

Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Ball Machine

Test Model: SPINFIRE Pro 3

Environmental Conditions

Temperature:	24.2°C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

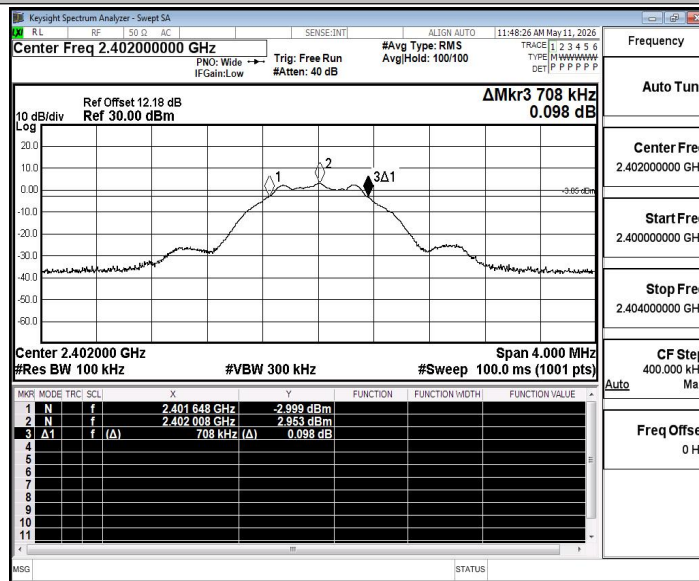
A.1 DTS Bandwidth

Test Result

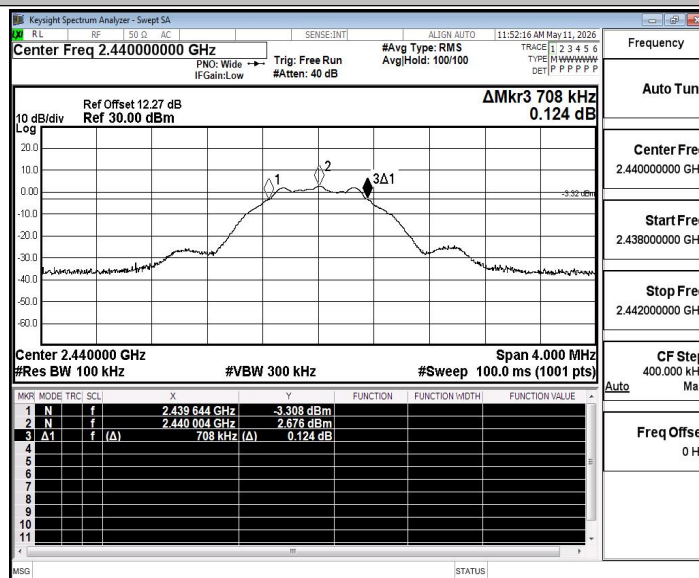
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.708	2401.648	2402.356	0.5	PASS
		2440	0.708	2439.644	2440.352	0.5	PASS
		2480	0.704	2479.648	2480.352	0.5	PASS
BLE_2M	Ant1	2402	1.124	2401.448	2402.572	0.5	PASS
		2440	1.128	2439.444	2440.572	0.5	PASS
		2480	1.128	2479.444	2480.572	0.5	PASS

Test Graphs

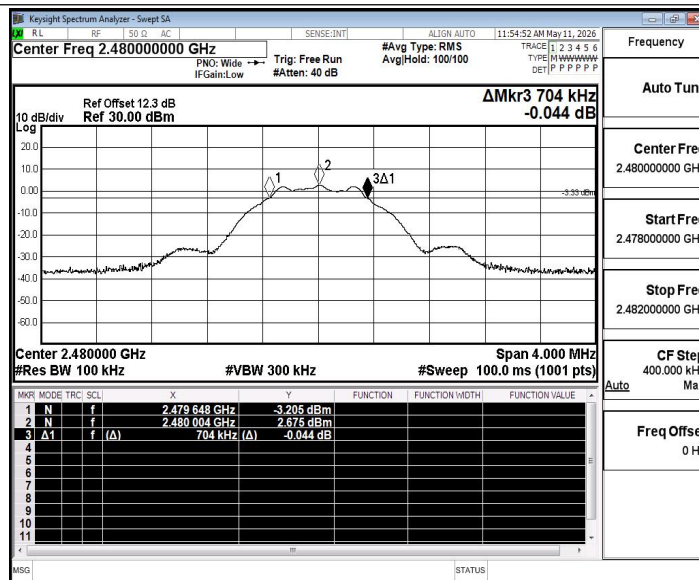
BLE_1M_Ant1_2402



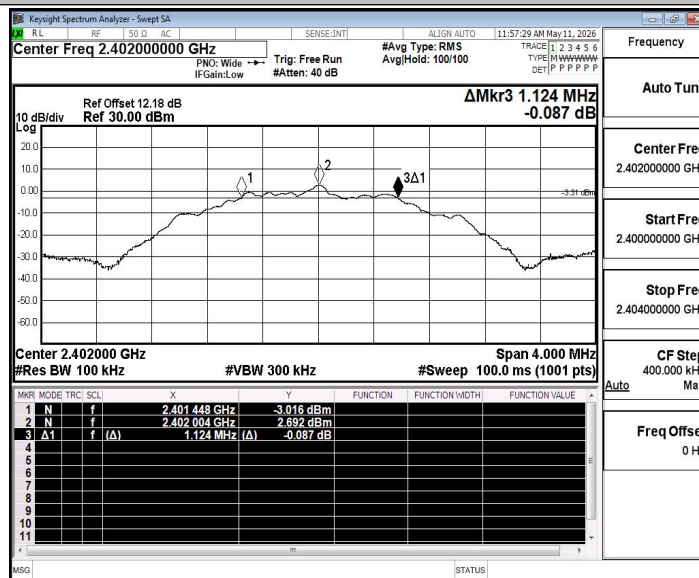
BLE_1M_Ant1_2440



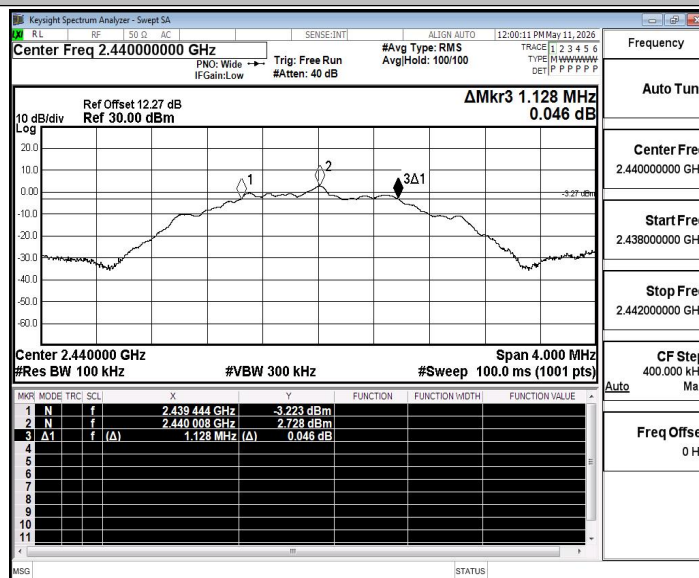
BLE_1M_Ant1_2480



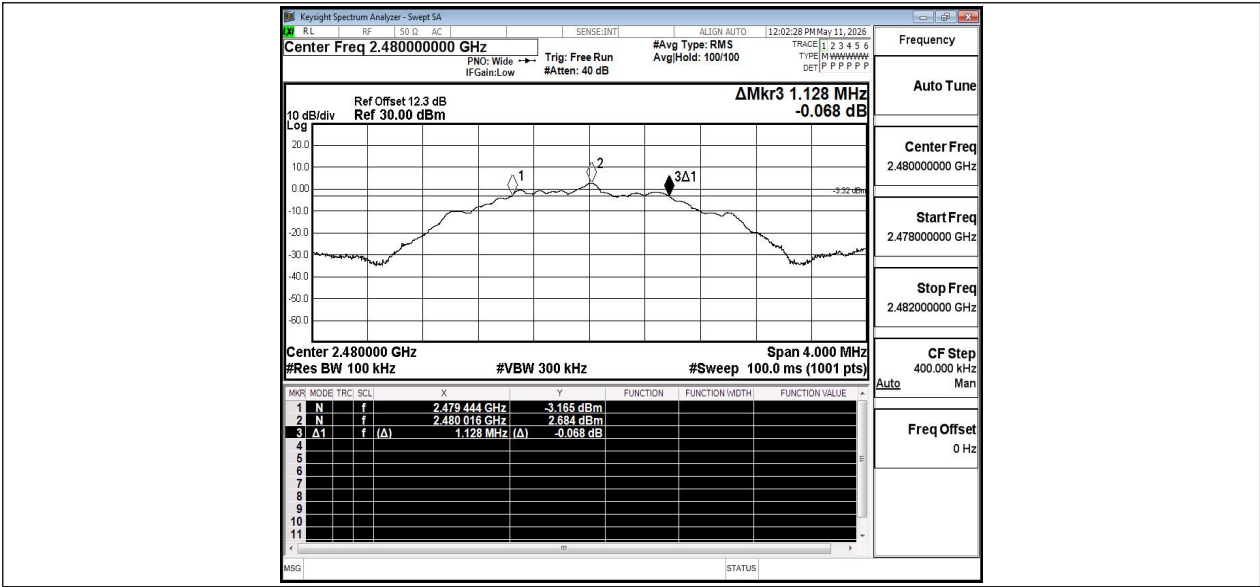
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

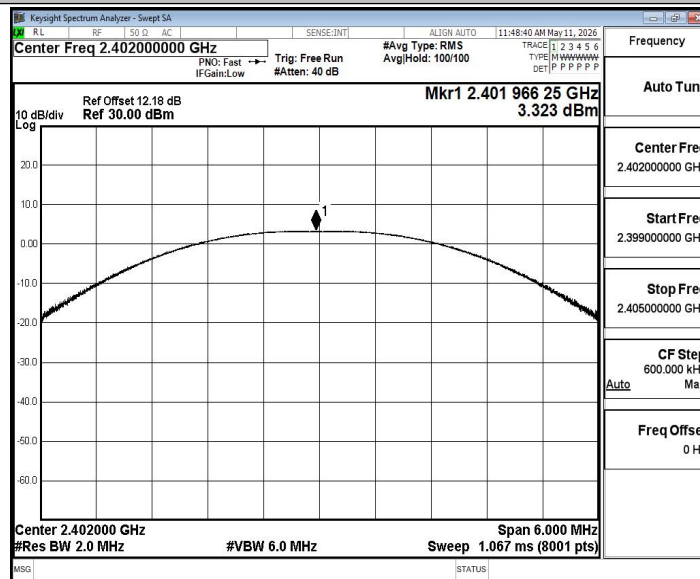


A.2 Maximum Peak conducted output power

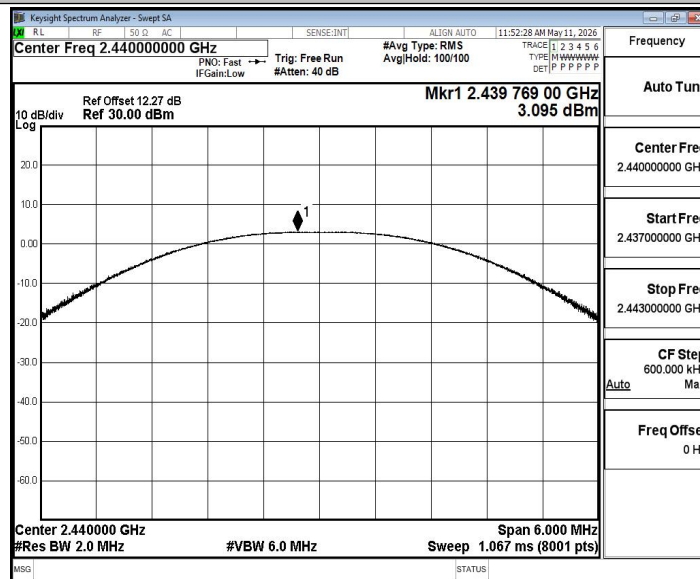
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.32	≤30	PASS
		2440	3.10	≤30	PASS
		2480	3.10	≤30	PASS
BLE_2M	Ant1	2402	3.06	≤30	PASS
		2440	3.07	≤30	PASS
		2480	3.13	≤30	PASS

Test Graphs Peak

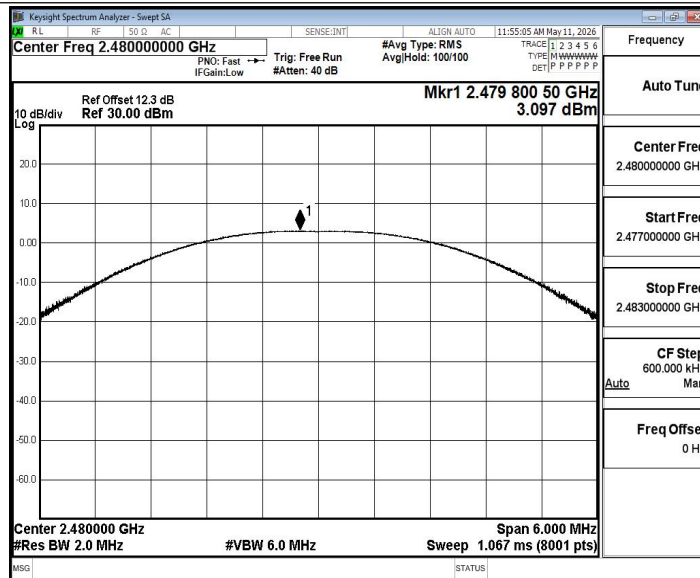
BLE_1M_Ant1_2402



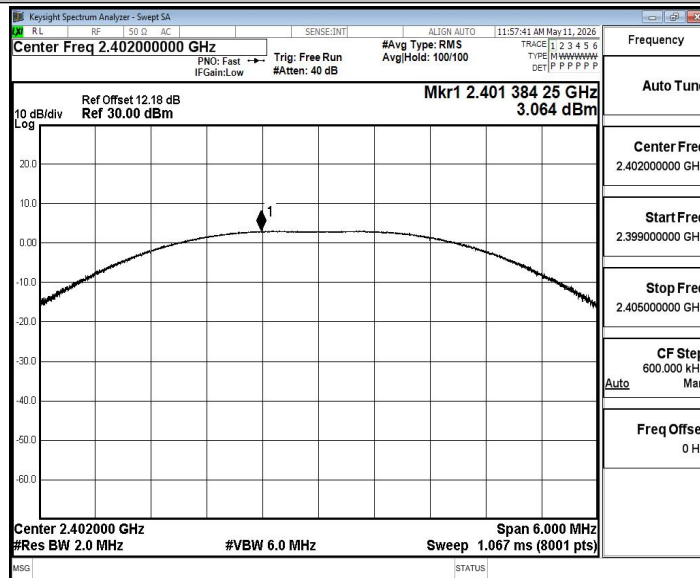
BLE_1M_Ant1_2440



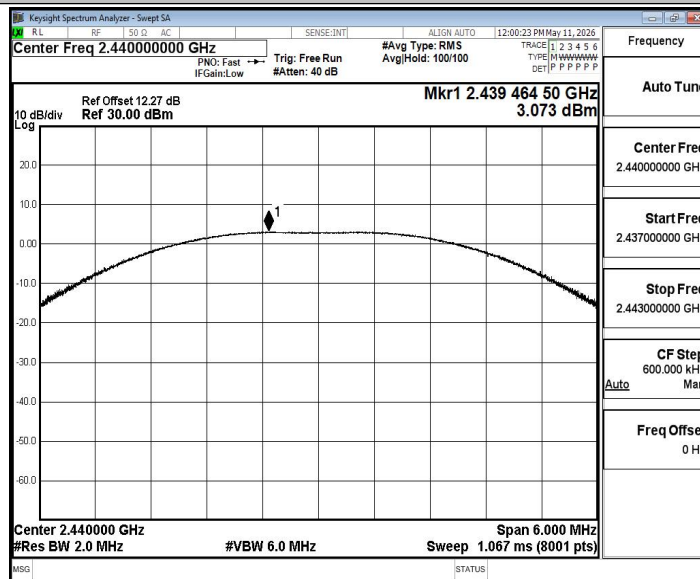
BLE_1M_Ant1_2480



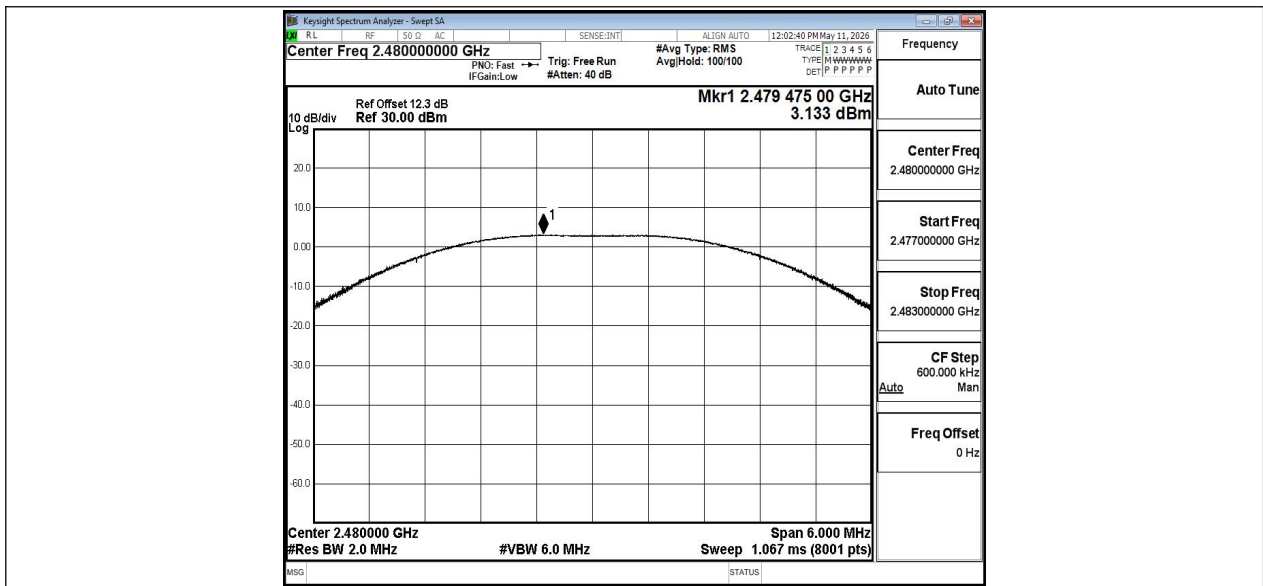
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

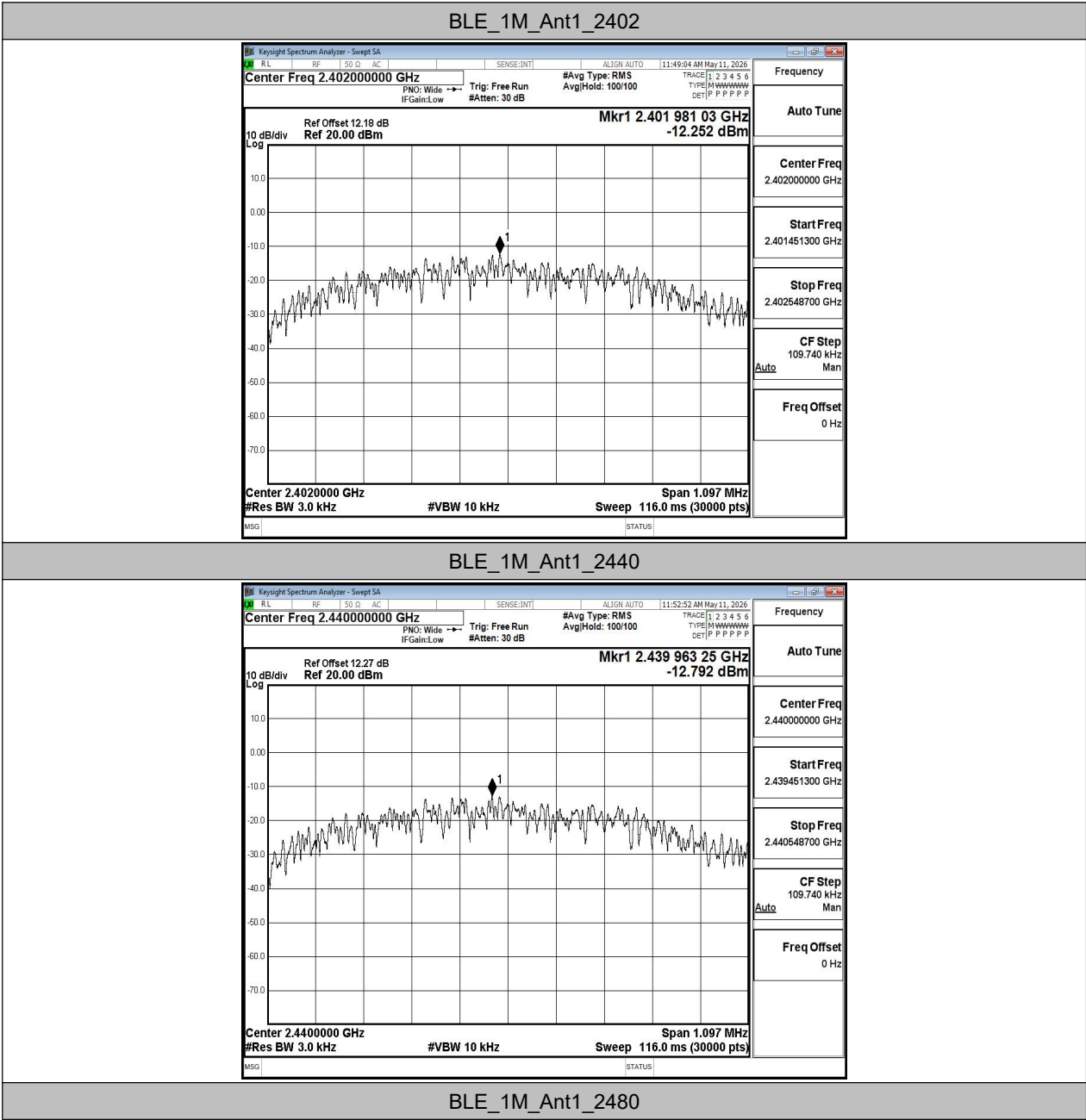


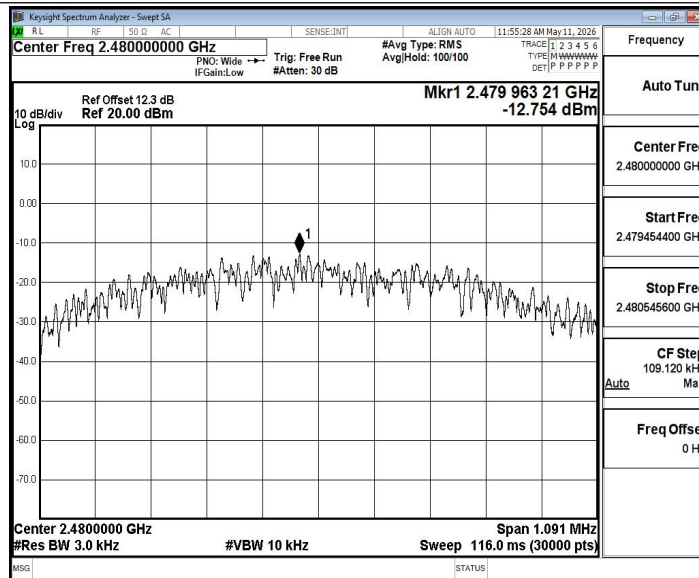
A.3 Maximum power spectral density

Test Result

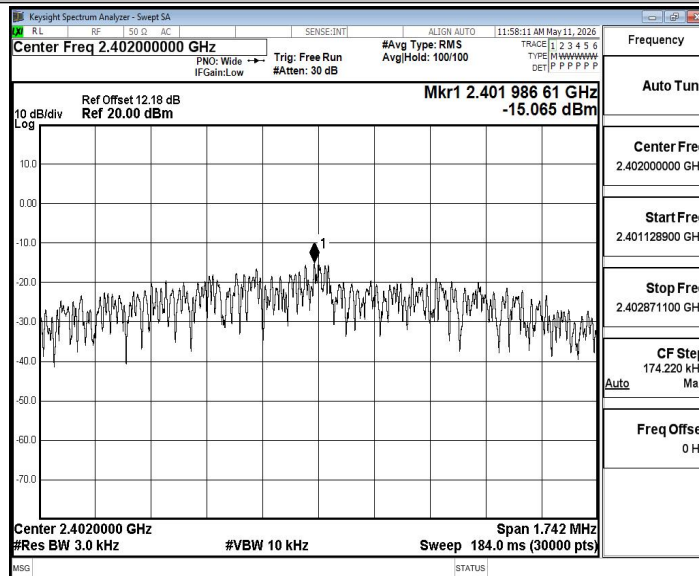
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.25	≤8.00	PASS
		2440	-12.79	≤8.00	PASS
		2480	-12.75	≤8.00	PASS
BLE_2M	Ant1	2402	-15.07	≤8.00	PASS
		2440	-15.37	≤8.00	PASS
		2480	-15.32	≤8.00	PASS

Test Graphs

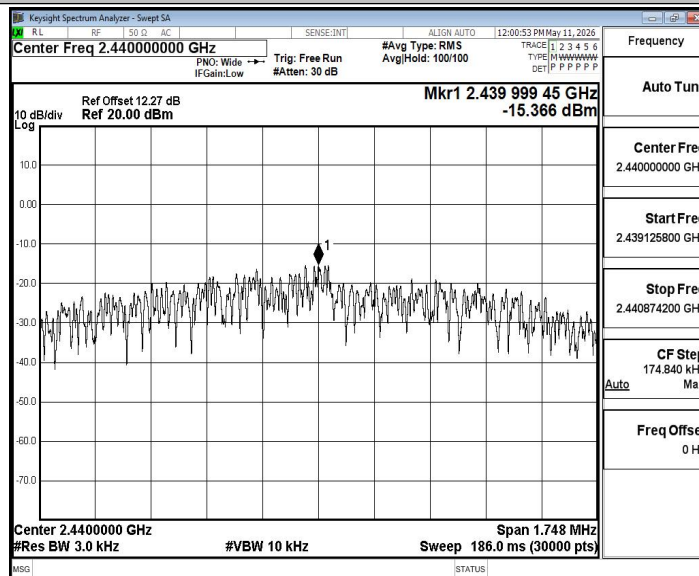




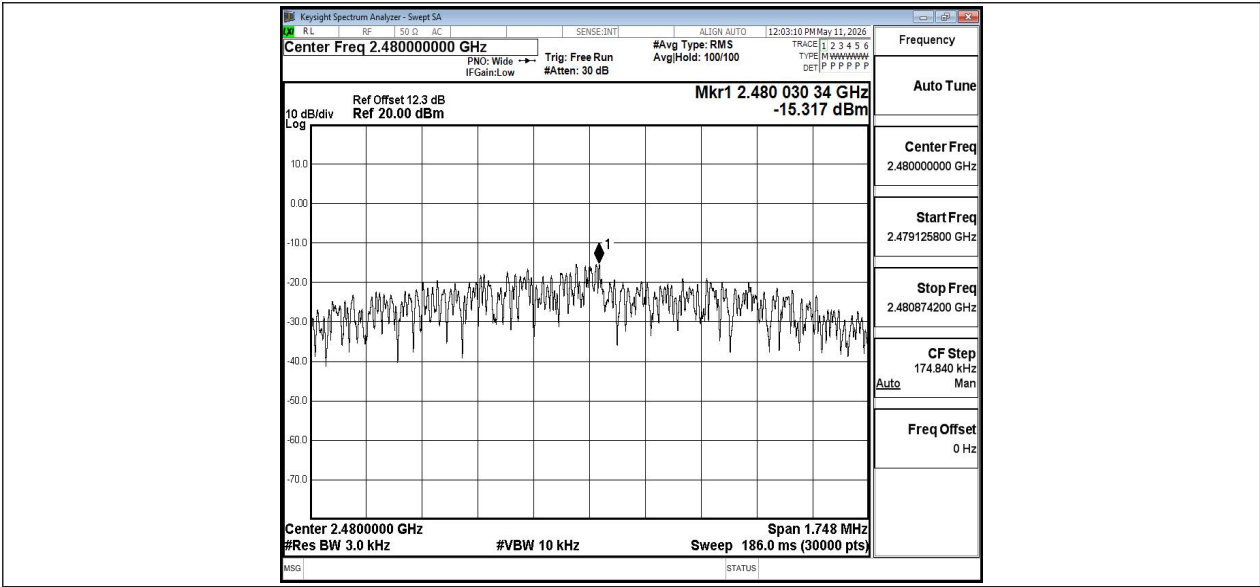
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

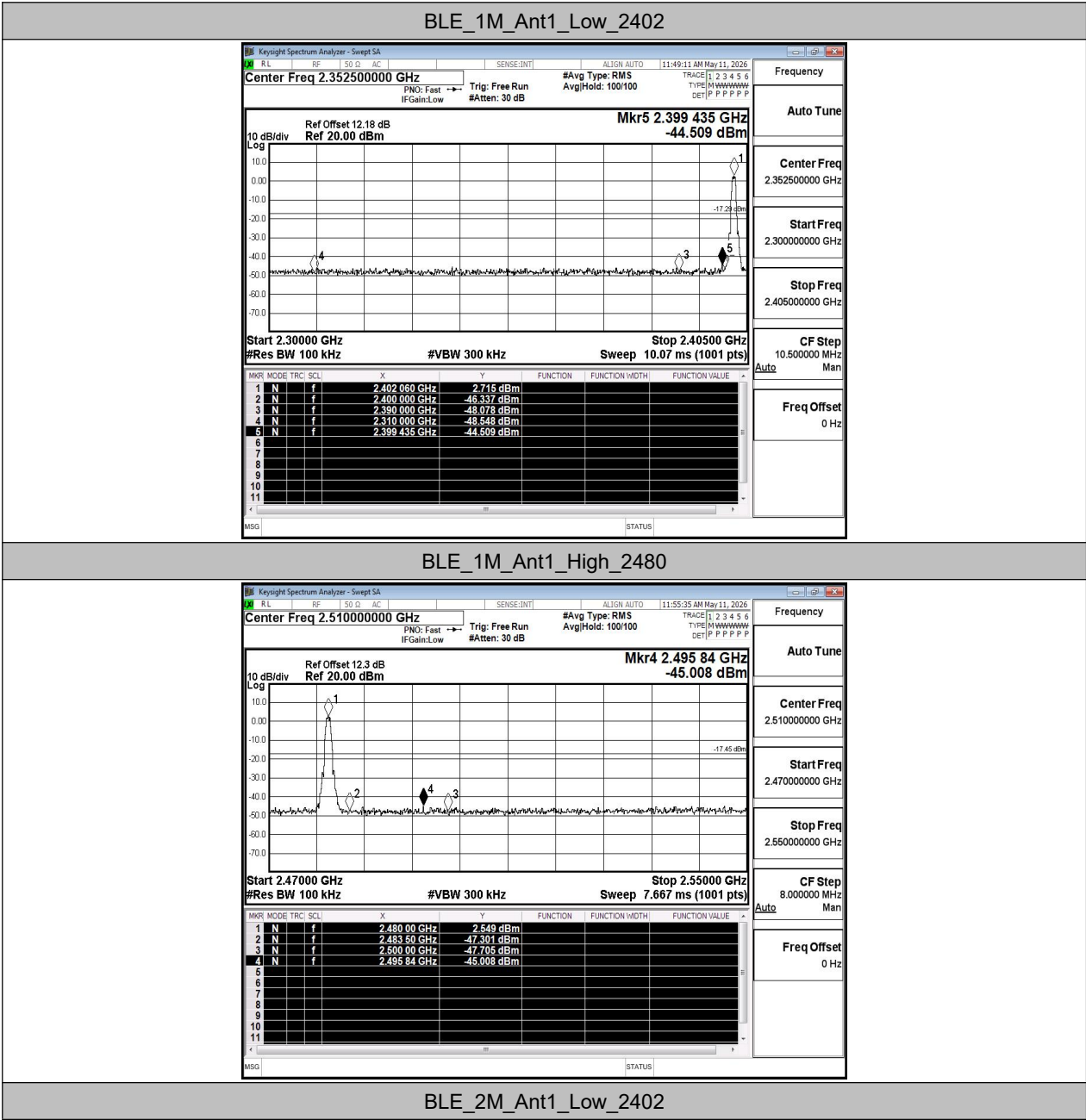


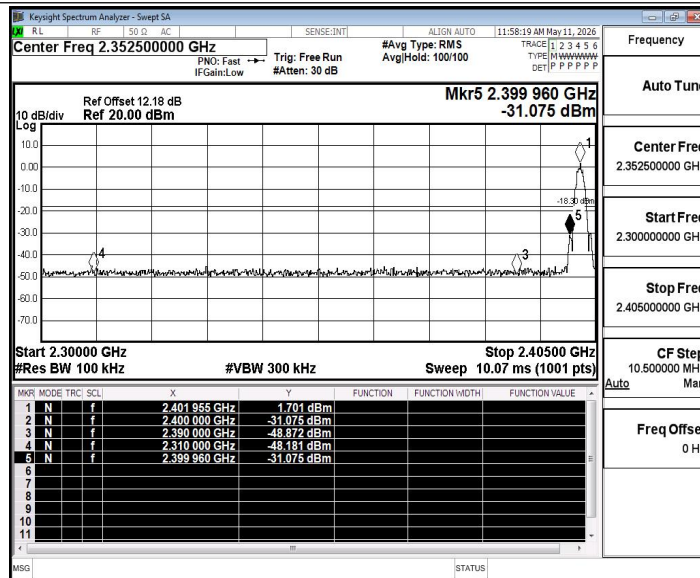
A.4 Band edge measurements

Test Result

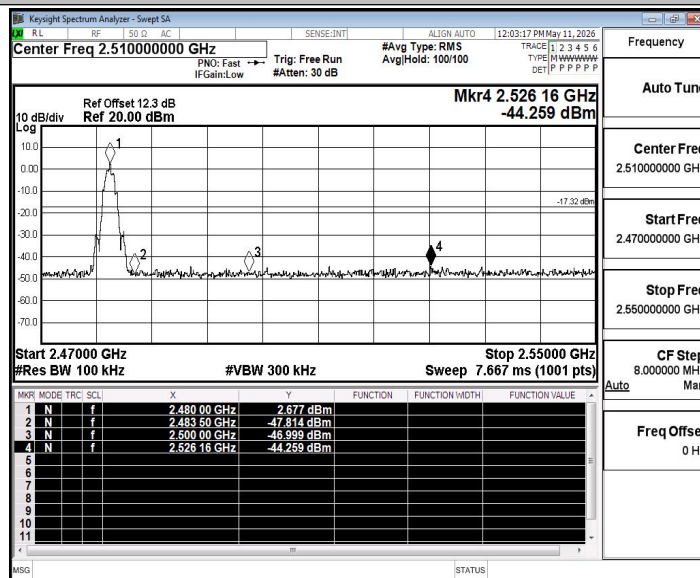
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.72	-44.51	≤-17.29	PASS
		High	2480	2.55	-45.01	≤-17.45	PASS
BLE_2M	Ant1	Low	2402	1.70	-31.08	≤-18.3	PASS
		High	2480	2.68	-44.26	≤-17.32	PASS

Test Graphs





BLE_2M_Ant1_High_2480



A.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.91	2.91	---	PASS
			30~1000	2.91	-69.54	≤-17.09	PASS
			1000~26500	2.91	-43.05	≤-17.09	PASS
		2440	Reference	2.59	2.59	---	PASS
			30~1000	2.59	-69.09	≤-17.41	PASS
			1000~26500	2.59	-43.24	≤-17.41	PASS
		2480	Reference	2.63	2.63	---	PASS
			30~1000	2.63	-68.96	≤-17.37	PASS
			1000~26500	2.63	-42.56	≤-17.37	PASS
BLE_2M	Ant1	2402	Reference	2.64	2.64	---	PASS
			30~1000	2.64	-69.35	≤-17.36	PASS
			1000~26500	2.64	-42.44	≤-17.36	PASS
		2440	Reference	2.62	2.62	---	PASS
			30~1000	2.62	-69.46	≤-17.38	PASS
			1000~26500	2.62	-42.93	≤-17.38	PASS
		2480	Reference	2.64	2.64	---	PASS
			30~1000	2.64	-69.53	≤-17.36	PASS
			1000~26500	2.64	-43.21	≤-17.36	PASS