

Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Wireless Speaker

Trade Mark: /

Test Model: SOONBOX-S8600PRO

FCC ID: 2BH4J-S8600PRO

Environmental Conditions

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

Appendix A: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.951	2401.529	2402.480	---	---
DH5	Ant1	2441	1.086	2440.475	2441.561	---	---
DH5	Ant1	2480	1.038	2479.484	2480.522	---	---
2DH5	Ant1	2402	1.302	2401.367	2402.669	---	---
2DH5	Ant1	2441	1.302	2440.358	2441.660	---	---
2DH5	Ant1	2480	1.308	2479.346	2480.654	---	---
3DH5	Ant1	2402	1.305	2401.346	2402.651	---	---
3DH5	Ant1	2441	1.278	2440.358	2441.636	---	---
3DH5	Ant1	2480	1.293	2479.352	2480.645	---	---

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

Test Graphs





DH5-Ant1-2480



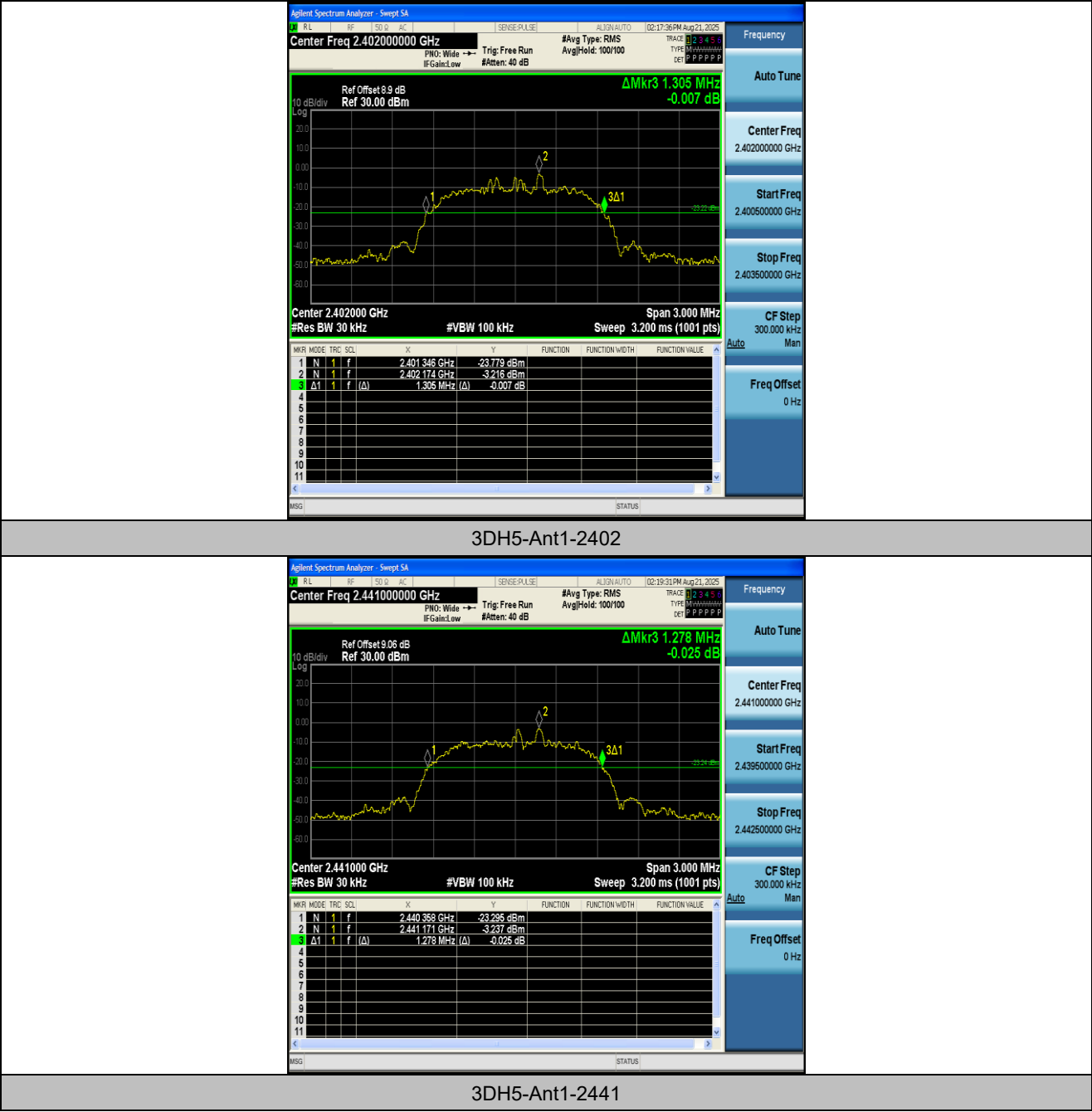
2DH5-Ant1-2402



2DH5-Ant1-2441



2DH5-Ant1-2480





Appendix B: Occupied Channel Bandwidth

Test Result

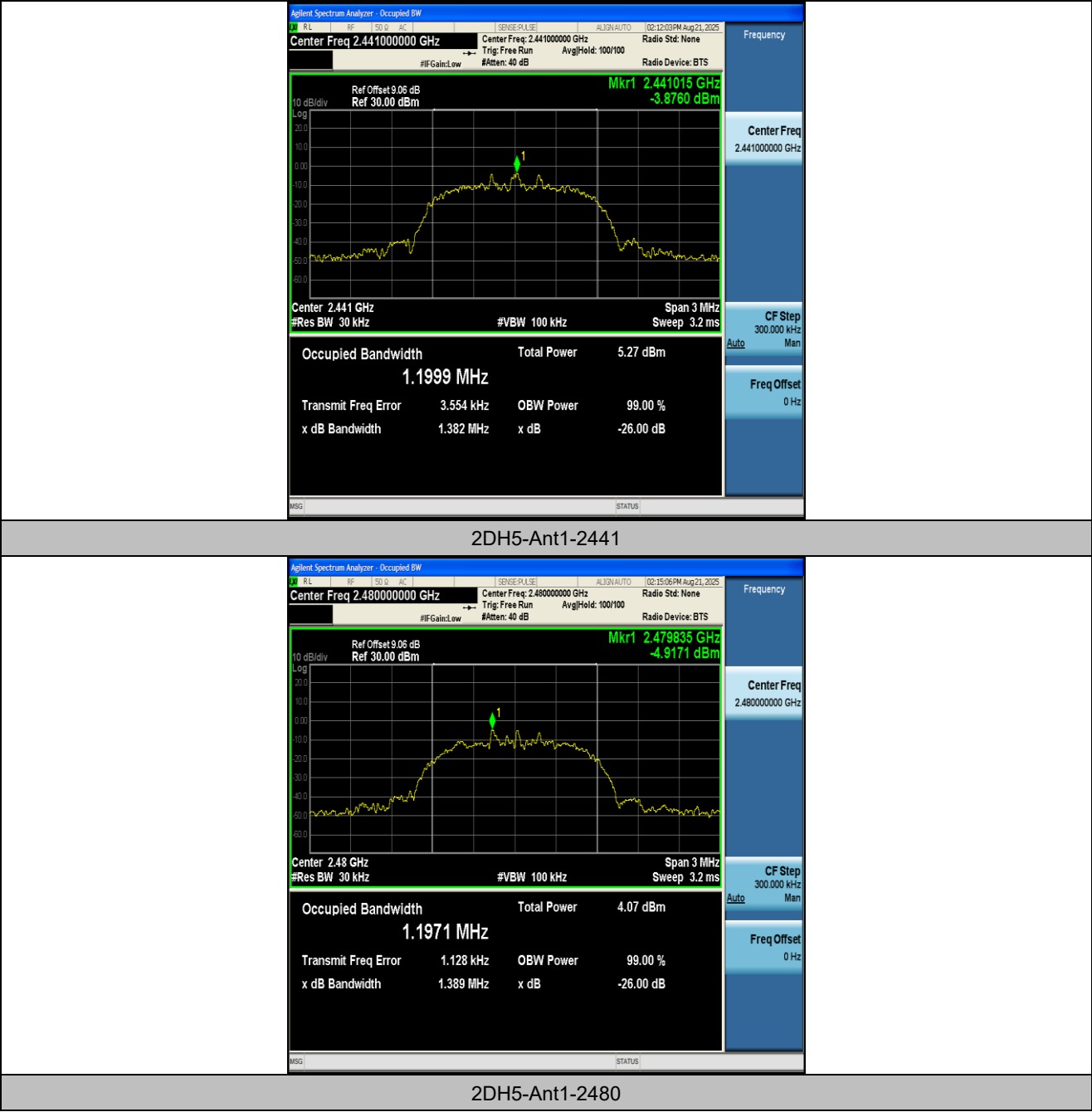
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.91048	2401.5532	2402.4637	---	---
DH5	Ant1	2441	0.91204	2440.5522	2441.4642	---	---
DH5	Ant1	2480	0.89410	2479.5475	2480.4416	---	---
2DH5	Ant1	2402	1.1969	2401.4059	2402.6028	---	---
2DH5	Ant1	2441	1.1999	2440.4036	2441.6035	---	---
2DH5	Ant1	2480	1.1971	2479.4026	2480.5997	---	---
3DH5	Ant1	2402	1.1899	2401.4182	2402.6081	---	---
3DH5	Ant1	2441	1.1946	2440.4076	2441.6022	---	---
3DH5	Ant1	2480	1.1991	2479.4029	2480.6020	---	---

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

Test Graphs





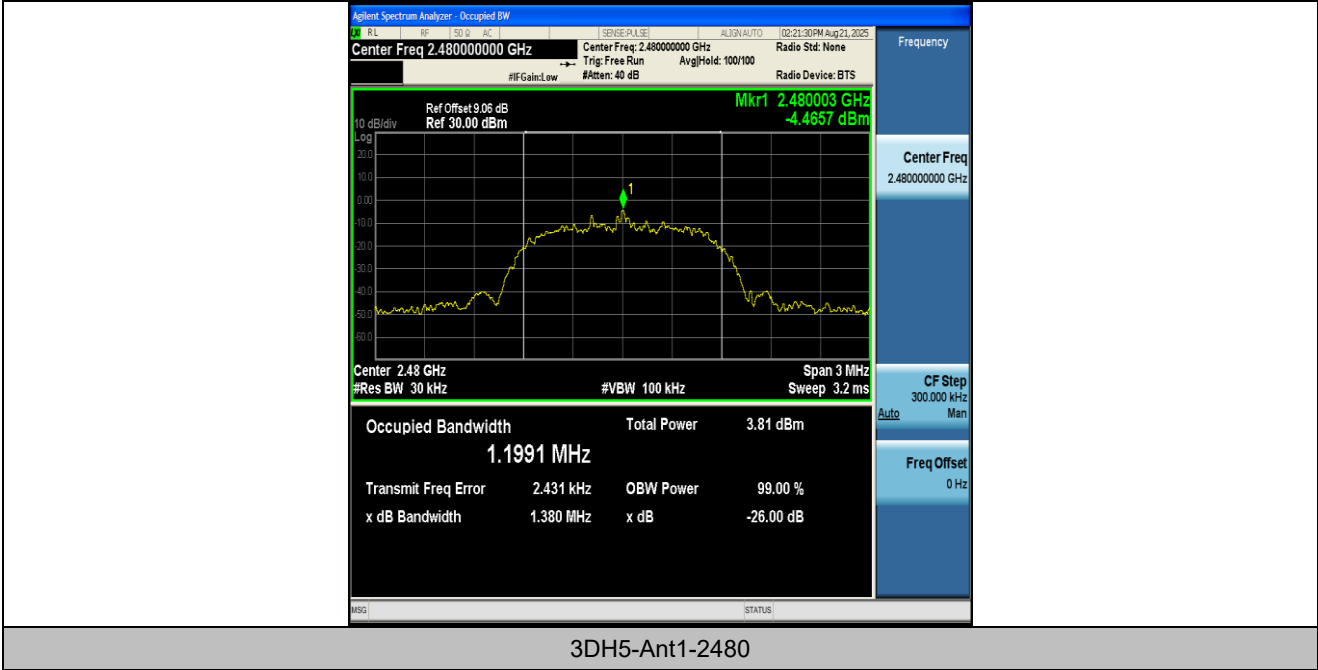




3DH5-Ant1-2402



3DH5-Ant1-2441



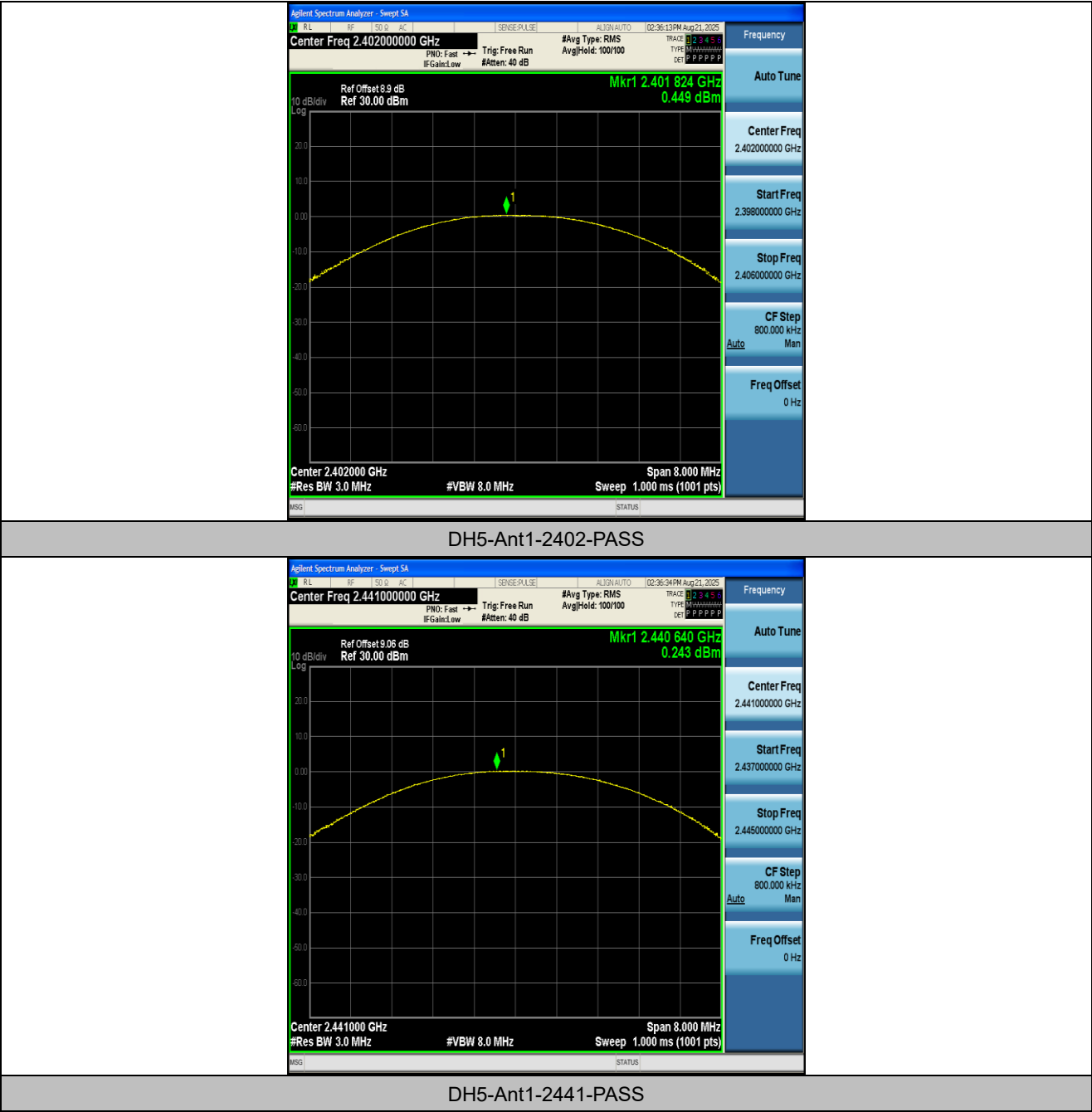
Appendix C: Maximum peak conducted output power

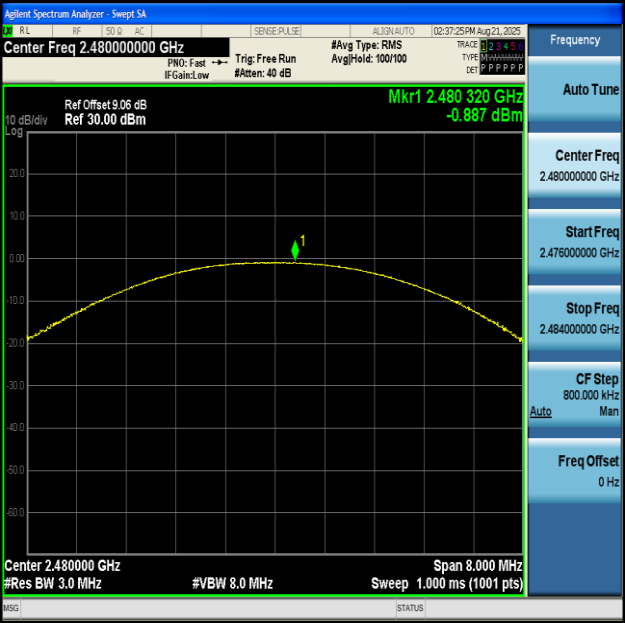
Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	0.45	≤20.97	PASS
DH5	Ant1	2441	0.24	≤20.97	PASS
DH5	Ant1	2480	-0.89	≤20.97	PASS
2DH5	Ant1	2402	0.43	≤20.97	PASS
2DH5	Ant1	2441	0.23	≤20.97	PASS
2DH5	Ant1	2480	-0.98	≤20.97	PASS
3DH5	Ant1	2402	0.37	≤20.97	PASS
3DH5	Ant1	2441	0.19	≤20.97	PASS
3DH5	Ant1	2480	-0.94	≤20.97	PASS

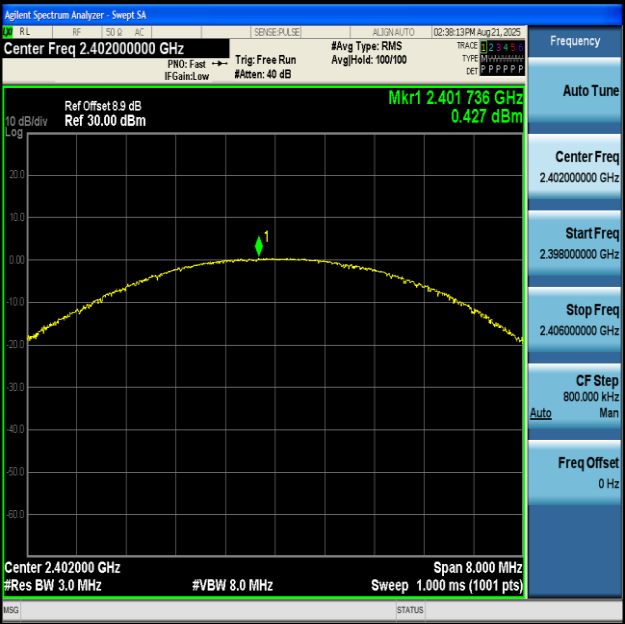
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

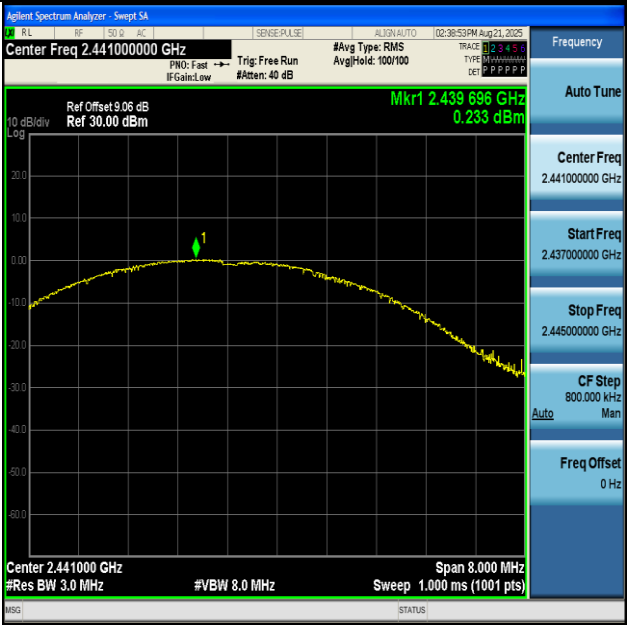




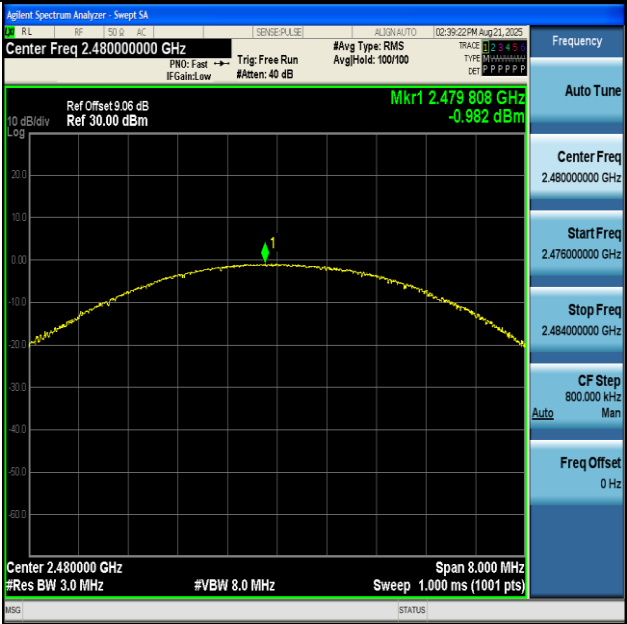
DH5-Ant1-2480-PASS



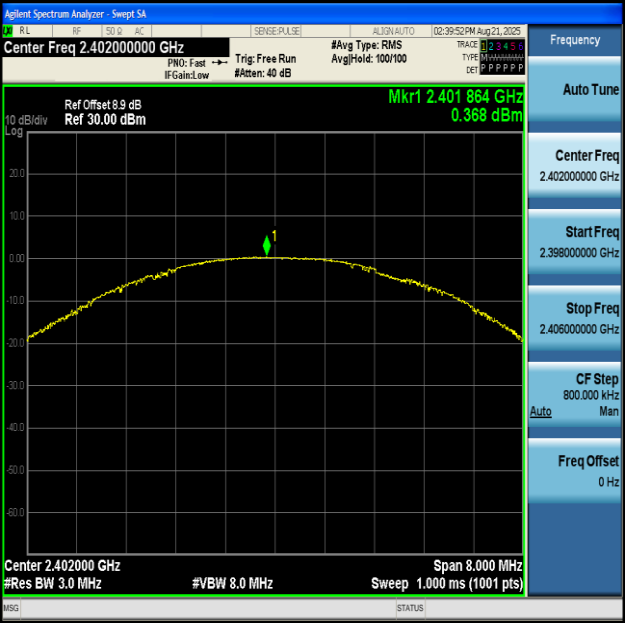
2DH5-Ant1-2402-PASS



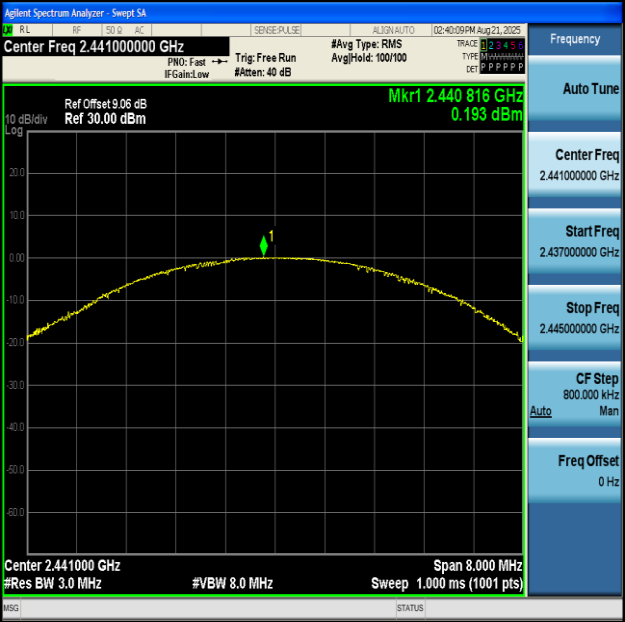
2DH5-Ant1-2441-PASS



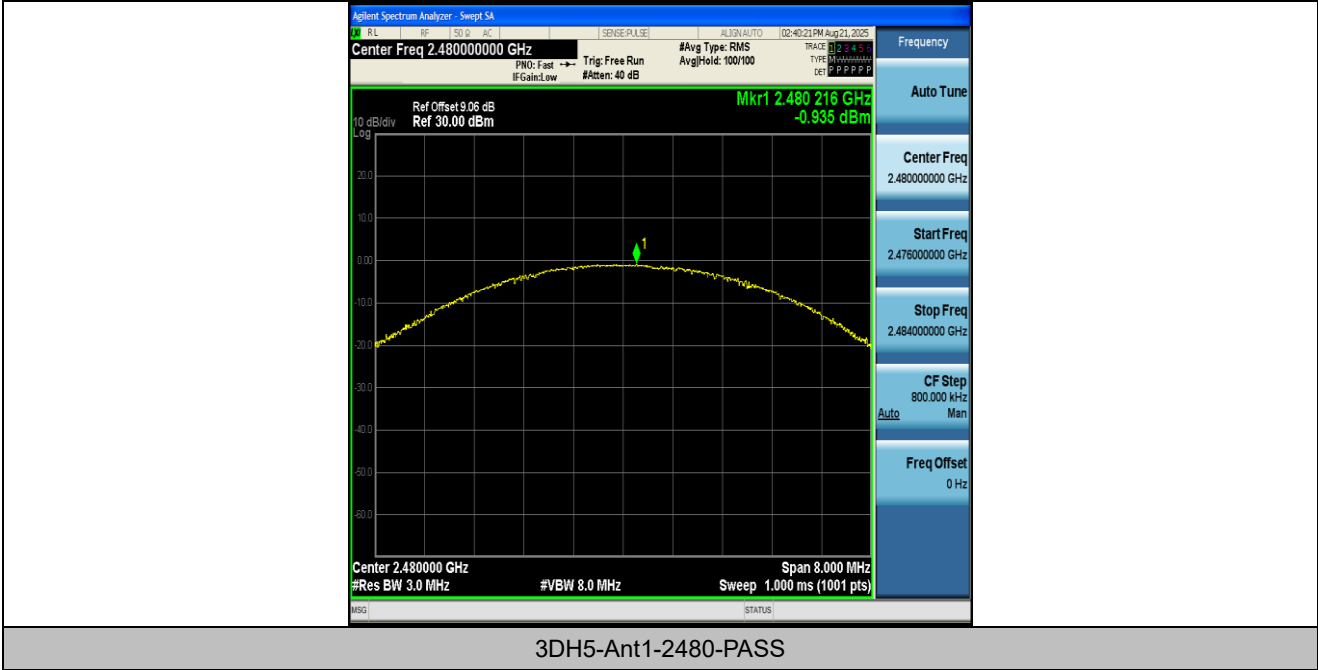
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS



Appendix D: Carrier frequency separation

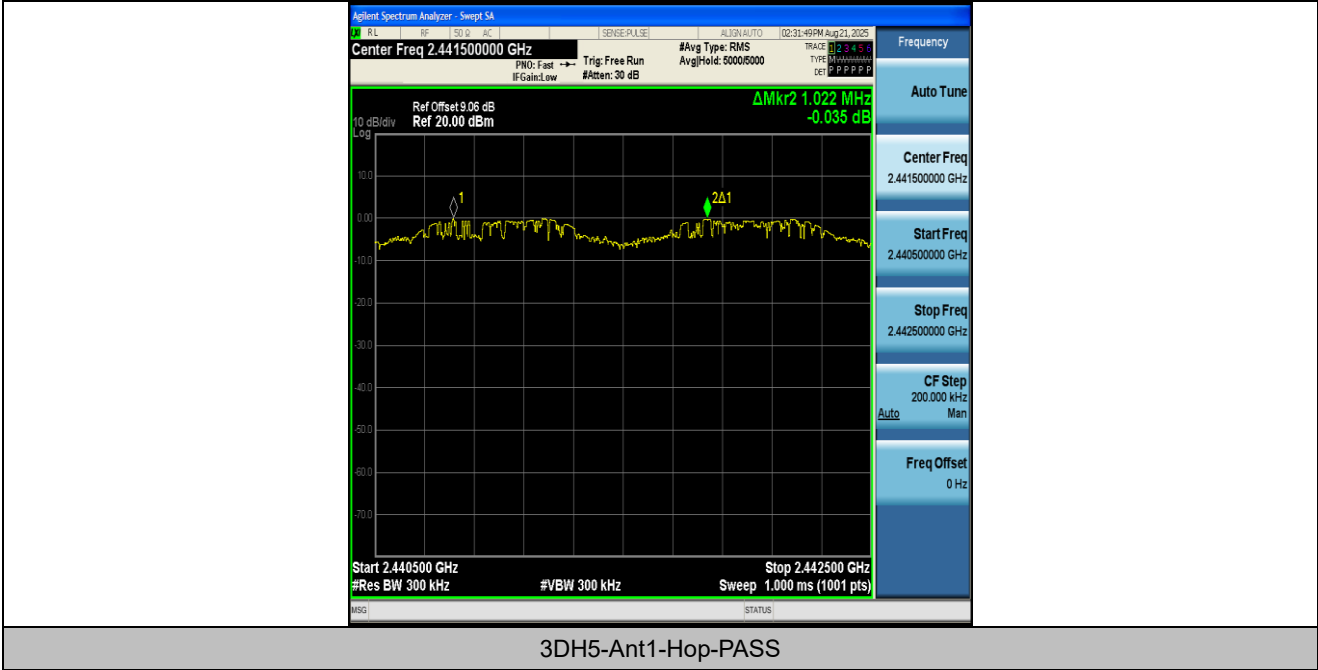
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	1.014	≥ 0.724	PASS
2DH5	Ant1	Hop	0.996	≥ 0.872	PASS
3DH5	Ant1	Hop	1.022	≥ 0.870	PASS

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

Test Graphs





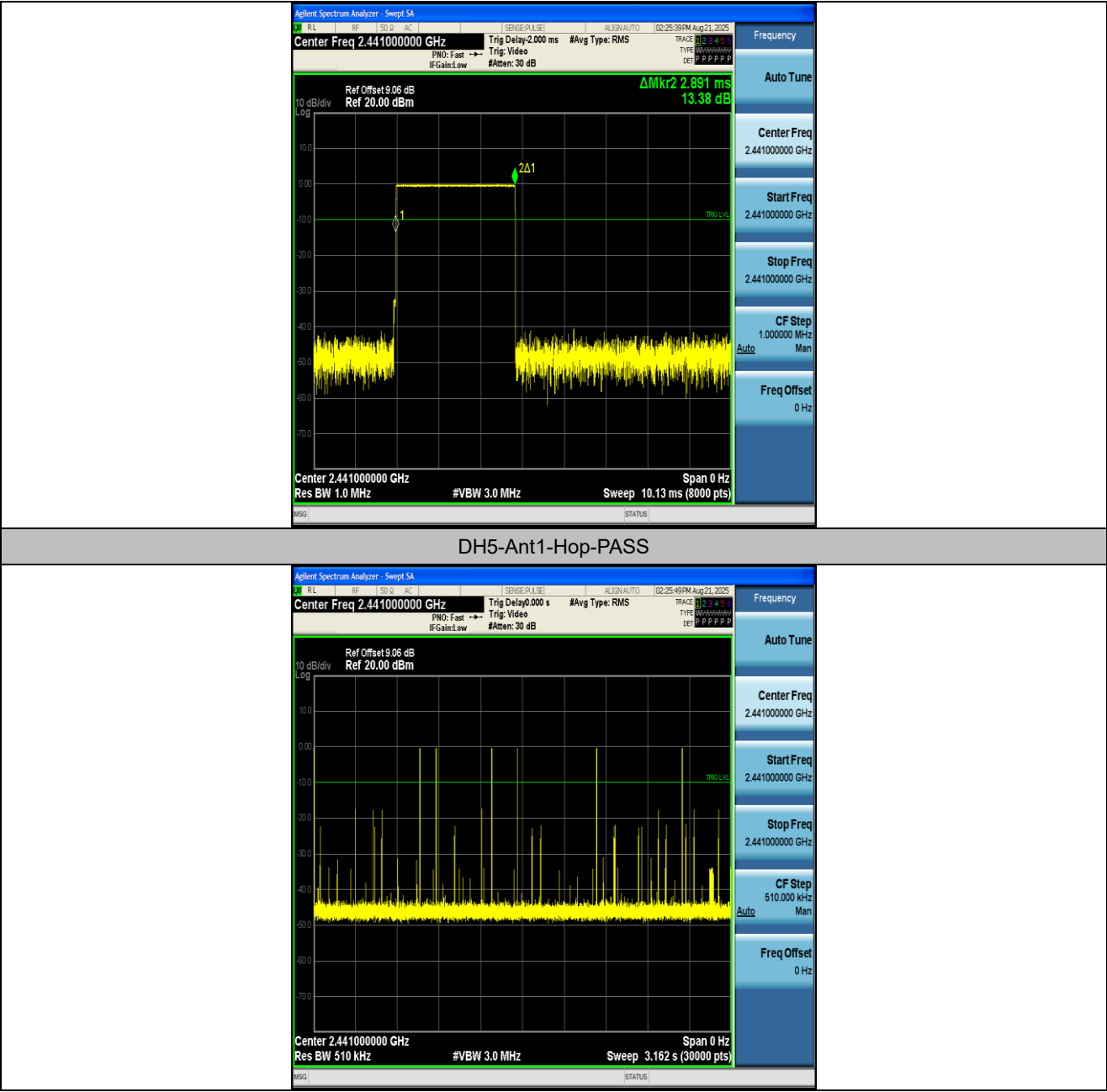
Appendix E: Time of occupancy

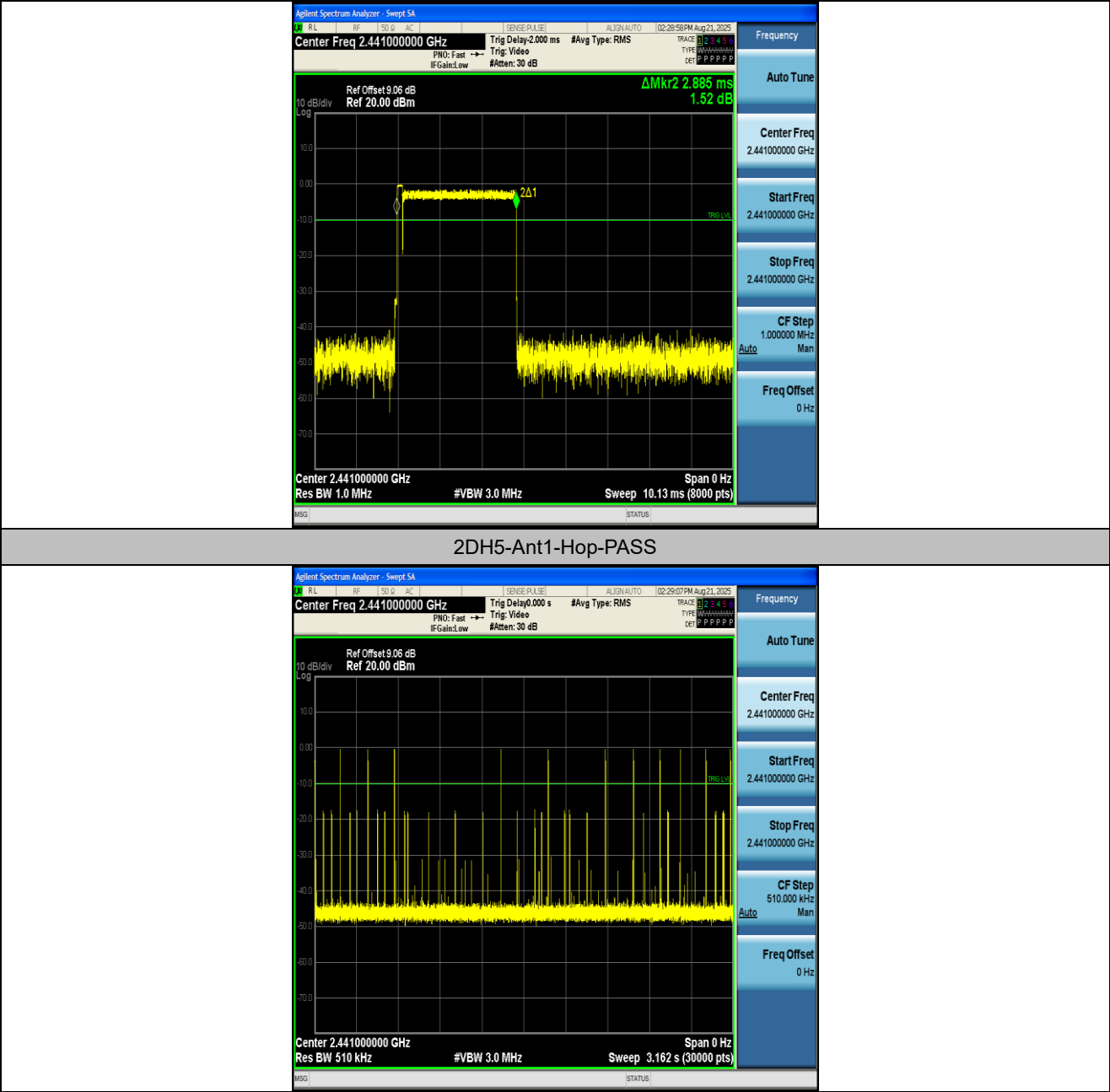
Test Result

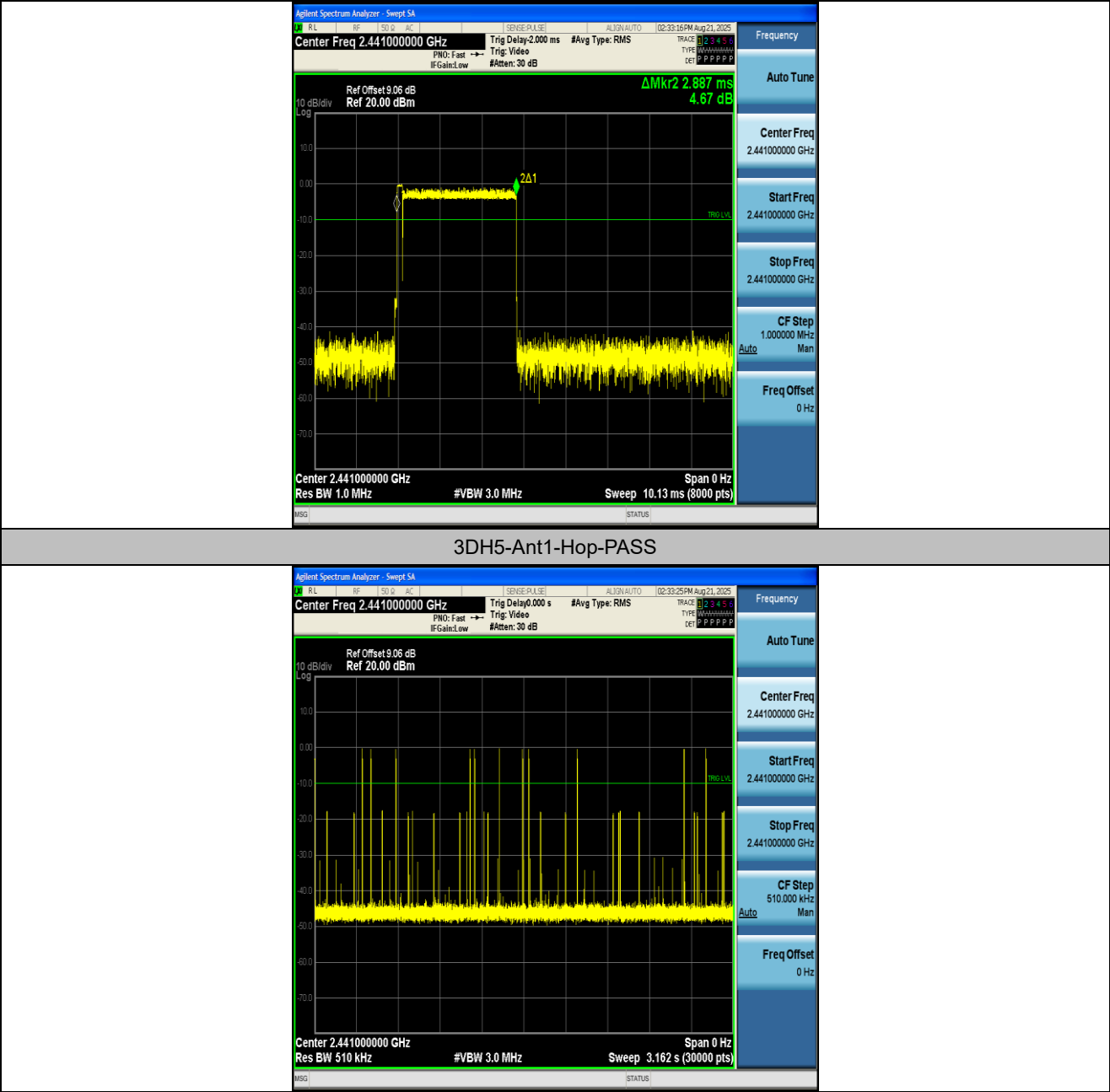
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.891	70	0.202	≤0.4	PASS
2DH5	Ant1	Hop	2.885	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.887	120	0.346	≤0.4	PASS

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

Test Graphs







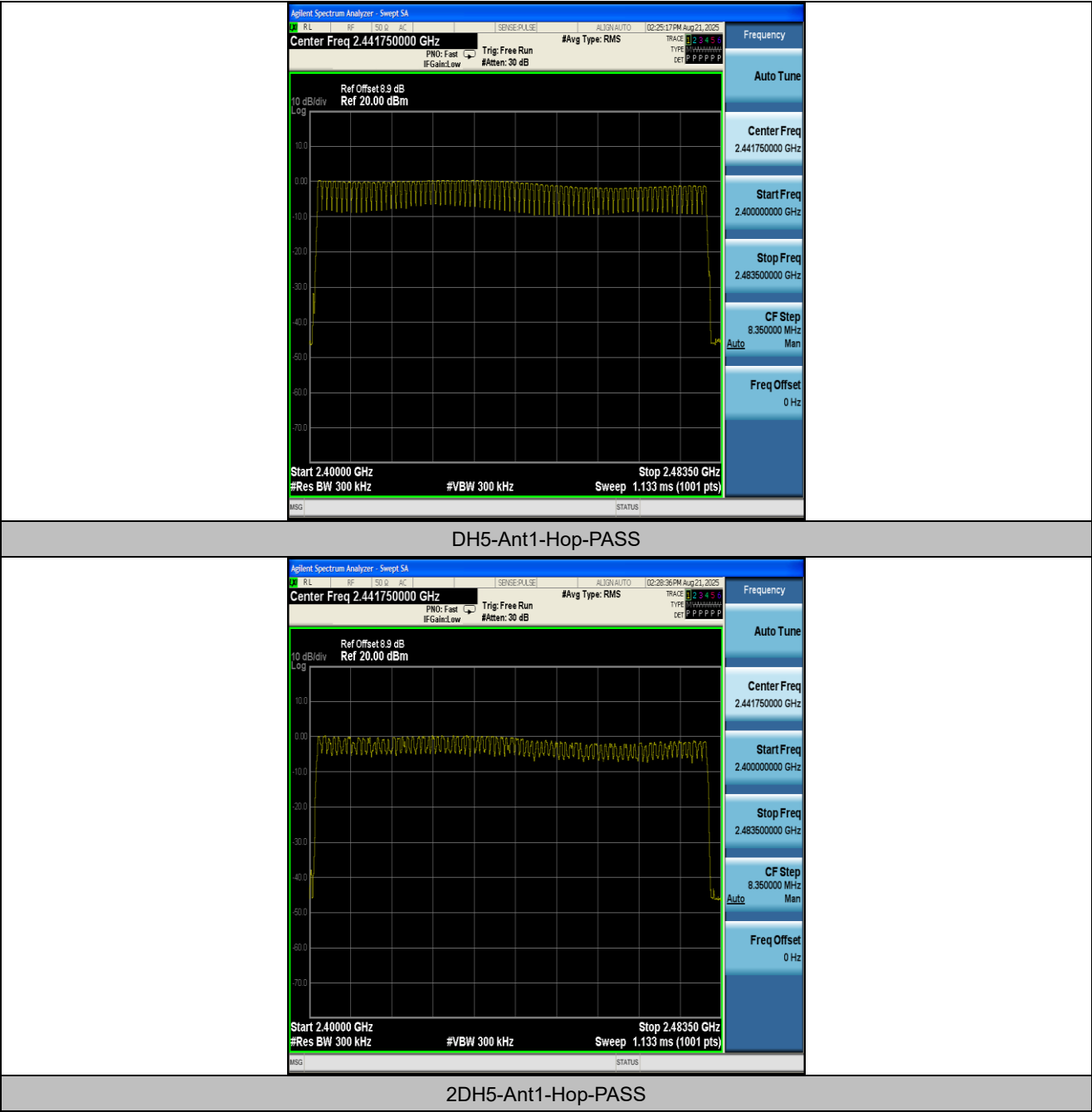
Appendix F: Number of hopping channels

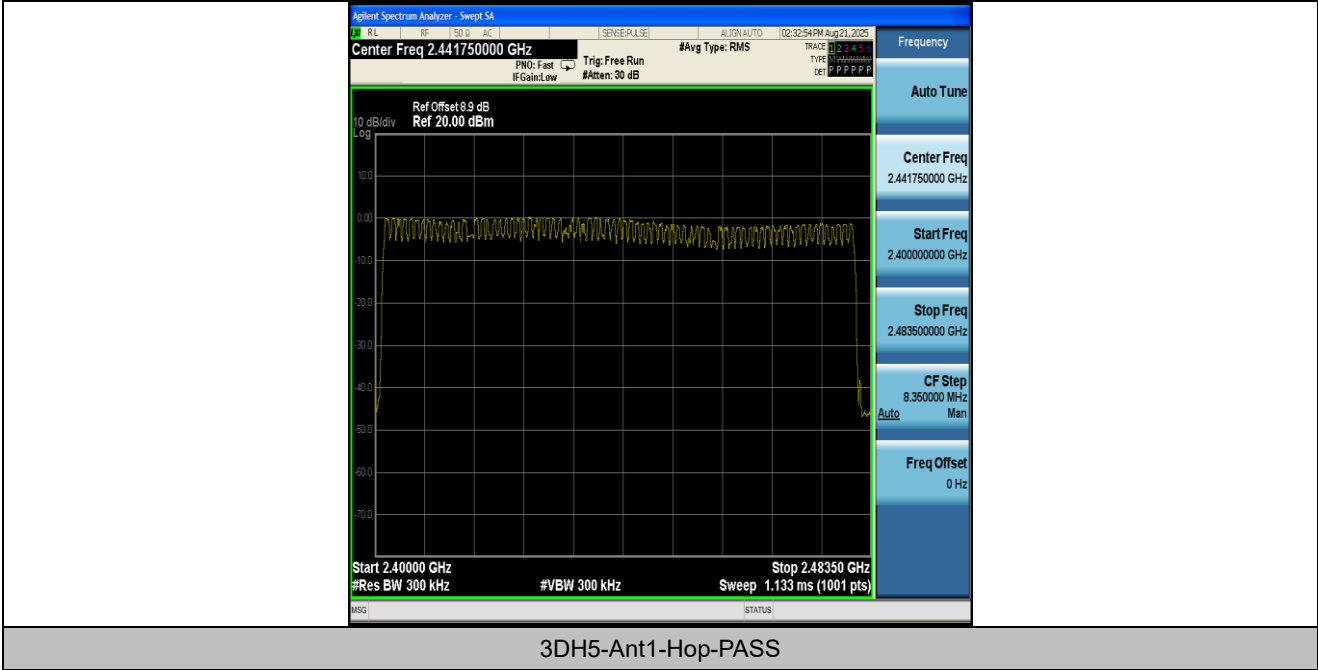
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

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

Test Graphs





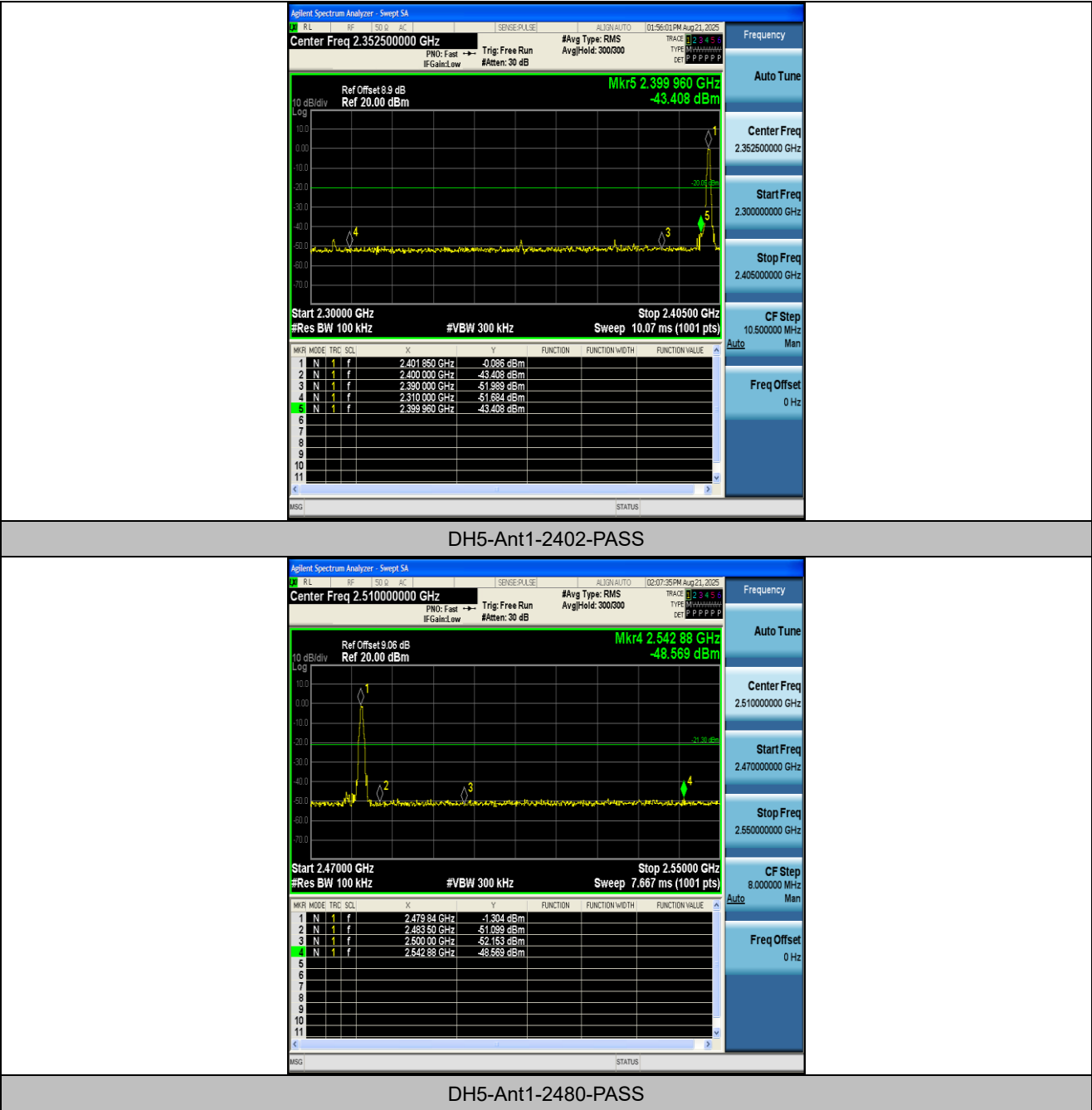
Appendix G: Band edge measurements

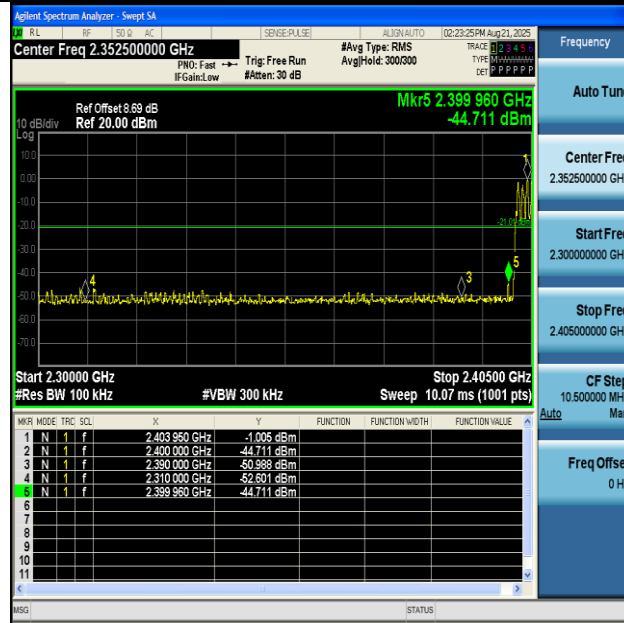
Test Result

Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.09	-43.41	≤-20.09	PASS
DH5	Ant1	High	2480	-1.30	-48.57	≤-21.3	PASS
DH5	Ant1	Low	Hop_2402	-1.01	-44.71	≤-21.01	PASS
DH5	Ant1	High	Hop_2480	-1.92	-46.16	≤-21.92	PASS
2DH5	Ant1	Low	2402	-0.25	-44.63	≤-20.25	PASS
2DH5	Ant1	High	2480	-1.32	-48.94	≤-21.32	PASS
2DH5	Ant1	Low	Hop_2402	-5.43	-46.36	≤-25.43	PASS
2DH5	Ant1	High	Hop_2480	-1.87	-46.85	≤-21.87	PASS
3DH5	Ant1	Low	2402	-0.06	-42.83	≤-20.06	PASS
3DH5	Ant1	High	2480	-1.42	-48.91	≤-21.42	PASS
3DH5	Ant1	Low	Hop_2402	-3.31	-49.31	≤-23.31	PASS
3DH5	Ant1	High	Hop_2480	-2.46	-48.28	≤-22.46	PASS

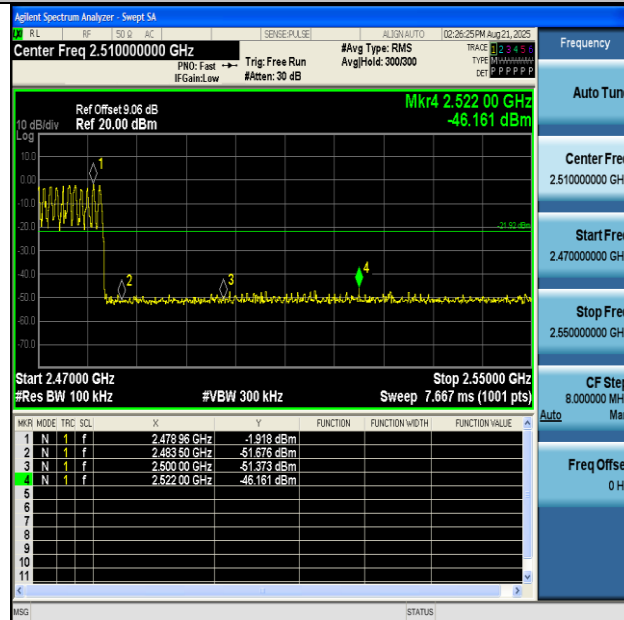
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

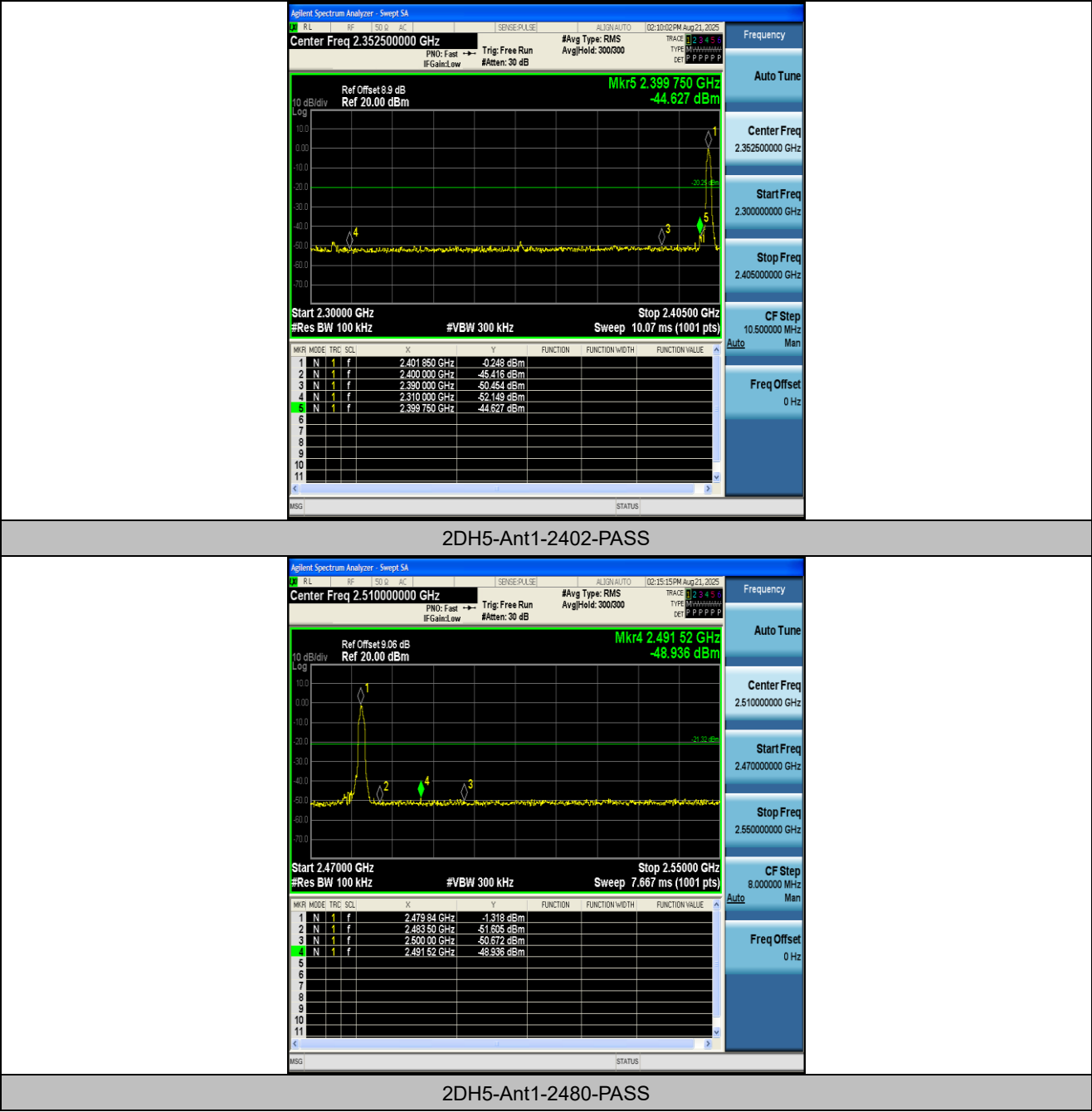


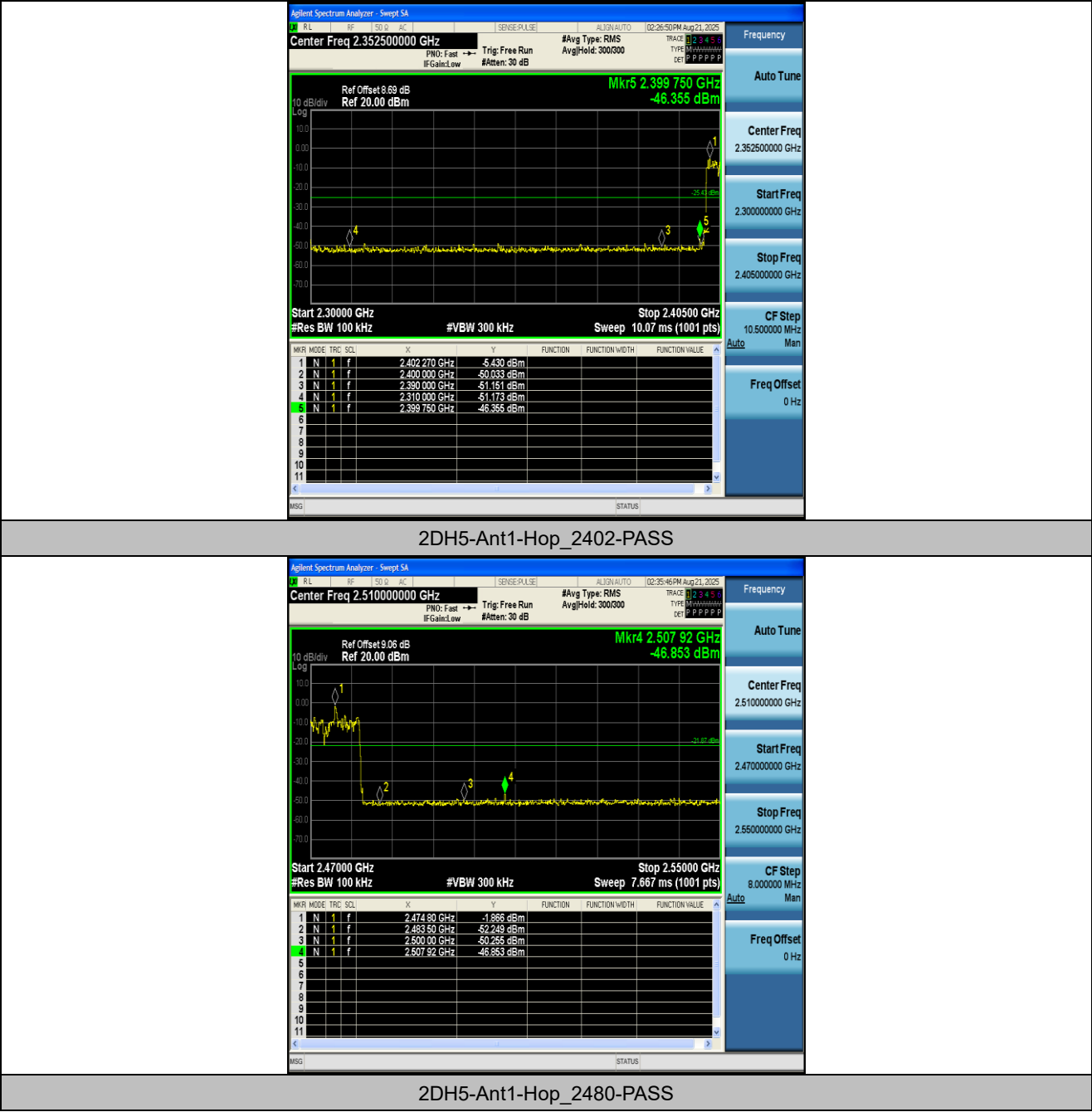


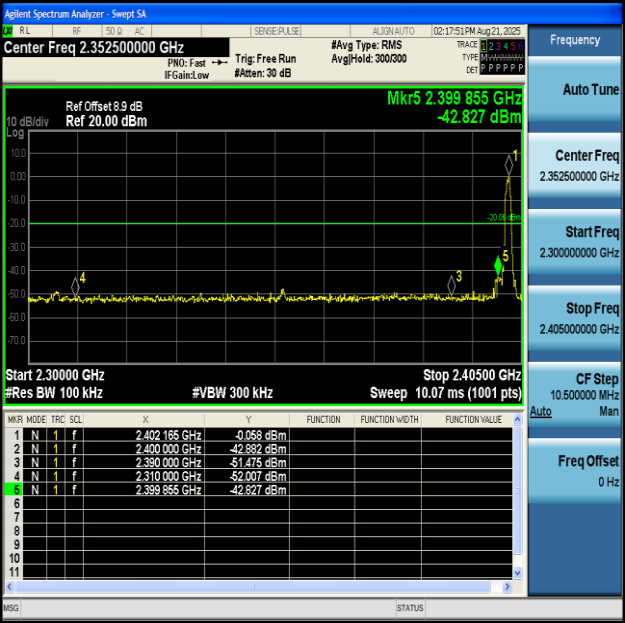
DH5-Ant1-Hop_2402-PASS



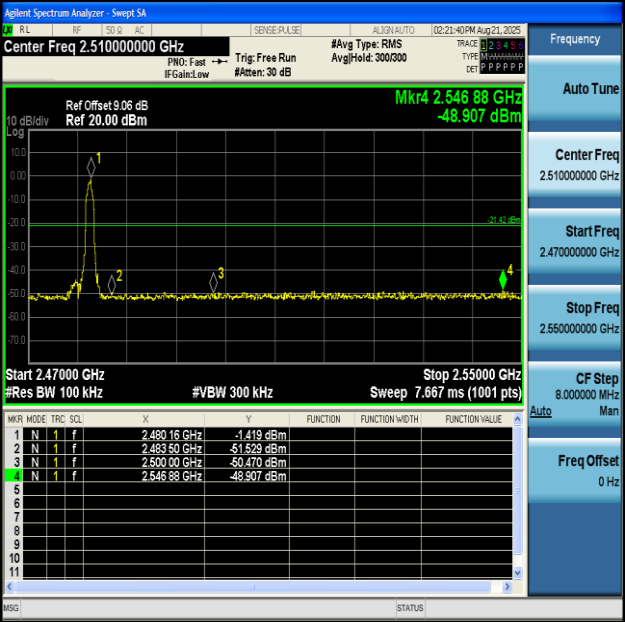
DH5-Ant1-Hop_2480-PASS



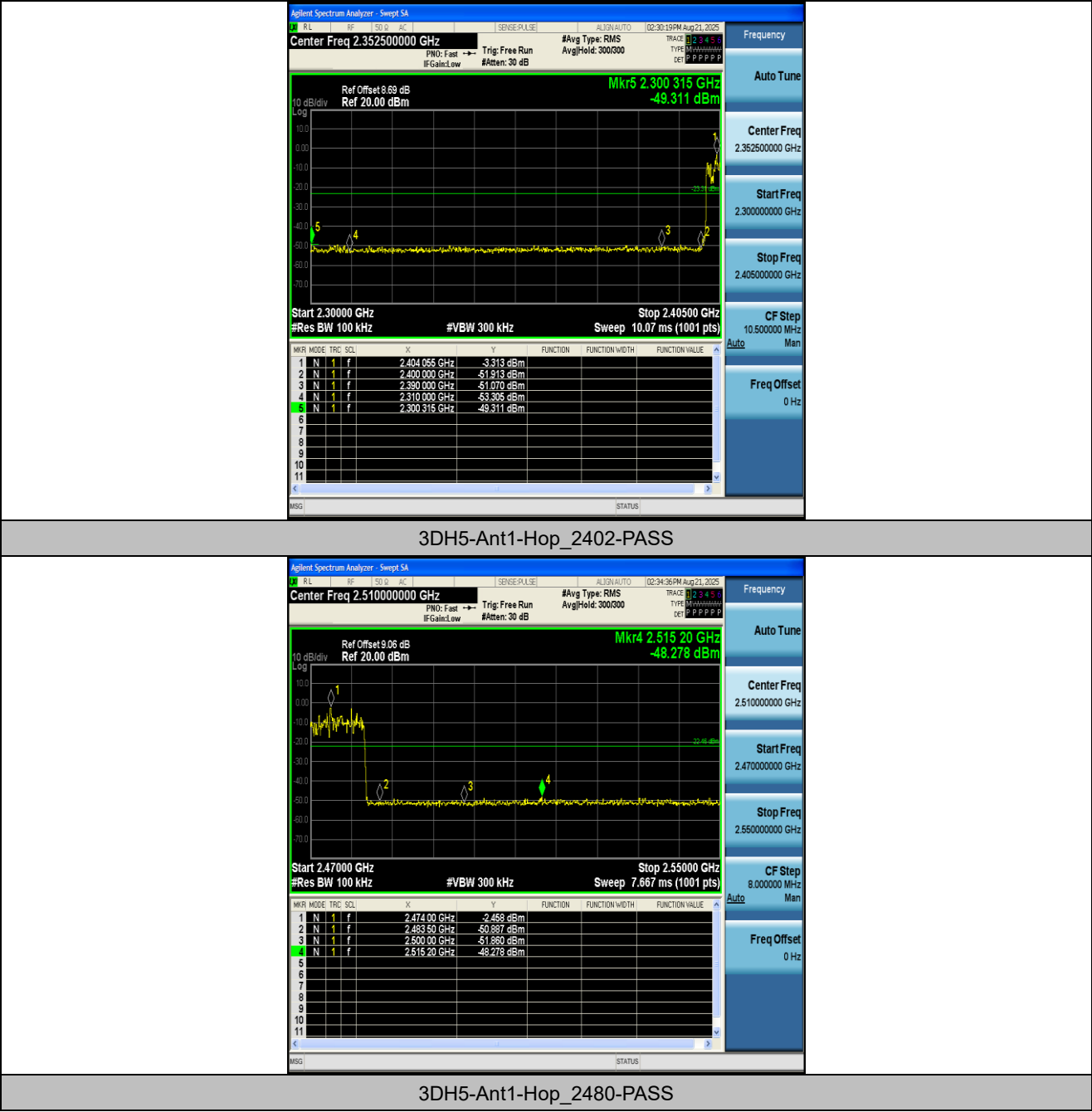




3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



Appendix H: Conducted Spurious Emission

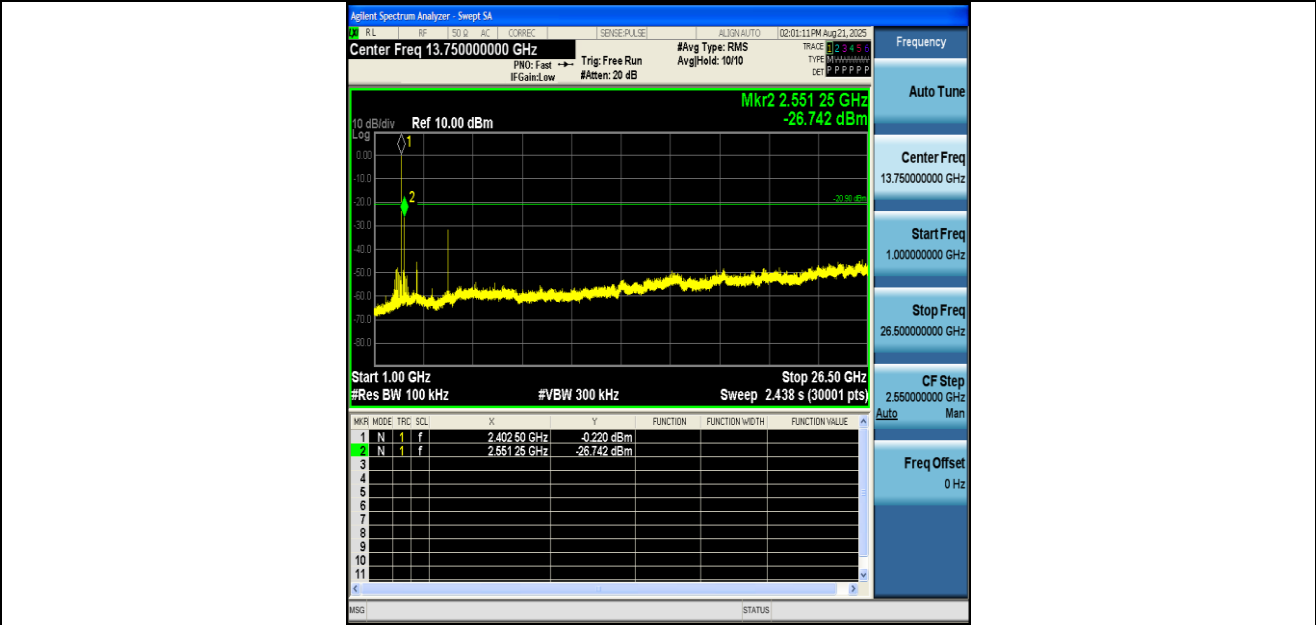
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-0.90	-0.90	---	PASS
DH5	Ant1	2402	30~1000	-0.90	-50.19	≤-20.9	PASS
DH5	Ant1	2402	1000~26500	-0.90	-26.74	≤-20.9	PASS
DH5	Ant1	2441	0~Reference	-1.02	-1.02	---	PASS
DH5	Ant1	2441	30~1000	-1.02	-51.98	≤-21.02	PASS
DH5	Ant1	2441	1000~26500	-1.02	-32.99	≤-21.02	PASS
DH5	Ant1	2480	0~Reference	-1.63	-1.63	---	PASS
DH5	Ant1	2480	30~1000	-1.63	-53.34	≤-21.63	PASS
DH5	Ant1	2480	1000~26500	-1.63	-39.09	≤-21.63	PASS
2DH5	Ant1	2402	0~Reference	-0.52	-0.52	---	PASS
2DH5	Ant1	2402	30~1000	-0.52	-58.99	≤-20.52	PASS
2DH5	Ant1	2402	1000~26500	-0.52	-34.29	≤-20.52	PASS
2DH5	Ant1	2441	0~Reference	-2.13	-2.13	---	PASS
2DH5	Ant1	2441	30~1000	-2.13	-56.07	≤-22.13	PASS
2DH5	Ant1	2441	1000~26500	-2.13	-37.31	≤-22.13	PASS
2DH5	Ant1	2480	0~Reference	-7.13	-7.13	---	PASS
2DH5	Ant1	2480	30~1000	-7.13	-54.52	≤-27.13	PASS
2DH5	Ant1	2480	1000~26500	-7.13	-45.25	≤-27.13	PASS
3DH5	Ant1	2402	0~Reference	-5.45	-5.45	---	PASS
3DH5	Ant1	2402	30~1000	-5.45	-57.35	≤-25.45	PASS
3DH5	Ant1	2402	1000~26500	-5.45	-32.93	≤-25.45	PASS
3DH5	Ant1	2441	0~Reference	-5.42	-5.42	---	PASS
3DH5	Ant1	2441	30~1000	-5.42	-55.88	≤-25.42	PASS
3DH5	Ant1	2441	1000~26500	-5.42	-35.89	≤-25.42	PASS
3DH5	Ant1	2480	0~Reference	-6.34	-6.34	---	PASS
3DH5	Ant1	2480	30~1000	-6.34	-59.84	≤-26.34	PASS
3DH5	Ant1	2480	1000~26500	-6.34	-45.15	≤-26.34	PASS

Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

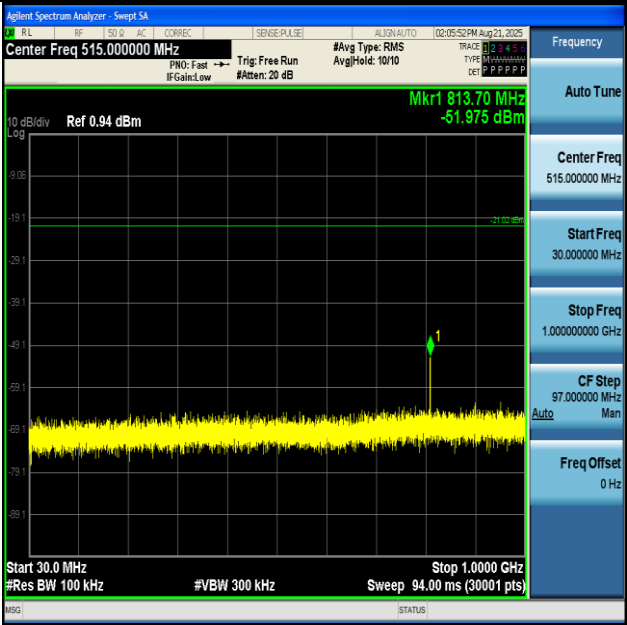




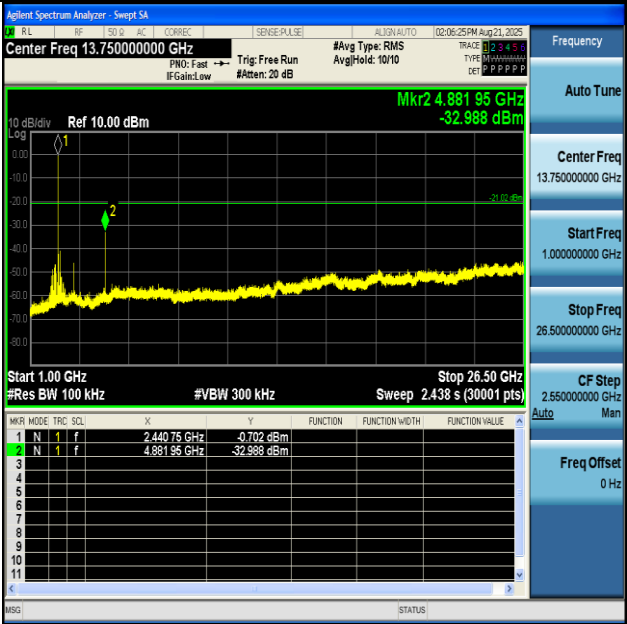
DH5-Ant1-2402-1000~26500-PASS



DH5-Ant1-2441-0~Reference-PASS



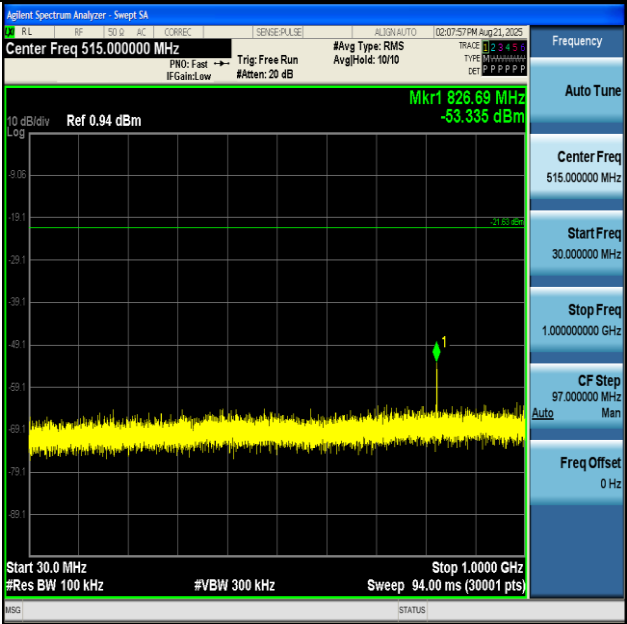
DH5-Ant1-2441-30~1000-PASS



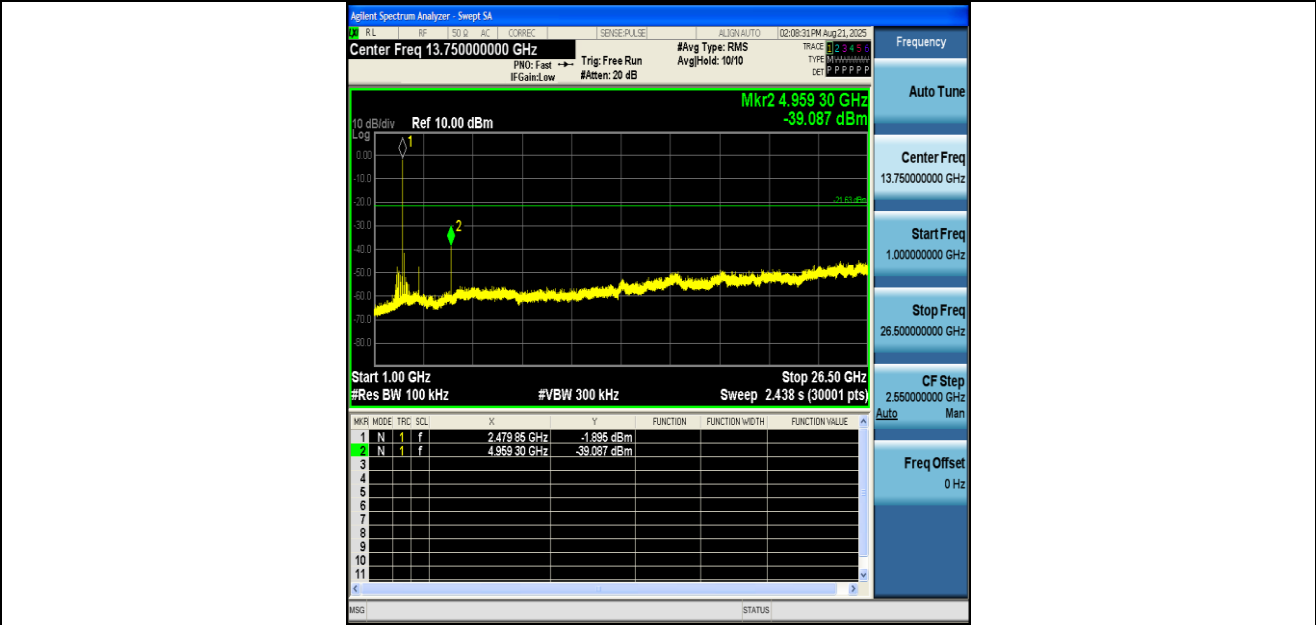
DH5-Ant1-2441-1000~26500-PASS



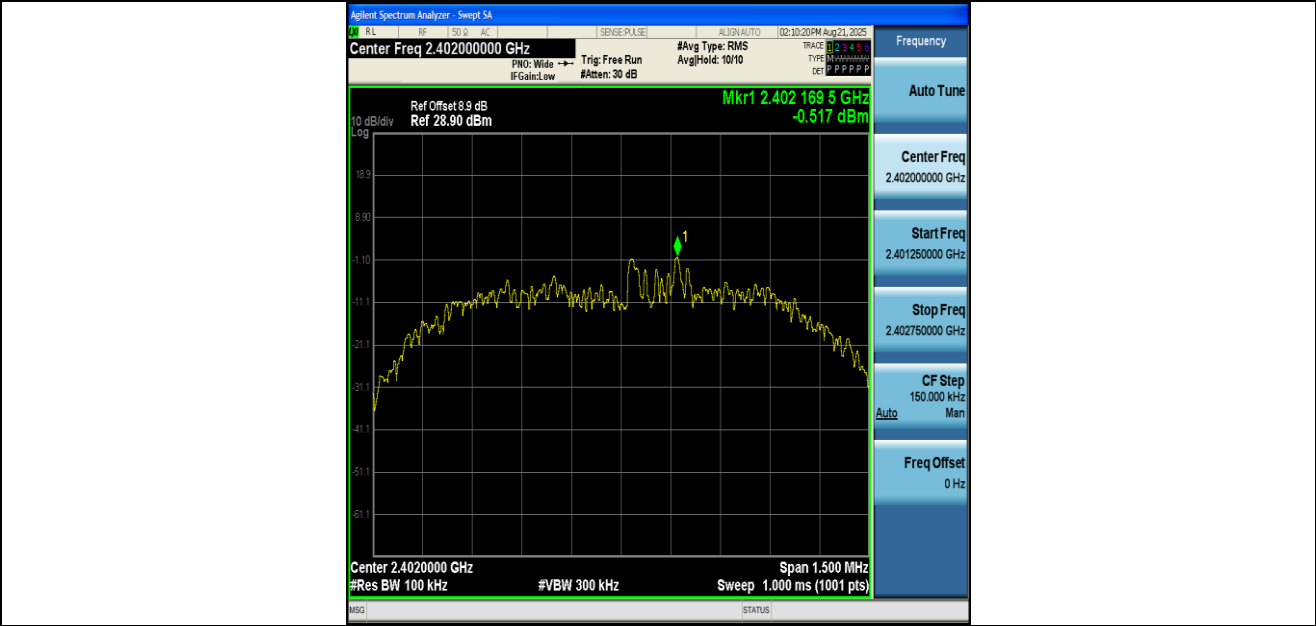
DH5-Ant1-2480-0~Reference-PASS



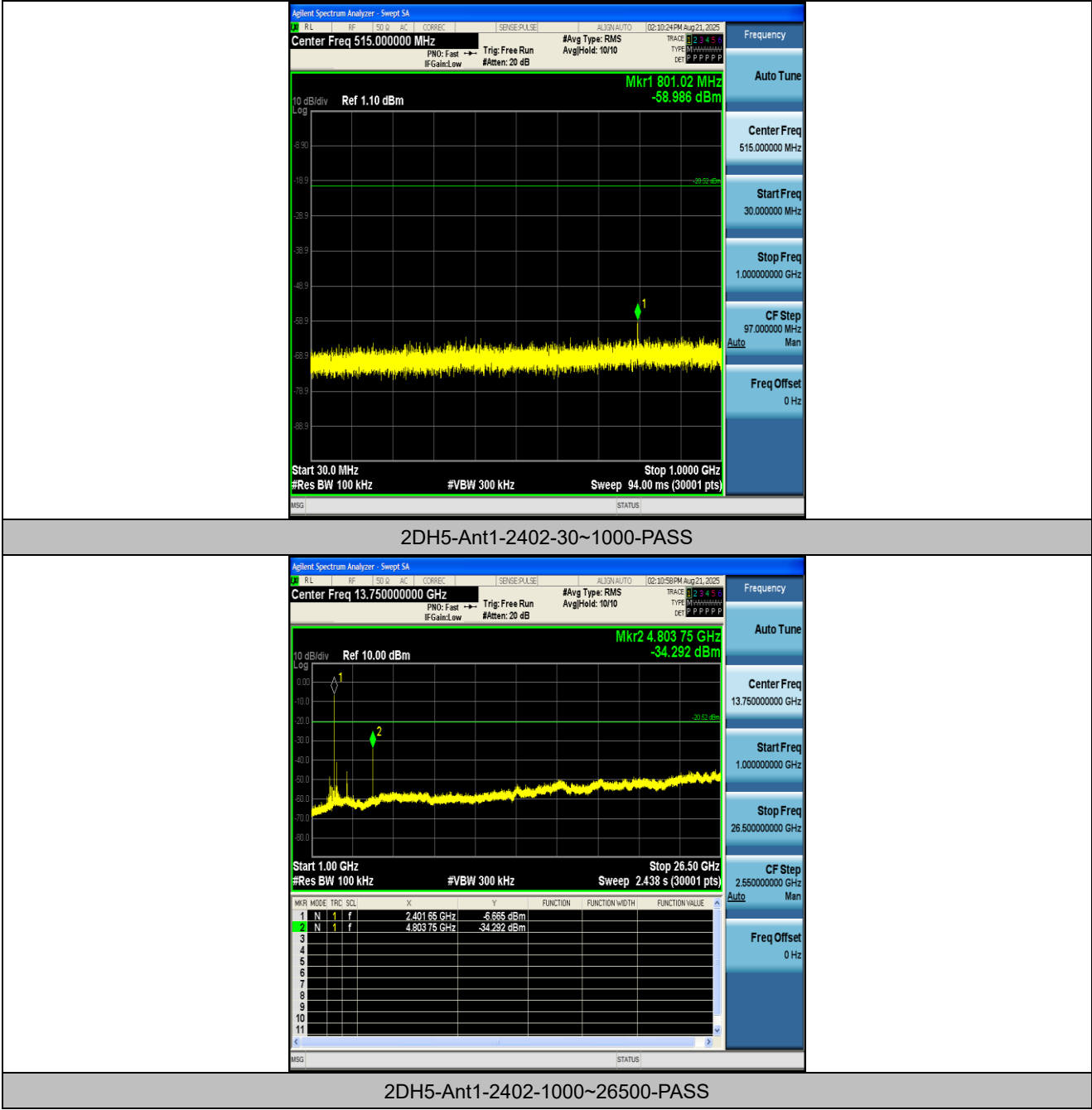
DH5-Ant1-2480-30~1000-PASS

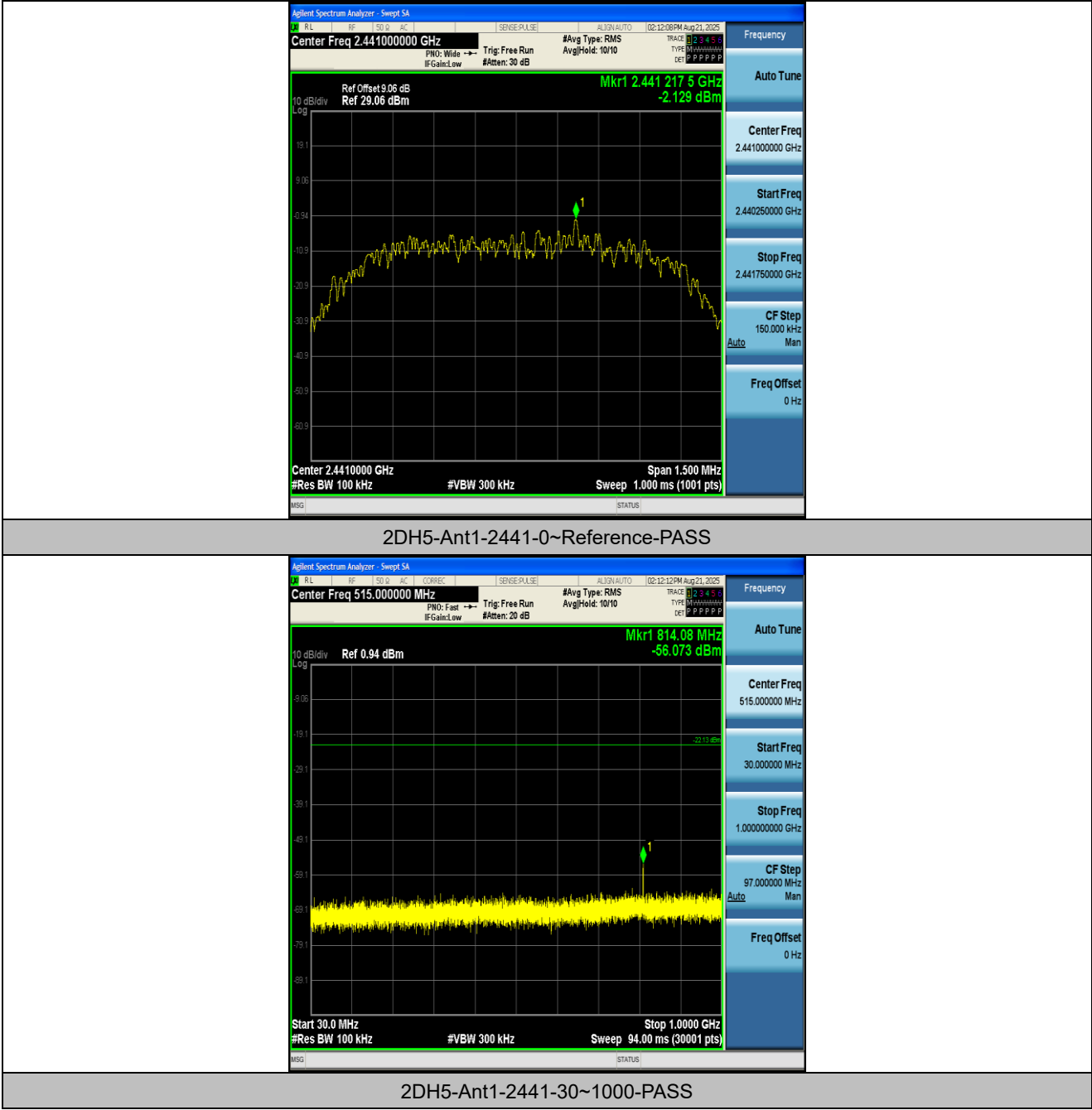


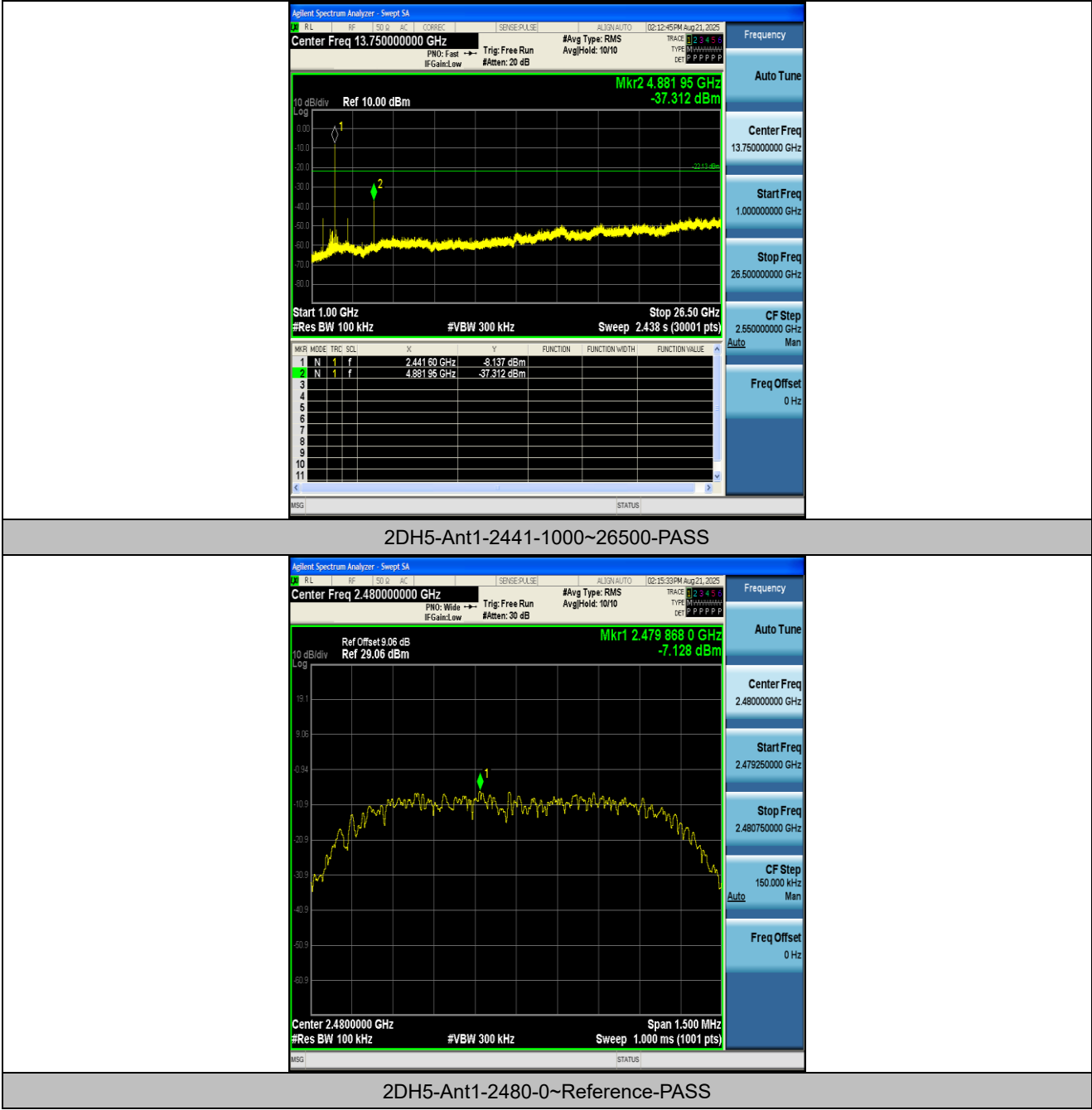
DH5-Ant1-2480-1000~26500-PASS

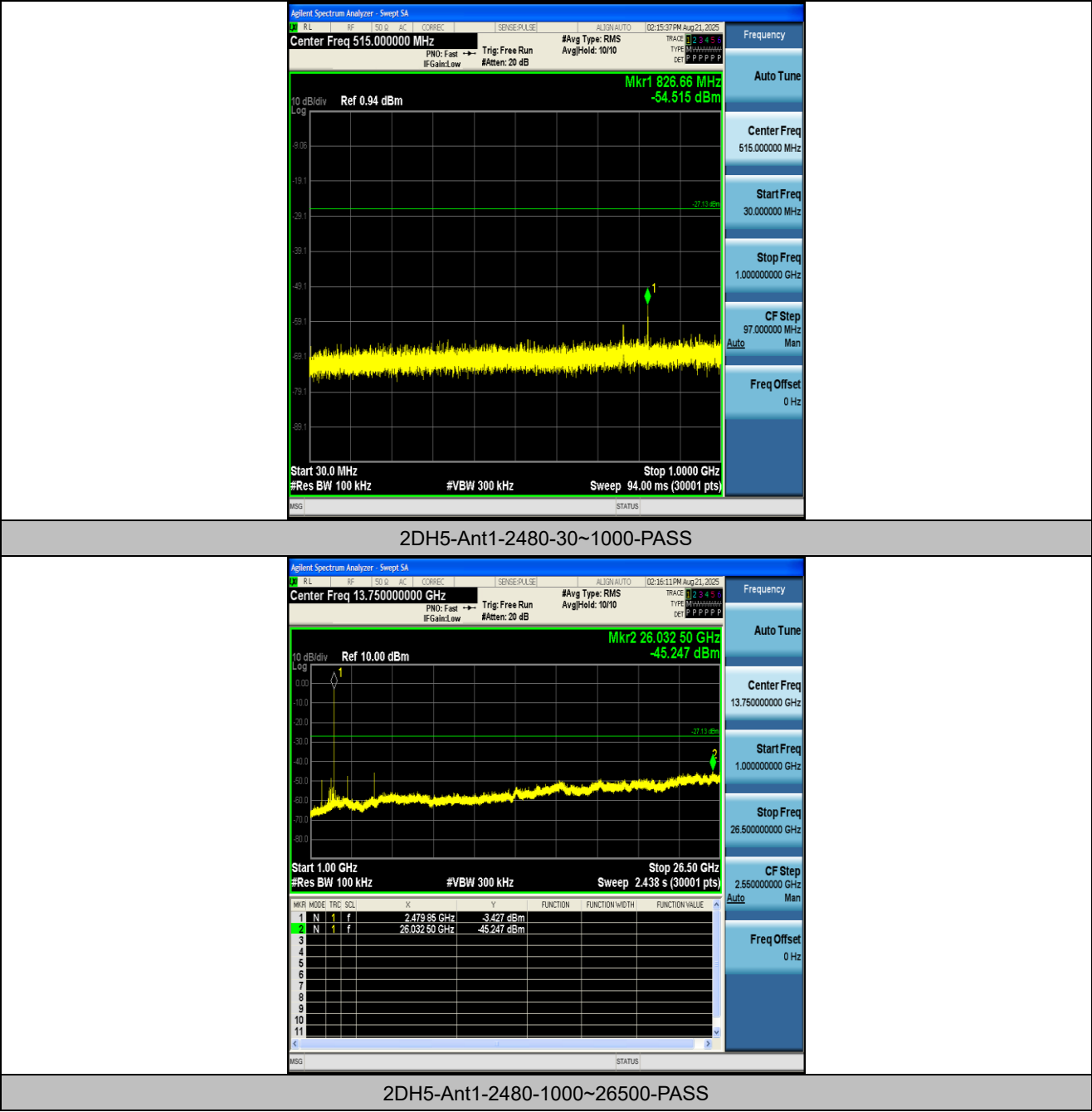


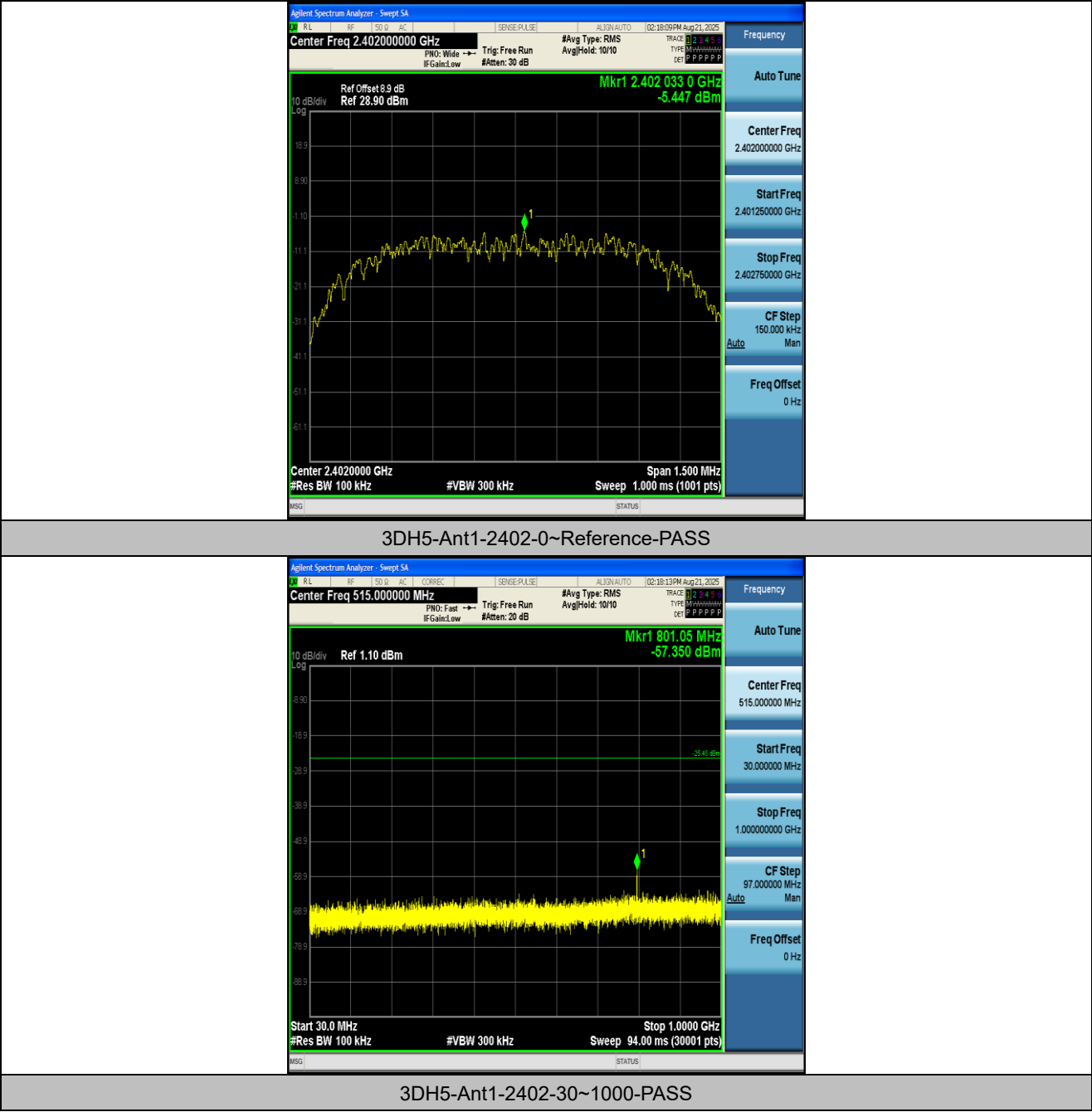
2DH5-Ant1-2402-0~Reference-PASS

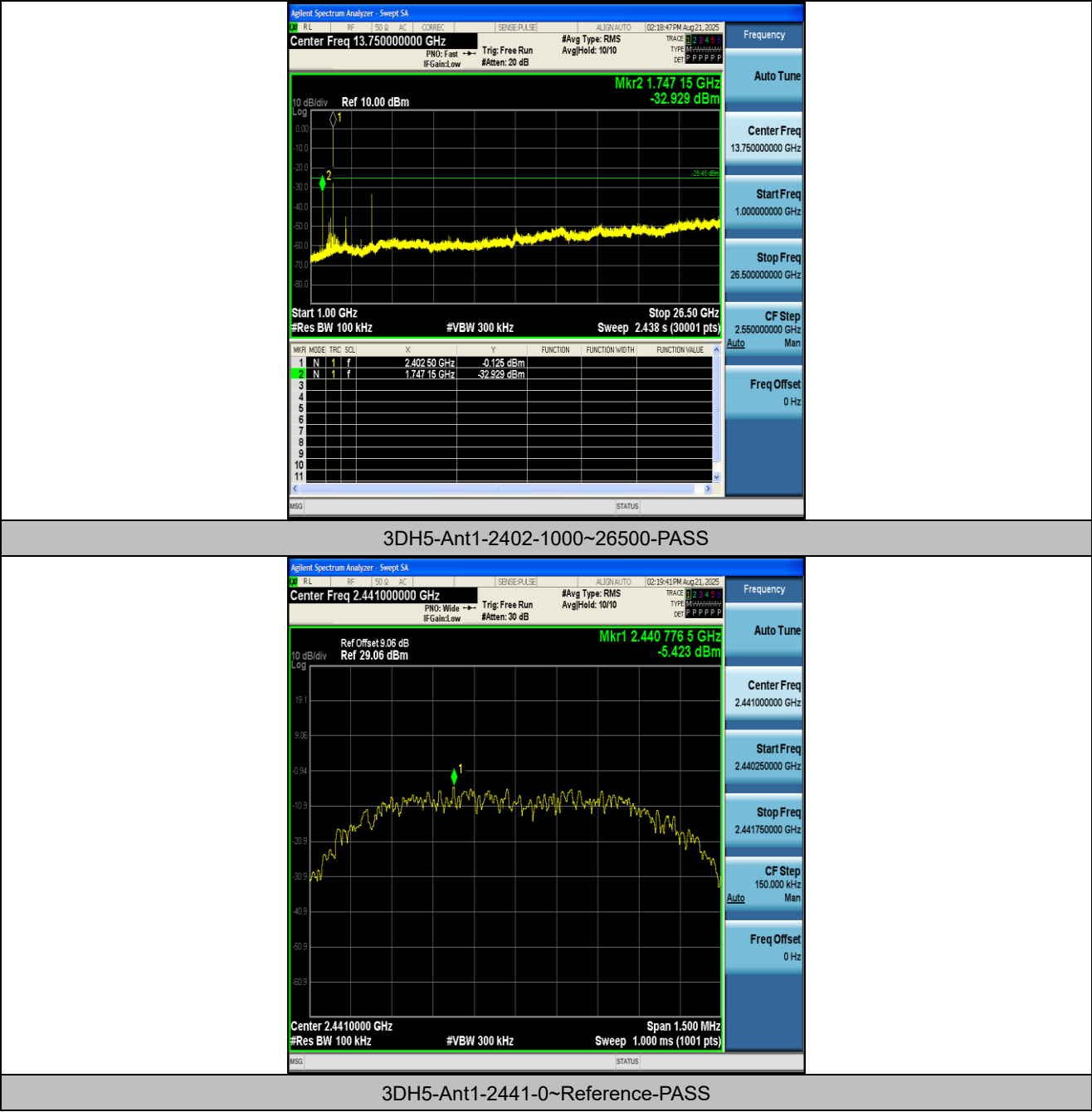


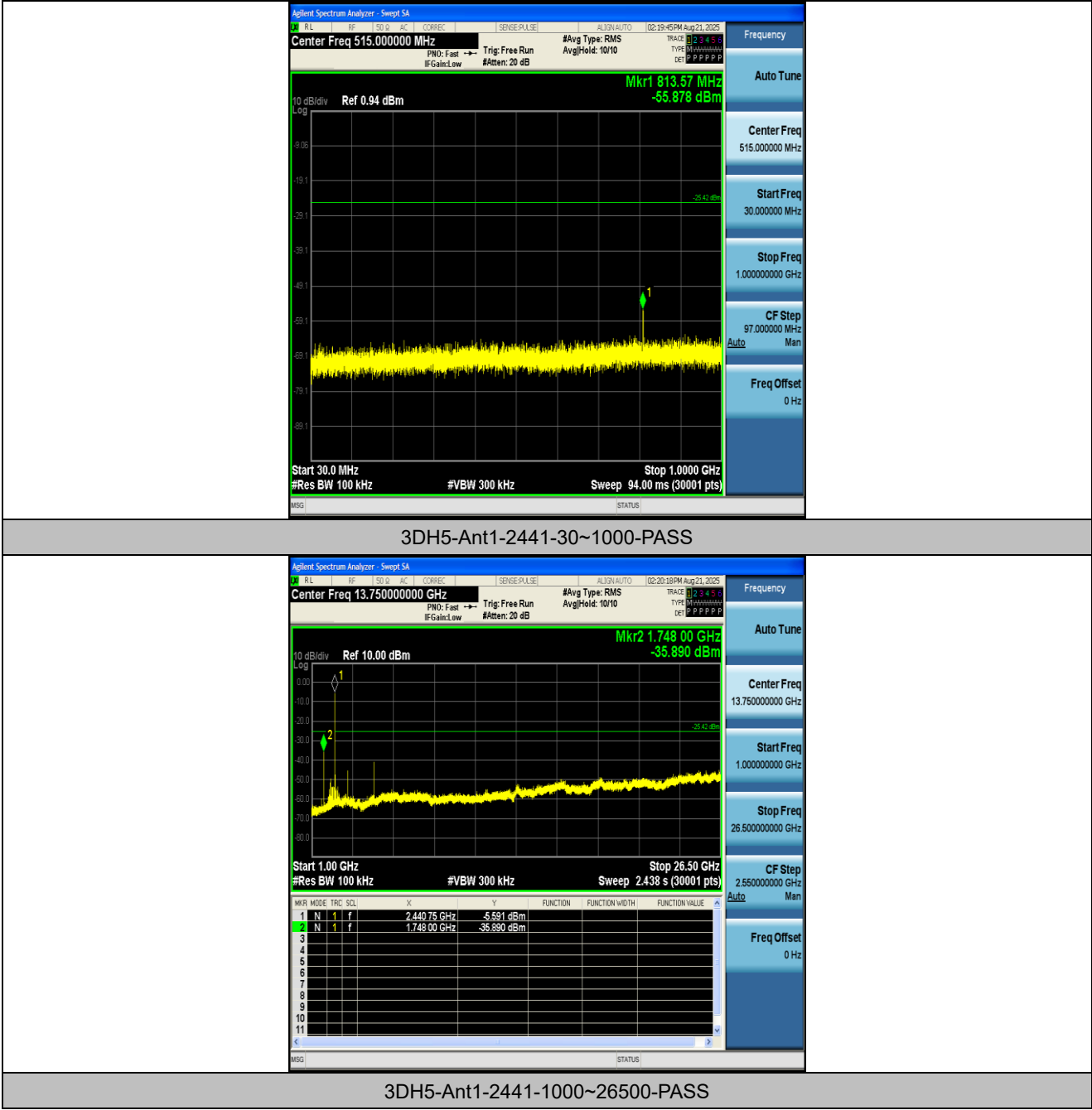


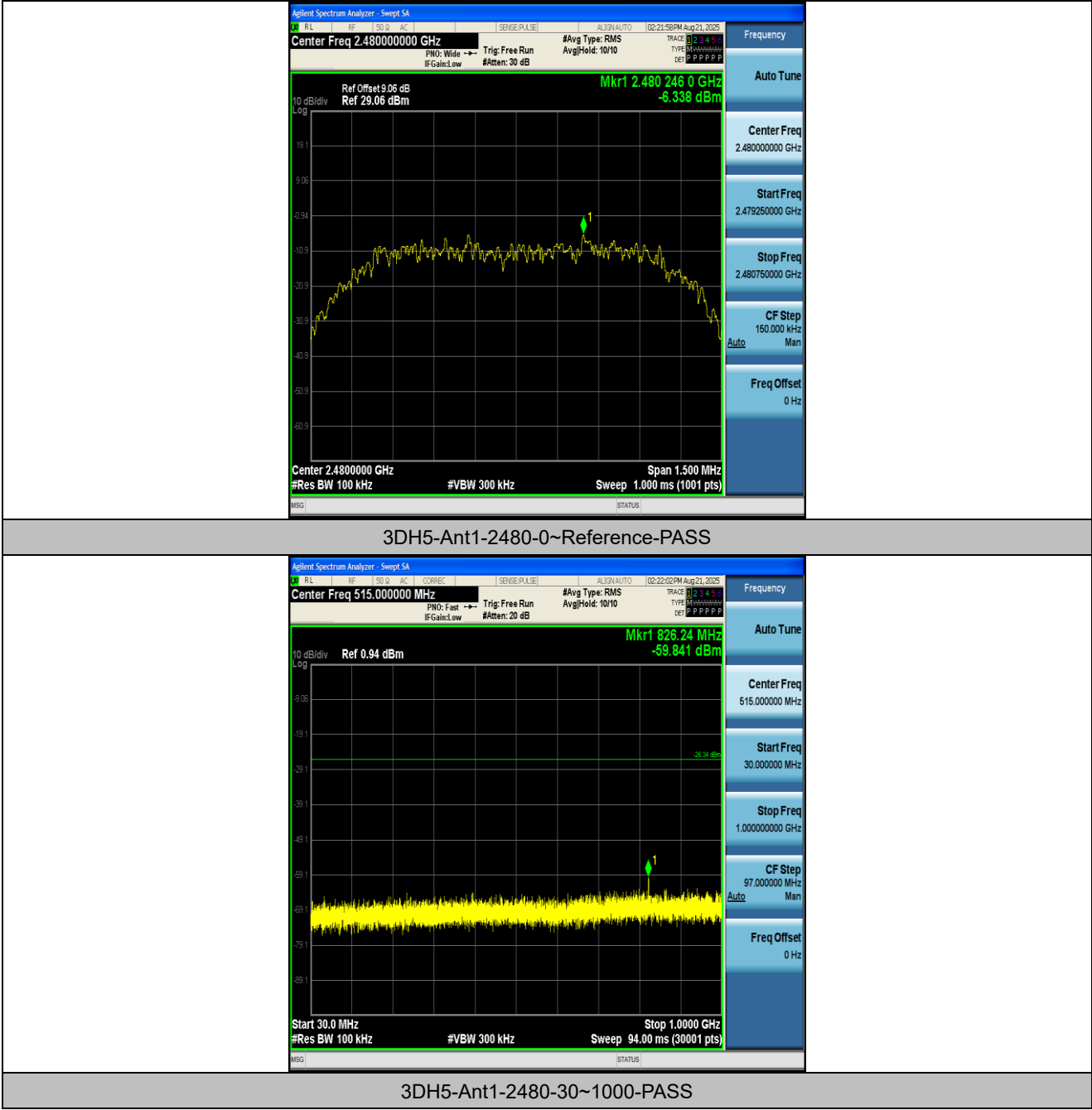


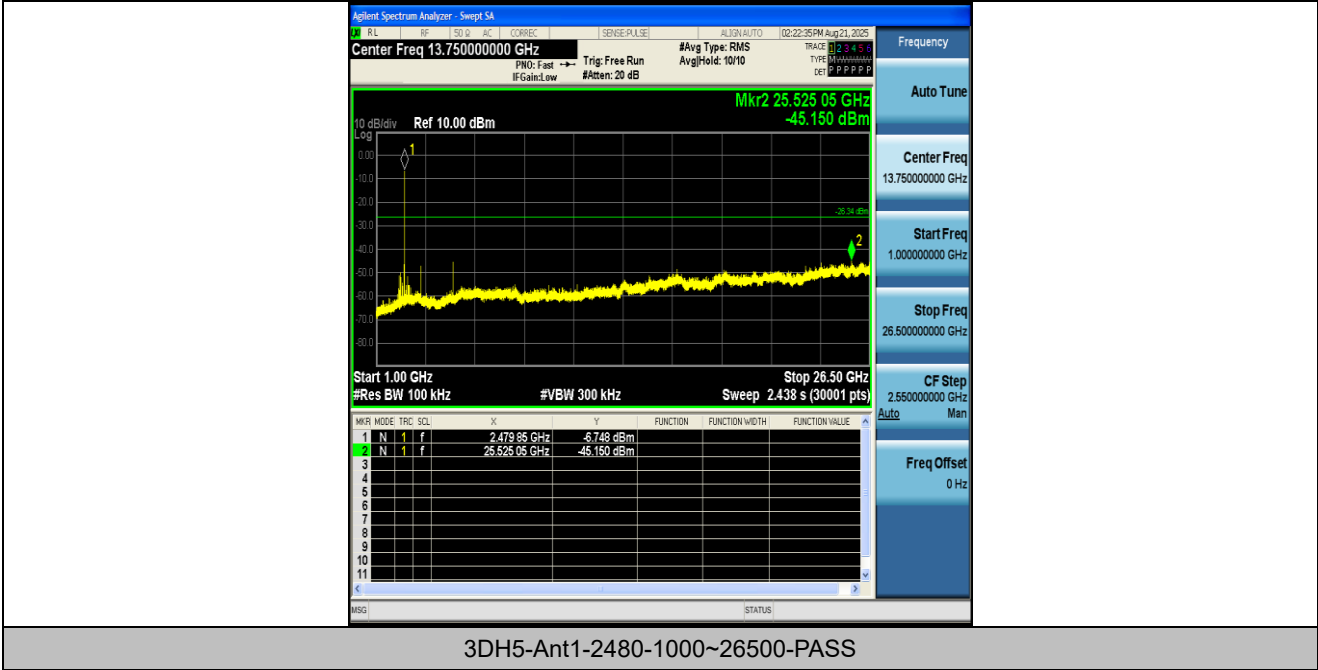












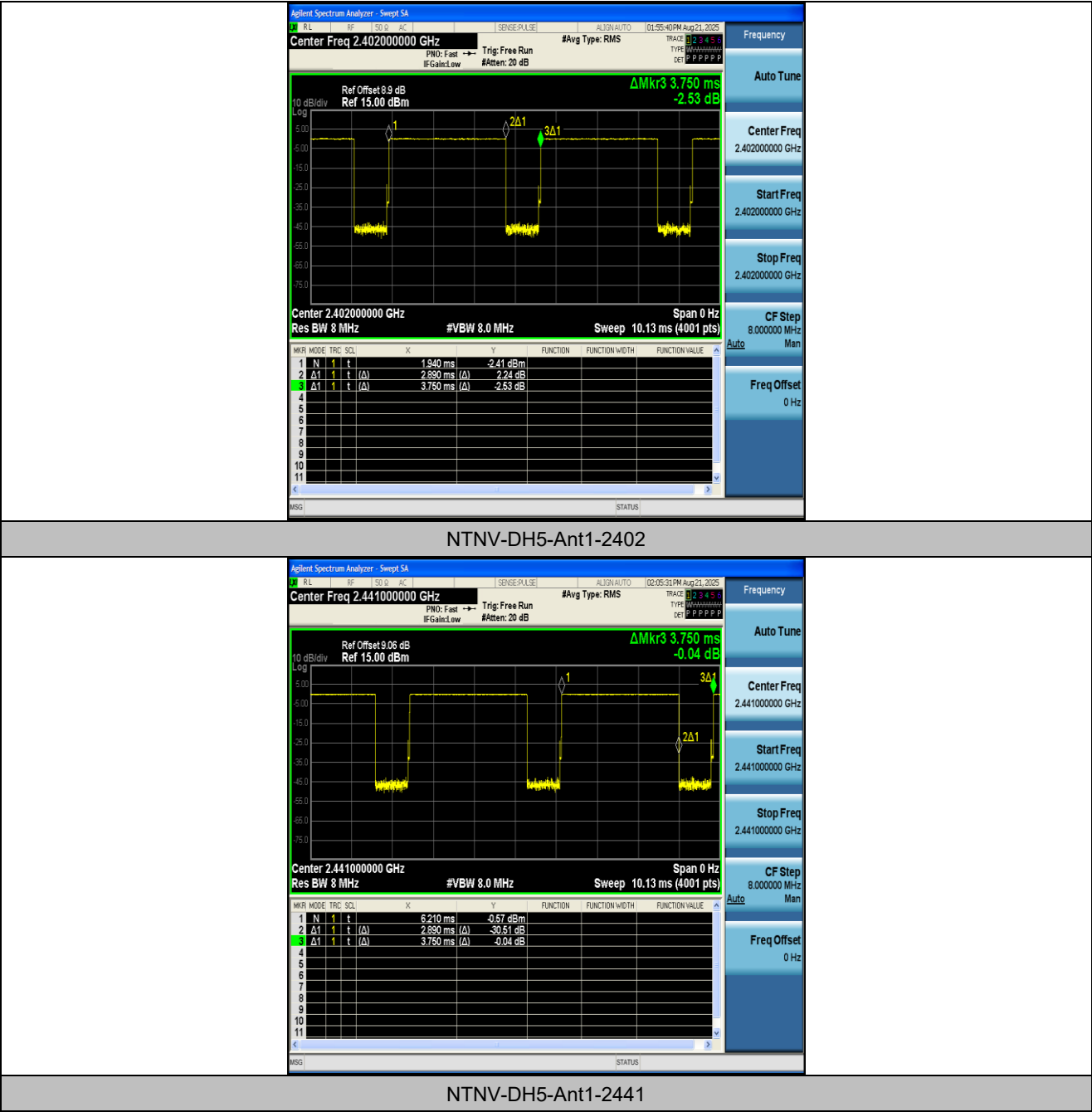
Appendix I: Duty Cycle

Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	2.89	3.75	77.07	1.13
DH5	Ant1	2441	2.89	3.75	77.07	1.13
DH5	Ant1	2480	2.89	3.74	77.27	1.12
2DH5	Ant1	2402	2.89	3.75	77.07	1.13
2DH5	Ant1	2441	2.88	3.75	76.80	1.15
2DH5	Ant1	2480	2.89	3.75	77.07	1.13
3DH5	Ant1	2402	2.75	3.61	76.18	1.18
3DH5	Ant1	2441	2.75	3.62	75.97	1.19
3DH5	Ant1	2480	2.89	3.75	77.07	1.13

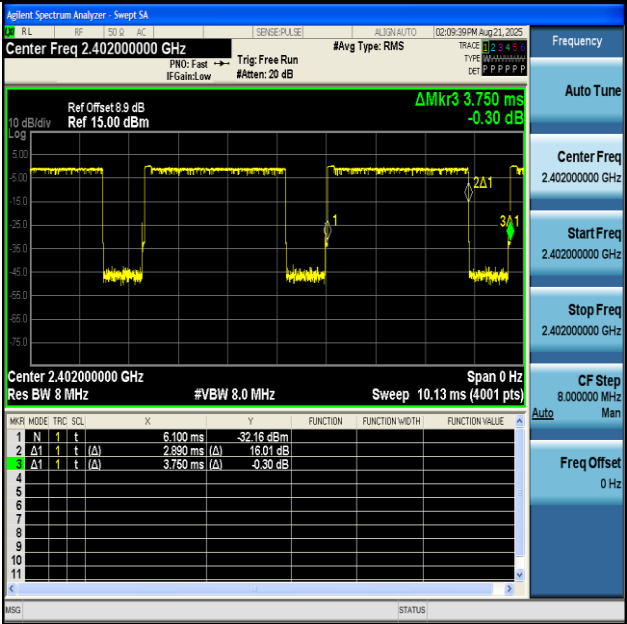
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

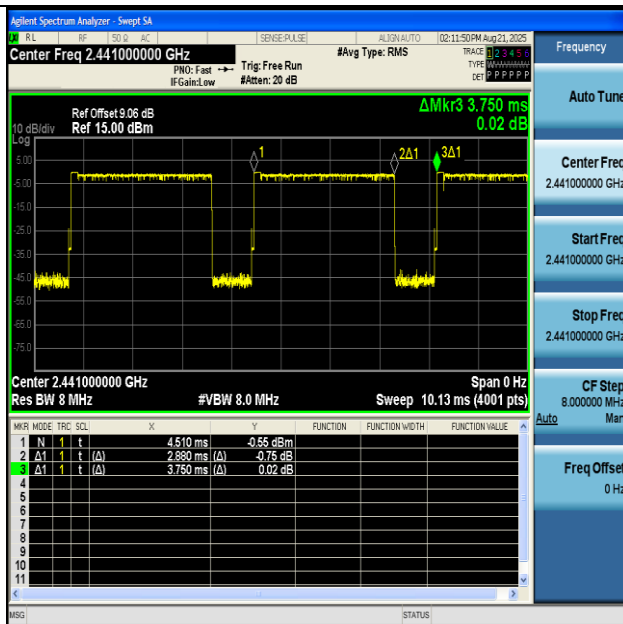




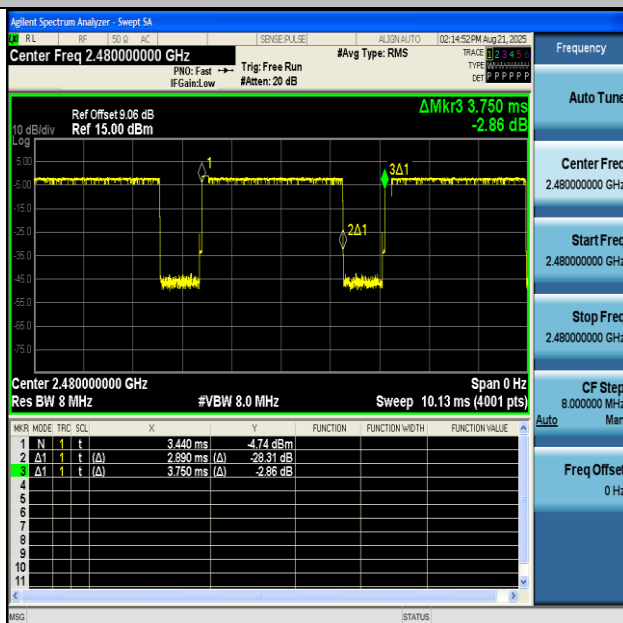
NTNV-DH5-Ant1-2480



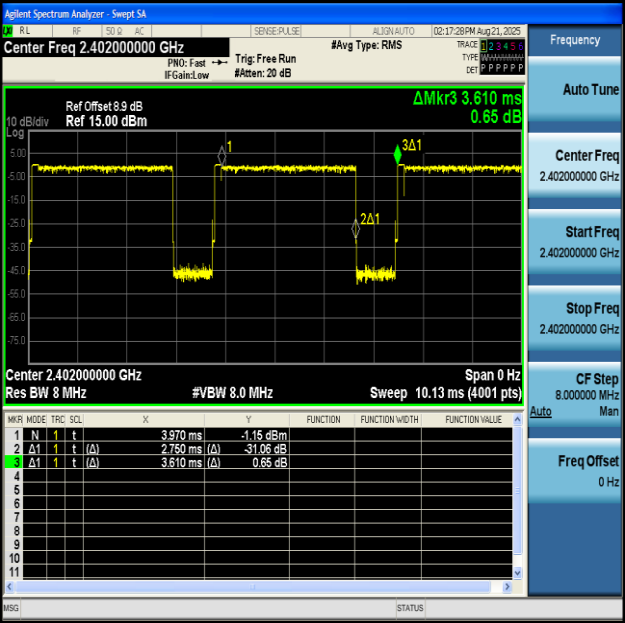
NTNV-2DH5-Ant1-2402



NTNV-2DH5-Ant1-2441



NTNV-2DH5-Ant1-2480



NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441

