

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

Product Name: WIFI TOUCH SCREEN KARAOKE SYSTEM

Trade Mark: Singing Machine

Test Model: ISM9015

FCC ID: 2AAXO-ISM9015

Environmental Conditions

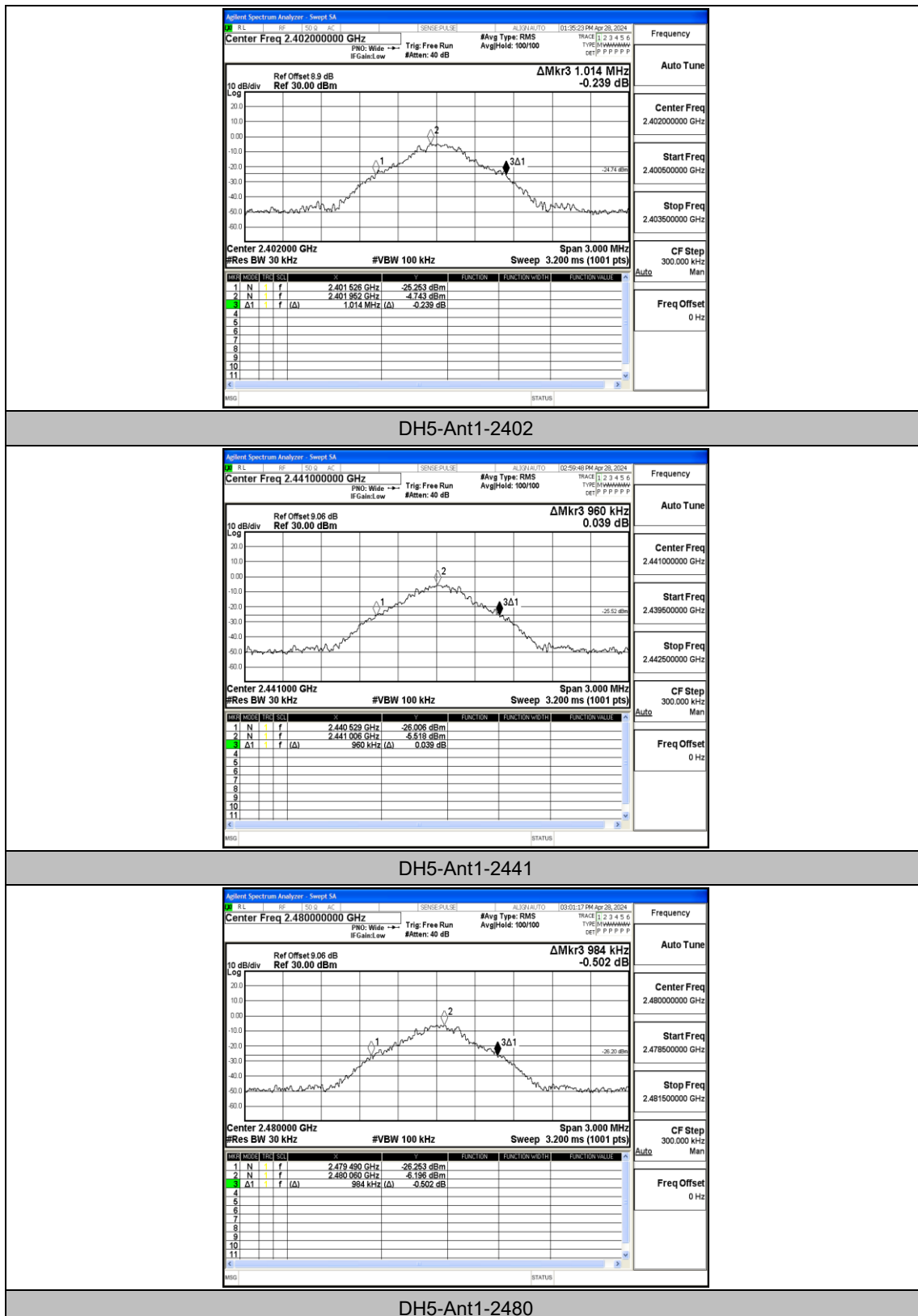
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

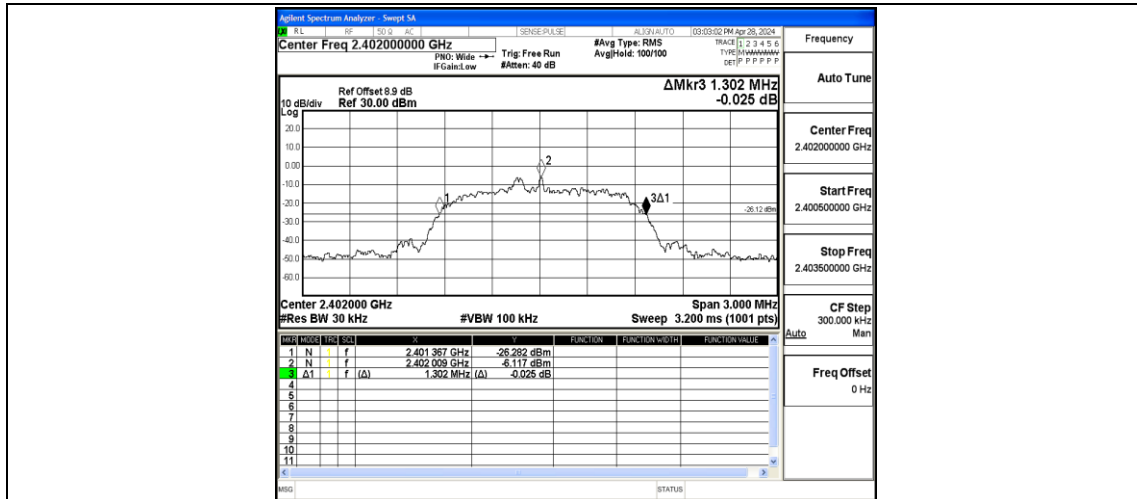
Appendix A: 20dB Emission Bandwidth

Test Result

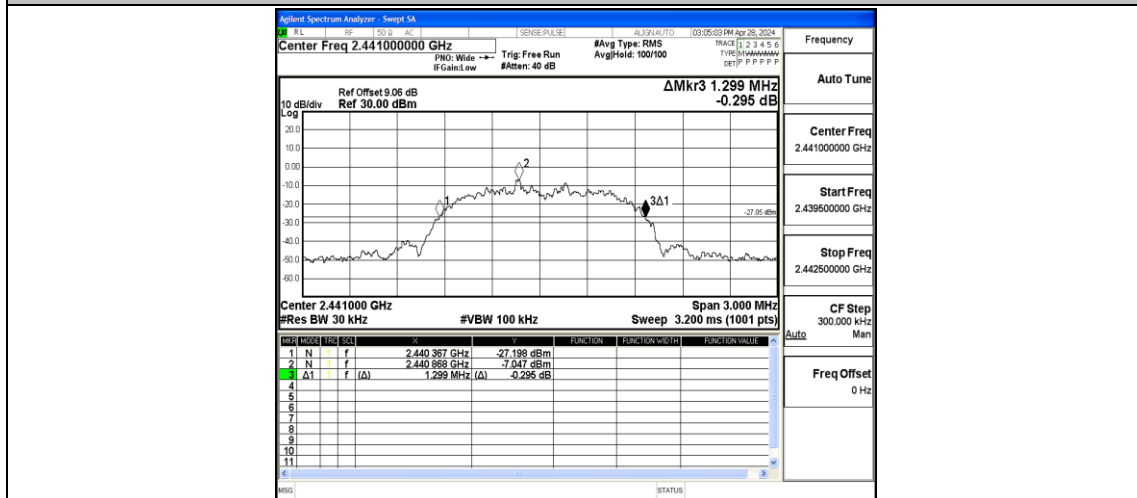
TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.014	2401.526	2402.540	---	---
DH5	Ant1	2441	0.960	2440.529	2441.489	---	---
DH5	Ant1	2480	0.984	2479.490	2480.474	---	---
2DH5	Ant1	2402	1.302	2401.367	2402.669	---	---
2DH5	Ant1	2441	1.299	2440.367	2441.666	---	---
2DH5	Ant1	2480	1.326	2479.337	2480.663	---	---
3DH5	Ant1	2402	1.314	2401.358	2402.672	---	---
3DH5	Ant1	2441	1.314	2440.361	2441.675	---	---
3DH5	Ant1	2480	1.278	2479.364	2480.642	---	---

Test Graphs

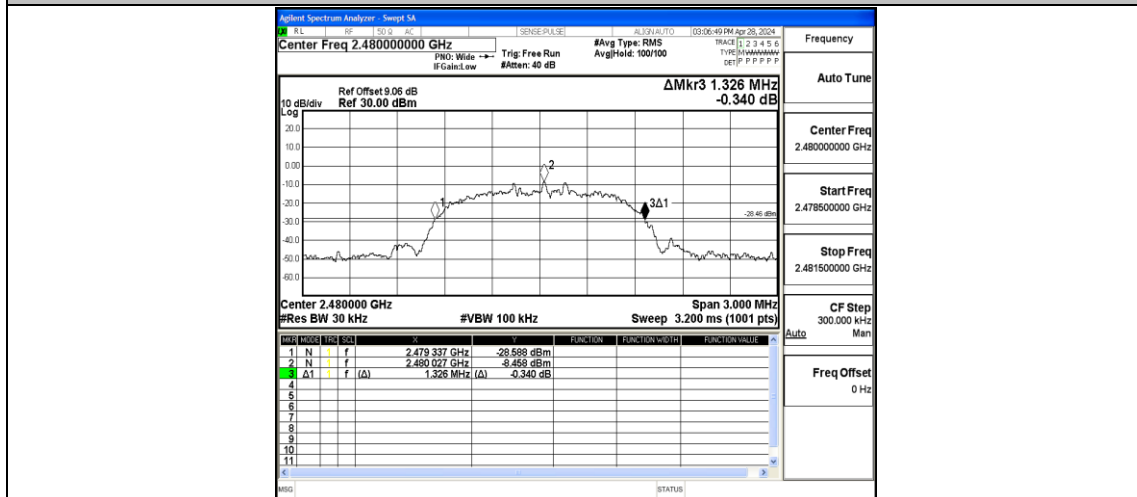




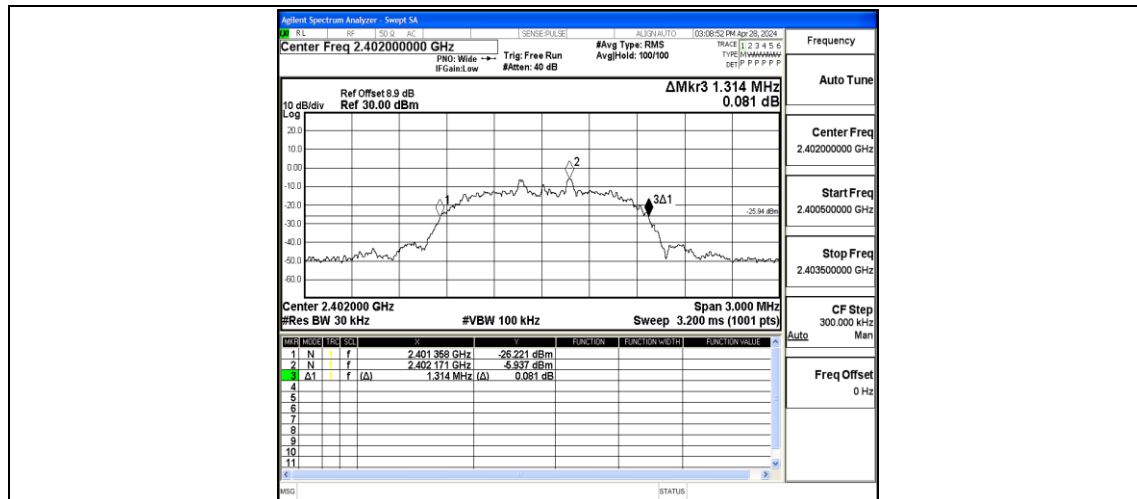
2DH5-Ant1-2402



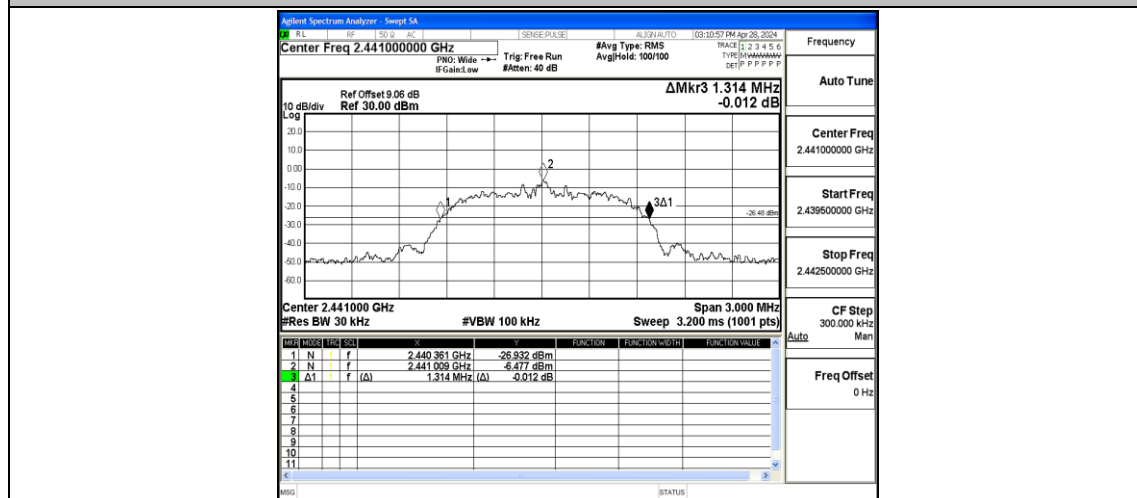
2DH5-Ant1-2441



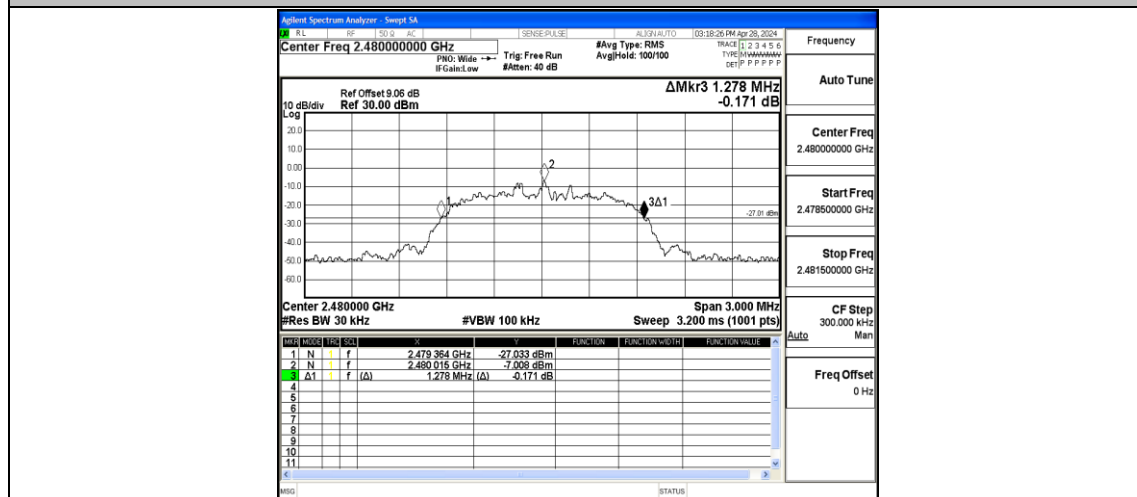
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



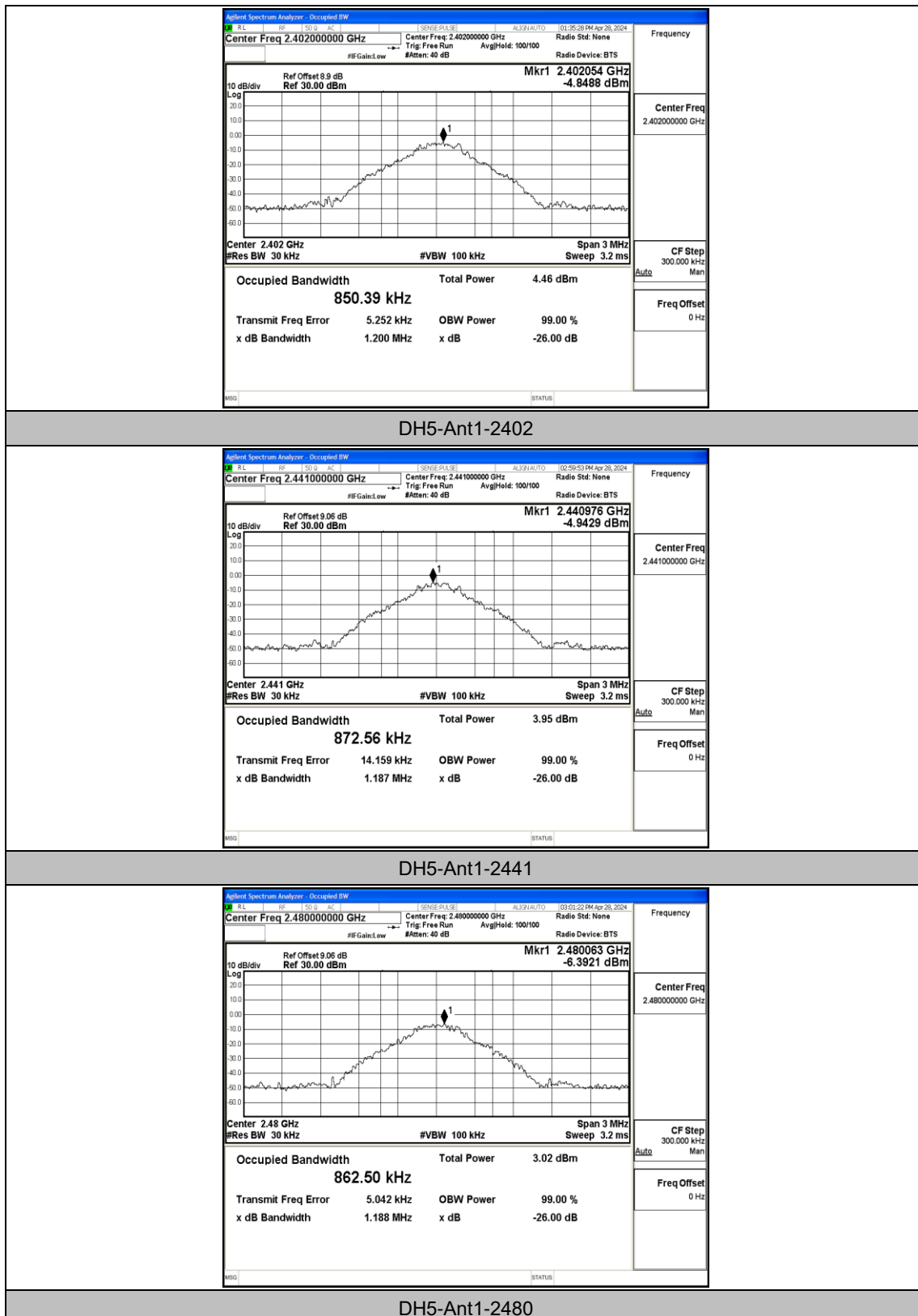
3DH5-Ant1-2480

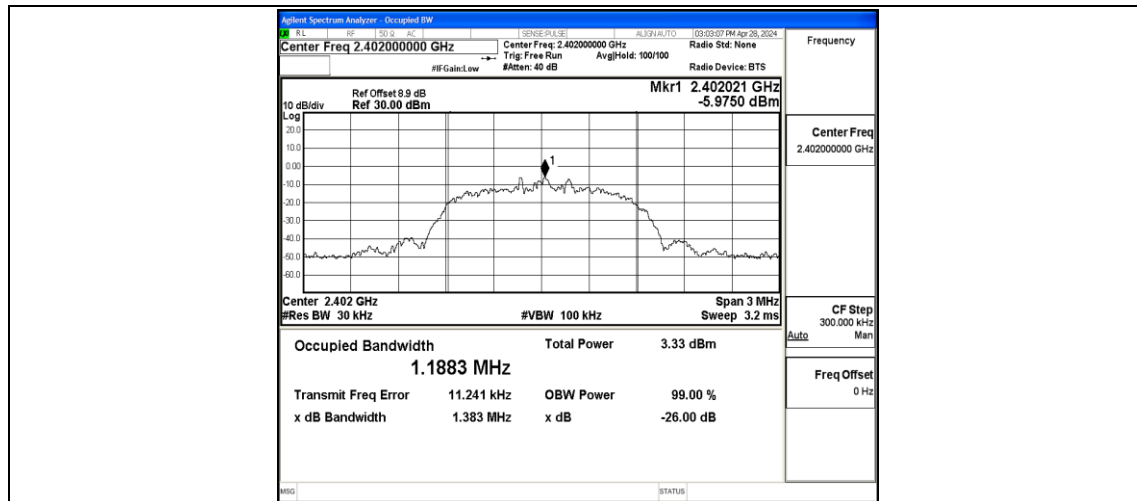
Appendix B: Occupied Channel Bandwidth

Test Result

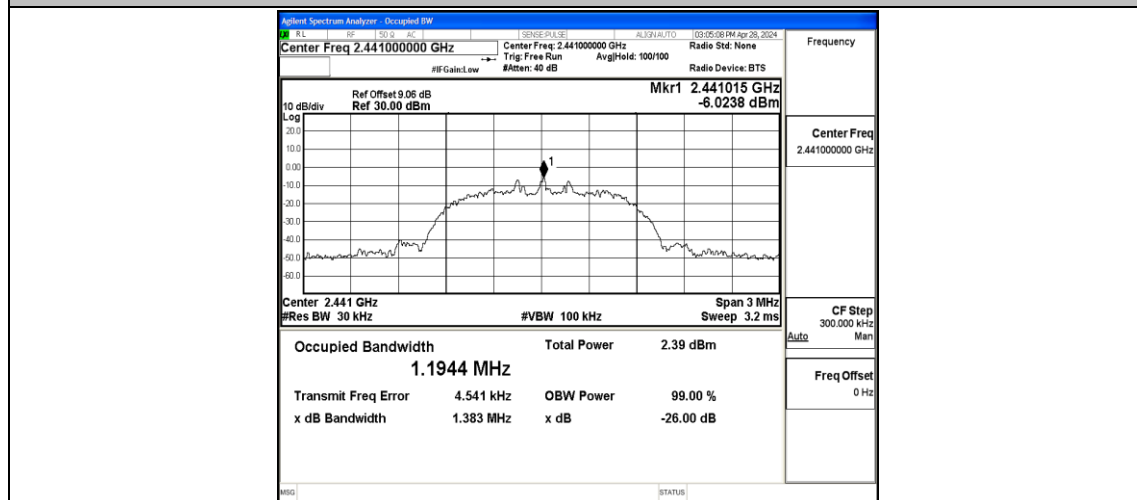
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85039	2401.5801	2402.4304	---	---
DH5	Ant1	2441	0.87256	2440.5779	2441.4504	---	---
DH5	Ant1	2480	0.86250	2479.5738	2480.4363	---	---
2DH5	Ant1	2402	1.1883	2401.4171	2402.6054	---	---
2DH5	Ant1	2441	1.1944	2440.4073	2441.6017	---	---
2DH5	Ant1	2480	1.1969	2479.4070	2480.6039	---	---
3DH5	Ant1	2402	1.1941	2401.4159	2402.6100	---	---
3DH5	Ant1	2441	1.2010	2440.4133	2441.6143	---	---
3DH5	Ant1	2480	1.2057	2479.4060	2480.6117	---	---

Test Graphs

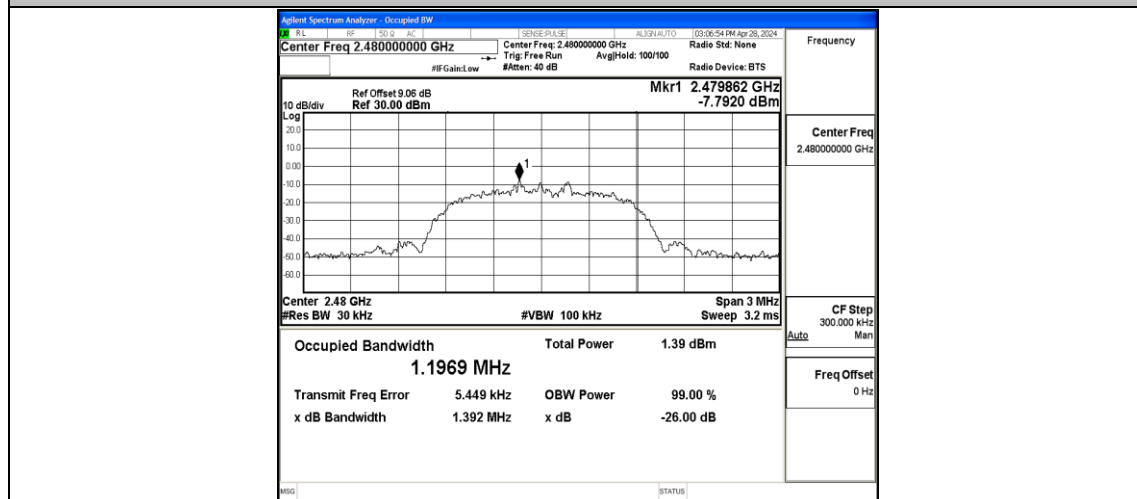




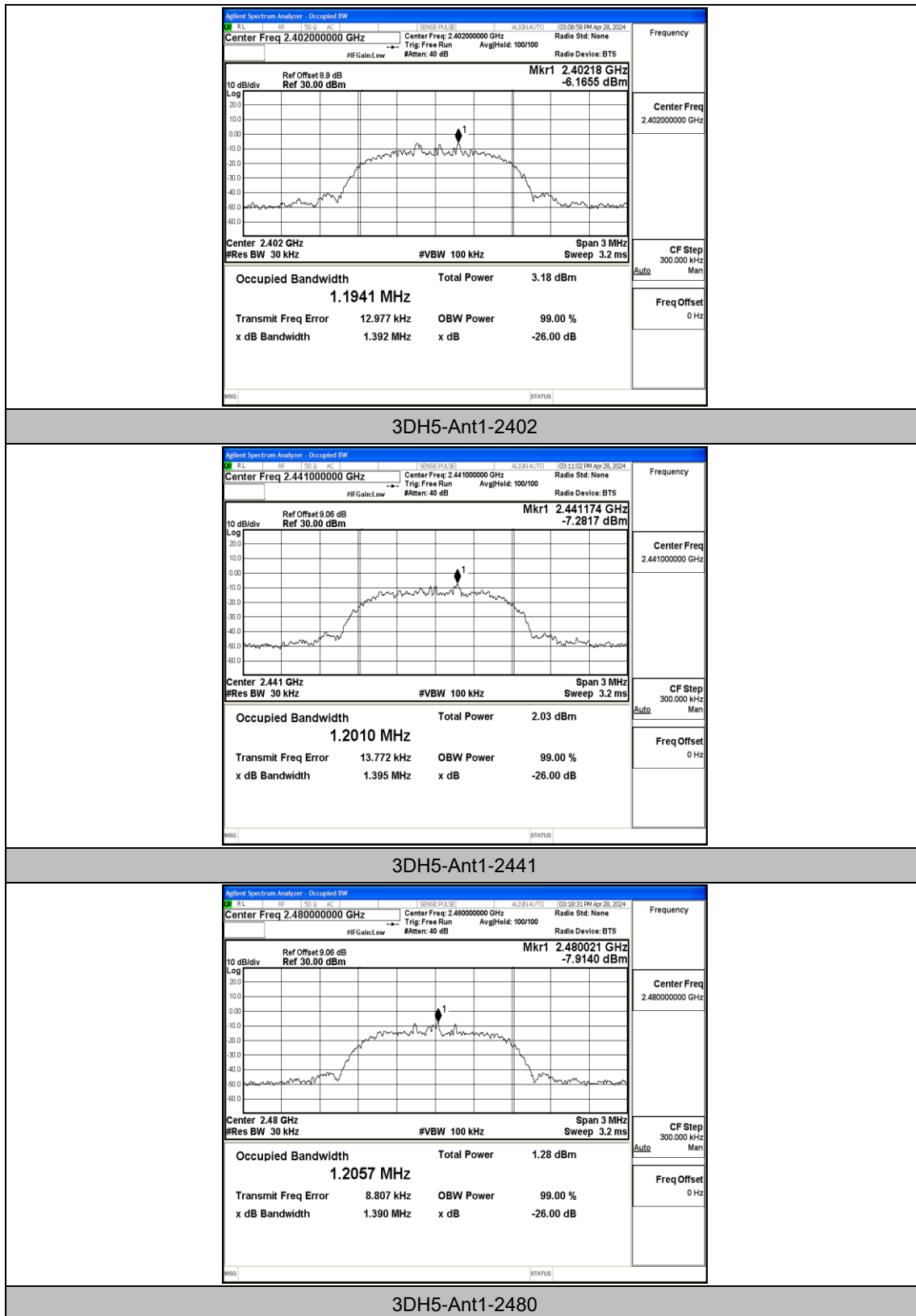
2DH5-Ant1-2402



2DH5-Ant1-2441



2DH5-Ant1-2480

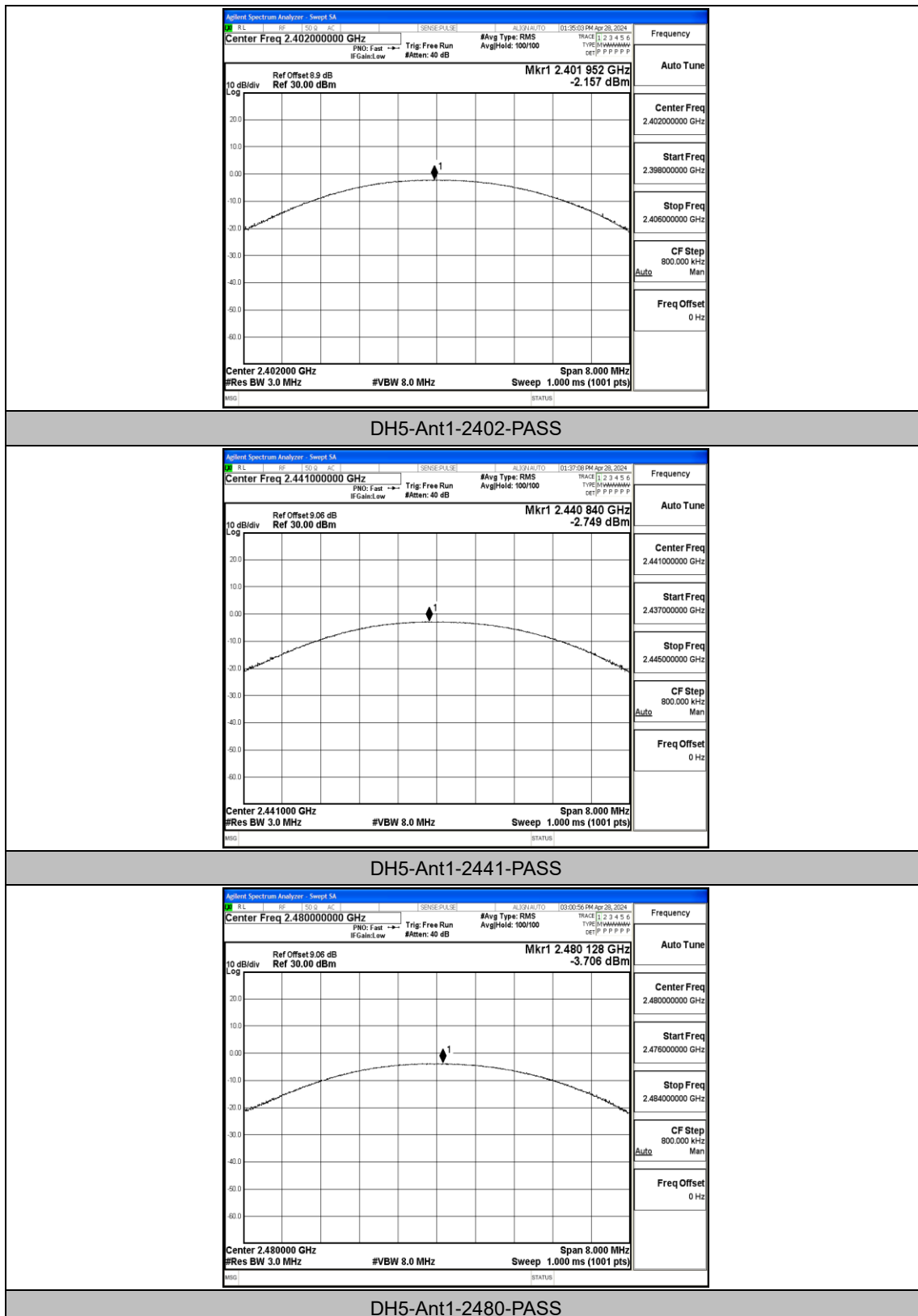


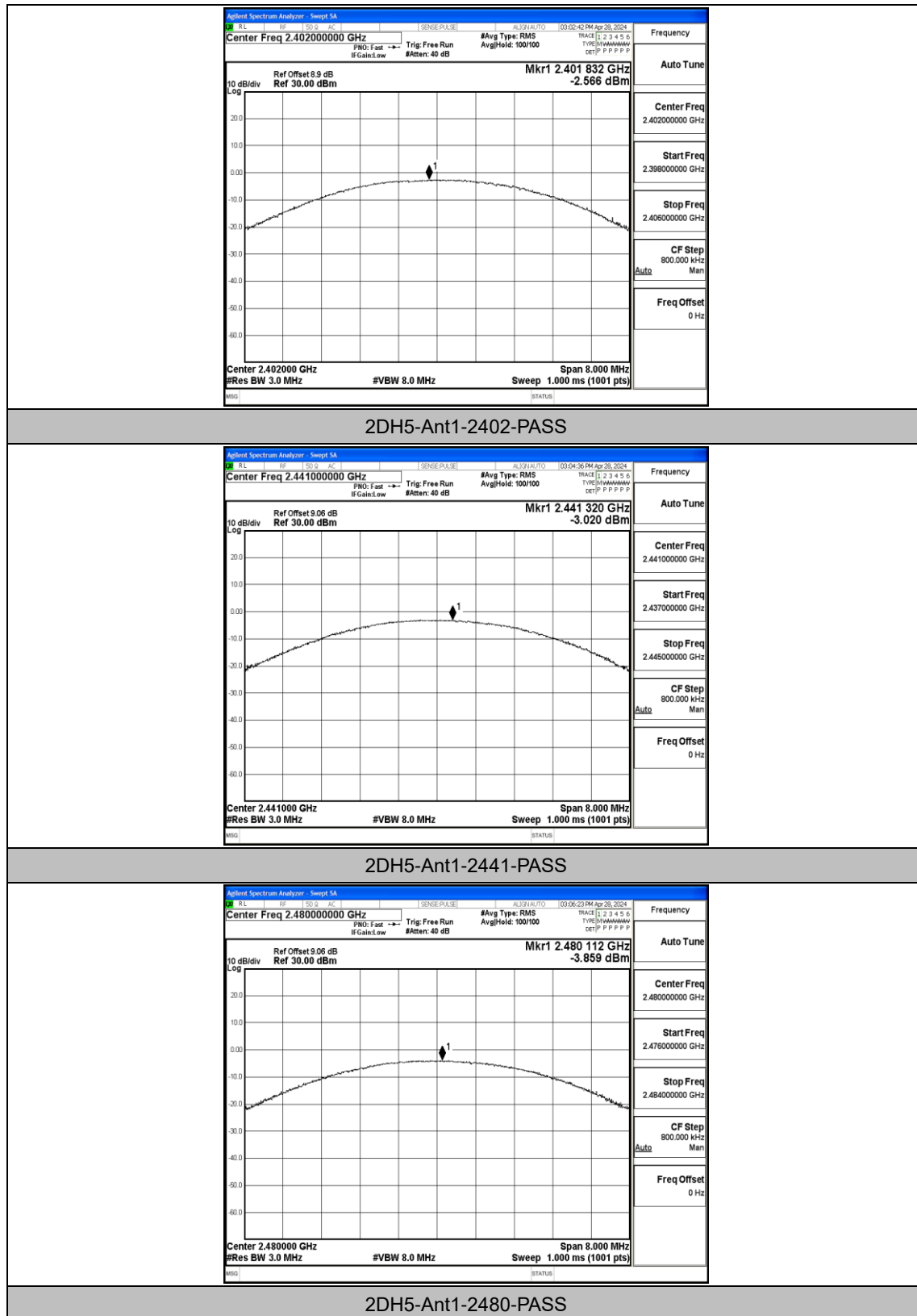
Appendix C: Maximum peak conducted output power

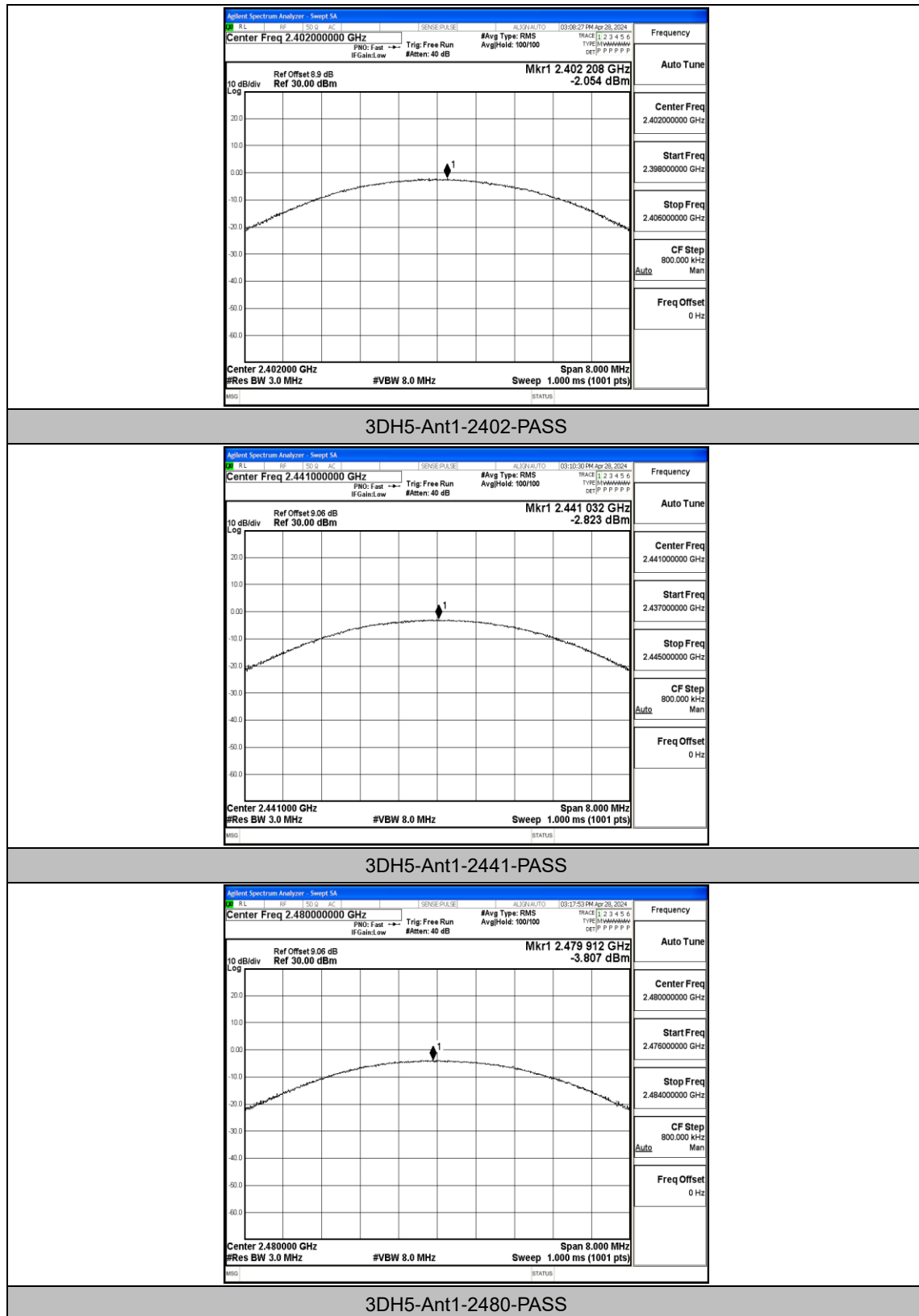
Test Result

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-2.16	≤30	PASS
DH5	Ant1	2441	-2.75	≤30	PASS
DH5	Ant1	2480	-3.71	≤30	PASS
2DH5	Ant1	2402	-2.57	≤20.97	PASS
2DH5	Ant1	2441	-3.02	≤20.97	PASS
2DH5	Ant1	2480	-3.86	≤20.97	PASS
3DH5	Ant1	2402	-2.05	≤20.97	PASS
3DH5	Ant1	2441	-2.82	≤20.97	PASS
3DH5	Ant1	2480	-3.81	≤20.97	PASS

Test Graphs





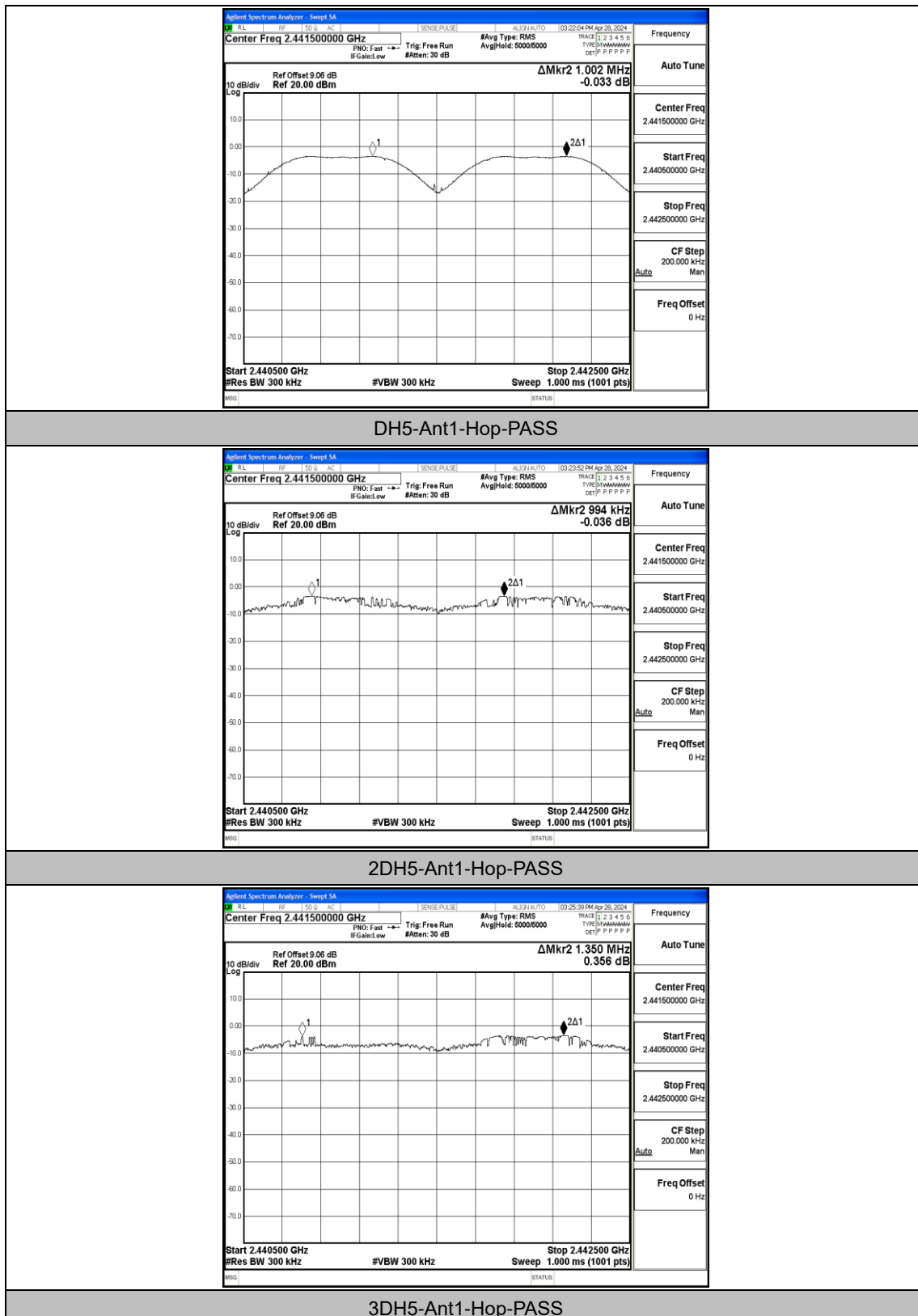


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.002	≥ 0.676	PASS
2DH5	Ant1	Hop	0.994	≥ 0.884	PASS
3DH5	Ant1	Hop	1.35	≥ 1.314	PASS

Test Graphs

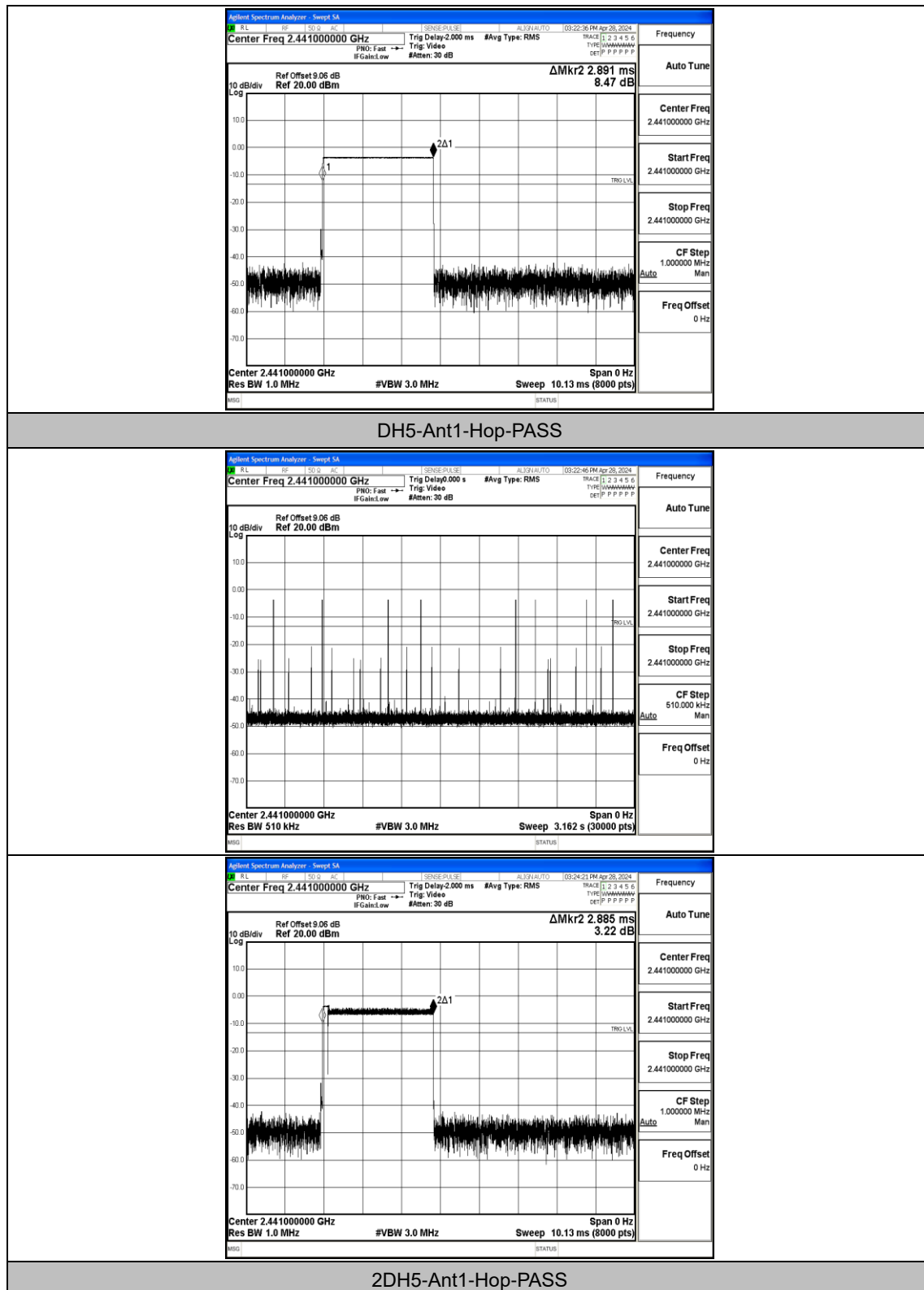


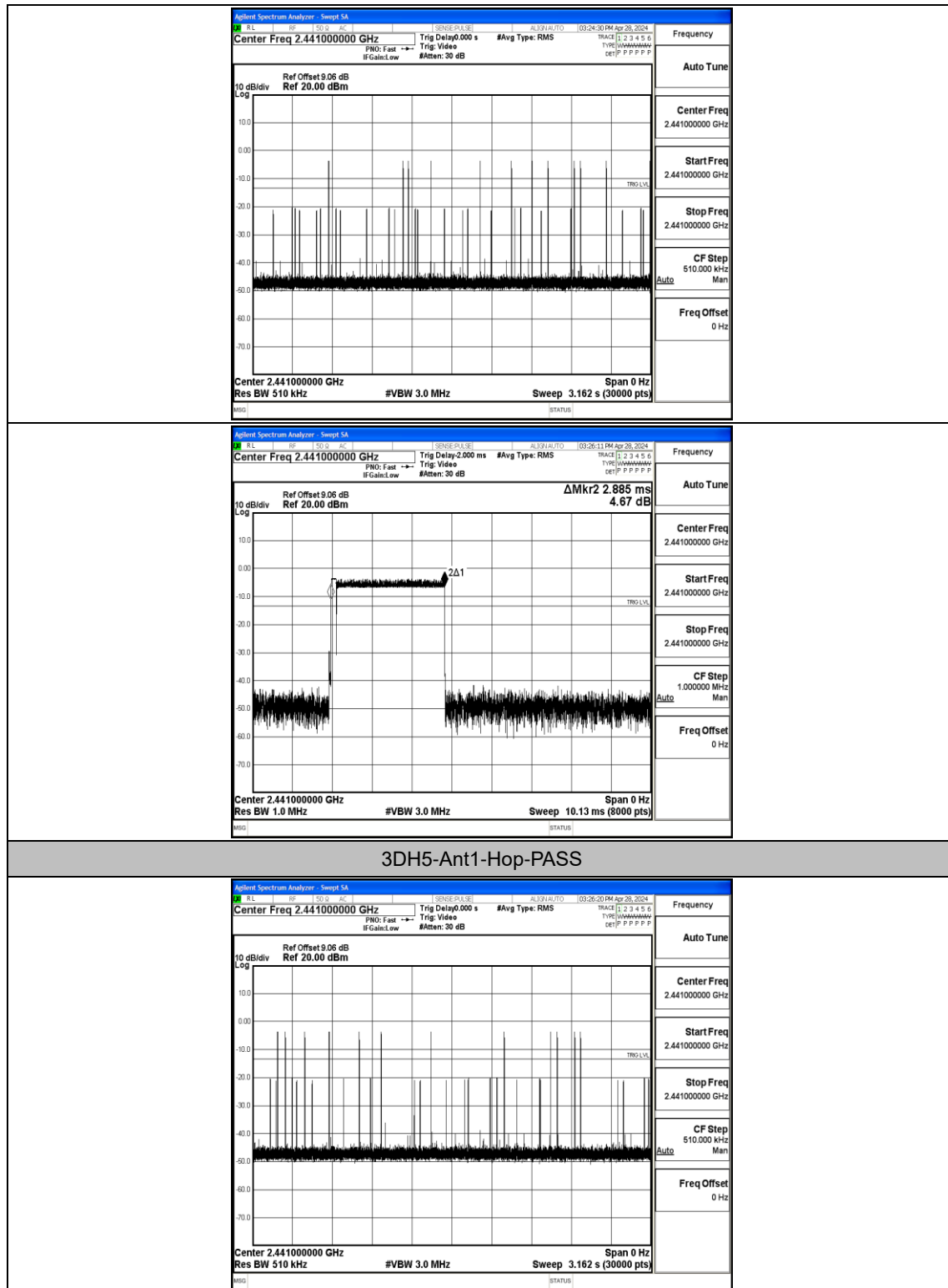
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.891	90	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.885	130	0.375	≤0.4	PASS
3DH5	Ant1	Hop	2.885	130	0.375	≤0.4	PASS

Test Graphs



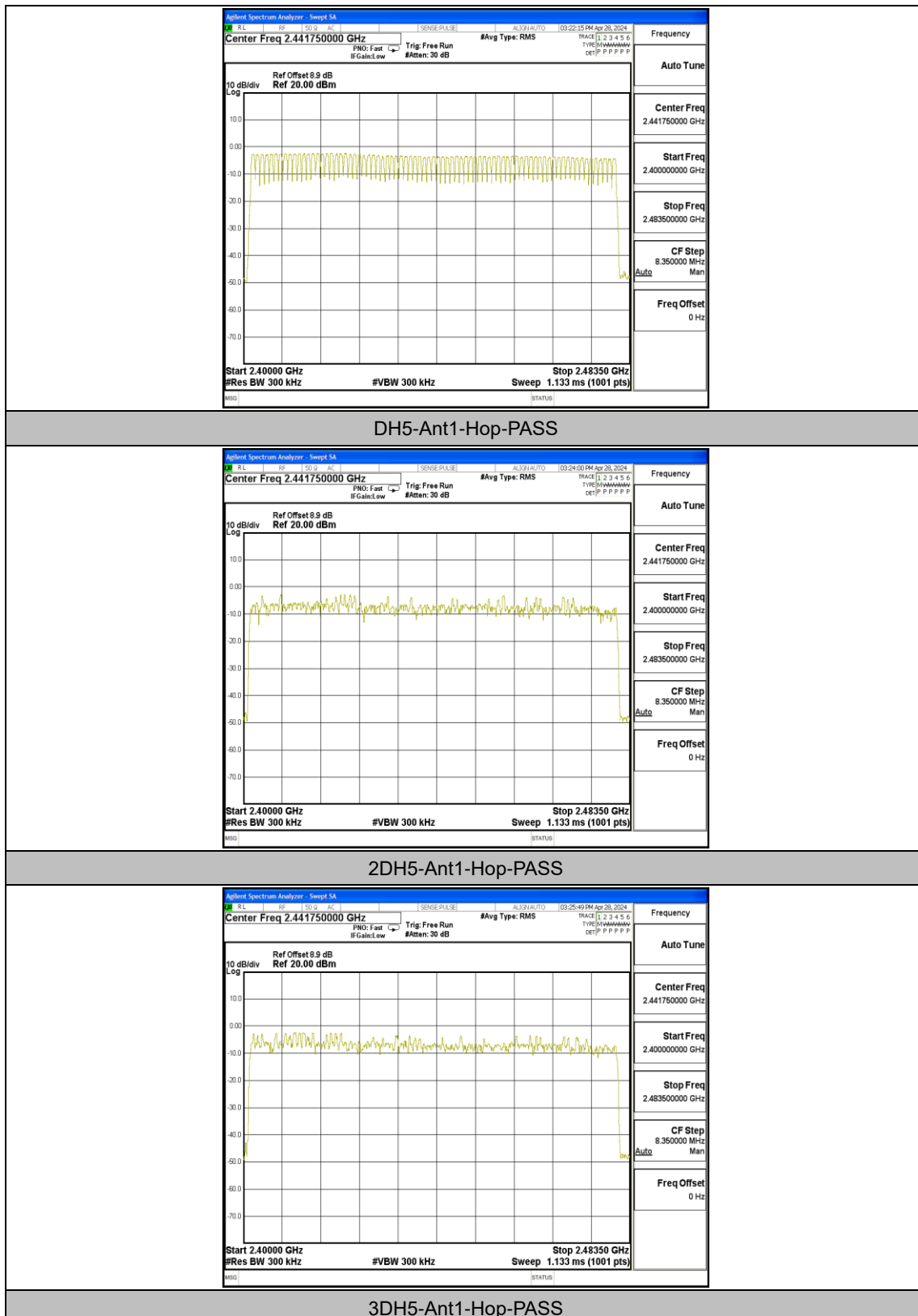


Appendix F: Number of hopping channels

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

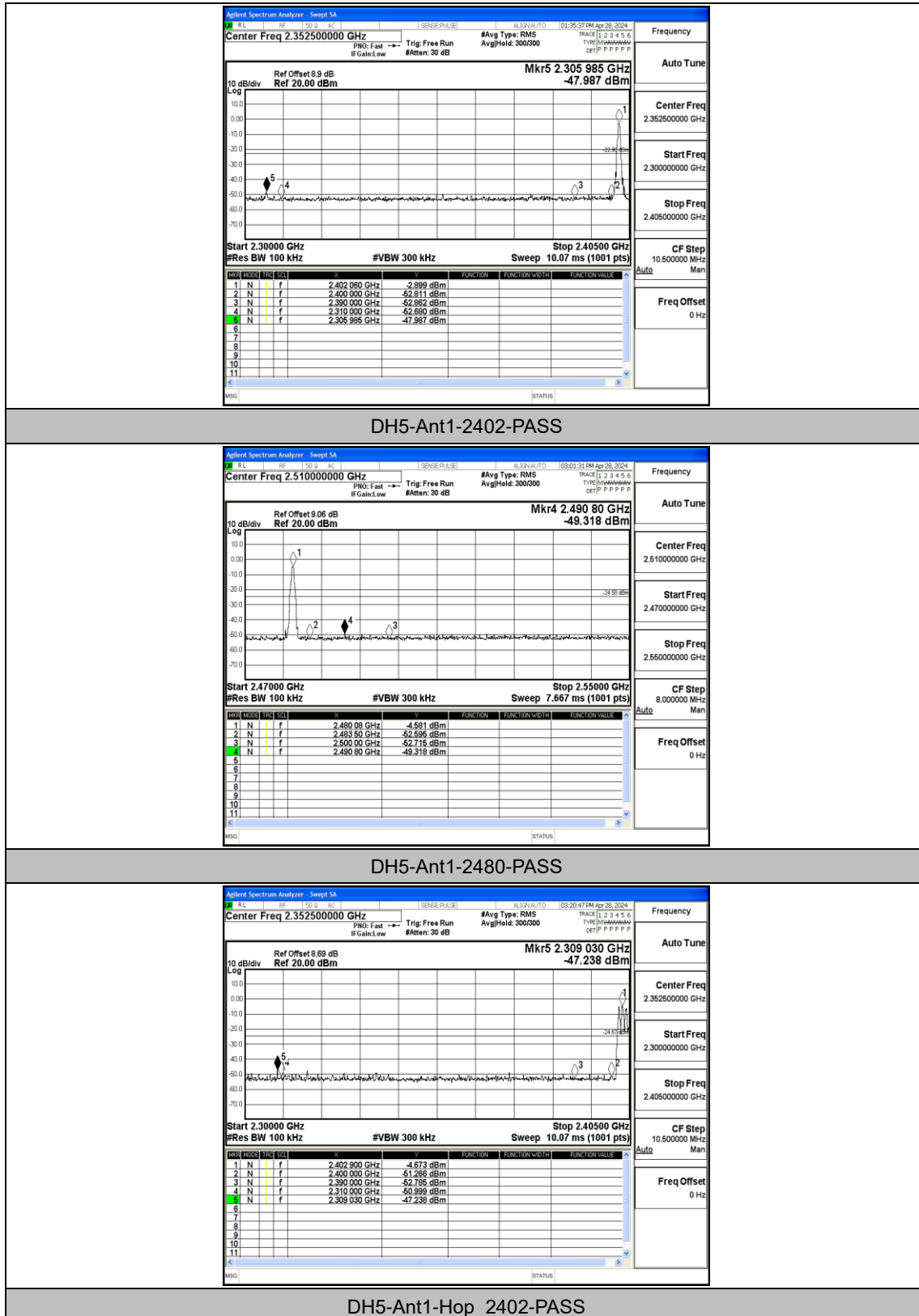


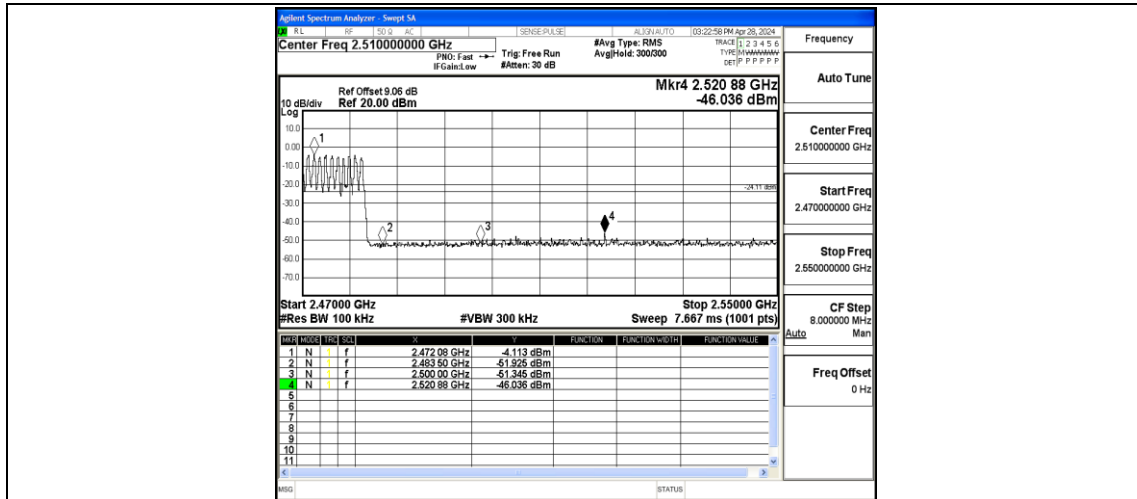
Appendix G: Band edge measurements

Test Result

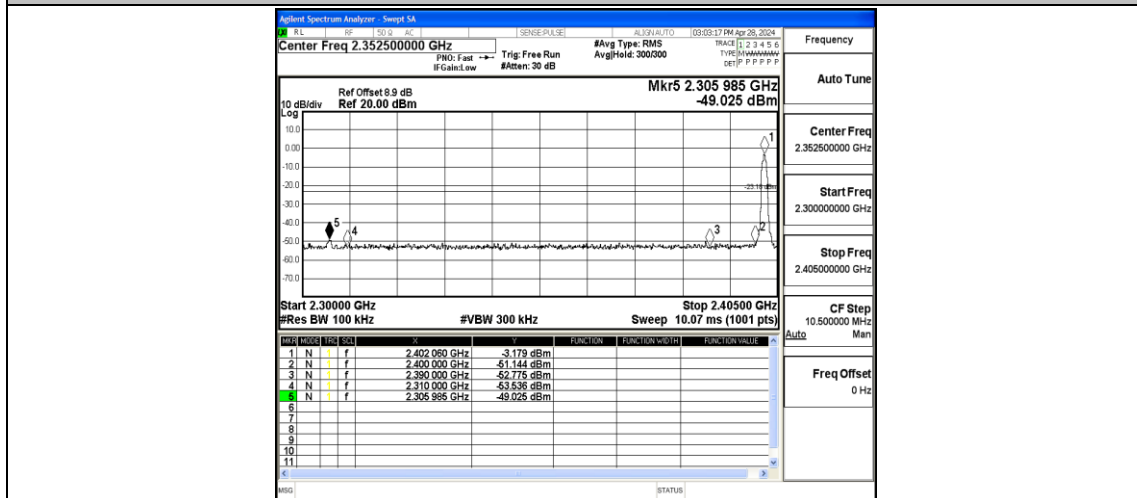
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.90	-47.99	≤ -22.9	PASS
DH5	Ant1	High	2480	-4.58	-49.32	≤ -24.58	PASS
DH5	Ant1	Low	Hop_2402	-4.67	-47.24	≤ -24.67	PASS
DH5	Ant1	High	Hop_2480	-4.11	-46.04	≤ -24.11	PASS
2DH5	Ant1	Low	2402	-3.18	-49.03	≤ -23.18	PASS
2DH5	Ant1	High	2480	-4.38	-48.26	≤ -24.38	PASS
2DH5	Ant1	Low	Hop_2402	-3.16	-50.56	≤ -23.16	PASS
2DH5	Ant1	High	Hop_2480	-4.54	-48.95	≤ -24.54	PASS
3DH5	Ant1	Low	2402	-2.82	-48.15	≤ -22.82	PASS
3DH5	Ant1	High	2480	-4.51	-49.48	≤ -24.51	PASS
3DH5	Ant1	Low	Hop_2402	-3.94	-49.56	≤ -23.94	PASS
3DH5	Ant1	High	Hop_2480	-9.46	-47.14	≤ -29.46	PASS

Test Graphs

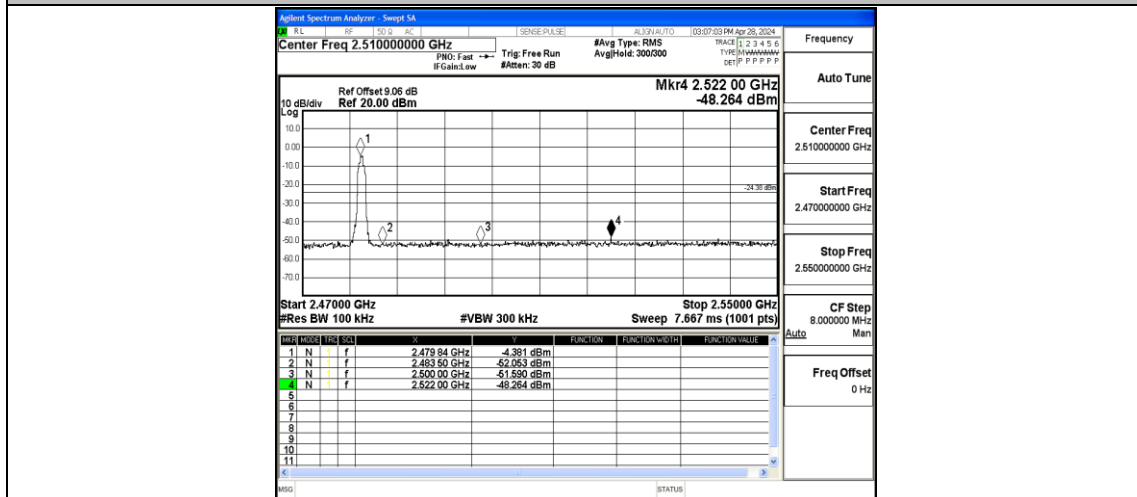




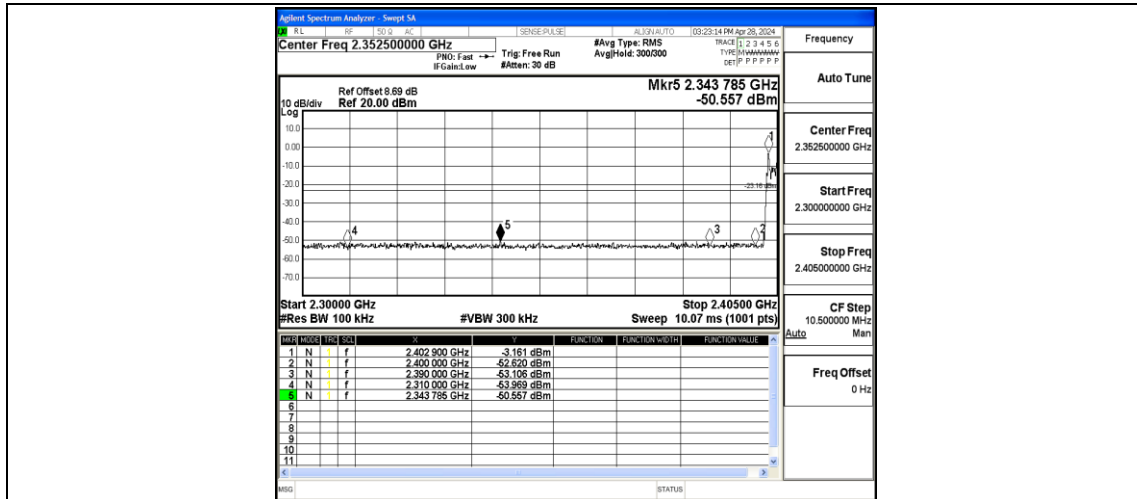
DH5-Ant1-Hop_2480-PASS



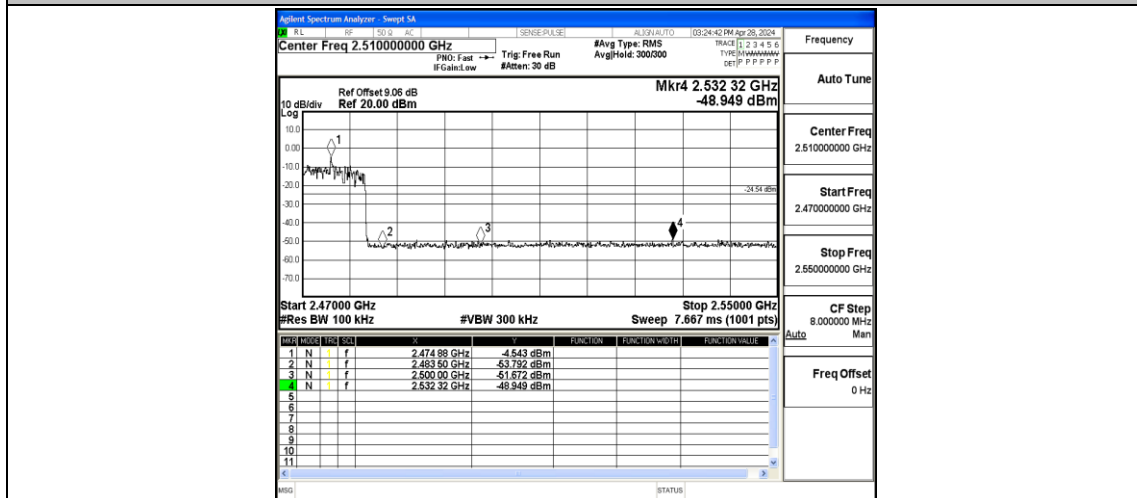
2DH5-Ant1-2402-PASS



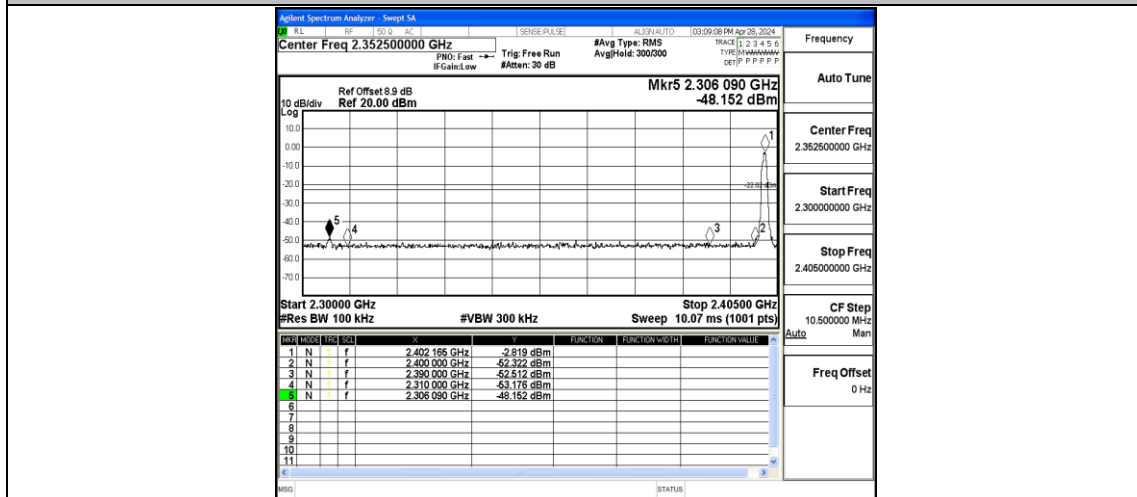
2DH5-Ant1-2480-PASS



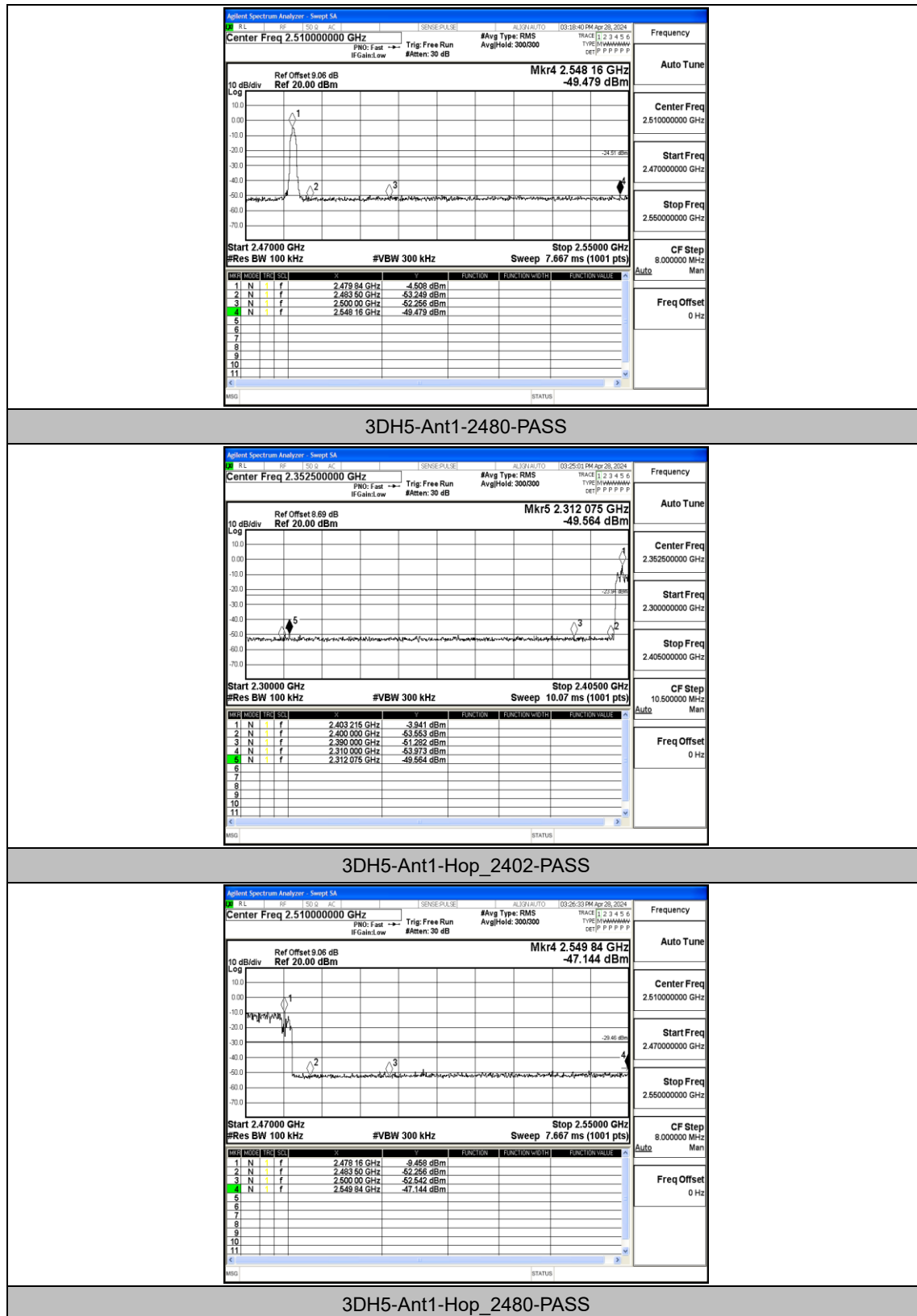
2DH5-Ant1-Hop_2402-PASS



2DH5-Ant1-Hop_2480-PASS



3DH5-Ant1-2402-PASS

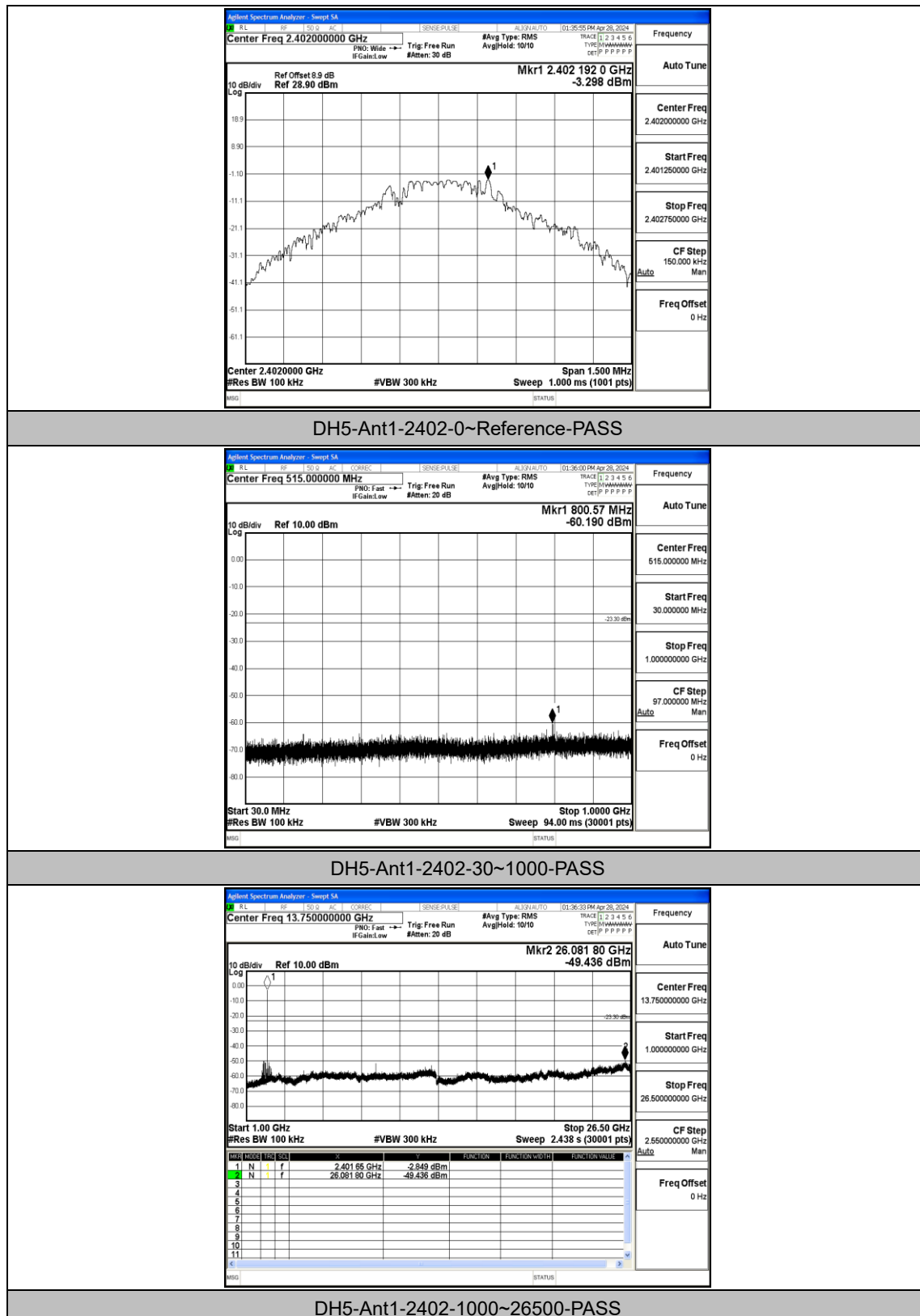


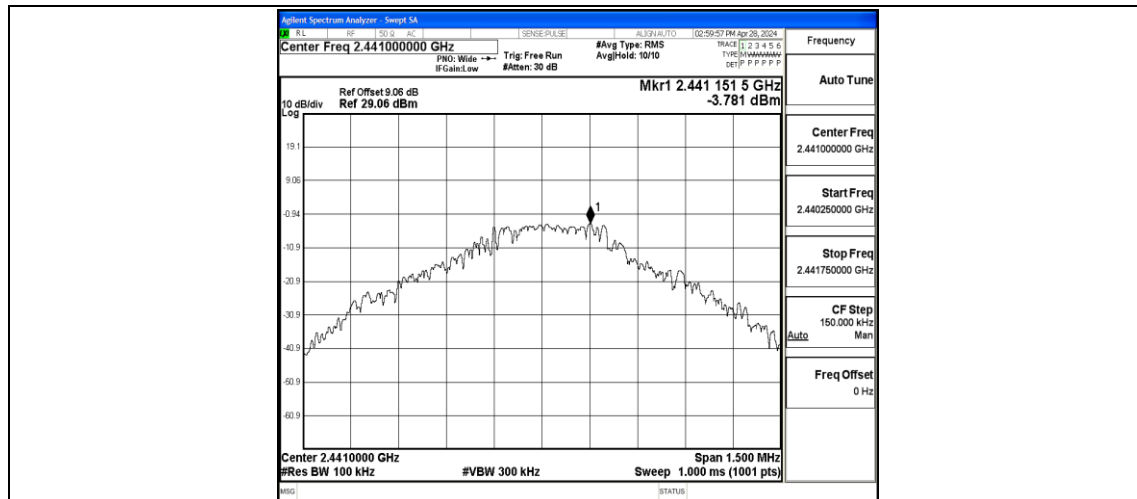
Appendix H: Conducted Spurious Emission

Test Result

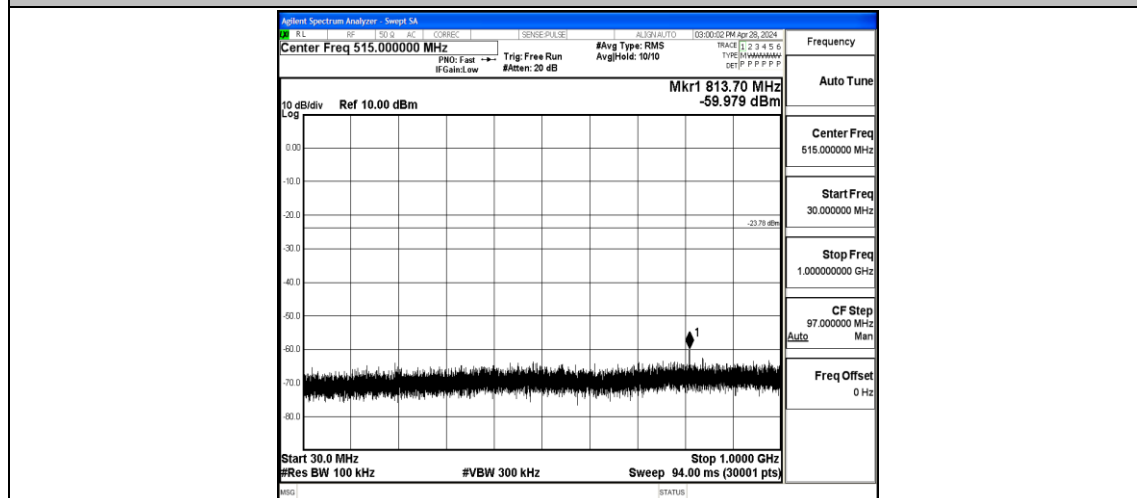
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-3.30	-3.30	---	PASS
DH5	Ant1	2402	30~1000	-3.30	-60.19	≤-23.3	PASS
DH5	Ant1	2402	1000~26500	-3.30	-49.44	≤-23.3	PASS
DH5	Ant1	2441	0~Reference	-3.78	-3.78	---	PASS
DH5	Ant1	2441	30~1000	-3.78	-59.98	≤-23.78	PASS
DH5	Ant1	2441	1000~26500	-3.78	-49.47	≤-23.78	PASS
DH5	Ant1	2480	0~Reference	-4.90	-4.90	---	PASS
DH5	Ant1	2480	30~1000	-4.90	-60.31	≤-24.9	PASS
DH5	Ant1	2480	1000~26500	-4.90	-49.57	≤-24.9	PASS
2DH5	Ant1	2402	0~Reference	-7.89	-7.89	---	PASS
2DH5	Ant1	2402	30~1000	-7.89	-61.78	≤-27.89	PASS
2DH5	Ant1	2402	1000~26500	-7.89	-49.69	≤-27.89	PASS
2DH5	Ant1	2441	0~Reference	-8.42	-8.42	---	PASS
2DH5	Ant1	2441	30~1000	-8.42	-61.84	≤-28.42	PASS
2DH5	Ant1	2441	1000~26500	-8.42	-50.29	≤-28.42	PASS
2DH5	Ant1	2480	0~Reference	-8.84	-8.84	---	PASS
2DH5	Ant1	2480	30~1000	-8.84	-63.13	≤-28.84	PASS
2DH5	Ant1	2480	1000~26500	-8.84	-49.46	≤-28.84	PASS
3DH5	Ant1	2402	0~Reference	-3.05	-3.05	---	PASS
3DH5	Ant1	2402	30~1000	-3.05	-63.22	≤-23.05	PASS
3DH5	Ant1	2402	1000~26500	-3.05	-49.49	≤-23.05	PASS
3DH5	Ant1	2441	0~Reference	-4.02	-4.02	---	PASS
3DH5	Ant1	2441	30~1000	-4.02	-61.4	≤-24.02	PASS
3DH5	Ant1	2441	1000~26500	-4.02	-50.8	≤-24.02	PASS
3DH5	Ant1	2480	0~Reference	-8.78	-8.78	---	PASS
3DH5	Ant1	2480	30~1000	-8.78	-62.61	≤-28.78	PASS
3DH5	Ant1	2480	1000~26500	-8.78	-50.28	≤-28.78	PASS

Test Graphs

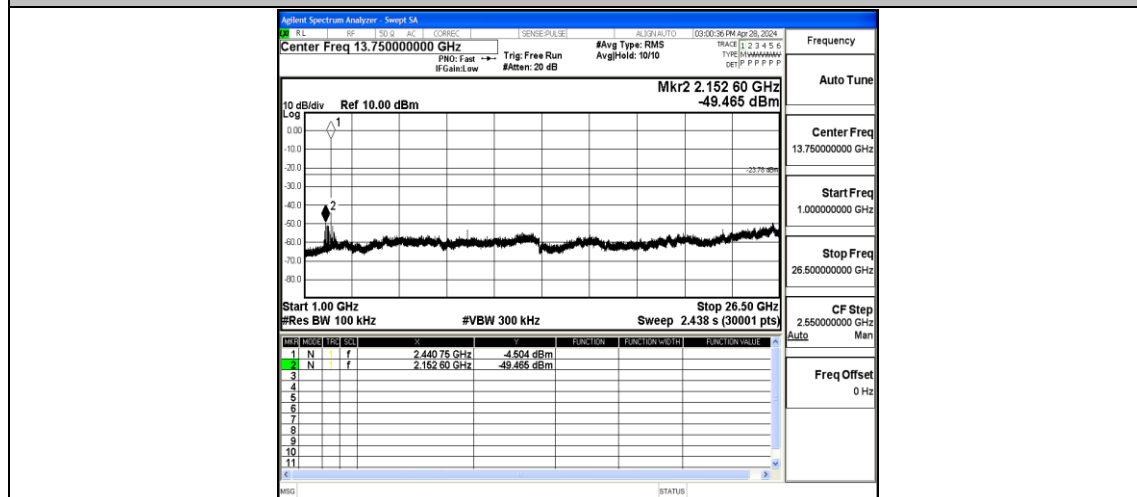




DH5-Ant1-2441-0~Reference-PASS



DH5-Ant1-2441-30~1000-PASS



DH5-Ant1-2441-1000~26500-PASS