



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: 6 inch Wi-Fi/BLE Recessed Down Light with Back Light

Test Model: LJD006SMG2WH

Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





A.1 DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.700	2401.644	2402.344	0.5	PASS
		2440	0.704	2439.636	2440.340	0.5	PASS
		2480	0.704	2479.640	2480.344	0.5	PASS

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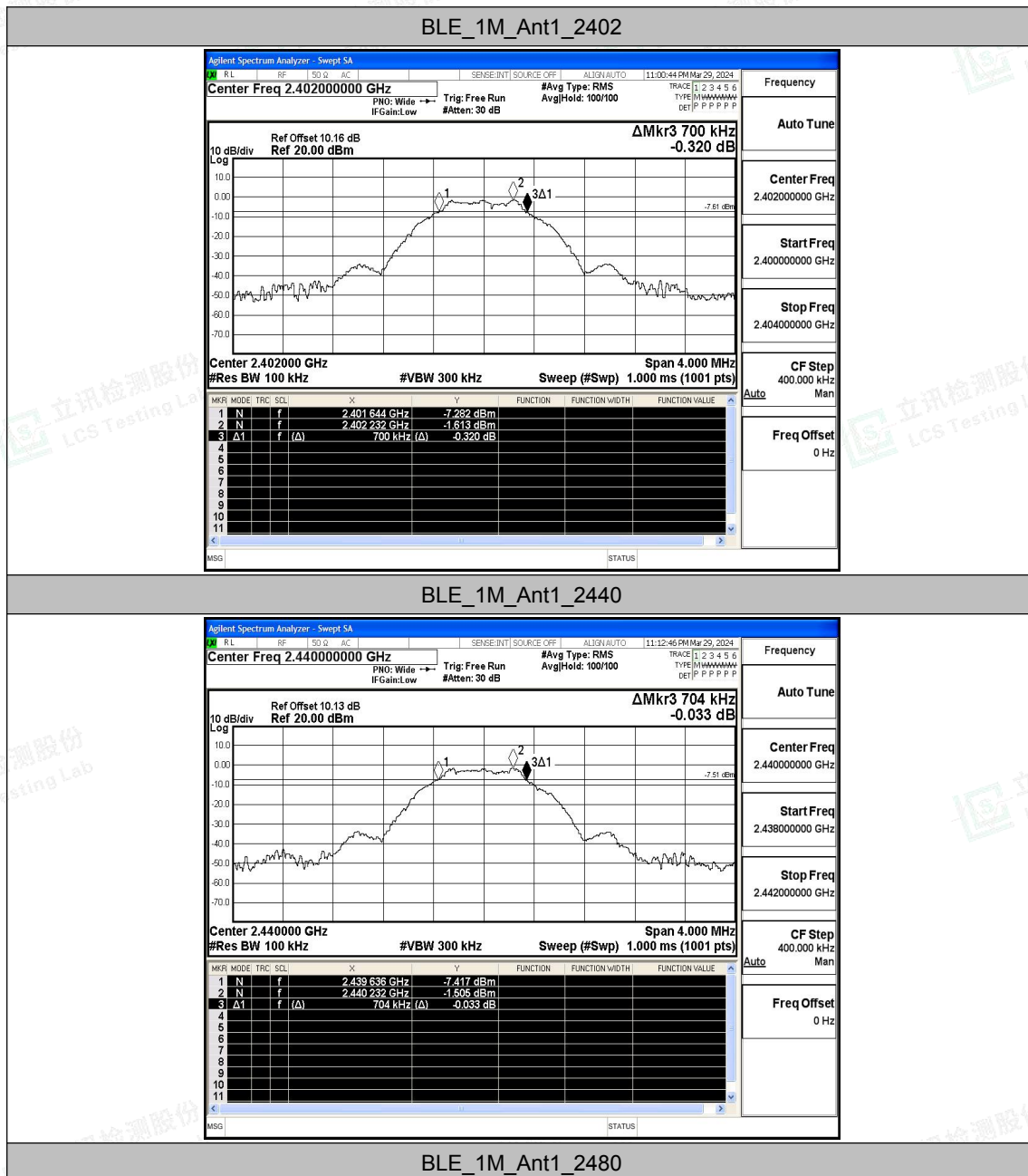
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Test Graphs

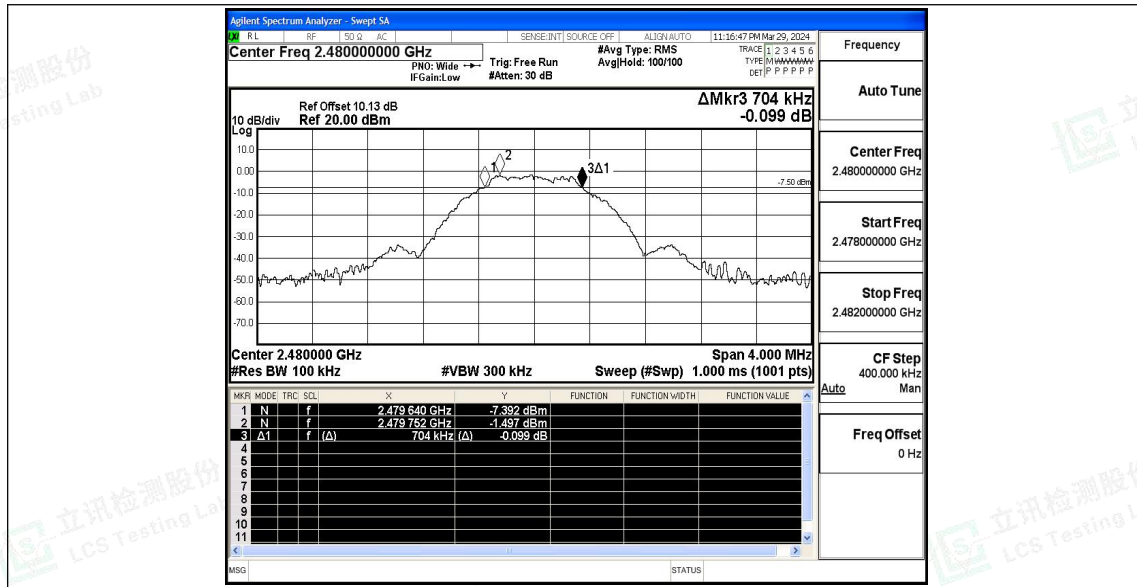


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A.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.50	≤30	PASS
		2440	-0.38	≤30	PASS
		2480	-0.28	≤30	PASS

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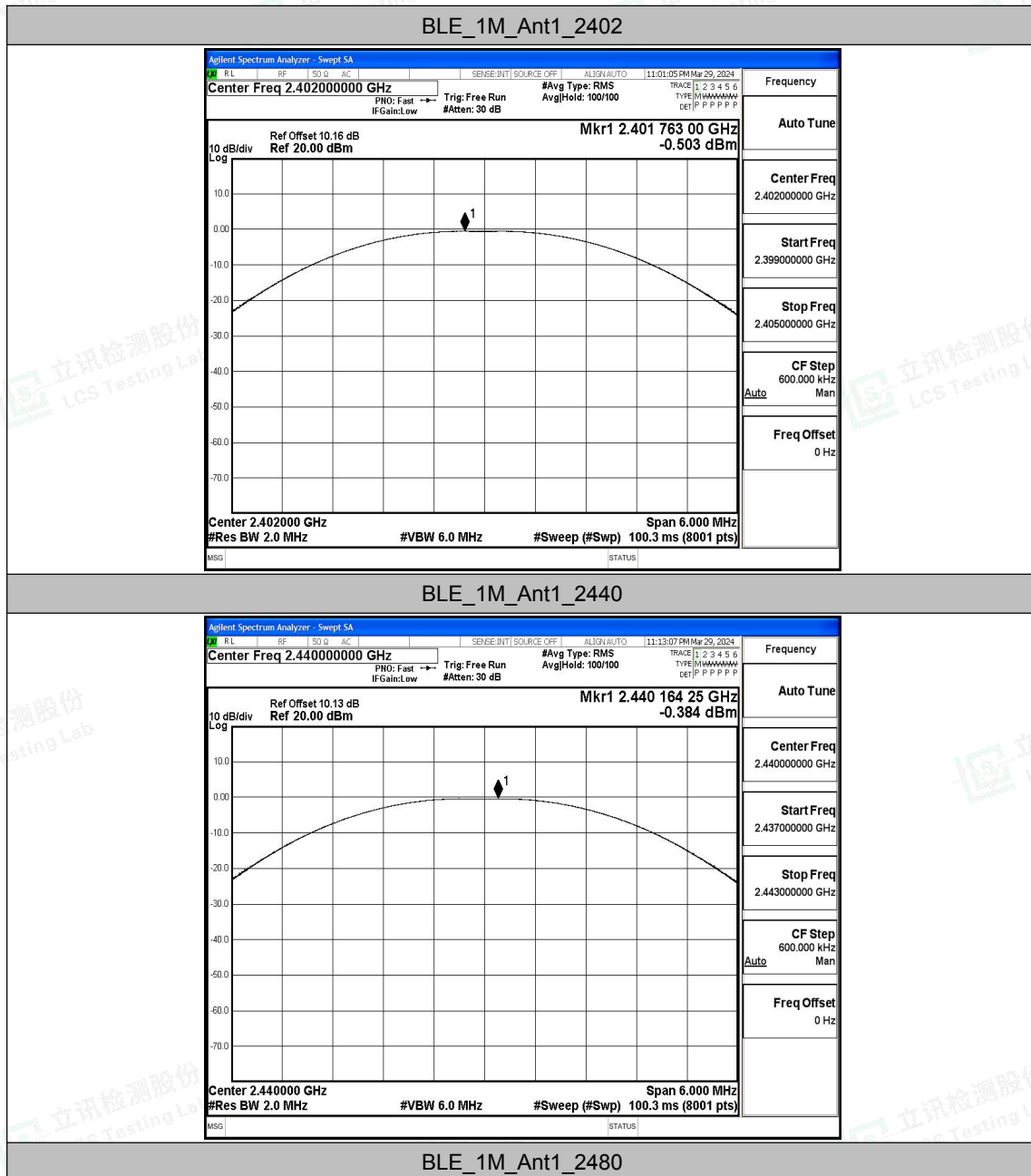
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Test Graphs

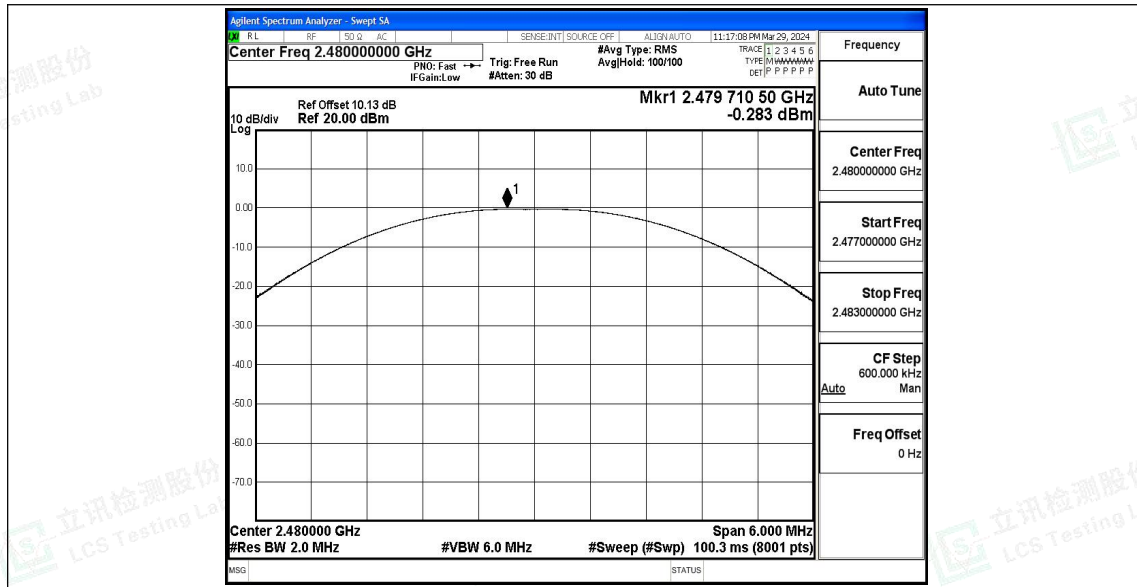


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A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.75	≤8.00	PASS
		2440	-15.63	≤8.00	PASS
		2480	-15.56	≤8.00	PASS

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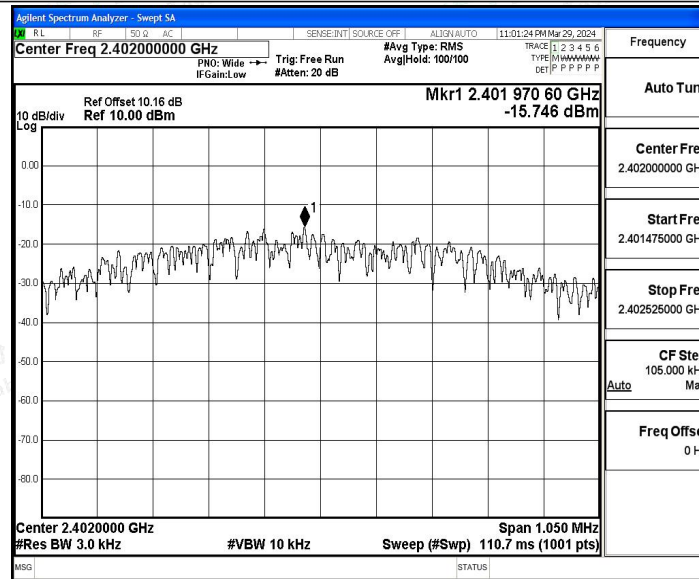
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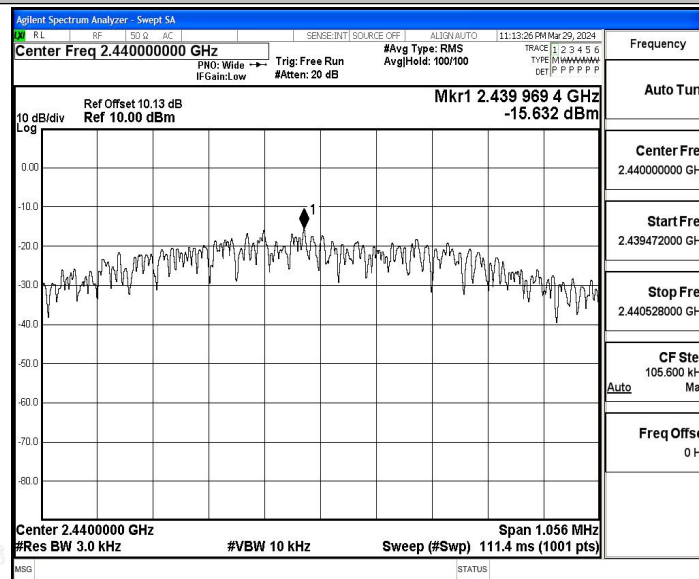


Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

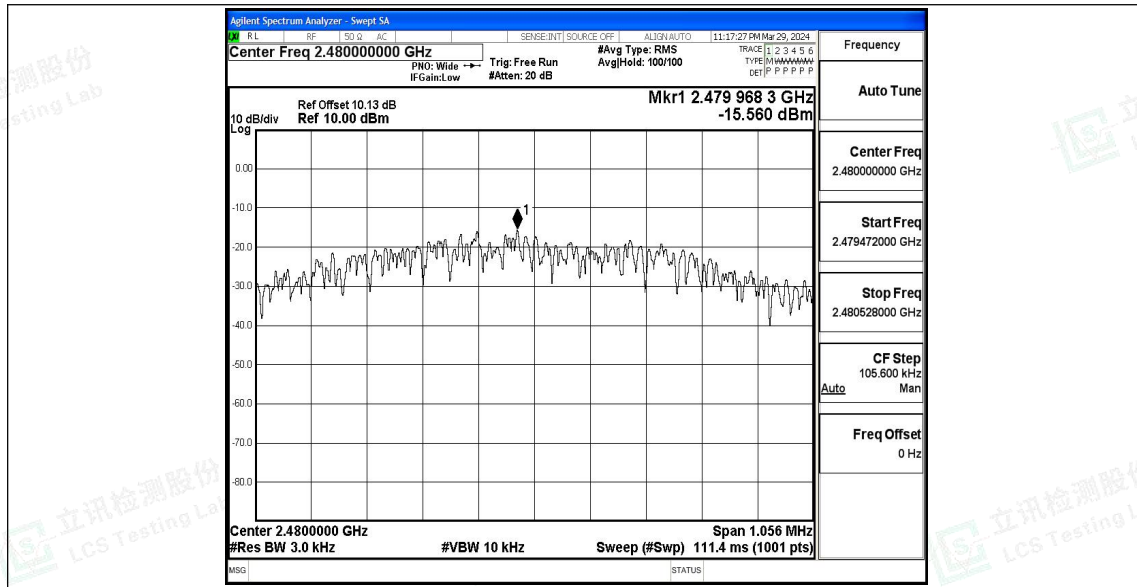


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A.4 Band edge measurements

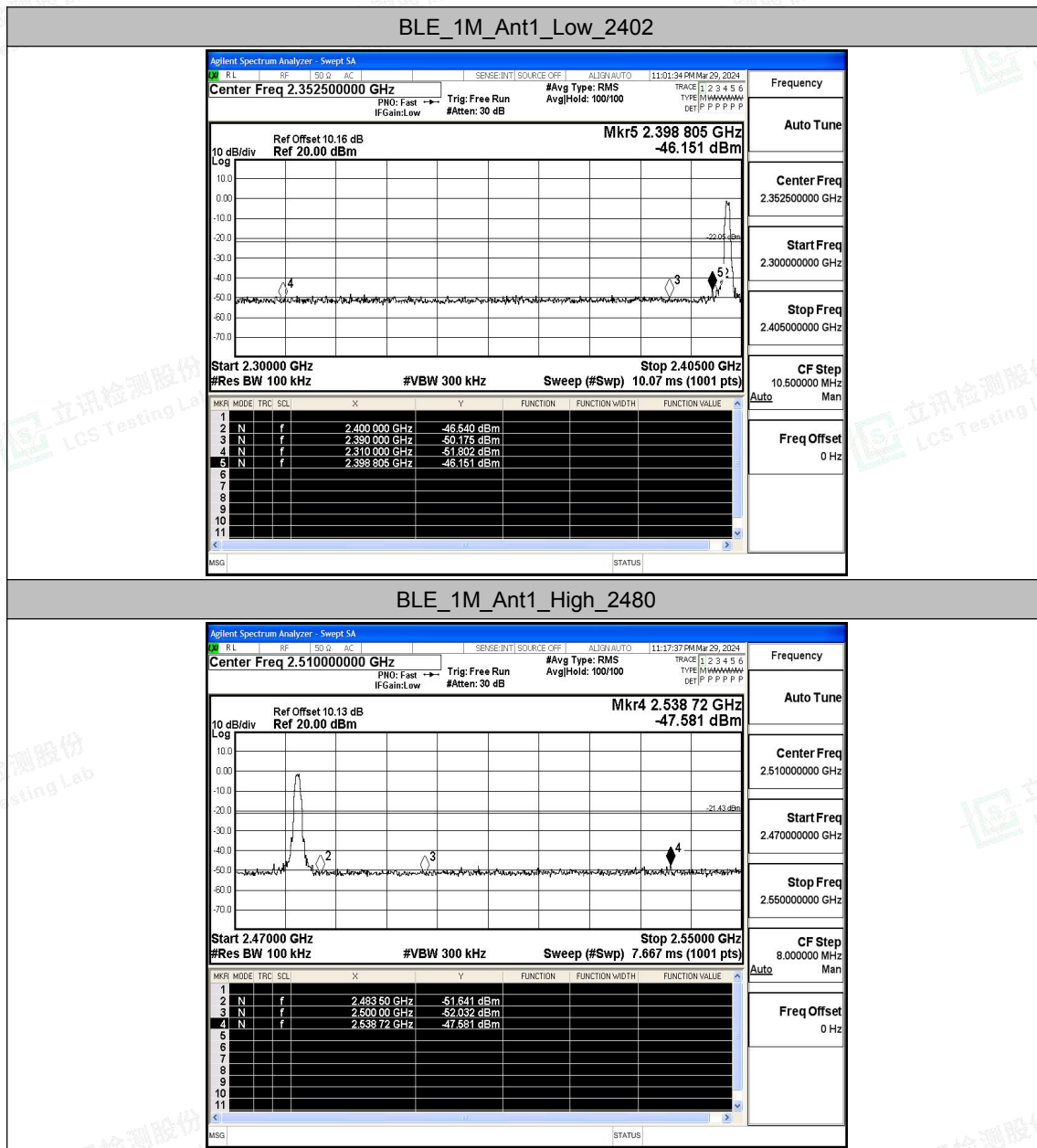
Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.05	-46.15	≤-22.05	PASS
		High	2480	-1.43	-47.58	≤-21.43	PASS





Test Graphs



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A.5 Conducted Spurious Emission

Test Result

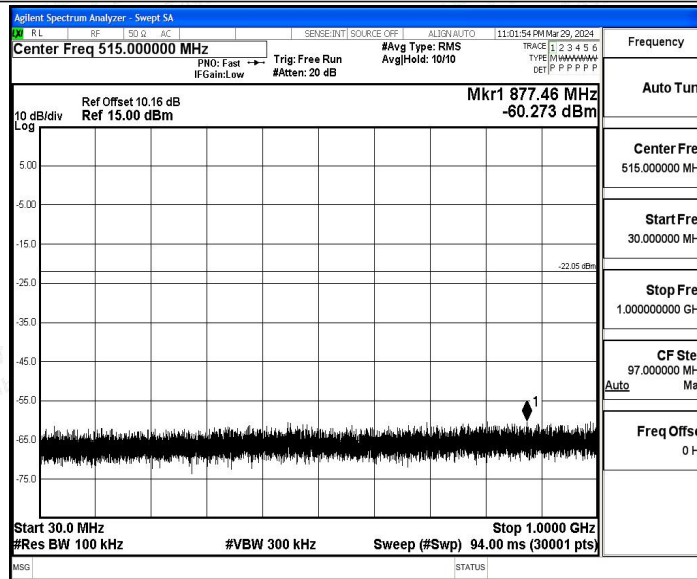
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~1000	-2.05	-60.27	≤-22.05	PASS
			1000~26500	-2.05	-47.15	≤-22.05	PASS
		2440	30~1000	-1.54	-59.96	≤-21.54	PASS
			1000~26500	-1.54	-45.92	≤-21.54	PASS
		2480	30~1000	-1.43	-59.55	≤-21.43	PASS
			1000~26500	-1.43	-48.18	≤-21.43	PASS



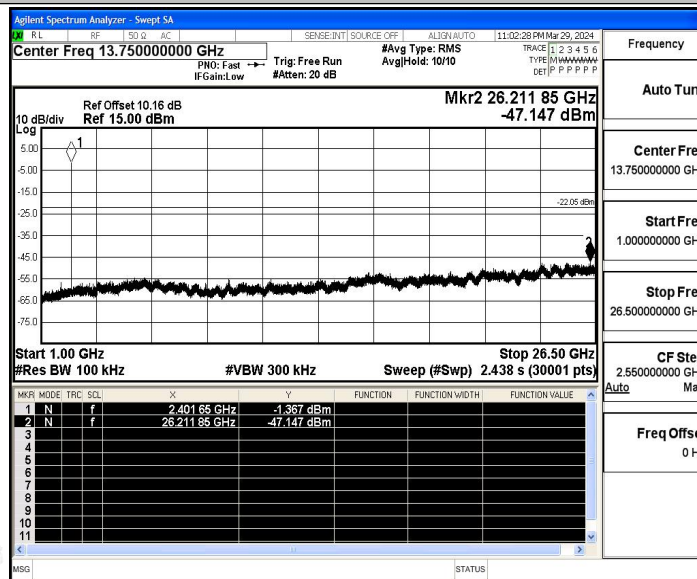


Test Graphs

BLE_1M_Ant1_2402_30~1000



BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_30~1000

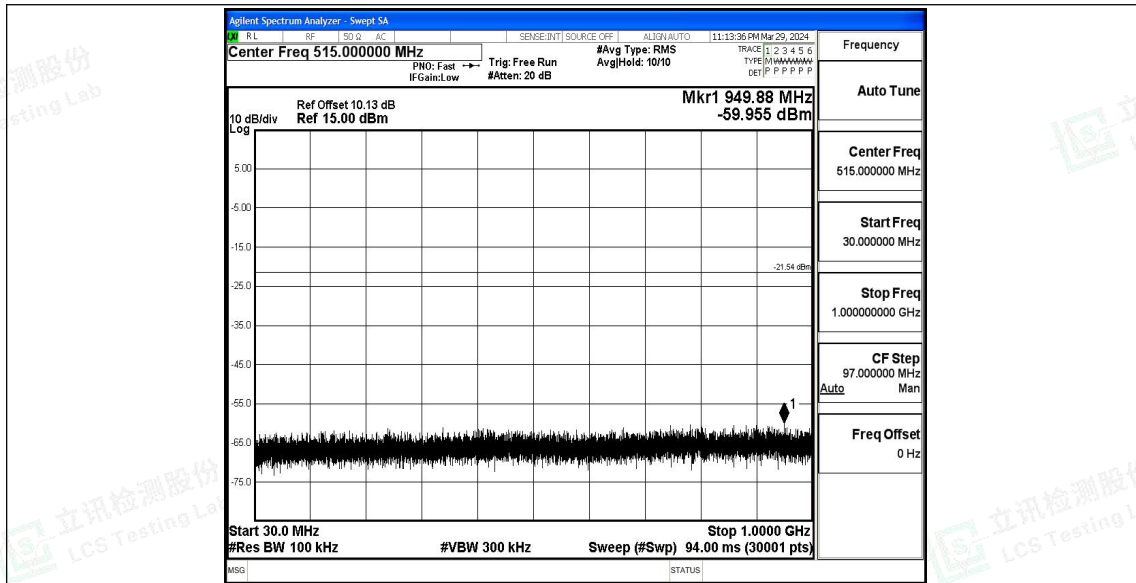


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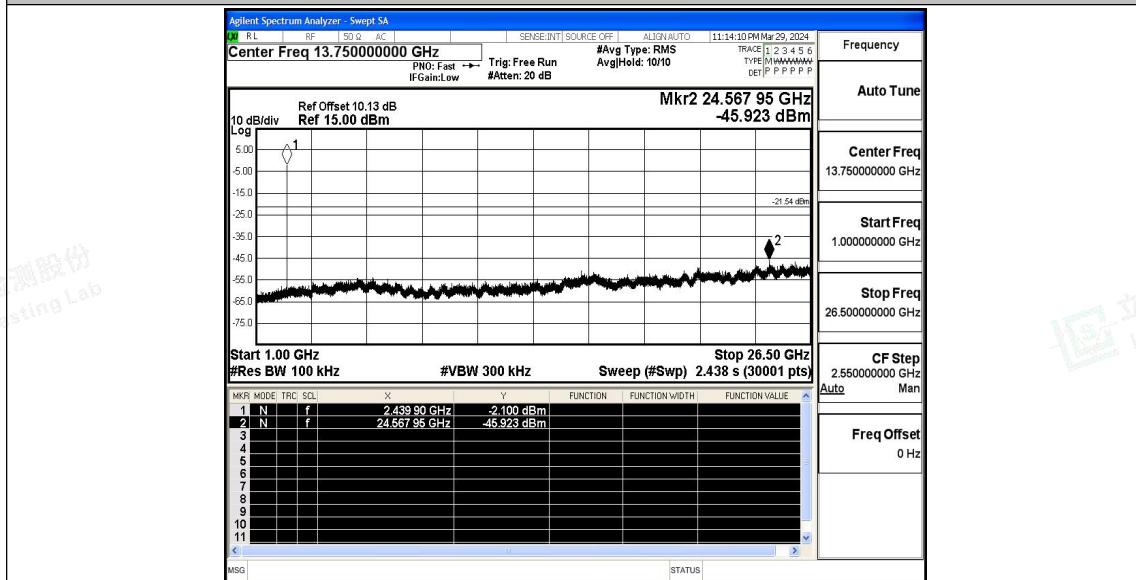
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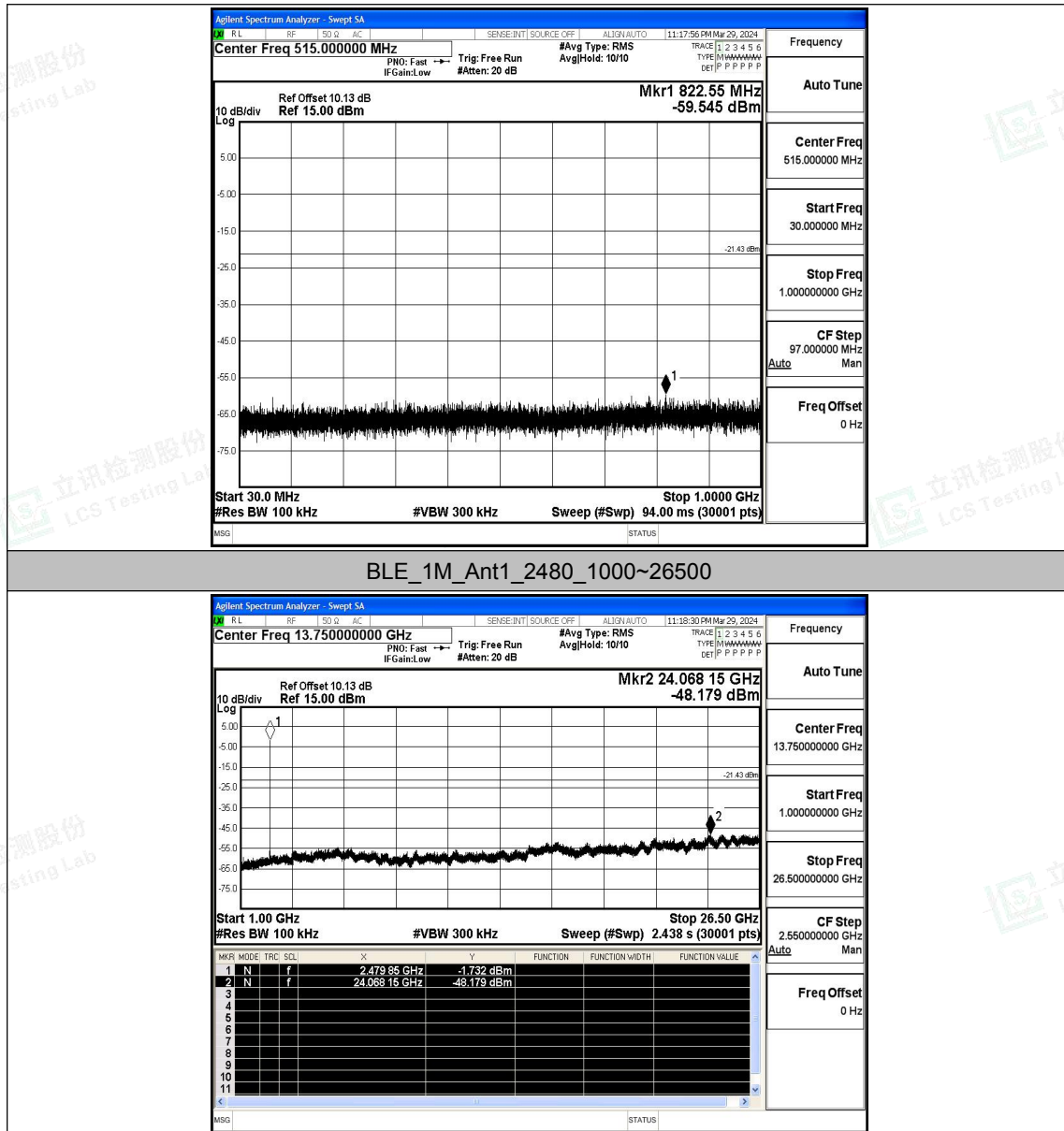


BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_30~1000







Reference level measurement

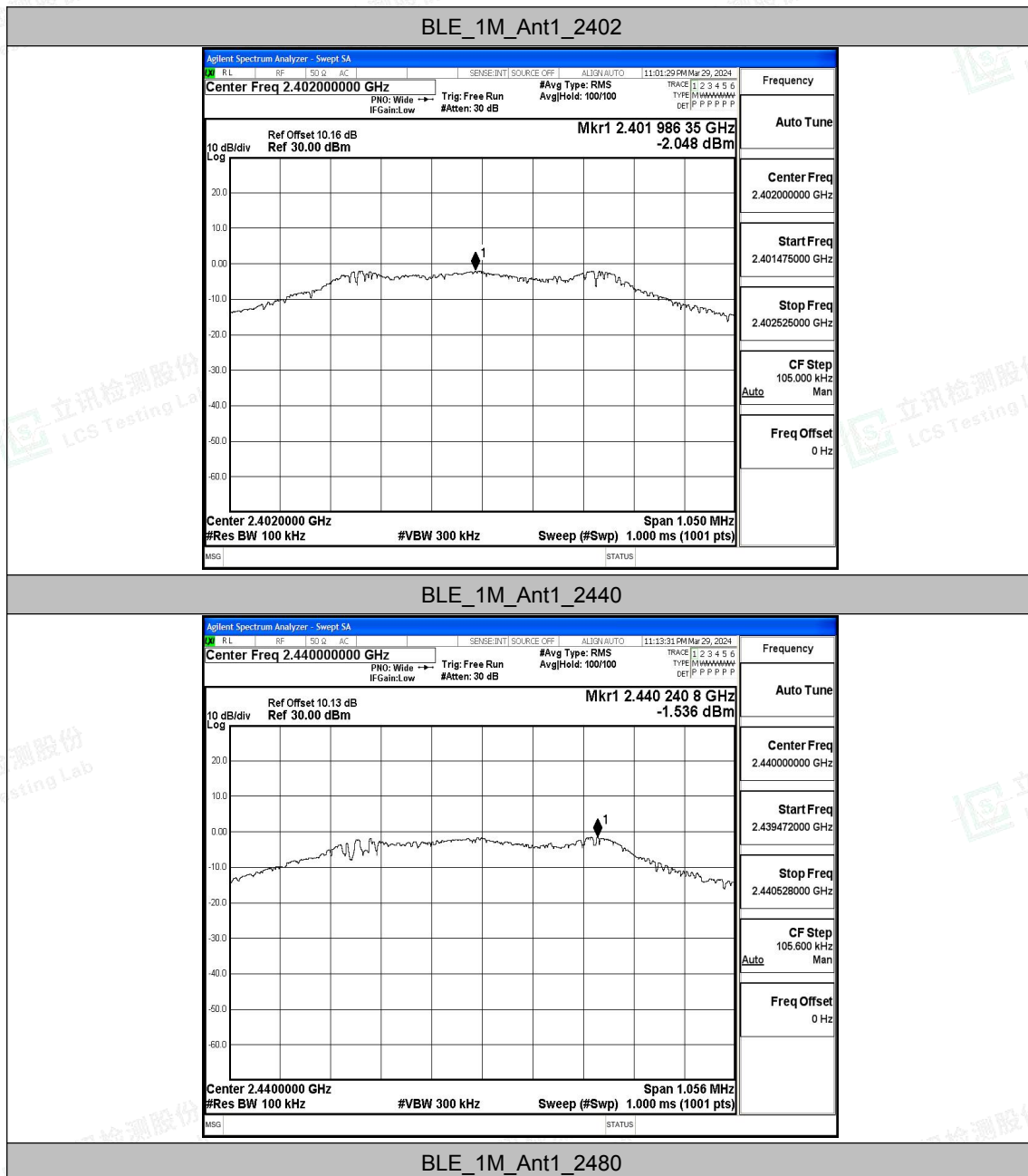
Test Result

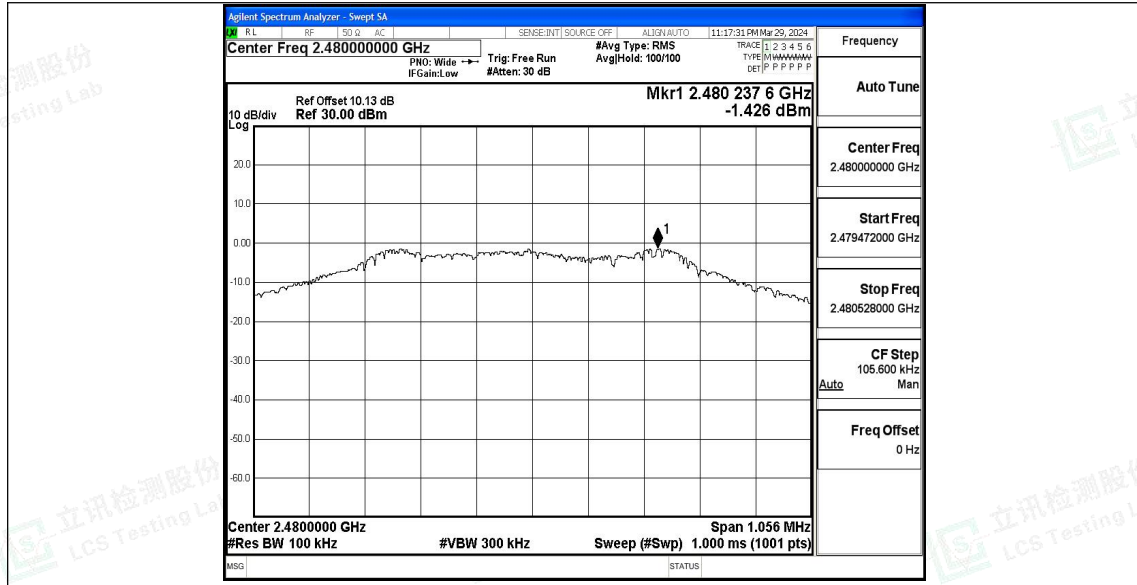
TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2401.99	-2.05
		2440	2440.24	-1.54
		2480	2480.24	-1.43





Test Graphs







A.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_1M	Ant1	2402	0.39	0.63	61.90	2.08	2.56
		2440	0.39	0.63	61.90	2.08	2.56
		2480	0.39	0.63	61.90	2.08	2.56

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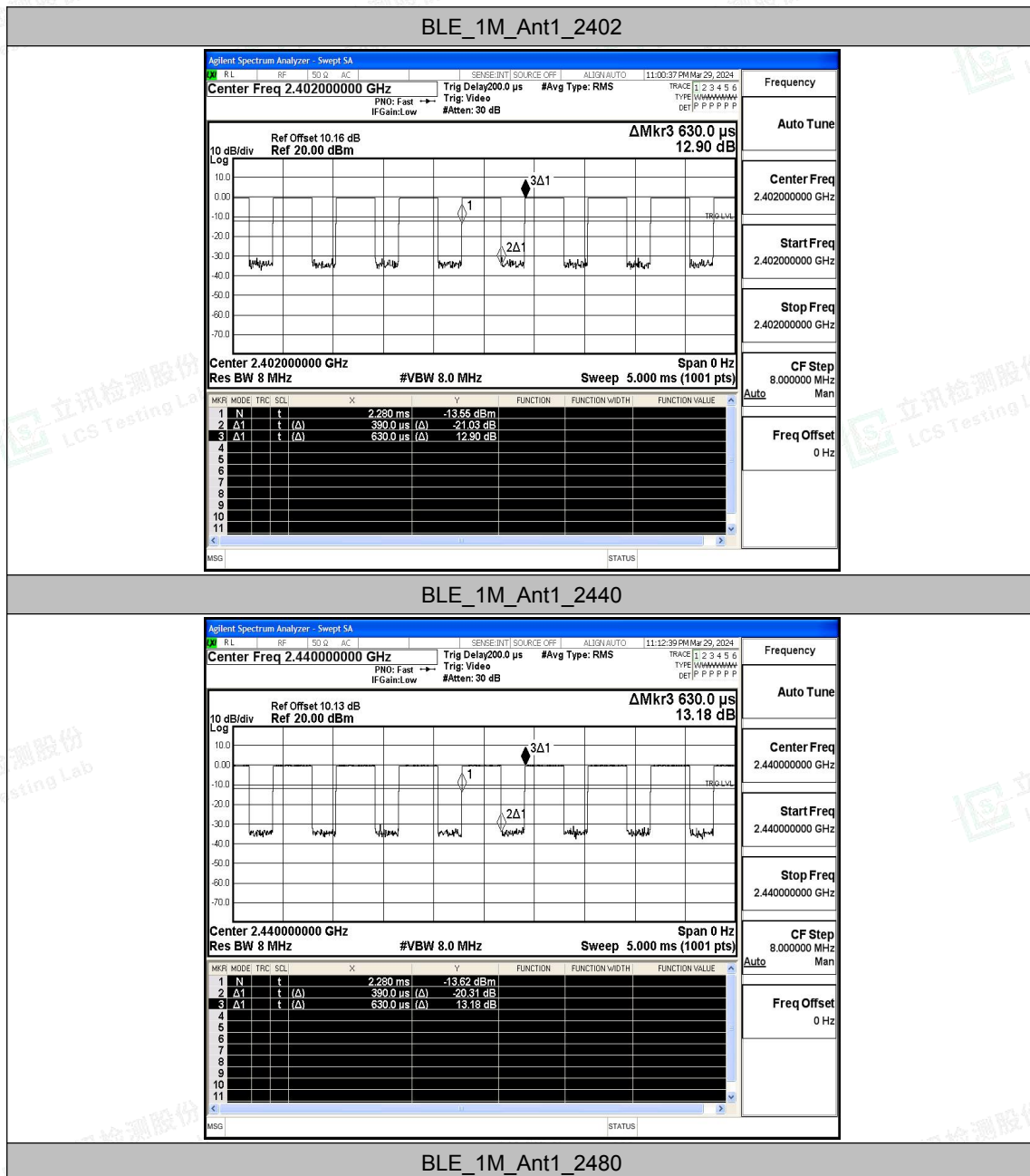
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Test Graphs

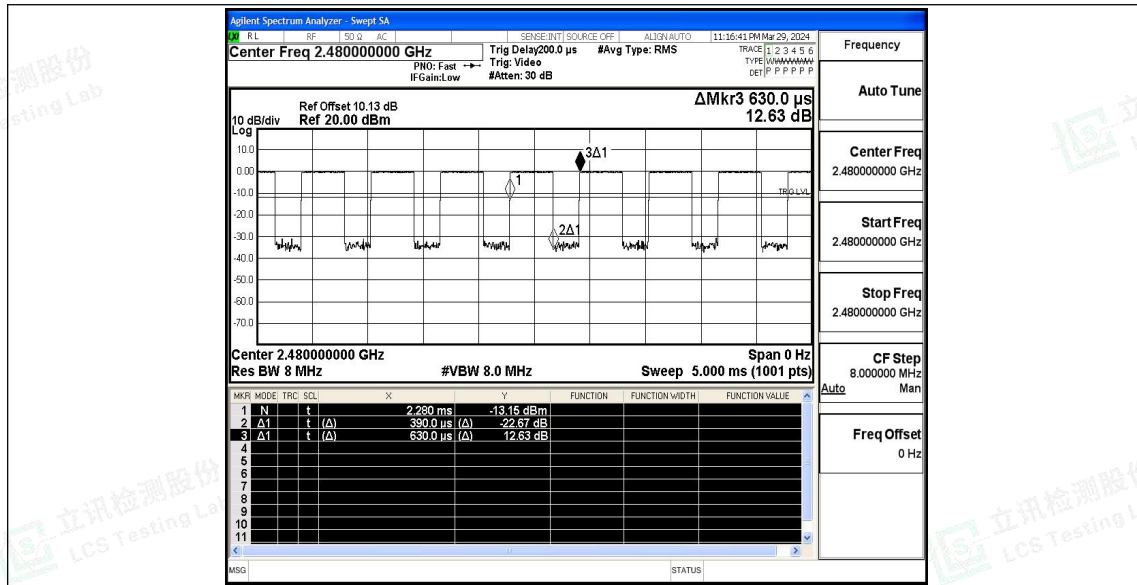


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A.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-45.57	≤-41.20	49.63	≤54	PASS
				AV	2366.045	-45.03	≤-41.20	50.17	≤54	PASS
				AV	2390.000	-45.55	≤-41.20	49.65	≤54	PASS
				Peak	2310.000	-41.48	≤-21.20	53.72	≤74	PASS
				Peak	2382.425	-36.74	≤-21.20	58.46	≤74	PASS
				Peak	2390.000	-40.25	≤-21.20	54.95	≤74	PASS
		High	2480	AV	2483.500	-45.04	≤-41.20	50.16	≤54	PASS
				AV	2492.720	-44.95	≤-41.20	50.25	≤54	PASS
				AV	2500.000	-45.72	≤-41.20	49.48	≤54	PASS
				Peak	2483.500	-38.04	≤-21.20	57.16	≤74	PASS
				Peak	2484.240	-35.31	≤-21.20	59.89	≤74	PASS
				Peak	2500.000	-38	≤-21.20	57.20	≤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.

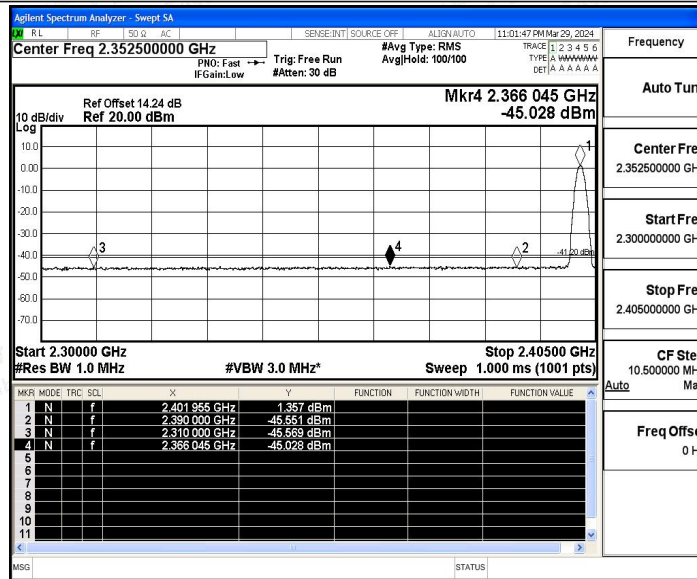


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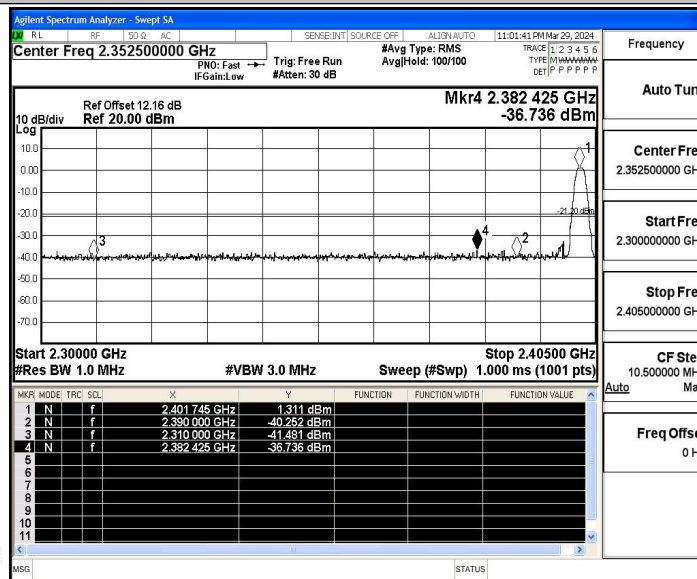


Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

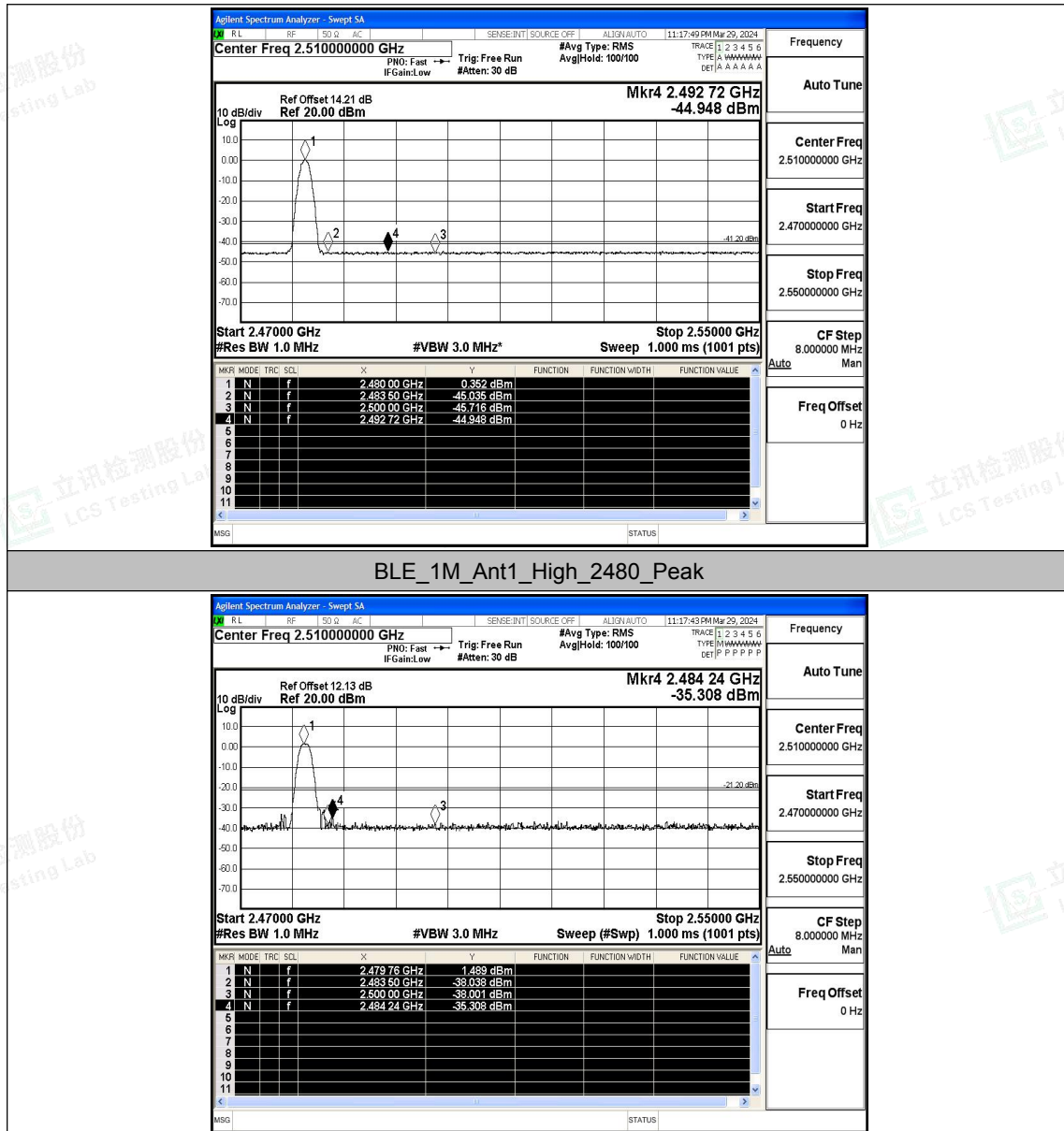


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