



Appendix A

RF Test Data for BLE (Conducted Measurement)

Product Name: Charging Base

Test Model: PAL 4-C

Environmental Conditions

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





A.1 DTS Bandwidth

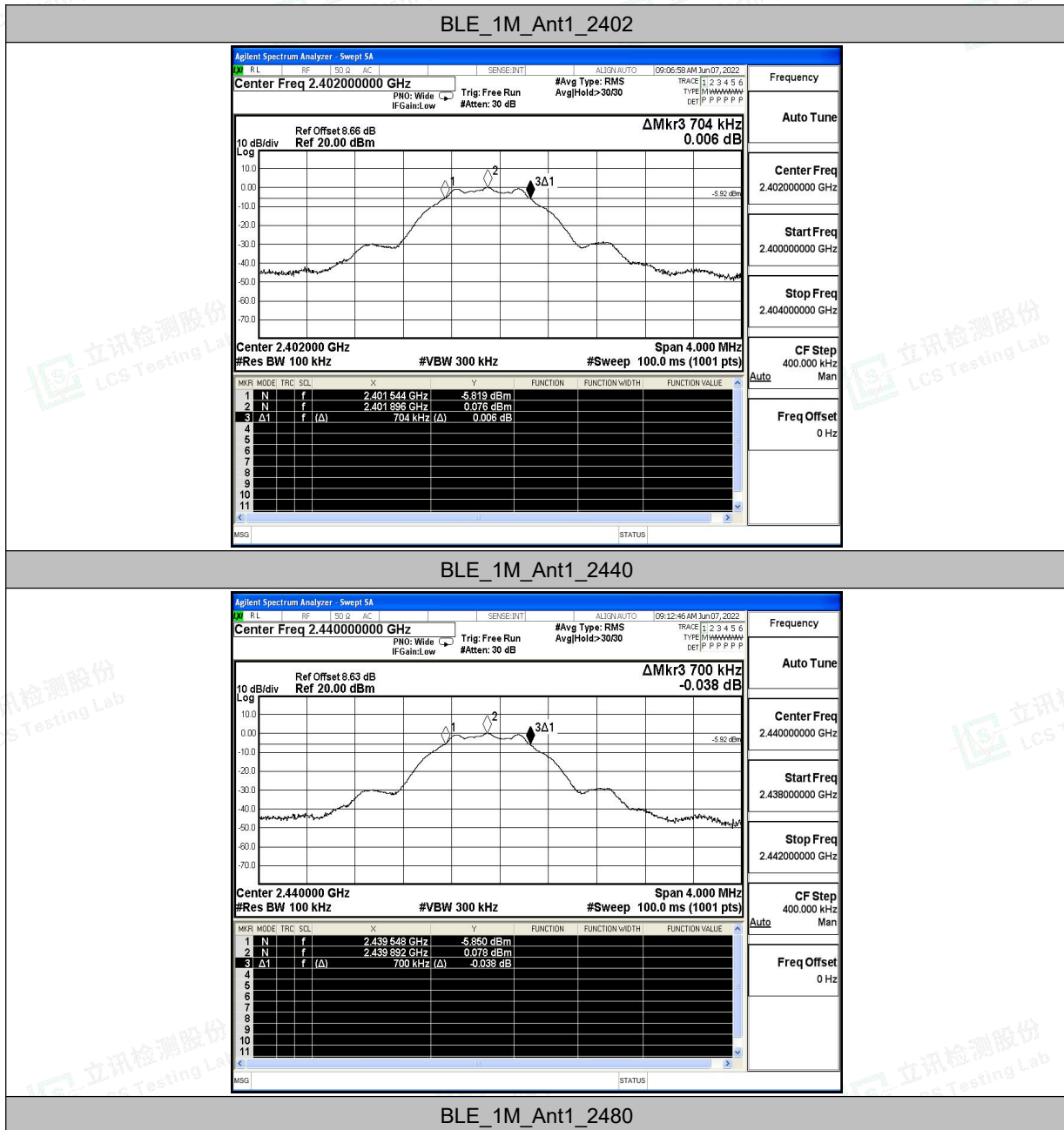
Test Result

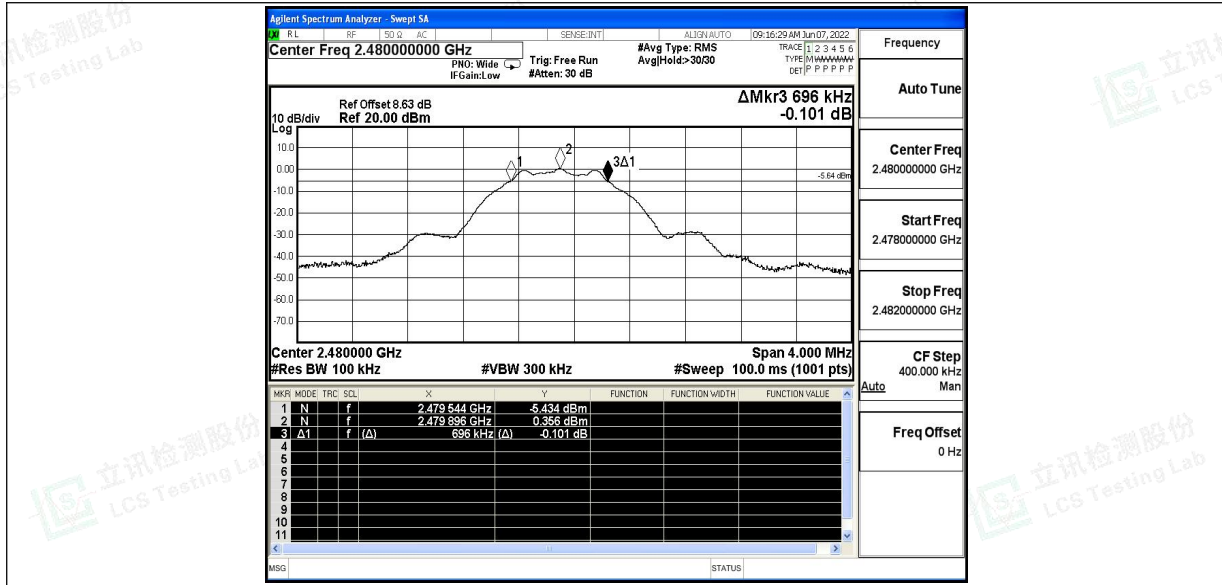
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.704	2401.544	2402.248	0.5	PASS
		2440	0.700	2439.548	2440.248	0.5	PASS
		2480	0.696	2479.544	2480.240	0.5	PASS





Test Graphs





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 Scan code to check authenticity



A.2 Occupied Channel Bandwidth

Test Result

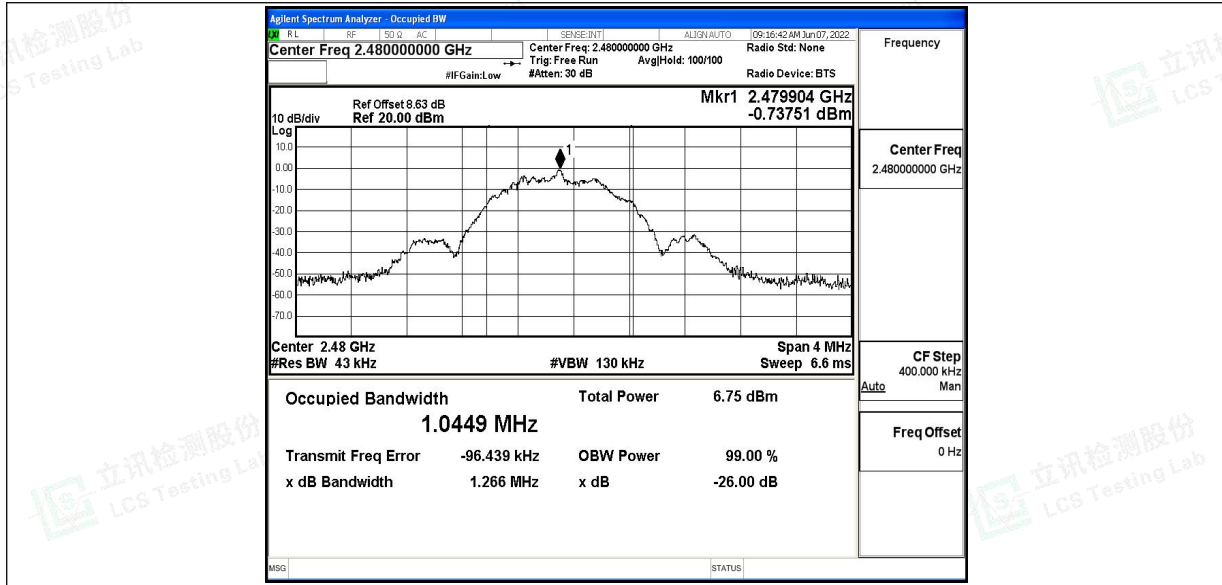
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0468	2401.384	2402.430	---	---
		2440	1.0432	2439.384	2440.427	---	---
		2480	1.0449	2479.381	2480.426	---	---





Test Graphs







A.3 Maximum conducted output power

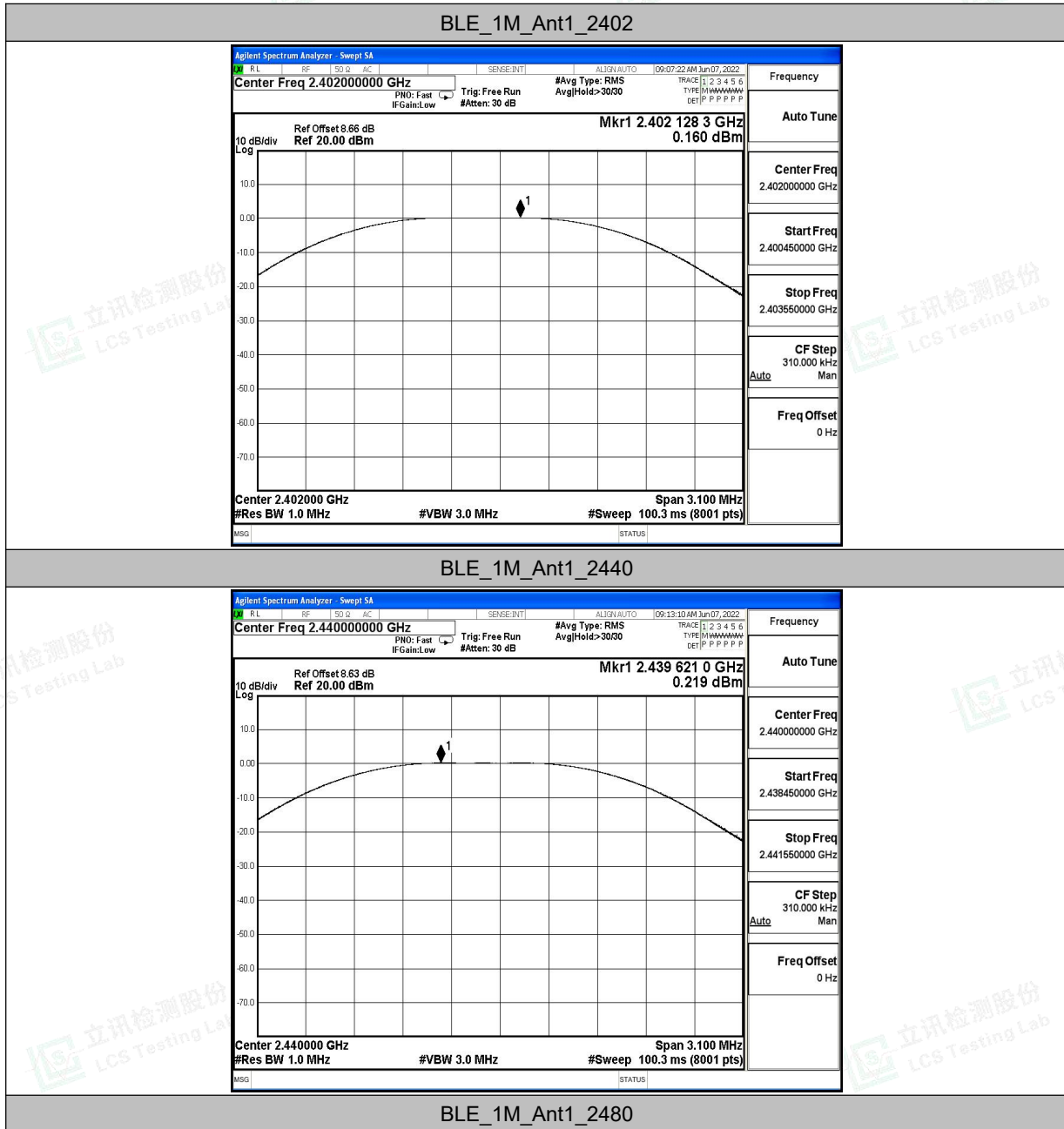
Test Result

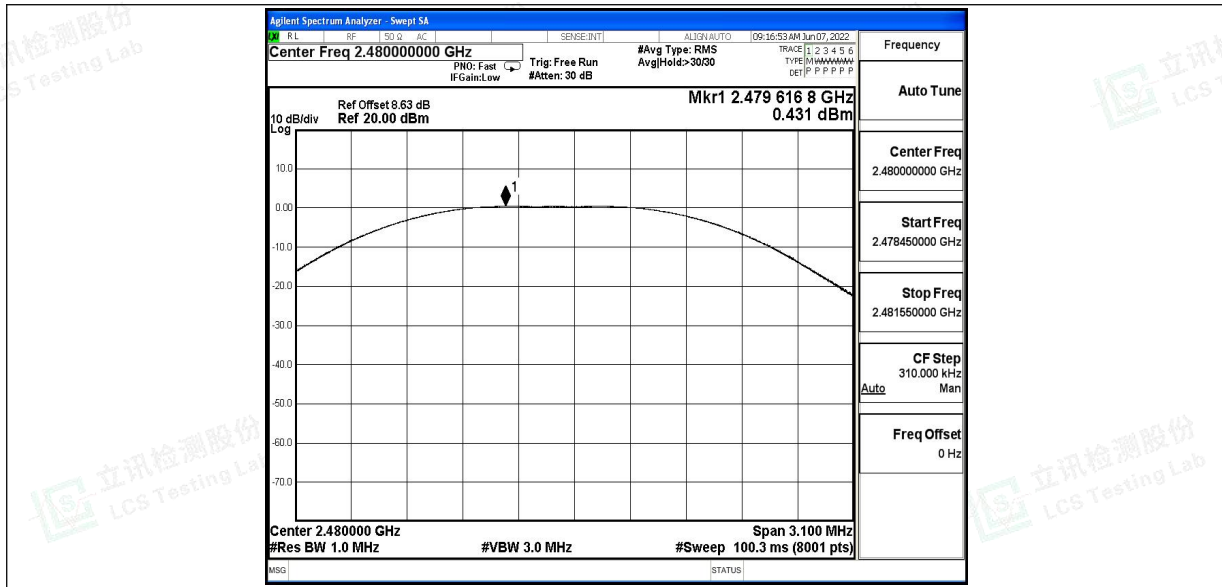
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.16	≤30	PASS
		2440	0.22	≤30	PASS
		2480	0.43	≤30	PASS





Test Graphs







A.4 Maximum power spectral density

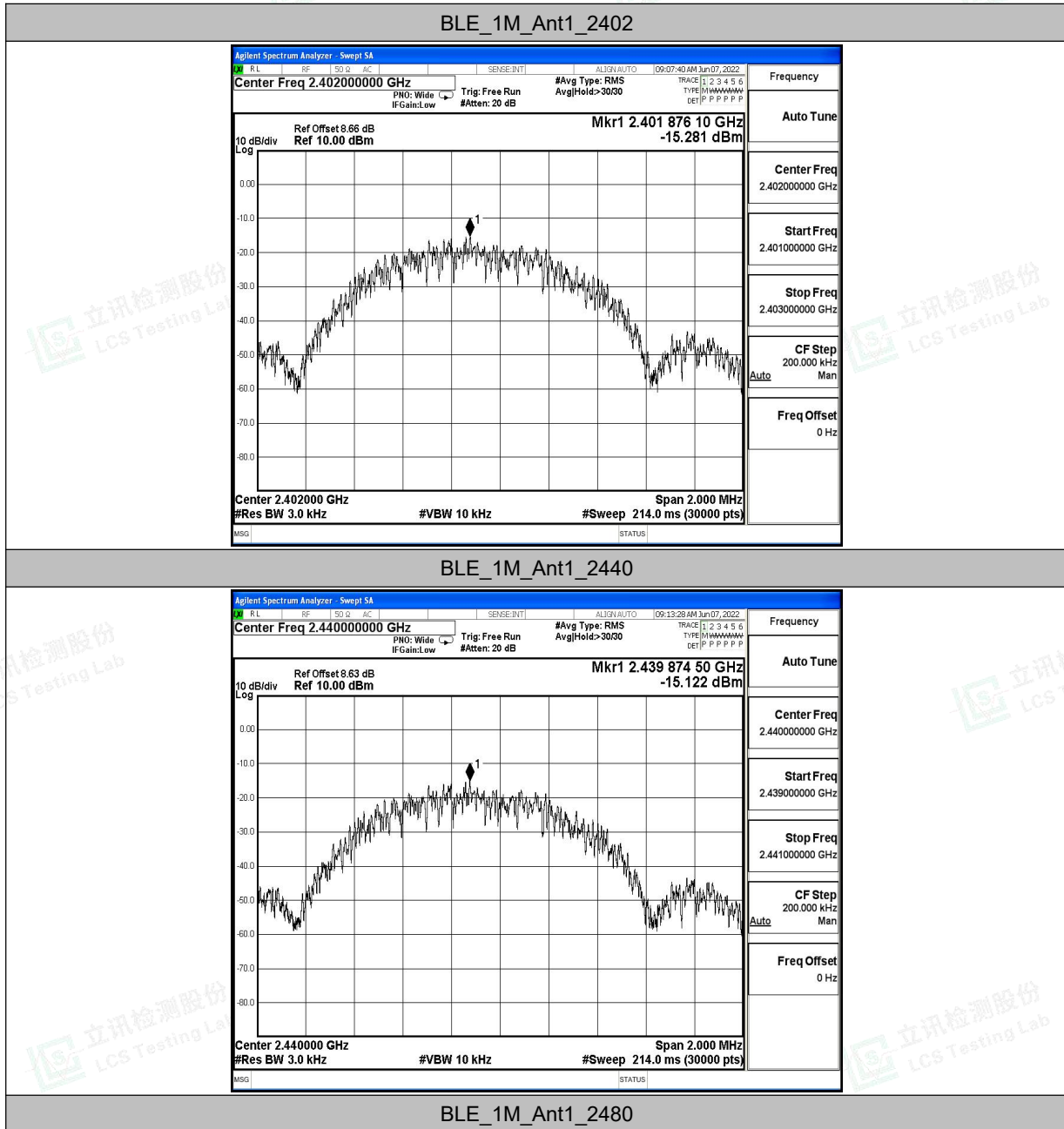
Test Result

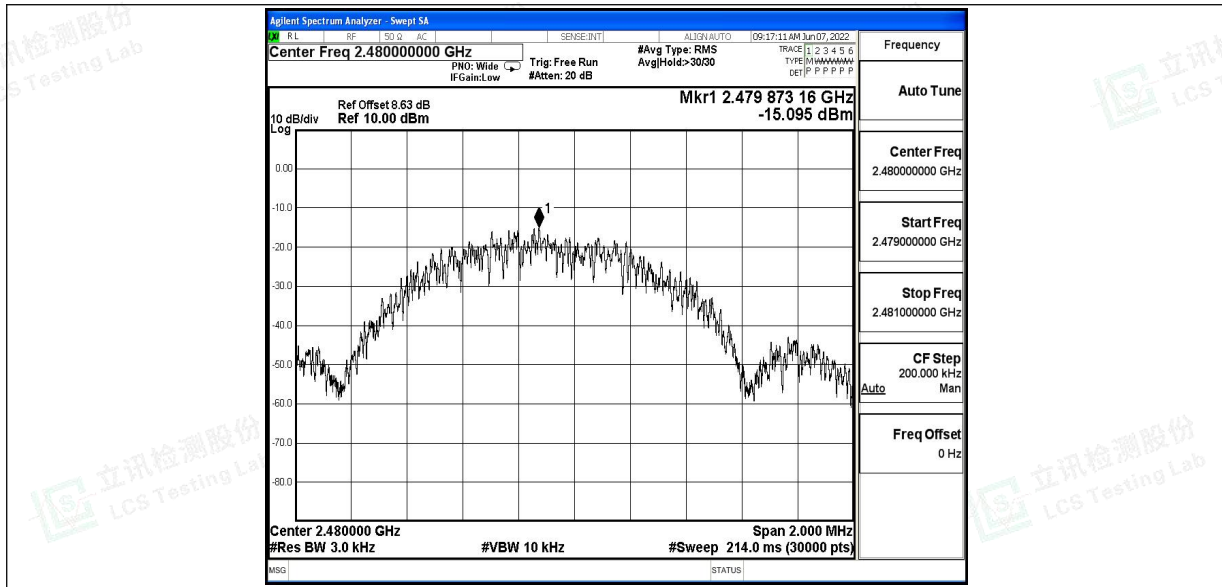
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.28	≤8.00	PASS
		2440	-15.12	≤8.00	PASS
		2480	-15.1	≤8.00	PASS





Test Graphs







A.5 Band edge measurements

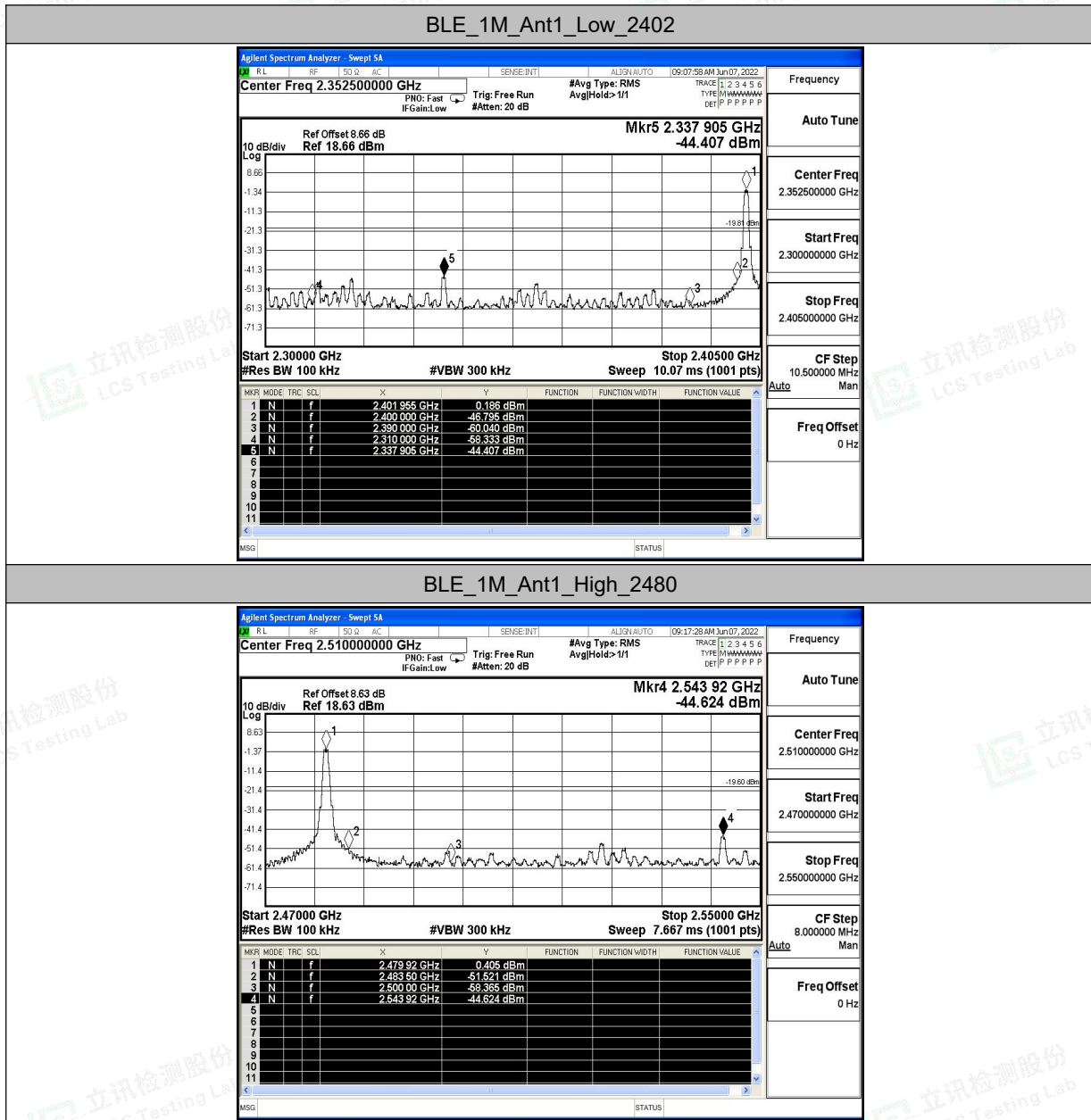
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.19	-44.41	≤-19.81	PASS
		High	2480	0.41	-44.62	≤-19.6	PASS





Test Graphs





A.6 Conducted Spurious Emission

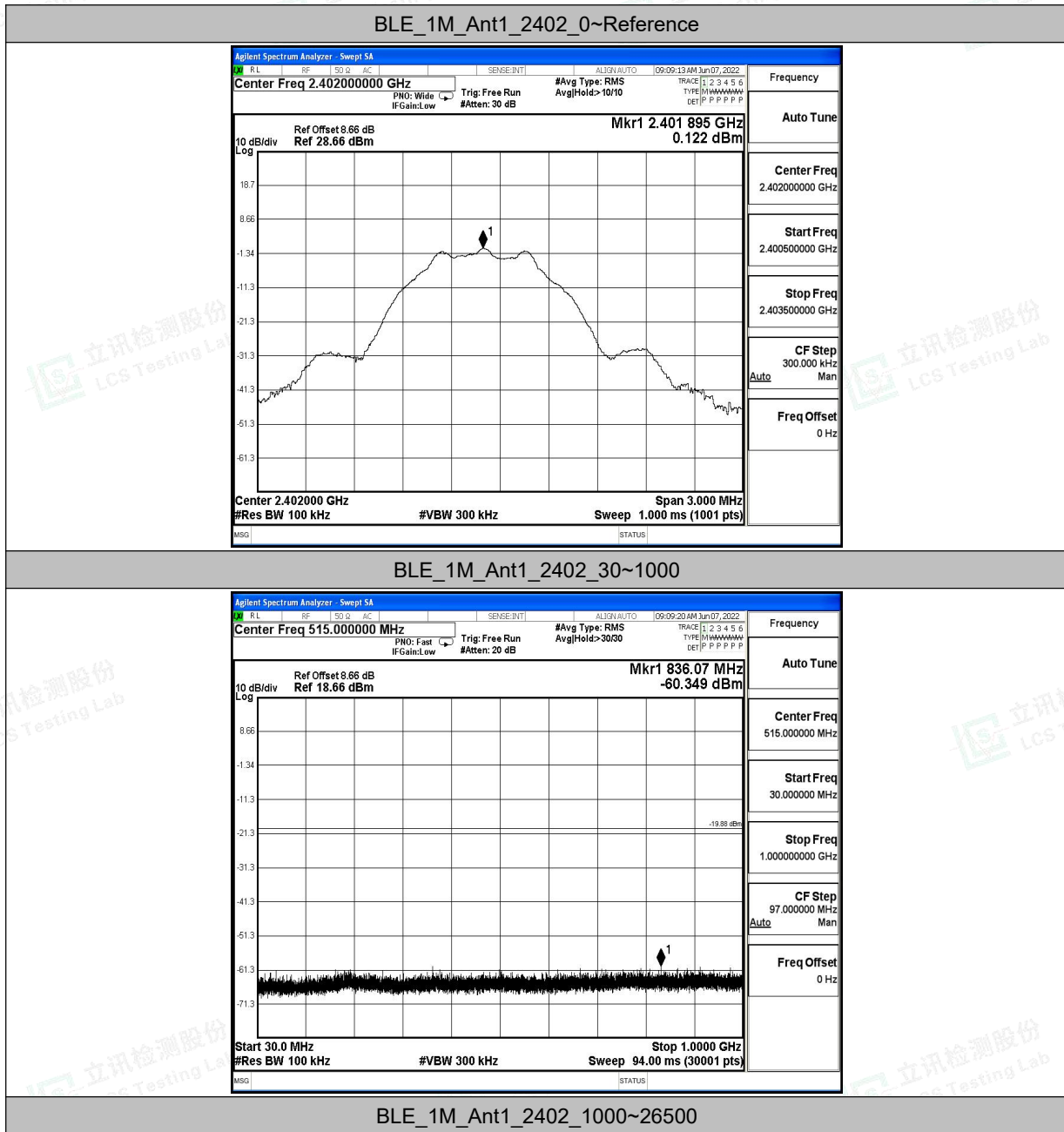
Test Result

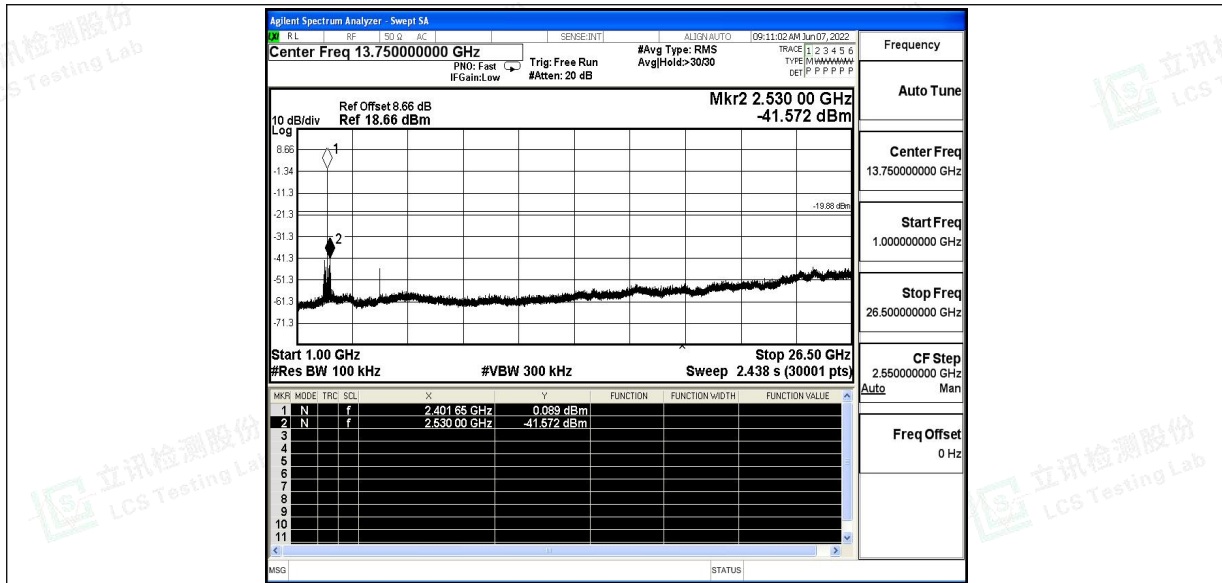
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.12	0.12	---	PASS
			30~1000	0.12	-60.35	≤-19.88	PASS
			1000~26500	0.12	-41.57	≤-19.88	PASS
		2440	Reference	0.11	0.11	---	PASS
			30~1000	0.11	-59.75	≤-19.89	PASS
			1000~26500	0.11	-41.33	≤-19.89	PASS
		2480	Reference	0.42	0.42	---	PASS
			30~1000	0.42	-60.34	≤-19.58	PASS
			1000~26500	0.42	-40.99	≤-19.58	PASS



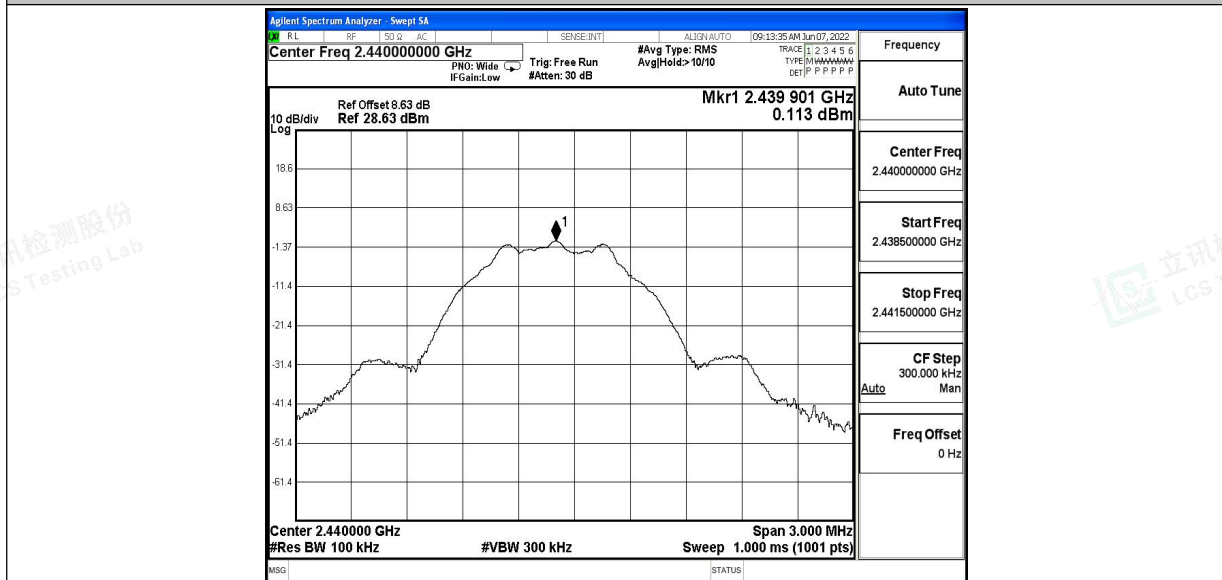


Test Graphs



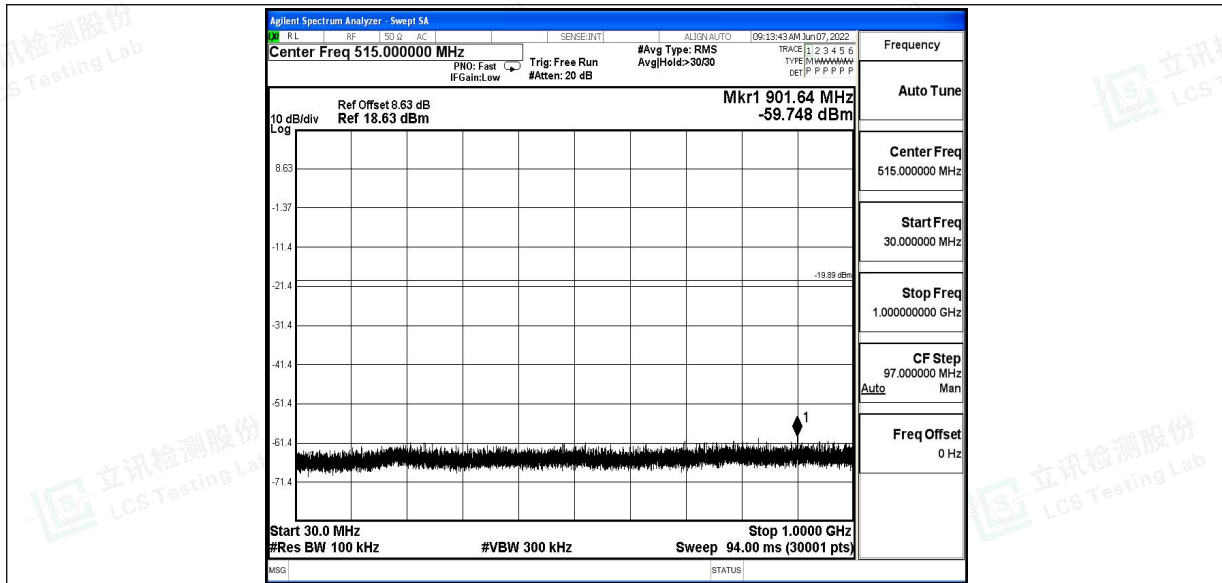


BLE_1M_Ant1_2440_0~Reference

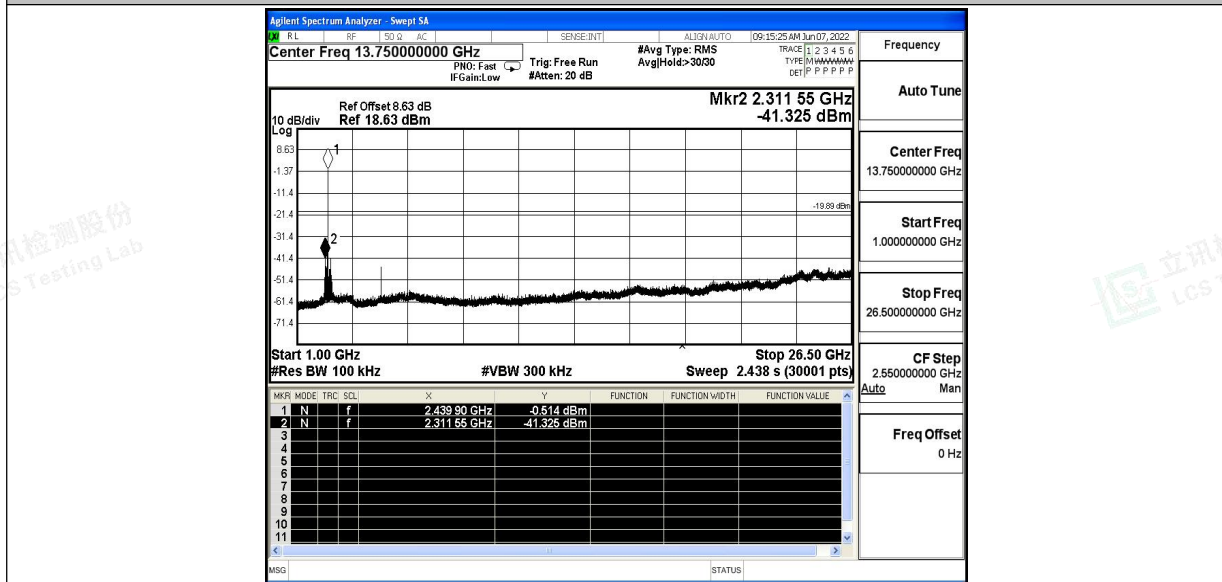


BLE_1M_Ant1_2440_30~1000



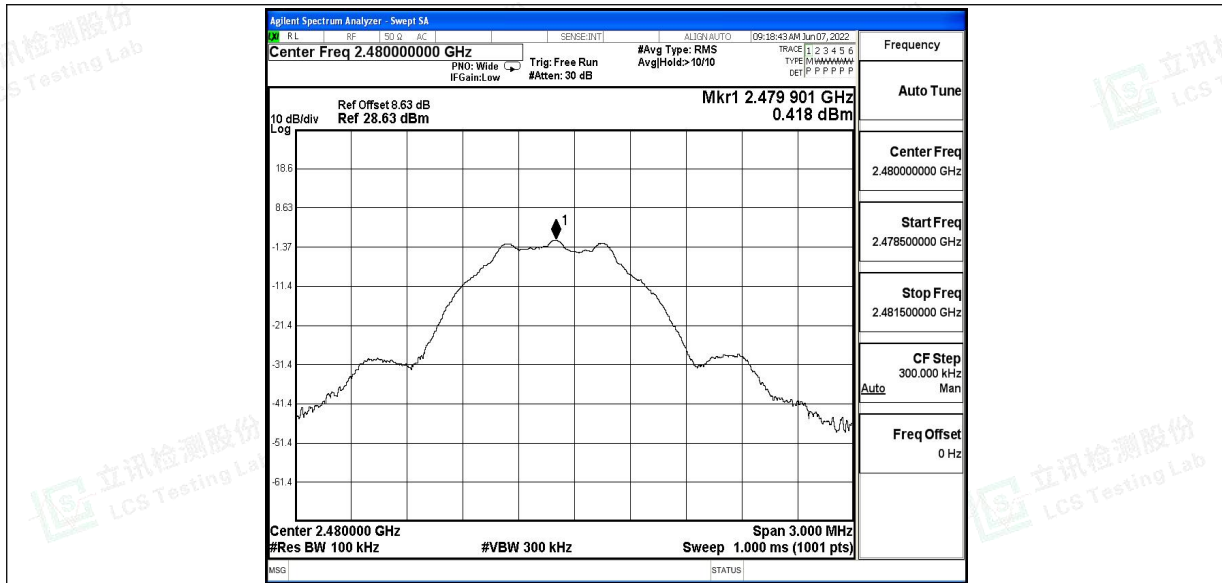


BLE_1M_Ant1_2440_1000~26500

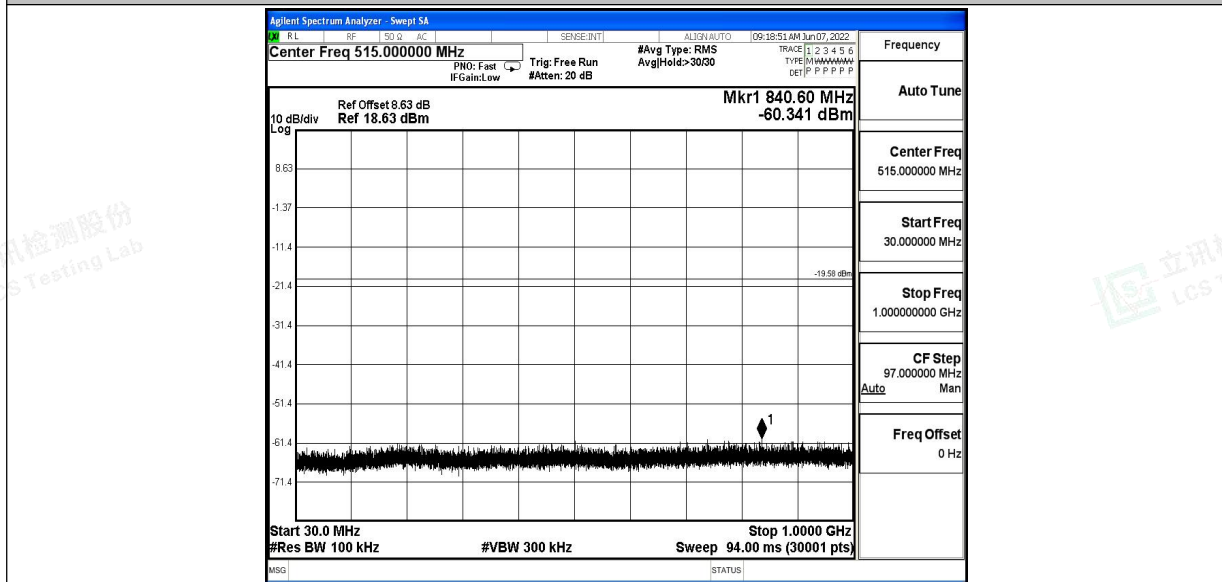


BLE_1M_Ant1_2480_0~Reference



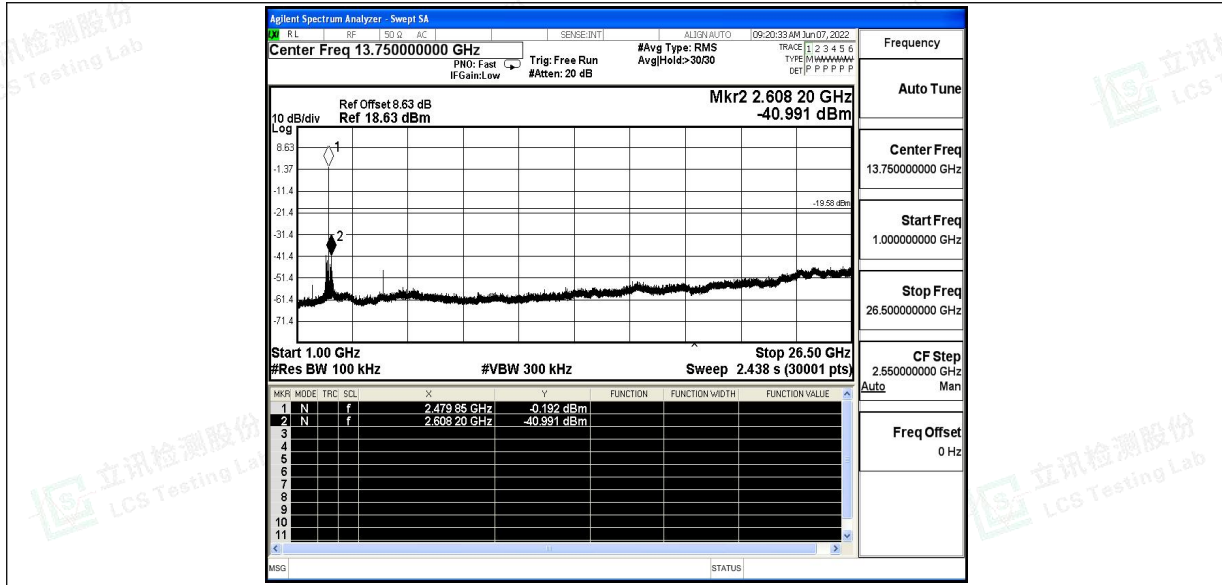


BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500







A.7 Duty Cycle

Test Result

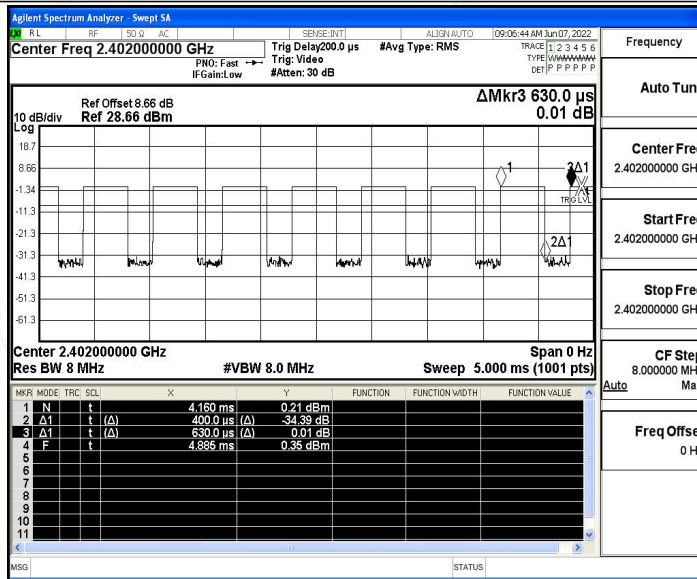
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	0.40	0.63	0.6349	63.49	1.97	2.50	---	---
		2440	0.40	0.63	0.6349	63.49	1.97	2.50	---	---
		2480	0.40	0.63	0.6349	63.49	1.97	2.50	---	---



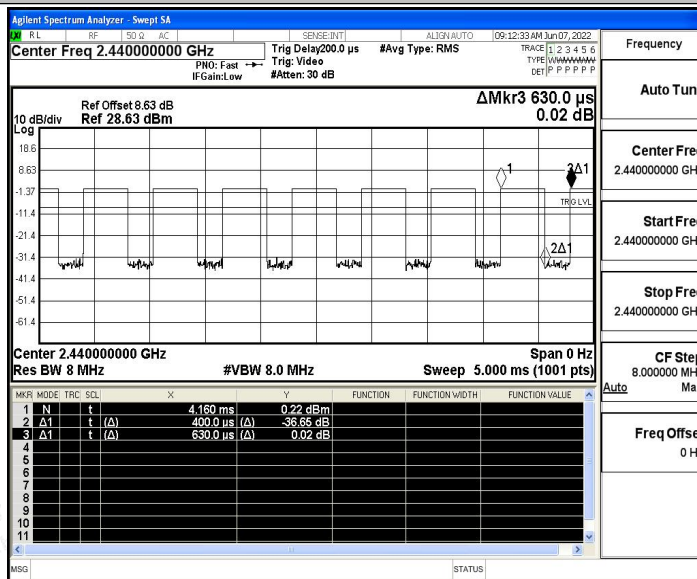


Test Graphs

BLE_1M_Ant1_2402

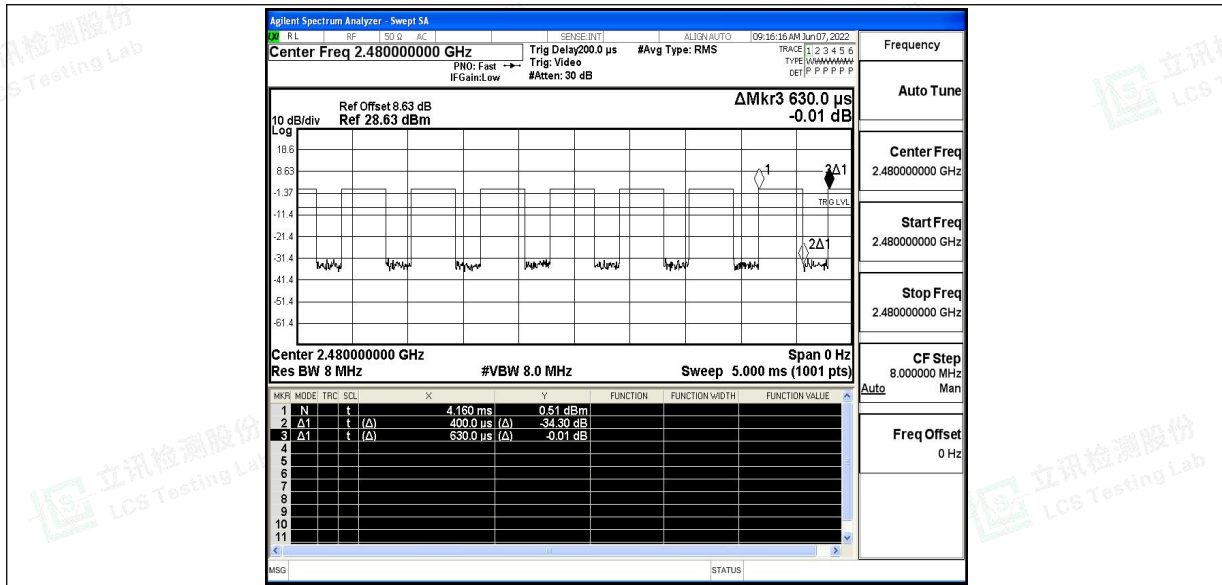


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







A.8 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_1M	Ant1	Low	2402	AV	2310.000	-53.82	≤-41.20	41.38	≤54	PASS
				AV	2337.905	-42.82	≤-41.20	52.38	≤54	PASS
				AV	2390.000	-54	≤-41.20	41.20	≤54	PASS
				Peak	2310.000	-44.81	≤-21.20	50.39	≤74	PASS
				Peak	2338.220	-39.83	≤-21.20	55.37	≤74	PASS
				Peak	2390.000	-42.04	≤-21.20	53.16	≤74	PASS
		High	2480	AV	2483.500	-49.58	≤-41.20	45.62	≤54	PASS
				AV	2483.520	-49.58	≤-41.20	45.62	≤54	PASS
				AV	2500.000	-52.15	≤-41.20	43.05	≤54	PASS
				Peak	2483.500	-32.1	≤-21.20	63.10	≤74	PASS
				Peak	2483.520	-32.1	≤-21.20	63.10	≤74	PASS
				Peak	2500.000	-44.45	≤-21.20	50.75	≤74	PASS

Note:

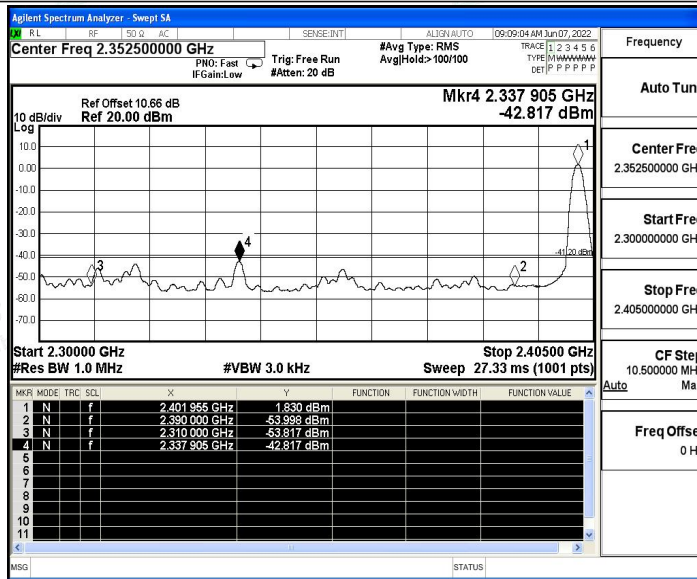
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



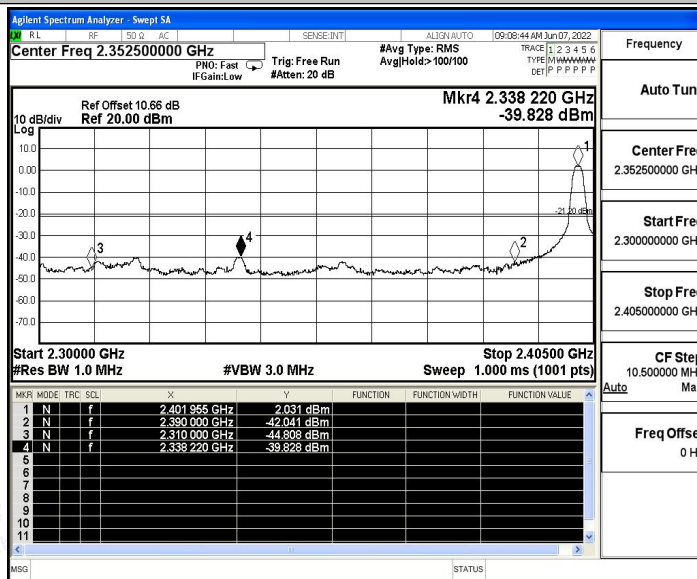


Test Graphs

BLE_1M_Ant1_Low_2402_AV

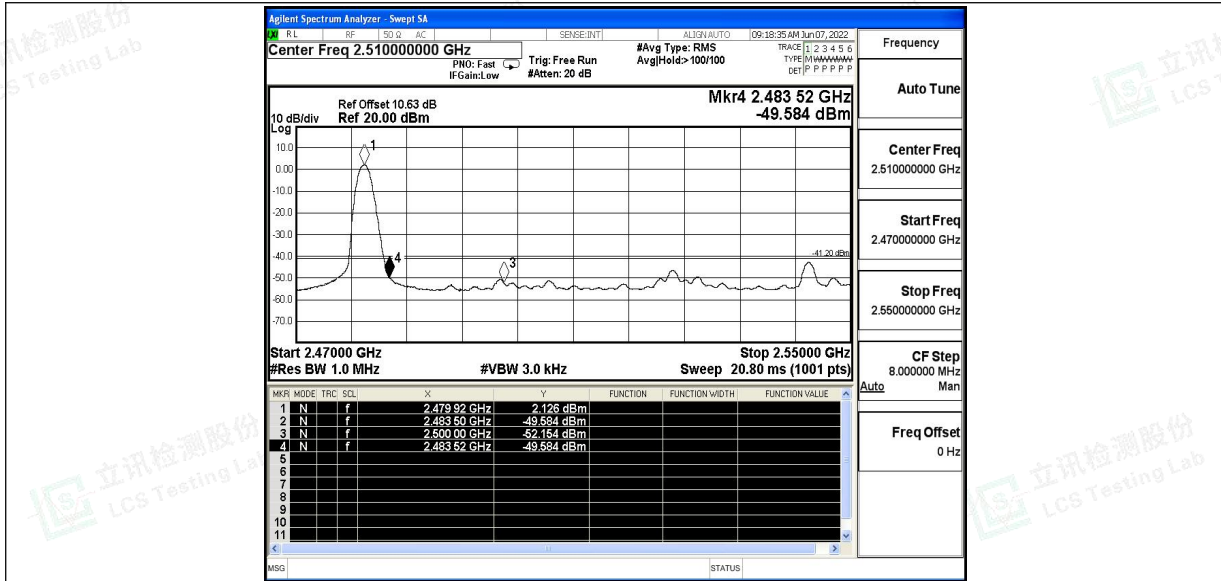


BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV





BLE_1M_Ant1_High_2480_Peak

