



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

Product Name: True wireless Bluetooth Earphones

Trade Mark: SENTRY

Test Model: BT780

FCC ID: 2ACP4CBT780

Environmental Conditions

Temperature:	23.5°C
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	0.936	2401.523	2402.459	---	---
DH5	Ant1	2441	0.960	2440.520	2441.480	---	---
DH5	Ant1	2480	0.939	2479.526	2480.465	---	---
2DH5	Ant1	2402	1.281	2401.352	2402.633	---	---
2DH5	Ant1	2441	1.272	2440.355	2441.627	---	---
2DH5	Ant1	2480	1.266	2479.358	2480.624	---	---
3DH5	Ant1	2402	1.245	2401.355	2402.600	---	---
3DH5	Ant1	2441	1.254	2440.349	2441.603	---	---
3DH5	Ant1	2480	1.275	2479.343	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





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	0.84995	2401.5572	2402.4072	---	---
DH5	Ant1	2441	0.84748	2440.5578	2441.4052	---	---
DH5	Ant1	2480	0.85478	2479.5550	2480.4098	---	---
2DH5	Ant1	2402	1.1659	2401.3984	2402.5643	---	---
2DH5	Ant1	2441	1.1687	2440.3985	2441.5672	---	---
2DH5	Ant1	2480	1.1836	2479.3934	2480.5770	---	---
3DH5	Ant1	2402	1.1740	2401.3912	2402.5652	---	---
3DH5	Ant1	2441	1.1719	2440.3918	2441.5637	---	---
3DH5	Ant1	2480	1.1880	2479.3854	2480.5734	---	---

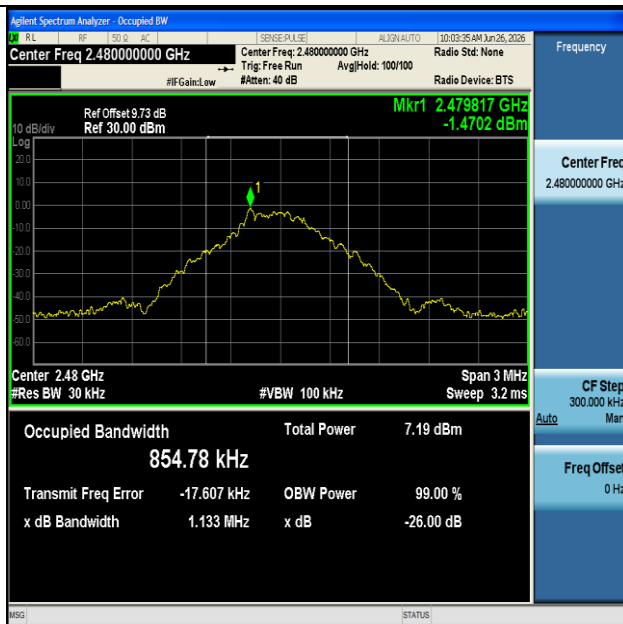
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





DH5-Ant1-2480



2DH5-Ant1-2402





2DH5-Ant1-2441

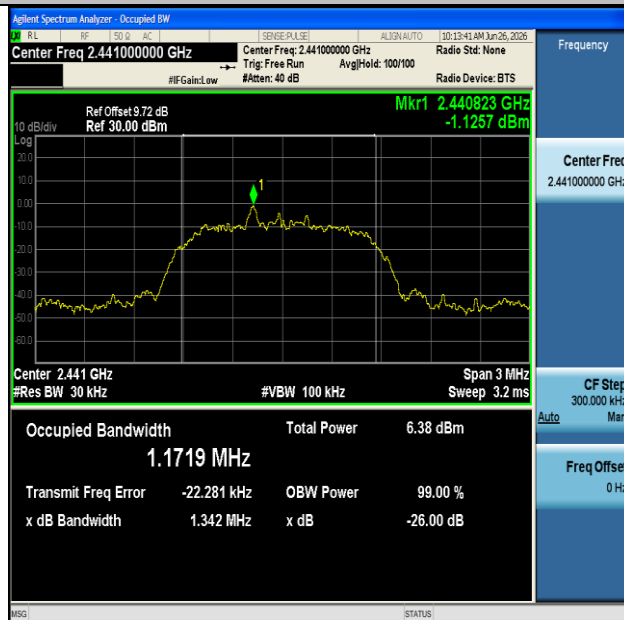


2DH5-Ant1-2480



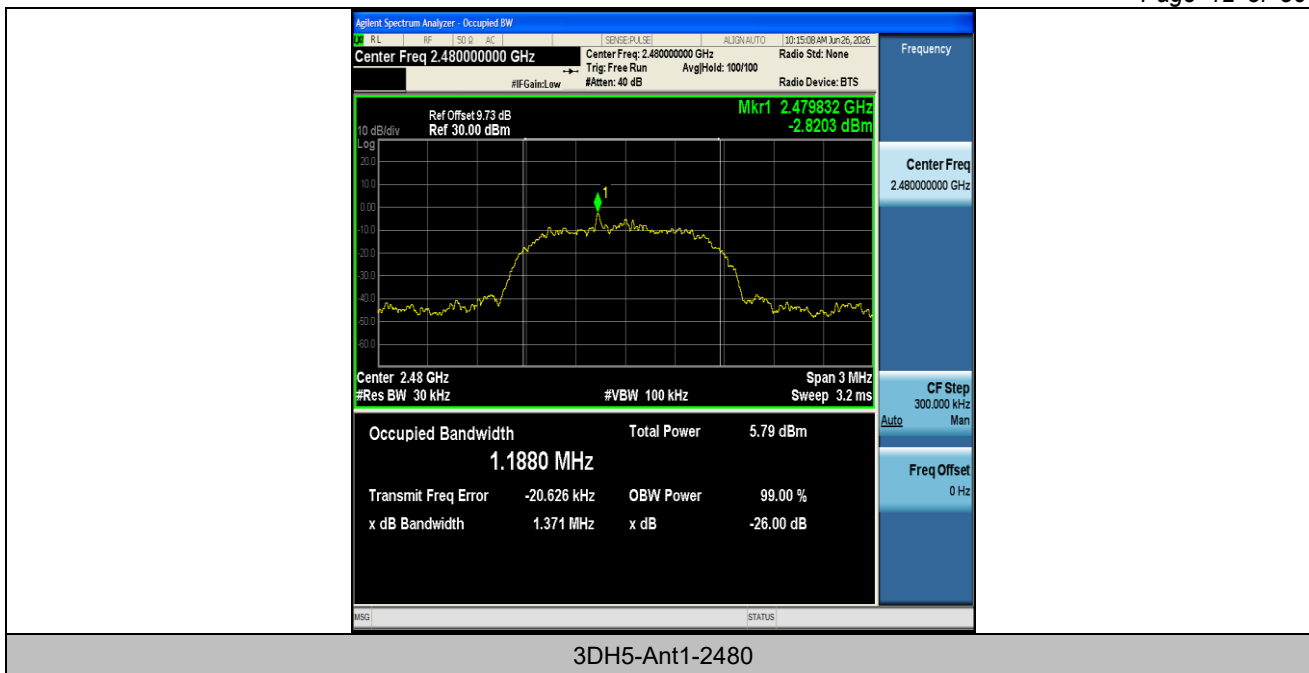


3DH5-Ant1-2402



3DH5-Ant1-2441







Appendix C: Maximum peak conducted output power

Test Result

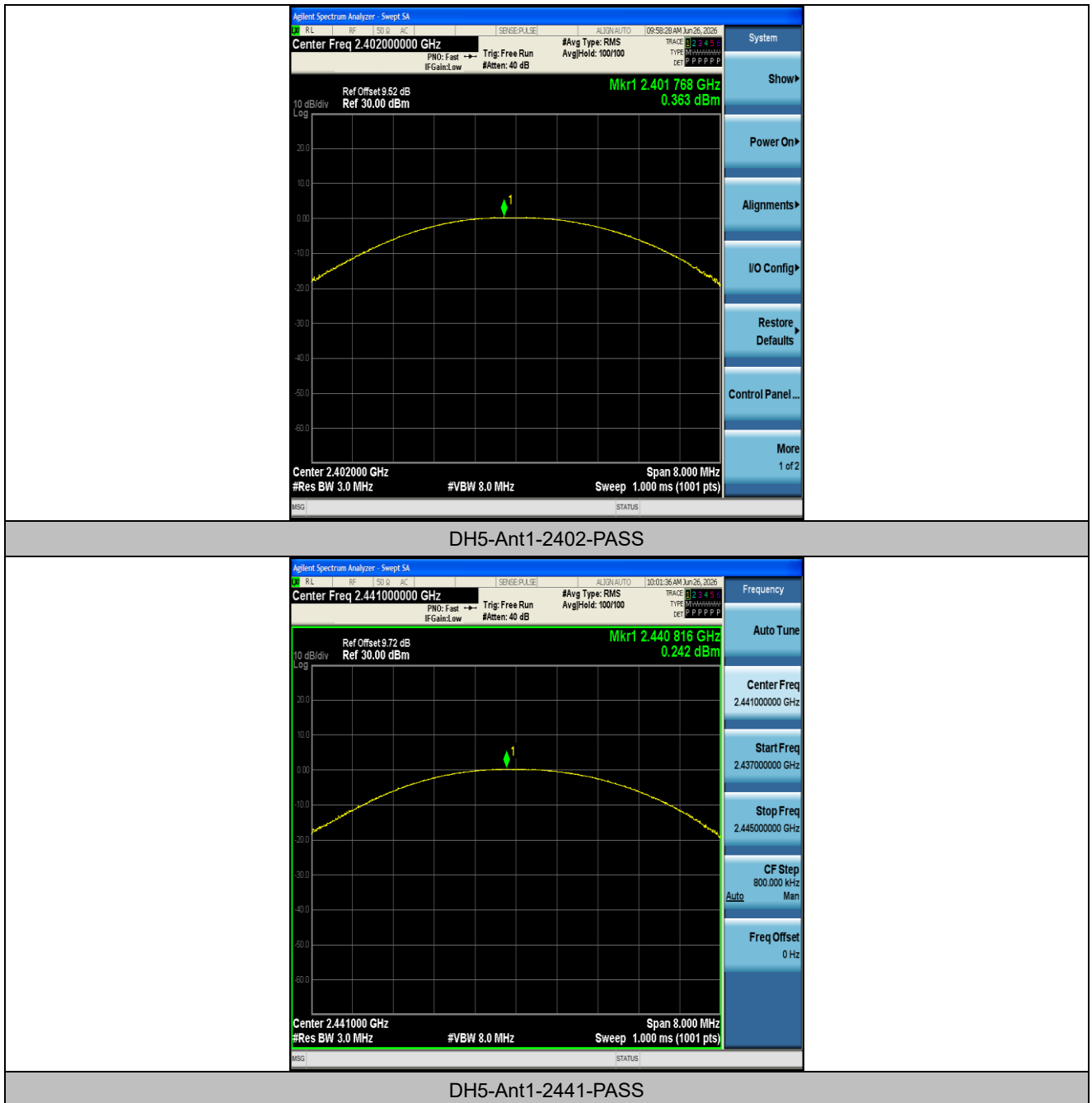
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	0.36	≤30	PASS
DH5	Ant1	2441	0.24	≤30	PASS
DH5	Ant1	2480	0.40	≤30	PASS
2DH5	Ant1	2402	1.20	≤20.97	PASS
2DH5	Ant1	2441	1.00	≤20.97	PASS
2DH5	Ant1	2480	1.23	≤20.97	PASS
3DH5	Ant1	2402	1.82	≤20.97	PASS
3DH5	Ant1	2441	1.71	≤20.97	PASS
3DH5	Ant1	2480	1.80	≤20.97	PASS

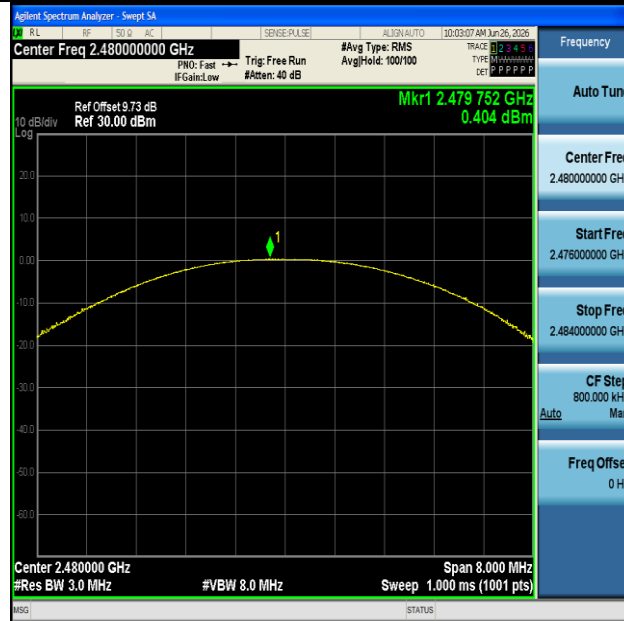
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



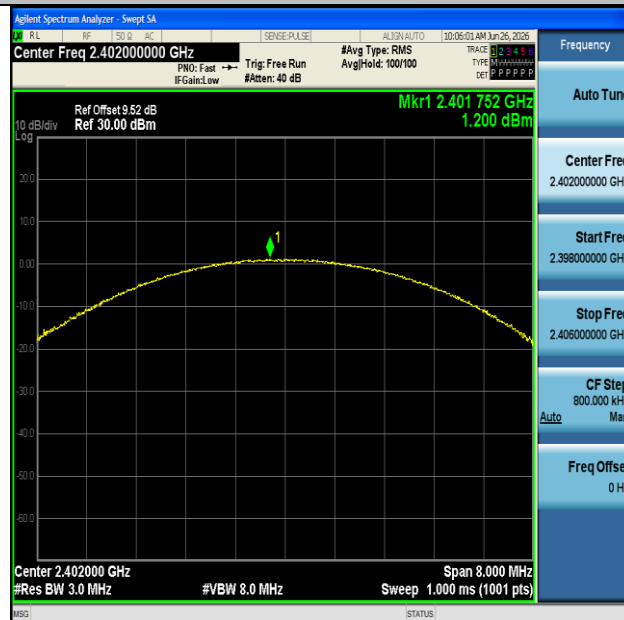


Test Graphs



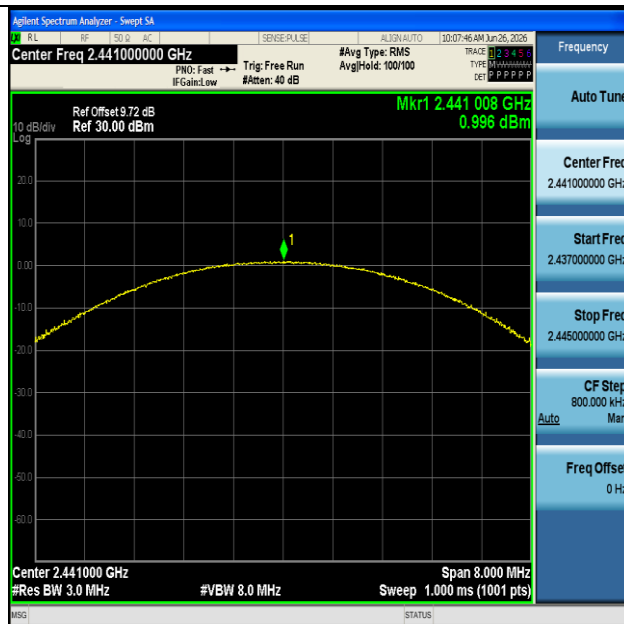


DH5-Ant1-2480-PASS

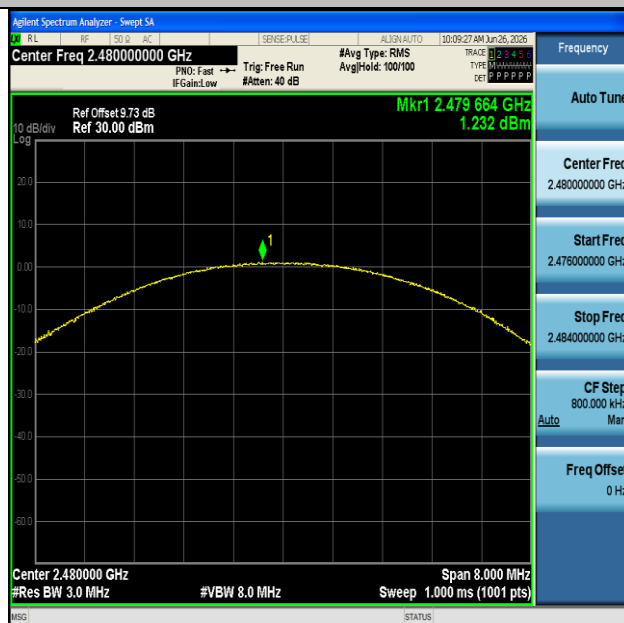


2DH5-Ant1-2402-PASS



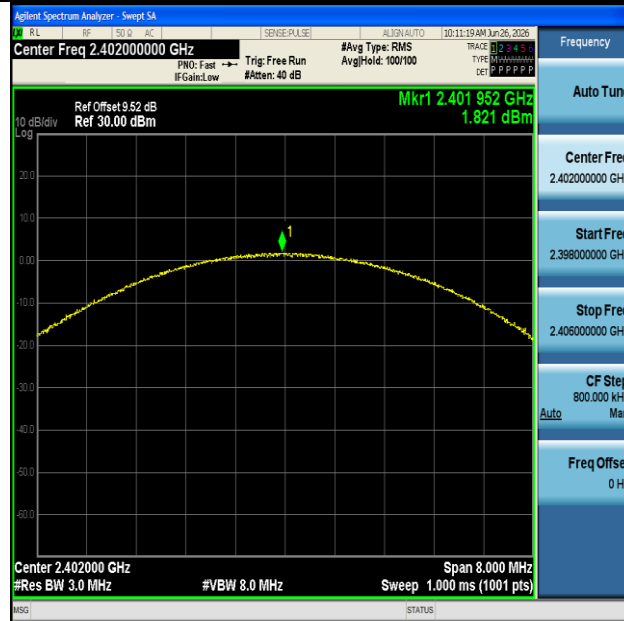


2DH5-Ant1-2441-PASS

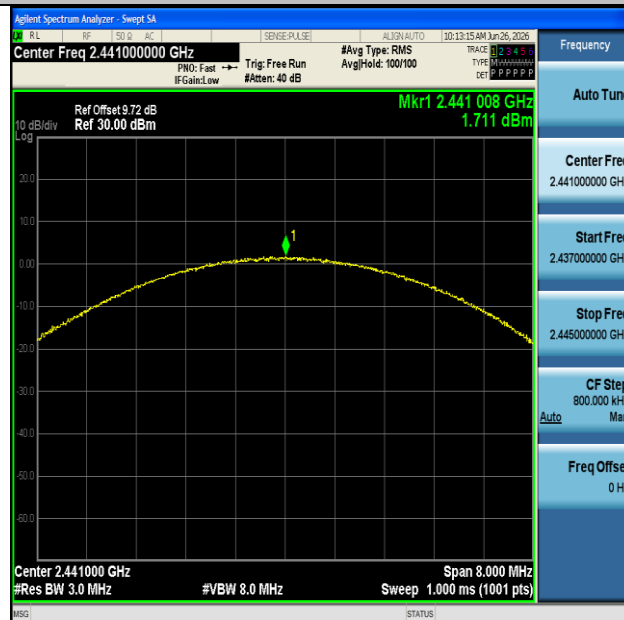


2DH5-Ant1-2480-PASS



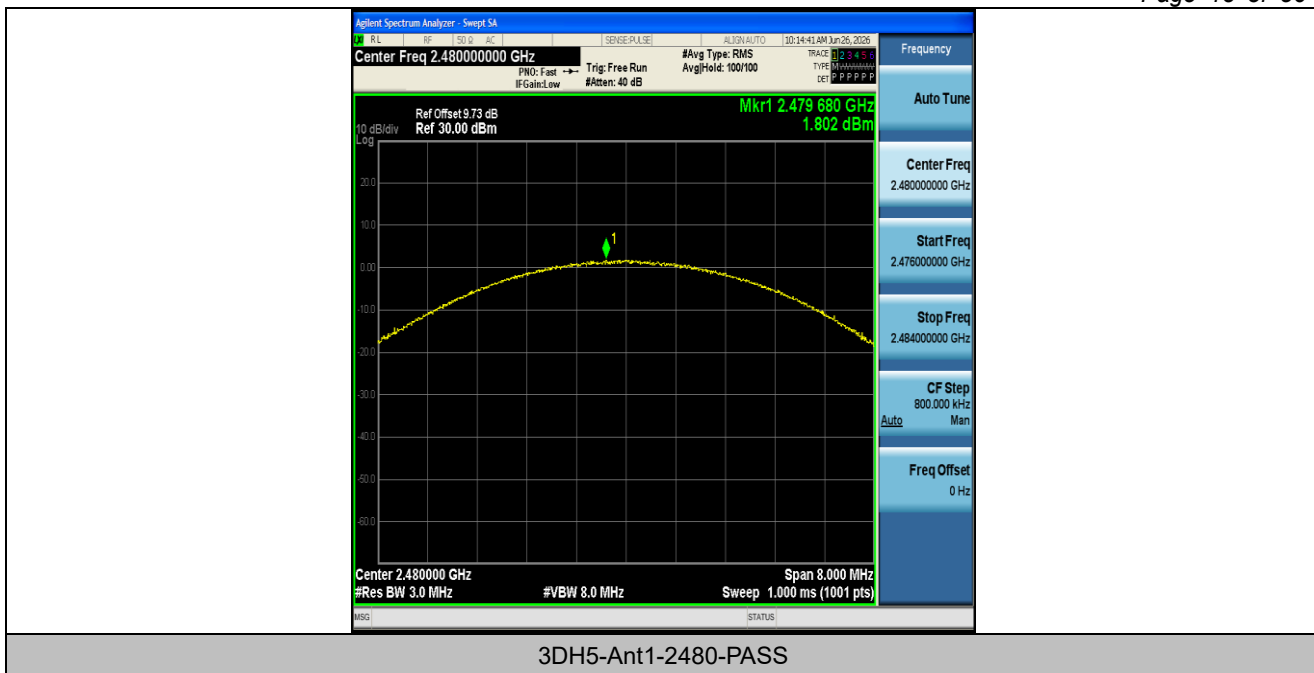


3DH5-Ant1-2402-PASS



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	0.984	≥ 0.854	PASS
3DH5	Ant1	Hop	1.022	≥ 0.850	PASS

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





Test Graphs







Appendix E: Time of occupancy

Test Result

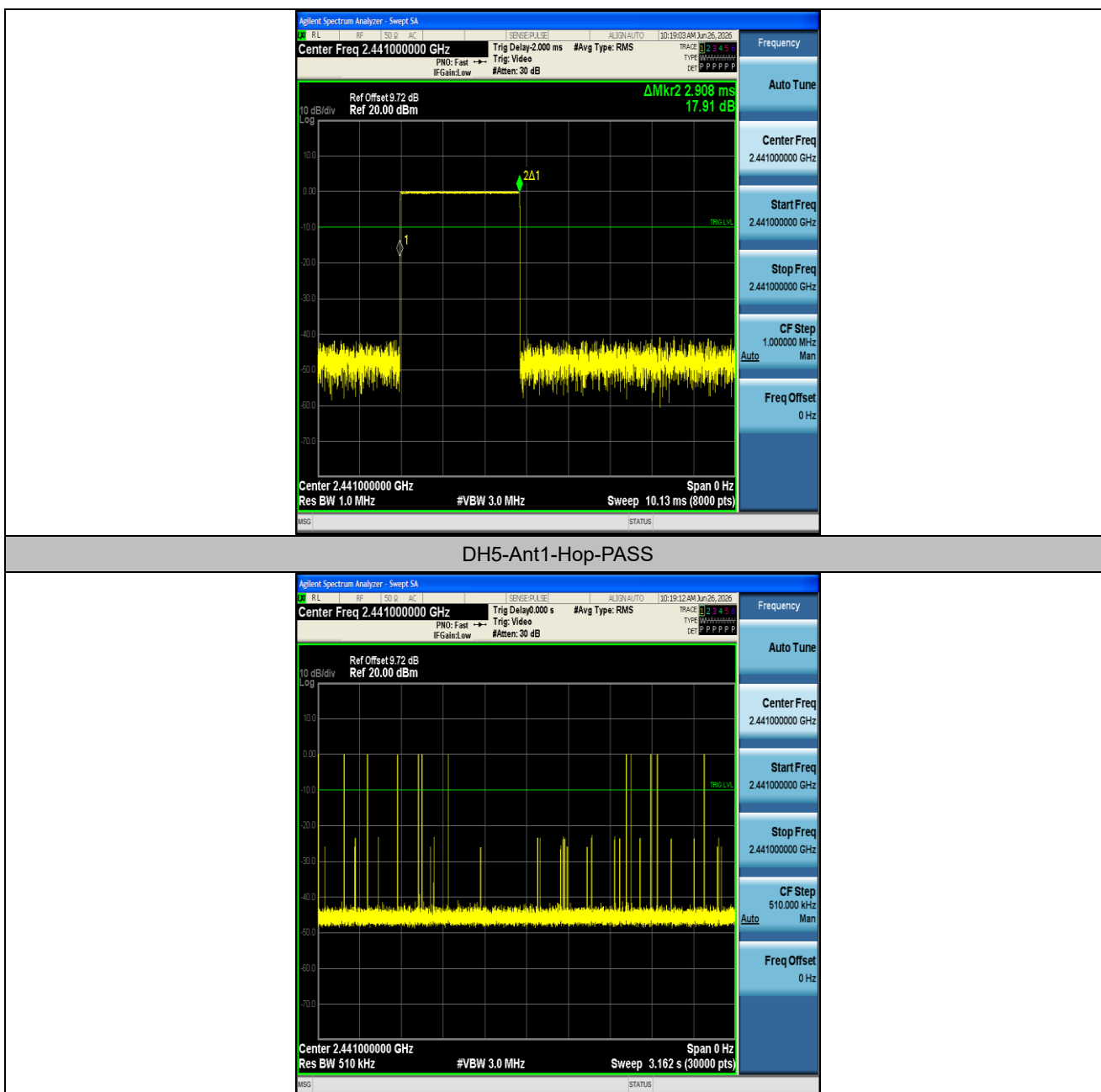
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.908	120	0.349	≤0.4	PASS
2DH5	Ant1	Hop	2.915	90	0.262	≤0.4	PASS
3DH5	Ant1	Hop	2.917	80	0.233	≤0.4	PASS

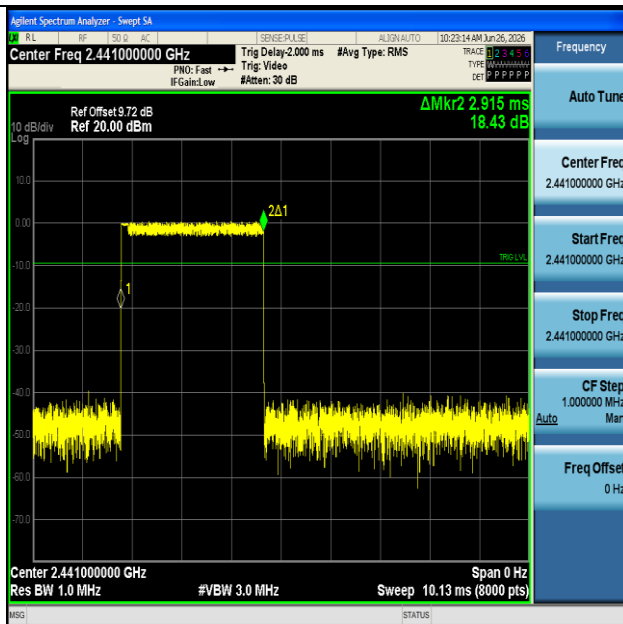
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



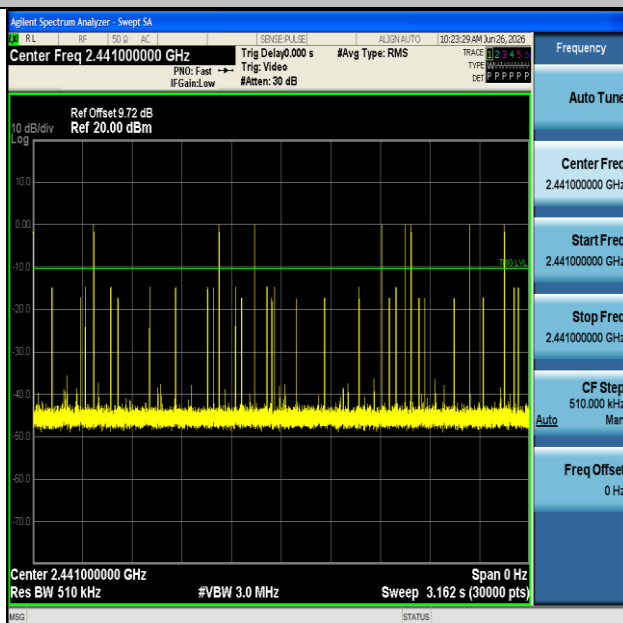


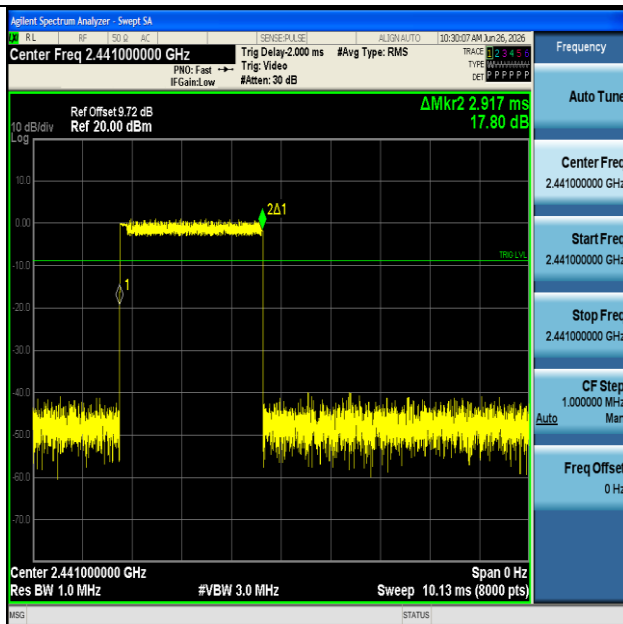
Test Graphs



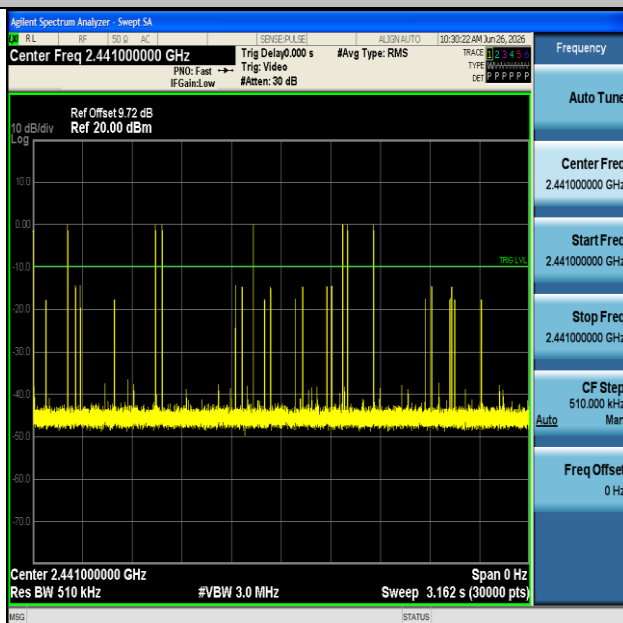


2DH5-Ant1-Hop-PASS





3DH5-Ant1-Hop-PASS





Appendix F: Number of hopping channels

Test Result

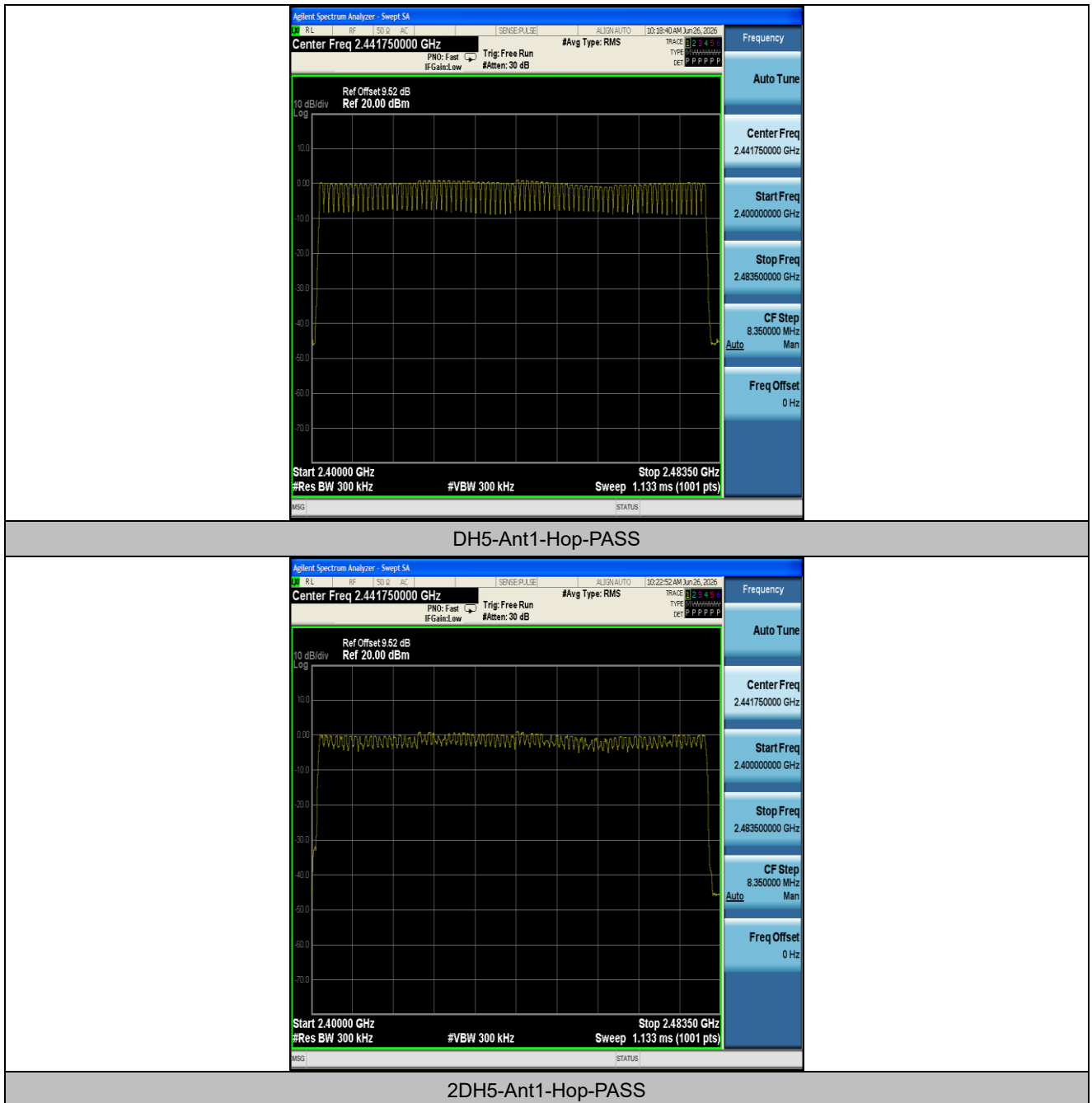
Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

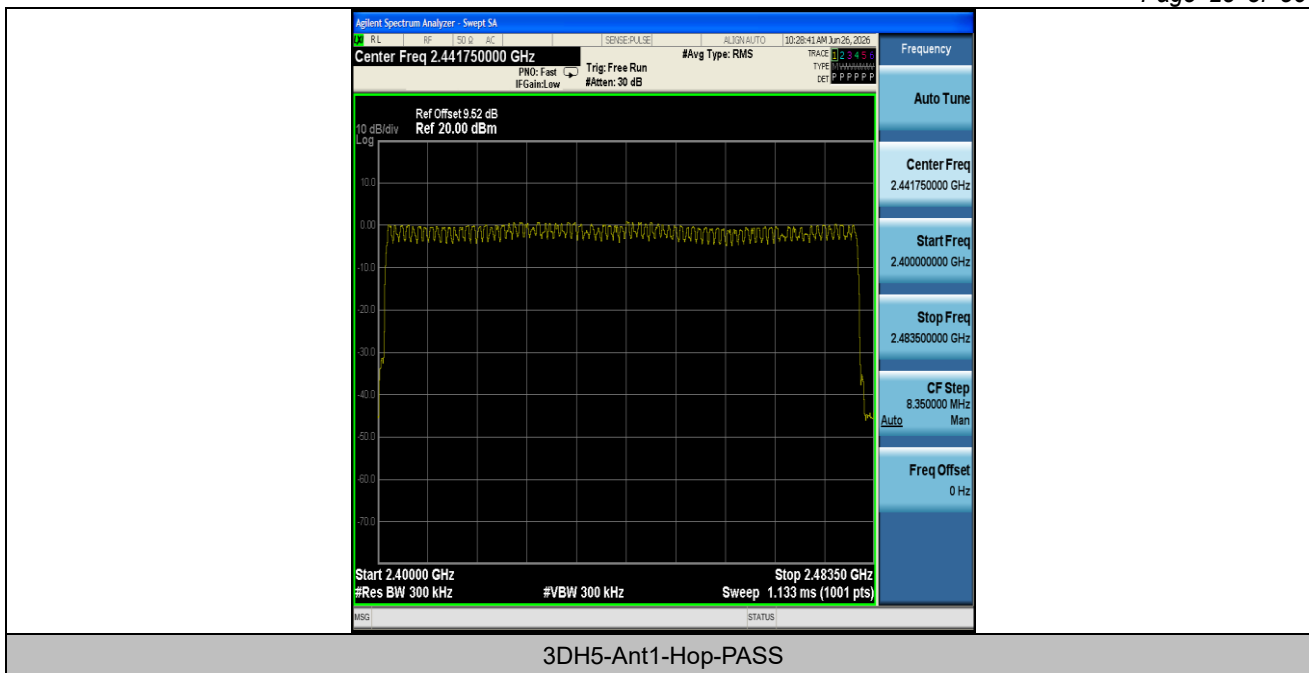
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix G: Band edge measurements

Test Result

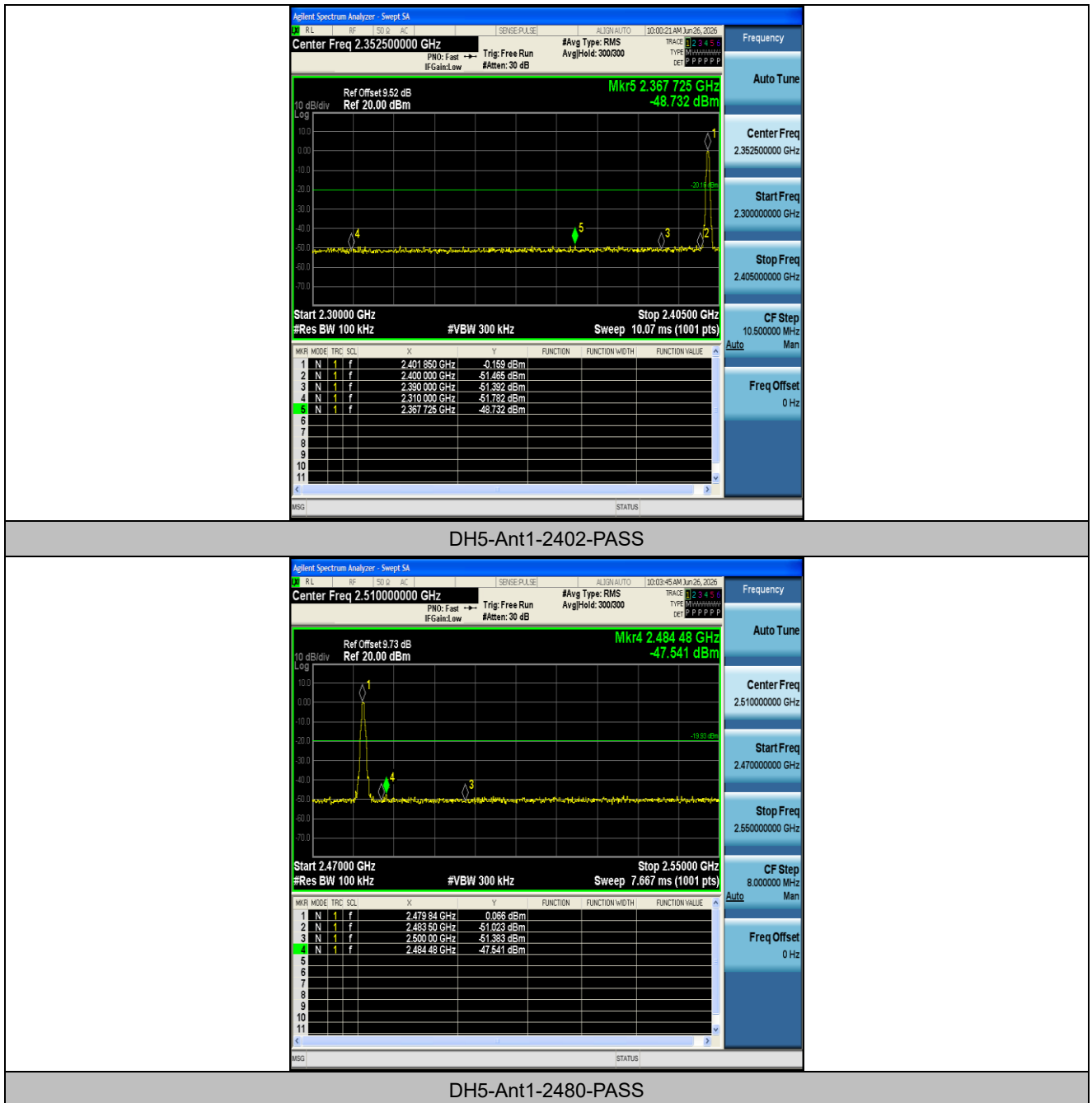
Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.16	-48.73	≤-20.16	PASS
DH5	Ant1	High	2480	0.07	-47.54	≤-19.93	PASS
DH5	Ant1	Low	Hop_2402	-0.52	-48.56	≤-20.52	PASS
DH5	Ant1	High	Hop_2480	-0.80	-41.54	≤-20.8	PASS
2DH5	Ant1	Low	2402	-0.07	-48.35	≤-20.07	PASS
2DH5	Ant1	High	2480	-1.44	-48.28	≤-21.44	PASS
2DH5	Ant1	Low	Hop_2402	-3.97	-48.92	≤-23.97	PASS
2DH5	Ant1	High	Hop_2480	-0.07	-42.95	≤-20.07	PASS
3DH5	Ant1	Low	2402	-0.26	-48.19	≤-20.26	PASS
3DH5	Ant1	High	2480	0.10	-47.92	≤-19.9	PASS
3DH5	Ant1	Low	Hop_2402	-1.94	-48.03	≤-21.94	PASS
3DH5	Ant1	High	Hop_2480	-0.04	-47.1	≤-20.04	PASS

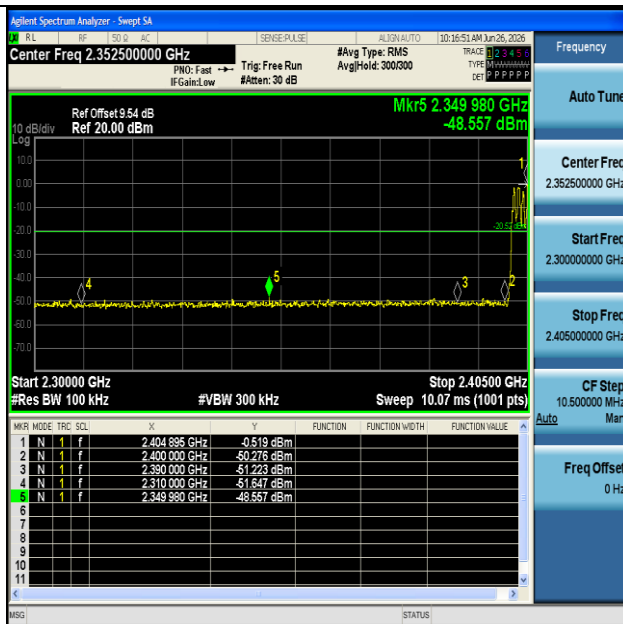
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



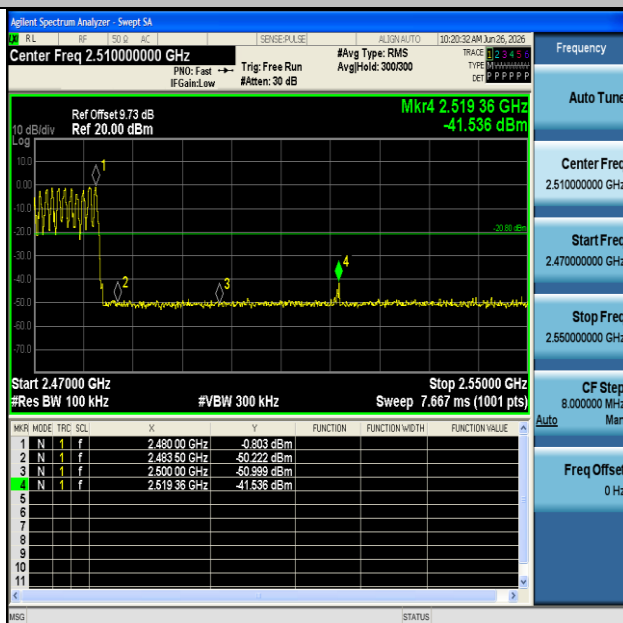


Test Graphs



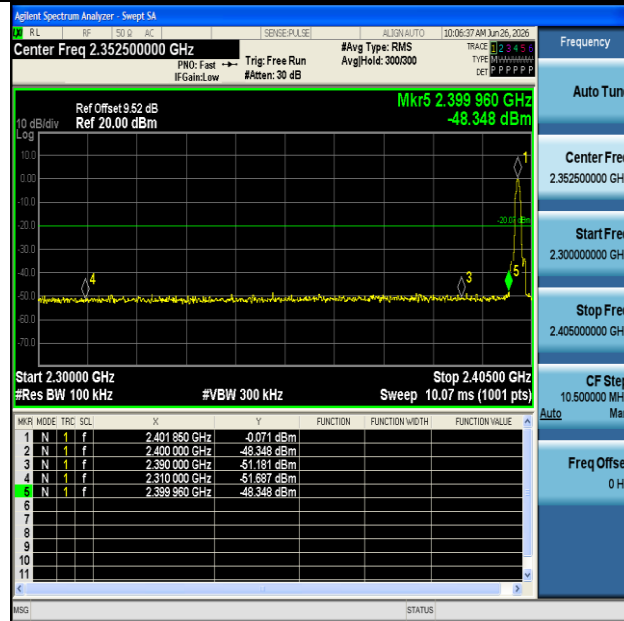


DH5-Ant1-Hop_2402-PASS

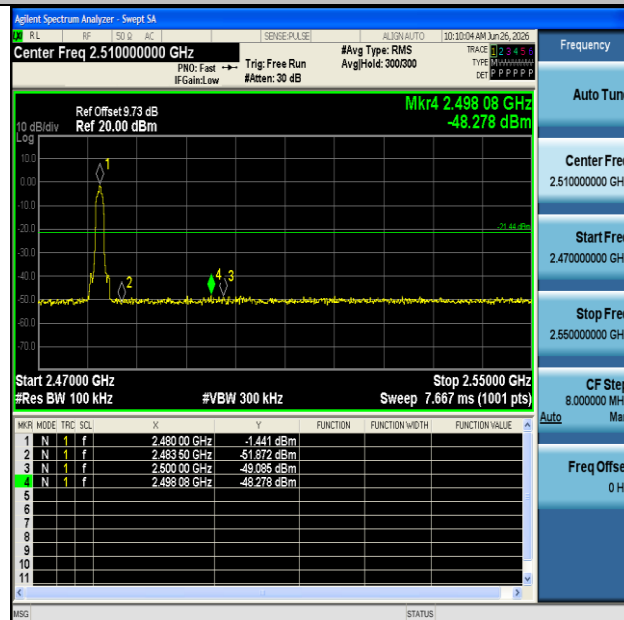


DH5-Ant1-Hop_2480-PASS



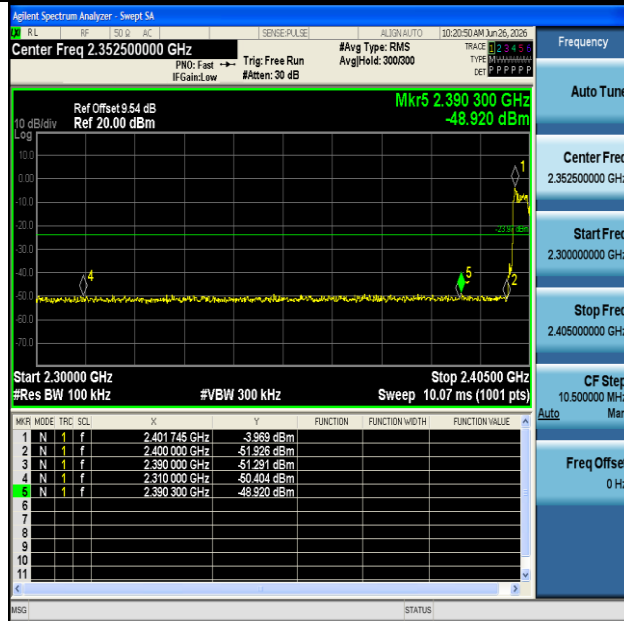


2DH5-Ant1-2402-PASS

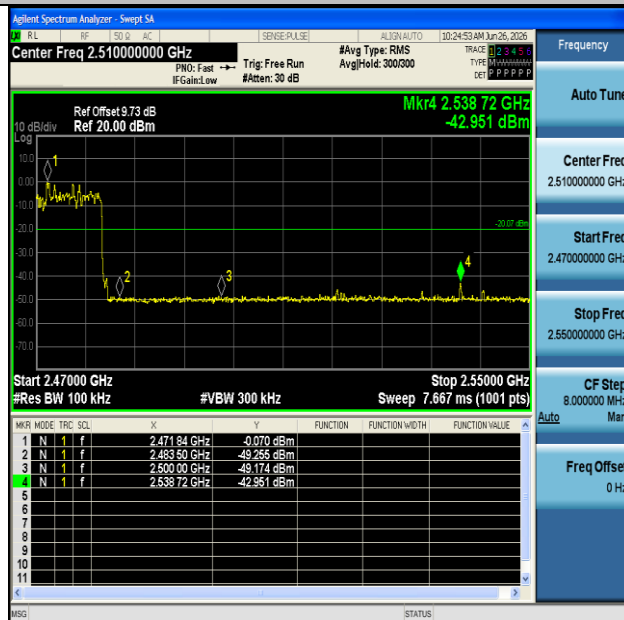


2DH5-Ant1-2480-PASS



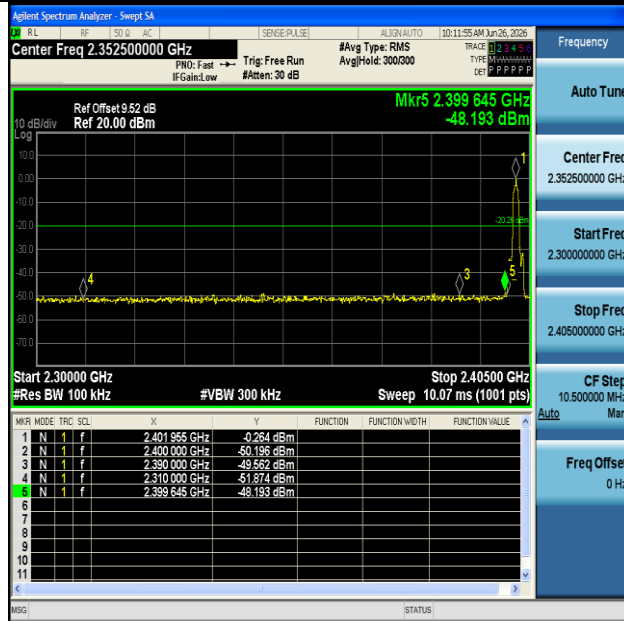


2DH5-Ant1-Hop_2402-PASS

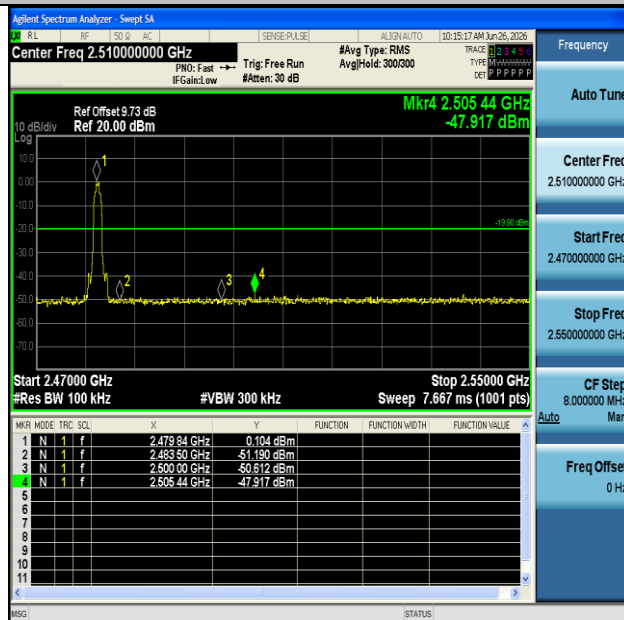


2DH5-Ant1-Hop_2480-PASS



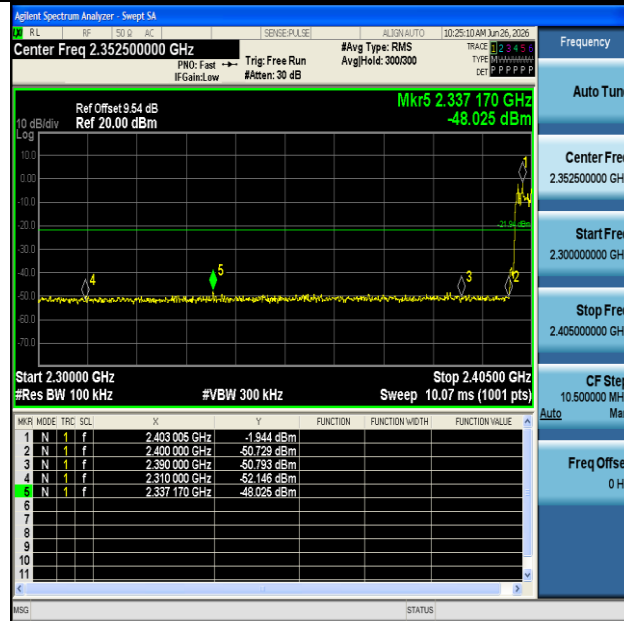


3DH5-Ant1-2402-PASS

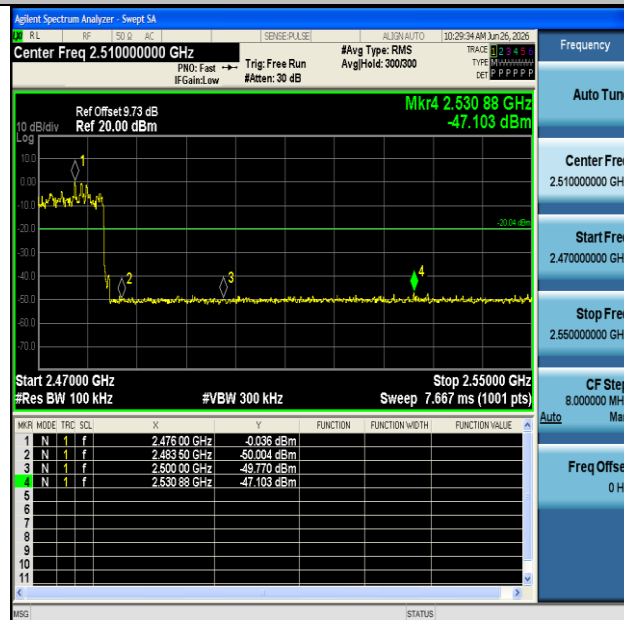


3DH5-Ant1-2480-PASS





3DH5-Ant1-Hop_2402-PASS



3DH5-Ant1-Hop_2480-PASS





Appendix H: Conducted Spurious Emission

Test Result

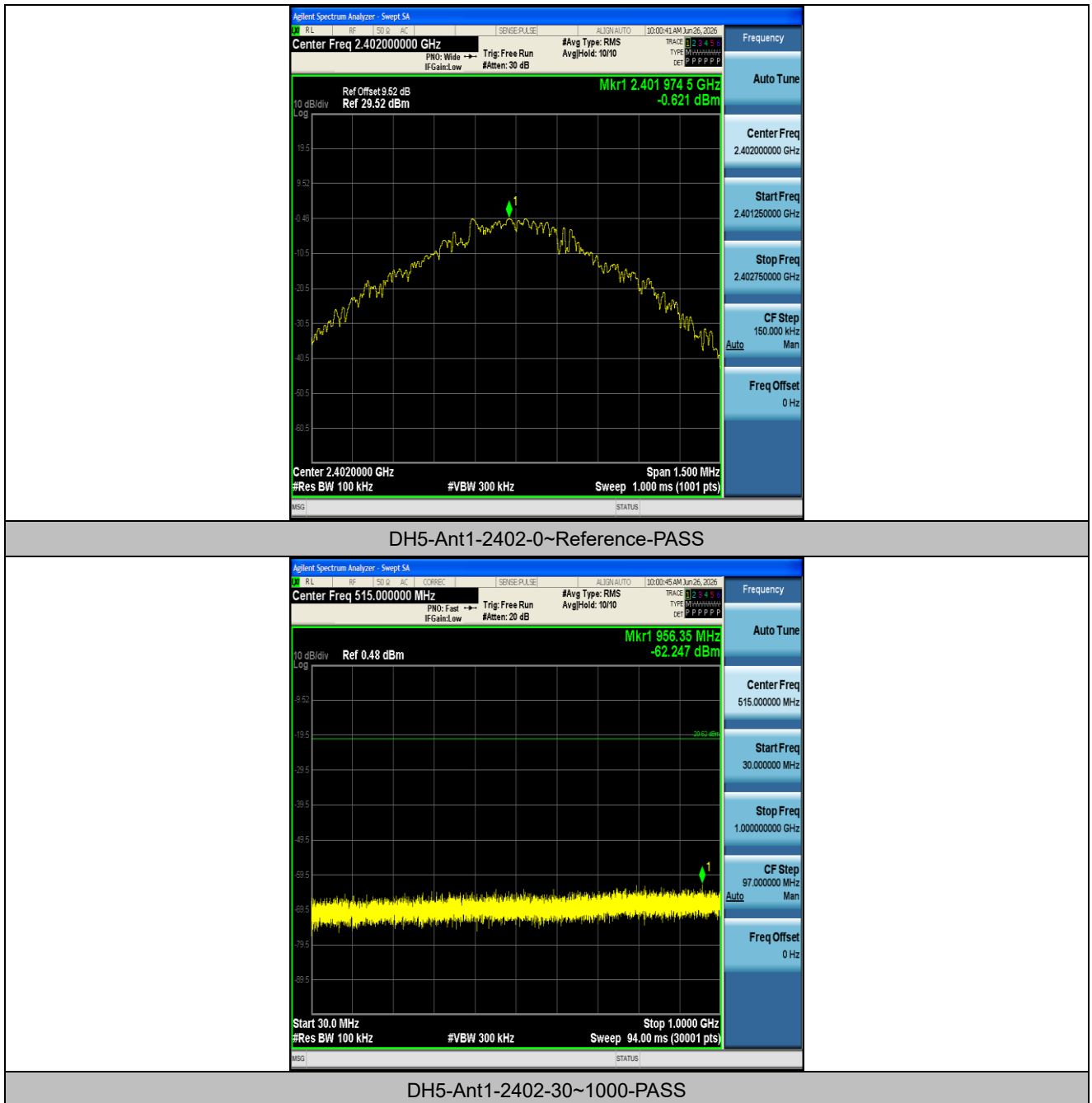
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-0.62	-0.62	---	PASS
DH5	Ant1	2402	30~1000	-0.62	-62.25	≤ -20.62	PASS
DH5	Ant1	2402	1000~26500	-0.62	-31.32	≤ -20.62	PASS
DH5	Ant1	2441	0~Reference	-0.86	-0.86	---	PASS
DH5	Ant1	2441	30~1000	-0.86	-62.42	≤ -20.86	PASS
DH5	Ant1	2441	1000~26500	-0.86	-32.06	≤ -20.86	PASS
DH5	Ant1	2480	0~Reference	-0.83	-0.83	---	PASS
DH5	Ant1	2480	30~1000	-0.83	-62	≤ -20.83	PASS
DH5	Ant1	2480	1000~26500	-0.83	-27.87	≤ -20.83	PASS
2DH5	Ant1	2402	0~Reference	-0.89	-0.89	---	PASS
2DH5	Ant1	2402	30~1000	-0.89	-62.55	≤ -20.89	PASS
2DH5	Ant1	2402	1000~26500	-0.89	-37.13	≤ -20.89	PASS
2DH5	Ant1	2441	0~Reference	-2.30	-2.30	---	PASS
2DH5	Ant1	2441	30~1000	-2.30	-62.23	≤ -22.3	PASS
2DH5	Ant1	2441	1000~26500	-2.30	-33.73	≤ -22.3	PASS
2DH5	Ant1	2480	0~Reference	-1.23	-1.23	---	PASS
2DH5	Ant1	2480	30~1000	-1.23	-62.05	≤ -21.23	PASS
2DH5	Ant1	2480	1000~26500	-1.23	-31.03	≤ -21.23	PASS
3DH5	Ant1	2402	0~Reference	-3.24	-3.24	---	PASS
3DH5	Ant1	2402	30~1000	-3.24	-61.9	≤ -23.24	PASS
3DH5	Ant1	2402	1000~26500	-3.24	-32.83	≤ -23.24	PASS
3DH5	Ant1	2441	0~Reference	-2.93	-2.93	---	PASS
3DH5	Ant1	2441	30~1000	-2.93	-62.24	≤ -22.93	PASS
3DH5	Ant1	2441	1000~26500	-2.93	-35.81	≤ -22.93	PASS
3DH5	Ant1	2480	0~Reference	0.02	0.02	---	PASS
3DH5	Ant1	2480	30~1000	0.02	-61.18	≤ -19.98	PASS
3DH5	Ant1	2480	1000~26500	0.02	-27.31	≤ -19.98	PASS

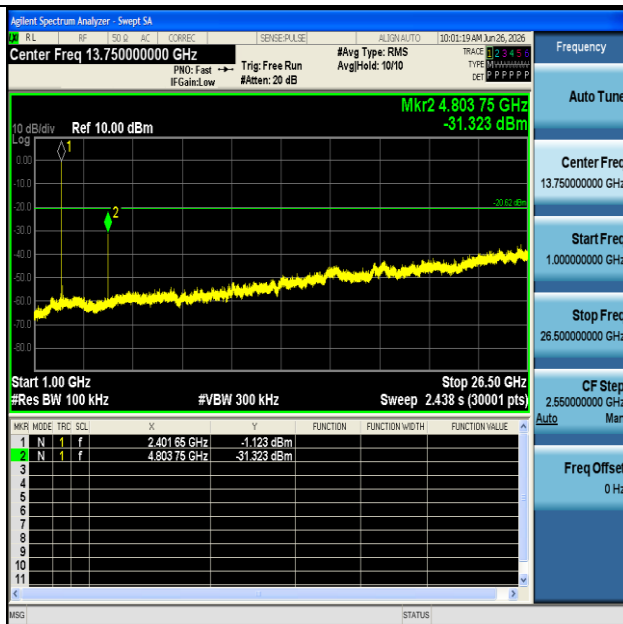
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.



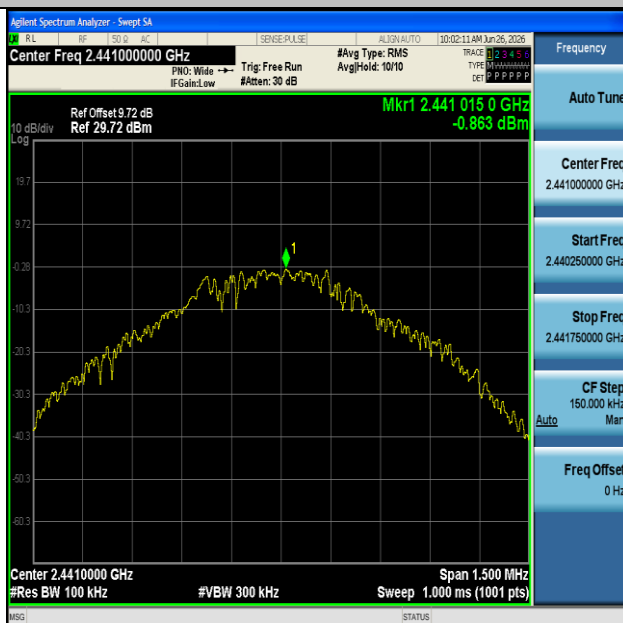


Test Graphs



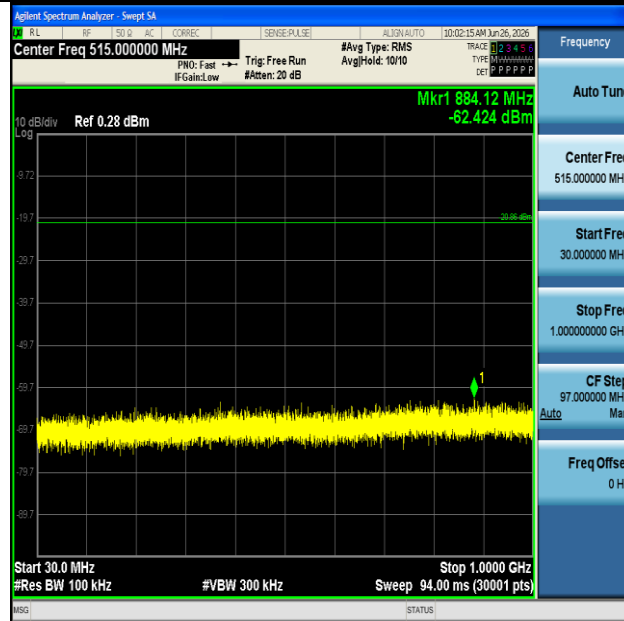


DH5-Ant1-2402-1000~26500-PASS

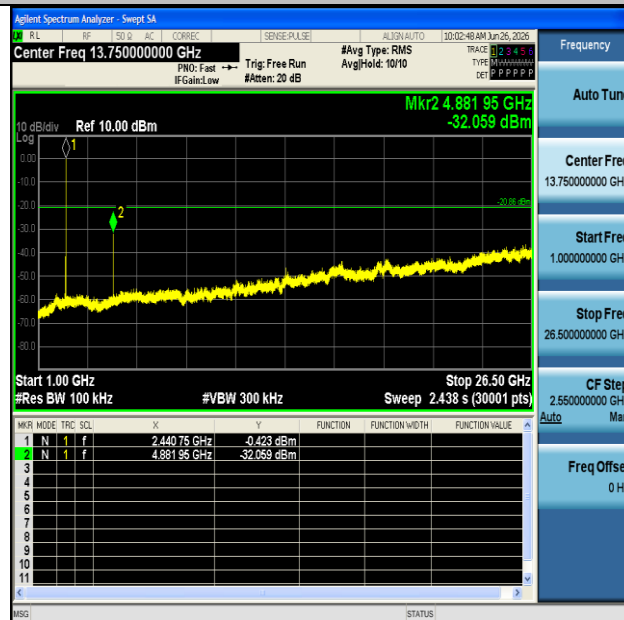


DH5-Ant1-2441-0~Reference-PASS



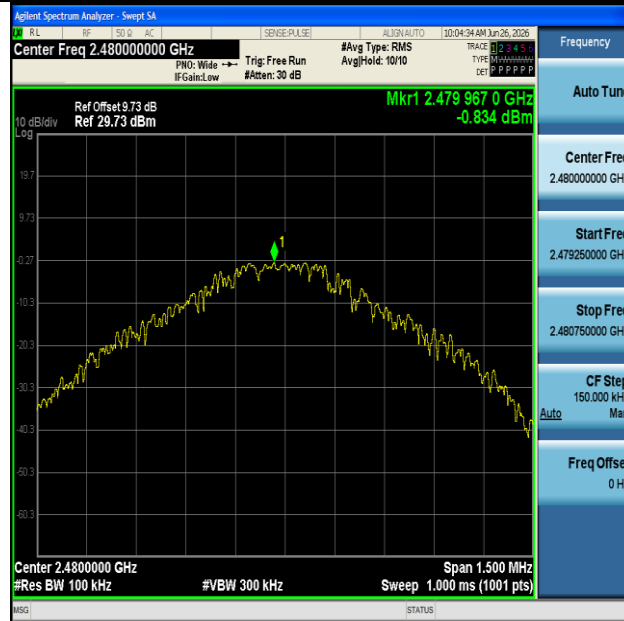


DH5-Ant1-2441-30~1000-PASS

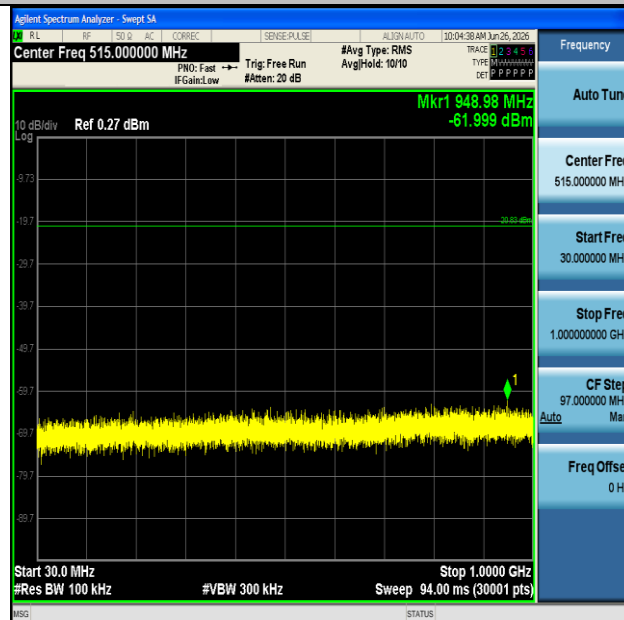


DH5-Ant1-2441-1000~26500-PASS



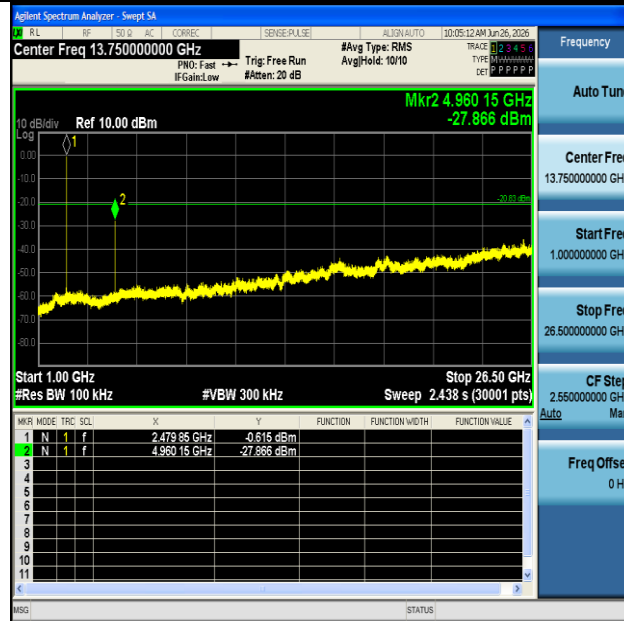


DH5-Ant1-2480-0~Reference-PASS



DH5-Ant1-2480-30~1000-PASS



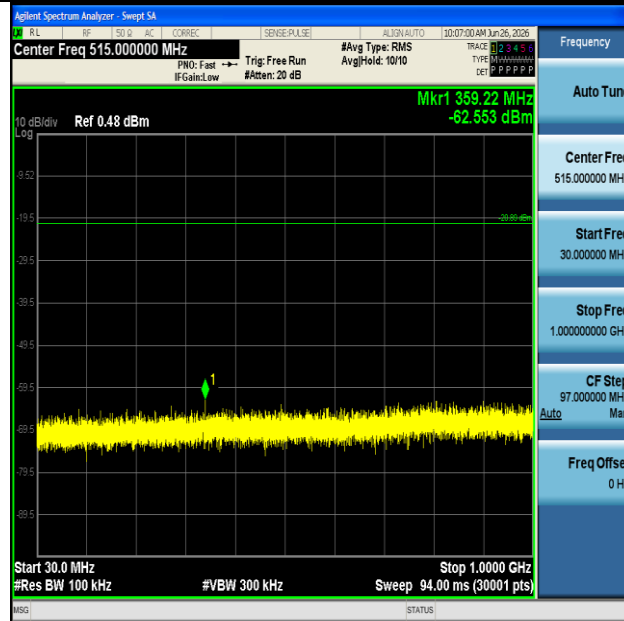


DH5-Ant1-2480-1000~26500-PASS

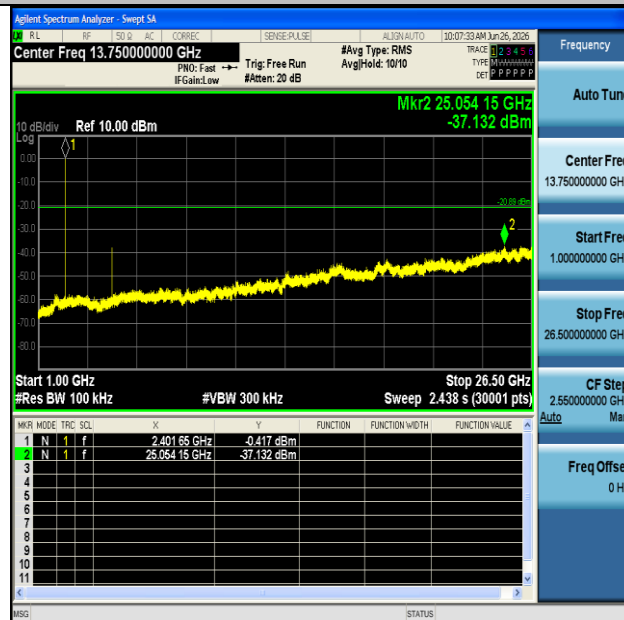


2DH5-Ant1-2402-0~Reference-PASS



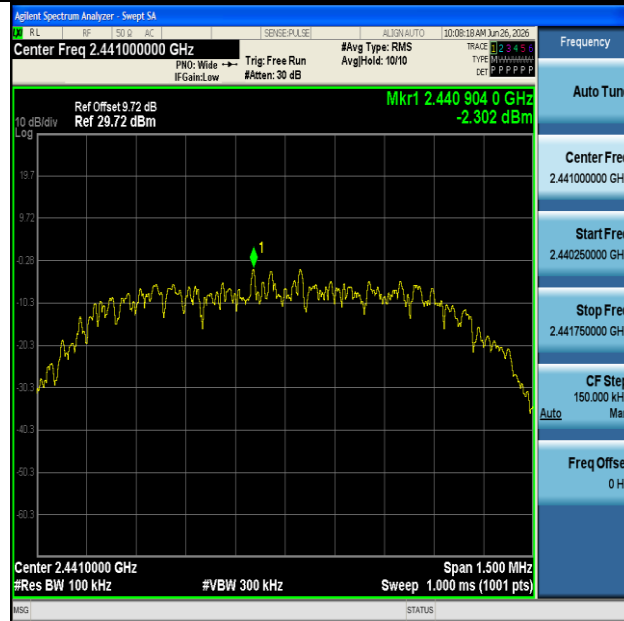


2DH5-Ant1-2402-30~1000-PASS

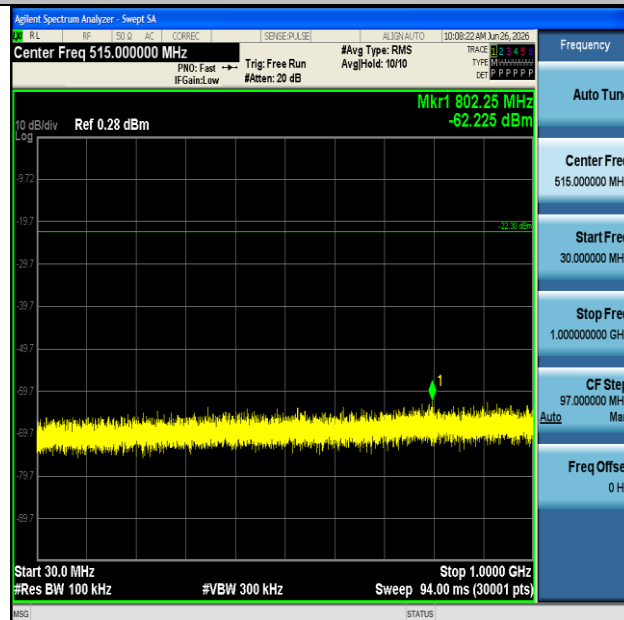


2DH5-Ant1-2402-1000~26500-PASS



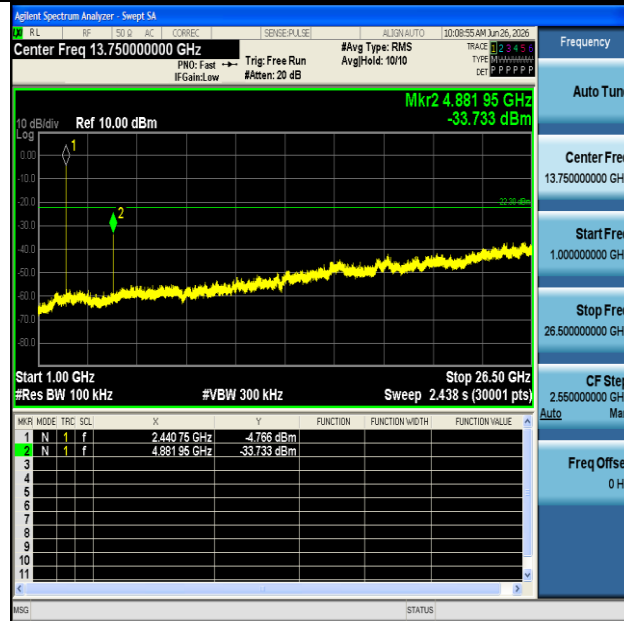


2DH5-Ant1-2441-0~Reference-PASS

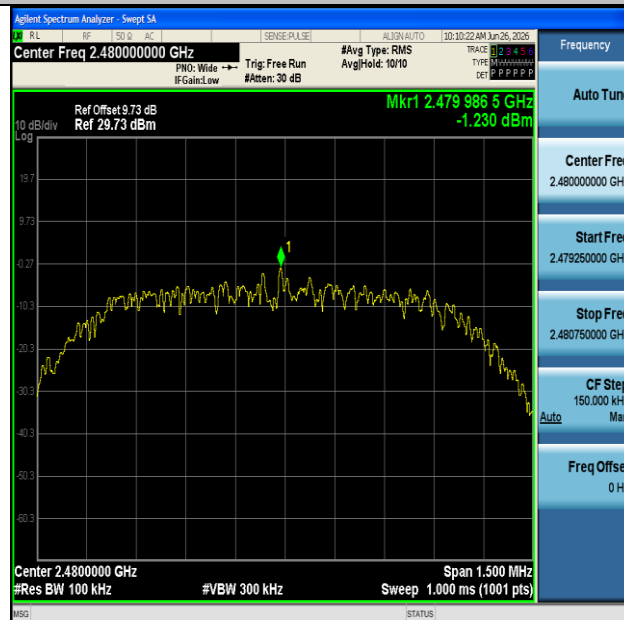


2DH5-Ant1-2441-30~1000-PASS



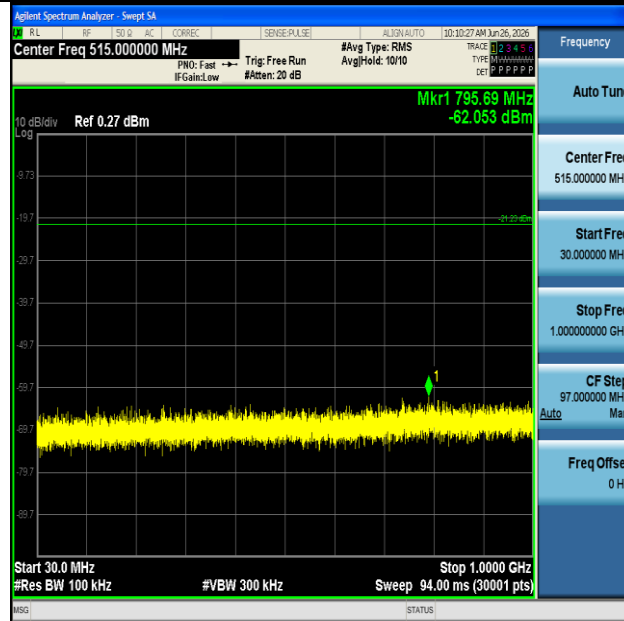


2DH5-Ant1-2441-1000~26500-PASS

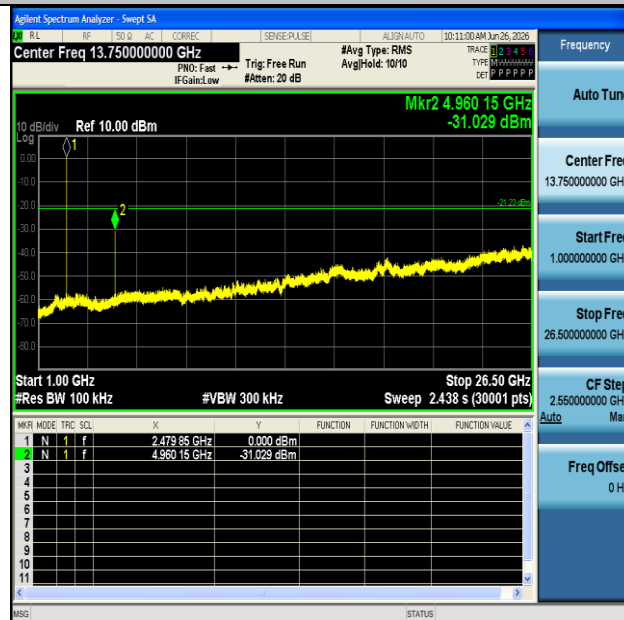


2DH5-Ant1-2480-0~Reference-PASS



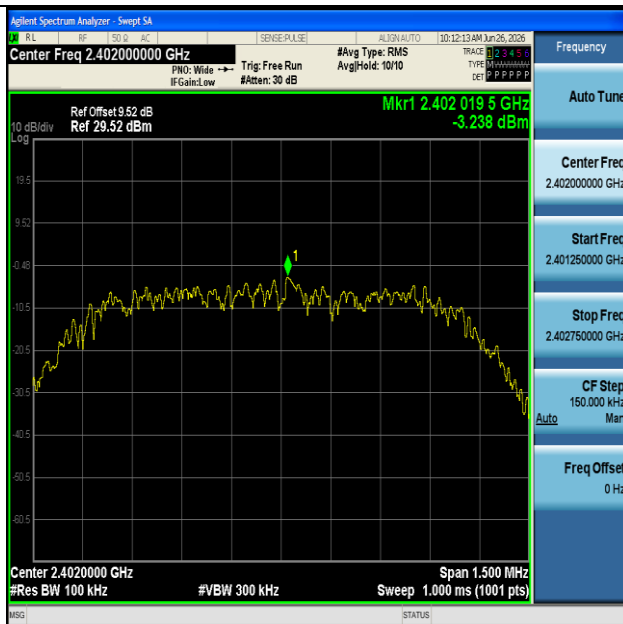


2DH5-Ant1-2480-30~1000-PASS

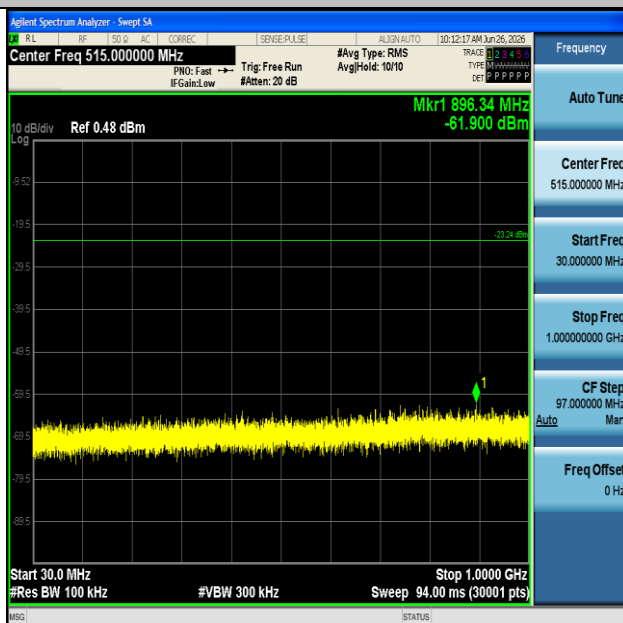


2DH5-Ant1-2480-1000~26500-PASS



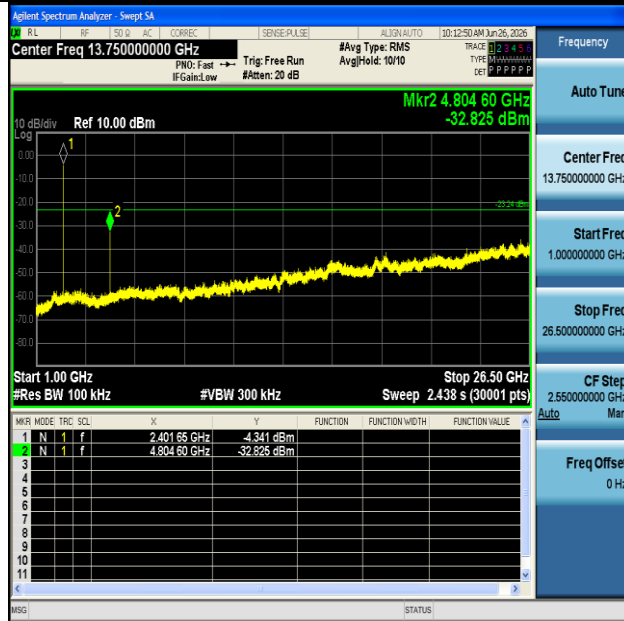


3DH5-Ant1-2402-0~Reference-PASS



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





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

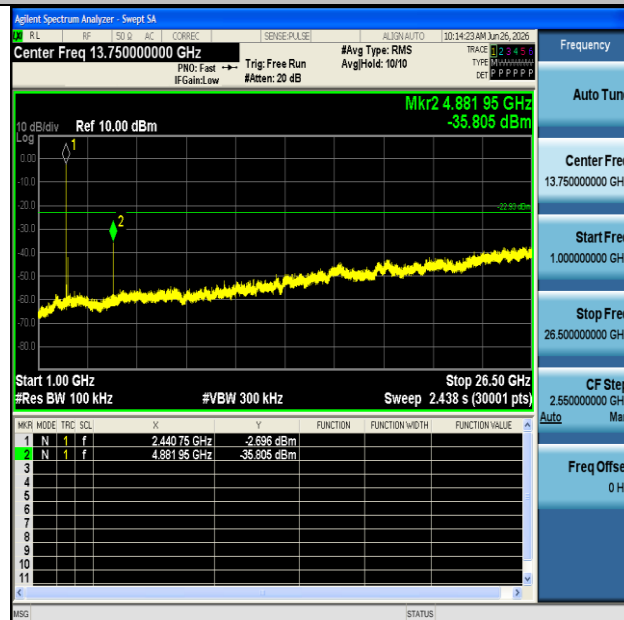


3DH5-Ant1-2441-0~Reference-PASS



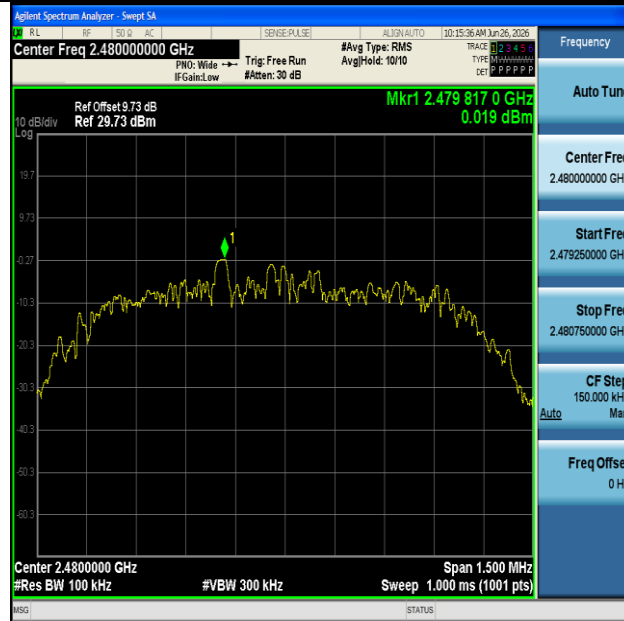


3DH5-Ant1-2441-30~1000-PASS

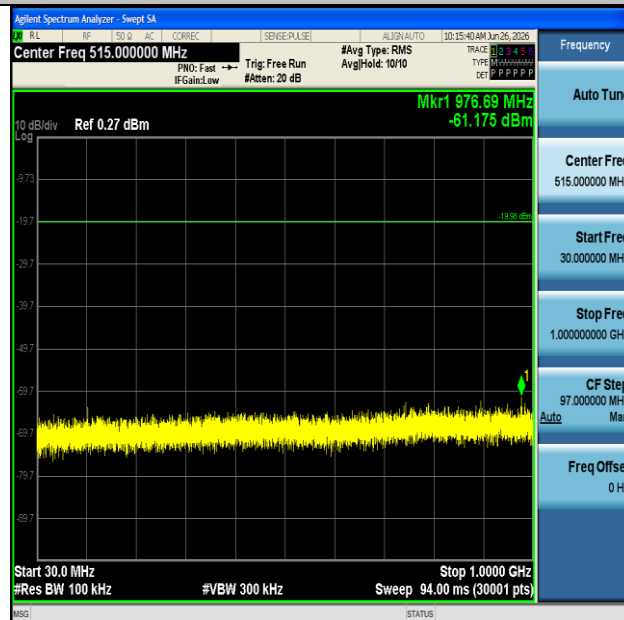


3DH5-Ant1-2441-1000~26500-PASS



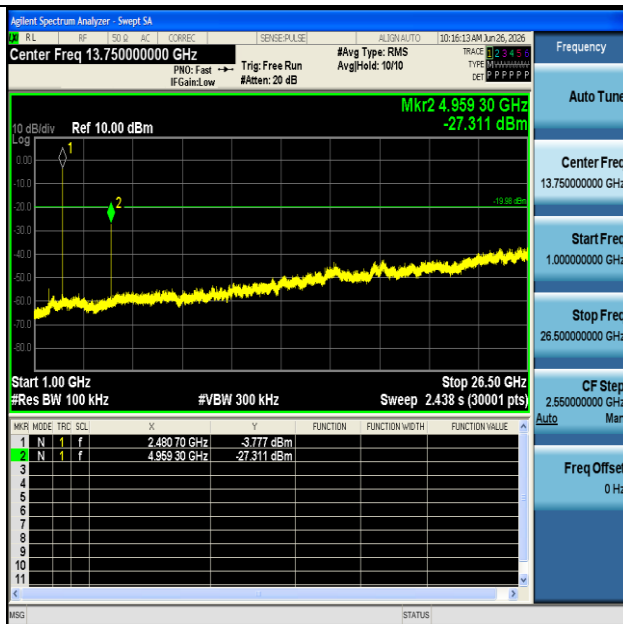


3DH5-Ant1-2480-0~Reference-PASS



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





3DH5-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	2.90	3.75	77.33	1.12
DH5	Ant1	2441	2.91	3.75	77.60	1.10
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	2.91	3.75	77.60	1.10
3DH5	Ant1	2441	2.91	3.75	77.60	1.10
3DH5	Ant1	2480	2.91	3.75	77.60	1.10

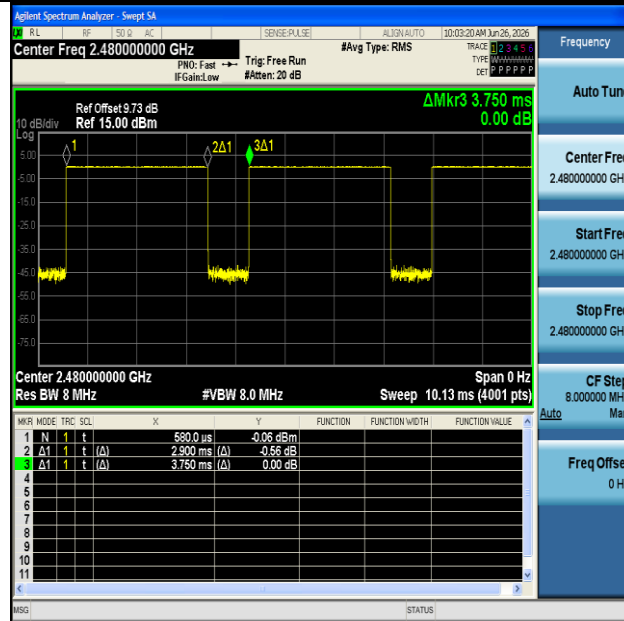
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



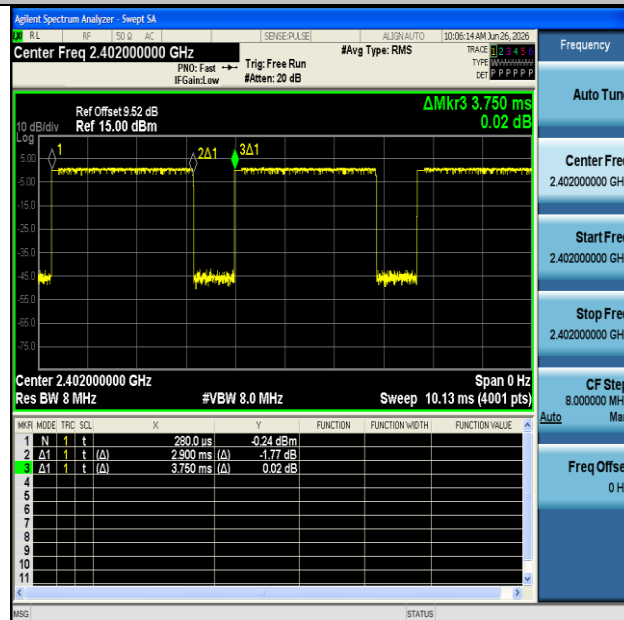


Test Graphs



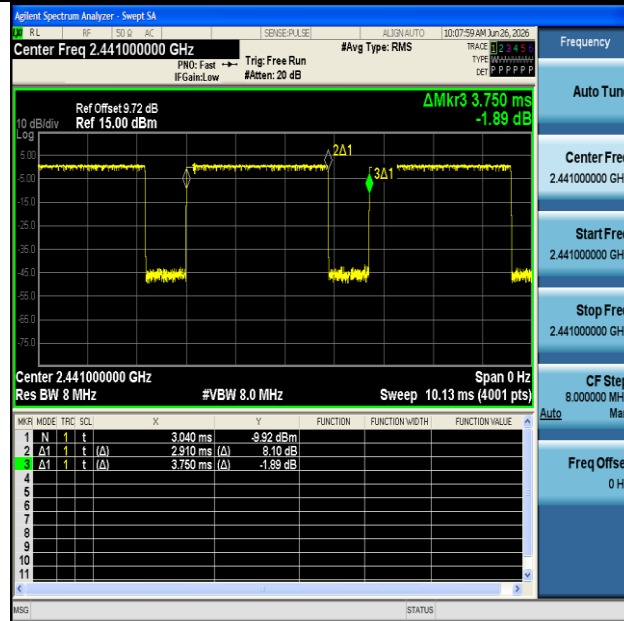


NTNV-DH5-Ant1-2480

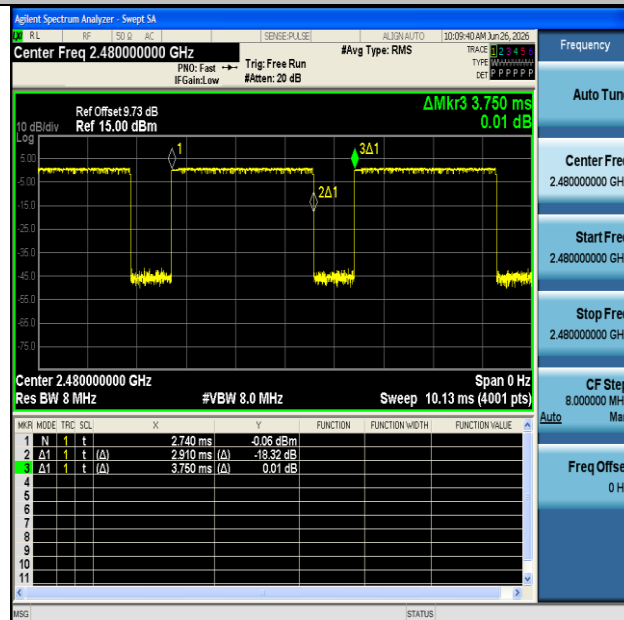


NTNV-2DH5-Ant1-2402



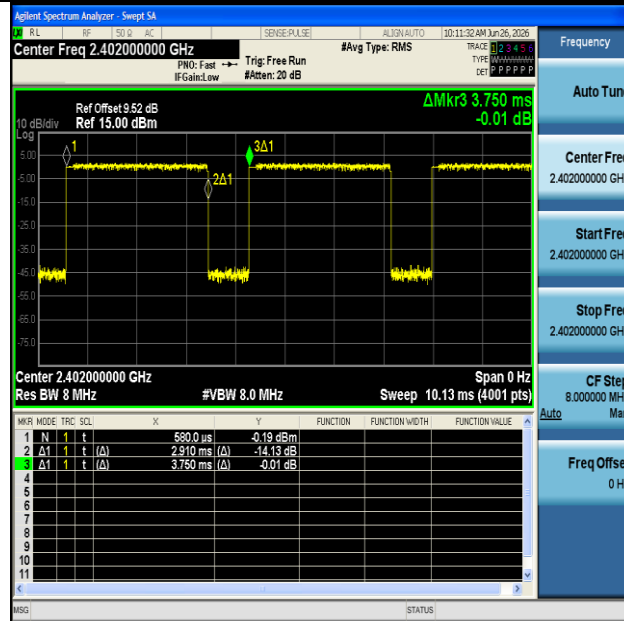


NTNV-2DH5-Ant1-2441

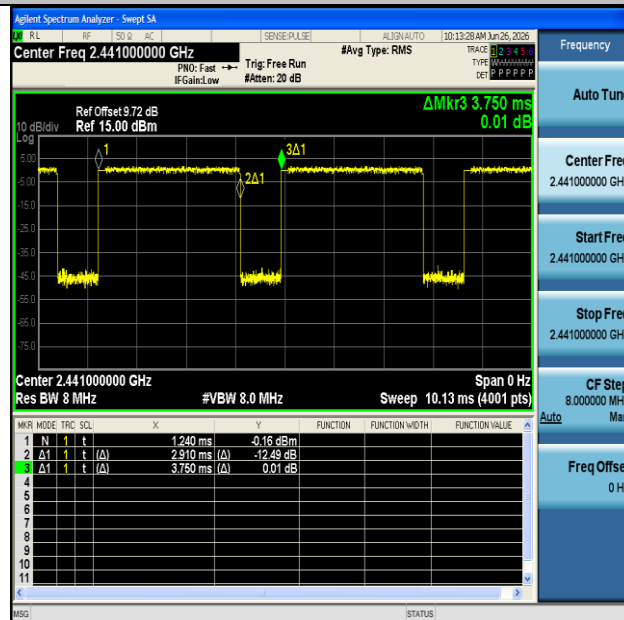


NTNV-2DH5-Ant1-2480



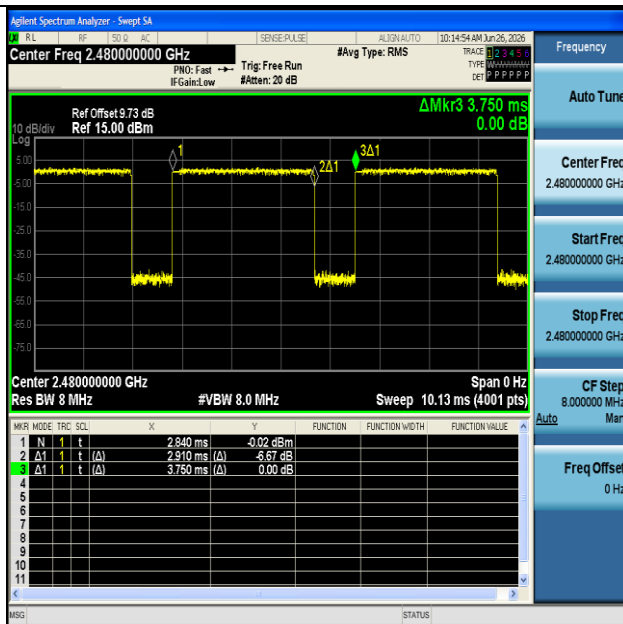


NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441





NTNV-3DH5-Ant1-2480

