

Appendix A

RF Test Data for BT LE(Conducted Measurement)

Product Name: Spot

Test Model: F06CDN

Environmental Conditions

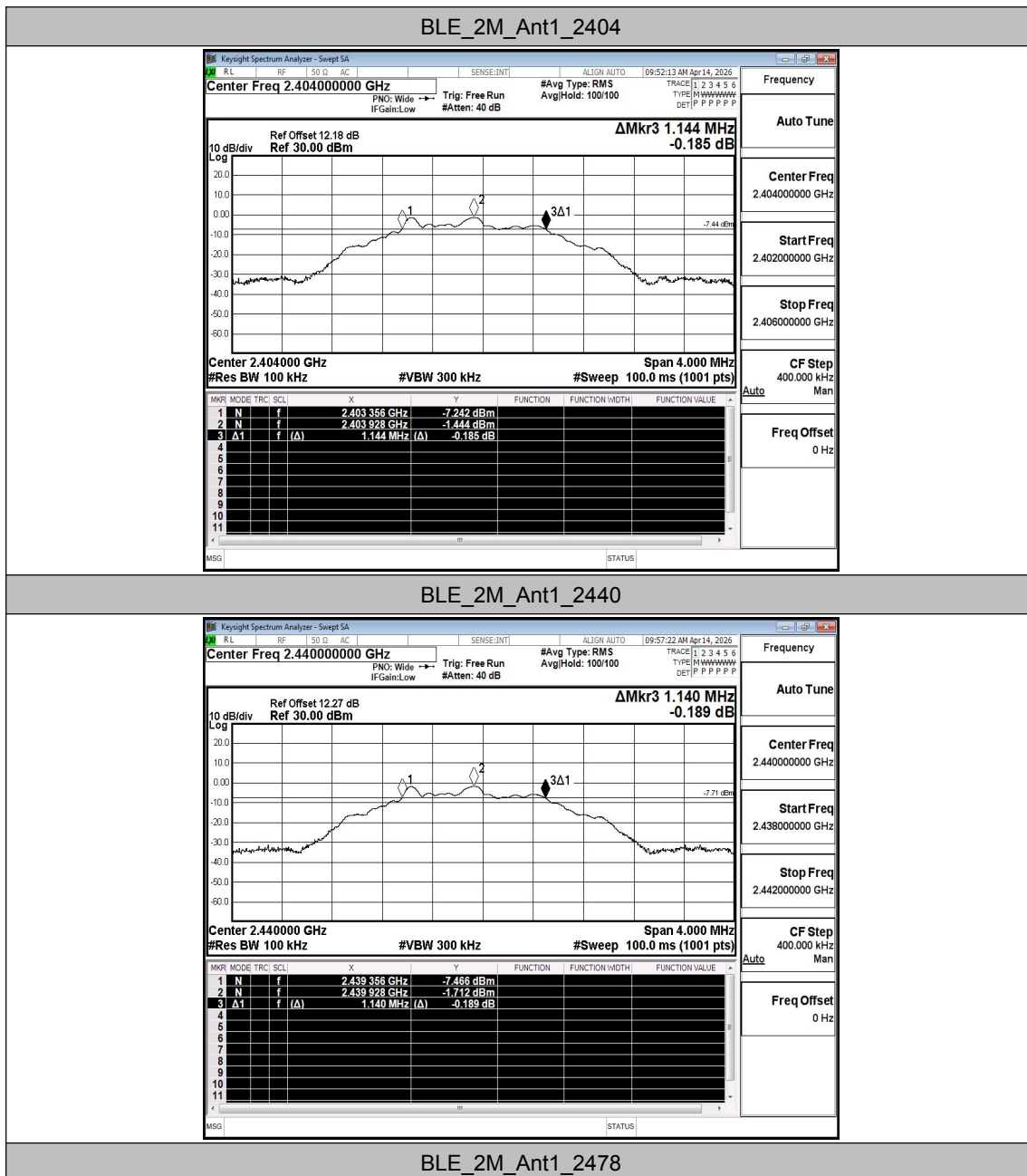
Temperature:	24.1°C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

A.1 DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_2M	Ant1	2404	1.144	2403.356	2404.500	0.5	PASS
		2440	1.140	2439.356	2440.496	0.5	PASS
		2478	1.140	2477.352	2478.492	0.5	PASS

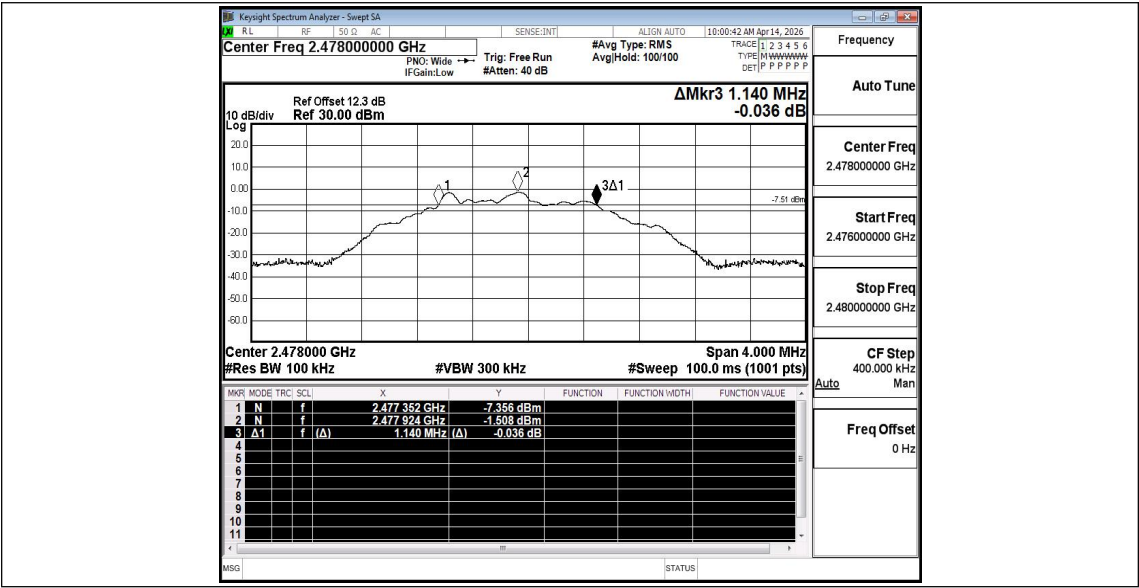
Test Graphs



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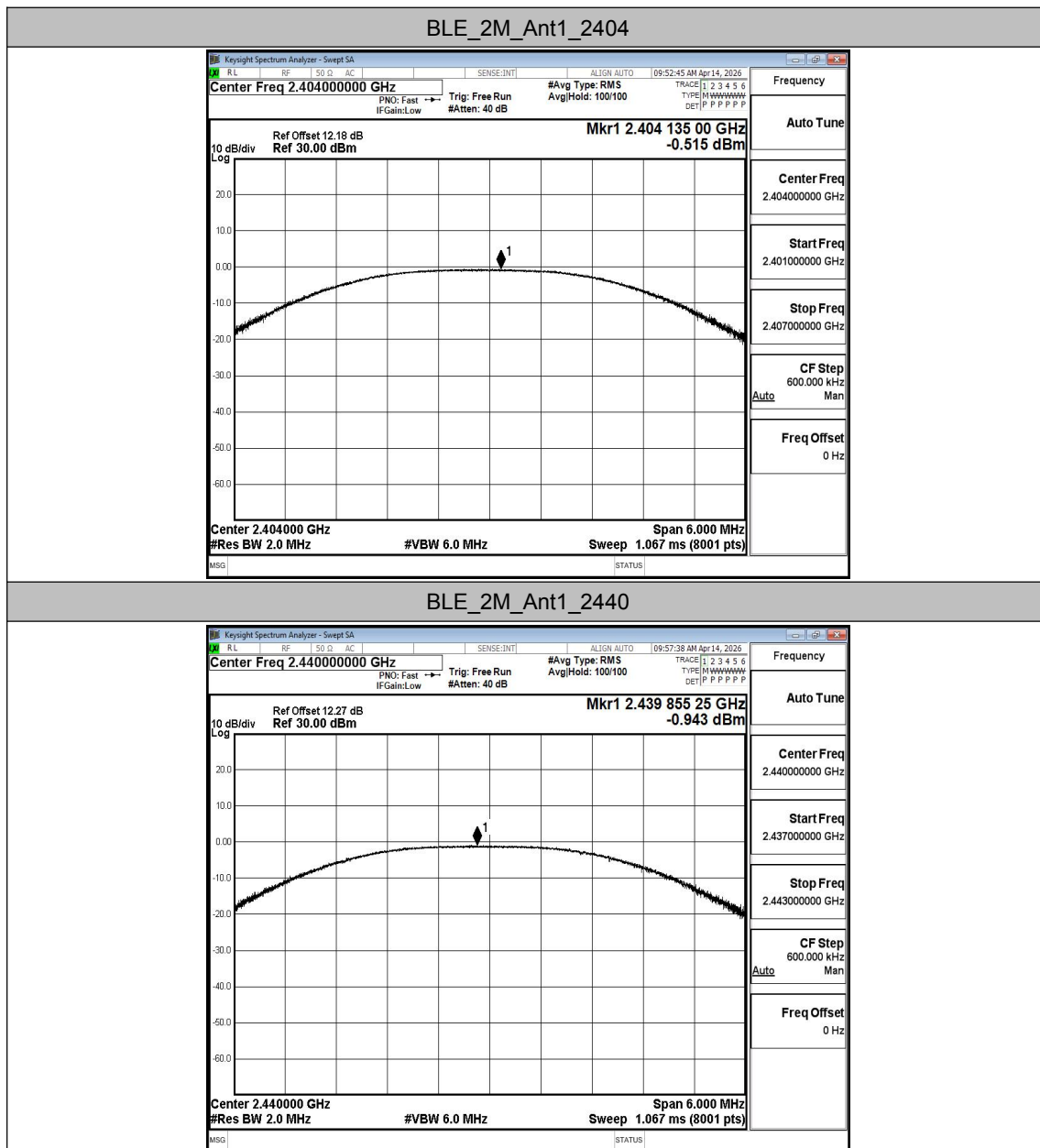


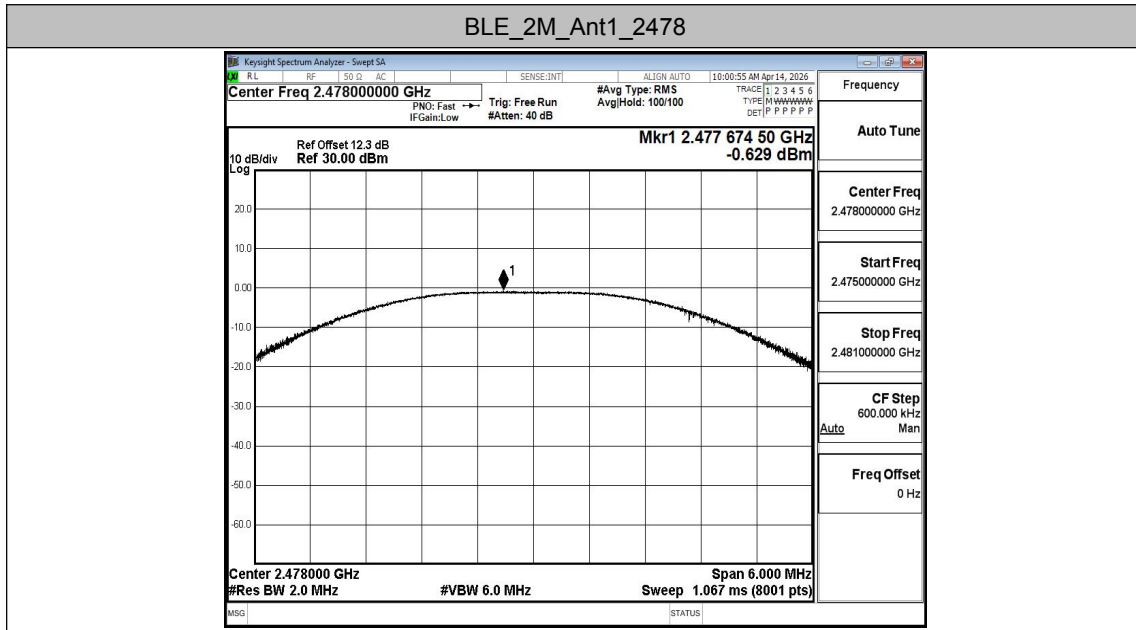
A.2 Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_2M	Ant1	2404	-0.52	≤30	PASS
		2440	-0.94	≤30	PASS
		2478	-0.63	≤30	PASS

Test Graphs Peak



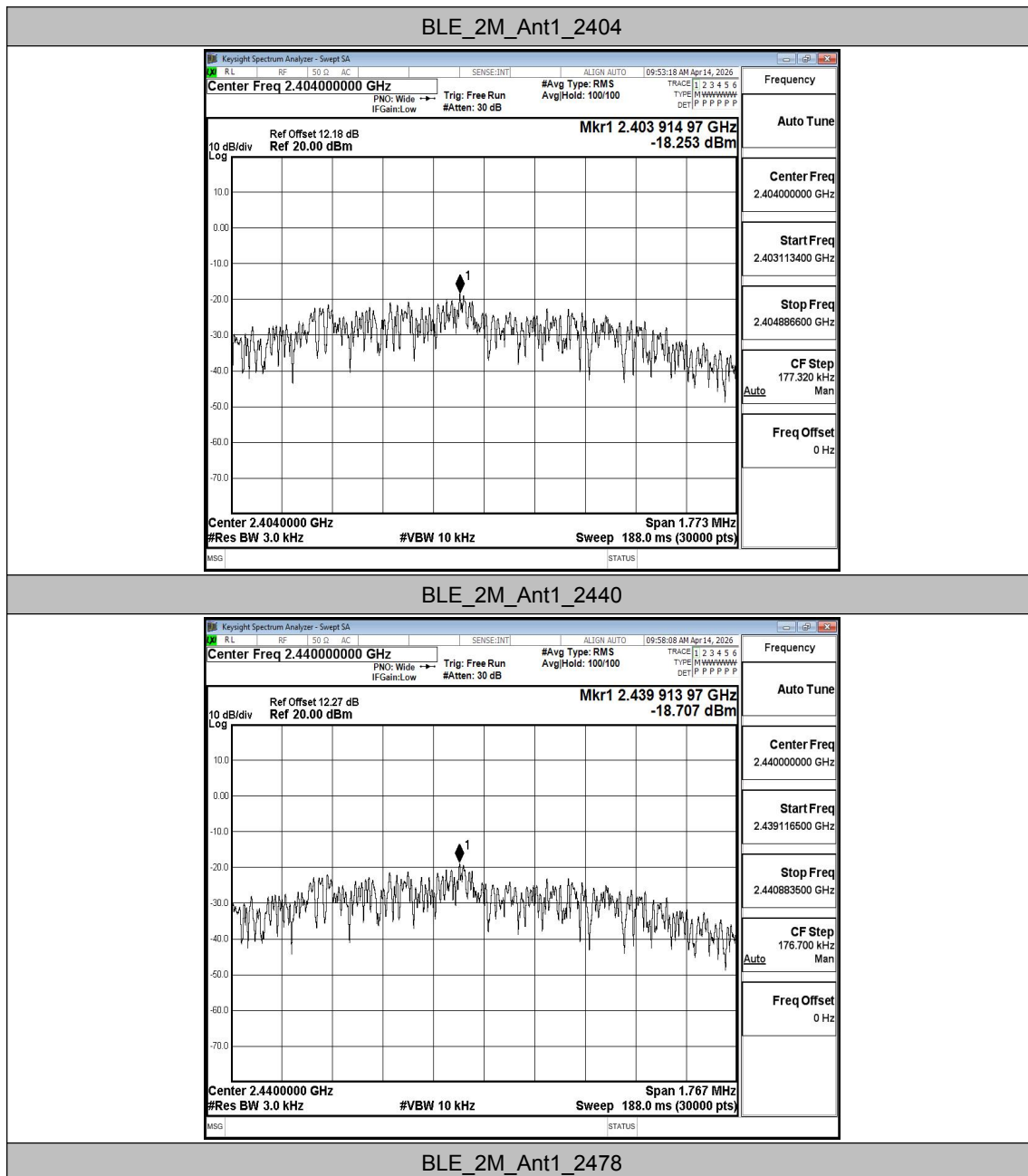


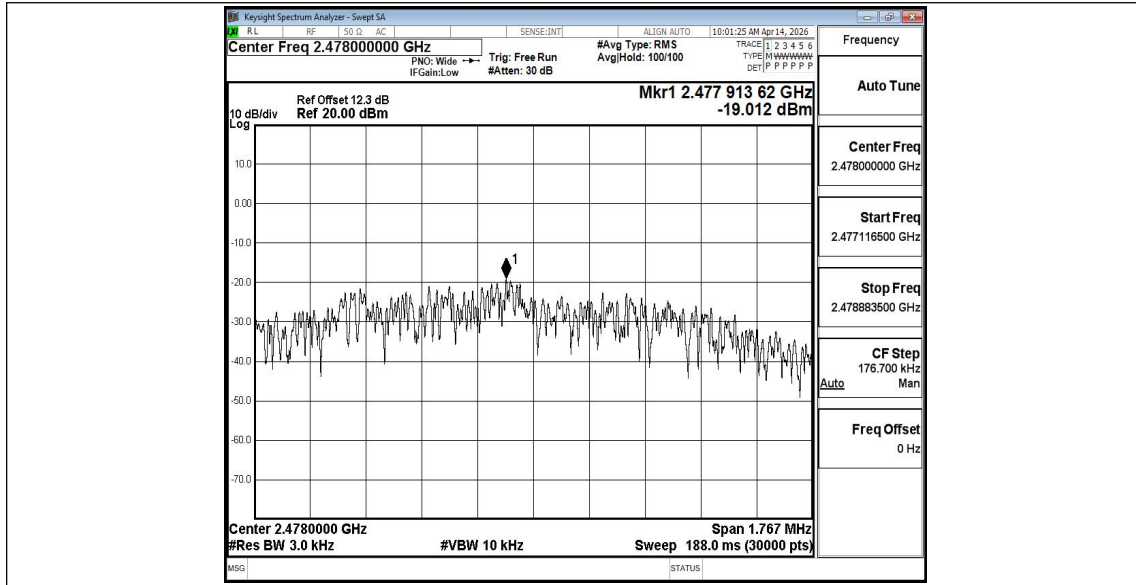
A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_2M	Ant1	2404	-18.25	≤8.00	PASS
		2440	-18.71	≤8.00	PASS
		2478	-19.01	≤8.00	PASS

Test Graphs



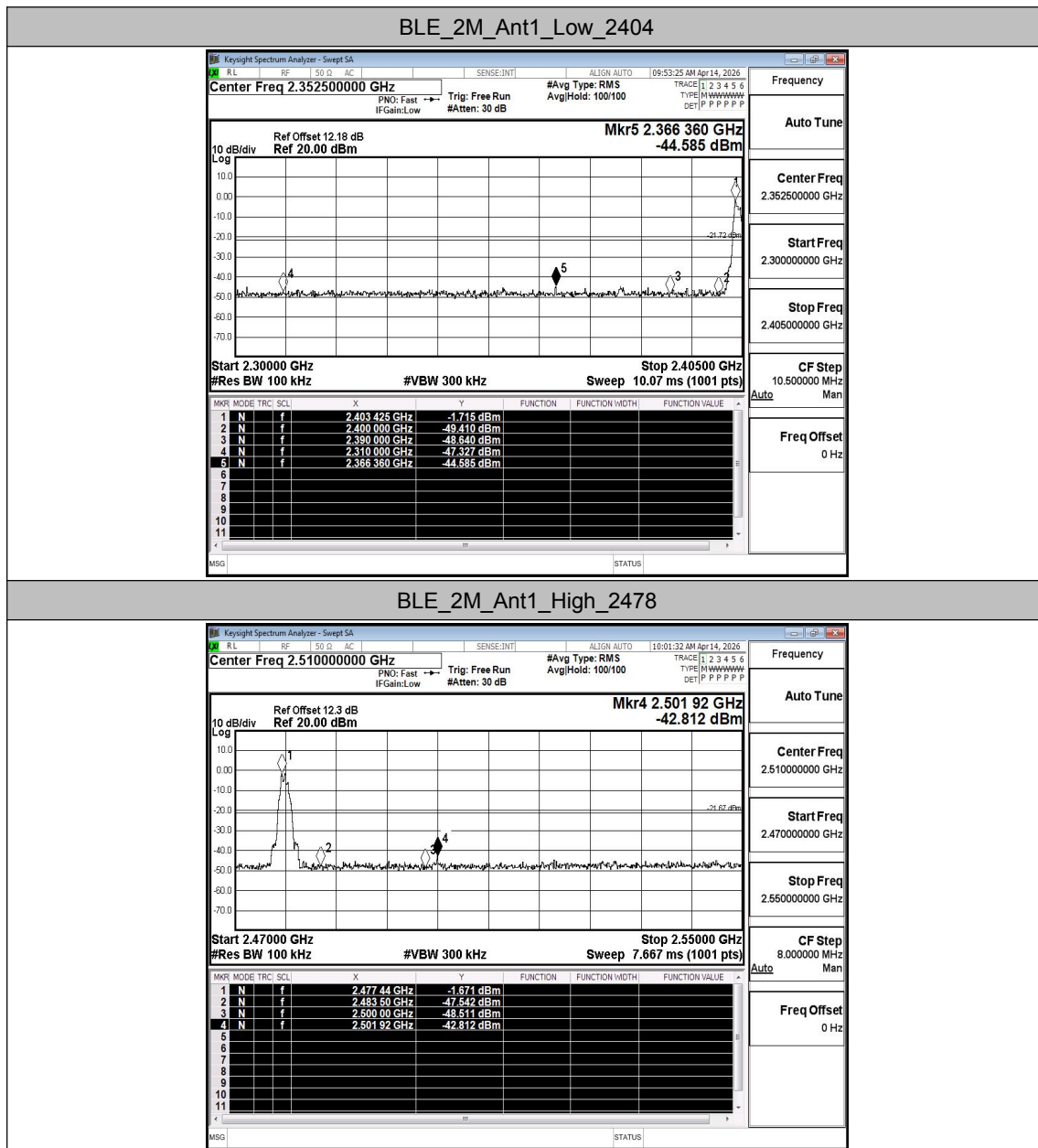


A.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	Low	2404	-1.72	-44.59	≤-21.72	PASS
		High	2478	-1.67	-42.81	≤-21.67	PASS

Test Graphs

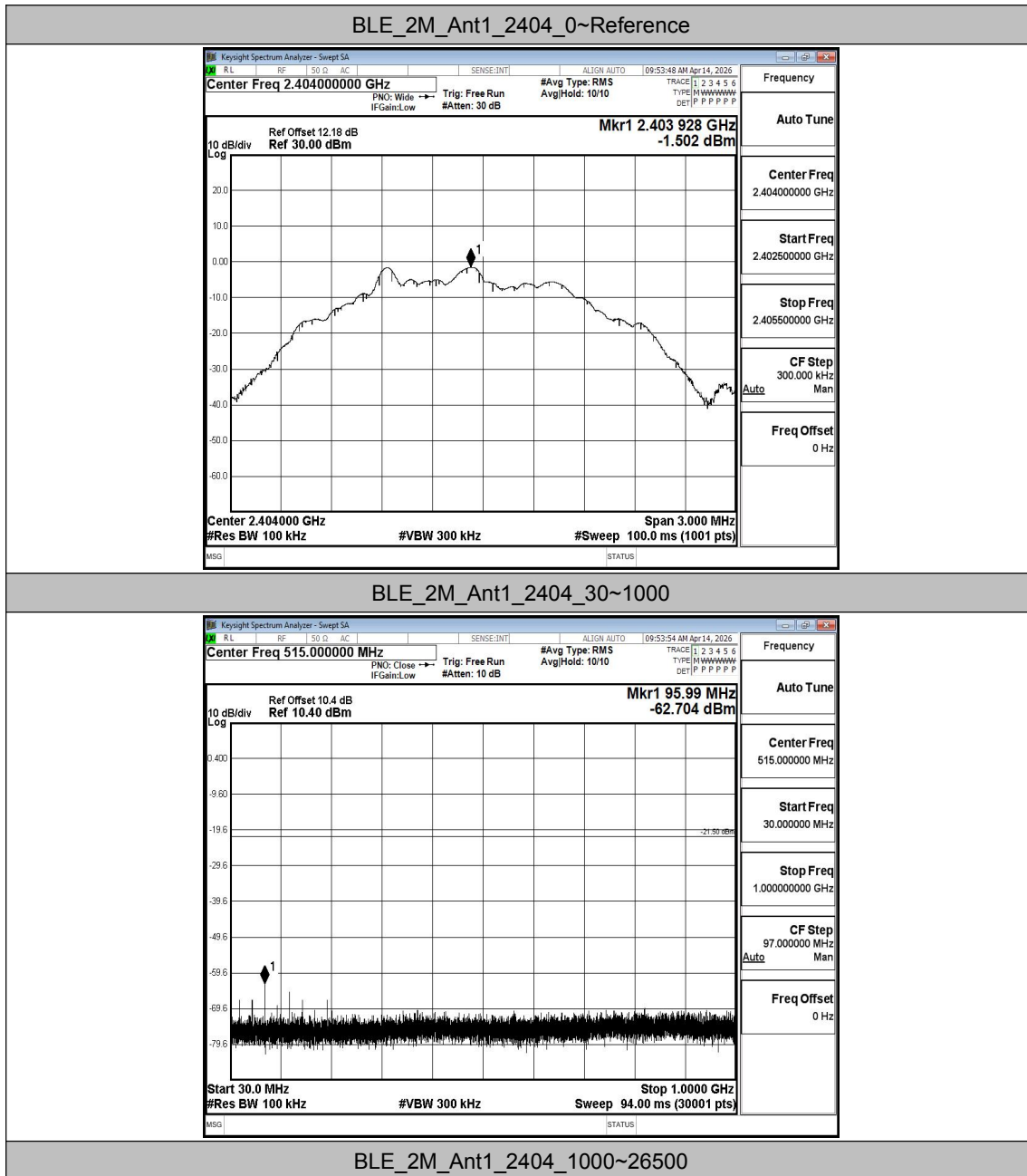


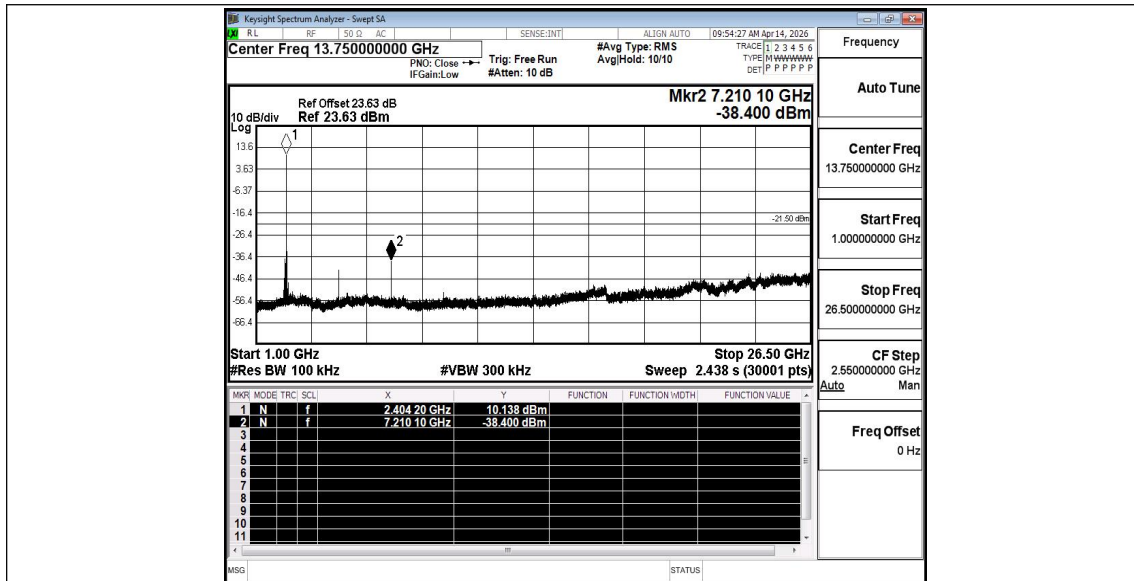
A.5 Conducted Spurious Emission

Test Result

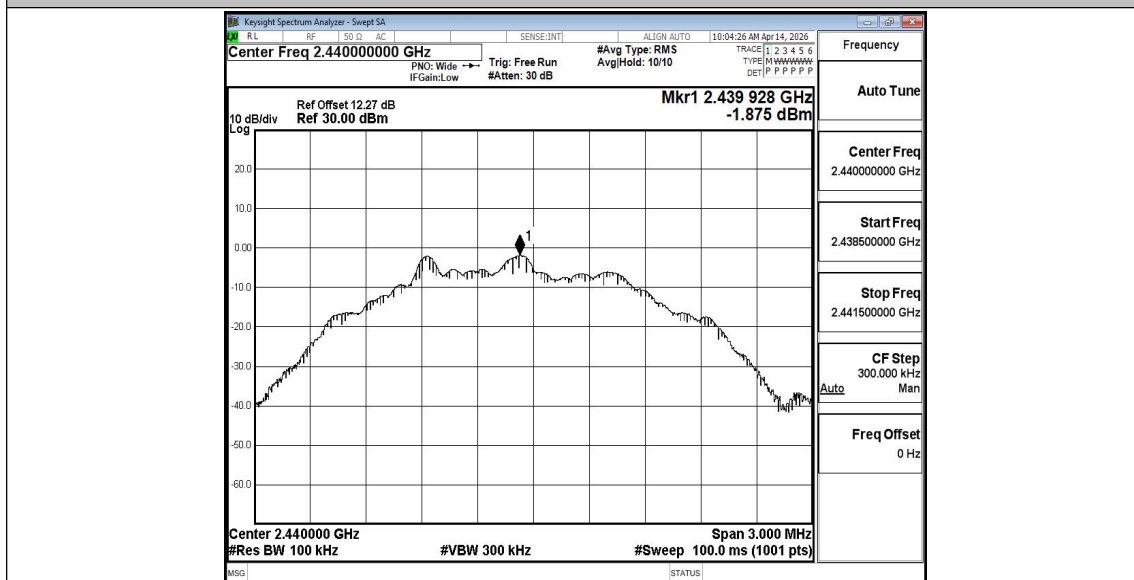
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	2404	Reference	-1.50	-1.50	---	PASS
			30~1000	-1.50	-62.7	≤ -21.5	PASS
			1000~26500	-1.50	-38.4	≤ -21.5	PASS
		2440	Reference	-1.88	-1.88	---	PASS
			30~1000	-1.88	-62.47	≤ -21.88	PASS
			1000~26500	-1.88	-35.56	≤ -21.88	PASS
		2478	Reference	-1.60	-1.60	---	PASS
			30~1000	-1.60	-63.5	≤ -21.6	PASS
			1000~26500	-1.60	-37.07	≤ -21.6	PASS

Test Graphs

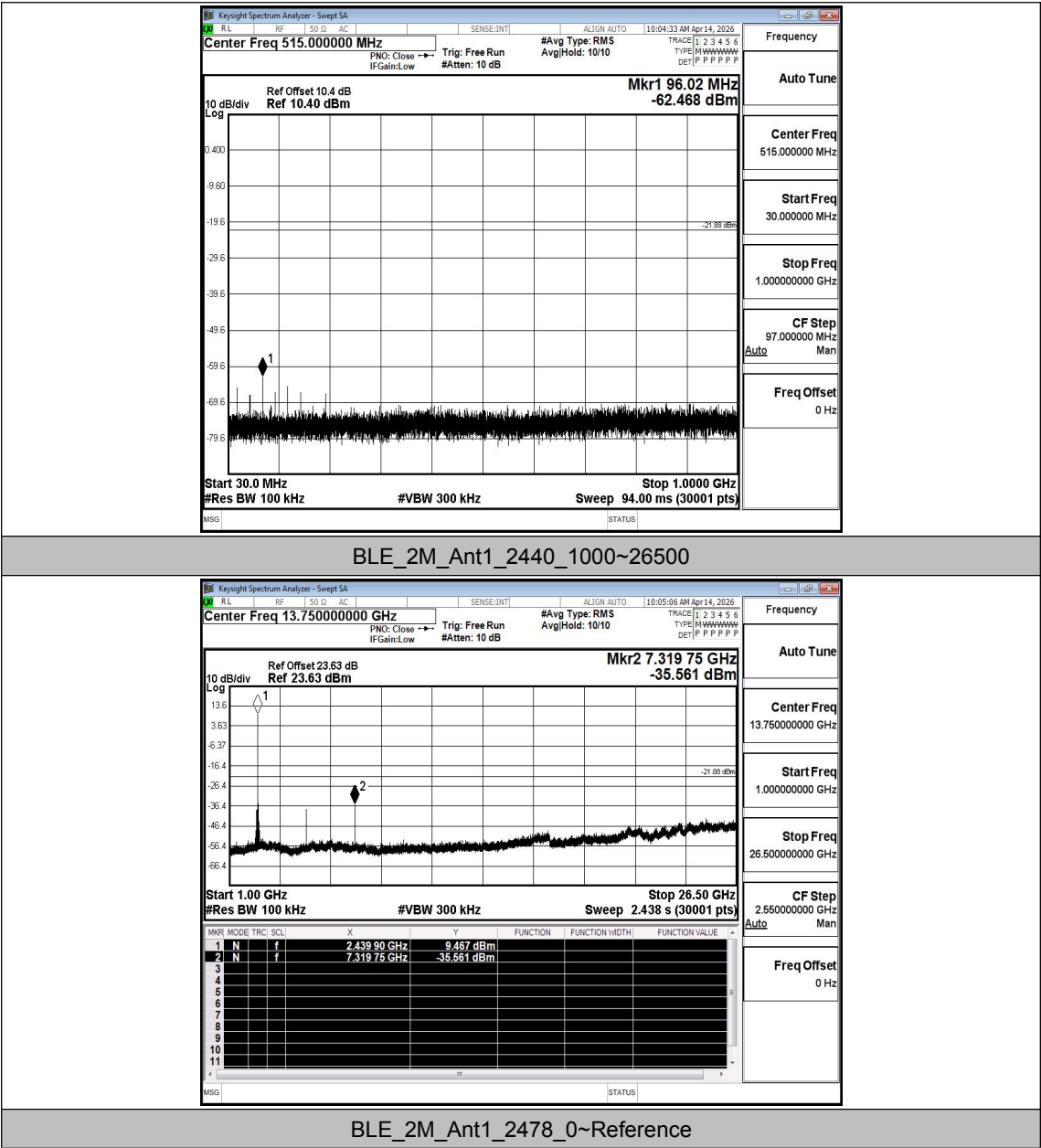


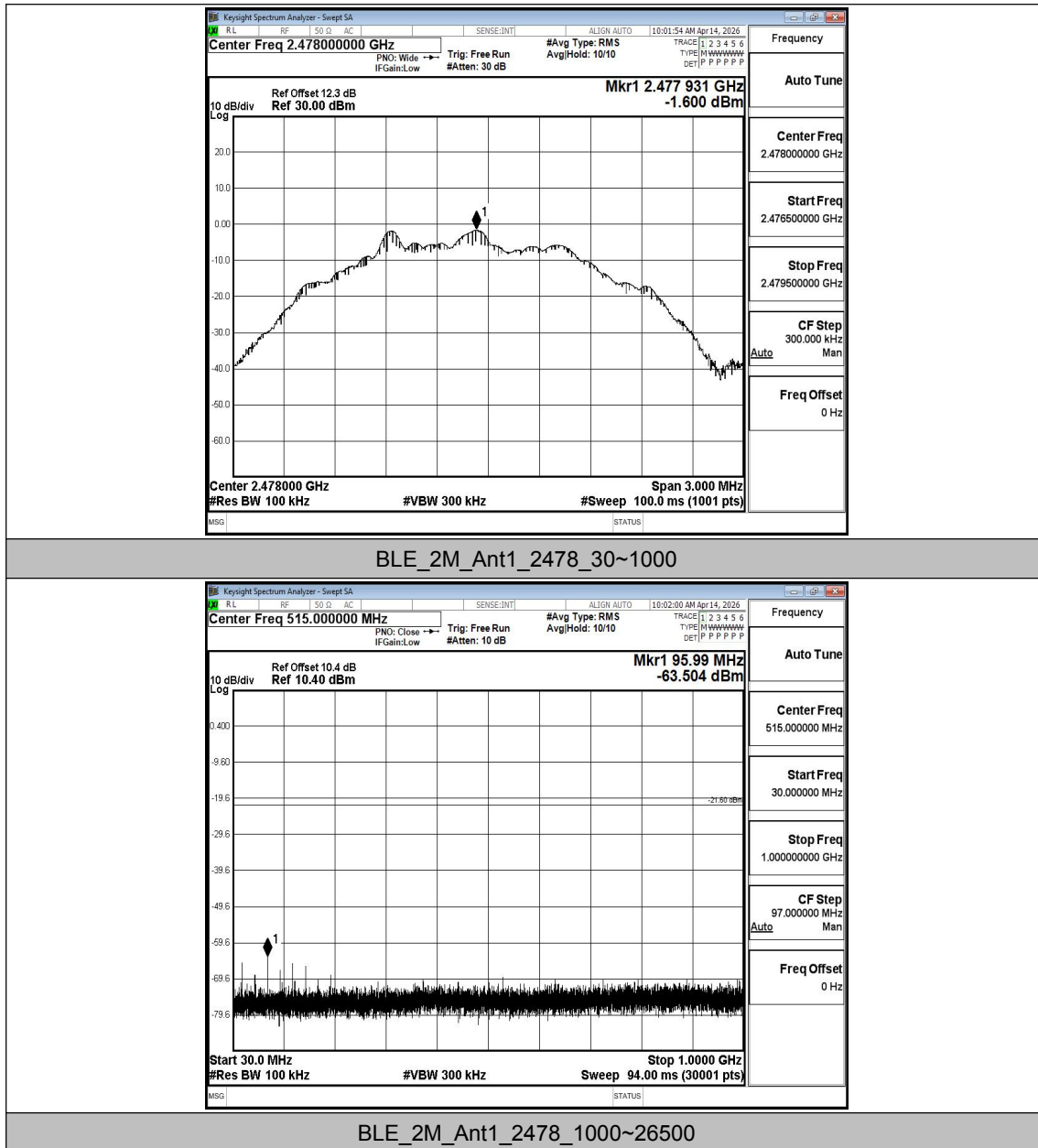


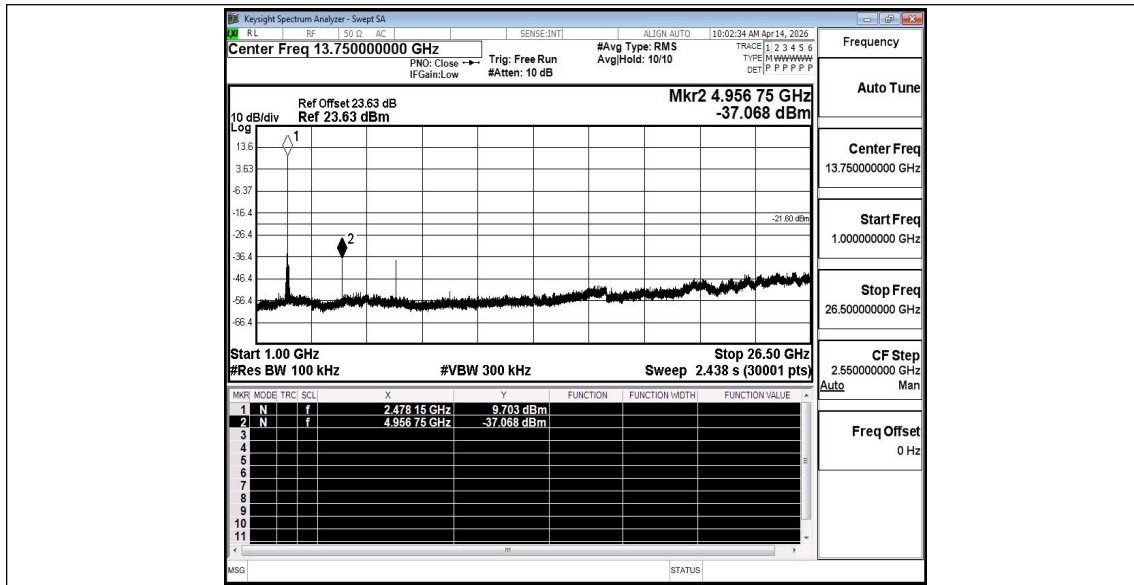
BLE_2M_Ant1_2440_0~Reference



BLE_2M_Ant1_2440_30~1000





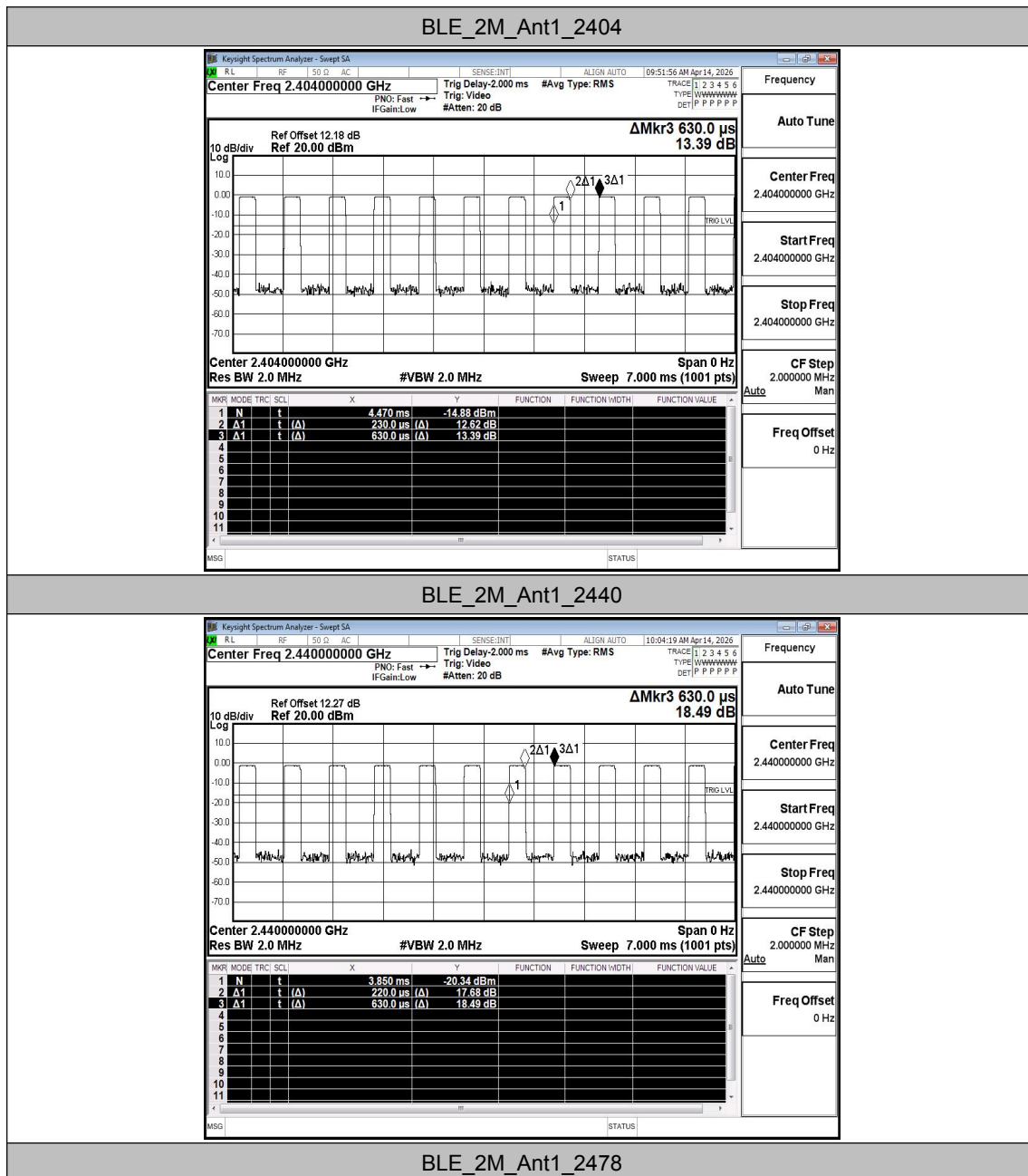


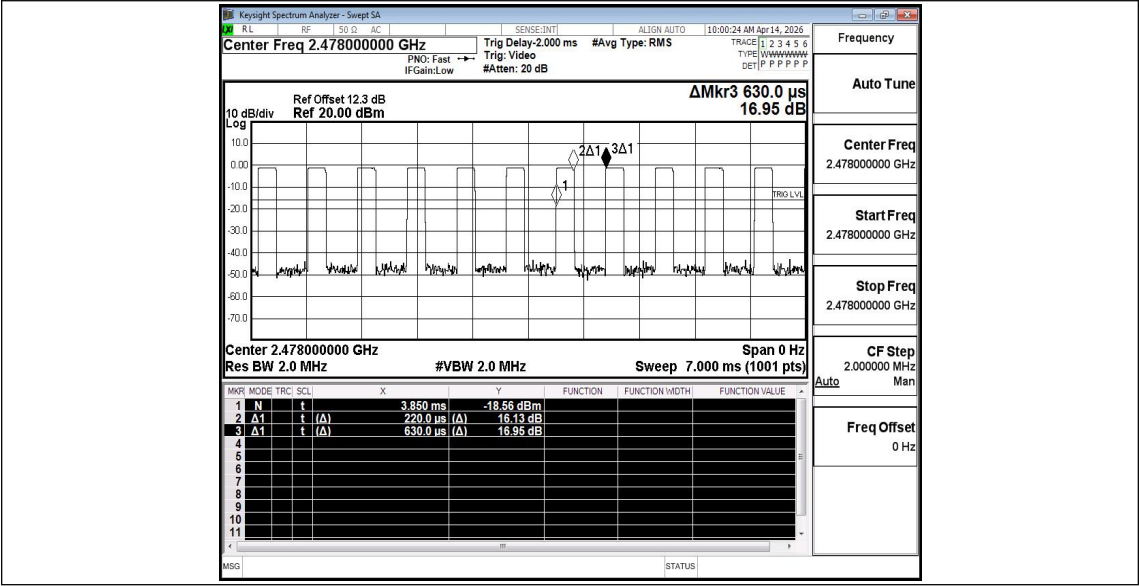
A.6 Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_2M	Ant1	2404	0.23	0.63	0.3651	36.51	4.38	---	---
		2440	0.22	0.63	0.3492	34.92	4.57	---	---
		2478	0.22	0.63	0.3492	34.92	4.57	---	---

Test Graphs





A.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_2M	Ant1	Low	2404	AV	2310.000	-56.79	≤-47.58	2.00	4.38	44.79	≤54	PASS
				AV	2379.800	-51.33	≤-47.58	2.00	4.38	50.25	≤54	PASS
				AV	2390.000	-56.85	≤-47.58	2.00	4.38	44.73	≤54	PASS
				Peak	2310.000	-49.39	≤-23.20	2.00	0.00	47.81	≤74	PASS
				Peak	2379.905	-42.22	≤-23.20	2.00	0.00	54.98	≤74	PASS
				Peak	2390.000	-48.85	≤-23.20	2.00	0.00	48.35	≤74	PASS
		High	2478	AV	2483.500	-56.15	≤-47.77	2.00	4.57	45.62	≤54	PASS
				AV	2485.440	-55.73	≤-47.77	2.00	4.57	46.04	≤54	PASS
				AV	2500.000	-56.62	≤-47.77	2.00	4.57	45.15	≤54	PASS
				Peak	2483.500	-48.77	≤-23.20	2.00	0.00	48.43	≤74	PASS
				Peak	2489.680	-45.69	≤-23.20	2.00	0.00	51.51	≤74	PASS
				Peak	2500.000	-48.41	≤-23.20	2.00	0.00	48.79	≤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

