



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Turntable Player

Test Model: SN12

Environmental Conditions

Temperature:	23.8 °C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>Nick Peng</i> Nick Peng
Supervised by:	<i>Ling Zhu</i> Ling Zhu





A.1 20dB Emission Bandwidth

Test Result

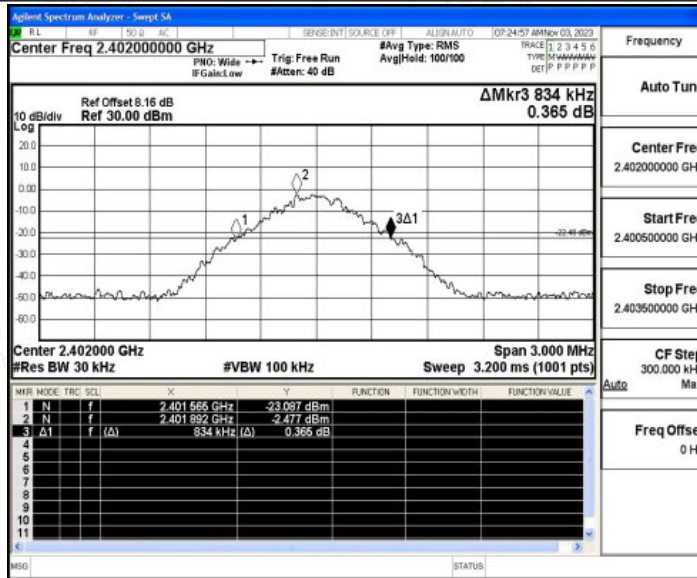
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.834	2401.565	2402.399	---
		2441	0.816	2440.589	2441.405	---
		2480	0.855	2479.550	2480.405	---
2DH5	Ant1	2402	1.326	2401.337	2402.663	---
		2441	1.326	2440.331	2441.657	---
		2480	1.332	2479.328	2480.660	---
3DH5	Ant1	2402	1.338	2401.331	2402.669	---
		2441	1.299	2440.349	2441.648	---
		2480	1.338	2479.325	2480.663	---



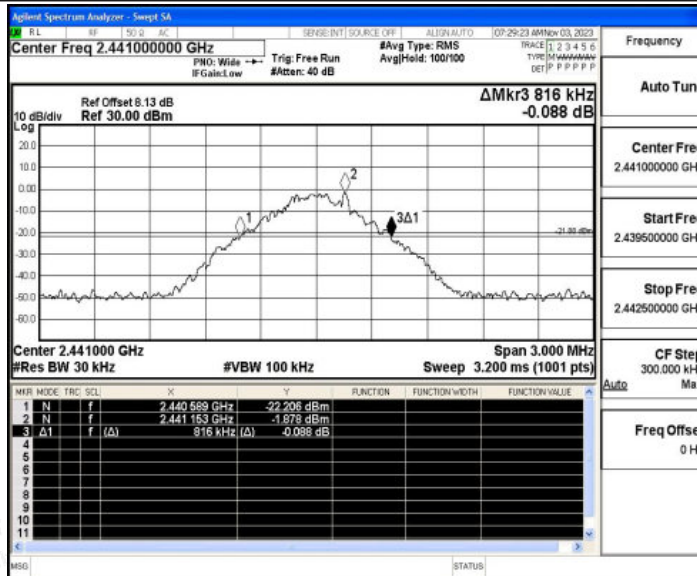


Test Graphs

DH5_Ant1_2402

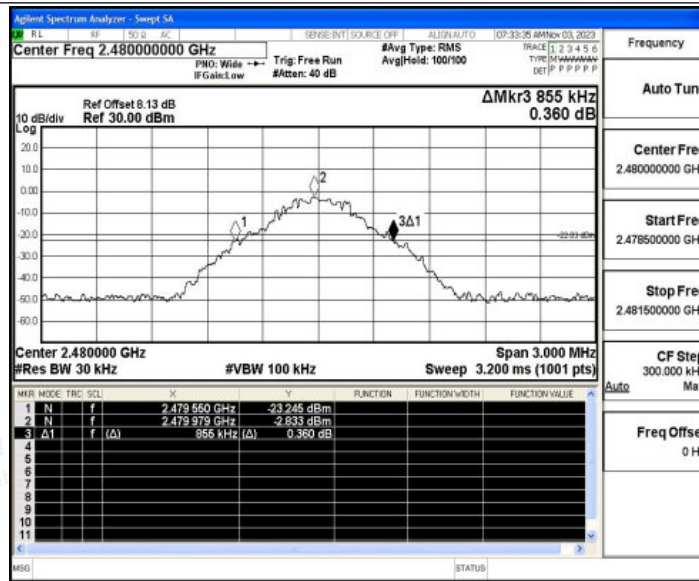


DH5_Ant1_2441

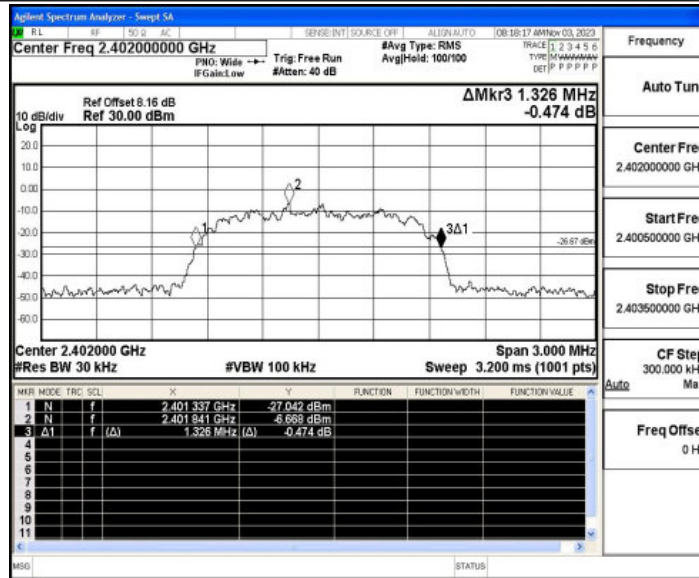


DH5_Ant1_2480



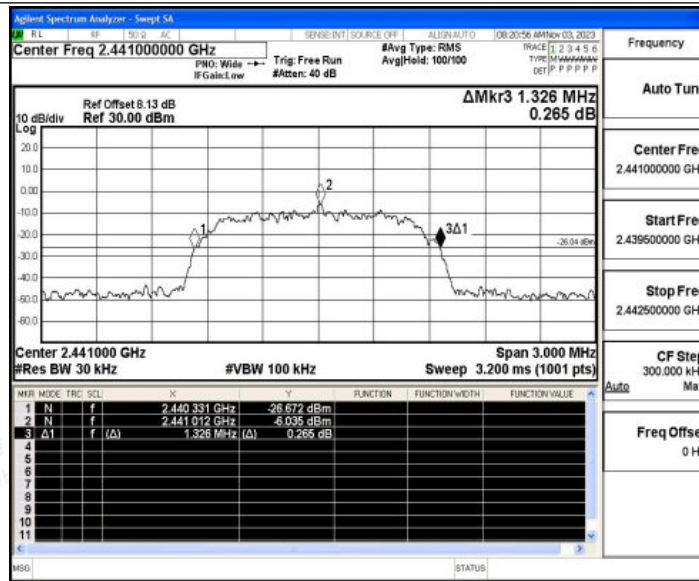


2DH5_Ant1_2402

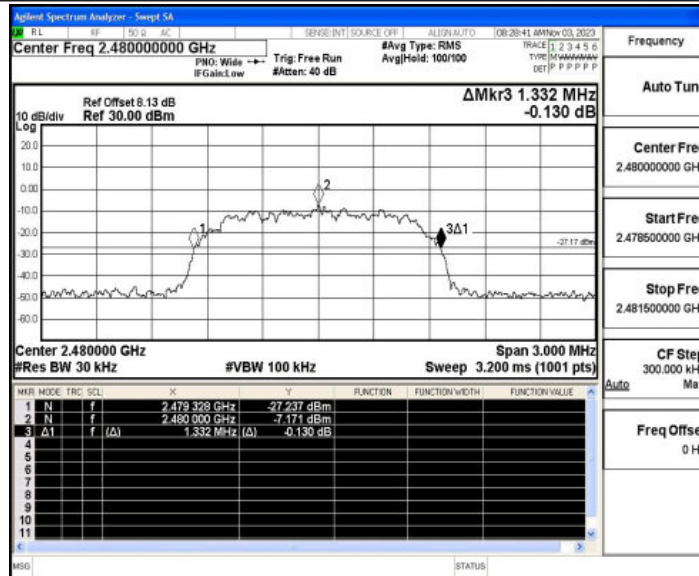


2DH5_Ant1_2441



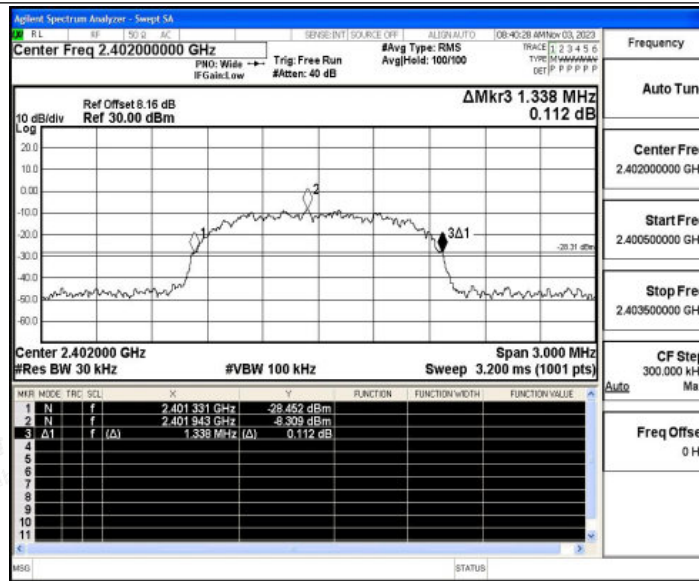


2DH5_Ant1_2480

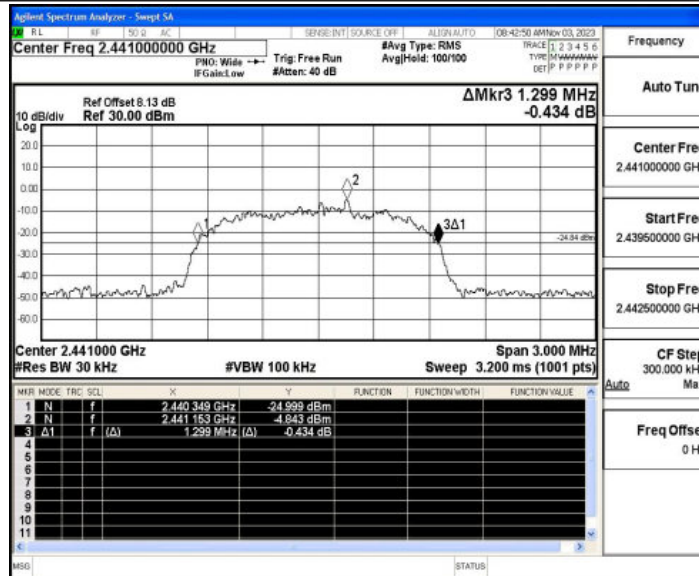


3DH5_Ant1_2402



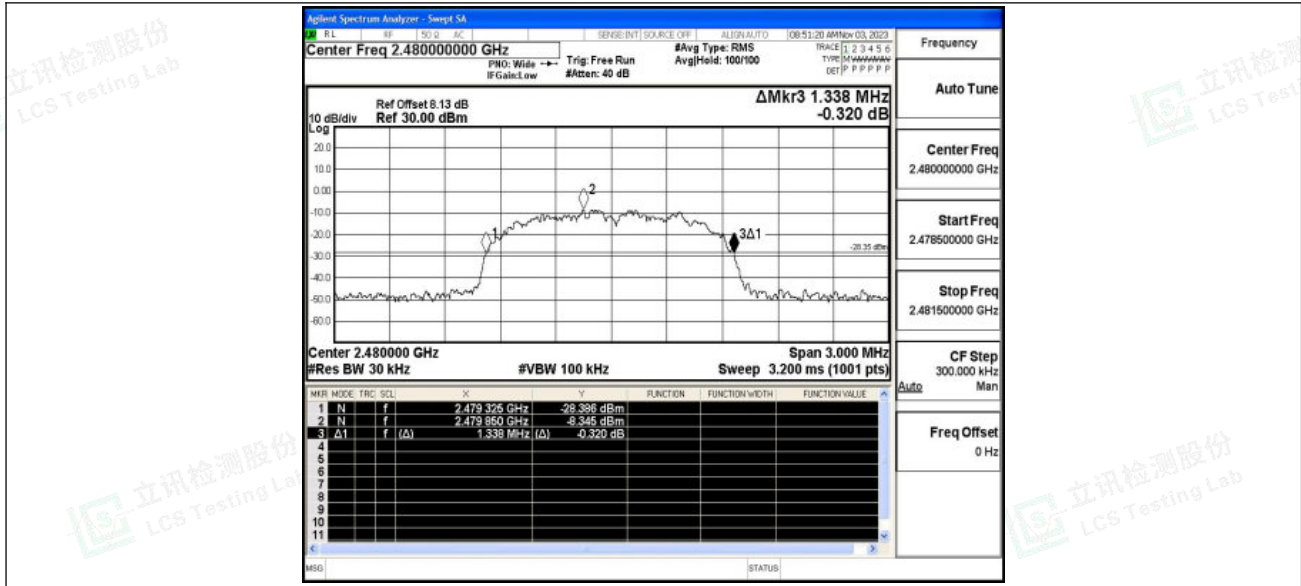


3DH5_Ant1_2441



3DH5_Ant1_2480







A.2 Maximum conducted output power

Test Result

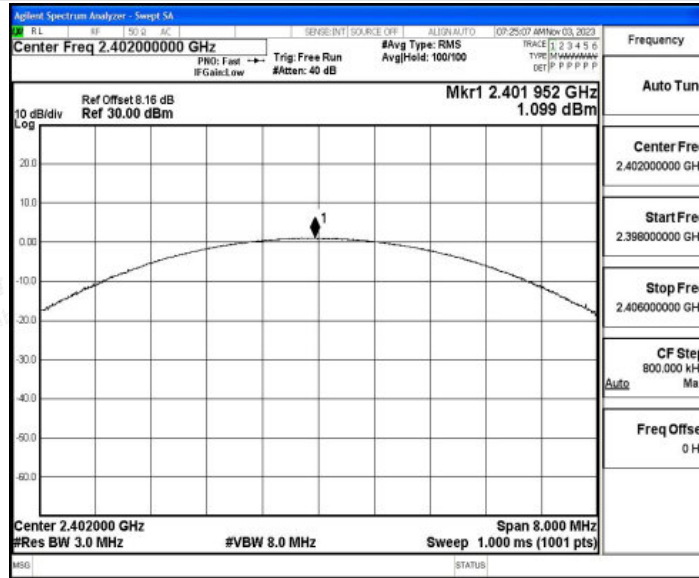
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.1	≤20.97	PASS
		2441	0.94	≤20.97	PASS
		2480	0.53	≤20.97	PASS
2DH5	Ant1	2402	0.55	≤20.97	PASS
		2441	0.56	≤20.97	PASS
		2480	0.17	≤20.97	PASS
3DH5	Ant1	2402	0.85	≤20.97	PASS
		2441	0.98	≤20.97	PASS
		2480	0.5	≤20.97	PASS



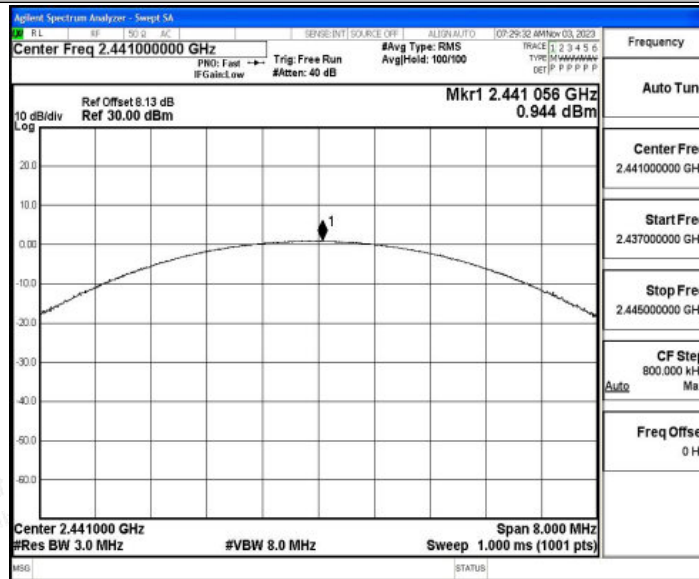


Test Graphs

DH5_Ant1_2402

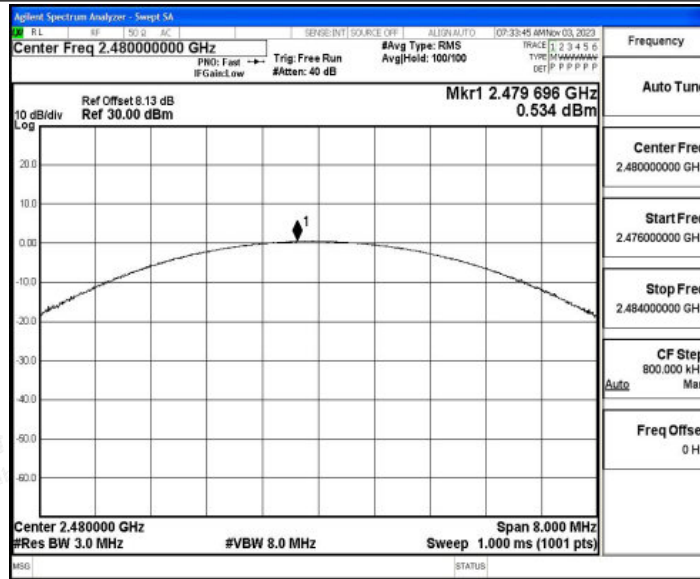


DH5_Ant1_2441

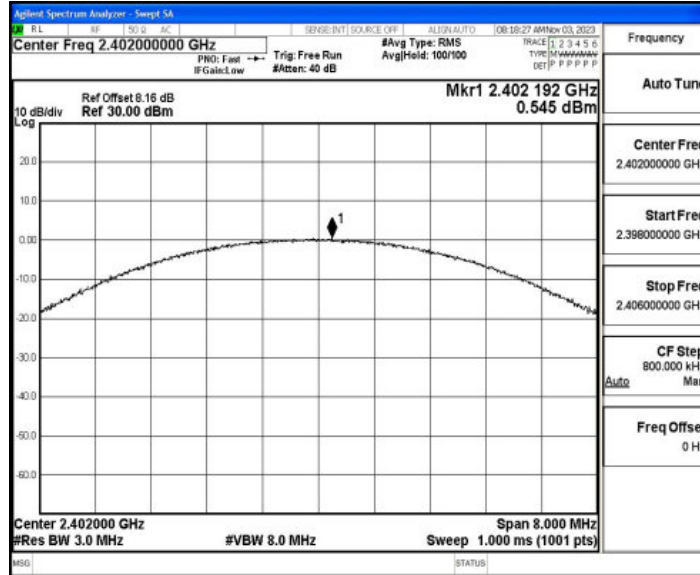


DH5_Ant1_2480



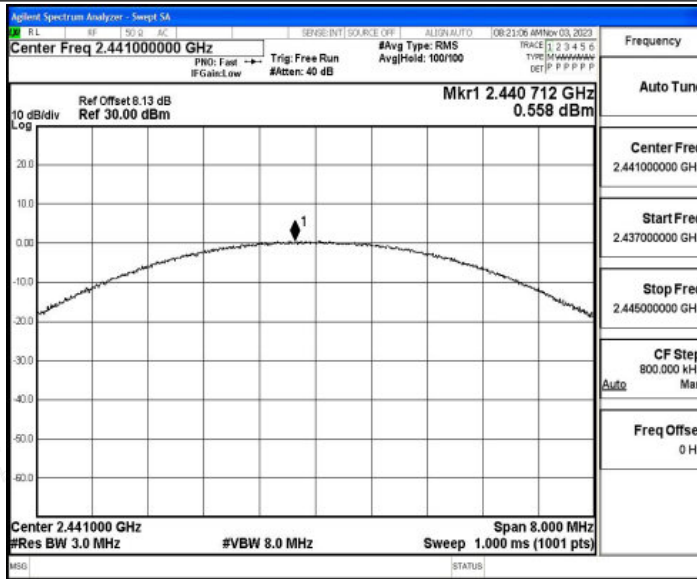


2DH5_Ant1_2402

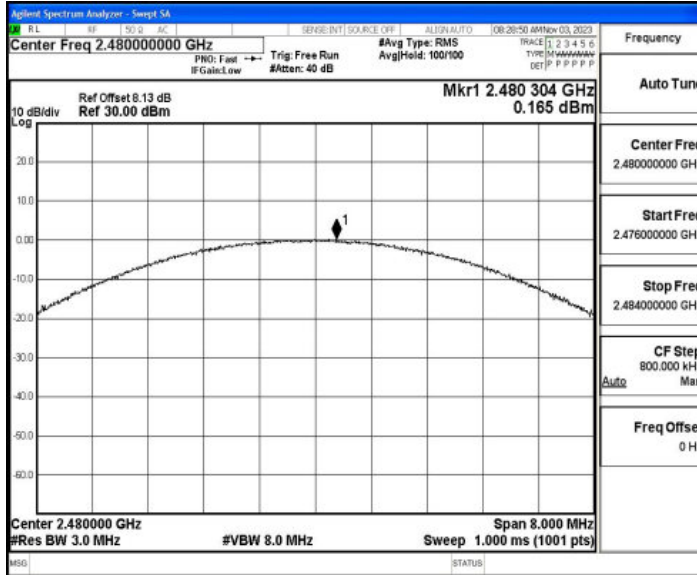


2DH5_Ant1_2441



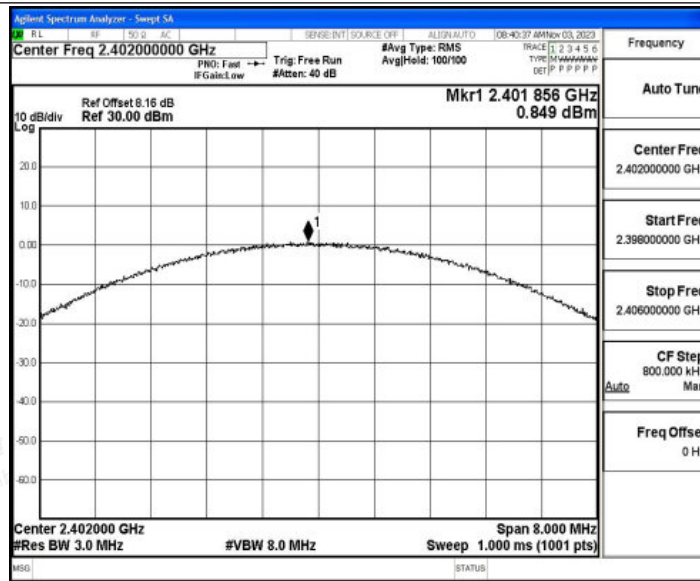


2DH5_Ant1_2480

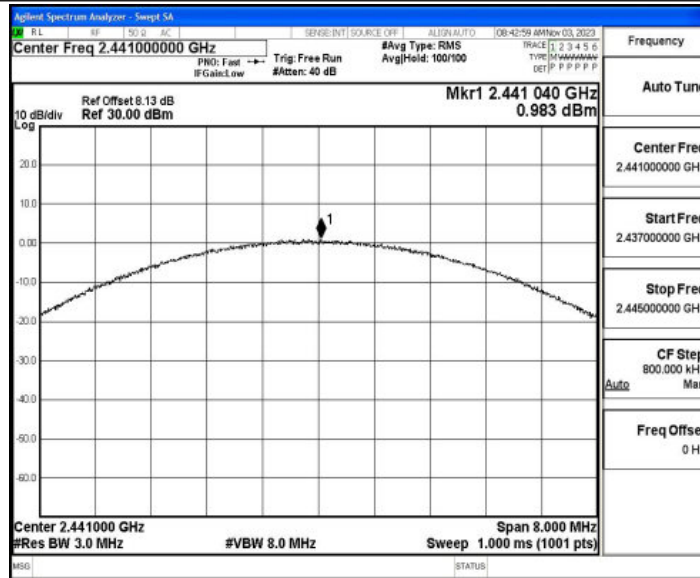


3DH5_Ant1_2402



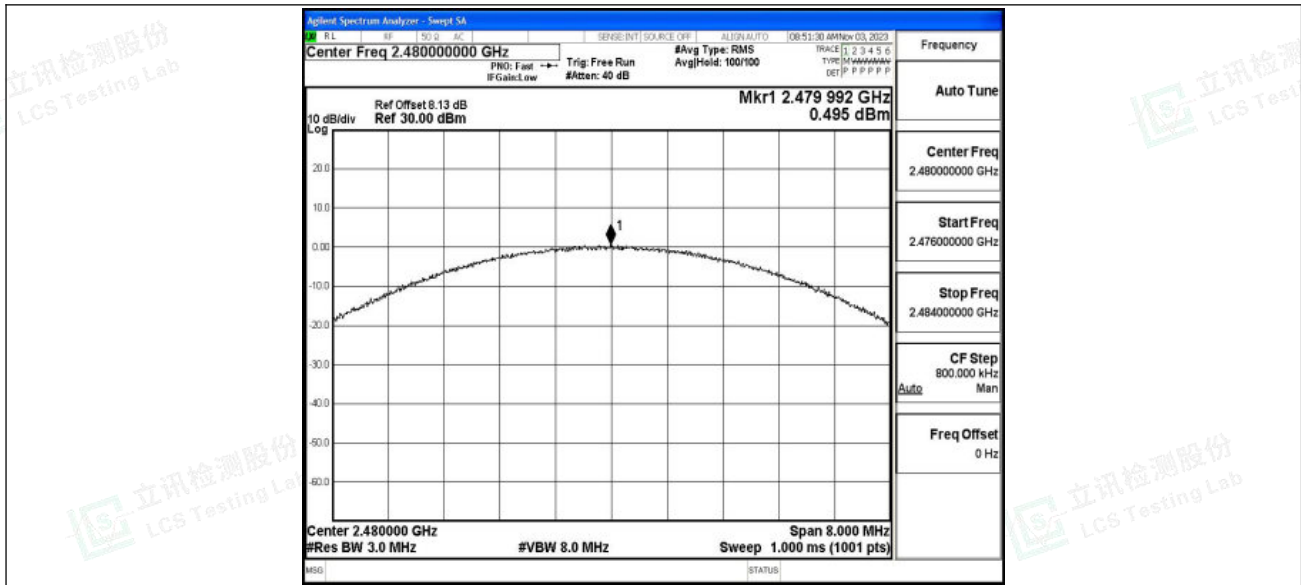


3DH5_Ant1_2441



3DH5_Ant1_2480







A.3 Carrier frequency separation

Test Result

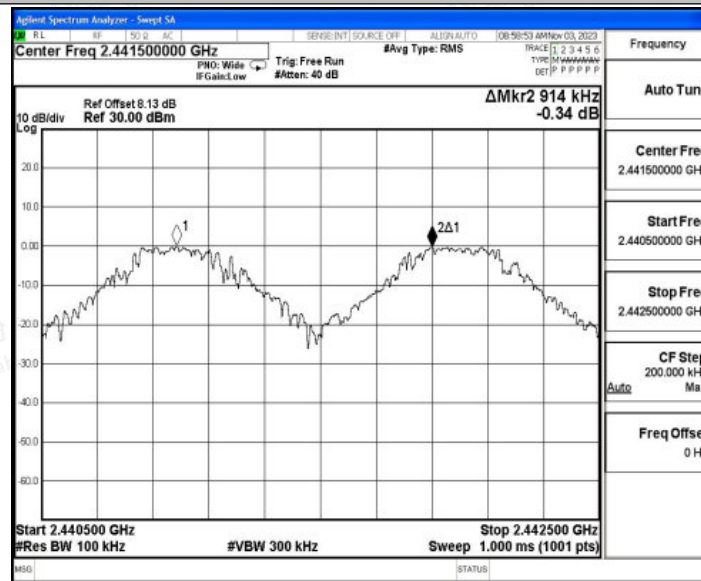
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.914	≥0.570	PASS
2DH5	Ant1	Hop	0.89	≥0.888	PASS
3DH5	Ant1	Hop	1.132	≥0.892	PASS



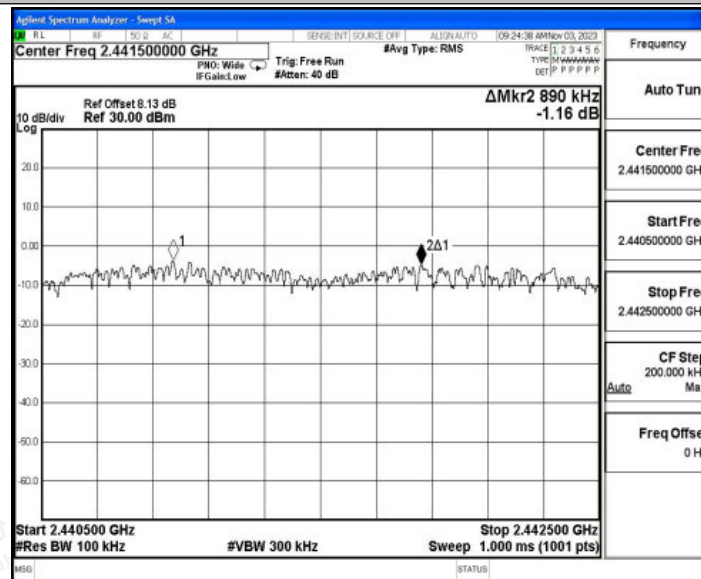


Test Graphs

DH5_Ant1_Hop

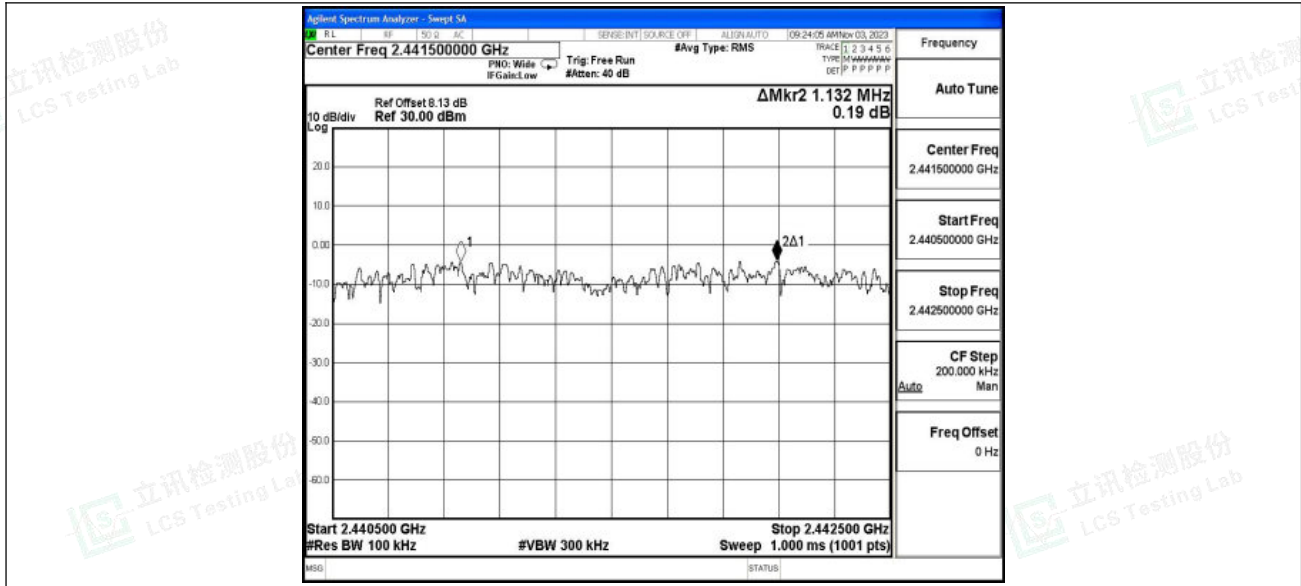


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.4 Time of occupancy

Test Result

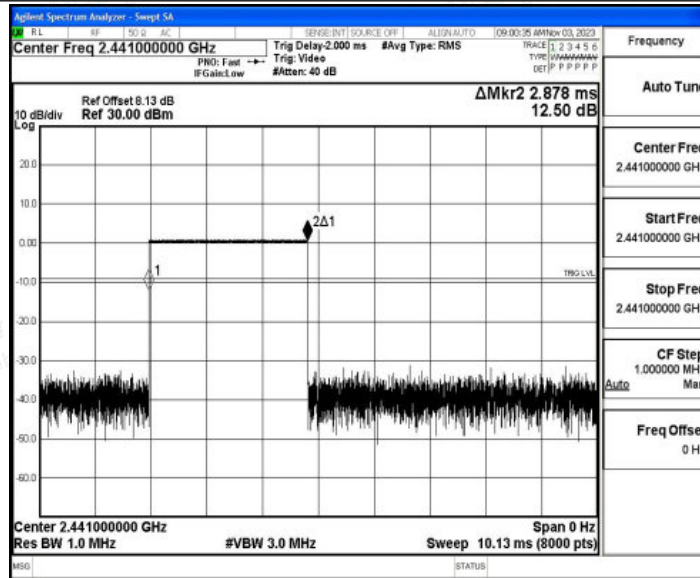
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.878	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.882	106.67	0.307	≤0.4	PASS
3DH5	Ant1	Hop	2.884	106.67	0.308	≤0.4	PASS



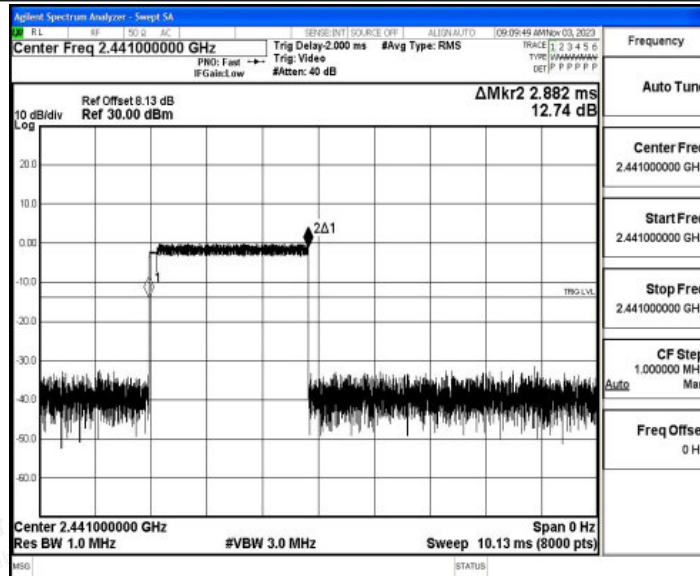


Test Graphs

DH5_Ant1_Hop

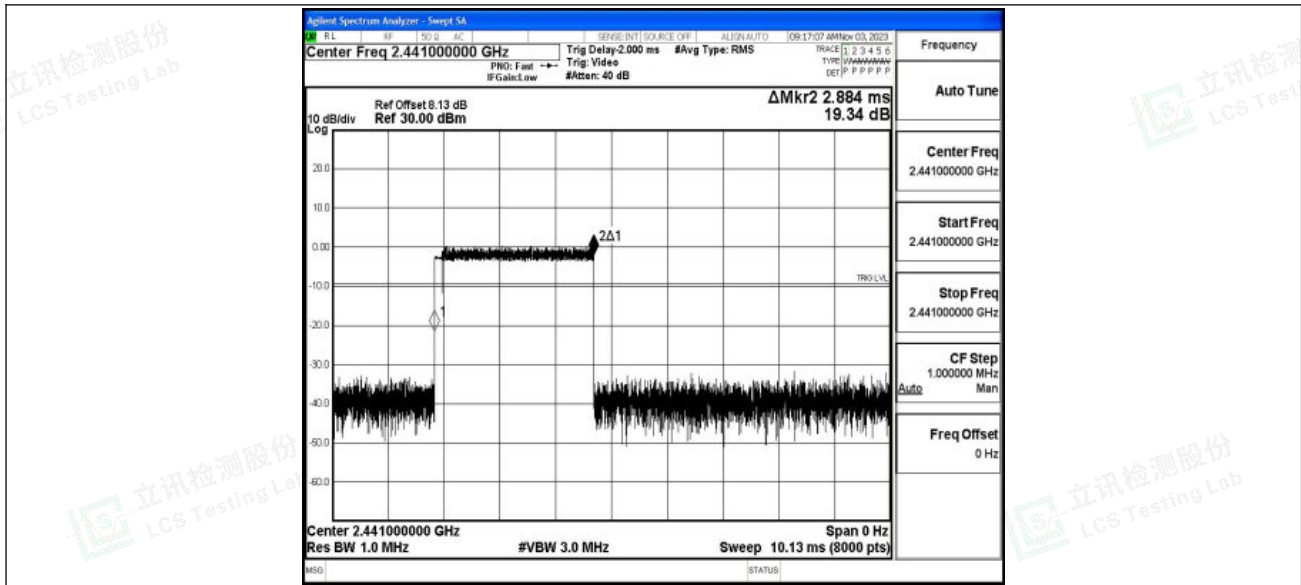


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.5 Number of hopping channels

Test Result

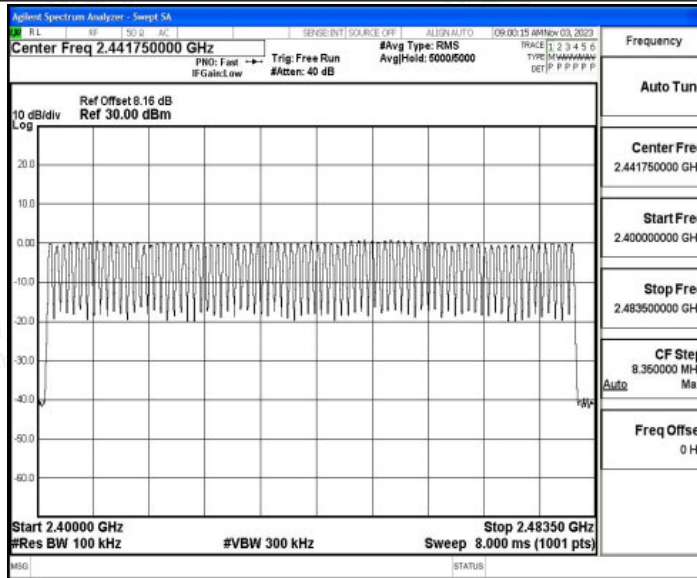
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS



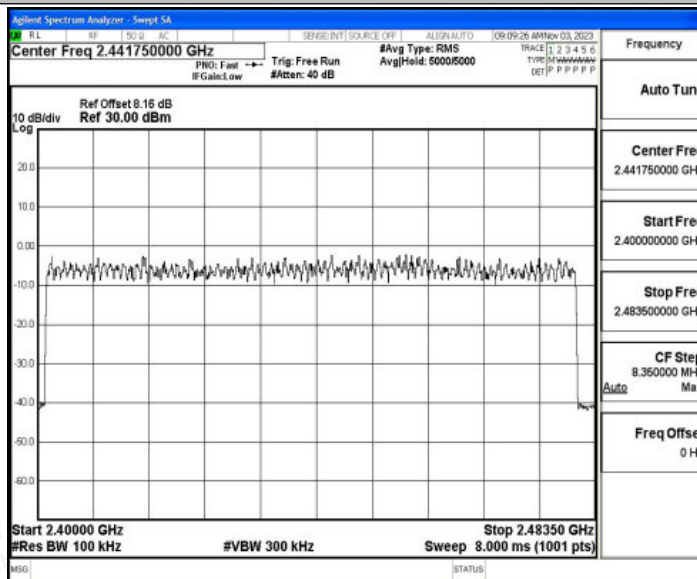


Test Graphs

DH5_Ant1_Hop

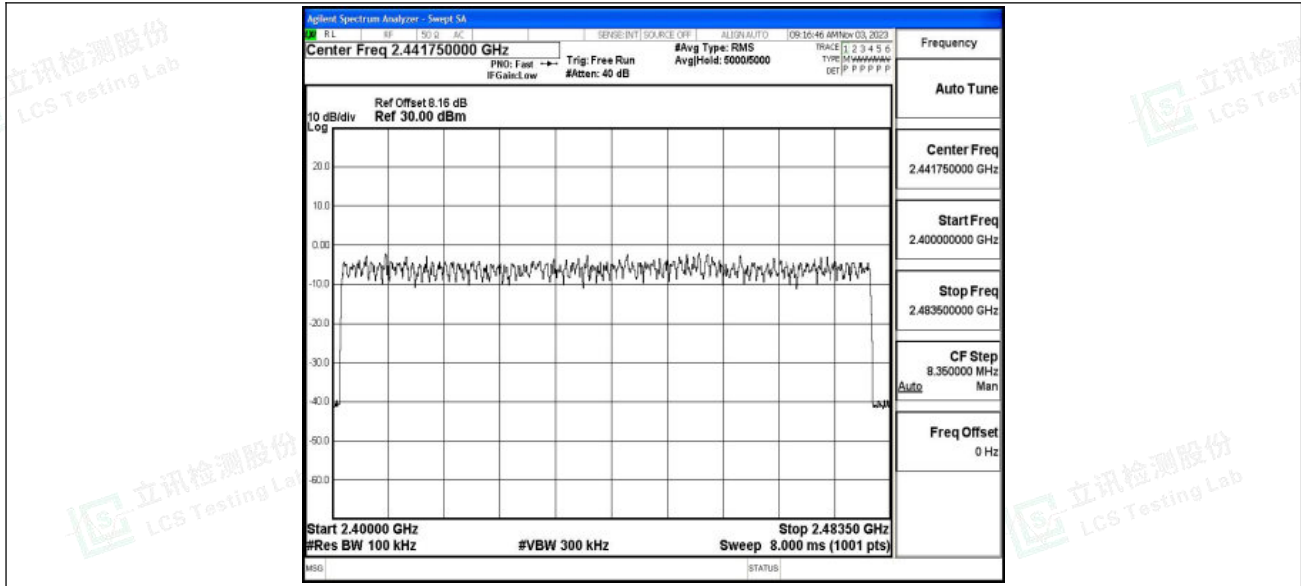


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.6 Band edge measurements

Test Result

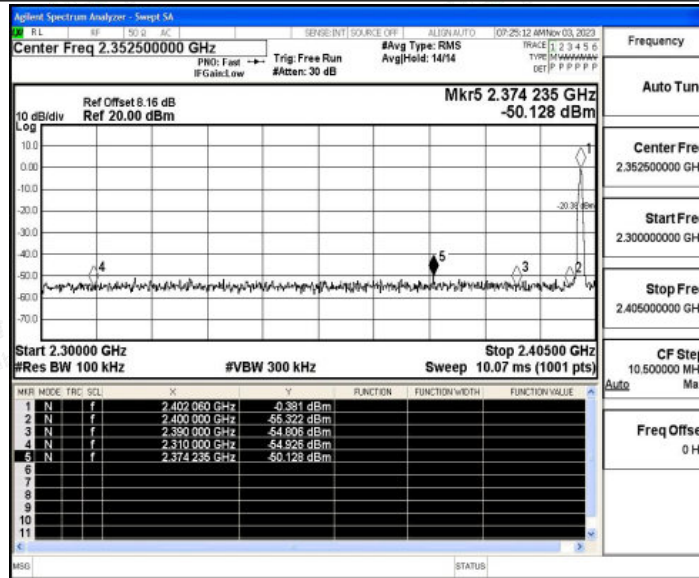
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.38	-50.13	≤-20.38	PASS
		High	2480	-1.92	-50.3	≤-21.92	PASS
		Low	Hop_2402	-1.06	-50.36	≤-21.06	PASS
		High	Hop_2480	0.01	-49.78	≤-19.99	PASS
2DH5	Ant1	Low	2402	-6.30	-50.26	≤-26.3	PASS
		High	2480	-4.86	-50.32	≤-24.86	PASS
		Low	Hop_2402	-4.94	-49.51	≤-24.94	PASS
		High	Hop_2480	-5.12	-49.56	≤-25.12	PASS
3DH5	Ant1	Low	2402	-6.62	-50.64	≤-26.62	PASS
		High	2480	-5.02	-50.85	≤-25.02	PASS
		Low	Hop_2402	-6.10	-50.04	≤-26.1	PASS
		High	Hop_2480	-4.71	-48.87	≤-24.71	PASS



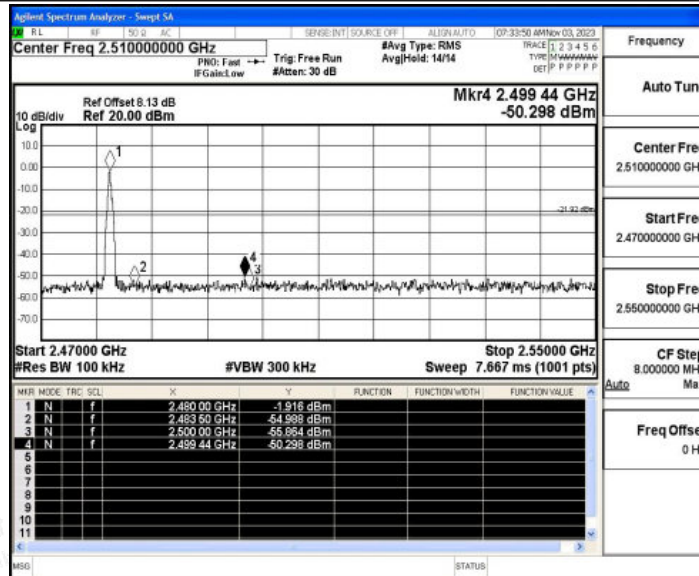


Test Graphs

DH5_Ant1_Low_2402

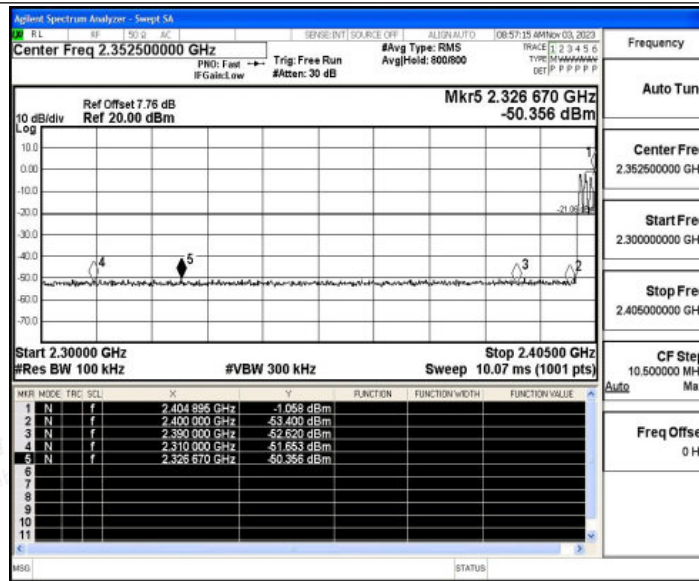


DH5_Ant1_High_2480

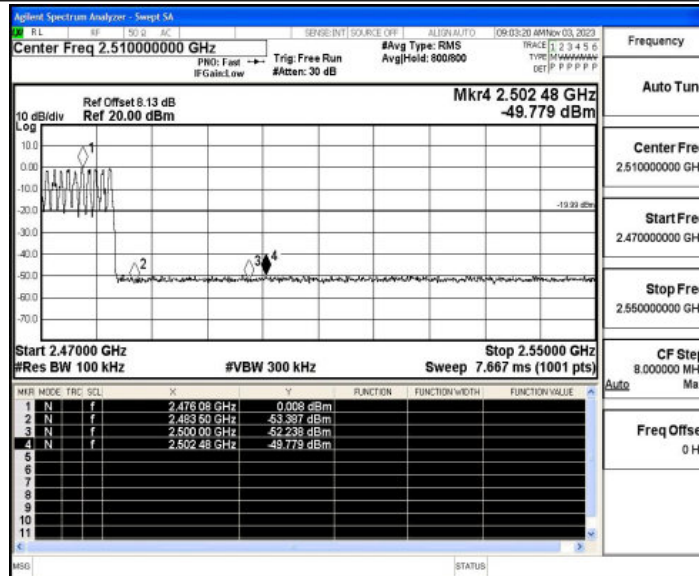


DH5_Ant1_Low_Hop_2402



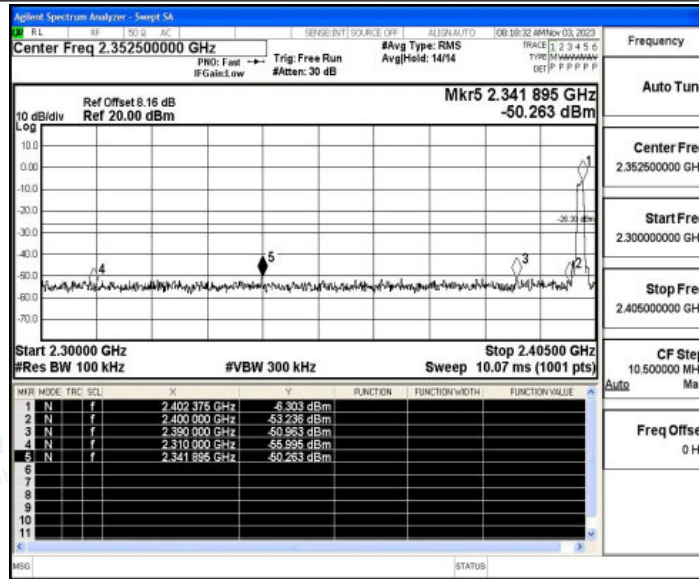


DH5_Ant1_High_Hop_2480

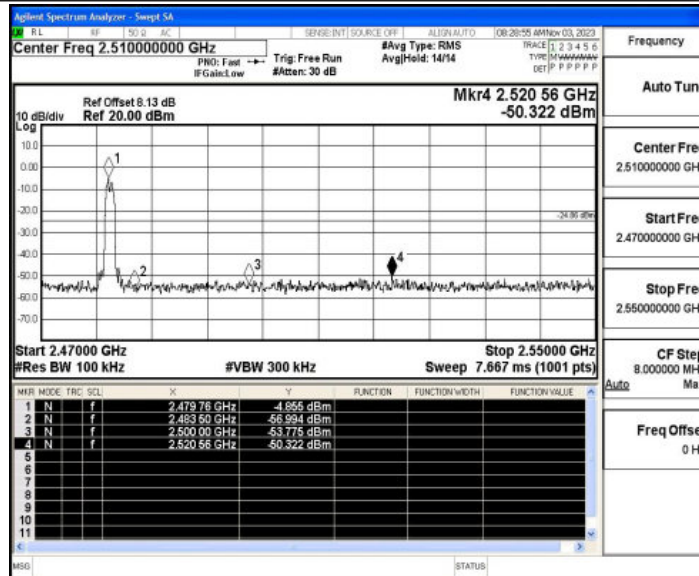


2DH5_Ant1_Low_2402



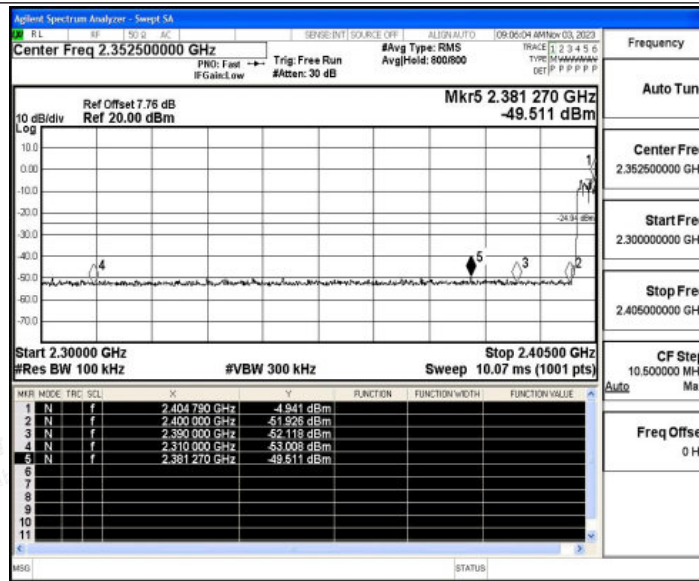


2DH5_Ant1_High_2480

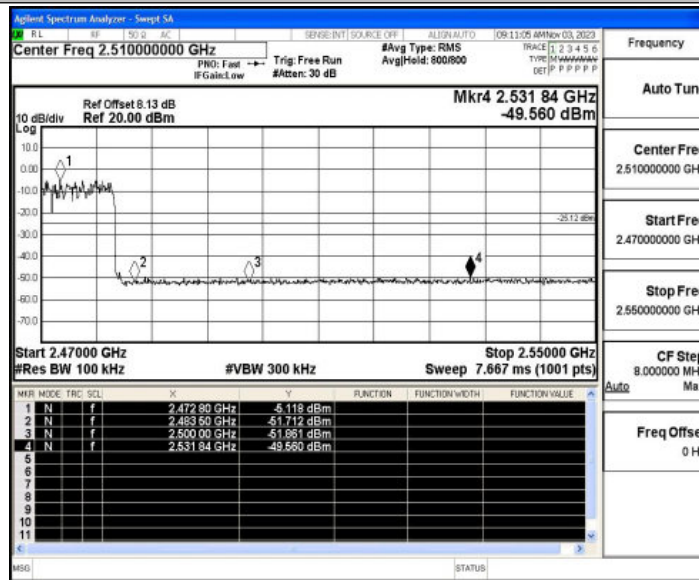


2DH5_Ant1_Low_Hop_2402



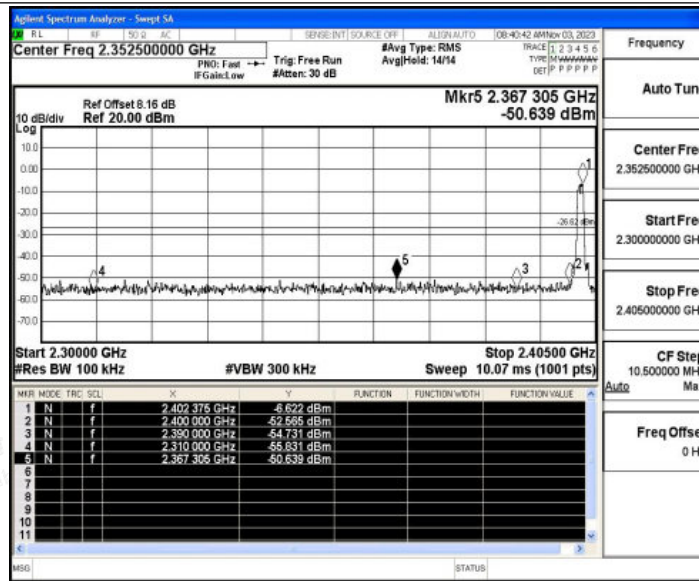


2DH5_Ant1_High_Hop_2480

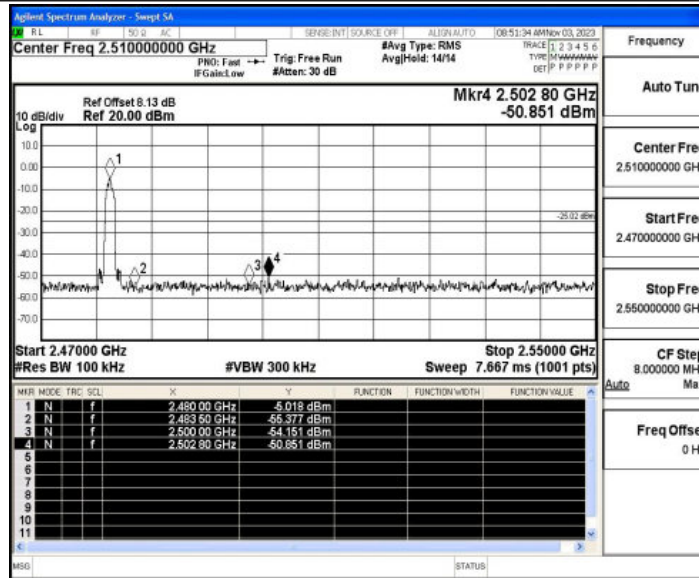


3DH5_Ant1_Low_2402



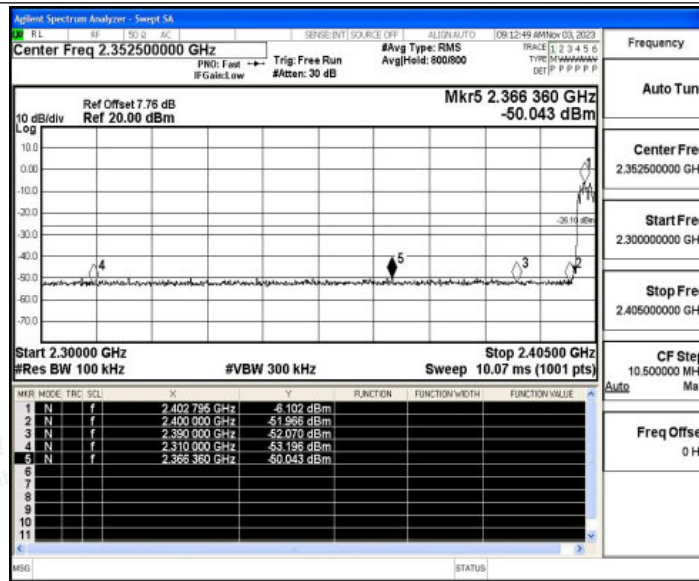


3DH5_Ant1_High_2480

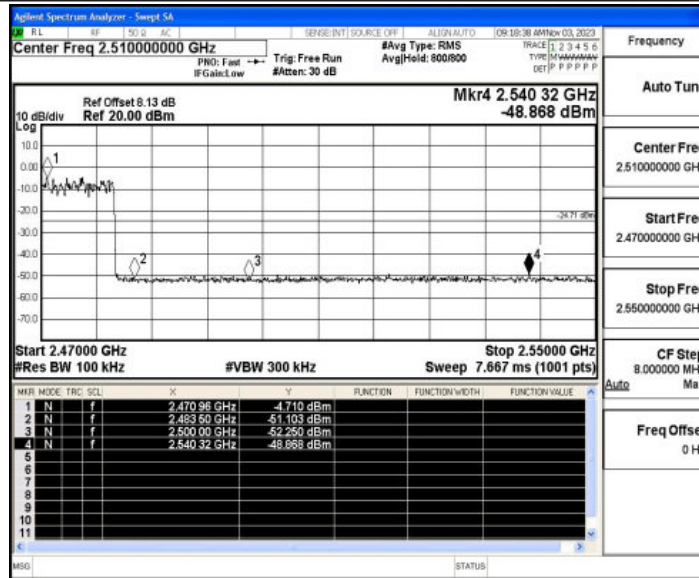


3DH5_Ant1_Low_Hop_2402





3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

Test Result

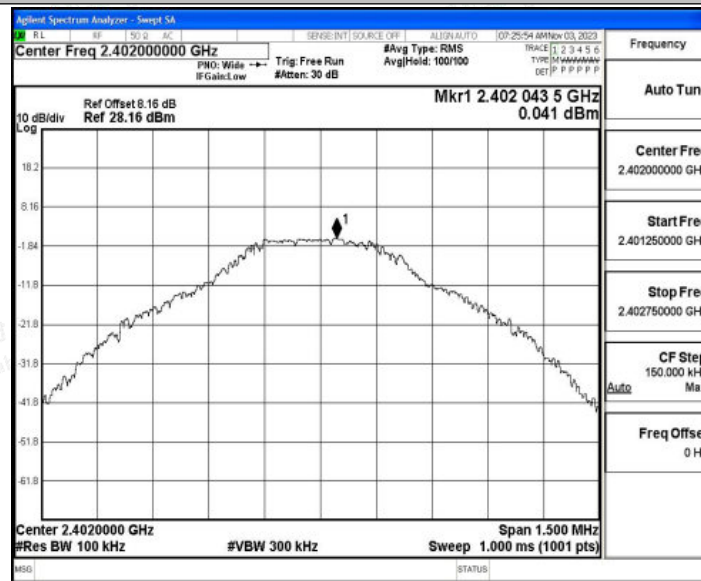
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.04	0.04	---	PASS
			30~1000	0.04	-61.72	≤-19.96	PASS
			1000~26500	0.04	-48.51	≤-19.96	PASS
		2441	Reference	0.02	0.02	---	PASS
			30~1000	0.02	-60.84	≤-19.98	PASS
			1000~26500	0.02	-49.77	≤-19.98	PASS
		2480	Reference	-0.41	-0.41	---	PASS
			30~1000	-0.41	-59.82	≤-20.41	PASS
			1000~26500	-0.41	-48.52	≤-20.41	PASS
2DH5	Ant1	2402	Reference	-3.29	-3.29	---	PASS
			30~1000	-3.29	-61.14	≤-23.29	PASS
			1000~26500	-3.29	-49.26	≤-23.29	PASS
		2441	Reference	-4.08	-4.08	---	PASS
			30~1000	-4.08	-61.98	≤-24.08	PASS
			1000~26500	-4.08	-49.11	≤-24.08	PASS
		2480	Reference	-4.64	-4.64	---	PASS
			30~1000	-4.64	-54.84	≤-24.64	PASS
			1000~26500	-4.64	-49.27	≤-24.64	PASS
3DH5	Ant1	2402	Reference	-4.30	-4.30	---	PASS
			30~1000	-4.30	-61.23	≤-24.3	PASS
			1000~26500	-4.30	-49.18	≤-24.3	PASS
		2441	Reference	-2.75	-2.75	---	PASS
			30~1000	-2.75	-55.89	≤-22.75	PASS
			1000~26500	-2.75	-48.96	≤-22.75	PASS
		2480	Reference	-4.83	-4.83	---	PASS
			30~1000	-4.83	-51.31	≤-24.83	PASS
			1000~26500	-4.83	-49.48	≤-24.83	PASS



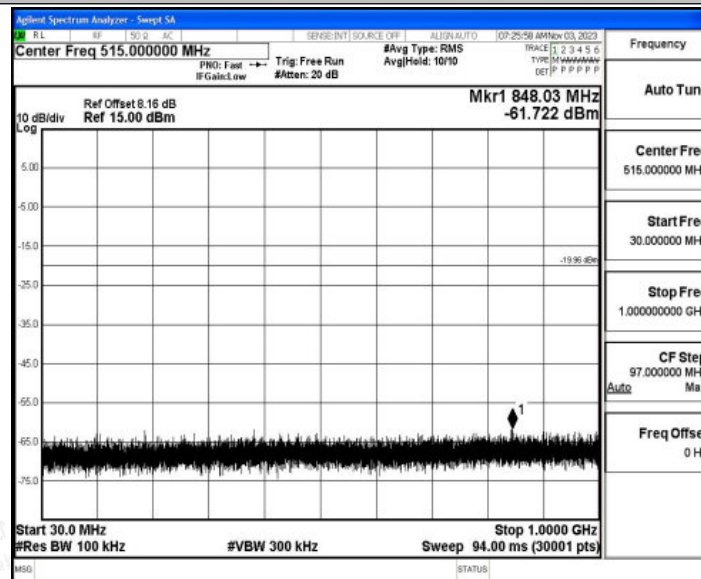


Test Graphs

DH5_Ant1_2402_0~Reference

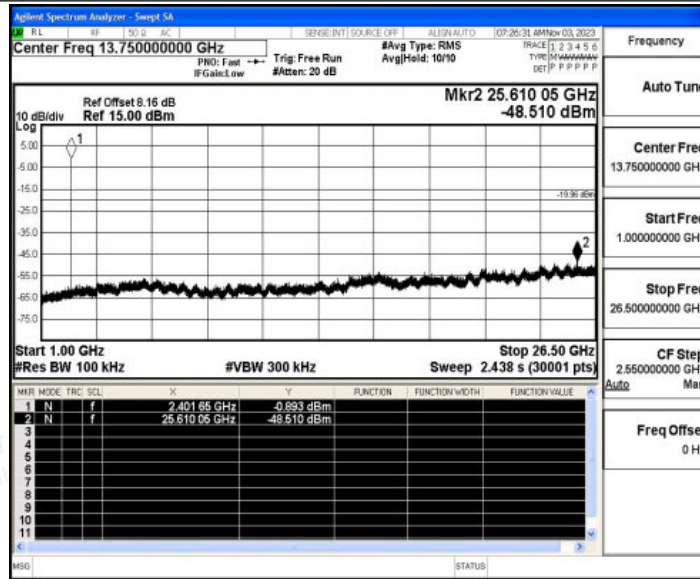


DH5_Ant1_2402_30~1000

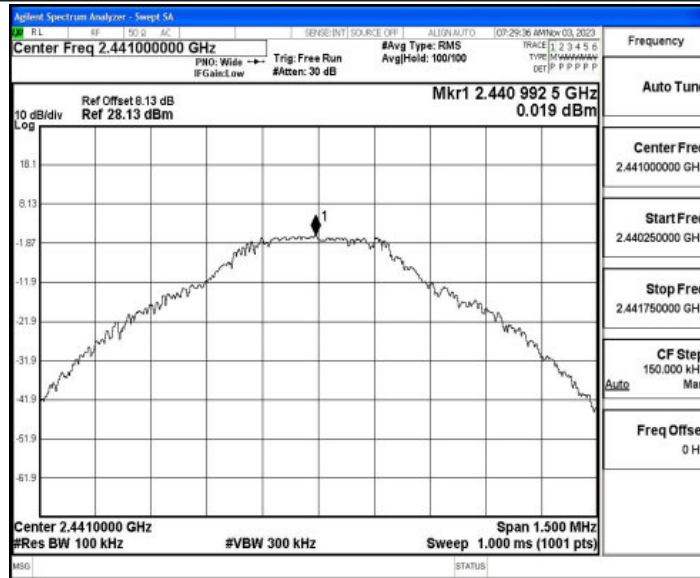


DH5_Ant1_2402_1000~26500



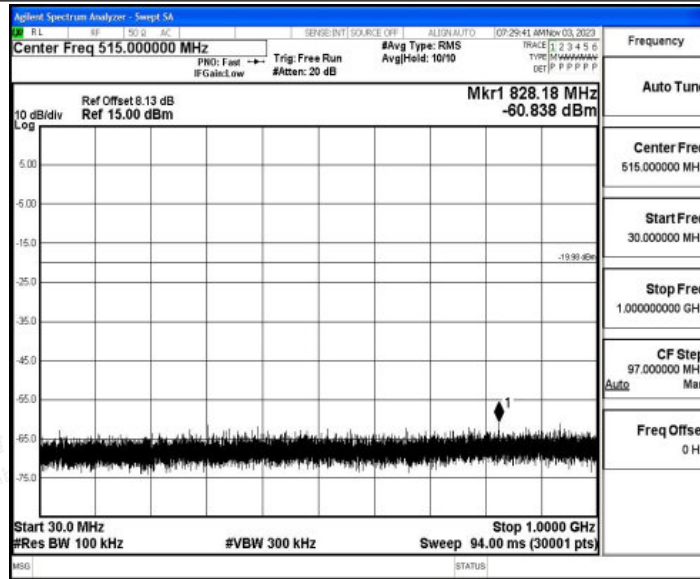


DH5_Ant1_2441_0~Reference

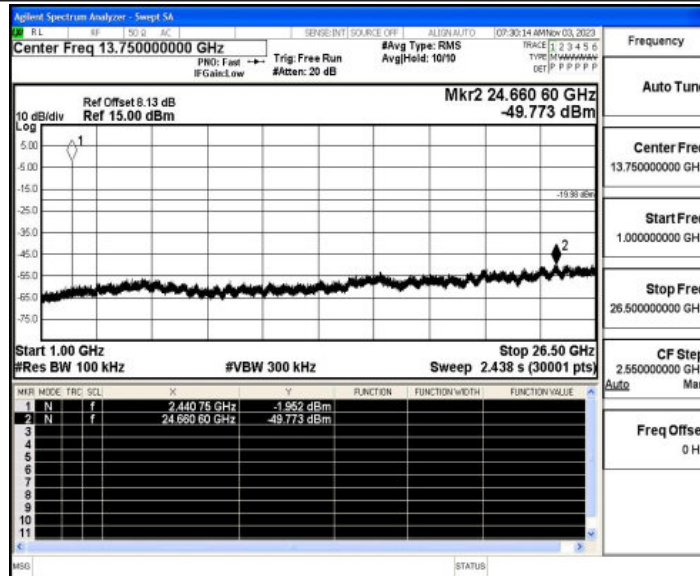


DH5_Ant1_2441_30~1000



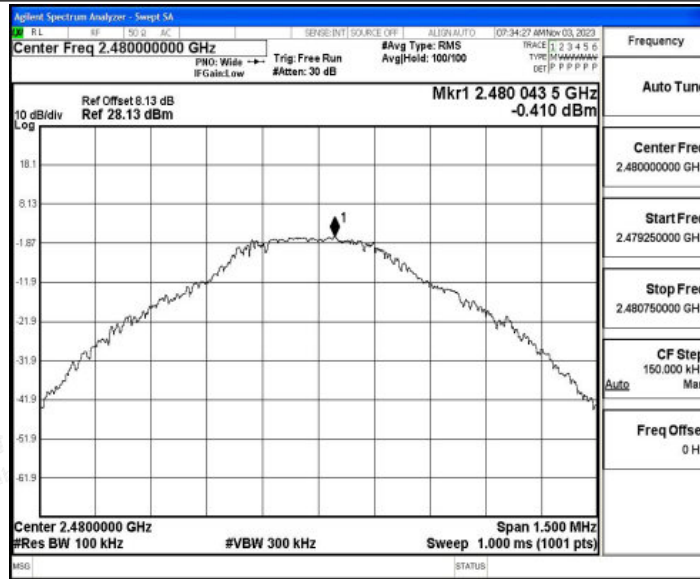


DH5_Ant1_2441_1000~26500

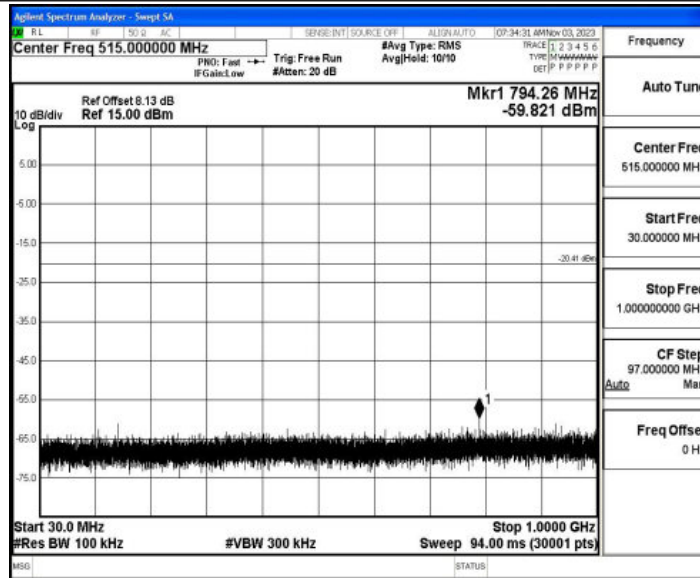


DH5_Ant1_2480_0~Reference



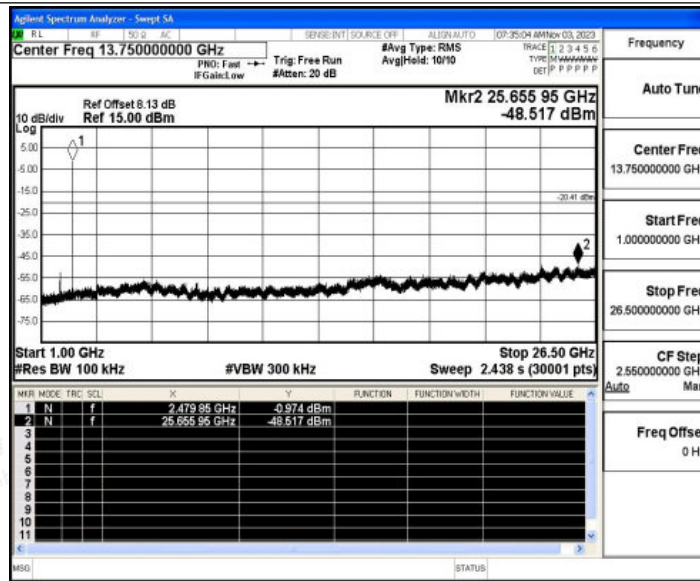


DH5_Ant1_2480_30~1000

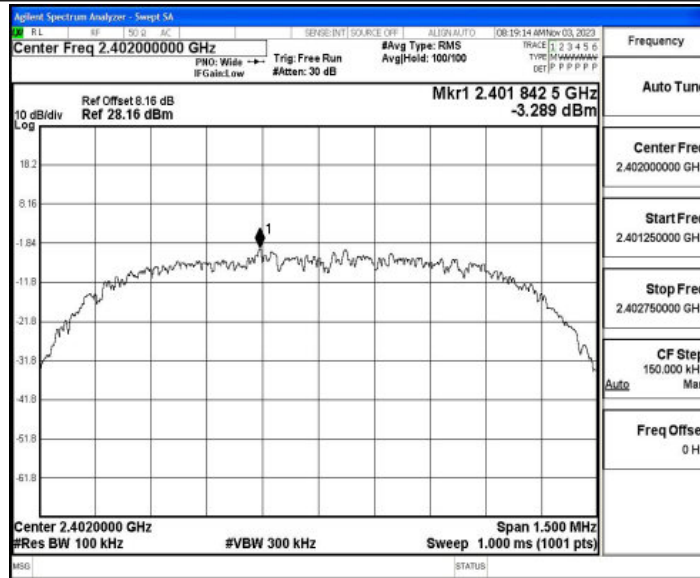


DH5_Ant1_2480_1000~26500



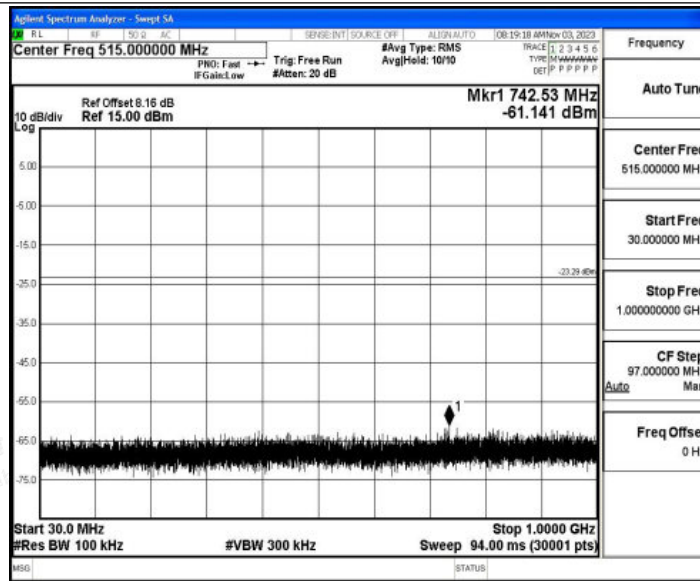


2DH5_Ant1_2402_0~Reference

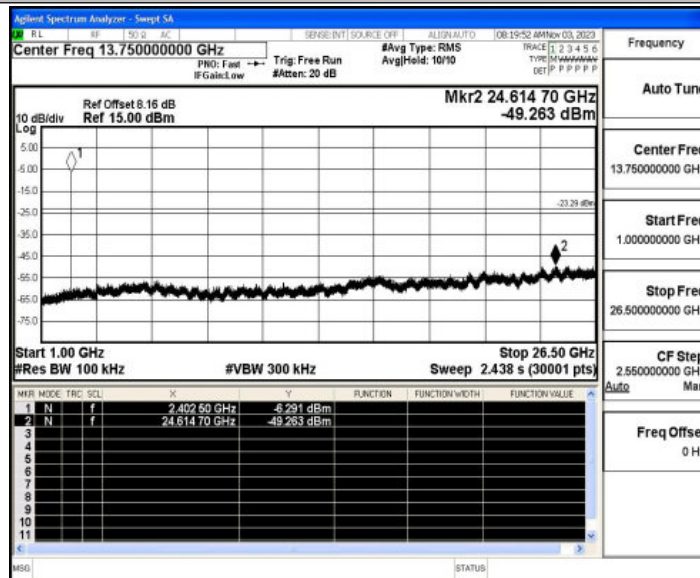


2DH5_Ant1_2402_30~1000





2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference

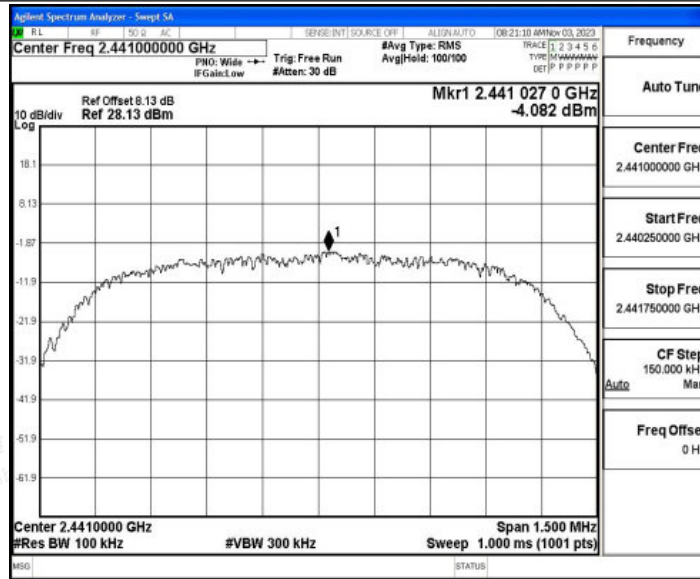


Shenzhen LCS Compliance Testing Laboratory Ltd.

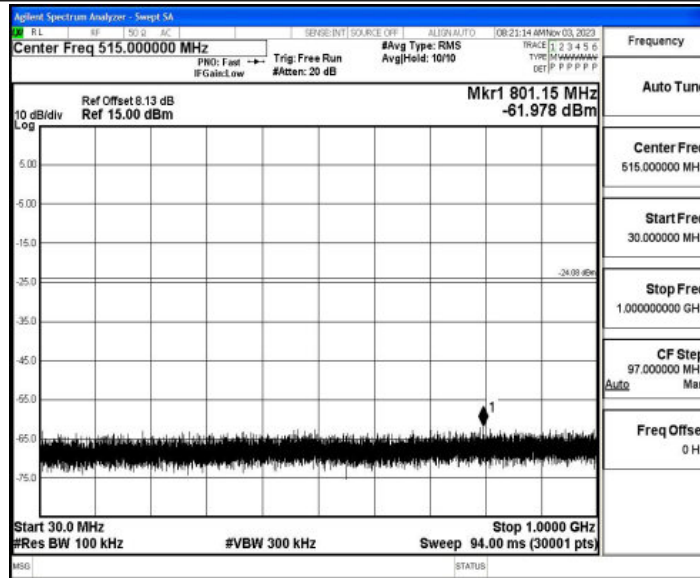
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

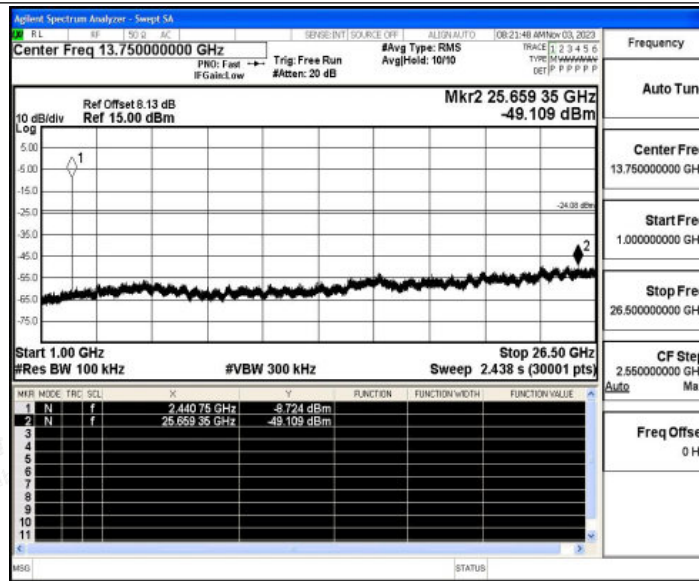


2DH5_Ant1_2441_30~1000

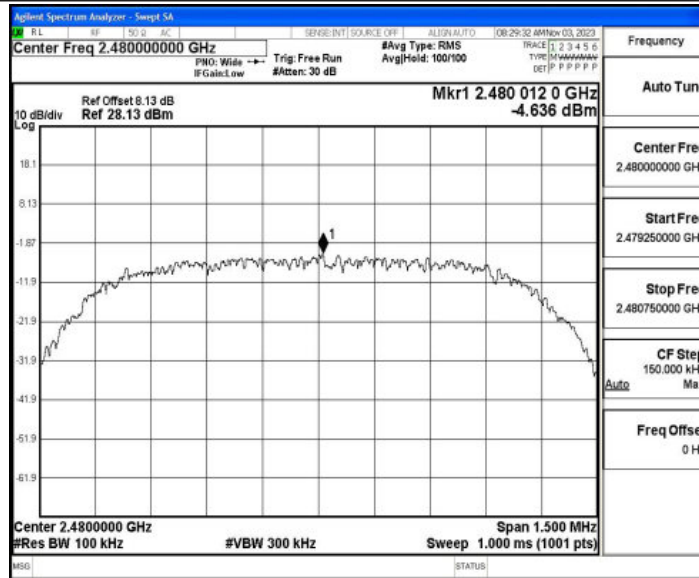


2DH5_Ant1_2441_1000~26500



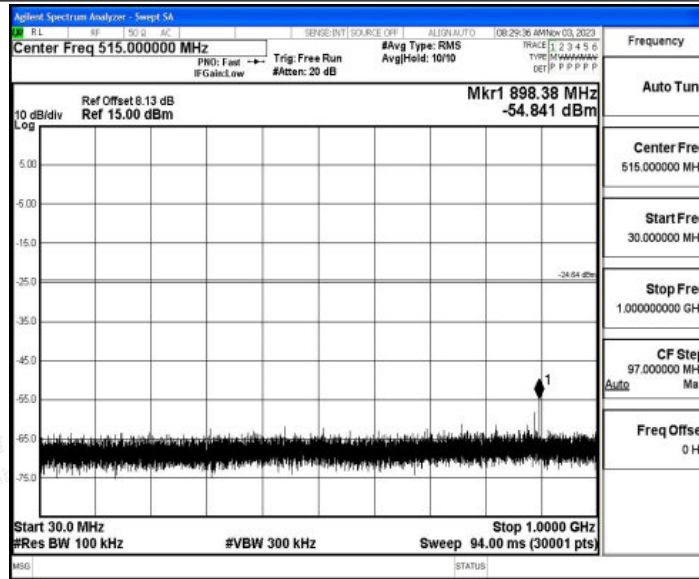


2DH5_Ant1_2480_0~Reference

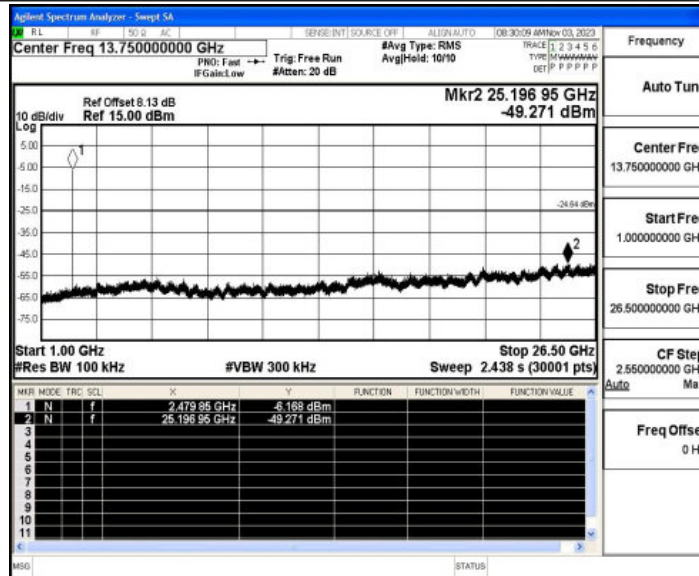


2DH5_Ant1_2480_30~1000



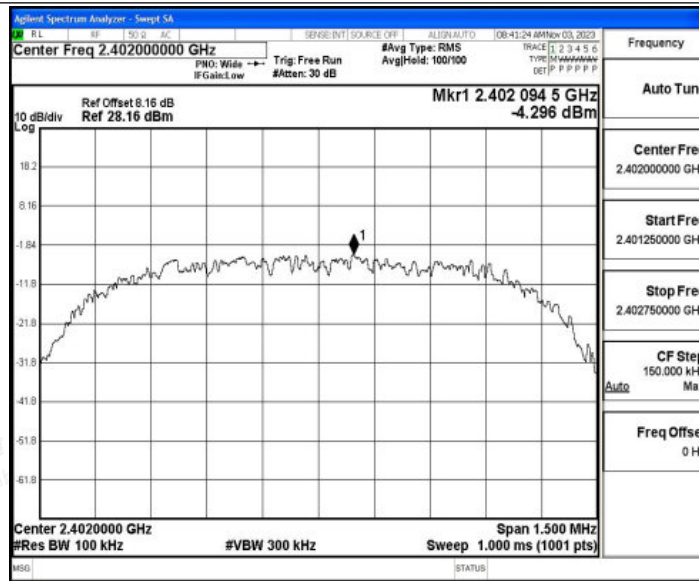


2DH5_Ant1_2480_1000~26500

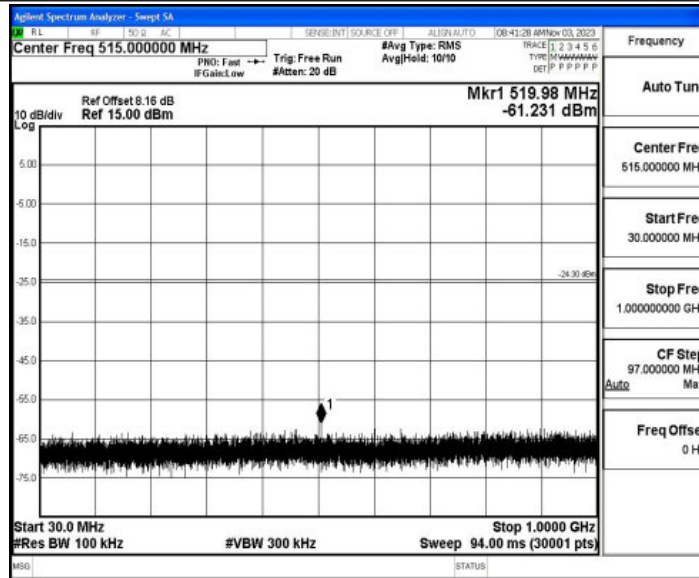


3DH5_Ant1_2402_0~Reference



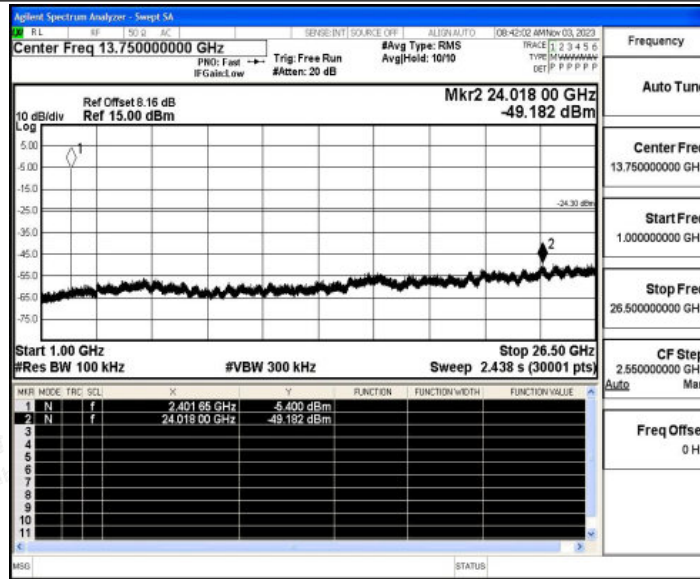


3DH5_Ant1_2402_30~1000

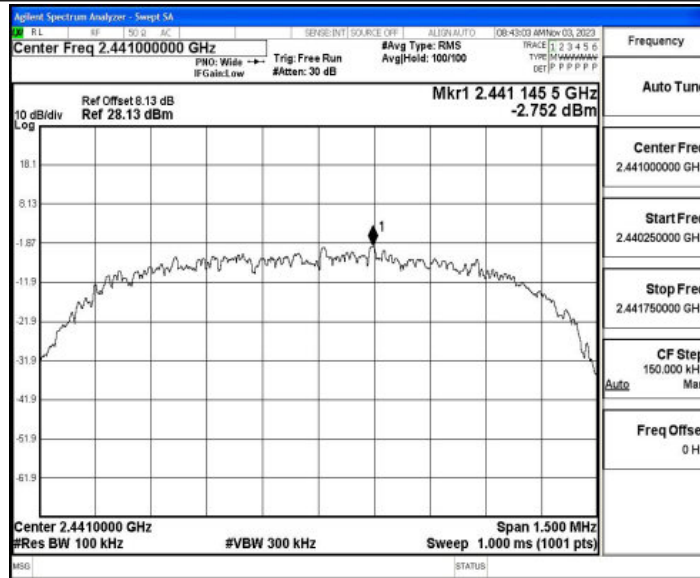


3DH5_Ant1_2402_1000~26500



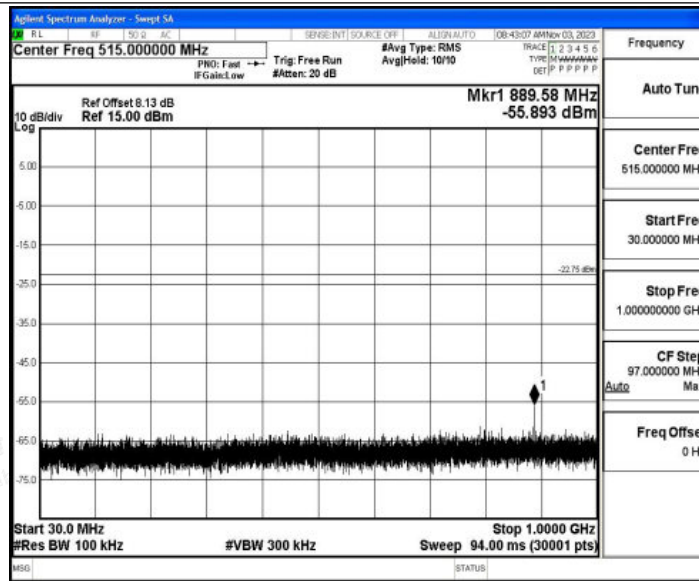


3DH5_Ant1_2441_0~Reference

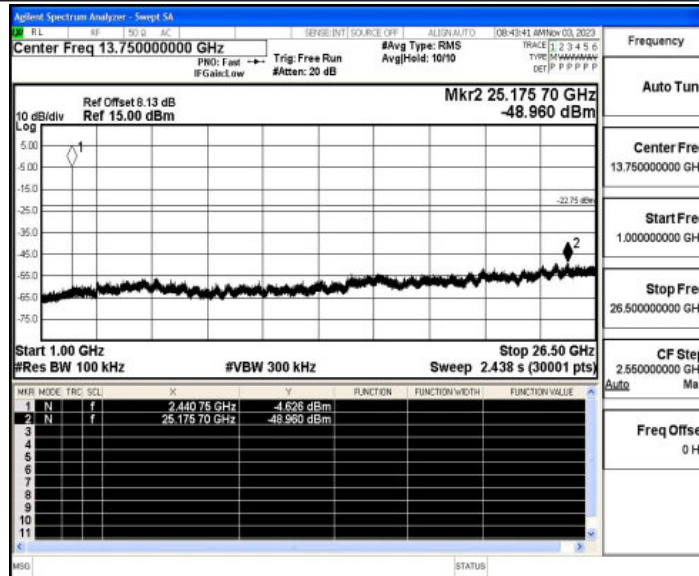


3DH5_Ant1_2441_30~1000



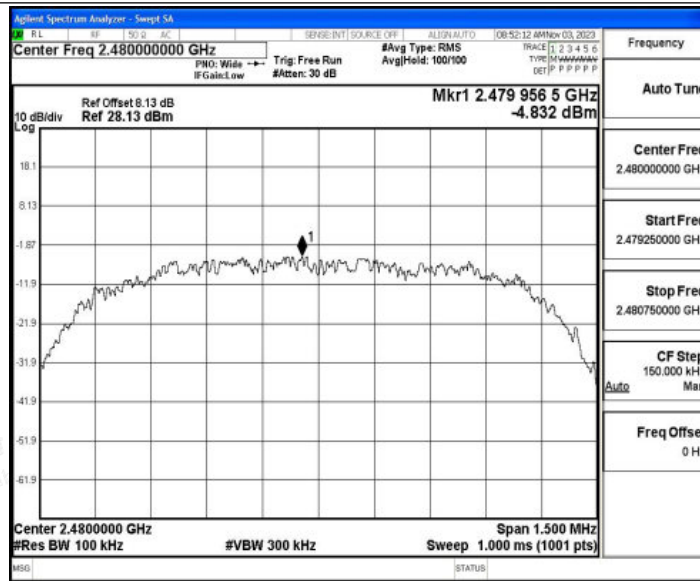


3DH5_Ant1_2441_1000~26500

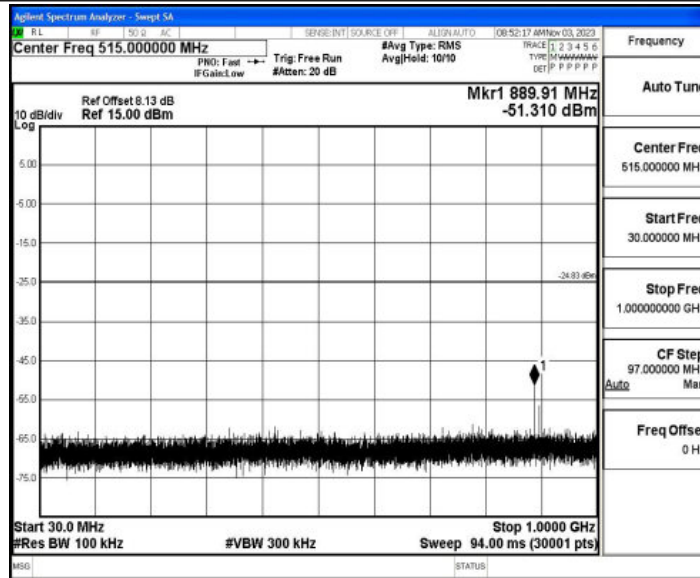


3DH5_Ant1_2480_0~Reference



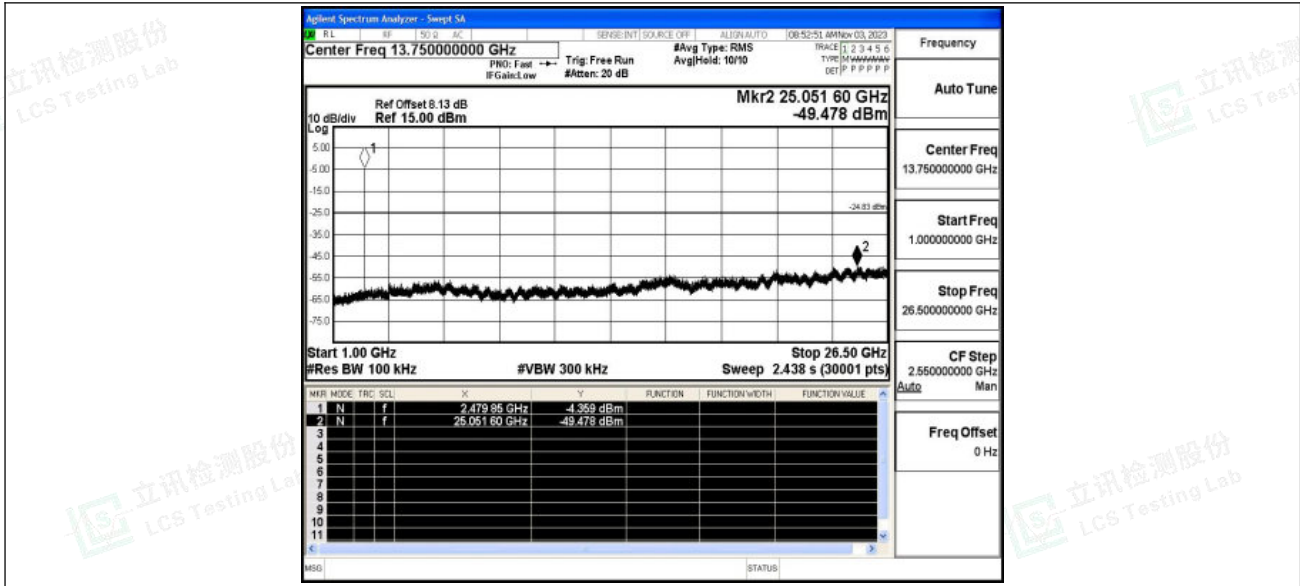


3DH5_Ant1_2480_30~1000



3DH5_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	-49.01	≤-41.20	46.19	≤54	PASS
				AV	2384.735	-48.52	≤-41.20	46.68	≤54	PASS
				AV	2390.000	-48.54	≤-41.20	46.66	≤54	PASS
				Peak	2310.000	-42.35	≤-21.20	52.85	≤74	PASS
				Peak	2383.580	-39.79	≤-21.20	55.41	≤74	PASS
				Peak	2390.000	-43.59	≤-21.20	51.61	≤74	PASS
		High	2480	AV	2483.500	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2483.600	-48.43	≤-41.20	46.77	≤54	PASS
				AV	2500.000	-48.43	≤-41.20	46.77	≤54	PASS
				Peak	2483.500	-41.82	≤-21.20	53.38	≤74	PASS
				Peak	2491.200	-39.12	≤-21.20	56.08	≤74	PASS
				Peak	2500.000	-43.92	≤-21.20	51.28	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-41.19	≤-21.20	54.01	≤74	PASS
				Peak	2334.650	-39.11	≤-21.20	56.09	≤74	PASS
				Peak	2390.000	-41.27	≤-21.20	53.93	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.85	≤-21.20	54.35	≤74	PASS
				Peak	2498.640	-38.38	≤-21.20	56.82	≤74	PASS
				Peak	2500.000	-40.84	≤-21.20	54.36	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.1	≤-41.20	46.10	≤54	PASS
				AV	2376.545	-48.59	≤-41.20	46.61	≤54	PASS
				AV	2390.000	-48.71	≤-41.20	46.49	≤54	PASS
				Peak	2310.000	-44.19	≤-21.20	51.01	≤74	PASS
				Peak	2314.280	-38.56	≤-21.20	56.64	≤74	PASS
				Peak	2390.000	-43.44	≤-21.20	51.76	≤74	PASS
		High	2480	AV	2483.500	-48.42	≤-41.20	46.78	≤54	PASS
				AV	2483.520	-48.42	≤-41.20	46.78	≤54	PASS
				AV	2500.000	-48.7	≤-41.20	46.50	≤54	PASS
				Peak	2483.500	-44.02	≤-21.20	51.18	≤74	PASS
				Peak	2497.840	-39.67	≤-21.20	55.53	≤74	PASS
				Peak	2500.000	-43.63	≤-21.20	51.57	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-41.49	≤-21.20	53.71	≤74	PASS
				Peak	2369.615	-38.13	≤-21.20	57.07	≤74	PASS
				Peak	2390.000	-41.28	≤-21.20	53.92	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.06	≤-21.20	55.14	≤74	PASS
				Peak	2494.240	-38.33	≤-21.20	56.87	≤74	PASS



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Scan code to check authenticity



3DH5	Ant1	Low	2402	Peak	2500.000	-40.57	≤-21.20	54.63	≤74	PASS		
				AV	2310.000	-49.06	≤-41.20	46.14	≤54	PASS		
				AV	2380.325	-48.62	≤-41.20	46.58	≤54	PASS		
				AV	2390.000	-48.87	≤-41.20	46.33	≤54	PASS		
				Peak	2310.000	-40.99	≤-21.20	54.21	≤74	PASS		
				Peak	2370.140	-38.83	≤-21.20	56.37	≤74	PASS		
		High	2480	Peak	2390.000	-44.81	≤-21.20	50.39	≤74	PASS		
				AV	2483.500	-48.58	≤-41.20	46.62	≤54	PASS		
				AV	2496.240	-48.56	≤-41.20	46.64	≤54	PASS		
				AV	2500.000	-48.73	≤-41.20	46.47	≤54	PASS		
				Peak	2483.500	-42.38	≤-21.20	52.82	≤74	PASS		
				Peak	2489.360	-40.47	≤-21.20	54.73	≤74	PASS		
		Low	Hop_2402	Peak	2500.000	-42.38	≤-21.20	52.82	≤74	PASS		
				Peak	2310.000	-40.07	≤-21.20	55.13	≤74	PASS		
				Peak	2328.350	-38.08	≤-21.20	57.12	≤74	PASS		
		High	Hop_2480	Peak	2390.000	-40.26	≤-21.20	54.94	≤74	PASS		
				Peak	2483.500	-39.43	≤-21.20	55.77	≤74	PASS		
				Peak	2499.200	-38.49	≤-21.20	56.71	≤74	PASS		
						Peak	2500.000	-39.99	≤-21.20	55.21	≤74	PASS

Note:

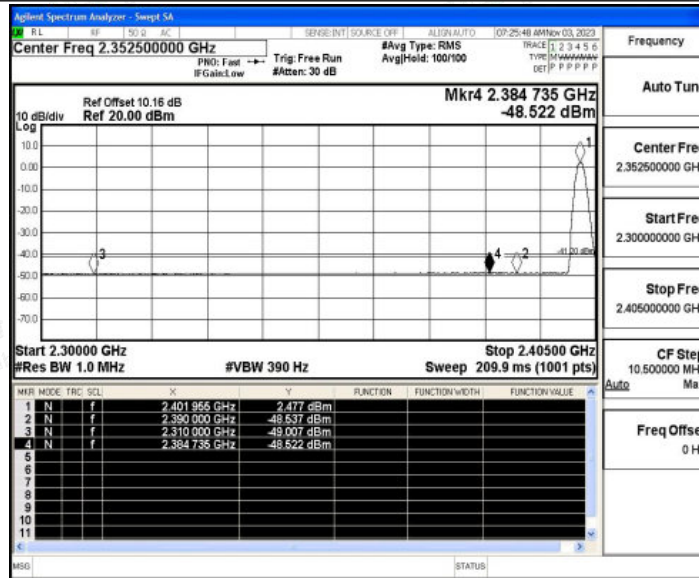
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



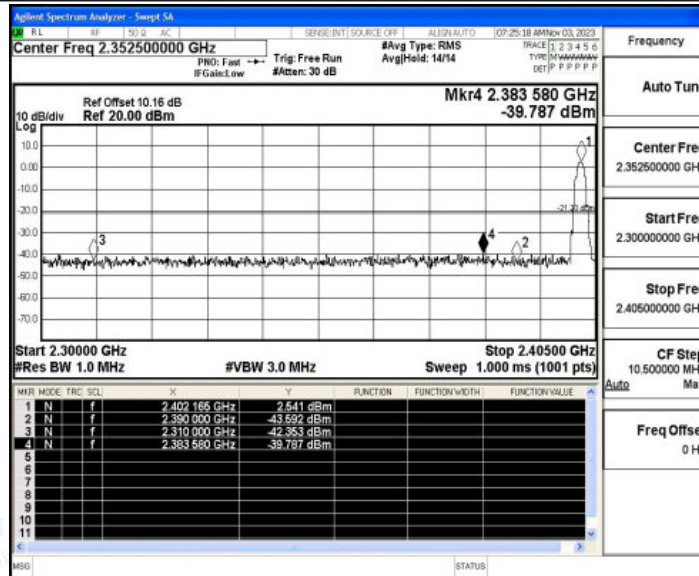


Test Graphs

DH5_Ant1_Low_2402_AV

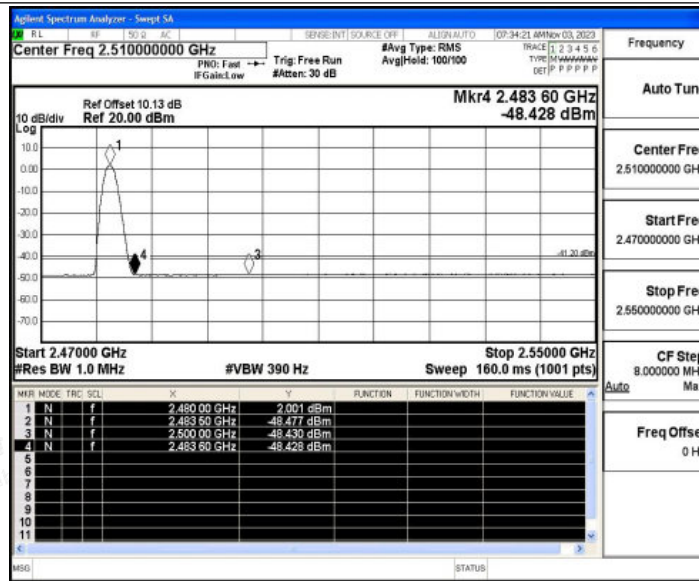


DH5_Ant1_Low_2402_Peak

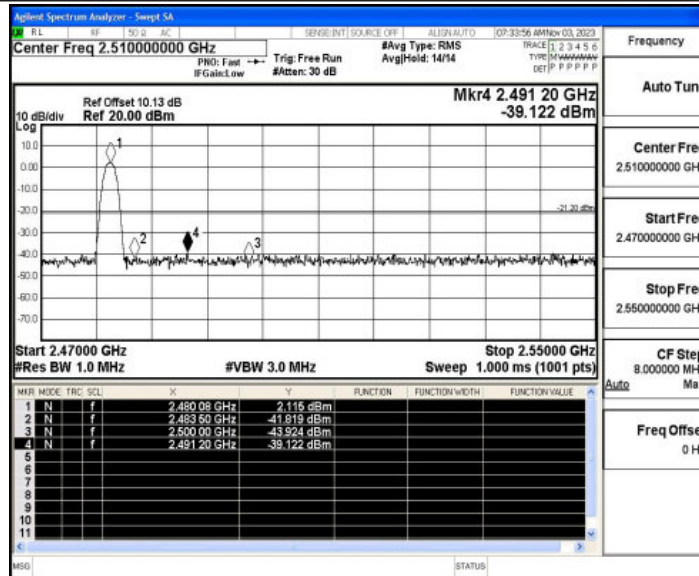


DH5_Ant1_High_2480_AV



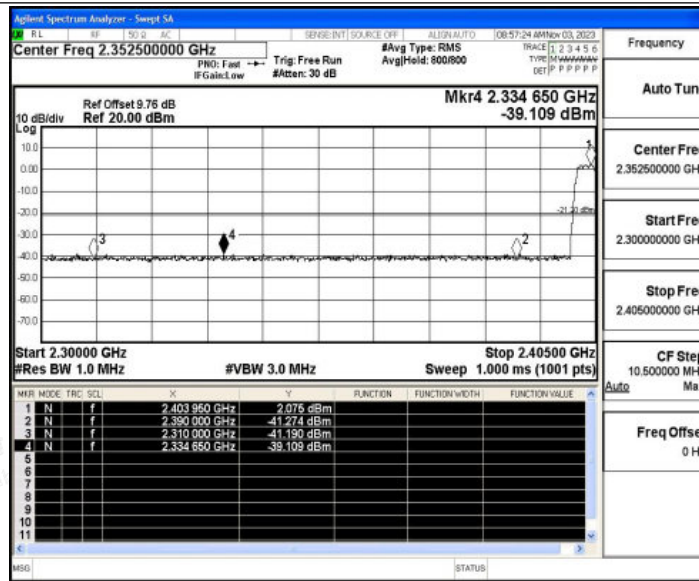


DH5_Ant1_High_2480_Peak

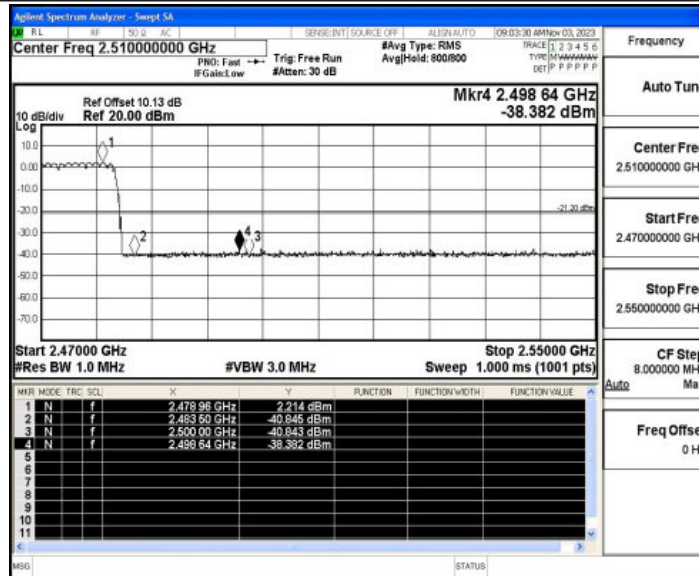


DH5_Ant1_Low_Hop_2402_Peak



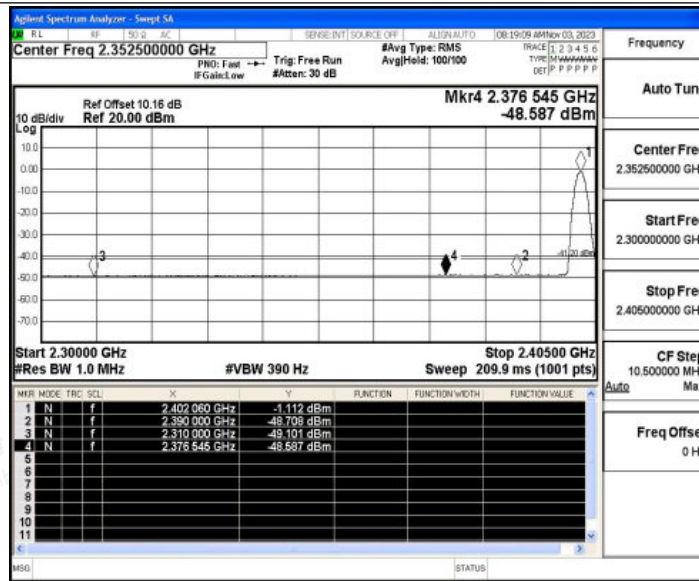


DH5_Ant1_High_Hop_2480_Peak

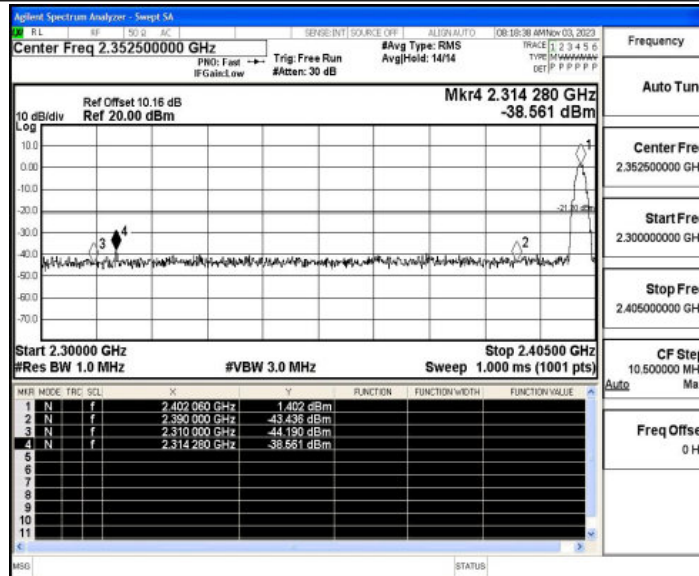


2DH5_Ant1_Low_2402_AV



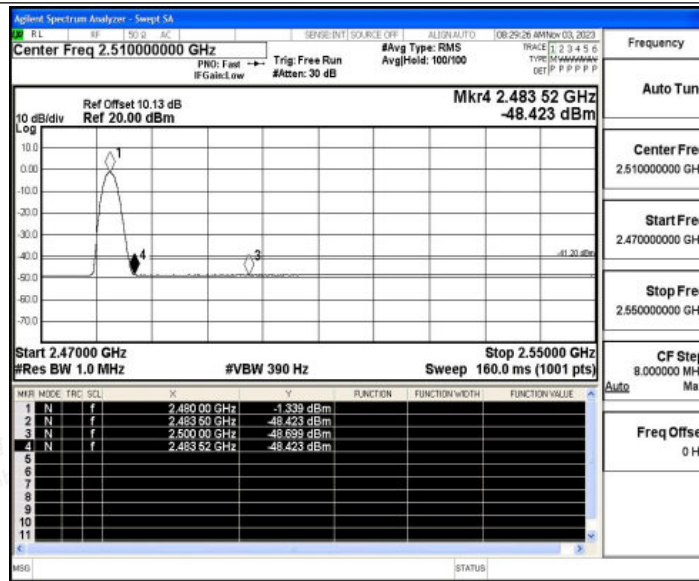


2DH5_Ant1_Low_2402_Peak

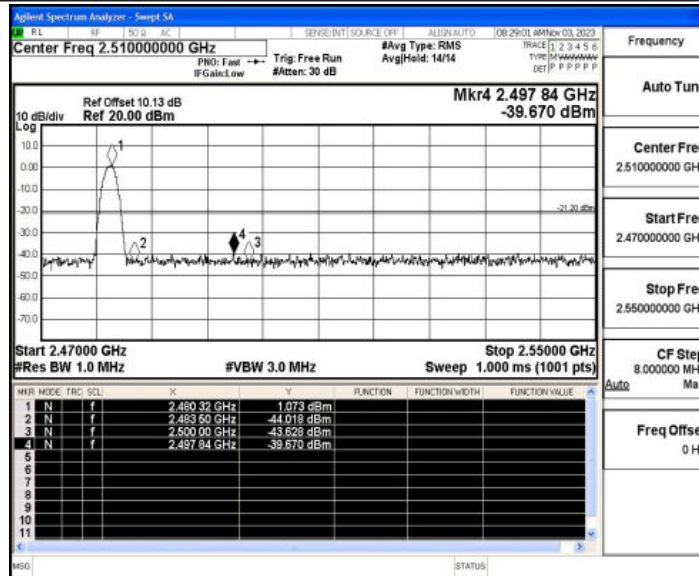


2DH5_Ant1_High_2480_AV



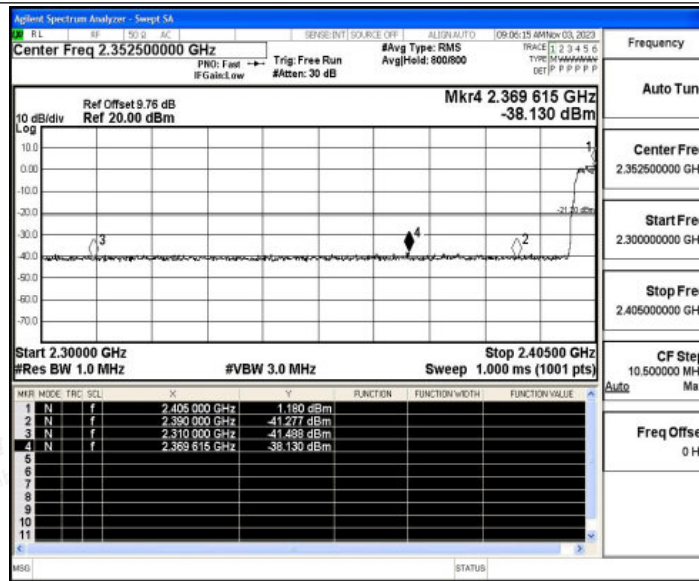


2DH5_Ant1_High_2480_Peak

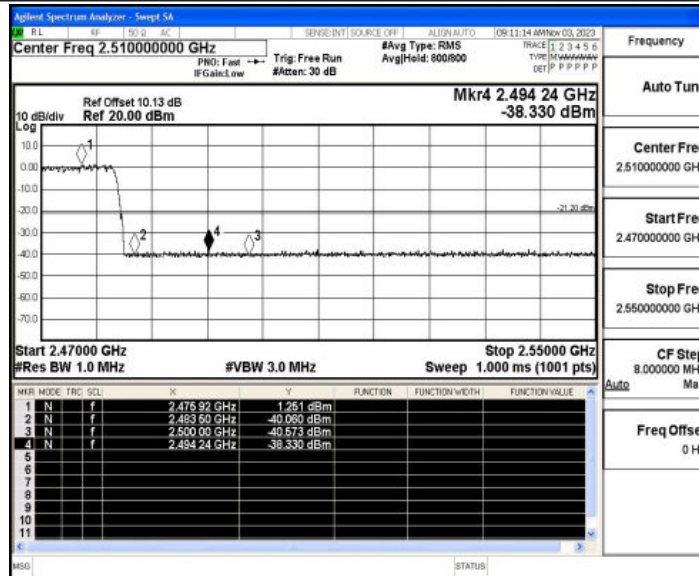


2DH5_Ant1_Low_Hop_2402_Peak



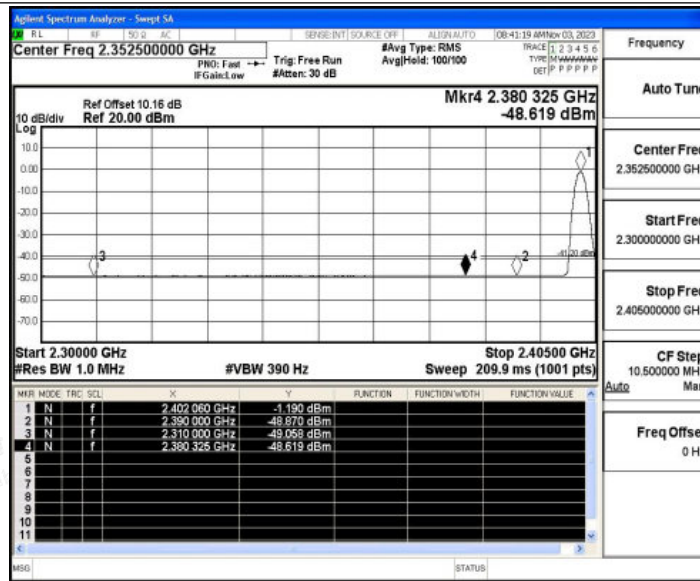


2DH5_Ant1_High_Hop_2480_Peak

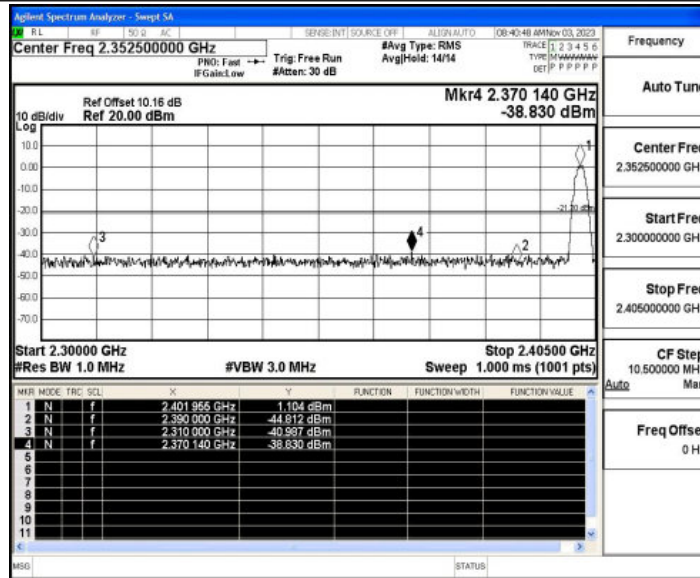


3DH5_Ant1_Low_2402_AV



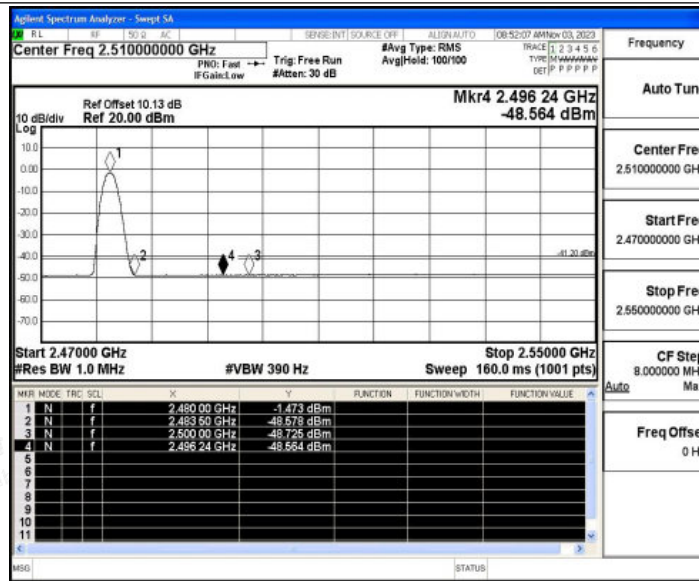


3DH5_Ant1_Low_2402_Peak

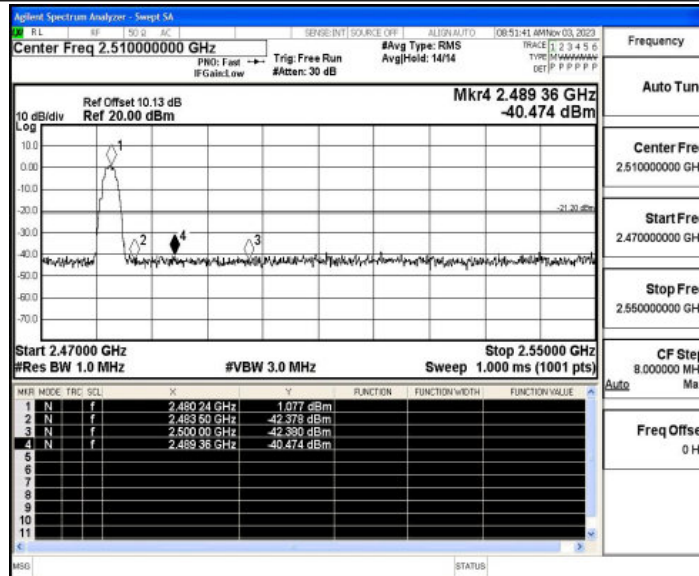


3DH5_Ant1_High_2480_AV



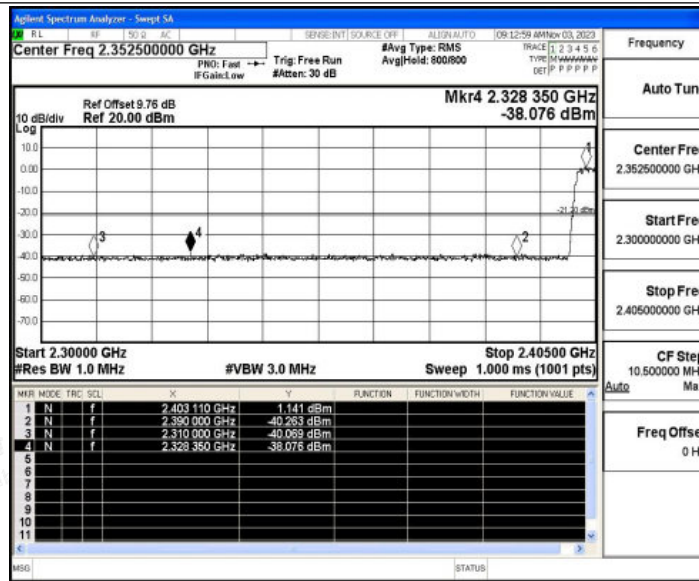


3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak





3DH5_Ant1_High_Hop_2480_Peak

