

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

Product Name: Powered bookshelf speaker

Trade Mark: SineAudio Saiyin RIOWOIS Anpharala

Test Model: DS6701UP

FCC ID: 2AP93-DS67X

Environmental Conditions

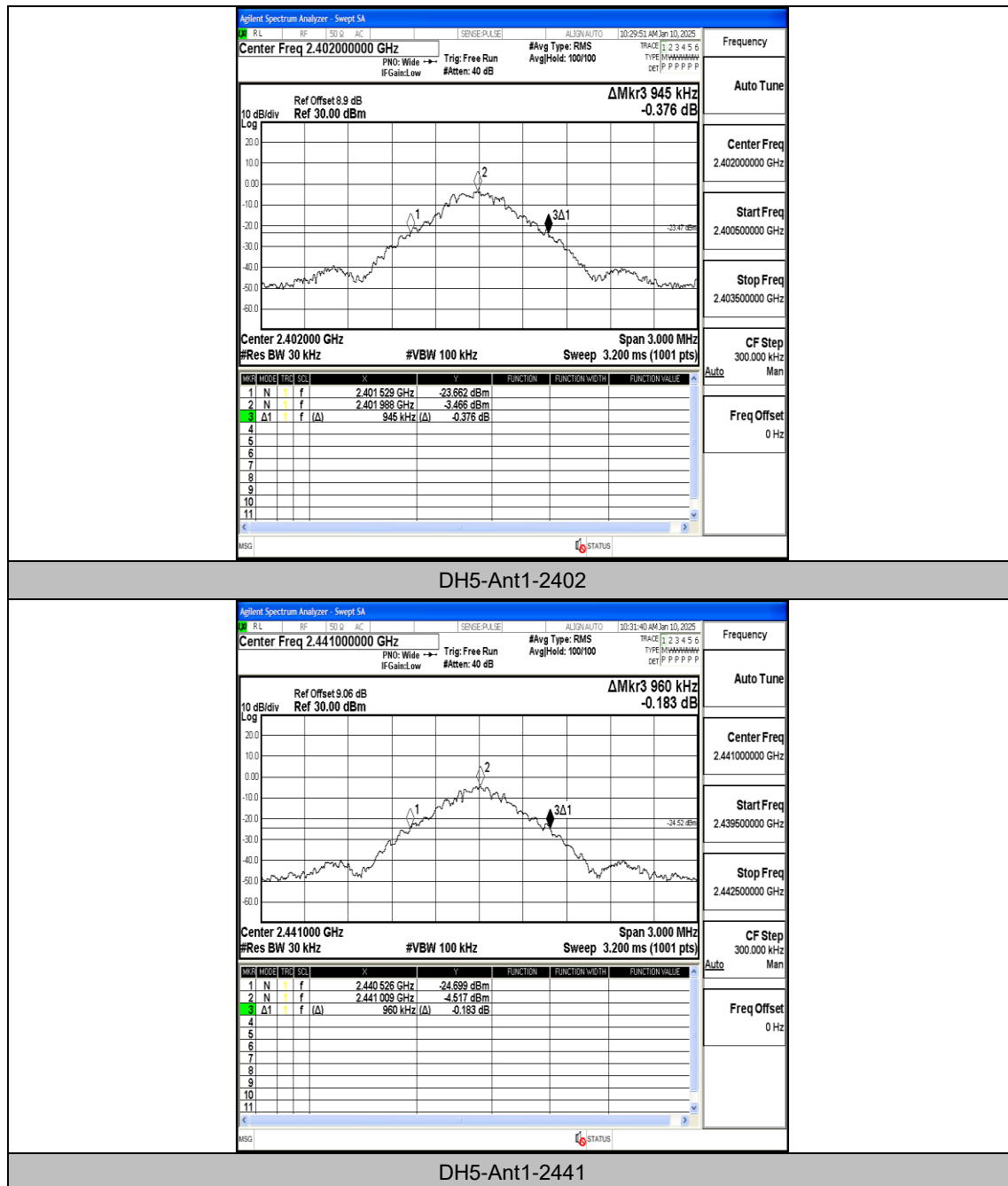
Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

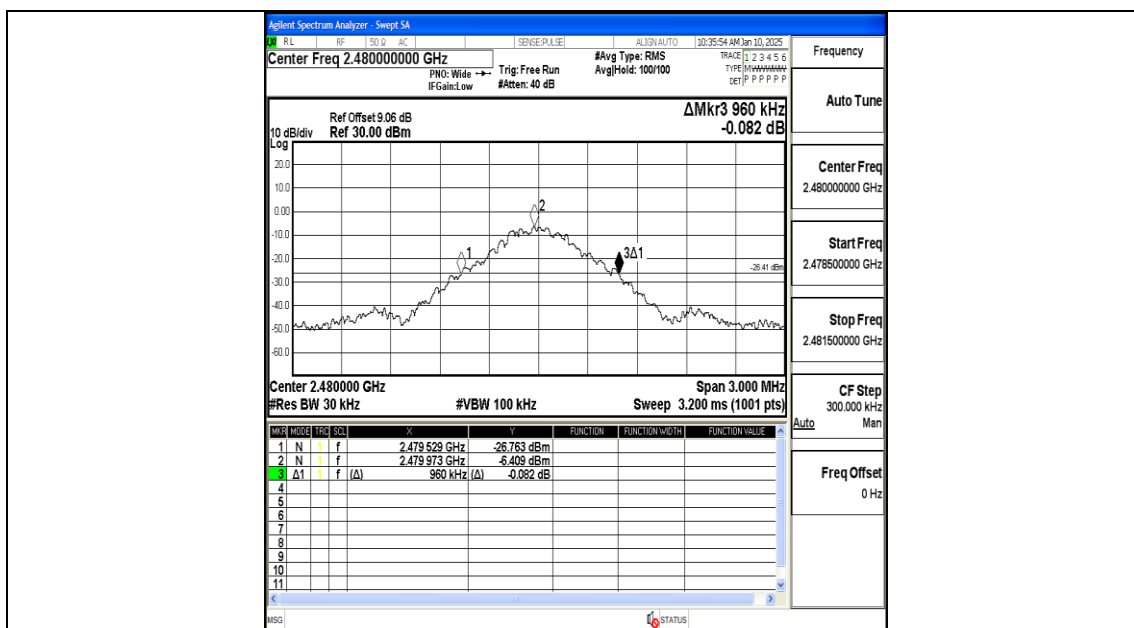
Appendix A: 20dB Emission Bandwidth

Test Result

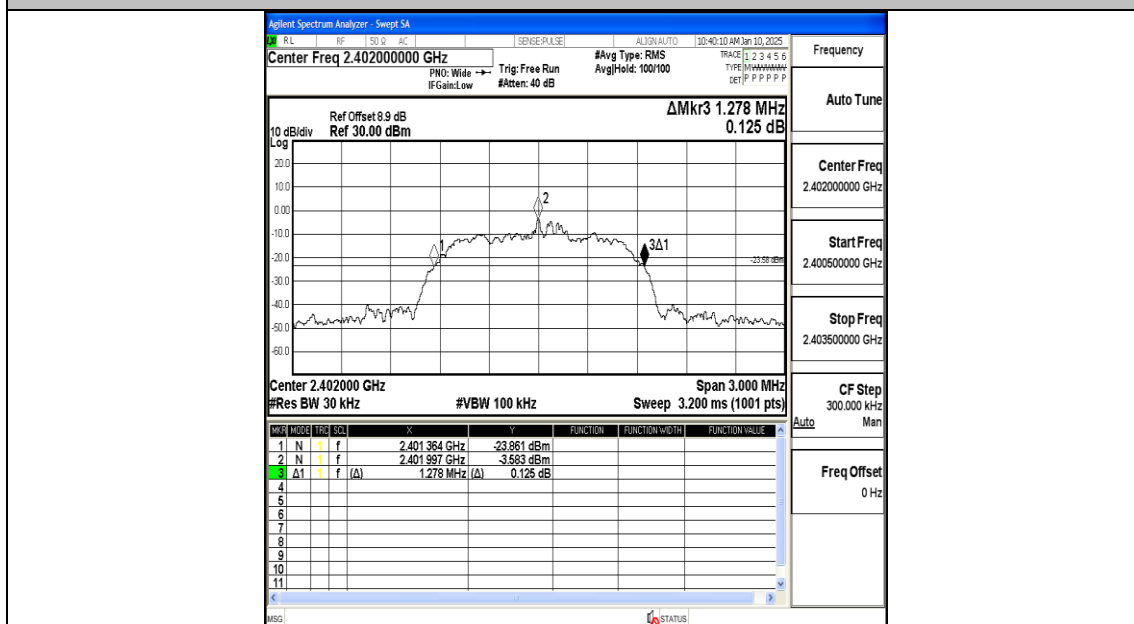
Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.945	2401.529	2402.474	---	---
DH5	Ant1	2441	0.960	2440.526	2441.486	---	---
DH5	Ant1	2480	0.960	2479.529	2480.489	---	---
2DH5	Ant1	2402	1.278	2401.364	2402.642	---	---
2DH5	Ant1	2441	1.329	2440.328	2441.657	---	---
2DH5	Ant1	2480	1.284	2479.361	2480.645	---	---
3DH5	Ant1	2402	1.299	2401.343	2402.642	---	---
3DH5	Ant1	2441	1.299	2440.343	2441.642	---	---
3DH5	Ant1	2480	1.275	2479.358	2480.633	---	---

Test Graphs

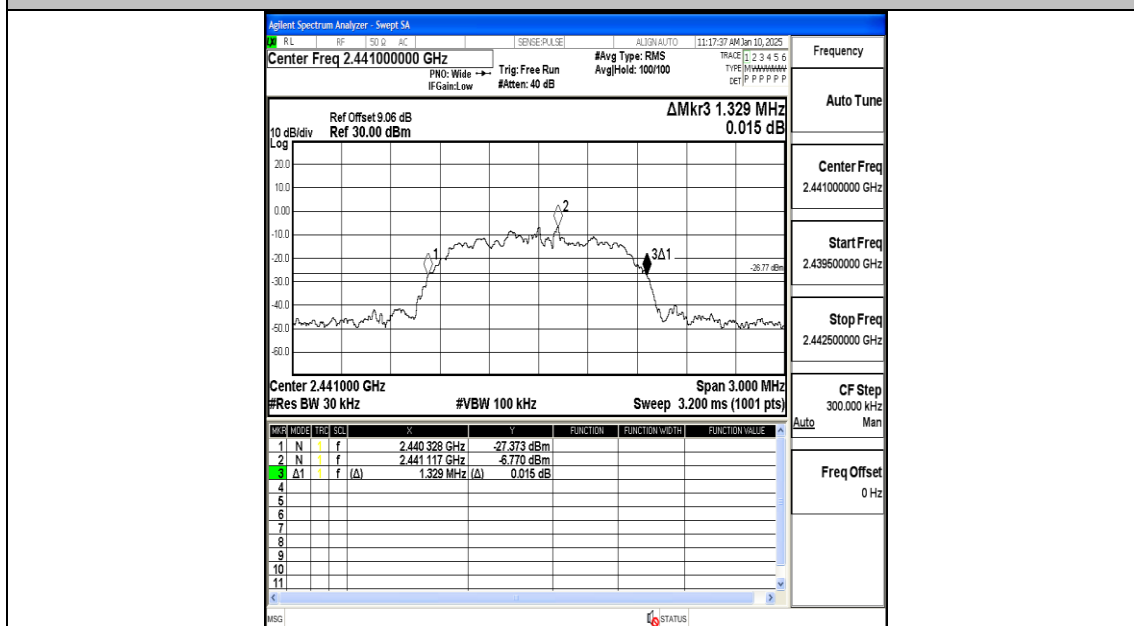




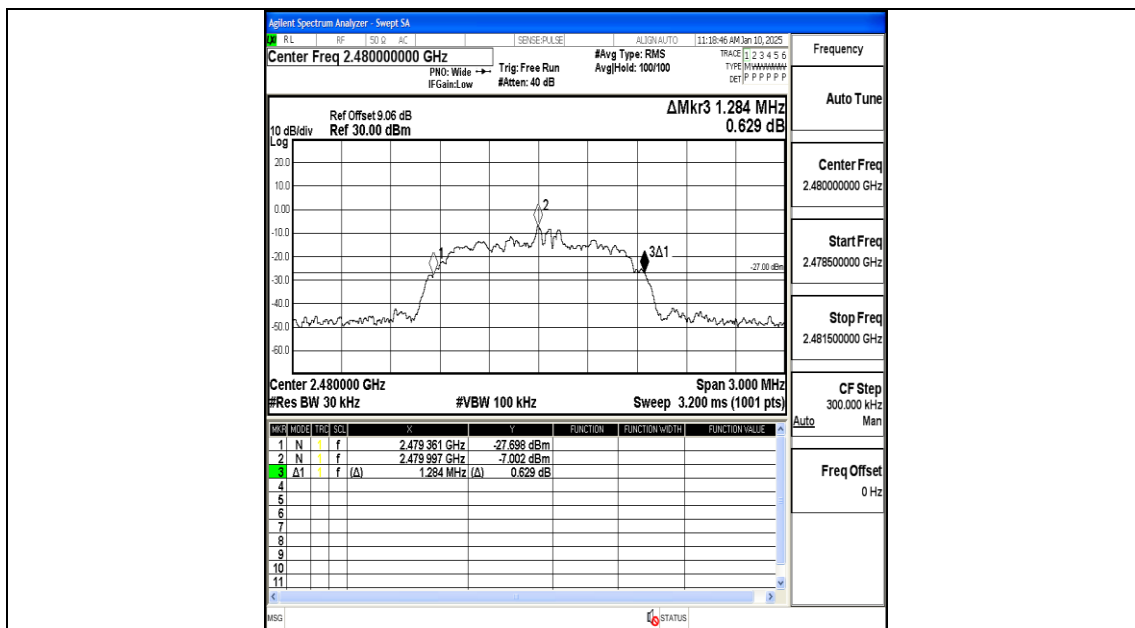
DH5-Ant1-2480



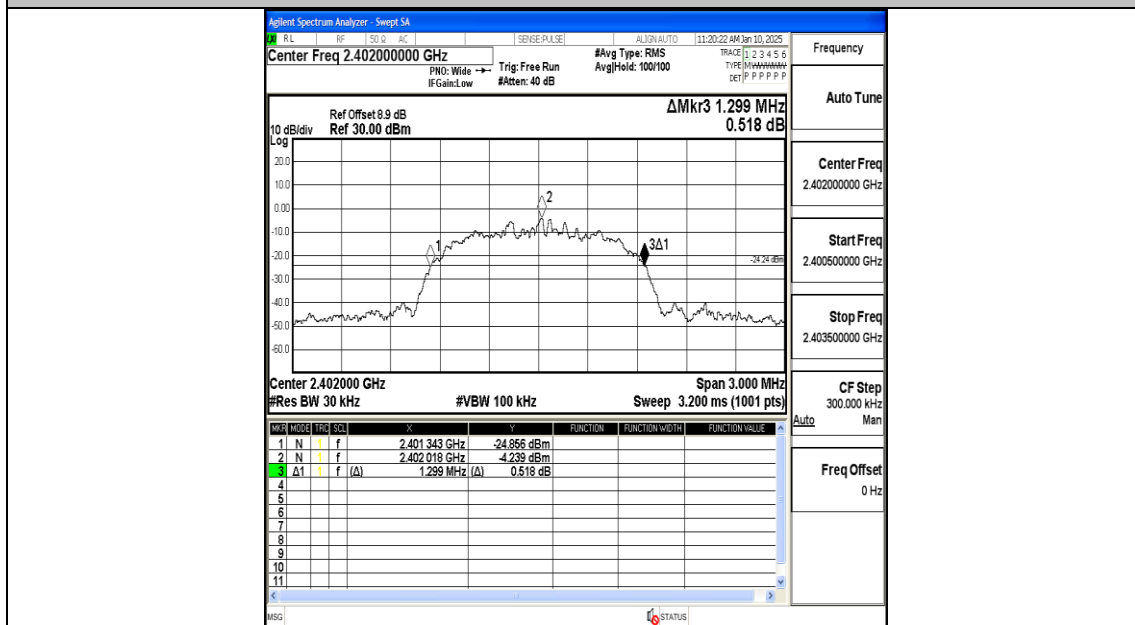
2DH5-Ant1-2402



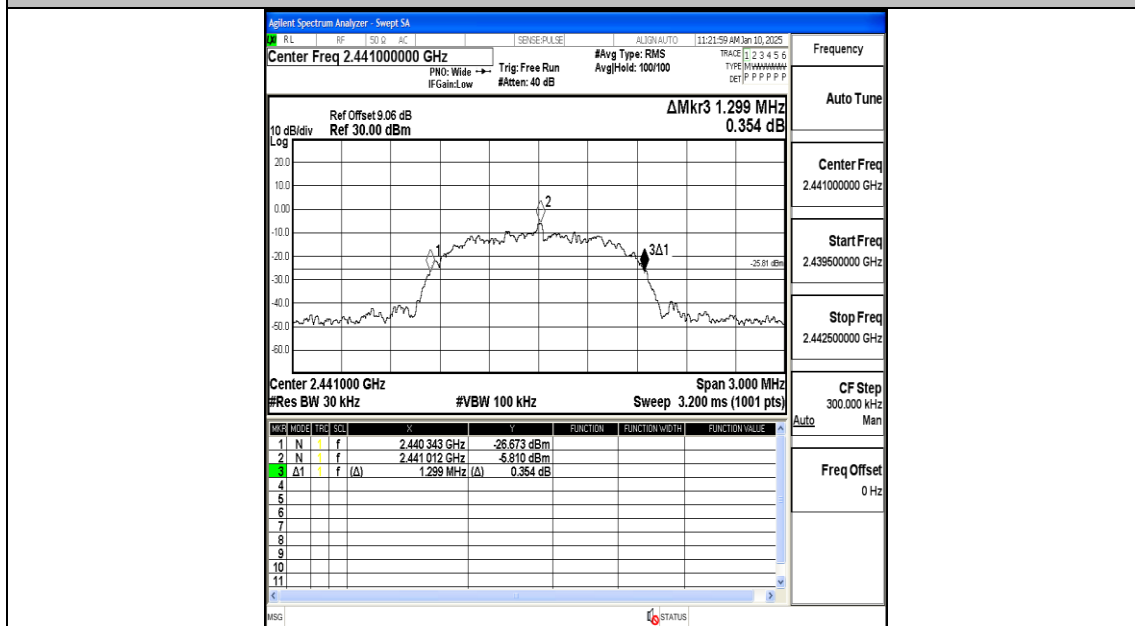
2DH5-Ant1-2441



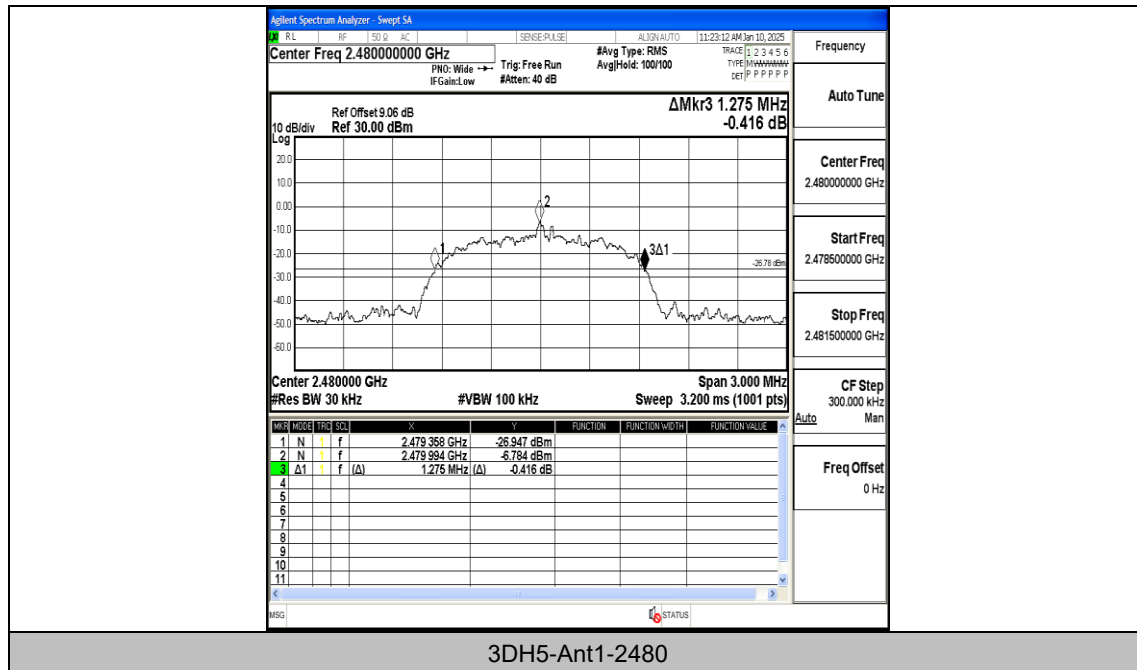
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441

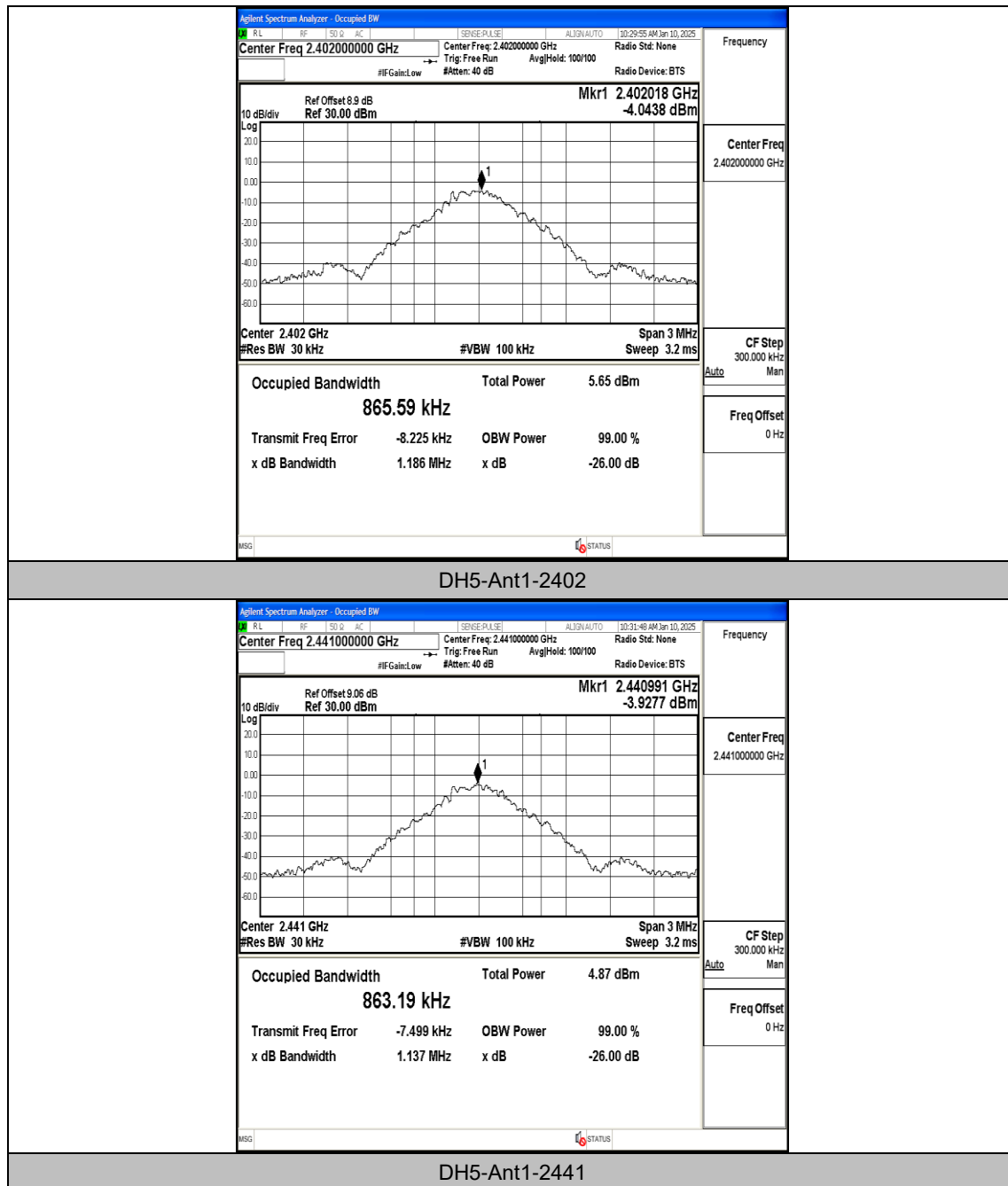


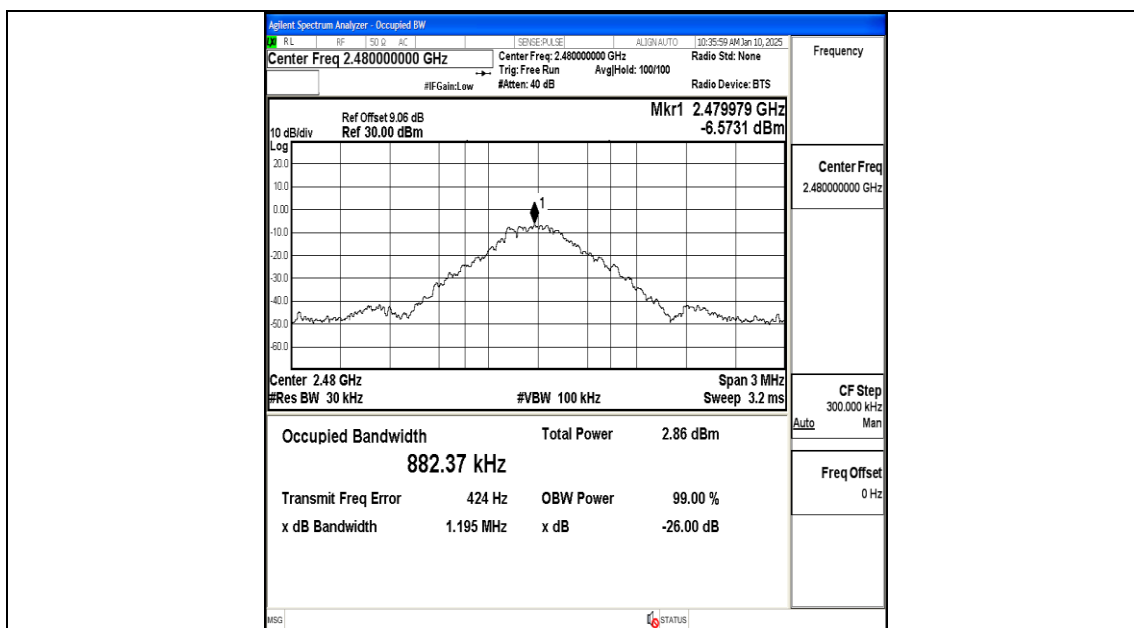
Appendix B: Occupied Channel Bandwidth

Test Result

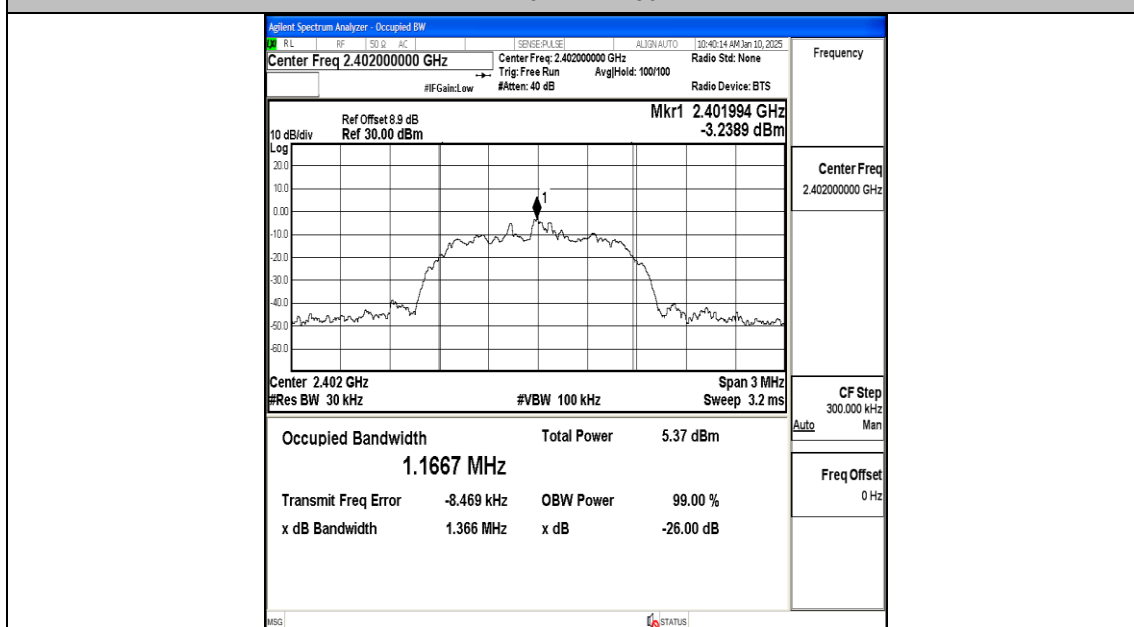
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.86559	2401.5590	2402.4246	---	---
DH5	Ant1	2441	0.86319	2440.5609	2441.4241	---	---
DH5	Ant1	2480	0.88237	2479.5592	2480.4416	---	---
2DH5	Ant1	2402	1.1667	2401.4082	2402.5749	---	---
2DH5	Ant1	2441	1.1748	2440.4052	2441.5800	---	---
2DH5	Ant1	2480	1.1780	2479.4050	2480.5830	---	---
3DH5	Ant1	2402	1.1946	2401.4033	2402.5979	---	---
3DH5	Ant1	2441	1.1711	2440.4106	2441.5817	---	---
3DH5	Ant1	2480	1.1792	2479.4069	2480.5861	---	---

Test Graphs

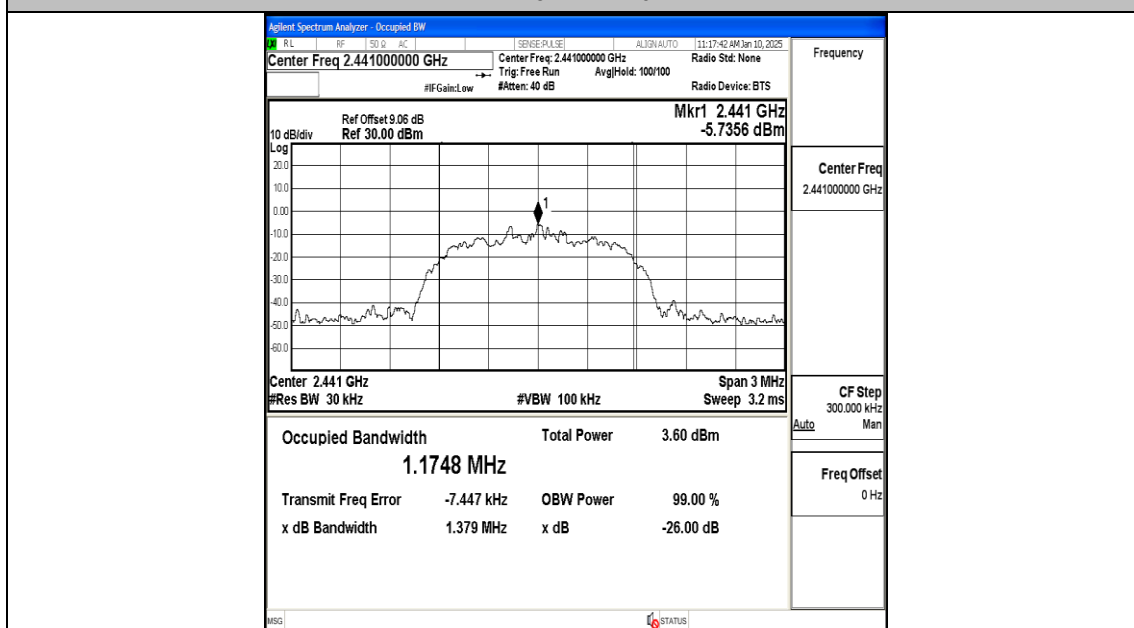




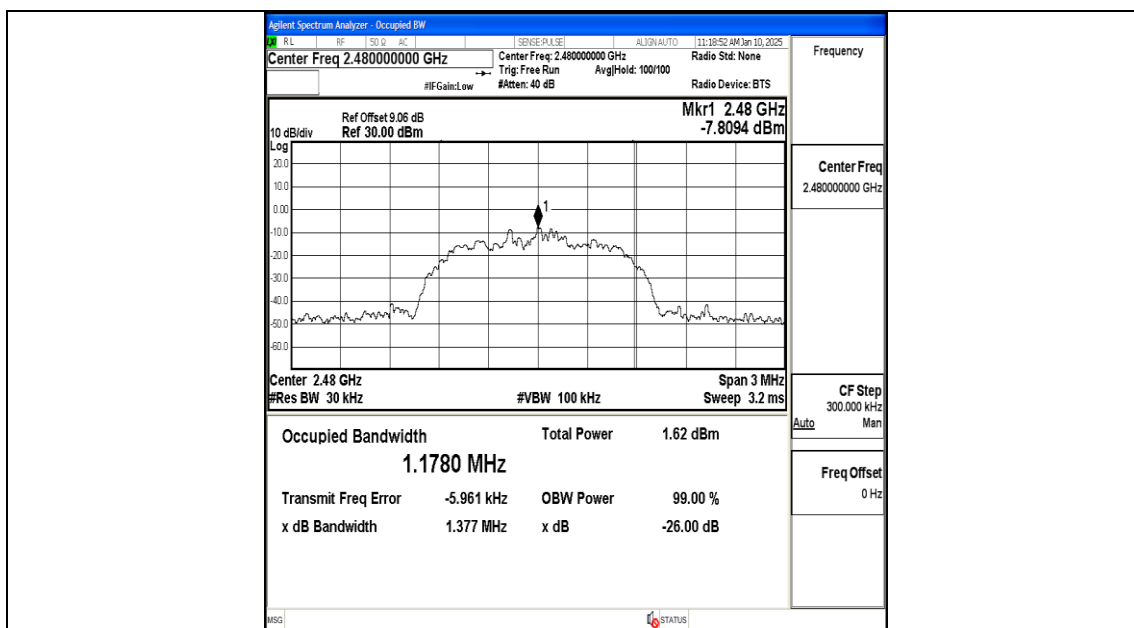
DH5-Ant1-2480



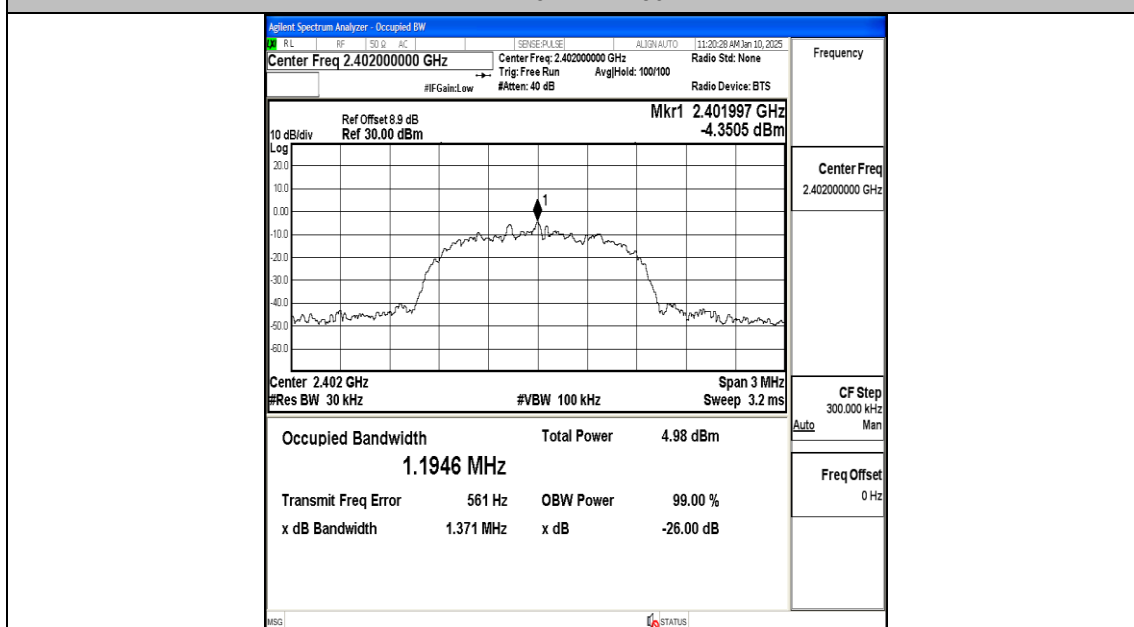
2DH5-Ant1-2402



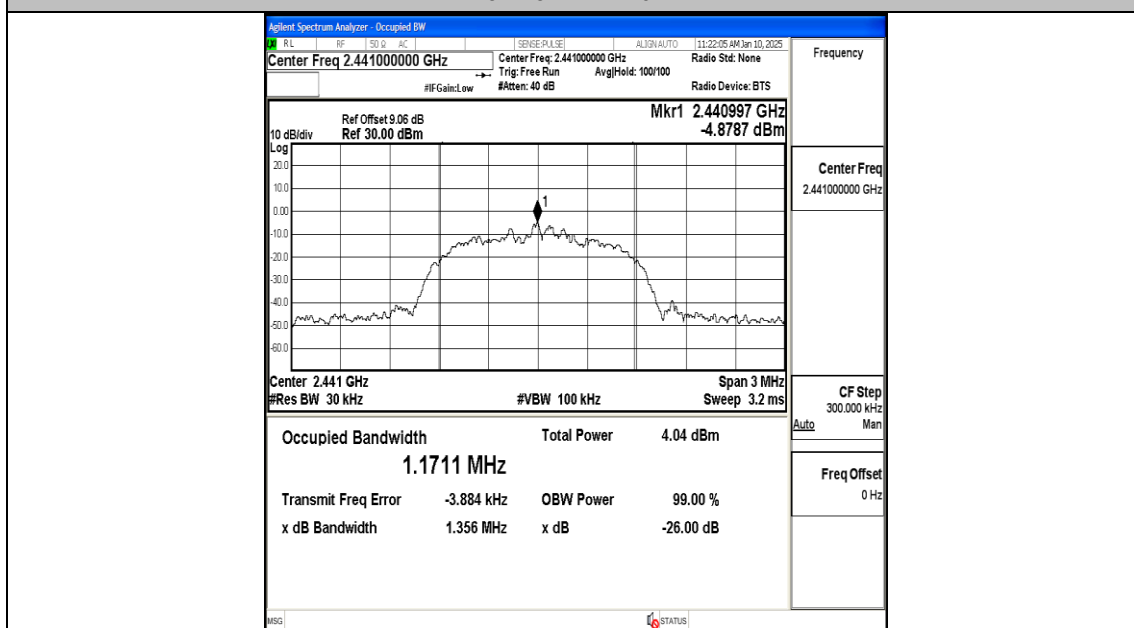
2DH5-Ant1-2441



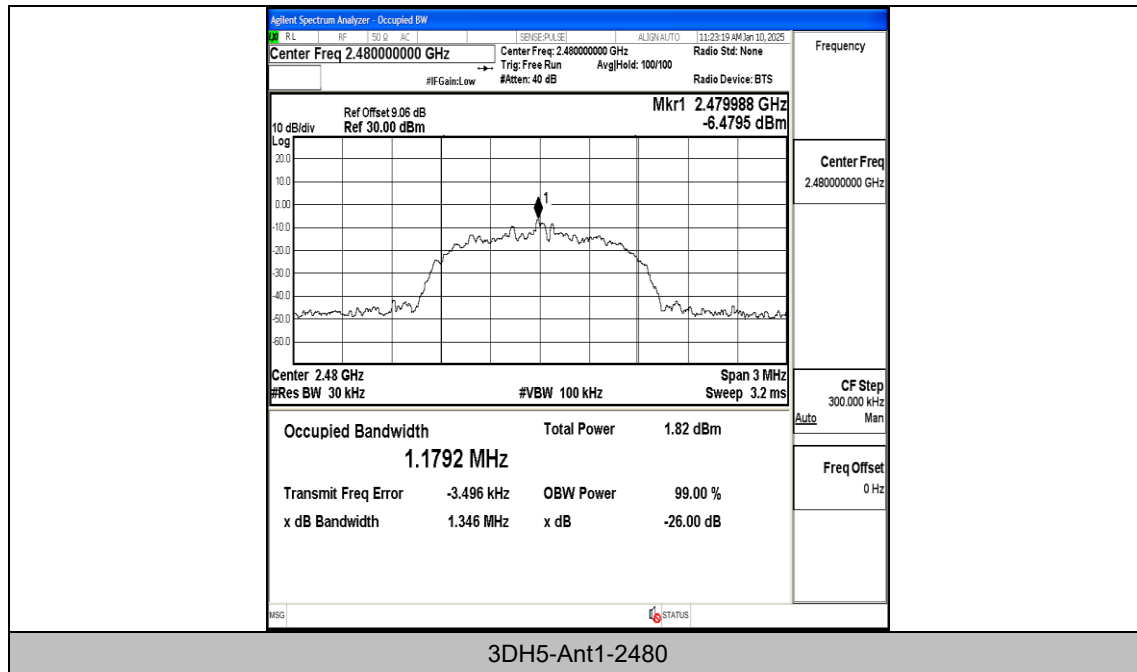
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441

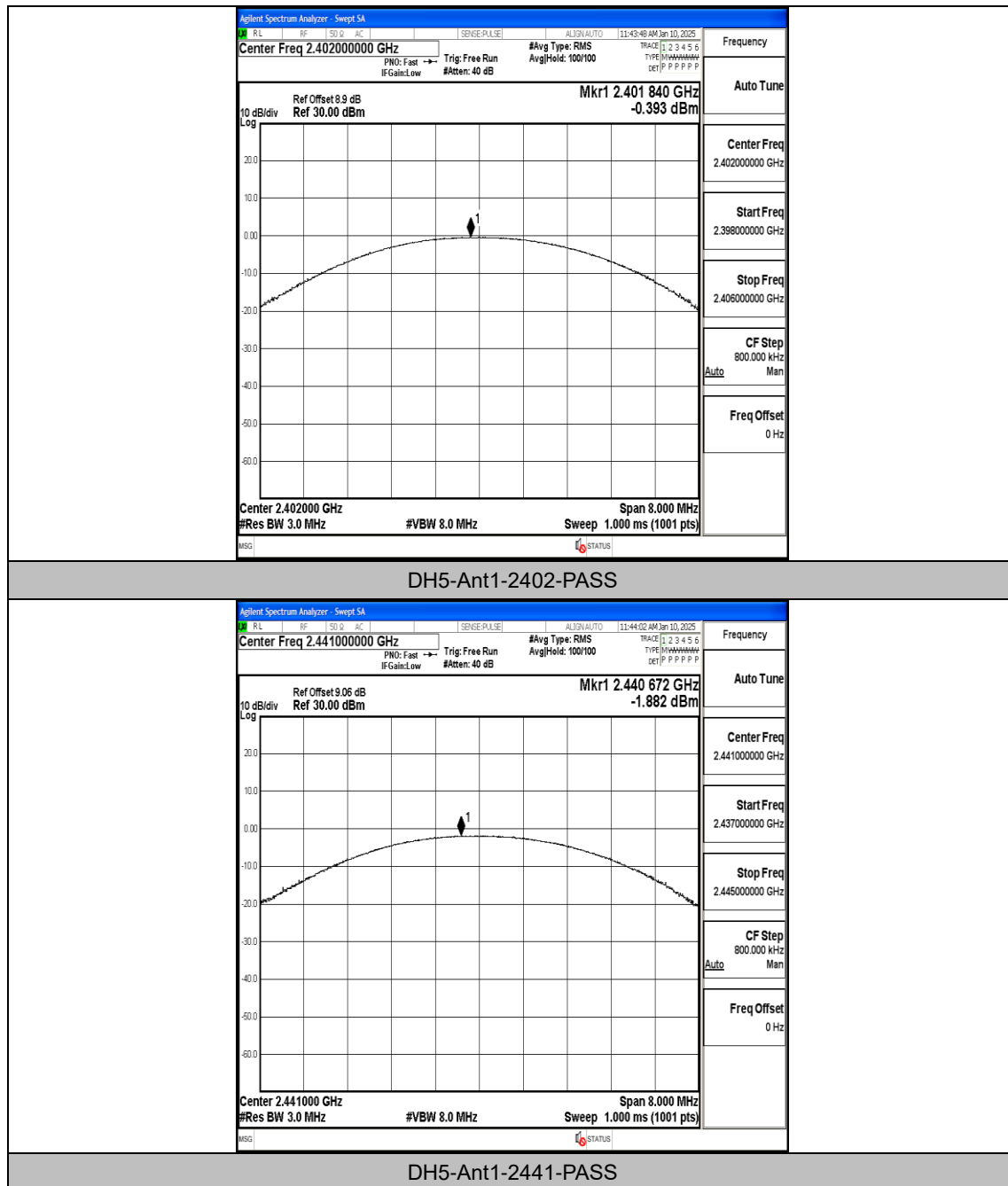


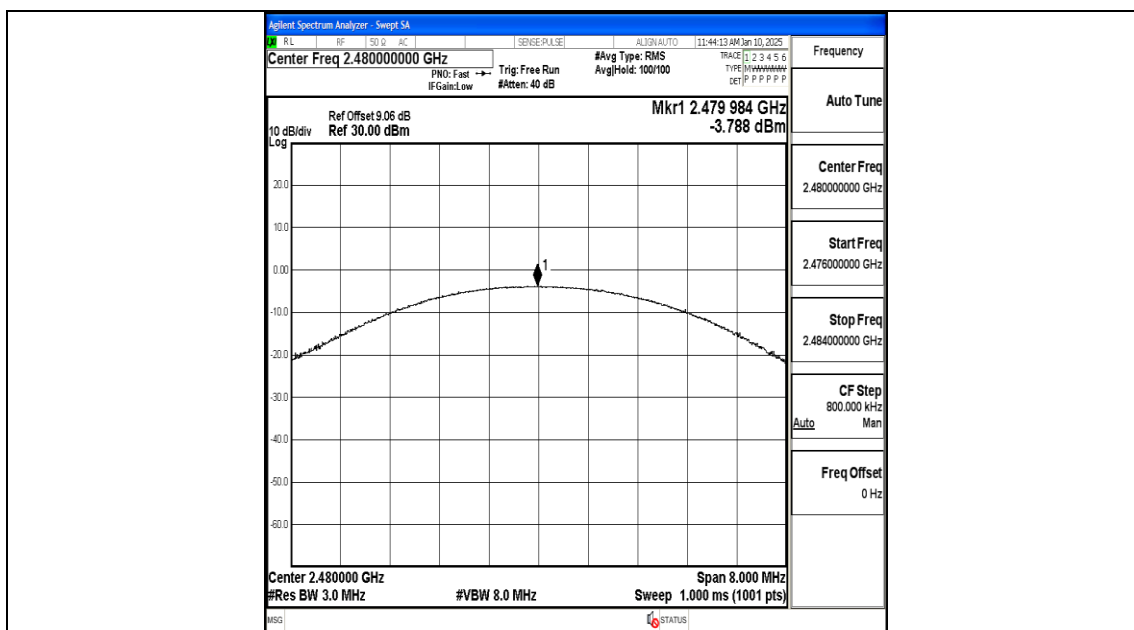
Appendix C: Maximum peak conducted output power

Test Result

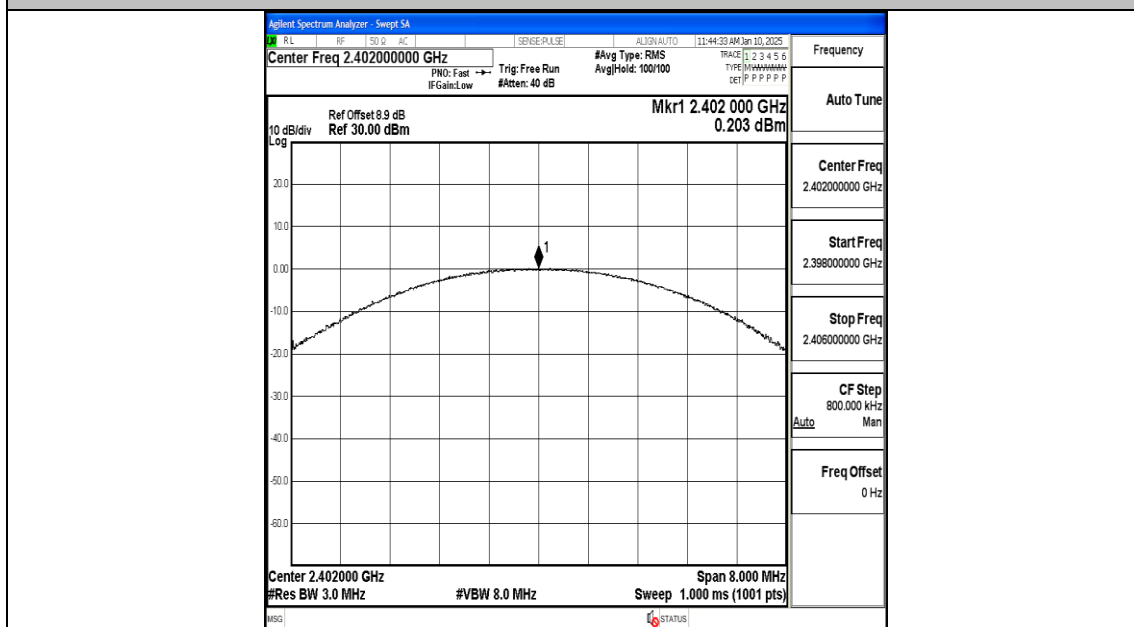
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	-0.39	≤30	PASS
DH5	Ant1	2441	-1.88	≤30	PASS
DH5	Ant1	2480	-3.79	≤30	PASS
2DH5	Ant1	2402	0.20	≤20.97	PASS
2DH5	Ant1	2441	-1.33	≤20.97	PASS
2DH5	Ant1	2480	-3.18	≤20.97	PASS
3DH5	Ant1	2402	0.77	≤20.97	PASS
3DH5	Ant1	2441	-0.82	≤20.97	PASS
3DH5	Ant1	2480	-2.97	≤20.97	PASS

Test Graphs

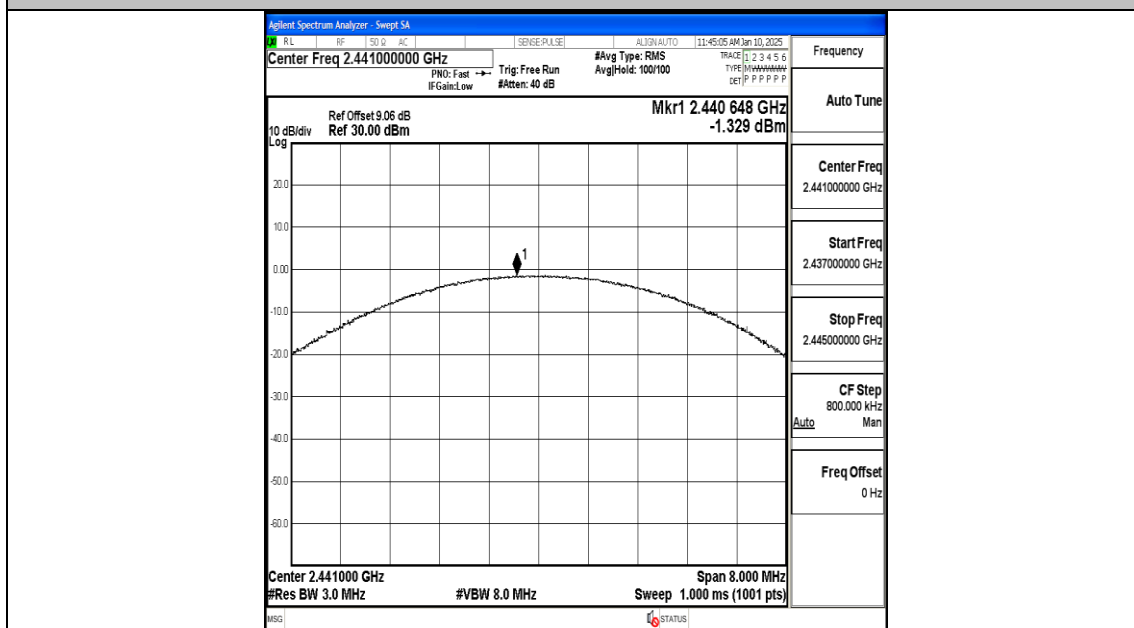




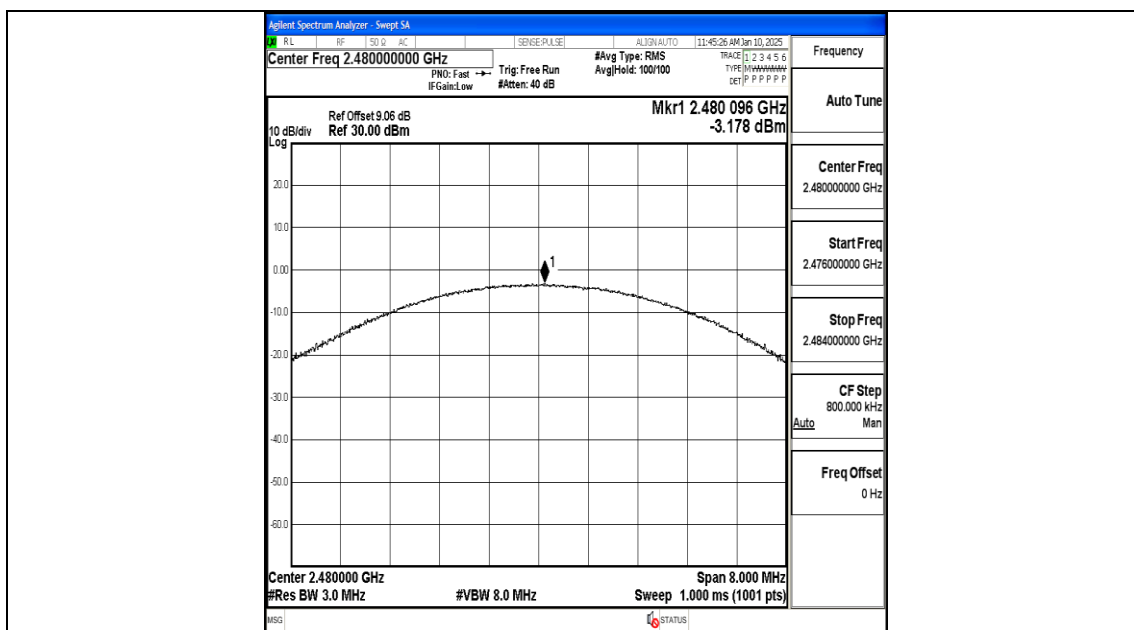
DH5-Ant1-2480-PASS



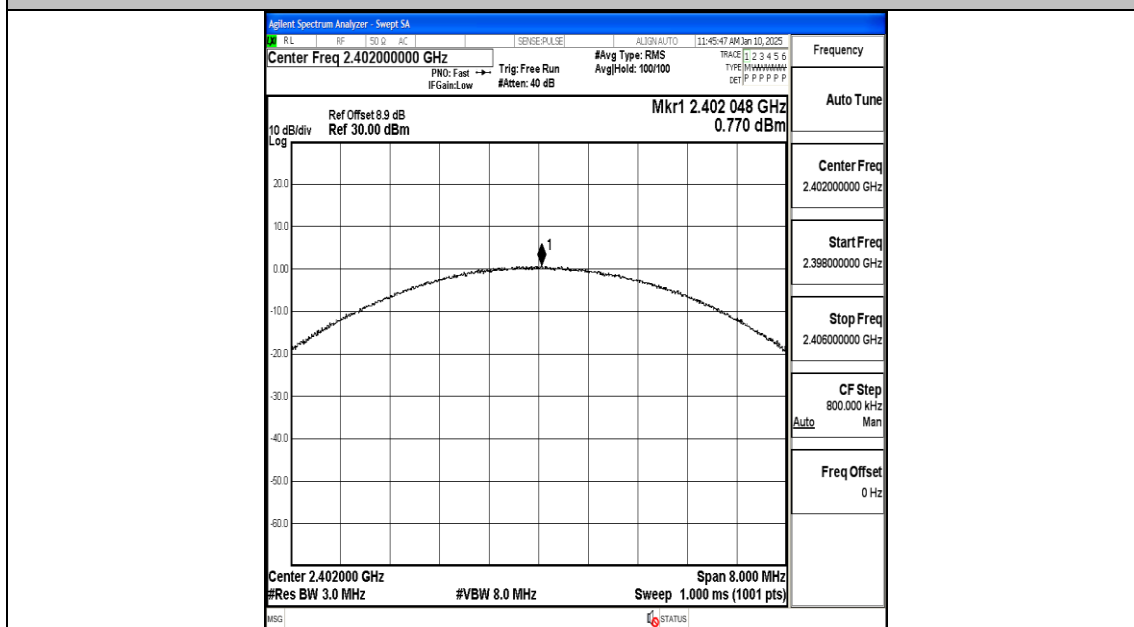
2DH5-Ant1-2402-PASS



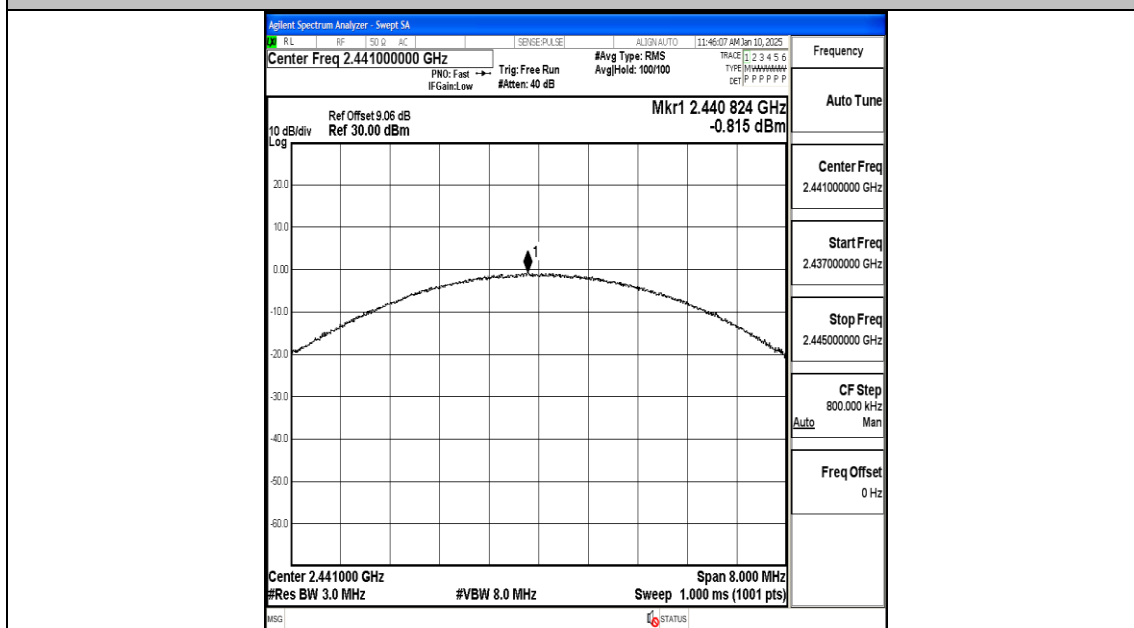
2DH5-Ant1-2441-PASS



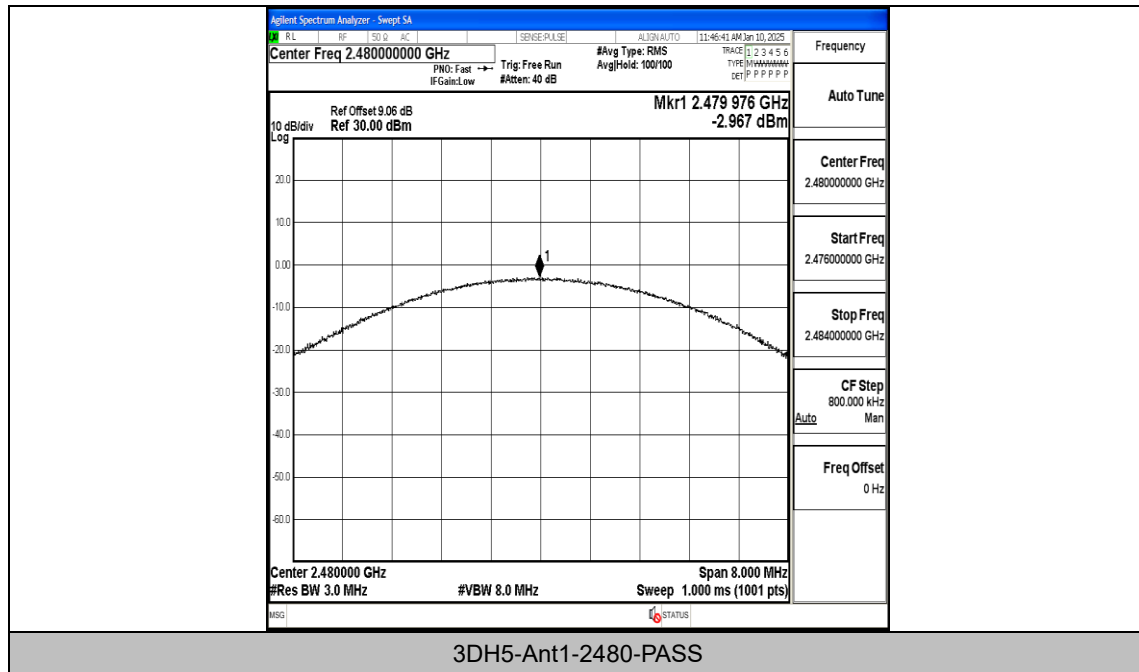
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS

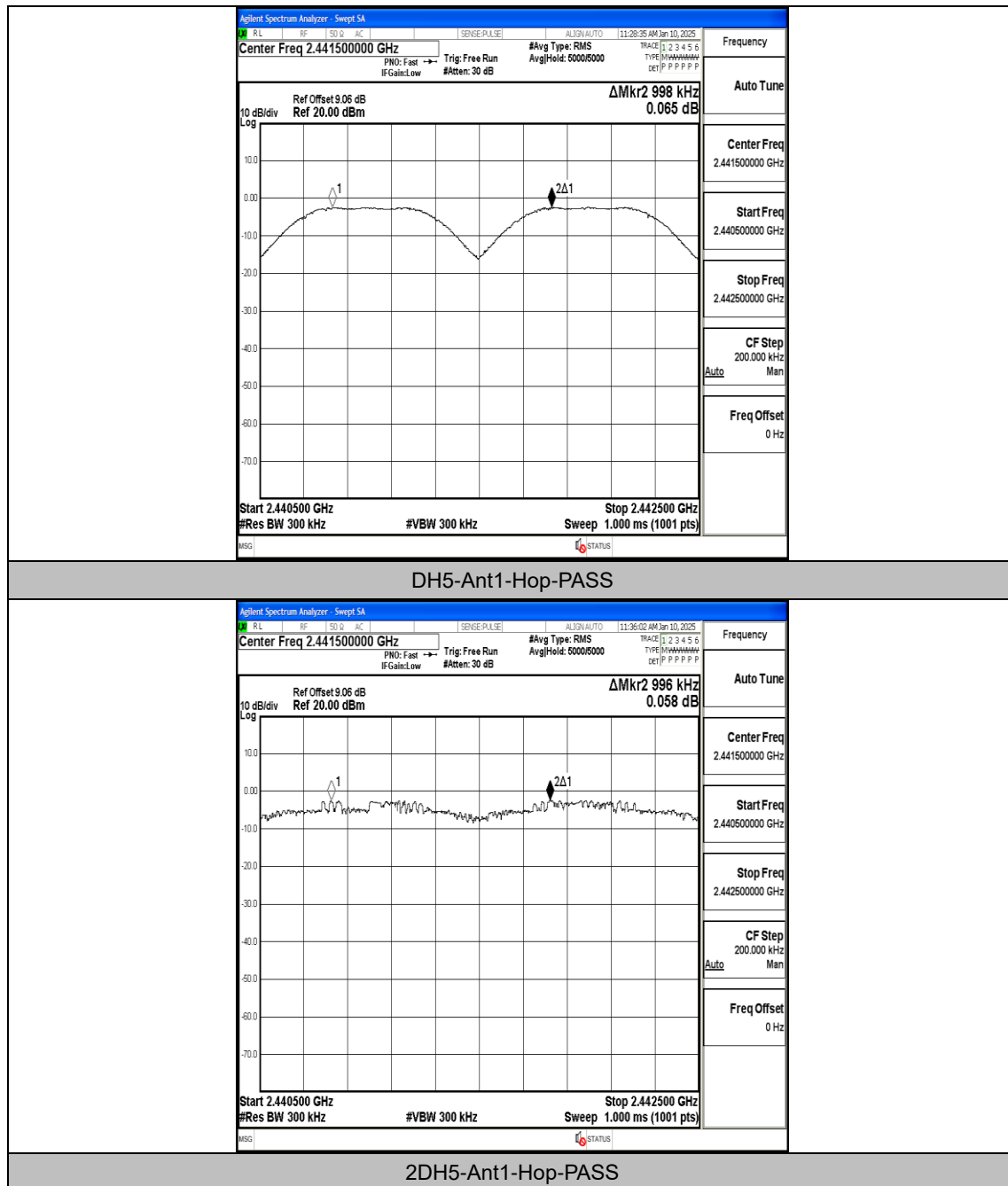


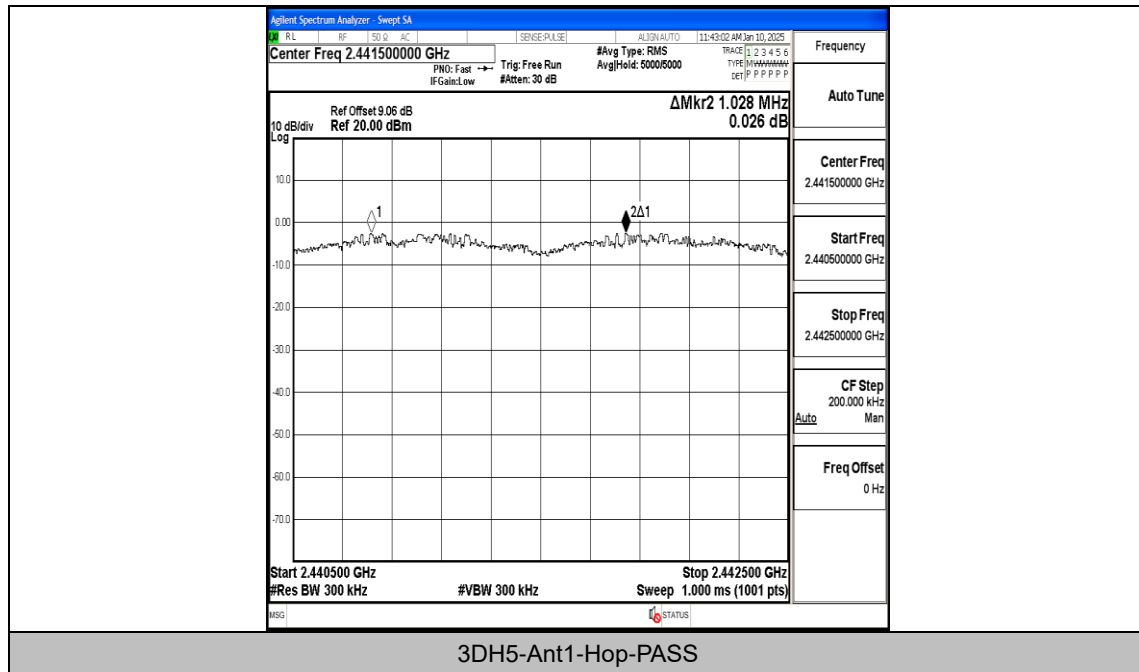
Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	0.998	≥ 0.960	PASS
2DH5	Ant1	Hop	0.996	≥ 0.886	PASS
3DH5	Ant1	Hop	1.028	≥ 0.866	PASS

Test Graphs



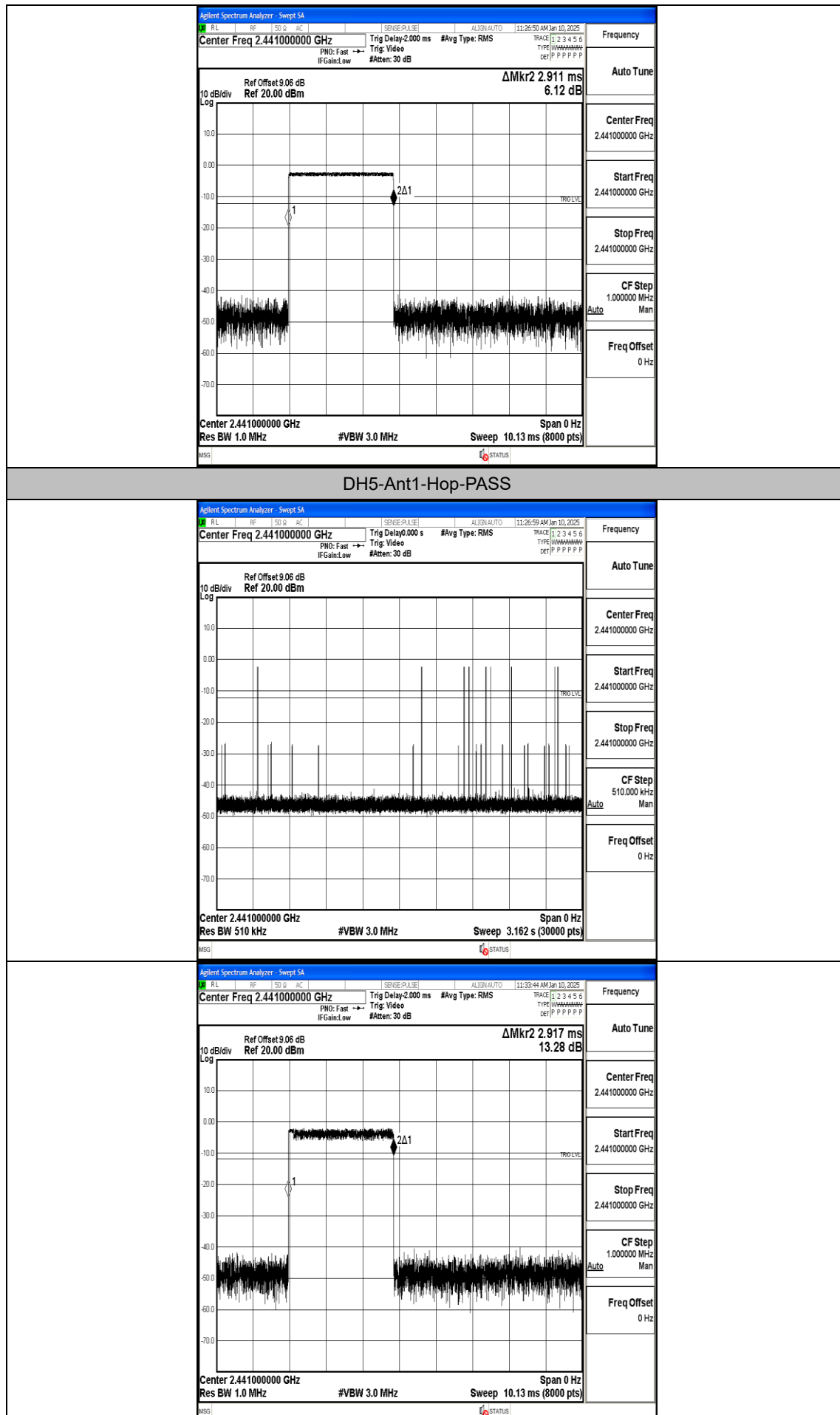


Appendix E: Time of occupancy

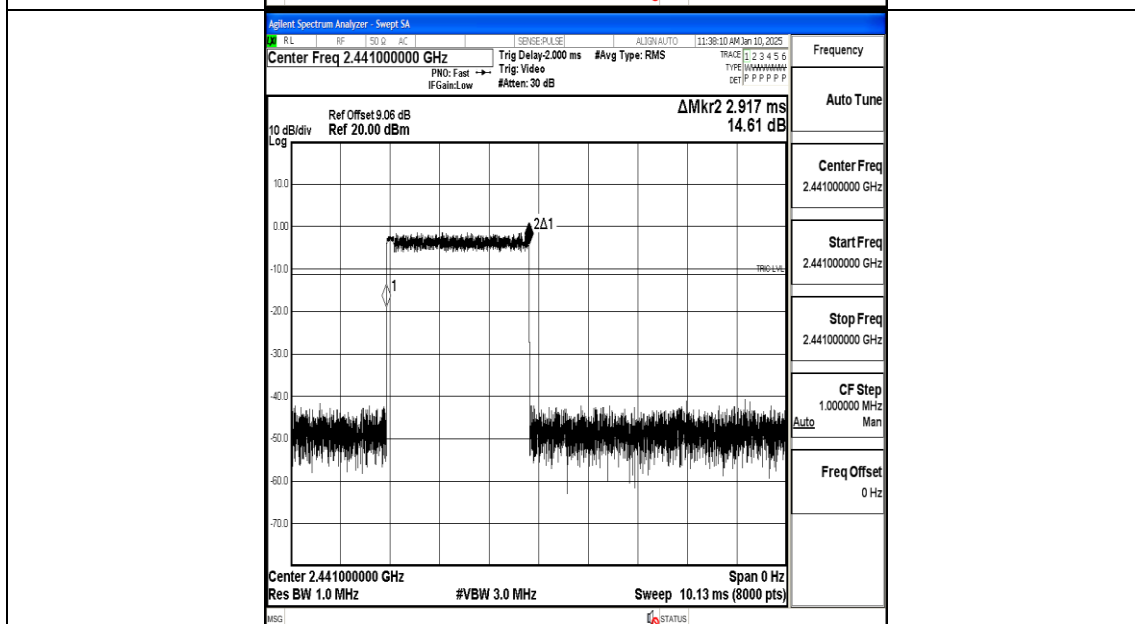
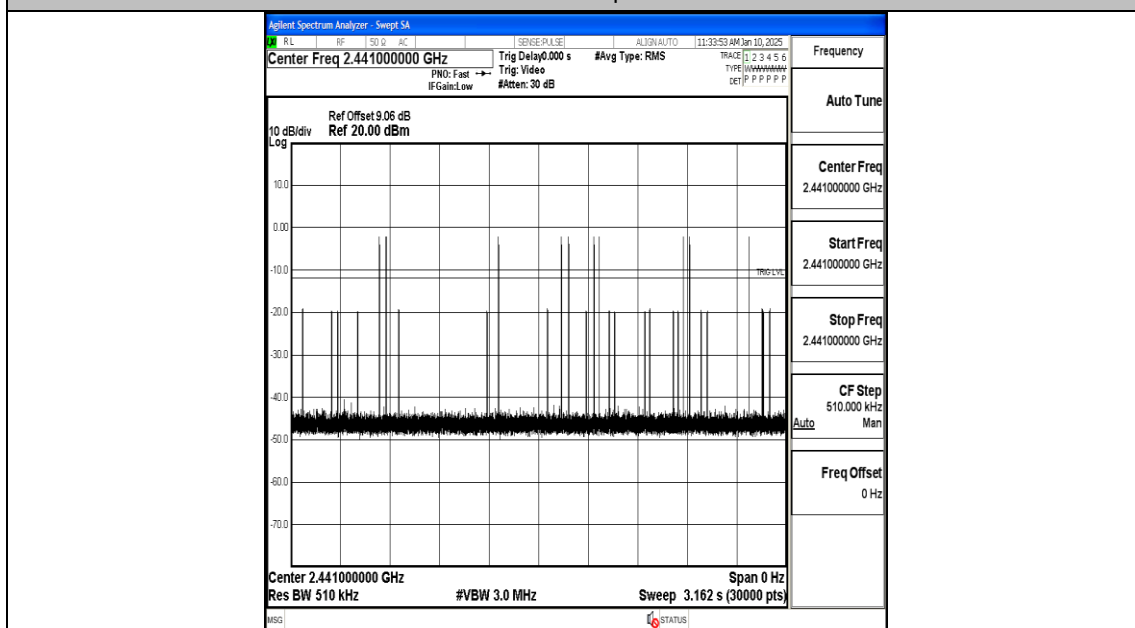
Test Result

Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.911	100	0.291	≤0.4	PASS
2DH5	Ant1	Hop	2.917	110	0.321	≤0.4	PASS
3DH5	Ant1	Hop	2.917	90	0.263	≤0.4	PASS

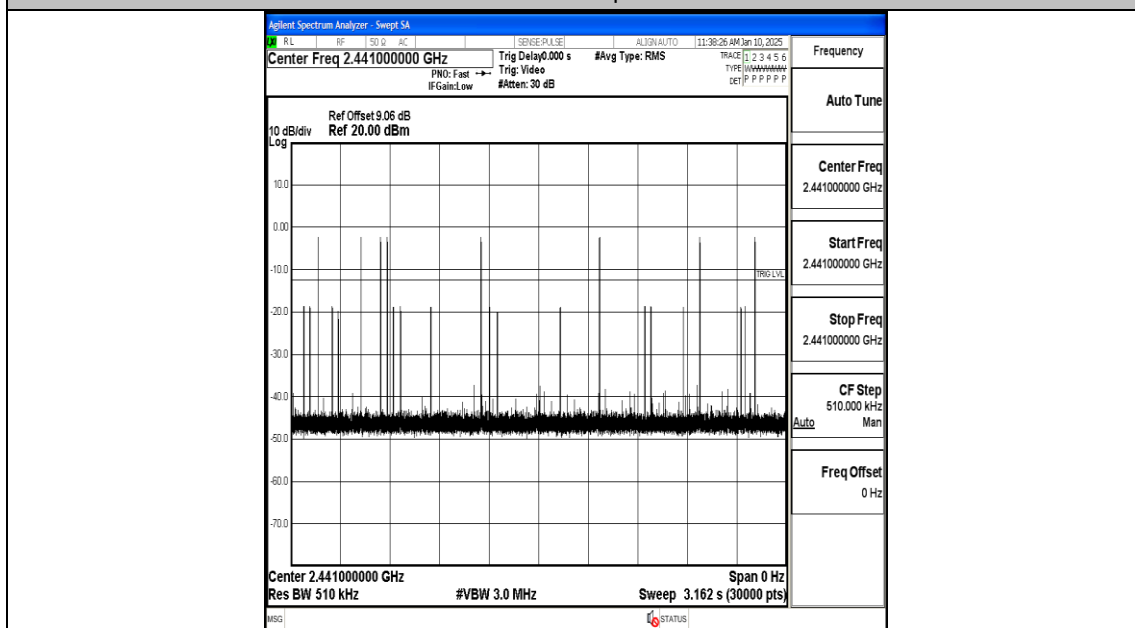
Test Graphs



2DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS

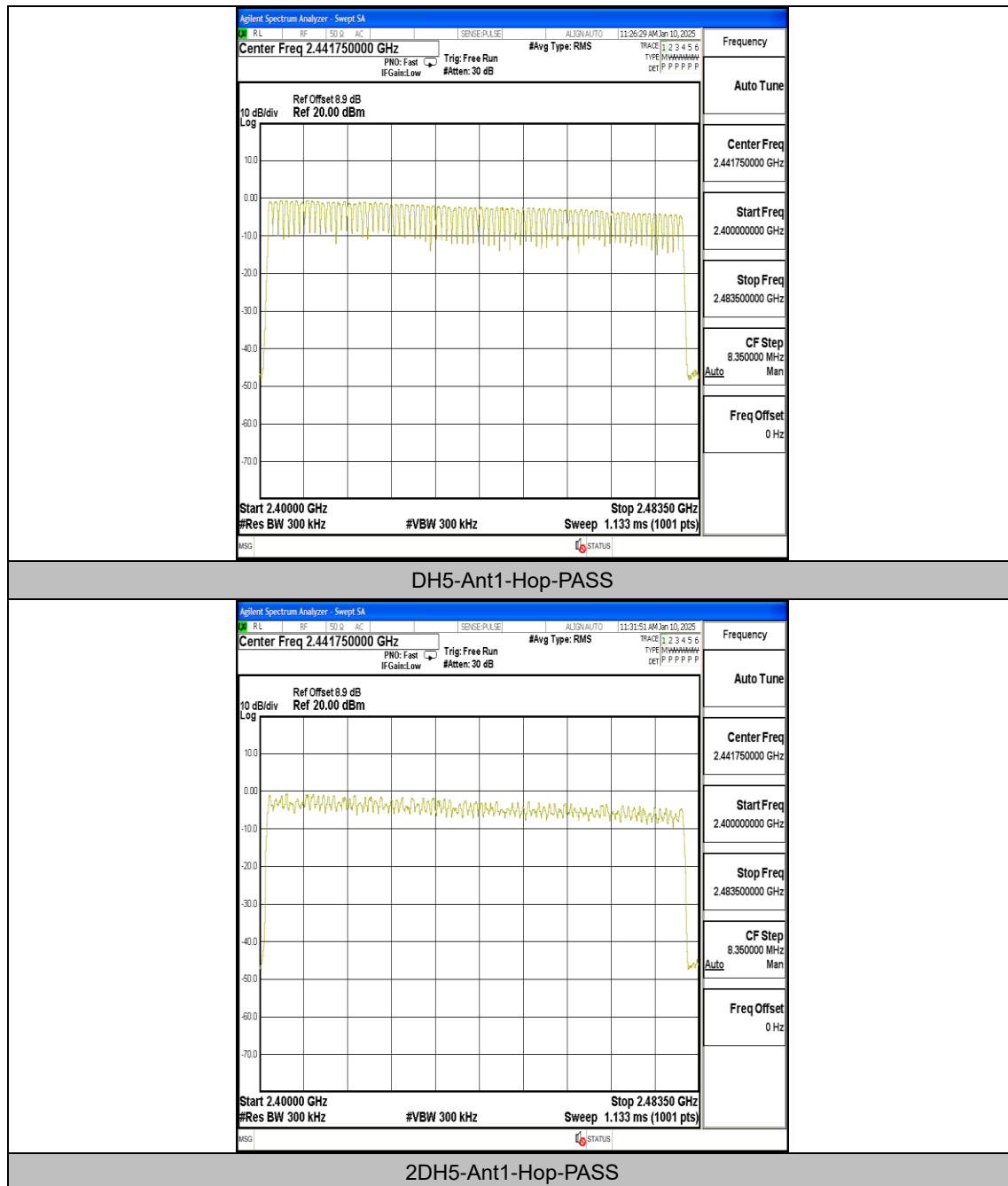


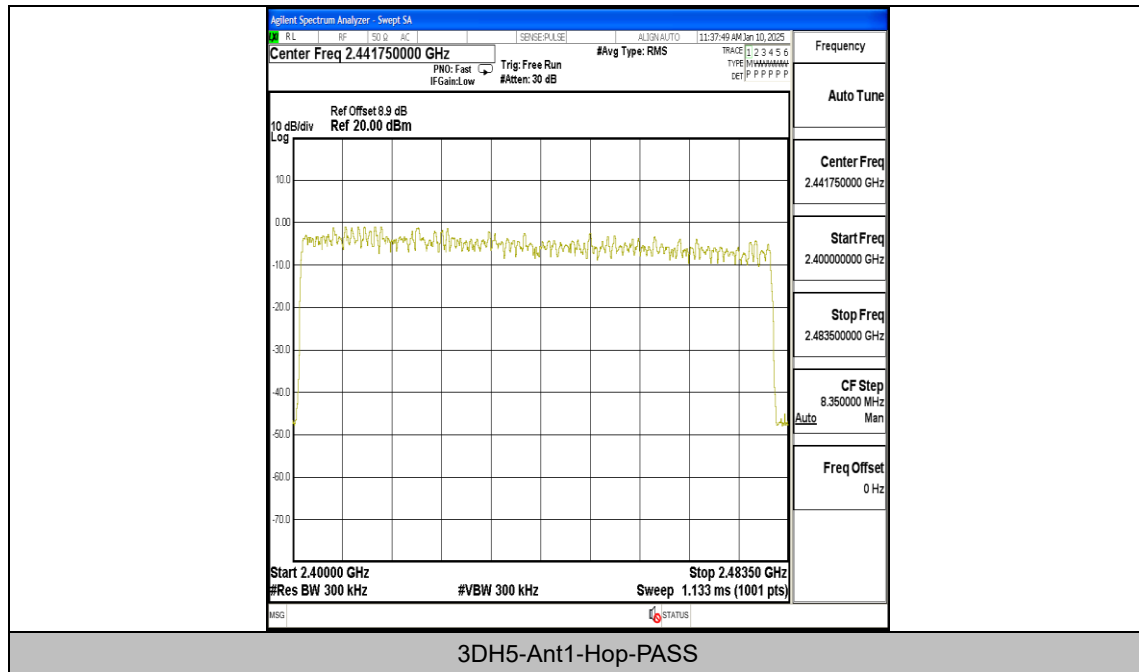
Appendix F: Number of hopping channels

Test Result

Test Mode	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



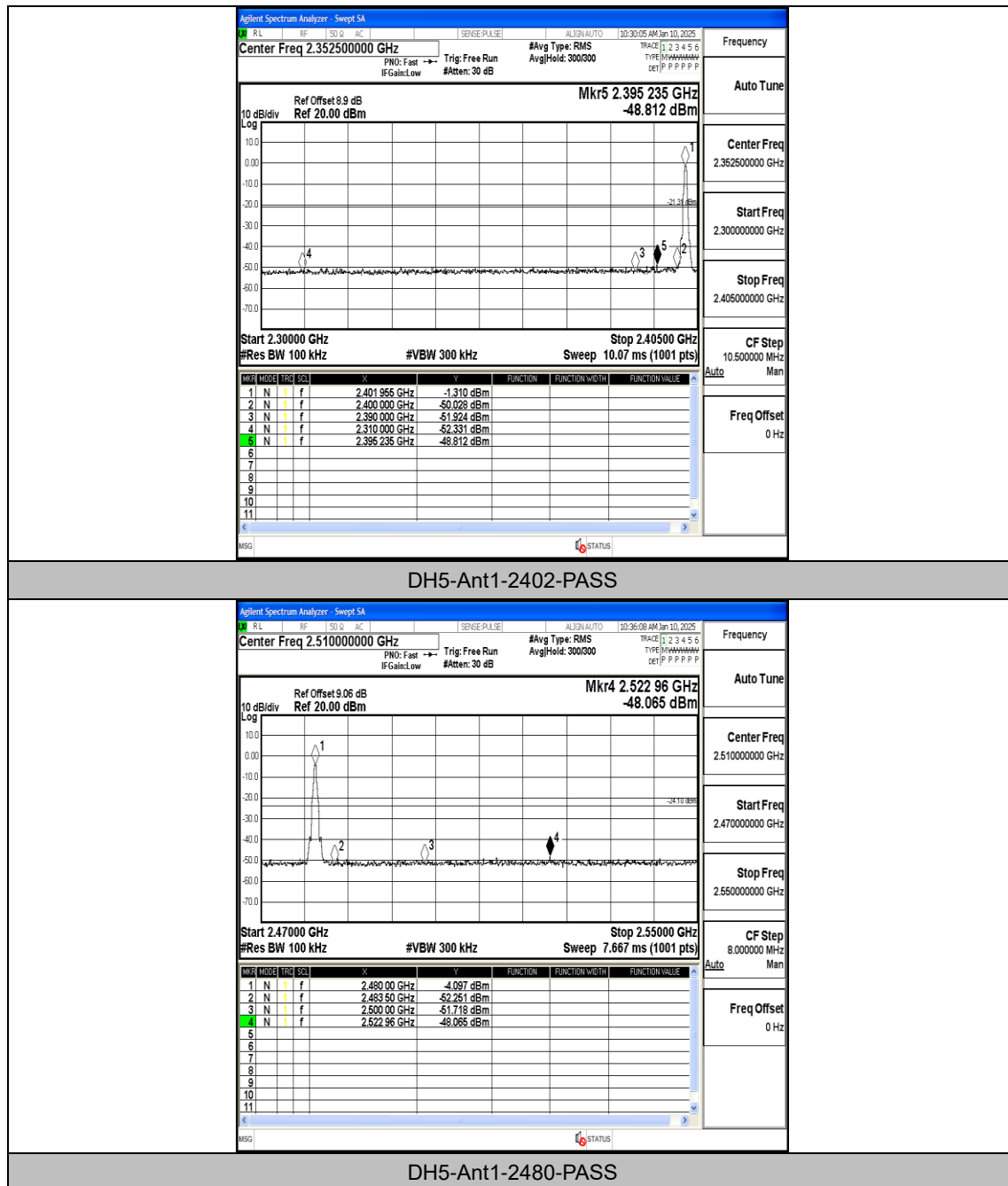


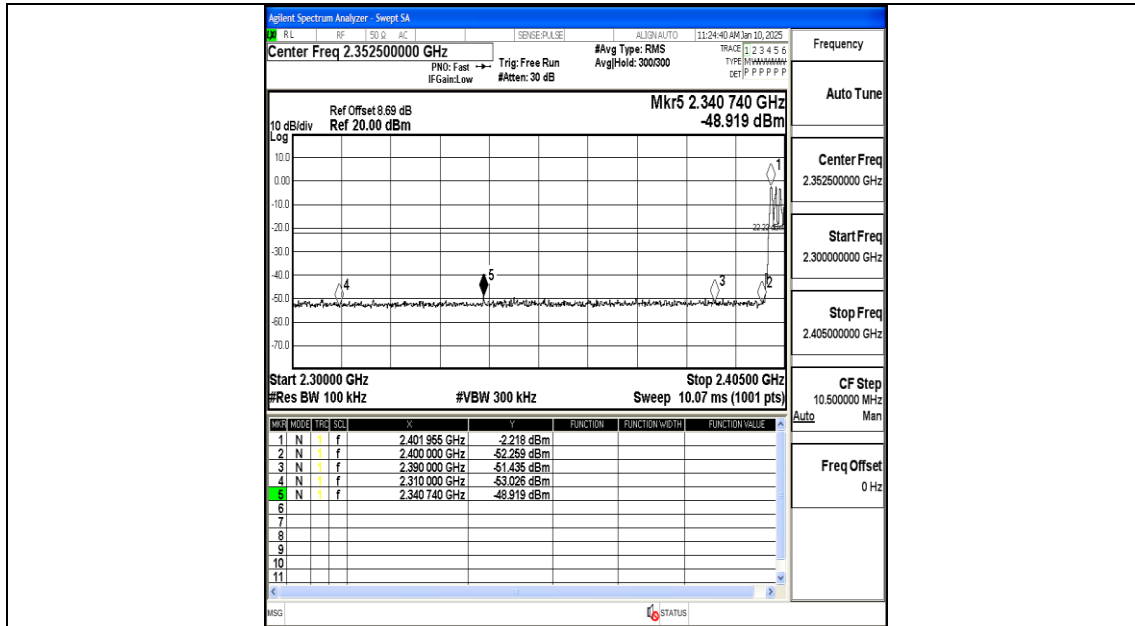
Appendix G: Band edge measurements

Test Result

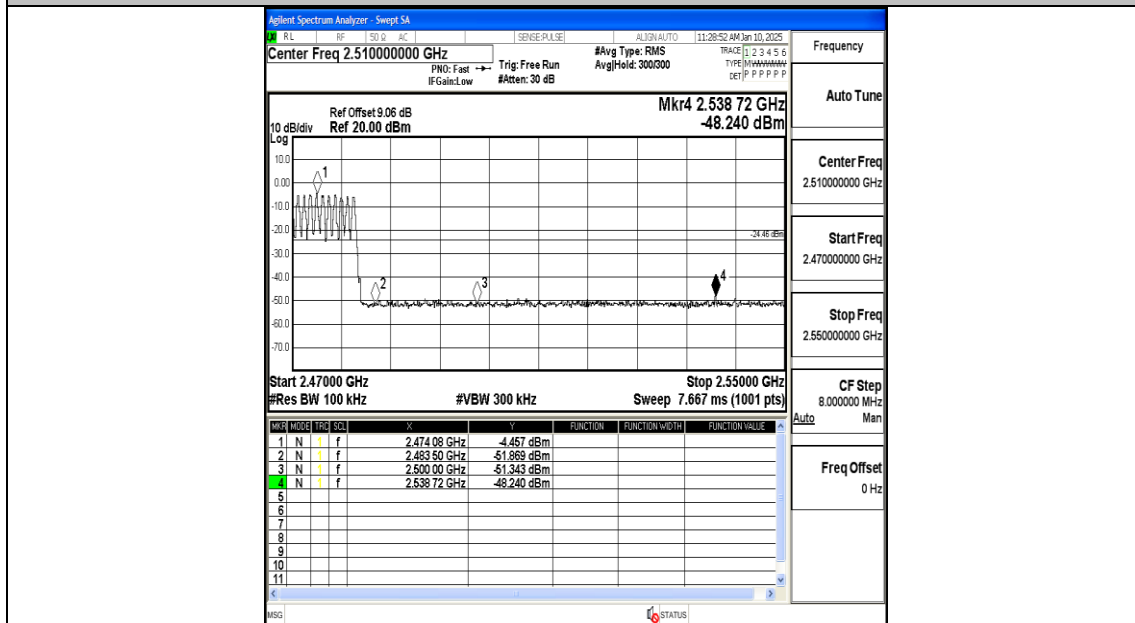
Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.31	-48.81	≤ -21.31	PASS
DH5	Ant1	High	2480	-4.10	-48.07	≤ -24.1	PASS
DH5	Ant1	Low	Hop_2402	-2.22	-48.92	≤ -22.22	PASS
DH5	Ant1	High	Hop_2480	-4.46	-48.24	≤ -24.46	PASS
2DH5	Ant1	Low	2402	-1.25	-49.18	≤ -21.25	PASS
2DH5	Ant1	High	2480	-4.88	-48.94	≤ -24.88	PASS
2DH5	Ant1	Low	Hop_2402	-6.70	-49.68	≤ -26.7	PASS
2DH5	Ant1	High	Hop_2480	-4.26	-48.52	≤ -24.26	PASS
3DH5	Ant1	Low	2402	-1.31	-47.55	≤ -21.31	PASS
3DH5	Ant1	High	2480	-5.33	-48.87	≤ -25.33	PASS
3DH5	Ant1	Low	Hop_2402	-3.34	-49.59	≤ -23.34	PASS
3DH5	Ant1	High	Hop_2480	-4.89	-48.49	≤ -24.89	PASS

Test Graphs

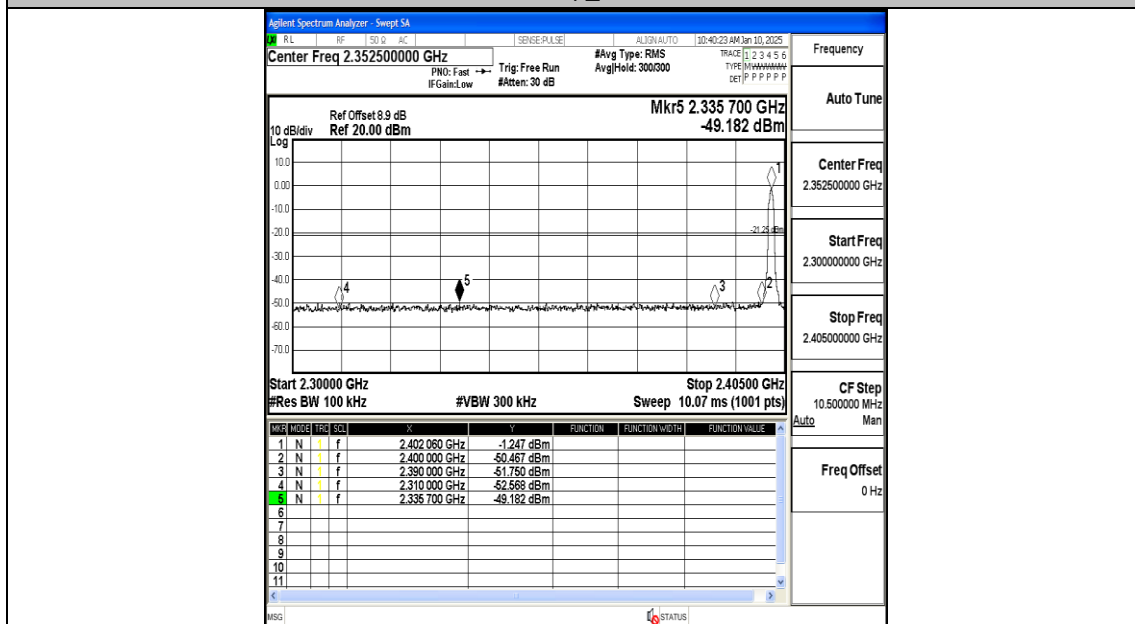




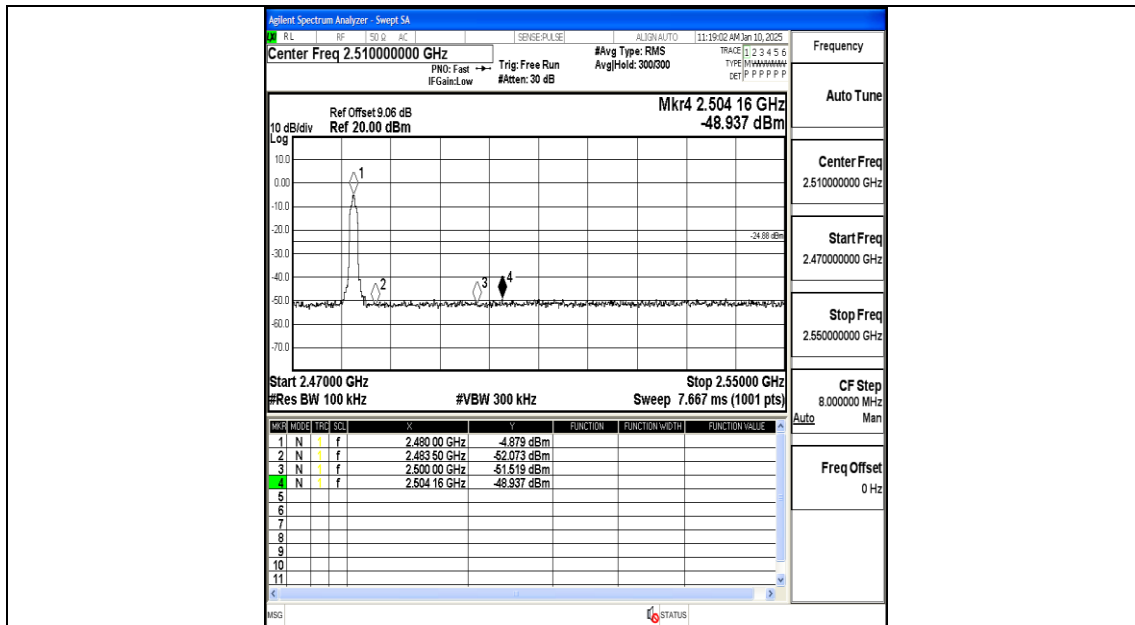
DH5-Ant1-Hop_2402-PASS



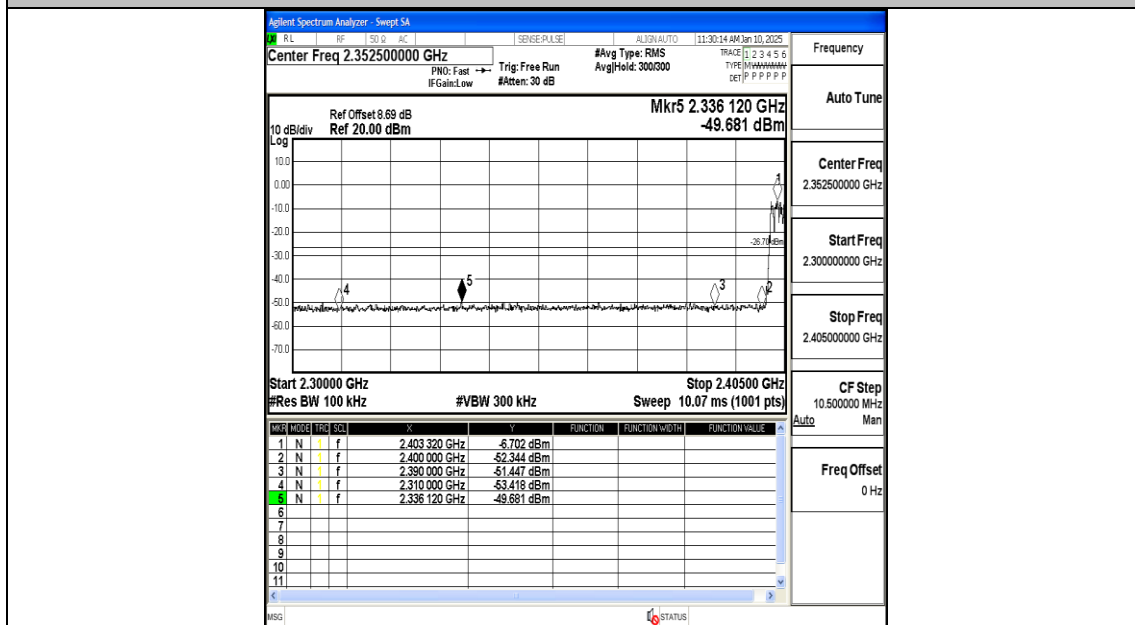
DH5-Ant1-Hop_2480-PASS



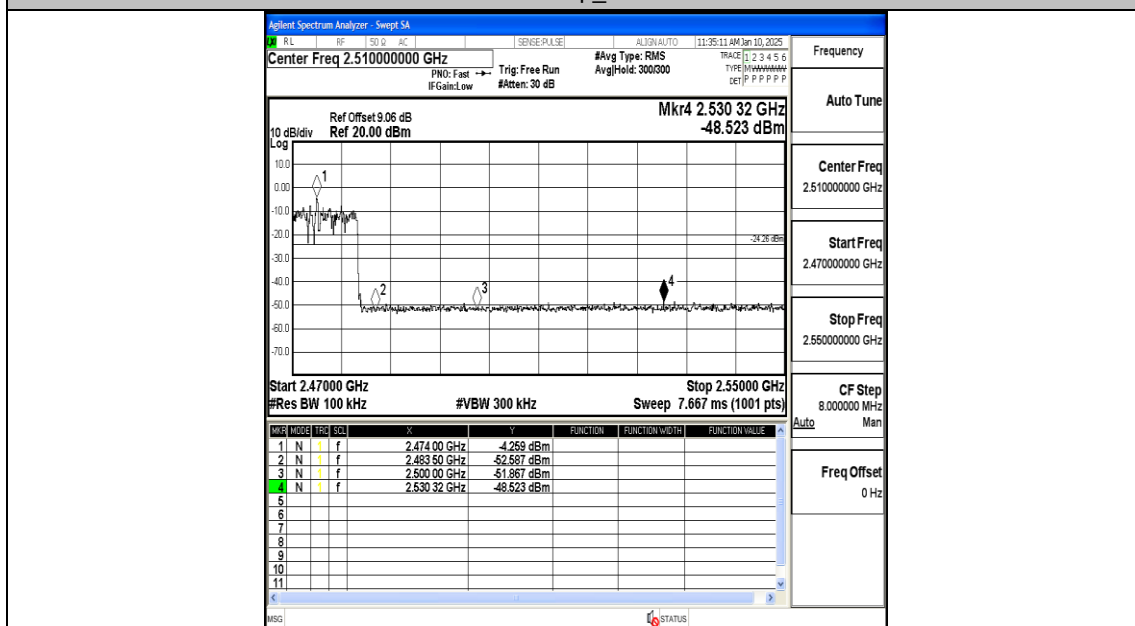
2DH5-Ant1-2402-PASS



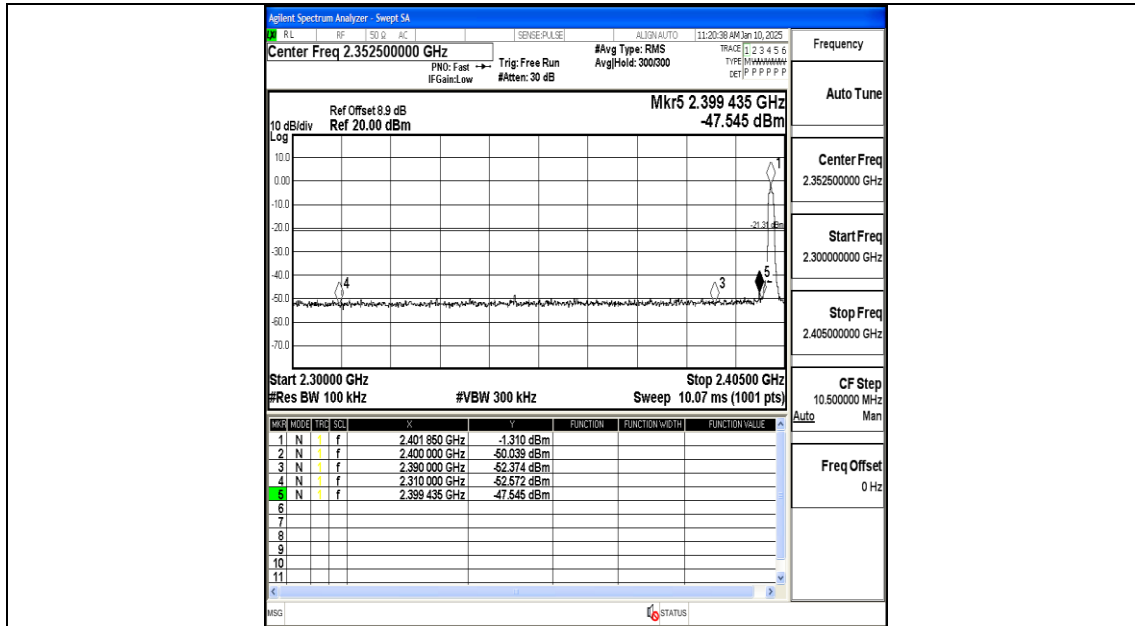
2DH5-Ant1-2480-PASS



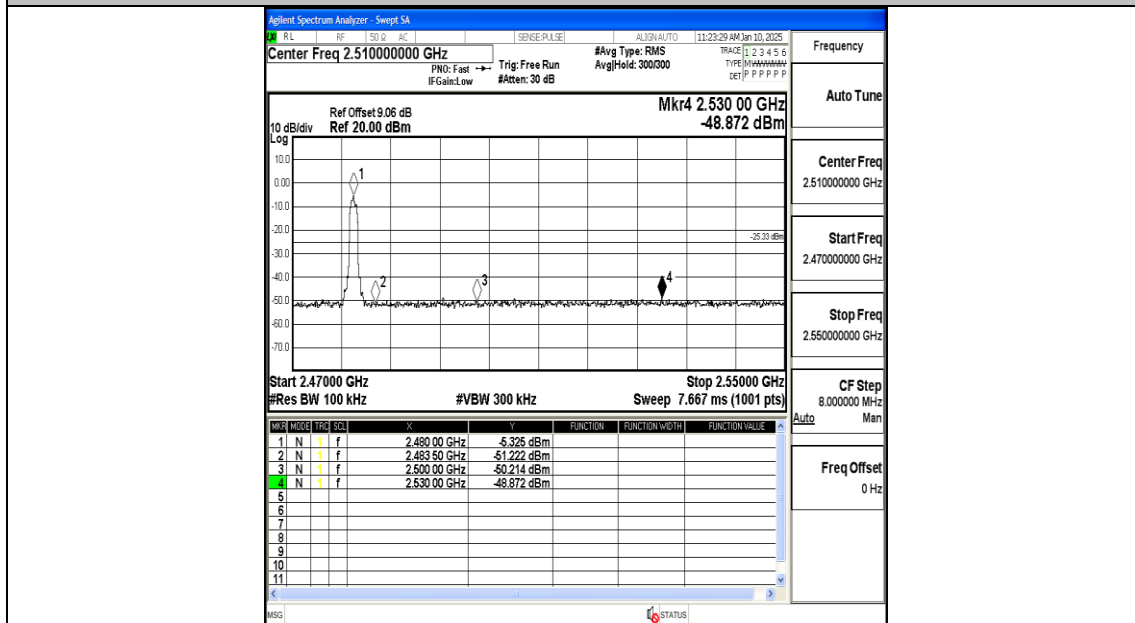
2DH5-Ant1-Hop_2402-PASS



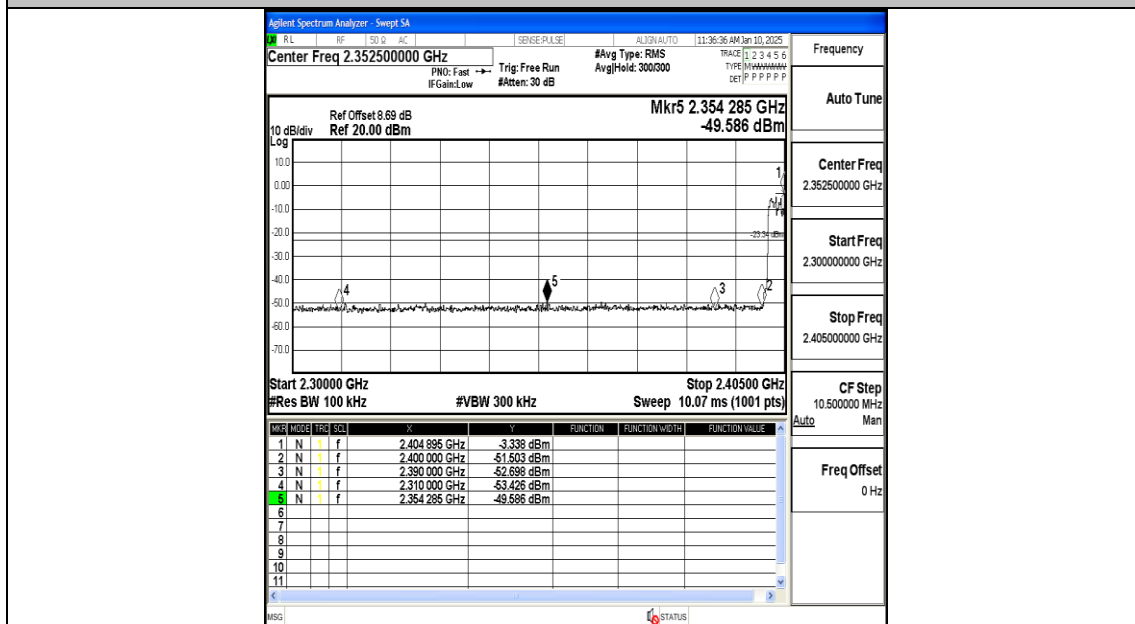
2DH5-Ant1-Hop_2480-PASS



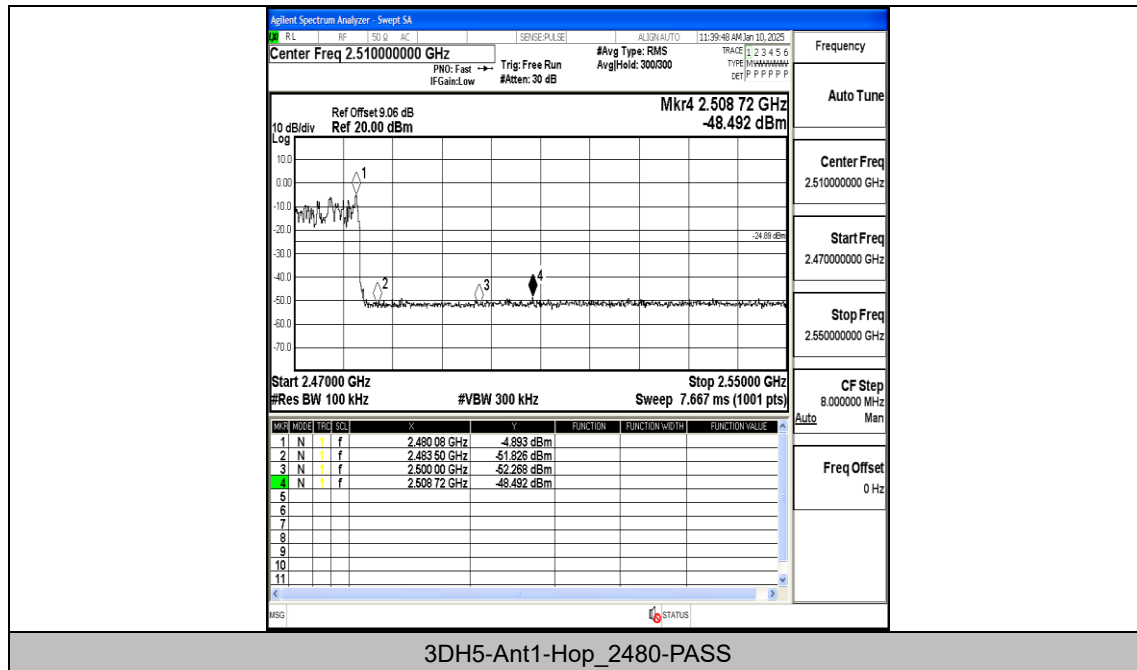
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS

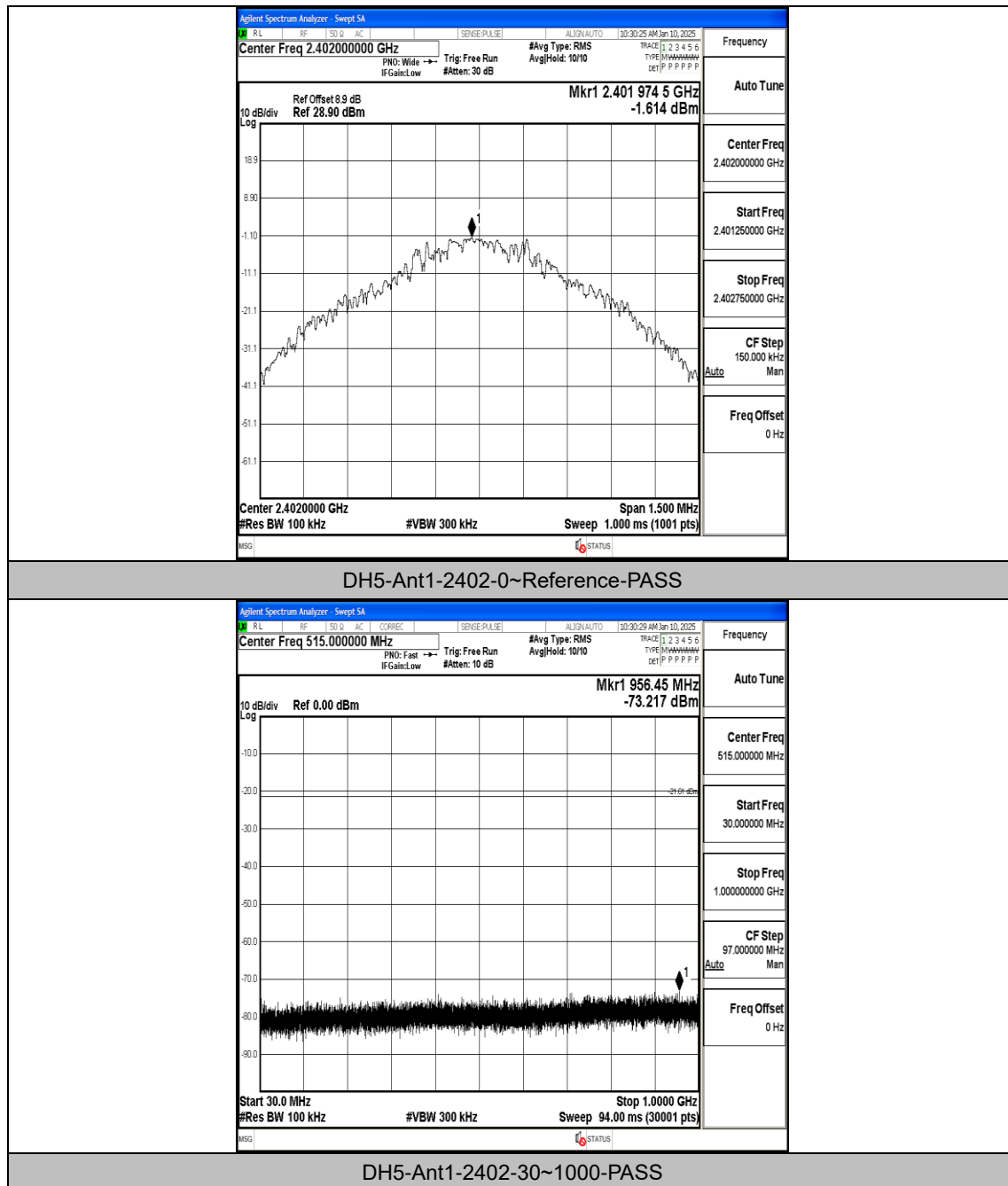


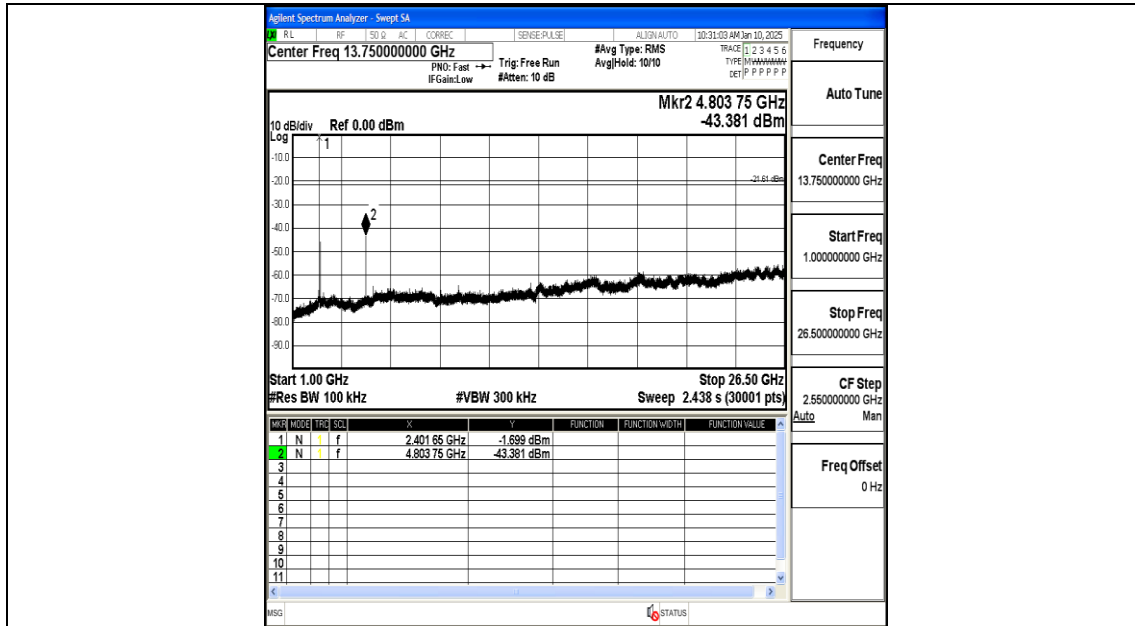
Appendix H: Conducted Spurious Emission

Test Result

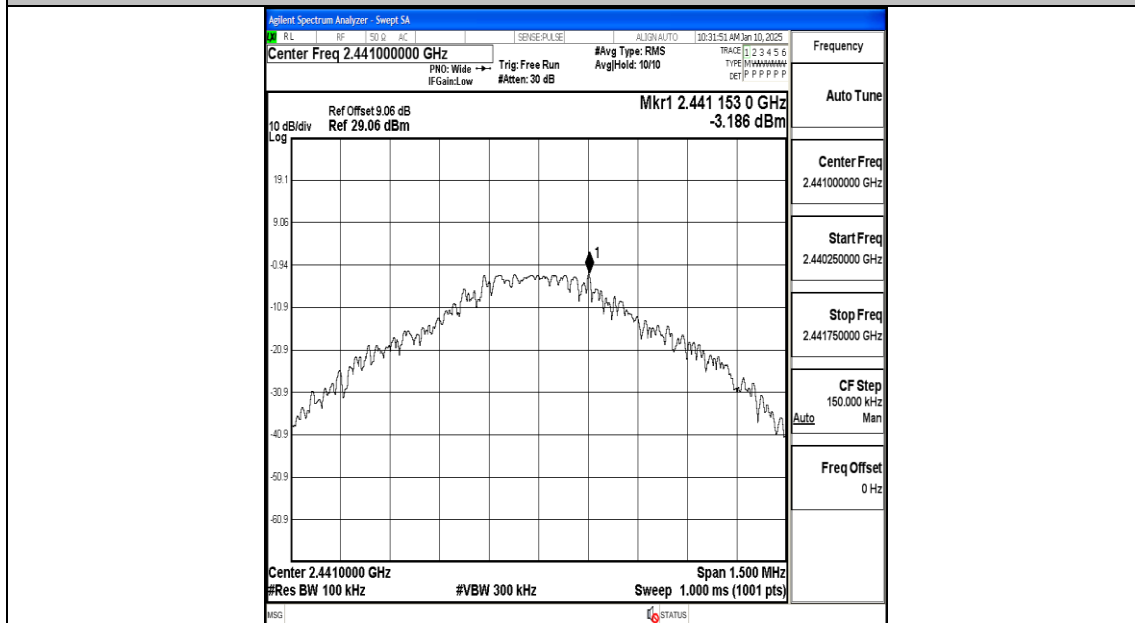
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-1.61	-1.61	---	PASS
DH5	Ant1	2402	30~1000	-1.61	-73.22	≤-21.61	PASS
DH5	Ant1	2402	1000~26500	-1.61	-43.38	≤-21.61	PASS
DH5	Ant1	2441	0~Reference	-3.19	-3.19	---	PASS
DH5	Ant1	2441	30~1000	-3.19	-66.71	≤-23.19	PASS
DH5	Ant1	2441	1000~26500	-3.19	-44.01	≤-23.19	PASS
DH5	Ant1	2480	0~Reference	-4.81	-4.81	---	PASS
DH5	Ant1	2480	30~1000	-4.81	-72.7	≤-24.81	PASS
DH5	Ant1	2480	1000~26500	-4.81	-43.64	≤-24.81	PASS
2DH5	Ant1	2402	0~Reference	-2.19	-2.19	---	PASS
2DH5	Ant1	2402	30~1000	-2.19	-72.78	≤-22.19	PASS
2DH5	Ant1	2402	1000~26500	-2.19	-42.61	≤-22.19	PASS
2DH5	Ant1	2441	0~Reference	-3.46	-3.46	---	PASS
2DH5	Ant1	2441	30~1000	-3.46	-70.9	≤-23.46	PASS
2DH5	Ant1	2441	1000~26500	-3.46	-48.62	≤-23.46	PASS
2DH5	Ant1	2480	0~Reference	-5.27	-5.27	---	PASS
2DH5	Ant1	2480	30~1000	-5.27	-72.8	≤-25.27	PASS
2DH5	Ant1	2480	1000~26500	-5.27	-48.49	≤-25.27	PASS
3DH5	Ant1	2402	0~Reference	-4.94	-4.94	---	PASS
3DH5	Ant1	2402	30~1000	-4.94	-72.83	≤-24.94	PASS
3DH5	Ant1	2402	1000~26500	-4.94	-44.12	≤-24.94	PASS
3DH5	Ant1	2441	0~Reference	-5.90	-5.90	---	PASS
3DH5	Ant1	2441	30~1000	-5.90	-72.54	≤-25.9	PASS
3DH5	Ant1	2441	1000~26500	-5.90	-43.56	≤-25.9	PASS
3DH5	Ant1	2480	0~Reference	-8.28	-8.28	---	PASS
3DH5	Ant1	2480	30~1000	-8.28	-72.4	≤-28.28	PASS
3DH5	Ant1	2480	1000~26500	-8.28	-48.74	≤-28.28	PASS

Test Graphs

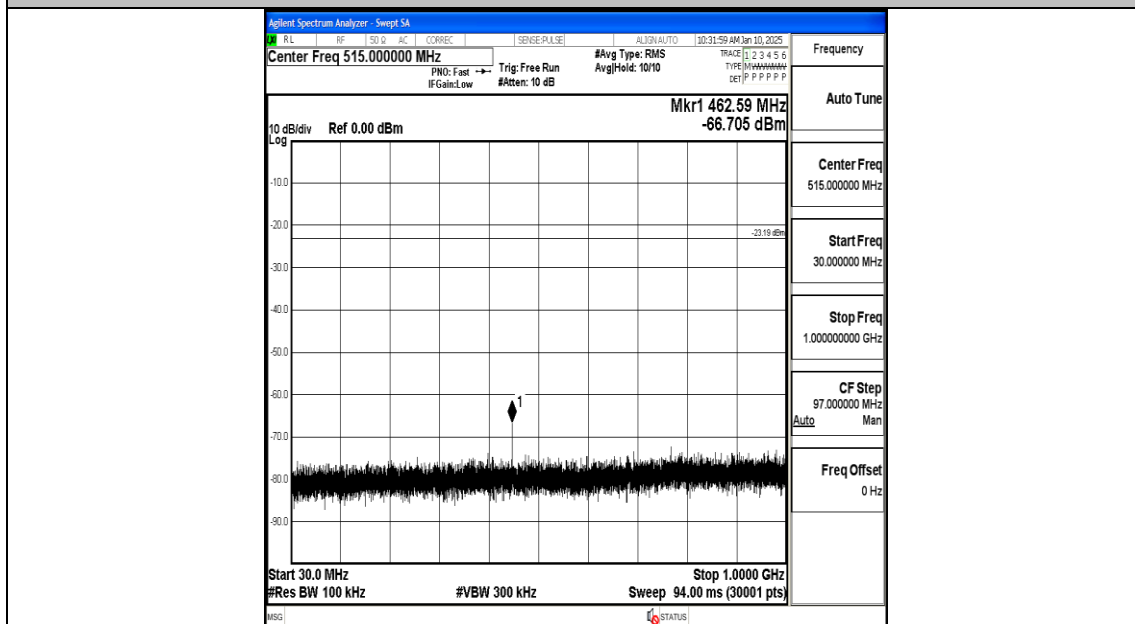




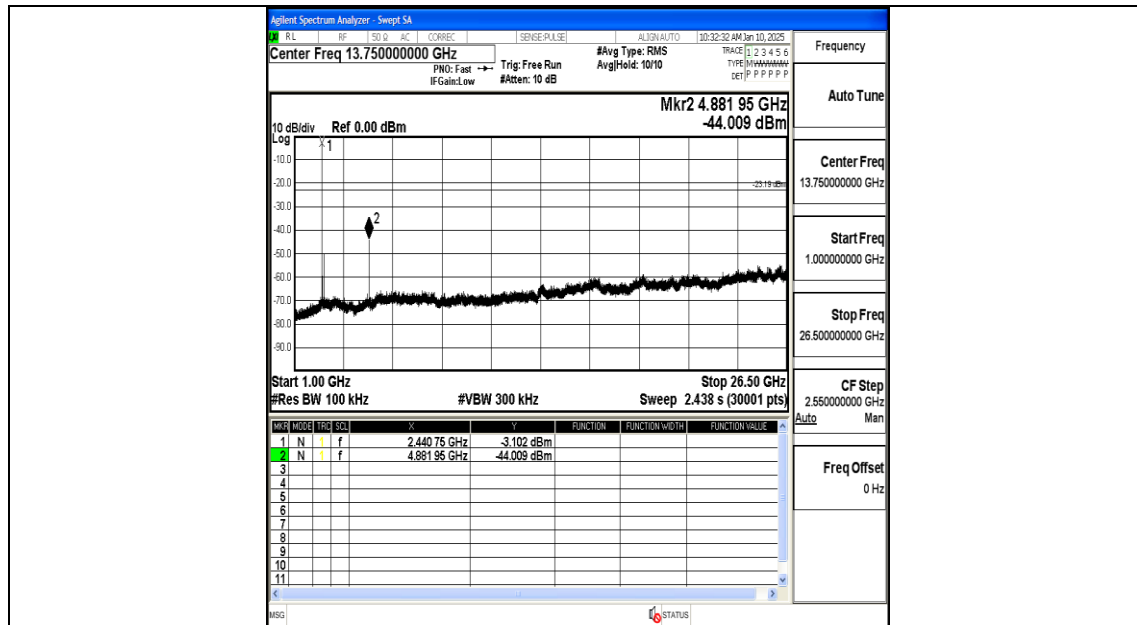
DH5-Ant1-2402-1000~26500-PASS



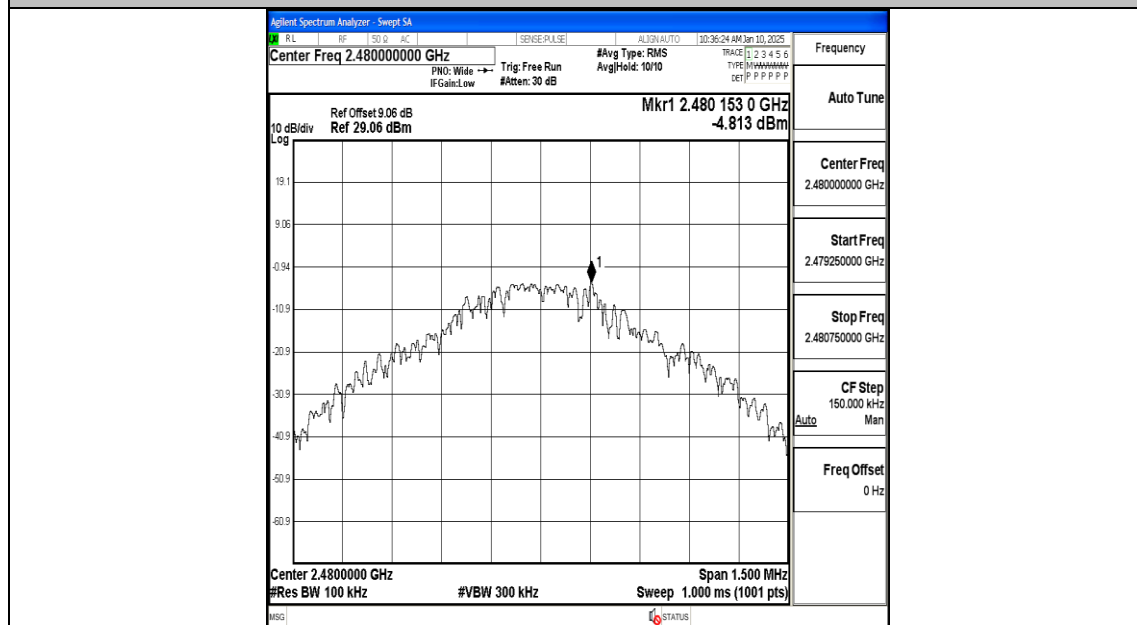
DH5-Ant1-2441-0~Reference-PASS



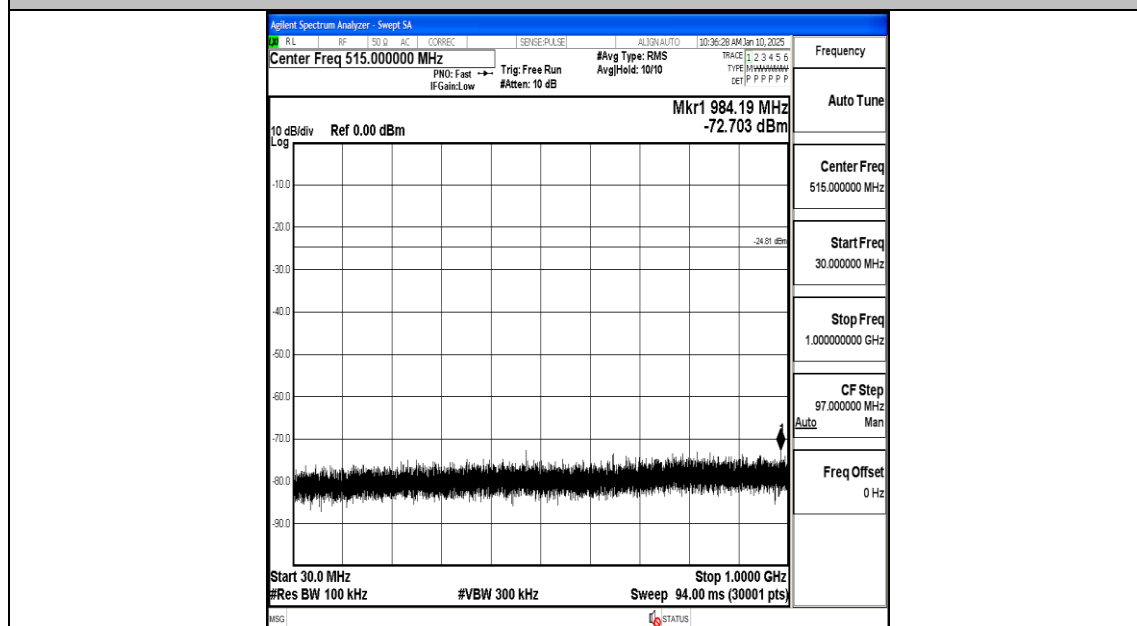
DH5-Ant1-2441-30~1000-PASS



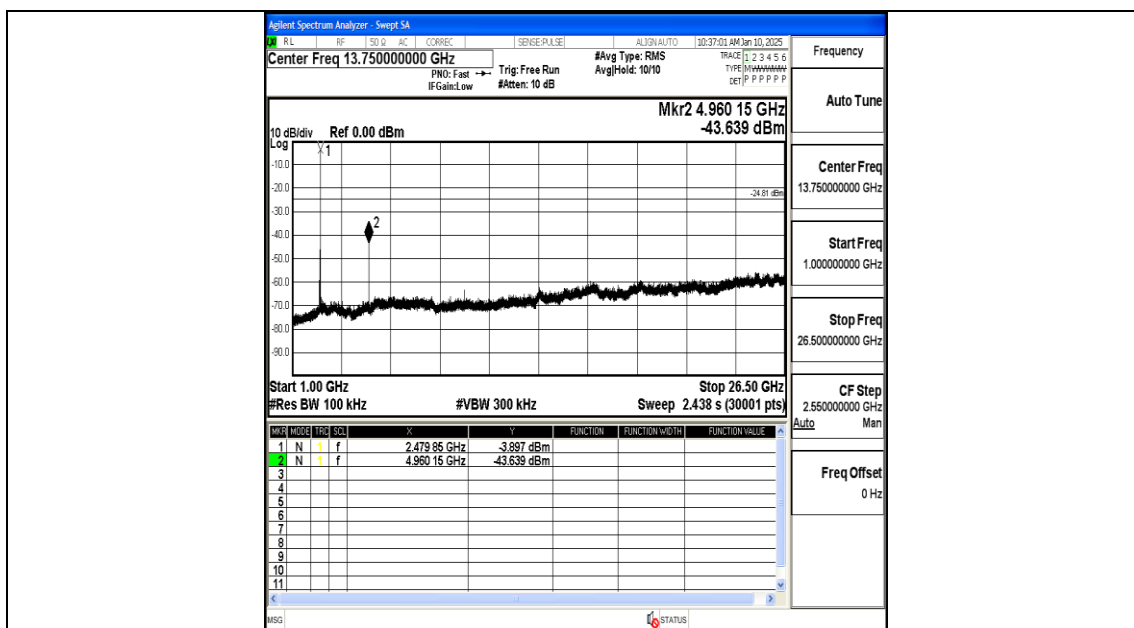
DH5-Ant1-2441-1000~26500-PASS



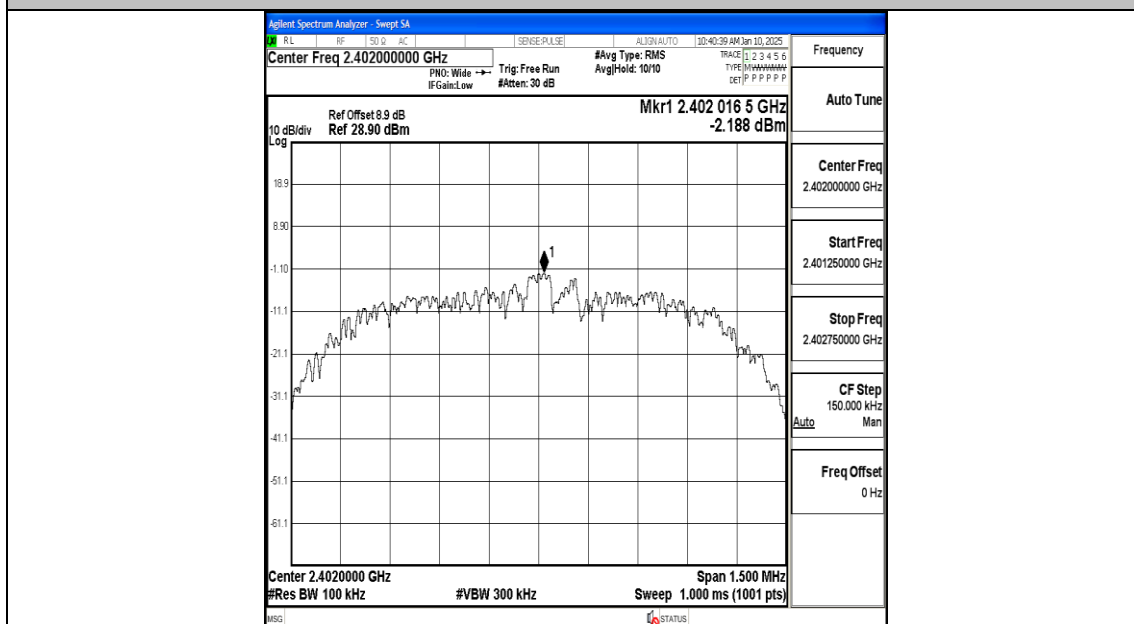
DH5-Ant1-2480-0~Reference-PASS



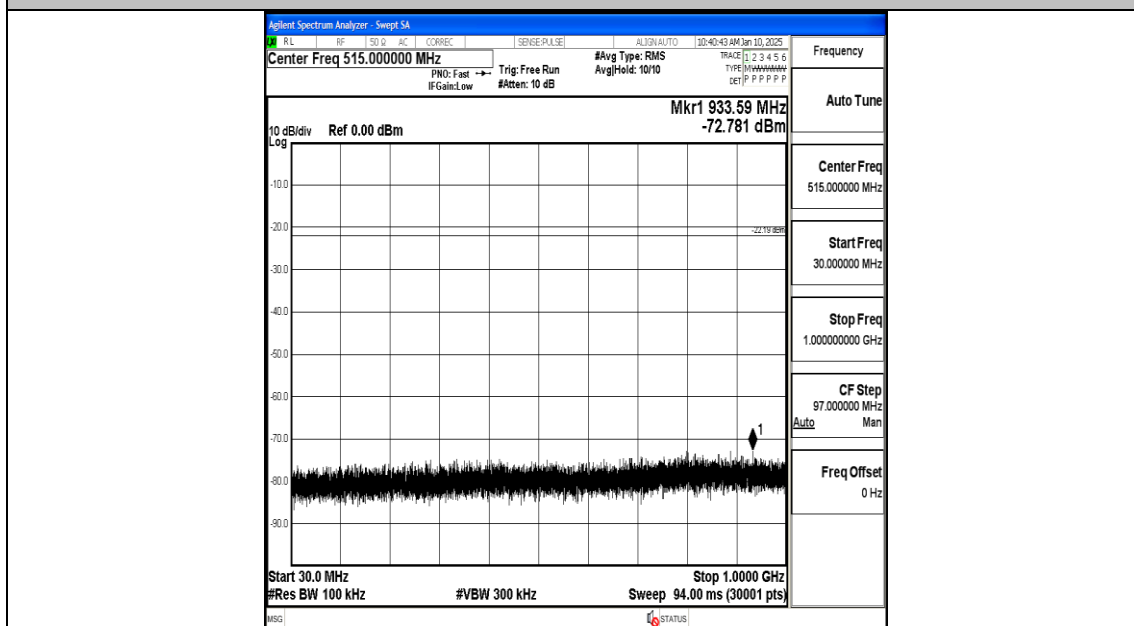
DH5-Ant1-2480-30~1000-PASS



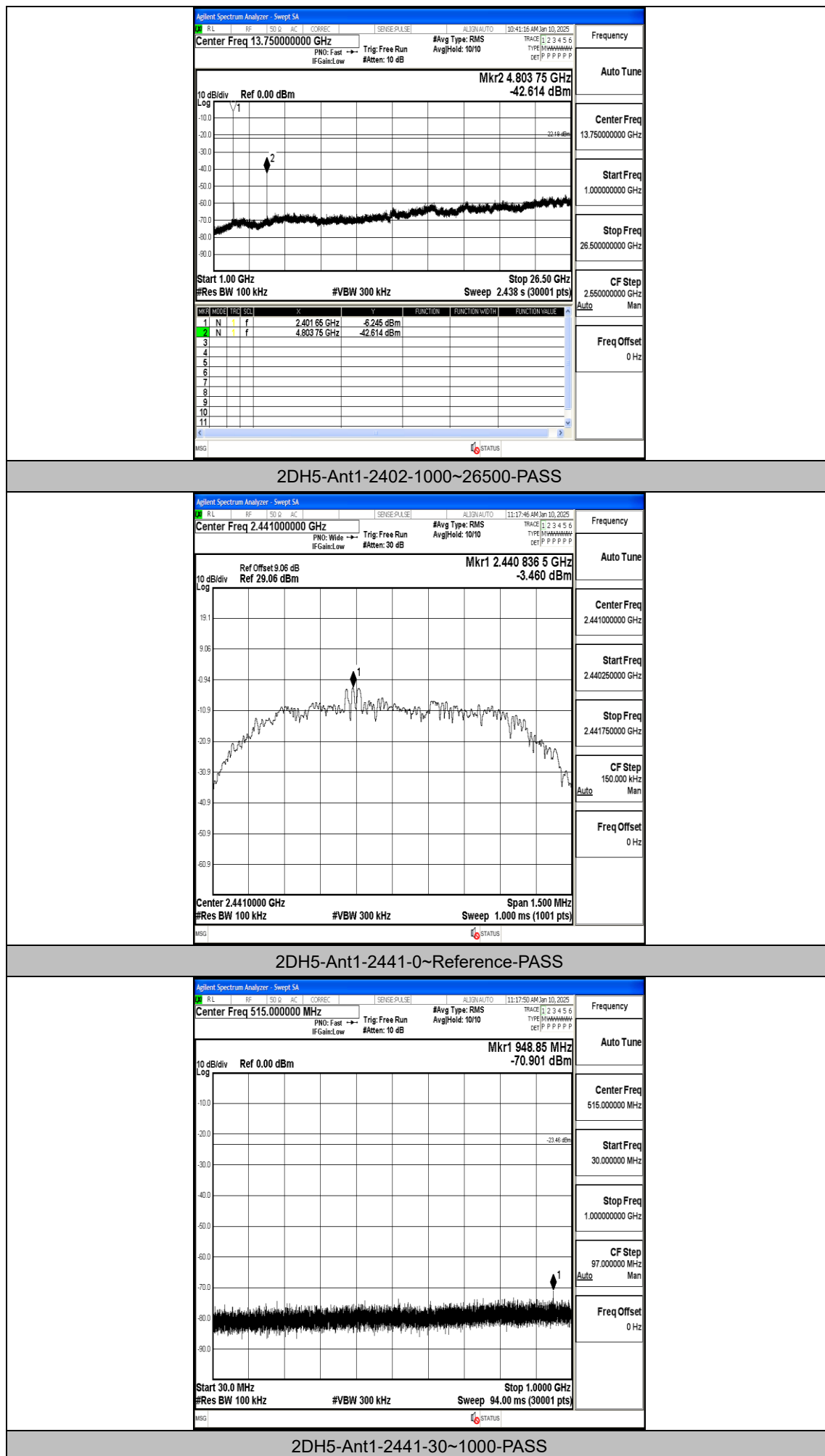
DH5-Ant1-2480-1000~26500-PASS

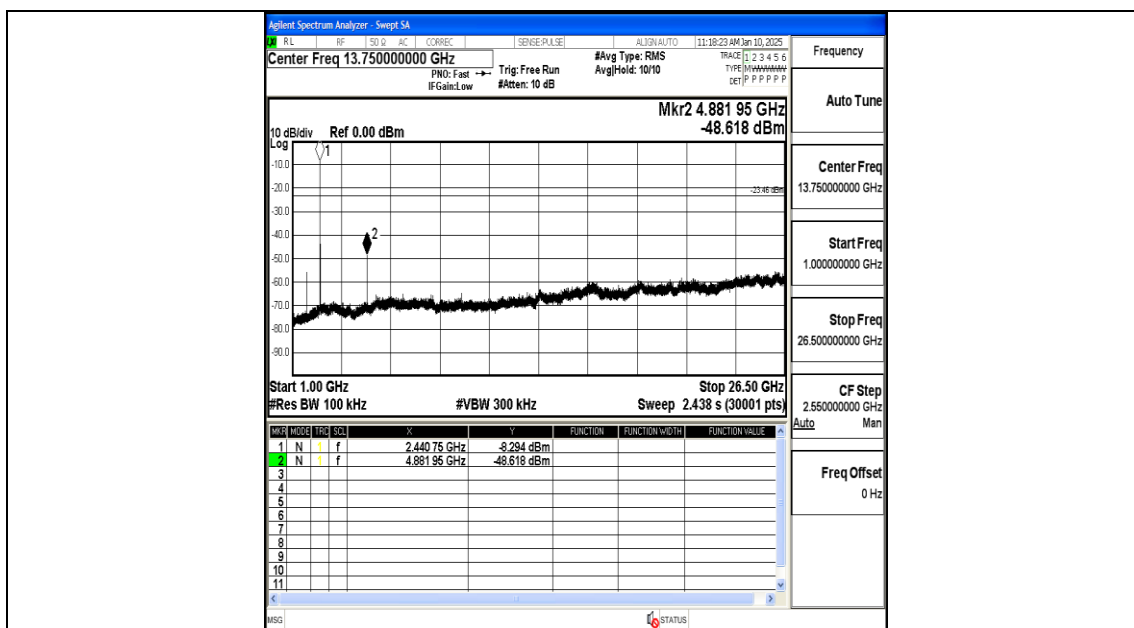


2DH5-Ant1-2402-0~Reference-PASS

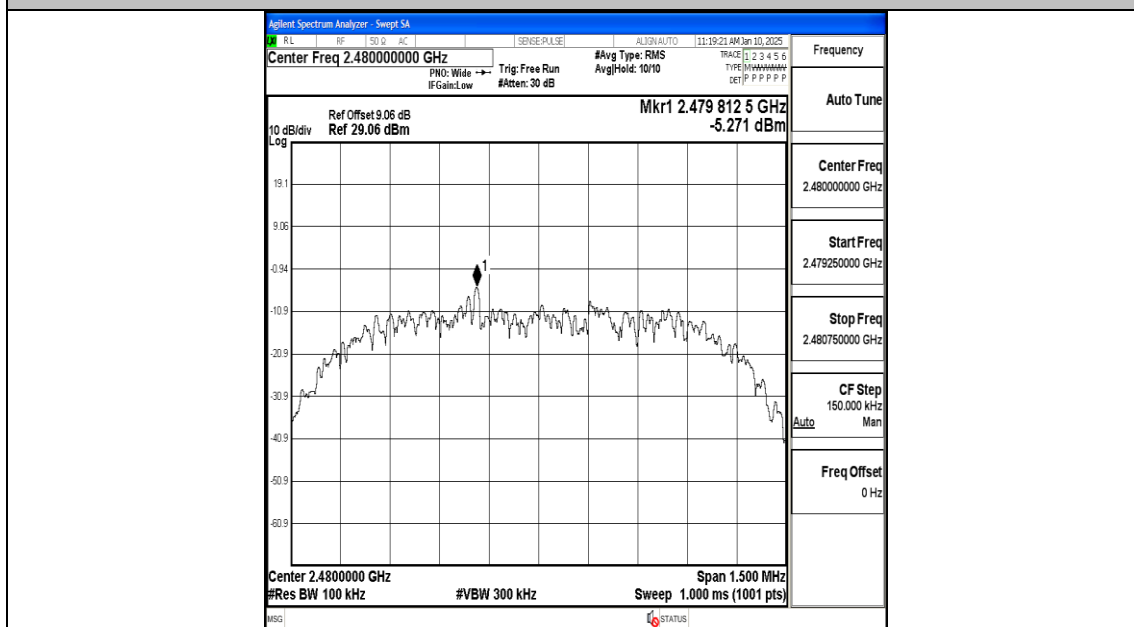


2DH5-Ant1-2402-30~1000-PASS

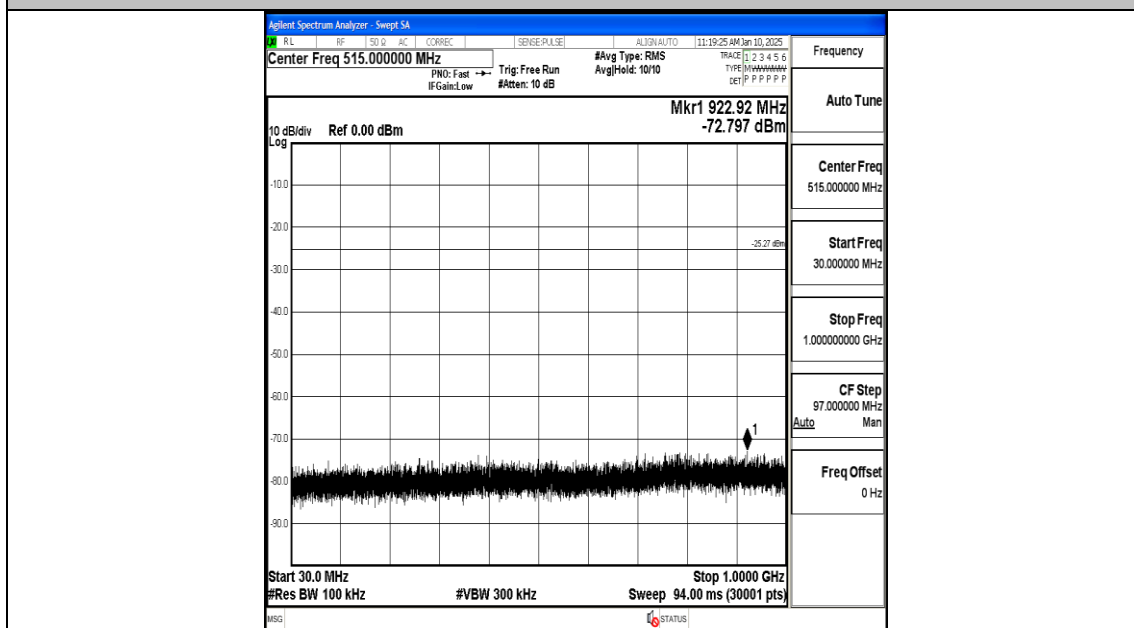




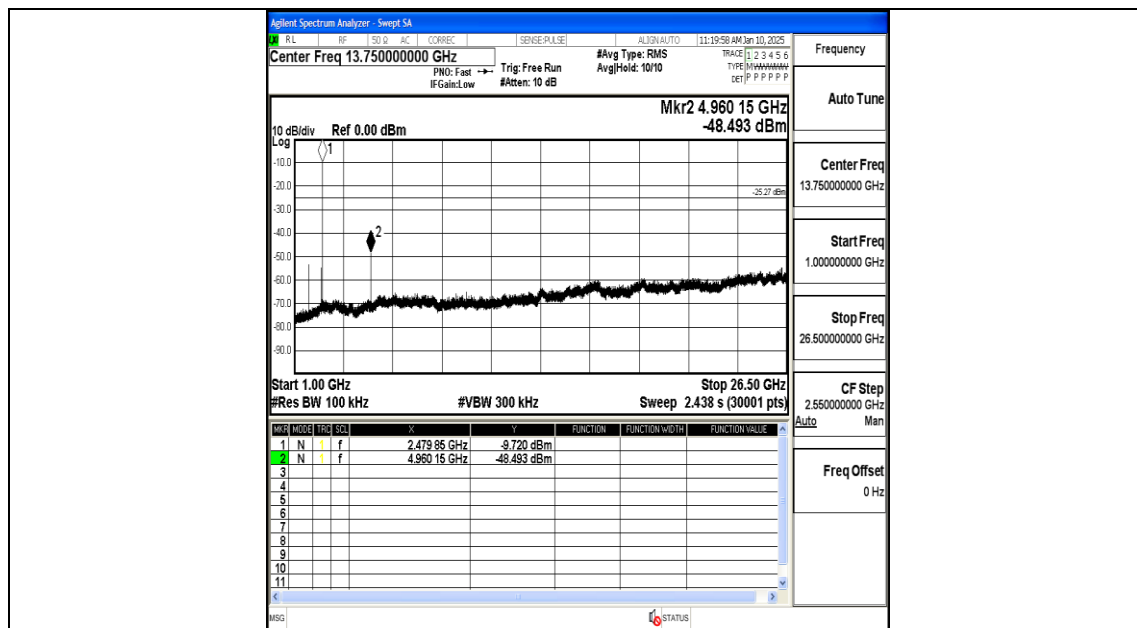
2DH5-Ant1-2441-1000~26500-PASS



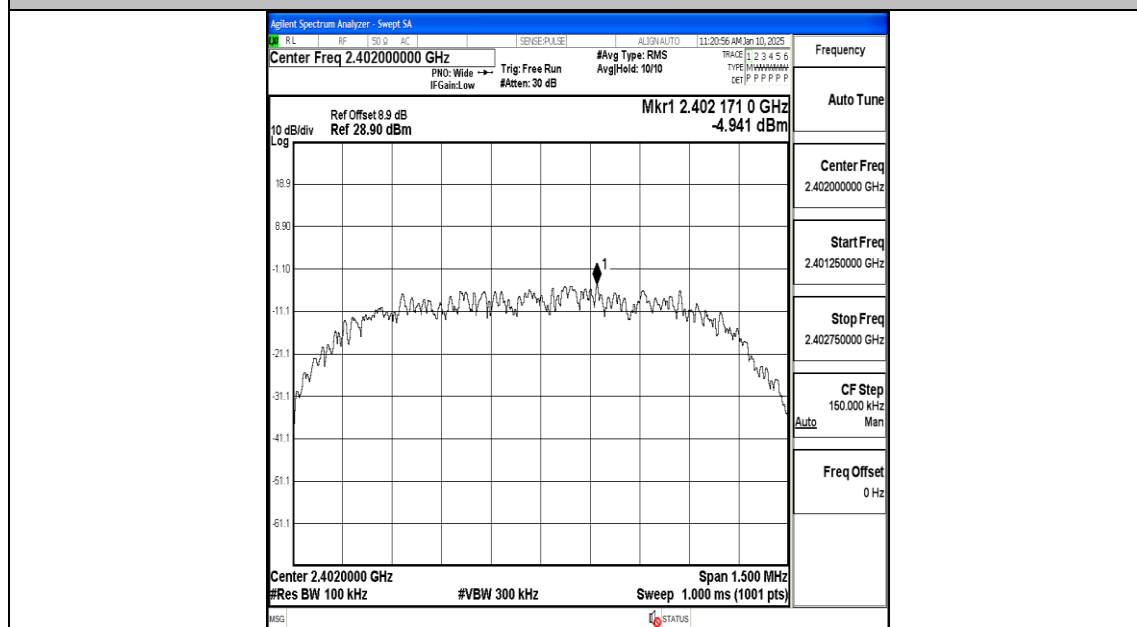
2DH5-Ant1-2480-0~Reference-PASS



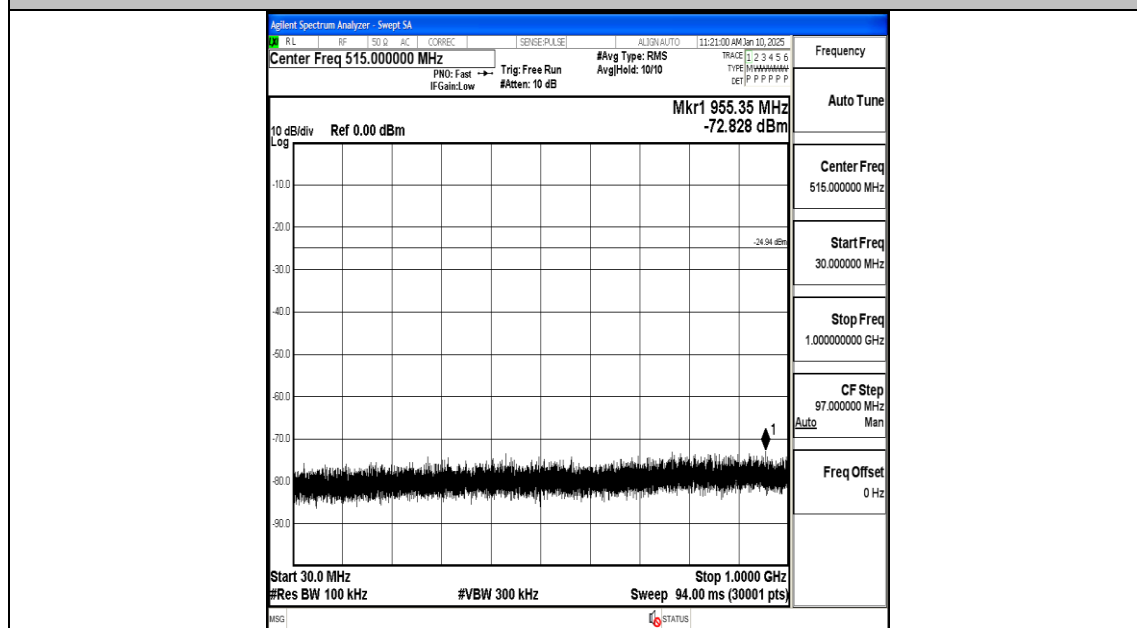
2DH5-Ant1-2480-30~1000-PASS



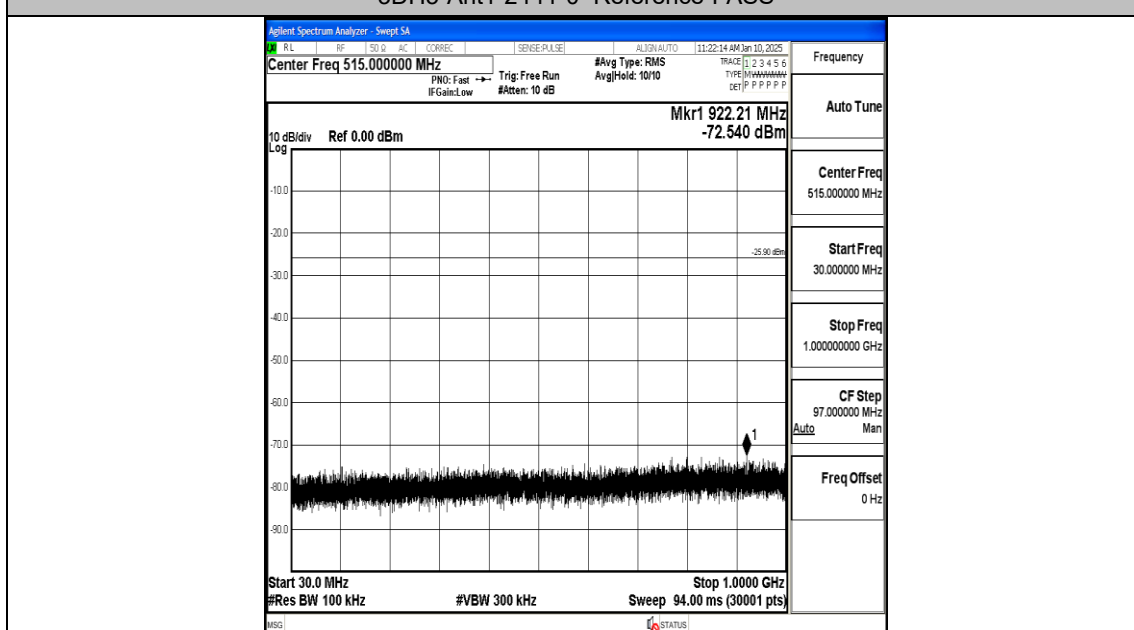
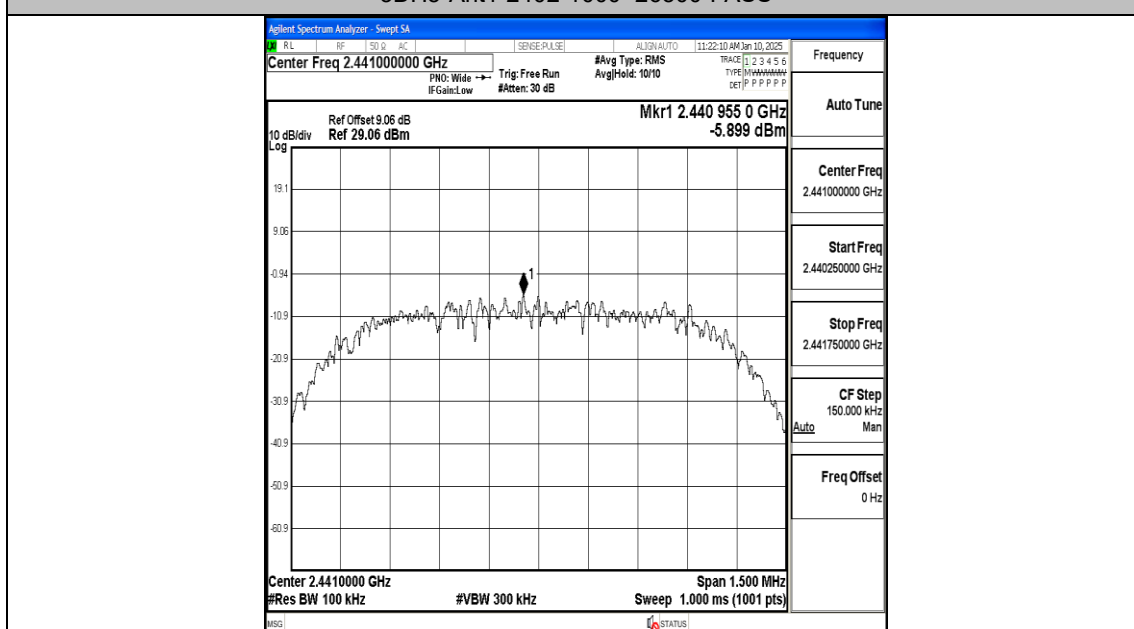
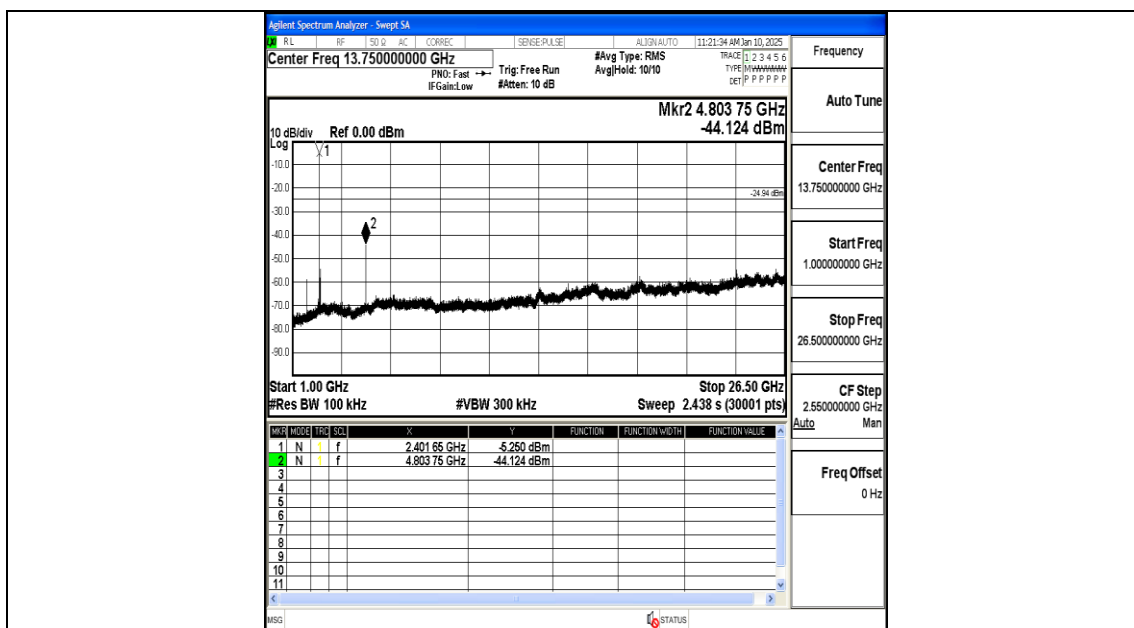
2DH5-Ant1-2480-1000~26500-PASS

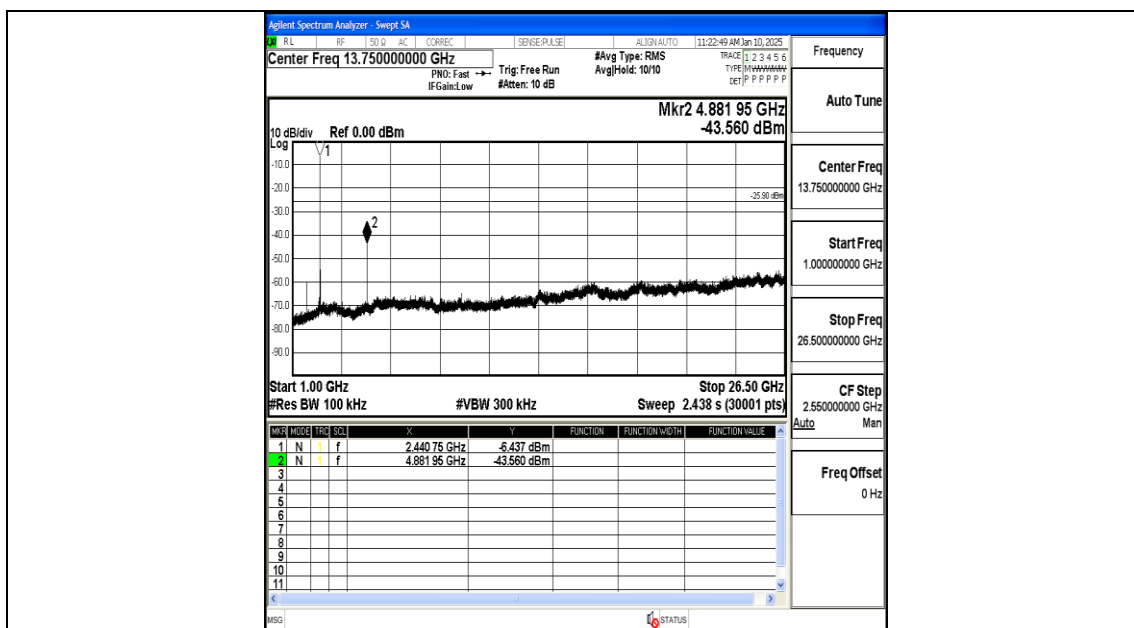


3DH5-Ant1-2402-0~Reference-PASS

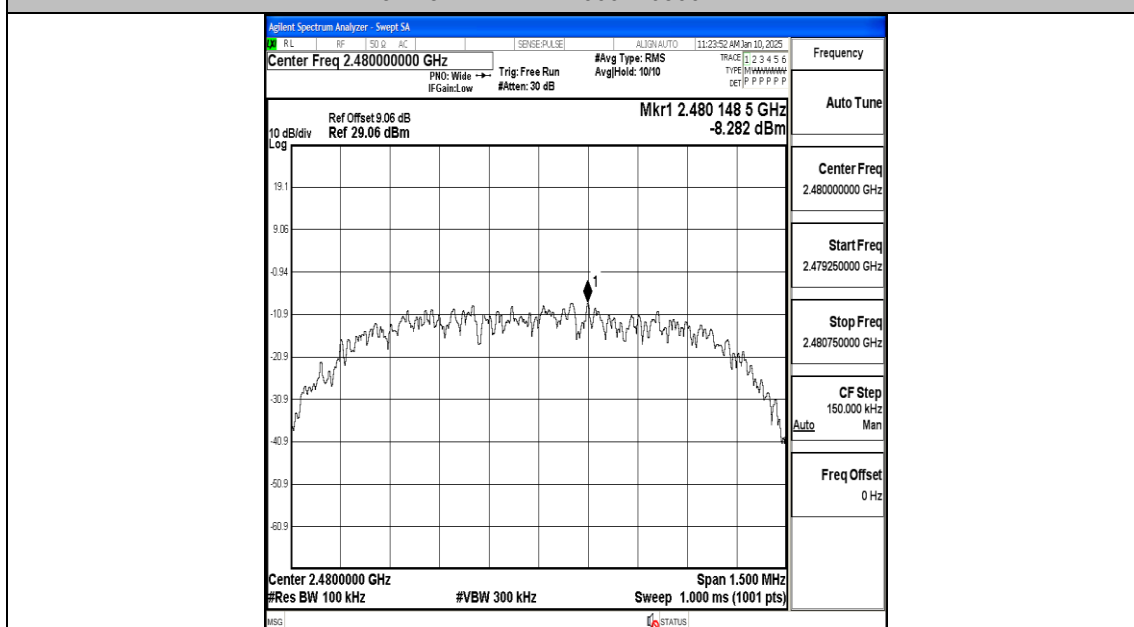


3DH5-Ant1-2402-30~1000-PASS

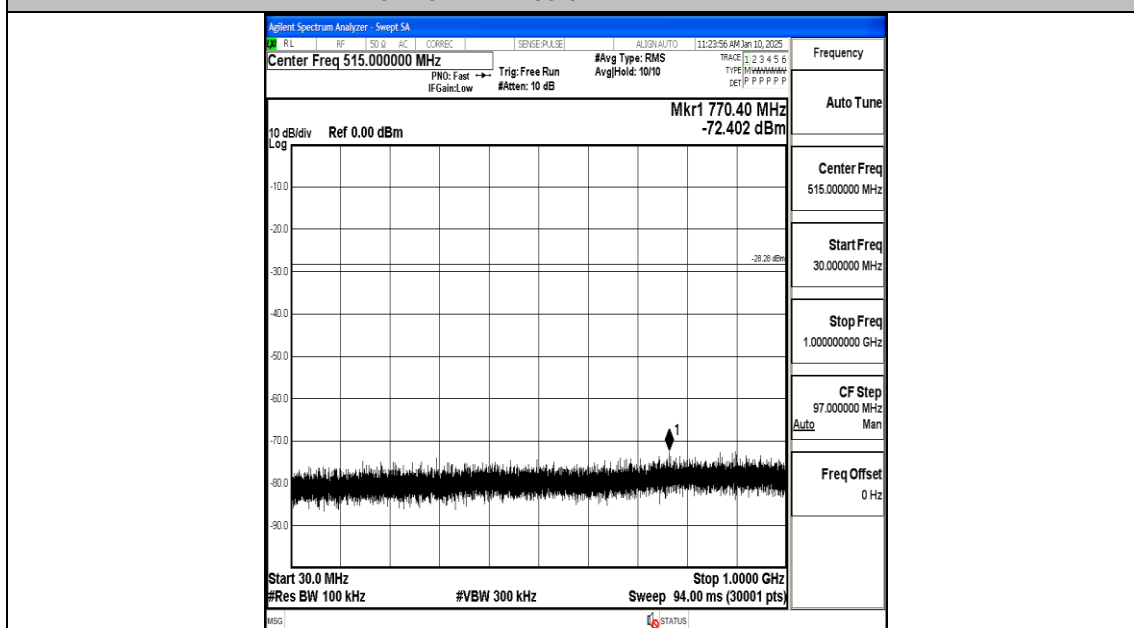




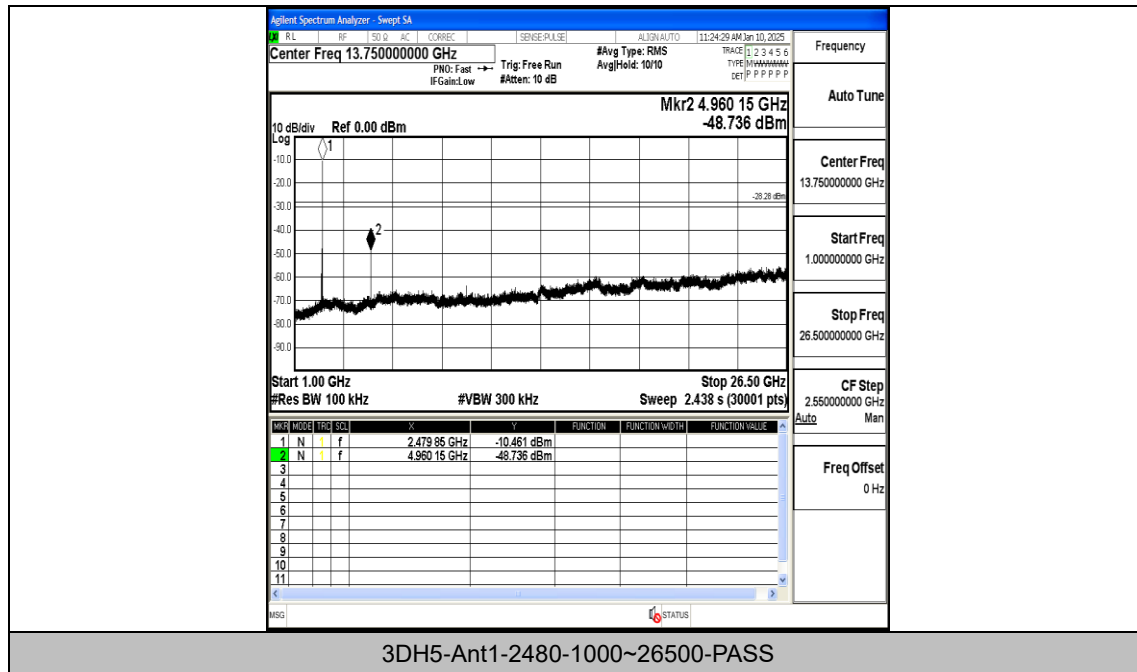
3DH5-Ant1-2441-1000~26500-PASS



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



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

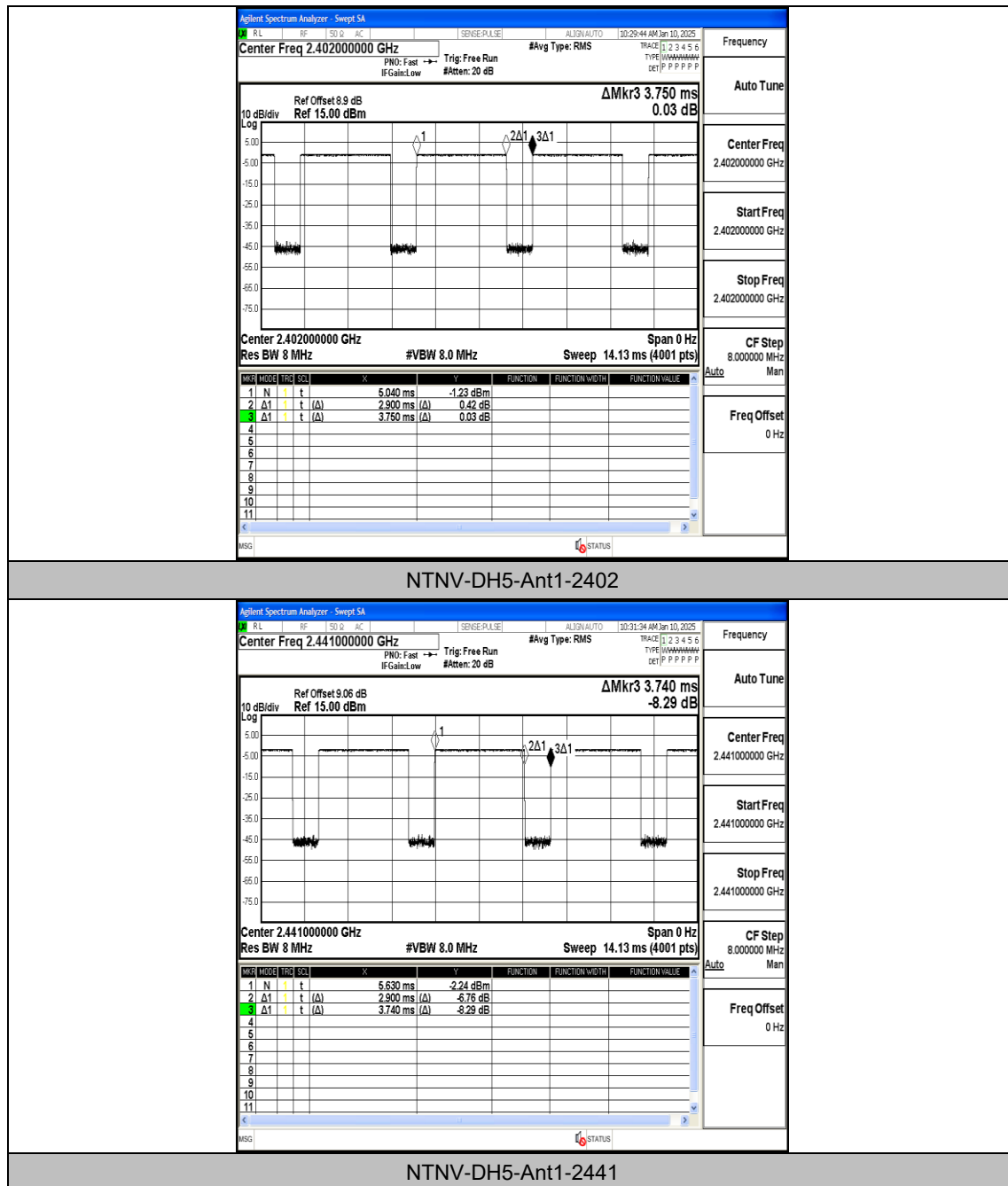


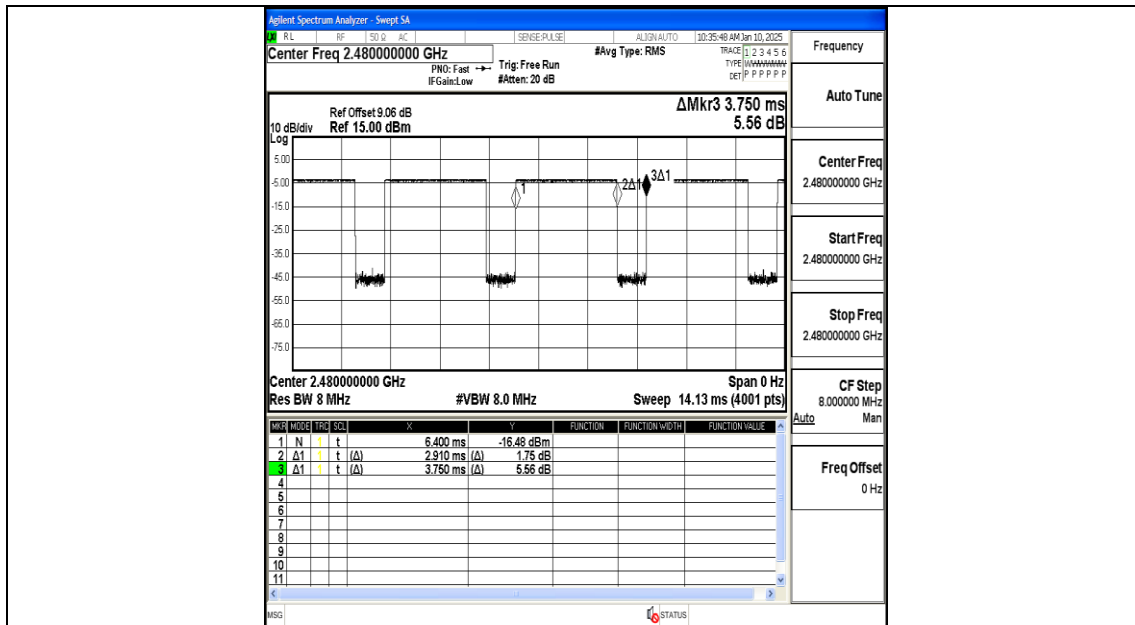
Appendix I: Duty Cycle

Test Result

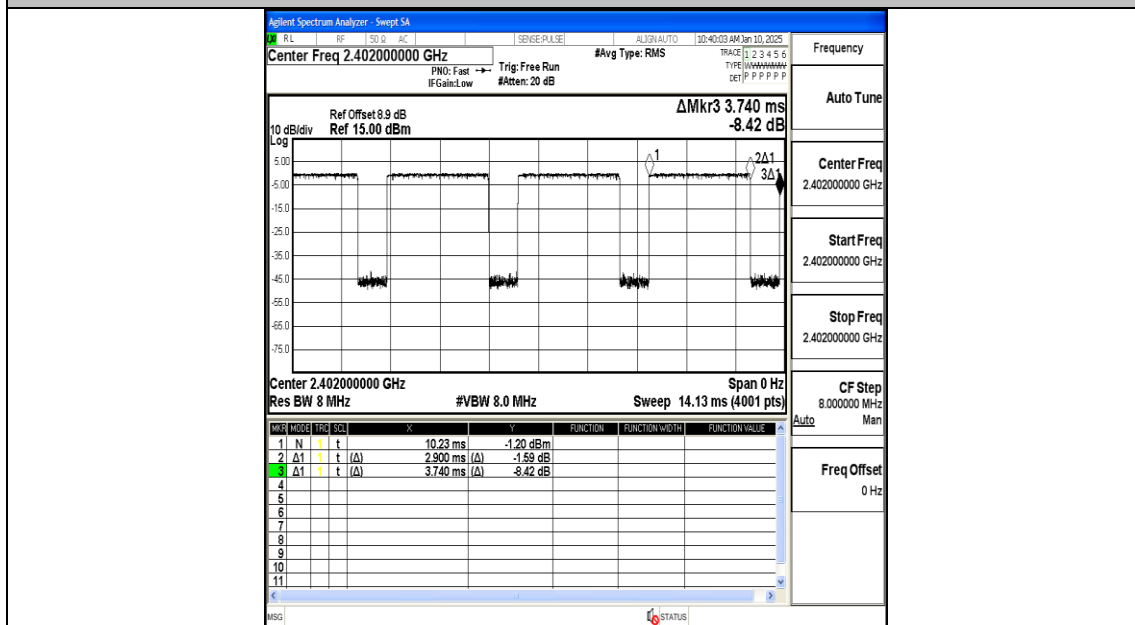
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	2.90	3.75	77.33	1.12
DH5	Ant1	2441	2.90	3.74	77.54	1.10
DH5	Ant1	2480	2.91	3.75	77.60	1.10
2DH5	Ant1	2402	2.90	3.74	77.54	1.10
2DH5	Ant1	2441	2.91	3.75	77.60	1.10
2DH5	Ant1	2480	2.91	3.75	77.60	1.10
3DH5	Ant1	2402	2.91	3.74	77.81	1.09
3DH5	Ant1	2441	2.91	3.75	77.60	1.10
3DH5	Ant1	2480	2.92	3.75	77.87	1.09

Test Graphs

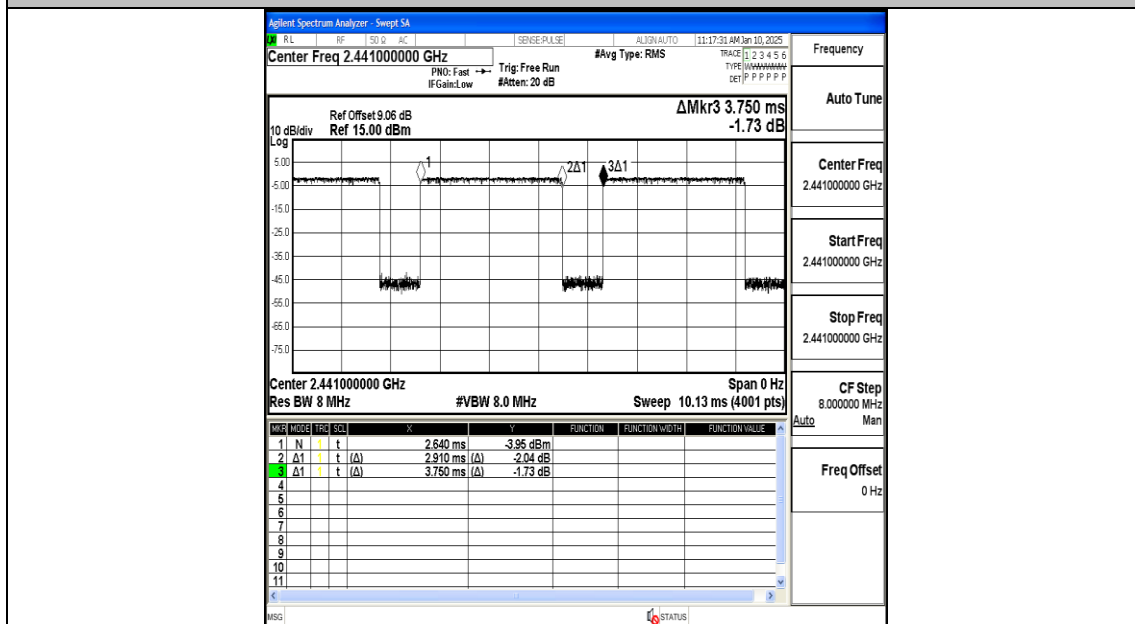




NTNV-DH5-Ant1-2480



NTNV-2DH5-Ant1-2402



NTNV-2DH5-Ant1-2441

