

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

Product Name: Bluetooth headset

Trade Mark: /

Test Model: S90

FCC ID: 2BG70-S90

Environmental Conditions

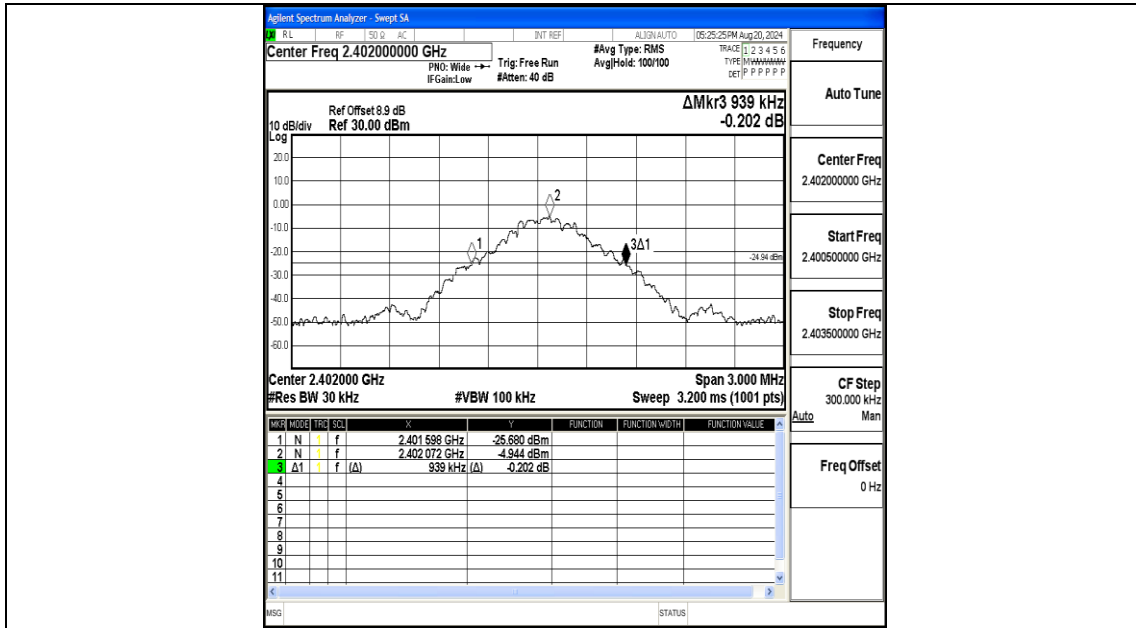
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

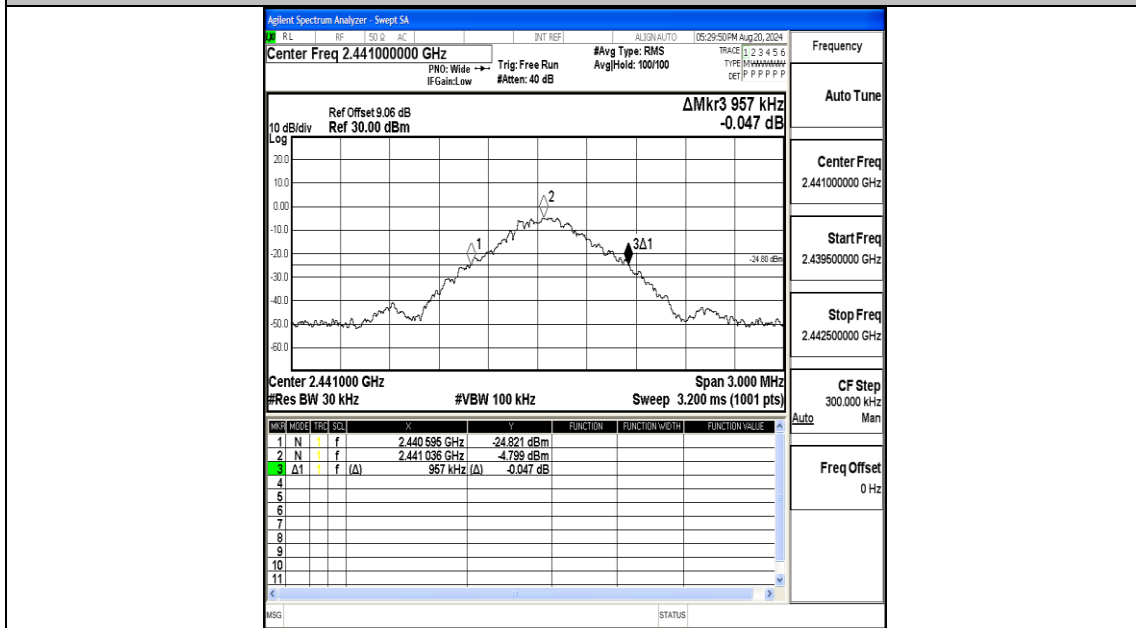
Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.939	2401.598	2402.537	---	---
DH5	Ant1	2441	0.957	2440.595	2441.552	---	---
DH5	Ant1	2480	0.963	2479.592	2480.555	---	---
2DH5	Ant1	2402	1.311	2401.403	2402.714	---	---
2DH5	Ant1	2441	1.287	2440.427	2441.714	---	---
2DH5	Ant1	2480	1.269	2479.433	2480.702	---	---
3DH5	Ant1	2402	1.269	2401.427	2402.696	---	---
3DH5	Ant1	2441	1.272	2440.415	2441.687	---	---
3DH5	Ant1	2480	1.260	2479.424	2480.684	---	---

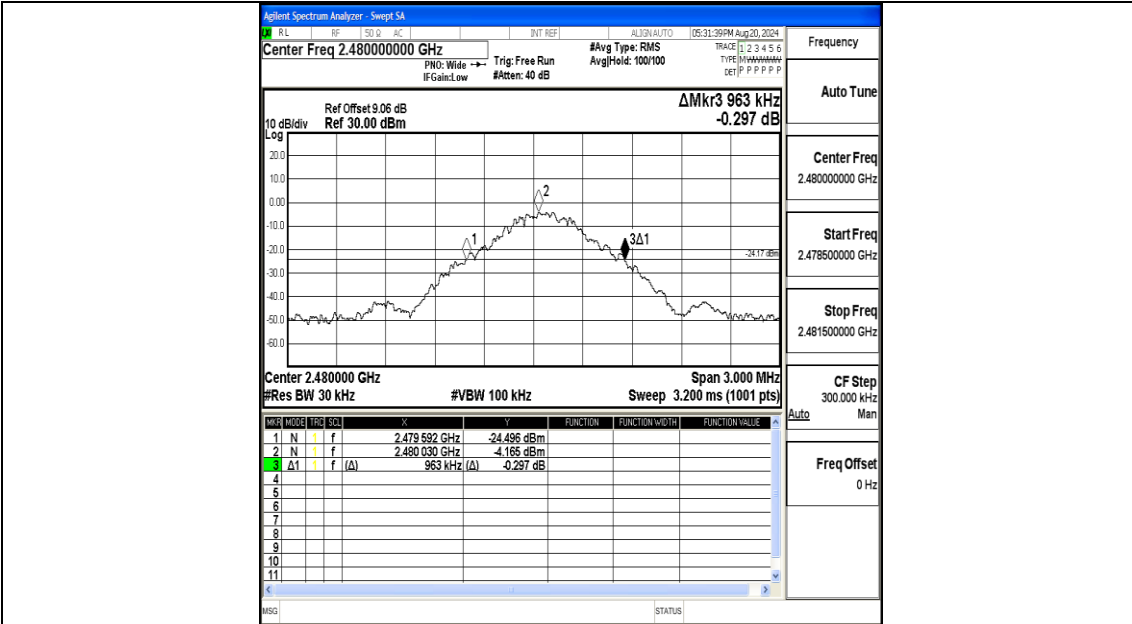
Test Graphs



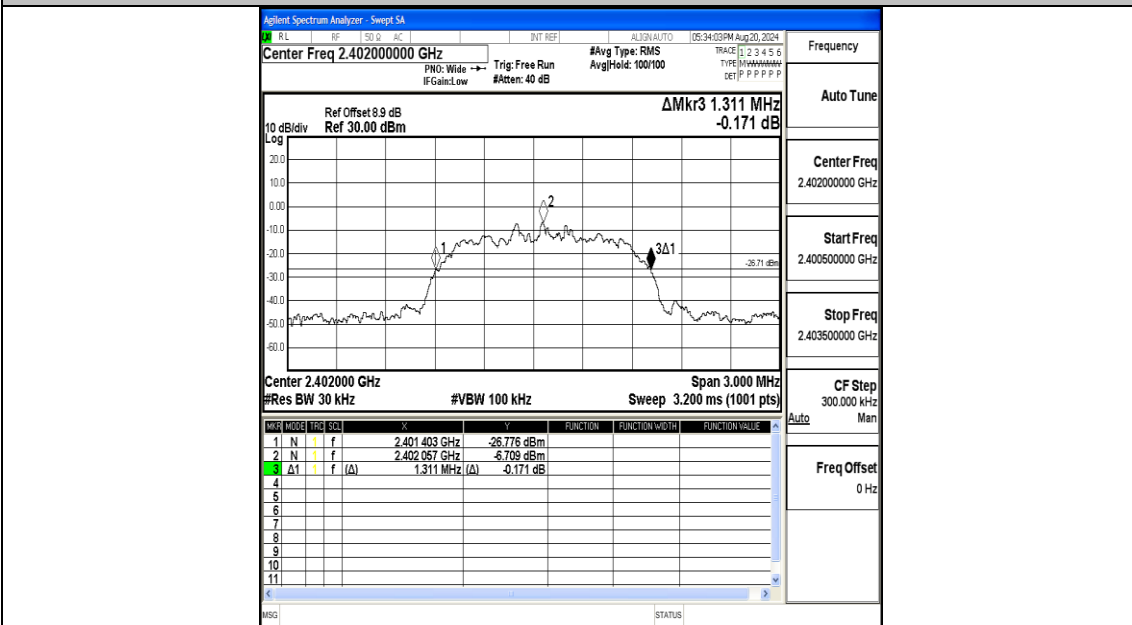
DH5-Ant1-2402



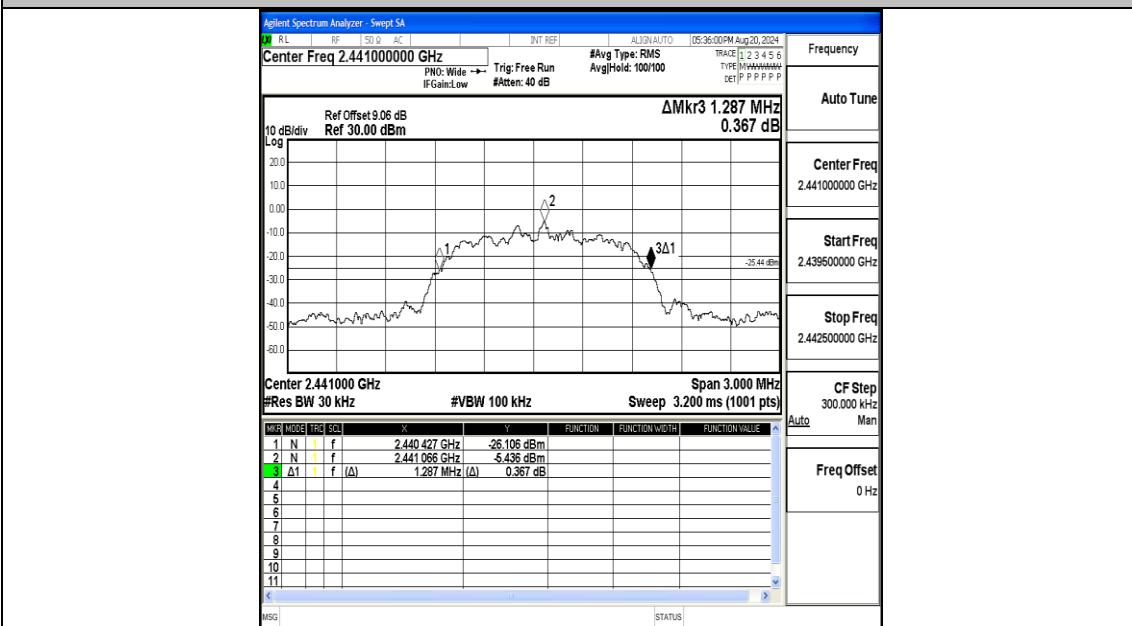
DH5-Ant1-2441



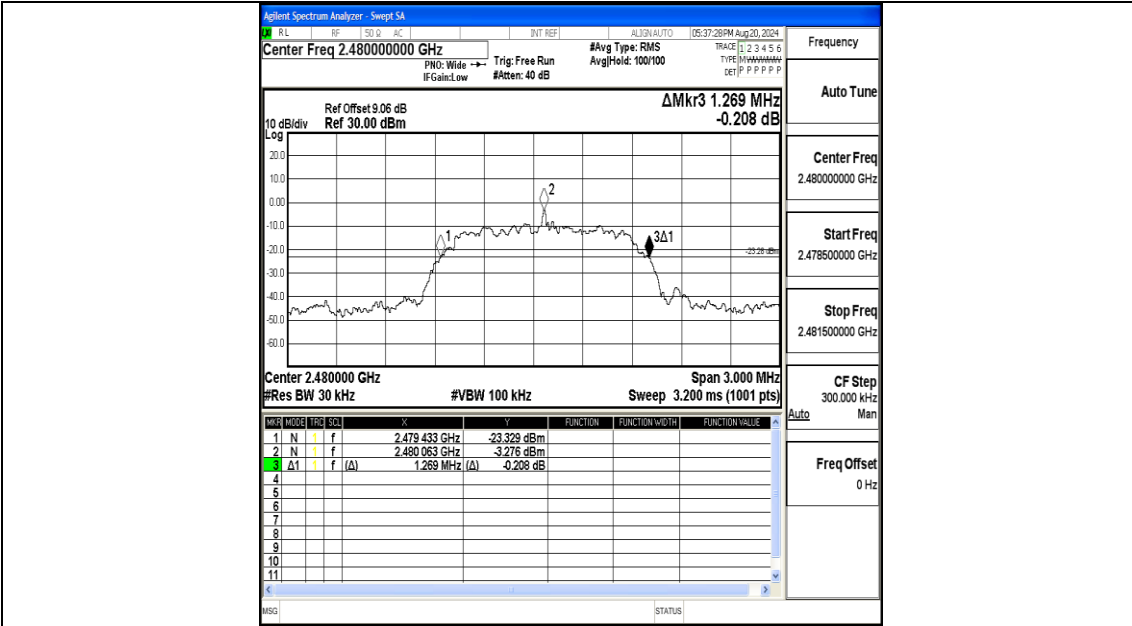
DH5-Ant1-2480



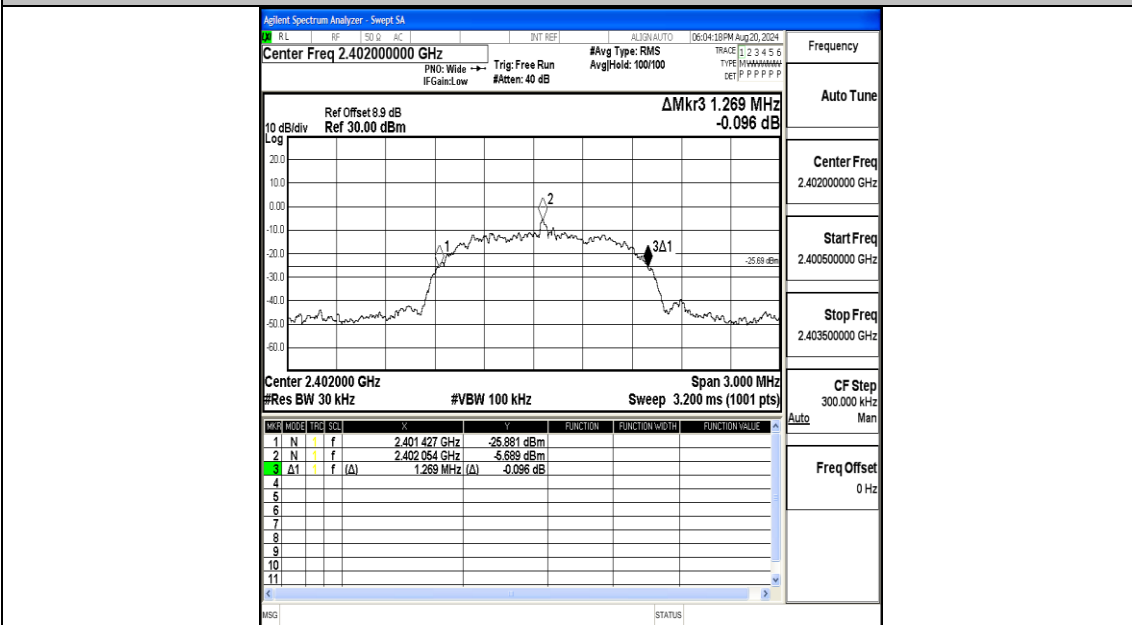
2DH5-Ant1-2402



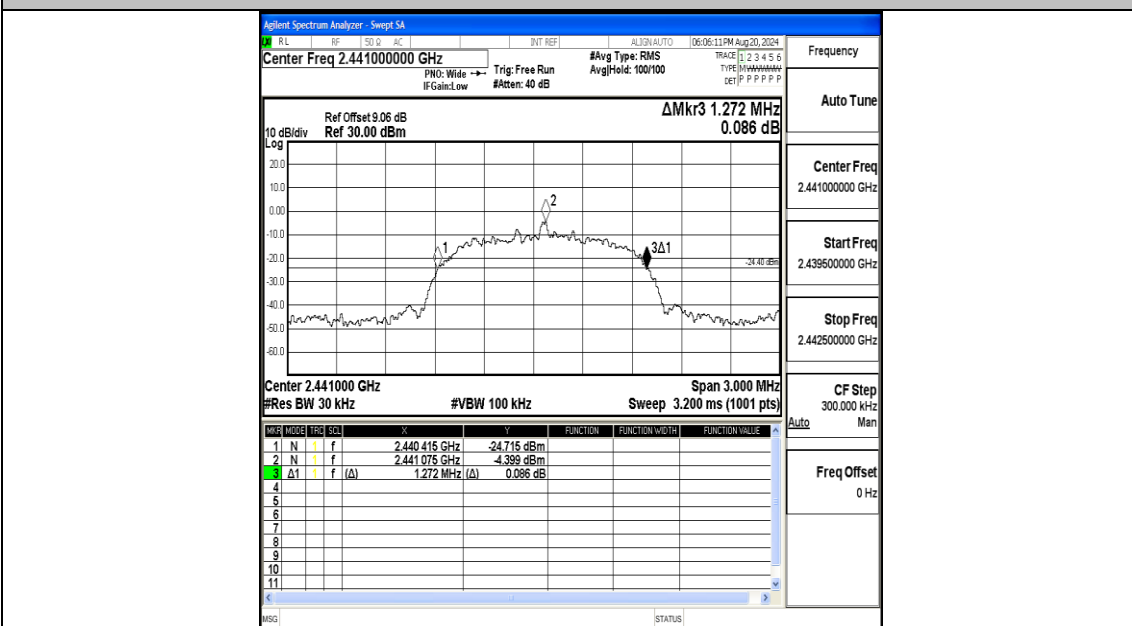
2DH5-Ant1-2441



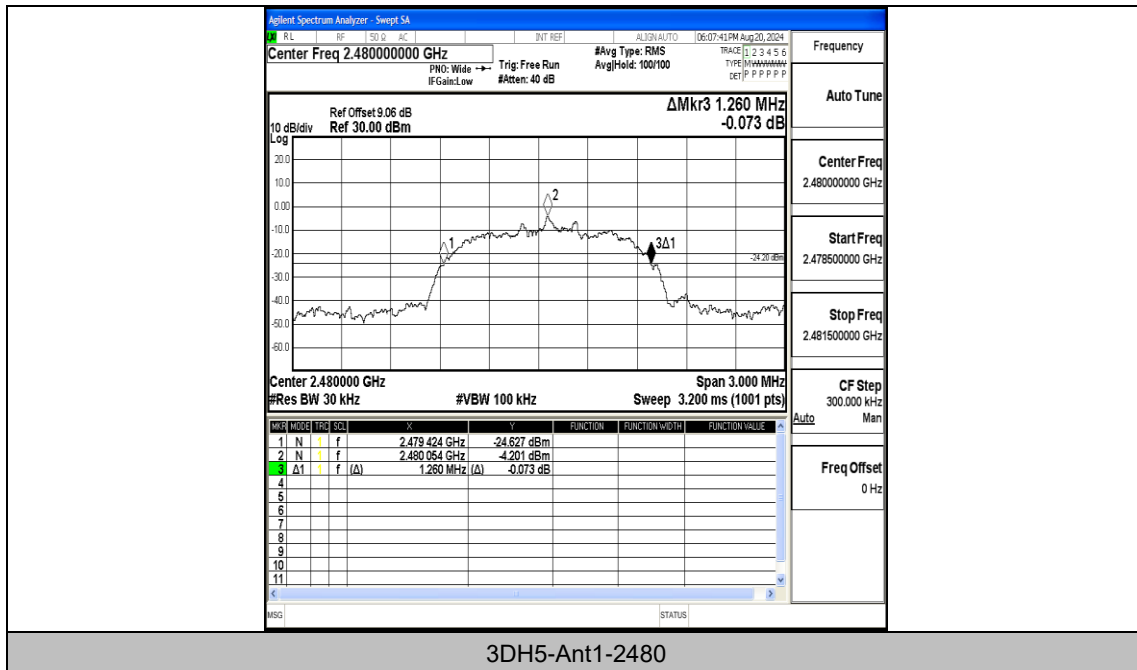
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441

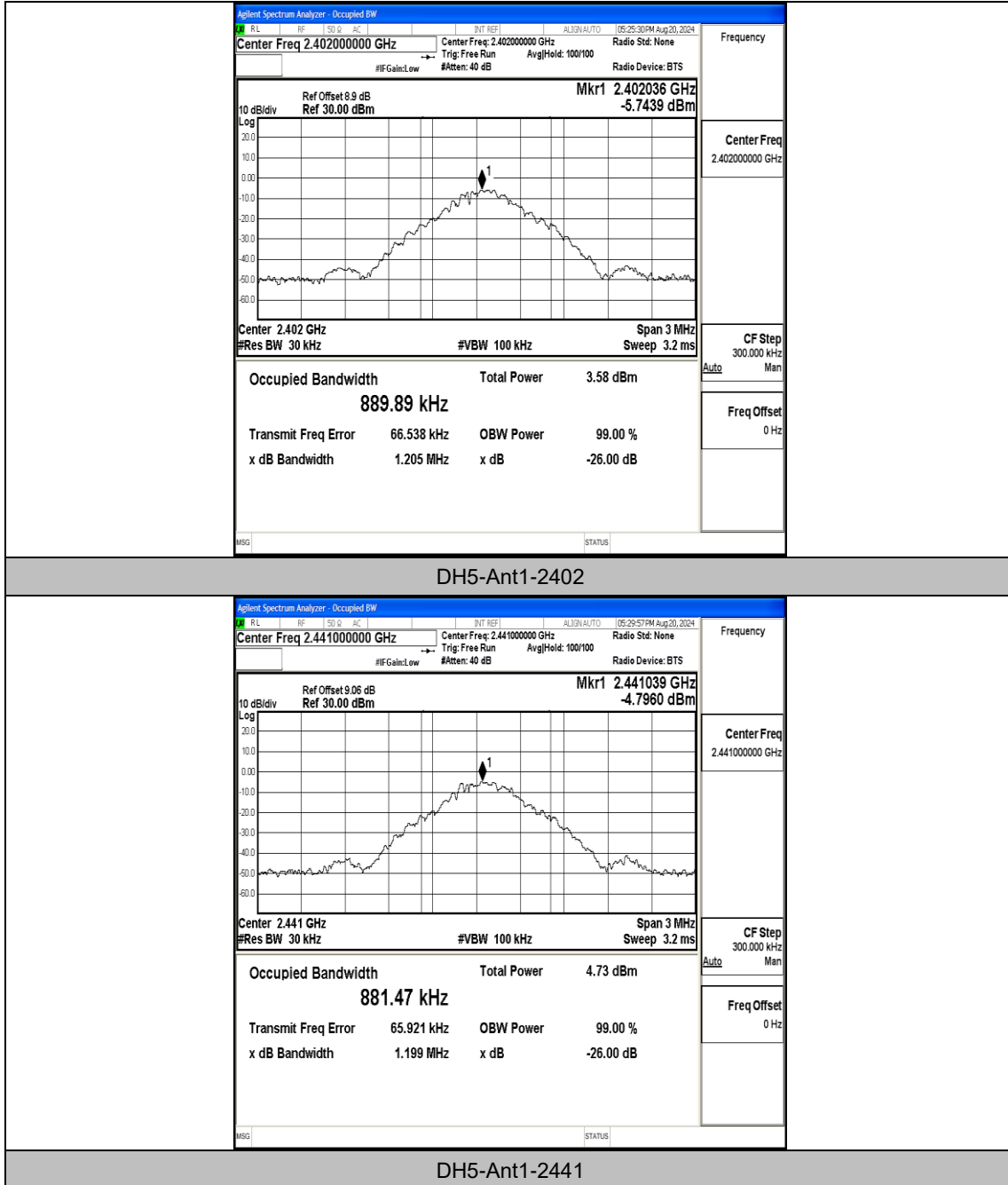


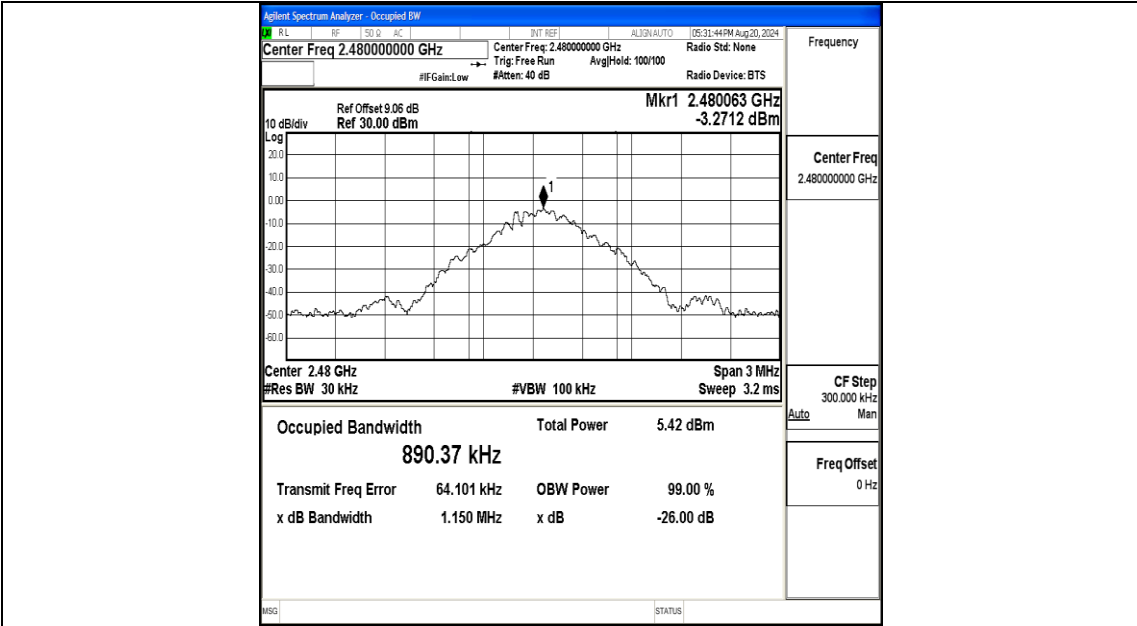
Appendix B: Occupied Channel Bandwidth

Test Result

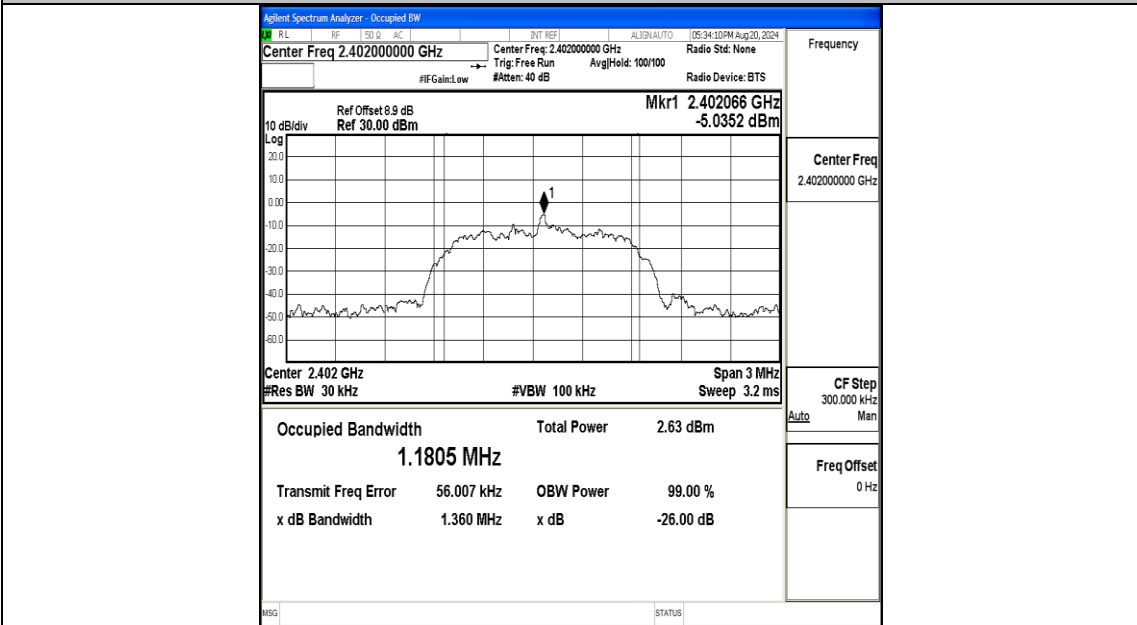
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.88989	2401.6216	2402.5115	---	---
DH5	Ant1	2441	0.88147	2440.6252	2441.5067	---	---
DH5	Ant1	2480	0.89037	2479.6189	2480.5093	---	---
2DH5	Ant1	2402	1.1805	2401.4658	2402.6463	---	---
2DH5	Ant1	2441	1.1834	2440.4670	2441.6504	---	---
2DH5	Ant1	2480	1.1778	2479.4693	2480.6471	---	---
3DH5	Ant1	2402	1.1904	2401.4610	2402.6514	---	---
3DH5	Ant1	2441	1.1839	2440.4711	2441.6550	---	---
3DH5	Ant1	2480	1.1826	2479.4693	2480.6519	---	---

Test Graphs

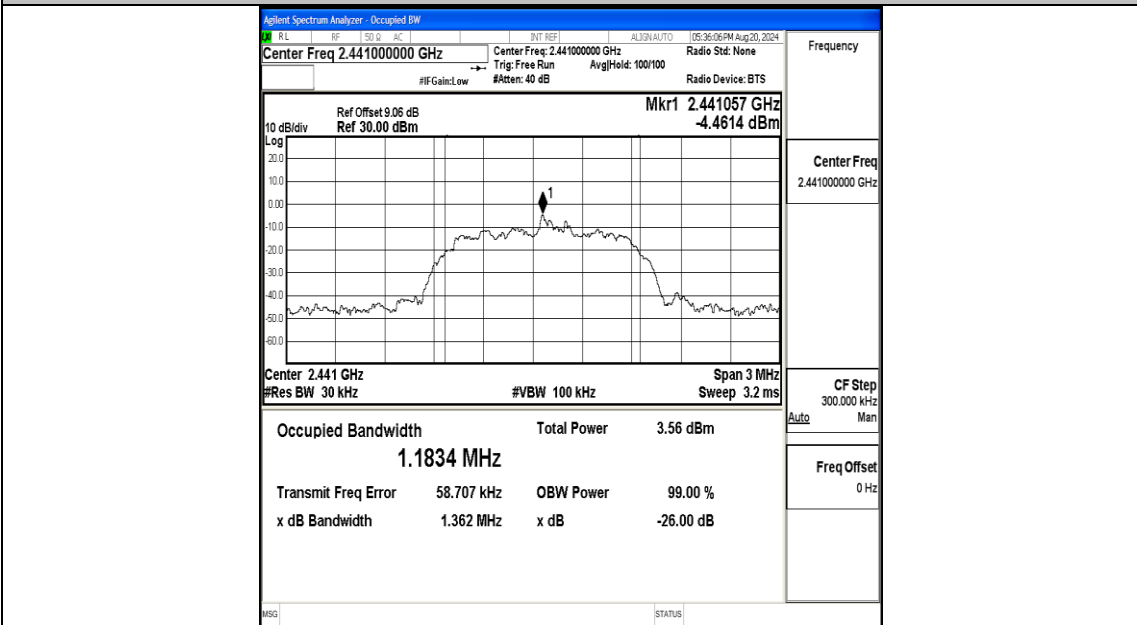




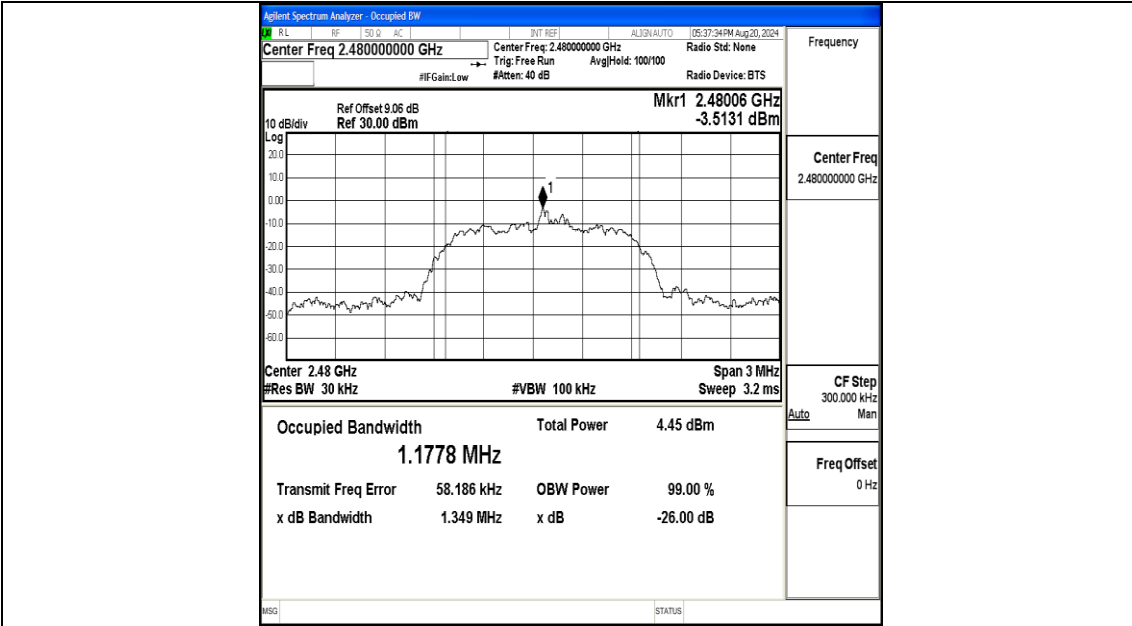
DH5-Ant1-2480



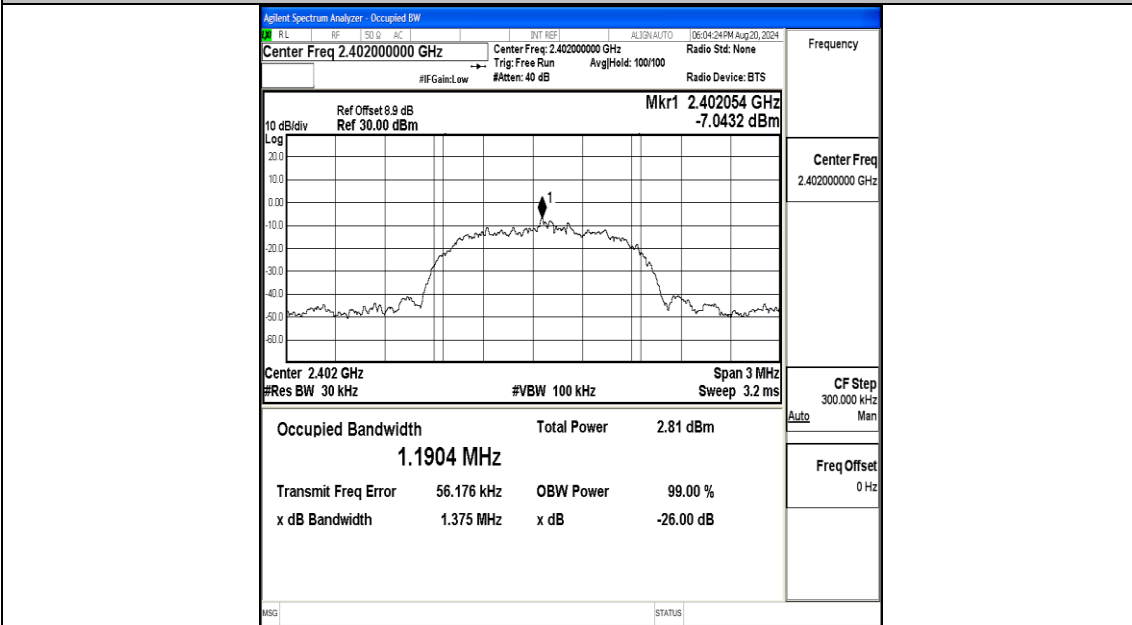
2DH5-Ant1-2402



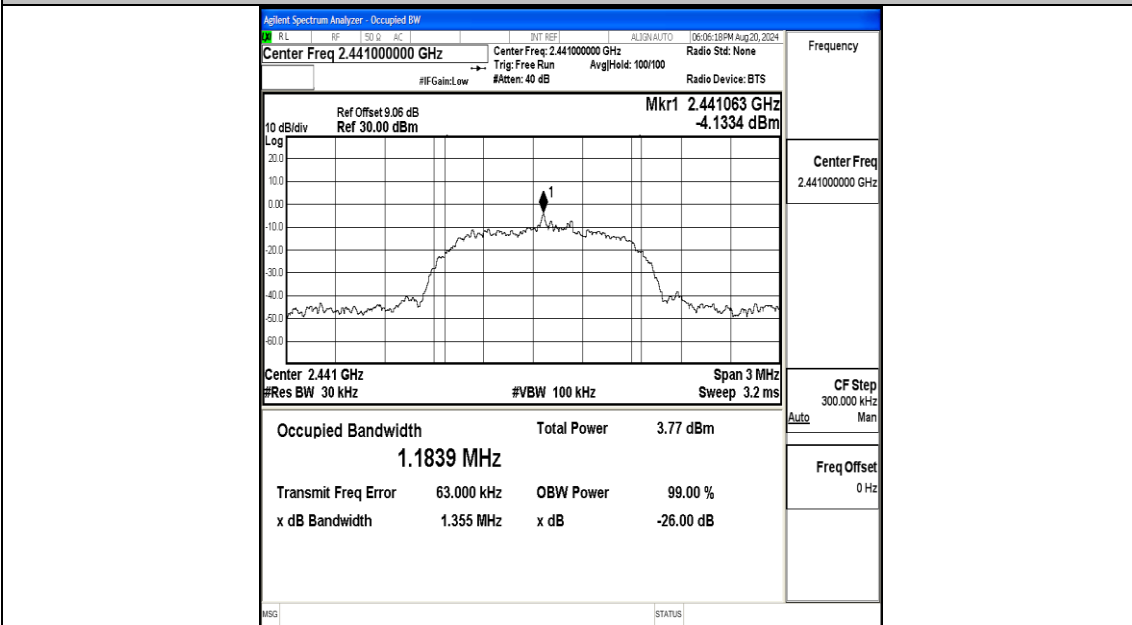
2DH5-Ant1-2441



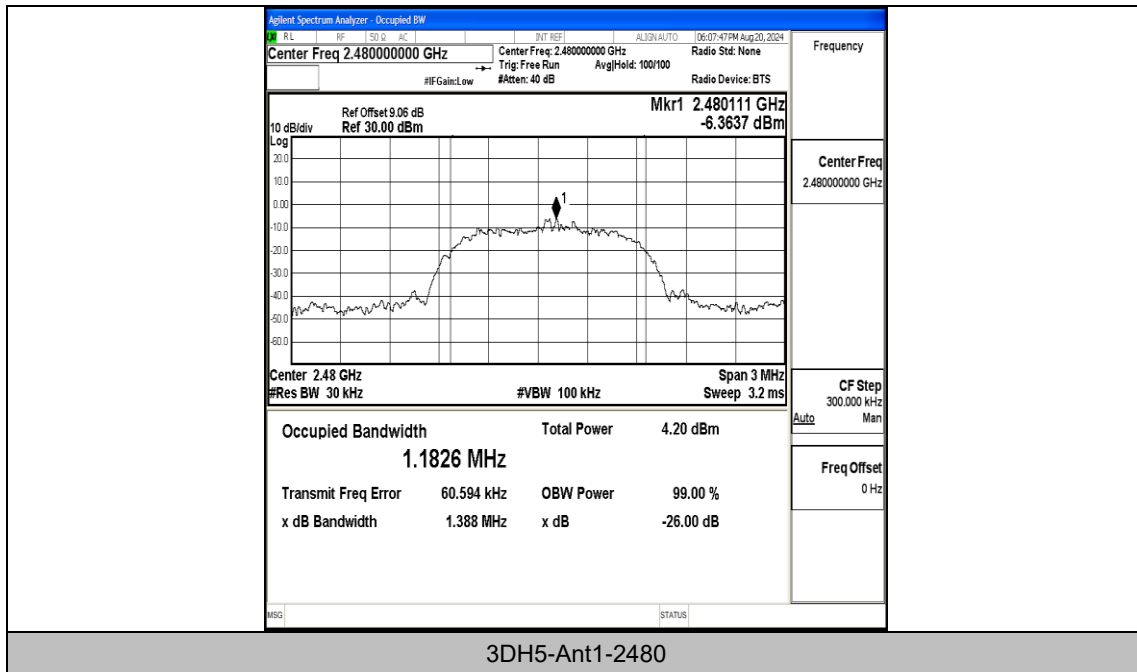
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



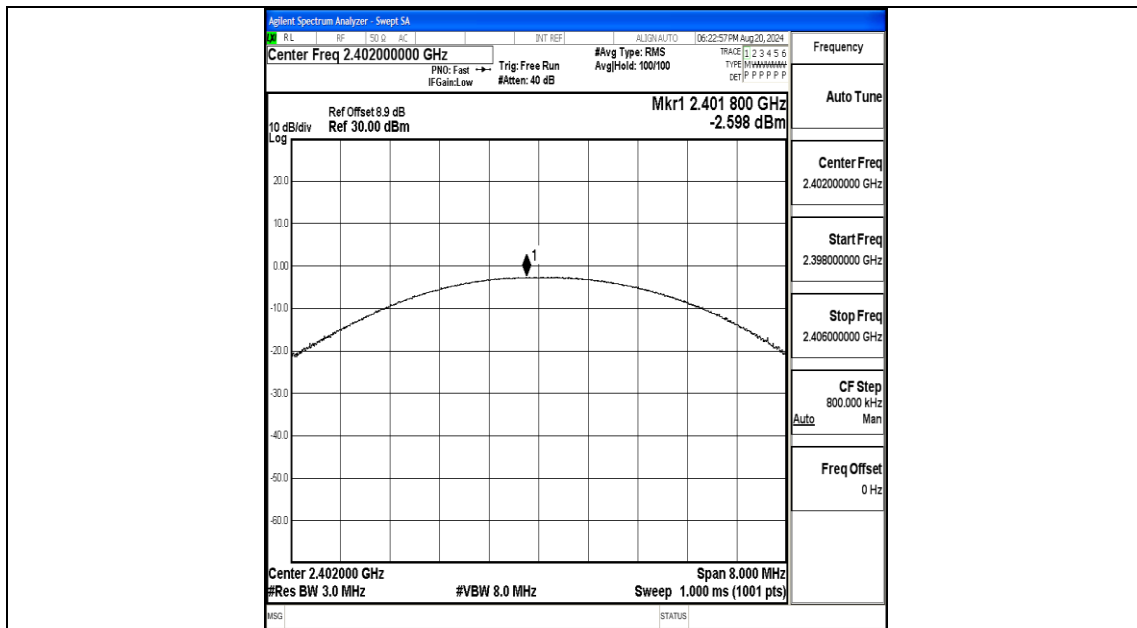
3DH5-Ant1-2480

Appendix C: Maximum peak conducted output power

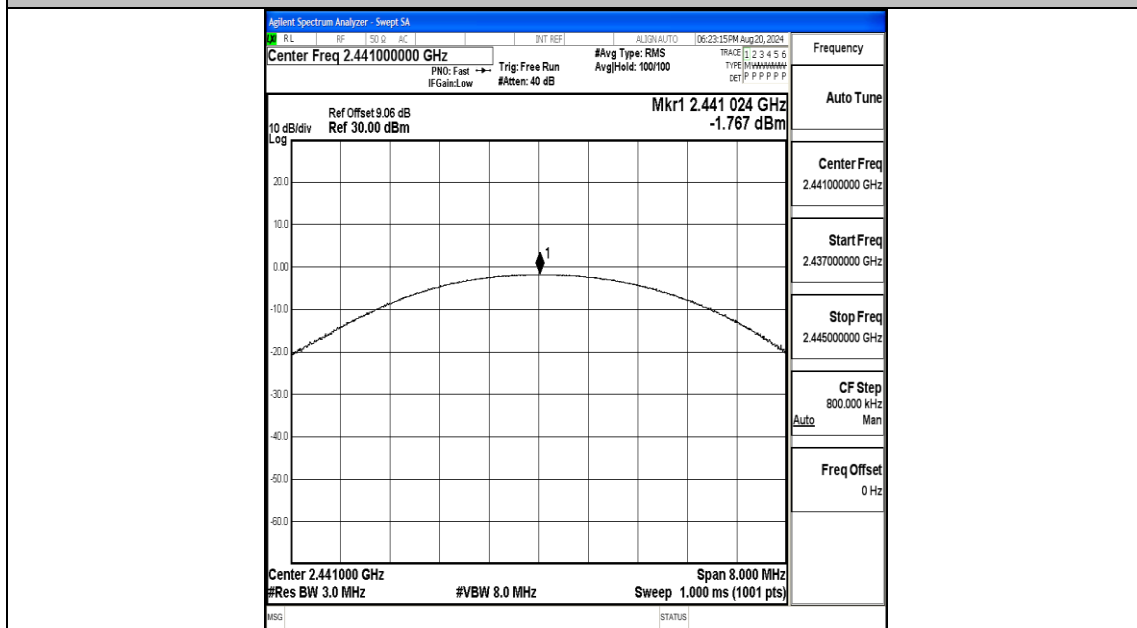
Test Result

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-2.60	≤30	PASS
DH5	Ant1	2441	-1.77	≤30	PASS
DH5	Ant1	2480	-0.72	≤30	PASS
2DH5	Ant1	2402	-1.81	≤20.97	PASS
2DH5	Ant1	2441	-0.98	≤20.97	PASS
2DH5	Ant1	2480	0.02	≤20.97	PASS
3DH5	Ant1	2402	-1.38	≤20.97	PASS
3DH5	Ant1	2441	-0.42	≤20.97	PASS
3DH5	Ant1	2480	0.36	≤20.97	PASS

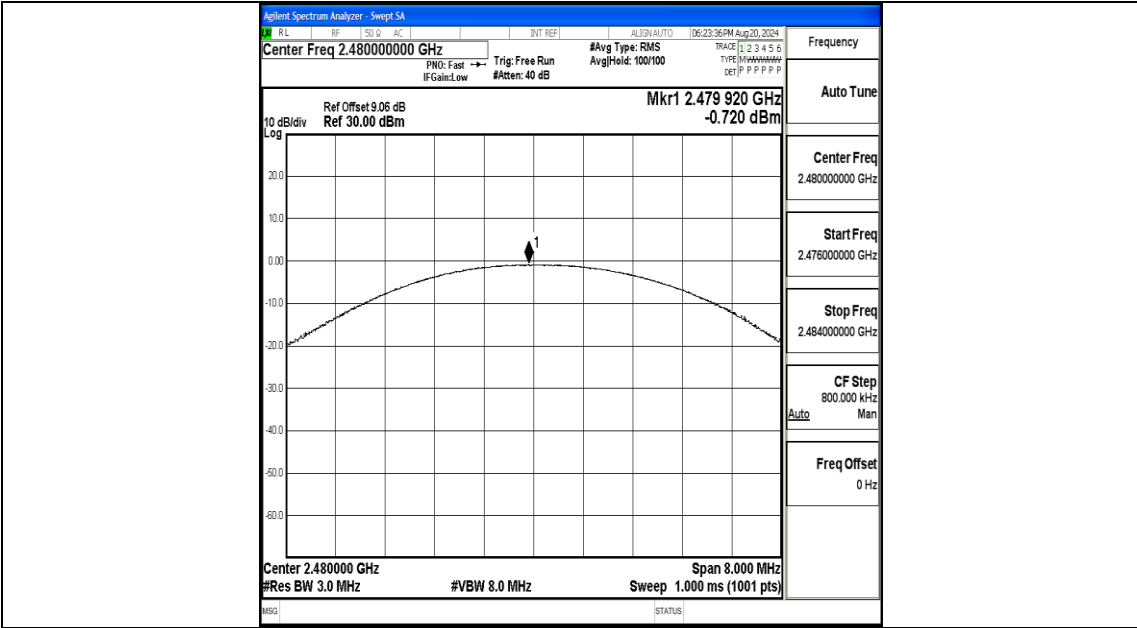
Test Graphs



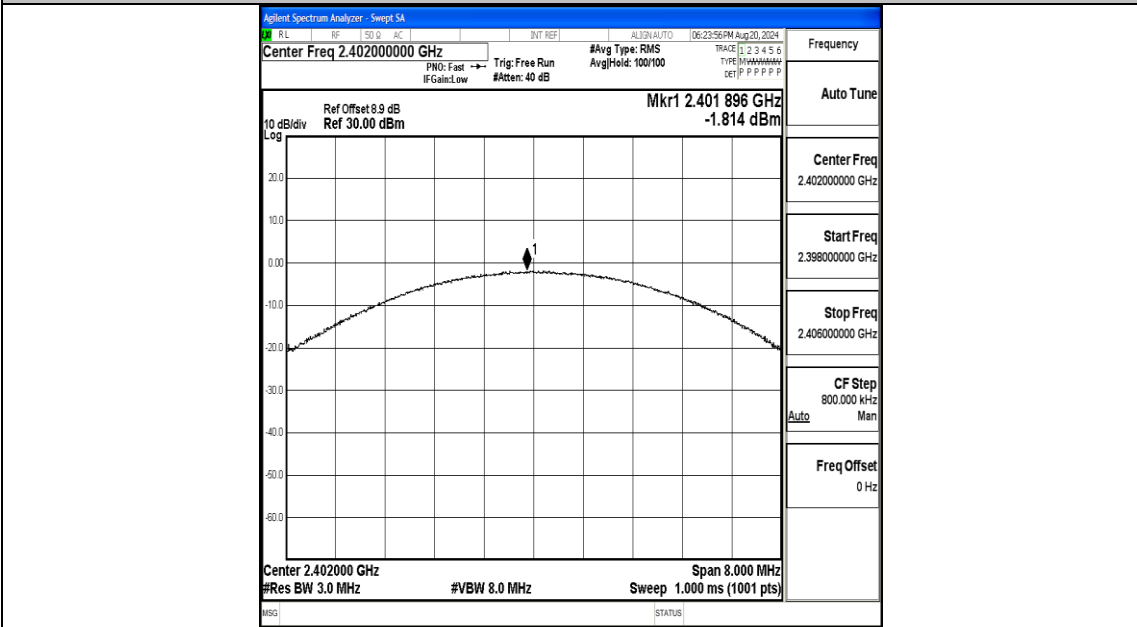
DH5-Ant1-2402-PASS



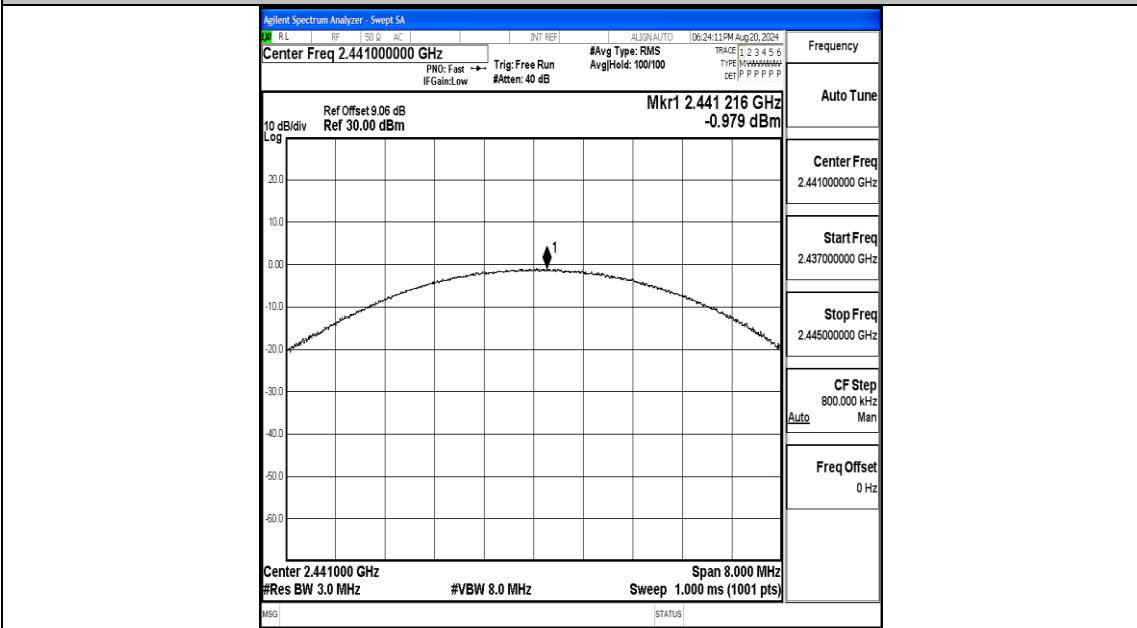
DH5-Ant1-2441-PASS



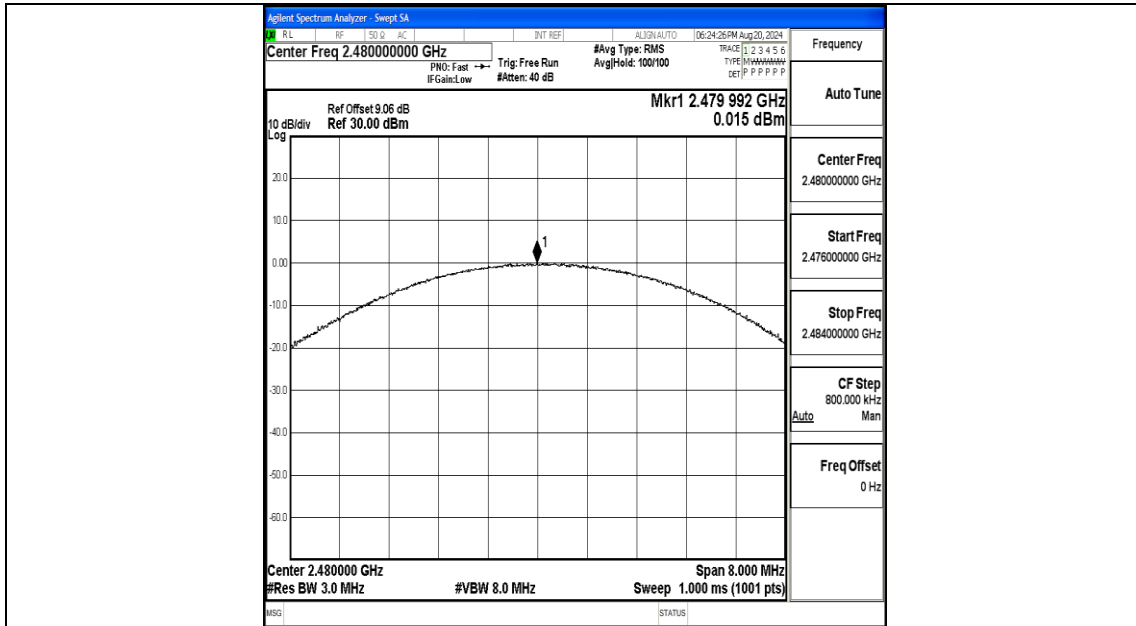
DH5-Ant1-2480-PASS



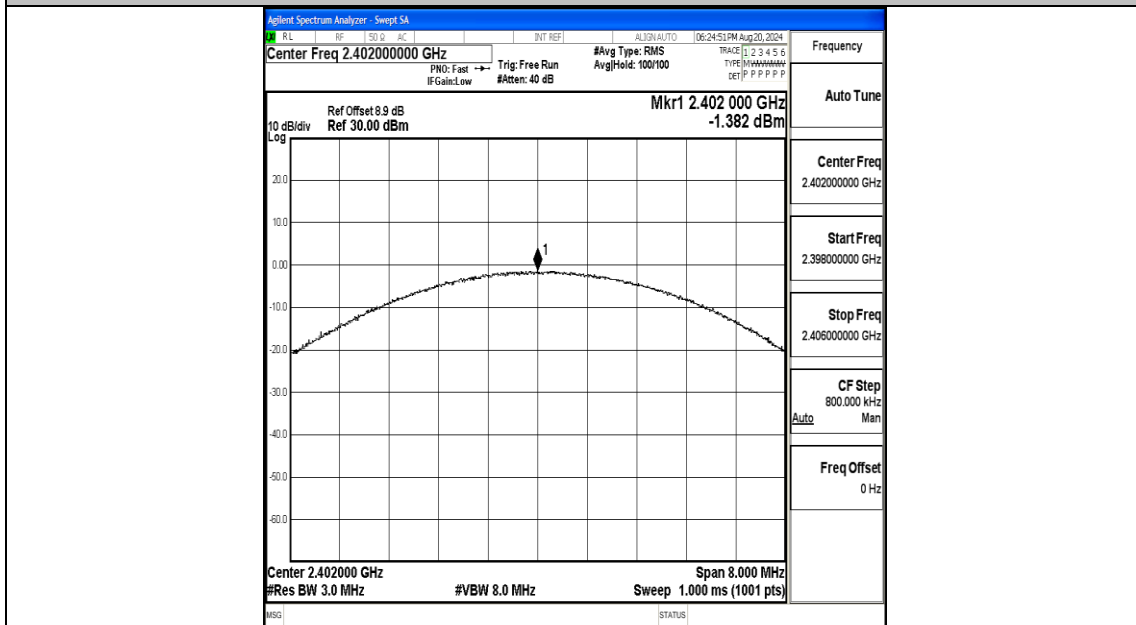
2DH5-Ant1-2402-PASS



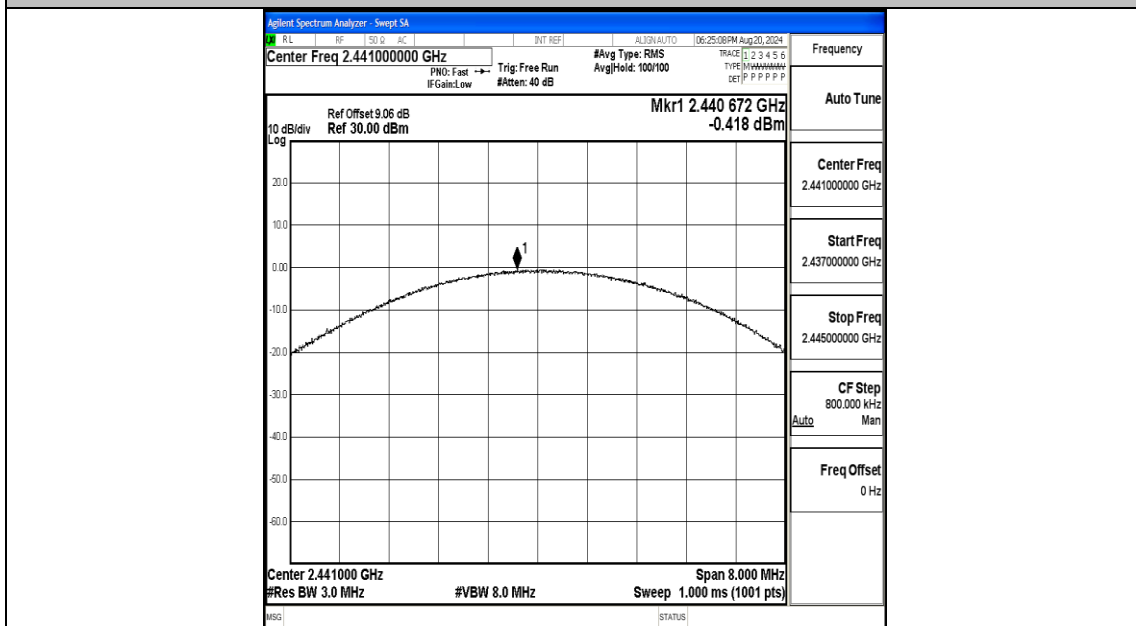
2DH5-Ant1-2441-PASS



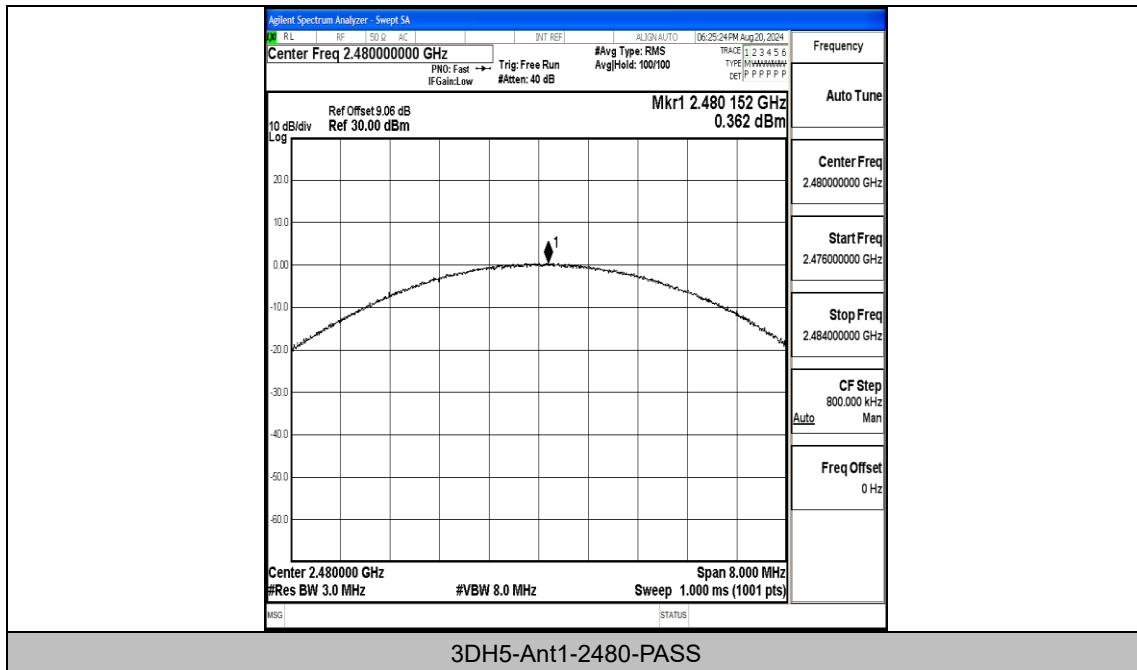
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS

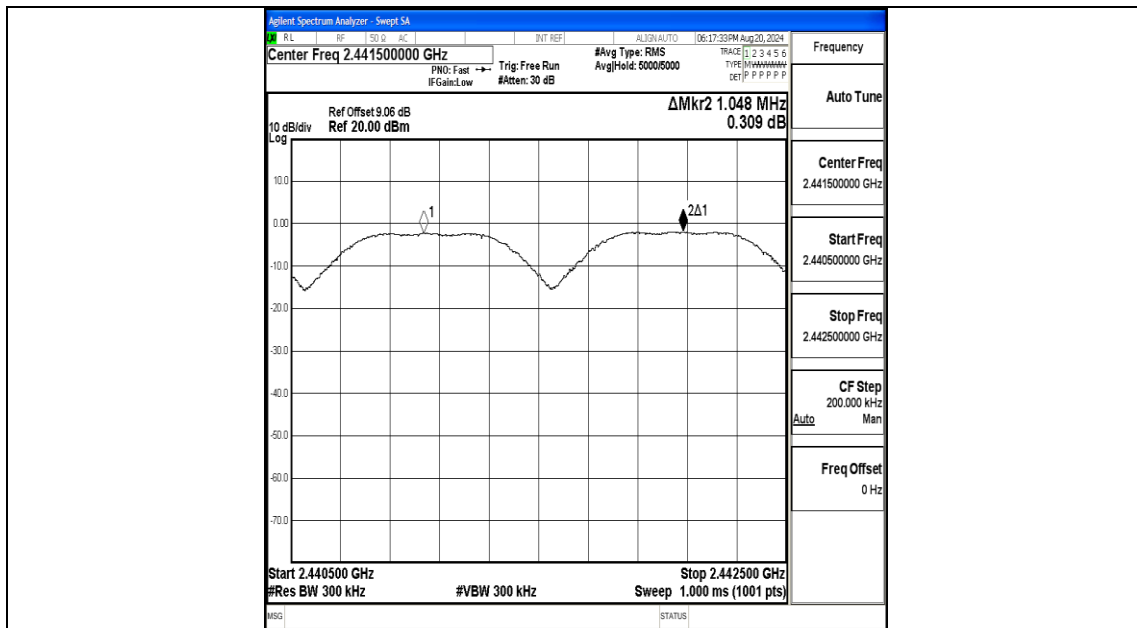


Appendix D: Carrier frequency separation

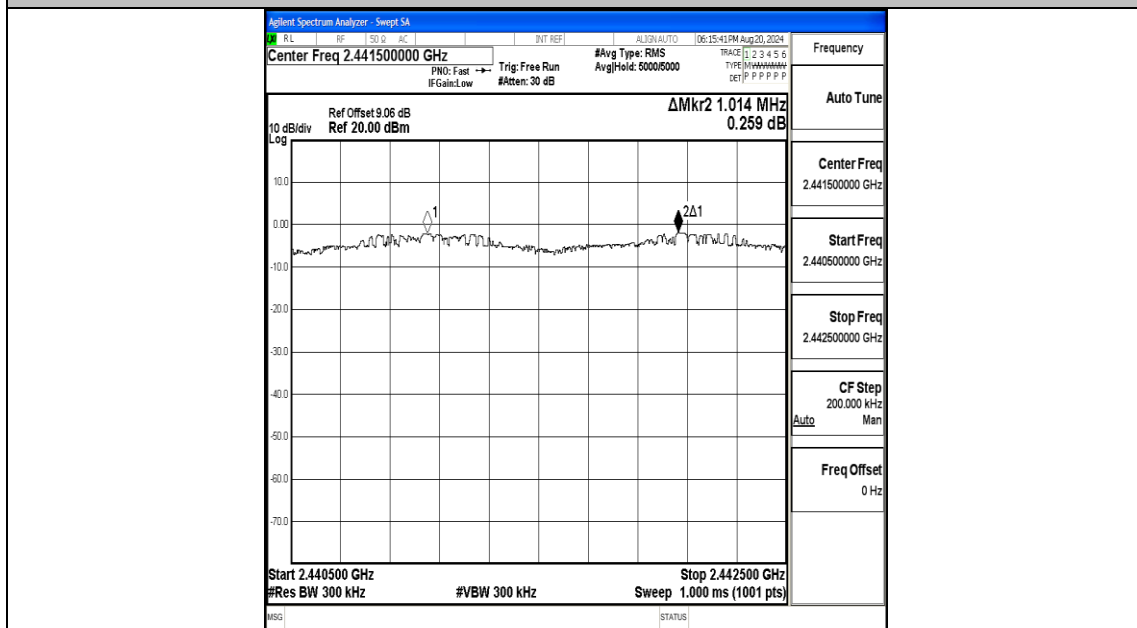
Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.048	≥ 0.963	PASS
2DH5	Ant1	Hop	1.014	≥ 0.874	PASS
3DH5	Ant1	Hop	0.864	≥ 0.848	PASS

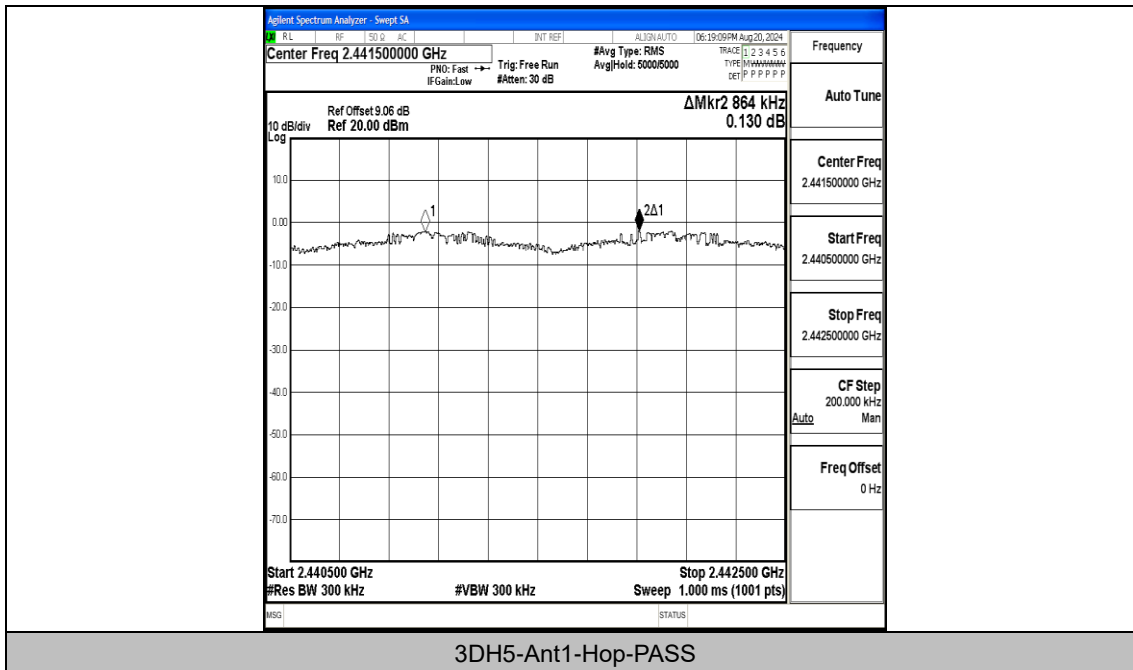
Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS

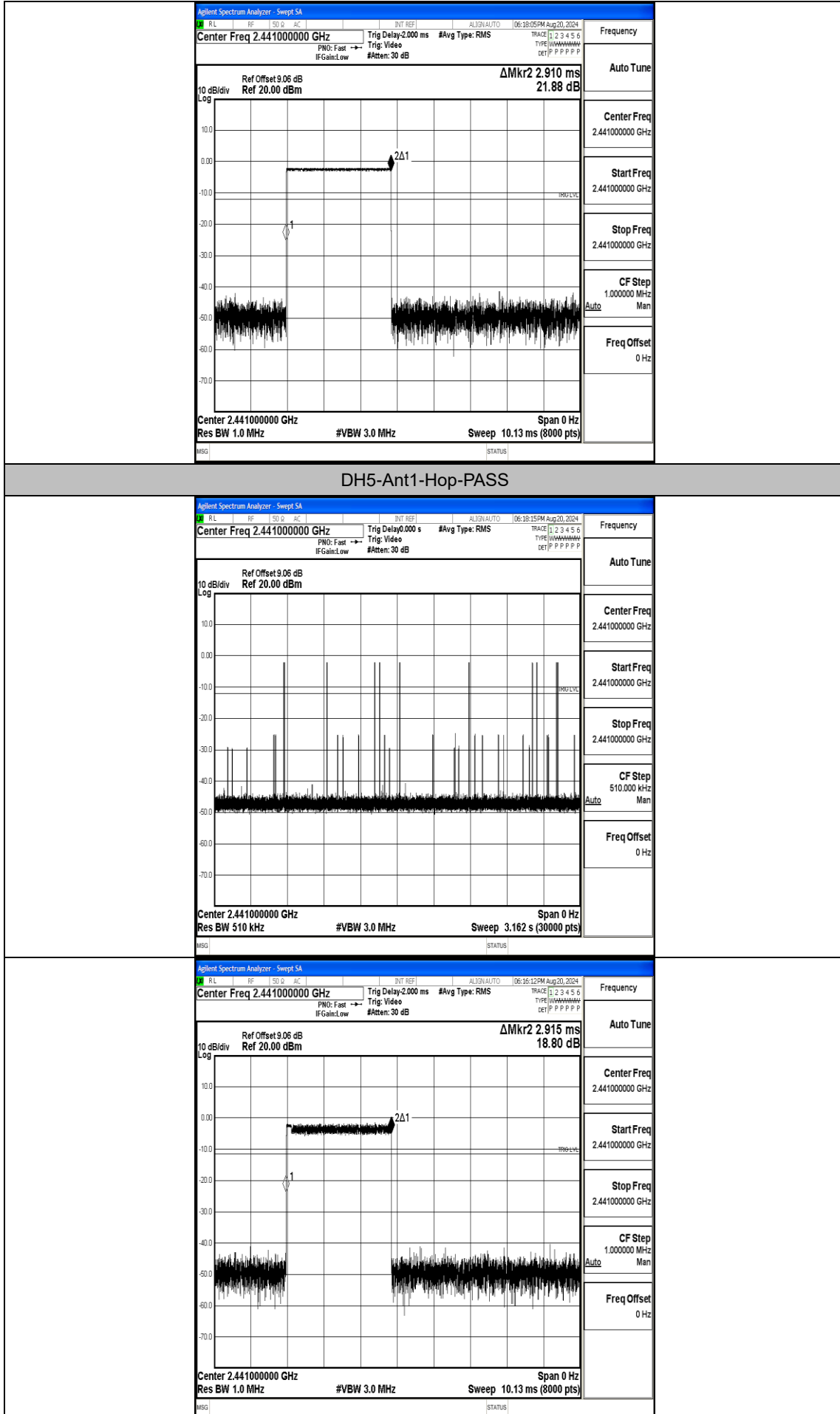


Appendix E: Time of occupancy

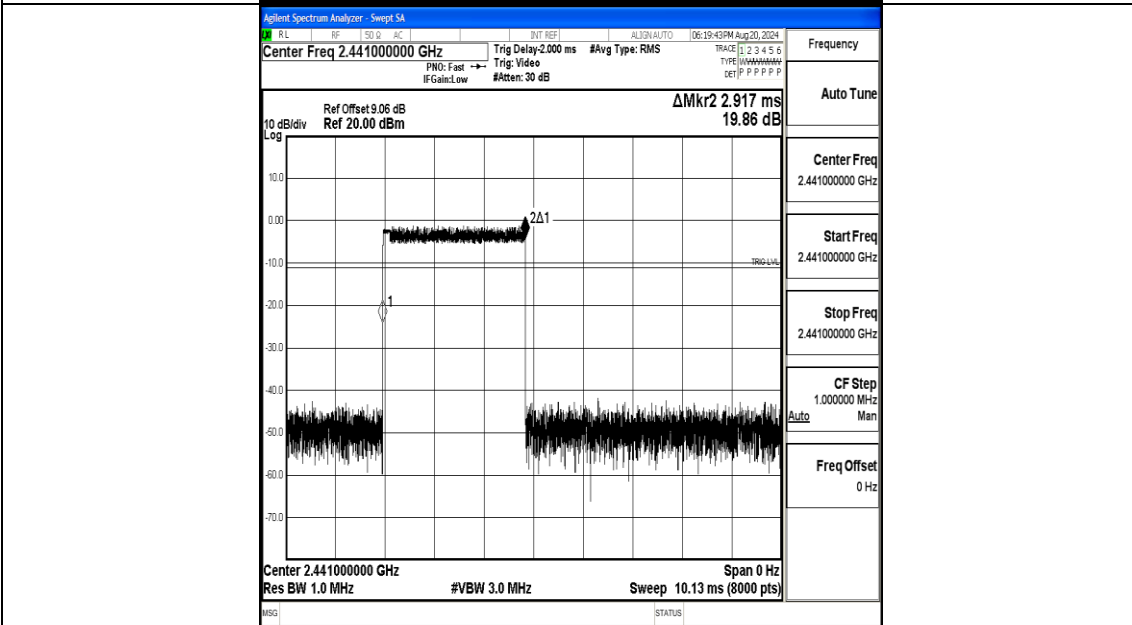
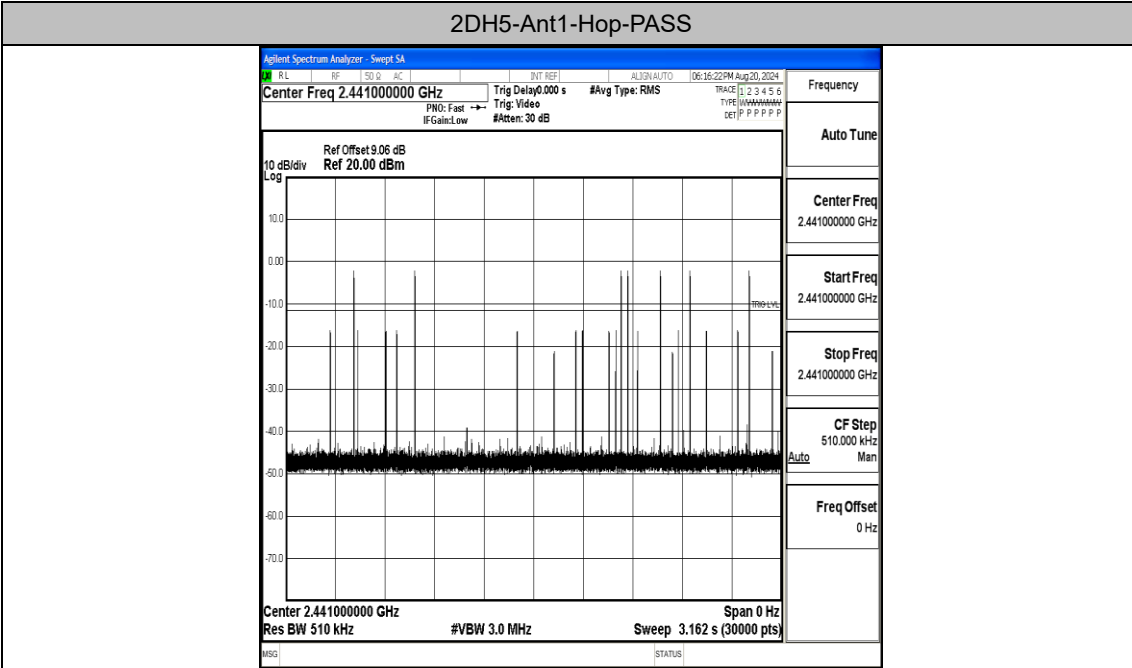
Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.910	120	0.349	≤0.4	PASS
2DH5	Ant1	Hop	2.915	80	0.233	≤0.4	PASS
3DH5	Ant1	Hop	2.917	130	0.379	≤0.4	PASS

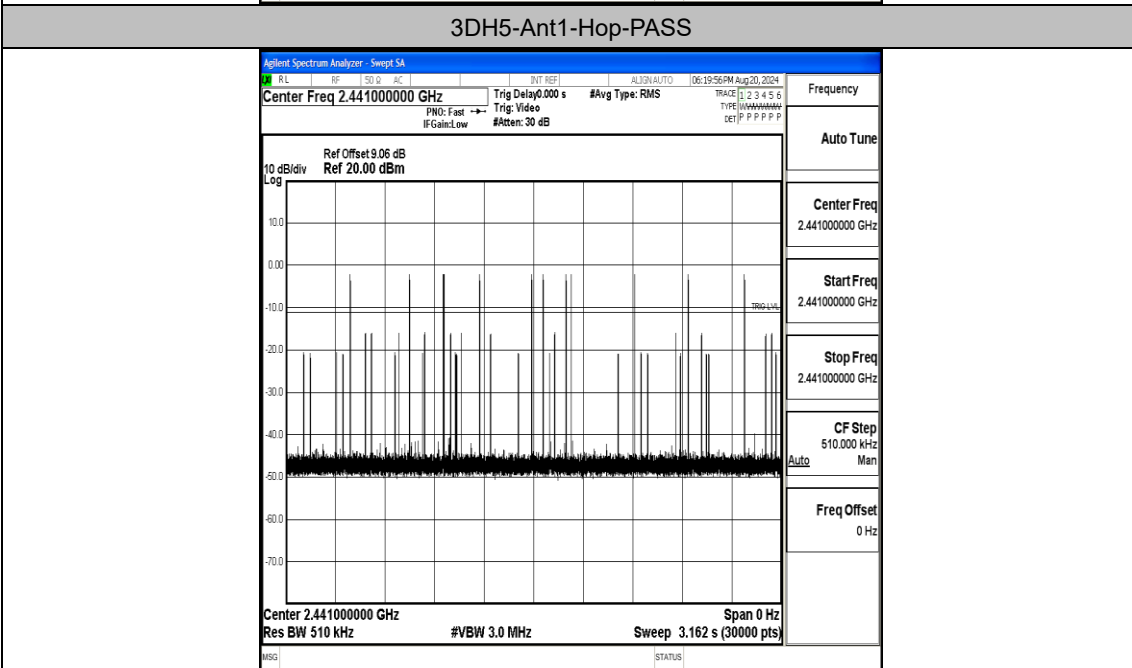
Test Graphs



2DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS

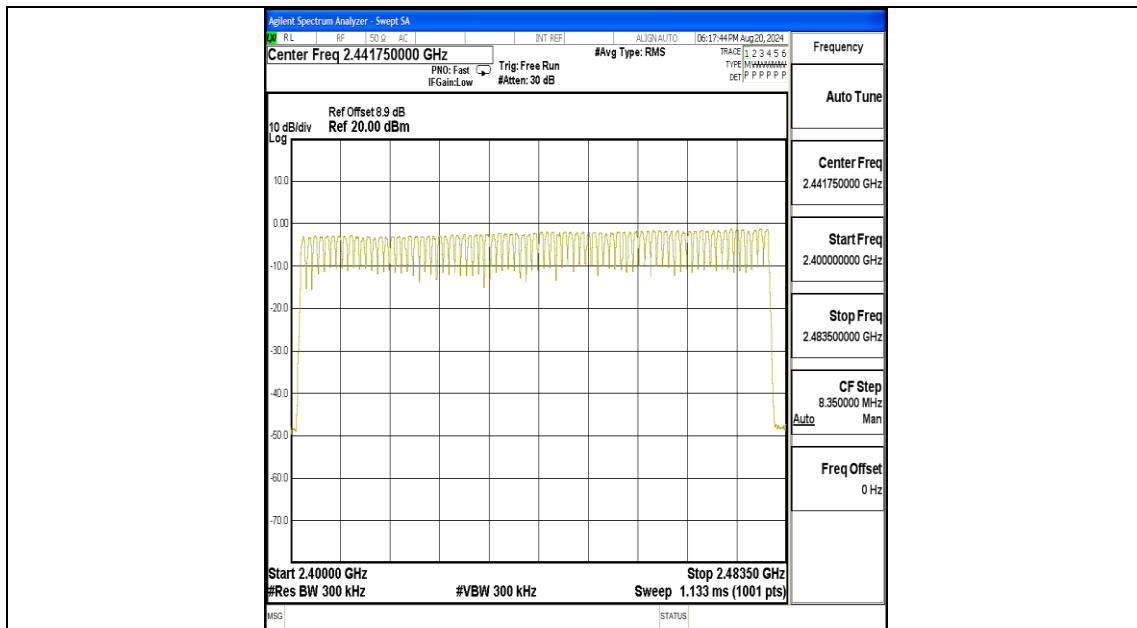


Appendix F: Number of hopping channels

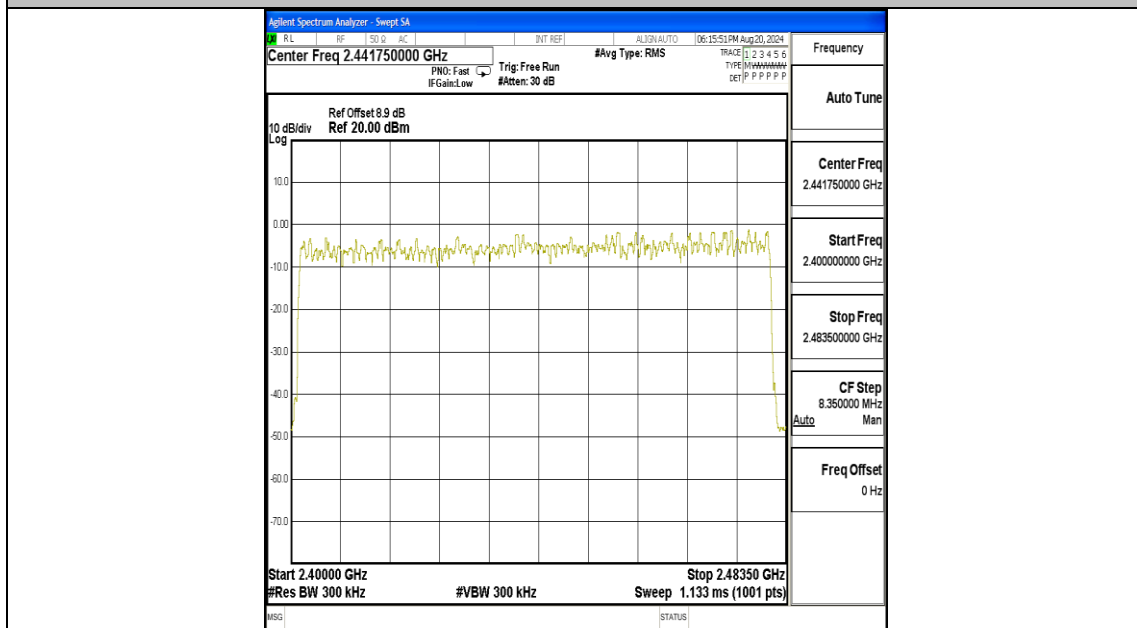
Test Result

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

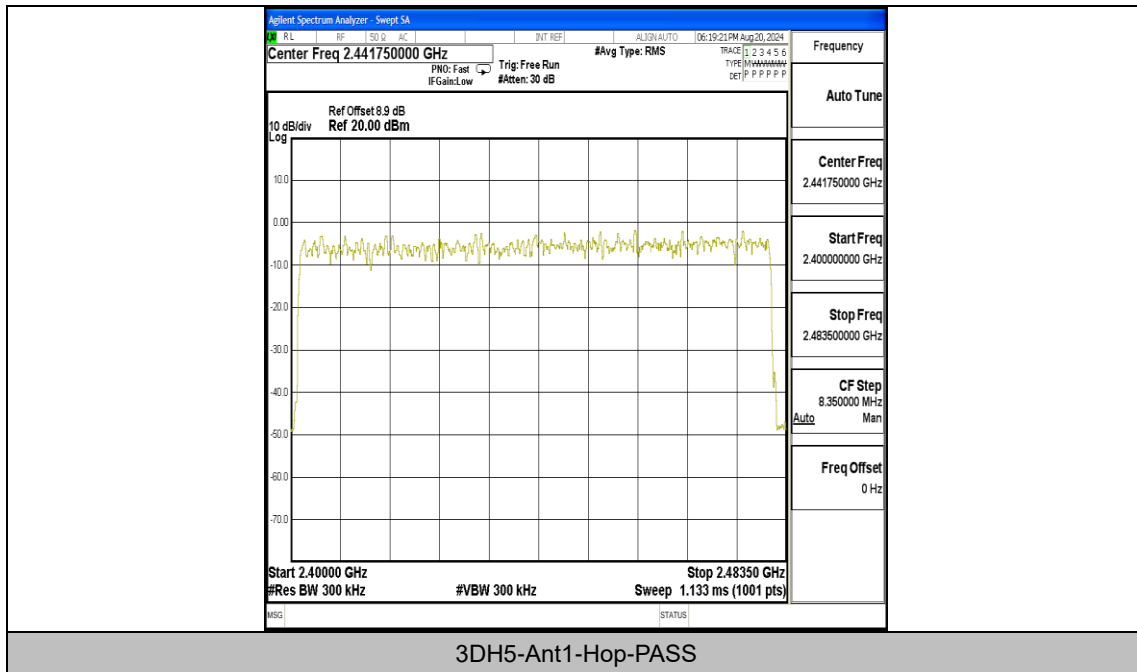
Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS

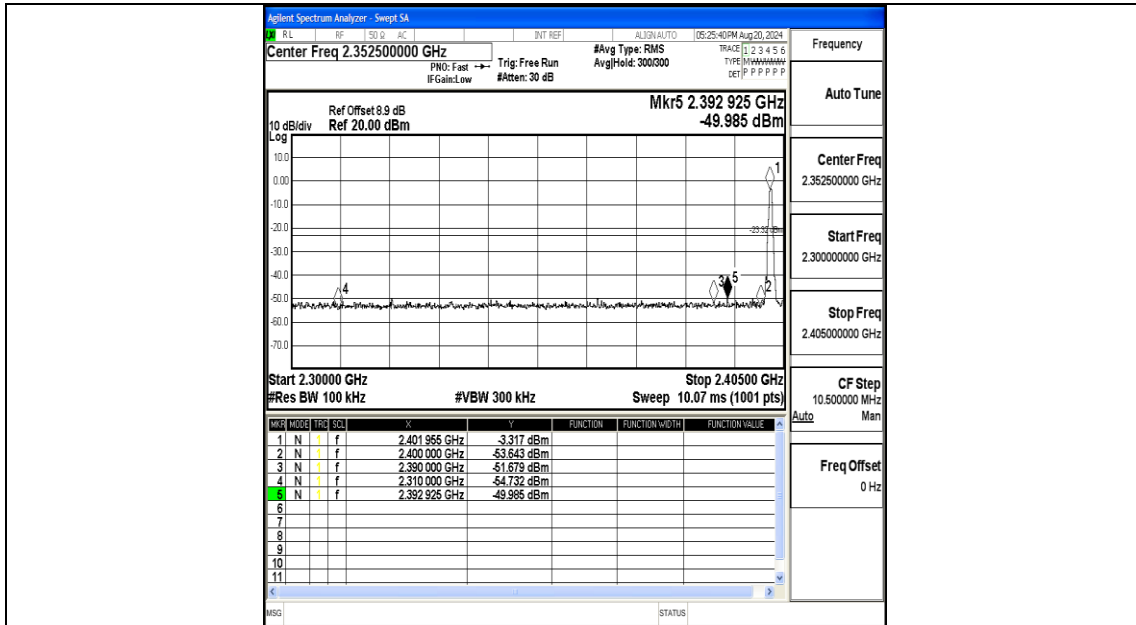


Appendix G: Band edge measurements

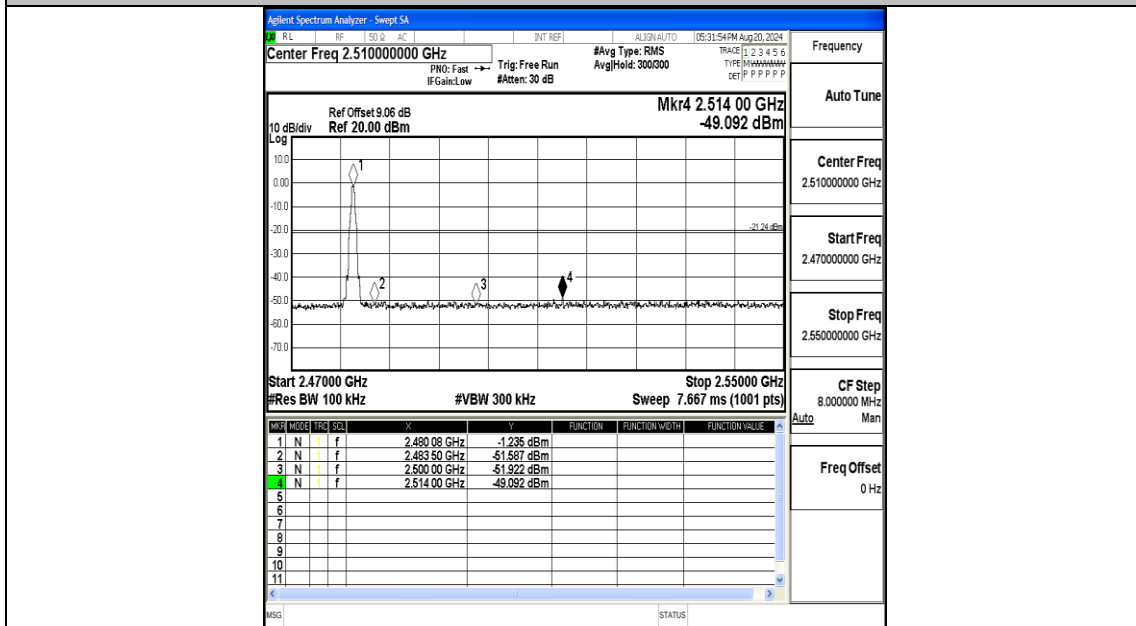
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.32	-49.99	≤-23.32	PASS
DH5	Ant1	High	2480	-1.24	-49.09	≤-21.24	PASS
DH5	Ant1	Low	Hop_2402	-3.72	-50.23	≤-23.72	PASS
DH5	Ant1	High	Hop_2480	-1.92	-49.01	≤-21.92	PASS
2DH5	Ant1	Low	2402	-3.03	-50.34	≤-23.03	PASS
2DH5	Ant1	High	2480	-2.88	-49.26	≤-22.88	PASS
2DH5	Ant1	Low	Hop_2402	-7.82	-50.43	≤-27.82	PASS
2DH5	Ant1	High	Hop_2480	-3.52	-49.13	≤-23.52	PASS
3DH5	Ant1	Low	2402	-3.32	-50.11	≤-23.32	PASS
3DH5	Ant1	High	2480	-3.43	-48.85	≤-23.43	PASS
3DH5	Ant1	Low	Hop_2402	-5.09	-50.18	≤-25.09	PASS
3DH5	Ant1	High	Hop_2480	-2.96	-49.24	≤-22.96	PASS

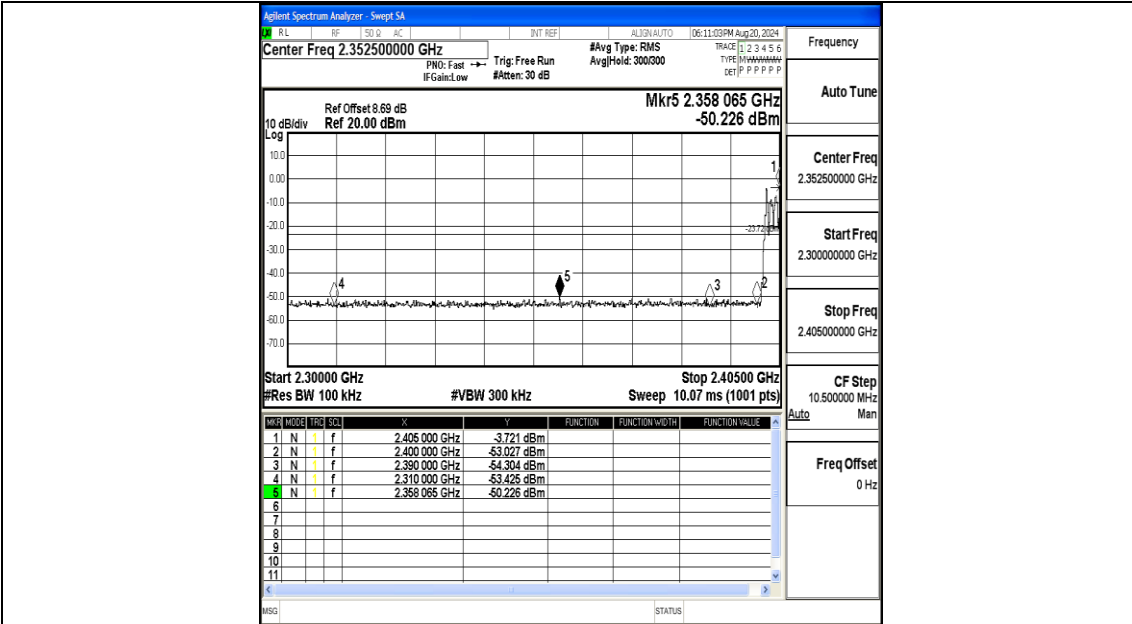
Test Graphs



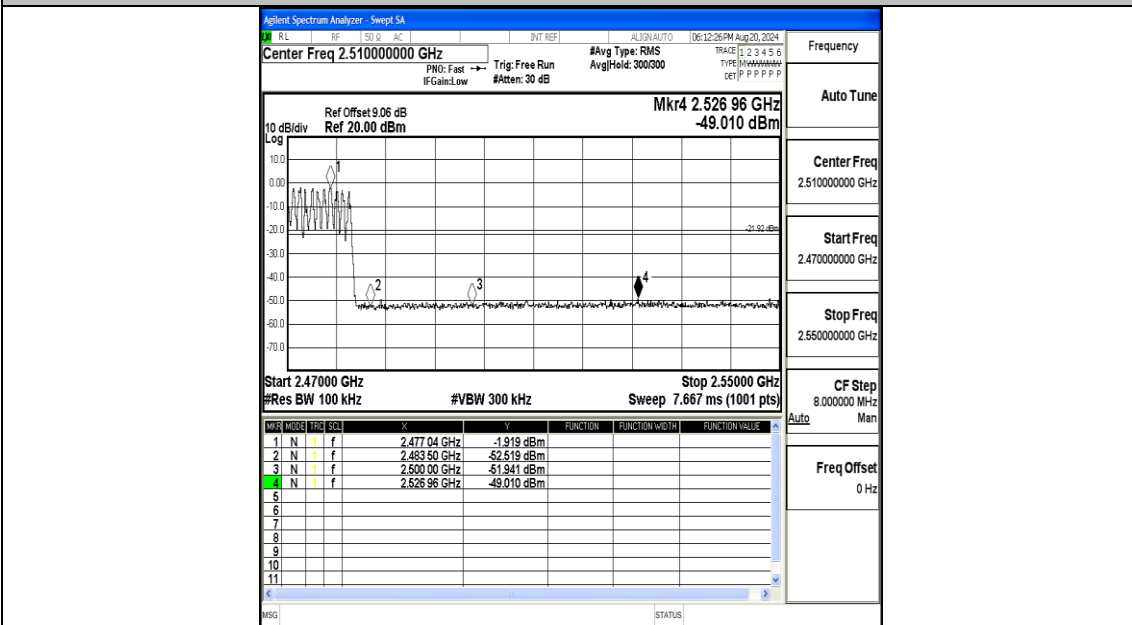
DH5-Ant1-2402-PASS



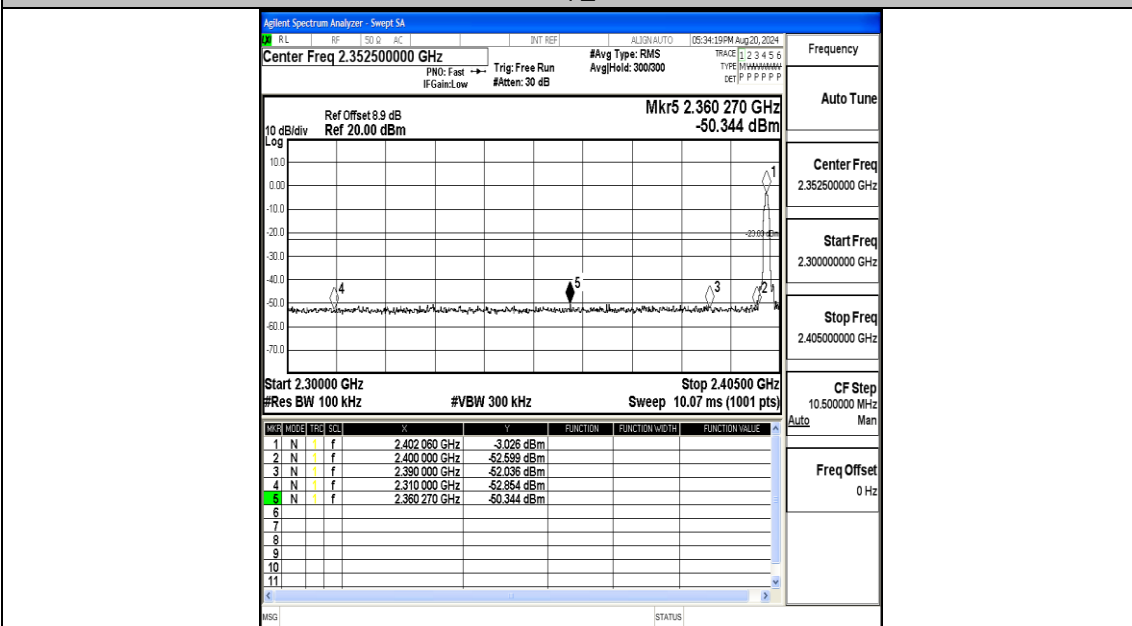
DH5-Ant1-2480-PASS



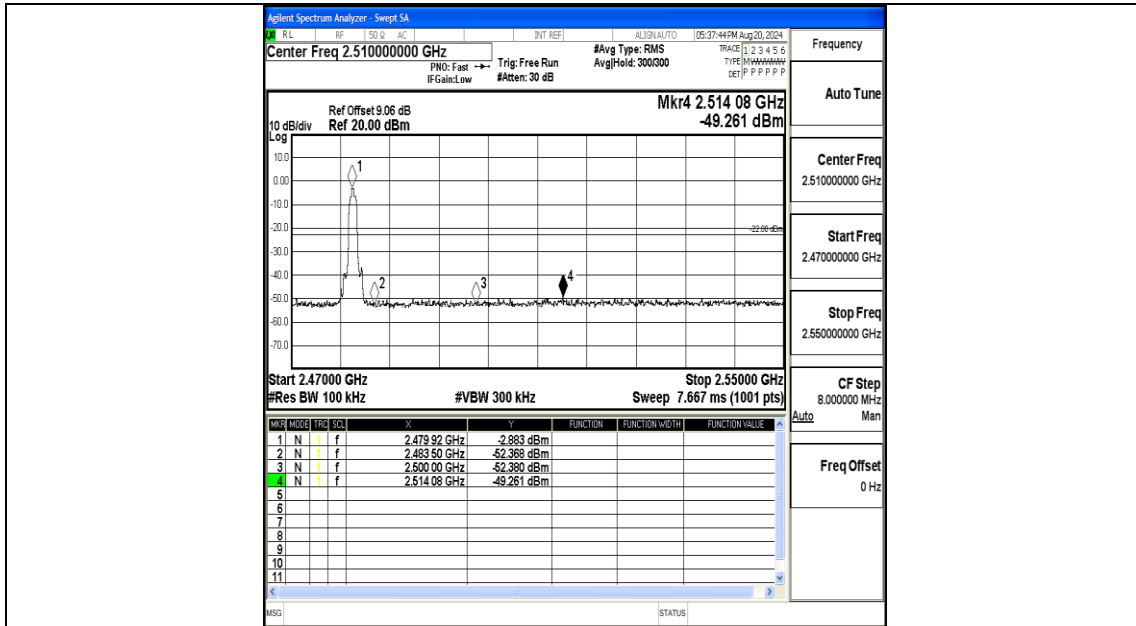
DH5-Ant1-Hop_2402-PASS



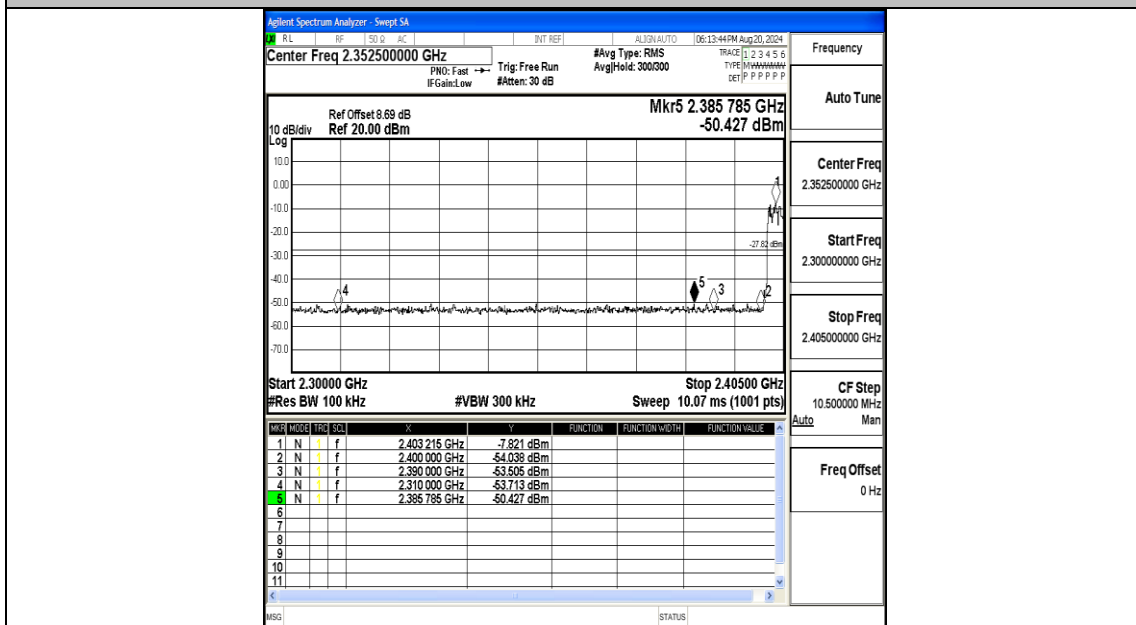
DH5-Ant1-Hop_2480-PASS



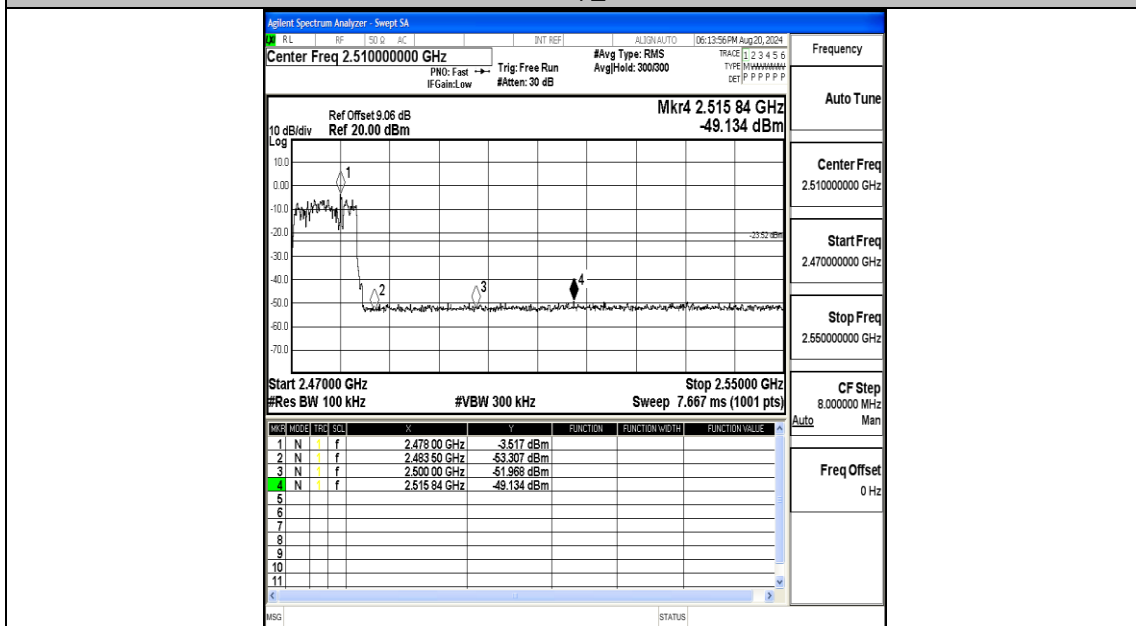
2DH5-Ant1-2402-PASS



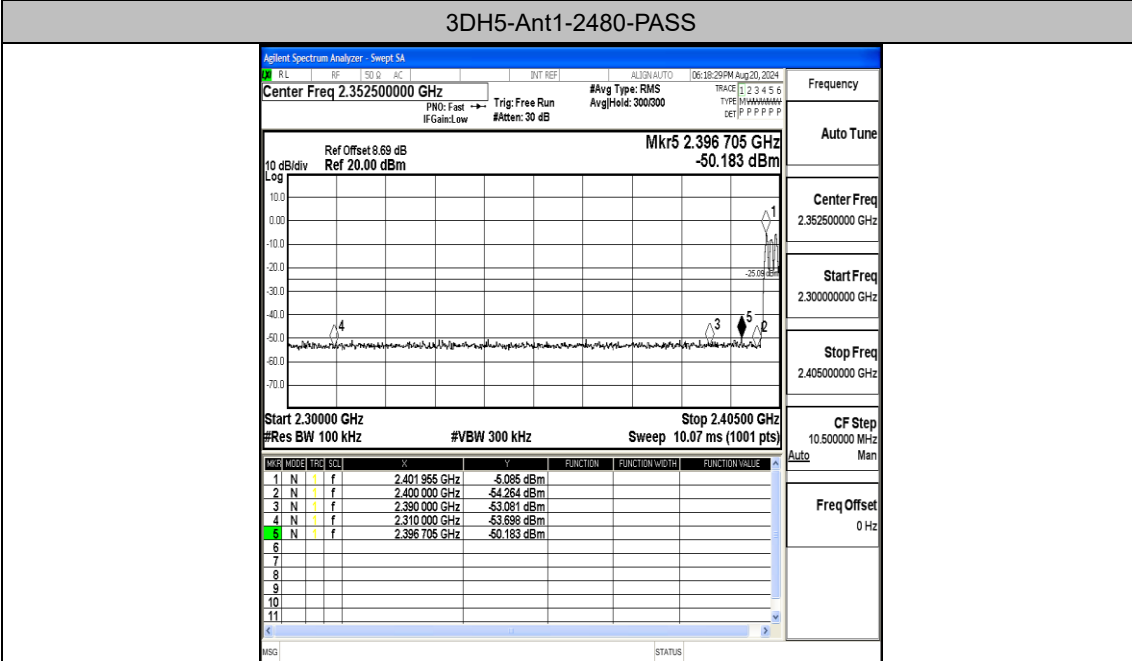
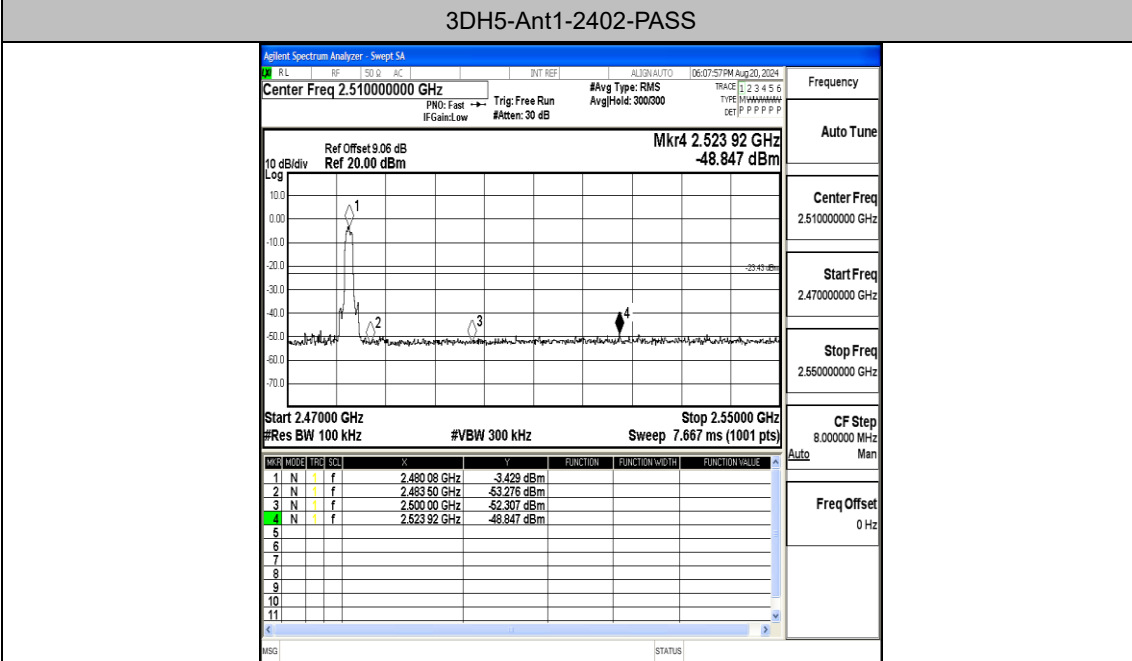
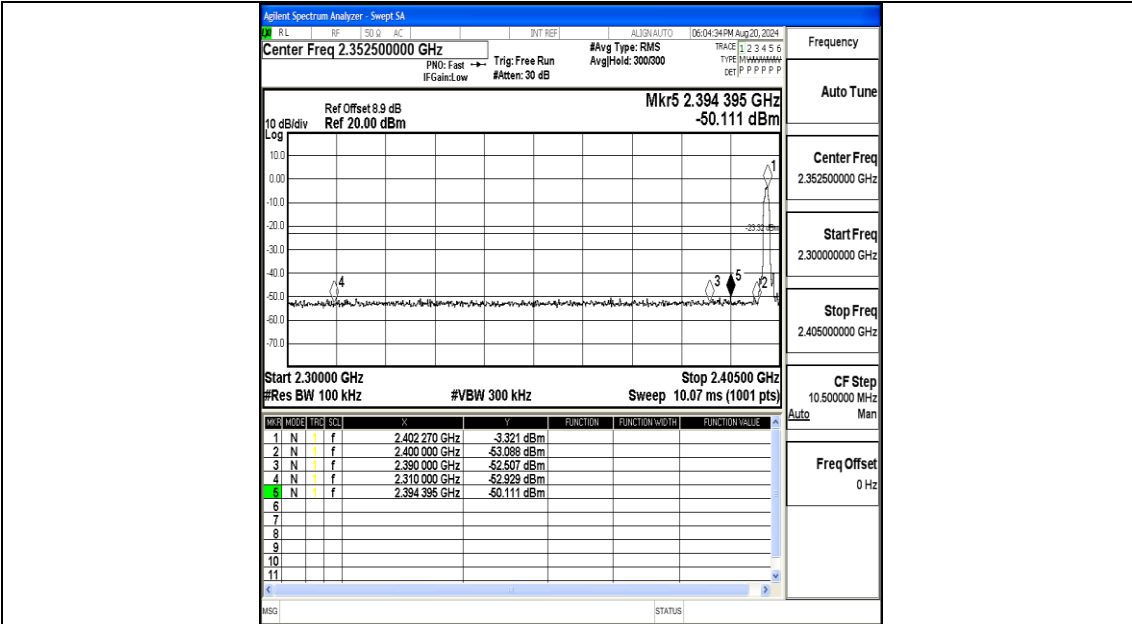
2DH5-Ant1-2480-PASS

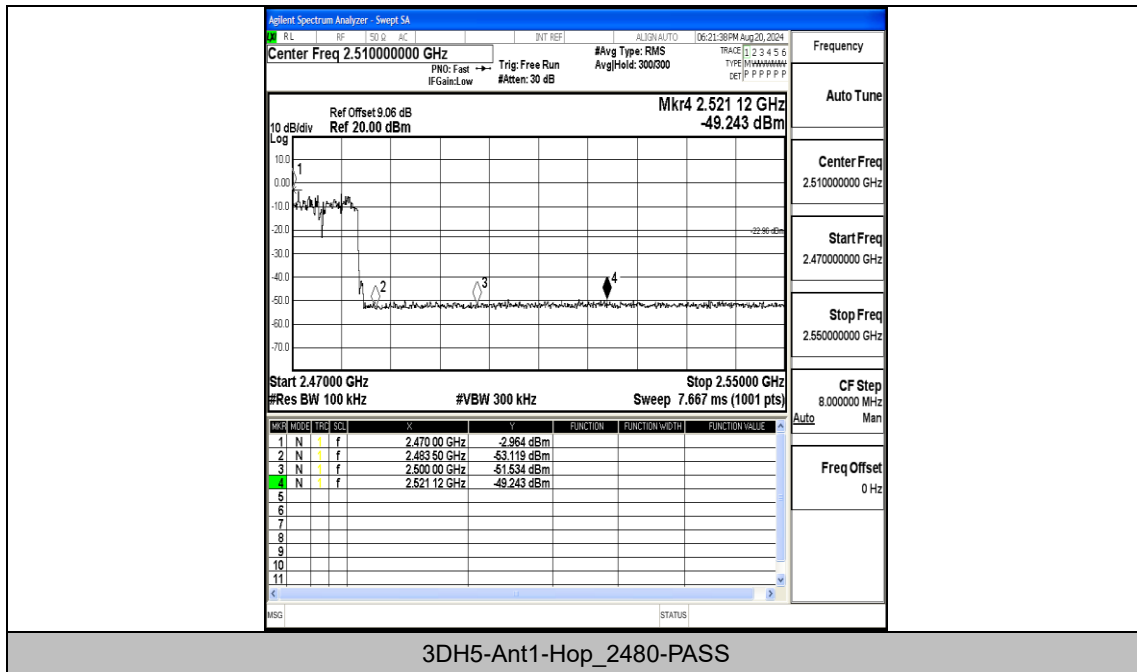


2DH5-Ant1-Hop_2402-PASS



2DH5-Ant1-Hop_2480-PASS





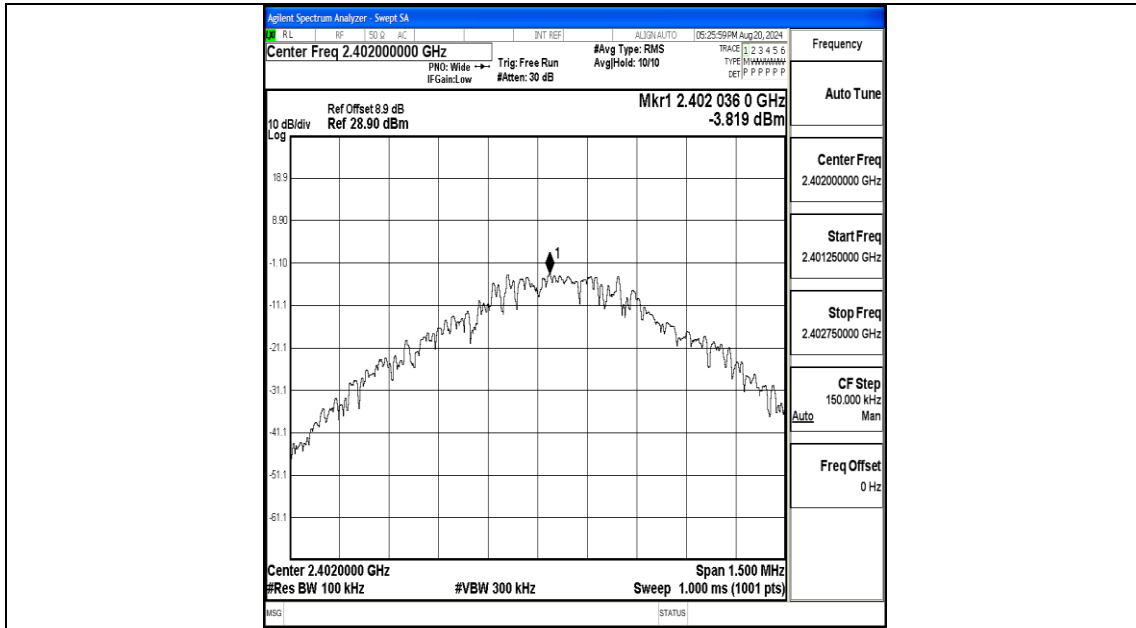
3DH5-Ant1-Hop_2480-PASS

Appendix H: Conducted Spurious Emission

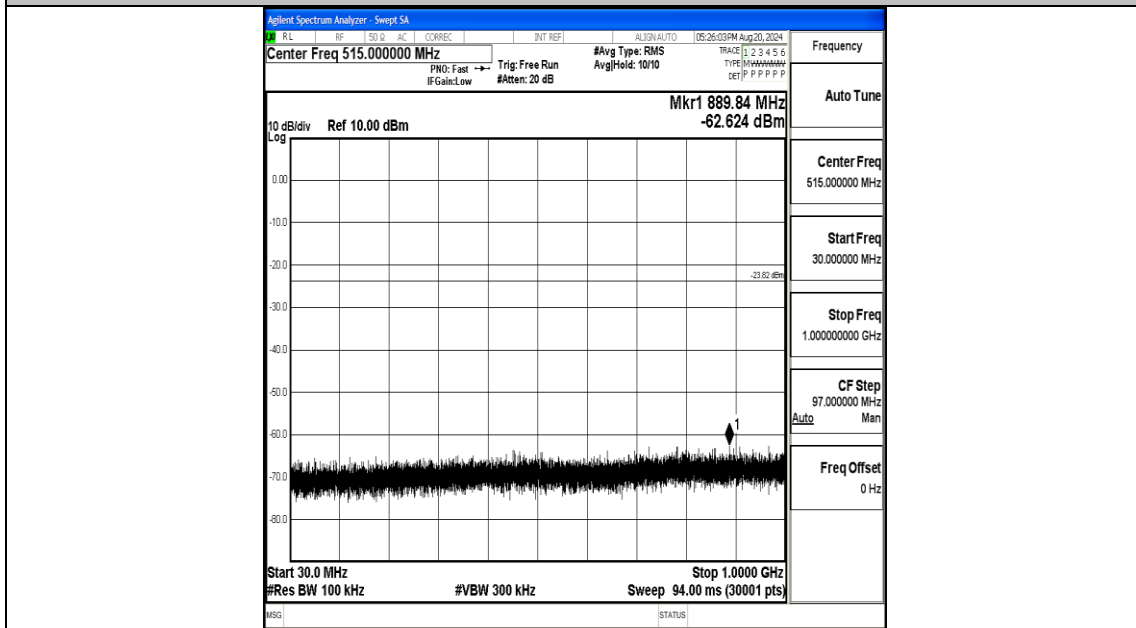
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-3.82	-3.82	---	PASS
DH5	Ant1	2402	30~1000	-3.82	-62.62	≤-23.82	PASS
DH5	Ant1	2402	1000~26500	-3.82	-43.14	≤-23.82	PASS
DH5	Ant1	2441	0~Reference	-2.98	-2.98	---	PASS
DH5	Ant1	2441	30~1000	-2.98	-61.9	≤-22.98	PASS
DH5	Ant1	2441	1000~26500	-2.98	-43.49	≤-22.98	PASS
DH5	Ant1	2480	0~Reference	-2.16	-2.16	---	PASS
DH5	Ant1	2480	30~1000	-2.16	-62.59	≤-22.16	PASS
DH5	Ant1	2480	1000~26500	-2.16	-41.23	≤-22.16	PASS
2DH5	Ant1	2402	0~Reference	-4.34	-4.34	---	PASS
2DH5	Ant1	2402	30~1000	-4.34	-61.84	≤-24.34	PASS
2DH5	Ant1	2402	1000~26500	-4.34	-48.35	≤-24.34	PASS
2DH5	Ant1	2441	0~Reference	-6.35	-6.35	---	PASS
2DH5	Ant1	2441	30~1000	-6.35	-62.66	≤-26.35	PASS
2DH5	Ant1	2441	1000~26500	-6.35	-47.34	≤-26.35	PASS
2DH5	Ant1	2480	0~Reference	-6.24	-6.24	---	PASS
2DH5	Ant1	2480	30~1000	-6.24	-61.88	≤-26.24	PASS
2DH5	Ant1	2480	1000~26500	-6.24	-42.32	≤-26.24	PASS
3DH5	Ant1	2402	0~Reference	-7.38	-7.38	---	PASS
3DH5	Ant1	2402	30~1000	-7.38	-61.62	≤-27.38	PASS
3DH5	Ant1	2402	1000~26500	-7.38	-47.47	≤-27.38	PASS
3DH5	Ant1	2441	0~Reference	-3.55	-3.55	---	PASS
3DH5	Ant1	2441	30~1000	-3.55	-62.57	≤-23.55	PASS
3DH5	Ant1	2441	1000~26500	-3.55	-45.16	≤-23.55	PASS
3DH5	Ant1	2480	0~Reference	-1.42	-1.42	---	PASS
3DH5	Ant1	2480	30~1000	-1.42	-62.08	≤-21.42	PASS
3DH5	Ant1	2480	1000~26500	-1.42	-44.55	≤-21.42	PASS

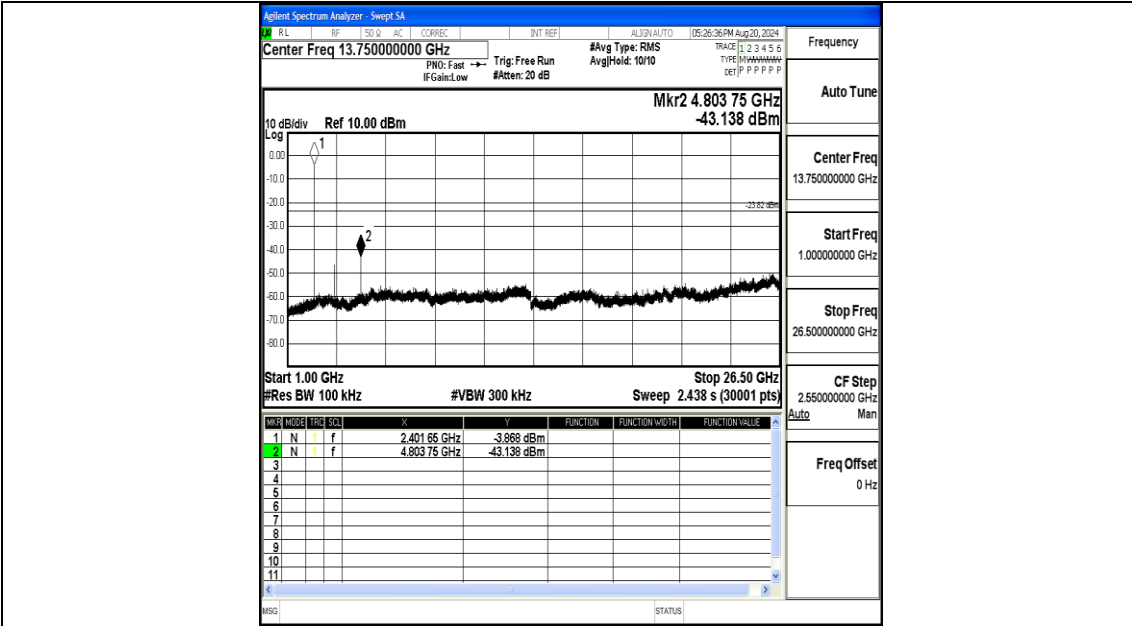
Test Graphs



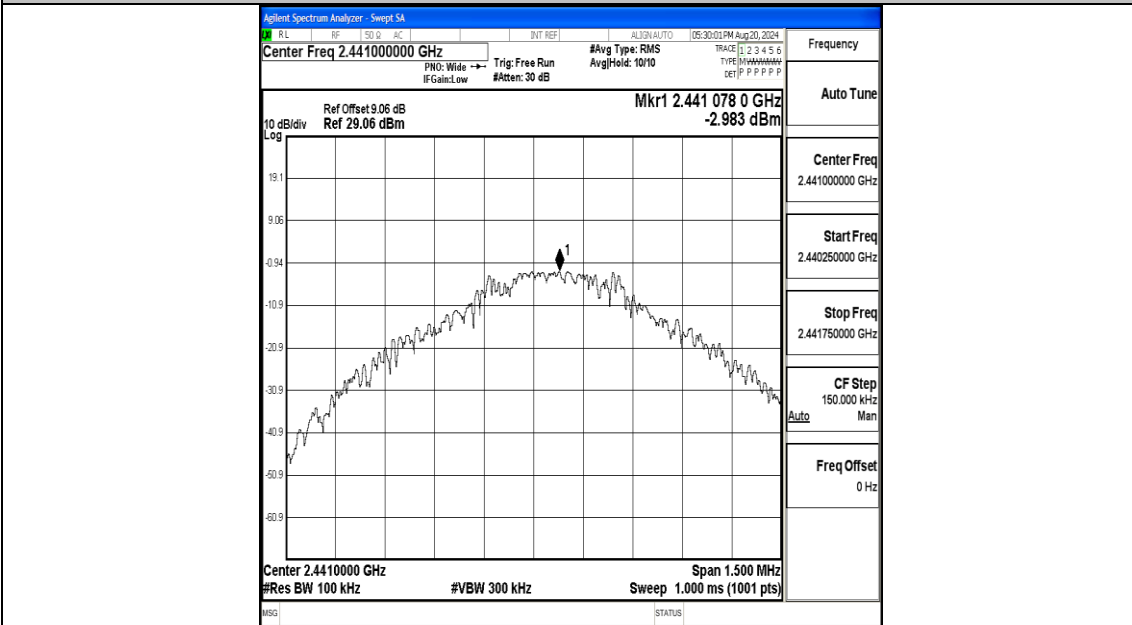
DH5-Ant1-2402-0~Reference-PASS



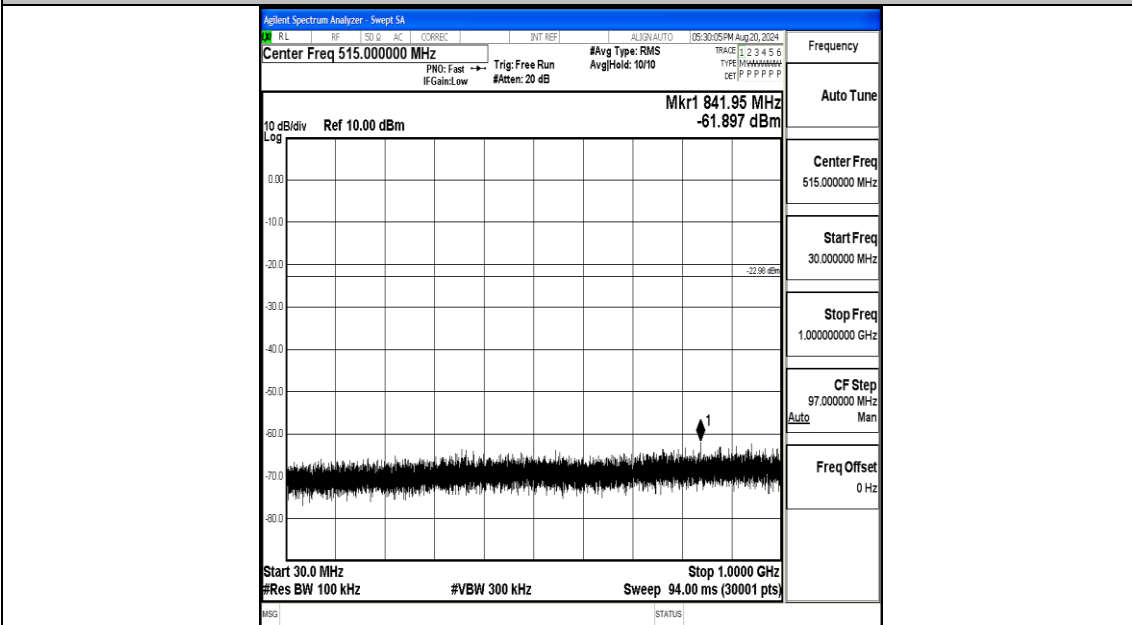
DH5-Ant1-2402-30~1000-PASS



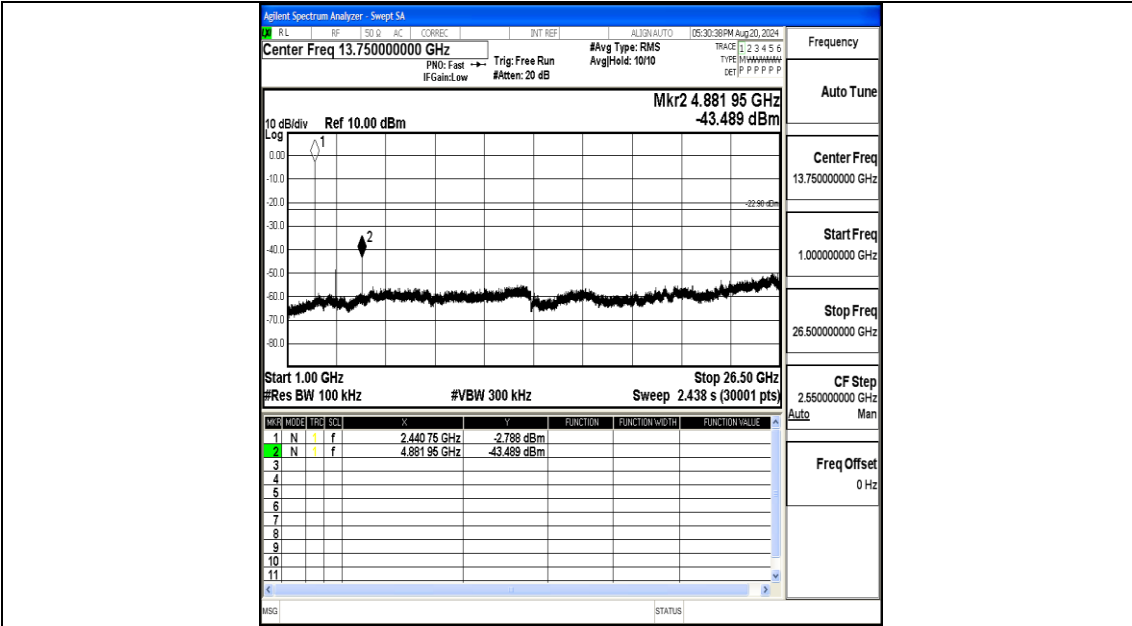
DH5-Ant1-2402-1000~26500-PASS



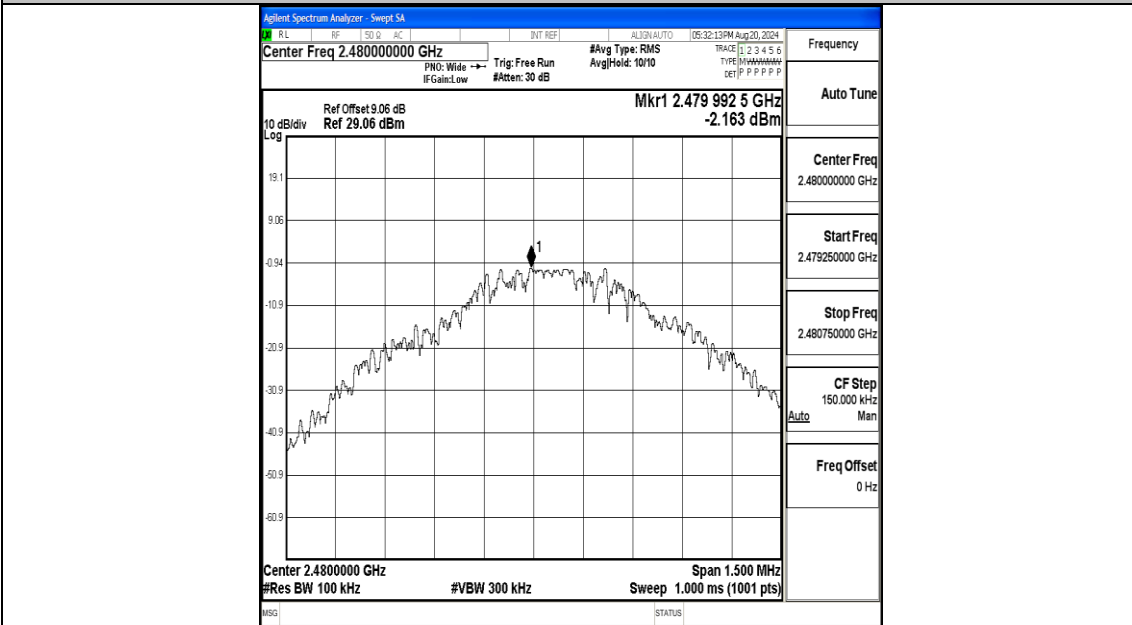
DH5-Ant1-2441-0~Reference-PASS



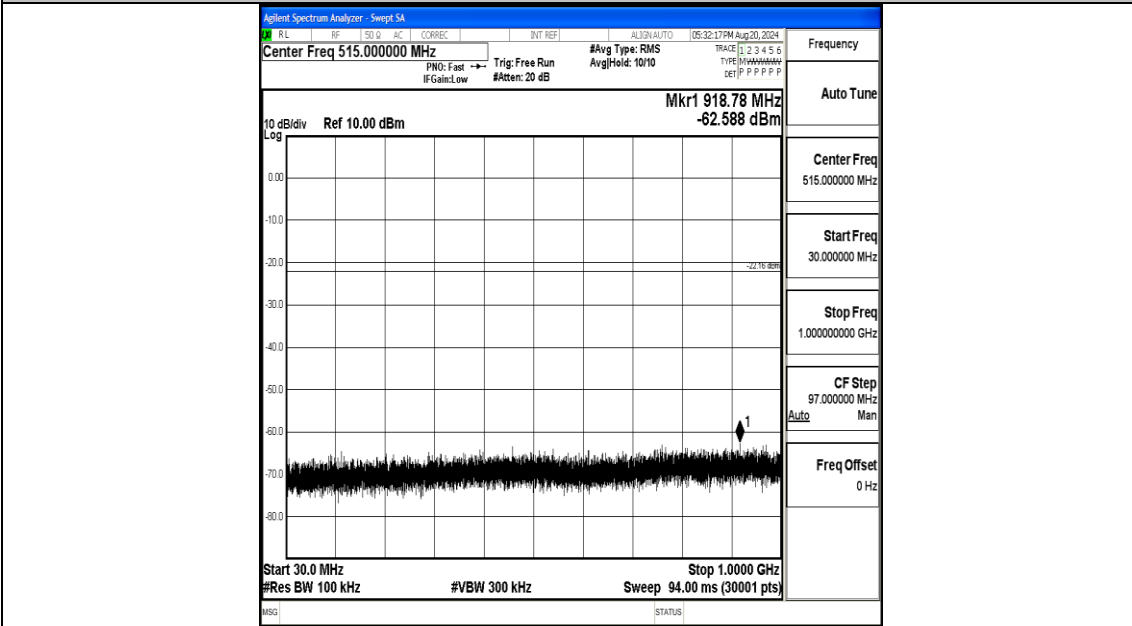
DH5-Ant1-2441-30~1000-PASS



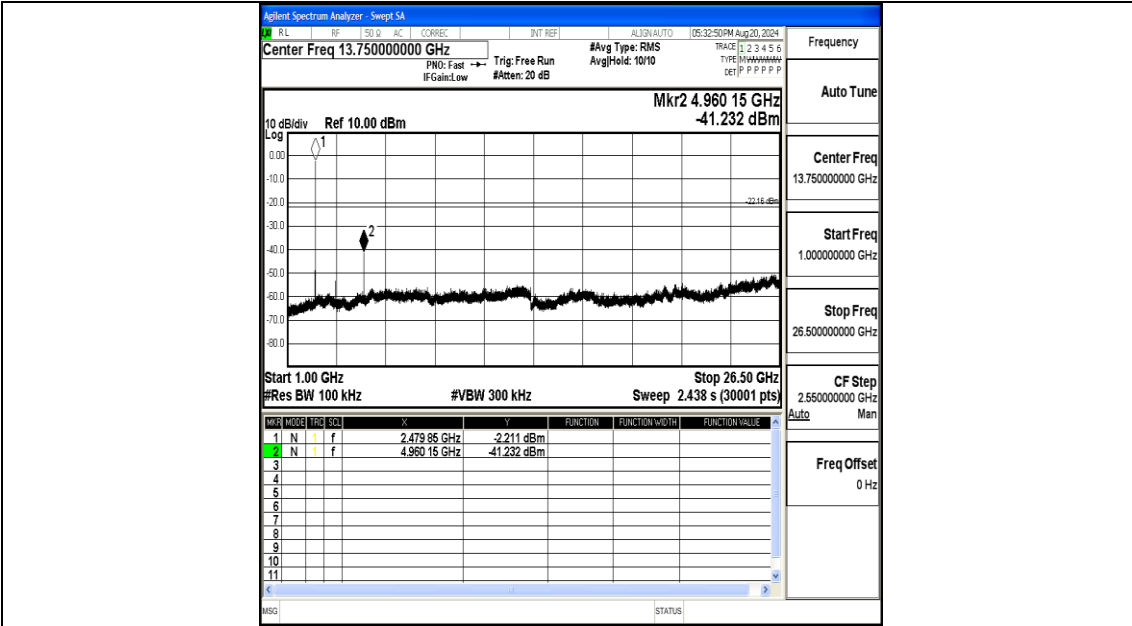
DH5-Ant1-2441-1000~26500-PASS



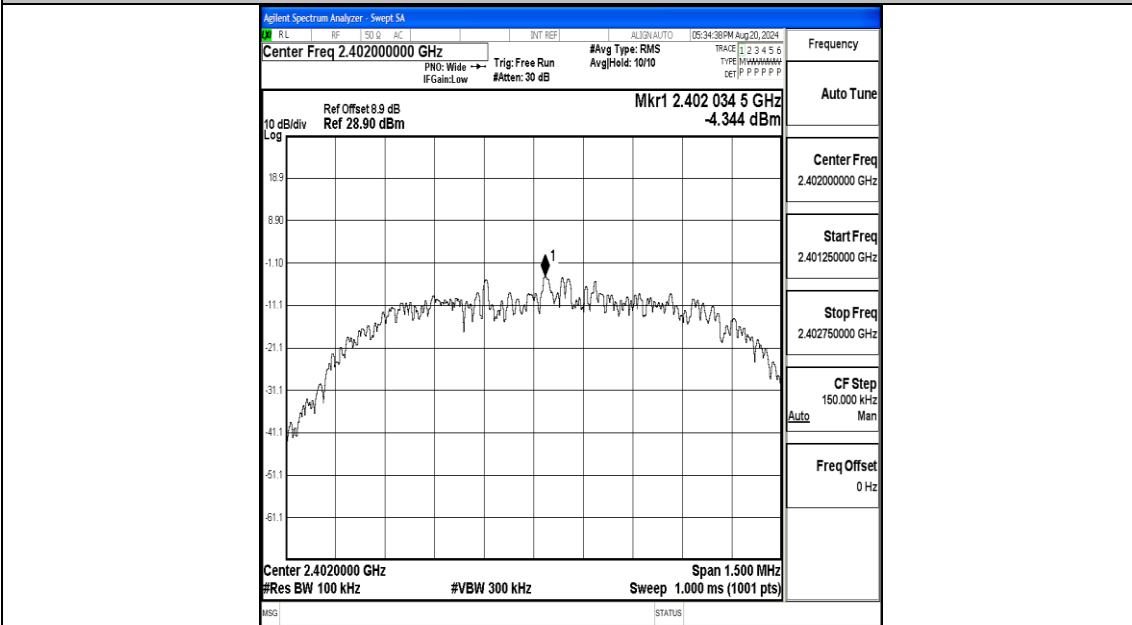
DH5-Ant1-2480-0~Reference-PASS



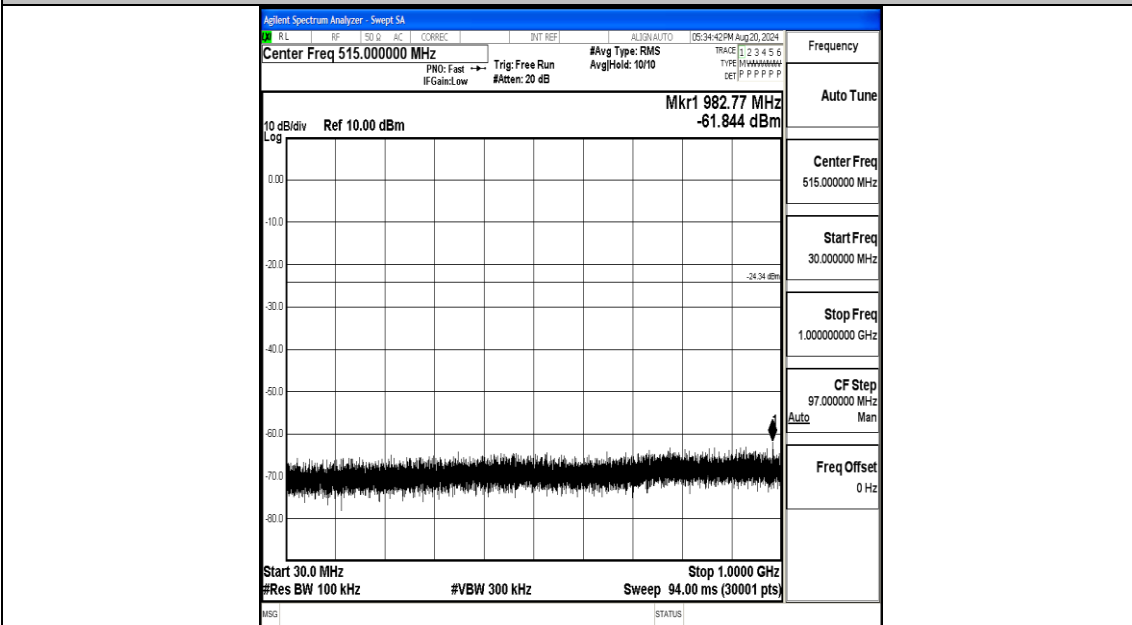
DH5-Ant1-2480-30~1000-PASS



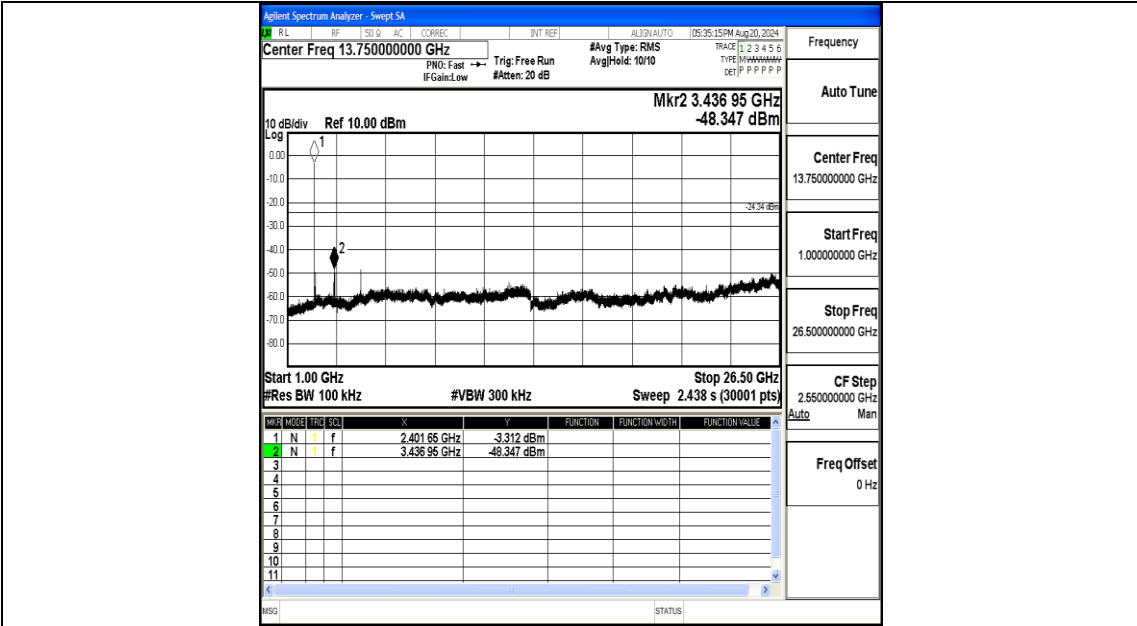
DH5-Ant1-2480-1000~26500-PASS



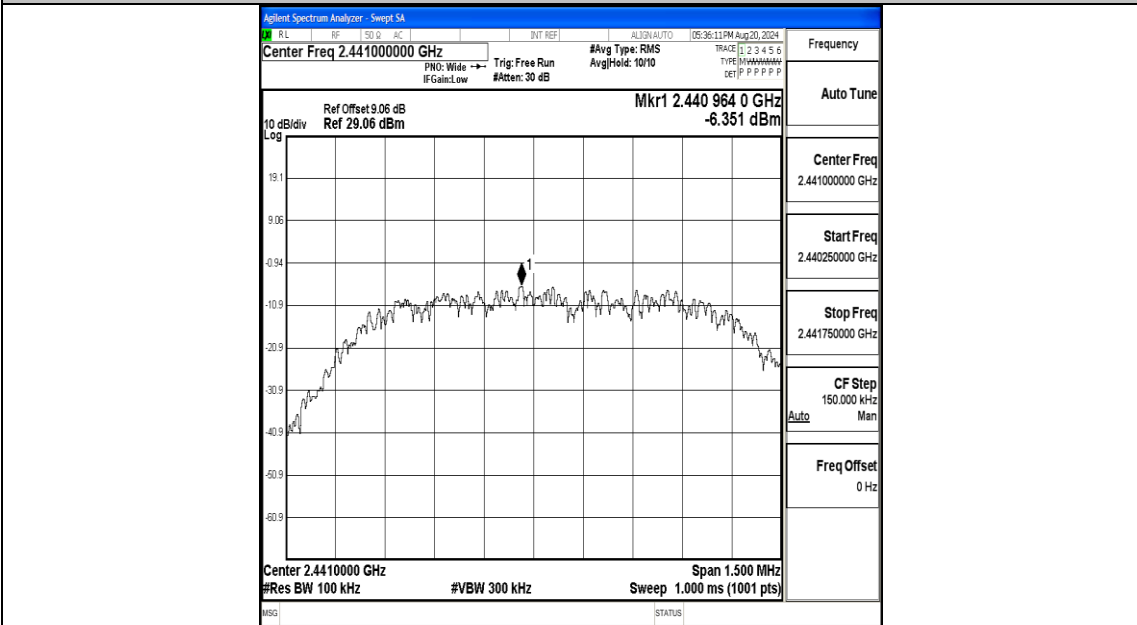
2DH5-Ant1-2402-0~Reference-PASS



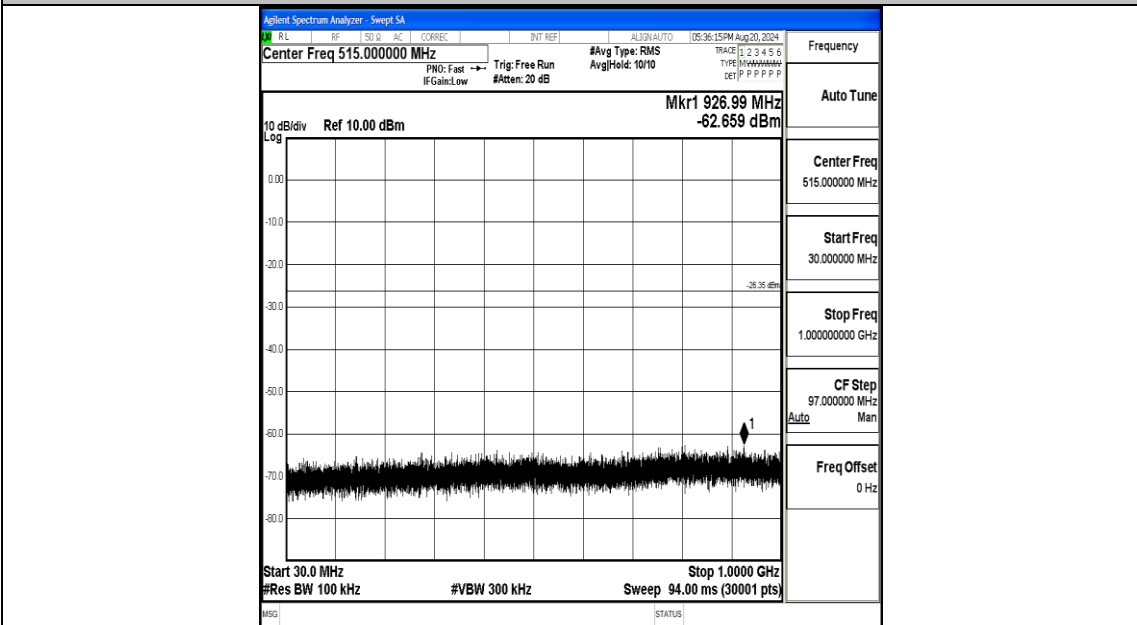
2DH5-Ant1-2402-30~1000-PASS



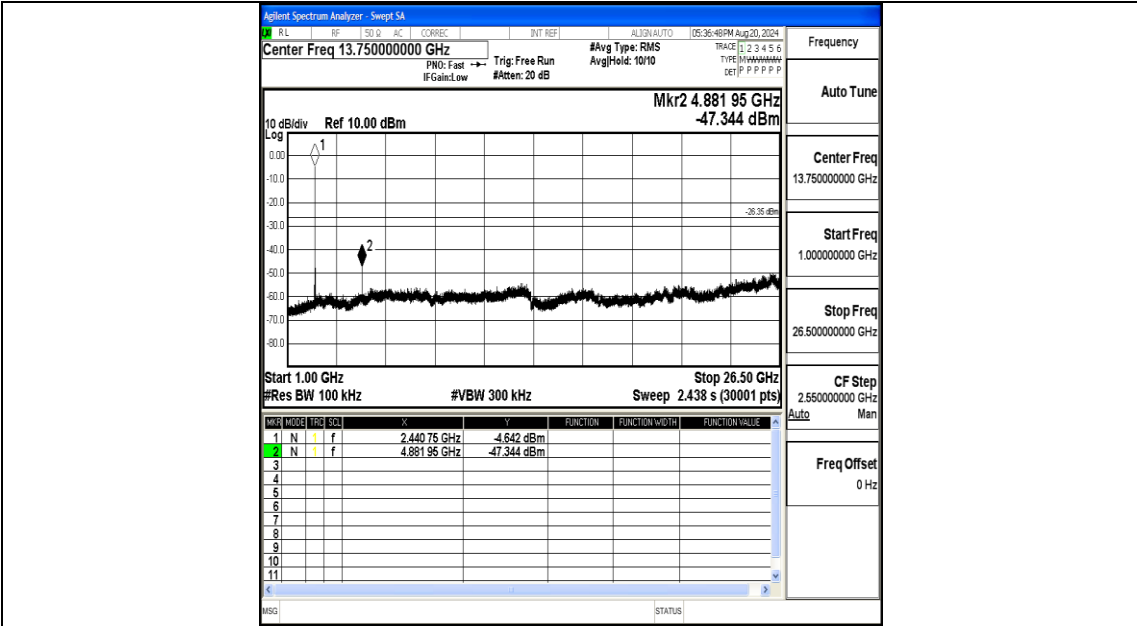
2DH5-Ant1-2402-1000~26500-PASS



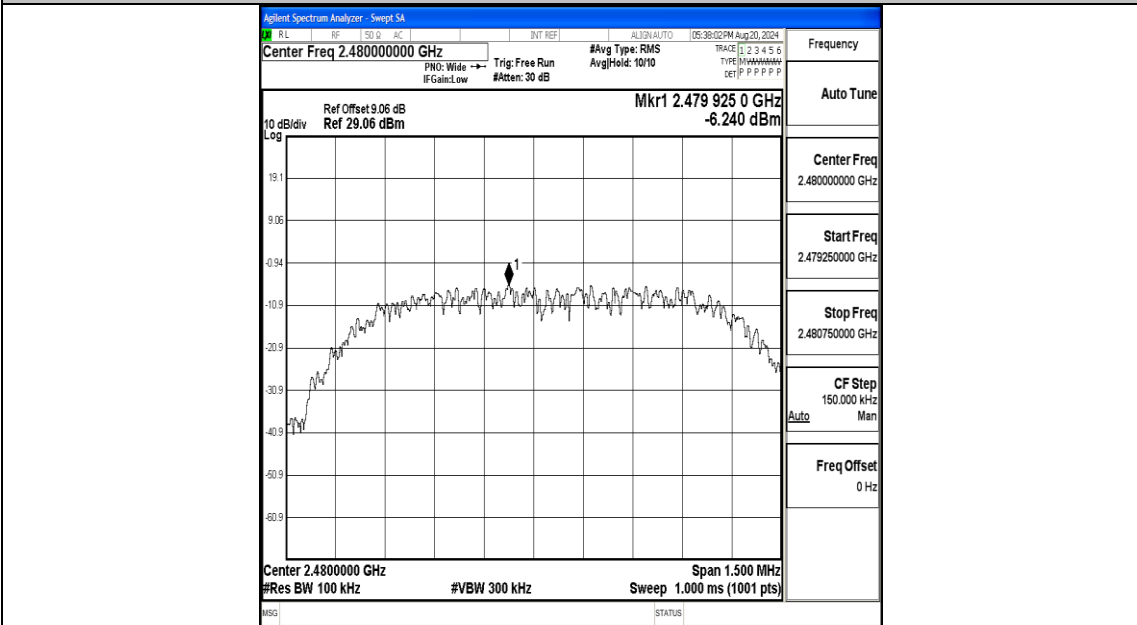
2DH5-Ant1-2441-0~Reference-PASS



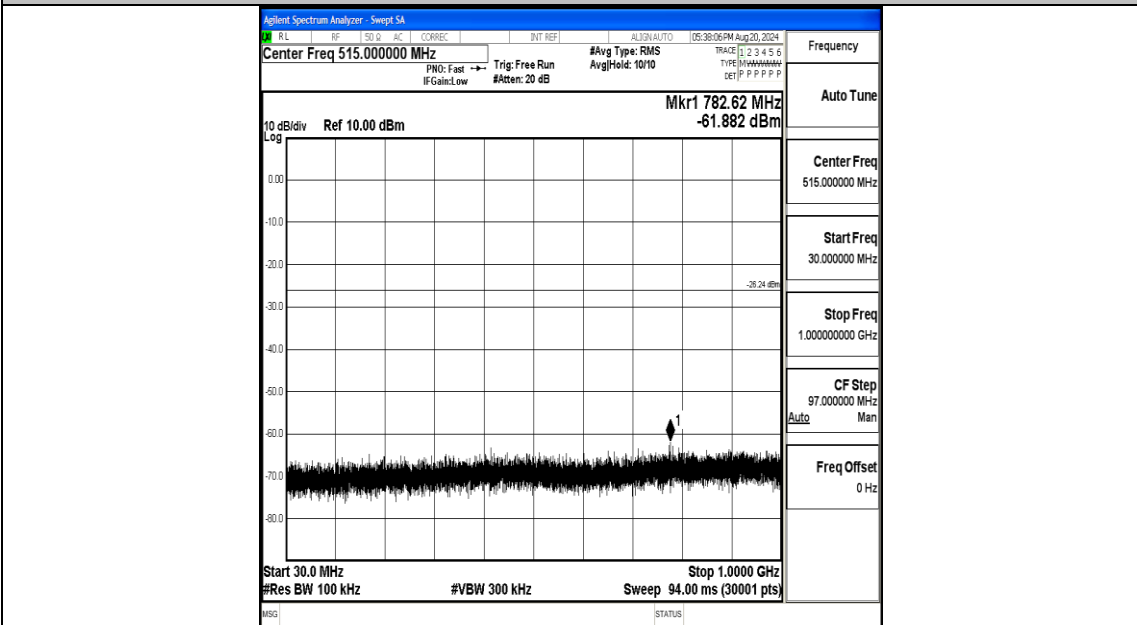
2DH5-Ant1-2441-30~1000-PASS



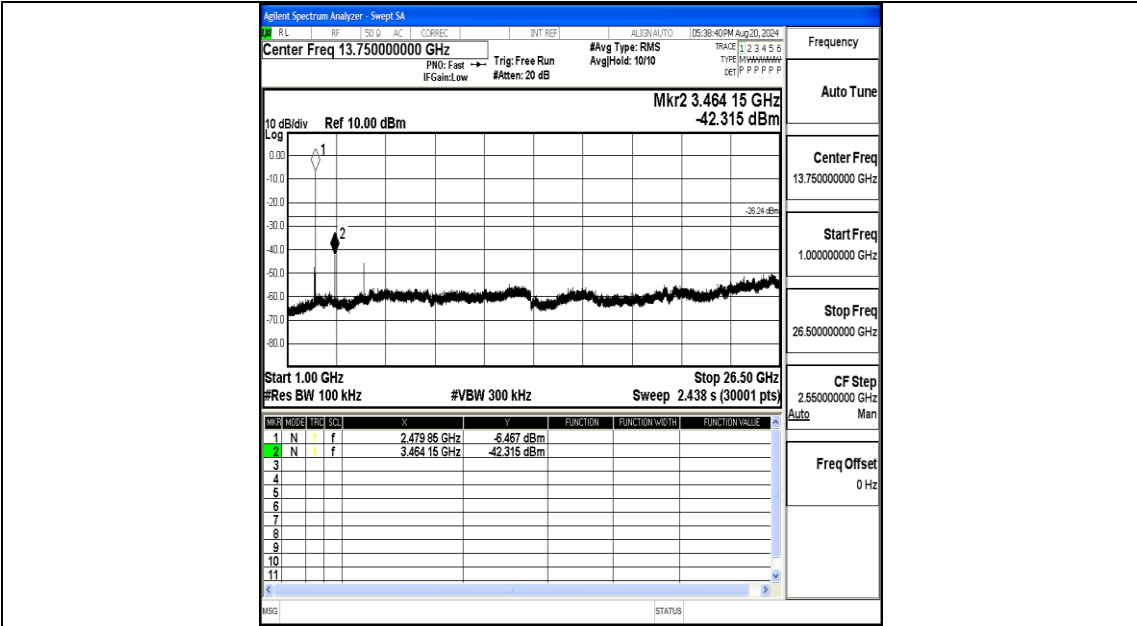
2DH5-Ant1-2441-1000~26500-PASS



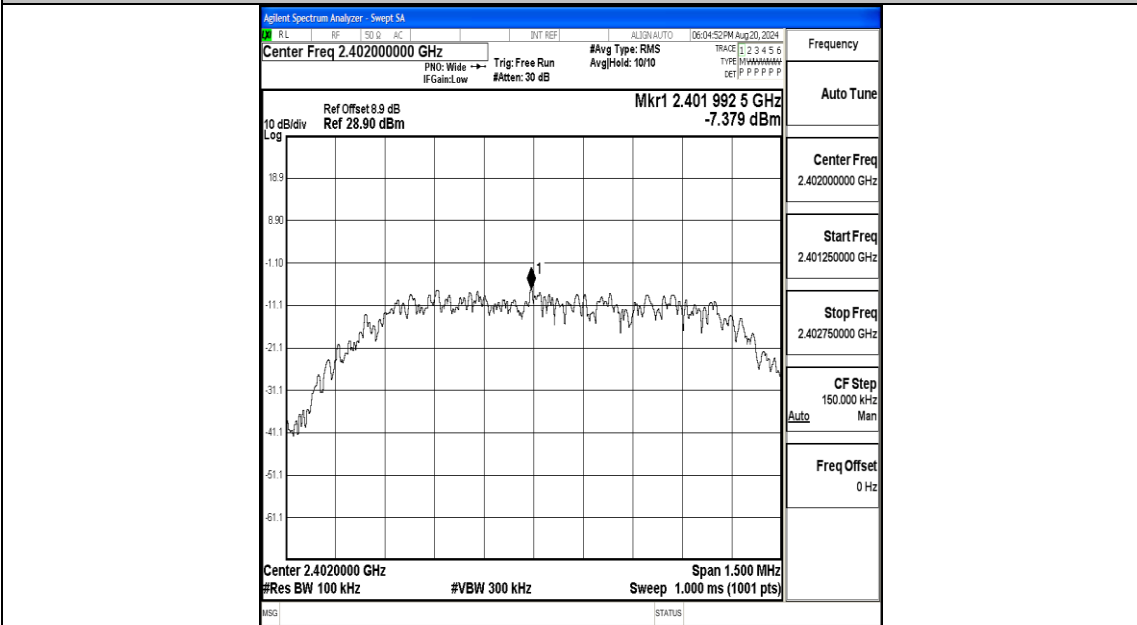
2DH5-Ant1-2480-0~Reference-PASS



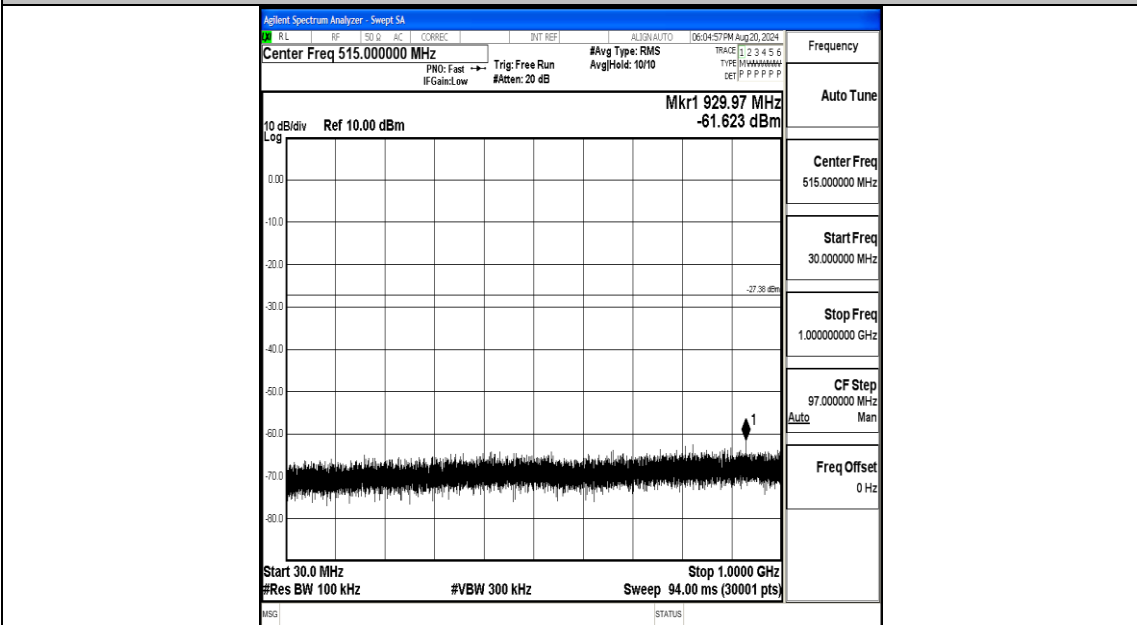
2DH5-Ant1-2480-30~1000-PASS



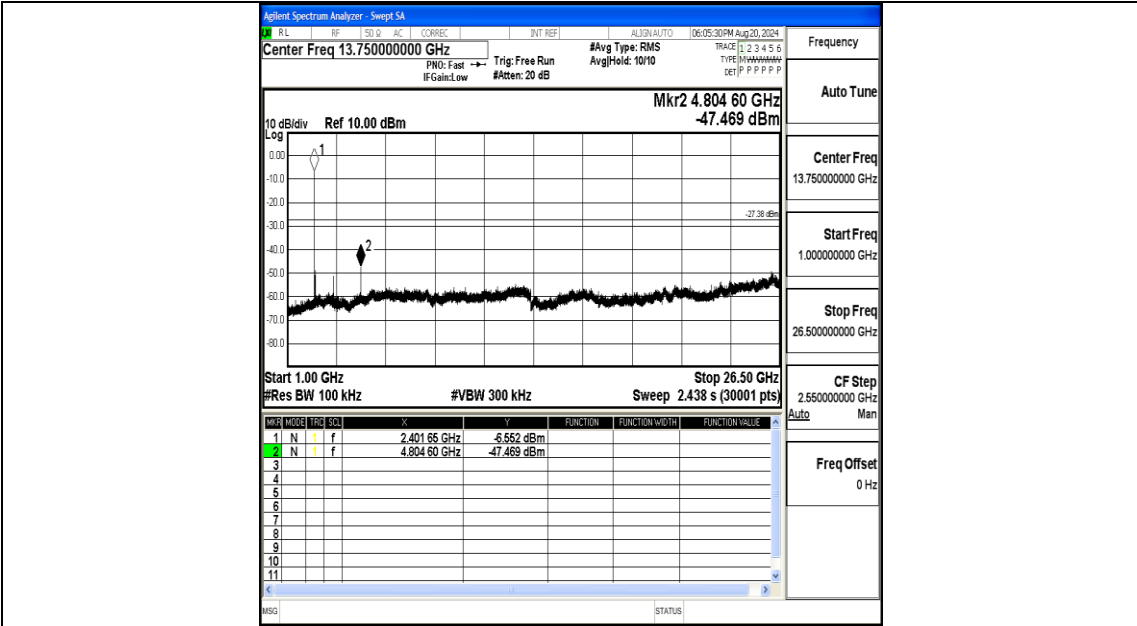
2DH5-Ant1-2480-1000~26500-PASS



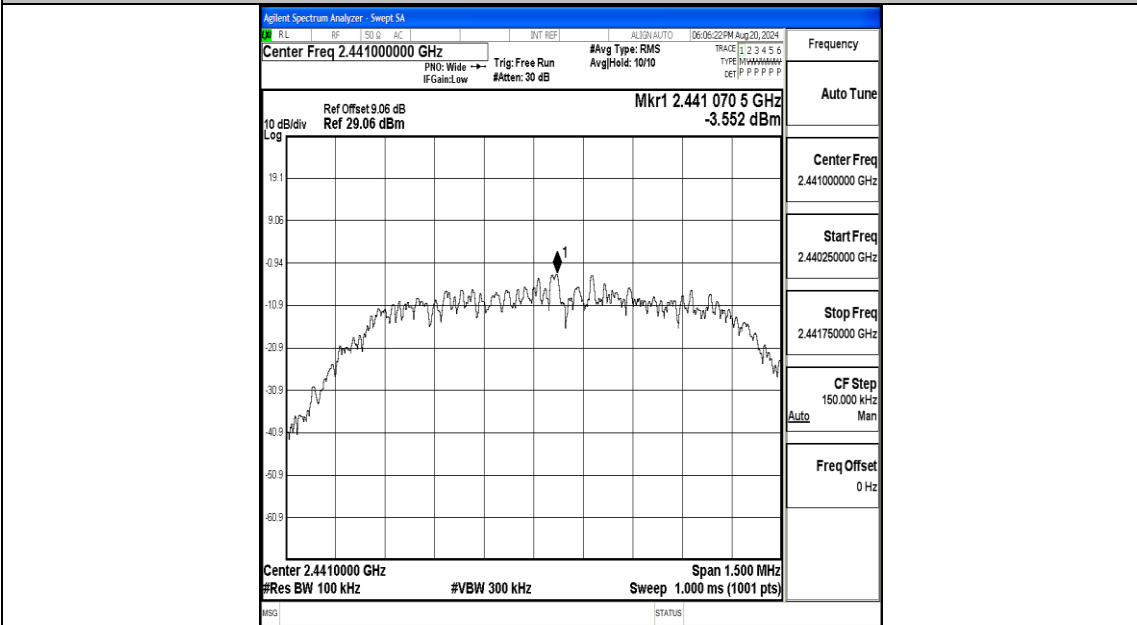
3DH5-Ant1-2402-0~Reference-PASS



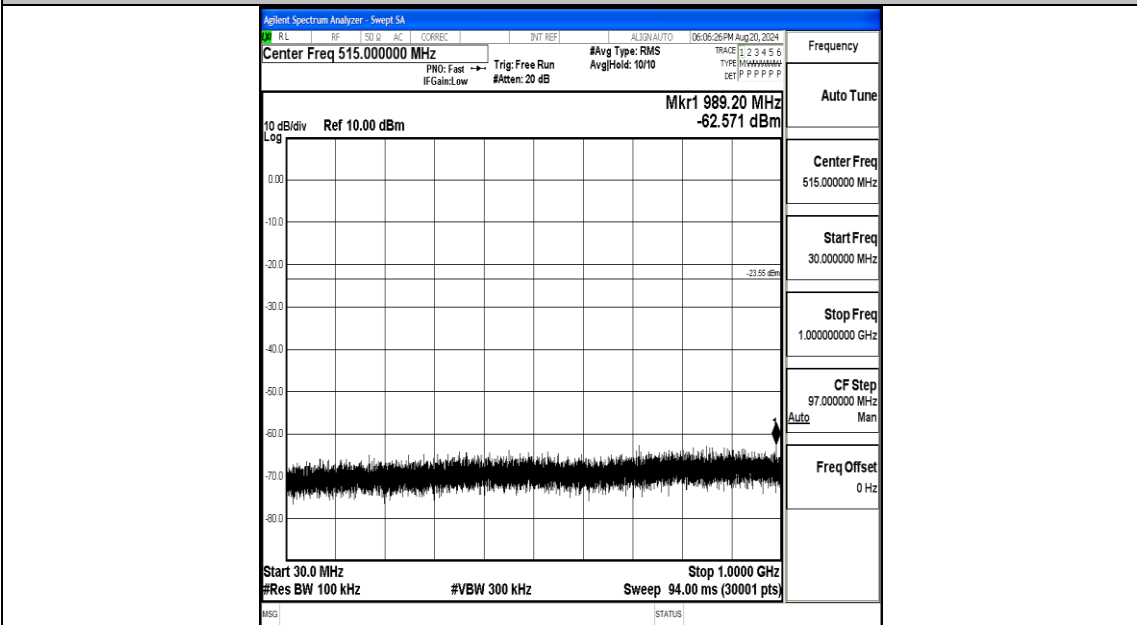
3DH5-Ant1-2402-30~1000-PASS



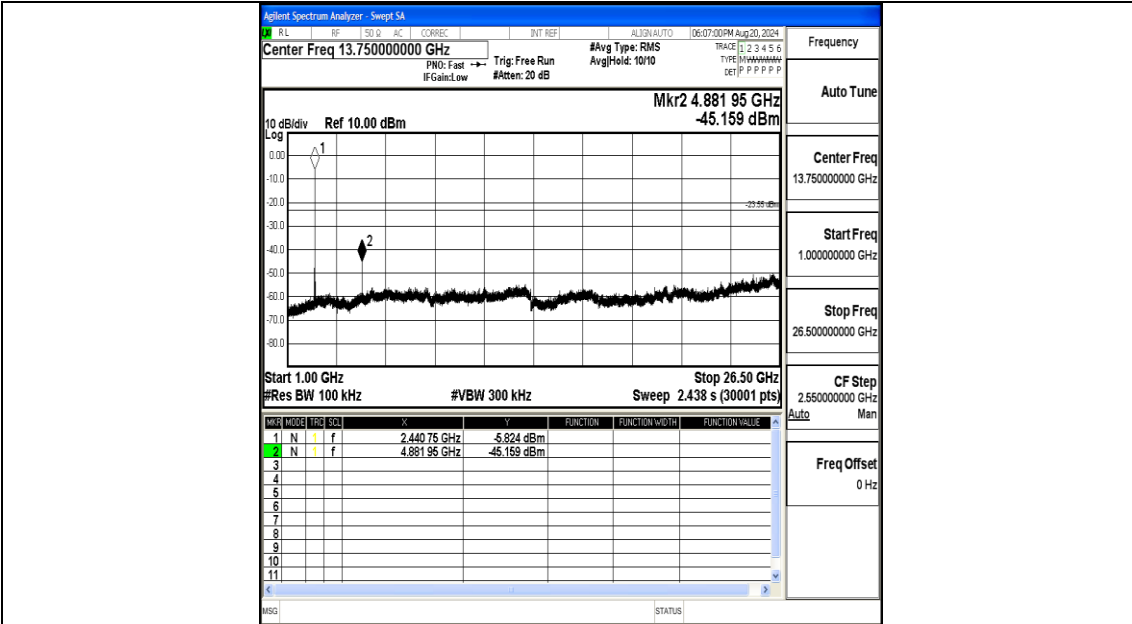
3DH5-Ant1-2402-1000~26500-PASS



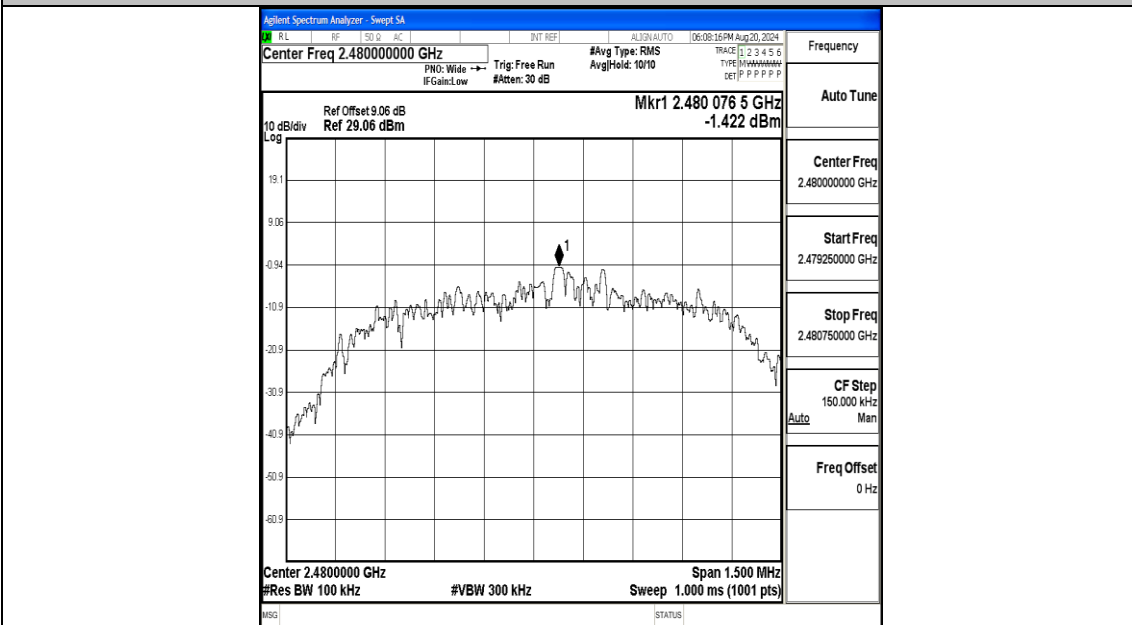
3DH5-Ant1-2441-0~Reference-PASS



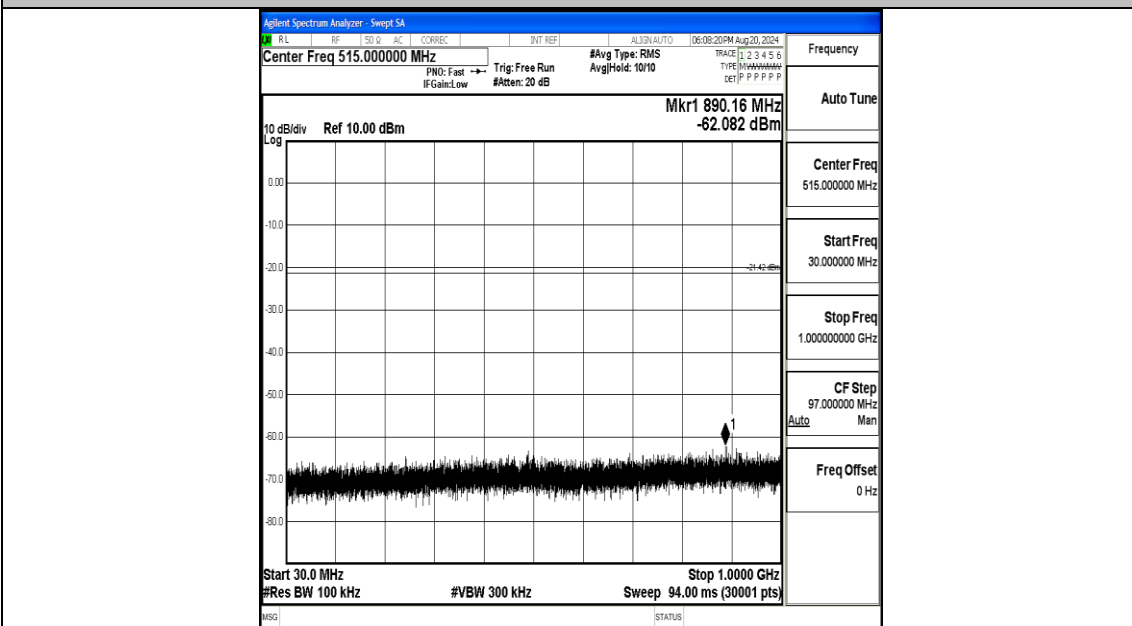
3DH5-Ant1-2441-30~1000-PASS



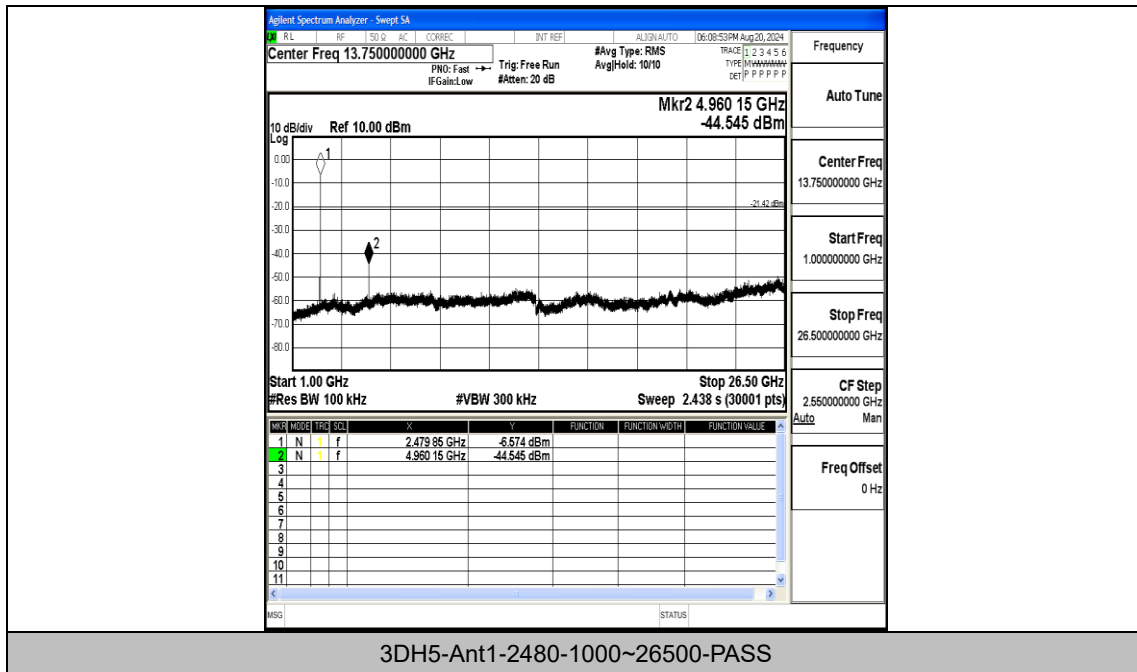
3DH5-Ant1-2441-1000~26500-PASS



3DH5-Ant1-2480-0~Reference-PASS



3DH5-Ant1-2480-30~1000-PASS

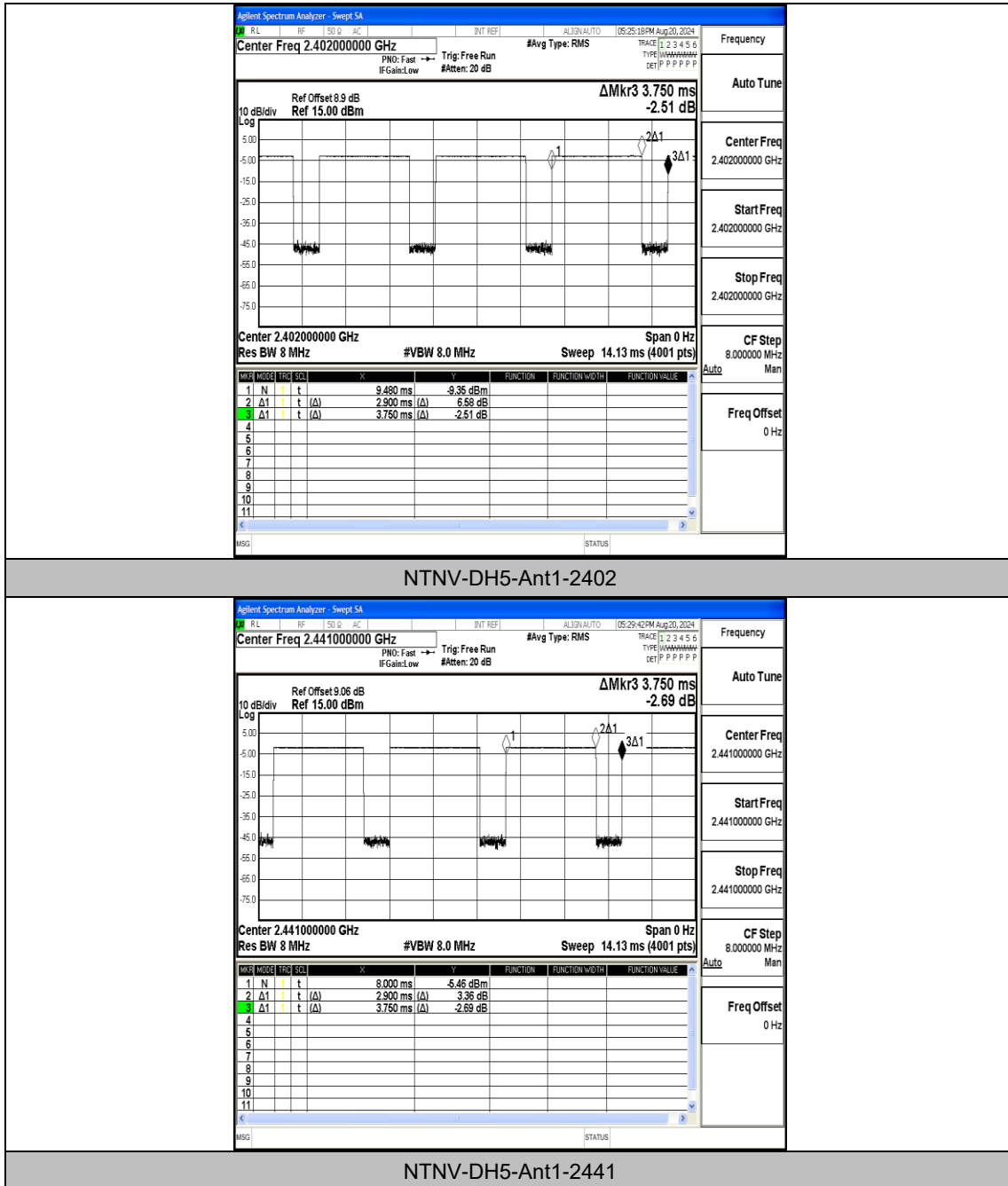


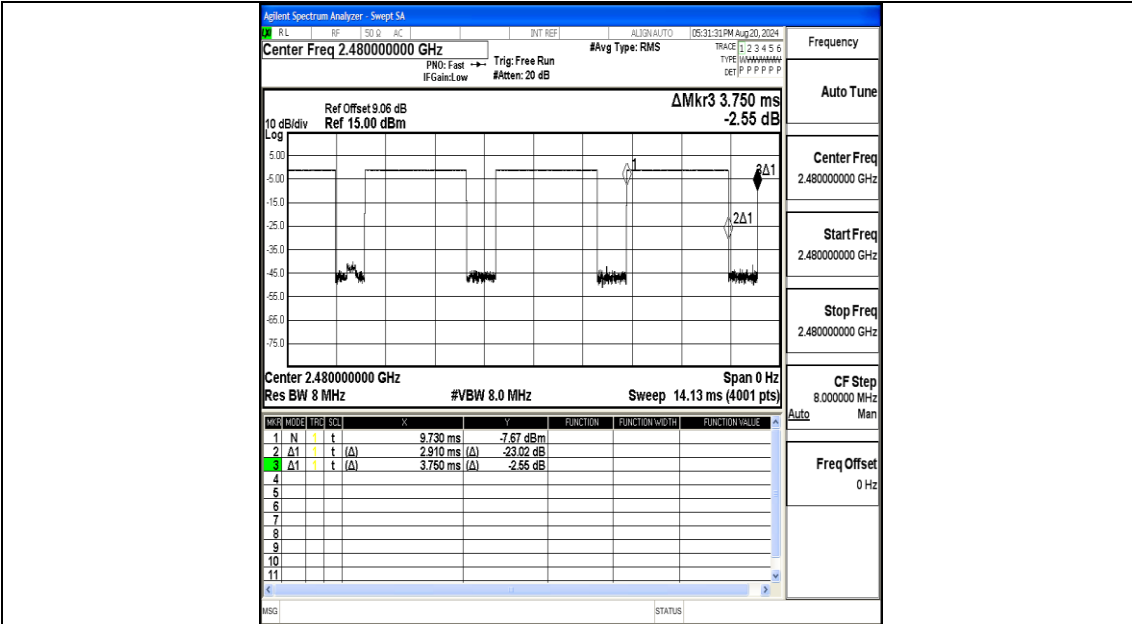
Appendix I: Duty Cycle

Test Result

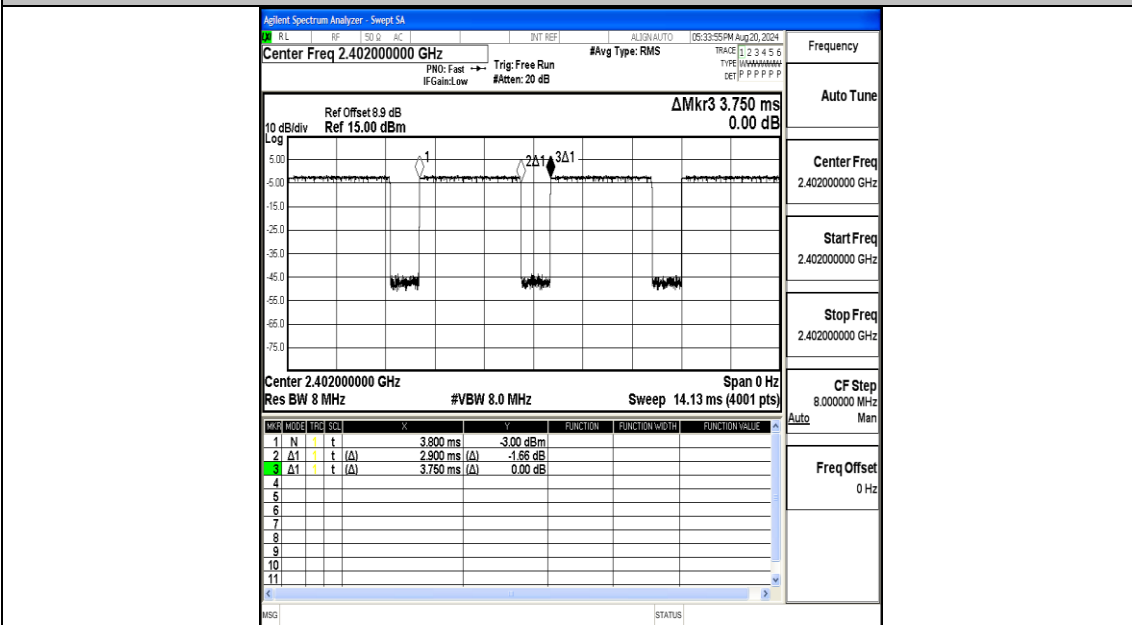
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.90	3.75	77.33	1.12
DH5	Ant1	2441	2.90	3.75	77.33	1.12
DH5	Ant1	2480	2.91	3.75	77.60	1.10
2DH5	Ant1	2402	2.90	3.75	77.33	1.12
2DH5	Ant1	2441	2.91	3.75	77.60	1.10
2DH5	Ant1	2480	2.90	3.75	77.33	1.12
3DH5	Ant1	2402	2.91	3.75	77.60	1.10
3DH5	Ant1	2441	2.91	3.75	77.60	1.10
3DH5	Ant1	2480	2.90	3.74	77.54	1.10

Test Graphs

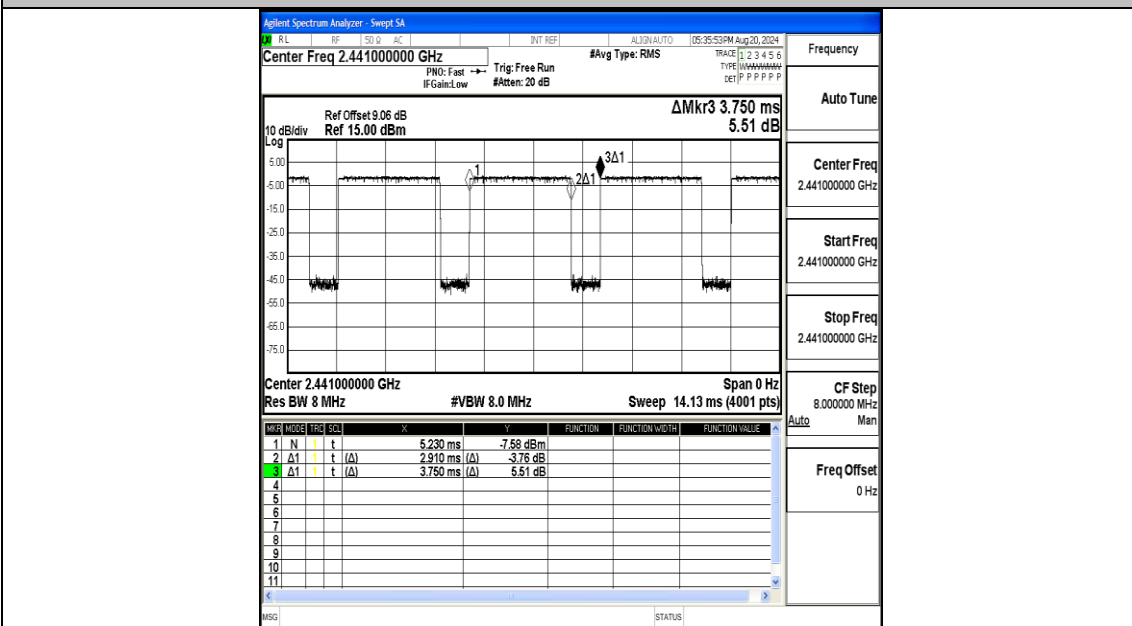




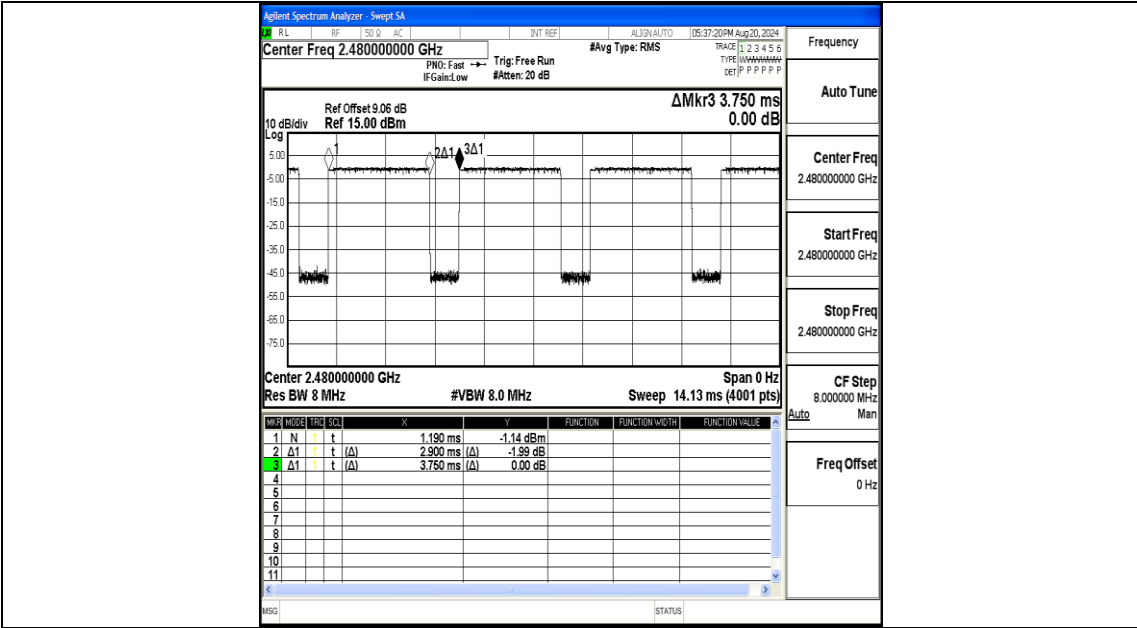
NTNV-DH5-Ant1-2480



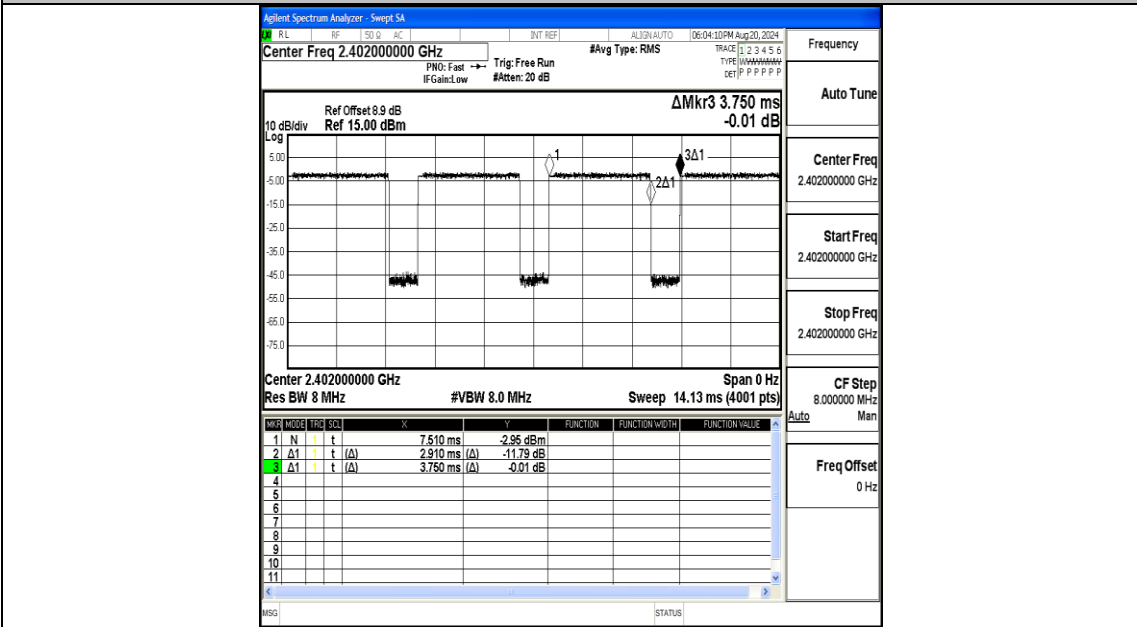
NTNV-2DH5-Ant1-2402



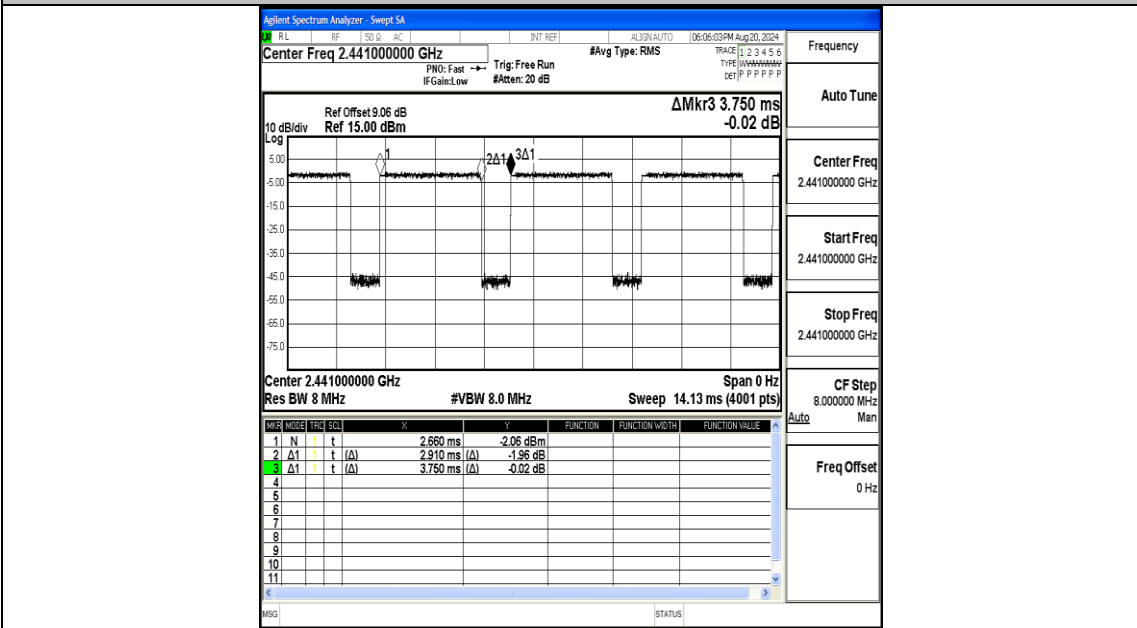
NTNV-2DH5-Ant1-2441



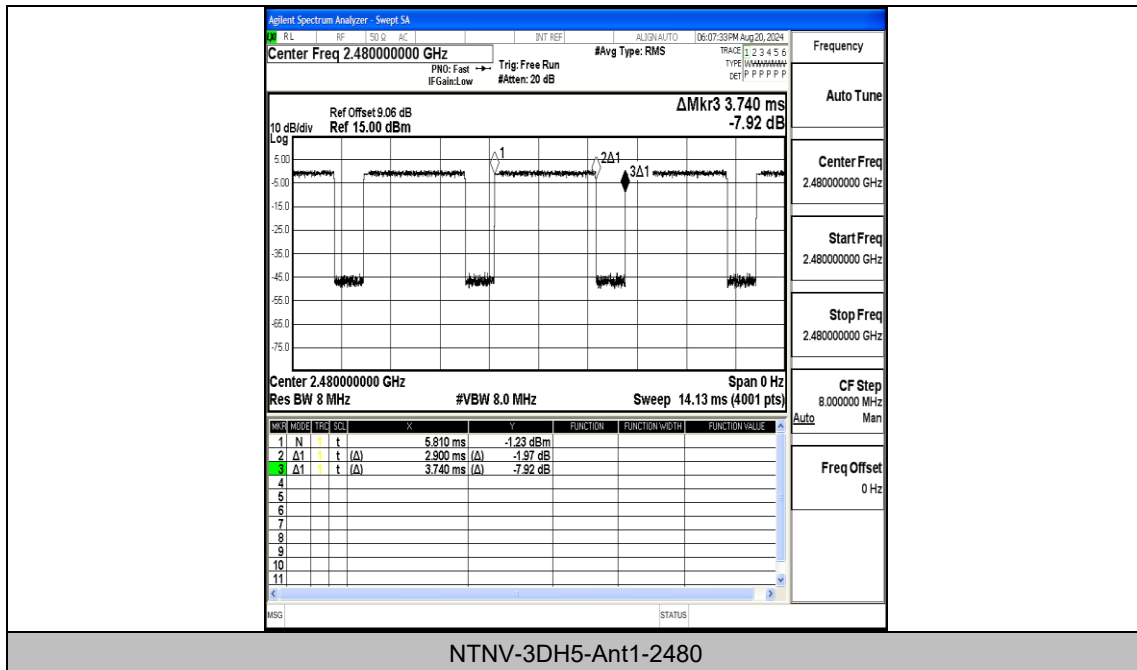
NTVN-2DH5-Ant1-2480



NTVN-3DH5-Ant1-2402



NTVN-3DH5-Ant1-2441



NTNV-3DH5-Ant1-2480