



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

Product Name: Wireless Car Adapter

Trade Mark: *acer*

Test Model: TC02A

FCC ID: 2A2P5-TC02A

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	0.954	2401.601	2402.555	---	---
DH5	Ant1	2441	0.954	2440.601	2441.555	---	---
DH5	Ant1	2480	0.951	2479.607	2480.558	---	---
2DH5	Ant1	2402	1.344	2401.388	2402.732	---	---
2DH5	Ant1	2441	1.350	2440.388	2441.738	---	---
2DH5	Ant1	2480	1.314	2479.412	2480.726	---	---
3DH5	Ant1	2402	1.311	2401.409	2402.720	---	---
3DH5	Ant1	2441	1.311	2440.409	2441.720	---	---
3DH5	Ant1	2480	1.314	2479.409	2480.723	---	---

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	0.85049	2401.6367	2402.4872	---	---
DH5	Ant1	2441	0.86202	2440.6349	2441.4969	---	---
DH5	Ant1	2480	0.84052	2479.6411	2480.4816	---	---
2DH5	Ant1	2402	1.2034	2401.4600	2402.6634	---	---
2DH5	Ant1	2441	1.1960	2440.4653	2441.6613	---	---
2DH5	Ant1	2480	1.1939	2479.4702	2480.6641	---	---
3DH5	Ant1	2402	1.2131	2401.4506	2402.6637	---	---
3DH5	Ant1	2441	1.2055	2440.4590	2441.6645	---	---
3DH5	Ant1	2480	1.2128	2479.4562	2480.6690	---	---

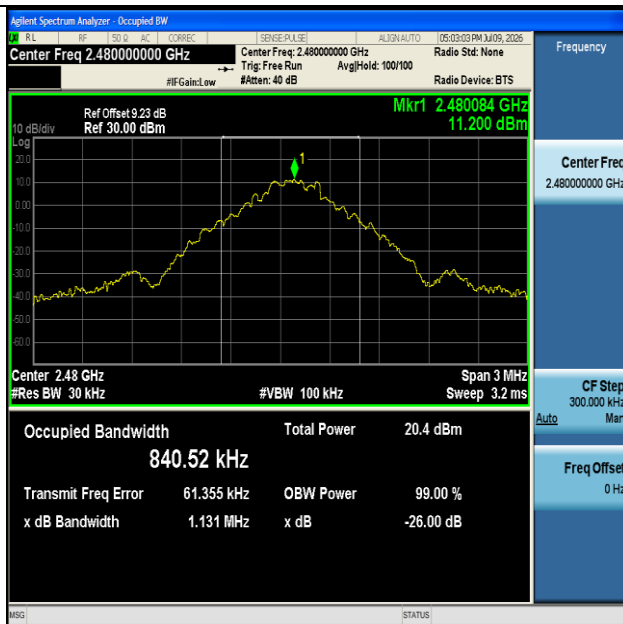
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



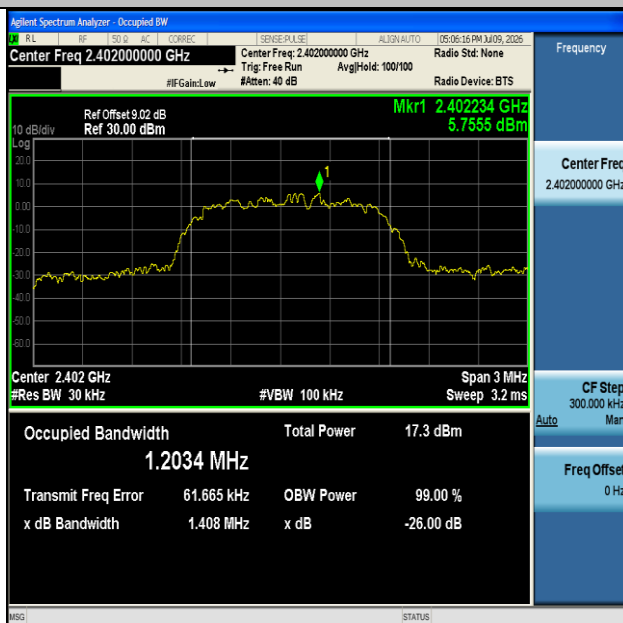


Test Graphs



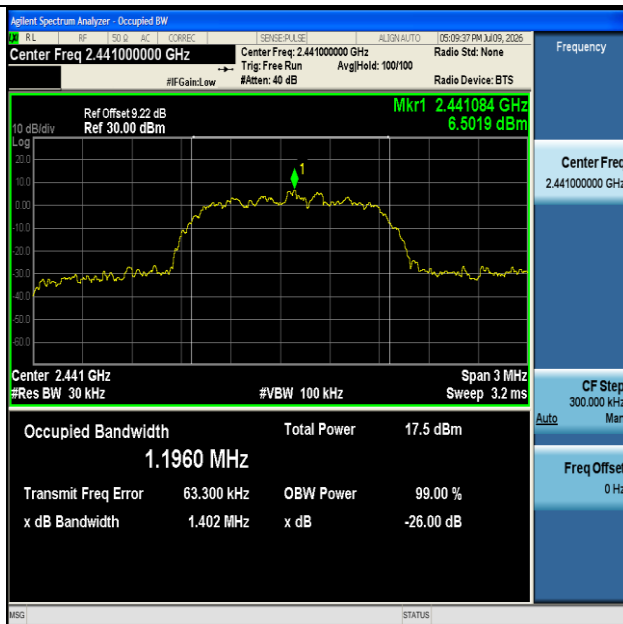


DH5-Ant1-2480

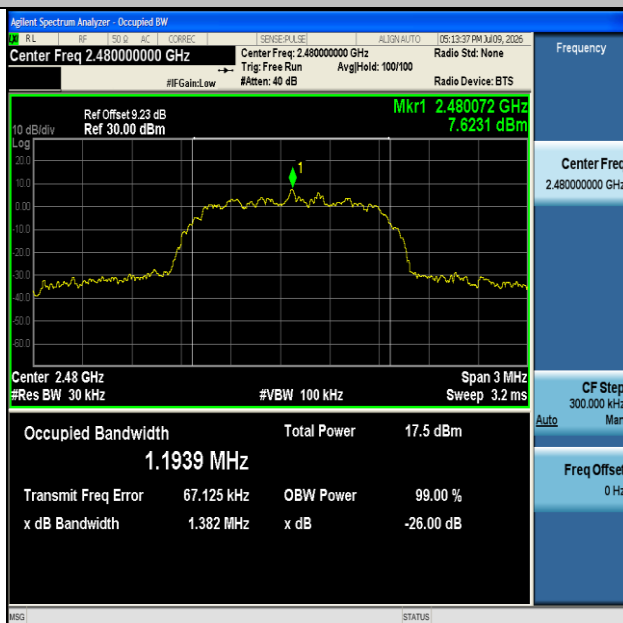


2DH5-Ant1-2402



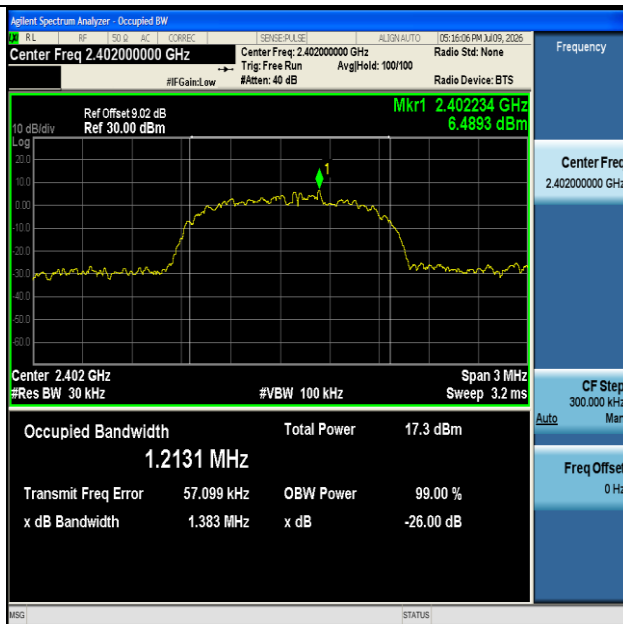


2DH5-Ant1-2441

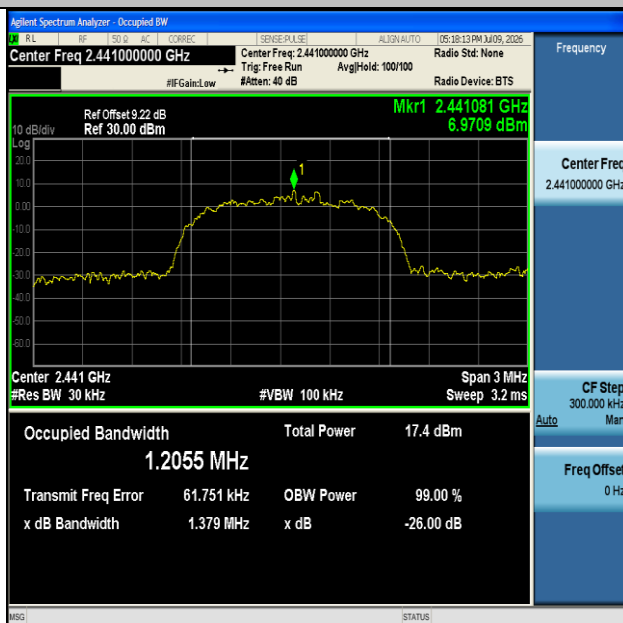


2DH5-Ant1-2480



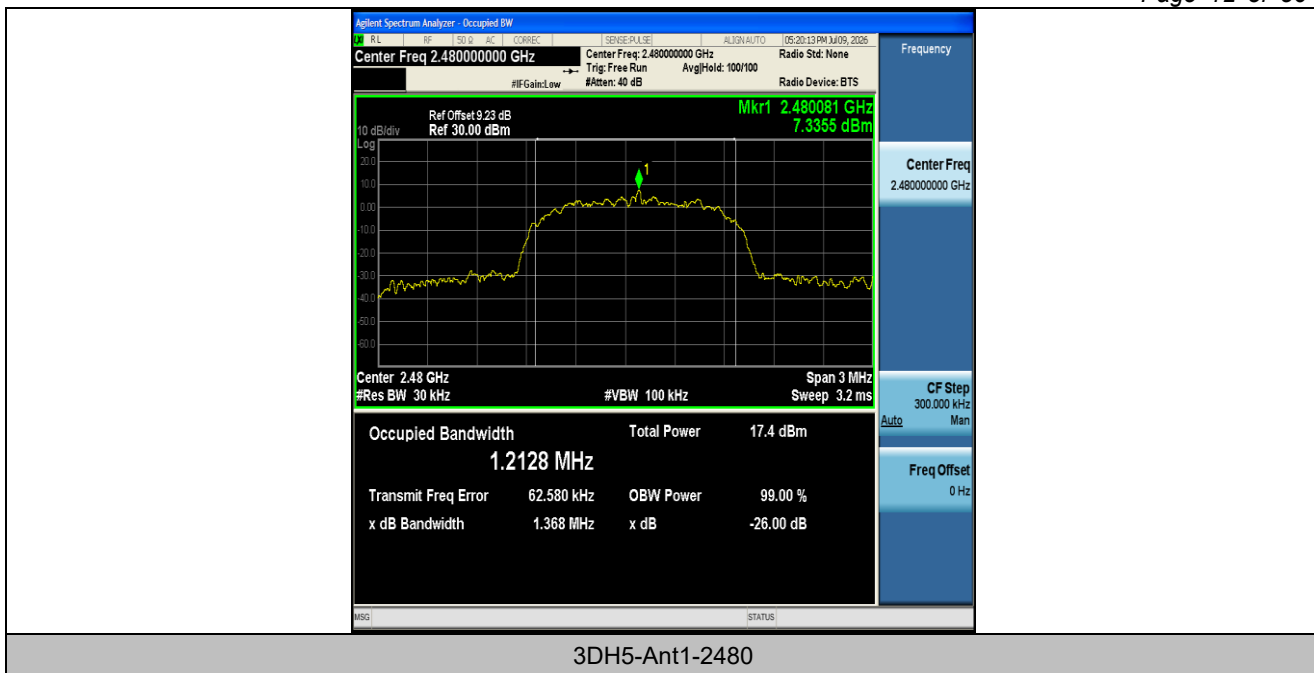


3DH5-Ant1-2402



3DH5-Ant1-2441







Appendix C: Maximum peak conducted output power

Test Result

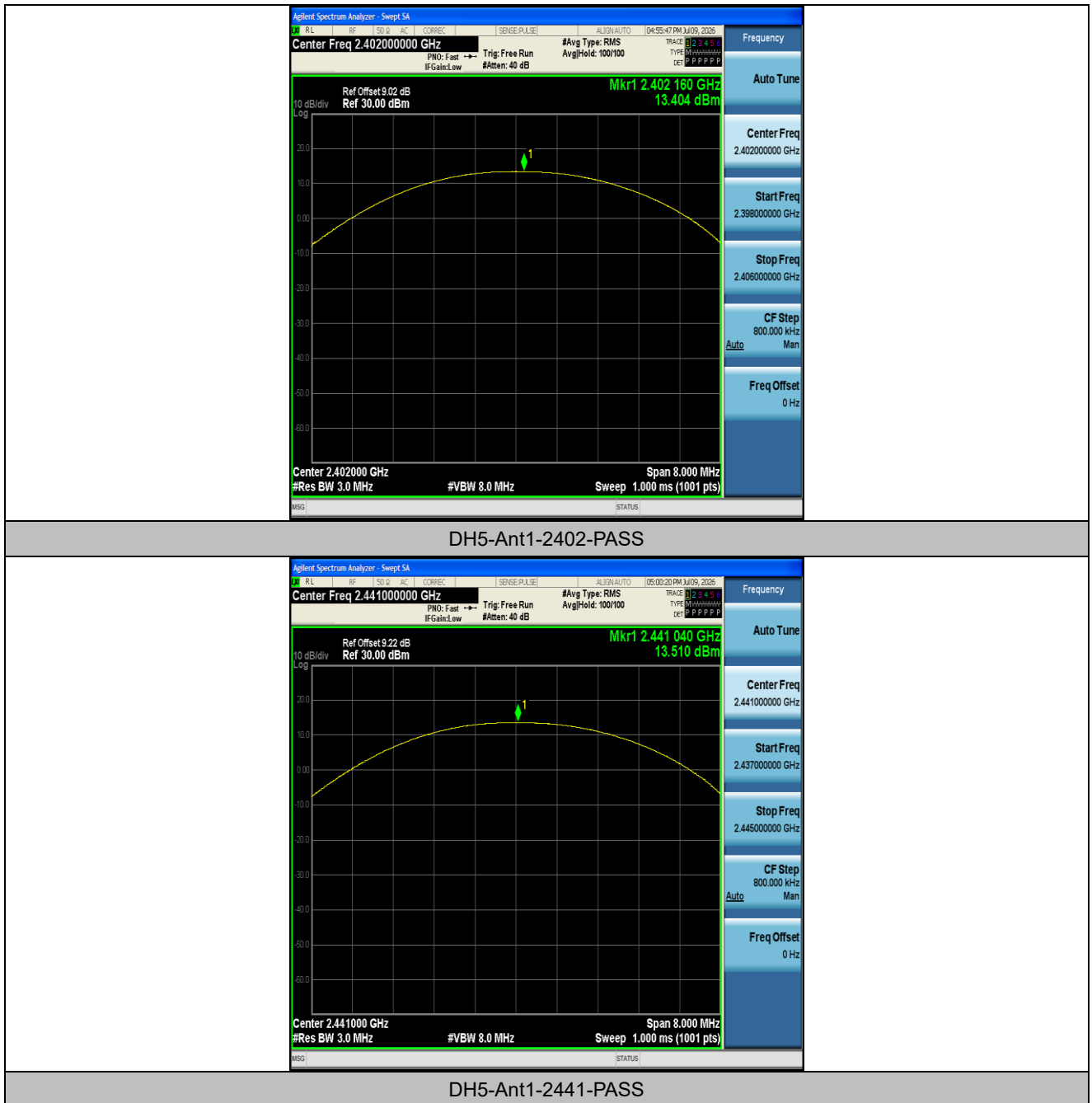
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	13.40	≤30	PASS
DH5	Ant1	2441	13.51	≤30	PASS
DH5	Ant1	2480	13.68	≤30	PASS
2DH5	Ant1	2402	12.98	≤20.97	PASS
2DH5	Ant1	2441	13.03	≤20.97	PASS
2DH5	Ant1	2480	13.19	≤20.97	PASS
3DH5	Ant1	2402	13.22	≤20.97	PASS
3DH5	Ant1	2441	13.27	≤20.97	PASS
3DH5	Ant1	2480	13.45	≤20.97	PASS

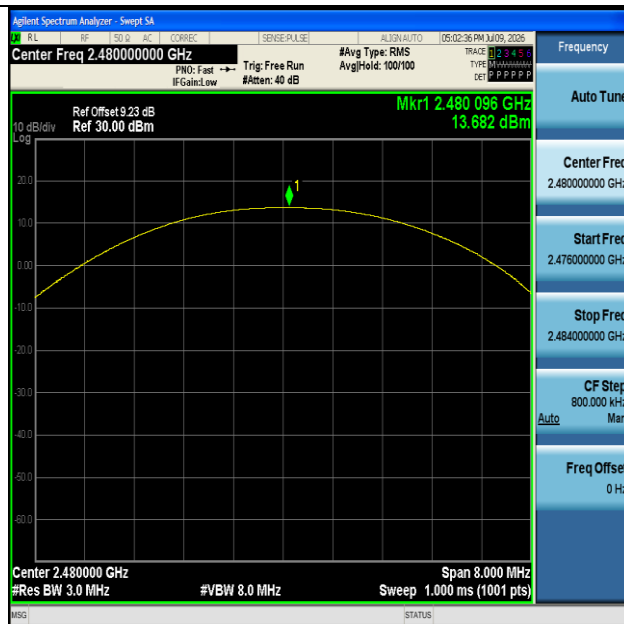
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



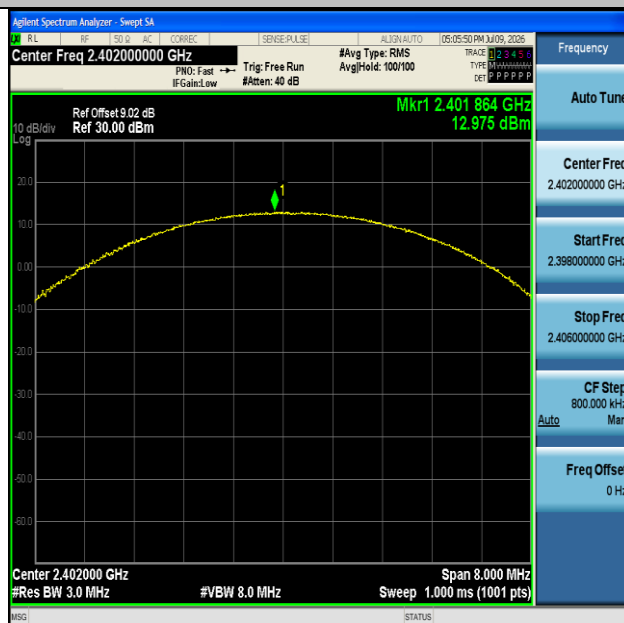


Test Graphs



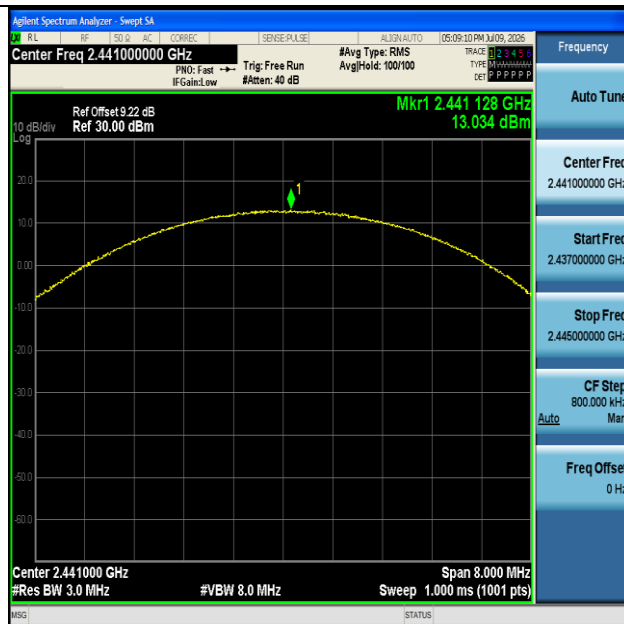


DH5-Ant1-2480-PASS

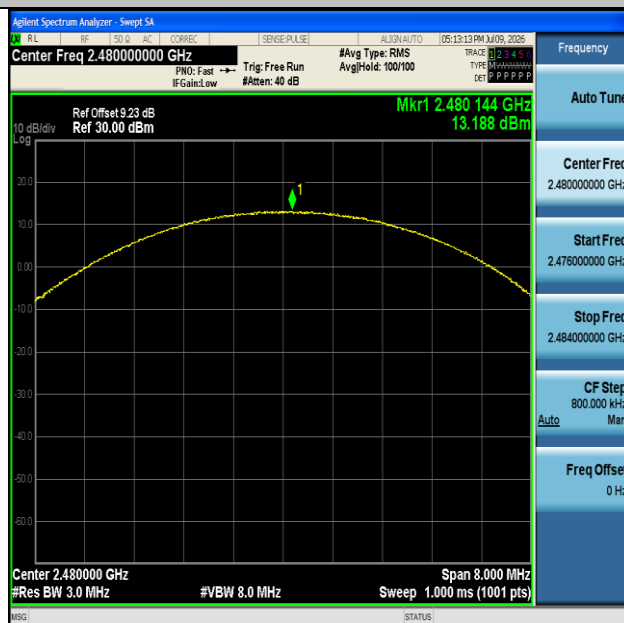


2DH5-Ant1-2402-PASS



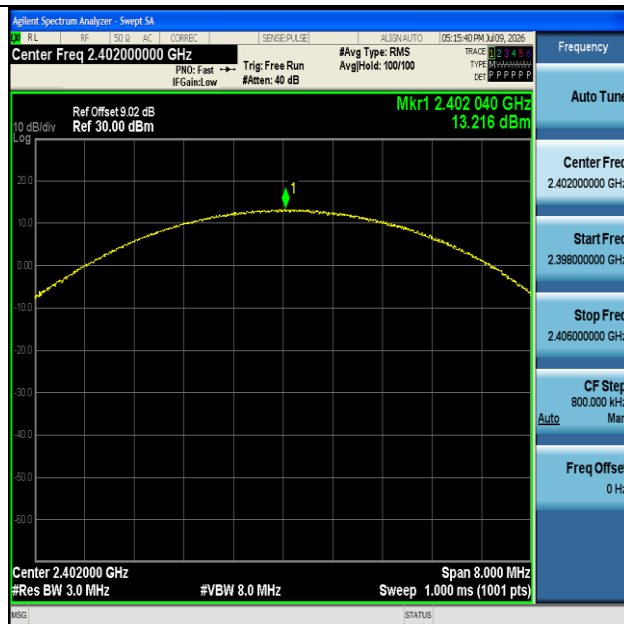


2DH5-Ant1-2441-PASS

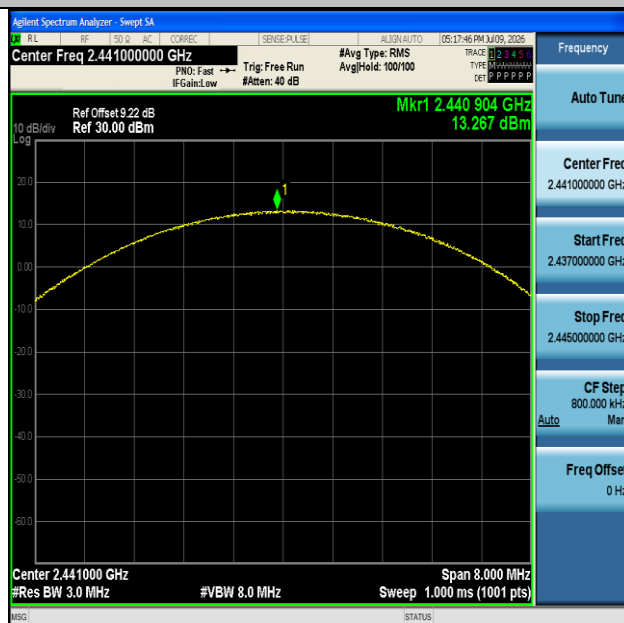


2DH5-Ant1-2480-PASS



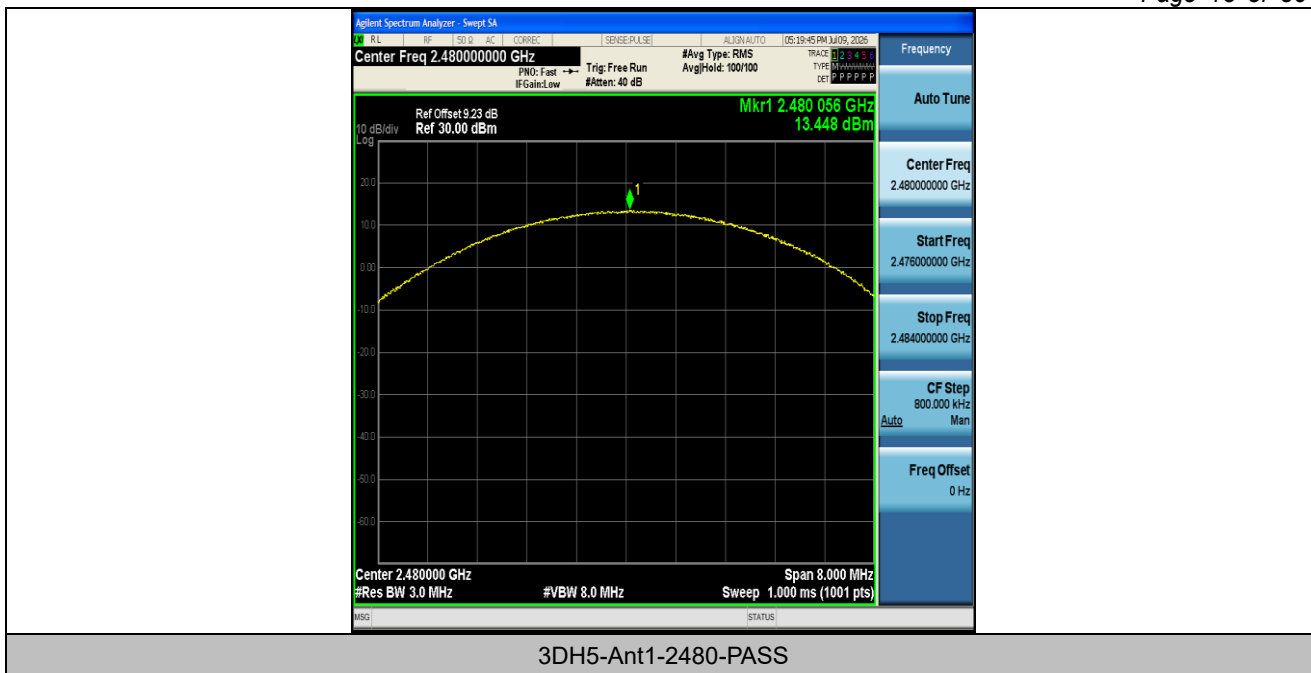


3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS







Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	0.992	≥0.954	PASS
2DH5	Ant1	Hop	1.01	≥0.900	PASS
3DH5	Ant1	Hop	1.096	≥0.876	PASS

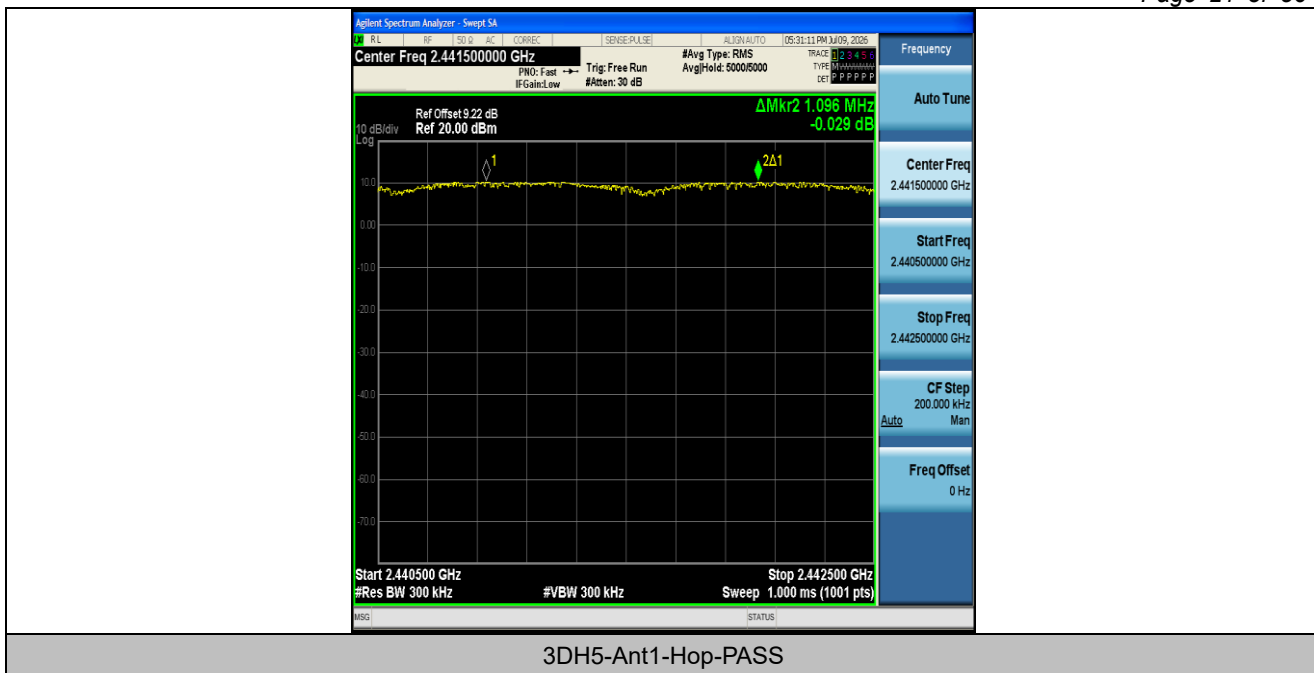
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix E: Time of occupancy

Test Result

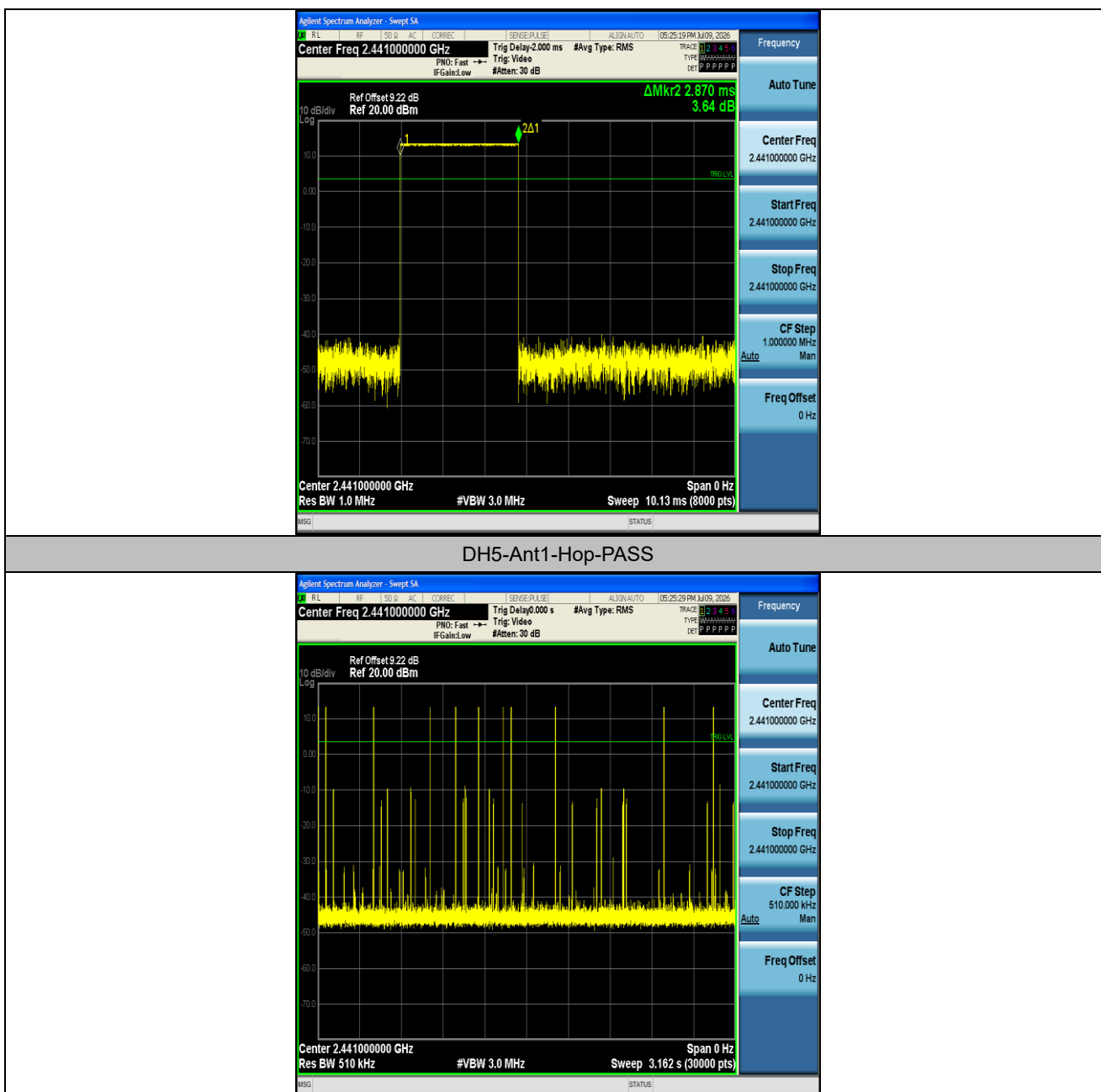
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.870	110	0.316	≤0.4	PASS
2DH5	Ant1	Hop	2.877	90	0.259	≤0.4	PASS
3DH5	Ant1	Hop	2.879	90	0.259	≤0.4	PASS

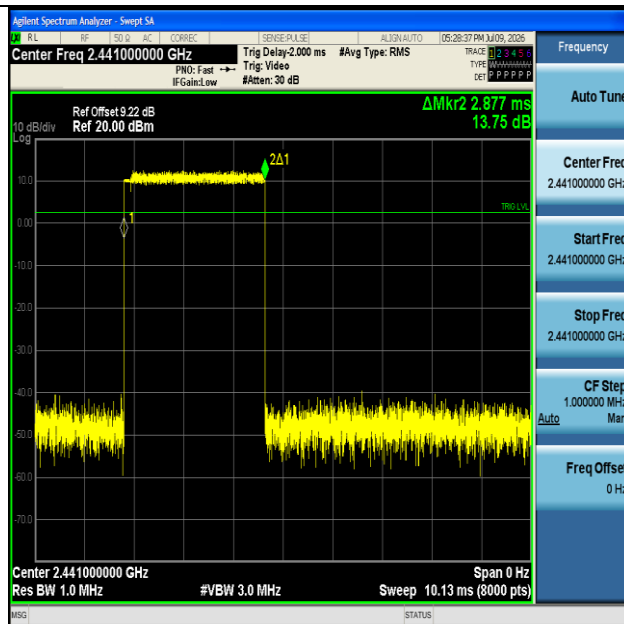
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



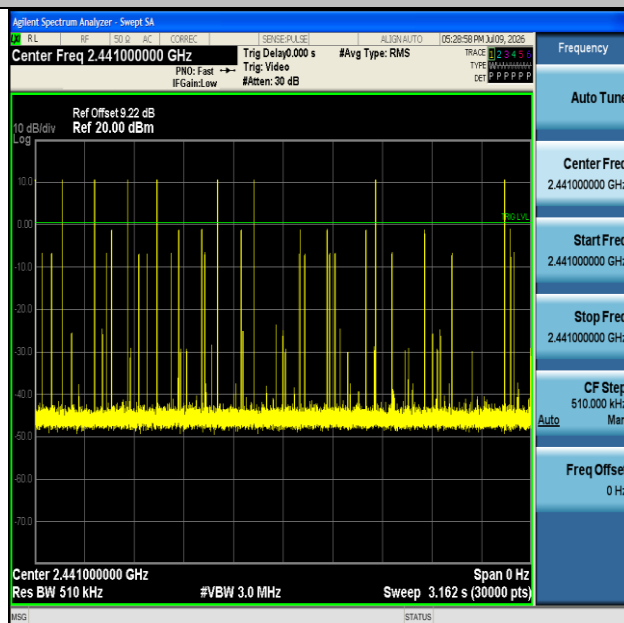


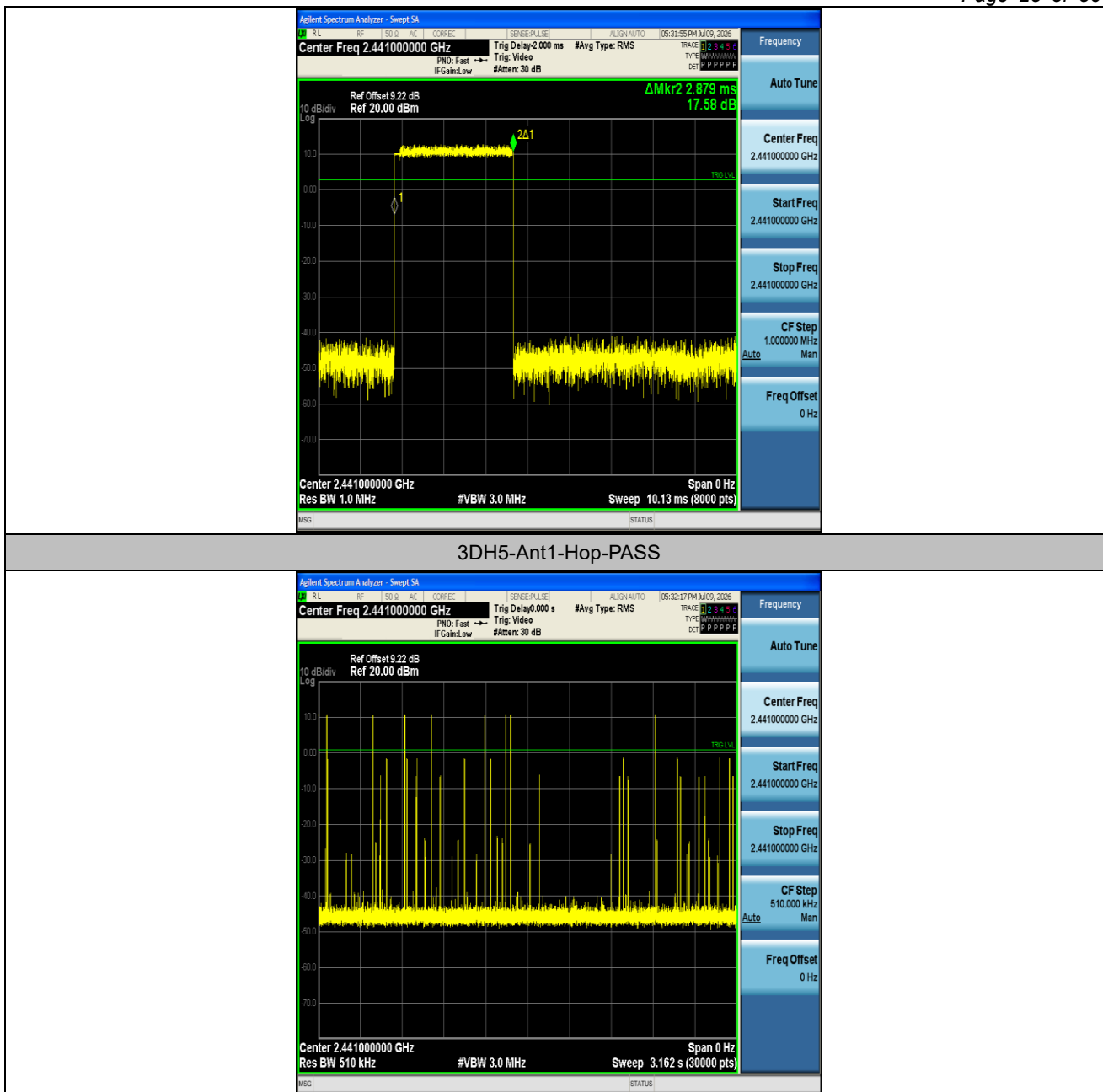
Test Graphs





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
3DH5	Ant1	Hop	79	≥15	PASS

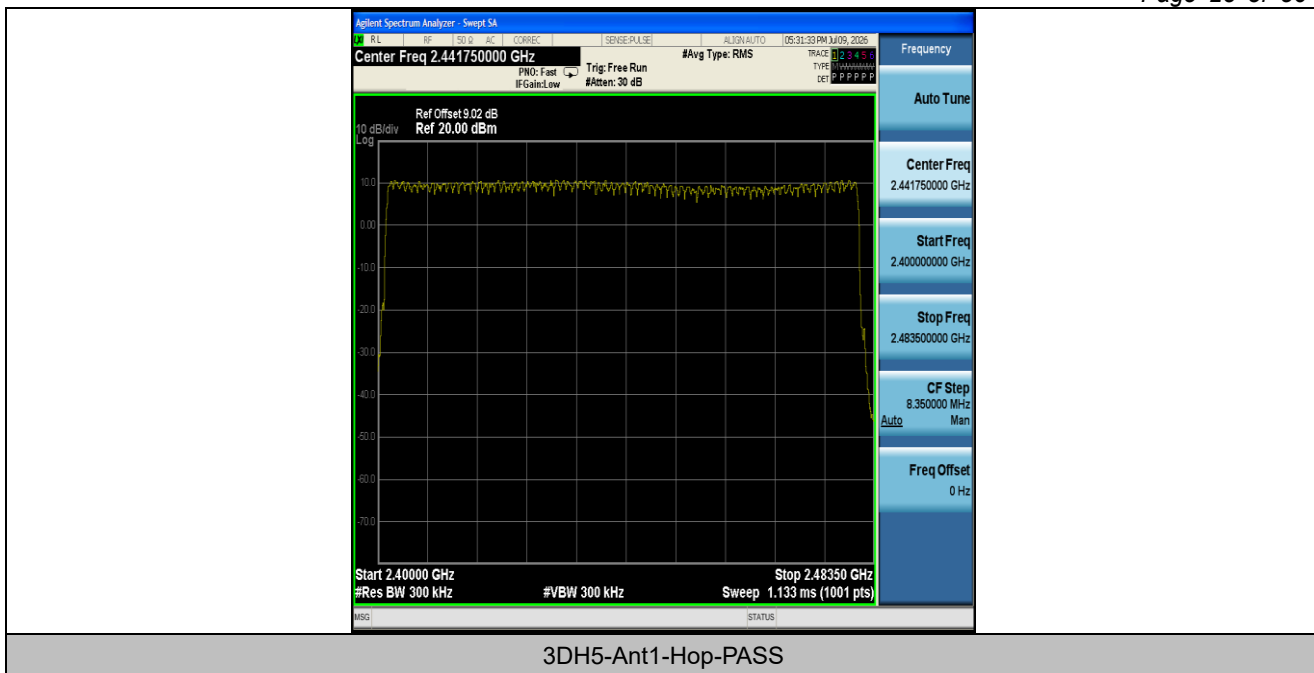
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix G: Band edge measurements

Test Result

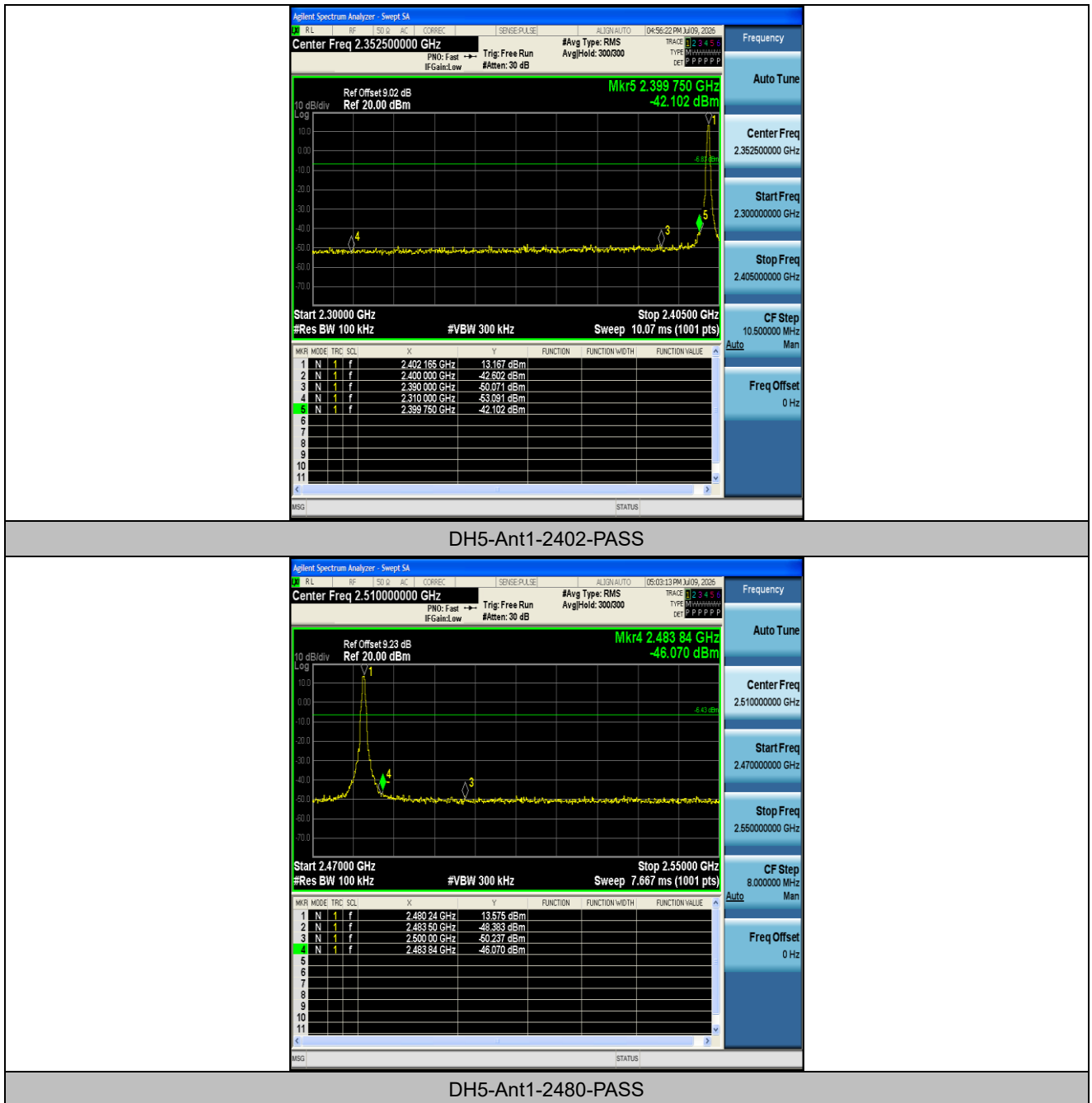
Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	13.17	-42.1	≤ -6.83	PASS
DH5	Ant1	High	2480	13.58	-46.07	≤ -6.43	PASS
DH5	Ant1	Low	Hop_2402	12.65	-46.89	≤ -7.35	PASS
DH5	Ant1	High	Hop_2480	13.36	-47.57	≤ -6.64	PASS
2DH5	Ant1	Low	2402	9.47	-38.2	≤ -10.54	PASS
2DH5	Ant1	High	2480	9.67	-47.06	≤ -10.33	PASS
2DH5	Ant1	Low	Hop_2402	8.01	-43	≤ -11.99	PASS
2DH5	Ant1	High	Hop_2480	8.67	-47.07	≤ -11.33	PASS
3DH5	Ant1	Low	2402	10.20	-38.41	≤ -9.81	PASS
3DH5	Ant1	High	2480	9.15	-46.2	≤ -10.85	PASS
3DH5	Ant1	Low	Hop_2402	8.03	-40.92	≤ -11.97	PASS
3DH5	Ant1	High	Hop_2480	8.27	-48.31	≤ -11.73	PASS

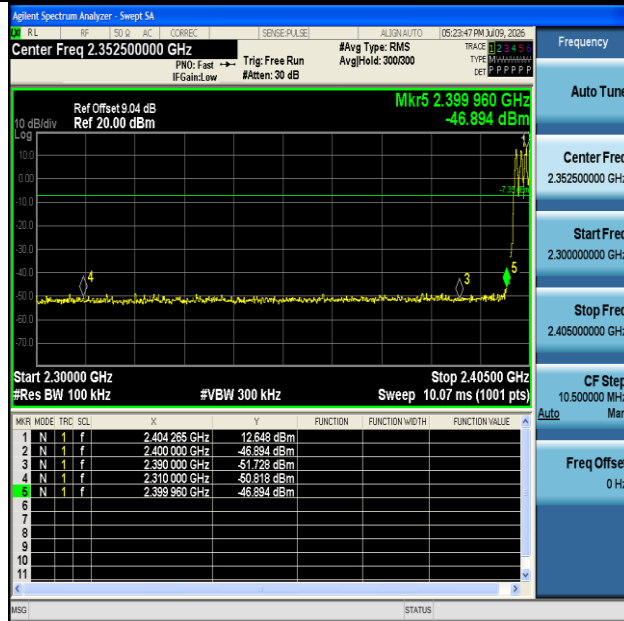
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



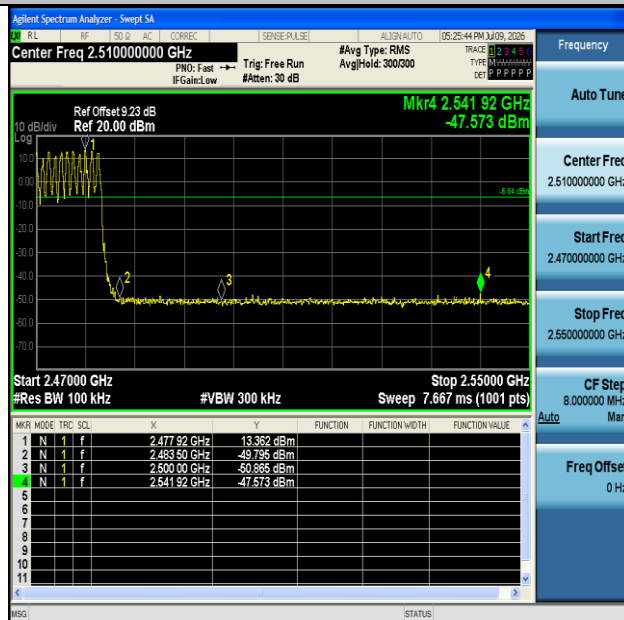


Test Graphs



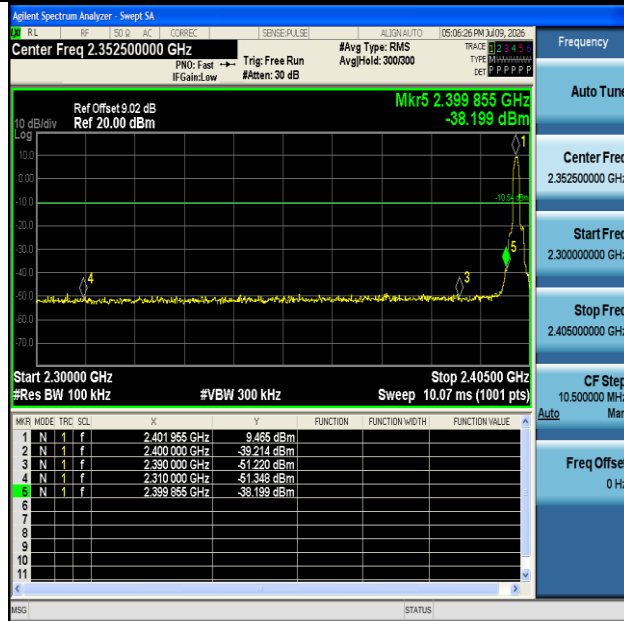


DH5-Ant1-Hop_2402-PASS

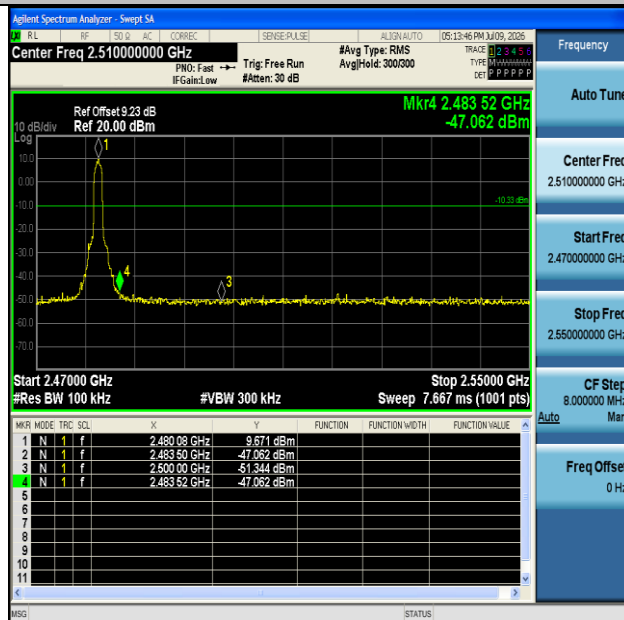


DH5-Ant1-Hop_2480-PASS



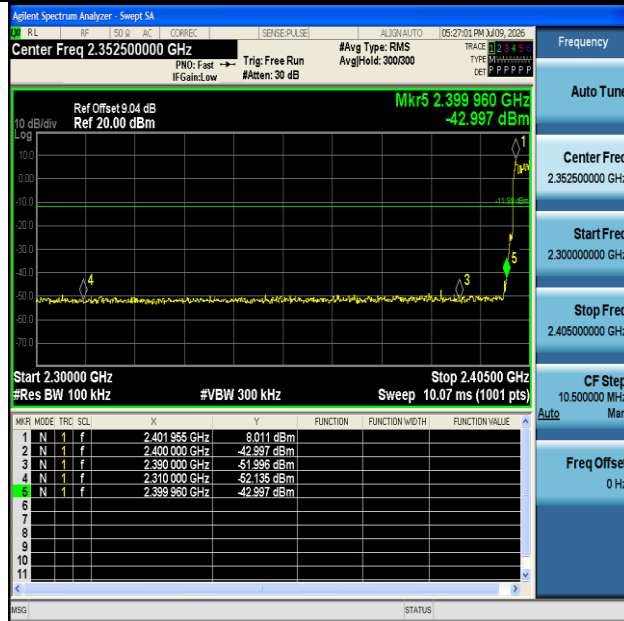


2DH5-Ant1-2402-PASS

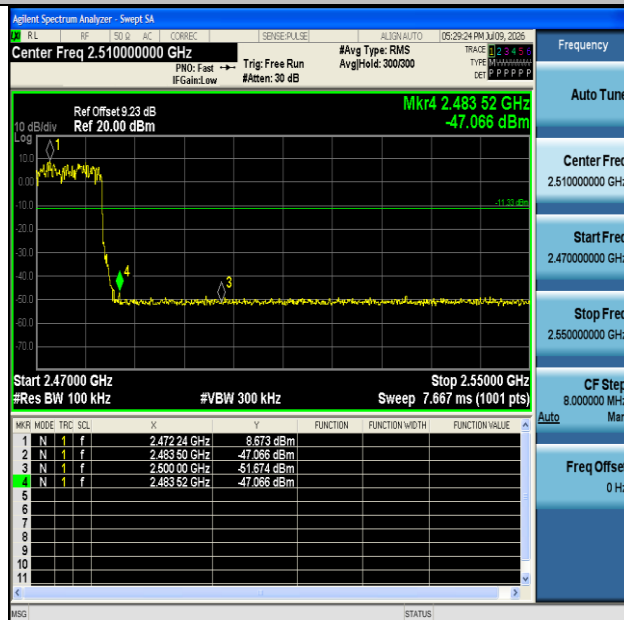


2DH5-Ant1-2480-PASS



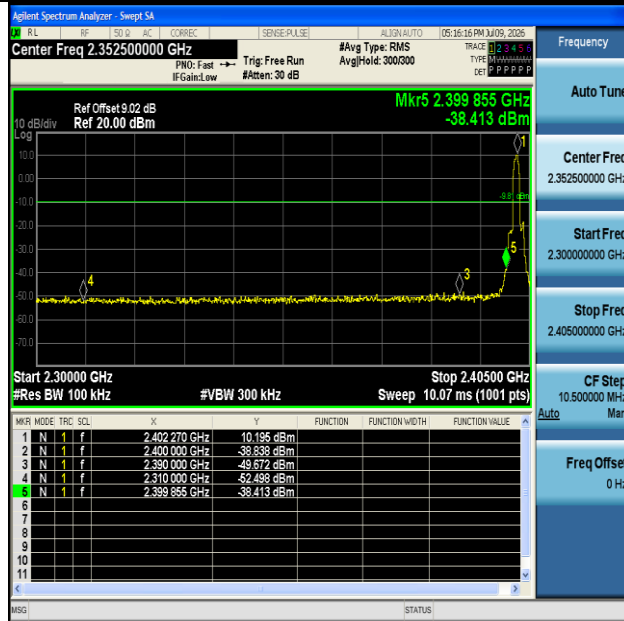


2DH5-Ant1-Hop_2402-PASS

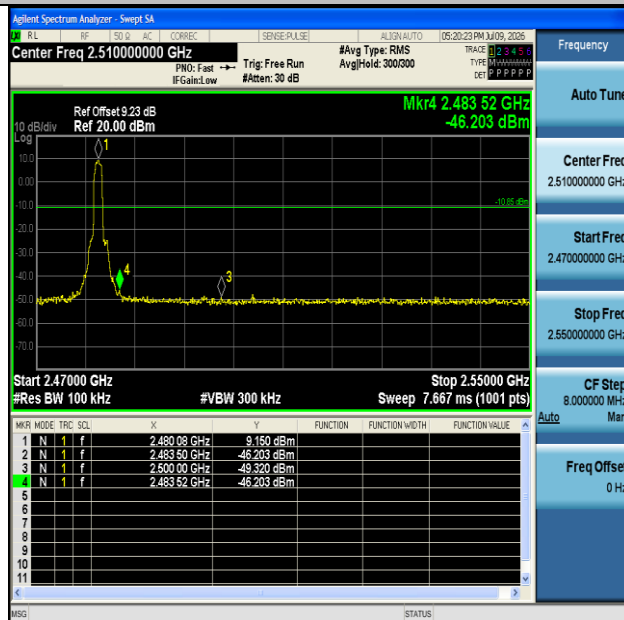


2DH5-Ant1-Hop_2480-PASS



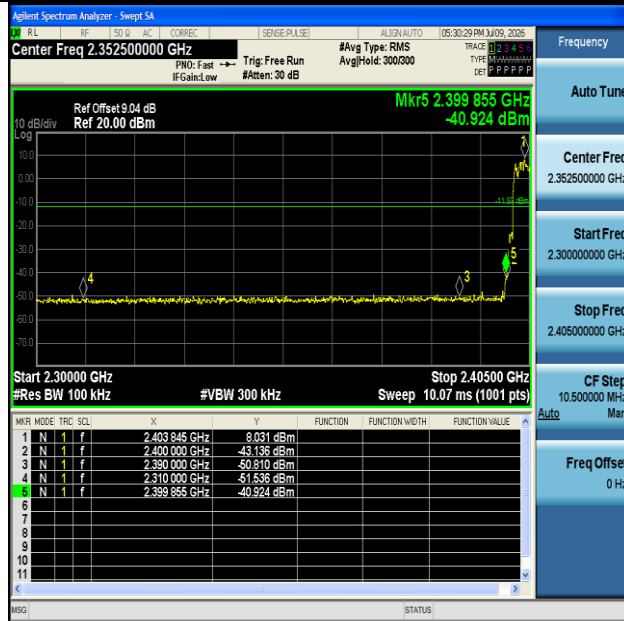


3DH5-Ant1-2402-PASS

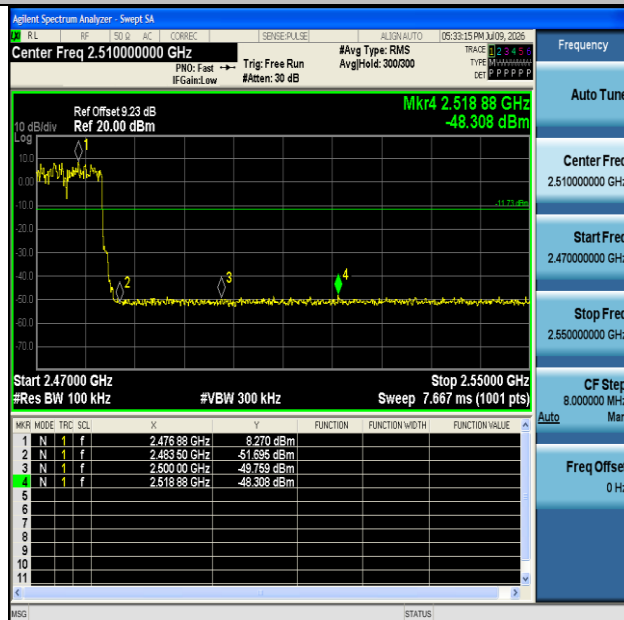


3DH5-Ant1-2480-PASS





3DH5-Ant1-Hop_2402-PASS



3DH5-Ant1-Hop_2480-PASS





Appendix H: Conducted Spurious Emission

Test Result

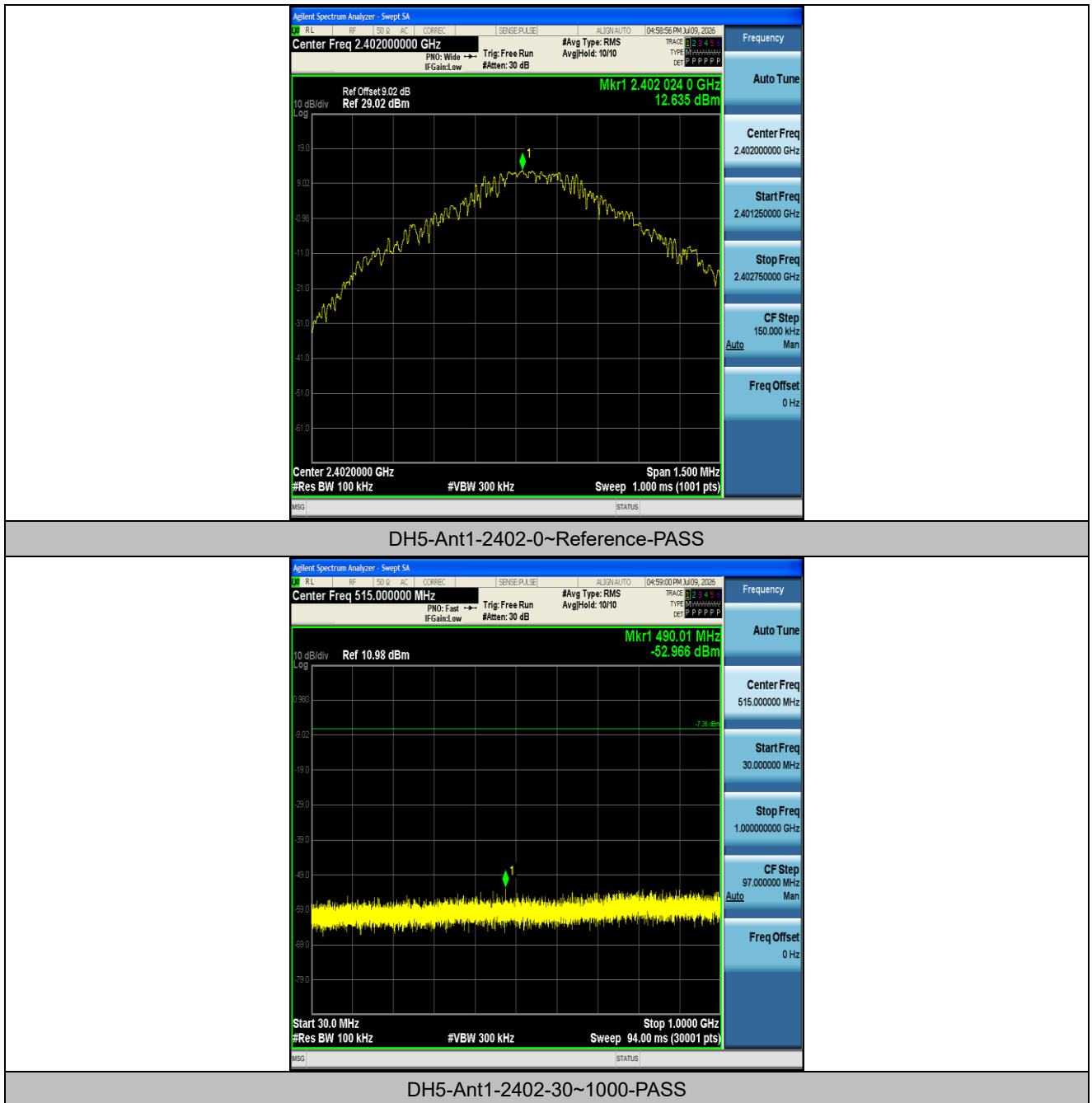
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	12.64	12.64	---	PASS
DH5	Ant1	2402	30~1000	12.64	-52.97	≤-7.36	PASS
DH5	Ant1	2402	1000~26500	12.64	-27.85	≤-7.36	PASS
DH5	Ant1	2441	0~Reference	12.65	12.65	---	PASS
DH5	Ant1	2441	30~1000	12.65	-51.23	≤-7.35	PASS
DH5	Ant1	2441	1000~26500	12.65	-27.77	≤-7.35	PASS
DH5	Ant1	2480	0~Reference	12.85	12.85	---	PASS
DH5	Ant1	2480	30~1000	12.85	-52.2	≤-7.15	PASS
DH5	Ant1	2480	1000~26500	12.85	-26.37	≤-7.15	PASS
2DH5	Ant1	2402	0~Reference	9.94	9.94	---	PASS
2DH5	Ant1	2402	30~1000	9.94	-52.56	≤-10.06	PASS
2DH5	Ant1	2402	1000~26500	9.94	-27.08	≤-10.06	PASS
2DH5	Ant1	2441	0~Reference	8.92	8.92	---	PASS
2DH5	Ant1	2441	30~1000	8.92	-52.84	≤-11.08	PASS
2DH5	Ant1	2441	1000~26500	8.92	-27.45	≤-11.08	PASS
2DH5	Ant1	2480	0~Reference	9.11	9.11	---	PASS
2DH5	Ant1	2480	30~1000	9.11	-52.08	≤-10.89	PASS
2DH5	Ant1	2480	1000~26500	9.11	-27.65	≤-10.89	PASS
3DH5	Ant1	2402	0~Reference	8.21	8.21	---	PASS
3DH5	Ant1	2402	30~1000	8.21	-52.87	≤-11.79	PASS
3DH5	Ant1	2402	1000~26500	8.21	-27.22	≤-11.79	PASS
3DH5	Ant1	2441	0~Reference	9.64	9.64	---	PASS
3DH5	Ant1	2441	30~1000	9.64	-52.44	≤-10.36	PASS
3DH5	Ant1	2441	1000~26500	9.64	-27.55	≤-10.36	PASS
3DH5	Ant1	2480	0~Reference	8.52	8.52	---	PASS
3DH5	Ant1	2480	30~1000	8.52	-52.5	≤-11.48	PASS
3DH5	Ant1	2480	1000~26500	8.52	-27.19	≤-11.48	PASS

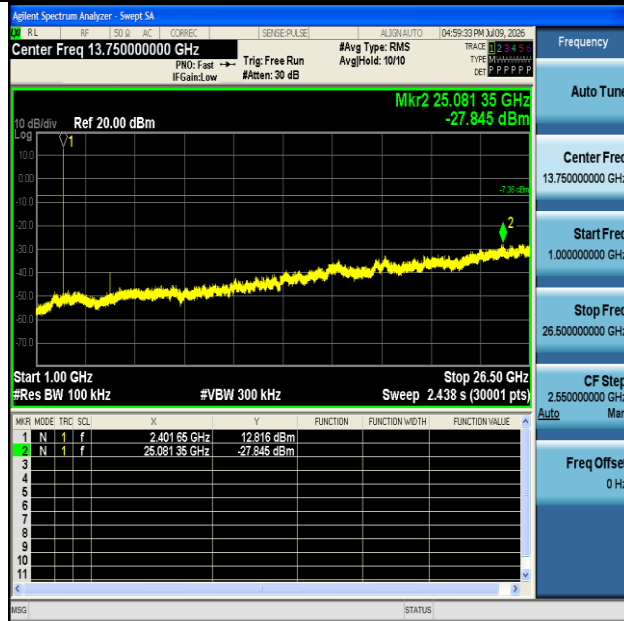
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.



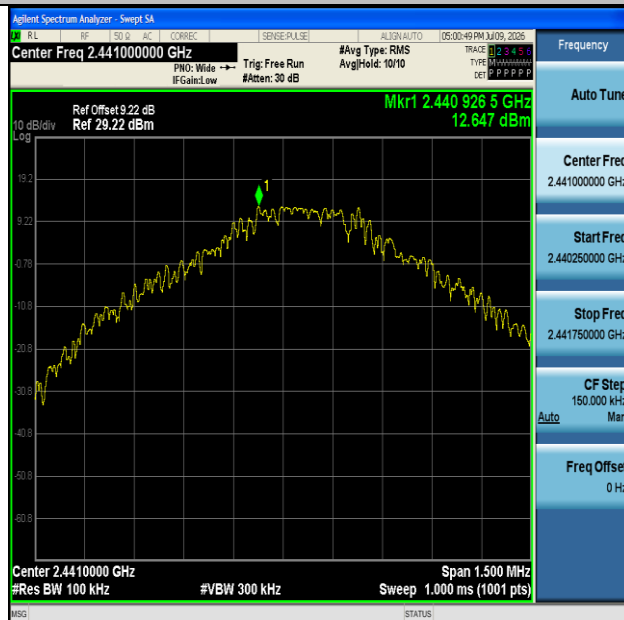


Test Graphs



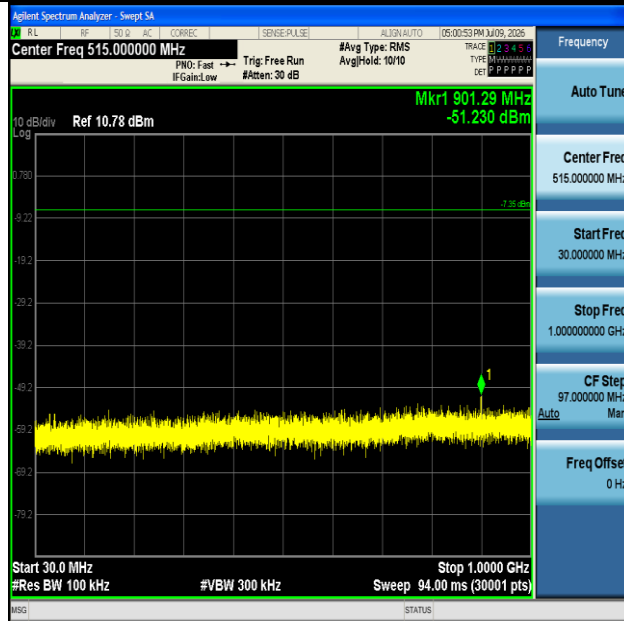


DH5-Ant1-2402-1000~26500-PASS

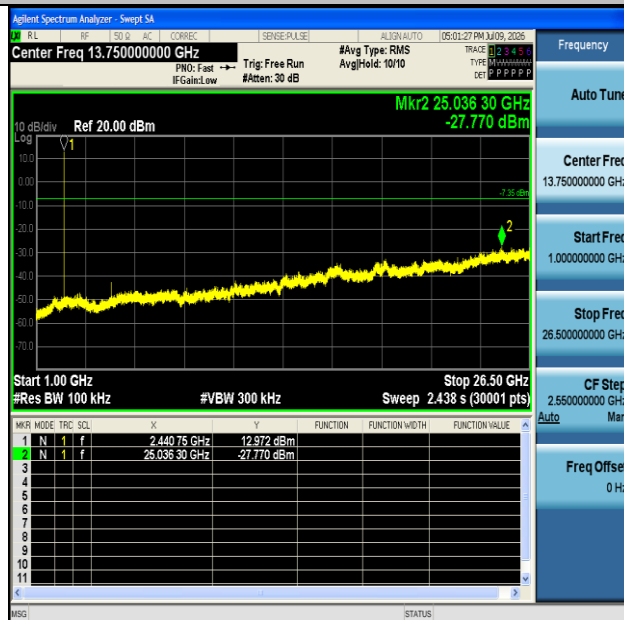


DH5-Ant1-2441-0~Reference-PASS



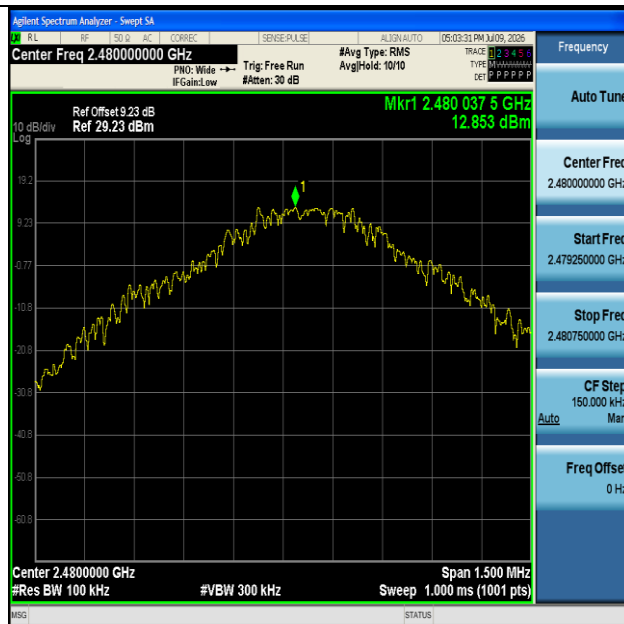


DH5-Ant1-2441-30~1000-PASS

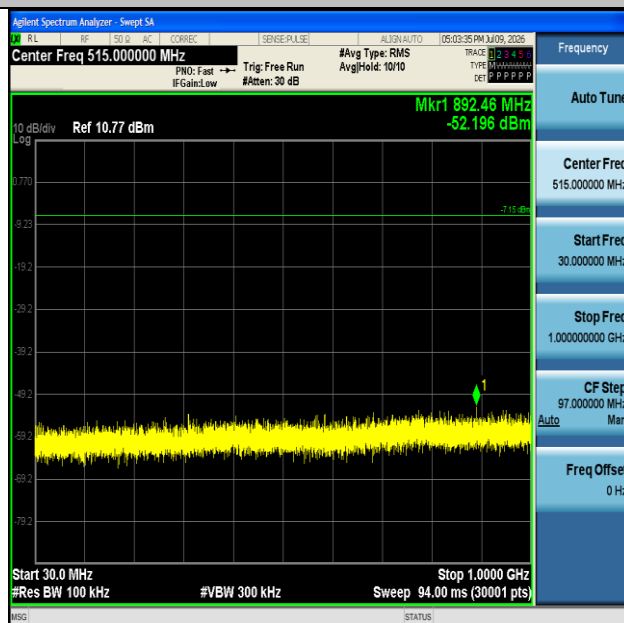


DH5-Ant1-2441-1000~26500-PASS



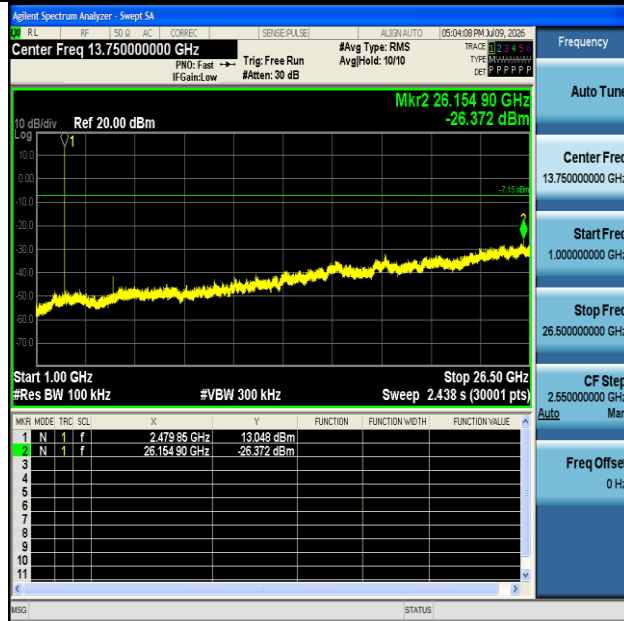


DH5-Ant1-2480-0~Reference-PASS



DH5-Ant1-2480-30~1000-PASS



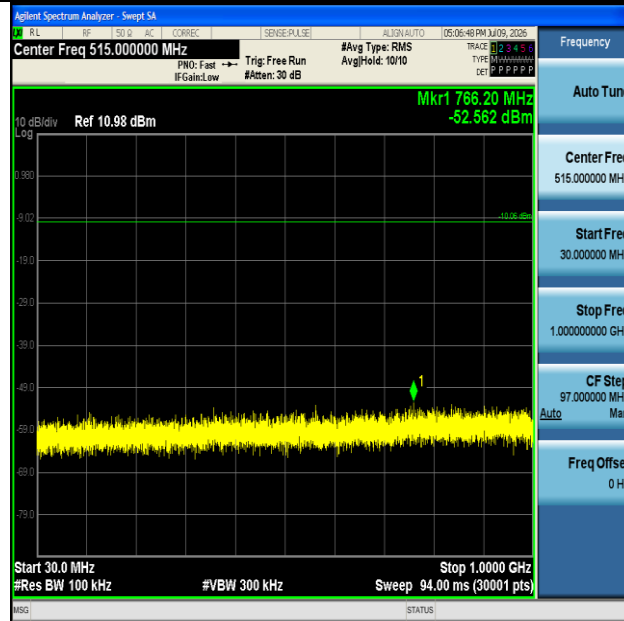


DH5-Ant1-2480-1000~26500-PASS



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



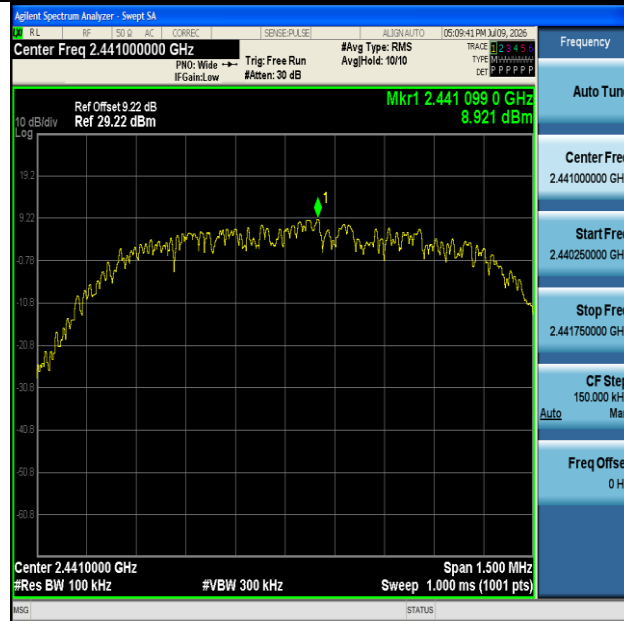


2DH5-Ant1-2402-30~1000-PASS

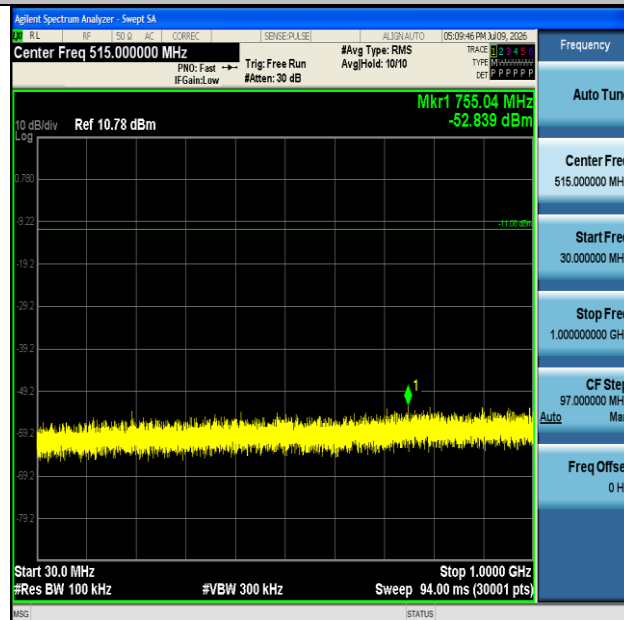


2DH5-Ant1-2402-1000~26500-PASS



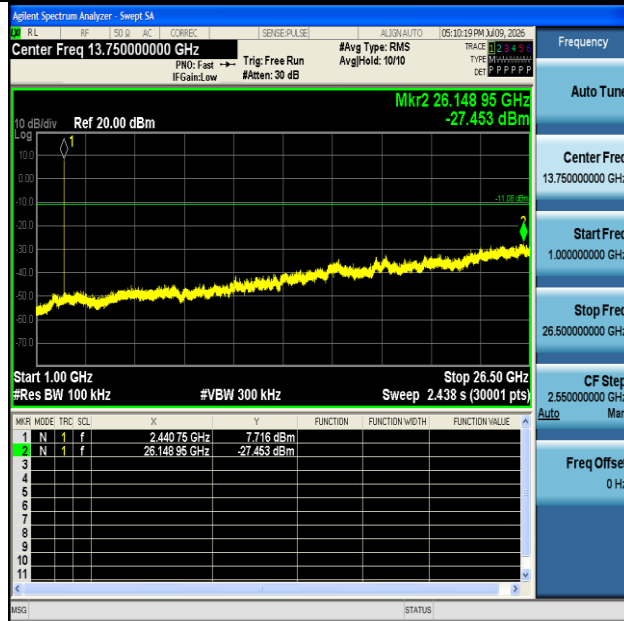


2DH5-Ant1-2441-0~Reference-PASS



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



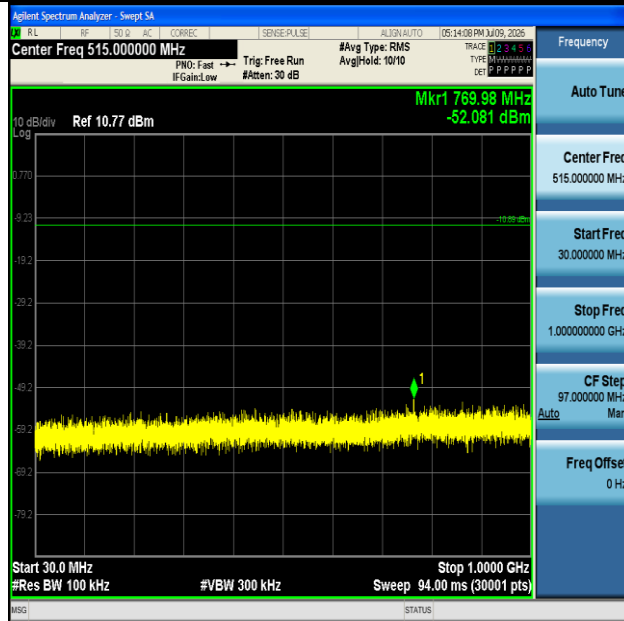


2DH5-Ant1-2441-1000~26500-PASS

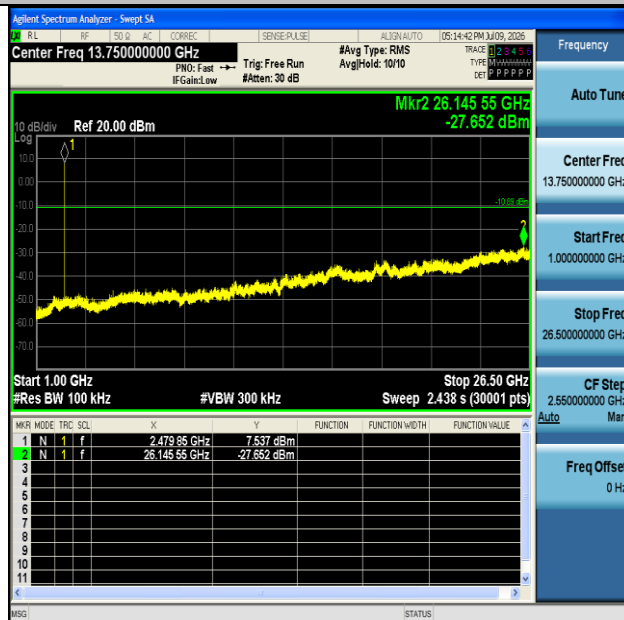


2DH5-Ant1-2480-0~Reference-PASS



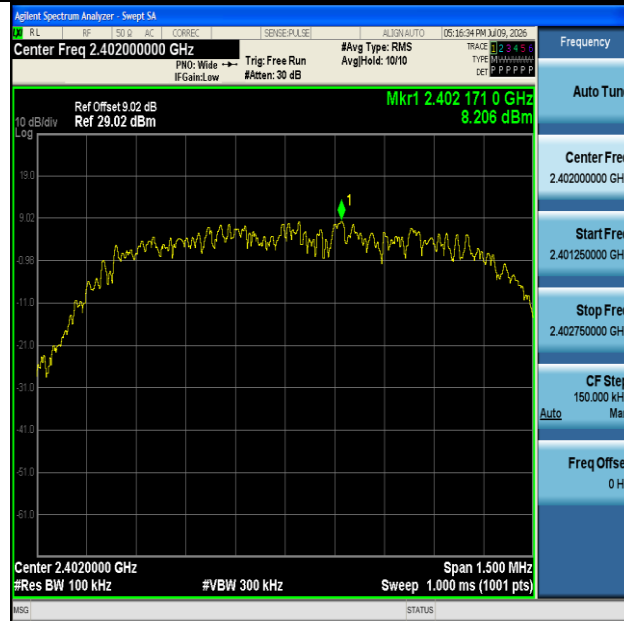


2DH5-Ant1-2480-30~1000-PASS

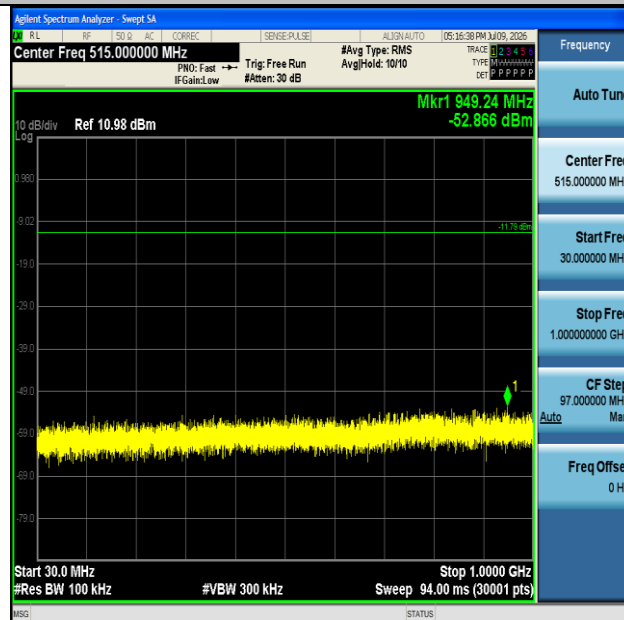


2DH5-Ant1-2480-1000~26500-PASS



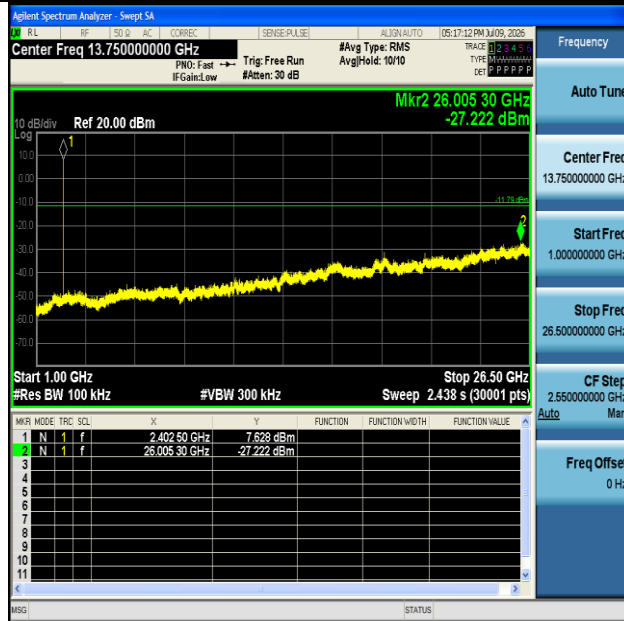


3DH5-Ant1-2402-0~Reference-PASS

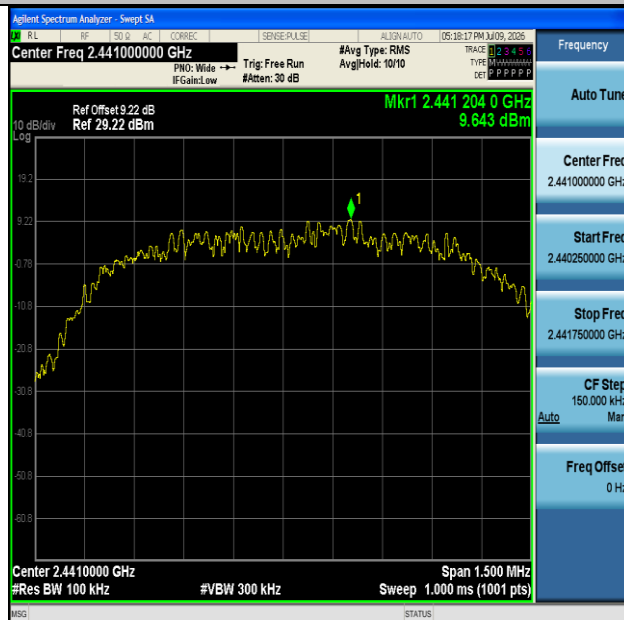


3DH5-Ant1-2402-30~1000-PASS



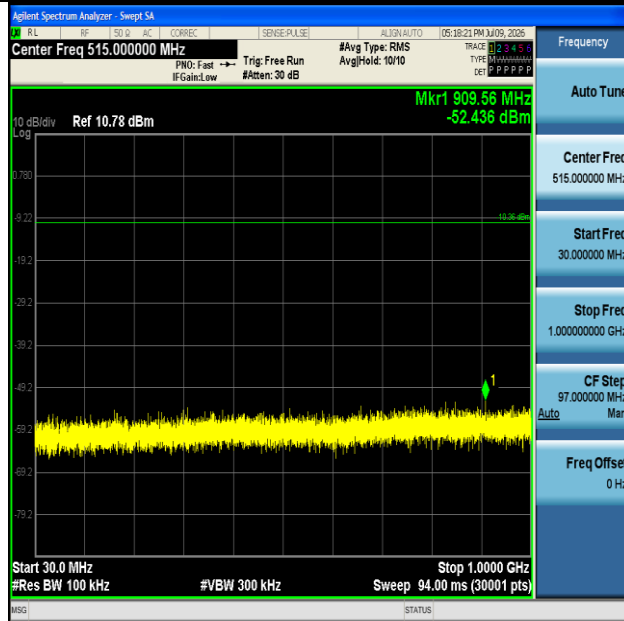


3DH5-Ant1-2402-1000~26500-PASS

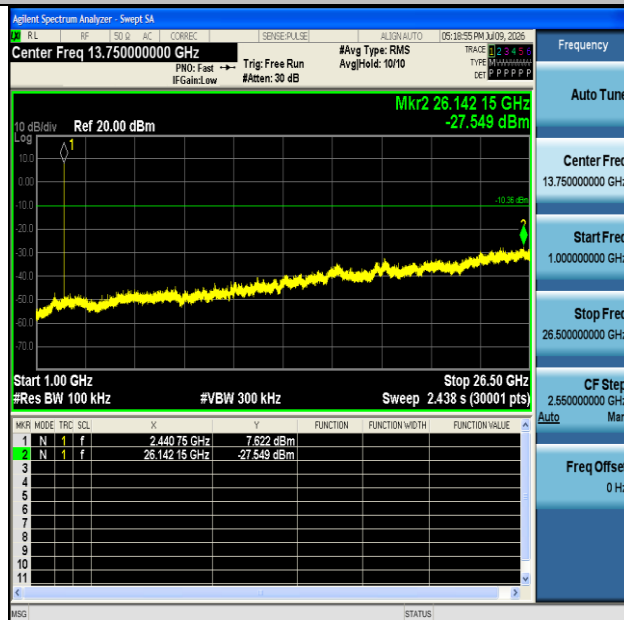


3DH5-Ant1-2441-0~Reference-PASS



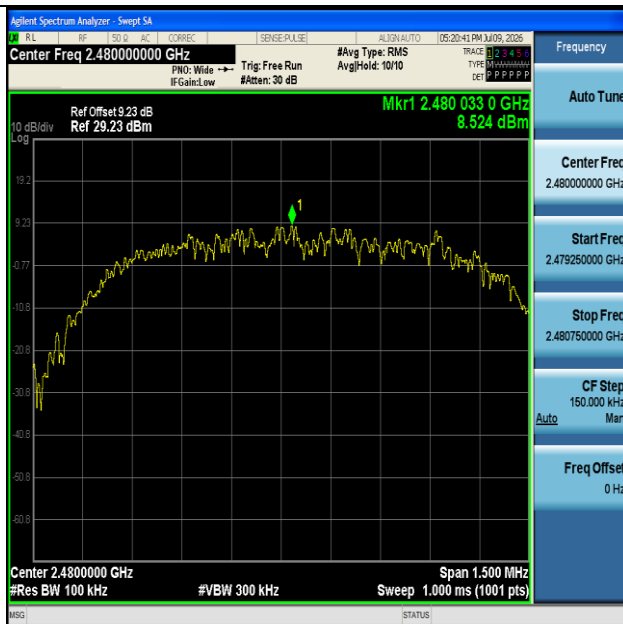


3DH5-Ant1-2441-30~1000-PASS

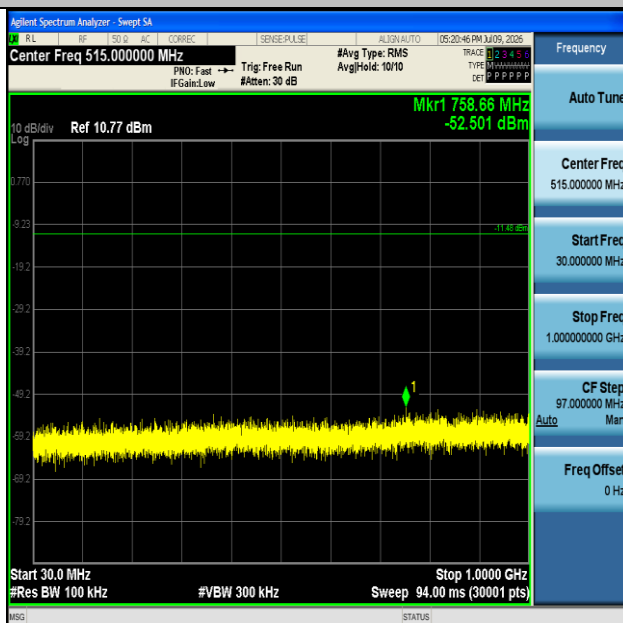


3DH5-Ant1-2441-1000~26500-PASS



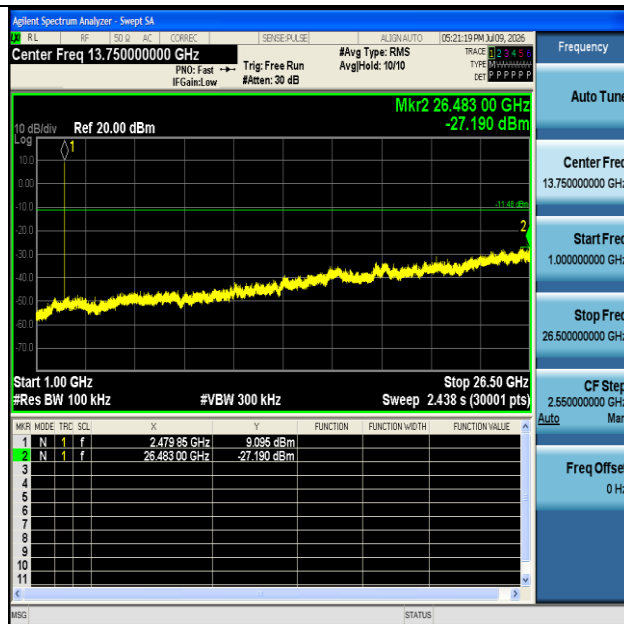


3DH5-Ant1-2480-0~Reference-PASS



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





3DH5-Ant1-2480-1000~26500-PASS





Appendix I: Duty Cycle

Test Result

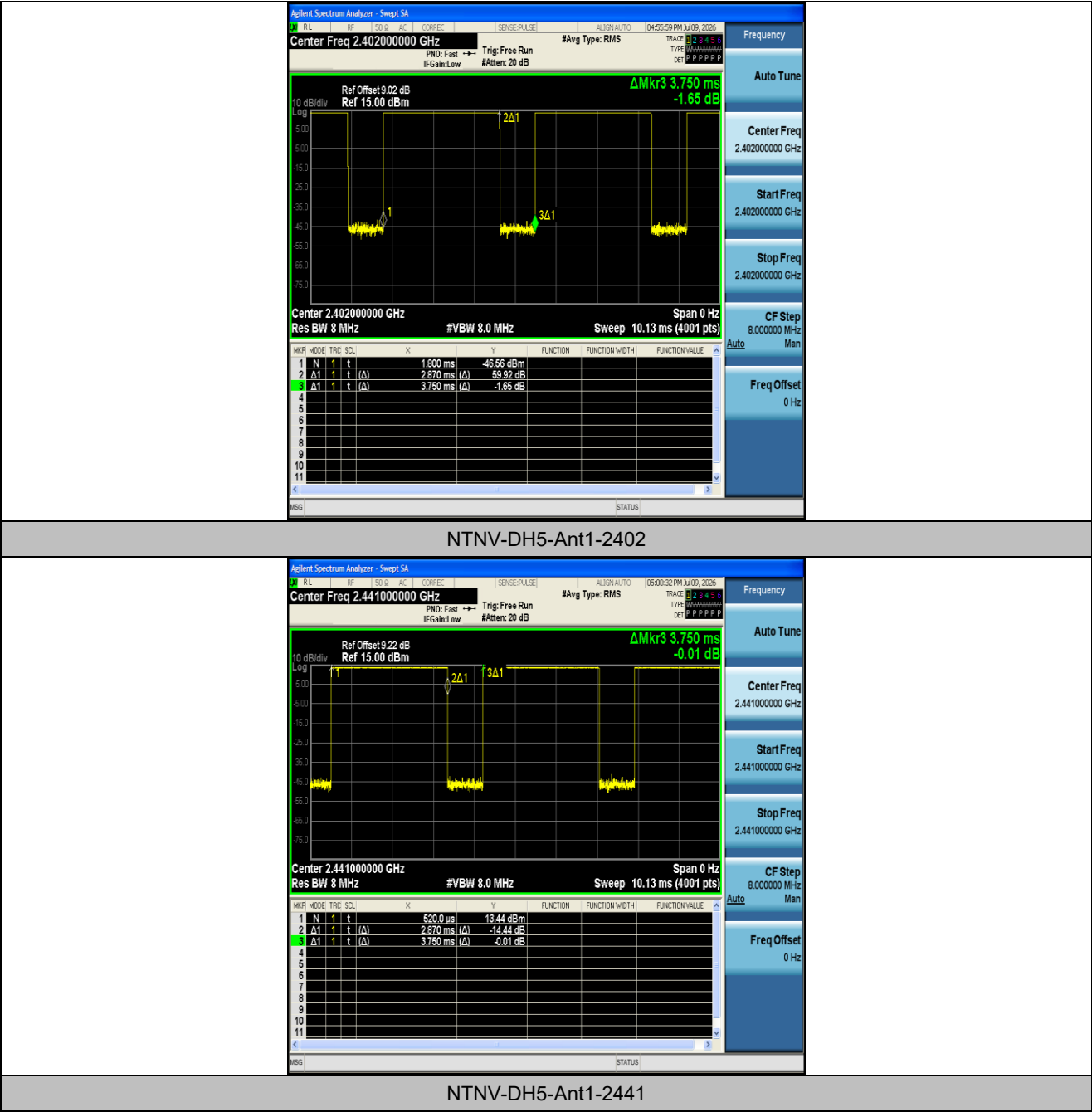
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	2.87	3.75	76.53	1.16
DH5	Ant1	2441	2.87	3.75	76.53	1.16
DH5	Ant1	2480	2.87	3.75	76.53	1.16
2DH5	Ant1	2402	2.88	3.75	76.80	1.15
2DH5	Ant1	2441	2.88	3.75	76.80	1.15
2DH5	Ant1	2480	2.88	3.75	76.80	1.15
3DH5	Ant1	2402	2.88	3.75	76.80	1.15
3DH5	Ant1	2441	2.89	3.76	76.86	1.14
3DH5	Ant1	2480	2.88	3.75	76.80	1.15

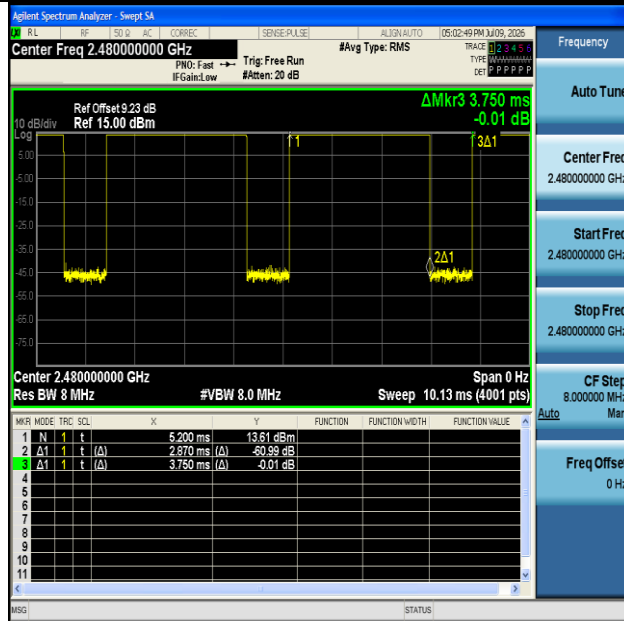
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



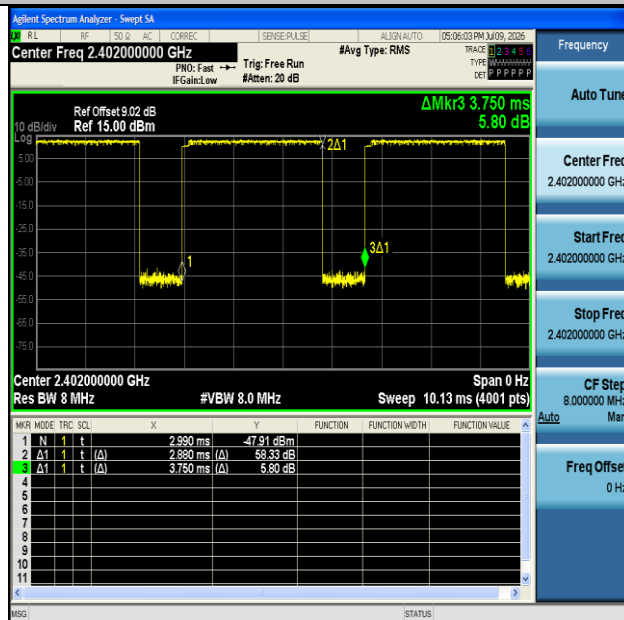


Test Graphs



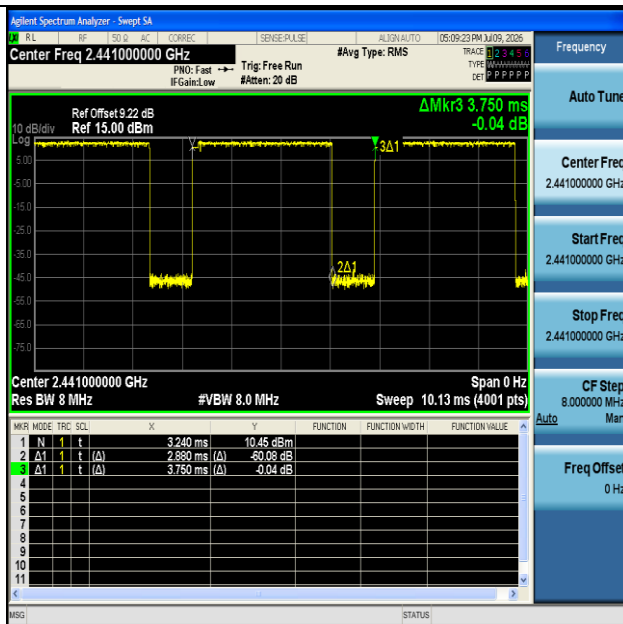


NTNV-DH5-Ant1-2480

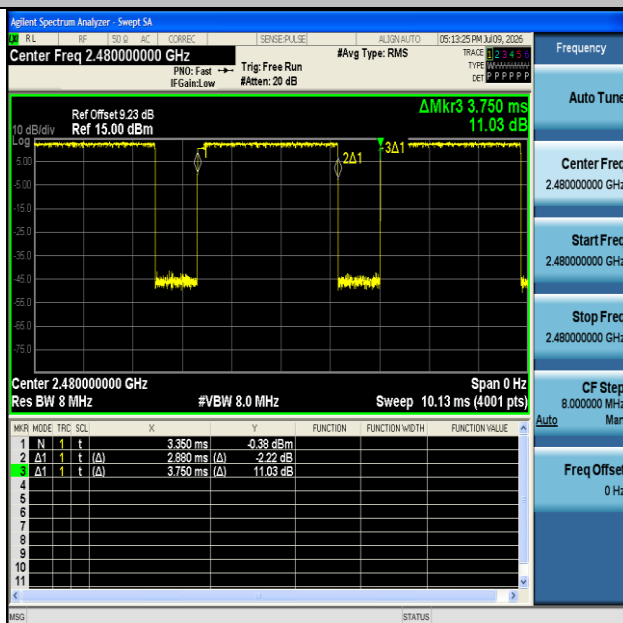


NTNV-2DH5-Ant1-2402



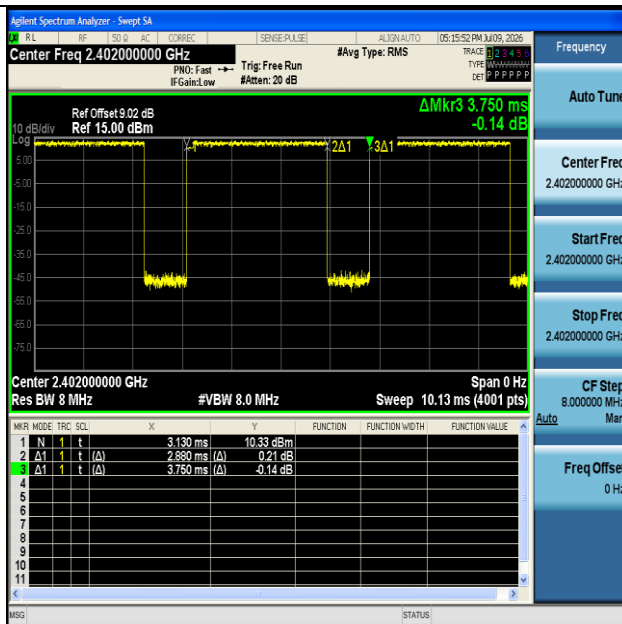


NTNV-2DH5-Ant1-2441

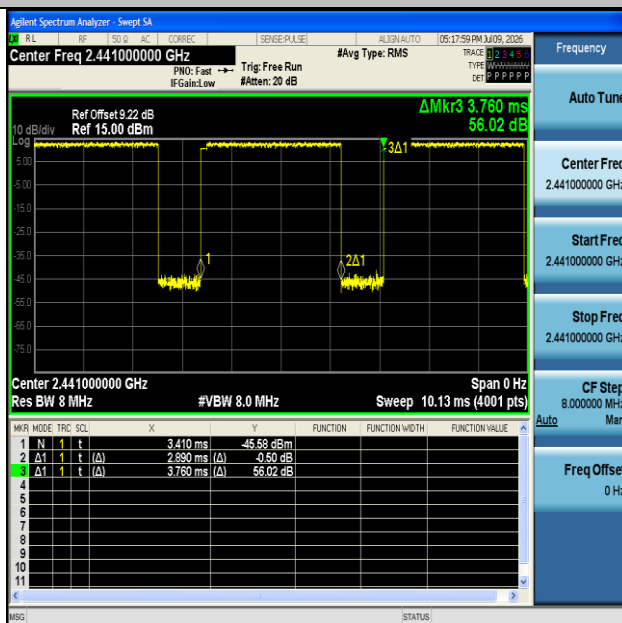


NTNV-2DH5-Ant1-2480



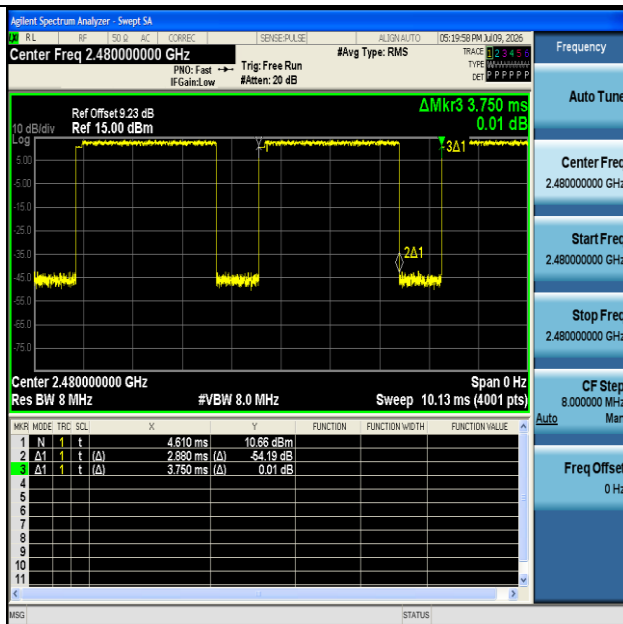


NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441





NTNV-3DH5-Ant1-2480

