



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

Product Name: Wireless Car Adapter

Trade Mark: *acer*

Test Model: TC03A

FCC ID: 2A2P5-TC03A

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	0.951	2401.517	2402.468	---	---
DH5	Ant1	2441	0.948	2440.514	2441.462	---	---
DH5	Ant1	2480	0.942	2479.520	2480.462	---	---
2DH5	Ant1	2402	1.341	2401.304	2402.645	---	---
2DH5	Ant1	2441	1.326	2440.310	2441.636	---	---
2DH5	Ant1	2480	1.341	2479.304	2480.645	---	---
3DH5	Ant1	2402	1.305	2401.328	2402.633	---	---
3DH5	Ant1	2441	1.323	2440.313	2441.636	---	---
3DH5	Ant1	2480	1.308	2479.331	2480.639	---	---

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





Test Graphs





DH5-Ant1-2480



2DH5-Ant1-2402





2DH5-Ant1-2441



2DH5-Ant1-2480



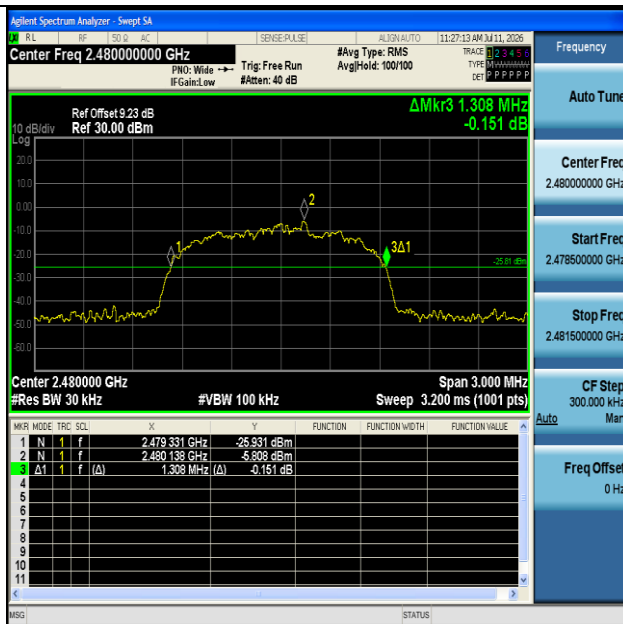


3DH5-Ant1-2402



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	0.85535	2401.5535	2402.4089	---	---
DH5	Ant1	2441	0.85046	2440.5527	2441.4032	---	---
DH5	Ant1	2480	0.86348	2479.5464	2480.4099	---	---
2DH5	Ant1	2402	1.1899	2401.3858	2402.5757	---	---
2DH5	Ant1	2441	1.1898	2440.3824	2441.5722	---	---
2DH5	Ant1	2480	1.1881	2479.3827	2480.5708	---	---
3DH5	Ant1	2402	1.2046	2401.3732	2402.5778	---	---
3DH5	Ant1	2441	1.2053	2440.3728	2441.5781	---	---
3DH5	Ant1	2480	1.1986	2479.3776	2480.5762	---	---

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



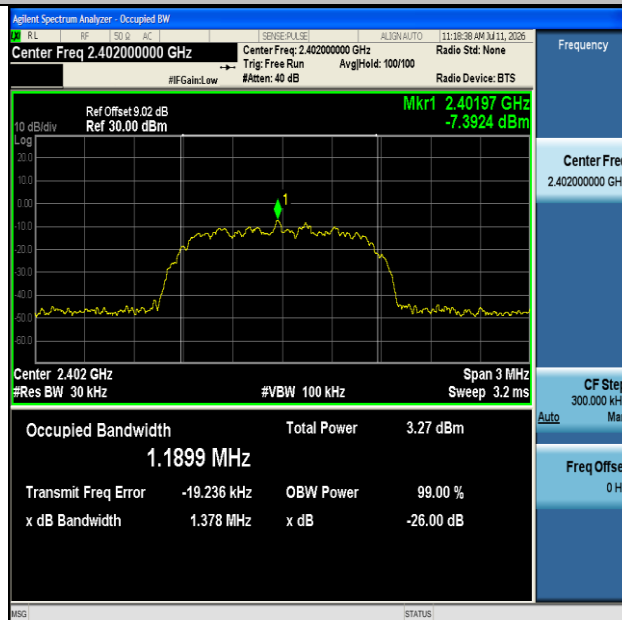


Test Graphs



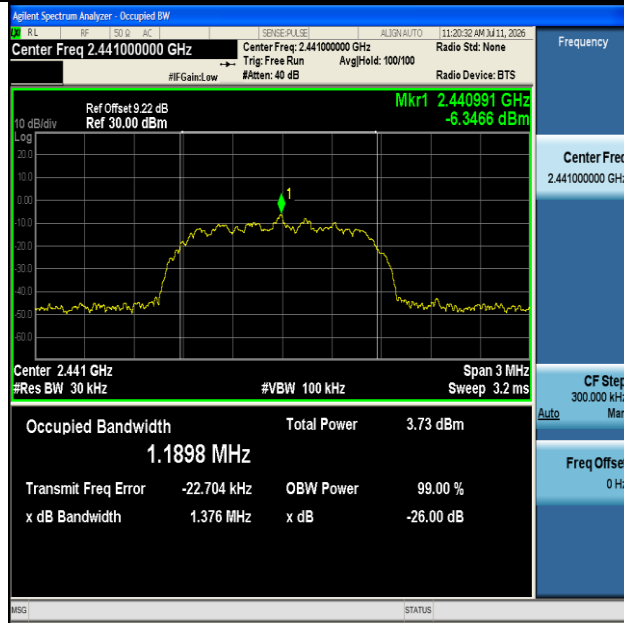


DH5-Ant1-2480

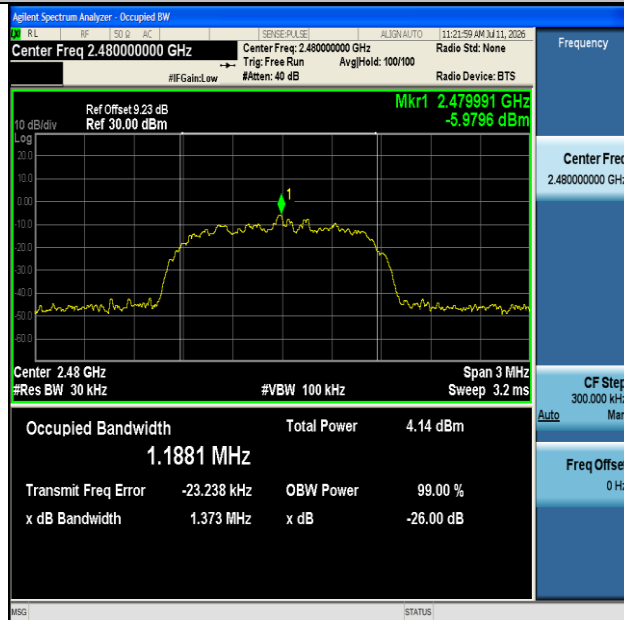


2DH5-Ant1-2402



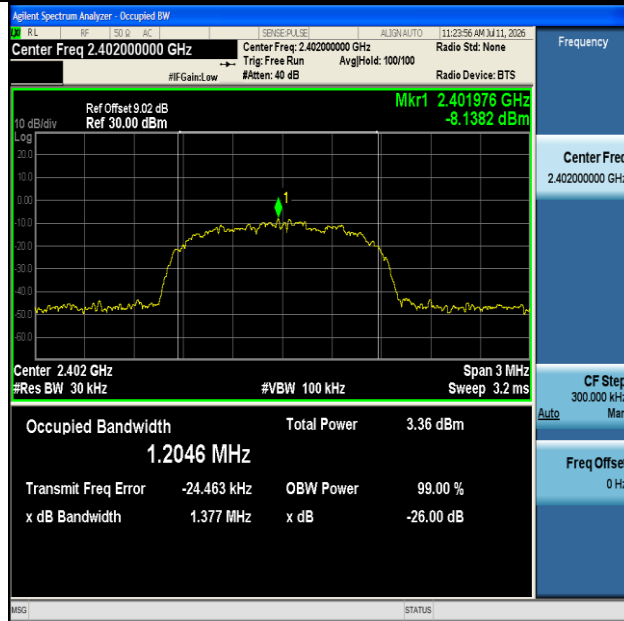


2DH5-Ant1-2441

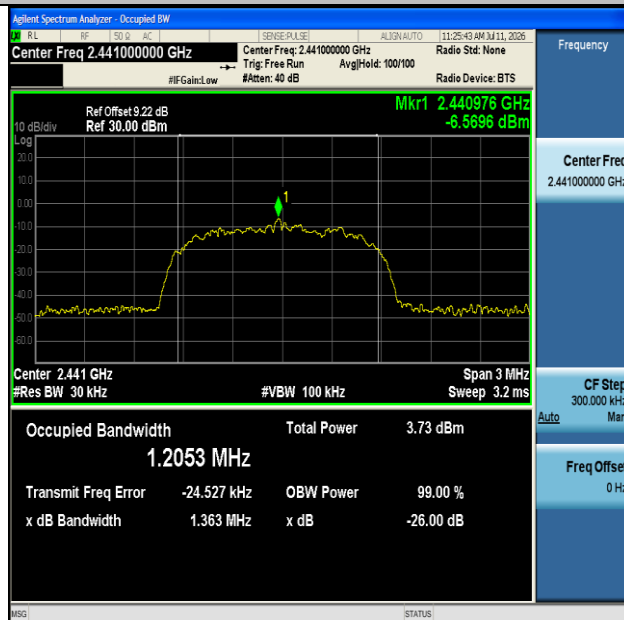


2DH5-Ant1-2480



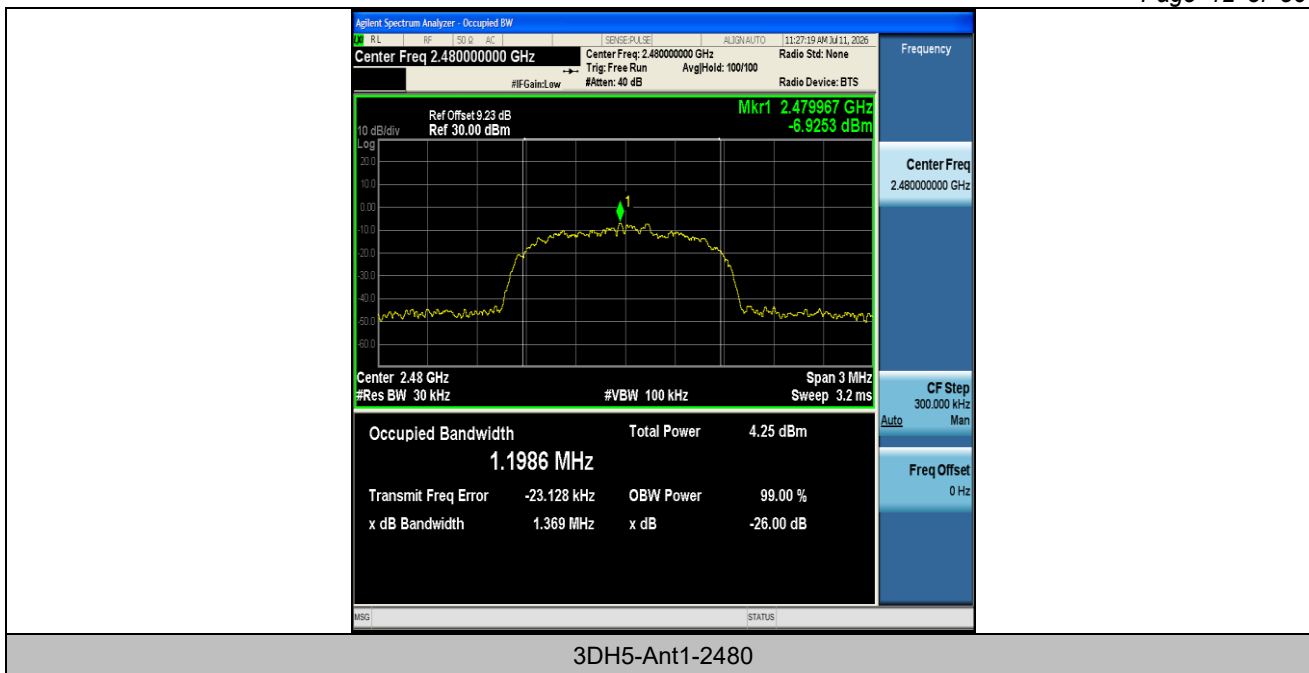


3DH5-Ant1-2402



3DH5-Ant1-2441







Appendix C: Maximum peak conducted output power

Test Result

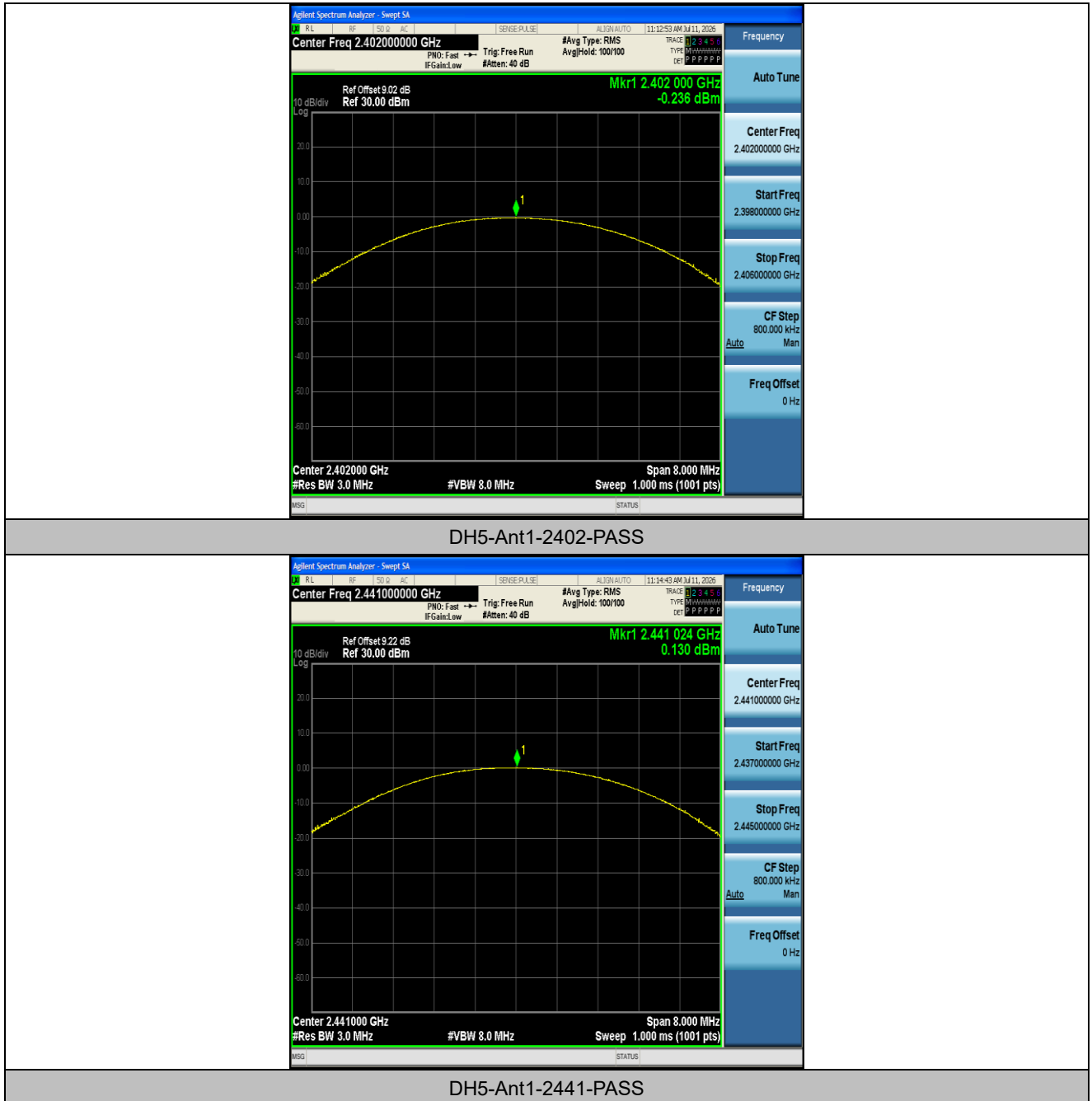
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	-0.24	≤30	PASS
DH5	Ant1	2441	0.13	≤30	PASS
DH5	Ant1	2480	0.43	≤30	PASS
2DH5	Ant1	2402	-0.69	≤20.97	PASS
2DH5	Ant1	2441	-0.37	≤20.97	PASS
2DH5	Ant1	2480	-0.08	≤20.97	PASS
3DH5	Ant1	2402	-0.55	≤20.97	PASS
3DH5	Ant1	2441	-0.20	≤20.97	PASS
3DH5	Ant1	2480	0.10	≤20.97	PASS

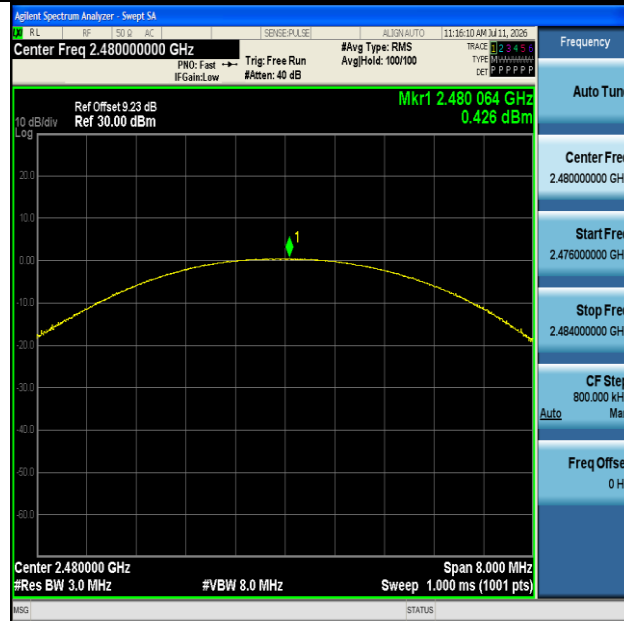
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



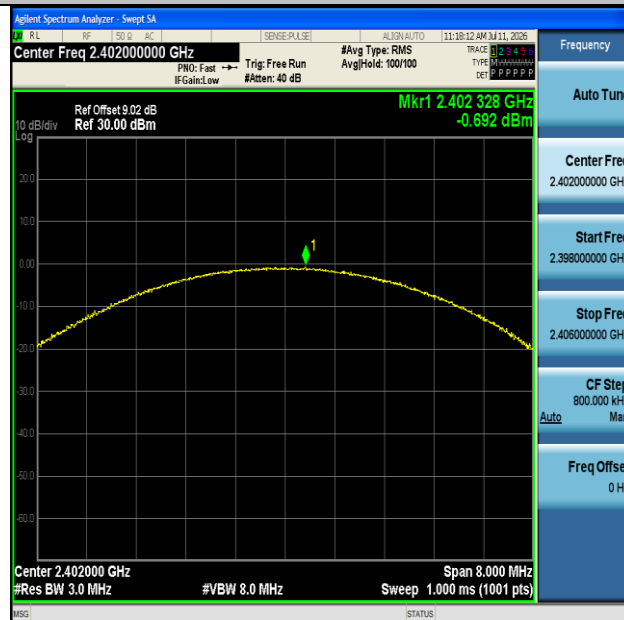


Test Graphs



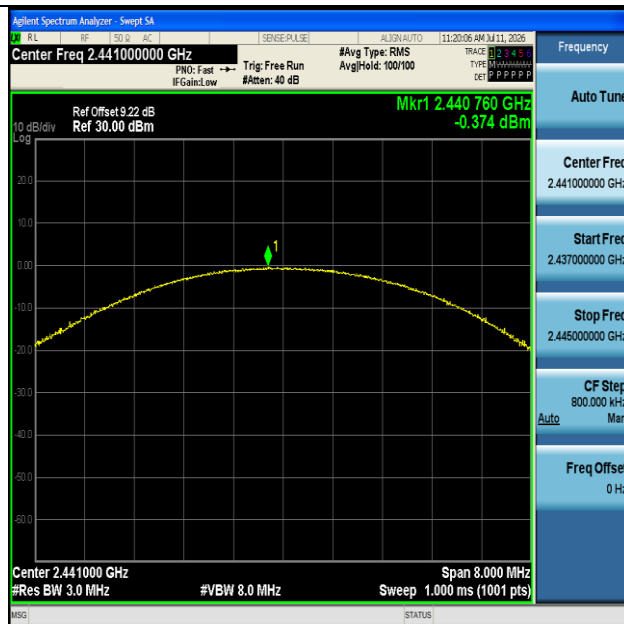


DH5-Ant1-2480-PASS

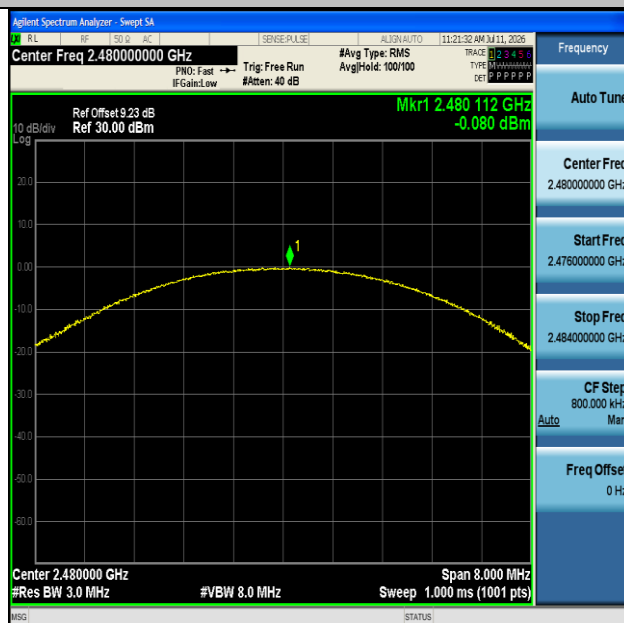


2DH5-Ant1-2402-PASS



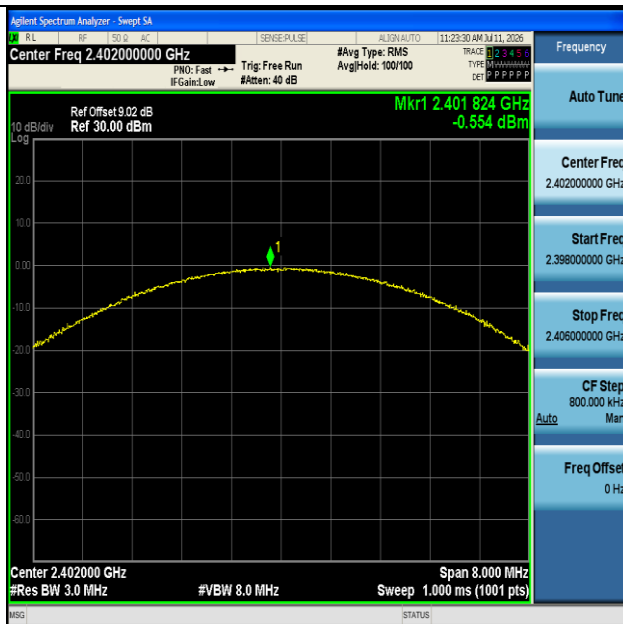


2D H5-Ant1-2441-PASS

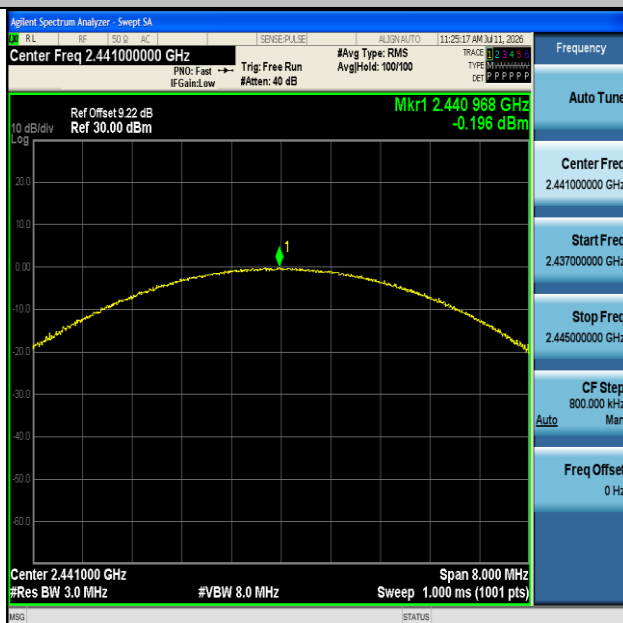


2D H5-Ant1-2480-PASS



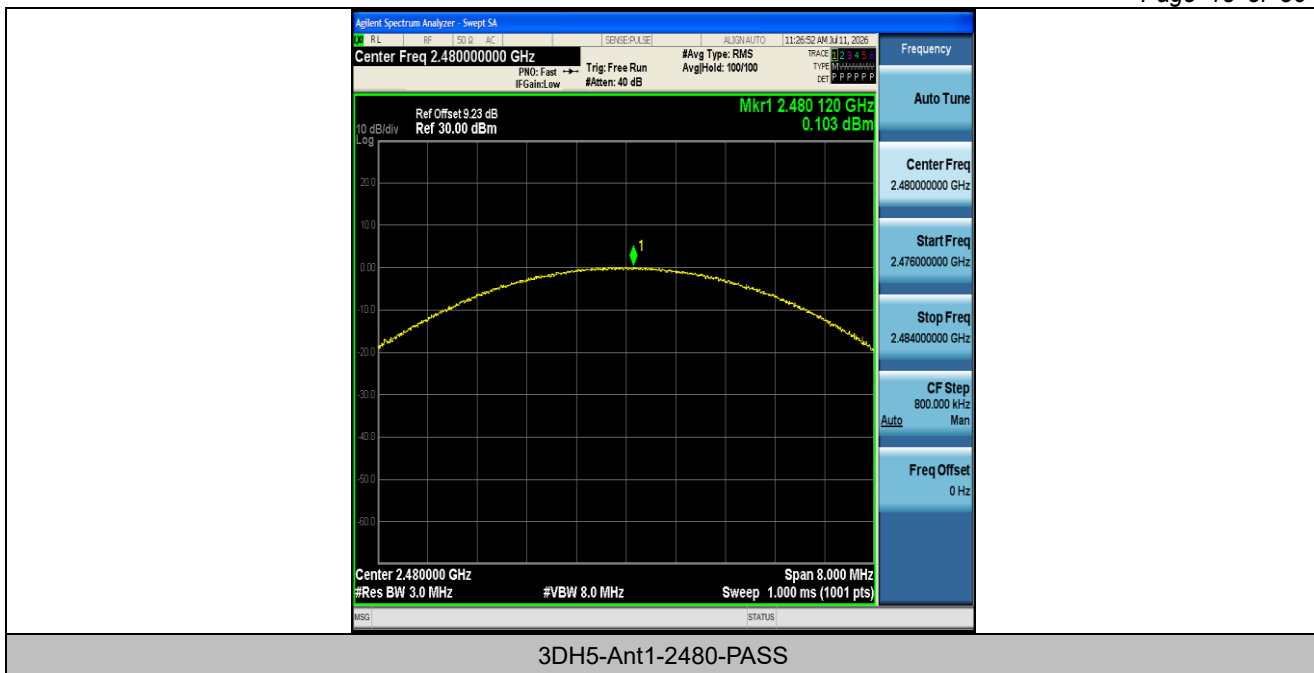


3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS







Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	1	≥0.951	PASS
2DH5	Ant1	Hop	0.988	≥0.894	PASS
3DH5	Ant1	Hop	0.978	≥0.882	PASS

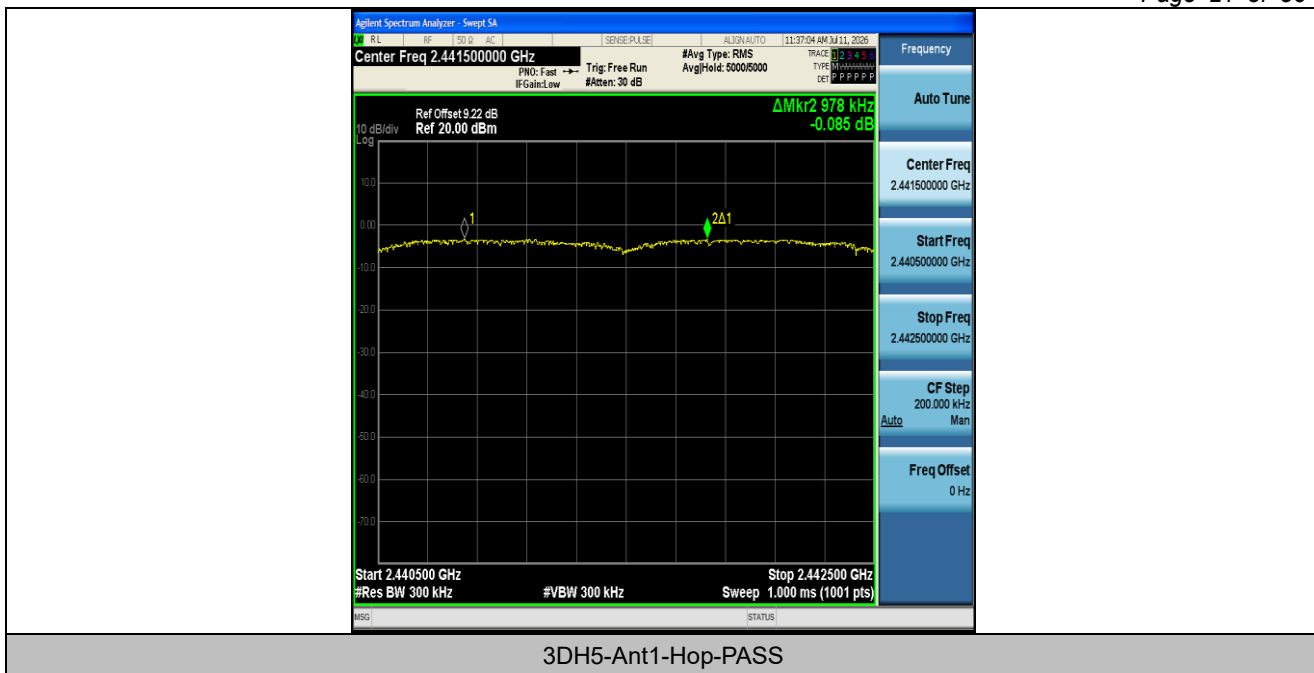
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix E: Time of occupancy

Test Result

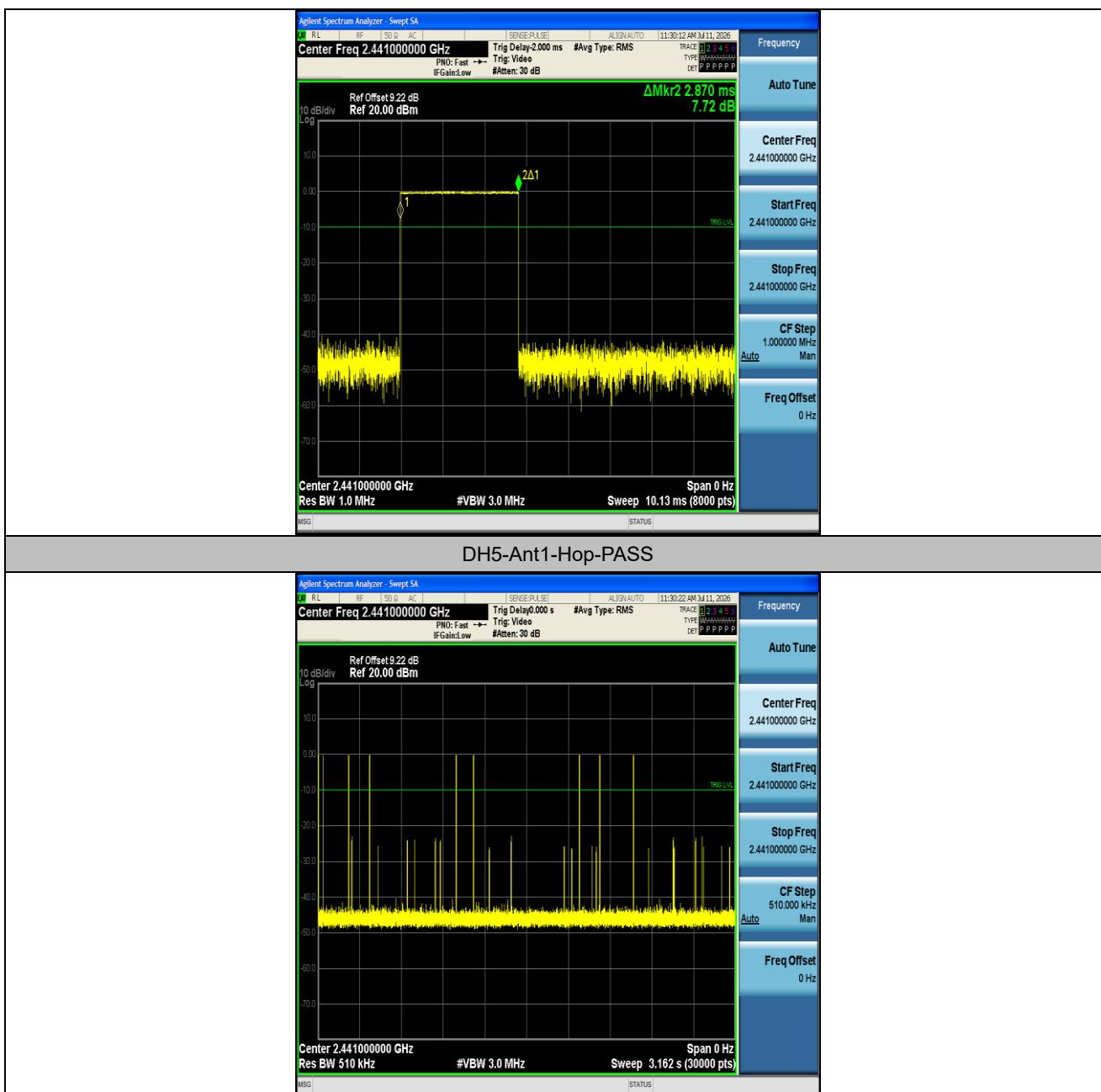
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.870	90	0.258	≤0.4	PASS
2DH5	Ant1	Hop	2.875	40	0.115	≤0.4	PASS
3DH5	Ant1	Hop	2.878	50	0.144	≤0.4	PASS

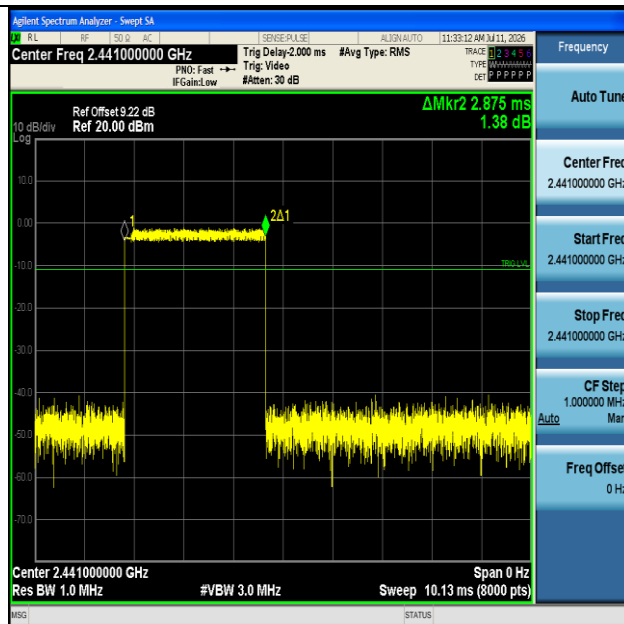
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



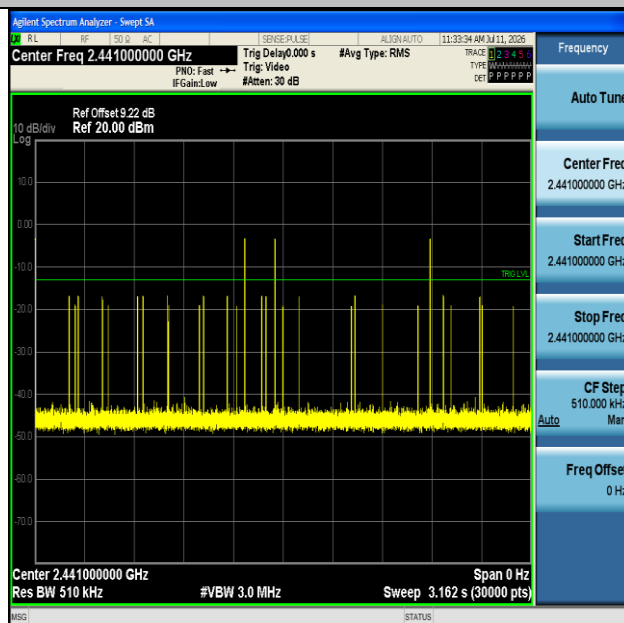


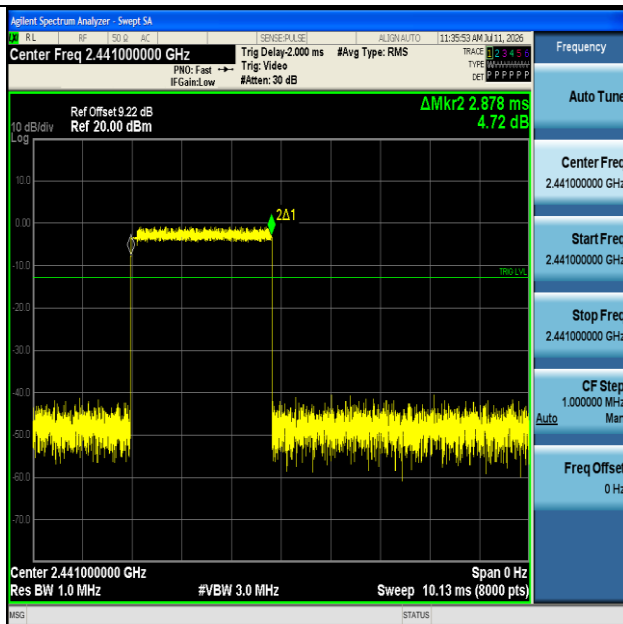
Test Graphs



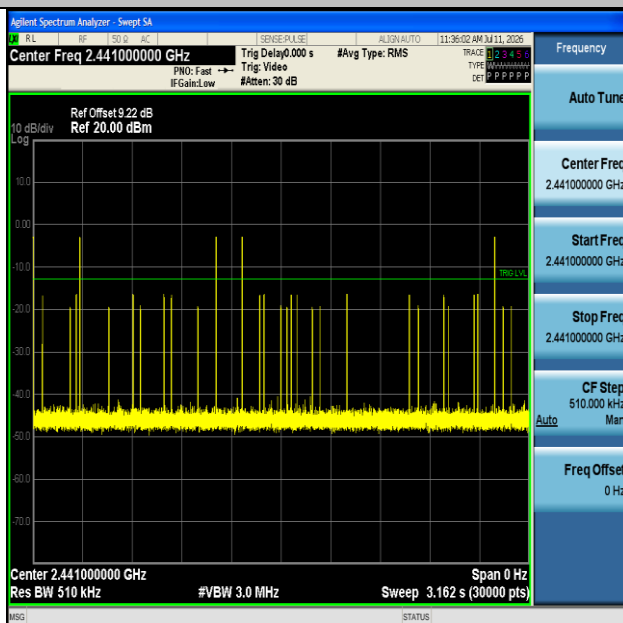


2DH5-Ant1-Hop-PASS





3DH5-Ant1-Hop-PASS





Appendix F: Number of hopping channels

Test Result

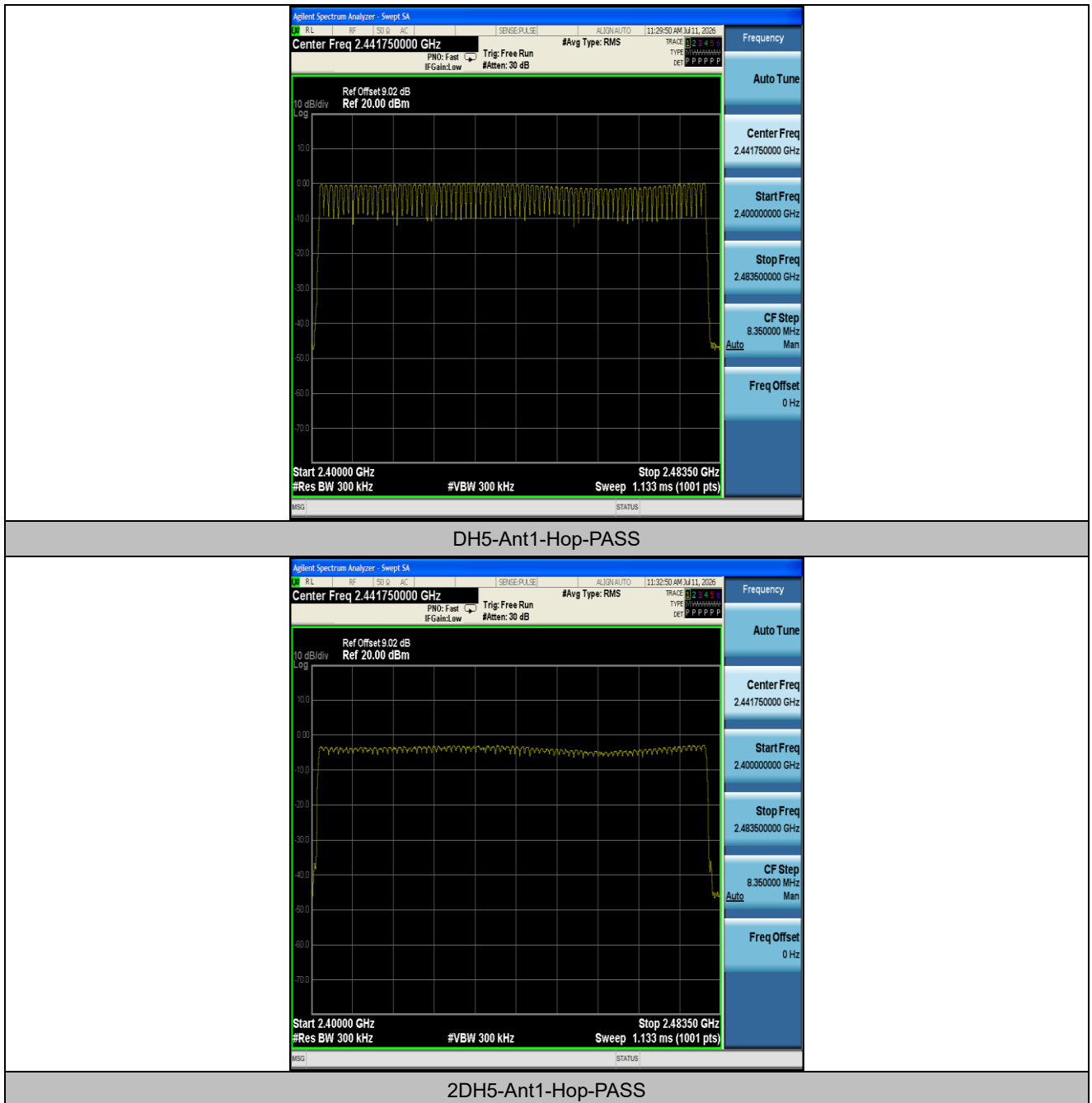
Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

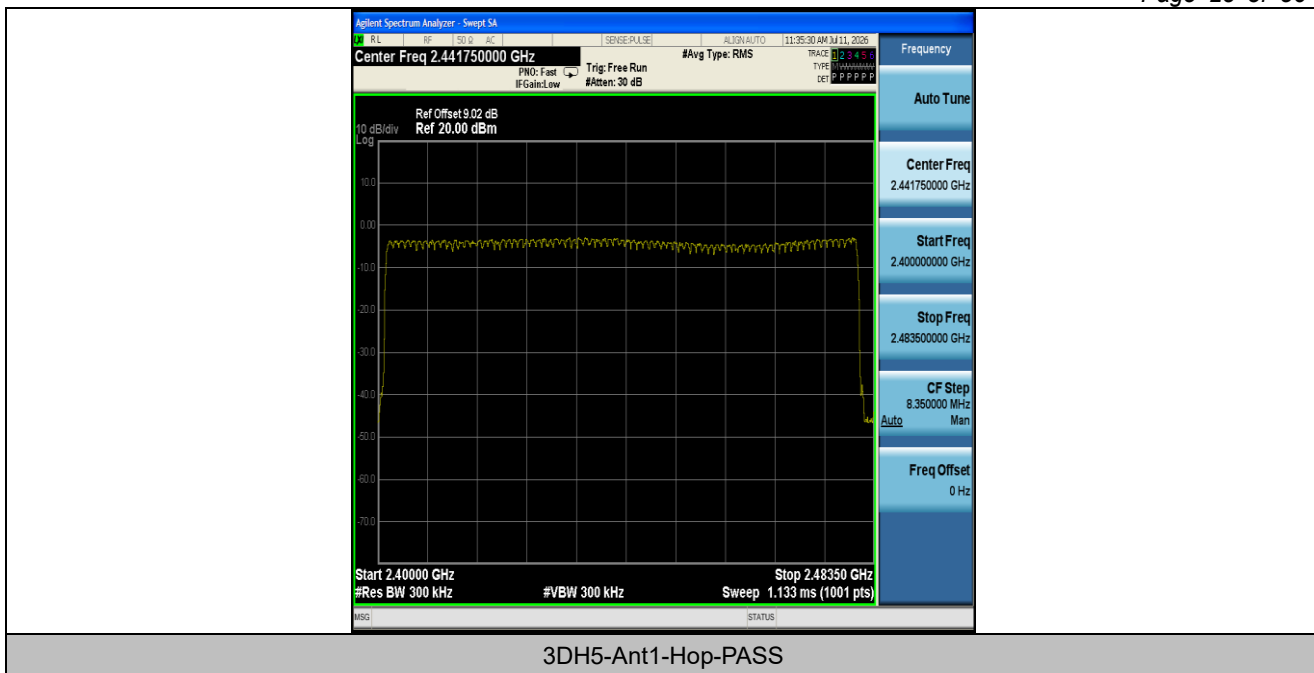
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix G: Band edge measurements

Test Result

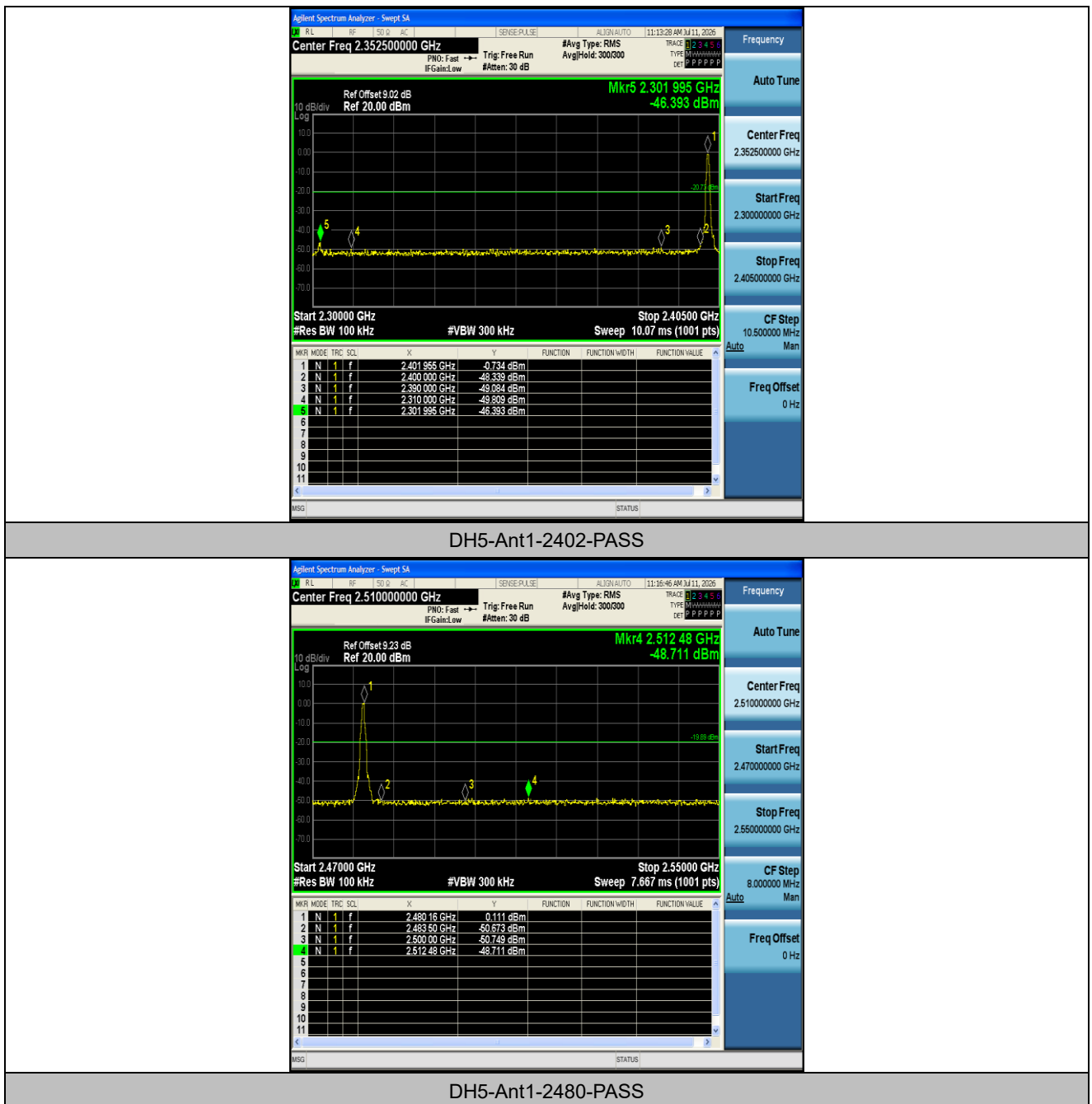
Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.73	-46.39	≤ -20.73	PASS
DH5	Ant1	High	2480	0.11	-48.71	≤ -19.89	PASS
DH5	Ant1	Low	Hop_2402	-1.30	-45.83	≤ -21.3	PASS
DH5	Ant1	High	Hop_2480	-0.04	-46.87	≤ -20.04	PASS
2DH5	Ant1	Low	2402	-4.03	-49.58	≤ -24.03	PASS
2DH5	Ant1	High	2480	-3.01	-47.67	≤ -23.01	PASS
2DH5	Ant1	Low	Hop_2402	-5.45	-48.81	≤ -25.45	PASS
2DH5	Ant1	High	Hop_2480	-3.80	-46.14	≤ -23.8	PASS
3DH5	Ant1	Low	2402	-4.24	-48.81	≤ -24.24	PASS
3DH5	Ant1	High	2480	-4.57	-48.55	≤ -24.57	PASS
3DH5	Ant1	Low	Hop_2402	-4.10	-48.61	≤ -24.1	PASS
3DH5	Ant1	High	Hop_2480	-4.88	-46.39	≤ -24.88	PASS

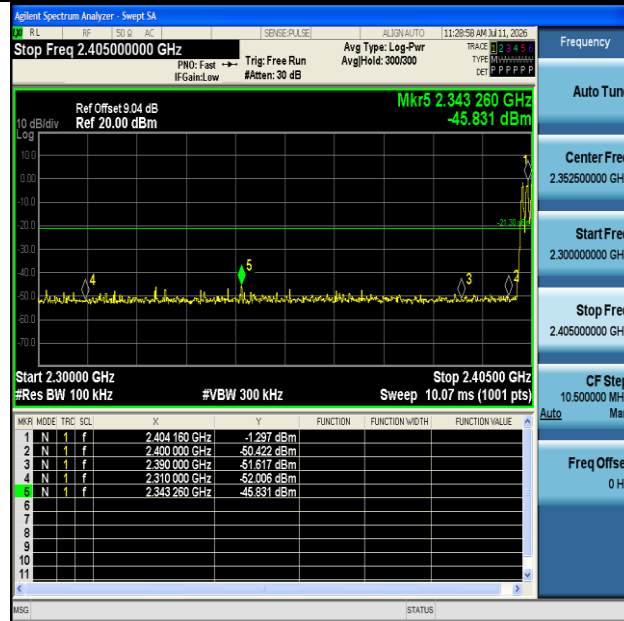
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



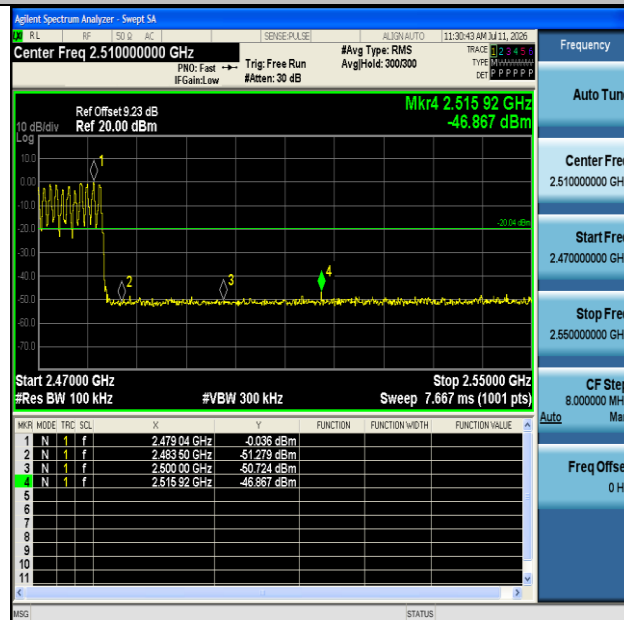


Test Graphs



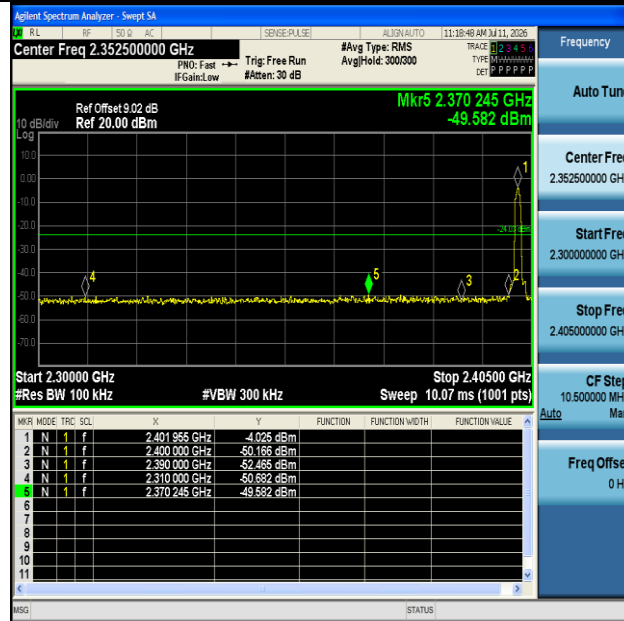


DH5-Ant1-Hop_2402-PASS

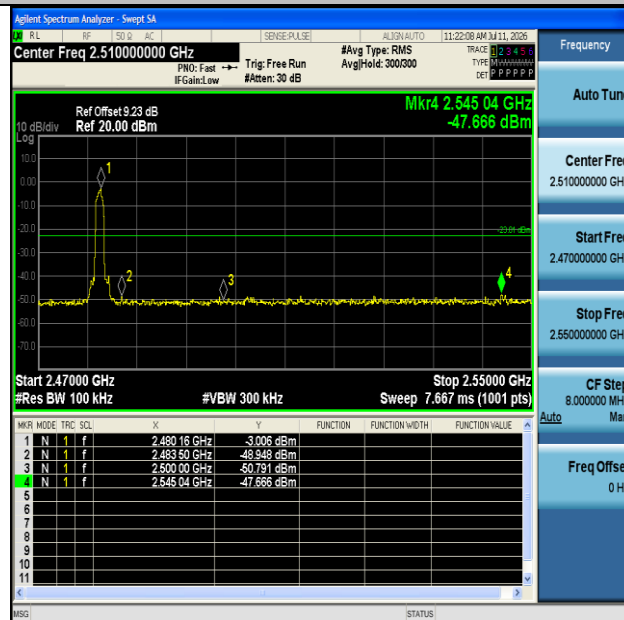


DH5-Ant1-Hop_2480-PASS



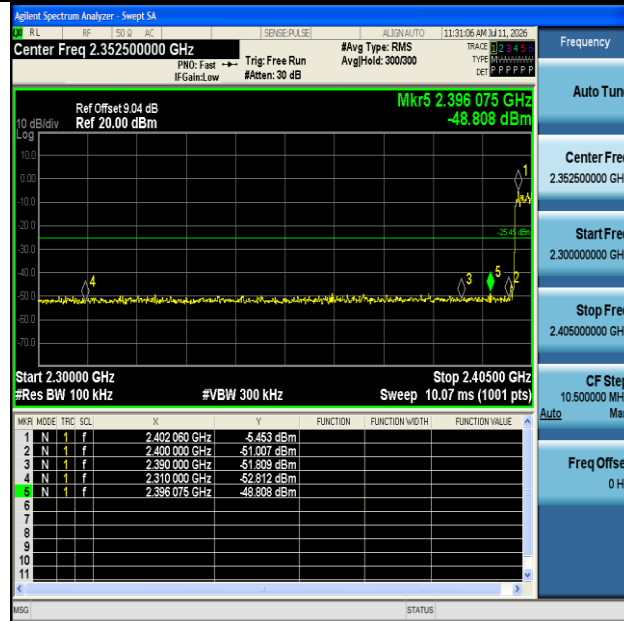


2DH5-Ant1-2402-PASS

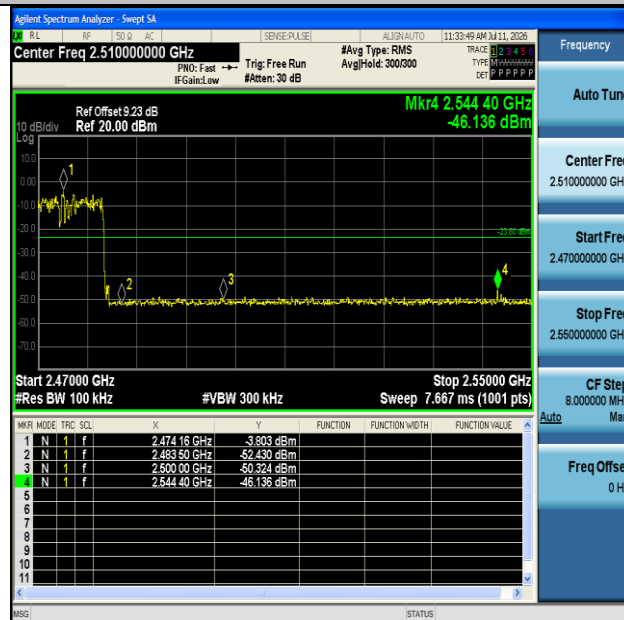


2DH5-Ant1-2480-PASS



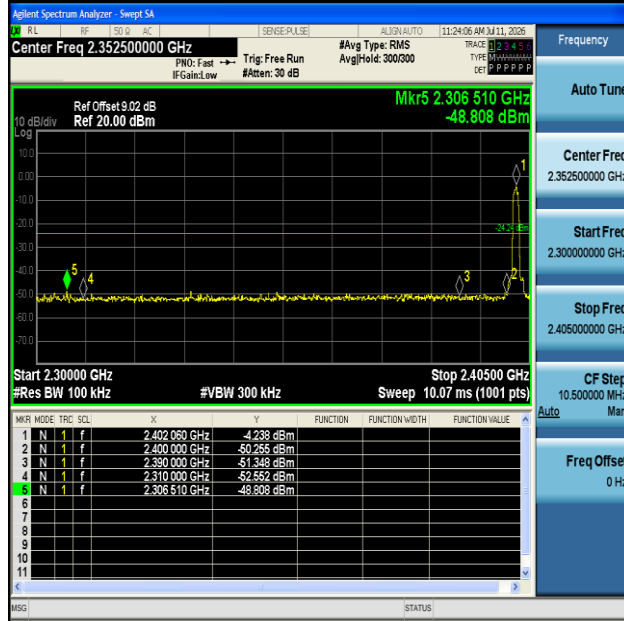


2DH5-Ant1-Hop_2402-PASS

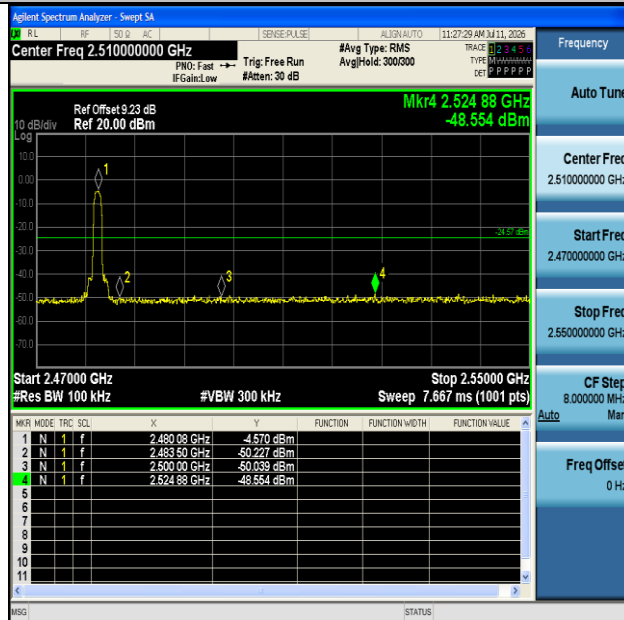


2DH5-Ant1-Hop_2480-PASS



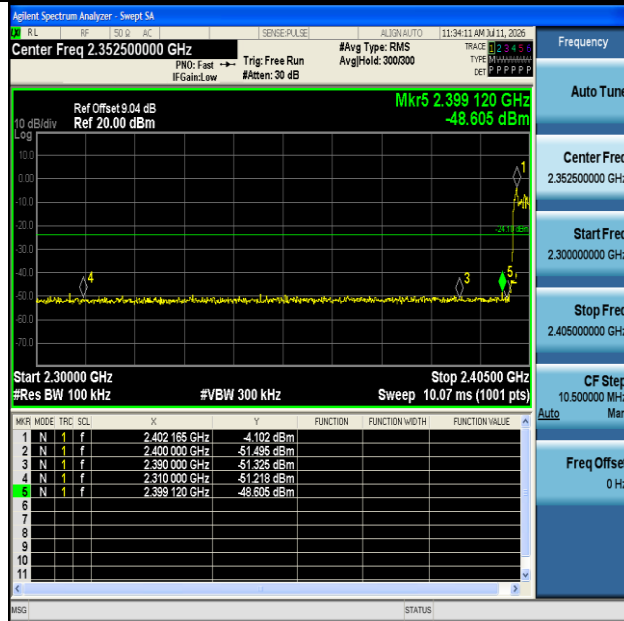


3DH5-Ant1-2402-PASS

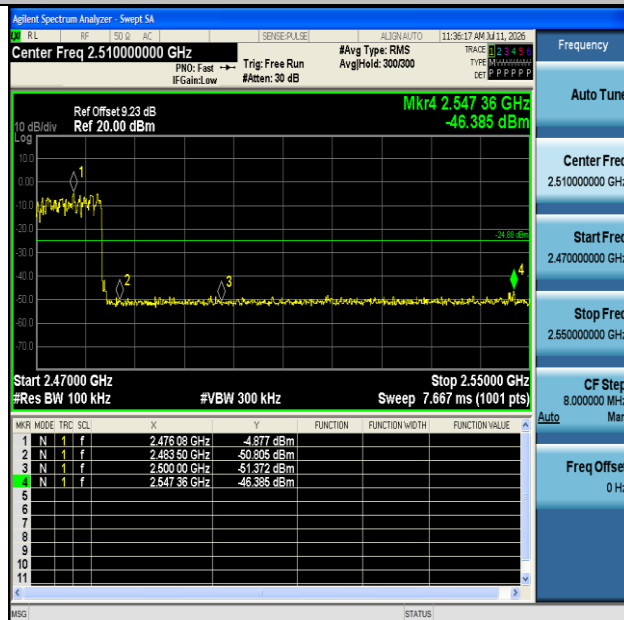


3DH5-Ant1-2480-PASS





3DH5-Ant1-Hop_2402-PASS



3DH5-Ant1-Hop_2480-PASS





Appendix H: Conducted Spurious Emission

Test Result

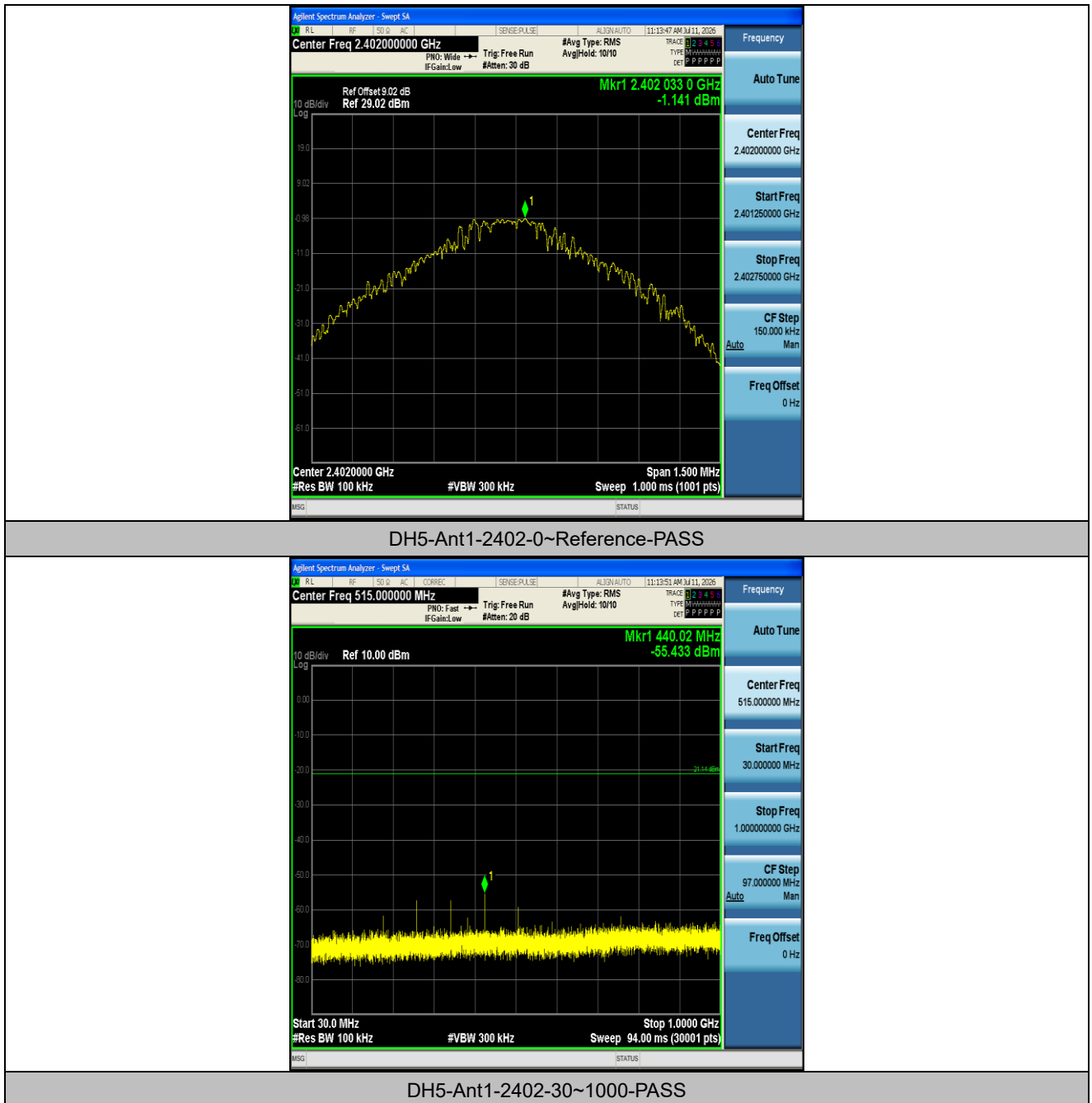
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-1.14	-1.14	---	PASS
DH5	Ant1	2402	30~1000	-1.14	-55.43	≤-21.14	PASS
DH5	Ant1	2402	1000~26500	-1.14	-37.27	≤-21.14	PASS
DH5	Ant1	2441	0~Reference	-0.86	-0.86	---	PASS
DH5	Ant1	2441	30~1000	-0.86	-55.39	≤-20.86	PASS
DH5	Ant1	2441	1000~26500	-0.86	-37.2	≤-20.86	PASS
DH5	Ant1	2480	0~Reference	-0.63	-0.63	---	PASS
DH5	Ant1	2480	30~1000	-0.63	-56.13	≤-20.63	PASS
DH5	Ant1	2480	1000~26500	-0.63	-38.11	≤-20.63	PASS
2DH5	Ant1	2402	0~Reference	-5.26	-5.26	---	PASS
2DH5	Ant1	2402	30~1000	-5.26	-55.4	≤-25.26	PASS
2DH5	Ant1	2402	1000~26500	-5.26	-37.81	≤-25.26	PASS
2DH5	Ant1	2441	0~Reference	-4.62	-4.62	---	PASS
2DH5	Ant1	2441	30~1000	-4.62	-55.29	≤-24.62	PASS
2DH5	Ant1	2441	1000~26500	-4.62	-36.83	≤-24.62	PASS
2DH5	Ant1	2480	0~Reference	-4.23	-4.23	---	PASS
2DH5	Ant1	2480	30~1000	-4.23	-55.59	≤-24.23	PASS
2DH5	Ant1	2480	1000~26500	-4.23	-37.37	≤-24.23	PASS
3DH5	Ant1	2402	0~Reference	-5.90	-5.90	---	PASS
3DH5	Ant1	2402	30~1000	-5.90	-55.22	≤-25.9	PASS
3DH5	Ant1	2402	1000~26500	-5.90	-37.25	≤-25.9	PASS
3DH5	Ant1	2441	0~Reference	-4.94	-4.94	---	PASS
3DH5	Ant1	2441	30~1000	-4.94	-55.1	≤-24.94	PASS
3DH5	Ant1	2441	1000~26500	-4.94	-37.2	≤-24.94	PASS
3DH5	Ant1	2480	0~Reference	-5.30	-5.30	---	PASS
3DH5	Ant1	2480	30~1000	-5.30	-55.34	≤-25.3	PASS
3DH5	Ant1	2480	1000~26500	-5.30	-36.6	≤-25.3	PASS

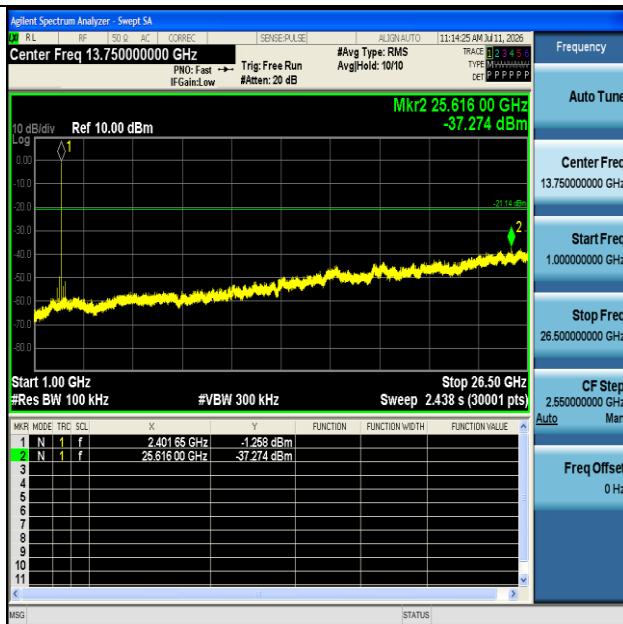
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.



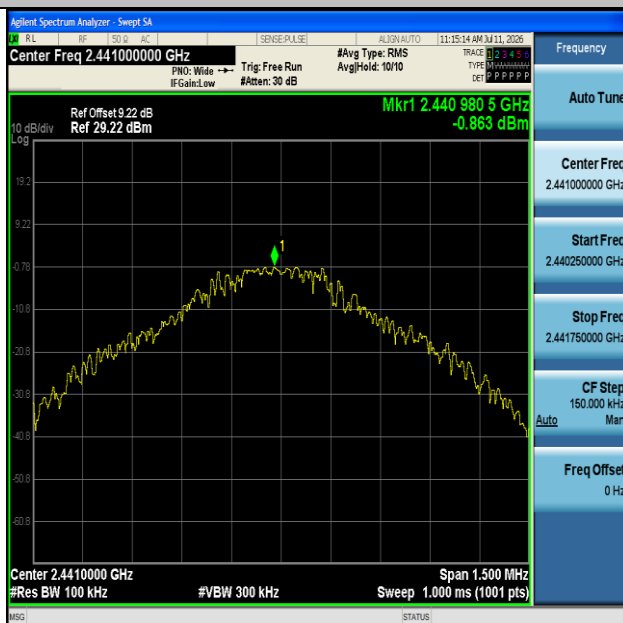


Test Graphs



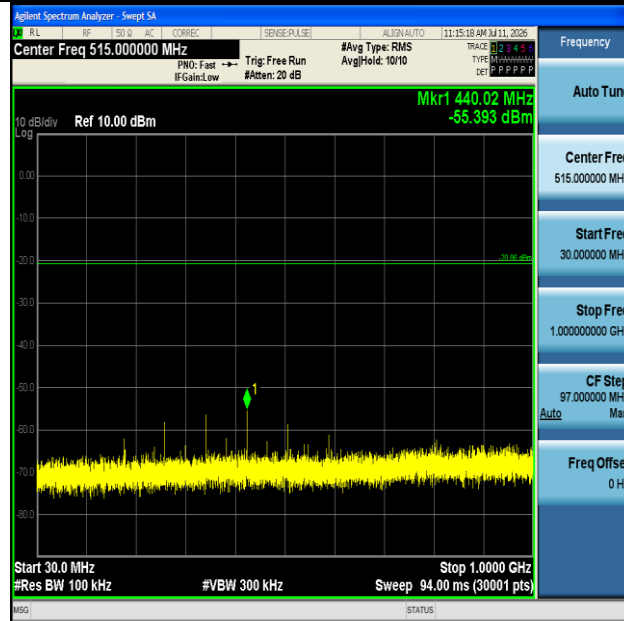


DH5-Ant1-2402-1000~26500-PASS

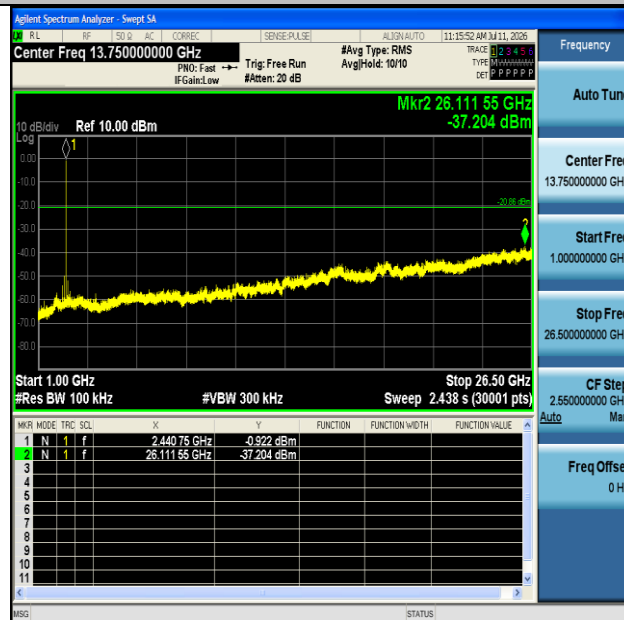


DH5-Ant1-2441-0~Reference-PASS



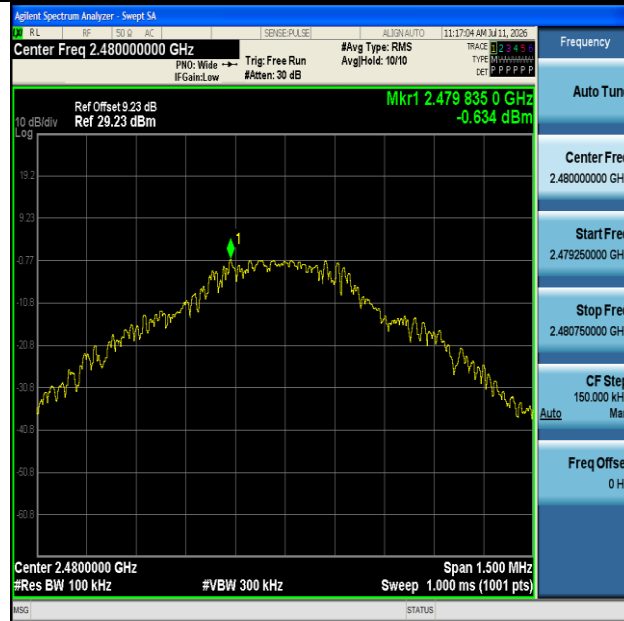


DH5-Ant1-2441-30~1000-PASS

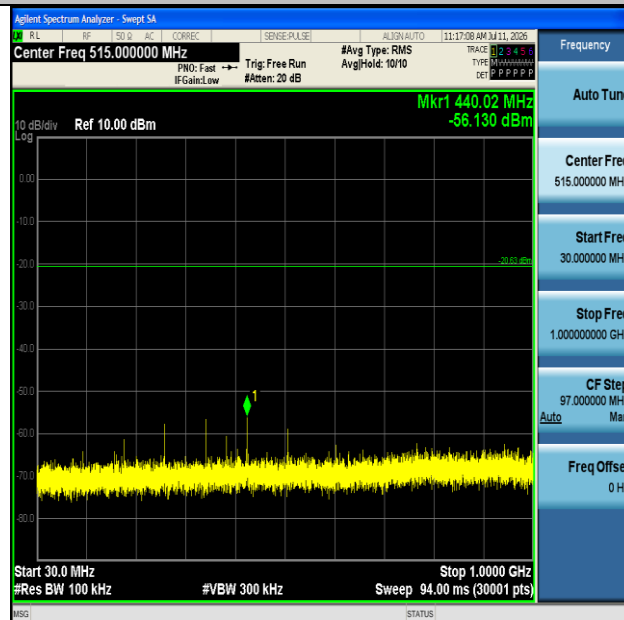


DH5-Ant1-2441-1000~26500-PASS



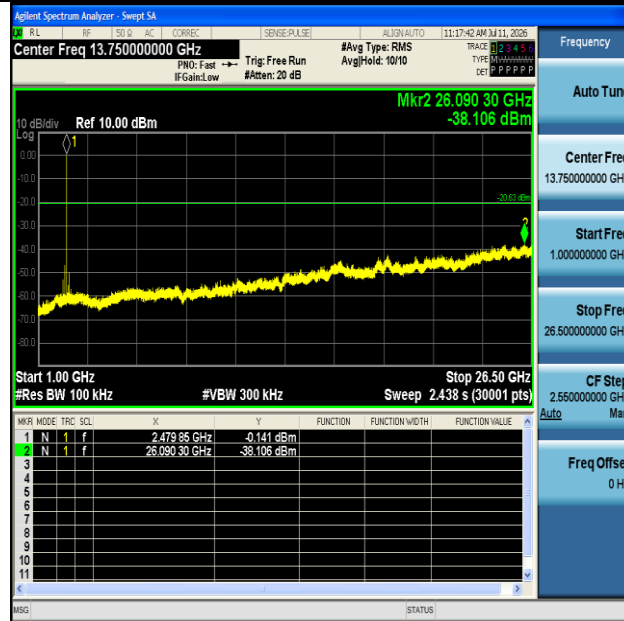


DH5-Ant1-2480-0~Reference-PASS

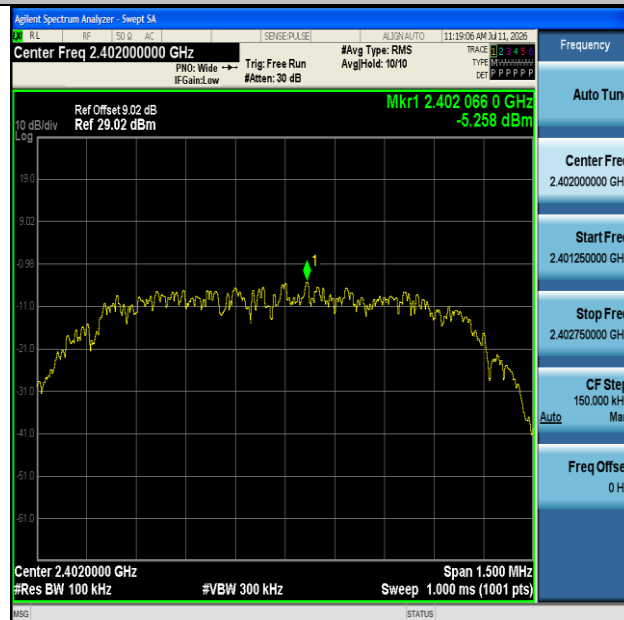


DH5-Ant1-2480-30~1000-PASS



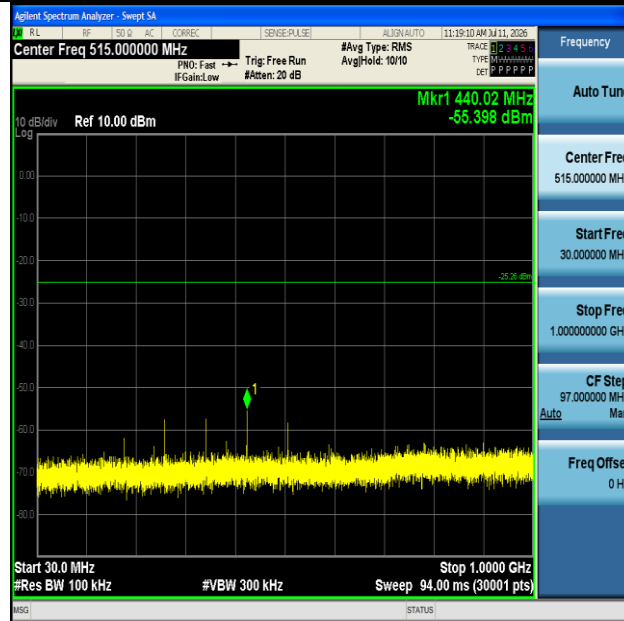


DH5-Ant1-2480-1000~26500-PASS



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





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

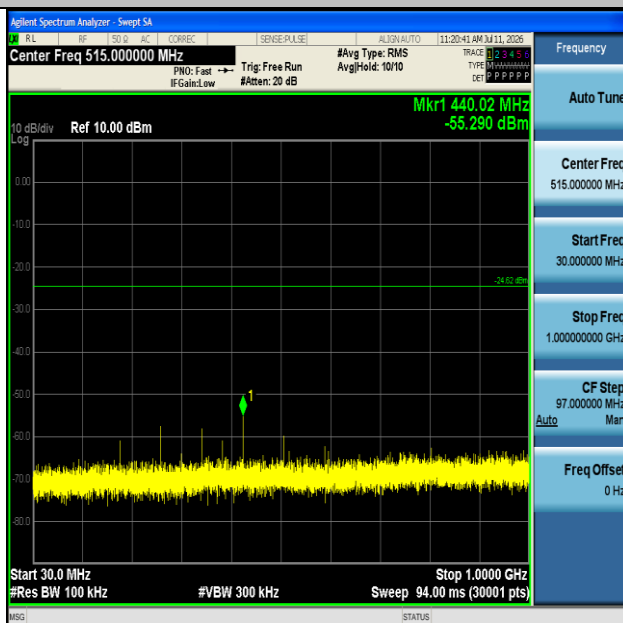


2DH5-Ant1-2402-1000~26500-PASS



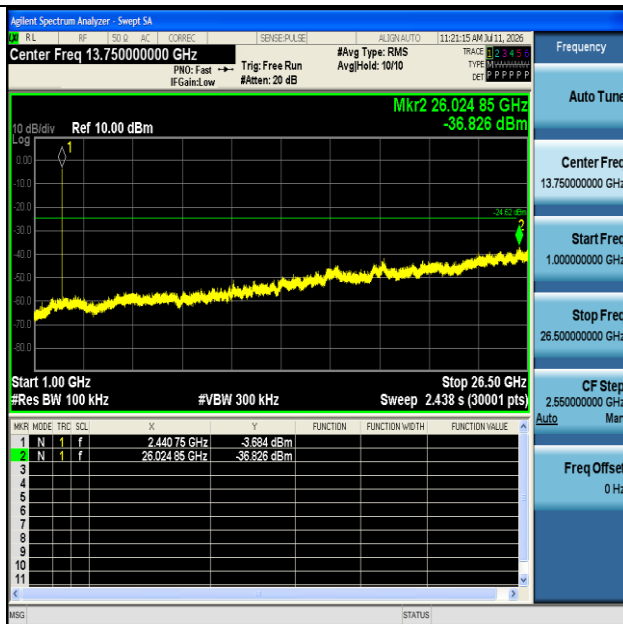


2DH5-Ant1-2441-0~Reference-PASS

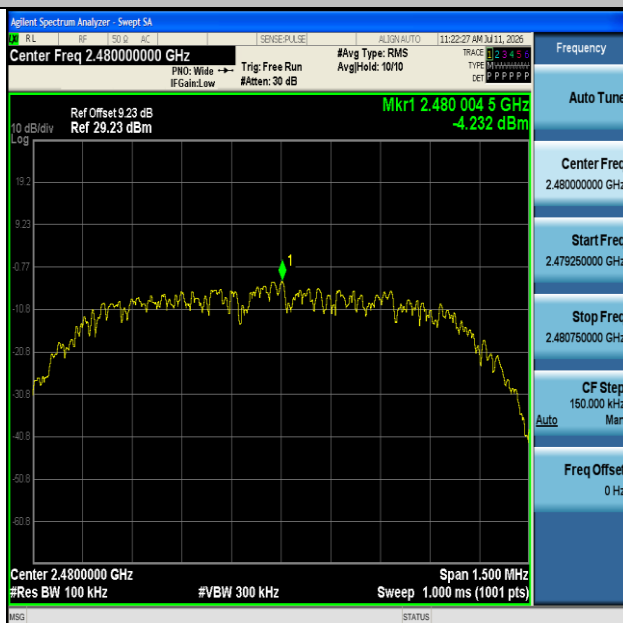


2DH5-Ant1-2441-30~1000-PASS



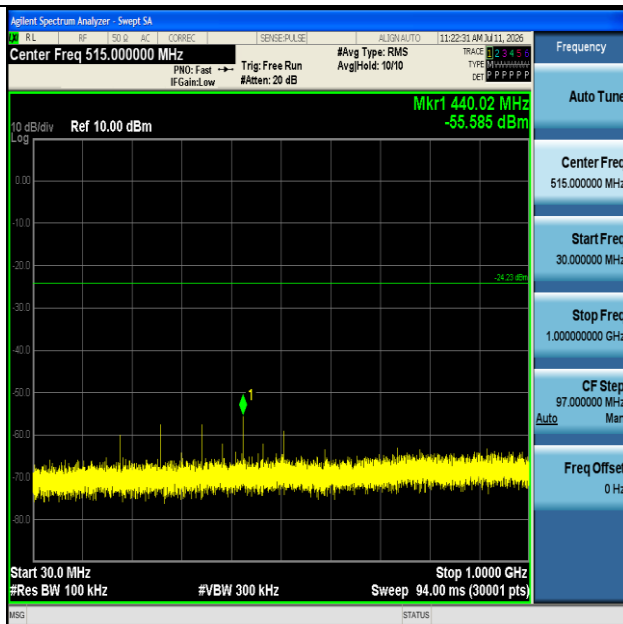


2DH5-Ant1-2441-1000~26500-PASS

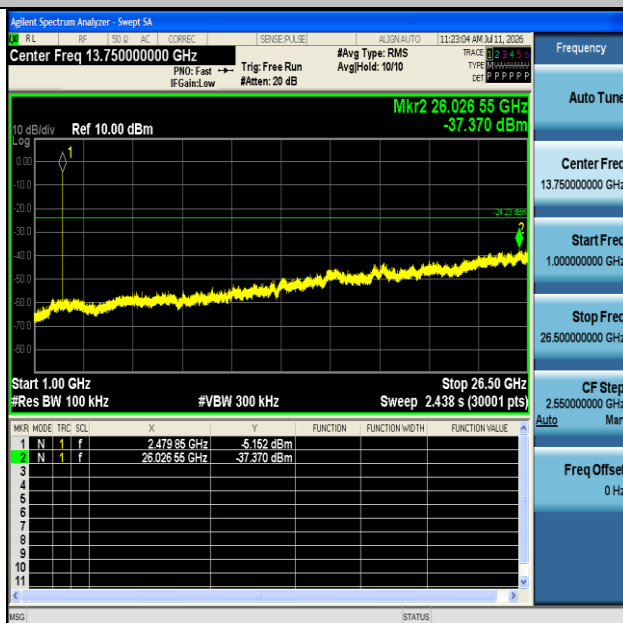


2DH5-Ant1-2480-0~Reference-PASS



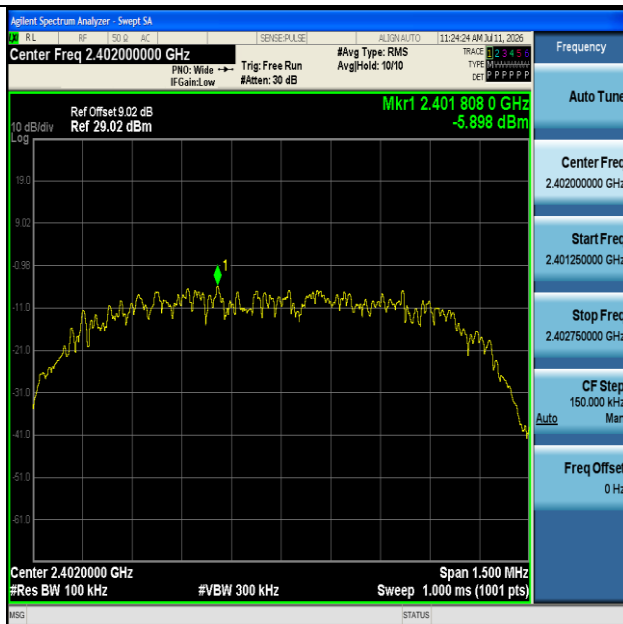


2DH5-Ant1-2480-30~1000-PASS

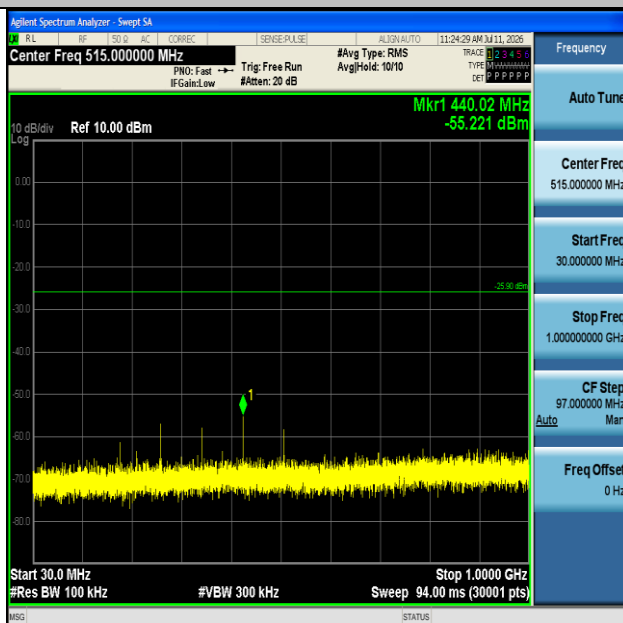


2DH5-Ant1-2480-1000~26500-PASS





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

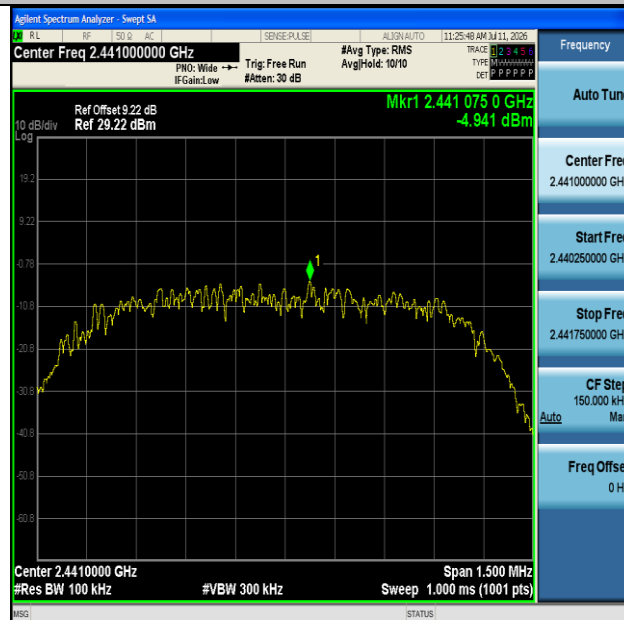


3DH5-Ant1-2402-30~1000-PASS



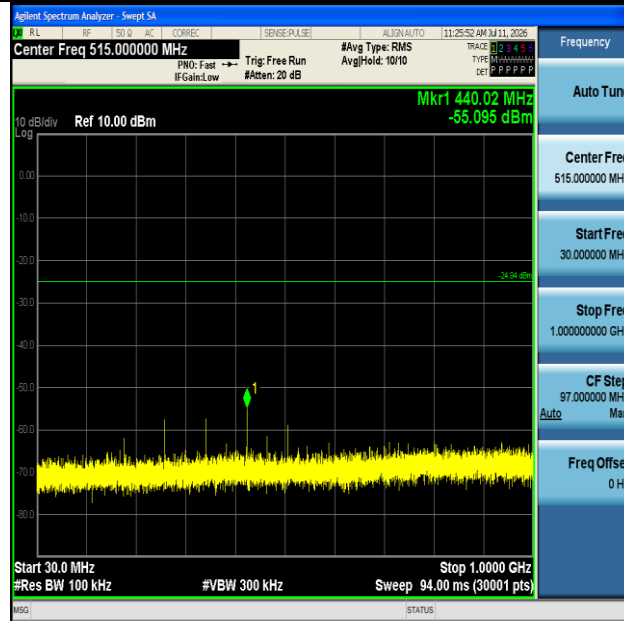


3DH5-Ant1-2402-1000~26500-PASS



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





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

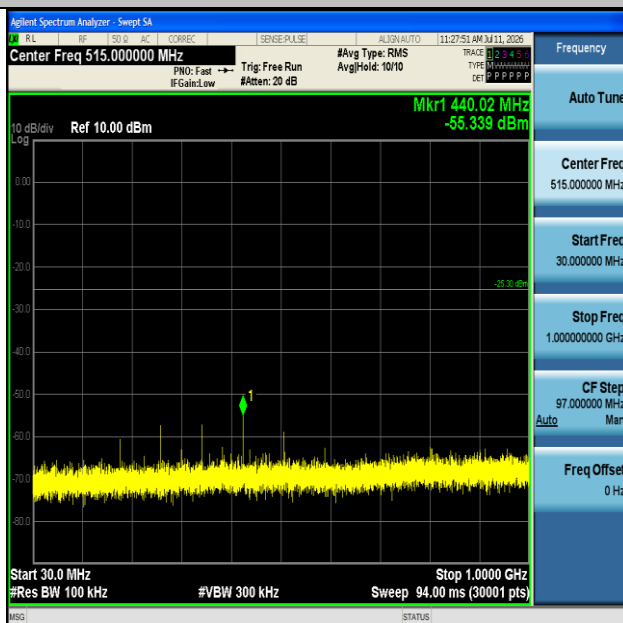


3DH5-Ant1-2441-1000~26500-PASS



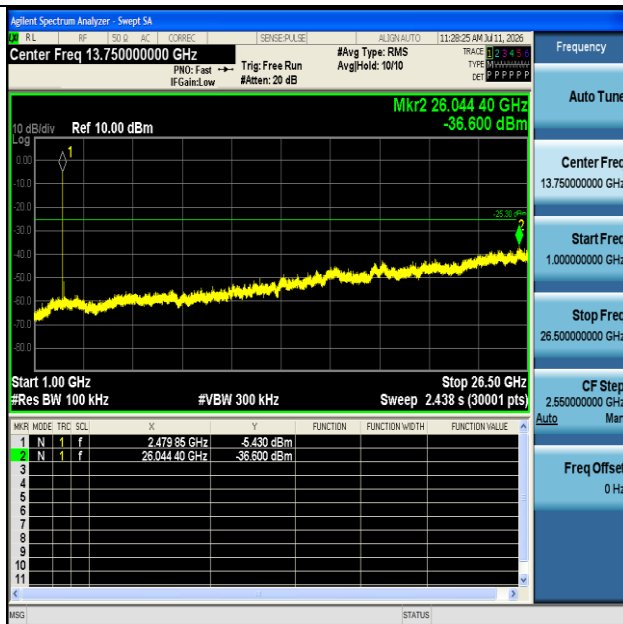


3DH5-Ant1-2480-0~Reference-PASS



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	2.88	3.76	76.60	1.16
DH5	Ant1	2441	2.88	3.75	76.80	1.15
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	2.88	3.75	76.80	1.15
3DH5	Ant1	2480	2.88	3.75	76.80	1.15

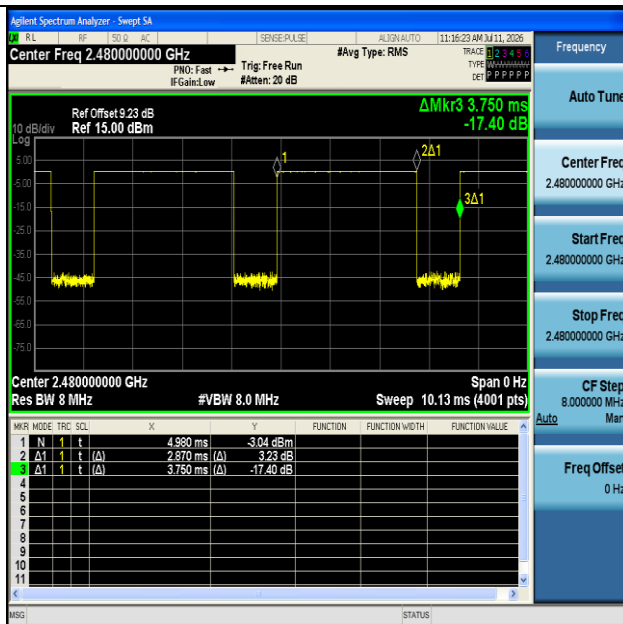
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



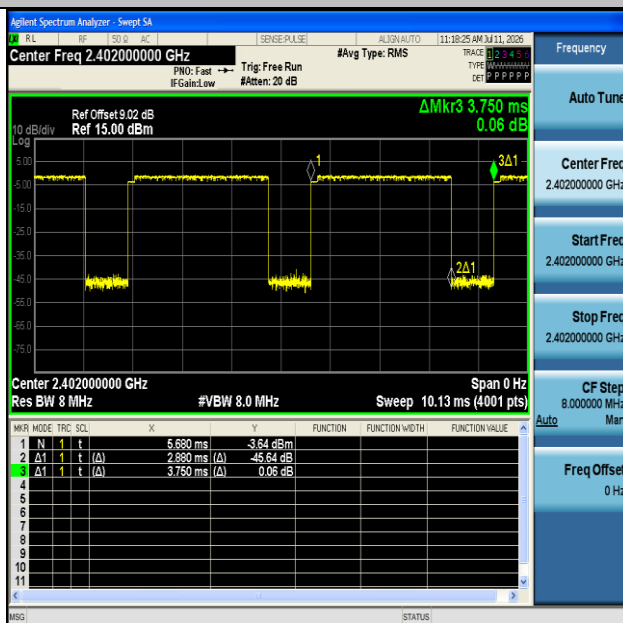


Test Graphs



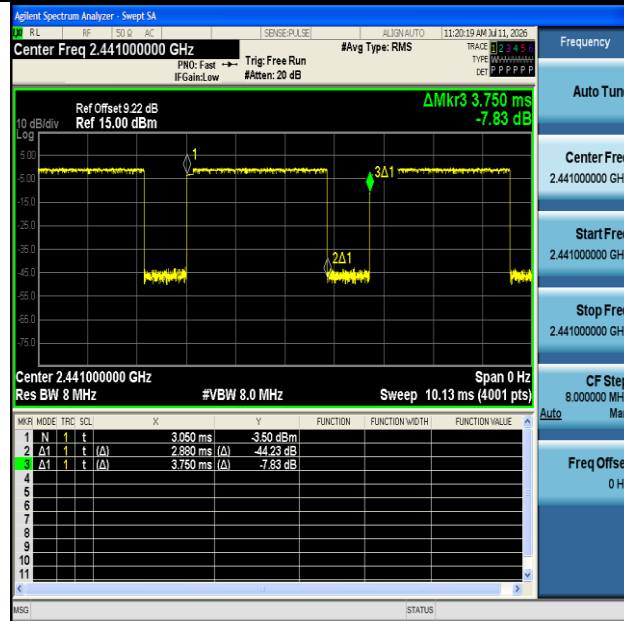


NTNV-DH5-Ant1-2480

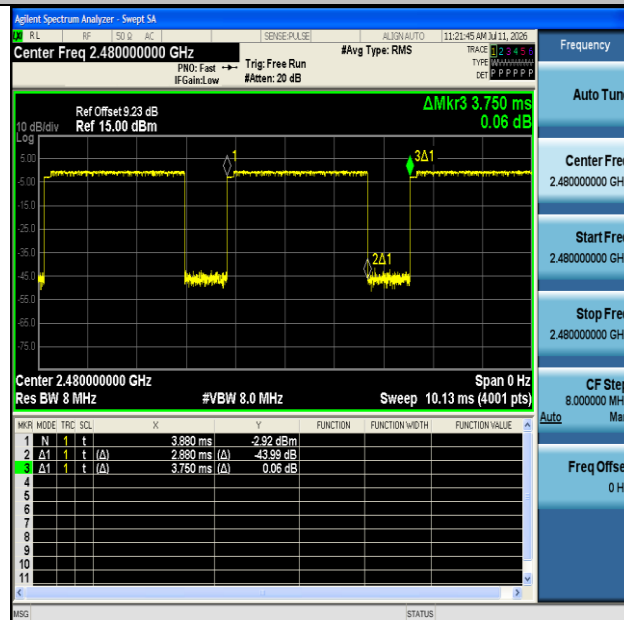


NTNV-2DH5-Ant1-2402



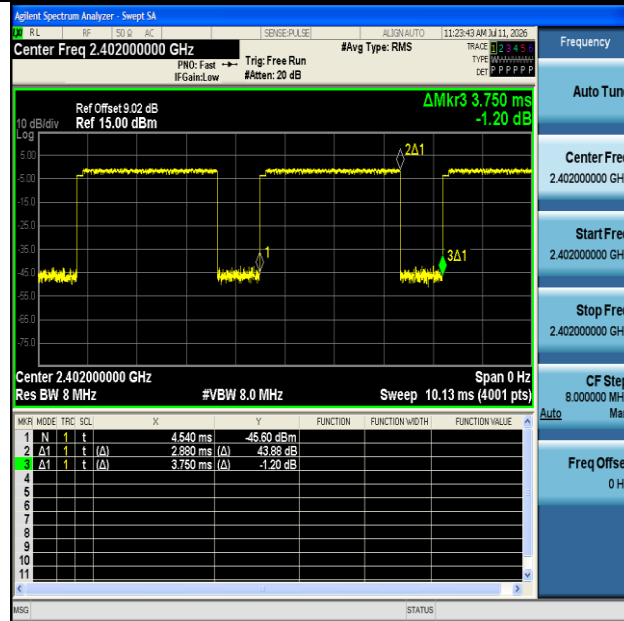


NTNV-2DH5-Ant1-2441

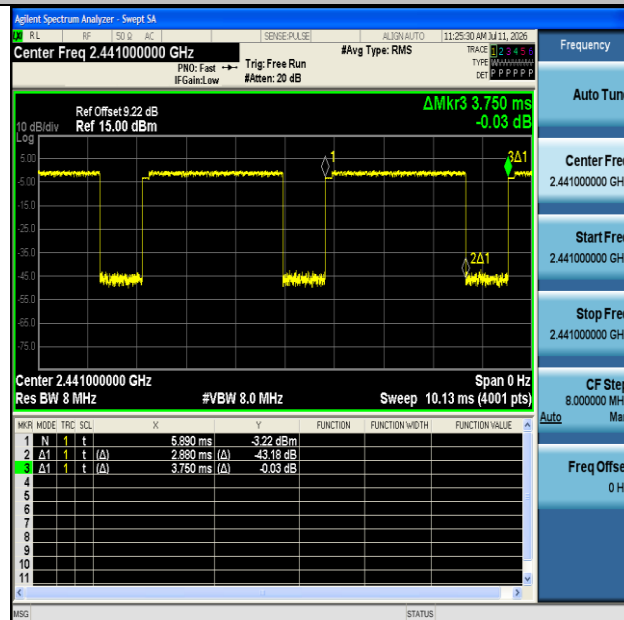


NTNV-2DH5-Ant1-2480



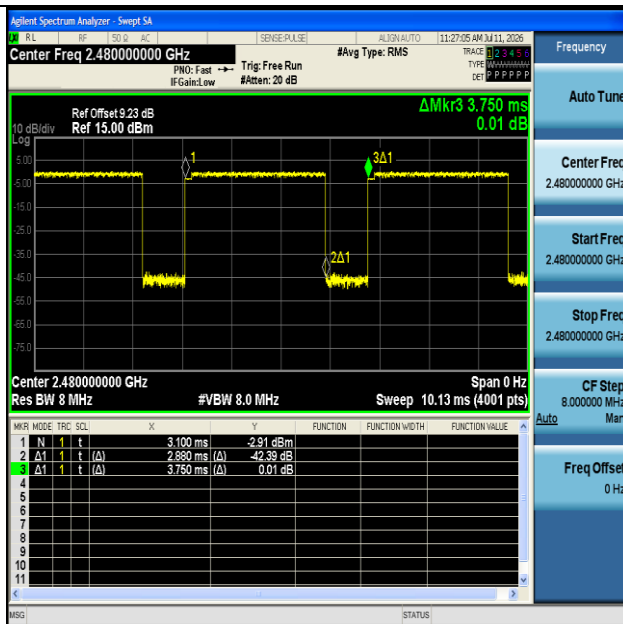


NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441





NTNV-3DH5-Ant1-2480

