



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Thin Client

Test Model: AK7

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan





B.1 DTS Bandwidth

Test Result

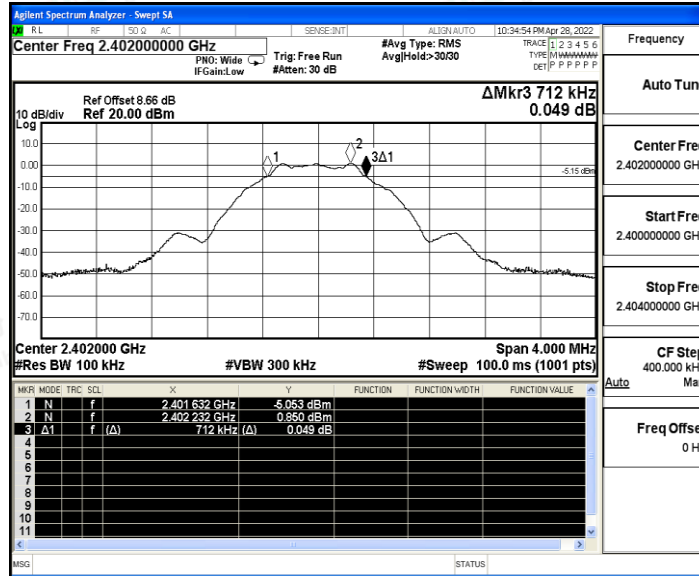
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant	2402	0.712	2401.632	2402.344	0.5	PASS
		2440	0.716	2439.632	2440.348	0.5	PASS
		2480	0.712	2479.632	2480.344	0.5	PASS



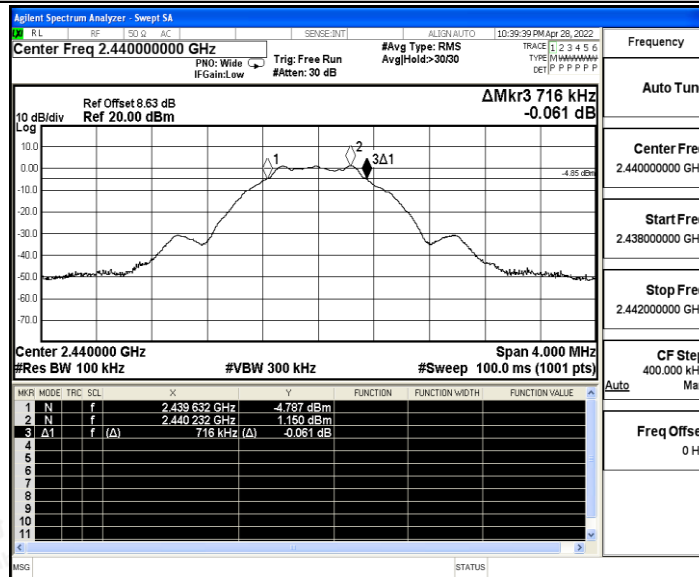


Test Graphs

BLE_Ant_2402

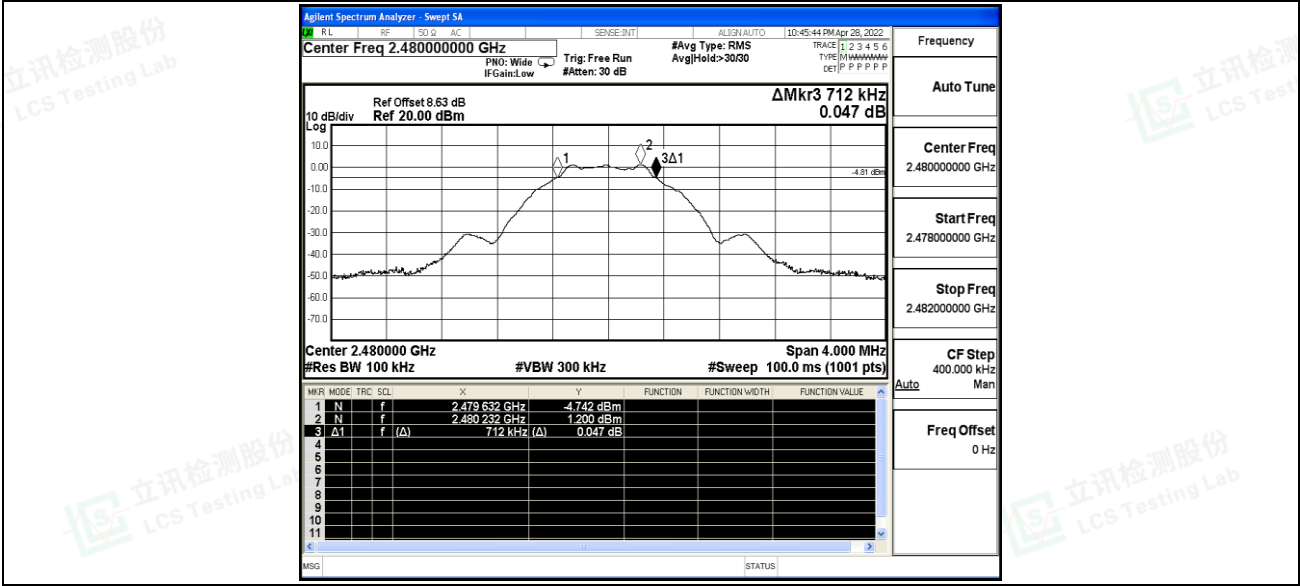


BLE_Ant_2440



BLE_Ant_2480







B.2 Maximum conducted output power

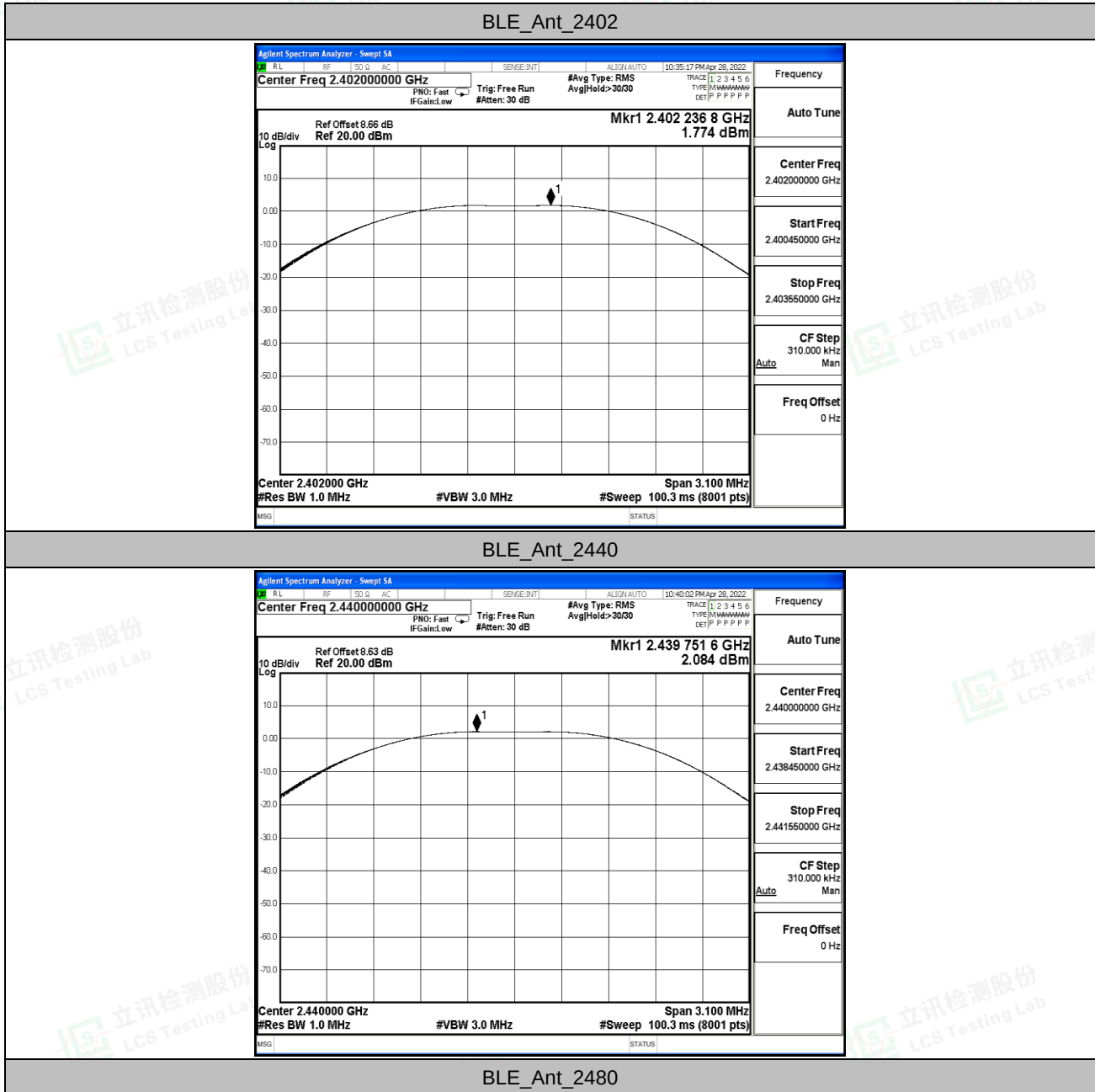
Test Result

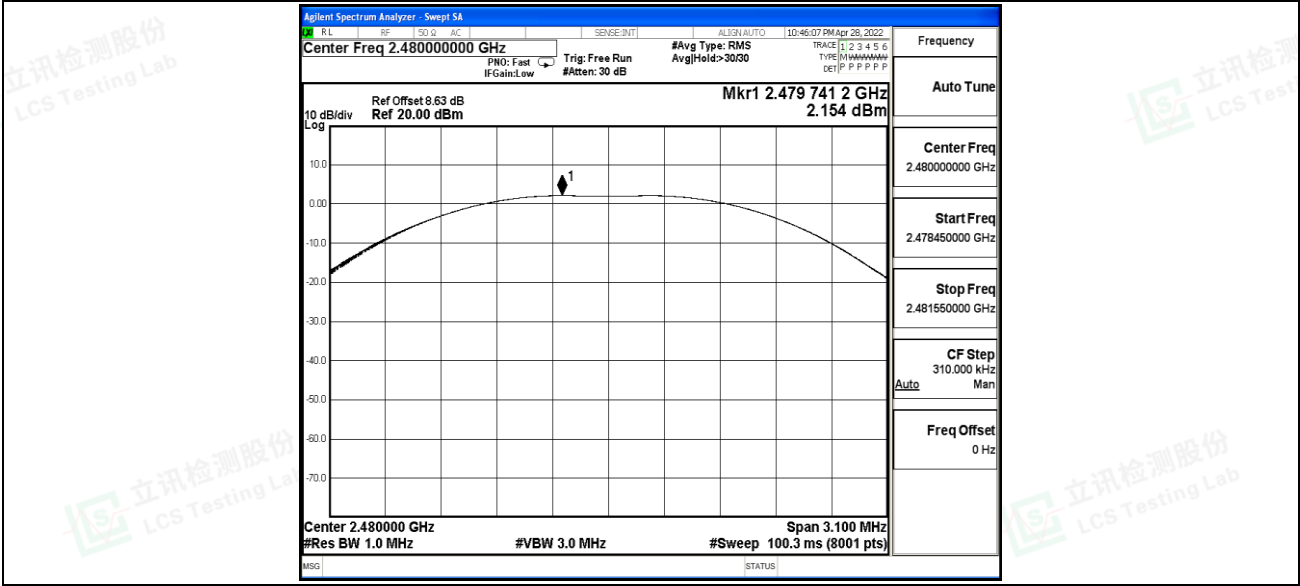
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	1.77	≤30	PASS
		2440	2.08	≤30	PASS
		2480	2.15	≤30	PASS





Test Graphs







B.3 Maximum power spectral density

Test Result

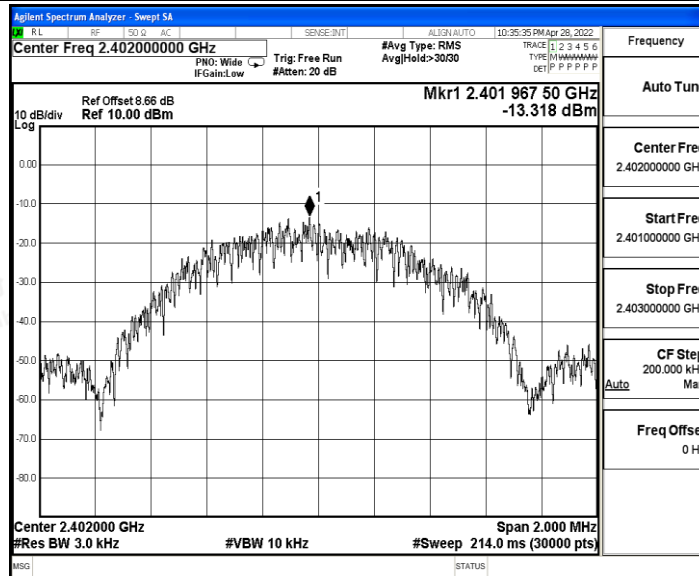
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant	2402	-13.32	≤8.00	PASS
		2440	-13.03	≤8.00	PASS
		2480	-13.07	≤8.00	PASS



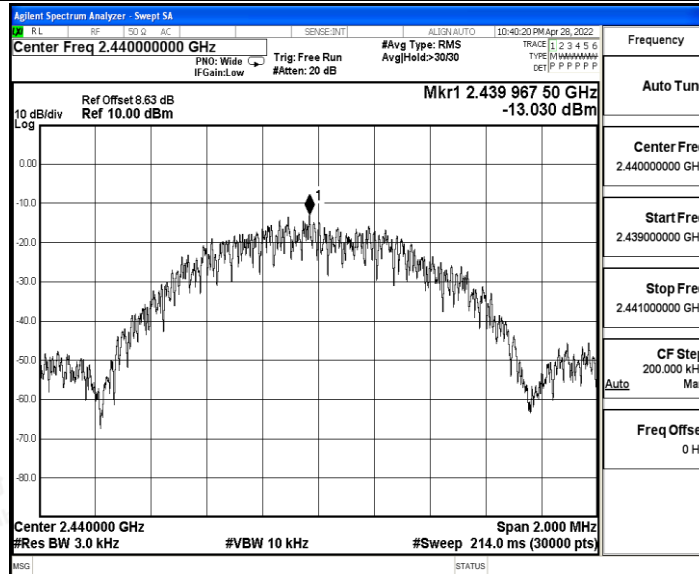


Test Graphs

BLE_Ant_2402

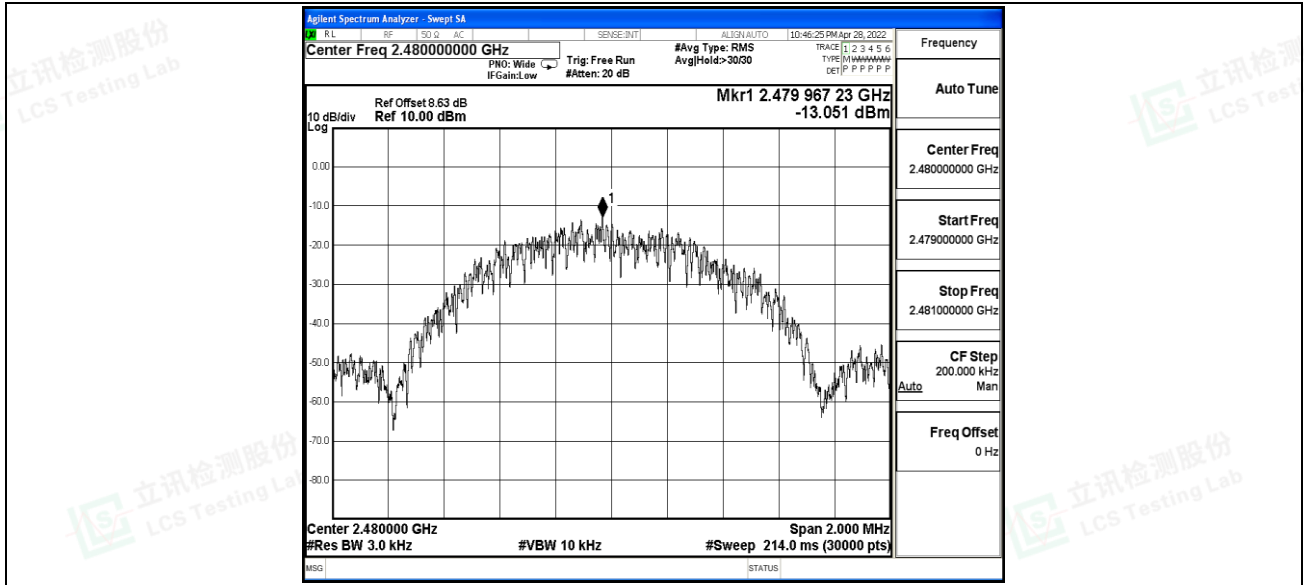


BLE_Ant_2440



BLE_Ant_2480







B.4 Band edge measurements

Test Result

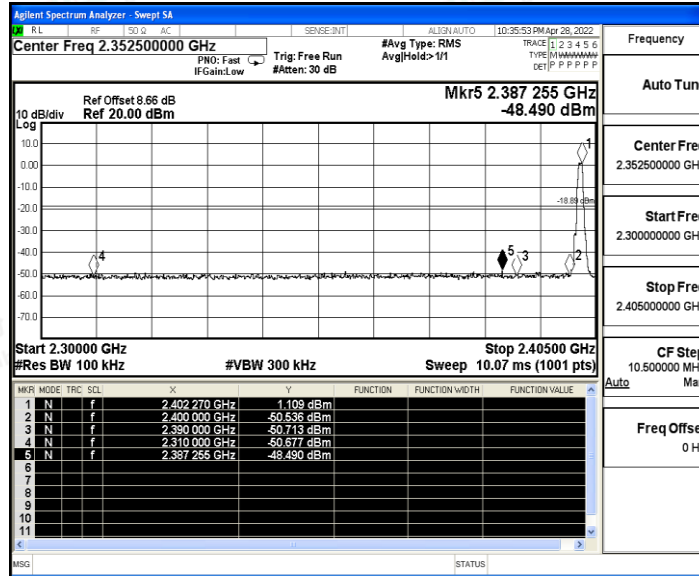
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	Low	2402	1.11	-48.49	≤-18.89	PASS
		High	2480	1.46	-47.42	≤-18.54	PASS



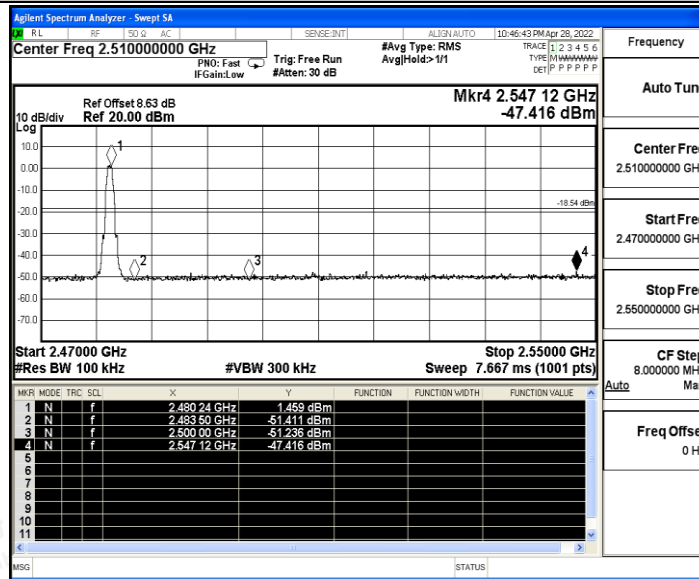


Test Graphs

BLE_Ant_Low_2402



BLE_Ant_High_2480





B.5 Conducted Spurious Emission

Test Result

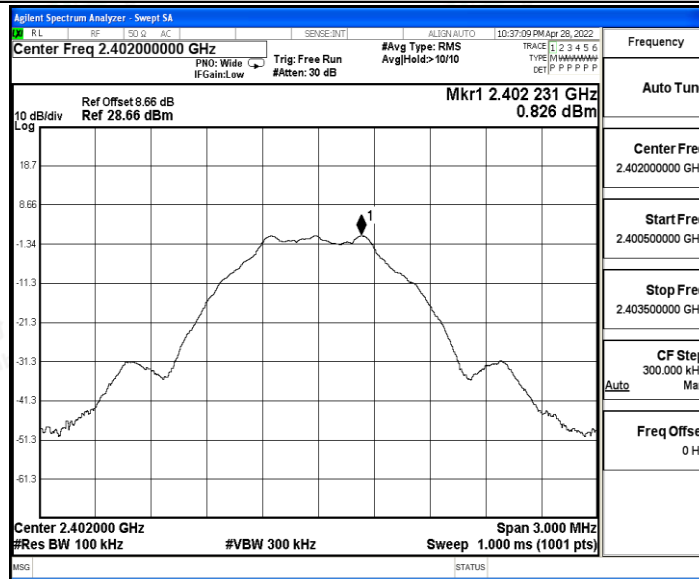
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	Reference	0.83	0.83	---	PASS
			30~1000	0.83	-60.21	≤-19.17	PASS
			1000~26500	0.83	-45.78	≤-19.17	PASS
		2440	Reference	1.15	1.15	---	PASS
			30~1000	1.15	-60.1	≤-18.85	PASS
			1000~26500	1.15	-45.29	≤-18.85	PASS
		2480	Reference	1.20	1.20	---	PASS
			30~1000	1.20	-60.13	≤-18.8	PASS
			1000~26500	1.20	-45.36	≤-18.8	PASS



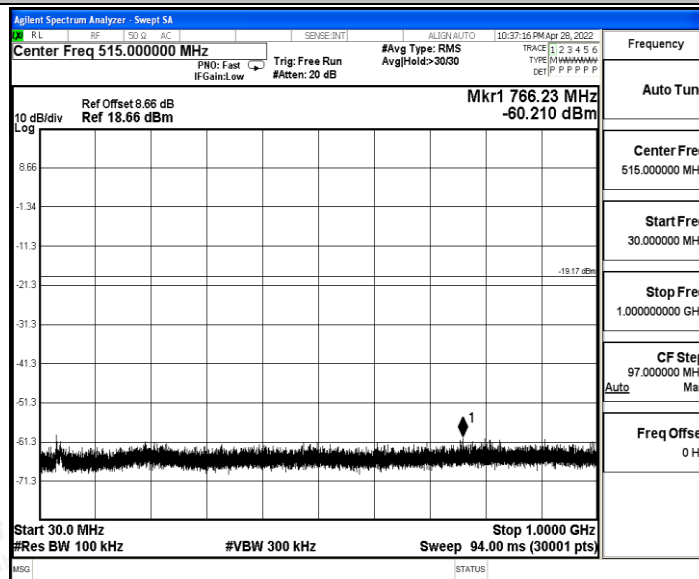


Test Graphs

BLE_Ant_2402_0~Reference

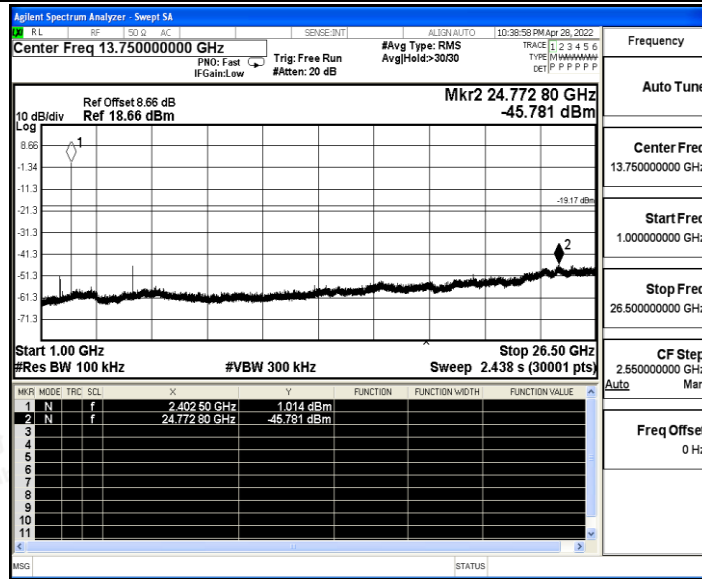


BLE_Ant_2402_30~1000

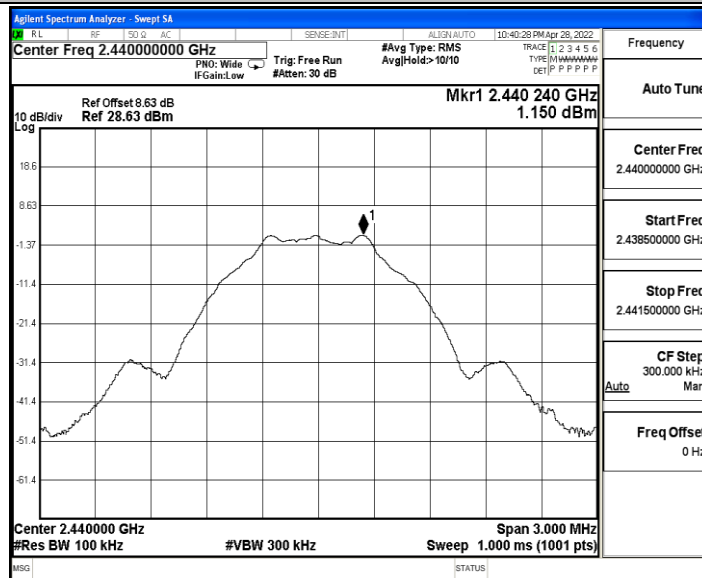


BLE_Ant_2402_1000~26500



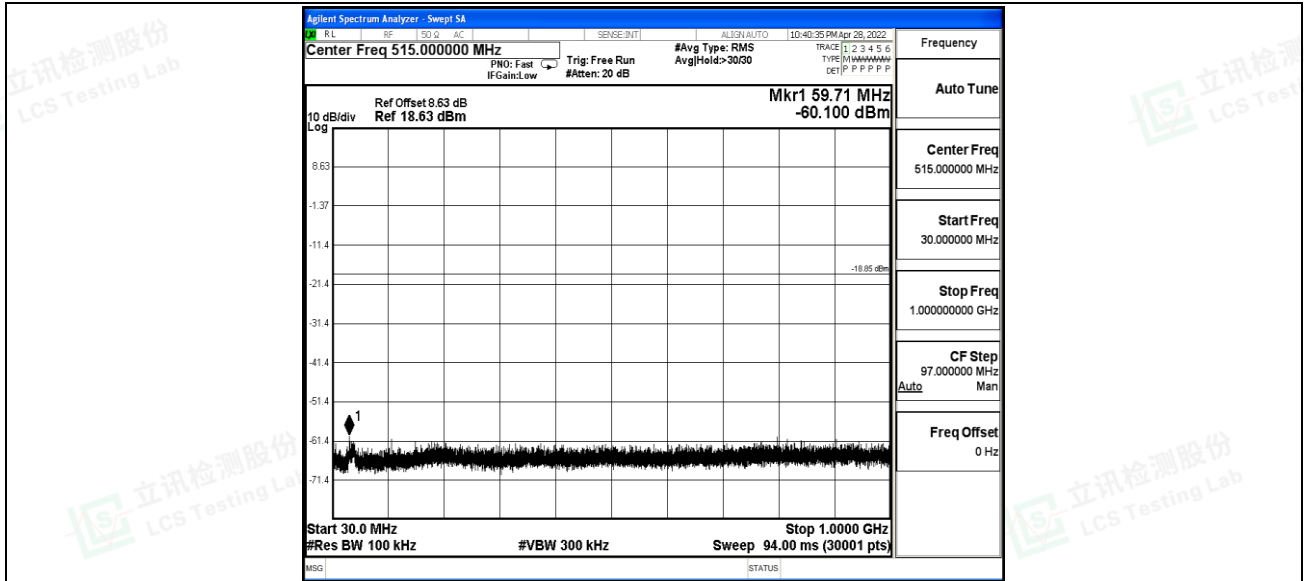


BLE_Ant_2440_0~Reference

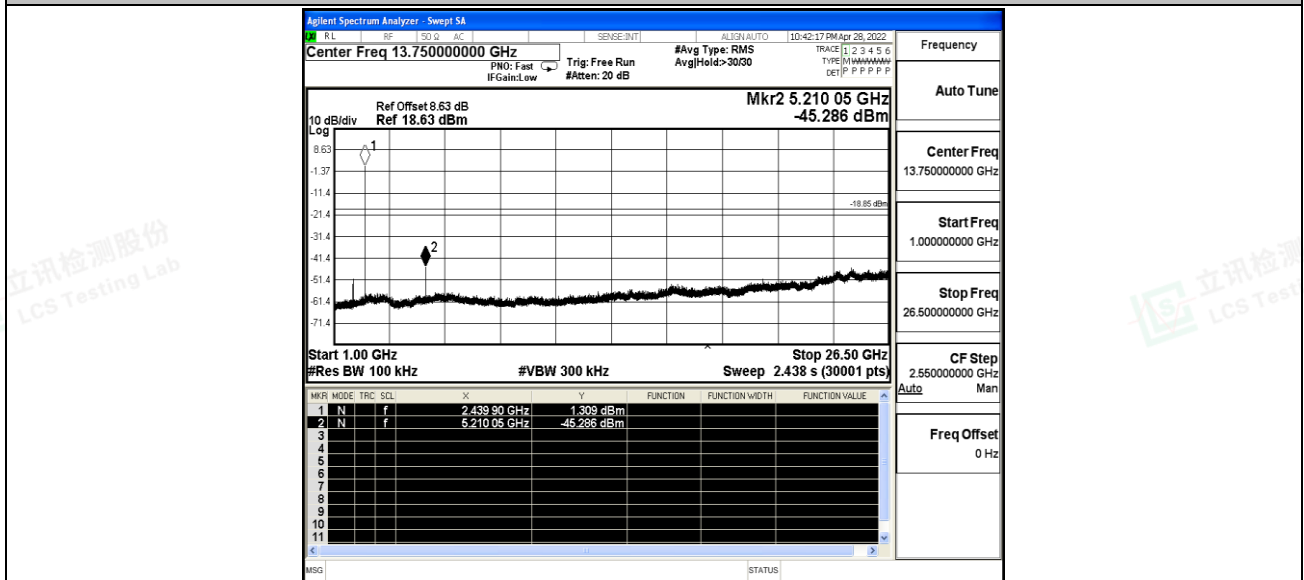


BLE_Ant_2440_30~1000



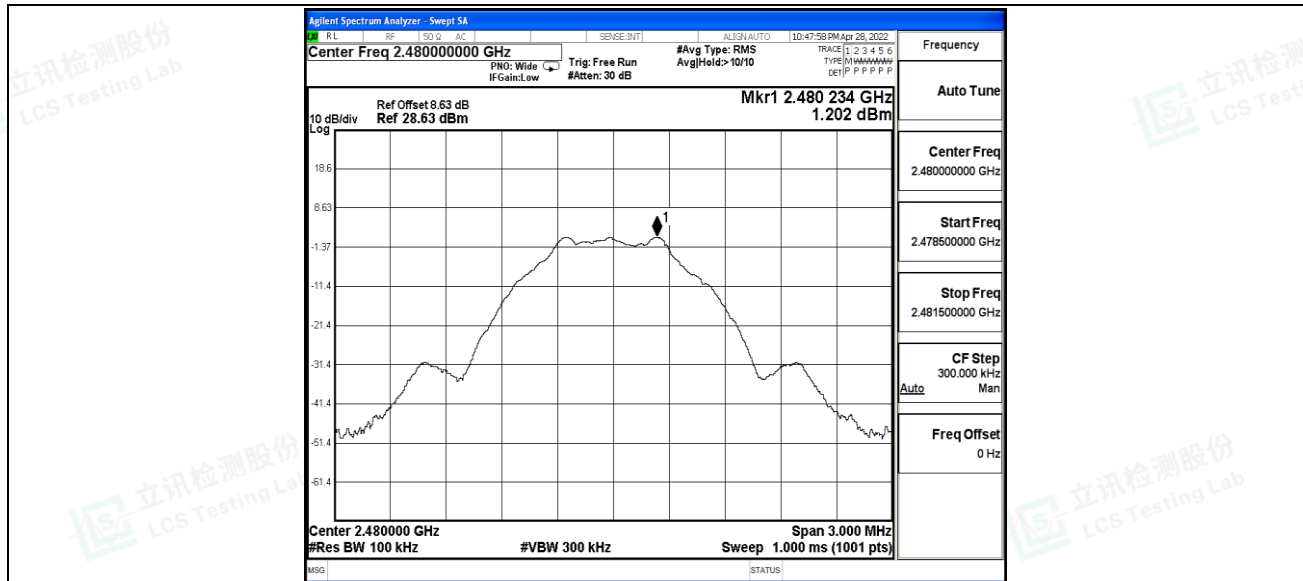


BLE_Ant_2440_1000~26500

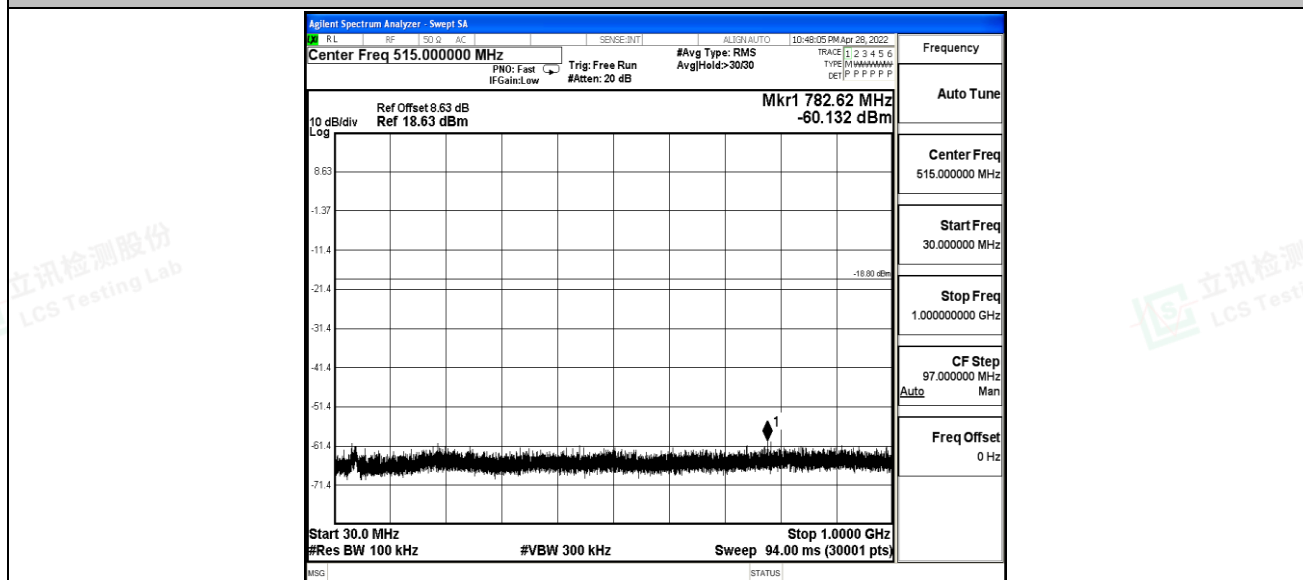


BLE_Ant_2480_0-Reference



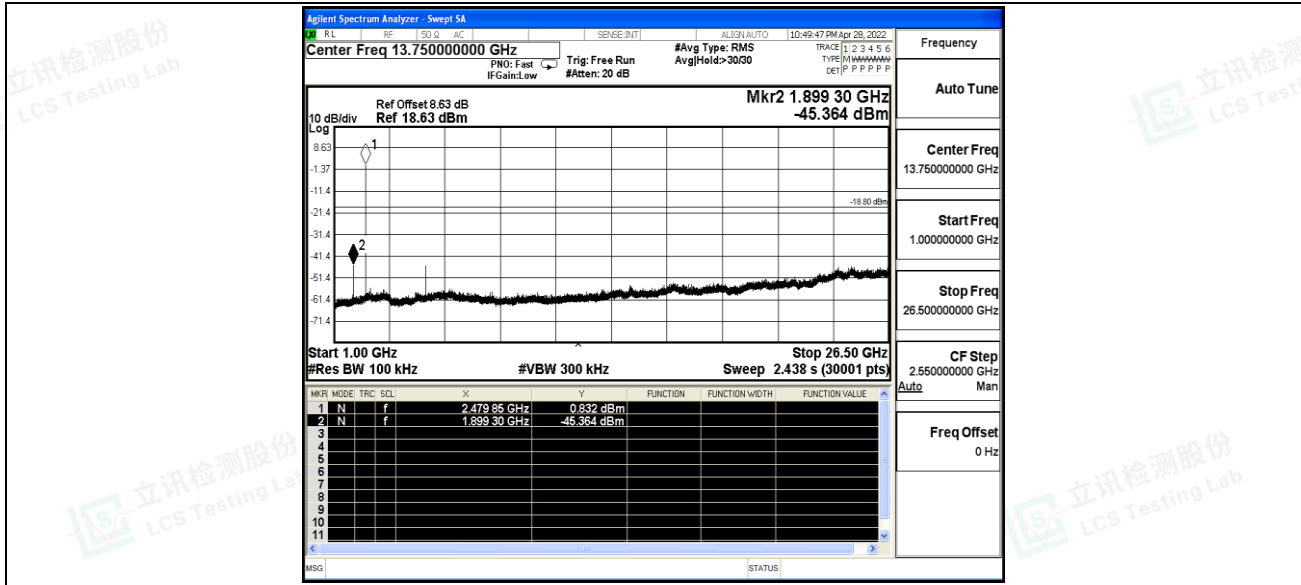


BLE_Ant_2480_30~1000



BLE_Ant_2480_1000~26500







B.6 Duty Cycle

Test Result

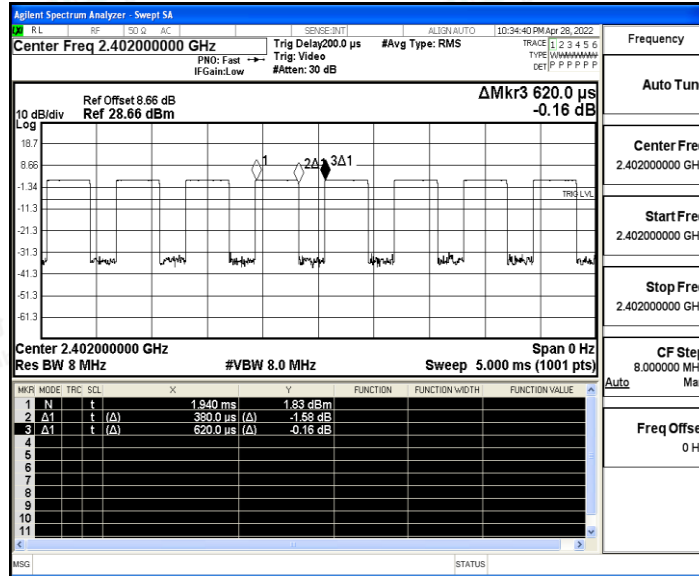
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE	Ant	2402	0.38	0.62	0.6129	61.29	2.13	---	---
		2440	0.38	0.63	0.6032	60.32	2.20	---	---
		2480	0.39	0.63	0.6190	61.90	2.08	---	---



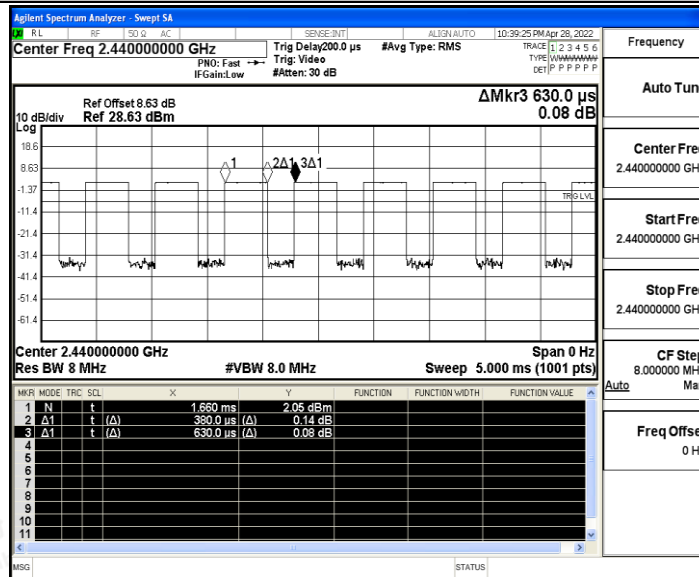


Test Graphs

BLE_Ant_2402

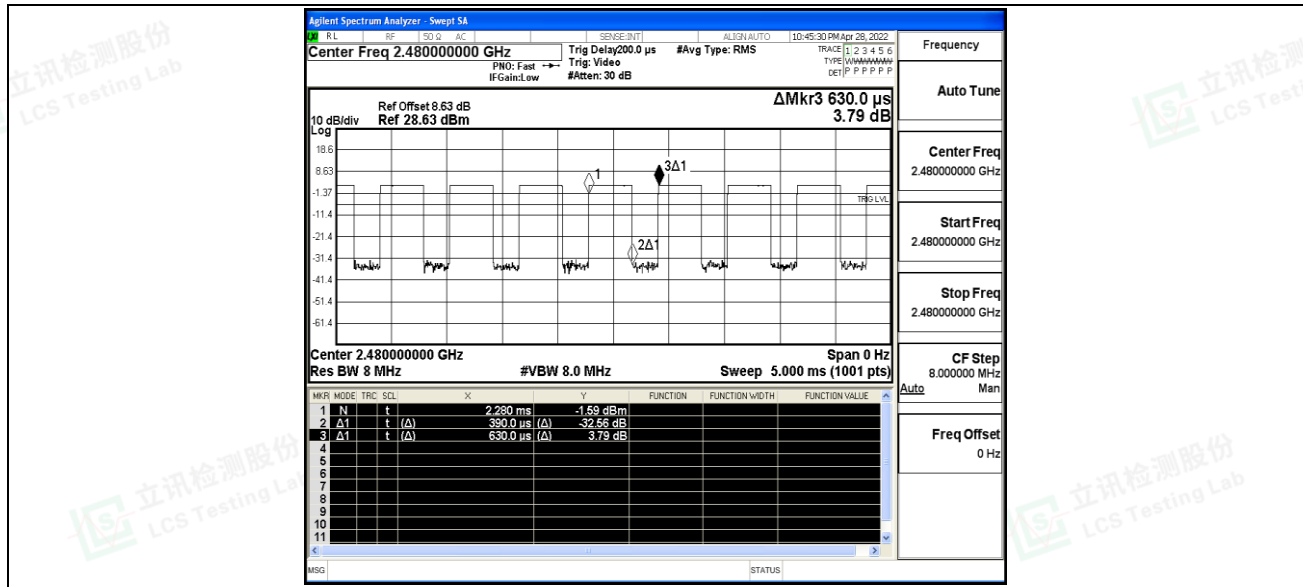


BLE_Ant_2440



BLE_Ant_2480







B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant	Low	2402	AV	2310.000	-47.62	47.58	≤54	PASS
				AV	2382.320	-46.98	48.22	≤54	PASS
				AV	2390.000	-47.32	47.88	≤54	PASS
				Peak	2310.000	-38.99	56.21	≤74	PASS
				Peak	2377.385	-36.53	58.67	≤74	PASS
				Peak	2390.000	-38.91	56.29	≤74	PASS
		High	2480	AV	2483.500	-46.38	48.82	≤54	PASS
				AV	2499.280	-46.16	49.04	≤54	PASS
				AV	2500.000	-46.58	48.62	≤54	PASS
				Peak	2483.500	-37.7	57.50	≤74	PASS
				Peak	2492.240	-36.43	58.77	≤74	PASS
				Peak	2500.000	-37.91	57.29	≤74	PASS

Note:

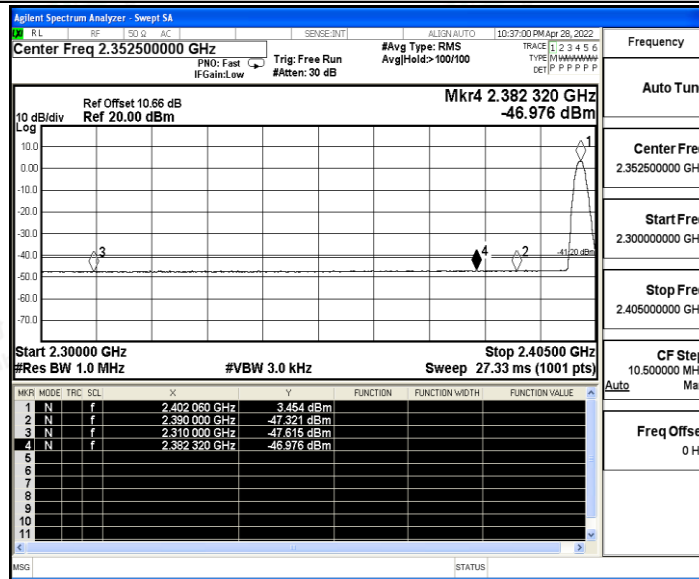
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



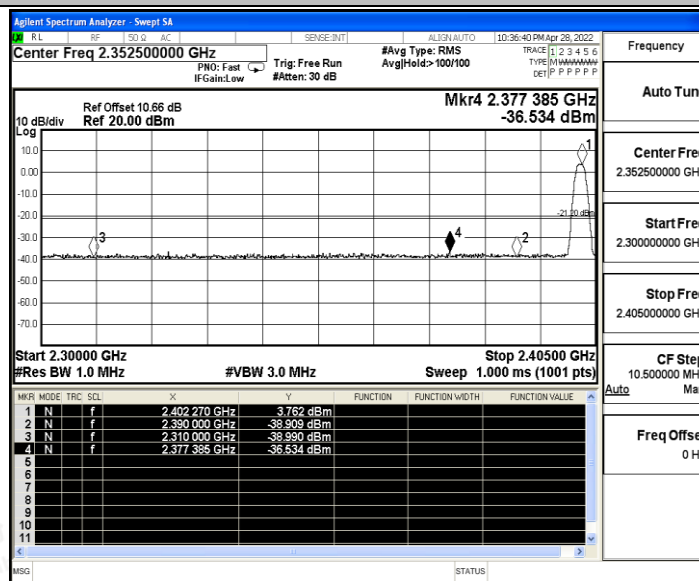


Test Graphs

BLE_Ant_Low_2402_AV

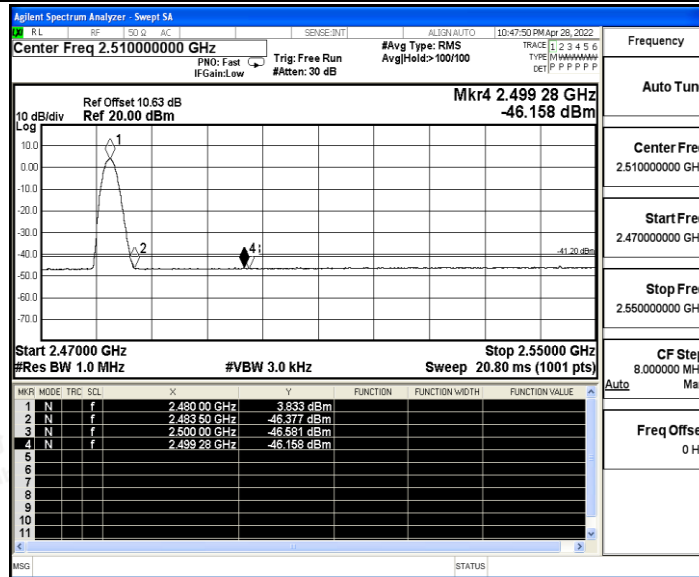


BLE_Ant_Low_2402_Peak



BLE_Ant_High_2480_AV





BLE_Ant_High_2480_Peak

