





Appendix C

RF Test Data for BT (Conducted Measurement)

Product Name: Smart switch

Test Model: SHELLY Plus i4

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Kay Hu
Supervised by:	 Li Huan





C.1 20dB Emission Bandwidth

Test Result

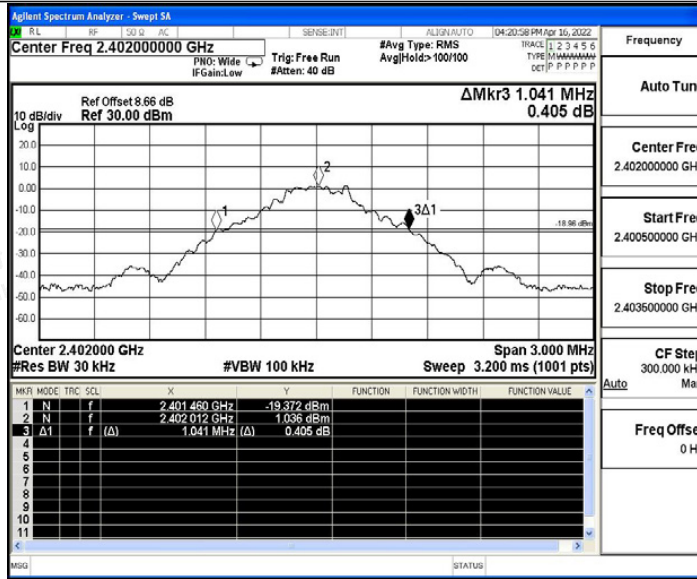
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.041	2401.460	2402.501	---	---
		2441	1.041	2440.463	2441.504	---	---
		2480	1.047	2479.457	2480.504	---	---
2DH5	Ant1	2402	1.323	2401.337	2402.660	---	---
		2441	1.326	2440.334	2441.660	---	---
		2480	1.293	2479.358	2480.651	---	---
3DH5	Ant1	2402	1.305	2401.346	2402.651	---	---
		2441	1.296	2440.349	2441.645	---	---
		2480	1.311	2479.343	2480.654	---	---



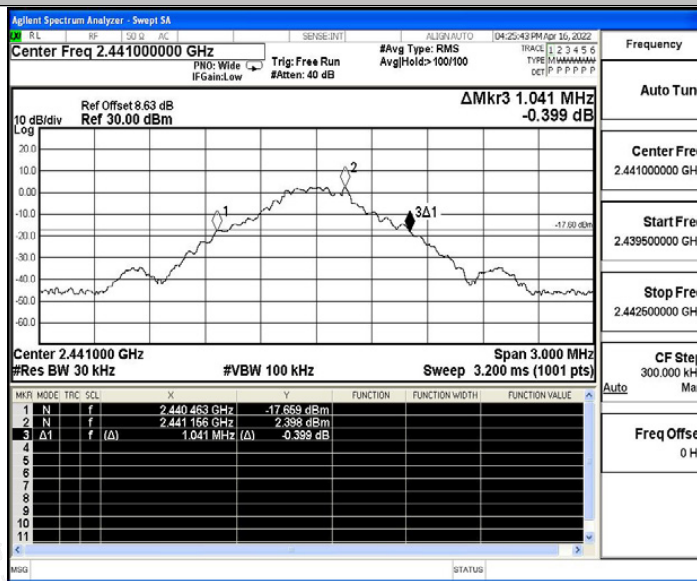


Test Graphs

DH5_Ant1_2402

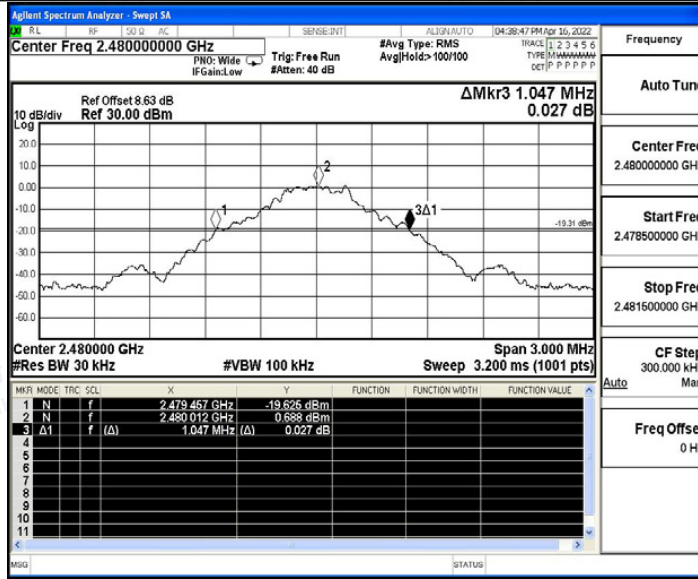


DH5_Ant1_2441

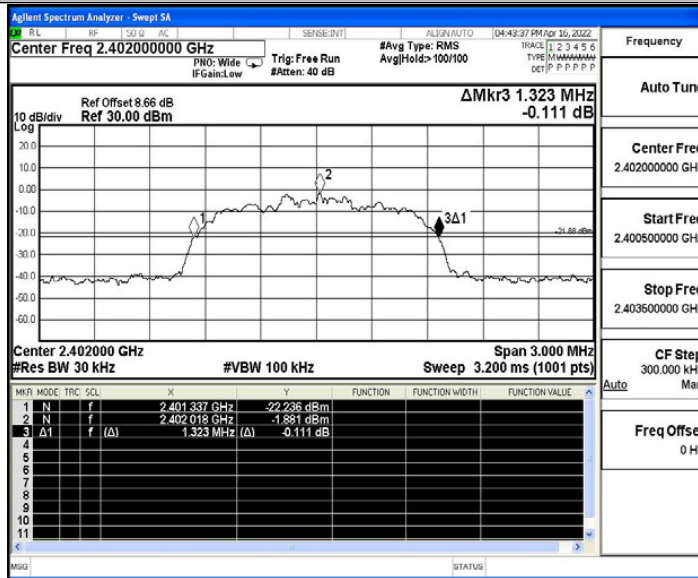


DH5_Ant1_2480



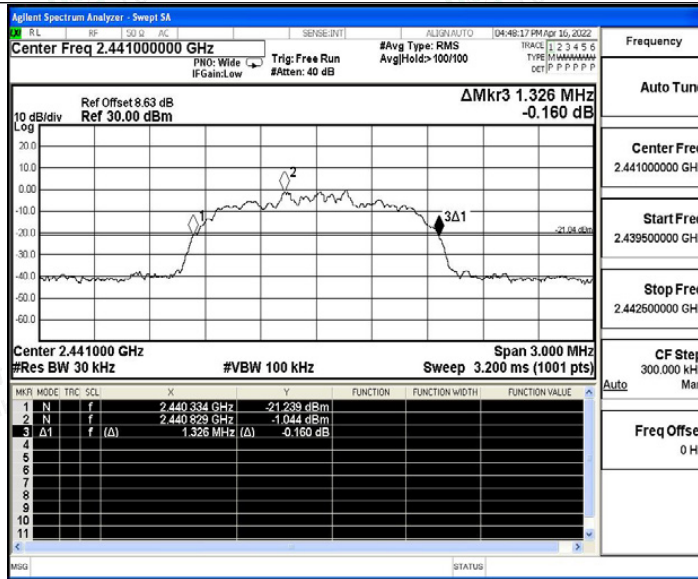


2DH5_Ant1_2402

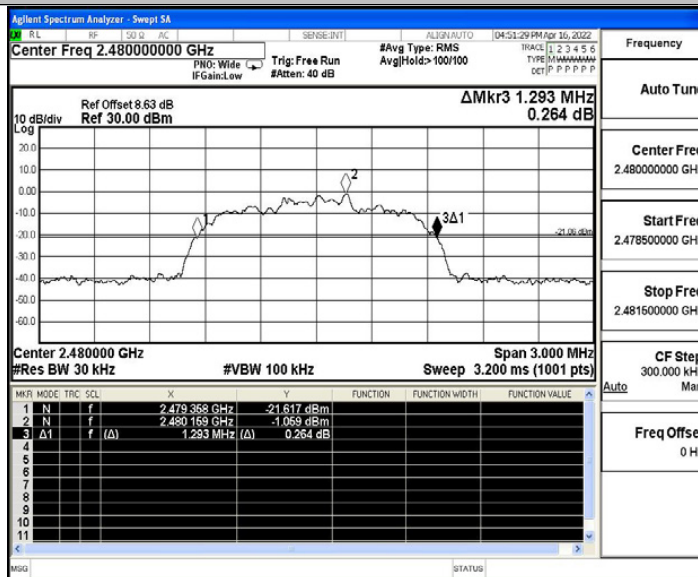


2DH5_Ant1_2441



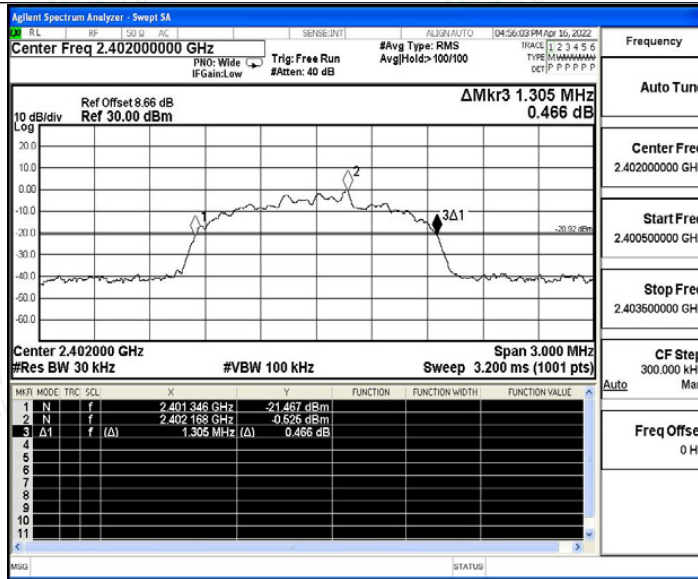


2DH5_Ant1_2480

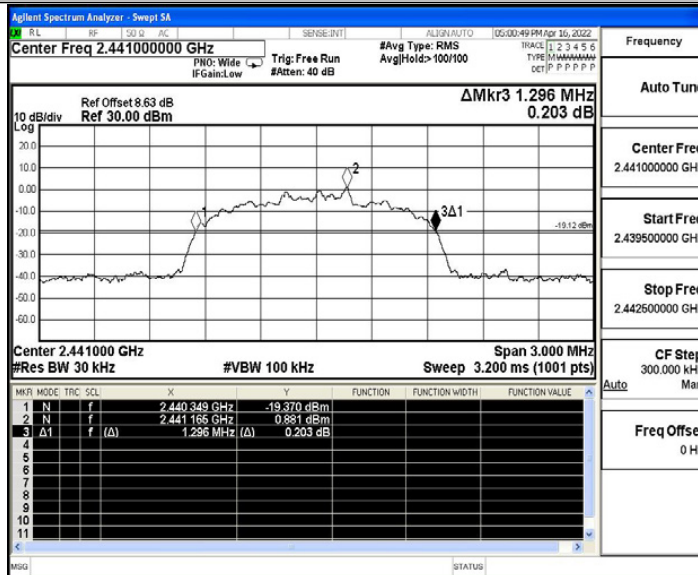


3DH5_Ant1_2402



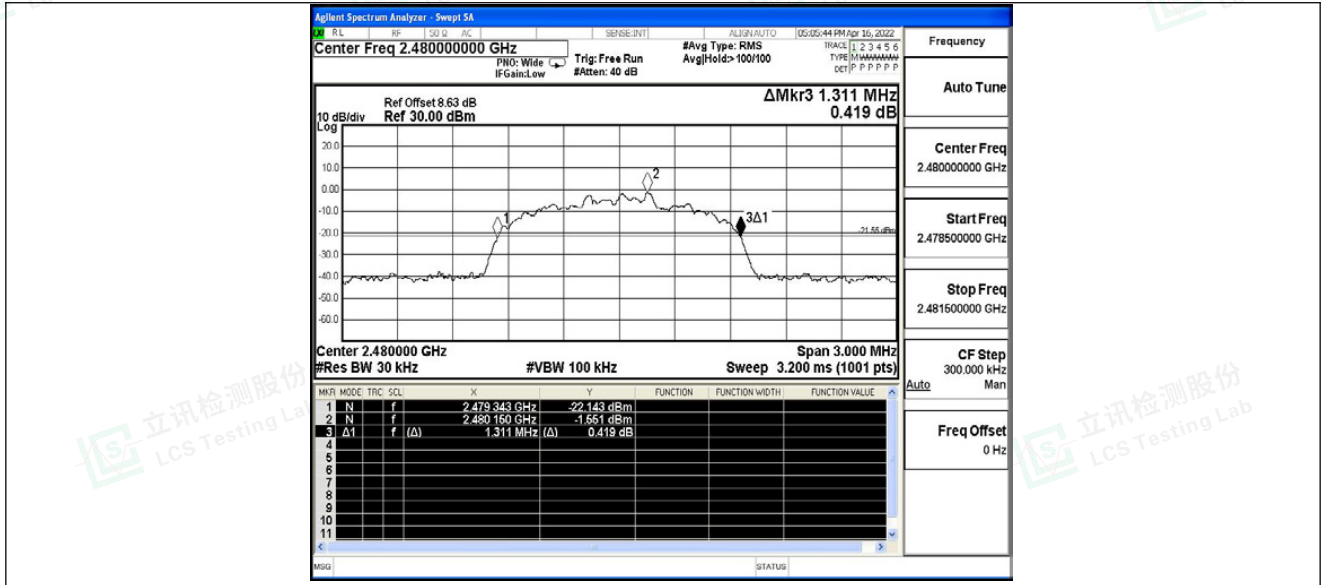


3DH5_Ant1_2441



3DH5_Ant1_2480







C.2 Maximum Peak Conducted Output Power

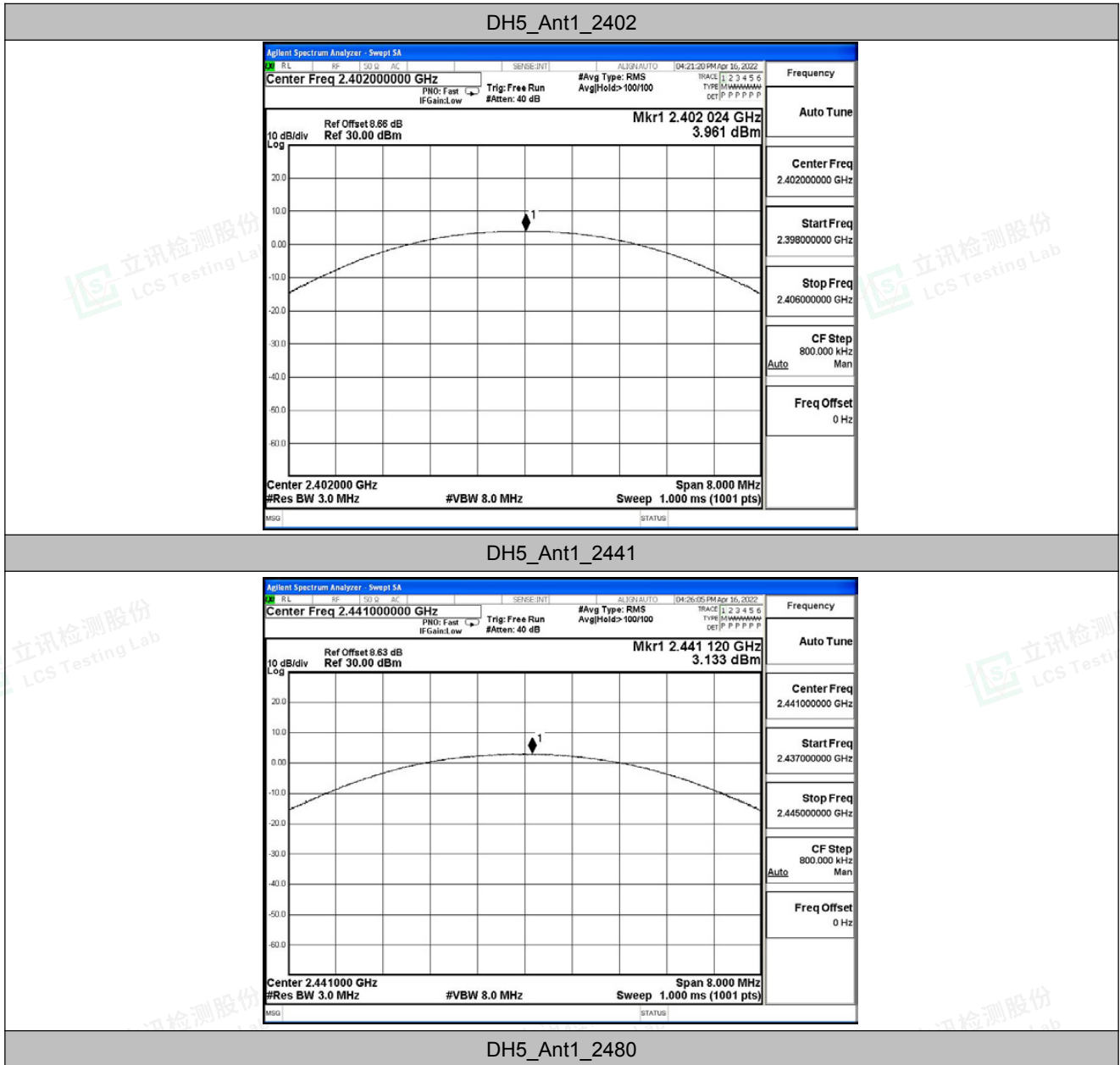
Test Result

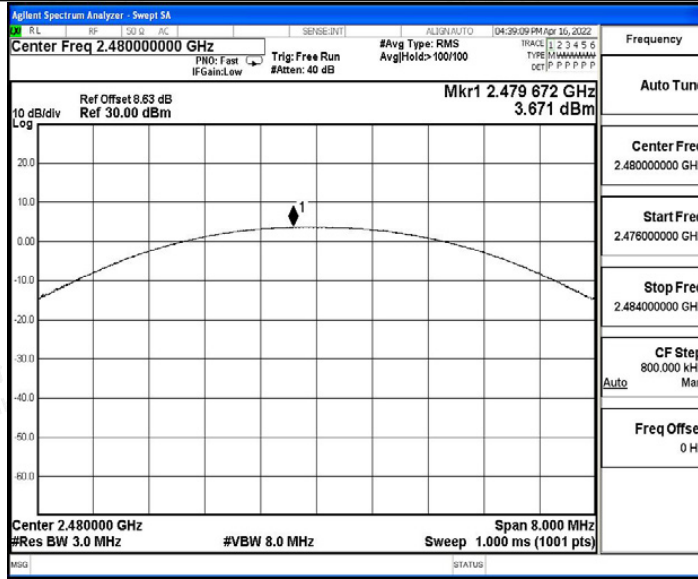
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.96	≤20.97	PASS
		2441	3.13	≤20.97	PASS
		2480	3.67	≤20.97	PASS
2DH5	Ant1	2402	3.07	≤20.97	PASS
		2441	2.26	≤20.97	PASS
		2480	2.86	≤20.97	PASS
3DH5	Ant1	2402	3.15	≤20.97	PASS
		2441	3.11	≤20.97	PASS
		2480	2.97	≤20.97	PASS



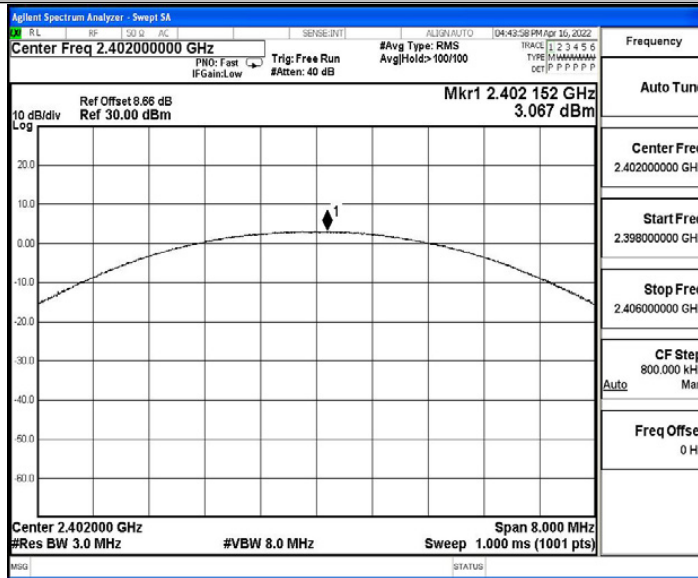


Test Graphs



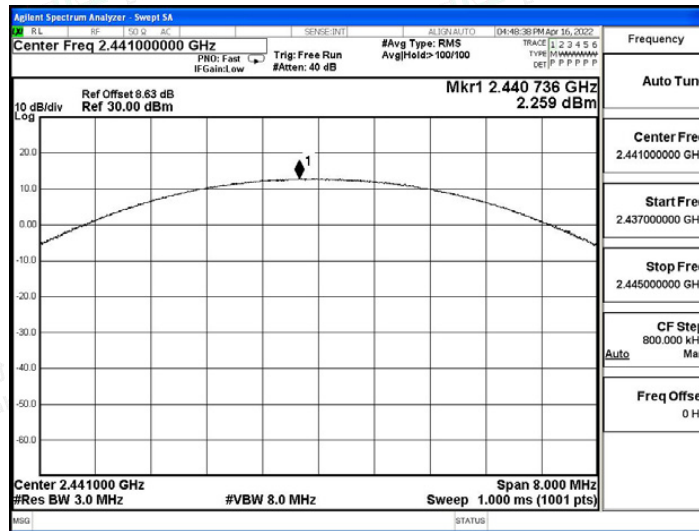


2DH5_Ant1_2402

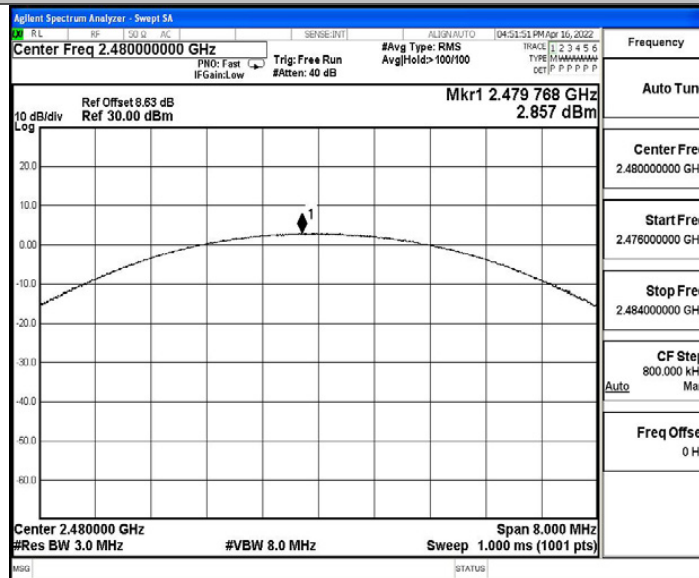


2DH5_Ant1_2441



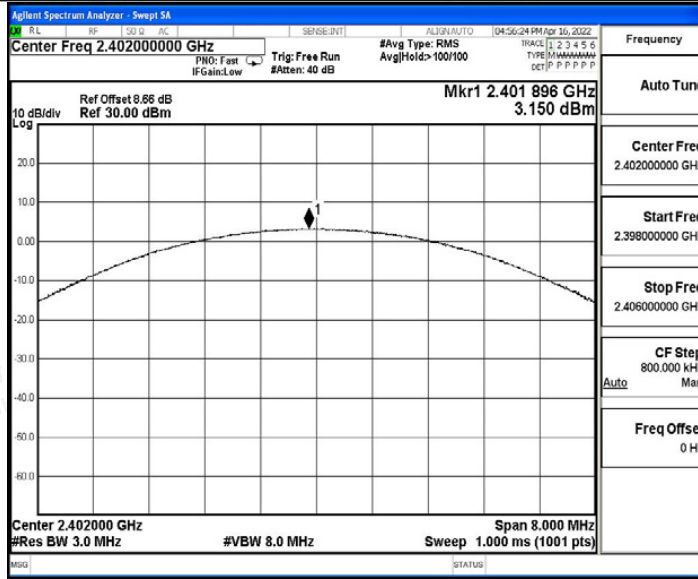


2DH5_Ant1_2480

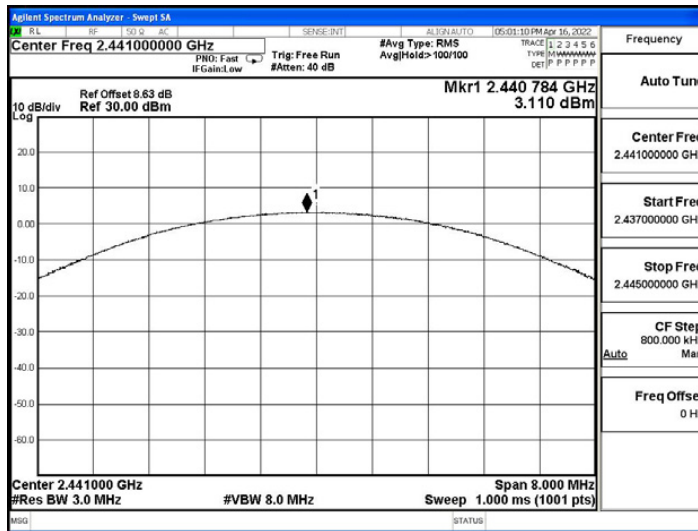


3DH5_Ant1_2402



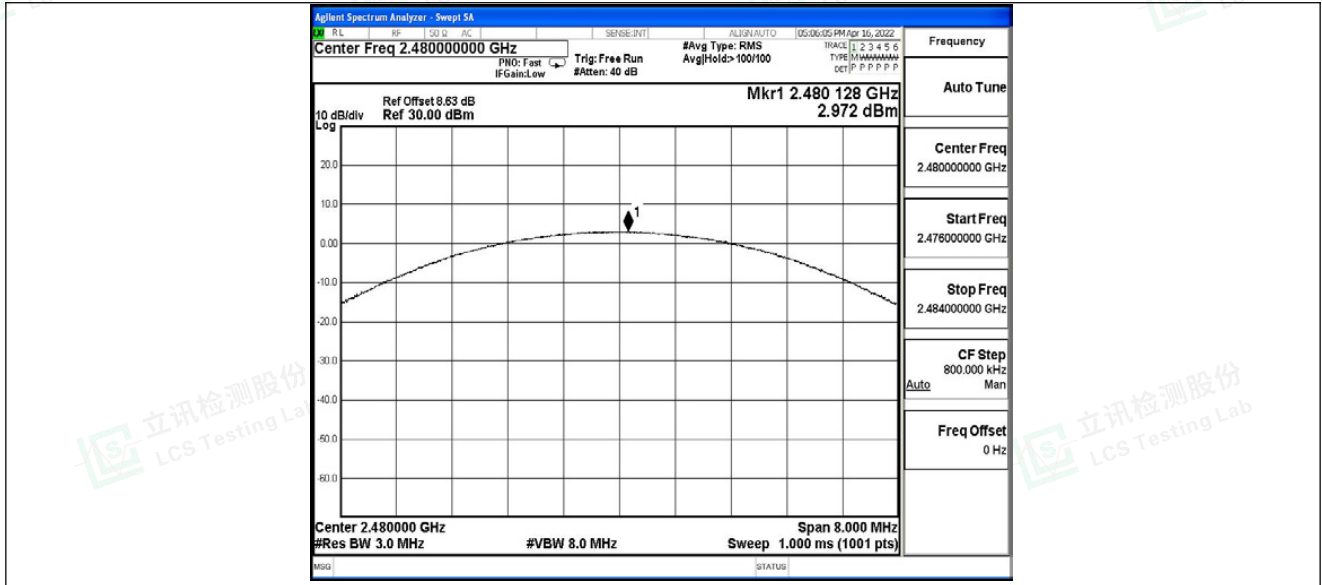


3DH5_Ant1_2441



3DH5_Ant1_2480







C.3 Carrier Frequencies Separation

Test Result

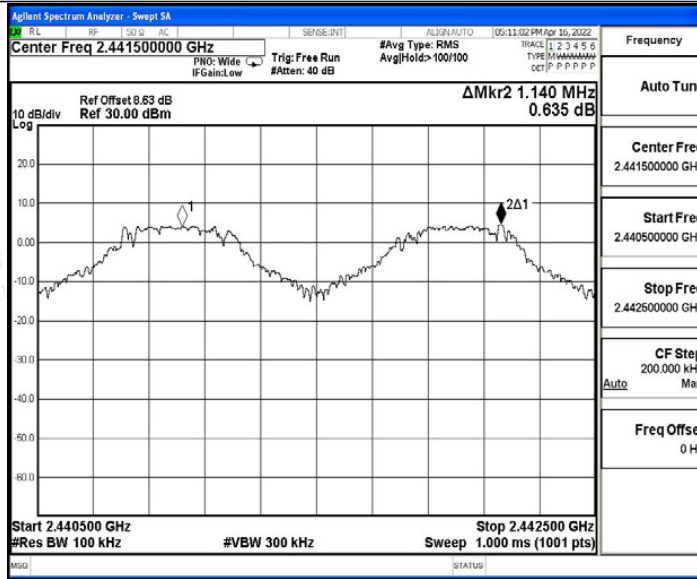
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.14	≥0.698	PASS
2DH5	Ant1	Hop	1.316	≥0.884	PASS
3DH5	Ant1	Hop	1.07	≥0.874	PASS



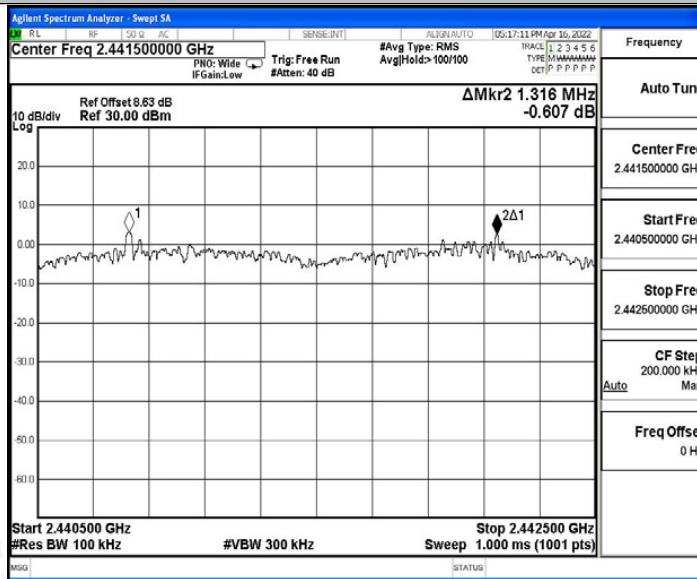


Test Graphs

DH5_Ant1_Hop

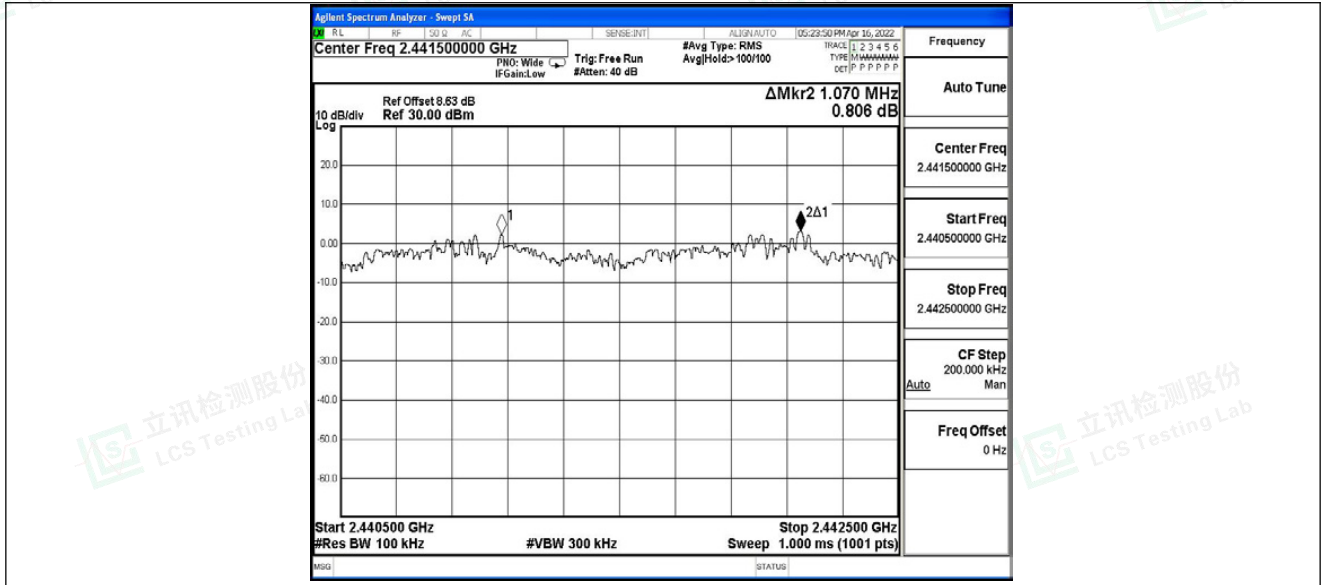


2DH5_Ant1_Hop



3DH5_Ant1_Hop







C.4 Time of occupancy

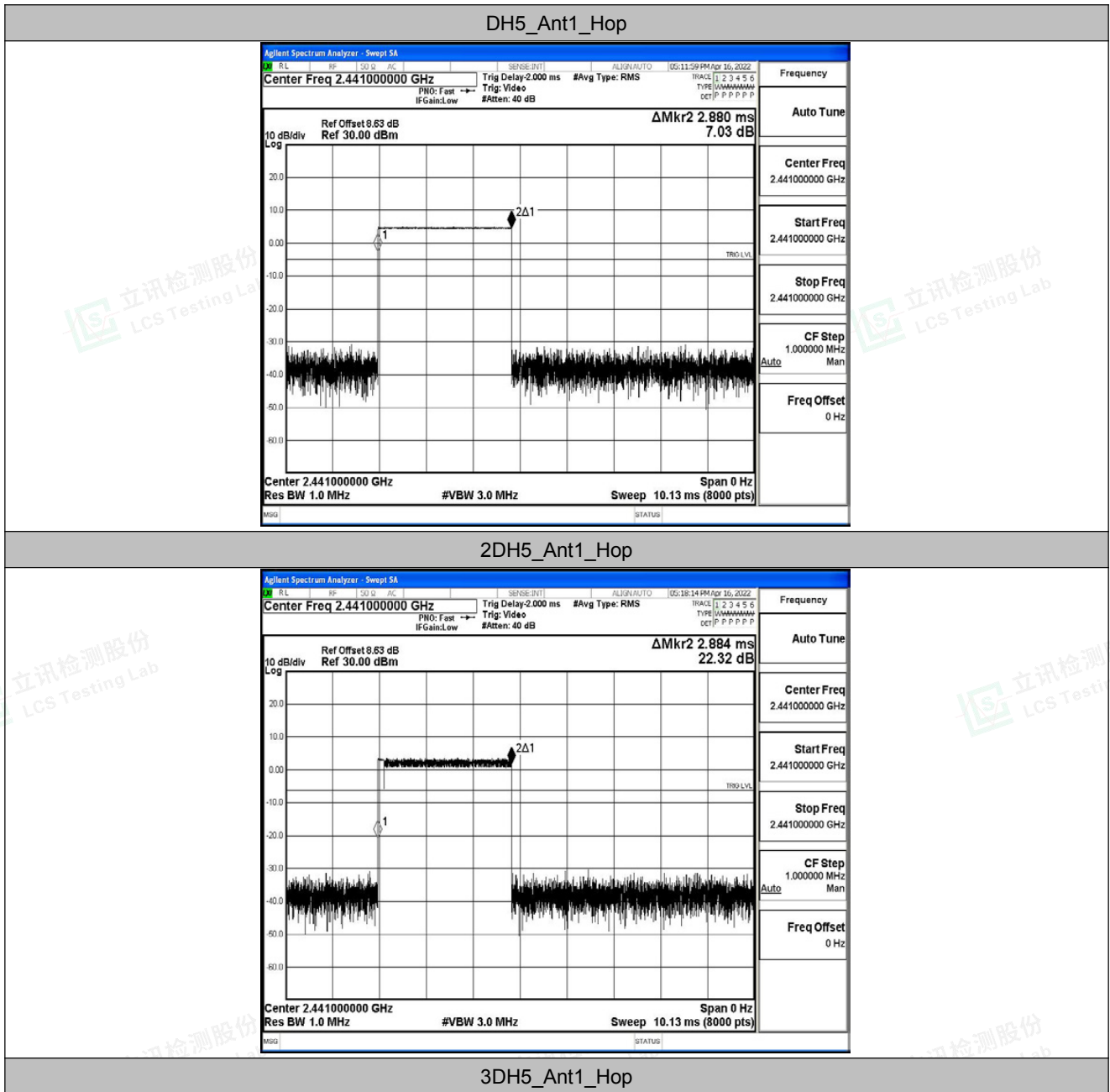
Test Result

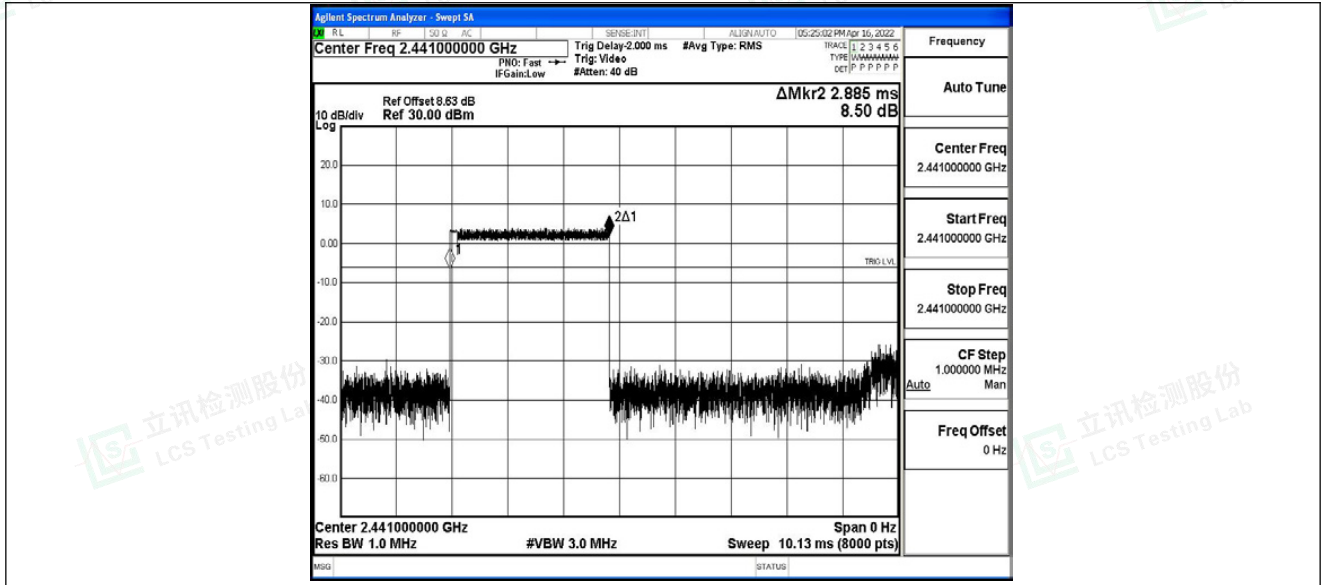
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS
3DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS





Test Graphs







C.5 Number of Hopping Channel

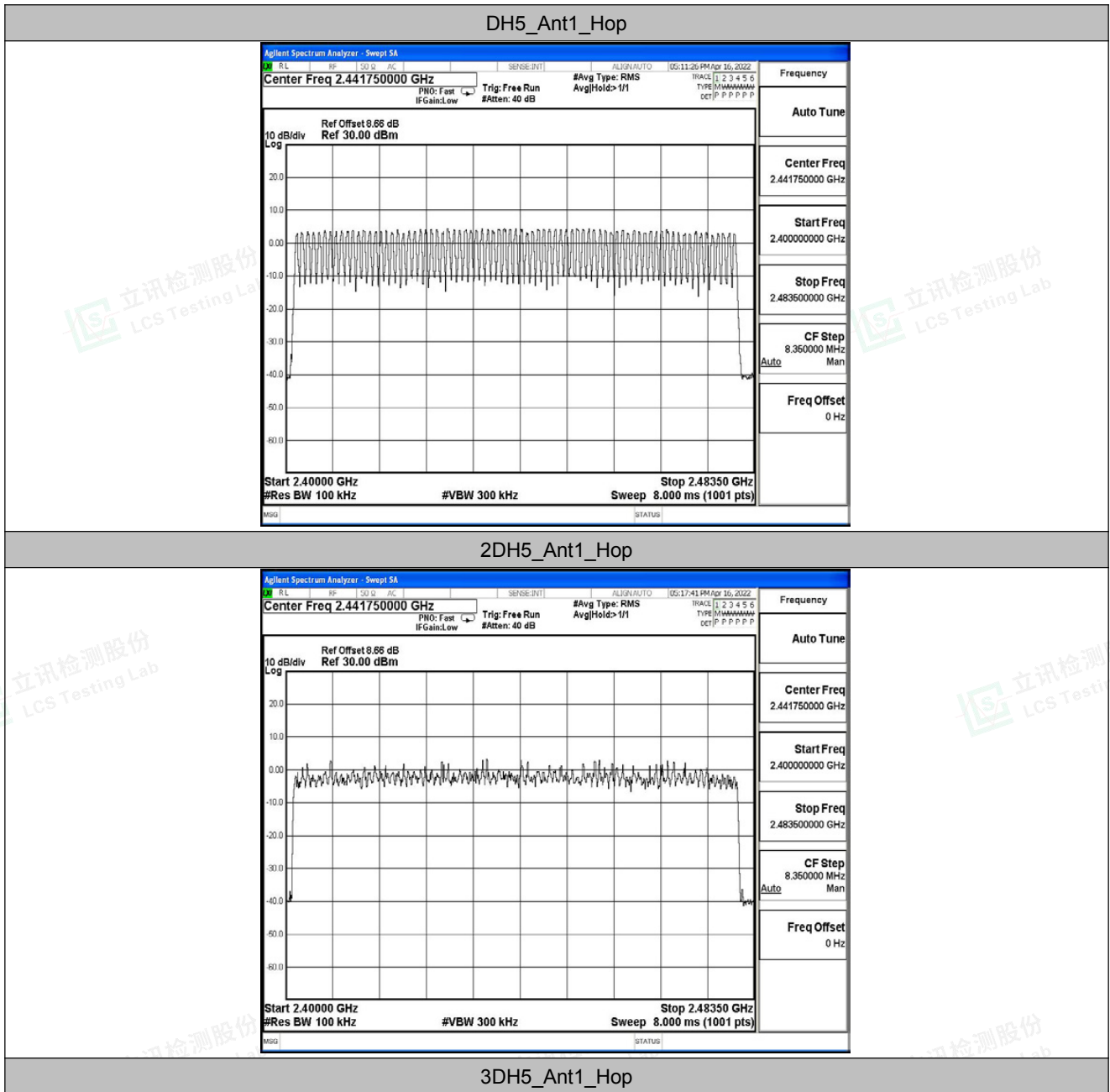
Test Result

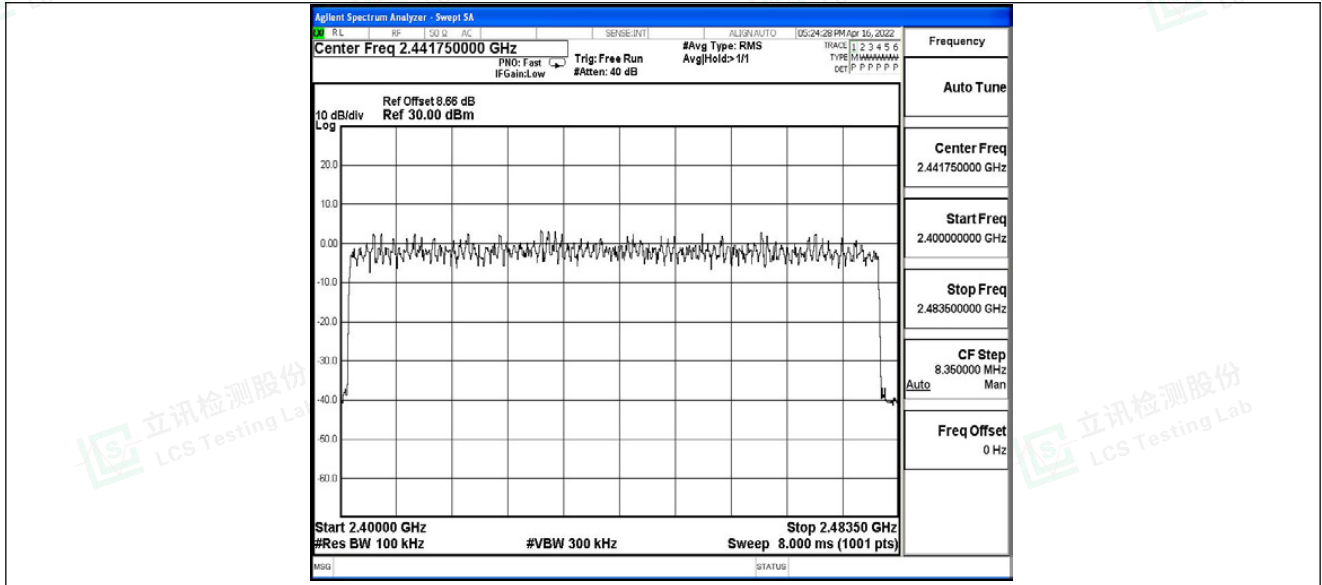
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS





Test Graphs







C.6 Band edge measurements

Test Result

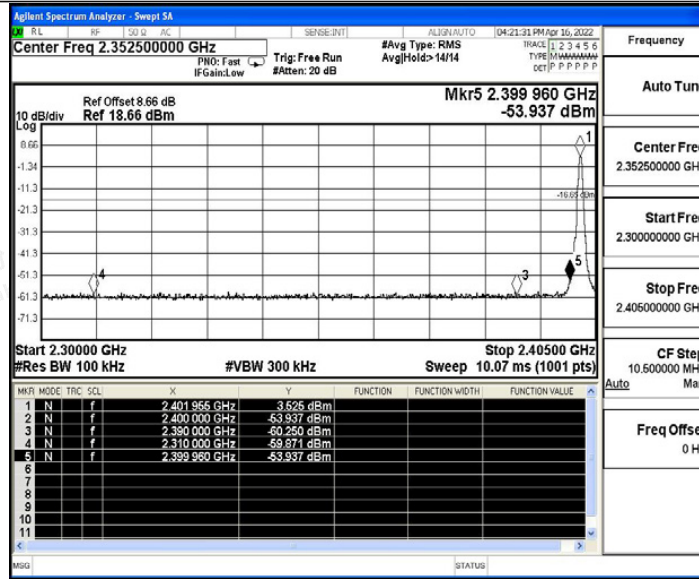
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	3.35	-53.94	≤-16.65	PASS
		High	2480	3.16	-56.49	≤-16.84	PASS
		Low	Hop_2402	2.60	-58.63	≤-17.4	PASS
		High	Hop_2480	3.33	-57.33	≤-16.67	PASS
2DH5	Ant1	Low	2402	0.53	-54.79	≤-19.47	PASS
		High	2480	1.31	-57.55	≤-18.69	PASS
		Low	Hop_2402	-2.03	-58.57	≤-22.03	PASS
		High	Hop_2480	1.78	-57.83	≤-18.22	PASS
3DH5	Ant1	Low	2402	-0.23	-54.39	≤-20.23	PASS
		High	2480	1.44	-57.57	≤-18.56	PASS
		Low	Hop_2402	1.63	-59.35	≤-18.37	PASS
		High	Hop_2480	1.74	-57.79	≤-18.27	PASS



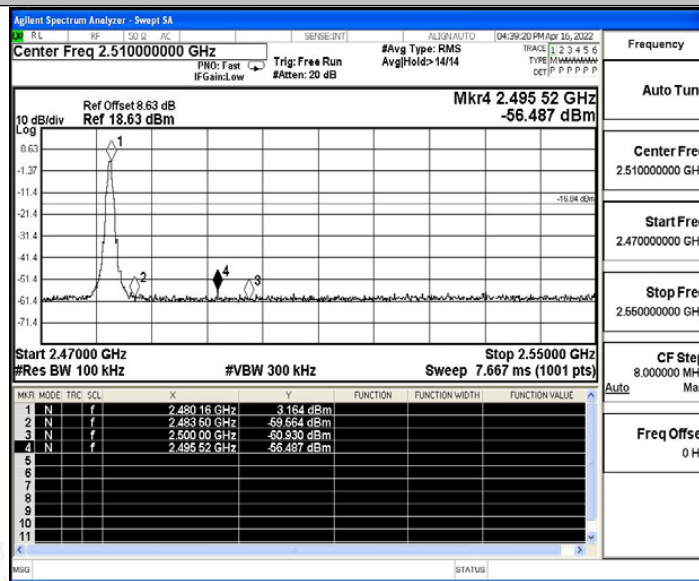


Test Graphs

DH5_Ant1_Low_2402

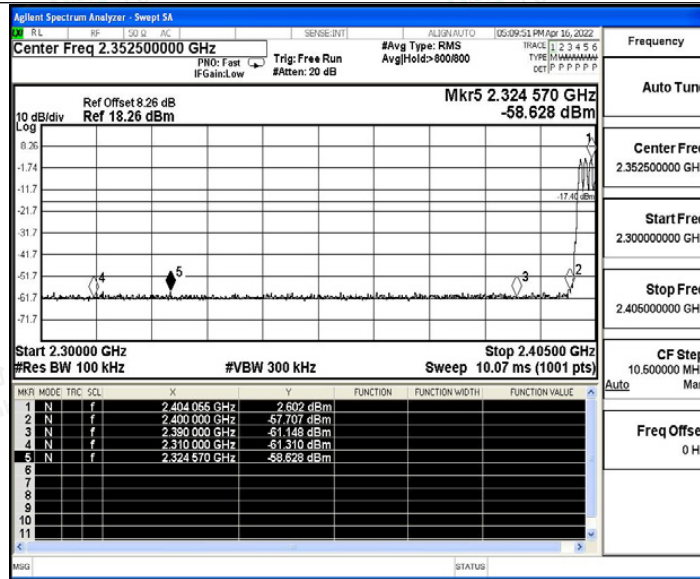


DH5_Ant1_High_2480

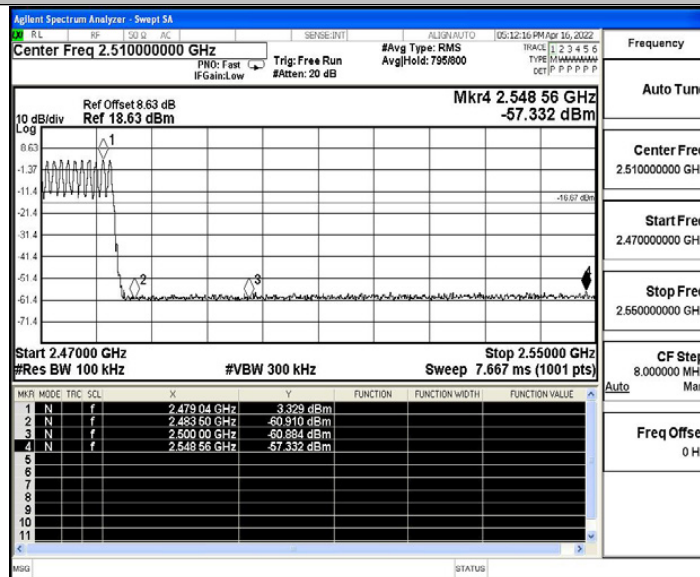


DH5_Ant1_Low_Hop_2402



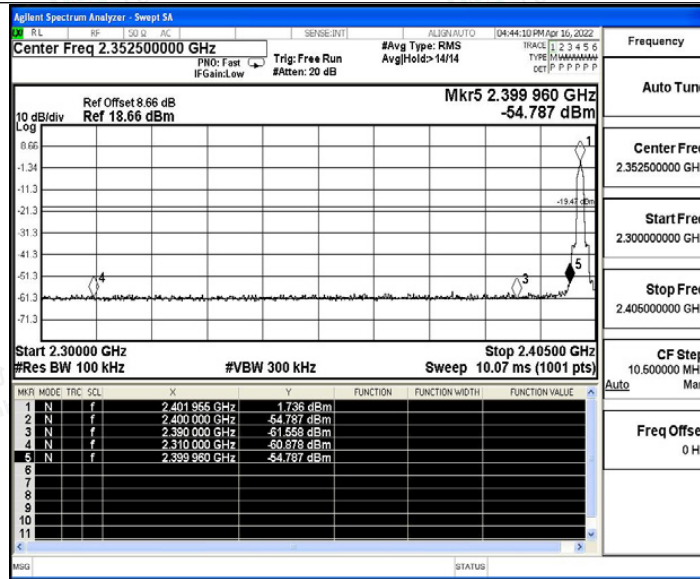


DH5_Ant1_High_Hop_2480

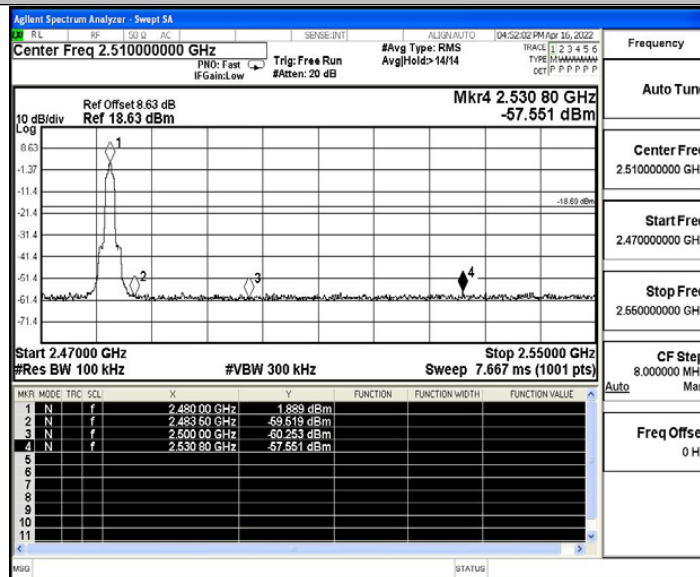


2DH5_Ant1_Low_2402



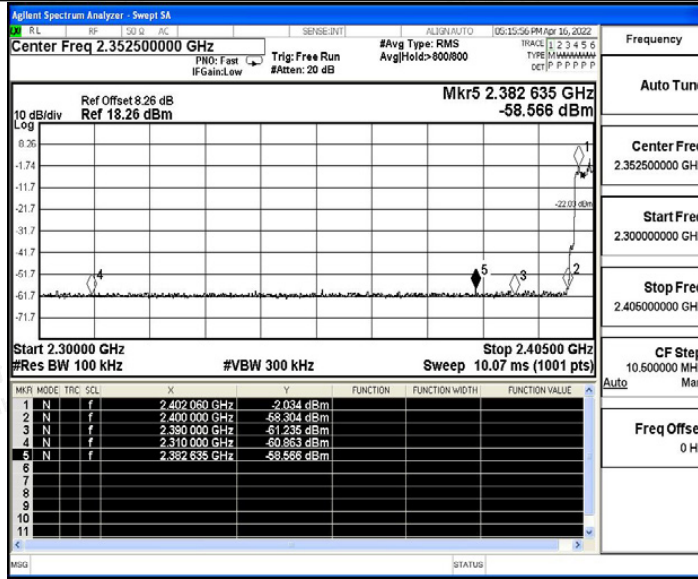


2DH5_Ant1_High_2480

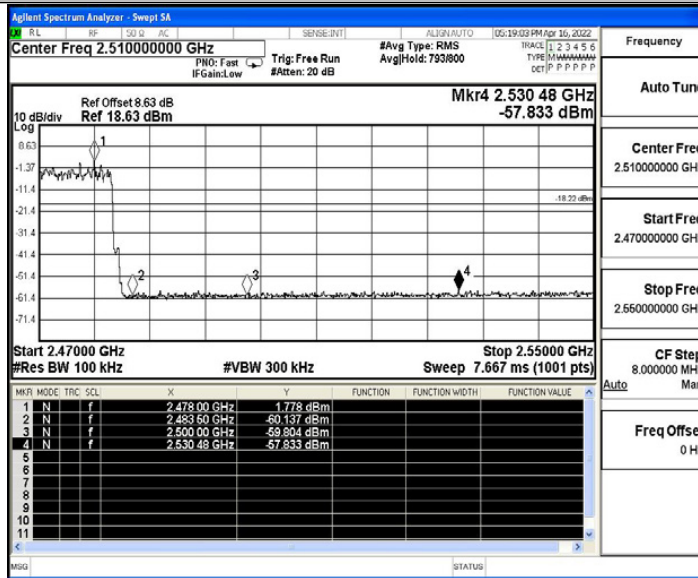


2DH5_Ant1_Low_Hop_2402



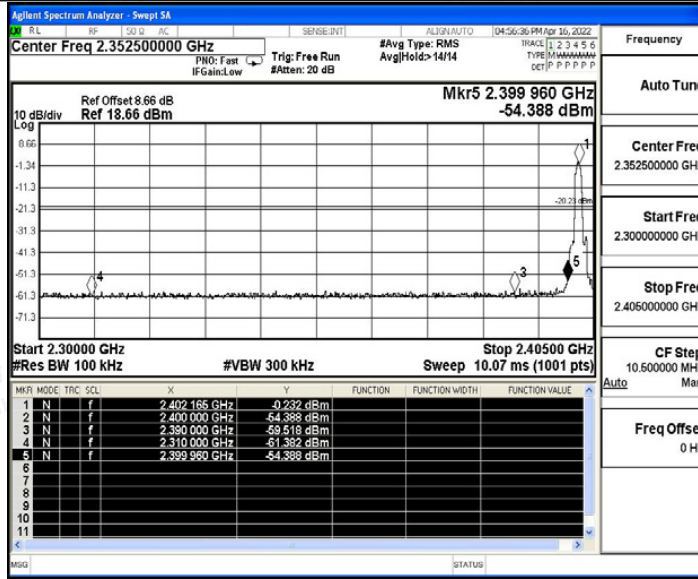


2DH5_Ant1_High_Hop_2480

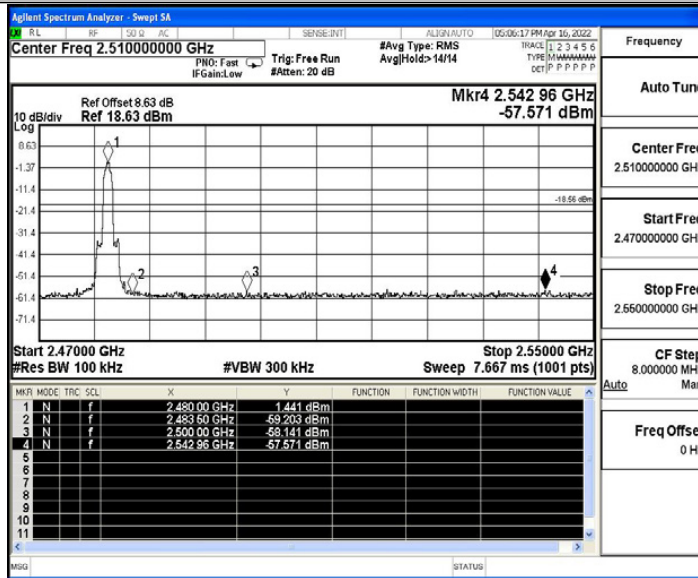


3DH5_Ant1_Low_2402



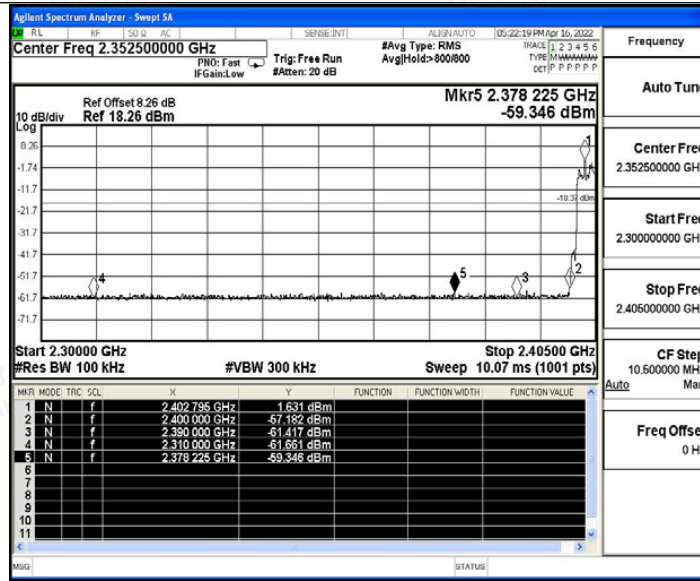


3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402





3DH5_Ant1_High_Hop_2480

