

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

Product Name: Drone

Trade Mark: /

Test Model: F7MINI 4K

FCC ID: 2A5GP-F7MINI4K

Environmental Conditions

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

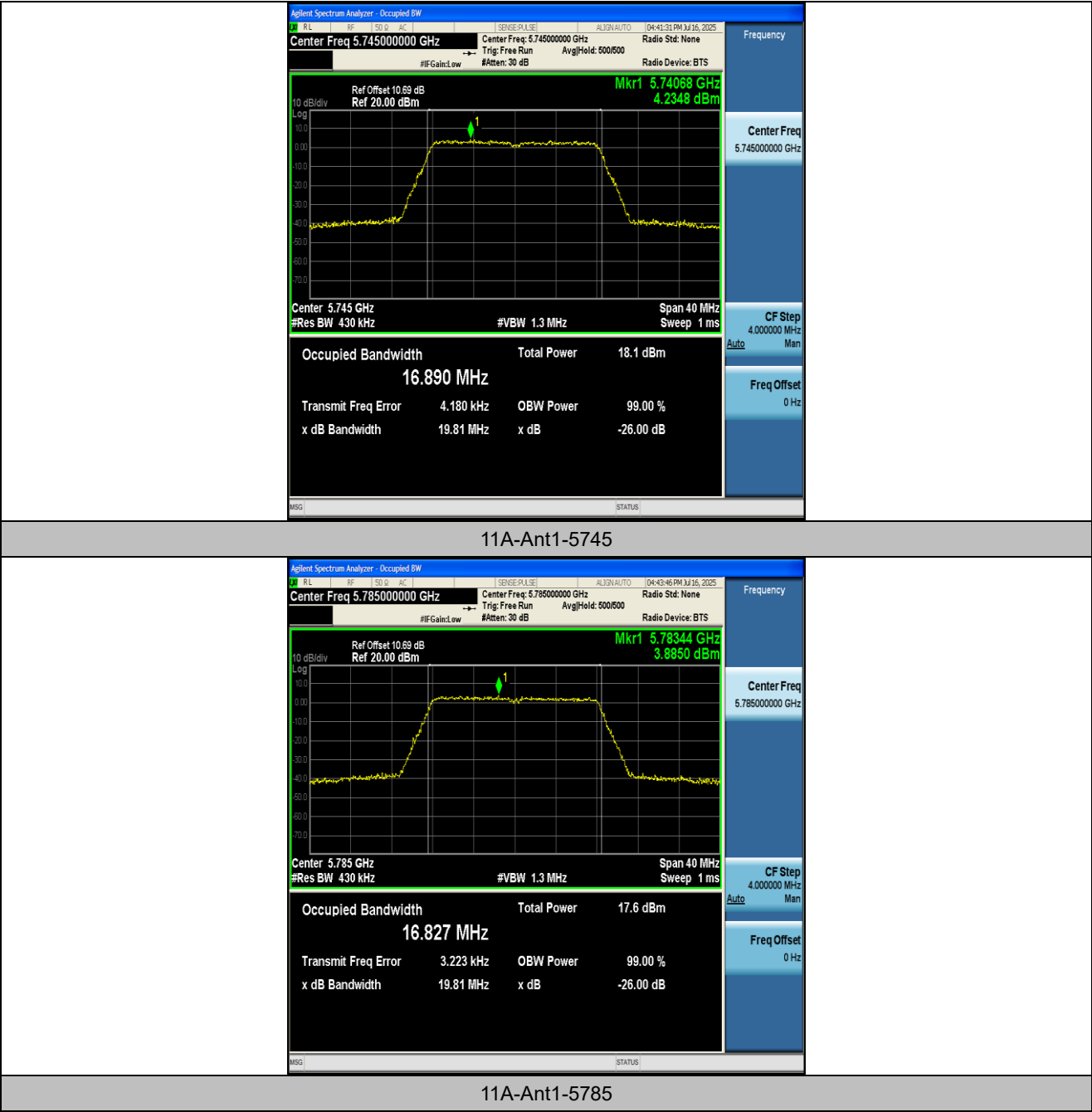
Appendix A2: Occupied channel bandwidth

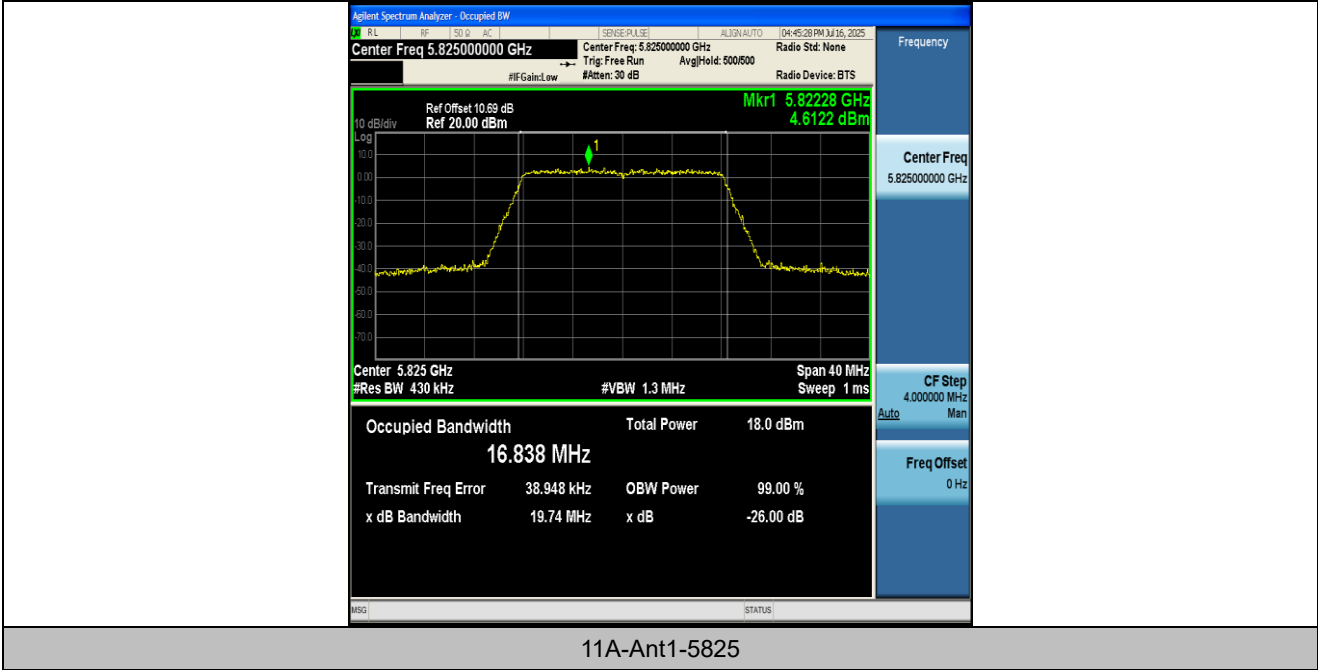
Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.890	5736.5592	5753.4492	---	---
11A	Ant1	5785	16.827	5776.5897	5793.4167	---	---
11A	Ant1	5825	16.838	5816.6200	5833.4580	---	---

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

Test Graphs





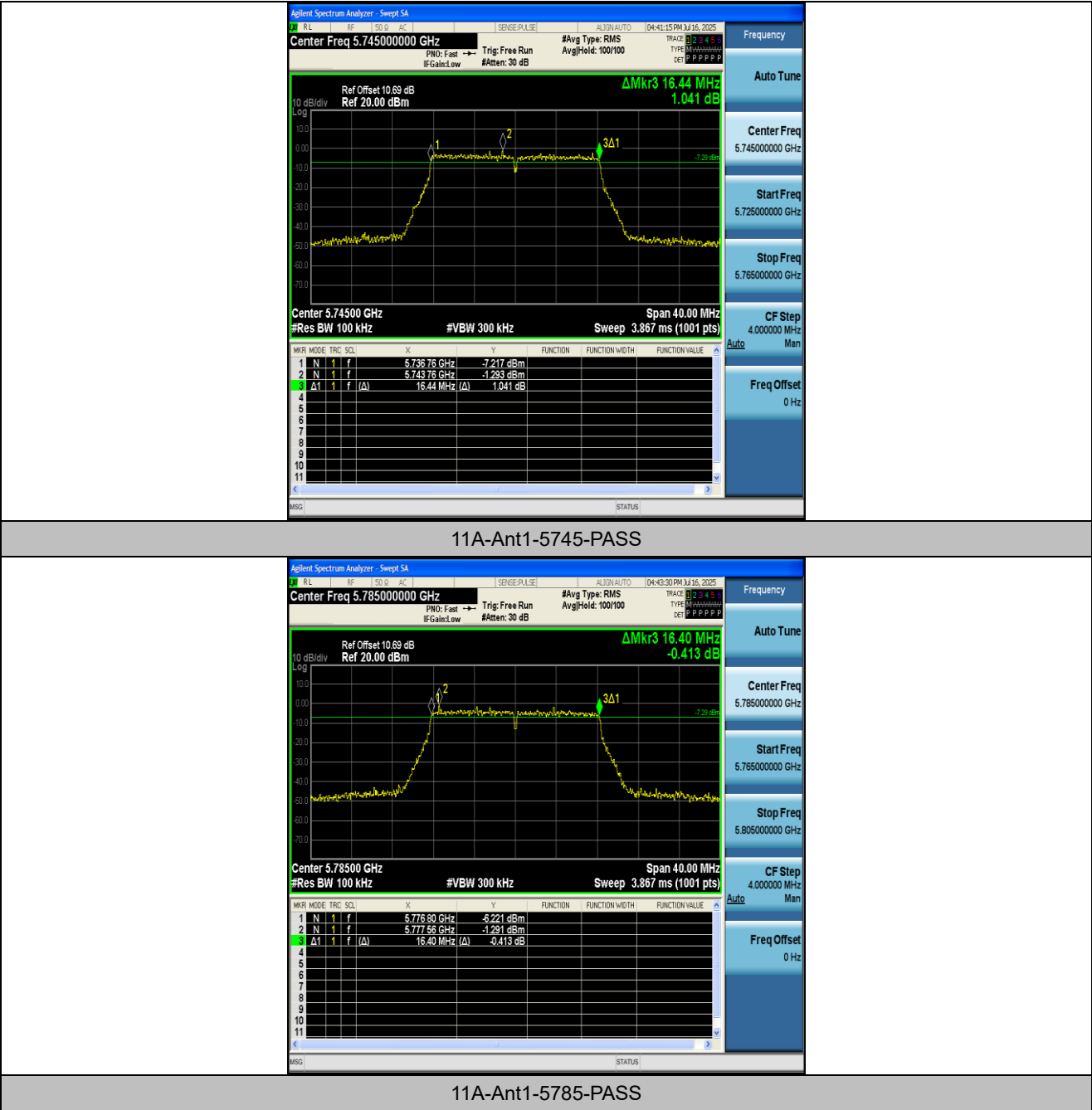
Appendix A: Min emission bandwidth

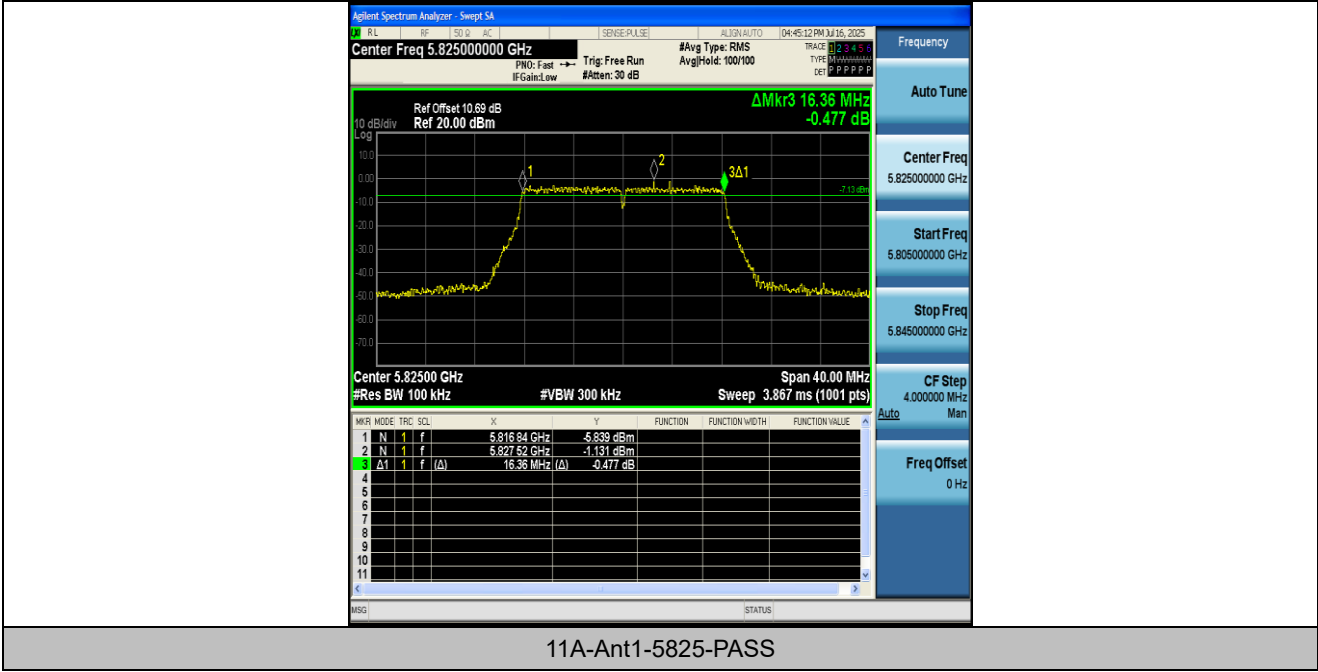
Test Result

Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.440	5736.760	5753.200	0.5	PASS
11A	Ant1	5785	16.400	5776.800	5793.200	0.5	PASS
11A	Ant1	5825	16.360	5816.840	5833.200	0.5	PASS

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

Test Graphs





Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	11.18	≤30.00	PASS
11A	Ant1	5785	10.87	≤30.00	PASS
11A	Ant1	5825	11.14	≤30.00	PASS

Appendix C: Maximum power spectral density

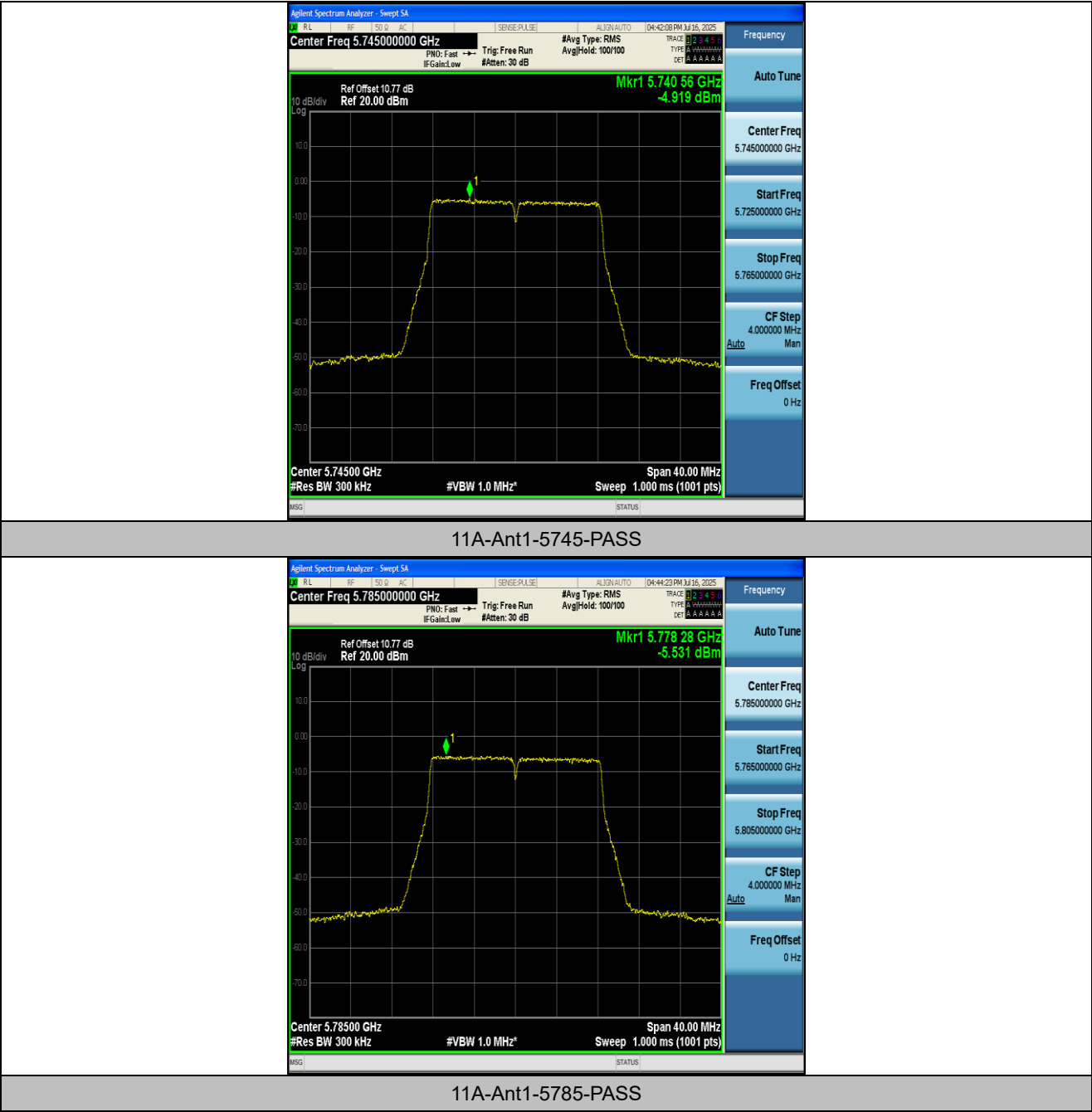
Test Result

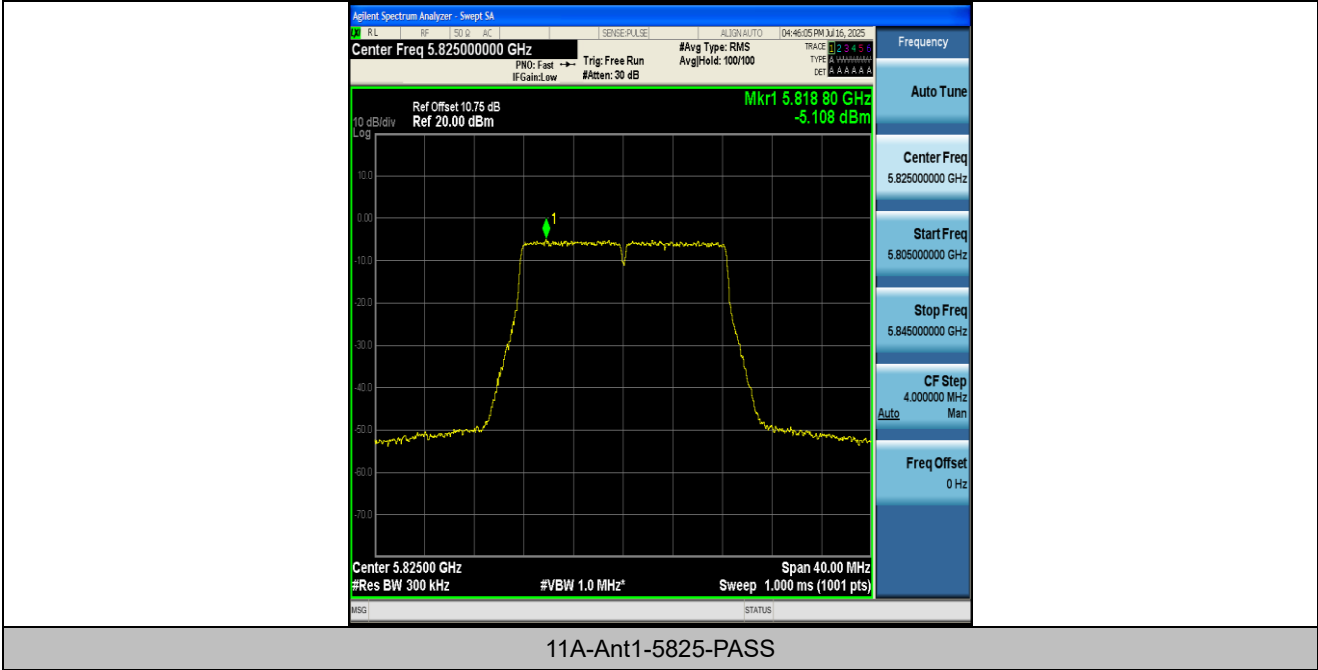
Frequency [MHz]	Test Mode	Antenna	Result [dBm/300K Hz]	RBW Factor [dB]	Result [dBm/500K Hz]	Limit [dBm/500K Hz]	Verdict
5745	11A	Ant1	-4.92	2.22	-2.70	≤30.00	PASS
5785	11A	Ant1	-5.53	2.22	-2.31	≤30.00	PASS
5825	11A	Ant1	-5.11	2.22	-2.89	≤30.00	PASS

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

Result[dBm/500KHz] = Result[dBm/300KHz] + RB Factor(dB)

Test Graphs





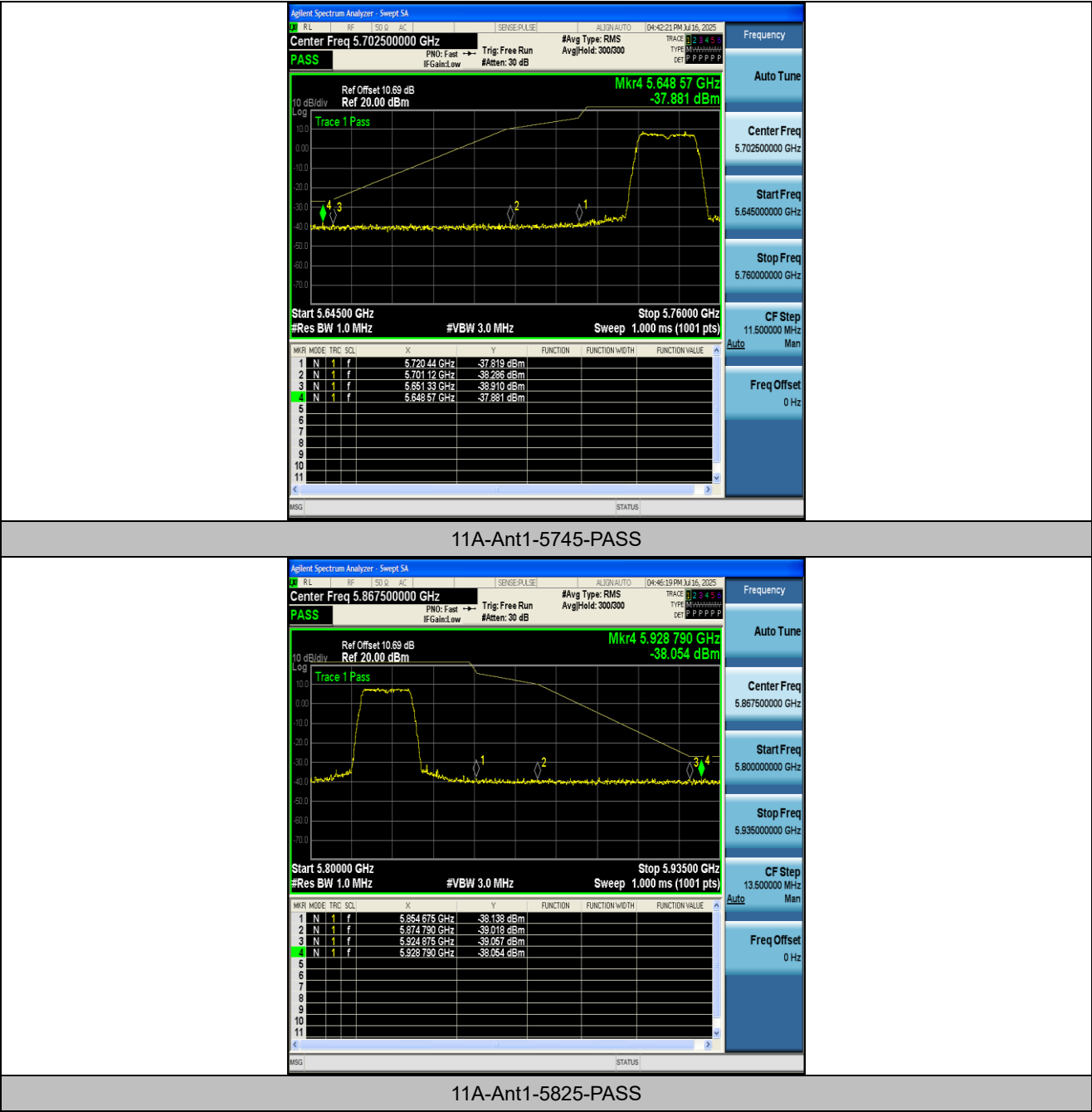
Appendix D: Band edge measurements

Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-37.82	≤16.60	PASS
11A	Ant1	Low	5745	5700~5720	-38.29	≤10.31	PASS
11A	Ant1	Low	5745	5650~5700	-38.91	≤-26.02	PASS
11A	Ant1	Low	5745	5760~5650	-37.88	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-38.14	≤16.34	PASS
11A	Ant1	High	5825	5855~5875	-39.02	≤10.06	PASS
11A	Ant1	High	5825	5875~5925	-39.06	≤-26.91	PASS
11A	Ant1	High	5825	5925~5935	-38.05	≤-27	PASS

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

Test Graphs



Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	8.14	5744.900978	5725 – 5850	PASS
5745	20	6.66	5745.041039	5725 – 5850	PASS
5745	50	7.40	5744.933548	5725 – 5850	PASS
5745	40	7.40	5745.050945	5725 – 5850	PASS
5745	30	7.40	5745.009926	5725 – 5850	PASS
5745	20	7.40	5744.907202	5725 – 5850	PASS
5745	10	7.40	5745.076732	5725 – 5850	PASS
5745	0	7.40	5745.084333	5725 – 5850	PASS
5745	-10	7.40	5744.903159	5725 – 5850	PASS
5745	-20	7.40	5745.033055	5725 – 5850	PASS
5745	-30	7.40	5745.059729	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	8.14	5784.918658	5725 – 5850	PASS
5785	20	6.66	5784.976167	5725 – 5850	PASS
5785	50	7.40	5785.027551	5725 – 5850	PASS
5785	40	7.40	5784.962090	5725 – 5850	PASS
5785	30	7.40	5784.990629	5725 – 5850	PASS
5785	20	7.40	5784.998354	5725 – 5850	PASS
5785	10	7.40	5785.012681	5725 – 5850	PASS
5785	0	7.40	5785.059765	5725 – 5850	PASS
5785	-10	7.40	5784.912339	5725 – 5850	PASS
5785	-20	7.40	5785.074352	5725 – 5850	PASS
5785	-30	7.40	5784.912952	5725 – 5850	PASS

Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VDC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	8.14	5824.902968	5725 – 5850	PASS
5825	20	6.66	5824.910994	5725 – 5850	PASS
5825	50	7.40	5824.955446	5725 – 5850	PASS
5825	40	7.40	5824.950636	5725 – 5850	PASS
5825	30	7.40	5824.982370	5725 – 5850	PASS
5825	20	7.40	5825.085909	5725 – 5850	PASS
5825	10	7.40	5824.906989	5725 – 5850	PASS
5825	0	7.40	5825.008848	5725 – 5850	PASS
5825	-10	7.40	5824.975844	5725 – 5850	PASS
5825	-20	7.40	5824.953194	5725 – 5850	PASS
5825	-30	7.40	5825.032182	5725 – 5850	PASS

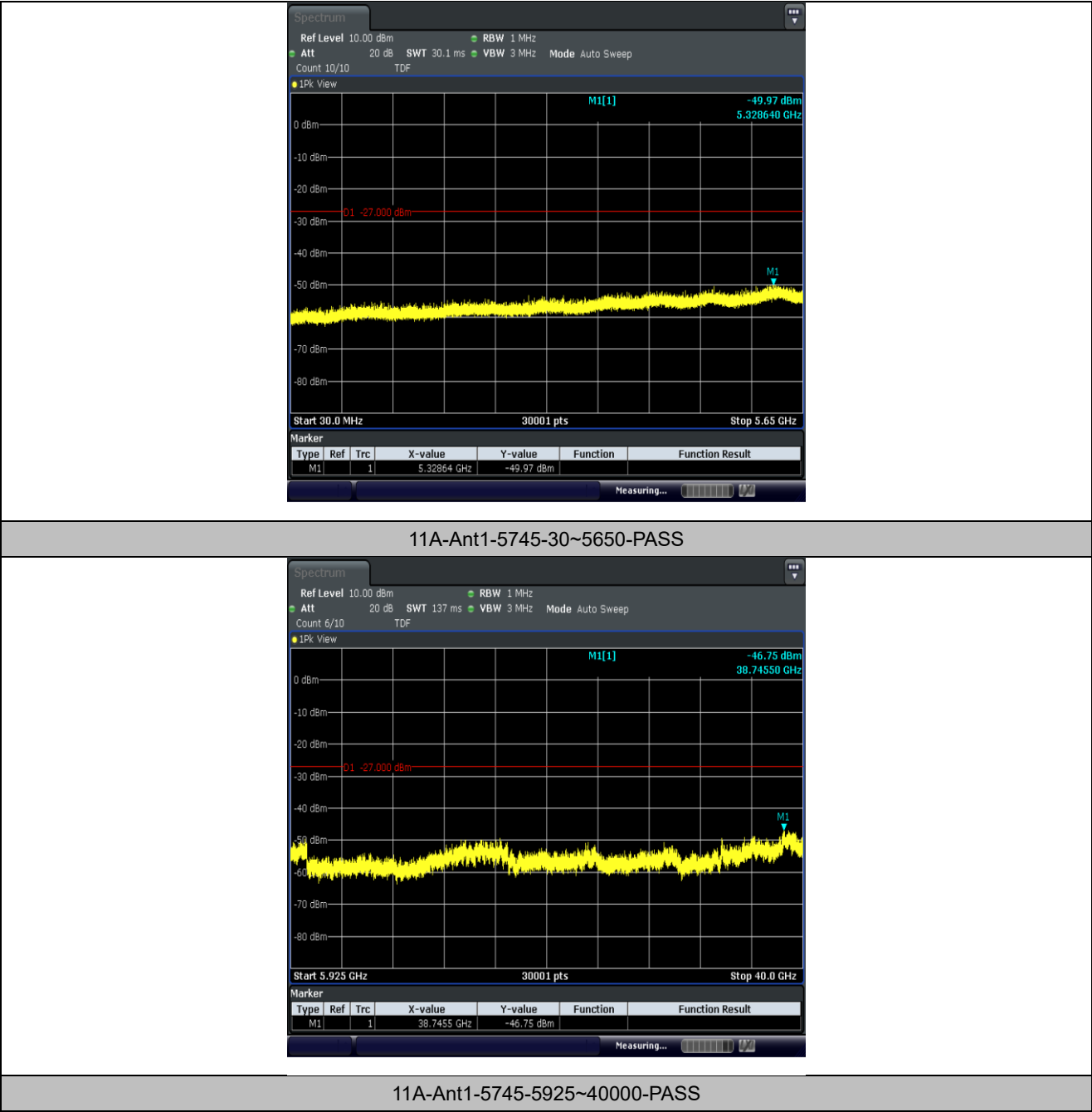
Appendix F: Conducted Spurious Emission

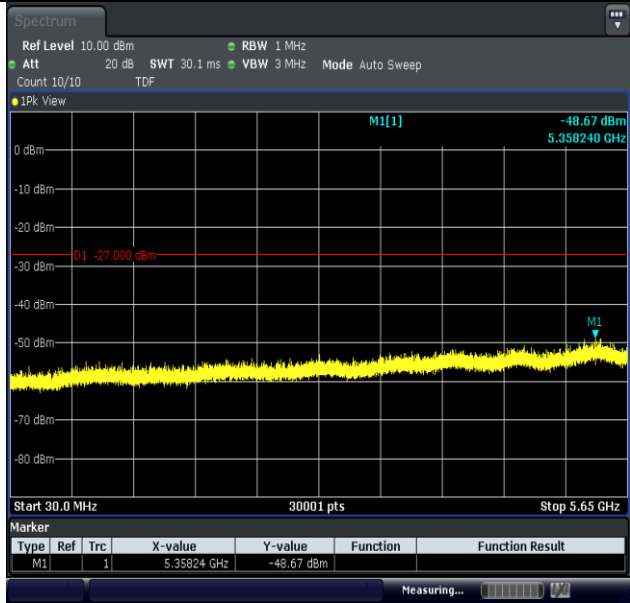
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5328.64	-49.97	≤-27	PASS
11A	Ant1	5745	5925~40000	38745.5	-46.75	≤-27	PASS
11A	Ant1	5785	30~5650	5358.24	-48.67	≤-27	PASS
11A	Ant1	5785	5925~40000	38741	-45.73	≤-27	PASS
11A	Ant1	5825	30~5650	5363.3	-49.5	≤-27	PASS
11A	Ant1	5825	5925~40000	38792.1	-46.68	≤-27	PASS

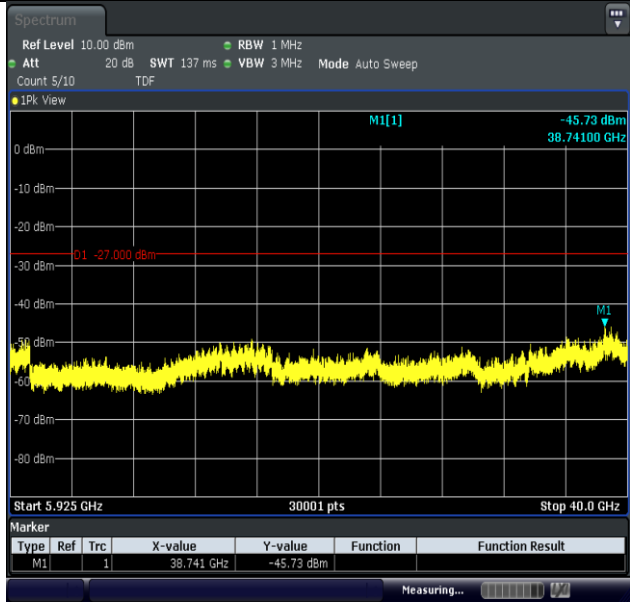
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 40 GHz, the cable loss and attenuator factors have been set in the 'TDF' of the Spectrum Analyzer during the test.

Test Graphs

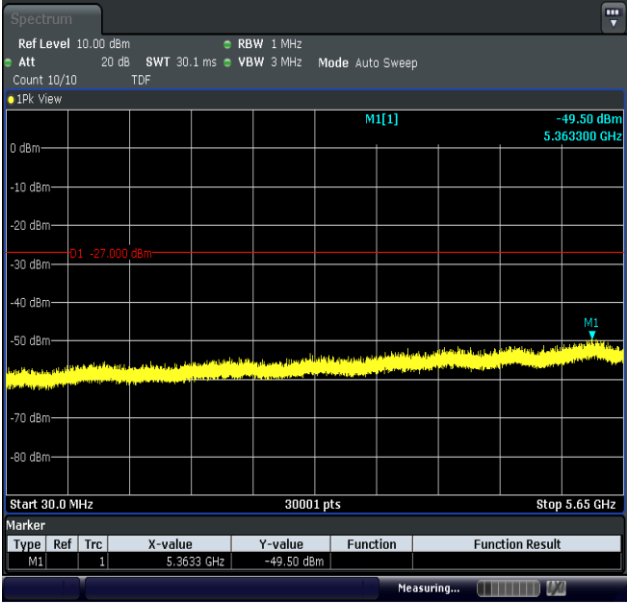




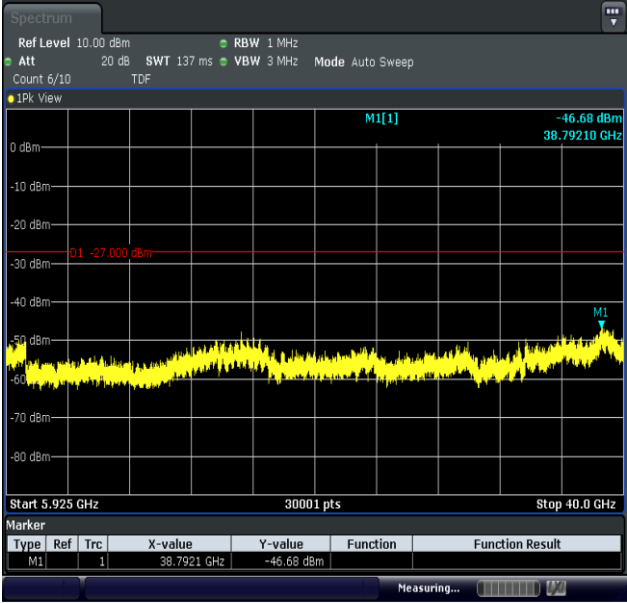
11A-Ant1-5785-30~5650-PASS



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



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



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

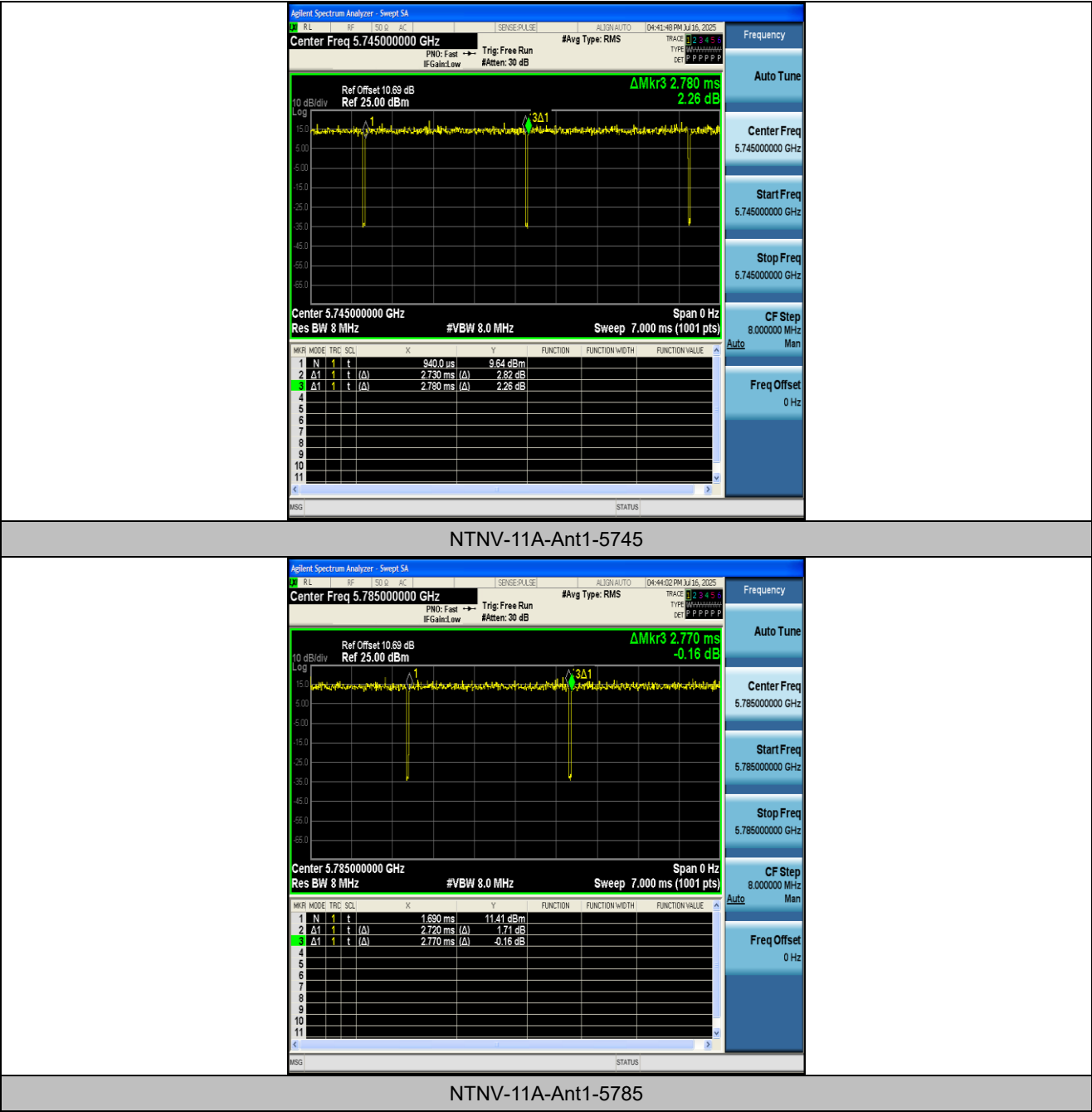
Appendix G: Duty Cycle

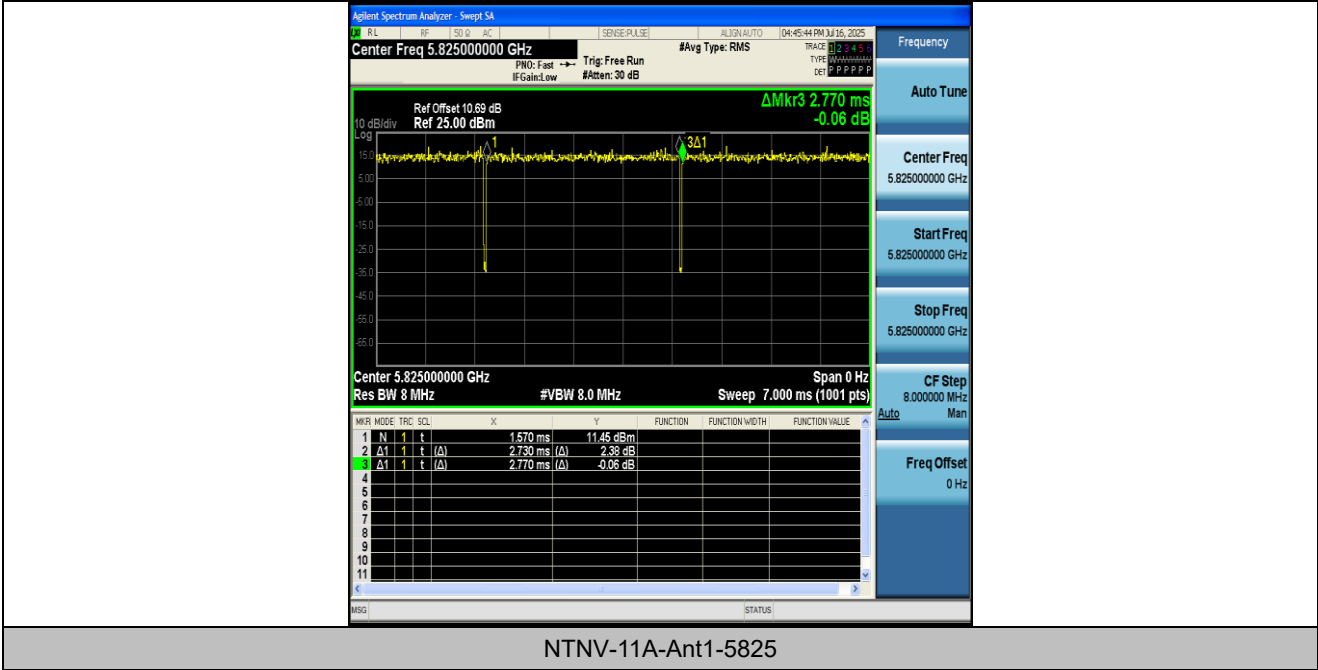
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	2.73	2.78	98.20	0.08	0.37
11A	Ant1	5785	2.72	2.77	98.19	0.08	0.37
11A	Ant1	5825	2.73	2.77	98.56	0.06	0.37

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

Test Graphs





NTNV-11A-Ant1-5825