

Appendix for Bluetooth BR/EDR mode

Product Name: Combo Module

Model No: 6221E-UUC

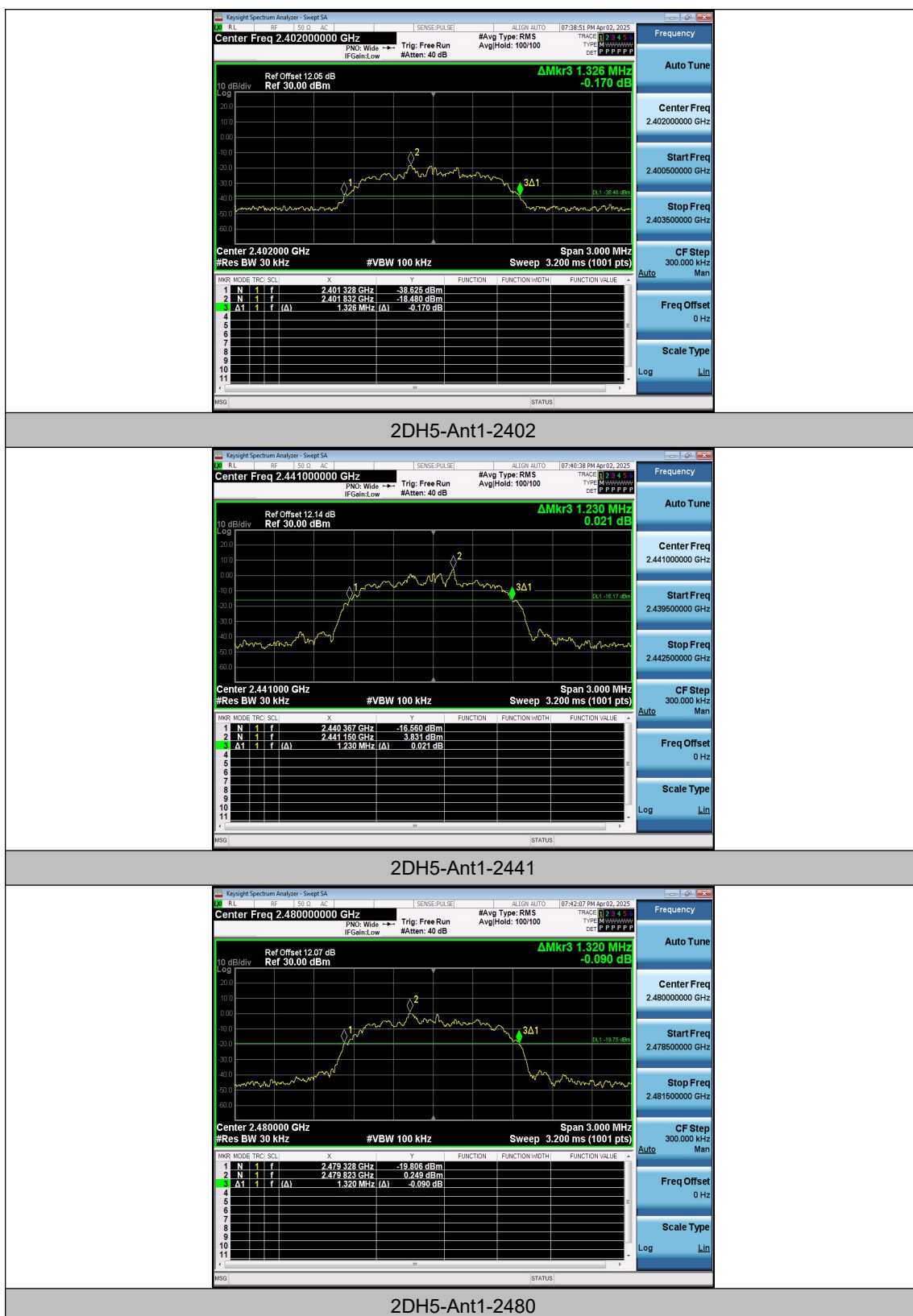
Appendix A: 20dB Emission Bandwidth

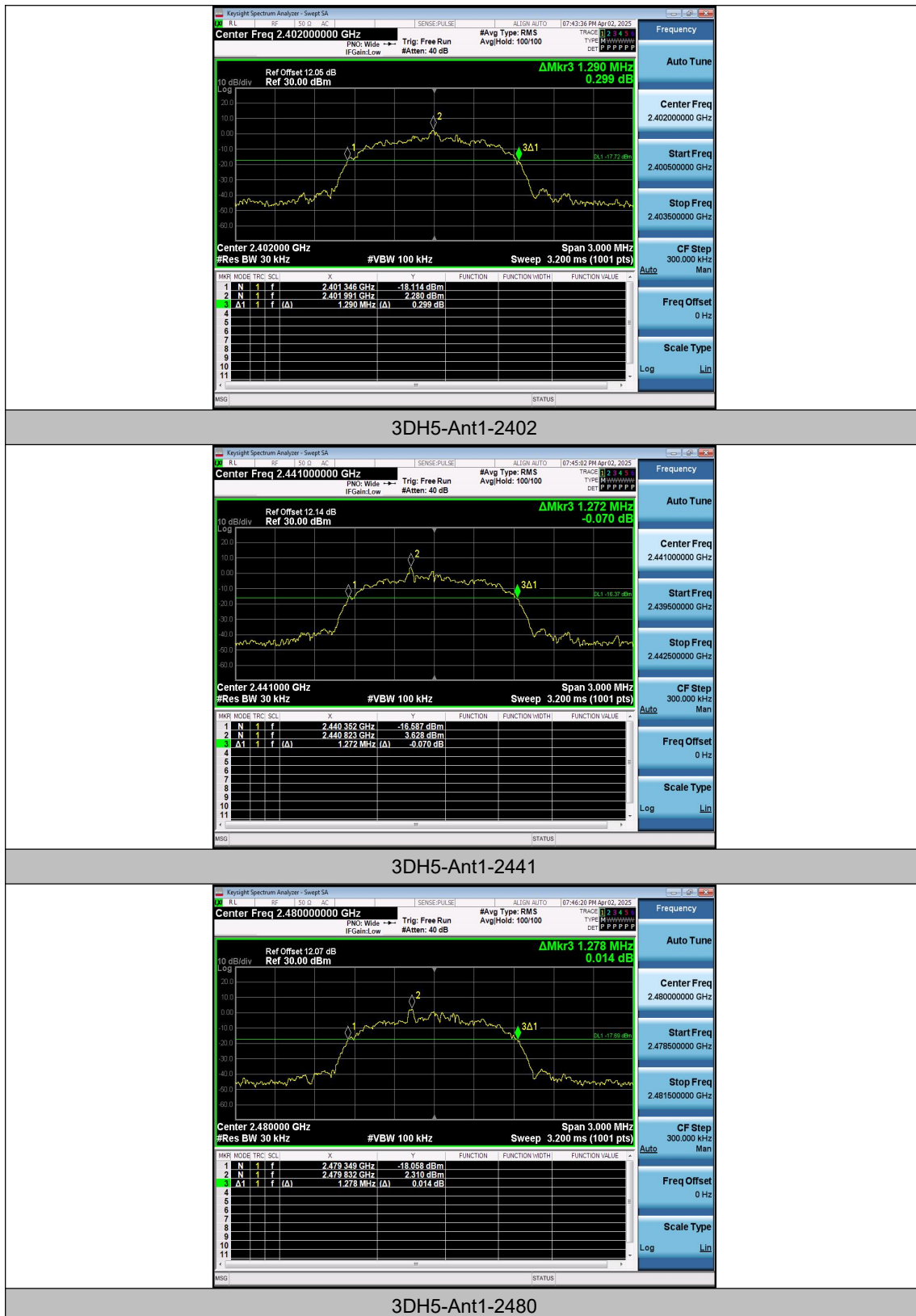
Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.966	2401.523	2402.489	---	---
DH5	Ant1	2441	0.966	2440.523	2441.489	---	---
DH5	Ant1	2480	0.948	2479.526	2480.474	---	---
2DH5	Ant1	2402	1.326	2401.328	2402.654	---	---
2DH5	Ant1	2441	1.230	2440.367	2441.597	---	---
2DH5	Ant1	2480	1.320	2479.328	2480.648	---	---
3DH5	Ant1	2402	1.290	2401.346	2402.636	---	---
3DH5	Ant1	2441	1.272	2440.352	2441.624	---	---
3DH5	Ant1	2480	1.278	2479.349	2480.627	---	---

Test Graphs





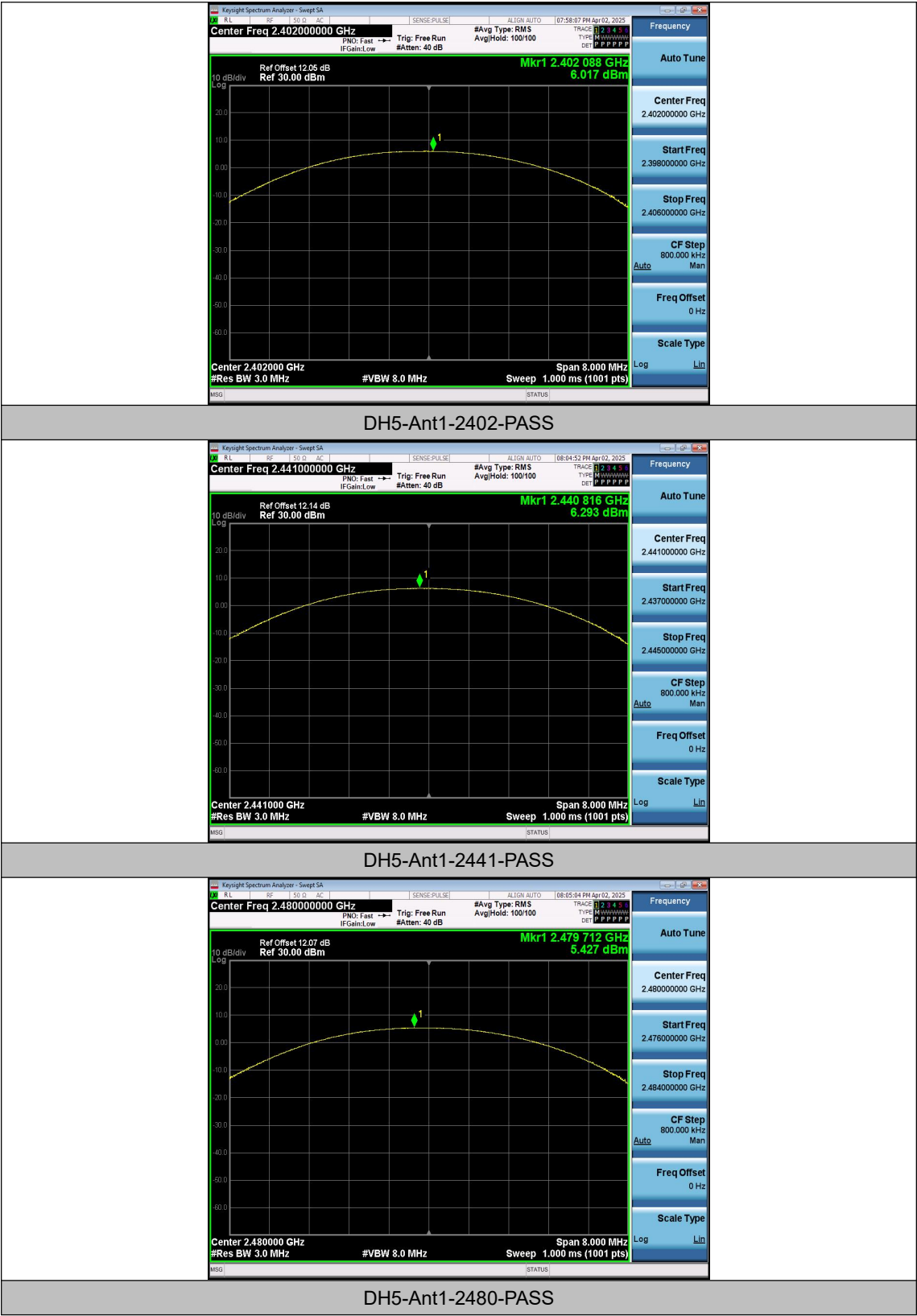


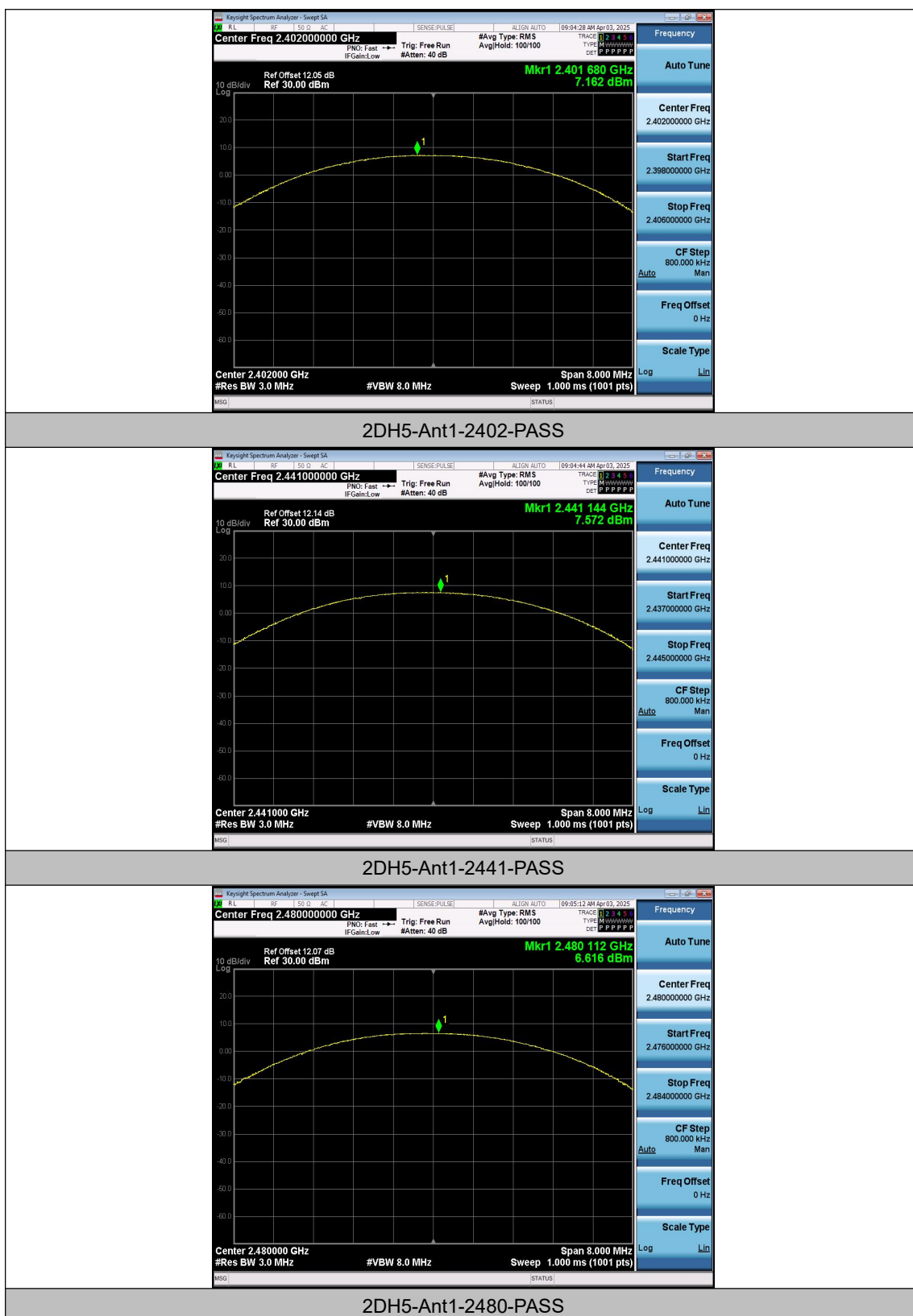
Appendix B: Maximum conducted output power

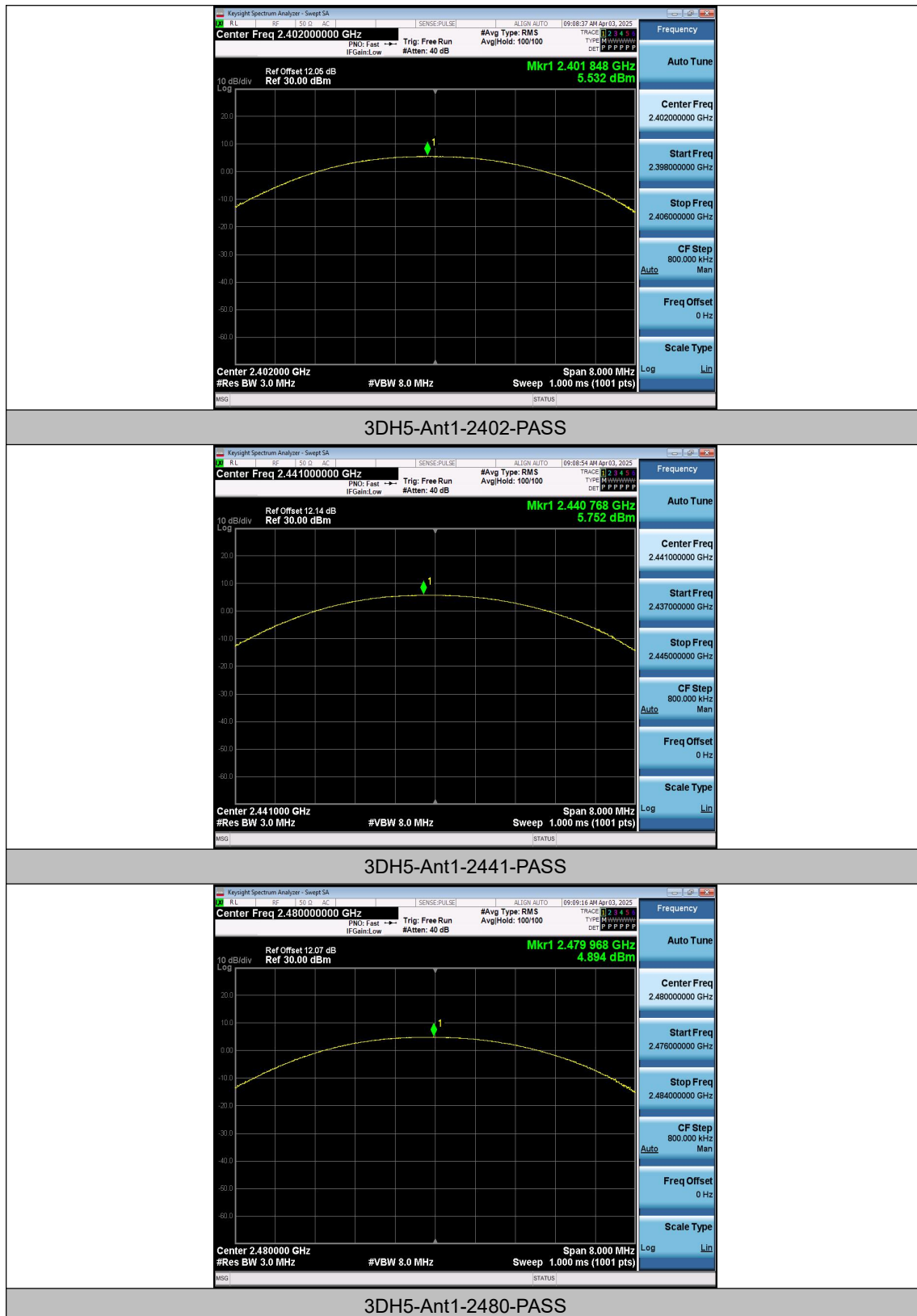
Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	6.02	≤ 20.97	PASS
DH5	Ant1	2441	6.29	≤ 20.97	PASS
DH5	Ant1	2480	5.43	≤ 20.97	PASS
2DH5	Ant1	2402	7.16	≤ 20.97	PASS
2DH5	Ant1	2441	7.57	≤ 20.97	PASS
2DH5	Ant1	2480	6.62	≤ 20.97	PASS
3DH5	Ant1	2402	5.53	≤ 30	PASS
3DH5	Ant1	2441	5.75	≤ 30	PASS
3DH5	Ant1	2480	4.89	≤ 30	PASS

Test Graphs





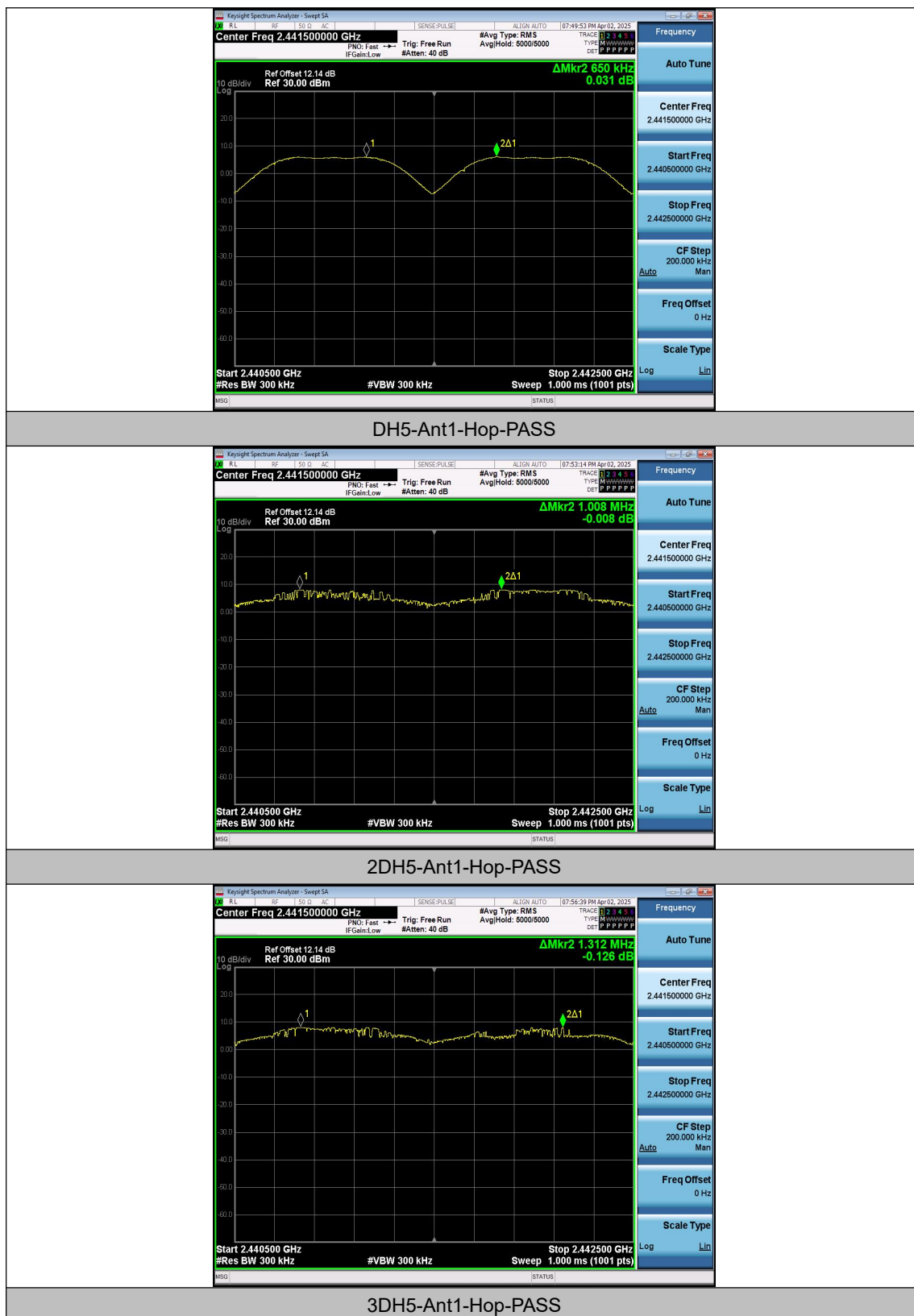


Appendix C: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.65	≥ 0.644	PASS
2DH5	Ant1	Hop	1.008	≥ 0.884	PASS
3DH5	Ant1	Hop	1.312	≥ 1.290	PASS

Test Graphs

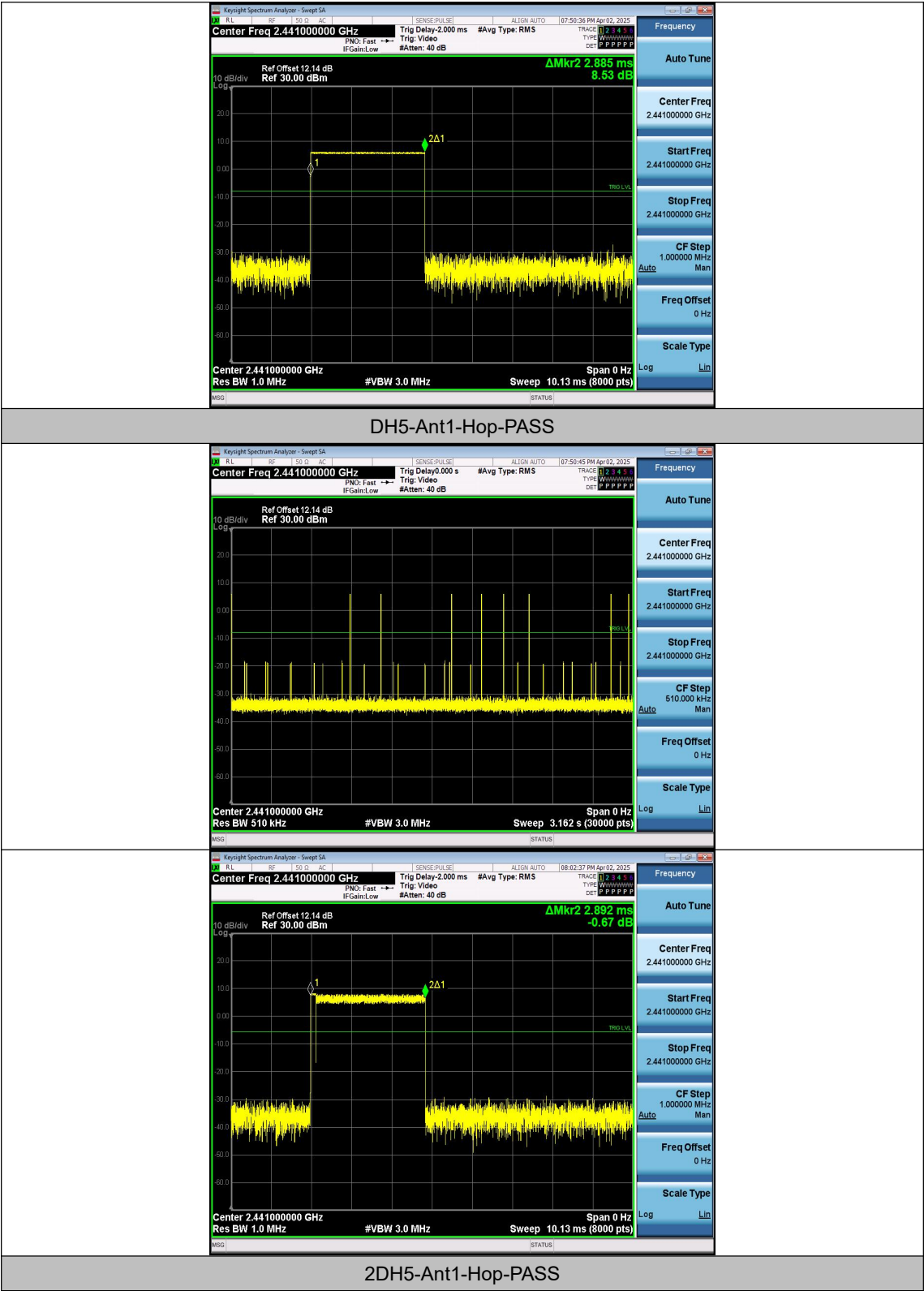


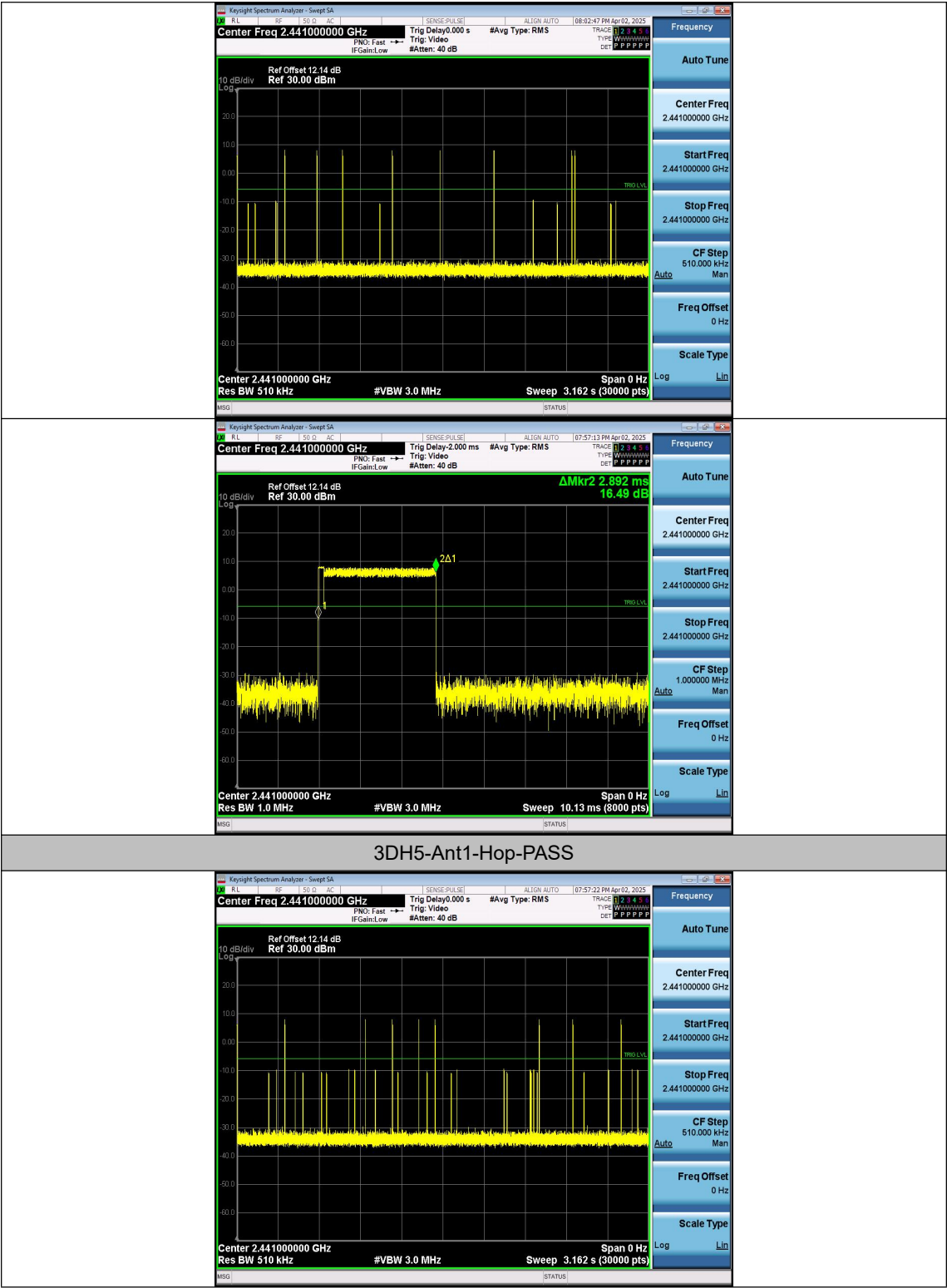
Appendix D: Time of occupancy

Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.885	90	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.892	90	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.892	90	0.26	≤0.4	PASS

Test Graphs



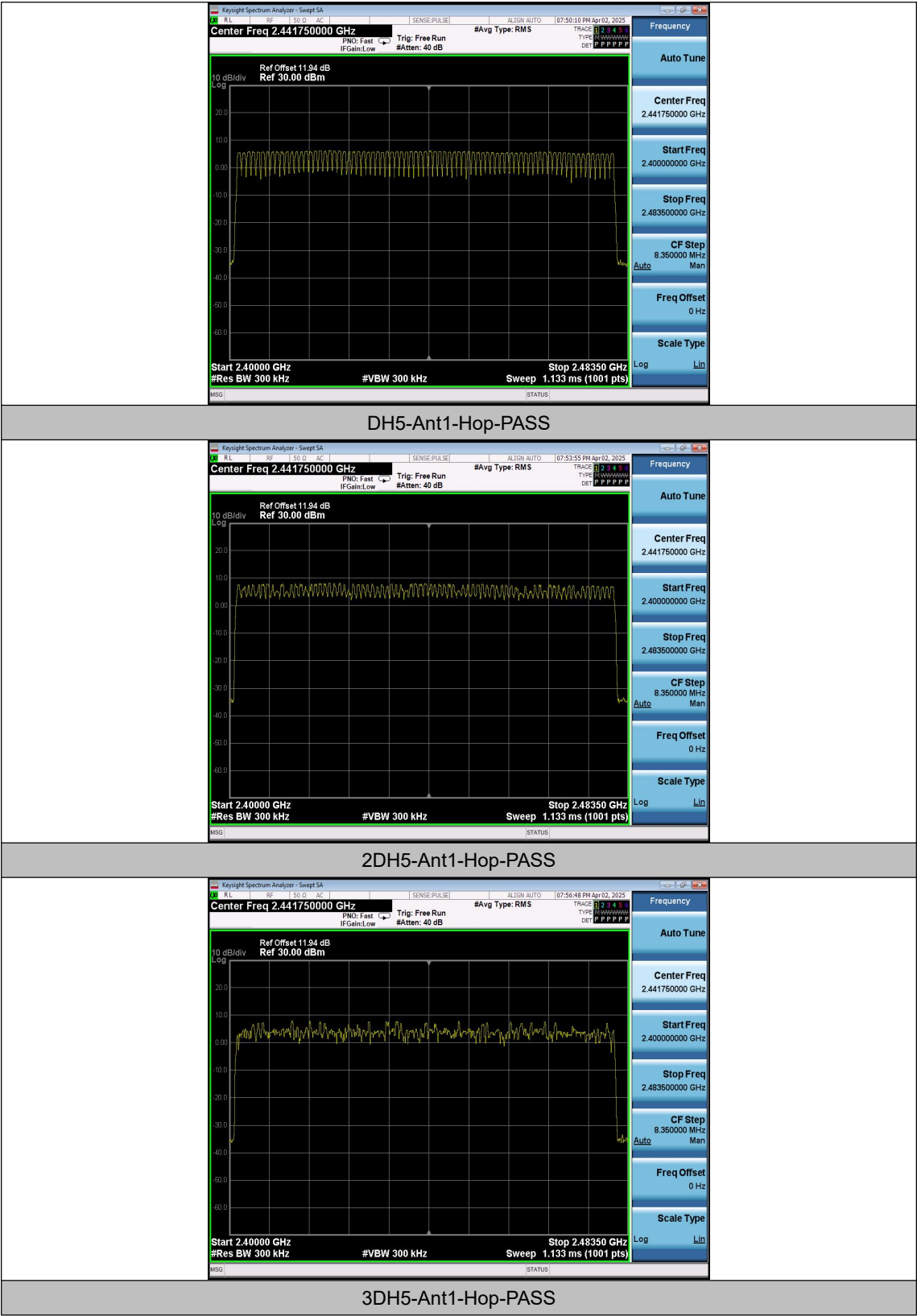


Appendix E: Number of hopping channels

Test Result

TestMode	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

Test Graphs

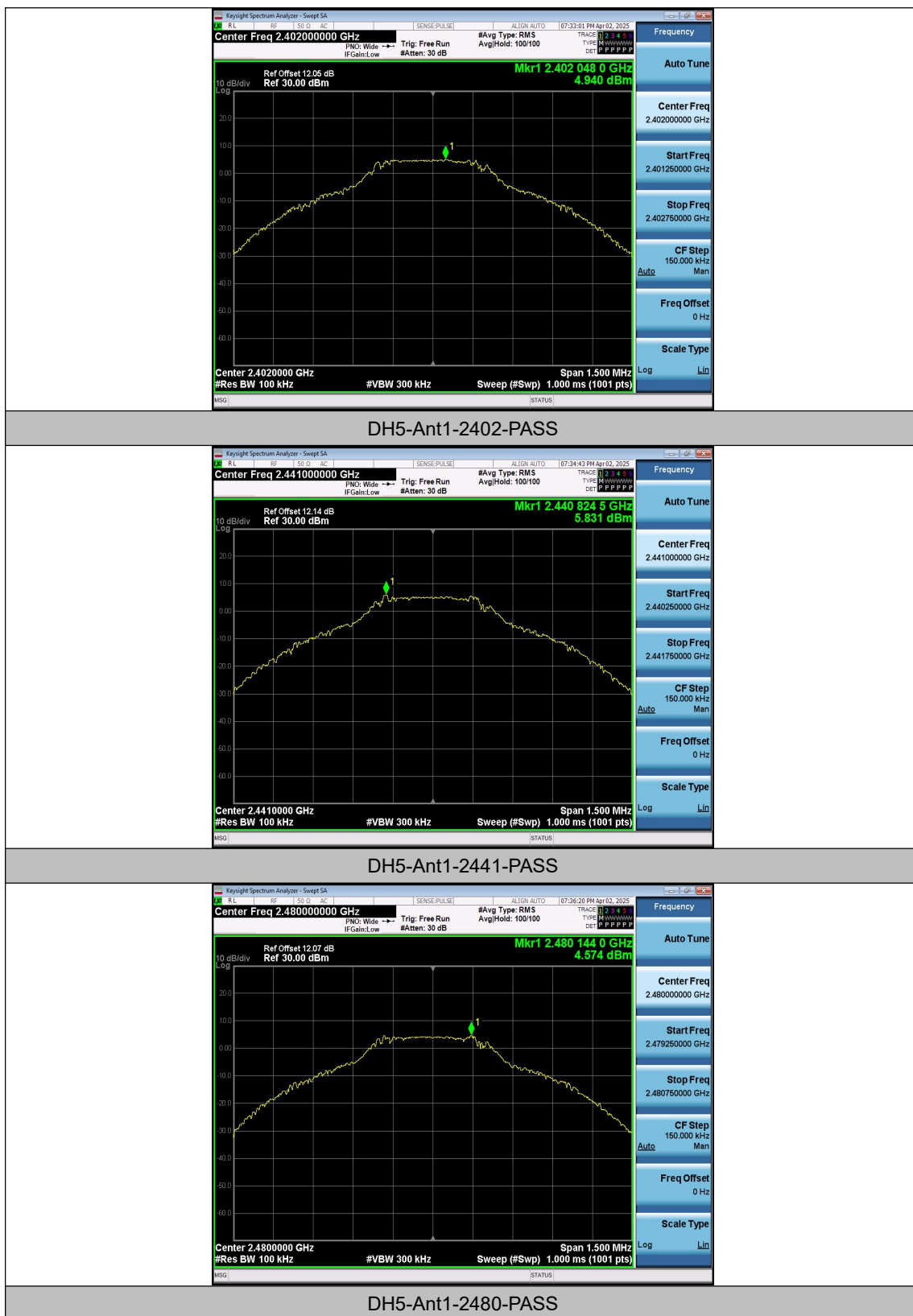


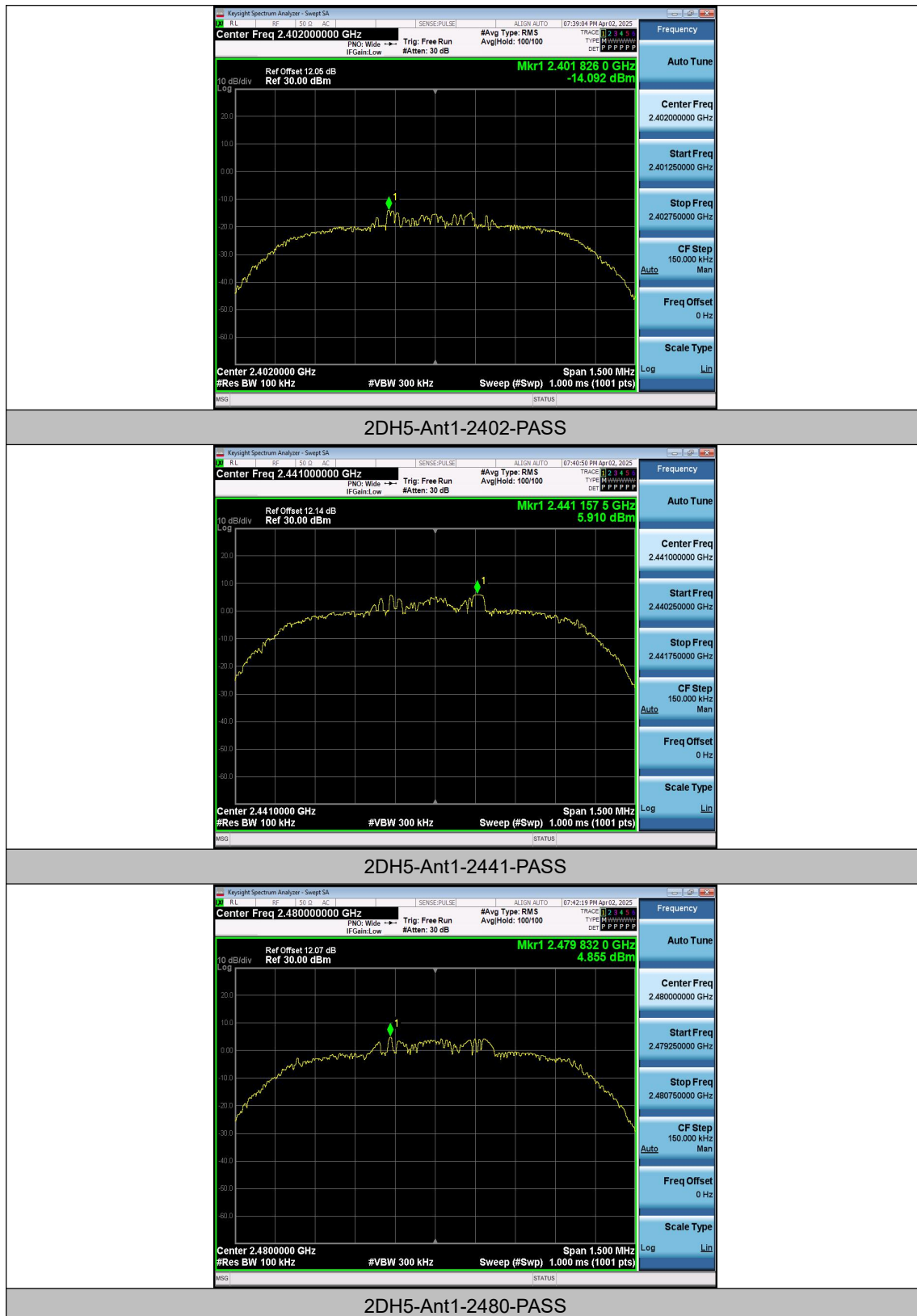
Appendix F: Reference level measurement

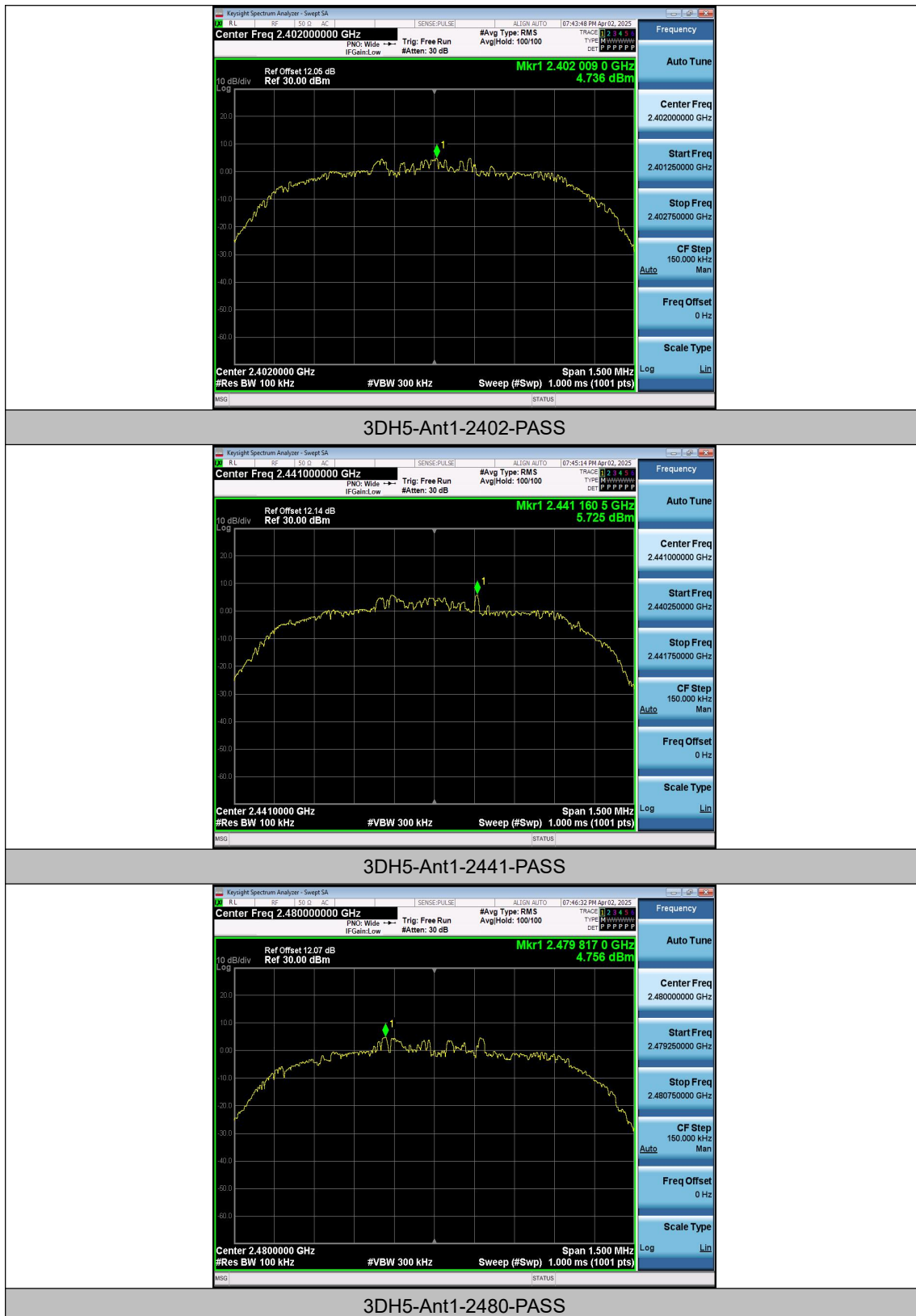
Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2402.05	4.94
DH5	Ant1	2441	2440.82	5.83
DH5	Ant1	2480	2480.14	4.57
2DH5	Ant1	2402	2401.83	-14.09
2DH5	Ant1	2441	2441.16	5.91
2DH5	Ant1	2480	2479.83	4.86
3DH5	Ant1	2402	2402.01	4.74
3DH5	Ant1	2441	2441.16	5.73
3DH5	Ant1	2480	2479.82	4.76

Test Graphs







Appendix G: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.94	-46.97	≤-15.06	PASS
DH5	Ant1	High	2480	4.57	-47.4	≤-15.43	PASS
DH5	Ant1	Low	Hop_2402	4.50	-46.74	≤-15.5	PASS
DH5	Ant1	High	Hop_2480	4.87	-46.47	≤-15.14	PASS
2DH5	Ant1	Low	2402	-14.09	-47.38	≤-34.09	PASS
2DH5	Ant1	High	2480	4.86	-47.65	≤-15.14	PASS
2DH5	Ant1	Low	Hop_2402	5.76	-46.87	≤-14.24	PASS
2DH5	Ant1	High	Hop_2480	5.58	-46.54	≤-14.42	PASS
3DH5	Ant1	Low	2402	4.74	-47.15	≤-15.26	PASS
3DH5	Ant1	High	2480	4.76	-47.08	≤-15.24	PASS
3DH5	Ant1	Low	Hop_2402	3.41	-47	≤-16.59	PASS
3DH5	Ant1	High	Hop_2480	6.56	-46.17	≤-13.44	PASS