



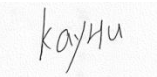
Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Tigapo Cards vending machine

Test Model: LKS8500 series

Environmental Conditions

Temperature:	22.2℃
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	
	Kay Hu
Supervised by:	
	Li Huan



A.1 20dB Emission Bandwidth

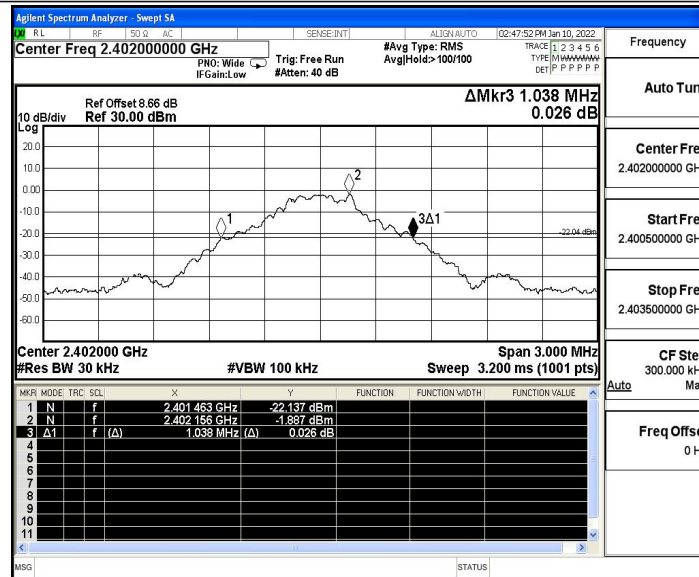
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.038	2401.463	2402.501	---	---
		2441	1.029	2440.466	2441.495	---	---
		2480	1.026	2479.472	2480.498	---	---
2DH5	Ant1	2402	1.296	2401.358	2402.654	---	---
		2441	1.323	2440.334	2441.657	---	---
		2480	1.329	2479.331	2480.660	---	---
3DH5	Ant1	2402	1.305	2401.346	2402.651	---	---
		2441	1.293	2440.349	2441.642	---	---
		2480	1.317	2479.340	2480.657	---	---

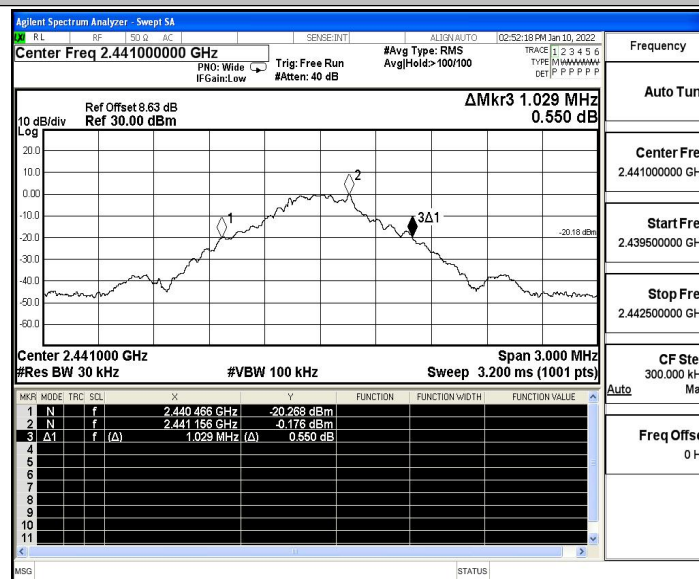


Test Graphs

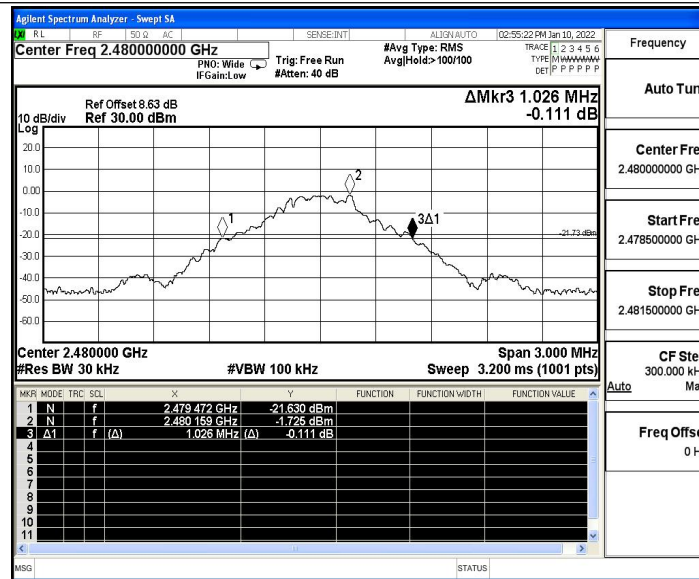
DH5_Ant1_2402



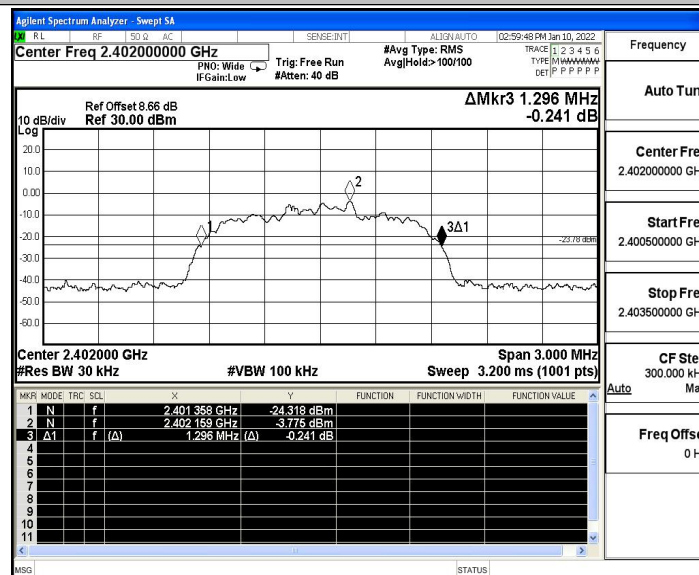
DH5_Ant1_2441



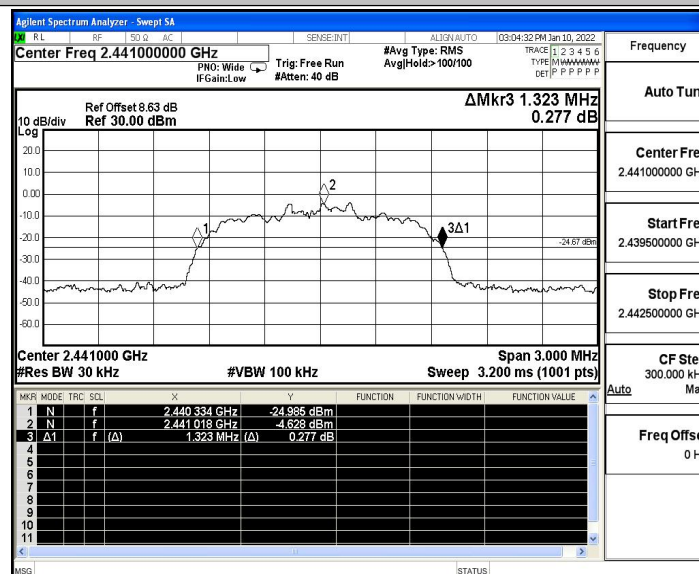
DH5_Ant1_2480



2DH5_Ant1_2402

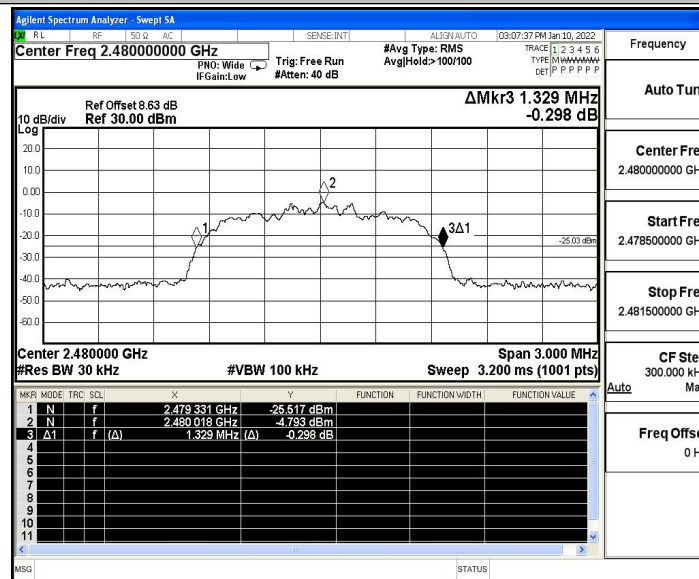


2DH5_Ant1_2441

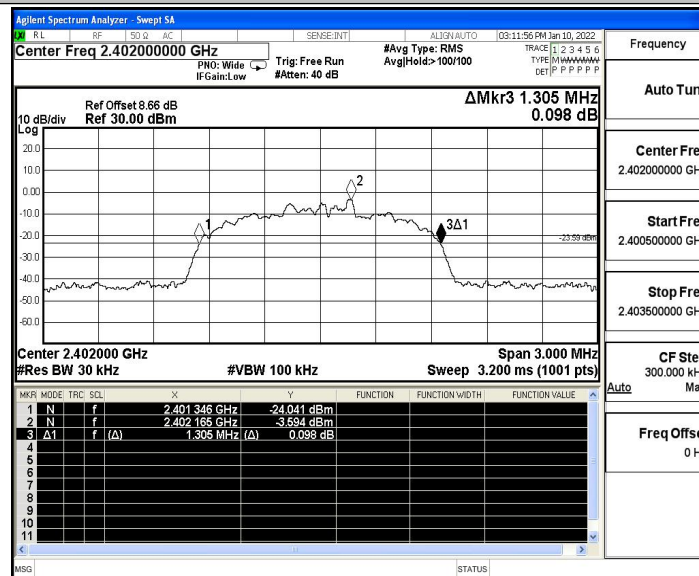




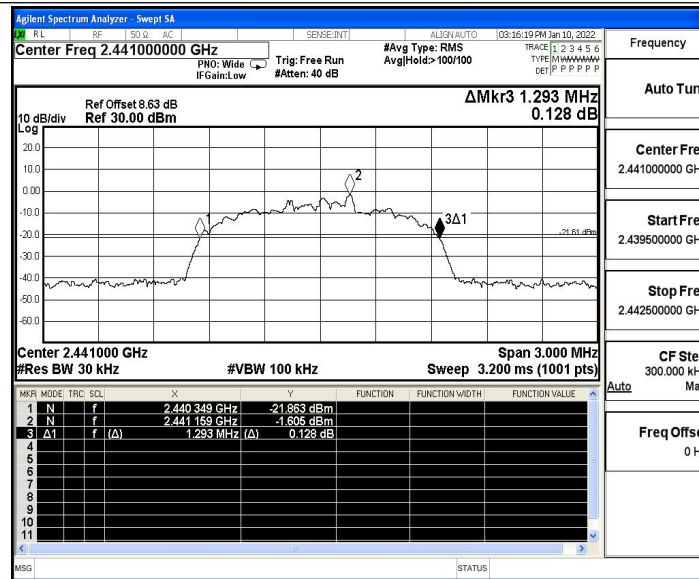
2DH5_Ant1_2480



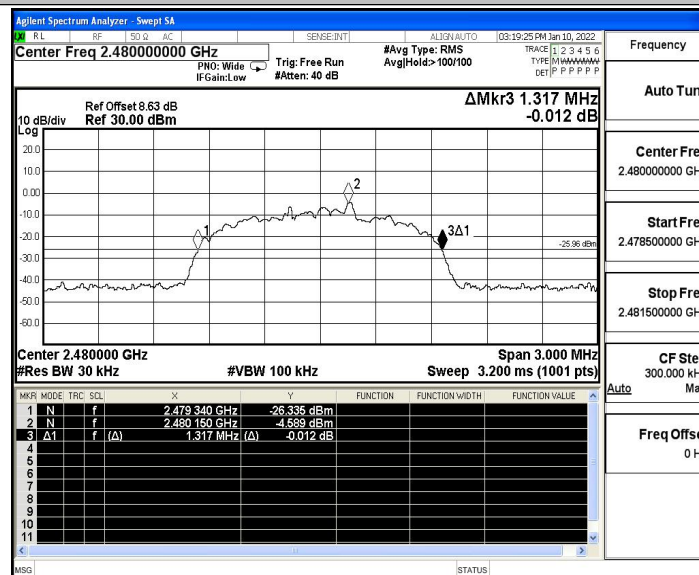
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum peak conducted output power

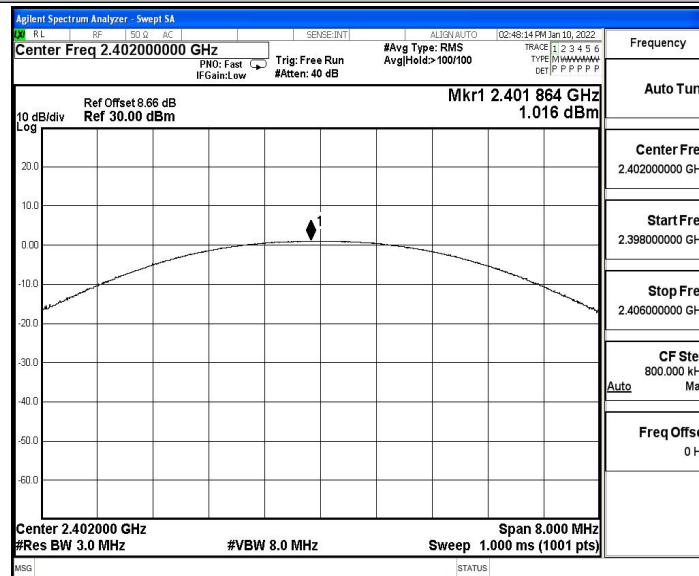
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.02	≤20.97	PASS
		2441	2.51	≤20.97	PASS
		2480	0.91	≤20.97	PASS
2DH5	Ant1	2402	0.21	≤20.97	PASS
		2441	0.63	≤20.97	PASS
		2480	0.05	≤20.97	PASS
3DH5	Ant1	2402	0.33	≤20.97	PASS
		2441	1.8	≤20.97	PASS
		2480	-0.74	≤20.97	PASS

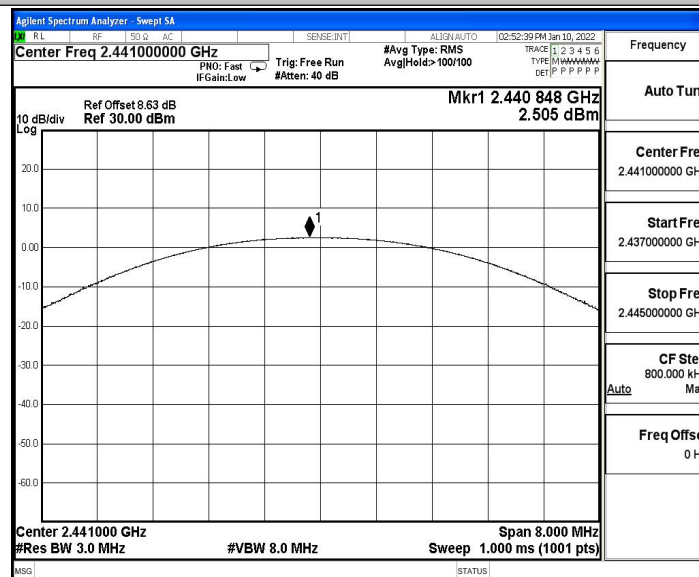


Test Graphs

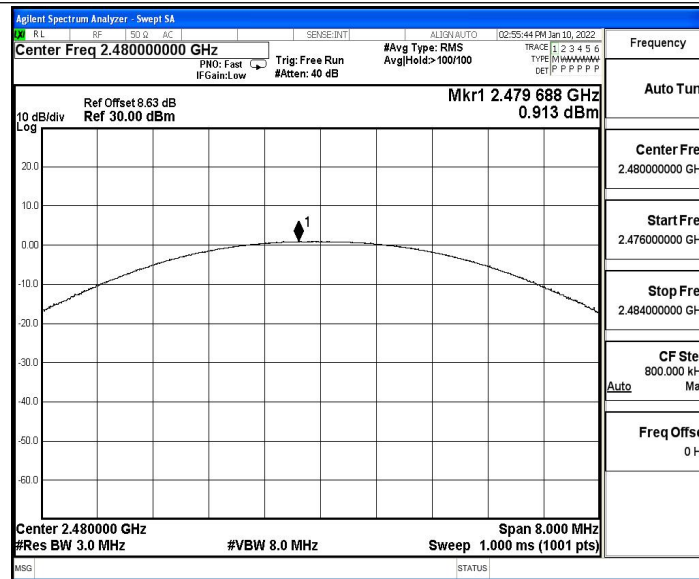
DH5_Ant1_2402



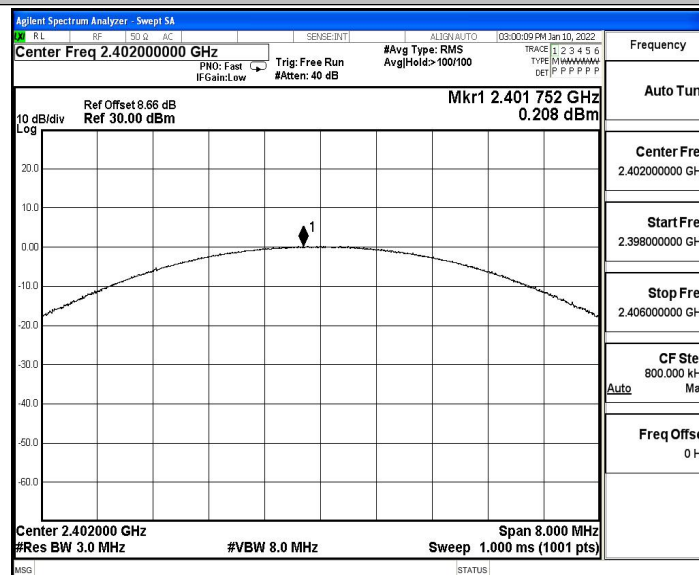
DH5_Ant1_2441



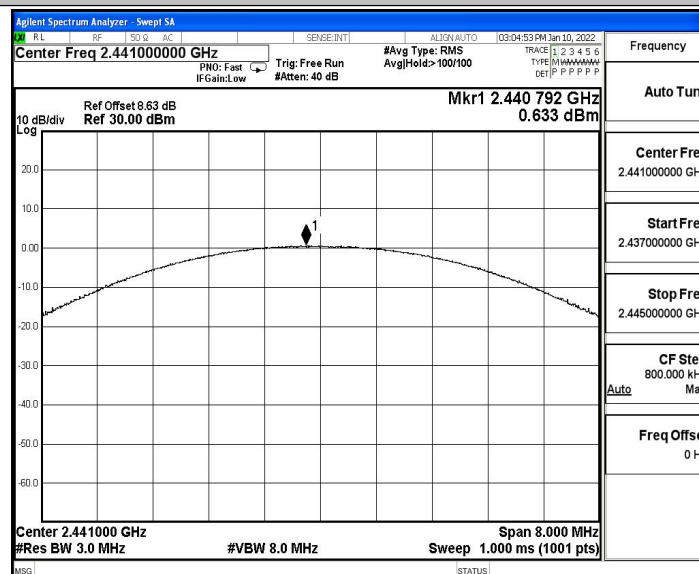
DH5_Ant1_2480



2DH5_Ant1_2402

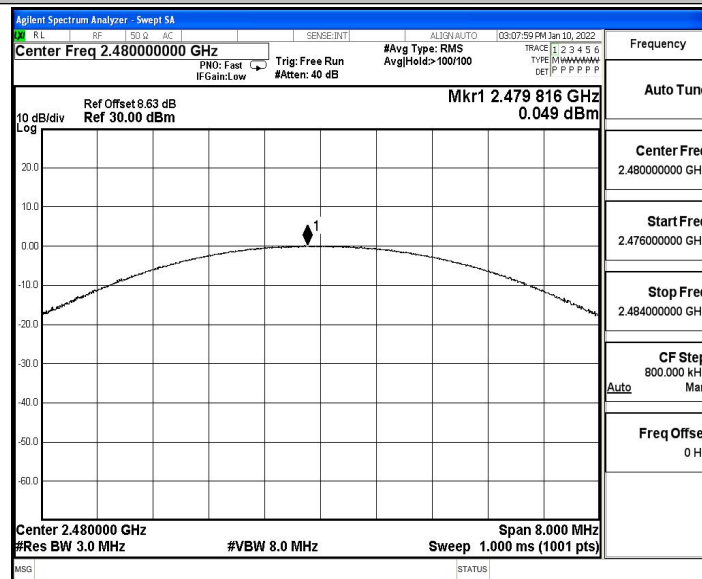


2DH5_Ant1_2441

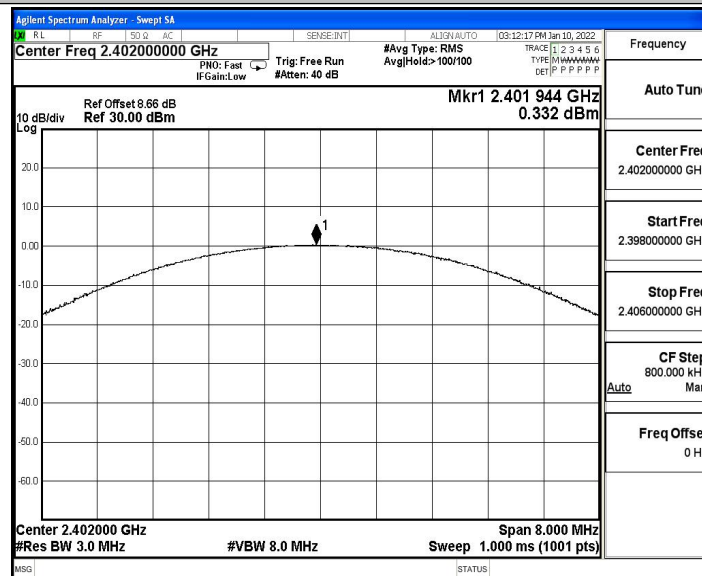




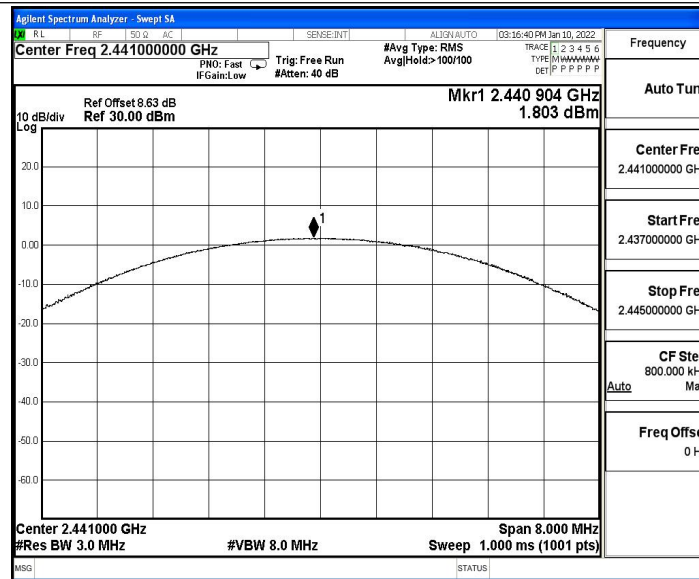
2DH5_Ant1_2480



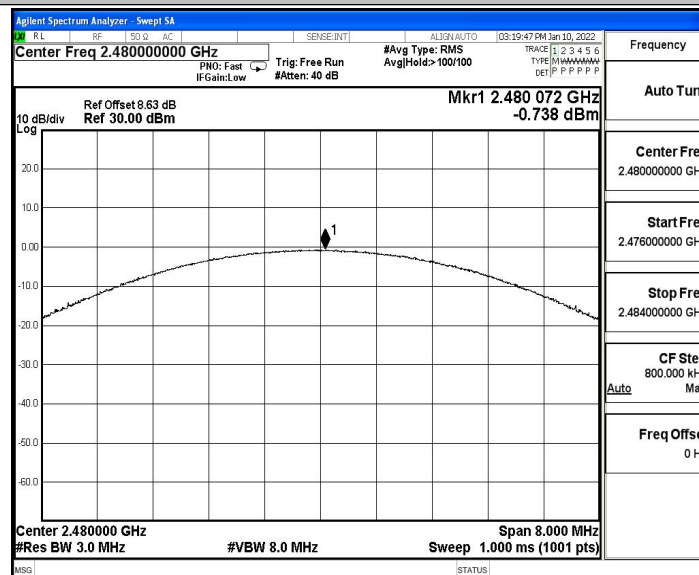
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



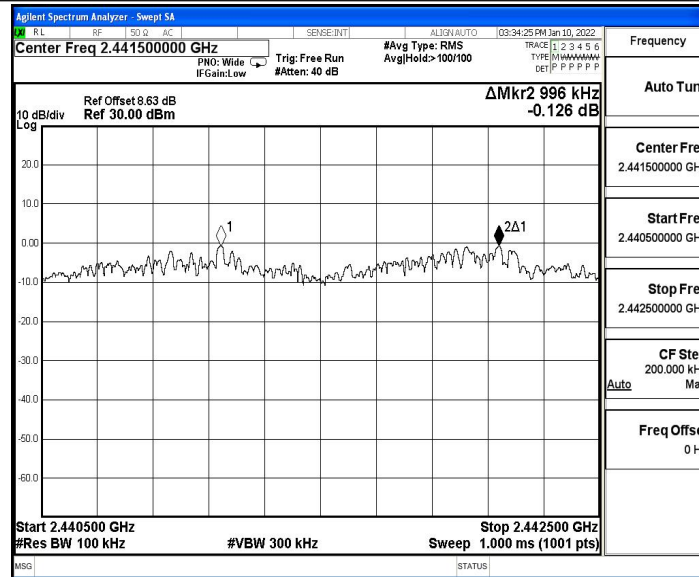


A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.792	≥ 0.692	PASS
2DH5	Ant1	Hop	1.208	≥ 0.886	PASS
3DH5	Ant1	Hop	0.996	≥ 0.878	PASS







A.4 Time of occupancy

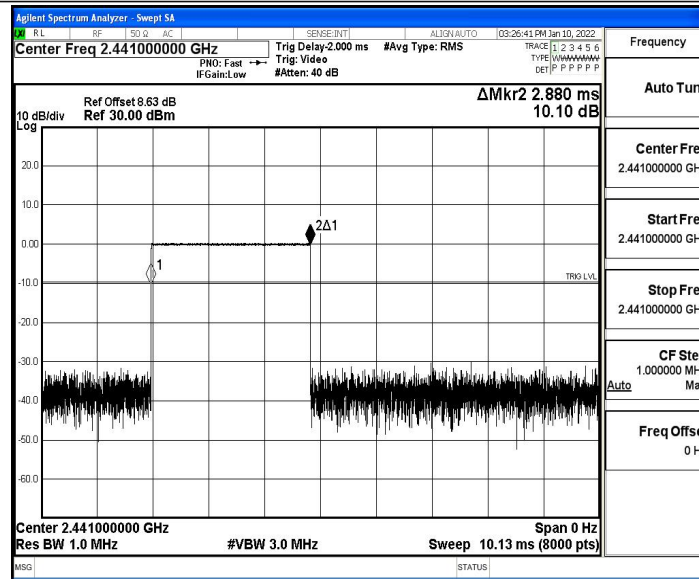
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤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

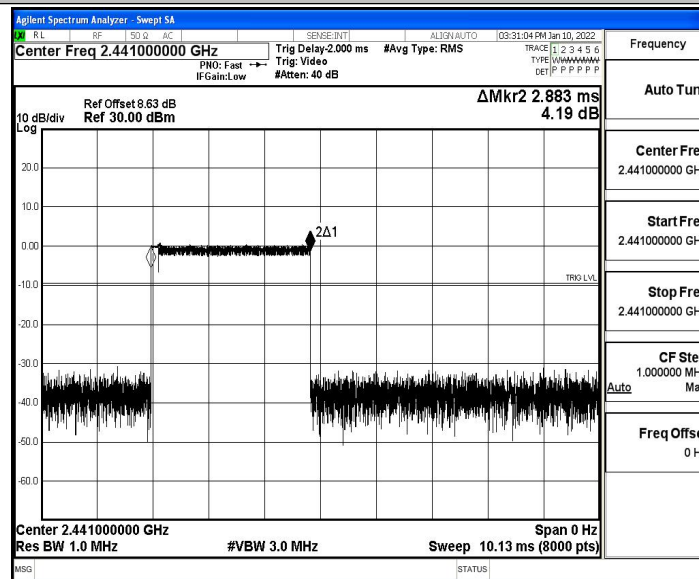


Test Graphs

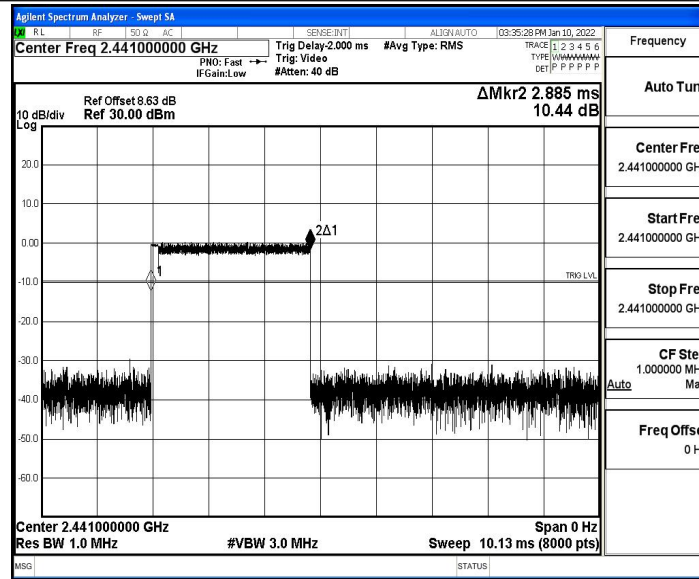
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.5 Number of hopping channels

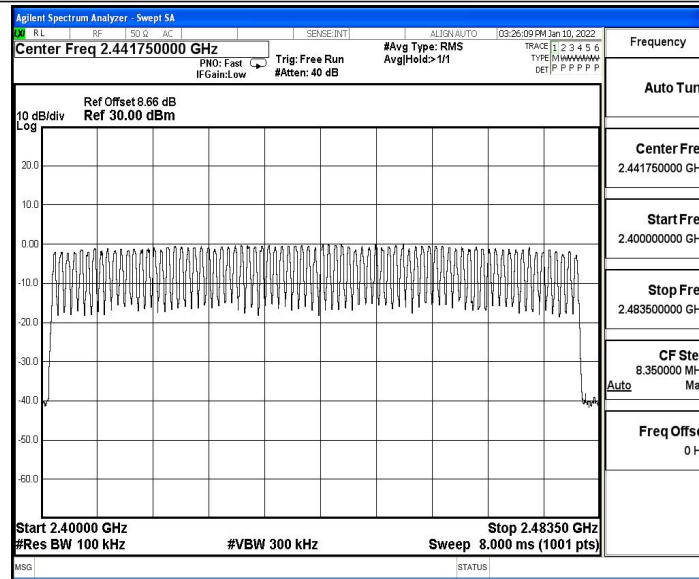
Test Result

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

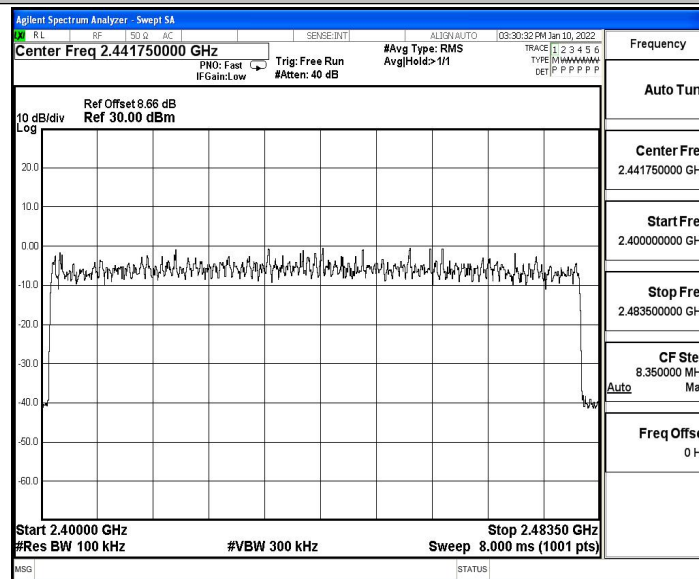


Test Graphs

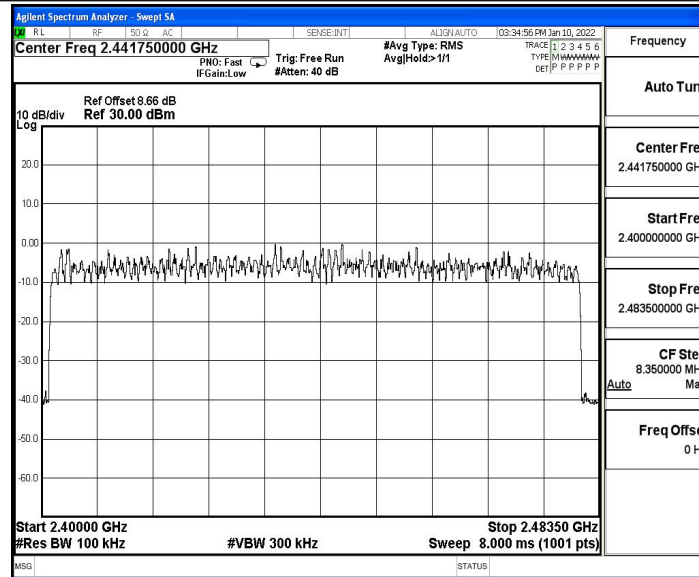
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.6 Band edge measurements

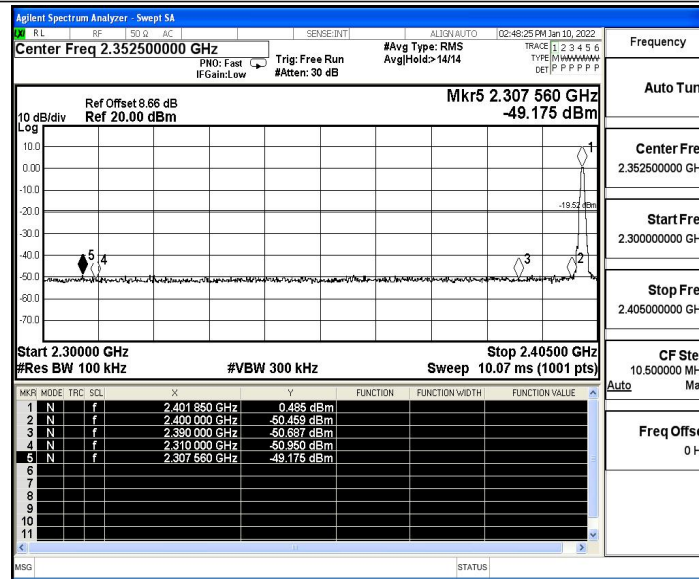
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.49	-49.18	≤ -19.52	PASS
		High	2480	0.53	-47.9	≤ -19.48	PASS
		Low	Hop_2402	-1.77	-49.41	≤ -21.77	PASS
		High	Hop_2480	-1.28	-48.24	≤ -21.28	PASS
2DH5	Ant1	Low	2402	-0.94	-49.12	≤ -20.94	PASS
		High	2480	-0.85	-47.78	≤ -20.85	PASS
		Low	Hop_2402	-2.62	-49.26	≤ -22.62	PASS
		High	Hop_2480	-1.41	-47.73	≤ -21.41	PASS
3DH5	Ant1	Low	2402	-2.21	-48.87	≤ -22.21	PASS
		High	2480	-1.89	-47.27	≤ -21.89	PASS
		Low	Hop_2402	-4.60	-48.95	≤ -24.6	PASS
		High	Hop_2480	-1.99	-47.6	≤ -21.99	PASS

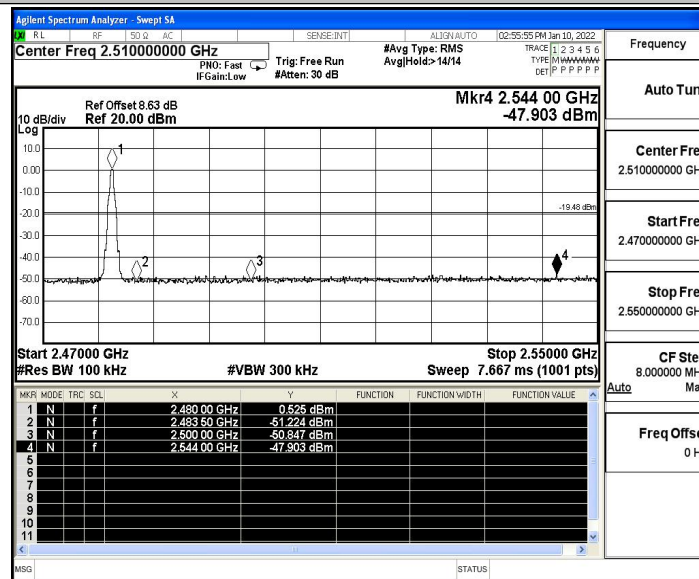


Test Graphs

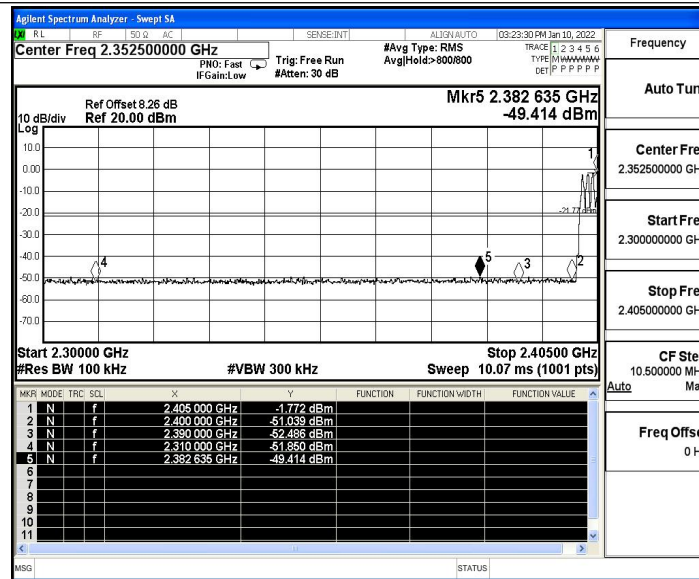
DH5_Ant1_Low_2402



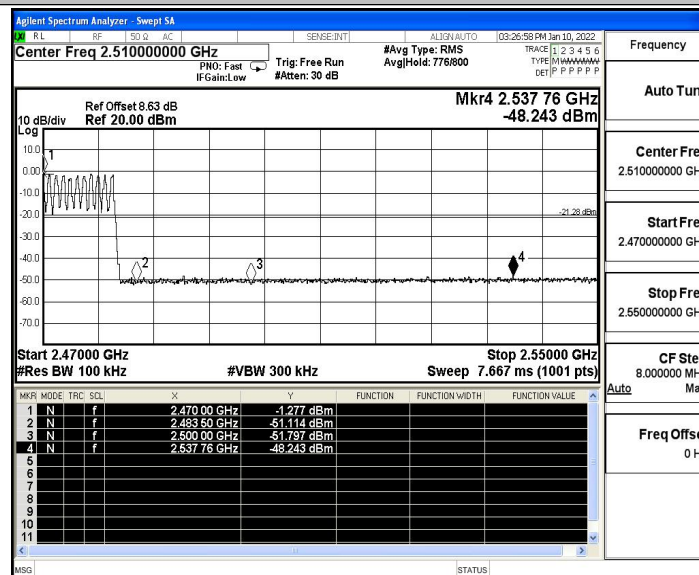
DH5_Ant1_High_2480



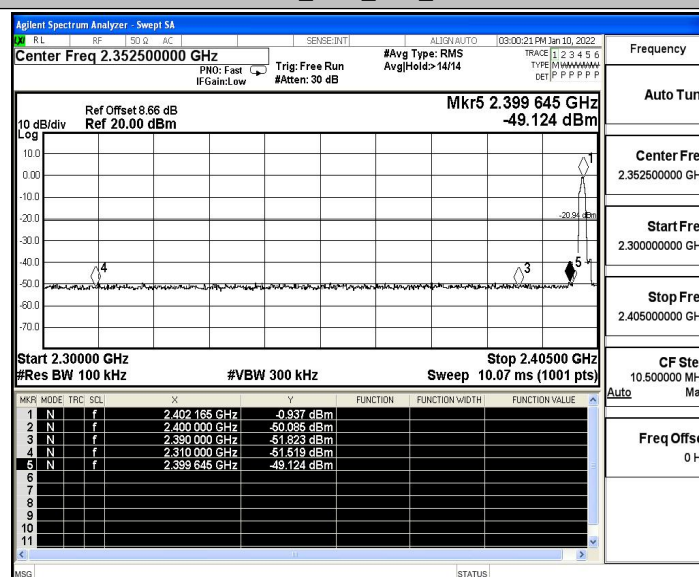
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

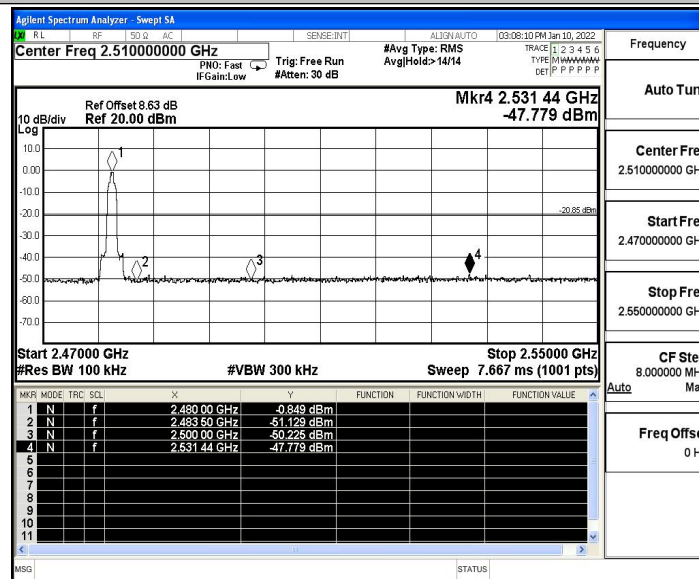


2DH5_Ant1_Low_2402

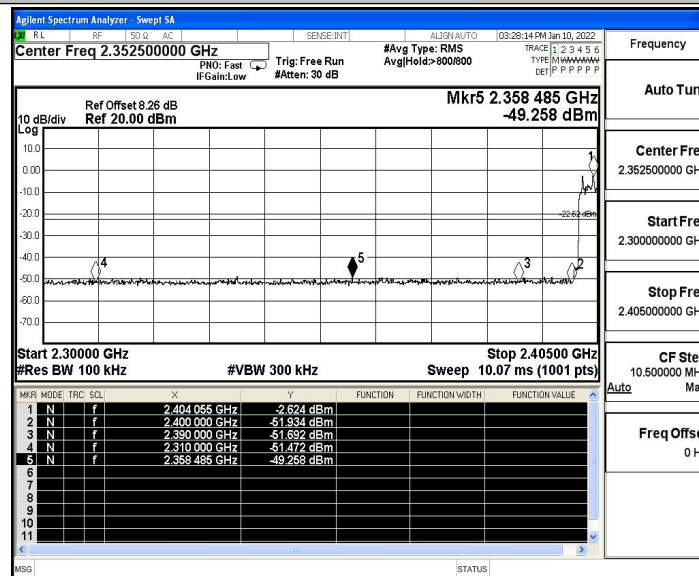




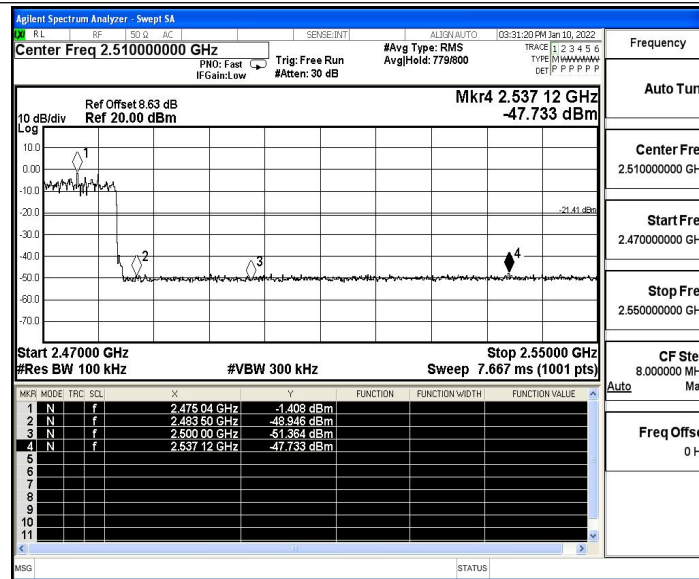
2DH5_Ant1_High_2480



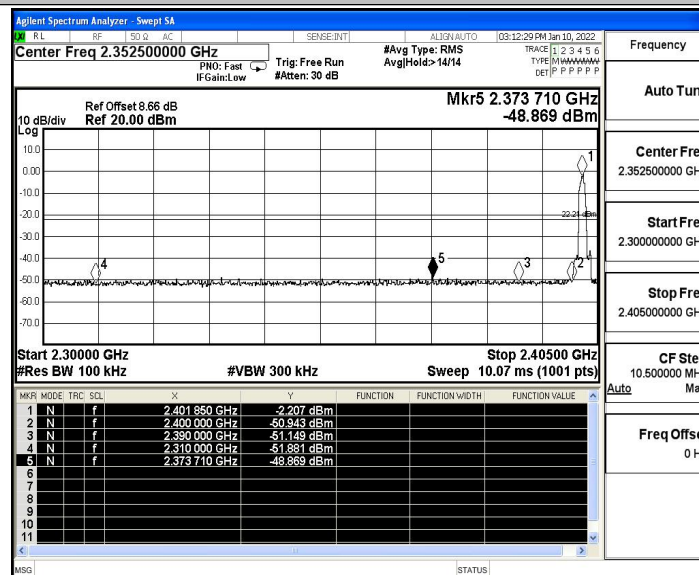
2DH5_Ant1_Low_Hop_2402



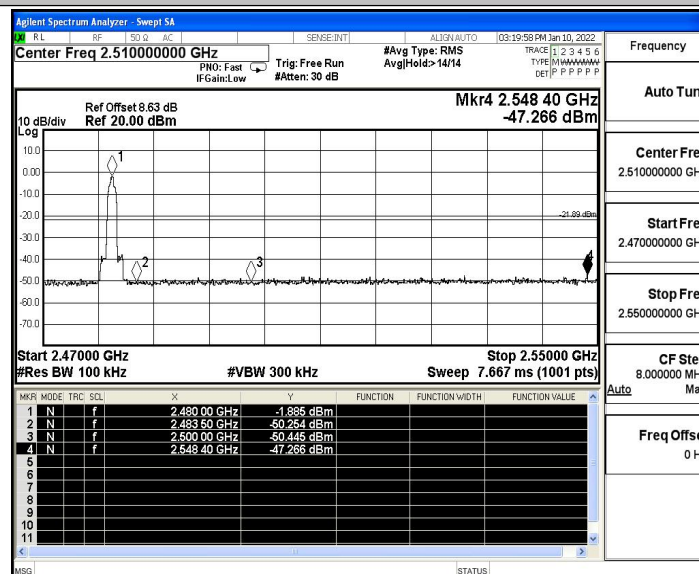
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

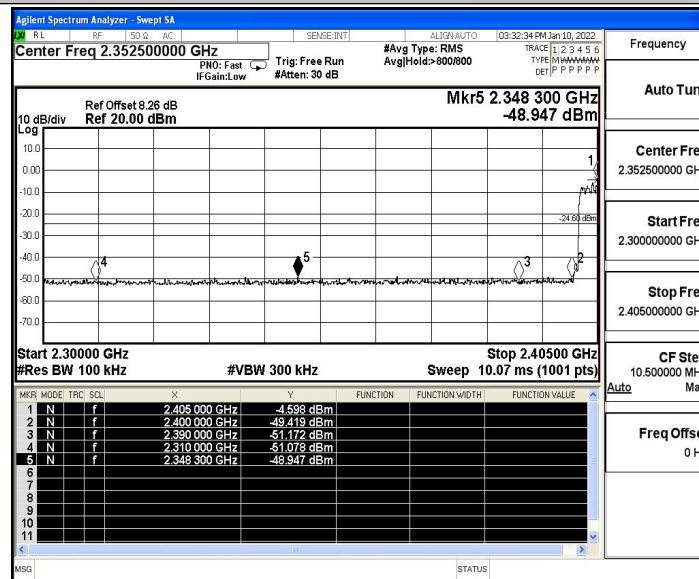


3DH5_Ant1_High_2480

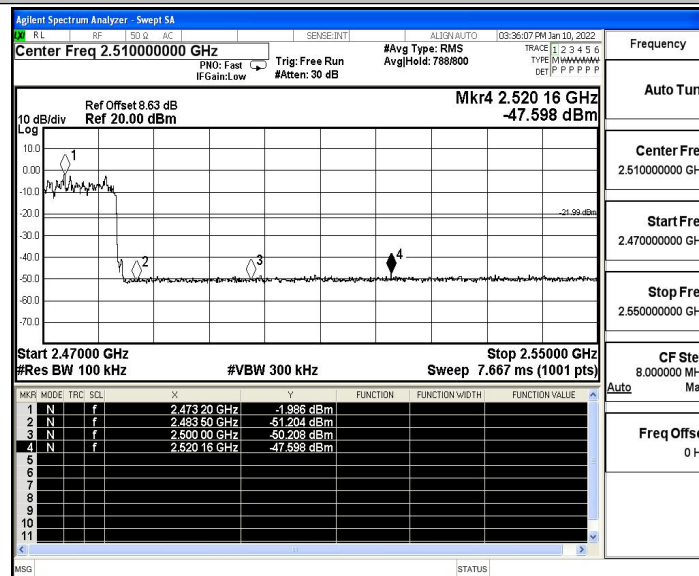




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.39	0.39	---	PASS
			30~1000	0.39	-60.74	≤-19.61	PASS
			1000~26500	0.39	-45.89	≤-19.61	PASS
		2441	Reference	1.93	1.93	---	PASS
			30~1000	1.93	-60.77	≤-18.07	PASS
			1000~26500	1.93	-46.01	≤-18.07	PASS
		2480	Reference	0.36	0.36	---	PASS
			30~1000	0.36	-60.37	≤-19.64	PASS
			1000~26500	0.36	-46.26	≤-19.64	PASS
2DH5	Ant1	2402	Reference	-2.23	-2.23	---	PASS
			30~1000	-2.23	-59.75	≤-22.23	PASS
			1000~26500	-2.23	-45.49	≤-22.23	PASS
		2441	Reference	-0.73	-0.73	---	PASS
			30~1000	-0.73	-60.9	≤-20.73	PASS
			1000~26500	-0.73	-45.33	≤-20.73	PASS
		2480	Reference	-1.01	-1.01	---	PASS
			30~1000	-1.01	-61.01	≤-21.01	PASS
			1000~26500	-1.01	-45.94	≤-21.01	PASS
3DH5	Ant1	2402	Reference	-0.98	-0.98	---	PASS
			30~1000	-0.98	-60.99	≤-20.98	PASS
			1000~26500	-0.98	-45.2	≤-20.98	PASS
		2441	Reference	-0.47	-0.47	---	PASS
			30~1000	-0.47	-60.92	≤-20.47	PASS
			1000~26500	-0.47	-46.51	≤-20.47	PASS
		2480	Reference	-2.09	-2.09	---	PASS
			30~1000	-2.09	-60.59	≤-22.09	PASS
			1000~26500	-2.09	-46.47	≤-22.09	PASS