



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Kids Smartwatch

Test Model: XGO3

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li huan





B.1 6dB Bandwidth

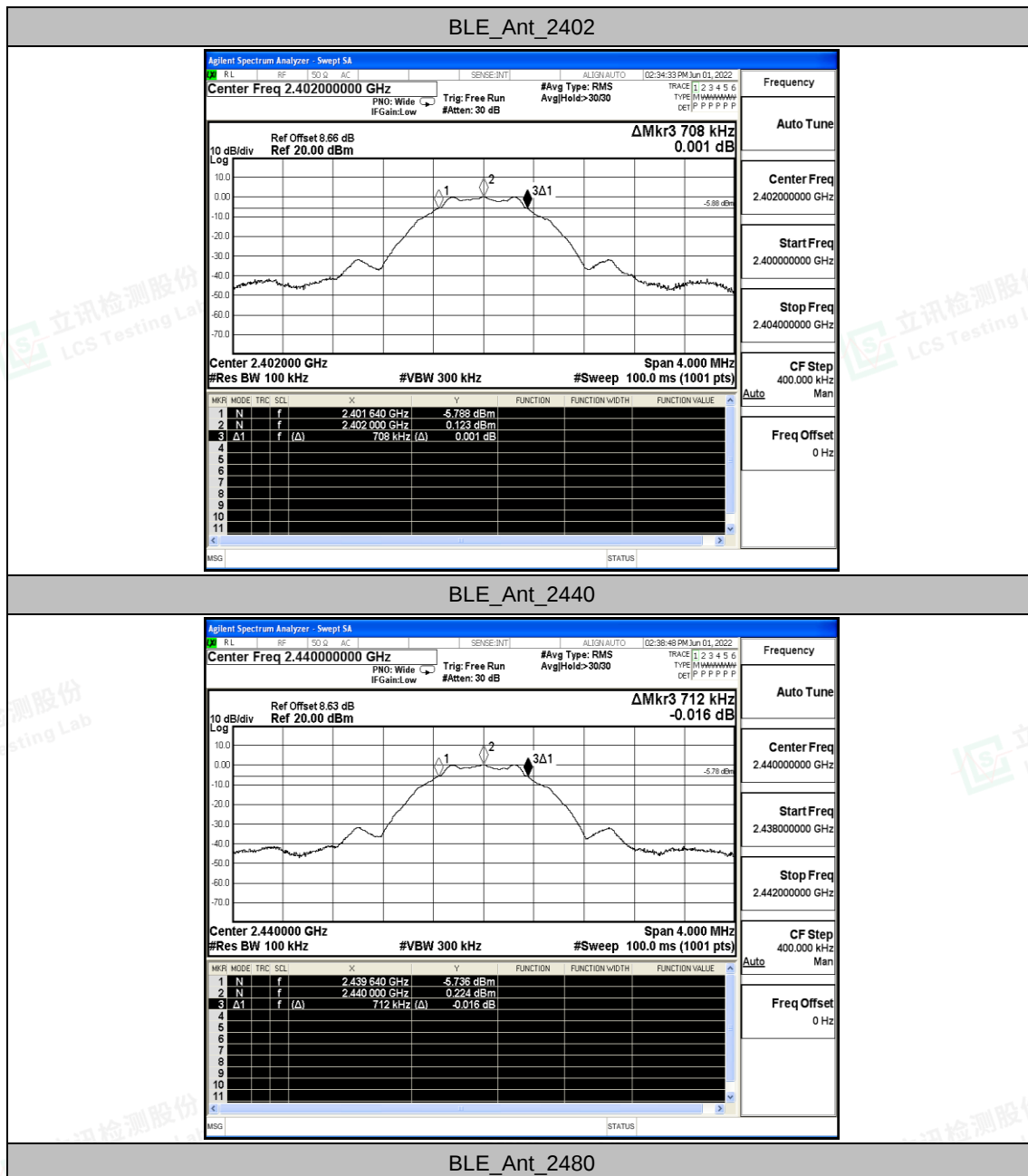
Test Result

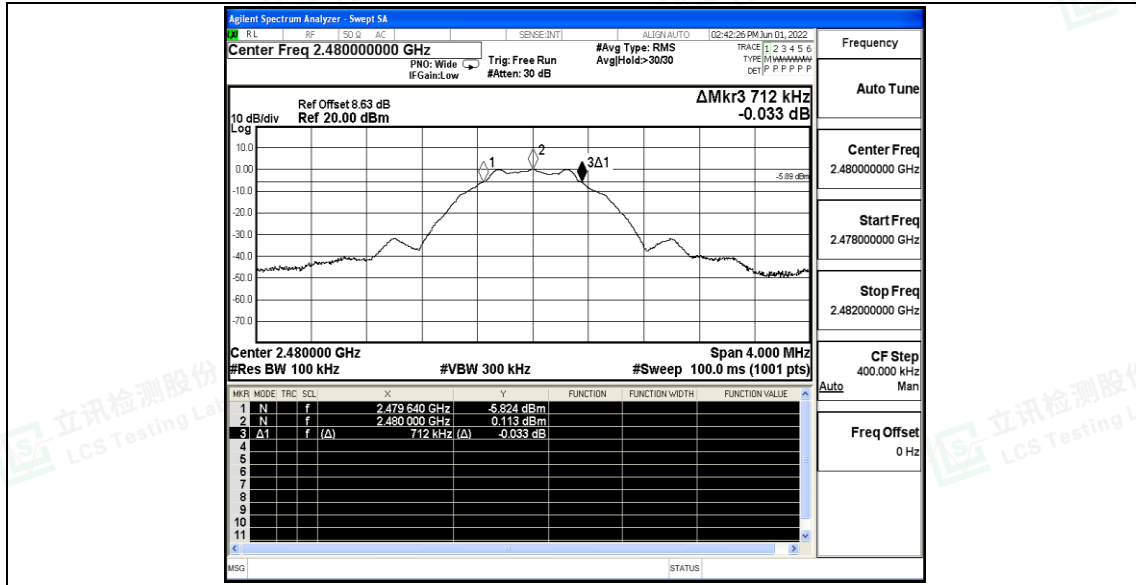
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant	2402	0.708	2401.640	2402.348	0.5	PASS
		2440	0.712	2439.640	2440.352	0.5	PASS
		2480	0.712	2479.640	2480.352	0.5	PASS





Test Graphs







B.2 Maximum conducted output power

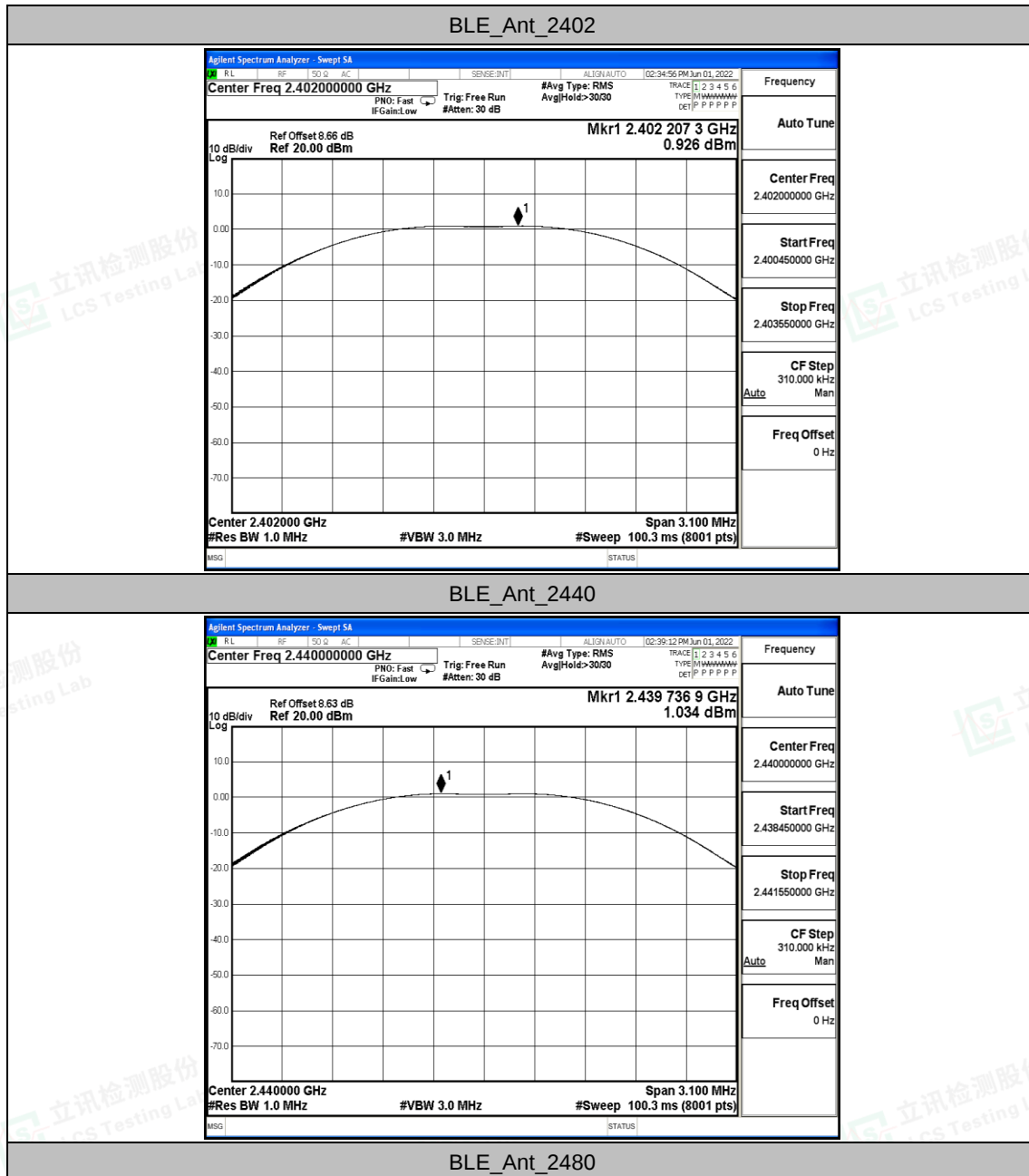
Test Result

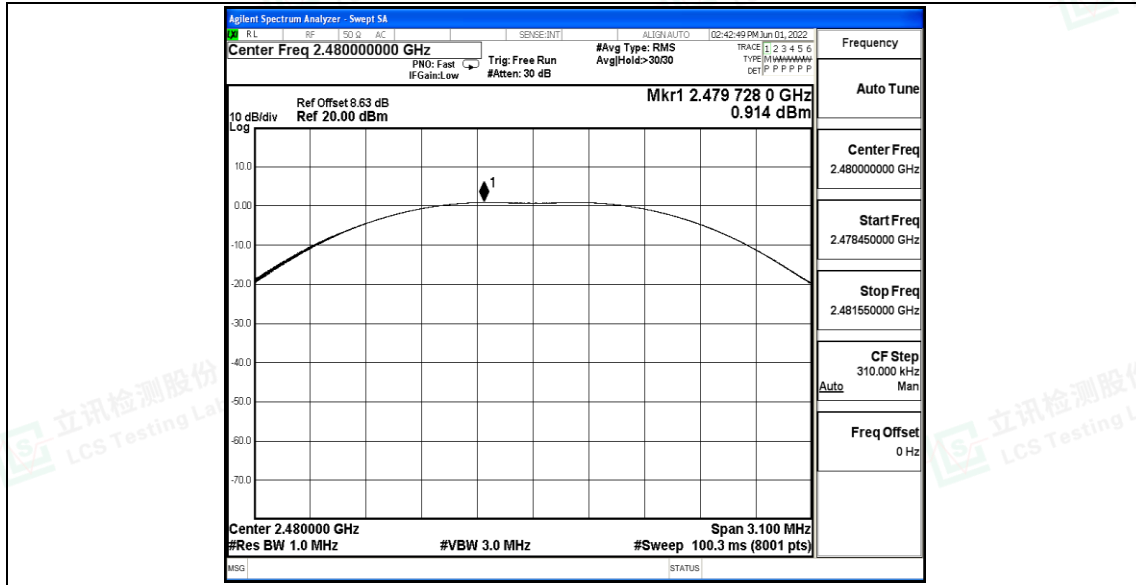
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	0.93	≤30	PASS
		2440	1.03	≤30	PASS
		2480	0.91	≤30	PASS





Test Graphs







B.3 Maximum power spectral density

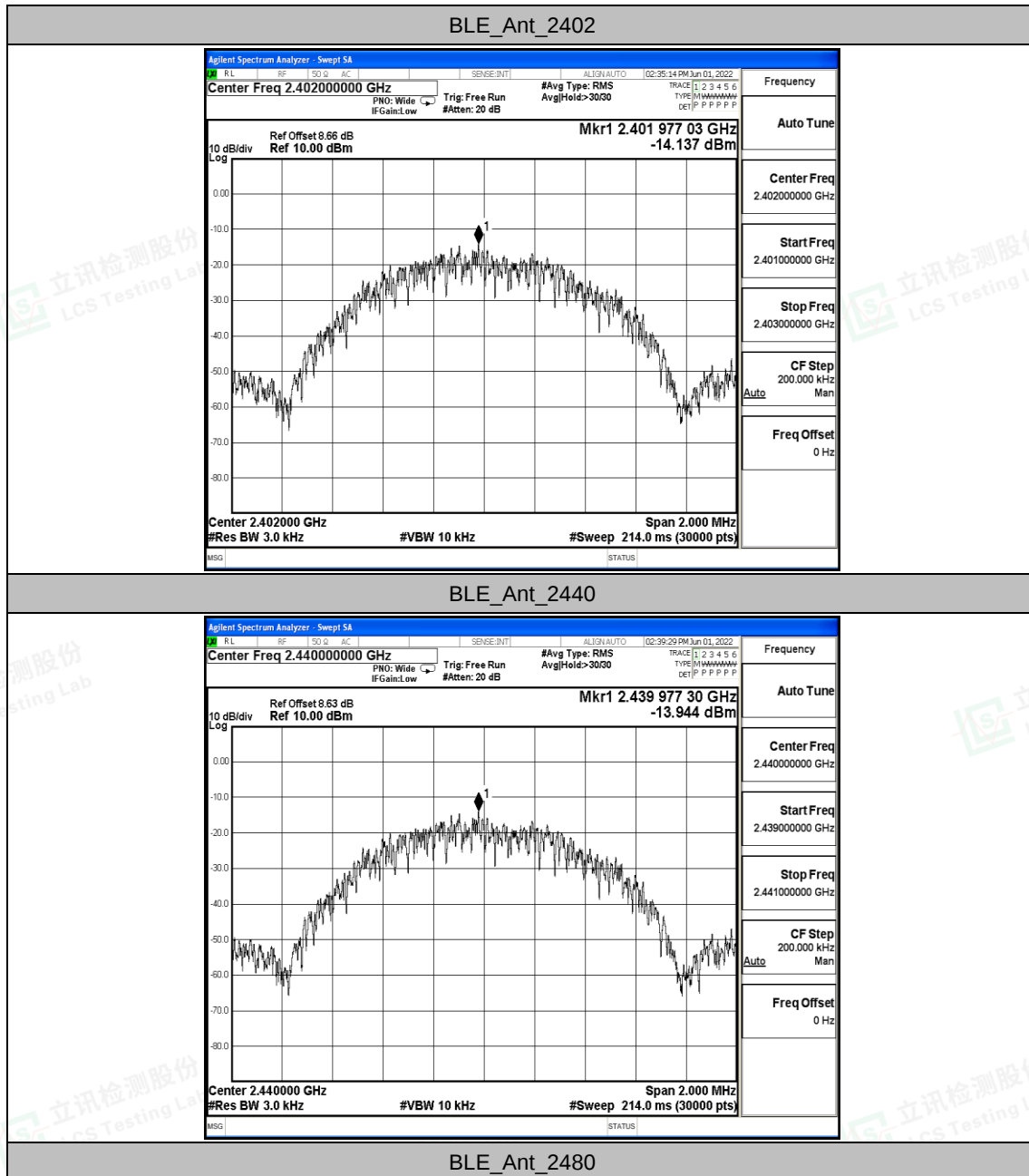
Test Result

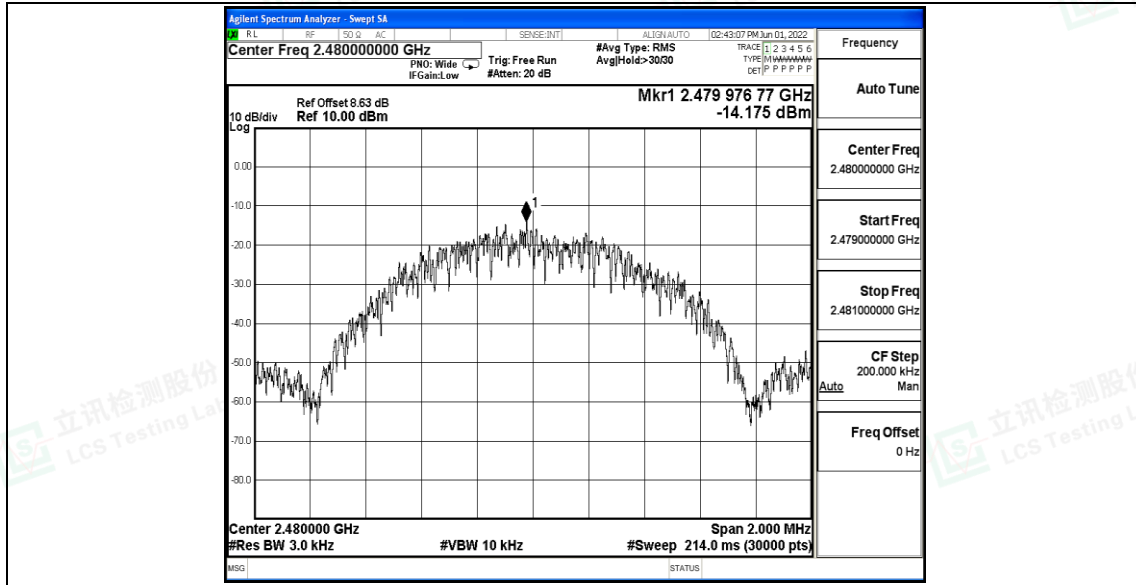
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant	2402	-14.14	≤8.00	PASS
		2440	-13.94	≤8.00	PASS
		2480	-14.18	≤8.00	PASS





Test Graphs







B.4 Band edge measurements

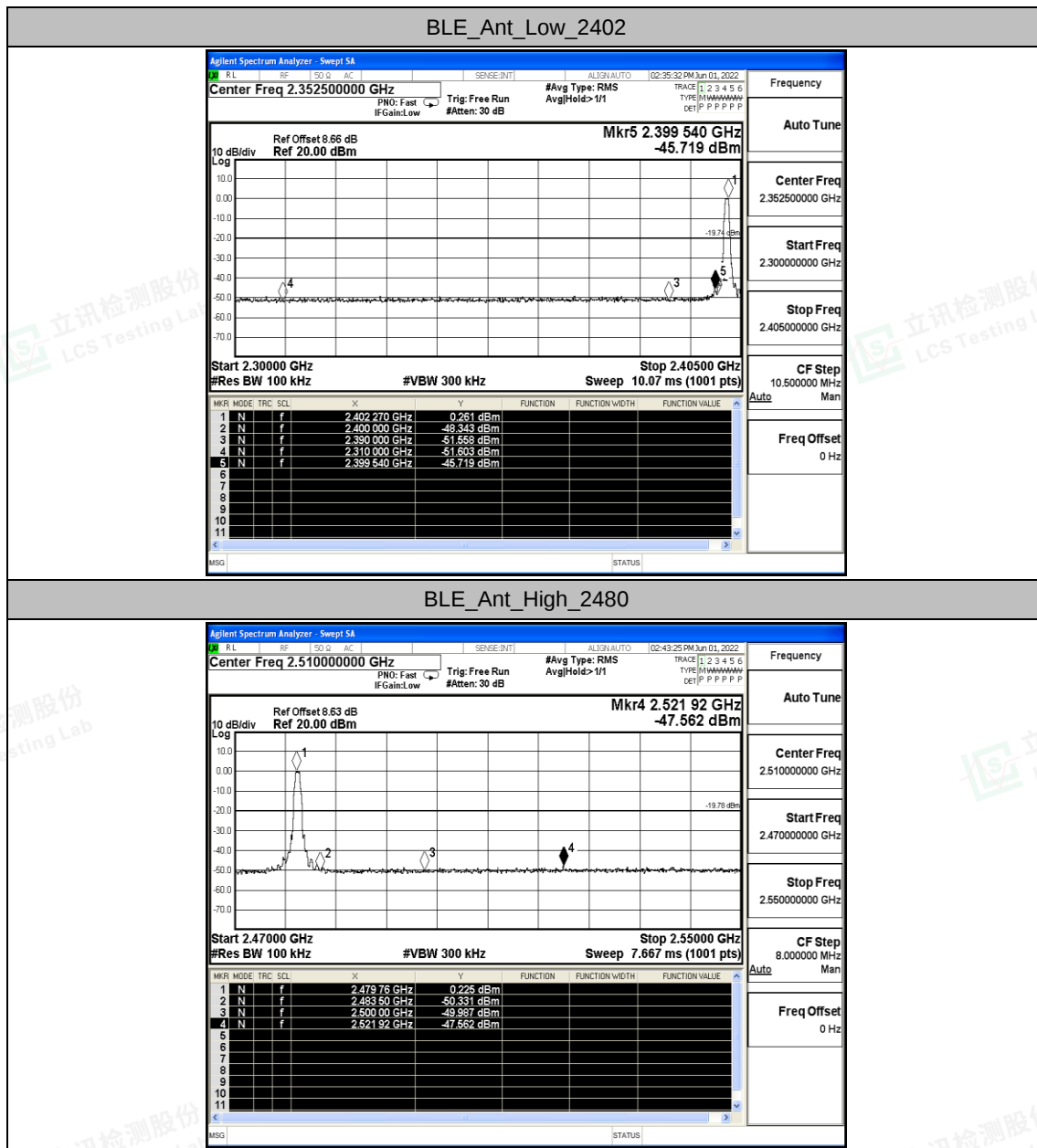
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	Low	2402	0.26	-46.03	≤-19.74	PASS
		High	2480	0.23	-47.56	≤-19.78	PASS





Test Graphs



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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

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B.5 Conducted Spurious Emission

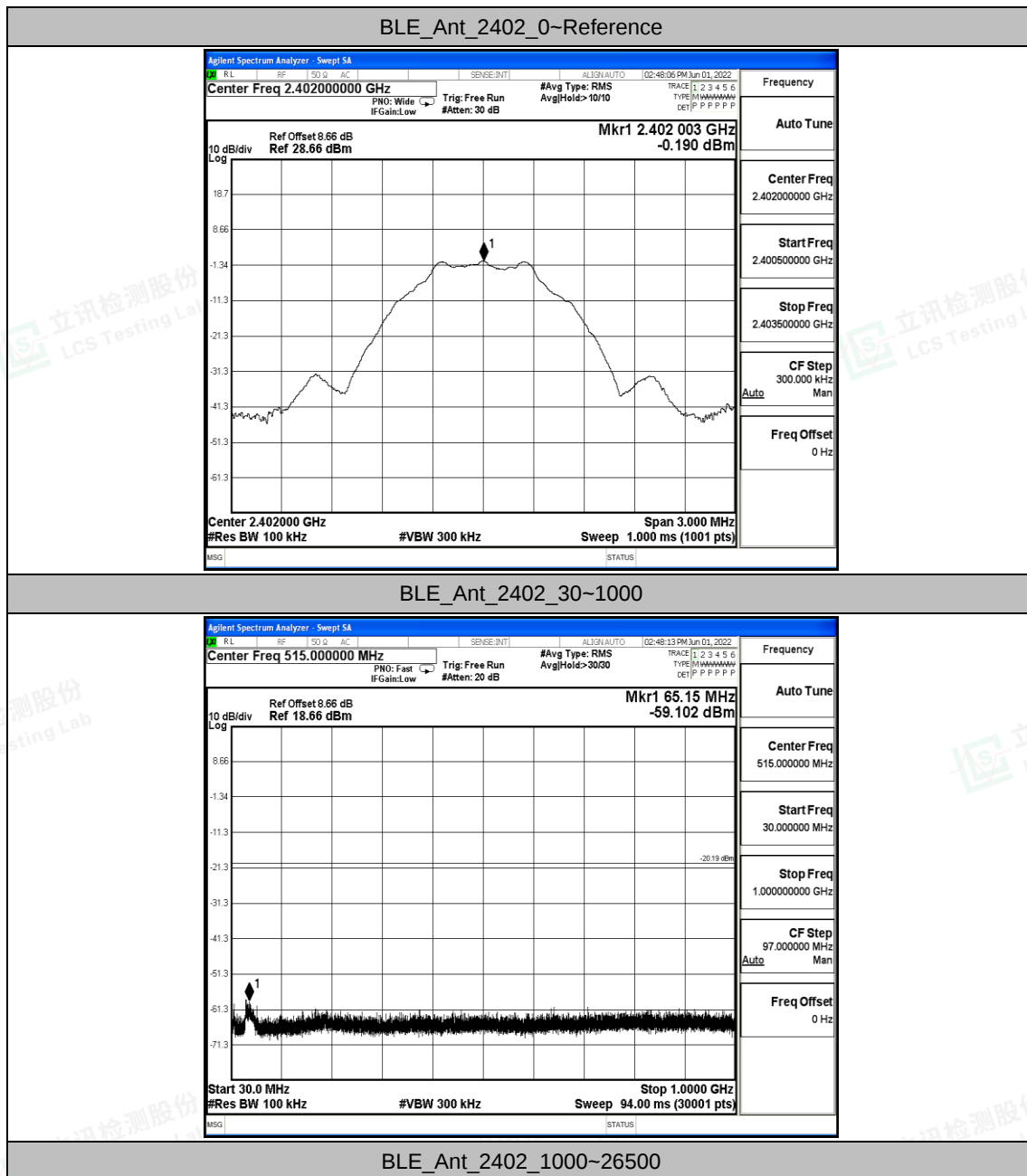
Test Result

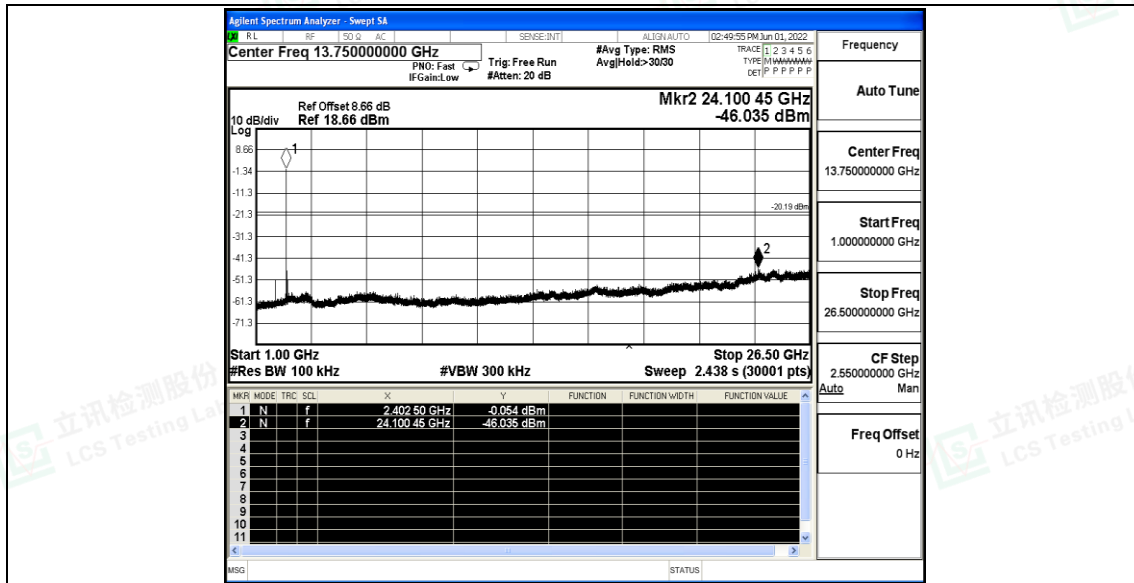
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	Reference	-0.19	-0.19	---	PASS
			30~1000	-0.19	-59.1	≤-20.19	PASS
			1000~26500	-0.19	-46.04	≤-20.19	PASS
		2440	Reference	0.23	0.23	---	PASS
			30~1000	0.23	-59.56	≤-19.77	PASS
			1000~26500	0.23	-45.16	≤-19.77	PASS
		2480	Reference	-0.07	-0.07	---	PASS
			30~1000	-0.07	-59.37	≤-20.07	PASS
			1000~26500	-0.07	-45.9	≤-20.07	PASS



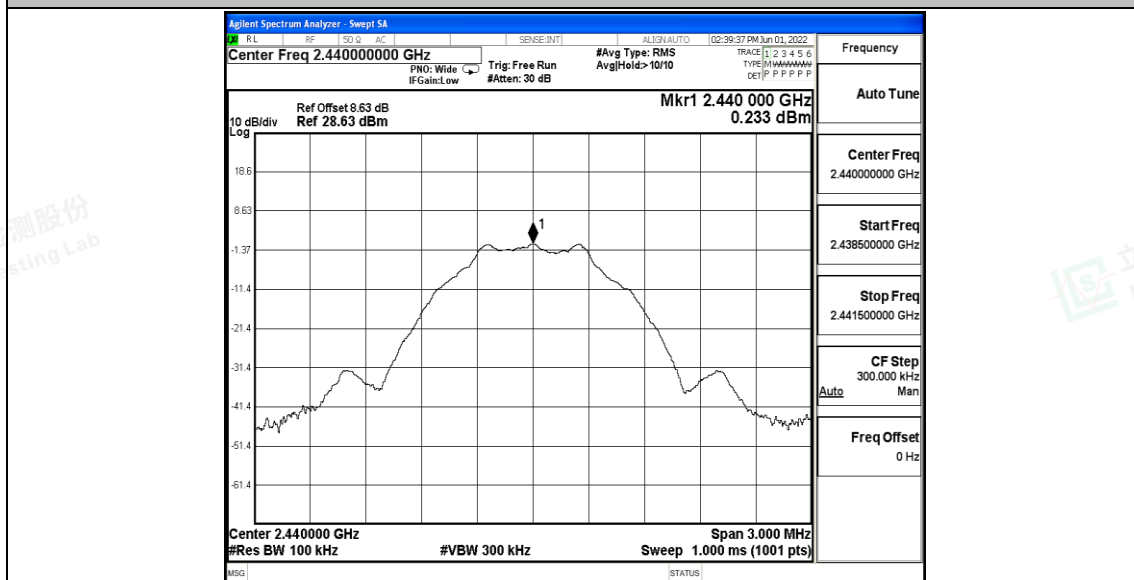


Test Graphs



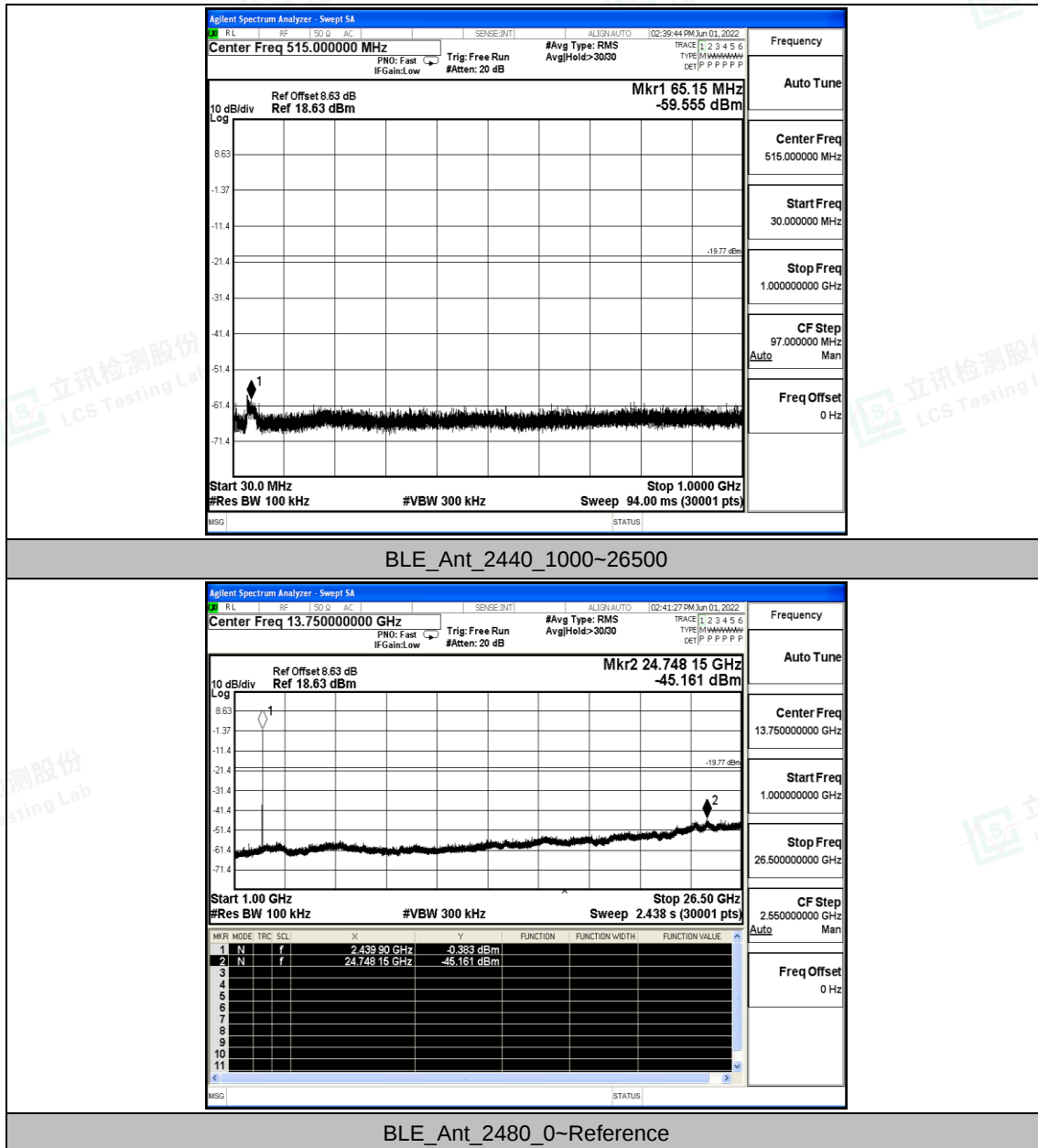


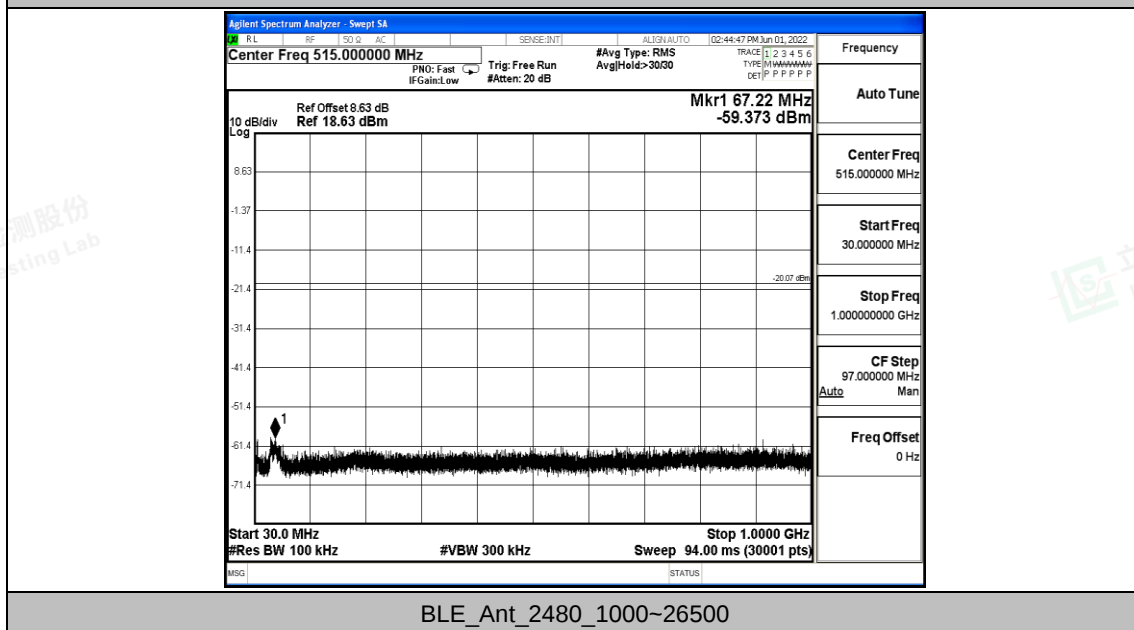
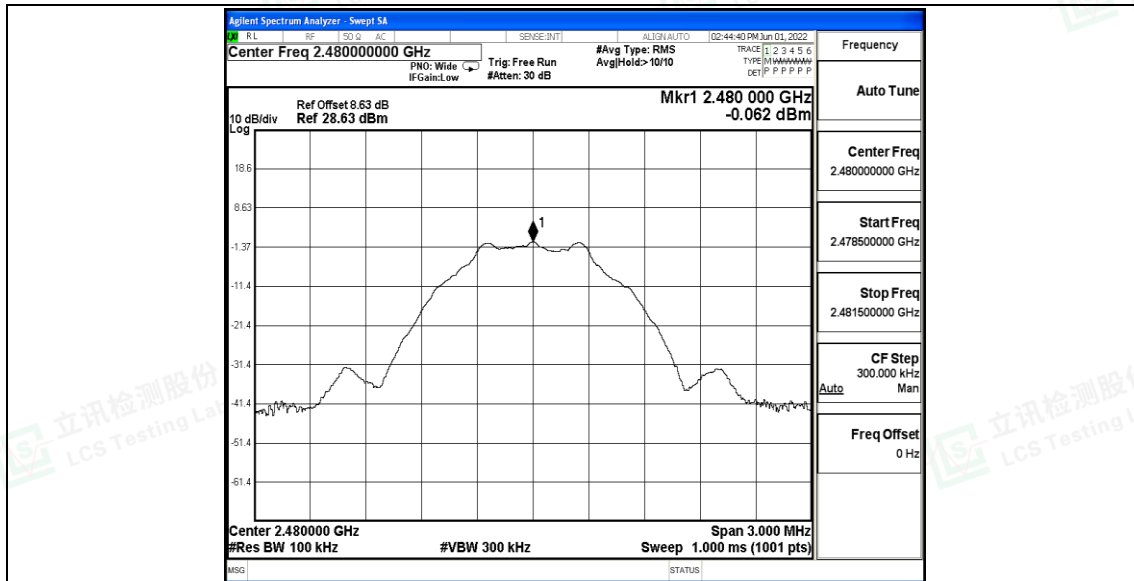
BLE_Ant_2440_0~Reference

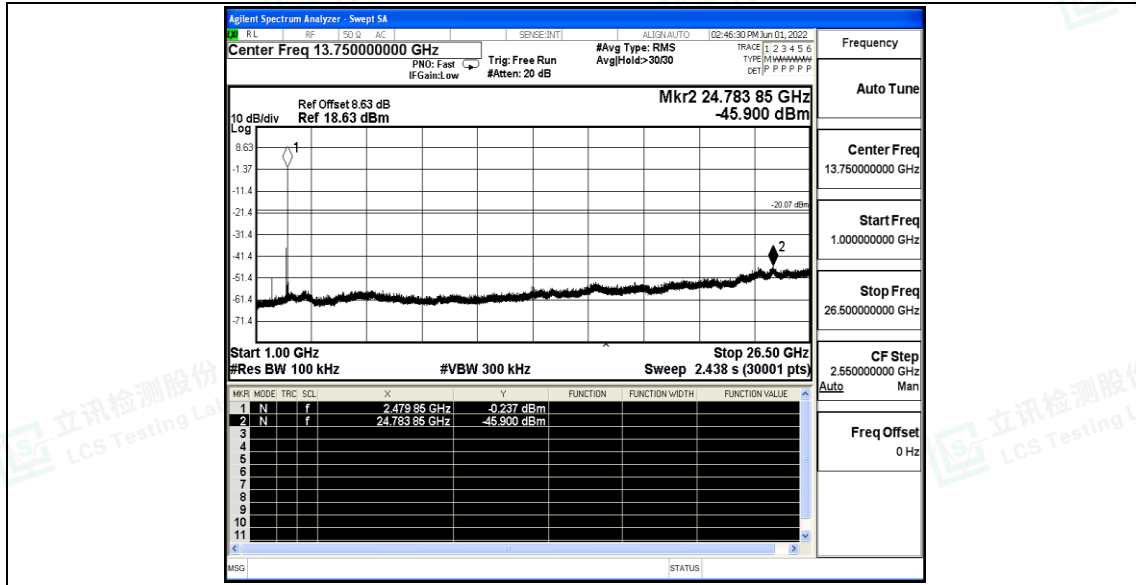


BLE_Ant_2440_30~1000











B.6 Duty Cycle

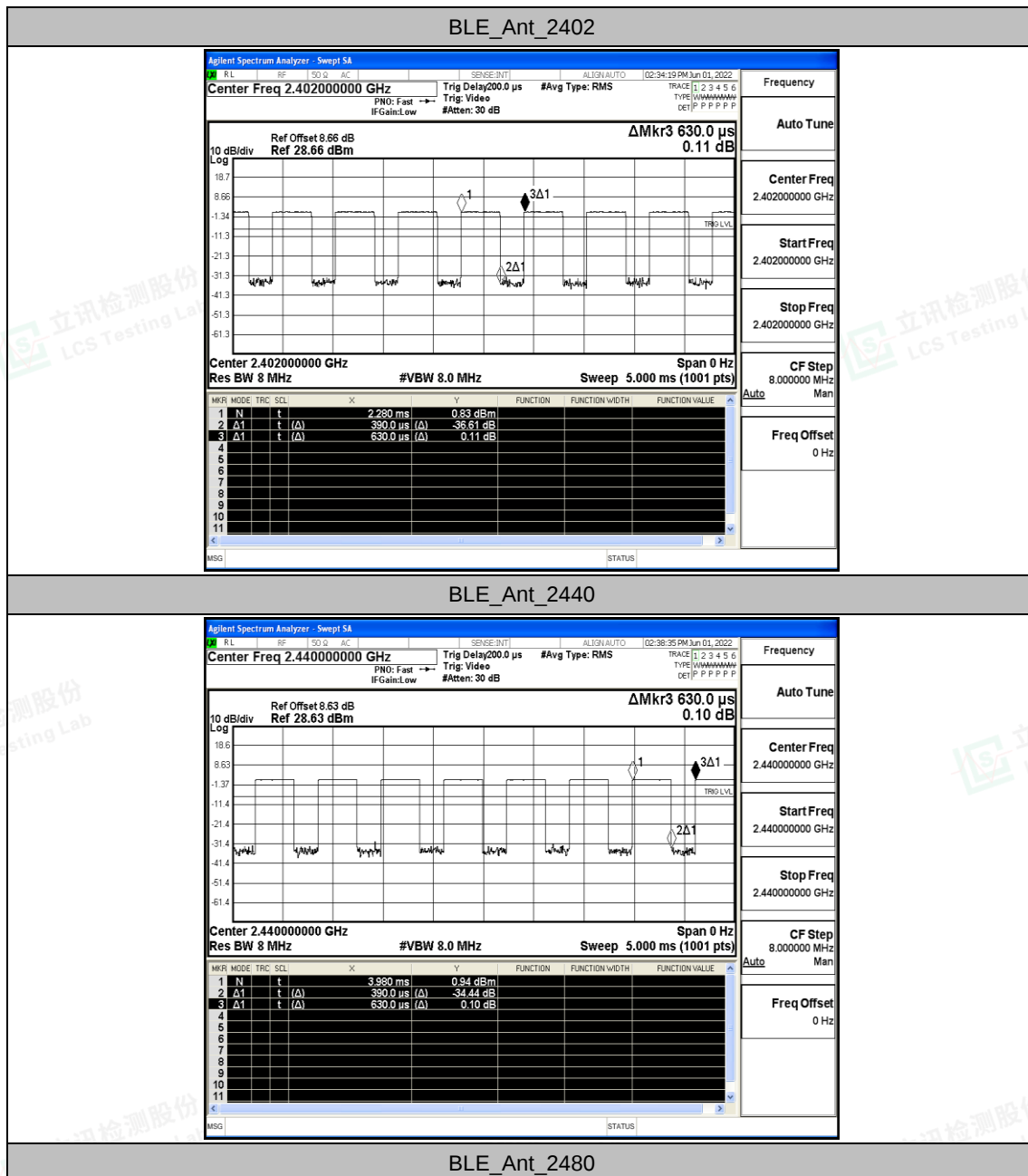
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE	Ant	2402	0.39	0.63	0.6190	61.90	2.08	2.56	---	---
		2440	0.39	0.63	0.6190	61.90	2.08	2.56	---	---
		2480	0.39	0.63	0.6190	61.90	2.08	2.56	---	---





Test Graphs

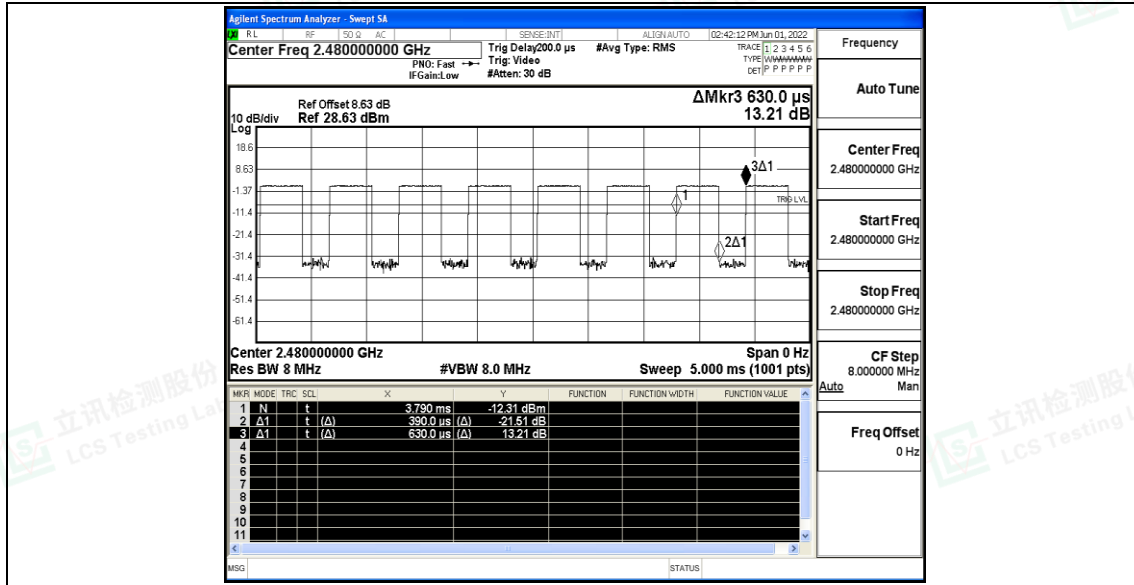


Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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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	Ant	Low	2402	AV	2310.000	-47.45	≤-41.20	47.75	≤54	PASS
				AV	2388.410	-46.72	≤-41.20	48.48	≤54	PASS
				AV	2390.000	-47.14	≤-41.20	48.06	≤54	PASS
				Peak	2310.000	-38.6	≤-21.20	56.60	≤74	PASS
				Peak	2370.245	-36.58	≤-21.20	58.62	≤74	PASS
				Peak	2390.000	-37.9	≤-21.20	57.30	≤74	PASS
		High	2480	AV	2483.500	-46.09	≤-41.20	49.11	≤54	PASS
				AV	2483.920	-45.77	≤-41.20	49.43	≤54	PASS
				AV	2500.000	-46.72	≤-41.20	48.48	≤54	PASS
				Peak	2483.500	-33	≤-21.20	62.20	≤74	PASS
				Peak	2483.760	-32.21	≤-21.20	62.99	≤74	PASS
				Peak	2500.000	-37.31	≤-21.20	57.89	≤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



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