

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

Product Name: Wireless speaker

Trade Mark: BarbetSound

Test Model: RS31

FCC ID: 2ATOY-RS31

Environmental Conditions

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

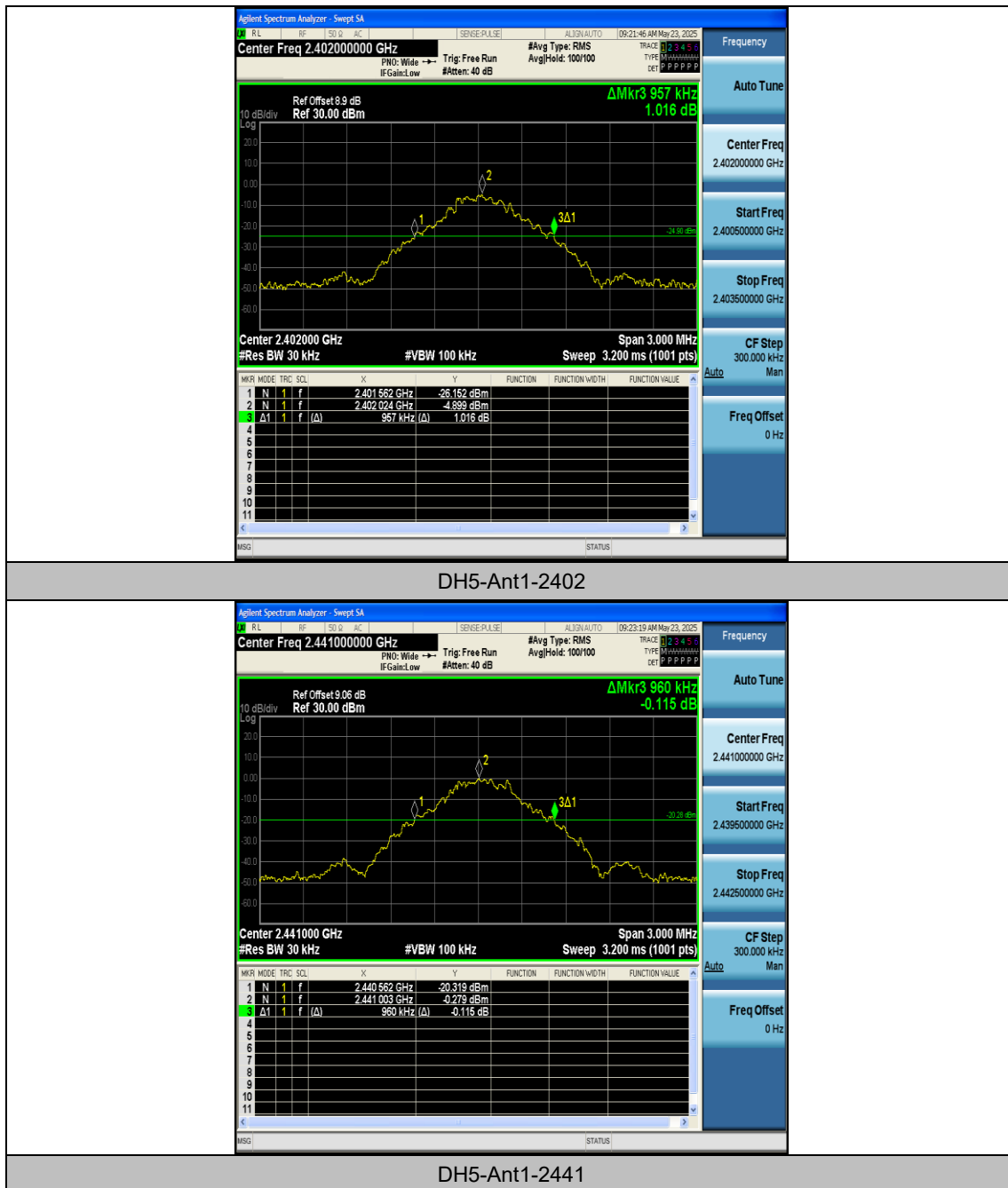
Appendix A: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.957	2401.562	2402.519	---	---
DH5	Ant1	2441	0.960	2440.562	2441.522	---	---
DH5	Ant1	2480	0.951	2479.562	2480.513	---	---
2DH5	Ant1	2402	1.317	2401.367	2402.684	---	---
2DH5	Ant1	2441	1.344	2440.355	2441.699	---	---
2DH5	Ant1	2480	1.317	2479.364	2480.681	---	---
3DH5	Ant1	2402	1.317	2401.373	2402.690	---	---
3DH5	Ant1	2441	1.320	2440.373	2441.693	---	---
3DH5	Ant1	2480	1.308	2479.376	2480.684	---	---

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





DH5-Ant1-2480



2DH5-Ant1-2402



2DH5-Ant1-2441



2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



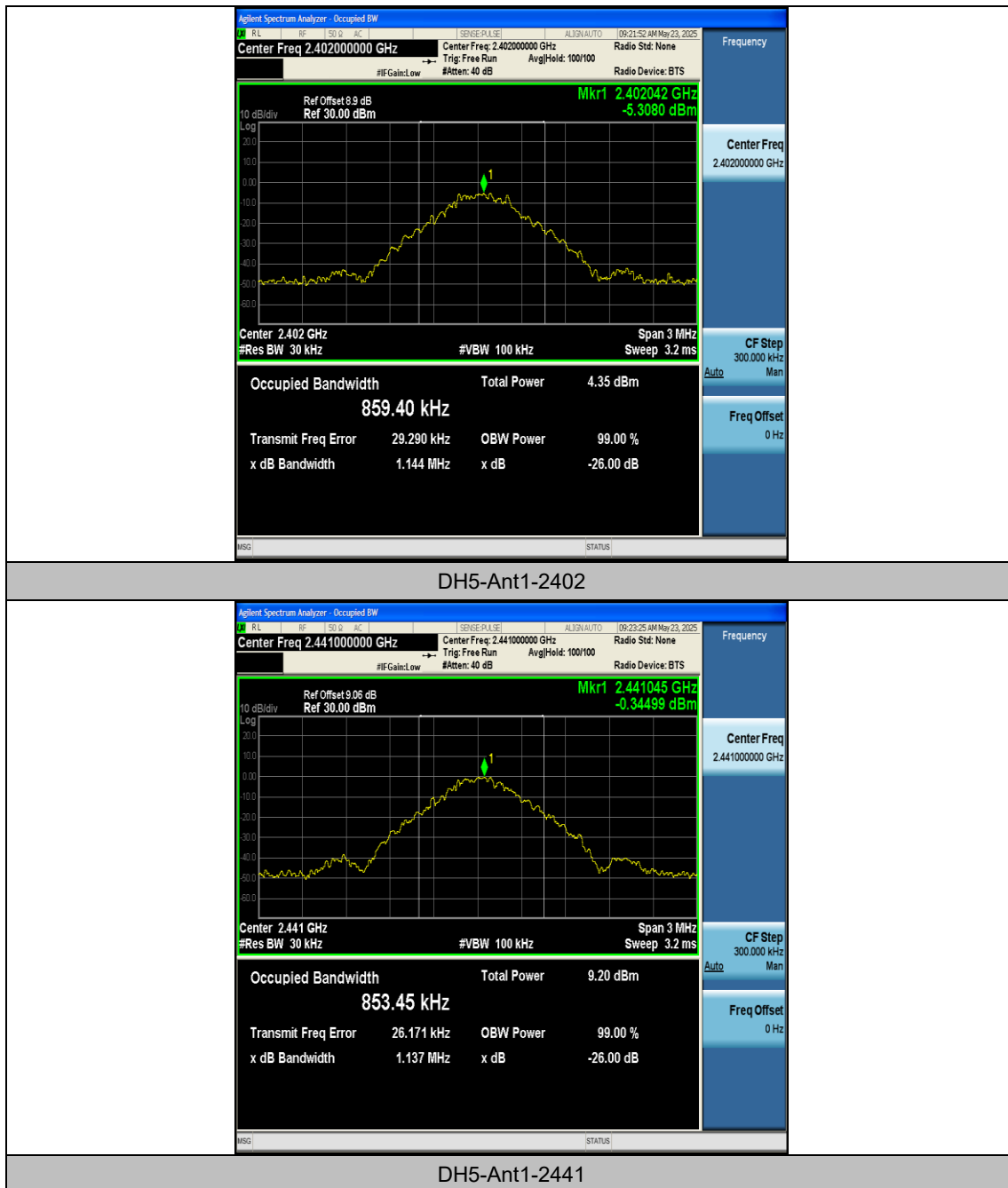
Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.85940	2401.5996	2402.4590	---	---
DH5	Ant1	2441	0.85345	2440.5994	2441.4529	---	---
DH5	Ant1	2480	0.86975	2479.5966	2480.4664	---	---
2DH5	Ant1	2402	1.1807	2401.4356	2402.6163	---	---
2DH5	Ant1	2441	1.1819	2440.4371	2441.6190	---	---
2DH5	Ant1	2480	1.1934	2479.4337	2480.6271	---	---
3DH5	Ant1	2402	1.1771	2401.4432	2402.6203	---	---
3DH5	Ant1	2441	1.1926	2440.4336	2441.6262	---	---
3DH5	Ant1	2480	1.1895	2479.4359	2480.6254	---	---

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





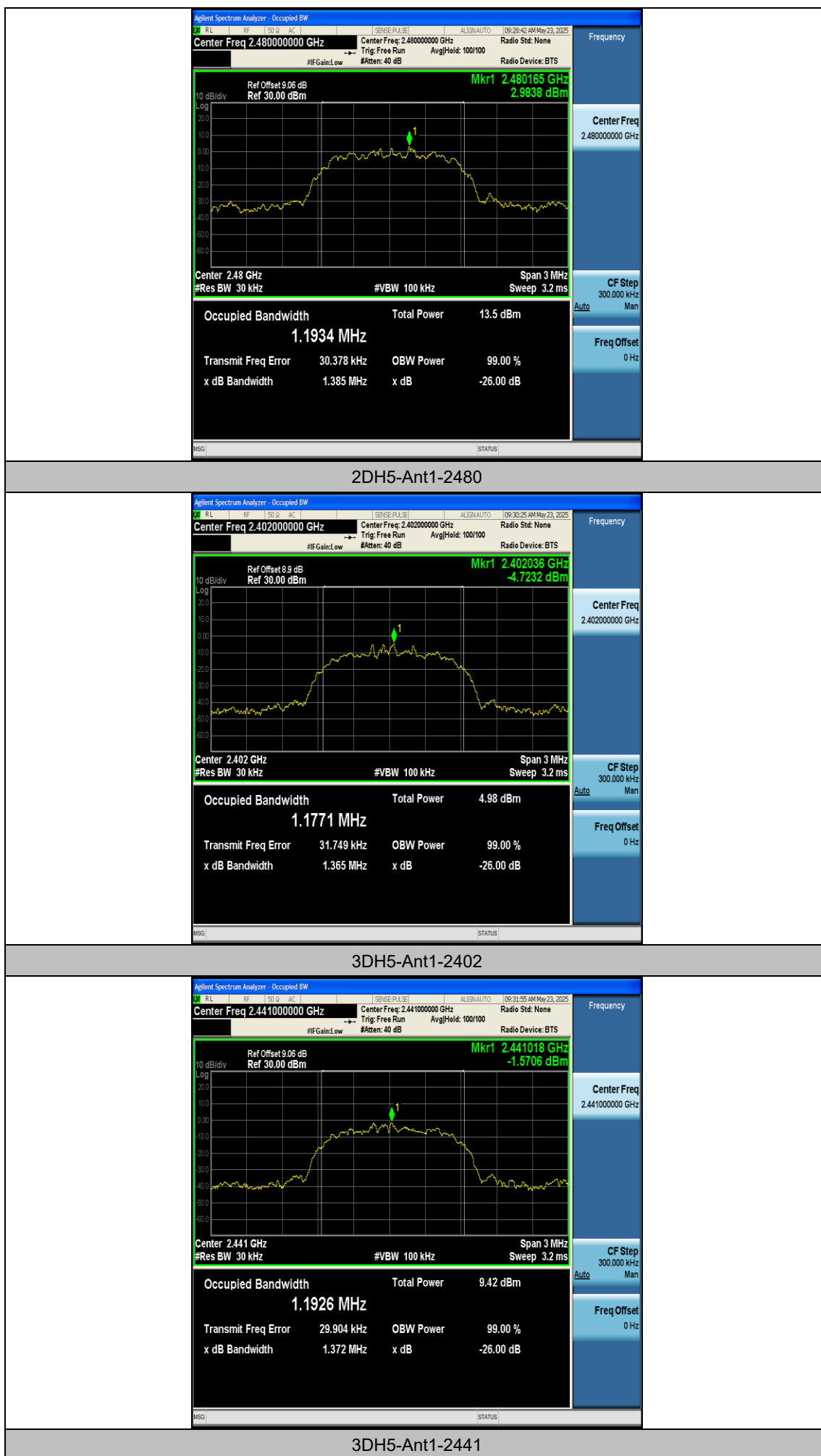
DH5-Ant1-2480

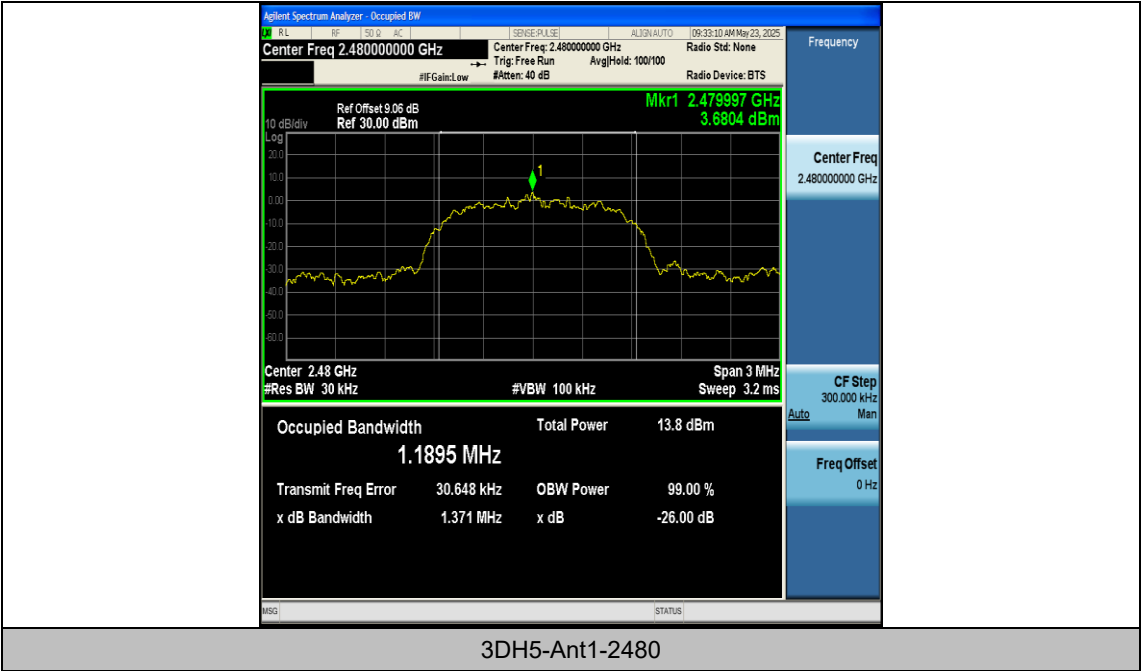


2DH5-Ant1-2402



2DH5-Ant1-2441





3DH5-Ant1-2480

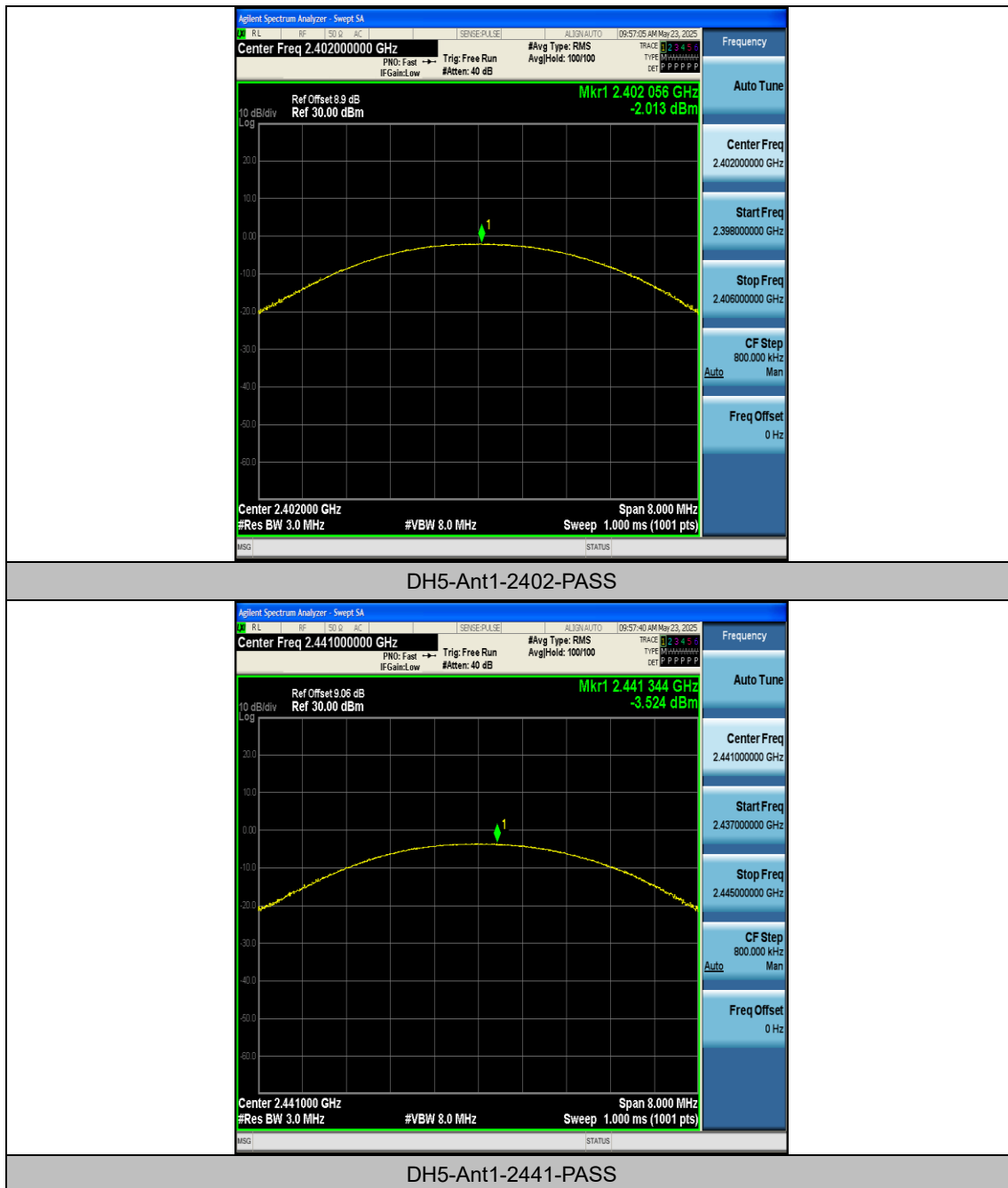
Appendix C: Maximum peak conducted output power

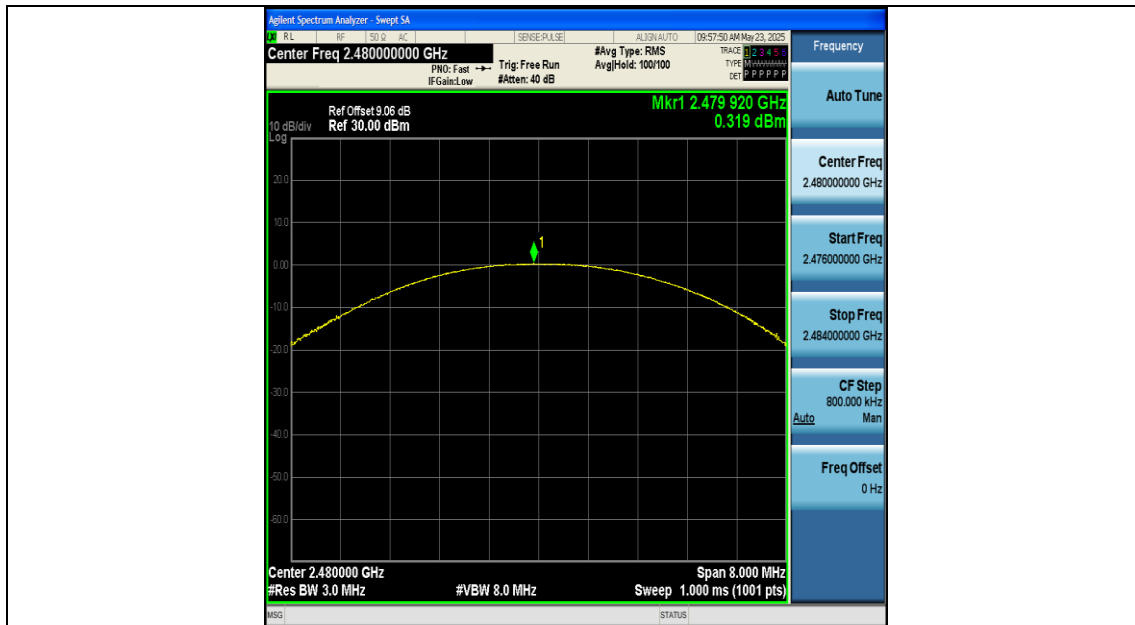
Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	-2.01	≤30	PASS
DH5	Ant1	2441	-3.52	≤30	PASS
DH5	Ant1	2480	0.32	≤30	PASS
2DH5	Ant1	2402	0.39	≤20.97	PASS
2DH5	Ant1	2441	-1.40	≤20.97	PASS
2DH5	Ant1	2480	-0.61	≤20.97	PASS
3DH5	Ant1	2402	0.92	≤20.97	PASS
3DH5	Ant1	2441	-0.94	≤20.97	PASS
3DH5	Ant1	2480	0.14	≤20.97	PASS

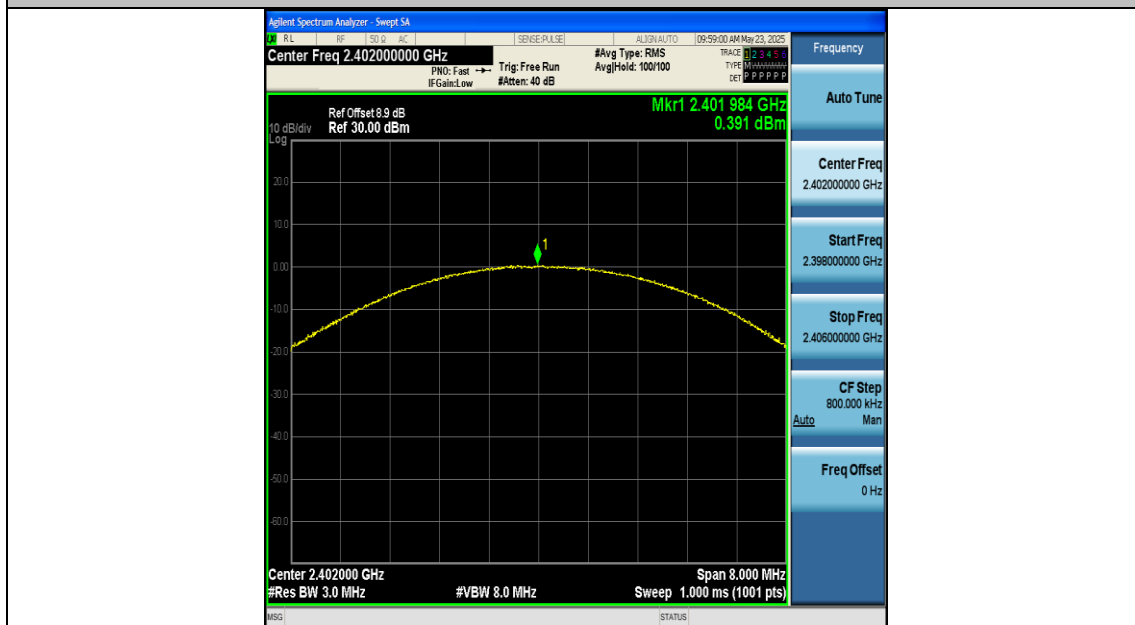
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

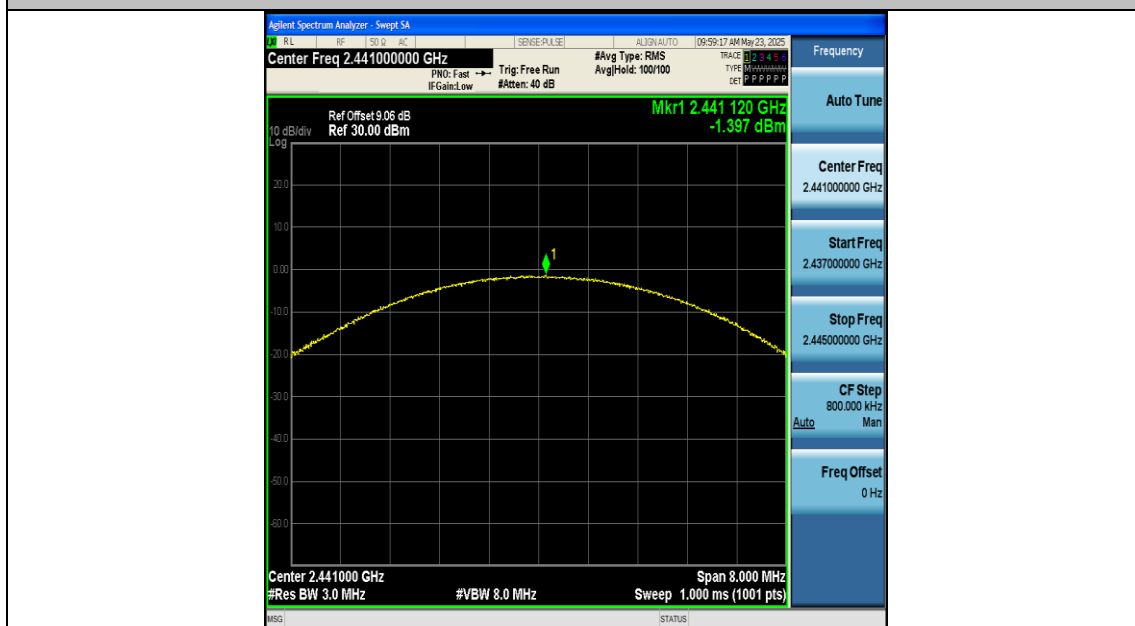




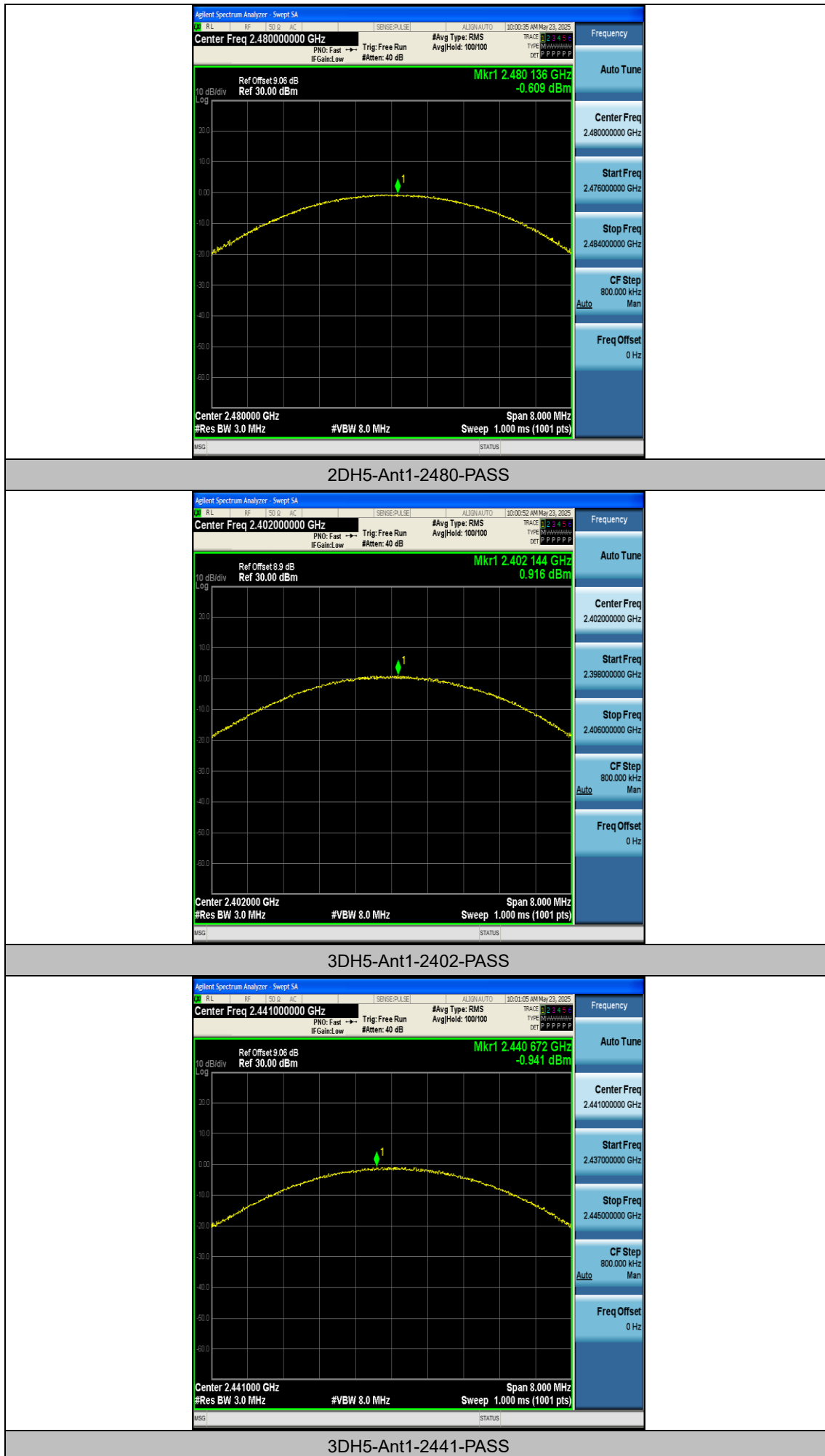
DH5-Ant1-2480-PASS

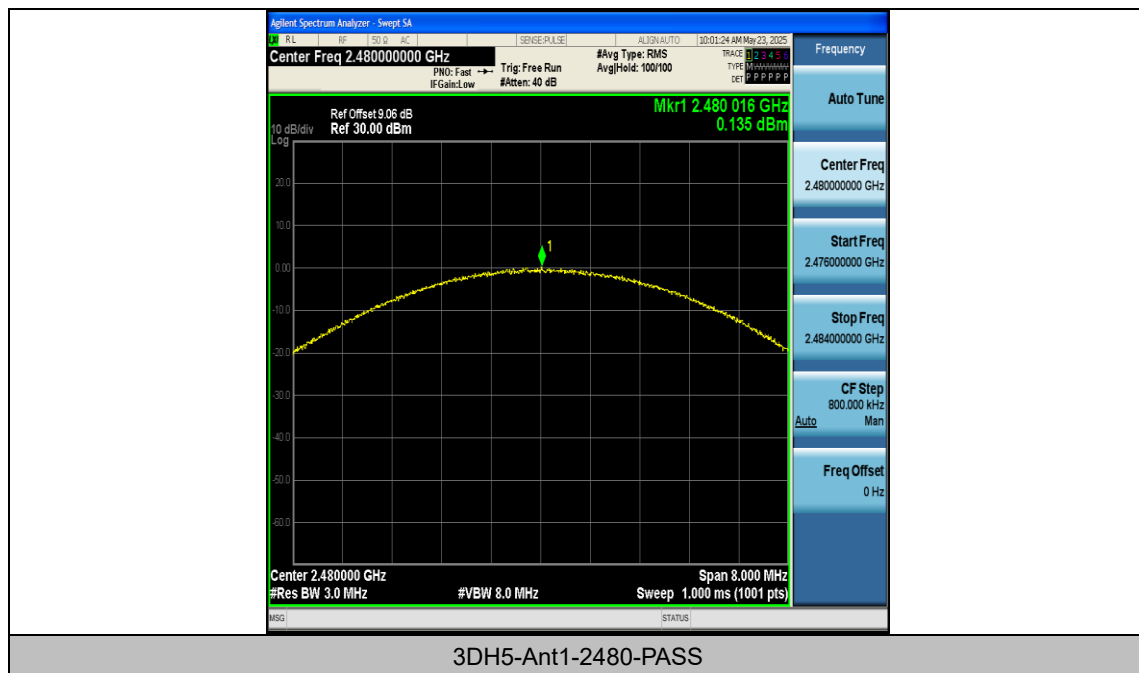


2DH5-Ant1-2402-PASS



2DH5-Ant1-2441-PASS





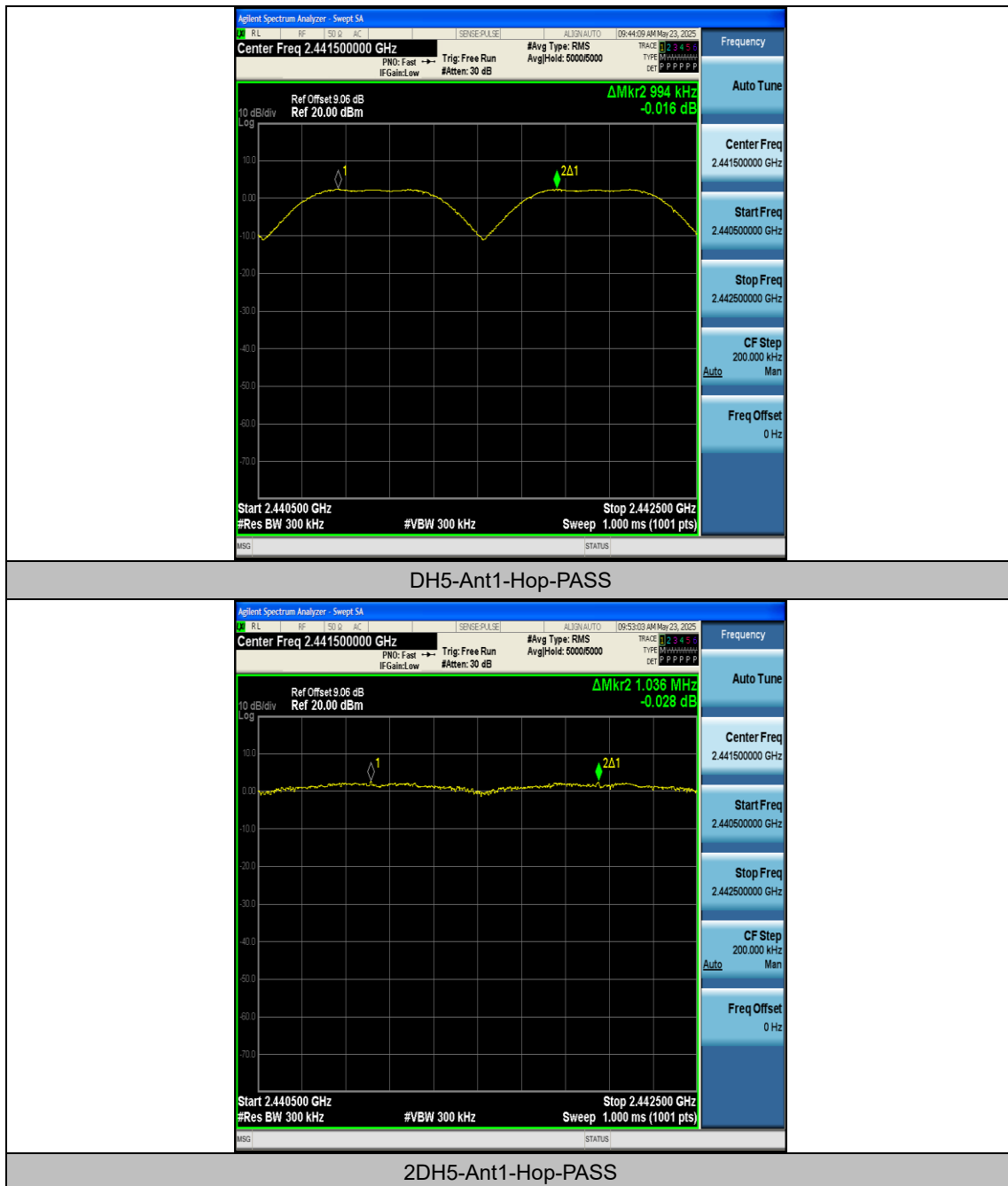
Appendix D: Carrier frequency separation

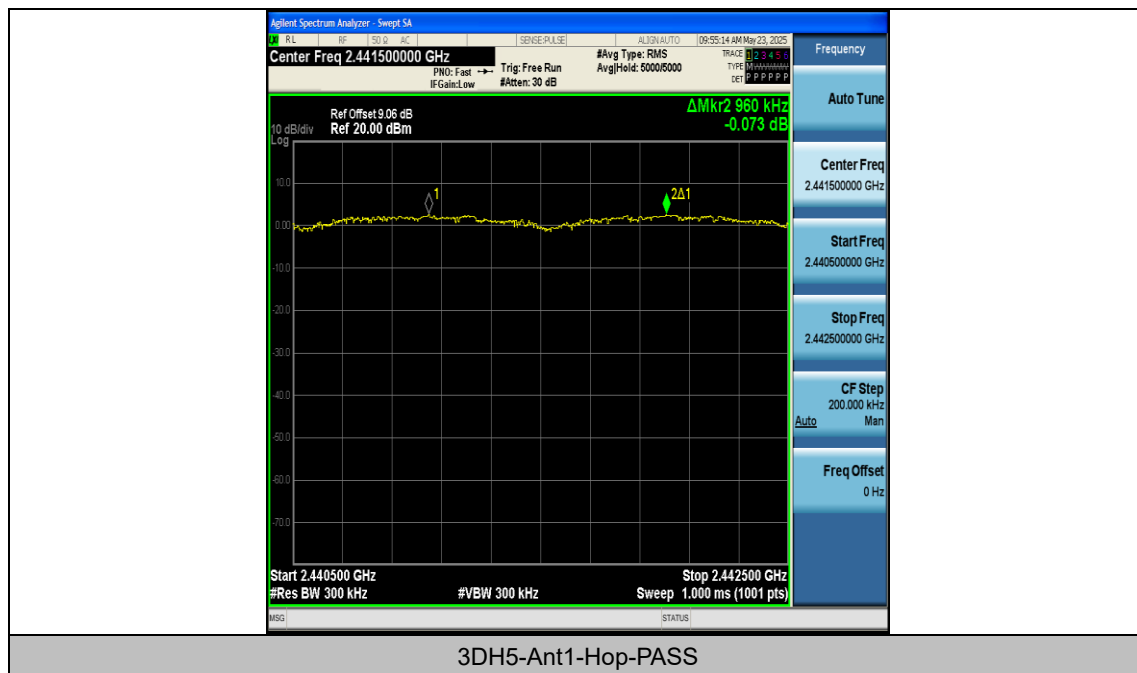
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	0.994	≥ 0.960	PASS
2DH5	Ant1	Hop	1.036	≥ 0.896	PASS
3DH5	Ant1	Hop	0.96	≥ 0.880	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





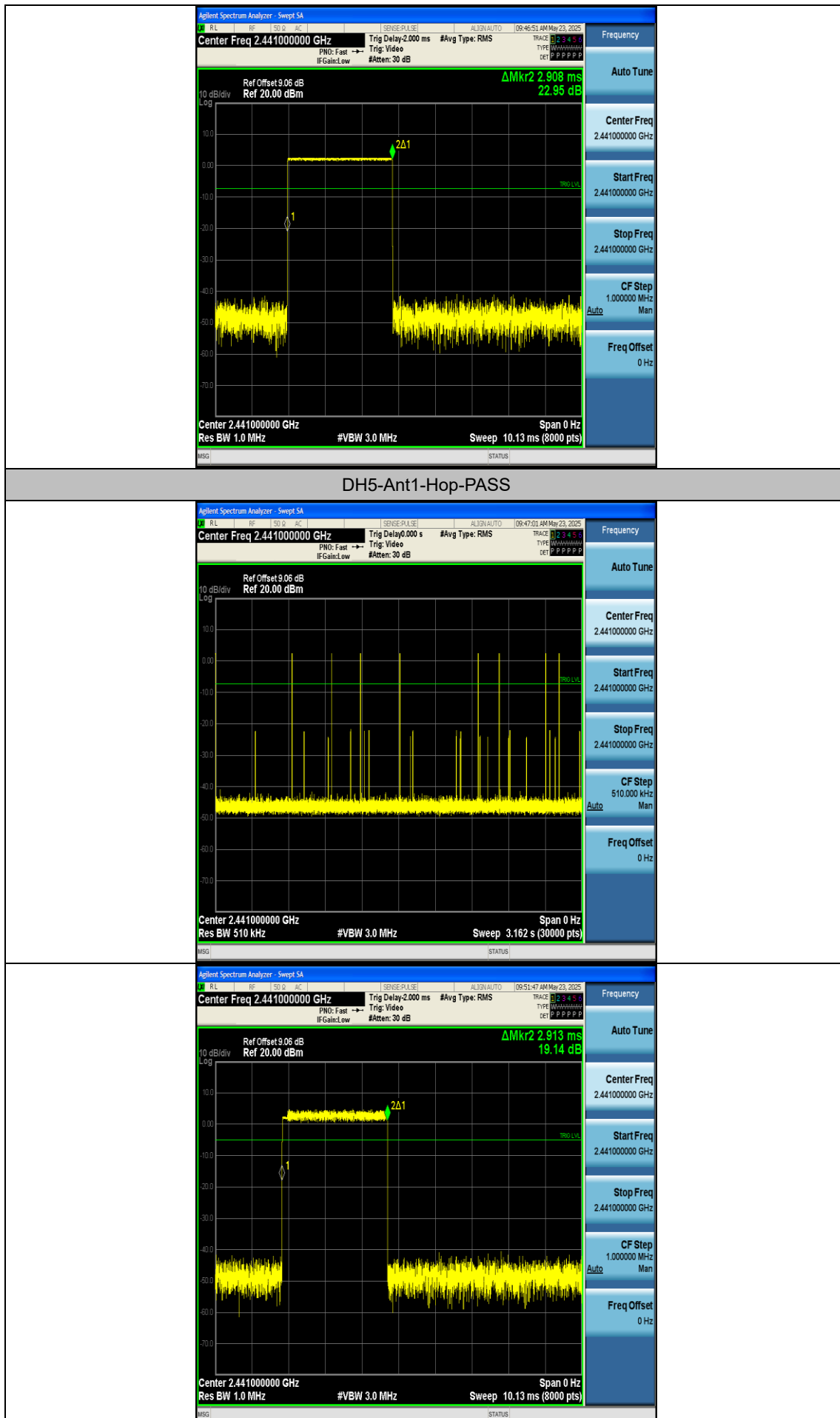
Appendix E: Time of occupancy

Test Result

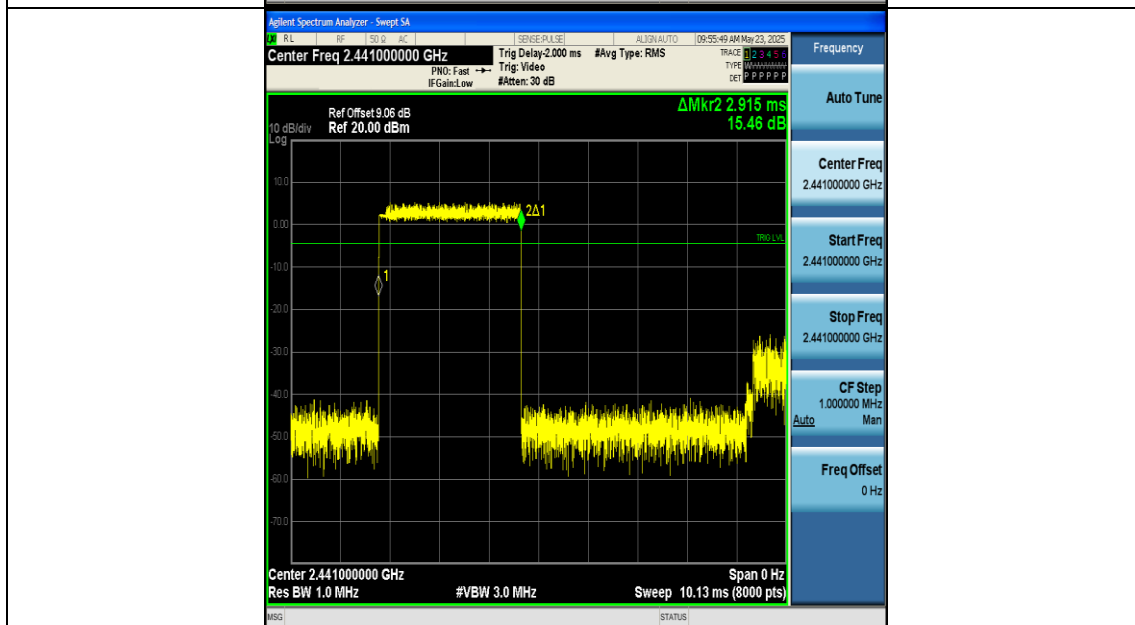
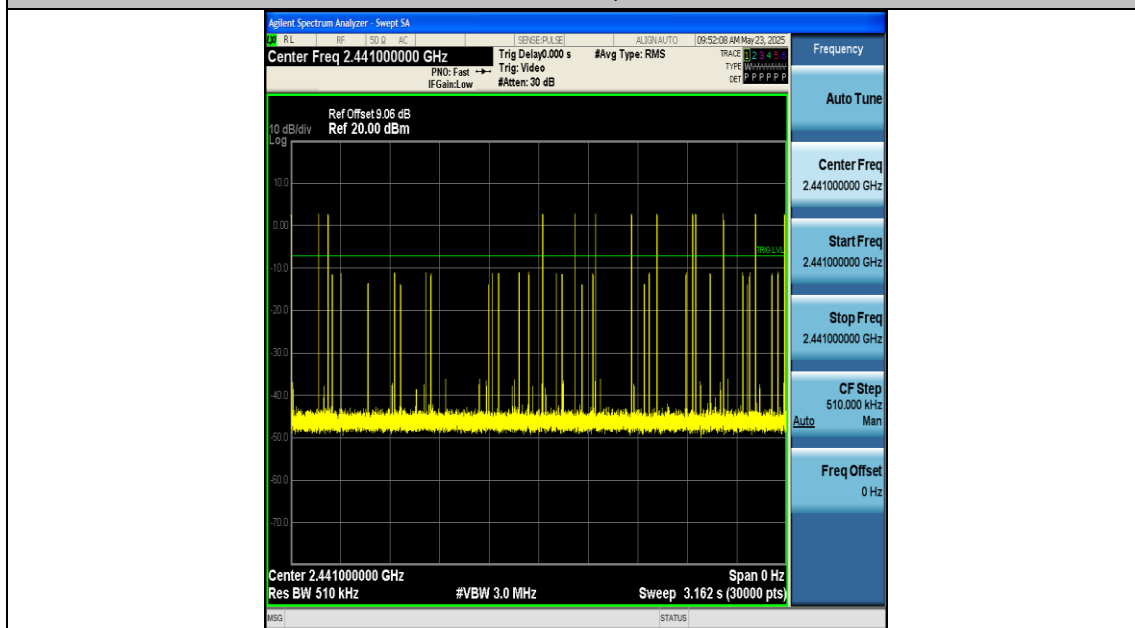
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.908	90	0.262	≤0.4	PASS
2DH5	Ant1	Hop	2.913	130	0.379	≤0.4	PASS
3DH5	Ant1	Hop	2.915	60	0.175	≤0.4	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

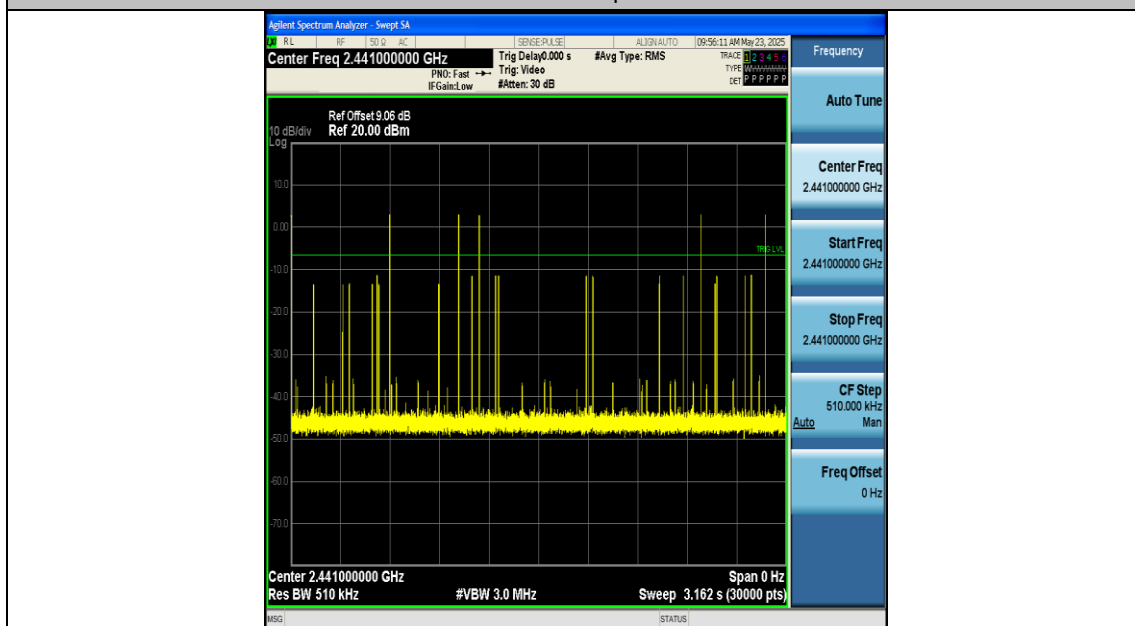
Test Graphs



2DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS



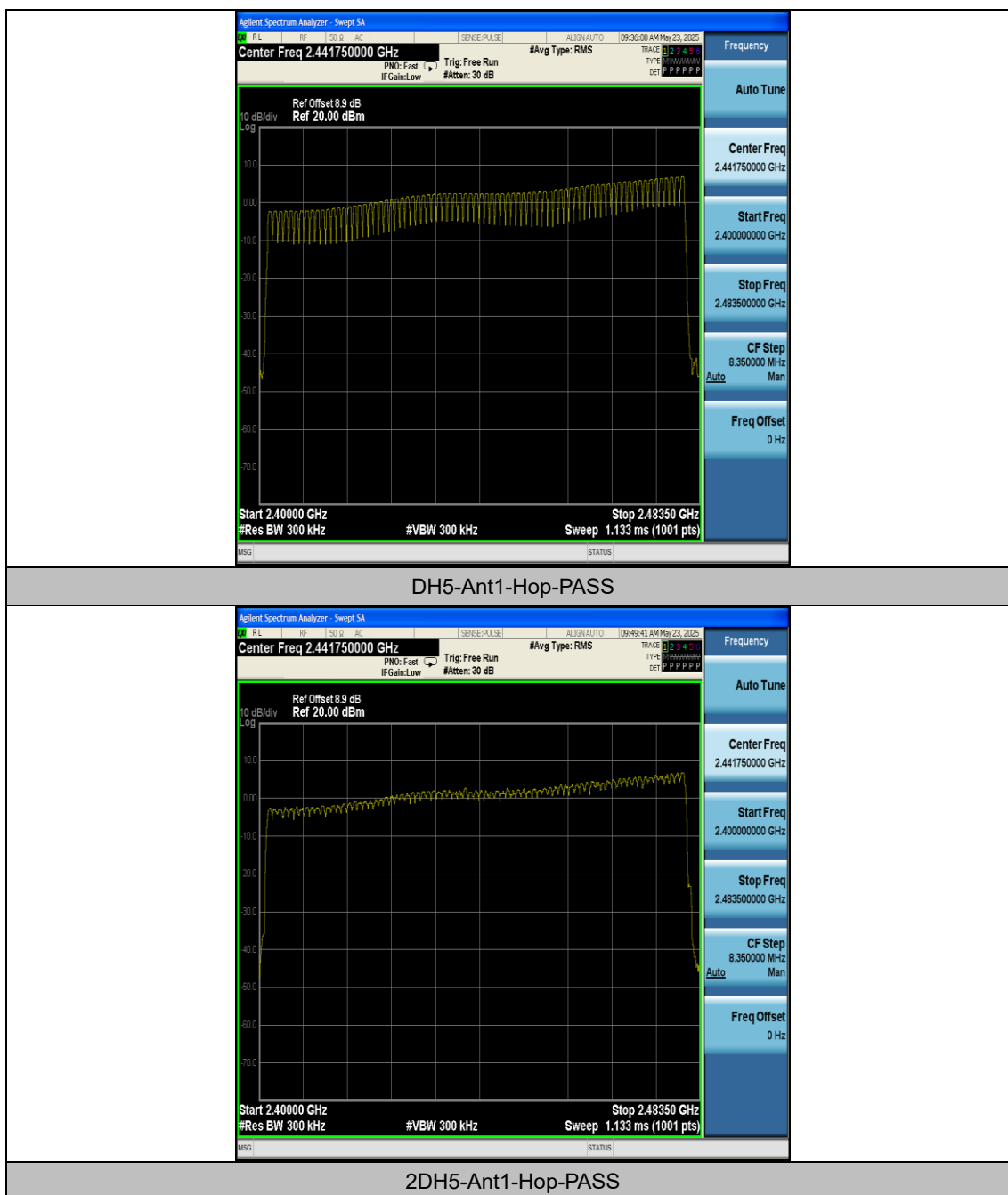
Appendix F: Number of hopping channels

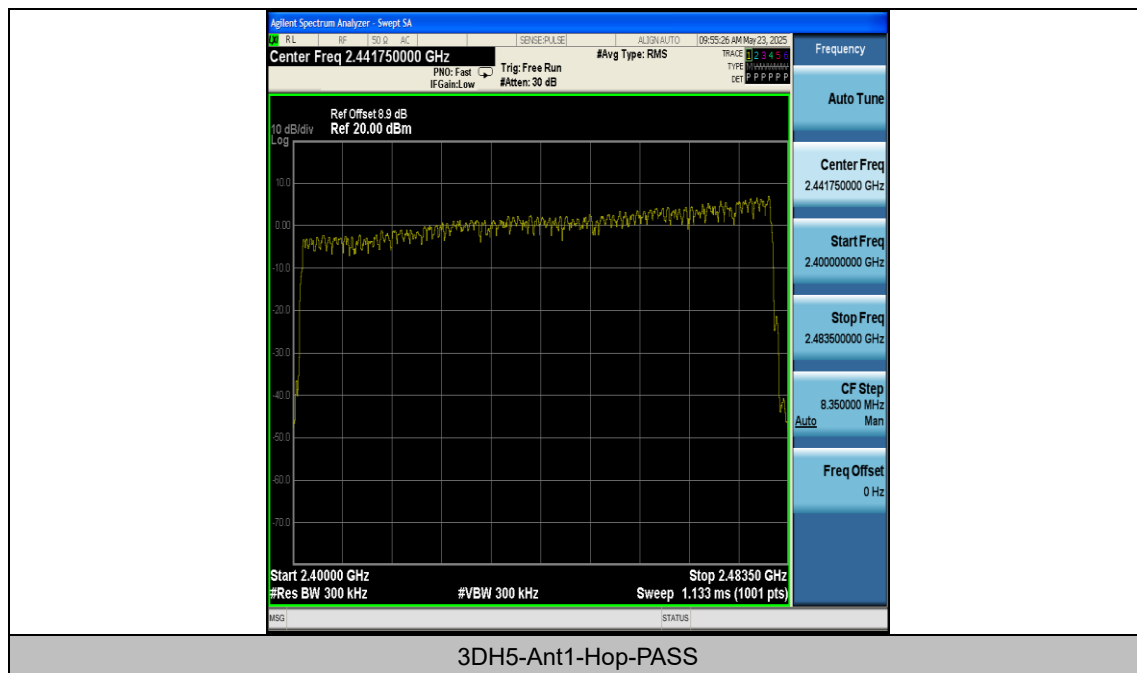
Test Result

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

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





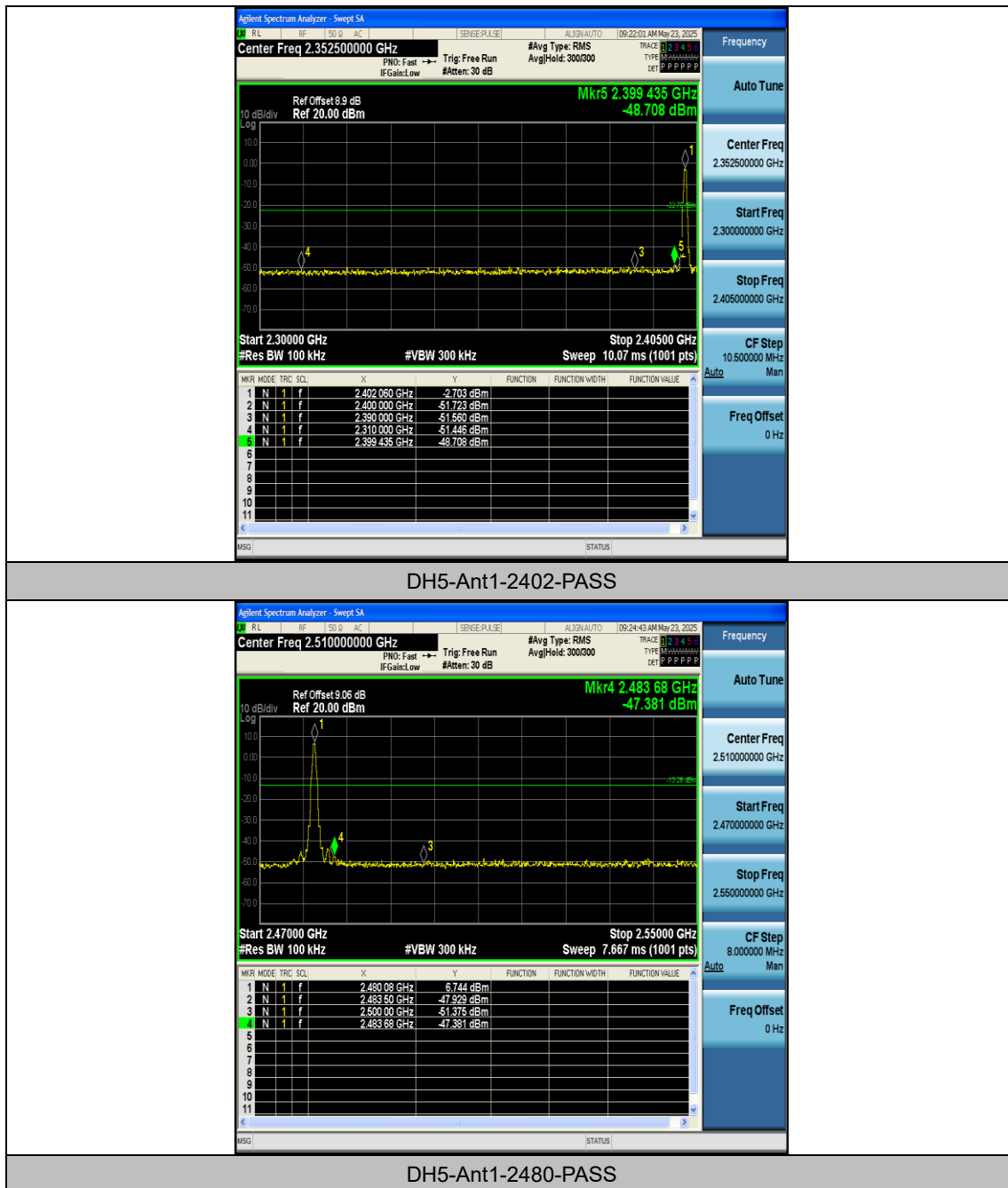
Appendix G: Band edge measurements

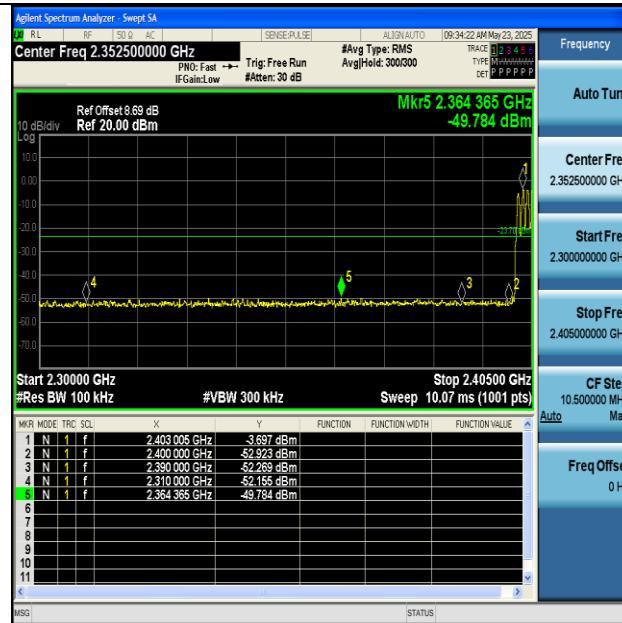
Test Result

Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.70	-48.71	≤ -22.7	PASS
DH5	Ant1	High	2480	6.74	-47.38	≤ -13.26	PASS
DH5	Ant1	Low	Hop_2402	-3.70	-49.78	≤ -23.7	PASS
DH5	Ant1	High	Hop_2480	5.81	-49.11	≤ -14.19	PASS
2DH5	Ant1	Low	2402	-2.87	-49.58	≤ -22.87	PASS
2DH5	Ant1	High	2480	6.97	-48.31	≤ -13.03	PASS
2DH5	Ant1	Low	Hop_2402	-5.45	-49.11	≤ -25.45	PASS
2DH5	Ant1	High	Hop_2480	4.12	-48.4	≤ -15.88	PASS
3DH5	Ant1	Low	2402	-2.64	-49.85	≤ -22.64	PASS
3DH5	Ant1	High	2480	6.22	-48.07	≤ -13.78	PASS
3DH5	Ant1	Low	Hop_2402	-5.22	-48.69	≤ -25.22	PASS
3DH5	Ant1	High	Hop_2480	6.71	-48.52	≤ -13.29	PASS

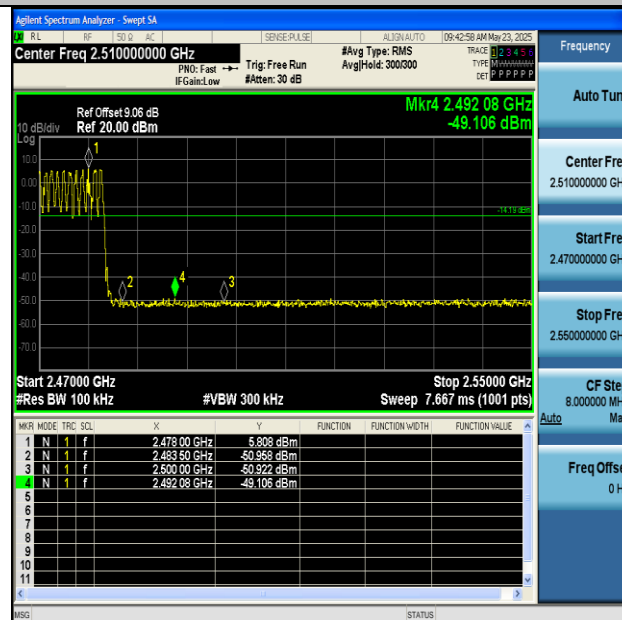
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

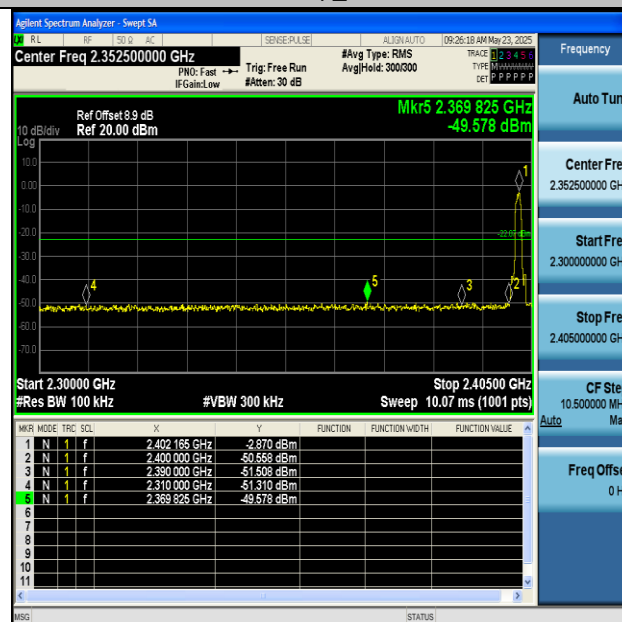




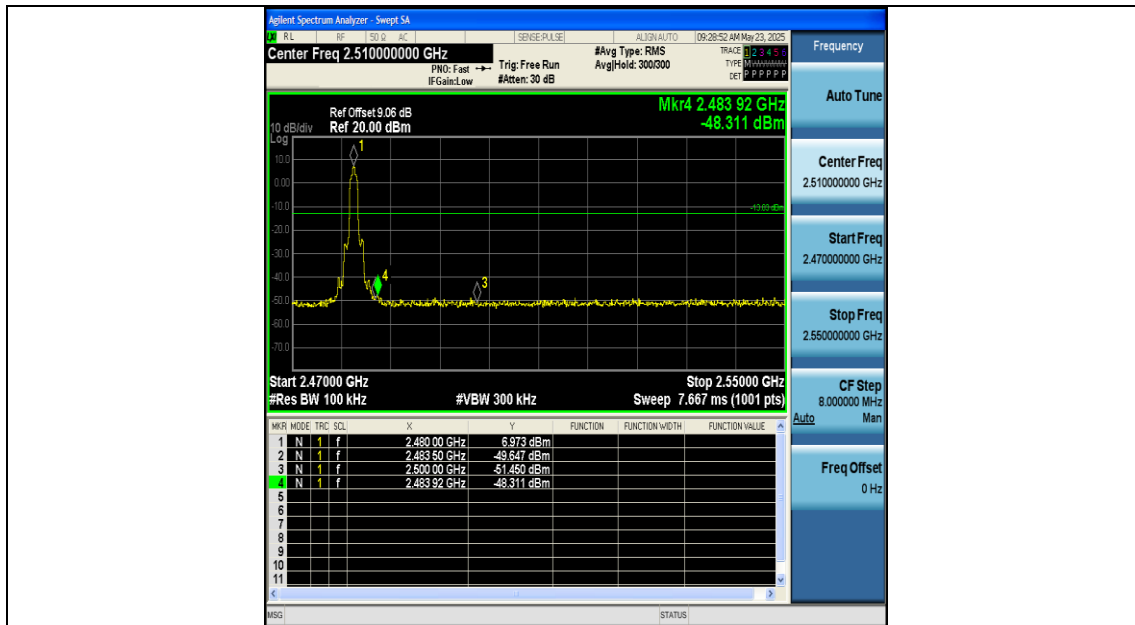
DH5-Ant1-Hop_2402-PASS



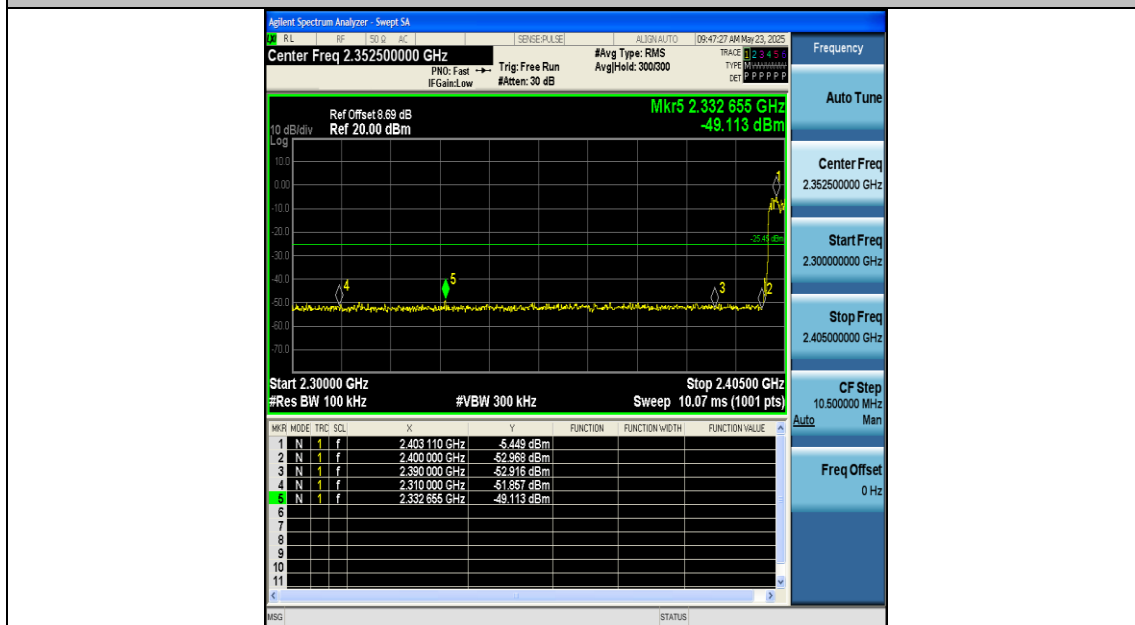
DH5-Ant1-Hop_2480-PASS



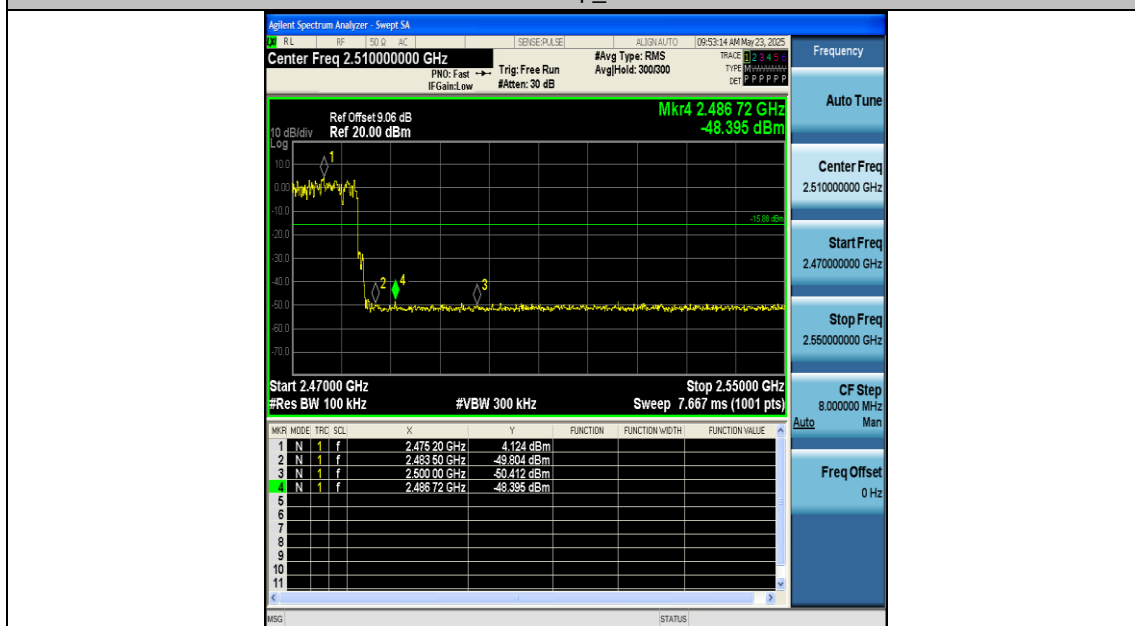
2DH5-Ant1-2402-PASS



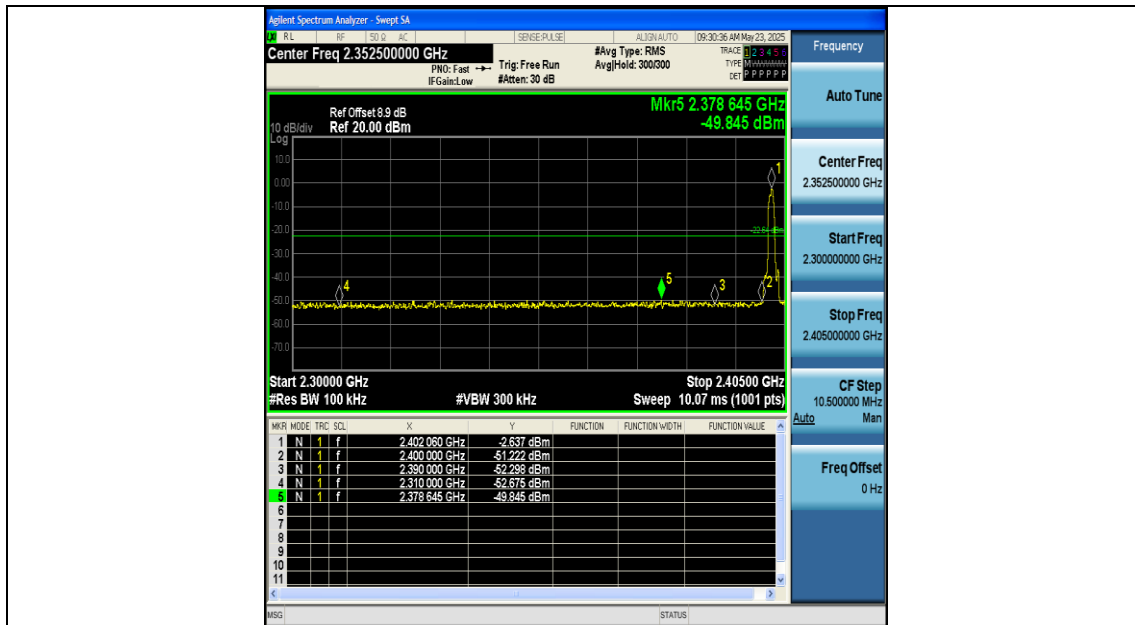
2DH5-Ant1-2480-PASS



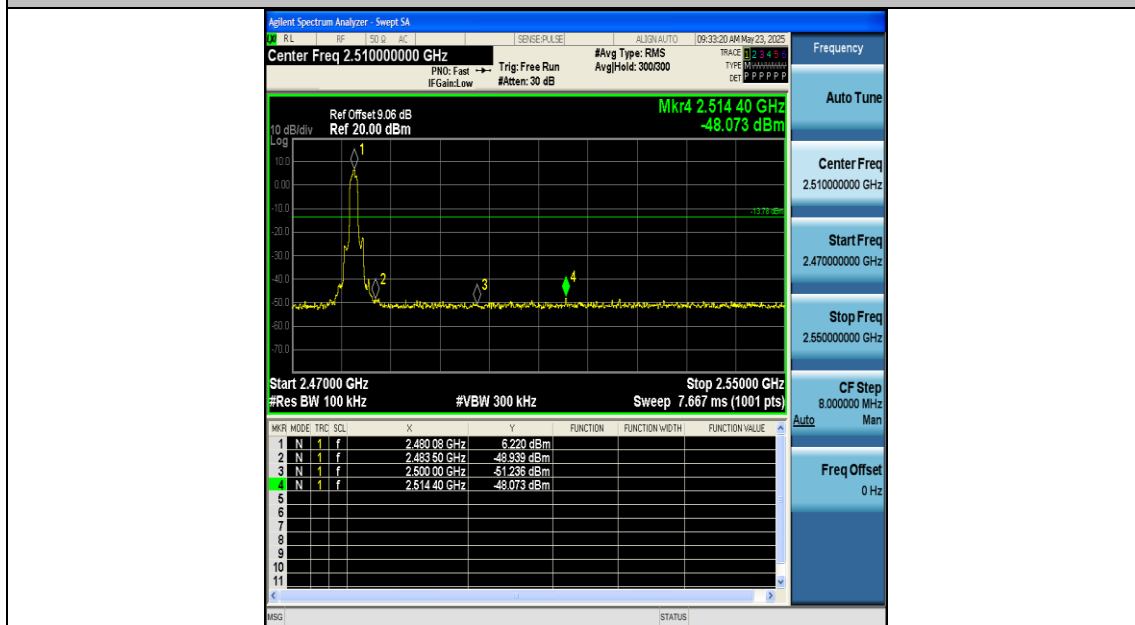
2DH5-Ant1-Hop_2402-PASS



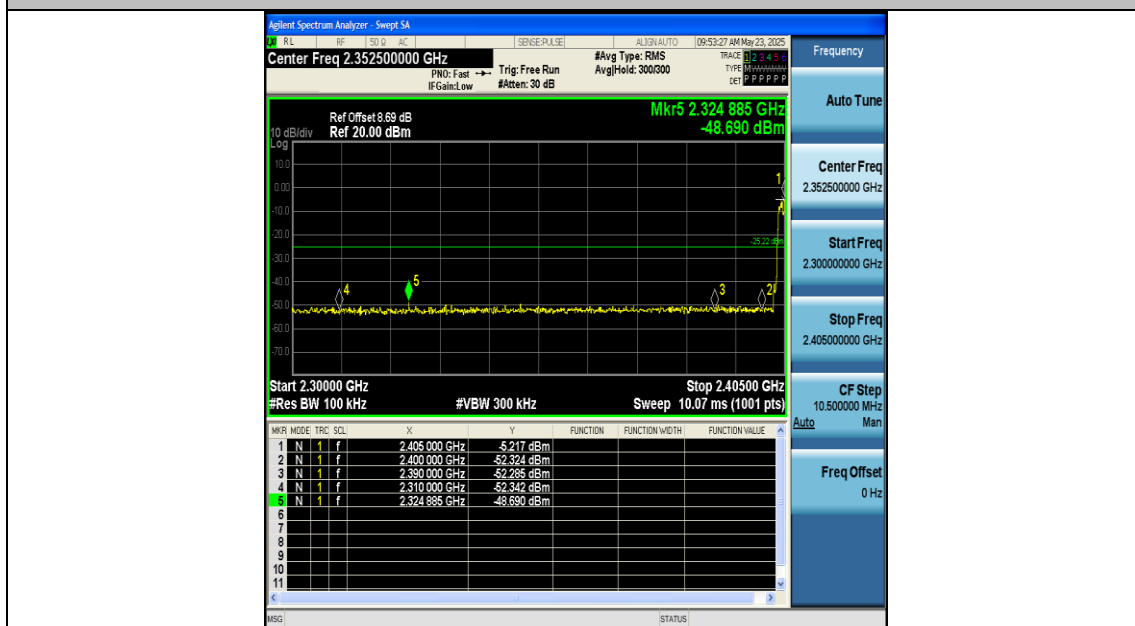
2DH5-Ant1-Hop_2480-PASS



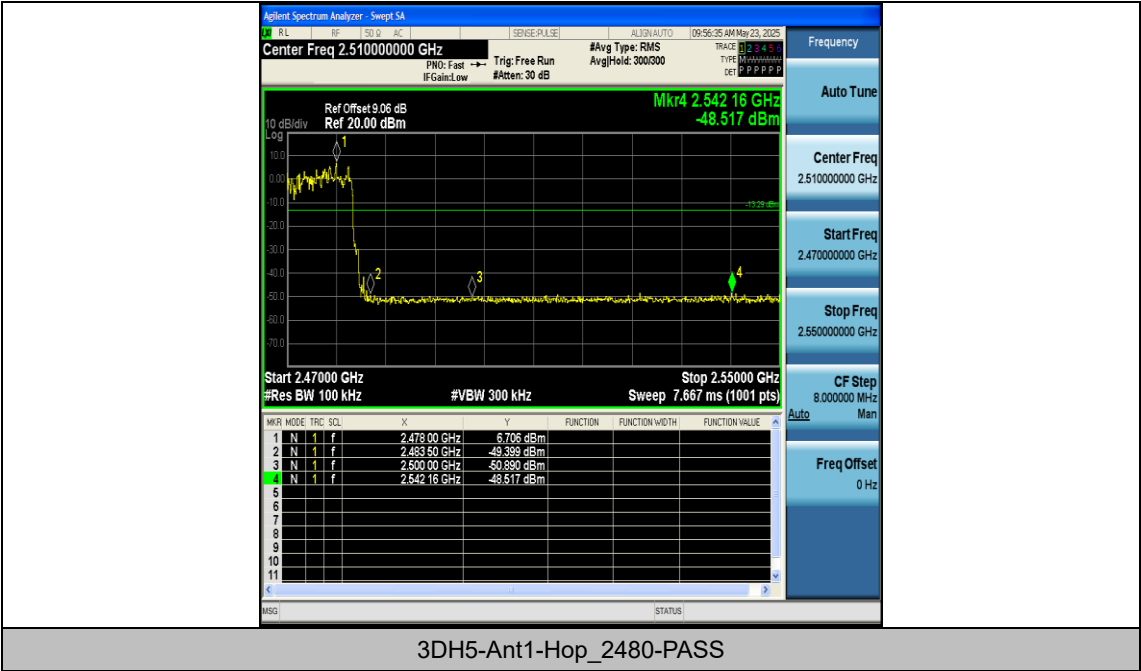
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS



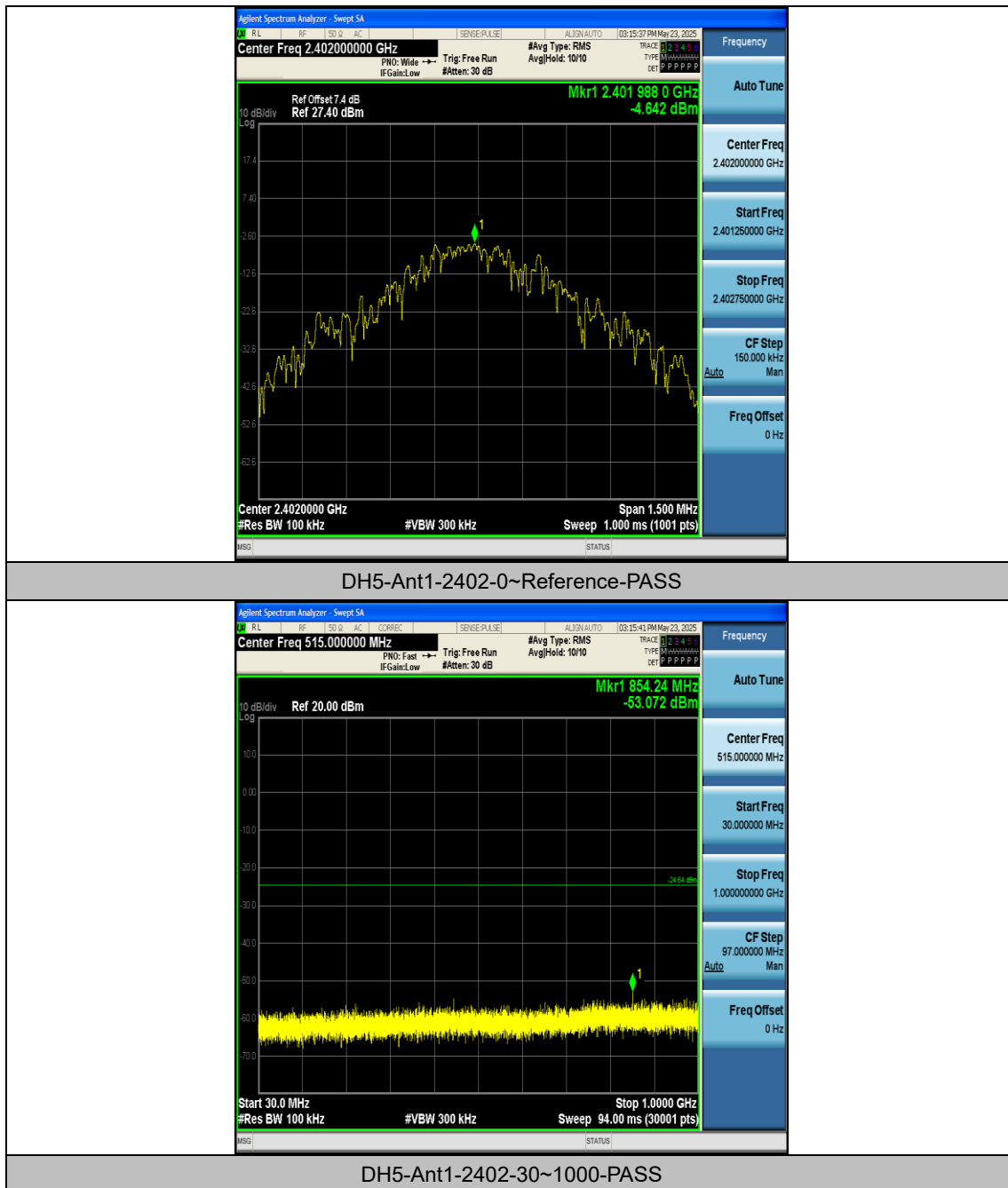
Appendix H: Conducted Spurious Emission

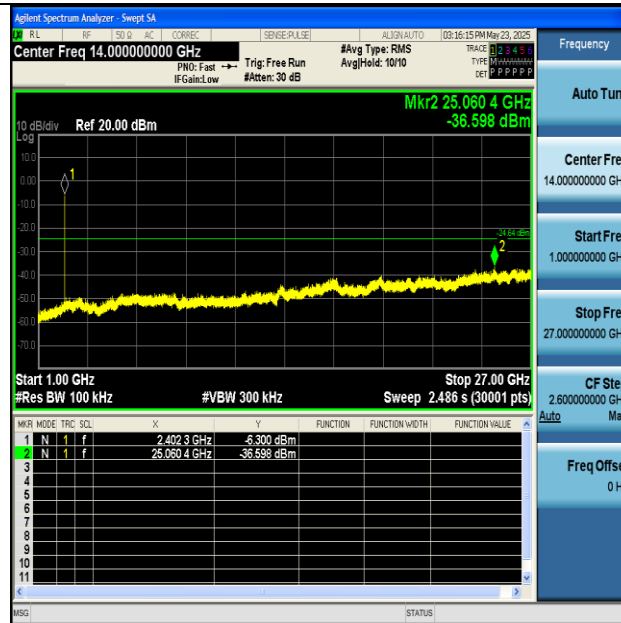
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-4.64	-4.64	---	PASS
DH5	Ant1	2402	30~1000	-4.64	-53.07	≤-24.64	PASS
DH5	Ant1	2402	1000~270000	-4.64	-36.6	≤-24.64	PASS
DH5	Ant1	2441	0~Reference	-0.74	-0.74	---	PASS
DH5	Ant1	2441	30~1000	-0.74	-54.12	≤-20.74	PASS
DH5	Ant1	2441	1000~270000	-0.74	-36.56	≤-20.74	PASS
DH5	Ant1	2480	0~Reference	1.01	1.01	---	PASS
DH5	Ant1	2480	30~1000	1.01	-53.83	≤-18.99	PASS
DH5	Ant1	2480	1000~270000	1.01	-36.31	≤-18.99	PASS
2DH5	Ant1	2402	0~Reference	-4.60	-4.60	---	PASS
2DH5	Ant1	2402	30~1000	-4.60	-53.92	≤-24.6	PASS
2DH5	Ant1	2402	1000~270000	-4.60	-36.87	≤-24.6	PASS
2DH5	Ant1	2441	0~Reference	-1.00	-1.00	---	PASS
2DH5	Ant1	2441	30~1000	-1.00	-53.57	≤-21	PASS
2DH5	Ant1	2441	1000~270000	-1.00	-36.72	≤-21	PASS
2DH5	Ant1	2480	0~Reference	1.99	1.99	---	PASS
2DH5	Ant1	2480	30~1000	1.99	-53.57	≤-18.01	PASS
2DH5	Ant1	2480	1000~270000	1.99	-36.95	≤-18.01	PASS
3DH5	Ant1	2402	0~Reference	-1.63	-1.63	---	PASS
3DH5	Ant1	2402	30~1000	-1.63	-54.41	≤-21.63	PASS
3DH5	Ant1	2402	1000~270000	-1.63	-36.17	≤-21.63	PASS
3DH5	Ant1	2441	0~Reference	0.52	0.52	---	PASS
3DH5	Ant1	2441	30~1000	0.52	-54.26	≤-19.48	PASS
3DH5	Ant1	2441	1000~270000	0.52	-36.14	≤-19.48	PASS
3DH5	Ant1	2480	0~Reference	3.49	3.49	---	PASS
3DH5	Ant1	2480	30~1000	3.49	-53.85	≤-16.51	PASS
3DH5	Ant1	2480	1000~270000	3.49	-36.67	≤-16.51	PASS

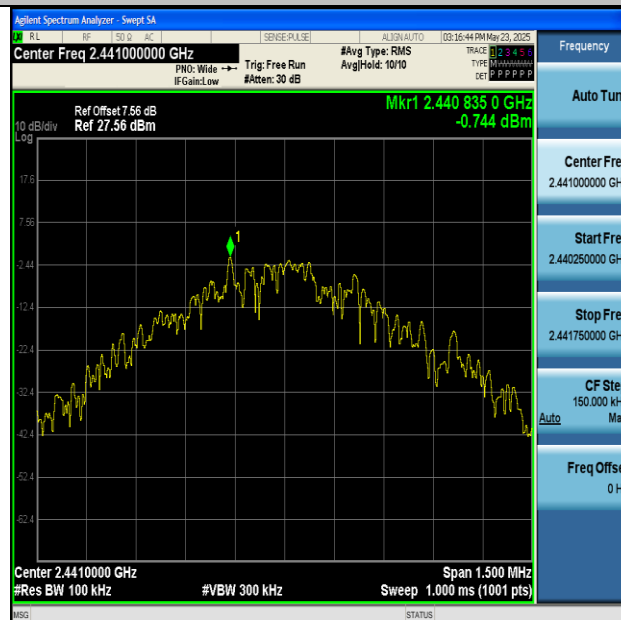
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

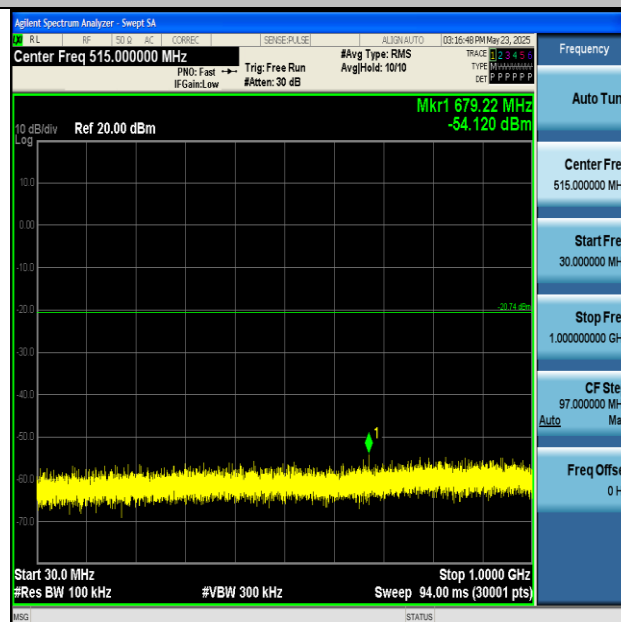




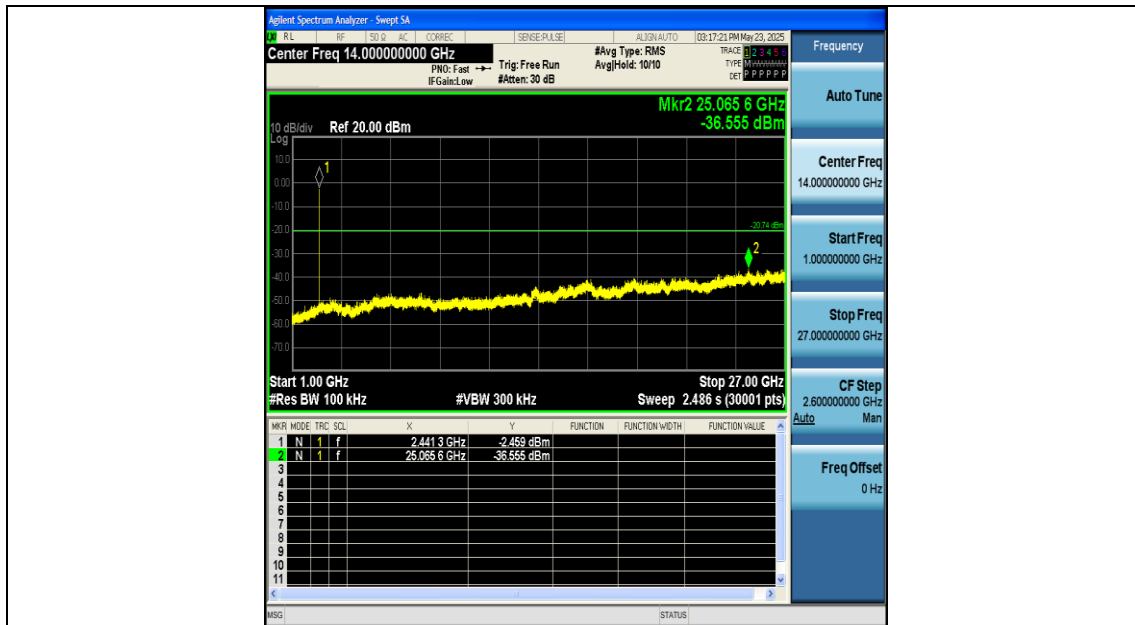
DH5-Ant1-2402-1000~270000-PASS



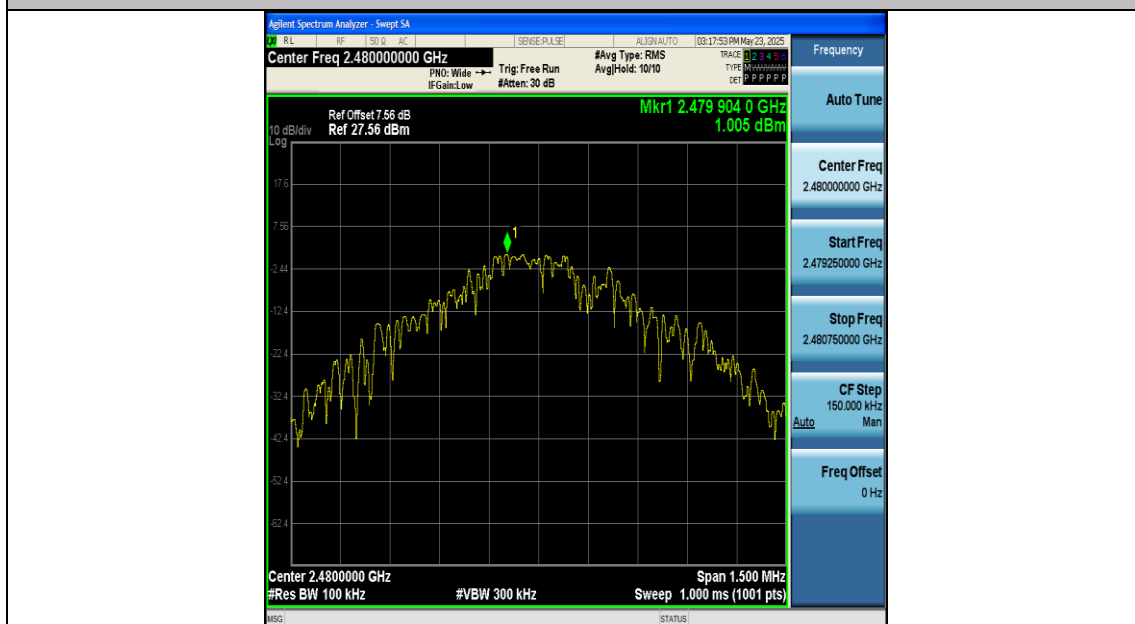
DH5-Ant1-2441-0~Reference-PASS



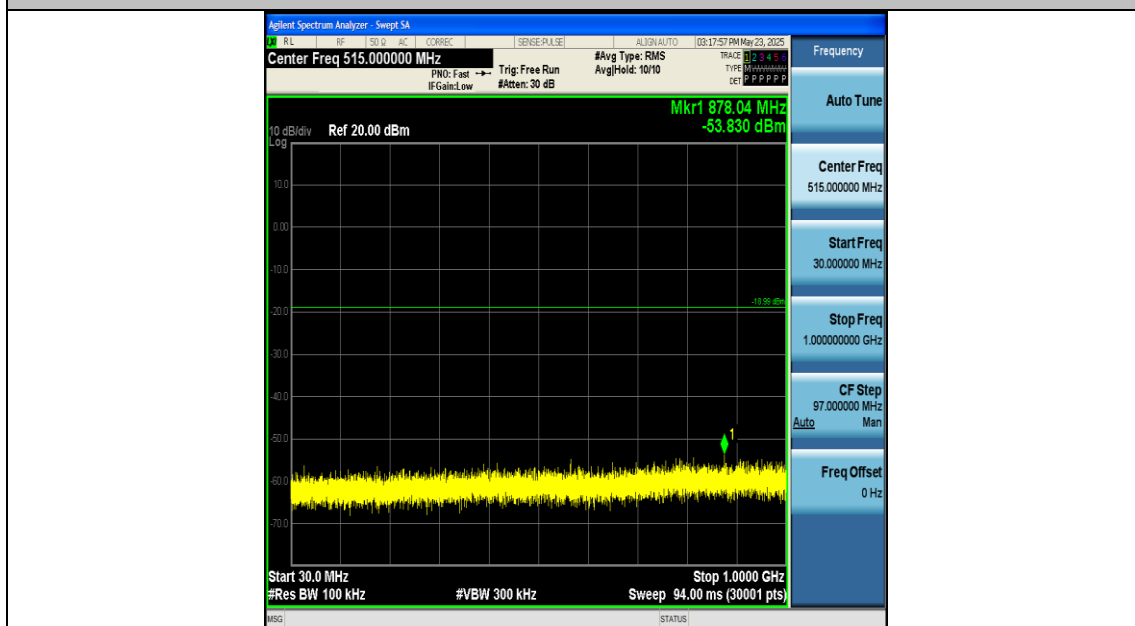
DH5-Ant1-2441-30~1000-PASS



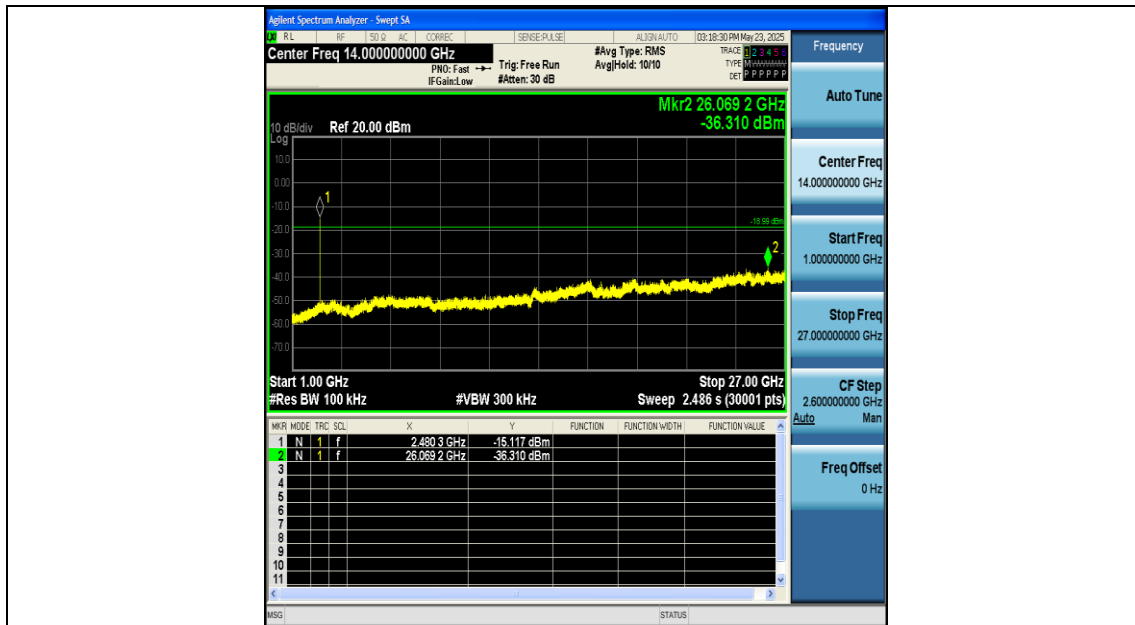
DH5-Ant1-2441-1000~270000-PASS



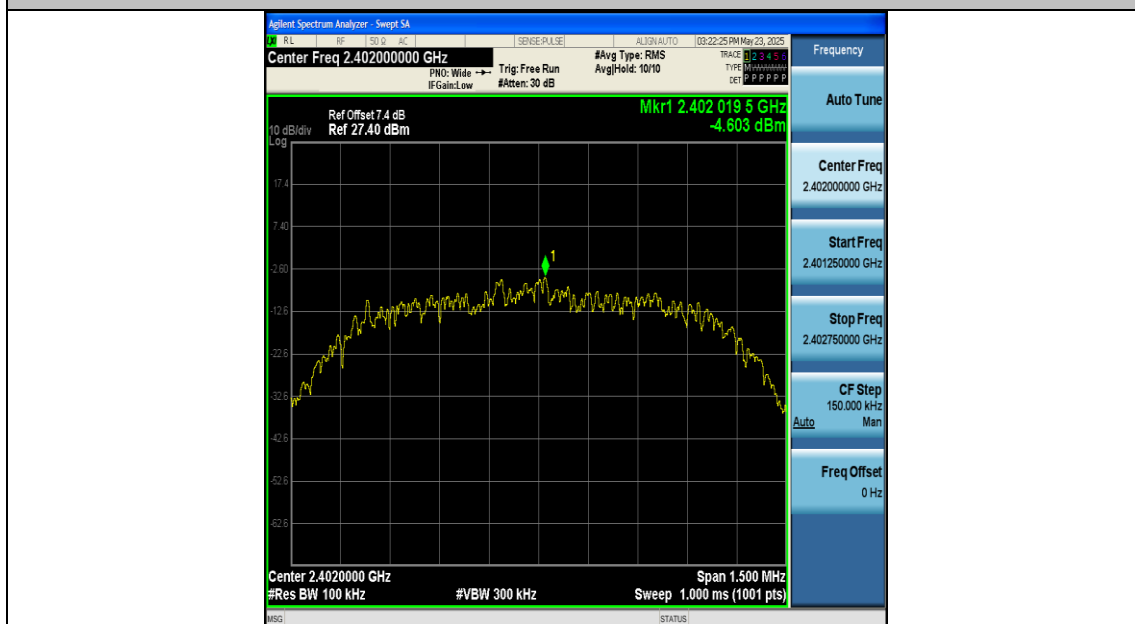
DH5-Ant1-2480-0~Reference-PASS



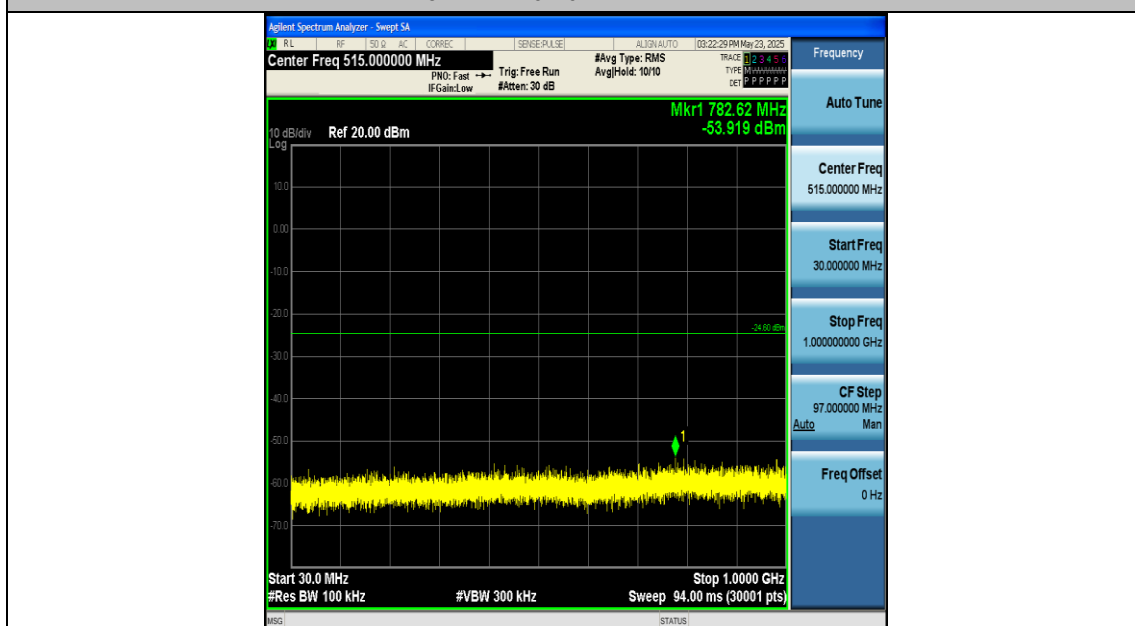
DH5-Ant1-2480-30~1000-PASS



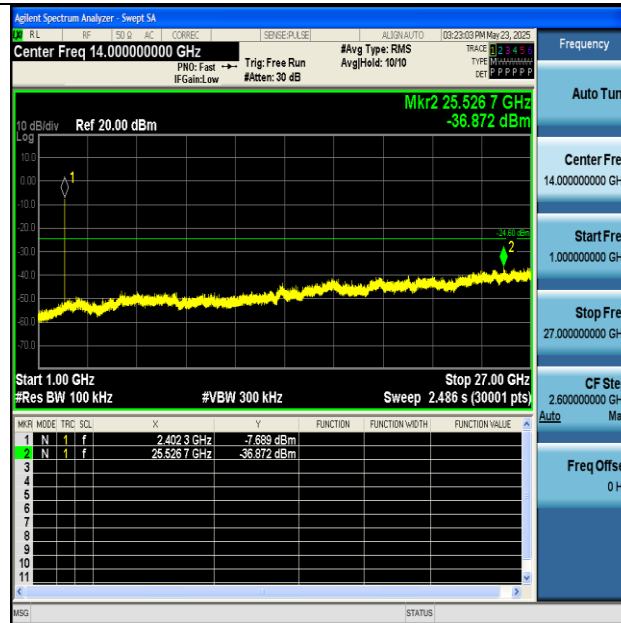
DH5-Ant1-2480-1000~270000-PASS



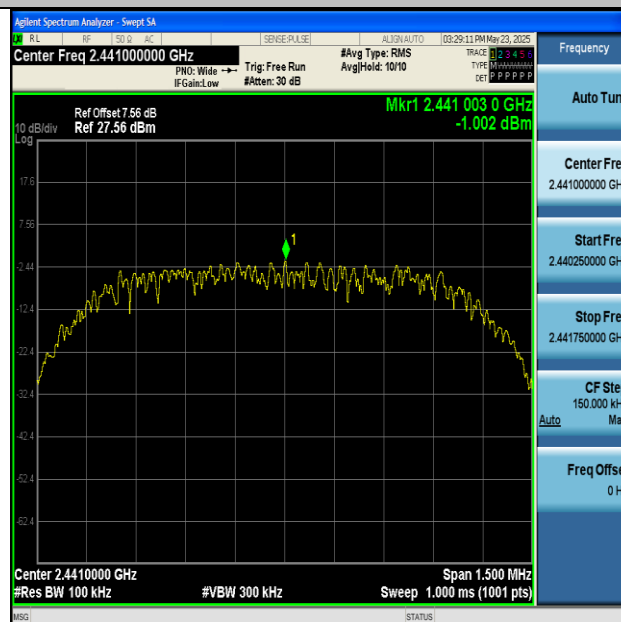
2DH5-Ant1-2402-0~Reference-PASS



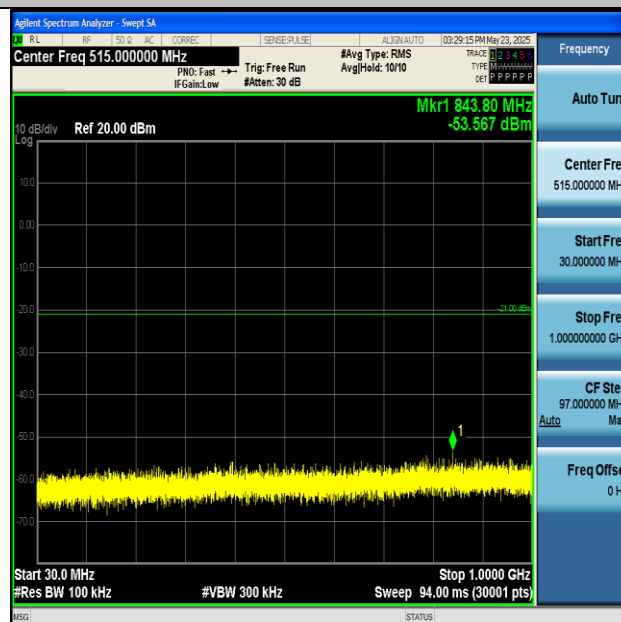
2DH5-Ant1-2402-30~1000-PASS



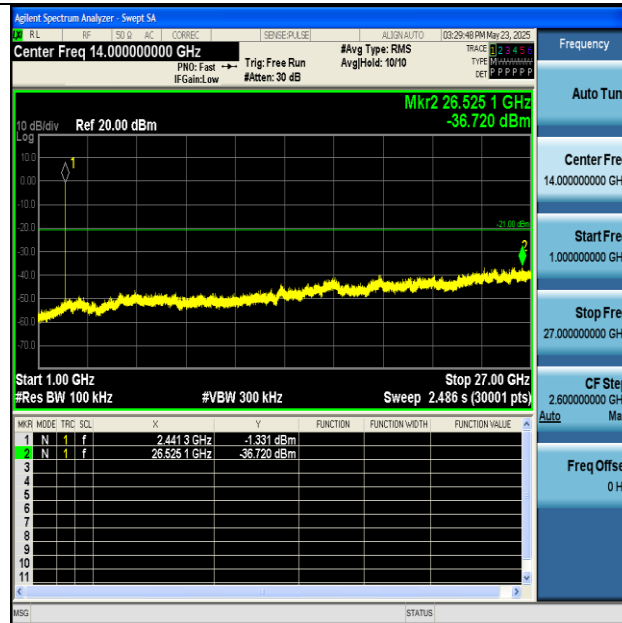
2DH5-Ant1-2402-1000~270000-PASS



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



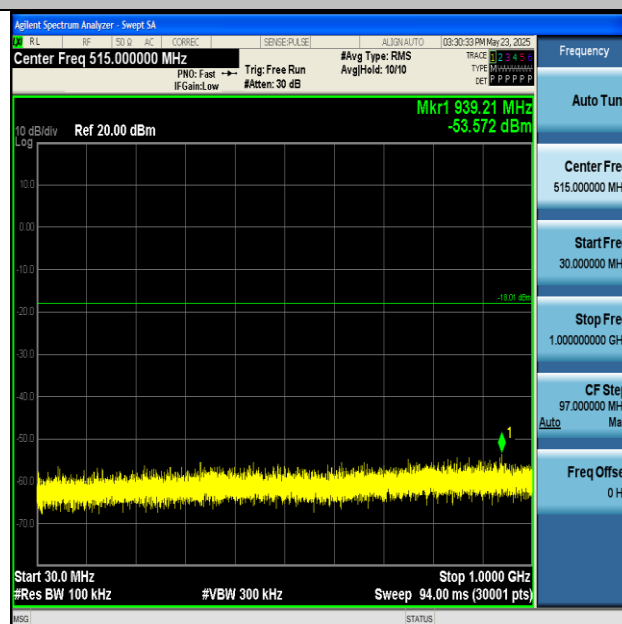
2DH5-Ant1-2441-30~1000-PASS



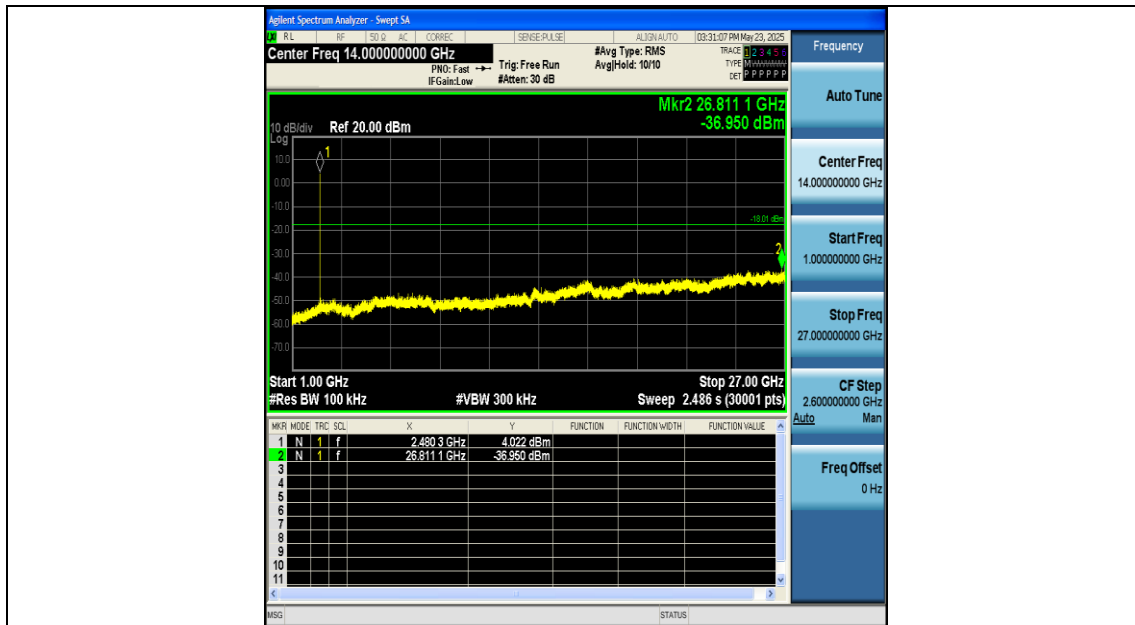
2DH5-Ant1-2441-1000~270000-PASS



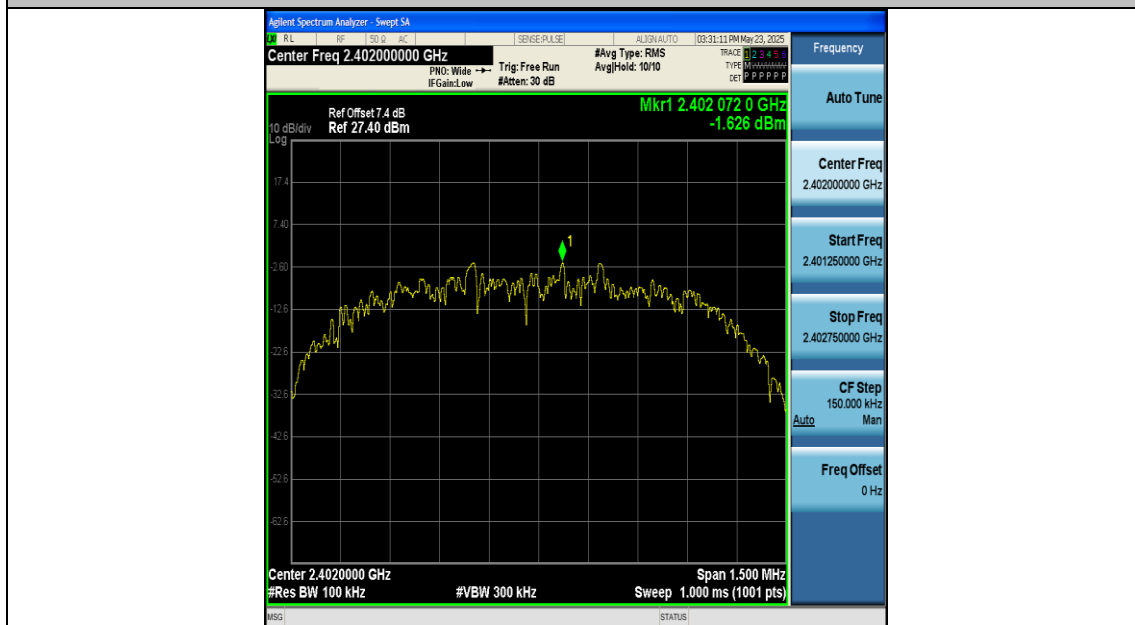
2DH5-Ant1-2480-0~Reference-PASS



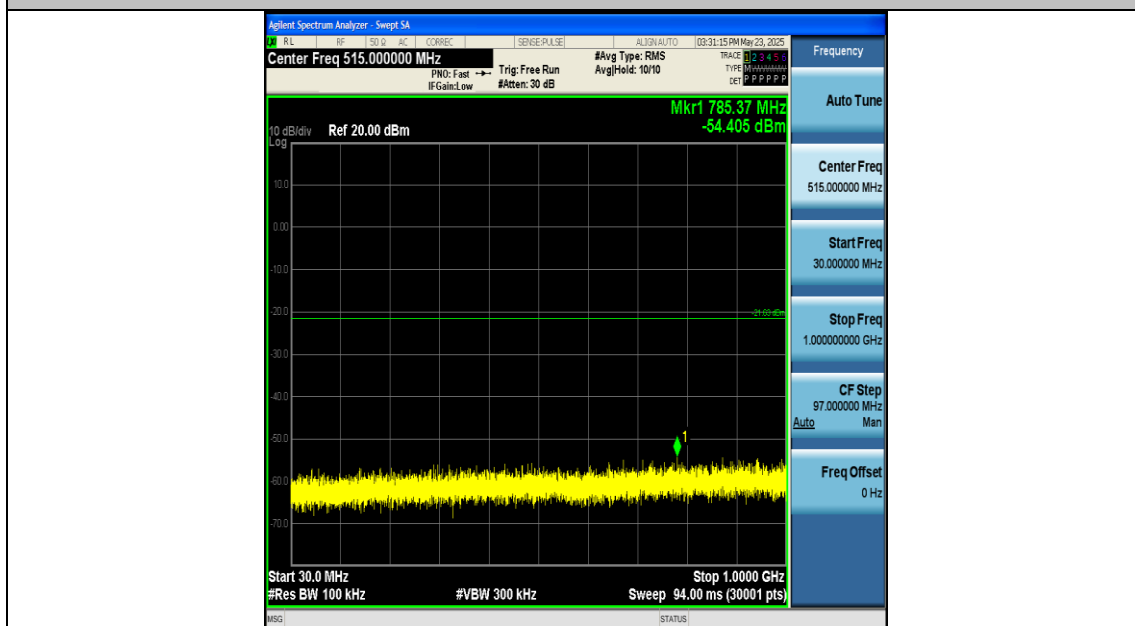
2DH5-Ant1-2480-30~1000-PASS



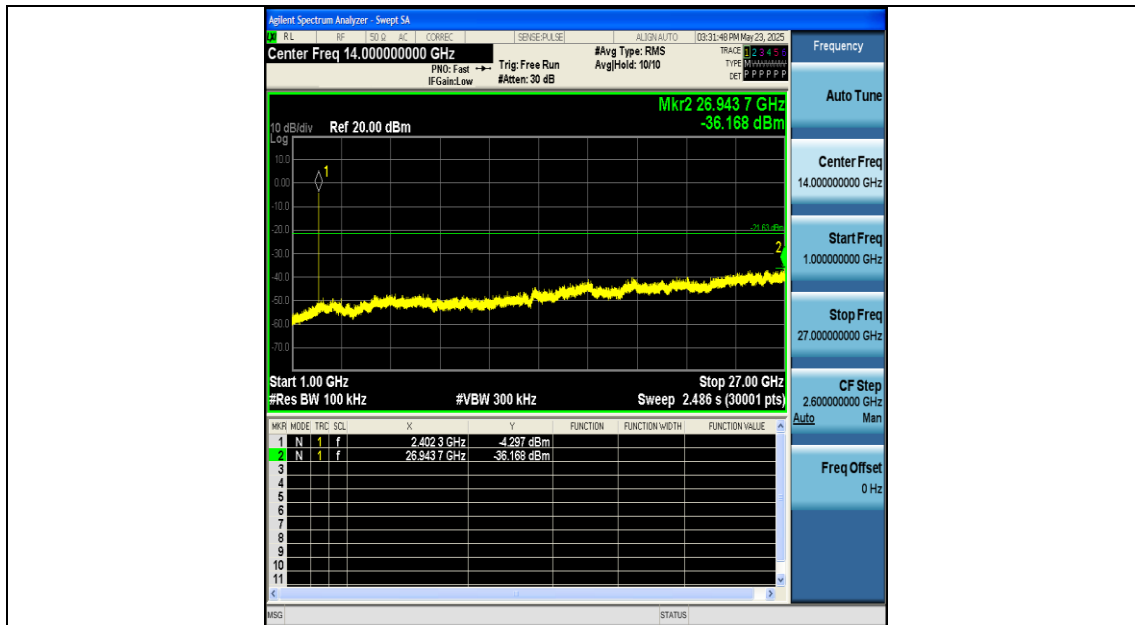
2DH5-Ant1-2480-1000~270000-PASS



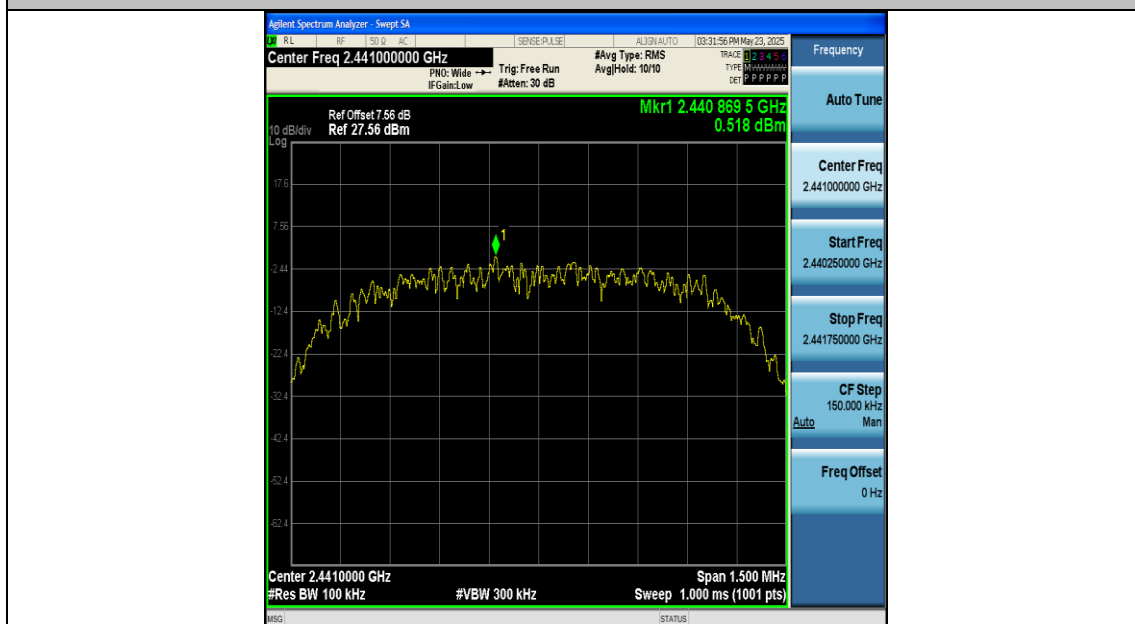
3DH5-Ant1-2402-0~Reference-PASS



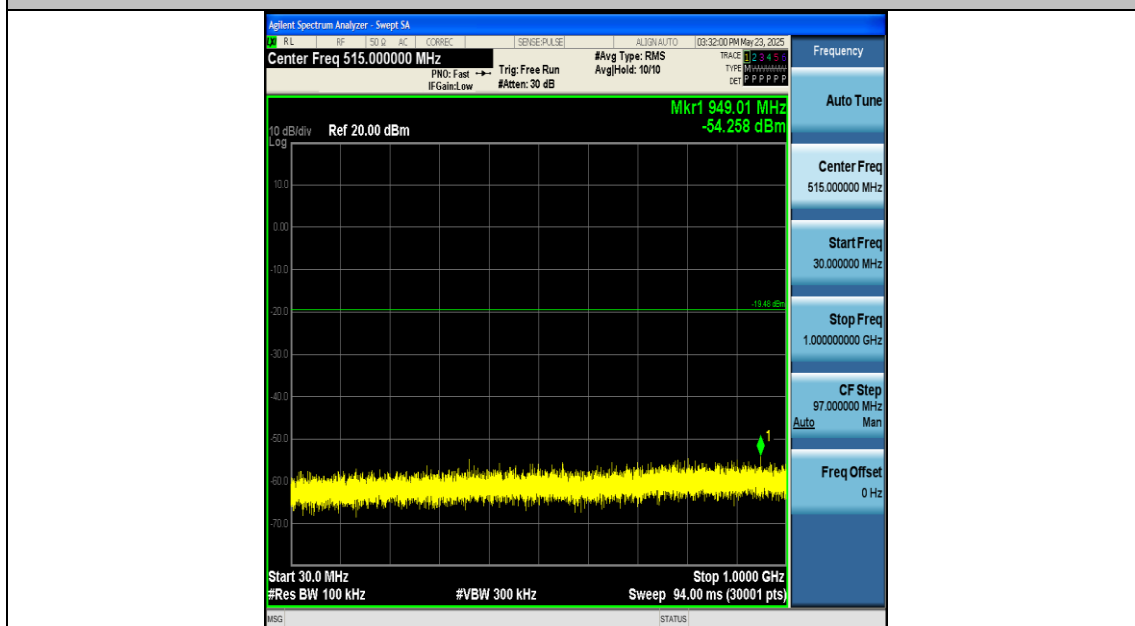
3DH5-Ant1-2402-30~1000-PASS



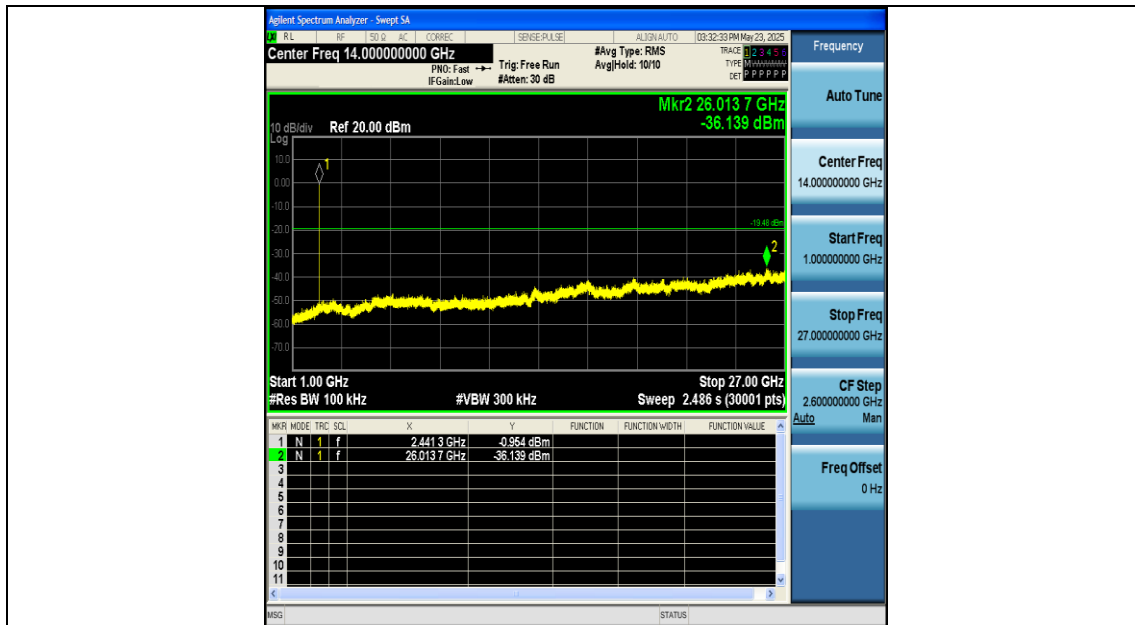
3DH5-Ant1-2402-1000~270000-PASS



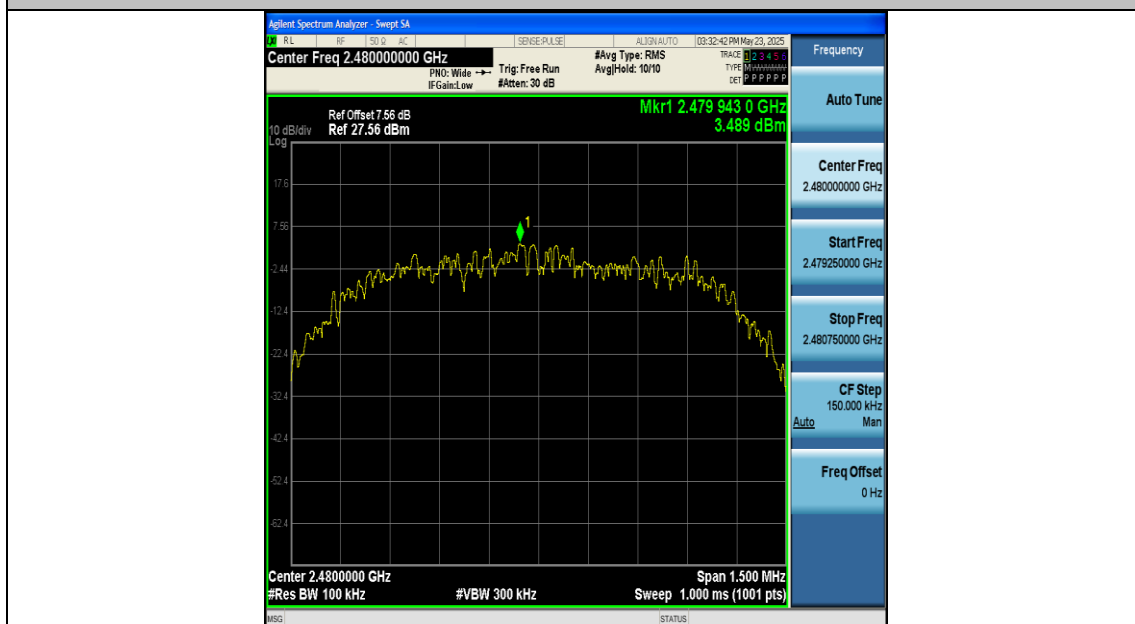
3DH5-Ant1-2441-0~Reference-PASS



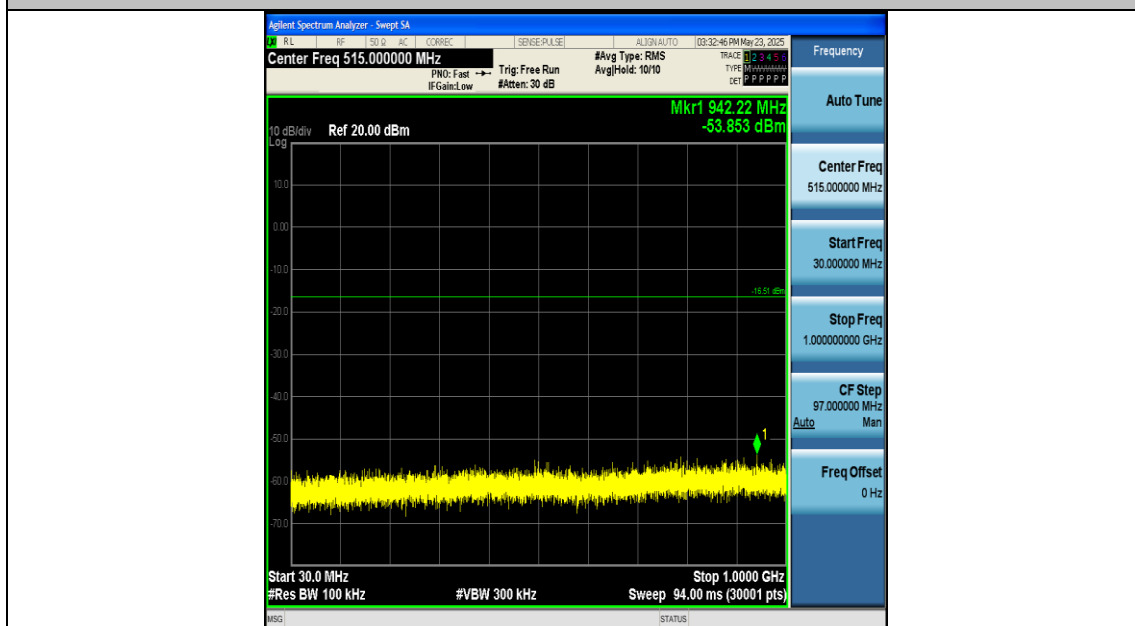
3DH5-Ant1-2441-30~1000-PASS



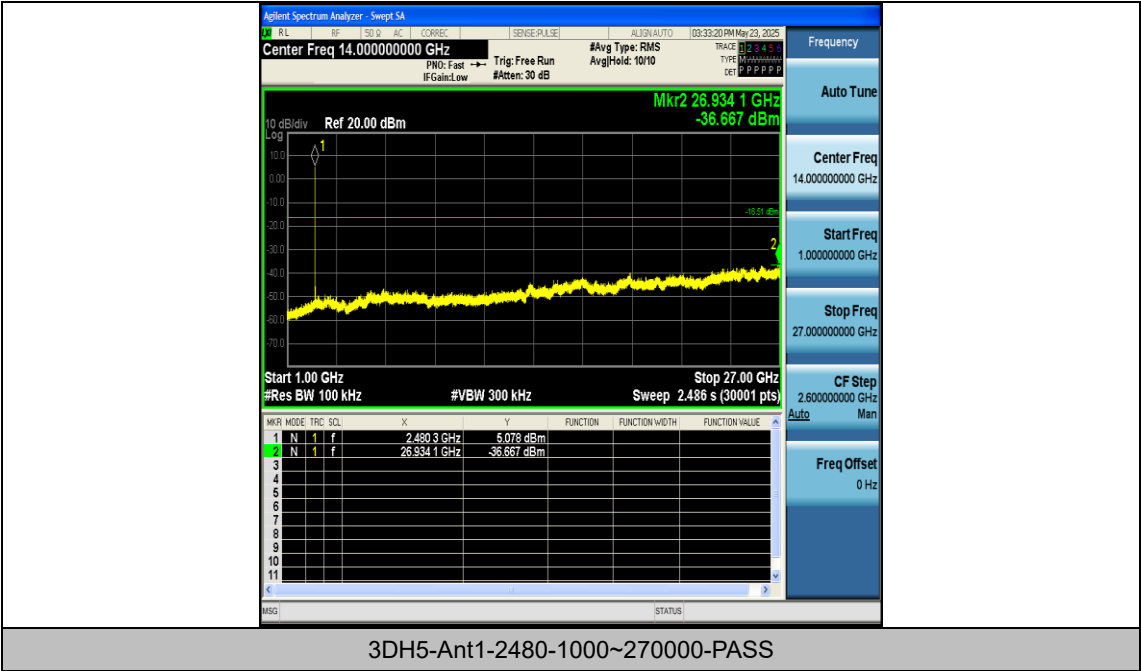
3DH5-Ant1-2441-1000~270000-PASS



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



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



Appendix I: Duty Cycle

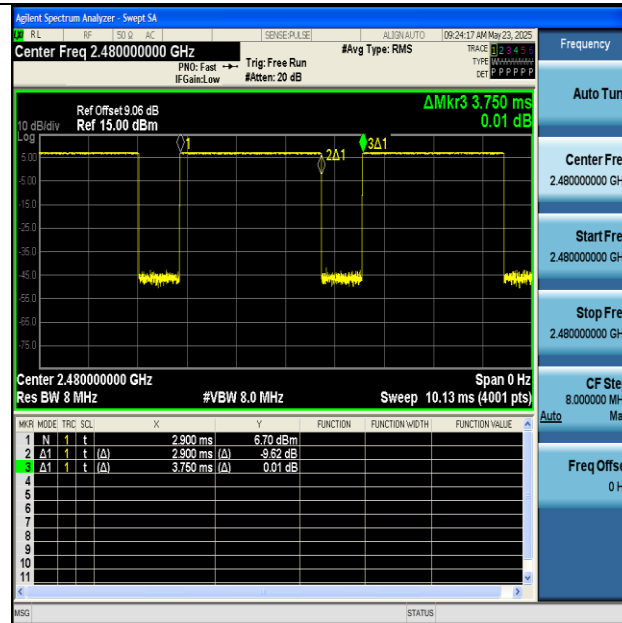
Test Result

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	3.75	77.33	1.12
DH5	Ant1	2480	2.90	3.75	77.33	1.12
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	2.91	3.75	77.60	1.10
3DH5	Ant1	2402	2.90	3.75	77.33	1.12
3DH5	Ant1	2441	2.90	3.75	77.33	1.12
3DH5	Ant1	2480	2.91	3.76	77.39	1.11

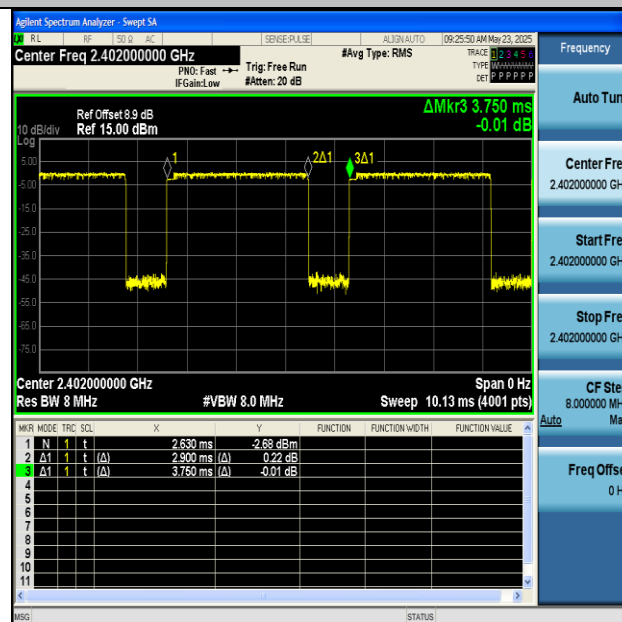
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

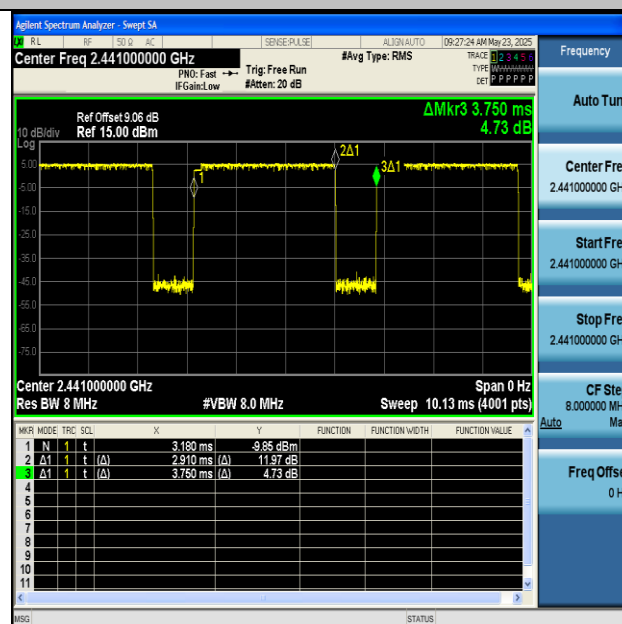




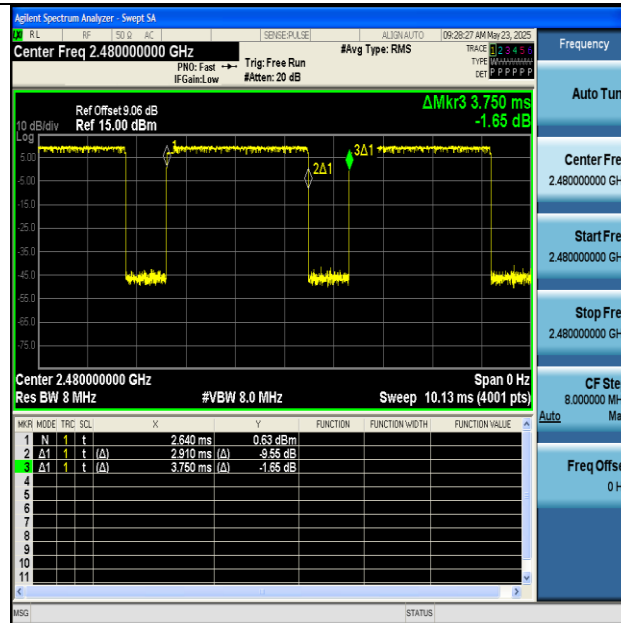
NTNV-DH5-Ant1-2480



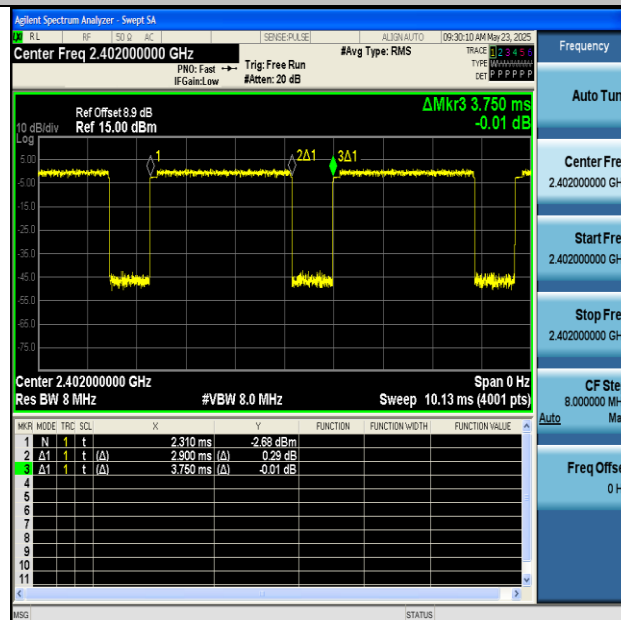
NTNV-2DH5-Ant1-2402



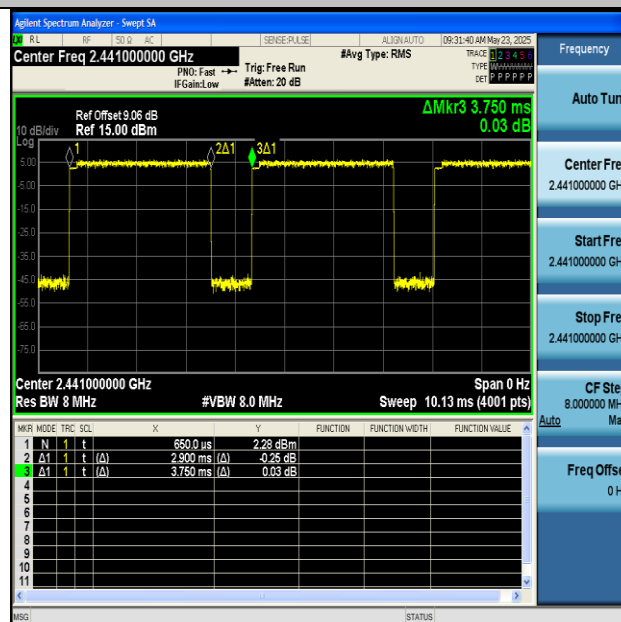
NTNV-2DH5-Ant1-2441



NTNV-2DH5-Ant1-2480



NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441

