

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

Product Name: Set Top Box



Trade Mark: ROBERTS

Test Model: ROBERTS-3PATH

FCC ID: 2BK67-ROBERTS-3PATH

Environmental Conditions

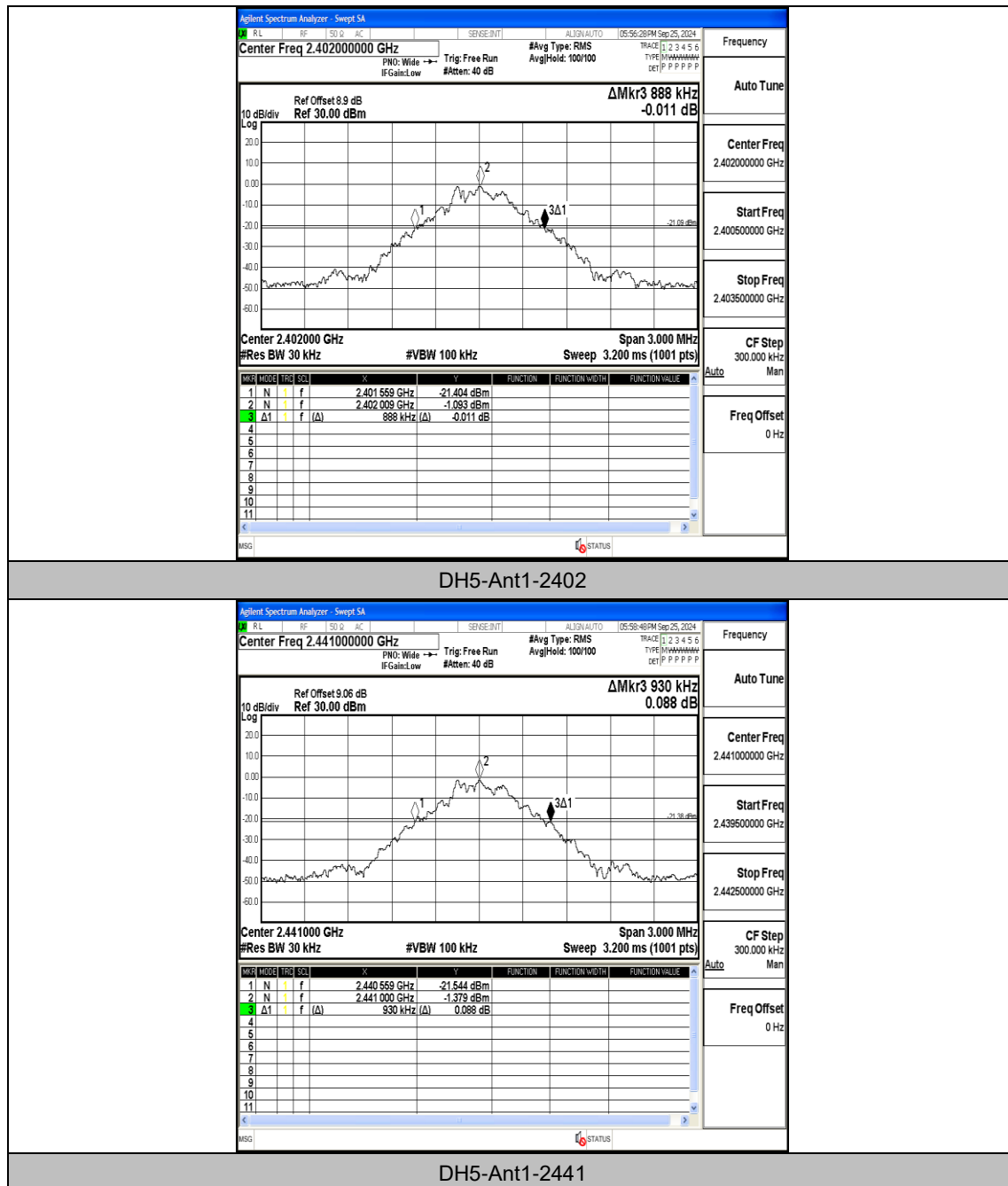
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

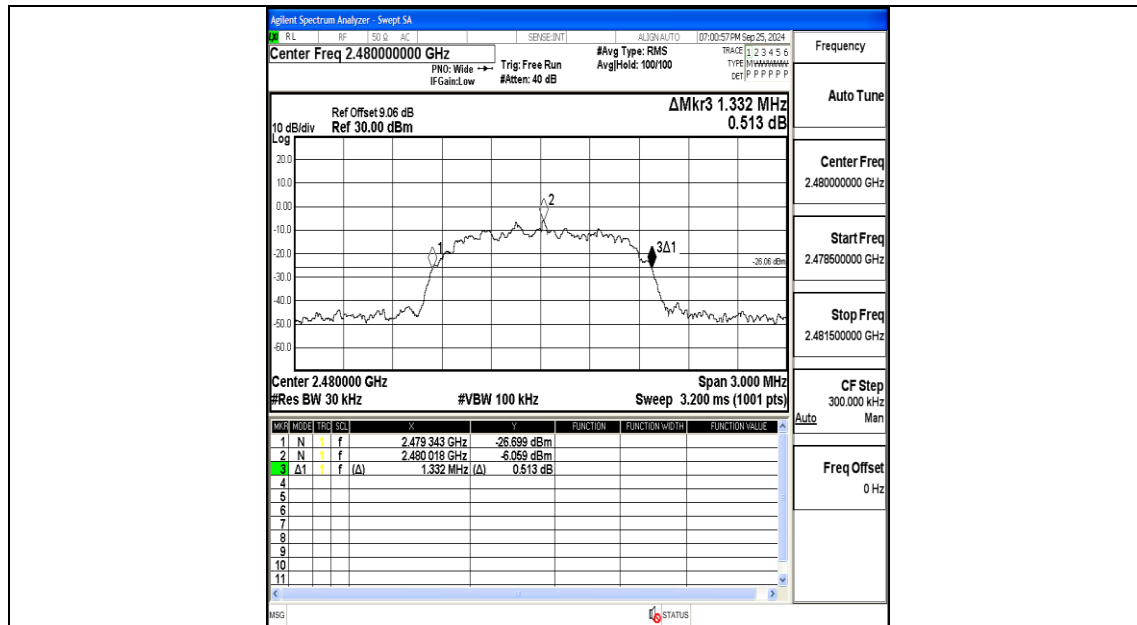
Test Result

Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.888	2401.559	2402.447	---	---
DH5	Ant1	2441	0.930	2440.559	2441.489	---	---
DH5	Ant1	2480	0.885	2479.562	2480.447	---	---
2DH5	Ant1	2402	1.275	2401.385	2402.660	---	---
2DH5	Ant1	2441	1.278	2440.379	2441.657	---	---
2DH5	Ant1	2480	1.332	2479.343	2480.675	---	---
3DH5	Ant1	2402	1.293	2401.361	2402.654	---	---
3DH5	Ant1	2441	1.287	2440.364	2441.651	---	---
3DH5	Ant1	2480	1.293	2479.364	2480.657	---	---

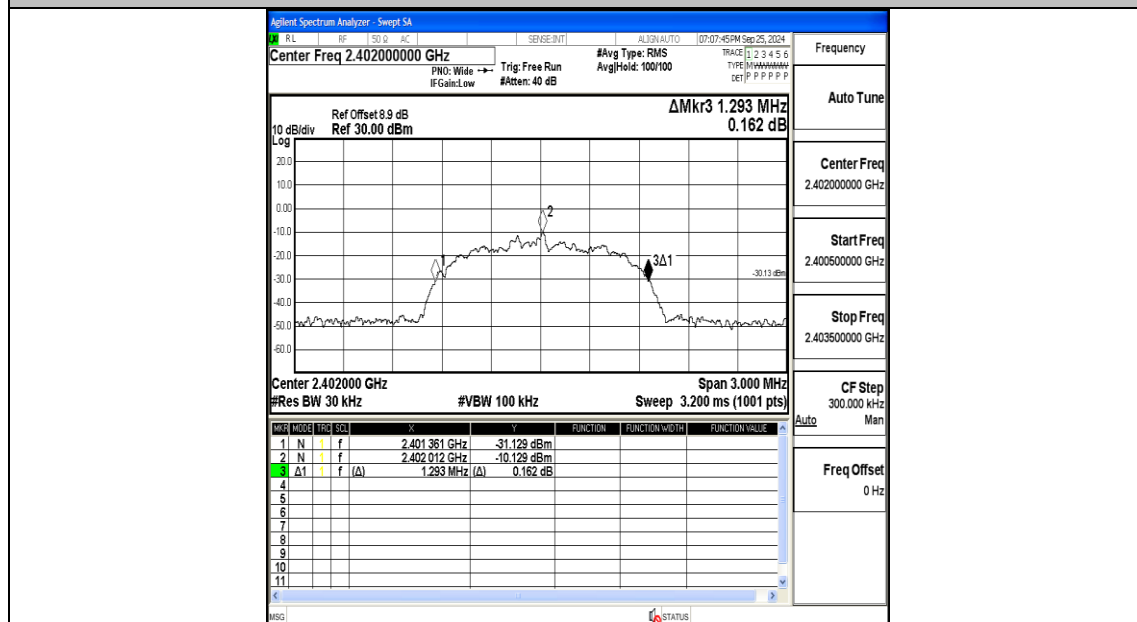
Test Graphs



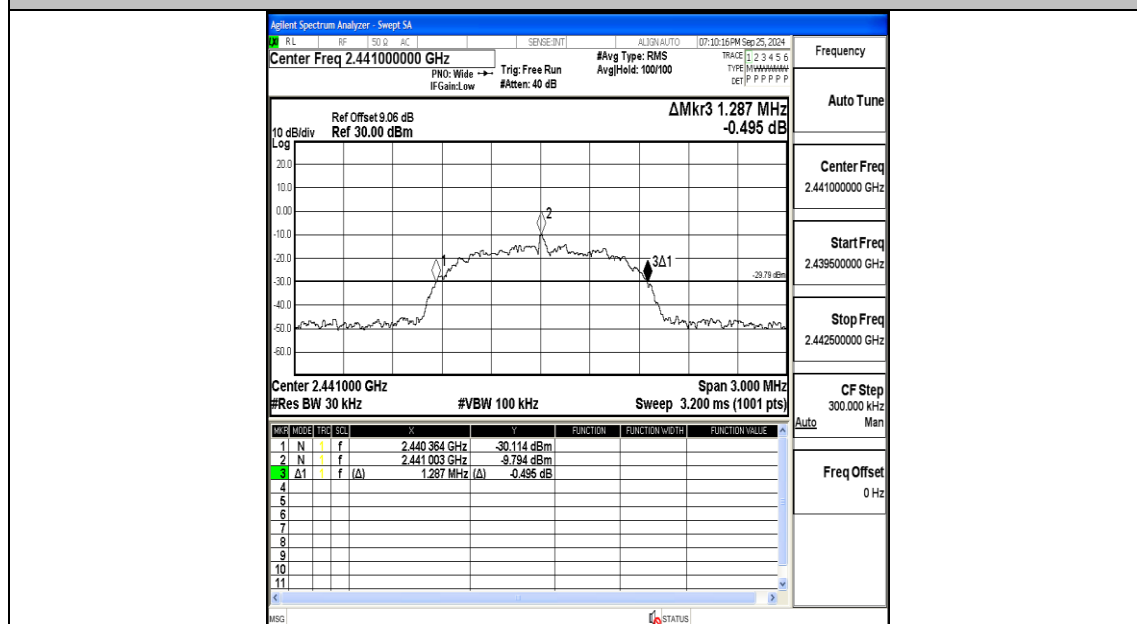




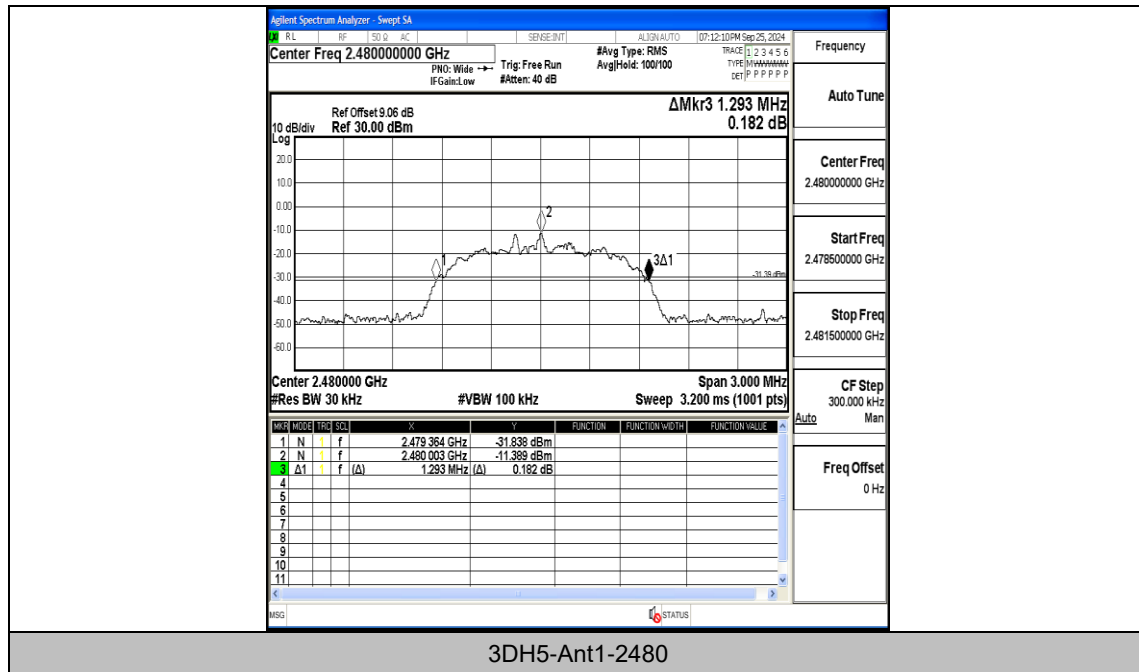
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441

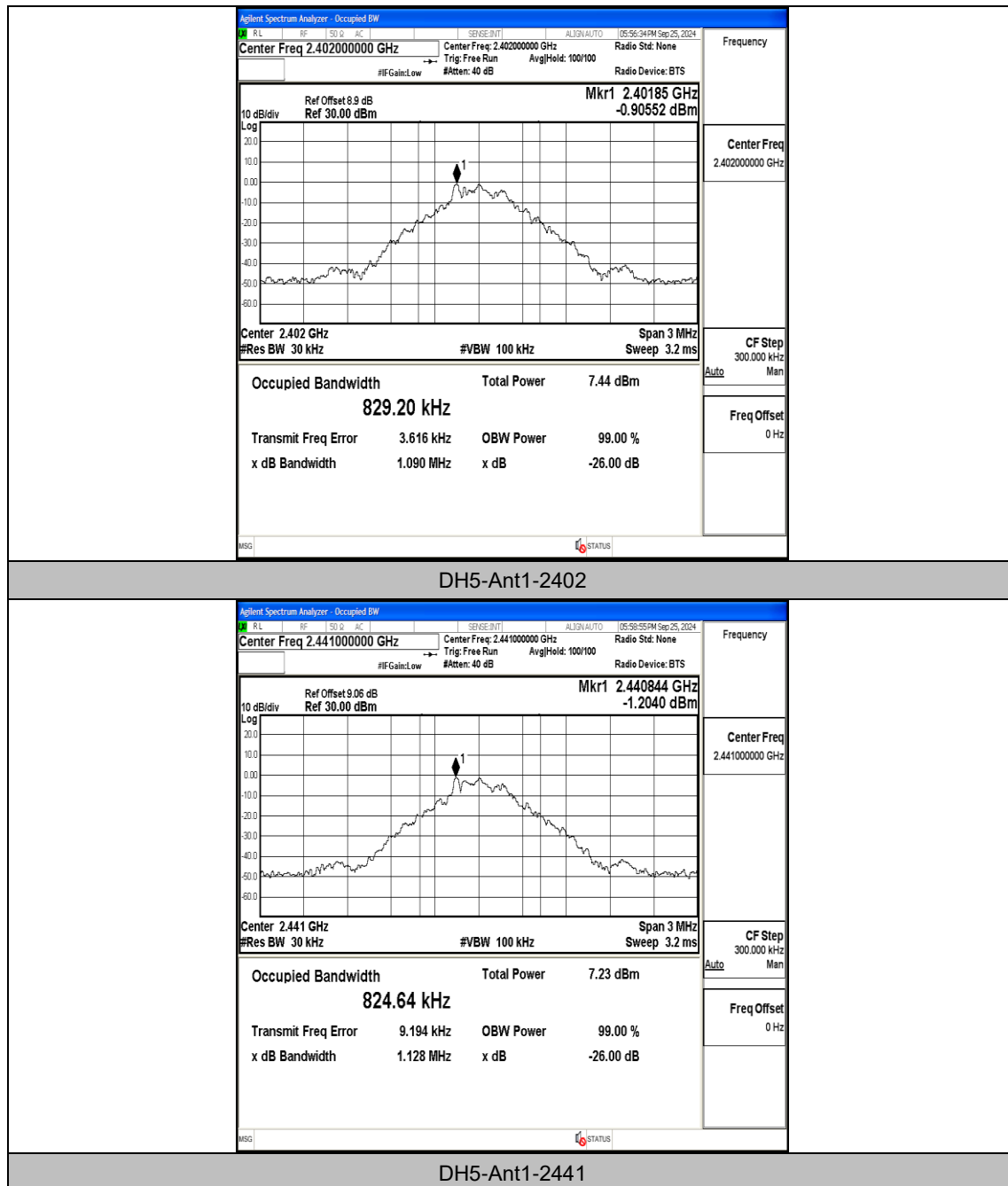


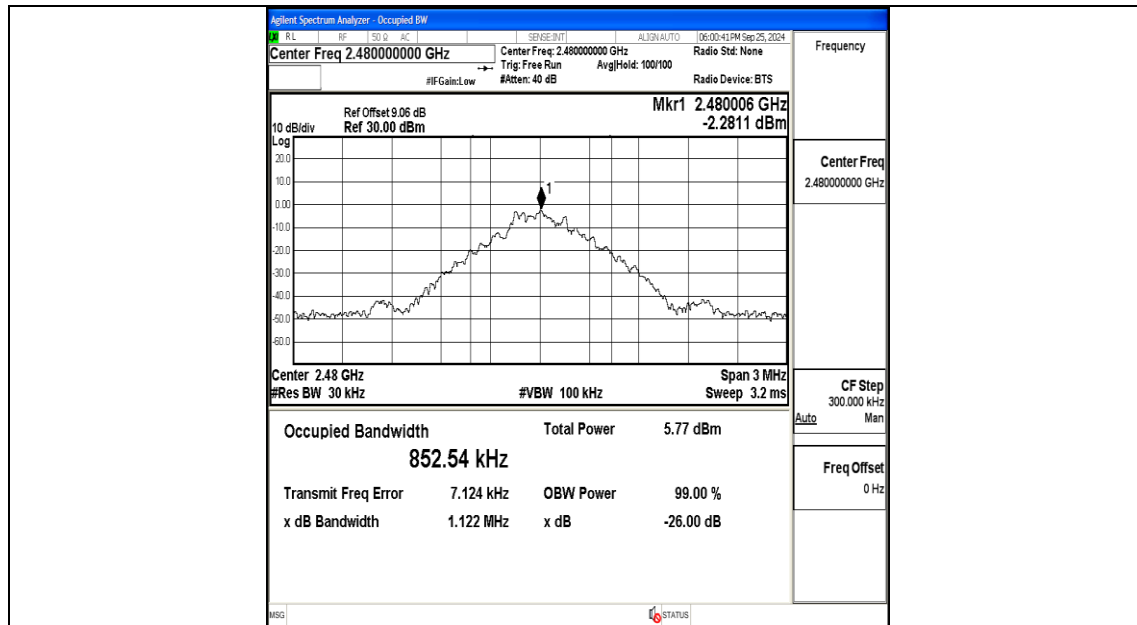
Appendix B: Occupied Channel Bandwidth

Test Result

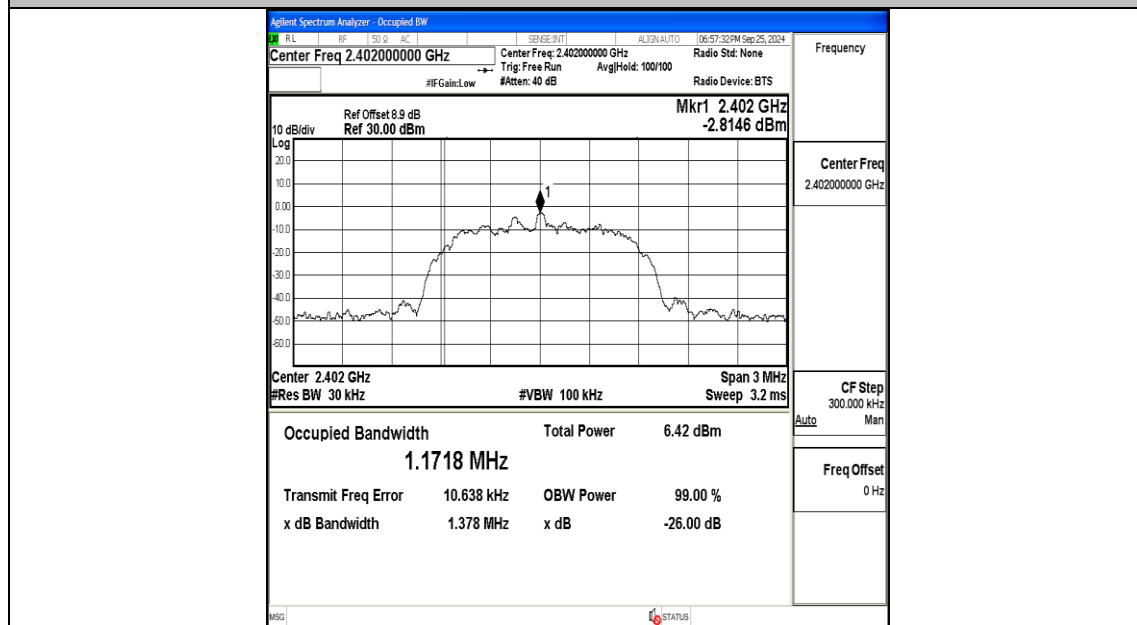
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.82920	2401.5890	2402.4182	---	---
DH5	Ant1	2441	0.82464	2440.5969	2441.4215	---	---
DH5	Ant1	2480	0.85254	2479.5809	2480.4334	---	---
2DH5	Ant1	2402	1.1718	2401.4247	2402.5965	---	---
2DH5	Ant1	2441	1.1676	2440.4255	2441.5931	---	---
2DH5	Ant1	2480	1.1698	2479.4244	2480.5942	---	---
3DH5	Ant1	2402	1.1917	2401.4140	2402.6057	---	---
3DH5	Ant1	2441	1.1812	2440.4175	2441.5987	---	---
3DH5	Ant1	2480	1.1944	2479.4158	2480.6102	---	---

Test Graphs

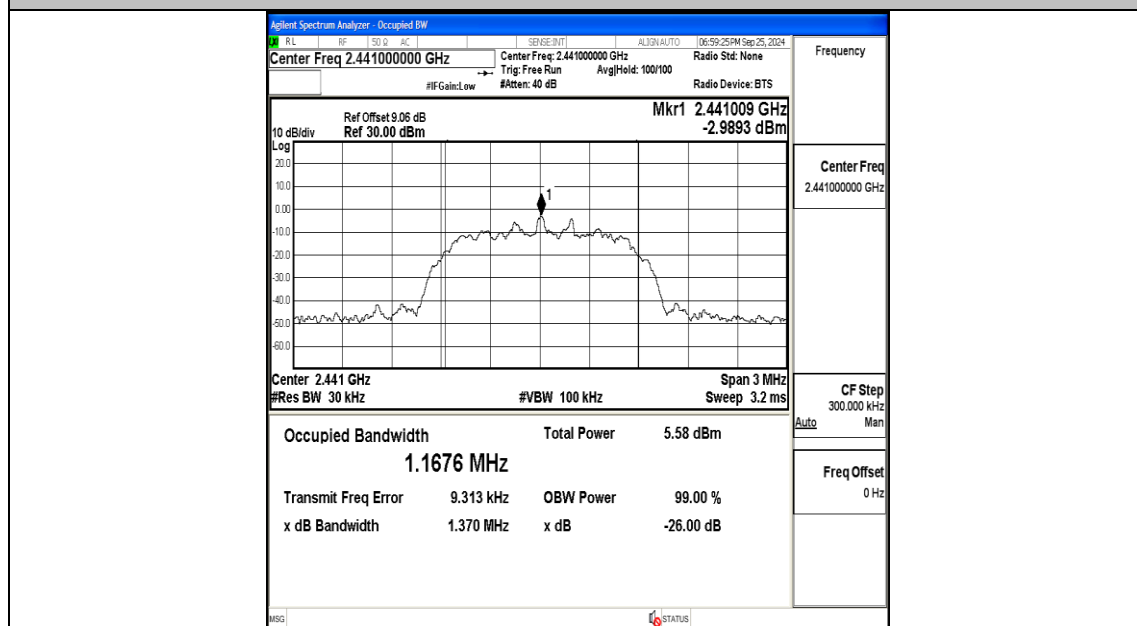




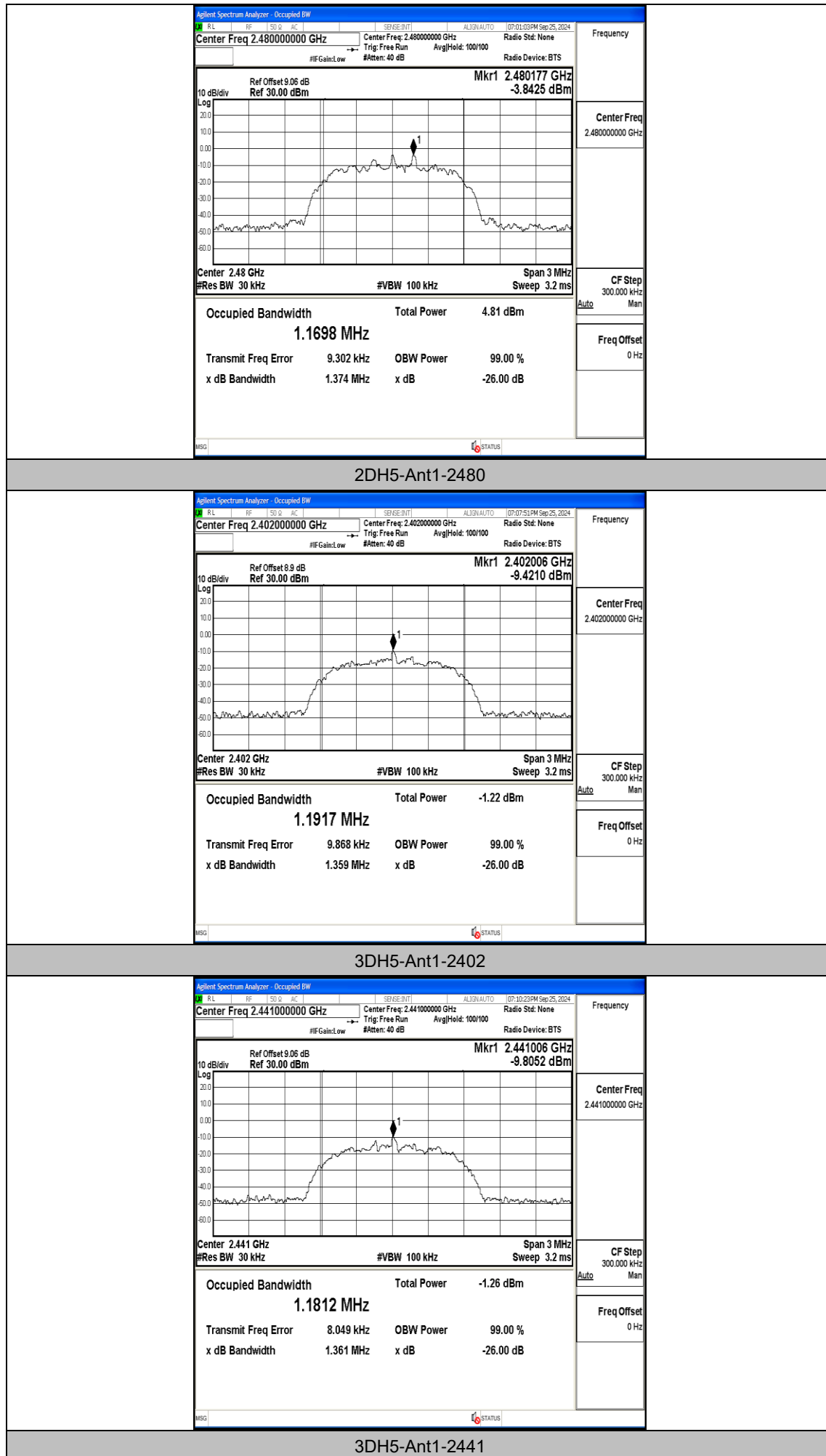
DH5-Ant1-2480

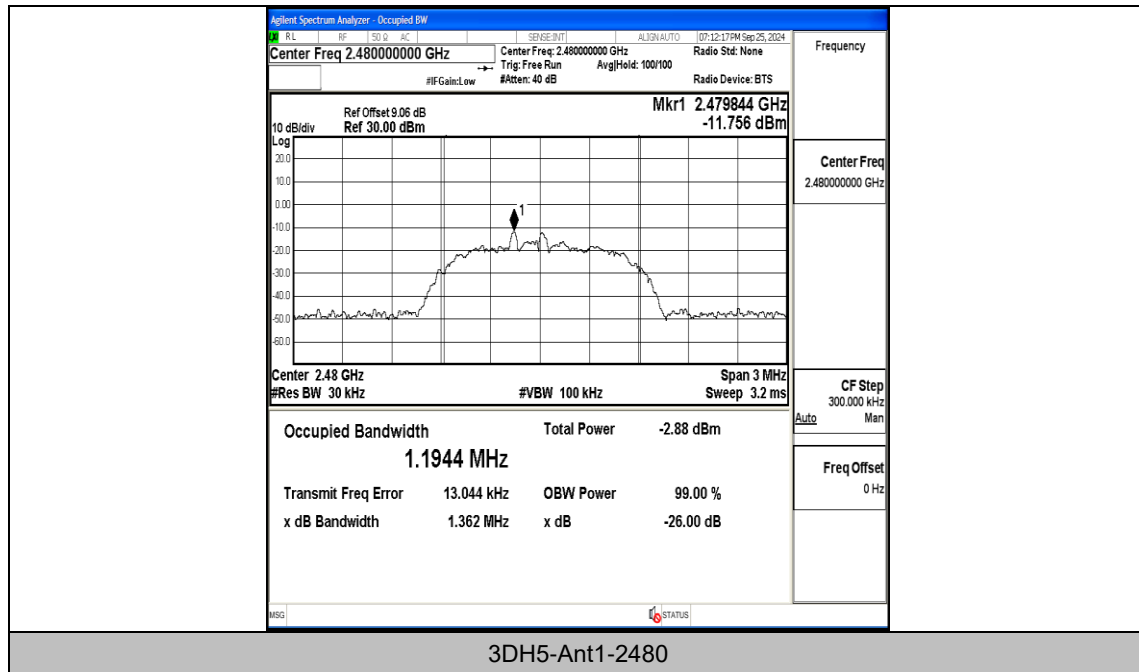


2DH5-Ant1-2402



2DH5-Ant1-2441



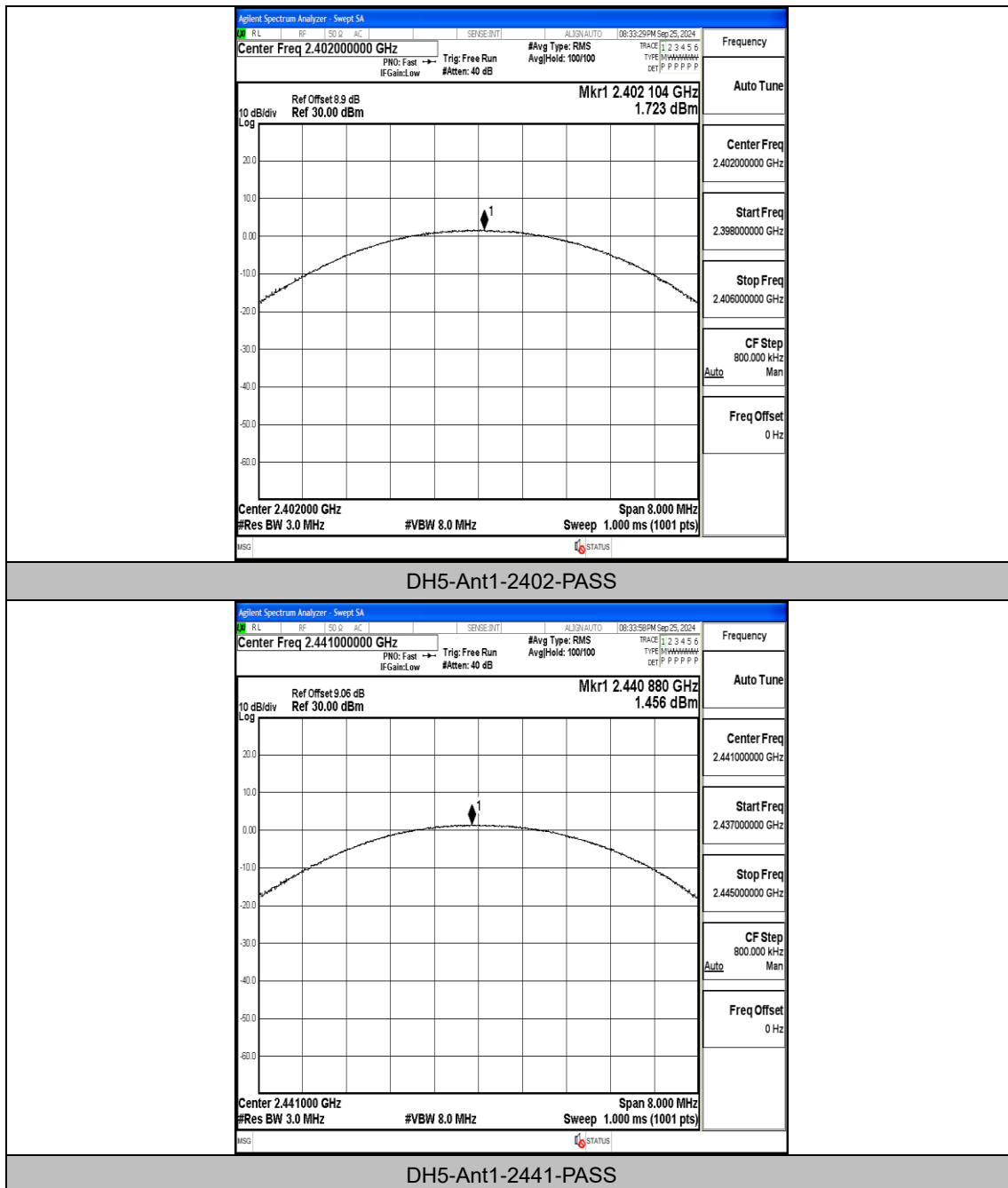


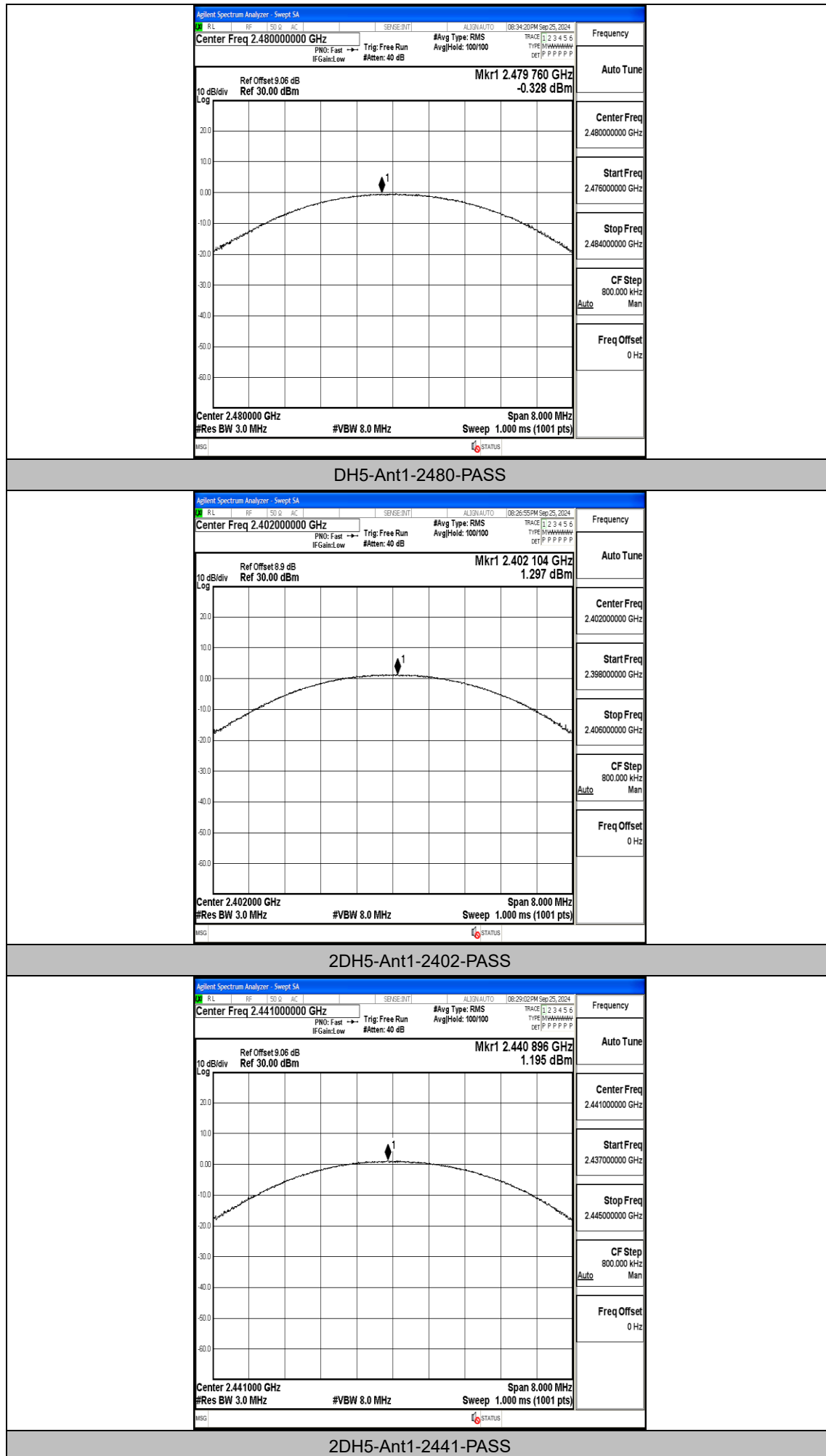
Appendix C: Maximum peak conducted output power

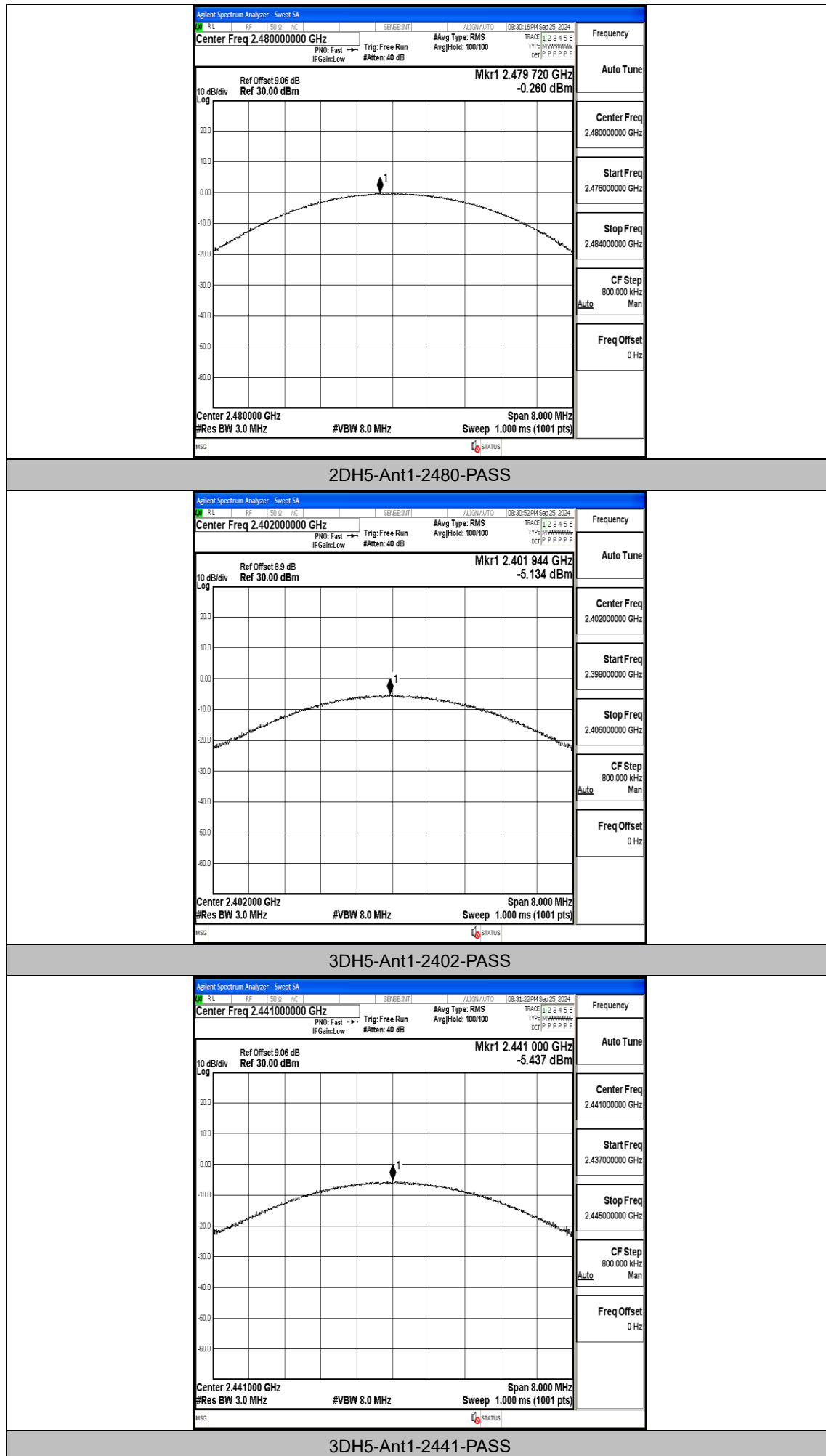
Test Result

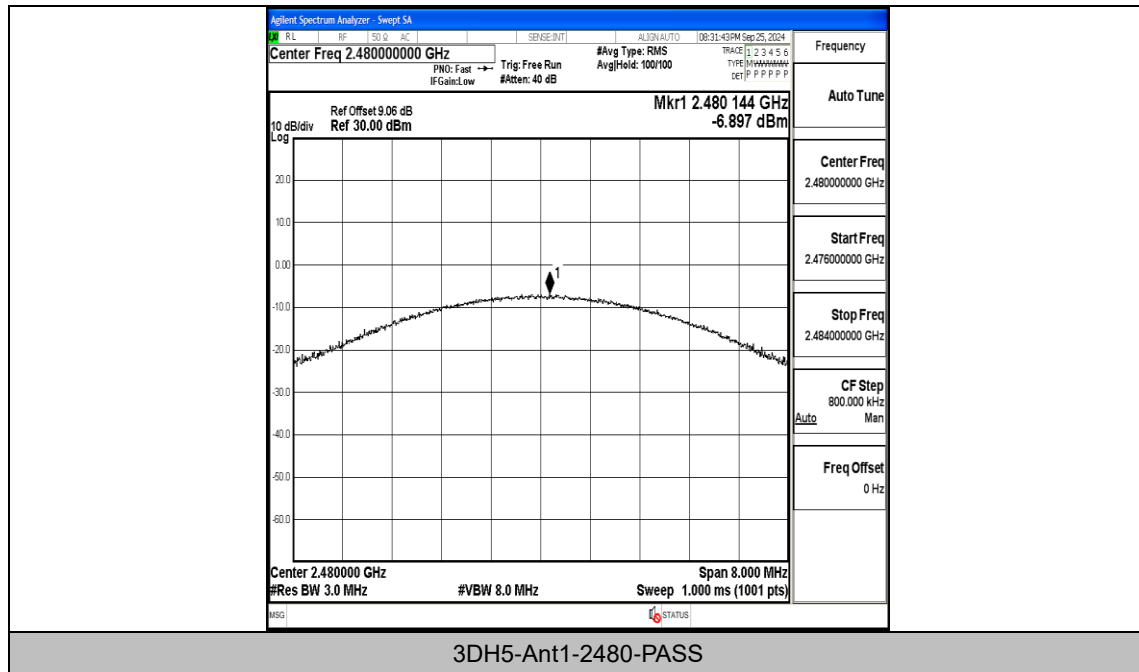
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	1.72	≤30	PASS
DH5	Ant1	2441	1.46	≤30	PASS
DH5	Ant1	2480	-0.33	≤30	PASS
2DH5	Ant1	2402	1.30	≤20.97	PASS
2DH5	Ant1	2441	1.20	≤20.97	PASS
2DH5	Ant1	2480	-0.26	≤20.97	PASS
3DH5	Ant1	2402	-5.13	≤20.97	PASS
3DH5	Ant1	2441	-5.44	≤20.97	PASS
3DH5	Ant1	2480	-6.90	≤20.97	PASS

Test Graphs







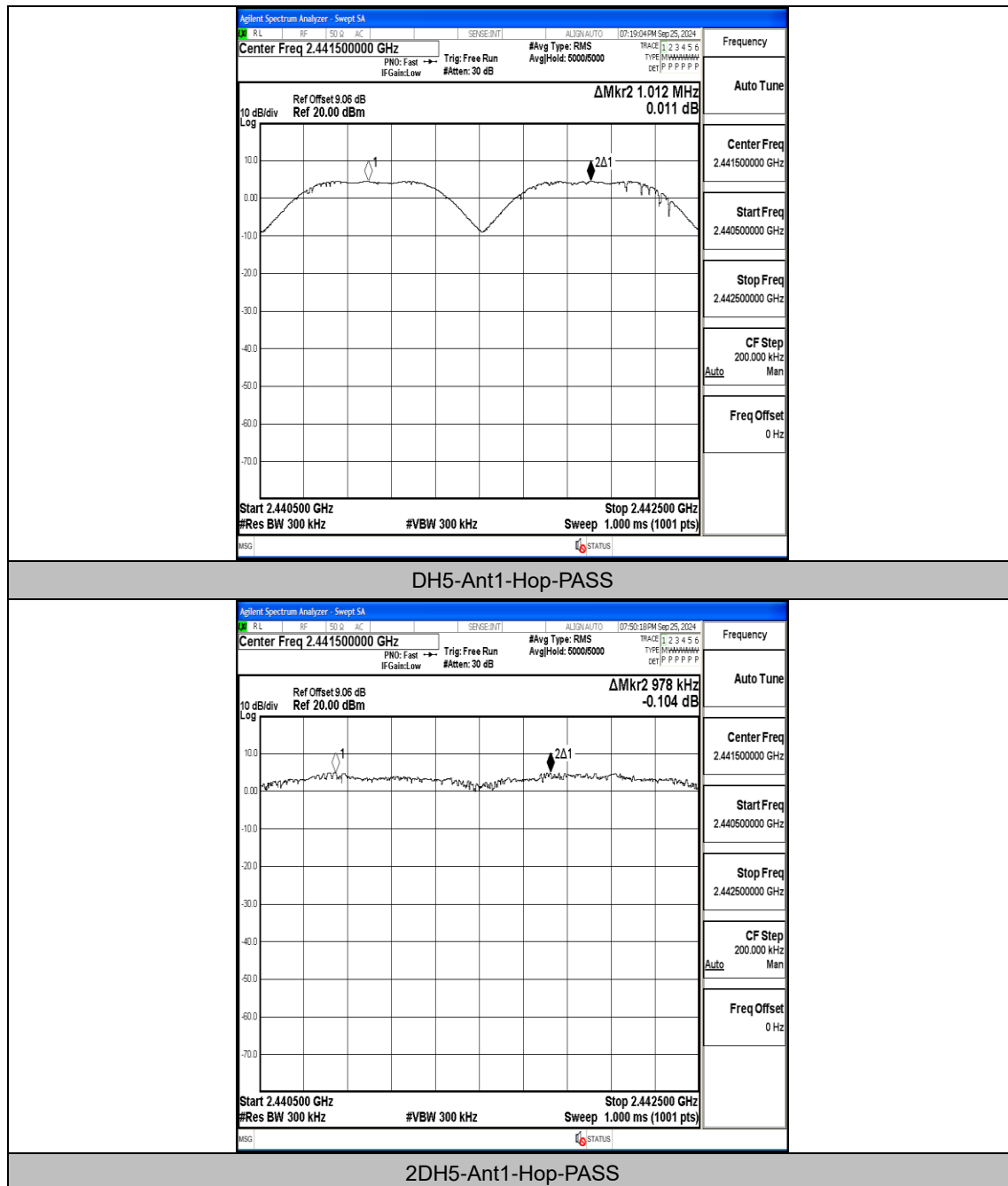


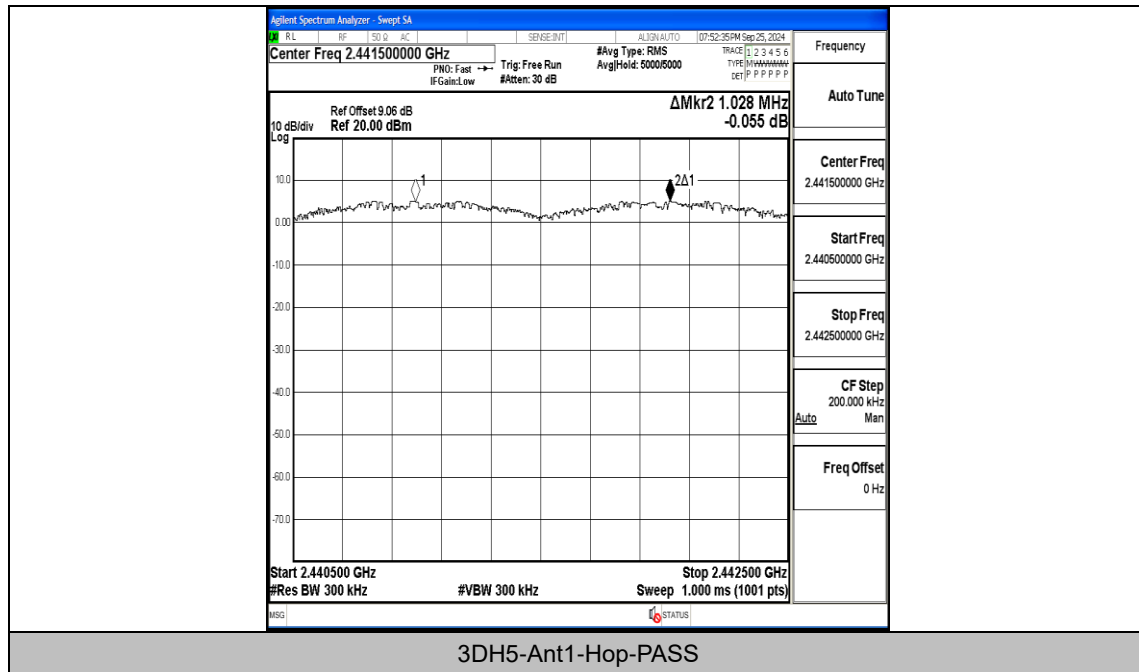
Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	1.012	≥ 0.930	PASS
2DH5	Ant1	Hop	0.978	≥ 0.888	PASS
3DH5	Ant1	Hop	1.028	≥ 0.862	PASS

Test Graphs



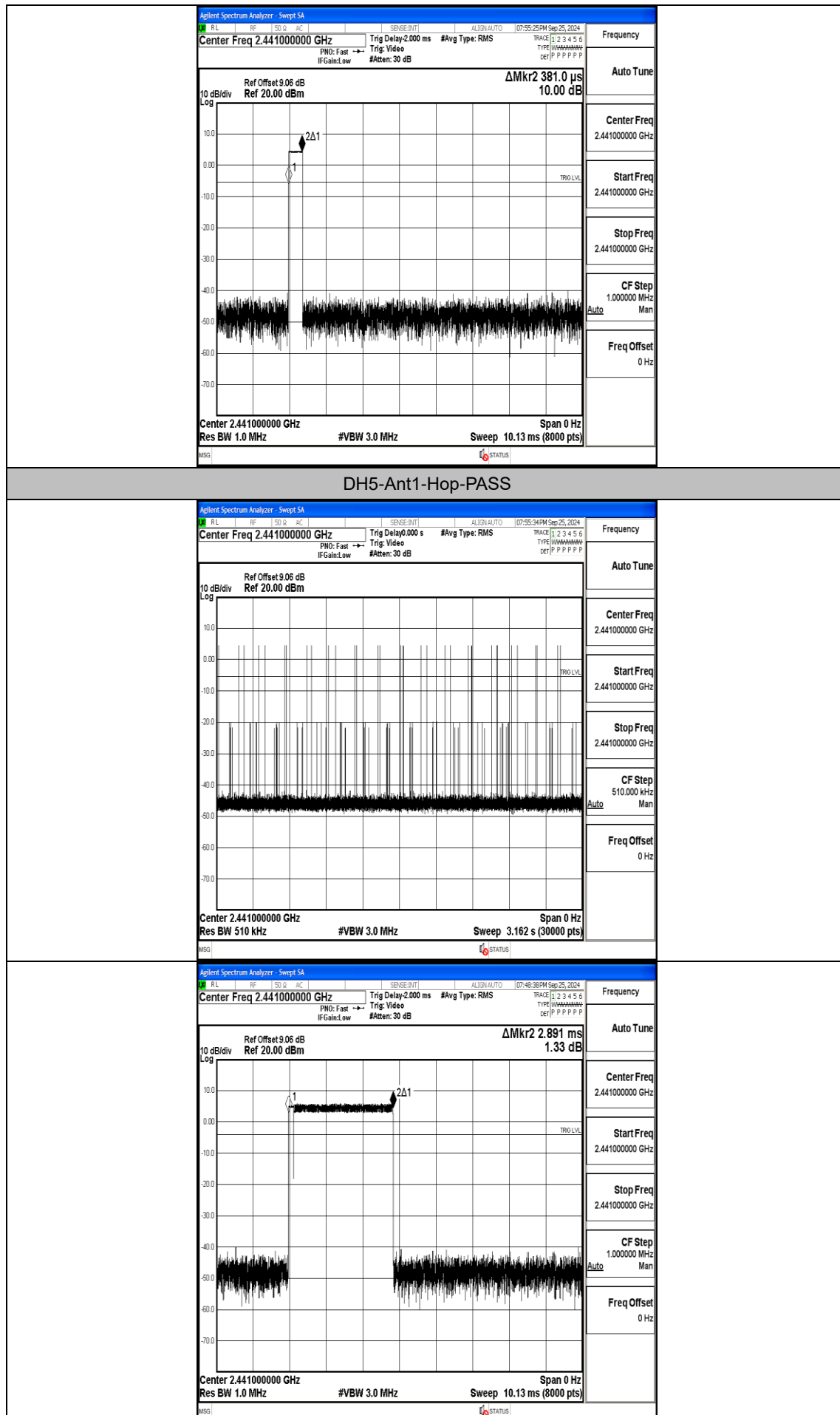


Appendix E: Time of occupancy

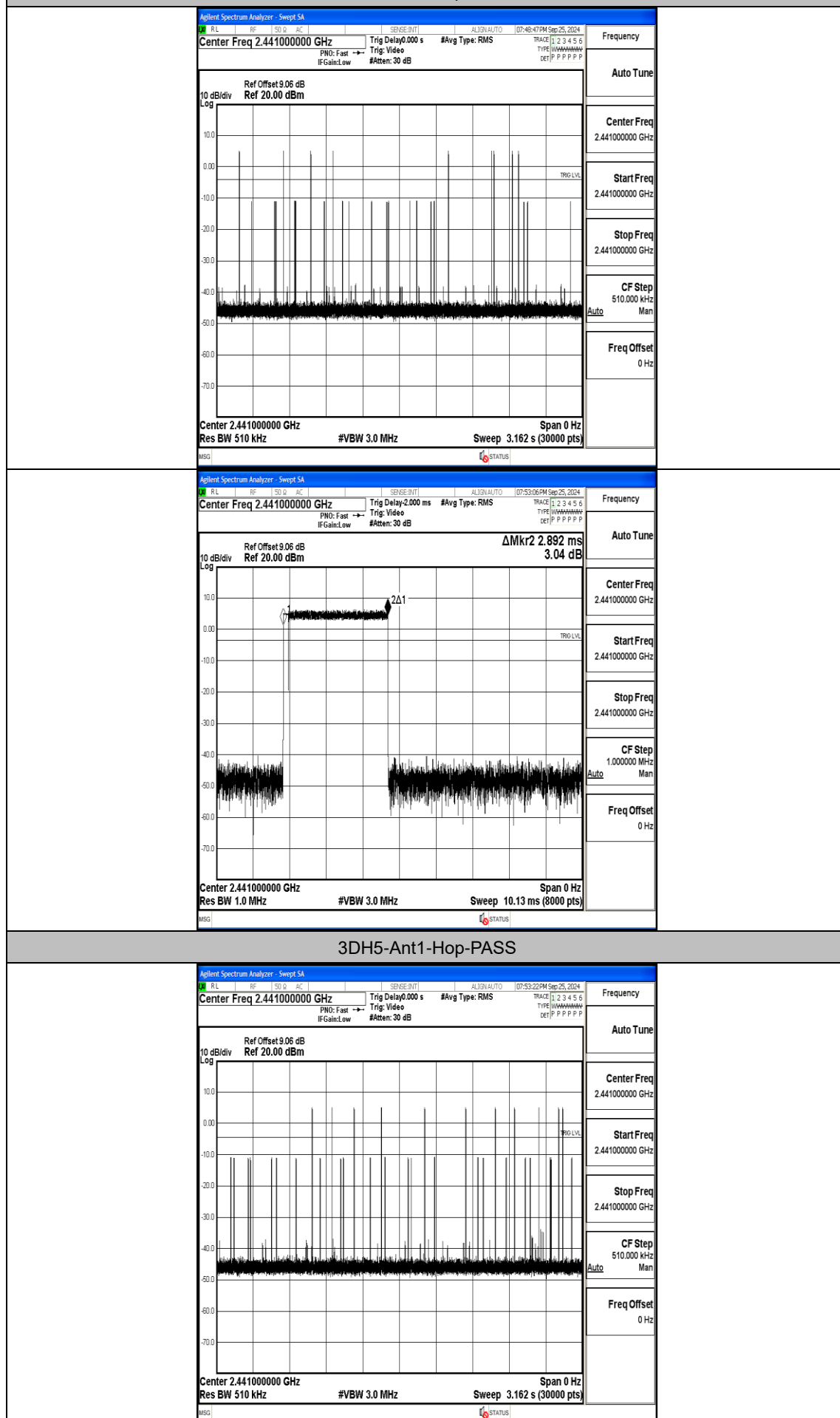
Test Result

Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	0.381	330	0.126	≤0.4	PASS
2DH5	Ant1	Hop	2.891	100	0.289	≤0.4	PASS
3DH5	Ant1	Hop	2.892	120	0.347	≤0.4	PASS

Test Graphs



2DH5-Ant1-Hop-PASS

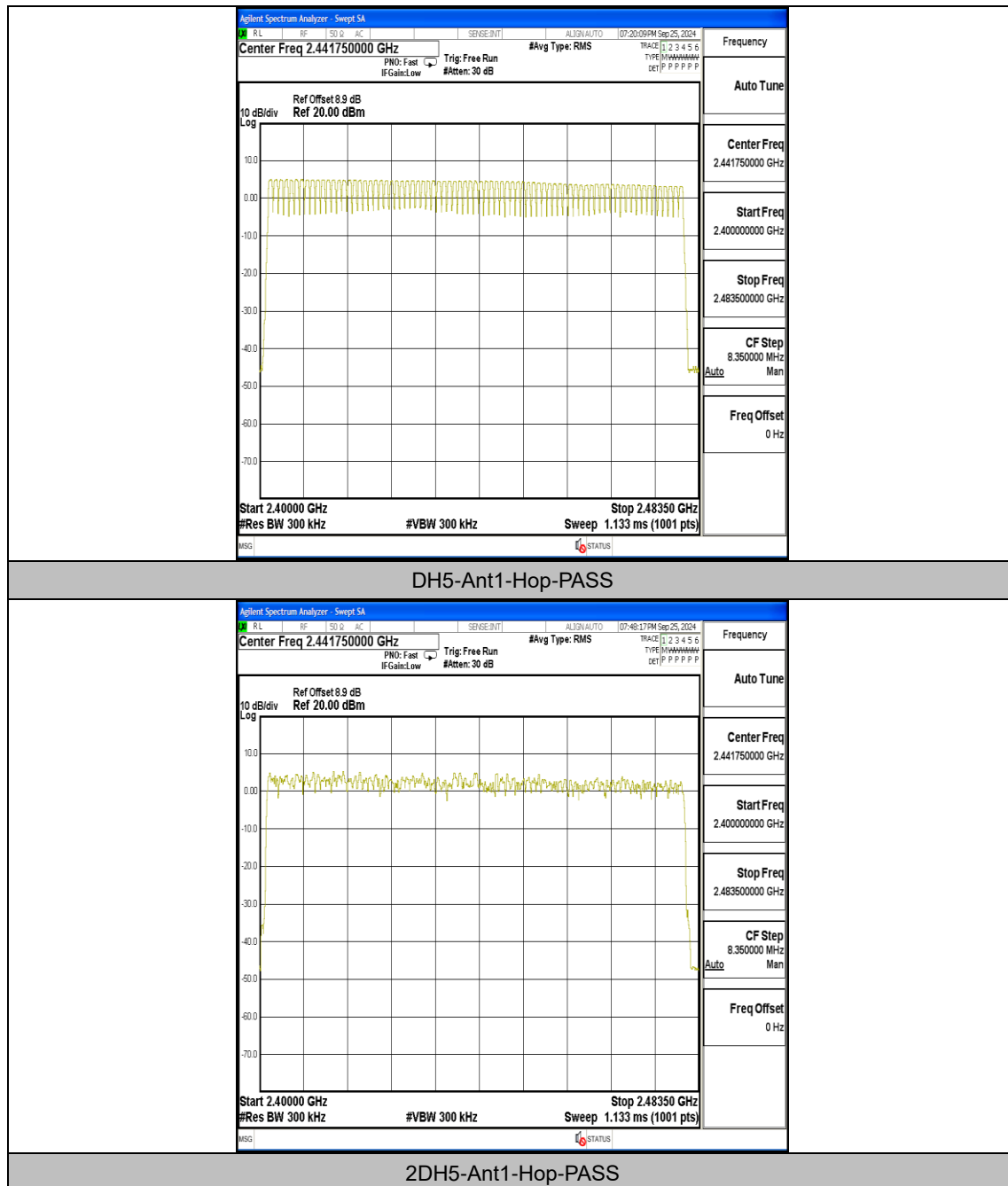


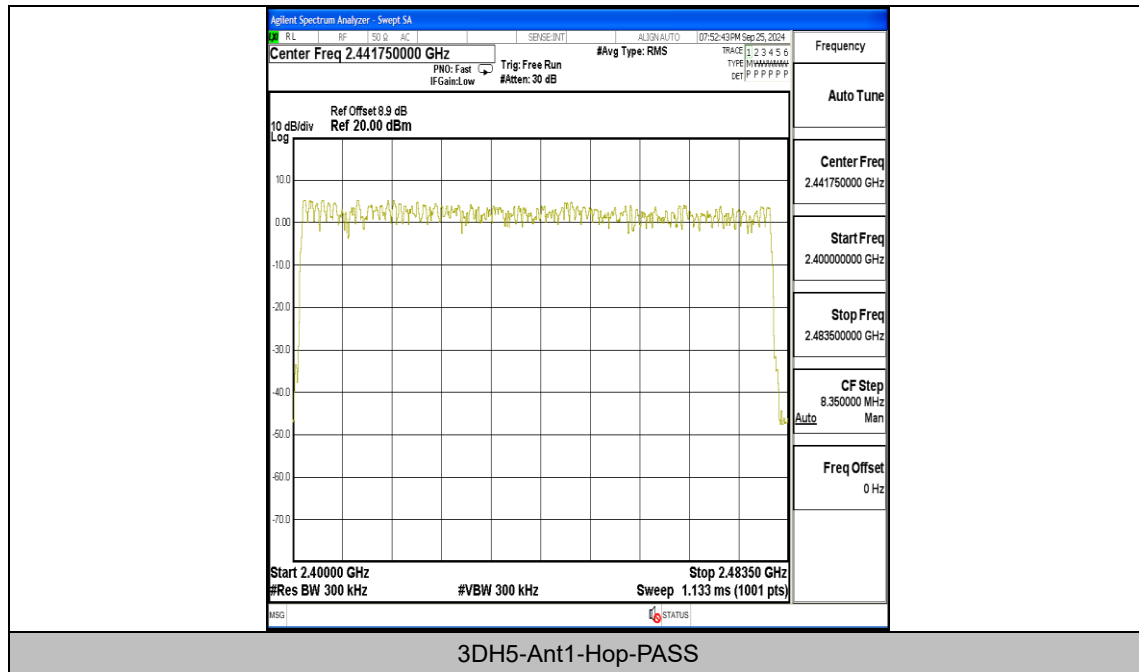
Appendix F: Number of hopping channels

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



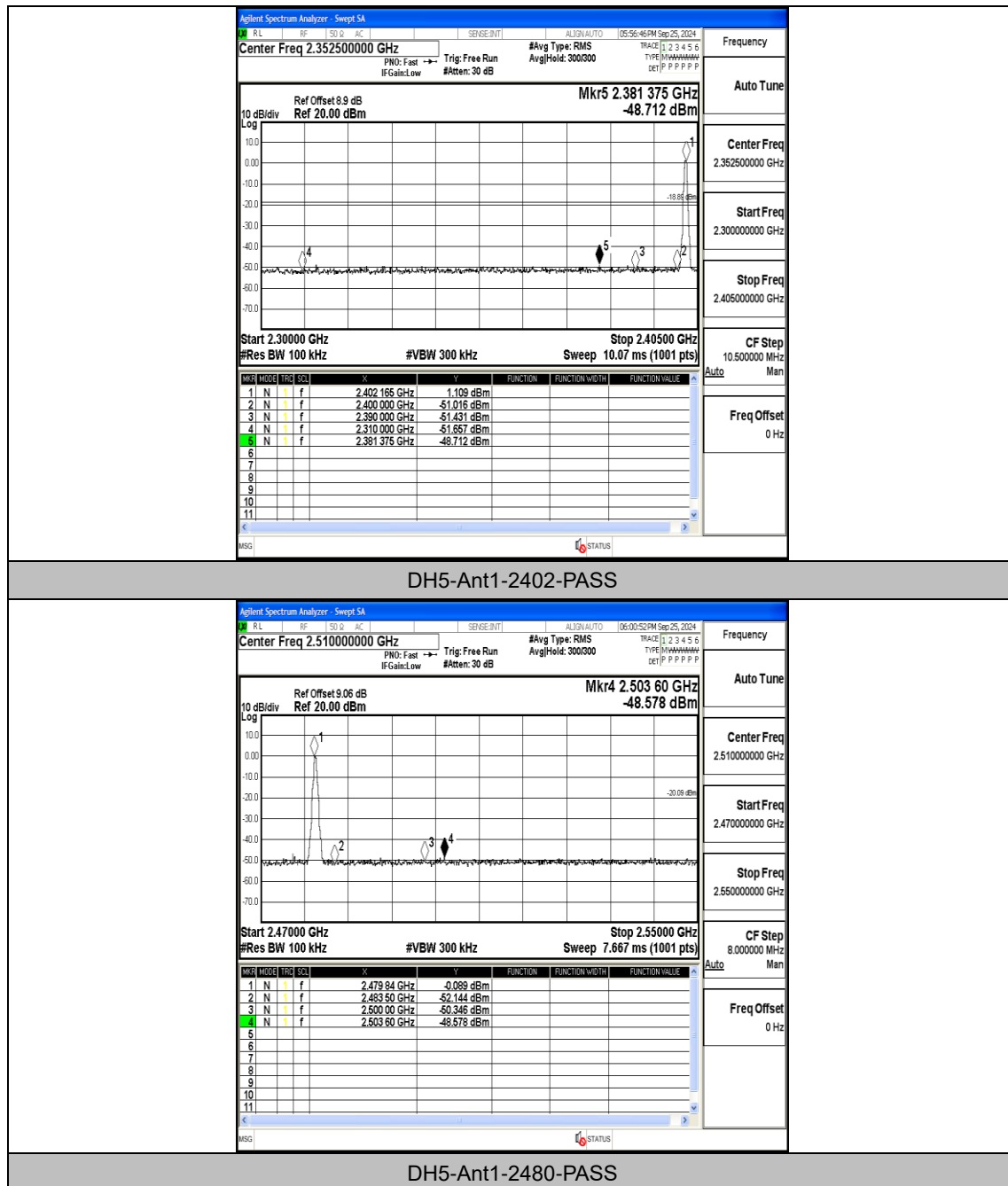


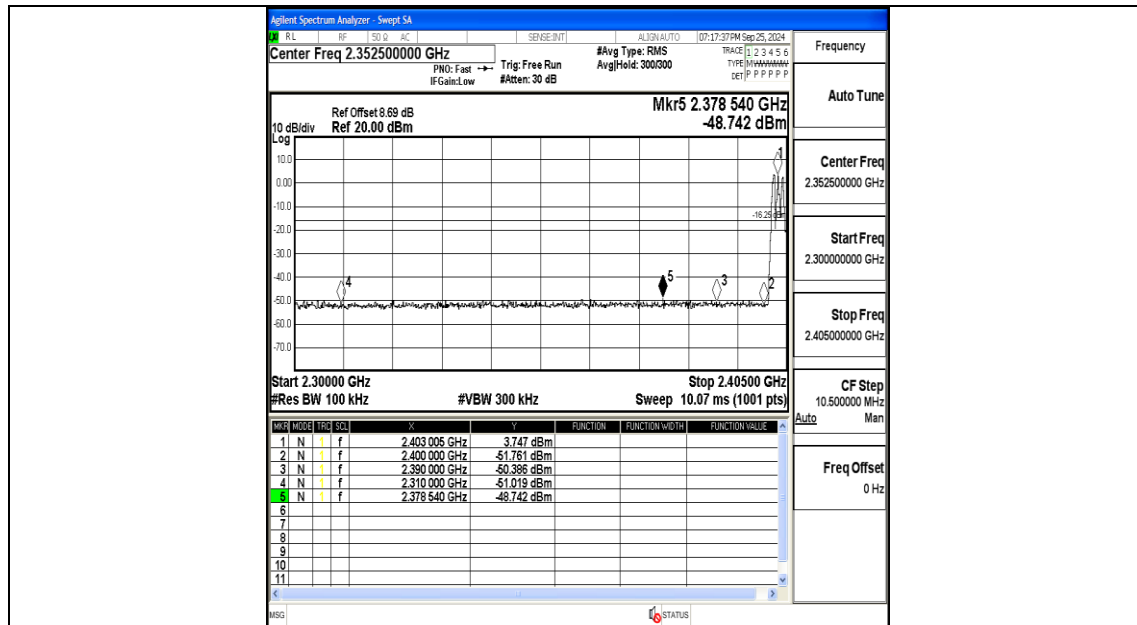
Appendix G: Band edge measurements

Test Result

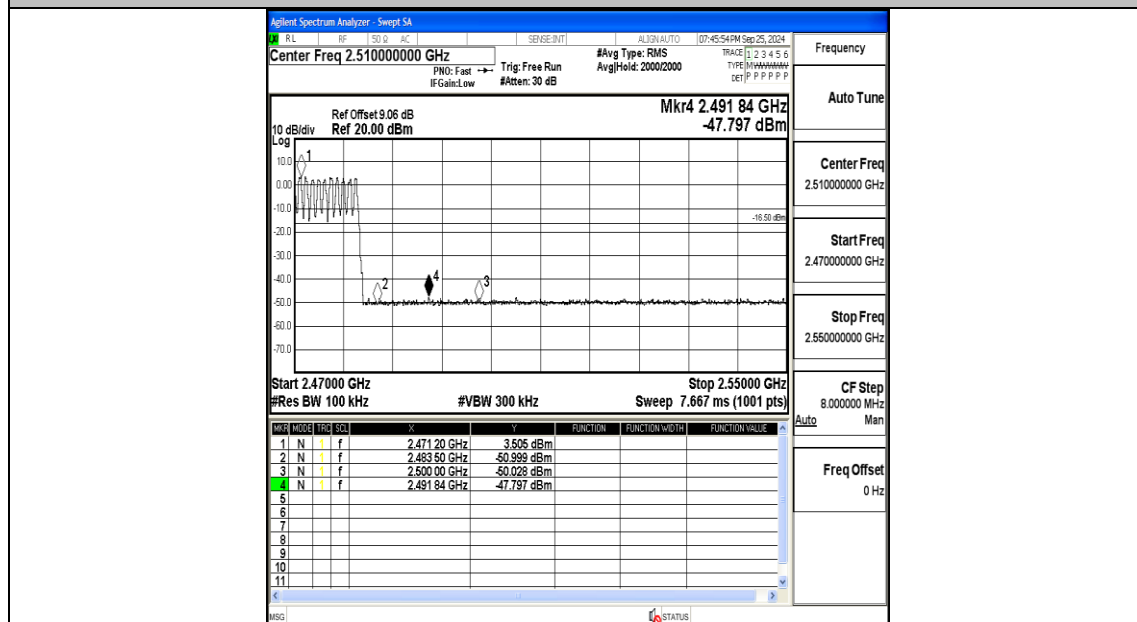
Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.11	-48.71	≤ -18.89	PASS
DH5	Ant1	High	2480	-0.09	-48.58	≤ -20.09	PASS
DH5	Ant1	Low	Hop_2402	3.75	-48.74	≤ -16.25	PASS
DH5	Ant1	High	Hop_2480	3.51	-47.8	≤ -16.5	PASS
2DH5	Ant1	Low	2402	0.13	-49.17	≤ -19.88	PASS
2DH5	Ant1	High	2480	-1.73	-48.51	≤ -21.73	PASS
2DH5	Ant1	Low	Hop_2402	5.06	-48.62	≤ -14.94	PASS
2DH5	Ant1	High	Hop_2480	3.83	-47.69	≤ -16.17	PASS
3DH5	Ant1	Low	2402	-7.53	-48.63	≤ -27.53	PASS
3DH5	Ant1	High	2480	-10.09	-47.08	≤ -30.09	PASS
3DH5	Ant1	Low	Hop_2402	4.78	-48.75	≤ -15.22	PASS
3DH5	Ant1	High	Hop_2480	3.80	-47.59	≤ -16.21	PASS

Test Graphs

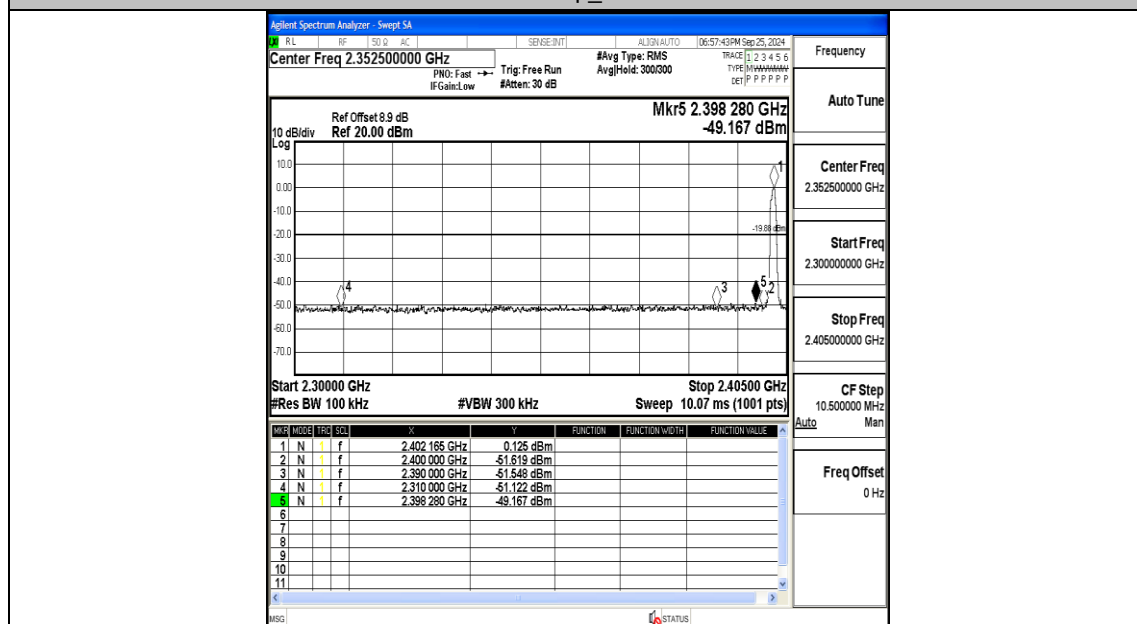




DH5-Ant1-Hop_2402-PASS

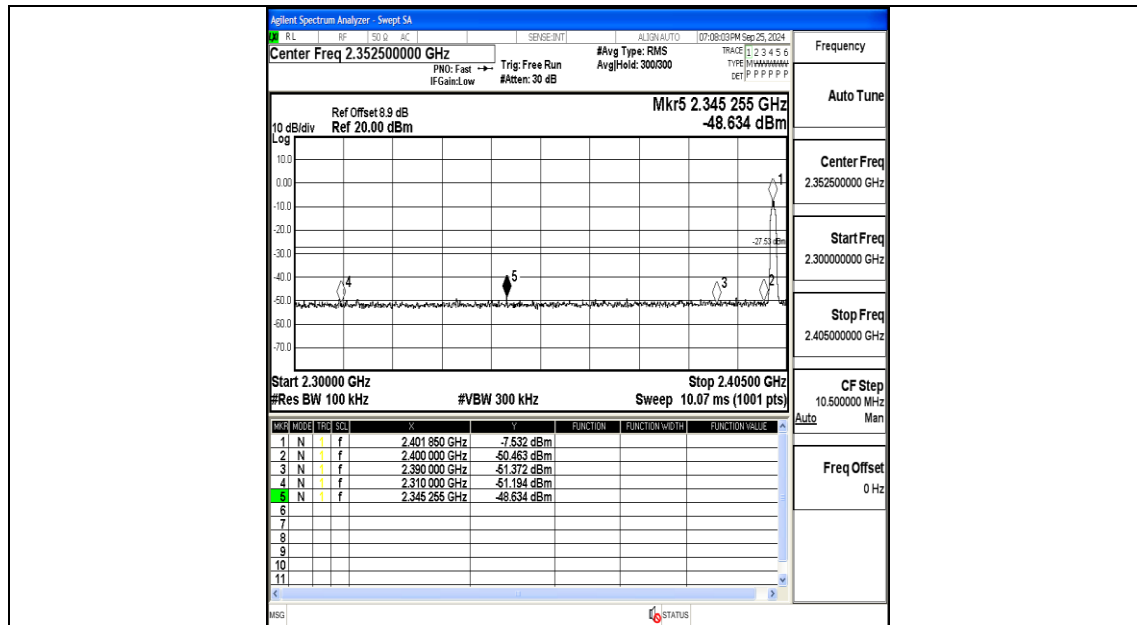


DH5-Ant1-Hop_2480-PASS

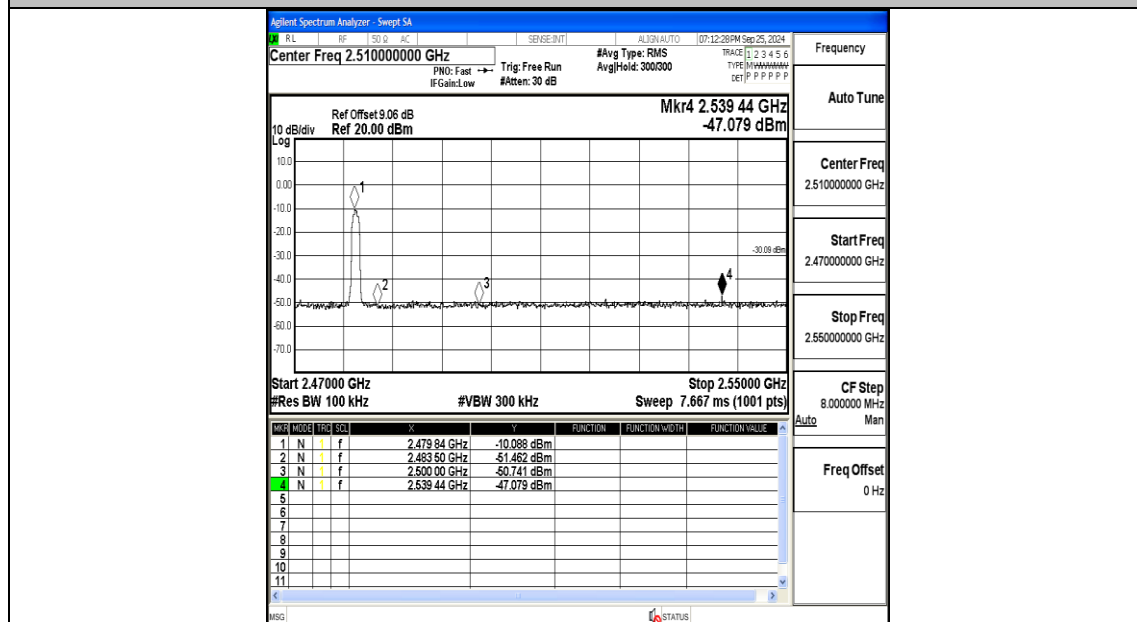


2DH5-Ant1-2402-PASS

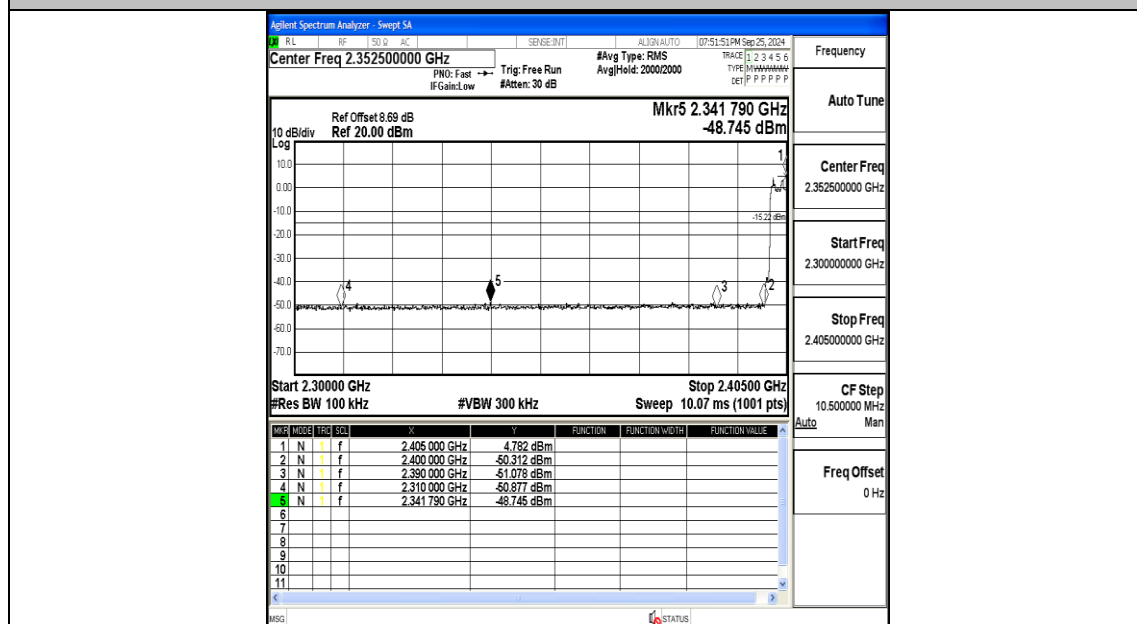




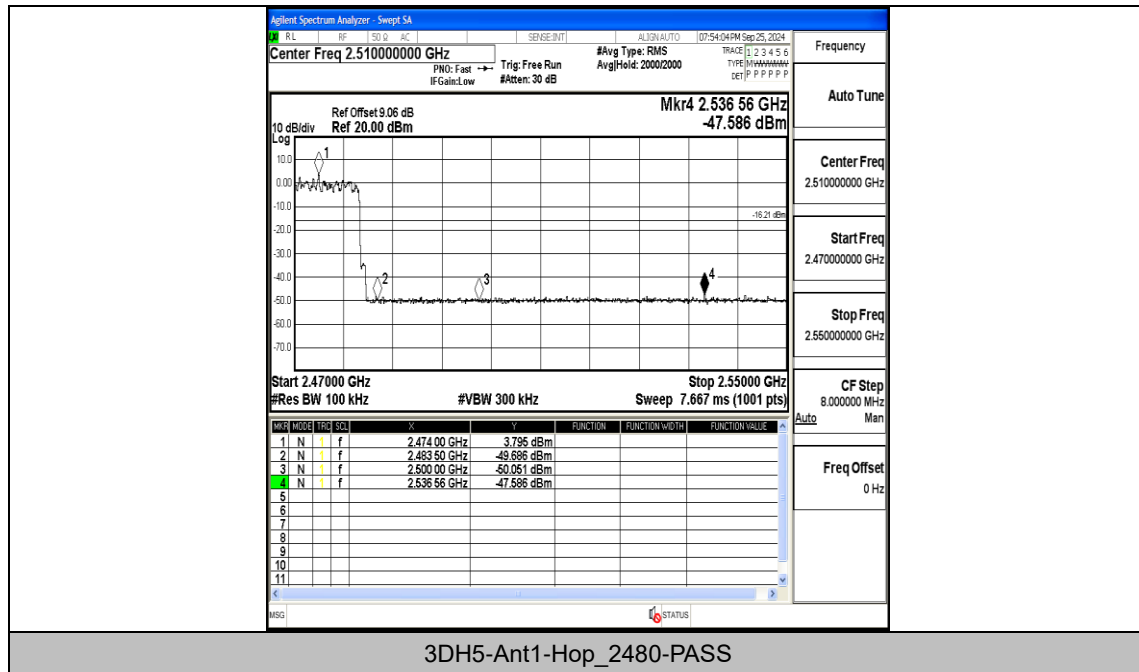
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS

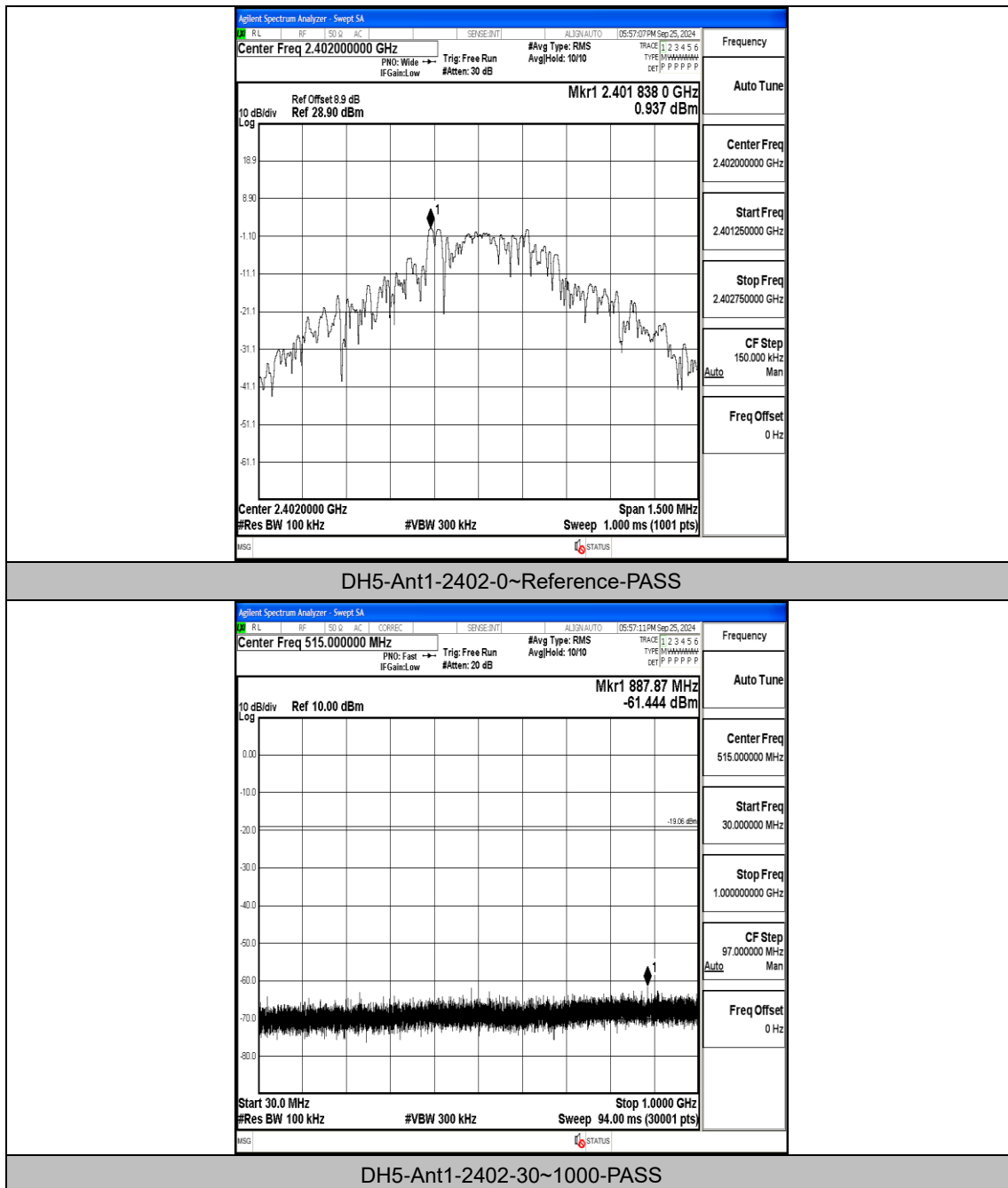


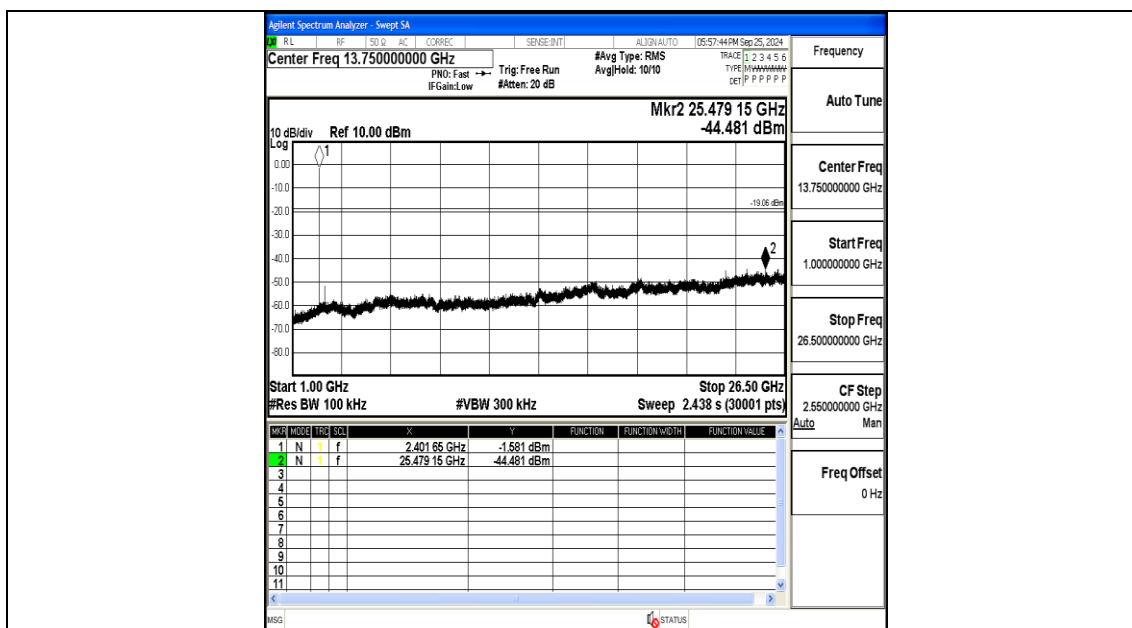
Appendix H: Conducted Spurious Emission

Test Result

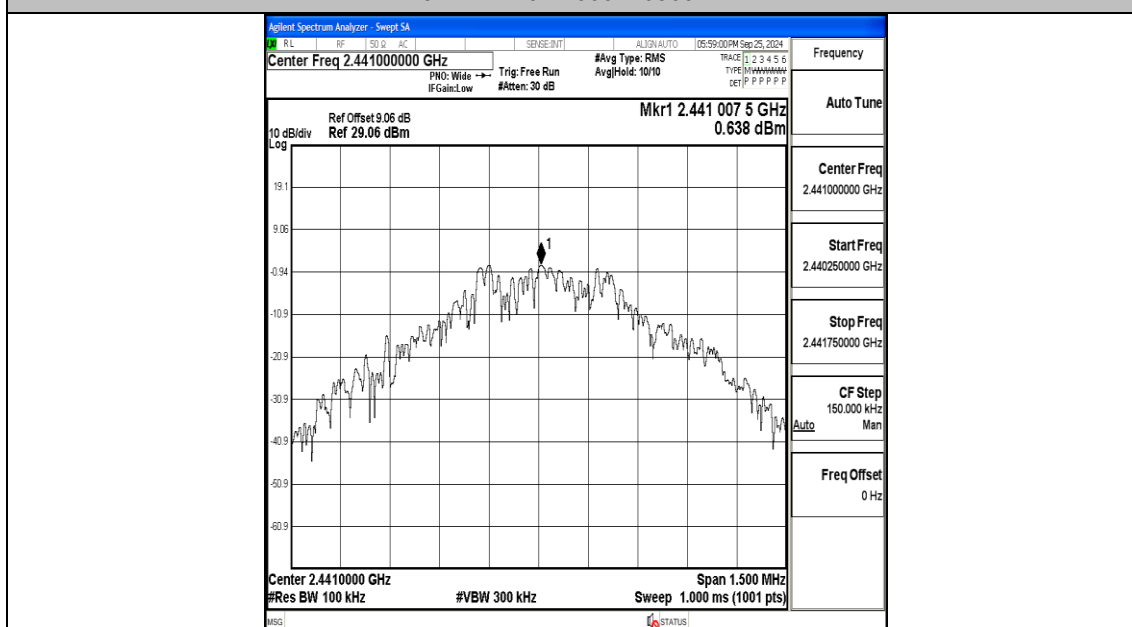
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	0.94	0.94	---	PASS
DH5	Ant1	2402	30~1000	0.94	-61.44	≤-19.06	PASS
DH5	Ant1	2402	1000~26500	0.94	-44.48	≤-19.06	PASS
DH5	Ant1	2441	0~Reference	0.64	0.64	---	PASS
DH5	Ant1	2441	30~1000	0.64	-60.27	≤-19.36	PASS
DH5	Ant1	2441	1000~26500	0.64	-45.21	≤-19.36	PASS
DH5	Ant1	2480	0~Reference	-0.16	-0.16	---	PASS
DH5	Ant1	2480	30~1000	-0.16	-61.98	≤-20.16	PASS
DH5	Ant1	2480	1000~26500	-0.16	-44.48	≤-20.16	PASS
2DH5	Ant1	2402	0~Reference	-2.60	-2.60	---	PASS
2DH5	Ant1	2402	30~1000	-2.60	-61.05	≤-22.6	PASS
2DH5	Ant1	2402	1000~26500	-2.60	-44.4	≤-22.6	PASS
2DH5	Ant1	2441	0~Reference	-3.19	-3.19	---	PASS
2DH5	Ant1	2441	30~1000	-3.19	-61.34	≤-23.19	PASS
2DH5	Ant1	2441	1000~26500	-3.19	-44.47	≤-23.19	PASS
2DH5	Ant1	2480	0~Reference	-1.96	-1.96	---	PASS
2DH5	Ant1	2480	30~1000	-1.96	-60.6	≤-21.96	PASS
2DH5	Ant1	2480	1000~26500	-1.96	-45.04	≤-21.96	PASS
3DH5	Ant1	2402	0~Reference	-8.61	-8.61	---	PASS
3DH5	Ant1	2402	30~1000	-8.61	-62.04	≤-28.61	PASS
3DH5	Ant1	2402	1000~26500	-8.61	-45.19	≤-28.61	PASS
3DH5	Ant1	2441	0~Reference	-10.69	-10.69	---	PASS
3DH5	Ant1	2441	30~1000	-10.69	-61.84	≤-30.69	PASS
3DH5	Ant1	2441	1000~26500	-10.69	-44.95	≤-30.69	PASS
3DH5	Ant1	2480	0~Reference	-12.43	-12.43	---	PASS
3DH5	Ant1	2480	30~1000	-12.43	-62.31	≤-32.43	PASS
3DH5	Ant1	2480	1000~26500	-12.43	-44.68	≤-32.43	PASS

Test Graphs

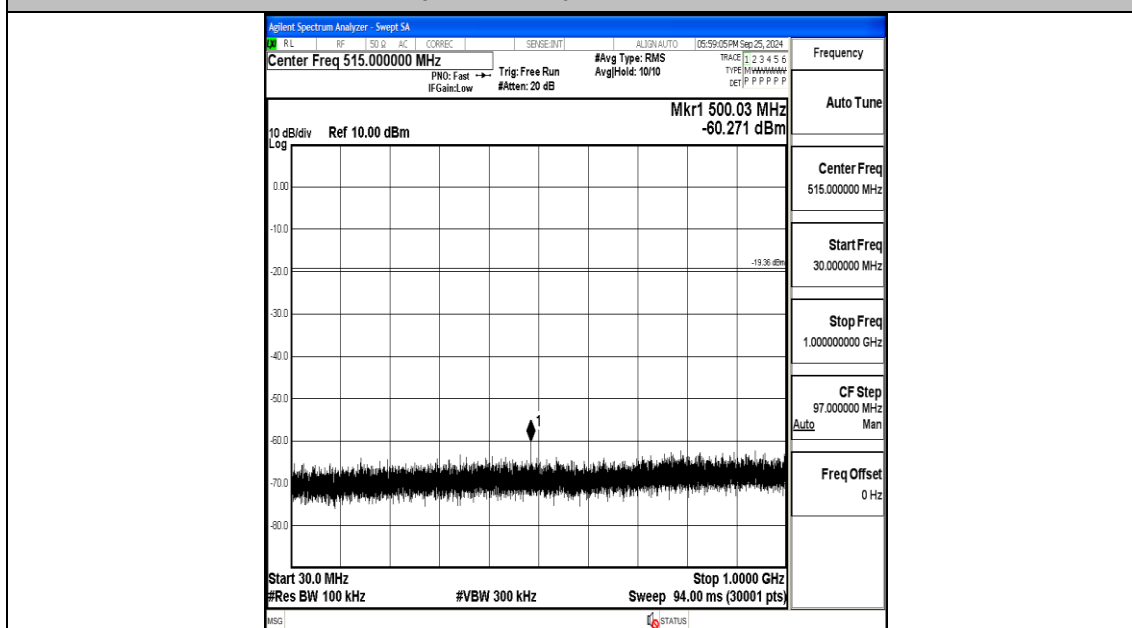




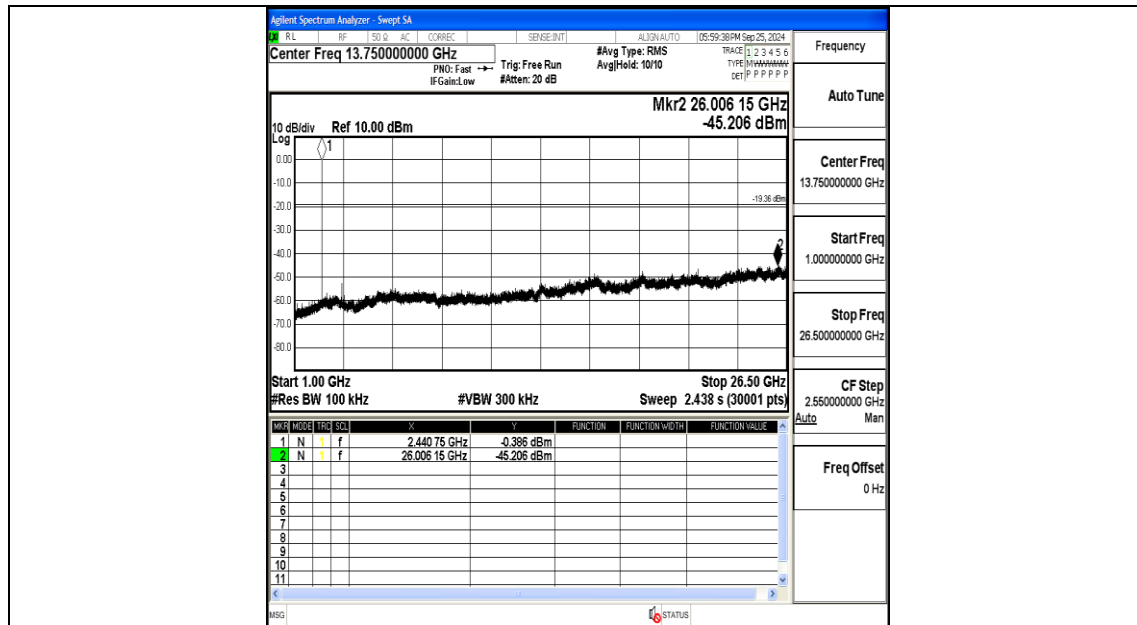
DH5-Ant1-2402-1000~26500-PASS



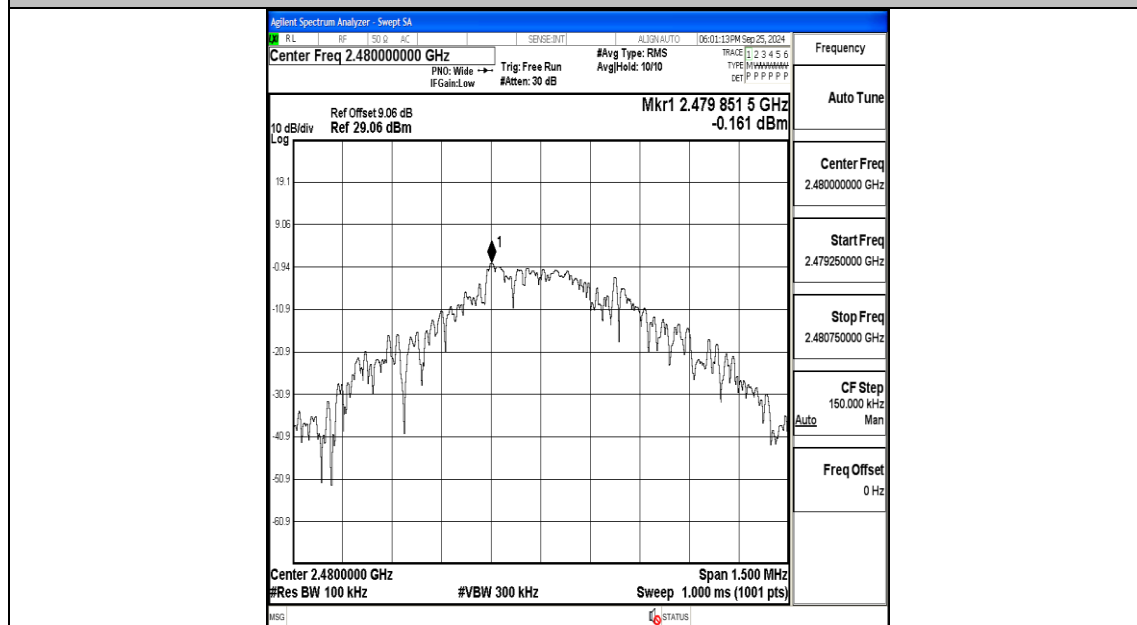
DH5-Ant1-2441-0~Reference-PASS



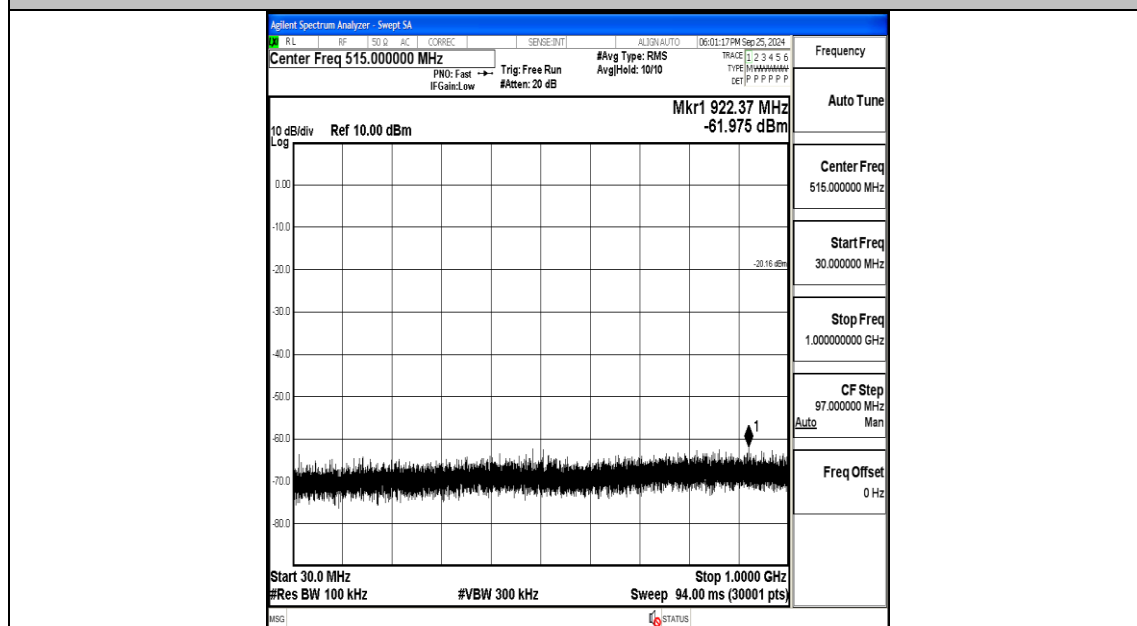
DH5-Ant1-2441-30~1000-PASS



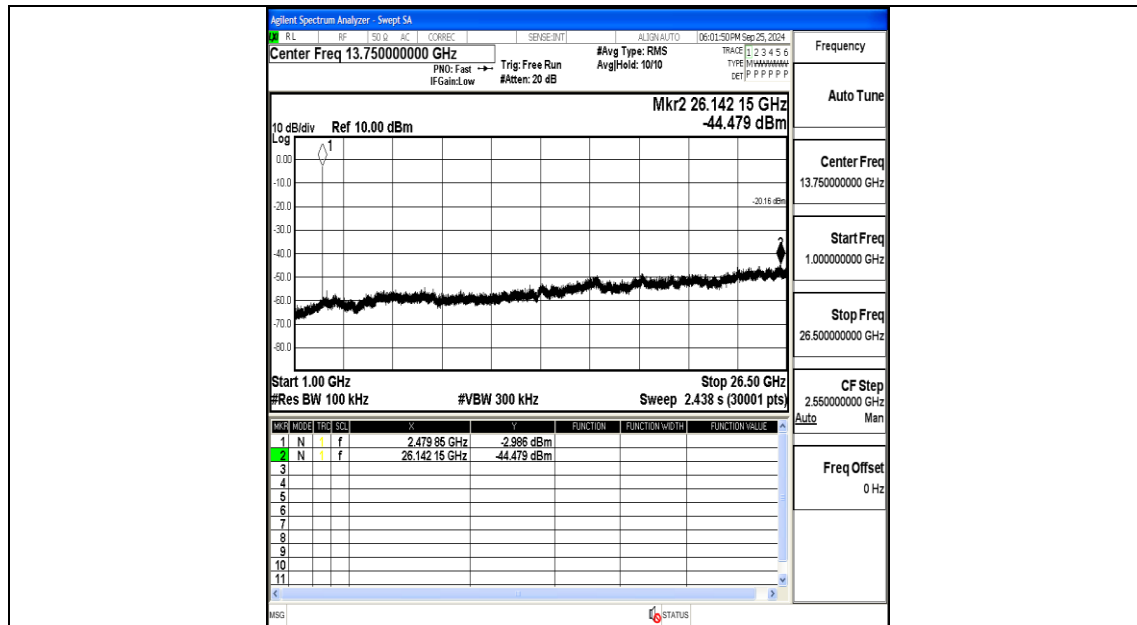
DH5-Ant1-2441-1000~26500-PASS



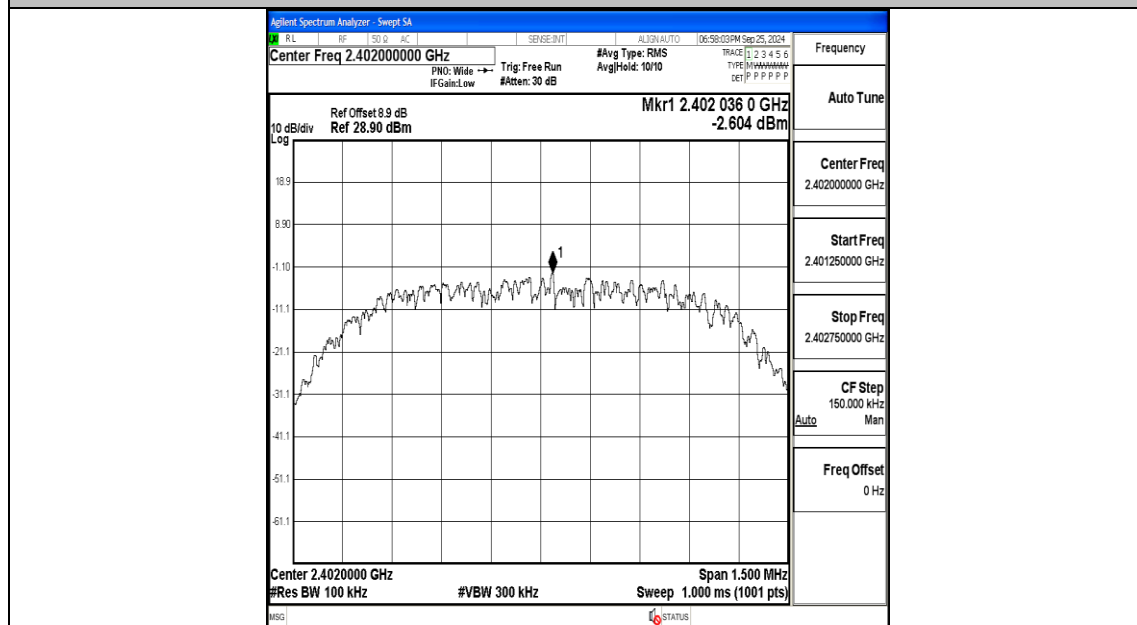
DH5-Ant1-2480-0~Reference-PASS



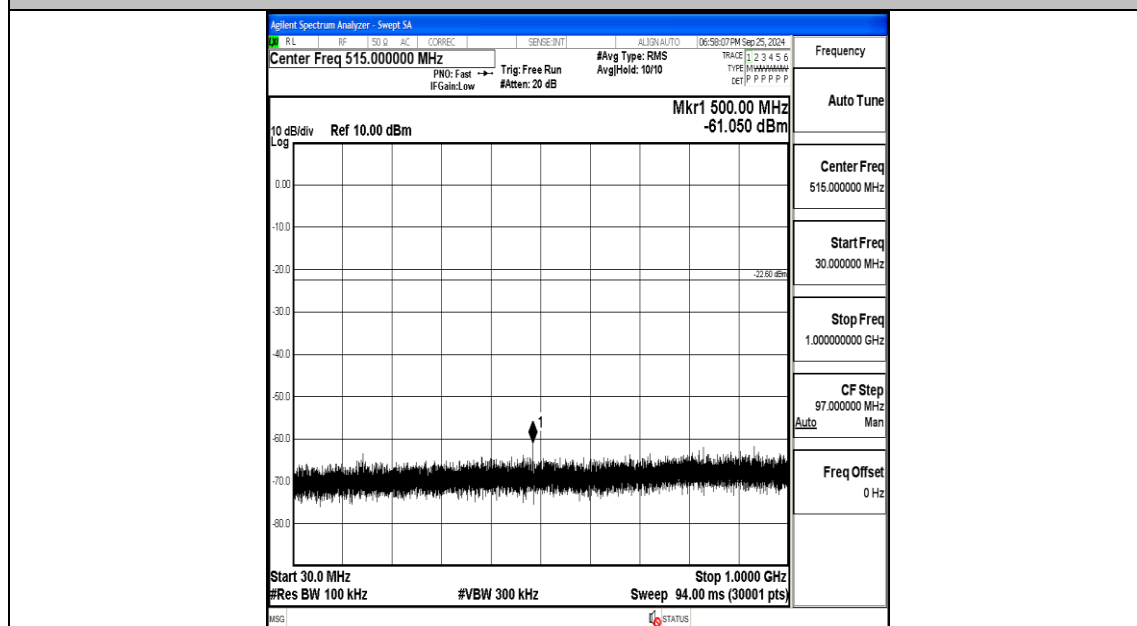
DH5-Ant1-2480-30~1000-PASS



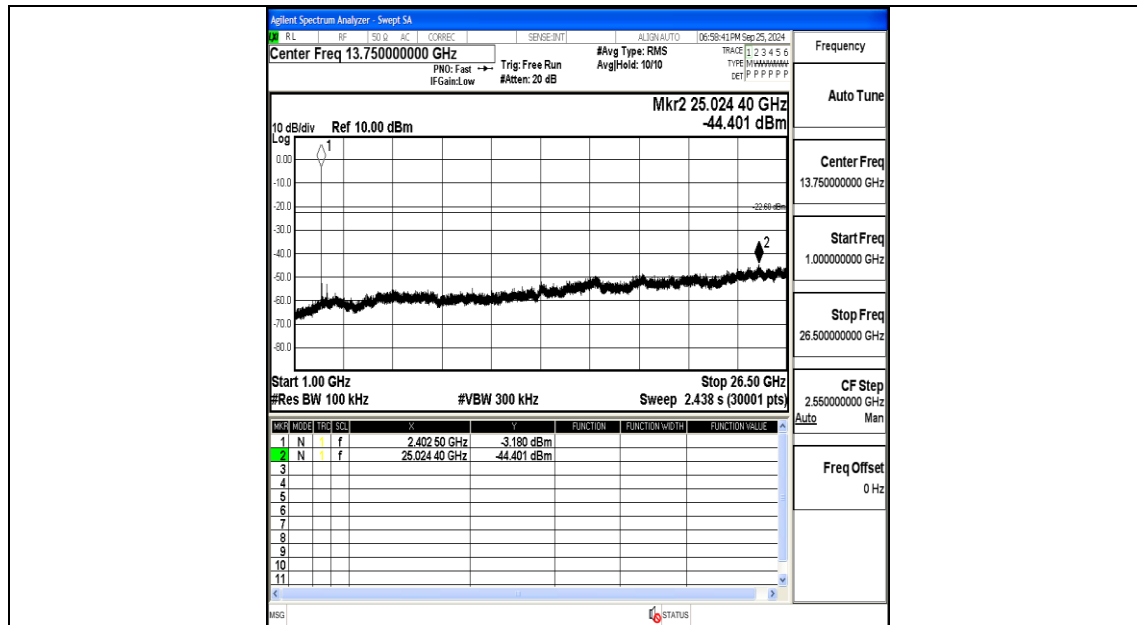
DH5-Ant1-2480-1000~26500-PASS



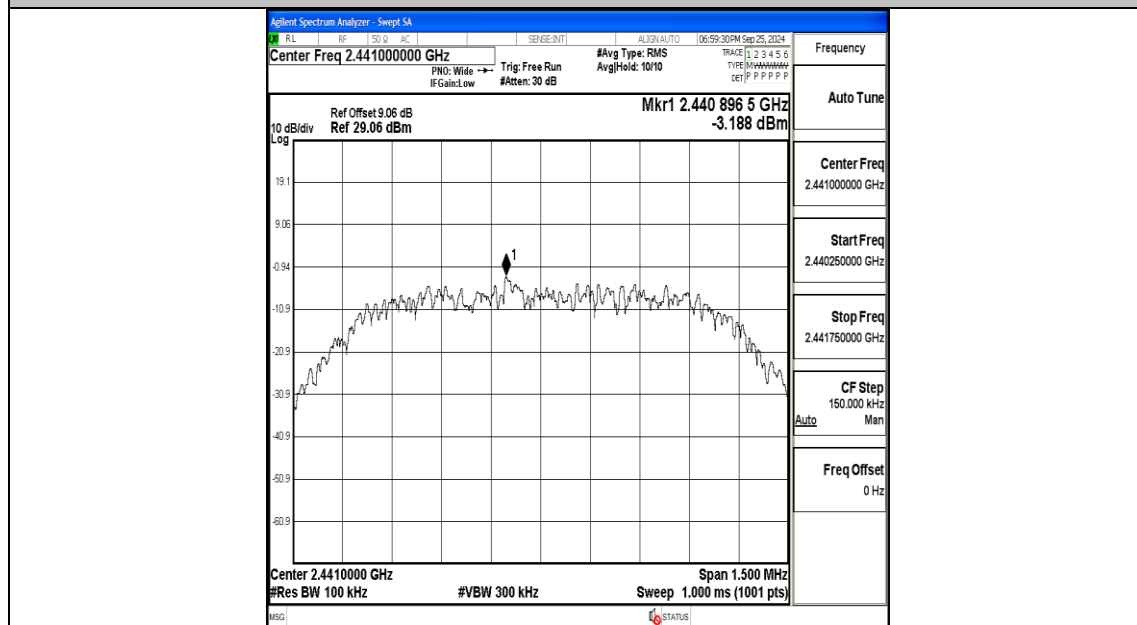
2DH5-Ant1-2402-0~Reference-PASS



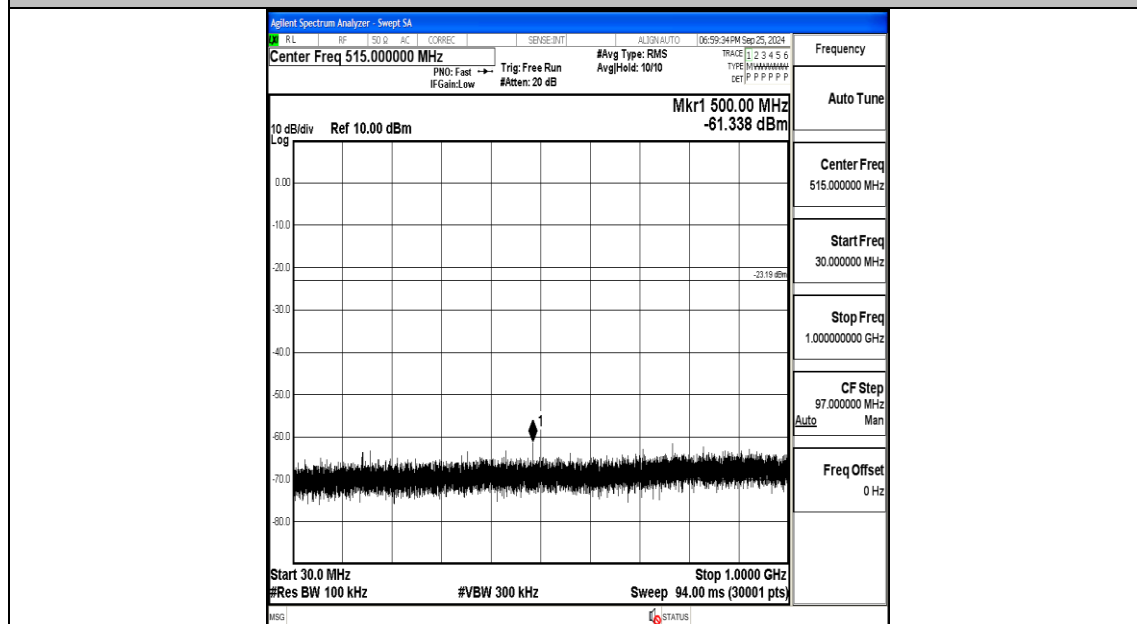
2DH5-Ant1-2402-30~1000-PASS



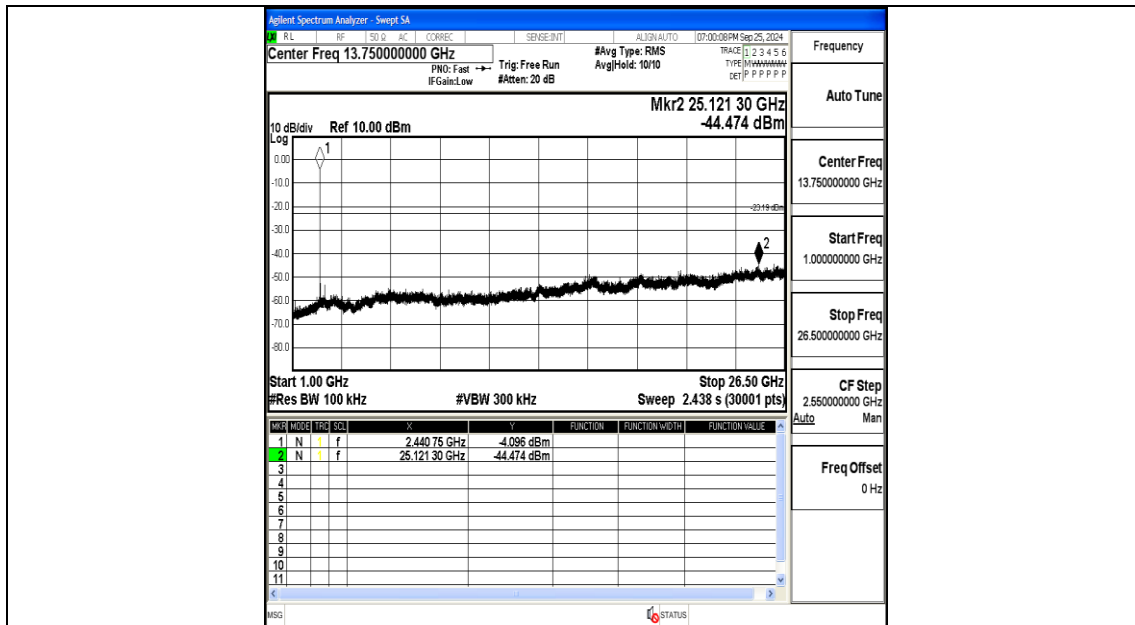
2DH5-Ant1-2402-1000~26500-PASS



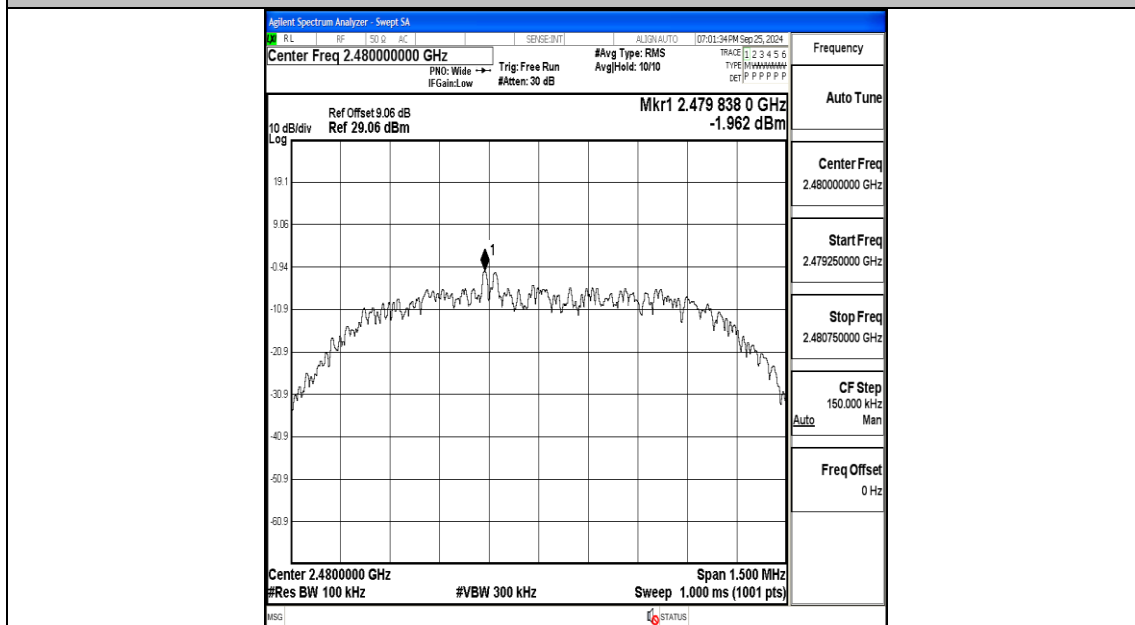
2DH5-Ant1-2441-0~Reference-PASS



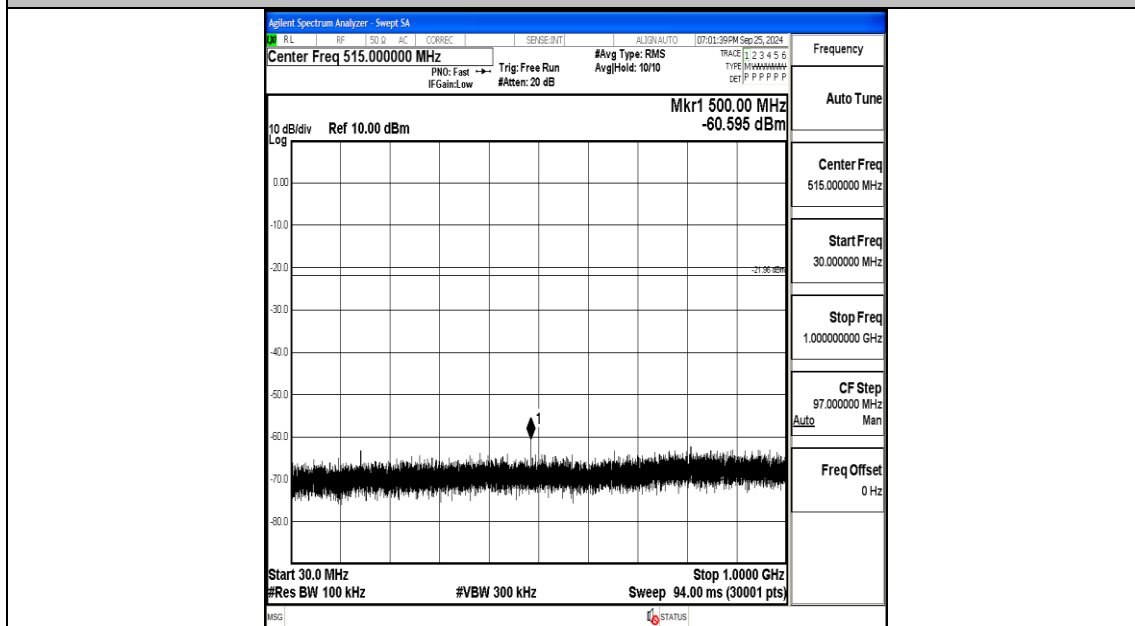
2DH5-Ant1-2441-30~1000-PASS



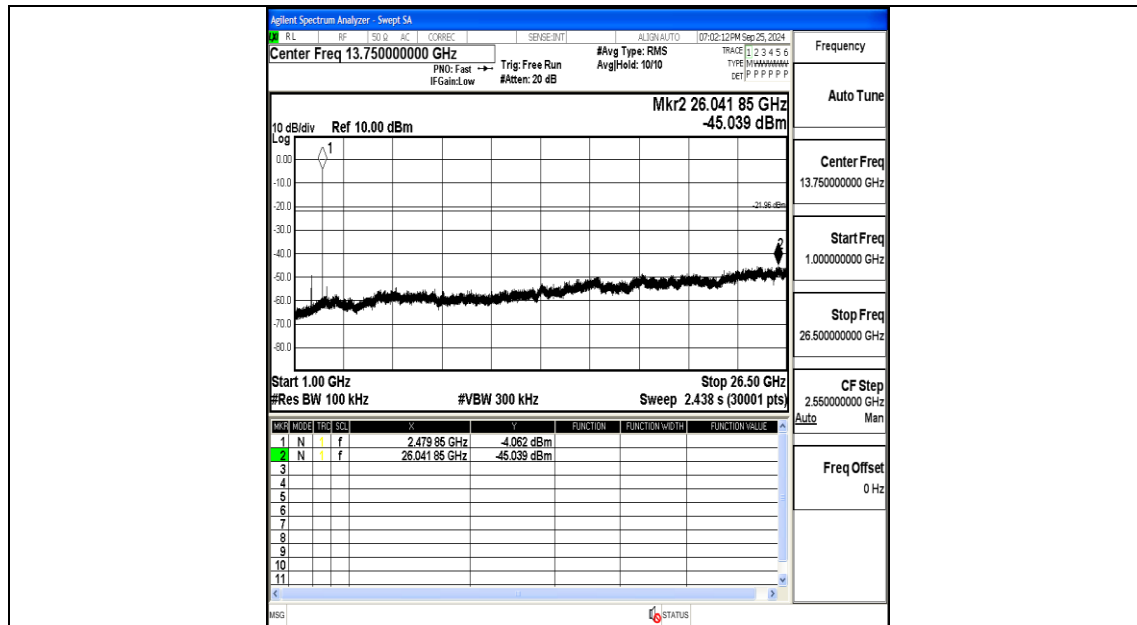
2DH5-Ant1-2441-1000~26500-PASS



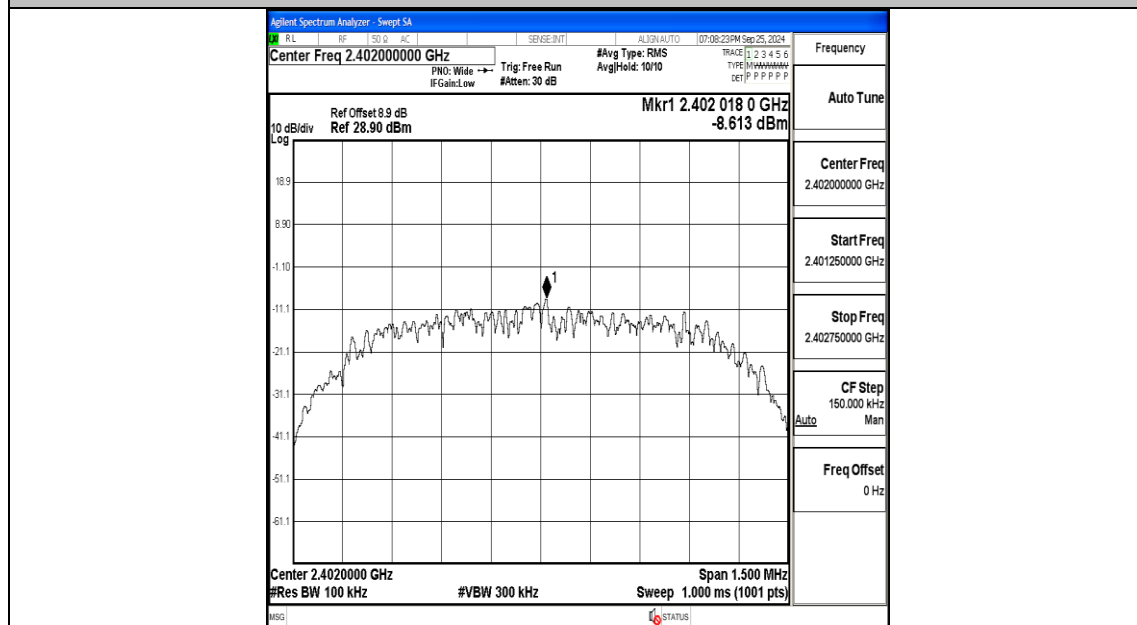
2DH5-Ant1-2480-0~Reference-PASS



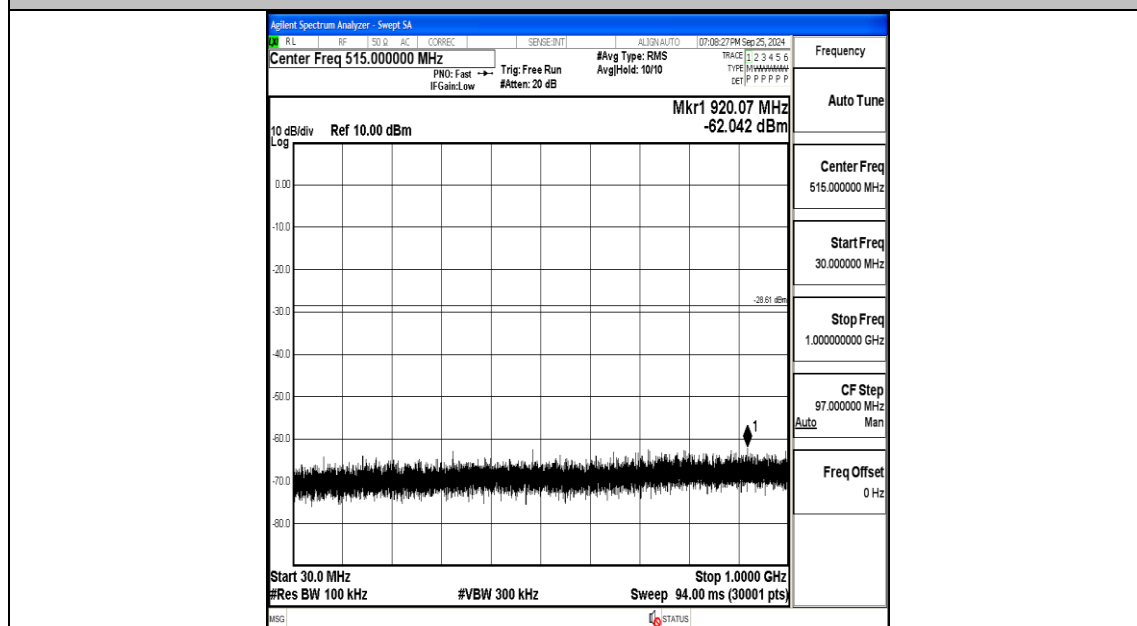
2DH5-Ant1-2480-30~1000-PASS



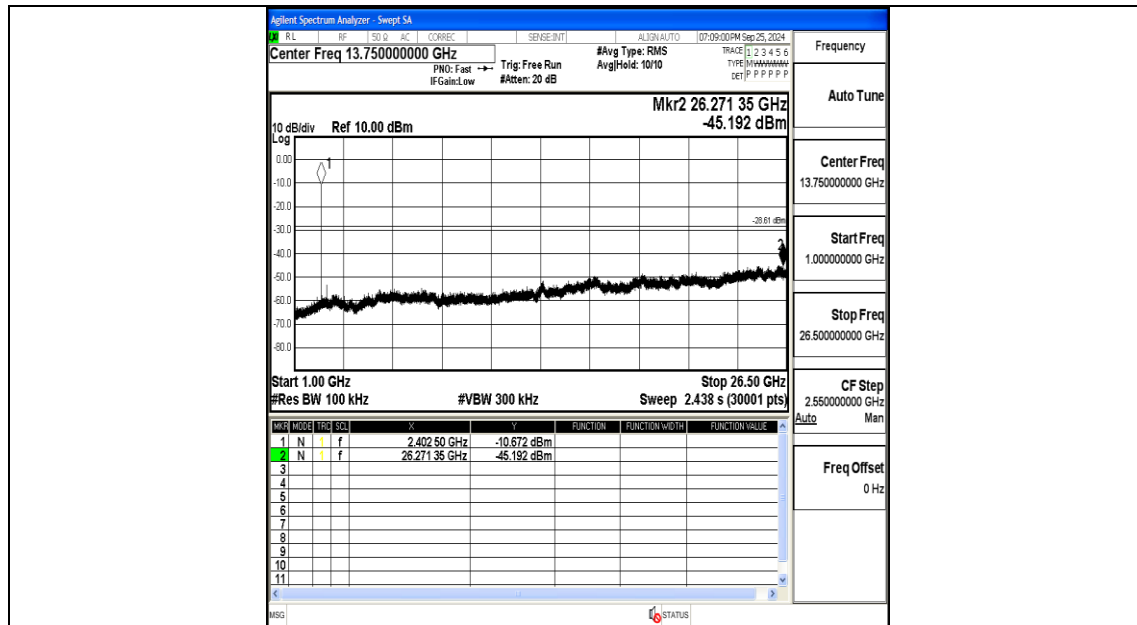
2DH5-Ant1-2480-1000~26500-PASS



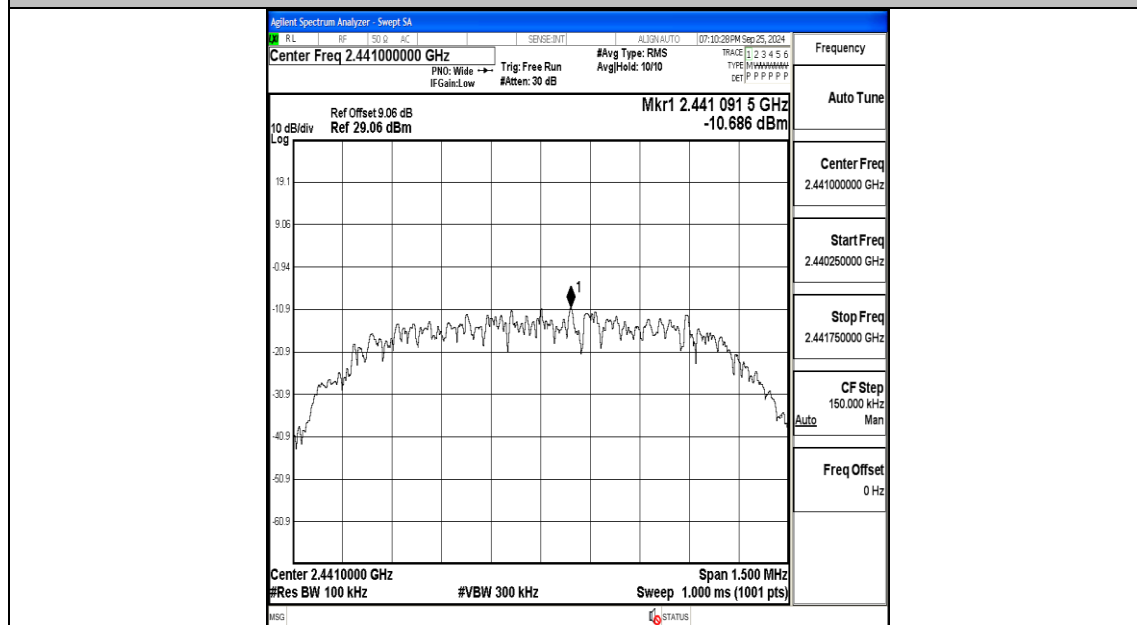
3DH5-Ant1-2402-0~Reference-PASS



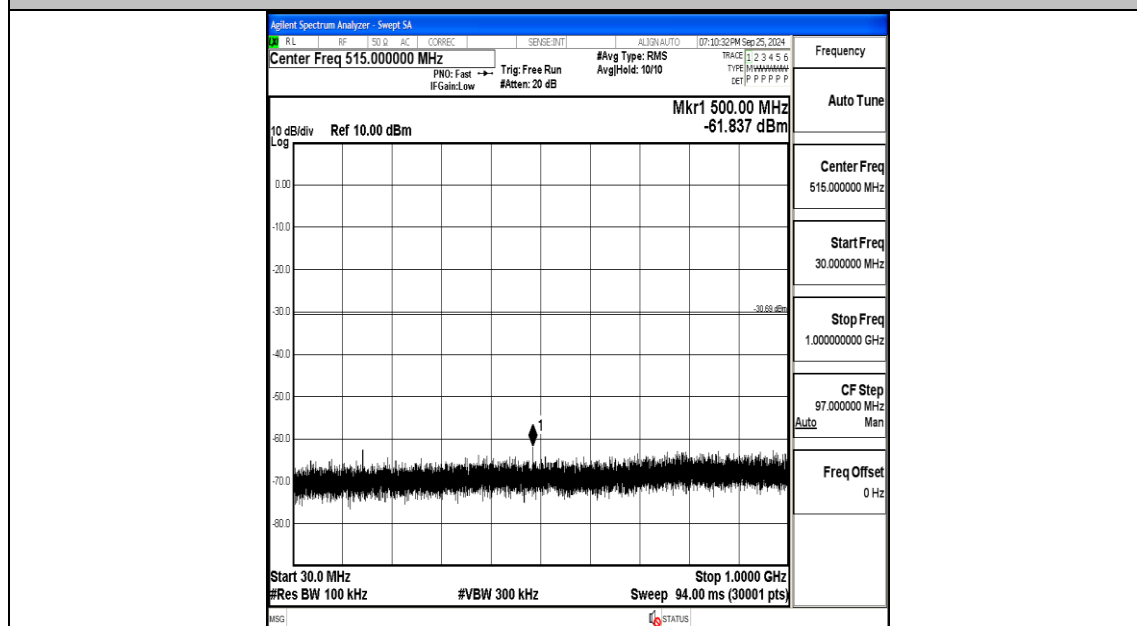
3DH5-Ant1-2402-30~1000-PASS



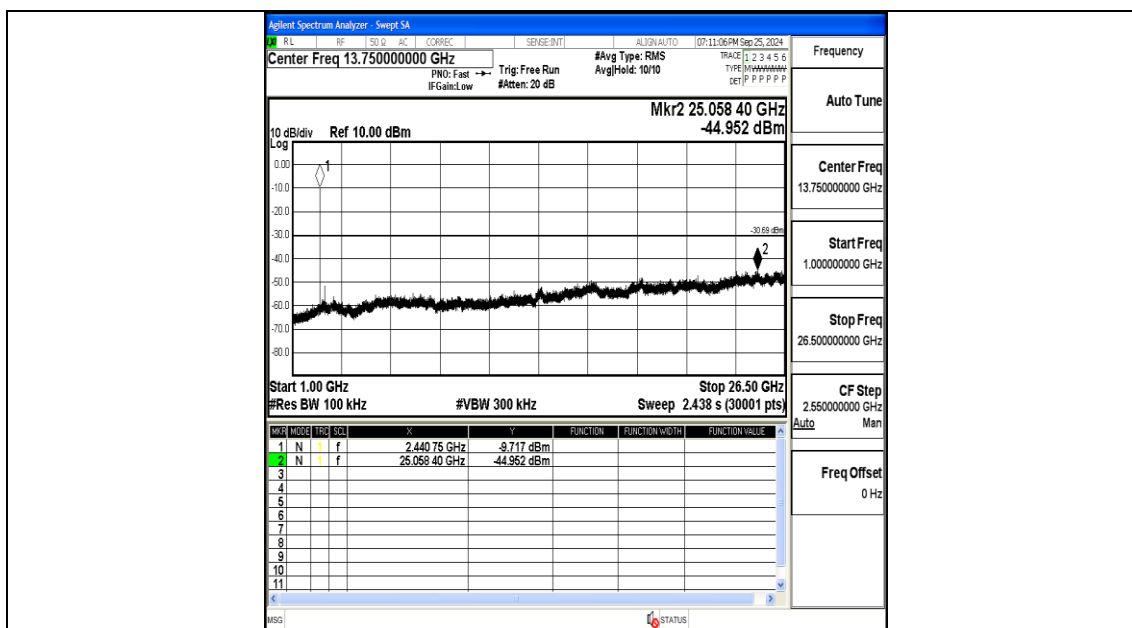
3DH5-Ant1-2402-1000~26500-PASS



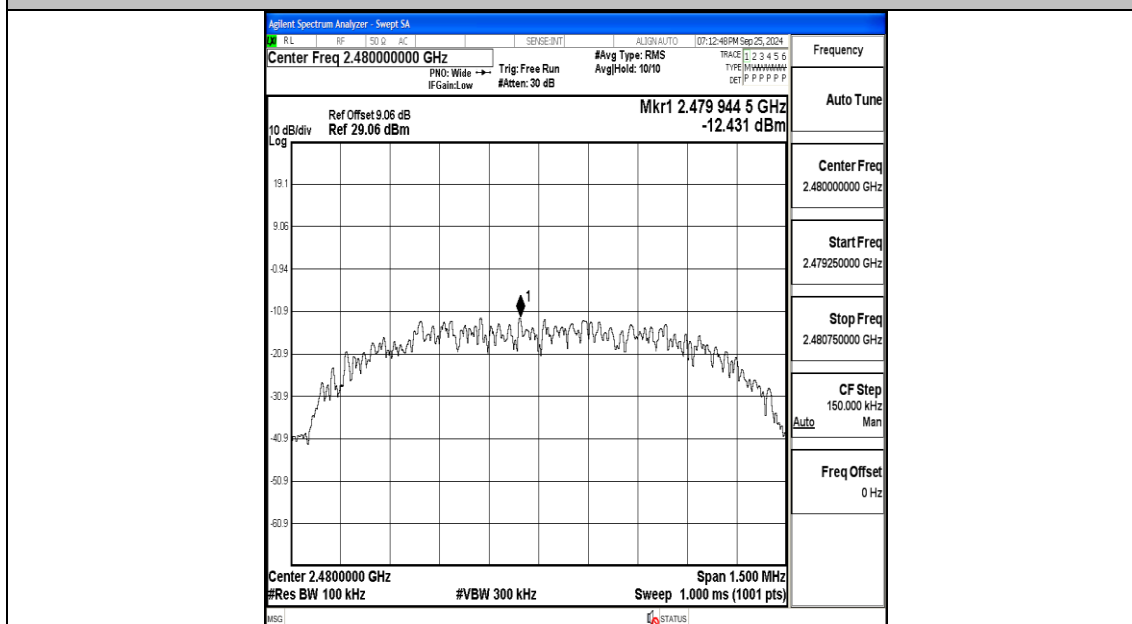
3DH5-Ant1-2441-0~Reference-PASS



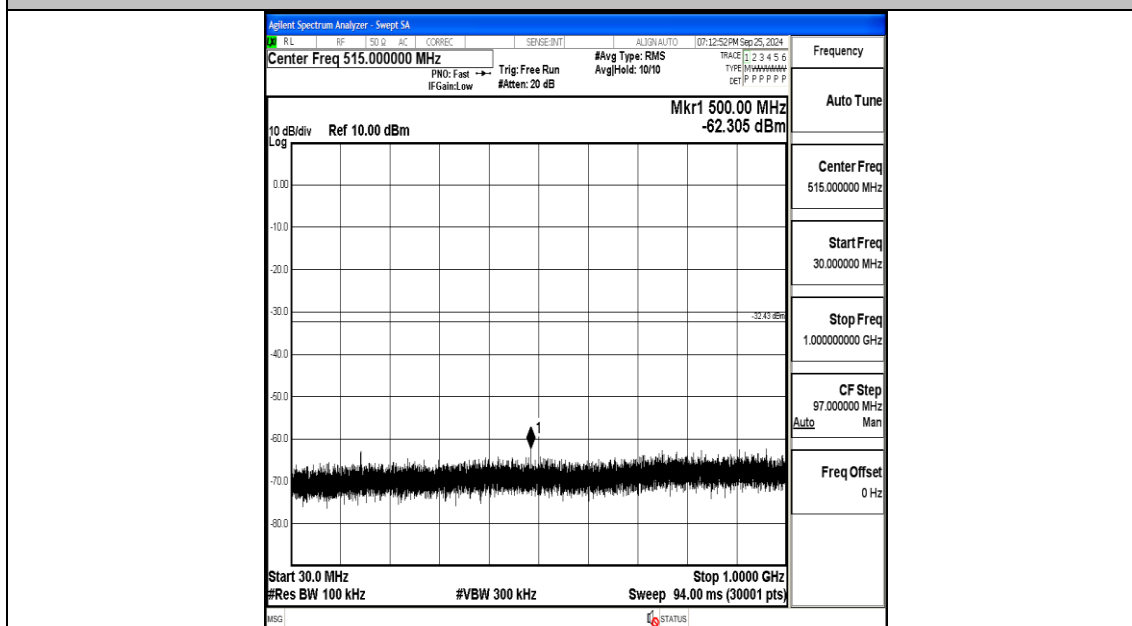
3DH5-Ant1-2441-30~1000-PASS



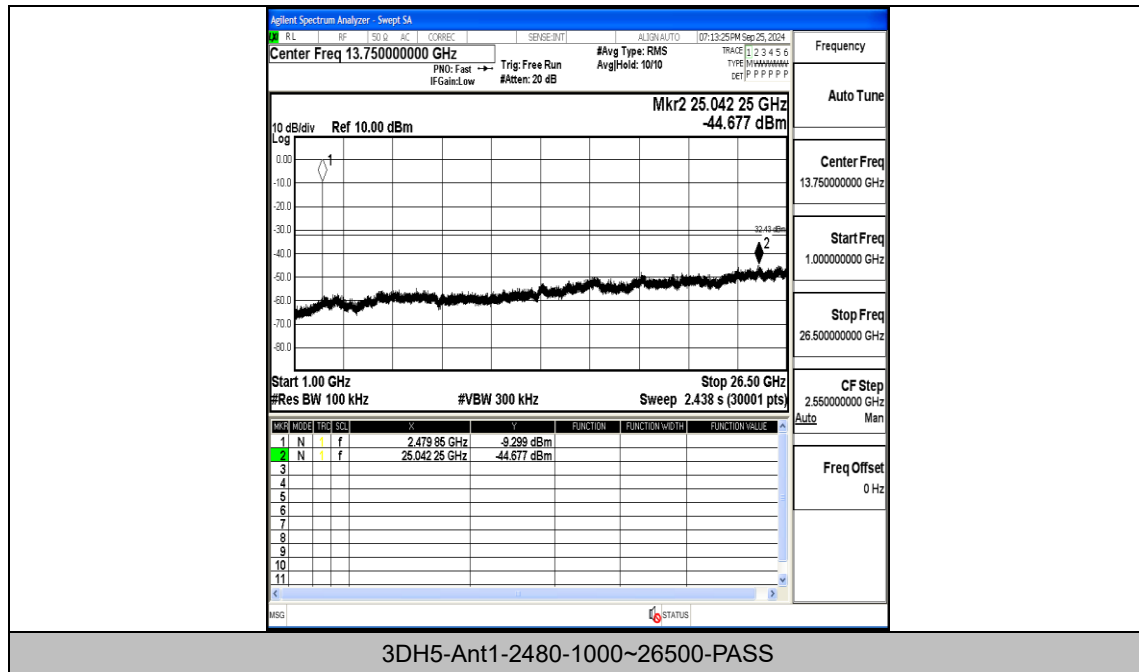
3DH5-Ant1-2441-1000~26500-PASS



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



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



Appendix I: Duty Cycle

Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	0.38	1.23	30.89	5.10
DH5	Ant1	2441	0.37	1.22	30.33	5.18
DH5	Ant1	2480	0.38	1.22	31.15	5.07
2DH5	Ant1	2402	2.89	3.74	77.27	1.12
2DH5	Ant1	2441	2.89	3.73	77.48	1.11
2DH5	Ant1	2480	2.75	3.60	76.39	1.17
3DH5	Ant1	2402	2.89	3.74	77.27	1.12
3DH5	Ant1	2441	2.75	3.59	76.60	1.16
3DH5	Ant1	2480	2.88	3.73	77.21	1.12

Test Graphs

