Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Bluetooth Headset

Test Model: HA-BC01

Environmental Conditions

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

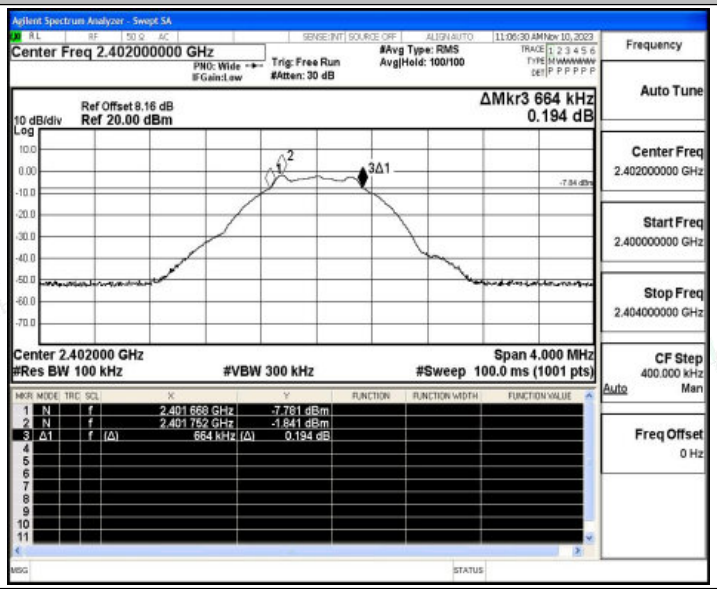
B.1 DTS Bandwidth

Test Result

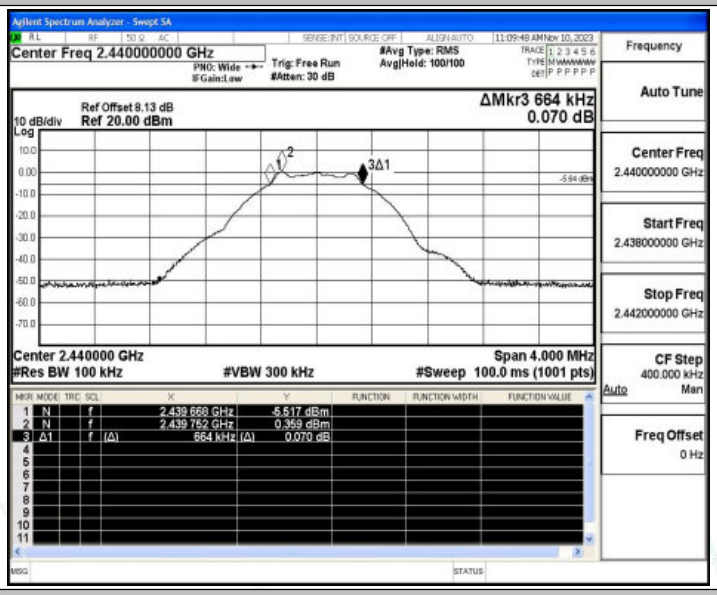
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.668	2402.332	0.5	PASS
		2440	0.664	2439.668	2440.332	0.5	PASS
		2480	0.664	2479.668	2480.332	0.5	PASS
BLE_2M	Ant1	2402	1.160	2401.412	2402.572	0.5	PASS
		2440	1.160	2439.412	2440.572	0.5	PASS
		2480	1.156	2479.412	2480.568	0.5	PASS

Test Graphs

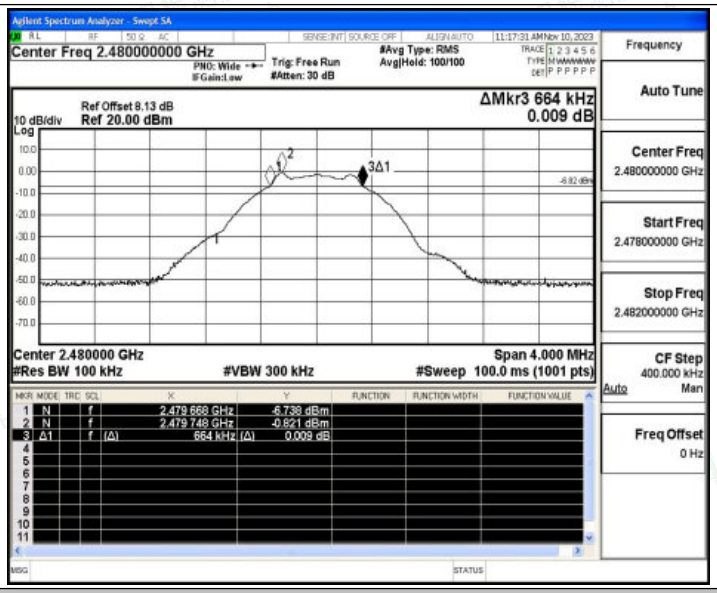
BLE_1M_Ant1_2402



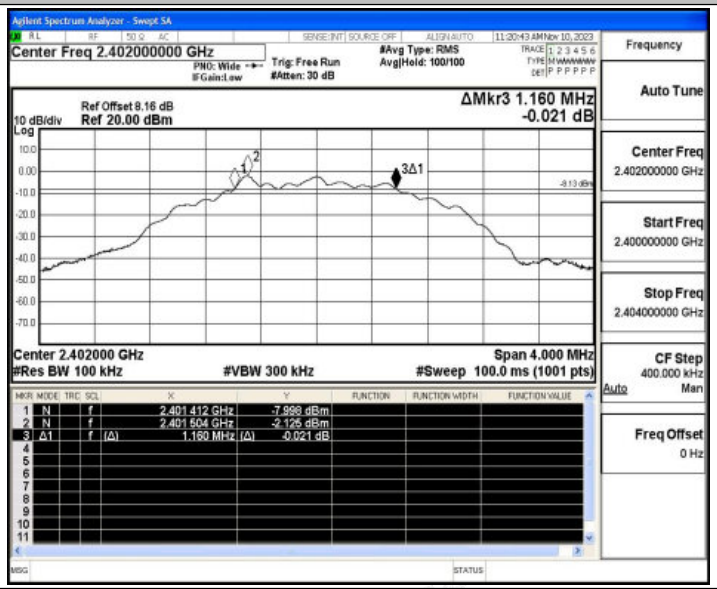
BLE_1M_Ant1_2440



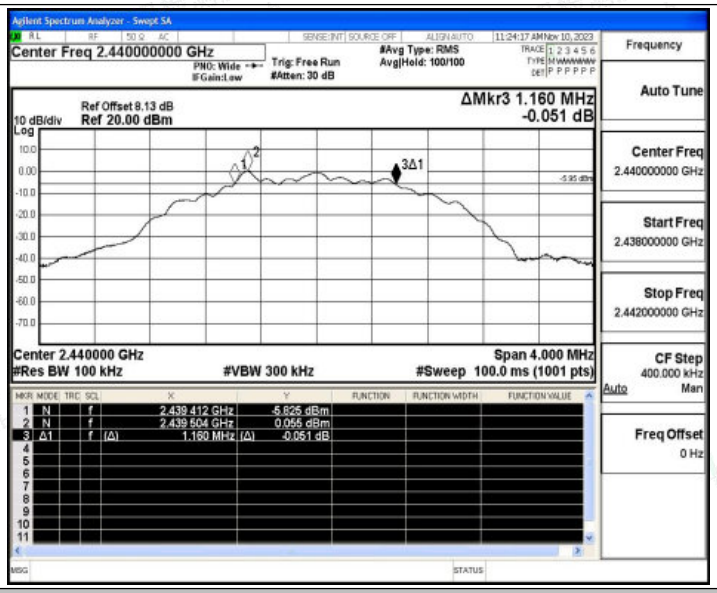
BLE_1M_Ant1_2480



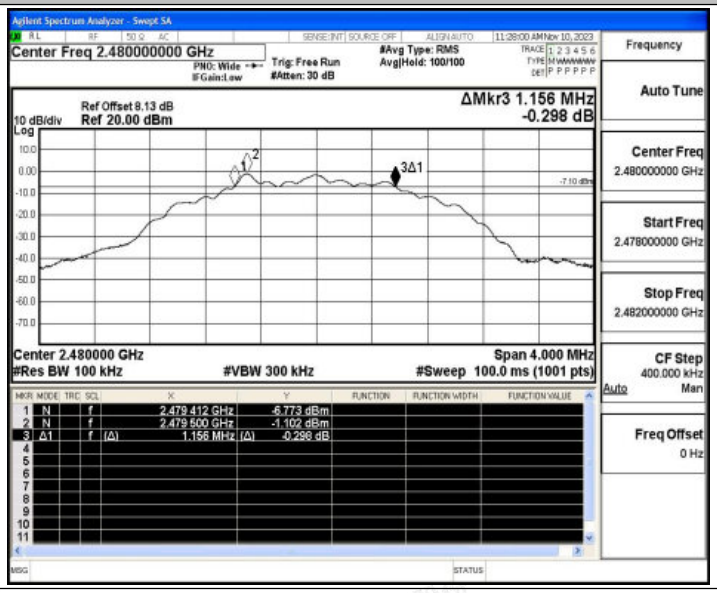
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



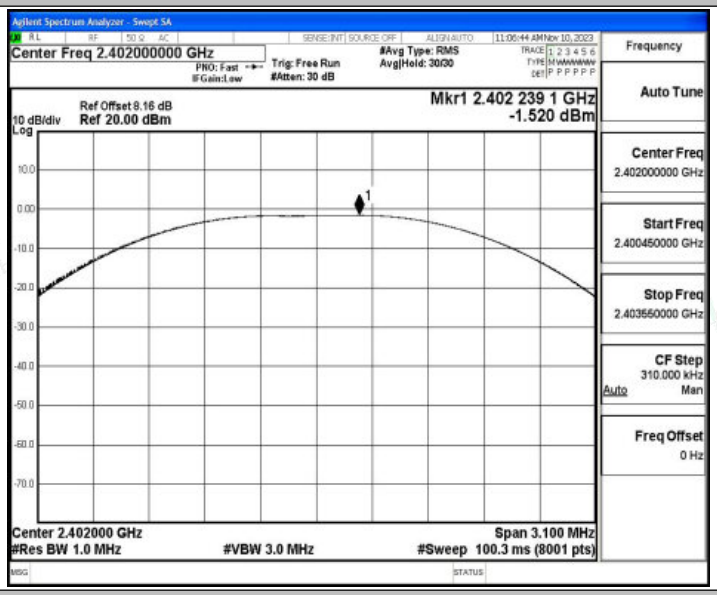
B.2 Maximum Peak Conducted Output Power

Test Result

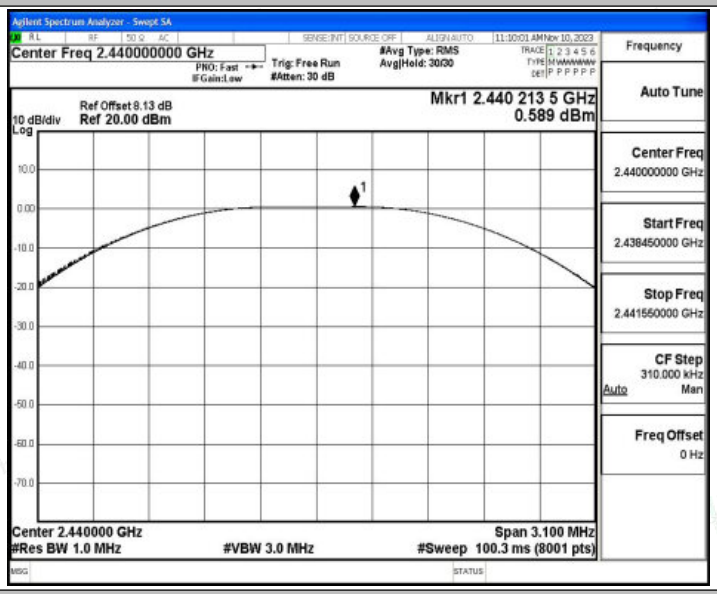
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.52	≤30	PASS
		2440	0.59	≤30	PASS
		2480	-0.58	≤30	PASS
BLE_2M	Ant1	2402	-1.44	≤30	PASS
		2440	0.58	≤30	PASS
		2480	-0.60	≤30	PASS

Test Graphs

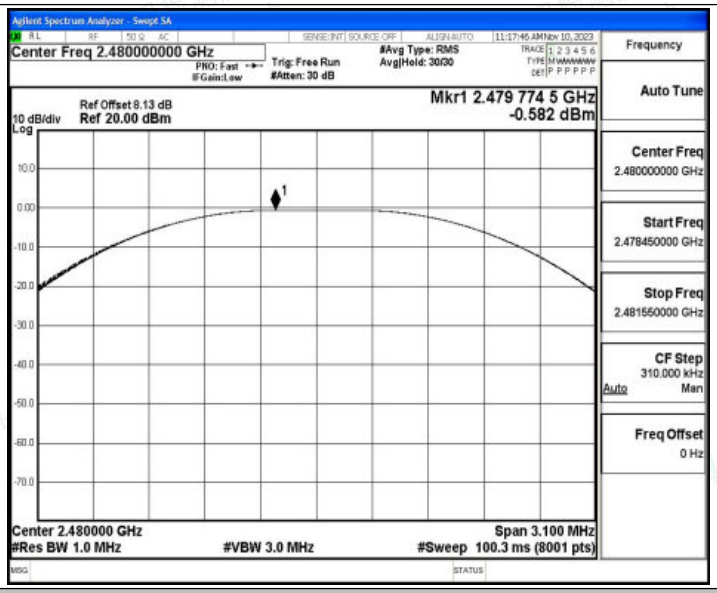
BLE_1M_Ant1_2402



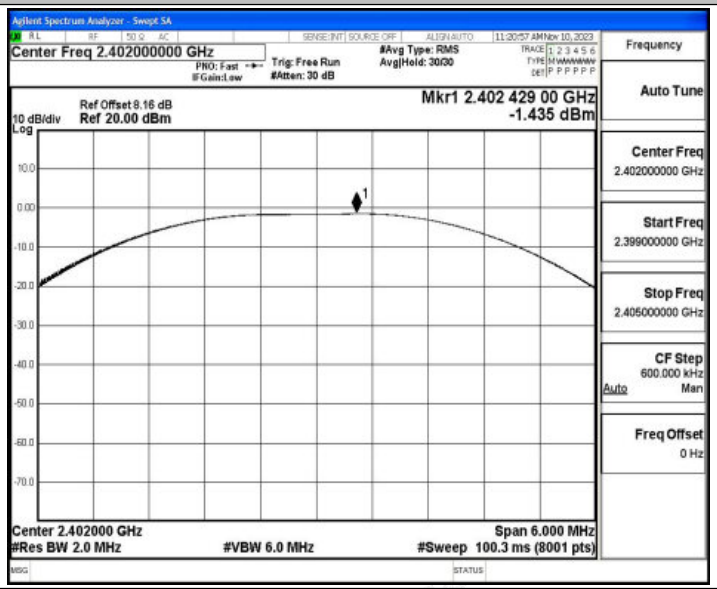
BLE_1M_Ant1_2440



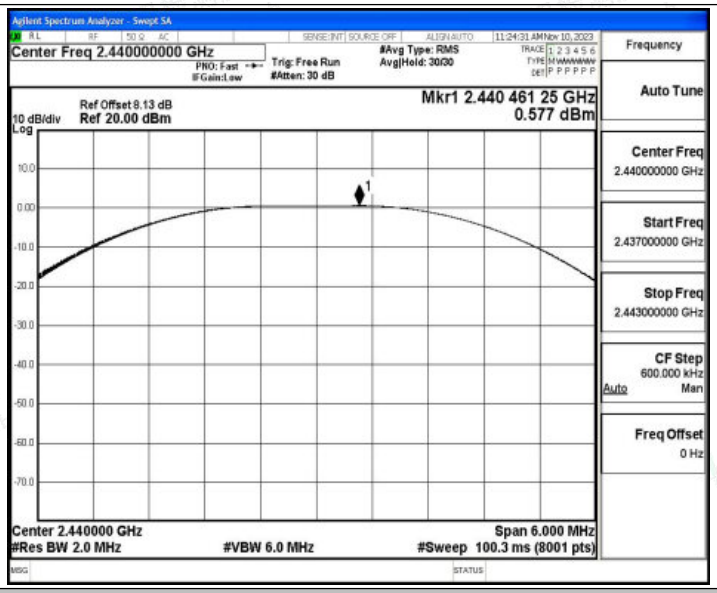
BLE_1M_Ant1_2480



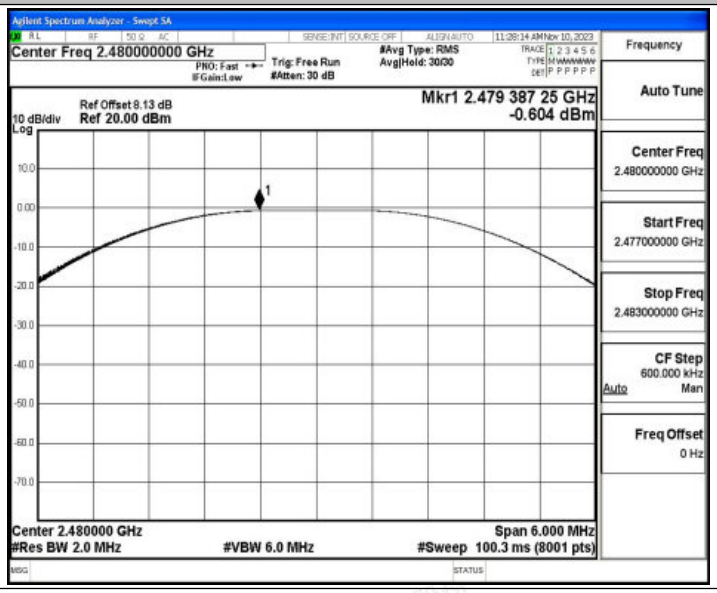
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



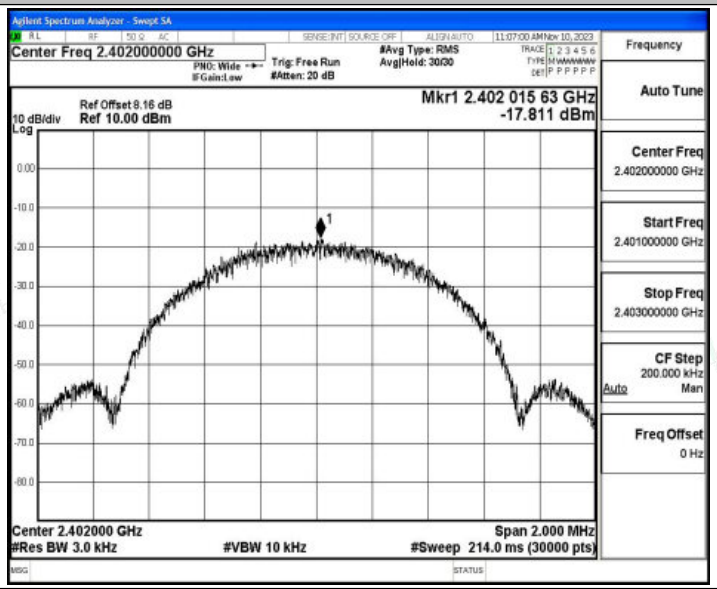
B.3 Maximum power spectral density

Test Result

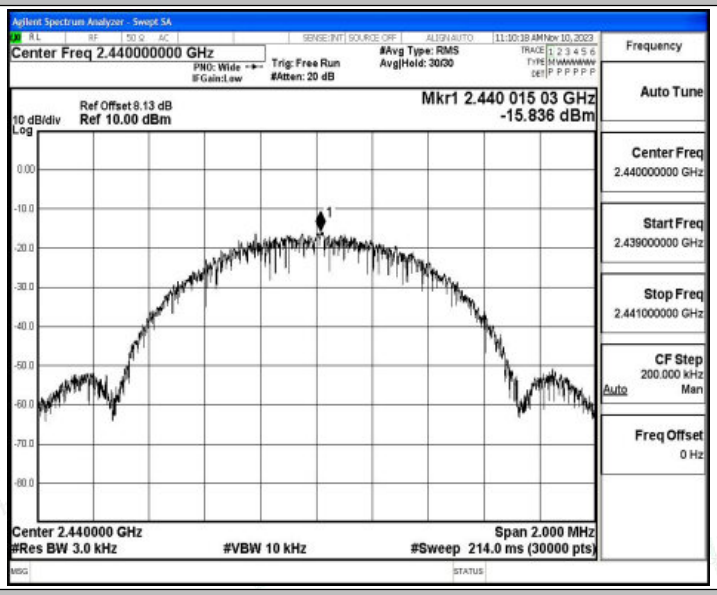
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.81	≤8.00	PASS
		2440	-15.84	≤8.00	PASS
		2480	-17.17	≤8.00	PASS
BLE_2M	Ant1	2402	-21.22	≤8.00	PASS
		2440	-19.12	≤8.00	PASS
		2480	-20.14	≤8.00	PASS

Test Graphs

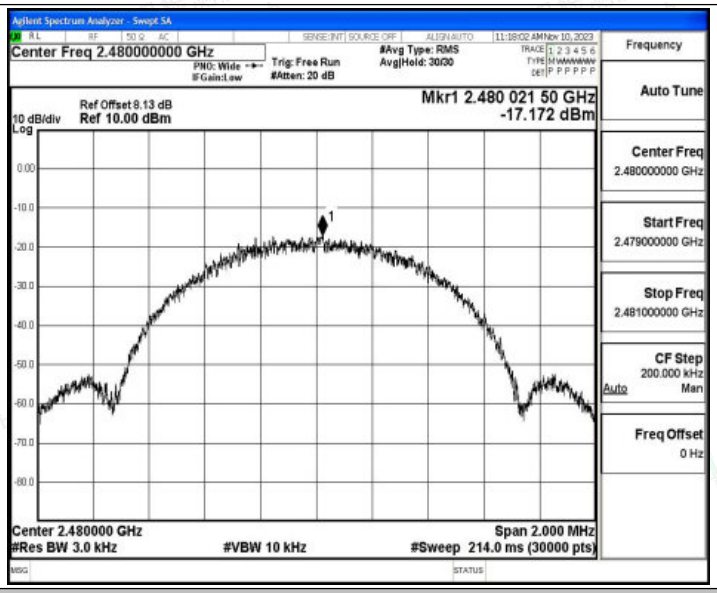
BLE_1M_Ant1_2402



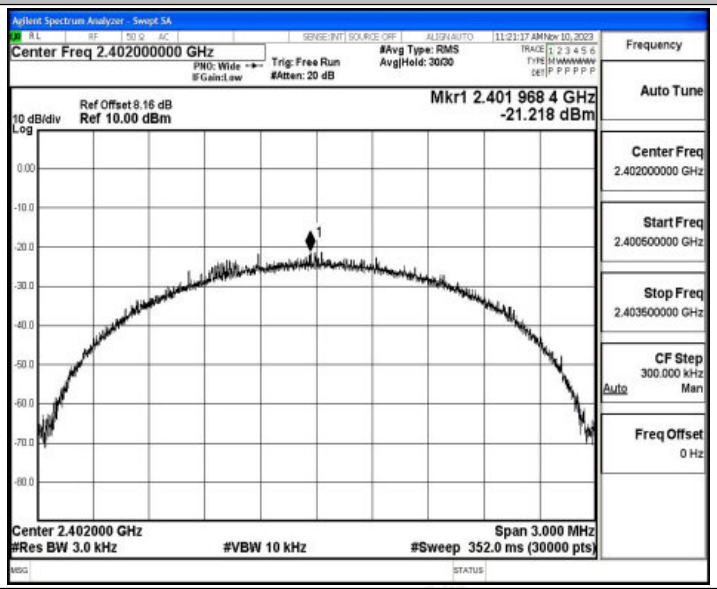
BLE_1M_Ant1_2440



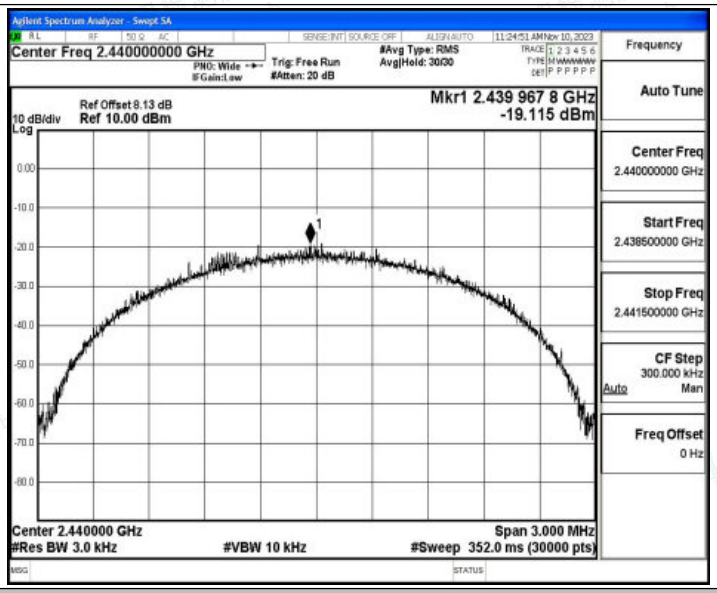
BLE_1M_Ant1_2480



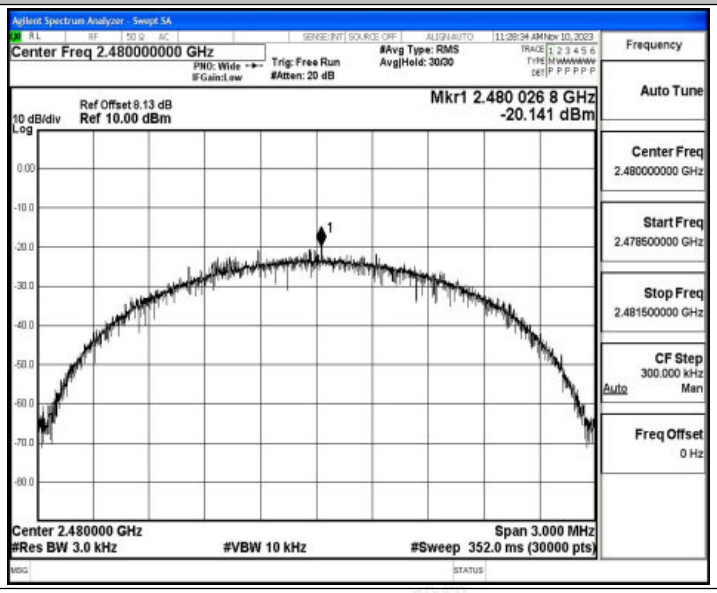
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



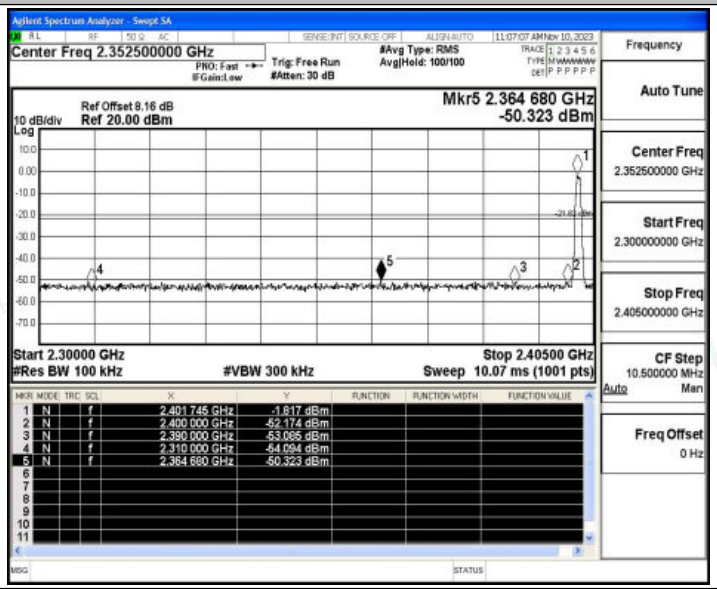
B.4 Band edge measurements

Test Result

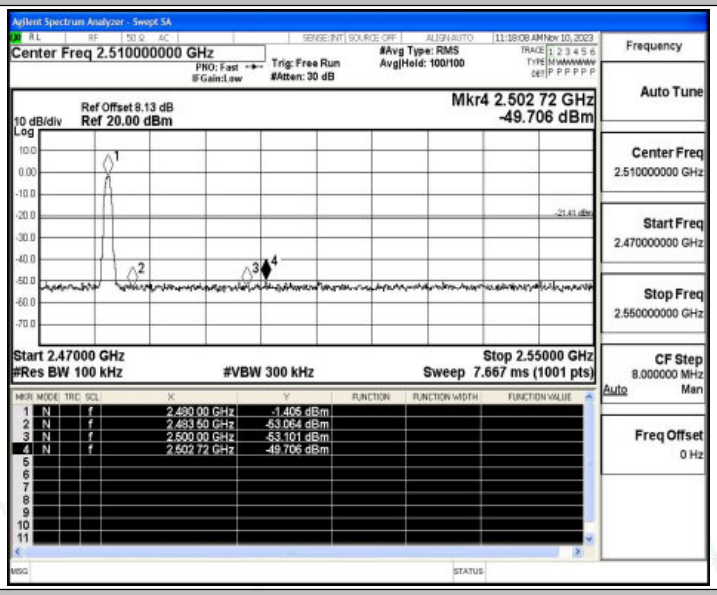
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.82	-50.32	≤-21.82	PASS
		High	2480	-1.41	-49.71	≤-21.41	PASS
BLE_2M	Ant1	Low	2402	-2.16	-48.36	≤-22.16	PASS
		High	2480	-1.19	-50	≤-21.19	PASS

Test Graphs

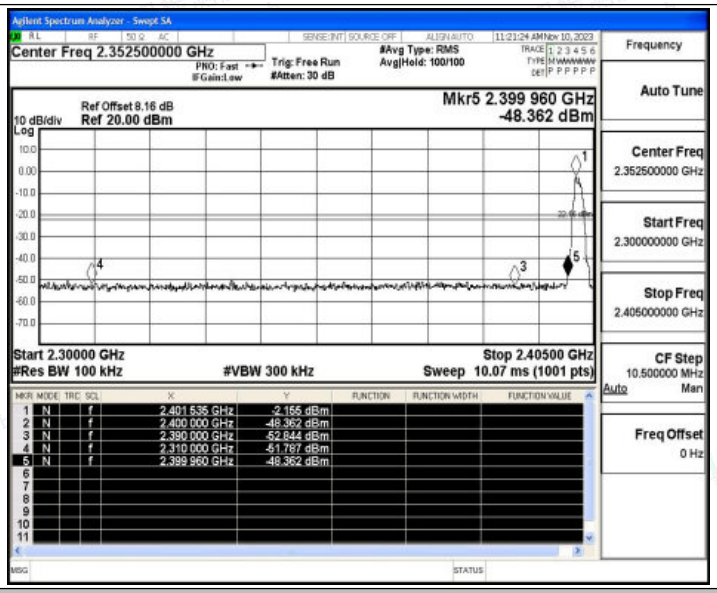
BLE_1M_Ant1_Low_2402



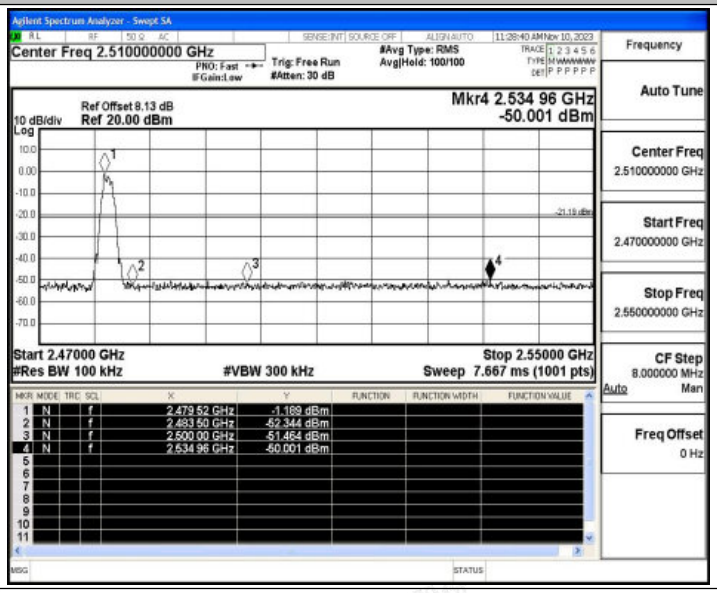
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



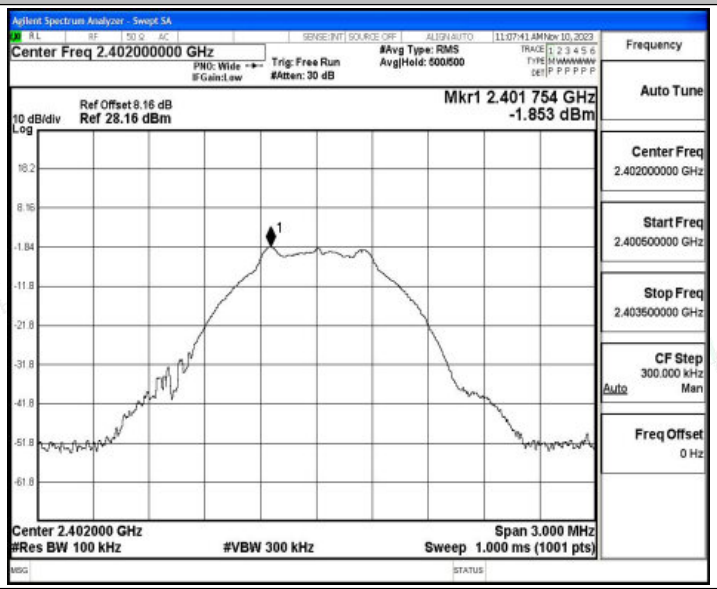
B.5 Conducted Spurious Emission

Test Result

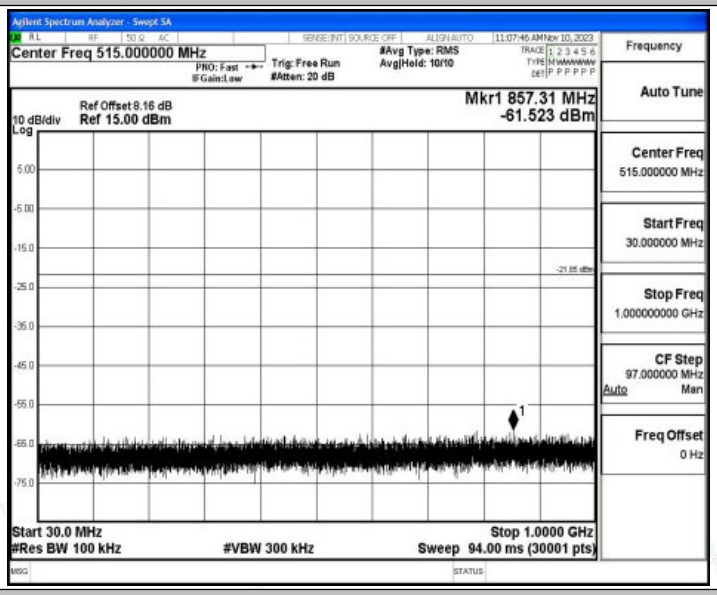
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.85	-1.85	---	PASS
			30~1000	-1.85	-61.52	≤-21.85	PASS
			1000~26500	-1.85	-49.25	≤-21.85	PASS
		2440	Reference	0.17	0.17	---	PASS
			30~1000	0.17	-60.75	≤-19.83	PASS
			1000~26500	0.17	-49.91	≤-19.83	PASS
		2480	Reference	-0.88	-0.88	---	PASS
			30~1000	-0.88	-61.59	≤-20.88	PASS
			1000~26500	-0.88	-49.56	≤-20.88	PASS
BLE_2M	Ant1	2402	Reference	-2.11	-2.11	---	PASS
			30~1000	-2.11	-61.66	≤-22.11	PASS
			1000~26500	-2.11	-49.23	≤-22.11	PASS
		2440	Reference	1.00	1.00	---	PASS
			30~1000	1.00	-61.98	≤-19	PASS
			1000~26500	1.00	-49.69	≤-19	PASS
		2480	Reference	-1.14	-1.14	---	PASS
			30~1000	-1.14	-60.88	≤-21.14	PASS
			1000~26500	-1.14	-49.14	≤-21.14	PASS

Test Graphs

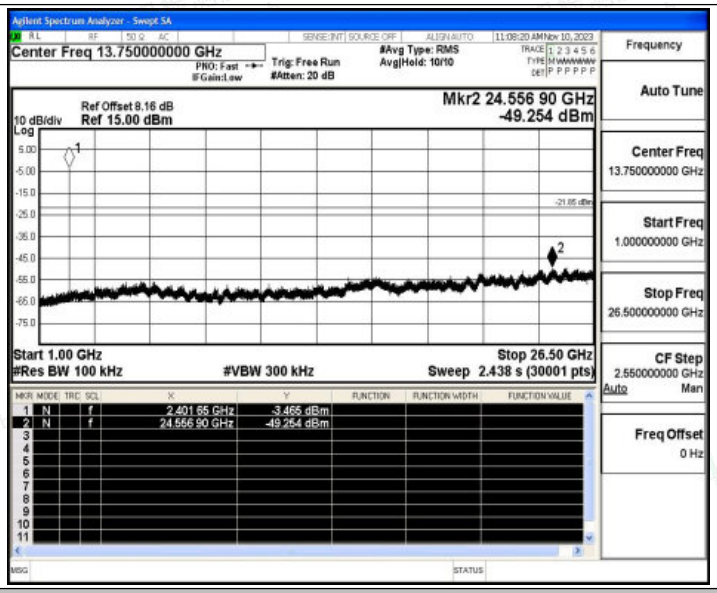
BLE_1M_Ant1_2402_0~Reference



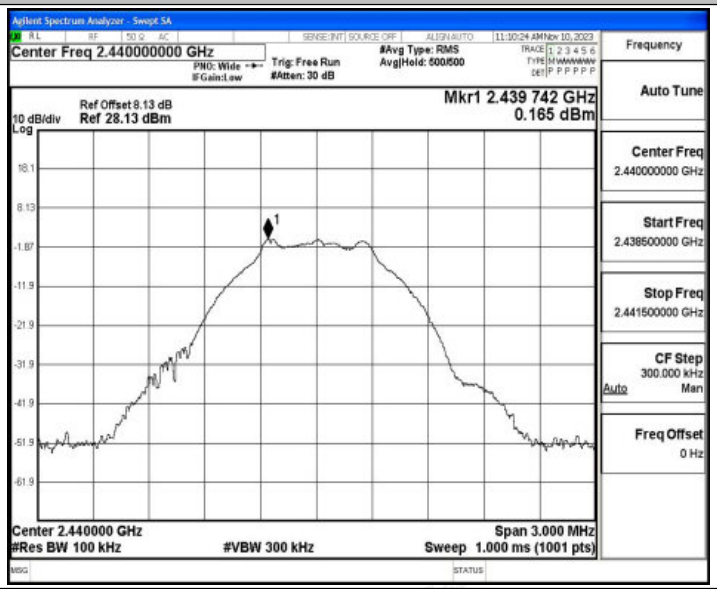
BLE_1M_Ant1_2402_30~1000



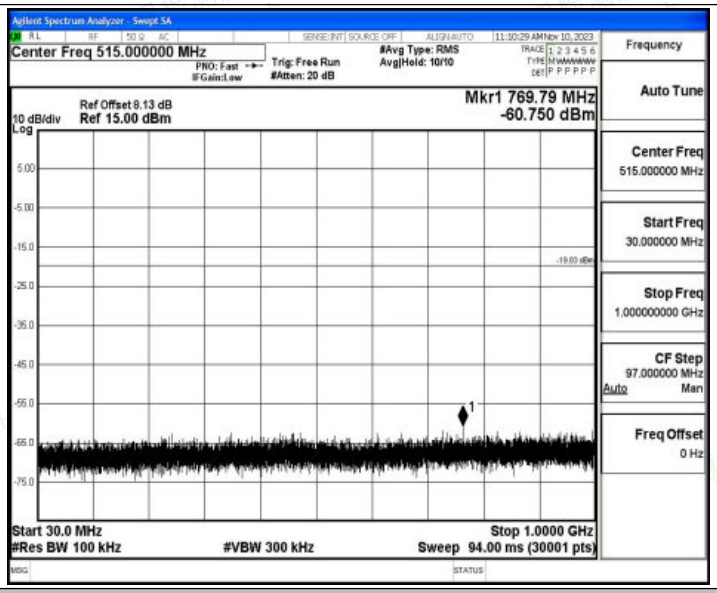
BLE_1M_Ant1_2402_1000~26500



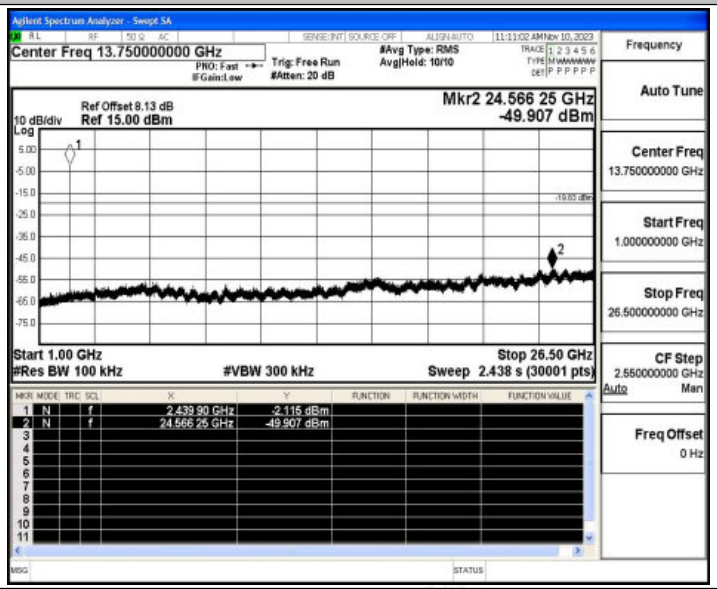
BLE_1M_Ant1_2440_0~Reference



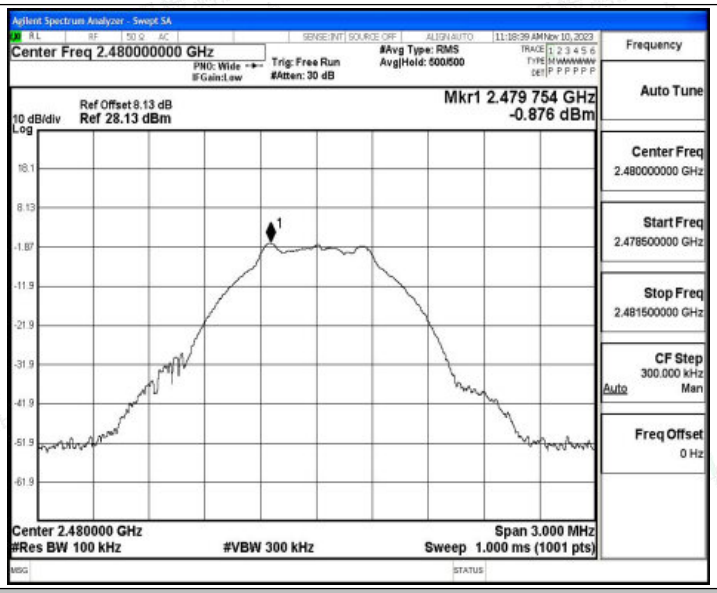
BLE_1M_Ant1_2440_30~1000



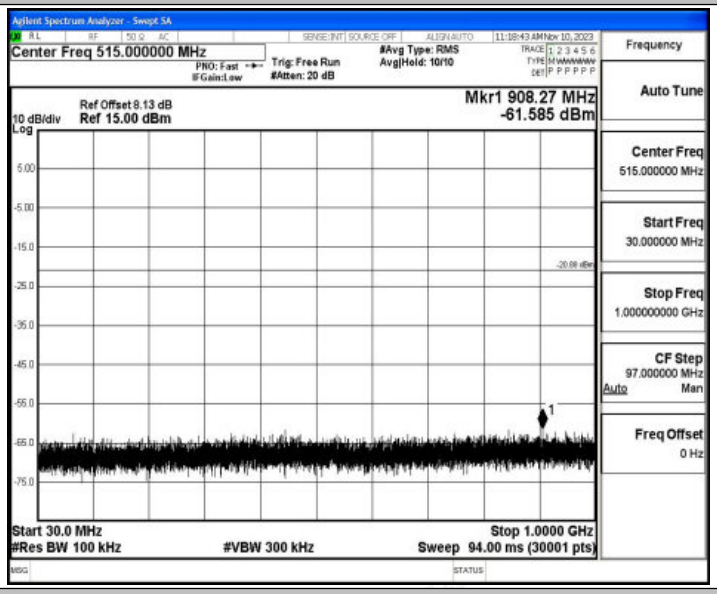
BLE_1M_Ant1_2440_1000~26500



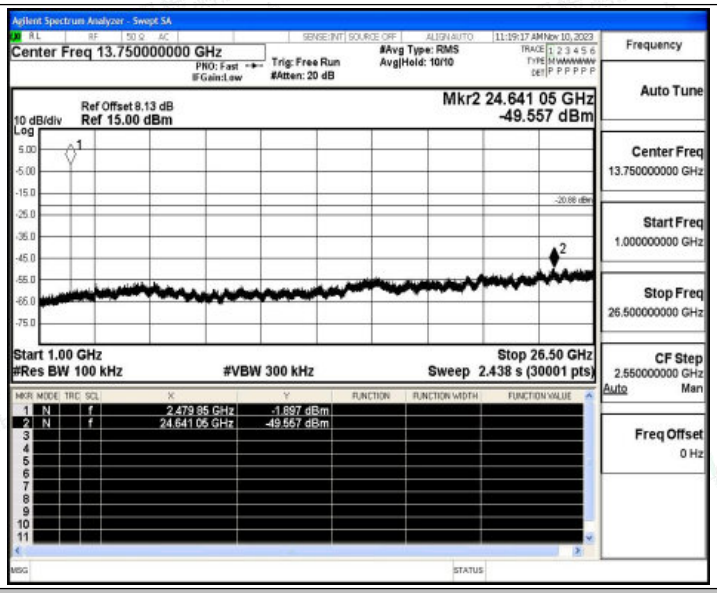
BLE_1M_Ant1_2480_0~Reference



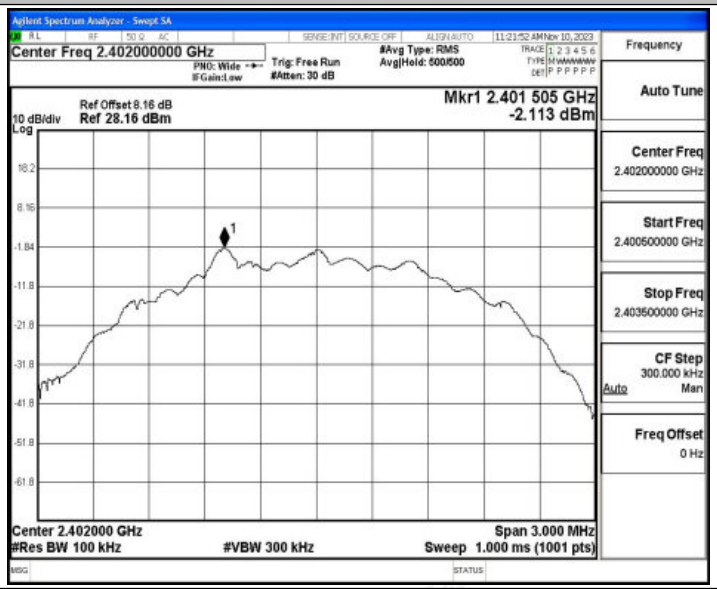
BLE_1M_Ant1_2480_30~1000



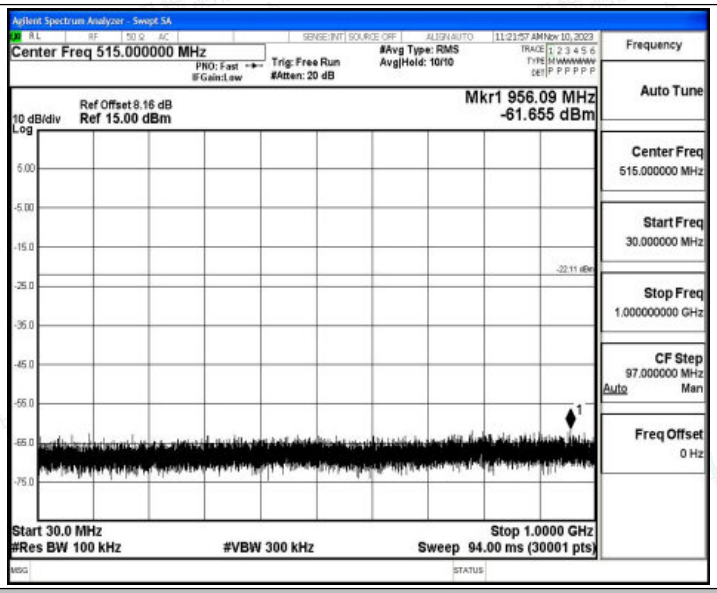
BLE_1M_Ant1_2480_1000~26500



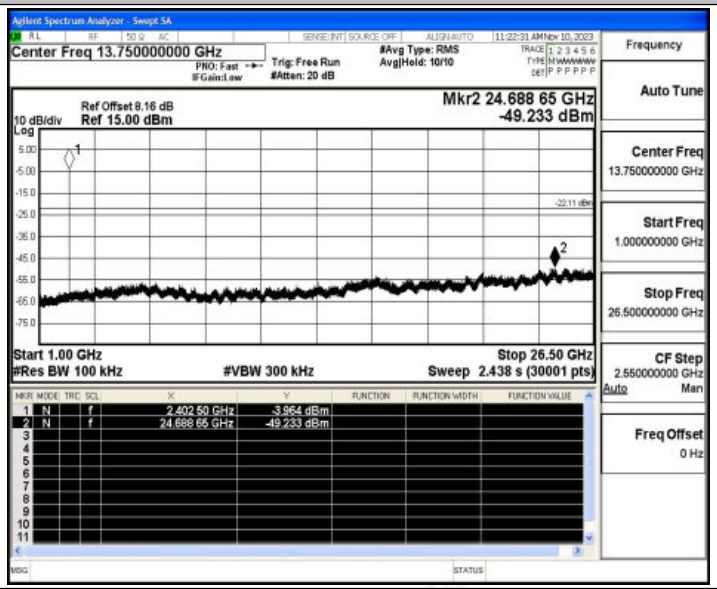
BLE_2M_Ant1_2402_0~Reference



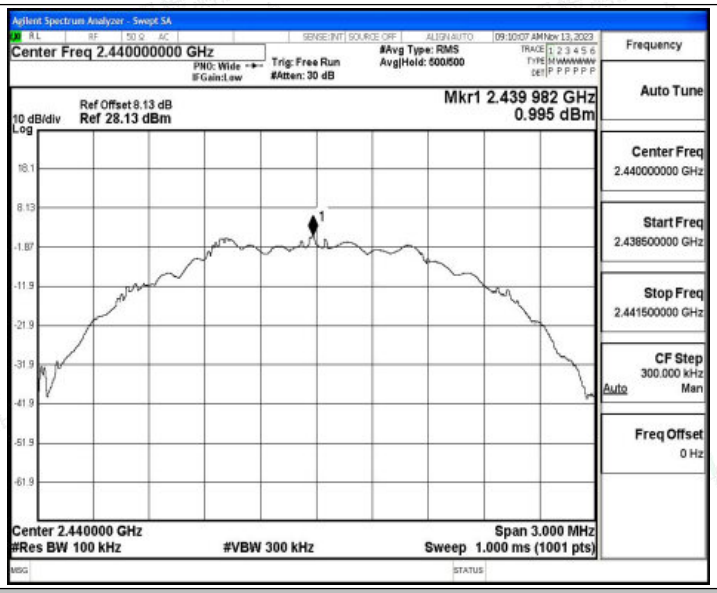
BLE_2M_Ant1_2402_30~1000



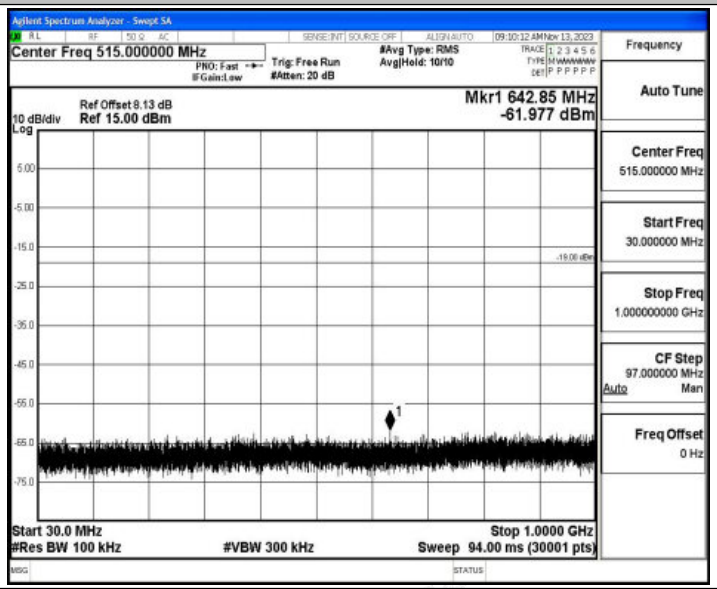
BLE_2M_Ant1_2402_1000~26500



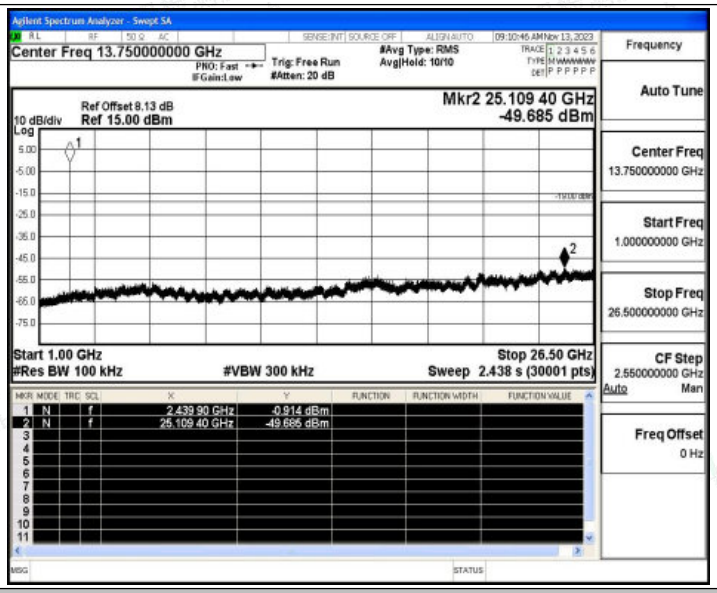
BLE_2M_Ant1_2440_0~Reference



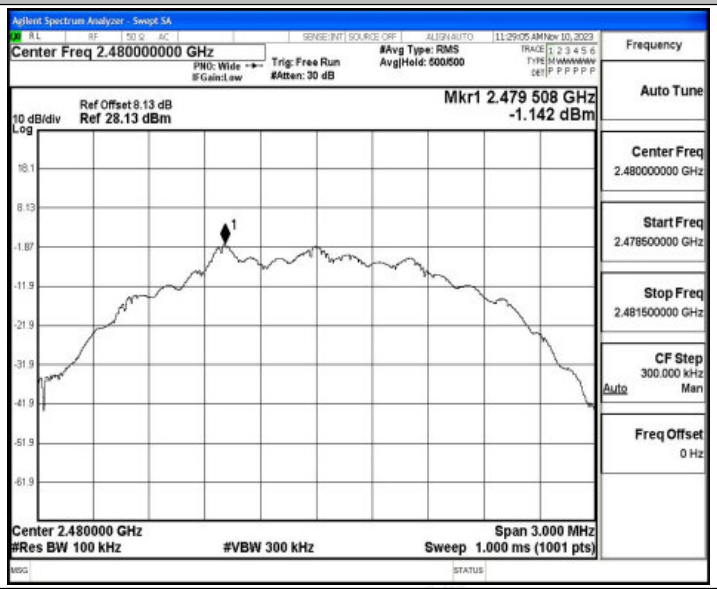
BLE_2M_Ant1_2440_30~1000



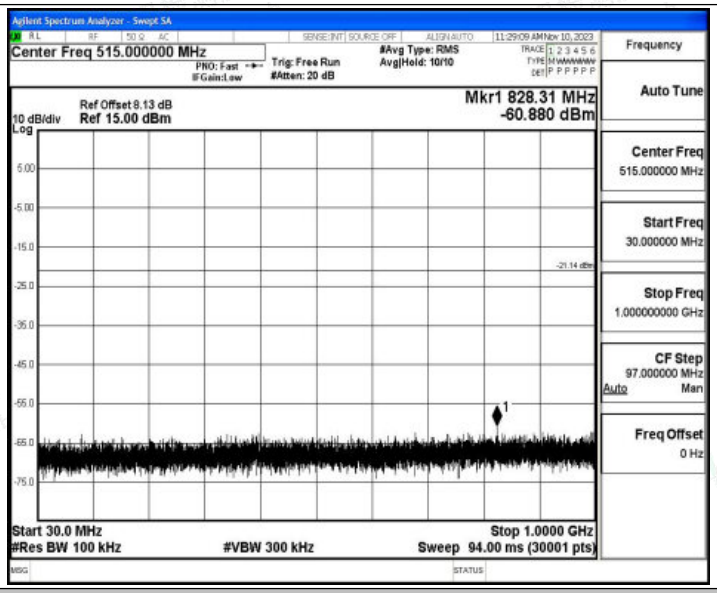
BLE_2M_Ant1_2440_1000~26500



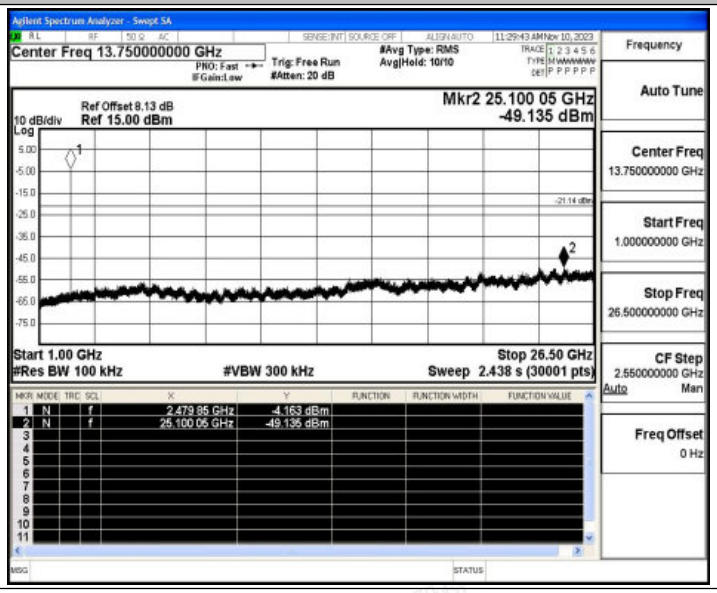
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



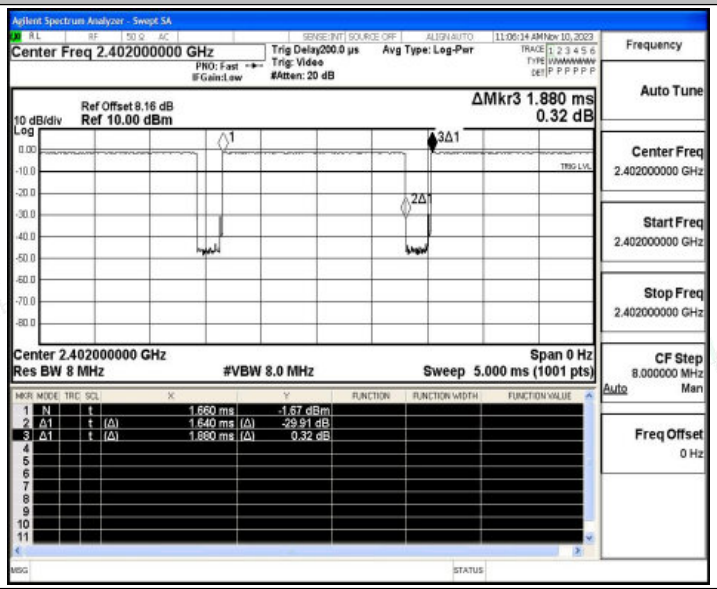
B.6 Duty Cycle

Test Result

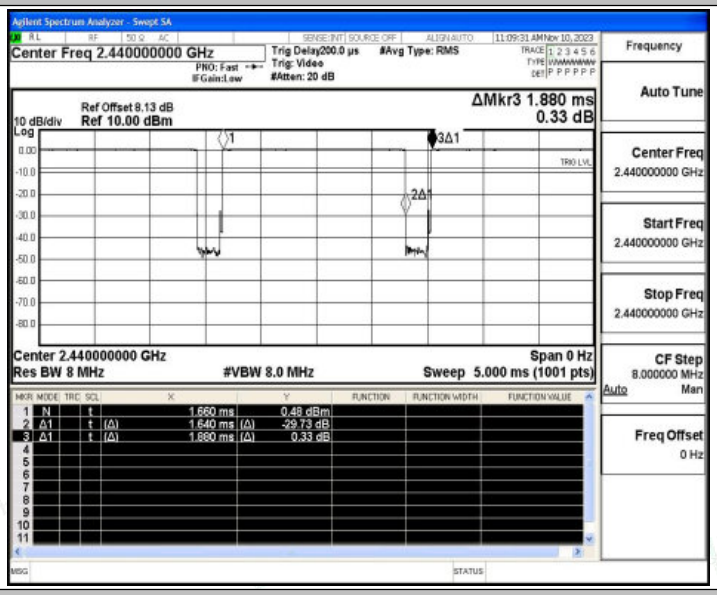
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	1.64	1.88	0.8723	87.23	0.59	0.61	---	PASS
		2440	1.64	1.88	0.8723	87.23	0.59	0.61	---	PASS
		2480	1.64	1.88	0.8723	87.23	0.59	0.61	---	PASS
BLE_2M	Ant1	2402	0.83	1.25	0.6640	66.40	1.78	1.20	---	PASS
		2440	0.83	1.25	0.6640	66.40	1.78	1.20	---	PASS
		2480	0.83	1.25	0.6640	66.40	1.78	1.20	---	PASS

Test Graphs

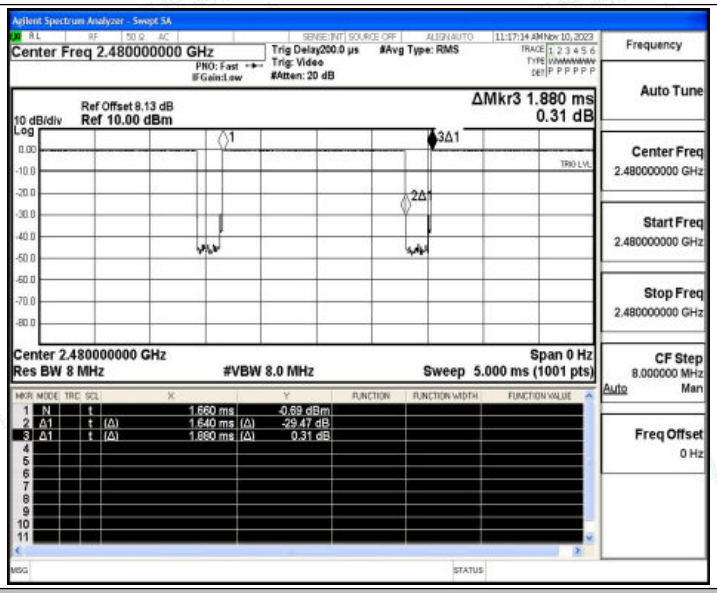
BLE_1M_Ant1_2402



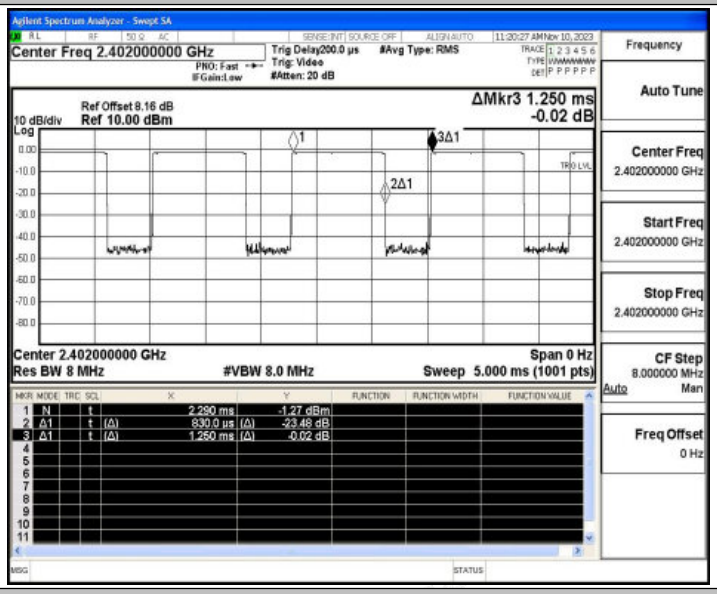
BLE_1M_Ant1_2440



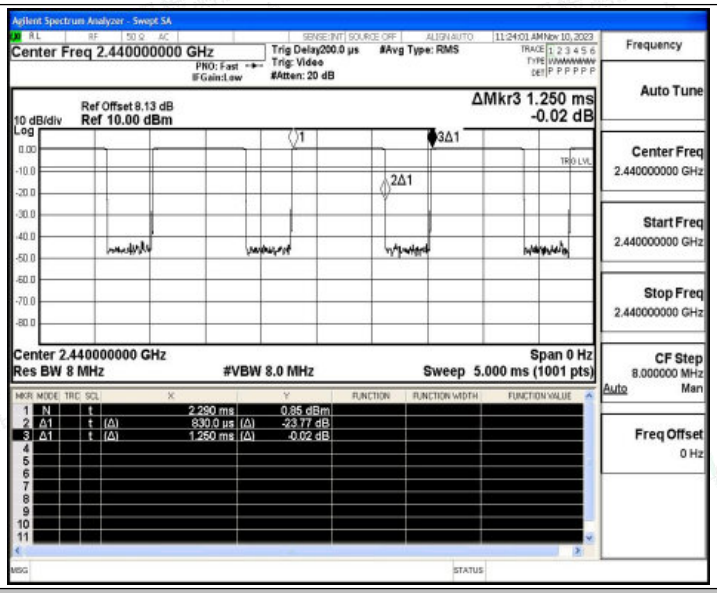
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



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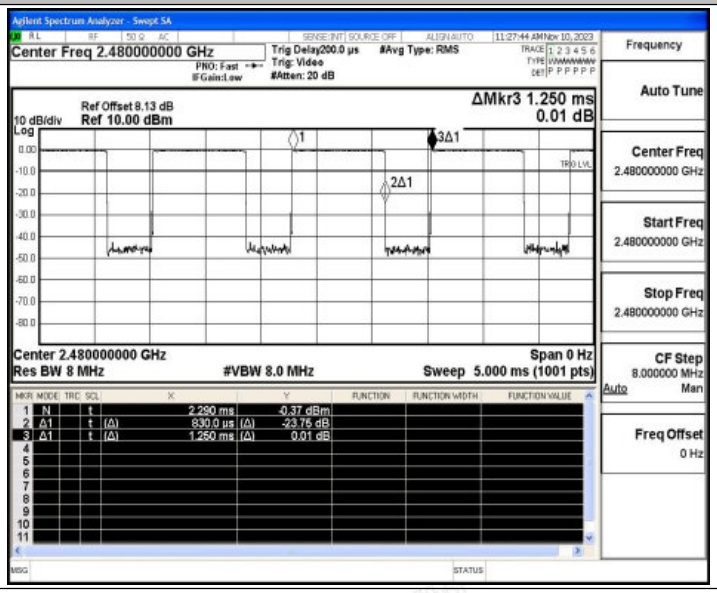


B.7 Emissions in Restricted Bands

Test Result

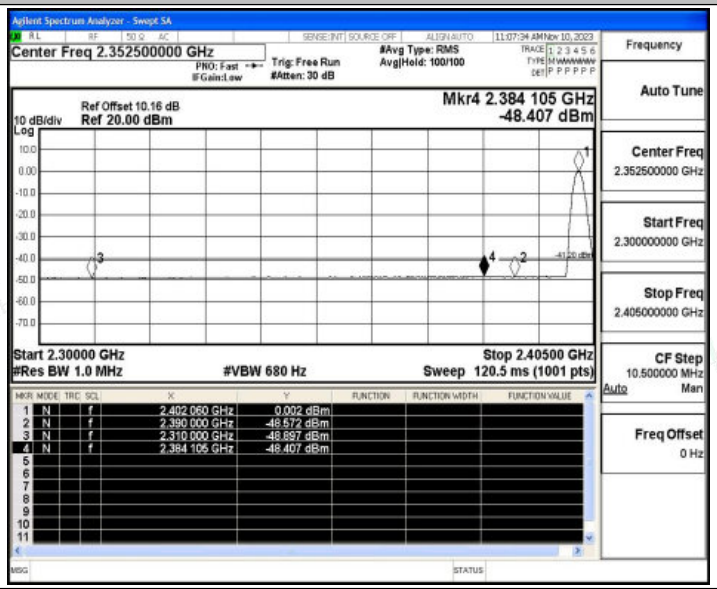
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.9	≤-41.20	46.30	≤54	PASS
				AV	2384.105	-48.41	≤-41.20	46.79	≤54	PASS
				AV	2390.000	-48.57	≤-41.20	46.63	≤54	PASS
				Peak	2310.000	-41.53	≤-21.20	53.67	≤74	PASS
				Peak	2379.065	-39.07	≤-21.20	56.13	≤74	PASS
				Peak	2390.000	-42.13	≤-21.20	53.07	≤74	PASS
		High	2480	AV	2483.500	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2483.520	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2500.000	-48.47	≤-41.20	46.73	≤54	PASS
				Peak	2483.500	-40.24	≤-21.20	54.96	≤74	PASS
				Peak	2485.600	-38.77	≤-21.20	56.43	≤74	PASS
				Peak	2500.000	-40.28	≤-21.20	54.92	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.82	≤-41.20	46.38	≤54	PASS
				AV	2389.355	-48.06	≤-41.20	47.14	≤54	PASS
				AV	2390.000	-48.4	≤-41.20	46.80	≤54	PASS
				Peak	2310.000	-39.97	≤-21.20	55.23	≤74	PASS
				Peak	2374.445	-37.37	≤-21.20	57.83	≤74	PASS
				Peak	2390.000	-41.83	≤-21.20	53.37	≤74	PASS
		High	2480	AV	2483.500	-47.14	≤-41.20	48.06	≤54	PASS
				AV	2483.520	-47.14	≤-41.20	48.06	≤54	PASS
				AV	2500.000	-48.25	≤-41.20	46.95	≤54	PASS
				Peak	2483.500	-41.11	≤-21.20	54.09	≤74	PASS
				Peak	2499.840	-38.87	≤-21.20	56.33	≤74	PASS
				Peak	2500.000	-41.51	≤-21.20	53.69	≤74	PASS

Note:

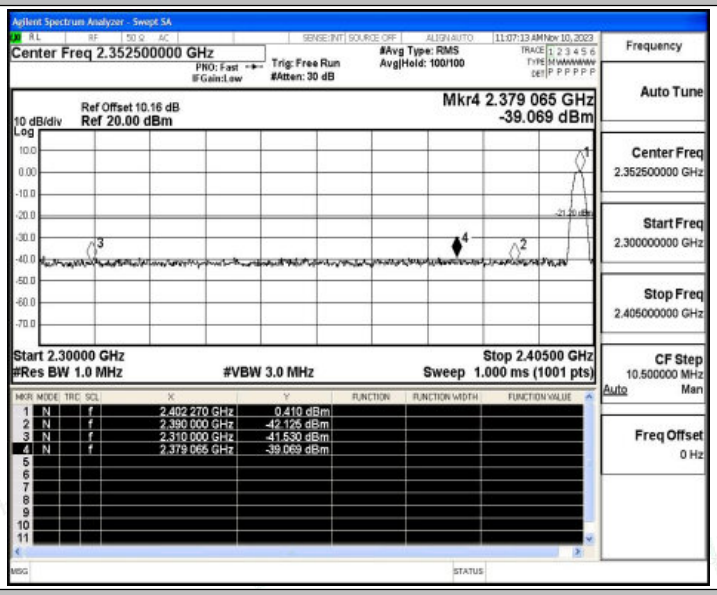
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

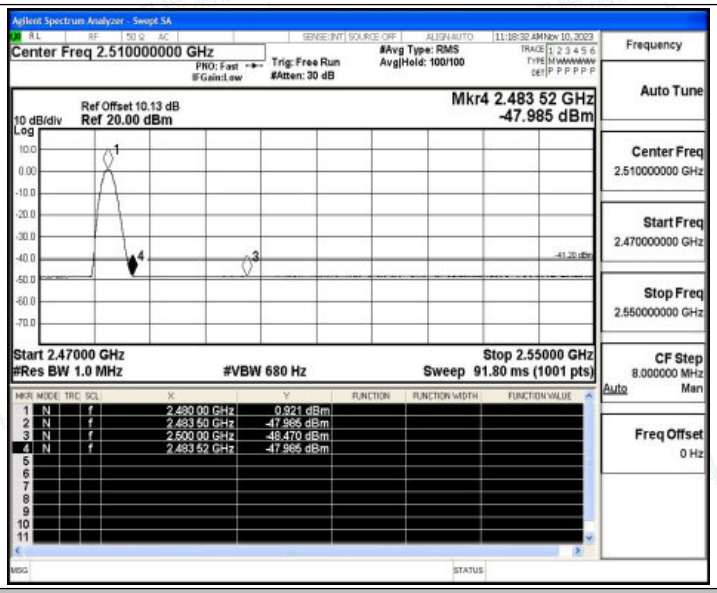
BLE_1M_Ant1_Low_2402_AV



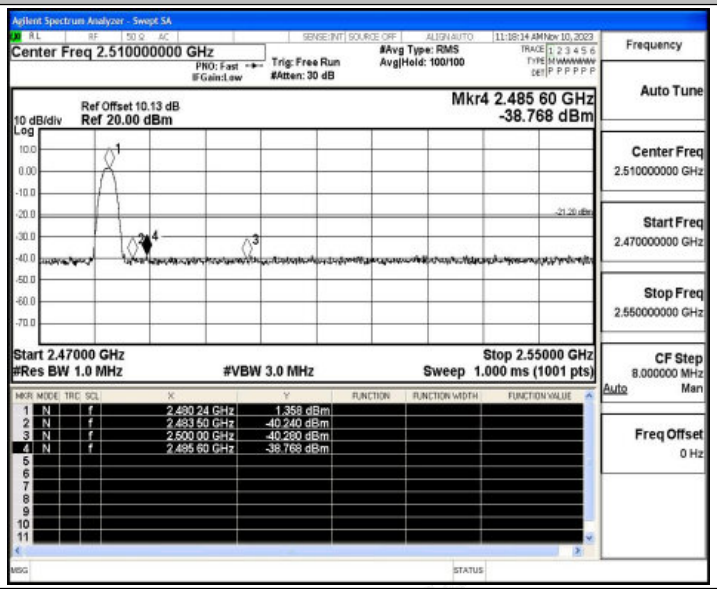
BLE_1M_Ant1_Low_2402_Peak



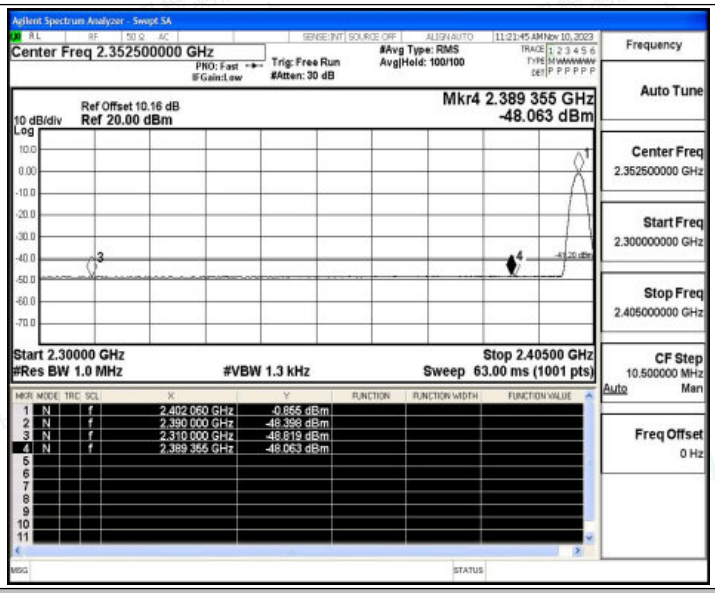
BLE_1M_Ant1_High_2480_AV



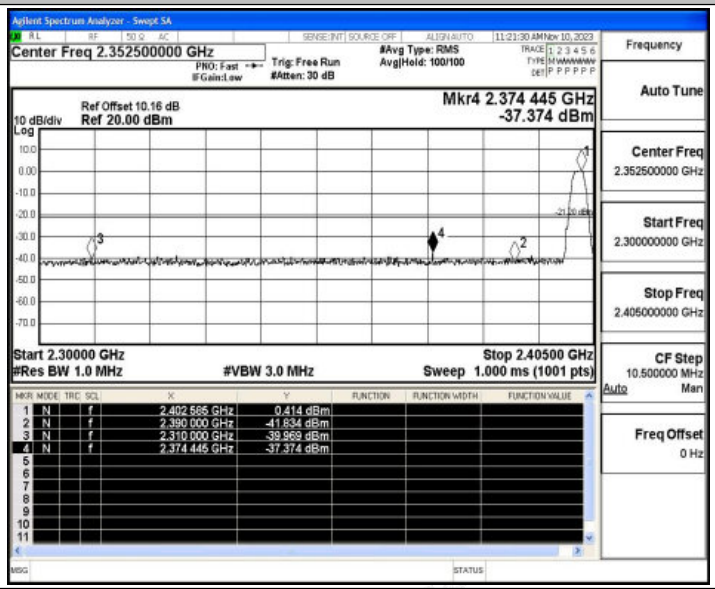
BLE_1M_Ant1_High_2480_Peak



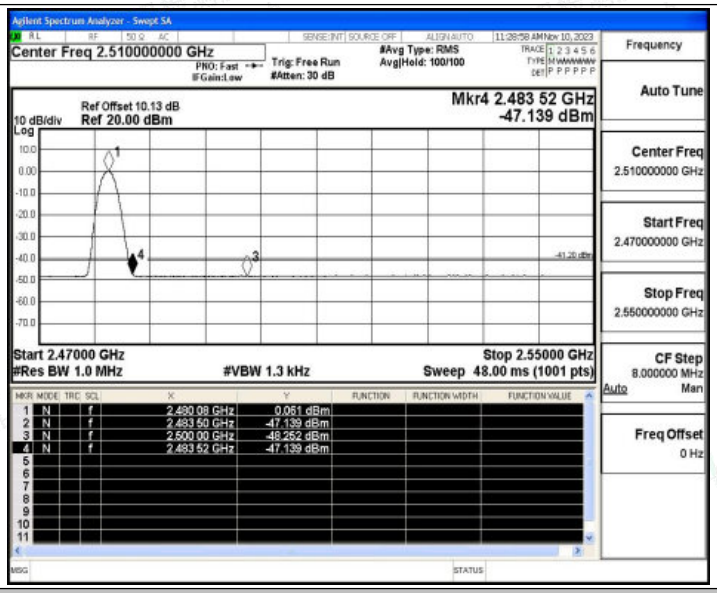
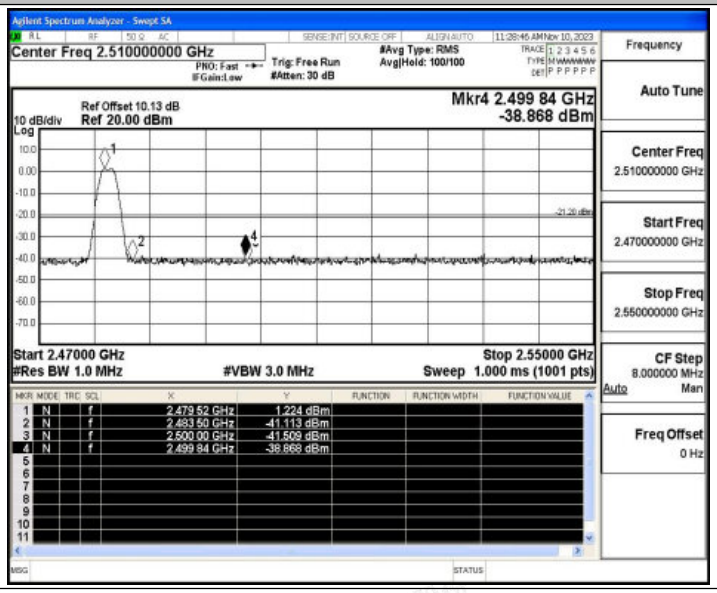
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak