



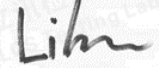
Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Formuler Z11 Pro Max

Test Model: Z11 Pro Max

Environmental Conditions

Temperature:	23.9 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	 Ling Zhu
Supervised by:	 Li Huan





B.1 DTS Bandwidth

Test Result

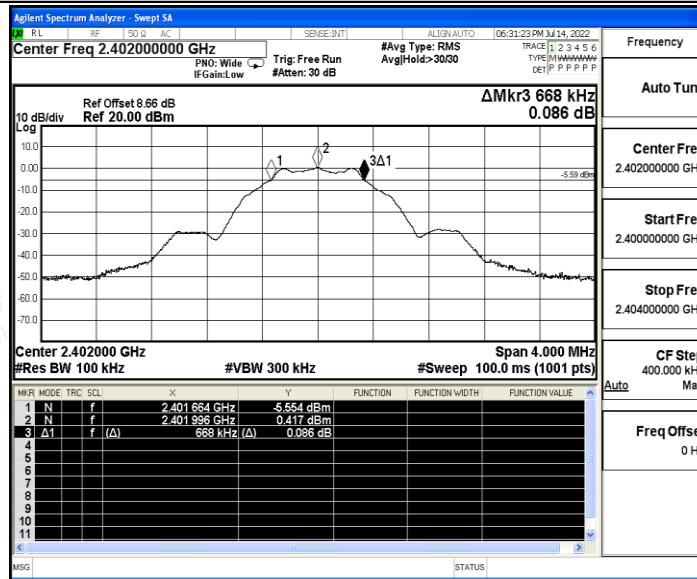
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant	2402	0.668	2401.664	2402.332	0.5	PASS
		2440	0.664	2439.664	2440.328	0.5	PASS
		2480	0.668	2479.660	2480.328	0.5	PASS



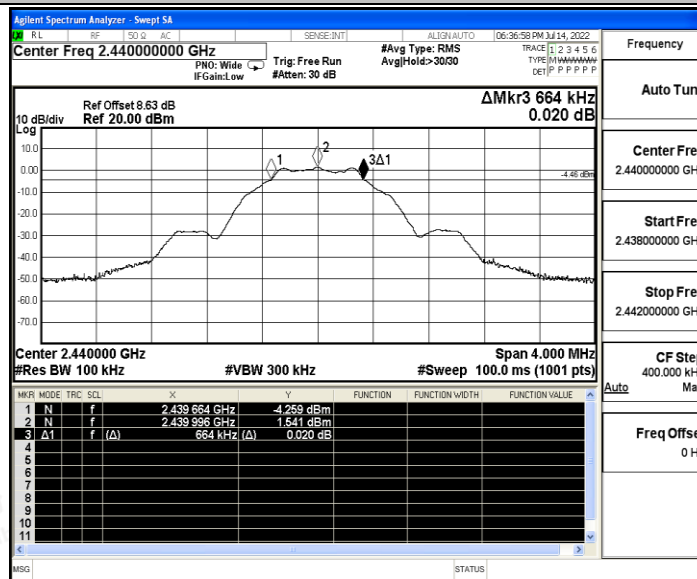


Test Graphs

BLE_Ant_2402

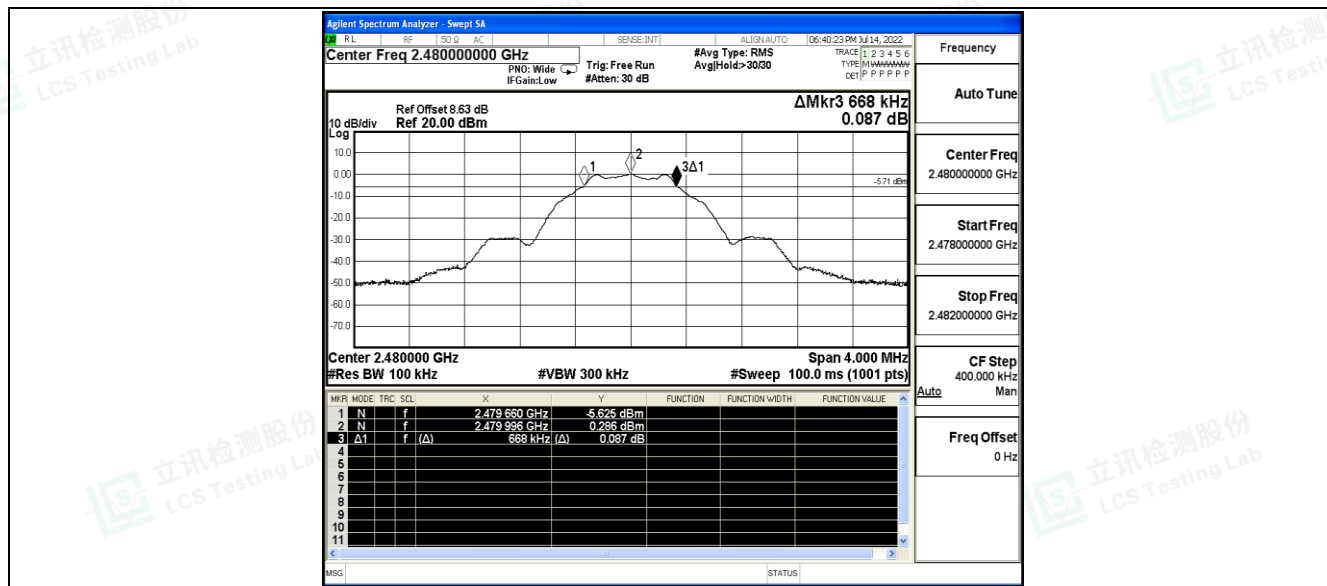


BLE_Ant_2440



BLE_Ant_2480







B.2 Maximum peak conducted output power

Test Result

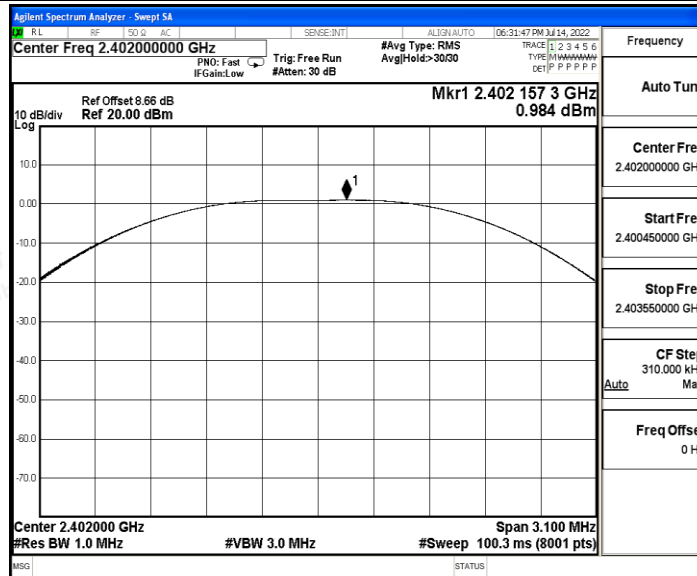
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	0.98	≤30	PASS
		2440	2.07	≤30	PASS
		2480	0.83	≤30	PASS



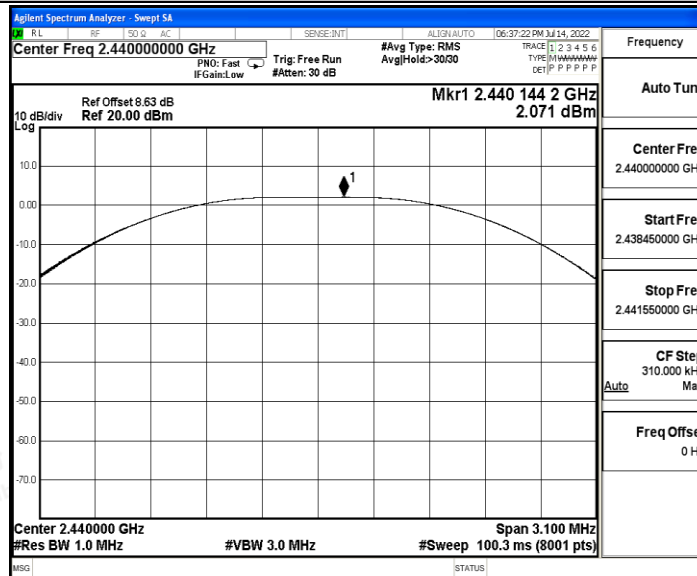


Test Graphs

BLE_Ant_2402

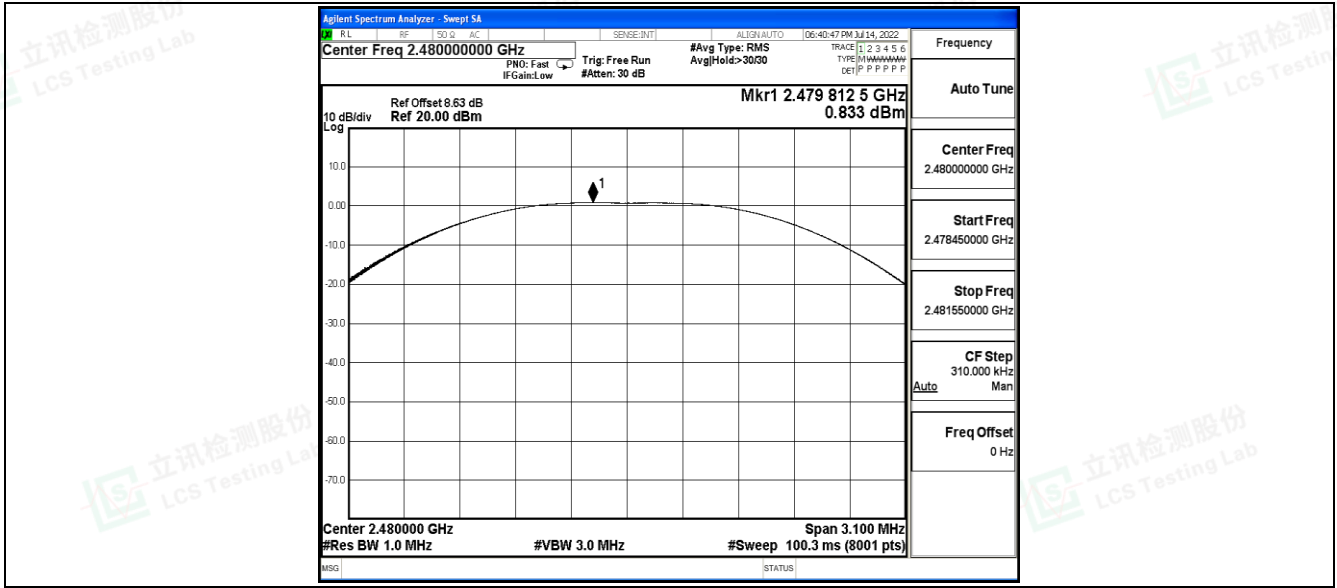


BLE_Ant_2440



BLE_Ant_2480







B.3 Maximum power spectral density

Test Result

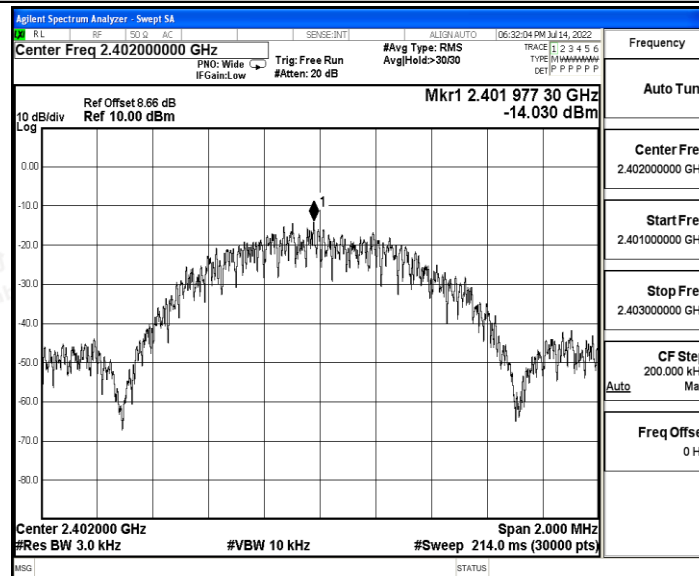
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant	2402	-14.03	≤8.00	PASS
		2440	-12.93	≤8.00	PASS
		2480	-14.12	≤8.00	PASS



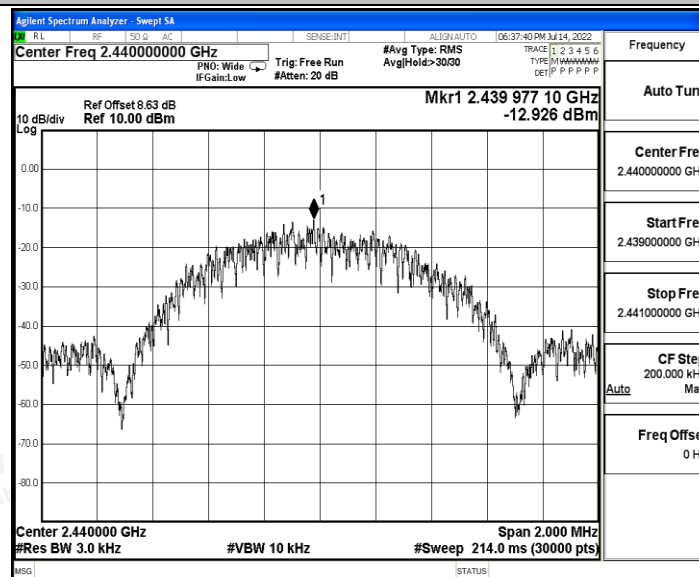


Test Graphs

BLE_Ant_2402

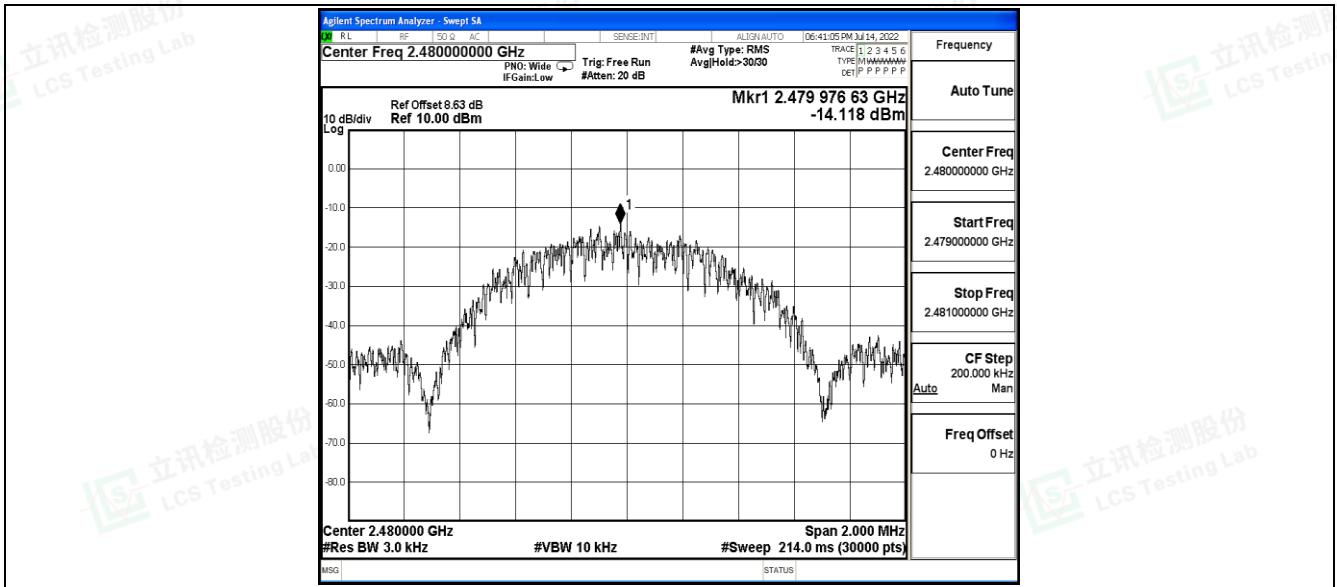


BLE_Ant_2440



BLE_Ant_2480







B.4 Band edge measurements

Test Result

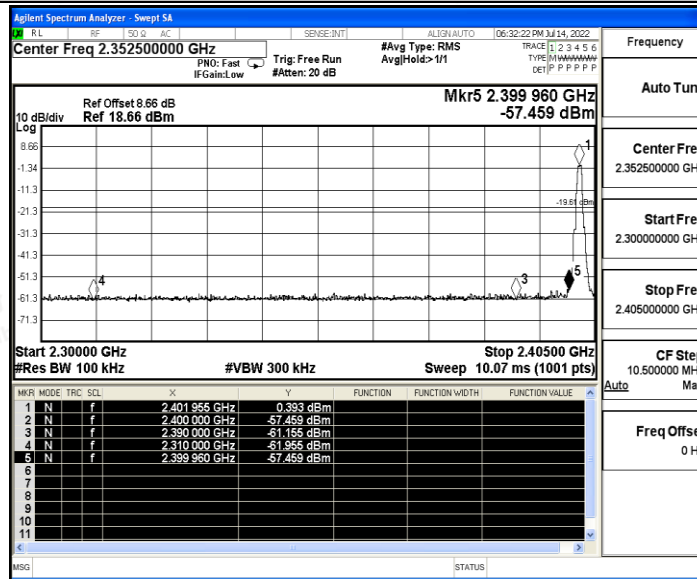
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	Low	2402	0.39	-57.46	≤-19.61	PASS
		High	2480	0.06	-57.7	≤-19.94	PASS



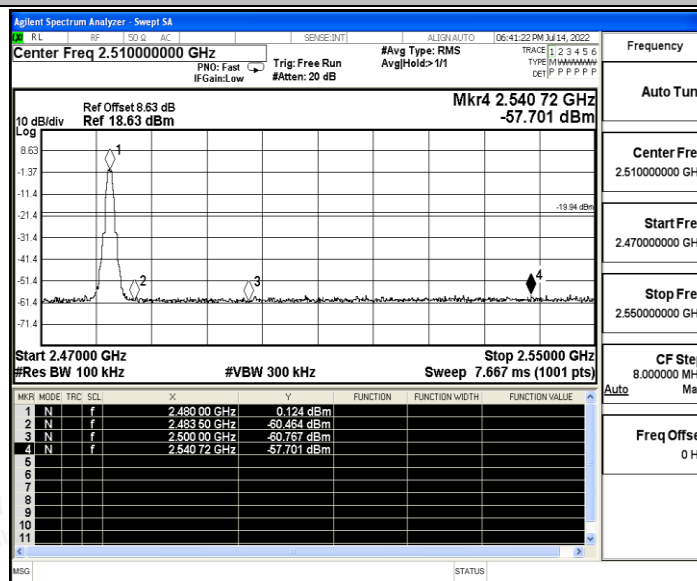


Test Graphs

BLE_Ant_Low_2402



BLE_Ant_High_2480



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B.5 Conducted Spurious Emission

Test Result

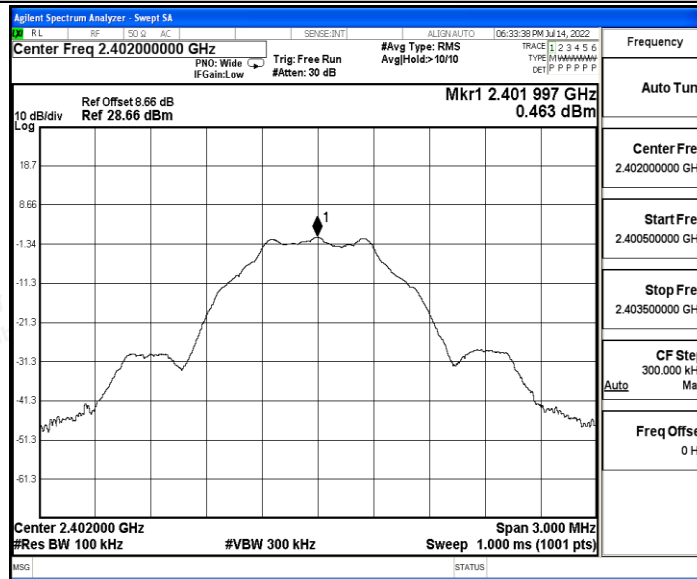
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	Reference	0.46	0.46	---	PASS
			30~1000	0.46	-60.51	≤-19.54	PASS
			1000~26500	0.46	-46.14	≤-19.54	PASS
		2440	Reference	1.55	1.55	---	PASS
			30~1000	1.55	-61.19	≤-18.45	PASS
			1000~26500	1.55	-46.25	≤-18.45	PASS
		2480	Reference	0.27	0.27	---	PASS
			30~1000	0.27	-60.13	≤-19.73	PASS
			1000~26500	0.27	-46.56	≤-19.73	PASS



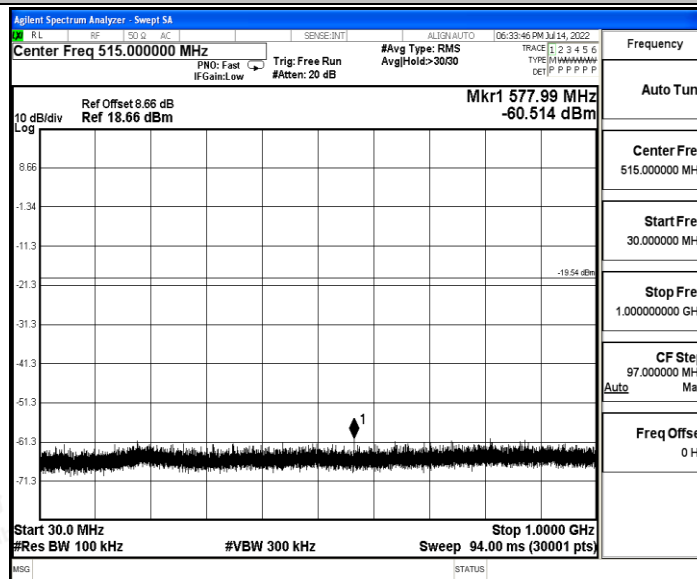


Test Graphs

BLE_Ant_2402_0~Reference

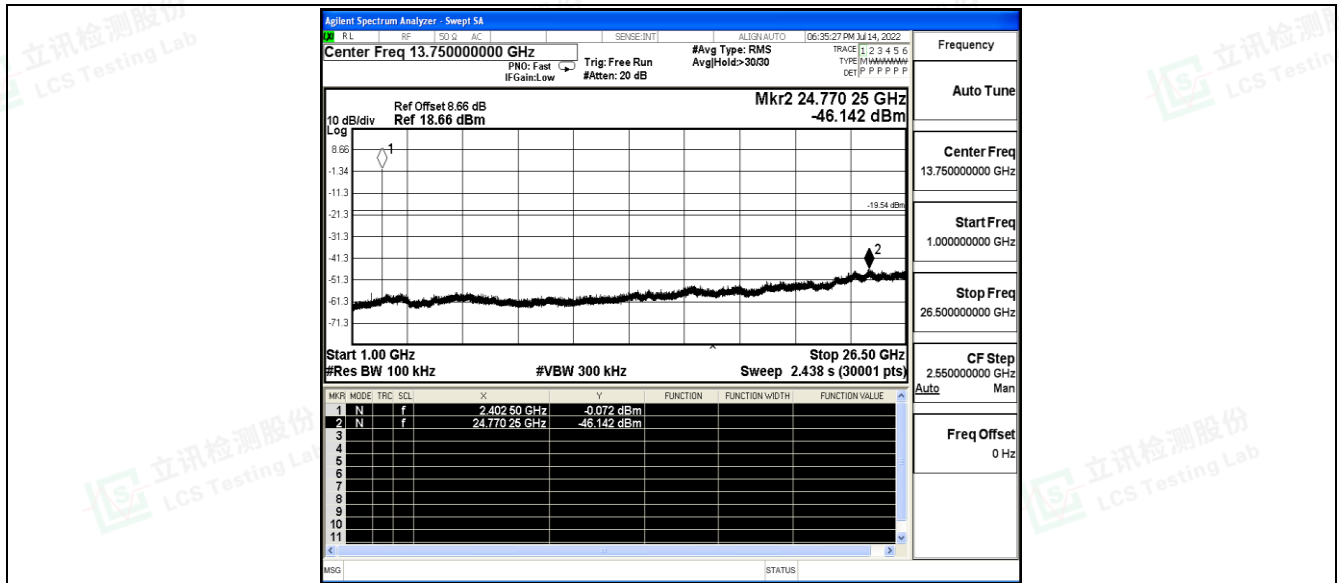


BLE_Ant_2402_30~1000

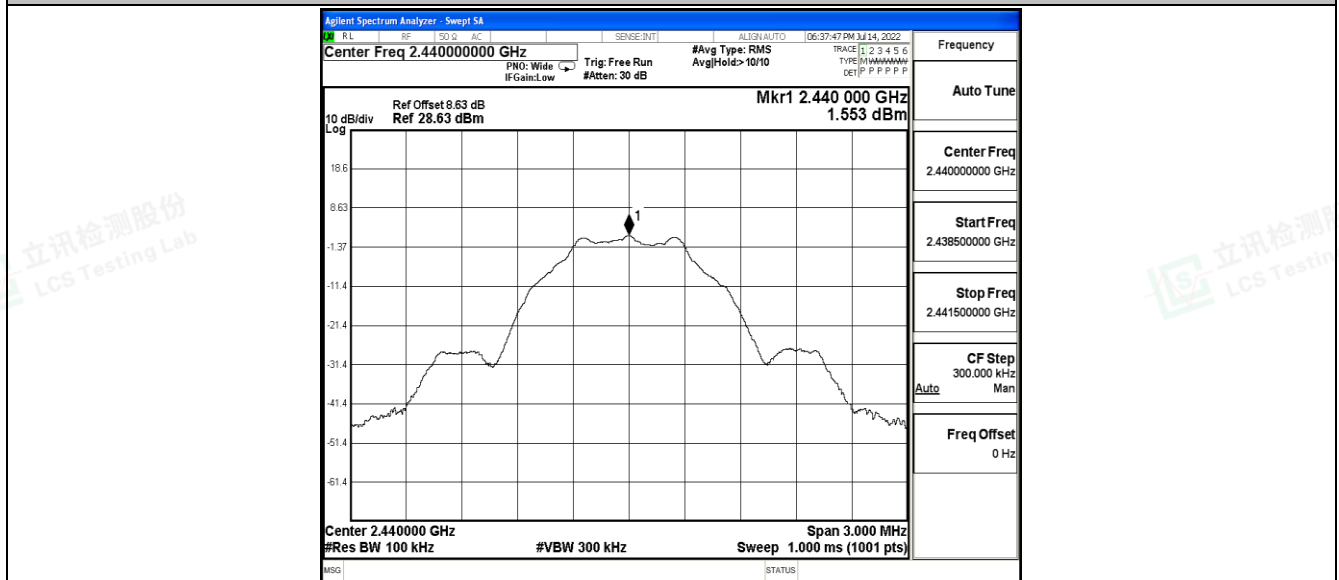


BLE_Ant_2402_1000~26500



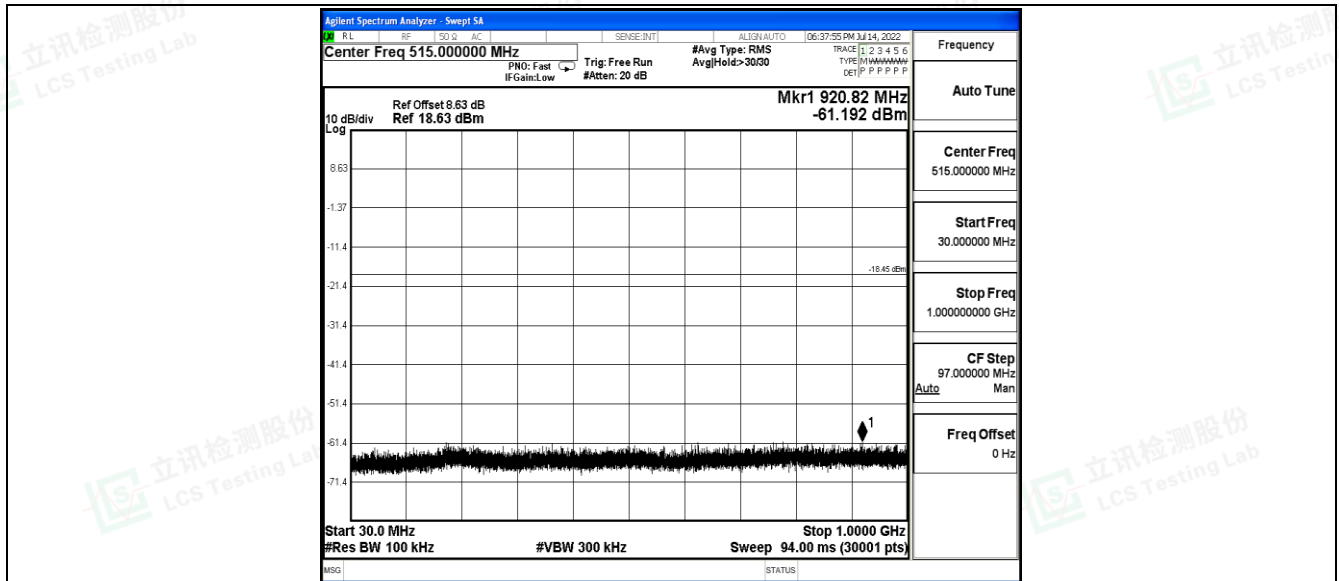


BLE_Ant_2440_0~Reference

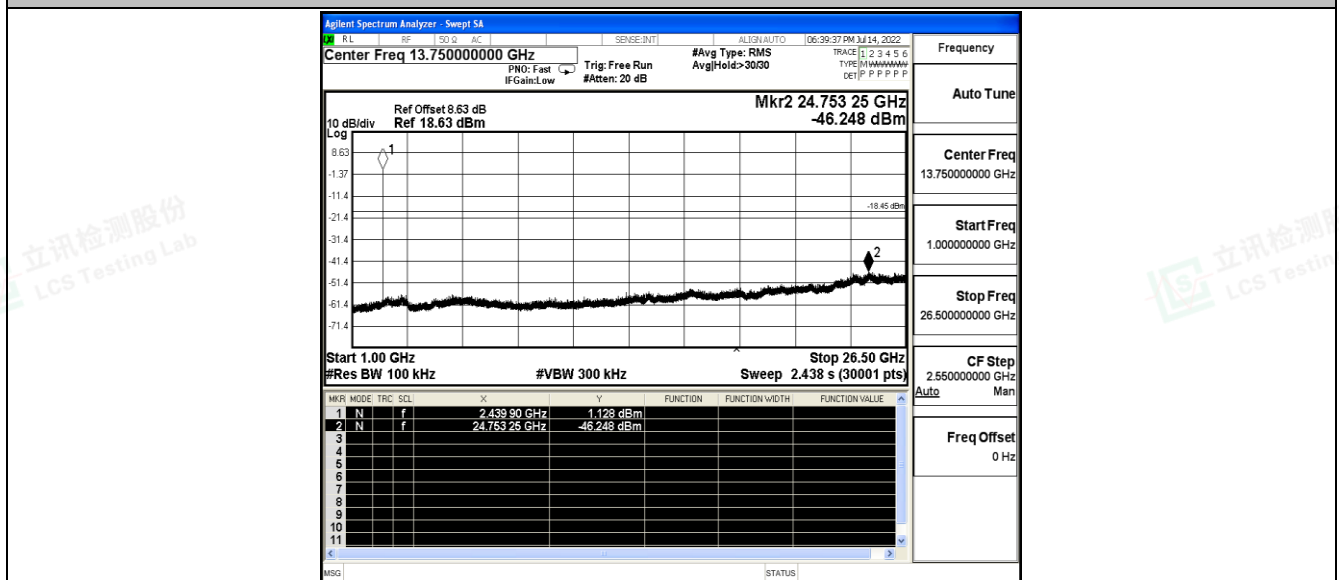


BLE_Ant_2440_30~1000



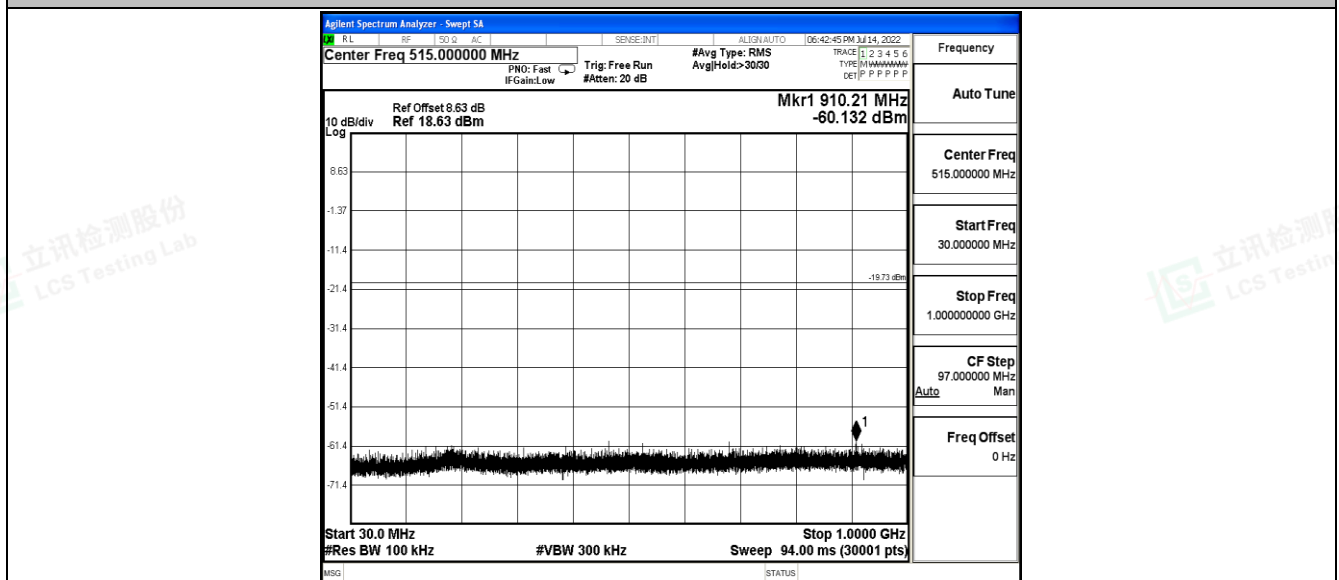
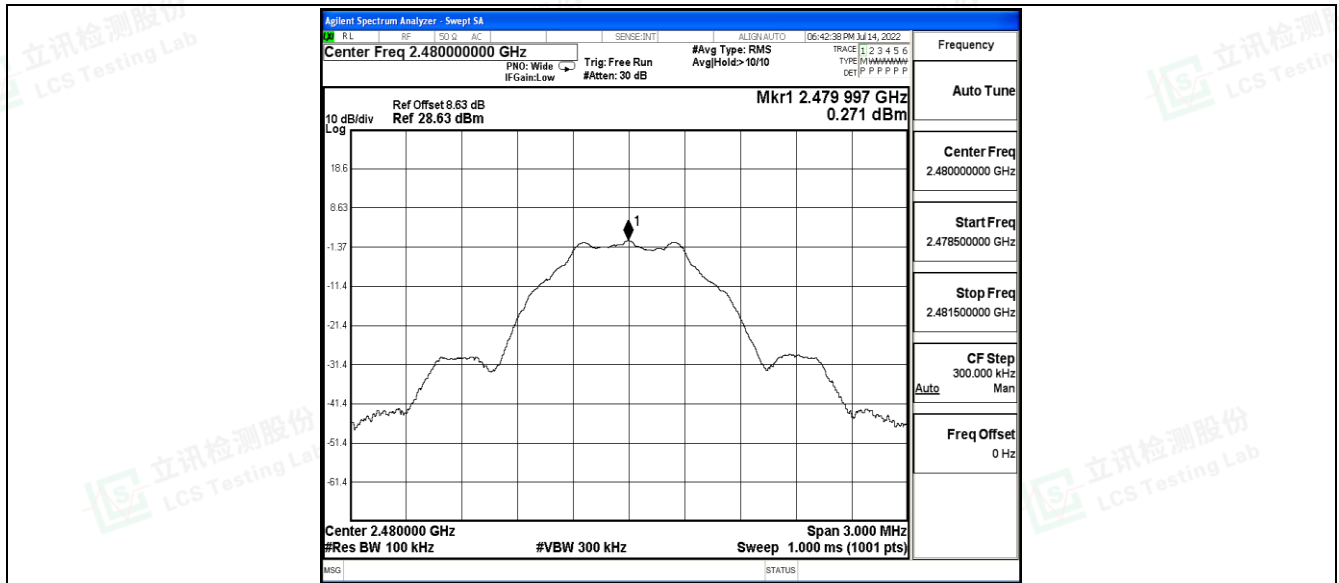


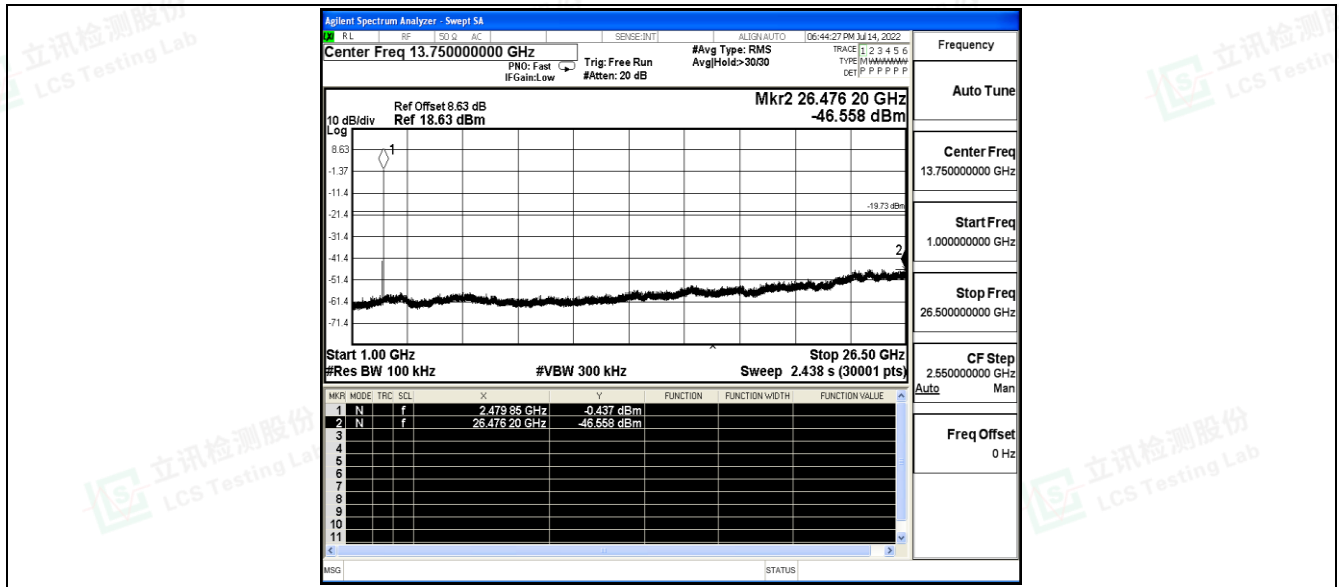
BLE_Ant_2440_1000~26500



BLE_Ant_2480_0~Reference









B.6 Duty Cycle

Test Result

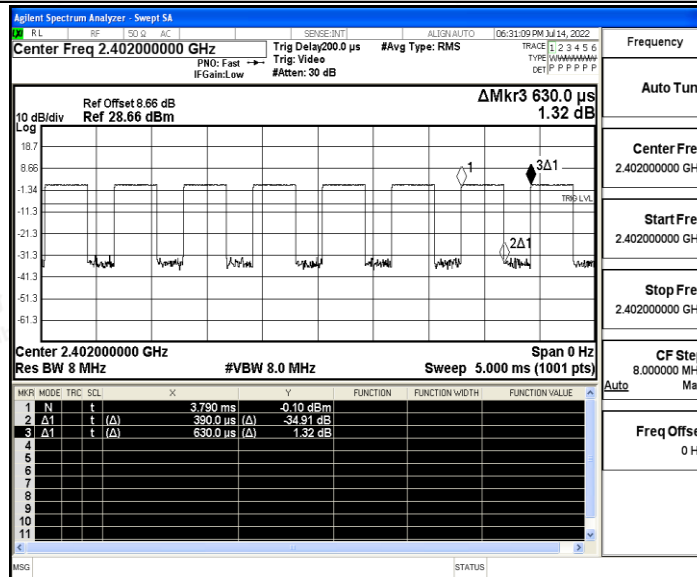
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE	Ant	2402	0.39	0.63	0.6190	61.90	2.08	2.56	---	---
		2440	0.38	0.63	0.6032	60.32	2.20	2.63	---	---
		2480	0.38	0.63	0.6032	60.32	2.20	2.63	---	---



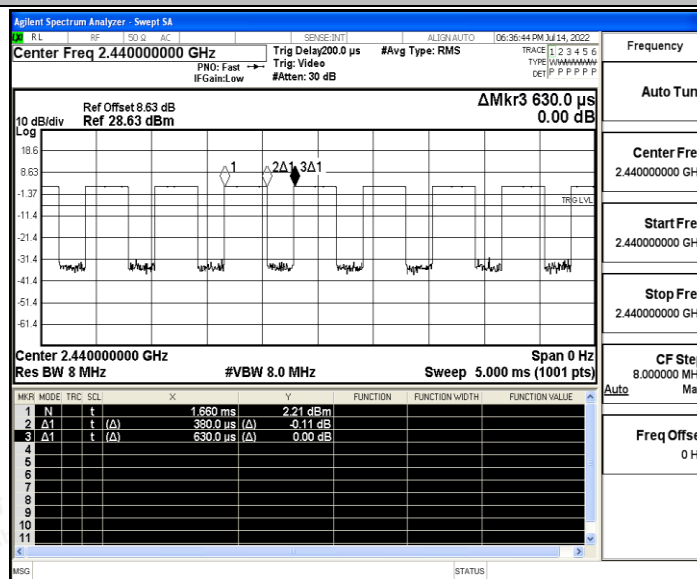


Test Graphs

BLE_Ant_2402

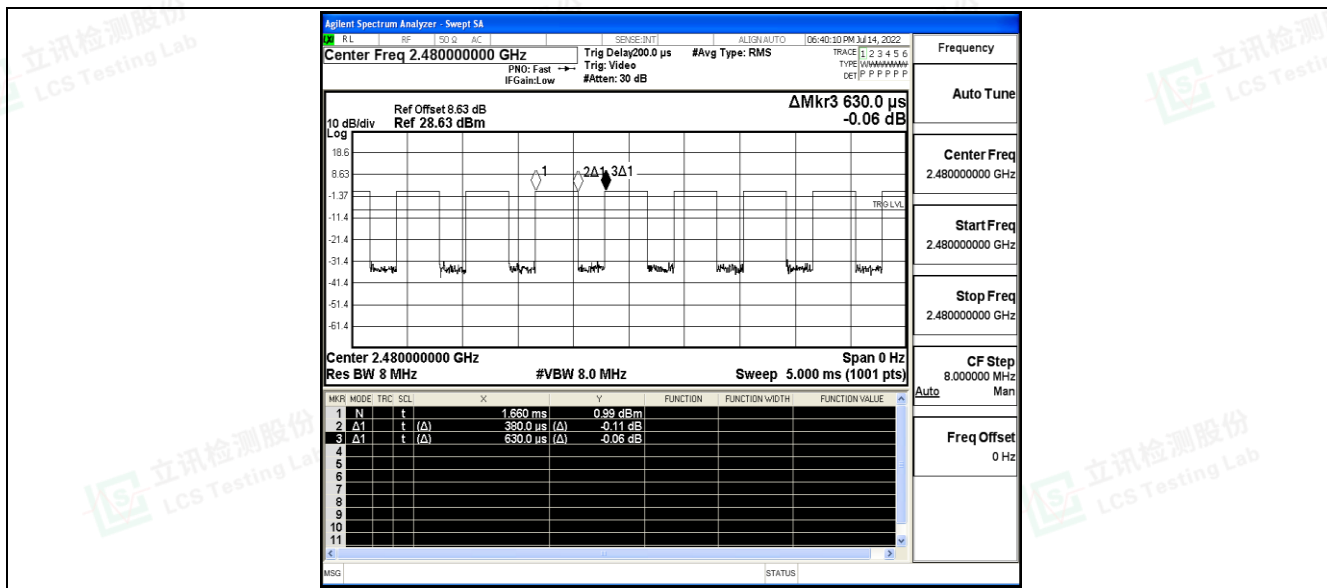


BLE_Ant_2440



BLE_Ant_2480





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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	Ant	Low	2402	AV	2310.000	-57.33	≤-41.20	37.87	≤54	PASS
				AV	2389.985	-56.66	≤-41.20	38.54	≤54	PASS
				AV	2390.000	-56.66	≤-41.20	38.54	≤54	PASS
				Peak	2310.000	-48.03	≤-21.20	47.17	≤74	PASS
				Peak	2389.880	-46.42	≤-21.20	48.78	≤74	PASS
				Peak	2390.000	-47.75	≤-21.20	47.45	≤74	PASS
		High	2480	AV	2483.500	-53.05	≤-41.20	42.15	≤54	PASS
				AV	2483.520	-53.05	≤-41.20	42.15	≤54	PASS
				AV	2500.000	-56.57	≤-41.20	38.63	≤54	PASS
				Peak	2483.500	-47.13	≤-21.20	48.07	≤74	PASS
				Peak	2485.200	-46.46	≤-21.20	48.74	≤74	PASS
				Peak	2500.000	-48.17	≤-21.20	47.03	≤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.

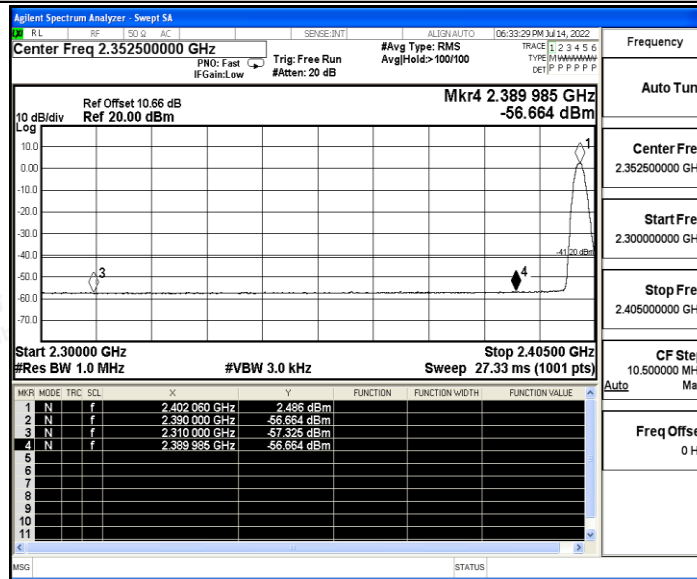


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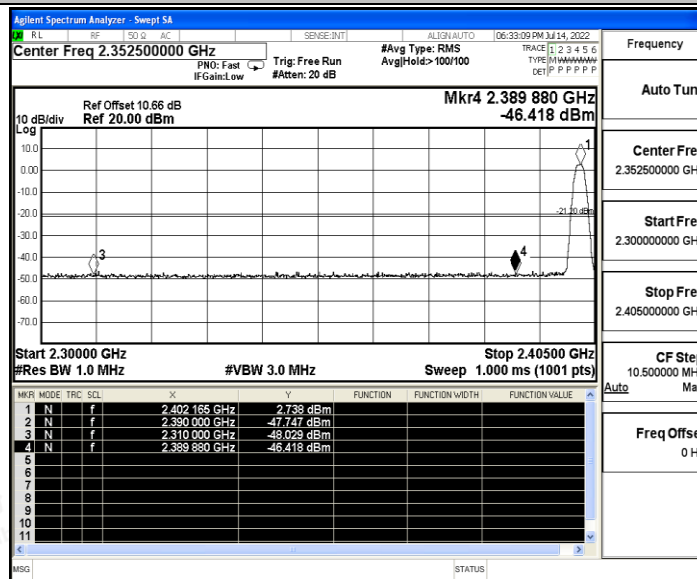


Test Graphs

BLE_Ant_Low_2402_AV

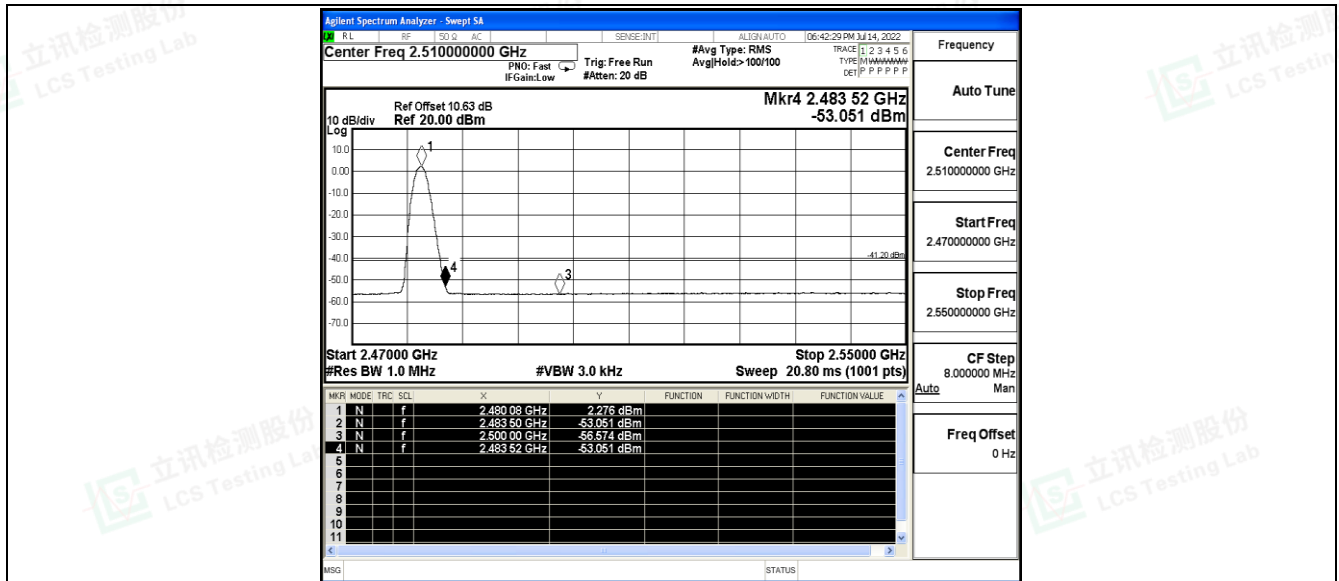


BLE_Ant_Low_2402_Peak



BLE_Ant_High_2480_AV





BLE_Ant_High_2480_Peak

