

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Portable Speaker

Test Model: Sonic Boom Ultra

Environmental Conditions

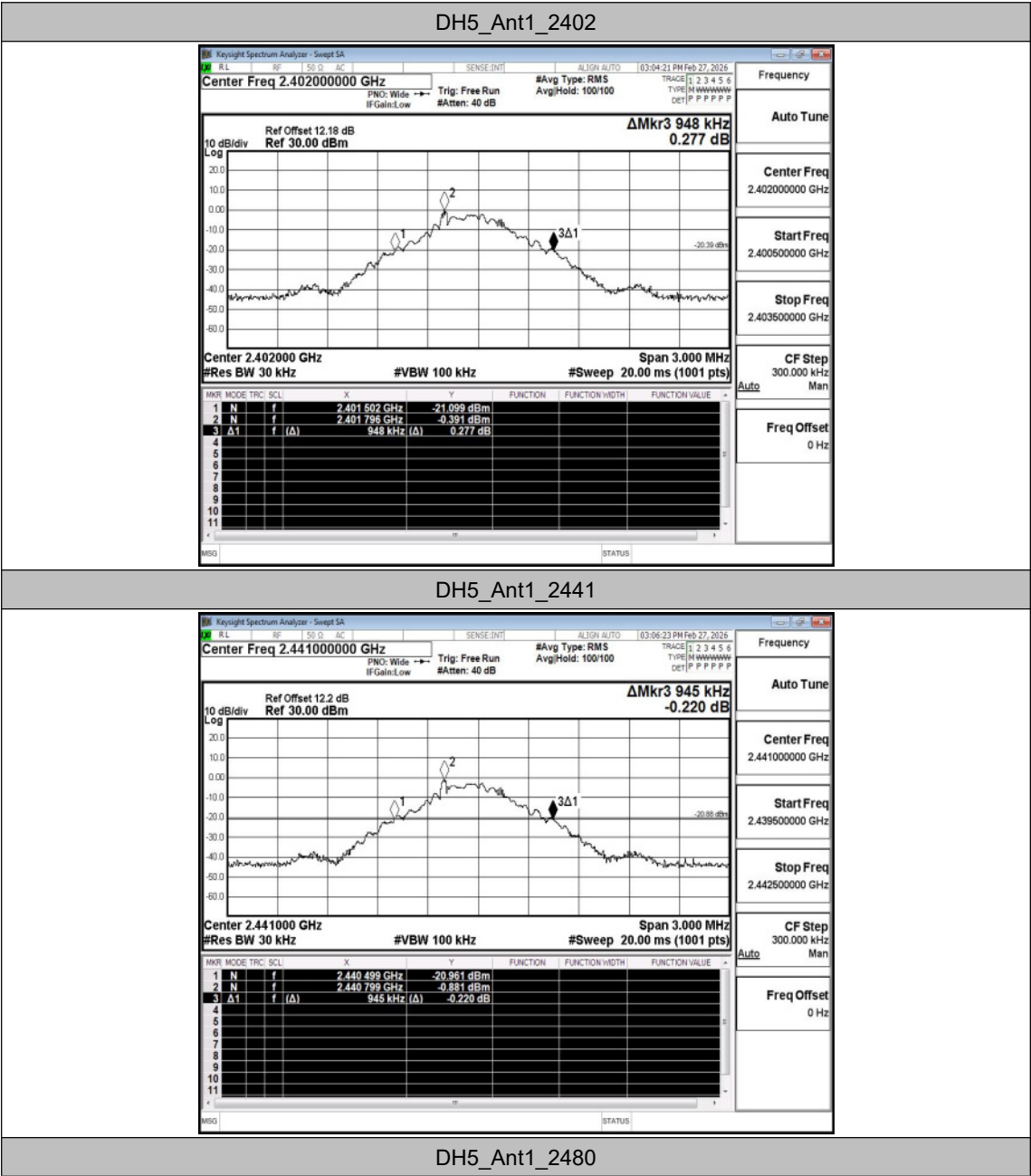
Temperature:	24.2°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Yan Chen
Supervised by:	Fengliu Tang

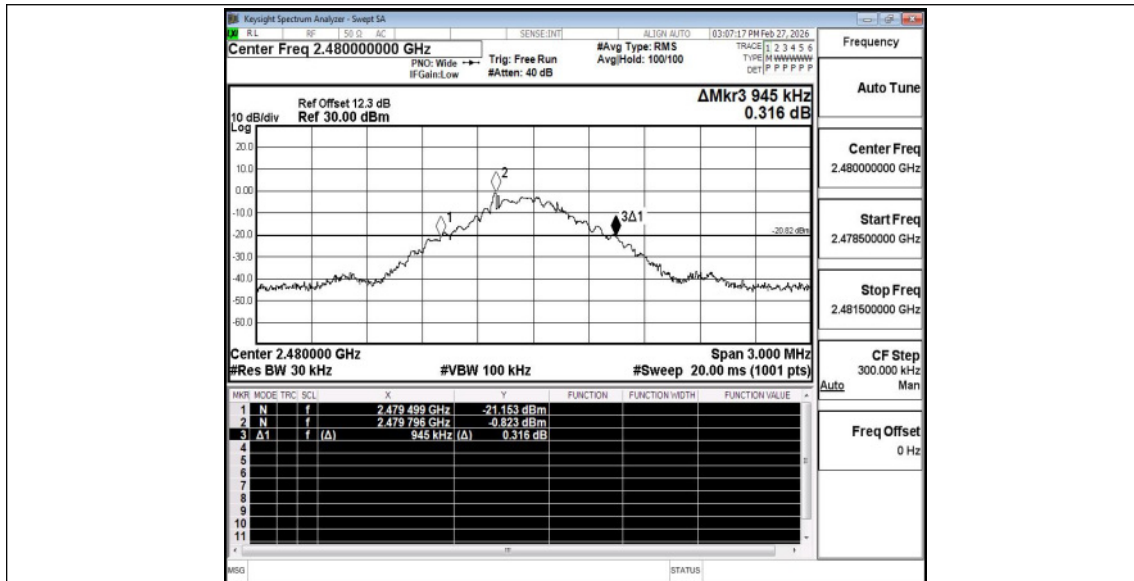
A.1 20dB Emission Bandwidth

Test Result

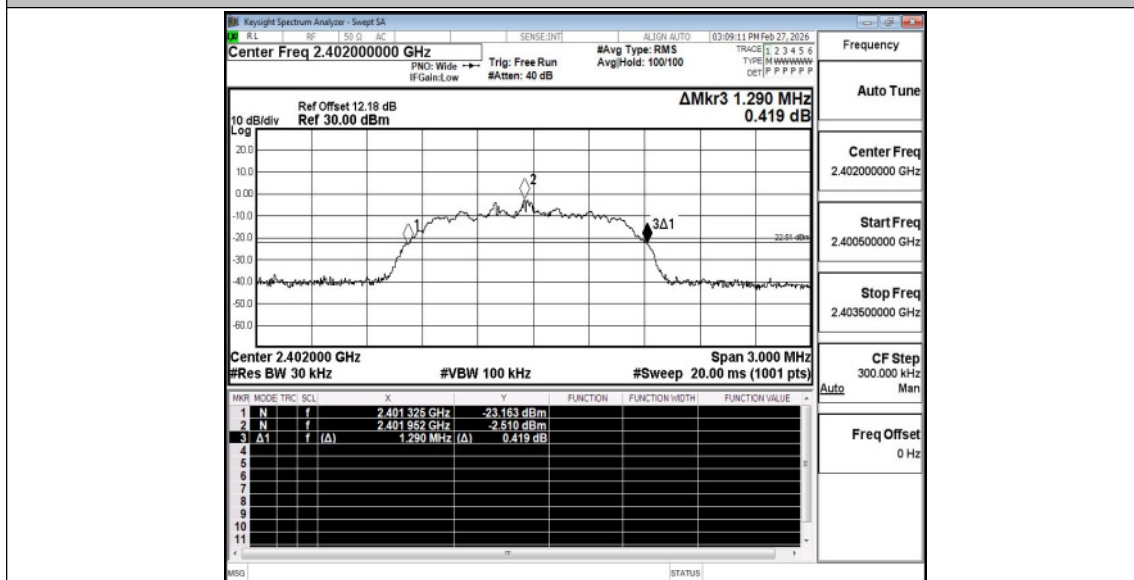
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.502	2402.450	---	---
		2441	0.945	2440.499	2441.444	---	---
		2480	0.945	2479.499	2480.444	---	---
2DH5	Ant1	2402	1.290	2401.325	2402.615	---	---
		2441	1.272	2440.334	2441.606	---	---
		2480	1.281	2479.334	2480.615	---	---
3DH5	Ant1	2402	1.257	2401.325	2402.582	---	---
		2441	1.254	2440.328	2441.582	---	---
		2480	1.257	2479.325	2480.582	---	---

Test Graphs

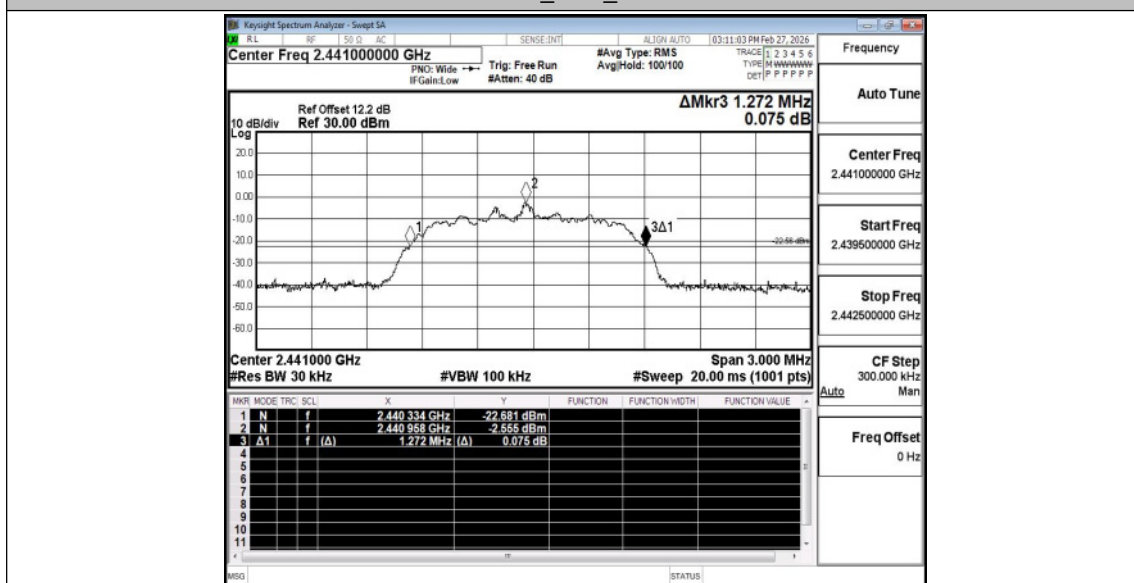




2DH5_Ant1_2402



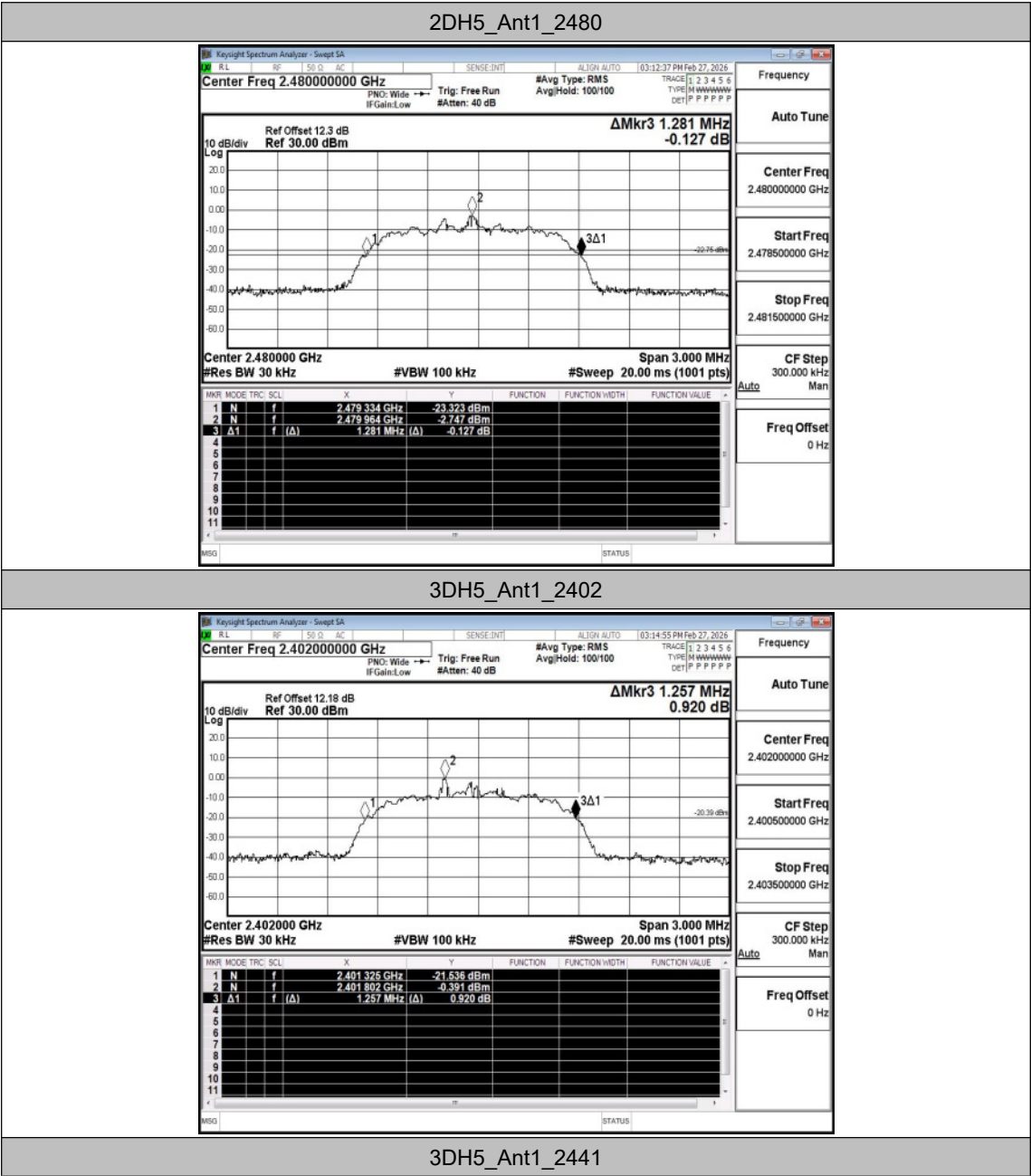
2DH5_Ant1_2441

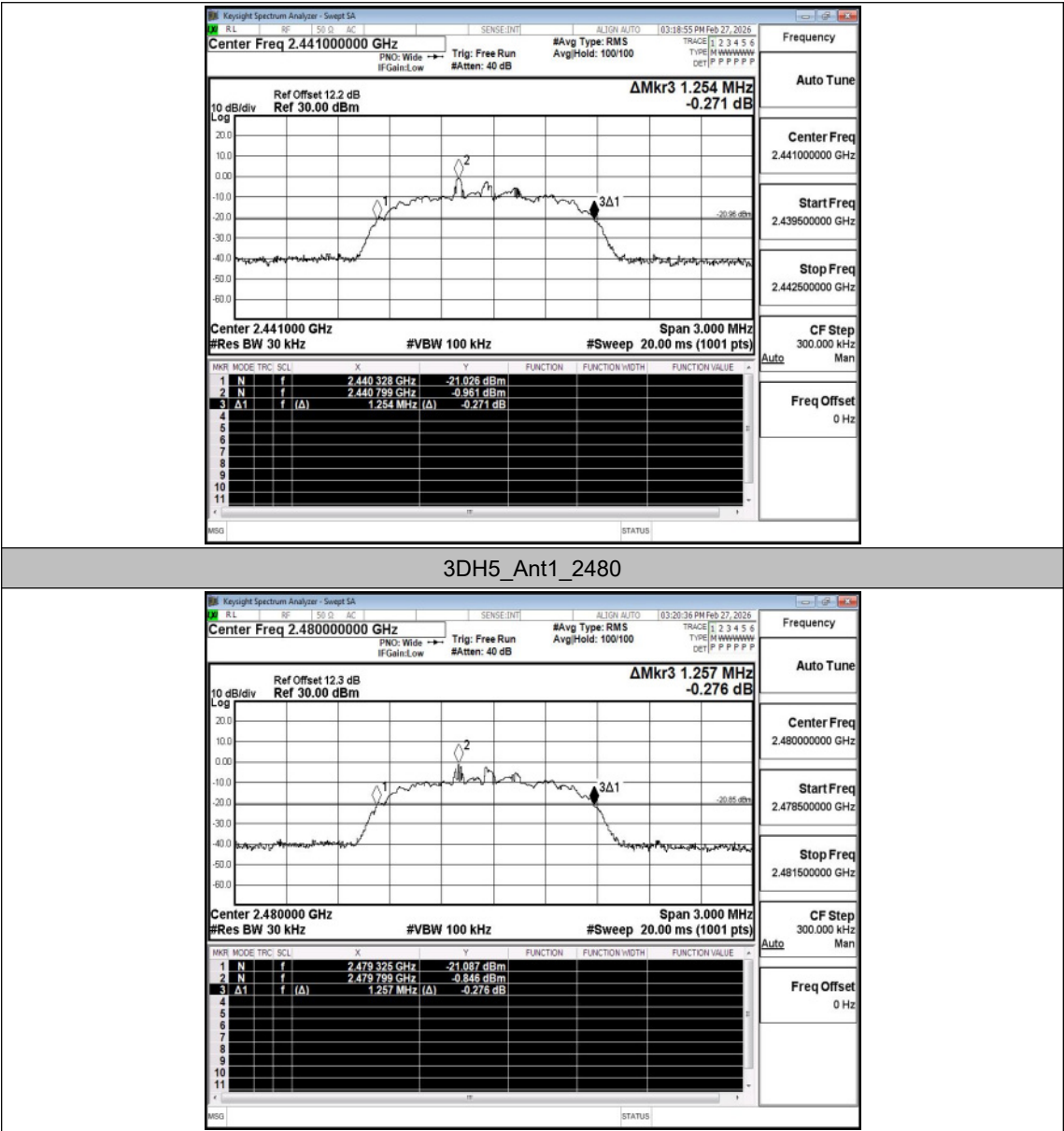


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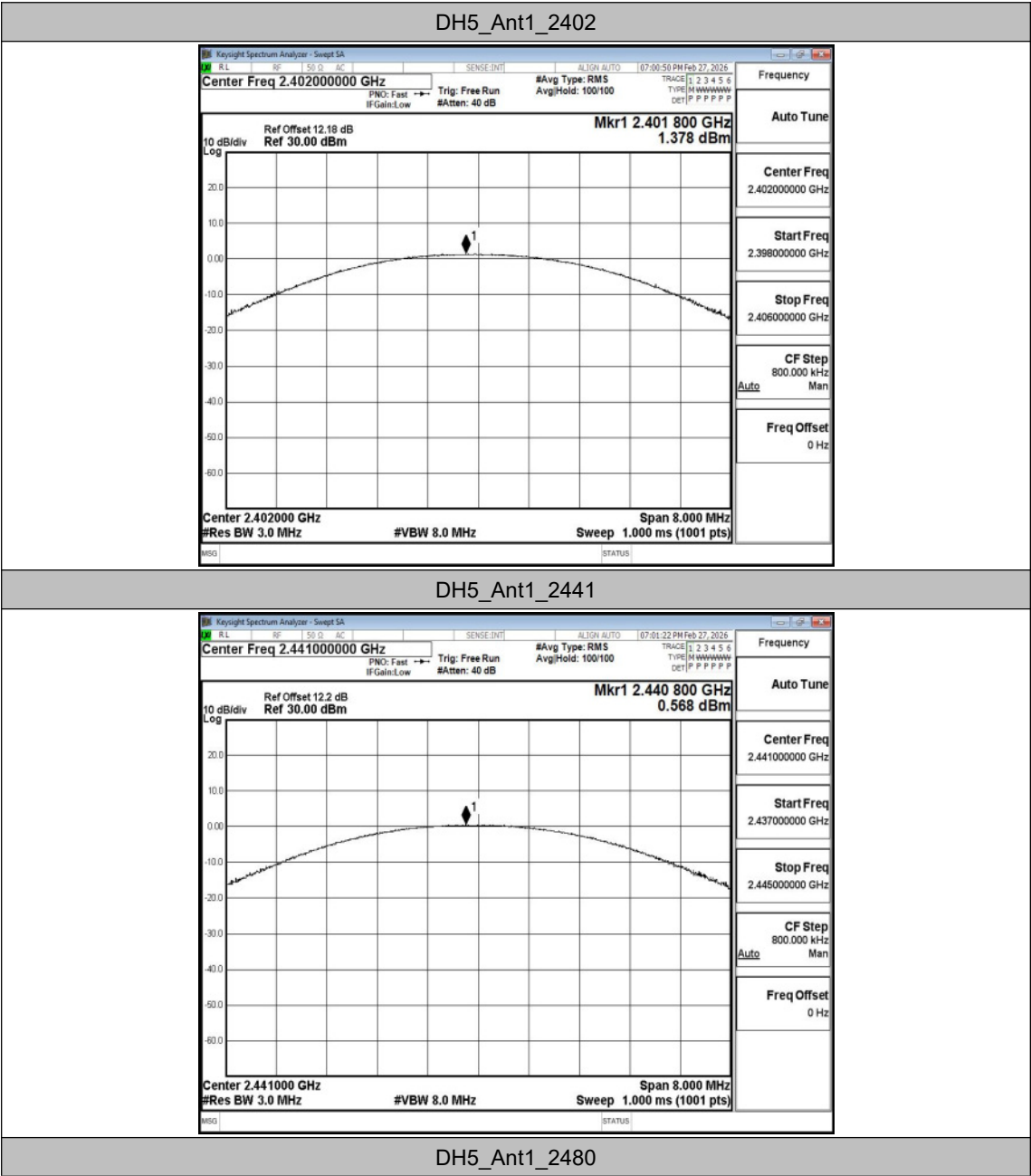


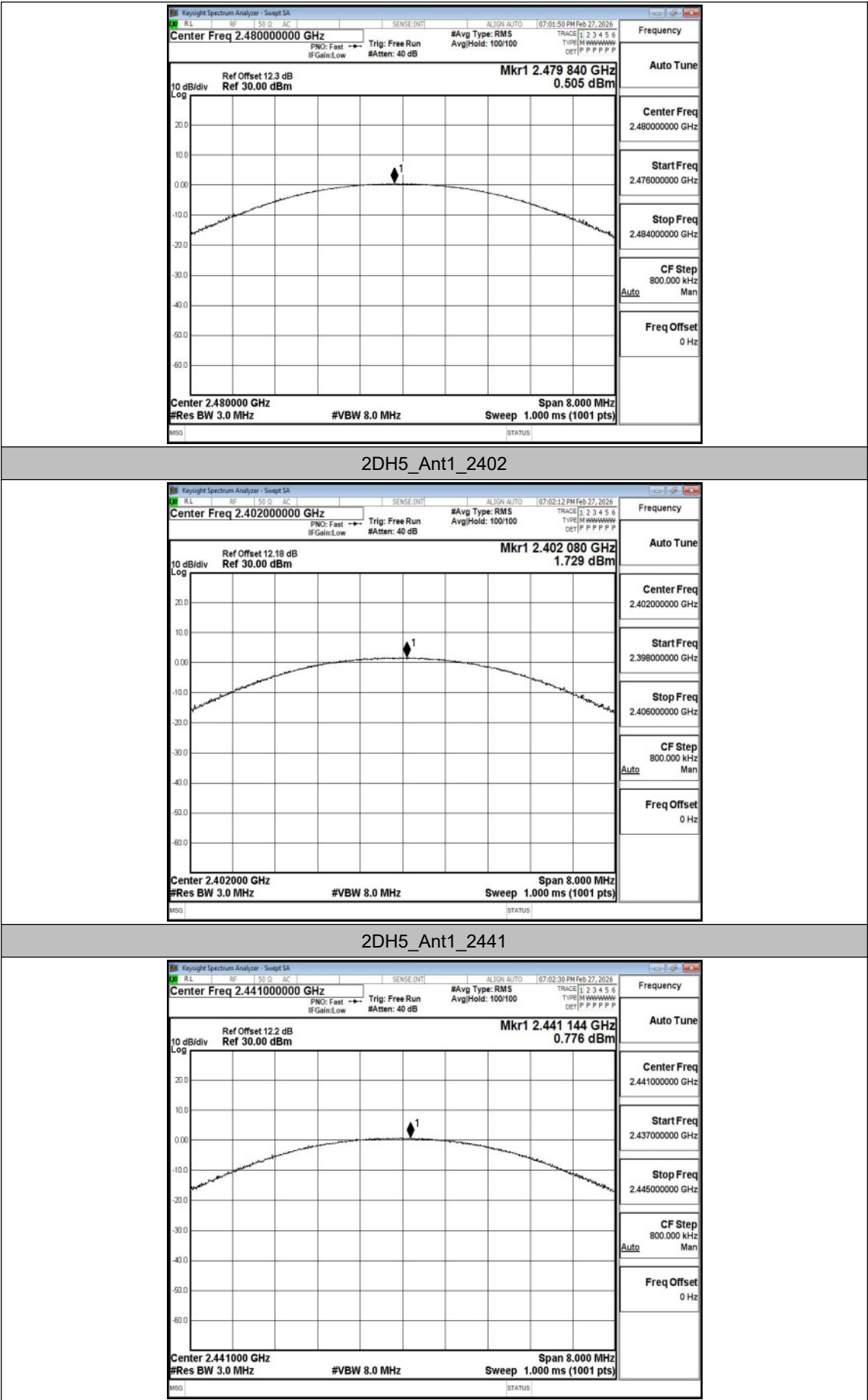
A.2 Maximum Peak conducted output power

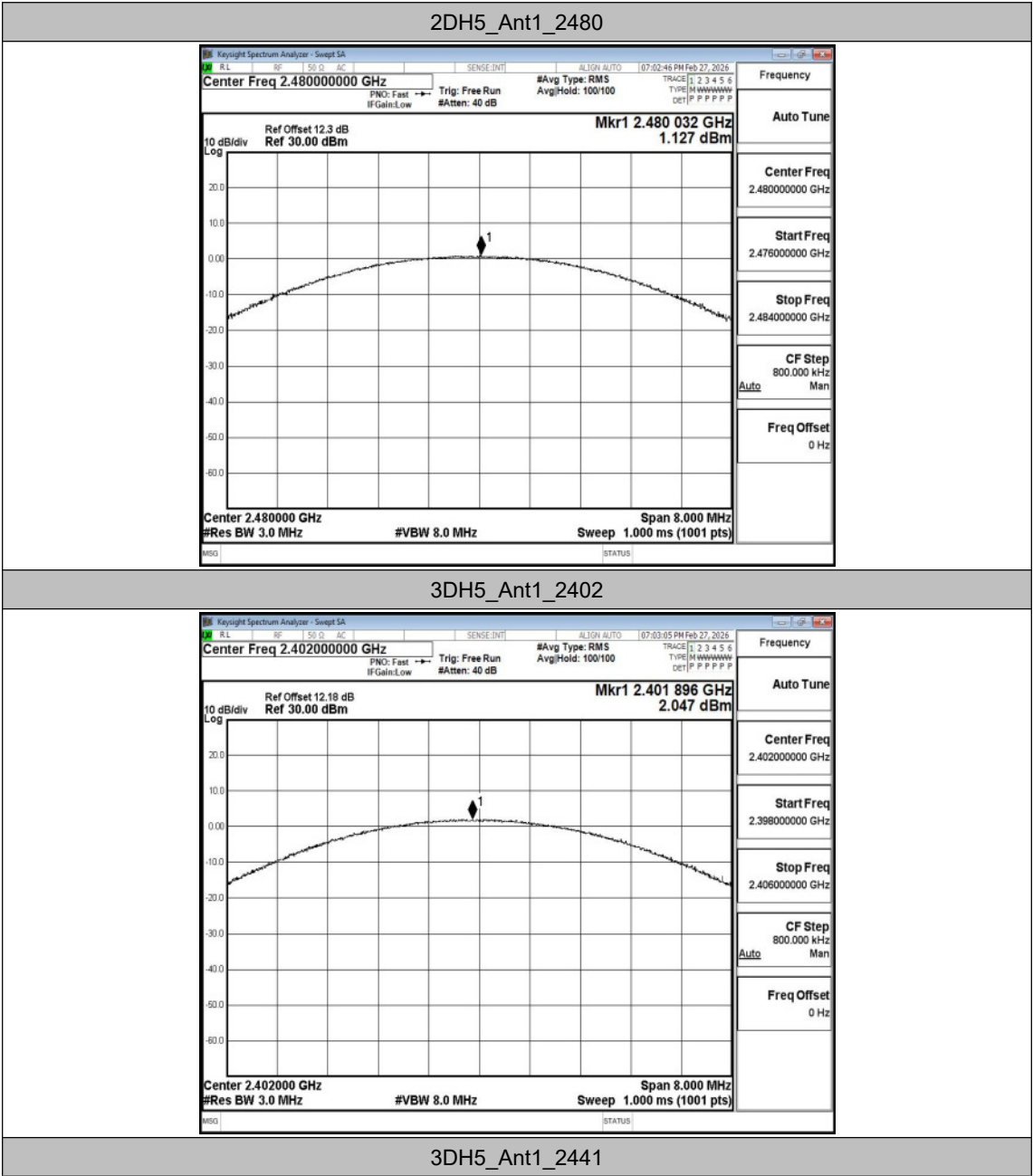
Test Result Peak

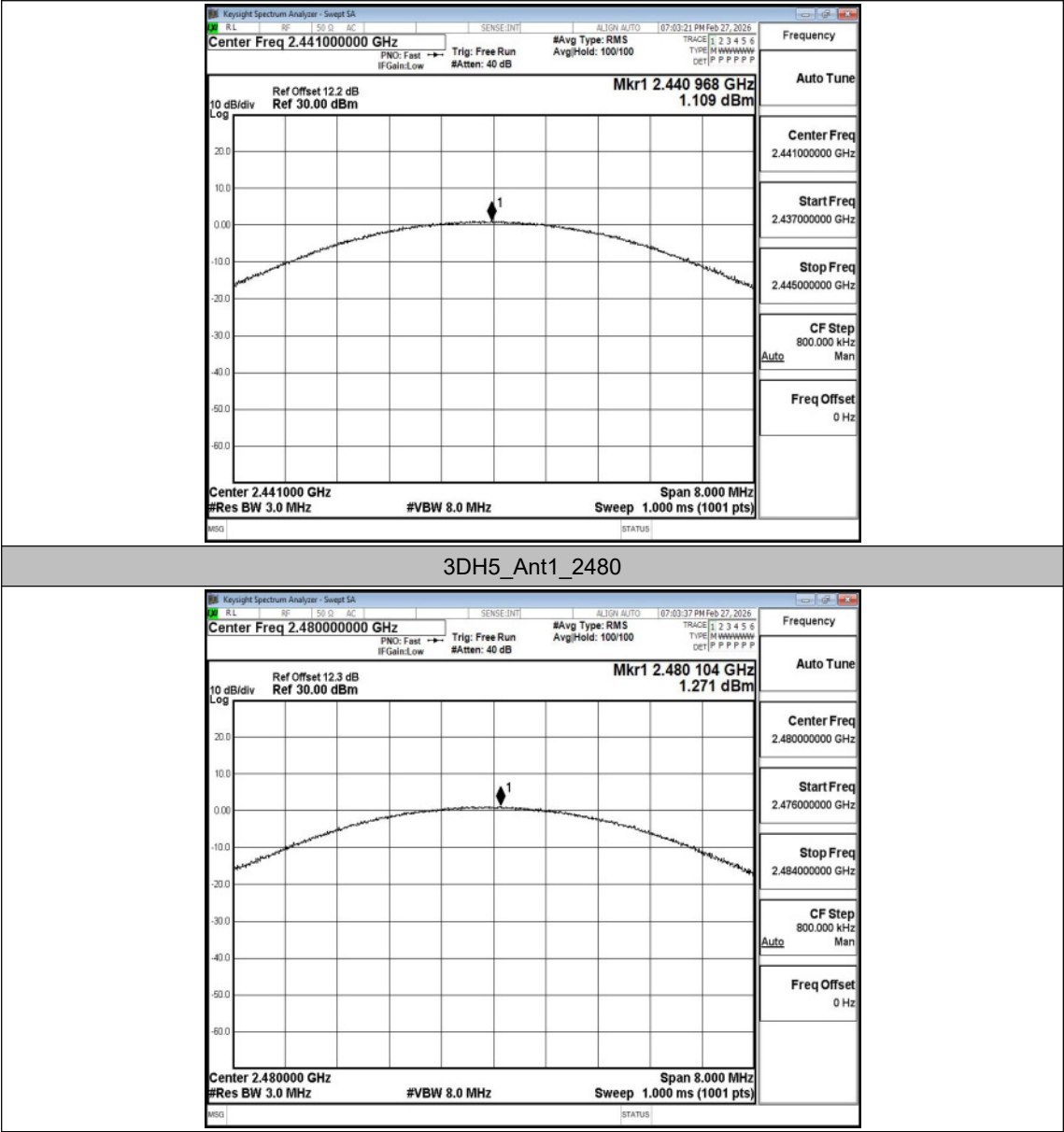
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	1.38	≤30	PASS
		2441	0.57	≤30	PASS
		2480	0.51	≤30	PASS
2DH5	Ant1	2402	1.73	≤30	PASS
		2441	0.78	≤30	PASS
		2480	1.13	≤30	PASS
3DH5	Ant1	2402	2.05	≤30	PASS
		2441	1.11	≤30	PASS
		2480	1.27	≤30	PASS

Test Graphs







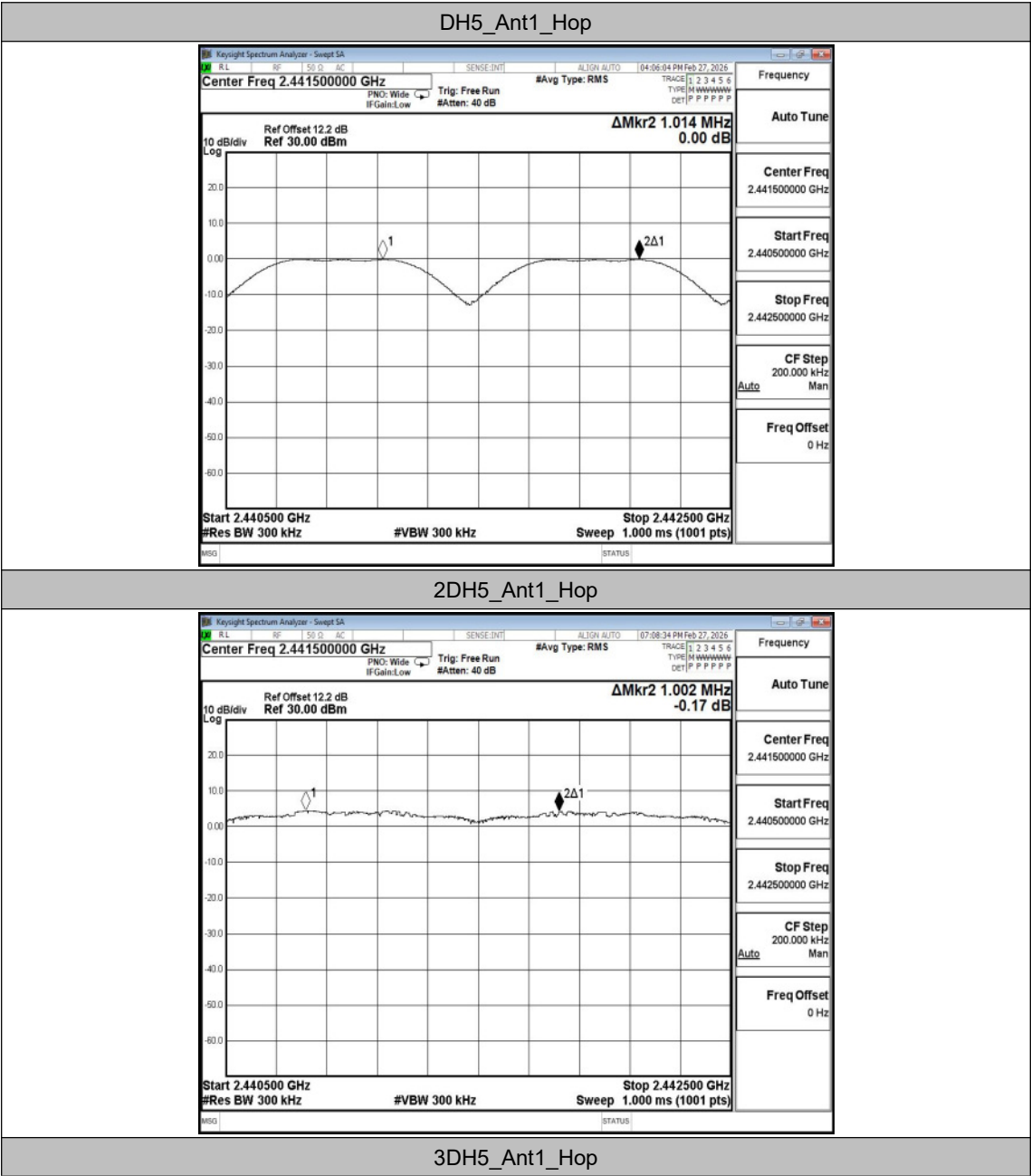


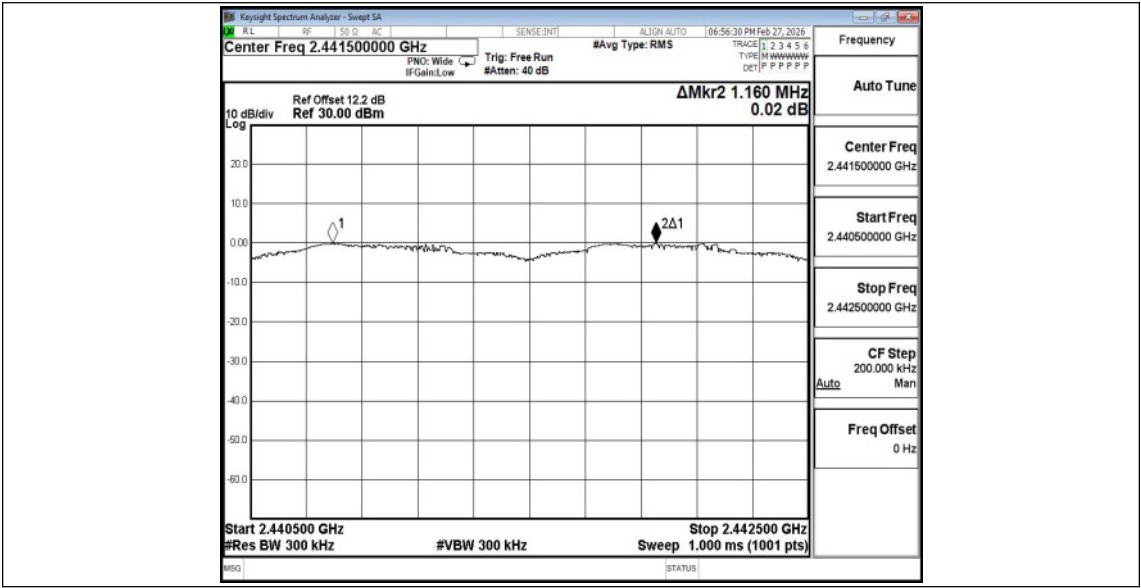
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.014	≥ 0.948	PASS
2DH5	Ant1	Hop	1.002	≥ 0.860	PASS
3DH5	Ant1	Hop	1.16	≥ 0.838	PASS

Test Graphs



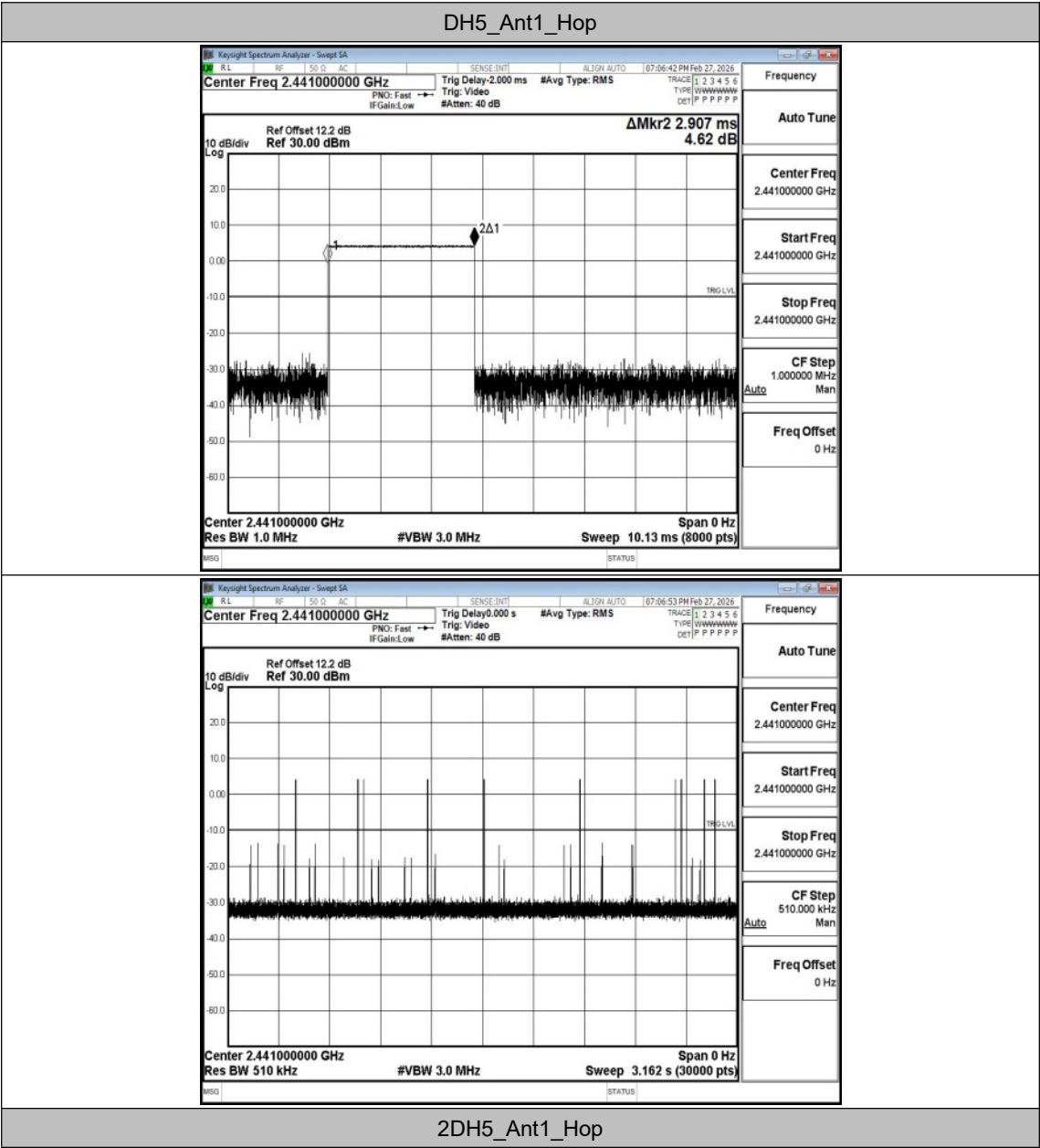


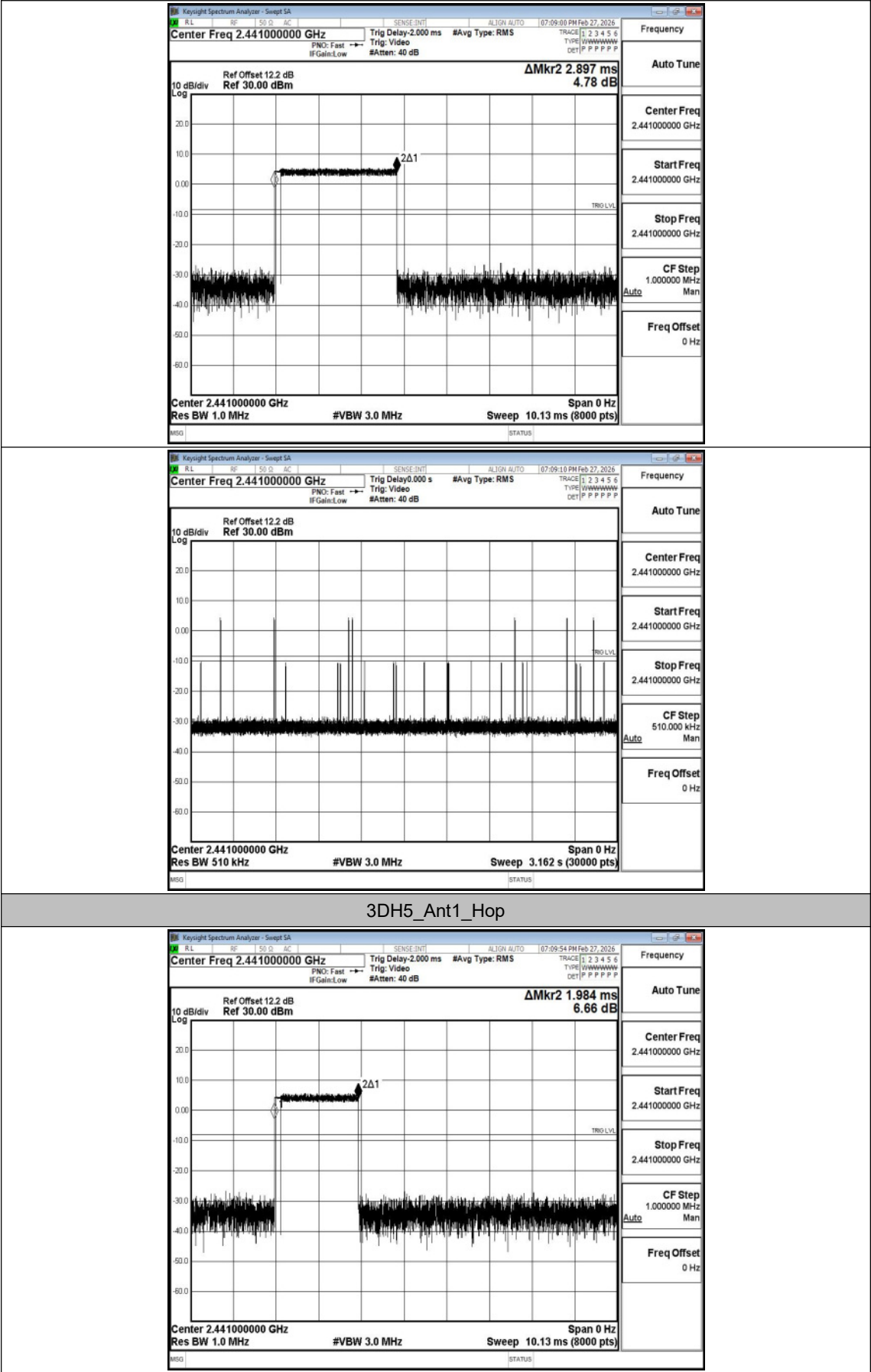
A.4 Time of occupancy

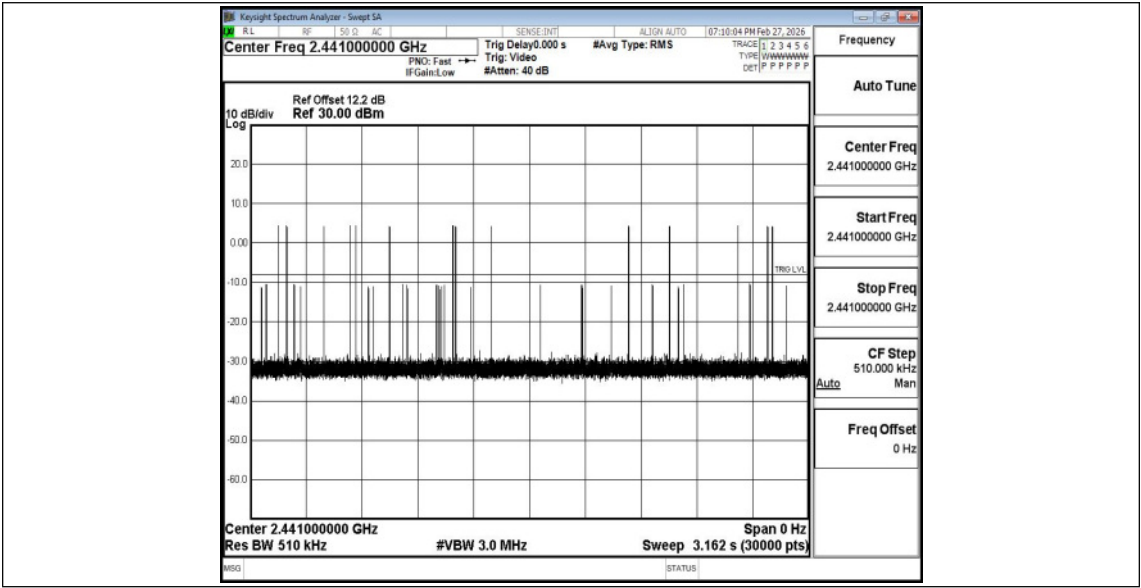
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.907	110	0.32	≤0.4	PASS
2DH5	Ant1	Hop	2.897	80	0.232	≤0.4	PASS
3DH5	Ant1	Hop	1.984	150	0.298	≤0.4	PASS

Test Graphs





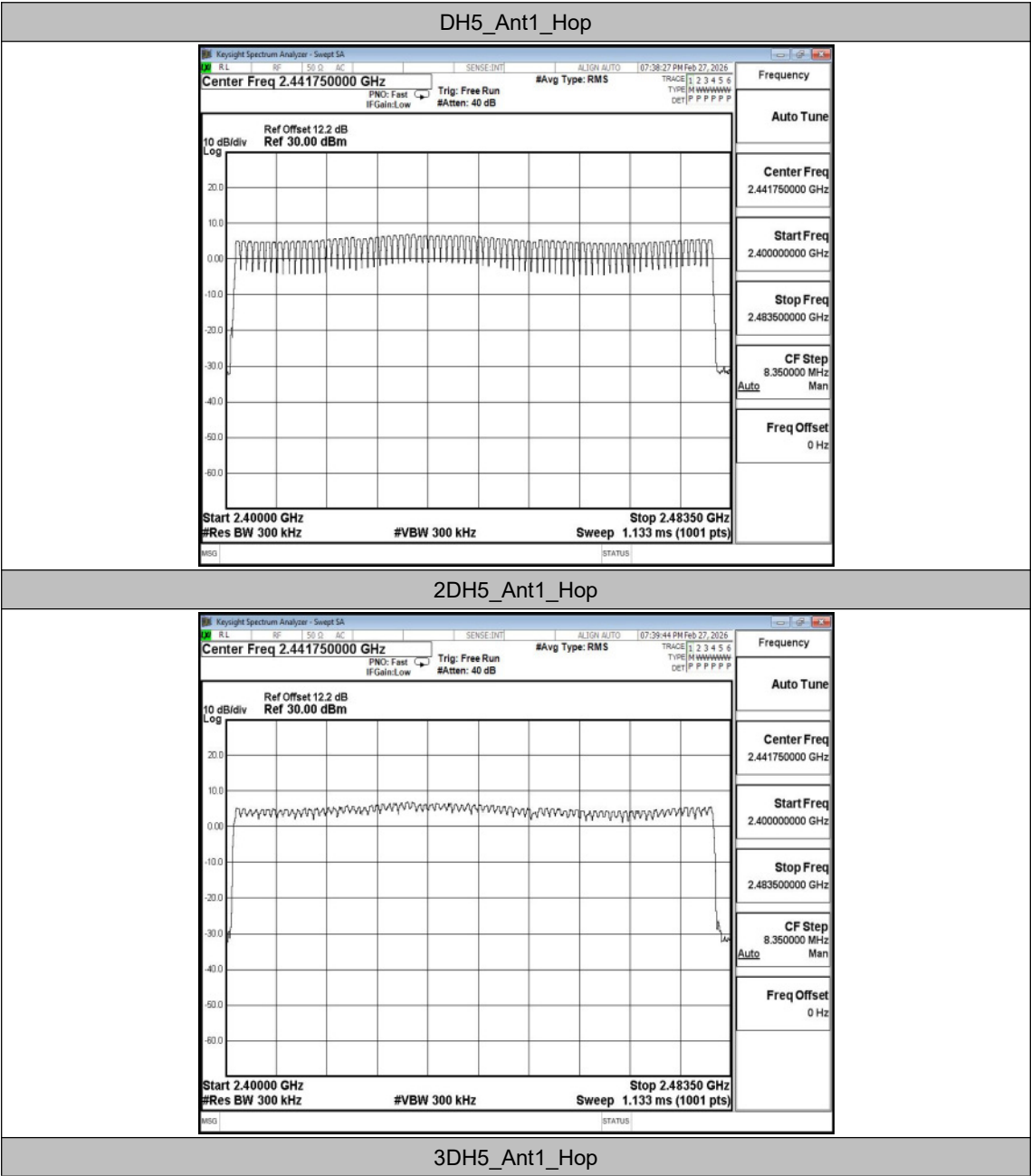


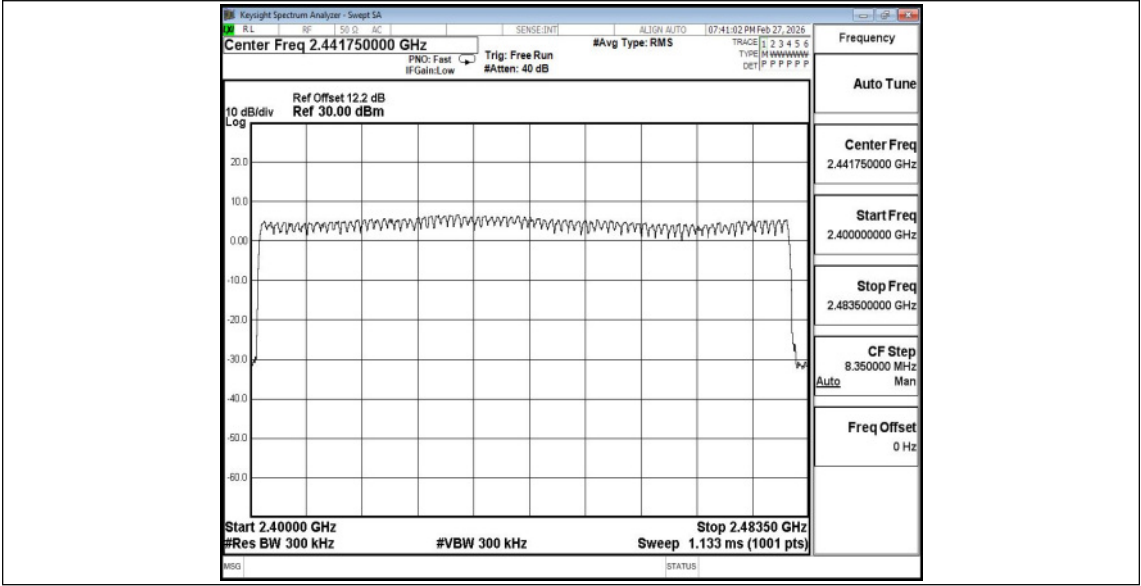
A.5 Number of hopping channels

Test Result

TestMode	Antenna	Freq(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



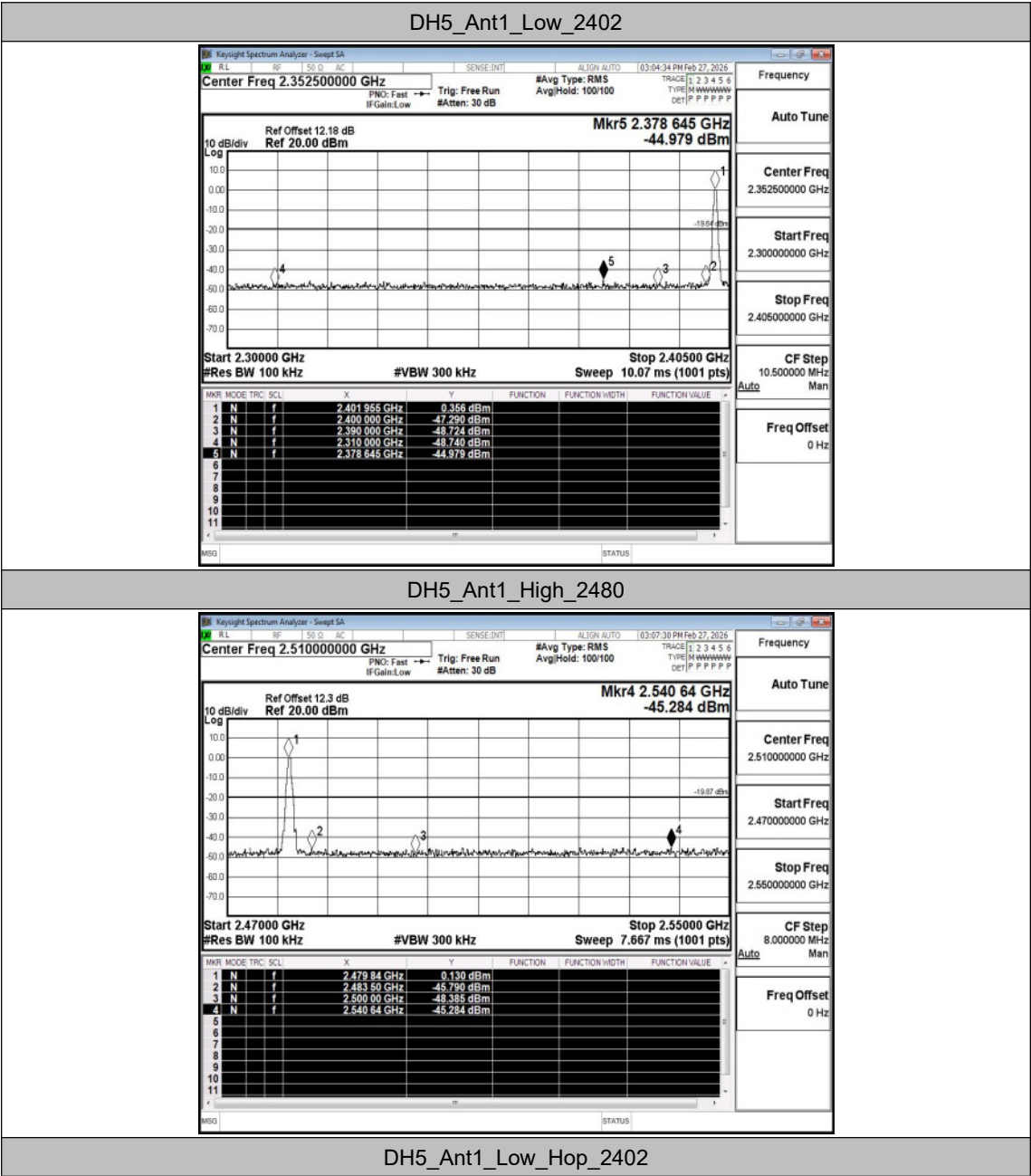


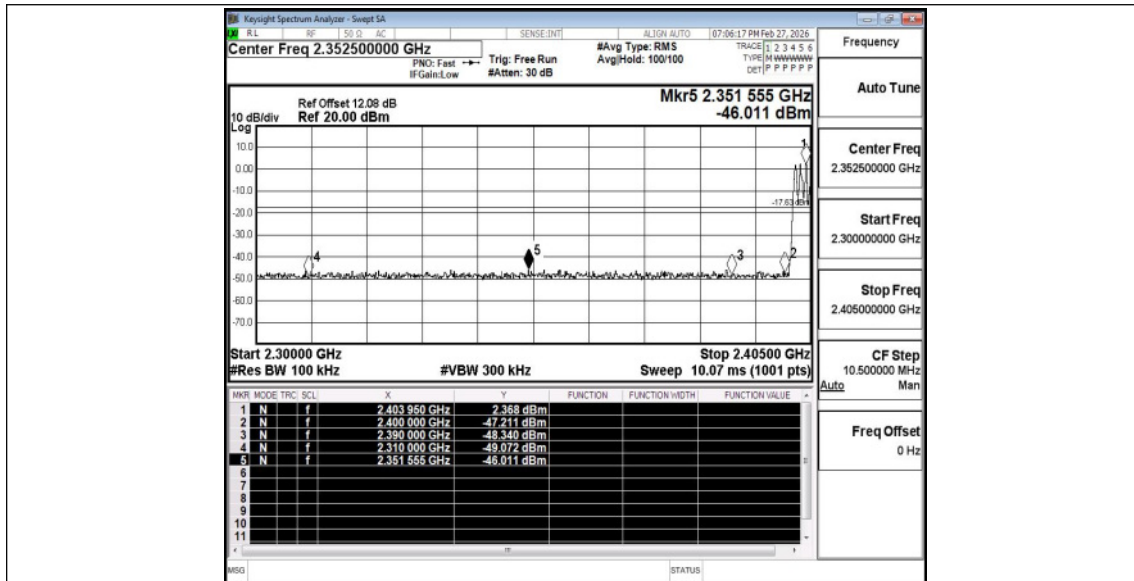
A.6 Band edge measurements

Test Result

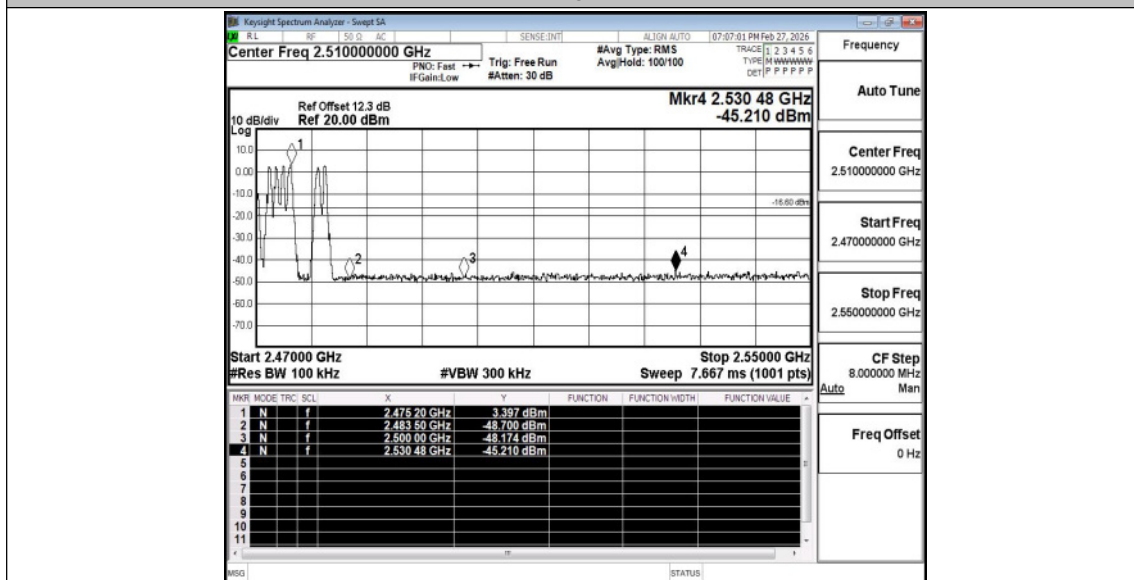
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.36	-44.98	≤-19.64	PASS
		High	2480	0.13	-45.28	≤-19.87	PASS
		Low	Hop_2402	2.37	-46.01	≤-17.63	PASS
		High	Hop_2480	3.40	-45.21	≤-16.6	PASS
2DH5	Ant1	Low	2402	0.16	-45.82	≤-19.84	PASS
		High	2480	0.12	-44.69	≤-19.88	PASS
		Low	Hop_2402	-1.18	-45.35	≤-21.18	PASS
		High	Hop_2480	0.37	-45.4	≤-19.63	PASS
3DH5	Ant1	Low	2402	-0.08	-45.59	≤-20.08	PASS
		High	2480	-0.40	-44.27	≤-20.4	PASS
		Low	Hop_2402	-2.60	-45.83	≤-22.6	PASS
		High	Hop_2480	0.84	-44.23	≤-19.16	PASS

Test Graphs

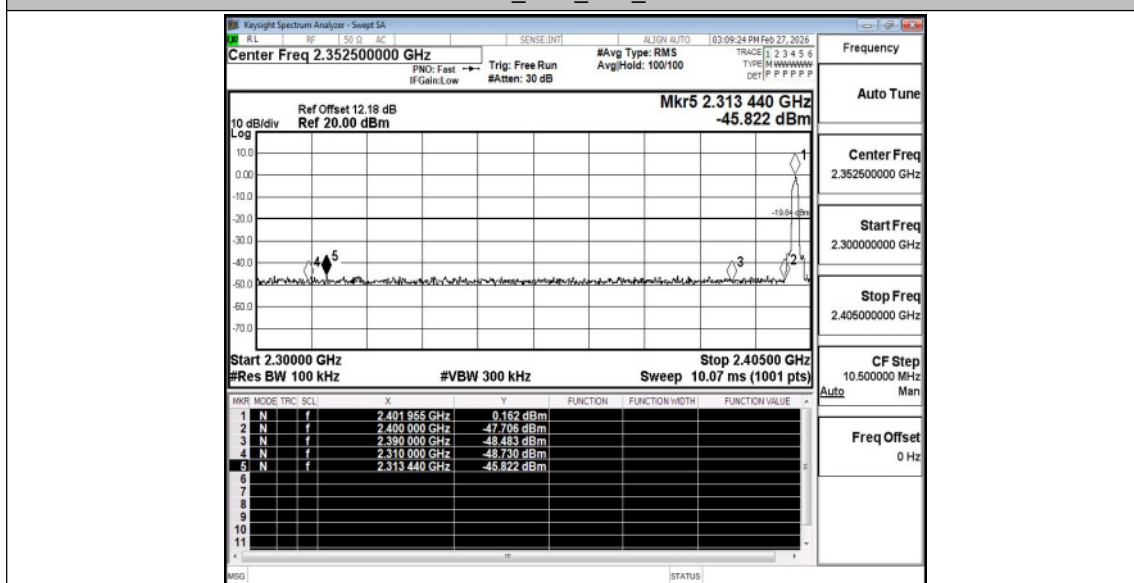




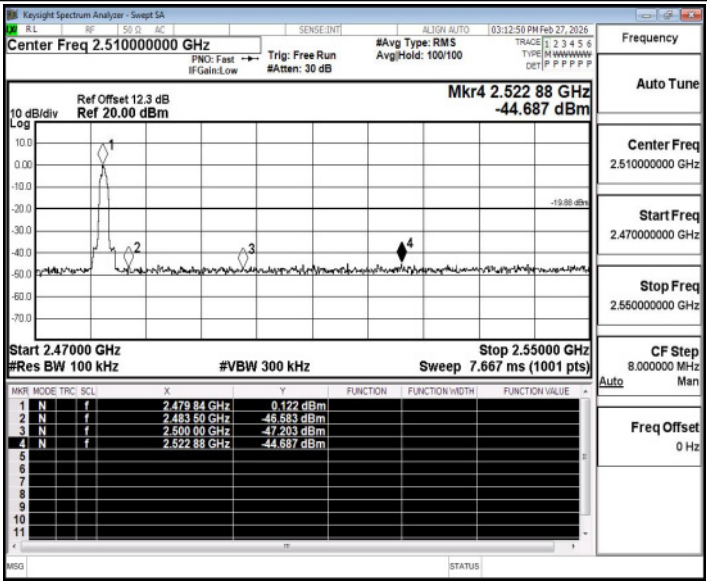
DH5_Ant1_High_Hop_2480



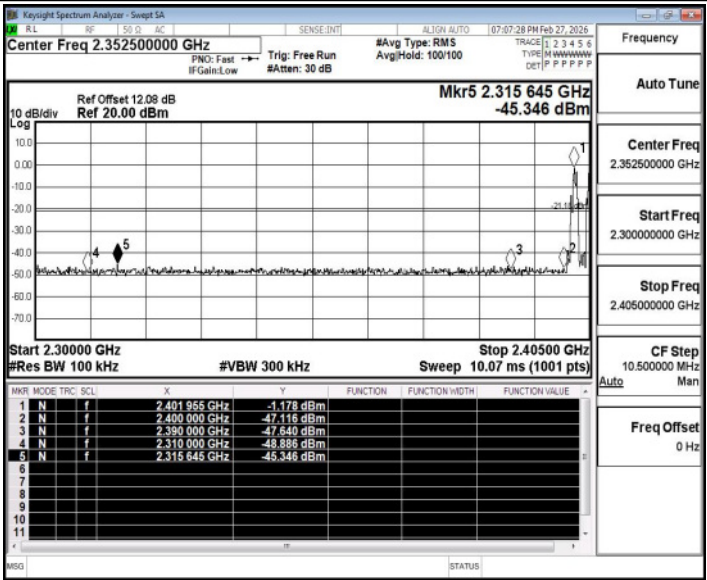
2DH5_Ant1_Low_2402



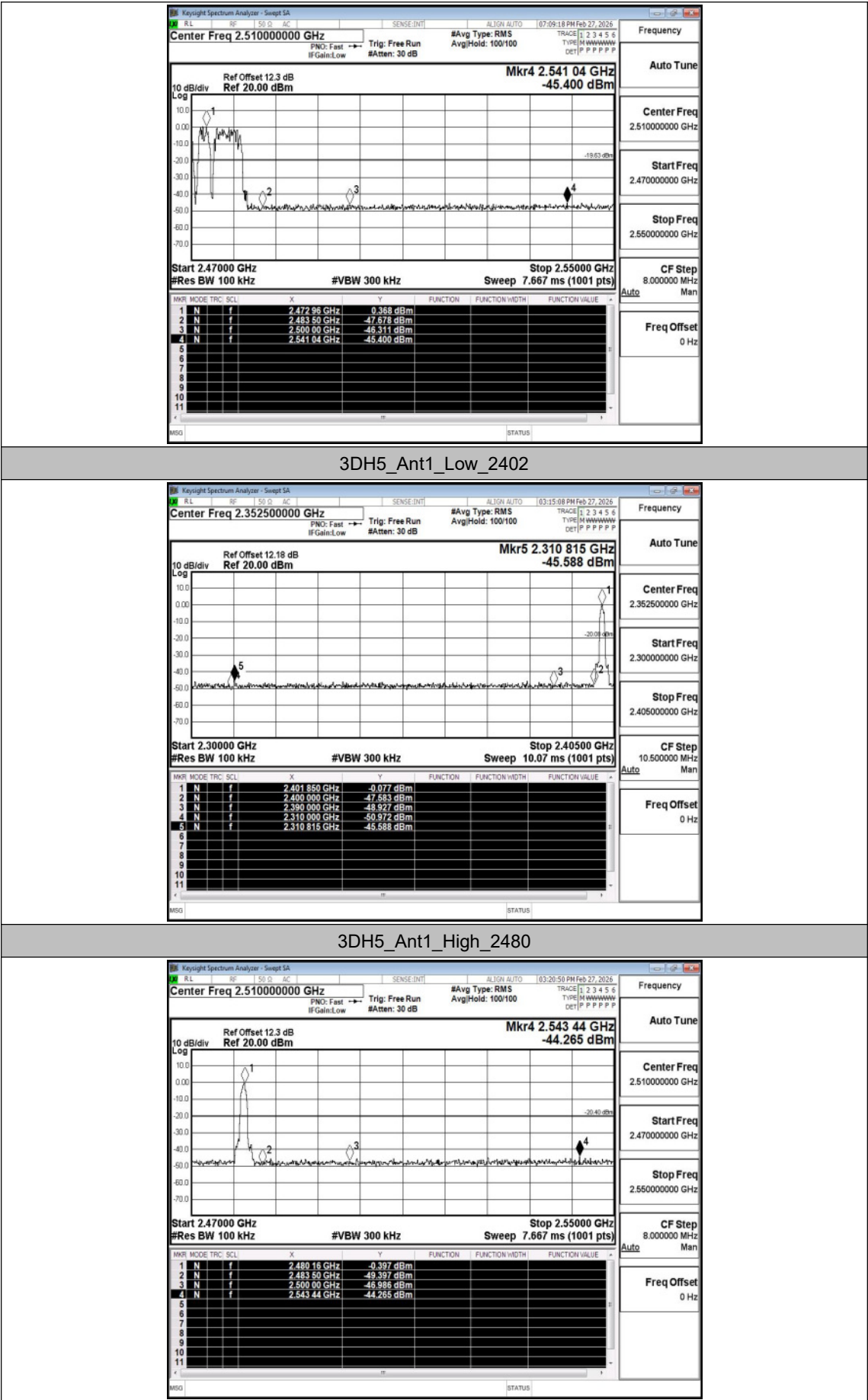
2DH5_Ant1_High_2480

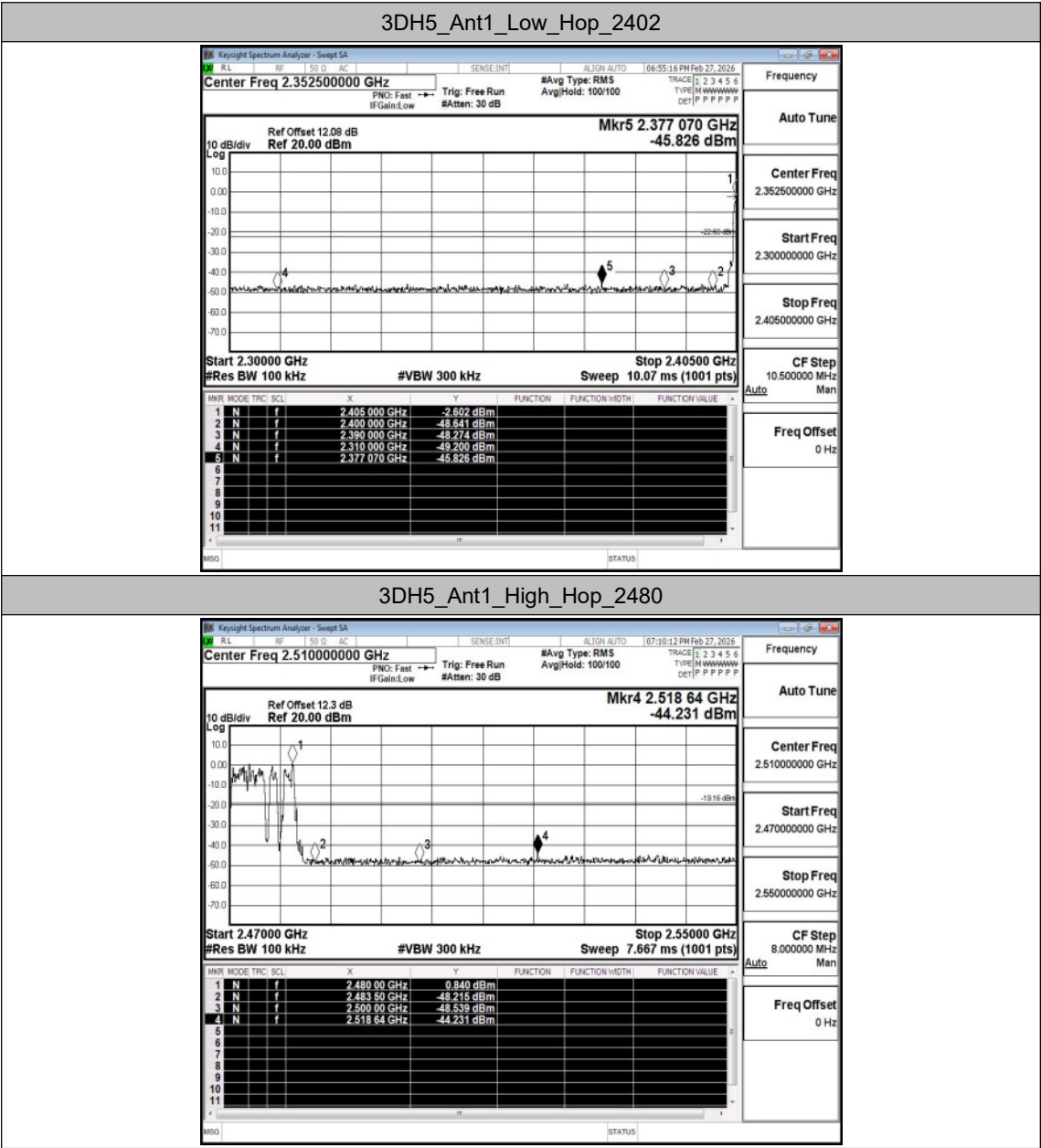


2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.60	0.60	---	PASS
		2441	Reference	-0.04	-0.04	---	PASS
		2480	Reference	0.18	0.18	---	PASS
			30~1000	0.18	-63.37	≤-19.82	PASS
			1000~26500	0.18	-42.61	≤-19.82	PASS
2DH5	Ant1	2402	Reference	0.42	0.42	---	PASS
			30~1000	0.42	-64.48	≤-19.58	PASS
			1000~26500	0.42	-47.1	≤-19.58	PASS
		2441	Reference	-0.23	-0.23	---	PASS
			30~1000	-0.23	-64.54	≤-20.23	PASS
			1000~26500	-0.23	-44.77	≤-20.23	PASS
		2480	Reference	0.01	0.01	---	PASS
			30~1000	0.01	-64.16	≤-19.99	PASS
			1000~26500	0.01	-42.76	≤-19.99	PASS
3DH5	Ant1	2402	Reference	0.61	0.61	---	PASS
			30~1000	0.61	-65.19	≤-19.39	PASS
			1000~26500	0.61	-46.06	≤-19.39	PASS
		2441	Reference	-0.08	-0.08	---	PASS
			30~1000	-0.08	-64.12	≤-20.08	PASS
			1000~26500	-0.08	-46.57	≤-20.08	PASS
		2480	Reference	0.12	0.12	---	PASS
			30~1000	0.12	-65.4	≤-19.88	PASS
			1000~26500	0.12	-46.95	≤-19.88	PASS

Test Graphs

