



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Smart Phone

Test Model: K1

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li Huan





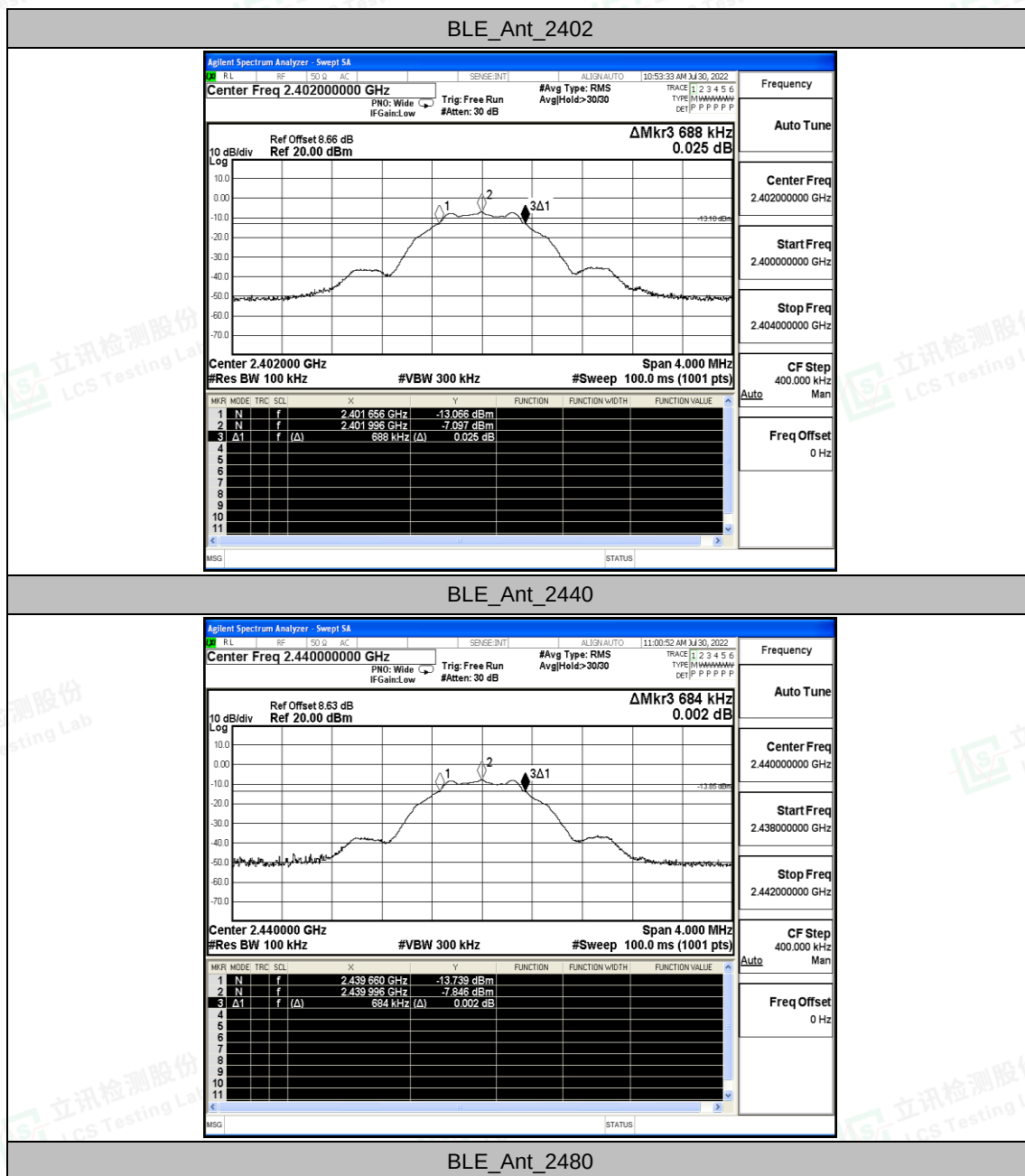
B.1 DTS Bandwidth

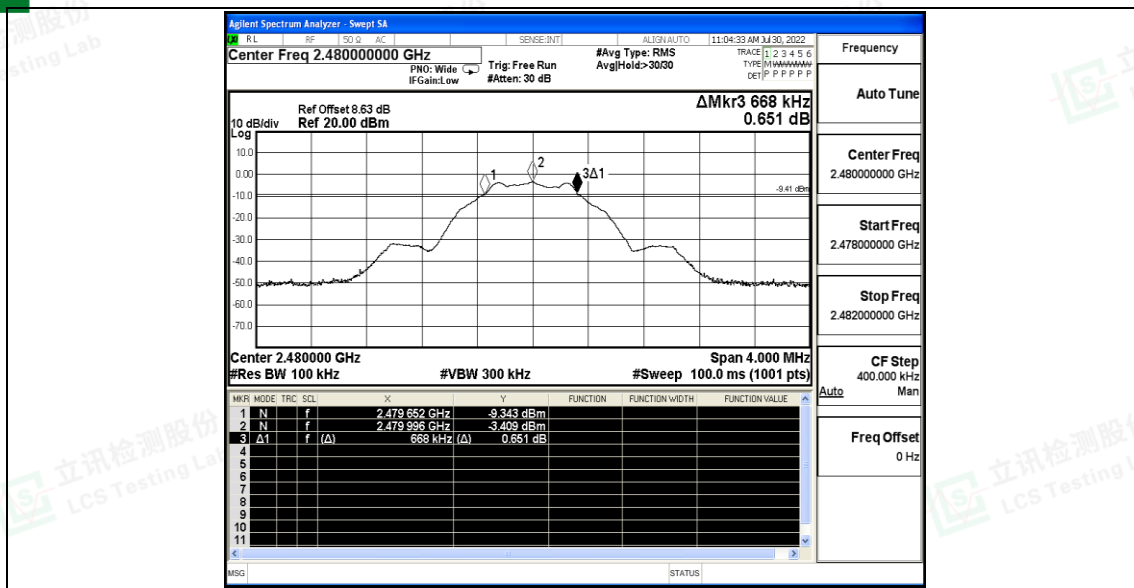
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant	2402	0.688	2401.656	2402.344	0.5	PASS
		2440	0.684	2439.660	2440.344	0.5	PASS
		2480	0.668	2479.652	2480.320	0.5	PASS



Test Graphs





Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



B.2 Maximum conducted output power

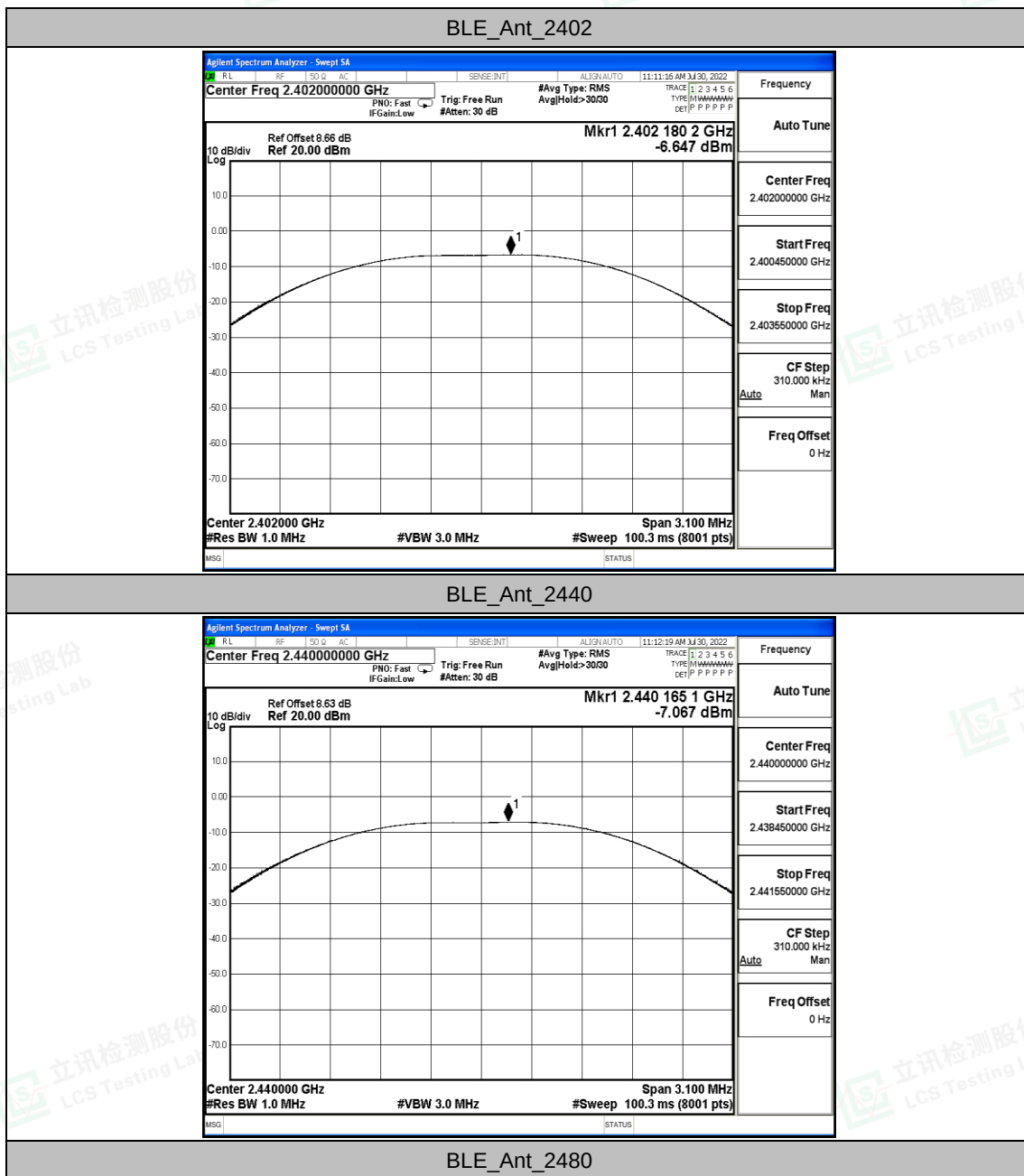
Test Result

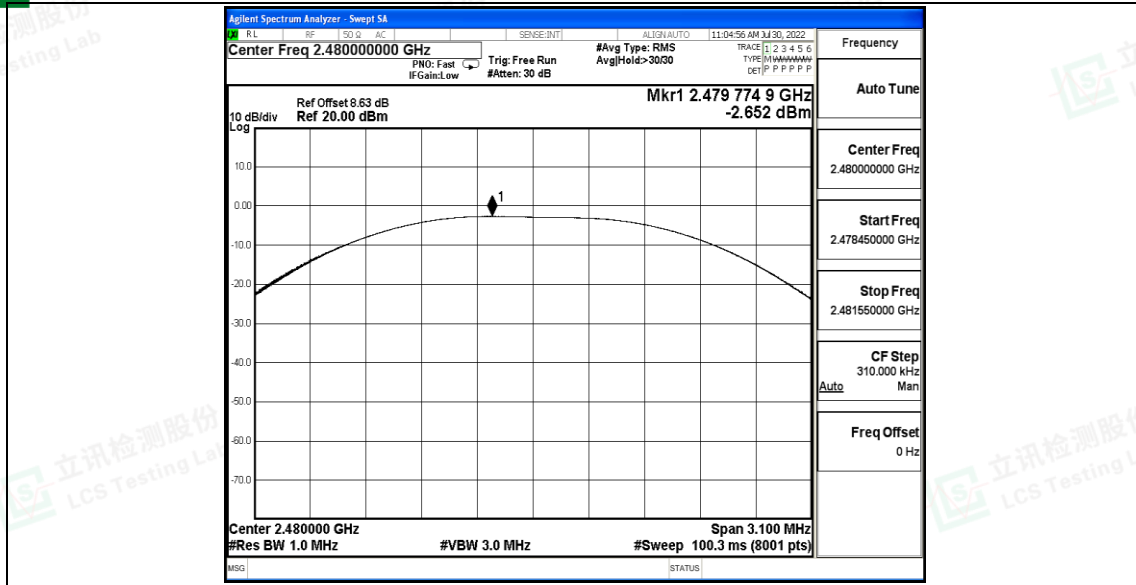
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	-6.65	≤30	PASS
		2440	-7.07	≤30	PASS
		2480	-2.65	≤30	PASS





Test Graphs







B.3 Maximum power spectral density

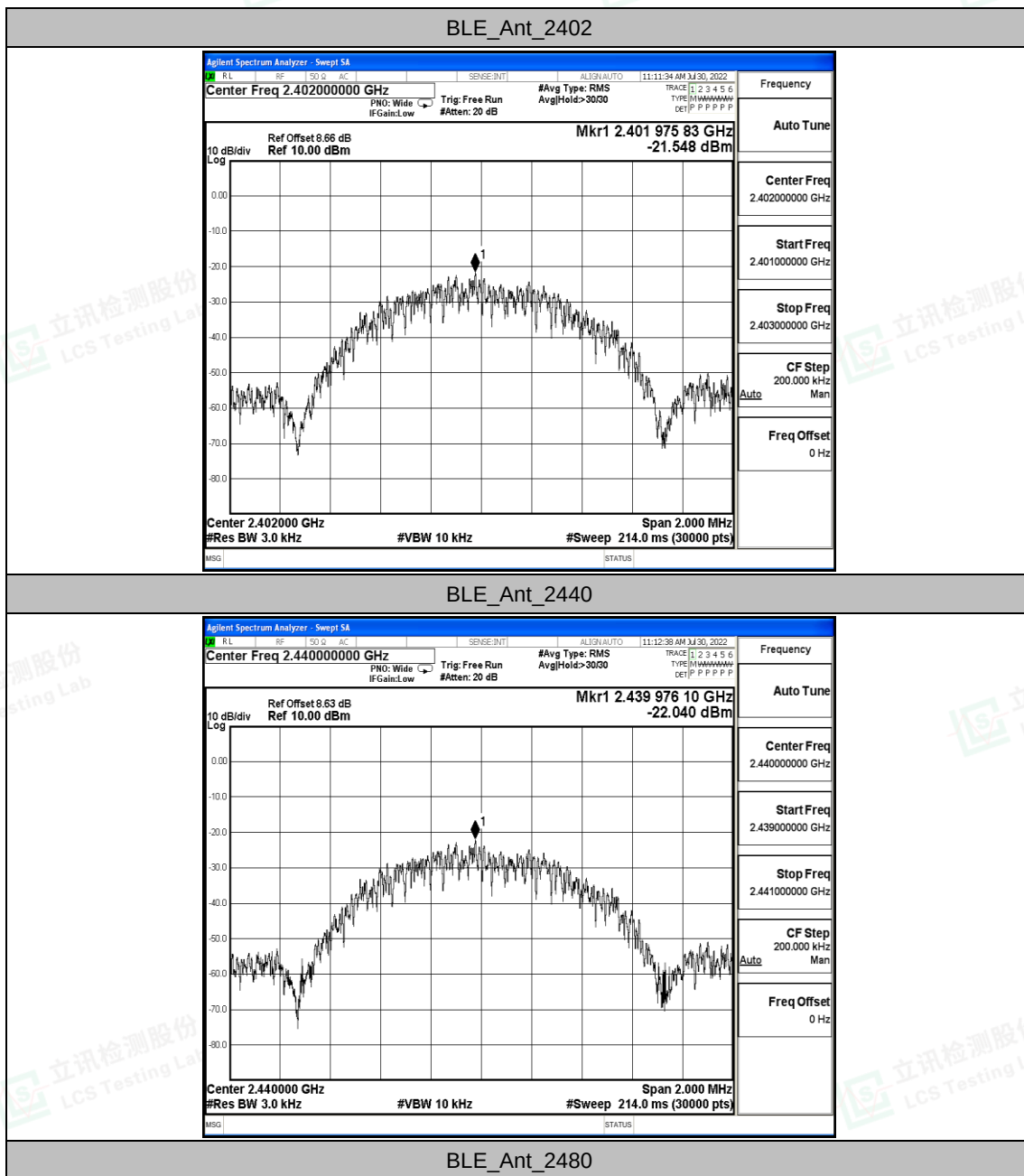
Test Result

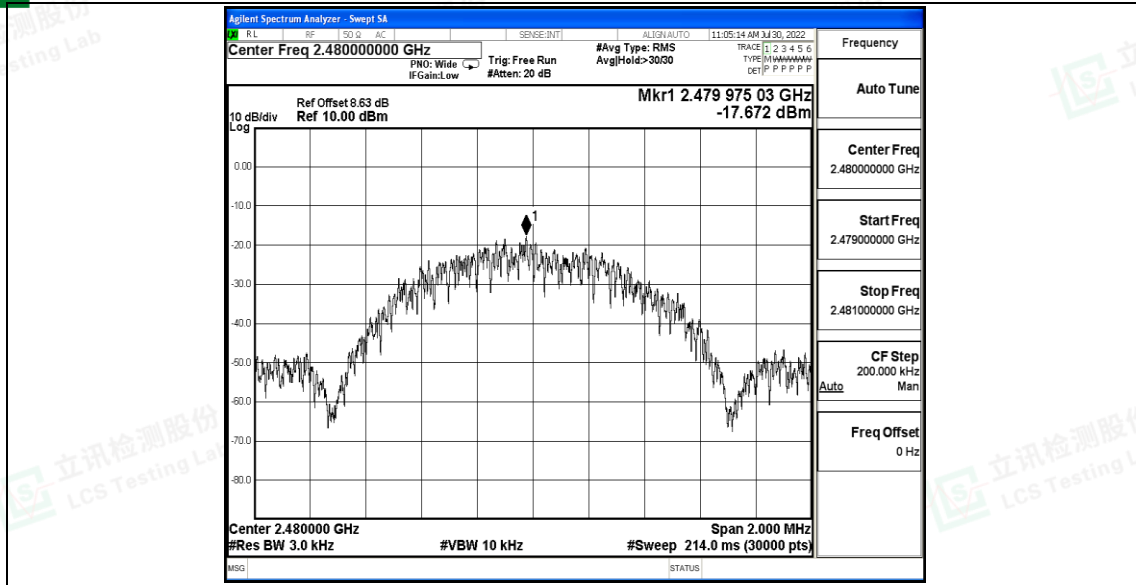
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant	2402	-21.55	≤8.00	PASS
		2440	-22.04	≤8.00	PASS
		2480	-17.67	≤8.00	PASS





Test Graphs







B.4 Band edge measurements

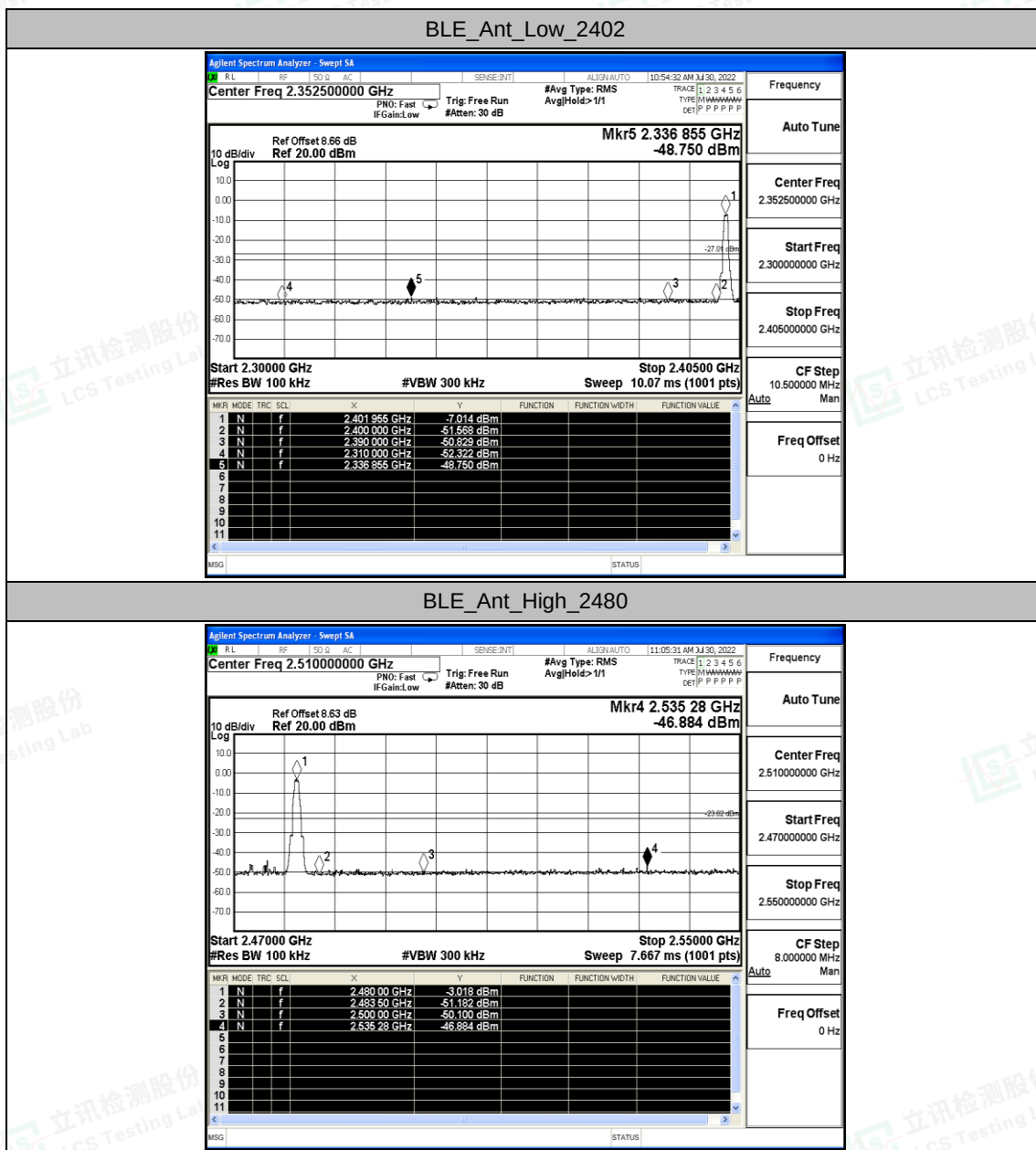
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	Low	2402	-7.01	-48.75	≤ -27.01	PASS
		High	2480	-3.02	-46.88	≤ -23.02	PASS





Test Graphs





B.5 Conducted Spurious Emission

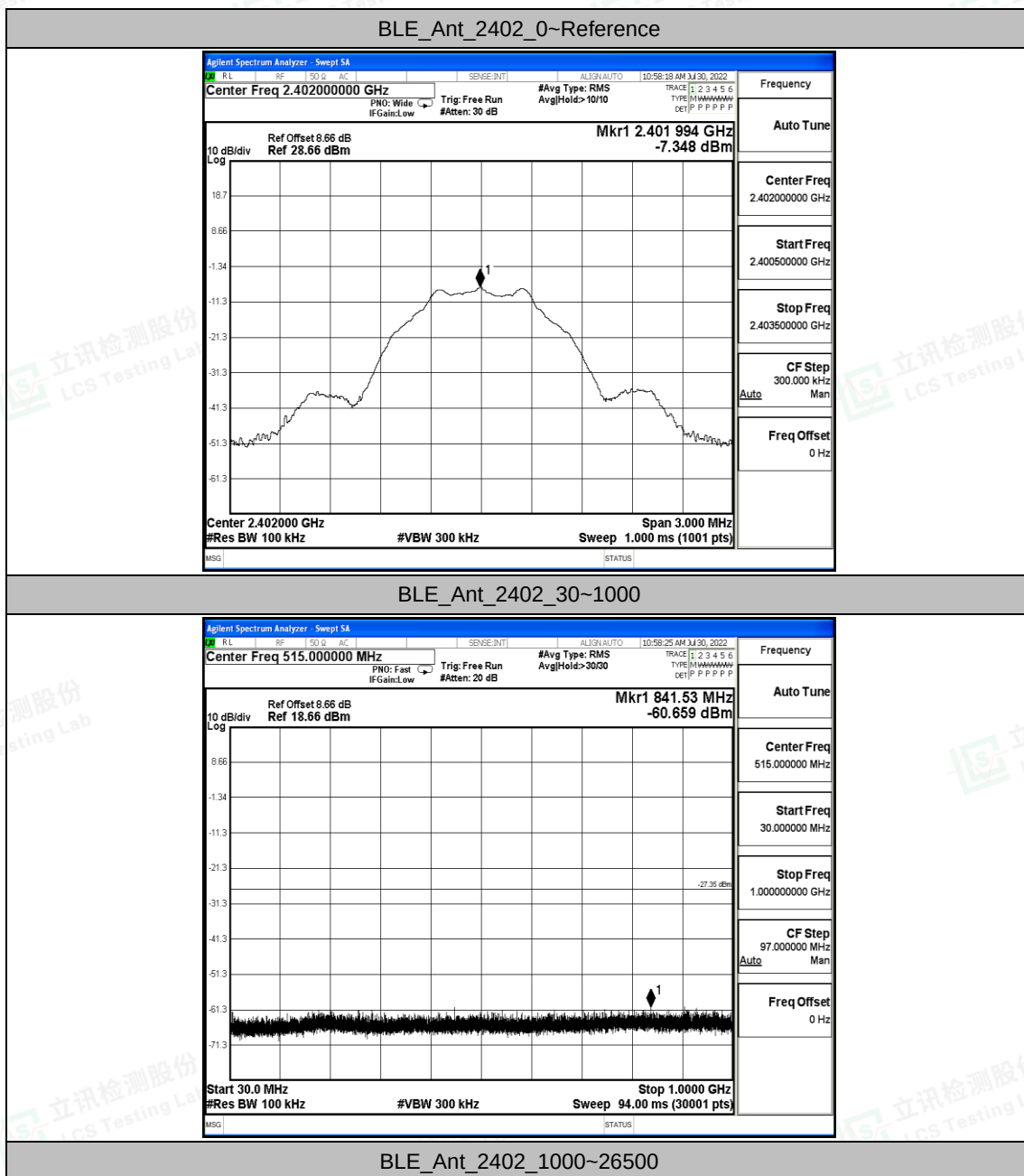
Test Result

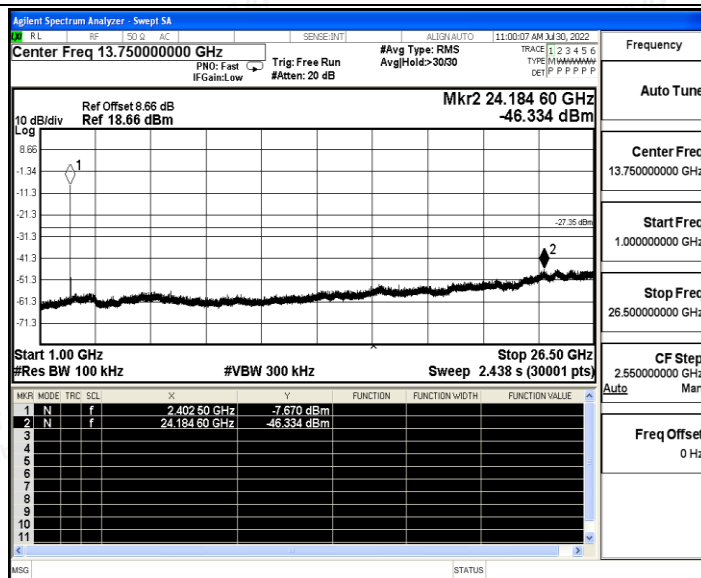
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	Reference	-7.35	-7.35	---	PASS
			30~1000	-7.35	-60.66	≤-27.35	PASS
			1000~26500	-7.35	-46.33	≤-27.35	PASS
		2440	Reference	-7.83	-7.83	---	PASS
			30~1000	-7.83	-60.59	≤-27.83	PASS
			1000~26500	-7.83	-46.26	≤-27.83	PASS
		2480	Reference	-3.37	-3.37	---	PASS
			30~1000	-3.37	-60.3	≤-23.37	PASS
			1000~26500	-3.37	-45.49	≤-23.37	PASS



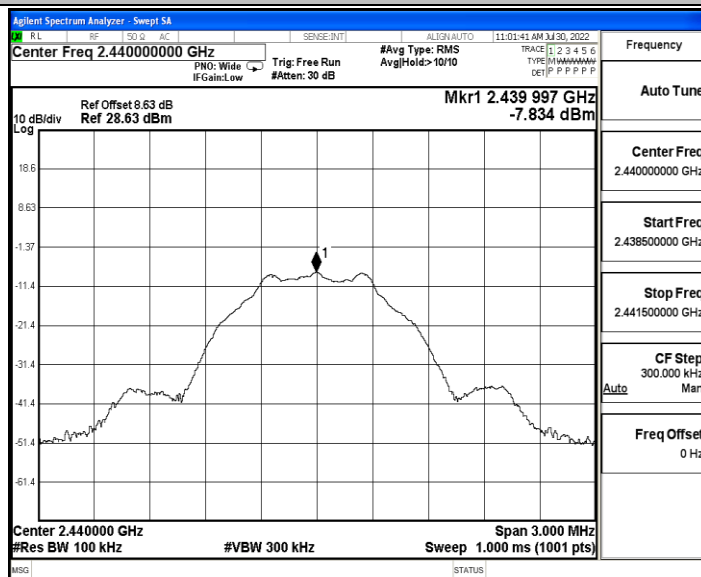


Test Graphs



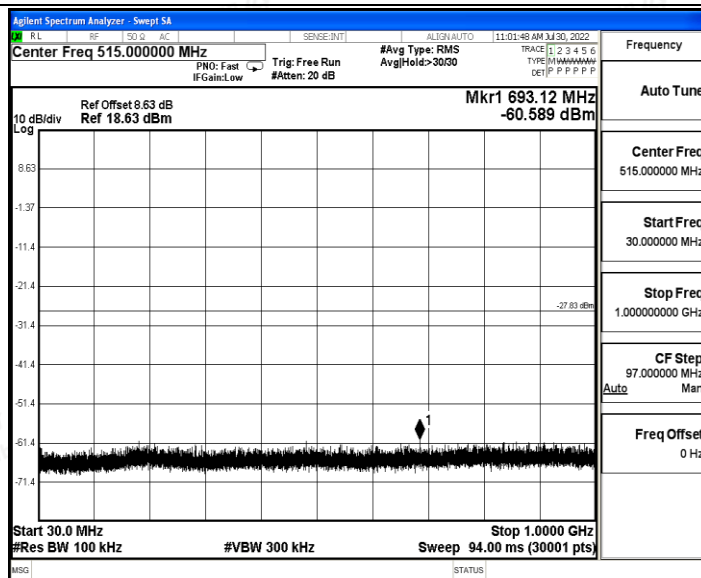


BLE_Ant_2440_0~Reference

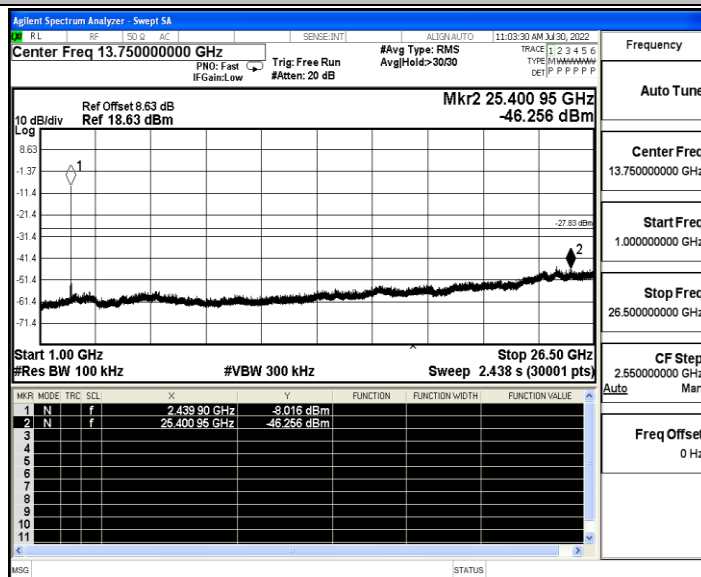


BLE_Ant_2440_30~1000



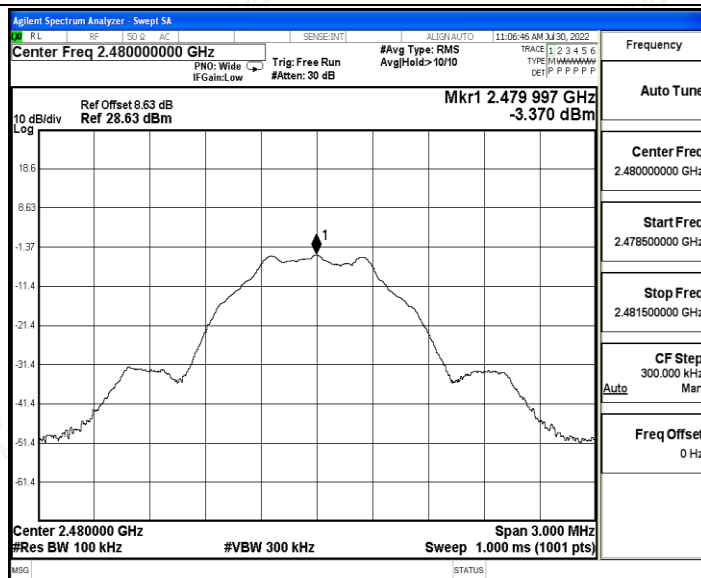


BLE_Ant_2440_1000~26500

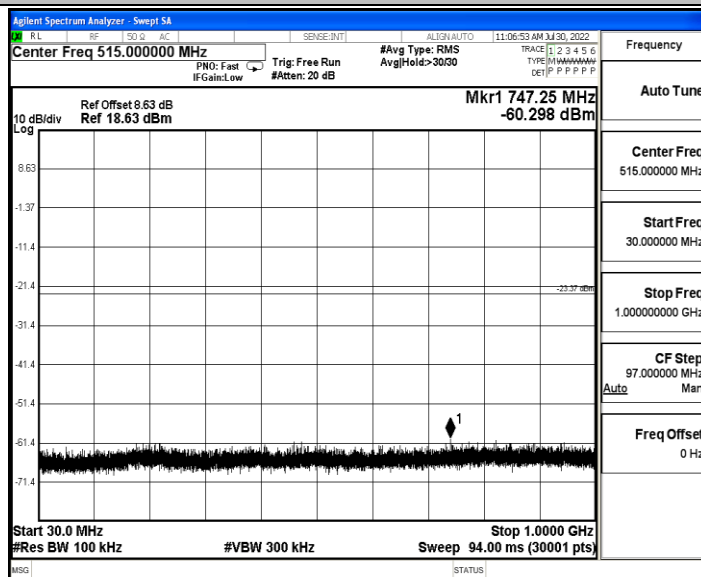


BLE_Ant_2480_0~Reference



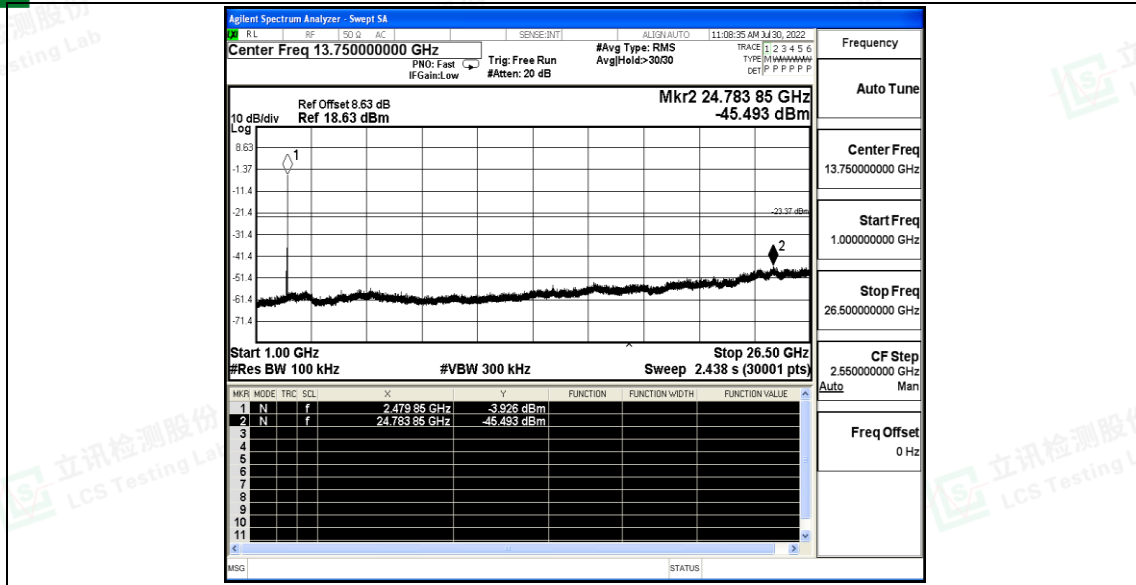


BLE_Ant_2480_30~1000



BLE_Ant_2480_1000~26500







B.6 Duty Cycle

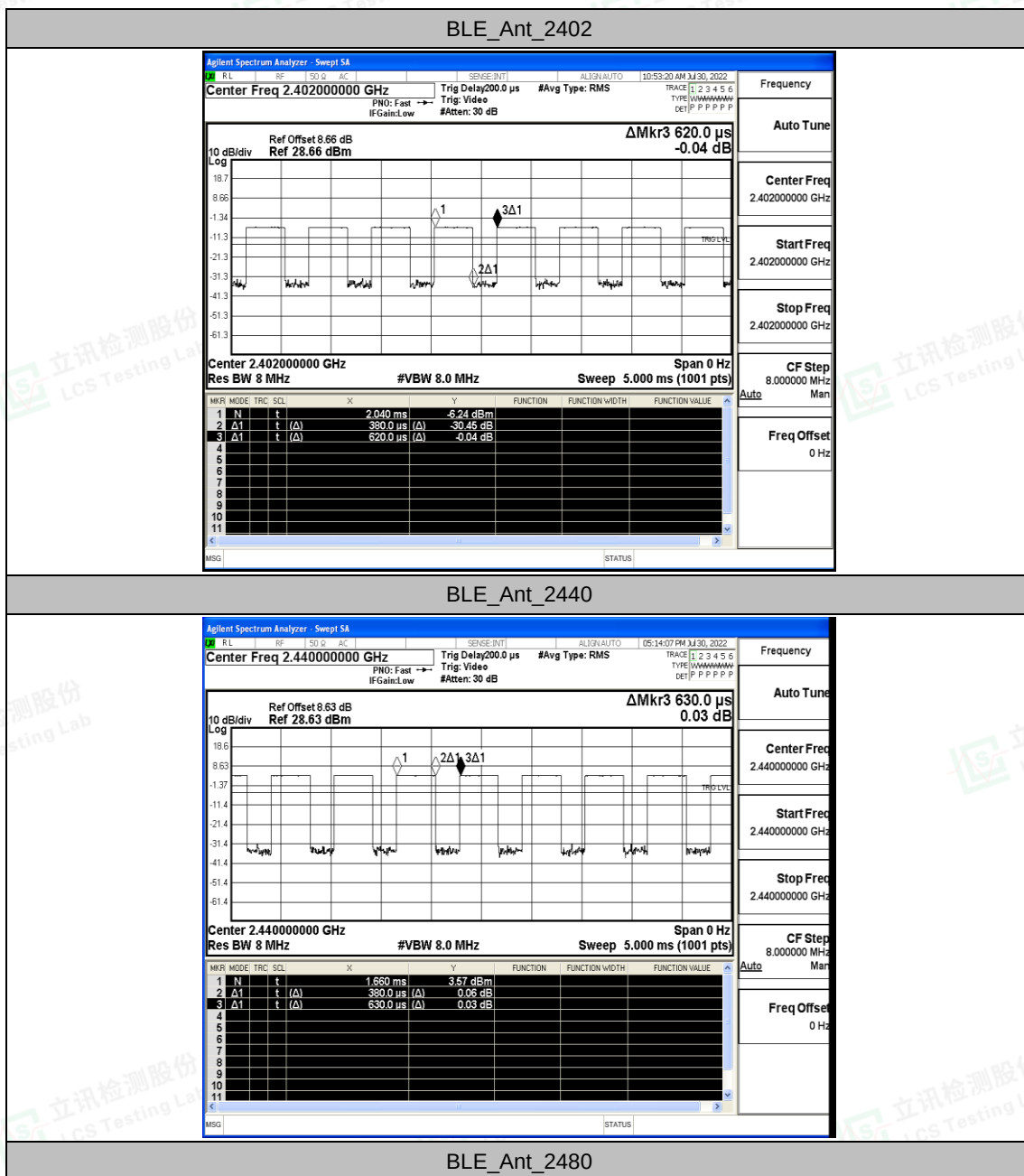
Test Result

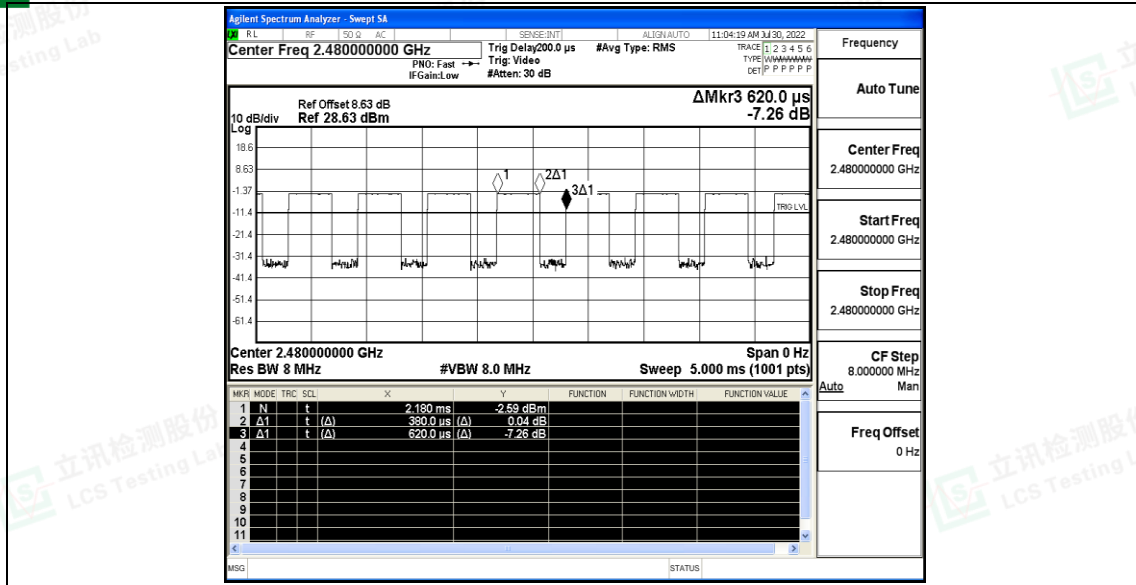
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE	Ant	2402	0.38	0.62	0.6129	61.29	2.13	2.63	---	---
		2440	0.38	0.63	0.6032	60.32	2.20	2.63	---	---
		2480	0.38	0.62	0.6129	61.29	2.13	2.63	---	---





Test Graphs







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	Ant	Low	2402	AV	2310.000	-47.78	≤-41.20	47.42	≤54	PASS
				AV	2388.410	-46.81	≤-41.20	48.39	≤54	PASS
				AV	2390.000	-47.15	≤-41.20	48.05	≤54	PASS
				Peak	2310.000	-38.36	≤-21.20	56.84	≤74	PASS
				Peak	2326.145	-36.5	≤-21.20	58.70	≤74	PASS
				Peak	2390.000	-38.27	≤-21.20	56.93	≤74	PASS
		High	2480	AV	2483.500	-46.76	≤-41.20	48.44	≤54	PASS
				AV	2494.320	-46.23	≤-41.20	48.97	≤54	PASS
				AV	2500.000	-46.56	≤-41.20	48.64	≤54	PASS
				Peak	2483.500	-37.48	≤-21.20	57.72	≤74	PASS
				Peak	2495.120	-36.16	≤-21.20	59.04	≤74	PASS
				Peak	2500.000	-37.35	≤-21.20	57.85	≤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.

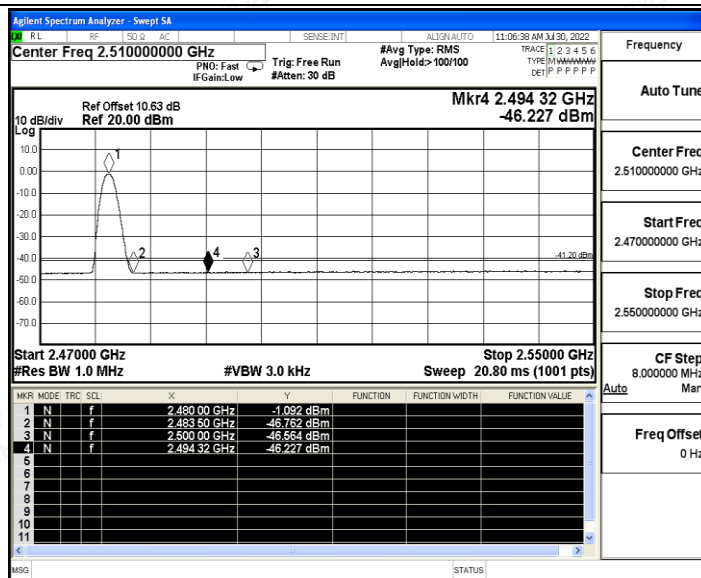


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



Test Graphs





BLE_Ant_High_2480_Peak

