

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

Product Name: Wireless Microphone

Trade Mark: Vivitar / iSING

Test Model: TEK001

FCC ID: 2AL9B-TEK001

Environmental Conditions

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

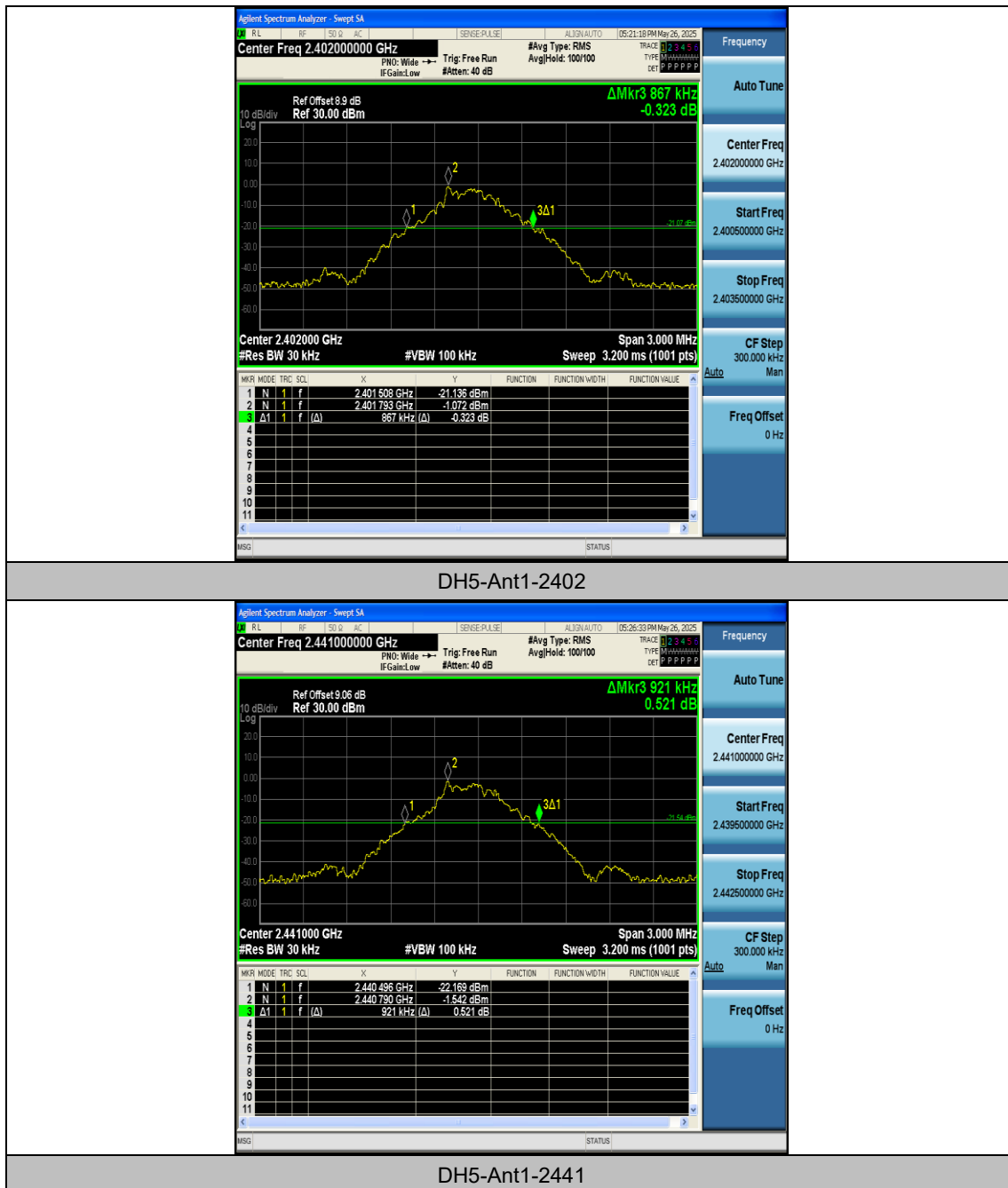
Appendix A: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.867	2401.508	2402.375	---	---
DH5	Ant1	2441	0.921	2440.496	2441.417	---	---
DH5	Ant1	2480	0.921	2479.496	2480.417	---	---
2DH5	Ant1	2402	1.320	2401.292	2402.612	---	---
2DH5	Ant1	2441	1.326	2440.286	2441.612	---	---
2DH5	Ant1	2480	1.320	2479.286	2480.606	---	---
3DH5	Ant1	2402	1.284	2401.310	2402.594	---	---
3DH5	Ant1	2441	1.302	2440.301	2441.603	---	---
3DH5	Ant1	2480	1.287	2479.304	2480.591	---	---

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

Test Graphs





DH5-Ant1-2480



2DH5-Ant1-2402



2DH5-Ant1-2441



2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



Appendix B: Occupied Channel Bandwidth

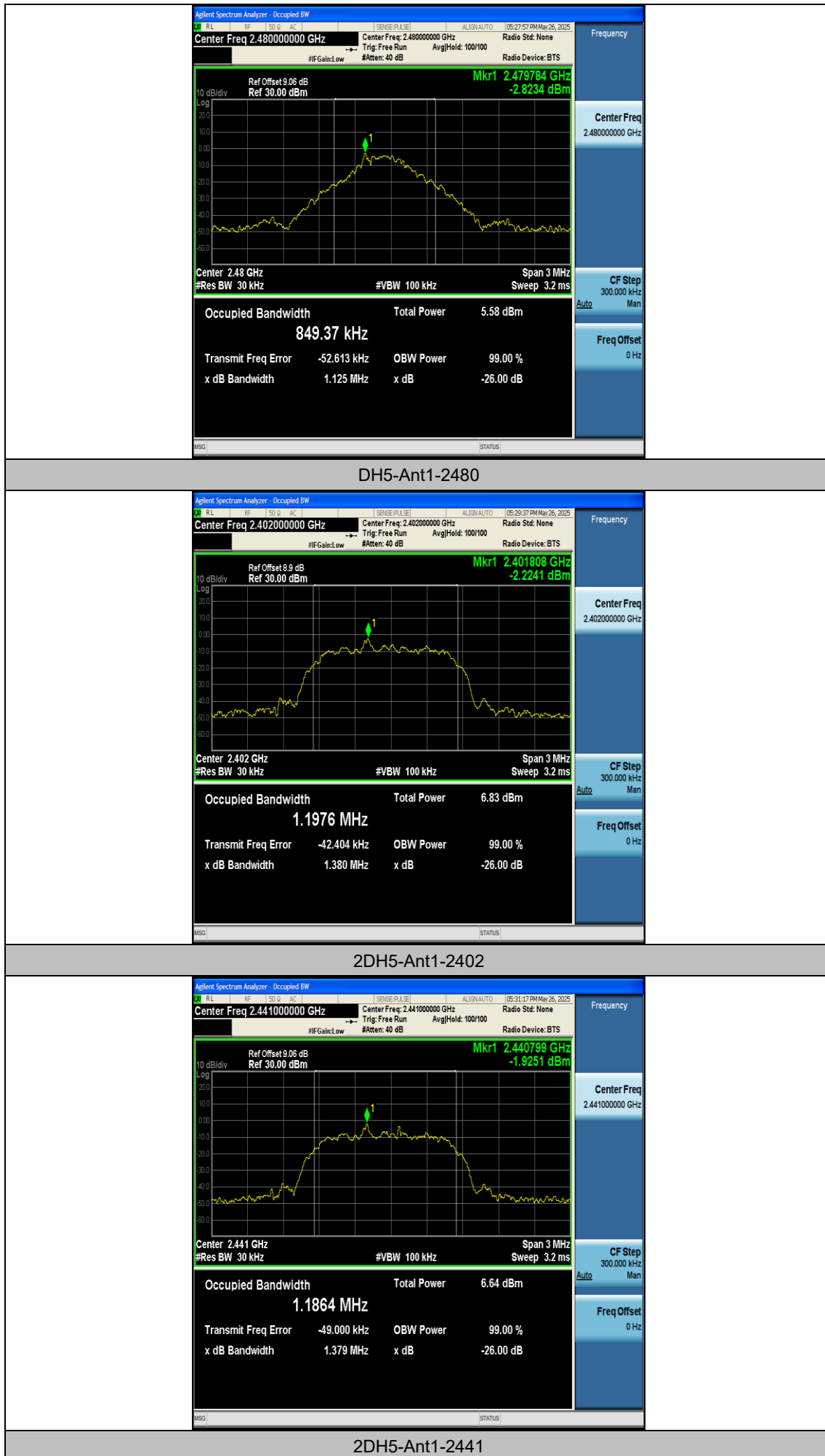
Test Result

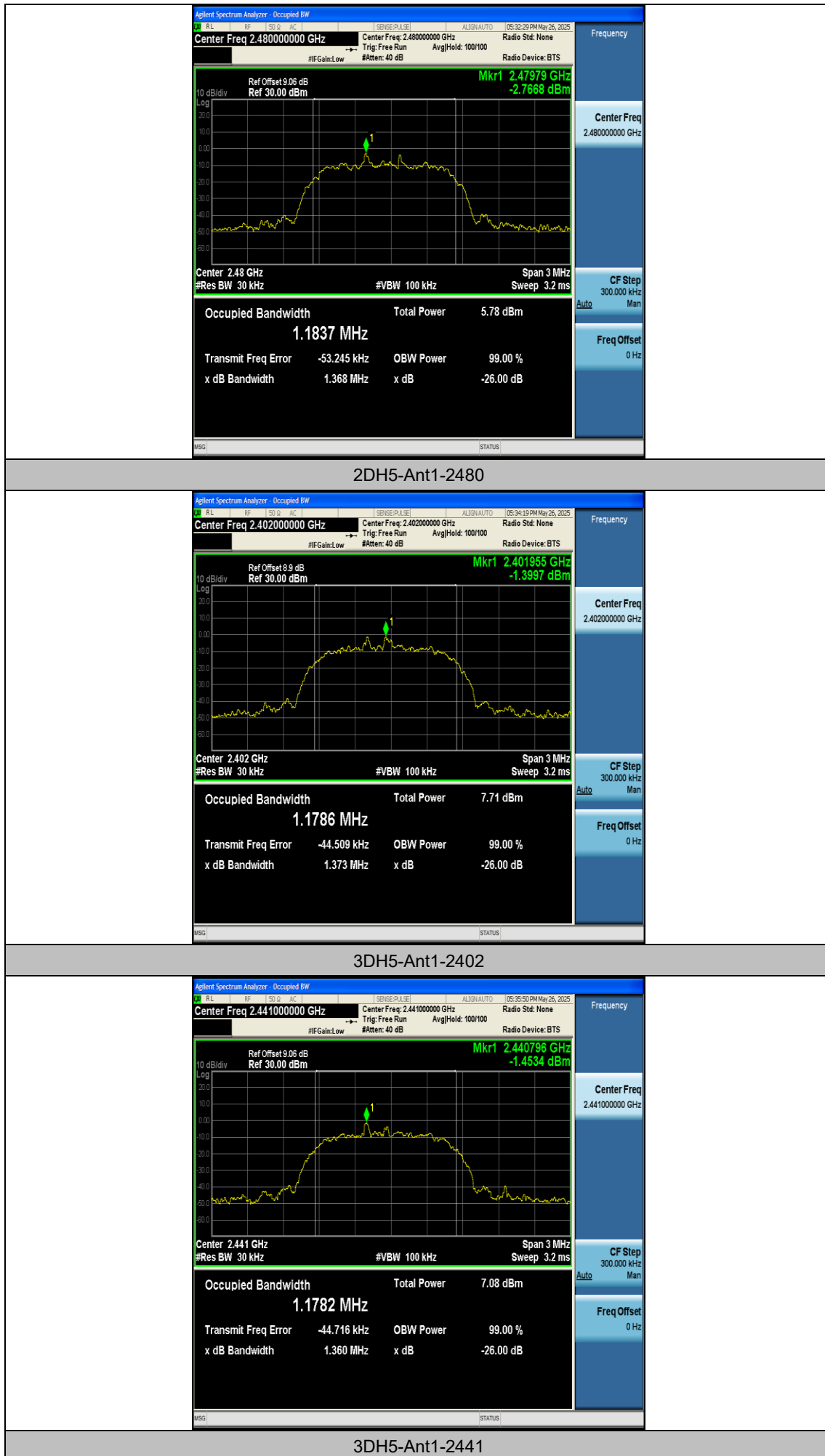
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.83429	2401.5394	2402.3737	---	---
DH5	Ant1	2441	0.82726	2440.5346	2441.3618	---	---
DH5	Ant1	2480	0.84937	2479.5227	2480.3721	---	---
2DH5	Ant1	2402	1.1976	2401.3588	2402.5564	---	---
2DH5	Ant1	2441	1.1864	2440.3578	2441.5442	---	---
2DH5	Ant1	2480	1.1837	2479.3549	2480.5386	---	---
3DH5	Ant1	2402	1.1786	2401.3662	2402.5448	---	---
3DH5	Ant1	2441	1.1782	2440.3662	2441.5444	---	---
3DH5	Ant1	2480	1.1870	2479.3515	2480.5385	---	---

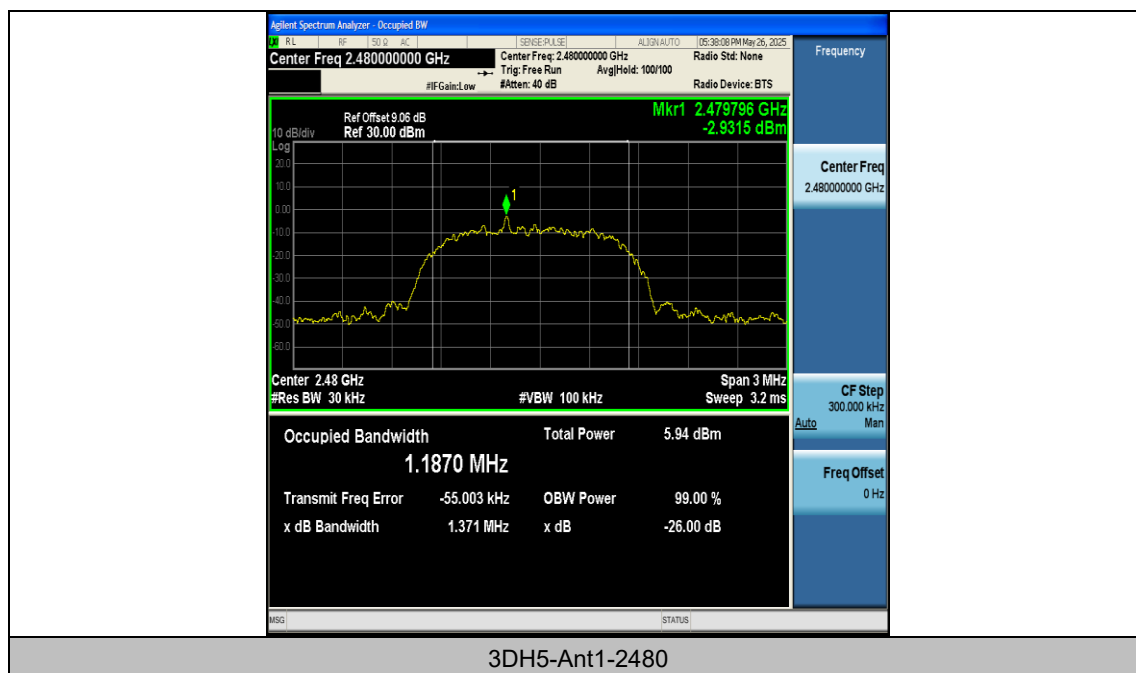
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs









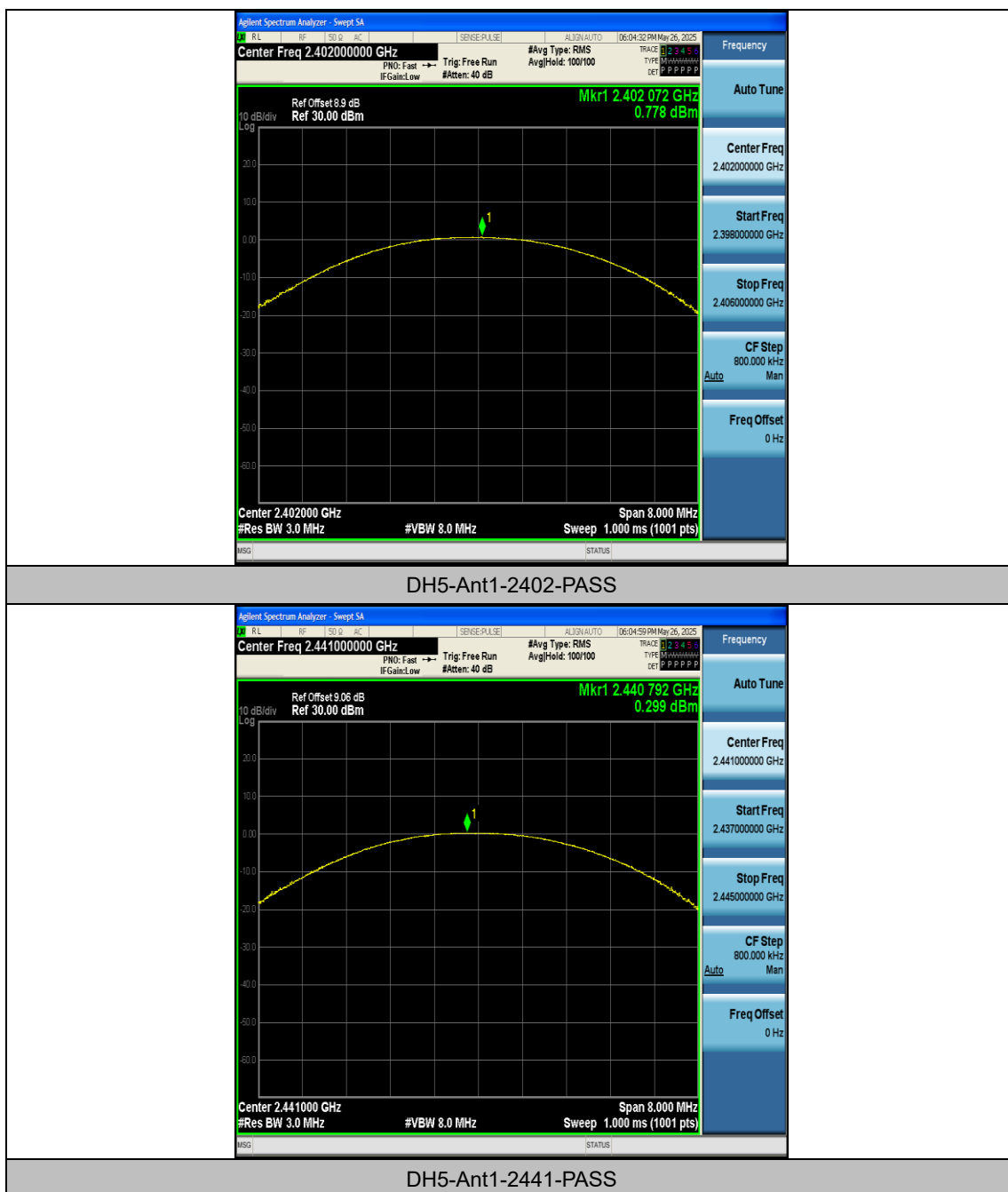
Appendix C: Maximum peak conducted output power

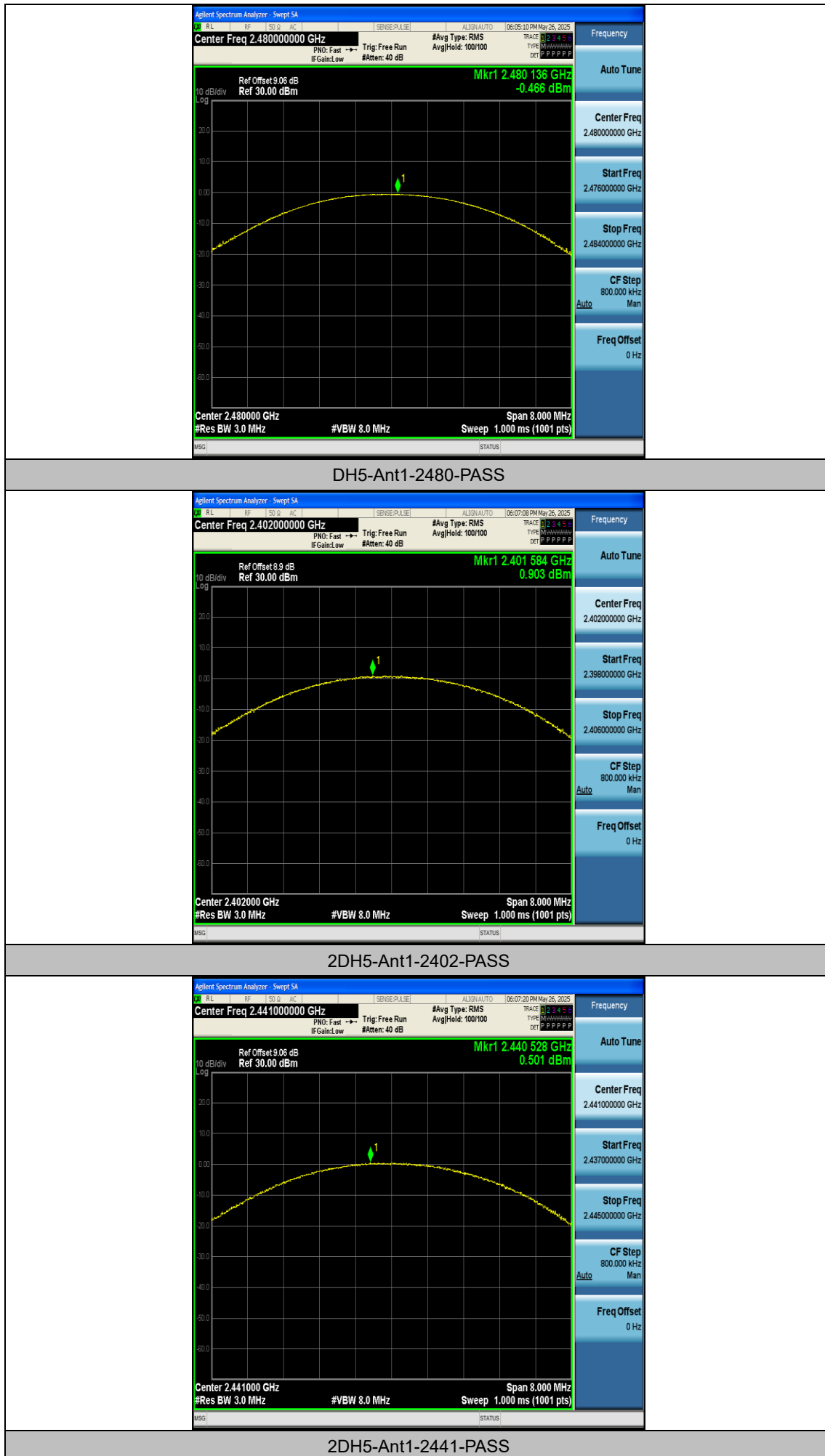
Test Result

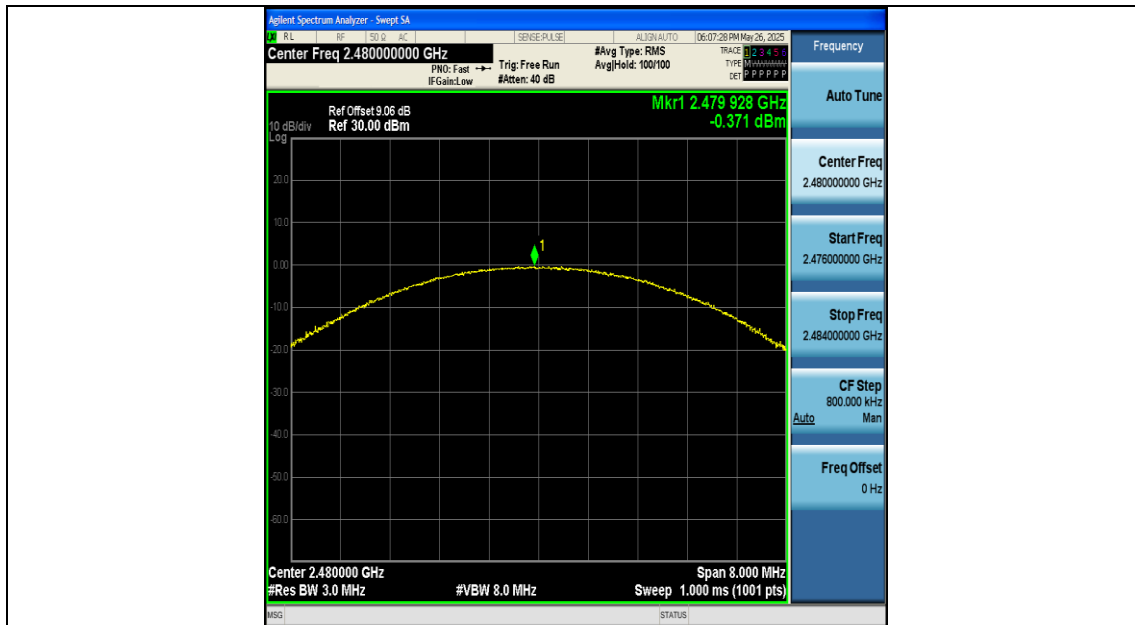
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	0.78	≤30	PASS
DH5	Ant1	2441	0.30	≤30	PASS
DH5	Ant1	2480	-0.47	≤30	PASS
2DH5	Ant1	2402	0.90	≤20.97	PASS
2DH5	Ant1	2441	0.50	≤20.97	PASS
2DH5	Ant1	2480	-0.37	≤20.97	PASS
3DH5	Ant1	2402	1.37	≤20.97	PASS
3DH5	Ant1	2441	0.93	≤20.97	PASS
3DH5	Ant1	2480	0.13	≤20.97	PASS

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

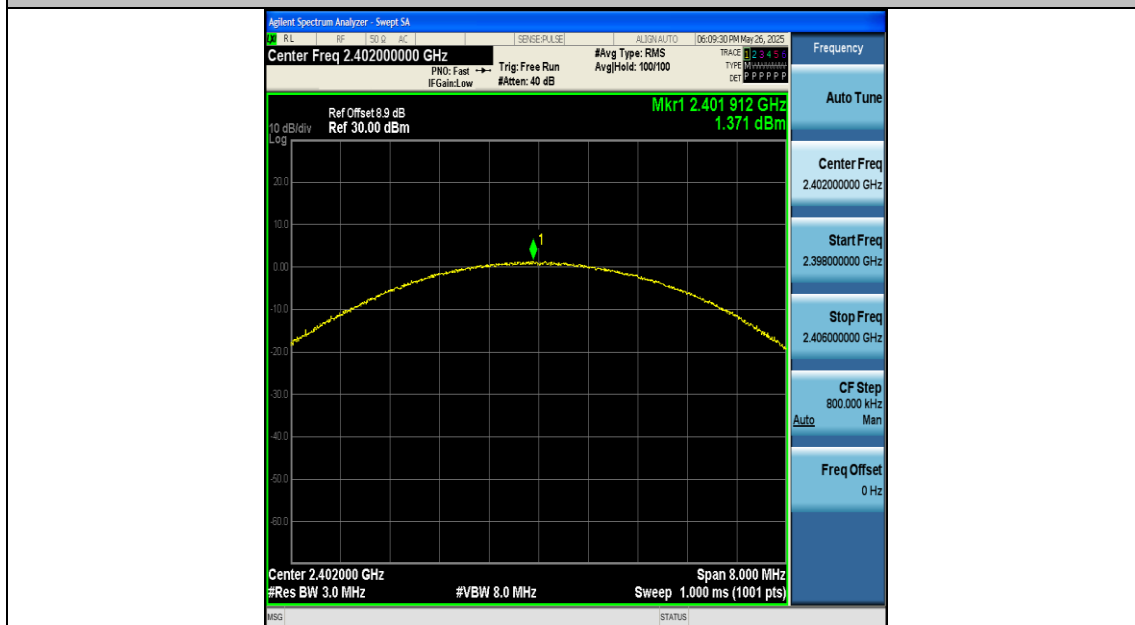
Test Graphs



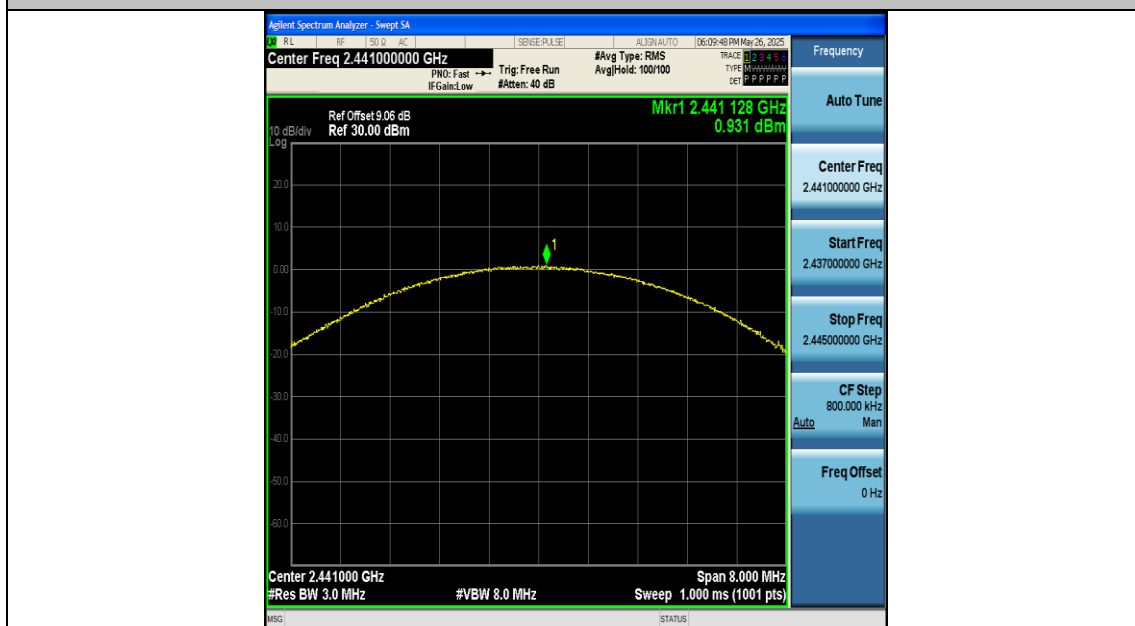




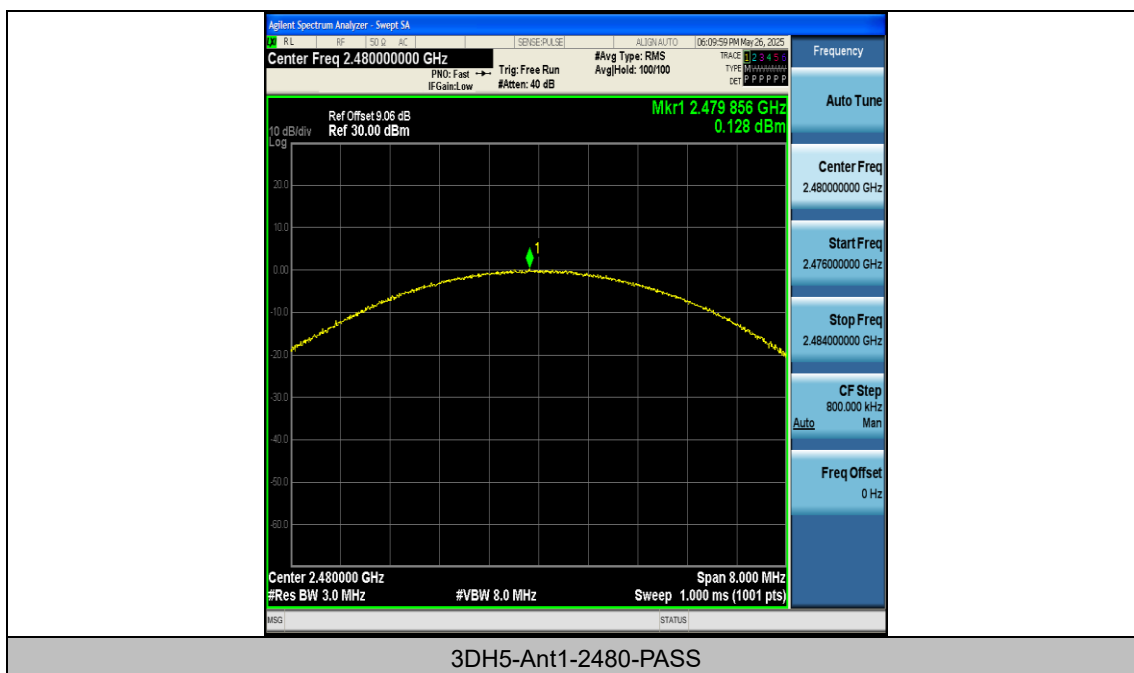
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS



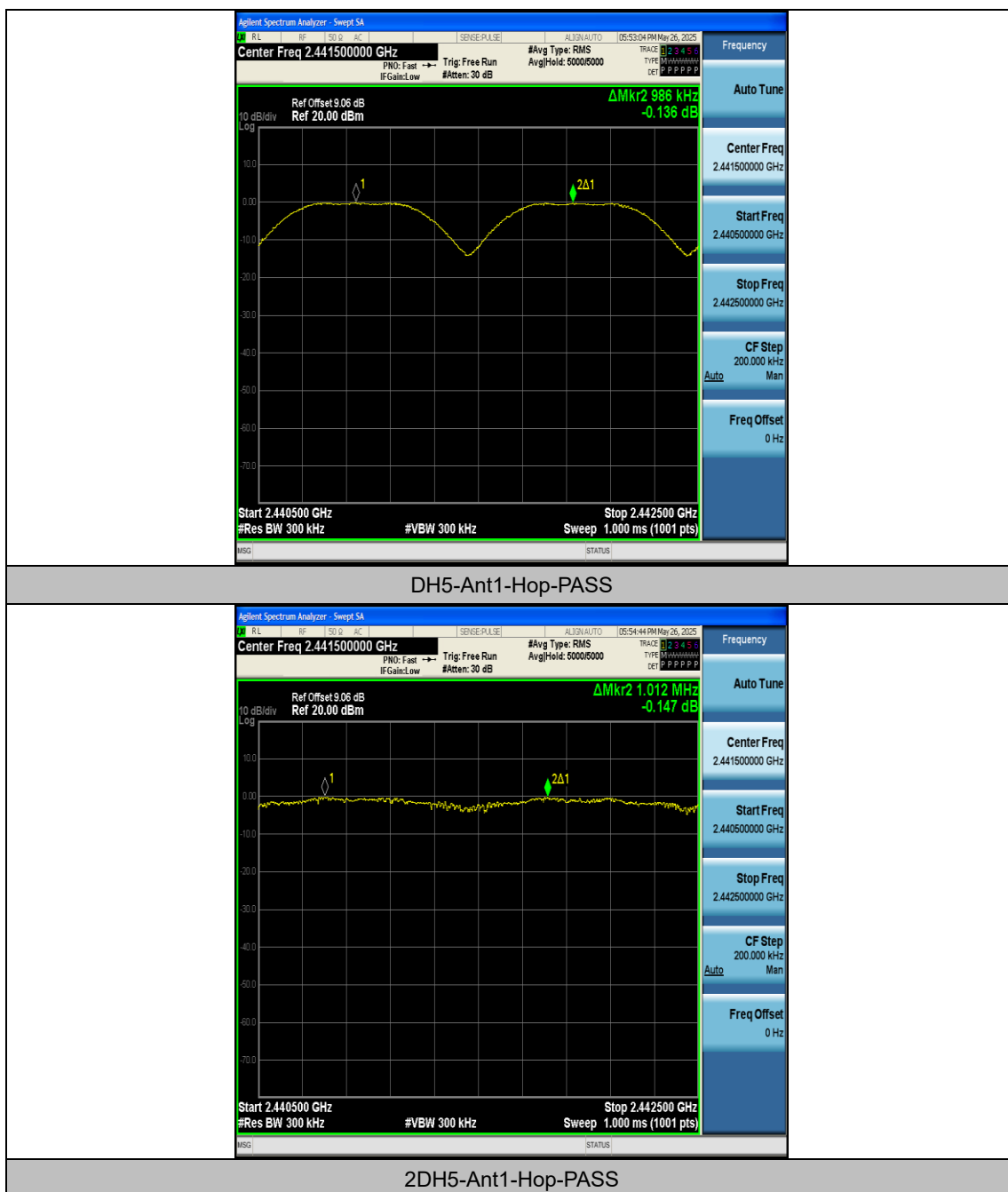
Appendix D: Carrier frequency separation

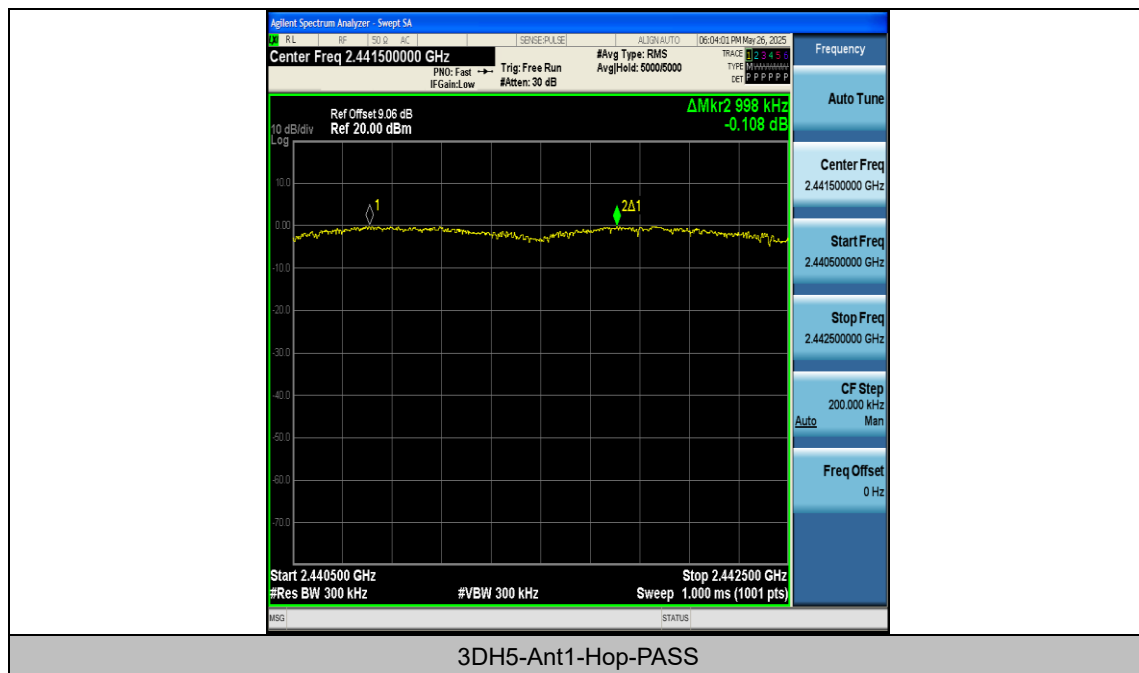
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	0.986	≥ 0.921	PASS
2DH5	Ant1	Hop	1.012	≥ 0.884	PASS
3DH5	Ant1	Hop	0.998	≥ 0.868	PASS

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

Test Graphs





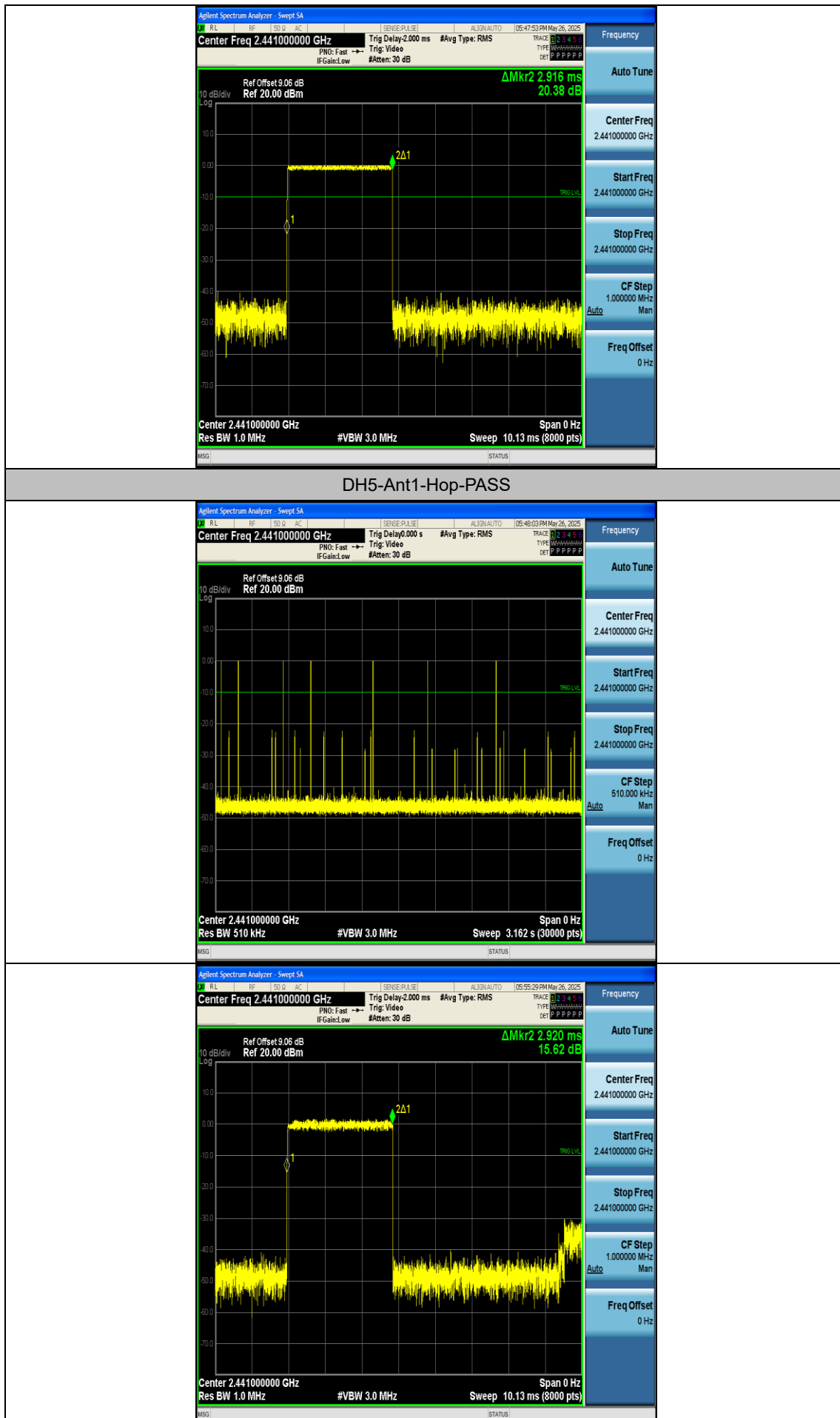
Appendix E: Time of occupancy

Test Result

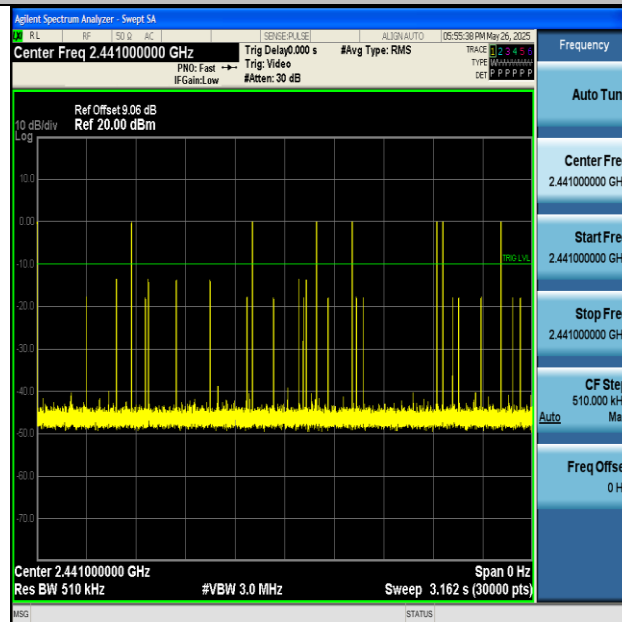
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.916	80	0.233	≤0.4	PASS
2DH5	Ant1	Hop	2.920	80	0.234	≤0.4	PASS
3DH5	Ant1	Hop	2.923	130	0.38	≤0.4	PASS

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

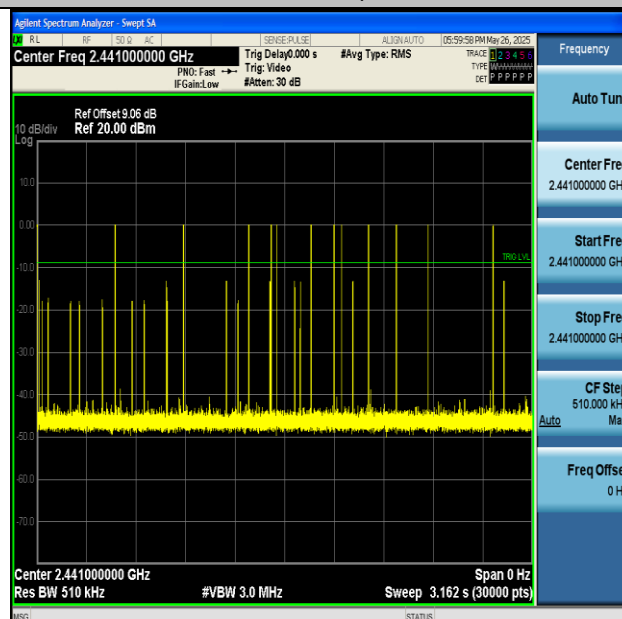
Test Graphs



2DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS



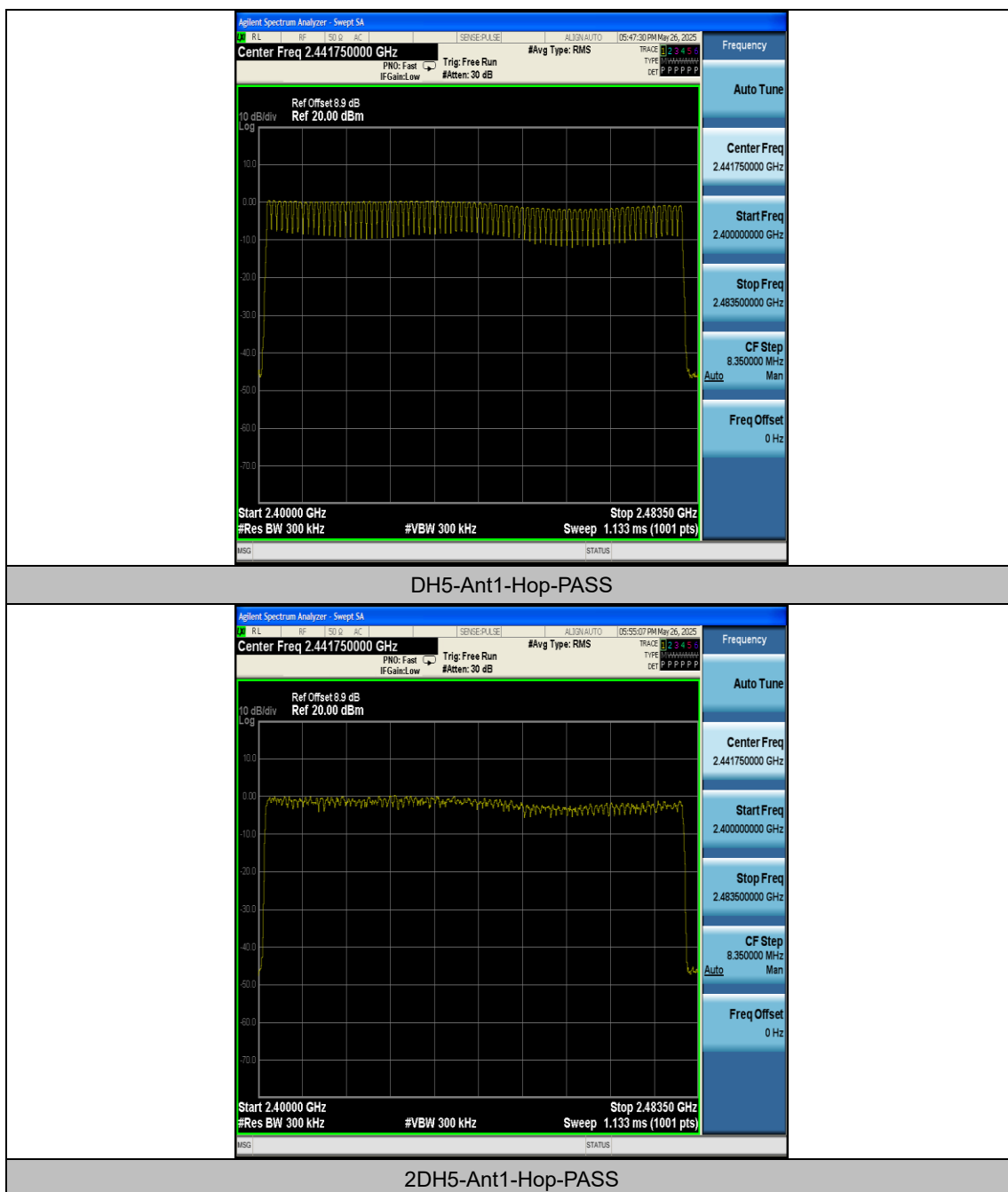
Appendix F: Number of hopping channels

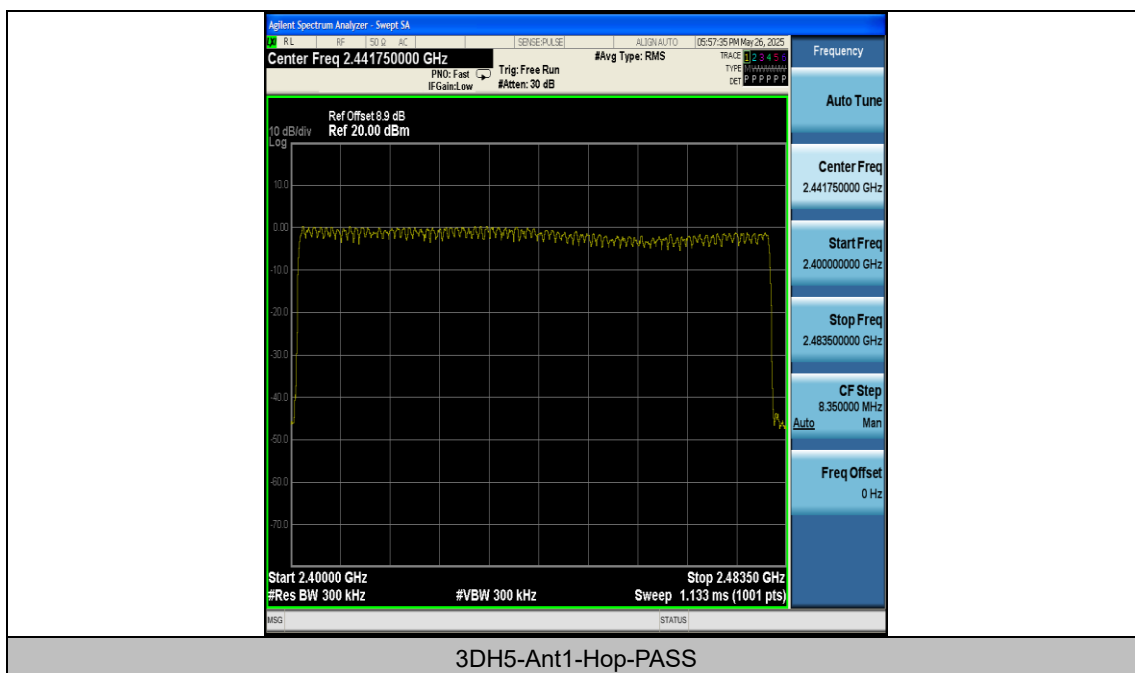
Test Result

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





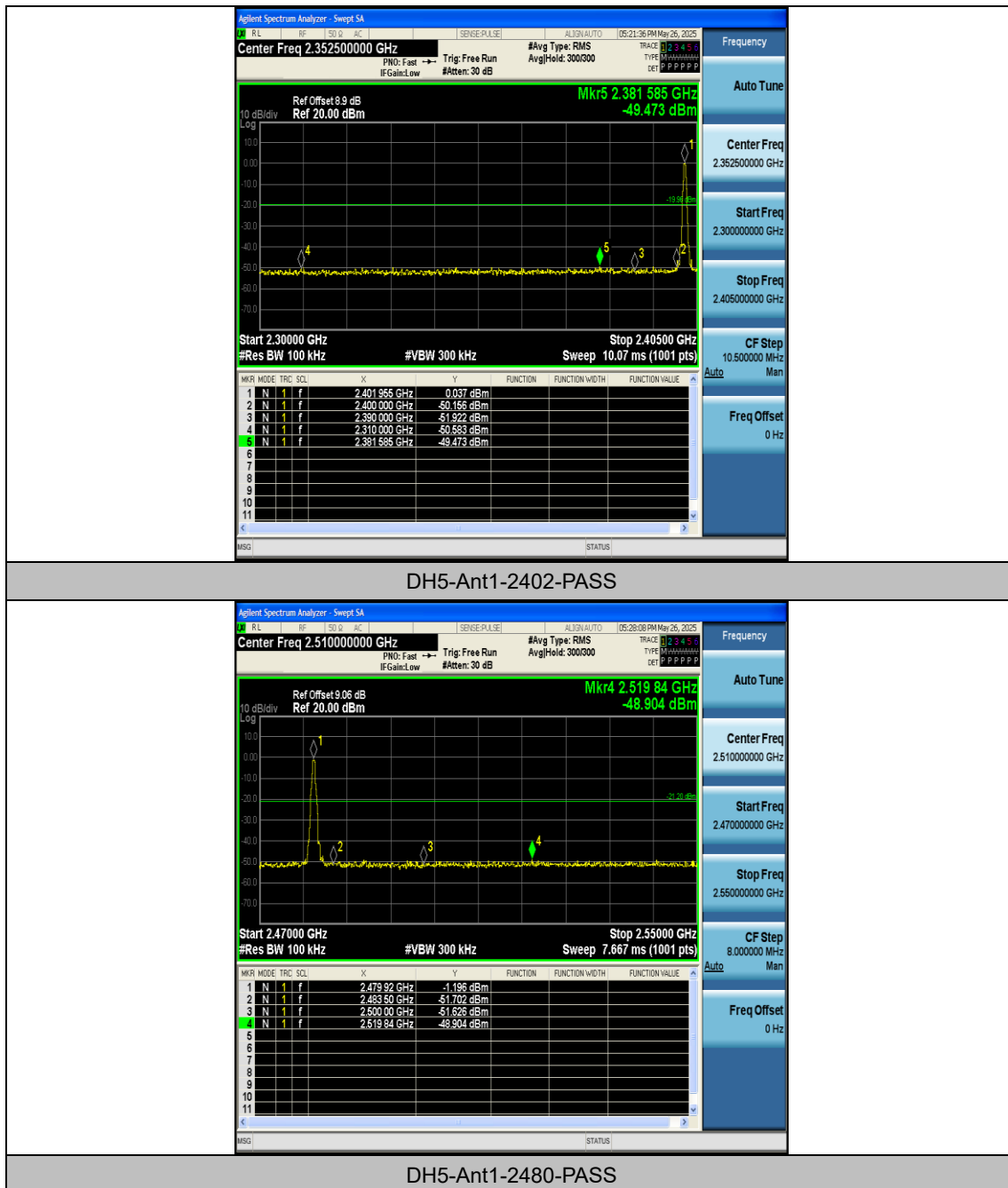
Appendix G: Band edge measurements

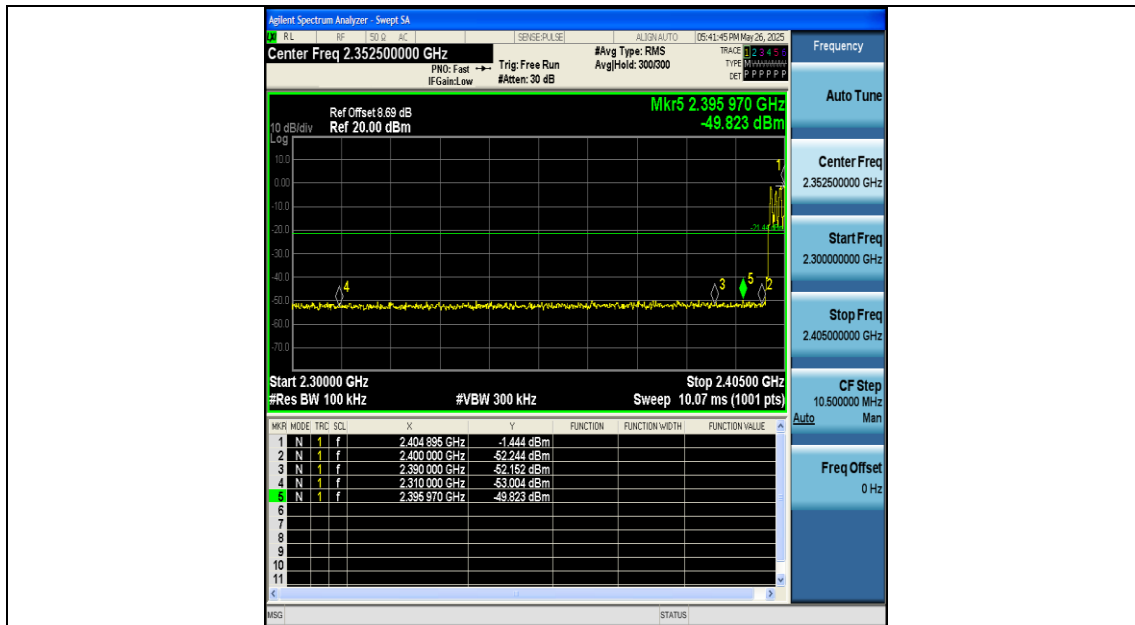
Test Result

Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.04	-49.47	≤ -19.96	PASS
DH5	Ant1	High	2480	-1.20	-48.9	≤ -21.2	PASS
DH5	Ant1	Low	Hop_2402	-1.44	-49.82	≤ -21.44	PASS
DH5	Ant1	High	Hop_2480	-1.69	-48.5	≤ -21.69	PASS
2DH5	Ant1	Low	2402	-0.58	-48.34	≤ -20.58	PASS
2DH5	Ant1	High	2480	-1.37	-47.83	≤ -21.37	PASS
2DH5	Ant1	Low	Hop_2402	-0.96	-49.29	≤ -20.96	PASS
2DH5	Ant1	High	Hop_2480	-2.28	-48.9	≤ -22.28	PASS
3DH5	Ant1	Low	2402	0.08	-47.38	≤ -19.92	PASS
3DH5	Ant1	High	2480	-1.13	-48.56	≤ -21.13	PASS
3DH5	Ant1	Low	Hop_2402	-3.23	-49.53	≤ -23.23	PASS
3DH5	Ant1	High	Hop_2480	-1.59	-46.97	≤ -21.59	PASS

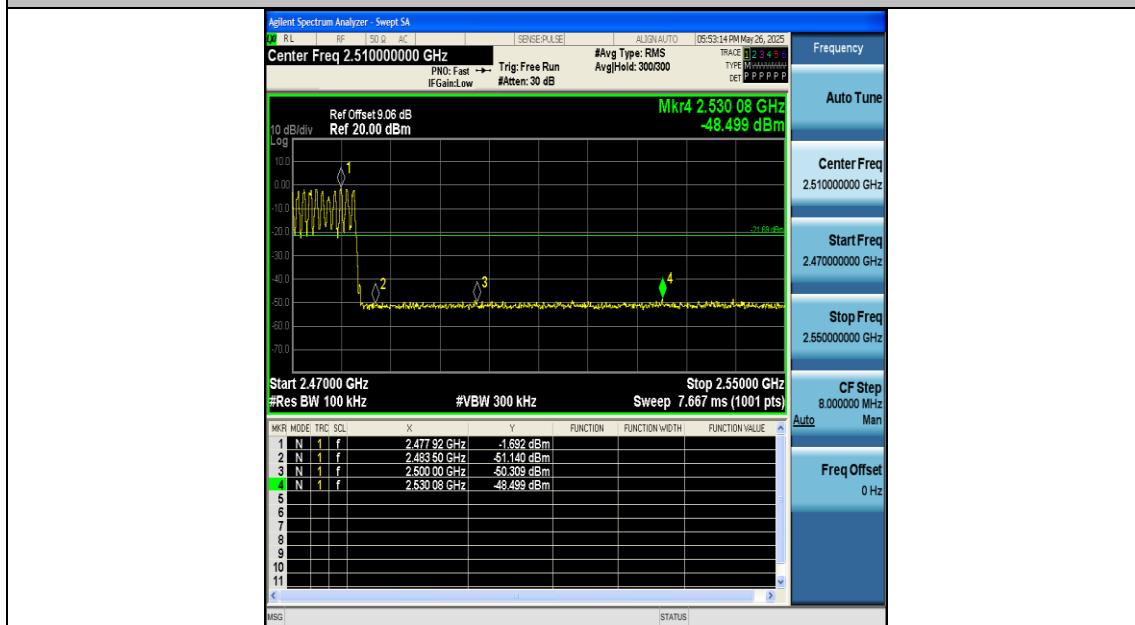
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

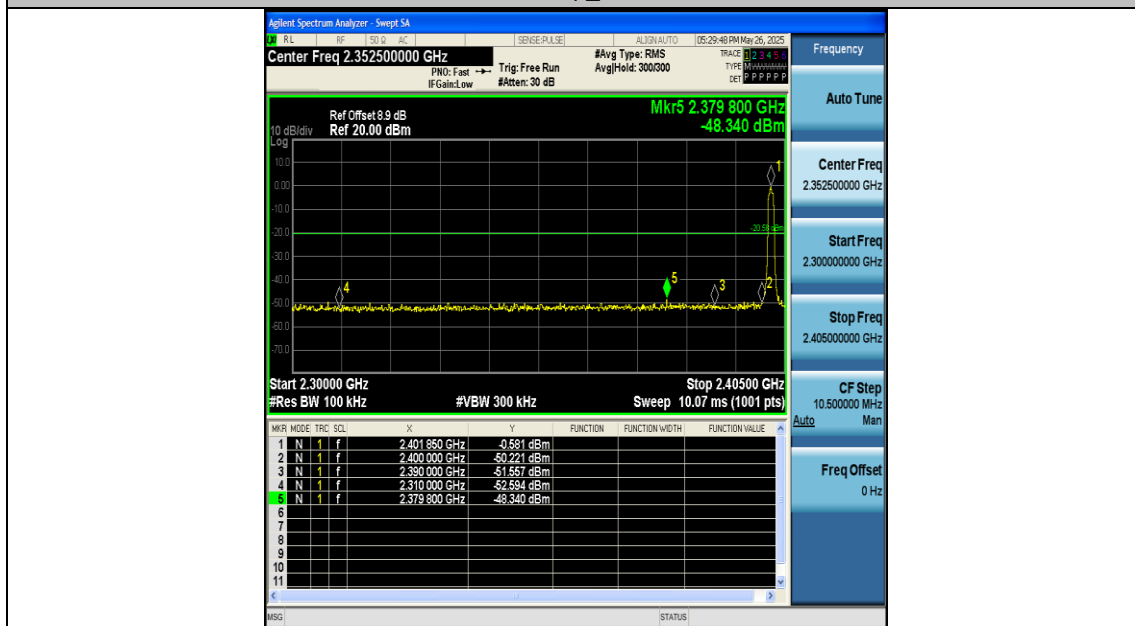




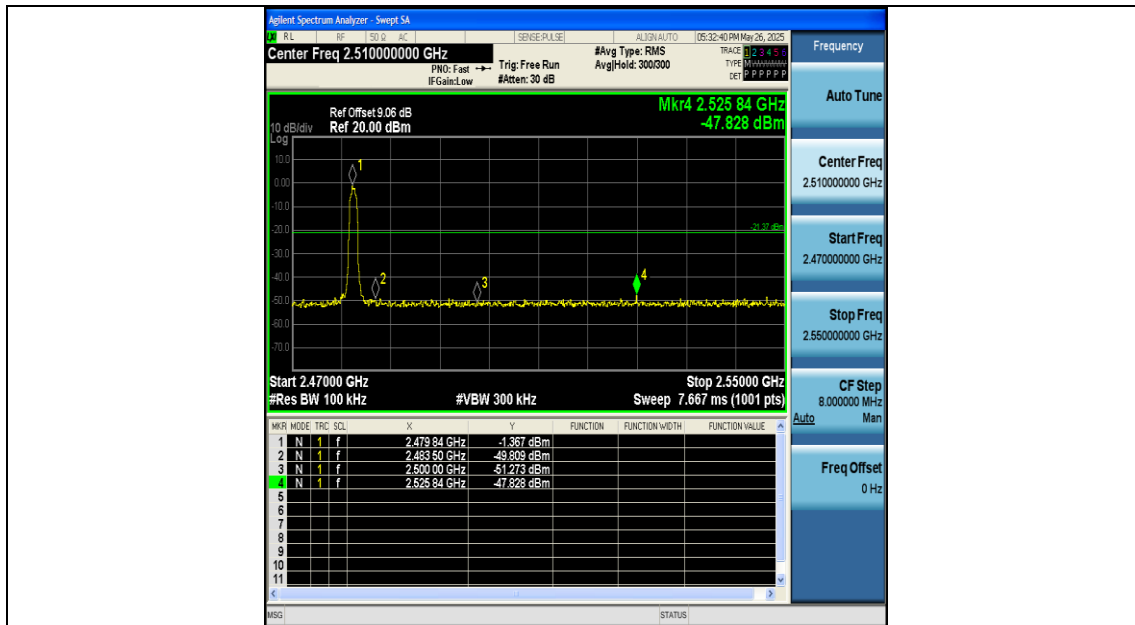
DH5-Ant1-Hop_2402-PASS



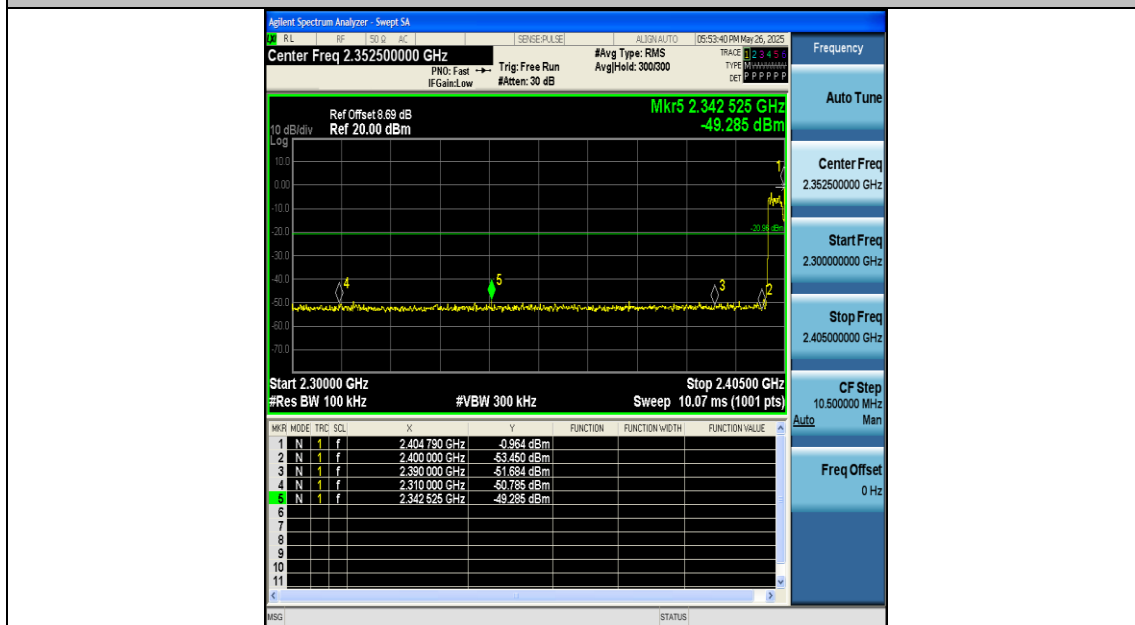
DH5-Ant1-Hop_2480-PASS



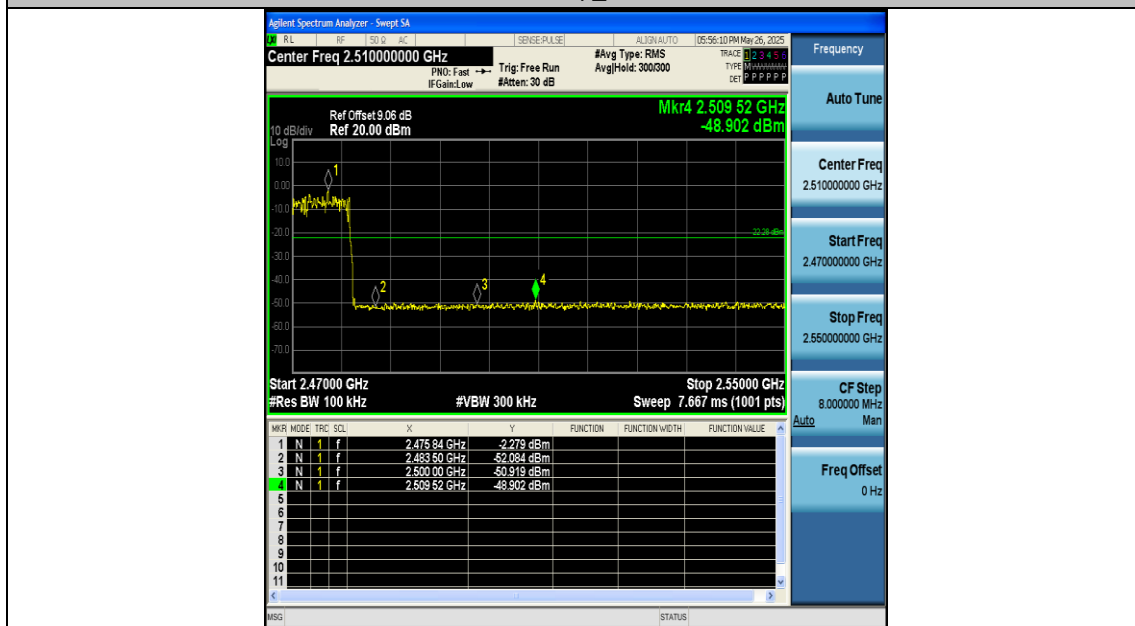
2DH5-Ant1-2402-PASS



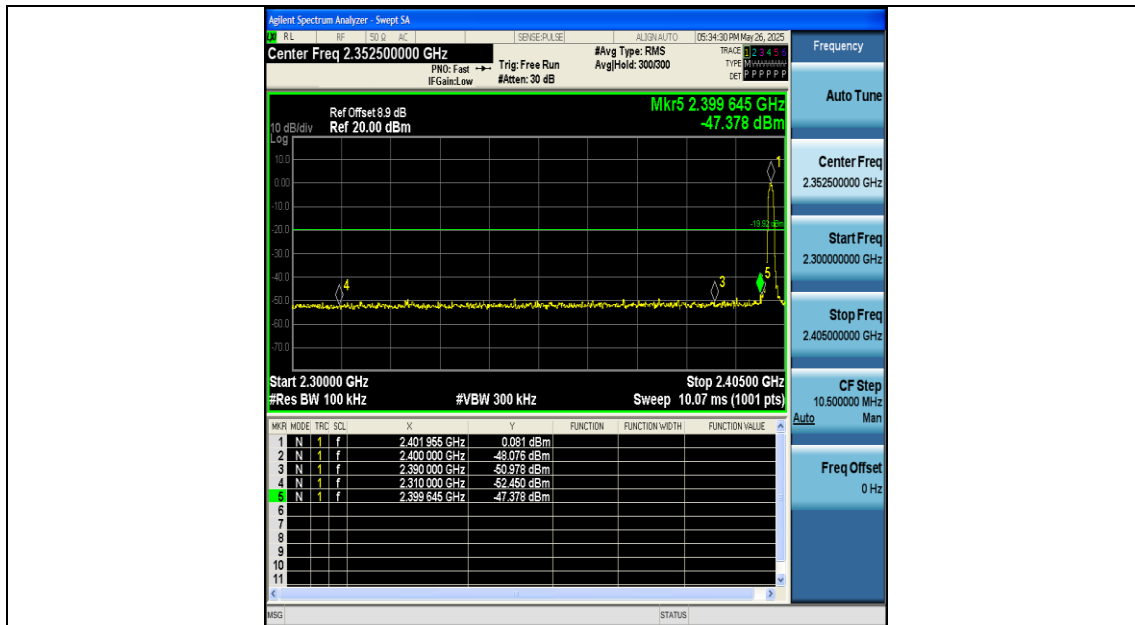
2DH5-Ant1-2480-PASS



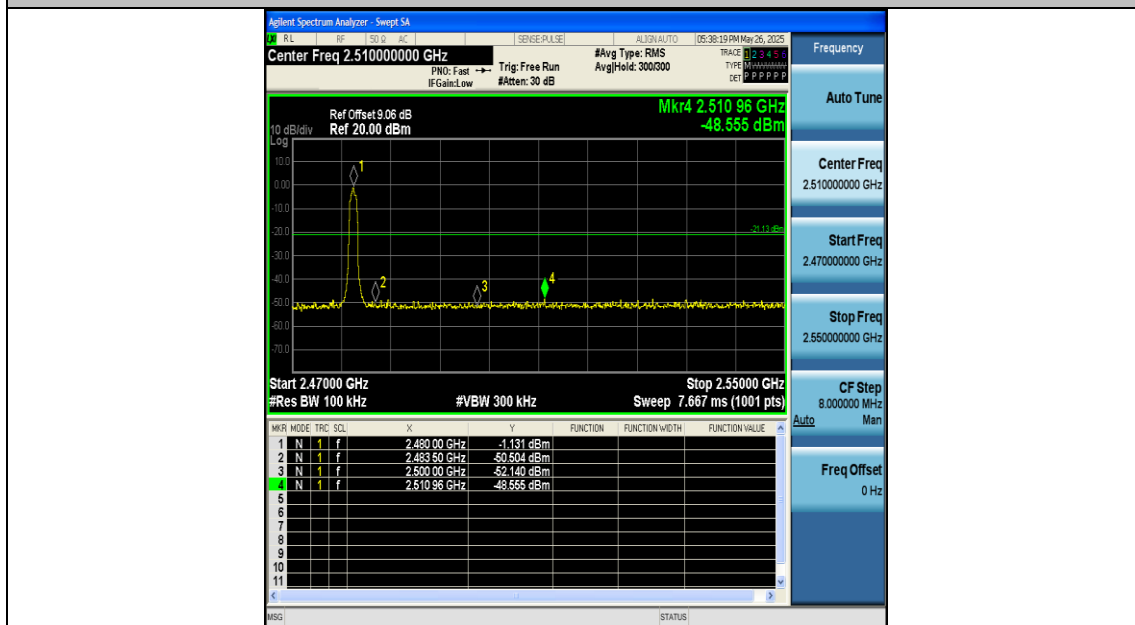
2DH5-Ant1-Hop_2402-PASS



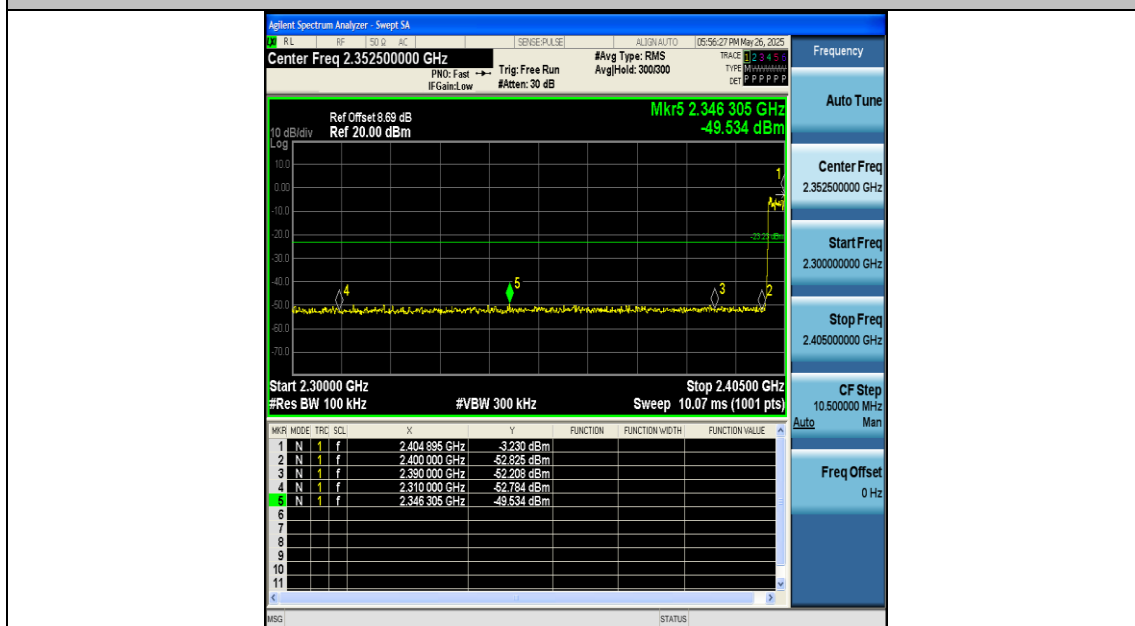
2DH5-Ant1-Hop_2480-PASS



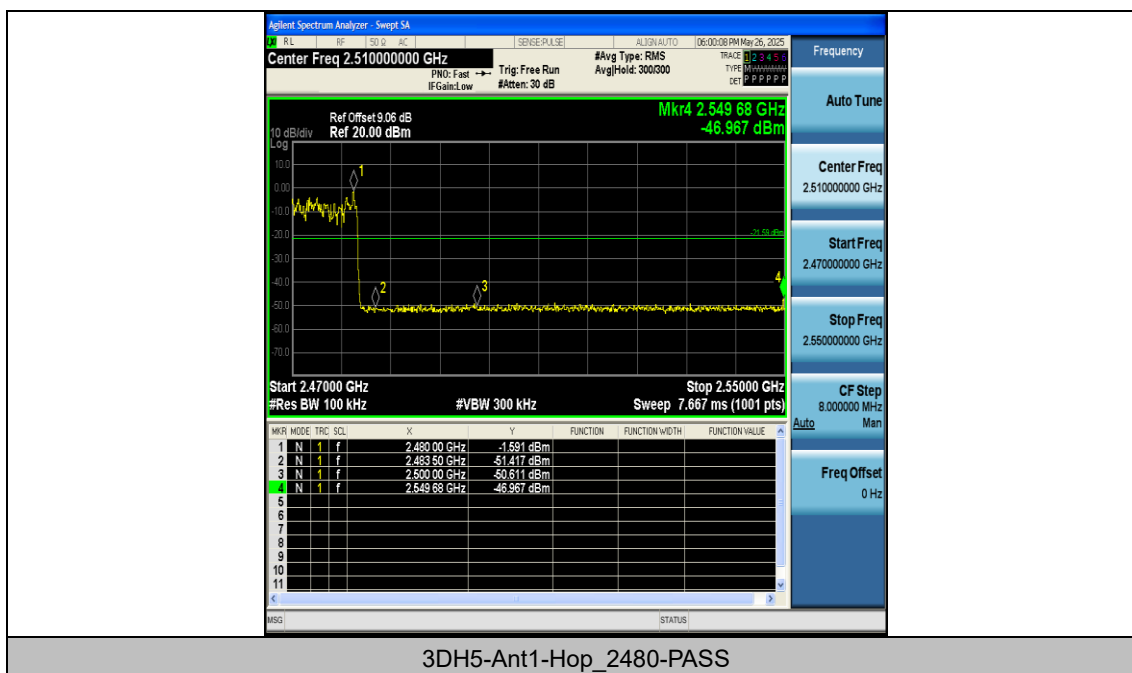
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS



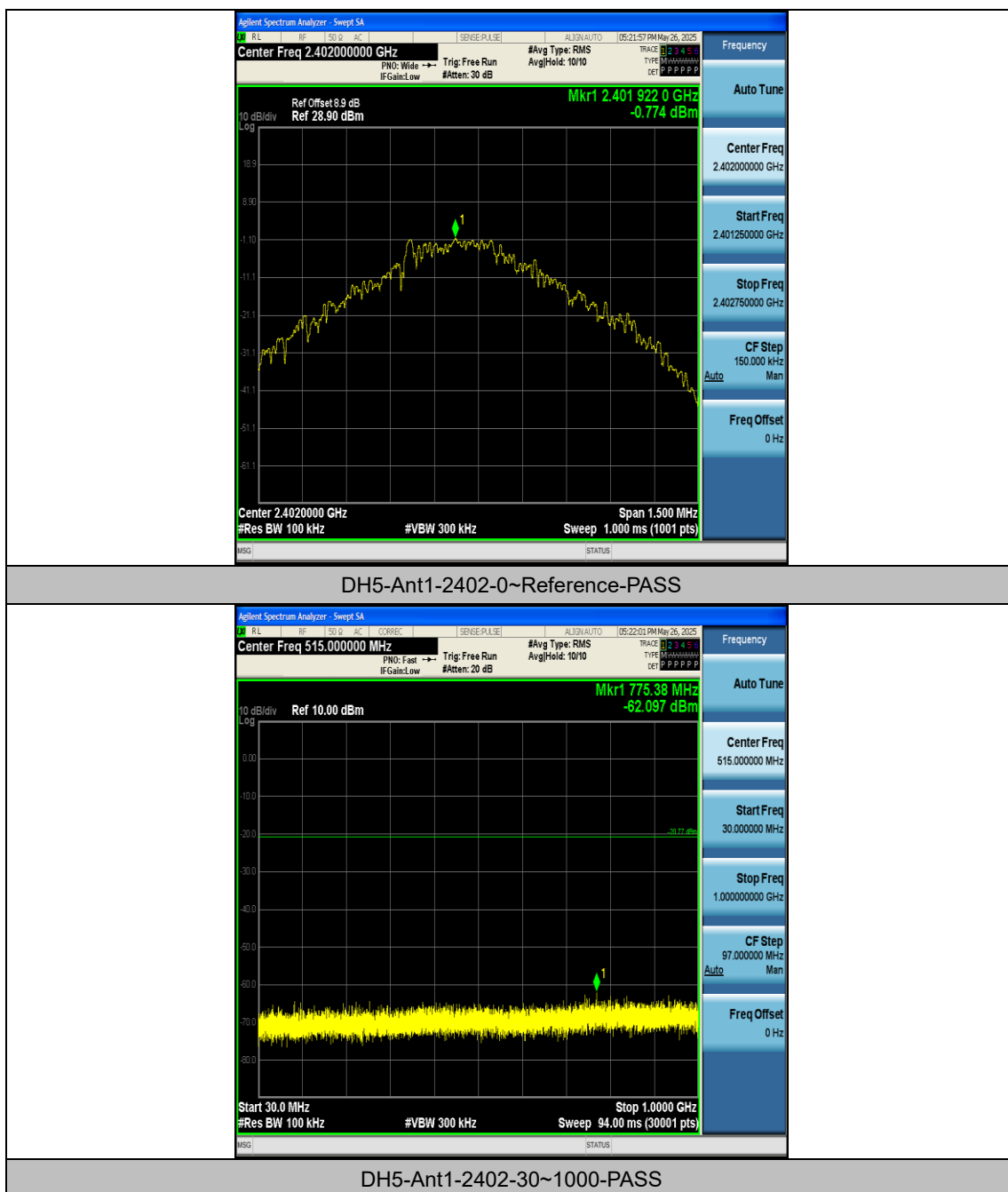
Appendix H: Conducted Spurious Emission

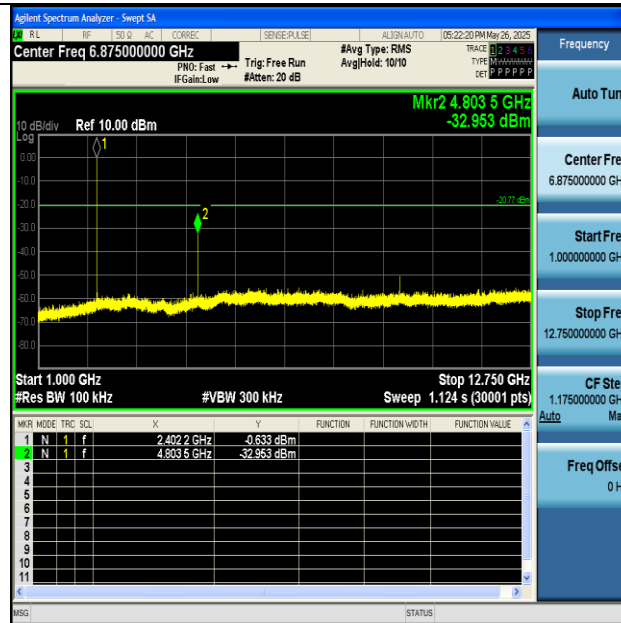
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-0.77	-0.77	---	PASS
DH5	Ant1	2402	30~1000	-0.77	-62.1	≤ -20.77	PASS
DH5	Ant1	2402	1000~12750	-0.77	-32.95	≤ -20.77	PASS
DH5	Ant1	2441	0~Reference	-1.27	-1.27	---	PASS
DH5	Ant1	2441	30~1000	-1.27	-62.94	≤ -21.27	PASS
DH5	Ant1	2441	1000~12750	-1.27	-34.87	≤ -21.27	PASS
DH5	Ant1	2480	0~Reference	-2.21	-2.21	---	PASS
DH5	Ant1	2480	30~1000	-2.21	-62.61	≤ -22.21	PASS
DH5	Ant1	2480	1000~12750	-2.21	-38.92	≤ -22.21	PASS
2DH5	Ant1	2402	0~Reference	-2.73	-2.73	---	PASS
2DH5	Ant1	2402	30~1000	-2.73	-62.31	≤ -22.73	PASS
2DH5	Ant1	2402	1000~12750	-2.73	-33.11	≤ -22.73	PASS
2DH5	Ant1	2441	0~Reference	-0.73	-0.73	---	PASS
2DH5	Ant1	2441	30~1000	-0.73	-62.67	≤ -20.73	PASS
2DH5	Ant1	2441	1000~12750	-0.73	-36.8	≤ -20.73	PASS
2DH5	Ant1	2480	0~Reference	-2.18	-2.18	---	PASS
2DH5	Ant1	2480	30~1000	-2.18	-62.37	≤ -22.18	PASS
2DH5	Ant1	2480	1000~12750	-2.18	-39.33	≤ -22.18	PASS
3DH5	Ant1	2402	0~Reference	-0.45	-0.45	---	PASS
3DH5	Ant1	2402	30~1000	-0.45	-62.43	≤ -20.45	PASS
3DH5	Ant1	2402	1000~12750	-0.45	-33.61	≤ -20.45	PASS
3DH5	Ant1	2441	0~Reference	-1.15	-1.15	---	PASS
3DH5	Ant1	2441	30~1000	-1.15	-62.42	≤ -21.15	PASS
3DH5	Ant1	2441	1000~12750	-1.15	-36.75	≤ -21.15	PASS
3DH5	Ant1	2480	0~Reference	-1.14	-1.14	---	PASS
3DH5	Ant1	2480	30~1000	-1.14	-63.01	≤ -21.14	PASS
3DH5	Ant1	2480	1000~12750	-1.14	-39.48	≤ -21.14	PASS

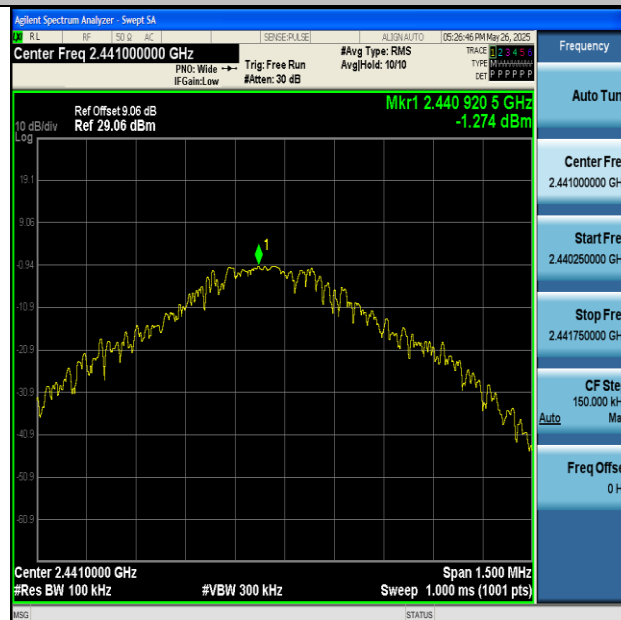
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

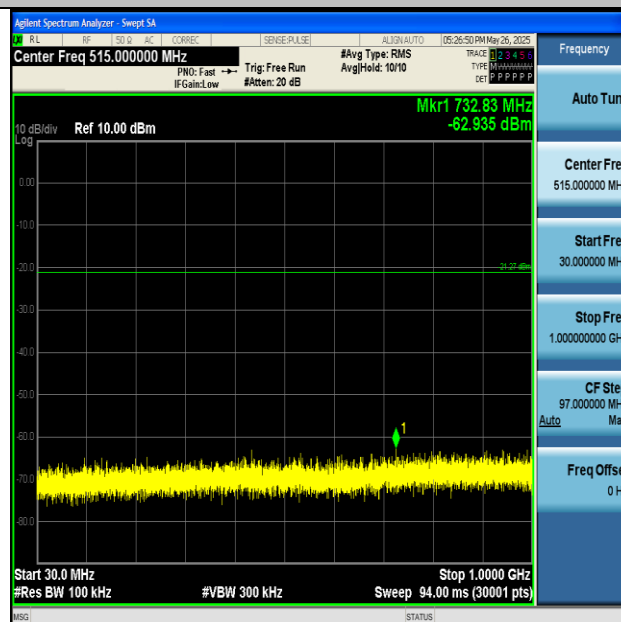




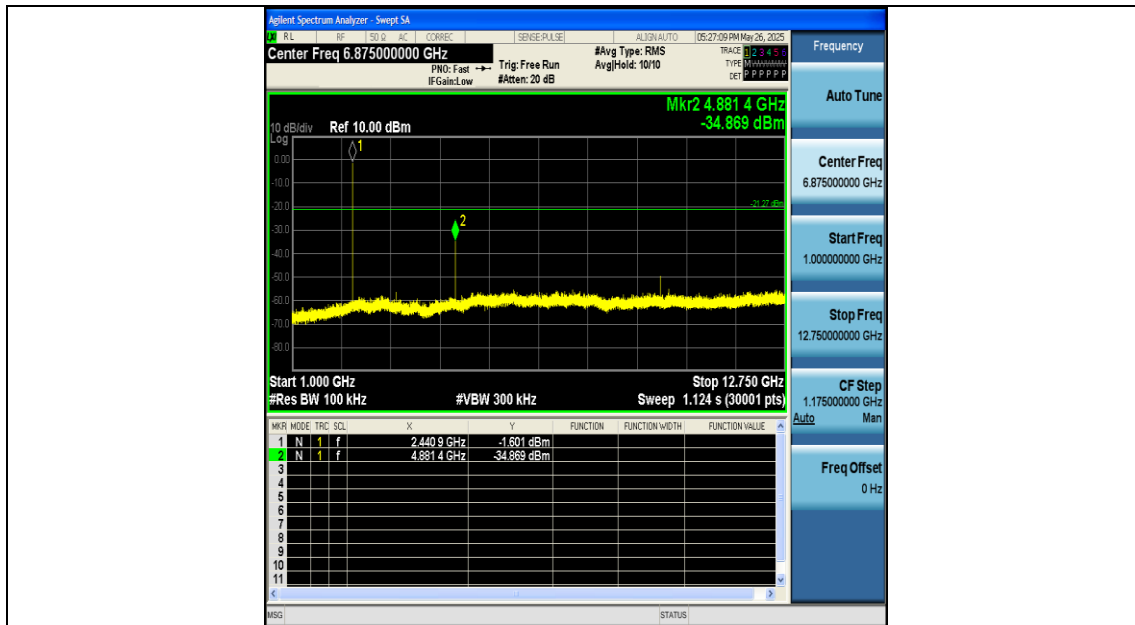
DH5-Ant1-2402-1000~12750-PASS



DH5-Ant1-2441-0~Reference-PASS



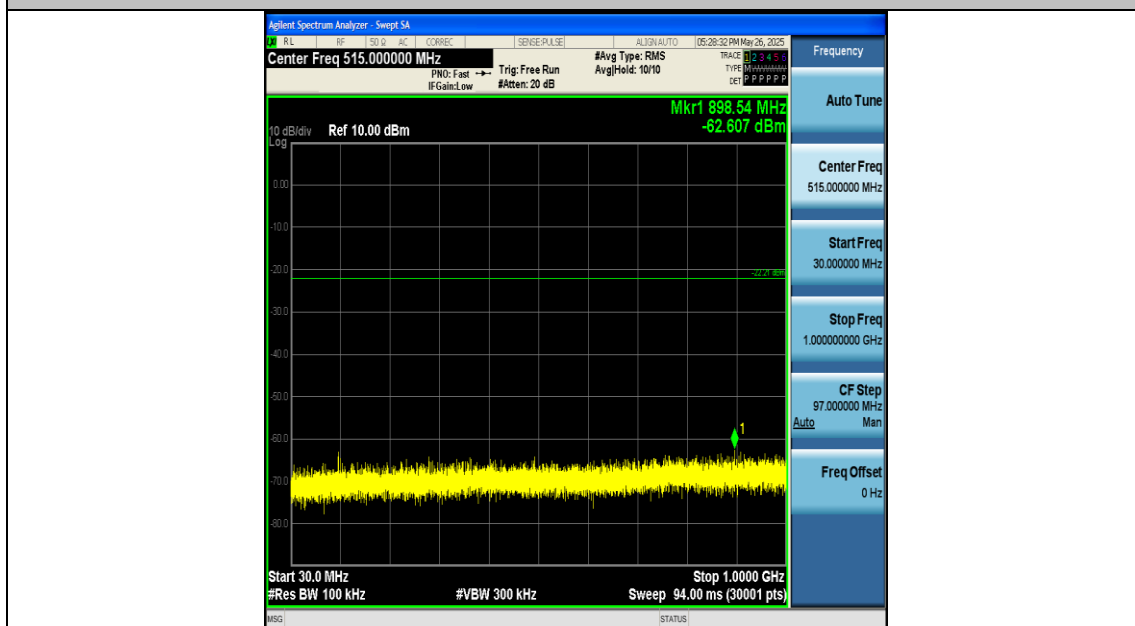
DH5-Ant1-2441-30~1000-PASS



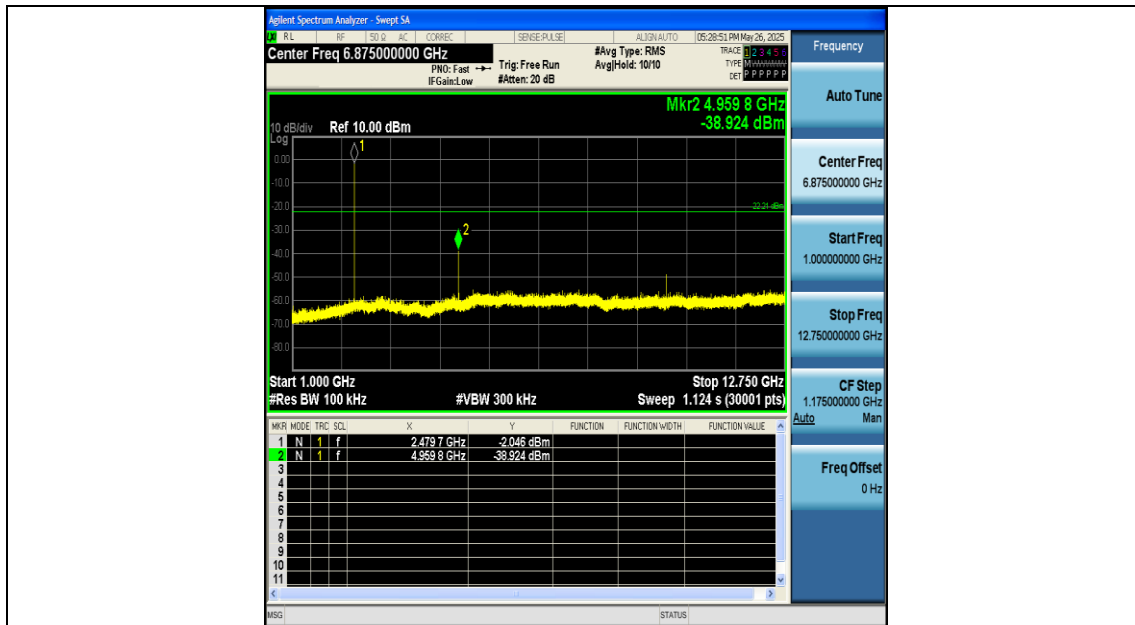
DH5-Ant1-2441-1000~12750-PASS



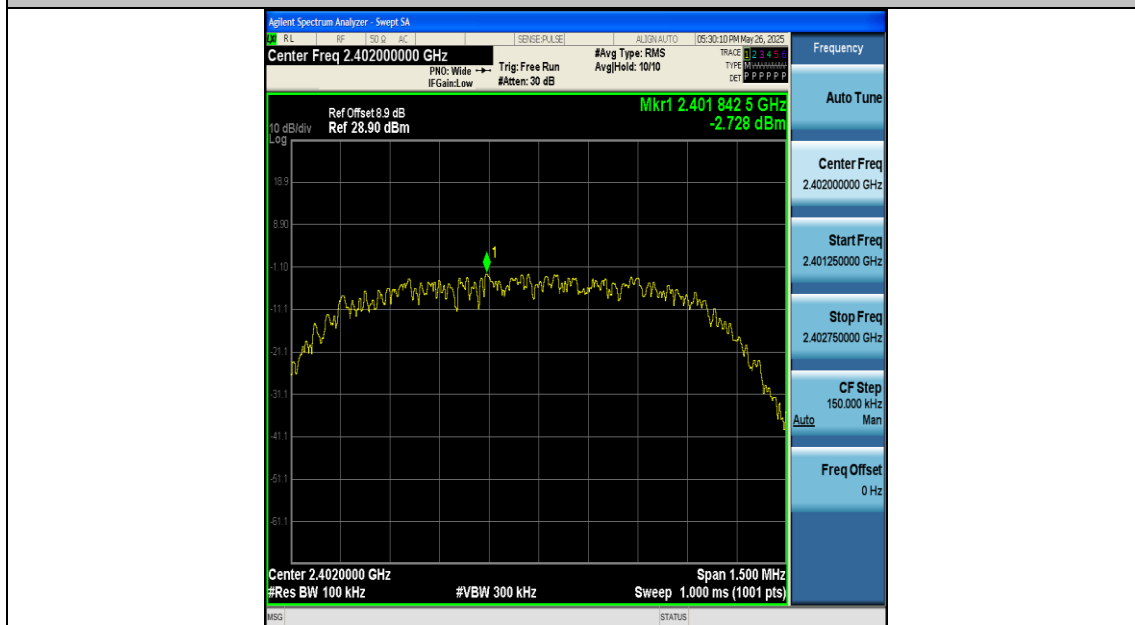
DH5-Ant1-2480-0~Reference-PASS



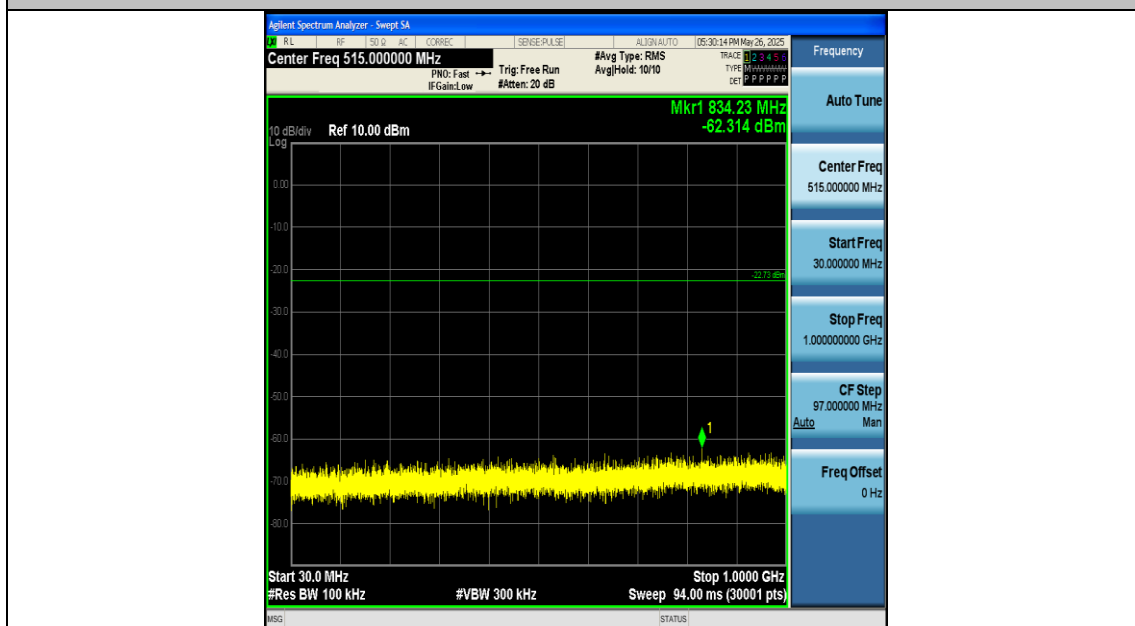
DH5-Ant1-2480-30~1000-PASS



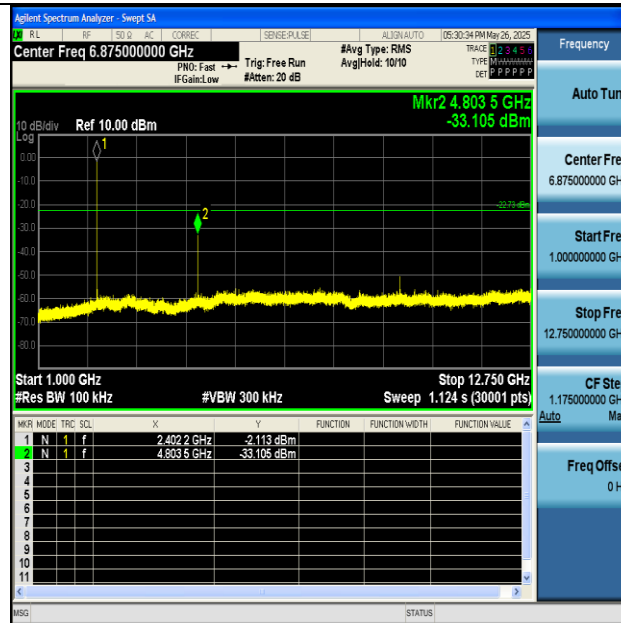
DH5-Ant1-2480-1000~12750-PASS



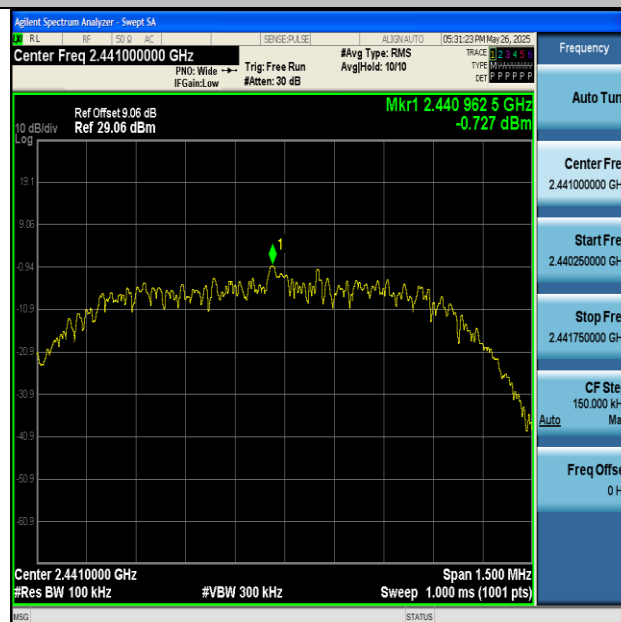
2DH5-Ant1-2402-0~Reference-PASS



2DH5-Ant1-2402-30~1000-PASS



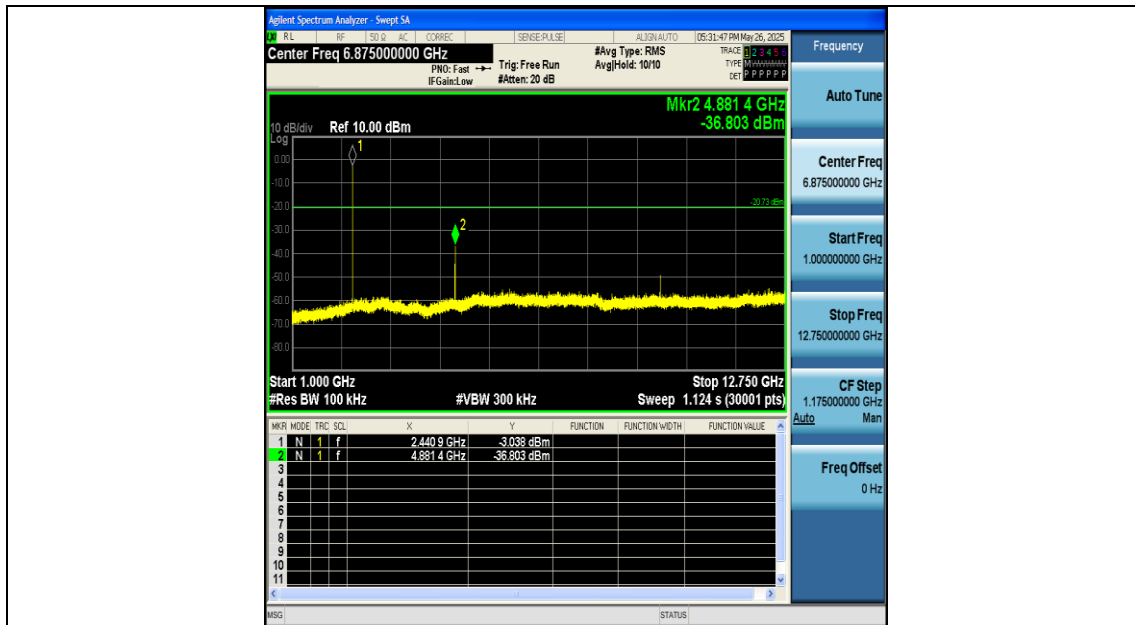
2DH5-Ant1-2402-1000~12750-PASS



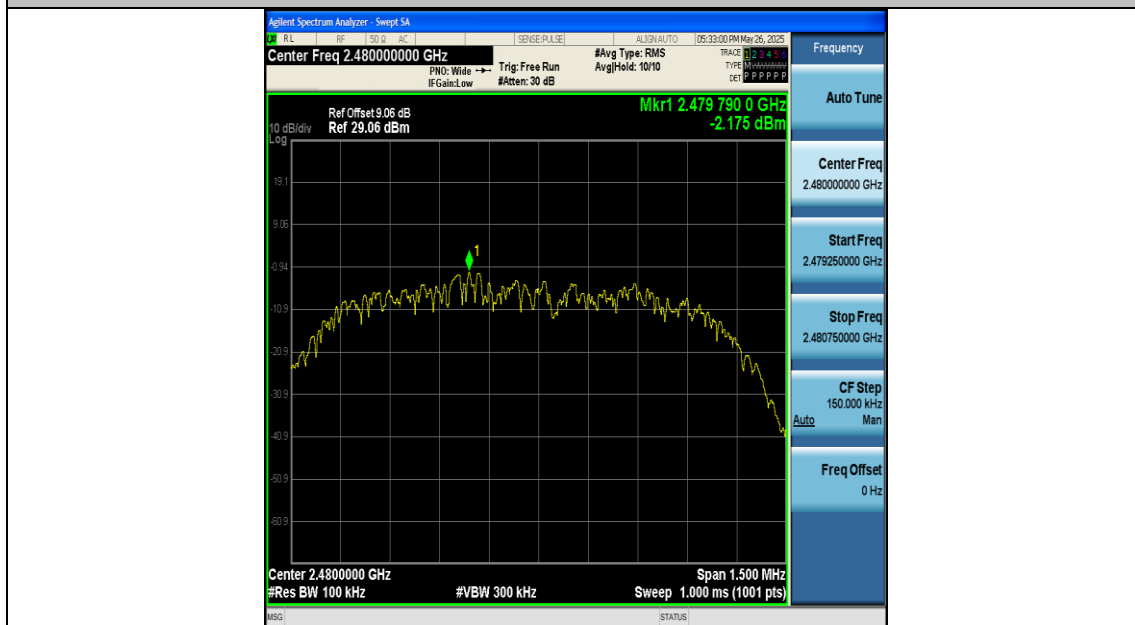
2DH5-Ant1-2441-0~Reference-PASS



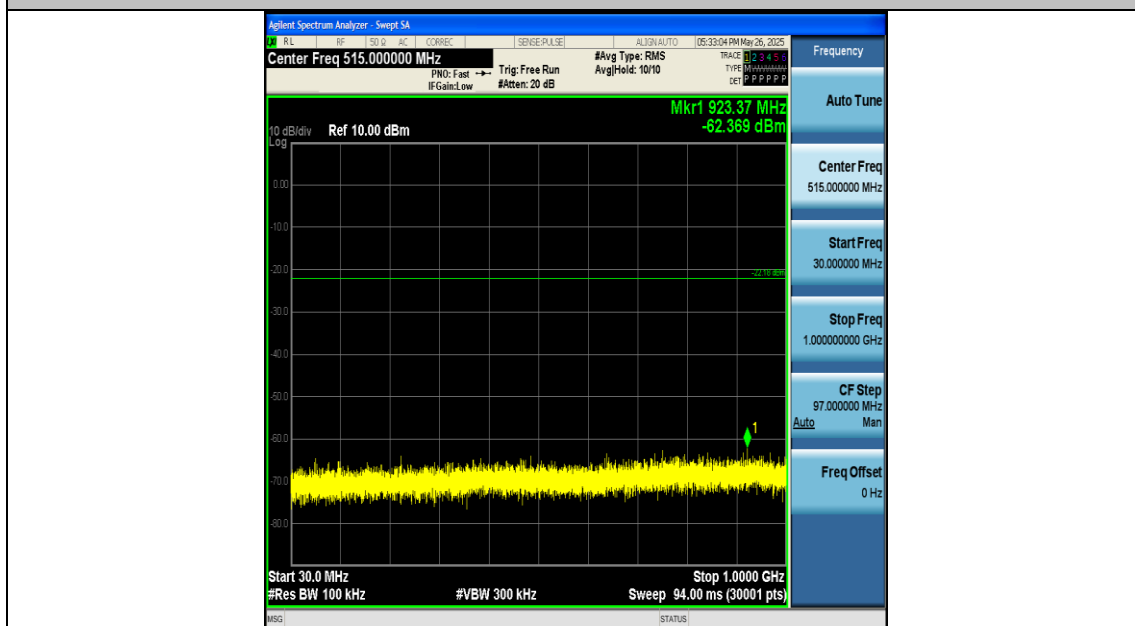
2DH5-Ant1-2441-30~1000-PASS



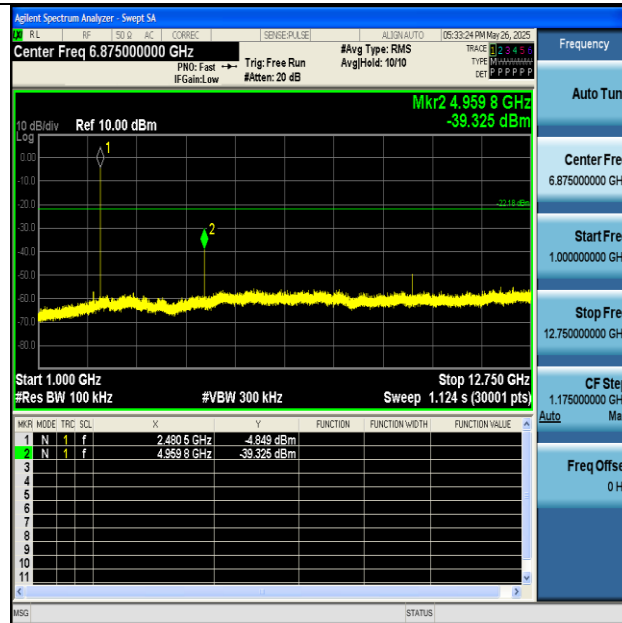
2DH5-Ant1-2441-1000~12750-PASS



2DH5-Ant1-2480-0~Reference-PASS



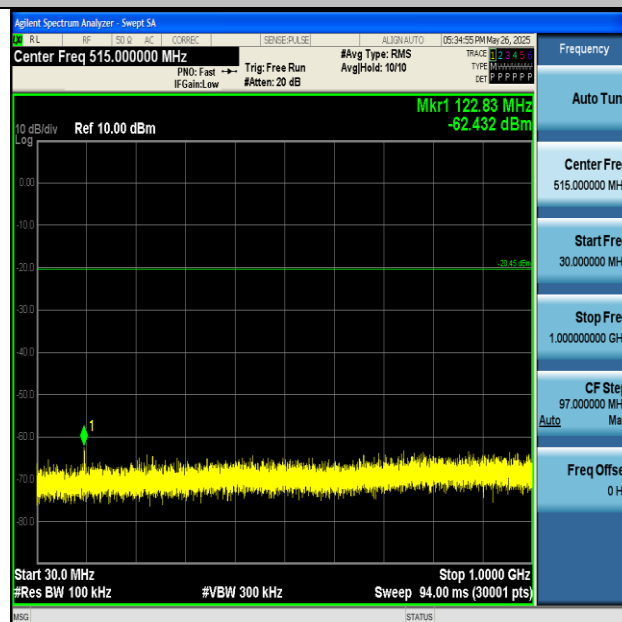
2DH5-Ant1-2480-30~1000-PASS



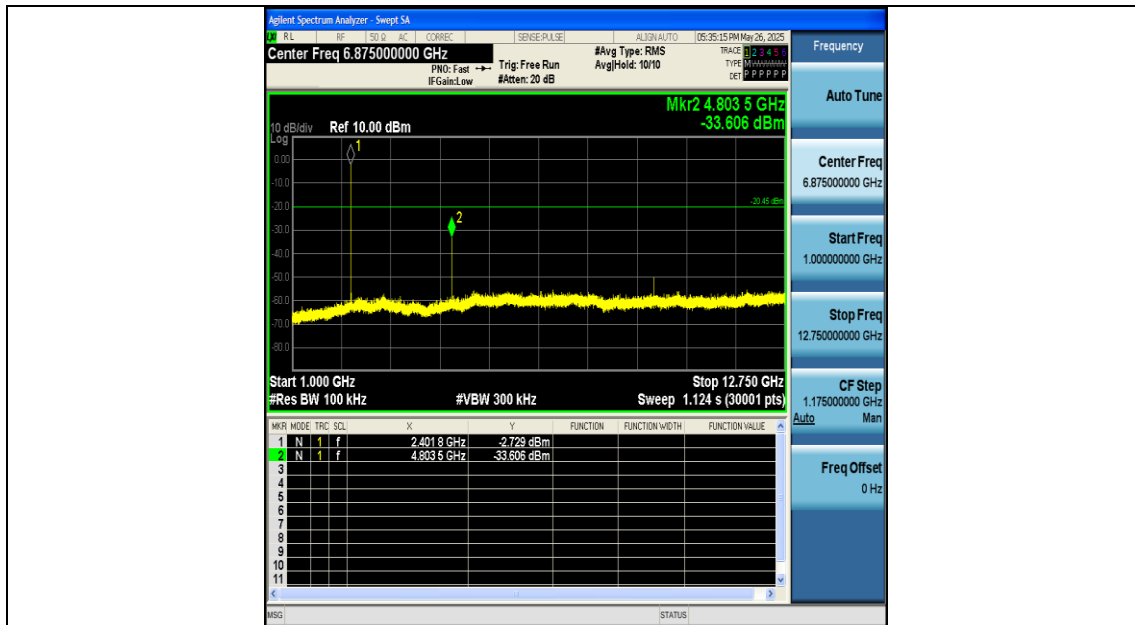
2DH5-Ant1-2480-1000~12750-PASS



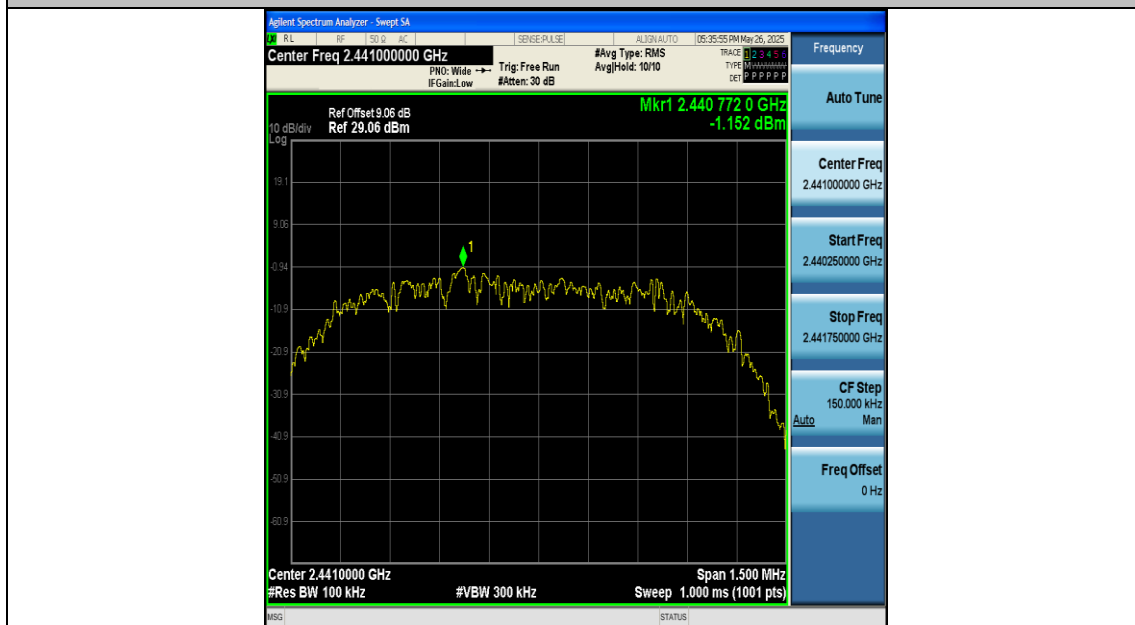
3DH5-Ant1-2402-0~Reference-PASS



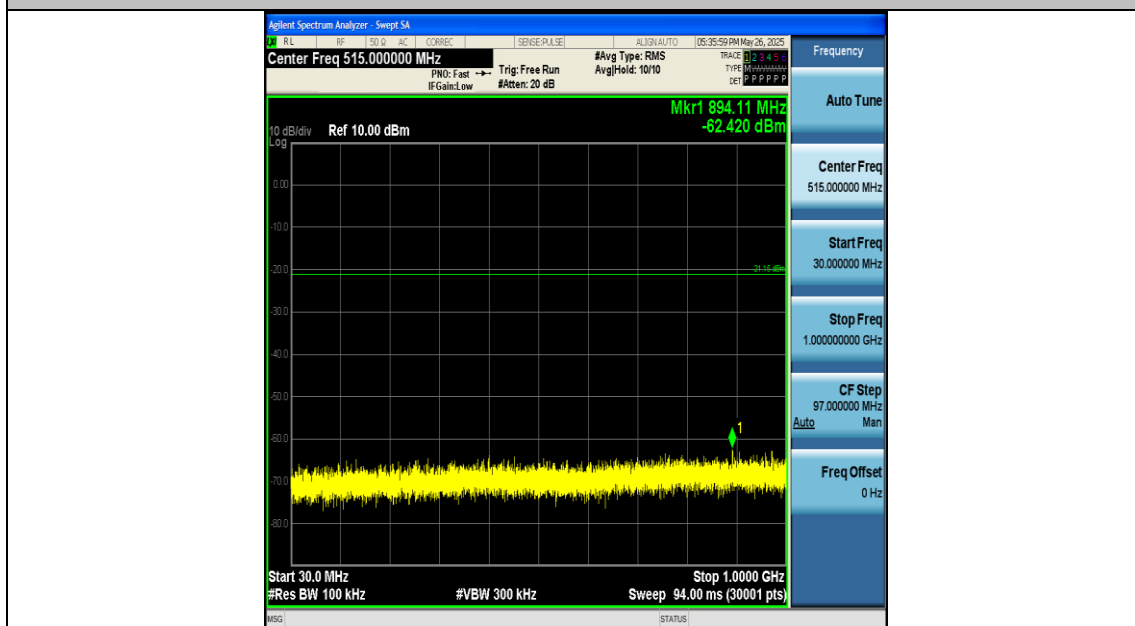
3DH5-Ant1-2402-30~1000-PASS



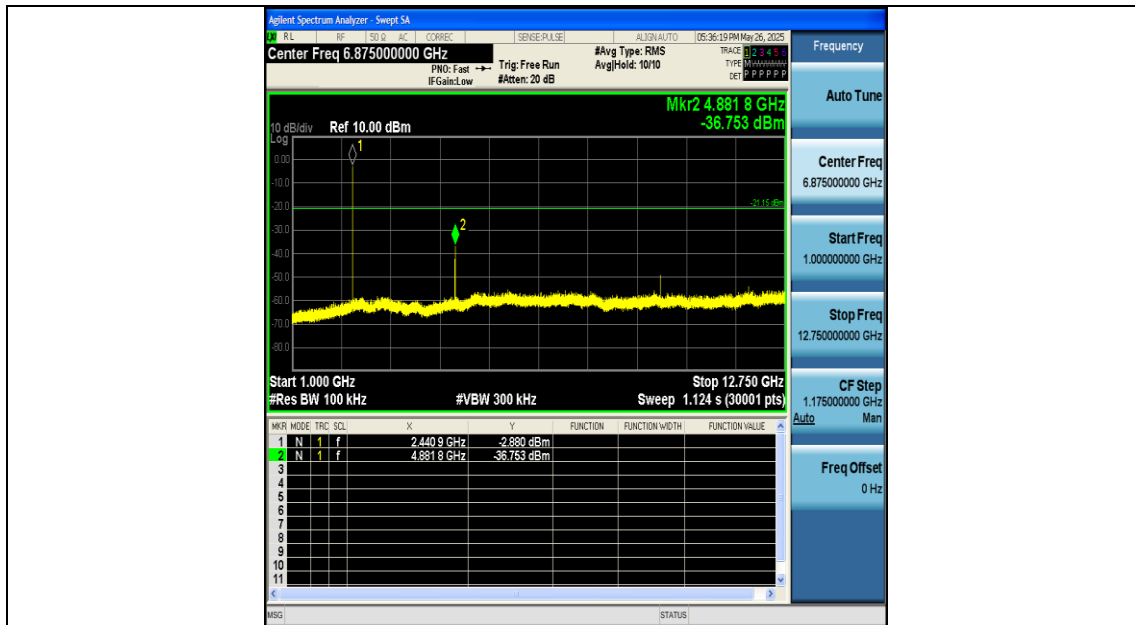
3DH5-Ant1-2402-1000~12750-PASS



3DH5-Ant1-2441-0~Reference-PASS



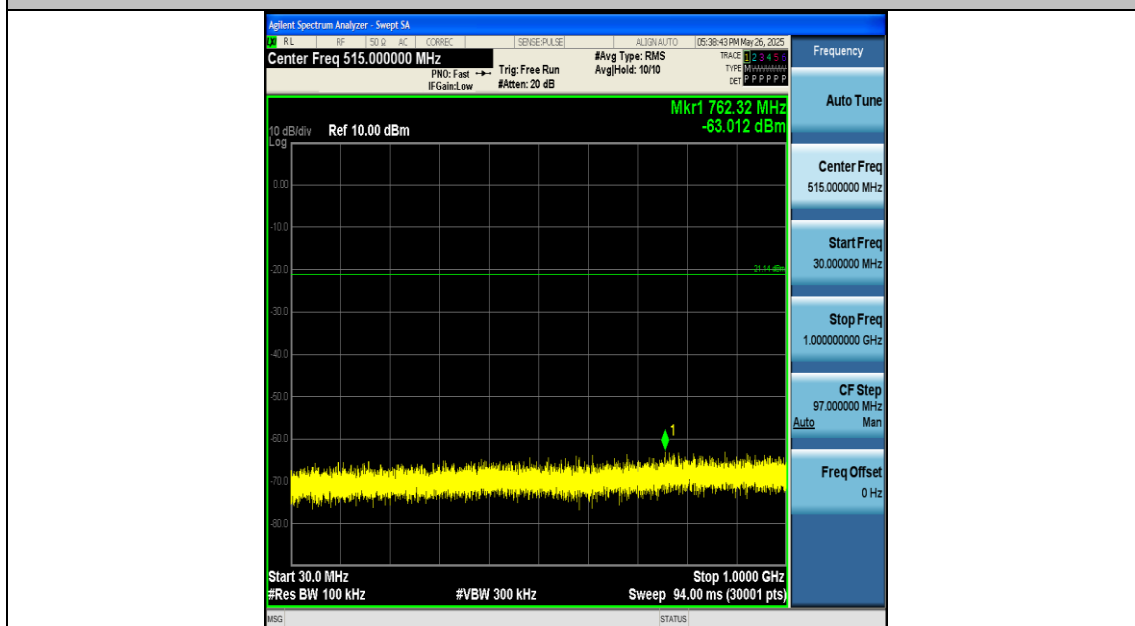
3DH5-Ant1-2441-30~1000-PASS



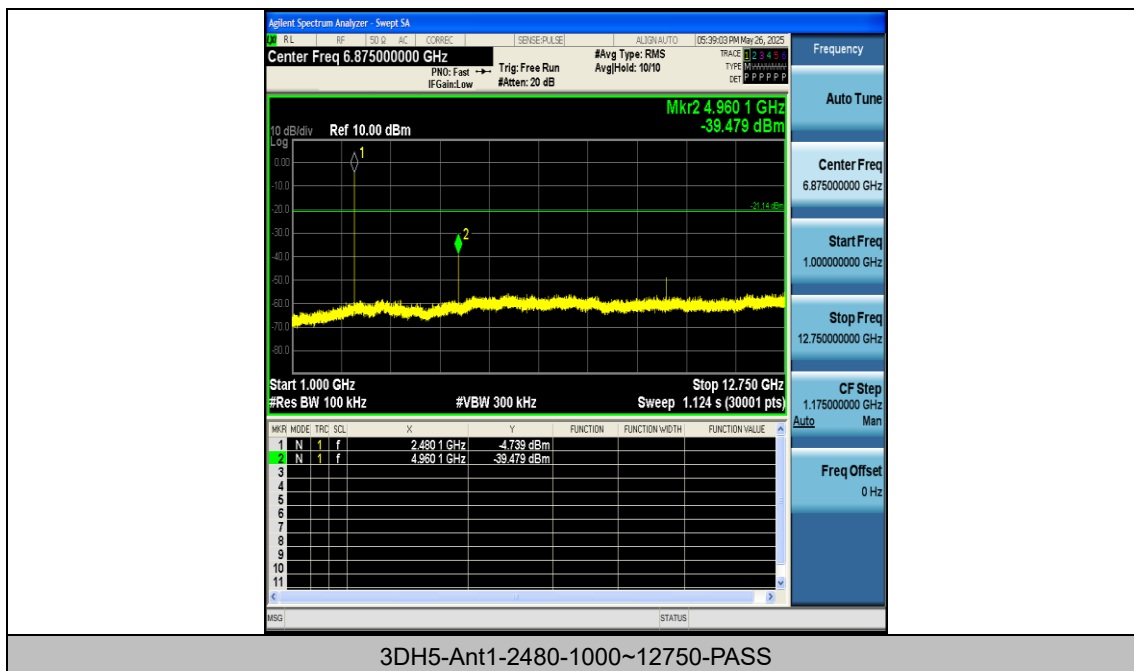
3DH5-Ant1-2441-1000~12750-PASS



3DH5-Ant1-2480-0~Reference-PASS



3DH5-Ant1-2480-30~1000-PASS



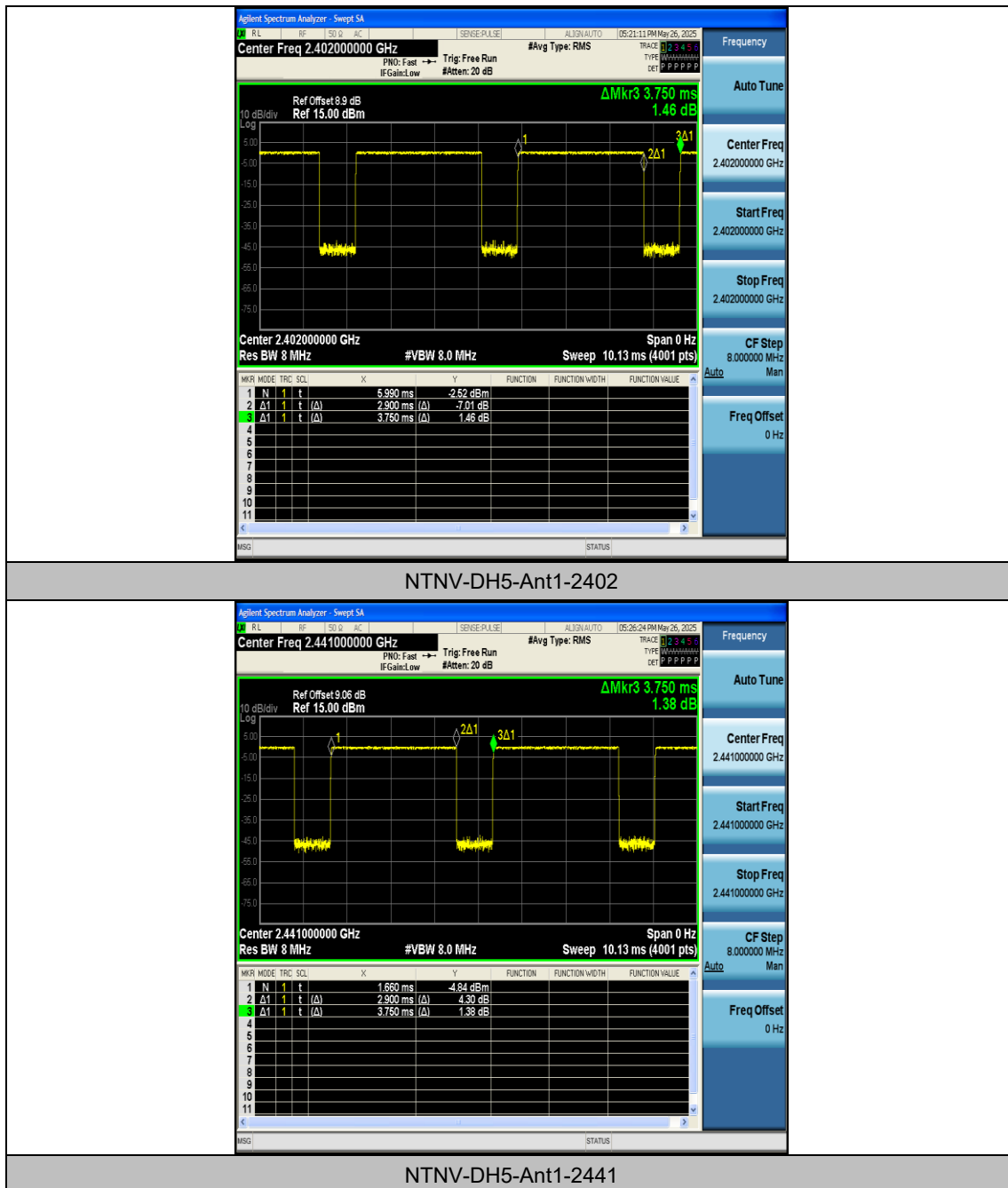
Appendix I: Duty Cycle

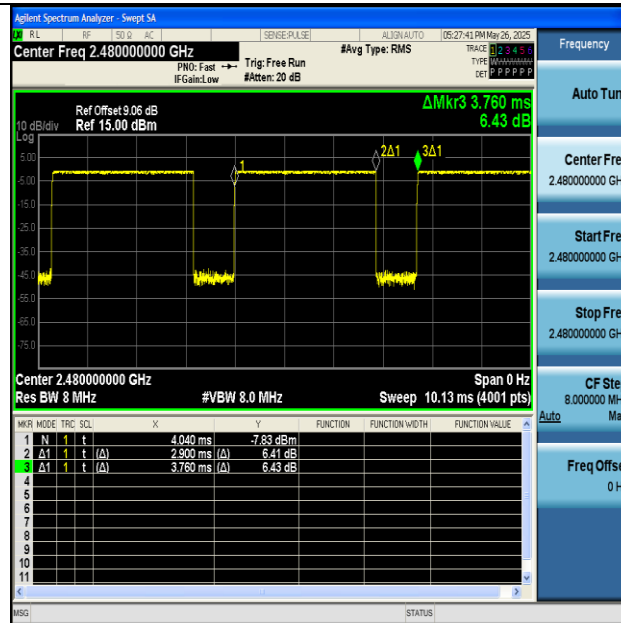
Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	2.90	3.75	77.33	1.12
DH5	Ant1	2441	2.90	3.75	77.33	1.12
DH5	Ant1	2480	2.90	3.76	77.13	1.13
2DH5	Ant1	2402	2.90	3.75	77.33	1.12
2DH5	Ant1	2441	2.91	3.75	77.60	1.10
2DH5	Ant1	2480	2.91	3.75	77.60	1.10
3DH5	Ant1	2402	2.91	3.75	77.60	1.10
3DH5	Ant1	2441	2.90	3.74	77.54	1.10
3DH5	Ant1	2480	2.91	3.75	77.60	1.10

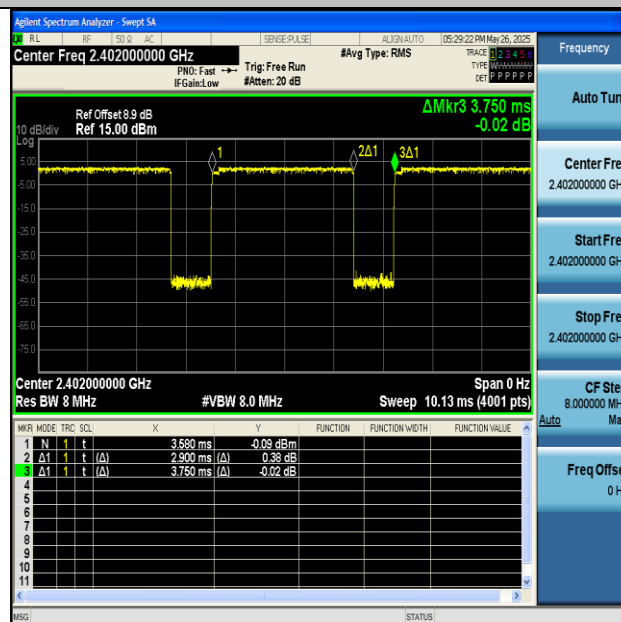
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





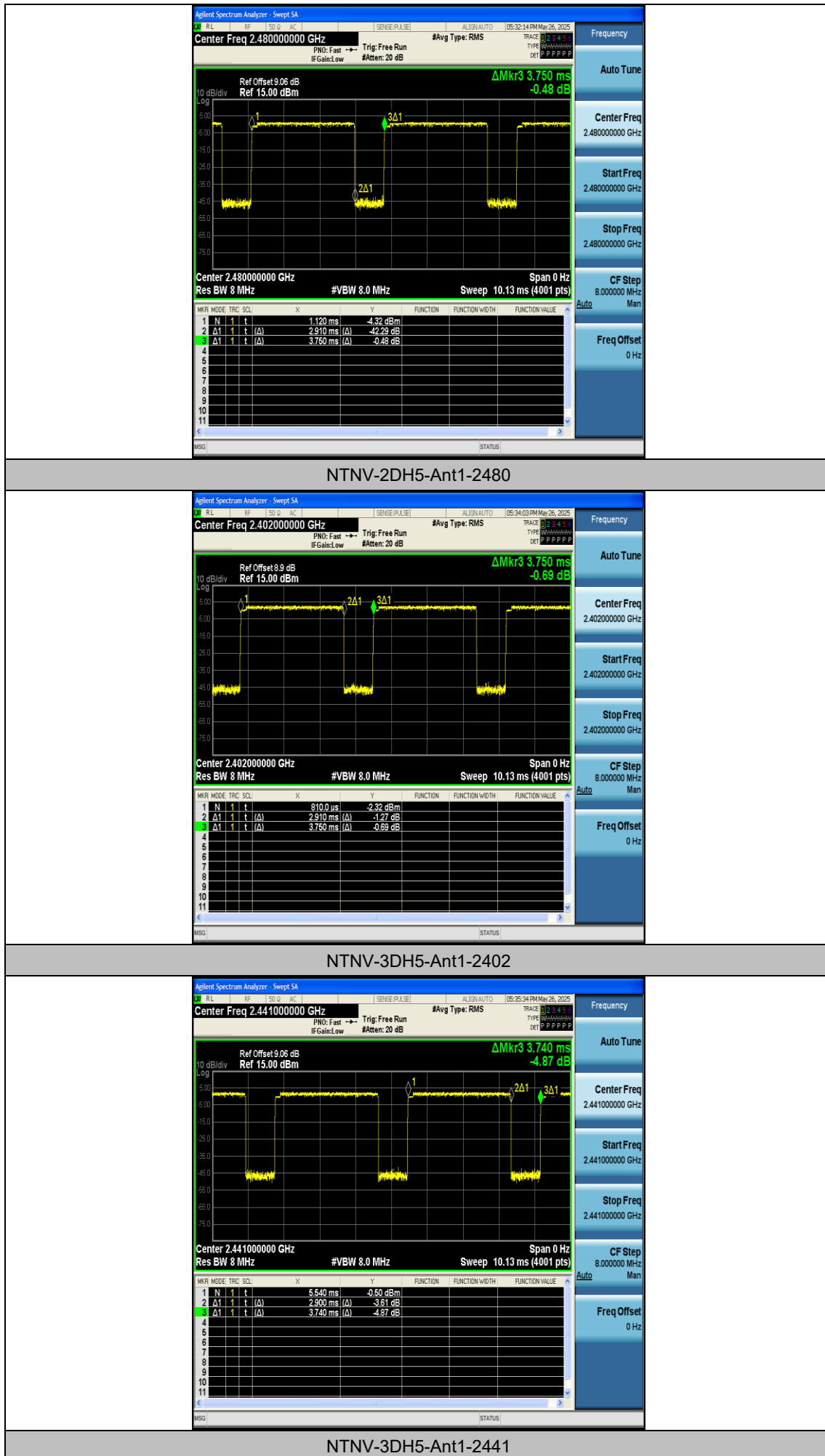
NTNV-DH5-Ant1-2480

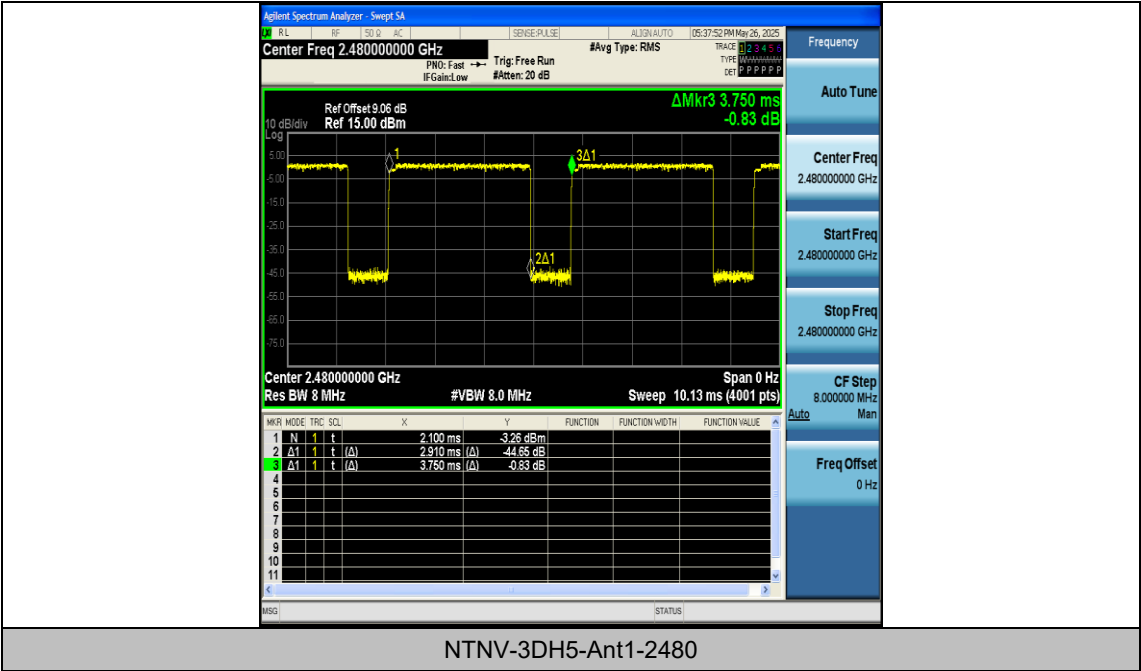


NTNV-2DH5-Ant1-2402



NTNV-2DH5-Ant1-2441





NTNV-3DH5-Ant1-2480