



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: wake up light

Test Model: FZ06

Environmental Conditions

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



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B.1 DTS Bandwidth

Test Result

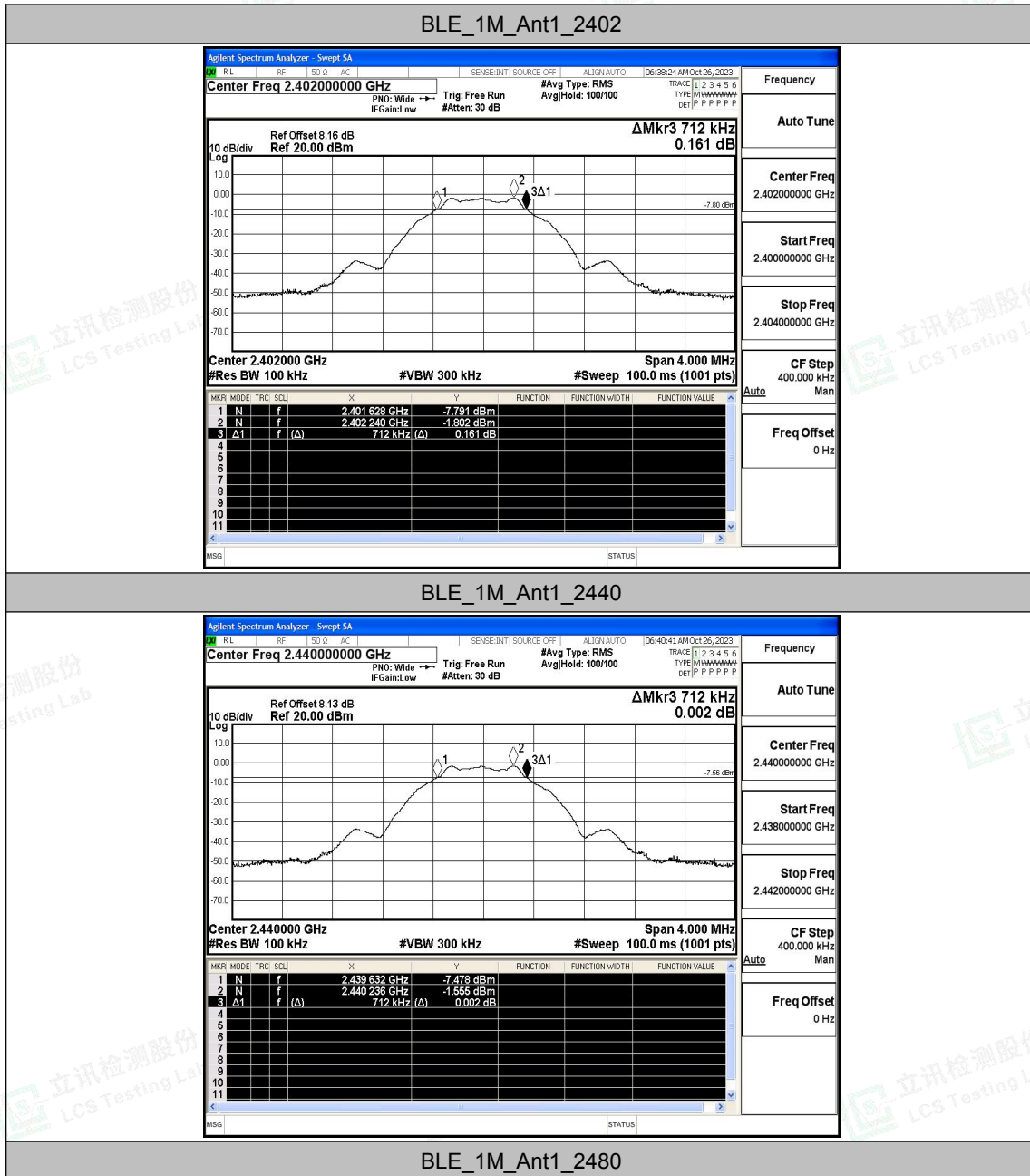
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.712	2401.628	2402.340	0.5	PASS
		2440	0.712	2439.632	2440.344	0.5	PASS
		2480	0.712	2479.632	2480.344	0.5	PASS



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Test Graphs

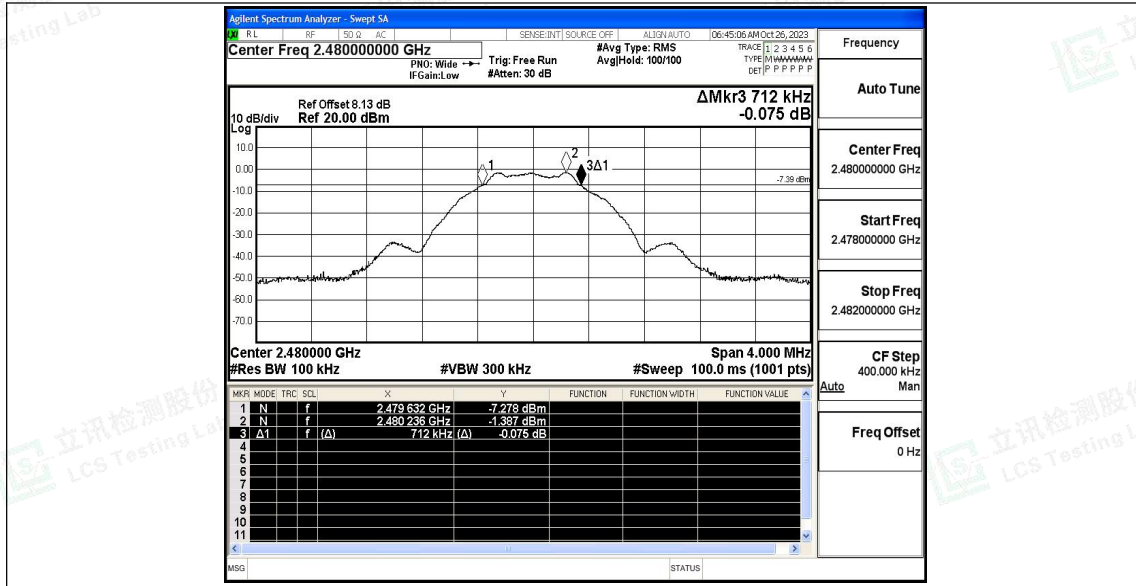


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B.2 Maximum conducted output power

Test Result

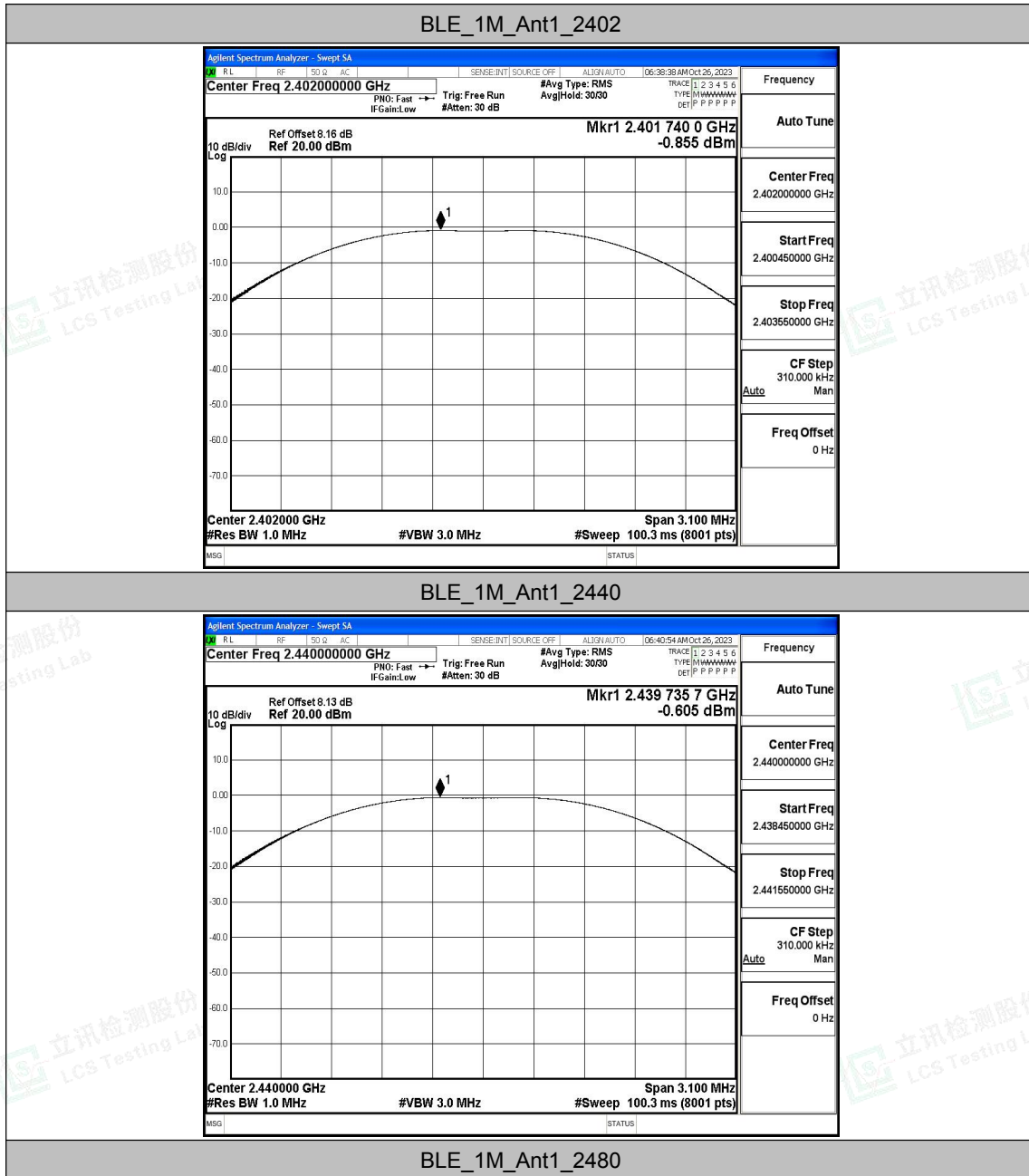
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.86	≤30	PASS
		2440	-0.61	≤30	PASS
		2480	-0.42	≤30	PASS



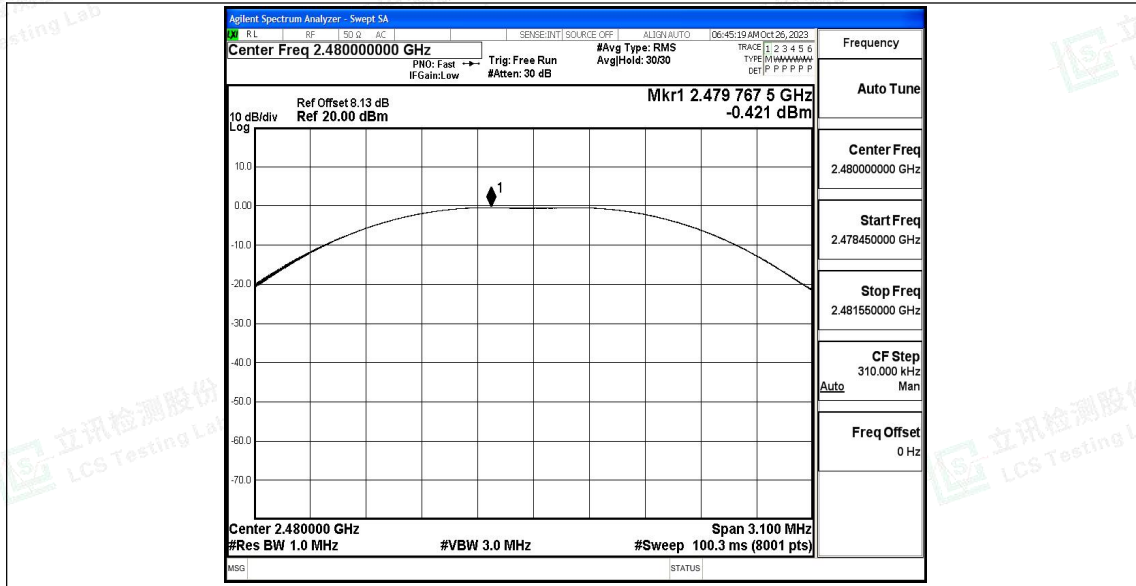
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Test Graphs



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B.3 Maximum power spectral density

Test Result

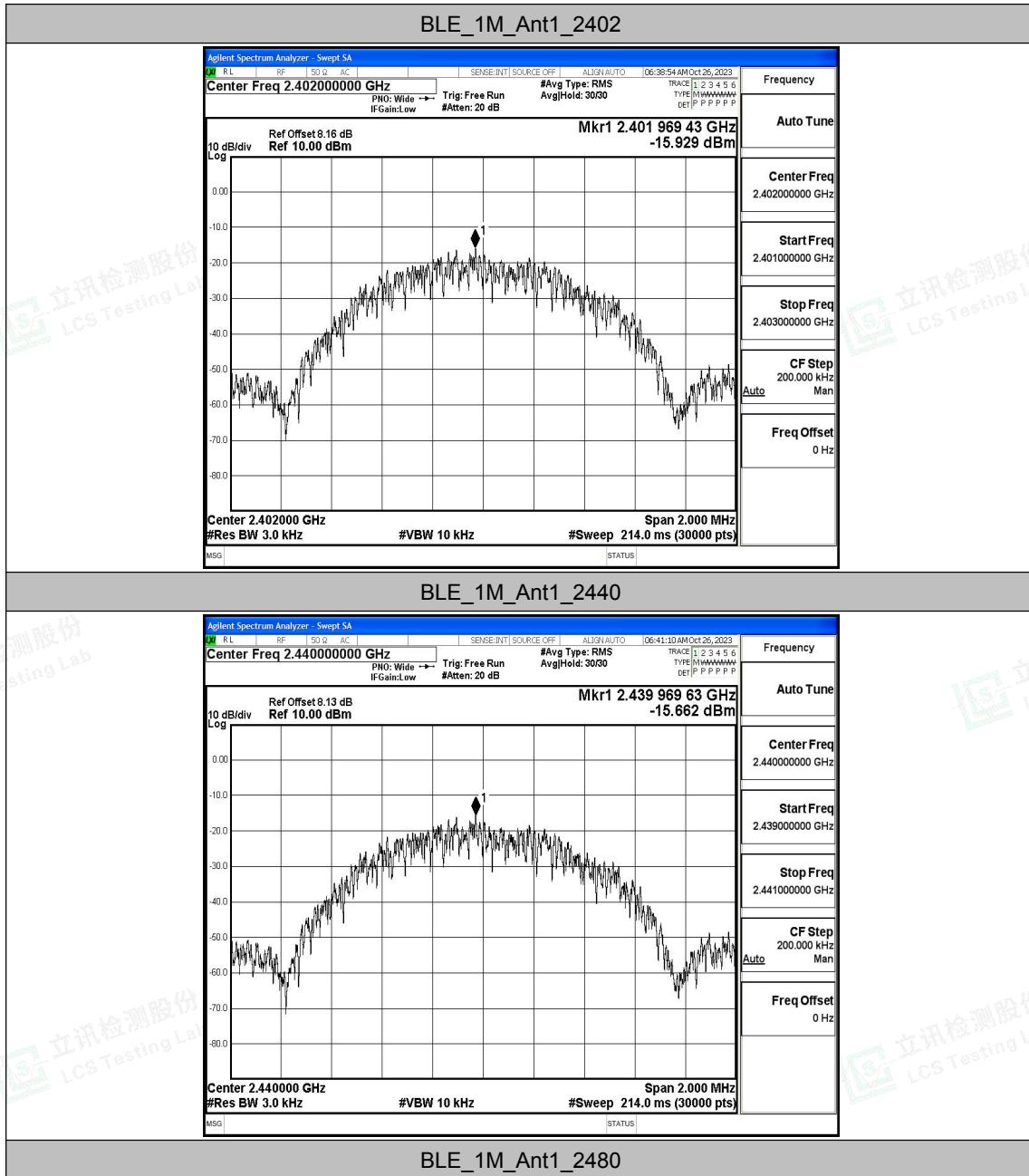
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.93	≤8.00	PASS
		2440	-15.66	≤8.00	PASS
		2480	-15.53	≤8.00	PASS



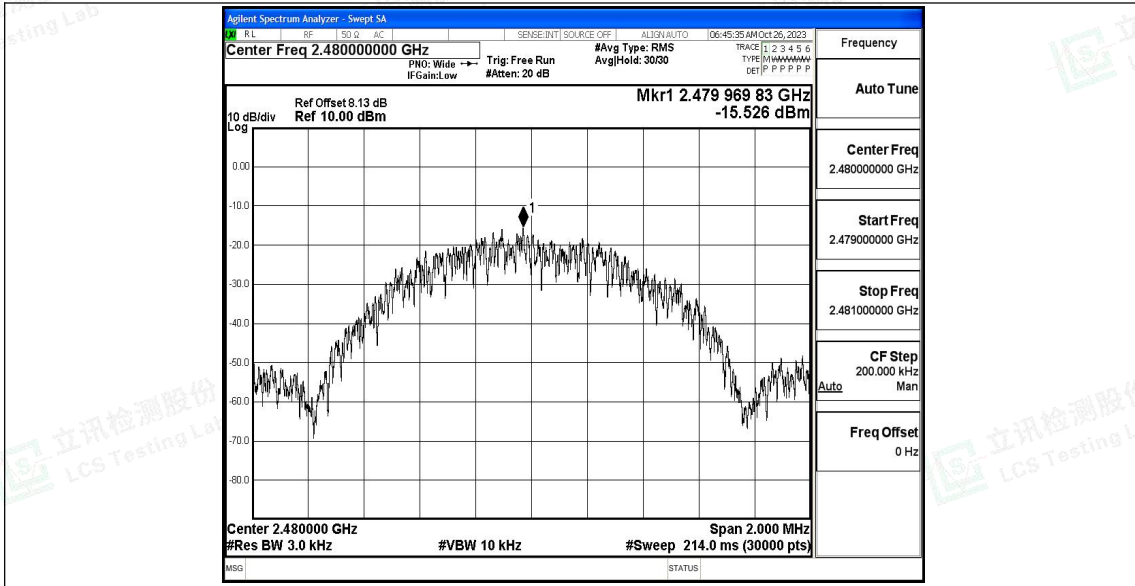
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B.4 Band edge measurements

Test Result

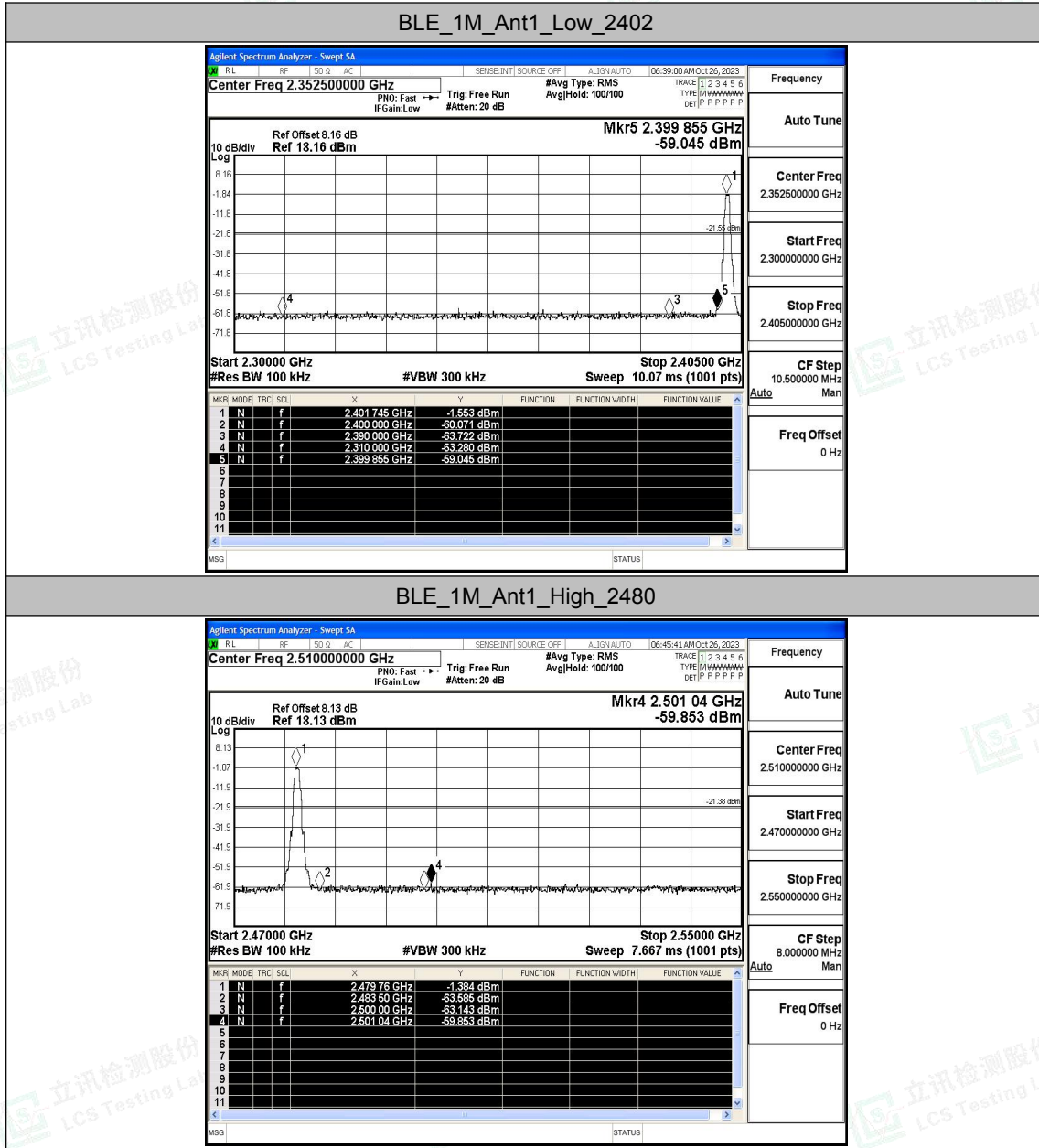
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.55	-59.05	≤-21.55	PASS
		High	2480	-1.38	-59.85	≤-21.38	PASS



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Test Graphs



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B.5 Conducted Spurious Emission

Test Result

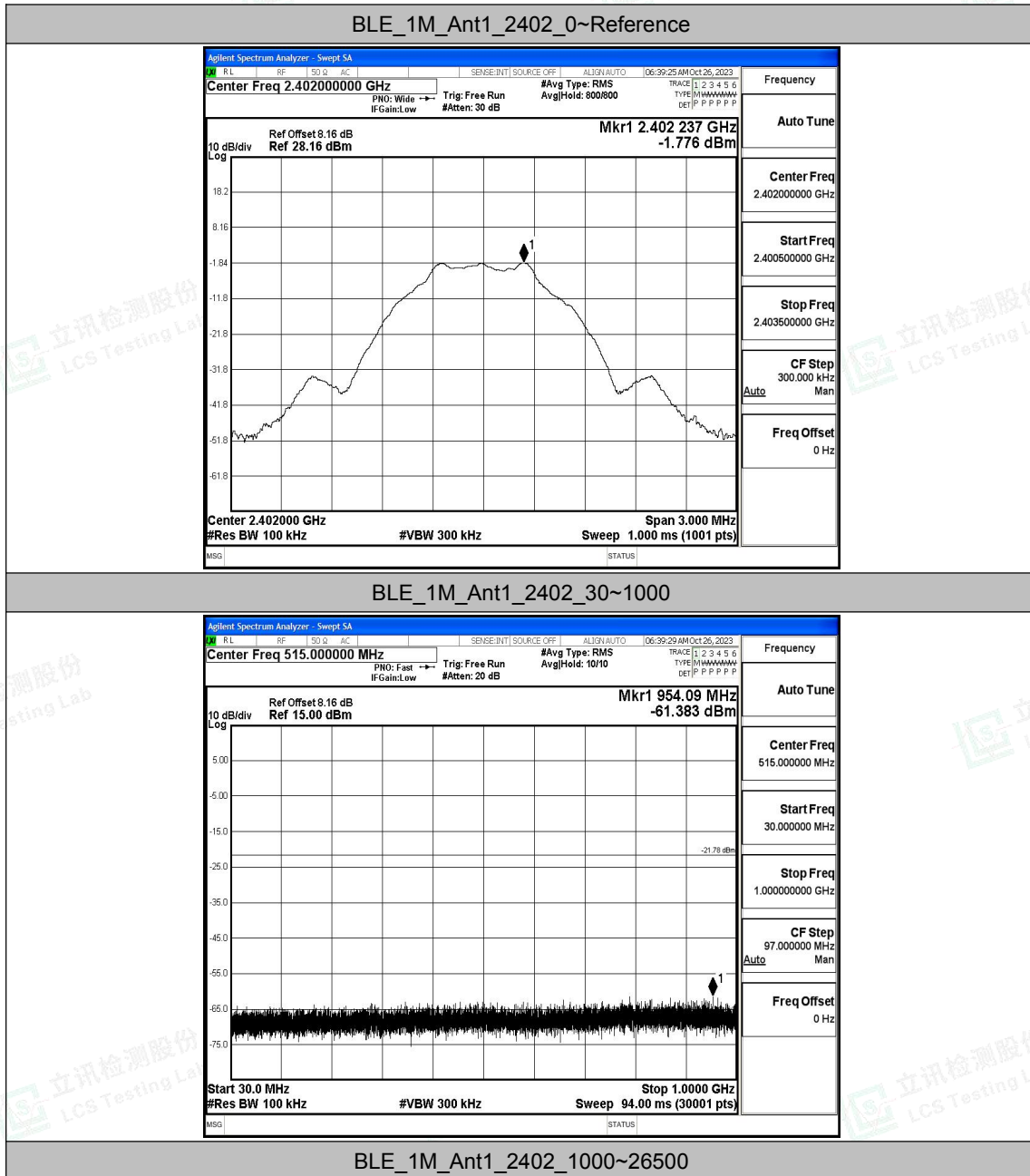
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.78	-1.78	---	PASS
			30~1000	-1.78	-61.38	≤-21.78	PASS
			1000~26500	-1.78	-48.68	≤-21.78	PASS
		2440	Reference	-1.54	-1.54	---	PASS
			30~1000	-1.54	-62.32	≤-21.54	PASS
			1000~26500	-1.54	-48.29	≤-21.54	PASS
		2480	Reference	-1.36	-1.36	---	PASS
			30~1000	-1.36	-61.39	≤-21.36	PASS
			1000~26500	-1.36	-49.41	≤-21.36	PASS

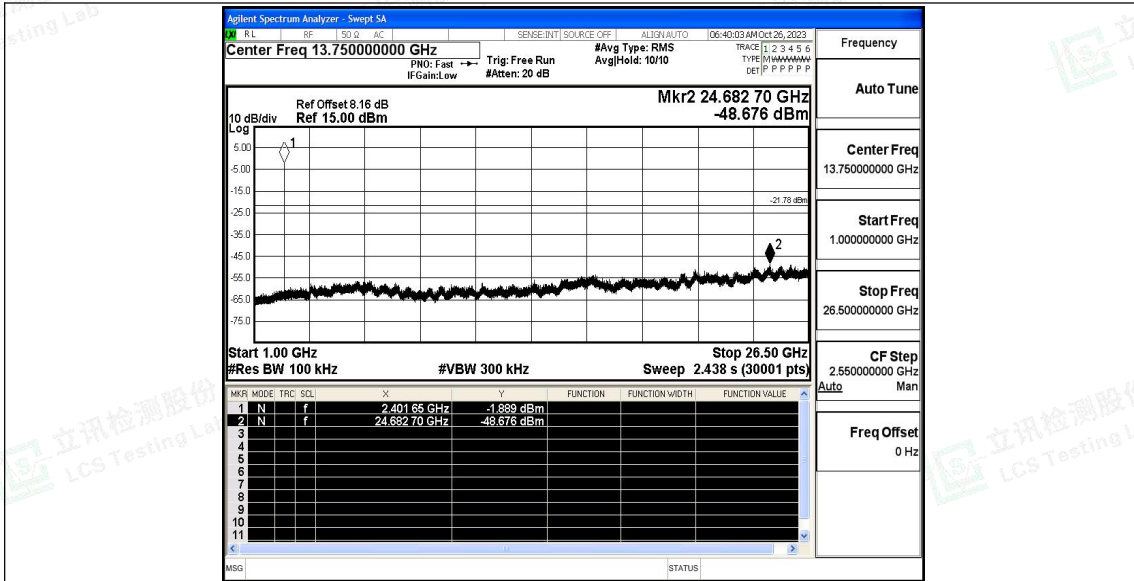


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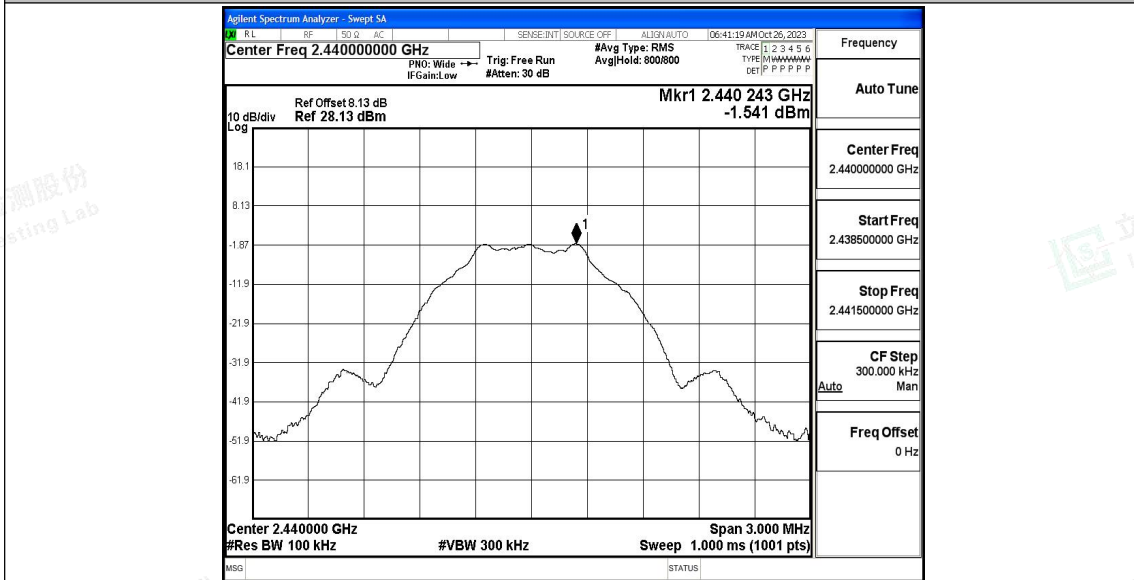


Test Graphs



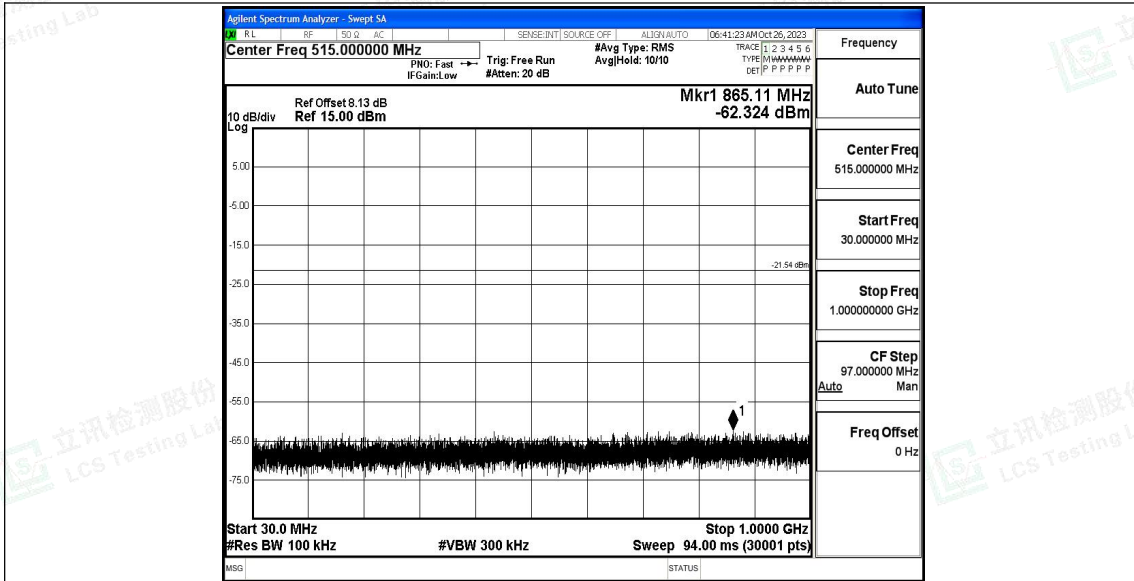


BLE_1M_Ant1_2440_0~Reference

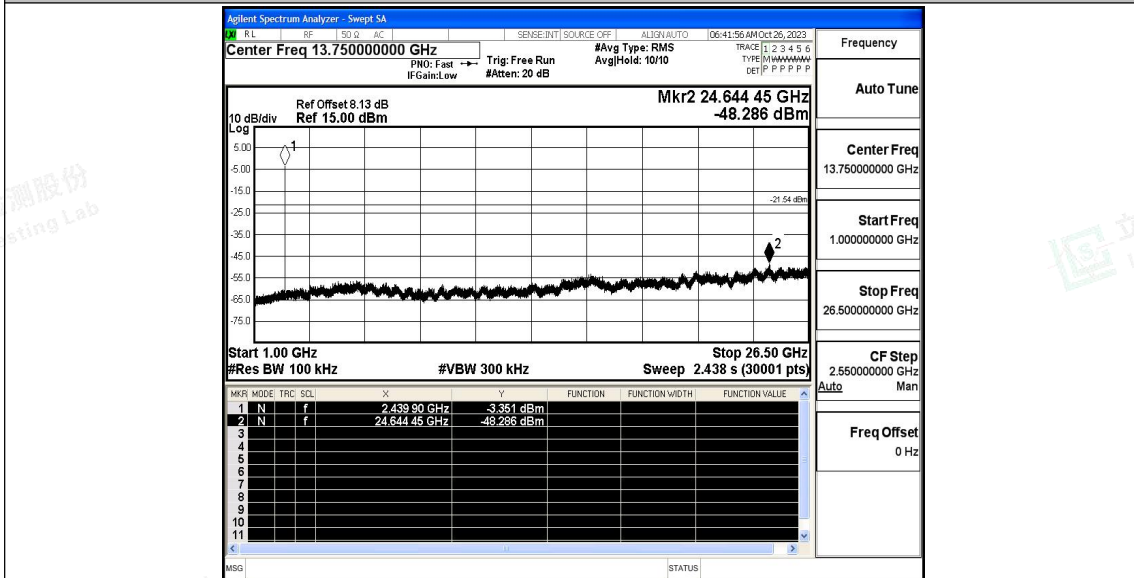


BLE_1M_Ant1_2440_30~1000





BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference

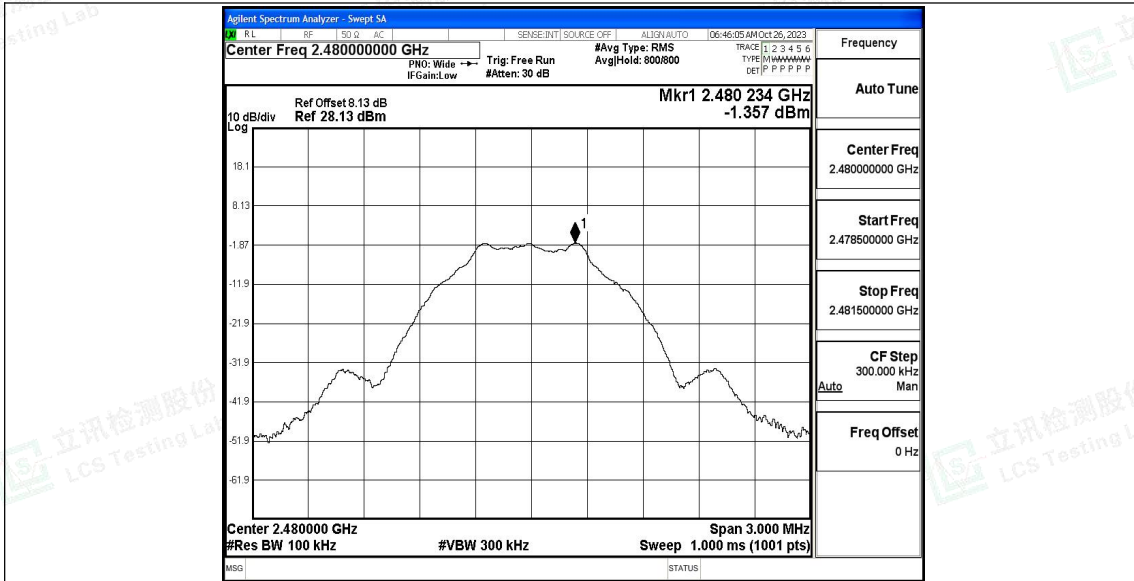


Shenzhen LCS Compliance Testing Laboratory Ltd.

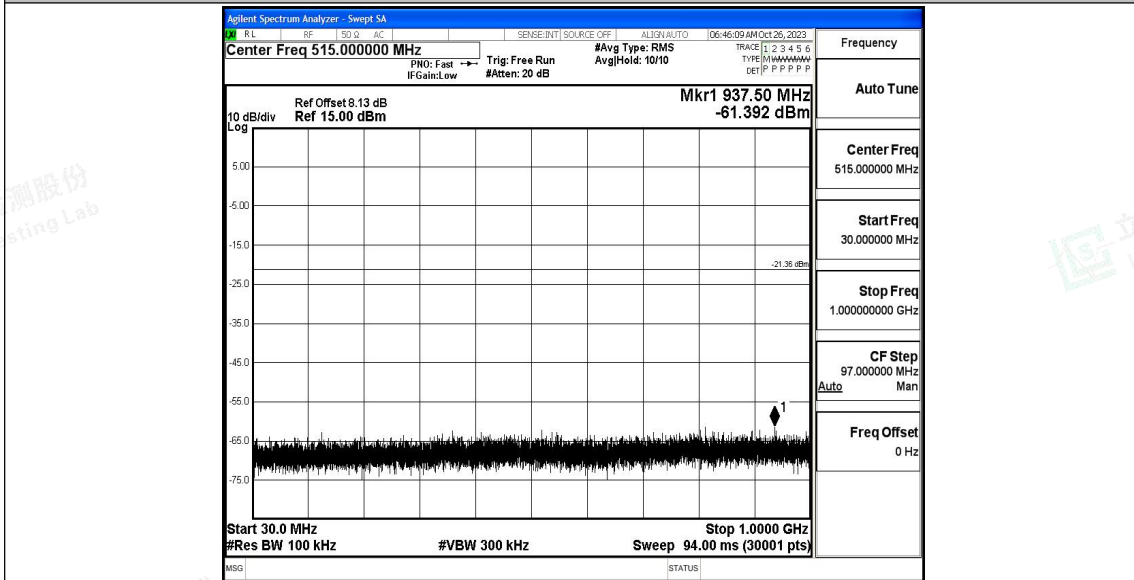
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BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

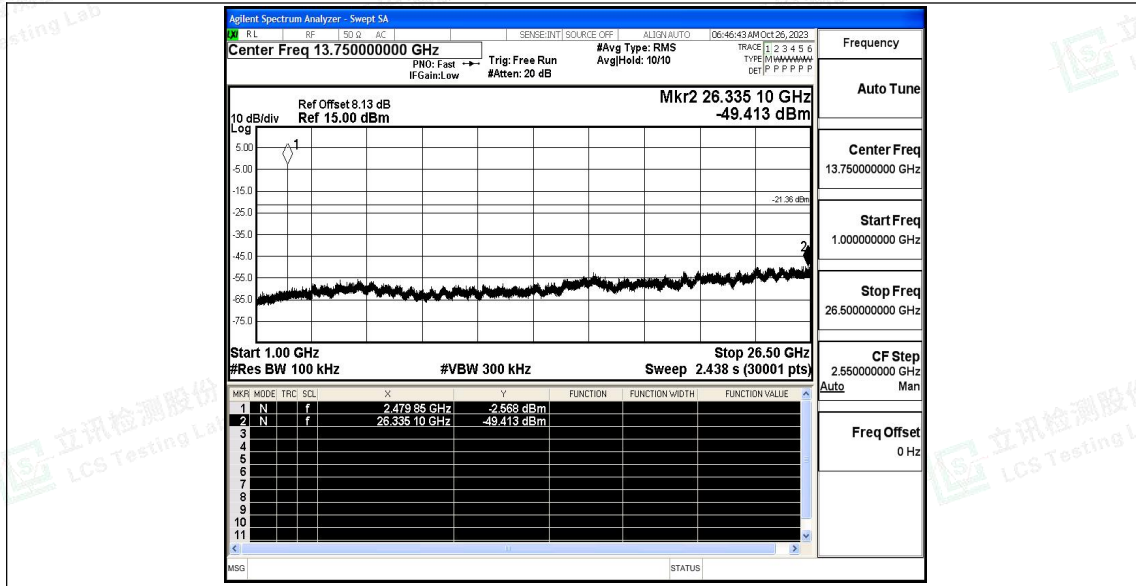


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B.6 Duty Cycle

Test Result

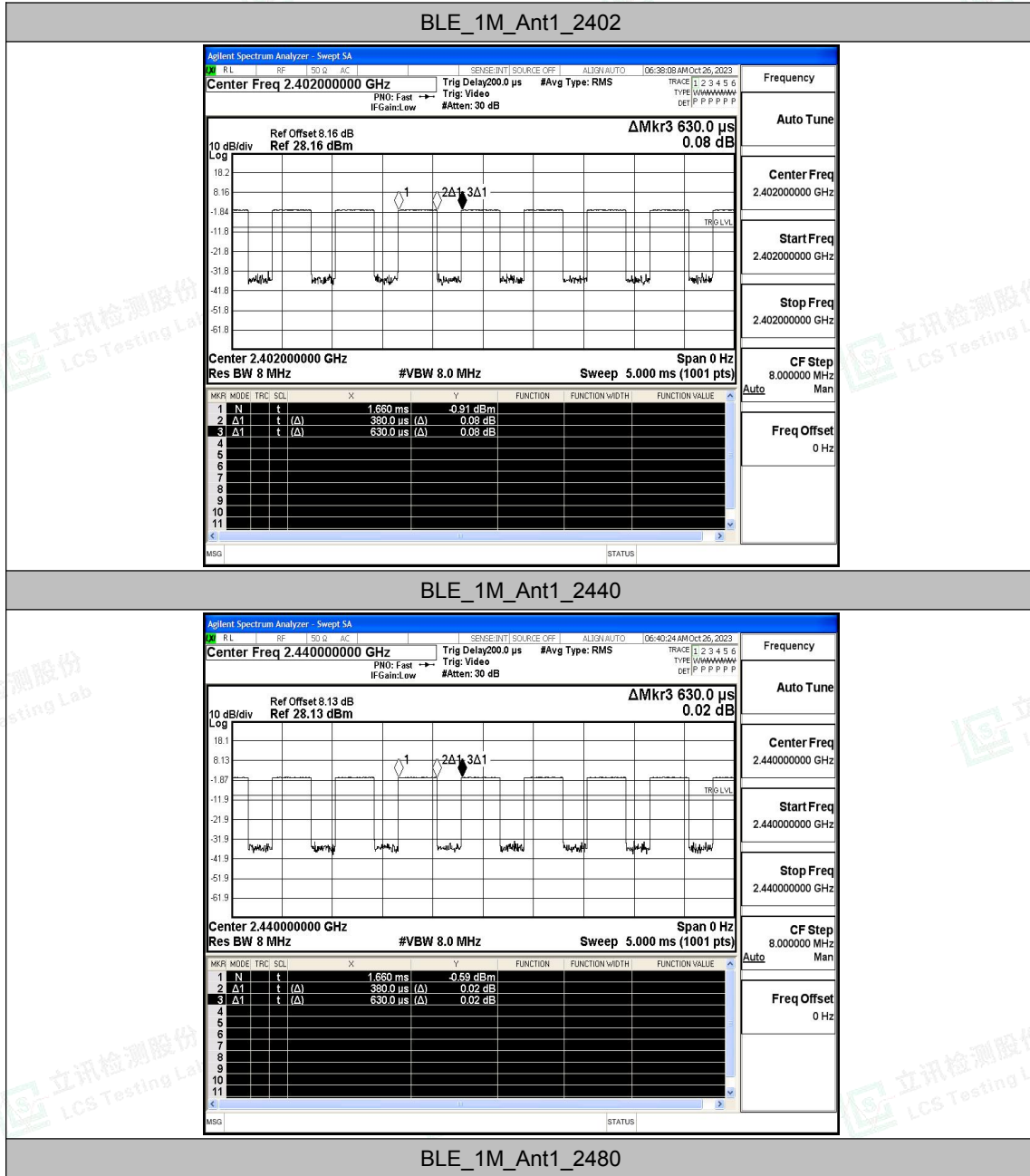
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	2.63	---	PASS
		2440	0.38	0.63	0.6032	60.32	2.20	2.63	---	PASS
		2480	0.38	0.63	0.6032	60.32	2.20	2.63	---	PASS

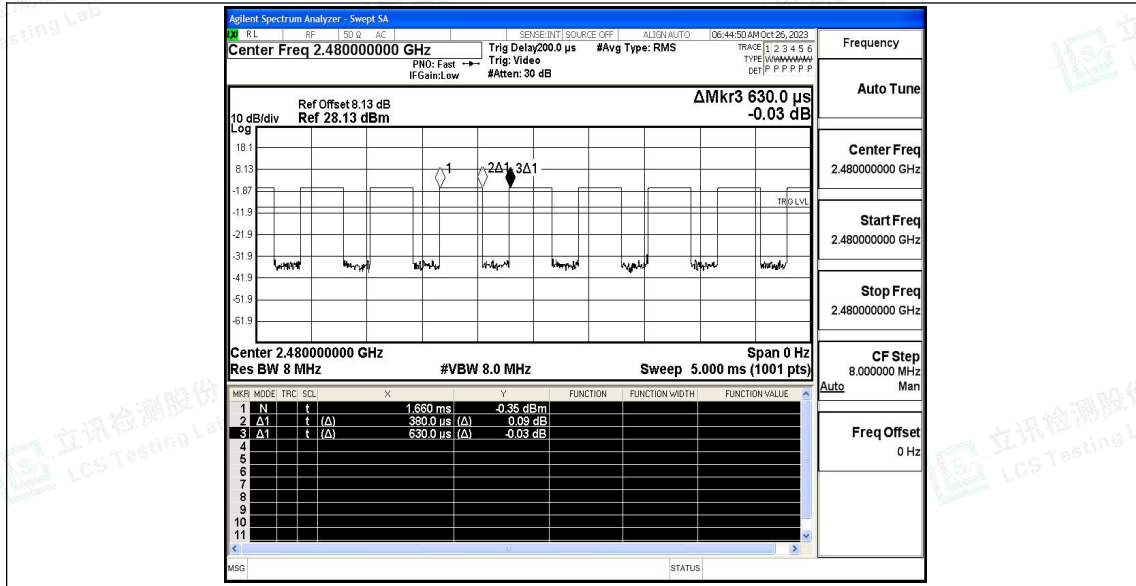


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Test Graphs





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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_1M	Ant1	Low	2402	AV	2310.000	-58.65	≤-41.20	36.55	≤54	PASS
				AV	2359.220	-57.79	≤-41.20	37.41	≤54	PASS
				AV	2390.000	-58.34	≤-41.20	36.86	≤54	PASS
				Peak	2310.000	-50.99	≤-21.20	44.21	≤74	PASS
				Peak	2344.100	-49.26	≤-21.20	45.94	≤74	PASS
				Peak	2390.000	-51.18	≤-21.20	44.02	≤74	PASS
		High	2480	AV	2483.500	-54.49	≤-41.20	40.71	≤54	PASS
				AV	2483.520	-54.49	≤-41.20	40.71	≤54	PASS
				AV	2500.000	-58.09	≤-41.20	37.11	≤54	PASS
				Peak	2483.500	-50.46	≤-21.20	44.74	≤74	PASS
				Peak	2496.880	-48.61	≤-21.20	46.59	≤74	PASS
				Peak	2500.000	-52.23	≤-21.20	42.97	≤74	PASS

Note:

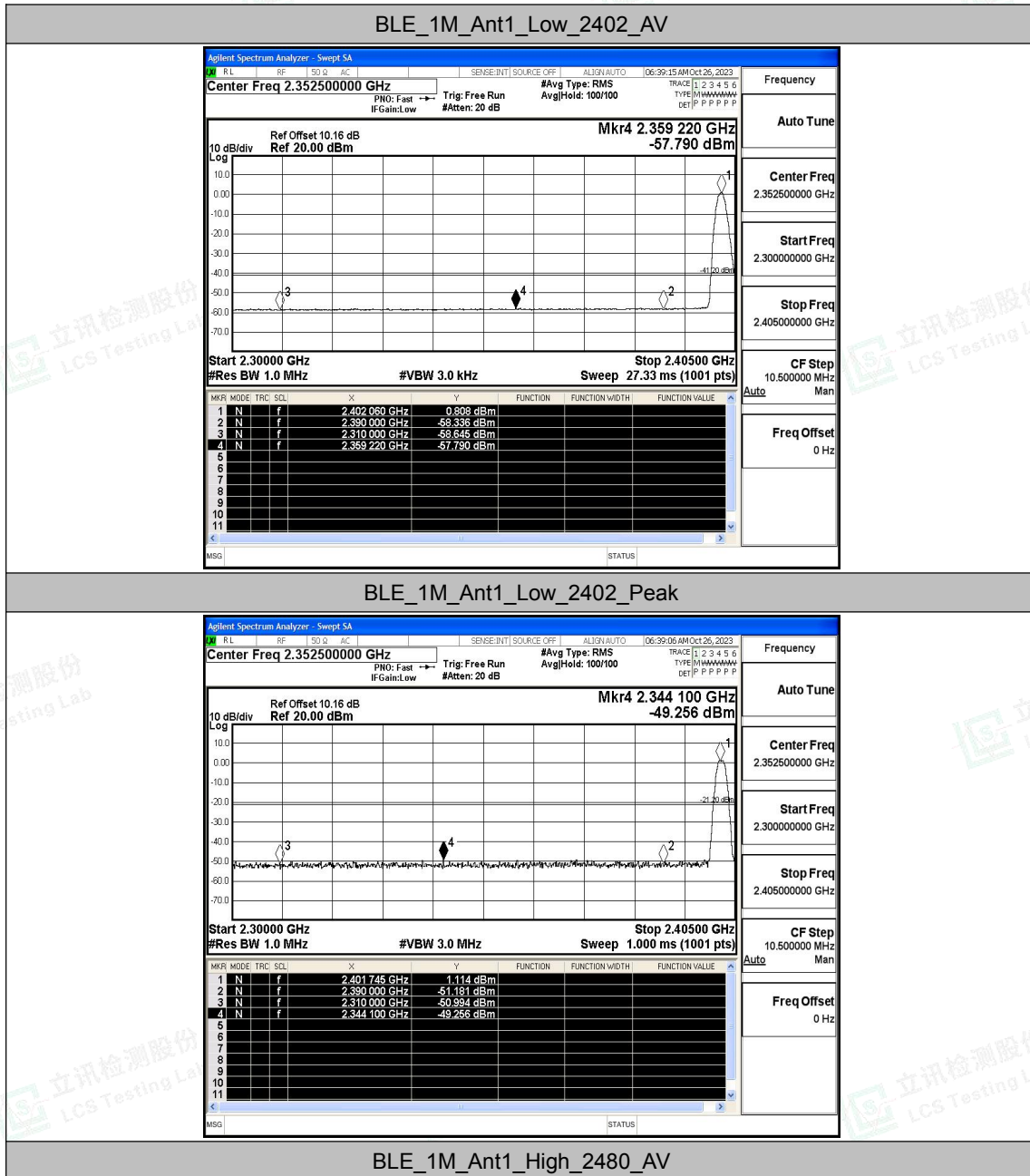
- The Antenna Gain is compensated in the graph.
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



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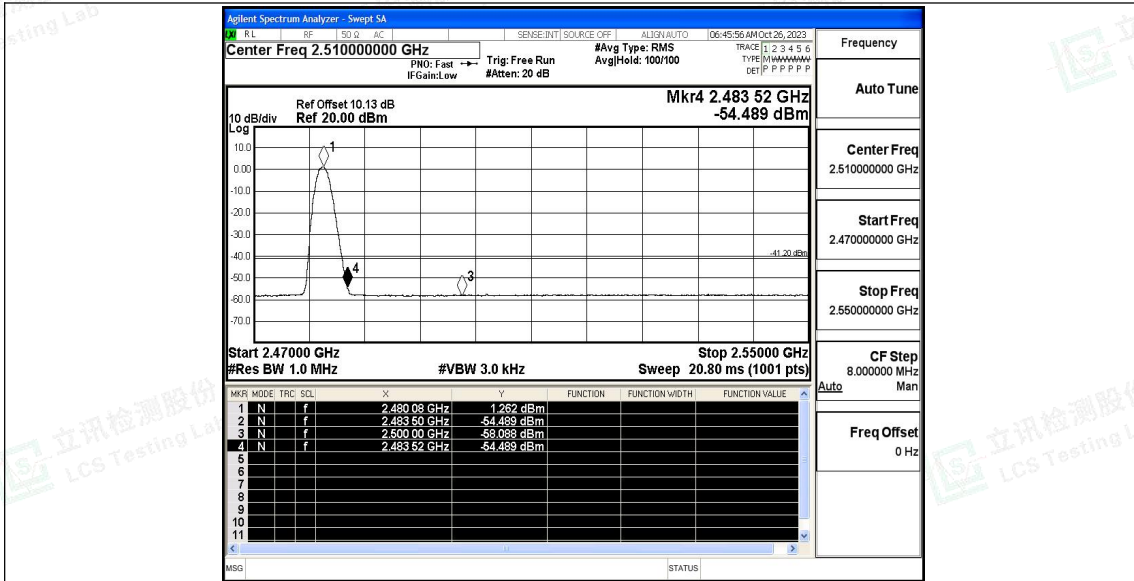


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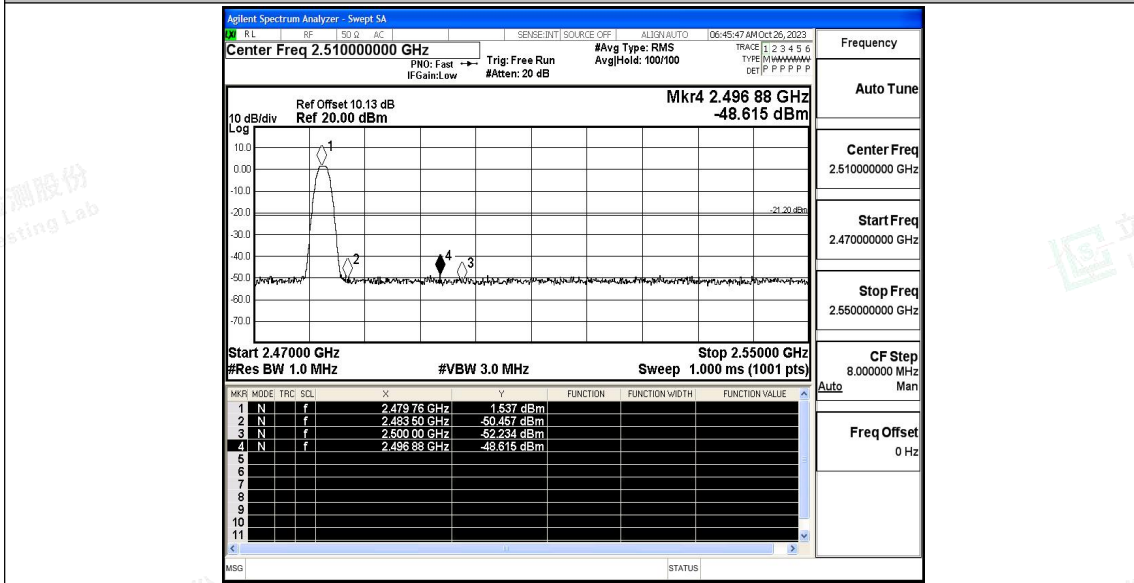
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BLE_1M_Ant1_High_2480_Peak



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