



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Stents Speaker

Test Model: AJ221

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
Supervised by:	Jack Cheng





B.1 DTS Bandwidth

Test Result

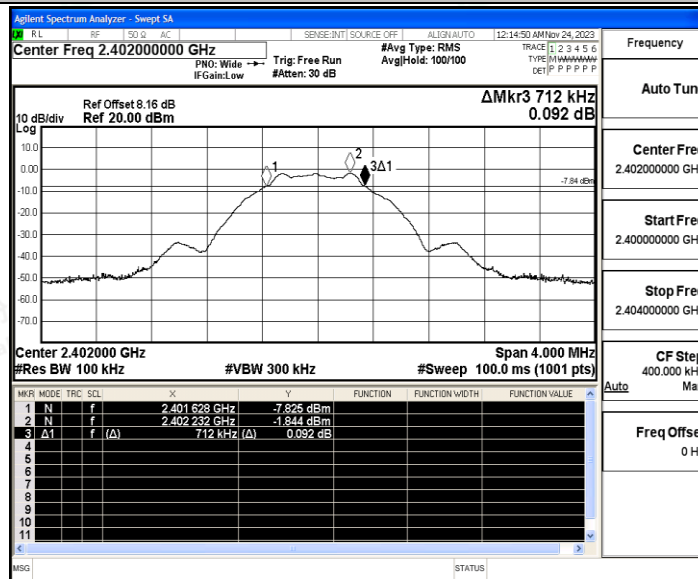
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.712	2401.628	2402.340	0.5	PASS
		2440	0.712	2439.628	2440.340	0.5	PASS
		2480	0.716	2479.628	2480.344	0.5	PASS



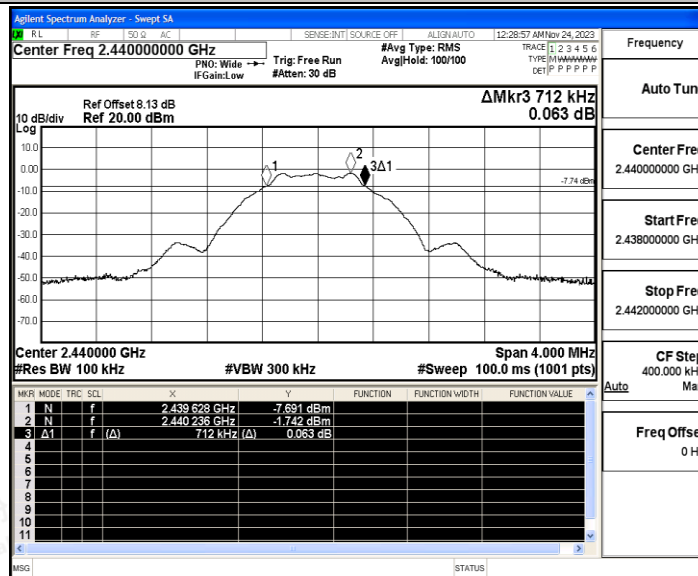


Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

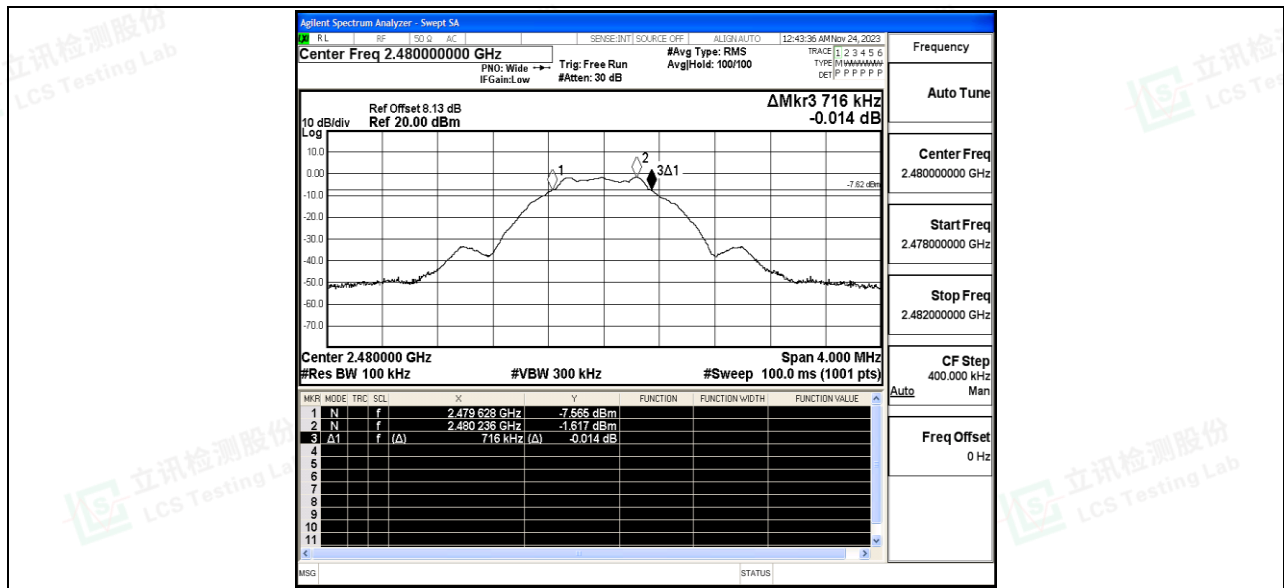


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B.2 Maximum conducted output power

Test Result

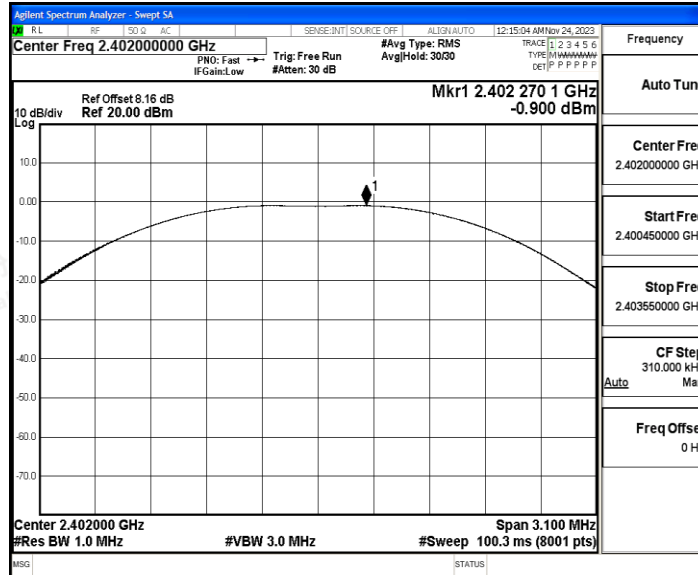
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.9	≤30	PASS
		2440	-0.79	≤30	PASS
		2480	-0.69	≤30	PASS



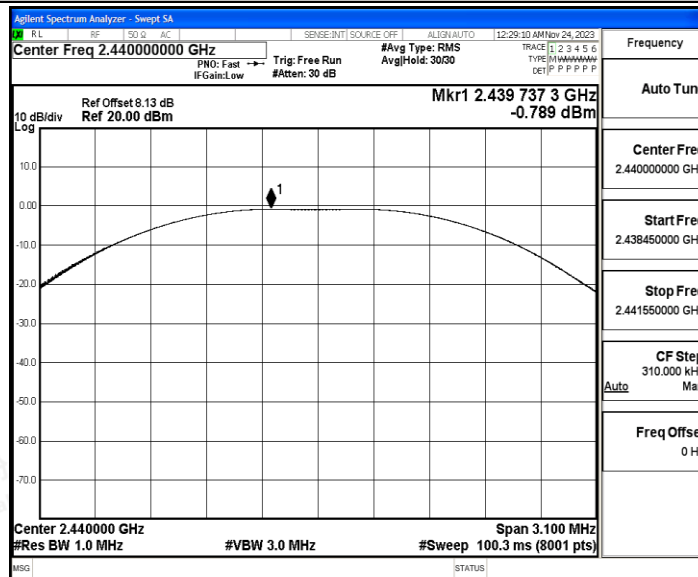


Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

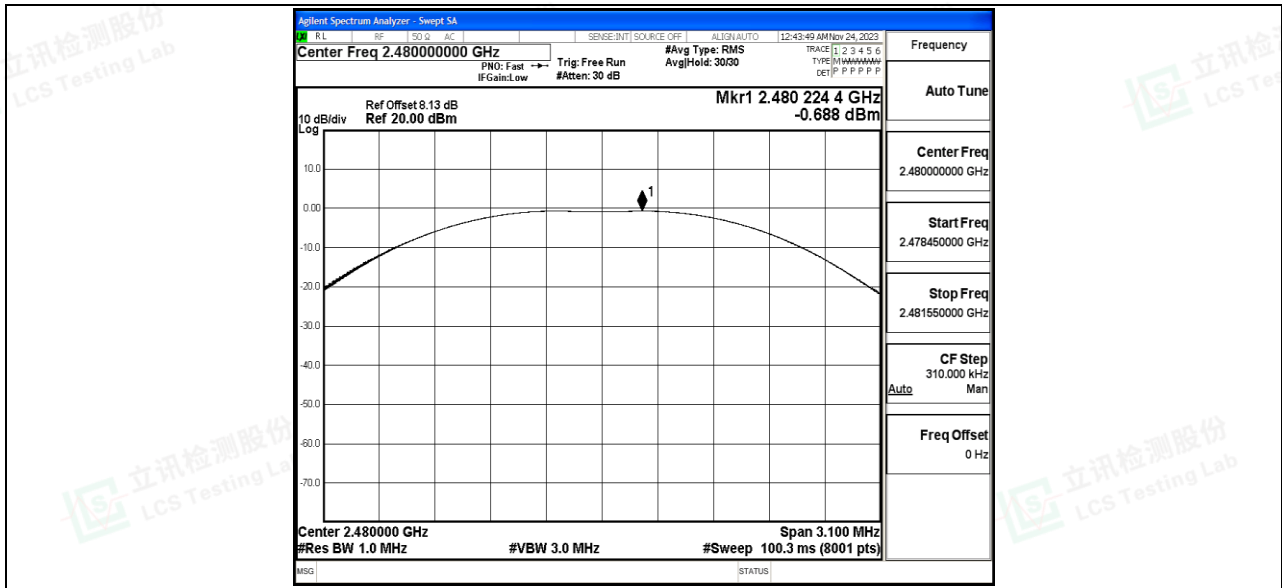


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B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.99	≤8.00	PASS
		2440	-15.81	≤8.00	PASS
		2480	-15.76	≤8.00	PASS



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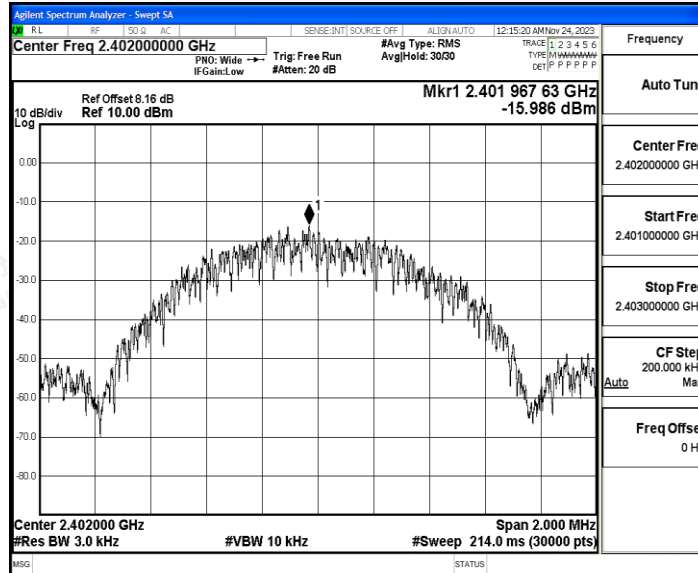
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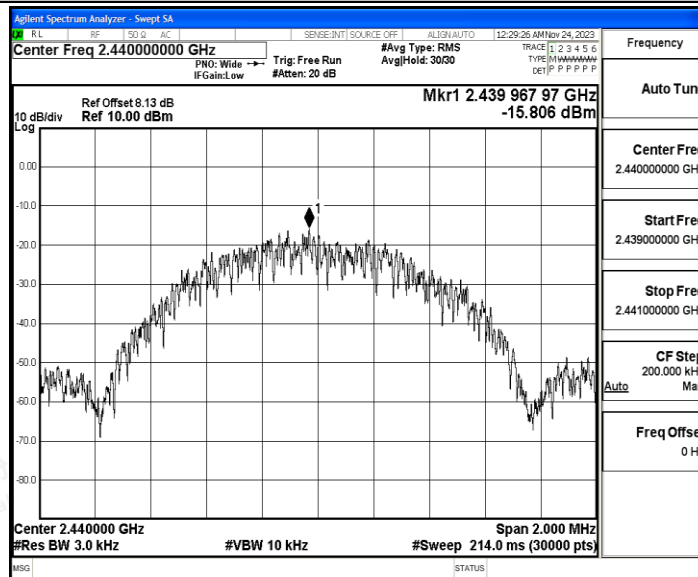


Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

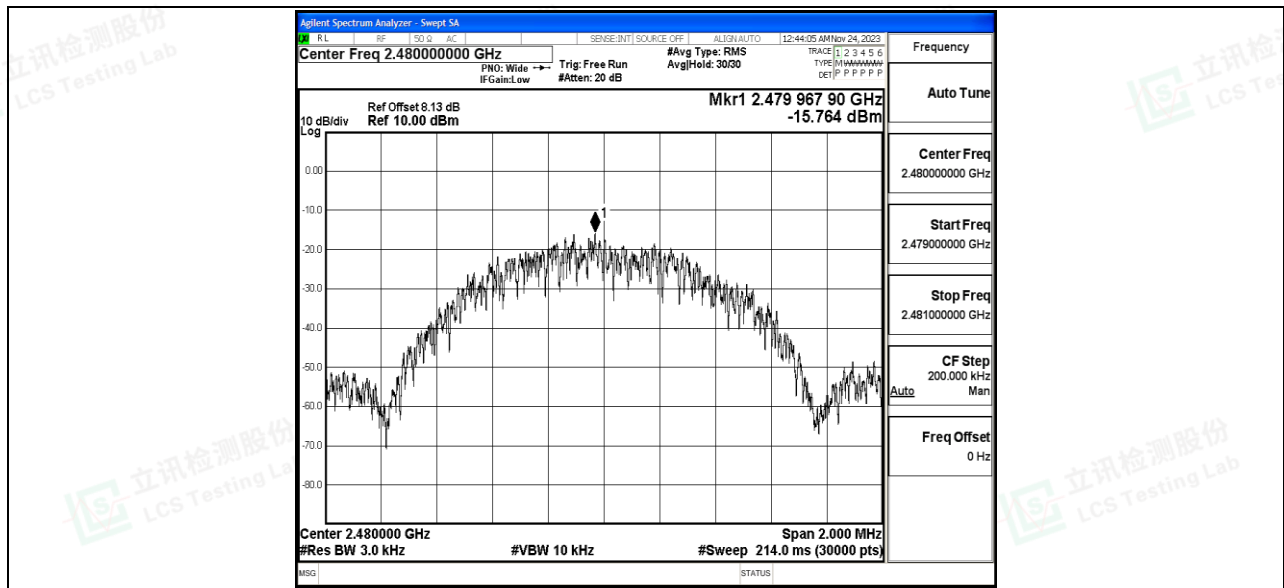


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B.4 Band edge measurements

Test Result

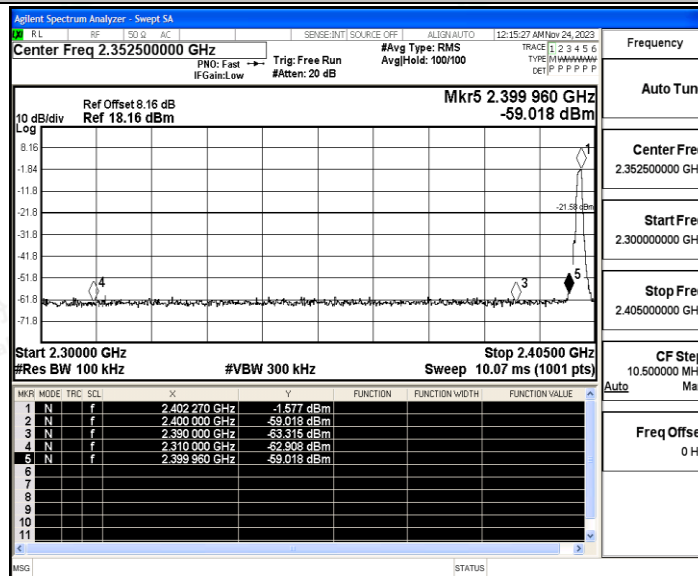
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.58	-59.02	≤ -21.58	PASS
		High	2480	-1.35	-59.94	≤ -21.35	PASS



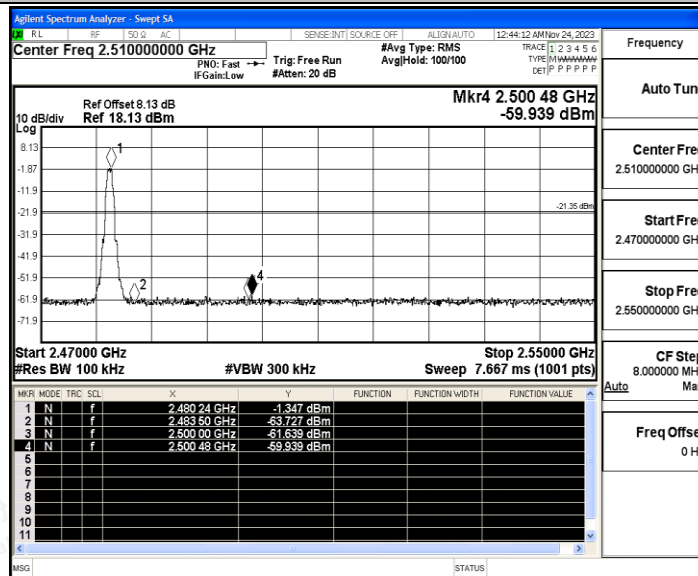


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



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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	-1.82	-1.82	---	PASS
			30~1000	-1.82	-59.05	≤ -21.82	PASS
			1000~26500	-1.82	-49.36	≤ -21.82	PASS
		2440	Reference	-1.73	-1.73	---	PASS
			30~1000	-1.73	-61.4	≤ -21.73	PASS
			1000~26500	-1.73	-48.93	≤ -21.73	PASS
		2480	Reference	-1.61	-1.61	---	PASS
			30~1000	-1.61	-61.51	≤ -21.61	PASS
			1000~26500	-1.61	-49.47	≤ -21.61	PASS



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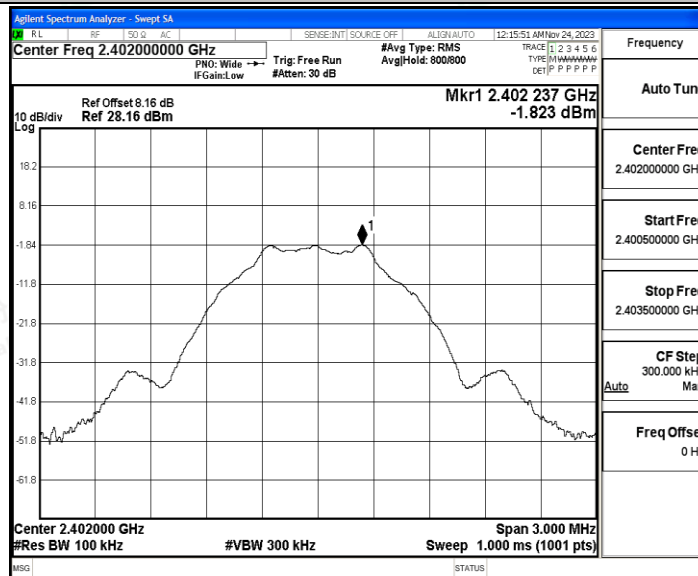
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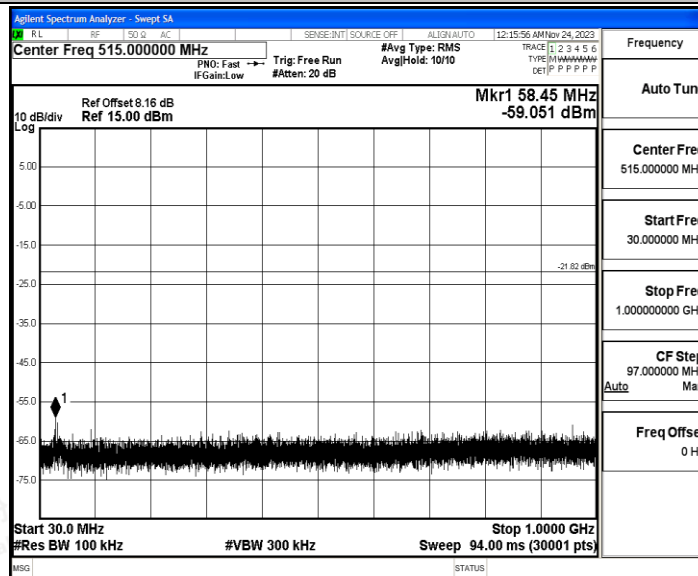


Test Graphs

BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000



BLE_1M_Ant1_2402_1000~26500

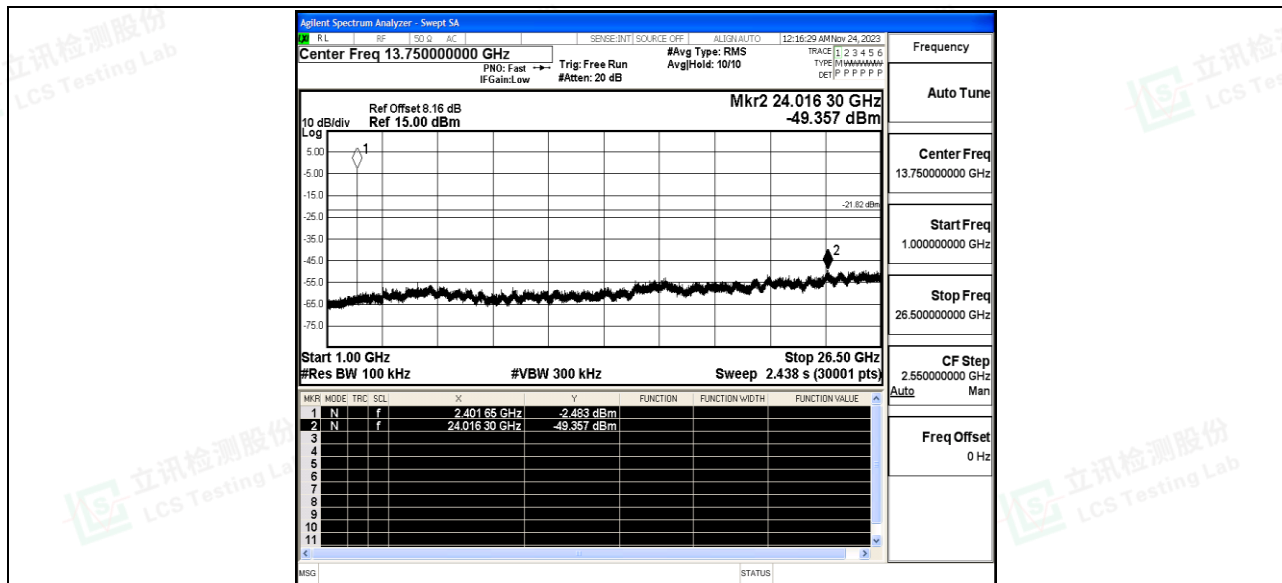


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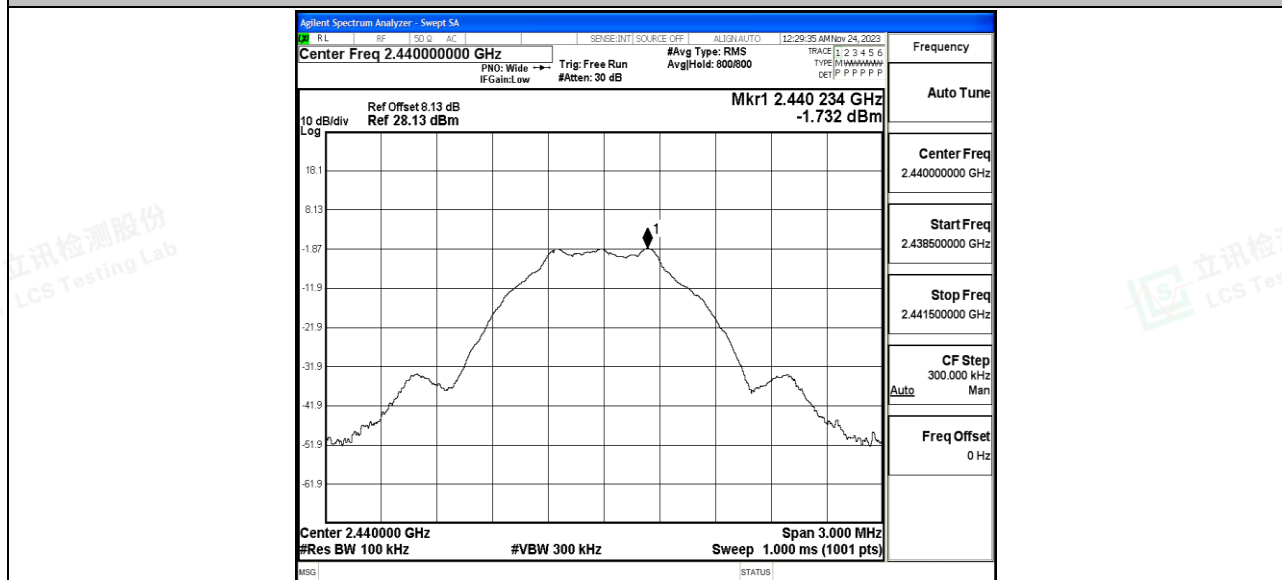
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BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000

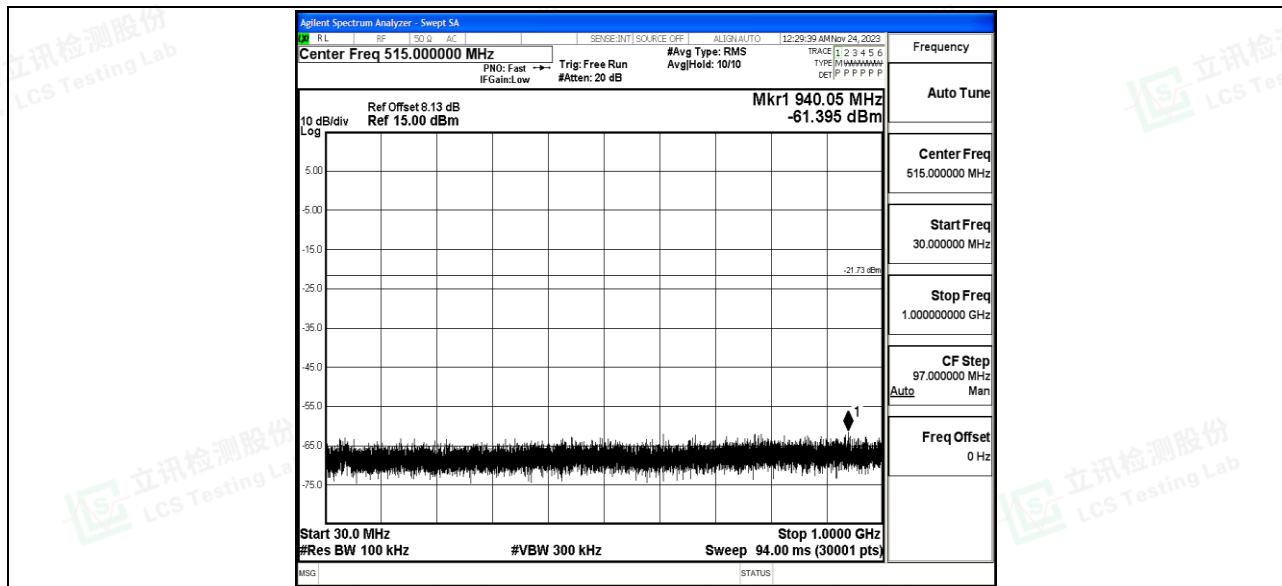


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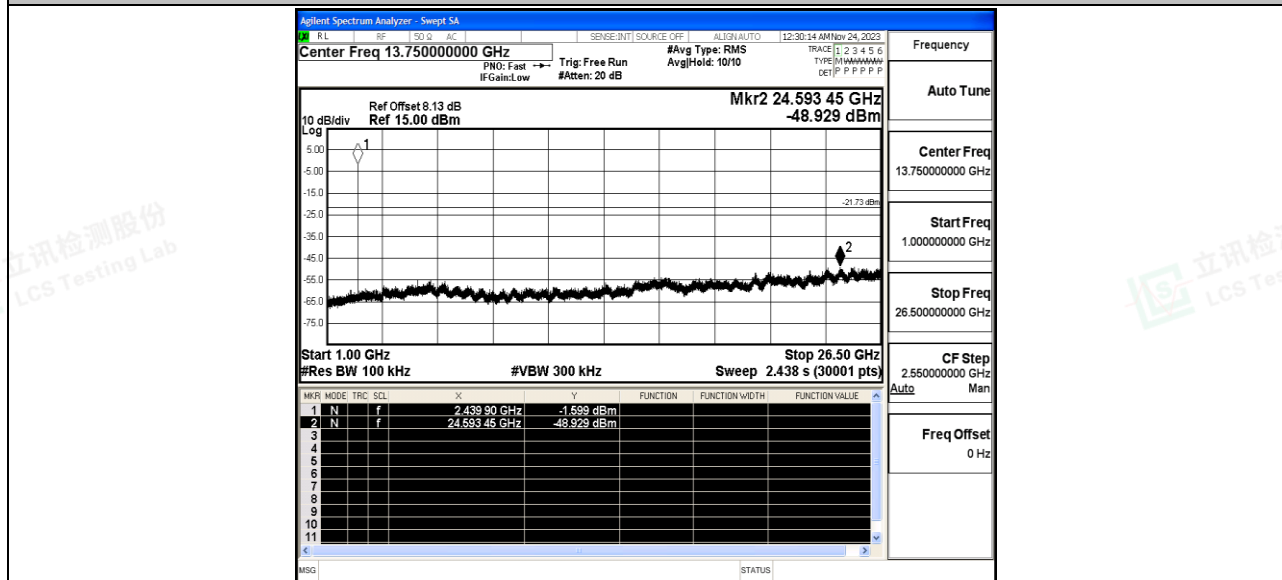
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BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference

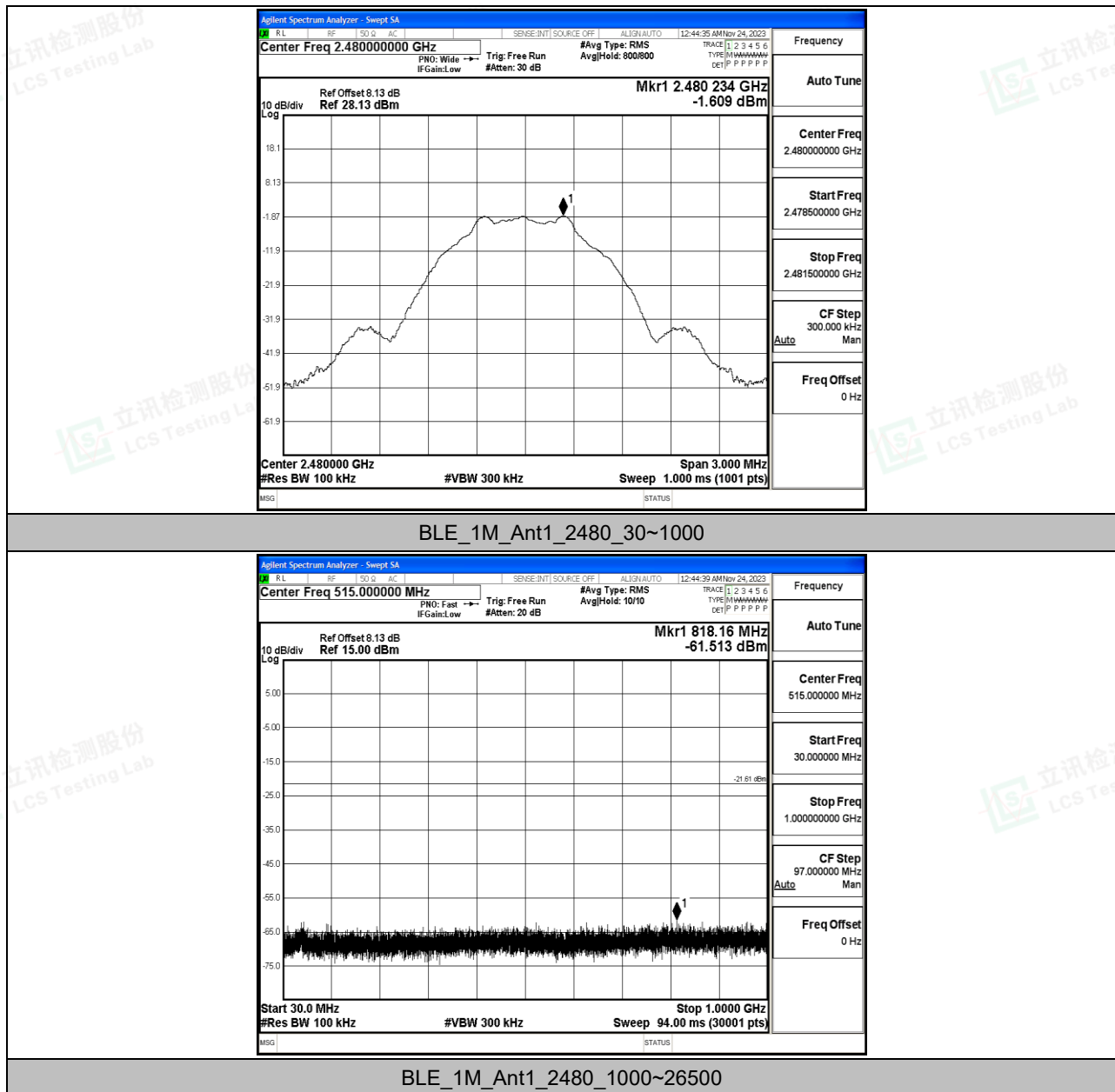


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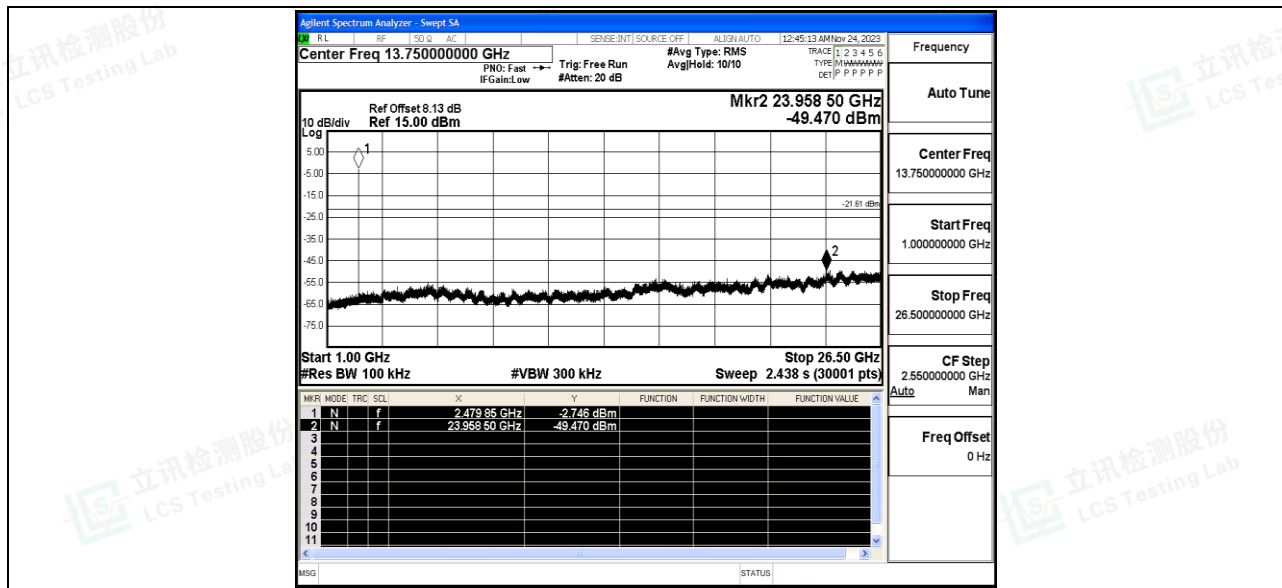


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B.6 Duty Cycle

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	---	---
		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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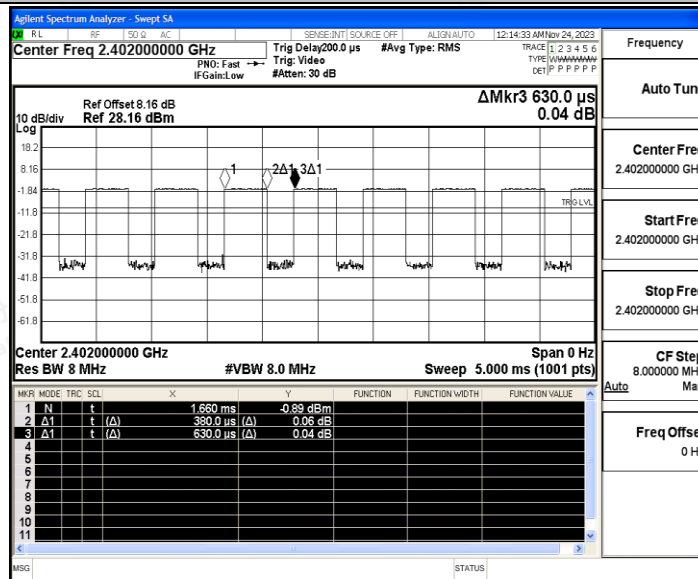
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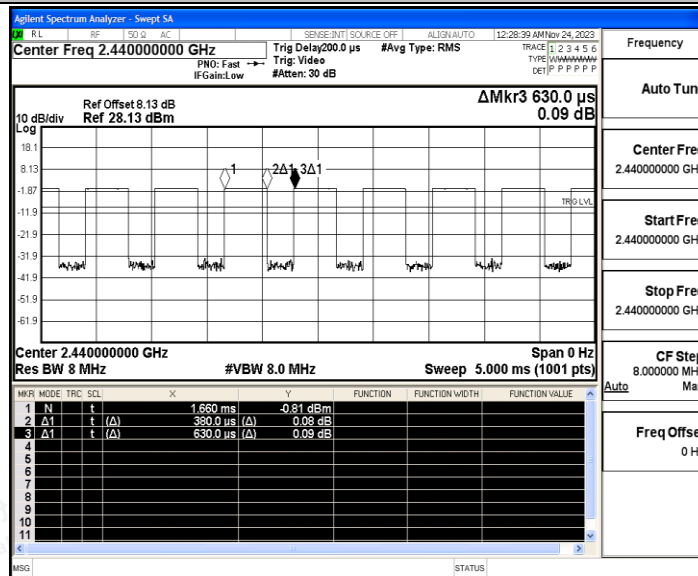


Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

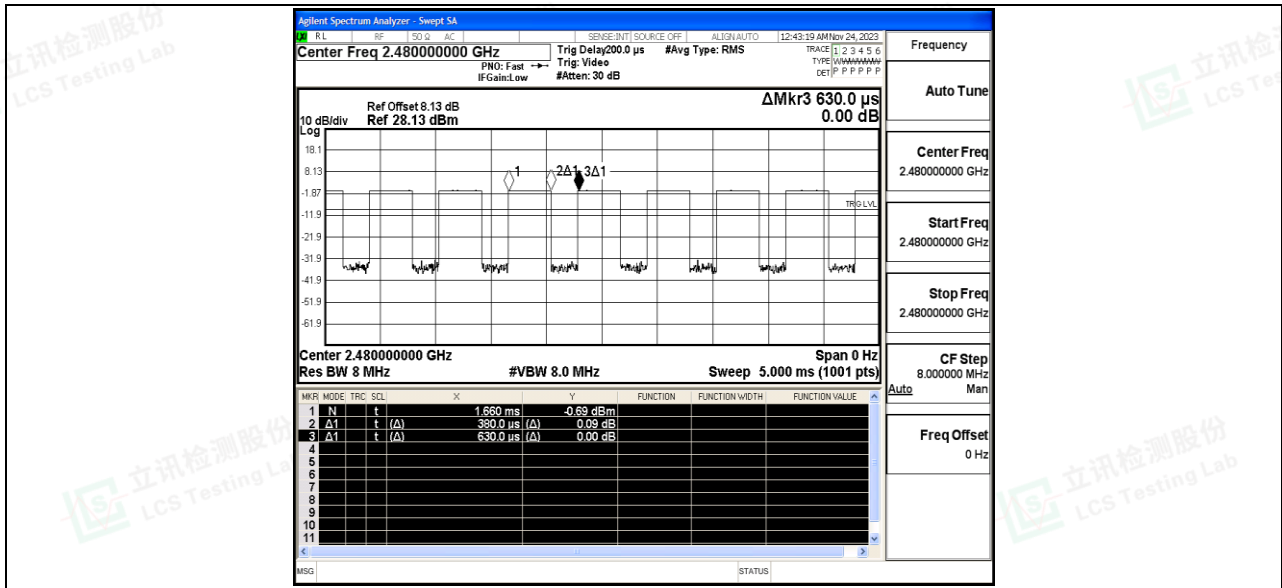


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B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	Channel Name	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-58.44	≤-41.20	36.76	≤54	PASS
				AV	2367.200	-57.77	≤-41.20	37.43	≤54	PASS
				AV	2390.000	-58.24	≤-41.20	36.96	≤54	PASS
				Peak	2310.000	-53.3	≤-21.20	41.90	≤74	PASS
				Peak	2348.510	-48.95	≤-21.20	46.25	≤74	PASS
				Peak	2390.000	-51.25	≤-21.20	43.95	≤74	PASS
		High	2480	AV	2483.500	-54.25	≤-41.20	40.95	≤54	PASS
				AV	2483.520	-54.25	≤-41.20	40.95	≤54	PASS
				AV	2500.000	-58.13	≤-41.20	37.07	≤54	PASS
				Peak	2483.500	-50.7	≤-21.20	44.50	≤74	PASS
				Peak	2484.560	-49.15	≤-21.20	46.05	≤74	PASS
				Peak	2500.000	-51.6	≤-21.20	43.60	≤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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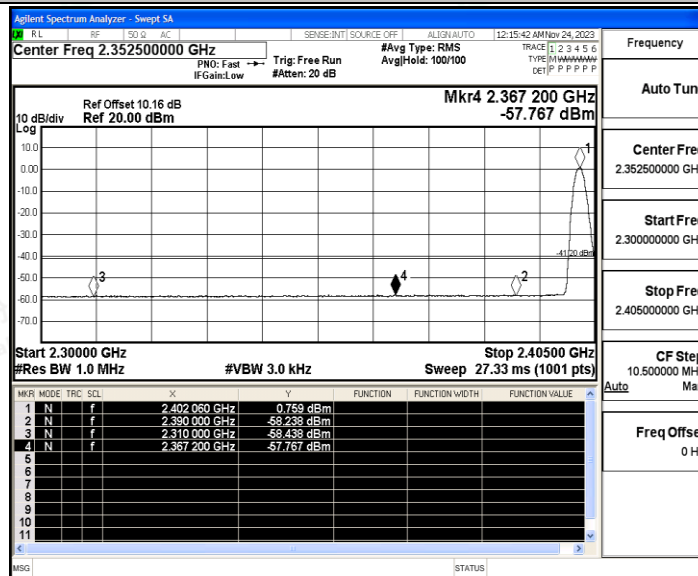
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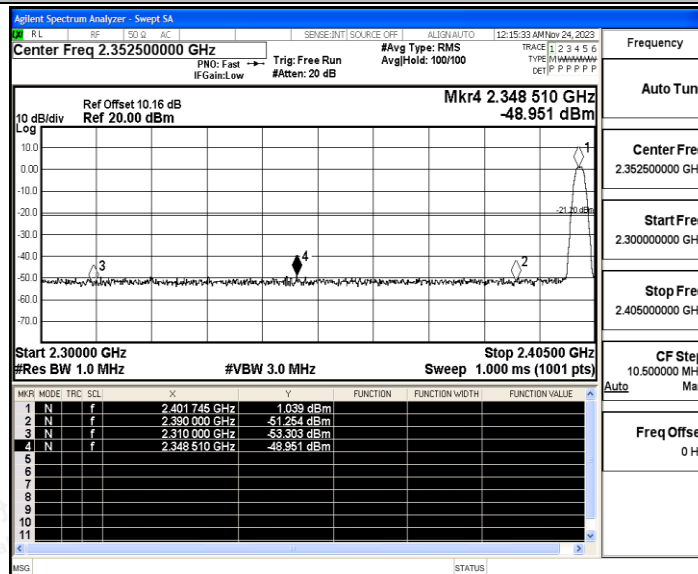


Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

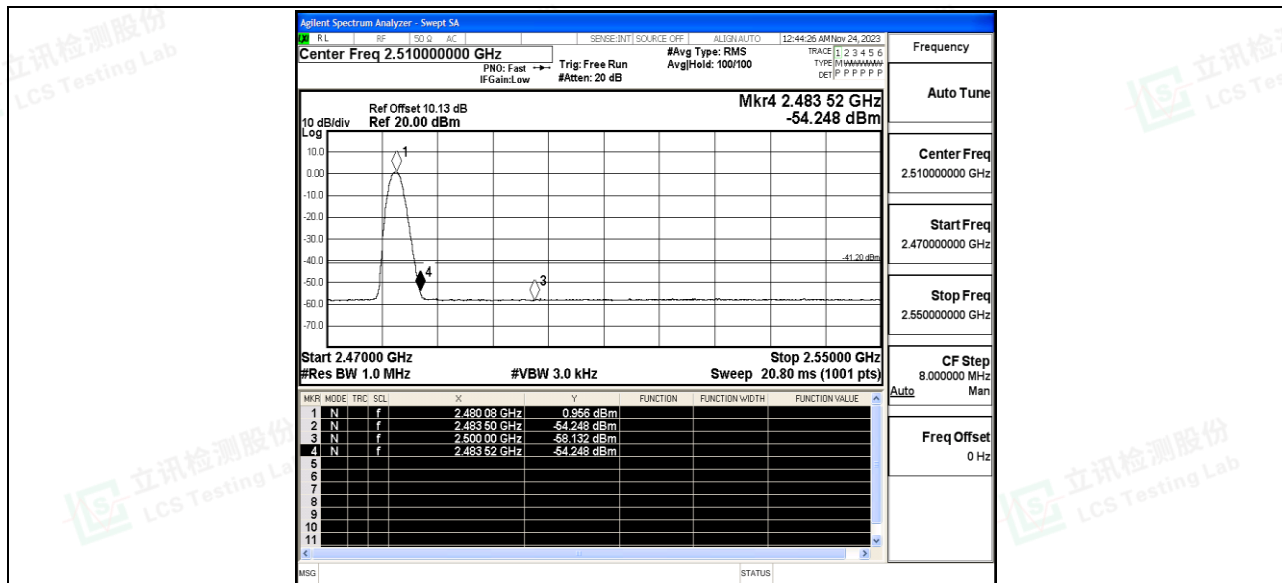


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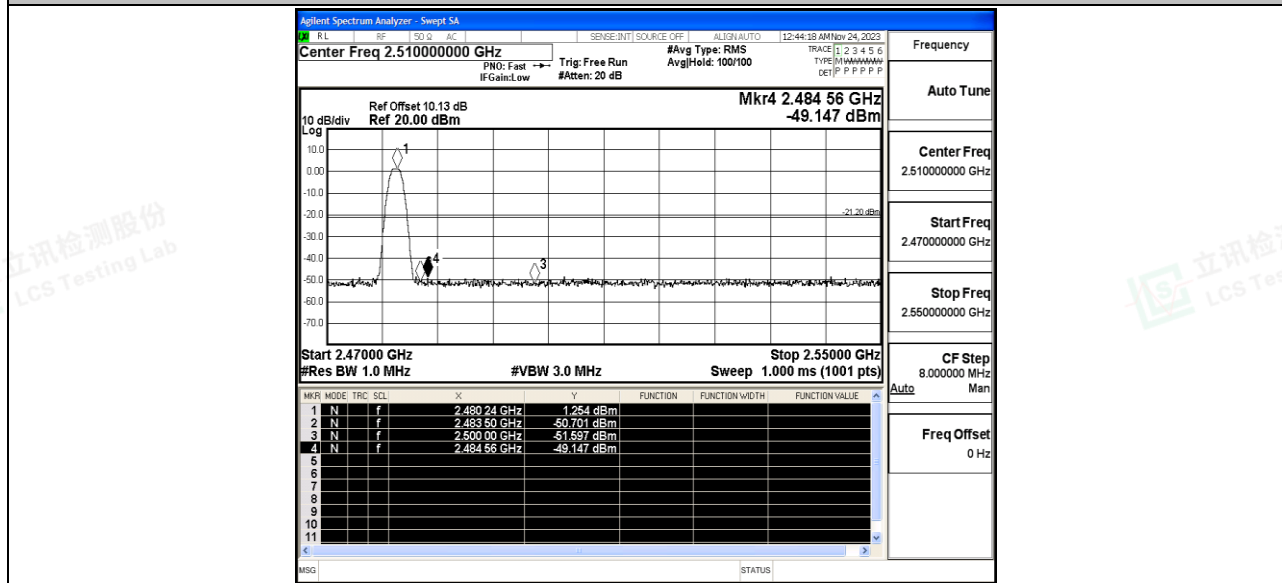
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BLE_1M_Ant1_High_2480_Peak



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