

Appendix for Bluetooth

Product Name: A50 Dongle

Model No: A50-DG-BK

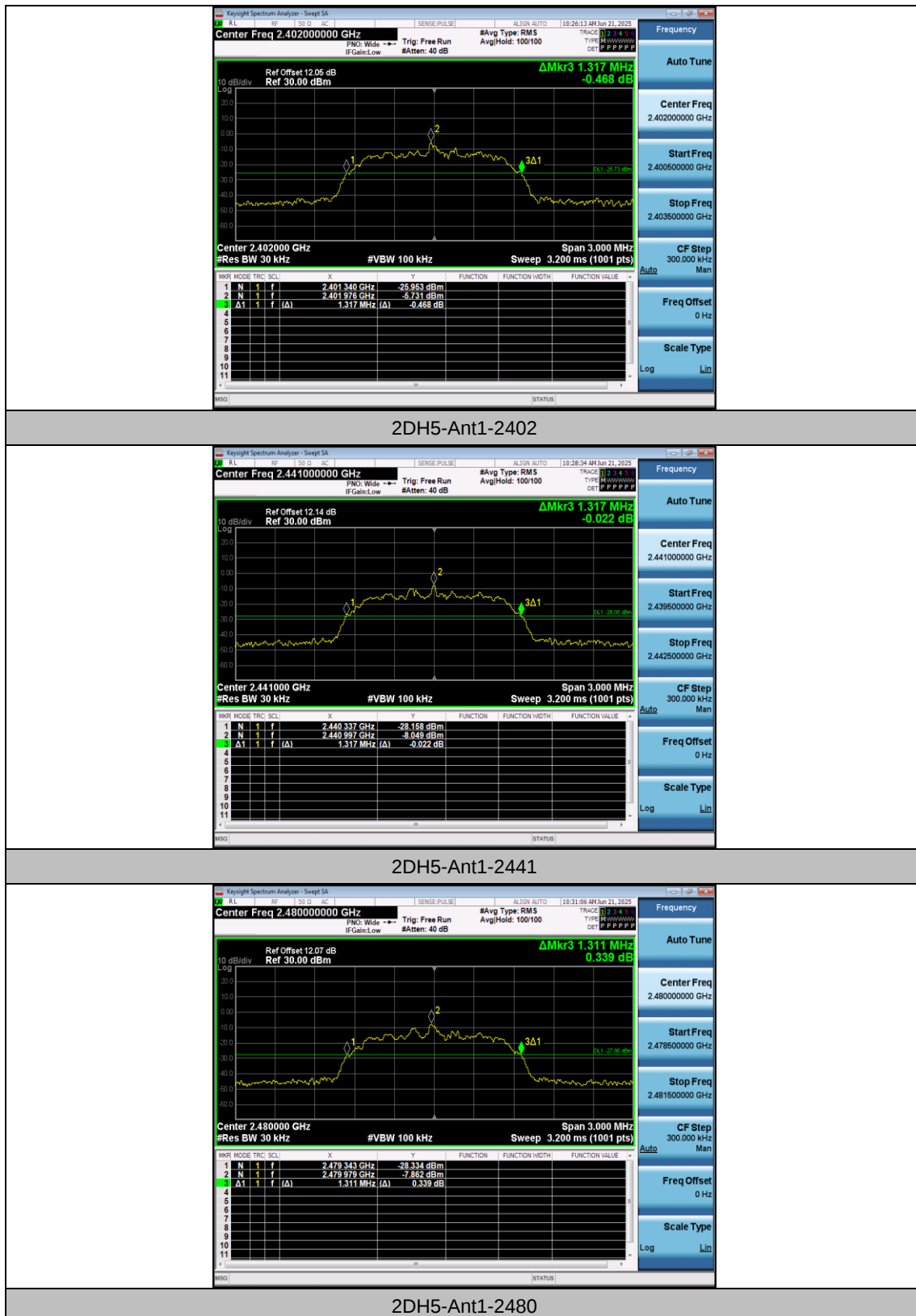
Appendix A: 20dB Emission Bandwidth

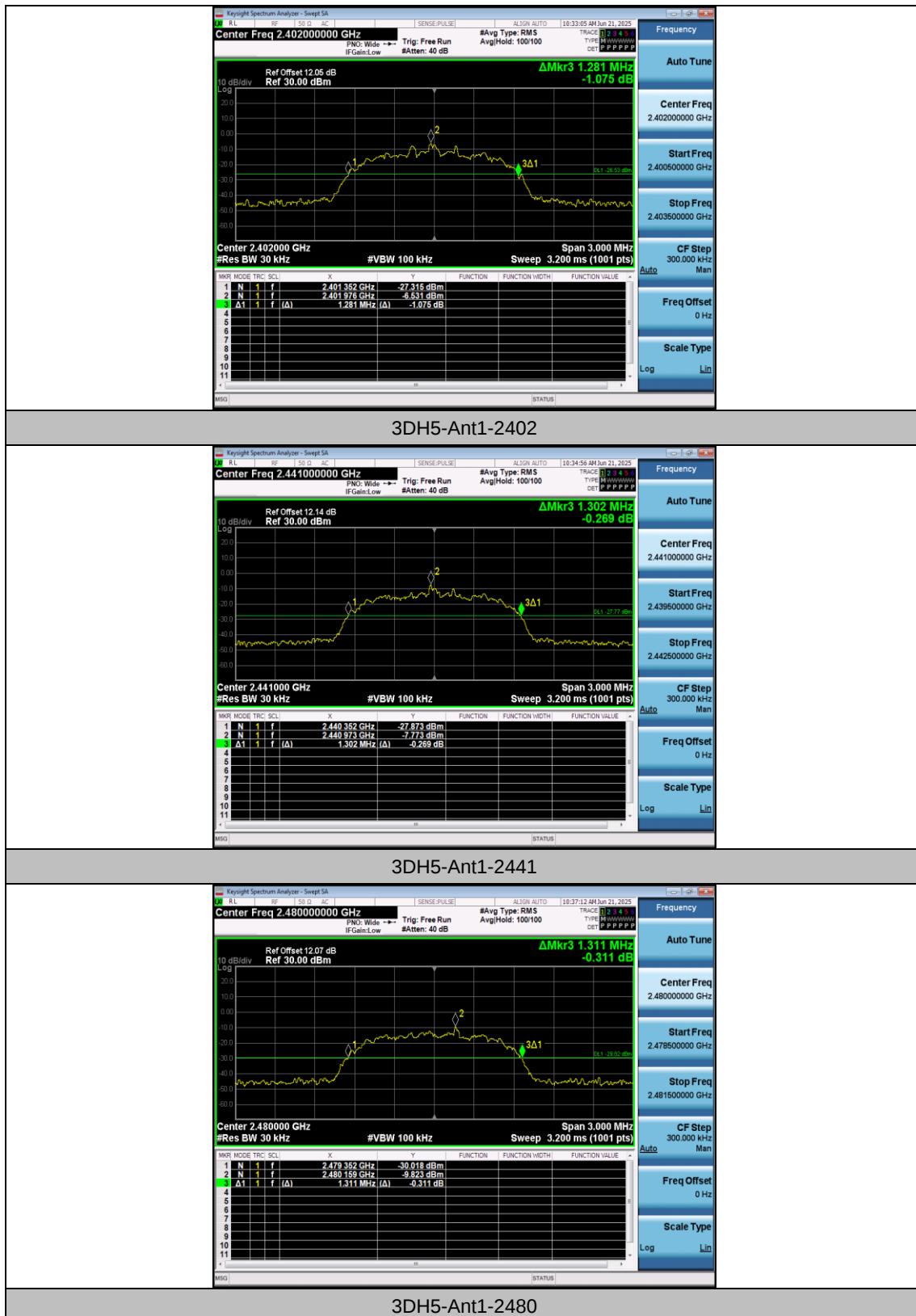
Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.963	2401.529	2402.492	---	---
DH5	Ant1	2441	0.957	2440.532	2441.489	---	---
DH5	Ant1	2480	0.954	2479.535	2480.489	---	---
2DH5	Ant1	2402	1.317	2401.340	2402.657	---	---
2DH5	Ant1	2441	1.317	2440.337	2441.654	---	---
2DH5	Ant1	2480	1.311	2479.343	2480.654	---	---
3DH5	Ant1	2402	1.281	2401.352	2402.633	---	---
3DH5	Ant1	2441	1.302	2440.352	2441.654	---	---
3DH5	Ant1	2480	1.311	2479.352	2480.663	---	---

Test Graphs





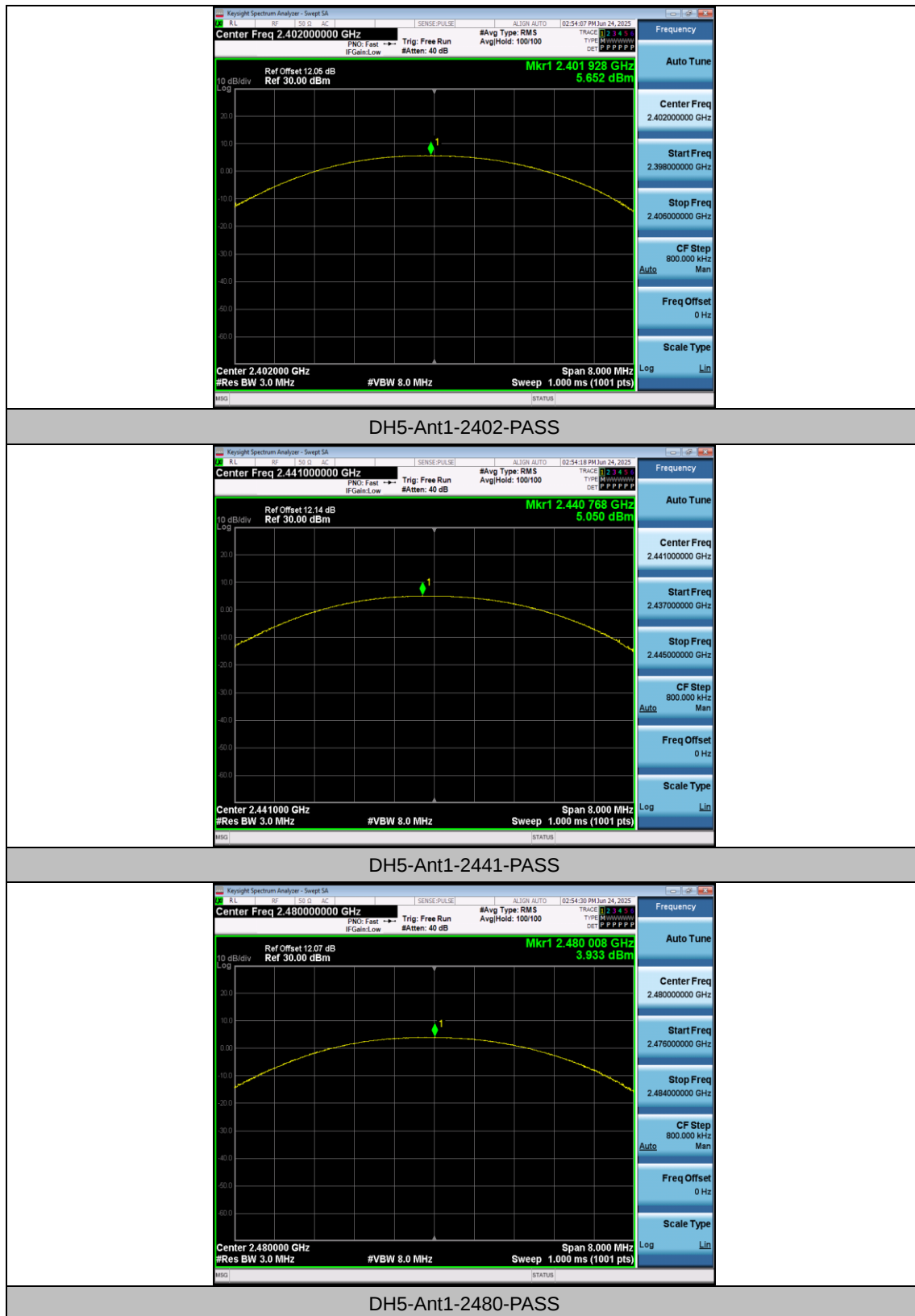


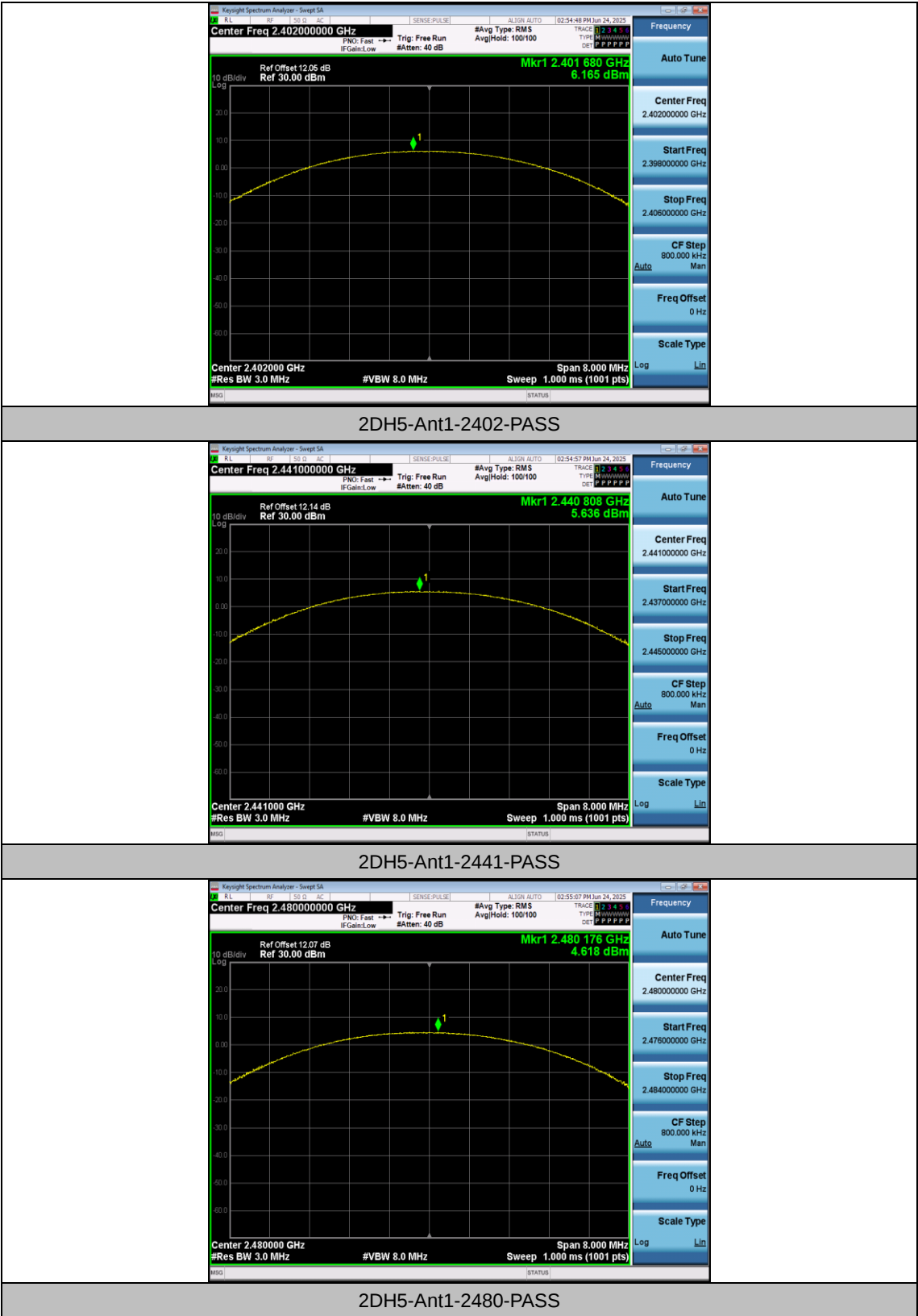
Appendix B: Maximum conducted output power

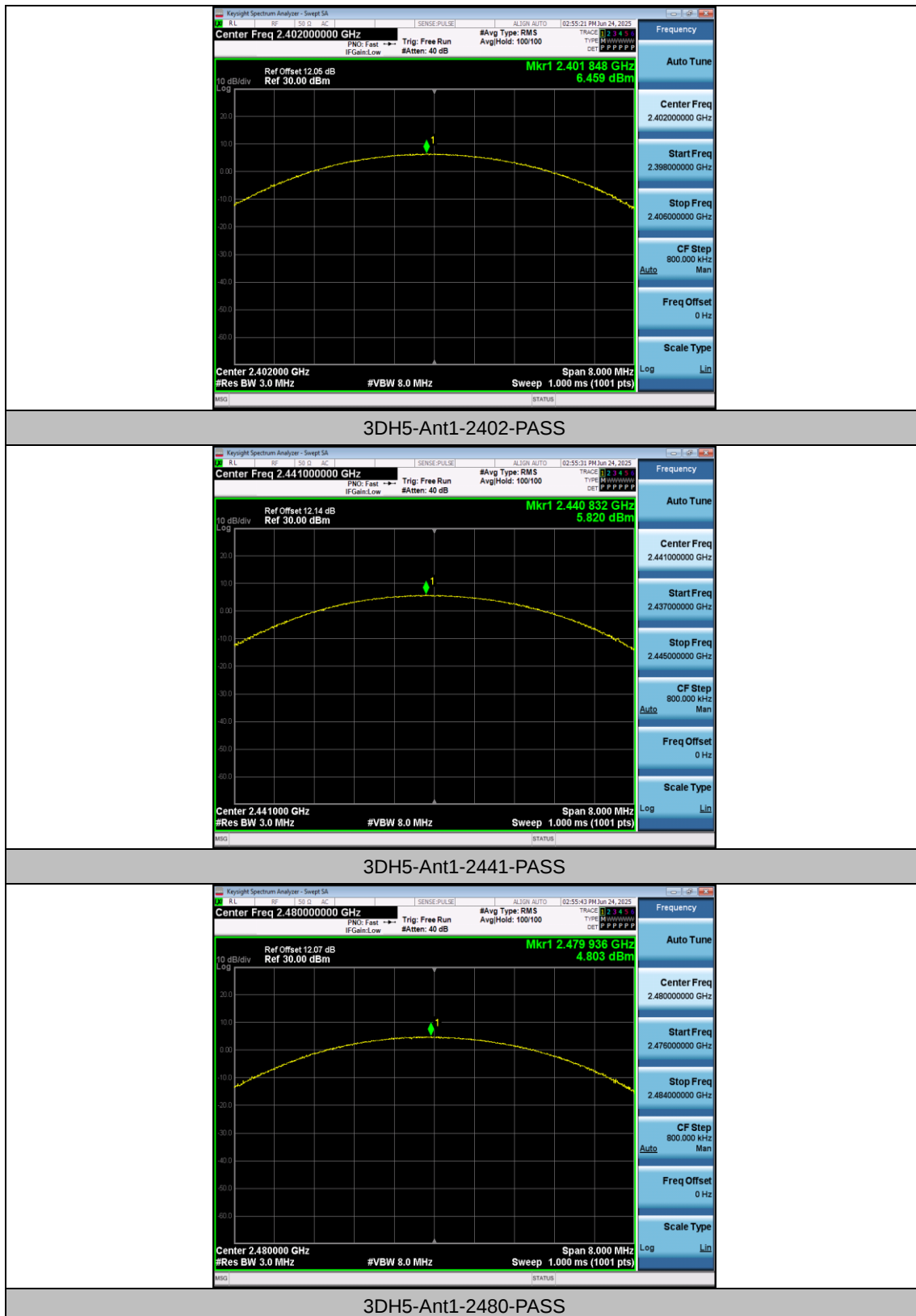
Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	5.65	≤ 20.97	PASS
DH5	Ant1	2441	5.05	≤ 20.97	PASS
DH5	Ant1	2480	3.93	≤ 20.97	PASS
2DH5	Ant1	2402	6.17	≤ 20.97	PASS
2DH5	Ant1	2441	5.64	≤ 20.97	PASS
2DH5	Ant1	2480	4.62	≤ 20.97	PASS
3DH5	Ant1	2402	6.46	≤ 20.97	PASS
3DH5	Ant1	2441	5.82	≤ 20.97	PASS
3DH5	Ant1	2480	4.80	≤ 20.97	PASS

Test Graphs





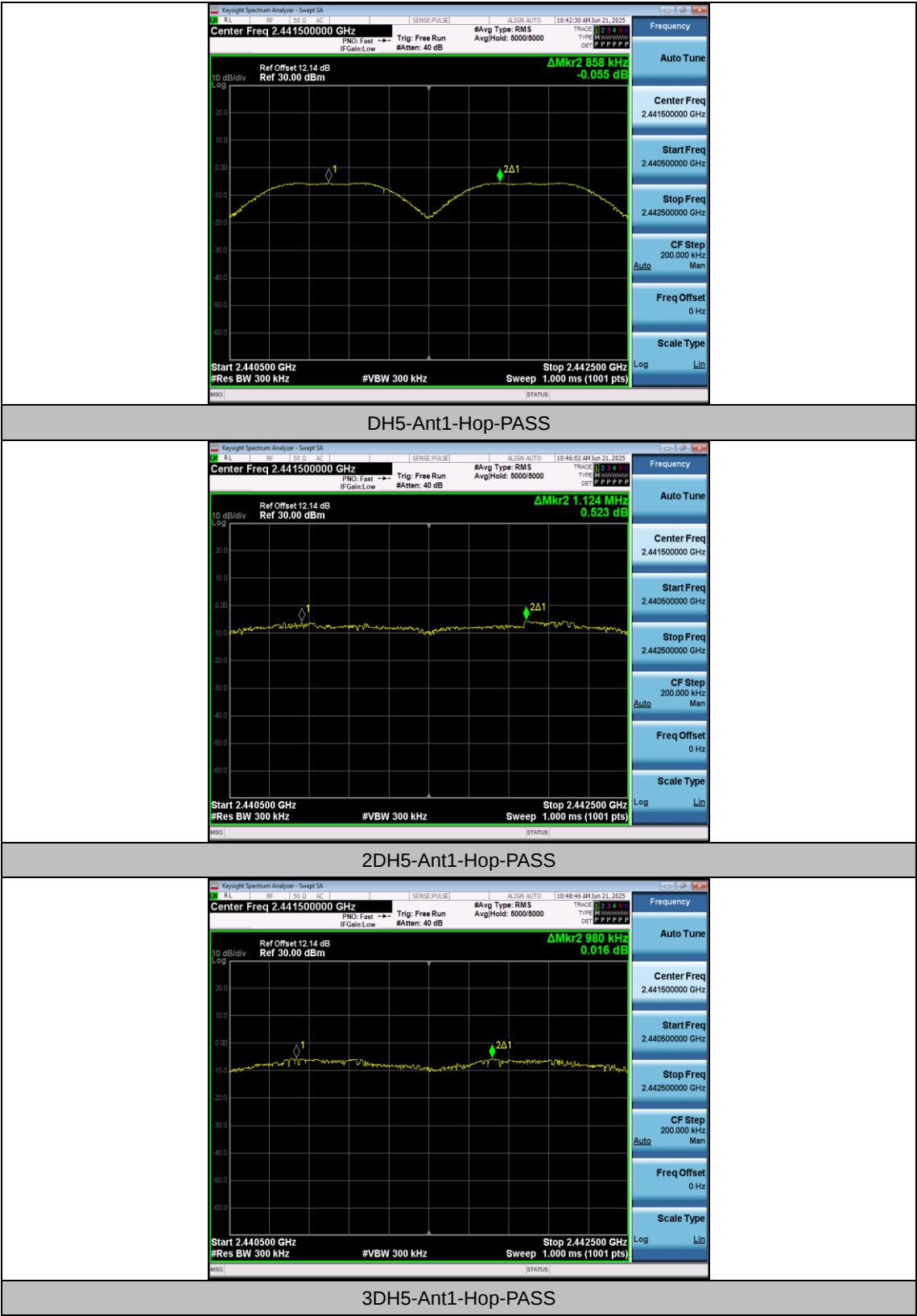


Appendix C: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.858	≥ 0.642	PASS
2DH5	Ant1	Hop	1.124	≥ 0.878	PASS
3DH5	Ant1	Hop	0.98	≥ 0.874	PASS

Test Graphs

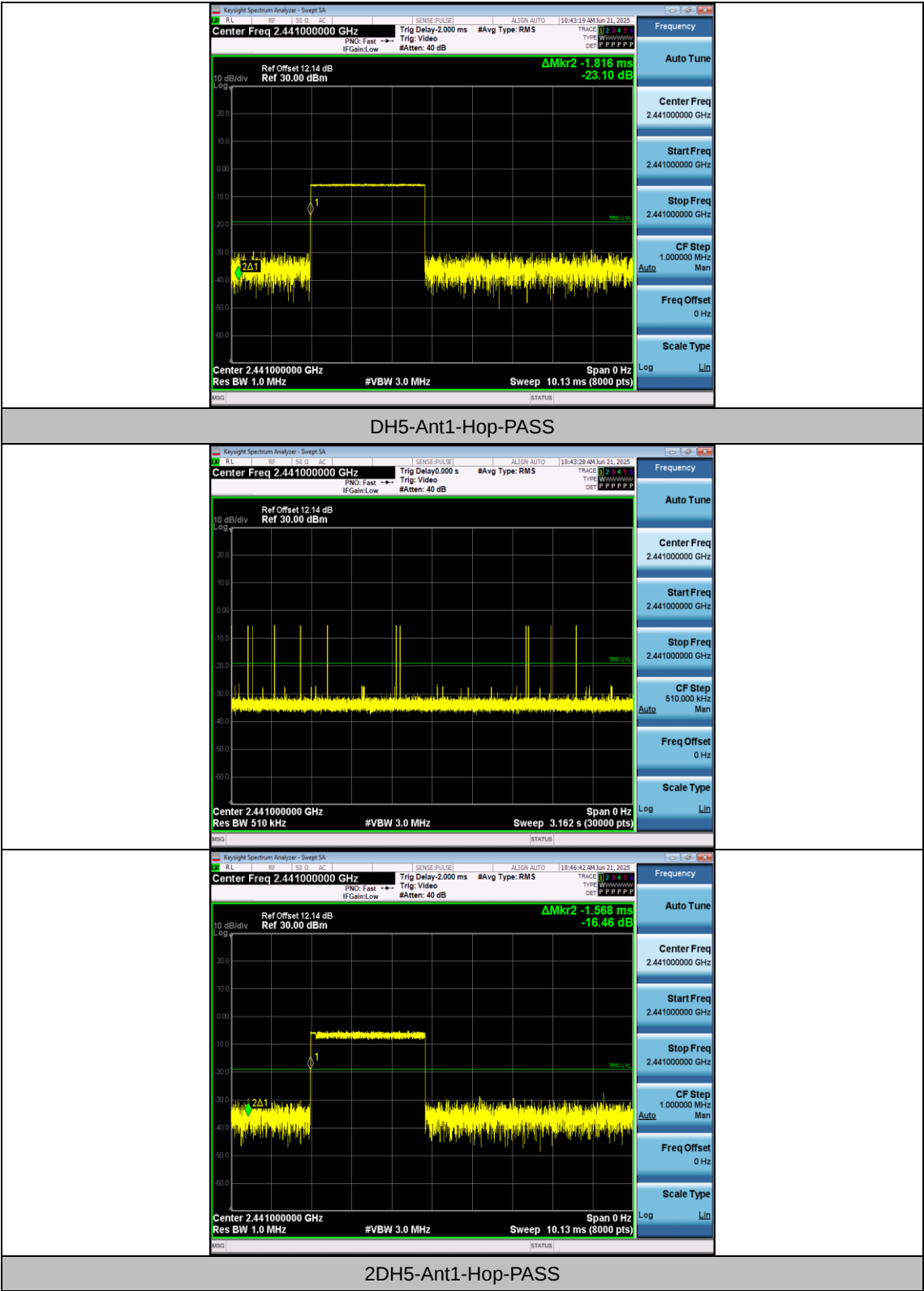


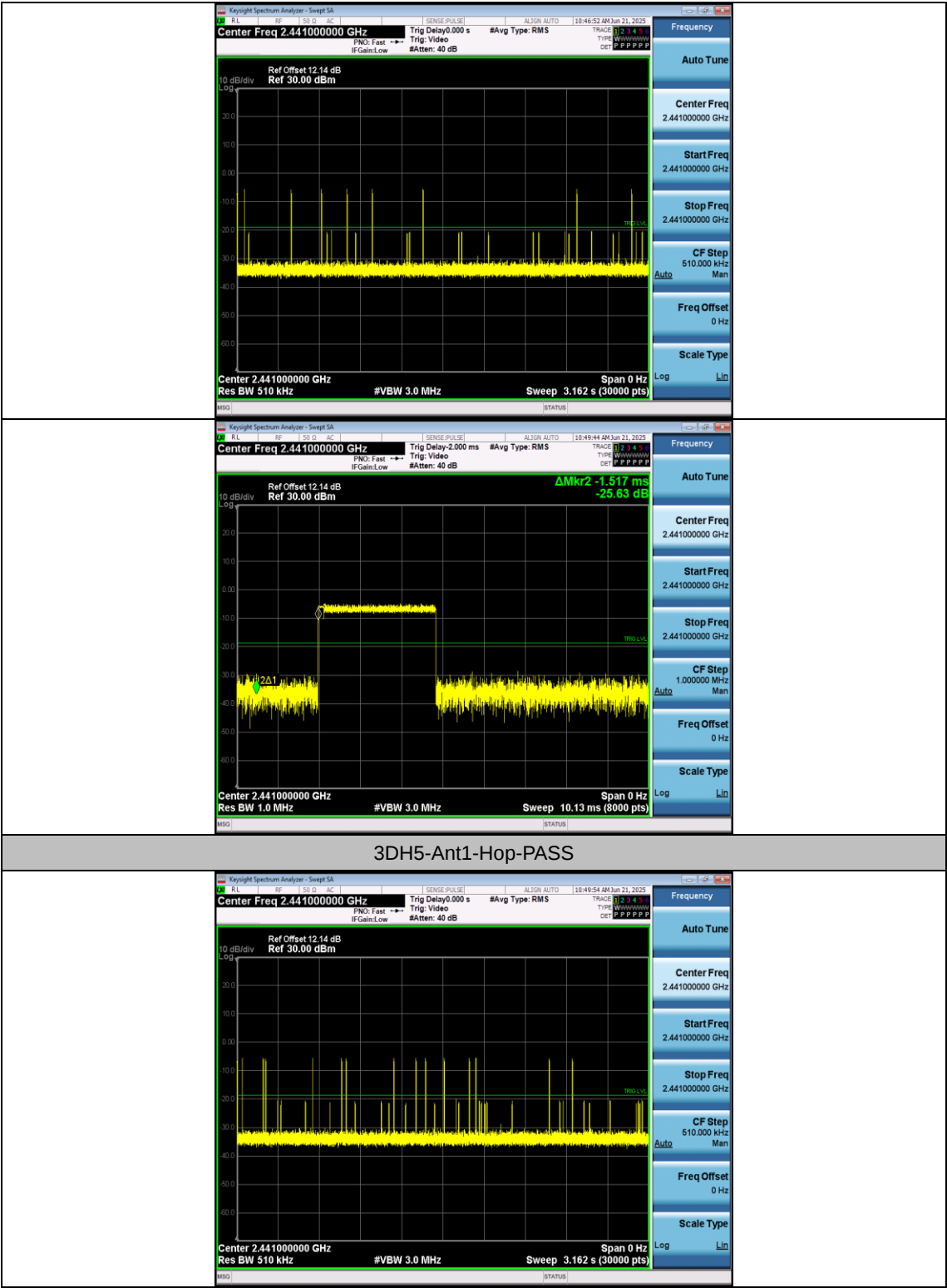
Appendix D: Time of occupancy

Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	-1.816	120	-0.218	≤0.4	PASS
2DH5	Ant1	Hop	-1.568	90	-0.141	≤0.4	PASS
3DH5	Ant1	Hop	-1.517	150	-0.228	≤0.4	PASS

Test Graphs



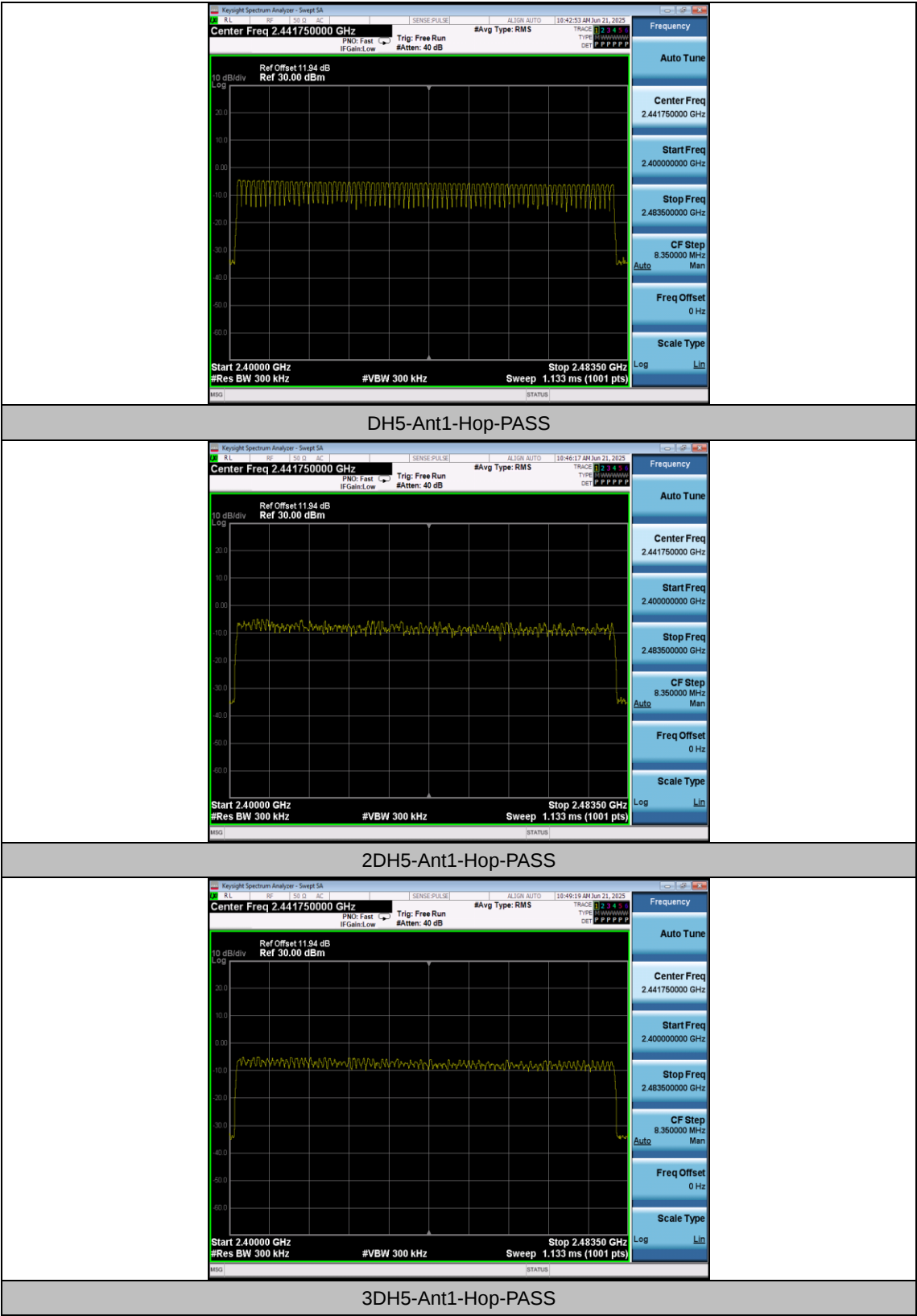


Appendix E: Number of hopping channels

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

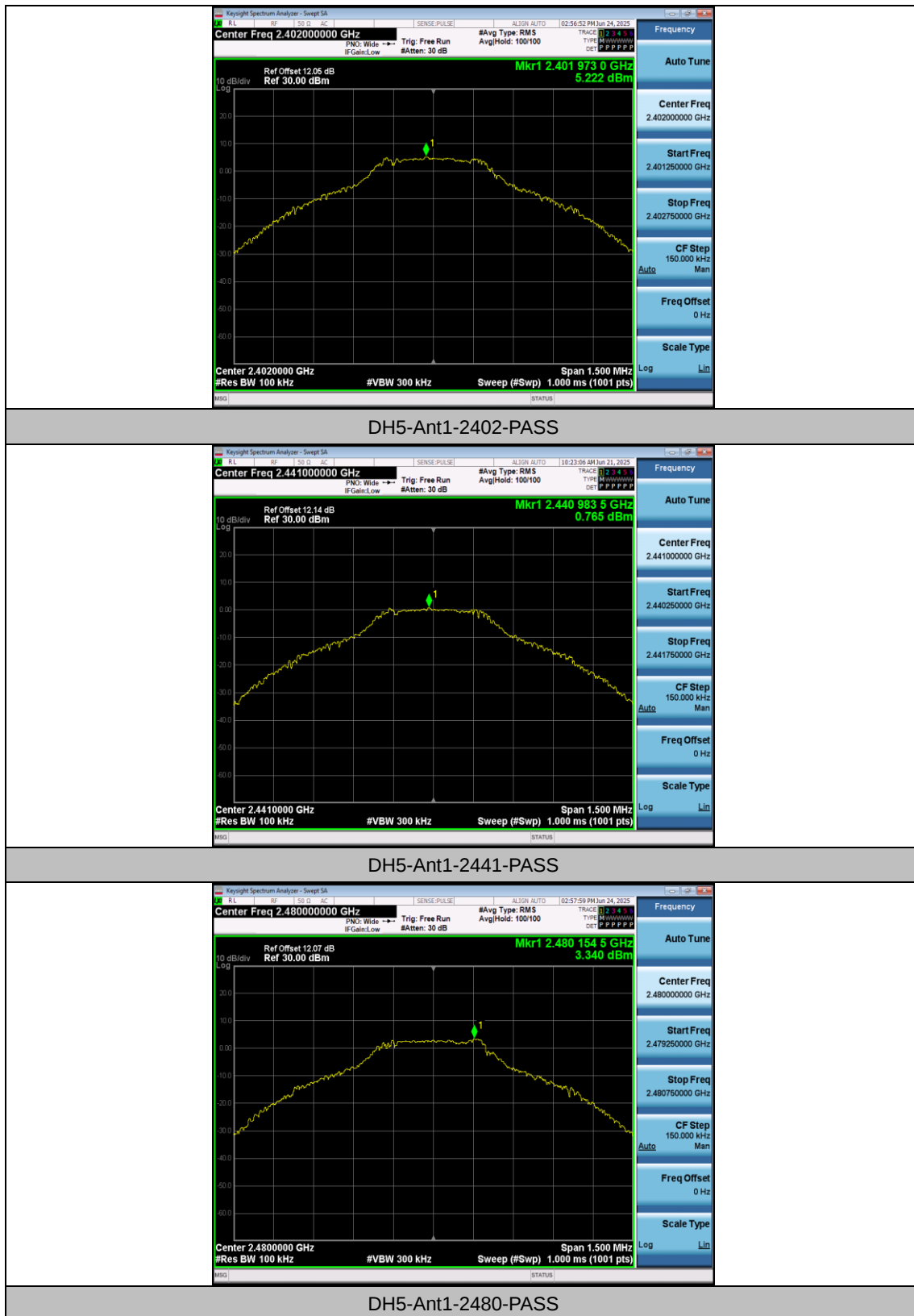


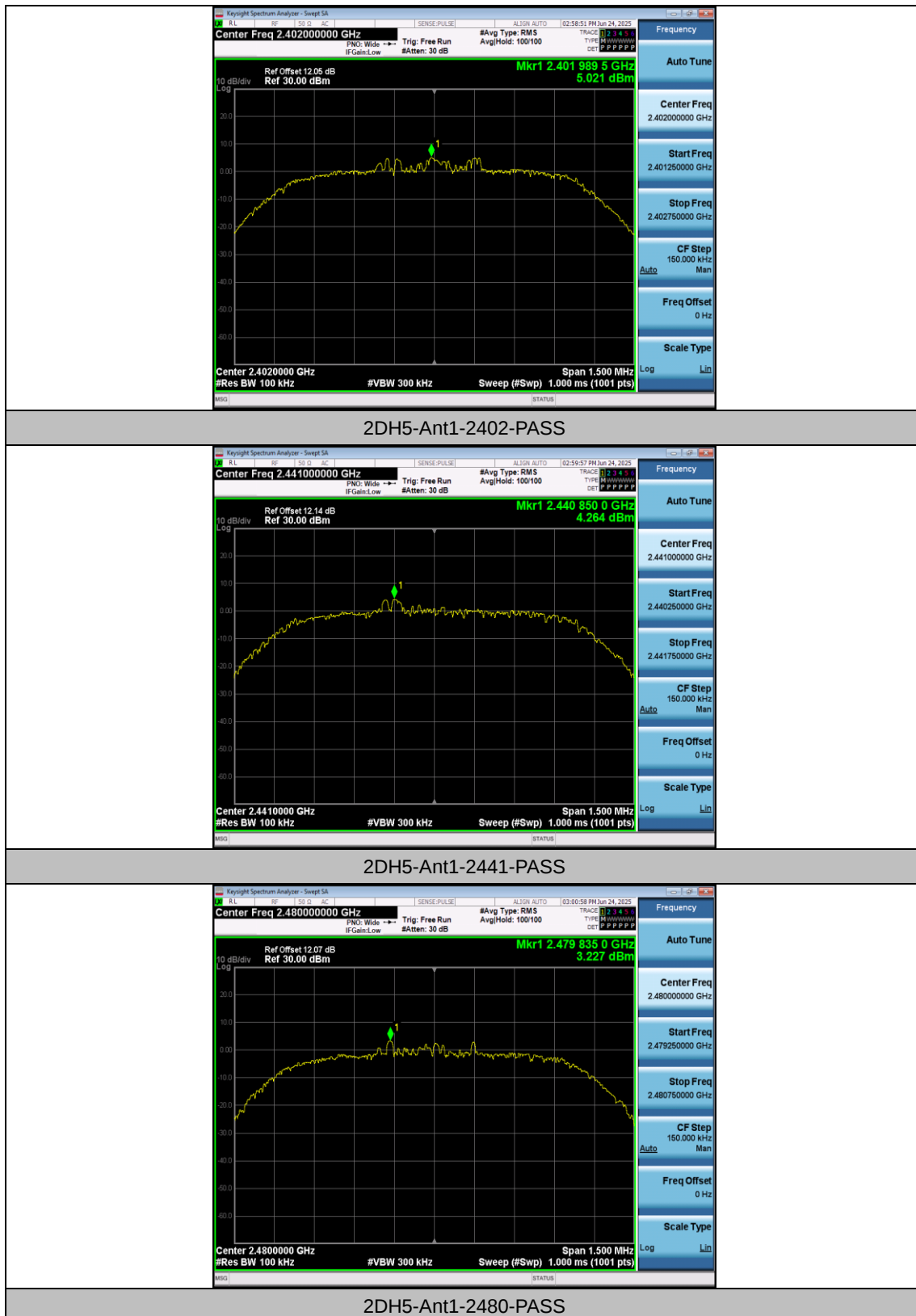
Appendix F: Reference level measurement

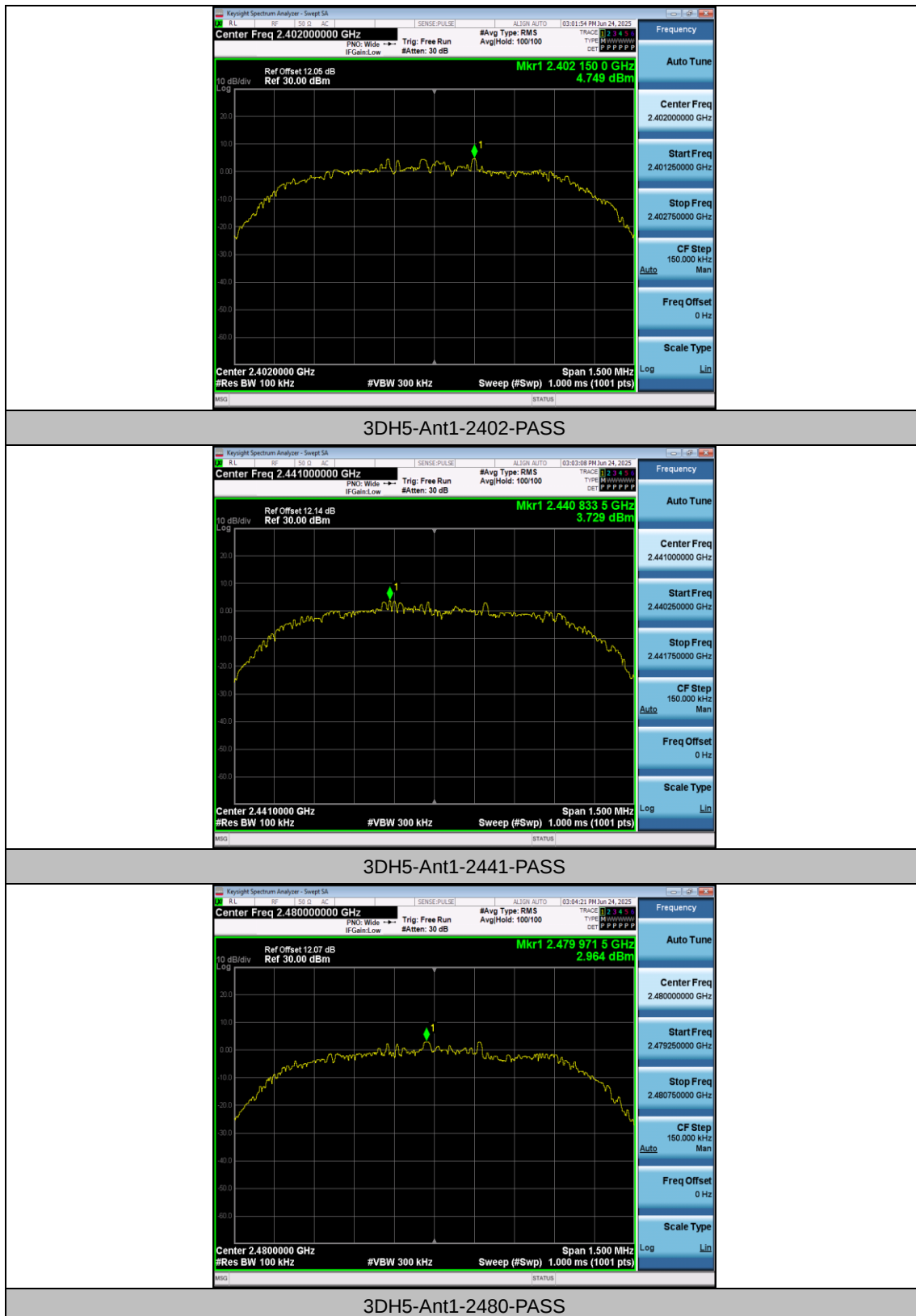
Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2401.97	5.22
DH5	Ant1	2441	2440.98	0.77
DH5	Ant1	2480	2480.15	3.34
2DH5	Ant1	2402	2401.99	5.02
2DH5	Ant1	2441	2440.85	4.26
2DH5	Ant1	2480	2479.84	3.23
3DH5	Ant1	2402	2402.15	4.75
3DH5	Ant1	2441	2440.83	3.73
3DH5	Ant1	2480	2479.97	2.96

Test Graphs





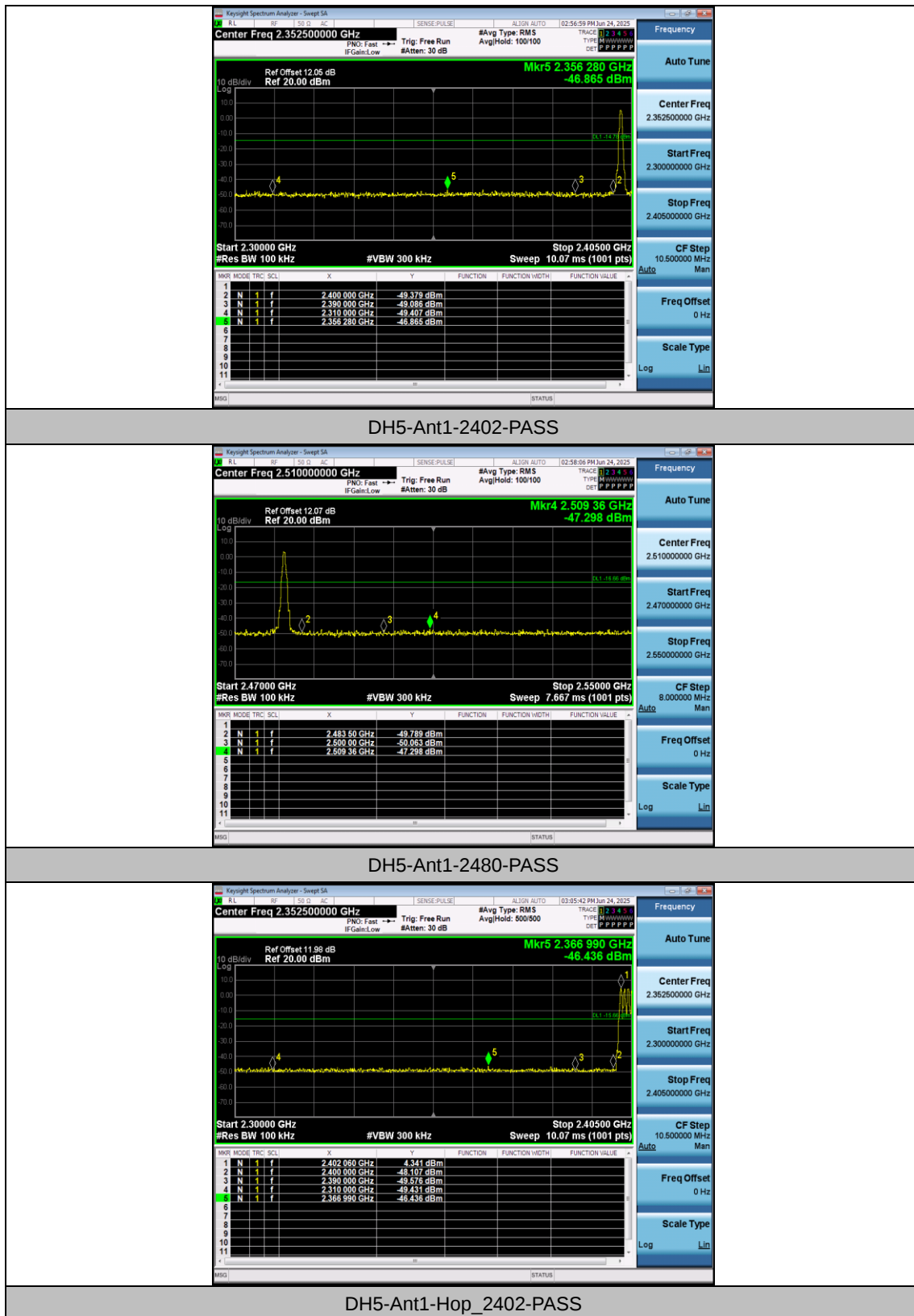


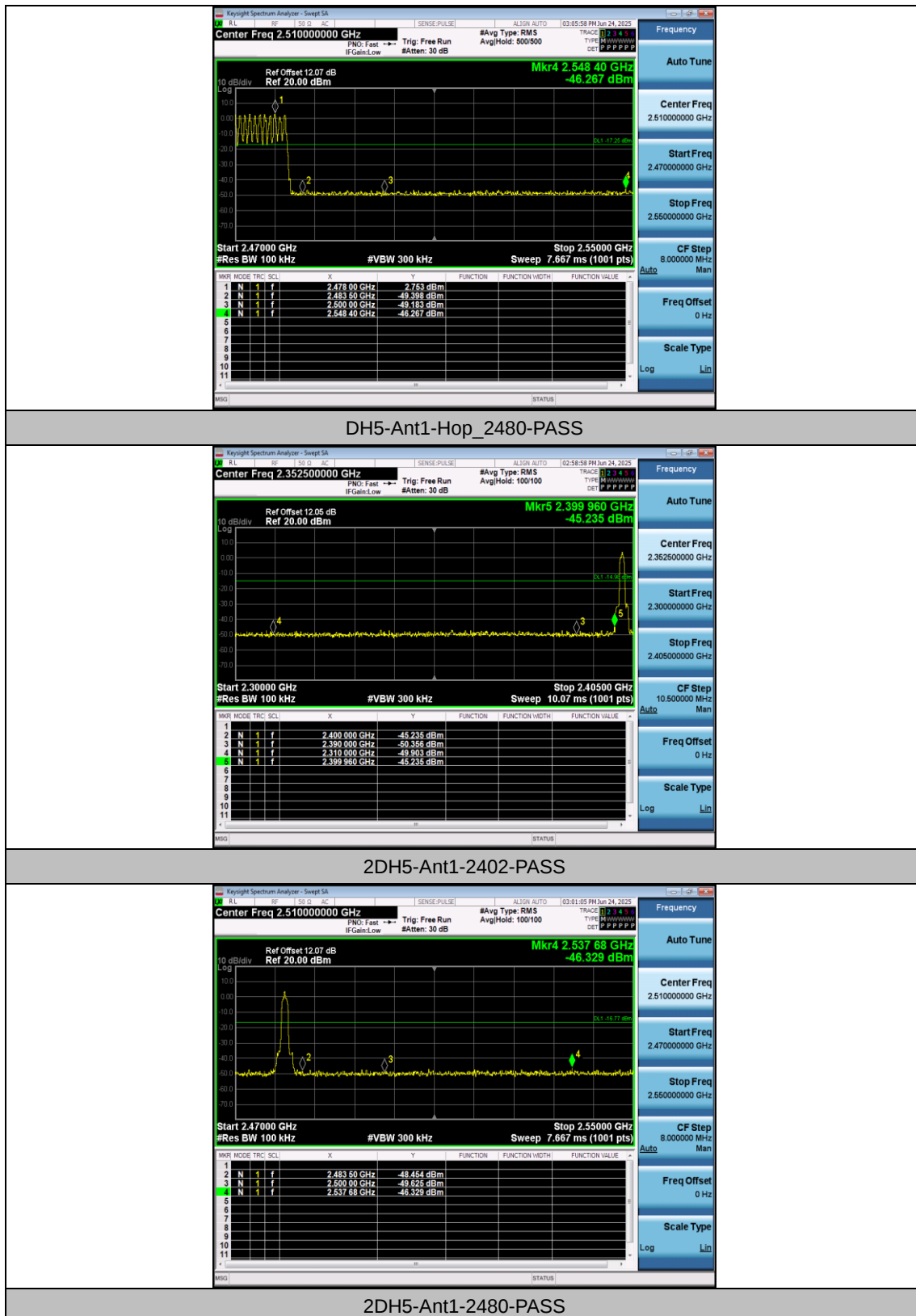
Appendix G: Band edge measurements

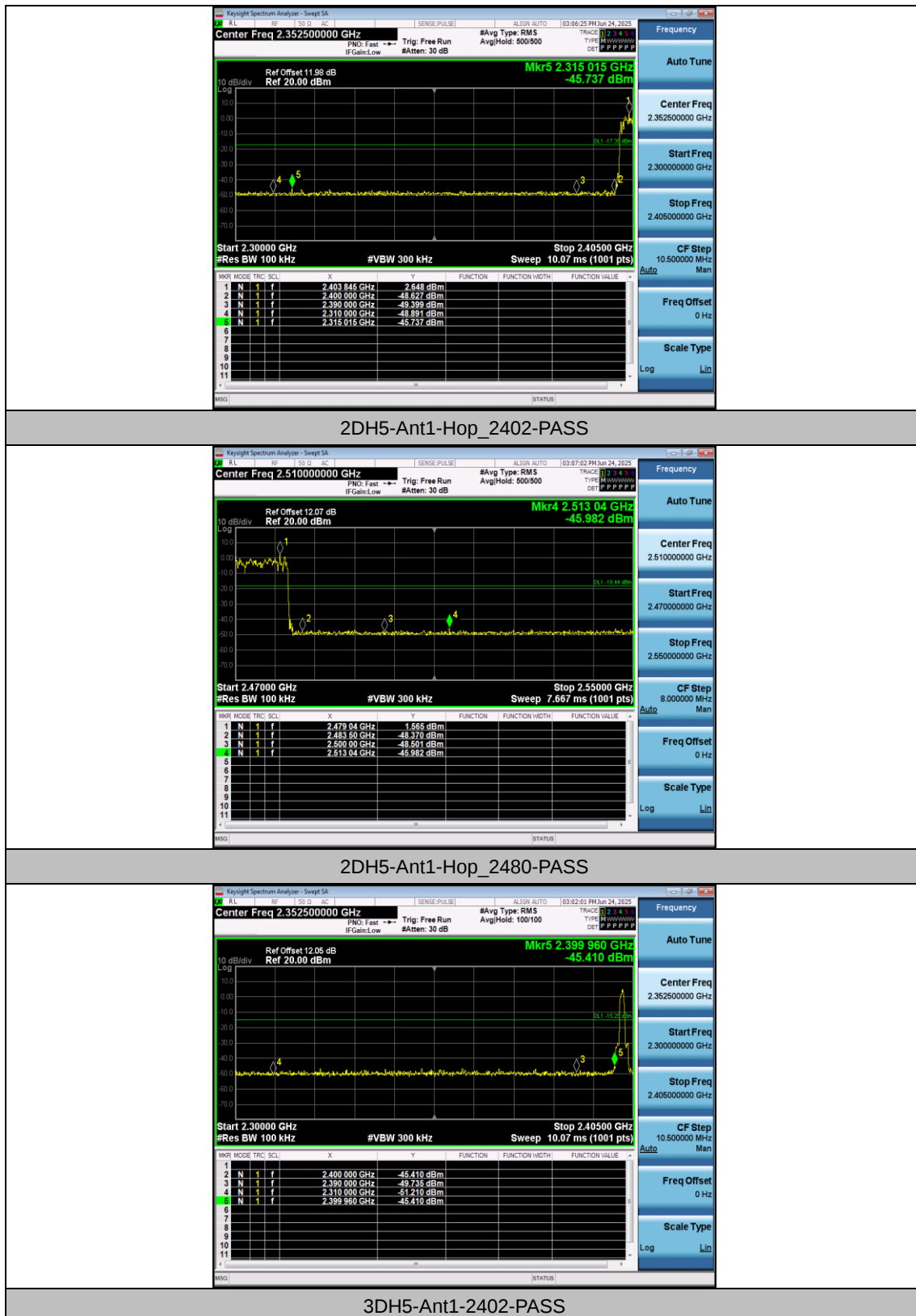
Test Result

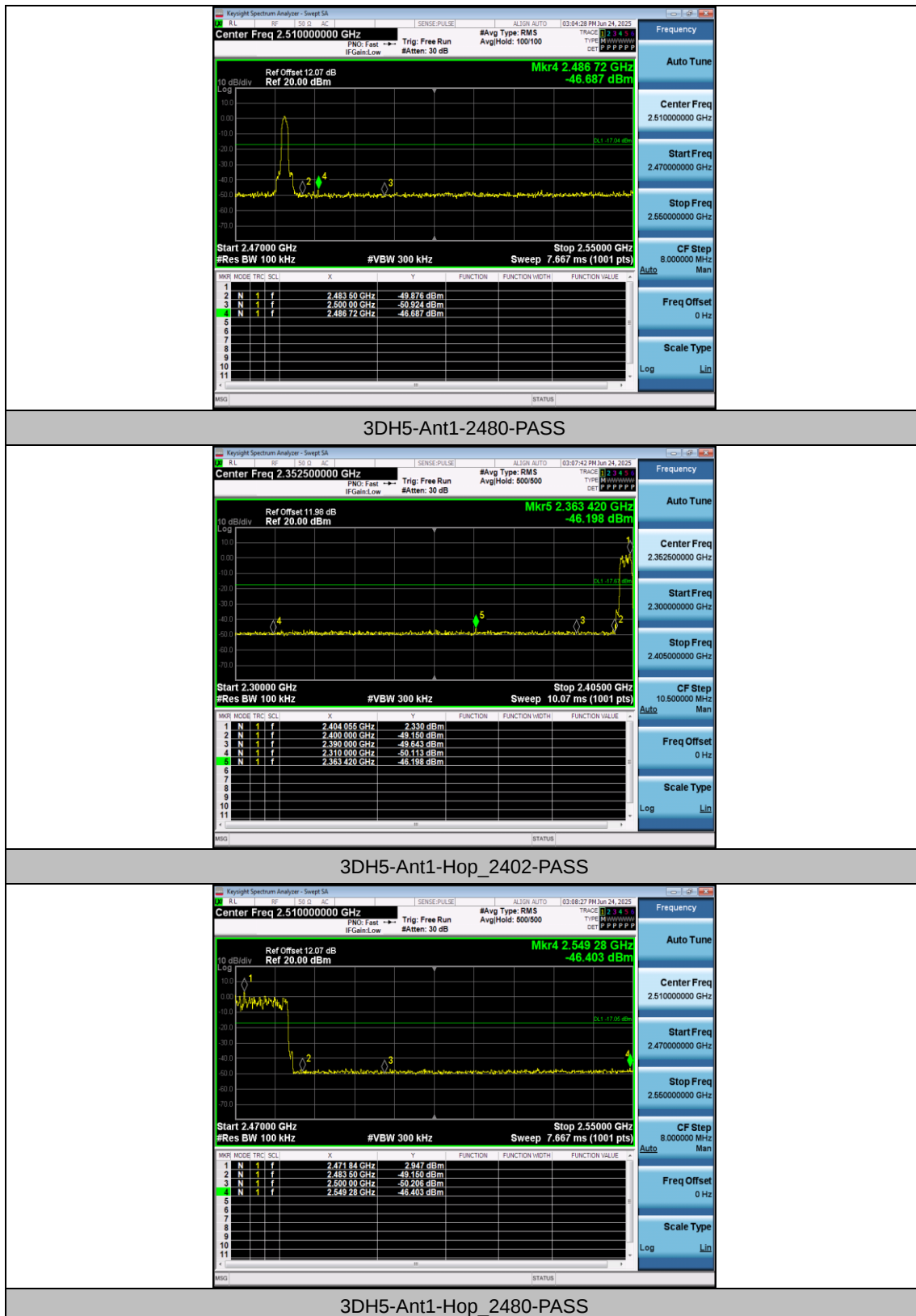
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.22	-46.87	≤ -14.78	PASS
DH5	Ant1	High	2480	3.34	-47.3	≤ -16.66	PASS
DH5	Ant1	Low	Hop_2402	4.34	-46.44	≤ -15.66	PASS
DH5	Ant1	High	Hop_2480	2.75	-46.27	≤ -17.25	PASS
2DH5	Ant1	Low	2402	5.02	-45.24	≤ -14.98	PASS
2DH5	Ant1	High	2480	3.23	-46.33	≤ -16.77	PASS
2DH5	Ant1	Low	Hop_2402	2.65	-45.74	≤ -17.35	PASS
2DH5	Ant1	High	Hop_2480	1.57	-45.98	≤ -18.44	PASS
3DH5	Ant1	Low	2402	4.75	-45.41	≤ -15.25	PASS
3DH5	Ant1	High	2480	2.96	-46.69	≤ -17.04	PASS
3DH5	Ant1	Low	Hop_2402	2.33	-46.2	≤ -17.67	PASS
3DH5	Ant1	High	Hop_2480	2.95	-46.4	≤ -17.05	PASS

Test Graphs









Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	5.22	-59	≤-14.78	PASS
DH5	Ant1	2402	1000~26500	5.22	-39.63	≤-14.78	PASS
DH5	Ant1	2441	30~1000	0.77	-59.19	≤-19.23	PASS
DH5	Ant1	2441	1000~26500	0.77	-41.36	≤-19.23	PASS
DH5	Ant1	2480	30~1000	3.34	-58.93	≤-16.66	PASS
DH5	Ant1	2480	1000~26500	3.34	-40.58	≤-16.66	PASS
2DH5	Ant1	2402	30~1000	5.02	-58.02	≤-14.98	PASS
2DH5	Ant1	2402	1000~26500	5.02	-43.42	≤-14.98	PASS
2DH5	Ant1	2441	30~1000	4.26	-59.14	≤-15.74	PASS
2DH5	Ant1	2441	1000~26500	4.26	-41.15	≤-15.74	PASS
2DH5	Ant1	2480	30~1000	3.23	-59.37	≤-16.77	PASS
2DH5	Ant1	2480	1000~26500	3.23	-42.79	≤-16.77	PASS
3DH5	Ant1	2402	30~1000	4.75	-58.26	≤-15.25	PASS
3DH5	Ant1	2402	1000~26500	4.75	-42.57	≤-15.25	PASS
3DH5	Ant1	2441	30~1000	3.73	-58.79	≤-16.27	PASS
3DH5	Ant1	2441	1000~26500	3.73	-43.64	≤-16.27	PASS
3DH5	Ant1	2480	30~1000	2.96	-59.14	≤-17.04	PASS
3DH5	Ant1	2480	1000~26500	2.96	-40.9	≤-17.04	PASS