



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

Product Name: LED Speaker Bar

Trade Mark: HYPE

Test Model: HY-LSOB-BLK

FCC ID: 2AANZ-HYLSOBBLK

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	1.071	2401.391	2402.462	---	---
DH5	Ant1	2441	1.053	2440.403	2441.456	---	---
DH5	Ant1	2480	1.050	2479.409	2480.459	---	---
2DH5	Ant1	2402	1.341	2401.265	2402.606	---	---
2DH5	Ant1	2441	1.332	2440.271	2441.603	---	---
2DH5	Ant1	2480	1.356	2479.262	2480.618	---	---

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





Test Graphs





DH5-Ant1-2480



2DH5-Ant1-2402





2DH5-Ant1-2441



2DH5-Ant1-2480





Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.96659	2401.4461	2402.4127	---	---
DH5	Ant1	2441	0.97860	2440.4418	2441.4204	---	---
DH5	Ant1	2480	0.98429	2479.4402	2480.4245	---	---
2DH5	Ant1	2402	1.2348	2401.3215	2402.5563	---	---
2DH5	Ant1	2441	1.2549	2440.3088	2441.5637	---	---
2DH5	Ant1	2480	1.2472	2479.3128	2480.5600	---	---

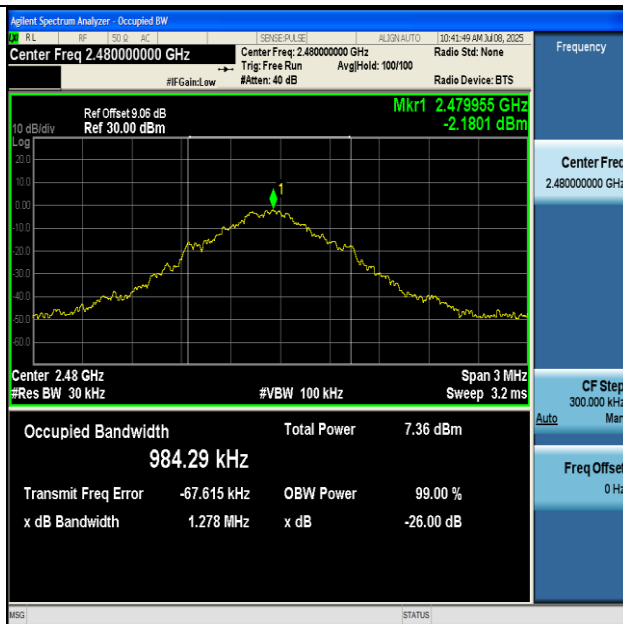
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



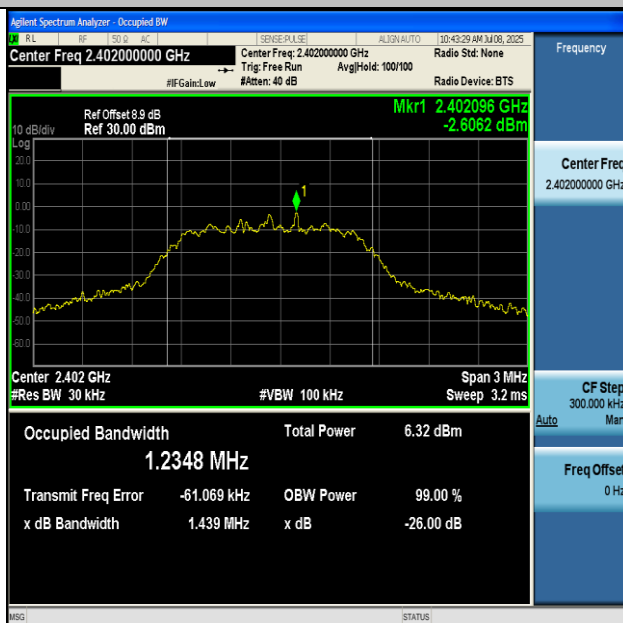


Test Graphs



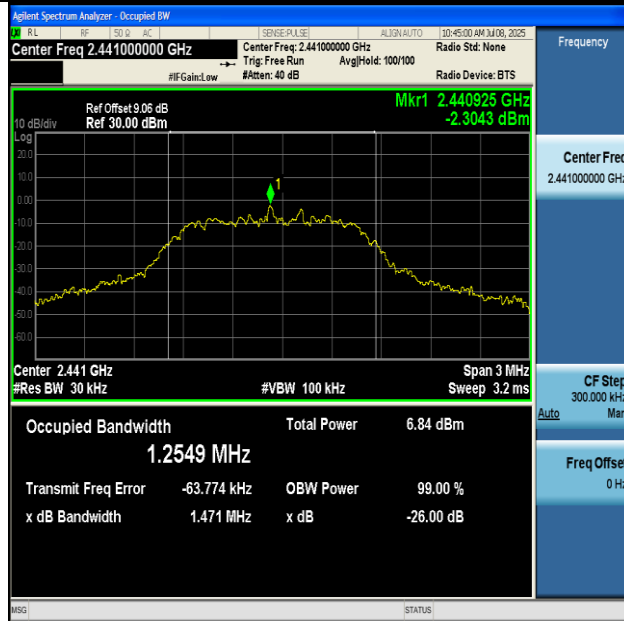


DH5-Ant1-2480

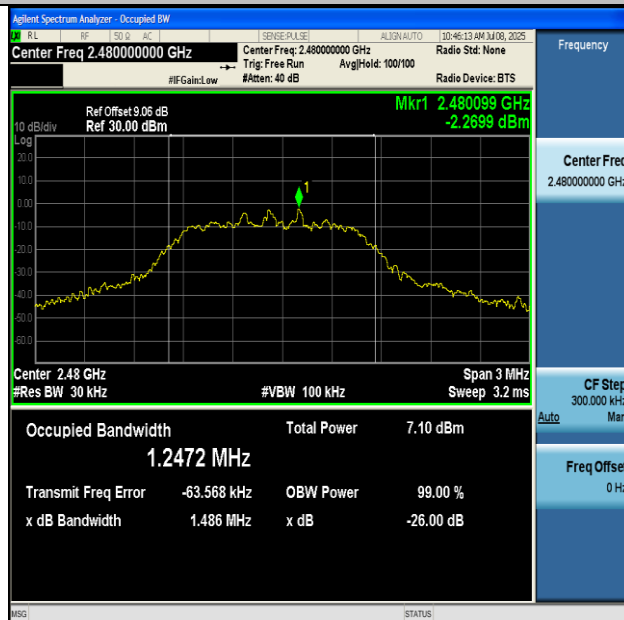


2DH5-Ant1-2402





2DH5-Ant1-2441



2DH5-Ant1-2480





Appendix C: Maximum peak conducted output power

Test Result

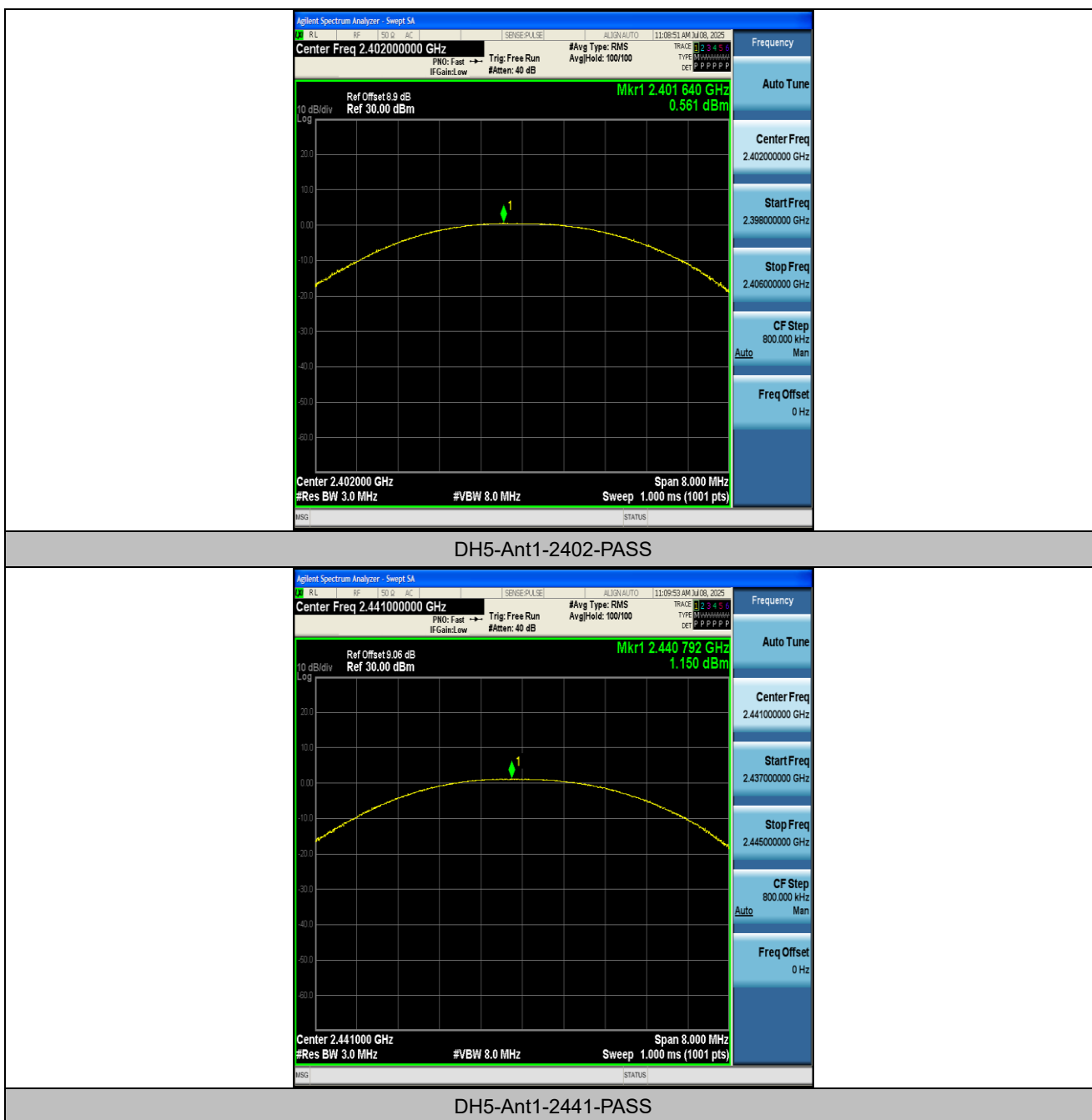
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	0.56	≤20.97	PASS
DH5	Ant1	2441	1.15	≤20.97	PASS
DH5	Ant1	2480	1.03	≤20.97	PASS
2DH5	Ant1	2402	1.29	≤20.97	PASS
2DH5	Ant1	2441	1.91	≤20.97	PASS
2DH5	Ant1	2480	1.66	≤20.97	PASS

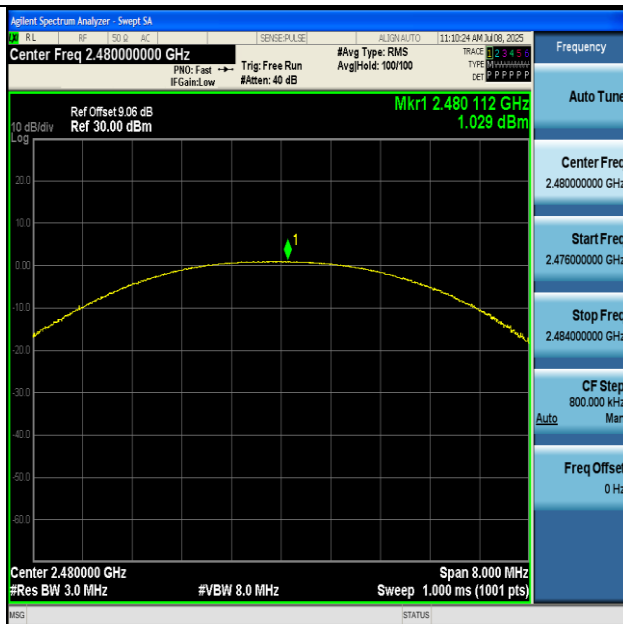
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



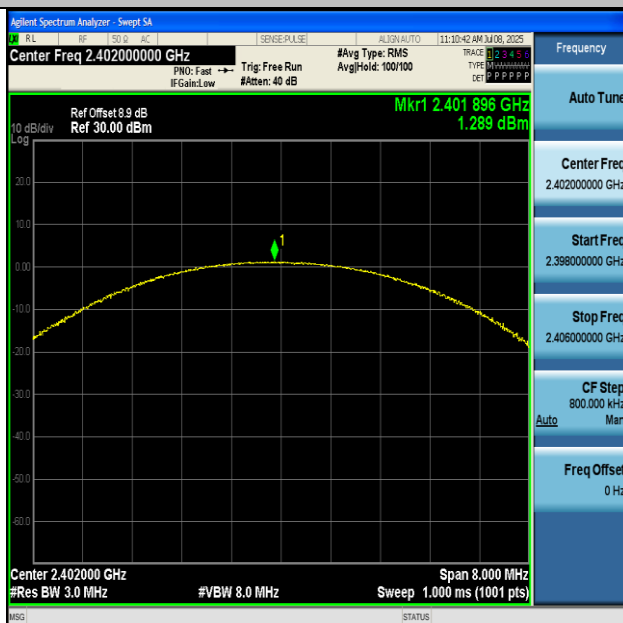


Test Graphs



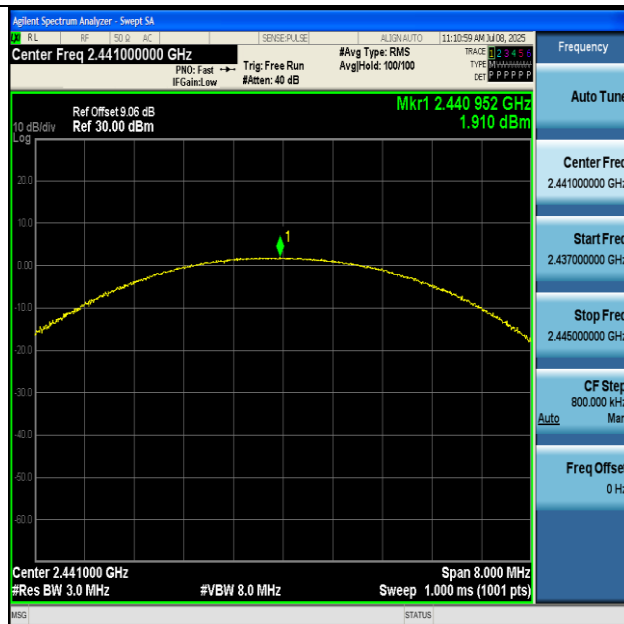


DH5-Ant1-2480-PASS

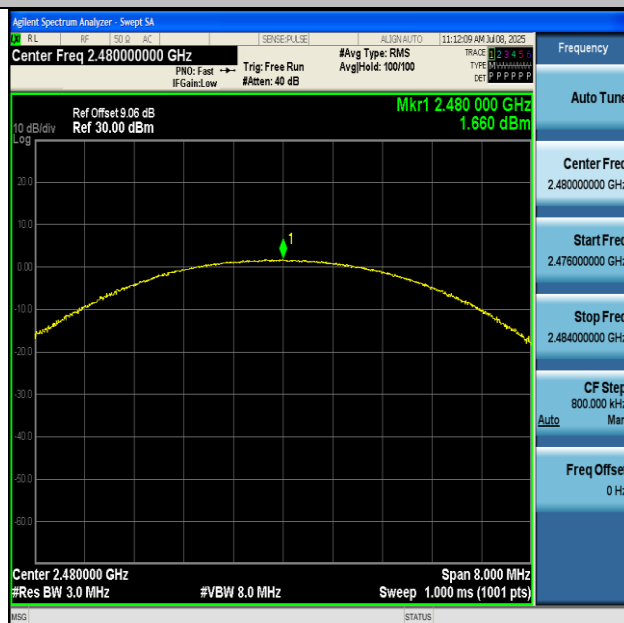


2DH5-Ant1-2402-PASS





2DH5-Ant1-2441-PASS



2DH5-Ant1-2480-PASS





Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	1.032	≥ 0.714	PASS
2DH5	Ant1	Hop	1.024	≥ 0.904	PASS

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





Test Graphs





Appendix E: Time of occupancy

Test Result

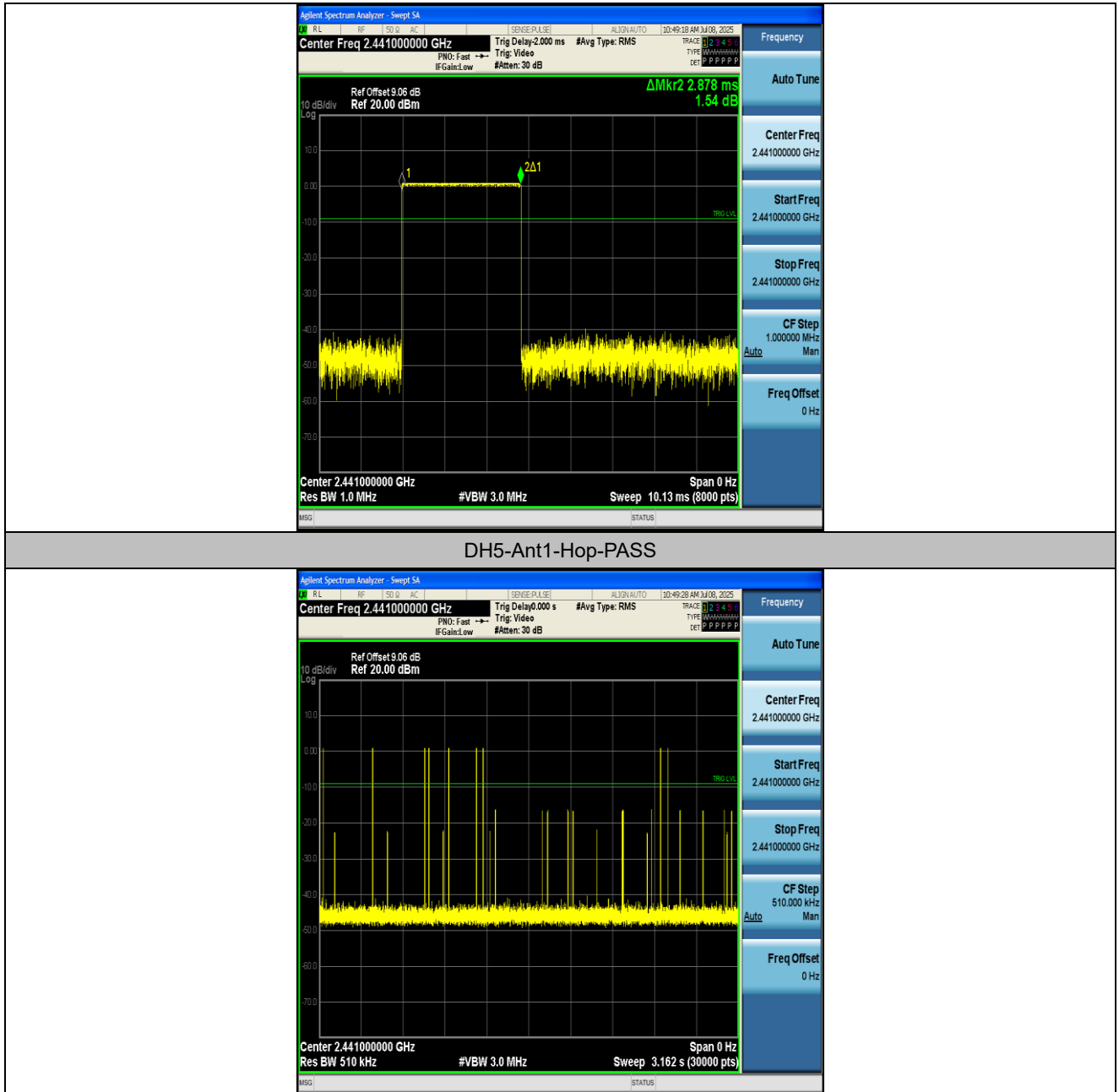
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.878	100	0.288	≤0.4	PASS
2DH5	Ant1	Hop	2.885	100	0.289	≤0.4	PASS

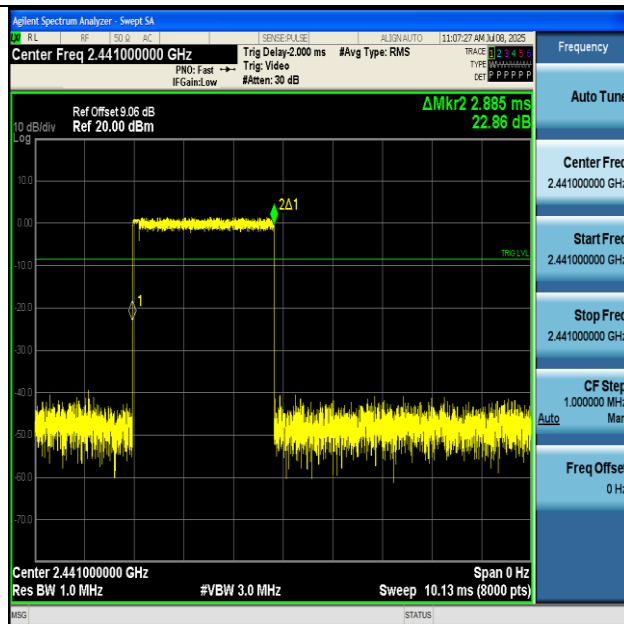
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



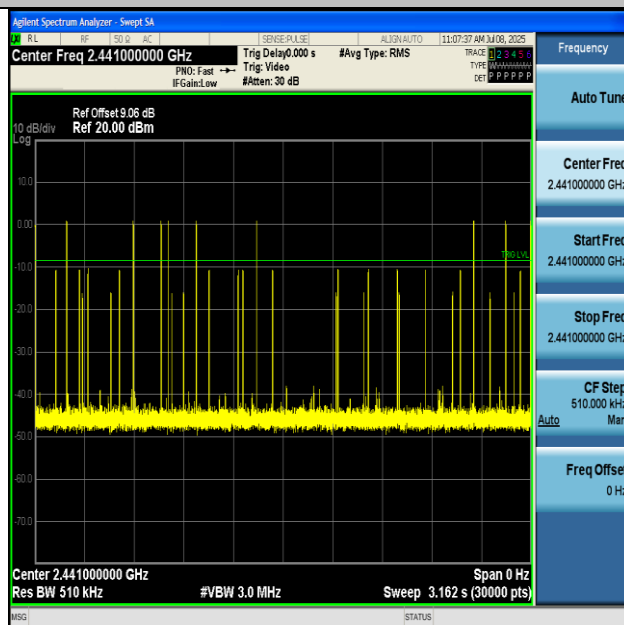


Test Graphs





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

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





Test Graphs





Appendix G: Band edge measurements

Test Result

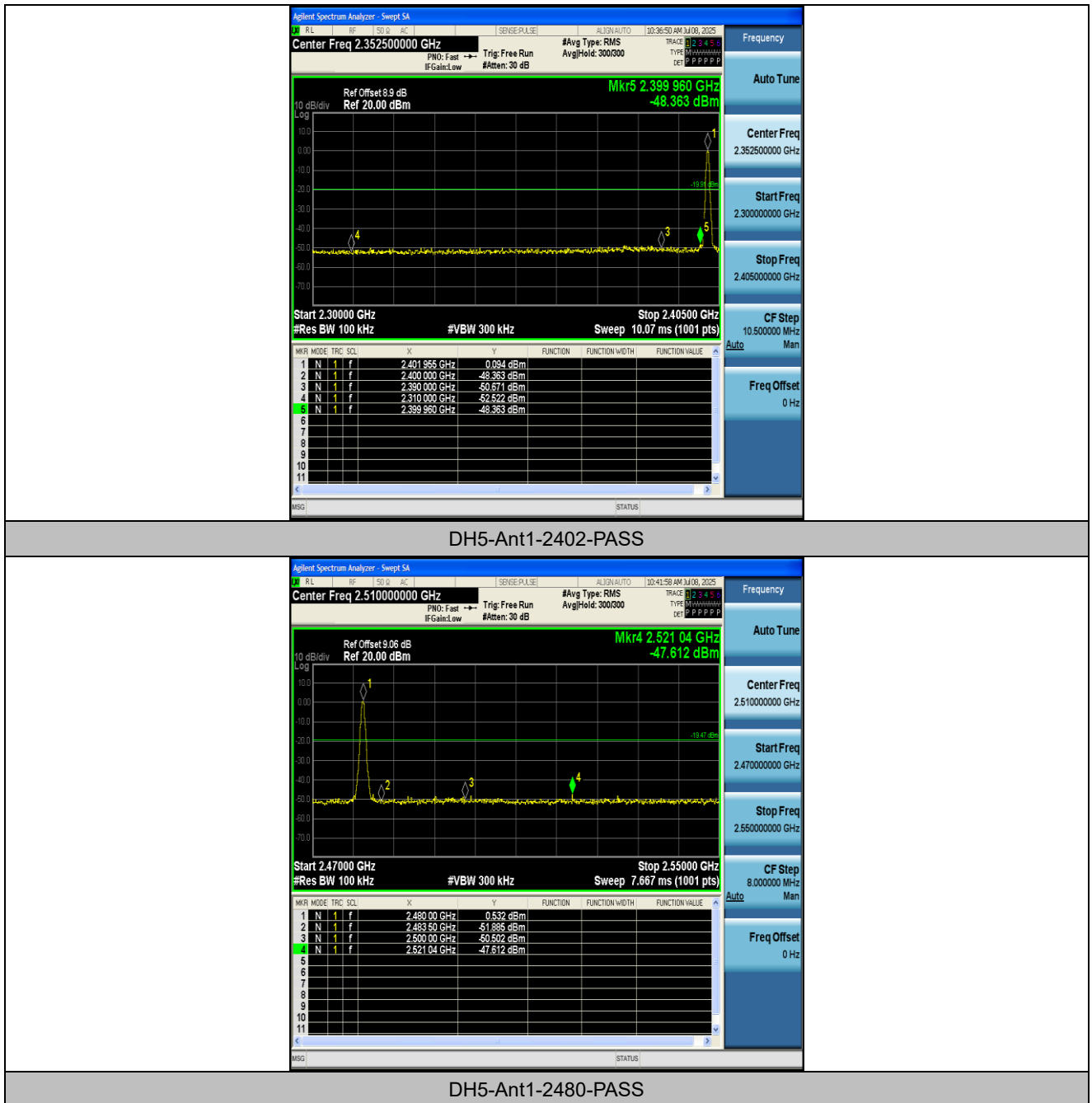
Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.09	-48.36	≤ -19.91	PASS
DH5	Ant1	High	2480	0.53	-47.61	≤ -19.47	PASS
DH5	Ant1	Low	Hop_2402	-1.09	-49.34	≤ -21.09	PASS
DH5	Ant1	High	Hop_2480	0.02	-48.67	≤ -19.98	PASS
2DH5	Ant1	Low	2402	-0.03	-48.85	≤ -20.03	PASS
2DH5	Ant1	High	2480	0.27	-48.55	≤ -19.73	PASS
2DH5	Ant1	Low	Hop_2402	-3.38	-48.99	≤ -23.38	PASS
2DH5	Ant1	High	Hop_2480	-3.93	-48.43	≤ -23.93	PASS

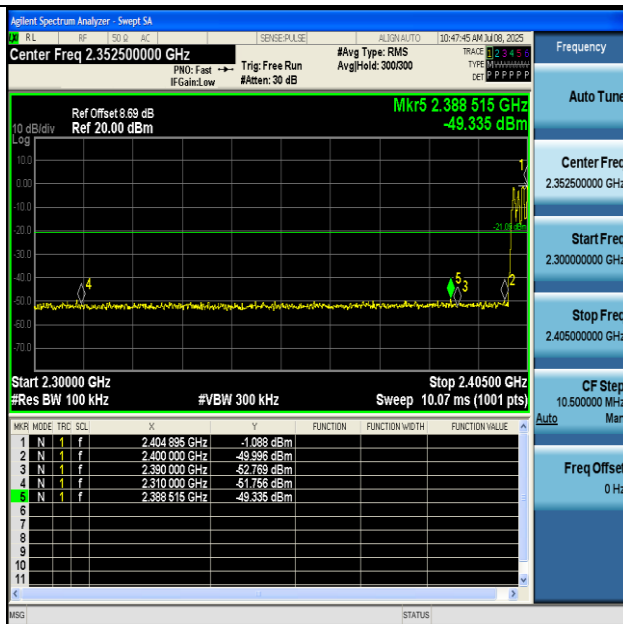
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



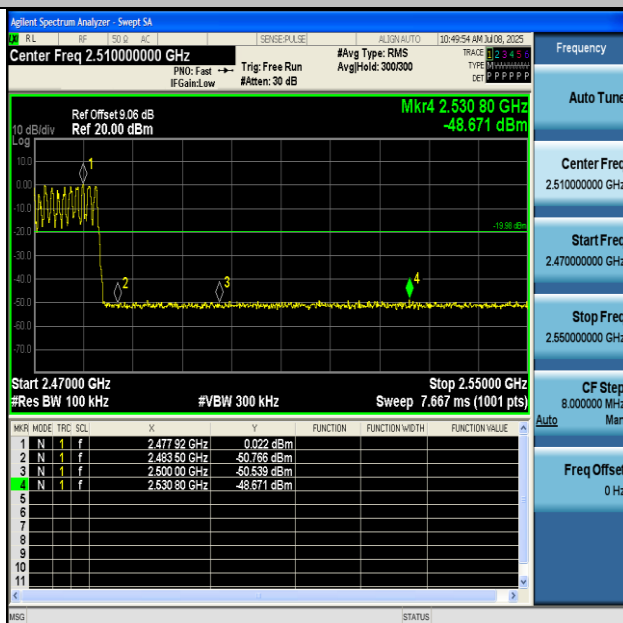


Test Graphs



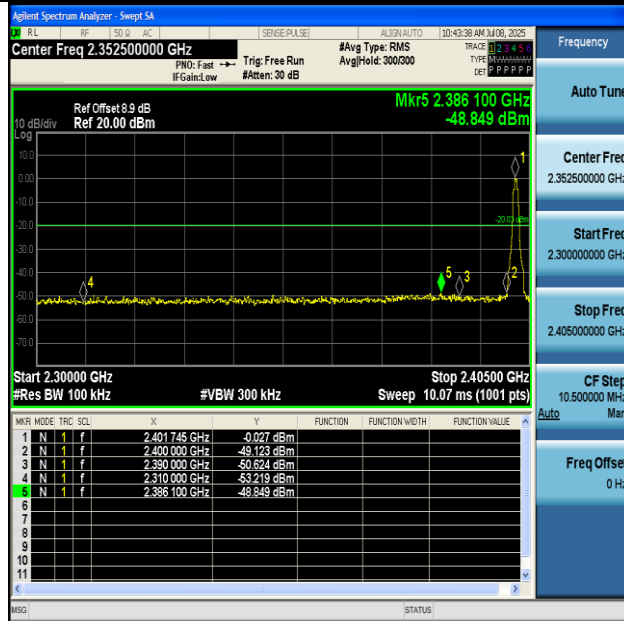


DH5-Ant1-Hop_2402-PASS

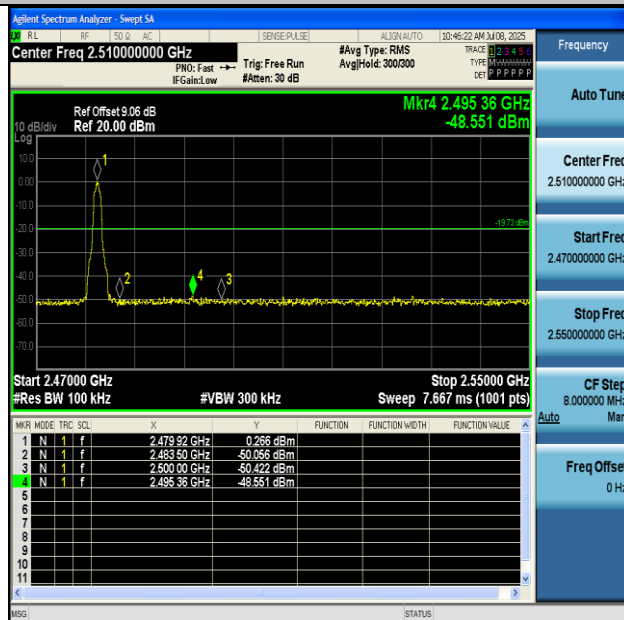


DH5-Ant1-Hop_2480-PASS



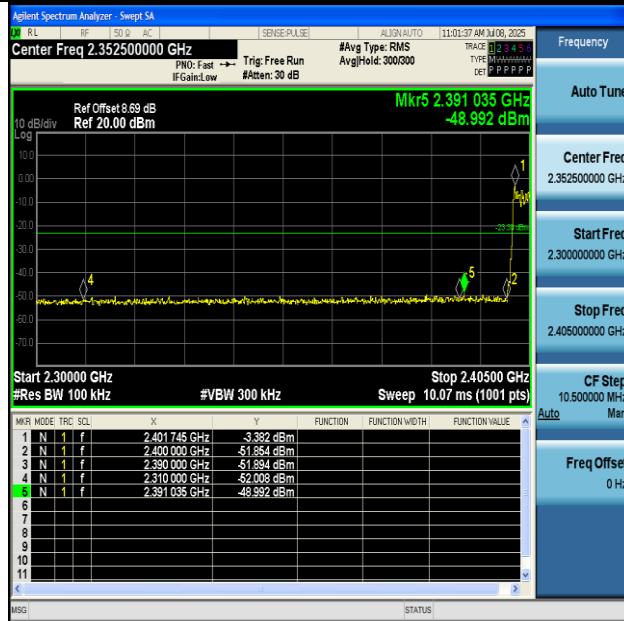


2DH5-Ant1-2402-PASS

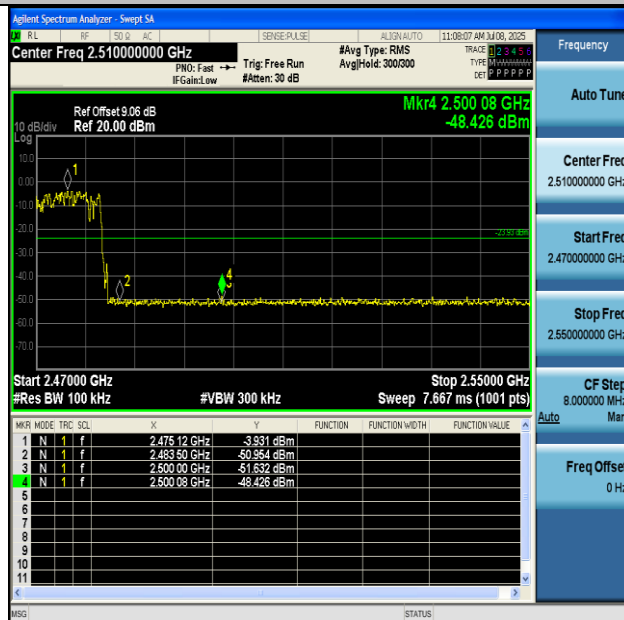


2DH5-Ant1-2480-PASS





2DH5-Ant1-Hop_2402-PASS



2DH5-Ant1-Hop_2480-PASS





Appendix H: Conducted Spurious Emission

Test Result

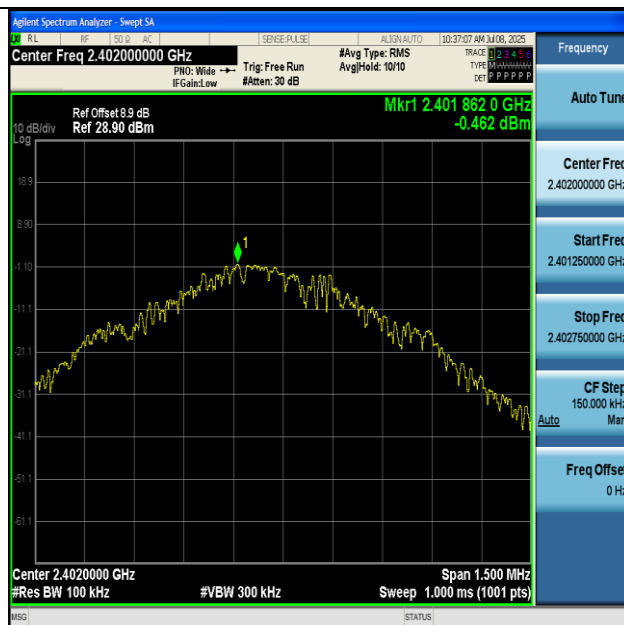
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-0.46	-0.46	---	PASS
DH5	Ant1	2402	30~1000	-0.46	-52.77	≤-20.46	PASS
DH5	Ant1	2402	1000~26500	-0.46	-34.74	≤-20.46	PASS
DH5	Ant1	2441	0~Reference	0.14	0.14	---	PASS
DH5	Ant1	2441	30~1000	0.14	-52.3	≤-19.86	PASS
DH5	Ant1	2441	1000~26500	0.14	-35.44	≤-19.86	PASS
DH5	Ant1	2480	0~Reference	-0.02	-0.02	---	PASS
DH5	Ant1	2480	30~1000	-0.02	-52.97	≤-20.02	PASS
DH5	Ant1	2480	1000~26500	-0.02	-35.06	≤-20.02	PASS
2DH5	Ant1	2402	0~Reference	-0.70	-0.70	---	PASS
2DH5	Ant1	2402	30~1000	-0.70	-52.47	≤-20.7	PASS
2DH5	Ant1	2402	1000~26500	-0.70	-34.98	≤-20.7	PASS
2DH5	Ant1	2441	0~Reference	0.37	0.37	---	PASS
2DH5	Ant1	2441	30~1000	0.37	-52.75	≤-19.63	PASS
2DH5	Ant1	2441	1000~26500	0.37	-35.45	≤-19.63	PASS
2DH5	Ant1	2480	0~Reference	-1.00	-1.00	---	PASS
2DH5	Ant1	2480	30~1000	-1.00	-52.48	≤-21	PASS
2DH5	Ant1	2480	1000~26500	-1.00	-35.24	≤-21	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.

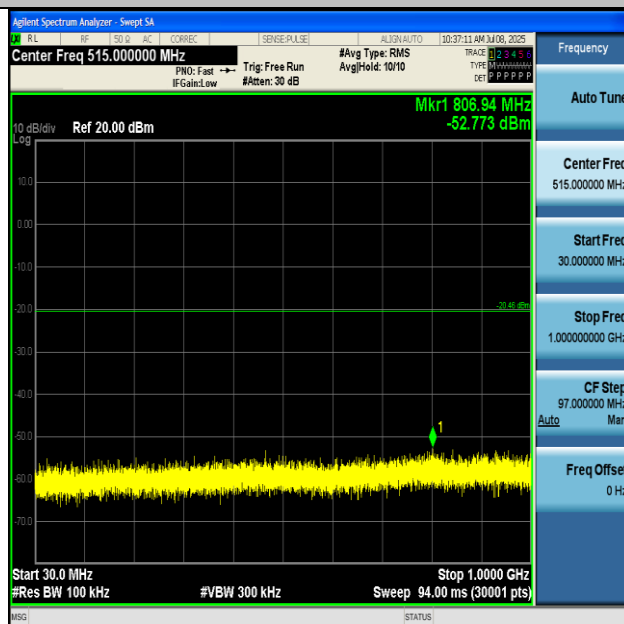




Test Graphs

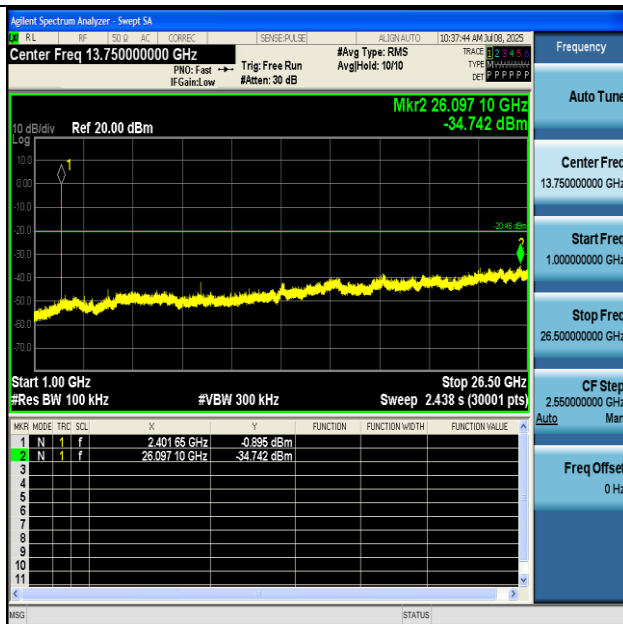


DH5-Ant1-2402-0~Reference-PASS

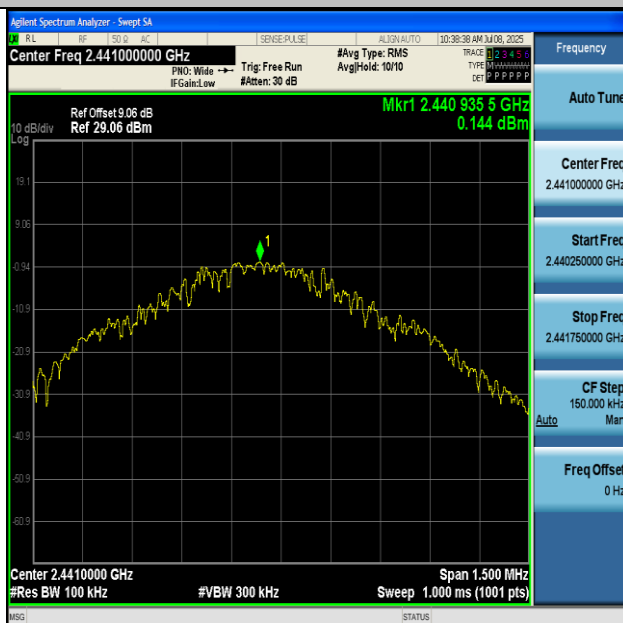


DH5-Ant1-2402-30~1000-PASS



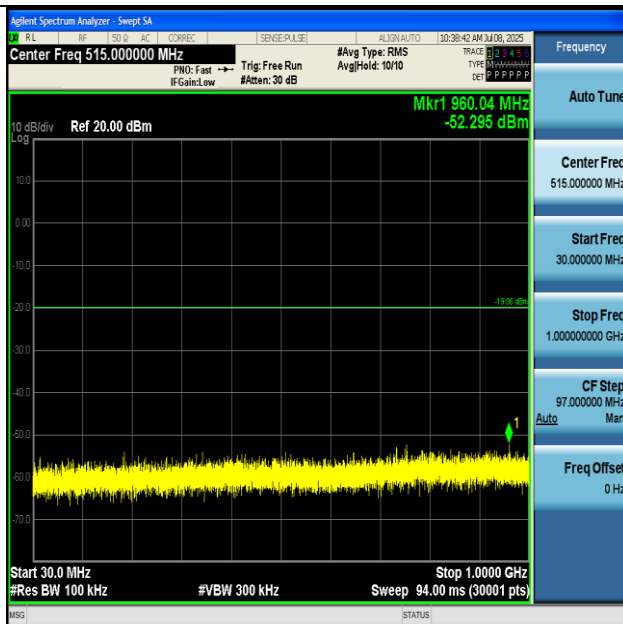


DH5-Ant1-2402-1000~26500-PASS

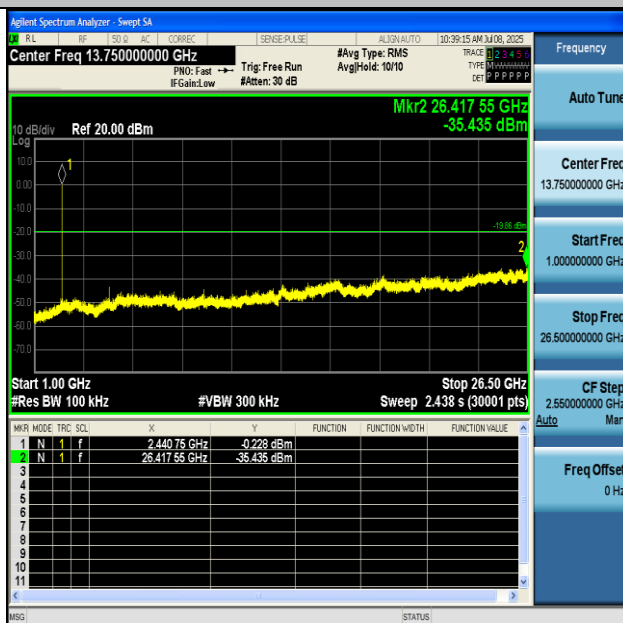


DH5-Ant1-2441-0~Reference-PASS





DH5-Ant1-2441-30~1000-PASS

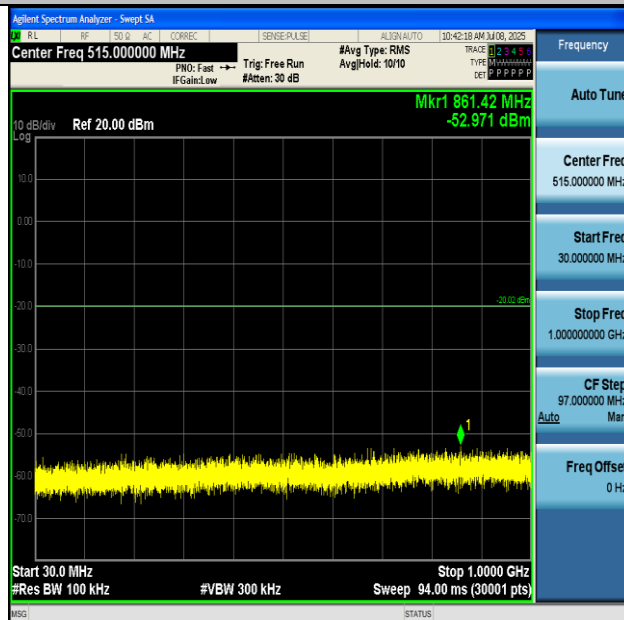


DH5-Ant1-2441-1000~26500-PASS



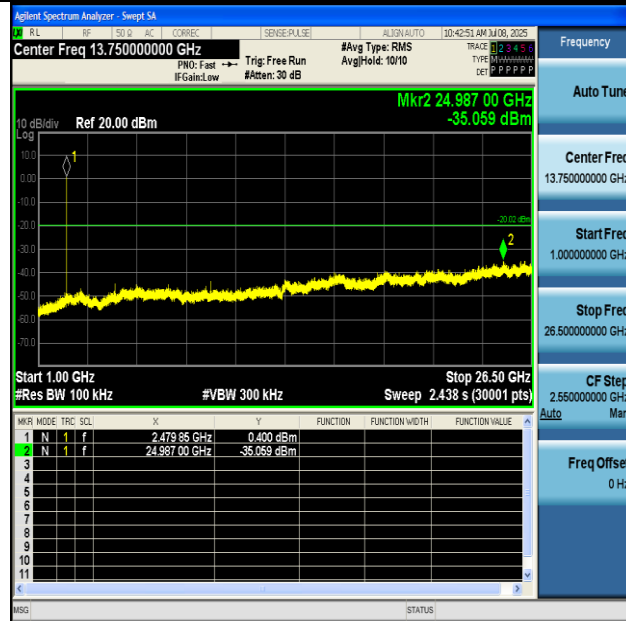


DH5-Ant1-2480-0~Reference-PASS



DH5-Ant1-2480-30~1000-PASS



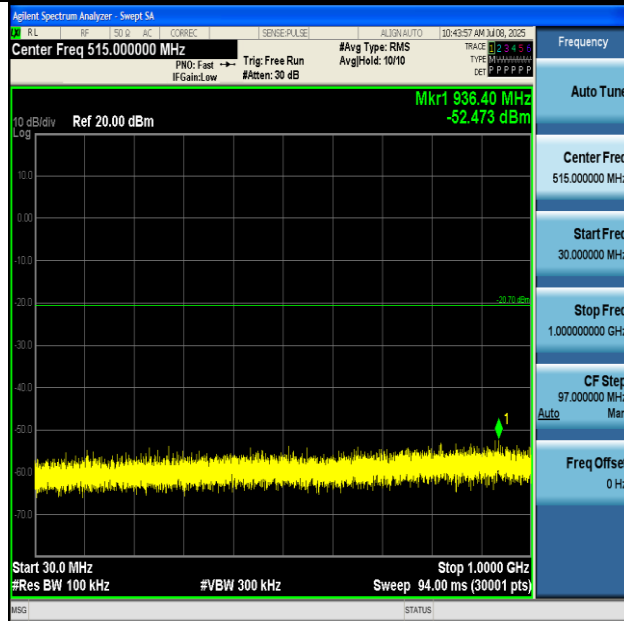


DH5-Ant1-2480-1000~26500-PASS

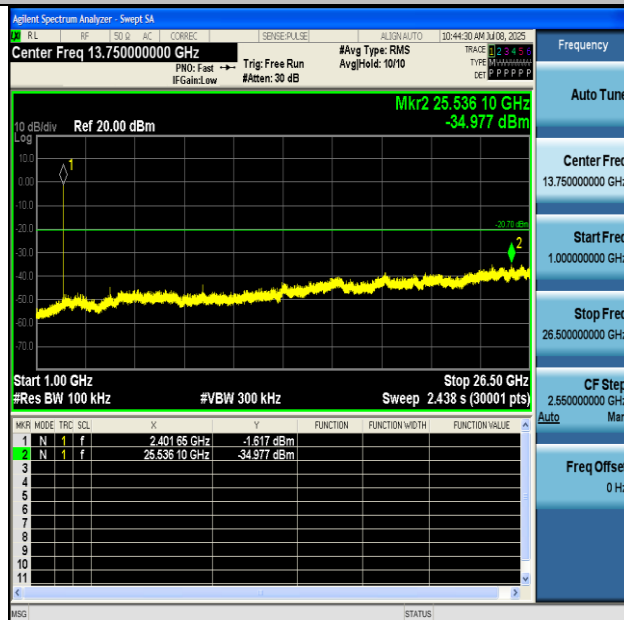


2DH5-Ant1-2402-0~Reference-PASS



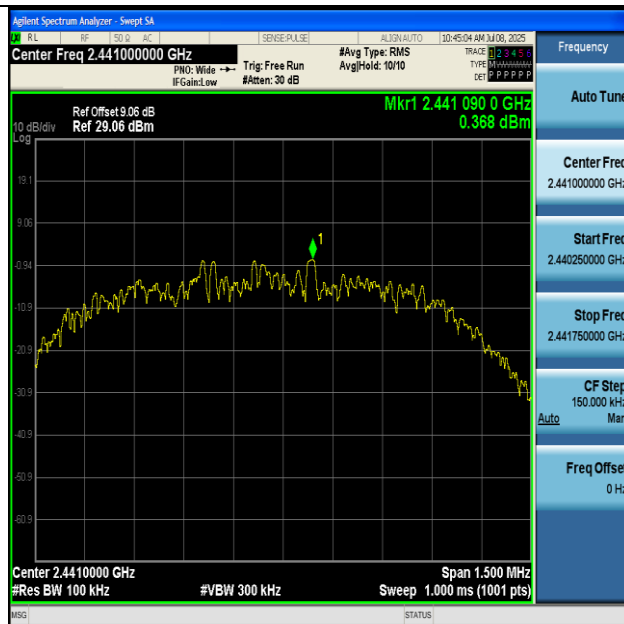


2DH5-Ant1-2402-30~1000-PASS

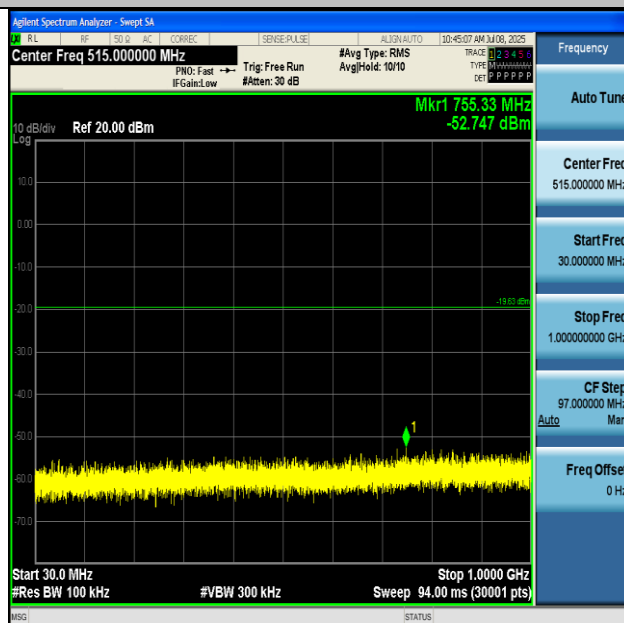


2DH5-Ant1-2402-1000~26500-PASS



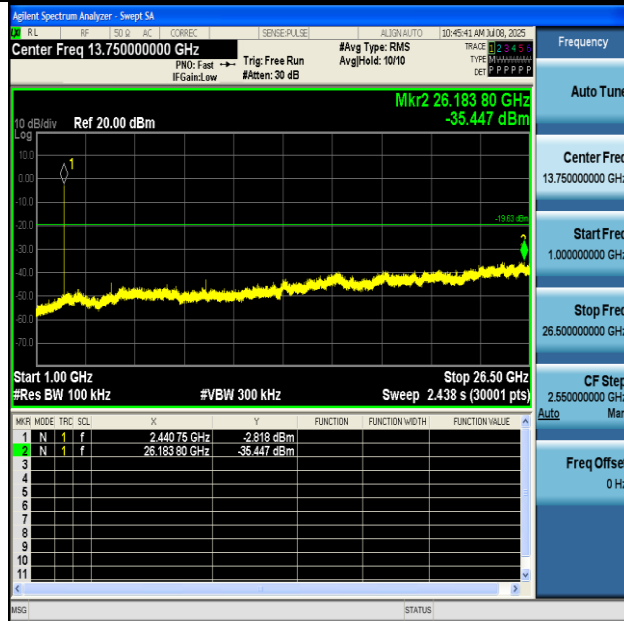


2DH5-Ant1-2441-0~Reference-PASS

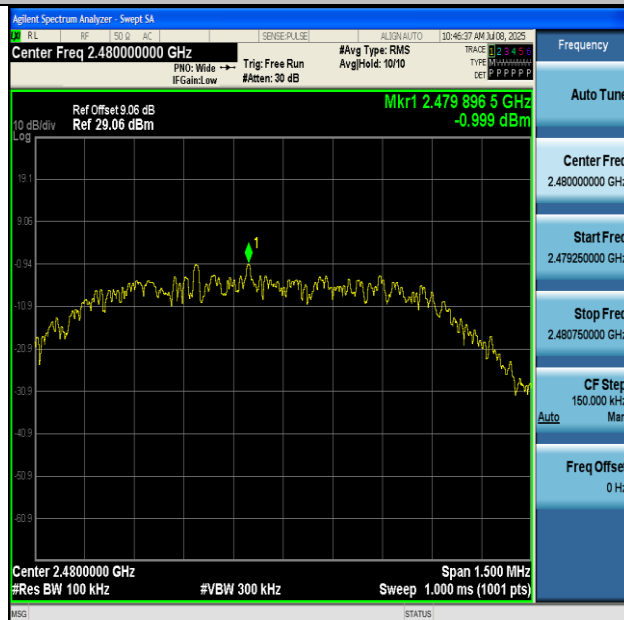


2DH5-Ant1-2441-30~1000-PASS



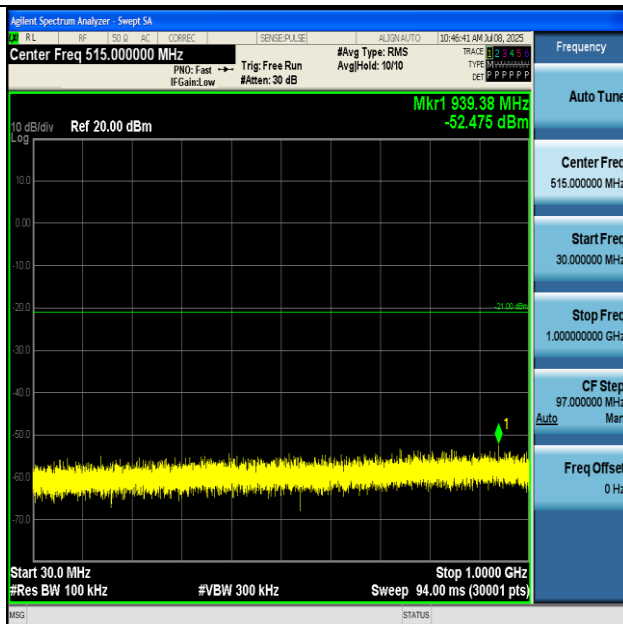


2DH5-Ant1-2441-1000~26500-PASS

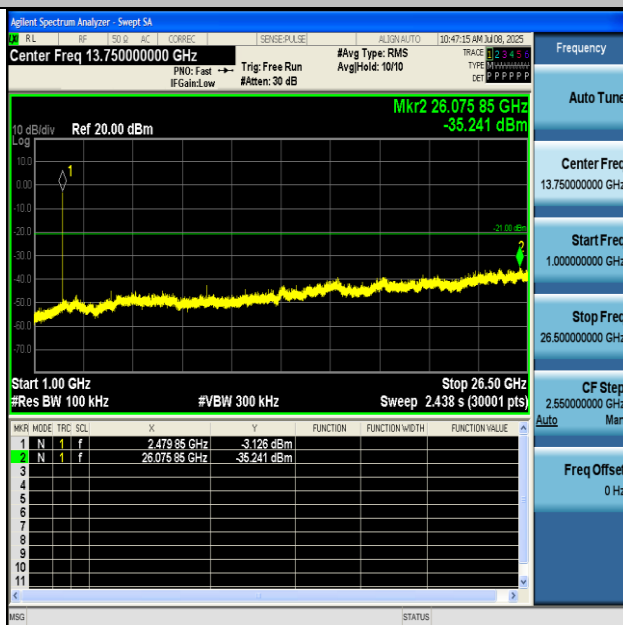


2DH5-Ant1-2480-0~Reference-PASS





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



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





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	2.88	3.75	76.80	1.15
DH5	Ant1	2441	2.89	3.76	76.86	1.14
DH5	Ant1	2480	2.88	3.75	76.80	1.15
2DH5	Ant1	2402	2.89	3.75	77.07	1.13
2DH5	Ant1	2441	2.88	3.75	76.80	1.15
2DH5	Ant1	2480	2.89	3.75	77.07	1.13

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



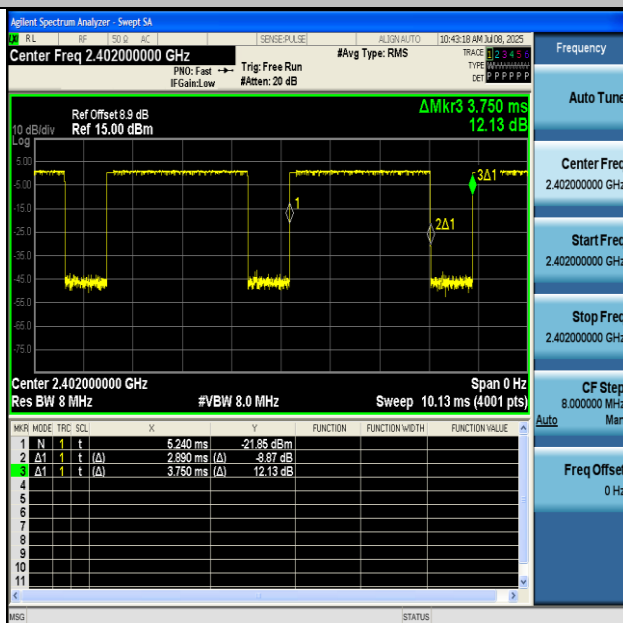


Test Graphs



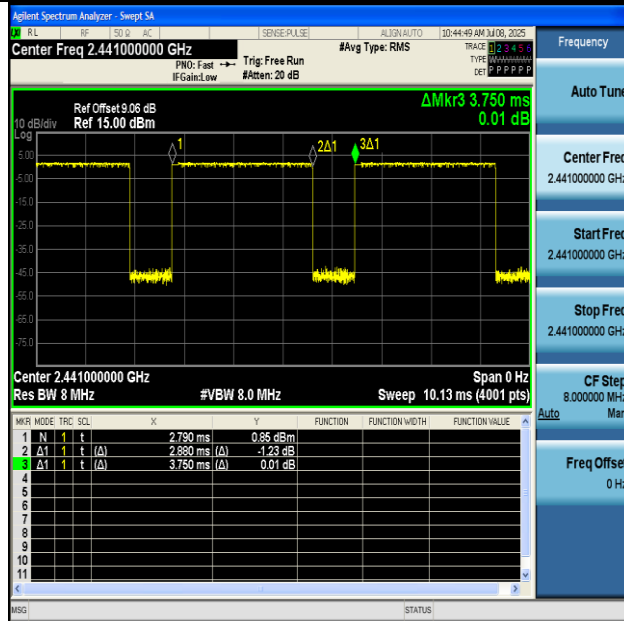


NTNV-DH5-Ant1-2480



NTNV-2DH5-Ant1-2402





NTNV-2DH5-Ant1-2441



NTNV-2DH5-Ant1-2480

