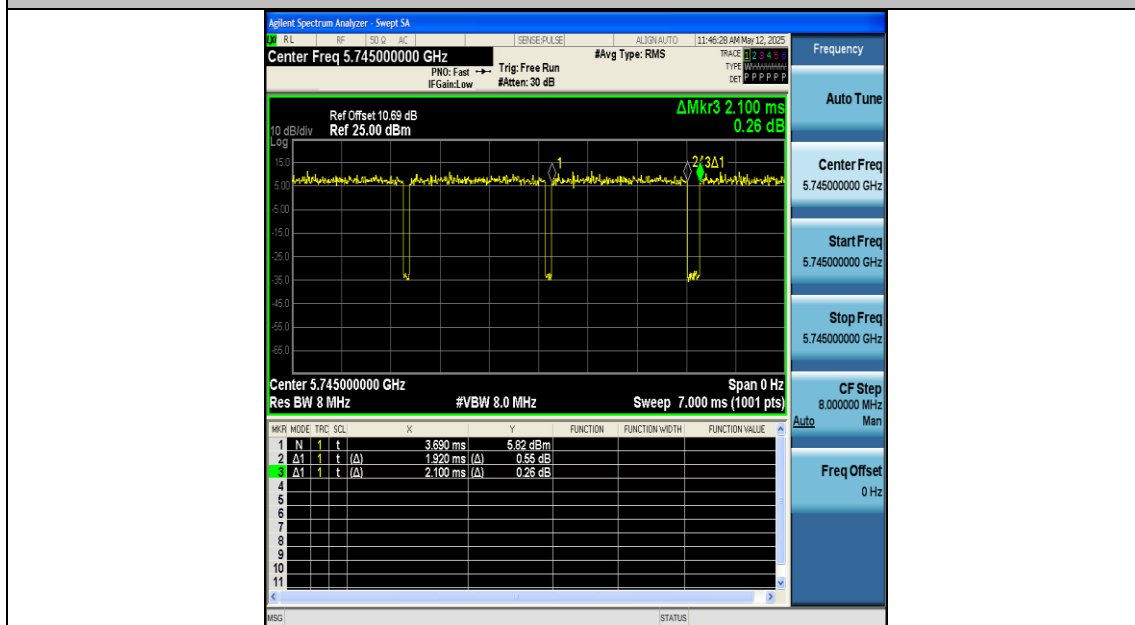
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

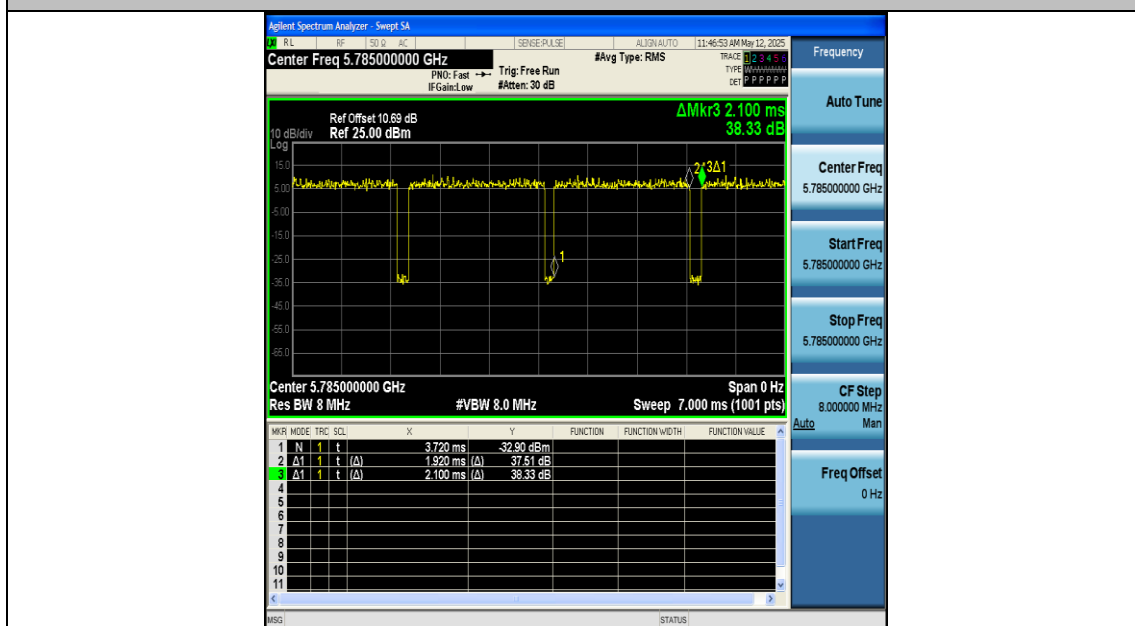




NTNV-11A-Ant1-5825



NTNV-11N20SISO-Ant1-5745



NTNV-11N20SISO-Ant1-5785

