



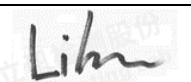
Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: LED recessed luminaire

Test Model: PL-D4-B09

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Nick Peng
Supervised by:	 Li Huan





A.1 DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant	2402	0.708	2401.632	2402.340	0.5	PASS
		2440	0.716	2439.632	2440.348	0.5	PASS
		2480	0.716	2479.632	2480.348	0.5	PASS





Test Graphs

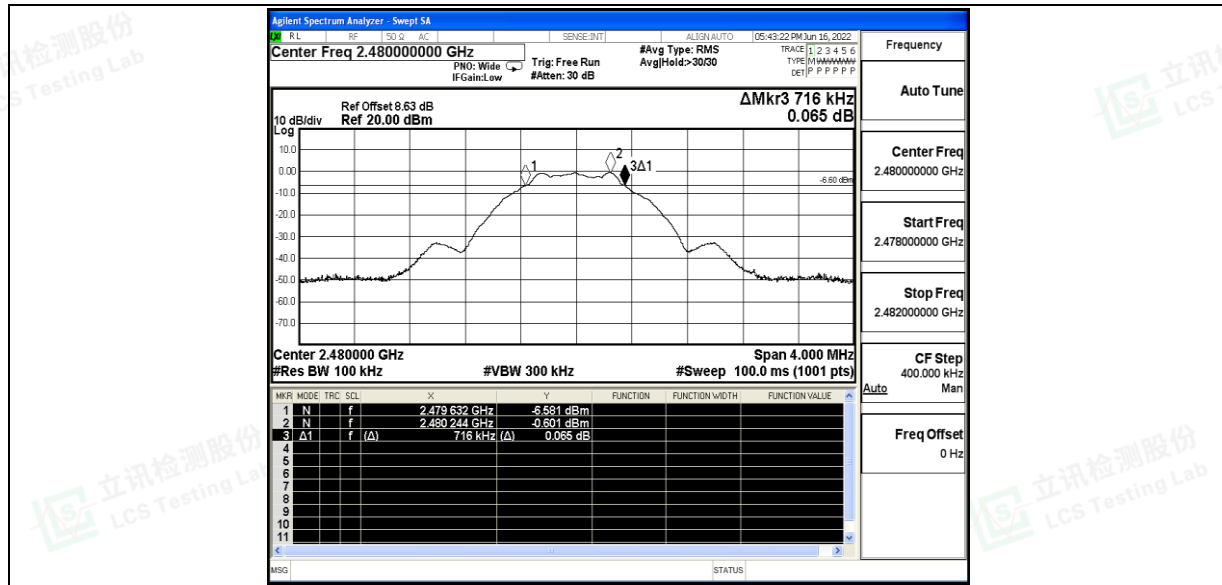


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A.2 Maximum conducted output power

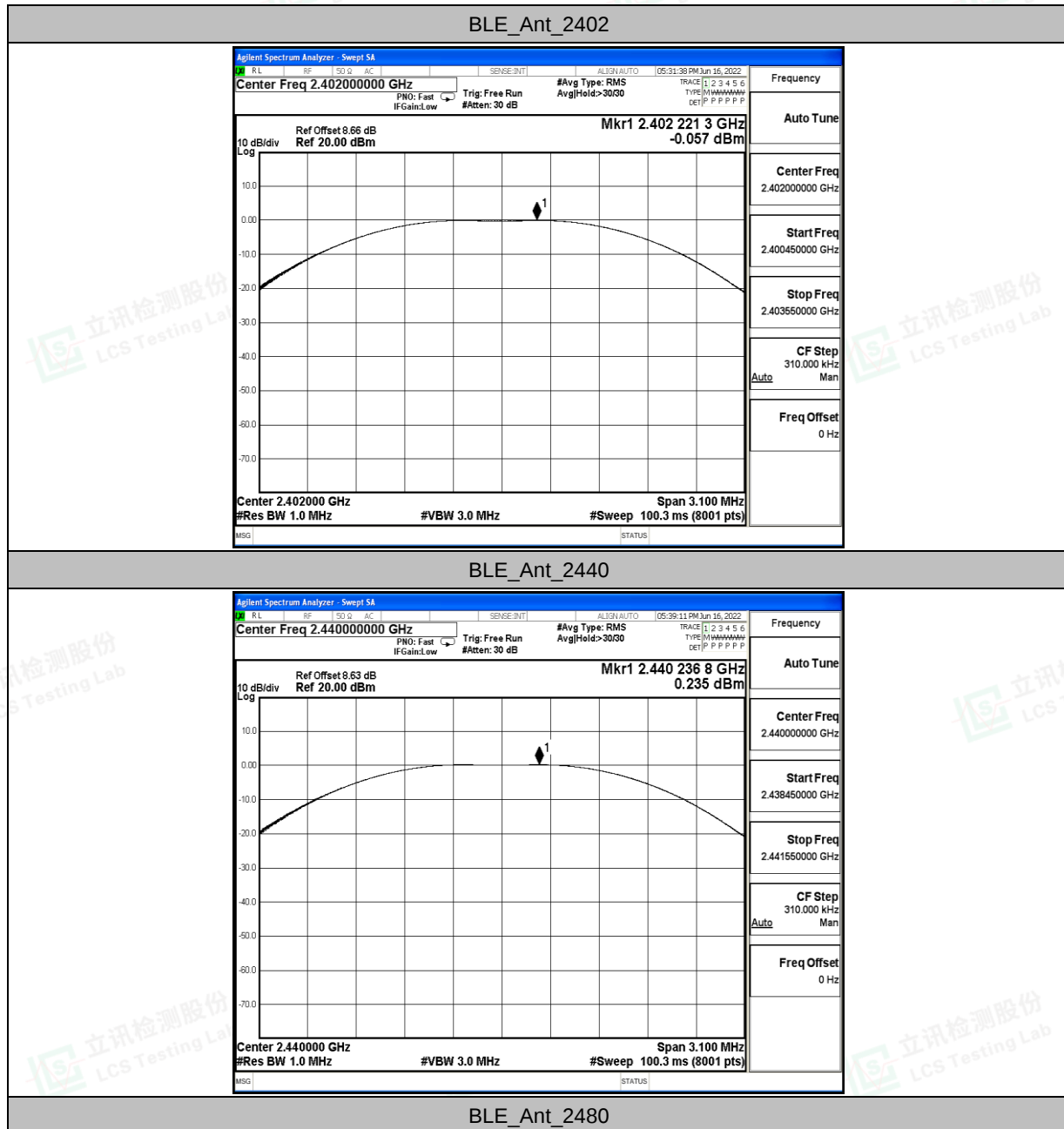
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	-0.06	≤30	PASS
		2440	0.24	≤30	PASS
		2480	0.37	≤30	PASS





Test Graphs

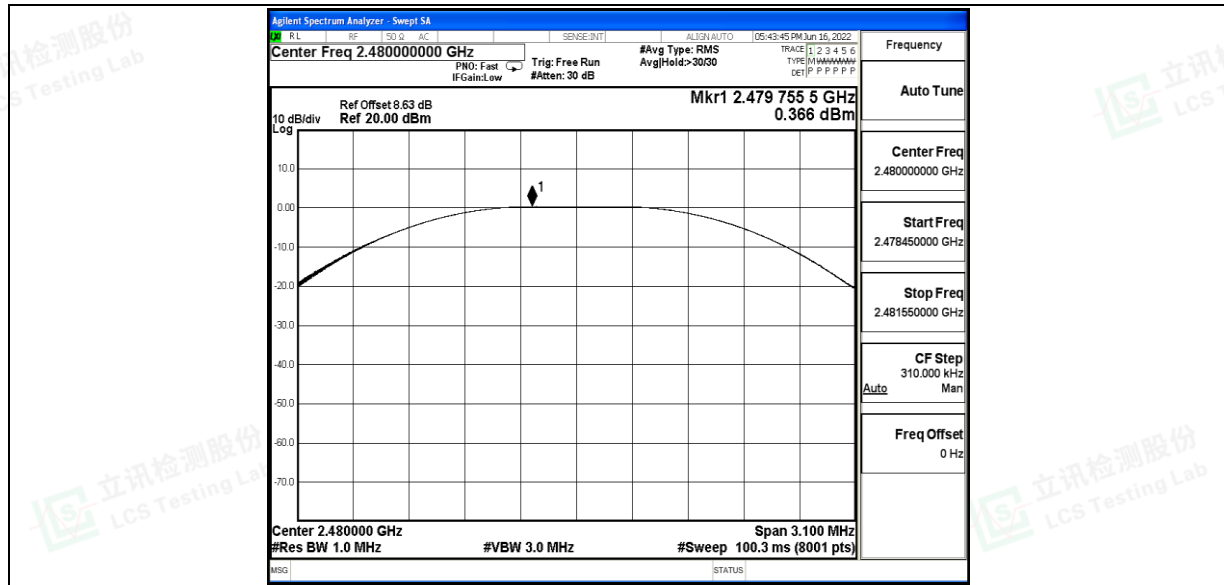


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A.3 Maximum power spectral density

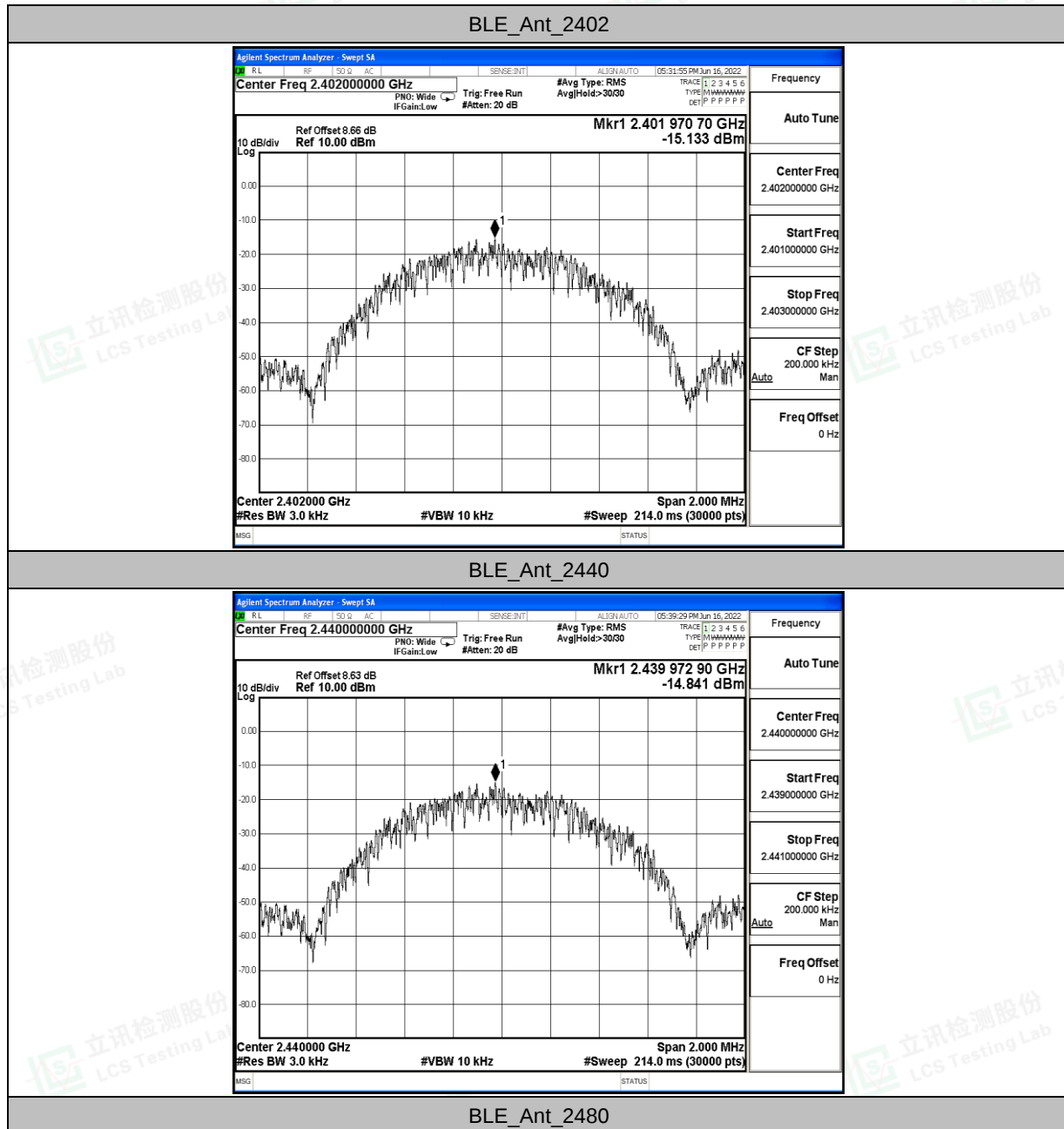
Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant	2402	-15.13	≤8.00	PASS
		2440	-14.84	≤8.00	PASS
		2480	-14.77	≤8.00	PASS





Test Graphs

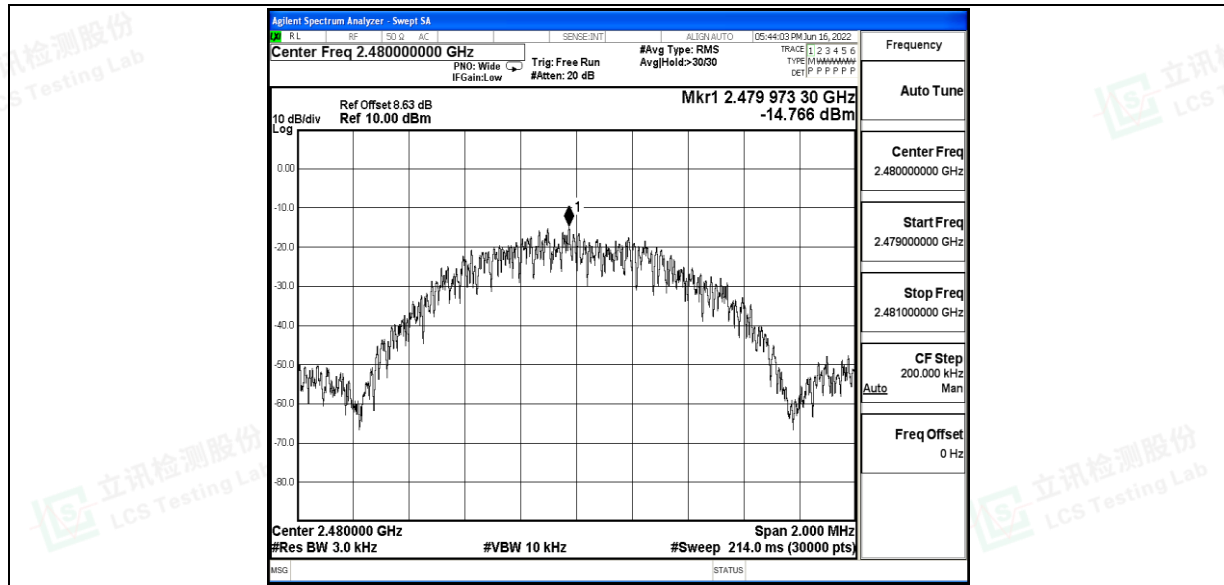


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A.4 Band edge measurements

Test Result

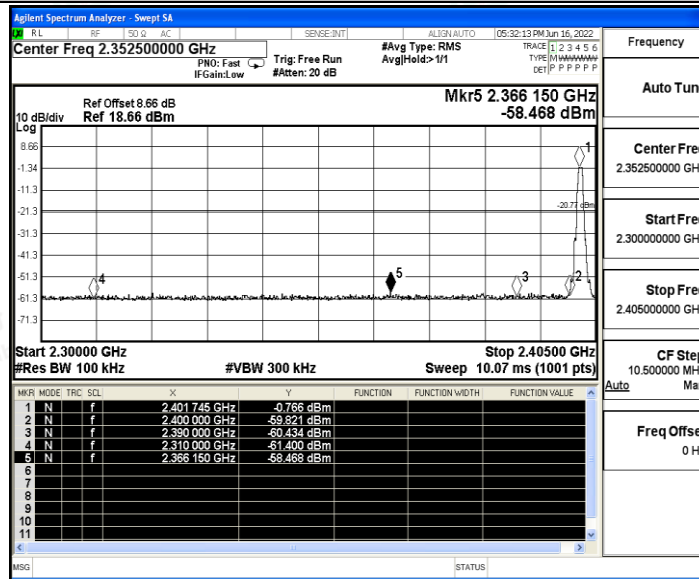
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	Low	2402	-0.77	-58.47	≤ -20.77	PASS
		High	2480	-0.35	-58.09	≤ -20.35	PASS



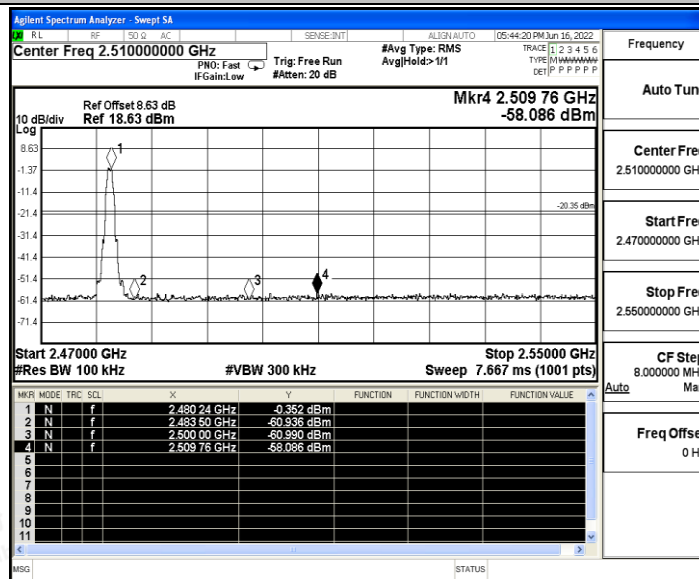


Test Graphs

BLE_Ant_Low_2402



BLE_Ant_High_2480



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A.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	Reference	-0.97	-0.97	---	PASS
			30~1000	-0.97	-56.88	≤ -20.97	PASS
			1000~26500	-0.97	-46.17	≤ -20.97	PASS
		2440	Reference	-0.72	-0.72	---	PASS
			30~1000	-0.72	-57.58	≤ -20.72	PASS
			1000~26500	-0.72	-45.75	≤ -20.72	PASS
		2480	Reference	-0.54	-0.54	---	PASS
			30~1000	-0.54	-57.23	≤ -20.54	PASS
			1000~26500	-0.54	-46.32	≤ -20.54	PASS



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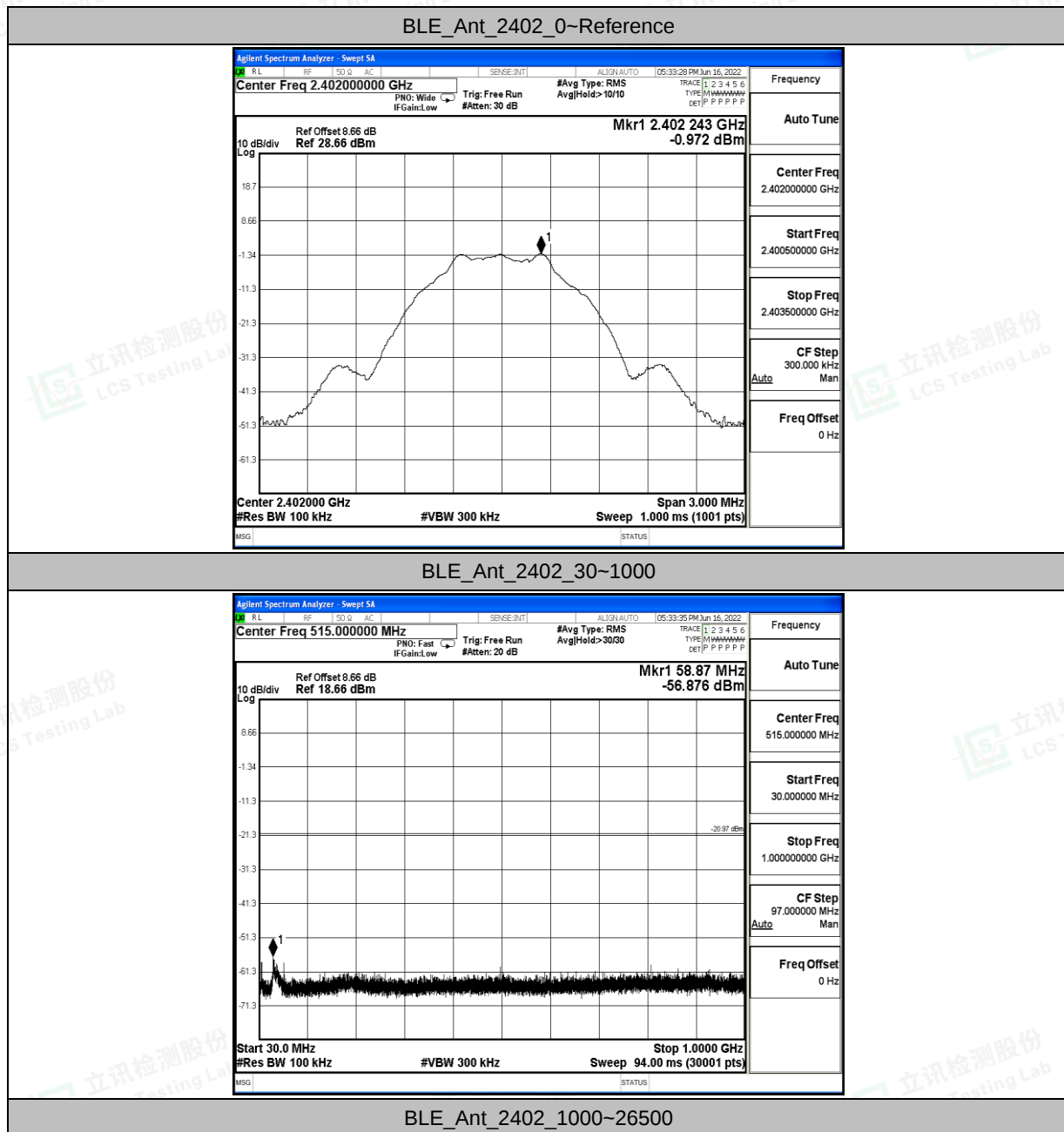
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Test Graphs

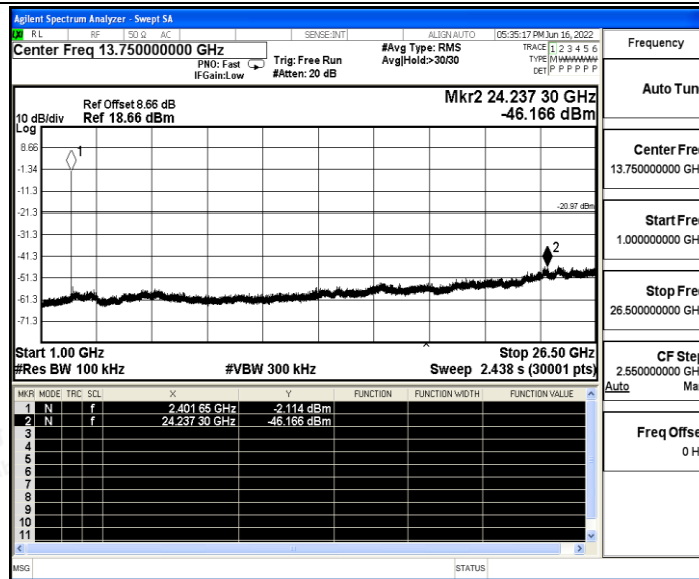


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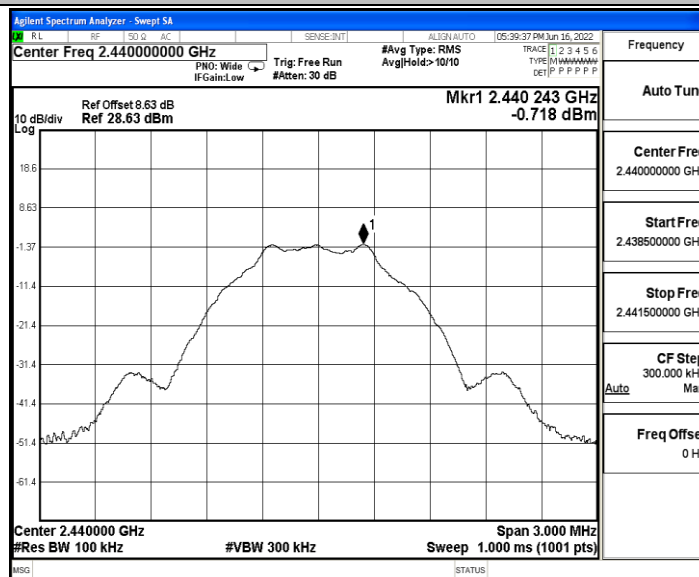
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BLE_Ant_2440_0~Reference



BLE_Ant_2440_30~1000

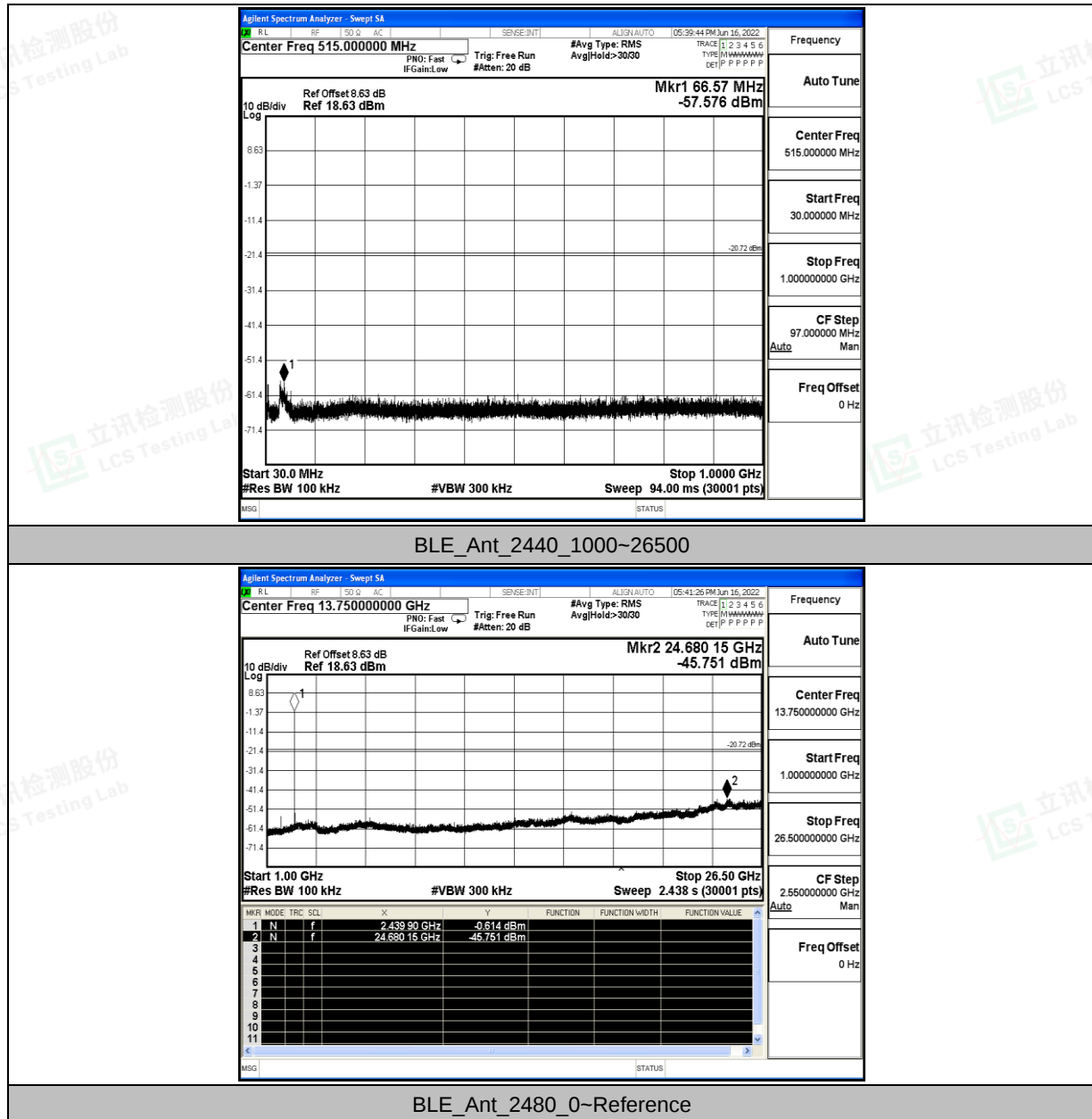


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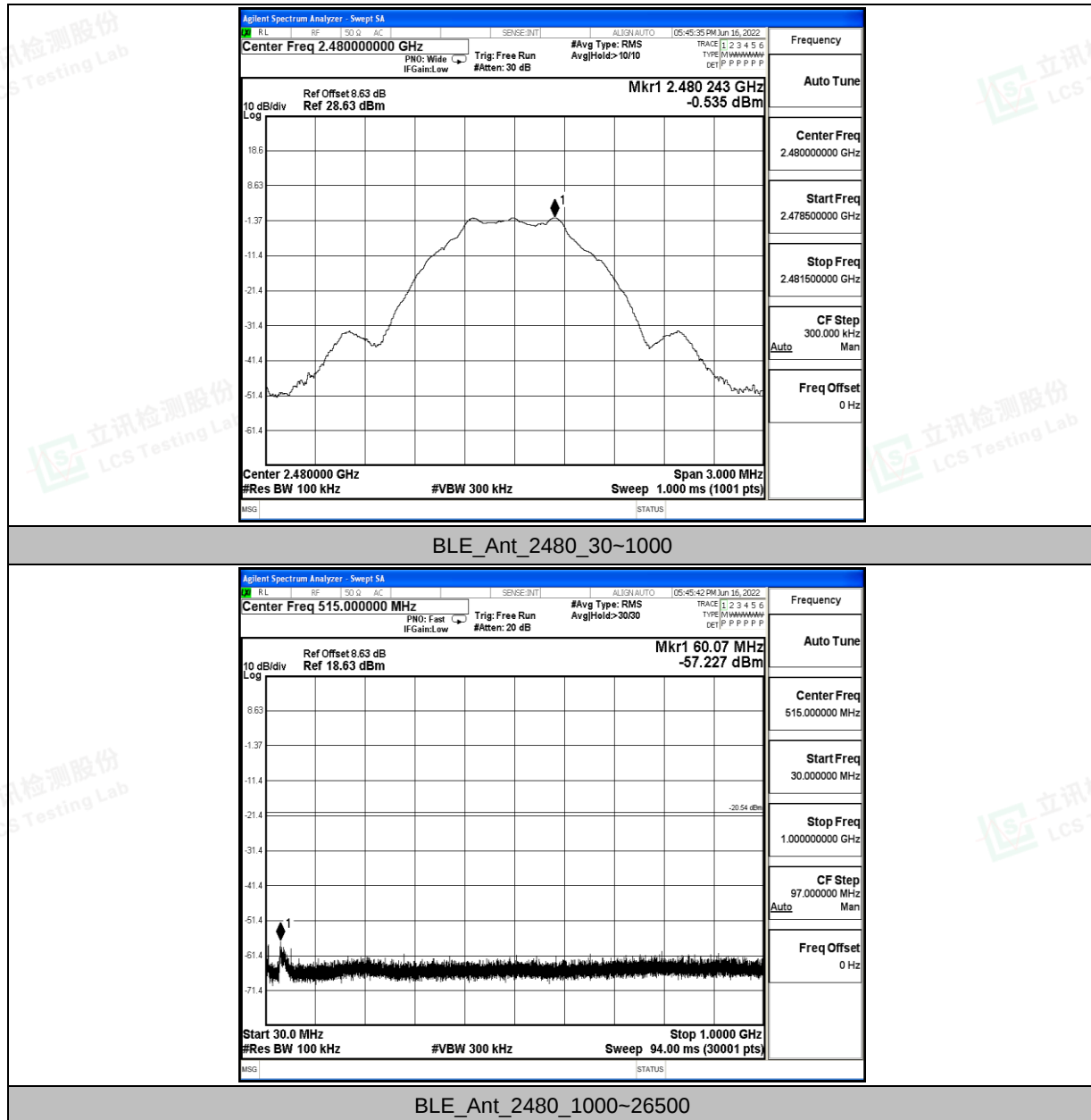


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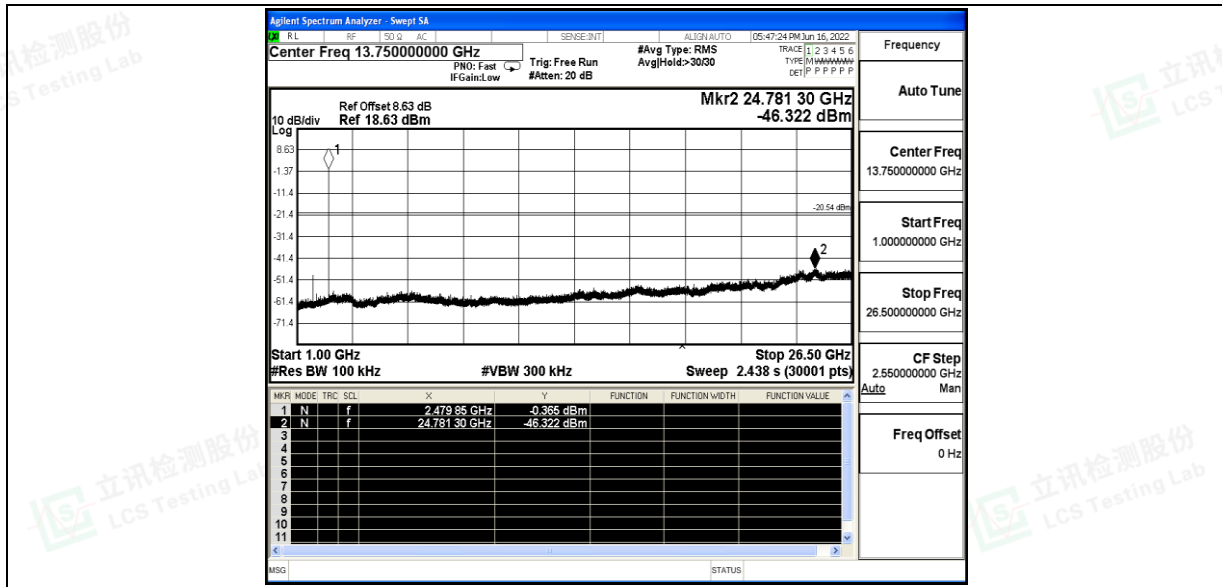


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A.6 Duty Cycle

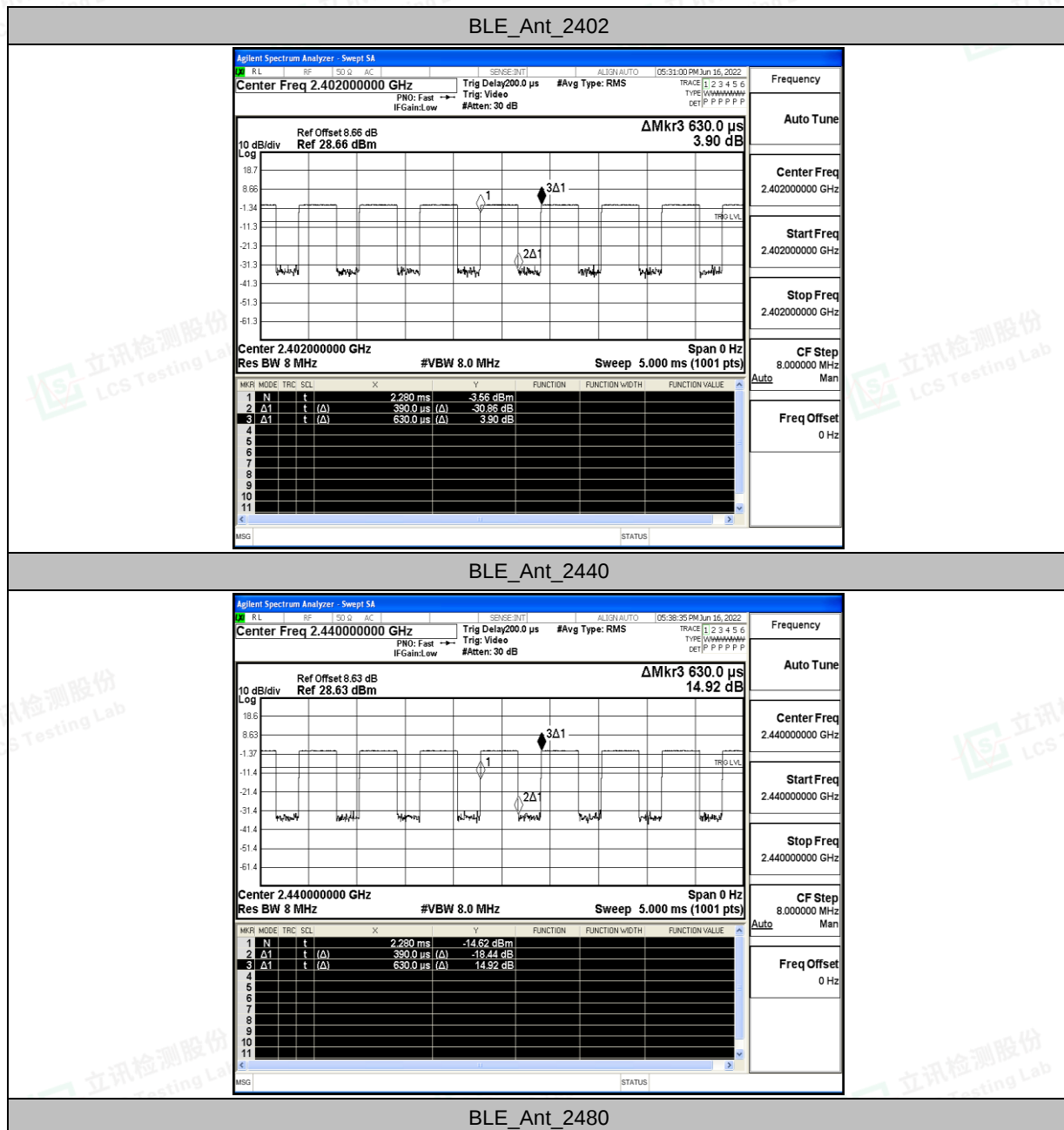
Test Result

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	0.38	0.62	0.6129	61.29	2.13	2.63	---	---





Test Graphs

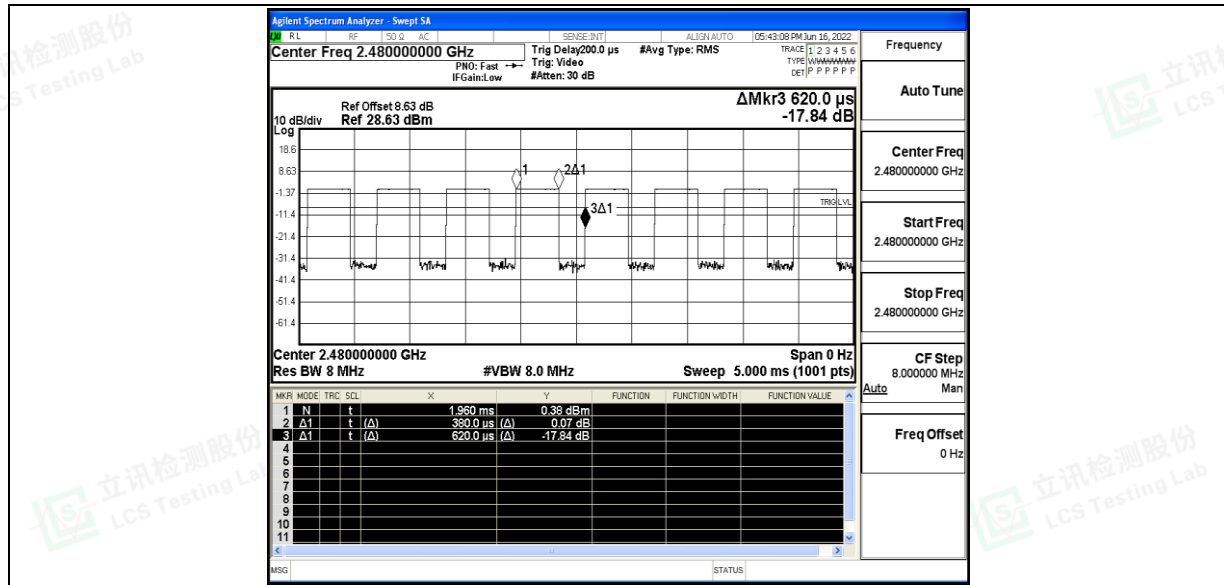


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A.7 Emissions in Restricted Bands

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	-57.27	≤-41.20	37.93	≤54	PASS
				AV	2378.225	-56.36	≤-41.20	38.84	≤54	PASS
				AV	2390.000	-56.82	≤-41.20	38.38	≤54	PASS
				Peak	2310.000	-49.27	≤-21.20	45.93	≤74	PASS
				Peak	2356.385	-46.92	≤-21.20	48.28	≤74	PASS
				Peak	2390.000	-47.32	≤-21.20	47.88	≤74	PASS
		High	2480	AV	2483.500	-53.06	≤-41.20	42.14	≤54	PASS
				AV	2483.520	-53.06	≤-41.20	42.14	≤54	PASS
				AV	2500.000	-56.09	≤-41.20	39.11	≤54	PASS
				Peak	2483.500	-47.03	≤-21.20	48.17	≤74	PASS
				Peak	2497.920	-45.73	≤-21.20	49.47	≤74	PASS
				Peak	2500.000	-47.16	≤-21.20	48.04	≤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

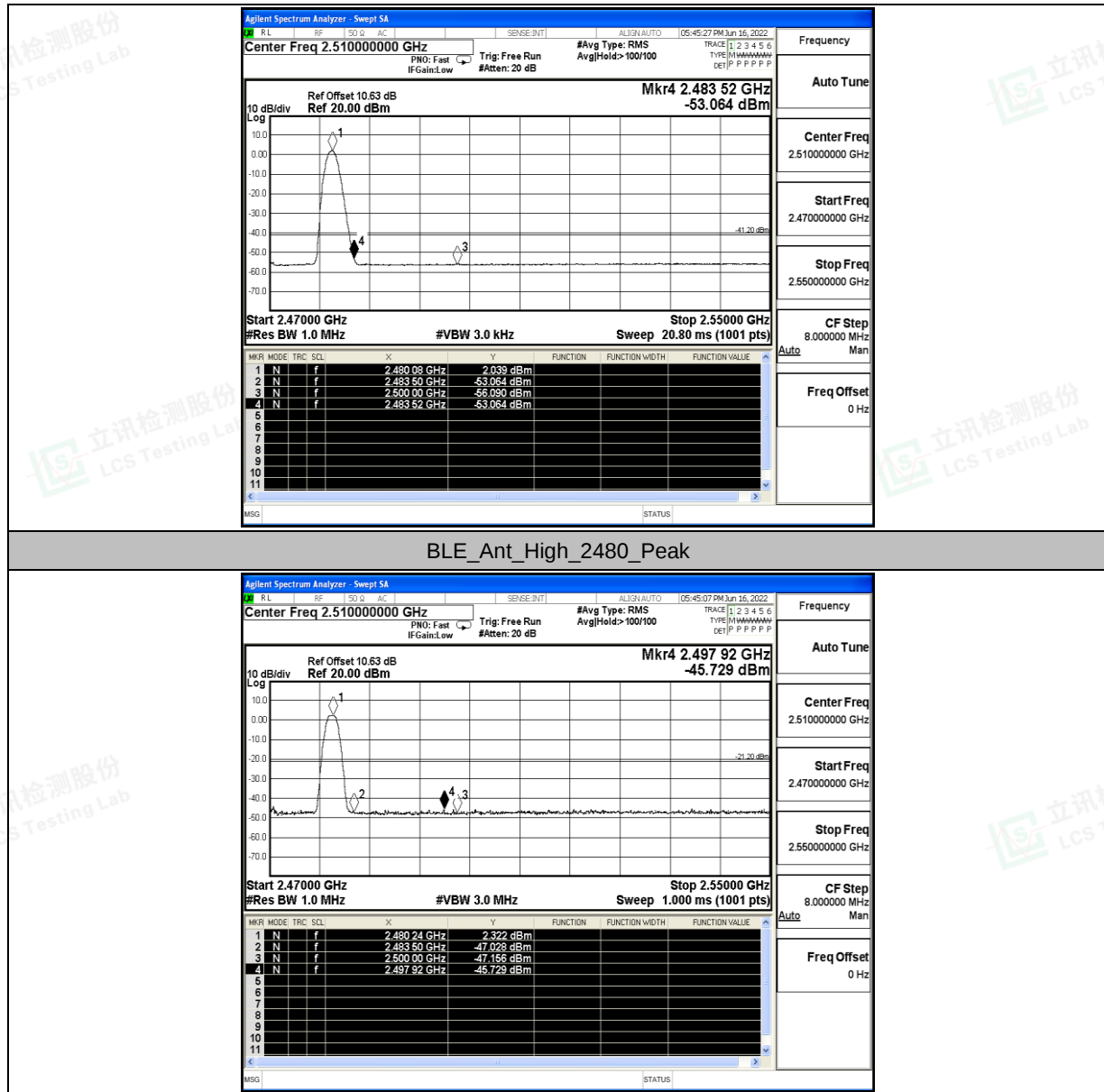


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