



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: LED Light Bar

Test Model: STG-6805-TG

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan



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A.1 DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant	2402	0.668	2401.668	2402.336	0.5	PASS
		2440	0.672	2439.660	2440.332	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS

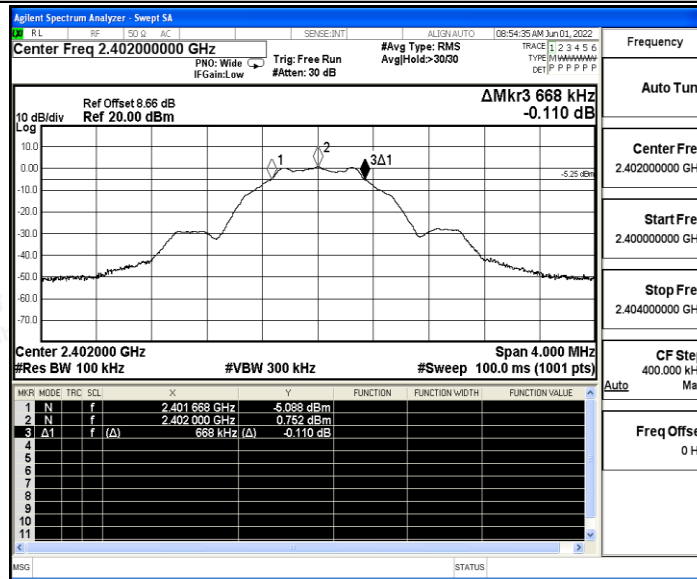


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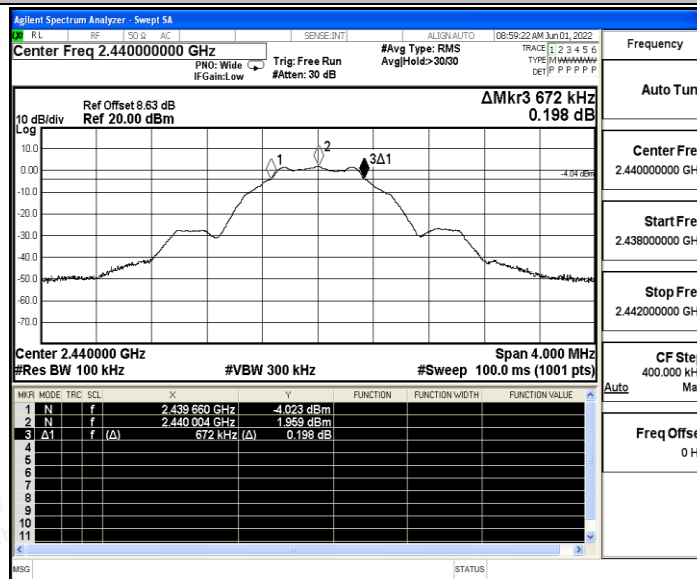


Test Graphs

BLE_1M_Ant_2402



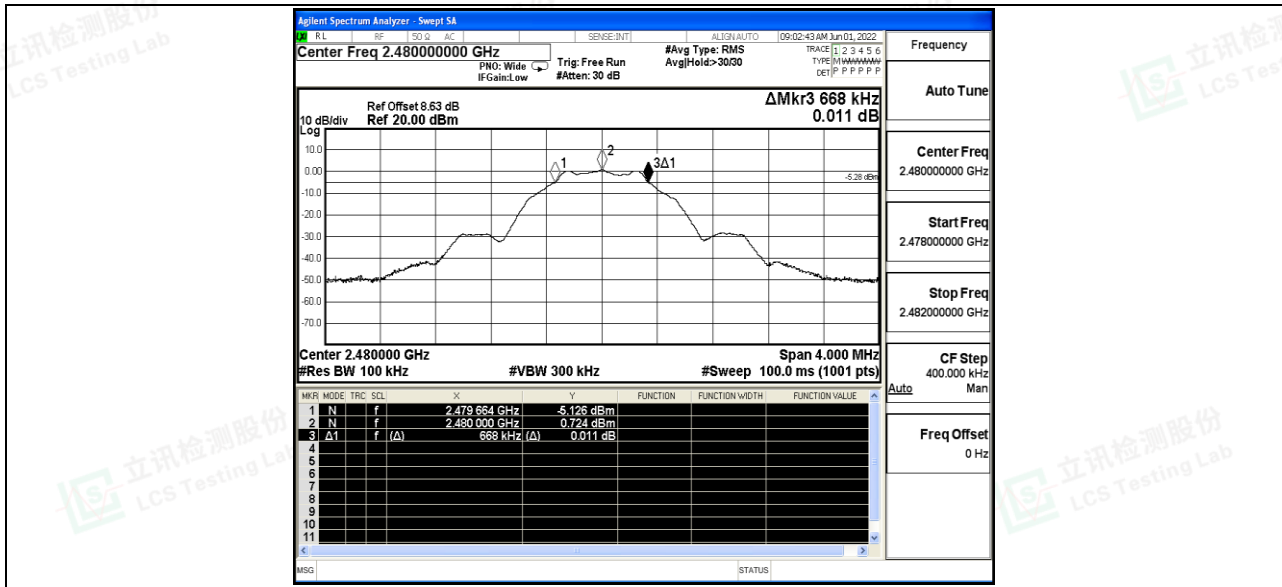
BLE_1M_Ant_2440



BLE_1M_Ant_2480



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A.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant	2402	1.33	≤30	PASS
		2440	2.59	≤30	PASS
		2480	1.28	≤30	PASS

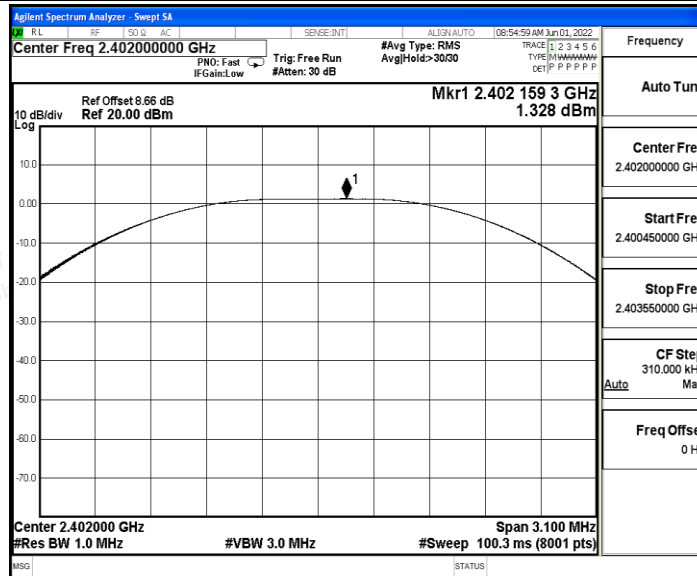


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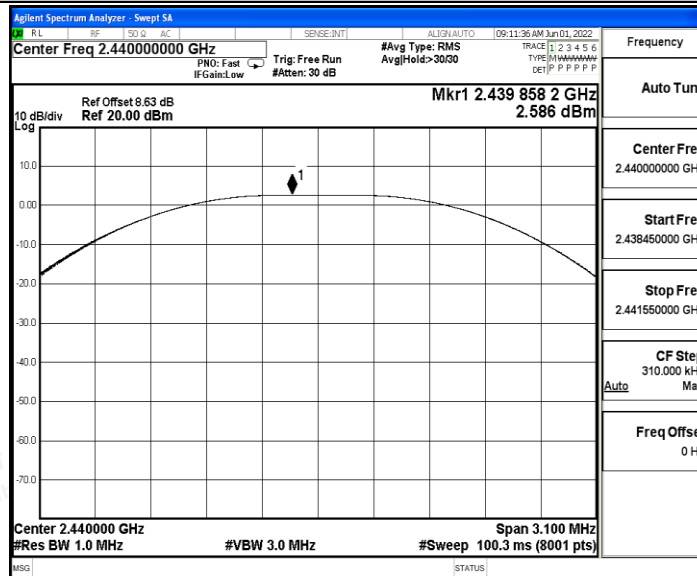


Test Graphs

BLE_1M_Ant_2402

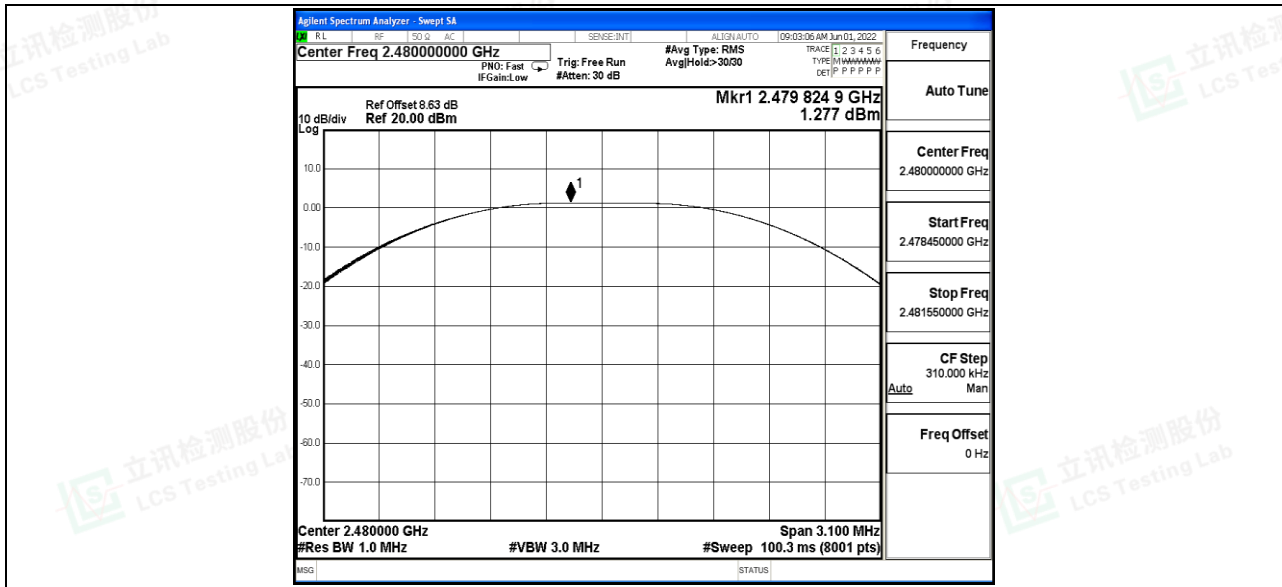


BLE_1M_Ant_2440



BLE_1M_Ant_2480







A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant	2402	-13.61	≤ 8.00	PASS
		2440	-12.13	≤ 8.00	PASS
		2480	-13.5	≤ 8.00	PASS

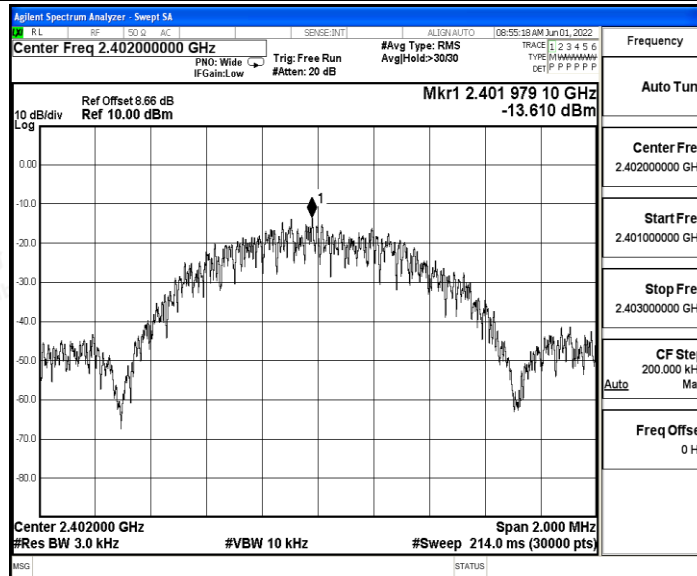


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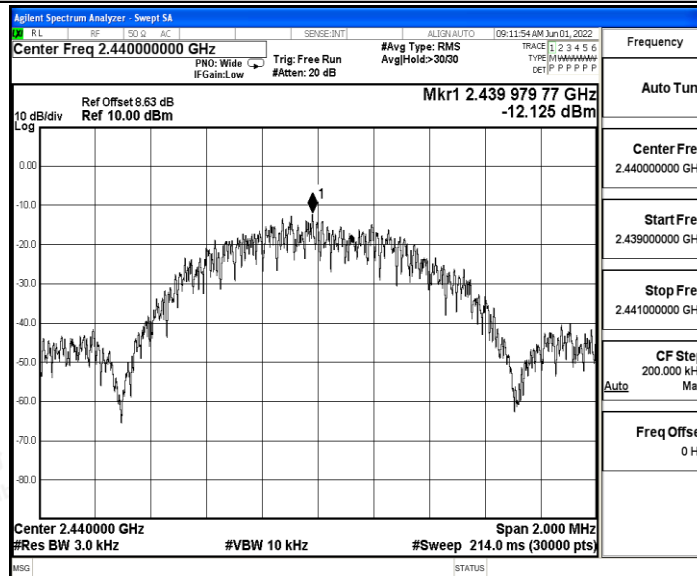


Test Graphs

BLE_1M_Ant_2402

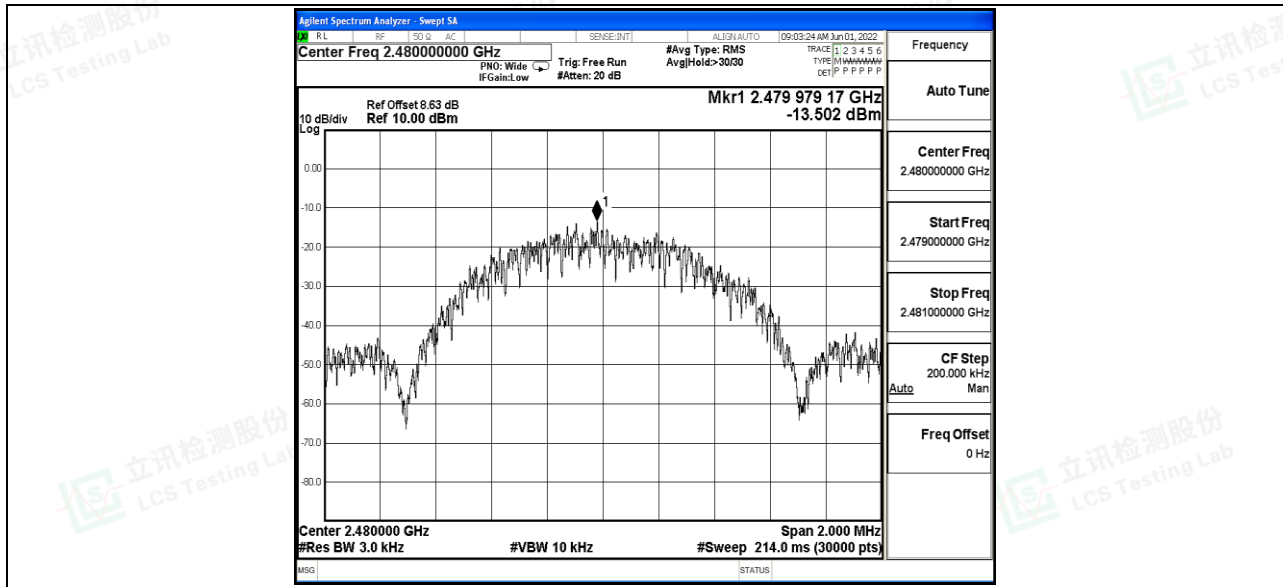


BLE_1M_Ant_2440



BLE_1M_Ant_2480





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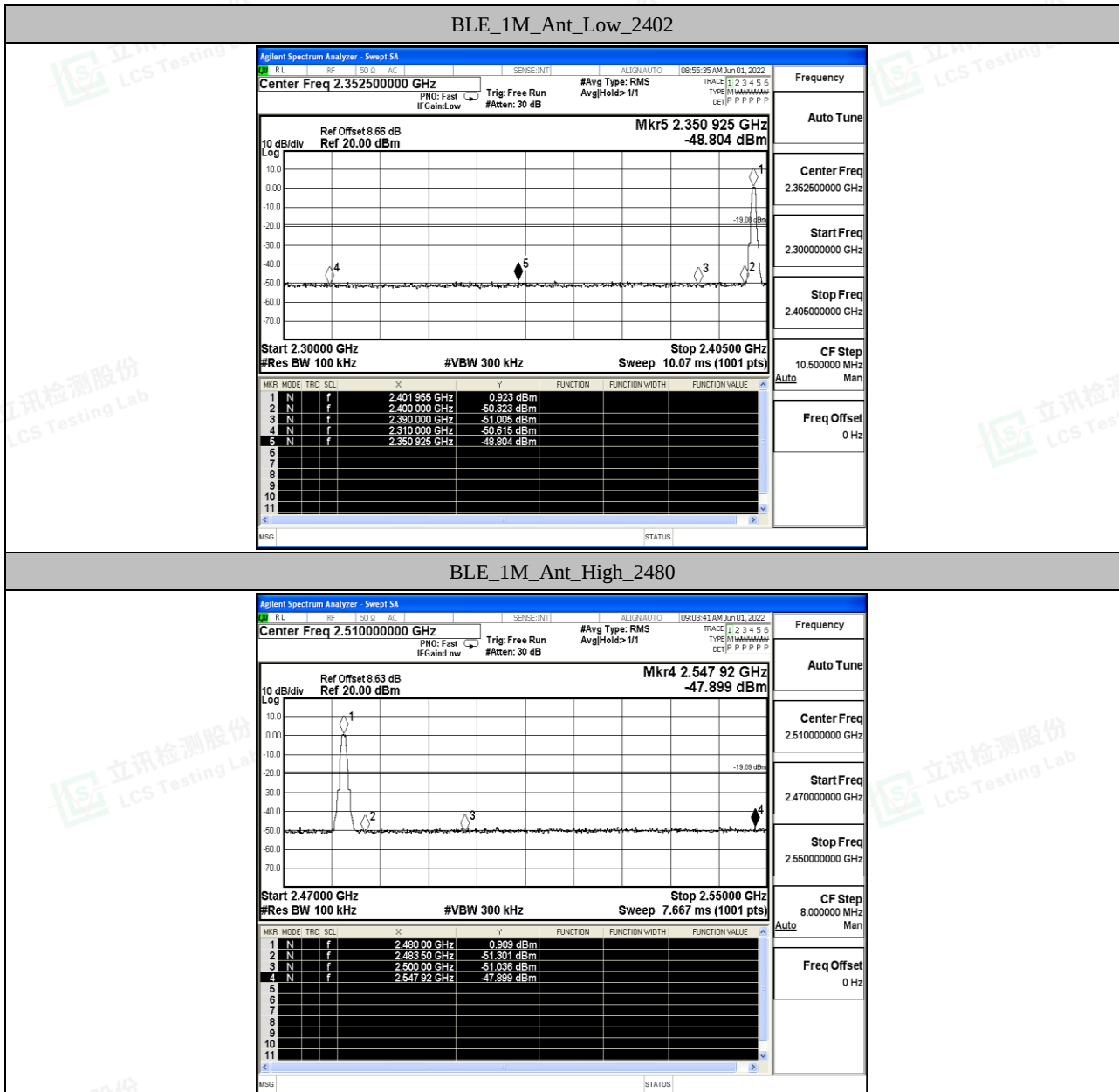


A.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant	Low	2402	0.92	-48.8	≤-19.08	PASS
		High	2480	0.91	-47.9	≤-19.09	PASS

Test Graphs





A.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant	2402	Reference	0.78	0.78	---	PASS
			30~1000	0.78	-56.47	≤-19.22	PASS
			1000~26500	0.78	-45.54	≤-19.22	PASS
		2440	Reference	1.95	1.95	---	PASS
			30~1000	1.95	-57.7	≤-18.05	PASS
			1000~26500	1.95	-46	≤-18.05	PASS
		2480	Reference	0.75	0.75	---	PASS
			30~1000	0.75	-57.12	≤-19.25	PASS
			1000~26500	0.75	-46.16	≤-19.25	PASS

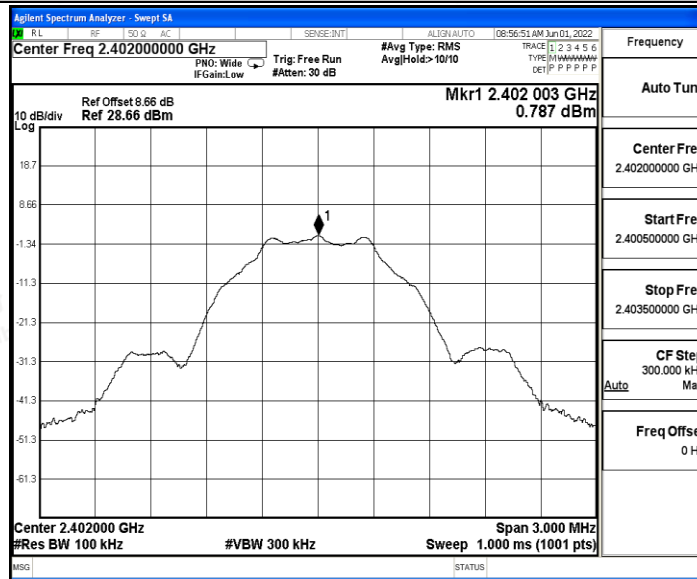


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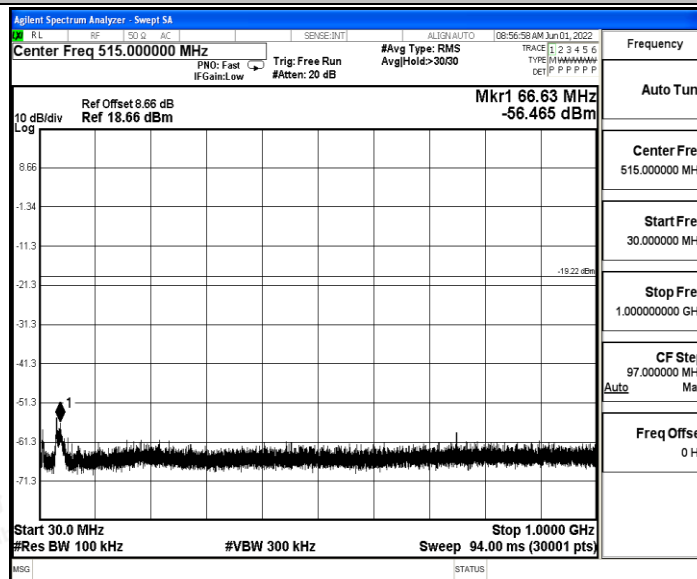


Test Graphs

BLE_1M_Ant_2402_0~Reference

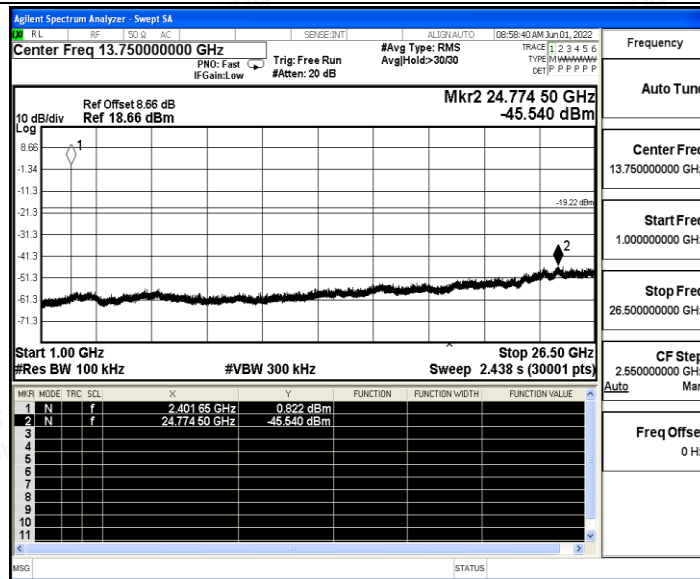


BLE_1M_Ant_2402_30~1000

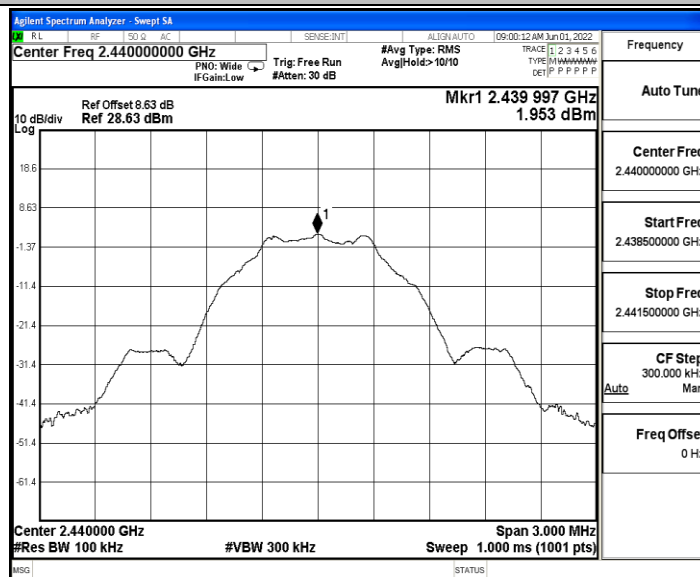


BLE_1M_Ant_2402_1000~26500



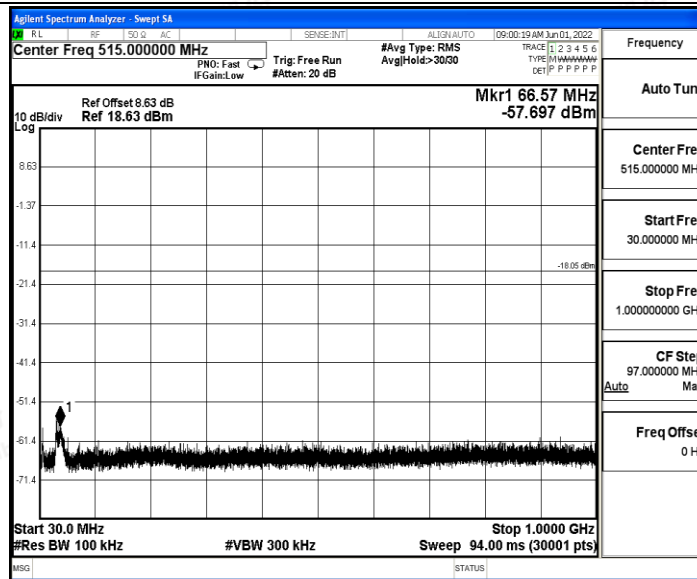


BLE_1M_Ant_2440_0~Reference

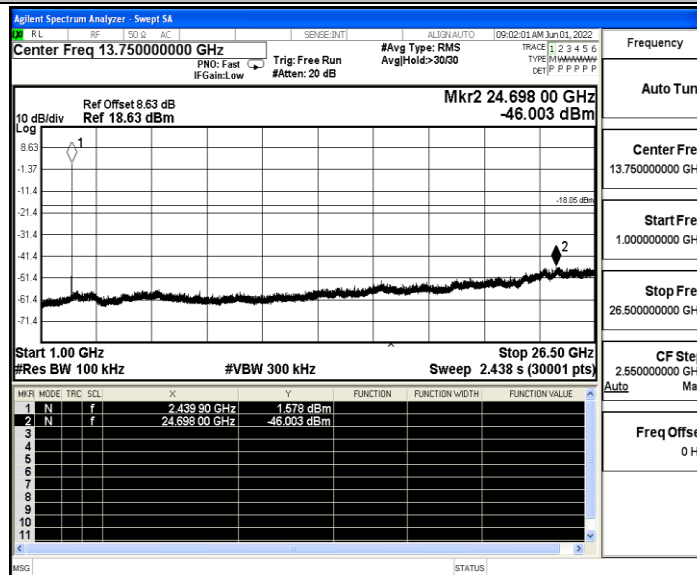


BLE_1M_Ant_2440_30~1000



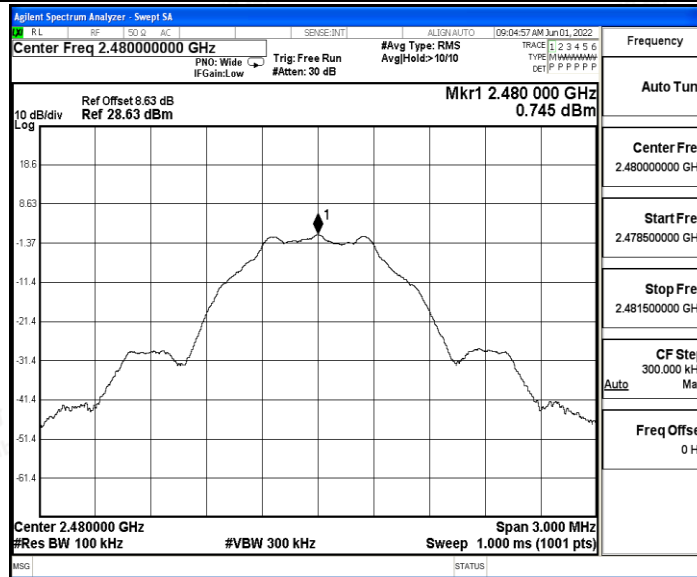


BLE_1M_Ant_2440_1000~26500

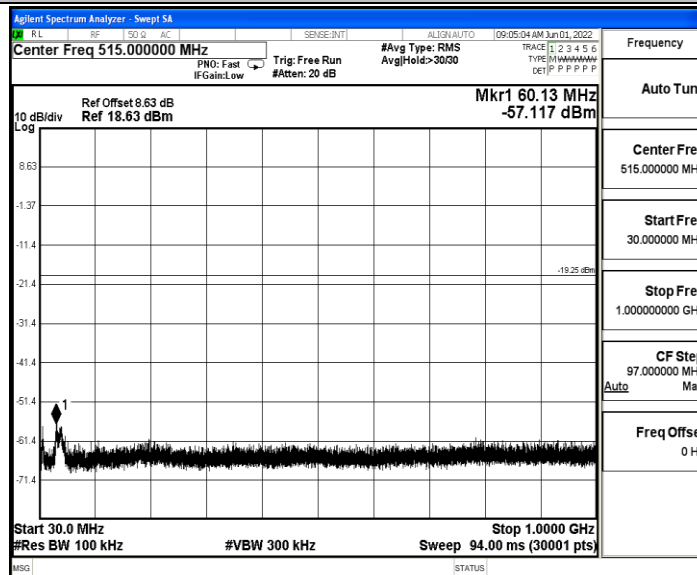


BLE_1M_Ant_2480_0~Reference



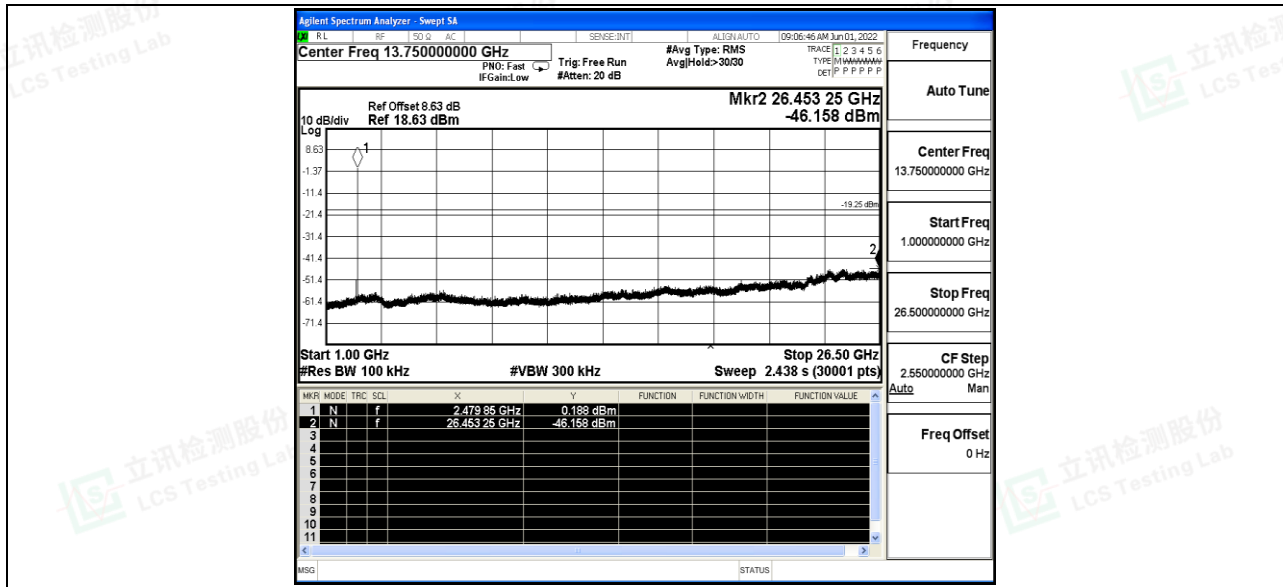


BLE_1M_Ant_2480_30~1000



BLE_1M_Ant_2480_1000~26500







A.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	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	0.63	0.6032	60.32	2.20	2.63	---	---

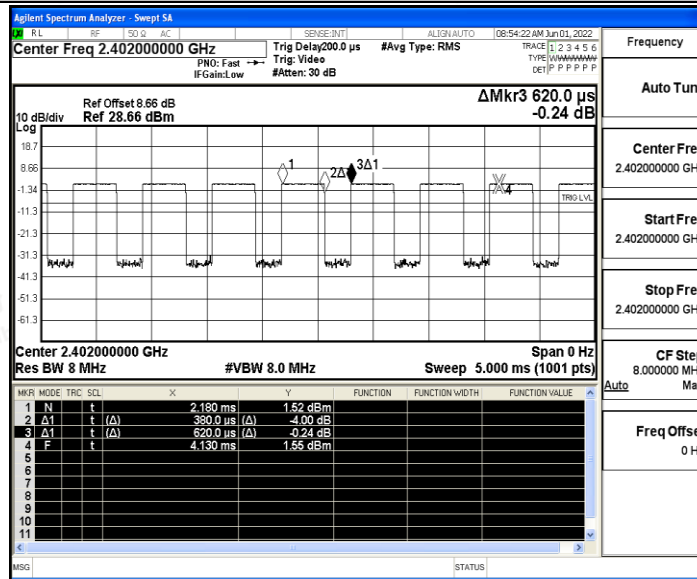


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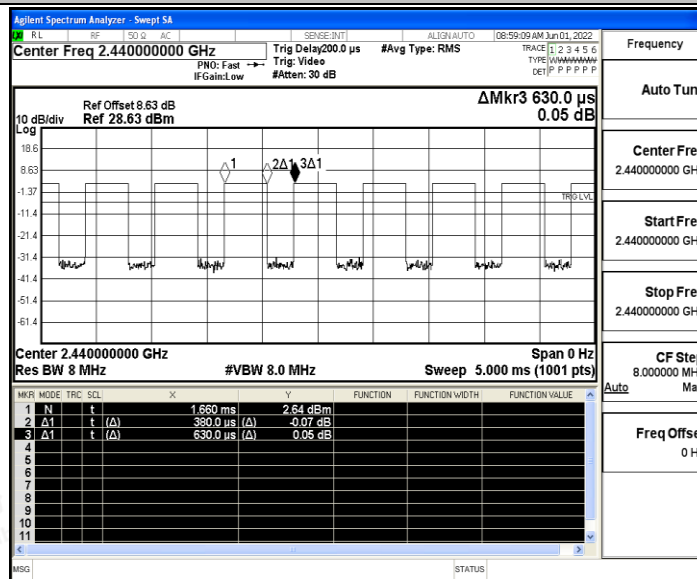


Test Graphs

BLE_1M_Ant_2402

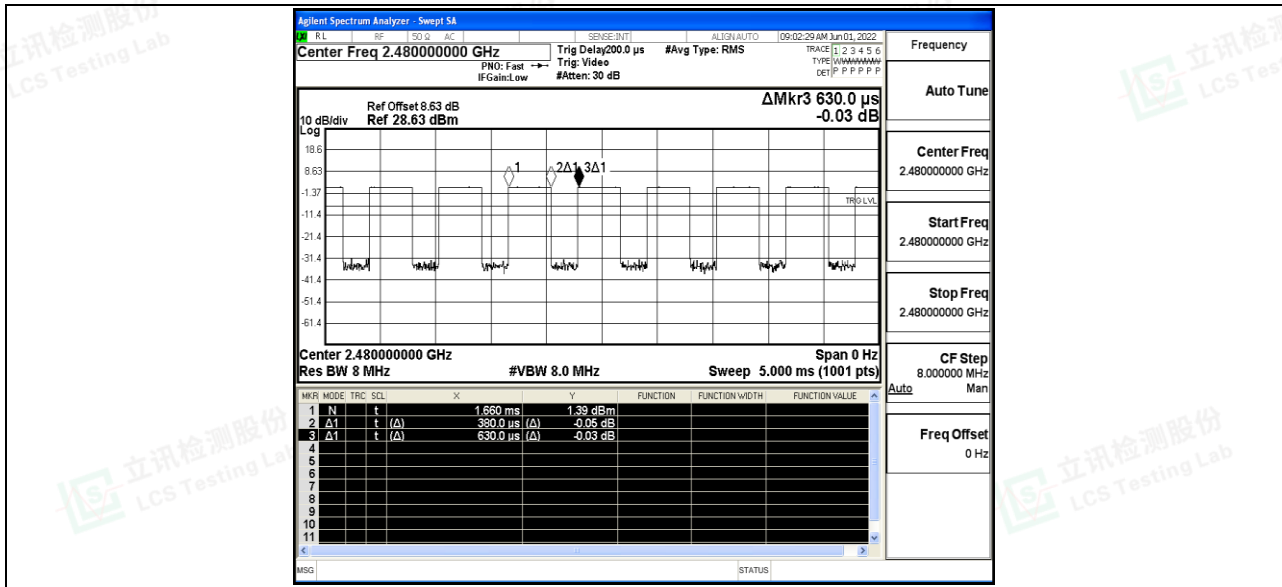


BLE_1M_Ant_2440



BLE_1M_Ant_2480







A.7 Emissions in Restricted Bands

Test Result

TestM ode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_ 1M	Ant	Low	2402	AV	2310.000	-47.63	≤-41.20	47.57	≤54	PASS
				AV	2387.150	-46.73	≤-41.20	48.47	≤54	PASS
				AV	2390.000	-47.2	≤-41.20	48.00	≤54	PASS
				Peak	2310.000	-38.68	≤-21.20	56.52	≤74	PASS
				Peak	2382.530	-36.56	≤-21.20	58.64	≤74	PASS
				Peak	2390.000	-38.97	≤-21.20	56.23	≤74	PASS
		High	2480	AV	2483.500	-46.16	≤-41.20	49.04	≤54	PASS
				AV	2494.720	-46.11	≤-41.20	49.09	≤54	PASS
				AV	2500.000	-46.53	≤-41.20	48.67	≤54	PASS
				Peak	2483.500	-37.91	≤-21.20	57.29	≤74	PASS
				Peak	2491.600	-36.56	≤-21.20	58.64	≤74	PASS
				Peak	2500.000	-38.18	≤-21.20	57.02	≤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.



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Test Graphs

