

Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Ai glasses

Test Model: BS-AIGLS

Environmental Conditions

Temperature:	23.2°C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

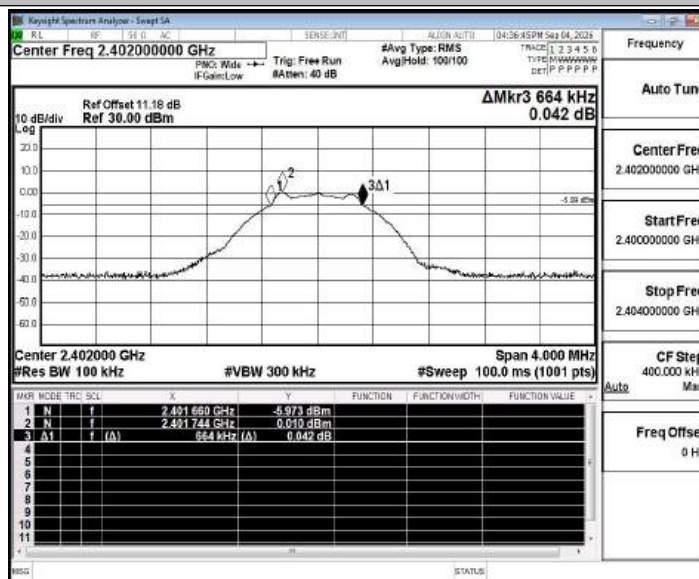
B.1 6dB Bandwidth

Test Result

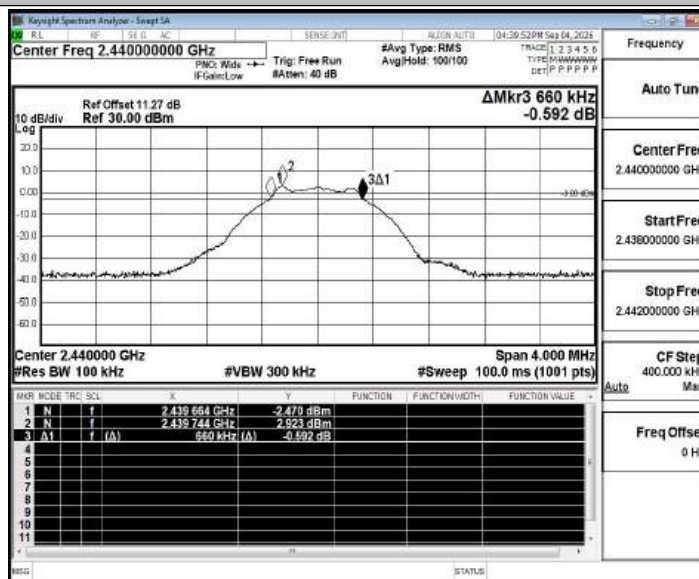
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.660	2402.324	0.5	PASS
		2440	0.660	2439.664	2440.324	0.5	PASS
		2480	0.664	2479.660	2480.324	0.5	PASS
BLE_2M	Ant1	2402	1.156	2401.404	2402.560	0.5	PASS
		2440	1.148	2439.408	2440.556	0.5	PASS
		2480	1.156	2479.404	2480.560	0.5	PASS

Test Graphs

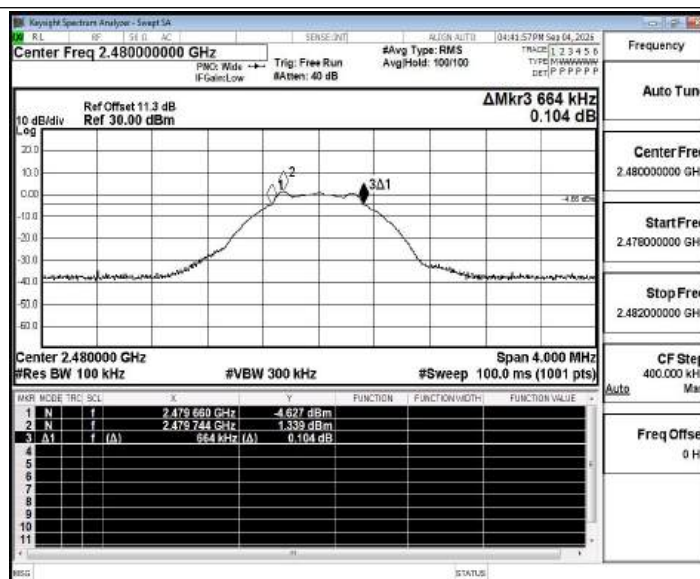
BLE_1M_Ant1_2402



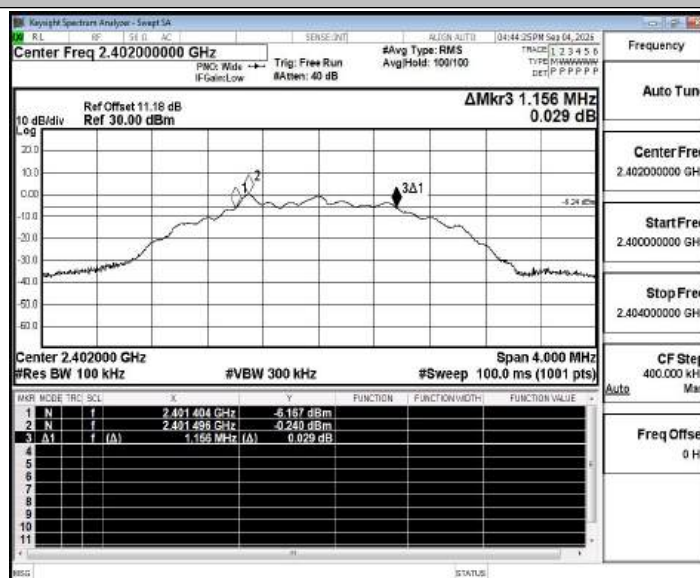
BLE_1M_Ant1_2440



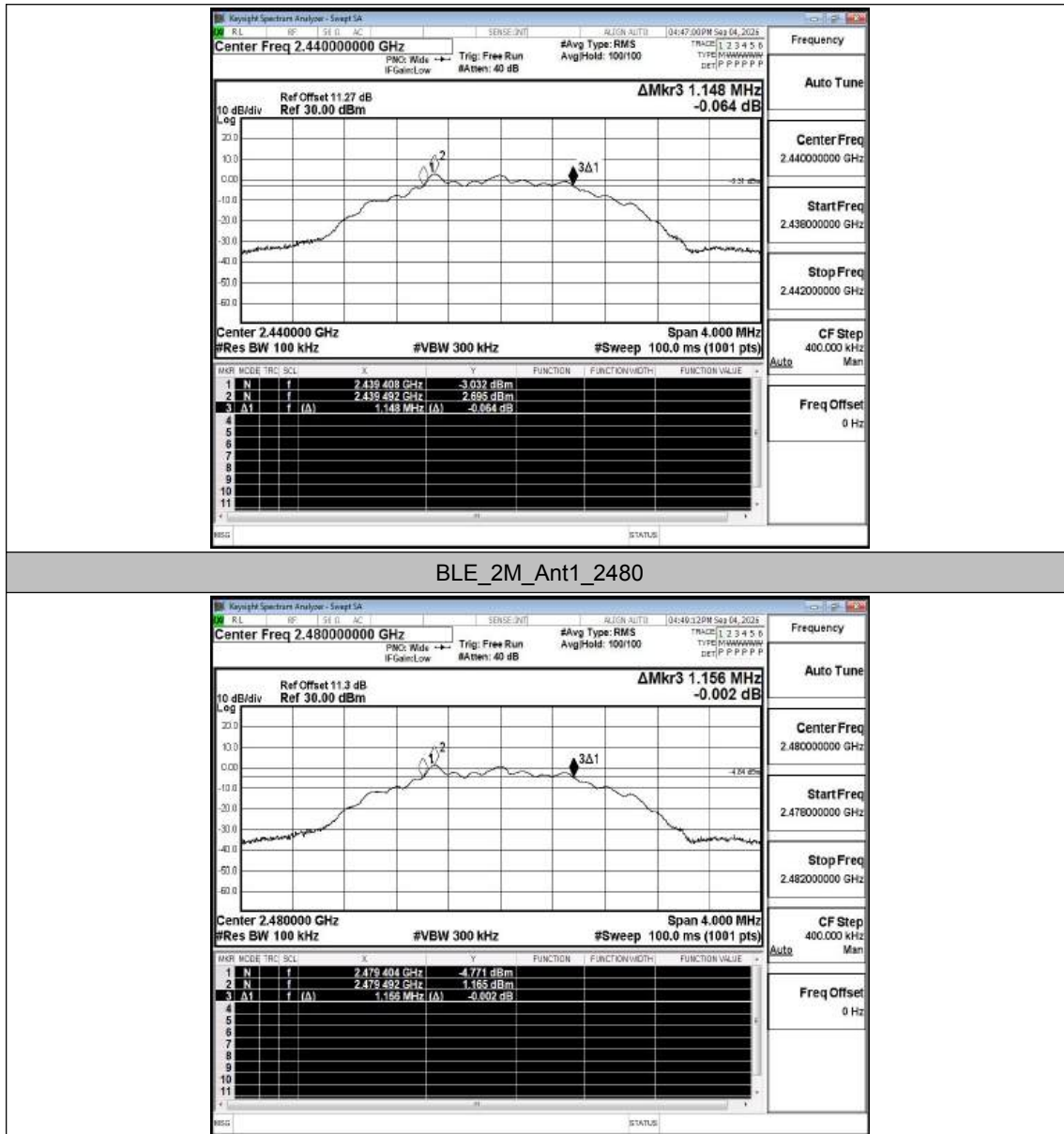
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



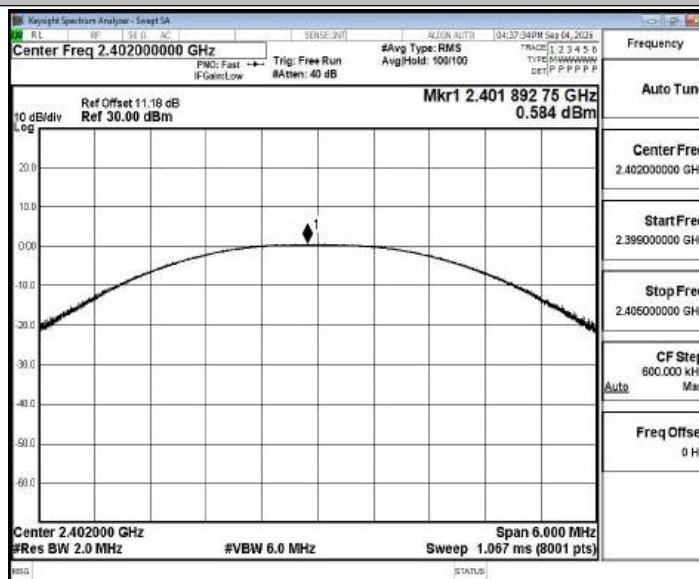
B.2 Maximum Peak conducted output power

Test Result

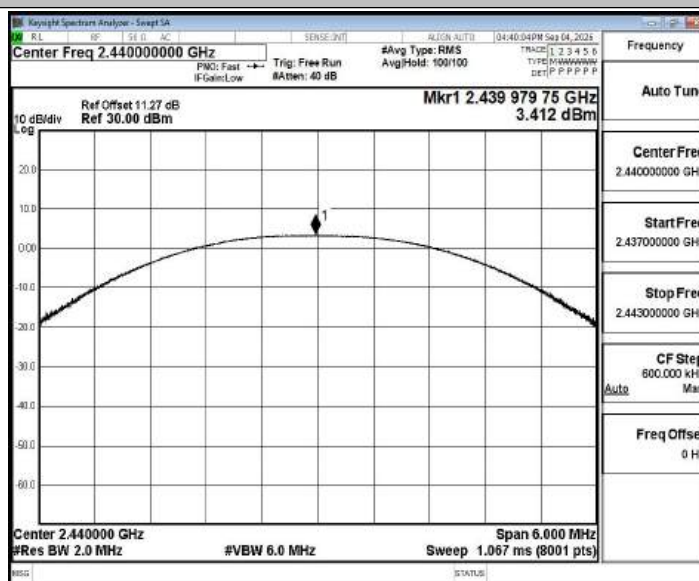
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.58	≤30	PASS
		2440	3.41	≤30	PASS
		2480	1.93	≤30	PASS
BLE_2M	Ant1	2402	0.52	≤30	PASS
		2440	3.34	≤30	PASS
		2480	1.85	≤30	PASS

Test Graphs

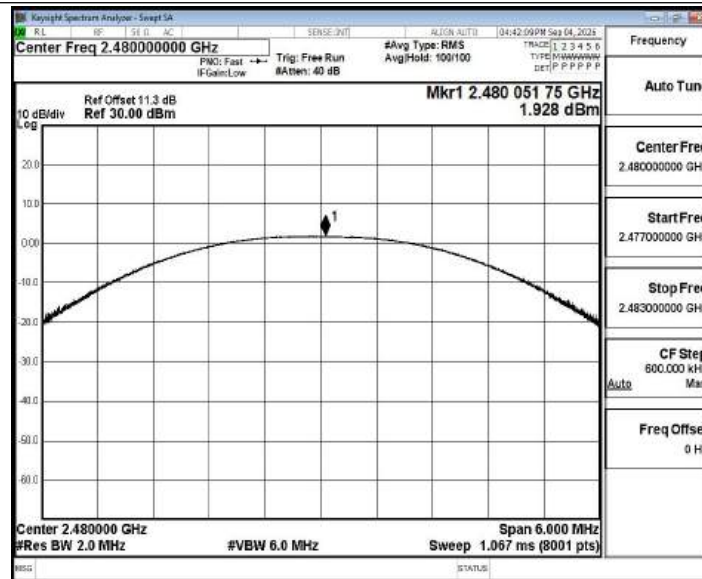
BLE_1M_Ant1_2402



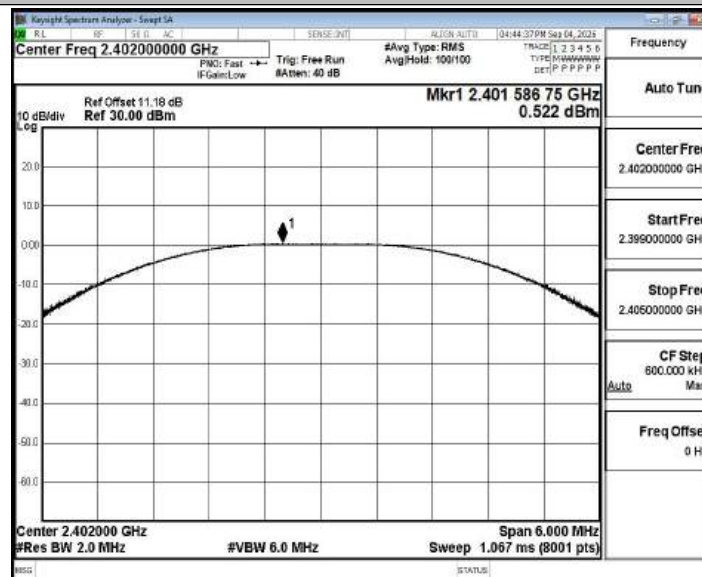
BLE_1M_Ant1_2440



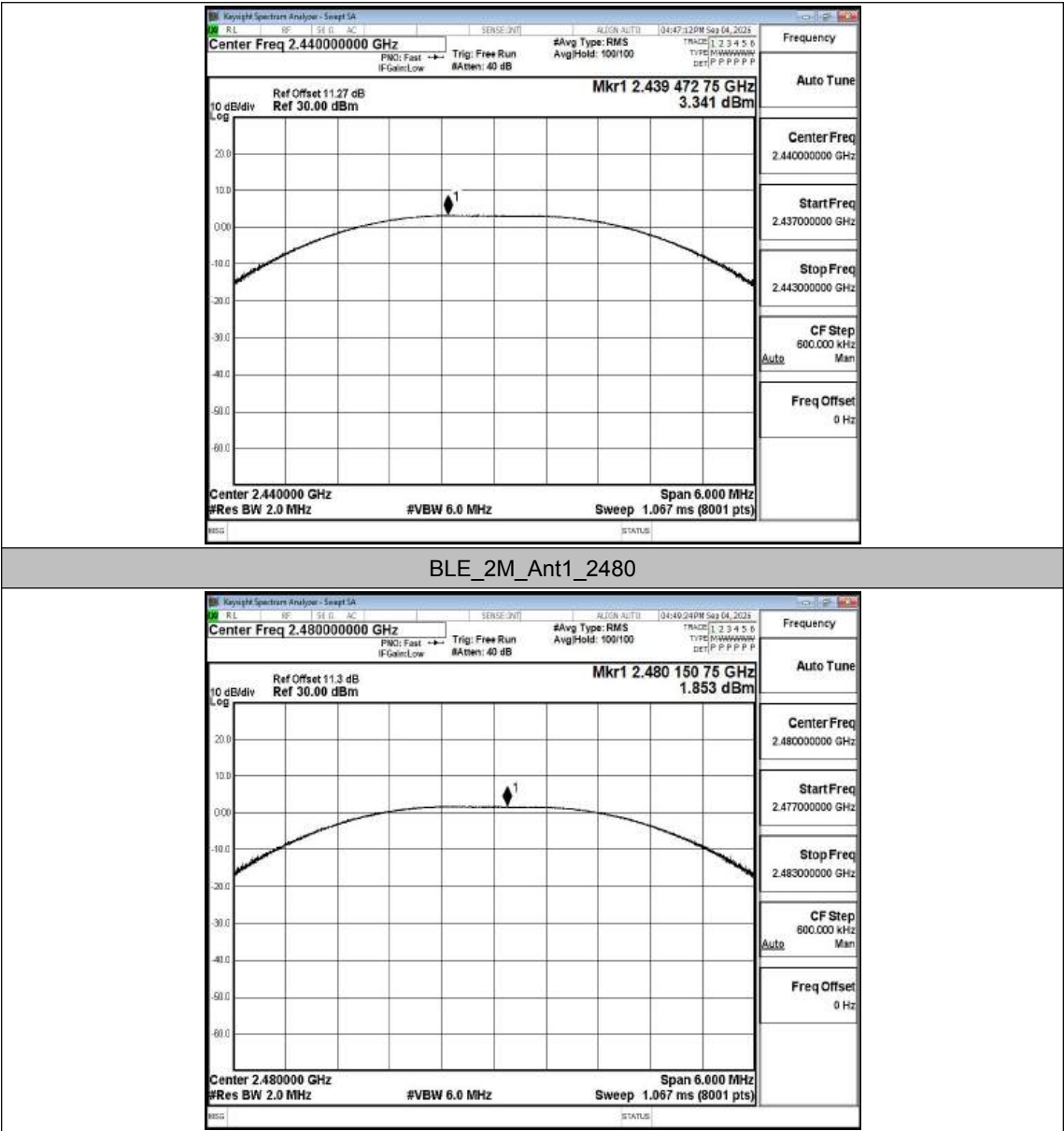
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



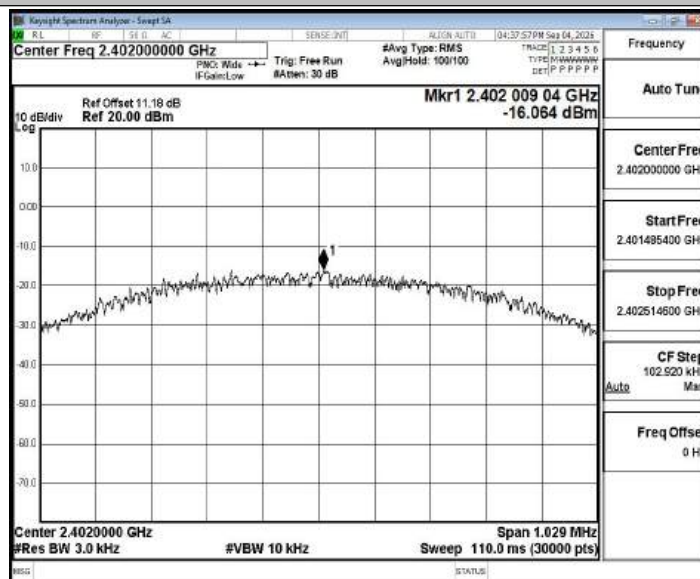
B.3 Maximum power spectral density

Test Result

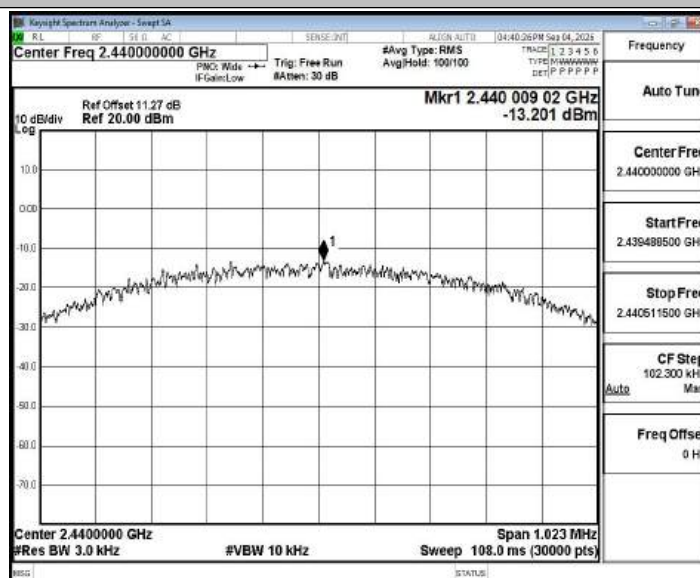
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.06	≤8.00	PASS
		2440	-13.20	≤8.00	PASS
		2480	-14.82	≤8.00	PASS
BLE_2M	Ant1	2402	-19.38	≤8.00	PASS
		2440	-16.52	≤8.00	PASS
		2480	-18.05	≤8.00	PASS

Test Graphs

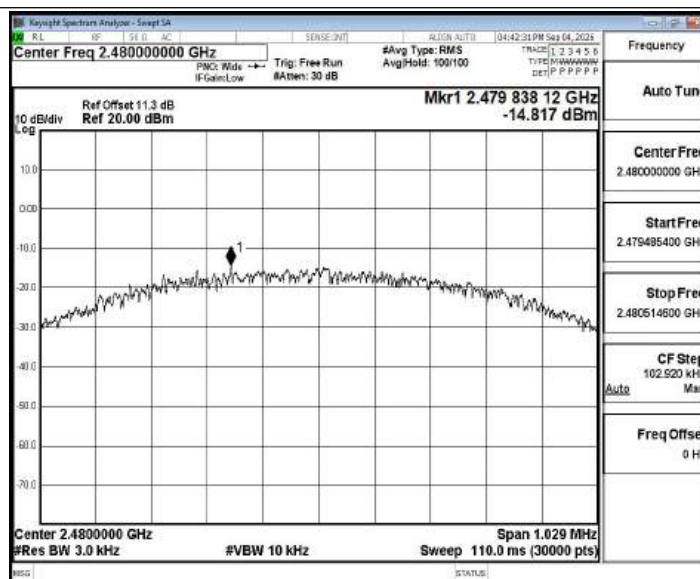
BLE_1M_Ant1_2402



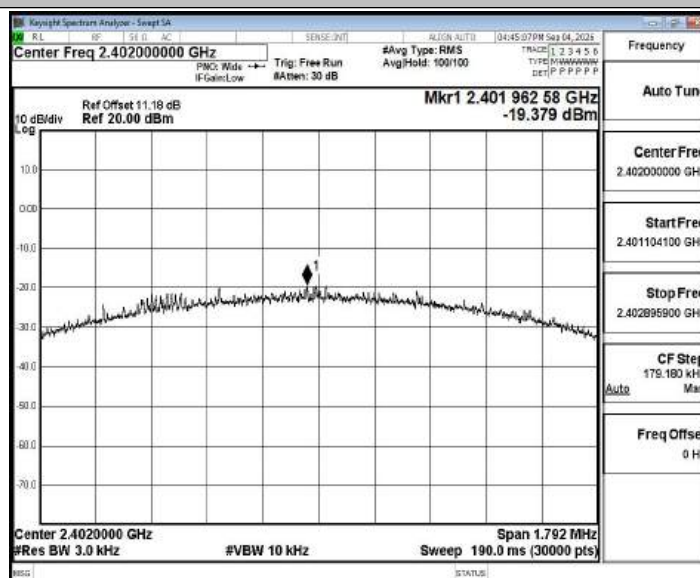
BLE_1M_Ant1_2440



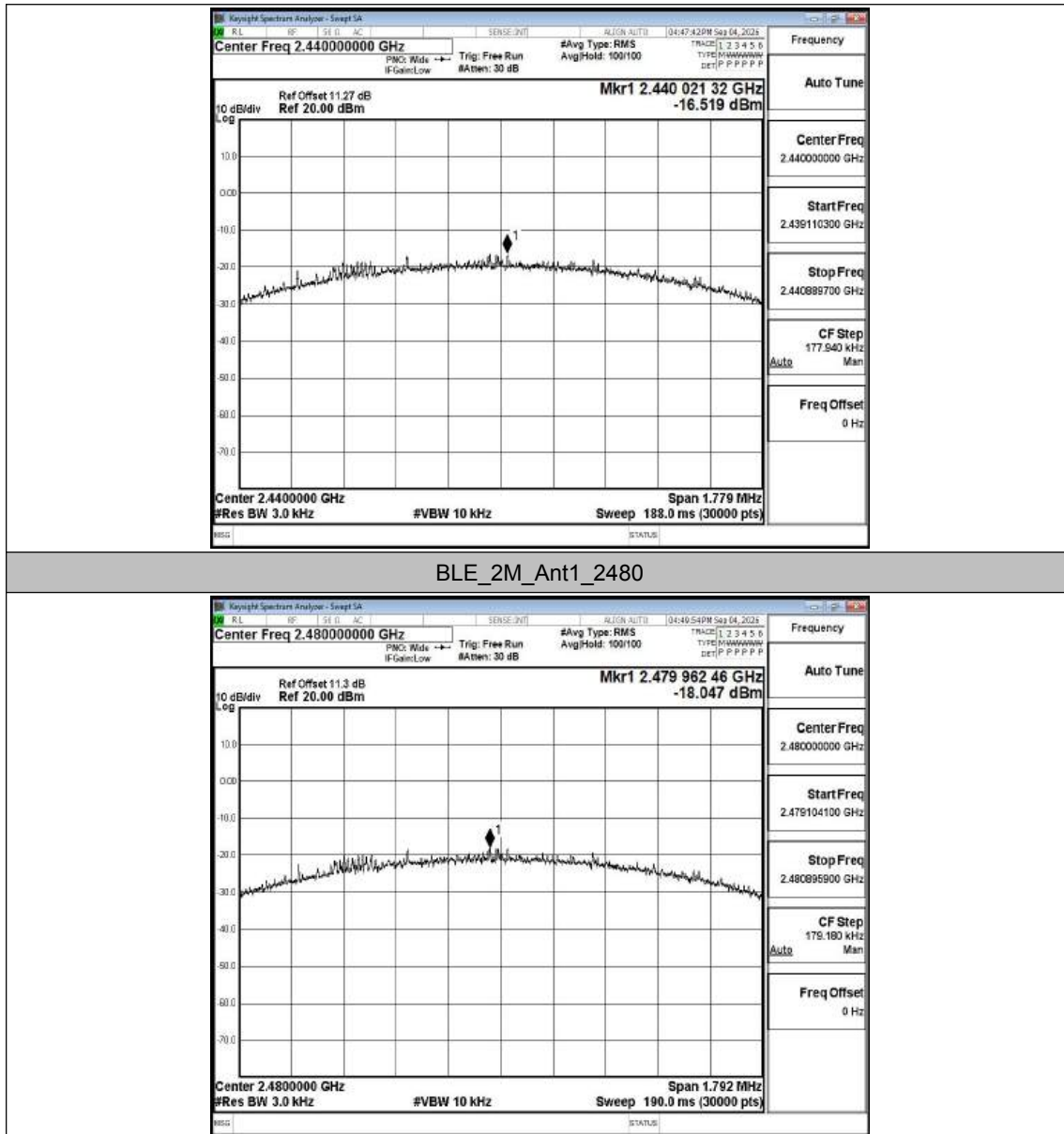
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



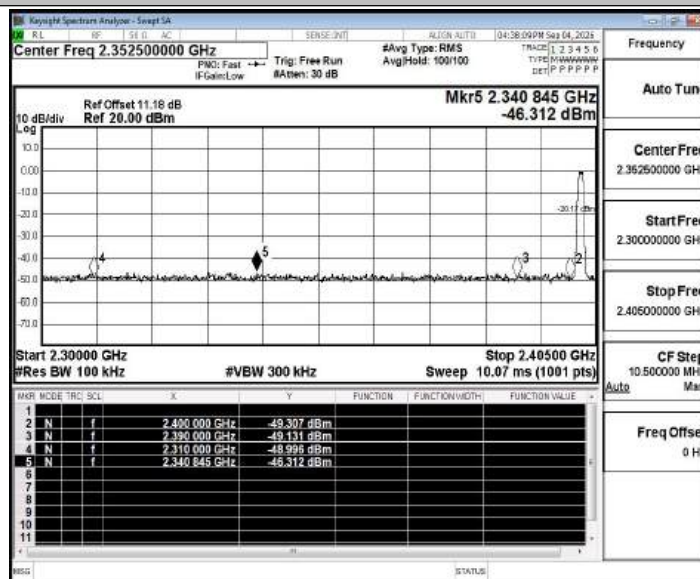
B.4 Band edge measurements

Test Result

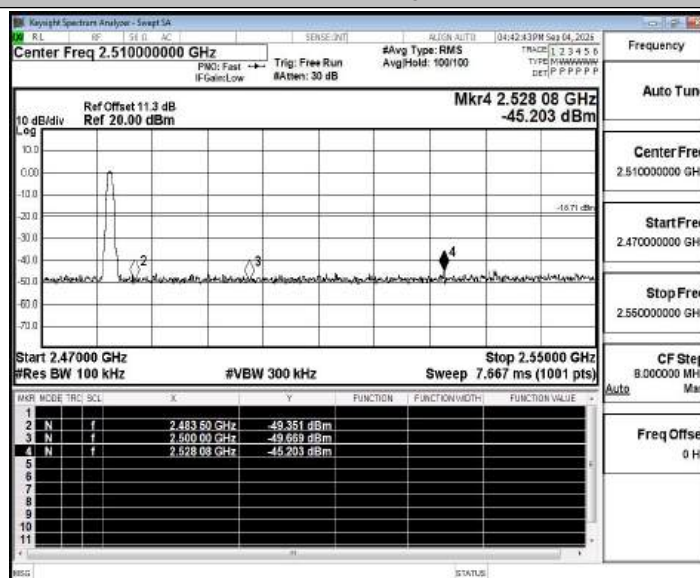
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.17	-46.31	≤ -20.17	PASS
		High	2480	1.29	-45.2	≤ -18.71	PASS
BLE_2M	Ant1	Low	2402	-0.59	-43.86	≤ -20.59	PASS
		High	2480	1.07	-45.52	≤ -18.93	PASS

Test Graphs

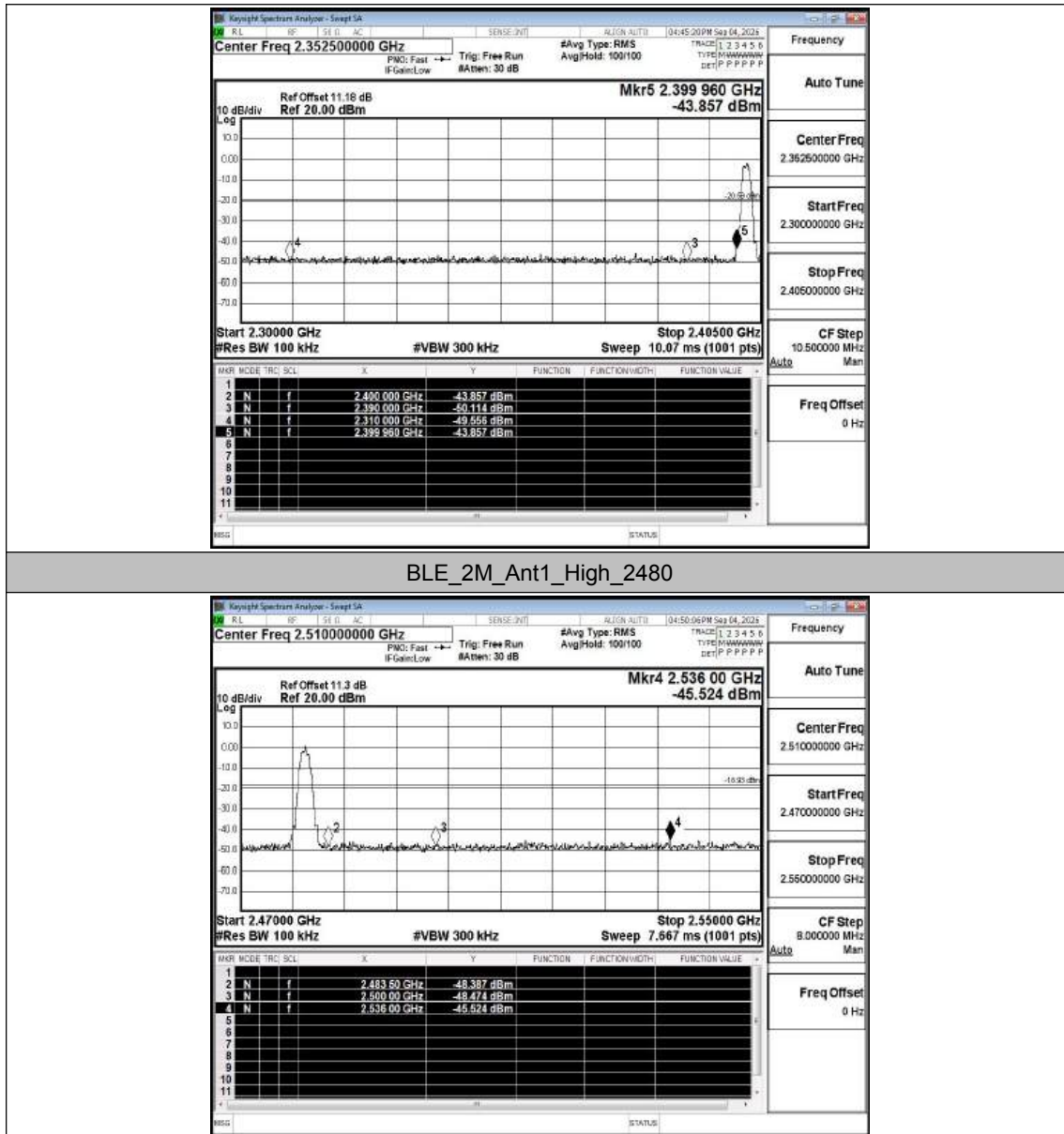
BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



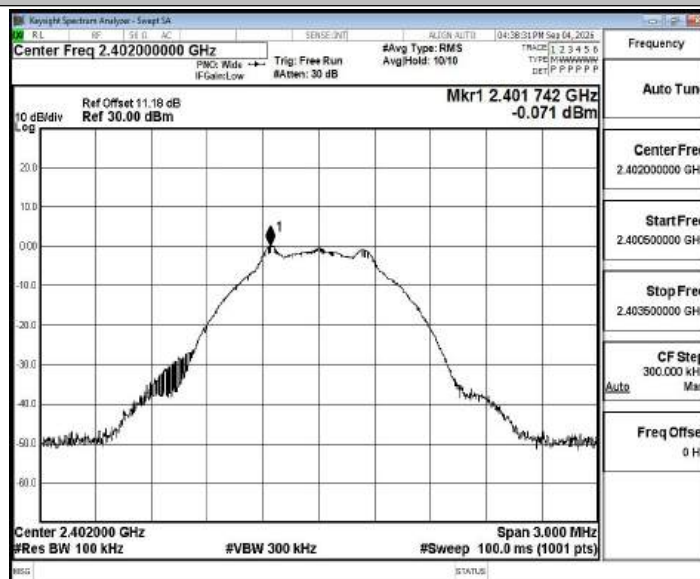
B.5 Conducted Spurious Emission

Test Result

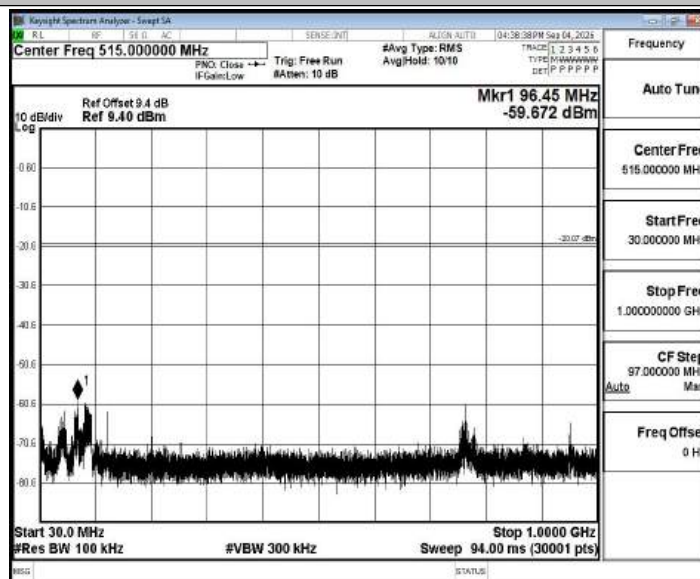
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.07	-0.07	---	PASS
			30~1000	-0.07	-59.67	≤-20.07	PASS
			1000~26500	-0.07	-44.74	≤-20.07	PASS
		2440	Reference	2.79	2.79	---	PASS
			30~1000	2.79	-58.79	≤-17.21	PASS
			1000~26500	2.79	-43.11	≤-17.21	PASS
		2480	Reference	1.28	1.28	---	PASS
			30~1000	1.28	-59.17	≤-18.72	PASS
			1000~26500	1.28	-34.14	≤-18.72	PASS
BLE_2M	Ant1	2402	Reference	-0.29	-0.29	---	PASS
			30~1000	-0.29	-61.57	≤-20.29	PASS
			1000~26500	-0.29	-44.48	≤-20.29	PASS
		2440	Reference	2.60	2.60	---	PASS
			30~1000	2.60	-57.97	≤-17.4	PASS
			1000~26500	2.60	-44.08	≤-17.4	PASS
		2480	Reference	1.12	1.12	---	PASS
			30~1000	1.12	-58.78	≤-18.88	PASS
			1000~26500	1.12	-44.7	≤-18.88	PASS

Test Graphs

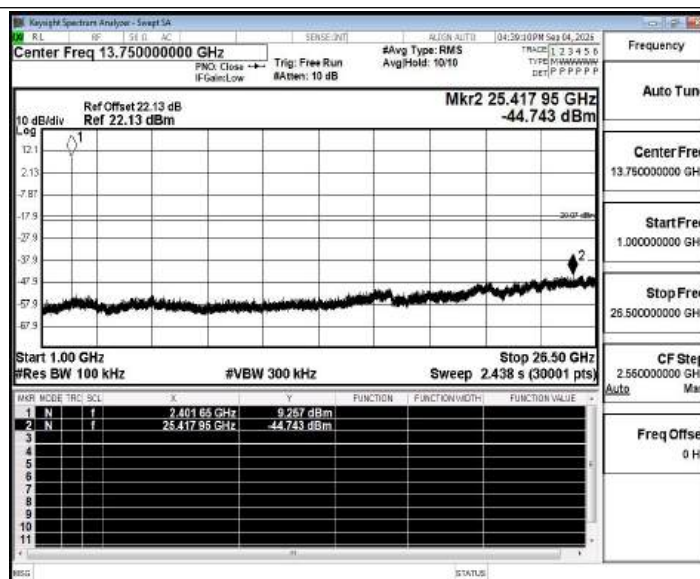
BLE_1M_Ant1_2402_0~Reference



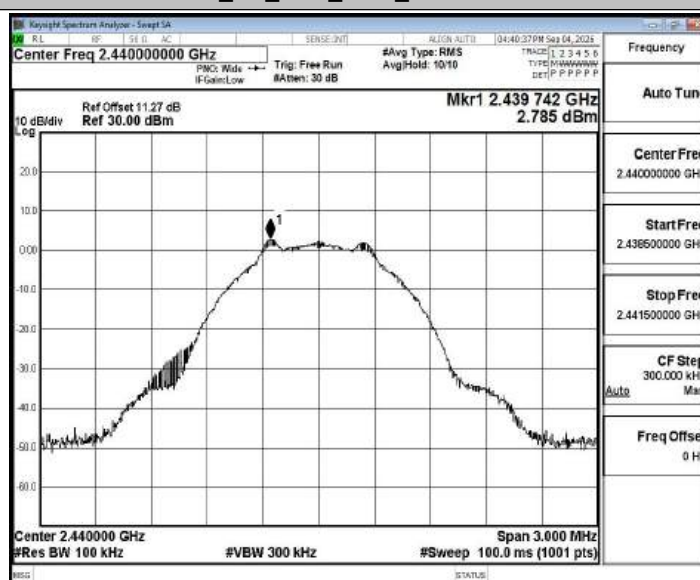
BLE_1M_Ant1_2402_30~1000



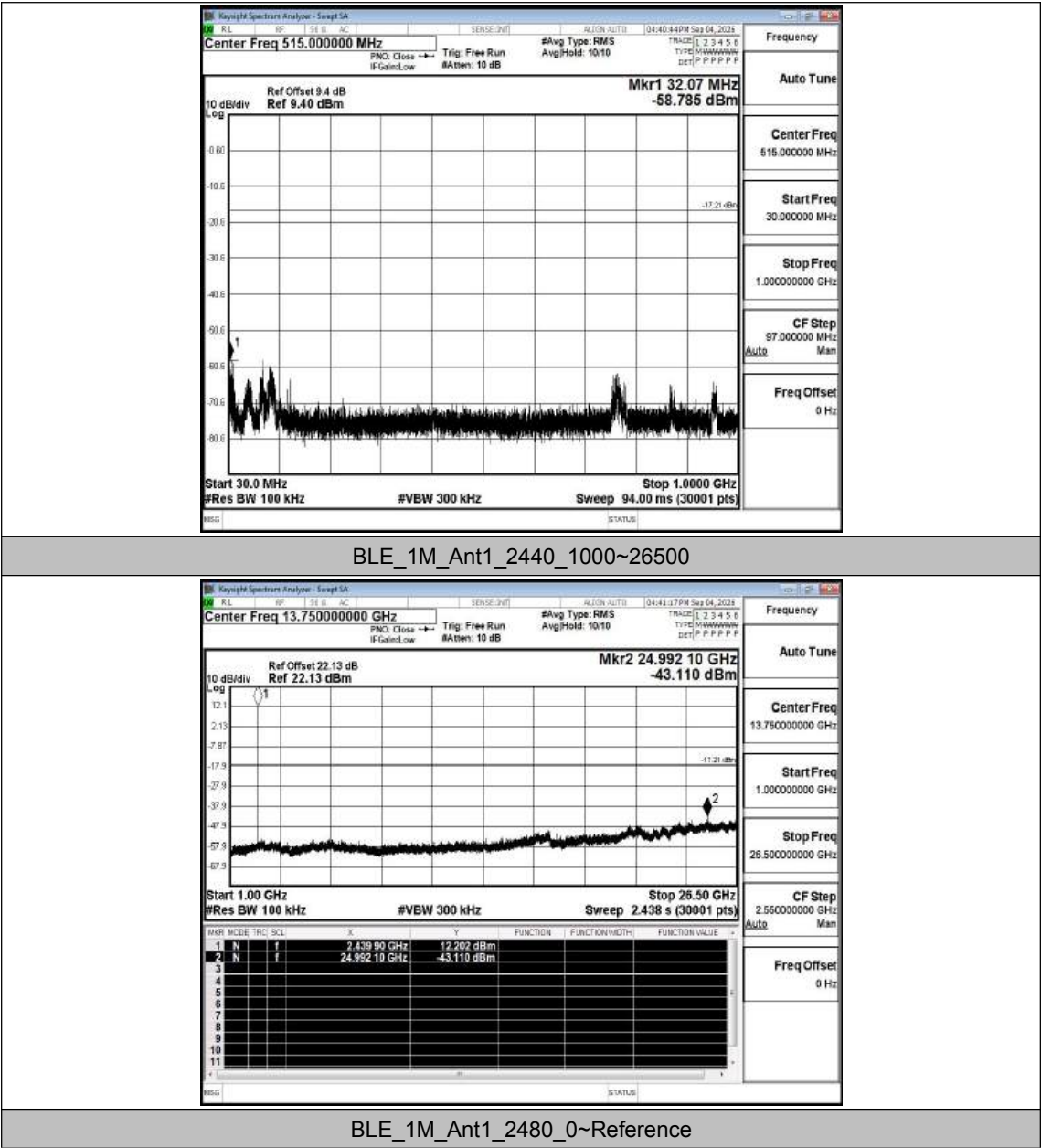
BLE_1M_Ant1_2402_1000~26500

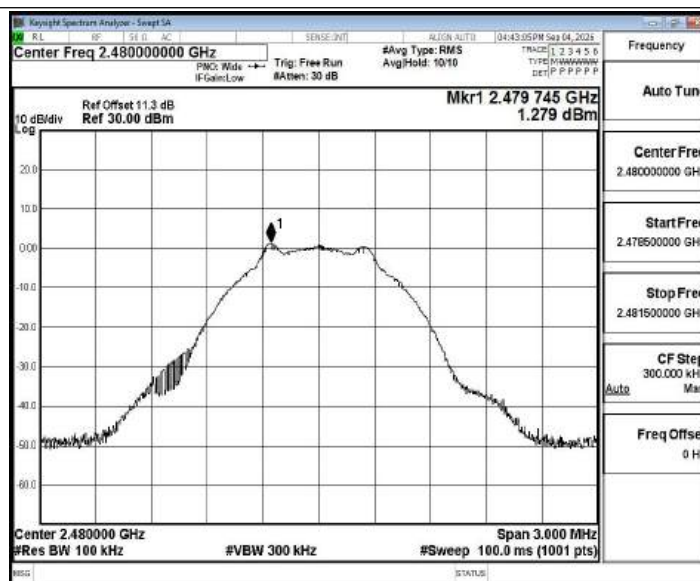


BLE_1M_Ant1_2440_0~Reference

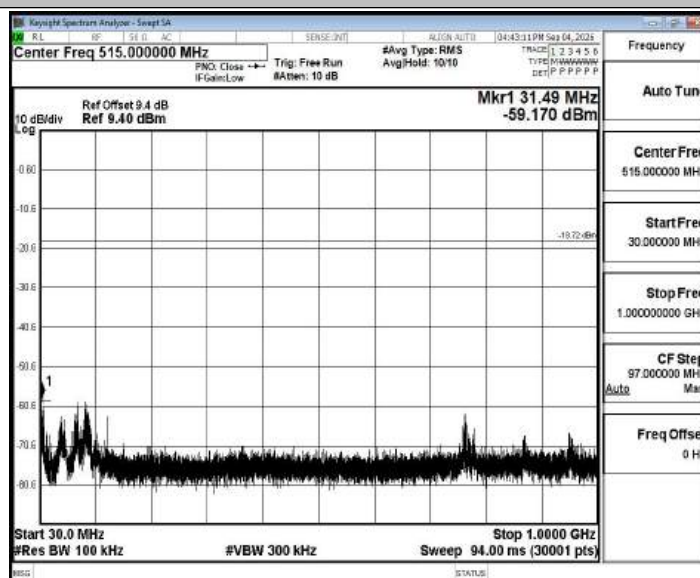


BLE_1M_Ant1_2440_30~1000

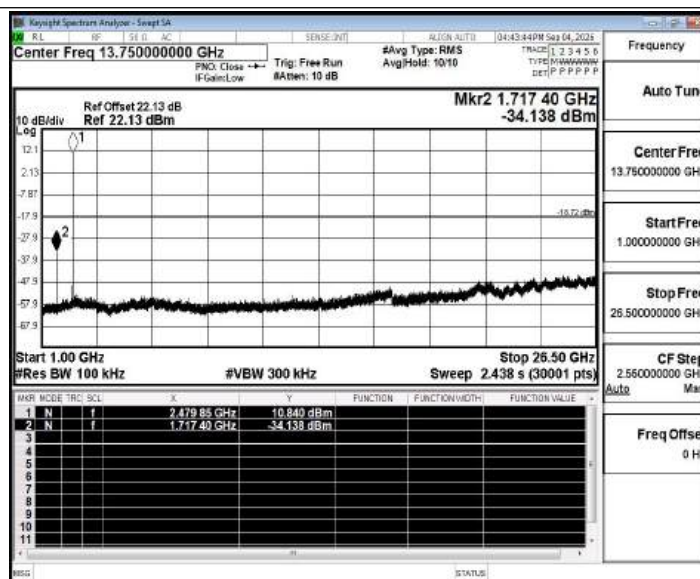




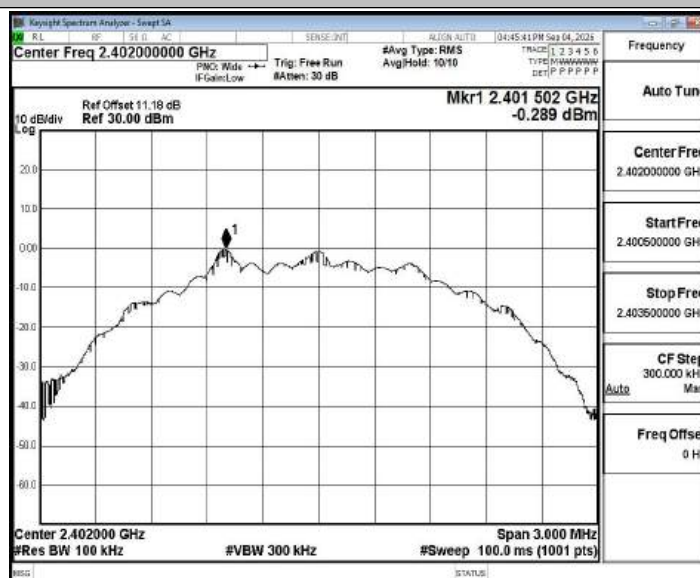
BLE_1M_Ant1_2480_30~1000



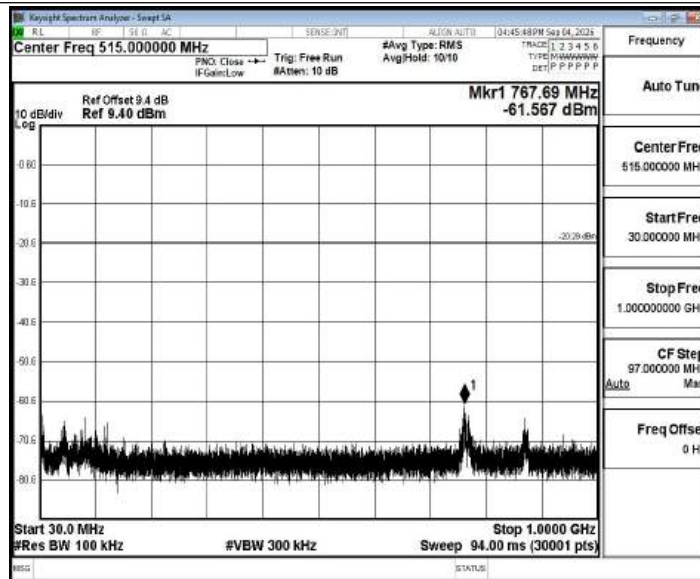
BLE_1M_Ant1_2480_1000~26500



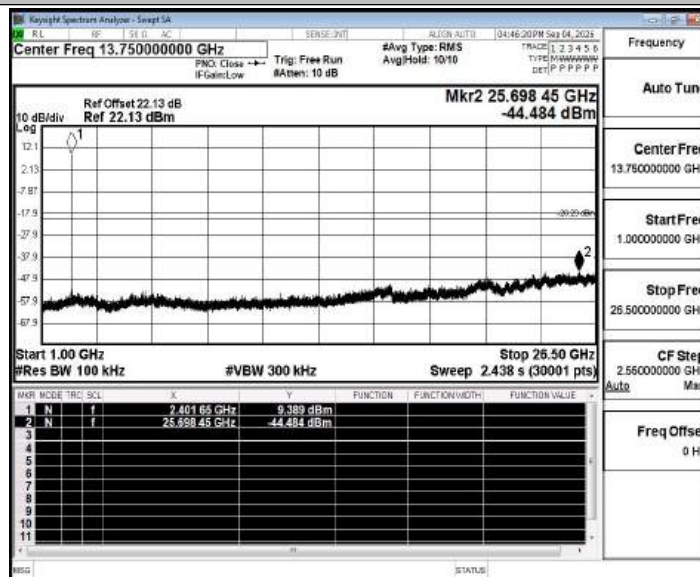
BLE_2M_Ant1_2402_0~Reference



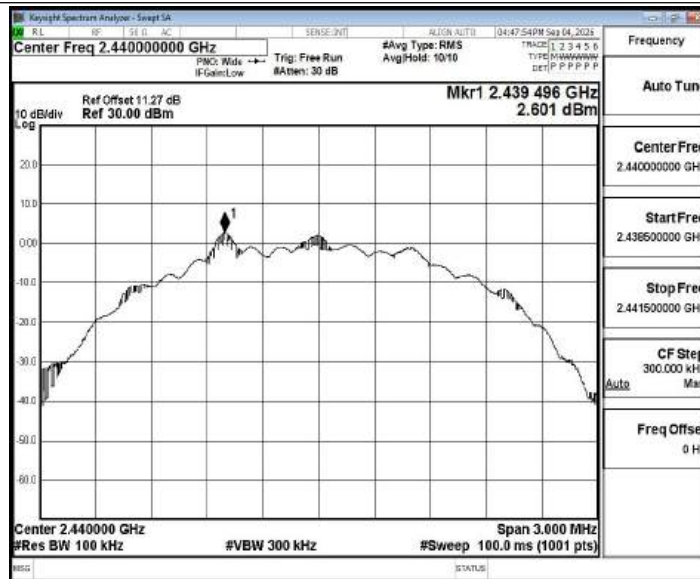
BLE_2M_Ant1_2402_30~1000



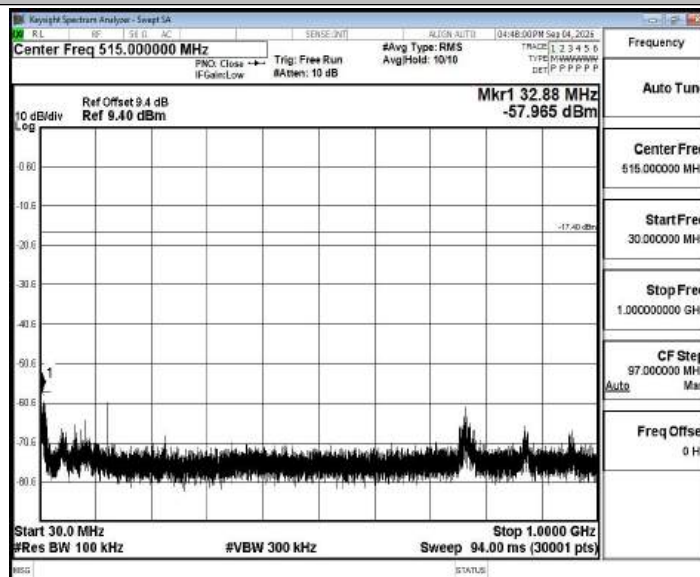
BLE_2M_Ant1_2402_1000~26500



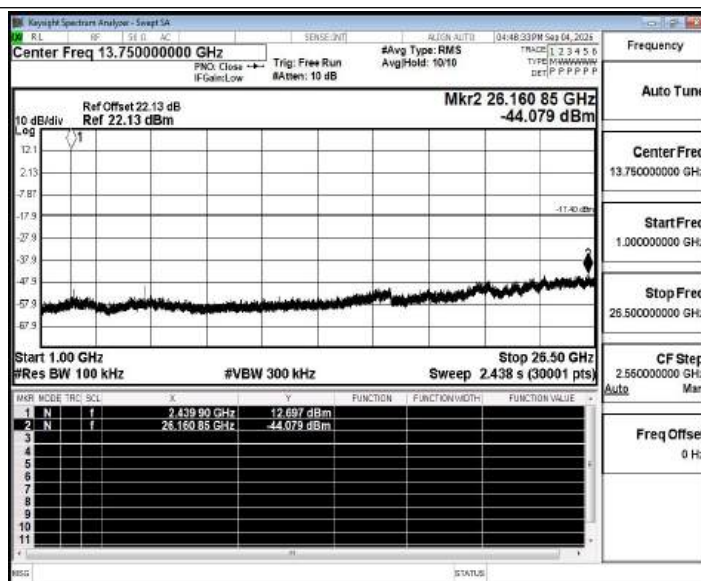
BLE_2M_Ant1_2440_0~Reference



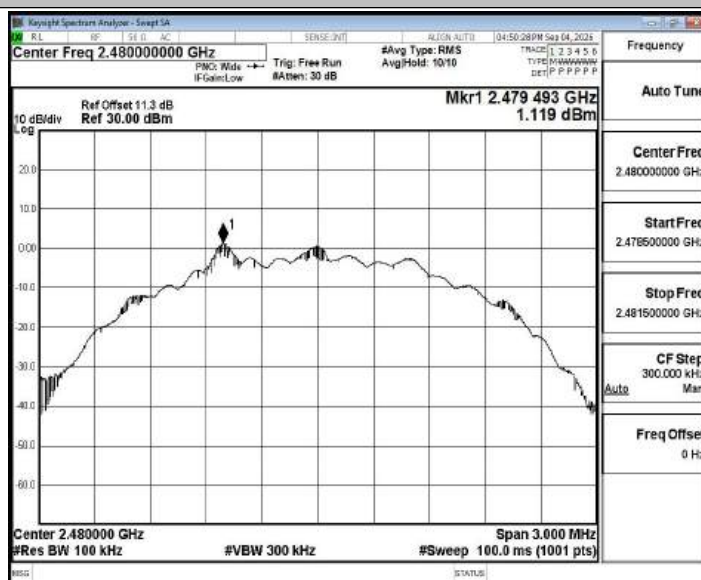
BLE_2M_Ant1_2440_30~1000



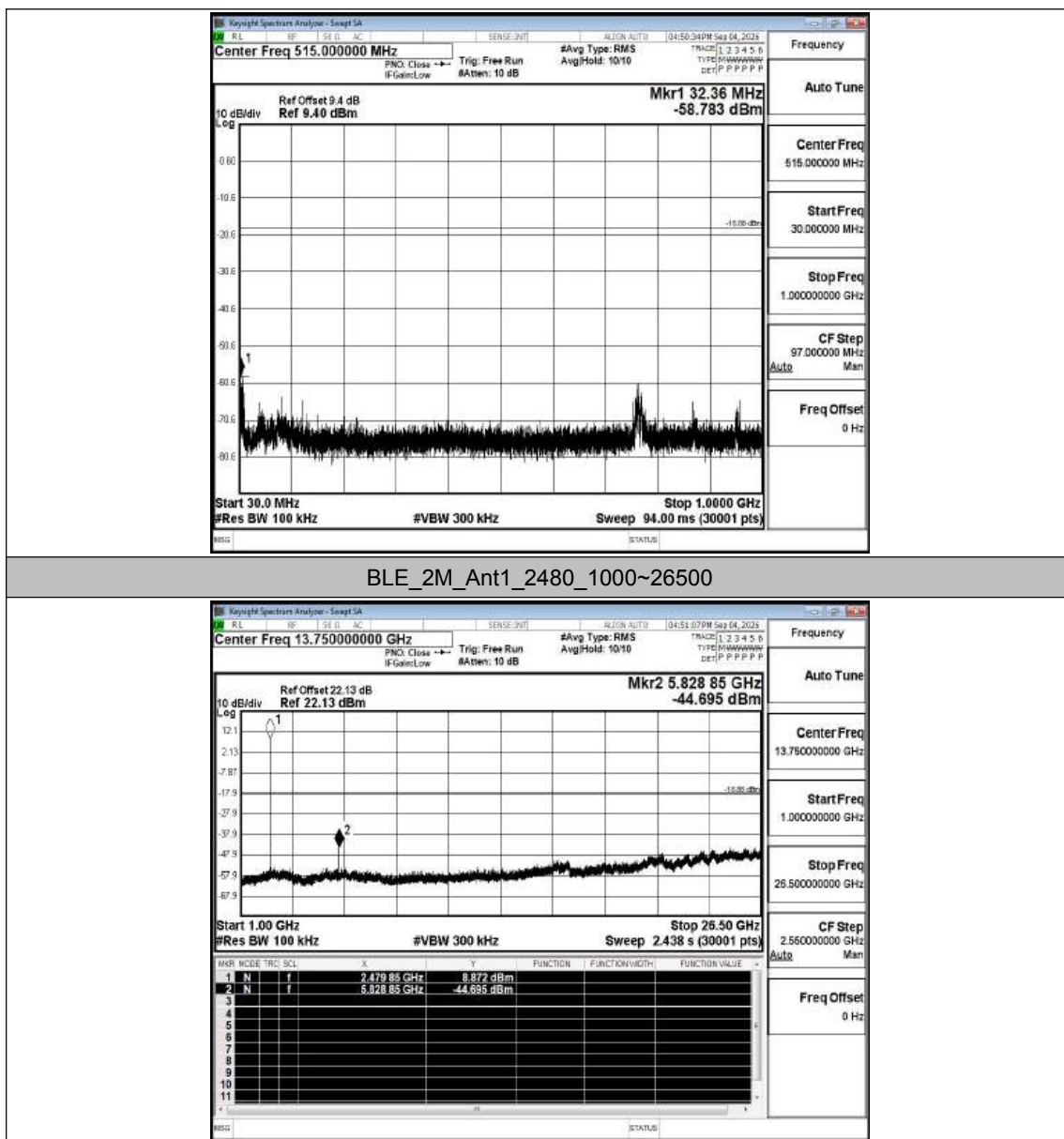
BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



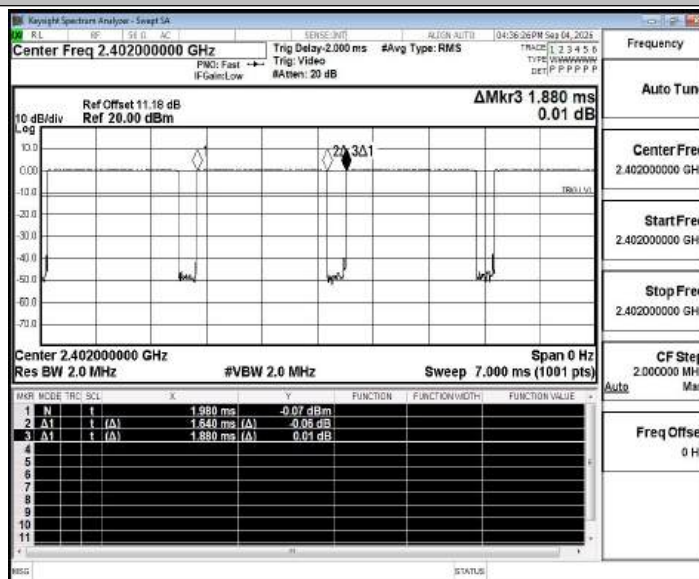
B.6 Duty Cycle

Test Result

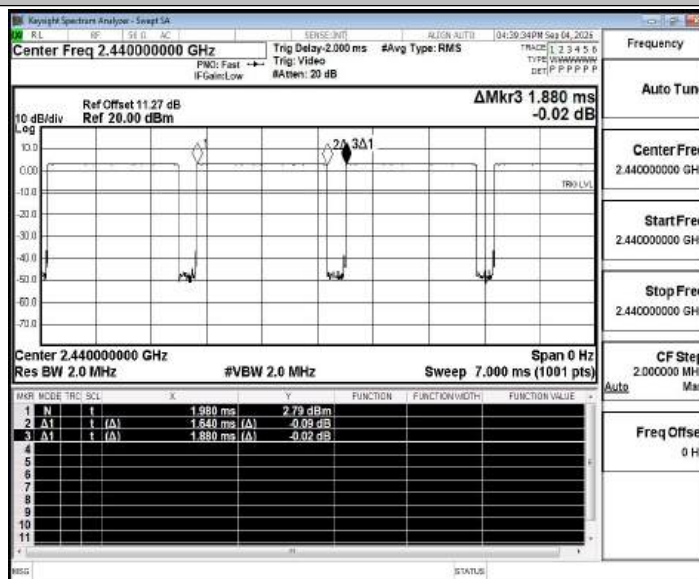
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	1.64	1.88	0.8723	87.23	0.59	---	---
		2440	1.64	1.88	0.8723	87.23	0.59	---	---
		2480	1.64	1.88	0.8723	87.23	0.59	---	---
BLE_2M	Ant1	2402	0.82	1.25	0.6560	65.60	1.83	---	---
		2440	0.82	1.25	0.6560	65.60	1.83	---	---
		2480	0.82	1.25	0.6560	65.60	1.83	---	---

Test Graphs

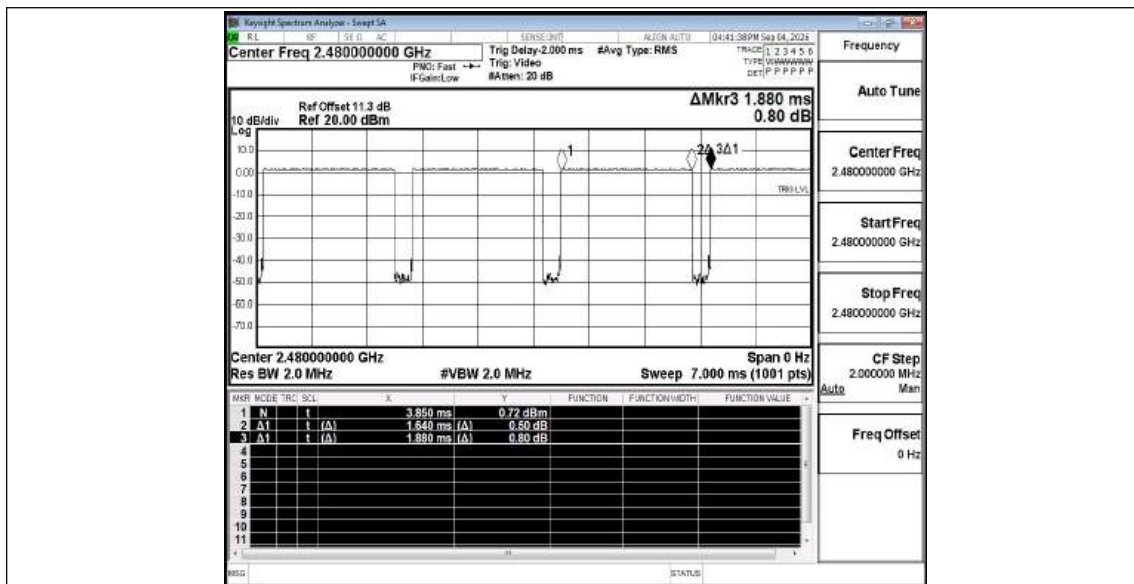
BLE_1M_Ant1_2402



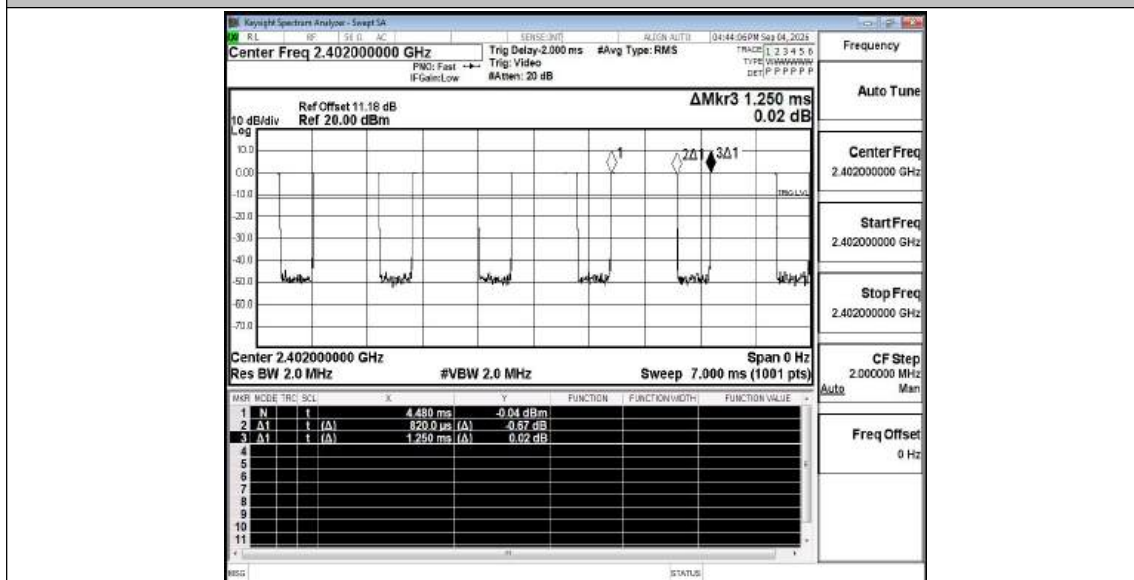
BLE_1M_Ant1_2440



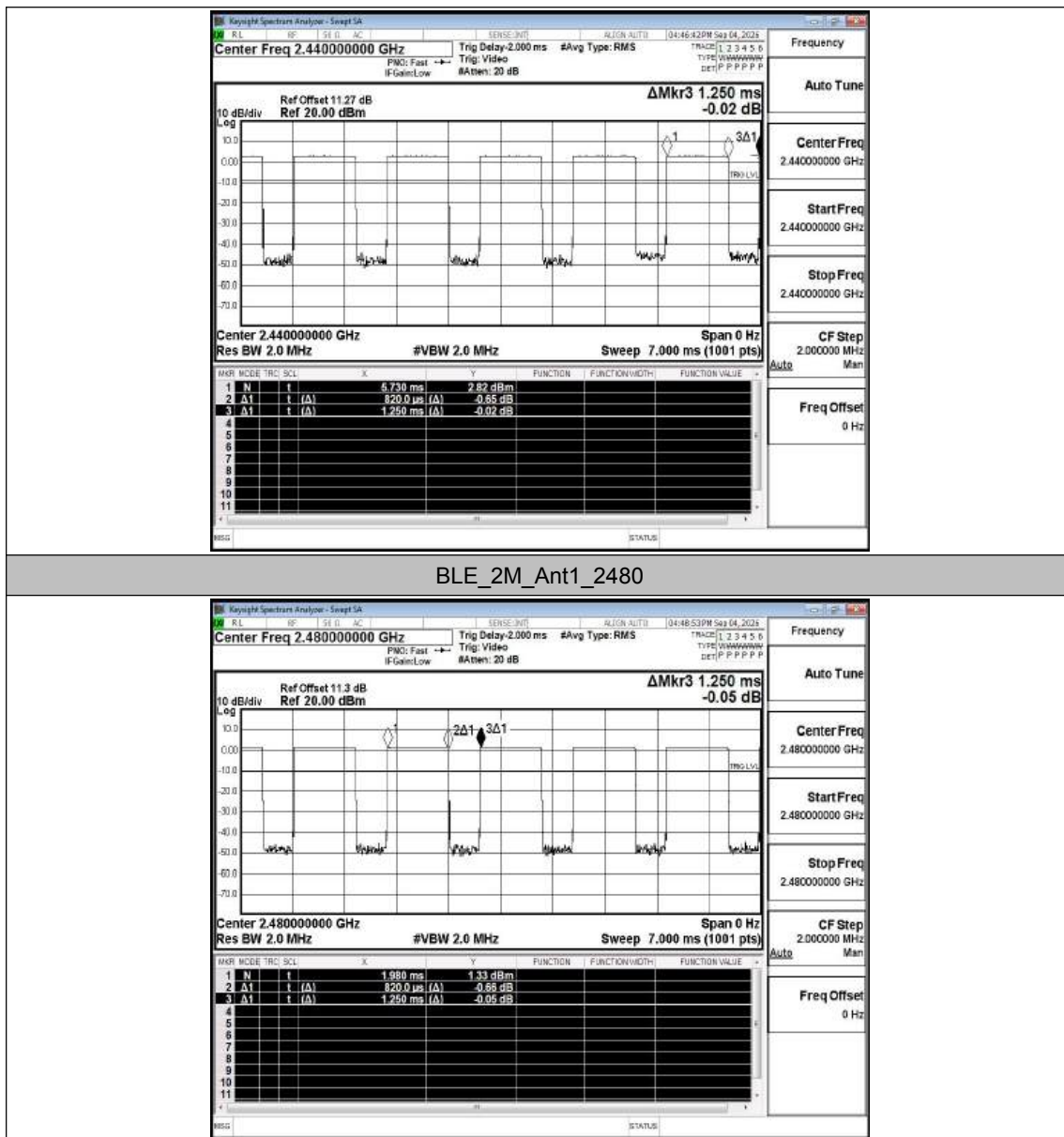
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



B.7 Emissions in Restricted Bands

Test Result

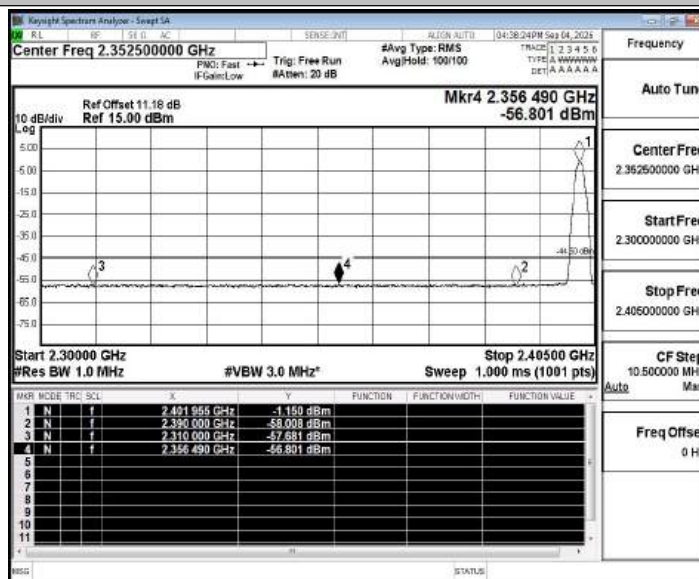
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-57.68	≤-44.50	2.71	0.59	40.82	≤54	PASS
				AV	2356.490	-56.8	≤-44.50	2.71	0.59	41.70	≤54	PASS
				AV	2390.000	-58.01	≤-44.50	2.71	0.59	40.49	≤54	PASS
				Peak	2310.000	-48.35	≤-23.91	2.71	0.00	49.56	≤74	PASS
				Peak	2325.830	-46.36	≤-23.91	2.71	0.00	51.55	≤74	PASS
				Peak	2390.000	-49.63	≤-23.91	2.71	0.00	48.28	≤74	PASS
		High	2480	AV	2483.500	-56.79	≤-44.50	2.71	0.59	41.71	≤54	PASS
				AV	2483.680	-56.21	≤-44.50	2.71	0.59	42.29	≤54	PASS
				AV	2500.000	-57.06	≤-44.50	2.71	0.59	41.44	≤54	PASS
				Peak	2483.500	-47.53	≤-23.91	2.71	0.00	50.38	≤74	PASS
				Peak	2483.680	-45.9	≤-23.91	2.71	0.00	52.01	≤74	PASS
				Peak	2500.000	-49.46	≤-23.91	2.71	0.00	48.45	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-57.58	≤-45.74	2.71	1.83	42.16	≤54	PASS
				AV	2346.515	-57.01	≤-45.74	2.71	1.83	42.73	≤54	PASS
				AV	2390.000	-57.51	≤-45.74	2.71	1.83	42.23	≤54	PASS
				Peak	2310.000	-51.04	≤-23.91	2.71	0.00	46.87	≤74	PASS
				Peak	2331.605	-46.93	≤-23.91	2.71	0.00	50.98	≤74	PASS
				Peak	2390.000	-50	≤-23.91	2.71	0.00	47.91	≤74	PASS
		High	2480	AV	2483.500	-57.05	≤-45.74	2.71	1.83	42.69	≤54	PASS
				AV	2484.080	-56.44	≤-45.74	2.71	1.83	43.30	≤54	PASS
				AV	2500.000	-57.9	≤-45.74	2.71	1.83	41.84	≤54	PASS
				Peak	2483.500	-49.65	≤-23.91	2.71	0.00	48.26	≤74	PASS
				Peak	2485.280	-43.4	≤-23.91	2.71	0.00	54.51	≤74	PASS
				Peak	2500.000	-48.14	≤-23.91	2.71	0.00	49.77	≤74	PASS

Note:

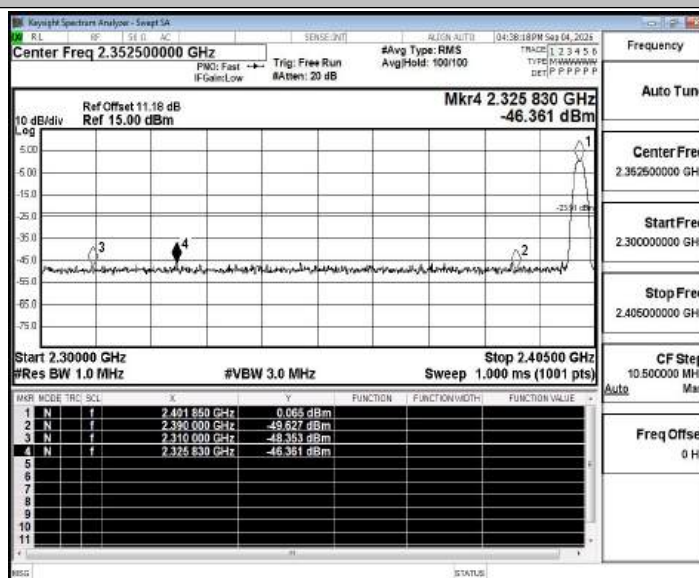
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

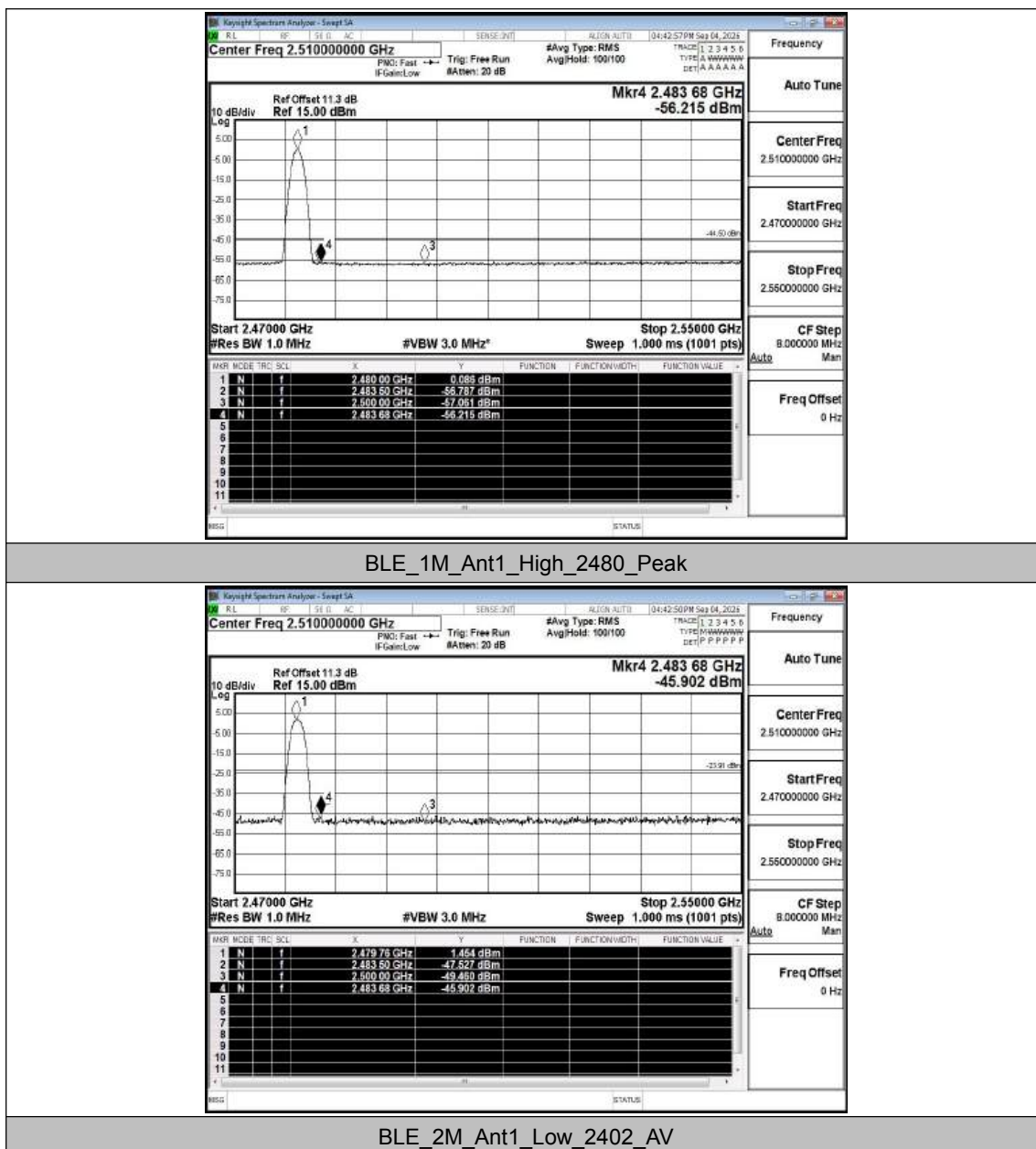
BLE_1M_Ant1_Low_2402_AV

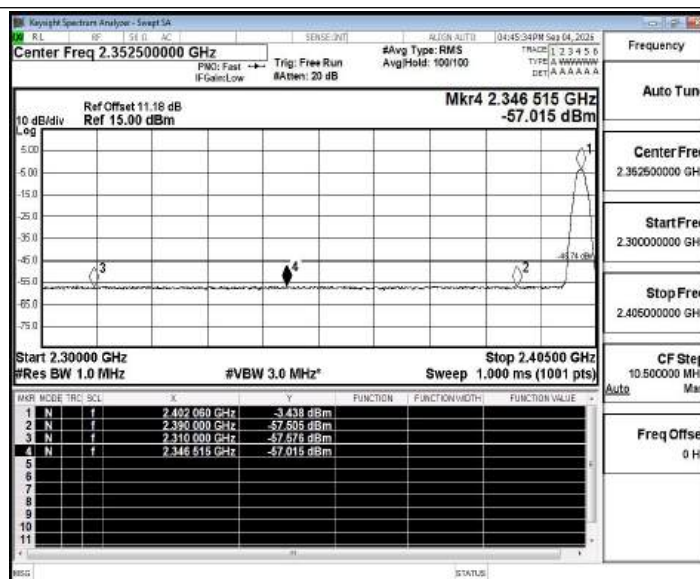


BLE_1M_Ant1_Low_2402_Peak

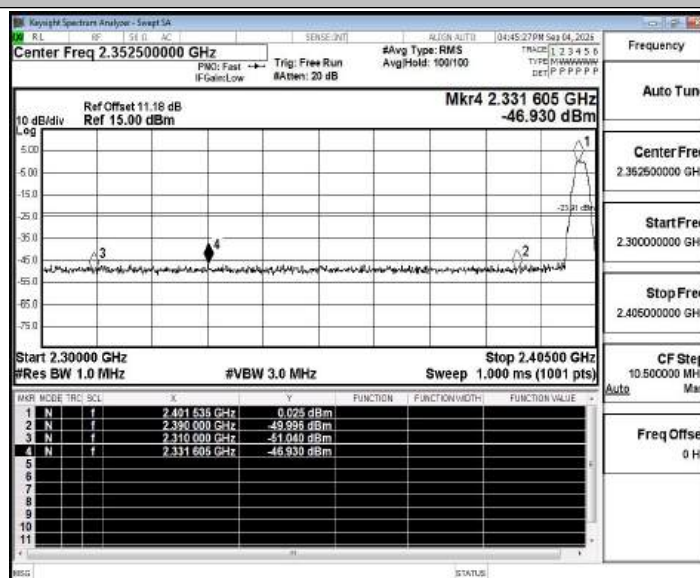


BLE_1M_Ant1_High_2480_AV





BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV

