

Appendix for Bluetooth

Product Name: True Wireless Earbuds

Model No: Urbanista Porto

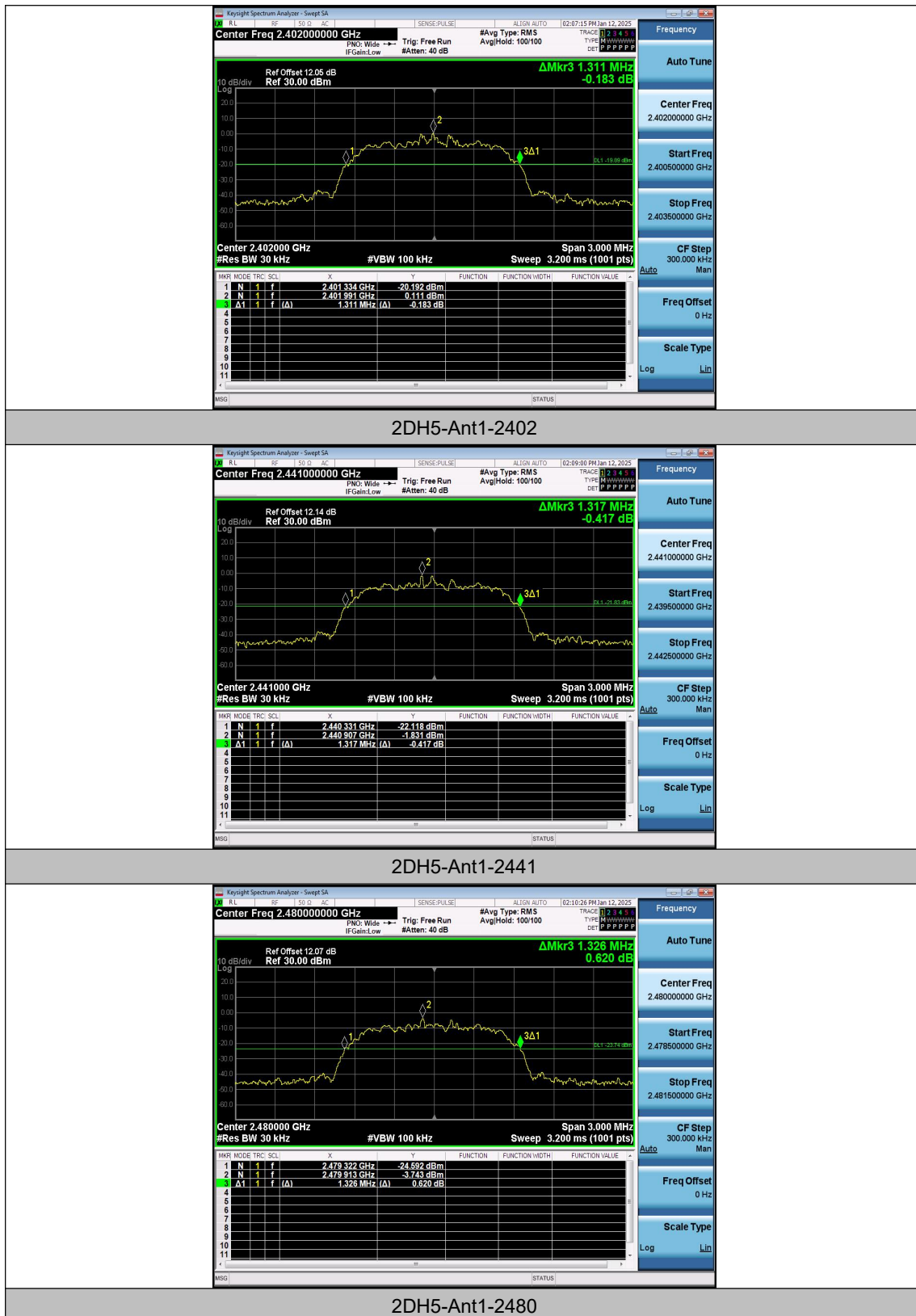
Appendix A: 20dB Emission Bandwidth

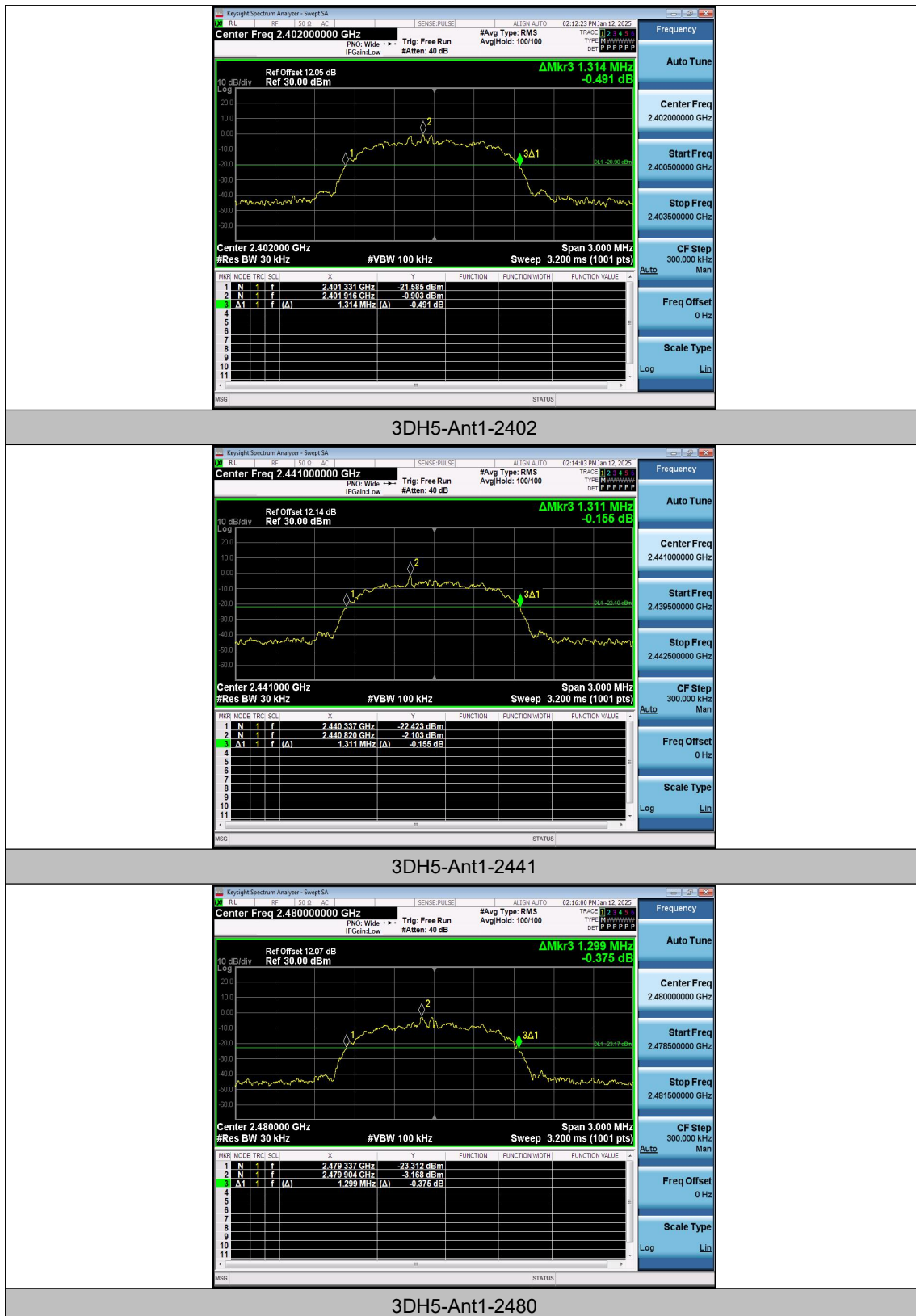
Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.966	2401.520	2402.486	---	---
DH5	Ant1	2441	0.954	2440.526	2441.480	---	---
DH5	Ant1	2480	0.960	2479.520	2480.480	---	---
2DH5	Ant1	2402	1.311	2401.334	2402.645	---	---
2DH5	Ant1	2441	1.317	2440.331	2441.648	---	---
2DH5	Ant1	2480	1.326	2479.322	2480.648	---	---
3DH5	Ant1	2402	1.314	2401.331	2402.645	---	---
3DH5	Ant1	2441	1.311	2440.337	2441.648	---	---
3DH5	Ant1	2480	1.299	2479.337	2480.636	---	---

Test Graphs





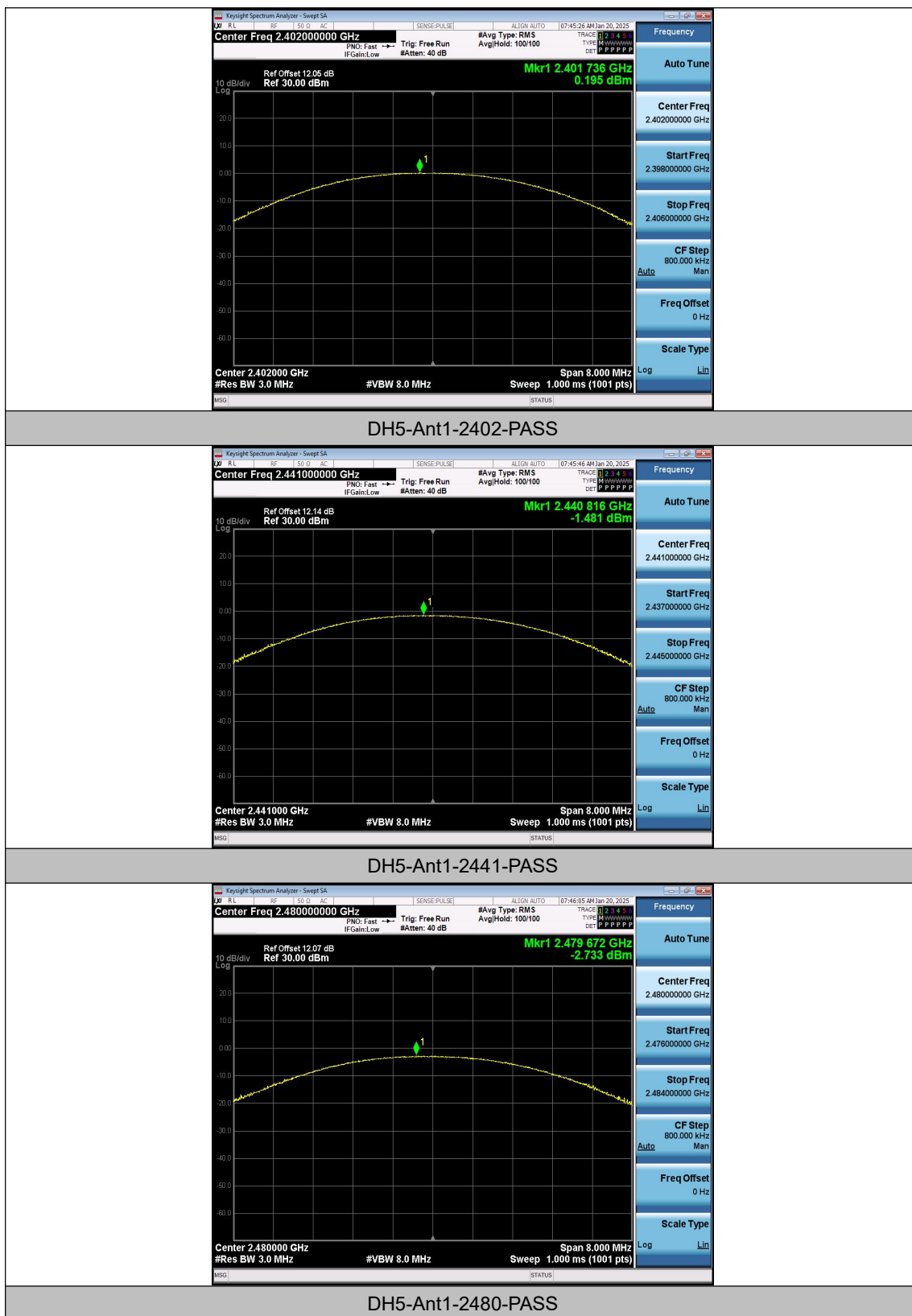


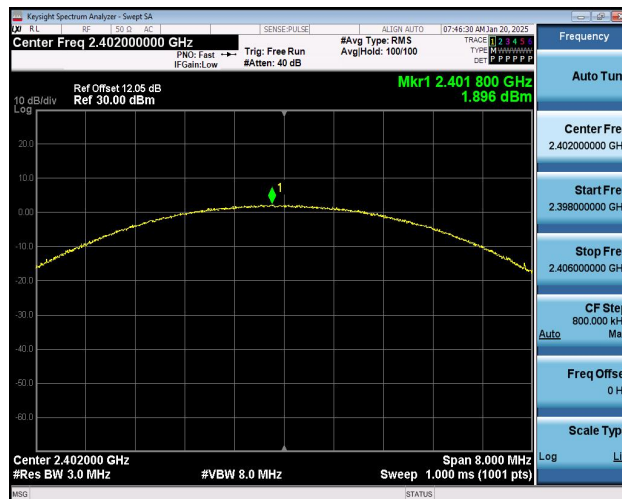
Appendix B: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.20	≤30	PASS
DH5	Ant1	2441	-1.48	≤30	PASS
DH5	Ant1	2480	-2.73	≤30	PASS
2DH5	Ant1	2402	1.90	≤20.97	PASS
2DH5	Ant1	2441	0.36	≤20.97	PASS
2DH5	Ant1	2480	-0.92	≤20.97	PASS
3DH5	Ant1	2402	1.77	≤20.97	PASS
3DH5	Ant1	2441	0.25	≤20.97	PASS
3DH5	Ant1	2480	-1.38	≤20.97	PASS

Test Graphs





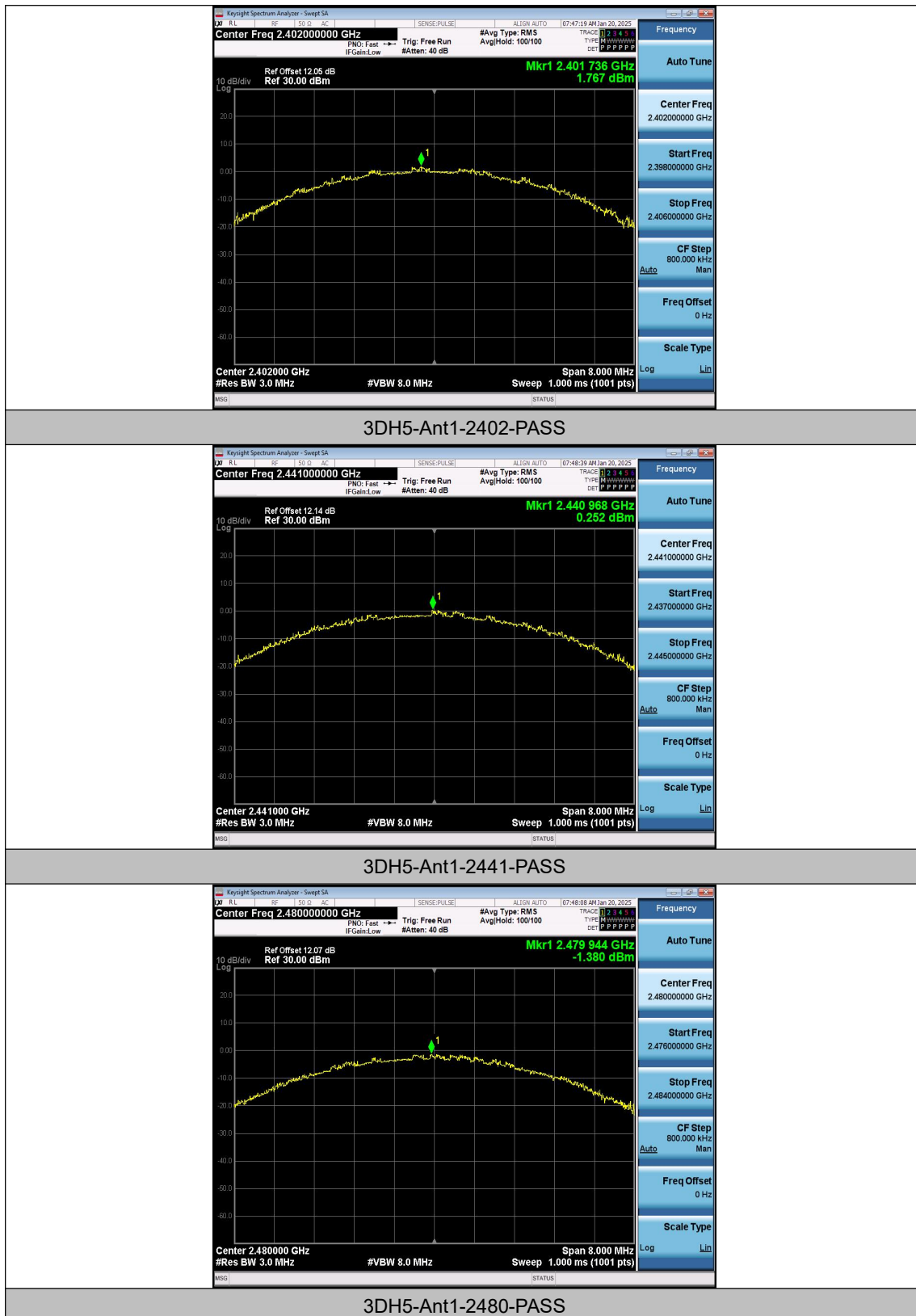
2DH5-Ant1-2402-PASS



2DH5-Ant1-2441-PASS



2DH5-Ant1-2480-PASS

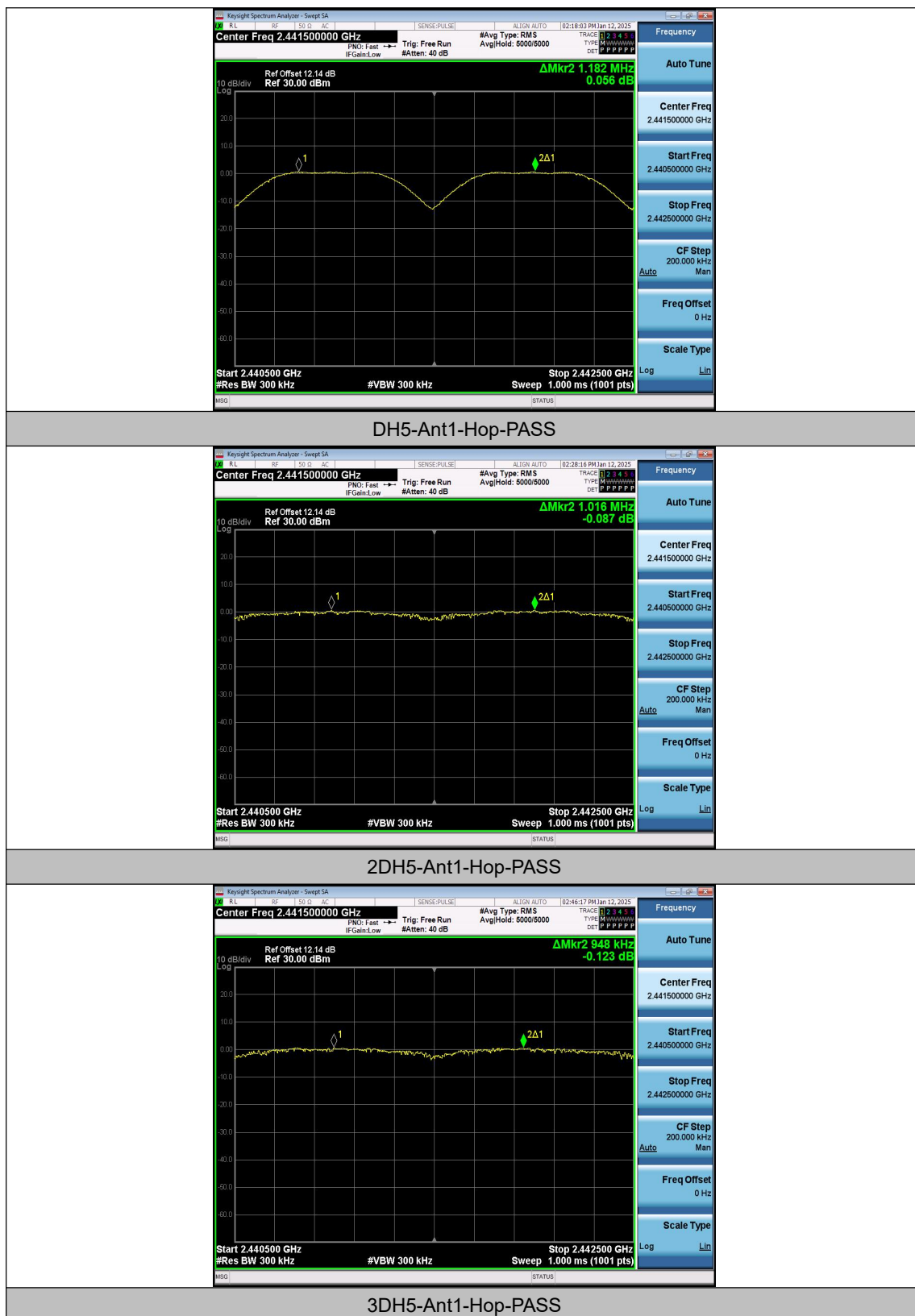


Appendix C: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.182	≥ 0.966	PASS
2DH5	Ant1	Hop	1.016	≥ 0.884	PASS
3DH5	Ant1	Hop	0.948	≥ 0.876	PASS

Test Graphs

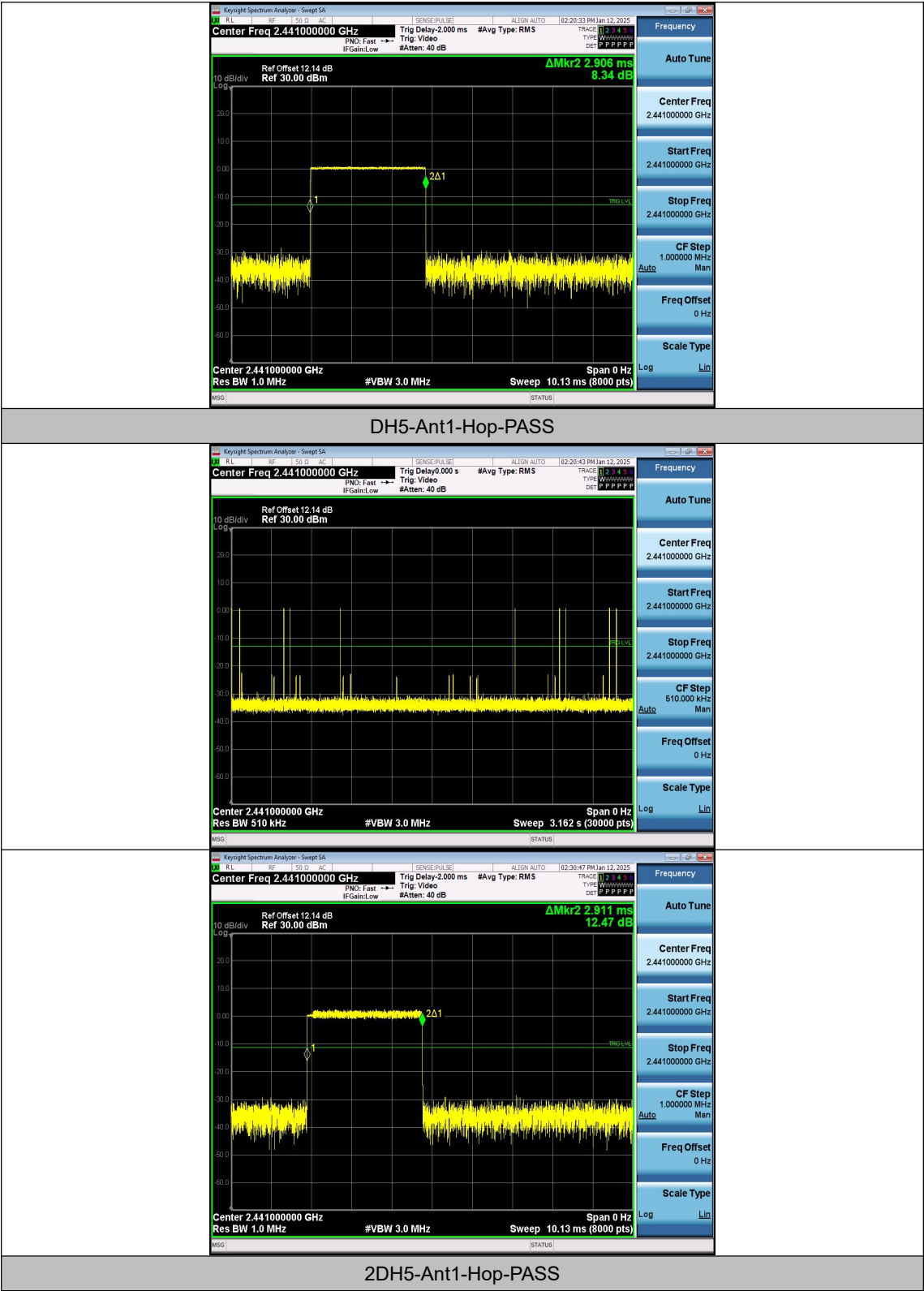


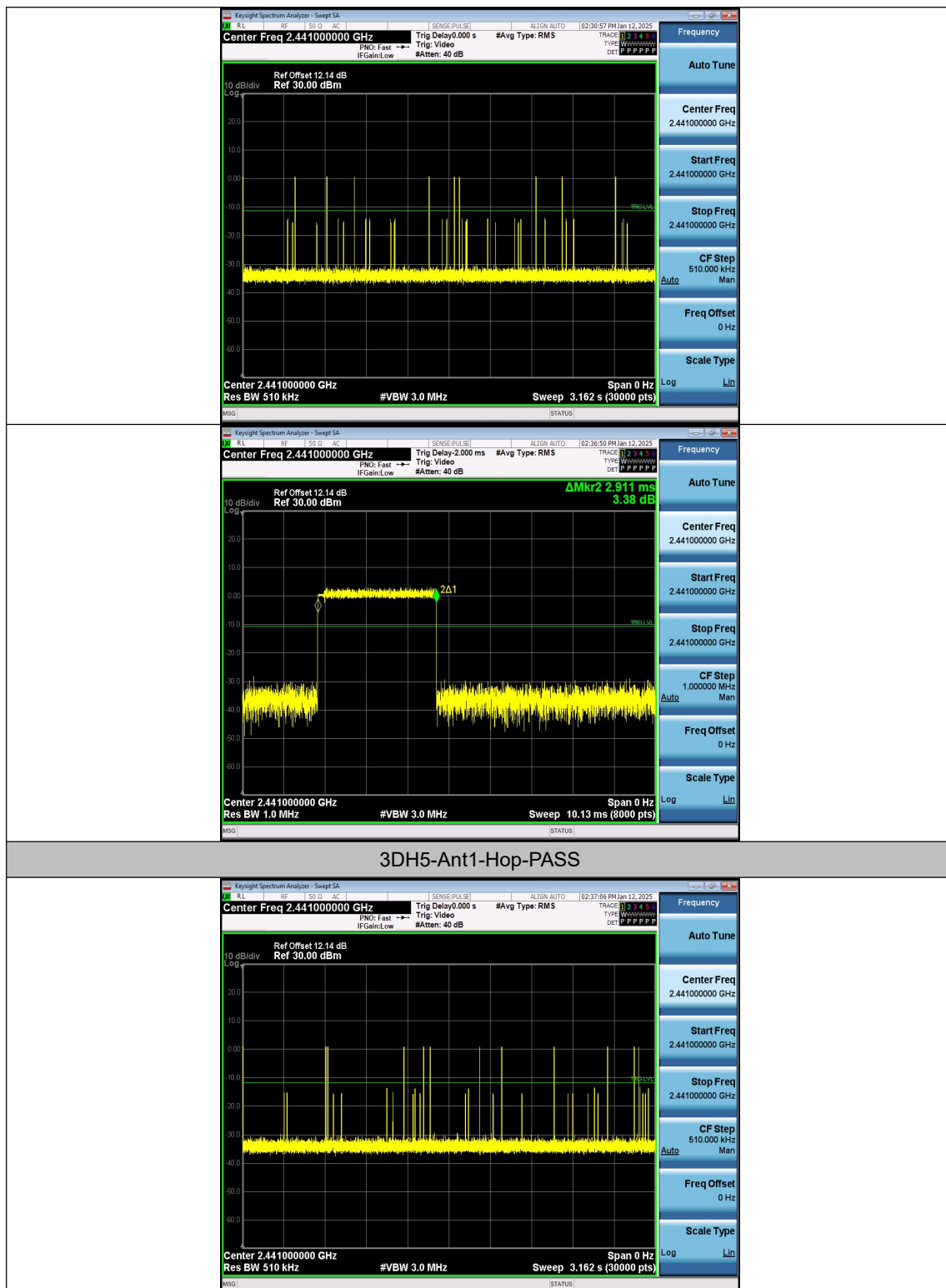
Appendix D: Time of occupancy

Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.906	100	0.291	≤0.4	PASS
2DH5	Ant1	Hop	2.911	100	0.291	≤0.4	PASS
3DH5	Ant1	Hop	2.911	120	0.349	≤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

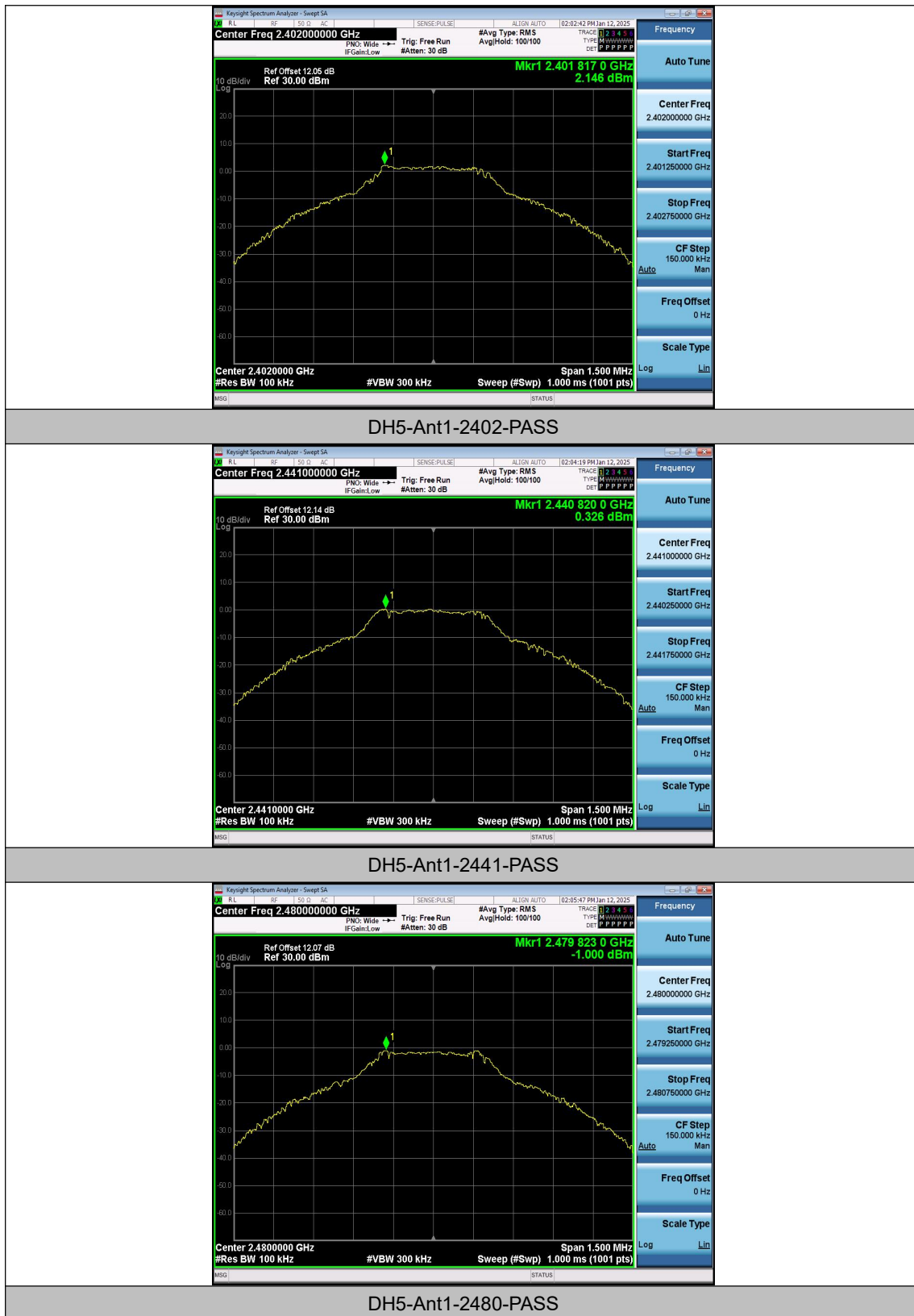


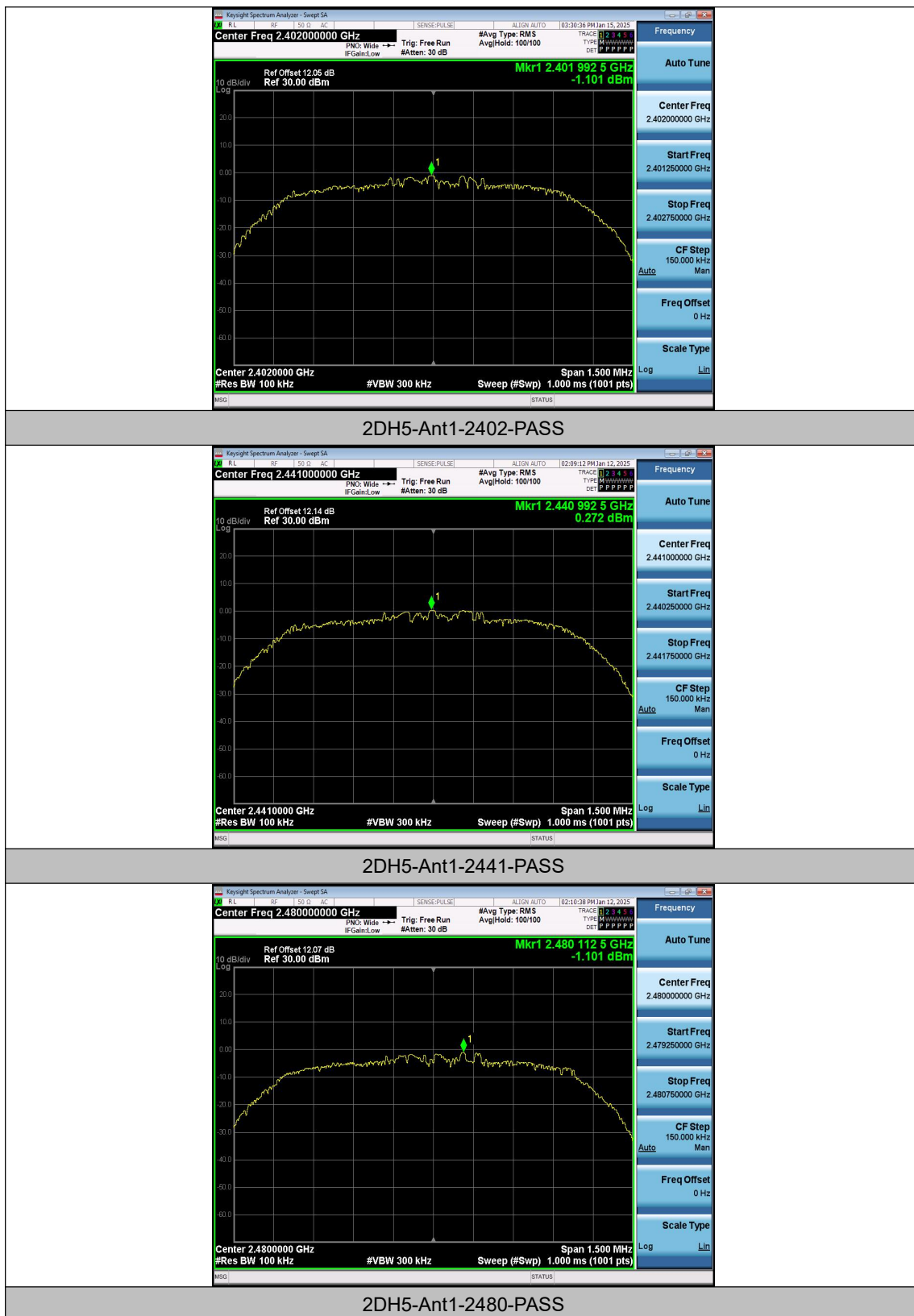
Appendix F: Reference level measurement

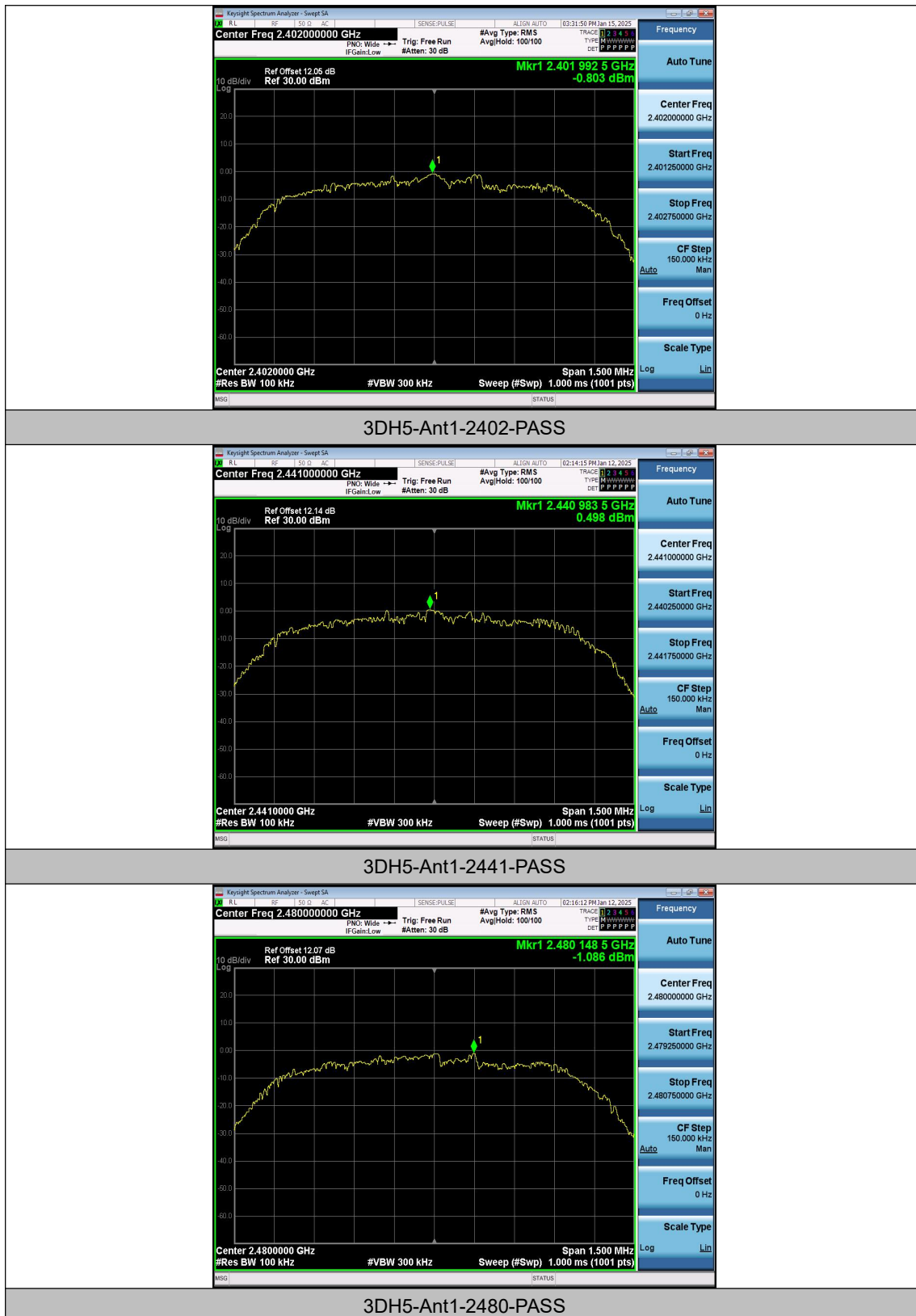
Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2401.82	2.15
DH5	Ant1	2441	2440.82	0.33
DH5	Ant1	2480	2479.82	-1.00
2DH5	Ant1	2402	2401.99	-1.10
2DH5	Ant1	2441	2440.99	0.27
2DH5	Ant1	2480	2480.11	-1.10
3DH5	Ant1	2402	2401.99	-0.80
3DH5	Ant1	2441	2440.98	0.50
3DH5	Ant1	2480	2480.15	-1.09

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	2.15	-46.16	≤ -17.85	PASS
DH5	Ant1	High	2480	-1.00	-47.61	≤ -21	PASS
DH5	Ant1	Low	Hop_2402	1.55	-46.89	≤ -18.45	PASS
DH5	Ant1	High	Hop_2480	-1.50	-46.5	≤ -21.5	PASS
2DH5	Ant1	Low	2402	-1.10	-46.06	≤ -21.1	PASS
2DH5	Ant1	High	2480	-1.10	-46.74	≤ -21.1	PASS
2DH5	Ant1	Low	Hop_2402	-0.57	-47.2	≤ -20.57	PASS
2DH5	Ant1	High	Hop_2480	-1.70	-46.54	≤ -21.7	PASS
3DH5	Ant1	Low	2402	-0.80	-47.4	≤ -20.8	PASS
3DH5	Ant1	High	2480	-1.09	-46.33	≤ -21.09	PASS
3DH5	Ant1	Low	Hop_2402	-0.07	-46.77	≤ -20.07	PASS
3DH5	Ant1	High	Hop_2480	-0.98	-46.33	≤ -20.98	PASS