





Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: STAGE & STUDIO PA SPEAKER & DJ MIXER BUNDLE KIT

Test Model: PPHP210AMX

Environmental Conditions

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





A.1 20dB Emission Bandwidth

Test Result

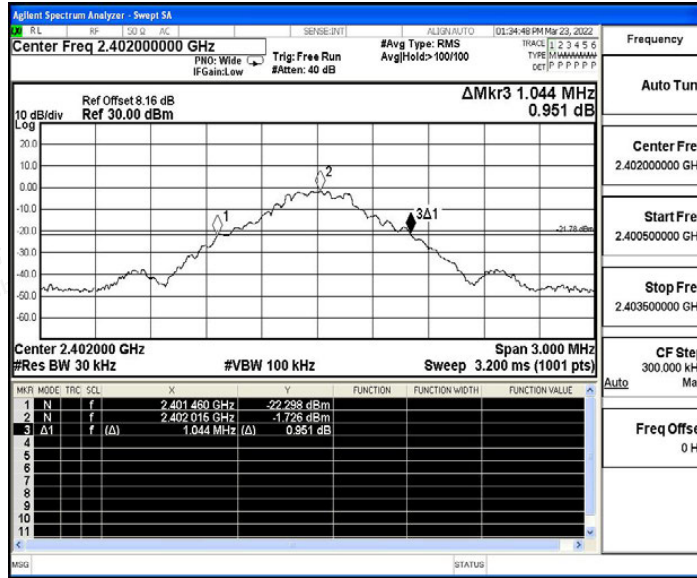
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.044	2401.460	2402.504	---	---
		2441	1.041	2440.463	2441.504	---	---
		2480	1.041	2479.463	2480.504	---	---
2DH5	Ant1	2402	1.293	2401.361	2402.654	---	---
		2441	1.293	2440.361	2441.654	---	---
		2480	1.290	2479.361	2480.651	---	---



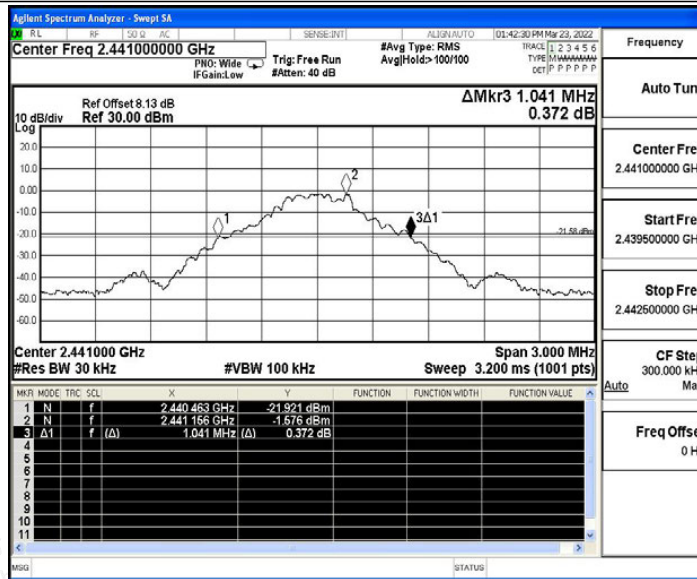


Test Graphs

DH5_Ant1_2402

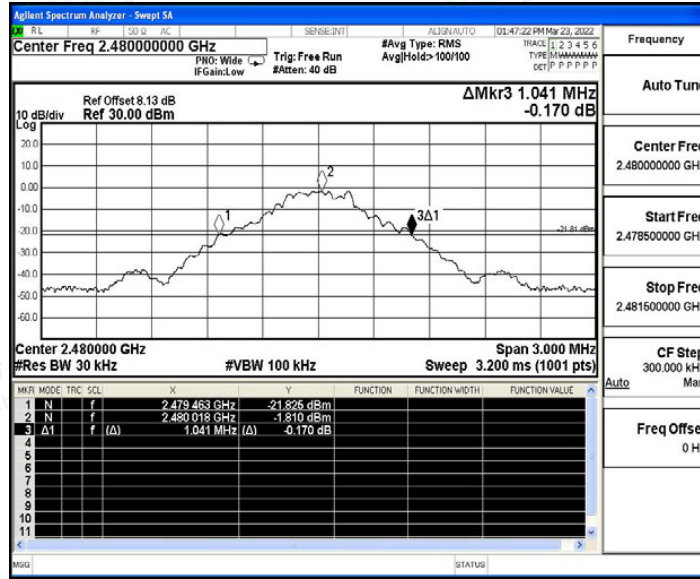


DH5_Ant1_2441

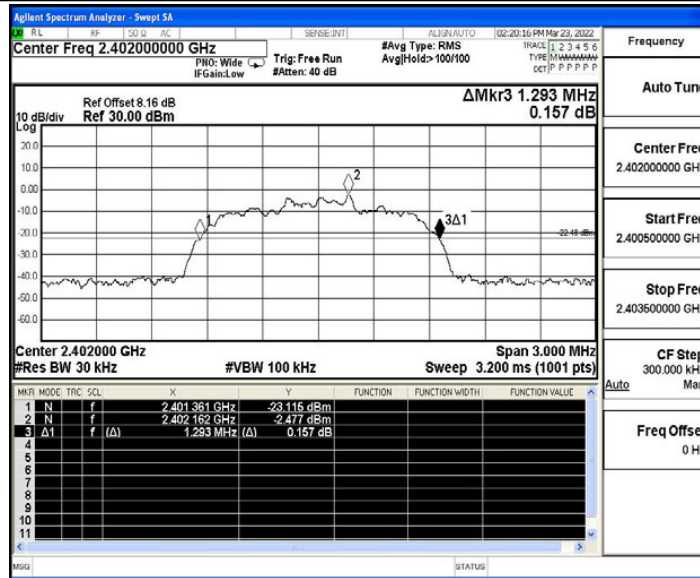


DH5_Ant1_2480



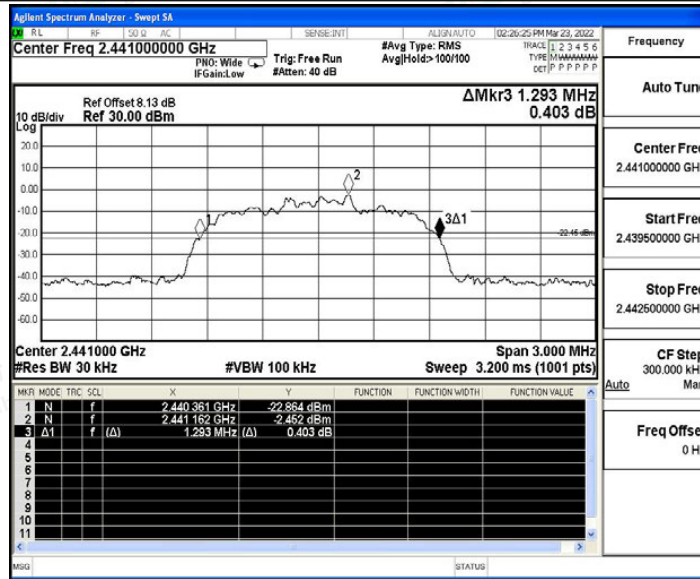


2DH5_Ant1_2402

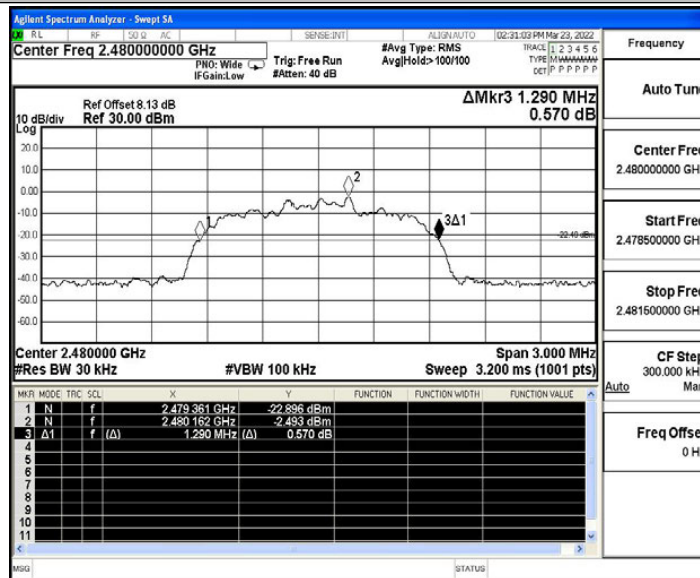


2DH5_Ant1_2441





2DH5_Ant1_2480





A.2 Maximum peak conducted output power

Test Result

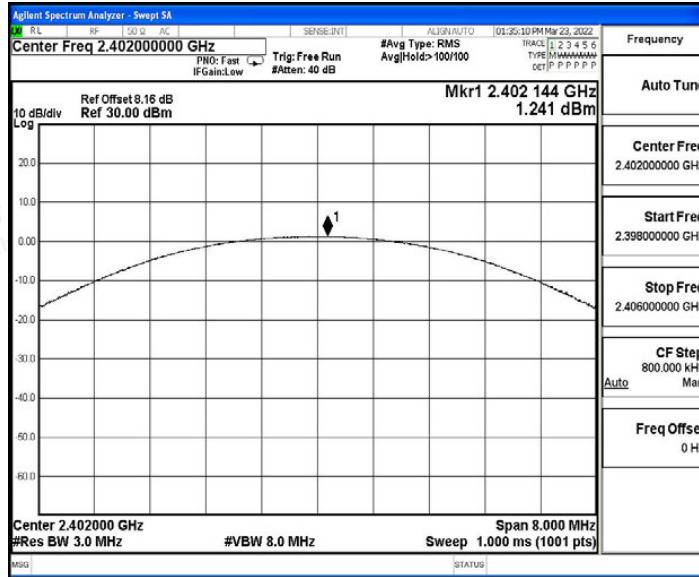
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.24	≤20.97	PASS
		2441	1.36	≤20.97	PASS
		2480	1.17	≤20.97	PASS
2DH5	Ant1	2402	1.38	≤20.97	PASS
		2441	1.68	≤20.97	PASS
		2480	1.35	≤20.97	PASS



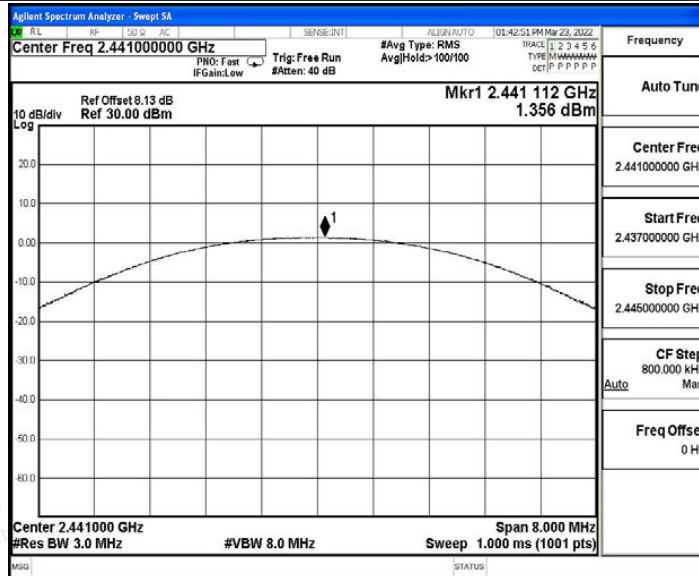


Test Graphs

DH5_Ant1_2402

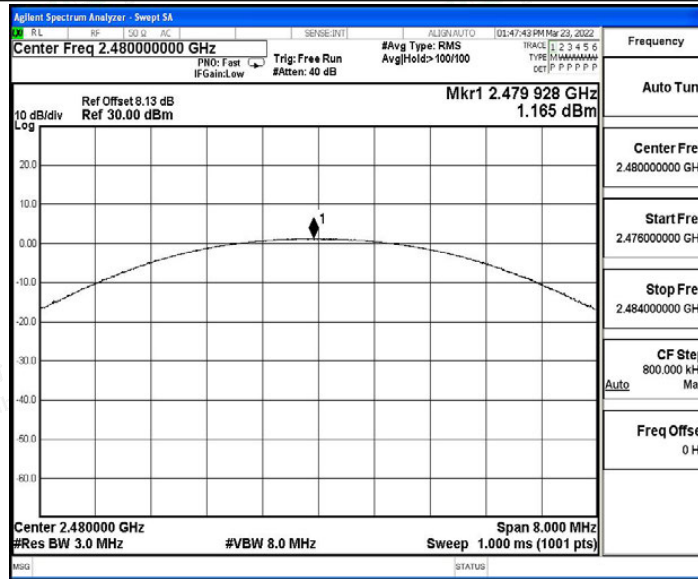


DH5_Ant1_2441

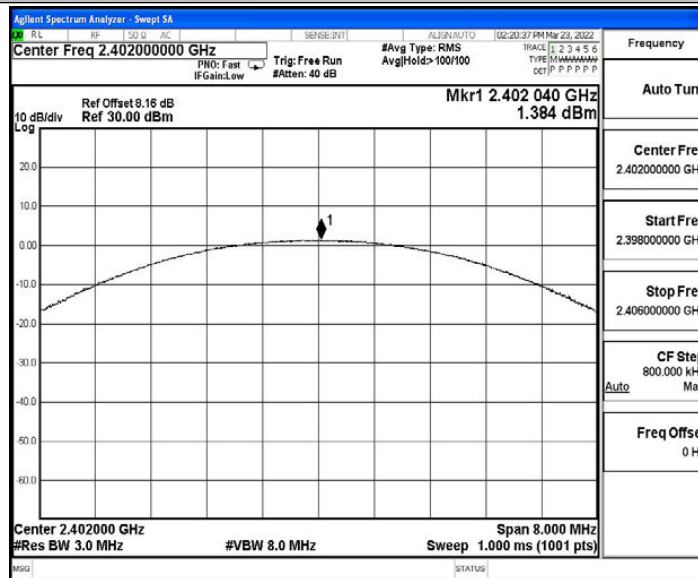


DH5_Ant1_2480



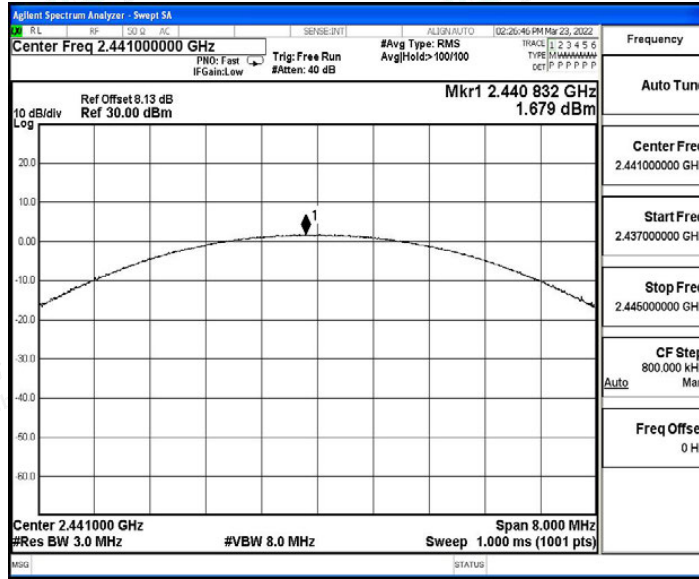


2DH5_Ant1_2402

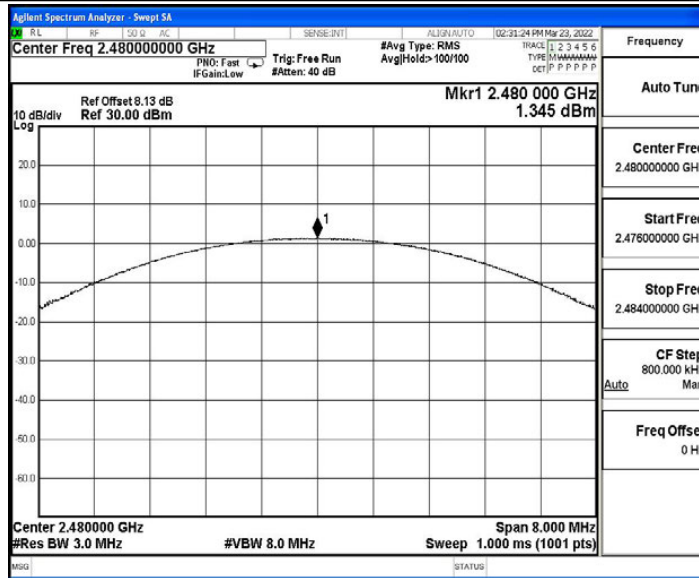


2DH5_Ant1_2441





2DH5_Ant1_2480





A.3 Carrier frequency separation

Test Result

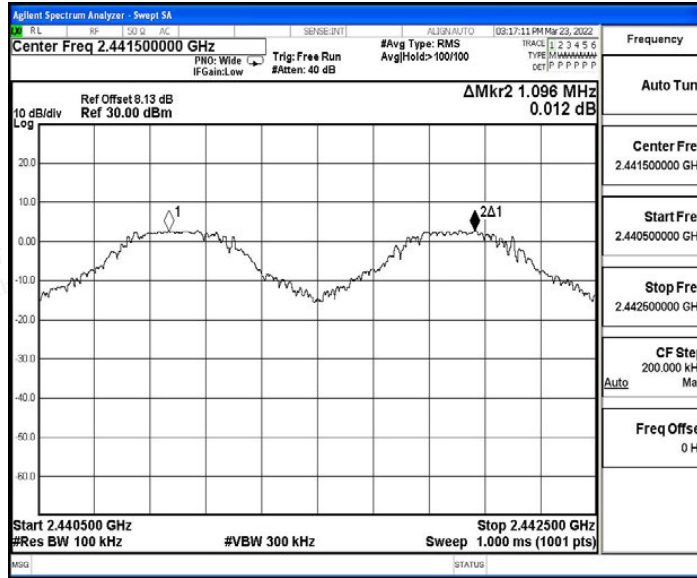
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.096	≥0.696	PASS
2DH5	Ant1	Hop	1.004	≥0.862	PASS



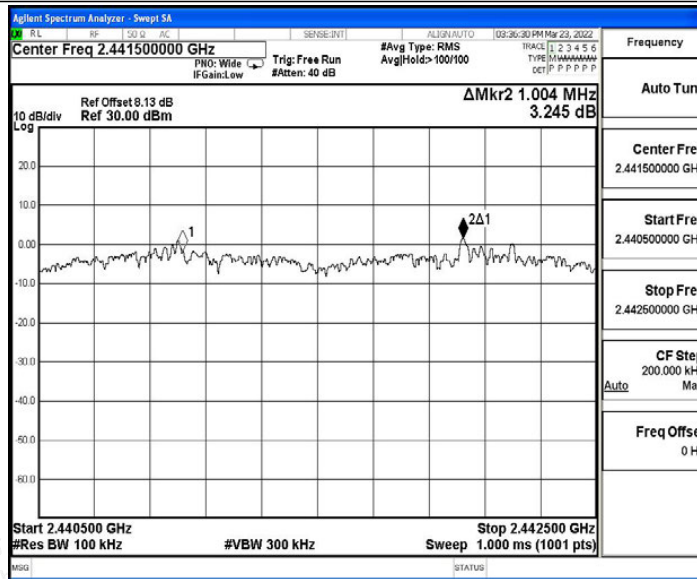


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.4 Time of occupancy

Test Result

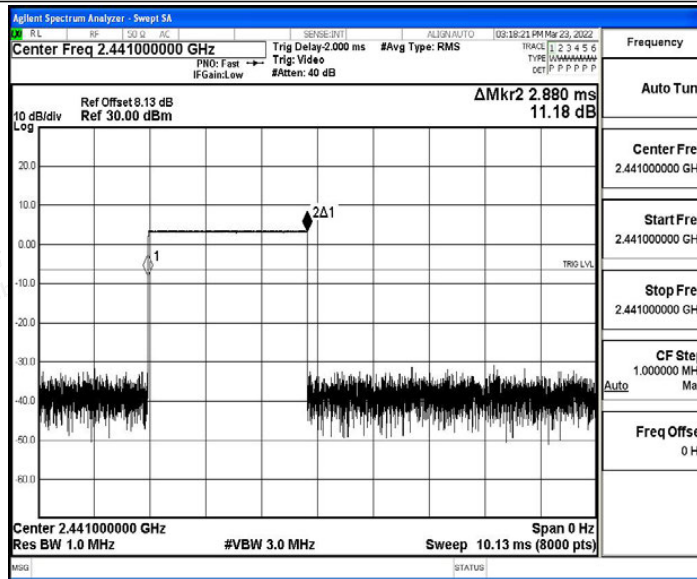
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS



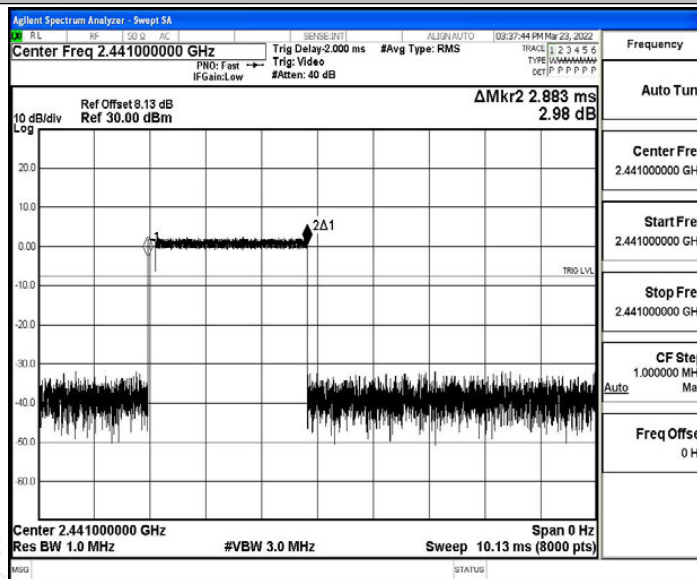


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.5 Number of hopping channels

Test Result

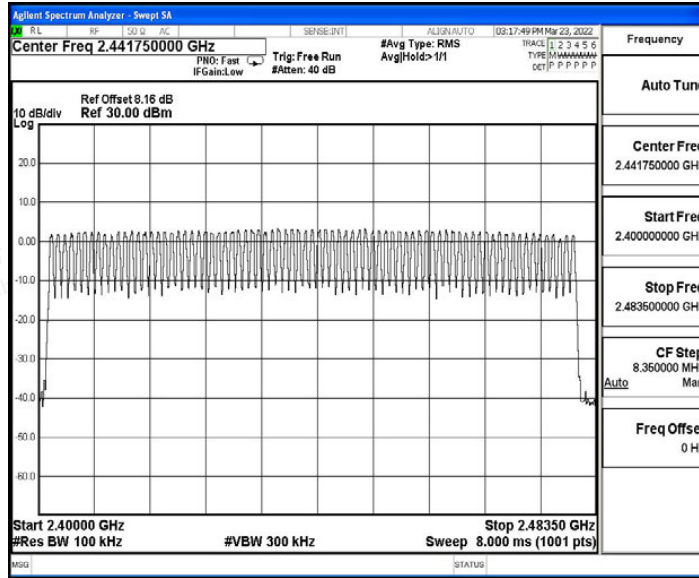
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS



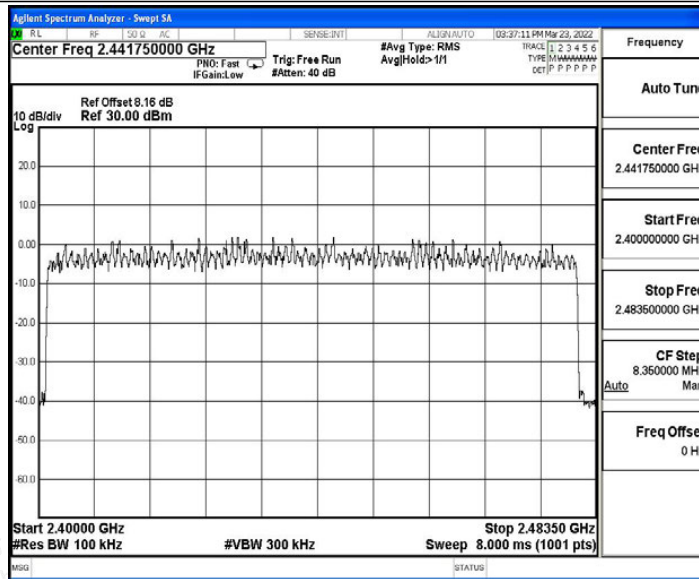


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.6 Band edge measurements

Test Result

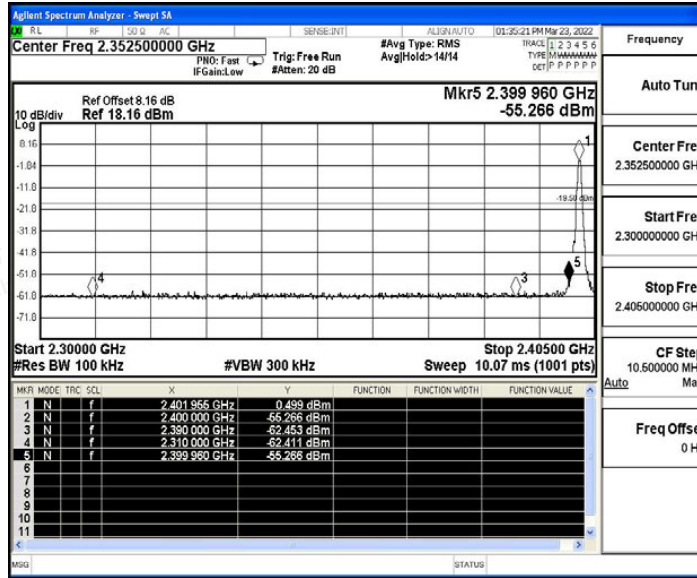
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.50	-55.27	≤-19.5	PASS
		High	2480	0.48	-58.33	≤-19.52	PASS
		Low	Hop_2402	1.72	-59.09	≤-18.28	PASS
		High	Hop_2480	1.69	-57.97	≤-18.31	PASS
2DH5	Ant1	Low	2402	0.38	-55.99	≤-19.62	PASS
		High	2480	0.39	-58.16	≤-19.61	PASS
		Low	Hop_2402	-3.32	-59.88	≤-23.32	PASS
		High	Hop_2480	-1.62	-58.49	≤-21.62	PASS



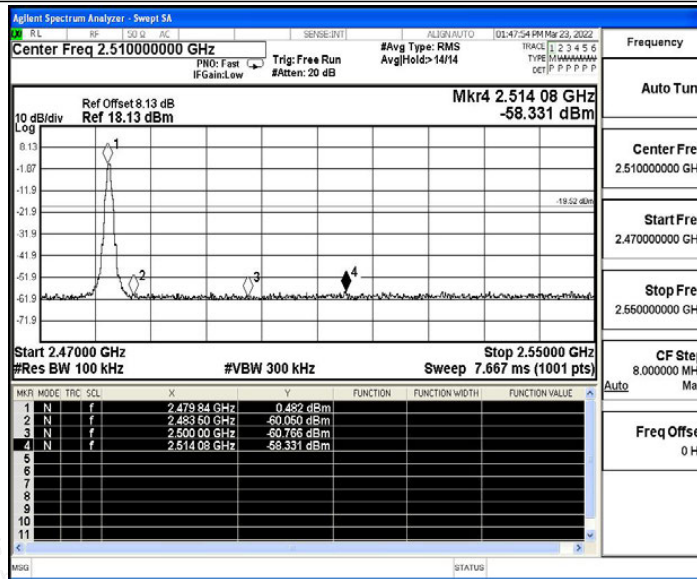


Test Graphs

DH5_Ant1_Low_2402

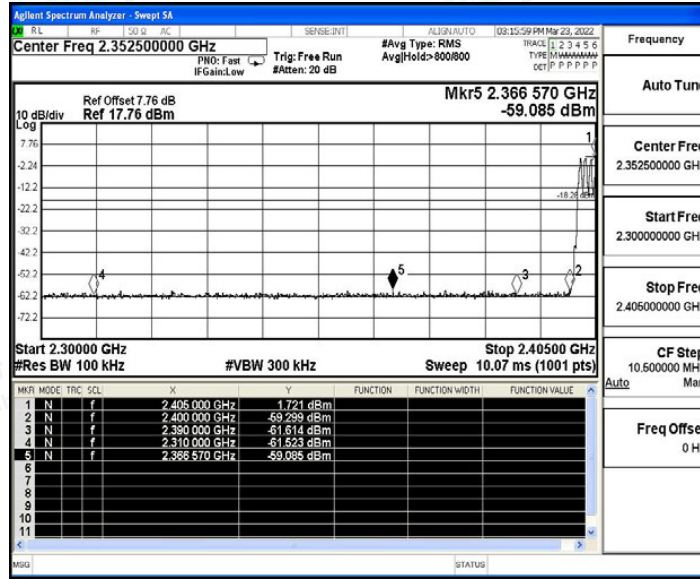


DH5_Ant1_High_2480

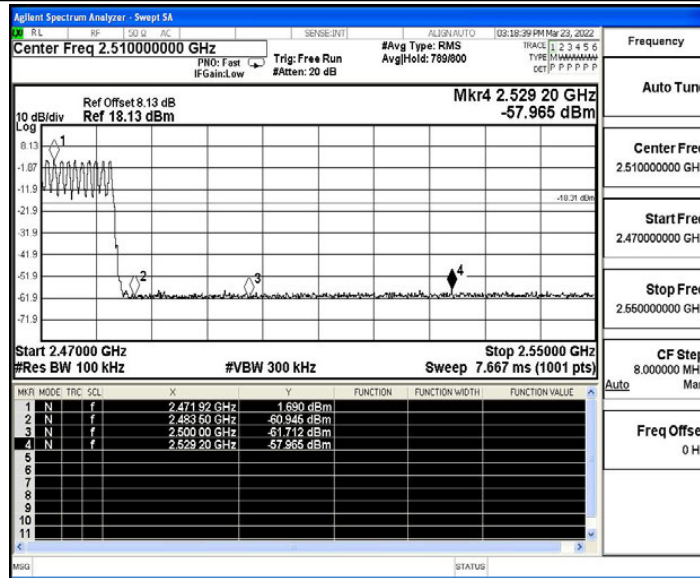


DH5_Ant1_Low_Hop_2402



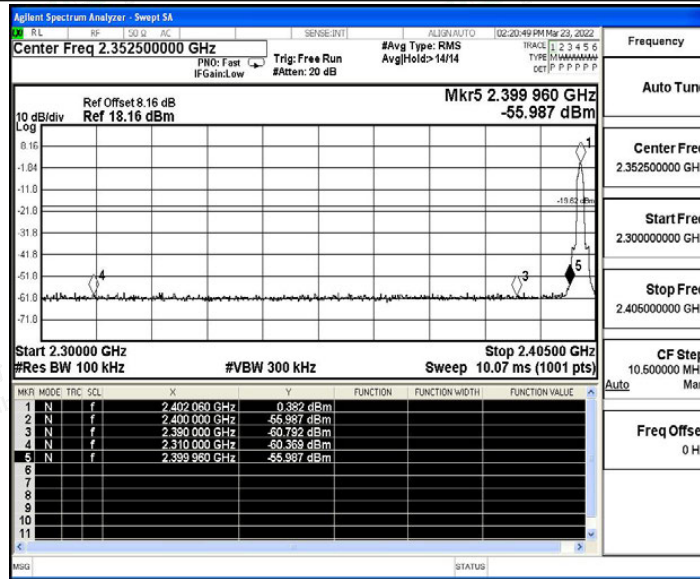


DH5_Ant1_High_Hop_2480

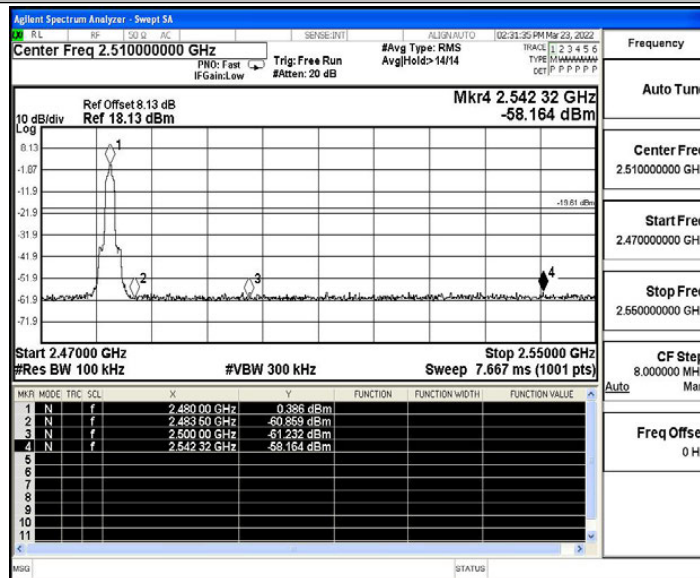


2DH5_Ant1_Low_2402



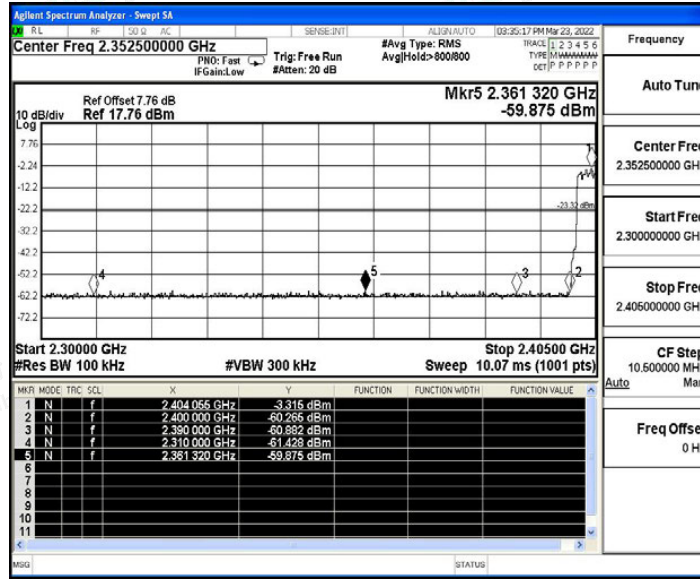


2DH5_Ant1_High_2480

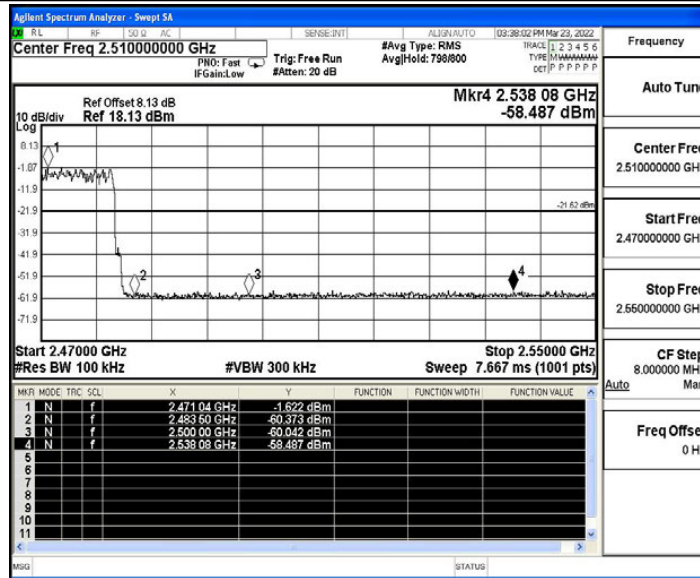


2DH5_Ant1_Low_Hop_2402





2DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

Test Result

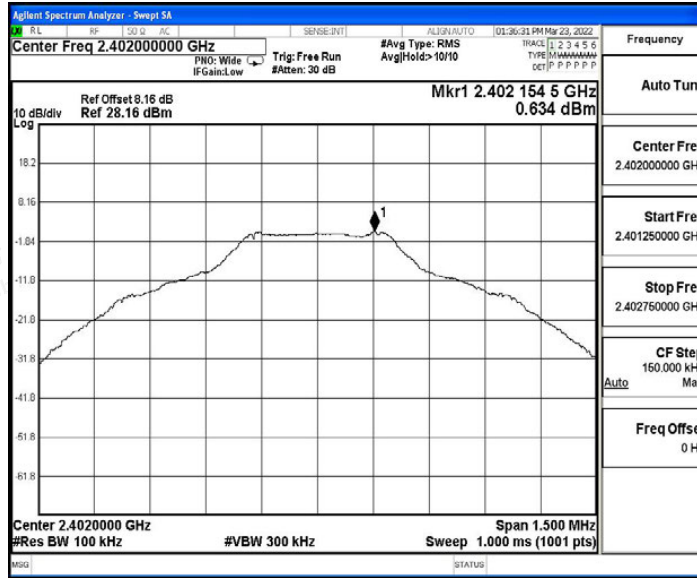
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.63	0.63	---	PASS
			30~1000	0.63	-60.62	≤-19.37	PASS
			1000~26500	0.63	-47.04	≤-19.37	PASS
		2441	Reference	0.77	0.77	---	PASS
			30~1000	0.77	-61.29	≤-19.23	PASS
			1000~26500	0.77	-46.06	≤-19.23	PASS
		2480	Reference	0.61	0.61	---	PASS
			30~1000	0.61	-61.07	≤-19.39	PASS
			1000~26500	0.61	-46.77	≤-19.39	PASS
2DH5	Ant1	2402	Reference	0.12	0.12	---	PASS
			30~1000	0.12	-61.04	≤-19.88	PASS
			1000~26500	0.12	-46.79	≤-19.88	PASS
		2441	Reference	0.53	0.53	---	PASS
			30~1000	0.53	-39.25	≤-19.47	PASS
			1000~26500	0.53	-46.09	≤-19.47	PASS
		2480	Reference	0.21	0.21	---	PASS
			30~1000	0.21	-61.1	≤-19.79	PASS
			1000~26500	0.21	-46.14	≤-19.79	PASS



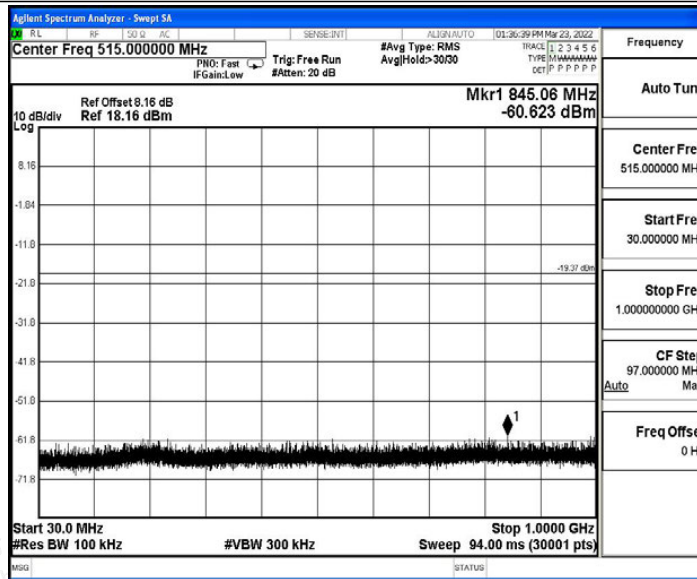


Test Graphs

DH5_Ant1_2402_0~Reference

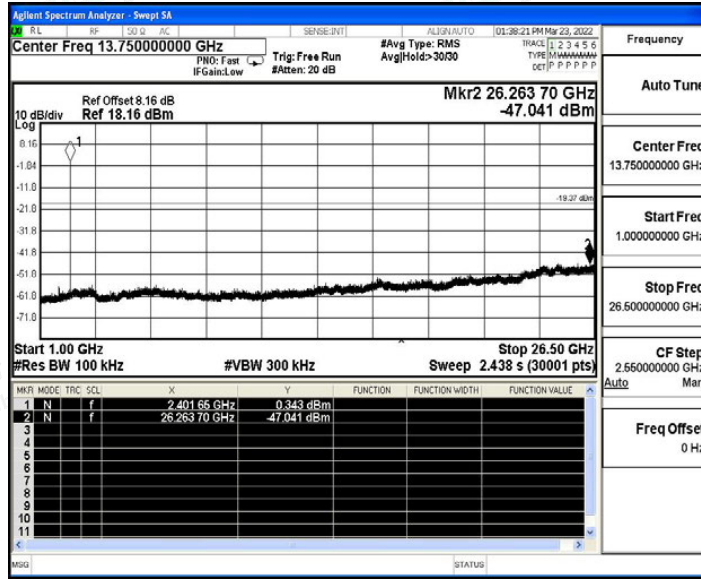


DH5_Ant1_2402_30~1000

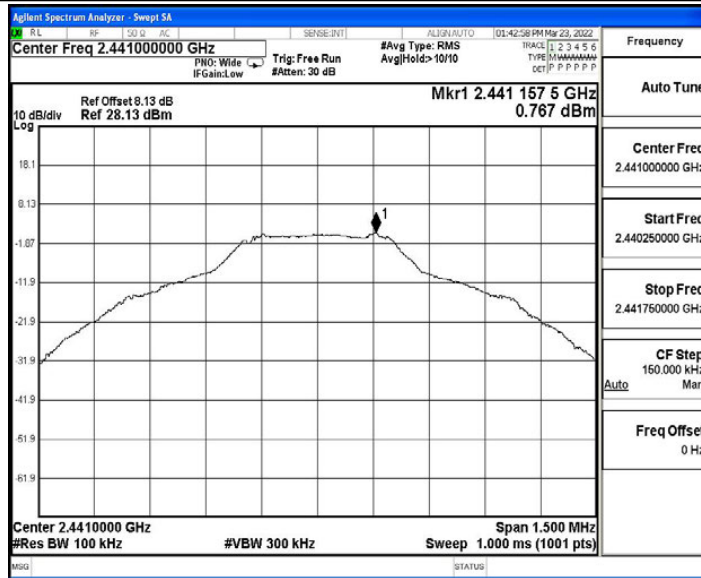


DH5_Ant1_2402_1000~26500



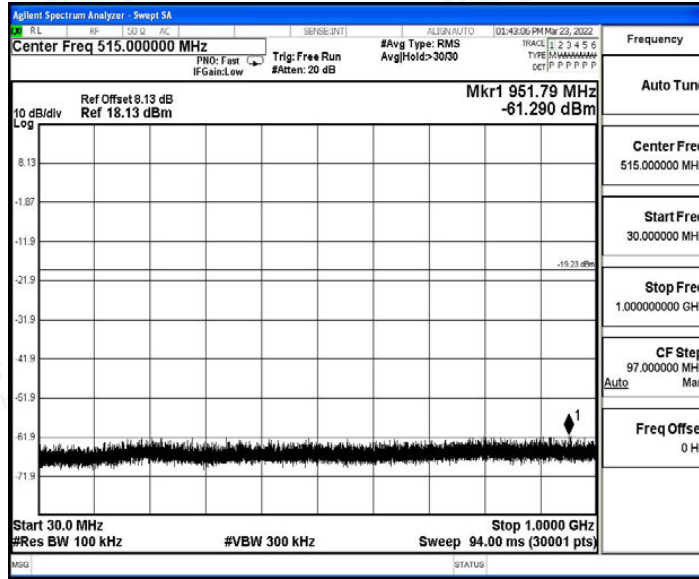


DH5_Ant1_2441_0~Reference

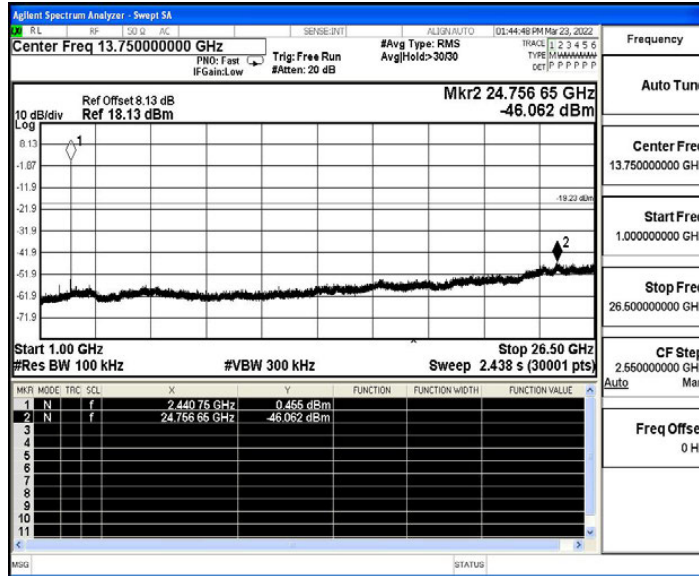


DH5_Ant1_2441_30~1000



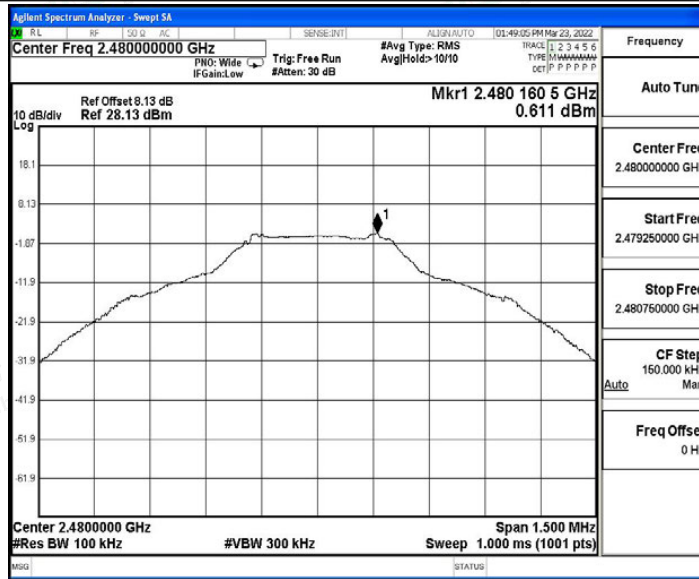


DH5_Ant1_2441_1000~26500

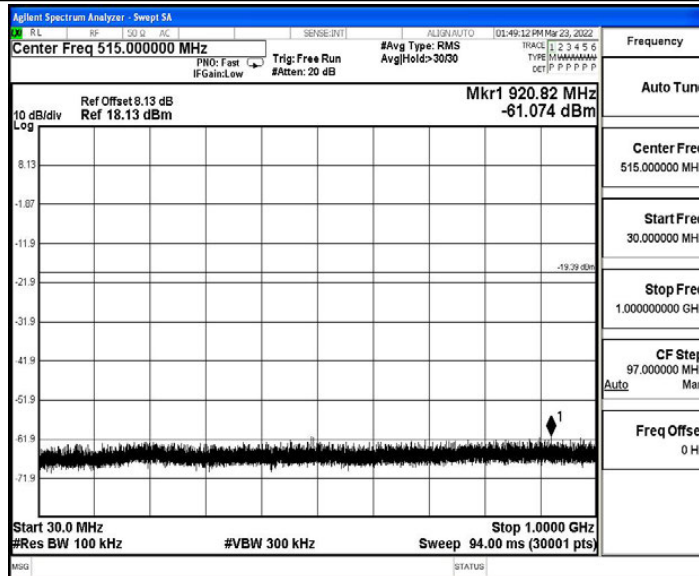


DH5_Ant1_2480_0~Reference



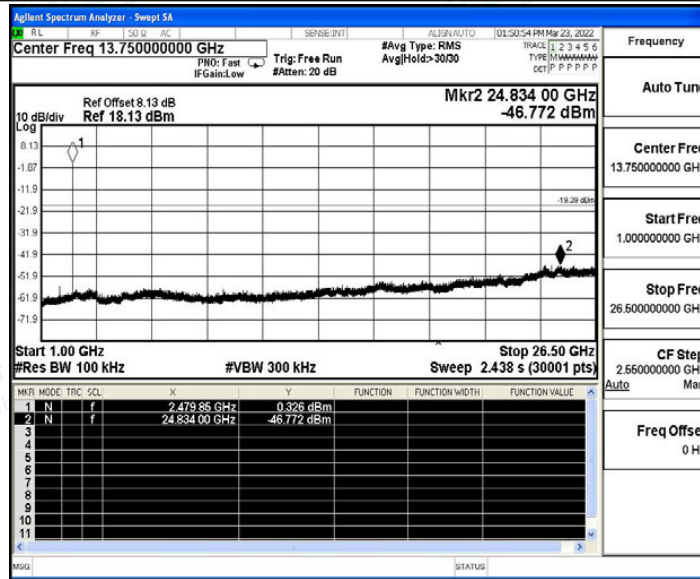


DH5_Ant1_2480_30~1000

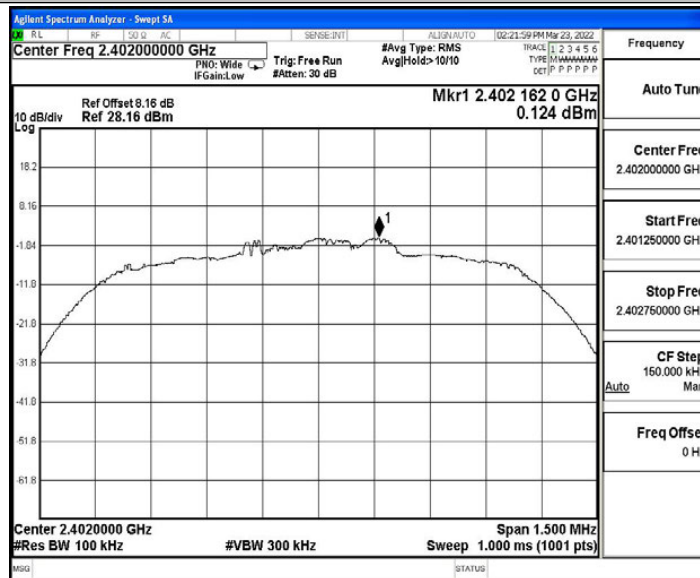


DH5_Ant1_2480_1000~26500



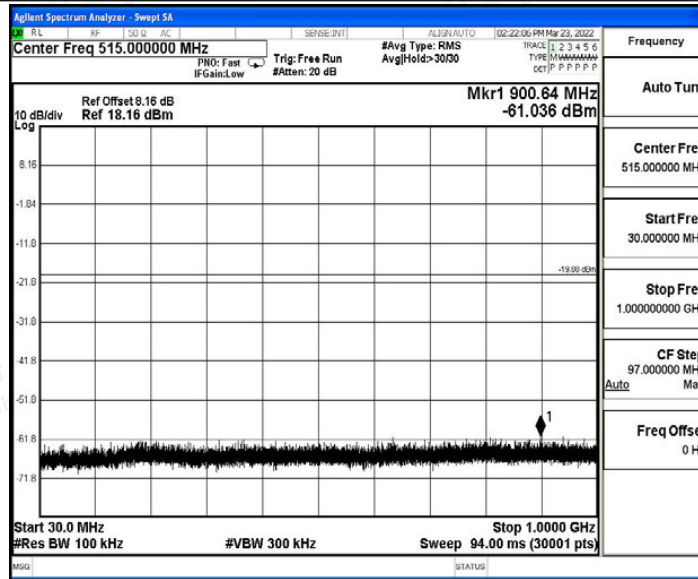


2DH5_Ant1_2402_0~Reference

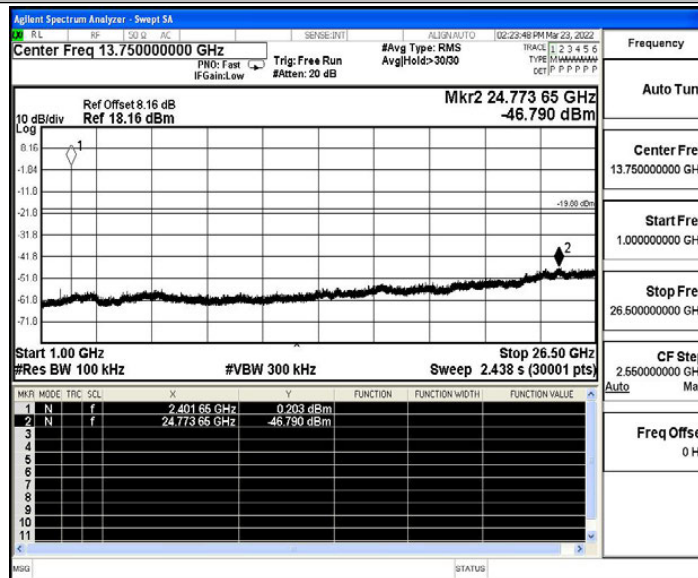


2DH5_Ant1_2402_30~1000



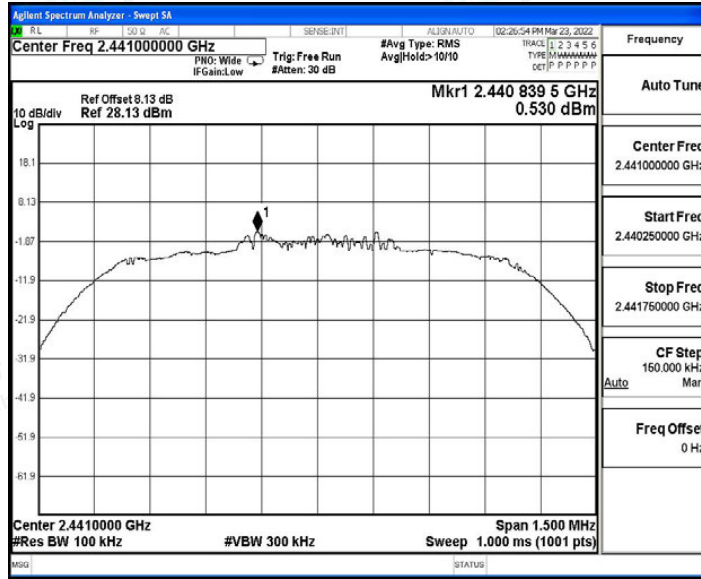


2DH5_Ant1_2402_1000~26500

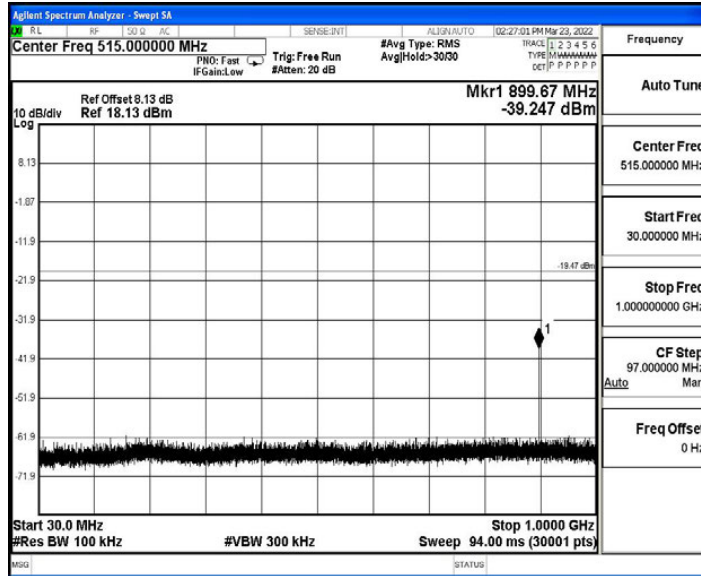


2DH5_Ant1_2441_0~Reference



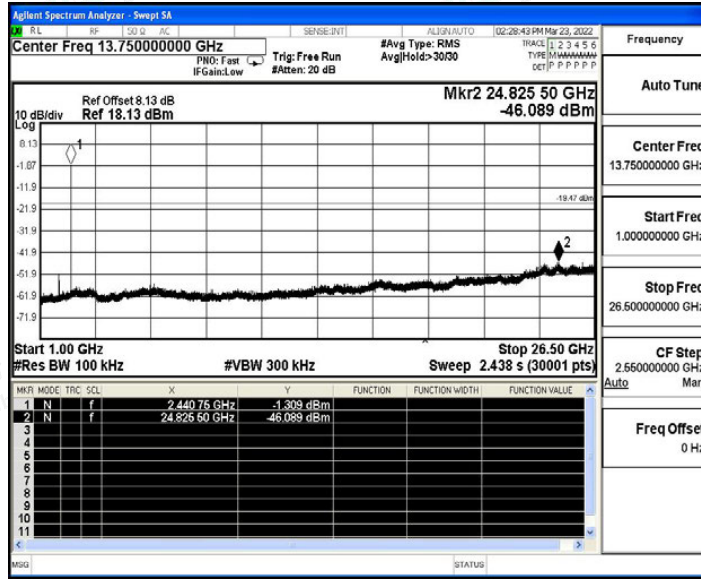


2DH5_Ant1_2441_30~1000

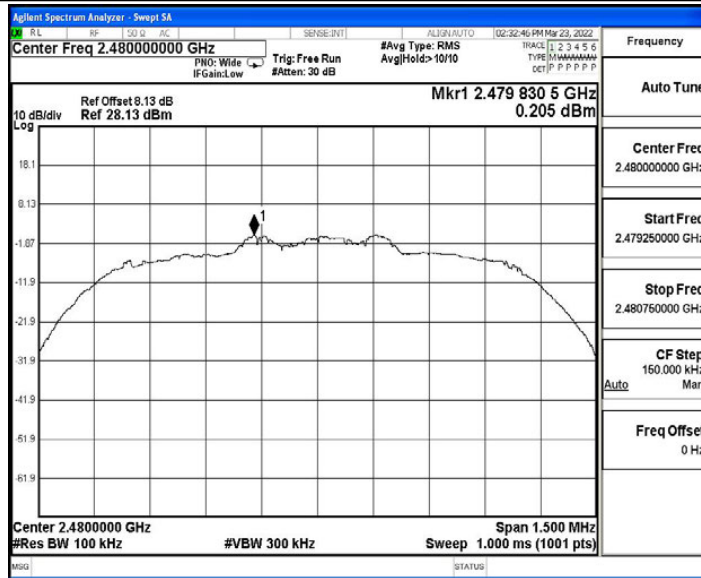


2DH5_Ant1_2441_1000~26500



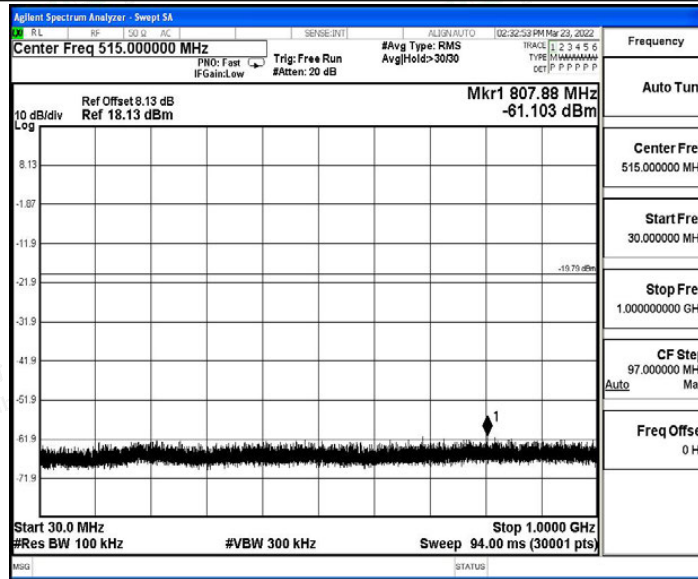


2DH5_Ant1_2480_0~Reference

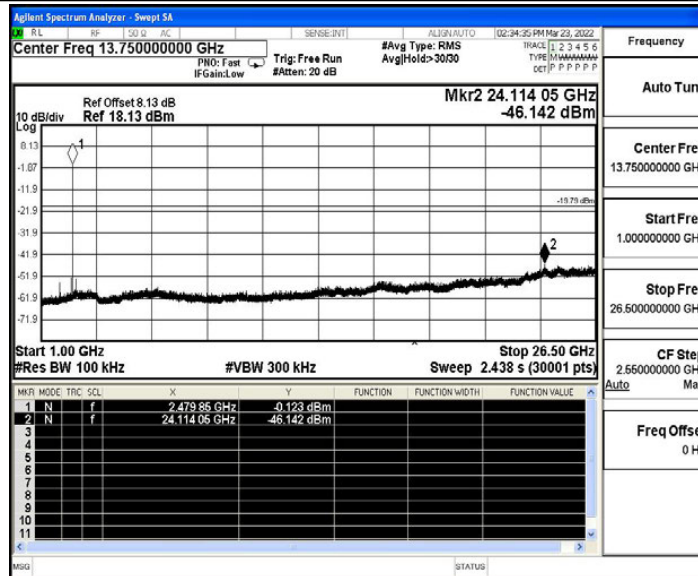


2DH5_Ant1_2480_30~1000





2DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-58.71	≤-41.20	36.49	≤54	PASS
				AV	2385.470	-58.13	≤-41.20	37.07	≤54	PASS
				AV	2390.000	-58.33	≤-41.20	36.87	≤54	PASS
				Peak	2310.000	-49.59	≤-21.20	45.61	≤74	PASS
				Peak	2380.640	-47.32	≤-21.20	47.88	≤74	PASS
				Peak	2390.000	-48.56	≤-21.20	46.64	≤74	PASS
		High	2480	AV	2483.500	-55.2	≤-41.20	40.00	≤54	PASS
				AV	2483.520	-55.2	≤-41.20	40.00	≤54	PASS
				AV	2500.000	-57.71	≤-41.20	37.49	≤54	PASS
				Peak	2483.500	-47.8	≤-21.20	47.40	≤74	PASS
				Peak	2497.920	-46.31	≤-21.20	48.89	≤74	PASS
				Peak	2500.000	-48.1	≤-21.20	47.10	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-58.63	≤-41.20	36.57	≤54	PASS
				AV	2371.505	-58.12	≤-41.20	37.08	≤54	PASS
				AV	2390.000	-58.31	≤-41.20	36.89	≤54	PASS
				Peak	2310.000	-49.2	≤-21.20	46.00	≤74	PASS
				Peak	2377.595	-47.01	≤-21.20	48.19	≤74	PASS
				Peak	2390.000	-48.72	≤-21.20	46.48	≤74	PASS
		High	2480	AV	2483.500	-54.31	≤-41.20	40.89	≤54	PASS
				AV	2483.520	-54.31	≤-41.20	40.89	≤54	PASS
				AV	2500.000	-57.54	≤-41.20	37.66	≤54	PASS
				Peak	2483.500	-45.82	≤-21.20	49.38	≤74	PASS
				Peak	2494.560	-45.36	≤-21.20	49.84	≤74	PASS
				Peak	2500.000	-47.82	≤-21.20	47.38	≤74	PASS

Note:

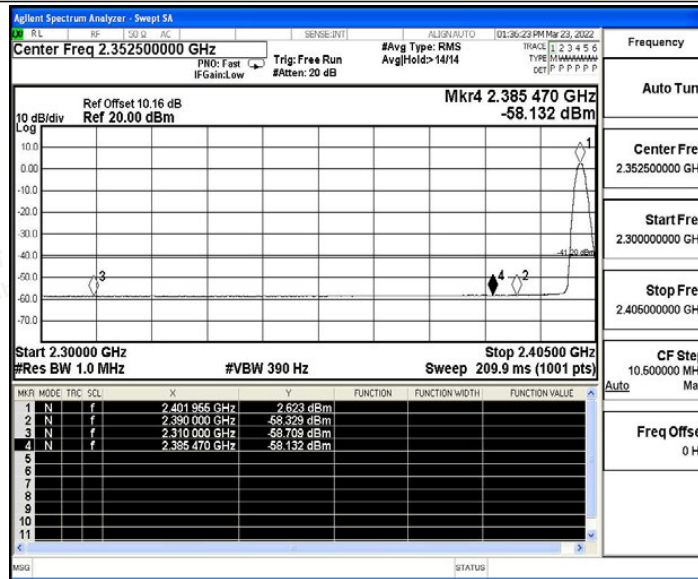
- The Antenna Gain is compensated in the graph.
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



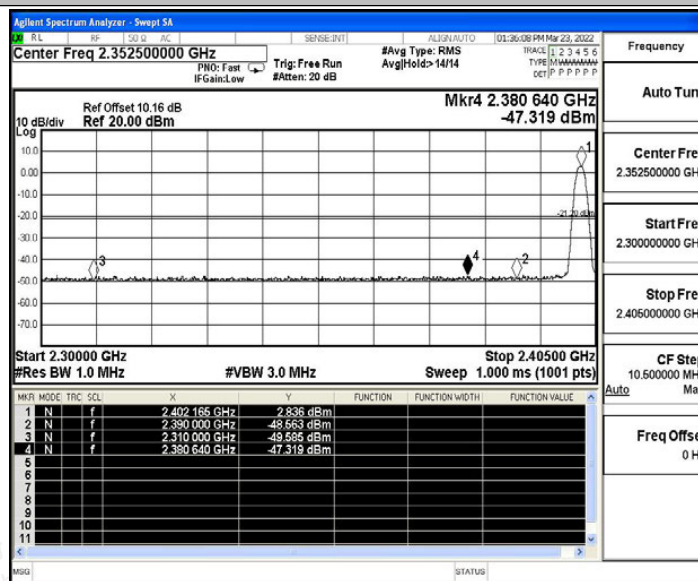


Test Graphs

DH5_Ant1_Low_2402_AV

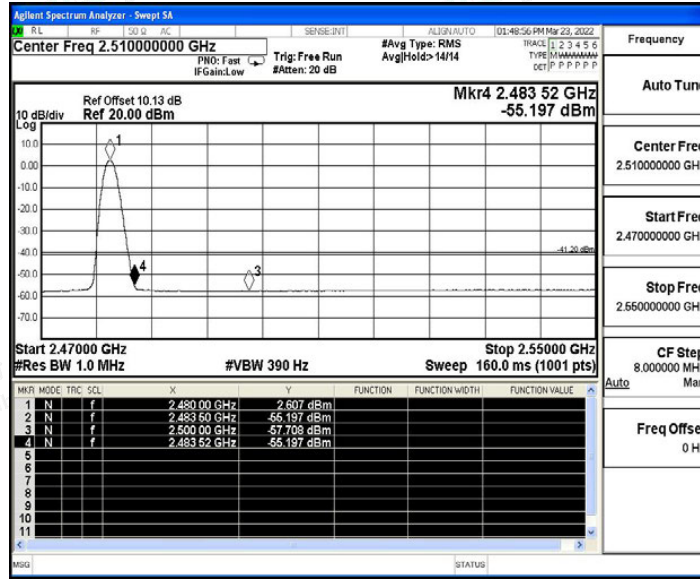


DH5_Ant1_Low_2402_Peak

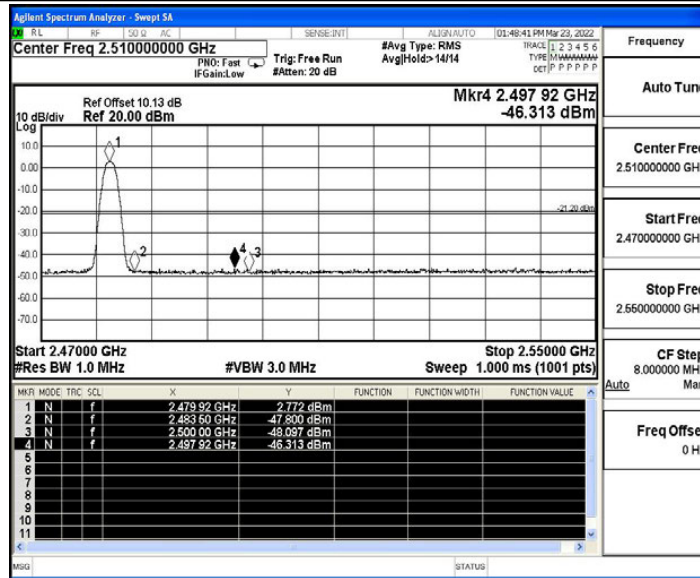


DH5_Ant1_High_2480_AV



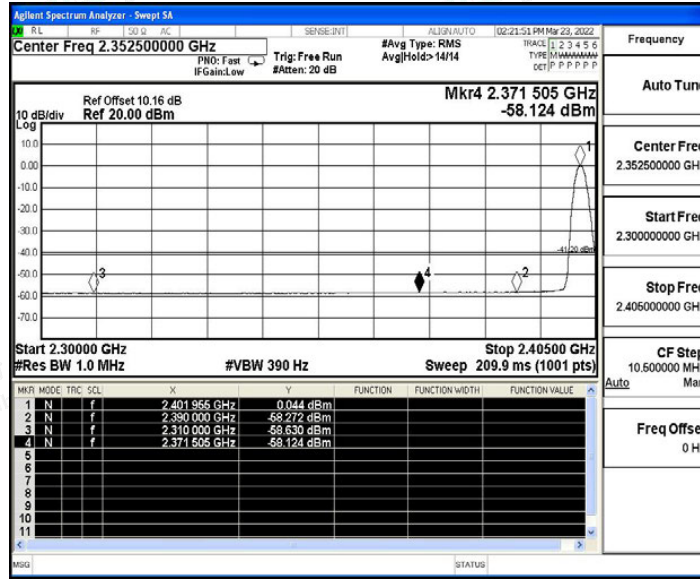


DH5_Ant1_High_2480_Peak

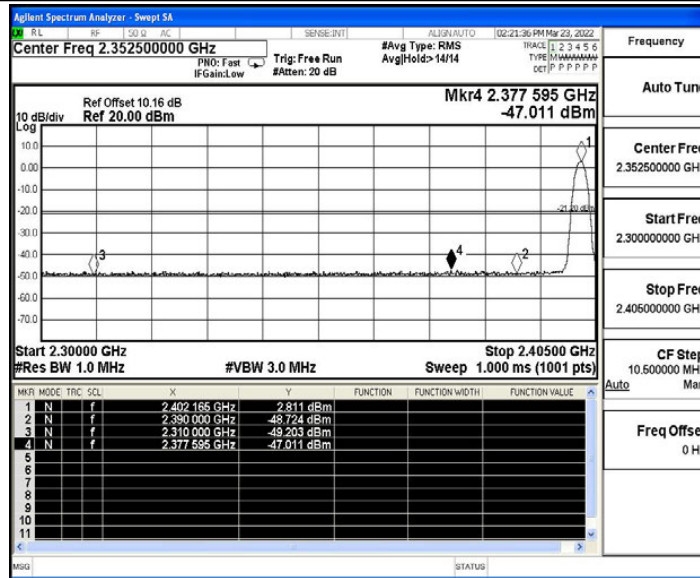


2DH5_Ant1_Low_2402_AV



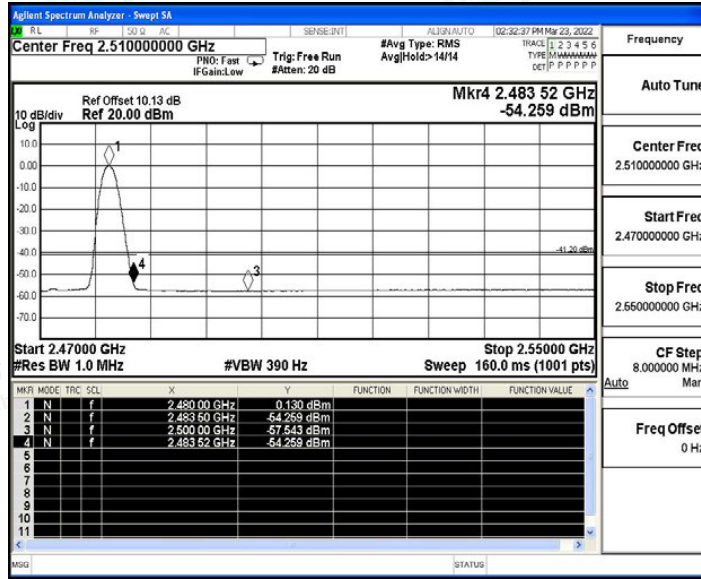


2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV





2DH5_Ant1_High_2480_Peak

