

Appendix RF Test Data for BT

FCC ID : 2A7BO-A2

Company : Shenzhen Leba Technology Co., Ltd.

EUT : Sleep speaker

Model Number : A2

Report No. : CTA25081100501

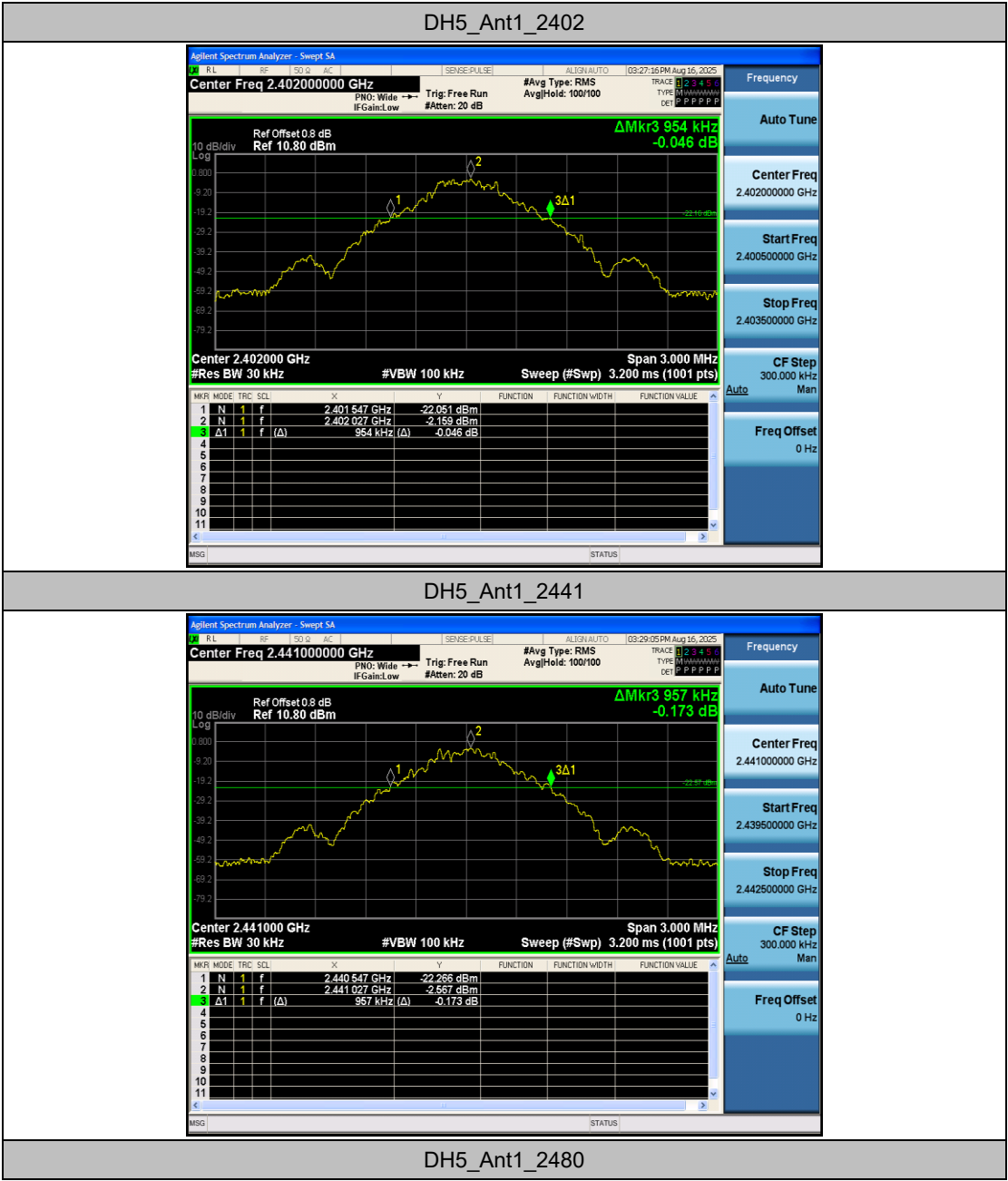
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.954	2401.547	2402.501	---	---
		2441	0.957	2440.547	2441.504	---	---
		2480	0.948	2479.550	2480.498	---	---
2DH5	Ant1	2402	1.323	2401.349	2402.672	---	---
		2441	1.311	2440.358	2441.669	---	---
		2480	1.308	2479.355	2480.663	---	---
3DH5	Ant1	2402	1.329	2401.346	2402.675	---	---
		2441	1.308	2440.361	2441.669	---	---
		2480	1.293	2479.367	2480.660	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



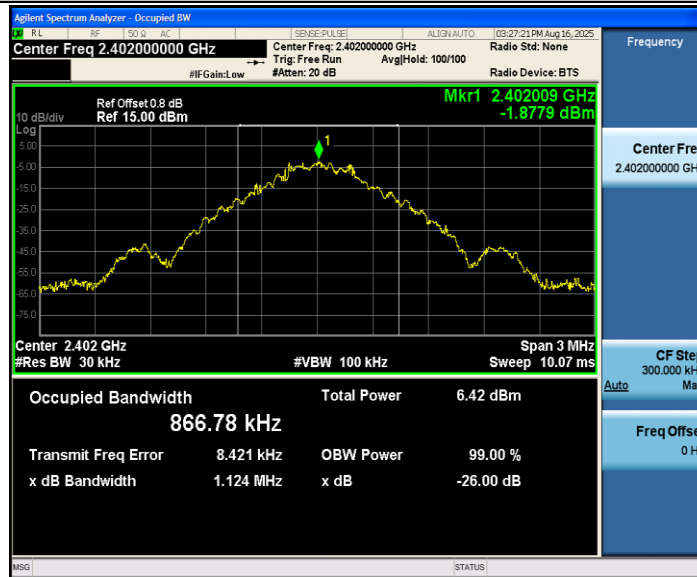
Appendix B: Occupied Channel Bandwidth

Test Result

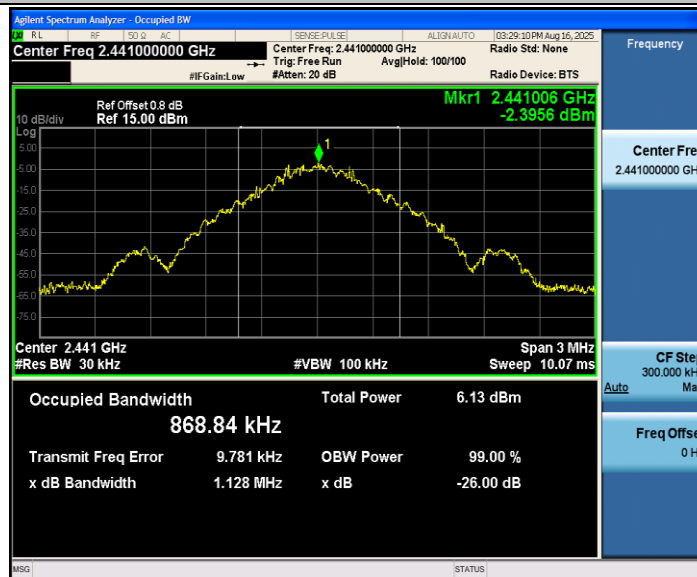
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86678	2401.5750	2402.4418	---	---
		2441	0.86884	2440.5754	2441.4442	---	---
		2480	0.86830	2479.5749	2480.4432	---	---
2DH5	Ant1	2402	1.1901	2401.4164	2402.6065	---	---
		2441	1.1888	2440.4167	2441.6055	---	---
		2480	1.1957	2479.4148	2480.6105	---	---
3DH5	Ant1	2402	1.1922	2401.4130	2402.6052	---	---
		2441	1.1828	2440.4209	2441.6037	---	---
		2480	1.1863	2479.4179	2480.6042	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



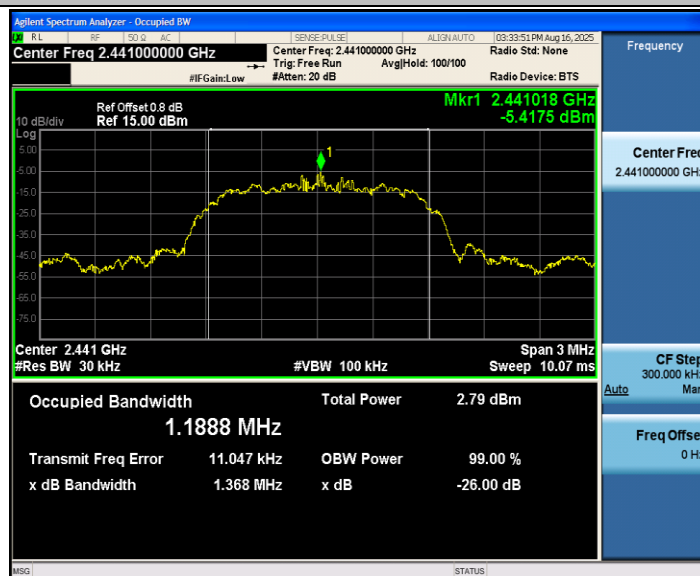
DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



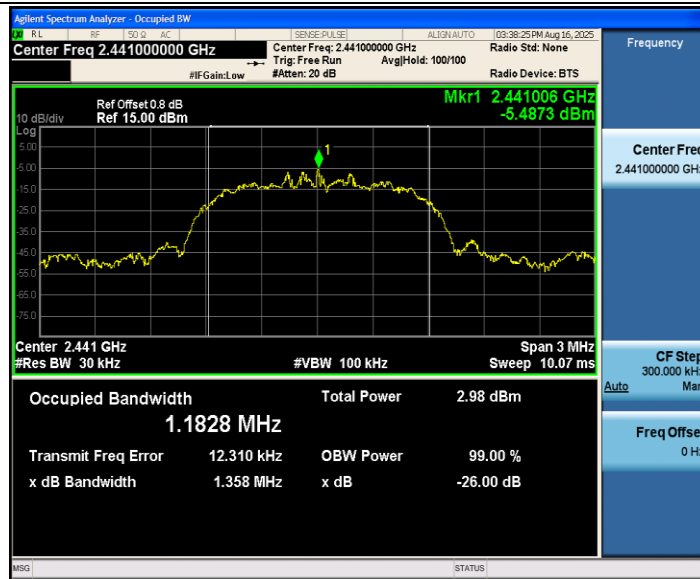
2DH5_Ant1_2480



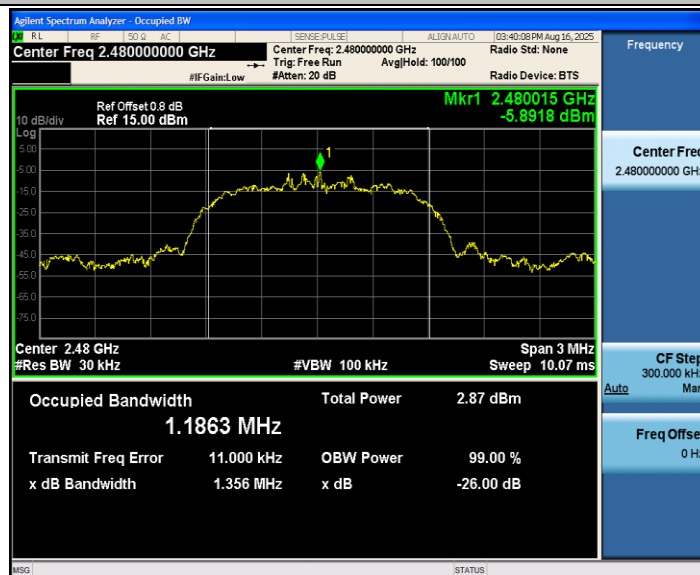
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.39	≤20.97	PASS
		2441	0.17	≤20.97	PASS
		2480	0.10	≤20.97	PASS
2DH5	Ant1	2402	-0.42	≤20.97	PASS
		2441	-0.62	≤20.97	PASS
		2480	-0.68	≤20.97	PASS
3DH5	Ant1	2402	-0.07	≤20.97	PASS
		2441	-0.25	≤20.97	PASS
		2480	-0.32	≤20.97	PASS

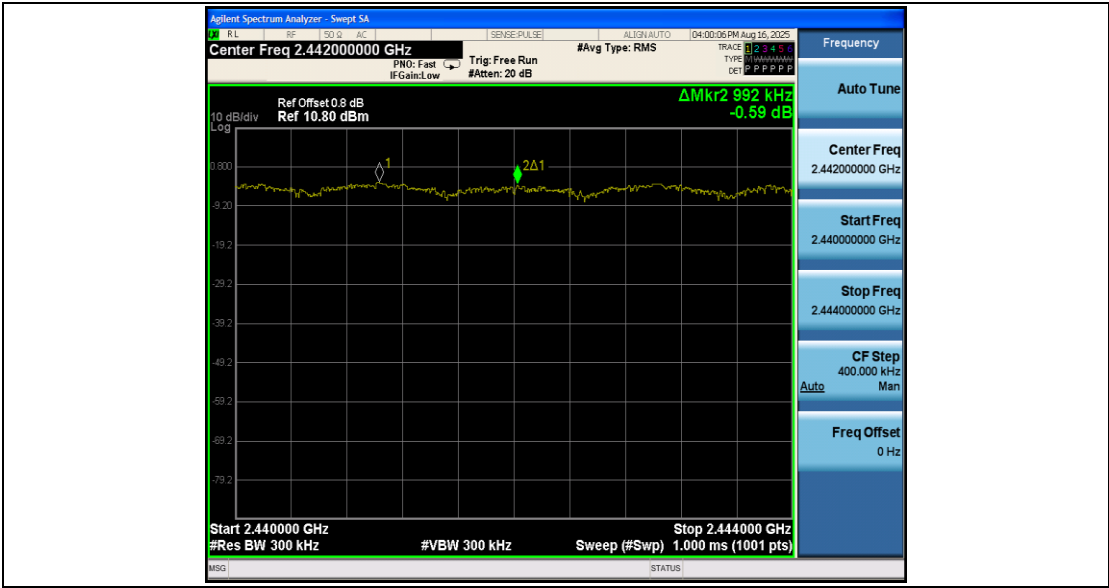
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.02	≥ 0.957	PASS
2DH5	Ant1	Hop	1.18	≥ 0.882	PASS
3DH5	Ant1	Hop	0.992	≥ 0.886	PASS

Test Graphs





Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.380	315	0.12	≤0.4	PASS
DH3	Ant1	Hop	1.650	161	0.266	≤0.4	PASS
DH5	Ant1	Hop	2.890	111	0.321	≤0.4	PASS
2DH1	Ant1	Hop	0.400	315	0.126	≤0.4	PASS
2DH3	Ant1	Hop	1.650	161	0.266	≤0.4	PASS
2DH5	Ant1	Hop	2.900	108	0.313	≤0.4	PASS
3DH1	Ant1	Hop	0.400	317	0.127	≤0.4	PASS
3DH3	Ant1	Hop	1.650	155	0.256	≤0.4	PASS
3DH5	Ant1	Hop	2.900	111	0.322	≤0.4	PASS

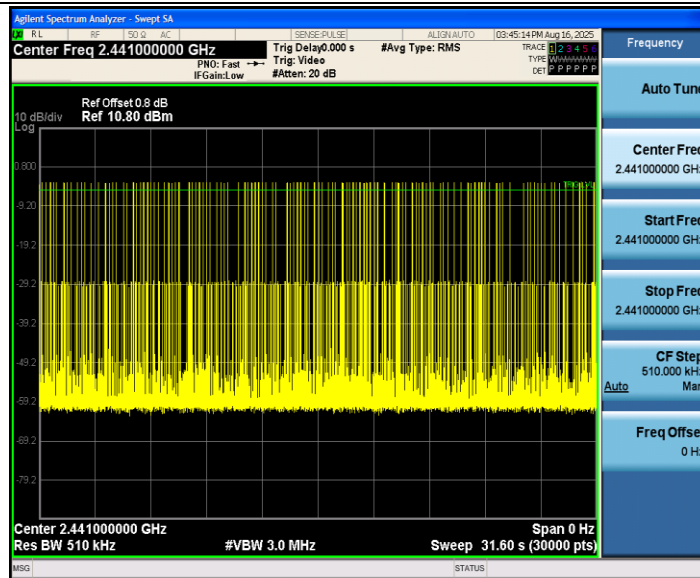
The figure displays two screenshots of an Agilent Spectrum Analyzer (Sweep SA) interface, showing signal analysis results for two different antennas: DH1_Ant1_Hop and DH3_Ant1_Hop.

Top Screenshot (DH1_Ant1_Hop):

- Center Freq:** 2.441000000 GHz
- Ref Offset:** 0.8 dB
- Ref:** 10.80 dBm
- Trig Delay:** 2.000 ms
- #Avg Type:** RMS
- Trig:** Video
- #Atten:** 20 dB
- Span:** 0 Hz
- Res BW:** 1.0 MHz
- #VBW:** 3.0 MHz
- Sweep:** 10.00 ms (1001 pts)
- Frequency Range:** 2.441000000 GHz to 2.441000000 GHz
- CF Step:** 1.000000 MHz
- Freq Offset:** 0 Hz
- Signal Characteristics:** The plot shows a signal with a peak level of approximately -1.6 dBm (labeled as -0.16 dBm) and a bandwidth of 380.0 μs. The signal is centered around 2.441 GHz.

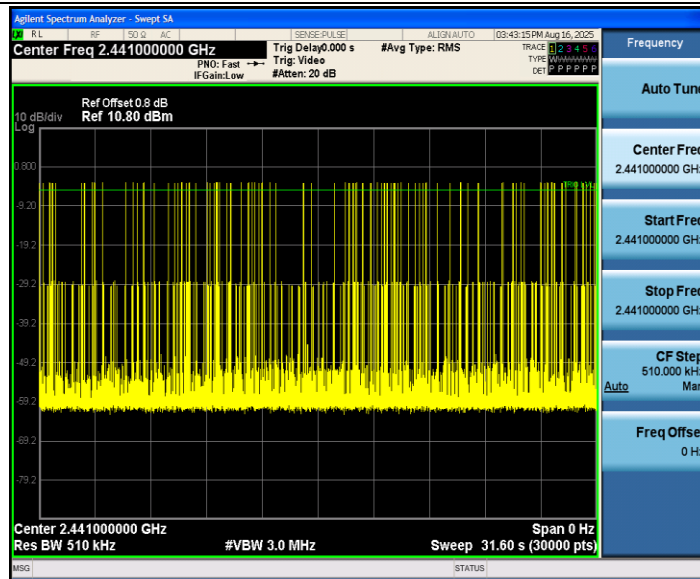
Bottom Screenshot (DH3_Ant1_Hop):

- Center Freq:** 2.441000000 GHz
- Ref Offset:** 0.8 dB
- Ref:** 10.80 dBm
- Trig Delay:** 0.000 s
- #Avg Type:** RMS
- Trig:** Video
- #Atten:** 20 dB
- Span:** 0 Hz
- Res BW:** 510 kHz
- #VBW:** 3.0 MHz
- Sweep:** 31.60 s (30000 pts)
- Frequency Range:** 2.441000000 GHz to 2.441000000 GHz
- CF Step:** 510.000 kHz
- Freq Offset:** 0 Hz
- Signal Characteristics:** The plot shows a signal with a peak level of approximately -1.6 dBm (labeled as -0.16 dBm) and a bandwidth of 380.0 μs. The signal is centered around 2.441 GHz.

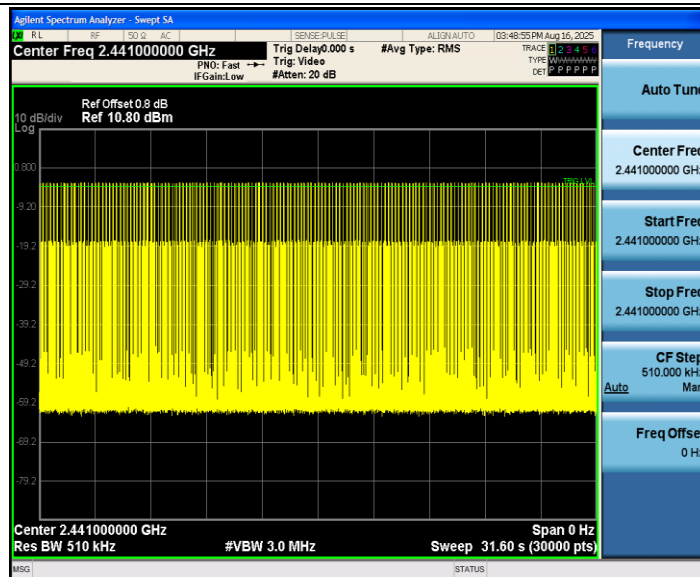
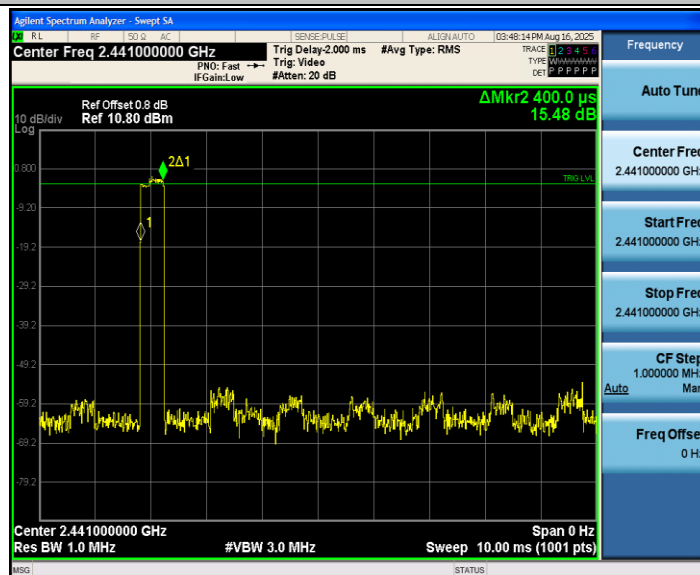


DH5_Ant1_Hop

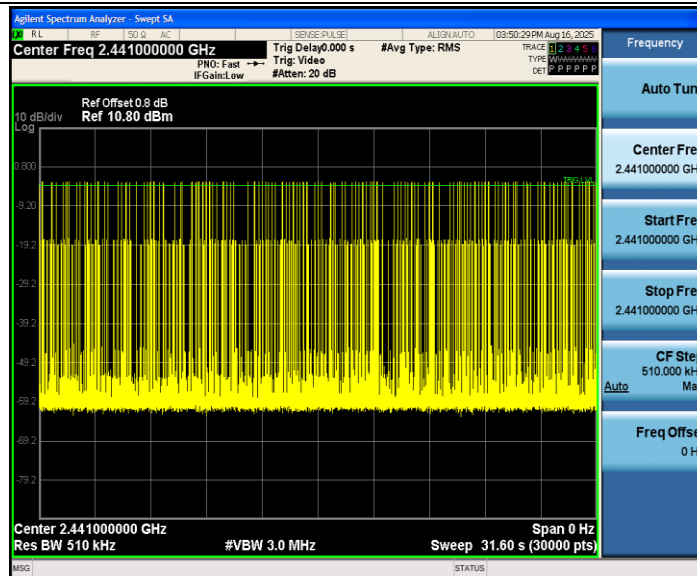
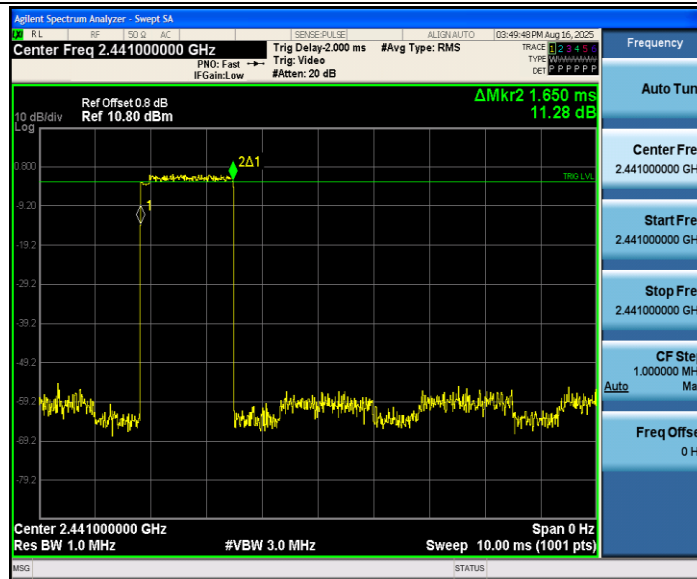




2DH1_Ant1_Hop

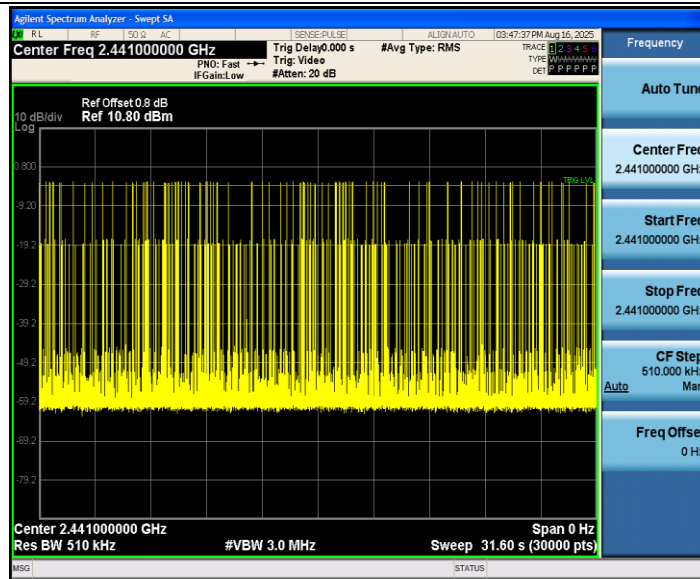


2DH3_Ant1_Hop

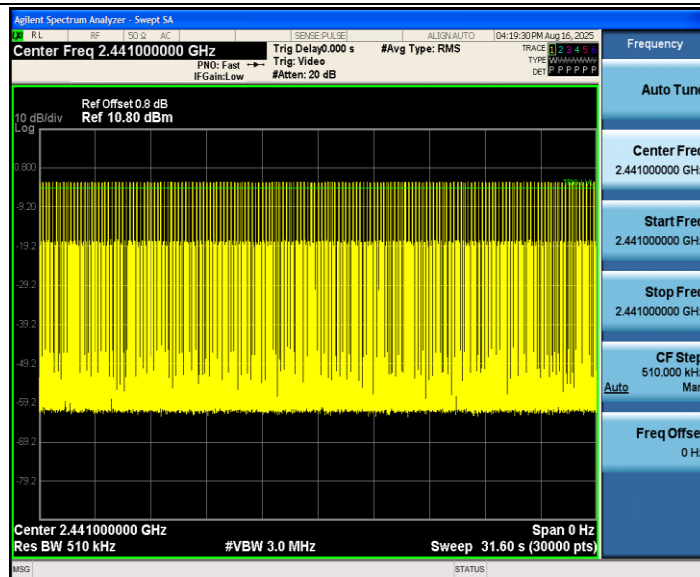
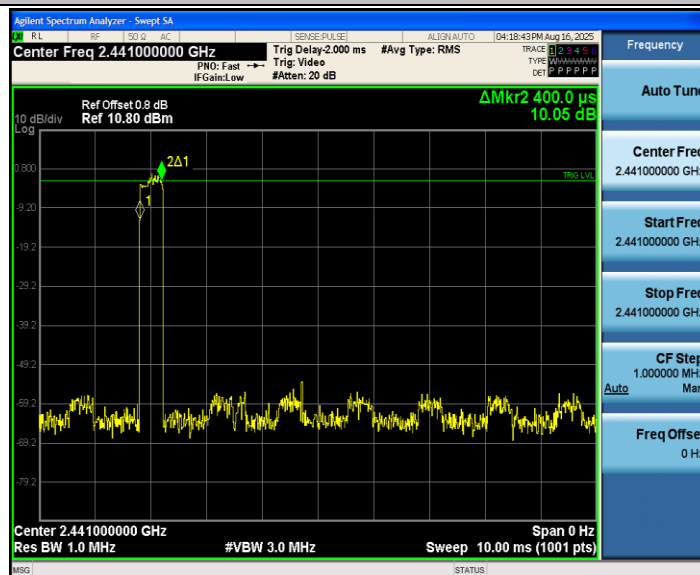


2DH5_Ant1_Hop

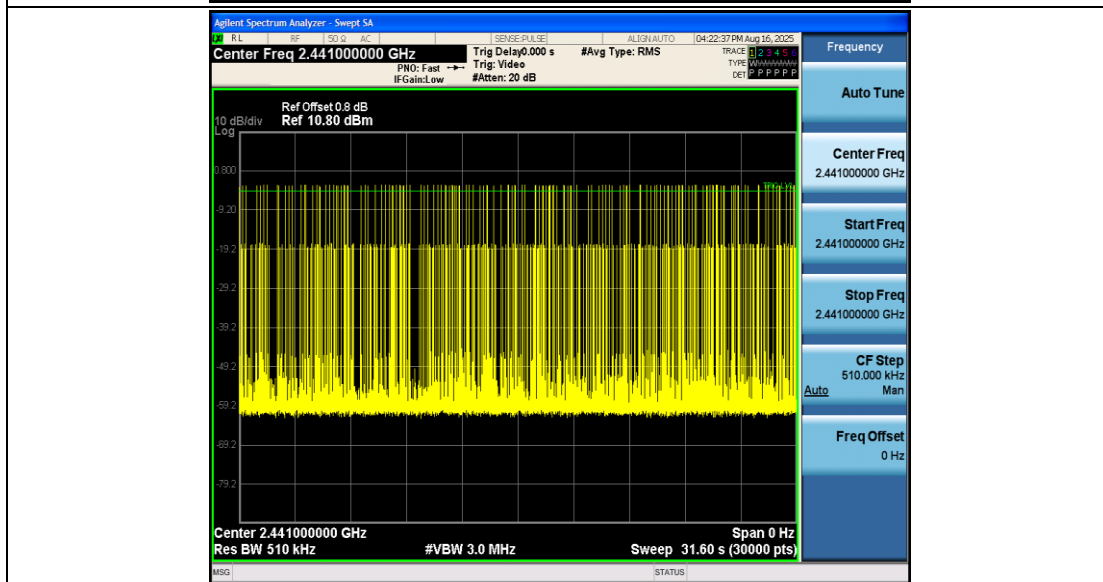
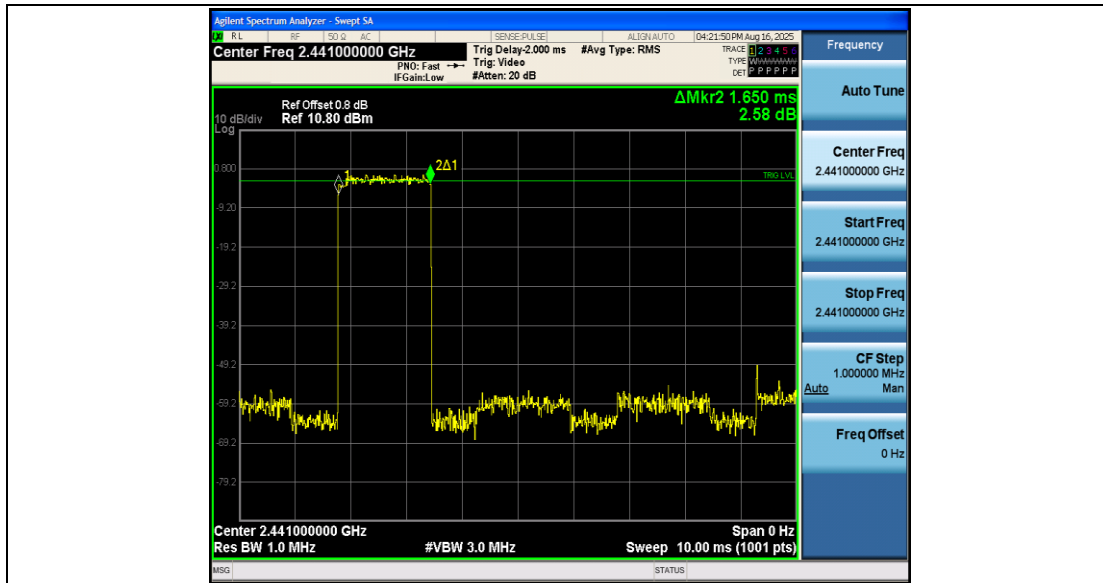




3DH1_Ant1_Hop

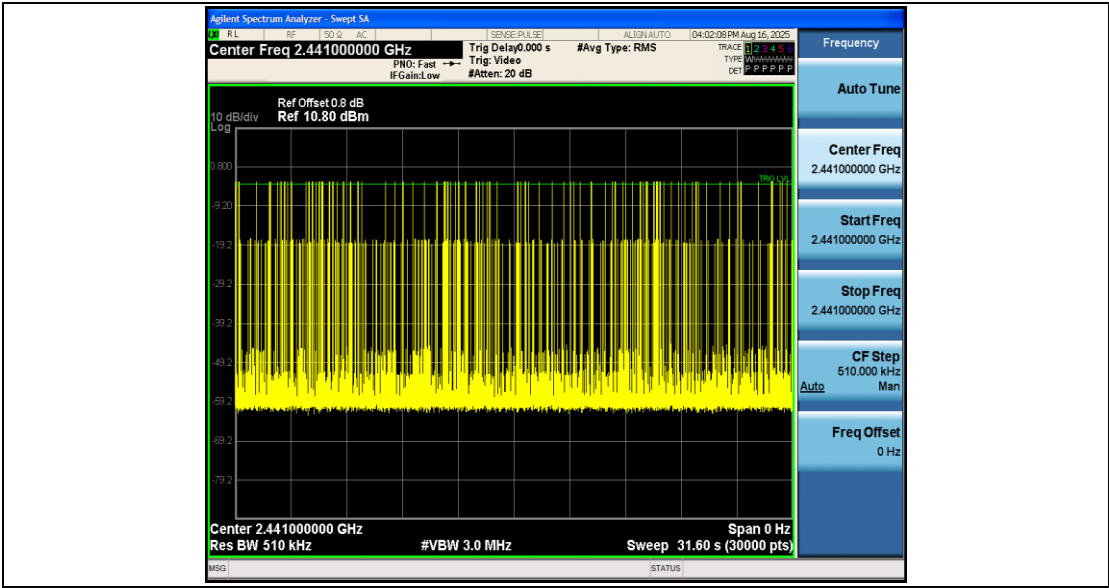


3DH3_Ant1_Hop



3DH5_Ant1_Hop





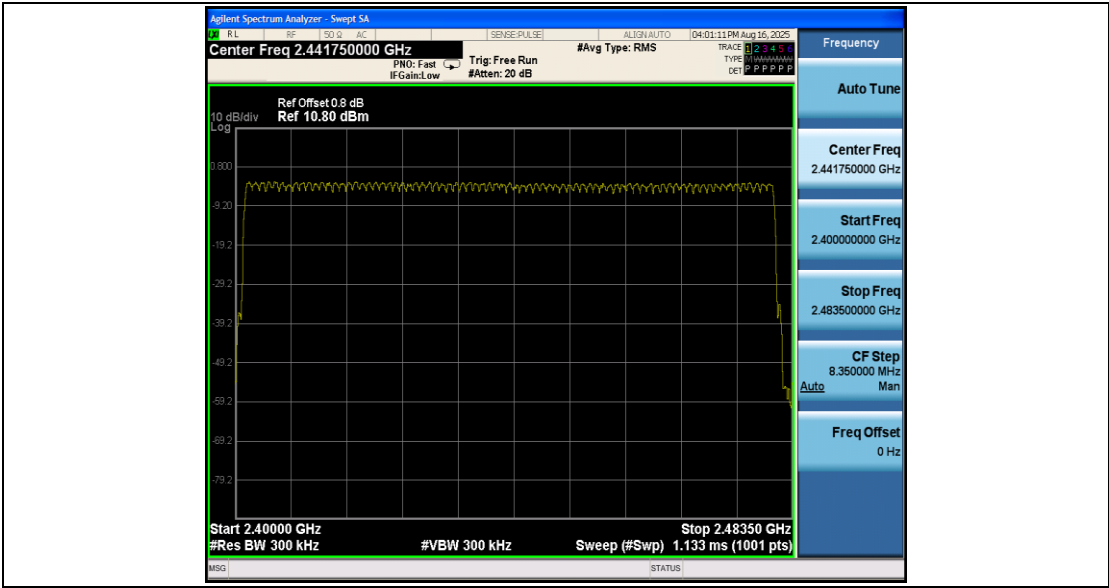
Appendix F: Number of hopping channels

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



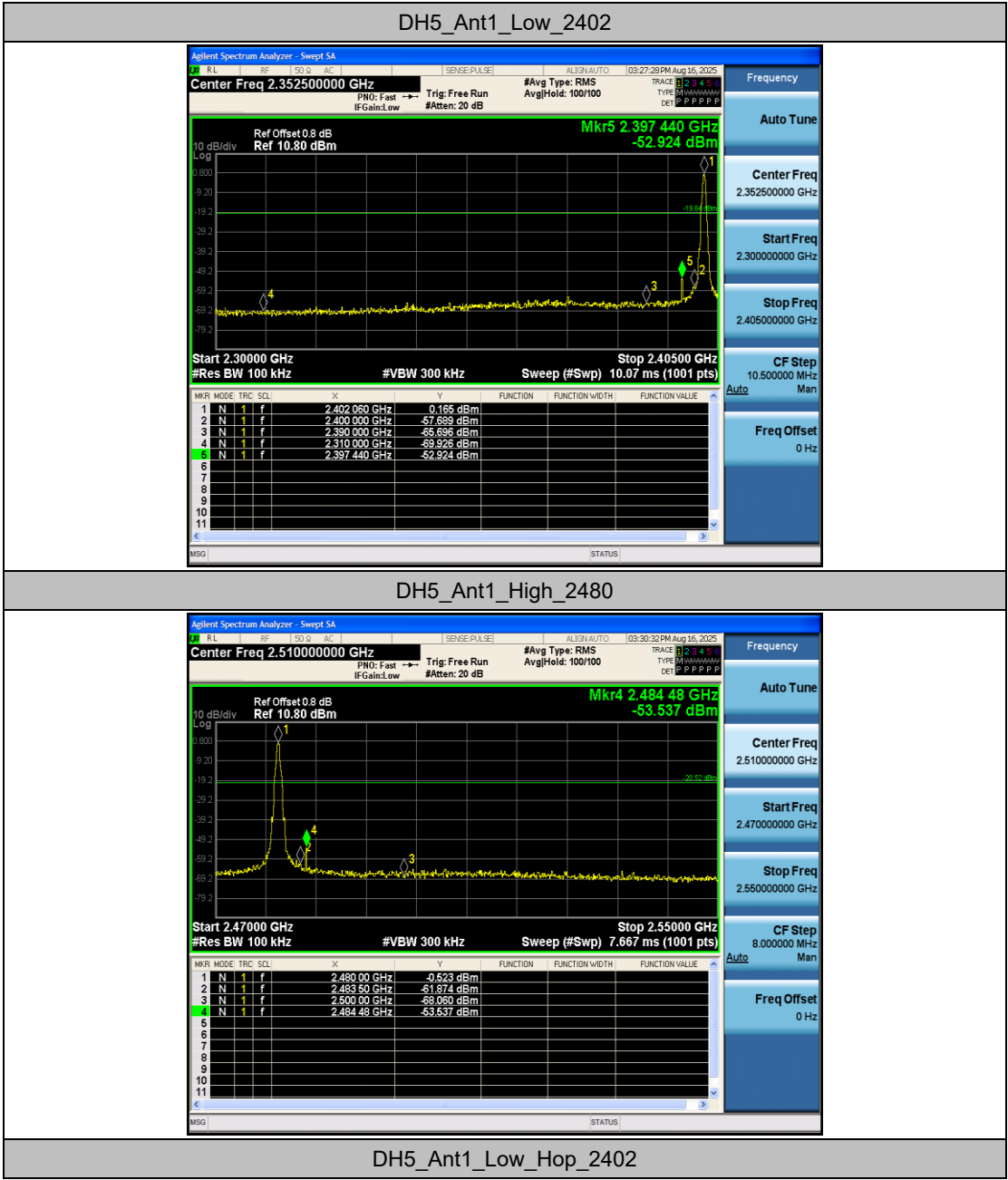


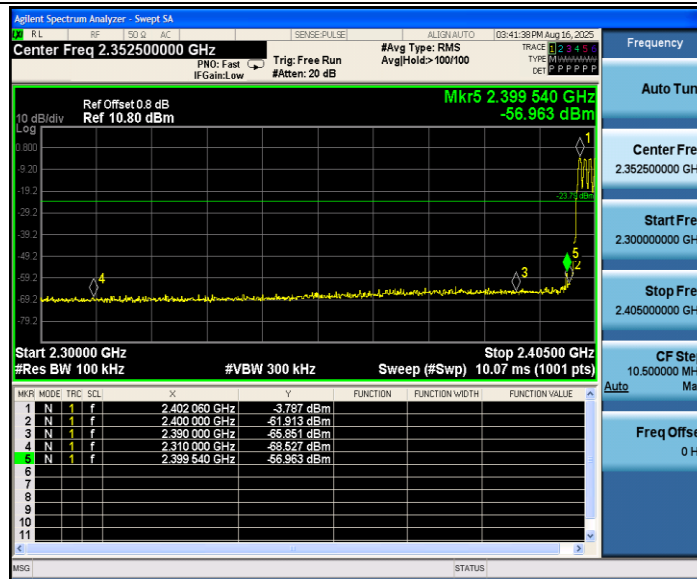
Appendix G: Band edge measurements

Test Result

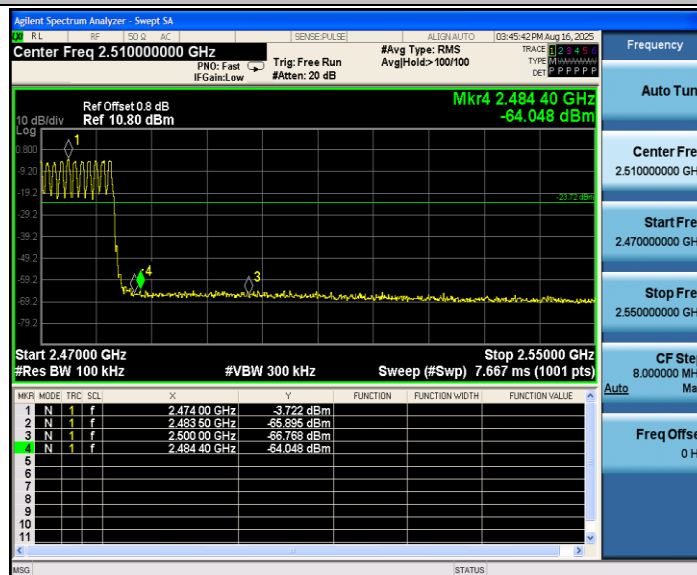
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.17	-52.92	≤-19.84	PASS
		High	2480	-0.52	-53.54	≤-20.52	PASS
		Low	Hop_2402	-3.79	-56.96	≤-23.79	PASS
		High	Hop_2480	-3.72	-64.05	≤-23.72	PASS
2DH5	Ant1	Low	2402	-4.12	-57.41	≤-24.12	PASS
		High	2480	-4.73	-63.09	≤-24.73	PASS
		Low	Hop_2402	-5.93	-61.9	≤-25.93	PASS
		High	Hop_2480	-4.10	-63.96	≤-24.1	PASS
3DH5	Ant1	Low	2402	-3.98	-60.63	≤-23.98	PASS
		High	2480	-4.64	-63.2	≤-24.64	PASS
		Low	Hop_2402	-4.68	-62.29	≤-24.68	PASS
		High	Hop_2480	-3.85	-63.32	≤-23.85	PASS

Test Graphs

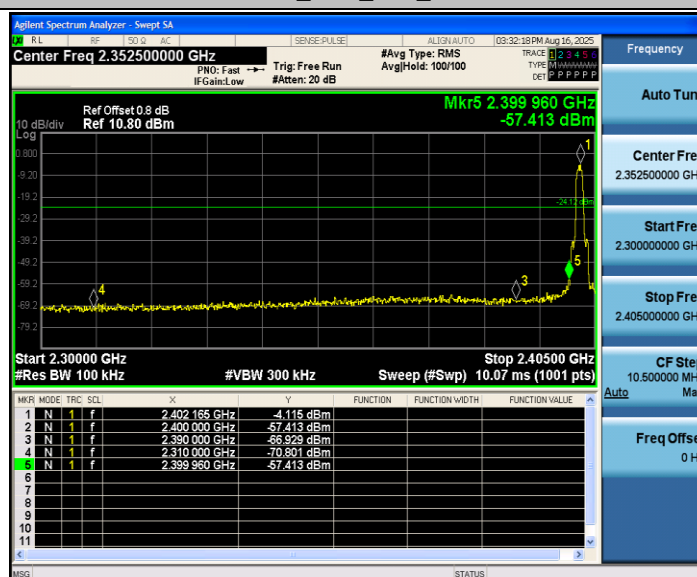




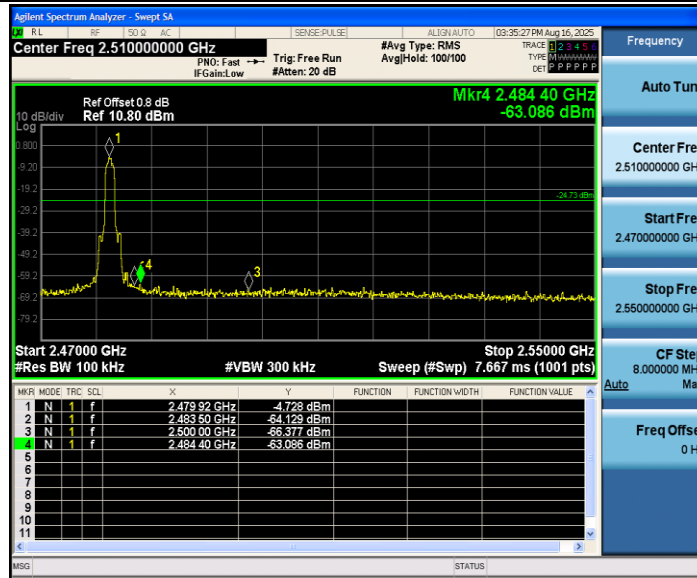
DH5_Ant1_High_Hop_2480



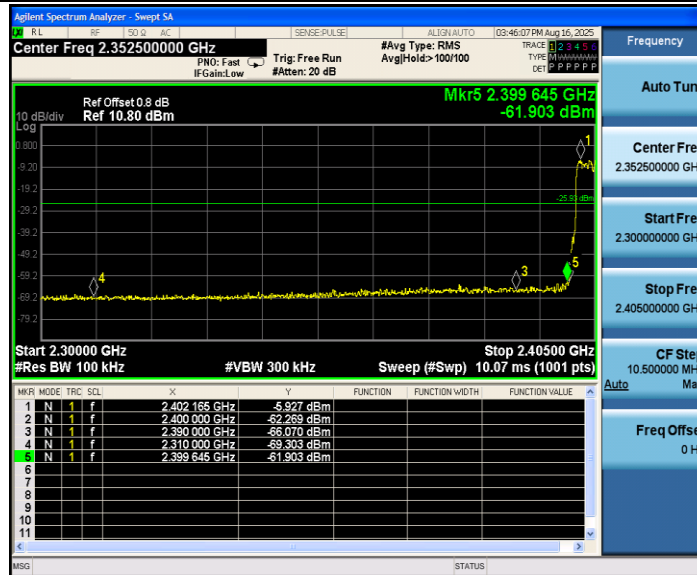
2DH5_Ant1_Low_2402



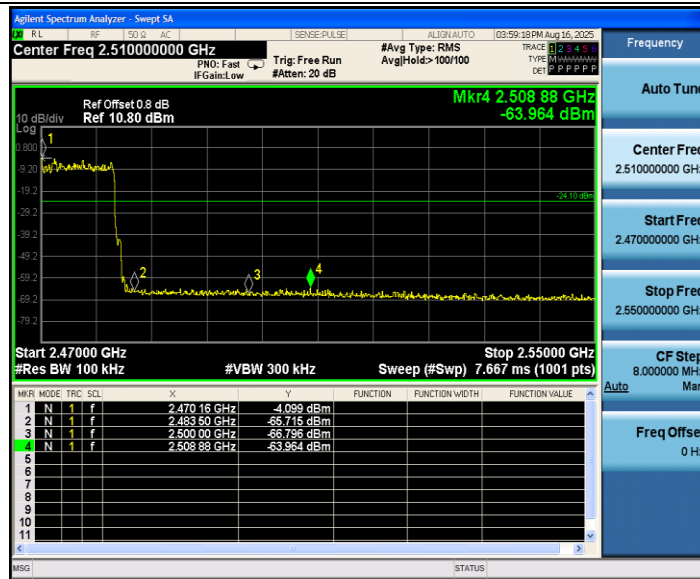
2DH5_Ant1_High_2480



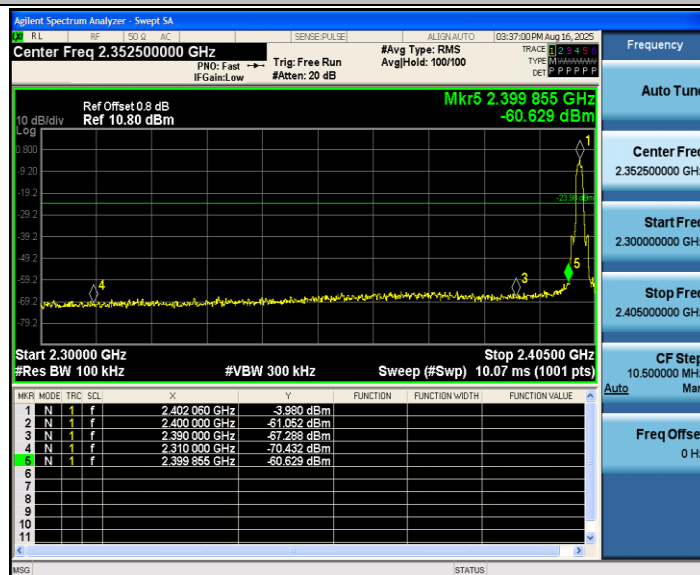
2DH5_Ant1_Low_Hop_2402



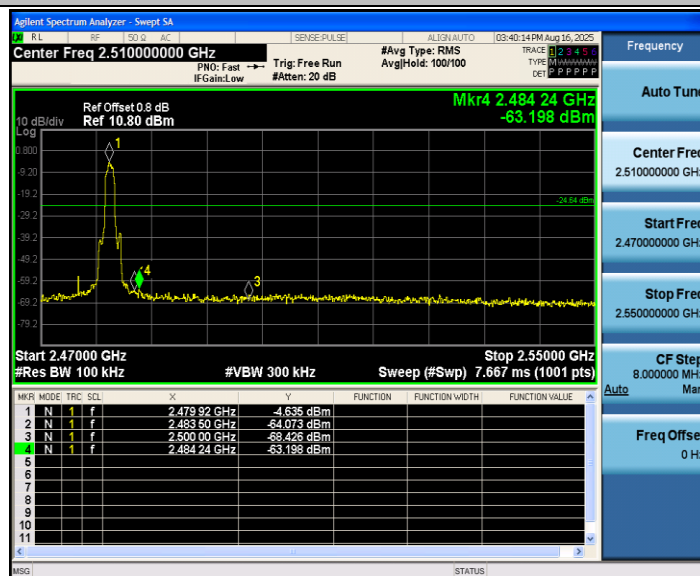
2DH5_Ant1_High_Hop_2480



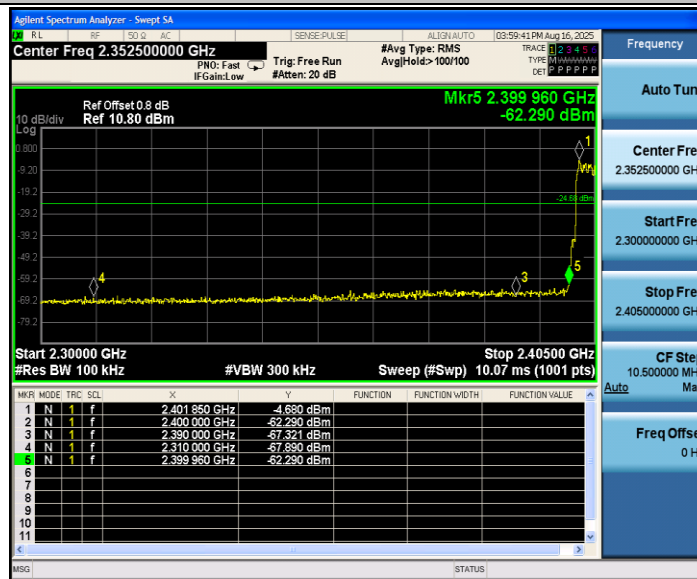
3DH5_Ant1_Low_2402



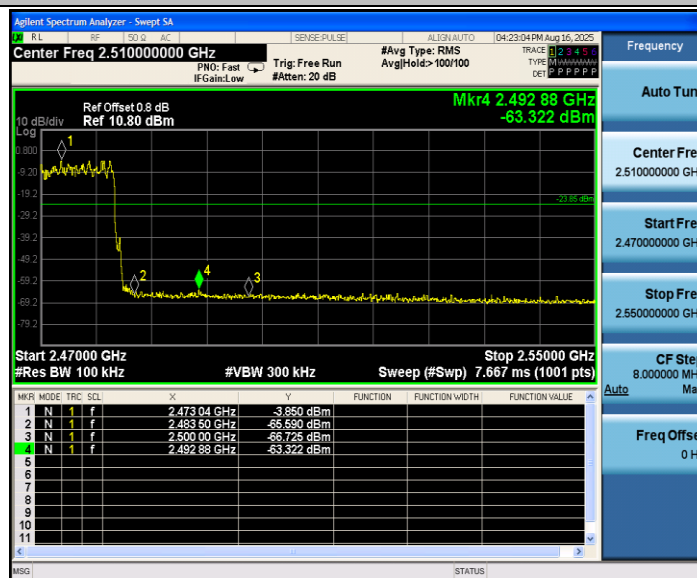
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

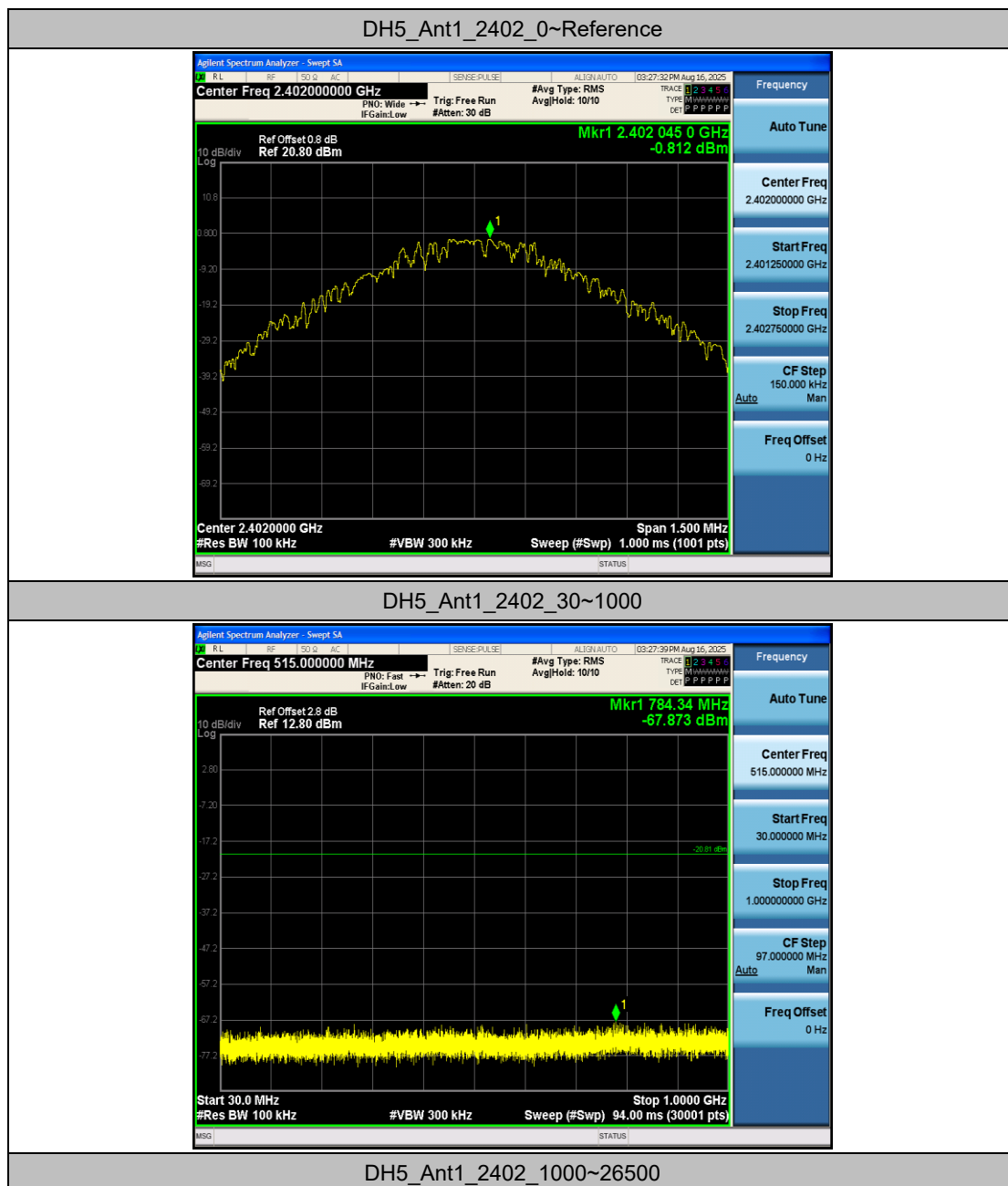


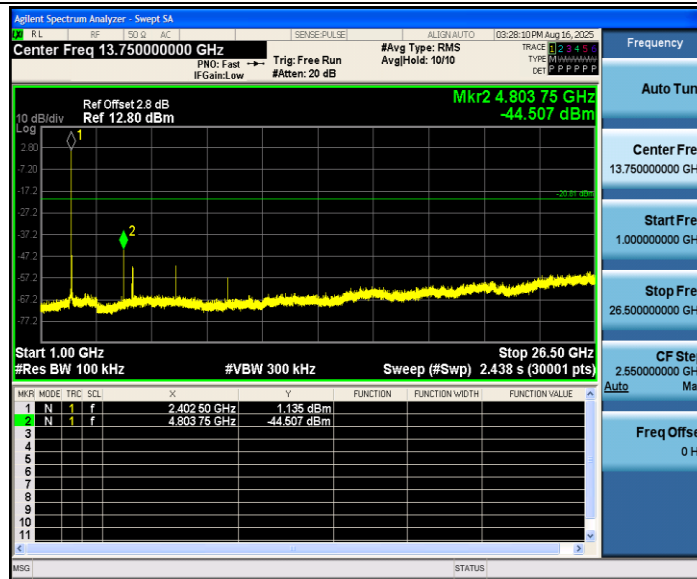
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.81	-0.81	---	PASS
			30~1000	-0.81	-67.87	≤-20.81	PASS
			1000~26500	-0.81	-44.51	≤-20.81	PASS
		2441	Reference	-1.08	-1.08	---	PASS
			30~1000	-1.08	-67.17	≤-21.08	PASS
			1000~26500	-1.08	-43.42	≤-21.08	PASS
		2480	Reference	-0.87	-0.87	---	PASS
			30~1000	-0.87	-66.36	≤-20.87	PASS
			1000~26500	-0.87	-41.3	≤-20.87	PASS
2DH5	Ant1	2402	Reference	-4.62	-4.62	---	PASS
			30~1000	-4.62	-45.28	≤-24.62	PASS
			1000~26500	-4.62	-50.76	≤-24.62	PASS
		2441	Reference	-4.55	-4.55	---	PASS
			30~1000	-4.55	-56.93	≤-24.55	PASS
			1000~26500	-4.55	-48.73	≤-24.55	PASS
		2480	Reference	-6.84	-6.84	---	PASS
			30~1000	-6.84	-66.91	≤-26.84	PASS
			1000~26500	-6.84	-47.66	≤-26.84	PASS
3DH5	Ant1	2402	Reference	-4.87	-4.87	---	PASS
			30~1000	-4.87	-67.44	≤-24.87	PASS
			1000~26500	-4.87	-48.85	≤-24.87	PASS
		2441	Reference	-5.31	-5.31	---	PASS
			30~1000	-5.31	-67.14	≤-25.31	PASS
			1000~26500	-5.31	-48.78	≤-25.31	PASS
		2480	Reference	-5.98	-5.98	---	PASS
			30~1000	-5.98	-68.02	≤-25.98	PASS
			1000~26500	-5.98	-49.87	≤-25.98	PASS

Test Graphs

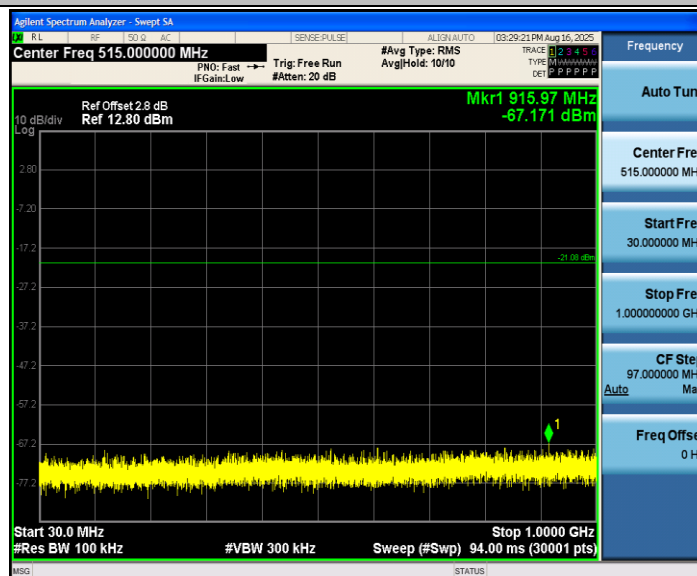




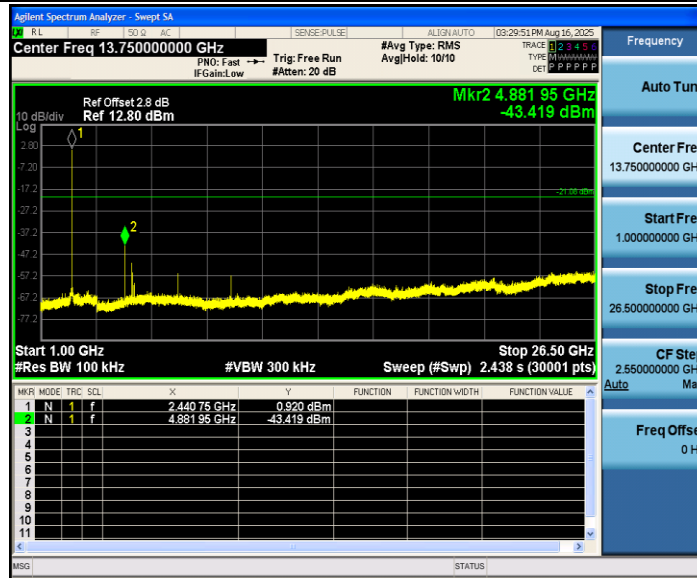
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



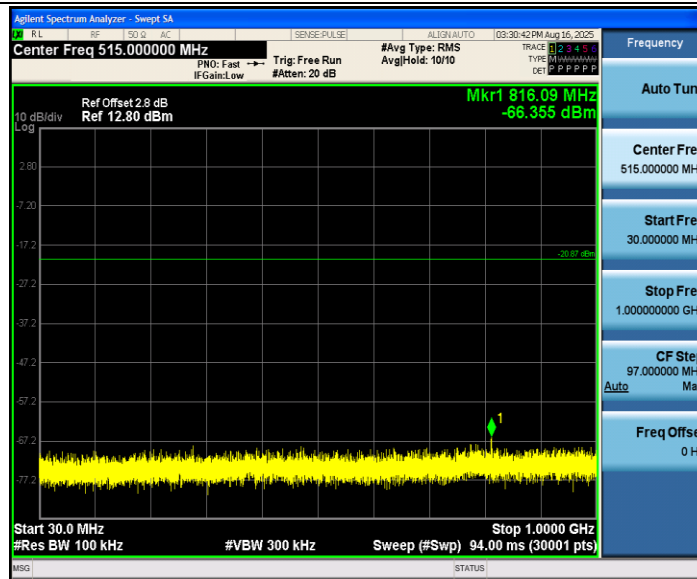
DH5_Ant1_2441_1000~26500



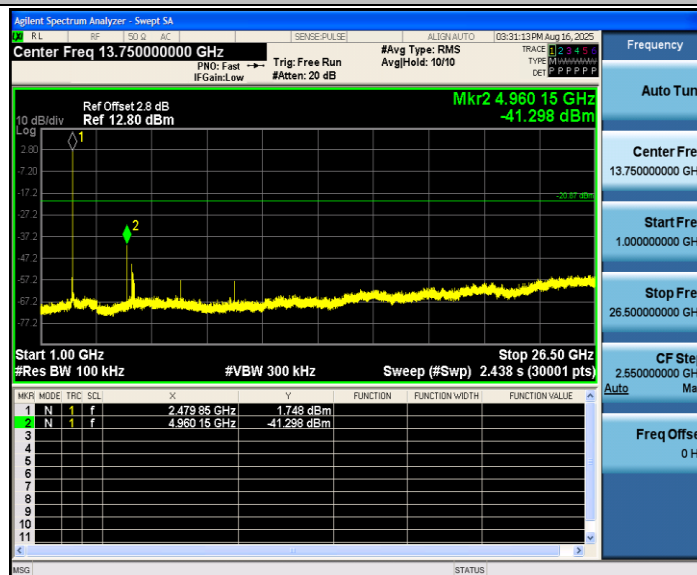
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

