



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Wireless Earphones

Test Model: A12

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Summer Wu
Supervised by:	Nick Peng





B.1 DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_2M	Ant1	2402	1.088	2401.440	2402.528	0.5	PASS
		2440	1.148	2439.428	2440.576	0.5	PASS
		2480	1.124	2479.440	2480.564	0.5	PASS



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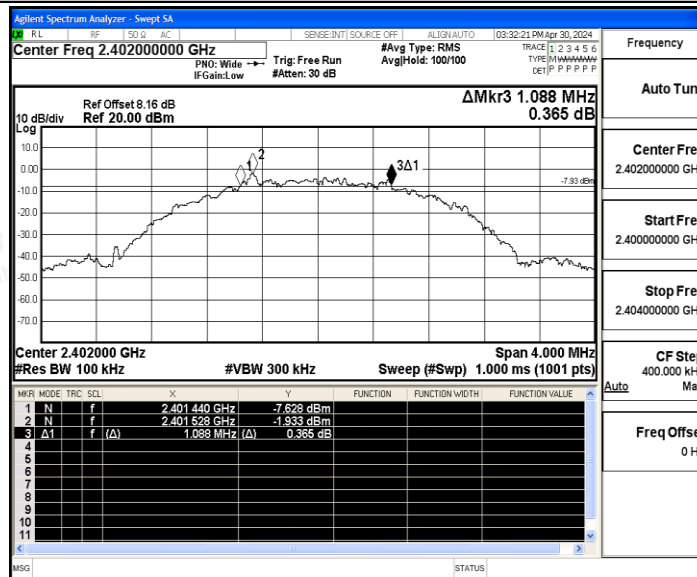
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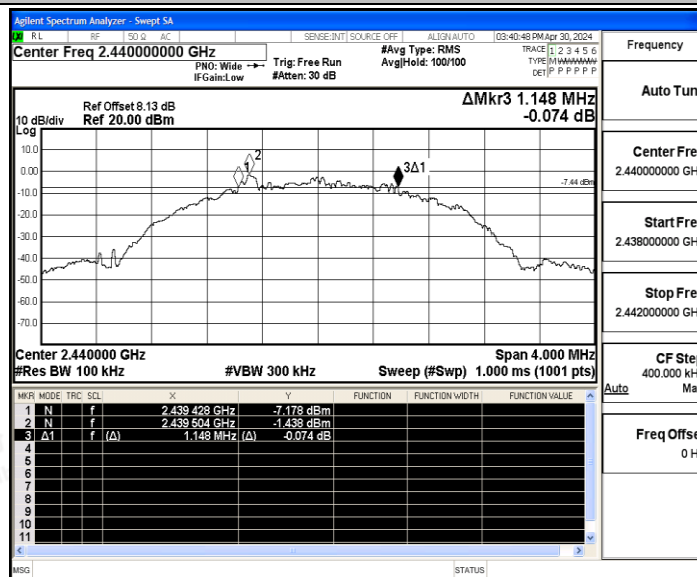


Test Graphs

BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

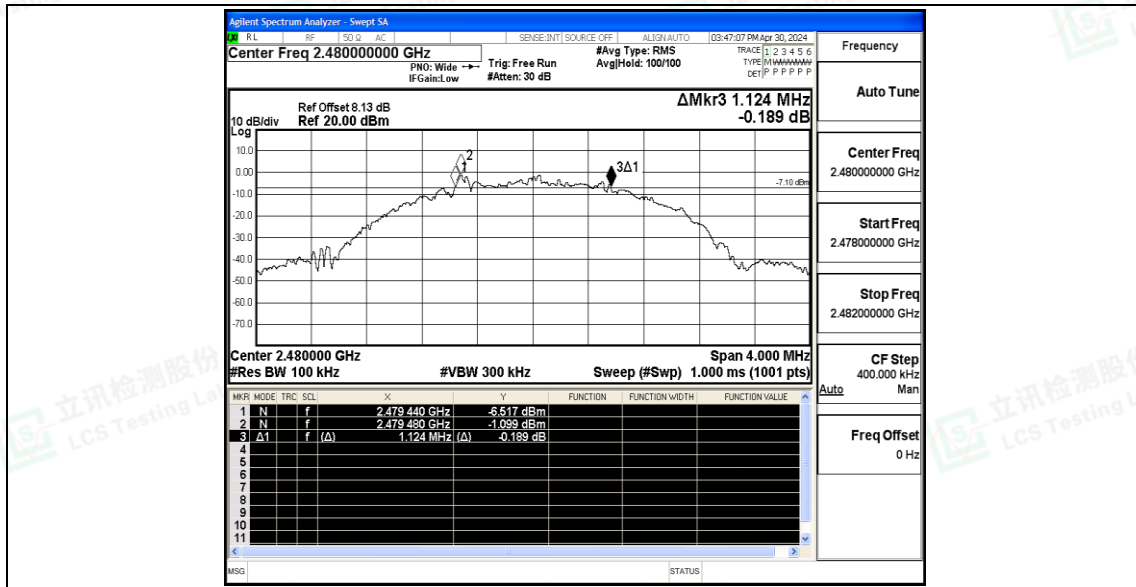


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B.2 Maximum conducted output power

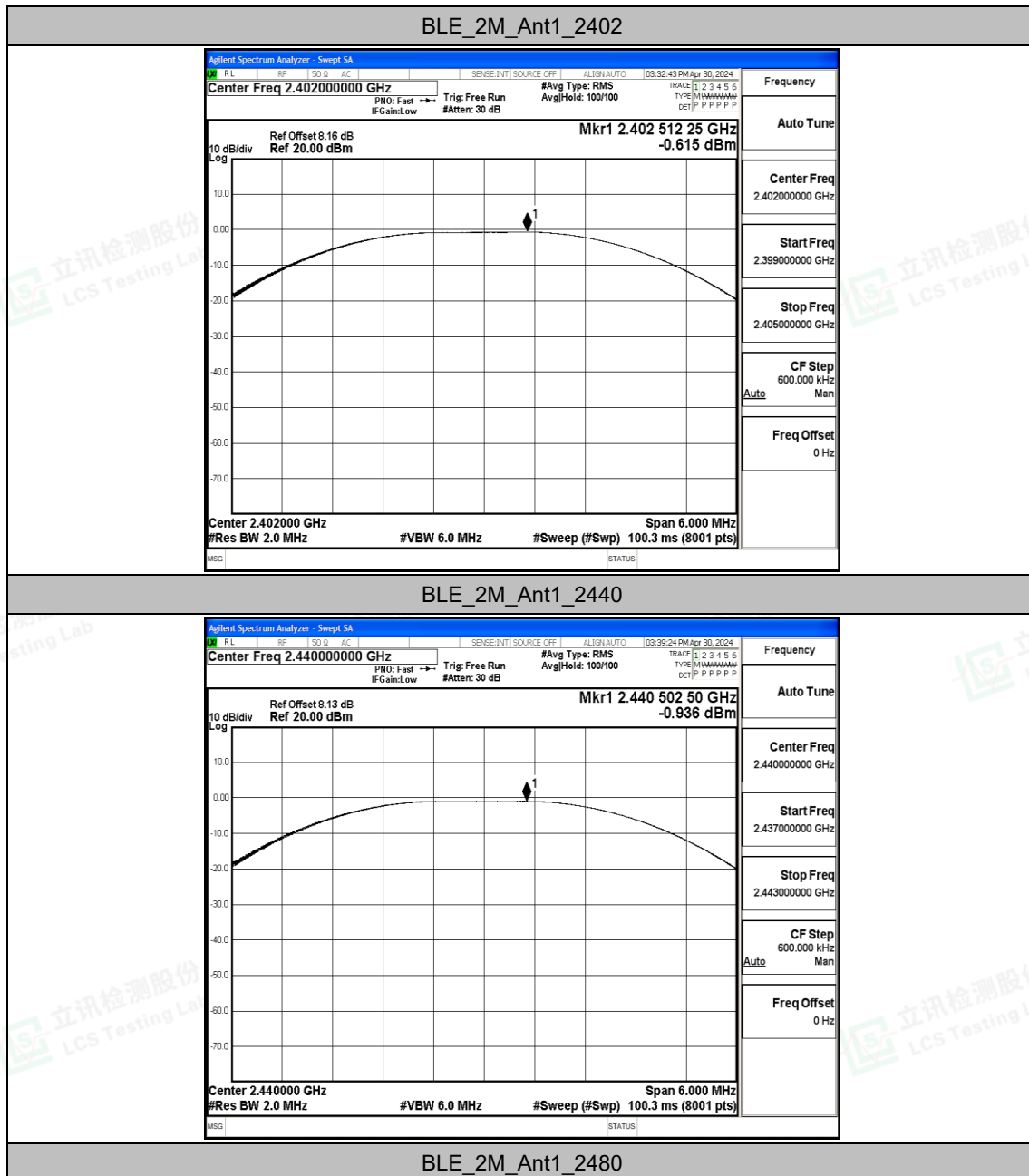
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	2402	-0.62	≤30	PASS
		2440	-0.94	≤30	PASS
		2480	0.20	≤30	PASS





Test Graphs

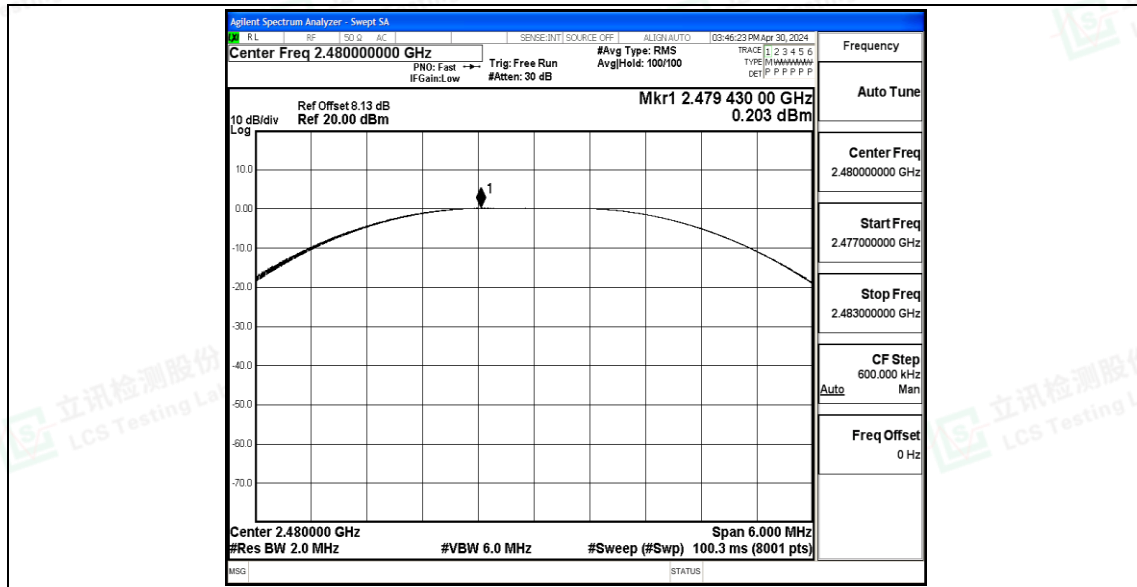


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B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_2M	Ant1	2402	-20.13	≤8.00	PASS
		2440	-20.36	≤8.00	PASS
		2480	-19.46	≤8.00	PASS



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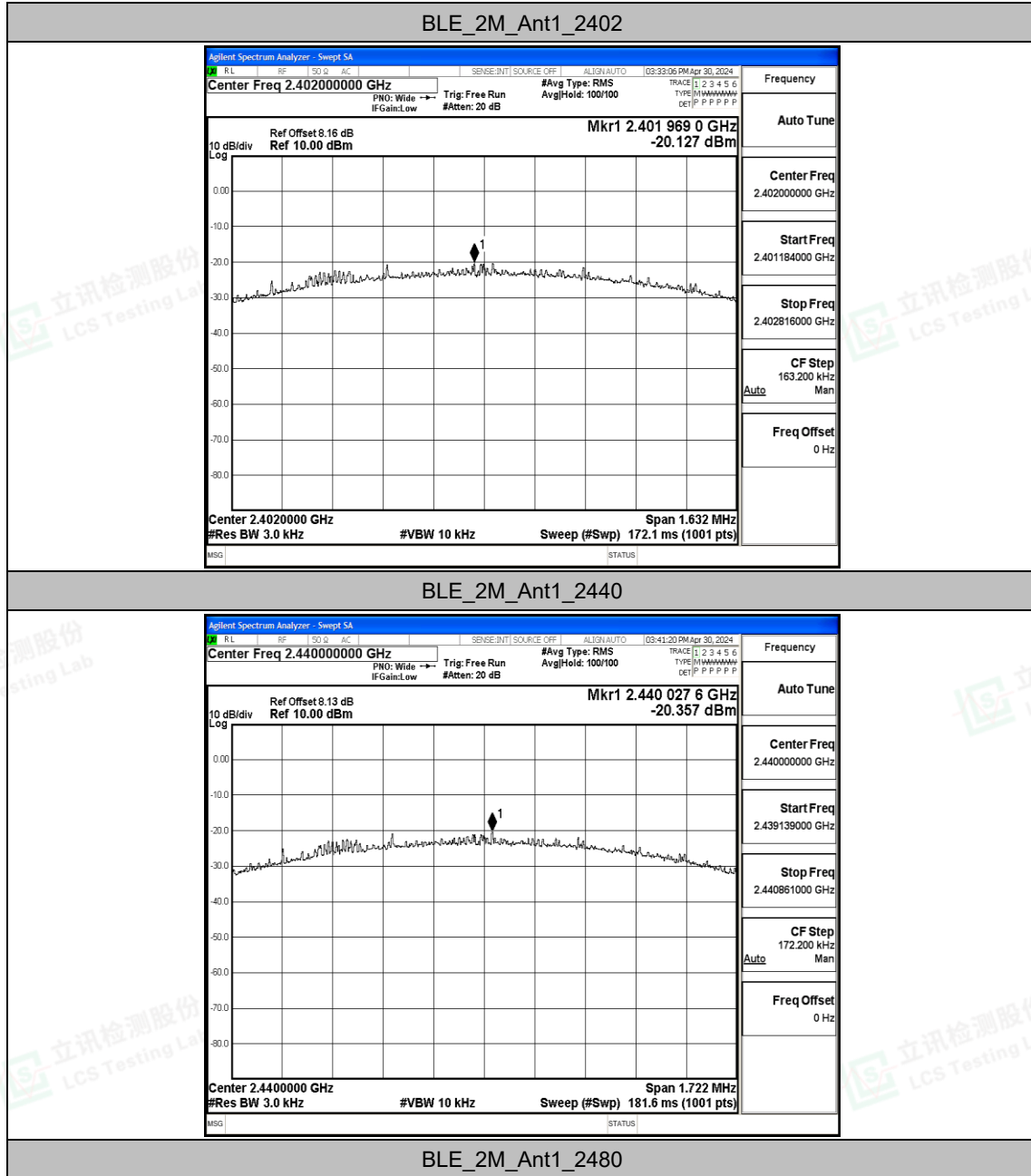
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Test Graphs

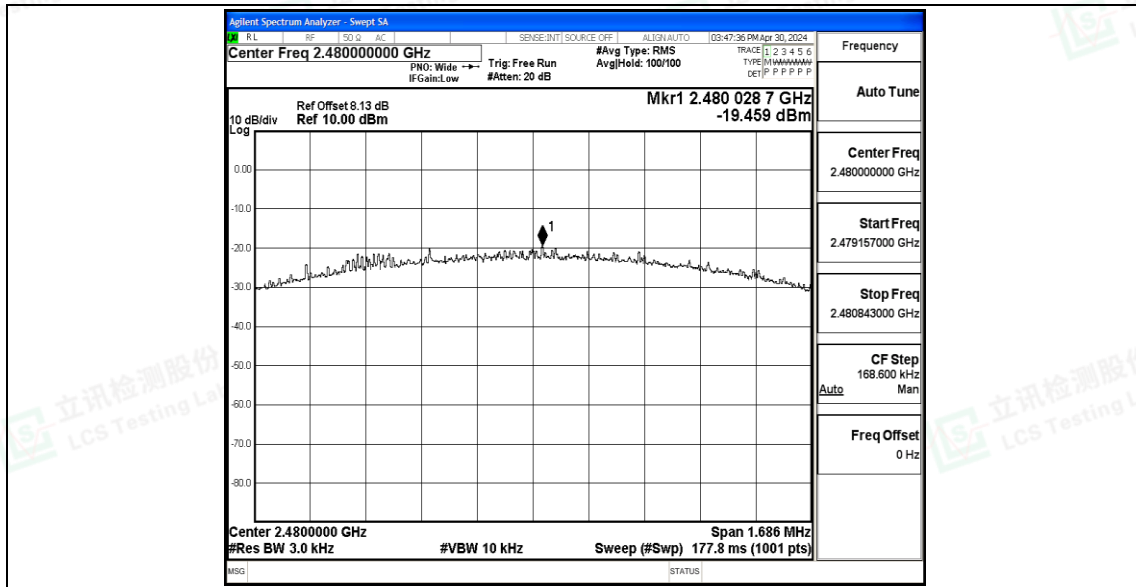


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B.4 Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	Low	2402	-1.81	-47.4	≤-21.81	PASS
		High	2480	-0.28	-49.32	≤-20.28	PASS

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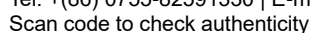
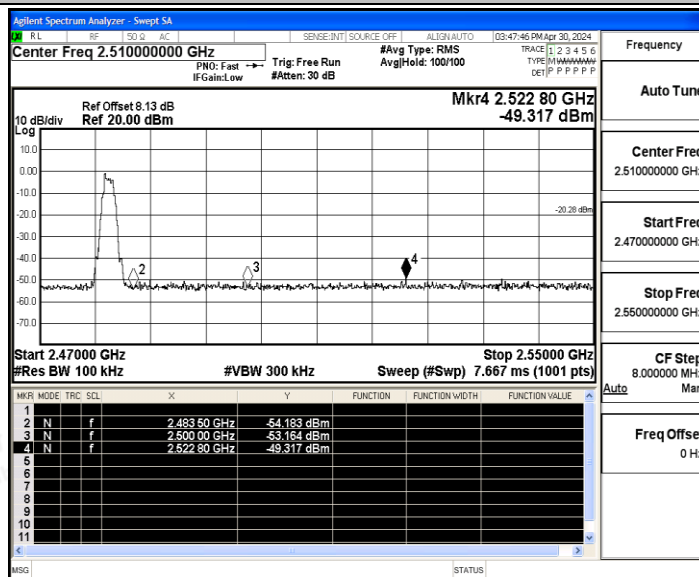
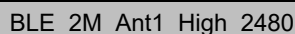
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BLE 2M Ant1 Low 2402





B.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	2402	30~1000	-1.81	-62.02	≤-21.81	PASS
			1000~26500	-1.81	-48.91	≤-21.81	PASS
		2440	30~1000	-2.70	-61.86	≤-22.7	PASS
			1000~26500	-2.70	-48.73	≤-22.7	PASS
		2480	30~1000	-0.28	-59.24	≤-20.28	PASS
			1000~26500	-0.28	-48.91	≤-20.28	PASS



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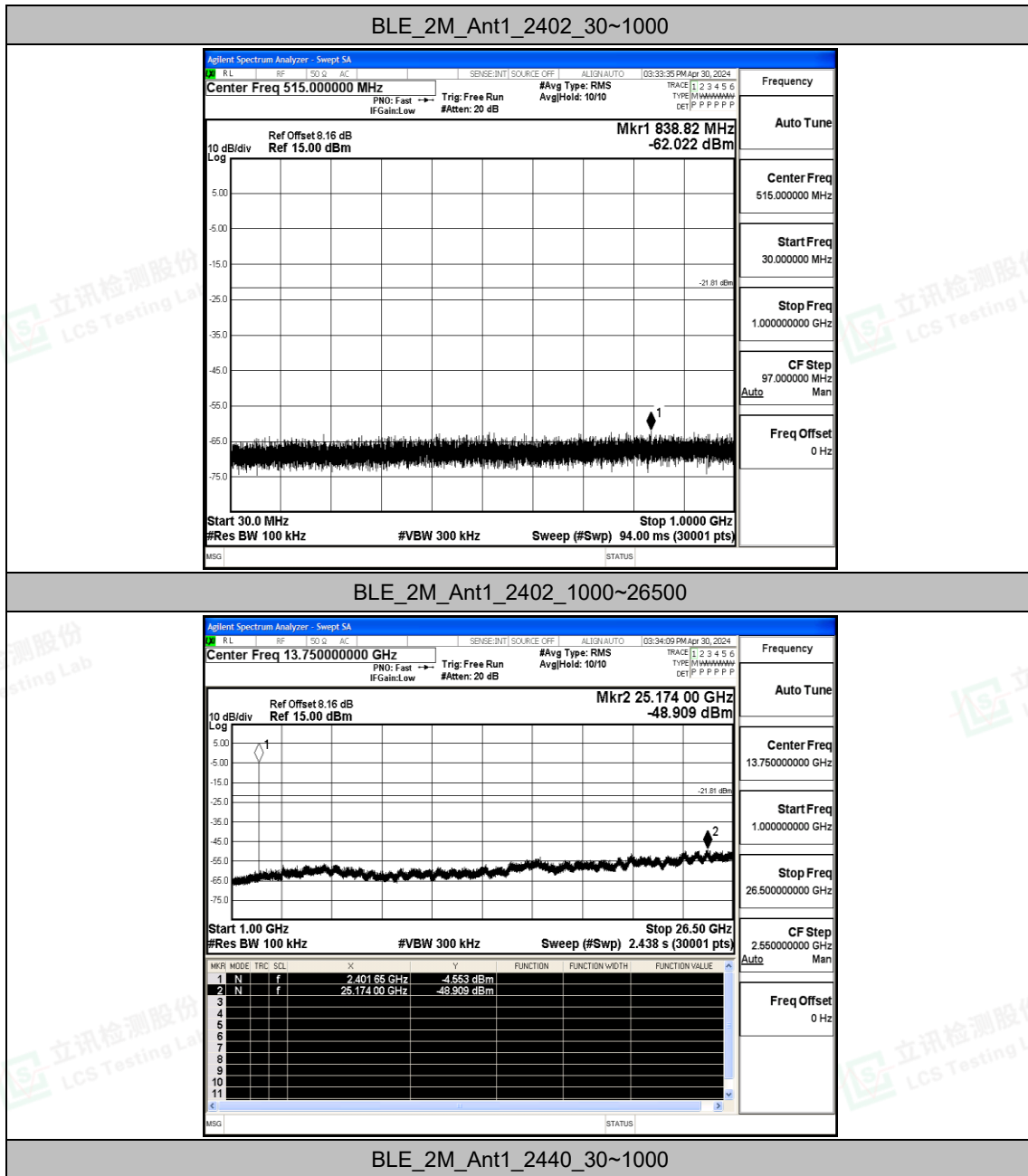
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Test Graphs

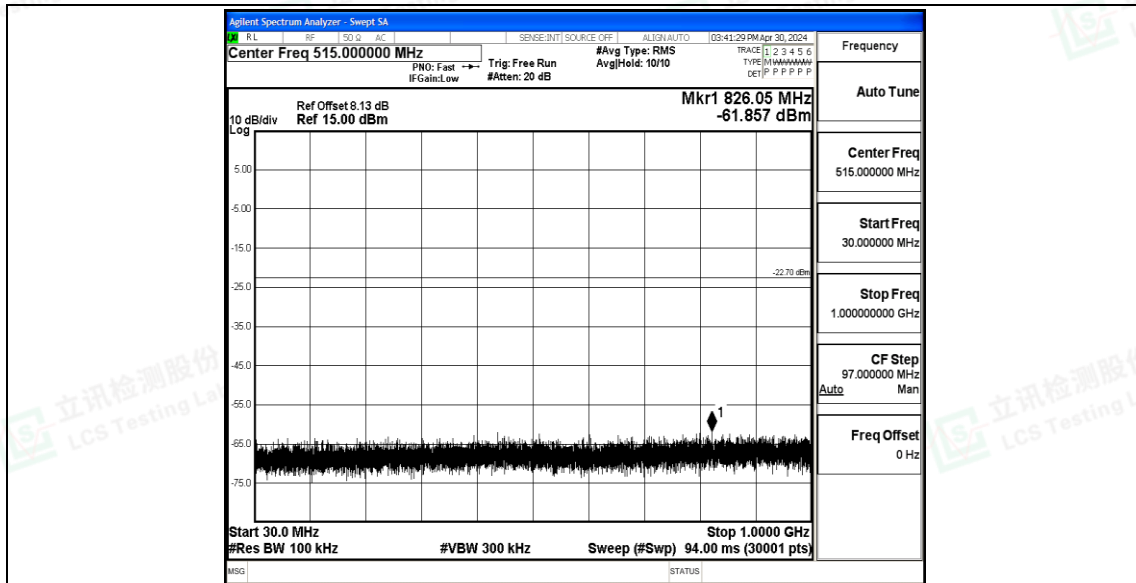


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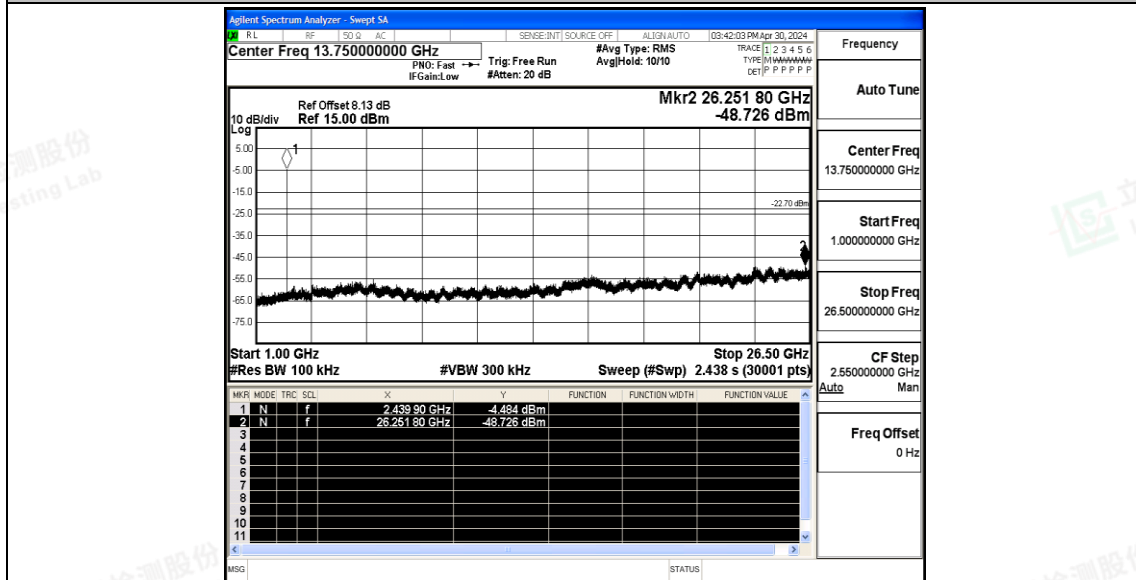
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BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2480_30~1000

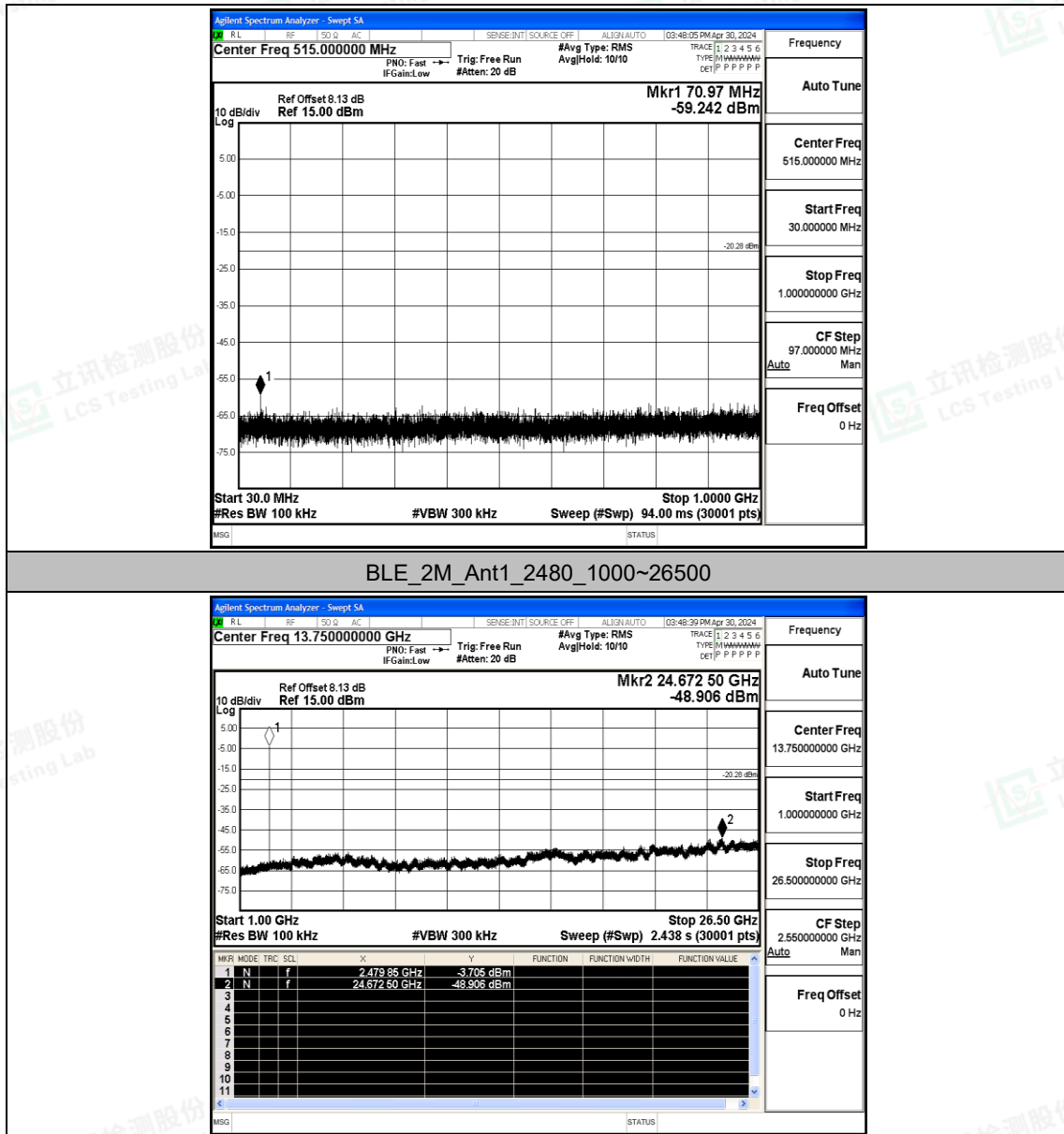


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Reference level measurement

Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_2M	Ant1	2402	2401.53	-1.81
		2440	2440.03	-2.70
		2480	2479.50	-0.28



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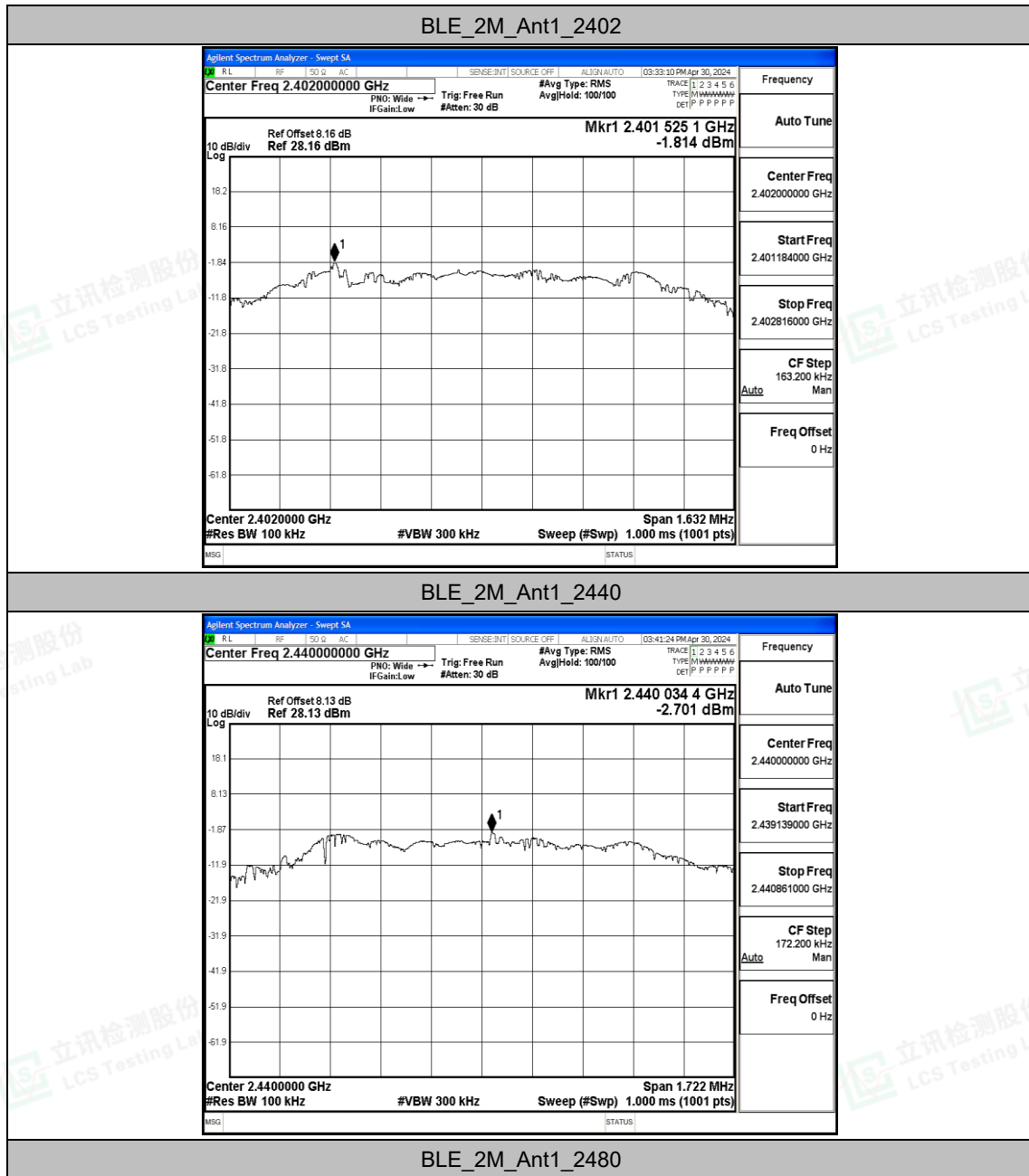
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Test Graphs

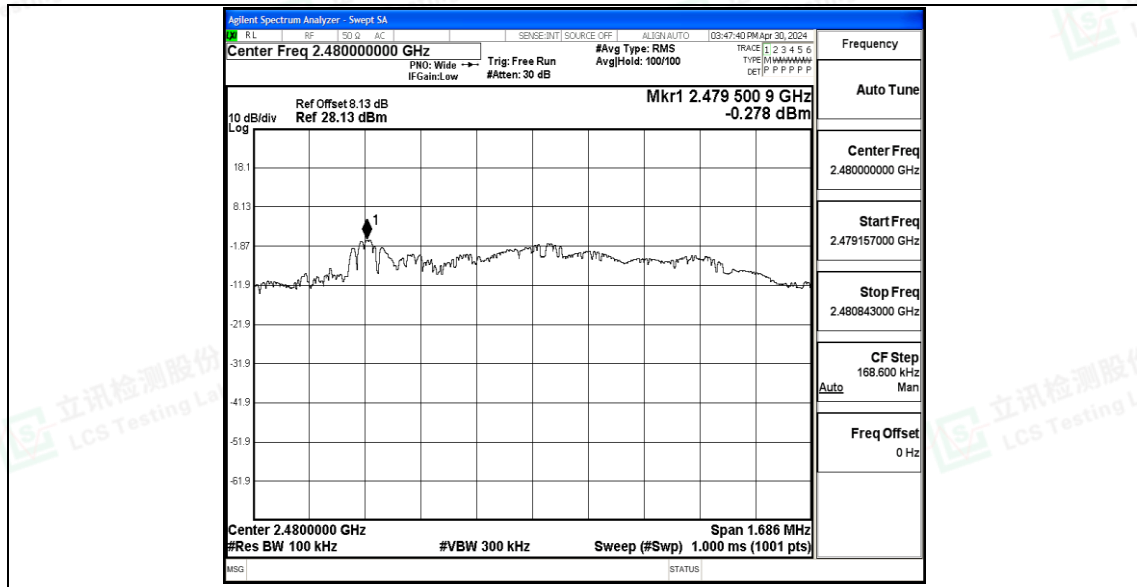


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B.6 Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[dB]
BLE_2M	Ant1	2402	0.83	1.25	66.40	1.78	1.20
		2440	0.83	1.25	66.40	1.78	1.20
		2480	0.83	1.25	66.40	1.78	1.20



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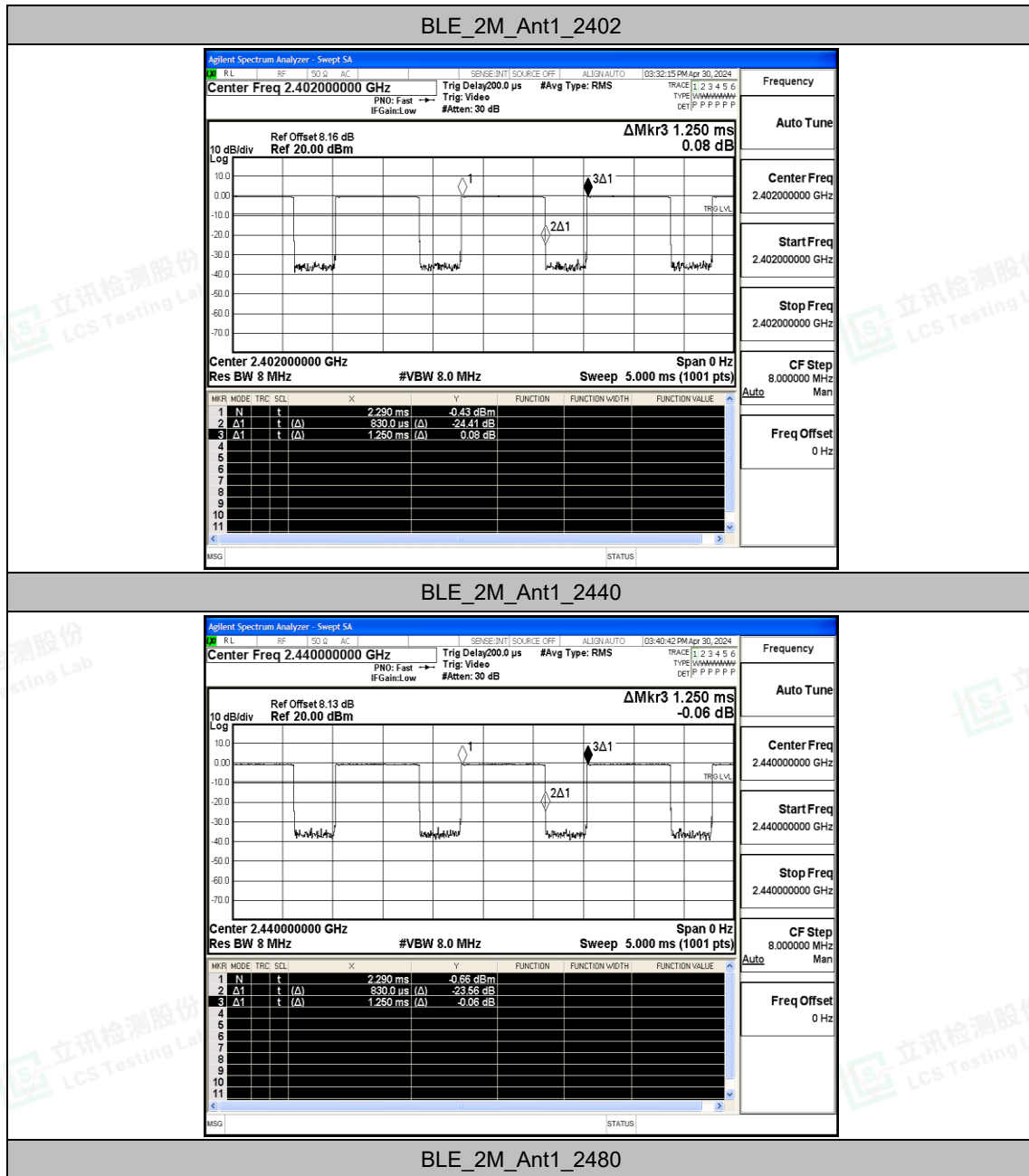
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Test Graphs

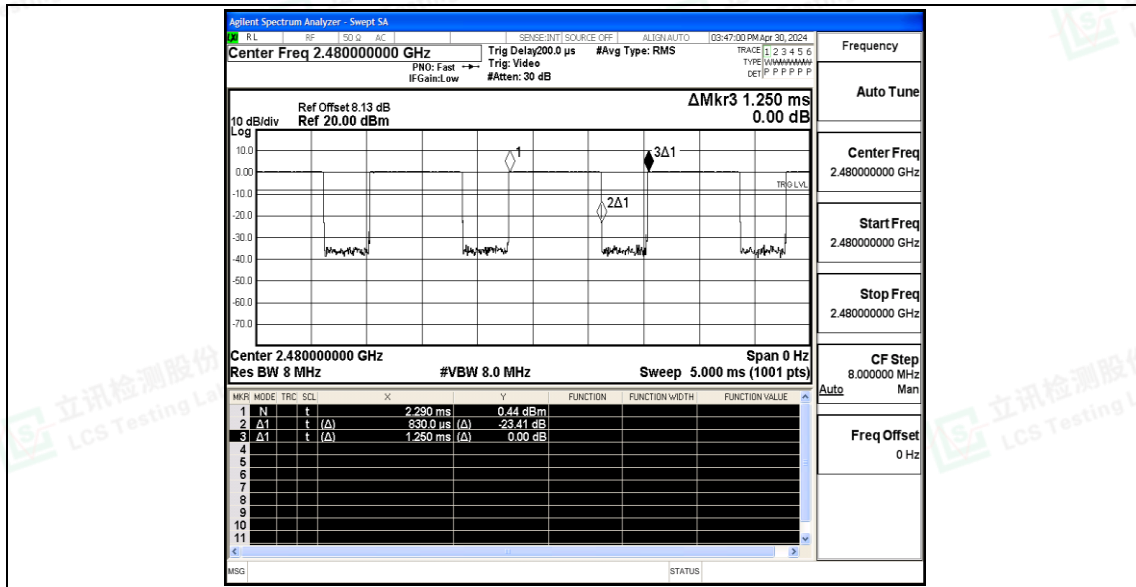


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B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.22	≤-41.20	46.98	≤54	PASS
				AV	2311.865	-47.08	≤-41.20	48.12	≤54	PASS
				AV	2390.000	-47.54	≤-41.20	47.66	≤54	PASS
				Peak	2310.000	-40.93	≤-21.20	54.27	≤74	PASS
				Peak	2344.205	-38.21	≤-21.20	56.99	≤74	PASS
				Peak	2390.000	-42.27	≤-21.20	52.93	≤74	PASS
		High	2480	AV	2483.500	-47.57	≤-41.20	47.63	≤54	PASS
				AV	2493.360	-46.95	≤-41.20	48.25	≤54	PASS
				AV	2500.000	-47.73	≤-41.20	47.47	≤54	PASS
				Peak	2483.500	-41.78	≤-21.20	53.42	≤74	PASS
				Peak	2486.960	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2500.000	-41.42	≤-21.20	53.78	≤74	PASS

Note:

1. The Antenna Gain is compensated in the graph. The Correction Factor 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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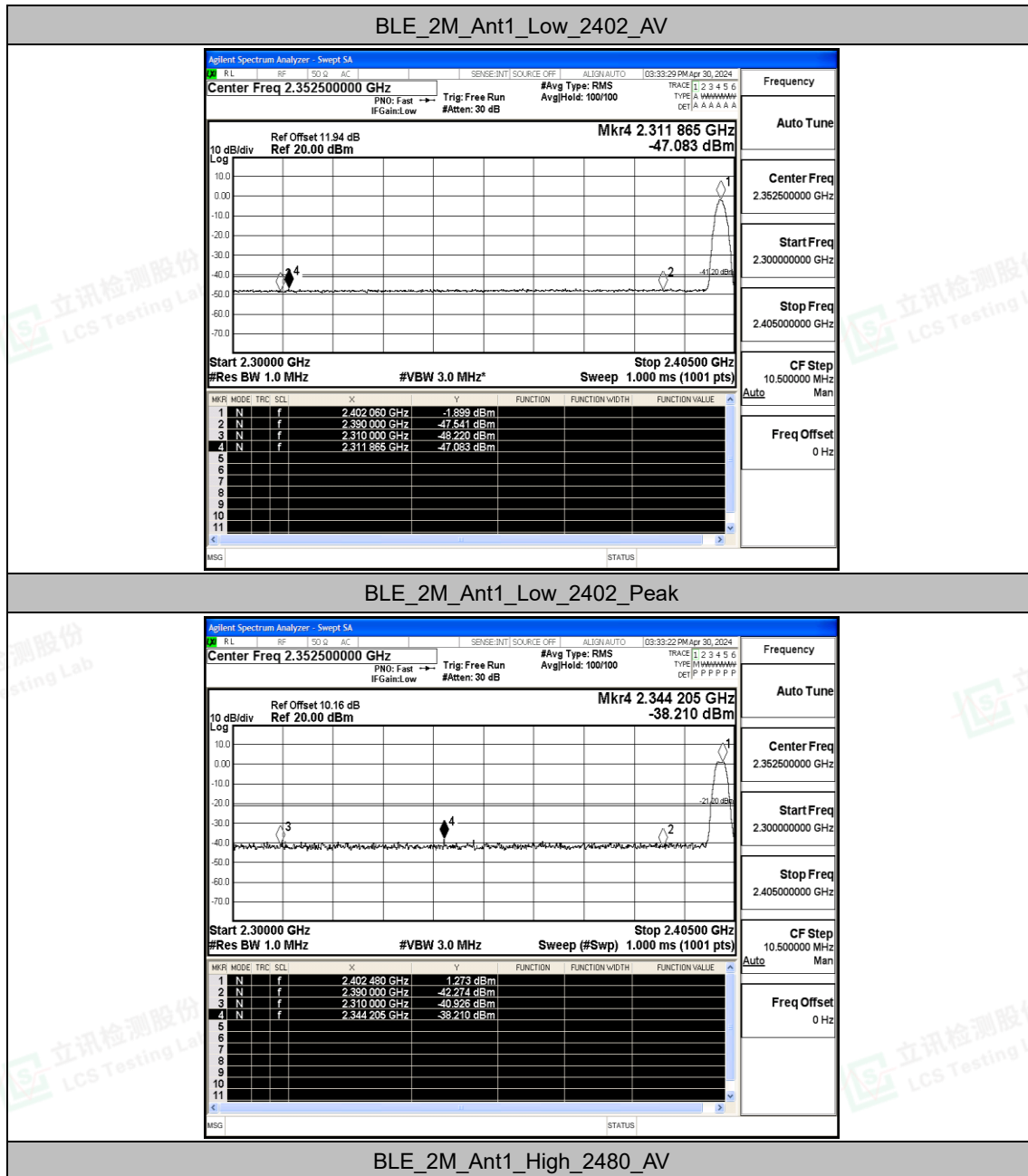
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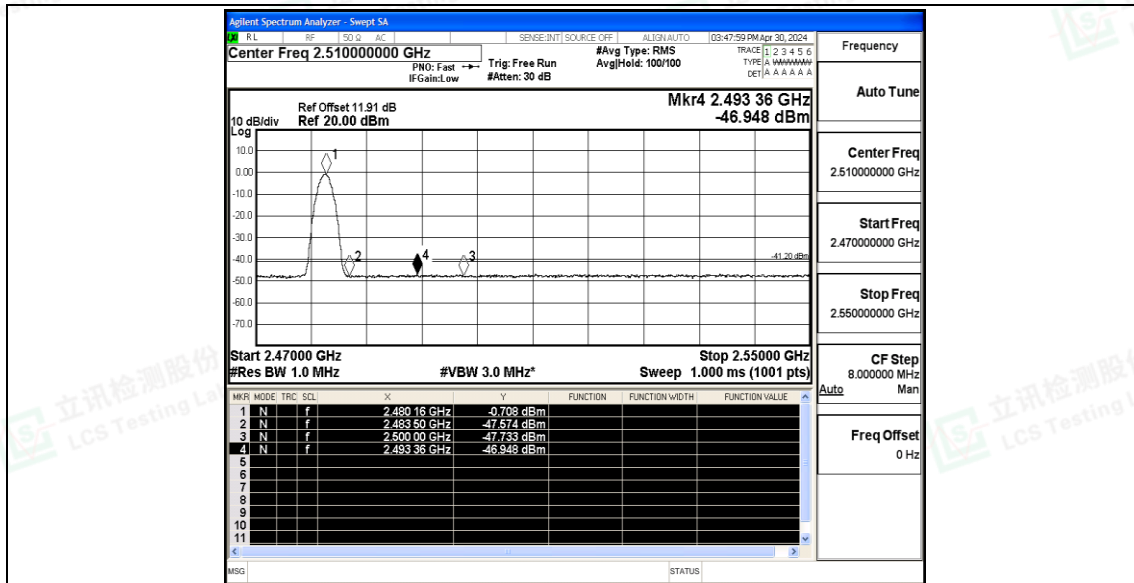


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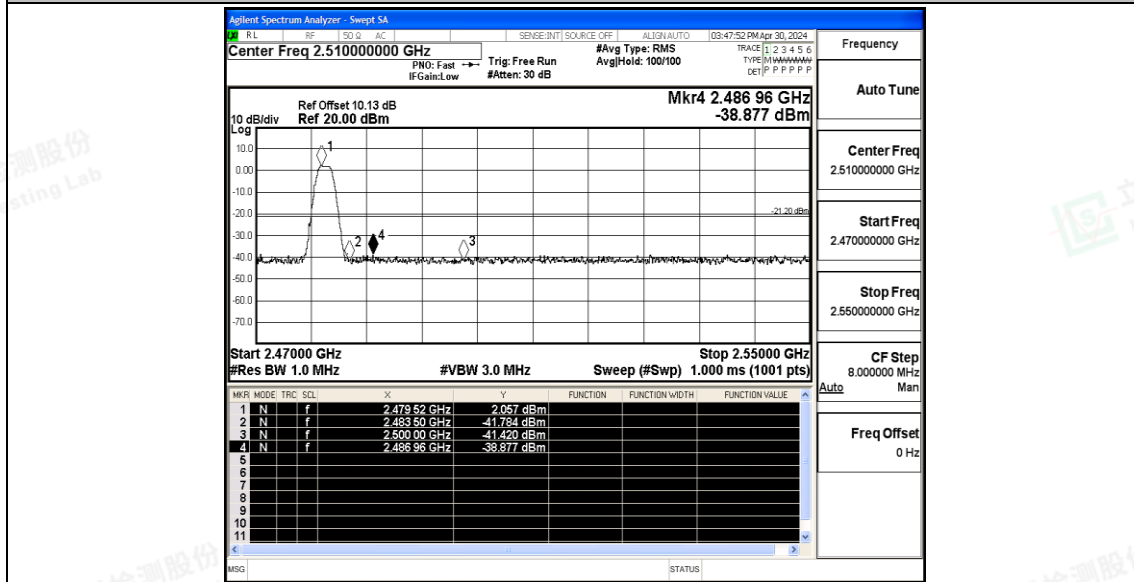
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BLE_2M_Ant1_High_2480_Peak



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