

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Digital radio

Test Model: S900

Environmental Conditions

Temperature:	24.0°C
Relative Humidity:	51.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

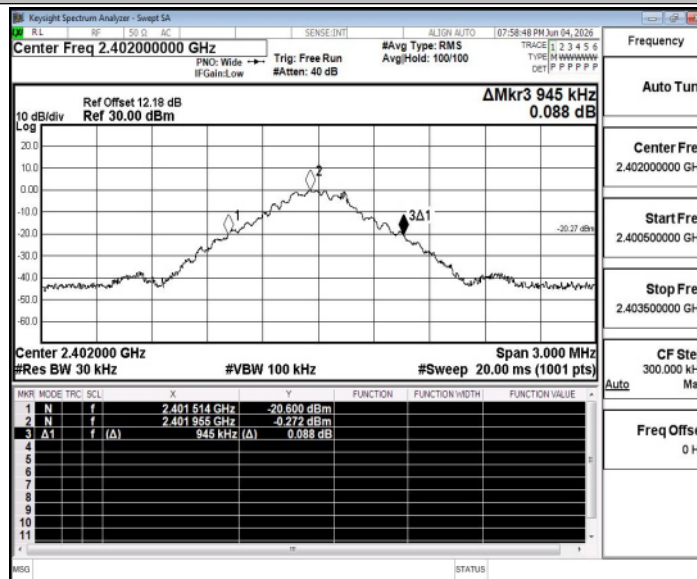
A.1 20dB Emission Bandwidth

Test Result

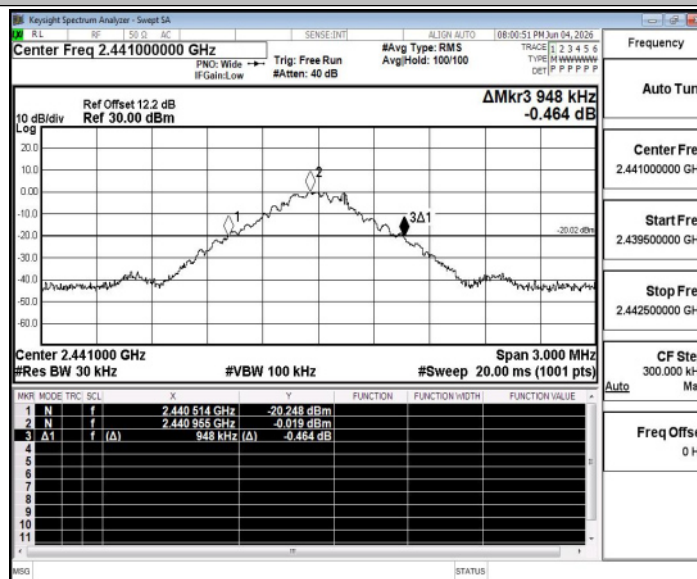
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.514	2402.459	---	---
		2441	0.948	2440.514	2441.462	---	---
		2480	0.945	2479.514	2480.459	---	---
2DH5	Ant1	2402	1.326	2401.313	2402.639	---	---
		2441	1.326	2440.313	2441.639	---	---
		2480	1.323	2479.316	2480.639	---	---
3DH5	Ant1	2402	1.311	2401.328	2402.639	---	---
		2441	1.311	2440.325	2441.636	---	---
		2480	1.308	2479.325	2480.633	---	---

Test Graphs

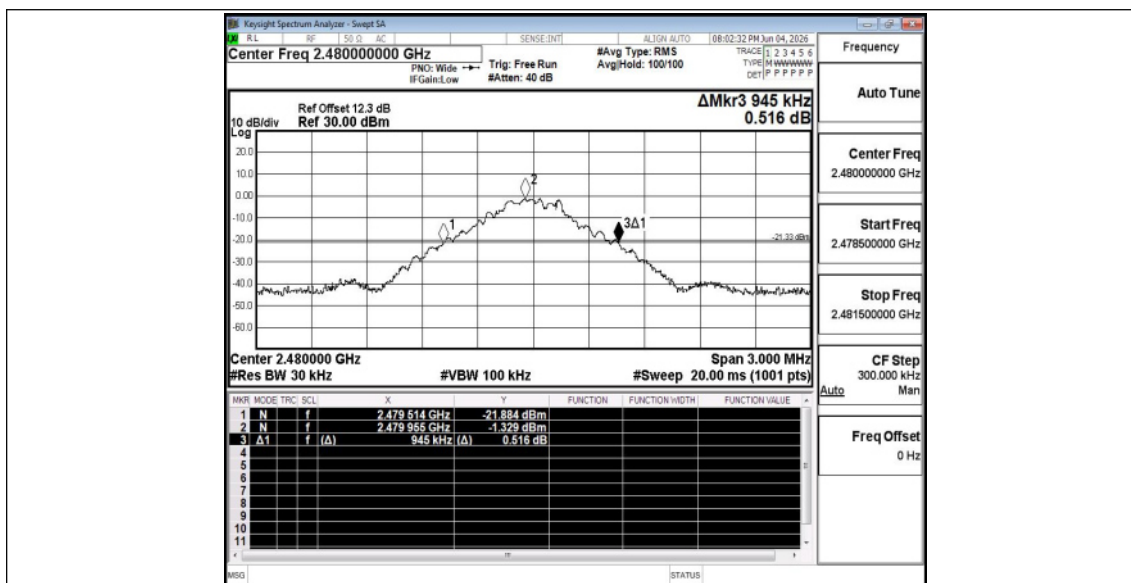
DH5_Ant1_2402



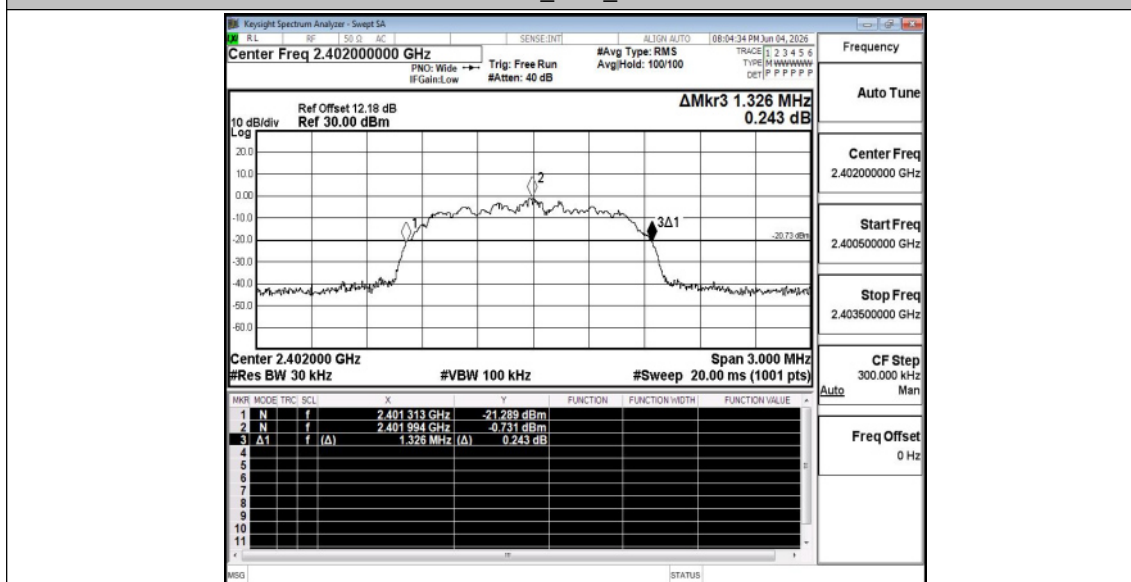
DH5_Ant1_2441



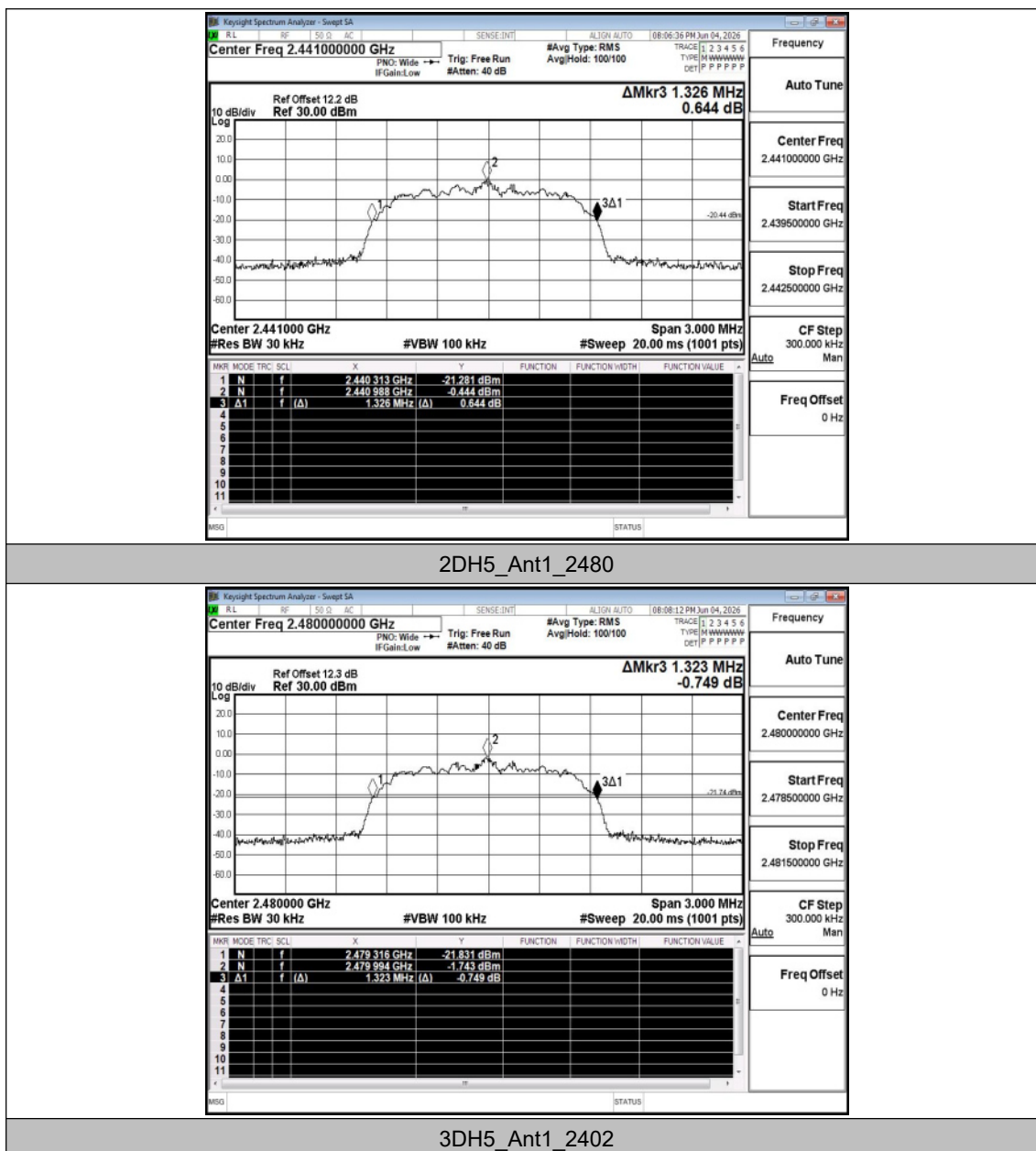
DH5_Ant1_2480

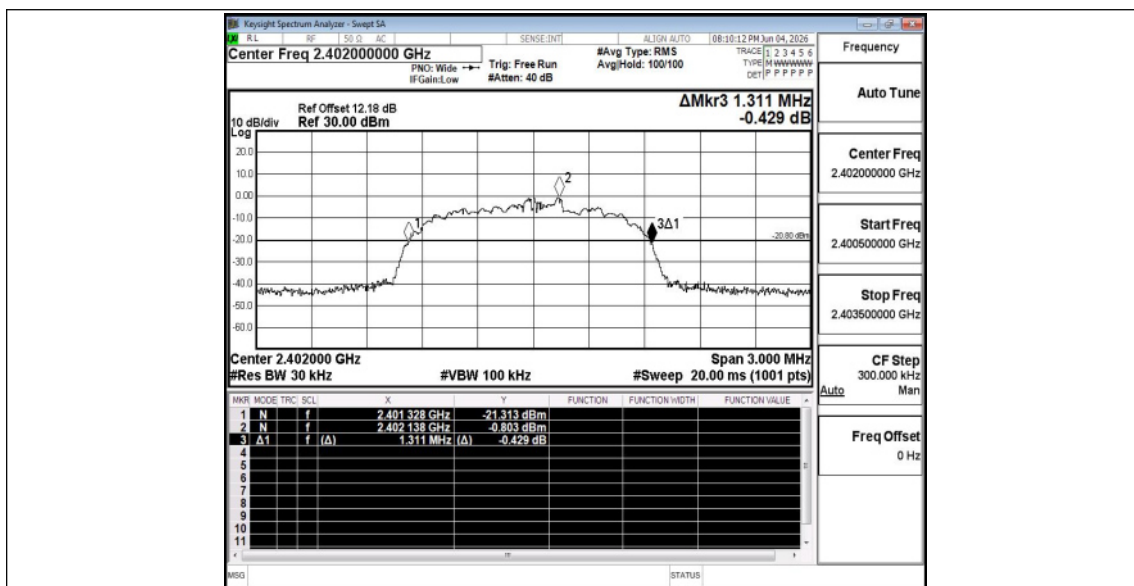


2DH5_Ant1_2402

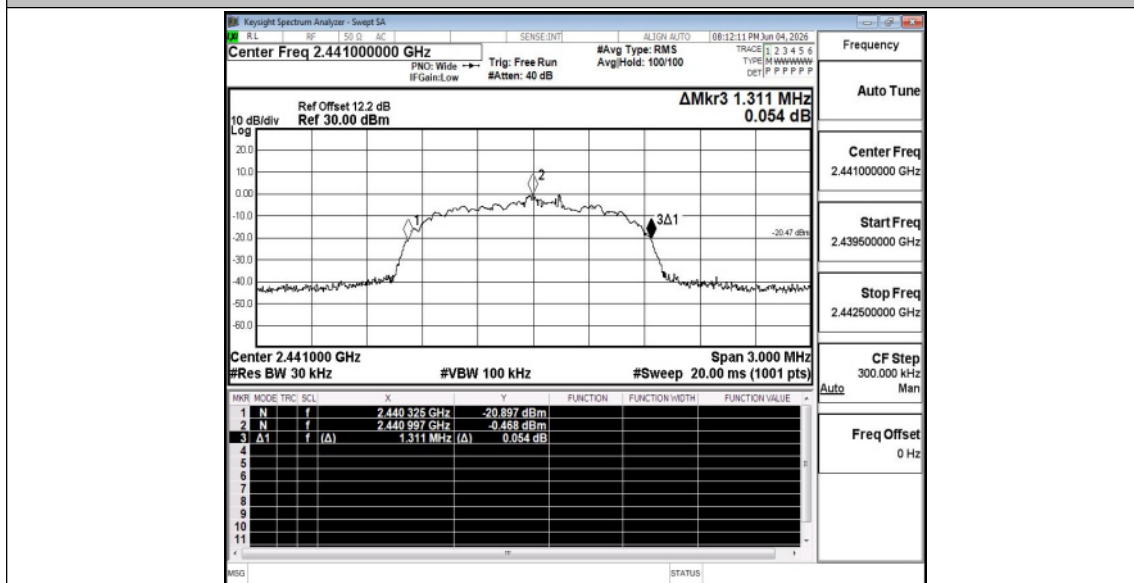


2DH5_Ant1_2441

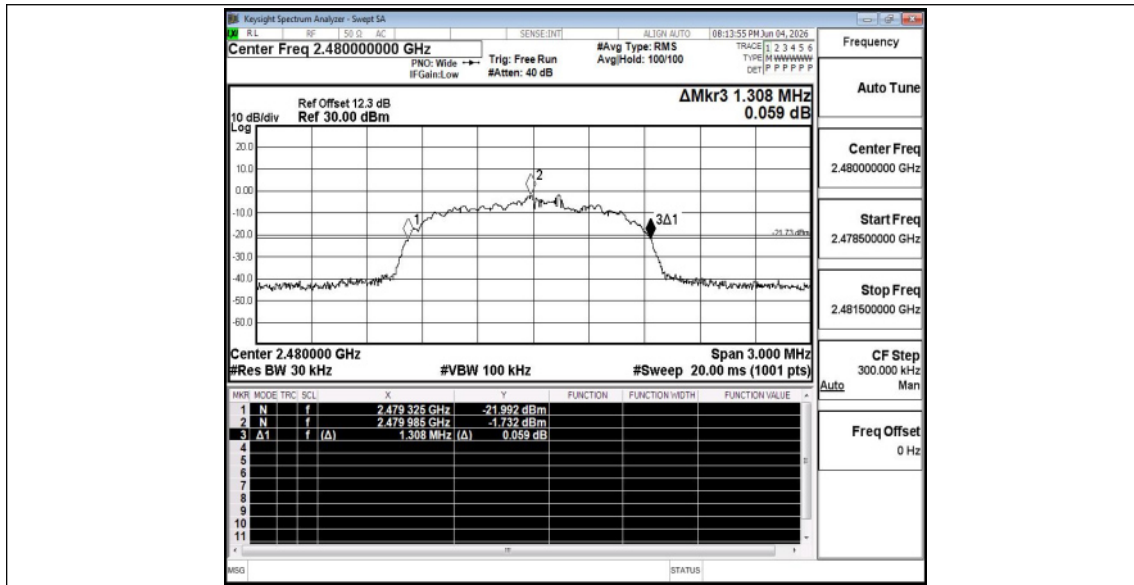




3DH5_Ant1_2441



3DH5_Ant1_2480

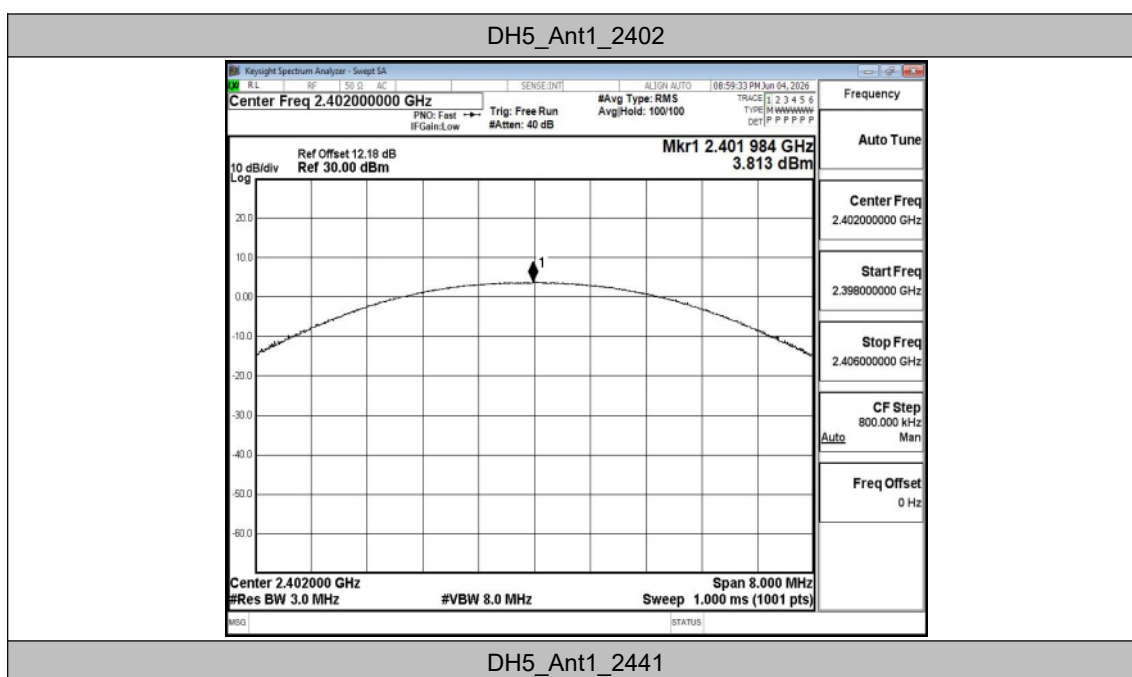


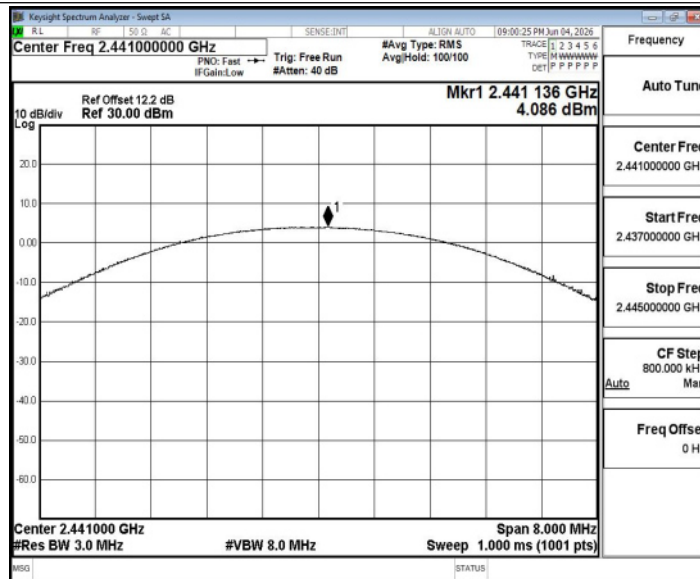
A.2 Maximum Peak conducted output power

Test Result Peak

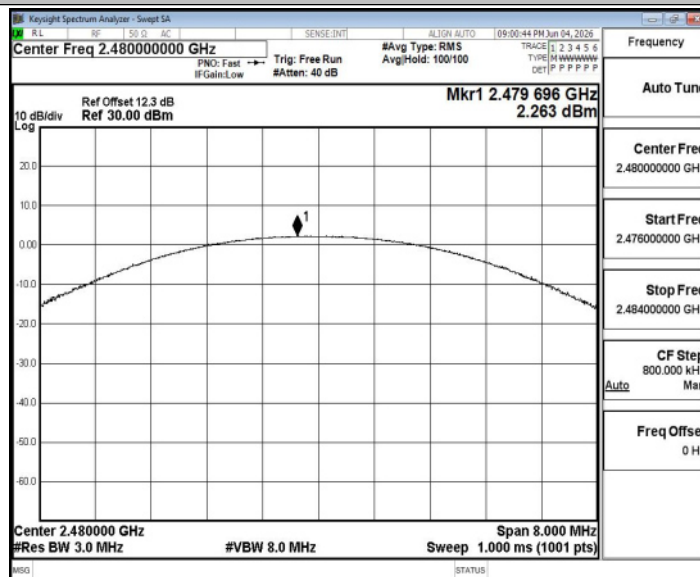
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	3.81	≤30	PASS
		2441	4.09	≤30	PASS
		2480	2.26	≤30	PASS
2DH5	Ant1	2402	2.84	≤21	PASS
		2441	3.14	≤21	PASS
		2480	1.31	≤21	PASS
3DH5	Ant1	2402	3.60	≤21	PASS
		2441	3.43	≤21	PASS
		2480	1.48	≤21	PASS

Test Graphs

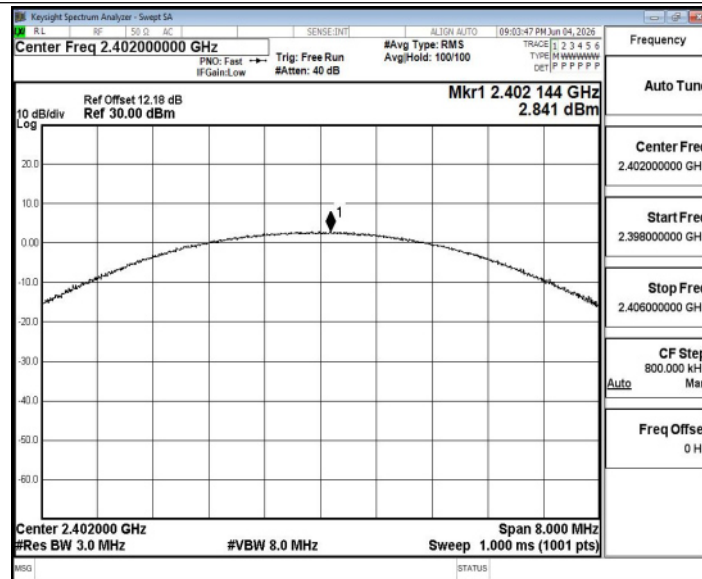




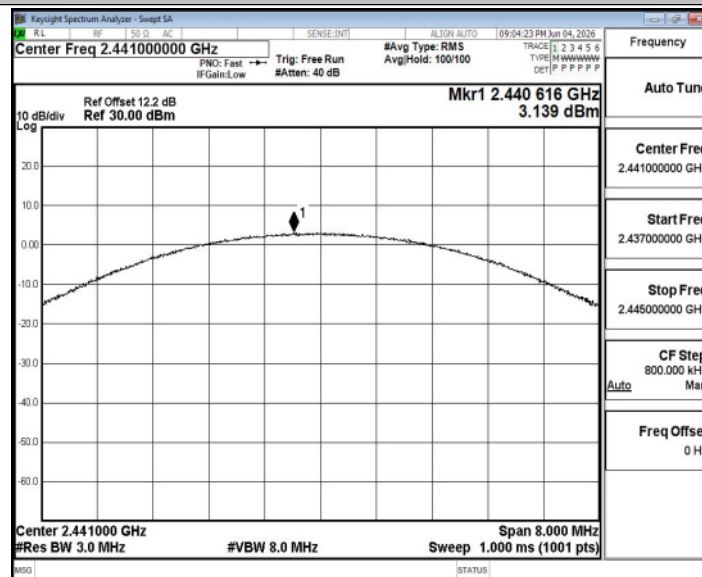
DH5_Ant1_2480



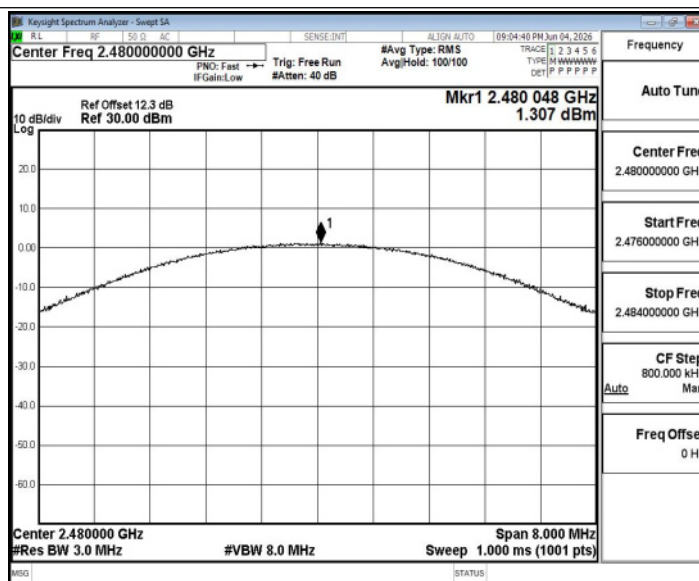
2DH5_Ant1_2402



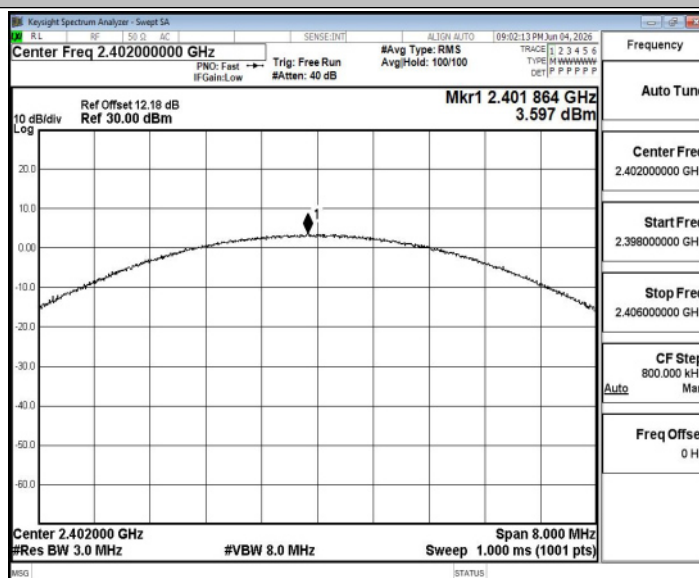
2DH5_Ant1_2441



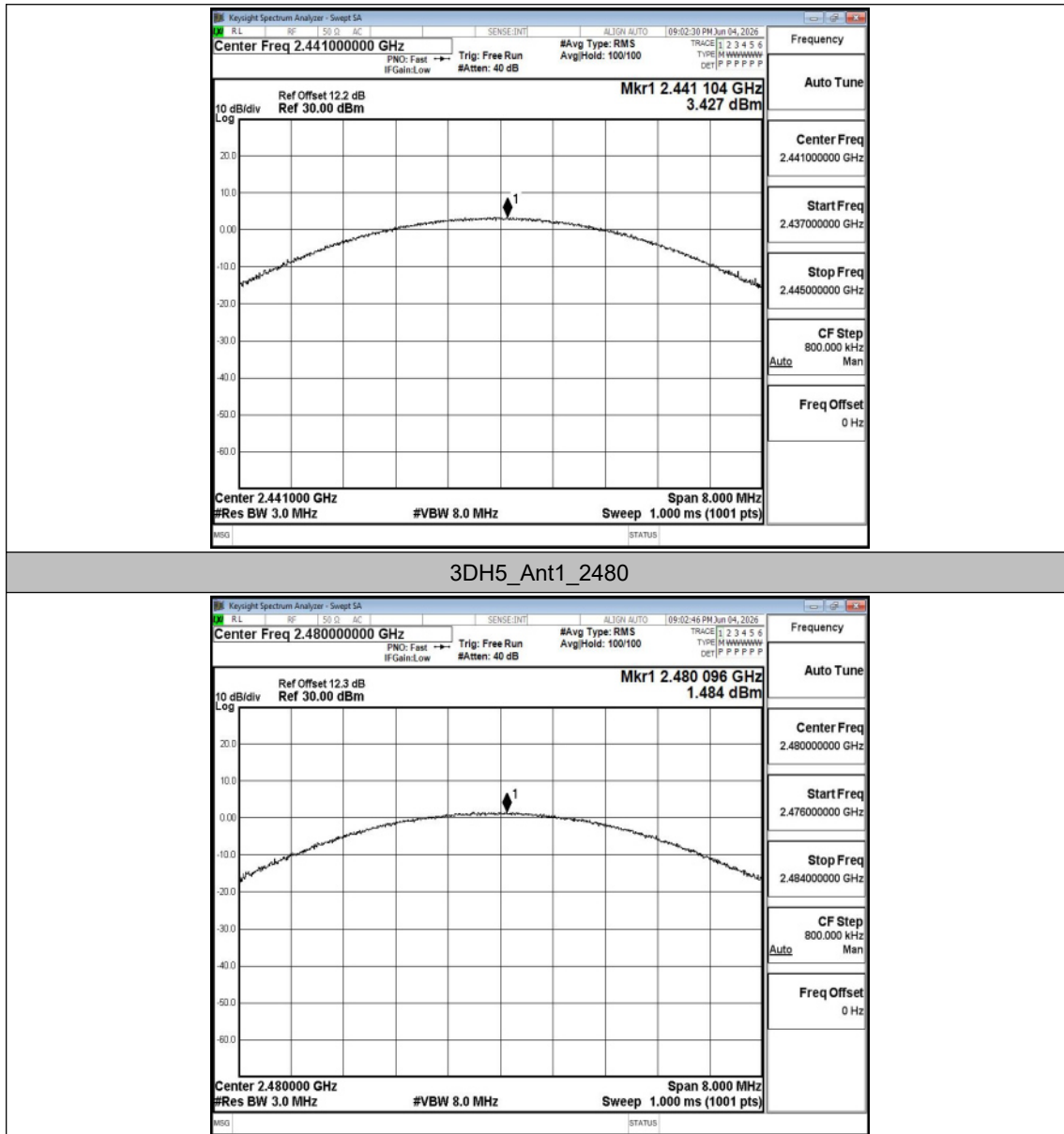
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

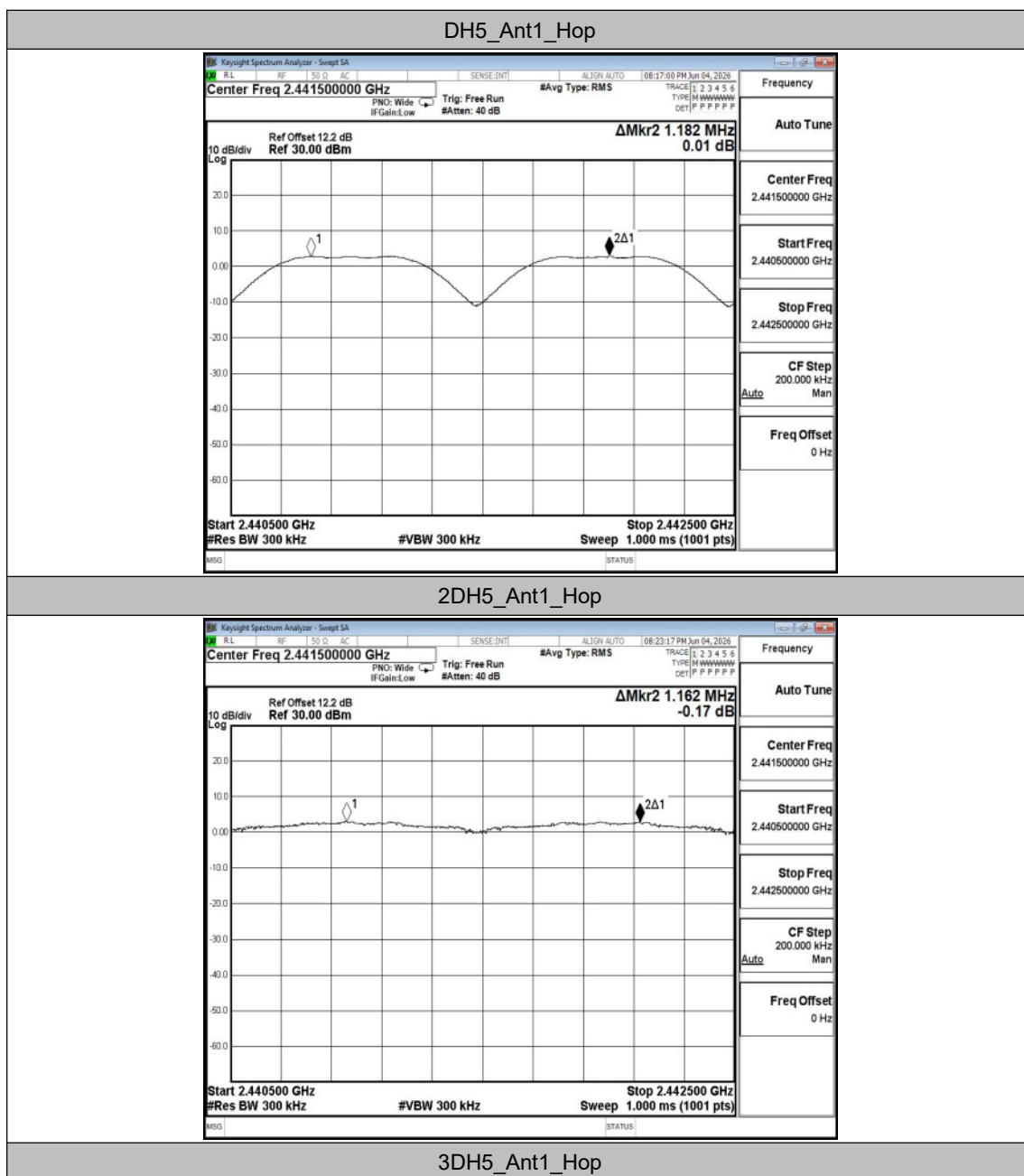


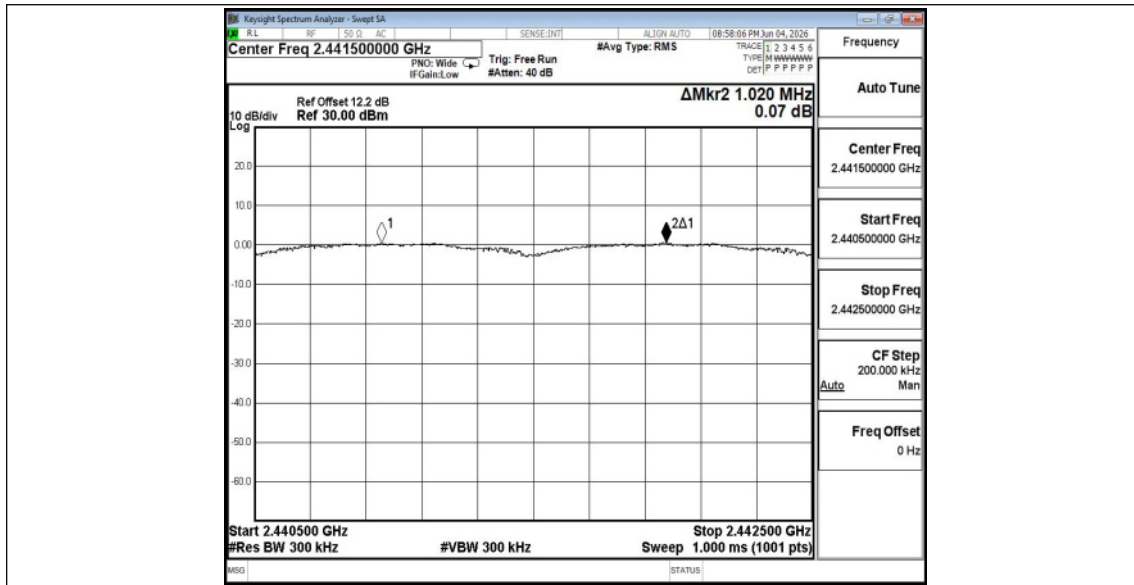
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.182	≥ 0.948	PASS
2DH5	Ant1	Hop	1.162	≥ 0.884	PASS
3DH5	Ant1	Hop	1.02	≥ 0.874	PASS

Test Graphs



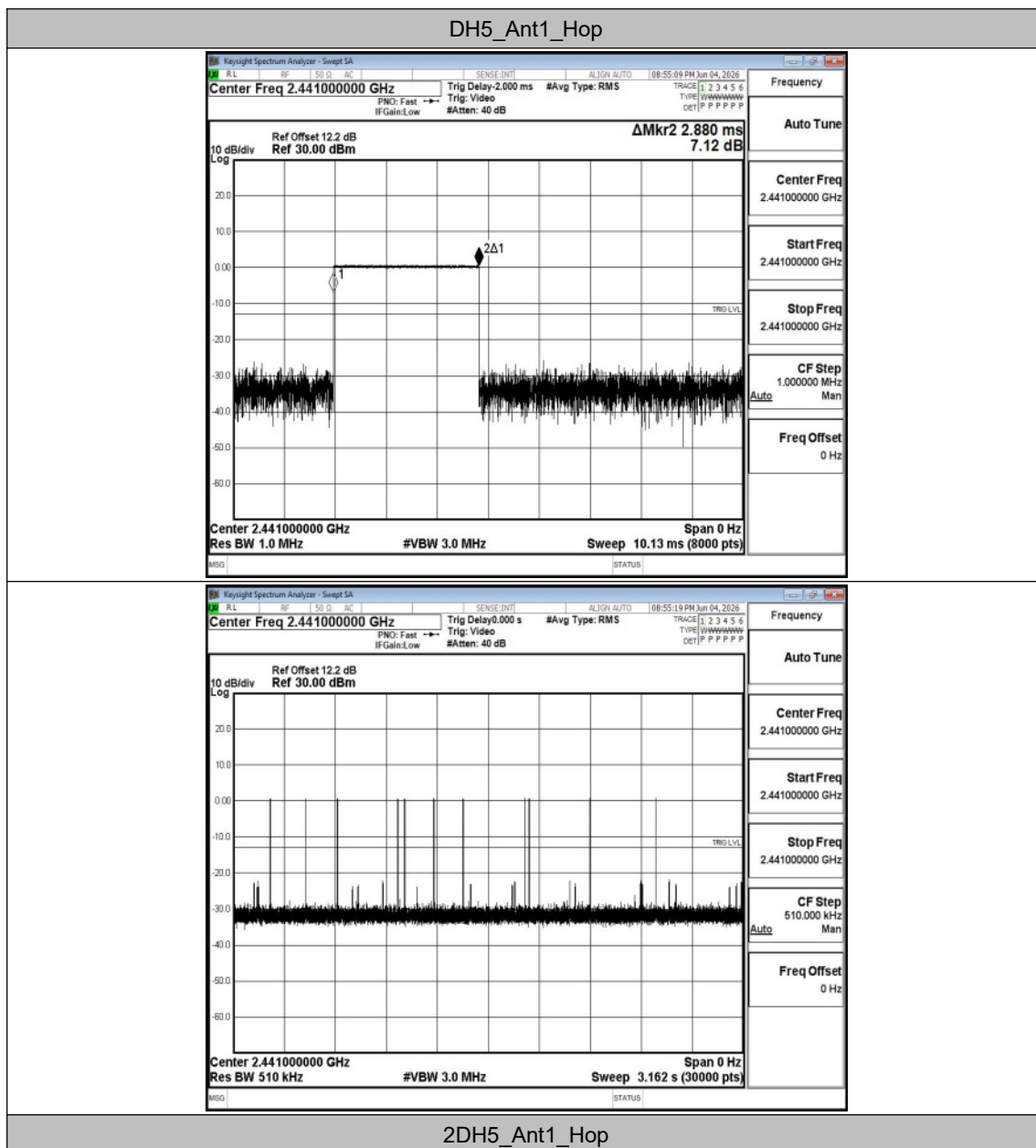


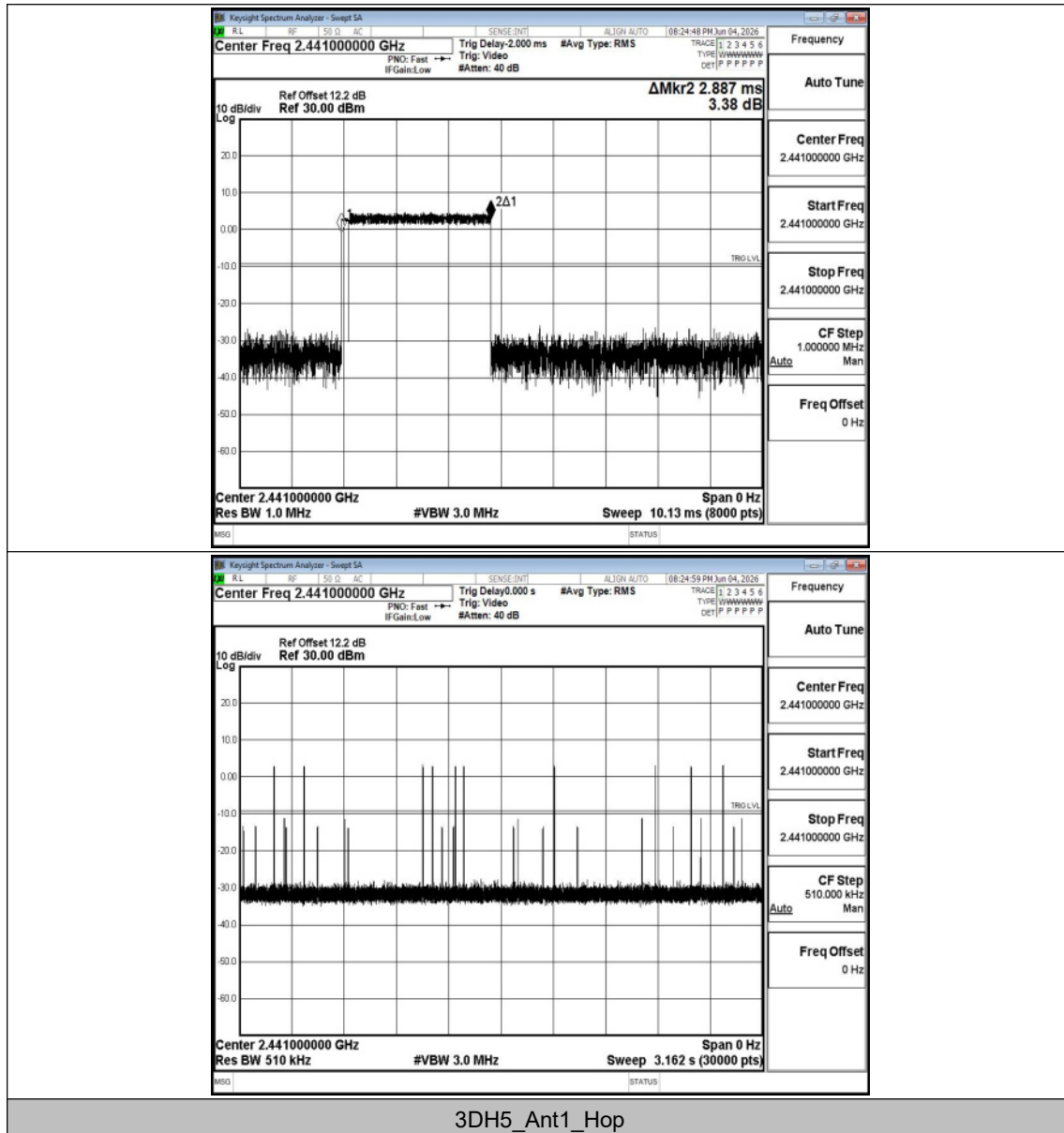
A.4 Time of occupancy

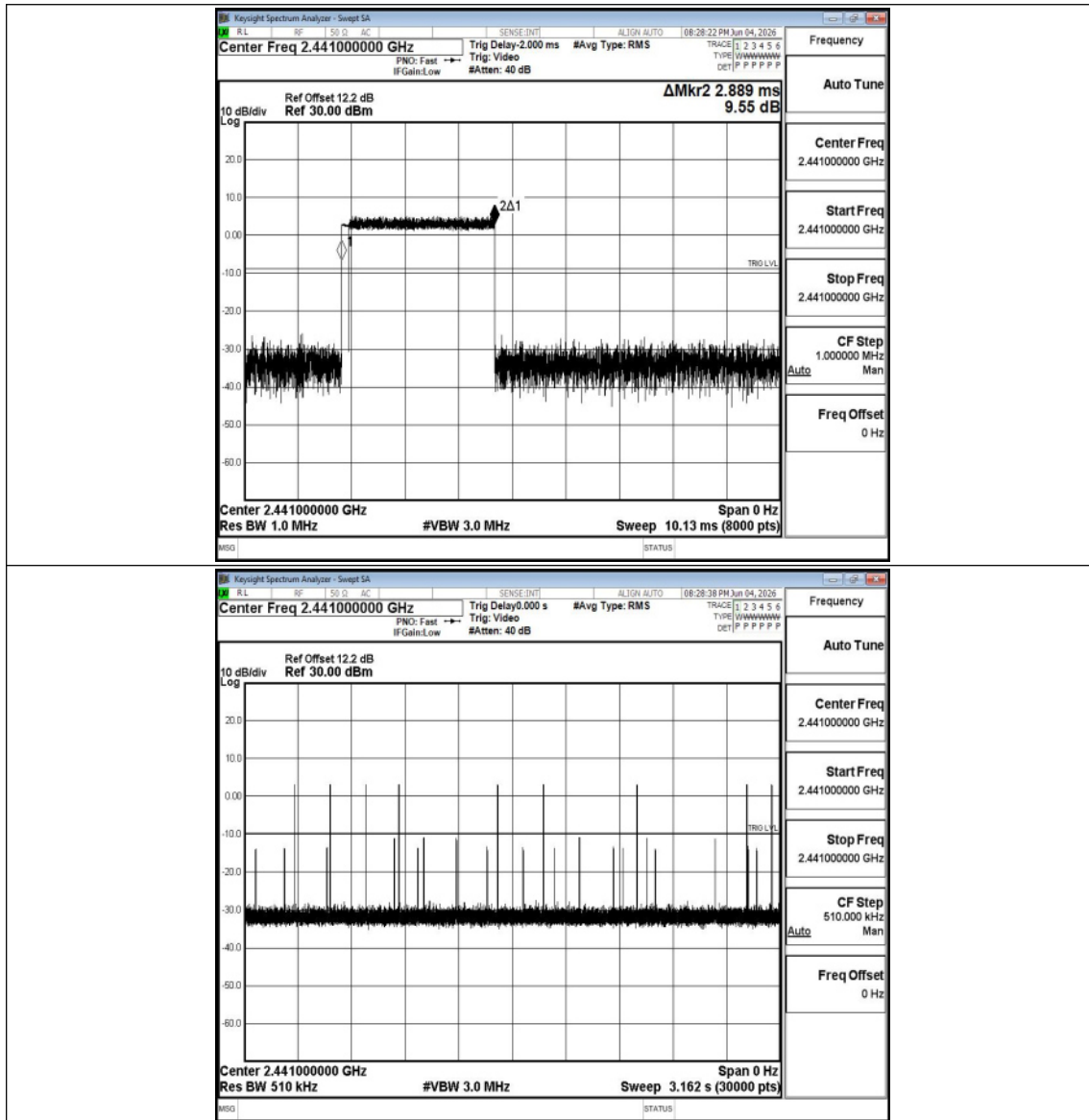
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.880	120	0.346	≤0.4	PASS
2DH5	Ant1	Hop	2.887	110	0.318	≤0.4	PASS
3DH5	Ant1	Hop	2.889	100	0.289	≤0.4	PASS

Test Graphs







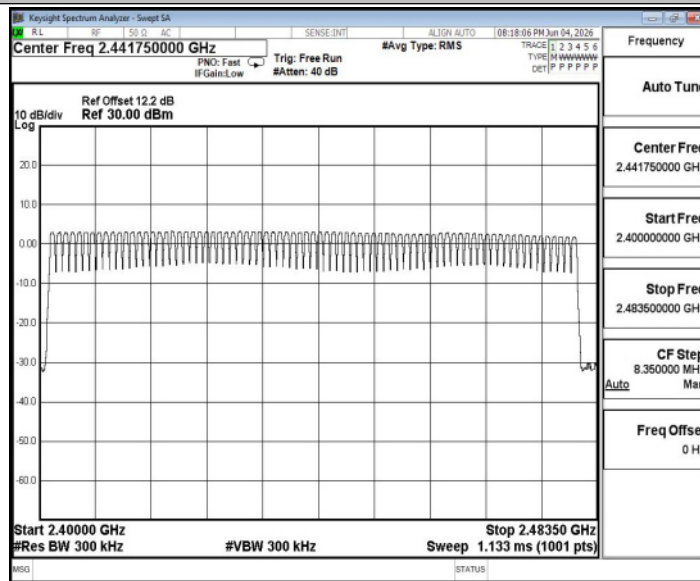
A.5 Number of hopping channels

Test Result

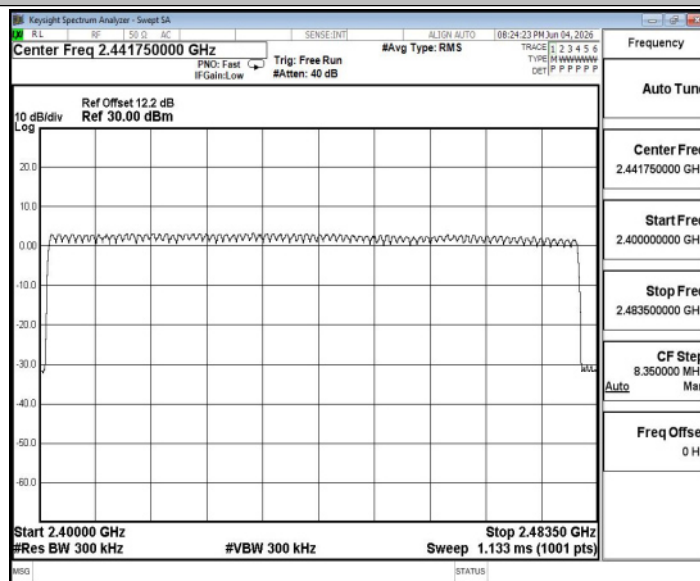
TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

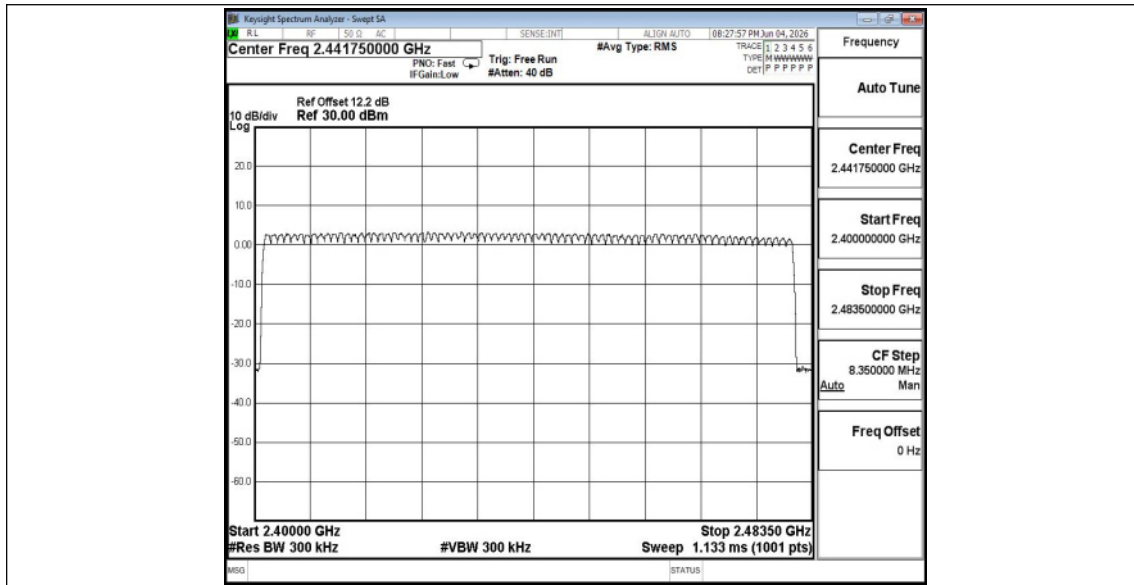
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



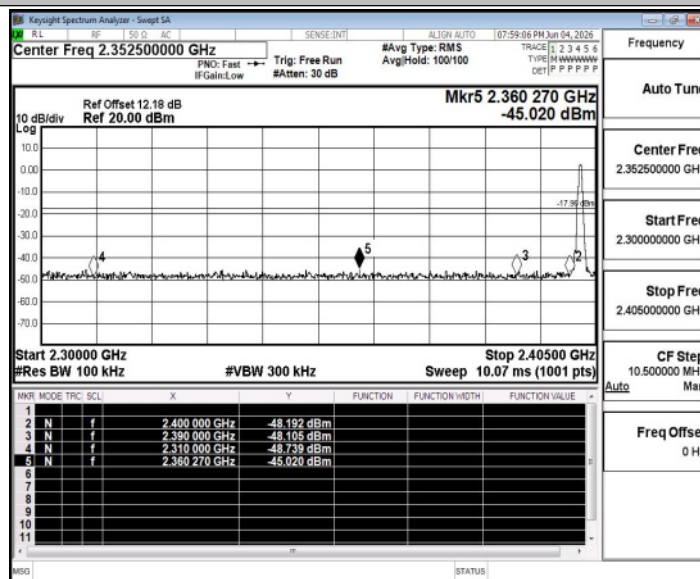
A.6 Band edge measurements

Test Result

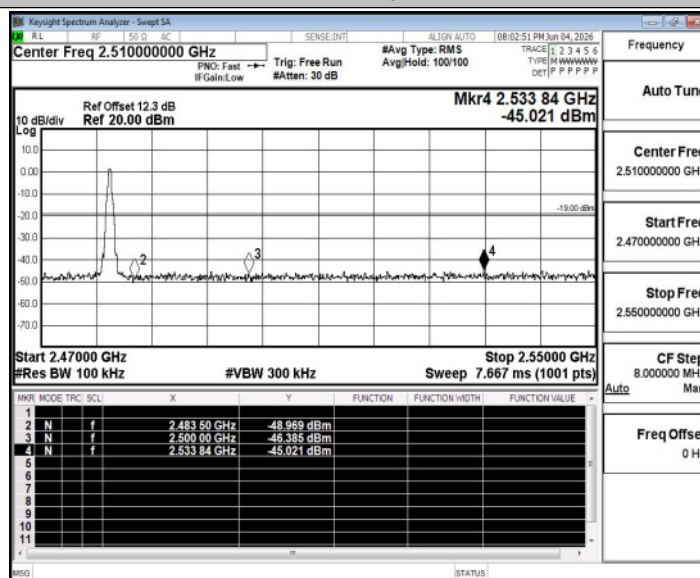
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.04	-45.02	≤ -17.96	PASS
		High	2480	1.00	-45.02	≤ -19	PASS
		Low	Hop_2402	-1.00	-44.72	≤ -21	PASS
		High	Hop_2480	1.48	-44.65	≤ -18.52	PASS
2DH5	Ant1	Low	2402	2.03	-44.77	≤ -17.97	PASS
		High	2480	0.35	-45.15	≤ -19.65	PASS
		Low	Hop_2402	-1.59	-45.15	≤ -21.59	PASS
		High	Hop_2480	-0.72	-44.86	≤ -20.72	PASS
3DH5	Ant1	Low	2402	2.77	-45.78	≤ -17.23	PASS
		High	2480	0.48	-44.13	≤ -19.52	PASS
		Low	Hop_2402	-0.81	-45.9	≤ -20.81	PASS
		High	Hop_2480	-0.87	-44.63	≤ -20.87	PASS

Test Graphs

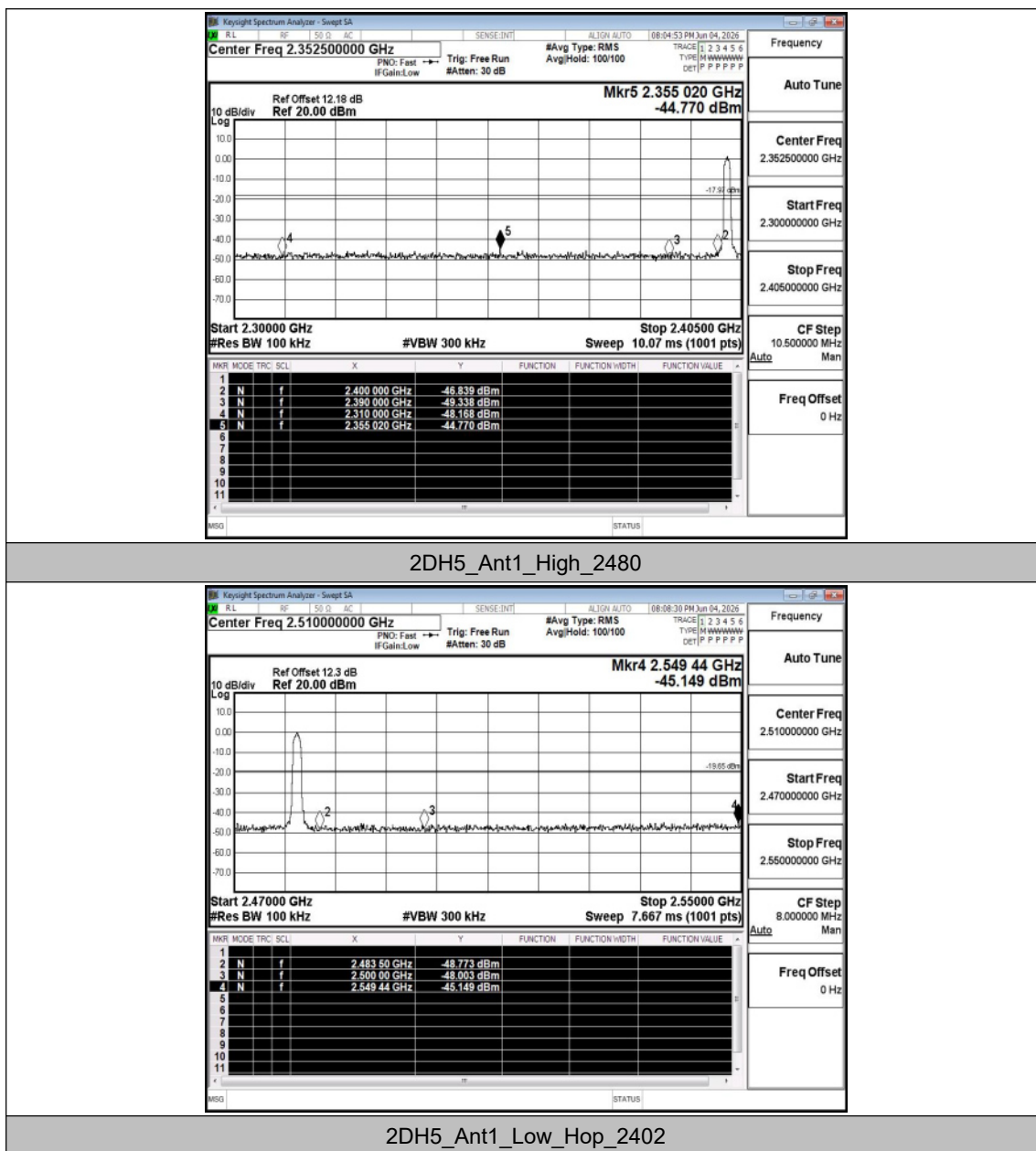
DH5_Ant1_Low_2402

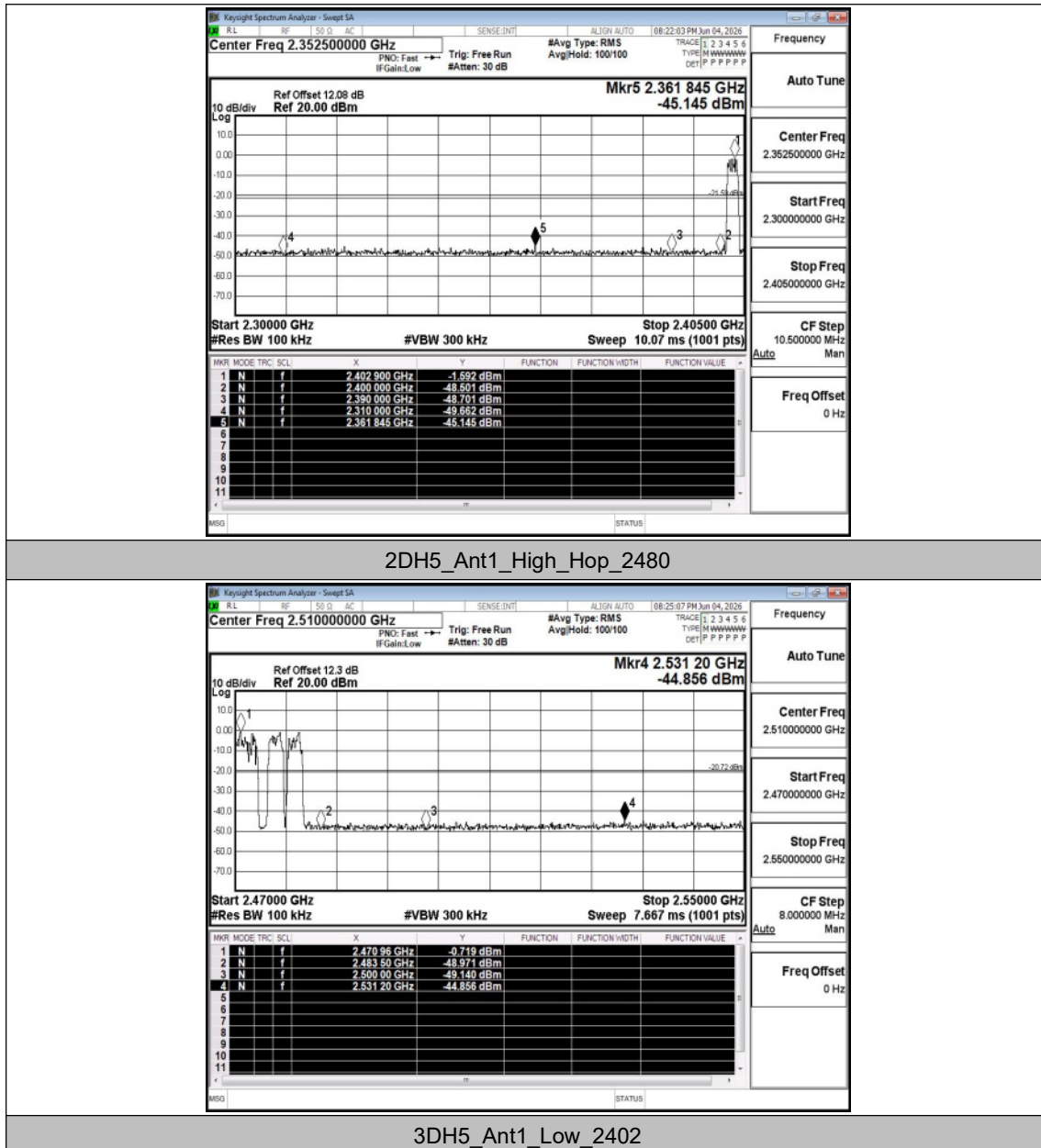


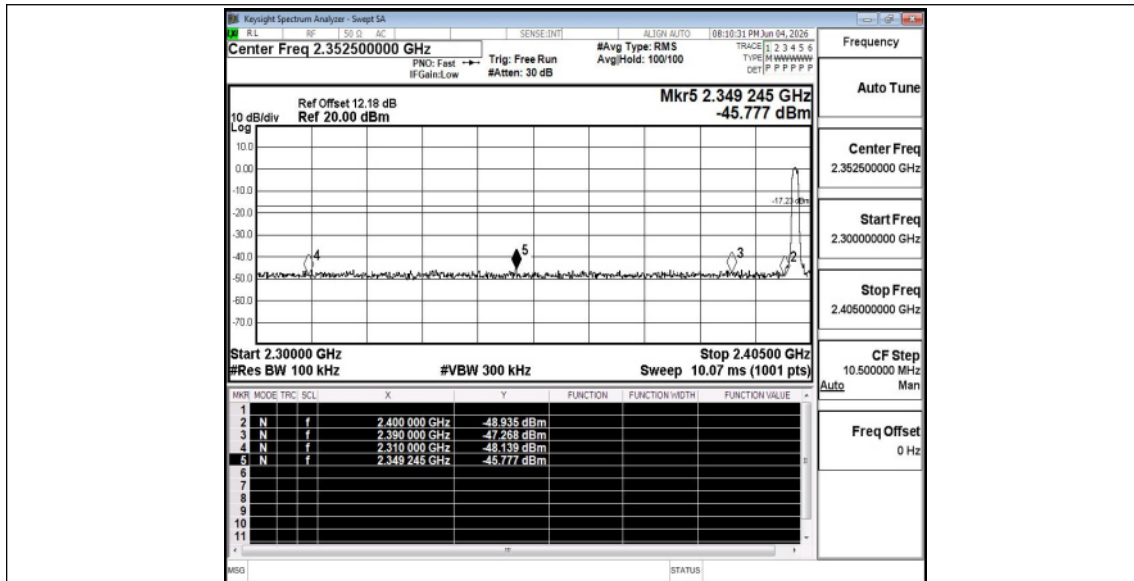
DH5_Ant1_High_2480



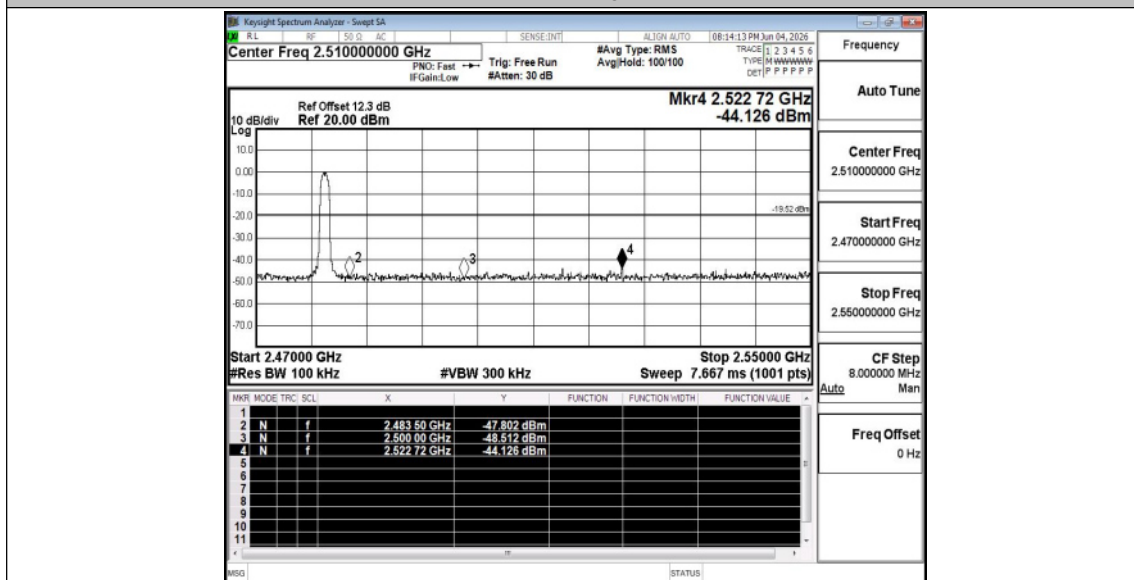
DH5_Ant1_Low_Hop_2402



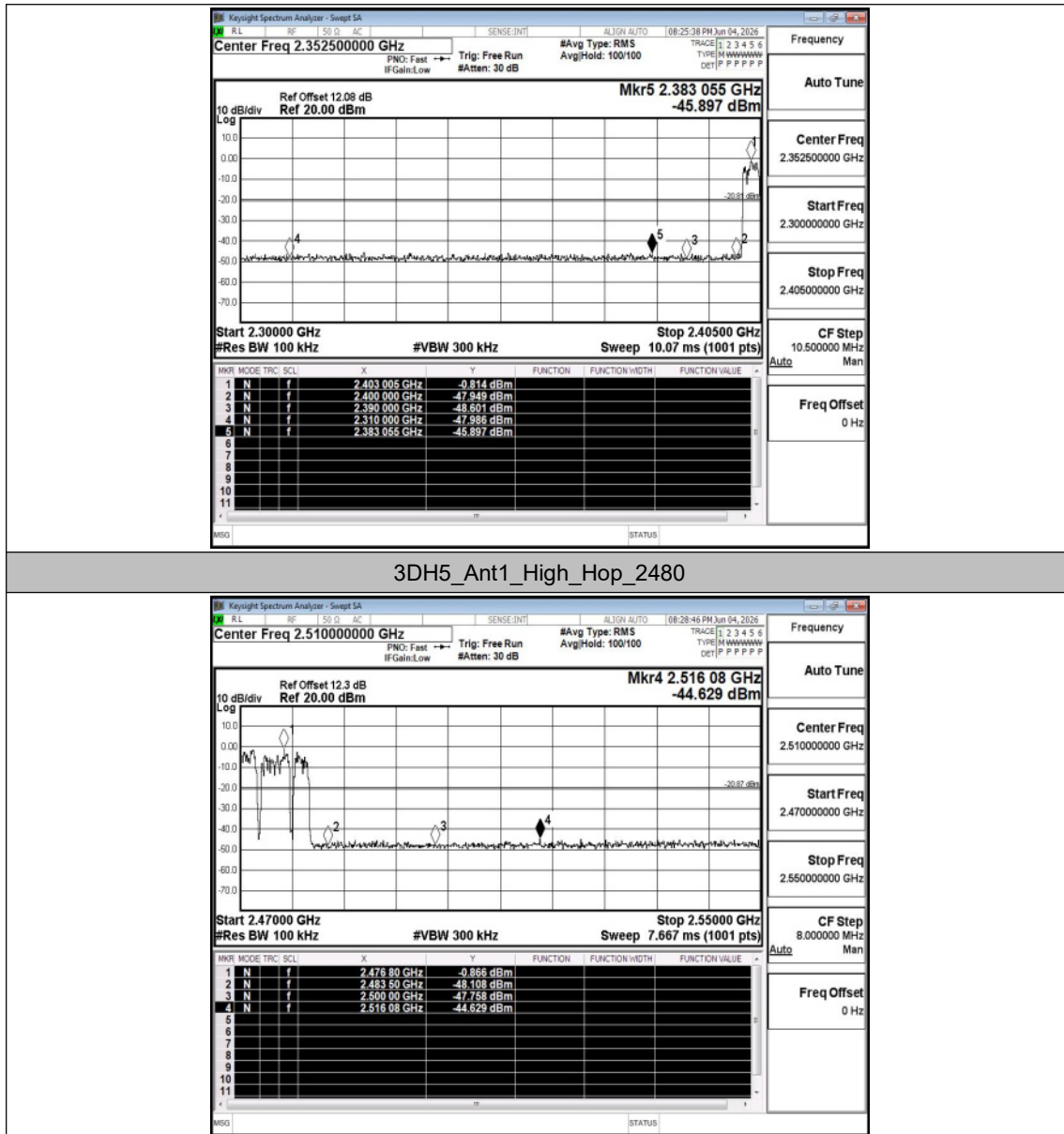




3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



A.7 Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-50.61	≤-17.35	PASS
			1000~26500	2.65	-41.89	≤-17.35	PASS
		2441	Reference	2.80	2.80	---	PASS
			30~1000	2.80	-49.7	≤-17.2	PASS
			1000~26500	2.80	-41.25	≤-17.2	PASS
		2480	Reference	1.61	1.61	---	PASS
			30~1000	1.61	-47.69	≤-18.39	PASS
			1000~26500	1.61	-42.3	≤-18.39	PASS
2DH5	Ant1	2402	Reference	2.56	2.56	---	PASS
			30~1000	2.56	-52.74	≤-17.44	PASS
			1000~26500	2.56	-42.06	≤-17.44	PASS
		2441	Reference	2.73	2.73	---	PASS
			30~1000	2.73	-49.47	≤-17.27	PASS
			1000~26500	2.73	-40.36	≤-17.27	PASS
		2480	Reference	1.70	1.70	---	PASS
			30~1000	1.70	-49.73	≤-18.3	PASS
			1000~26500	1.70	-41.98	≤-18.3	PASS
3DH5	Ant1	2402	Reference	2.71	2.71	---	PASS
			30~1000	2.71	-51.93	≤-17.29	PASS
			1000~26500	2.71	-42.16	≤-17.29	PASS
		2441	Reference	2.94	2.94	---	PASS
			30~1000	2.94	-50.49	≤-17.06	PASS
			1000~26500	2.94	-41.14	≤-17.06	PASS
		2480	Reference	1.55	1.55	---	PASS
			30~1000	1.55	-50.16	≤-18.45	PASS
			1000~26500	1.55	-42.16	≤-18.45	PASS

Test Graphs

