Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bluetooth Headphones
Test Model: E8

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng

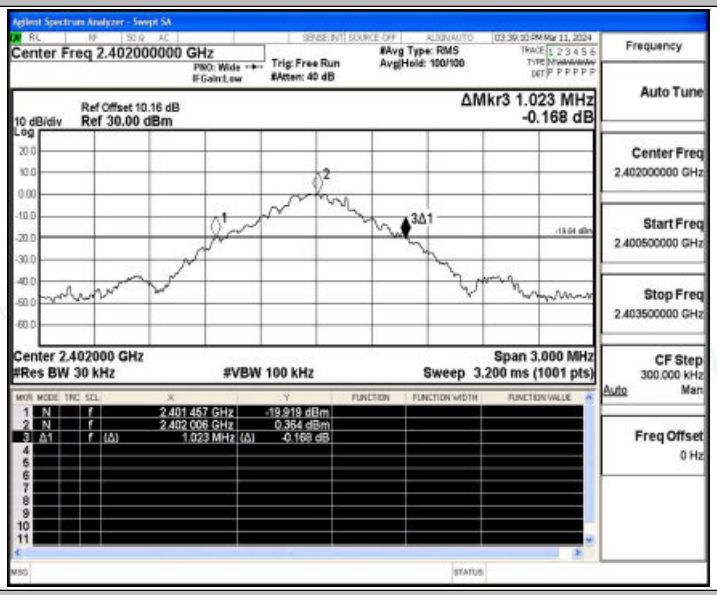
A.1 20dB Emission Bandwidth

Test Result

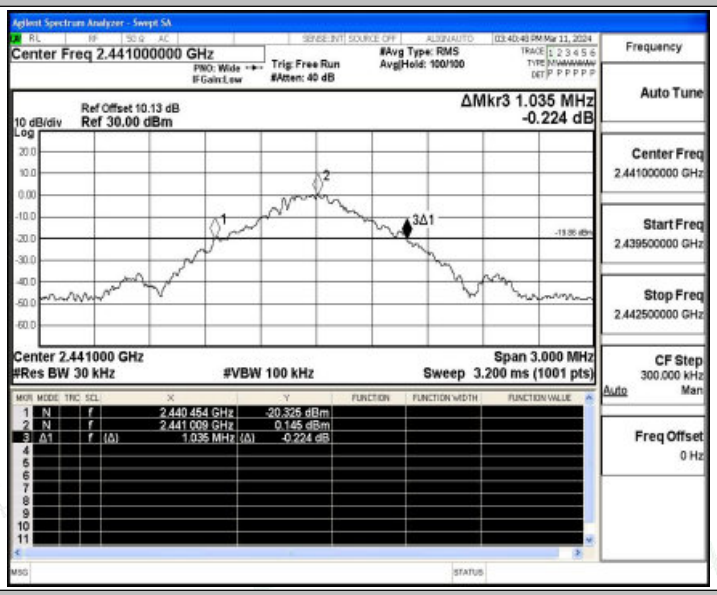
TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.023	2401.457	2402.480	---	---
		2441	1.035	2440.454	2441.489	---	---
		2480	0.972	2479.505	2480.477	---	---
2DH5	Ant1	2402	1.347	2401.313	2402.660	---	---
		2441	1.332	2440.322	2441.654	---	---
		2480	1.287	2479.355	2480.642	---	---

Test Graphs

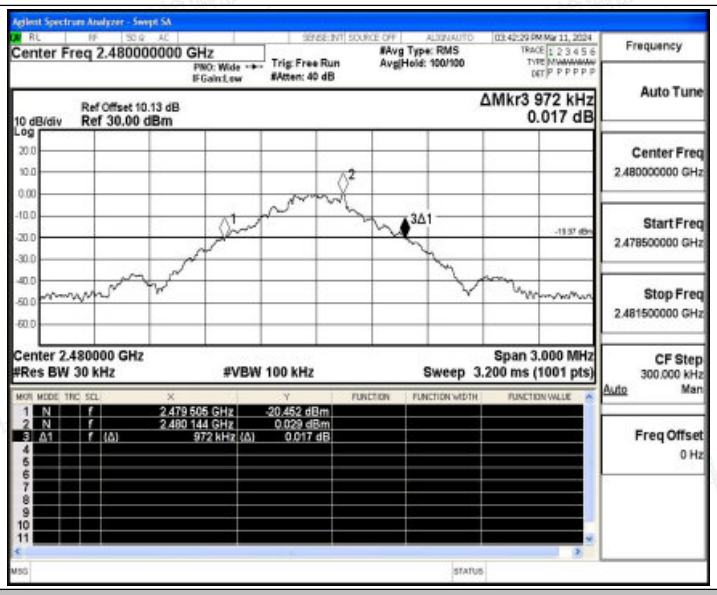
DH5_Ant1_2402



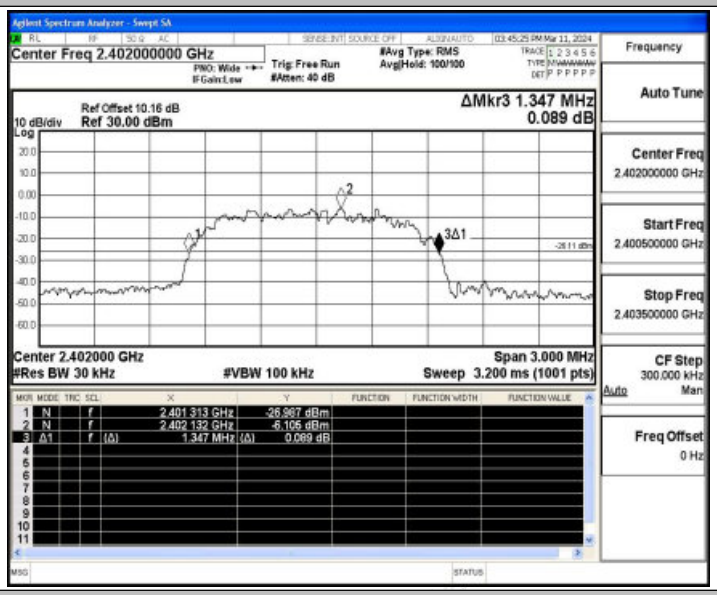
DH5_Ant1_2441



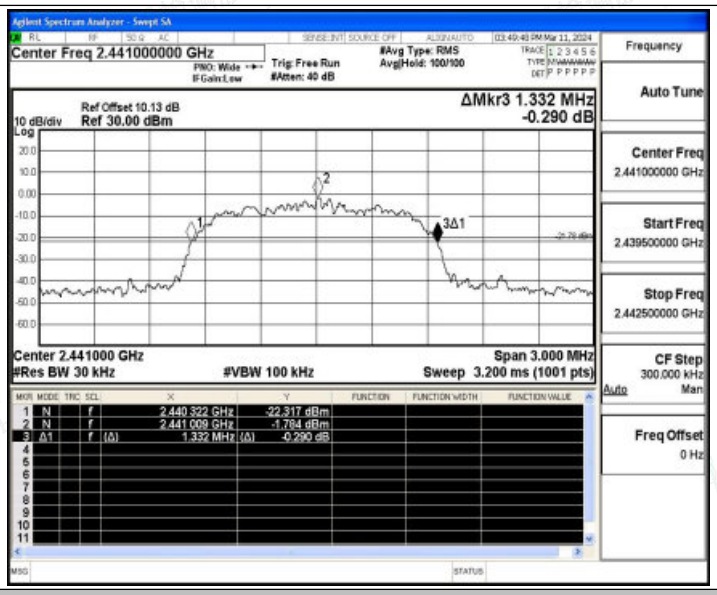
DH5_Ant1_2480



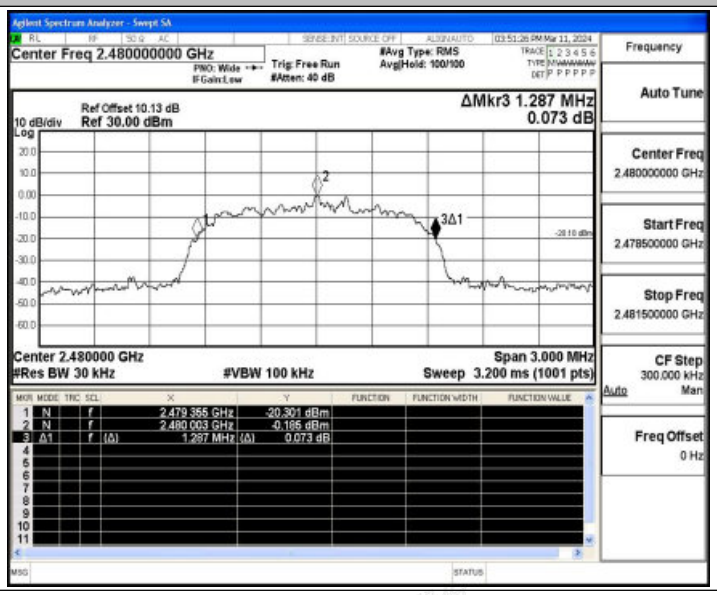
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



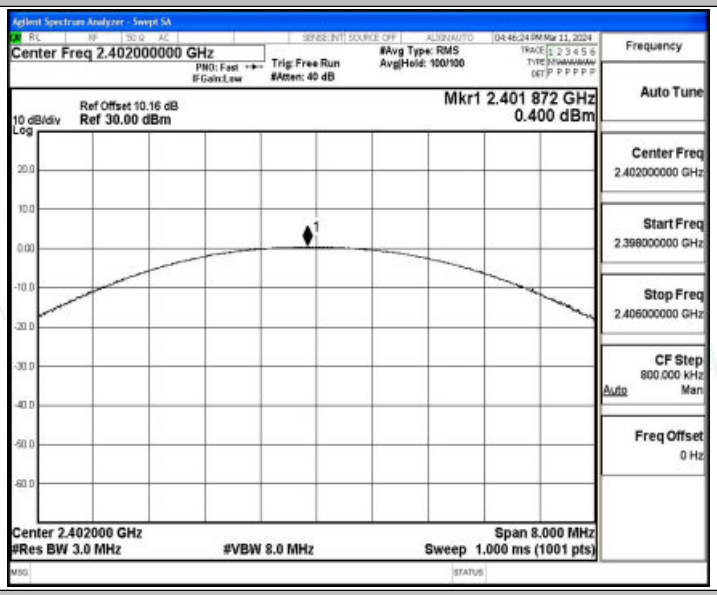
A.2 Maximum conducted output power

Test Result Peak

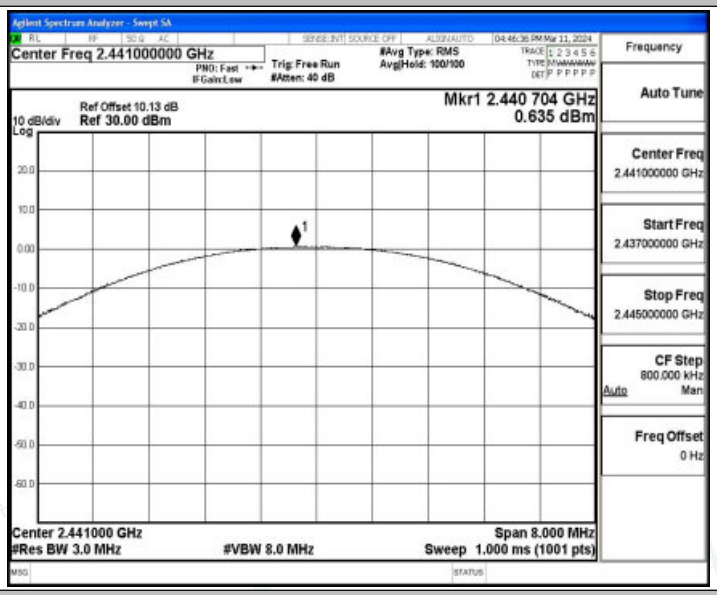
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.40	≤20.97	PASS
		2441	0.64	≤20.97	PASS
		2480	0.76	≤20.97	PASS
2DH5	Ant1	2402	0.12	≤20.97	PASS
		2441	0.37	≤20.97	PASS
		2480	0.34	≤20.97	PASS

Test Graphs

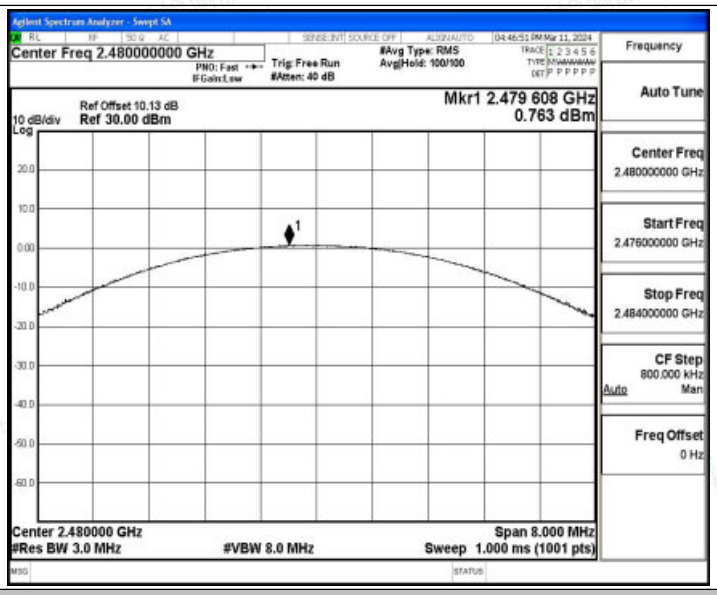
DH5_Ant1_2402



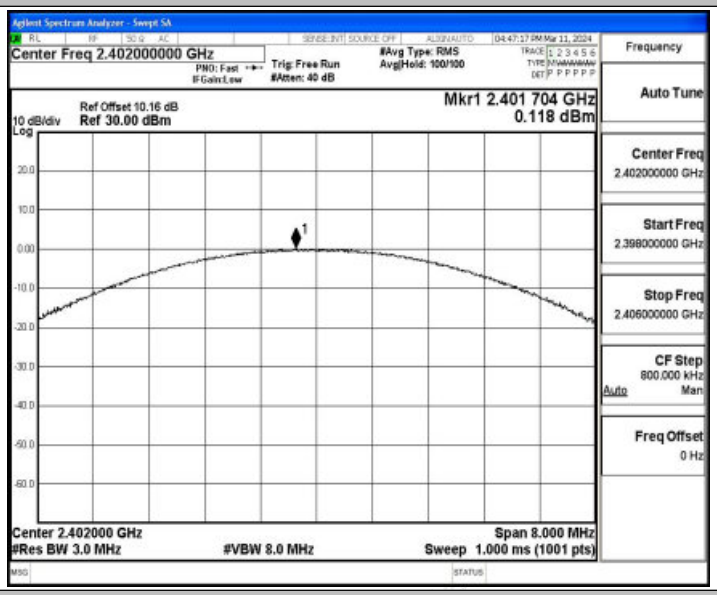
DH5_Ant1_2441



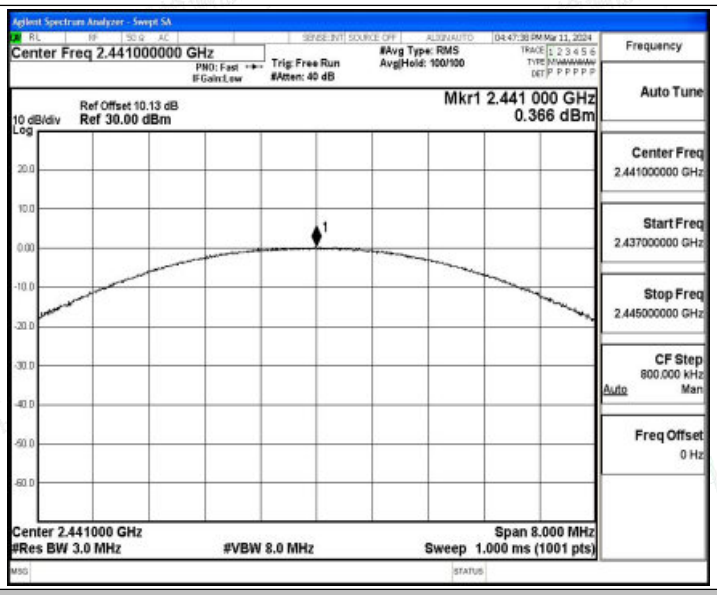
DH5_Ant1_2480



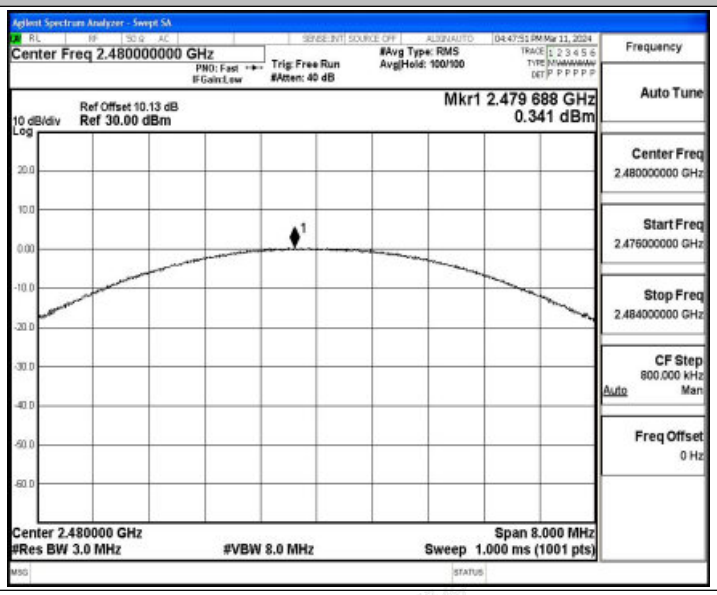
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



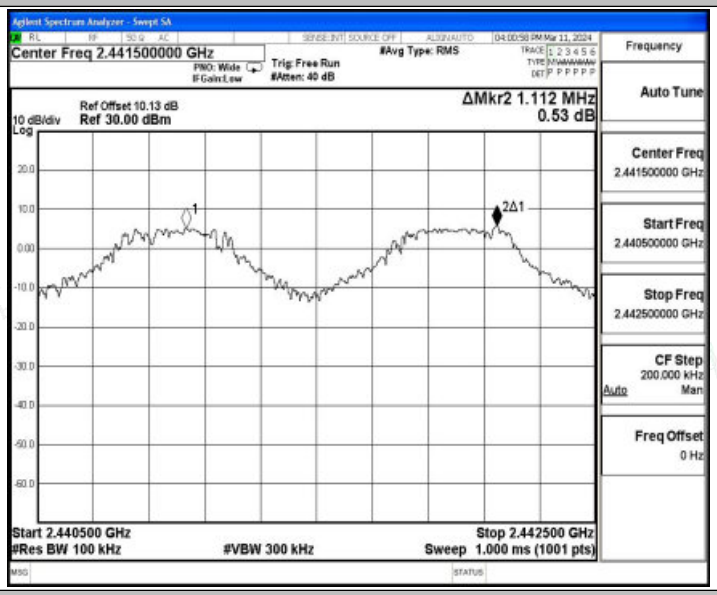
A.3 Carrier frequency separation

Test Result

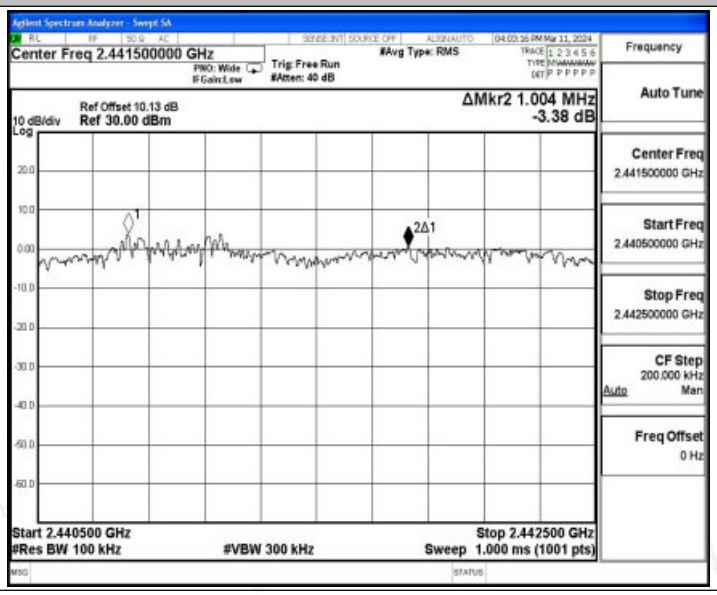
TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.112	≥0.690	PASS
2DH5	Ant1	Hop	1.004	≥0.898	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



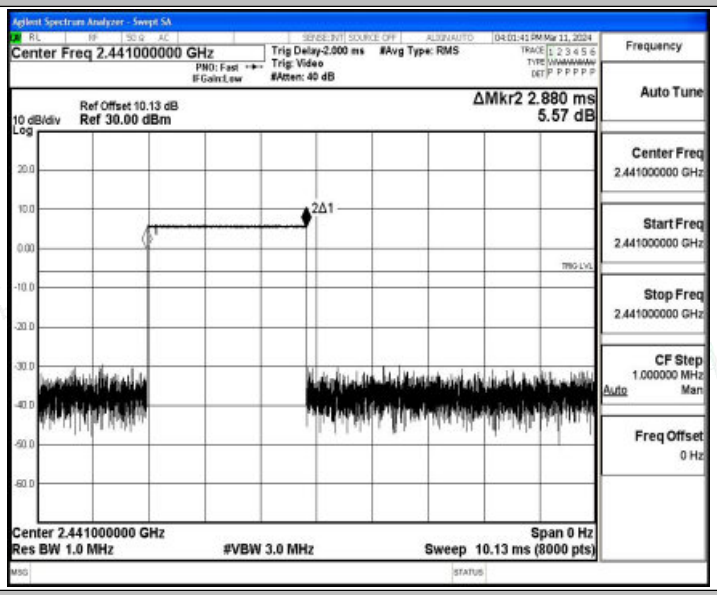
A.4 Time of occupancy

Test Result

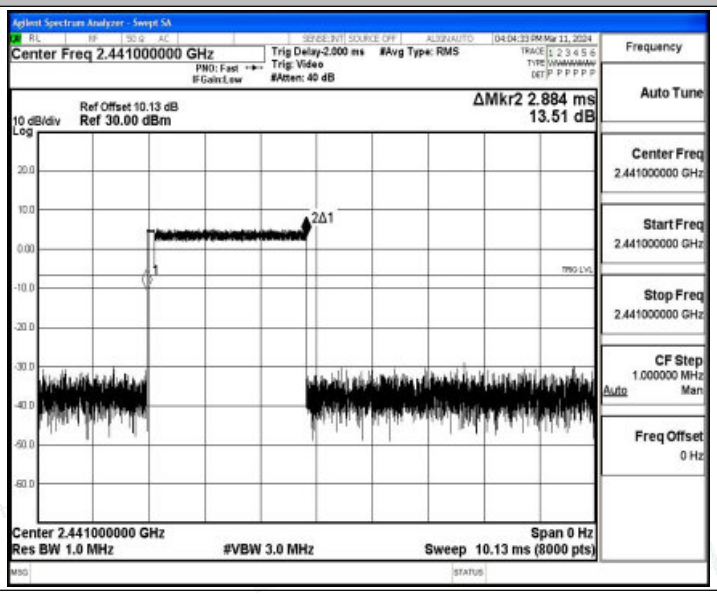
TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.880	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.884	106.67	0.308	≤0.4	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



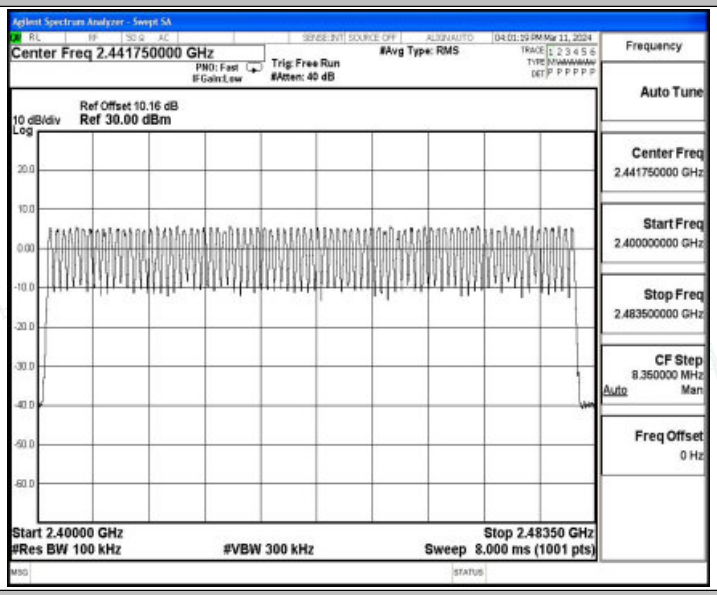
A.5 Number of hopping channels

Test Result

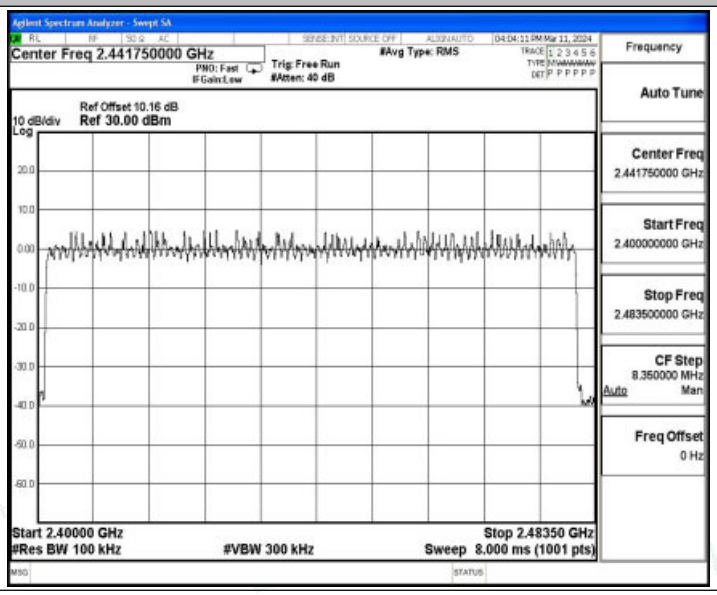
TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



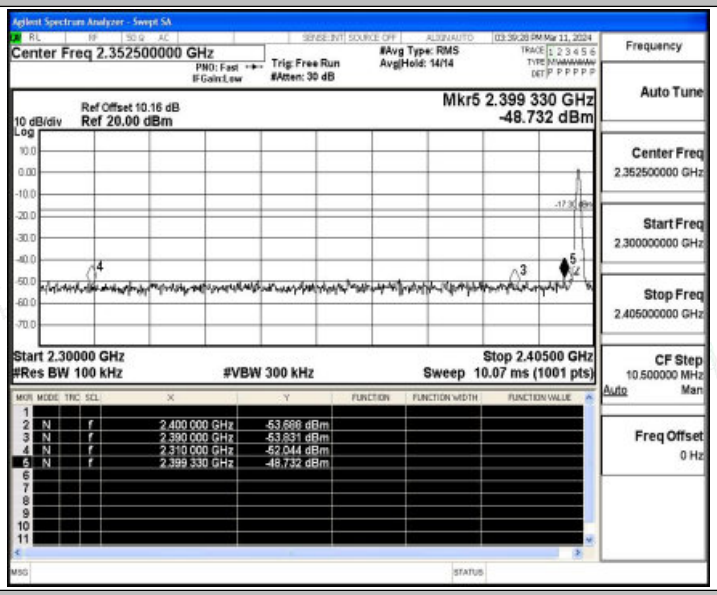
A.6 Band edge measurements

Test Result

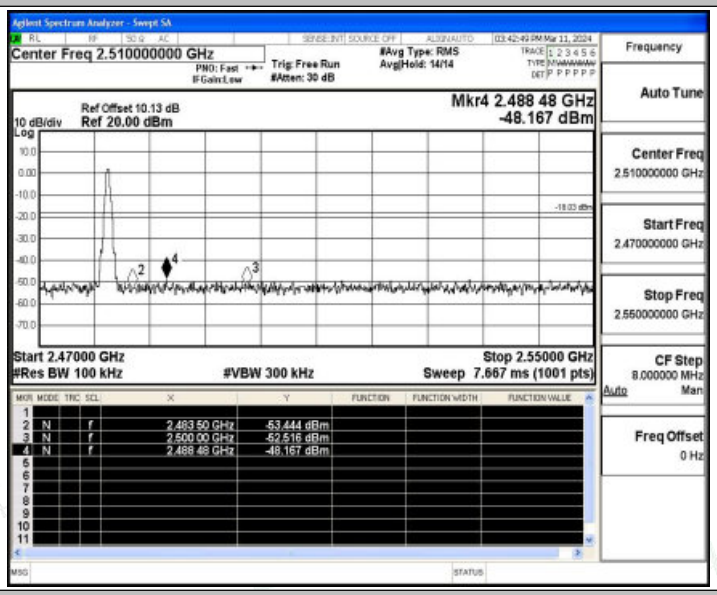
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.70	-48.73	≤-17.3	PASS
		High	2480	1.97	-48.17	≤-18.03	PASS
		Low	Hop_2402	4.28	-48.12	≤-15.72	PASS
		High	Hop_2480	5.49	-46.95	≤-14.51	PASS
2DH5	Ant1	Low	2402	0.05	-48.52	≤-19.95	PASS
		High	2480	2.66	-48.66	≤-17.34	PASS
		Low	Hop_2402	4.01	-48.14	≤-16	PASS
		High	Hop_2480	1.17	-46.79	≤-18.83	PASS

Test Graphs

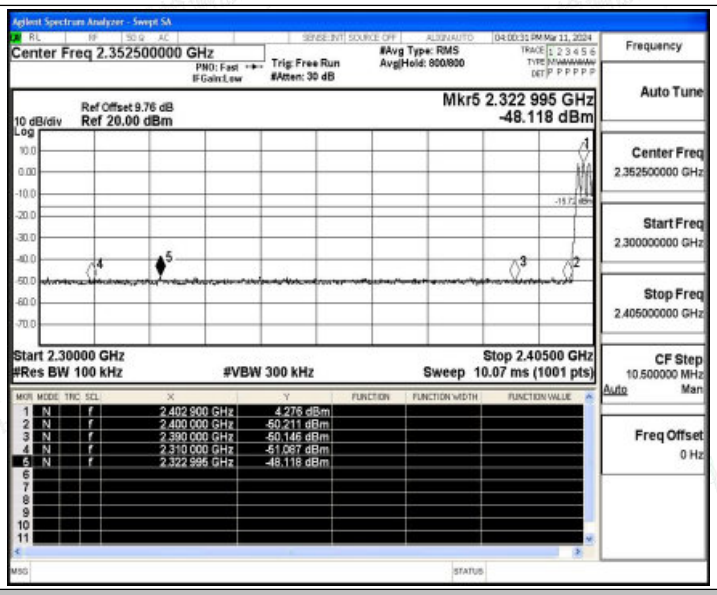
DH5_Ant1_Low_2402



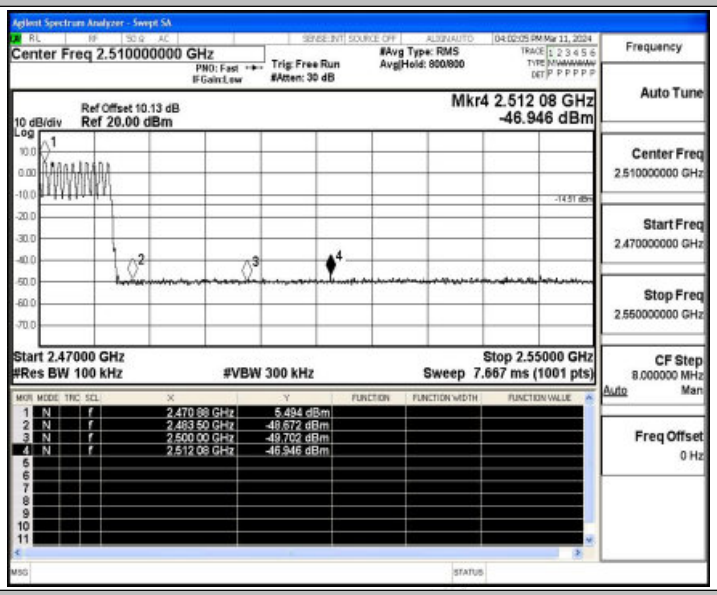
DH5_Ant1_High_2480



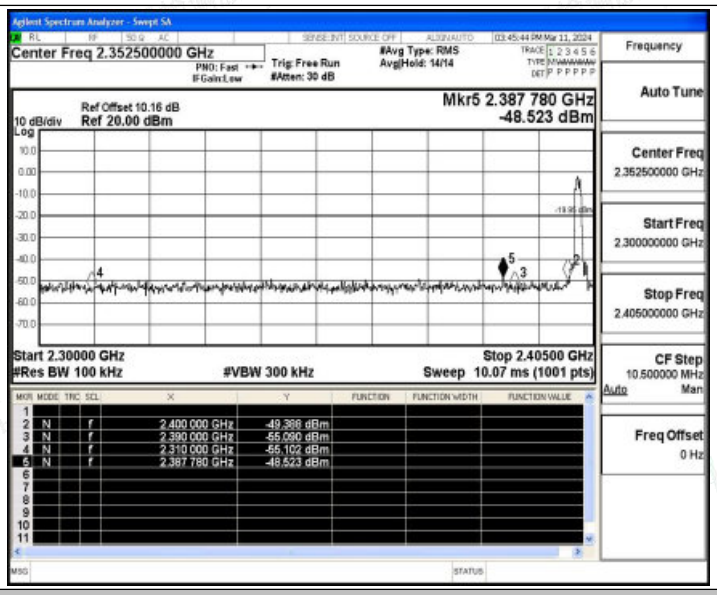
DH5_Ant1_Low_Hop_2402



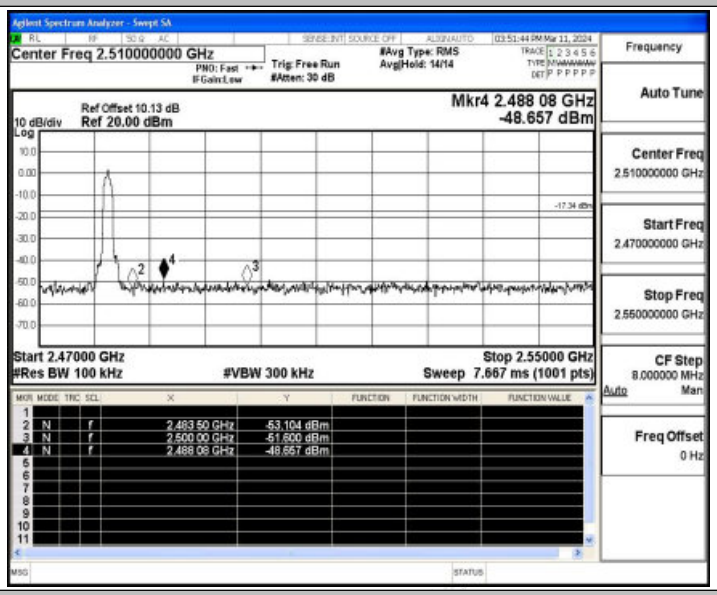
DH5_Ant1_High_Hop_2480



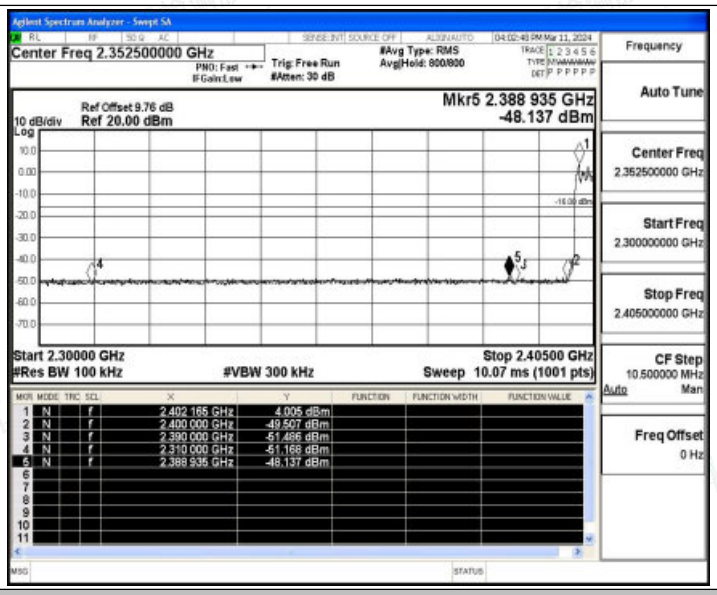
2DH5_Ant1_Low_2402



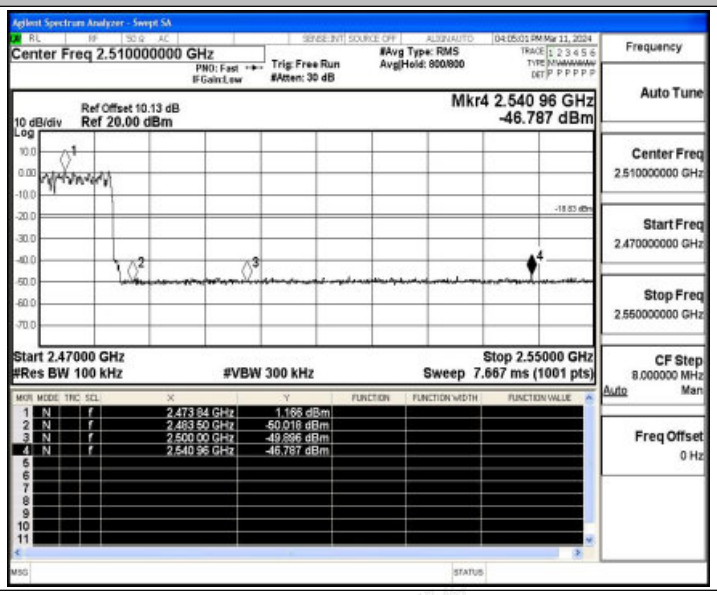
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



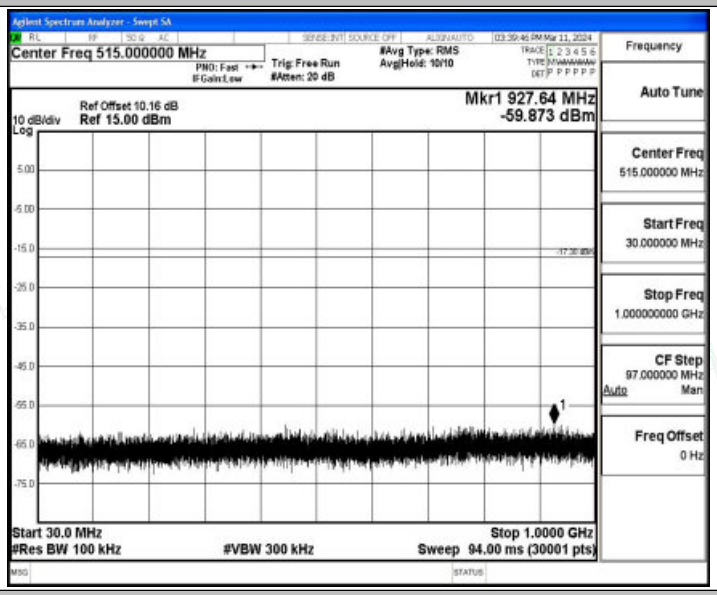
A.7 Conducted Spurious Emission

Test Result

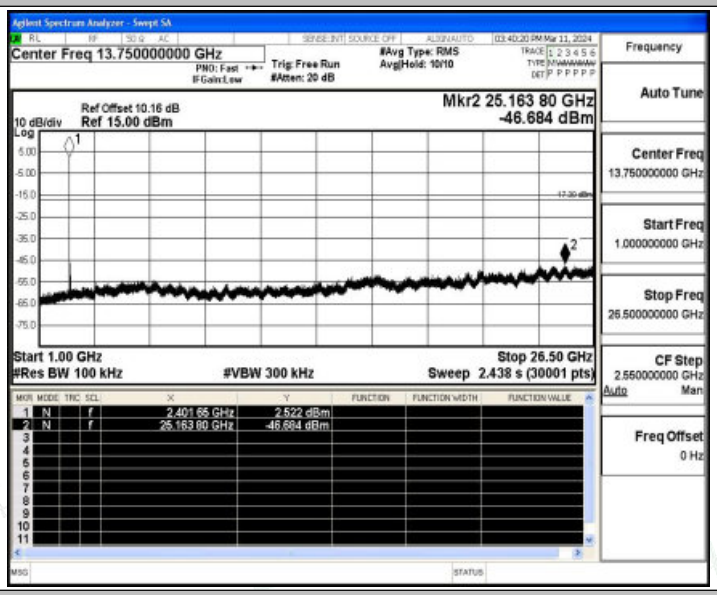
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	2.70	-59.87	≤-17.3	PASS
			1000~26500	2.70	-46.68	≤-17.3	PASS
		2441	30~1000	2.63	-59.24	≤-17.37	PASS
			1000~26500	2.63	-47.17	≤-17.37	PASS
		2480	30~1000	1.97	-59.59	≤-18.03	PASS
			1000~26500	1.97	-47.26	≤-18.03	PASS
2DH5	Ant1	2402	30~1000	0.05	-60.06	≤-19.95	PASS
			1000~26500	0.05	-47.38	≤-19.95	PASS
		2441	30~1000	3.02	-59.9	≤-16.98	PASS
			1000~26500	3.02	-47.16	≤-16.98	PASS
		2480	30~1000	2.66	-59.05	≤-17.34	PASS
			1000~26500	2.66	-47.23	≤-17.34	PASS

Test Graphs

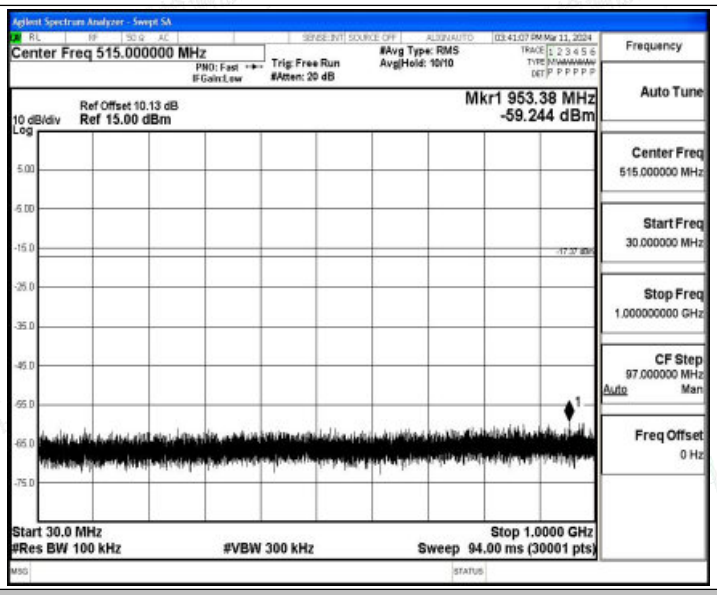
DH5_Ant1_2402_30~1000



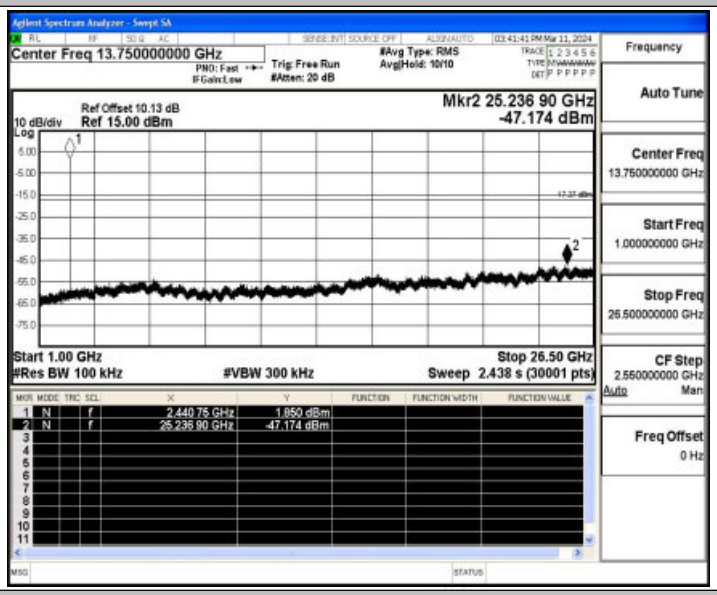
DH5_Ant1_2402_1000~26500



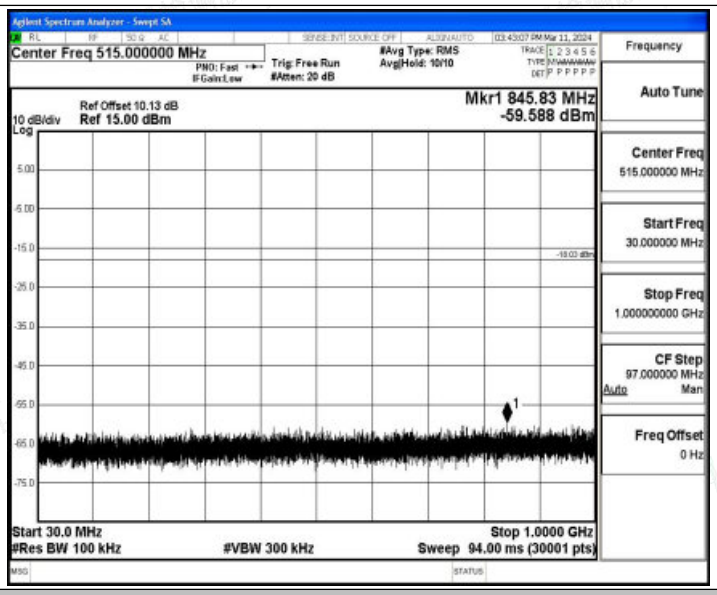
DH5_Ant1_2441_30~1000



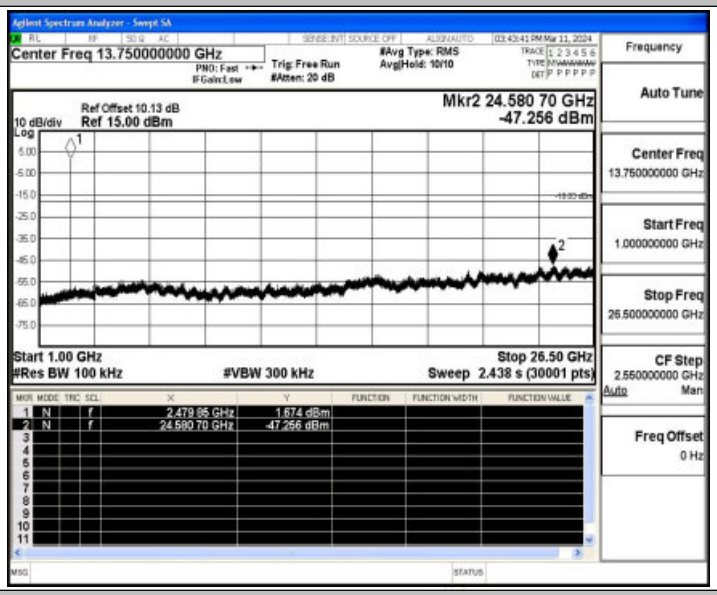
DH5_Ant1_2441_1000~26500



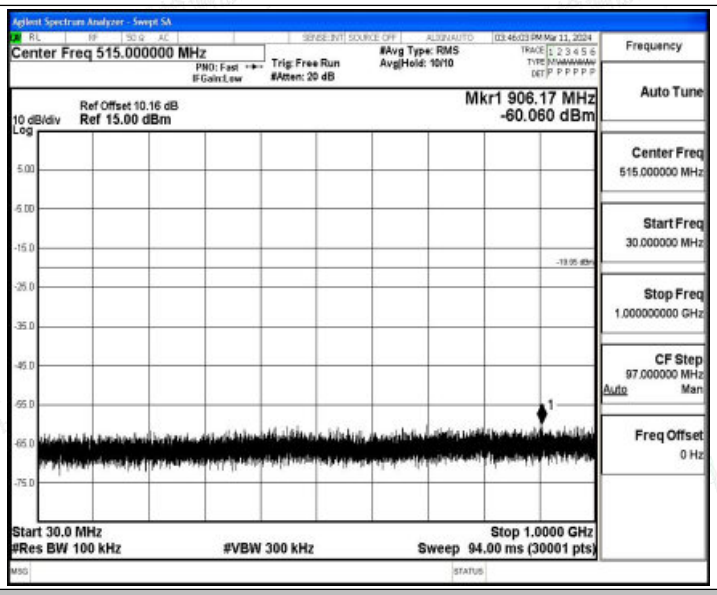
DH5_Ant1_2480_30~1000



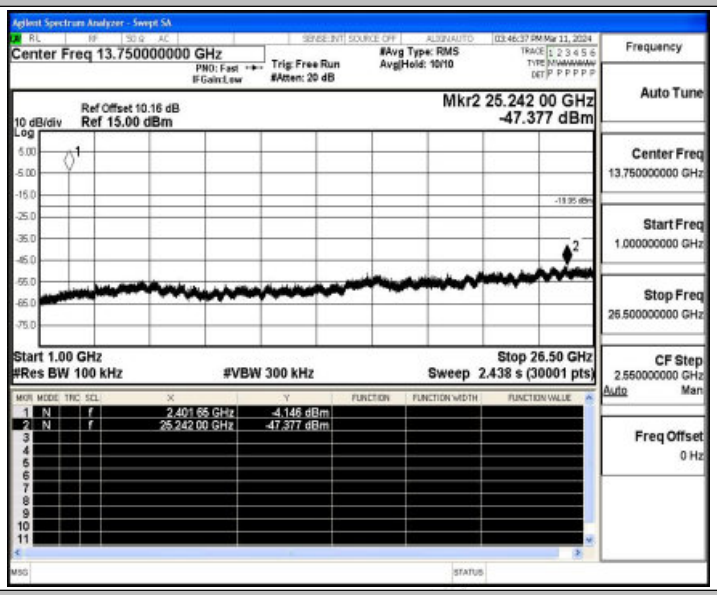
DH5_Ant1_2480_1000~26500



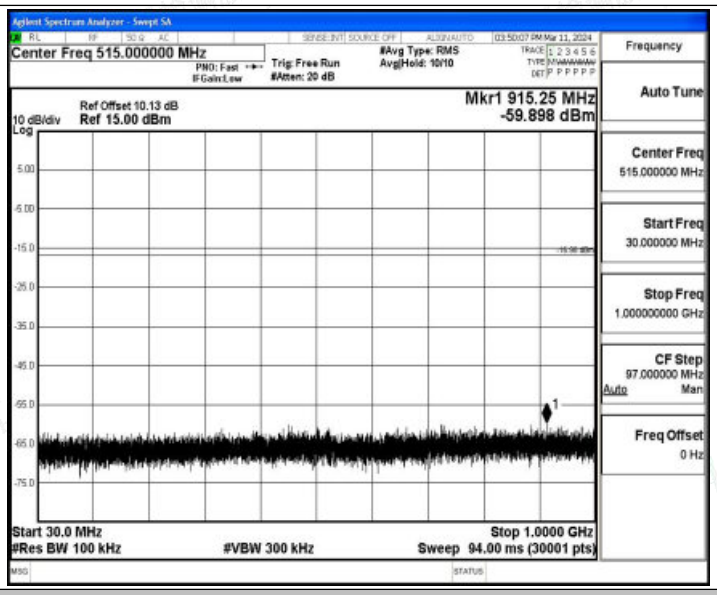
2DH5_Ant1_2402_30~1000



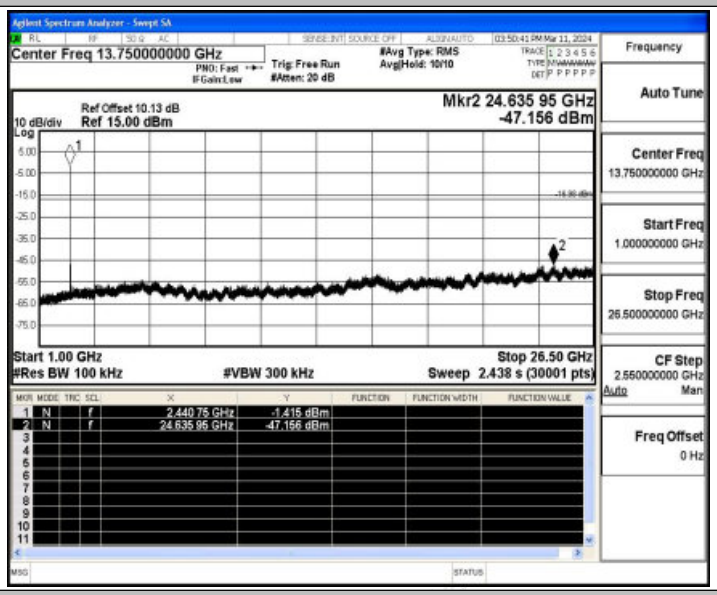
2DH5_Ant1_2402_1000~26500



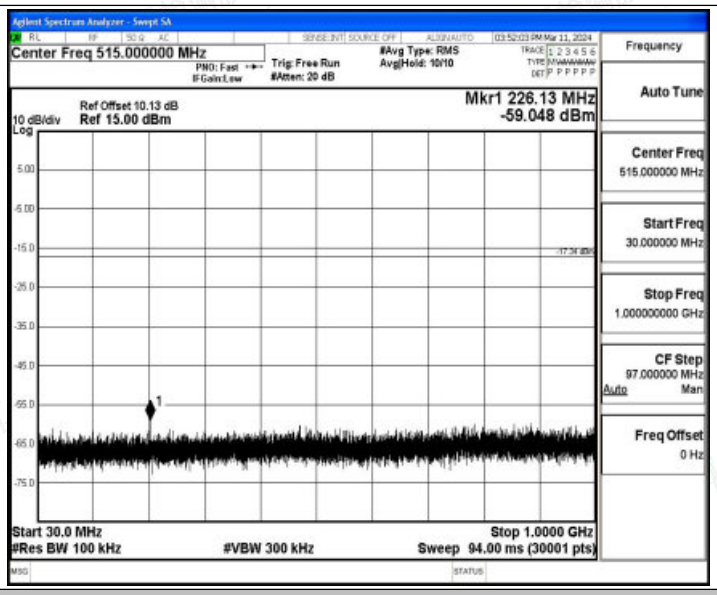
2DH5_Ant1_2441_30~1000



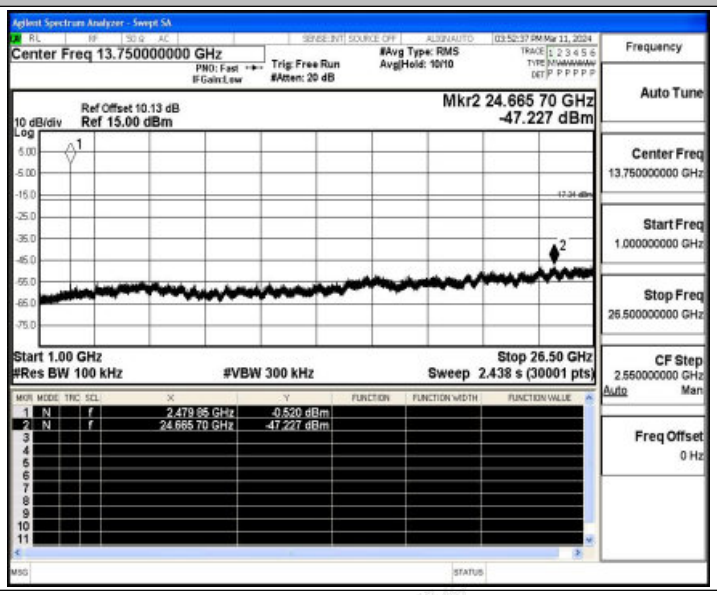
2DH5_Ant1_2441_1000~26500



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



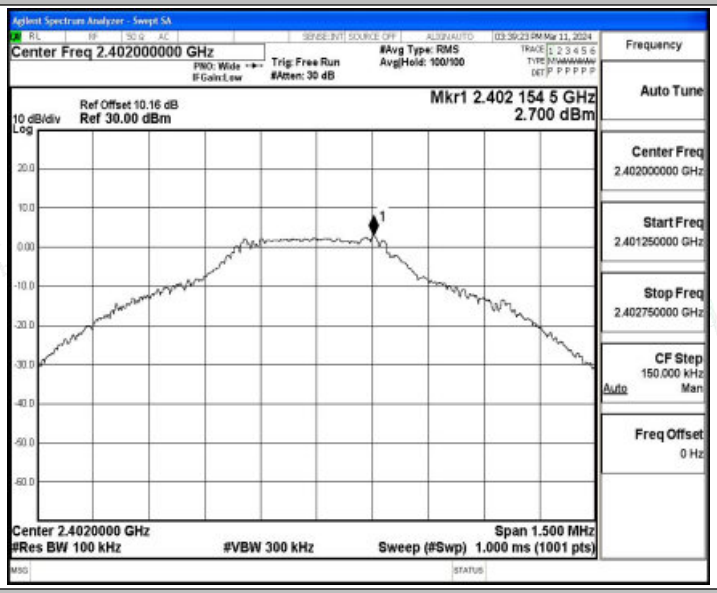
Reference Level

Test Result

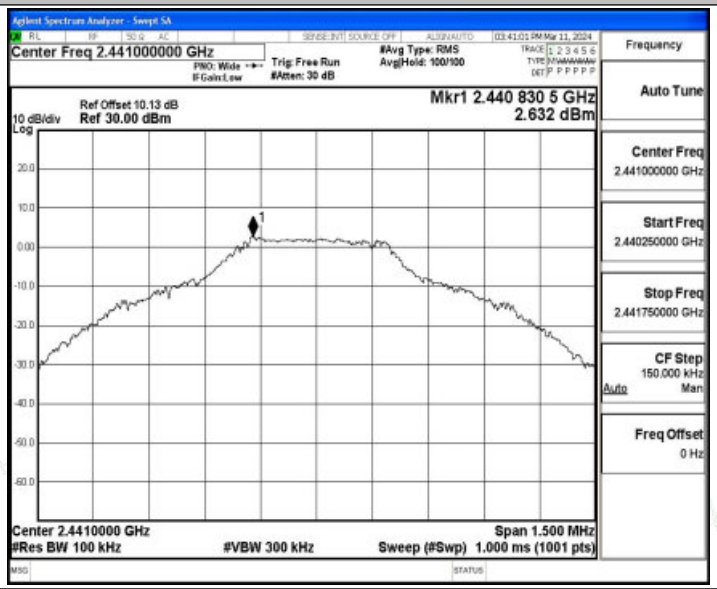
TestMode	Antenna	ChName	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	2402.15	2.70	---	PASS
		2441	2440.83	2.63	---	PASS
		2480	2480.03	1.97	---	PASS
2DH5	Ant1	2402	2401.95	0.05	---	PASS
		2441	2441.15	3.02	---	PASS
		2480	2480.06	2.66	---	PASS

Test Graphs

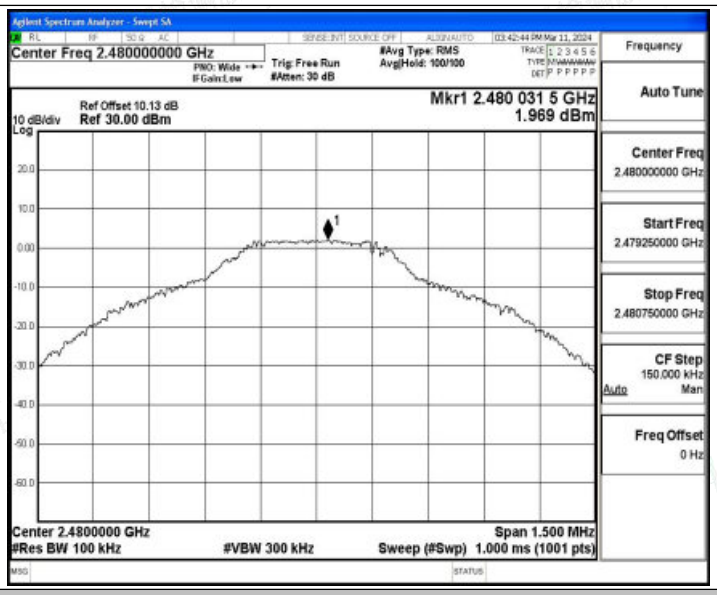
DH5_Ant1_2402



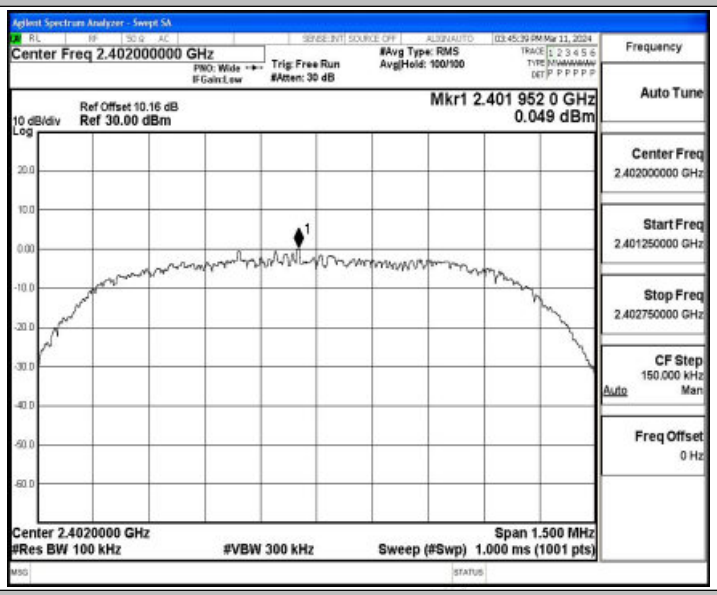
DH5_Ant1_2441



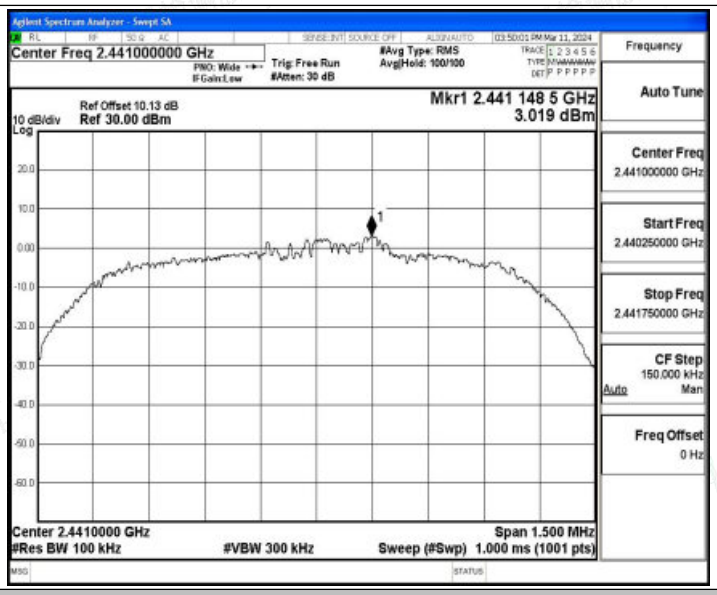
DH5_Ant1_2480



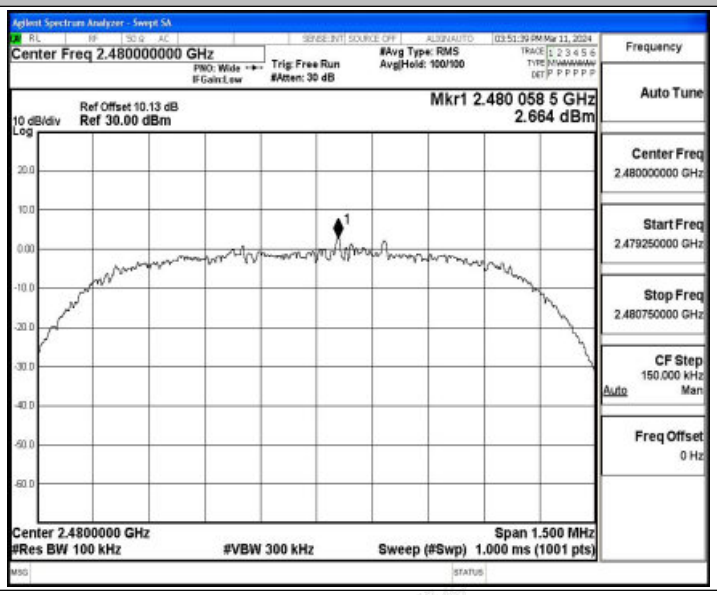
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



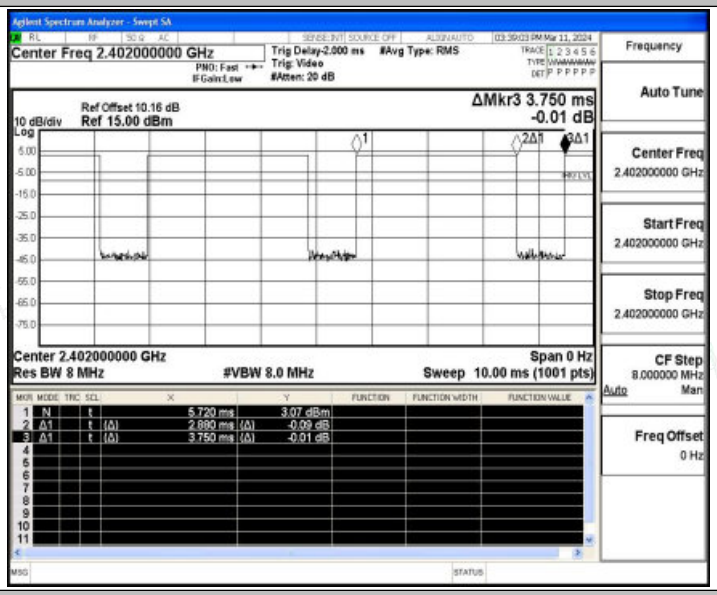
A.8 Duty Cycle

Test Result

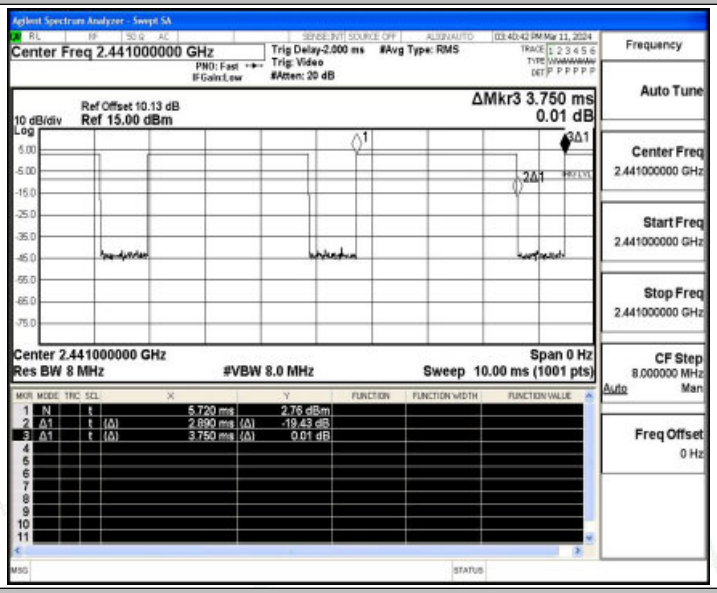
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[kHz]
DH5	Ant1	2402	2.88	3.75	76.80	1.15	0.35
		2441	2.89	3.75	77.07	1.13	0.35
		2480	2.88	3.75	76.80	1.15	0.35
2DH5	Ant1	2402	2.89	6.26	46.17	3.36	0.35
		2441	2.89	3.75	77.07	1.13	0.35
		2480	2.89	3.75	77.07	1.13	0.35

Test Graphs

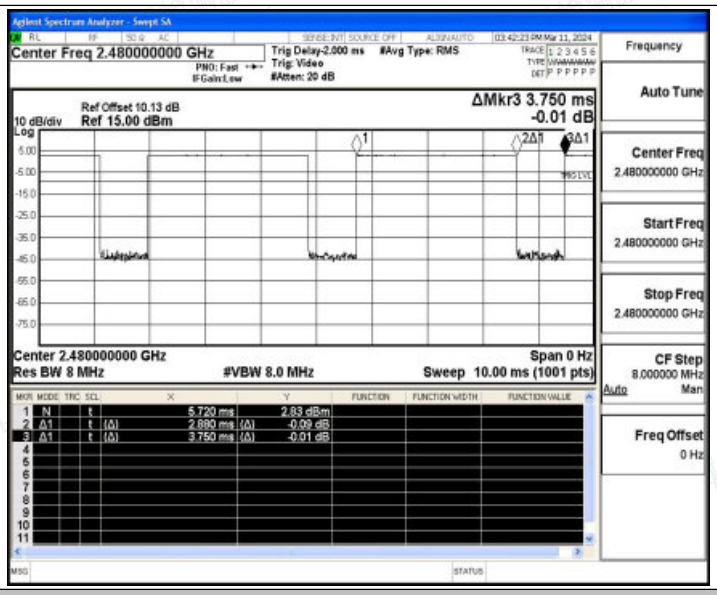
DH5_Ant1_2402



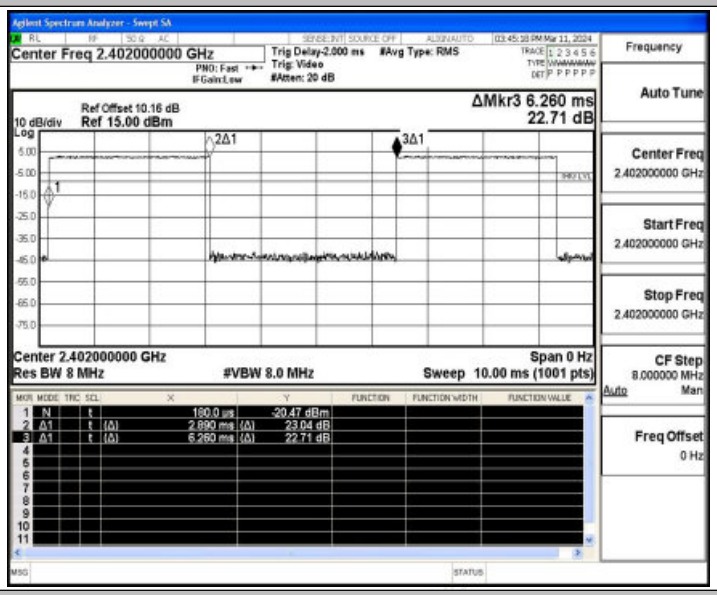
DH5_Ant1_2441



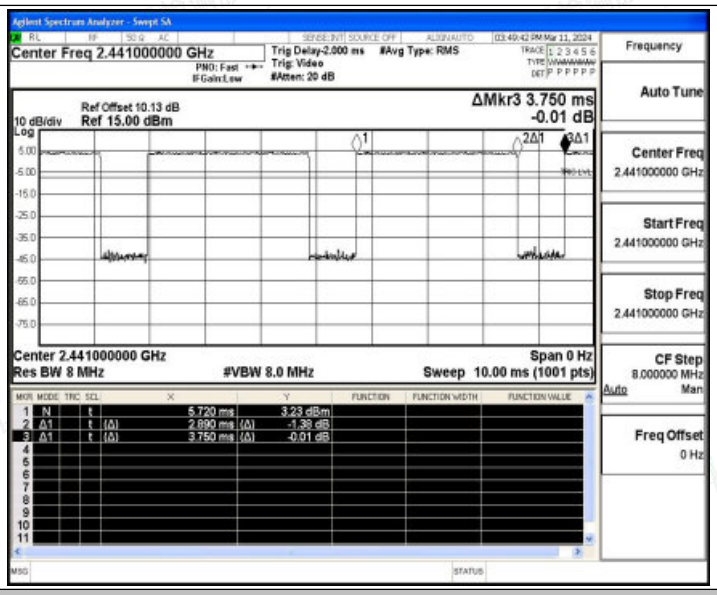
DH5_Ant1_2480



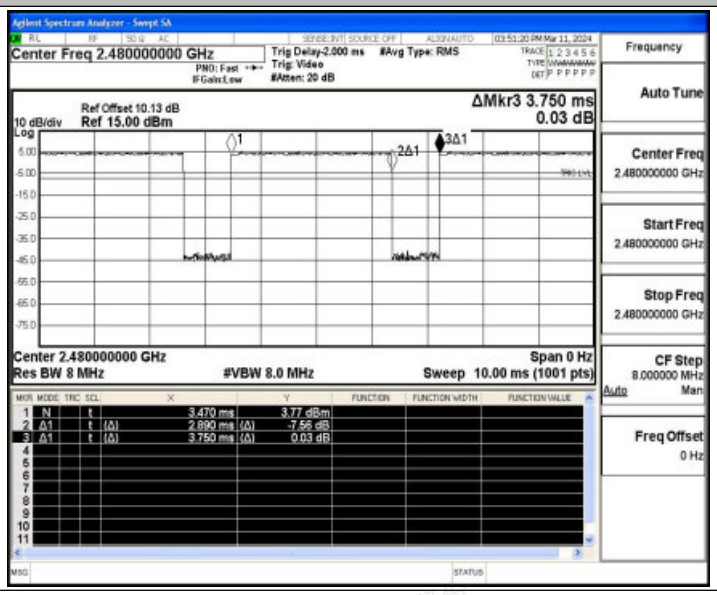
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



A.9 Emissions in Restricted Bands

Test Result

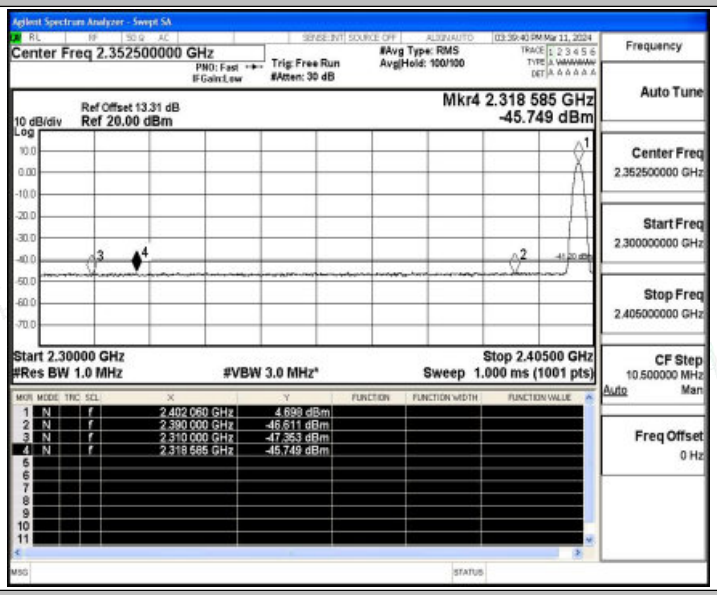
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-47.35	≤-41.20	47.85	≤54	PASS
				AV	2318.585	-45.75	≤-41.20	49.45	≤54	PASS
				AV	2390.000	-46.61	≤-41.20	48.59	≤54	PASS
				Peak	2310.000	-39.19	≤-21.20	56.01	≤74	PASS
				Peak	2387.360	-37.42	≤-21.20	57.78	≤74	PASS
				Peak	2390.000	-37.65	≤-21.20	57.55	≤74	PASS
		High	2480	AV	2483.500	-46.28	≤-41.20	48.92	≤54	PASS
				AV	2494.000	-45.62	≤-41.20	49.58	≤54	PASS
				AV	2500.000	-46.4	≤-41.20	48.80	≤54	PASS
				Peak	2483.500	-40.14	≤-21.20	55.06	≤74	PASS
				Peak	2485.920	-36.75	≤-21.20	58.45	≤74	PASS
				Peak	2500.000	-39.85	≤-21.20	55.35	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-44.44	≤-41.20	50.76	≤54	PASS
				AV	2383.475	-43.81	≤-41.20	51.39	≤54	PASS
				AV	2390.000	-44.56	≤-41.20	50.64	≤54	PASS
				Peak	2310.000	-40.56	≤-21.20	54.64	≤74	PASS
				Peak	2369.090	-36	≤-21.20	59.20	≤74	PASS
				Peak	2390.000	-41.23	≤-21.20	53.97	≤74	PASS
		High	2480	AV	2483.500	-46.4	≤-41.20	48.80	≤54	PASS
				AV	2491.760	-45.72	≤-41.20	49.48	≤54	PASS
				AV	2500.000	-46.58	≤-41.20	48.62	≤54	PASS
				Peak	2483.500	-40.1	≤-21.20	55.10	≤74	PASS
				Peak	2490.960	-36.98	≤-21.20	58.22	≤74	PASS
				Peak	2500.000	-37.32	≤-21.20	57.88	≤74	PASS

Note：

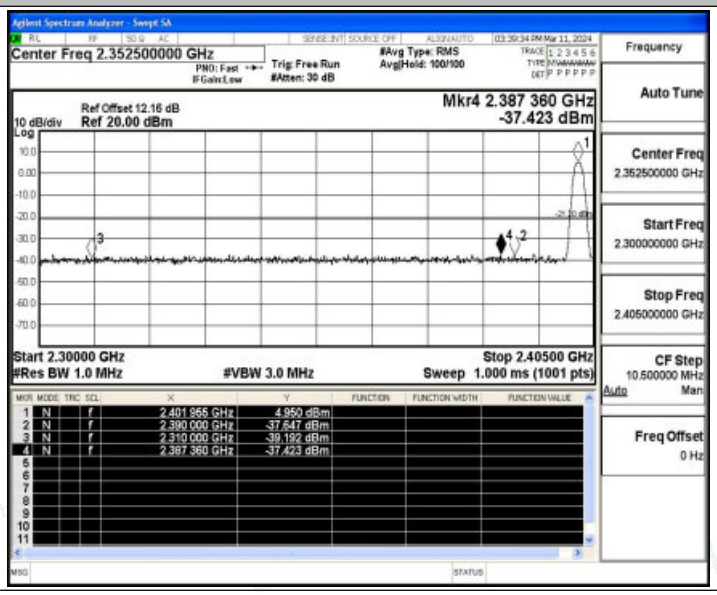
1. The Antenna Gain is compensated in the graph. The Correction Factor is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

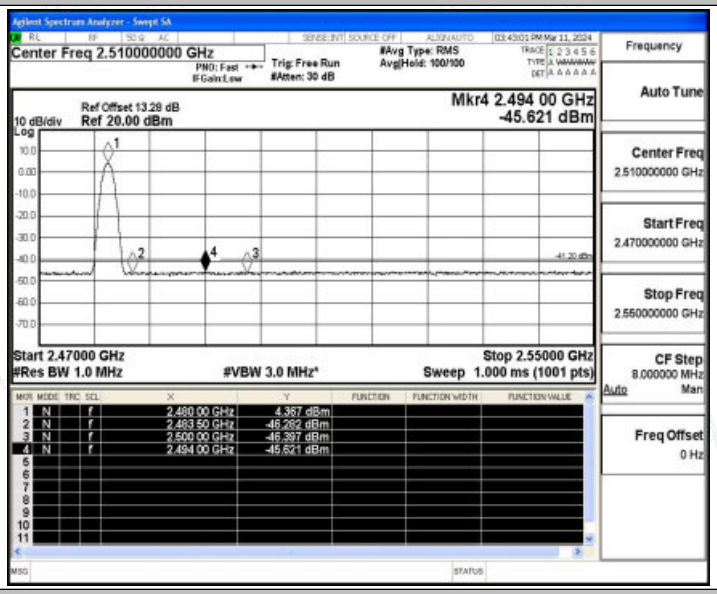
DH5_Ant1_Low_2402_AV



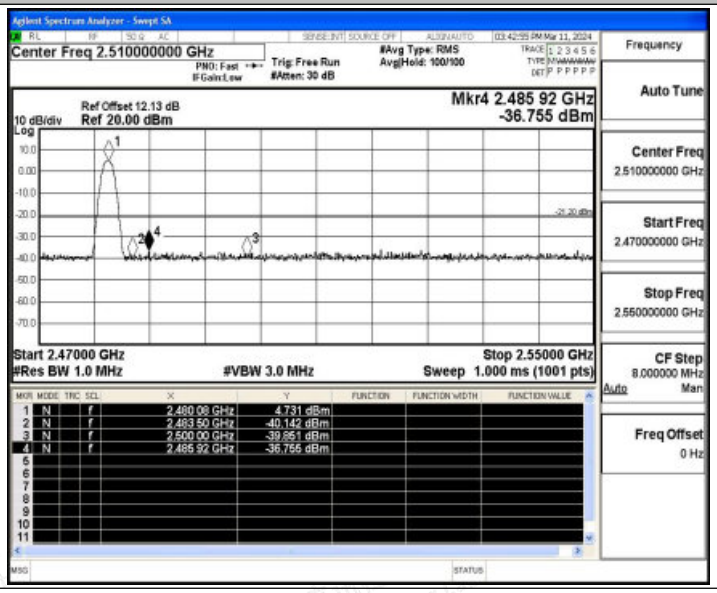
DH5_Ant1_Low_2402_Peak



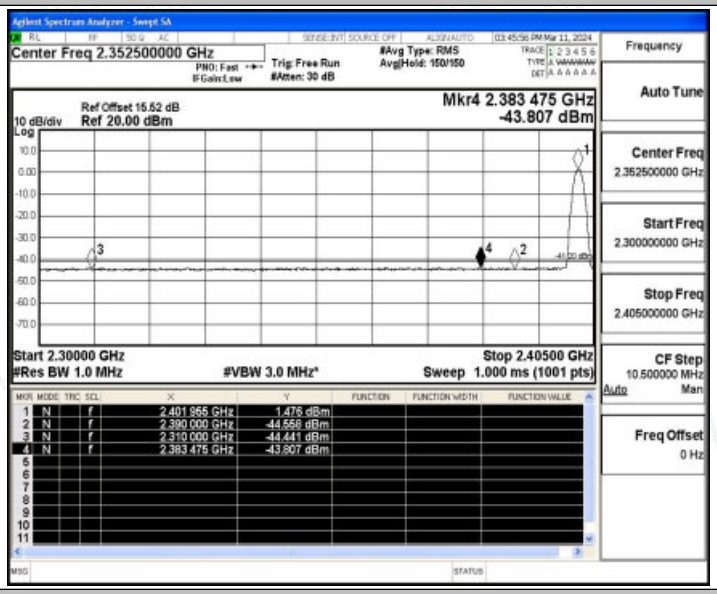
DH5_Ant1_High_2480_AV



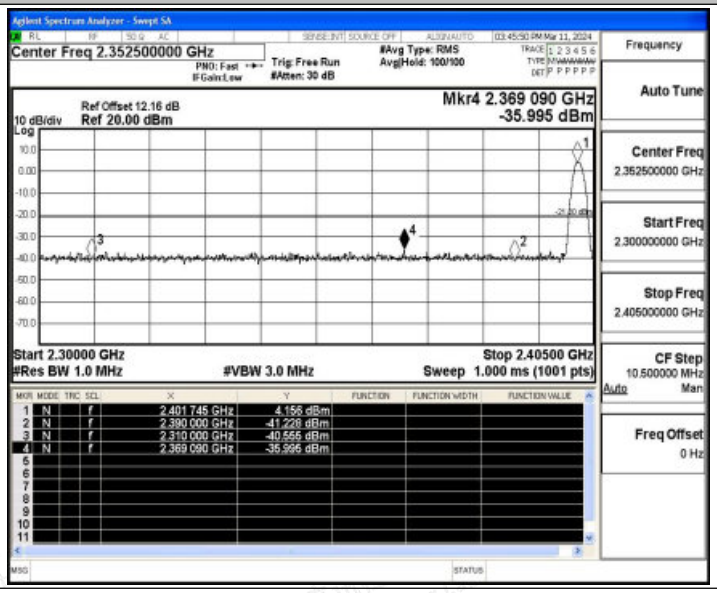
DH5_Ant1_High_2480_Peak



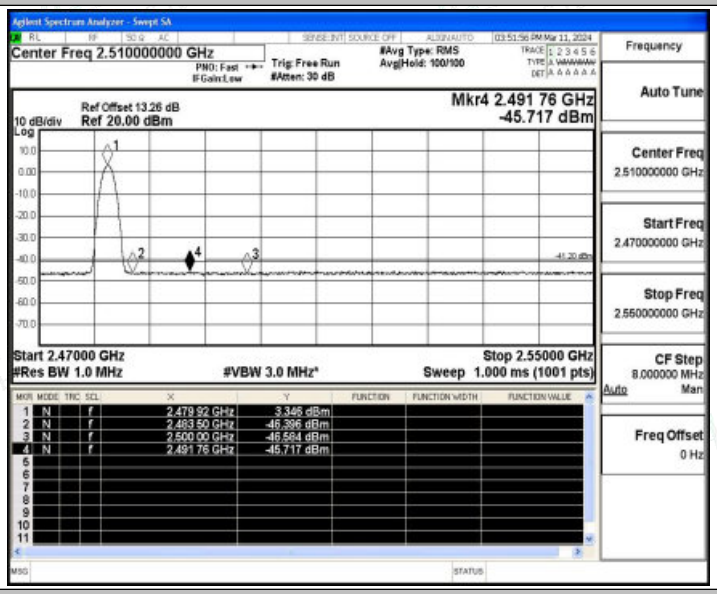
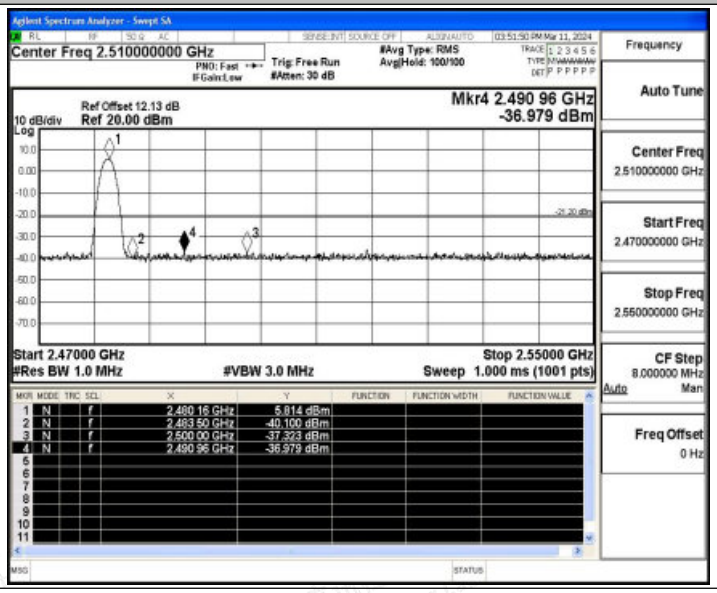
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak